



A chi vuoi **connetterti** oggi?  
OPTICAL INFRASTRUCTURE PRODUCT

## SFP



### CAMPI DI APPLICAZIONE

DATAKOM Application using fast Ethernet, Gigabit Ethernet, 1x/2x/4x fiber channel  
TELECOM OC3/STM1, OC12/STM4 and OC48/STM16



### CARATTERISTICHE

DATA RATE 155Mb/s 4.25Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE 550M / 150KM  
MEDIA TYPE MMF / SMF  
TEMPERATURE STANDARD VERSION 0°C to +70°C INDUSTRIAL VERSION 40°C to +85°C  
CONNECTOR LC  
DDM SI



### BRAND COMPATIBILI

3COM, ADTRAN, ALCATEL, ALLIEDTELESIS, ALLNET, ARISTA, ARUBA, AVAYA, BDCOM, BROCADE, CISCO, DLINK, DELL, EXTREME NETWORKS, EMULEX, ENTERASYS, ERICSSON, FEIXUN, FIBER LAN, FINISAR, FORCE 10, FORTINET, FOUNDRY, H3C, HP, HUAWEI, IBM, IMC NETWORKS, INTEL, JUNIPER, LINKSYS, MARCONI, MCAFFEE, MERAKI, MOXA, NETGEAR, NEOPHOTONICS, NORTEL, OPLINK, OPNEXT, PLANET, REDBACK, RIVERSTONENETWORKS, SMC, SOURCEPHOTONICS, SIXNET, SKYLANE, SUN, RIVERSTONE NETWORKS, SMC, TELCO, TRENDNET, TRANSITION NETWORKS, ZYXEL, ZTE.



## SFP+



### CAMPI DI APPLICAZIONE

DATAKOM Application using 10 Gigabit Ethernet and 2x/4x/8x fiber channel



### CARATTERISTICHE

DATA RATE 8.5G / 10Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE 550M / 150KM  
MEDIA TYPE MMF / SMF  
TEMPERATURE STANDARD VERSION 0°C to +70°C INDUSTRIAL VERSION 40°C to +85°C  
CONNECTOR LC  
DDM SI



### BRAND COMPATIBILI

ALCATEL, BROCADE, CISCO, CHECK POINT, DELTA, EXTREME NETWORKS, ENTERASYS, ERICSSON, FINISAR, FORCE 10, FORTINET, FUJITSU, H3C, HP, IBM, IMC NETWORKS, HUAWEI, INTEL, JUNIPER, MELLANOX, MRV, NETGEAR, OPNEXT, QLOGIC, SOURCE PHOTONICS, TRANSITION NETWORKS, ZYXEL, ZTE.



## XFP



### CAMPI DI APPLICAZIONE

DATAKOM Application using 10 Gigabit Ethernet and 10x fiber channel  
TELECOM Application using OC192/STM64



### CARATTERISTICHE

DATA RATE 10Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE FINO A 120 KM  
MEDIA TYPE MMF / SMF  
TEMPERATURE 0°C to +70°C / 5°C to +70°C  
CONNECTOR LC  
DDM SI



### BRAND COMPATIBILI

3COM, ADTRAN, ALCATEL, ALLIEDTELESIS, ALLNET, ARUBA, BROCADE, CISCO, DLINK, EXTREME NETWORKS, ENTERASYS, ERICSSON, FINISAR, FORCE 10, FORTINET, FOUNDRY, H3C, HP, HUAWEI, IBM, INTEL, JUNIPER, MARCONI, NETGEAR, NEOPHOTONICS, OPLINK, REDBACK, SMC, SOURCE PHOTONICS, SKYLANE, SUN, TELCO, ZTE.



## X2



### CAMPI DI APPLICAZIONE

DATA COM Application using 10 Gigabit Ethernet and 10x fiber channel



### CARATTERISTICHE

DATA RATE 10Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE FINO A 80 KM  
MEDIA TYPE MMF / SMF  
TEMPERATURE 0°C to +70°C  
CONNECTOR SC  
DDM SI



### BRAND COMPATIBILI

ALCATEL, ALLIED TELESIS, CISCO, HP, EXTREME NETWORKS, FIBER LAN, FINISAR, FUJITSU, IMC NETWORKS, INTEL, JUNIPER, MRV, NORTEL, OPNEXT, SKYLANE, SOURCE PHOTONICS, SUN, TELCO, TRANSITION NETWORKS.



