

# **Amphenol FCi**

Active Fiber optic Product Catalogue

# Contents

Pages 01-02 Company Profile
 Advantages

Page 03-06

1. 100G QSFP28 Transceiver

2. 100GCFP/CFP2/ CFP4 Transceiver

3. 40G QSFP+ Transceiver

4. 25G SFP28 Transceiver

Pages 07-13 5. 10G/8.25G/6.25G SFP+ Transceiver

6. 10G XFP Transceive

7. 10G XENPAK Transceive

8. 10G X2 Transceiver

9. 155M/1.25G/4.25G SFP Transceiver Page 14-17 O. GPON OLT SFP

11. EPON OLT SF

13. EPON ONU SFF

Pages 18-21

14. CWDM Transceiver15. DWDM Transceiver

Pages

16. Copper transceiver

Pages 23-26

17. 100G QSFP28 AOC 18. 40G QSFP+ AOC

19. 25G SFP28+ AOC

20. 10G SFP+ AOC

27-32

21. 100G QSFP28 DAC 22. 40G QSFP+ DAC

23. 25G SFP28 DAC

24. 10G SFP+ DAC

Pages 33-34

25. Media converter

26. Media converter chassis

# Company Profile

Amphenol Corporation has been a premier provider of advanced technology interconnects products to the world's leading electronics companies for more than 80 Years. We spread across more than 30 countries with more than 58,000 employees in greater than 100 facilities. From our very first product in 1932 — tube sockets for radios — to our current broad array of interconnect products, antennas, and sensors, we have consistently striven to create leading-edge, innovative products for a diverse range of customers across a multitude of industries and end markets. Our long term track record of success reflects, in particular, the agile, entrepreneurial culture of our management team, which consistently demonstrates an unwavering commitment to creating value for our customers.

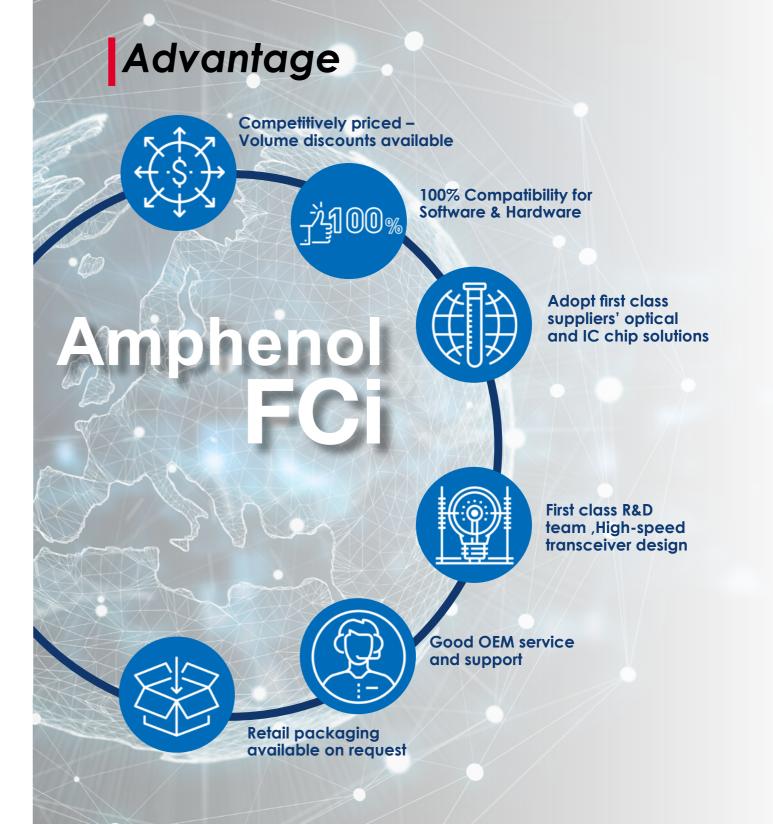
We have a diversified presence across eight high-growth segments of the electronics market: Military, Commercial Aerospace, Industrial, Automotive, IT Datacom, Mobile Networks, Mobile Devices and Broadband.

Amphenol FCI India, a division of Amphenol a part of Amphenol Corporation, is one of India's leading cable assembly solution provider. We offers an extensive range of ICT product and solutions, including end-to-end structured cabling solutions, High performance and high density Data center solutions, Active optical transceivers, FTTH, Outside plant Fiber campus connectivity solutions, PLC Splitters, and other customized products for ICT applications on demand. We work closely with the industry experts to constantly develop new products and technology solutions and make customer satisfaction our top priority.

