



IDC PRODUCTS

数据中心解决方案

Product Catalogue

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“HIGH STABILITY
HIGH RELIABILITY
HIGH COST-COMPECTITIVE”
高稳定性 高可靠性 高性价比

Content (目录)

Mini Internal Connectivity for QSFP (光模块内部微连接系列)

Application for QSFP (光模块应用)

MT - 2*Jumper Assembly	6.
MT - 4*Jumper Assembly	7.
MT - MT Assembly	8.
MT - 2*MT Assembly	9.
MT - Fiber Array Assembly	10.
MT - 2*Fiber Array Assembly	11.
MT - SUS Assembly	12.
Fiber Array - SUS Assembly	13.

Application for COBO (板载光连接应用)

MPO - Jumper Assembly	14.
MPO - MT Assembly	15.
MPO - Fiber Array Assembly	16.

Application for AOC Cable (AOC光缆应用)

LC - LC AOC Assembly	16.
MT - MT AOC Assembly	17.
Jumper - Jumper AOC Assembly	18.
Fiber Array - Fiber Array AOC Assembly	19.

IDC Cabling Products (数据中心光纤布线产品)

Cable Assembly for IDC (数据中心预端接光缆/跳线)

MTP/MPO - LC Fan-out Patch Cord	22.
Switchable Duplex LC Uniboot Fiber Optic Patch Cord	23.
MTP/MPO Trunk Fiber Optic Cable Patch Cord	24.
High Density LC Duplex Uni-boot Patch Cord	25.
MPO Polarity Changeable Patch-Cord	26.
OM5 Product Series	27.
MTP/MPO Polarity Instruction	28.

Fiber Distribution Panel/Frame (数据中心光配线箱)

Fiber Distribution Frame	29.
Rack Mount Patch Panel	30.
MTP/MPO - LC Fix Type Fiber Optical Cassette	31.
MTP/MPO - LC Sliding Type Fiber Optical Cassette	32.
High Density Fiber Distribution Frame	33.
Adapter Panel	34.

KOC Branches

About



Established in 2001, KOC Group is a state and municipal level Hitech Company, located in Longhua District, Shenzhen, China. KOC started its fiber optic connection trading at its early stage. After more than 10-year's developments, it becomes a professional manufacturer specialized in telecom, fiber optic network connection, passive devices, data center cabling etc.

KOC products are extensively applicable to telecom operators, fiber optic engineering, CCTV, broadband networks, FTTH, data center in more than 80 countries worldwide.

KOC provides reliable products and services to customers under the concept of high quality orientation.

KOC集团成立于2001年，是一家国家级和市级的科技公司。公司位于中国深圳市龙华区。KOC在其早期阶段就开始了光纤连接交易。经过近20年的发展，现已成为一家专业从事电信、光纤网络连接、无源器件、数据中心布线等业务的制造商。KOC产品广泛应用于全球80多个国家的电信运营商、光纤工程、CCTV、宽带网络、FTTH、数据中心等领域。公司以高品质为导向，为客户提供可靠的产品和服务。

2004

Path cord Production base set up in Yintan, Jiangxi Province.
江西鹰潭建立光纤跳线生产基地

2008

Sub-companies established for adapters, connectors and other components. Moved to Unibuilt.
成立光纤适配器、光纤连接器零部件生产分公司总部搬至龙华大浪

2015

Acquired and integrated companies under KOC, set up ODN/PON, passive device and data center divisions. KOC Group established.
收购以及整合，成立ODN/PON产品事业部和IDC数据中心产品事业部，成立KOC集团

2001

KOC founded
公司成立于深圳市

2006

Production base relocated in Hitec Cluster - Shenzhen
基地搬回产业聚集地深圳

2010

Set up PLC production Lines
建立PLC/WDM无源器件生产线

2020

Establishment of Sichuan KOC Communication Co., Ltd
建立四川省嘉万光通信有限公司新增内地生产基地

Mini Internal Connectivity for QSFP 光模块内部微连接系列



Internal Connection focuses on optical passive connections in three applications: DACs, AOCs and COBO applications. The business model includes OEM, ODM and JDM, to provide customers with quality products, professional technical support and professional service.

内部连接的重点是光无源连接的三种应用：DACs、AOCs、COBO。业务模式包括OEM、ODM及JDM。为客户提供优质的产品、专业的技术支持和服务。

MT - 2*Jumper Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, QSFP-DD, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、QSFP-DD、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 200G(8x25G), 400G(8x50G)

符合GR-1435、GR-1221

传输方式：多通道并行光传输

支持：200G (8x25G)、400G (8x50G)

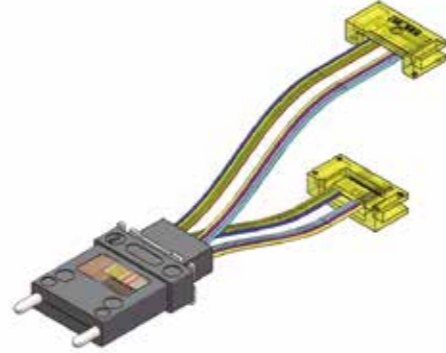
Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8, 10 degrees as customer designed

Active coupling with light source and 0~45 degrees

Passive coupling with guide pins and 90 degrees

无源接口侧MT导针对准可实现0°、8°、10°及按客户定制角度
有源侧Jumper激光切割耦合，角度0~45°可定制
以导针对准的无源耦合也可用90°转角



IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损 0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C

Item	Specification
Connector A (连接头A)	MT ferrule with guide pin (带引针的MT插芯)
Connector B (连接头B)	Customized Jumper/Lens, Usconnect Prizm/Lensed MT (客户定制跳线/透镜, Usconnect Prizm/带透镜的MT)
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	2F/4F/8F/12F/16F/24F
Fiber type (光纤型号)	OM3, OM4, OM5;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	±0.30 ~ ±0.50mm

MT - 4*Jumper Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, QSFP-DD, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、QSFP-DD、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 200G(8x25G), 400G(8x50G)

兼容GR-1435、GR-1221

传输方式：多通道并行光传输

支持：200G (8x25G)、400G (8x50G)

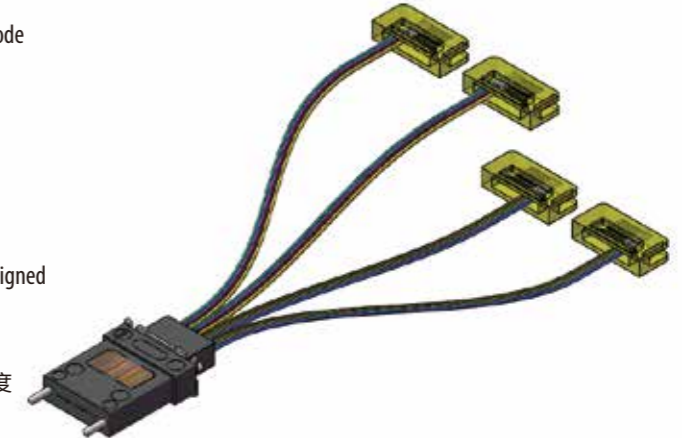
Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8, 10 degrees as customer designed

Active coupling with light source and 0~45 degrees

Passive coupling with guide pins and 90 degrees

无源接口侧MT导针对准可实现0°、8°、10°及按客户定制角度
有源侧Jumper激光切割耦合，角度0~45°可定制
以导针对准的无源耦合也可用90°转角



IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损 0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C

Item	Specification
Connector A (连接头A)	MT ferrule with guide pin (带引针的MT插芯)
Connector B (连接头B)	Customized Jumper/Lens, Usconnect Prizm/Lensed MT (客户定制跳线/透镜, Usconnect Prizm/带透镜的MT)
Fiber shape (光纤形状)	Ribbon/Single fibers (带状/单纤)
Fiber count (纤芯数)	2F/4F/8F/12F/16F/24F
Fiber type (光纤型号)	OM3, OM4, OM5;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	±0.30 ~ ±0.50mm

