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SOMI NETWORKS – **is an European distributor and manufacturer** of active fiber optic equipment, passive fiber optic network components, 19“ cabinets and accesories.
Started in the 2004 SOMI NETWORKS was one of the first supliers of networking equipment in Eastern Europe, and since that year we managed to offer custom product solutions to our partners and distributors, and grow huge „know-how“ potential.
Started as a distributor, now **we can offer wide range of our own products** in the area of fiber active and passive components, 19“ cabinets and accessories. Some of the products are specialy designed by our engineers, to fit most demanding needs of the biggest internet providers, datacenters and other aplications.
Our main production is still based in Asia, but for custom products we have a **production lines in the center of Europe - Lithuania**, so we could be closer to you and offer a better reaction time.
We offer almost all types of fiber optic modules and converters, and guarantee 100% compatibility with your equipment, and **European quality control.**
We are already pending certification for our quality and enviromental standarts **ISO 9001 and ISO14001.**
Our mission is to deliver our field tested solutions to the partners all over the world.


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SFP modules

The MSA Compliant Small Form-Factor Pluggable (SFP) modules allows for an optical or electrical interface when using a managed switch, unmanaged switch or media converter. These interchangeable SFP modules are available for use with copper media, multimode optical fiber or singlemode optical fiber. The optical fiber SFP modules are available in Fast Ethernet one and two fiber versions and Gigabit Ethernet one and two fiber versions. They also are available with LC or SC optical connectors. SFP modules offer different wavelengths and optical power budget to allow distances from 300 meters to 120 kilometers. These SFP modules are industrially rated to perform in the most difficult operating environments.
SFP transceivers are available with a variety of transmitter and receiver types, allowing users to select the appropriate transceiver for each link to provide the required optical reach over the available optical fiber type (e.g. multi-mode fiber or single-mode fiber). Optical SFP modules are commonly available in several different categories:

- for multimode fiber, with black or beige extraction lever
  SX - 850 nm, for a maximum of 550 m at 1.25 Gbit/s (gigabit Ethernet) or 150m at 4.25 Gbit/s
- for singlemode fiber, with blue extraction lever
  LX - 1310 nm, for distances up to 10 km
  EX - 1310 nm, for distances up to 40 km
  ZX - 1550 nm, for distances up to 80 km, with green extraction lever (see GLC-ZX-SM1)
  EZX - 1550 nm, for distances up to 160 km
  BX - 1490 nm/1310 nm, Single Fiber Bi-Directional Gigabit SFP Transceivers, paired as **BS-U** and **BS-D** for Uplink and Downlink respectively, also for distances up to 10 km. Variations of bidirectional SFPs are also manufactured which use 1550 nm in one direction.
  1550 nm 40 km (**XD**), 80 km (**ZX**), 120 km **(EX** or **EZX**)
  SFSW – Single Fiber Single Wavelength transceivers, for bi-directional traffic on a single fiber. Coupled with CWDM, these double the traffic density of fiber links.
  CWDM and DWDM transceivers at various wavelengths achieving various maximum distances
- for copper twisted pair cabling
  1000BASE-T - these modules incorporate significant interface circuitry and can only be used for gigabit Ethernet, as that is the interface they implement.

SFP+

The enhanced small form-factor pluggable (SFP+) is an enhanced version of the SFP that supports data rates up to 16 Gbit/s. The SFP+ specification was first published on May 9, 2006, and version 4.1 published on July 6, 2009. SFP+ supports 8 Gbit/s Fiber Channel, 10 Gigabit Ethernet and Optical Transport Network standard OTU2. It is a popular industry format supported by many network component vendors.
Although the SFP+ standard does not include mention of 16G Fiber Channel it can be used at this speed. Besides the data rate, the big difference between 8G Fiber Channel and 16G Fiber Channel is the encoding method. 64b/66b encoding used for 16G is a more efficient encoding mechanism than 8b/10b used for 8G, and allows for the data rate to double without doubling the line rate. The result is the 14.025 Gbit/s line rate for 16G Fiber Channel.
In comparison to earlier XENPAK or XFP modules, SFP+ modules leave more circuitry to be implemented on the host board instead of inside the module.
Consideration has to be given to whether the module is linear or limiting. Linear SFP+ modules are most appropriate for 10GBASE-LRM; otherwise, limiting modules are preferred.
SFP+ also introduces Direct Attach for connecting two SFP+ ports without dedicated transceivers.

155 Mbps modules

Description

The SFP transceivers are high performance, cost effective modules supporting data-rate of 155Mbps and up to 120km transmission distance over singlemode fiber.
The transceiver consists of three sections: a FP laser transmitter, a PIN photodiode integrated with a transimpedance preamplifier (TIA) and MCU control unit. All modules satisfy class I laser safety requirements.
The transceivers are compatible with SFP Multi-Source Agreement (MSA) and SFF-8472. For further information, please refer to SFP MSA

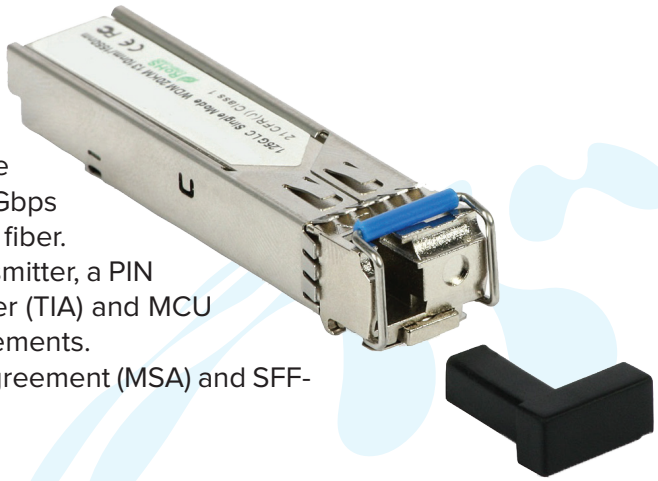
Features:

- Up to 155Mbps data-rate
- 1310nm FP laser and PIN photodetector
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring (as option)
- Internal Calibration or External Calibration
- Compatible with SONET OC-24-LR-1
- Compatible with RoHS
- +3.3V single power supply
- Operating case temperature range of 0°C to +70°C