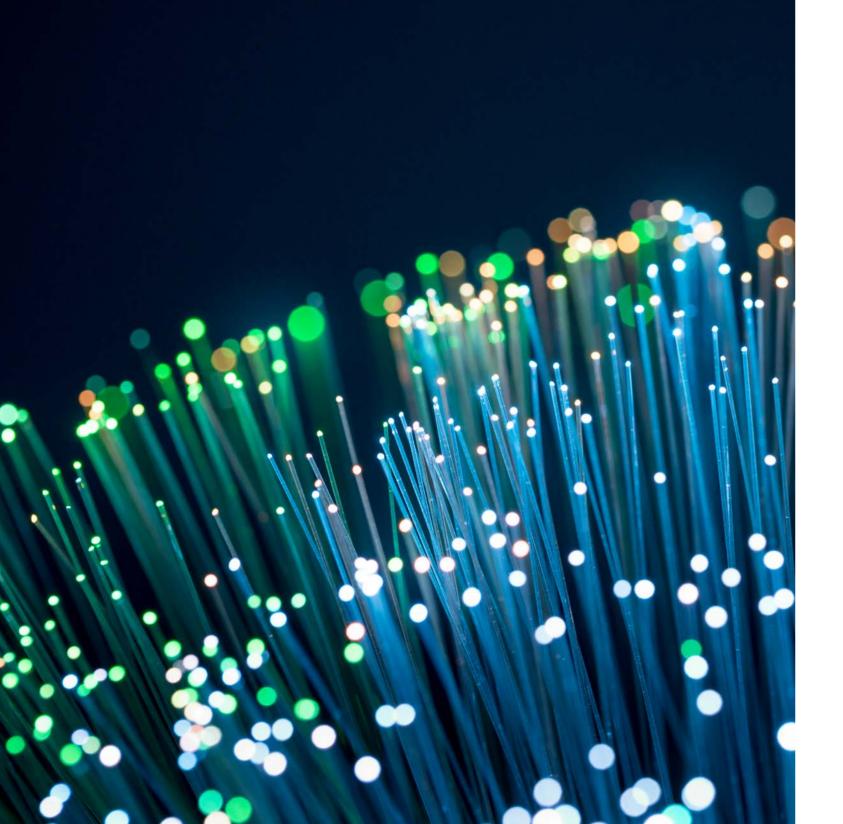
We provide large selection of Active optical transceiver models: SFP, SFP+, XFP, QSFP+, QSFP28, CFP, CFP2, CFP4, etc.

Data rates ranging from 100 Mbps to 100 Gbps. Broad portfolio of universal transceivers: multimode, single mode, copper, CWDM, DWDM, tunable, BiDi (simplex), Direct Attach Cable (DAC), etc





PRODUCTS CATALOGUE



# NO.01 100G QSFP28 Transceiver

Amphenol FCI's 100G QSFP28 series includes SR4, CWDM4, LR4 and ER4 lite, using LC or MPO receptacle, with the features of QSFP28 MSA Compliant, IEEE802.3bm Compliant, low power consumption and high reliability, suitable for 100G data center network and OTN network.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- ·Compliant to IEEE 802.3ba, IEEE 802.3bm and 100G LR4
- · Compliant to SFF-8436
- · Compliant to QSFP28 MSA (multi-source agreement)
- · Compliant to CWDM4 MSA
- · Compliant to 4WDM MSA

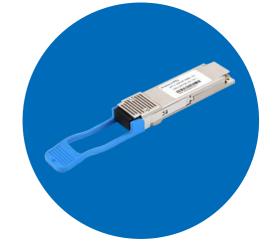
# Case operating temperature range

Standard: 0°-70°C

# Applications

- · 100G Ethernet
- · Data center
- · Infiniband QDR
- · Fiber Channel





#### 100G QSFP28

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-QSF28-85B4-02D	QSFP28	850nm	100M	MPO	MM
AFCI-QSF28-13B4-02D	QSFP28	1310nm	2KM	MPO	SM
AFCI-QSF28-27B4-02D	QSFP28	CWDM	2KM	LC	SM
AFCI-QSF28-29B4-10D	QSFP28	LAN WDM	10KM	LC	SM
AFCI-QSF28-29B4-30D	QSFP28	LAN WDM	30KM	LC	SM

**Amphenol** 

# 100G CFP/CFP2/ **CFP4 Transceiver**

Amphenol FCI has 100G CFP, CFP2, CFP4 series, with the features of CFP/CFP2/CFP4 MSA, IEEE802,3ba Compliant, low power consumption and dual rate supporting. They can be compatible with Ethernet and OTU4 applications.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to IEEE 802.3ba
- · Compliant to CFP MSA (multi-source agreement)
- · Compliant to CFP2 MSA (multi-source agreement)
- · Compliant to CFP4 MSA (multi-source agreement)