MT - MT Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, 100G PSM4, QSFP-DD, Micro QSFP, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、100G PSM4、QSFP-DD、Micro QSFP、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G), 100G(10X10G), 12x10G, 4x32G, 8X10G, 200G(8X25G), 400G(8X50G), 800G(8X100G)

兼容GR-1435、GR-1221

传输方式：多通道并行光传输

支持：40G (4x10G)、100G (4x25G)、100G (10X10G)、12x10G、4x32G、8X10G、200G (8X25G)、400G (8X50G)、800G (8X100G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

无源接口侧MT导针对准可实现0°、8°及按客户定制角度

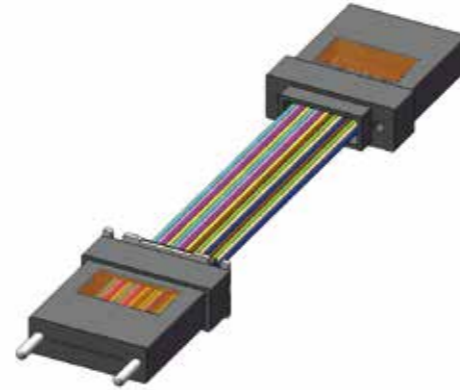
IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C



Item	Specification
Connector A (接头A)	MT Ferrule with guide pin (带引针的MT插芯)
Connector B (接头B)	MT Ferrule (MT插芯)
Fiber shape (光纤形状)	Ribbon/Single fibers (带状/单纤)
Fiber count (纤芯数)	8F/12F/16F/24F
Fiber type (光纤型号)	OM2,OM3, OM4, OM5; OS1, OS2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm

MT - 2*MT Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, 100G PSM4, QSFP-DD, Micro QSFP, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、100G PSM4、QSFP-DD、Micro QSFP、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 100G(10X10G), 200G(8X25G), 400G(8X50G), 800G(8X100G)

兼容GR-1435、GR-1221

传输方式：多通道并行光传输

支持：100G (10X10G)、200G (8X25G)、400G (8X50G)、800G (8X100G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

无源接口侧MT导针对准可实现0°、8°及按客户定制角度

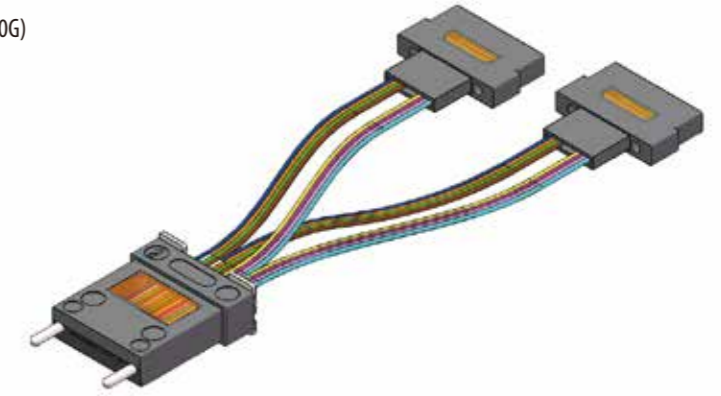
IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C



Item	Specification
Connector A (接头A)	MT Ferrule with guide pin (带引针的MT插芯)
Connector B (接头B)	MT Ferrule (2*MT插芯)
Fiber shape (光纤形状)	Ribbon/Single fibers (带状/单纤)
Fiber count (纤芯数)	8F/12F/16F/24F
Fiber type (光纤型号)	OM2,OM3, OM4, OM5; OS1, OS2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm

MT - Fiber Array Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, QSFP-DD, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、QSFP-DD、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G)

兼容GR-1435、GR-1221

传输方式：多通道并行光传输

支持：40G (4x10G)、100G (4x25G)

Coupling Mode (耦合模式)

Active coupling with light source and 0~ 45 degrees

Passive coupling with guide pins and 90 degrees

有源侧Jumper激光切割耦合，角度0~45°可定制

无源接口侧MT导针对准可实现90°转角

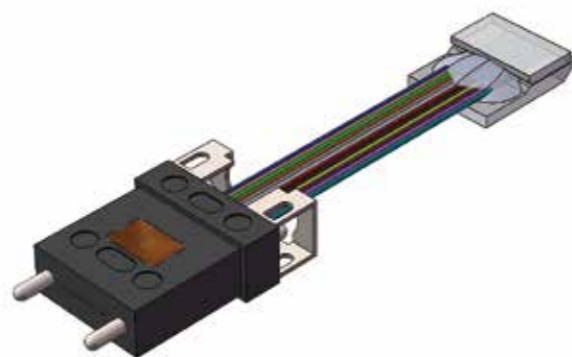
IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	MT Ferrule with guide pin (带引针的MT插芯)
Connector B (连接头B)	FA, Customized size/angle available (FA可定制尺寸/角度)
Fiber shape (光纤形状)	Ribbon/single fibers (带状/单纤)
Fiber count (纤芯数)	12F
Fiber type (光纤型号)	OM3, OM4, OS1, OS2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm

MT - 2*Fiber Array Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, QSFP-DD, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、QSFP-DD、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 100G(10x10G), 200G(8*25G)

兼容GR-1435、GR-1221

传输方式：多通道并行光传输

支持：100G (10x10G)、200G (8*25G)

Coupling Mode (耦合模式)

Active coupling with light source and 0~ 45 degrees

Passive coupling with guide pins and 90 degrees

有源侧Jumper激光切割耦合，角度0~45°可定制

无源接口侧MT导针对准可实现90°转角

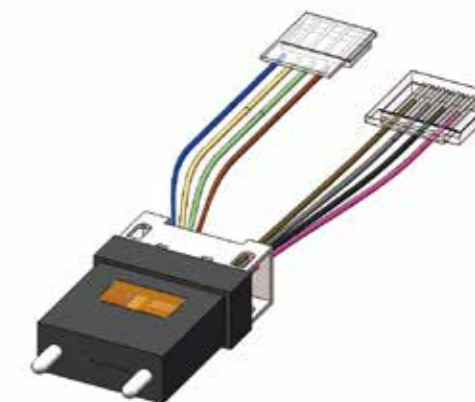
IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	MT Ferrule with guide pin (带引针的MT插芯)
Connector B (连接头B)	FA, Customized size/angle available (FA可定制尺寸/角度)
Fiber shape (光纤形状)	Ribbon/single fibers (带状/单纤)
Fiber count (纤芯数)	12F
Fiber type (光纤型号)	OM3, OM4, OS1, OS2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm

MT - SUS Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, 100G PSMA, QSFP-DD, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、100G PSMA、QSFP-DD、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant
Transmission mode: Multi-channel serial and parallel transmission mode
High accuracy
Support: 40G(4x10G), 100G(4x25G)

兼容GR-1435、GR-1221

传输方式：多通道并行光传输
支持：40G (4x10G)、100G (4x25G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

无源接口侧MT导针对准可实现0°、8°及按客户定制角度

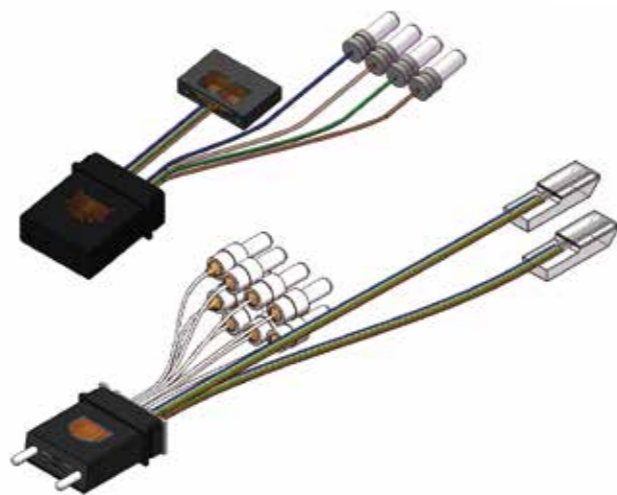
IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	MT Ferrule with guide pin (带引针的MT插芯)
Connector B (连接头B)	MT&SUS or FA&SUS, Customized size/angle available for FA (FA可定制尺寸/角度)
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	8F
Fiber type (光纤型号)	OS1, OS2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm