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Copper SFP module					
SFP*RJ45100	10/100	Copper	-	RJ45	100m
Optical 155Mbps double fiber SFP modules					
SFP*2F155M85	155Mbps	MMF	850	LC Duplex	550 m
SFP*2F155M132	155Mbps	MMF	1310	LC Duplex	2 km
SFP*2F155S1320	155Mbps	SMF	1310	LC Duplex	20 km
SFP*2F155S1340	155Mbps	SMF	1310	LC Duplex	40 km
SFP*2F155S1380	155Mbps	SMF	1310	LC Duplex	80 km
SFP*2F155S13120	155Mbps	SMF	1310	LC Duplex	120 km
Optical 155Mbps BiDirectional SFP modules					
SFP*1F155S1320	155Mbps	SMF	1310/1550	SC / LC simplex	20 km
SFP*1F155S1520	155Mbps	SMF	1550/1310	SC / LC simplex	20 km
SFP*1F155S1340	155Mbps	SMF	1310/1550	SC / LC simplex	40 km
SFP*1F155S1540	155Mbps	SMF	1550/1310	SC / LC simplex	40 km
SFP*1F155S1380	155Mbps	SMF	1310/1550	SC / LC simplex	80 km
SFP*1F155S1580	155Mbps	SMF	1550/1310	SC / LC simplex	80 km
SFP*1F155S13120	155Mbps	SMF	1310/1550	SC / LC simplex	120 km
SFP*1F155S15120	155Mbps	SMF	1550/1310	SC / LC simplex	120 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

1.25 Gbps modules



Description:

The SFP transceivers are high performance, cost effective modules supporting dual data-rate of 1.25Gbps/1.0625Gbps and up to 120km transmission distance over singlemode fiber. The transceiver consists of three sections: a FP laser transmitter, a PIN photodiode integrated with a transimpedance preamplifier (TIA) and MCU control unit. All modules satisfy class I laser safety requirements. The transceivers are compatible with SFP Multi-Source Agreement (MSA) and SFF-8472. For further information, please refer to SFP MSA

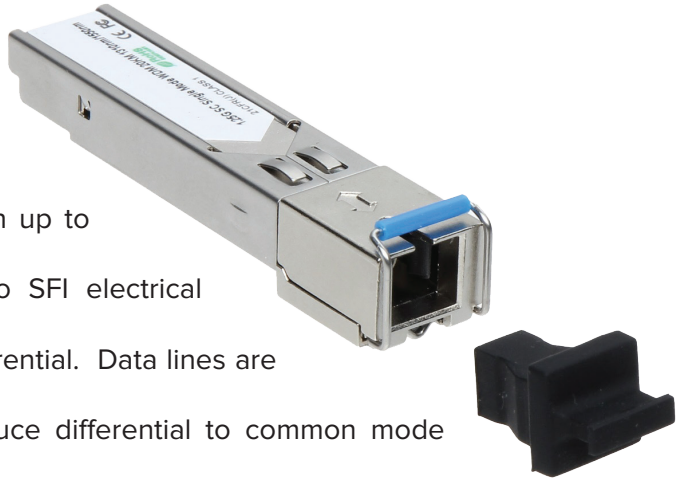
Features:

- Dual data-rate of 1.25Gbps/1.063Gbps operation
- 1310nmFP laser and PIN photodetector for 20km transmission
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring (as option)
- Internal Calibration or External Calibration
- Compatible with SONET OC-24-LR-1
- Compatible with RoHS
- +3.3V single power supply
- Operating case temperature range of 0°C to +70°C(Commercial) or -40°C to +85°C (Industrial)

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Copper SFP module					
SFP*RJ451G	10/100/1000	Copper	-	RJ45	100m
Optical 1.25 Gbps double fiber SFP modules					
SFP*2F1GM852	1.25 Gbps	MMF	850	LC Duplex	550 m
SFP*2F1GM132	1.25 Gbps	MMF	1310	LC Duplex	2 km
SFP*2F1GS1320	1.25 Gbps	SMF	1310	LC Duplex	20 km
SFP*2F1GS1340	1.25 Gbps	SMF	1310	LC Duplex	40 km
SFP*2F1GS1380	1.25 Gbps	SMF	1310	LC Duplex	80 km
SFP*2F1GS13120	1.25 Gbps	SMF	1310	LC Duplex	120 km
Optical 1.25 Gbps BiDirectional SFP modules					
SFP*1F1GS1320	1.25 Gbps	SMF	1310/1550	SC / LC simplex	20 km
SFP*1F1GS1520	1.25 Gbps	SMF	1550/1310	SC / LC simplex	20 km
SFP*1F1GS1340	1.25 Gbps	SMF	1310/1550	SC / LC simplex	40 km
SFP*1F1GS1540	1.25 Gbps	SMF	1550/1310	SC / LC simplex	40 km
SFP*1F1GS1380	1.25 Gbps	SMF	1310/1550	SC / LC simplex	80 km
SFP*1F1GS1580	1.25 Gbps	SMF	1550/1310	SC / LC simplex	80 km
SFP*1F1GS13120	1.25 Gbps	SMF	1310/1550	SC / LC simplex	120 km
SFP*1F1GS15120	1.25 Gbps	SMF	1550/1310	SC / LC simplex	120 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

SFP+ modules (10G)



Description

This 1310 nm DFB 10Gigabit SFP+ transceiver is designed to transmit and receive optical data over Singlemode and Multimode optical fiber for link length up to 80km.
The SFP+ module electrical interface is compliant to SFI electrical specifications. The transmitter input and receiver output impedance is 100 Ohms differential. Data lines are internally AC coupled.
The module provides differential termination and reduce differential to common mode conversion for quality signal termination and low EMI. SFI typically operates over 200 mm of improved FR4 material or up to about 150mm of standard FR4 with one connector.

Features:

- Optical interface compliant to IEEE 802.3ae
- Electrical interface compliant to SFF-8431
- Hot Pluggable
- 1310nm DFB transmitter, PIN photo-detector Operating case temperature: 0 to 70 °C
- Low power consumption
- All-metal housing for superior EMI performance
- Advanced firmware allow customer system encryption information to be stored in transceiver
- Cost effective SFP+ solution, enables higher port densities and greater bandwidth

