



*Small Thing Smart Solution....*

## **STRUCTURED CABLING SYSTEM**



## MULTI FIBER PUSH ON - MPO

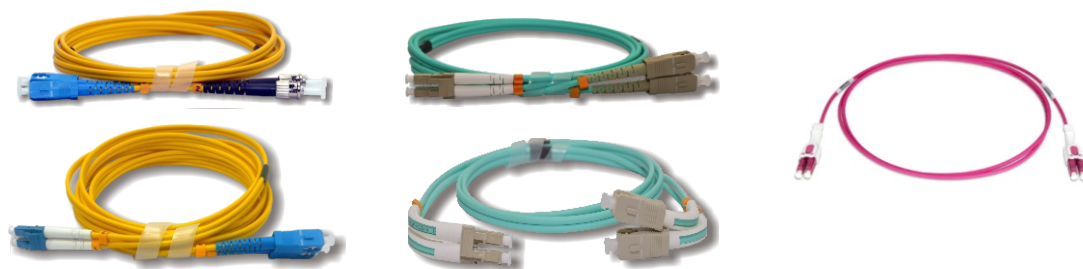


| SPECIFICATION       | 1U PULL-OUT MPO TERMINATION PANEL | 3U PULL-OUT MPO TERMINATION PANEL |
|---------------------|-----------------------------------|-----------------------------------|
| SPECIFICATION       |                                   |                                   |
| Product Name        | Pull Out Termination Panel        | Pull Out Termination Panel        |
| Mounting Style      | Rack Mount                        | Rack Mount                        |
| Port Capacity       | 12 up to 48 Core                  | 12 up to 96 Core                  |
| Modul Capacity      | 4 Moduls                          | 12 Moduls                         |
| Adapter Type        | SC/LC/FC/ST                       | SC/LC/FC/ST                       |
| Color               | Grey, Black                       | Grey, Black                       |
| Material, Finishing | Steel, Powder Coating             | Steel, Powder Coating             |
| Dimension (mm)      | 492.60 (19") x 353 x 44.45 (1U)   | 492.60 (19") x 353 x 131.50 (3U)  |



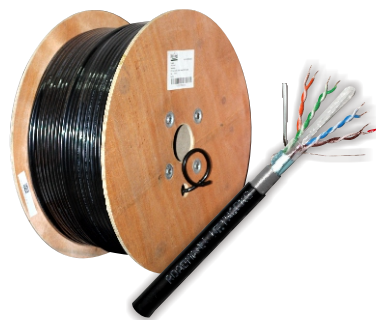
| SPECIFICATION            | MPO CABLE TRUNK Os2                                                                              | MPO CABLE TRUNK                     |                                 |
|--------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------|
| FEATURE                  | ✓ High connect ability    ✓ High precision    ✓ Low insertion lost    ✓ Low back-reflection Lost |                                     |                                 |
|                          | ✓ Customers defined specification                                                                |                                     |                                 |
|                          | ✓ Complies with Structured Cabling International Standards (IEC11801,EN 50173), Bellcore         |                                     |                                 |
|                          | ✓ Standards (AIA455, GR-326-Core)                                                                |                                     |                                 |
| TYPICAL PARAMETER        |                                                                                                  |                                     |                                 |
| Connector                | MPO Female to Female                                                                             |                                     |                                 |
| Fiber Type               | OS2 9/125um Single-Mode                                                                          | OM3 50/125um Multi-Mode             | Om4 50/125um Multi-Mode         |
| Cable Type               | Tight Buffer                                                                                     |                                     |                                 |
| Nominal Outer Diameter   | 3.0 mm                                                                                           |                                     |                                 |
| Outer Sheath             | LSOH Compound (Flame Retardant)                                                                  |                                     |                                 |
| Outer Sheath             | Yellow                                                                                           | Aqua Blue                           | Purple                          |
| Wavelength               | 1310 nm                      1610 nm                                                             | 850 nm                              | 1300 nm                         |
| Attenuation              | < 0.35 dB/km                      < 0.22 dB/km                                                   | OM3: ≤2.4 Db/km<br>OM4: ≤ 2.3 dB/km | OM3 ≤0.7 Db/km<br>OM4 ≤0,6dB/km |
| Minimum Bend Radius      | 10.0mm                                                                                           | 7.5mm                               |                                 |
| Maximum Tensile Load     | Operation: ≤ 300 N                                                                               |                                     | Installation: ≤ 600 N           |
| Temperatures             | Operation: -20 to +70 °C                                                                         | Installation: -5 to +50 °C          | Storage: -45 to +70 °C          |
| FULL RANGE OF FIBER TYPE | ✓ G. 652 (Singlemode Fiber)                                                                      |                                     | ✓ G. 651 (Multimode Fiber)      |
|                          | ✓ G. 655 (NZD Fiber for DWDM application)                                                        |                                     |                                 |
| APPLICATION              | ✓Telecommunication                                                                               | ✓Optical Network Equipment          | ✓Testing Instrumen    ✓CATV     |

