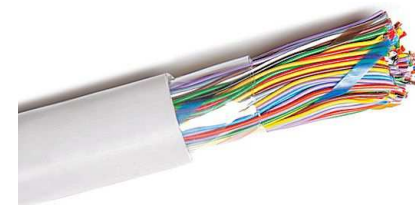


AT&T CopperLine Technical Specification
Cable Type: 50x2x24# U/UTP Category 3
100 Ohm Indoor Backbone Cable - PVC Jacket
AT&T P/N: 11U03VA050N-GY
Revision: 1 Date: 08 January 2015



50 Pair Category 3 U/UTP backbone indoor cable, conforming to TIA-568-C.2 and IEC 61156-4. The cable contains 50 twisted pairs cabled together. The core is wrapped with polyester tape and overall jacketed with PVC compound for indoor use. The cable conforms to EU Directive 2011/65/EU (RoHS-II) and to IEC 60332-1 flame test.

Physical Description

Basic conductor	Solid 24AWG, bare annealed copper.
Insulation	Polyolefin.
Insulated conductors	100
Twisted pairs	50
Color code	Below.
Core formation	50 pairs cabled together made of two 25-Pair groups. (Each 25-pair group may be divided into 12+13 pair sub-groups).
Water blocking	None.
Tape wrap	Polyester tape.
Rip cord	PA rope laid in parallel for easy jacket removal.
Outer jacket	PVC compound for indoor use.
Outer jacket thickness	1.2 mm nom.
Color	Grey RAL 9002.
Outer diameter	15.4±0.5 mm.
Surface Marking (black)	AT&T CopperLine 50P 24AWG CAT3 U/UTP INDOOR PVC IEC 60332-1 TIA-568-C.2 CE 2011/65/EU (RoHS) [Batch Number] [Meter Mark] METER --- P/N 11U03VA050N-GY ---

Mechanical Properties

Bend Radius	Permanent: 15xD min. During installation: 30xD min.
Operating temperature range	-20 to +60C
Storage temperature range	-10 to +60C
Installation temperature range	0 to +50C
Flame test	IEC 60332-1
Pulling force	400 N max.
Total Weight	315 Kg/Km nom.

Electrical Properties

Characteristic Impedance	100±15 Ohm @ 1-16 MHz
DC Resistance	93.8 Ohm/Km max.
Resistance unbalance	5% max.
Capacitance	66 pF/m max. @ 1 KHz
Cap. Unbalance (pair to ground)	3300 pF/Km max. @ 1 KHz.
Voltage rating	75V max
Dielectric strength	1500 Volts/1 minute min rms
Velocity of Propagation (NVP)	67-69%
Insulation Resistance	5000 MegaOhm·Km min. @ 500 Vdc

Transmission Properties - Category 3 ANSI/TIA-568-C.2 Backbone Cable Limits

FREQ. MHz	Insertion Loss dB/100m Max	NEXT dB Min	PS NEXT dB Min	SRL dB Min	Prop. Delay nS/100m Max
0.772	2.2	43.0	43.0	12.0	575.0
1.00	2.6	41.0	41.0	12.0	570.0
4.00	5.6	32.3	32.3	12.0	552.0
8.00	8.5	27.8	27.8	12.0	546.7
10.00	9.7	26.3	26.3	12.0	545.4
16.00	13.1	23.3	23.3	10.0	543.0

Color Code for each 25-Pair group

Pair	Tip	Ring	Pair	Tip	Ring
1	Blue	White	13	Green	Black
2	Orange		14	Brown	
3	Green		15	Grey	
4	Brown	Red	16	Blue	Yellow
5	Grey		17	Orange	
6	Blue		18	Green	
7	Orange		19	Brown	
8	Green		20	Grey	
9	Brown		21	Blue	
10	Grey	Black	22	Orange	Violet
11	Blue		23	Green	
12	Orange		24	Brown	
			25	Grey	