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Optical 10G double fiber SFP+ modules					
SFP*2F10GM853	10 G	MMF	850	LC Duplex	300 m
SFP*2F10GM132	10 G	MMF	1310	LC Duplex	220 m
SFP*2F10GS1310	10 G	SMF	1310	LC Duplex	10 km
SFP*2F10GS1320	10 G	SMF	1310	LC Duplex	20 km
SFP*2F10GS1540	10 G	SMF	1550	LC Duplex	40 km
SFP*2F10GS1580	10 G	SMF	1550	LC Duplex	80 km
Optical 10G BiDirectional SFP+ modules					
SFP*1F10GS1310	10 G	SMF	1310/1270	SC / LC simplex	10 km
SFP*1F10GS1210	10 G	SMF	1270/1310	SC / LC simplex	10 km
SFP*1F10GS1320	10 G	SMF	1310/1270	SC / LC simplex	20 km
SFP*1F10GS1220	10 G	SMF	1270/1310	SC / LC simplex	20 km
SFP*1F10GS1340	10 G	SMF	1310/1270	SC / LC simplex	40 km
SFP*1F10GS1240	10 G	SMF	1270/1310	SC / LC simplex	40 km
SFP*1F10GS1360	10 G	SMF	1310/1270	SC / LC simplex	60 km
SFP*1F10GS1260	10 G	SMF	1270/1310	SC / LC simplex	60 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

XFP modules

Description:

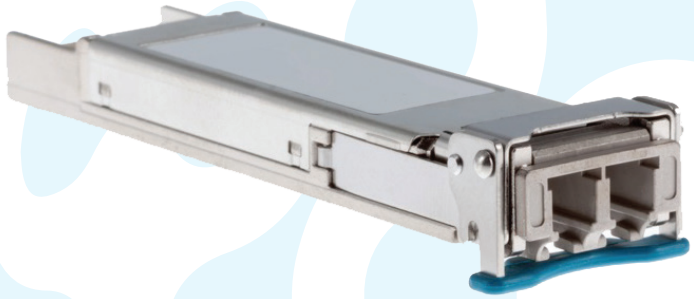
The XFP (10 Gigabit Small Form Factor Pluggable) is a standard for transceivers for high-speed computer network and telecommunication links that use optical fiber.

XFP modules are hot-swappable and protocol-independent. They typically operate at near-infrared wavelengths (colors) of 850 nm, 1310 nm or 1550 nm. Principal applications include 10 Gigabit Ethernet, 10 Gbit/s Fiber Channel, synchronous optical networking (SONET) at OC-192 rates, synchronous optical networking STM-64, 10 Gbit/s Optical Transport Network (OTN) OTU-2, and parallel optics links. They can operate over a single wavelength or use dense wavelength-division multiplexing techniques. They include digital diagnostics that provide management that were added to the SFF-8472 standard.

XFP modules are compliant with the 10G Small Form-Factor Pluggable (XFP) Multi-Source Agreement (MSA), supporting data-rate of 10.3125Gbps(10GBASE-LR) or 9.953Gbps 10GBASE-LW).

Features:

- Supports 9.95Gbps to 10.5Gbps bit rates
- Hot-pluggable XFP footprint
- 1310nm Uncooled DFB laser
- XFP MSA package with duplex LC connector
- XFI electrical interface
- No reference clock required
- Compatible with RoHS
- Excellent EMI performance
- Built-in digital diagnostic functions
- Temperature range: 0^0C to +70^0C
- High reliability



Part number	Data rate	Media type	Wavelenght	Connector	Distance
Optical 10G double fiber XFP modules					
XFP*2F10GM853	10 G	MMF	850	LC Duplex	300 m
XFP*2F10GS1310	10 G	SMF	1310	LC Duplex	10 km
XFP*2F10GS1320	10 G	SMF	1310	LC Duplex	20 km
XFP*2F10GS1540	10 G	SMF	1550	LC Duplex	40 km
XFP*2F10GS1580	10 G	SMF	1550	LC Duplex	80 km
Optical 10G BiDirectional XFP modules					
XFP*1F10GS1310	10 G	SMF	1310/1270	SC / LC simplex	10 km
XFP*1F10GS1210	10 G	SMF	1270/1310	SC / LC simplex	10 km
XFP*1F10GS1320	10 G	SMF	1310/1270	SC / LC simplex	20 km
XFP*1F10GS1220	10 G	SMF	1270/1310	SC / LC simplex	20 km
XFP*1F10GS1340	10 G	SMF	1310/1270	SC / LC simplex	40 km
XFP*1F10GS1240	10 G	SMF	1270/1310	SC / LC simplex	40 km
XFP*1F10GS1380	10 G	SMF	1310/1270	SC / LC simplex	80 km
XFP*1F10GS1280	10 G	SMF	1270/1310	SC / LC simplex	80 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

XENPAK

Description

XENPAK is a Multisource Agreement (MSA), instigated by Agilent Technologies and Agere Systems, that defines a fiber-optic or wired transceiver module which conforms to the 10 Gigabit Ethernet (10GbE) standard of the Institute of Electrical and Electronics Engineers (IEEE) 802.3 working group. The MSA group received input from both transceiver and equipment manufacturers during the definition process.
XEN*2F10G is a highly integrated, Serial optical transponder module for high-speed, 10Gbit/s data transmission applications. An integrated Coder / Decoder and multiplexer / demultiplexer (SERDES: Serializer / Deserializer),designed for 10GBASE transmission with an uncooled directly modulated 1310nm DFB Laser. The transponder operates within a wide case temperature range of 0°C to +70°C and offers optimum heat dissipation and excellent electromagnetic shielding which enables high port densities for 10 GbE systems. A 70 pin electrical connector and a duplex SC connector optical interface assure that connectivity is compliant to the XENPAK MSA Rev.3.0.

Features:

- Compatible with XENPAK MSA Rev.3.0
- Support of IEEE802.3ae 10GBASE-LR
- Transmission Distance up to 80km (SMF)
- Uncooled directly modulated 1310nm DFB Laser
- Temperature Range 0 to 70^{0}C
- Adaptable Power Supply (APS:+1.2V)
- SC duplex Optical connector
- Hot pluggable 70-pin connector with XAUI electrical interface
- Management and control via MDIO 2-wire interface
- Compatible with RoHSonnector with XAUI electrical interface
- Management and control via MDIO 2-wire interface
- Compatible with RoHS

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Optical 10G double fiber XENPAK modules					
XEN*2F10GM853	10 G	MMF	850	SC Duplex	300 m
XEN*2F10GM133	10 G	MMF	1310	SC Duplex	300 m
XEN*2F10GS1310	10 G	SMF	1310	SC Duplex	10 km
XEN*2F10GS1540	10 G	SMF	1550	SC Duplex	40 km
XEN*2F10GS1580	10 G	SMF	1550	SC Duplex	80 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

X2 modules

Description:

X2 is more compact module than XENPAK and is focused on second generation 10 Gb enterprise, storage and telecom applications that do not require the thermal capacity provided by XENPAK.