# FIBER OPTIC CABLES ASSEMBLY



| DESCRIPTION              | SM Os2 9µm                                                                                                                                                                                                                                                              | MM OM3 50µm                | MM OM4 50µm            |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------|
| FEATURE/BENEFITS         | ✓ High connect ability    ✓ High precision    ✓ Low insertion lost    ✓ Low back-reflection Lost<br>✓ Customers defined specification<br>✓ Complies with Structured Cabling International Standards (IEC11801, EN 50173), Bellcore<br>✓ Standards (AIA455, GR-326-Core) |                            |                        |
| TYPICAL PARAMETER        |                                                                                                                                                                                                                                                                         |                            |                        |
| Zipcord Type             | Duplex                                                                                                                                                                                                                                                                  |                            |                        |
| Nominal Outer Diameter   | 2x2.8 mm                                                                                                                                                                                                                                                                |                            |                        |
| Tight Buffer             | 900µ                                                                                                                                                                                                                                                                    |                            |                        |
| Reinforcement            | Aramid Yarns                                                                                                                                                                                                                                                            |                            |                        |
| Outer Sheath             | Afumex LSOH Compound (Flame Retardant)                                                                                                                                                                                                                                  |                            |                        |
| Color Sheath             | Yellow                                                                                                                                                                                                                                                                  | Aqua Blue                  | Purple                 |
| Minimum Bend Radius      | ≥ 30 mm                                                                                                                                                                                                                                                                 |                            | ≥ 50 mm                |
| Maximum Tensile Load     | ≤ 300 N                                                                                                                                                                                                                                                                 |                            | ≤ 600 N                |
| Temperatures             | Operation: -20 to +70 °C                                                                                                                                                                                                                                                | Installation: -5 to +50 °C | Storage: -45 to +70 °C |
| OPTICAL SPECIFICATION    |                                                                                                                                                                                                                                                                         |                            |                        |
| Fiber Type               | SM                                                                                                                                                                                                                                                                      |                            | MM                     |
| Ferrule Type : Zirconia  | UPC/APC                                                                                                                                                                                                                                                                 |                            | PC                     |
| Typical Insertion Lost   | <0.3 db                                                                                                                                                                                                                                                                 |                            | <0.3 db                |
| Typial Return Lost       | >40 db                                                                                                                                                                                                                                                                  |                            | -                      |
| FULL RANGE OF FIBER TYPE | ✓ G. 652 (Singlemode Fiber)    ✓ G. 651 (Multimode Fiber)<br>✓ G. 655 (NZD Fiber for DWDM application)                                                                                                                                                                  |                            |                        |
| APPLICATION              | ✓ Telecommunication    ✓ Optical Network Equipment    ✓ Testing Instrumen    ✓ CATV                                                                                                                                                                                     |                            |                        |

# COPPER INSTALLATION CABLES



## SPECIFICATION

## FTP CAT.6 CABLE DOUBLE JACKET PVC+PE BLACK

## STP CAT.6 CABLE PE, BLACK

## UTP CAT.6 CABLE LSZH, BLUE

### FEATURE

Reference standar

ANSI/TIA 568C & YD/T1019

Application

For network cabling systems, including 10/100/1000 Base-T, performance to meet the standard requirements 30V

### CONSTRUCTION

Conductor (mm)

Solid bare copper 0,57 ± 0.01

Solid bare copper 0,57 ± 0.01

Solid bare copper 0,57 ± 0.01

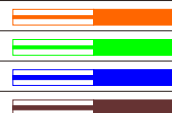
Insulation (mm)

HDPE 1.1 ± 0.08

HDPE 1.1 ± 0.08

HDPE 1.0 ± 0.08

Color Code



White-Orange/Orange

White-Orange/Orange

White-Orange/Orange

White-Green/Green

White-Green/Green

White-Green/Green

White-Blue/Blue

White-Blue/Blue

White-Blue/Blue

White-Brown/Brown

White-Brown/Brown

White-Brown/Brown

Wrapping (mm)