#### Case operating temperature ranae

Standard: 0°-70°C

#### **Applications**

- · Local Area Network (LAN)
- · Data Center
- · Ethernet switches and router applications



# 40G QSFP+ **Transceiver**

Amphenol FCI's 40G QSFP+ series optical transceivers includes 150m,400m SR4, 2km,10km LR4 and 30km ER4, using LC or MPO receptacle, with the features of IEEE802.3bm, SFF-8436 Compliant, low power consumption and high reliability, suitable for 40G Ethernet and data center.

#### Standards and Regulatory Compliance

· RoHS Compliant

NO.03

- · Compliant to IEEE802.3ba
- · Compliant to SFF 8436
- · Compliant to QSFP+ MSA

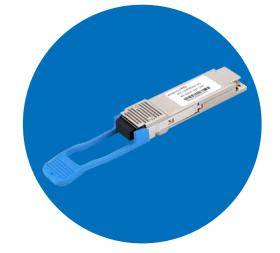
#### Case operating temperature range

Standard: 0°-70°C

#### **Applications**

- · 40G Ethernet
- · Data Center
- · Infiniband QDR
- · Fiber Channel
- ·Switch and Router





#### 100G CFP/CFP2/CFP4

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-CFP-29B4-10D	CFP	LAN WDM	10KM	LC	SM
AFCI-CFP-29B4-40D	CFP	LAN WDM	40KM	LC	SM
AFCI-CP2-27B4-10D	CFP2	LAN WDM	10KM	LC	SM
AFCI-CP2-27B4-40D	CFP2	LAN WDM	40KM	LC	SM
AFCI-CP4-27B4-10D	CFP4	LAN WDM	10KM	LC	SM

#### 40G QSFP+

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-QXP85A4-02D	QSFP+	850nm	150M	MPO	MM
AFCI-QXP85A4-03D	QSFP+	850nm	400M	MPO	MM
AFCI-QXP27A4-02D	QSFP+	CWDM	2KM	LC	SM
AFCI-QXP27A4-10D	QSFP+	CWDM	10KM	LC	SM
AFCI-QXP27A4-30D	QSFP+	CWDM	30KM	LC	SM

**PRODUCTS CATALOGUE** 5 | 6

# Amphenol FCi

# 25G SFP28 Transceiver

Amphenol FCI has 25G SR, LR SFP28 optical transceiver, with the features of IEEE802.3by, SFF-8472, low consumption and high reliability, suitable for data center, 25G Ethernet and fiber channel.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP28 MSA (multi-source agreement)

#### **Applications**

- · 25G Ethernet
- · Data Center
- ·Switch and Router



## Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### 25G SFP28

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-SF28-85B1-02D	SFP28	850nm	100M	LC	MM
AFCI-SF28-13B1-02D(A)	SFP28	1310nm	300M	LC	MM
AFCI-SF28-13B1-10DA	SFP28	1310nm	10KM	LC	SM
AFCI-SF28-13B1-40DA	SFP28	1310nm	40KM	LC	SM
AFCI-SF28BL-XXYYB1-10DA	SFP28	1330/1270nm	10KM	LC	SM
AFCI-SF28BL-XXYYB1-30DA	SFP28	1330/1270nm	30KM	LC	SM
AFCI-SF28-LXX28-40DA	SFP28	LWDM	40KM	LC	SM
AFCI-SF28-DXXB1-20D(A)	SFP28	DWDM	20KM	LC	SM

#### NO.05

# 10G/8.25G/6.25G SFP+ Transceiver

Amphenol FCl's SFP+ series includes SR, LR, ER, ZR, CWDM/DWDM, BIDI series, complaint with MSA, SFF-8472, SFF-8431, with the feature of low power consumption, commercial or industrial operation temperature and high reliability, suitable for DC, Metro, Wireless and Transmission networks.