Modules offer customers diverse application of 10 Gigabit Ethernet transmission systems applications. X2 module's transmitting distance is from 300M multimode up to 80KM single mode. X2 module supports 0°C to 70°C operating case temperature and the digital optical monitoring capability. Module is SC duplex/simplex receptacle package and X2 MSA and RoHS compliant.

Features:

- Compatible with X2 MSA Rev2.0b
- Support of IEEE 802.3ae 10GBASE-LR at 10.3125Gbps
- Transmission Distance up to 80km (SMF)
- SC Duplex Optical Connector
- Hot Pluggable 70-PIN Connector with XAUI Electrical Interface
- Management and control via MDIO 2-wire interface
- Power Supply :+3.3V, APS(+1.2V)
- Diagnostic Optics Monitoring
- Temperature Range: 0-70°C
- RoHS Compatible

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Optical 10G double fiber X2 modules					
X2*2F10GM853	10 G	MMF	850	SC Duplex	300 m
X2*2F10GM132	10 G	MMF	1310	SC Duplex	220 m
X2*2F10GS1310	10 G	SMF	1310	SC Duplex	10 km
X2*2F10GS1540	10 G	SMF	1550	SC Duplex	40 km
X2*2F10GS1580	10 G	SMF	1550	SC Duplex	80 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

QSFP+ 40G modules

Description

This product is a transceiver module designed for 2m-10km optical communication applications. The design is compliant to 40GBASE-LR4 of the IEEE P802.3ba standard. The module converts 4 inputs channels (ch) of 10Gb/s electrical data to 4 CWDM optical signals and multiplexes them into a single channel for 40Gb/s optical transmission. Reversely, on the receiver side, the module optically de-multiplexes a 40Gb/s input into 4 CWDM channels signals, and converts them to 4 channel output electrical data.
The central wavelengths of the 4 CWDM channels are 1271, 1291, 1311 and 1331 nm as members of the CWDM wavelength grid defined in ITU-T G694.2. It contains a duplex LC connector for the optical interface and a 148-pin connector for the electrical interface. To minimize the optical dispersion in the long-haul system, singlemode fiber (SMF) has to be applied in this module.
The product is designed with form factor, optical/electrical connection and digital diagnostic interface according to the QSFP Multi-Source Agreement (MSA). It has been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference.

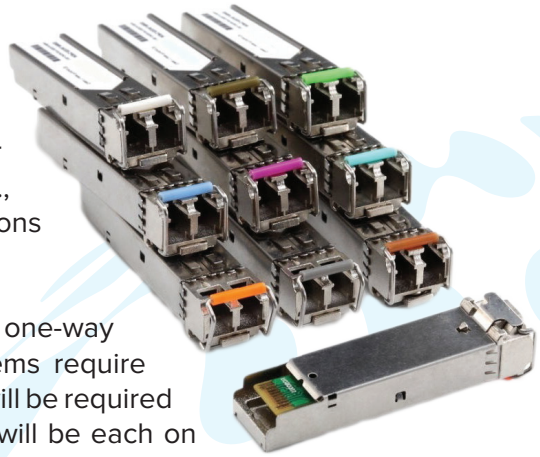
Features:

- Compliant with 40G Ethernet IEEE802.3ba and 40GBASE-LR4 Standard
- QSFP+ MSA compliant
- Compliant with QDR/DDR Infiniband datarates
- Up to 11.2Gbps data rate per wavelength
- 4 CWDM lanes MUX/DEMUX design
- Up to 10km transmission
- Operating case temperature: 0-70°C
- Maximum 3.5W operation power
- RoHS compliant

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Optical 40G double fiber QSFP+ modules					
QSFP*2F40GS**10	10 G	SMF	1270-1330	LC Duplex	10 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.
** - wavelenght number 1270-1330

CWDM Transceivers



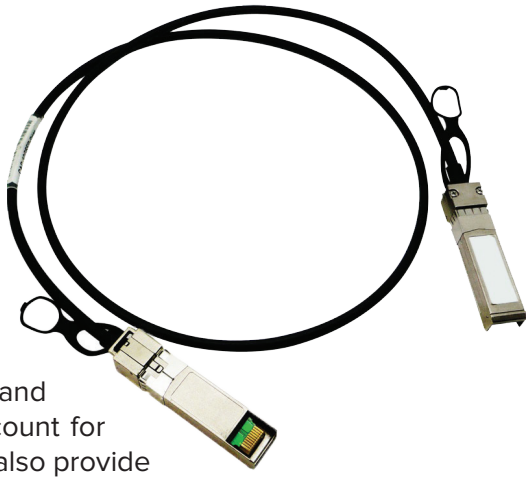
In fiber-optic communications, wavelength-division multiplexing (WDM) is a technology which multiplexes a number of optical carrier signals onto a single optical fiber by using different wavelengths (i.e., colors) of laser light. This technique enables bidirectional communications over one strand of fiber, as well as multiplication of capacity.

Transceivers – Since communication over a single wavelength is one-way (simplex communication) and most practical communication systems require two-way (duplex communication) communication, two wavelengths will be required (which might or might not be on the same fiber, but typically they will be each on a separate fiber in a so-called fiber pair). As a result, at each end both a transmitter (to send a signal over a first wavelength) and a receiver (to receive a signal over a second wavelength) will be required. A combination of a transmitter and a receiver is called a transceiver; it converts an electrical signal to and from an optical signal. There are usually transceiver types based on WDM technology.

Part number	Data rate	Media type	Wavelenght	Connector	Distance
Optical double fiber SFP modules					
SFP*2F1GS**10	1.25 Gbps	SMF	1270-1610	LC Duplex	10 km
SFP*2F1GS**20	1.25 Gbps	SMF	1270-1610	LC Duplex	20 km
SFP*2F1GS**40	1.25 Gbps	SMF	1270-1610	LC Duplex	40 km
SFP*2F1GS**80	1.25 Gbps	SMF	1270-1610	LC Duplex	80 km
SFP*2F1GS**120	1.25 Gbps	SMF	1270-1610	LC Duplex	120 km
Optical 10G double fiber SFP+ modules					
SFP*2F10GS**10	10 G	SMF	1270-1330	LC Duplex	10 km
SFP*2F10GS**20	10 G	SMF	1270-1330	LC Duplex	20 km
SFP*2F10GS**40	10 G	SMF	1470-1610	LC Duplex	40 km
SFP*2F10GS**80	10 G	SMF	1470-1610	LC Duplex	80 km
Optical 10G double fiber XFP modules					
XFP*2F10GS**10	10 G	SMF	1270-1330	LC Duplex	10 km
XFP*2F10GS**20	10 G	SMF	1270-1330	LC Duplex	20 km
XFP*2F10GS**40	10 G	SMF	1470-1610	LC Duplex	40 km
XFP*2F10GS**80	10 G	SMF	1470-1610	LC Duplex	80 km
Optical 10G double fiber XENPAK modules					
XEN*2F10GS**40	10 G	SMF	1470-1610	SC Duplex	40 km
XEN*2F10GS**80	10 G	SMF	1470-1610	SC Duplex	80 km
Optical 10G double fiber X2 modules					
X2*2F10GS**40	10 G	SMF	1470-1610	SC Duplex	40 km
X2*2F10GS**80	10 G	SMF	1470-1610	SC Duplex	80 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.
** - wavelenght number 1270-1610(Example: SFPC2F1GS147010)