Fiber Array - SUS Assembly

Passive optical interconnect jumpers can be deployed in 100G CWDM4, 100G CLR4, 100G SWDM and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

产品应用于QSFP、QSFP+、QSFP28、100G PSMA、QSFP-DD、OSFP、CXP、CFP、CDFP 以及其他并行传输光收发模块中，支持200G以上各类型光模块内部微连接应用的OEM/ODM配套。

Features (特点)

GR-1435, GR-1221 compliant
Transmission mode: Multi-channel serial and parallel transmission mode
High accuracy
Support: 100G

兼容GR-1435、GR-1221

传输方式：多通道并行光传输
支持：40G (4x10G)、100G (4x25G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees
Active coupling with light source and 0~45 degrees
Passive coupling with guide pins and 90 degrees

无源接口侧MT导针对准可实现0°、8°及按客户定制角度
有源侧Jumper激光切割耦合，角度0~45°可定制
以导针对准的无源耦合也可用90°转角

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (适用环境)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	FA, Customized size/angle available (FA可定制尺寸/角度)
Connector B (连接头B)	SUS
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	5F
Fiber type (光纤型号)	OM3, OM4, OS1, OS2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm

MPO - Jumper Assembly

Passive optical interconnect jumper could connect to optical modules, optical FPGA and Silicon photonic chip installed on PCB, and also it could connect to any parallel optical transceiver modules, supporting various network types, including Ethernet network, Infiniband network and Fiber Channel network, the application equipment includes Switches, Servers, Storages, HPC, and, etc.

无源光学互连跳线可以连接到光学模块，光学FPGA和硅光子芯片安装在PCB上，也可以连接到任何平行光收发模块，支持各种网络类型，包括以太网网络、无线宽带网络和光纤通道网络，应用设备包括交换机、服务器、存储、HPC等等。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

Active coupling with light source and 0~ 45 degrees

Passive coupling with guide pins and 90 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

接通光源的有源耦合可用0-45°

以导针对准的无源耦合也可用90°转角

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C

Item	Specification
Connector A (接头A)	MPO
Connector B (接头B)	Customized Jumper/Lens (可定制Jumper/Lens)
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	12F
Fiber type (光纤型号)	OM2,OM3,OM4;
Length (长度)	50~80mm, Customized length available (50-80mm可选)
Length tolerance (长度公差)	±0.5mm



MPO - MT Assembly

Passive optical interconnect jumper could connect to optical modules, optical FPGA and Silicon photonic chip installed on PCB, and also it could connect to any parallel optical transceiver modules, supporting various network types, including Ethernet network, Infiniband network and Fiber Channel network, the application equipment includes Switches, Servers, Storages, HPC, and, etc.

无源光学互连跳线可以连接到光学模块，光学FPGA和硅光子芯片安装在PCB上，也可以连接到任何平行光收发模块，支持各种网络类型，包括以太网网络、无线宽带网络和光纤通道网络，应用设备包括交换机、服务器、存储、HPC等等。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G), 100G(10x10G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)、100G (10x10G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C

Item	Specification
Connector A (接头A)	MPO
Connector B (接头B)	MT Ferrule
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	12F/24F
Fiber type (光纤型号)	OM2,OM3,OM4;
Length (长度)	50~80mm, Customized length available (50-80mm可选)
Length tolerance (长度公差)	±0.5mm



MPO - Fiber Array Assembly

Passive optical interconnect jumper could connect to optical modules, optical FPGA and Silicon photonic chip installed on PCB, and also it could connect to any parallel optical transceiver modules, supporting various network types, including Ethernet network, Infiniband network and Fiber Channel network, the application equipment includes Switches, Servers, Storages, HPC, and, etc.

无源光学互连跳线可以连接到光学模块，光学FPGA和硅光子芯片安装在PCB上，也可以连接到任何平行光收发模块，支持各种网络类型，包括以太网网络、无线宽带网络和光纤通道网络，应用设备包括交换机、服务器、存储、HPC等等。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

Active coupling with light source and 0~ 45 degrees

Passive coupling with guide pins and 90 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

接通光源的有源耦合可用0~45°

以导针对准的无源耦合也可用90°转角

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C

Item	Specification
Connector A (接头A)	MPO
Connector B (接头B)	Customized Fiber Array (可定制FA)
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	12F
Fiber type (光纤型号)	OM2,OM3,OM4;
Length (长度)	50~80mm, Customized length available (50-80mm可选)
Length tolerance (长度公差)	±0.5mm



LC - LC AOC Assembly

Passive optical interconnect jumpers can be deployed in QSFP, QSFP+, QSFP28, 100G PSMA, QSFP-DD, OSFP, CXP, CFP, CDFP and any parallel optical transceiver modules, supporting various network types, including Ethernet optical network, Infiniband optical network, and Fiber Channel network.

无源光互连跳线可用于QSFP、QSFP+、QSFP28、100G PSMA、QSFP-DD、OSFP、CXP、CFP、CDFP以及任何并行光收发模块AOC中，支持以太网网络、无线宽带网络、光纤通道网络等多种网络类型。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C



Item	Specification
Connector A (接头A)	2*LC Ferrule
Connector B (接头B)	2*LC Ferrule
Fiber shape (光纤形状)	Ribbon (带状)
Fiber count (纤芯数)	2F
Fiber type (光纤型号)	OM1, OM2;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm
Cable diameter (光缆直径)	Ø3.0mm
Cable jacket (光缆护套)	LSZH/OFNR/OFNP/LSZH+OFNR
Cable length (光缆长度)	1M/3M/5M/7M.....50M/100M

MT - MT AOC Assembly

Passive optical interconnect jumpers could be deployed in QSFP AOC, QSFP28 AOC, QSFP-DD AOC, Micro QSFP AOC, CXP AOC, CFP AOC, CDFP AOC, and any parallel optical transceiver module AOC, supporting network types include Ethernet with optical fiber transmission, Infiniband with optical fiber transmission, and Fiber Channel.

无源光互连跳线可用于QSFP AOC、QSFP28 AOC、QSFP-DD AOC、Micro QSFP AOC、CXP AOC、CFP AOC、CDFP AOC以及任何并行光收发模块AOC中，支持以太网网络、无线宽带网络、光纤通道网络等多种网络类型。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G), 100G(10X10G), 12x10G, 4x32G, 8X10G, 200G(8X25G), 400G(8X50G), 800G(8X100G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)、100G (10X10G)、12x10G、4x32G、8X10G、200G (8X25G)、400G (8X50G)、800G (8X100G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	MT ferrule
Connector B (连接头B)	MT ferrule
Fiber shape (光纤形状)	Round Cable (圆形光缆)
Fiber count (纤芯数)	8F/12F/16F/24F
Fiber type (光纤型号)	OM2,OM3,OM4,OM5;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm
Cable diameter (光缆直径)	Ø3.0mm/Ø3.6mm
Cable jacket (光缆护套)	LSZH/OFNR/OFNP/LSZH+OFNR
Cable length (光缆长度)	1M/3M/5M/7M 50M/100M

Jumper - Jumper AOC Assembly

Passive optical interconnect jumpers could be deployed in QSFP AOC, QSFP28 AOC, QSFP-DD AOC, Micro QSFP AOC, CXP AOC, CFP AOC, CDFP AOC, and any parallel optical transceiver module AOC, supporting network types include Ethernet with optical fiber transmission, Infiniband with optical fiber transmission, and Fiber Channel.

