# **Detailed Specifications & Technical Data**

## METRIC MEASUREMENT VERSION



# C501106002 Cable Assemblies - CAT5E Modular Cord







For more Information please call

1-800-Belden1



## **General Description:**

CAT5E Patch Cord, Bonded-Pair, 4 Pair, 24 AWG Solid, CMR, T568A/B-T568A/B, Blue, 2 ft. (0.6 m).

# Usage (Overall)

Suitable Applications: IBDN System 1200, TIA Category 5E, ISO Class D, 1000BASE-T, 100BASE-T Related Parts: CAT5E Modular Jacks, CAT5E Patch Panels

## **Multi Conductor**

## **Physical Characteristics**

# Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	Solid	BC - Bare Copper

#### Insulation

Insulation Material:



#### **Outer Jacket**

Outer Jacket Material:

**Outer Jacket Material** PVC - Polyvinyl Chloride

# **Outer Jacket Color Code Chart:**



#### **Overall Diameter**

**Overall Nominal Diameter:** 5.283 mm Individual Cable Diameter: 6.096 mm

# **Physical Characteristics (Connectivity)**

# **Materials**

# Materials:

Description	Type	Material
Plug	RJ45	Polycarbonate
Boot		Rubber
Front Connection	Blades	Phosphor Bronze with 50u inch Gold over Nickel Plating

#### Color

**Boot Color:** Translucent Wiring Scheme

#### Weight

Weight: 0.027 kg

#### **Packaging**

Packaging: Individually packaged in a clear plastic bag.

T568A/B

# **Mechanical Characteristics (Connectivity)**

Plug / Jack Compatibility: RJ45

# Termination Interface:

Wiring Scheme:

Termination		Durabilities
RJ45	Mated Connection	750 Cycles

Storage Temperature Range: -40°C To +70°C -10°C To +60°C Installation Temperature Range:

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Operating Temperature Range:	-10°C To +60°C
Max. Recommended Pull Tension:	111.205 N
Min. Bend Radius (Overall Cable):	26.416 mm

#### Environmental/Mechanical Characteristics:

Test (Method)	TIA 568-D.3	Belden
Thermal Cycling (FOTP-3)	n/a	-40 to 75°C cycling for 7 days
Temperature Life (FOTP-4)	60°C for 4 days	85°C for 7 days
Humidity (FOTP-5)	90-95% at 40°C for 4 days	95% @ 75°C for 7 days
Durability (FOTP-21)	500 cycles	6 x 200 cycles (3 Elevations)
Cable Retention (FOTP-6)	5.0 kg @ 0 deg.	1.94 kg @90 deg.
Flex (FOTP-1)	0.5 kg @ 90° to -90° for 100 cycles	0.9 kg @ 90° to -90° for 100 cycles
Twist (FOTP-36)	1.5 kg for 10 cycles	1.5 kg for 10 cycles

# Overall Length Tolerances:

Range	Tolerance	Range	Tolerance	Range	Tolerance
Sx & Dx Patchcord	Sx & Dx Patchcord	MPO Trunk	MPO Trunk	Multi-Fiber Cable Assembly	Multi-Fiber Cable Assembly
0 to 2 meters	+0.2 / -0 meter	0 to 2 meters	+0.2 / -0 meter	0 to 2 meters	+0.2 / -0 meter
2.1 to 5.0 meters	+0.3 / -0 meter	2.1 to 5.0 meters	+0.3 / -0 meter	2.1 to 5.0 meters	+0.3 / -0 meter
5.1 to 40 meters	+0.4 / -0 meter	5.1 to 20 meters	+0.4 / -0 meter	5.1 to 20 meters	+0.4 / -0 meter
Over 40.1 meters	+ 1.0% / -0%	Over 20.1 meters	+ 1.0% / -0%	Over 20.1 meters	+ 1.3 / -0 meter

# **Applicable Specifications and Agency Compliance (Overall)**

# Applicable Standards & Environmental Programs

UL Rating:	Riser
Other Standards:	FCC Part 68, Subpart F, IEC 60603-7
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2006
MII Order #39 (China RoHS):	EUP 50
Telecommunications Standards:	Category 5e - TIA 568.B.2, Category 5 - ISO/IEC 11801:2002 Ed.2
Safety Listing:	ACA, Bi-national Standard Listed
Suitability	
Suitability - Indoor:	Yes

Suitability - Indoor:

# **Transmission Characteristics (Connectivity)**

# **Optical Connector Performance:**

Description	OM1	OM2	OM3	OM4	OS2 / UPC	OS2 / APC
Maximum Insertion Loss (dB)	0.5 dB	0.5 dB	0.5 dB	0.15 dB	0.5 dB	0.5 dB
Minimum Reflectance (dB)	-20 dB	-20 dB	-20 dB	-20 dB	-50 dB	- 65 dB

# Performance Table 1:

Frequency (MHz)	Max. Insertion Loss TIA* (dB)	Max. Insertion Loss Belden (dB)	Min. PSNEXT TIA* (dB)	Min PSNEXT Belden (dB)	Min. PSACRF TIA* (dB)	Min. PSACRF Belden (dB)
1.000	2.400	2.000	62.300	65.300	60.800	60.800
4.000	4.900	4.000	53.300	56.300	48.800	48.800
8.000	6.900	5.700	48.800	51.800	42.700	42.700
10.000	7.800	6.400	47.300	50.300	40.800	40.800
16.000	9.900	8.100	44.200	47.300	36.700	36.700
20.000	11.100	9.200	42.800	45.800	34.800	34.800
25.000	12.500	10.300	41.300	44.300	32.800	32.800
31.250	14.100	11.600	39.900	42.900	30.900	30.900
62.500	20.400	16.800	35.400	38.400	24.900	24.900
100.000	26.400	21.700	32.300	35.300	20.800	20.800
160.000		28.200		32.300		16.700

Performance Table - Footnote:

100 Meter Cable Specifications - \* TIA-EIA-568-B.2 Category 5e Standard ------ PSACRF is formally **PSELFEXT** 

# Performance Table 2:

Frequency (MHz)	Min. Return Loss TIA* (dB)	Min. Return Loss Belden (dB)
1.000	20.000	20.000
4.000	23.000	23.000
8.000	24.500	24.500
10.000	25.000	25.000
16.000	25.000	25.000

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20.000	25.000	25.000
25.000	24.200	25.000
31.250	23.300	25.000
62.500	20.700	25.000
100.000	19.000	20.000
160.000		19.000

Dielectric Strength:	1,000 V RMS @ 60 Hz for 1 minute
Current Rating:	1.500 A
Insulation Resistance:	500 M-Ohm Minimum
Max. Contact Resistance:	20 m-Ohm

# Notes (Overall)

## **Product Family**

#### Product List:

Length	Yellow	Green	Blue	Gray	White	Black
2 ft. (0.6 m)	C501104002	C501105002	C501106002	C501108002	C501109002	C501100002
4 ft. (1.2 m)	C501104004	C501105004	C501106004	C501108004	C501109004	C501100004
7 ft. (2.1 m)	C501104007	C501105007	C501106007	C501108007	C501109007	C501100007
10 ft. (3.0 m)	C501104010	C501105010	C501106010	C501108010	C501109010	C501100010
15 ft. (4.6 m)	C501104015	C501105015	C501106015	C501108015	C501109015	C501100015
25 ft. (7.6 m)	C501104025	C501105025	C501106025	C501108025	C501109025	C501100025

# **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
C501106002	1 EA	0.084 LB	BLUE, LIGHT		PATCHCORD BCAT5E CMR BLU 2FT

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