Direct attached cables



SFP+ Direct attached cables

SFP+ Direct Attached Cables offer the smallest 10 gigabit form factor and a small overall cable diameter for higher density and optimized rack space in 10 gigabit Ethernet (GbE) uplinks and 10 gigabit Fiber Channel SAN and NAS input/output connections. The use of SFP+ Direct Attached Cables can cost up to three times less than fiber optic solutions, while offering lower latency and consuming up to 50% less power per port than current copper twisted-pair cabling systems.

Becoming increasingly popular for short distance top-of-rack (ToR) and middle-of-row (MoR) Data Center deployments, and expected to account for over 40% of 10 gigabit equipment ports, SFP+ Direct Attached Cables also provide enhanced scalability and flexibility. By connecting several servers or storage devices together in a single rack, the use of intermediate patch panels is eliminated and cabling outside of the rack is limited to the main switch connection, making it easy to move racks, deploy one rack at a time and isolate cabling changes to a single rack.

- Supports 10 Gb/s data rates with backwards compatibility to 1 Gb/s
- Supports 8x/4x/2x/1x Fibre Channel data rates for SANs and NAS
- Compliant with the latest SFF-8431 specifications
- Passive assemblies available in 1-foot increments from 2 to 23 ft (0.6 to 7 m)
- Connector cage designed for high-speed differential signaling
- Easy pull-to-release latching mechanism

Part number	Data rate	Length	Connector 1	Connector 2	Cable
10G active/passive DAC cable					
SFP*DAC10G100CMG	10G	1 m	SFP+	SFP+	Copper
SFP*DAC10G200CMG	10G	2 m	SFP+	SFP+	Copper
SFP*DAC10G300CMG	10G	3 m	SFP+	SFP+	Copper
SFP*DAC10G400CMG	10G	4 m	SFP+	SFP+	Copper
SFP*DAC10G500CMG	10G	5 m	SFP+	SFP+	Copper
10G active DAC cable					
SFPA*DAC10G100CMG	10G	1 m	SFP+	SFP+	Fiber
SFPA*DAC10G200CMG	10G	2 m	SFP+	SFP+	Fiber
SFPA*DAC10G300CMG	10G	3 m	SFP+	SFP+	Fiber
SFPA*DAC10G400CMG	10G	4 m	SFP+	SFP+	Fiber
SFPA*DAC10G500CMG	10G	5 m	SFP+	SFP+	Fiber

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration. Other lenghts available on request.

QSFP+ Direct attached cables

Quad small form-factor pluggable plus (QSFP+) direct attach copper cables are suitable for in-rack connections between QSFP+ ports of EX Series switches. They are suitable for short distances of up to 16.4 ft. (5 m), making them ideal for highly cost-effective networking connectivity within a rack and between adjacent racks.
QSFP+ passive direct attach cables are hot-removable and hot-insertable. A cable consists of a cable assembly that connects directly into two QSFP+ modules, one at each end of the cable. Cables use integrated duplex serial data links for bidirectional communication and are designed for data rates up to 40 Gbps. Passive direct attach cables have no signal amplification built into the cable assembly.

Part number	Data rate	Length	Connector 1	Connector 2	Cable
40G active/passive DAC cable					
QSFP*DAC40G100CMG	40G	1 m	QSFP+	QSFP+	Copper
QSFP*DAC40G200CMG	40G	2 m	QSFP+	QSFP+	Copper
QSFP*DAC40G300CMG	40G	3 m	QSFP+	QSFP+	Copper
QSFP*DAC40G400CMG	40G	4 m	QSFP+	QSFP+	Copper
QSFP*DAC40G500CMG	40G	5 m	QSFP+	QSFP+	Copper
40G active DAC cable					
QSFPA*DAC40G100CMG	40G	1 m	QSFP+	QSFP+	Fiber
QSFPA*DAC40G200CMG	40G	2 m	QSFP+	QSFP+	Fiber
QSFPA*DAC40G300CMG	40G	3 m	QSFP+	QSFP+	Fiber
QSFPA*DAC40G400CMG	40G	4 m	QSFP+	QSFP+	Fiber
QSFPA*DAC40G500CMG	40G	5 m	QSFP+	QSFP+	Fiber

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration. Other lenghts available on request.

QSFP+ to 4 x SFP+ Direct attached cables (40G to 4x10G)

QSFP to 4x SFP+ copper cables offers IT professionals with a cost-effective interconnection solution for merging 40GbE QSFP with 10GbE SFP+, enable host adapters, switches, and servers. For typical applications, users can install this splitter cable between an available QSFP port on their splitter cable features a single QSFP connector (SFF-8436) rated for 40-Gb/s on one end and 4xSFP+ connectors (SFF-8431), each rated for 10-Gb/s, on the other.

Specifications

- Connector A: (1) QSFP 40.0 Gbp/s Rated Connector (SFF-8436 Compliant)
- Connector B: (4) SFP+ 10.0 Gbp/s Rated Connectors (SFF-8431 Compliant)
- Economically Links up a QSFP port with an Upstream 10GbE-SFP+ Switch
- AWG30
- Protocol agnostic support of 40GbE, QDR InfiniBand, SAS & Fibre Channel
- Up to 10.3125 Gbps transfer rate per SFP+ channel (40 Gbps aggregate)
- Robust Zinc die-cast SFP+ & QSFP connectors with pull-to-release latching
- Bridge the gap between your 10G and 40G capable switches/host adapters
- Low cross-talk and pair-to-pair skew maintains signal integrity
- Fully compliant to the latest SFP+ & QSFP MSA (Multi-Source-Agreement)
- Supports all current 10-Gigabit Ethernet and 40-Gigabit Ethernet standards
- Designated form factor and electrical compliance for QDR InfiniBand
- The perfect direct attached storage splitter cable for Fibre Channel & SAS
- Enjoy a reduced power budget and lower port cost compared to optical
- Fully RoHS compliant for environmental protection