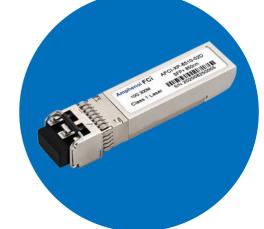
#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to IEEE Std 802.3ae, 802.3aq (10Gbase-LRM)
- · Compliant to SFP+ MSA (multisource agreement)

#### **Applications**

- · 10G Ethernet
- · Data Center
- · CPRI and OBSAI

# Amphenol FCi



## Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### 10G SFP+

	<b>D</b> 1 01 1				Elle ou Tours
Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-XP-8510-02D	SFP+	850nm	300M	LC	MM
AFCI-XP-1310-22D	SFP+	1310nm	220M	LC	MM
AFCI-XP-1310-02/10D	SFP+	1310nm	2/10KM	LC	SM
AFCI-XP-1510-40/80/95D	SFP+	1550nm	40/80/95KM	LC	SM
AFCI-XPBL-XXYY10-10/40/60D	SFP+	1270/1330nm (1330/1270nm)	10/40/60KM	LC	SM
AFCI-XPBL-XXYY10-80D	SFP+	1490/1550nm (1550/1490nm)	80KM	LC	SM

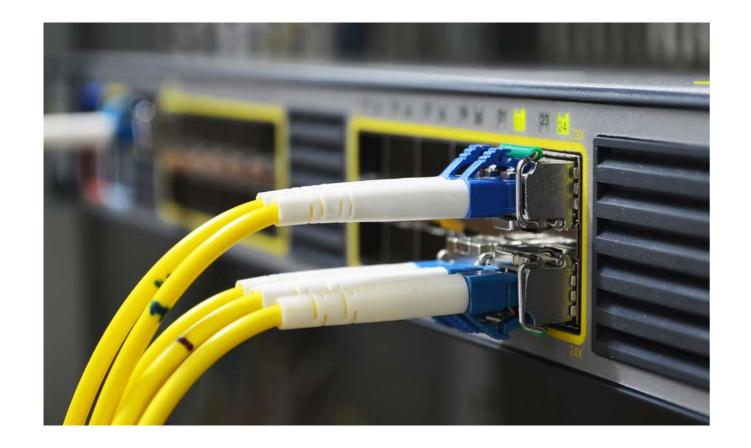
PRODUCTS CATALOGUE 7 | 8

#### 8.25G SFP+

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-XP-8585-02D	SFP+	850nm	300M	LC	MM
AFCI-XP-1385-10D	SFP+	1310nm	10KM	LC	SM

#### 6.25G SFP+

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-XP-8562-02D	SFP+	850nm	300M	LC	MM
AFCI-XP-1362-02/10D	SFP+	1310nm	2/10KM	LC	SM



### NO.06

# 10G XFP Transceiver

Amphenol FCI's 10G XFP series includes SR, LR, ER, ZR, CWDM/DWDM, BIDI series, compliant with MSA, SFF-8472, SFF-8431, with the feature of low power consumption, commercial or industrial operation temperature and high reliability, suitable for DC, Metro, Wireless and Transmission networks.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to XFP MSA (multi-source agreement)
- · Compliant to IEEE Std 802.3
- · Compliant to Fibre Channel Draft Physical Interface Specification
- · Compliant to SONET/SDH optical standards

#### **Applications**

- · 10G Ethernet
- · SONET OC-192 and SDH STM-64
- ·Storage networks





# Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### 10G XFP

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-XF-8510-02D	XFP	850nm	300M	LC	MM
AFCI-XF-1310-10D	XFP	1310nm	10KM	LC	SM
AFCI-XF-1510-40/80D	XFP	1550nm	40/80KM	LC	SM
AFCI-XFBL-XXYY10- 10/20/40/60D	XFP	1270/1330nm (1330/1270nm)	10/20/ 40/60KM	LC	SM
AFCI-XFBL-XXYY10-80D	XFP	1490/1550nm (1550/1490nm)	80KM	LC	SM

PRODUCTS CATALOGUE 9 | 10

# 10G XENPAK Transceiver

Amphenol FCI's XENPAK is a standardized form factor for 10 Gb/s fiber optic transponders that is used for data transfer rates from 10.3 Gb/s to 10.5 Gb/s. It is protocol-specific: Either 10G Ethernet or 10G Fibre Channel versions are available. XENPAK transponders are used in datacom optical links only (not telecom). Its electrical interface to the host board is also standardized and is called XAUI (4 x 3.125 Gb/s).