无源光互连跳线可用于QSFP AOC、QSFP28 AOC、QSFP-DD AOC、Micro QSFP AOC、CXP AOC、CFP AOC、CDFP AOC以及任何并行光收发模块AOC中，支持以太网网络、无线宽带网络、光纤通道网络等多种网络类型。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G), 100G(10X10G), 12x10G, 4x32G, 8X10G, 200G(8X25G), 400G(8X50G), 800G(8X100G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)、100G (10X10G)、12x10G、4x32G、8X10G、200G (8X25G)、400G (8X50G)、800G (8X100G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

Active coupling with light source and 0~ 45 degrees

Passive coupling with guide pins and 90 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

接通光源的有源耦合可用0-45°

以导针对准的无源耦合也可用90°转角

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	Customized Jumper/Lens (可定制Jumper/Lens)
Connector B (连接头B)	Customized Jumper/Lens (可定制Jumper/Lens)
Fiber shape (光纤形状)	Round Cable (圆形光缆)
Fiber count (纤芯数)	8F/12F/16F/24F
Fiber type (光纤型号)	OM2,OM3,OM4,OM5;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm
Cable diameter (光缆直径)	Ø3.0mm/Ø3.6mm
Cable jacket (光缆护套)	LSZH/OFNR/OFNP/LSZH+OFNR
Cable length (光缆长度)	1M/3M/5M/7M.....50M/100M

Fiber Array - Fiber Array AOC Assembly

Passive optical interconnect jumpers could be deployed in QSFP AOC, QSFP28 AOC, QSFP-DD AOC, Micro QSFP AOC, CXP AOC, CFP AOC, CDFP AOC, and any parallel optical transceiver module AOC, supporting network types include Ethernet with optical fiber transmission, Infiniband with optical fiber transmission, and Fiber Channel.

无源光互连跳线可用于QSFP AOC、QSFP28 AOC、QSFP-DD AOC、Micro QSFP AOC、CXP AOC、CFP AOC、CDFP AOC以及任何并行光收发模块AOC中，支持以太网网络、无线宽带网络、光纤通道网络等多种网络类型。

Features (特点)

GR-1435, GR-1221 compliant

Transmission mode: Multi-channel serial and parallel transmission mode

High accuracy

Support: 40G(4x10G), 100G(4x25G), 100G(10X10G), 12x10G, 4x32G, 8X10G, 200G(8X25G), 400G(8X50G), 800G(8X100G)

兼容GR-1435、GR-1221

传输方式：精度高多路串并联传输方式

支持：40G (4x10G)、100G (4x25G)、100G (10X10G)、12x10G、4x32G、8X10G、200G (8X25G)、400G (8X50G)、800G (8X100G)

Coupling Mode (耦合模式)

Passive coupling with guide pins and 0, 8 degrees

Active coupling with light source and 0~ 45 degrees

Passive coupling with guide pins and 90 degrees

以导针对准的无源耦合可实现0°、8°及按客户定制角度

接通光源的有源耦合可用0-45°

以导针对准的无源耦合也可用90°转角

IL/RL Specifications (插损、回损参数)

MT IL ≤0.60 dB typical 0.20 dB MT RL ≥20 dB

MT插损≤0.60 dB；典型插损0.20 dB；MT回损≥20 dB

Environment Conditions (环境状况)

-40°C~+85°C



Item	Specification
Connector A (连接头A)	Customized Fiber Array (可定制FA)
Connector B (连接头B)	Customized Fiber Array (可定制FA)
Fiber shape (光纤形状)	Round Cable (圆形光缆)
Fiber count (纤芯数)	8F/12F/16F/24F
Fiber type (光纤型号)	OM2,OM3,OM4,OM5;
Length (长度)	20~50mm, Customized length available (20-50mm可选)
Length tolerance (长度公差)	+0.3/-0mm ~ +0.5/-0mm
Cable diameter (光缆直径)	Ø3.0mm/Ø3.6mm
Cable jacket (光缆护套)	LSZH/OFNR/OFNP/LSZH+OFNR
Cable length (光缆长度)	1M/3M/5M/7M.....50M/100M

IDC Cabling Products 数据中心光纤布线产品

Cabling Products focus on optical passive connections, cabling management and high-density pre-terminated connections in the structured fiber cabling system, and we are committed to providing customers with high-precision, low-loss, high-reliability, low-cost, miniaturization and high-compatibility products, solutions and services.

我们致力于为客户提供高密度、高可靠性、低成本的光纤连接以及高可靠性、低损耗的光纤布线解决方案。



MTP/MPO - LC Fan-out Patch Cord (MTP/MPO-LC 40G到4x10G光跳线)

The fan-out is applied to connect 12-core MTP / MPO connector to the LC connectors on the trunk cable. KOC provides both standard and customized branch lengths. When the network equipment is close to MTP patch panel frames, the length of fan-out patch cords are minimized. For the hardware and equipment in the same cabinet, the longer patch cords can provide flexibility at any location, and the branch cables can be wound into the vertical cable organizer.

解决方案分支跳线用于将主干光缆上端接12芯MTP/MPO连接器分支接入到LC连接器。提供标准型和定制两种分支长度。当网络设备紧邻含有MTP连接器面板的配线架时，阶梯型分支跳线可以使光缆的余长降至最低。对于同一个机柜中安装的硬件和设备，较长分支的跳线可以提供任意位置的灵活性，分支部分可以盘入垂直光缆理线器中。

Features (特点)

- Array connectors with high precision low loss MTP / MPO connectors
- Smooth upgrading to next generation data center for 40GbE and 100GbE
- Outer jacket material option: PVC, LSZH and other selected materials
- Cable flammability rating: OFNR, OFNP, LSZH

- 采用高精度低损耗MPO/MTP光纤活动连接器
- 可以直接平滑升级到下一代数据中心40GbE和100GbE的应用
- 外护套材质，有PVC、LSZH等多种材料选择
- 光缆材料，满足OFNR、OFNP、LSZH阻燃等级



Item	Single mode		Multimode	
	MTP / MPO	LC	MTP / MPO	LC
Insertion Loss (插入损耗)	Low loss ≤ 0.35 dB	≤ 0.3 dB	Low loss ≤ 0.35 dB	≤ 0.3 dB
	Standard Loss ≤ 0.7 dB	/	Standard Loss ≤ 0.5 dB	/
Return Loss (回波损耗)	≥ 60 dB	≥ 50 dB	≥ 30 dB	≥ 50 dB
Durability (耐久性)	< 0.2 typical change, 500 matings			
Operating Temperature (工作温度)	-40 to $+85^{\circ}\text{C}$			

Switchable Duplex LC Uniboot Fiber Optic Patch Cord (可换极性双芯一体式LC光跳线)

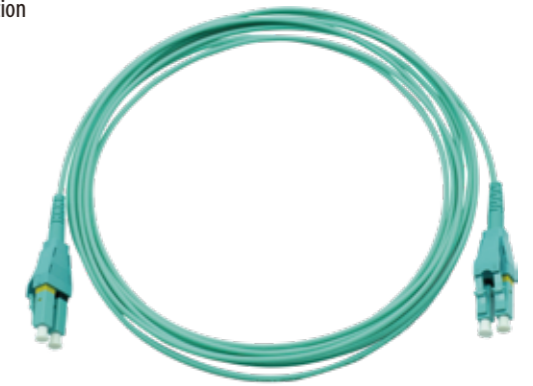
Duplex Uniboot connector patch cord is designed by KOC. This highly flexible duplex cable reduces cabling congestion and improves patch cord management and installation, it improves cabling space.

