

# Product Catalog 2020

*CenterLine*

AT&T Cabling  
Data Center Solutions

AT&T Cabling Systems



# AT&T Cabling Systems

## *Part C*

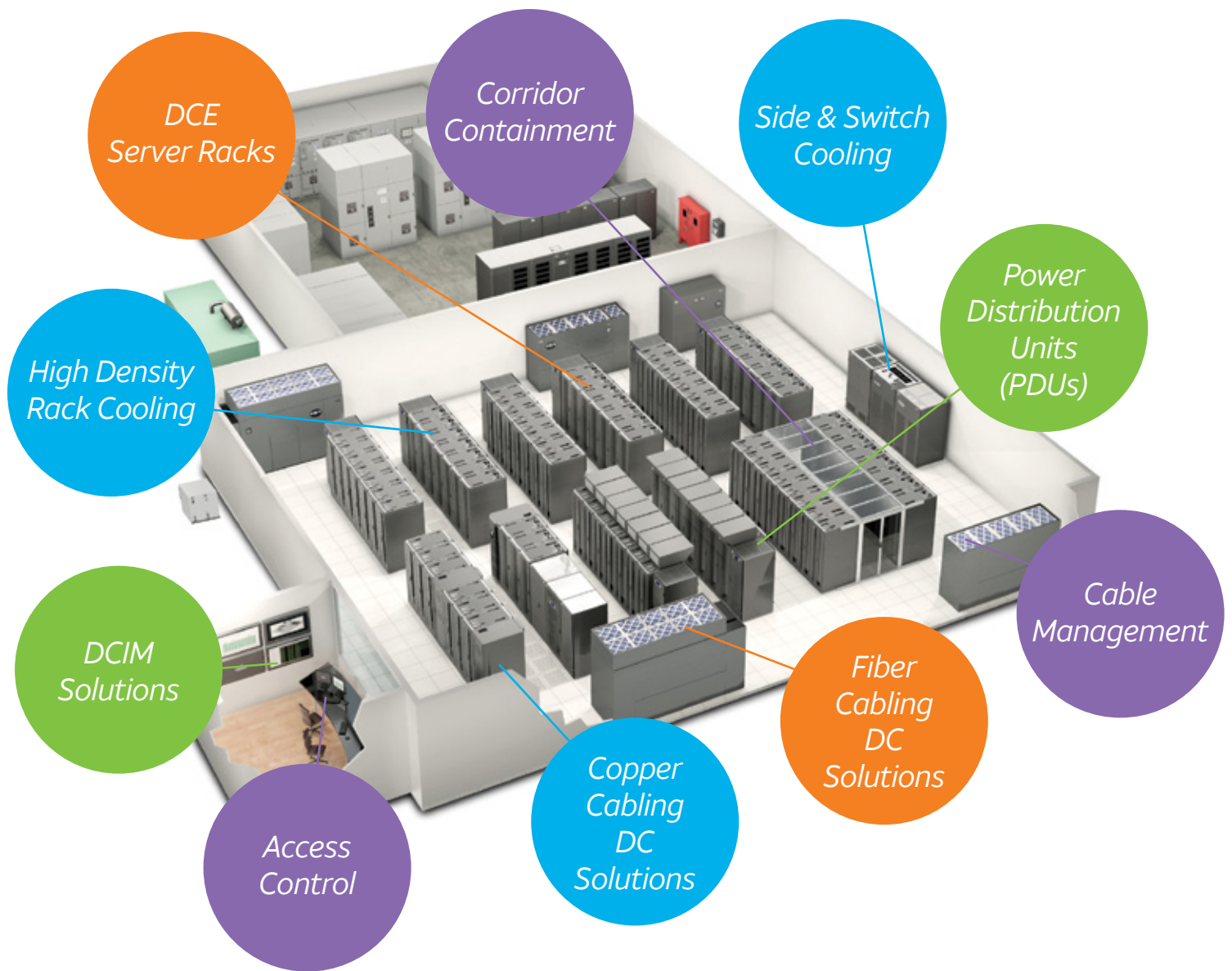
*CenterLine™*

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# AT&T Cabling Data Center Solutions 2017



AT&T Cabling Systems



# AT&T Cabling Systems

## DCE Server Racks

AT&T Cabling Systems DCE Server Racks are designed to meet your present and future Data Center infrastructure needs. The light, stable and modular aluminum frame of AT&T Cabling Systems DCE Racks, allowing 1500 kg static load capacity per rack, provides stability, security, easy transport and fast accessibility.

DCE Server Racks are available in 600 and 800 mm width and in 42U & 47U height options, allowing data center designers to select the optimal rack size for any application.



### Simply Impressive

- *Large space for power supply and cabling components*
- *Structural stability combined with low weight*
- *Better variability with step-less depth adjustable air containment*



# AT&T Cabling Systems

AT&T Cabling Systems DCE Server Racks provide orderly and space saving cable management, adjustment to installation site and an extensive range of cable management accessories and components.

PDUs and cable managements can also be housed in the space between the 19" profiles and the side panel, eliminating the need for depth braces.

The high-density of perforation provides improved airflow.

Depth-adjustable air separation cold/warm separation seals on the side panels with vertical extrusions enable fast and easy adjustments.

## AT&T Cabling Systems DCE Server Racks Features & Benefits



## AT&T CenterLine

### DCE Free Standing Data Center Server Cabinets

#### Description

Heavy duty free standing 19" server cabinets for data centers	
Construction material	Extruded aluminum
Size options	42U and 47U
Color options	Dark Gray RAL 7021
Width and depth options	600x1000mm, 600x1200mm, 800x1000 mm or 800x1200 mm
Accessories	Page <a href="#">C.1.7</a>
Cooling Containment	Suitable for cold and hot corridors



#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1, EN 60297-3-100
- Vibration & shock tests according to IEC 60068-2, EN 300019-1-2 class2.3.
- Corrosion resistance (salt spray) acc. to EN 62208
- IP20 according to DIN EN 60529
- Equipotential bonding & grounding according to DIN EN 60950-1, IEC 60950-1
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Static load capacity	1500 kg max.
Front door	Detachable, single, 83% perforated, Tool-Less
Rear door	Detachable, double, 83% perforated, Tool-Less
Side panels	Detachable, single, quick connectors
Profiles	4 pcs 19" server extrusions, sheet steel, U marking
Cable entries	Top & bottom multiple cable entries
Optional cable management	Front and rear vertical cable management Overhead cable management (in row)
Mounting	Normal floor or raised floor Optional raised floor and/or ceiling fixing kit Optional floor and/or ceiling shock absorbers
Electrical grounding	Internal parts and frame grounding kit
Cabinet row formation	Aligning baying kit
Locking options	Standard: Prepared for Cylinder lock Optional: Electronic key-access with managed locking system

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## AT&T CenterLine

### DCE Free Standing Data Center Server Cabinets (contd.)

#### Ordering Information

Description	Size	Dimensions mm	Color	P/N
DCE Free standing 19" Data Center Server Cabinet with side panels	42U	600x1000	Dark Gray	E116100042A-GY51
DCE Free standing 19" Data Center Server Cabinet without side panels	42U	600x1000	Dark Gray	E116100042B-GY51
DCE Free standing 19" Data Center Server Cabinet with side panels	42U	600x1200	Dark Gray	E116120042A-GY51
DCE Free standing 19" Data Center Server Cabinet without side panels	42U	600x1200	Dark Gray	E116120042B-GE51
DCE Free standing 19" Data Center Server Cabinet with side panels	42U	800x1000	Dark Gray	E118100042A-GE51
DCE Free standing 19" Data Center Server Cabinet without side panels	42U	800x1000	Dark Gray	E118100042B-GE51
DCE Free standing 19" Data Center Server Cabinet with side panels	42U	800x1200	Dark Gray	E118120042A-GE51
DCE Free standing 19" Data Center Server Cabinet without side panels	42U	800x1200	Dark Gray	E118120042B-GE51
DCE Free standing 19" Data Center Server Cabinet with side panels	47U	600x1000	Dark Gray	E116100047A-GE51
DCE Free standing 19" Data Center Server Cabinet without side panels	47U	600x1000	Dark Gray	E116100047B-GE51
DCE Free standing 19" Data Center Server Cabinet with side panels	47U	600x1200	Dark Gray	E116120047A-GE51
DCE Free standing 19" Data Center Server Cabinet without side panels	47U	600x1200	Dark Gray	E116120047B-GE51
DCE Free standing 19" Data Center Server Cabinet with side panels	47U	800x1000	Dark Gray	E118100047A-GE51
DCE Free standing 19" Data Center Server Cabinet without side panels	47U	800x1000	Dark Gray	E118100047B-GE51
DCE Free standing 19" Data Center Server Cabinet with side panels	47U	800x1200	Dark Gray	E118120047A-GE51
DCE Free standing 19" Data Center Server Cabinet without side panels	47U	800x1200	Dark Gray	E118120047B-GE51

# AT&T Cabling Systems

## *RCE* Network & Server Racks

AT&T Cabling Systems RCE Network Racks provide the full flexibility needed in a network cabinet. The light and stable modular aluminum structure enables fast and simple rack configuration to any customer needs.

RCE network racks are available in free standing constructions in 800mm width, 800 or 1000mm depth and 41U, 42U & 46U height options, all having up to 500kg static load capacity.





# AT&T Cabling Systems



## Free Standing Network Racks

Free standing network racks meet the demands for neat cabling, switch and other networking device housing. Front, side and rear spaces provide most efficient cabinet use.

## AT&T CenterLine

### RCE Free Standing Network Cabinets

#### Description

Free standing 19" network cabinets for IT Rooms and data centers

Construction material	Extruded aluminum
Size options	41U,42U and 46U (other sizes available)
Color options	Dark Gray RAL 7021
Width and depth options	800x800mm, 800x1000mm.
Accessories	Page <a href="#">C.1.8</a>

#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1, EN 60297-3-100
- Vibration & shock tests according to MIL-STD 810 E, ETS 300 019
- Corrosion resistance (salt spray) acc. to EN 62208
- IP20 according to DIN EN 60529
- UL test 1244
- NEMA 12 standard
- Equipotential bonding & grounding according to DIN EN 60950-1, IEC 60950-1
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Static load capacity	500 kg max.
Front door	Single or double glass door
Rear door	Single solid metal door
Side panels	Detachable, single, fast assembly
Profiles	<a href="#">4 pcs 19" vertical extrusions, sheet steel with mounting holes</a>
Cable entries	Top & bottom multiple cable entries
Optional cable management	<a href="#">Front and rear vertical cable management</a> <a href="#">Overhead cable management (in row)</a>
Mounting	Normal floor or raised floor Optional raised floor and/or ceiling fixing kit Optional floor and/or ceiling shock absorbers
Electrical grounding	<a href="#">Internal parts and frame grounding kit</a>
Locking options	Standard: Prepared for Cylinder lock Optional: Electronic key-access with managed locking system

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## AT&T CenterLine

### RCE Free Standing Network Cabinets (contd.)

#### Ordering Information

Description	Size	Dimensions mm	Color	P/N
RCE Free Standing Network Cabinets Single Front Glass Door Rear Solid Metal Door	41U	800x800	Dark Gray	F12808S041S-GE
RCE Free Standing Network Cabinets Double Front Glass Door Rear Solid Metal Door	41U	800x800	Dark Gray	F12808D041S-GE
RCE Free Standing Network Cabinets Single Front Glass Door Rear Solid Metal Door	41U	800x1000	Dark Gray	F12810S041S-GE
RCE Free Standing Network Cabinets Double Front Glass Door Rear Solid Metal Door	41U	800x1000	Dark Gray	F12810D041S-GE
RCE Free Standing Network Cabinets Single Front Glass Door Rear Solid Metal Door	42U	800x800	Dark Gray	F12808S042S-GE
RCE Free Standing Network Cabinets Double Front Glass Door Rear Solid Metal Door	42U	800x800	Dark Gray	F12808D042S-GE
RCE Free Standing Network Cabinets Single Front Glass Door Rear Solid Metal Door	42U	800x1000	Dark Gray	F12810S042S-GE
RCE Free Standing Network Cabinets Double Front Glass Door Rear Solid Metal Door	42U	800x1000	Dark Gray	F12810D042S-GE
RCE Free Standing Network Cabinets Single Front Glass Door Rear Solid Metal Door	46U	800x800	Dark Gray	F12808S046S-GE
RCE Free Standing Network Cabinets Double Front Glass Door Rear Solid Metal Door	46U	800x800	Dark Gray	F12808D046S-GE
RCE Free Standing Network Cabinets Single Front Glass Door Rear Solid Metal Door	46U	800x1000	Dark Gray	F12810S046S-GE
RCE Free Standing Network Cabinets Double Front Glass Door Rear Solid Metal Door	46U	800x1000	Dark Gray	F12810D046S-GE

## AT&T CenterLine

### RCE Free Standing Server Cabinets

#### Description

Free standing 19" server cabinets for IT Rooms and data centers	
Construction material	Extruded aluminum
Size options	41U and 46U (other sizes available)
Color options	Dark Gray RAL 7021
Width and depth options	600x1000mm, 600x1200mm, 800x1000 mm or 800x1200 mm
Accessories	Page <a href="#">C.1.9</a>
Cooling Containment	Suitable for cold and hot corridors



#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1, EN 60297-3-100
- Vibration & shock tests according to MIL-STD 810 E
- Corrosion resistance (salt spray) acc. to EN 62208
- IP20 according to DIN EN 60529
- Equipotential bonding & grounding according to DIN EN 60950-1, IEC 60950-1
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Static load capacity	500 kg max.
Front door	Detachable, single, 83% perforated
Rear door	Detachable, double, 83% perforated
Side panels	Detachable, single, fast assembly
Profiles	<a href="#">4 pcs 19" server extrusions, sheet steel</a>
Cable entries	Top & bottom multiple cable entries
Optional cable management	<a href="#">Front and rear vertical cable management</a> <a href="#">Overhead cable management (in row)</a>
Mounting	Normal floor or raised floor Optional raised floor and/or ceiling fixing kit Optional floor and/or ceiling shock absorbers
Electrical grounding	<a href="#">Internal parts and frame grounding kit</a>
Locking options	Standard: Prepared for Cylinder lock Optional: Electronic key-access with managed locking system

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## AT&T CenterLine

### RCE Free Standing Server Cabinets (contd.)

#### Ordering Information

Description	Size	Dimensions mm	Color	P/N
RCE Free standing 19" Server Cabinet 41U	41U	600x1000	Dark Gray	F116100041A-GE51
RCE Free standing 19" Server Cabinet 41U	41U	600x1200	Dark Gray	F116120041A-GE51
RCE Free standing 19" Server Cabinet 41U	41U	800x1000	Dark Gray	F118100041A-GE51
RCE Free standing 19" Server Cabinet 41U	41U	800x1200	Dark Gray	F118120041A-GE51
RCE Free standing 19" Server Cabinet 46U	46U	600x1000	Dark Gray	F116100046A-GE51
RCE Free standing 19" Server Cabinet 46U	46U	600x1200	Dark Gray	F116120046A-GE51
RCE Free standing 19" Server Cabinet 46U	46U	800x1000	Dark Gray	F118100046A-GE51
RCE Free standing 19" Server Cabinet 46U	46U	800x1200	Dark Gray	F118120046A-GE51

# AT&T Cabling Systems

## *DCE & RCE* Cooling Containment Systems

DCE & RCE Rack Cooling Containment Systems provide complete Data Center cooling containment systems for both hot & cold corridors.

DCE & RCE Rack Cooling Containment Systems include electric sliding or automatic closing doors, top covers as roof element, vertical adjustment blank filler panels and other accessories providing a perfect cooling containment system.

Electric Closing Sliding Doors improve energy efficiency as doors are closed automatically. Doors open with “push & go” and close with “push & go” or automatically (within 0 ... 30 seconds). Open/Close contact is also available (e.g. fire alarm system).

Double doors with automatic closing system are suitable for both DCE & RCE racks and for most racks of other manufacturers. Integrated automatic mechanical door closer provides 180° opening angle.



# AT&T Cabling Systems



AT&T Cabling Systems top covers provide quick and easy mounting and are suitable for DCE and RCE racks as well as racks from most other brands. Rubber sleeves can be used for cable routing. Roof panels are made with low fire load and low smoke materials, optionally with safety glass. AT&T Cabling Systems top covers are available for AT&T Cabling Systems Sensor Boxes providing energy-efficient operation of the circulated-air cooling devices and for hot spot prevention.

## AT&T CenterLine

### DCE & RCE Rack Cooling Containment Systems

#### Description

Data center cooling containment systems for cold corridors	
Top cover construction material	Angular extrusion, cross brace: sheet steel
	Roof panel: Polycarbonate, UL 94-VO/DIN 4102 B1
Containment doors construction material	Door elements: sheet steel
	Windows: single safety glass panel
	Brush strips: polyamide (UL94 HF-1)
Containment doors closing options	Sliding (Electric & Automatic) Double (Automatic)
Color	Dark Gray RAL 7021

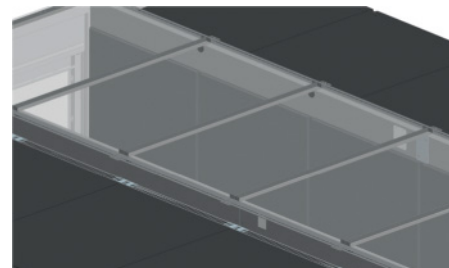
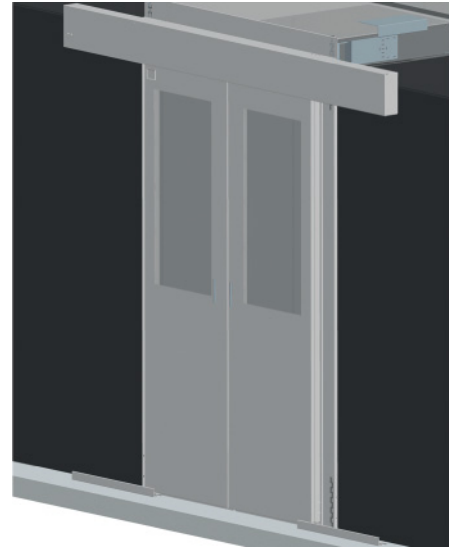
#### Standard & EU Directives Conformance

- Suitable for DCE and RCE Racks and most racks of other manufacturers
- EU Directive 2011/65/EU (RoHS-2)

#### Optional Dimensions

Containment top cover width options	600, 800 mm (Rack)
Cold corridor door dimensions	1200 mm (Aisle)

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## AT&T CenterLine

### DCE & RCE Rack Cooling Containment Systems (contd.)

#### Ordering Information - Doors

Description	Size	Dimensions mm	Content	P/N
Cold Corridor Containment Door System - Sliding, Electric, Automatic	42U	1200 (Aisle)	Doors: 1 frame structure, 2 doors, 2 floor guides, Covers, Sealing material, Mounting material. Electrical Mechanism: 1 electric drive, 1 cover, Various mounting brackets, Mounting material	E23SDE2042A-GE
Cold Corridor Containment Door System - Sliding, Electric, Automatic	47U	1200 (Aisle)	Doors: 1 frame structure, 2 doors, 2 floor guides, Covers, Sealing material, Mounting material. Electrical Mechanism: 1 electric drive, 1 cover, Various mounting brackets, Mounting material	E23SDE2247A-GE
Cold Corridor Containment Door System - Double, Mechanical	42U	1200 (Aisle)	1 door frame, 2 doors, 3 design covers, 2 door closers, Mounting material.	E23DD02042B-GE
Cold Corridor Containment Door System - Double, Mechanical	47U	1200 (Aisle)	1 door frame, 2 doors, 3 design covers, 2 door closers, Mounting material.	E23DD02247B-GE

#### Ordering Information - Top Cover

Description	Dimensions mm	Color	P/N
Cold Corridor Containment Top Cover with Sensor Box	600x800	Black	E22TCS0600A-GE
Cold Corridor Containment Top Cover with Sensor Box	800x800	Black	E22TCS0800A-GE

#### Ordering Information - Vertical Adjustable Blank Filler Panel

Description	Contents	Material	Width (mm)	Height (U)	P/N
Cold Corridor Containment Vertical Adjustable Blank Filler Panel	1 filler panel (two-piece) Mounting material	Sheet Steel	300	42&47U	E22VBP0300A-GE
Cold Corridor Containment Vertical Adjustable Blank Filler Panel	1 filler panel (two-piece) Mounting material	Sheet Steel	600	42&47U	E22VBP0600A-GE
Cold Corridor Containment Vertical Adjustable Blank Filler Panel	1 filler panel (two-piece) Mounting material	Sheet Steel	800	42&47U	E22VBP0800A-GE

#### Ordering Information - Vertical Adjustable Blank Filler Panel

Description	Contents	Material	Color	P/N
Cold Corridor Containment Top Cover Support Brackets	1 pair of protector brackets Mounting material	Sheet Steel	Dark Gray RAL 7021	E22TCB0002A-GE

# AT&T Cabling Systems

## DCH

AT&T Cabling Systems DCH is an air-water heat exchanger integrated into the rear door of a server rack. The heat exchanger is able to absorb heat loads from server racks of up to 35 kW.

- *Compact solution for newly constructed and existing data centers.*
- *High energy efficiency due to lack of fans.*
- *Supports cold room concept.*
- *Enables permanent piping of the water circuit through water-bearing hinges.*

### Features

- *No additional fans required for cooling, lowering the risk of failure.*
  - *Greater system reliability*
  - *Fewer sources of failure*
  - *Minimal heat load on the room*
- *35kW cooling.*
- *Minimal air pressure drop.*
- *Condensation pipe and collector in the event that the temperature falls below the dew point; removed via 5/8" flexible hose on plug nipple.*
- *The risk of condensate deposit is reduced by the vertical orientation of the heat-exchanger fins.*

### Efficiency

- *No additional fans for cooling; option to use existing rack structures for minimized investment.*
- *The compact design provides optimum space utilization, reducing the costs.*

# AT&T Cabling Systems



## *Adaptability*

- *Standard heights of 2,000 and 2,200 mm (41 to 47U).*
- *Standard widths of 600, 700 and 800 mm.*
- *Top or bottom chilled water connection (field changeable).*
- *Combination of AT&T Cabling Systems DCH cooling door with server racks from other manufacturers is possible by incorporating special adapter frames.*

## AT&T CenterLine

### AT&T Cabling Systems DCH

#### Description

Free standing 19" server cabinets for IT Rooms and data centers, equipped with passive rear-door heat exchanger for up to 35 kW

Construction material	Extruded aluminum
Size options	42U and 47U
Color options	Dark Gray RAL 7021
Width and depth options	600x1200mm, 800x1200mm.

#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1, EN 60297-3-100
- Vibration & shock tests according to IEC 60068-2, EN 300019-1-2 class2.3.
- Corrosion resistance (salt spray) acc. to EN 62208
- IP20 according to DIN EN 60529
- Equipotential bonding & grounding according to DIN EN 60950-1, IEC 60950-1
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Static load capacity	1500 kg max.
Front door	Detachable, single, 83% perforated, Tool-Less
Rear door	Heat-exchanger for up to 35 kW
Cable entries	Top & bottom multiple cable entries
Optional cable management	Front and rear vertical cable management Overhead cable management (in row)
Mounting	Normal floor or raised floor Optional raised floor and/or ceiling fixing kit Optional floor and/or ceiling shock absorbers
Electrical grounding	Internal parts and frame grounding kit
Cabinet row formation	Aligning baying kit
Locking options	Standard: Prepared for Cylinder lock Optional: Electronic key-access with managed locking system

#### Cooling air side

Housing material	Steel plate (powder coated)
Operating ambient temperature	10 °C ÷ 35°C (50 °F – 95 °F) (other temperatures on request)
Maximum absolute air humidity on site	8 g/kg
Air outlet temperature (in accordance with ASHARE)	18 °C ÷ 27 °C (64.4 °F – 80.6 °F)
Air temperature difference IN - OUT	15 K ÷ 20 K

#### Chilled water side

Cooling performance	35 kW
Chilled water temperature inlet	12 °C ÷ 18 °C (53.6 °F – 64.4 °F) (other temperatures on request)
Chilled water temperature outlet	18 °C ÷ 24 °C (64.4 °F – 75.2 °F) (other temperatures on request)
Maximum operating pressure	10 bar (145 psi)
Pipe connection IN / OUT	1" F (on the frame) (DIN ISO 228 - 1)

Continued on page C.1.5a



## AT&T CenterLine

### AT&T Cabling Systems DCH (contd.)

#### Ordering Information

Description	Size	Dimensions mm	Color	P/N
DCE Server Cabinet with Built-In Cooler	42U	600x1200	Dark Gray	E11WC35642A-GE
DCE Server Cabinet with Built-In Cooler	47U	600x1200	Dark Gray	E11WC35647A-GE
DCE Server Cabinet with Built-In Cooler	42U	800x1200	Dark Gray	E11WC35842A-GE
DCE Server Cabinet with Built-In Cooler	47U	800x1200	Dark Gray	E11WC35847A-GE

# AT&T Cabling Systems

## DCC

AT&T Cabling Systems DCC is a water-cooled high-performance cooling unit for lateral attachment to server cabinets. The next generation of the legendary AT&T Cabling Systems CoolLoop - with optimized essential features.

### *Modularity*

- *Two room-neutral architectures for medium to high heat-load density.*
- *Easy to retrofit on site.*
- *Multiple combinations of up to four server racks.*

### *Reliability*

- *N +1 fan redundancy.*
- *Multi-level “fail-safe” controller.*
- *Comprehensive alarm and monitoring functions.*
- *Automatic emergency door opening.*

### *Energy efficiency*

- *Minimized power consumption through EC fans and dynamic fan control.*
- *Long free-cooling times thanks to a generously dimensioned heat exchanger.*
- *Fully contained air flow inside the cabinet or in the cabinet row.*
- *No heat load, no air flow in the room, efficient noise reduction.*
- *Complete separation of IT equipment from room, accurately controlled cooling air temperature.*
- *No special requirements for the room - raised floor is not required.*
- *Row cooling units for use in Smart Aisle cold aisle containment.*

# AT&T Cabling Systems



## *Adaptability*

Minimum possible investment for cooling components thanks to the option to use up to four server racks for each AT&T Cabling Systems DCC.

Facilitates data-center upgrade through gradual expansion of the data center with no need to invest further in different cooling infrastructure.

Can be adapted to different shapes and spaces

- *Heights 2,000 mm and 2,200 mm*
- *Depths in 100 mm increments from 1,000 mm to 1,300 mm.*

Same base unit can be used for aisle cooling concepts and rack cooling with minimum conversion cost.

Simple switchover between 2-way and 3-way valve by means of a ball valve in the bypass line.

## AT&T CenterLine

### AT&T Cabling Systems DCC

#### Description

Heavy duty free standing 19" server cabinets for data centers with modular rack cooling.