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to IEEE Std 802.3ae, 802.3aq (10Gbase-LRM)
- · Compliant to SFP+ MSA (multisource agreement)

#### **Applications**

- · 10Gb/s Ethernet Switches and Routers
- · 10GE Core-routers
- · 10GE Storage
- · Other 10Gbps Ethernet Transmission System



**Amphenol** 

## Case operating temperature range

Standard: 0°-70°C

#### **10G XENPAK**

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-XK-8510-02D	XENPAK	850nm	300M	SC	MM
AFCI-XK-1310-10D	XENPAK	1310nm	10KM	SC	SM
AFCI-XK-1510-40/80D	XENPAK	1550nm	40/80KM	SC	SM

**NO.08** 

# 10G X2 Transceiver

Amphenol FCl's 10G X2 transceiver is a highly integrated, serial optical transceiver module for high-speed, 10Gbit/s data transmission applications. 10G X2 module is protocol-specific: Either 10G Ethernet or 10G Fibre Channel versions are available. X2 transponders are used in datacom optical links only (not telecom), and they are smaller than old generation XENPAK transponders. Its electrical interface to the host board is also standardized and is called XAUI (4 x 3.125 Gb/s).

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to X2 MSA Rev.2.0b

#### **Applications**

- · 10Gb/s Ethernet transmission systems
- · 10Gb/s Ethernet Switched and Routers
- · 10GE Core-routers and Storage





Case operating temperature range

Standard: 0°-70°C

#### 10G X2

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-X2-8510-02D	X2	850nm	300M	SC	MM
AFCI-X2-1310-10D	X2	1310nm	10KM	SC	SM
AFCI-X2-1510-40/80D	X2	1550nm	40/80KM	SC	SM

PRODUCTS CATALOGUE 11 | 12

Amphenol FCi NO.09

155M/1.25G/4.25G **SFP Transceiver** 

Amphenol FCI's SFP includes SR, LR, ER, ZR, CWDM/DWDM, BIDI series, complaint with MSA, SFF-8472, with the feature of low power consumption, commercial or industrial operation temperature and high reliability, suitable for DC, Metro and Transmission networks.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP MSA (multi-source agreement)
- · Compliant to IEEE Std 802.3
- · Compliant to Fibre Channel Draft Physical Interface Specification
- · Compliant to SONET/SDH optical standards

# Case operating

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

temperature range

#### **Applications**

#### · Fiber Channel Links

- · WDM Gigabit Ethernet Links
- · FTTX Aplication
- · Other Optical Links

#### 155M SFP

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-SF-8515-02D	SFP	850nm	550M	LC	MM
AFCI-SF-1513-02D	SFP	1310nm	2KM	LC	MM
AFCI-SF-1513-20/40D	SFP	1310nm	20/40KM	LC	SM
AFCI-SF-1515-80D	SFP	1550nm	80KM	LC	SM
AFCI-SF-BLXX15-20D	SFP	1310/1550nm (1550/1310nm)	20KM	LC	SM
AFCI-SF-BLXX15-20/40D	SFP	1310/1490nm (1490/1310nm)	20/40KM	LC	SM
AFCI-SF-BLXX15-80/120D	SFP	1490/1550nm (1550/1490nm)	80/120KM	LC	SM

#### 1.25G SFP

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-SF-8512-02D	SFP	850nm	550M	LC	MM
AFCI-SF-1312-02D	SFP	1310nm	2KM	LC	MM
AFCI-SF-1312-10/20/40D	SFP	1310nm	10/20/40KM	LC	SM
AFCI-SF-1512-40/60/80/120D	SFP	1550nm	40/60/80/120KM	LC	SM
AFCI-SF-BL35(53)12-03D	SFP	1310/1550nm (1550/1310nm)	3KM	LC/SC	SM
AFCI-SF-BL35(53)12-20/40D	SFP	1310/1550nm (1550/1310nm)	20/40KM	LC/SC	SM
AFCI-SF-BL34(43)12-20D/40D	SFP	1310/1490nm (1490/1310nm)	20/40KM	LC/SC	SM
AFCI-SF-BL4512(54)-60D	SFP	1490/1550nm (1550/1490nm)	60/80/120/150KM	LC/SC	SM

#### 4.25G SFP

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-XP-8542-02D	SFP	850nm	550M	LC	MM
AFCI-XP-1342-05/10D	SFP	1310nm	5/10KM	LC	SM
AFCI-XP-1542-40D	SFP	1550nm	40KM	LC	SM



**PRODUCTS CATALOGUE** 13 | 14



# **GPON OLT SFP**

Amphenol FCI's GPON OLT SFP Module is designed for passive optical network application. It supports asymmetric data rate operating at 2.488G downstream and 1.244G upstream. It is fully compliant with ITU-T G.984.2.The GPON OLT transceiver is packaged of small form factor pluggable with SC receptacle. The digital diagnostic monitoring function is compliant with SFP MSA.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to ITU -T G.984.2

#### **Applications**

· Transceiver for GPON Class B+ OLT Side





## Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### **GPON OLT SFP**

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-GP2512-OLT-B+	SFP	1490T/1310R	20KM	SC	SM
AFCI-GP2512-OLT-C+	SFP	1490T/1310R	20KM	SC	SM
AFCI-GP2512-OLT-C++	SFP	1490T/1310R	20KM	SC	SM