解决方案跳线提供自行设计的双芯Uniboot连接器，这种高度灵活的2芯单根光缆减少了光缆拥塞，提高跳线管理和敷设的便利性，并改善了配线空间。

Features (特点)

- Fiber polarity A -> A or A -> B can be switched by installer
- Thin round cable
- Duplex connectors with single boot which is highly integrated and easy for installation
- Standard compatible, simplex / duplex LC connectors. Other options: SC / FC
- High performance, 100% tested
- Fiber type: OFNR, OFNP
- Customized patch cord length
- Two notches on the connectors for easy for installation and uninstallation
- Mini and flexible boot is available. Boot can be turned to any angle
- Quick deployment reduces installation time
- Fast upgrading supports parallel transmission system
- Outer jacket material, PVC, LSZH and other materials selection

- 极性A -> A or A -> B 可现场装换
- 线缆，采用圆形细光缆
- 双工单尾套，高度集成，方便施工
- 标准兼容，双工LC连接器
- 传输性能，100%工厂测试
- 连接器两端有两个缺口，容易拆装
- Mini 尾套和任意角度可弯曲尾套可选
- 快速部署，减少现场施工时间
- 快速升级，支持并行传输系统应用
- 外护套材质，有PVC、LSZH等多种材料选择
- 光缆材料，满足OFNR、OFNP阻燃等级
- 跳线长度可定制



Item	Single mode	Multimode
Insertion Loss (插入损耗)	≤ 0.30 dB	≤ 0.30 dB
Return Loss (回波损耗)	≥ 50 dB (PC), ≥ 60 dB (APC)	/
Durability (耐久性)	< 0.20 dB typical change, 1000 matings	
Operating Temperature (工作温度)	-40 to $+85^{\circ}\text{C}$	-40 to $+85^{\circ}\text{C}$

MTP/MPO Trunk Fiber Optic Cable Patch Cord (MTP/MPO 预端接光跳线)

Pre-terminated trunk cable can be from 4 to 144 cores with 8/12-pin MTP connector at both ends. High-quality cable and MPO kits guarantee low insertion loss and high return loss for high-speed network. Its efficient plug-and-play structure greatly reduces the initial installation and routine maintenance costs. Pre-terminated trunk cables can also be used with plug-and-play modules or MTP / MPO connector panels to achieve multi-level connection of the extension of the preterminated trunk cable can also be extended by MTP/MPO panel with plug-and-play module. The extended trunk cable is to be connected with another panel or fan-out patch cords.

预端接主干光缆，支持4到144芯主干光缆，两端采用含导向针的8/12芯MTP连接器，采用高质量的光缆及MPO组件，低插入损耗，高回波损耗，完全可以满足苛刻的高速网络；另外其高效的即插即用结构大大降低了初始安装和日常维护成本。预端接主干光缆也可采用通过即插即用模块或MTP/MPO连接器面板实现多级连接的延长的预端接主干光缆。延长的主干光缆一端与解决方案主干光缆对接，另一端连接解决方案模块或分支跳线用于IDC和大型光纤预端接系统，系统满足以太网传输，可用于未来40G/100G系统应用的平滑升级。MPO 预端接光缆有利于快速部署的数据中心和光纤基础设施环境。跨越于MDA，HDA与EDA区域间模块盒或扇出光缆的连接。

Features (特点)

- Array of connectors with high precision low loss MTP / MPO connectors
- MTP/MPO connectors has been assembled at both ends of the cable. The optical performance is 100% tested
- A B C three polarity wiring options can be chosen from sufficient capacity can provide 4-144 cores fiber connections
- Cable flammability rating: OFNR, OFNP, LSZH
- The length of customized cable, trunk cable, extension cable, branch cable can be accurate
- Traction tube is the optional for easy on-site installation
- Minimize failures and reduces cabling space and installation time
- Smooth upgrading to next generation data center for 40GbE and 100GbE
- Outer jacket material option: PVC, LSZH and other selected materials

- 阵列连接器，采用高精度低损耗MPO/MTP光纤活动连接器
- 预端接光缆成品两端已经安装好 MTP/MPO连接器，光学性能经工厂100%测试检验，产品两端有专业的抗压与抗拉的设计
- ABC三种极性接线方式可供选择
- 容量充足，提供4-144芯系列光纤连接
- 线缆定制，主干缆，延长缆，分支缆可精准化长度
- 牵引拉手，可选择配置，便于现场施工
- 小型化最大限度减少故障并减少布线空间以及减少现场安装时间
- 可以直接平滑升级到下一代数据中心40GbE和100GbE的应用
- 外护套材质，有PVC、LSZH等多种材料选择
- 光缆防火等级：OFNR、LSZH

Item	Single mode	Multimode
Insertion Loss (插入损耗)	Low loss ≤ 0.35 dB	Low loss ≤ 0.35 dB
	Standard Loss ≤ 0.7 dB	Standard Loss ≤ 0.5 dB
Return Loss (回波损耗)	≥ 60 dB	≥ 30 dB
Durability (耐久性)	< 0.2 typical change, 500 matings	
Operating Temperature (工作温度)	Operating Temperature -40 to $+85^{\circ}\text{C}$	
40G	8 Fiber	
100G	20 Fiber	



High Density LC Duplex Uni-boot Patch Cord (高密度拉扣式双芯LC光跳线-A型)

This High Density LC Duplex Uni-boot Patch Cord is available for high-density fiber patch panels. The highly flexible duplex cable reduces cable congestion and can be plug in and out of the panel easily and quickly so that it improves management and installation convenience.

解决方案跳线推出拉扣式双芯LC连接器可供选择，适用于密集型高密度光纤配线架，高度灵活的2芯单根光缆减少了光缆拥塞，并且在高密度配线架中可快速、便捷的插拔连接器，进一步提高了跳线管理和敷设的便利性。

Features (特点)

- Thin round cable
- Duplex LC with latched uniboot, easy for plug in and out among panels
- Standard compatible, duplex LC connectors;
- High transmission, 100% tested under IEC standards
- Quick deployment reduces installation time
- Fast upgrading supports parallel transmission system
- Outer jacket material, PVC, LSZH and other materials selection
- Fiber type: ODNr, OFNP
- Customized patch cord length

- 线缆，采用圆形细光缆
- 拉扣式双芯LC 连接器结构，方便在密集型光纤配线架中插拔使用
- 标准兼容，单工/ 双工LC连接器
- 传输性能一致，符合国际标准，100%工厂测试
- 快速部署，减少现场施工时间
- 快速升级，支持并行传输系统应用
- 外护套材质，有PVC、LSZH 等多种材料选择
- 光缆材料，满足OFNR、OFNP阻燃等级
- 跳线长度可定制



Item	Single mode	Multimode
Insertion Loss (插入损耗)	≤ 0.30 dB	≤ 0.30 dB
Return Loss (回波损耗)	≥ 50 dB (PC), ≥ 60 dB (APC)	/
Durability (耐久性)	< 0.20 dB typical change, 1000 matings	
Operating Temperature (工作温度)	-40 to $+85^{\circ}\text{C}$	-40 to $+85^{\circ}\text{C}$

MPO Polarity Changeable Patch Cord (MPO 可换极性光跳线)

The MPO Switchable Connector is a unique design that allows the use of round style. The housing of the MPO Switchable Connector can be Polarity change in the field without any tool, and simple gender change without taking off the housing. This connector allows the fiber polarity to be switched at the time of cable assembly installation without having to reterminate the connectors. This design is commonly used in data centers.

