

Helix/HiTemp™

a Draka Comteq product*

SuperCAT100E™ ScTP (F/UTP) DATA CABLES

TIA/EIA Category 5e

4 pair 24 AWG plenum and riser / 26 AWG patch

APPLICATIONS

SuperCAT100E horizontal and patch cables are designed to be in compliance with the TIA/EIA 568B.2 (Category 5e) and ISO/IEC 11801 requirements. The cables are constructed with four balanced twisted pairs, each consisting of 24 AWG insulated copper conductors.

The four pairs are enclosed with a flexible PVC jacket. The cables are suitable for 10, 100 and 1000 Mb/s data rates.

These cables are available in plenum and non-plenum versions and in a great variety of jacket colors. Standard package is 1000 ft. reel, boxed reel and reel-in-a-box. (Patch are packaged only on 1000 ft. reels.)

FEATURES

- MEETS REQUIREMENTS FOR ISO/IEC 11801 AND TIA/EIA 568B.2 CAT 5E
- SUPPORTS GIGABIT ETHERNET
- FOIL SHIELD PROVIDES EXTRA PROTECTION AGAINST EMI

CONSTRUCTION**1. CONDUCTORS**

Solid bare 24 AWG copper except for the patch, which is 26 AWG bare stranded copper.

2. INSULATION

Plenum rated versions have a Fluorinated Ethylene Propylene (FEP) insulation; riser rated and patch versions use polyethylene (PE).

3. CIRCUIT IDENTIFICATION

Standard blue/orange/green/brown color code with band marks to identify paired conductors. Specially formulated insulation makes these colors vivid for easier identification.

4. SHIELD

Overall aluminum/Mylar tape with stranded tinned copper drain wire.

5. OVERALL JACKET

Plenum versions have a plenum-rated polyvinylchloride (PVC) jacket; riser rated and patch versions use a flame-retardant PVC

RATINGS

Meets TIA/EIA 568B.2, ISO/IEC 11801

ETL verified to TIA/EIA 568B.2

Plenum meets CMP, FT-6

Riser meets CMR, FT-4



CustRef LAN-17

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| Part Number | Number of Pairs | Conductor Size | Conductor Type | Rating | Cable O.D. inches • mm | Approximate Cable Weight Lbs/Mft • Kg/Km |
|---------------|-----------------|----------------|----------------------|-----------|------------------------|--|
| 853308 plenum | 4 | 24 AWG | Bare Solid Copper | CMR, FT-6 | 0.23 • 5.8 | 33 • 49 |
| 753408 riser | 4 | 24 AWG | Bare Solid Copper | CMR, FT-4 | 0.24 • 6.1 | 32 • 48 |
| 701408 patch | 4 | 26 AWG | Bare Stranded Copper | CM | 0.23 • 5.8 | 32 • 48 |

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

ELECTRICAL CHARACTERISTICS

DC Resistance < 9.38 Ω /100 meters = 28.6 Ω /1000 feet
 DCH Unbalanced \leq 5%
 Mutual Capacitance \leq 55.8 pF/m • 17 pF/ft

Input Impedance 100 Ω \pm 15% @ 1 - 100 MHz
 Propagation Delay (Skew) \leq 45 ns/100 m
 Velocity of Propagation 72% plenum / 69% riser

DATA TRANSMISSION PERFORMANCE FOR SuperCAT100E ScTP PLENUM AND RISER

| Frequency (MHz) | Insertion Loss typical • max* (dB/100m) | NEXT typical • min* (dB) | PSNEXT typical • min* (dB) | ACR typical • min* (dB/100m) | PSACR typical • min* (dB/100m) | ELFEXT typical • min* (dB/100m) | PSELFEXT typical • min* (dB/100m) | Return Loss min (dB) |
|-----------------|---|--------------------------|----------------------------|------------------------------|--------------------------------|---------------------------------|-----------------------------------|----------------------|
| 0.772 | 1.5 • 1.8 | 86.3 • 67.0 | 81.9 • 64.0 | 84.8 • 65.2 | 80.4 • 62.2 | 87.1 • 66.0 | 83.6 • 63.0 | — |
| 1 | 1.7 • 2.0 | 84.3 • 65.3 | 80.0 • 62.3 | 82.6 • 63.3 | 78.3 • 60.3 | 80.9 • 63.8 | 78.7 • 60.8 | 20.0 |
| 4 | 3.5 • 4.1 | 76.5 • 56.3 | 70.1 • 53.3 | 73.0 • 52.2 | 66.6 • 49.2 | 72.3 • 51.7 | 68.8 • 48.7 | 23.0 |
| 8 | 5.0 • 5.8 | 70.9 • 51.8 | 63.4 • 48.8 | 65.9 • 51.0 | 58.4 • 43.0 | 64.4 • 45.7 | 63.5 • 42.7 | 24.5 |
| 10 | 5.6 • 6.5 | 65.7 • 50.3 | 59.7 • 47.3 | 60.1 • 43.8 | 54.1 • 40.8 | 62.5 • 43.8 | 61.8 • 40.8 | 25.0 |
| 16 | 7.2 • 8.2 | 63.8 • 47.3 | 58.1 • 44.3 | 56.6 • 39.1 | 50.9 • 36.1 | 61.2 • 39.7 | 57.5 • 36.7 | 25.0 |
| 20 | 8.1 • 9.3 | 63.0 • 45.8 | 57.4 • 42.8 | 54.9 • 36.5 | 49.3 • 33.5 | 60.9 • 37.7 | 54.8 • 34.7 | 25.0 |
| 25 | 9.1 • 10.4 | 62.3 • 44.3 | 55.2 • 41.3 | 53.2 • 33.9 | 46.1 • 30.9 | 60.0 • 35.8 | 52.0 • 32.8 | 24.3 |
| 31.25 | 10.2 • 11.7 | 59.0 • 42.9 | 50.2 • 39.9 | 48.8 • 31.2 | 40.0 • 28.2 | 55.5 • 33.9 | 51.6 • 30.9 | 23.6 |
| 62.5 | 14.8 • 17.0 | 56.1 • 38.4 | 49.6 • 35.4 | 41.3 • 21.4 | 34.6 • 18.4 | 47.5 • 27.8 | 44.2 • 24.8 | 21.5 |
| 100 | 19.3 • 22.0 | 51.9 • 35.3 | 43.8 • 32.3 | 32.6 • 13.3 | 24.5 • 10.3 | 43.7 • 23.8 | 38.8 • 20.8 | 20.1 |

*NOTE: max/min measurements match TIA/EIA 568B.2 standards

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CustRef LAN-18

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