0.02 PET tape

0.02 PET tape

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Screen (mm)

0.06 Al foil

0.06 Al foil

---

Drain Wire

0,4 copper

0,4 copper

---

Cross

Yes

Yes

Yes

Rip Cord

630D

630D

630D

Inner Jacket (mm)

Material

PVC

---

---

Nom. Thickness

0.6

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---

Color

Grey

---

---

Nom. Diameter

7.7 ± 0.5

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Outer Jacket (mm)

Material

PE (UV resistant)

PE (UV resistant)

LSZH

Nom. Thickness

0.6

0.6

0.5

Color

Black

Black

Blue

Nom. Diameter

9.0 ± 0.5

8.0 ± 0.5

6.0 ± 0.5

### MECHANICAL CHARACTERISTIC

Operating Temperature

-20-60°C

-20-60°C

-20-75°C

Installation Temperature

0-60°C

0-60°C

0-75°C

Tensile Strength Max

60N

60N

60N

Bending Radius (mm)

80

80

50

Flame Resistant

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Length of Delivery

500m/drum

500m/drum

305m/box

Net Weight

35.1 kg

35.1 kg

10 kg

Gross Weight

39.1 kg

39.1 kg

10,8 kg

### ELECTRICAL CHARACTERISTIC (20°C)

Conductor Resistance Max

9.5 ohm / 100m

9.5 ohm / 100m

9.5 ohm / 100m

Conductor Resistance Unbalance Max

2.5 %

2.5 %

2.5 %

Insulation Resistance (DC500V / 1 min) Min

5000 M ohm - km

5000 M ohm - km

5000 M ohm - km

Dielectric Strength (C-C, DC 1 min)

1 kV

1 kV

1 kV

Mutual Capacitance

5.6nF / 100m

5.6nF / 100m

5.6nF / 100m

Propagation Delay Skew (1-100MHz) Max

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Velocity of Propagation @ 100MHz

≥65%

≥65%

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Delay Skew

≤45ns / 100m

≤45ns / 100m

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Capacitance unbalance

≤1.6p F/m

≤1.6p F/m

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### ORDERING NO.

I-1002-7800-76-1

I-1002-7800-76-1

C-1002-7700-75-1

# COPPER CABLES ASSEMBLY



## SPECIFICATIOS

## FTP CAT.6 PATCH CORD, BLACK

## UTP CAT.6 PATCH CORD, BLUE

### DESCRIPTION

Cat.6 stranded cable and Cat.6 RJ45 modular plugs,  
The performance of LINKBASIC Patch Cable can meet or exceeds all requirements for Cat.6 standard.  
Compatible with LINKBASIC Cat.6 Keystone Jacks and Cat. 6 24 port Patch Panel  
Gguarantees 350MHz broadband transmission.

Adopt ADCFIBER Cat.6 stranded cable and Cat.6 RJ45 modular plugs,  
The performance of LINKBASIC Patch Cable can meet or exceeds all requirements for Cat.6 standard.  
Compatible with LINKBASIC Cat.6 Keystone Jacks and Cat. 6 24 port Patch Panel  
Gguarantees 350MHz broadband transmission.

### FEATURES

Unique design of Cat.6 / Cat.5e RJ 45 modular plugs and line pair decrease cross talk and increase allowance  
Excellent attenuation and cross talk continuity  
Meet or exceed the requirement for UTP system  
100% tension test  
Allow RJ45 plugs to provide high-density solution  
Available in different colors  
They are available in a variety of the length

### APPLICATION

Communication outlet  
Concentration point  
Patch panel  
Equipment termination

Communication outlet  
Concentration point  
Patch panel  
Equipment termination

### MECHANICAL CHARATERISTIC

Durability  
Contact phosphor bronze with  
Nominal outer diameter  
Minimum bending radius

1000 plugging  
50 " gold plating  $\mu$   
5,6mm  
22,4mm

1000 plugging  
50 " gold plating  
5,6mm  
22,4mm

### PHISICAL CHARACTERISTIC

Conductor  
Insulation Material  
Outer Shield  
Structure  
Cable Jacket  
Cable Color  
Material for RJ45 plus  
Flame Test