PRODUCTS CATALOGUE

# **EPON OLT SFP**

capability. This module is designed for Gigabit Ethernet

Amphenol FCI's GEPON OLT transceiver is small form factor pluggable

module for serial optical data communications such as IEEE 802.3ah

1000BASE-PX20+. It is with the SFP 20-pin connector to allow hot plug

**Amphenol** 



NO.12 **GPON ONU SFP** 

Amphenol FCI's GPON ONU SFP Module is designed for Gigabitcapable Passive Optical Network (GPON) transmission. GPON ONU SFP Module can fully support the Class B+ ODN application specified by the ITU-T G.984.2 standard and ITU-T G.984.5. The metallic package guarantees excellent EMI and EMC characteristics, which totally comply with international relevant standards.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP+ MSA (SFF-8431)
- · Compliant to ITU-T G.987.2
- · Compliant to SFF-8472
- · RoHS-6 compliance

#### **Applications**

· 10 Gigabit-capable passive optical networks



Standards and Regulatory Compliance

· RoHS Compliant

Passive Optical Networks.

- · Compliant to IEEE802.3ah
- · Compliant to SFF-8472
- · Compliant to FCC 47 CFR

Part 15, Class B

· Compliant to SFP MSA SFF - 8074i

Optical Network OLT

· Gigabit Ethernet Passive

**Applications** 

#### Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### **GEPON OLT SFP**

Part number	Package Style	Wavelength	Reach	Connector	Fiber Type
AFCI-EP12-OLT-P20+	SFP	1490T/1310R	20KM	SC	SM
AFCI-EP12-OLT-P20++	SFP	1490T/1310R	20KM	SC	SM
AFCI-EP12-OLT-P20+++	SFP	1490T/1310R	20KM	SC	SM

#### **GPON ONU SFP**

Part number	Package Style	Wavelength	Rx_LOS/SD signal	Connector	TX_Burst signal
AFCI-GP1225-ONU-CLS	SFP	1310T/1490R	Rx_LOS High active	SC	Low active
AFCI-GP1225-ONU-CHS	SFP	1310T/1490R	Rx_LOS High active	SC	High active
AFCI-GP1225-ONU-CLD	SFP	1310T/1490R	Rx_SD High active	SC	Low active
AFCI-GP1225-ONU-CHD	SFP	1310T/1490R	Rx_SD High active	SC	High active

**PRODUCTS CATALOGUE** 17 | 18

# Amphenol FCi

# **EPON ONU SFP**

Amphenol FCI's EPON ONU SFP/GEPON ONU SFP transceiver is for the optical network unit (ONU) of GE-PON with 1.25G in downstream and 1.25G in upstream. Our EPON ONU SFP transceiver comply with IEEE802.3ah EPON standard. Digital diagnostics functions are available via the 2-wire serial bus specified in the SFP MSA.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to IEEE802.3-ah

#### **Applications**

· 10 Gigabit capable passive optical networks ONU



# Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### **GEPON ONU SFP**

Part number	Package Style	Wavelength	Reach	Connector	TX_Burst signal
AFCI-EP12-ONU-CL	SFP	1310T/1490R	20KM	SC	Low active
AFCI-EP12-ONU-CH	SFP	1310T/1490R	20KM	SC	High active

# NO.14 CWDM Transceiver

Amphenol FCI's CWDM Pluggable Optical Transceivers are designed to meet specific networking protocols and media requirements. They support single-mode dual fiber applications with Coarse Wave Division Multiplexing (CWDM) wavelengths. CWDM Pluggable Optical Transceivers increase network capacity by transmitting multiple data channels using separate optical wavelengths (1270nm to 1610nm) on the same fiber pair.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP MSA (multi-source agreement)
- · Compliant to SFP+ MSA (multi-source agreement)

#### **Applications**

- · Gigabit Ethernet
- · Fiber Channel
- · Switch to Switch Interface
- · Switched Backplane Application

**Amphenol** 

- · Router/Server Interface
- ·Other Optical Transmission Systems

# Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### 10G CWDM SFP+

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-XP-CXX10-10/40/60D	SFP+	1270-1610nm	10/40/60/80KM	LC

#### 10G CWDM XFP

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-XF-CXX10-10/40/60D	XFP	1270-1610nm	40KM	LC

PRODUCTS CATALOGUE 19 | 20

#### 1.25G CWDM SFP

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-SF-CXX12-	SFP	1270-1610nm	20/40/60/80/100/120KM	LC
20/40/60/80/100/120D				