## CFP



### CAMPI DI APPLICAZIONE

DATA COM Application using fast Ethernet, Gigabit Ethernet, 1x/2x/4x fiber channel  
TELECOM Application using OC3/STM1, OC12/STM4 and OC48/STM16



### CARATTERISTICHE

DATA RATE 40Gb/s  
WAVELENGTH 1271 / 1331nm  
DISTANCE RANGE FINO A 150 KM  
MEDIA TYPESMF  
TEMPERATURE 0°C to +70°C  
CONNECTOR LC  
DDM SI



### BRAND COMPATIBILI

CISCO, BROCADE.



## QSFP



### CAMPI DI APPLICAZIONE

DATA COM Application using 40Gb/s Ethernet  
TELECOM Application using 40Gb/s Ethernet OTU3



### CARATTERISTICHE

DATA RATE 40Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE FINO A 40 KM  
MEDIA TYPE MMF / SMF  
TEMPERATURE 0°C to +70°C  
CONNECTOR LC  
DDM SI

Fourchannel full duplex transceiver module  
Hot pluggable,MSA compliant QSFP+ form factor  
Maximum link length of 100M on OM3 MMF,150M on OM4 MMF,and 10km on SMF  
Multirate capability;supports 1.06Gb/s to 11.3Gb/s per channel



### BRAND COMPATIBILI

CISCO, EXTREME NETWORKS, JUNIPER, IBM.



## XENPAC



### CAMPI DI APPLICAZIONE

DATACOM Application using 10 Gigabit Ethernet



### CARATTERISTICHE

DATA RATE 10Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE FINO A 120 KM  
MEDIA TYPE MMF / SMF / CX4  
TEMPERATURE 0°C +70°C to 5°C +70°C  
CONNECTOR SC  
DDM SI



### BRAND COMPATIBILI

3COM, ALCATEL, CISCO, EXTREME NETWORKS, ENTERASYS, FINISAR, FUJITSU, H3G, HUAWEI, IBM, JUNIPER, MSA, OPNEXT, SMC, TELCO, ZTE.



## GBIC



### CAMPI DI APPLICAZIONE

DATACOM Application using 10G Gigabit Ethernet an 2x/4x/8x fiber channel  
TELECOM Application using OC3/STM1, OC12/STM4 and OC48/STM16



### CARATTERISTICHE

DATA RATE 1.25Gb/s  
WAVELENGTH 850/1310/1550 nm  
DISTANCE RANGE 550M / 150KM  
MEDIA TYPE MMF / SMF / CX4  
TEMPERATURE 0°C to +70°C  
CONNECTOR SC / RJ45  
DDM NO



### BRAND COMPATIBILI

3COM, ALCATEL, ALLIED TELESIS, ALLNET, ARUBA, AVAYA, BROCADE, CISCO, DLINK, EXTREME NETWORKS, EMULEX, ENTERASYS, ERICSSON, FINISAR, H3G, IBM, INTEL, JUNIPER, MCAFFEE, NORTEL, REDBACK, RIVERSTONE NETWORKS, SMC, SUN, TRANSITION NETWORKS, ZTE.



## MEDIA CONVERTER DOUBLE FIBER



### CAMPI DI APPLICAZIONE

DATACOM Fast/Gigabit Ethernet, fiber channel  
TELECOM OC3/STM1, OC12/STM4



### CARATTERISTICHE

STANDARDS IEEE802.3/3u/3ab/3z/1q/1p/1d  
DATA RATE 10/100/1000Mb/s  
WAVELENGTH FINO A 1550 nm  
DISTANCE RANGE FINO A 120KM  
MEDIA TYPE SMF/MMF  
TEMPERATURE 0°C to +70°C  
CONNECTOR SC  
DDM NO





## MEDIA CONVERTER SINGLE FIBER



### CAMPI DI APPLICAZIONE

DATACOM Fast/Gigabit Ethernet, fiber channel  
 TELECOM OC3/STM1, OC12/STM4



### CARATTERISTICHE

STANDARDS IEEE802.3/3u/3ab/3z/3x/1q/1p/1d  
 DATA RATE 10/100/1000Mb/s  
 WAVELENGTH 1310/1550 nm  
 DISTANCE RANGE FINO A 120KM  
 MEDIA TYPE SMF/MMF  
 TEMPERATURE 0°C to +70°C  
 CONNECTOR SC  
 DDM NO