23 AWG bare copper  
PE  
AL Foil  
4 twisted pair, Cross filter  
LSZH  
Black  
PC Polycarbonate  
CM or CMR

23 AWG bare copper  
PE  
LSZH  
Blue  
PC Polycarbonate  
CM or CMR

### ELECTRICAL CHARACTERISTIC

Dielectric strength  
Voltage Class (maximum)  
Rated Current (maximum)  
Insulation Resistance (minimum)  
Contact Resistance (maximum)

1.000V RMS 60Hz/1min  
150VAC  
1,5A  
500meg ohm  
10mili ohm

1.000V RMS 60Hz/1min  
150VAC  
1,5A  
500meg ohm  
10mili ohm

### ORDERING NO.

Lenght 4 ft  
Lenght 7 ft  
Lenght 10 ft

C-1002-7899-92-1  
C-1002-7899-93-1  
C-1002-7899-94-1

C-1002-7799-82-1  
C-1002-7799-83-1  
C-1002-7799-84-1

# CABLE ACCESSORIES - PATCH PANEL, FACEPLATE KIT & MODULAR JACK



## SPECIFICATION

## MODULAR PATCH PANEL

## HORIZONTAL CABLE MANAGEMENT

### FEATURE

|                          |                           |
|--------------------------|---------------------------|
| Mounting Style           | Rack Mount                |
| Port Capacity, Preloaded | 24, Unloaded              |
| Module Style             | Keystone Style            |
| Label Type               | Adhesive Label            |
| Color                    | Black                     |
| Material, Finishing      | Steel, Powder Coating     |
| Dimension (mm)           | 492.60 (19") x 44.45 (1U) |
| <b>ORDERING NO.</b>      | C-1004-0090-00-1          |

Rack Mount

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Black

Steel, Powder Coating

492.60 (19") x 44.45 (1U)

C-1004-0090-00-1



## DESCRIPTION

## FACEPLATE KIT SINGLE

## FACEPLATE KIT DOUBLE

### FEATURE

|                          |                              |
|--------------------------|------------------------------|
| Frame Style              | British Style with Shuttered |
| Number of Ports, Preload | 1, Unloaded                  |
| Module Type              | Keystone Style               |
| Label Type               | Label Pocket                 |
| Color                    | White                        |
| Material                 | ABS/Polycarbonate            |
| Dimension (mm)           | (HxWxD) 86x86x10             |
| <b>ORDERING NO.</b>      | C-1003-0090-00-1             |

British Style with Shuttered

2, Unloaded

Keystone Style

Label Pocket

White

ABS/Polycarbonate

(HxWxD) 86x86x10

C-1003-0090-00-1



## DESCRIPTION

## KEYSTONE CAT.6 - METAL

## KEYSTONE CAT.6 - PLASTIC

### FEATURE

|                     |                                                    |                                                    |
|---------------------|----------------------------------------------------|----------------------------------------------------|
| Performance Level   | Category 6 STP                                     | Category 6 UTP                                     |
| Color               | Black                                              | White, Blue                                        |
| Module Type         | RJ45 Keystone                                      | RJ45 Keystone                                      |
| Wiring Scheme       | T568A/T568B                                        | T568A/T568B                                        |
| Accepts             | Modular Patch Panel & Faceplate Kit                | Modular Patch Panel & Faceplate Kit                |
| Ethernet            | 10Base/100BaseTx Fast Ethernet/1000BaseTx Ethernet | 10Base/100BaseTx Fast Ethernet/1000BaseTx Ethernet |
| Body Material       | ABS/Polycarbonate                                  | ABS/Polycarbonate                                  |
| <b>ORDERING NO.</b> | C-1002-7900-00-1                                   | C-1002-7700-00-1                                   |



# CABLE TEST RESULTS

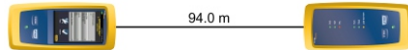
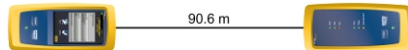
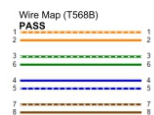
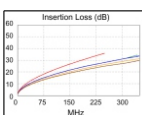
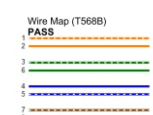
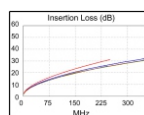
Software Version: V5.1 Build 4  
Limits Version: V6.1