Construction material	Extruded aluminum
Size options	42U and 47U
Color options	Dark Gray RAL 7021
Width and depth options	600x1000mm, 600x1200mm, 800x1000 mm or 800x1200 mm
Cooling Containment	Suitable for cold and hot corridors

#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1, EN 60297-3-100
- Vibration & shock tests according to IEC 60068-2, EN 300019-1-2 class2.3.
- Corrosion resistance (salt spray) acc. to EN 62208
- IP20 according to DIN EN 60529
- Equipotential bonding & grounding according to DIN EN 60950-1, IEC 60950-1
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties - Cabinet

Static load capacity	1500 kg max.
Front door	Detachable, single, 83% perforated, Tool-Less
Rear door	Detachable, double, 83% perforated, Tool-Less
Side panels	Detachable, single, quick connectors
Profiles	4 pcs 19" server extrusions, sheet steel, U marking
Cable entries	Top & bottom multiple cable entries
<a href="#">Optional cable management</a>	<a href="#">Front and rear vertical cable management</a>
<a href="#">Mounting</a>	<a href="#">Overhead cable management (in row)</a>
	Normal floor or raised floor
	Optional raised floor and/or ceiling fixing kit
	Optional floor and/or ceiling shock absorbers
<a href="#">Electrical grounding</a>	<a href="#">Internal parts and frame grounding kit</a>
Cabinet row formation	Aligning baying kit
Locking options	Standard: Prepared for Cylinder lock Optional: Electronic key-access with managed locking system



#### Mechanical Properties - Rack Cooling

	<b>DCC 30 KW</b>	<b>DCC 34 KW</b>
Nominal cooling power*	30 kW	34 kW
Air flow	5,000 m3/h	6,000 m3/h
Water flow	4.5 m3/h	5.0 m3/h
Max. water pressure	10 bar (145 PSI)	10 bar (145 PSI)
Number of fans	5	6

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## AT&T CenterLine

### AT&T Cabling Systems DCC (contd.)

Dimensions	DCC 30 KW	DCC 34 KW
Height	2,000 mm	2,200 mm
Width	300 mm	300 mm
Depth	Closed Loop	1,200 mm - 1,300 mm
	Side Cooler	1,000 mm - 1,300 mm

\* Sensible cooling, at 16°C / 22°C (61°F / 72°F) water temperature, and 43°C (109°F) air inlet temperature

#### Ordering Information - Closed Loop

Description	Size	Dimensions mm	Color	P/N
Rack Cooling Unit for DCE Server Cabinets	42U	300x1200	RAL7021	E15RCU3042A-GE
Rack Cooling Unit for DCE Server Cabinets	47U	300x1200	RAL7021	E15RCU3447A-GE

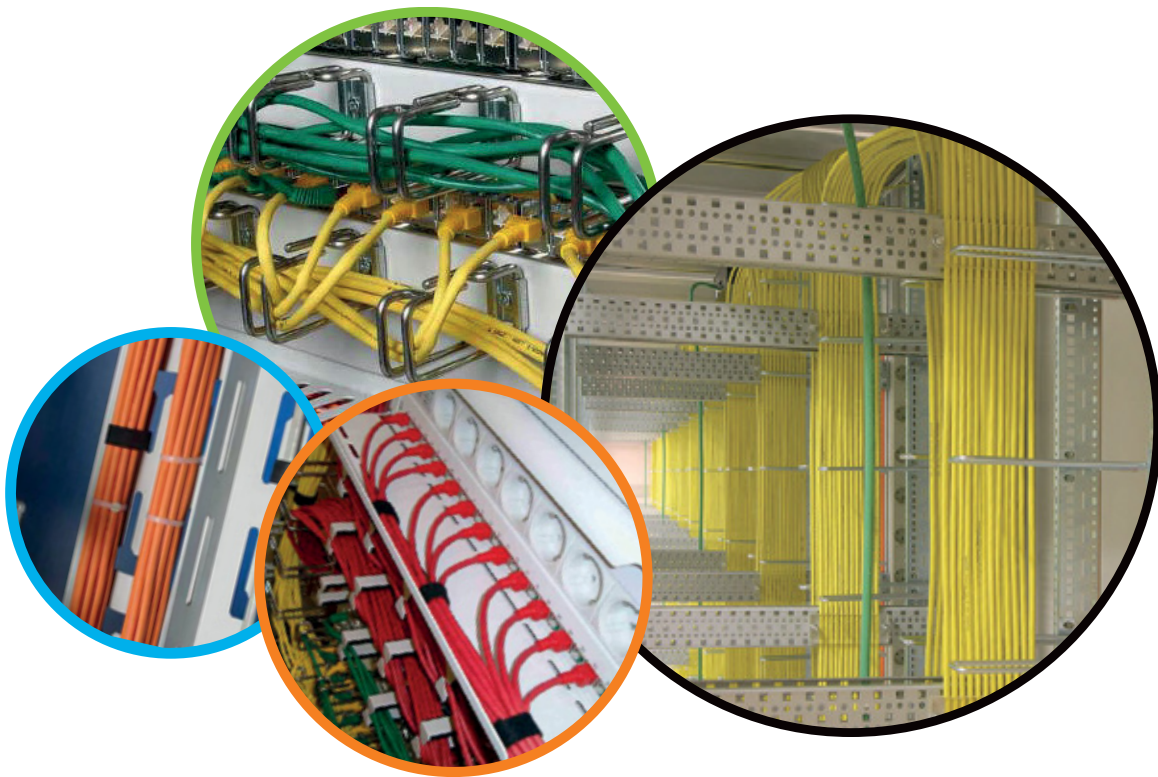
#### Ordering Information - Side Cooler

Description	Size	Dimensions mm	Color	P/N
DCE Server Cabinets with integral in row Side Cooler	42U	300x1200	RAL7021	E11RCU3042B-GE
DCE Server Cabinets with integral in row Side Cooler	47U	300x1200	RAL7021	E11RCU3447B-GE

# AT&T Cabling Systems

## *DCE & RCE* Cable Management & Accessories

DCE & RCE accessories cover all mechanical elements needed to achieve user-friendly and future-proof cable management in the rack, enabling unlimited network expansion.



# AT&T Cabling Systems



DCE & RCE accessories include shelves & rack support elements, vertical and horizontal cable management elements, vertical cable trays, blank panels, air separation units and more.

## AT&T CenterLine

### DCE Server Cabinets Accessories

#### Description

Accessories for free standing 19" server cabinets for data centers

Cabinet size range 42U and 47U, 600x1100 mm and 600x1200 mm

#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1
- Corrosion resistance (salt spray) acc. to ISO 9227, ASTM B117
- EU Directive 2011/65/EU (RoHS-2)



#### Ordering Information - Air Separation Kit

Description	Contents	Color	Size	Cut Out	P/N
Air Separation Kit for DCE Server Cabinets	2 side panels, 1 panel bottom, 1 panel with foam top, mounting material	Dark Gray RAL 7021	42U	No	415A20060NA-BK51
Air Separation Kit for DCE Server Cabinets	2 side panels, 1 panel bottom, 1 panel with foam top, mounting material	Dark Gray RAL 7021	47U	No	E15AS82047A-GE51
Air Separation Kit for DCE Server Cabinets	2 side panels, 1 panel bottom, 1 panel with foam top, mounting material	Dark Gray RAL 7021	42U	3x19" panels	E15AS82042B-GE51
Air Separation Kit for DCE Server Cabinets	2 side panels, 1 panel bottom, 1 panel with foam top, mounting material	Dark Gray RAL 7021	47U	3x19" panels	E15AS82047B-GE51

#### Ordering Information - Mounting Adapter Set

Description	Contents	Material	Color	P/N
Mounting adapter set for DCE Server Cabinets, Zero U	Set of 4 units	Sheet Steel, zinc passivated	Metal Shade	E15MA19001A-MT

#### Ordering Information - PDU Bracket

Description	Contents	Material	Size	Color	P/N
Mounting adapter set for DCE Server Cabinets	1 PDU Bracket, mounting materials	Sheet Steel, zinc passivated, powder coated	42U	Dark Gray RAL 7021	E15PB20042A-BK51
Mounting adapter set for DCE Server Cabinets	1 PDU Bracket, mounting materials	Sheet Steel, zinc passivated, powder coated	47U	Dark Gray RAL 7021	E15PB20047A-BK51

#### Ordering Information - Anti-Tilt Set

Description	Contents	Color	P/N
Anti-tilt set for DCE Server Cabinets	Set of 2 arms	Red	E15AT00200A-RD

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## AT&T CenterLine

### DCE Server Cabinets Accessories (contd.)

#### Ordering Information - Plinth

Description	Contents	Material	Size mm	Color	Height mm	P/N
Heavy-duty Plinth for DCE Server Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	600x1000	Dark Gray RAL 7021	100	415SCK007TP-BK51
Heavy-duty Plinth for DCE Server Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	600x1200	Dark Gray RAL 7021	100	E15HDP6120A-BK
Heavy-duty Plinth for DCE Server Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	800x1000	Dark Gray RAL 7021	100	E15HDP8100A-BK
Heavy-duty Plinth for DCE Server Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	800x1200	Dark Gray RAL 7021	100	E15HDP8120A-BK

#### Ordering Information - Bottom Cover

Description	Contents	Material	Size mm	P/N
Bottom cover for DCE Server Cabinets with cable entry	1 cable entry, 3 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	600x1000	E15BC60100A-MT
Bottom cover for DCE Server Cabinets with cable entry	1 cable entry, 3 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	600x1200	E15BC60120A-MT
Bottom cover for DCE Server Cabinets with cable entry	1 cable entry, 3 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	800x1000	E15BC80100A-MT
Bottom cover for DCE Server Cabinets with cable entry	1 cable entry, 3 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	800x1200	E15BC80120A-MT

#### Ordering Information - Baying Kits

Description	Dimensions mm	Color	P/N
Baying Kit for RCE & DCE Server & Network Cabinets	Set of 4 units	Sheet Steel, zinc passivated	F15HBK104NA-MT

#### Ordering Information - Blank Panels

Description	Contents	Material	Size	Color	P/N
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 6 pcs.	Steel Sheet, 1.0 mm	1U	Dark Gray RAL 7021	F15TLBP601A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 3 pcs.	Steel Sheet, 1.0 mm	2U	Dark Gray RAL 7021	F15TLBP302A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 2 pcs.	Steel Sheet, 1.0 mm	3U	Dark Gray RAL 7021	F15TLBP203A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 1 pcs.	Steel Sheet, 1.0 mm	6U	Dark Gray RAL 7021	F15TLBP106A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 2 pcs.	Steel Sheet, 1.0 mm	9U	Dark Gray RAL 7021	F15TLBP209A-GE
19" Tool-Less Cable Entry for RCE & DCE Server & Network Cabinets	19" blanking panel cable ports, mounting material, set of 6 pcs.	Steel Sheet, 1.0 mm	1U	Dark Gray RAL 7021	F15TLCE601A-GE

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## AT&T CenterLine

### DCE Server Cabinets Accessories (contd.)

#### Ordering Information - Shelves & Rack Support

Description	Contents	Material	Size (Depth)	Color	P/N
19" Tool-Less Metal Fixed Shelf for RCE & DCE Server & Network Cabinets	19" Tool-Less shelf, mounting material	Steel Sheet, 1.0 mm	-	Dark Gray RAL 7021	F15TLFS500A-BK
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	2 mounting rails including bracket, 1 shelf board, 1 extension board, mounting material	Steel Sheet, 1.0 mm	800 mm	Dark Gray RAL 7021	F15VFS0805A-GE
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	2 mounting rails including bracket, 1 shelf board, 1 extension board, mounting material	Steel Sheet, 1.0 mm	1000 mm	Dark Gray RAL 7021	F15VFS1005A-GE
Telescopic Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	800 mm	Dark Gray RAL 7021	F15VTS0805A-GE
Telescopic Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	1000 mm	Dark Gray RAL 7021	F15VTS1005A-GE
19" Telescopic Drawer for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 19" drawer with board including key, mounting material.	Steel Sheet, 1.0 mm	600-1000 mm	Dark Gray RAL 7021	F15TDR0002A-GE
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 shelf (fixed), mounting material	Steel Sheet, 1.5 mm	280 mm	Light Gray RAL 7035	F15VFS2502B-GL
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Extruded Aluminum, 1.4 mm, Polished	565 mm	Metal Shade	F15MRS6000A-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Extruded Aluminum, 1.4 mm, Polished	740 mm	Metal Shade	F15MRS8000A-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Steel Sheet, 2.0 mm	565 mm	Metal Shade	F15MRS6000B-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Steel Sheet, 2.0 mm	740 mm	Metal Shade	F15MRS8000B-MT

#### Ordering Information - Vertical Cable Management

Description	Contents	Material	Size	Color	P/N
Vertical Cable Management for DCE Server & Network Cabinets with Retainers	1 cable duct (left), 1 cable duct (right), 4 rows with cable fingers, 4 rubber grommets, Mounting material.	Cable duct: Sheet steel, 2.0 mm Cable fingers: Polyamide (UL 94 V-0), Black	42U	Dark Gray RAL 7021	E15VM80042R-BK
Vertical Cable Management for DCE Server & Network Cabinets with Retainers	1 cable duct (left), 1 cable duct (right), 4 rows with cable fingers, 4 rubber grommets, Mounting material.	Cable duct: Sheet steel, 2.0 mm Cable fingers: Polyamide (UL 94 V-0), Black	47U	Dark Gray RAL 7021	E15VM80047R-BK
DCE Cover for Vertical Cable Management with Retainers	2 covers, 8 fixing clips.	Cover: Sheet steel, 2.0 mm Fixing Clip: Polyamide (UL 94 V-0), Black	42U	Dark Gray RAL 7021	E15CM80042R-BK
DCE Cover for Vertical Cable Management with Retainers	2 covers, 8 fixing clips.	Cover: Sheet steel, 2.0 mm Fixing Clip: Polyamide (UL 94 V-0), Black	47U	Dark Gray RAL 7021	E15CM80047R-BK

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## AT&T CenterLine

### DCE Server Cabinets Accessories (contd.)

#### Ordering Information - Air Separation Kit

Description	Contents	Material	Size	Color	P/N
Air Separation Kit for DCE Server Cabinets with retainers	1 bottom plate, 6 covers for cable routing, Foam on the sides, Foam on top, Mounting material	Bottom plate, cover plate: Sheet steel, 1.0 mm. Foam: PUR-Ether (UL94 HF-1)	42U	Dark Gray RAL 7021	E15AS82042A-GE51
Air Separation Kit for DCE Server Cabinets with retainers	1 bottom plate, 6 covers for cable routing, Foam on the sides, Foam on top, Mounting material	Bottom plate, cover plate: Sheet steel, 1.0 mm. Foam: PUR-Ether (UL94 HF-1)	47U	Dark Gray RAL 7021	E15AS82247A-GE51
Brush set for DCE & RCE Vertical Cable Management with Retainers	3 pair of brushes	-	99 mm	Black	F15UBS0001R-BK

#### Ordering Information - Horizontal Cable Management

Description	Contents	Material	Size	Color	P/N
19" Universal Horizontal Cable Management with Retainers	1 cable duct, 2 rows with cable fingers. Mounting material.	Cable duct: Sheet Steel, 2.0 mm, Cable fingers: Polyamide (UL 94 V-0), black.	2U	Dark Gray RAL 7021	F15HM01452R-GE
Cover for 19" Universal Horizontal Cable Management with Retainers	1 Cover, 4 fixing clips	Cover: Sheet Steel, 2.0 mm, Fixing clip: Polyamide (UL 94 V-0), black.	2U	Dark Gray RAL 7021	F15CM01452R-GE
19" Universal Horizontal Cable Management with Rings	1 19" Front panel, 5 rings	Front panel: Sheet Steel 1.0 mm.	2U	Dark Gray RAL 7021	F15HM00951G-GE
19" Fiber optic Horizontal Cable Routing Board	1 19" cable routing board	Sheet Steel 1.5 mm	1U	Light Gray RAL 7035	F3RHM00631A-GL
Cover for 19" Fiber optic Horizontal Cable Routing Board	1 Cover	Sheet Steel 1.5 mm	1U	Light Gray RAL 7035	F3RHMC0631A-GL
Universal Horizontal Metal Cable Routing Brace	4 cable routing braces, Mounting material	Sheet Steel, 1.5 mm	800 mm	Metal Shade	F15HCB0804A-MT
Universal Horizontal Metal Cable Routing Brace	4 cable routing braces, Mounting material	Sheet Steel, 1.5 mm	1000 mm	Metal Shade	F15HCB1004A-MT

#### Ordering Information - Vertical Cable Tray

Description	Contents	Material	Size	Color	P/N
Universal Vertical Metal Cable Tray, 150 mm	1 cable tray, Mounting material	Sheet Steel 1.5 mm, zinc passivated, powder-coated	42U	Light Gray RAL 7035	F15VCT1520A-GE
Universal Vertical Metal Cable Tray, 150 mm	1 cable tray, Mounting material	Sheet Steel 1.5 mm, zinc passivated, powder-coated	47U	Light Gray RAL 7035	F15VCT1522A-GE

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## AT&T CenterLine

### DCE Server Cabinets Accessories (contd.)

#### Ordering Information - Top Cable Management

Description	Contents	Material	Size mm	Color	P/N
Cold Corridor Containment Top Cable Management Support Element	2 depth supports, mounting material	Sheet Steel 2.0 mm	1000	Dark Gray RAL 7021	E15TSE1044A-GE
Cold Corridor Containment Top Cable Management Support Element	2 depth supports, mounting material	Sheet Steel 2.0 mm	1200	Dark Gray RAL 7021	E15TSE1244A-GE
Cold Corridor Containment Top Cable Management Side Brackets	2 cross walls, mounting material	Sheet Steel 1.0 mm	300x90	Dark Gray RAL 7021	E15CMB0390A-GE
Cold Corridor Containment Top Cable Management Side Brackets	2 cross walls, mounting material	Sheet Steel 1.0 mm	600x90	Dark Gray RAL 7021	E15CMB0690A-GE
Cold Corridor Containment Top Cable Management Side Brackets	2 cross walls, mounting material	Sheet Steel 1.0 mm	800x90	Dark Gray RAL 7021	E15CMB0890A-GE
Cold Corridor Containment Top Cable Management Side Brackets	2 cross walls, mounting material	Sheet Steel 1.0 mm	2400x90	Dark Gray RAL 7021	E15CMB2490A-GE
Cold Corridor Containment Top Cable Management Side Brackets	2 cross walls, mounting material	Sheet Steel 1.0 mm	3000x90	Dark Gray RAL 7021	E15CMB3090A-GE
Cold Corridor Containment Top Cable Management Support Tray	1 center section, mounting material	Sheet Steel 1.5 mm	600x200	Dark Gray RAL 7021	E15CMT2625A-GE
Cold Corridor Containment Top Cable Management Support Tray	1 center section, mounting material	Sheet Steel 1.5 mm	600x600	Dark Gray RAL 7021	E15CMT6625A-GE
Cold Corridor Containment Top Cable Management Support Tray	1 center section, mounting material	Sheet Steel 1.5 mm	800x200	Dark Gray RAL 7021	E15CMT2825A-GE
Cold Corridor Containment Top Cable Management Support Tray	1 center section, mounting material	Sheet Steel 1.5 mm	800x600	Dark Gray RAL 7021	E15CMT6825A-GE
Cold Corridor Containment Top Cable Management Joining Tray	1 joining section, mounting material	Sheet Steel 1.5 mm	200	Dark Gray RAL 7021	E15CMJ2x25A-GE
Cold Corridor Containment Top Cable Management Joining Tray	1 joining section, mounting material	Sheet Steel 1.5 mm	600	Dark Gray RAL 7021	E25CMJ6x25A-GE
Cold Corridor Containment Top Cable Management End Bracket	2 end walls, mounting material	Sheet Steel 1.0 mm	200	Dark Gray RAL 7021	E15CMEB200A-GE
Cold Corridor Containment Top Cable Management End Bracket	2 end walls, mounting material	Sheet Steel 1.0 mm	600	Dark Gray RAL 7021	E15CMEB600A-GE
Cold Corridor Containment Top Cable Management Side Bracket Connecting Part	10 connecting parts, mounting material	Sheet Steel 1.5 mm	-	Dark Gray RAL 7021	E15CMCP010A-GE
Cold Corridor Containment Top Cable Management Filler Panel	10 filler panels, mounting material	Sheet Steel 1.0 mm	229x183	Dark Gray RAL 7021	E15CMFP010A-GE
Cold Corridor Containment Top Cable Management Cross Support	2 cross supports, mounting material	Sheet Steel 2.0 mm	600	Dark Gray RAL 7021	E15CMCS620A-GE
Cold Corridor Containment Top Cable Management Cross Support	2 cross supports, mounting material	Sheet Steel 2.0 mm	800	Dark Gray RAL 7021	E15CMCS820A-GE
Cold Corridor Containment Top Cable Management Cross Filler Panel	5 filler panels, mounting material	Sheet Steel 1.0 mm	200x200	Dark Gray RAL 7021	E15CMCFP22A-GE
Cold Corridor Containment Top Cable Management Cross Filler Panel	5 filler panels, mounting material	Sheet Steel 1.0 mm	600x200	Dark Gray RAL 7021	E15CMCFP62A-GE
Cold Corridor Containment Top Cable Management Cross Filler Panel	5 filler panels, mounting material	Sheet Steel 1.0 mm	600x600	Dark Gray RAL 7021	E15CMCFP66A-GE



## AT&T CenterLine

### RCE Network Cabinets Accessories

#### Description

Accessories for free standing 19" server cabinets for data centers  
 Cabinet size range 42U and 47U, 600x1100 mm and 600x1200 mm

#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1
- Corrosion resistance (salt spray) acc. to ISO 9227, ASTM B117
- EU Directive 2011/65/EU (RoHS-2)



#### Ordering Information - Plinth

Description	Contents	Material	Size mm	Color	Height mm	P/N
Stationary Plinth for RCE Network Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	600X600	Light Gray RAL 7035	100	F15STP6060A-GE
Stationary Plinth for RCE Network Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	600X800	Light Gray RAL 7035	100	F15STP6080A-GE
Stationary Plinth for RCE Network Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	800X800	Light Gray RAL 7035	100	F15STP8080A-GE
Stationary Plinth for RCE Network Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	800X1000	Light Gray RAL 7035	100	F15STP8100A-GE

#### Ordering Information - Mounting Adapter Set

Description	Contents	Material	Color	P/N
Mounting adapter set for RCE Server & Network Cabinets	Set of 4 units	Sheet Steel, zinc passivated	Metal Shade	F15MA19001A-MT

#### Ordering Information - Castors

Description	Contents	Material	Size	P/N
Castors set for RCE Network Cabinets	Set of 4 units	Sheet Steel, zinc passivated, powder coated	Castor diameter, 75 mm - Threaded bolt, M12	F15CS75M12A-BK

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## AT&T CenterLine

### RCE Network Cabinets Accessories (contd.)

#### Ordering Information - Air Separation Kit

Description	Contents	Material	Size mm	Color	P/N
Air Separation Kit for RCE Network Cabinets with cut-out 41U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	600	Dark Gray RAL 7021	F15AS62041B-GE51
Air Separation Kit for RCE Network Cabinets with cut-out 41U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	800	Dark Gray RAL 7021	F15AS82041B-GE51
Air Separation Kit for RCE Network Cabinets with cut-out 46U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	600	Dark Gray RAL 7021	F15AS62246B-GE51
Air Separation Kit for RCE Network Cabinets with cut-out 46U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	800	Dark Gray RAL 7021	F15AS82246B-GE51

#### Ordering Information - Vertical Cable Management

Description	Contents	Material	Size	Color	P/N
Vertical Cable Management for Server & Network Cabinets with Cover	2 front panels, Mounting material	Sheet Steel, 1.0 mm, powder-coated texture	41U	Light Gray RAL 7035	F15VM80041N-BK
Vertical Cable Management for Server & Network Cabinets with Cover	2 front panels, Mounting material	Sheet Steel, 1.0 mm, powder-coated texture	46U	Light Gray RAL 7035	F15VM80046N-BK
Vertical Cable Management for RCE Server & Network Cabinets with Retainers	1 cable duct, 2 rows with cable fingers, 2 rubber grommets, Mounting material.	Cable duct: Sheet Steel, 2.0 mm. Cable fingers: Polyamide (UL 94 V-0), Black	41U	Dark Gray RAL 7021	F15VM80041R-BK
Vertical Cable Management for DCE Server & Network Cabinets with Retainers	1 cable duct (left), 1 cable duct (right), 4 rows with cable fingers, 4 rubber grommets, Mounting material.	Cable duct: Sheet Steel, 2.0 mm. Cable fingers: Polyamide (UL 94 V-0), Black	46U	Dark Gray RAL 7021	F15VM80046R-BK
DCE Cover for Vertical Cable Management with Retainers	1 cover, 12 fixing clips.	Cover: Sheet Steel, 2.0 mm. Fixing Clip: Polyamide (UL 94 V-0), Black	41U	Dark Gray RAL 7021	F15CM80041R-BK
DCE Cover for Vertical Cable Management with Retainers	1 cover, 12 fixing clips.	Cover: Sheet Steel, 2.0 mm. Fixing Clip: Polyamide (UL 94 V-0), Black	46U	Dark Gray RAL 7021	F15CM80046R-BK

#### Ordering Information - Bottom Cover

Description	Contents	Material	Size mm	P/N
Bottom Cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	600x600	F15BC60060A-MT
Bottom Cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	600x800	F15BC60080A-MT
Bottom Cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	800x800	F15BC80060A-MT
Bottom Cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	800x1000	F15BC80100A-MT

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## AT&T CenterLine

### RCE Network Cabinets Accessories (contd.)

#### Ordering Information - Air Removal Unit

Description	Contents	Material	Fan Units	P/N
Air Removal Unit with Thermostat for RCE Server & Network Cabinets	Air Removal Unit, 1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet Steel, high-grade steel grid. Finish: Zinc-passivated	2	F15ARUT002A-MT
Air Removal Unit with Thermostat for RCE Server & Network Cabinets	Air Removal Unit, 1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet Steel, high-grade steel grid. Finish: Zinc-passivated	3	F15ARUT003A-MT
Air Removal Unit with Thermostat for RCE Server & Network Cabinets	Air Removal Unit, 1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet Steel, high-grade steel grid. Finish: Zinc-passivated	6	F15ARUT006A-MT
Air Removal Unit with Speed-control for RCE Server & Network Cabinets	Air Removal Unit, 1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet Steel, high-grade steel grid. Finish: Zinc-passivated	2	F15ARUS003A-MT
Air Removal Unit with Speed-control for RCE Server & Network Cabinets	Air Removal Unit, 1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet Steel, high-grade steel grid. Finish: Zinc-passivated	3	F15ARUS006A-MT

#### Ordering Information - Baying Kits

Description	Contents	Material	P/N
Baying Kit for RCE & DCE Server & Network Cabinets	Set of 4 units	Sheet Steel, zinc passivated	F15HBK104NA-MT

#### Ordering Information - Blank Panels

Description	Contents	Material	Size	Color	P/N
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 6 pcs.	Steel Sheet, 1.0 mm	1U	Dark Gray RAL 7021	F15TLBP601A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 3 pcs.	Steel Sheet, 1.0 mm	2U	Dark Gray RAL 7021	F15TLBP302A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 2 pcs.	Steel Sheet, 1.0 mm	3U	Dark Gray RAL 7021	F15TLBP203A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 1 pcs.	Steel Sheet, 1.0 mm	6U	Dark Gray RAL 7021	F15TLBP106A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 2 pcs.	Steel Sheet, 1.0 mm	9U	Dark Gray RAL 7021	F15TLBP209A-GE
19" Tool-Less Cable Entry for RCE & DCE Server & Network Cabinets	19" blanking panel cable ports, mounting material, set of 6 pcs.	Steel Sheet, 1.0 mm	1U	Dark Gray RAL 7021	F15TLCE601A-GE

#### Ordering Information - Vertical Cable Management Rings

Description	Content	Color	P/N
Closed Modular Cable Management Metal Ring for RCE Network Cabinets	300X80/280X58 Set (4 pcs.)	Metal	F15CMR0458A-MT
Closed Modular Cable Management Metal Ring for RCE Network Cabinets	300X46/288X24 Set (4 pcs.)	Metal	F15CMR0424B-MT
Closed Modular Cable Management Metal Ring for RCE Network Cabinets	86X86/76X76 Set (4 pcs.)	Metal	F15CMR0476C-MT
Open Modular Cable Management Metal Ring for RCE Network Cabinets	82X43/72X33 Set (10 pcs.)	Metal	F15PMR1033A-MT
Open Modular Cable Management Metal Ring for RCE Network Cabinets	222X30/212X20 (Set 10 pcs.)	Metal	F15PMR1020B-MT
Open Modular Cable Management Metal Ring for RCE Network Cabinets	102X82/92X72 (Set 10 pcs.)	Metal	F15PMR1072C-MT
Closed Modular Cable Management Plastic Ring for RCE Network Cabinets	Cable Routing Ring Set (5 pcs.)	Black	F15CPR0554A-BK
Velcro Strip	25m	Black	F15VSTR025A-BK

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## AT&T CenterLine

### RCE Network Cabinets Accessories (contd.)

#### Ordering Information - Shelves & Rack Support

Description	Contents	Material	Size (Depth)	Color	P/N
19" Tool-Less Metal Fixed Shelf for RCE & DCE Server & Network Cabinets	19" Tool-Less shelf, mounting material	Steel Sheet, 1.0 mm	-	Dark Gray RAL 7021	F15TLFS500A-BK
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	2 mounting rails including bracket, 1 shelf board, 1 extension board, mounting material	Steel Sheet, 1.0 mm	800 mm	Dark Gray RAL 7021	F15VFS0805A-GE
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	2 mounting rails including bracket, 1 shelf board, 1 extension board, mounting material	Steel Sheet, 1.0 mm	1000 mm	Dark Gray RAL 7021	F15VFS1005A-GE
Telescopic Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	800 mm	Dark Gray RAL 7021	F15VTS0805A-GE
Telescopic Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	1000 mm	Dark Gray RAL 7021	F15VTS1005A-GE
19" Telescopic Drawer for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 19" drawer with board including key, mounting material.	Steel Sheet, 1.0 mm	600-1000 mm	Dark Gray RAL 7021	F15TDR0002A-GE
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 shelf (fixed), mounting material	Steel Sheet, 1.5 mm	280 mm	Light Gray RAL 7035	F15VFS2502B-GL
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Extruded aluminum, 1.4 mm, polished	565 mm	Metal Shade	F15MRS6000A-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Extruded aluminum, 1.4 mm, polished	740 mm	Metal Shade	F15MRS8000A-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Steel Sheet, 2.0 mm	565 mm	Metal Shade	F15MRS6000B-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Steel Sheet, 2.0 mm	740 mm	Metal Shade	F15MRS8000B-MT