极性可换MPO连接器是一种独特的设计，MPO极性可换连接器的外壳可以在不使用任何工具的情况下进行极性转换，而不需要去掉外壳即可实现简单的极性改变。该连接器允许在光缆现场安装时切换光纤极性，而无需重新终止连接器。这种设计使数据中心现场施工中操作更方便。

Features (特点)

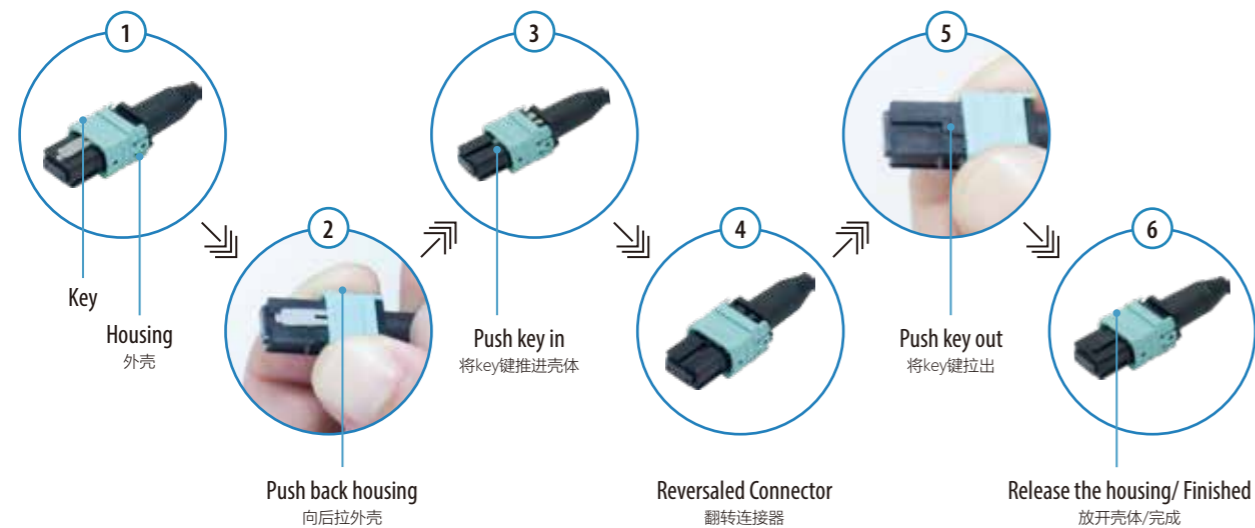
- Low insertion loss and back reflection loss
- Polarity change in the field without any tool
- Simple gender change without taking off the housing
- Good exchangeability
- Good Durability
- High temperature stability
- Various boots types available
- Standard: Telcordia GR-1435-CORE compliant

- 低插损，高回损
- 无需任何工具可实现现场极性转换
- 互换性好
- 重复性好
- 良好的温度稳定性能
- 各种尾套可选择
- 符合elcordia GR-1435-CORE标准



Item	Single mode		Multimode	
	Standard	Low loss	Standard	Low loss
Insertion Loss (插入损耗)	≤0.75 dB	≤0.35 dB	≤0.5 dB	≤0.35 dB
	typical≤0.5 dB	typical≤0.2 dB	typical≤0.35 dB	typical≤0.2 dB
Return Loss (回波损耗)	≥60 dB (APC)		≥30 dB (PC)	
Repeatability (重复性)	≤0.1dB			
Durability (耐久性)	≤0.2 dB typical change, 500 matings			
Interchangeability (互换性)	≤0.2dB			
Tensile strength (拉力)	>70N			
Operating Temperature (工作温度)	-40 to +85°C			

Switch Polarity (Sample: Aqua housing/3.0mm short mini boot)



OM5 Product Series (OM5 系列产品)

The OM5 fiber has been approved as a new multimode optical fiber for high-speed data center applications, and is designed to support at least four low-cost wavelengths in the 850-950 nm range, enabling optimal support of emerging Shortwave Wavelength Division Multiplexing (SWDM) applications that reduce parallel fiber count by at least a factor of four to allow continued use of just two fibers (rather than eight) for transmitting 40 Gb/s and 100 Gb/s and reduced fiber counts for higher speeds. SWDM has many applications in Data Centers and other applications. OM5 cabling fully compatible and intermateable with OM3 and OM4 cabling. The related OM5 patchcord, Cassette and Panels has attracted wide attention in the industry, and the patchcord cover also all type of fiber connectors

OM5光纤已被作为是高速数据中心的的应用一种新型的多模光纤。它支持850-950纳米范围内的至少四个低成本波长，从而能够优化支持新兴的短波分复用 (SDWM) 应用，将平行光纤数量减少至少四倍，能使用仅仅两根光纤（而不是八根）来持续传输40Gb/s和100Gb/s，减少光纤数量，实现更高速度。SWDM 在数据中心和其他应用中有很多应用。OM5光缆与OM3和OM4电缆完全兼容并可互用。而与之关联的OM5 跳线、光纤盒和光纤配线箱均引起了业界的广泛关注，而光跳线也涵盖了所有连接器类型。

Features (特点)

- Wavelength range 850-953 nm
- Low insertion loss and back reflection loss
- High precision alignment
- Good exchangeability
- High temperature stability
- Compatible with OM3 and OM4 patchcord

- 波长范围850-953nm
- 低插入损耗
- 高回波损耗
- 良好的互换性
- 良好的温度稳定性能
- 与OM3, OM4系列产品兼容

Application (应用)

- Telecommunication networks
- Data Center
- CATV, and Multimedia
- Optical switch interframe connection
- Asynchronous Transmission Mode (ATM)

- 光通信网络
- 数据中心
- CATV 和多媒体
- 光交换连接器网络
- ATM



Item	Specification
Fiber Type (光纤类型)	OM5 (50µm multimode fiber)
Wavelength Range (波长范围)	850-953 nm
Jacket Color (外护套颜色)	Lime Green
Furcation Color (分支护套颜色)	Lime Green
Connector Type (连接器类型)	MPO/MTP/LC/SC/FC/Customized
Connector Color (连接器颜色)	Customized
Regulatory Compliance (规范标准)	IEC 60793-2-10/TIA-492AAAE/RoHS/ISO9001
Operation Temperature (工作温度)	-40 to +85°C

Cassette and Adapter



MTP/MPO Polarity Instruction (极性说明)



12 Core Patchcord (12芯跳线)

End A	Polarity A	End B
1/ Blue		1/ Blue
2/ Orange		2/ Orange
3/ Green		3/ Green
4/ Brown		4/ Brown
5/ Grey		5/ Grey
6/ White		6/ White
7/ Red		7/ Red
8/ Black		8/ Black
9/ Yellow		9/ Yellow
10/ Purple		10/ Purple
11/ Pink		11/ Pink
12/ Aqua		12/ Aqua

End A	Polarity B	End B
1/ Blue		12/ Blue
2/ Orange		11/ Orange
3/ Green		10/ Green
4/ Brown		9/ Brown
5/ Grey		8/ Grey
6/ White		7/ White
7/ Red		6/ Red
8/ Black		5/ Black
9/ Yellow		4/ Yellow
10/ Purple		3/ Purple
11/ Pink		2/ Pink
12/ Aqua		1/ Aqua

End A	Polarity C	End B
1/ Blue		1/ Orange
2/ Orange		2/ Blue
3/ Green		3/ Brown
4/ Brown		4/ Green
5/ Grey		5/ White
6/ White		6/ Grey
7/ Red		7/ Black
8/ Black		8/ Red
9/ Yellow		9/ Purple
10/ Purple		10/ Yellow
11/ Pink		11/ Aqua
12/ Aqua		12/ Pink

Fiber Distribution Frame (光纤配线架)

The manufacturer specialized in data center cabling products and high precision connecting components. Its MTP* / MPO connector advanced capabilities provide guaranteed and reliable connection for 40G / 100G data centers.

KOC high-density fiber pre-connected system deploys high-density data center easily and quickly in horizontal area and storage area of the network. The maintenance and expansion in the future is very simple.

MTP / MPO pre-terminated cabling system consists of three parts: trunk cable, MTP / MPO pre-terminated module and patch panel.

KOFDS series of Fiber Distribution Frames, designed for Central Data Office or the building MDF room, provides high-density fiber management and distribution. The modular design ensures the easily maintenance and efficient management for your fiber cabling systems.