#### 2.5G CWDM SFP

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-SF-CXX24-	SFP	1270-1610nm	20/40/80/120KM	LC
20/40/80/120D				

#### 1.25G CWDM BIDI

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-SF-C274712-80D	SFP	1270/1470nm	80KM	LC/SC
AFCI-SF-C515712-80D	SFP	1510/1570nm	80KM	LC/SC



# NO.15 DWDM Transceiver

Amphenol FCi

Amphenol FCI's DWDM Pluggable Optical Transceiver is specifically designed for carriers and large enterprises that require a flexible, cost-effective system for multiplexing, transporting and protecting high speed data, storage, voice and video applications in point-to-point networks.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP MSA (multi-source agreement)
- · Compliant to SFP+ MSA (multi-source agreement)
- · Compliant to XFP MSA (multi-source agreement)

#### **Applications**

- · Gigabit Ethernet
- · SONET OC-3 (155Mbps)/ OC-12 (622Mbps)/ OC-48 (2.488Gbps)
- · 4.915G 9.830G CPRI



# Case operating temperature range

Commercial: 0°C to +70°C Industrial: -40°C to +85°C

#### 10G DWDM SFP+

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-XP-DXX10-40/80D	SFP+	C17-C61	40/80KM	LC

#### 10G DWDM XFP

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-XF-DXX10-40/80D	XFP	C17-C61	40/80KM	LC

PRODUCTS CATALOGUE 21 | 22

#### 1.25G DWDM SFP

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-SF-DXX12-40/80/120D	SFP	C17-C61	40/80/120KM	LC

#### 2.5G DWDM SFP

Part number	Package Style	Wavelength NO.	Reach	Connector
AFCI-XP-DXX24-40/80D	SFP	C17-C61	40/80KM	LC

#### Wavelenath No.

wavelengin	wavelengin No.					
Wavelength NO.	Frequency (THz)	Center Wavelength (nm)				
C17	191.7	1563.86				
C18	191.8	1563.05				
C19	191.9	1562.23				
C20	192.0	1561.42				
C21	192.1	1560.61				
C22	192.2	1559.79				
C23	192.3	1558.98				
C24	192.4	1558.17				
C25	192.5	1557.36				
C26	192.6	1556.55				
C27	192.7	1555.75				
C28	192.8	1554.94				
C29	192.9	1554.13				
C30	193.0	1553.33				
C31	193.1	1552.52				
C32	193.2	1551.72				
C33	193.3	1550.92				
C34	193.4	1550.12				
C35	193.5	1549.32				
C36	193.6	1548.51				
C37	193.7	1547.72				
C38	193.8	1546.92				
C39	193.9	1546.12				

Wavelength NO.	Frequency (THz)	Center Wavelength (nm)
C40	194.0	1545.32
C41	194.1	1544.53
C42	194.2	1543.73
C43	194.3	1542.94
C44	194.4	1542.14
C45	194.5	1541.35
C46	194.6	1540.56
C47	194.7	1539.77
C48	194.8	1538.98
C49	194.9	1538.19
C50	195.0	1537.40
C51	195.1	1536.61
C52	195.2	1535.82
C53	195.3	1535.04
C54	195.4	1534.25
C55	195.5	1533.47
C56	195.6	1532.68
C57	195.7	1531.90
C58	195.8	1531.12
C59	195.9	1530.33
C60	196.0	1529.55
C61	196.1	1528.77

**NO.16** 

**Copper Transceiver** 

Amphenol FCI's Copper SFP including 100BASE-T, 1000BASE-T, 10GBASE-T series, they are designed for 100/1000/10GBASE-T Ethernet links reach up to 100m.

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP MSA (multi-source agreement)
- · Compliant to SFP+ MSA (multi-source agreement)

- · 10GBase-T PHYs Ethernet

#### **Applications**

· 10/100/1000 Base Ethernet

Amphenol FCi

- · 100/1000Base Ethernet
- · MDI/MDIX Crossover

# Case operating temperature range

Standard: 0°-70°C

#### 1000M

Part number	Package Style	Reach	Cable Type
AFCI-SF-T12-02-1	SFP+	100M	RJ45 Cable
10/100/1000M			
AFCI-SF-T12-02-2	SFP+	100M	RJ45 Cable
10G			
AFCI-SFP-10G-T	SFP+	30M	Cat 6a/7 cable

PRODUCTS CATALOGUE 23 | 24



100G QSFP28 AOC

Amphenol FCI's 100G QSFP28 AOCs provide an affordable lowpower alternative to interconnect 100G QSFP28 ports in data center applications up to 100m. In particular, these AOCs are ideal for simplifying inter- and intra-rack configurations. These AOCs come complete with durable polymer pull tabs for ease of removal.