#### Ordering Information - Horizontal Cable Management

Description	Contents	Material	Size	Color	P/N
19" Universal Horizontal Cable Management with Retainers	1 cable duct. 2 rows with cable fingers. Mounting material.	Cable duct: Sheet Steel, 2.0 mm, Cable fingers: Polyamide (UL 94 V-0), black.	2U	Dark Gray RAL 7021	F15HM01452R-GE
Cover for 19" Universal Horizontal Cable Management with Retainers	1 Cover, 4 fixing clips	Cover: Sheet Steel, 2.0 mm, Fixing clip: Polyamide (UL 94 V-0), black.	2U	Dark Gray RAL 7021	F15CM01452R-GE
19" Universal Horizontal Cable Management with Rings	1 19" Front panel, 5 rings	Front panel: Sheet Steel, 1.0 mm.	2U	Dark Gray RAL 7021	F15HM00951G-GE
19" Fiber Optic Horizontal Cable Routing Board	1 19" cable routing board	Sheet Steel 1.5 mm	1U	Light Gray RAL 7035	F3RHM00631A-GL
Cover for 19" Fiber Optic Horizontal Cable Routing Board	1 Cover	Sheet Steel 1.5 mm	1U	Light Gray RAL 7035	F3RHMC0631A-GL
Universal Horizontal Metal Cable Routing Brace	4 cable routing braces, Mounting material	Sheet Steel, 1.5 mm	800 mm	Metal Shade	F15HCB0804A-MT
Universal Horizontal Metal Cable Routing Brace	4 cable routing braces, Mounting material	Sheet Steel, 1.5 mm	1000 mm	Metal Shade	F15HCB1004A-MT
19" Universal Horizontal Cable Routing Board	1 19" cable routing board		1U	Dark Gray	F15HM010010-GE

#### Ordering Information - Nuts, Washers and Screws

Description	Contents	Thread	Thread	P/N
Nuts, Washers and Screws	Set	M5x1.5mm	Metal	F15NWS1550A-MT
Nuts, Washers and Screws	Set	M5x2.5mm	Metal	F15NWS2550A-MT

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## AT&T CenterLine

### RCE Network Cabinets Accessories (contd.)

#### Ordering Information - Vertical Cable Tray

Description	Contents	Material	Size	Color	P/N
Universal Vertical Metal Cable Tray, 150 mm	1 cable tray, Mounting material	Sheet Steel 1.5 mm, zinc passivated, powder-coated	42U	Light Gray RAL 7035	F15VCT1520A-GE
Universal Vertical Metal Cable Tray, 150 mm	1 cable tray, Mounting material	Sheet Steel 1.5 mm, zinc passivated, powder-coated	47U	Light Gray RAL 7035	F15VCT1522A-GE

#### Ordering Information - Top Cable Management

Description	Contents	Material	Size mm	Color	P/N
DCE&RCE Cabinet Support Element for Top Cable Management	2 depth supports, mounting material	Sheet Steel 2.0 mm	1000	Dark Gray RAL 7021	E15TSE1044A-GE
DCE&RCE Cabinet Support Element for Top Cable Management	2 depth supports, mounting material	Sheet Steel 2.0 mm	1200	Dark Gray RAL 7021	E15TSE1244A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	300x90	Dark Gray RAL 7021	E15CMB0390A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	600x90	Dark Gray RAL 7021	E15CMB0690A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	800x90	Dark Gray RAL 7022	E15CMB0890A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	2400x90	Dark Gray RAL 7023	E15CMB2490A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	3000x90	Dark Gray RAL 7024	E15CMB3090A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	600x200	Dark Gray RAL 7021	E15CMT2625A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	600x600	Dark Gray RAL 7021	E15CMT6625A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	800x200	Dark Gray RAL 7021	E15CMT2825A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	800x600	Dark Gray RAL 7021	E15CMT6825A-GE
DCE&RCE Cabinet Joining Tray for Top Cable Management	1 joining section, mounting material	Sheet Steel 1.5 mm	200	Dark Gray RAL 7021	E15CMJ2x25A-GE
DCE&RCE Cabinet Joining Tray for Top Cable Management	1 joining section, mounting material	Sheet Steel 1.5 mm	600	Dark Gray RAL 7021	E25CMJ6x25A-GE
DCE&RCE Cabinet End Bracket for Top Cable Management	2 end walls, mounting material	Sheet Steel 1.0 mm	200	Dark Gray RAL 7021	E15CMEB200A-GE
DCE&RCE Cabinet End Bracket for Top Cable Management	2 end walls, mounting material	Sheet Steel 1.0 mm	600	Dark Gray RAL 7021	E15CMEB600A-GE
DCE&RCE Cabinet Side Bracket Connecting Part for Top Cable Management	10 connecting parts, mounting material	Sheet Steel 1.5 mm	-	Dark Gray RAL 7021	E15CMCP010A-GE
DCE&RCE Cabinet Filler Panel for Top Cable Management	10 filler panels, mounting material	Sheet Steel 1.0 mm	229x183	Dark Gray RAL 7021	E15CMFP010A-GE
DCE&RCE Cabinet Cross Support for Top Cable Management	2 cross supports, mounting material	Sheet Steel 2.0 mm	600	Dark Gray RAL 7021	E15CMCS620A-GE
DCE&RCE Cabinet Cross Support for Top Cable Management	2 cross supports, mounting material	Sheet Steel 2.0 mm	800	Dark Gray RAL 7021	E15CMCS820A-GE
DCE&RCE Cabinet Cross Filler Panel for Top Cable Management	5 filler panels, mounting material	Sheet Steel 1.0 mm	200x200	Dark Gray RAL 7021	E15CMCFP22A-GE
DCE&RCE Cabinet Cross Filler Panel for Top Cable Management	5 filler panels, mounting material	Sheet Steel 1.0 mm	600x200	Dark Gray RAL 7021	E15CMCFP62A-GE
DCE&RCE Cabinet Cross Filler Panel for Top Cable Management	5 filler panels, mounting material	Sheet Steel 1.0 mm	600x600	Dark Gray RAL 7021	E15CMCFP66A-GE

## AT&T CenterLine

### RCE Server Cabinets Accessories

#### Description

Accessories for free standing 19" server cabinets for data centers

Cabinet size range 42U and 47U, 600x1100 mm and 600x1200 mm

#### Standard & EU Directives Conformance

- Mechanical structure conforming to EN 61587-1
- Corrosion resistance (salt spray) acc. to ISO 9227, ASTM B117
- EU Directive 2011/65/EU (RoHS-2)



#### Ordering Information - Plinth

Description	Contents	Material	Size mm	Color	Height mm	P/N
Mobile Plinth for RCE SERVER Cabinets	1 plinth frame, 2 fixed castors with snib, 2 swivel castors, 4 leveling feet, 1 tilt restraint Mounting material	Sheet Steel, powder coated	600X1000	Dark Gray RAL 7021	100	F15MBP6100A-GE
Mobile Plinth for RCE SERVER Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	600X1200	Dark Gray RAL 7022	100	F15MBP6120A-GE
Mobile Plinth for RCE SERVER Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	800X1000	Dark Gray RAL 7023	100	F15MBP8100A-GE
Mobile Plinth for RCE SERVER Cabinets	4 plinth corners with leveling, 2 plinth panels with slots, 2 plinth panels closed on the side, Mounting material	Sheet Steel, powder coated	800X1200	Dark Gray RAL 7024	100	F15MBP8120A-GE

#### Ordering Information - Mounting Adapter Set

Description	Contents	Material	Color	P/N
Mounting adapter set for RCE Server & Network Cabinets	Set of 4 units	Sheet Steel, zinc passivated	Metal Shade	F15MA19001A-MT

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## AT&T CenterLine

### RCE Server Cabinets Accessories (contd.)

#### Ordering Information - Air Separation Kit

Description	Contents	Material	Size mm	Color	P/N
Air Separation Kit for RCE Network Cabinets with cut-out 41U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	600	Dark Gray RAL 7021	F15AS62041B-GE51
Air Separation Kit for RCE Network Cabinets with cut-out 41U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	800	Dark Gray RAL 7021	F15AS82041B-GE51
Air Separation Kit for RCE Network Cabinets with cut-out 46U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	600	Dark Gray RAL 7021	F15AS62246B-GE51
Air Separation Kit for RCE Network Cabinets with cut-out 46U	2 side panels (cut-outs covered), 2 panels, top/bottom, Mounting material	Sheet Steel, powder coated	800	Dark Gray RAL 7021	F15AS82246B-GE51

#### Ordering Information - Bottom Cover

Description	Contents	Material	Size mm	P/N
Bottom cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	600x600	F15BC60060A-MT
Bottom cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	600x800	F15BC60080A-MT
Bottom cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	800x600	F15BC80060A-MT
Bottom cover for RCE Server & Network Cabinets with cable entry	1 cable entry, 2 bottom covers, 2 mounting brackets, Mounting material	Sheet steel, 1.5 mm, zinc-passivated Sponge rubber, 50 mm x 50 mm	800x1000	F15BC80100A-MT

#### Ordering Information - Air Removal Unit

Description	Contents	Material	Fan Units	P/N
Air Removal Unit with Thermostat for RCE Server & Network Cabinet	Air Removal Unit,1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet steel, high-grade steel grid. Finish: Zinc-passivated	2	F15ARUT002A-MT
Air Removal Unit with Thermostat for RCE Server & Network Cabinets	Air Removal Unit,1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet steel, high-grade steel grid. Finish: Zinc-passivated	3	F15ARUT003A-MT
Air Removal Unit with Thermostat for RCE Server & Network Cabinets	Air Removal Unit,1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet steel, high-grade steel grid. Finish: Zinc-passivated	6	F15ARUT006A-MT
Air Removal Unit with Speed-control for RCE Server & Network Cabinets	Air Removal Unit,1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet steel, high-grade steel grid. Finish: Zinc-passivated	2	F15ARUS003A-MT
Air Removal Unit with Speed-control for RCE Server & Network Cabinets	Air Removal Unit,1 mains cable, 3 m with safety plug (230 VAC) Mounting material, Operating instructions	Housing: Sheet steel, high-grade steel grid. Finish: Zinc-passivated	3	F15ARUS006A-MT

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## AT&T CenterLine

### RCE Server Cabinets Accessories (contd.)

#### Ordering Information - Baying Kits

Description	Contents	Material	P/N
Baying Kit for RCE & DCE Server & Network Cabinets	Set of 4 units	Sheet Steel, zinc passivated	F15HBK104NA-MT

#### Ordering Information - Blank Panels

Description	Contents	Material	Size	Color	P/N
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 6 pcs.	Steel Sheet, 1.0 mm	1U	Dark Gray RAL 7021	F15TLBP601A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 3 pcs.	Steel Sheet, 1.0 mm	2U	Dark Gray RAL 7021	F15TLBP302A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 2 pcs.	Steel Sheet, 1.0 mm	3U	Dark Gray RAL 7021	F15TLBP203A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 1 pcs.	Steel Sheet, 1.0 mm	6U	Dark Gray RAL 7021	F15TLBP106A-GE
19" Tool-Less Metal Blank Panel for RCE & DCE Server & Network Cabinets	19" blanking panel, mounting material, set of 2 pcs.	Steel Sheet, 1.0 mm	9U	Dark Gray RAL 7021	F15TLBP209A-GE
19" Tool-Less Cable Entry for RCE & DCE Server & Network Cabinets	19" blanking panel cable ports, mounting material, set of 6 pcs.	Steel Sheet, 1.0 mm	1U	Dark Gray RAL 7021	F15TLCE601A-GE

#### Ordering Information - Shelves & Rack Support

Description	Contents	Material	Size (Depth)	Color	P/N
19" Tool-Less Metal Fixed Shelf for RCE & DCE Server & Network Cabinets	19" Tool-Less shelf, mounting material	Steel Sheet, 1.0 mm	-	Dark Gray RAL 7021	F15TLFS500A-BK
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	2 mounting rails including bracket, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	800 mm	Dark Gray RAL 7021	F15VFS0805A-GE
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	2 mounting rails including bracket, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	1000 mm	Dark Gray RAL 7021	F15VFS1005A-GE
Telescopic Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	800 mm	Dark Gray RAL 7021	F15VTS0805A-GE
Telescopic Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 1 shelf board, 1 extension board, mounting material.	Steel Sheet, 1.0 mm	1000 mm	Dark Gray RAL 7021	F15VTS1005A-GE
19" Telescopic Drawer for RCE & DCE Server & Network Cabinets	1 pair of telescopic slides, 19" drawer with board including key, mounting material.	Steel Sheet, 1.0 mm	600-1000 mm	Dark Gray RAL 7021	F15TDR0002A-GE
Fixed Vented Steel Shelf for RCE & DCE Server & Network Cabinets	1 shelf (fixed), mounting material	Steel Sheet, 1.5 mm	280 mm	Light Gray RAL 7035	F15VFS2502B-GL
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Extruded aluminum, 1.4 mm, polished	565 mm	Metal Shade	F15MRS6000A-MT
19" Aluminum Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Extruded aluminum, 1.4 mm, polished	740 mm	Metal Shade	F15MRS8000A-MT
19" Steel Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Steel Sheet, 2.0 mm	565 mm	Metal Shade	F15MRS6000B-MT
19" Steel Rack Support for RCE & DCE Server & Network Cabinets	2 slot-in rails, mounting material	Steel Sheet, 2.0 mm	740 mm	Metal Shade	F15MRS8000B-MT

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## AT&T CenterLine

### RCE Server Cabinets Accessories (contd.)

#### Ordering Information - Horizontal Cable Management

Description	Contents	Material	Size	Color	P/N
19" Universal Horizontal Cable Management with Retainers	1 cable duct, 2 rows with cable fingers. Mounting material.	Cable duct: Sheet Steel, 2.0 mm, Cable fingers: Polyamide (UL 94 V-0), black.	2U	Dark Gray RAL 7021	F15HM01452R-GE
Cover for 19" Universal Horizontal Cable Management with Retainers	1 Cover, 4 fixing clips	Cover: Sheet Steel, 2.0 mm, Fixing clip: Polyamide (UL 94 V-0), black.	2U	Dark Gray RAL 7021	F15CM01452R-GE
19" Universal Horizontal Cable Management with Rings	1 19" Front panel, 5 rings	Front panel: Sheet Steel 1.0 mm.	2U	Dark Gray RAL 7021	F15HM00951G-GE
19" Fiber optic Horizontal Cable Routing Board	1 19" cable routing board	Sheet Steel 1.5 mm	1U	Light Gray RAL 7035	F3RHM00631A-GL
Cover for 19" Fiber optic Horizontal Cable Routing Board	1 Cover	Sheet Steel 1.5 mm	1U	Light Gray RAL 7035	F3RHMC0631A-GL
Universal Horizontal Metal Cable Routing Brace	4 cable routing braces, Mounting material	Sheet Steel, 1.5 mm	800 mm	Metal Shade	F15HCB0804A-MT
Universal Horizontal Metal Cable Routing Brace	4 cable routing braces, Mounting material	Sheet Steel, 1.5 mm	1000 mm	Metal Shade	F15HCB1004A-MT

#### Ordering Information - Vertical Cable Tray

Description	Contents	Material	Size	Color	P/N
Universal Vertical Metal Cable Tray, 150 mm	1 cable tray, Mounting material	Sheet Steel 1.5 mm, zinc passivated, powder-coated	42U	Light Gray RAL 7035	F15VCT1520A-GE
Universal Vertical Metal Cable Tray, 150 mm	1 cable tray, Mounting material	Sheet Steel 1.5 mm, zinc passivated, powder-coated	47U	Light Gray RAL 7035	F15VCT1522A-GE

#### Ordering Information - Locking Elements

Description	Contents	Access Control Method	P/N
Combination lock for DCE and RCE cabinets	1x Handle with combination lock	Mechanical or via key	E15CL01HCLA
Locking set for DCE and RCE cabinet front/rear doors and side panels	2x barrels and 2x side panel locks + keys	Key	E15LS0202KA
Lock barrel, half cylindrical for DCE and RCE cabinet front/rear door	1x half cylindrical barrel + 2x keys	Key	E15LB0102KA
Lockable fasteners for DCE and RCE cabinet side panels	2x fasteners + 2x keys	Key	E15LF0202KA

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## AT&T CenterLine

### RCE Server Cabinets Accessories (contd.)

#### Ordering Information - Top Cable Management

Description	Contents	Material	Size mm	Color	P/N
DCE&RCE Cabinet Support Element for Top Cable Management	2 depth supports, mounting material	Sheet Steel 2.0 mm	1000	Dark Gray RAL 7021	E15TSE1044A-GE
DCE&RCE Cabinet Support Element for Top Cable Management	2 depth supports, mounting material	Sheet Steel 2.0 mm	1200	Dark Gray RAL 7021	E15TSE1244A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	300x90	Dark Gray RAL 7021	E15CMB0390A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	600x90	Dark Gray RAL 7021	E15CMB0690A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	800x90	Dark Gray RAL 7022	E15CMB0890A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	2400x90	Dark Gray RAL 7023	E15CMB2490A-GE
DCE&RCE Cabinet Side Brackets for Top Cable Management	2 cross walls, mounting material	Sheet Steel 1.0 mm	3000x90	Dark Gray RAL 7024	E15CMB3090A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	600x200	Dark Gray RAL 7021	E15CMT2625A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	600x600	Dark Gray RAL 7021	E15CMT6625A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	800x200	Dark Gray RAL 7021	E15CMT2825A-GE
DCE&RCE Cabinet Support Tray for Top Cable Management	1 center section, mounting material	Sheet Steel 1.5 mm	800x600	Dark Gray RAL 7021	E15CMT6825A-GE
DCE&RCE Cabinet Joining Tray for Top Cable Management	1 joining section, mounting material	Sheet Steel 1.5 mm	200	Dark Gray RAL 7021	E15CMJ2x25A-GE
DCE&RCE Cabinet Joining Tray for Top Cable Management	1 joining section, mounting material	Sheet Steel 1.5 mm	600	Dark Gray RAL 7021	E25CMJ6x25A-GE
DCE&RCE Cabinet End Bracket for Top Cable Management	2 end walls, mounting material	Sheet Steel 1.0 mm	200	Dark Gray RAL 7021	E15CMEB200A-GE
DCE&RCE Cabinet End Bracket for Top Cable Management	2 end walls, mounting material	Sheet Steel 1.0 mm	600	Dark Gray RAL 7021	E15CMEB600A-GE
DCE&RCE Cabinet Side Bracket Connecting Part for Top Cable Management	10 connecting parts, mounting material	Sheet Steel 1.5 mm	-	Dark Gray RAL 7021	E15CMCP010A-GE
DCE&RCE Cabinet Filler Panel for Top Cable Management	10 filler panels, mounting material	Sheet Steel 1.0 mm	229x183	Dark Gray RAL 7021	E15CMFP010A-GE
DCE&RCE Cabinet Cross Support for Top Cable Management	2 cross supports, mounting material	Sheet Steel 2.0 mm	600	Dark Gray RAL 7021	E15CMCS620A-GE
DCE&RCE Cabinet Cross Support for Top Cable Management	2 cross supports, mounting material	Sheet Steel 2.0 mm	800	Dark Gray RAL 7021	E15CMCS820A-GE
DCE&RCE Cabinet Cross Filler Panel for Top Cable Management	5 filler panels, mounting material	Sheet Steel 1.0 mm	200x200	Dark Gray RAL 7021	E15CMCFP22A-GE
DCE&RCE Cabinet Cross Filler Panel for Top Cable Management	5 filler panels, mounting material	Sheet Steel 1.0 mm	600x200	Dark Gray RAL 7021	E15CMCFP62A-GE
DCE&RCE Cabinet Cross Filler Panel for Top Cable Management	5 filler panels, mounting material	Sheet Steel 1.0 mm	600x600	Dark Gray RAL 7021	E15CMCFP66A-GE

## AT&T CenterLine DCE Open Frame Systems

### Description

High density 19" free standing cabling open frames for data centers	Basic rack, extruded aluminum, polished Corner piece, die-cast aluminum Multifunctional braces and 19" sheet steel angular extrusions, zinc-passivated
Construction material	23U, 37U, 41U and 46U (other sizes available)
Size options	Cable management options
Accessories	

### Standard & EU Directives Conformance

- Mechanical structure conforming to EIA/ECA-310-E, IEC 60297-3, DIN 41491
- Earthing according to VDE 0100 T 540
- Vibration test according to MIL-STD 810 E
- EU Directive 2011/65/EU (RoHS-2)

### Mechanical Properties

Static load capacity	500 kg max.
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### Ordering Information

Description	Size	Dimensions mm	Color	P/N
DCE Free standing 19" Double Cabling Open Frame	23U	600x600	Metal Shade	E416060023D-MT51
DCE Free standing 19" Double Cabling Open Frame	37U	600x600	Metal Shade	E416060037D-MT51
DCE Free standing 19" Double Cabling Open Frame	41U	600x600	Metal Shade	E416060041D-MT51
DCE Free standing 19" Double Cabling Open Frame	46U	600x600	Metal Shade	E416060046D-MT51
DCE Free standing 19" Double Cabling Open Frame	23U	600x800	Metal Shade	E416080023D-MT51
DCE Free standing 19" Double Cabling Open Frame	37U	600x800	Metal Shade	E416080037D-MT51
DCE Free standing 19" Double Cabling Open Frame	41U	600x800	Metal Shade	E416080041D-MT51
DCE Free standing 19" Double Cabling Open Frame	46U	600x800	Metal Shade	E416080046D-MT51
DCE Free standing 19" Double Cabling Open Frame	23U	800x600	Metal Shade	E418060023D-MT51
DCE Free standing 19" Double Cabling Open Frame	37U	800x600	Metal Shade	E418060037D-MT51
DCE Free standing 19" Double Cabling Open Frame	41U	800x600	Metal Shade	E418060041D-MT51
DCE Free standing 19" Double Cabling Open Frame	46U	800x600	Metal Shade	E418060046D-MT51
DCE Free standing 19" Double Cabling Open Frame	23U	800x800	Metal Shade	E418080023D-MT51
DCE Free standing 19" Double Cabling Open Frame	37U	800x800	Metal Shade	E418080037D-MT51
DCE Free standing 19" Double Cabling Open Frame	41U	800x800	Metal Shade	E418080041D-MT51
DCE Free standing 19" Double Cabling Open Frame	46U	800x800	Metal Shade	E418080046D-MT51

# AT&T Cabling Systems

## DCE Managed PDUs

AT&T Cabling Systems DCE Fixed & Modular Managed Power Distribution Units (PDUs) provide a unique solution for reliable energy demand in data centers. AT&T Cabling Systems DCE PDUs are designed in 2 versions: Managed Fixed Vertical PDUs and Managed Modular PDUs.

### *Key Advantages of AT&T Cabling Systems DCE Managed Fixed Vertical PDUs*

#### High availability

- *Adaptive Architecture*
- *Robust design and Proactive notifications*
- *Designed for ensured distribution*
- *Optimized Energy & Capacity Management*
- *Highly accurate metering*
- *Lowest energy consumption*
- *Centralized reports*
- *Simplified Integration with Management Tools*
- *Simple fit into most enterprise networks*
- *Out of band management*
- *Part of IT Access and Control / DCIM solution*
- *Easier Physical & Electrical Integration*
- *Pre-installation in AT&T Cabling Systems Rack Solutions*
- *Special DCE Rack fastening w/o tools*
- *One stop shop for all configurations*



# AT&T Cabling Systems

## Key Advantages of AT&T Cabling Systems DCE Managed Modular Vertical PDUs

### High availability

- Highly Efficient data center management and power consumption
- The operating software has module and sensor auto-detect function
- Mobile display for reading all MPX data on the rack
- Extremely low MPX system power loss
- Optical slot space display

### Maximum power

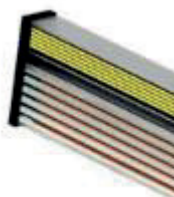
- Max. power of 28 kVA per bar at an operating temperature up to 55°C
- Single IP address for up to 4 MPX or 24 output modules.
- Different plug & play sensors
- Max. power of 13.8 kVA with 3 modules
- Measuring accuracy of 1% at the output level

### Maximum flexibility and scalability

- Configurable modules according to the requirements (including the feed module)
- "Hot swappable" during operation
- Swappable input module (1 to 3-phase, max. 63 Amps per phase)

### Maximum security and availability

- Redundant power supply for control electronics
- Integrated data bus on the bus bar (no more cable breaks)
- No external control electronics
- Problems can be detected before failure occur by measuring the neutral conductor and crest factor



## AT&T CenterLine

### DCE Managed Fixed Vertical Power Distribution Units (PDUs)

#### Description

DCE Managed Fixed power distribution unit for rack power enhanced metering in data centers	
Nominal input voltage	230V AC 1-Phase, 400V AC 3-Phase
Rated current	32A
Load capacity	7.4 kVA
Power plug type	IEC 60309 with 3 meters line cord
Output sockets	18xC13 and 6xC19 IEC 60320 sockets
Power metering	PDU level, individual branch-circuit level and individual socket level
<b>Environmental sensor sockets</b>	Optional 3-zone temperature Humidity and air-flow sensors (RJ11)
<b>Circuit breakers</b>	4 dry-contacts for additional sensors
<b>Alarms</b>	16A individual branch circuit level User defined and automatic system alarms for all monitored parameters

#### Standard & EU Directives Conformance

- EN-55022 Class B (EMC)
- EU 2006/95/EC (LVD)
- EU 2011/65/EU (RoHS-2)
- IEC 60950 Para. 2.1 (Electrical safety)

#### Mechanical Properties

Mounting	Pre-installed Tool-Less brackets Universal Mounting bracket Ability to ship rack PDU pre-installed in AT&T Cabling Systems Racks
<b>Input Power Options North America</b>	100 - 120V 1-ph 20A/30A 200 - 240V 1-ph 20/30A 200 - 240V 3-ph 20/30/50/60A 208/120V 3-ph 20/30A 415V/240V 3-ph 20A/30A
<b>Input Power Options International</b>	230V 1-ph 16A/32A 230/400V 3-ph 16A/32A/63A
<b>Input Wiring Options</b>	10 ft. pluggable power cord or Hardwired
<b>Max. Capacity North America</b>	17.2 kW
<b>Max. Capacity International</b>	22.2 kW
<b>Outlet Options</b>	NEMA 5-20; IEC 320C13 IEC 320 C19 Locking capability on all outlets
<b>Maximum Outlets</b>	Strip Metered: 42 Outlet Metered and/or Switched: 24
<b>Maximum Operating Temp. Range</b>	0°C to 60°C
<b>Storage Temperature Range</b>	-25°C to 85°C
<b>Relative Humidity</b>	5% to 95%
<b>Overcurrent Protection</b>	Software Electronic Overcurrent Protection 100% Rated 20A Branch Overcurrent Protection - Hydraulic Magnetic Circuit Breakers



Continued on page C.2.1a



## AT&T CenterLine

### DCE Managed Fixed Vertical Power Distribution Units (PDUs)(contd.)

Idle Power Consumption	3W - 5W
OU Units Width x Depth	56 mm x 50 mm
OU units Length	916 mm / 1004 mm / 1737 mm / 1827 mm
Agency Approvals	UL, CSA, CE, RoHS, REACH, FCC Class A, CB, WEEE, ISTA
Metering Levels	Aggregate, Branch, Phase, Outlet
Parameters Measured	Voltage, Current, kW, KVA, kWh, Power Factor, Crest Factor, Frequency
Metering Accuracy	+/-1%
Switching Capability	On, Off, Recycle, Lock, Unlock, Outlet Grouping Capability
Modularity	RPC2 communications module
Local Management	Onboard Display, Optional Local Display
Remote Management	Onboard Web Interface; CLI; SNMP; SSH; Telnet Integration with AT&T Cabling Systems ACS, AT&T Cabling Systems Universal Management Gateway & AT&T Cabling Systems MergePoint™ Unity Integration with DSView®, Rack Power Manager, Nform™ and the Trellis™ platform
SNMP version support	v1, v2 and v3
Authentication	Local
Encryption	Remote: Active Directory, LDAP, TACACS, Radius, Kerberos MD5, AES, DES

