PBN

PBNcable Category 6 S-FTP LS

- Complies to all Category 6 cable standards
- Supports Class E applications
- Central cross member maintains geometry and performance
- Tested up to 350MHz

GENERAL

This specification details the construction of **Cat**egory **6** network cable. The conductors are solid copper, covered with a solid plastic insulating compound. The insulated conductors (four twisted pairs) are inside cable core. The cable structure is completed with LS PVC jacket .The cable is fully color coded so that each insulated conductor in the cable is distinguishable from other insulated conductor. Cat-6 cable supports frequencies up to 250 MHz **.**

Applications: PBN cables cat-6 SFTP cable is intended for high speed data applications including:

- 10baseT Ethernet
- 100baseTX Fast Ethernet
- 1000baseTX Gigabit Ethern
- 155 MBit ATM
- 622 MBit ATM
- 1.2 Gbit ATM

TEMPERATURE AND ENVIRONMENT

The cables shall without detriment, perform suitably throughout a temperature range of –20 to +40 C.

PBNcable

CONDUCTOR

Each conductor is a solid wire of commercially pure annealed copper, smoothly drawn, circular in cross section, uniform in quality and free form defects. Conductors meet the quality requirements of ASTM B3. The maximum resistance for a cross section area of 1 mm² and a length of 1 km is 70 ohms when measured at 20±2 ºC.

The nominal conductor diameters may be 0.57mm (23 AWG).

TWISTING

Two appropriately colored insulated conductors are uniformly twisted together to form a pair. The lays of all pairs are in the same direction and different for each pair in a unit

CONDUCTOR INSULATION

Each conductor is uniformly covered with solid polyethylene conforming to ASTM D-1248. Type III class A category 4 or 5 Grade E8. Insulation contains a suitable antioxidant system including a copper inhibitor. The insulation will be uniform, smooth and have non-porous surface.

Insulation Thickness (mm)	Insulation Diameter(mm)	Cable Diameter (mm)	Insulation Material
0.28	**1.13**	**0.756**	**HDPE**

The insulation colors are in accordance with the following table (1).

Table 1

Number Pairs	Color Coded
1	White – Blue / Blue
2	White – Orange / Orange
3	White – Green / Green
4	White – Br-own / Brown

RIP CORD

The rip cords will be placed over the core under the jacket and must be strong and flexible enough to be able to strip or the jackets easily

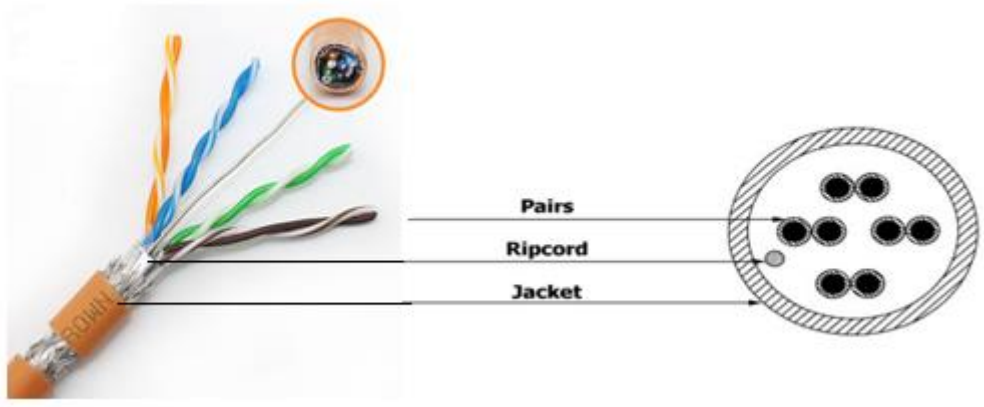
JACKET

A polyvinyl chloride jacket in accordance with polyvinyl chloride (PVC) conforming to DIN VDE 0207 part 4 designating YI3.. The nominal jacket thickness will be 0.7mm for all cables. The outer jacket color is orange.

IDENTIFICATION MARKING

Each length of the cable shall be permanently identified as to the manufacturer, year of manufacture and cable type. The marking will be printed on the outer jacket.

CABLE FORMATION



The insulation colors are in accordance with the following table (1).

LINKWARE
CABLE TEST MANAGEMENT SOFTWARE

Cable ID: PBN-L-TEST SFTP

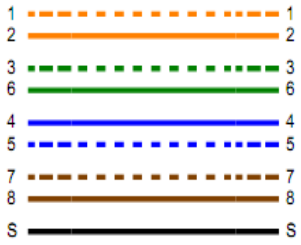
Test Summary: PASS

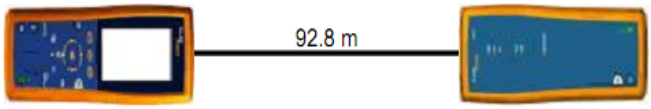
Date / Time: 11/11/2018 11:25:02am
Headroom: 4.6 dB (RL 78)
Test Limit: TIA Cat 6 Perm. Link
Cable Type: Cat 6 SFTP