Part number	Data rate	Length	Connector 1	Connector 2	Cable
40G active/passive DAC cable					
Q4SFP*DAC40G100CMG	40G	1 m	QSFP+	4xSFP+	Copper
Q4SFP*DAC40G200CMG	40G	2 m	QSFP+	4xSFP+	Copper
Q4SFP*DAC40G300CMG	40G	3 m	QSFP+	4xSFP+	Copper
Q4SFP*DAC40G400CMG	40G	4 m	QSFP+	4xSFP+	Copper
Q4SFP*DAC40G500CMG	40G	5 m	QSFP+	4xSFP+	Copper
40G active DAC cable					
Q4SFPA*DAC40G100CMG	40G	1 m	QSFP+	4xSFP+	Fiber
Q4SFPA*DAC40G200CMG	40G	2 m	QSFP+	4xSFP+	Fiber
Q4SFPA*DAC40G300CMG	40G	3 m	QSFP+	4xSFP+	Fiber
Q4SFPA*DAC40G400CMG	40G	4 m	QSFP+	4xSFP+	Fiber
Q4SFPA*DAC40G500CMG	40G	5 m	QSFP+	4xSFP+	Fiber

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration. Other lenghts available on request.

10/100 fiber media converters

Media Converters provide an intelligent solution for fiber optic connectivity where simplicity, low cost, and minimum footprint are the primary considerations. The converters are designed to handle both legacy 10BaseT and 100BaseTX Fast Ethernet devices on their twisted pair port while maintaining 100BaseFX Fast Ethernet transmission on the fiber optic port. Plug-and-play simplicity makes connection easy.

Description:

MC series Ethernet media converter can interconvert electrical signals of 10Base-T and 100Base-TX twisted pairs with optical signals of 100Base-FX. It extends the network transmission distance from 100m via copper cables to 120km via fiber optical cable. It enables the data to transmit in two different mediums of electrical and optical networks either by the technology of data link L2 store-and-forward, or by the one of PHY L1 cut-through). Red color case can be changed to black colour on request.

Features:

- 10/100Mbps auto-sensed, facilitating network upgrade
- Supporting Link Failure Alert (LFA) with optional dip-switch(unique)
- Supporting half /full-duplex of FX and link failure alert with optional dip-switch
- Supporting 10/100Mbps store-and-forward and 100Mbps cut-through transmission with optional dip-switch(unique)
- Supporting the transmission of extra-long packets up to1600 bytes
- Supporting Quality of Service (QoS) , ensuring the transmission of VoIP packets
- Supporting STP to form a redundant network
- Extremely low power consumption (less than 2W), low heat, reliable and stable performance, and long lifetime

Part number	Data rate	Media type	Wavelength	Connector	Distance
10/100 double fiber optical converters					
MC2FM100/13/2G	10/100	MMF	850	SC Duplex	2 km
MC2FS100/13/20G	10/100	SMF	1310	SC Duplex	20 km
MC2FS100/13/40G	10/100	SMF	1310	SC Duplex	40 km
MC2FS100/13/60G	10/100	SMF	1310	SC Duplex	60 km
MC2FS100/15/80G	10/100	SMF	1550	SC Duplex	80 km
MC2FS100/15/100G	10/100	SMF	1550	SC Duplex	100 km
MC2FS100/15/120G	10/100	SMF	1550	SC Duplex	120 km
10/100 BiDirectional fiber optical converters					
MC1FS100/13/20G	10/100	SMF	1310/1550	SC Simplex	20 km
MC1FS100/15/20G	10/100	SMF	1550/1310	SC Simplex	20 km
MC1FS100/13/40G	10/100	SMF	1310/1550	SC Simplex	40 km
MC1FS100/15/40G	10/100	SMF	1550/1310	SC Simplex	40 km
MC1FS100/13/80G	10/100	SMF	1310/1550	SC Simplex	80 km
MC1FS100/15/80G	10/100	SMF	1550/1310	SC Simplex	80 km

* H – HP; C- Cisco; I – Intel compatible. Usually all other vendors are compatible with Cisco configuration.

10/100/1000 fiber media converters

The 10/100/1000 Media Converter provides an intelligent solution for long distance connections between legacy 10BaseT and 100BaseTX networks and the newer 1000Base Gigabit Ethernet networks. The built-in 10/100/1000 converter enables the fiber cable connection to operate at 1000 Mbps connected to either a 10BaseT, 100BaseTX, or a 1000BaseT network, while remaining completely 1000BaseSX standard-compliant for the fiber optic connection. The fiber connection can also operate in full duplex mode whether the RJ-45 port is connected to a full duplex switch or a half duplex hub.
Each Media Converter provides a 10/100/1000BaseT/TX auto-negotiating RJ-45 twisted-pair connector port featuring store-and-forward switching architecture. The Built-in switch does the network segmentation to provide the maximum fiber distance. Auto-MDIX capability on the twisted-pair port allows convenient connection.

Description:

10/100/1000M Ethernet media converter adopts switching technology to fulfill media conversion. It complies with IEEE802.3z and IEEE802.3ab standards, and supports two types of media network connections:10 /100/1000Base-T and 1000Base-SX/LX. It inter-converts electrical signals of 10/100/1000Base-T twisted pairs with optical signals of 1000Base-SX, extending the transmission distance of a network from 100m via copper cables to 80km via fiber optical cables. It supports transmission in multi-mode dual fiber; single-mode dual fiber, single-mode single fiber. Red color case can be changed to black colour on request.

