

Applications

Twisted pair cable suitable for High Speed Local Area Networks and Analogue & Digital video applications

Sector - BT Data-TEC™
Category 7 Data Cable

Standard Put Up Length
305 – 500 – 1000 Metres

Design

1. Conductor

4 Twisted Pairs,
23 AWG Solid
Plain Copper Wire

2. Insulation

Skin-Foam-Skin Polyethylene
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individually Screened pairs

Aluminium/Polyester foil,
coverage > 115%

4. Drain Wire

Tinned Copper

5. Collective Screen

Tinned Copper
braid,
60% coverage

6. Sheath Material

Halogen-Free, Fire
Retardant(HFFR)

Cable Characteristics

BTCL Part Number	Cu Gauge (AWG)	Operating Temperature Range	Maximum Pulling Tension (Newton)	Min. Installed Bend Radius (mm)	Overall Diameter (mm)
C1039	23	-20°C to +75°C	90	78	7.8

Electrical Characteristics

Conductor Resistance (Ohm/100m)	Mutual Capacitance (pF/m)	Nom. Impedance (Ohm)	Velocity of Propagation (%)	Maximum Delay Skew (ns/100m)	Max. Operating Voltage (Volts RMS)
7.7	48	100	65	15	300

Frequency (MHz)	Return Loss (dB/100m)	Attenuation (dB/100m)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	Impedance (ohm)
1	20.0	2.5	78	75	78.0	100 ± 15
4	23.0	4.3	78	75	78.0	100 ± 15
10	25.0	6.5	78	75	56.5	100 ± 15
16	25.0	8.0	78	75	56.5	100 ± 15
20	25.0	8.9	78	75	56.5	100 ± 15
31.25	23.6	10.8	78	75	56.5	100 ± 15
62.5	21.5	14.9	75.5	72.5	56.8	100 ± 15
100	20.1	21.5	72.4	69.4	57.2	100 ± 15
150	18.9	25.5	69.8	66.8	50.0	100 ± 22
200	15.0	39.0	67.9	64.9	45.0	100 ± 22
300	14.5	35.2	65.2	62.2	25.0	100 ± 25
600	12.5	50.1	60.7	57.7	16.0	100 ± 25