### Ordering Information - PDU

Description	C13 Sockets	C19 Sockets	Phase & Voltage	Branch Circuit Breakers	Length mm	Metering	Switching	P/N
DCE Managed Power Distribution Unit (PDU) Tape B	30	6	1 phase, 230V	32A	1736.5	Input	No	H131P32306B-BK
DCE Managed Power Distribution Unit (PDU) Tape B	30	6	3 phase, 230/400V	16A	1736.5	Input	No	H133P16306B-BK
DCE Managed Power Distribution Unit (PDU) Tape B	30	6	3 phase, 230/400V	32A	1826.5	Input	No	H133P32306B-BK
DCE Managed Power Distribution Unit (PDU) Tape R	18	6	1 phase, 230V	32A	1736.5	Input and output	Output	H131P32186R-BK
DCE Managed Power Distribution Unit (PDU) Tape R	18	6	3 phase, 230/400V	16A	1736.5	Input and output	Output	H133P16186R-BK
DCE Managed Power Distribution Unit (PDU) Tape R	18	6	3 phase, 230/400V	32A	1736.5	Input and output	Output	H133P32186R-BK
DCE Managed Power Distribution Unit (PDU) Tape B	17	2	1 phase, 230V	16A	916.5	Input	No	H131P16172B-BK
DCE Managed Power Distribution Unit (PDU) Tape R	16	0	1 phase, 230V	16A	1004	Input and output	Output	H131P16160R-BK
DCE Managed Power Distribution Unit (PDU) Tape R	24	0	1 phase, 230V	32A	1736.5	Input and output	Output	H131P16240R-BK
DCE Managed Power Distribution Unit (PDU) Tape R	24	0	3 phase, 230/400V	16A	1736.5	Input and output	Output	H133P16240R-BK
DCE Managed Power Distribution Unit (PDU) Tape R	24	0	3 phase, 230/400V	32A	1736.5	Input and output	Output	H133P32240R-BK
DCE Managed Power Distribution Unit (PDU) Tape C	18	6	1 phase, 230V	32A	1736.5	Input	Output	H131P32186C-BK
DCE Managed Power Distribution Unit (PDU) Tape C	18	6	3 phase, 230/400V	16A	1736.5	Input	Output	H133P16186C-BK
DCE Managed Power Distribution Unit (PDU) Tape C	18	6	3 phase, 230/400V	32A	1736.5	Input	Output	H133P32186C-BK
DCE Managed Power Distribution Unit (PDU) Tape C	24	0	1 phase, 230V	32A	1736.5	Input	Output	H131P32240C-BK
DCE Managed Power Distribution Unit (PDU) Tape C	24	0	3 phase, 230/400V	16A	1736.5	Input	Output	H133P16240C-BK
DCE Managed Power Distribution Unit (PDU) Tape C	24	0	3 phase, 230/400V	32A	1736.5	Input	Output	H133P32240C-BK
DCE Managed Power Distribution Unit (PDU) Tape M	18	6	1 phase, 230V	32A	1736.5	Input and output	No	H131P32186M-BK
DCE Managed Power Distribution Unit (PDU) Tape M	18	6	3 phase, 230/400V	16A	1736.5	Input and output	No	H133P16186M-BK
DCE Managed Power Distribution Unit (PDU) Tape M	18	6	3 phase, 230/400V	32A	1736.5	Input and output	No	H133P32186M-BK
DCE Managed Power Distribution Unit (PDU) Tape M	24	0	1 phase, 230V	32A	1736.5	Input and output	No	H131P32240M-BK
DCE Managed Power Distribution Unit (PDU) Tape M	24	0	3 phase, 230/400V	16A	1736.5	Input and output	No	H133P16240M-BK

## AT&T CenterLine

### DCE Managed Modular Vertical Power Distribution Units (PDUs)

#### Description

DCE Managed Modular power distribution unit for rack power enhanced metering in data centers	
Nominal input voltage	230V AC 1-Phase, 400V AC 3-Phase
Rated current	32A
Load capacity	7.4 kVA
Power plug type	IEC 60309 with 3 meters line cord
Output sockets	18xC13 and 6xC19 IEC 60320 sockets
Power metering	PDU level, individual branch-circuit level and individual socket level
Environmental sensor sockets	Optional 3-zone temperature Humidity and air-flow sensors (RJ11)
Circuit breakers	4 dry-contacts for additional sensors
Alarms	16A individual branch circuit level User defined and automatic system alarms for all monitored parameters

#### Standard & EU Directives Conformance

- EN-55022 Class B (EMC)
- EU 2006/95/EC (LVD)
- EU 2011/65/EU (RoHS-2)
- IEC 60950 Para. 2.1 (Electrical safety)

#### Features and Properties

Mounting	Pre-installed Tool-Less brackets Universal Mounting bracket Ability to ship rack PDU pre-installed in AT&T Cabling Systems Racks
Input Power Options North America	100 - 120V 1-ph 20A/30A 200 - 240V 1-ph 20/30A 200 - 240V 3-ph 20/30/50/60A 208/120V 3-ph 20/30A 415V/240V 3-ph 20A/30A
Input Power Options International	230V 1-ph 16A/32A 230/400V 3-ph 16A/32A/63A
Input Wiring Options	10 ft. pluggable power cord
Max. Capacity North America	17.2 kW
Max. Capacity International	27.7 kW
Outlet Options	NEMA 5-20; IEC 320C13; IEC 320 C19; Schuko; French UTE; Schuko; Switzerland CH SEV 1011; GST 18
Maximum Outlets	Basic BRM's: 42 Rack PDU Metered BRM's: 36 Outlet Metered & Switched BRM's: 36
Maximum Operating Temp. Range	0°C to 55°C
Storage Temperature Range	-25°C to 85°C
Relative Humidity	5% to 95%
Overcurrent Protection	Software Electronic Overcurrent Protection 100% Rated 20A Branch Overcurrent Protection - Hydraulic Magnetic Circuit Breakers

Continued on page C.2.2a





## AT&T CenterLine

### DCE Managed Modular Vertical Power Distribution Units (PDUs)(contd.)

Idle Power Consumption	3W - 22W
OU Units Width x Depth	75 mm x 104 mm
OU units Length	1035 mm / 1880 mm
Agency Approvals	UL, CSA, CE, RoHS, REACH, FCC Class A, CB, WEEE, ISTA
Metering Levels	Aggregate, Branch, Phase, Outlet
Parameters Measured	Volts, Current, kW, KVA, kWh, Power Factor, Crest Factor, Frequency
Metering Accuracy	+/-1%
Switching Capability	On, Off, Recycle, Lock, Unlock, Outlet Grouping Capability
Modularity	Power Entry Module Branch Receptacle Module RPC2™ communications module
Local Management	Optional Local Display
Remote Management	Onboard Web Interface; CLI; SNMP; SSH; Telnet Integration with AT&T Cabling Systems ACS, AT&T Cabling Systems Universal Management Gateway & AT&T Cabling Systems MergePoint™ Unity Integration with DSView®, Rack Power Manager, Nform™ and the Trellis™ platform
SNMP version support	v1, v2 and v3
Authentication	Local
Encryption	Remote: Active Directory, LDAP, TACACS, Radius, Kerberos MD5, AES, DES

Continued on page C.2.2b

## AT&T CenterLine

### DCE Managed Modular Vertical Power Distribution Units (PDUs)(contd.)

#### Ordering Information - PDU

Description	C13 Sockets	C19 Sockets	Phase & Voltage	Branch Circuit Breakers	Length mm	Metering	Switching	P/N
DCE Modular Power Distribution Unit (PDU) Chassis	-	-	1 phase, 230V, 3 phase, 230/400V	-	1880	-	-	H163631880A-MT
DCE Modular Power Distribution Unit (PDU) Chassis	-	-	1 phase, 230V, 3 phase, 230/400V	-	1035	-	-	H163631035A-MT
Monitored Power Supply Module for DCE Modular PDU	-	-	1 Phase, 230V, 1xIEC 60309 Blue Plug, Black	32A	266	Input	No	H161P32000P-BK
Monitored Power Supply Module for DCE Modular PDU	-	-	3 Phase, 230/400V, 1xIEC 60309 Red Plug, Black	16A	266	Input	No	H161P16000P-BK
Monitored Power Supply Module for DCE Modular PDU	-	-	3 Phase, 230/400V, 1xIEC 60309 Red Plug, Black	32A	266	Input	No	H161P32000P-BK
Elementary Power Output Module for DCE Modular PDU	7	-	1 phase, 230V, Line 1	20A	266	Output	No	H1610713L1E-BK
Elementary Power Output Module for DCE Modular PDU	7	-	1 phase, 230V, Line 2	20A	266	Output	No	H1610713L2E-BK
Elementary Power Output Module for DCE Modular PDU	7	-	1 phase, 230V, Line 3	20A	266	Output	No	H1610713L3E-BK
Elementary Power Output Module for DCE Modular PDU	-	4	1 phase, 230V, Line 1	20A	266	Output	No	H1616419L1E-BK
Elementary Power Output Module for DCE Modular PDU	-	4	1 phase, 230V, Line 2	20A	266	Output	No	H1616419L2E-BK
Elementary Power Output Module for DCE Modular PDU	-	4	1 phase, 230V, Line 3	20A	266	Output	No	H1616419L3E-BK
Managed Power Output Module for DCE Modular PDU	6	-	1 phase, 230V, Line 1	20A	266	Output	Yes	H1610613L1R-BK
Managed Power Output Module for DCE Modular PDU	6	-	1 phase, 230V, Line 2	20A	266	Output	Yes	H1610613L2R-BK
Managed Power Output Module for DCE Modular PDU	6	-	1 phase, 230V, Line 3	20A	266	Output	Yes	H1610613L3R-BK
Managed Power Output Module for DCE Modular PDU	4	4	1 phase, 230V, Line 1	20A	266	Output	Yes	H1616419L1R-BK
Managed Power Output Module for DCE Modular PDU	4	4	1 phase, 230V, Line 2	20A	266	Output	Yes	H1616419L2R-BK
Managed Power Output Module for DCE Modular PDU	4	4	1 phase, 230V, Line 3	20A	266	Output	Yes	H1616419L3R-BK
Monitored Power Output Module for DCE Modular PDU	6	-	1 phase, 230V, Line 1	20A	266	Output	No	H1610613L1B-BK
Monitored Power Output Module for DCE Modular PDU	6	-	1 phase, 230V, Line 2	20A	266	Output	No	H1610613L2B-BK
Monitored Power Output Module for DCE Modular PDU	6	-	1 phase, 230V, Line 3	20A	266	Output	No	H1610613L3B-BK
Monitored Power Output Module for DCE Modular PDU	4	4	1 phase, 230V, Line 1	20A	266	Output	No	H1616419L1B-BK
Monitored Power Output Module for DCE Modular PDU	4	4	1 phase, 230V, Line 2	20A	266	Output	No	H1616419L2B-BK
Monitored Power Output Module for DCE Modular PDU	4	4	1 phase, 230V, Line 3	20A	266	Output	No	H1616419L3B-BK
Basic Display Module for DCE Modular PDU	-	-	-	-	-	-	-	H16BDM1000A-BK
Fixed Temperature Sensor for DCE Modular PDU	-	-	-	-	-	-	-	H16F1T0003A-NS
Modular Triple Temperature and Single Humidity Sensor for DCE Modular PDU	-	-	-	-	-	-	-	H16M3T1H02A-NS
Modular Triple Dry-Contact Sensor Inputs for DCE Modular PDU	-	-	-	-	-	-	-	H16M3D0002A-NS
Modular Double Door Contact Module for DCE Modular PDU	-	-	-	-	-	-	-	H16M2DC002A-NS
Modular Single Temperature Sensor for DCE Modular PDU	-	-	-	-	-	-	-	H16M1T0005A-NS
Fixed Triple Temperature Sensor for DCE Modular PDU	-	-	-	-	-	-	-	H16F3T0005A-NS
Fixed Triple Temperature and Single Humidity Sensors for DCE Modular PDU	-	-	-	-	-	-	-	H16F3T1H05A-NS
Door Contact Switch	-	-	-	-	-	-	-	F15DCS0000A-NS

# AT&T Cabling Systems

## Rack Power Manager

### Applications

- Gather and aggregate power information from a variety of different PDUs
- Capture power usage at any moment in time and power usage (kWh) over a period of time
- Environmental monitoring
- Power management as well as power control to individual outlets
- Aggregation and reporting at all levels within the data center
- Calculate costs to power a rack (racks or entire data center) per moment, per day or over time

### Benefits

- Consolidated user interface for centralized management
- Monitor and measure energy consumption costs (per device)
- Real-time visibility into power usage to operate or manage power more efficiently
- Identify costs and trends to simplify power and cooling capacity planning
- Determine actual energy usage by department to create charge-back process
- Identify what activities can be moved to off peak times or virtualized servers
- Ability to set a maximum on power usage and threshold alerts to stay within budget
- Preemptive notifications and environmental alarms

### Detailed Power and Environmental Information and Control at Your Fingertips

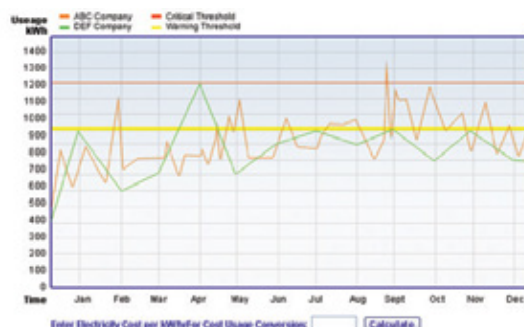
The AT&T Cabling Systems Rack Power Manager provides data centers with the ability to monitor and measure energy consumption, costs and trends from a single server to an entire data center. It simplifies power and cooling capacity planning and provides a consolidated view, including remote power control for individual server outlets. Through preemptive notification of rack-level power and environmental alarms, it empowers administrators with data to increase power usage efficiencies and maintain availability of IT assets. The AT&T Cabling Systems Rack Power Manager offers a combined interface for the management of your rack PDU infrastructure allowing you to seamlessly integrate it into your company's IT workflow.

### Manage

The AT&T Cabling Systems Rack Power Manager provides a single, secure, browser-based interface to capture power usage at any moment in time and energy usage over a period of time. Visibility into energy consumption data helps IT to operate a more efficient data center, including providing these key features:

- Insight for capacity planning
- Total reading on power usage for better efficiency
- Leverage your intelligent PDU investment via one centralized interface
- Allocate costs of power based on actual usage by department
- Determine what activities can be moved to off-peak times
- Avoid budget overruns by setting a maximum threshold of power usage
- Balance of power usage for better efficiency and to maintain a consistently cool data center
- Preemptive notification and alarms for proactive power management
- Single console for access and control to both physical and virtual environments

The AT&T Cabling Systems Rack Power Manager also enables it to calculate what it costs to power a rack



# AT&T Cabling Systems

## Access

The AT&T Cabling Systems Rack Power Manager helps data center administrators gain real-time access to power consumption and temperature alerts to minimize interruptions and increase uptime. The AT&T Cabling Systems Rack Power Manager also provides power management and reporting capabilities, offering detailed data to assist with data center power usage efficiencies (PUE).

## Control

Server power consumption is highly dynamic. Additional equipment, if plugged in to the wrong location, can cause significant downtime and data loss because of power overloads. The AT&T Cabling Systems Rack Power Manager provides detailed, multiple-level power and environmental information at your fingertips to monitor overall power and energy consumption usage and costs, which allows for better capacity planning and helps maintain availability of IT assets.

[Calculating Power and Energy Consumption Data with Access to Preemptive Notifications can Help IT Operate a more Efficient Data Center in a Variety of Ways:](#)

- **Help IT and the facilities department determine departmental power usage.** For example, if all accounting servers are grouped together in the software, then facilities can determine what percentage of the monthly utility bill to charge accounting based on kWh used.
- **Assist IT with capacity planning.** IT can easily decide where to add new servers/racks in a data center. Additional equipment, if plugged in to the wrong location, can cause significant downtime and data loss because of power overloads.
- **Help justify purchase of new equipment.** A comparison of the energy cost differential between new versus old servers, for example, can help provide justification for replacement or to help with model/vendor selections.
- **Determine what activities can be moved to off-peak times when energy costs less to purchase.** Since IT can monitor power usage at any time, including off-peak times, IT can pull reports and compare historical data to determine how much power is being consumed in peak versus non-peak times. So if the report shows that certain racks spike power usage during certain times of the day, IT can investigate why and then move that activity to a time when the price per kWh costs less. Major utility companies offer industrial and corporate customers lower rates during non-peak times. IT could also consider moving that activity onto a virtualized server.
- **Help get a total reading on power usage for the data center and set a maximum threshold of power usage.** By setting alerts to know when the threshold is reached or exceeded, a decision can be made to move certain computing activities to non-peak times or to move activities to virtualized servers.
- **Provide insight to help IT keep a balance of power usage for better efficiency.** By identifying hot spots or times when activity spikes, drawing more power, IT can shift equipment or activities for better balance to maintain a consistently cool data center (less stress on cooling systems).
- **Help IT know what electrical infrastructure to build in to a backup/DR site.** The design can be based on real historical data rather than faceplate ratings or best-guess scenarios which result in overbuilding, leading to inefficiencies.
- **Ensure availability by setting power and environmental-related thresholds and alerts.** By getting preemptive notifications, IT can take action before issues happen.
- **Help IT decide which applications to virtualize.** Applications that aren't used much, but installed on servers that use a lot of power, are good candidates for virtualization. A server sitting idly can still draw as much as 50% of the power it draws when operational, so applications on underutilized servers should be first for virtualization consideration.

## Specifications

### Technical Specifications:

The AT&T Cabling Systems Rack Power Manager Management Software (Hub/Spoke) Minimum Requirements

**a. Windows/Linux Dedicated (Physical) Server**

*i. One or more 2+ GHz Multi-Core CPU*

*ii. 6+ GB RAM*

*iii. 250+ GB HDD*

**b. 1gbt/10gbps LAN**

### The AT&T Cabling Systems Rack Power Manager Requires One of the Following Operating Systems:

- Microsoft® Windows Server 2003 (x64), 2003 R2 (x64), 2008 (x64), 2008 R2 (x64)
- SuSe Linux® Enterprise Server 10 (x64), 11(x64)
- RedHat® Enterprise Server 4 (x64), 5.4 (x64)

### Client-Supported Operating System\*

\*32-bit platforms only unless otherwise specified

- Windows XP Home Edition or Professional (32-bit and 64-bit)
- Windows 2003 Server Standard, Enterprise or Web Edition
- Windows 2008 Server Standard, Enterprise or Web Edition
- Windows Vista Ultimate or Business (32-bit and 64-bit)
- Red Hat Enterprise Linux, Version 4 (AS, ES and WS products)
- Red Hat Enterprise Linux, Version 5
- Novell® SUSE Linux (x86) Enterprise Server 10
- Novell® SUSE Linux (x86) Enterprise Server 11
- Macintosh® OS X version 10.4x
- Macintosh OS X version 10.5 (32-bit and 64-bit)

### Browser Support

- Internet Explorer® version 6.0 SP1, 7, or 8 (Windows operating systems only)
- Firefox® versions 2 to 3.5

(version 1.5 required for Mac OS)

**Note:** If you are using Firefox, the Video Viewer and the Telnet Viewer require Java



# AT&T Cabling Systems

*Copper Cabling  
Data-Center  
Solutions*

## AT&T CenterLine Category 5e Plug & Play Unshielded RJ21 (Telco) to RJ45 Plug & Play Patch Panels

### Description

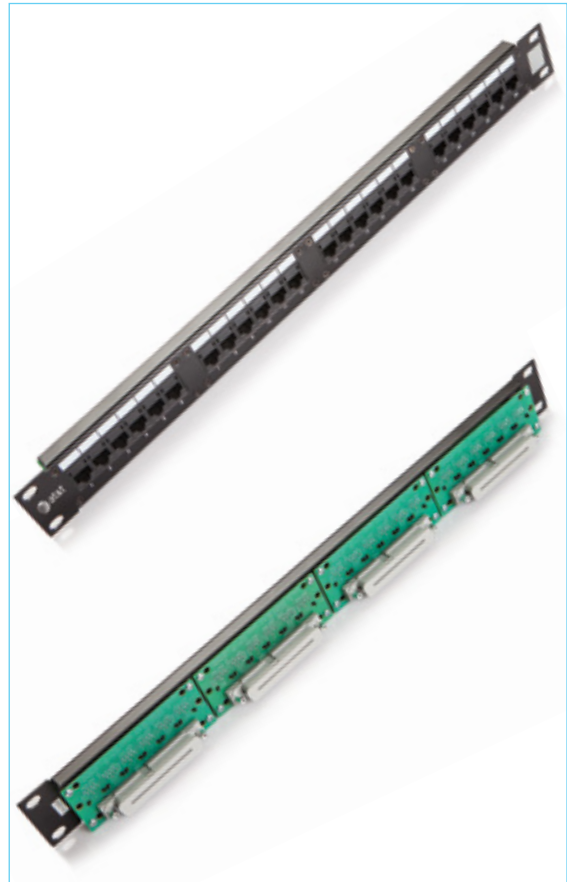
24 or 48 port unshielded panels (used with RJ21/RJ21 25-Pair cords)	
Frequency range	1-100 MHz
Panel front	4 or 8 modules of 6 RJ45 jacks
Panel back	4 or 8 RJ21 (Telco) sockets
Color	Black
Shield	None
Housing	High impact FR compound
Frame	Galvanized steel

### Standard & EU Directives Conformance

- Category 5e connecting hardware acc. to ANSI/TIA-568.2-D
- UL94 V-0 flame test
- EU Directive 2011/65/EU (RoHS-2)

### Mechanical & Electrical Properties

Port contacts	50μ-Inch gold plating
Insertion/Extraction durability	750 cycles
Operating temperature	-20 to +60C at 5-95% RH (non condensing)
Contact resistance	20 mOhm max.
DC resistance	0.2 Ohm max.
Voltage rating	72 Vdc max.
Insulation resistance	10 MegaOhm min. @500 Vdc



### Ordering Information

Description	Color	Modules	Units	Size mm	Packaging	P/N
24 port RJ21/RJ45 Unshielded CAT5e 19" Patch Panel	Black	4	1U	44.4x483	1/Box	13U5ENV024A-BK1U
48 port RJ21/RJ45 Unshielded CAT5e 19" Patch Panel	Black	8	2U	89.0x483	1/Box	13U5ENV048A-BK2U

## AT&T CenterLine Category 5e Plug & Play

### Unshielded 100 Ohm RJ21 Plug & Play Telco Cords

#### Description

25-Pair unshielded RJ21/RJ21 Telco cords (used with Telco panels)	
Frequency range	1-100 MHz
Conductor	24 AWG solid bare copper
Insulation	PO
Color code	ANSI/TIA-568.2-D
Jacket	PVC or LSOH
Standard jacket color	Gray (other colors available)
Standard boot color	Black (other colors available)
Length	10-50m (other lengths available)

#### Standard & EU Directives Conformance

- Category 5e connecting hardware according to ANSI/TIA-568.2-D
- UL94 V-0 flame test
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Plug contacts	50μ-Inch Gold plating
Plug housing	FR Polycarbonate
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc



#### Ordering Information

Description	Length m	Jacket Color	Plugs	Packaging	P/N
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	10	Gray	Telco 120°	1/Bag	14U5EVA100T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	20	Gray	Telco 120°	1/Bag	14U5EVA200T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	30	Gray	Telco 120°	1/Bag	14U5EVA300T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	40	Gray	Telco 120°	1/Bag	14U5EVA400T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	50	Gray	Telco 120°	1/Bag	14U5EVA500T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	10	Gray	Telco 120°	1/Bag	14U5EHA100T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	20	Gray	Telco 120°	1/Bag	14U5EHA200T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	30	Gray	Telco 120°	1/Bag	14U5EHA300T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	40	Gray	Telco 120°	1/Bag	14U5EHA400T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	50	Gray	Telco 120°	1/Bag	14U5EHA500T-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	10	Gray	Telco 180°	1/Bag	14U5EVA100S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	20	Gray	Telco 180°	1/Bag	14U5EVA200S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	30	Gray	Telco 180°	1/Bag	14U5EVA300S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	40	Gray	Telco 180°	1/Bag	14U5EVA400S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e PVC Telco Cord	50	Gray	Telco 180°	1/Bag	14U5EVA500S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	10	Gray	Telco 180°	1/Bag	14U5EHA100S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	20	Gray	Telco 180°	1/Bag	14U5EHA200S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	30	Gray	Telco 180°	1/Bag	14U5EHA300S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	40	Gray	Telco 180°	1/Bag	14U5EHA400S-GY61
25-Pair 24 AWG RJ21/RJ21 Unshielded CAT5e LSOH Telco Cord	50	Gray	Telco 180°	1/Bag	14U5EHA500S-GY61



## AT&T CenterLine Category 5e

### Unshielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port unshielded RJ45 pre-terminated cassettes in 24-Port panel

Frequency range 1-100 MHz  
 Cassette contents 6 unshielded CAT5e RJ45 jacks  
 Panel formation 4 cassettes in 1U  
 Panel and cassette color Black (other colors available)

#### Cable bundles

Conductor 24 AWG solid bare copper  
 Insulation PO  
 Jacket LS0H  
 Standard jacket color Gray (other colors available)  
 Number of 4-pair cables 6 in each cassette  
 Bundle jacket LS0H black polyester braid secured with shrink-tubes  
 Length 5-50m (other lengths available)

#### Standard & EU Directives Conformance

- Category 5e according to ISO/IEC 11801
- Category 5e according to EN 50173
- Category 5e according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance 100 Ohm nom.  
 Pin-pair assignment T568B  
 Jacks contacts 50μ-Inch Gold plating  
 Jacks housing High impact FR compound  
 Jacks color White/Lt. Blue (other colors available)  
 Operating temperature -20 to +60C  
 Voltage rating 72 Vdc max.  
 Ampacity 1.0 Ampere max.  
 Insulation resistance 500 MegaOhm min. @500 Vdc

#### Ordering Information

Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Unshielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13U00NV024P-BK51
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32U5EHA100C-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32U5EHA200C-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32U5EHA300C-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32U5EHA400C-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32U5EHA500C-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Jacks	10	6 RJ45 Jack	1/Bag	32U5EHA100R-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Jacks	20	6 RJ45 Jack	1/Bag	32U5EHA200R-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Jacks	30	6 RJ45 Jack	1/Bag	32U5EHA300R-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Jacks	40	6 RJ45 Jack	1/Bag	32U5EHA400R-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Jacks	50	6 RJ45 Jack	1/Bag	32U5EHA500R-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Plugs	5	6 RJ45 Plugs	1/Bag	32U5EHA050L-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Plugs	10	6 RJ45 Plugs	1/Bag	32U5EHA100L-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Plugs	15	6 RJ45 Plugs	1/Bag	32U5EHA150L-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Plugs	20	6 RJ45 Plugs	1/Bag	32U5EHA200L-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Plugs	25	6 RJ45 Plugs	1/Bag	32U5EHA250L-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Open	10	None	1/Bag	32U5EHA100E-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Open	20	None	1/Bag	32U5EHA200E-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Open	30	None	1/Bag	32U5EHA300E-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Open	40	None	1/Bag	32U5EHA400E-BK61
6-Port Unshielded CAT5e Plug & Play RJ45 Cassette to Open	50	None	1/Bag	32U5EHA500E-BK61





## AT&T CenterLine Category 5e

### Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port shielded RJ45 F/UTP pre-terminated cassettes in 24-Port panel

Frequency range	1-100 MHz
Cassette contents	6 shielded CAT5e RJ45 jacks
Panel formation	4 cassettes in 1U
Panel and cassette color	Black (other colors available)
<b>Cable bundles</b>	
Conductor	24 AWG solid bare copper
Insulation	PO
Shield	Overall aluminum foil
Drain wire	Single tin-coated copper solid wire
Jacket	LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6 in each cassette
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	5-50m (other lengths available)



#### Standard & EU Directives Conformance

- Category 5e according to ISO/IEC 11801
- Category 5e according to EN 50173
- Category 5e according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jack shield	Die-cast metal case
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