Calibration Date:  
Main (Module): 09/25/2014  
Remote (Module): 09/25/2014

Model: DSX-5000  
Main S/N: 2888369  
Remote S/N: 2888367

Tested by :  **FLUKE** networks

| DESCRIPTION | STP CAT.6 CABLE | UTP CAT.6 CABLE |
|-------------|-----------------|-----------------|
|-------------|-----------------|-----------------|

|                             |                                                                                                                                                                     |              |              |              |                                                                                                                                                                         |              |              |              |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|
| Headroom                    | 1.0 dB (NEXT 12-36)                                                                                                                                                 |              |              |              | 5.7 dB (NEXT 12-36)                                                                                                                                                     |              |              |              |
| Test Limit                  | TIA Cat 6 Channel                                                                                                                                                   |              |              |              | TIA Cat 6 Perm. Link                                                                                                                                                    |              |              |              |
| Cable Type                  |                                                                                                                                                                     |              |              |              |                                                                                                                                                                         |              |              |              |
| NVP                         | 70.0                                                                                                                                                                |              |              |              | 69.0                                                                                                                                                                    |              |              |              |
| Test Summary                |                                                                                                                                                                     |              |              |              |                                                                                                                                                                         |              |              |              |
|                             |                                                                                    |              |              |              |                                                                                      |              |              |              |
|                             |   |              |              |              |   |              |              |              |
|                             | Worst Case                                                                                                                                                          | Margin       | Worst Case   | Value        | Worst Case                                                                                                                                                              | Margin       | Worst Case   | Value        |
| PASS                        | MAIN                                                                                                                                                                | SR           | MAIN         | SR           | MAIN                                                                                                                                                                    | SR           | MAIN         | SR           |
| Worst Pair                  | 12-36                                                                                                                                                               | 37-78        | 12-36        | 12-36        | 12-36                                                                                                                                                                   | 12-36        | 12-36        | 12-36        |
| NEXT (dB)                   | 5.7                                                                                                                                                                 | 7.5          | 7.3          | 8.5          | 2.2                                                                                                                                                                     | 1.0*         | 2.2          | 1.0          |
| Freq. (MHz)                 | 125.0                                                                                                                                                               | 69.5         | 223.5        | 250.0        | 203.5                                                                                                                                                                   | 211.0        | 203.5        | 211.0        |
| Limit (dB)                  | 40.3                                                                                                                                                                | 44.4         | 36.1         | 35.3         | 34.7                                                                                                                                                                    | 34.4         | 34.7         | 34.4         |
| Worst Pair                  | 12                                                                                                                                                                  | 36           | 12           | 36           | 36                                                                                                                                                                      | 36           | 36           | 36           |
| PS NEXT (dB)                | 6.0                                                                                                                                                                 | 7.3          | 8.0          | 7.6          | 3.8                                                                                                                                                                     | 3.7          | 3.8          | 3.7          |
| Freq. (MHz)                 | 125.0                                                                                                                                                               | 221.5        | 238.0        | 250.0        | 203.5                                                                                                                                                                   | 211.0        | 203.5        | 211.0        |
| Limit (dB)                  | 37.7                                                                                                                                                                | 33.6         | 33.1         | 32.7         | 31.7                                                                                                                                                                    | 31.4         | 31.7         | 31.4         |
|                             | MAIN                                                                                                                                                                | SR           | MAIN         | SR           | MAIN                                                                                                                                                                    | SR           | MAIN         | SR           |
| Worst Pair                  | 12-45                                                                                                                                                               | 12-45        | 36-45        | 12-45        | 78-45                                                                                                                                                                   | 12-45        | 78-45        | 78-45        |
| ACR-F (dB)                  | 11.6                                                                                                                                                                | 12.1         | 12.7         | 12.2         | 12.9                                                                                                                                                                    | 13.1         | 12.9         | 14.2         |
| Freq. (MHz)                 | 202.0                                                                                                                                                               | 209.5        | 246.5        | 210.5        | 250.0                                                                                                                                                                   | 196.0        | 250.0        | 250.0        |
| Limit (dB)                  | 18.1                                                                                                                                                                | 17.8         | 16.4         | 17.7         | 15.3                                                                                                                                                                    | 17.4         | 15.3         | 15.3         |
| Worst Pair                  | 45                                                                                                                                                                  | 45           | 45           | 45           | 45                                                                                                                                                                      | 45           | 45           | 45           |
