

Structural Cabling System Fibrain Data
Category 5e cabling
 U/UTP MULTI PVC sheath

01



Cable 100 MHz 25 PAIRS PVC sheath
 U/UTP cat. 5e+

FIBRAIN DATA cabling Express series is fully complied to requirements of category 5e (class D) according to the norm ISO/IEC 11801 2nd edition: 2002. Moreover all channel's components are complied to Directive ROHS 2002/95/WE.

Electrical and construction parameters:

| Parameter | | |
|--|--------------|----------------|
| Resistance(max) Ohm/100 m(328 ft) @ 20°C | | 8,90 |
| Mutual capacitance (max) nF/100 m(328 ft) @ 1 kHz | | 5,20 |
| Nominal velocity of propagation NVP (% speed of light) | | 68 |
| Impedence characteristic (Ohm) | | (min-max) |
| Values at: | 772 kHz | 87-117 |
| | 1,0-100 MHz | 85-115 |
| Return loss (RL) dB (min) | | |
| Values at: | 1.0 - 10 MHz | 20+5 log(f) |
| | 10 - 20 MHz | 25 |
| | 20 - 100 MHz | 25-7 log(f/20) |
| Propagation delay (max) (ns @ 10MHz) | | 518 |
| Delay skew (max) (ns/100 m) | | 45 |
| Diameter (mm) | | 12 |
| Weight (kg/km) | | 213,7 |
| Minimal bending radius(mm) | | 52 |
| Installation temperature (°C) | | -20/+50 |
| Operation temperature (°C) | | -10/+60 |

Construction:

- Conductor - 24AWG (0,51mm)
- Insulation - polyolefin
- Pair number - 25 pairs twisted
- Sheath - grey PVC

Applications:

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

Norms:

- IEC 60332-1
- ANSI/TIA/EIA 568-C.2 (Cat. 5e)
- ISO/IEC 11801
- IEC 61156-5
- EN 50173, EN 50288

Cable marking:

Every cable meter is marked as follow:

- Brand: FIBRAIN DATA
- Cable type: U/UTP 25PR MULTI 24 AWG CAT. 5E 100 MHz
- Sheath type: PVC
- Norms: IEC 61156-5 ISO/IEC 11801 EN 50173
- Production year: XXXX
- Identifier: XXXXXX
- Length mark in meters

| | Pair 1-5 | Pair 6-10 | Pair 11-15 | Pair 16-20 | Pair 21-25 | |
|----------------|---------------------------|----------------|------------|------------|------------|-------------|
| | | | | | | |
| Frequency MHz: | Attenuation Max dB/100 m: | NEXT | PS-NEXT | ACR-F | PS-ACR-F | Return Loss |
| | | dB/100 m(min): | | | | |
| 1 | 2,0 | 65,3 | 62,3 | 61,0 | 58,0 | 20,0 |
| 4 | 4,1 | 56,3 | 53,3 | 49,0 | 46,0 | 23,0 |
| 8 | 5,8 | 51,3 | 48,3 | 42,0 | 39,9 | 24,5 |
| 10 | 6,5 | 50,3 | 47,3 | 41,0 | 38,0 | 25,0 |
| 16 | 8,2 | 47,3 | 44,3 | 36,9 | 33,9 | 25,0 |
| 20 | 9,3 | 45,3 | 42,3 | 34,9 | 31,9 | 25,0 |
| 25 | 10,4 | 44,3 | 41,3 | 33,0 | 30,0 | 24,3 |
| 31,25 | 11,7 | 42,9 | 39,9 | 31,0 | 28,0 | 23,6 |
| 62,5 | 17,0 | 38,4 | 35,4 | 25,1 | 22,1 | 21,5 |
| 100 | 22,0 | 35,3 | 32,3 | 21,0 | 18,0 | 20,1 |

XE125.103 FIBRAIN DATA Express 25xU/UTP Cat.5e+ 100 MHz reel of 1000 m, grey PVC sheath