## POE MEDIA CONVERTER



### CAMPI DI APPLICAZIONE

DATACOM Fast/Gigabit Ethernet, fiber channel  
 TELECOM OC3/STM1, OC12/STM4



### CARATTERISTICHE

STANDARDS IEEE802.3/3u/3ab/3z/1q/1p/1d  
 DATA RATE 10/100/1000Mb/s  
 WAVELENGTH FINO A 1550 nm  
 DISTANCE RANGE FINO A 120KM  
 POWER 15.4W to 50W and 48 to 52V  
 MEDIA TYPESMF  
 TEMPERATURE 0°C to +70°C  
 CONNECTOR SC  
 DDM NO



## MUX DEMUX



### CAMPI DI APPLICAZIONE

DATACOM Full range of Wavelength Division Multiplexer. Including CWDM MuxDemux,  
 Optical Add Drop Multiplexer, (OADM) units, DWDM Mux/Demux  
 And 50G/100G/200G Thermal/Athermal AWG products to suit all kinds applications  
 And network solutions, such as Gigabit & 10G Ethernet, SDH/SONET, ATM,  
 ESCON, Fiber Channel, FTTx and CATV.



### TIPOLOGIE

CWDM MUX/DEMUX Channel 1x2 to 1x16  
 DWDM MUX/DEMUX Channel 1x2 to 1x16



## MUX DEMUX



### CAMPI DI APPLICAZIONE

DATACOM

Full range of Wavelength Division Multiplexer. Including CWDM MuxDemux, Optical Add Drop Multiplexer, (OADM) units, DWDM Mux/Demux And 50G/100G/200G Thermal/Athermal AWG products to suit all kinds applications And network solutions, such as Gigabit & 10G Ethernet, SDH/SONET, ATM, ESCON, Fiber Channel, FTTx and CATV.



### TIPOLOGIE

CWDM MUX/DEMUX

Channel 4, 8, 18

DWDM MUX/DEMUX

Channel 4, 8, 16, 18, 40, 96



## PASSIVE CABLE



### CAMPI DI APPLICAZIONE

DATACOM

Fast Ethernet, Gigabit Ethernet, 1x/2x/4x fiber channel

TELECOM

OC3/STM1, OC12/STM4 and OC48/STM16



### TIPOLOGIE

10Gb/s Passive SFP+ Copper Twinax cable

Lunghezze 0,5mt to 10mt

40Gb/s QSFP+ DirectAttach Copper Cable (DAC)

Lunghezze 0,5mt to 10mt

QSFP+ (40Gb/s) to 4x10GBASECU SFP+ DirectAttach Breakout Cable

Lunghezze 0,5mt to 3mt

QSFP+ (40Gb/s) to 4x XFP (10Gb/s) Copper Breakout Cable

Lunghezze 0,5mt to 1mt



## ACTIVE CABLE



### CAMPI DI APPLICAZIONE

DATACOM

Fast Ethernet, Gigabit Ethernet, 1x/2x/4x fiber channel

TELECOM

OC3/STM1, OC12/STM4 and OC48/STM16



### TIPOLOGIE

10Gb/s Active SFP+ Copper Twinax cable

Lunghezze 5mt to 15mt

40Gb/s Active QSFP+ DirectAttach Copper Cable (DAC)

Lunghezze 15mt



## AOC (Active Optical Cable)



### CAMPI DI APPLICAZIONE

DATACOM

Fast Ethernet, Gigabit Ethernet, 1x/2x/4x fiber channel

TELECOM

OC3/STM1, OC12/STM4 and OC48/STM16



### TIPOLOGIE

AOC (Active Optical Cable)

40GBASE QSFP+ AOC Cable

Lunghezze 10mt to 100mt, customize



## COMPATIBILITA'

I transceiver TLC Fabrik sono compatibili con oltre 100 produttori di apparecchiature di rete. Prima di essere immessi nel mercato, tutti i nostri prodotti vengono collaudati in laboratorio utilizzando apparati di rete di ultima generazione di oltre 30 brand tra i più conosciuti quali: Cisco, Juniper, Extreme, Brocade, IBM, H3C, HP, Huawei, D-Link, ecc.