| PS ACR-F (dB)               | 13.2                                                                                                                                                                | 13.7         | 14.6         | 14.5         | 13.2                                                                                                                                                                    | 13.9         | 14.6         | 13.9         |
| Freq. (MHz)                 | 209.                                                                                                                                                                | 209.5        | 250.0        | 250.0        | 160.0                                                                                                                                                                   | 228.5        | 250.0        | 228.5        |
| Limit (dB)                  | 14.8                                                                                                                                                                | 14.8         | 13.2         | 13.2         | 16.2                                                                                                                                                                    | 13.1         | 12.3         | 13.1         |
|                             | MAIN                                                                                                                                                                | SR           | MAIN         | SR           | MAIN                                                                                                                                                                    | SR           | MAIN         | SR           |
| Worst Pair                  | 12-36                                                                                                                                                               | 12-36        | 12-45        | 36-45        | 12-36                                                                                                                                                                   | 12-36        | 12-36        | 12-36        |
| ACR-N (dB)                  | 7.4                                                                                                                                                                 | 9.6          | 14.0         | 12.4         | 4.6                                                                                                                                                                     | 6.1          | 12.5         | 11.8         |
| Freq. (MHz)                 | 15.9                                                                                                                                                                | 15.5         | 224.0        | 240.0        | 9.6                                                                                                                                                                     | 26.5         | 248.0        | 244.5        |
| Limit (dB)                  | 8.1                                                                                                                                                                 | 9.6          | 13.3         | 13.2         | 50.6                                                                                                                                                                    | 39.2         | -2.6         | -2.2         |
| Worst Pair                  | 12                                                                                                                                                                  | 36           | 45           | 36           | 36                                                                                                                                                                      | 36           | 36           | 36           |
| PS ACR-N (dB)               | 8.1                                                                                                                                                                 | 9.6          | 13.3         | 13.2         | 6.1                                                                                                                                                                     | 8.3          | 13.4         | 13.9         |
| Freq. (MHz)                 | 38.0                                                                                                                                                                | 69.5         | 243.5        | 250.0        | 9.6                                                                                                                                                                     | 26.5         | 244.5        | 247.0        |
| Limit (dB)                  | 3.1                                                                                                                                                                 | 26.7         | 2.3          | 1.6          | 48.1                                                                                                                                                                    | 36.5         | -5.2         | -5.4         |
|                             | MAIN                                                                                                                                                                | SR           | MAIN         | SR           | MAIN                                                                                                                                                                    | SR           | MAIN         | SR           |
| Worst Pair                  | 78                                                                                                                                                                  | 12           | 12           | 12           | 78                                                                                                                                                                      | 78           | 78           | 78           |
| RL (dB)                     | 2.3                                                                                                                                                                 | 1.0          | 4.7          | 1.0          | 3.1                                                                                                                                                                     | 4.7          | 6.7          | 7.6          |
| Freq. (MHz)                 | 26.3                                                                                                                                                                | 138.0        | 245.0        | 138.0        | 21.8                                                                                                                                                                    | 7.8          | 158.5        | 179.5        |
| Limit (dB)                  | 18.9                                                                                                                                                                | 12.6         | 10.1         | 12.6         | 17.3                                                                                                                                                                    | 19.0         | 10.0         | 9.5          |
|                             | 10BASE-T                                                                                                                                                            | 100BASE-TX   | 100BASE-TX   | 100BASE-TX   | 10BASE-T                                                                                                                                                                | 100BASE-TX   | 100BASE-TX   | 100BASE-TX   |
| Compliant Network Standards | 100BASE-T4                                                                                                                                                          | 1000BASE-T   | 1000BASE-T   | 1000BASE-T   | 100BASE-T4                                                                                                                                                              | 1000BASE-T   | 1000BASE-T   | 1000BASE-T   |
|                             | ATM-25                                                                                                                                                              | ATM-51       | ATM-51       | ATM-51       | ATM-25                                                                                                                                                                  | ATM-51       | ATM-51       | ATM-51       |
|                             | ATM-155                                                                                                                                                             | 100VG-AnyLan | 100VG-AnyLan | 100VG-AnyLan | ATM-155                                                                                                                                                                 | 100VG-AnyLan | 100VG-AnyLan | 100VG-AnyLan |
|                             | TR-4                                                                                                                                                                | TR-16 Active | TR-16 Active | TR-16 Active | TR-4                                                                                                                                                                    | TR-16 Active | TR-16 Active | TR-16 Active |
|                             | TR-16 Passive                                                                                                                                                       |              |              |              | TR-16 Passive                                                                                                                                                           |              |              |              |



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