专注于数据中心布线产品以及高精度光缆连接器组件的制造公司。先进的MTP*/MPO连接器制造能力为各大数据中心40G/100G平滑升级提供可靠的连接保证。

KOC 高密度数据中心布线系统可以帮助用户方便、快速的部署高密度数据中心水平区域和存储区域的网络，即便是在后期的维护扩容上也非常简单。

MTP*/MPO数据中心布线系统主要由三个部分组成，即主干光缆、MTP*/MPO预连接模块和配线架组成。

KOFDS系列光纤配线架是为办公数据中心和MDF而设计，提供了高密度光纤管理和分布。模块化设计确保了光纤布线系统易于维护和高效管理。

Features (特点)

- Indoor cable distribution
- Fiber entries on top or bottom available
- High-density and modular design
- Max. capacity up to 792 fibers
- No tools are needed during operation
- Customizable
- 19" standard cabinet
- Accomplishing scientific arrangement for patch cords with fiber storage units
- suitable for inserting installation of SC, FC and ST adaptors
- Safety design in grounding and security door
- Top, bottom and rear openings for cable entry covered with removable blank panels.

- 室内光缆分布
- 高密度和模块式设计
- 最大容量可容纳792芯
- 无需任何操作工具
- 19" 标准机柜
- 光缆存放区可科学管理跳线
- 可安装SC/FC/LC/ST连接器
- 拥有接地设施和安全门
- 顶部，底部，后面门均可打开，以方便光缆进入
- 可定制



Rack Mount Patch Panel (机架式光纤配线箱)

According to the needs of data center setup, we recommend to use HDF high-density rack-mounted cabinet; for data center with MDA, IDA or HDA wiring area fiber trunk connection and management. It is installed in 19-inch rack or cabinet with Pre-terminated MPO adapter module or MPO adapter front panels. This economical design of Highdensity and module reduces the number of frames, saving valuable rack space.

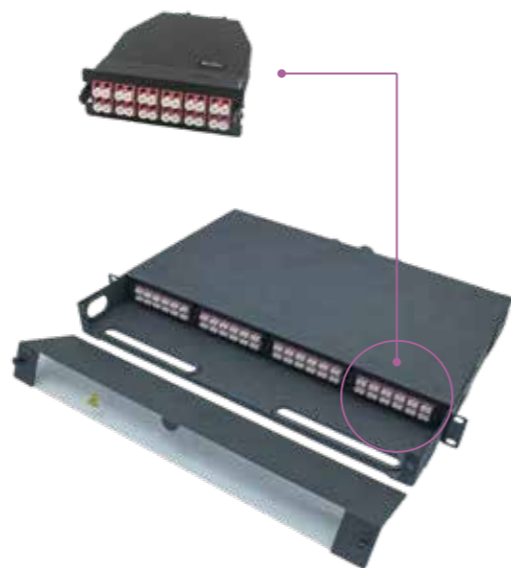
根据数据中心建设需要，推HDF高密度机架式光纤配线架，用于数据中心MDA，IDA 或HDA配线区域光纤主干连接及配线管理，安装于19英寸机架及机柜中，可安装预连接MPO转接模块或MPO适配器前面板。高密度，模块化设计，这种经济的设计减少了需要安装的配线架数量，节约了宝贵的机架空间。

Features (特点)

- MPO 1U optical fiber patch panel can accommodate 4 MPO pre-terminated cassettes. If MPO panels are installed, the maximum cores can reach 288
- MPO 2U optical fiber patch panel can accommodate 8 MPO pre-terminated cassettes. If MPO panels are installed, the maximum cores can reach 576
- MPO 3U optical fiber patch panel can accommodate 12 MPO pre-terminated cassettes. If MPO panels are installed, the maximum cores can reach 864
- Made of high quality cold rolled steel plate;
- Multiple cable entry and patch cord exit for easy operation and management
- More than four times the density of traditional patch panels, greatly save the space of the cabinet
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series standards
- Modular design, 19-inch rack mount, easy for future expansion

模块化设计，19英寸机架安装，方便后期扩容

- MPO 1U 光纤配线箱可安装4个MPO预端接盒，端接盒安装双工LC适配器最大可管理光纤芯数达96芯，端接盒安装单工SC适配器最大可管理光纤达 48 芯，如安装MPO 适配器板最大可管理光纤达 288 芯
- MPO 2U 光纤配线箱可安装8个MPO预端接盒，端接盒安装双工LC适配器最大可管理光纤芯数达192芯，端接盒安装单工SC适配器最大可管理光纤达96芯，如安装MPO适配器板最大可管理光纤达 576芯
- MPO 3U 光纤配线箱可安装12个MPO预端接盒，端接盒安装双工LC适配器最大可管理光纤芯数达288芯，端接盒安装单工SC适配器最大可管理光纤达144芯，如安装MPO适配器板最大可管理光纤达 864芯
- 采用优质冷轧钢板制作
- 多个光缆进线与跳线出口位置，方便操作管理
- 是传统熔纤配线架的密度的四倍多，大大节约的机柜的空间，提高机柜利用率，为数据中心建设创造价值采用模块化的结构升级维护便利
- 满足TIA/EIA604-D-2007、IEC61754-7-2008系列标准



MTP/MPO - LC Fix Type Fiber Optical Cassette (MTP/MPO-LC 固定式光纤盒)

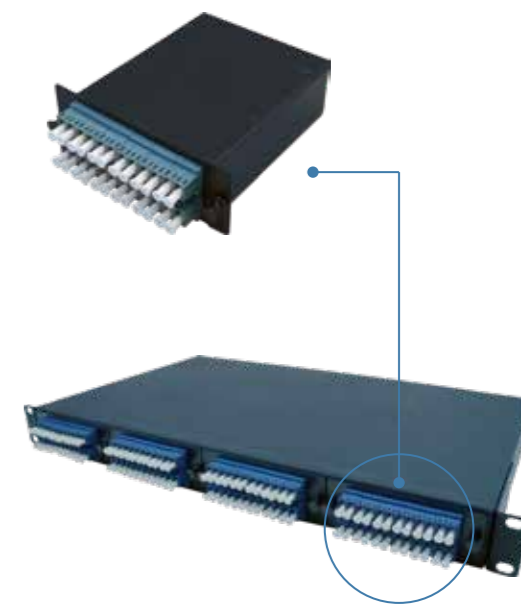
MTP / MPO-LC fiber optic cassette is a closed-type of device with a 12/24-core fiber patch cords for branching 12-core MTP / MPO trunk cable to LC Connectors so that the system appliances are easily be connected to the ports or panels. The cassette can be quickly deployed to 24 LC or 12 SC adapters and can be easily installed in HDF high-density rack-mounted ODF. The modular structure is high manageable and flexible. With the future requirements on the connectivity, the modules can be changed to meet the corresponding needs. In the meanwhile, the existing trunk cabling structure remains unchanged.

MPO/MTP-LC光纤转接盒是一种封闭式设备，盒内预端接有12/24芯分支光纤跳线，用于将主干光缆上端接的12芯MTP/MPO连接器分支切换到LC连接器，以方便接到系统设备端口或光纤面板中。这种光纤接头盒可以在一个盒式结构上快速部署24个LC 或12 个SC光纤接口。此模块可方便的安装与HDF高密度机架式ODF中，这种模块化的基础架构具有高度的可管理性和灵活性。随着未来连接性要求的不断变化，可以轻松的更换模块以满足相应需求，同时继续保留现有的主干光缆基础架构。

Features (特点)

- Excellent transmission performance is 100% factory pre-terminated and tested
- The adoption of universal polarity design ensures the correct fiber polarity and the variety of polarity to be chosen in the system
- Flexible expansion, modular design
- One-hand operation
- Metal shell design, good intensity, effective protection for internal fiber branch parts
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series standards
- Super bend-bright fiber, minimum fiber bending radius, minimized structure
- Smooth upgrade to next generation data center of 40GbE and 100GbE applications

- 传输性能，100%工厂预接端并测试
- 采用通用极性设计确保了系统中正确的光纤极性，多种极性可供选择
- 灵活扩容，模块化设计
- 超强抗弯光纤，最小光纤弯曲半径，结构小型化
- 单手操作
- 可以直接平滑升级到下一代数据中心40GbE 和100GbE的应用
- 采用金属外壳设计，强度高，有效保护内部光纤分支部件
- 满足TIA/EIA604-D-2007、IEC61754-7-2008 系列标准