#### Ordering Information

Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Shielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13S00NV024P-BK51
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32S5EHA100C-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32S5EHA200C-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32S5EHA300C-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32S5EHA400C-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32S5EHA500C-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Jacks	10	6 RJ45 Jack	1/Bag	32S5EHA100R-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Jacks	20	6 RJ45 Jack	1/Bag	32S5EHA200R-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Jacks	30	6 RJ45 Jack	1/Bag	32S5EHA300R-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Jacks	40	6 RJ45 Jack	1/Bag	32S5EHA400R-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Jacks	50	6 RJ45 Jack	1/Bag	32S5EHA500R-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Plugs	5	6 RJ45 Plugs	1/Bag	32S5EHA050L-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Plugs	10	6 RJ45 Plugs	1/Bag	32S5EHA100L-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Plugs	15	6 RJ45 Plugs	1/Bag	32S5EHA150L-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Plugs	20	6 RJ45 Plugs	1/Bag	32S5EHA200L-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Plugs	25	6 RJ45 Plugs	1/Bag	32S5EHA250L-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Open	10	None	1/Bag	32S5EHA100E-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Open	20	None	1/Bag	32S5EHA200E-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Open	30	None	1/Bag	32S5EHA300E-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Open	40	None	1/Bag	32S5EHA400E-BK61
6-Port Shielded CAT5e Plug & Play RJ45 Cassette to Open	50	None	1/Bag	32S5EHA500E-BK61

## AT&T CenterLine Category 5e Plug & Play

### Unshielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cable Bundles

#### Description

6-Port unshielded R45/RJ45 pre-terminated cable bundles	
Frequency range	1-100 MHz
Termination	CAT5e unshielded jacks
Conductor	24 AWG solid bare copper
Insulation	PO
Jacket	PVC or LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)

#### Standard & EU Directives Conformance

- Category 5e according to ISO/IEC 11801
- Category 5e according to EN 50173
- Category 5e according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks color	White/Lt. Blue (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc



#### Ordering Information

Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33U5EVA100R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33U5EVA200R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33U5EVA300R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33U5EVA400R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33U5EVA500R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	10	LS0H	RJ45	1/Box	33U5EHA100R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	20	LS0H	RJ45	1/Box	33U5EHA200R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	30	LS0H	RJ45	1/Box	33U5EHA300R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	40	LS0H	RJ45	1/Box	33U5EHA400R-GY51
6-Port Unshielded CAT5e Plug & Play Pre-Terminated Bundle	50	LS0H	RJ45	1/Box	33U5EHA500R-GY51

## AT&T CenterLine Category 5e Plug & Play Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Bundles

### Description

6-Port shielded R45/RJ45 F/UTP pre-terminated cable bundles	
Frequency range	1-100 MHz
Termination	Shielded CAT5e RJ45 jacks
Conductor	24 AWG solid bare copper
Insulation	PO
Shield	Overall aluminum foil
Drain wire	Single tin-coated copper solid wire
Jacket	PVC or LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)

### Standard & EU Directives Conformance

- Category 5e according to ISO/IEC 11801
- Category 5e according to EN 50173
- Category 5e according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50µ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks shield	Die-cast metal case
Jacks color	Metal/Lt. Blue (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc



### Ordering Information

Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33P5EVA100R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33P5EVA200R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33P5EVA300R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33P5EVA400R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33P5EVA500R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	10	LS0H	RJ45	1/Box	33P5EHA100R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	20	LS0H	RJ45	1/Box	33P5EHA200R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	30	LS0H	RJ45	1/Box	33P5EHA300R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	40	LS0H	RJ45	1/Box	33P5EHA400R-GY51
6-Port Shielded F/UTP CAT5e Plug & Play Pre-Terminated Bundle	50	LS0H	RJ45	1/Box	33P5EHA500R-GY51

## AT&T CenterLine Category 6

### Unshielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port unshielded RJ45 pre-terminated cassettes in 24-Port panel

Frequency range	1-250 MHz
Cassette contents	6 unshielded CAT6 RJ45 jacks
Panel formation	4 cassettes in 1U
Panel and cassette color	Black (other colors available)

#### Cable bundles

Conductor	23 AWG solid bare copper
Insulation	PO
Jacket	LSOH
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6 in each cassette
Bundle jacket	LSOH black polyester braid secured with shrink-tubes
Length	5-50m (other lengths available)



#### Standard & EU Directives Conformance

- Category 6 according to ISO/IEC 11801
- Category 6 according to EN 50173
- Category 6 according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50µ-Inch Gold plating
Jacks housing	High impact FR compound
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

#### Ordering Information

Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Unshielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13U00NV024P-BK51
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32U06HA100C-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32U06HA200C-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32U06HA300C-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32U06HA400C-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32U06HA500C-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Jacks	10	6 RJ45 Jack	1/Bag	32U06HA100R-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Jacks	20	6 RJ45 Jack	1/Bag	32U06HA200R-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Jacks	30	6 RJ45 Jack	1/Bag	32U06HA300R-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Jacks	40	6 RJ45 Jack	1/Bag	32U06HA400R-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Jacks	50	6 RJ45 Jack	1/Bag	32U06HA500R-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Plugs	5	6 RJ45 Plugs	1/Bag	32U06HA050L-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Plugs	10	6 RJ45 Plugs	1/Bag	32U06HA100L-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Plugs	15	6 RJ45 Plugs	1/Bag	32U06HA150L-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Plugs	20	6 RJ45 Plugs	1/Bag	32U06HA200L-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Plugs	25	6 RJ45 Plugs	1/Bag	32U06HA250L-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Open	10	None	1/Bag	32U06HA100E-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Open	20	None	1/Bag	32U06HA200E-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Open	30	None	1/Bag	32U06HA300E-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Open	40	None	1/Bag	32U06HA400E-BK61
6-Port Unshielded CAT6 Plug & Play RJ45 Cassette to Open	50	None	1/Bag	32U06HA500E-BK61



## AT&T CenterLine Category 6

### Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port shielded RJ45 pre-terminated cassettes in 24-Port panel

Frequency range	1-250 MHz
Cassette contents	6 shielded CAT6 RJ45 jacks
Panel formation	4 cassettes in 1U
Panel and cassette color	Black (other colors available)

#### Cable bundles

Conductor	23 AWG solid bare copper
Insulation	PO
Individual shield	Aluminum foil
Drain wire	None.
Overall shield	Tin-coated copper braid
Jacket	LSOH
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6 in each cassette
Bundle jacket	LSOH black polyester braid secured with shrink-tubes
Length	5-50m (other lengths available)

#### Standard & EU Directives Conformance

- Category 6 according to ISO/IEC 11801
- Category 6 according to EN 50173
- Category 6 according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50µ-Inch Gold plating
Jacks housing	High impact FR compound
Jack shield	Die-cast metal case
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

#### Ordering Information



Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Shielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13S00NV024P-BK51
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32S06HA100C-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32S06HA200C-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32S06HA300C-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32S06HA400C-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32S06HA500C-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Jacks	10	6 RJ45 Jack	1/Bag	32S06HA100R-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Jacks	20	6 RJ45 Jack	1/Bag	32S06HA200R-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Jacks	30	6 RJ45 Jack	1/Bag	32S06HA300R-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Jacks	40	6 RJ45 Jack	1/Bag	32S06HA400R-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Jacks	50	6 RJ45 Jack	1/Bag	32S06HA500R-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Plugs	5	6 RJ45 Plugs	1/Bag	32S06HA050L-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Plugs	10	6 RJ45 Plugs	1/Bag	32S06HA100L-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Plugs	15	6 RJ45 Plugs	1/Bag	32S06HA150L-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Plugs	20	6 RJ45 Plugs	1/Bag	32S06HA200L-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Plugs	25	6 RJ45 Plugs	1/Bag	32S06HA250L-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Open	10	None	1/Bag	32S06HA100E-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Open	20	None	1/Bag	32S06HA200E-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Open	30	None	1/Bag	32S06HA300E-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Open	40	None	1/Bag	32S06HA400E-BK61
6-Port Shielded S/FTP CAT6 Plug & Play RJ45 Cassette to Open	50	None	1/Bag	32S06HA500E-BK61

## AT&T CenterLine Category 6 Plug & Play

### Unshielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cable Bundles

#### Description

6-Port unshielded R45/RJ45 pre-terminated cable bundles	
Frequency range	1-250 MHz
Termination	Unshielded CAT6 RJ45 jacks
Conductor	23 AWG solid bare copper
Insulation	PO
Jacket	PVC or LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)



#### Standard & EU Directives Conformance

- Category 6 according to ISO/IEC 11801
- Category 6 according to EN 50173
- Category 6 according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks color	White/Blue (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

#### Ordering Information

Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33U06VA100R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33U06VA200R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33U06VA300R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33U06VA400R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33U06VA500R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	10	LS0H	RJ45	1/Box	33U06HA100R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	20	LS0H	RJ45	1/Box	33U06HA200R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	30	LS0H	RJ45	1/Box	33U06HA300R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	40	LS0H	RJ45	1/Box	33U06HA400R-GY51
6-Port Unshielded CAT6 Plug & Play Pre-Terminated Bundle	50	LS0H	RJ45	1/Box	33U06HA500R-GY51

## AT&T CenterLine Category 6 Plug & Play Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Bundles

### Description

6-Port Shielded U/FTP or S/FTP R45/RJ45 pre-terminated cable bundles

Frequency range	1-250 MHz
Termination	Shielded CAT6 RJ45 jacks
Conductor	23 AWG solid bare copper
Insulation	PO
Individual shield	Aluminum foil
Drain wire (U/FTP cable only)	Single tin-coated copper solid wire
Overall shield (S/FTP cable only)	Tin-coated copper braid
Jacket	PVC or LSOH
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LSOH black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)

### Standard & EU Directives Conformance

- Category 6 according to ISO/IEC 11801
- Category 6 according to EN 50173
- Category 6 according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50µ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks shield	Die-cast metal case
Jacks color	Metal/Blue (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

### Ordering Information



Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33F06VA100R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33F06VA200R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33F06VA300R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33F06VA400R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33F06VA500R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	10	LSOH	RJ45	1/Box	33F06HA100R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	20	LSOH	RJ45	1/Box	33F06HA200R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	30	LSOH	RJ45	1/Box	33F06HA300R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	40	LSOH	RJ45	1/Box	33F06HA400R-GY51
6-Port Shielded U/FTP CAT6 Plug & Play Pre-Terminated Bundle	50	LSOH	RJ45	1/Box	33F06HA500R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33S06VA100R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33S06VA200R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33S06VA300R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33S06VA400R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33S06VA500R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	10	LSOH	RJ45	1/Box	33S06HA100R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	20	LSOH	RJ45	1/Box	33S06HA200R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	30	LSOH	RJ45	1/Box	33S06HA300R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	40	LSOH	RJ45	1/Box	33S06HA400R-GY51
6-Port Shielded S/FTP CAT6 Plug & Play Pre-Terminated Bundle	50	LSOH	RJ45	1/Box	33S06HA500R-GY51



## AT&T CenterLine Category 6A

### Unshielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port unshielded RJ45 pre-terminated cassettes in 24-Port panel

Frequency range	1-500 MHz
Cassette contents	6 unshielded CAT6A RJ45 jacks
Panel formation	4 cassettes in 1U
Panel and cassette color	Black (other colors available)

#### Cable bundles

Conductor	23 AWG solid bare copper
Insulation	PO
Jacket	LSOH
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6 in each cassette
Bundle jacket	LSOH black polyester braid secured with shrink-tubes
Length	5-50m (other lengths available)

#### Standard & EU Directives Conformance

- Category 6A according to ISO/IEC 11801
- Category 6A according to EN 50173
- Category 6A according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50µ-Inch Gold plating
Jacks housing	High impact FR compound
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc



#### Ordering Information

Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Unshielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13U00NV024P-BK51
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32U6AHA100C-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32U6AHA200C-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32U6AHA300C-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32U6AHA400C-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32U6AHA500C-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Jacks	10	6 RJ45 Jack	1/Bag	32U6AHA100R-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Jacks	20	6 RJ45 Jack	1/Bag	32U6AHA200R-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Jacks	30	6 RJ45 Jack	1/Bag	32U6AHA300R-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Jacks	40	6 RJ45 Jack	1/Bag	32U6AHA400R-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Jacks	50	6 RJ45 Jack	1/Bag	32U6AHA500R-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Plugs	5	6 RJ45 Plugs	1/Bag	32U6AHA050L-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Plugs	10	6 RJ45 Plugs	1/Bag	32U6AHA100L-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Plugs	15	6 RJ45 Plugs	1/Bag	32U6AHA150L-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Plugs	20	6 RJ45 Plugs	1/Bag	32U6AHA200L-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Plugs	25	6 RJ45 Plugs	1/Bag	32U6AHA250L-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Open	10	None	1/Bag	32U6AHA100E-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Open	20	None	1/Bag	32U6AHA200E-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Open	30	None	1/Bag	32U6AHA300E-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Open	40	None	1/Bag	32U6AHA400E-BK61
6-Port Unshielded CAT6A Plug & Play RJ45 Cassette to Open	50	None	1/Bag	32U6AHA500E-BK61

## AT&T CenterLine Category 6A

### Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port shielded RJ45 S/FTP pre-terminated cassettes in 24-Port panel

Frequency range	1-500 MHz
Cassette contents	6 shielded CAT6A RJ45 jacks
Panel formation	4 cassettes in 1U
Panel and cassette color	Black (other colors available)

#### Cable bundles

Conductor	23 AWG solid bare copper
Insulation	PO
Individual shield	Aluminum foil
Drain wire	None
Overall shield	Tin-coated copper braid
Jacket	LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6 in each cassette
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	5-50m (other lengths available)



#### Standard & EU Directives Conformance

- Category 6A according to ISO/IEC 11801
- Category 6A according to EN 50173
- Category 6A according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jack shield	Die-cast metal case
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

#### Ordering Information

Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Shielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13S00NV024P-BK51
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32S6AHA100C-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32S6AHA200C-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32S6AHA300C-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32S6AHA400C-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32S6AHA500C-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Jacks	10	6 RJ45 Jack	1/Bag	32S6AHA100R-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Jacks	20	6 RJ45 Jack	1/Bag	32S6AHA200R-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Jacks	30	6 RJ45 Jack	1/Bag	32S6AHA300R-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Jacks	40	6 RJ45 Jack	1/Bag	32S6AHA400R-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Jacks	50	6 RJ45 Jack	1/Bag	32S6AHA500R-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Plugs	5	6 RJ45 Plugs	1/Bag	32S6AHA050L-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Plugs	10	6 RJ45 Plugs	1/Bag	32S6AHA100L-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Plugs	15	6 RJ45 Plugs	1/Bag	32S6AHA150L-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Plugs	20	6 RJ45 Plugs	1/Bag	32S6AHA200L-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Plugs	25	6 RJ45 Plugs	1/Bag	32S6AHA250L-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Open	10	None	1/Bag	32S6AHA100E-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Open	20	None	1/Bag	32S6AHA200E-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Open	30	None	1/Bag	32S6AHA300E-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Open	40	None	1/Bag	32S6AHA400E-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Open	50	None	1/Bag	32S6AHA500E-BK61

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## AT&T CenterLine Category 6A

### Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cassettes

#### Description

6-Port shielded RJ45 S/FTP pre-terminated cassettes in 24-Port panel

Frequency range	1-500 MHz
Cassette contents	6 shielded CAT6A RJ45 jacks
Panel formation	4 cassettes in 1U
Panel and cassette color	Black (other colors available)

#### Cable bundles

Cable	23 AWG S/FTP CAT7A cable
Cable test frequency	1200MHz
Cable P/N	11S7AHAK04D
Drain wire	None
Overall shield	65% Tin-coated copper braid
Jacket	LSOH
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6 in each cassette
Bundle jacket	LSOH black polyester braid secured with shrink-tubes
Length	5-50m (other lengths available)



#### Standard & EU Directives Conformance

- Category 6A according to ISO/IEC 11801
- Category 6A according to EN 50173
- Category 6A according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jack shield	Die-cast metal case
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

#### Ordering Information

Description	Bundle Length m	Remote Termination	Packaging	P/N
24-Port Shielded Blank 19" Panel for 4 Pre-Terminated Cassettes	N/A	N/A	1/Box	13S00NV024P-BK51
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	10	RJ45 Cassette	1/Bag	32S6AHA100K-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	20	RJ45 Cassette	1/Bag	32S6AHA200K-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	30	RJ45 Cassette	1/Bag	32S6AHA300K-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	40	RJ45 Cassette	1/Bag	32S6AHA400K-BK61
6-Port Shielded S/FTP CAT6A Plug & Play RJ45 Cassette to Cassette	50	RJ45 Cassette	1/Bag	32S6AHA500K-BK61

## AT&T CenterLine Category 6A Plug & Play

### Unshielded 100 Ohm RJ45 Plug & Play Pre-Terminated Cable Bundles

#### Description

6-Port unshielded R45/RJ45 pre-terminated cable bundles	
Frequency range	1-500 MHz
Termination	Unshielded CAT6A RJ45 jacks
Conductor	23 AWG solid bare copper
Insulation	PO
Jacket	PVC or LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)

#### Standard & EU Directives Conformance

- Category 6A according to ISO/IEC 11801
- Category 6A according to EN 50173
- Category 6A according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks color	White/Black (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc



#### Ordering Information

Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33U6AVA100R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33U6AVA200R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33U6AVA300R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33U6AVA400R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33U6AVA500R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	10	LS0H	RJ45	1/Box	33U6AHA100R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	20	LS0H	RJ45	1/Box	33U6AHA200R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	30	LS0H	RJ45	1/Box	33U6AHA300R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	40	LS0H	RJ45	1/Box	33U6AHA400R-GY51
6-Port Unshielded CAT6A Plug & Play Pre-Terminated Bundle	50	LS0H	RJ45	1/Box	33U6AHA500R-GY51



## AT&T CenterLine Category 6A Plug & Play Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Bundles

### Description

6-Port Shielded S/FTP R45/RJ45 pre-terminated cable bundles	
Frequency range	1-500 MHz
Termination	Shielded CAT6A RJ45 jacks
Conductor	23 AWG solid bare copper
Insulation	PO
Individual shield	Aluminum foil
Drain wire	None
Overall shield	Tin-coated copper braid
Jacket	PVC or LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)



### Standard & EU Directives Conformance

- Category 6A according to ISO/IEC 11801
- Category 6A according to EN 50173
- Category 6A according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks shield	Die-cast metal case
Jacks color	Metal/Black (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc

### Ordering Information

Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	10	PVC	RJ45	1/Box	33S6AVA100R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	20	PVC	RJ45	1/Box	33S6AVA200R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	30	PVC	RJ45	1/Box	33S6AVA300R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	40	PVC	RJ45	1/Box	33S6AVA400R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	50	PVC	RJ45	1/Box	33S6AVA500R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	10	LS0H	RJ45	1/Box	33S6AHA100R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	20	LS0H	RJ45	1/Box	33S6AHA200R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	30	LS0H	RJ45	1/Box	33S6AHA300R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	40	LS0H	RJ45	1/Box	33S6AHA400R-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	50	LS0H	RJ45	1/Box	33S6AHA500R-GY51

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## AT&T CenterLine Category 6A Plug & Play Shielded 100 Ohm RJ45 Plug & Play Pre-Terminated Bundles

### Description

6-Port Shielded S/FTP R45/RJ45 pre-terminated cable bundles	
Frequency range	1-500 MHz
Termination	Shielded CAT6A RJ45 jacks
Cable	23 AWG S/FTP CAT7A cable
Cable test frequency	1200MHz
Cable P/N	11S7AHAK04D
Drain wire	None
Overall shield	65% Tin-coated copper braid
Jacket	LS0H
Standard jacket color	Gray (other colors available)
Number of 4-pair cables	6
Bundle jacket	LS0H black polyester braid secured with shrink-tubes
Length	10-50m (other lengths available)

### Standard & EU Directives Conformance

- Category 6A according to ISO/IEC 11801
- Category 6A according to EN 50173
- Category 6A according to ANSI/TIA-568.2-D
- IEC 60332-1 (cable) and UL94 V-0 flame tests (construction materials)
- EU Directive 2011/65/EU (RoHS-2)

### Mechanical & Electrical Properties

Impedance	100 Ohm nom.
Pin-pair assignment	T568B
Jacks contacts	50μ-Inch Gold plating
Jacks housing	High impact FR compound
Jacks shield	Die-cast metal case
Jacks color	Metal/Black (other colors available)
Operating temperature	-20 to +60C
Voltage rating	72 Vdc max.
Ampacity	1.0 Ampere max.
Insulation resistance	500 MegaOhm min. @500 Vdc



### Ordering Information

Description	Bundle Length m	Jacket Type	Jacks	Packaging	P/N
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	10	LS0H	RJ45	1/Box	33S6AHA100K-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	20	LS0H	RJ45	1/Box	33S6AHA200K-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	30	LS0H	RJ45	1/Box	33S6AHA300K-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	40	LS0H	RJ45	1/Box	33S6AHA400K-GY51
6-Port Shielded S/FTP CAT6A Plug & Play Pre-Terminated Bundle	50	LS0H	RJ45	1/Box	33S6AHA500K-GY51

# AT&T Cabling Systems

*Fiber Cabling  
Data-Center  
Solutions*



## AT&T CenterLine Fiber Optic MTP Assemblies

MTP® Terminated Panels, Cassettes, Cords, Trunk Assemblies and Harnesses

Optional Constructions

### Transmission Properties

#### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

#### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

#### Multimode Fibers - LC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	25 min. 30 Typical
Low-Loss	0.15 max. 0.10 Typical	25 min. 30 Typical
Super Low-Loss	0.10 max. 0.05 Typical	25 min. 30 Typical

#### Singlemode Fibers - UPC Single-Fiber Connectors

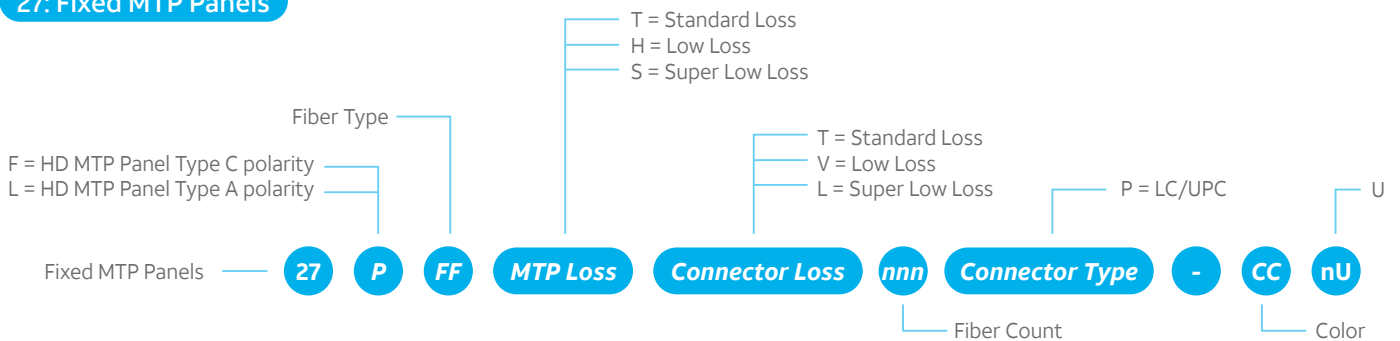
Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	50 min. 55 Typical
Low-Loss	0.15 max. 0.10 Typical	50 min. 55 Typical
Super Low-Loss (LC Only)	0.10 max. 0.07 Typical	50 min. 55 Typical

#### Singlemode Fibers - APC Single-Fiber Connectors

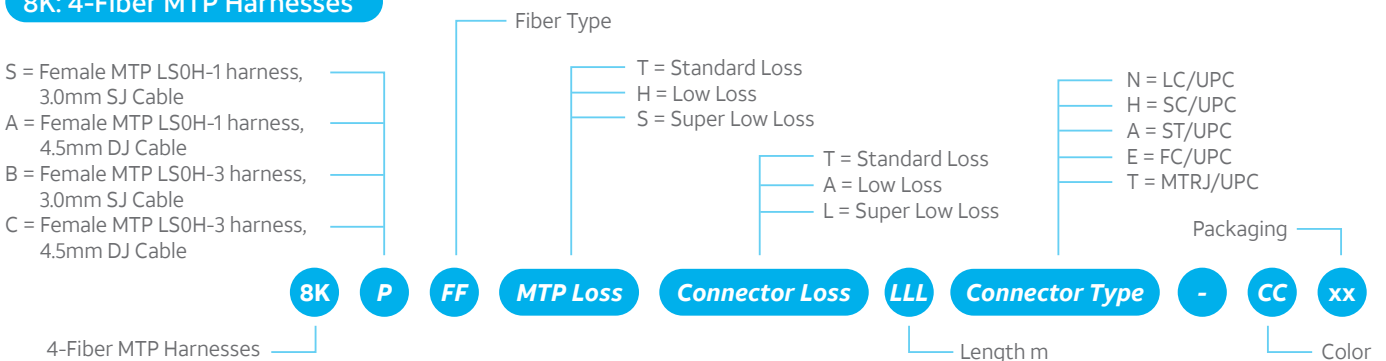
Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	55 min. 60 Typical
Low-Loss	0.15 max. 0.10 Typical	55 min. 60 Typical
Super Low-Loss (LC Only)	0.10 max. 0.07 Typical	55 min. 60 Typical

### Part-Number Systems

#### 27: Fixed MTP Panels



#### 8K: 4-Fiber MTP Harnesses



Continued on page C.4a

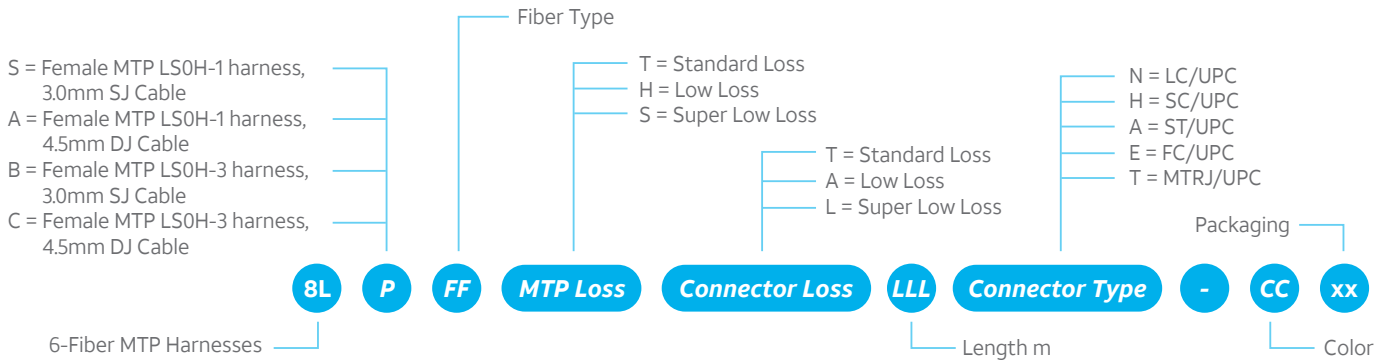
MTP® is a registered trademark of US Conec, Ltd

## AT&T CenterLine Fiber Optic MTP Assemblies

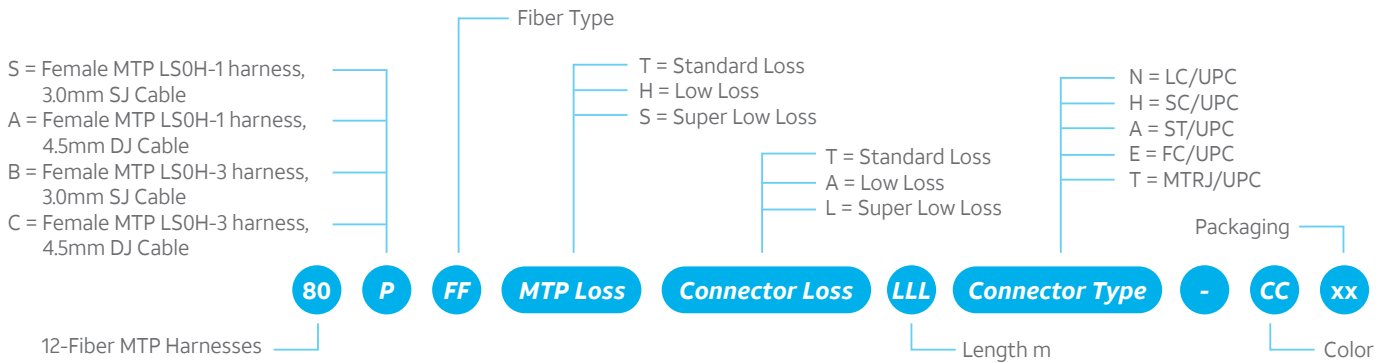
MTP® Terminated Panels, Cassettes, Cords, Trunk Assemblies and Harnesses (contd.)