## VERSIONI

- Disponibili in versione industriale, temperatura di utilizzo da -40°C a +85°C
- Disponibili con funzione di digital diagnostics monitoring (DDM)
- Disponibili in versione BIDI-WDM, CWDM, DWDM

## QUALITÀ

L'intero ciclo produttivo viene costantemente monitorato tramite i seguenti "quality controls" per garantire una completa compatibilità dei nostri prodotti:

- raw material quality control
- on production quality control
- finished product quality control
- delivery product quality control
- controllo delle materie prime utilizzate
- controllo durante tutte le fasi di produzione
- controllo dei prodotti finiti
- controllo durante le fasi di spedizione

Sottoponiamo i nostri optical transceivers a severi test di controllo per garantirne un elevato standard qualitativo in tutte le fasi di produzione come di seguito elencato:

## QUALITY CONTROL TEST

- 1 High-temperature -40°C + 85°C / drying testing
- 2 High-Performance Tx Rx Testing 1Gb / 10Gb / 40Gb / 100Gb
- 3 Signal Test with error detector
- 4 Compatibility Test
- 5 Optical Spectral Testing For all CWDM and DWDM optics

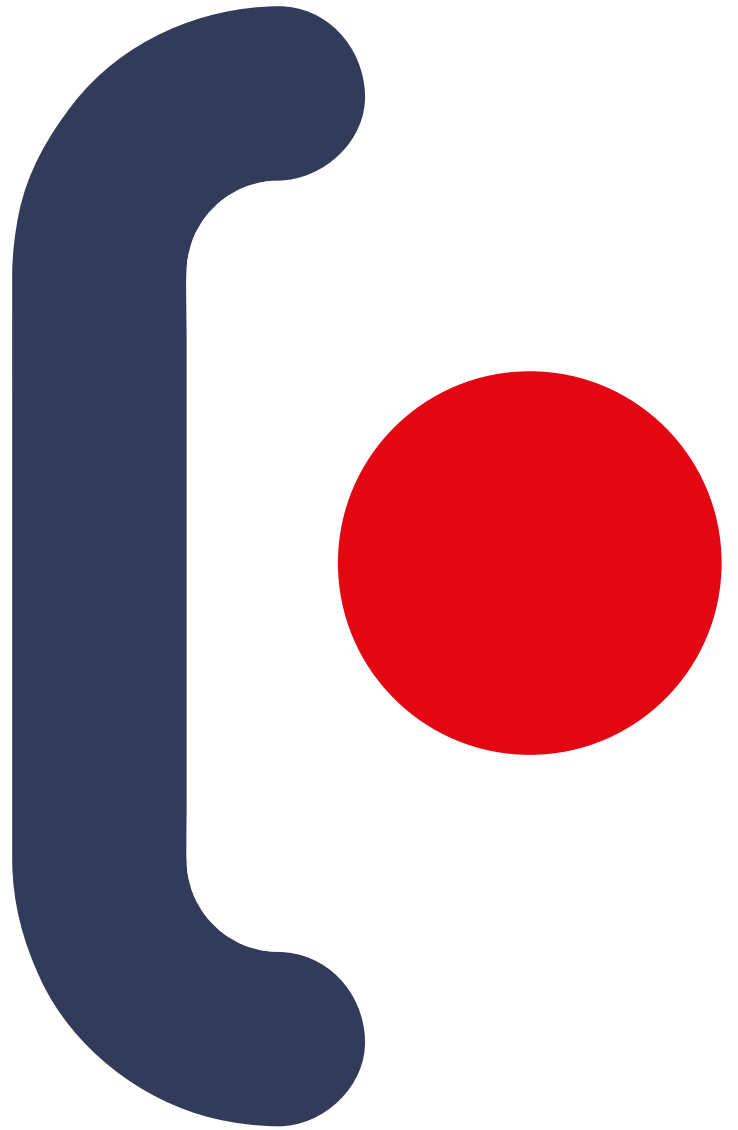
## CERTIFICAZIONI

Tutti i nostri prodotti sono certificati:



## GARANZIA

L'alta qualità dei componenti utilizzati e i processi produttivi conformi ai più elevati standard internazionali, ci consentono di offrire la garanzia a vita per tutti i nostri prodotti.



TLC Fabrik è un marchio di proprietà SE.CO. Srl.

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 **TLC**  
F A B R I K  
Optical Transceiver Modules

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