DESCRIPTION

The R&Mfreenet Cat 8.1 shielded connection module, part of the freenet cabling system, are ideal for very fast data transmissions and high bandwidth applications. This high-performance Cat 8.1 module is perfect for use in 25/40 Gigabit Ethernet (25GBASE-T / 40GBASE-T) and future high-speed applications up to 2000 MHz.

PRODUCT_IMAGE

SCOPE OF SUPPLY

• RJ45 Cat. 8.1 connection module, shielded

• EMC cover

• Dust cover

• Cable tie

• Installation instructions

TENDER

RJ45 connection module of Cat. 8.1 for the setting up of transmission channels of Class I with up to 2 plugged connections acc. to ISO/IEC 11801, EN 50173-1 as well the U.S. standard Cat. 8 according to TIA/EIA 568.2-D, interoperable and backwards compatible with Category 6A, 6 and 5e.

Suitable for 40GBASE-T applications in acc. with IEEE 802.3bq™ up to 2000 MHz and 30m.

Tested in line with R&M's manufacturing control, performing 100% inspection.

Compatible with standard plugs RJ45, connection with automatic wire cutting of installation cables AWG 26 22 (0.4 mm 0.65 mm) and flexible cables AWG 26/7 AWG 22/7 without special tools. X-Separator for individual pair shielding. Parallel pair termination without crossover in acc. with TIA 568-A/B, gold-plated bronze contacts for ≥750 mating cycles, IDC contacts with ≥20 insertion cycles, contact resistance ~5 mOhm, dielectric strength >1000 Veff. Supports PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PpoE (IEEE 802.3bt) and is compatible to IEC 60512-99-001/002 up to type 3. 90° wire orientation without bending cable. With integral cable strain relief, including dust cover. Shield contacting by patented shield lance with integral cable strain relief, shield material tin-coated bronze, ground contacting through 1 contact finger for flat connectors 4.8 x 0.5 mm.

Material: halogen-free and heavy-metal free in acc. with EU directives RoHS 2.

Connection module Cat. 8.1, shielded, with EMC cover, dust cover, cable tie and installation instructions.

GET MORE

More performance

• Innovation in twisted-pair connection technology

• Reliable high-frequency data transmission

• High performance enables 5m short links support

• High density in the patch panel and rack

• Assembly saves time and cost

More security

• Innovatively protected signal transmission

• Consistent performance

- 360° shield housing
- Large-area color coding
- 100% quality control

More convenience

- Quick and simple installation
- Reliable IDC technology
- Automatic cutting of wires
- Each module delivered with protective cover
- 90° and 180° orientation in one module

FEATURES

Attains Cat 8.1 values together with Cat 8.1 patch cables as specified in standard ISO/IEC 11801 and EN50173-1

When installed as part of an R&M Cat 8.1 shielded channel or permanent link, it meets the IEEE 802.3bq requirements for 40GBASE-T performance, as well as the requirements for Class I performance according to ISO/IEC 11801 and Cat 8.1 performance according to TIA/EIA 568.2-D.

Supports extended reach of 25G transmission according to ISO/IEC TR11801-9909

Very good margins on class EA permanent link limits

Supports PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PpoE (IEEE 802.3bt) and is tested according to IEC 60512-99-001/002 up to type 3

Gold-plated contact area and tin-plated insulation displacement contact area

Capacitive and inductive compensation

Compatible with Cat 8.1 and full mechanical and electrical backwards compatibility with Cat 6A, 6 and 5e standard patch cords

Automatic cutting of wires for precise, consistent termination

X-Separator isolates pairs from each other, minimizing influence of cable termination on NEXT performance

Use of all four sides of modules maximizes distance between pairs for optimum performance

Unique termination design maximizes space for routing wires without sacrificing density

Equipped with gauge to prevent RJ11/12 insertion

Fits into 3rd party outlets and patchpanels with different adapters

Wiring option according to TIA/EIA T568A and T568B without splitting of pair 3, 6

Easy to read color wiring chart

Optional termination tool available

Halogen-free materials, ROHS II

TECHNICAL DATA

DESCRIPTION	VALUE / VALUE RANGE
Shield Module Material	CuSn, tin-plated
Category connector (A)	Cat. 8.1
Connector type (A)	RJ45
Shielding connector (A)	shielded
Protection class IP	IP 20
PoE	Yes
PoE Level	Yes up to type 3
Connector class	connection module
Wiring diagram	T568A and T568B
Holder for connector / module	Special (without mounting plate)
Contact Surface	>1.2µm gold over nickel
Poles	8
Housing Material	Polycarbonate (UL-94-V0)

MECHANICAL DATA

DESCRIPTION	VALUE / VALUE RANGE
Dimensions	43.2 mm x 15.5 mm x 15.6 mm / 1.701 in x 0.61 in x 0.614 in (W x H x D)
Color	silver / black
Material	plastic: PC, UL 94 V-0

ELECTRICAL DATA

DESCRIPTION	VALUE / VALUE RANGE
Input-Output Resistance	< 40 mΩ
Insulation Resistance	> 500 MΩ (100 V DC)
Contact Resistance	≤ 5 mΩ
Standard	ISO/IEC TR11801-9909

ENVIRONMENTAL DATA

DESCRIPTION	VALUE / VALUE RANGE
Operation temperature	-10 °C to +60 °C / +14 °F to +140 °F
Storage / Transport temperature	-40 °C to +70 °C / -40 °F to +158 °F
Relative Humidity	0% - 95% non-condensing

ACCESSORIES

Type	Picture	Description	Article	E-Number
Accessories		Termination Tool Cat. 6A	R516050	983294225
Accessories		Cable Preparation Tool Cat. 6A	R804325	983058039
Accessories		Adapter C6 EL, 6A /s Keystone 3rd Gen.	R837034	
Accessories		Adapter C6 EL, C6A /u Keystone LARGE	R848274	