

AT&T CopperLine Technical Specification

Cable Type: 4x2x23# U/FTP Category 6

100 Ohm LS0H Data Cable

AT&T P/N: 11F06HA004N-GY

Revision: 3 Date: 23 March 2017



Category 6 U/FTP indoor cable, conforming to TIA-568-C.2, IEC 61156-5 and EN 50288. The cable contains 4 individually foil-shielded twisted pairs cabled together and overall jacketed with LS0H compound for indoor use. The cable conforms to EU Directive 2011/65/EU (RoHS-II), to IEC 60332-1 and it supports IEEE 802.3at (PoE+) and Class E permanent links & channels as specified in ISO/IEC 11801 and EN 50173.

Physical Description

Basic Conductor	Solid 23AWG, bare annealed copper (UL444)
Insulation	SFS-PO.
Insulated conductors	8
Twisted pairs	4
Color code	Blue x White, Orange x White, Green x White, Brown x White.
Individual pair shield	Aluminum foil, providing 100% coverage, foil face out.
Overall shield	None.
Drain wire	Solid tin-coated copper wire, laid in close contact to the aluminum foils.
Outer jacket	Low-smoke, Zero-halogen, Flame-retardant compound for indoor use.
Outer jacket thickness	0.6 mm nom.
Color	Light Gray RAL 9002.
Overall Diameter	7.0 mm nom.
Surface Marking	AT&T CopperLine 4P 23AWG CAT6 U/FTP LS0H IEC 60332-1 TIA-568-C.2 IEC 61156-5 EN 50288 CE 2011/65/EU (RoHS) [Batch Number] [Meter Mark] METER --- P/N 11F06HA004N ---

Mechanical Properties

Bend Radius	Dynamic: 8xD mm min. Static: 4xD mm min
Storage Temperature	-20 to +60C
Temperature installation range	0 to +50C
Temperature operating range	-20 to +60C
Flame Tests	IEC 60332-1 (Fire), IEC 60754 (gas) & IEC 61034 (smoke).
Pulling force	150 N max.
Total Weight	48 kg/km nom.

Electrical Properties @ 20C

Mean Impedance	100±5 Ohm @ 1-250 MHz
Vp	78% nom.
Capacitance	40 pF/m nom @ 1 kHz
Capacitance unbalance to ground	1.6 pF/m max. @ 1 kHz
Insulation Resistance	0.5 GOhm•km min.
DC Resistance	77 Ohm/km max. (2% max. resistance unbalance).
DC Loop Resistance	154 Ohm/km max. (2% max. resistance unbalance).
Voltage rating	75Vdc max.
Coupling attenuation	IEC 61156-5 Type II
Transfer Impedance	IEC 61156-5 Grade 2
Phase delay	460 nS/100m max. @ f=1-250 MHz.
Delay Skew	25 nS/100m max.

Transmission Properties - Category 6 ANSI/TIA-568-C.2 Horizontal Cable Limits

FREQ.	Insertion Loss	NEXT	PS NEXT	ACRF	PS ACRF	RL	TCL	EL-TCTL
MHz	dB/100m	dB	dB	dB/100m	dB/100m	dB	dB	dB
	max.	min.	min.	min.	min.	min.	min.	min.
1	2.0	74.3	72.3	67.8	64.8	20.0	40.0	35.0
10	5.9	59.3	57.3	47.8	44.8	25.0	40.0	15.0
20	8.3	54.8	52.8	41.8	38.8	25.0	37.0	9.0
25	9.3	53.3	51.3	39.8	36.8	24.3	36.0	7.0
30	10.2	52.1	50.1	38.3	35.3	23.8	35.2	5.5
62.5	14.9	47.4	45.4	31.9	28.9	21.5	32.0	NS
100	19.0	44.3	42.3	27.8	24.8	20.1	30.0	NS
200	27.5	39.8	37.8	21.8	18.8	18.0	27.0	NS
250	31.0	38.3	36.3	19.8	16.8	17.3	26.0	NS