### Part Number Systems

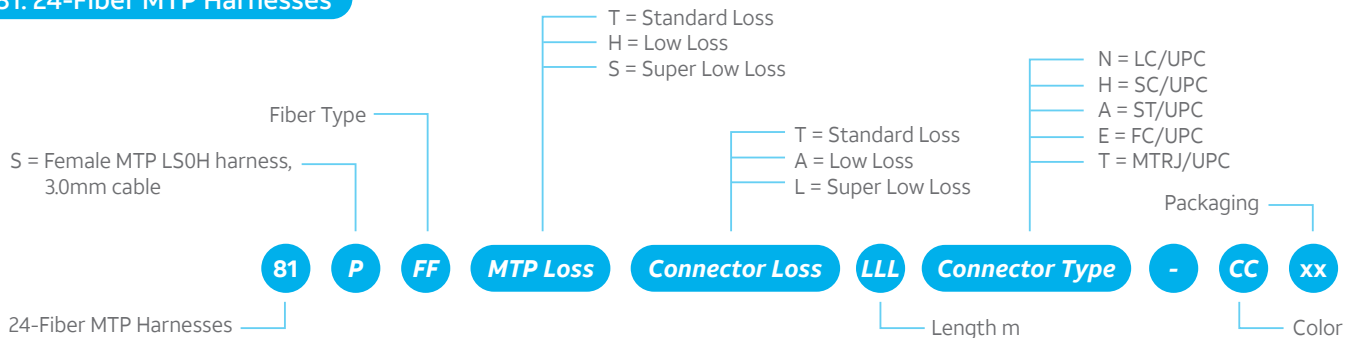
#### 8L: 6-Fiber MTP Harnesses



#### 80: 12-Fiber MTP Harnesses



#### 81: 24-Fiber MTP Harnesses



Continued on page C.4b

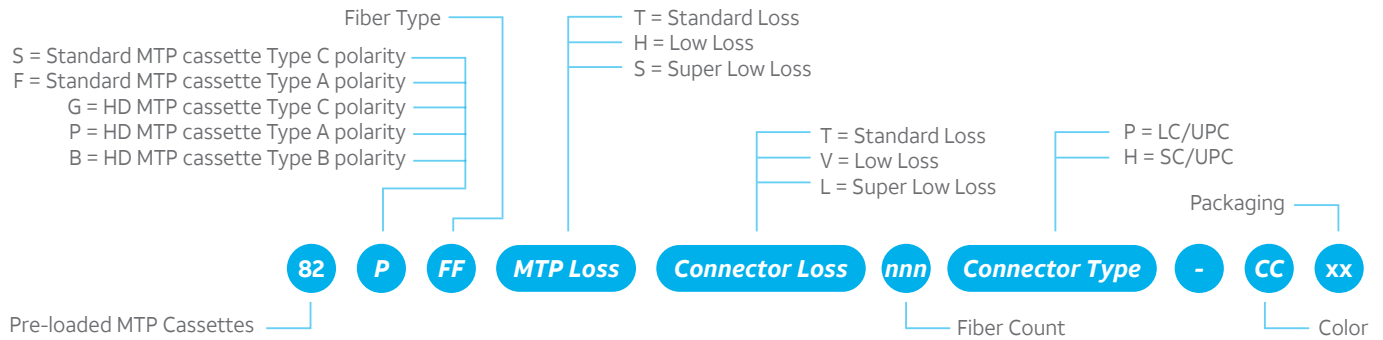
MTP® is a registered trademark of US Conec, Ltd

## AT&T CenterLine Fiber Optic MTP Assemblies

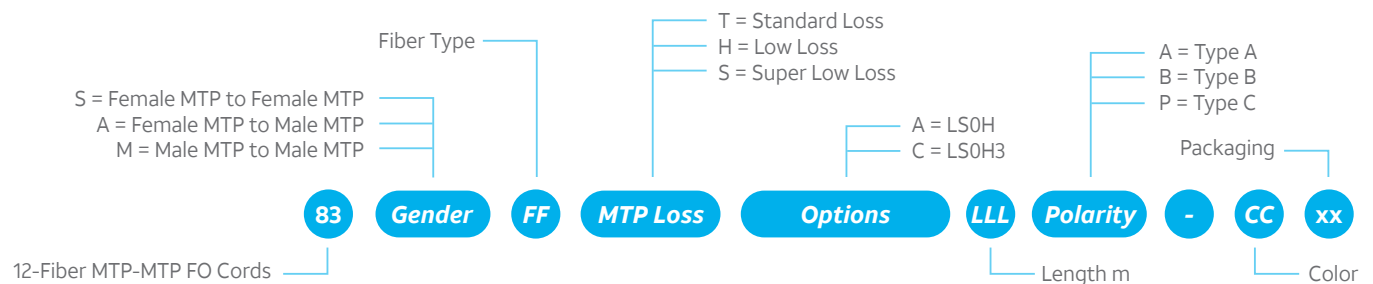
MTP® Terminated Panels, Cassettes, Cords, Trunk Assemblies and Harnesses (contd.)

### Part Number Systems

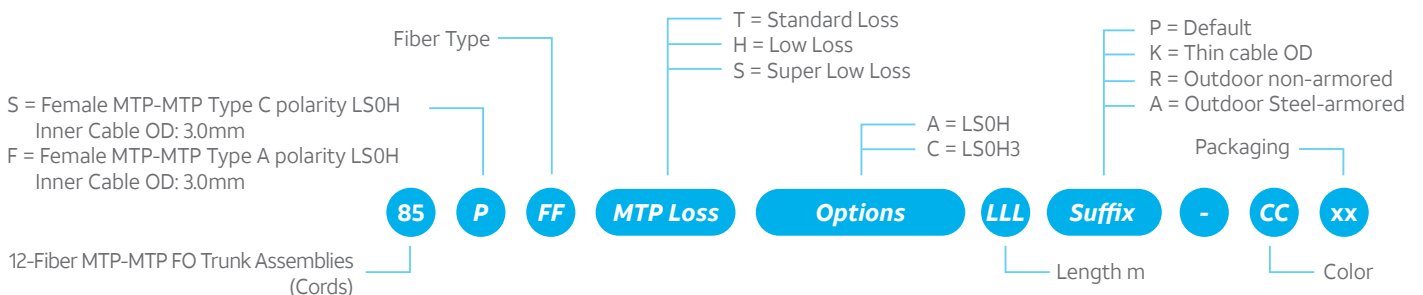
#### 82: Pre-loaded MTP Cassettes



#### 83: 12-Fiber MTP-MTP FO Cords. Cable OD: 3.0mm



#### 85: 12-Fiber MTP-MTP FO Trunk Assemblies (Cords)



Continued on page C.4c

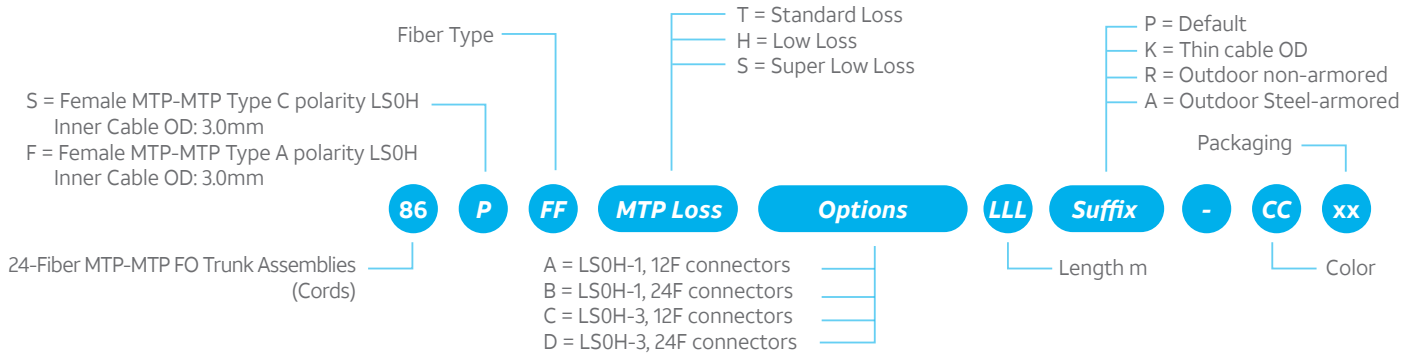
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## AT&T CenterLine Fiber Optic MTP Assemblies

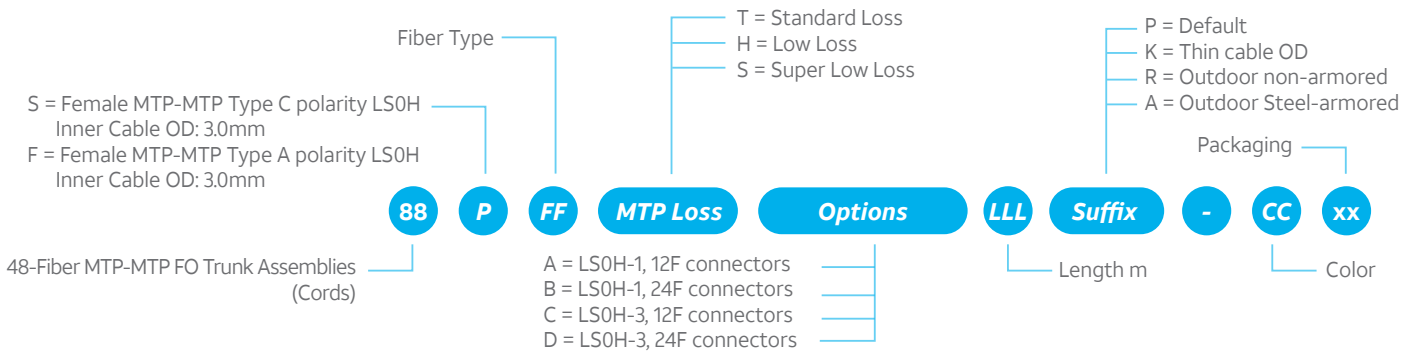
MTP® Terminated Panels, Cassettes, Cords, Trunk Assemblies and Harnesses (contd.)

### Part Number Systems

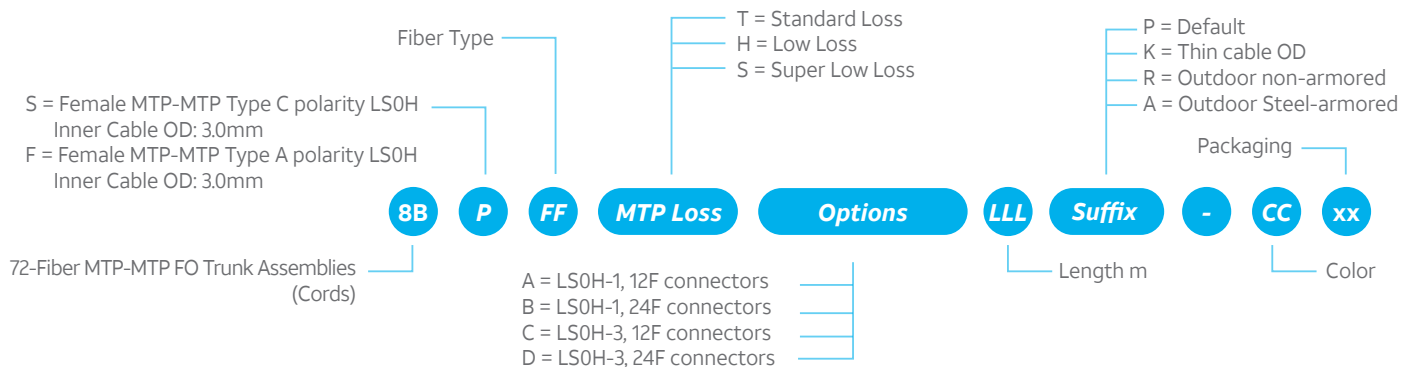
#### 86: 24-Fiber MTP-MTP FO Trunk Assemblies (Cords)



#### 88: 48-Fiber MTP-MTP FO Trunk Assemblies (Cords)



#### 8B: 72-Fiber MTP-MTP FO Trunk Assemblies (Cords)



Continued on page C.4d

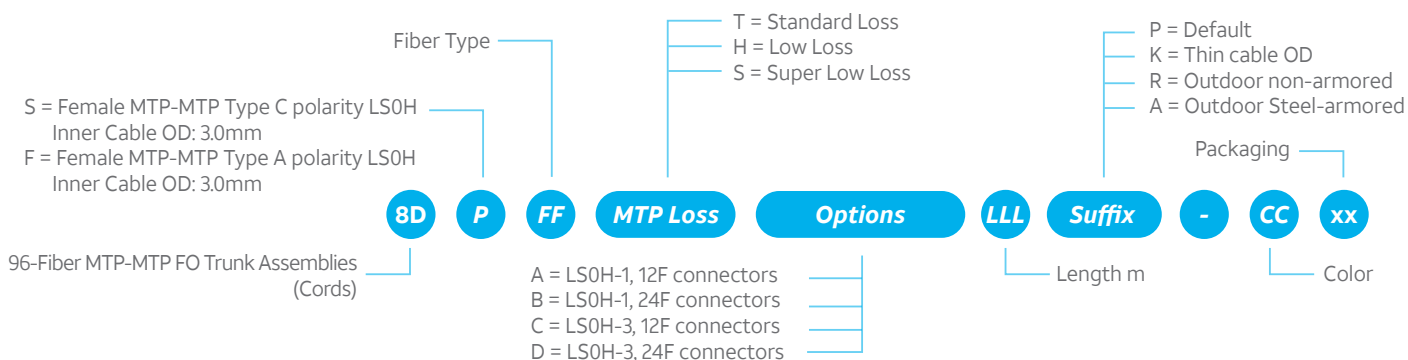
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## AT&T CenterLine Fiber Optic MTP Assemblies

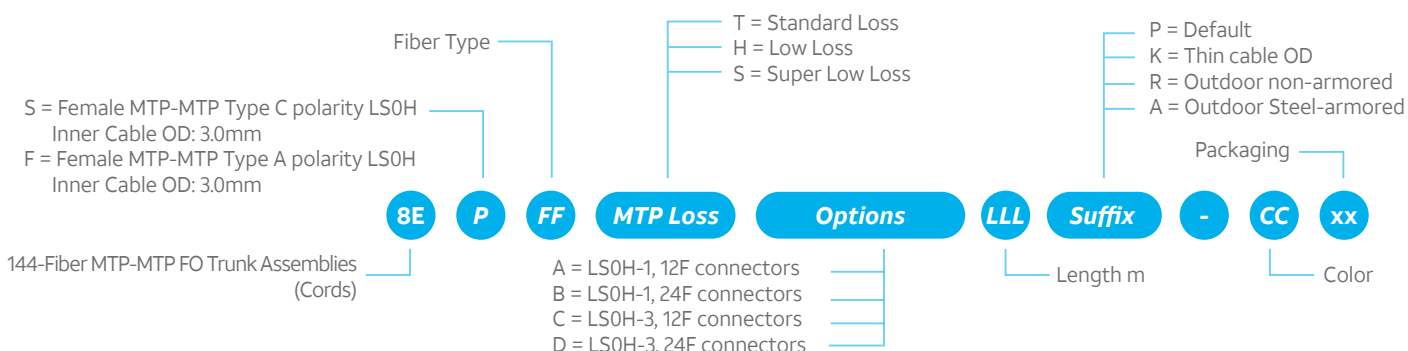
MTP® Terminated Panels, Cassettes, Cords, Trunk Assemblies and Harnesses (contd.)

### Part Number Systems

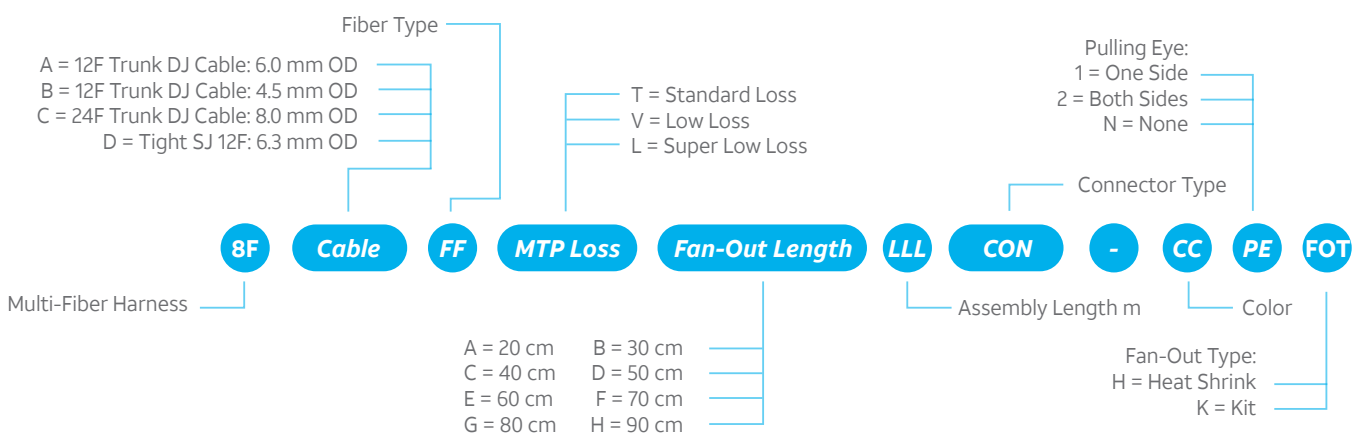
#### 8D: 96-Fiber MTP-MTP FO Trunk Assemblies (Cords)



#### 8E: 144-Fiber MTP-MTP FO Trunk Assemblies (Cords)



#### 8F: AT&T P/N System for Multi-Fiber Harnesses



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# AFOE™ - AT&T Advanced FiberOptic Enclosures



## AFOE Features and Benefits

- Comprehensive fiber-optic cross-connect solution in 1U, 2U or 4U options
- Optional 12-fiber or 24-fiber MTP backbone connections
- Up to 144 LC FO connections or 576 MTP FO connections in 1U
- Up to 288 LC FO connections or 1152 MTP FO connections in 2U
- Up to 576 LC FO connections or 2304 MTP FO connections in 4U
- Optional MTP/LC cassette configurations: 1x12, 2x12, 1x8, 2x8 or 3x8
- Optional MTP/MTP cassette configurations: 1xMTP, 3xMTP or 6xMTP
- Optional shuttered LC adapters
- Optional shuttered MTP adapters
- Front cord management integrated in cassettes
- Integrated side rings cord management
- Integrated backbone cable management
- Aluminum frame panels
- High quality polycarbonate cassettes
- Sliding drawer type panels providing easy access to panel back side
- Front panel labeling
- Individual cassette labeling
- Back side backbone labeling and marking
- Down to 0.30dB MTP/LC total Channel Cassette loss with 12-fiber back bone Super low loss plus
- Down to 0.35dB MTP/LC total Channel Cassette loss with 24-fiber back bone Super low loss



## AT&T CenterLine Fiber Optic MTP Plug & Play

### AT&T Advanced Fiber Optic Enclosures (AFOE)

#### Description

1-2304 fiber 19" ultra high-density LC/MTP cassette-based FO enclosures	
Front-end options	Up to 576 LC or 144 MTP Connectors
Back-end options	Up to 96 MTP connectors
Standard fiber types	OM3, OM4 & ITU-T G.652.D
Optional fiber capacity	144 LC/MTP or 576 MTP/MTP in 1U 288 LC/MTP or 1152 MTP/MTP in 2U 576 LC/MTP or 2304 MTP/MTP in 4U
Panel access	Top and front slide rail
Back Cable Management	Removable tray with strain relief
Front Cord Management	Integrated

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- Plastic parts: UL94 V-0 flame test
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties and Features

Frame	Aluminum, colored black
Front cover	Removable
Operating temperature	-10 to +60C at 5-85% RH (non condensing)
Storage temperature	-40 to +70C
Plastic parts	High-impact flame retardant Polycarbonate
Port identification	Numbers and stickers



#### Ordering Information - Blank Panel Frames

Description	Units	Max. Front-end Capacity	Back-end Capacity	Cassette Capacity	Size mm	Packaging	P/N
Blank AFOE Panel Frame	1U	144 LC or 36 MTP	24 MTP	6	44x425x482	1/Box	AFE0244806N-BK1U
Blank AFOE Panel Frame	2U	288 LC or 72 MTP	48 MTP	12	88x425x482	1/Box	AFE0244812N-BK2U
Blank AFOE Panel Frame	4U	576 LC or 144 MTP	96 MTP	24	177x425x482	1/Box	AFE0244824N-BK4U

#### Transmission Properties

##### Multimode Cassettes

Code	Cassette Type MTP-LC	Max. Total Cassette IL @850/1300nm (OM3/OM4)
AF0	Standard Loss	0.75 dB
AF1	Low Loss	0.50 dB
AF2	Super Low Loss	0.35 dB
AF3	Super Low Loss Plus	0.30 dB

Code	Cassette Type MTP-MTP	Max. Total Cassette IL @850/1300nm (OM3/OM4)
AF0	Standard Loss	1.00 dB
AF1	Low Loss	0.70 dB
AF2	Super Low Loss	0.50 dB
AF3	Super Low Loss Plus	0.40 dB

##### Singlemode Cassettes

Code	Cassette Type MTP/APC-LC/UPC/APC	Max. Total Cassette IL @1310/1550nm	Min. RL @1310/1550nm
AF0	Standard Loss	1.00 dB	MTP/APC: 65 dB LC/UPC: 55 dB LC/APC: 65 dB
AF1	Low Loss	0.65 dB	
AF2	Super Low Loss	0.45 dB	
AF3	Super Low Loss Plus	0.35 dB	

Continued on page C4.1.4a



## AT&T CenterLine Fiber Optic MTP Plug & Play

### AT&T Advanced Fiber Optic Enclosures (AFOE) (contd.)

#### Ordering Information - Cassettes with 12-Fiber MTP Back-end Connectors

Cassette Loss Type	Fiber Type	Back-side Connectors Type	Back-side Connectors Count	Back-side Shutter	Front-side Connectors Type	Front-side Connectors Count	Front-Side Shutter	Front-side Connectors Arrangement	Support Direction	Polarity	P/N	
AF0	ff	8F MTP Male	1	None	LC	8	Yes	1x8	Right	A	AFCffC1Q8RN-TB51	
AF1		8F MTP Male	1	None	LC	8	None	1x8	Right	B	AFCffC1F8RN-TB51	
AF2		8F MTP Male	1	Yes	LC	8	Yes	1x8	Right	C	AFCffN1Q8RN-TB51	
AF3		8F MTP Male	1	Yes	LC	8	None	1x8	Right			AFCffN1F8RN-TB51
		12F MTP Male	1	None	LC	12	Yes	1x12	Right			AFCffA1QZRN-TB51
		12F MTP Male	1	None	LC	12	None	1x12	Right			AFCffA1FZRN-TB51
		12F MTP Male	1	Yes	LC	12	Yes	1x12	Right			AFCffM1QZRN-TB51
		12F MTP Male	1	Yes	LC	12	None	1x12	Right			AFCffM1FZRN-TB51
		12F MTP Male	2	None	LC	24	Yes	2x12	Right			AFCffA2QVRN-TB51
		12F MTP Male	2	None	LC	24	None	2x12	Right			AFCffA2FVRN-TB51
		12F MTP Male	2	Yes	LC	24	Yes	2x12	Right			AFCffM2QVRN-TB51
		12F MTP Male	2	Yes	LC	24	None	2x12	Right			AFCffM2FVRN-TB51
		8F MTP Male	2	None	LC	16	Yes	2x8	Right			AFCffC2QSRN-TB51
		8F MTP Male	2	Yes	LC	16	Yes	2x8	Right			AFCffN2QSRN-TB51
		8F MTP Male	2	Yes	LC	16	None	2x8	Right			AFCffN2FSRN-TB51
		12F MTP Male	2	None	LC	24	Yes	3x8	Right			AFCffA2QTRN-TB51
		12F MTP Male	2	None	LC	24	None	3x8	Right			AFCffA2FTRN-TB51
		12F MTP Male	2	Yes	LC	24	Yes	3x8	Right			AFCffM2QTRN-TB51
		12F MTP Male	2	Yes	LC	24	None	3x8	Right			AFCffM2FTRN-TB51
		12F MTP Male	2	None	8F MTP Male	3	Yes	NA	Right			AFCffA2N3RN-TB51
		12F MTP Male	2	None	8F MTP Male	3	None	NA	Right			AFCffA2C3RN-TB51
		12F MTP Male	2	Yes	8F MTP Male	3	Yes	NA	Right			AFCffM2N3RN-TB51
		12F MTP Male	2	Yes	8F MTP Male	3	None	NA	Right			AFCffM2C3RN-TB51
		12F MTP Male	4	None	8F MTP Male	6	Yes	NA	Right			AFCffA4N6RN-TB51
		12F MTP Male	4	None	8F MTP Male	6	None	NA	Right			AFCffA4C6RN-TB51
		12F MTP Male	4	Yes	8F MTP Male	6	Yes	NA	Right			AFCffM4N6RN-TB51
		12F MTP Male	4	Yes	8F MTP Male	6	None	NA	Right			AFCffM4C6RN-TB51

The first 3 letters in the P/N are replaced according to the IL and RL values needed as follows:

- AF0:** Standard-Loss
- AF1:** Low-Loss
- AF2:** Super Low-Loss
- AF3:** Super Low-Loss-PLUS

The **ff** in the P/N is replaced with the code of the fiber selected from [page B.6](#).

The last **N** in the P/N is replaced with a letter indicating the polarity of the cassette:

- A:** TYPE A
- B:** TYPE B
- C:** TYPE C
- N:** N/A

Continued on page C4.1.4b

## AT&T CenterLine Fiber Optic MTP Plug & Play

### AT&T Advanced Fiber Optic Enclosures (AFOE) (contd.)

#### Ordering Information - Cassettes with 24-Fiber MTP Back-end Connectors

Cassette Loss Type	Fiber Type	Back-side Connectors Type	Back-side Connectors Count	Back-side Shutter	Front-side Connectors Type	Front-side Connectors Count	Front-Side Shutter	Front-side Connectors Arrangement	Support Direction	Polarity	P/N	
AF0	ff	24F MTP Male	1	None	LC	24	Yes	2x12	Right	A	AFCffB1QVRN-TB51	
AF1		24F MTP Male	1	None	LC	24	None	2x12	Right	B	AFCffB1FVRN-TB51	
AF2		24F MTP Male	1	Yes	LC	24	Yes	2x12	Right	C	AFCffY1QVRN-TB51	
AF3		24F MTP Male	1	Yes	LC	24	None	2x12	Right		AFCffY1FVRN-TB51	
		16F MTP Male	1	None	LC	16	Yes	2x8	Right		AFCffH1QSRN-TB51	
		16F MTP Male	1	None	LC	16	None	2x8	Right		AFCffH1FSRN-TB51	
		16F MTP Male	1	Yes	LC	16	Yes	2x8	Right		AFCffJ1QSRN-TB51	
		16F MTP Male	1	Yes	LC	16	None	2x8	Right		AFCffJ1FSRN-TB51	
		24F MTP Male	1	None	LC	24	Yes	3x8	Right		AFCffB1QTRN-TB51	
		24F MTP Male	1	None	LC	24	None	3x8	Right		AFCffB1FTRN-TB51	
		24F MTP Male	1	Yes	LC	24	Yes	3x8	Right		AFCffY1QTRN-TB51	
		24F MTP Male	1	Yes	LC	24	None	3x8	Right		AFCffY1FTRN-TB51	
		24F MTP Male	1	None		8F MTP Male	3	Yes	NA	Right		AFCffB1N3RN-TB51
		24F MTP Male	1	None		8F MTP Male	3	None	NA	Right		AFCffB1C3RN-TB51
		24F MTP Male	1	Yes		8F MTP Male	3	Yes	NA	Right		AFCffY1N3RN-TB51
		24F MTP Male	1	Yes		8F MTP Male	3	None	NA	Right		AFCffY1C3RN-TB51
		24F MTP Male	2	None		8F MTP Male	6	Yes	NA	Right		AFCffB2N6RN-TB51
		24F MTP Male	2	None		8F MTP Male	6	None	NA	Right		AFCffB2C6RN-TB51
		24F MTP Male	2	Yes		8F MTP Male	6	Yes	NA	Right		AFCffY2N6RN-TB51
		24F MTP Male	2	Yes		8F MTP Male	6	None	NA	Right		AFCffY2C6RN-TB51

The first 3 letters in the P/N are replaced according to the IL and RL values needed as follows:

- AF0:** Standard-Loss
- AF1:** Low-Loss
- AF2:** Super Low-Loss
- AF3:** Super Low-Loss-PLUS

The **ff** in the P/N is replaced with the code of the fiber selected from [page B.6](#).