Features:

- Supporting inter-conversion between 10/100/1000Base-T and 1000Base-SX
- Supporting full-duplex and half-duplex and its auto-sensed
- Supporting automatic cross connection of twisted pair interfaces, facilitating system commissioning and installation
- Supporting the transmission of extra-long VLAN packets
- Supporting Quality of Service (QoS) and ensuring the transmission of VoIP packets
- Supporting STP to form a redundant network

Part number	Data rate	Media type	Wavelength	Connector	Distance
10/100/1000 double fiber optical converters					
MC2FM1000/13/2G	10/100/1000	MMF	850	SC Duplex	550 m
MC2FS1000/13/20G	10/100/1000	SMF	1310	SC Duplex	20 km
MC2FS1000/13/40G	10/100/1000	SMF	1310	SC Duplex	40 km
MC2FS1000/15/60G	10/100/1000	SMF	1550	SC Duplex	60 km
10/100/1000 BiDirectional fiber optical converters					
MC1FS1000/13/20G	10/100/1000	SMF	1310/1550	SC Simplex	20 km
MC1FS1000/15/20G	10/100/1000	SMF	1550/1310	SC Simplex	20 km
MC1FS1000/13/40G	10/100/1000	SMF	1310/1550	SC Simplex	40 km
MC1FS1000/15/40G	10/100/1000	SMF	1550/1310	SC Simplex	40 km
MC1FS1000/14/60G	10/100/1000	SMF	1490/1550	SC Simplex	60 km
MC1FS1000/15/60G	10/100/1000	SMF	1550/1490	SC Simplex	60 km

Media Converter with SFP port

This media converter designed to convert 1000BASE-SX/LX/LH fiber to 1000Base-T copper media or vice versa. Designed under IEEE802.3ab 1000Base-T and IEEE802.3z 1000Base-SX/LX/LH standards, is designed for use with multi-mode/single-mode fiber cable utilizing the LC-Type connector. It works at 850nm on both transmitting and receiving data when adopting multi-mode fiber and 1310nm on both transmitting and receiving data when adopting single-mode

Description:

The high performance Fiber Link Ethernet Extenders provide up to 20KM of Ethernet extension over single-mode fiber. The Model MCSFP1100/20G is ideal for campus networks, connecting remote LANs, and facilitating the optical last-mile connection to the metropolitan-area network (MAN) and beyond. It provides a cost effective plug-and-play solution for long-range 10Base-T, 100Base-TX, 1000Base-TX, Ethernet extensions and added benefit of 10/100/1000M auto-negotiation, making it the perfect choice when planning future upgrades of 10Base-T networks. Ethernet Fiber converters are ultra-miniature in size and feature a shielded RJ45 Ethernet jack, SFP style fiber-optic connections. Built-in auto-sensing capabilities enable full or half-duplex Ethernet operation with no configuration required! Red color case can be changed to black colour on request.

Features:

- Accord to IEEE802.1 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3 100Base-FX, IEEE802.3z 1000Base-SX/LX
- MDI/MDI-X auto negotiation, 10M/100M auto negotiation
- Supports full /half duplex, Point-to-point transparent transfer
- With one SFP slot
- Plug-and-play, easy to installation
- Can insert to 2U 19", 14 slots Rackmount(power external)

Part number	Data rate	Port1	Port2	Connector
10/100 BiDirectional fiber optical converters				
MCSFP1100/20G	10/100/1000	SFP module	RJ45	SFP/RJ45

10G fiber media converters

Converter (3R Repeater) is connection between fiber to fiber 10Gbps equipment function as fiber media converter, or as fiber repeater for long distance transmission.
10G fiber media converters for network backbone (SAN, LAN, MAN). Support SDH/SONET STM-64/OC-192 10G fiber channel 10G Ethernet etc.
Can be applied in Telecommunication room, R&D laboratory, Data center, and etc.
1310nm /1550nm/CWDM/DWDM Optical Wavelength Conversion. Supports Loopback.

Features

- Supporting 10G full duplex autosensing
- Supporting auto-MDI/MDIX
- Supporting 10Gbase-T to 10Gbase-SR/LR/ER/ZR
- 3R function, stable data transmission
- Short delay time when transparent transmission
- Supporting Jumbo frame
- Supporting transmission length of RJ45 network cable
- Supporting DMI (Diagnostic Monitoring Interface) function of optical transceivers
- Supporting 850nm, 1310nm, 1550nm and DWDM/CWDM wavelength ruled by ITUT
- Supporting Loopback, precisely locating the failure, convenient for link test
- Economical management function within bandwidth
- With powerful network management function (Web, SNMP, Console), supporting WEB and SNMP
- Supporting hot plug
- Easy installation with complete LED indicators for working situation
- Supporting 2U chassis (17 slots) and standalone use

Part number	Data rate	Port1	Port2
10G media converters			
MCSFPRJ45/10GG	10G	SFP+ module	RJ45
MCXFPRJ45/10GG	10G	XFP module	RJ45
MCSFPSFP/10GG	10G	SFP+ module	SFP+ module
MCXFPXFP/10GG	10G	XFP module	XFP module
MCSFPXFP/10GG	10G	SFP+ module	XFP module

40G QSFP to QSFP converter/repeater

MCQSFP2/10GG provides media conversion and distance extension for 40G or 10G Ethernet links. It is hot-swappable with two QSFP sockets for QSFP transceivers. Installation and setup is simple plug and play. Insert the module into any powered Fiber Driver chassis with the QSFP transceivers required for the application, and then connect to the network. Applications include:
Media conversion and distance extension for 40G or 10G Ethernet links.
Media conversion (multi-mode to single-mode) and link range extension. (The multi-mode QSFP may be used with MPO MM (40G) or with fan-out cables for quad 10G interfaces.)

Features:

- Support 2U Rack(16 Slots) and independent use.
- Support network management (Web SNMP, Console).
- 3R function.
- Support Jumbo Frame.
- Transparent Transpor and very low delay.
- Support DMI function for QSFP fiber module.
- Support 1*40G Mode and 4*10G Mode.
- Support Loopback test function.
- Support hot plugging.
- Full State Led display.
- Easy installation.

Part number	Data rate	Port1	Port2
40G media converters			
MCQSFP2/10GG	40G	QSFP	QSFP

Converter chassis

Chassis is specially designed to accommodate Media Converters for central power supply, saving space and power cables. Continuous operation is of great importance to fiber communication, so the chassis is equipped with optional redundant power supply and Hot-Swapping function which allows installing/removing the converter/power supply without powering off the chassis. Moreover, to stabilize the performance and extend the lifetime, two cooling fans are installed internal. Together with MC series Gigabit / Fast Ethernet media converters, this chassis is the ideal solution for your network.

Features

- 14 bays to house up to 14 media converters
- Standard 19-inch rack-mountable with 2U height
- Optional redundant power supply to ensure non-stop reliable operation
- Provides hot-swapping of media converters and redundant power supplies
- Two cooling fans (internal) mounted at the rear panel for system cooling
- Media converter power isolation for electrical isolation from each bay
- Offers over-voltage and over-current protections

Part number	Slots	Converter type
Chassis for optical converters		
MC-RACK-14PG	14	Box

Devices are available for either standalone or rack-mount installation ,which is suitable for different working environment. Digital Video Multiplexer is complete digital high-speed fiber transmission product. Using advanced fiber communication technology, digital video technology and data communication technology and adopting reliable large scale special integrated circuit and whole surface by decoration, it is one of the most advanced transmission product for long-distance and high-fidelity video monitoring at present.

