

Category 6 Data Cables

23AWG. UTP or FTP with PVC or HFFR/LSZH Sheath



C1037, C1038, C1237, C1238, C1437, C1438, C1537, C1538, C1483, C1484

Applications

Twisted pair cable suitable for Local Area Networks and Video Applications delivering 1000base-t Gigabit Ethernet, 100BASE-TX Fast Ethernet, 622 Mbps ATM, 155 Mbps ATM and Composite Video.

Cross Section Drawing



Design

Unit	Properties
Conductor	Solid Plain Copper Wire
Insulation	Solid Polyethylene Pair 1: WHITE/Blue + BLUE Pair 2: WHITE/Orange + ORANGE Pair 3: WHITE/Green + GREEN Pair 4: WHITE/Brown + BROWN
Pair	Two wires twisted together
Filler	Cross support
Drain Wire (FTP only)	Tinned Copper wire
Screen(FTP only)	Aluminium/Polyester tape
Rip Cord	Nylon Yarn
Sheath Material	Polyvinyl Chloride (PVC) Standard Color: Grey or Halogen Free, Flame Retardant (HFFR) Standard Color: Purple or Low Density Polyethylene (LDPE) Standard Color: Black
Standard Put Up Length	305 metres

*Other Colors, Put Up Lengths and structures can be manufactured upon request, please contact your local B3 International sales representative.

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Physical Characteristics

Part Number	C1237	C1037	C1437	C1537	C1483	C1238	C1038	C1438	C1538	C1484
Sheath Material	HFFR/LSZH	PVC	PVC CM	PVC CMR	PE	HFFR/LSZH	PVC	PVC CM	PVC CMR	PE
Screen type	UTP					FTP				
No. of Pairs	4									
Conductor Size (AMG)	23									
Drain Wire Size (AMG)	-					26				
Screen Coverage (%)	-					115				
Nom. Radial Thickness Sheath (mm)	0.5									
Nom. Overall Diameter (mm)	6.1					7.2				
Operating Temperature (°C)	-20 to +75	-20 to +60				-20 to +75	-20 to +60			
Min. Bend Radius (install) (mm)	61					72				
Nominal Cable Weight (kg/km)	40.5					56				
Maximum Pulling Tension (Newton)	160					200				

Electrical Characteristics at 20°C

Conductor Resistance (Ohm/100m)	Mutual Capacitance (pF/m)		Input Impedance (Ohm)	Velocity of Propagation (%)	Maximum Delay Skew (ns/100m)	Max. Operating Voltage (Volts RMS)
	UTP	FTP				
9.38	47	48	100 ± 15	67	45	300

Frequency (MHz)	Return Loss (dB/100m)	Maximum Attenuation (dB/100m)	Minimum NEXT (dB)	Maximum Time Delay (ns/100m)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)
1	20.0	2.0	74.3	570.00	72.3	67.8	64.8
4	23.0	3.8	65.3	552.00	63.3	55.8	52.8
8	24.5	5.3	60.8	546.73	58.8	49.7	46.7
10	25.0	6.0	59.3	545.38	57.3	47.8	44.8
16	25.0	7.6	56.2	543.00	54.2	43.7	40.7
20	25.0	8.5	54.8	542.05	52.8	41.8	38.8
25	24.3	9.5	53.3	541.20	51.3	39.8	36.8
31.25	23.6	10.7	51.9	540.44	49.9	37.9	34.9
62.5	21.5	15.4	47.4	538.55	45.4	31.9	28.9
100	20.1	19.8	44.3	537.80	42.3	27.8	24.8
200	18.0	29.0	39.8	536.54	37.8	21.8	18.8
250	17.3	32.8	38.3	536.27	36.3	19.8	16.8

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Reference Standards

EN 50290-2	UL 1685 for CM
ISO 11801	UL1666 for CMR
ANSI/TIA/EIA-568-C2	IEC 60332-1
IEC 61034 (HFFR/LSZH only)	RoHS directives
IEC 60754-1 & 2 (HFFR/LSZH only)	