The last **N** in the P/N is replaced with a letter indicating the polarity of the cassette:  
**A:** TYPE A  
**B:** TYPE B  
**C:** TYPE C  
**N:** N/A

#### Ordering Information - Cassettes without MTP Back-end Connectors

Cassette Loss Type	Fiber Type	Back-side Connectors Type	Back-side Connectors Count	Back-side Shutter	Front-side Connectors Type	Front-side Connectors Count	Front-Side Shutter	Front-side Connectors Arrangement	Support Direction	Polarity	P/N	
AF0	ff	None	0	None	LC	24	Yes	2x12	Right	A	AFCffE0QVRN-TB51	
AF1		None	0	None	LC	24	None	2x12	Right	B	AFCffE0FVRN-TB51	
AF2		None	0	None	LC	16	Yes	2x8	Right	C	AFCffE0QSRN-TB51	
AF3		None	0	None	LC	16	None	2x8	Right		AFCffE0FSRN-TB51	
		None	0	None	LC	24	Yes	3x8	Right		AFCffE0QTRN-TB51	
		None	0	None	LC	24	None	3x8	Right		AFCffE0FTRN-TB51	
		None	0	None		MTP	3	Yes	NA	Right		AFCffE0P3RN-TB51
		None	0	None		MTP	3	None	NA	Right		AFCffE0D3RN-TB51
		None	0	None		MTP	6	Yes	NA	Right		AFCffE0P6RN-TB51
		None	0	None		MTP	6	None	NA	Right		AFCffE0D6RN-TB51

The first 3 letters in the P/N are replaced according to the IL and RL values needed as follows:

- AF0:** Standard-Loss
- AF1:** Low-Loss
- AF2:** Super Low-Loss
- AF3:** Super Low-Loss-PLUS

The **ff** in the P/N is replaced with the code of the fiber selected from [page B.6](#).  
**Blank module P/N:** AFC00E0E0NN-BB61

The last **N** in the P/N is replaced with a letter indicating the polarity of the cassette:  
**A:** TYPE A  
**B:** TYPE B  
**C:** TYPE C  
**N:** N/A

Continued on page C4.1.4c

## AT&T CenterLine Fiber Optic MTP Plug & Play

### AT&T Advanced Fiber Optic Enclosures (AFOE) (contd.)

#### Ordering Information - Adapter Cassettes

AT&T P/N	Description
ADP00E0M30N-TB51	AFOE Adapter Cassette 3xMTP12/24 Shuttered (adapter for 12 or 24 is same)
ADP00E0A30N-TB51	AFOE Adapter Cassette 3xMTP12
ADP00E0M40N-TB51	AFOE Adapter Cassette 4xMTP12 Shuttered
ADP00E0A40N-TB51	AFOE Adapter Cassette 4xMTP12
ADP00E0M60N-TB51	AFOE Adapter Cassette 6xMTP12 Shuttered
ADP00E0A60N-TB51	AFOE Adapter Cassette 6xMTP12
ADP00E0M80N-TB51	AFOE Adapter Cassette 8xMTP12 Shuttered
ADP00E0A80N-TB51	AFOE Adapter Cassette 8xMTP12
ADP00E0M20N-TB51	AFOE Adapter Cassette 12xMTP12 Shuttered
ADP00E0AZ0N-TB51	AFOE Adapter Cassette 12xMTP12
ADP00E0FZ0N-TB51	AFOE Adapter Cassette 12 LC
ADP00E0QZ0N-TB51	AFOE Adapter Cassette 12 LC Shuttered
ADP00E0FV0N-TB51	AFOE Adapter Cassette 24 LC
ADP00E0G60N-TB51	AFOE Adapter Cassette 6 SC
ADP00E0GZ0N-TB51	AFOE Adapter Cassette 12 SC

#### Ordering Information - Splicing Cassettes

AT&T P/N	Description
ASPC3E0FZ1N-TB51	AFOE Splicing Cassette 12xLC, OM3, with 1*12F Splice Tray, 12* splice protection tube
ASPC3E0QZ1N-TB51	AFOE Splicing Cassette 12xLC Shuttered, OM3, with 1*12F Splice Tray, 12* splice protection tube
ASPC4E0FZ1N-TB51	AFOE Splicing Cassette 12xLC, OM4, with 1*12F Splice Tray, 12* splice protection tube
ASPC4E0QZ1N-TB51	AFOE Splicing Cassette 12xLC Shuttered, OM4, with 1*12F Splice Tray, 12* splice protection tube
ASPA2E0FZ1N-TB51	AFOE Splicing Cassette 12xLC, SM with 1*12F Splice Tray, 12* splice protection tube
ASPA2E0QZ1N-TB51	AFOE Splicing Cassette 12xLC Shuttered, SM, with 1*12F Splice Tray, 12* splice protection tube
ASPC3E0FV2N-TB51	AFOE Splicing Cassette 24xLC, OM3, with 2*12F Splice Tray, 24* splice protection tube
ASPC3E0QV2N-TB51	AFOE Splicing Cassette 24xLC Shuttered, OM3, with 2*12F Splice Tray, 24* splice protection tube
ASPC4E0FV2N-TB51	AFOE Splicing Cassette 24xLC, OM4, with 2*12F Splice Tray, 24* splice protection tube
ASPC4E0QV2N-TB51	AFOE Splicing Cassette 24xLC Shuttered, OM4, with 2*12F Splice Tray, 24* splice protection tube
ASPA2E0FV2N-TB51	AFOE Splicing Cassette 24xLC, SM with 2*12F Splice Tray, 24* splice protection tube
ASPA2E0QV2N-TB51	AFOE Splicing Cassette 24xLC Shuttered, SM, with 2*12F Splice Tray, 24* splice protection tube
ASPC3E0GZ1N-TB51	AFOE Splicing Cassette 6xSC, OM3, with 1*12F Splice Tray, 12* splice protection tube
ASPC4E0GZ1N-TB51	AFOE Splicing Cassette 6xLC, OM4, with 1*12F Splice Tray, 12* splice protection tube
ASPA2E0GZ1N-TB51	AFOE Splicing Cassette 6xSC, SM with 1*12F Splice Tray, 12* splice protection tube
ASPC3E0GV1N-TB51	AFOE Splicing Cassette 12xSC, OM3, with 2*12F Splice Tray, 24* splice protection tube
ASPC4E0GV1N-TB51	AFOE Splicing Cassette 12xSC, OM4, with 2*12F Splice Tray, 24* splice protection tube
ASPA2E0GV1N-TB51	AFOE Splicing Cassette 12xSC, SM with 2*12F Splice Tray, 24* splice protection tube

#### Ordering Information - Splitter Cassettes (Non-shuttered cassettes)

AT&T P/N	Description
AFS00E00A0N-TB51	AFOE Splitter Cassette 1:2 PLC LC/APC to LC/APC
AFS00E00B0N-TB51	AFOE Splitter Cassette 1:4 PLC LC/APC to LC/APC
AFS00E00C0N-TB51	AFOE Splitter Cassette 1:8 PLC LC/APC to LC/APC
AFS00E00D0N-TB51	AFOE Splitter Cassette 1:16 PLC LC/APC to LC/APC
AFS00E00E0N-TB51	AFOE Splitter Cassette 2:2 PLC LC/APC to LC/APC
AFS00E00F0N-TB51	AFOE Splitter Cassette 2:4 PLC LC/APC to LC/APC
AFS00E00G0N-TB51	AFOE Splitter Cassette 2:8 PLC LC/APC to LC/APC
AFS00E00H0N-TB51	AFOE Splitter Cassette 2:16 PLC LC/APC to LC/APC
AFS00E00K0N-TB51	AFOE Splitter Cassette 1:2 PLC SC/APC to LC/APC
AFS00E00L0N-TB51	AFOE Splitter Cassette 1:4 PLC SC/APC to LC/APC
AFS00E00M0N-TB51	AFOE Splitter Cassette 1:8 PLC SC/APC to LC/APC

## AT&T CenterLine

### Fiber Optic LC/UPC Duplex Multimode Single Boot Cords for AFOE

#### Description

This page shows the cords designed for AT&T AFOE system: Duplex Single Boot cords made with multimode fibers and terminated with LC/UPC connectors.

Main features: HD Push/Pull tabs, Polarity switch enabled, Color coded polarity.

Additional combinations can be selected using the information on page B.3.

Fiber type	Select a multimode fiber from page B.6.
Buffer type	None
Strength elements	Served aramid and glass yarn
Minicable jacket material	Flame retardant LS0H compound

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Pulling force	50N max.
Operating temperature	-20 to +70C
	MM OM1 & OM2: Orange
	MM OM3: Turquoise
Default jacket color	MM OM4: Purple
	MM OM5: Lime



#### Optional Transmission Properties - UPC Connectors

Suffix	Connector IL (dB)	Connector RL (dB)
T = Standard Loss connector	0.30 max. 0.20 Typical	20 min.
S = Low-Loss connector	0.15 max. 0.10 Typical	20 min.
L = Super Low-Loss connector	0.10 max. 0.07 Typical	20 min.

#### Ordering Information

**FF:** Fiber Type      **CC:** Jacket Color

Description	Length m	Cable OD mm	Packaging	P/N
LC/UPC-LC/UPC Duplex Multimode Single Boot Cord LS0H Standard Loss	1	1.6	1/Bag - 12/Box	28VFFNN010T-CC61
LC/UPC-LC/UPC Duplex Multimode Single Boot Cord LS0H Standard Loss	2	1.6	1/Bag - 12/Box	28VFFNN020T-CC61
LC/UPC-LC/UPC Duplex Multimode Single Boot Cord LS0H Standard Loss	3	1.6	1/Bag - 12/Box	28VFFNN030T-CC61
LC/UPC-LC/UPC Duplex Multimode Single Boot Cord LS0H Standard Loss	5	1.6	1/Bag - 12/Box	28VFFNN050T-CC61
LC/UPC-LC/UPC Duplex Multimode Single Boot Cord LS0H Standard Loss	10	1.6	1/Bag - 12/Box	28VFFNN100T-CC61

## AT&T CenterLine

### Fiber Optic LC/UPC Duplex Singlemode Single Boot Cords for AFOE

#### Description

This page shows the cords designed for AT&T AFOE system: Duplex Single Boot cords made with singlemode fibers and terminated with LC/UPC connectors.

Main features: HD Push/Pull tabs, Polarity switch enabled, Color coded polarity.

Additional combinations can be selected using the information on page B.3.

Fiber type	Select a singlemode fiber from page B.6.
Buffer type	None
Strength elements	Served aramid and glass yarn
Minicable jacket material	Flame retardant LS0H compound



#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Pulling force	50N max.
Operating temperature	-20 to +70C
Default jacket color	Yellow

#### Optional Transmission Properties - UPC Connectors

Suffix	Connector IL (dB)	Connector RL (dB)
T = Standard Loss connector	0.30 max. 0.20 Typical	50 min. 60 Typical
S = Low-Loss connector	0.15 max. 0.10 Typical	50 min. 60 Typical
L = Super Low-Loss connector	0.10 max. 0.07 Typical	50 min. 60 Typical

#### Ordering Information

**FF:** Fiber Type

Description	Length m	Cable OD mm	Packaging	P/N
LC/UPC-LC/UPC Duplex Singlemode Single Boot Cord LS0H Standard Loss	1	1.6	1/Bag - 12/Box	28VFFNN010T-YL61
<a href="#">LC/UPC-LC/UPC Duplex Singlemode Single Boot Cord LS0H Standard Loss</a>	2	1.6	1/Bag - 12/Box	<a href="#">28VFFNN020T-YL61</a>
LC/UPC-LC/UPC Duplex Singlemode Single Boot Cord LS0H Standard Loss	3	1.6	1/Bag - 12/Box	28VFFNN030T-YL61
<a href="#">LC/UPC-LC/UPC Duplex Singlemode Single Boot Cord LS0H Standard Loss</a>	5	1.6	1/Bag - 12/Box	<a href="#">28VFFNN050T-YL61</a>
LC/UPC-LC/UPC Duplex Singlemode Single Boot Cord LS0H Standard Loss	10	1.6	1/Bag - 12/Box	28VFFNN100T-YL61

## AT&T CenterLine Fiber Optic Panels

### Standard 19" Fiber Optic Panels

#### Description

1-288 fiber, 2-7U standard 19" fiber optic splicing/distribution panels	
Connector type compatibility - Group A	ST, SC, FC
Connector type compatibility - Group B	LC, MTRJ, LSH (E-2000™)
<b>Splicing with Group A &amp; B connectors</b>	<b>Up to two 36 fiber splicing in each cassette</b>
Distribution with Group A connectors	Up to 24 fiber direct cable termination in each U
<b>Distribution with Group B connectors</b>	<b>Up to 48 fiber direct cable termination in each U</b>
Panel front	Up to 24 removable modules
<b>Panel access</b>	<b>Top and side</b>
Front Cable Management	Tray for patch cord routing and protection

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- Plastic parts: UL94 V-0 flame test
- EU Directive 2011/65/EU (RoHS-2)

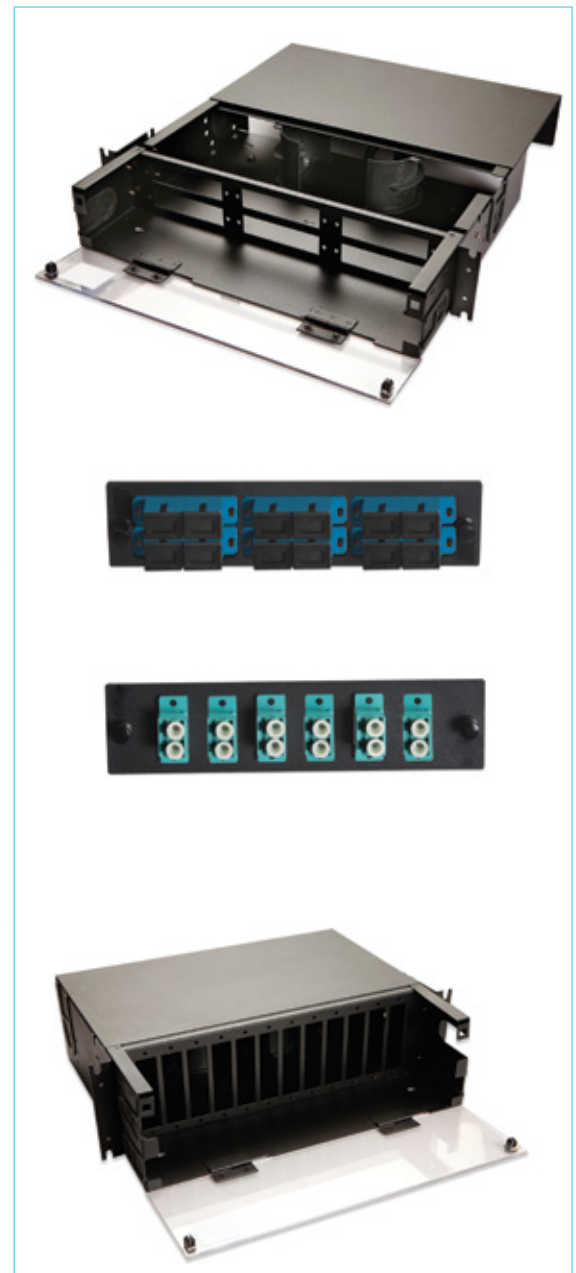
#### Mechanical Properties and Features

Frame	Steel, colored black
Front cover	Hinged transparent cover
Operating temperature	-10 to +60C at 5-85% RH (non condensing)
Storage temperature	-40 to +70C
Plastic parts	High-impact flame retardant materials
Port identification	Numbers and designated space printed on the cover
Panel identification	Designated space at the panel front

#### Ordering Information - Panels

Description	Units	Fiber Capacity		Cassette Capacity	Module Capacity	Size mm	Packaging	P/N
		A	B					
Standard 2U Blank 19" Fiber Optic Panel	2U	36	72	2	6	83x483x356	1/Box	27S00NV072A-MT2U
Standard 3U Blank 19" Fiber Optic Panel	3U	72	144	4	12	132x483x356	1/Box	27S00NV144A-MT3U
Standard 7U Blank 19" Fiber Optic Panel	7U	144	288	8	24	293x483x356	1/Box	27S00NV288A-MT7U

Continued on page C.4.3.1a





## AT&T CenterLine Fiber Optic Panels

### Standard 19" Fiber Optic Panels (contd.)

#### Ordering Information - Modules

Description	Coupler Type	Coupler Capacity	Fiber Capacity	Packaging	P/N
Pre-loaded Module	Simplex ST/UPC MM	6	6	1/Bag	53200NV006A-MT61
Pre-loaded Module	Simplex ST/UPC MM	12	12	1/Bag	53200NV012A-MT61
Pre-loaded Module	Simplex ST/UPC SM	6	6	1/Bag	53200NV006C-MT61
Pre-loaded Module	Simplex ST/UPC SM	12	12	1/Bag	53200NV012C-MT61
Pre-loaded Module	Simplex FC/UPC MM	6	6	1/Bag	53200NV006E-MT61
Pre-loaded Module	Simplex FC/UPC MM	12	12	1/Bag	53200NV012E-MT61
Pre-loaded Module	Simplex FC/UPC SM	6	6	1/Bag	53200NV006F-MT61
Pre-loaded Module	Simplex FC/UPC SM	12	12	1/Bag	53200NV012F-MT61
Pre-loaded Module	Simplex FC/APC SM	6	6	1/Bag	53200NV006G-MT61
Pre-loaded Module	Simplex FC/APC SM	12	12	1/Bag	53200NV012G-MT61
Pre-loaded Module	Duplex SC/UPC MM	6	12	1/Bag	53200NV012H-MT61
Pre-loaded Module	Duplex SC/UPC SM	6	12	1/Bag	53200NV012J-MT61
Pre-loaded Module	Duplex SC/APC SM	6	12	1/Bag	53200NV012K-MT61
Pre-loaded Module	Duplex LC/UPC MM	6	12	1/Bag	532M2NV012P-MT61
Pre-loaded Module	Duplex LC/UPC MM OM3	6	12	1/Bag	532M3NV012P-MT61
Pre-loaded Module	Duplex LC/UPC MM OM4	6	12	1/Bag	532M4NV012P-MT61
Pre-loaded Module	Duplex LC/UPC SM	6	12	1/Bag	53200NV012Q-MT61
Pre-loaded Module	Duplex LC/APC SM	6	12	1/Bag	53200NV012R-MT61
Pre-loaded Module	Duplex LC/UPC MM	12	24	1/Bag	532M2NV024P-MT61
Pre-loaded Module	Duplex LC/UPC MM OM3	12	24	1/Bag	532M3NV024P-MT61
Pre-loaded Module	Duplex LC/UPC MM OM4	12	24	1/Bag	532M4NV024P-MT61
Pre-loaded Module	Duplex LC/UPC SM	12	24	1/Bag	53200NV024Q-MT61
Pre-loaded Module	Duplex LC/APC SM	12	24	1/Bag	53200NV024R-MT61
Pre-loaded Module	MTRJ	6	12	1/Bag	53200NV012S-MT61
Pre-loaded Module	Duplex LSH/UPC MM	6	12	1/Bag	53200NV012D-MT61
Pre-loaded Module	Duplex LSH/UPC SM	6	12	1/Bag	53200NV012L-MT61
Pre-loaded Module	Duplex LSH/APC SM	6	12	1/Bag	53200NV012M-MT61
Blank Module	None	-	-	1/Bag	53200NV000N-MT61

#### Ordering Information - Splicing Kits

Description	Fiber Capacity	Packaging	P/N
Splicing Kit for 36 Fibers	36	1/Bag	53500NV036N-NS61
Splicing Kit for 48 Fibers	48	1/Bag	53500NV048N-NS61
Splicing Kit for 72 Fibers	72	1/Bag	53500NV072N-NS61
Splicing Kit for 96 Fibers	96	1/Bag	53500NV096N-NS61
Splicing Kit for 144 Fibers	144	1/Bag	53500NV144N-NS61
Splicing Kit for 192 Fibers	192	1/Bag	53500NV192N-NS61
Splicing Kit for 216 Fibers	216	1/Bag	53500NV216N-NS61
Splicing Kit for 288 Fibers	288	1/Bag	53500NV288N-NS61

## AT&T CenterLine Fiber Optic Panels

### Wall-Mount Indoor Fiber Optic Panels

#### Description

12 or 24 fiber indoor wall-mount panels	
Connector type compatibility	ST, SC, FC, LC, MTRJ, LSH (E-2000™)
Splicing	One or two 12 fiber splicing cassettes
Distribution	12 or 24 fiber direct cable termination
Panel front	Two or four removable pre-loaded modules
Panel access	Front
Doors	Two individually locked doors
Locking method	Mechanical key
Mounting orientation	Horizontal or vertical
Mounting method	Screws (not included)

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- Plastic parts: UL94 V-0 flame test
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties and Features

Frame	Galvanized steel colored gray
Front cover	None
Operating temperature	-10 to +60C at 5-85% RH (non condensing)
Storage temperature	-40 to +70C
Plastic parts	High-impact flame retardant materials
Port identification	Numbers
Panel identification	Designated space inside the panel



#### Ordering Information - Panels

Description	Fiber Capacity	Cassette Capacity	Module Capacity	Size mm	Packaging	P/N
12 Fiber Blank Wall-Mount Fiber Optic Panel	12	1	2	78x370x350	1/Box	27W00NV012N-GY51
24 Fiber Blank Wall-Mount Fiber Optic Panel	24	2	4	78x370x350	1/Box	27W00NV024N-GY51

Continued on page C.4.3.2a

## AT&T CenterLine Fiber Optic Panels

### Wall-Mount Indoor Fiber Optic Panels (contd.)

#### Ordering Information - Modules

Description	Coupler Type	Coupler Capacity	Fiber Capacity	Packaging	P/N
Pre-loaded Module	Simplex ST/UPC MM	6	6	1/Bag	53400NV006A-GY61
Pre-loaded Module	Simplex ST/UPC SM	6	6	1/Bag	53400NV006C-GY61
Pre-loaded Module	Simplex FC/UPC MM	6	6	1/Bag	53400NV006E-GY61
Pre-loaded Module	Simplex FC/UPC SM	6	6	1/Bag	53400NV006F-GY61
Pre-loaded Module	Simplex FC/APC SM	6	6	1/Bag	53400NV006G-GY61
Pre-loaded Module	Simplex SC/UPC MM	6	6	1/Bag	53400NV006H-GY61
Pre-loaded Module	Simplex SC/UPC SM	6	6	1/Bag	53400NV006J-GY61
Pre-loaded Module	Simplex SC/APC SM	6	6	1/Bag	53400NV006K-GY61
Pre-loaded Module	Duplex SC/UPC MM	3	6	1/Bag	53400NV003H-GY61
Pre-loaded Module	Duplex SC/UPC SM	3	6	1/Bag	53400NV003J-GY61
Pre-loaded Module	Duplex SC/APC SM	3	6	1/Bag	53400NV003K-GY61
Pre-loaded Module	Duplex LC/UPC MM	3	6	1/Bag	534M1NV003P-GY61
Pre-loaded Module	Duplex LC/UPC MM	3	6	1/Bag	534M3NV003P-GY61
Pre-loaded Module	Duplex LC/UPC MM	3	6	1/Bag	534M4NV003P-GY61
Pre-loaded Module	Duplex LC/UPC SM	3	6	1/Bag	53400NV003Q-GY61
Pre-loaded Module	Duplex LC/APC SM	3	6	1/Bag	53400NV003R-GY61
Pre-loaded Module	MTRJ	3	6	1/Bag	53400NV003S-GY61
Pre-loaded Module	Duplex LSH/UPC MM	3	6	1/Bag	53400NV003D-GY61
Pre-loaded Module	Duplex LSH/UPC SM	3	6	1/Bag	53400NV003L-GY61
Pre-loaded Module	Duplex LSH/APC SM	3	6	1/Bag	53400NV003M-GY61

## AT&T CenterLine Fiber Optic MTP Assemblies

### MTP-MTP Fiber Optic Cords

#### Description

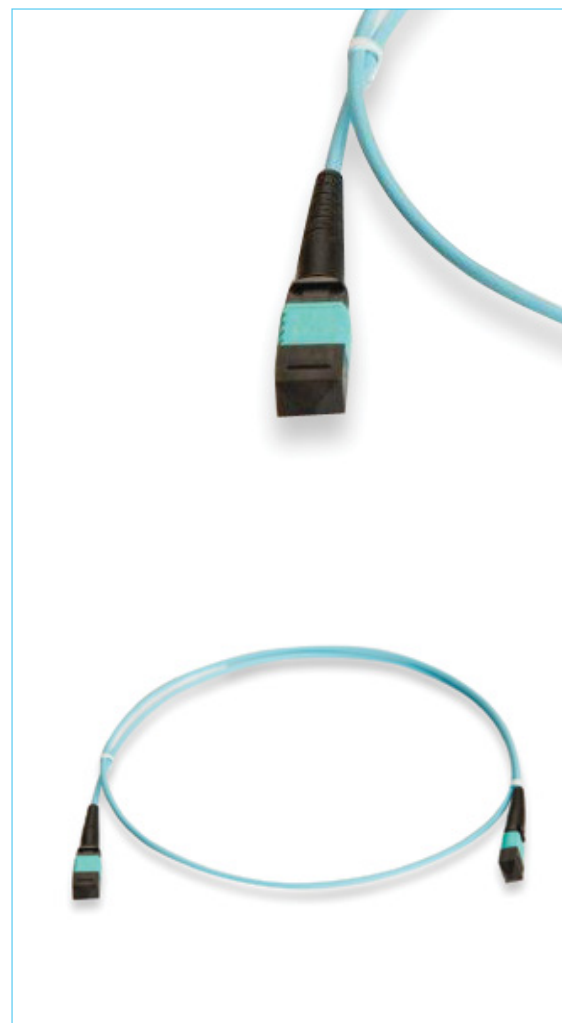
MTP female to MTP female straight LS0H modular cords for plug & play panels	
Fiber type	Select a fiber from page B.6.
Cable type	12-fiber round cable
Cable jacket material	Flame retardant LS0H compound
Cable jacket diameter	3.0 mm nom.
Connector type	MTP female both sides

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Operating temperature	-20 to +60C
	MM OM1 & OM2: Orange
	MM OM3: Turquoise
Default jacket colors	MM OM4: Purple
	MM OM5: Lime
	SM: Yellow



#### Transmission Properties

##### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

##### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

#### Ordering Information

FF: Fiber Type CC: Jacket Color

Description	TIA-568.3-D Polarity	Fiber Count	Length m	Cable OD mm	Packaging	P/N
MTP Female - MTP Female Plug & Play LS0H Cord	Type-C	12	1	3.0	1/Bag	83SFFHA001P-CC61
MTP Female - MTP Female Plug & Play LS0H Cord	Type-C	12	3	3.0	1/Bag	83SFFHA003P-CC61
MTP Female - MTP Female Plug & Play LS0H Cord	Type-C	12	5	3.0	1/Bag	83SFFHA005P-CC61
MTP Female - MTP Female Plug & Play LS0H Cord	Type-C	12	10	3.0	1/Bag	83SFFHA010P-CC61

All connectors in the above examples are low-loss type. Additional combinations can be selected using the information on page C.4.