PRODUCT CHARACTERISTICS

- ASIC design SMT craftwork
- Complete digital fiber transmission platform and flexible configuration of different signal
- Two types: standalone, desktop; card, rack
- Independent intellectual property large-scale special-purpose integrated circuit core
- Transmit on one fiber, double fibers is also selected
- PAL/NTSC/SECAM auto-negotiation, broadcasting transmission quality
- Provides one channel asynchronous data, the transmit speed can reach more than 115.200Kbps.
- Asynchronous data are RS232/RS485/RS422/ Manchester code.
- 10M/100M Ethernet, full/half duplex auto-adapt, supports VLAN.
- Support Dynamic Ethernet MAC address (1024) with local address filter function.

Type	No of Video channels	Fiber count	Fiber type	Connector type	Data	Audio	/	Ethernet
VS - Standalone	1C - 1 channel converter	1F - 1 fiber	S - singlemode	SC	- without data	1A - 1 Audio channel		1E - One Ethernet port
VC - Card type	4C - 4 channels converter	2F - 2 fiber	M - multimode	LC	1D - RS485	2A - 2 Audio channels		2E - Two Ethernet ports
	...			ST	2D - RS422	...		...
	64C - 64 channels converter			FC	3D - RS232	XA - X Audio channels		XE - X Ethernet ports
VS-	32 C	1 F	S	SC	1D	1A	/	2E

The 2U Chassis can accommodate a combination of up to 16 pieces one channel video modules and video/data modules. The chassis employs a 110/220 VAC Switch Mode Power Supply(SMPS) design, which reduces the possibility of a single module failure causing a shutdown or a major failure of other modules within the chassis. The high reliability and stability ensures that if one module shuts down, the operation of the other modules remains unimpaired. One or two air-cooling fans are installed inside to further strengthen the superior performance of the system and eliminate the necessity for periodic maintenance. Status information can be read through the LED indicators on the installed modules. All of the modules installed in the chassis are hotswappable, which makes it unnecessary to power-down the chassis when replacing modules.

Specifications

- Available Module Slots : 16
- Video converters module adapted : 2 Channel video
- Power in : AC 100 V~260 V
- Power out : DC5V
- Dimensions:L485 ,W230,H91 mm ;19 inches 2U
- Environmental
- Construction: Aluminum
- MTBF: > 100,000 hours
- Operating Temp: -30° C to +50° C
- Storage Temp: -40° C to +85° C
- Relative Humidity: 0% to 95% (non condensing)

Part number	Slots	Converter type
Chassis for optical converters		
MC-RACK-16PG	16	Card

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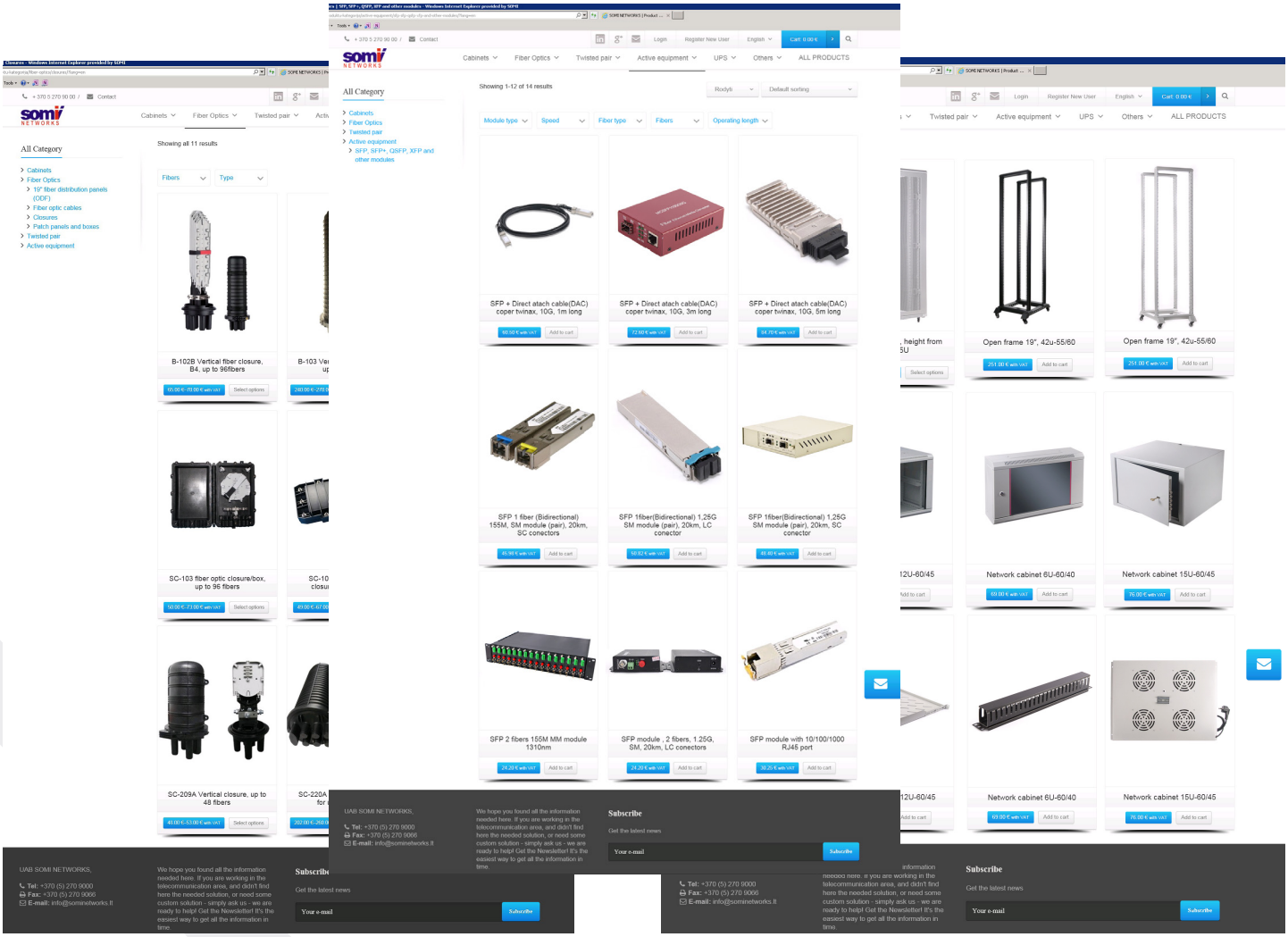
www.sominetworks.com



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