Operator: MR AHANI
Software Version: 2.4100
Limits Version: 1.6000
NVP: 70.0%

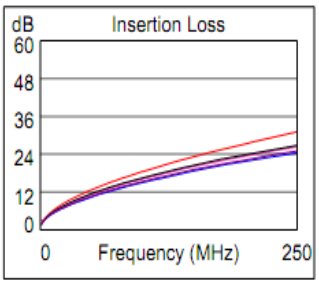
Model: DTX-1800
Main S/N: 9419079
Remote S/N: 9419080
Main Adapter: DTX-PLA002
Remote Adapter: DTX-PLA002

Wire Map (T568B)
PASS

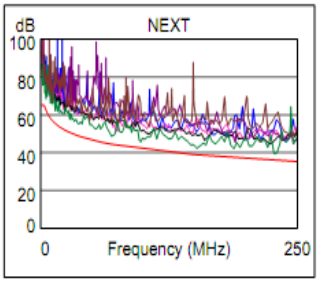


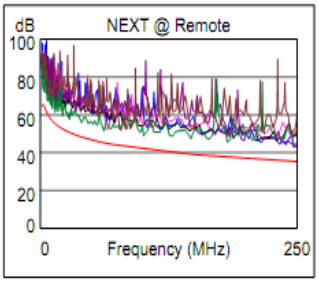


Length (m), Limit 90.0	[Pair 12]	92.8
Prop. Delay (ns), Limit 498		470
Delay Skew (ns), Limit 44		28
Resistance (ohms)	[Pair 36]	12.5
Insertion Loss Margin (dB)	[Pair 45]	4.3
Frequency (MHz)	[Pair 45]	250.0
Limit (dB)	[Pair 45]	31.1

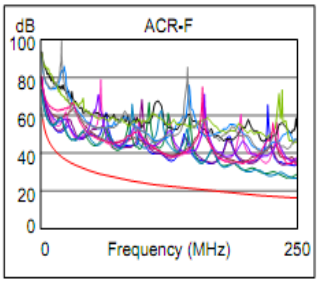


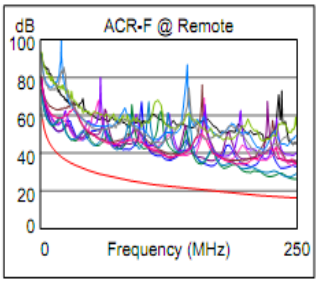
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-45
NEXT (dB)	2.5	4.5	3.3	7.5
Freq. (MHz)	153.0	10.9	228.0	247.0
Limit (dB)	38.8	57.3	36.0	35.4
Worst Pair	78	36	78	36
PS NEXT (dB)	4.1	5.7	4.9	7.0
Freq. (MHz)	153.0	10.9	227.5	247.0
Limit (dB)	36.3	54.9	33.4	32.8



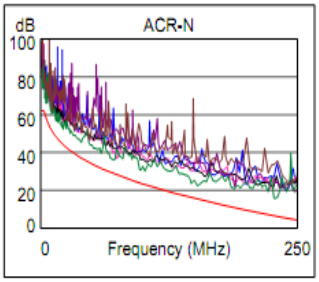


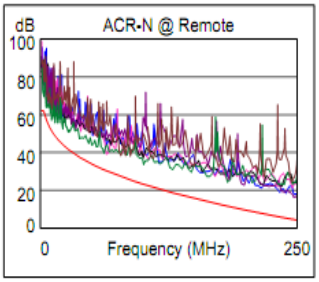
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	36-45	45-36	36-45
ACR-F (dB)	9.7	9.7	10.3	9.9
Freq. (MHz)	2.1	5.3	248.0	248.5
Limit (dB)	57.6	49.8	16.3	16.3
Worst Pair	36	36	36	36
PS ACR-F (dB)	10.8	10.6	11.9	12.2
Freq. (MHz)	8.6	6.6	248.0	240.0
Limit (dB)	42.5	44.8	13.3	13.6



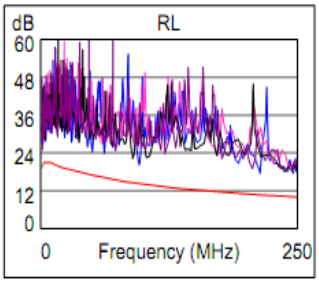


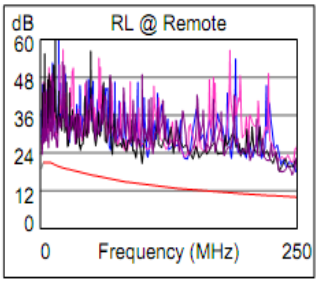
N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-45
ACR-N (dB)	6.5	5.3	9.0	11.8
Freq. (MHz)	5.1	10.9	228.0	247.0
Limit (dB)	58.4	51.5	6.5	4.5
Worst Pair	36	36	36	36
PS ACR-N (dB)	7.5	6.2	9.8	11.7
Freq. (MHz)	153.0	10.9	227.5	247.0
Limit (dB)	12.7	49.1	3.9	1.9





PASS	MAIN	SR	MAIN	SR
Worst Pair	12	78	12	78
RL (dB)	6.0	4.6	6.7	6.9
Freq. (MHz)	95.8	7.8	238.5	245.0
Limit (dB)	14.2	21.0	10.2	10.1





Compliant Network Standards:

10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	