## AT&T CenterLine Fiber Optic MTP Assemblies

### MTP-MTP Fiber Optic Trunk Assemblies

#### Description

MTP female to MTP female straight LS0H trunk assemblies for plug & play panels	
Fiber type	Select a fiber from page B.6.
Cable type	Round ruggedized double-jacketed cable made of 12-fiber units
Fiber count	12, 24, 48, 72, 96 or 144
Cable jackets material	Flame retardant LS0H compound for indoor use
Connector type	12-fiber MTP female straight on both sides
MTP count per side	One MTP connector for each 12-fiber units

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Operating temperature	-20 to +60C
	MM OM1 & OM2: Orange
	MM OM3: Turquoise
Default jacket colors	MM OM4: Purple
	MM OM5: Lime
	SM: Yellow



#### Transmission Properties

##### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

##### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

#### Ordering Information

FF: Fiber Type    CC: Jacket Color

Description	TIA-568.3-D Polarity	Fiber Count	Length m	12-Fiber Unit		Cable OD mm	MTP Count	Packaging	P/N
				OD mm	Count				
12-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	12	5	3.0	1	4.5	2	1/Bag	85SFFHA005K-CC61
12-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	12	100	3.0	1	4.5	2	1/Bag	85SFFHA100K-CC61
12-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	12	5	3.0	1	6.0	2	1/Bag	85SFFHA005P-CC61
12-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	12	100	3.0	1	6.0	2	1/Bag	85SFFHA100P-CC61
24-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	24	5	3.0	2	8.0	4	1/Bag	86SFFHA005P-CC61
24-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	24	100	3.0	2	8.0	4	1/Bag	86SFFHA100P-CC61
48-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	48	5	3.0	4	9.3	8	1/Bag	88SFFHA005P-CC61
48-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	48	100	3.0	4	9.3	8	1/Bag	88SFFHA100P-CC61
72-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	72	5	3.0	6	11.3	12	1/Bag	8BSFFHA005P-CC61
72-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	72	100	3.0	6	11.3	12	1/Bag	8BSFFHA100P-CC61
96-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	96	5	3.0	8	12.8	16	1/Bag	8DSFFHA005P-CC61
96-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	96	100	3.0	8	12.8	16	1/Bag	8DSFFHA100P-CC61
144-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	144	5	3.0	12	13.4	24	1/Bag	8ESFFHA005P-CC61
144-Fiber MTP Female - MTP Female Plug & Play LS0H Trunk Assembly	Type-C	144	100	3.0	12	13.4	24	1/Bag	8ESFFHA100P-CC61

All connectors in the above examples are low-loss type.

Additional combinations can be selected using the information on page C.4.

## AT&T CenterLine Fiber Optic MTP Assemblies

### MTP-LC Fiber Optic Harnesses

#### Description

MTP female to LC/UPC LS0H modular harnesses for plug & play panels	
Fiber type	Select a fiber from page B.6.
Cable type	12-fiber round cable
Cable jacket material	Flame retardant LS0H compound
Cable jacket diameter	3.0 mm nom.
Connector types	One MTP female and twelve LC/UPC

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Operating temperature	-20 to +60C
	MM OM1 & OM2: Orange
	MM OM3: Turquoise
Default jacket colors	MM OM4: Purple
	MM OM5: Lime
	SM: Yellow



#### Transmission Properties

##### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

##### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

##### Multimode Fibers - LC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	25 min. 30 Typical
Low-Loss	0.15 max. 0.10 Typical	25 min. 30 Typical
Super Low-Loss	0.10 max. 0.05 Typical	25 min. 30 Typical

##### Singlemode Fibers - LC UPC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	50 min. 55 Typical
Low-Loss	0.15 max. 0.10 Typical	50 min. 55 Typical
Super Low-Loss	0.10 max. 0.07 Typical	50 min. 55 Typical

##### Singlemode Fibers - LC APC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	55 min. 60 Typical
Low-Loss	0.15 max. 0.10 Typical	55 min. 60 Typical
Super Low-Loss	0.10 max. 0.07 Typical	55 min. 60 Typical

#### Ordering Information

FF: Fiber Type CC: Jacket Color

Description	MTP	LC	Fiber Count	Length m	Cable OD mm	Packaging	P/N
MTP Female to LC/UPC Plug & Play LS0H Harness	1	12	12	1	3.0	1/Bag	80SFFHA001N-CC61
MTP Female to LC/UPC Plug & Play LS0H Harness	1	12	12	3	3.0	1/Bag	80SFFHA003N-CC61
MTP Female to LC/UPC Plug & Play LS0H Harness	1	12	12	5	3.0	1/Bag	80SFFHA005N-CC61
MTP Female to LC/UPC Plug & Play LS0H Harness	1	12	12	10	3.0	1/Bag	80SFFHA010N-CC61

All connectors in the above examples are low-loss type.  
Additional combinations can be selected using the information on page C.4.



## AT&T CenterLine Fiber Optic MTP Assemblies

### MTP-SC Fiber Optic Harnesses

#### Description

MTP female to SC/UPC LS0H modular harnesses for plug & play panels

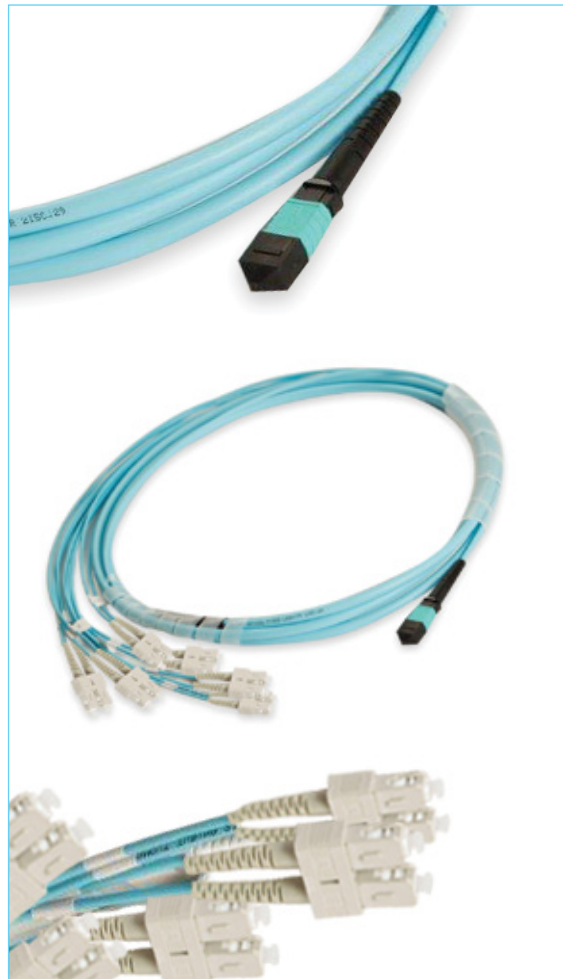
Fiber type	Select a fiber from page B.6.
Cable type	12-fiber round cable
Cable jacket material	Flame retardant LS0H compound
Cable jacket diameter	3.0 mm nom.
Connector types	One MTP female and twelve SC/UPC

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Operating temperature	-20 to +60C
Default jacket colors	MM OM1 & OM2: Orange
	MM OM3: Turquoise
	MM OM4: Purple
	MM OM5: Lime
	SM: Yellow



#### Transmission Properties

##### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

##### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

##### Multimode Fibers - SC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	25 min. 30 Typical
Low-Loss	0.15 max. 0.10 Typical	25 min. 30 Typical

##### Singlemode Fibers - SC UPC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	50 min. 55 Typical
Low-Loss	0.15 max. 0.10 Typical	50 min. 55 Typical

##### Singlemode Fibers - SC APC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	55 min. 60 Typical
Low-Loss	0.15 max. 0.10 Typical	55 min. 60 Typical

#### Ordering Information

FF: Fiber Type CC: Jacket Color

Description	MTP	SC	Fiber Count	Length m	Cable OD mm	Packaging	P/N
MTP Female to SC/UPC Plug & Play LS0H Harness	1	12	12	1	3.0	1/Bag	80SFFHA001H-CC61
MTP Female to SC/UPC Plug & Play LS0H Harness	1	12	12	3	3.0	1/Bag	80SFFHA003H-CC61
MTP Female to SC/UPC Plug & Play LS0H Harness	1	12	12	5	3.0	1/Bag	80SFFHA005H-CC61
MTP Female to SC/UPC Plug & Play LS0H Harness	1	12	12	10	3.0	1/Bag	80SFFHA010H-CC61

All connectors in the above examples are low-loss type.  
Additional combinations can be selected using the information on page C.4.

## AT&T CenterLine Fiber Optic MTP Assemblies

### MTP-ST Fiber Optic Harnesses

#### Description

MTP female to ST/UPC LS0H modular harnesses for plug & play panels

Fiber type                                 Select a fiber from page B.6.  
 Cable type                                 12-fiber round cable  
 Cable jacket material                   Flame retardant LS0H compound  
 Cable jacket diameter                 3.0 mm nom.  
 Connector types                         One MTP female and twelve ST/UPC

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius                 20xOD mm  
 Long term bend radius                 10xOD mm  
 Operating temperature                 -20 to +60C

Default jacket colors                   MM OM1 & OM2: Orange  
   MM OM3: Turquoise  
   MM OM4: Purple  
   MM OM5: Lime  
   SM: Yellow



#### Transmission Properties

##### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

##### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

##### Multimode Fibers - ST Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	25 min. 30 Typical
Low-Loss	0.15 max. 0.10 Typical	25 min. 30 Typical

##### Singlemode Fibers - ST UPC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	50 min. 55 Typical
Low-Loss	0.15 max. 0.10 Typical	50 min. 55 Typical

##### Singlemode Fibers - ST APC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	55 min. 60 Typical
Low-Loss	0.15 max. 0.10 Typical	55 min. 60 Typical

#### Ordering Information

FF: Fiber Type    CC: Jacket Color

Description	MTP	ST	Fiber Count	Length m	Cable OD mm	Packaging	P/N
MTP Female to ST/UPC Plug & Play LS0H Harness	1	12	12	1	3.0	1/Bag	80SFFHA001A-CC61
MTP Female to ST/UPC Plug & Play LS0H Harness	1	12	12	3	3.0	1/Bag	80SFFHA003A-CC61
MTP Female to ST/UPC Plug & Play LS0H Harness	1	12	12	5	3.0	1/Bag	80SFFHA005A-CC61
MTP Female to ST/UPC Plug & Play LS0H Harness	1	12	12	10	3.0	1/Bag	80SFFHA010A-CC61

All connectors in the above examples are low-loss type.  
 Additional combinations can be selected using the information on page C.4.

## AT&T CenterLine Fiber Optic MTP Assemblies

### MTP-FC Fiber Optic Harnesses

#### Description

MTP female to FC/UPC LS0H modular harnesses for plug & play panels

Fiber type	Select a fiber from page B.6.
Cable type	12-fiber round cable
Cable jacket material	Flame retardant LS0H compound
Cable jacket diameter	3.0 mm nom.
Connector types	One MTP female and twelve FC/UPC

#### Standard & EU Directives Conformance

- Relevant sections of ANSI/TIA-568.3-D
- Relevant sections of ISO/IEC 11801
- Relevant sections of EN 50173
- Relevant sections of ANSI/TIA/EIA-604 (FOCIS)
- Relevant sections of IEC 60874
- Relevant sections of IEC 61753
- Relevant sections of IEC 61754
- IEC 60332-1 flame test
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)

#### Mechanical Properties

Short term bend radius	20xOD mm
Long term bend radius	10xOD mm
Operating temperature	-20 to +60C
Default jacket colors	MM OM1 & OM2: Orange MM OM3: Turquoise MM OM4: Purple MM OM5: Lime SM: Yellow



#### Transmission Properties

##### Multimode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	25 min. 30 Typical
Low-Loss	0.35 max.	25 min. 30 Typical
Super Low-Loss	0.25 max.	25 min. 30 Typical

##### Singlemode Fibers - MTP Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.50 max.	50 min. 55 Typical
Low-Loss	0.35 max.	50 min. 55 Typical
Super Low-Loss	0.25 max.	50 min. 55 Typical

##### Multimode Fibers - FC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	25 min. 30 Typical
Low-Loss	0.15 max. 0.10 Typical	25 min. 30 Typical

##### Singlemode Fibers - FC UPC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	50 min. 55 Typical
Low-Loss	0.15 max. 0.10 Typical	50 min. 55 Typical

##### Singlemode Fibers - FC APC Connectors

Connector Type	Connector IL (dB)	Connector RL (dB)
Standard Loss	0.30 max. 0.20 Typical	55 min. 60 Typical
Low-Loss	0.15 max. 0.10 Typical	55 min. 60 Typical

#### Ordering Information

FF: Fiber Type CC: Jacket Color

Description	MTP	FC	Fiber Count	Length m	Cable OD mm	Packaging	P/N
MTP Female to FC/UPC Plug & Play LS0H Harness	1	12	12	1	3.0	1/Bag	80SFFHA001E-CC61
MTP Female to FC/UPC Plug & Play LS0H Harness	1	12	12	3	3.0	1/Bag	80SFFHA003E-CC61
MTP Female to FC/UPC Plug & Play LS0H Harness	1	12	12	5	3.0	1/Bag	80SFFHA005E-CC61
MTP Female to FC/UPC Plug & Play LS0H Harness	1	12	12	10	3.0	1/Bag	80SFFHA010E-CC61

All connectors in the above examples are low-loss type.  
Additional combinations can be selected using the information on page C.4.

# AT&T Cabling Systems @Lock

## Access Control

Data centers are broken into on a regular basis. In many cases, the intention is simply to steal high-quality IT equipment. However, breaking in may only be a pretense for stealing data and/or putting in place a man-in-the-middle infrastructure.

On 28 February 2011 for example, an important data center belonging to a global telecommunications service provider was paralyzed by intruders. Only a few weeks previously, a DC service provider working on behalf of a major health care company became the victim of an attempted break-in, which resulted in the entire security concept undergoing a TÜV audit. Generally speaking, attacks of this kind go undetected. Data centers are security areas and therefore need to be secured through various measures. An important part of this is controlling access to and in the data center.

Controlling access to the data center is usually achieved through a combination of organizational measures, e.g., gates and turnstiles, besides a building access control system.

*Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions*



# AT&T Cabling Systems @Lock



Working with various partners, AT&T Cabling Systems has developed system concepts which not only improve physical security through access controls within the data center but also simplify operative processes, making them less susceptible to errors. These concepts are known as “@Lock”.

*Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions*



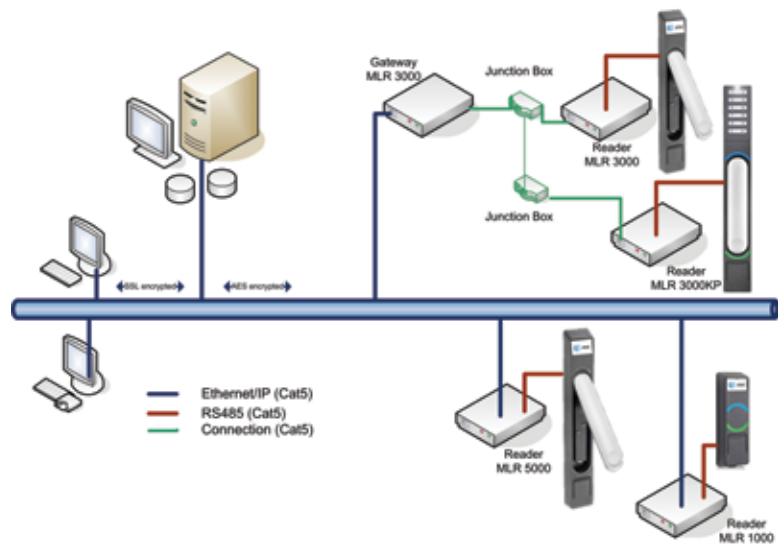
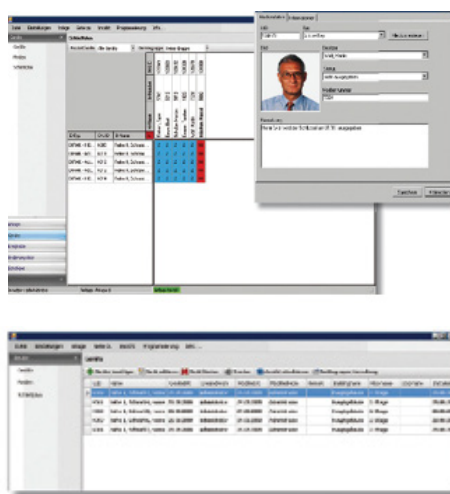


# AT&T Cabling Systems @Lock

## Transponder Card System @Lock “Transponder Card System” Concept

This system concept can be applied throughout – from the DC and cold aisle doors to the individual cabinets. In addition to the card readers and handles, the extensive “Administration Suite” management software is a key part of the system.

Thanks to its modular design and open infrastructure architecture, the new Administration Suite can be expanded as required and can also be implemented for third party providers.



- Encrypted data communication between the hardware, server and client.
- Runs on Windows 2000, Windows XP, Windows Vista, Windows Server 2003, Windows Server 2008, Citrix®.
- Allows administration of various users with different types of authorization.
- Client/server capability.
- Web client-capable, SNMP alarming.
- Record changes made to the system by users.
- Straightforward user guidance in spite of extensive tools.
- Wide range of alarm messages.
- Automatic alarm notification via e-mail.
- Centralized locking plans and access management.
- Freely selectable four-eyes-principle.
- Support for the most common transponder types.
- Central management of various systems.
- Records all actions in “Log Events”.
- Free replacement of the lock system if the authorizing medium is lost.
- Real-time visualization of the swing handle stations.
- Configuration of special days with different locking regimes.
- Allocation of time profiles for access.
- Able to export “Log Events”.
- Multilingual software.

Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions





# AT&T Cabling Systems @Lock

MLR 3000 and MLR 5000 handles are suitable for linking server or network cabinets to the transporter card system. The E-LINE, by Dirak mechatronic swing handles and the Administration Suite software, provide a convenient, reliable way of monitoring access to your data or server cabinet. With the Administration Suite software, security officers can conveniently monitor and manage access directly from a PC. The integrated LEDs display alarm messages and types of authorization on the handle itself.

As a result, technicians on site are given the same information that the Administration Suite software sends to the headquarters. LEDs at the top and bottom of the handle offer permanently high luminosity with low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters. The top LED can indicate various statuses, such as that the handle is ready to be opened or locked. The bottom LED displays whether the handle is within or outside the temperature range for the cabinet selected by the customer. As a result, irregularities may be identified quickly, leaving enough time for appropriate action to be taken.



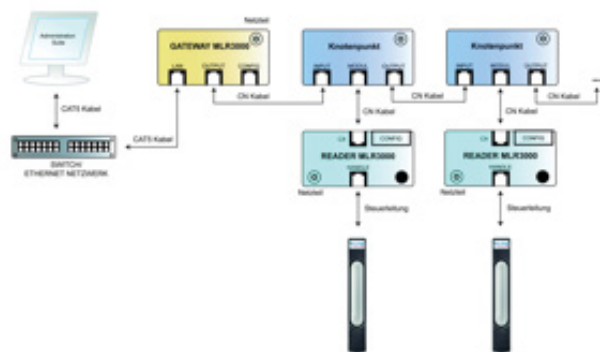
The information display integrated into the handle is backlit and allows customer-specific information, such as the cabinet row, cabinet number etc., to be added for extra clarity.

Handles are also available with integrated Keypad (MLR5000KP). They can be used with either keycard, keypad or both (two-factor- authentication).

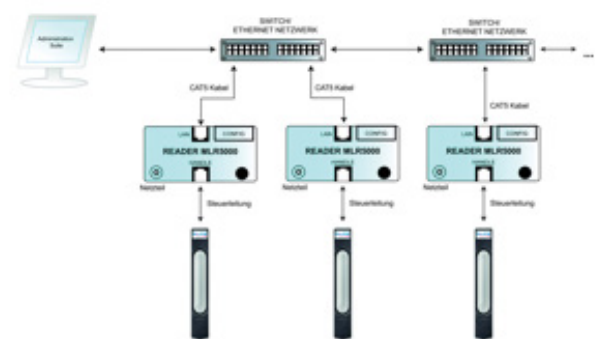
*Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions*

# AT&T Cabling Systems @Lock

@LockMLR3000



@LockMLR5000



## Technical Data – @Lock MLR3000/5000

### Handle Electronics

Two-part hardware design

Visualization

Reader

### Reader

Housing

Power supply

Standby current (system ready)

Max. current consumption (with connector tightening)

RS232 interface for MLR3000

Current increase for MLR5000 via Ethernet interface

TCP/IP interface

Connecting cable (reader - handle electronics)

Relay output (via screw clamps)

Door contact input (via screw clamps)

RS485 interface

Memory capacity for transponder cards

Memory capacity for events

Memory capacity for time profiles

Integrated real-time clock

Temperature range

Swing handle and reader unit

Multicolored status LED

For 125 kHz transponders (HID 26 bit system), alternatively 13.56 MHz (MIFARE)

Reader unit in plastic housing can be fixed with screws or self-adhesive pad

12 V ± 10 % (DC) via low voltage socket

40 mA (DC)

440 mA (DC)

RS232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud

125 mA (DC)

Ethernet, 10/100 Autosense, up to 100 Mbaud

8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8

2.5 mm<sup>2</sup>, can be screwed in from plug side, relay contact: 12 V, 3 A, 60 W, 120

2.5 mm<sup>2</sup>, can be screwed in from plug side, terminals 1 and 2

RS485 cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud

2000 + 1 master transponder

500 (ring memory)

30

With buffering of up to 60 min at 25 °C

-20°C – +70°C

Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions

# AT&T Cabling Systems @Lock

## Ordering Information

Description	Dimensions mm	Ordering Information	Unit
@LockMLR3000	for RCE and DCE front door	01.180.225.9	1 unit
@LockMLR3000	for twin door (e.g. DCE rear door)	01.180.227.9	1 unit
@LockMLR5000	for RCE and DCE front door	01.180.228.9	1 unit
@LockMLR5000	for twin door (e.g. DCE rear door)	01.180.229.9	1 unit
@LockMLR5000KP	for RCE and DCE front door	01.180.240.9	1 unit
@LockMLR5000KP	for twin door (e.g. DCE rear door)	01.180.241.9	1 unit

## Ordering Information - Accessories

Description	Ordering Information	Unit
Door contact	06.108.115.9	1 unit
HID transponder card	01.180.040.9	1 unit
Desktop reader for the initial reading of transponder cards	01.180.040.9	1 unit
MLR3000 Gateway	01.180.111.9	1 unit
Plug-in power supply (Europe)	01.180.035.9	1 unit

Other plug-in power supplies on request

Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions

# AT&T Cabling Systems @Lock

## Technical Data – MLU3000/5000

### MLU Card Readers can be used to Connect a Room Door with Existing Electromechanical Locking or Motorized Cold Aisle Door (Coolfex):

- Three-part hardware design MLU3000 set comprising: external MLU reader, network reader unit and MLU1000 lock.
- Visualization on MLU reader: 2 x multicolored status LEDs and 1 x backlit information display.
- Antenna for 125 kHz transponders (HID 26 bit system).
- Optional MLU1000 lock
  - Die-cast zinc (GDZn), color: mat chrome.
  - 4 m control cable.
  - Power supply 24 V DC +/- 10 % 100 mA.
  - Proximity sensor status contact.
  - Wall/sheeting thickness independent.
  - Electronic opening by interrupting the power supply.
- MLU3000/MLU5000 network reader
  - Housing reader unit in plastic housing can be fixed with screws or a self-adhesive pad.
  - Nominal input voltage 12/24/48 V ± 10 % (DC) depending on the electronic lock connected.
  - Standby current (system ready) 40 mA (DC).
  - Max. current consumption RJ12 (LOCK) 1.5 A (DC).
  - Max. current consumption via relay clamp 3.0 A (DC), clamps 10-11.
  - RS232 interface RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud.
  - Connecting cable (reader - external MLU antenna) 8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8.
  - Relay output (via screw clamps) 2.5 mm, can be screwed on from plug side, relay contact: 12 V, 3 A, 60 W, 120 VA, terminals 3 - 5.
  - Door contact input (via screw clamps) 2.5 mm<sup>2</sup> can be screwed from plug side, terminals 1 and 2.
  - RS485 - RS485 interface - cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud (MLU3000).
  - TCP/IP Ethernet interface, 10/100 Autosense, up to 100 Mbps (MLU5000).
  - Power off when open/closed: depending on the electronic lock connected, this is configured in the Administration Suite Config Tool.
  - Memory capacity for transponder cards 2000: + 1 master transponder.
  - Memory capacity for events: 500 (ring memory).
  - Memory capacity for time profiles: 30.
  - Integrated real-time clock with buffering of up to 60 min at 25 °C.
  - Temperature range -20°C – +70°C.



Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions

# AT&T Cabling Systems @Lock

## BlueID

### @Lock "Blue ID" System Concept

@Lock BlueID is an innovative data center locking system which is highly flexible and user-friendly. Instead of a set of keys or transponder cards, "virtual" keys, kept on mobile communication devices (smartphones, tablets etc.), are used. These virtual keys are transferred to a mobile device via SMS. No online access is necessary to use the keys.

### Technical Data – BlueID Control System

- Dimensions: 157 x 86 x 58 mm (WxHxD) plus antenna and plug.
- Weight: 0.24 kg.
- Temperature range – storage: -40°C to +85°C.
- Temperature range – operation: -20°C to +70°C.
- Supply voltage: 7-32 V DC; max: 400 mA.
- Power consumption: 2 W.
- Relay switching voltage (max.): 250 V AC.
- Relay switching current (max.): 5 A.
- Contact clamps (potential-free): 4 x 2.
- Optocoupler inputs (potential-free): 4 x 2.
- Connection: Bluetooth 2.0 EDR.
- Connection: Ethernet (RJ45).
- Connection: WLAN/WiFi (optional, with BlueID WLAN/WiFi upgrade accessory, Art. No. 4260200780775).

### Ordering Information

Description	Ordering Information	Unit
AT&T Cabling Systems bundle. @LockBlueID for DCE	01.180.320.0	1 unit
Package of 100 daily tickets	01.180.321.0	1 unit
Package of 10 yearly tickets	01.180.322.0	1 unit
Package of 10 reload tickets	01.180.323.0	1 unit

The locking system comprises MLR1000 handles, a BlueID control system, a power supply, vouchers for generating keys (100 daily tickets, 10 yearly tickets, 10 reload tickets) and installation materials. Additional ticket packages or two additional MLR1000 handles per BlueID box can be ordered separately.



Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions



# AT&T Cabling Systems @Lock

## Potential-Free Contacts

### @Lock “Potential-Free Contacts” System Concept

Swing handles from the @Lock MLR1000 range are suitable for connecting electromechanical swing handles to existing building management systems or local identification systems, in addition to complementing @LockBlueID or rack monitoring systems.

The handle can be opened as soon as its potential-free contacts are activated or a voltage of 12-24 V DC is supplied. Following activation, the MLR1000 switches to ready-to-open status.

During this period, the user can open the MLR1000 by pressing a button. The LED at the top of the handle offers permanently high luminosity with a low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters.

The information display integrated into the handle is backlit and allows customer-specific information such as the cabinet row, cabinet number etc., to be added for further clarity.

## Technical Data – @LockMLR1000

### Handle Electronics

Two-part hardware design	MLR1000 and MLR1000 Box
Visualization	Status LED
<b>MLR1000 Box</b>	
Housing	Interface unit, plastic housing can be fixed with screws or self-adhesive pad
Power supply	12 V DC $\pm$ 10 % via screw clamps
Standby current (system ready)	40 mA (DC)
Max. current consumption (with connector tightening)	410 mA (DC)
Operating mode	100 % ED
Relay control	12V DC
Operating time	Max. 3 seconds
Contact output	250 V AC, 2 A
Installation position	Vertical
Connection type	Screw clamps, 2.5mm <sup>2</sup>
Connecting cable(reader - handle electronics)	8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8
Temperature range	-20°C – +70°C

Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions





# AT&T Cabling Systems @Lock

	@Lock MLR5000	@Lock MLR3000	@Lock MLR1000	@Lock BlueID
Software necessary	Admin Suite	Admin Suite	Custom	Web browser, Mobile phone app
E-Line Administration Suite Software	Yes	Yes	No	No
External emergency power supply connector	Yes	Yes	Yes	No
Identification	Transponder card	Transponder card	Dependent on customer's equipment and software	BlueID
IP support	Yes	Gateway	No	Optional
Log files	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customer's equipment and software	Optional
User profiles	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customer's equipment and software	No
Four-eyes-principle	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customer's equipment and software	Yes
Off-line mode	No	No	No	Yes
Technology partner	Eline by Dirak	Eline by Dirak	Eline by Dirak	BlueID by Baimos Technologies

Type	Model	Ordering Information	UP
@LockMLR1000	for RCE and DCE front door	01.180.224.9	1 unit
@LockMLR1000	for twin doors (e.g. DCE rear door)	01.180.226.9	1 unit

Notes: @LockMLR1000, @LockMLR3000, @LockMLR5000 and @LockBlueID are 3rd party Solutions



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