Item	Single mode Module IL (Max)	Multimode Module IL (Max)
Standard (标准)	1.0 dB	1.0 dB
Low Loss (低损耗)	0.7 dB	0.7 dB
Ultra-Low-Loss (超低损耗)	0.5 dB	0.35 dB

MTP/MPO - LC Sliding Type Fiber Optical Cassette (MTP/MPO-LC 滑动式光纤盒)

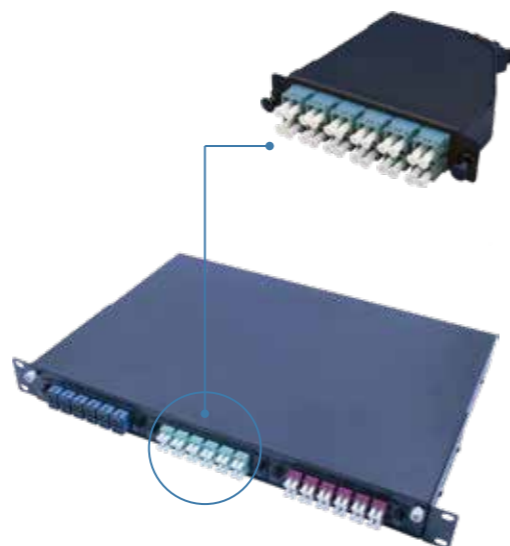
MPO fiber cassette is mainly used for data center with the security transactions between MPO pre-terminated trunk cable and LC or SC connectors. They are installed in the 19" 1U-3U fiber patch panels. LC or SC adapters are installed in the front panels. MPO adapters and pre-terminated trunk cable are installed in the rear panels. Plug-and-play modular structure enables quick deployment of data center fiber infrastructure and improve troubleshooting and reconfiguration after relocating, increasing and changing the cables. 100% of the terminals are terminated in the factory and rigorously tested to ensure minimal insertion loss. They are applicable to IDC and FTTB pre-wired systems and to Ethernet transmission. The cassettes are suitable for future 40G / 100G system applications. They are able to meet the full demands of high speed networks with convenient for upgrading

MPO光纤转接盒主要用于数据中心MPO预端接主干光缆与LC或SC连接器之间的安全过渡，安装于19" 1U-3U光纤配线架。模块盒前面板装配LC或SC适配器用于相互配线或连接设备跳线，后面板装配MPO适配器用于连接MPO预连接主干光缆。即插即用模块化结构可以快速部署数据中心光纤基础设施，以及提高光缆在移动过程中的故障排除和重新配置，添加和更改。100%在工厂内端接，并严格进行连接测试，以保证最小的插入损耗用于IDC和大楼光纤预端接系统，系统满足以太网传输，适用于未来40G/100G系统应用的平滑升级，完全可以满足要求苛刻的高速网络。

Features (特点)

- Excellent transmission performance is 100% factory pre-terminated and tested
- The adoption of universal polarity design ensures the correct fiber polarity and the variety of polarity to be chosen in the system
- Flexible expansion, modular design
- Super bend-bright fiber, minimum fiber bending radius, minimized structure
- One-hand operation
- Smooth upgrade to next generation data center of 40GbE and 100GbE applications
- Metal shell design, good intensity, effective protection for internal fiber branch parts
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series standards

- 传输性能，100%工厂预端接并测试
- 采用通用极性设计确保了系统中正确的光纤极性，多种极性可供选择
- 灵活扩容，模块化设计
- 超强抗弯光纤，最小光纤弯曲半径，结构小型化
- 单手操作-可以直接平滑升级到下一代数据中心40GbE和100GbE 的应用
- 采用金属外壳设计，强度高，有效保护内部光纤分支部件
- 满足TIA/EIA604-D-2007、IEC61754-7-2008系列标准



High Density Fiber Distribution Frame (高密度光纤配线箱)

MTP * / MPO fiber distribution frame is a scalable solution mainly used in high-density 10 Gigabit Ethernet applications. There are Main Distribution Area (MDA) and Horizontal Distribution Area (HDA) terminal cabling products. There are usually three designs: 1U, 2U, 3U. According to data center setup needs, it simplifies the field installation, improves system performance and achieves higher system density, modular system management and pre-assembled components so that it reduces the installation time and achieves the movement and expansion in the fastest way.

MTP/MPO光纤配线箱是一种可扩展的解决方案，主要用在高密度万兆以太网应用，是主配线区（MDA）和水平布线区（HDA）终端布线产品，通常有1U,2U,3U 的三种设计。嘉万根据数据中心建设需要，简化了数据中心环境下的现场安装并提高了系统性能，实现了更高的系统密度，模块化的系统管理方式和预端接组件可以减少安装时间，实现更快的移动和扩容。

Features (特点)

- Sliding tray design, the new type of the expansion and adequate operational space enable the highest density
- A variety of welding wiring signs enable easy welding and cabling records
- High-density trunk cable with lesser bending radius enables easy storage and installation
- Connector module, 19-inch rack mount for easy installation and expansion
- Low insertion loss enable multi-level connections in complete fiber link when deploying TIA-942 compliant systems
- Customized branch cable assemblies for seamless integration with mainstream SAN switches
- Factory termination provides stable quality and ensures system reliability . It reduces installation time, meet series standards of TIA / EIA604-5-D-2007, IEC61754-7-2008

- 滑动托盘设计，新型深度拓展结构恰如其分的操作空间，实现业界最高端密度
- 多种熔接配线标示，方便做熔接和配线记录。
- 高密度主干光缆，主干光缆弯曲半径更小，存放和敷设无后顾之忧
- 低插入损耗性能，在部署符合TIA-942标准的系统时，可在完整光纤链路实现多级接续
- 定制分支光缆组件，与主流SAN交换机实现无缝集成
- 连接器模块，19英寸机架安装，方便施工与后期扩容
- 工厂端接解决方案，提供稳定的质量，保证系统可靠性能并减少安装时间，满足TIA/EIA604-5-D-2007、IEC61754-7-2008系列标准



Adapter Panel

The adapter panel provides fast and efficient port management for MTP/MPO or LC/SC connectors. It is applicable for next-generation high-density data center solutions. The panel reaches the connection and deployment of the patch cords and pigtailed between the devices and patch panels. The panel is used with the field mounting connectors, or with the pre-terminated cables device to the interconnect hardware.

适配器面板为MTP/MPO或LC/SC连接器提供快速有效的端口管理，用于高密度新一代数据中心解决方案，实现跳线和尾纤在设备之间和配线架内的连接和部署。与解决方案硬件产品配套使用，该面板与现场安装接头协同使用，或用于预接端接头的光缆直接从设备向互连硬件布线的应用。



Features (特点)

- High-density ports, single adapter panel Configurable with 24 IP adapter ports or 6 SC adapter ports or 6 MPO / MTP adapter ports;
- High-quality cold-rolled steel, compliant with European ROHS standards
- Clear connector coding mark
- Flexible structure, adapter port configuration can be flexibly selected
- Applicable to all types of industrial standard adapters
- Cartridge installation for easy installation
- Easy to upgrade to 40G / 100G network without changing the fiber management structures
- Compliant with TIA / EIA604-D-2007, IEC61754-7-2008 series

- 高密度端口，单个适配器面板可配置可配置24个LC适配器端口，6个SC适配器端口，6个MPO/MTP适配器端口
- 采用优质冷轧钢板制作，材料符合欧洲 ROHS 环保标准
- 清晰的连接器编码标记
- 结构灵活，适配器端口配置可灵活选择
- 适用各种型号工业标准适配器的设计
- 卡扣式安装，方便施工
- 易于升级到40G/100G 网络而不改变光纤管理架构
- 满足TIA/EIA604-D-2007、IEC61754-7-2008系列标准

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