#### Standards and **Regulatory Compliance**

- · RoHS Compliant
- · Compliant to IEEE802.3ba
- · Compliant to QSFP+ MSA SFF-8436

# Case operating temperature range

#### **Applications**

- · 100G Ethernet
- · 25G Ethernet
- ·Low-latency and high-speed interconnections for high performance computing(HPC) Other high-throughput data transmission network

Amphenol FCi

### Standard: 0°-70°C

#### 100G

Part number	Package Style	Wave	Reach	Transmitter	Receiver
AFCI-A7DM3-X	QSFP28	850nm	1m,2m,3m,5m,10m,20m,30,50m,100m	VCSEL	PIN
AFCI-A7DM3-X	QSFP28	850nm	Other distances except above	VCSEL	PIN
AFCI-A8DM3-X	QSFP28 to 4× SFP28	850nm	1m,2m,3m,5m,10m,20m,30,50m,100m	VCSEL	PIN
AFCI-A8DM3-X	QSFP28 to 4× SFP28	850nm	Other distances except above	VCSEL	PIN

# **Amphenol**

# 25G SFP28 AOC

Amphenol FCI's 25G SFP28 AOC Active Optical Cable is a SFP28

connect between the rack and adjacent racks.

connector for direct fiber optic cable assemblies that transmits data

at 25Gb/s for short distances and provides a cost-effective way to

**Amphenol** 

40G QSFP+ AOC

Amphenol FCI's 40G QSFP+ AOCs provide an affordable lowpower alternative to interconnect 40G QSFP+ ports in data center applications up to 100m. In particular, these AOCs are ideal for simplifying inter- and intrarack configurations. These AOCs come complete with durable polymer pull tabs for ease of removal.

#### Standards and Regulatory Compliance

- · RoHS compliant
- · Compliant to IEEE802.3ba
- · Compliant to QSFP+ MSA SFF-8436

#### **Applications**

- ·Low-latency and highspeed interconnections for high performance computing(HPC)
- · 40G Ethernet SR4
- data transmission network
- · Storage area



#### Case operating temperature range

Standard: 0°-70°C

- · Other high-throughput
- Network(SAN)

#### **Applications Regulatory Compliance**

- · Data storage and communications industry
- ·Server and data storage devices
- · Data center and in-rack connections



#### Case operating temperature range

Standard: 0°-70°C

Standards and

· RoHS Compliant

· Compliant to SFP28 MSA

(multi-source agreement)

NO.19

#### 40G

Part number	Package Style	Wave	Reach	Transmitter	Receiver
AFCI-A4CM2-X	QSFP+	850nm	1m,2m,3m,5m,10m,20m,30,50m,100m	VCSEL	PIN
AFCI-A4CM2-X	QSFP+	850nm	Other distances except above	VCSEL	PIN
AFCI-A5CM2-X	QSFP+ to 4× SFP+	850nm	1m,2m,3m,5m,10m,20m,30,50m,100m	VCSEL	PIN
AFCI-A5CM2-X	QSFP+ to 4× SFP+	850nm	Other distances except above	VCSEL	PIN

#### 25G

Part number	Package Style	Wave	Reach	Transmitter	Receiver
AFCI-A25M2-X	SFP28	850nm	1m,2m,3m,5m,10m,20m,30,50m,100m	VCSEL	PIN
AFCI-A25M2-X	SFP28	850nm	Other distances except above	VCSEL	PIN

**PRODUCTS CATALOGUE** 27 | 28

10G SFP+ AOC

Amphenol FCl's 10G SFP+ to 10G SFP+ Active Optical Cable (AOC) is designed for 10G to 10G interconnect links reach up to 300m over

Amphenol FCi

NO.21 FCi

100G QSFP28 DAC

Amphenol FCI's 100G QSFP28 PCC (Passive Copper Cable), also known as Direct Attach Copper (DAC) cable or Twinax cable, provides robust connections for 100G Ethernet and InfiniBand systems. Each cable consists of four lanes each operating at data rates of up to 25Gb/s.

#### Standards and Regulatory Compliance

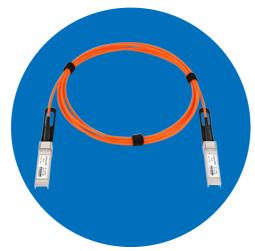
- · RoHS compliant
- · Compliant to SFF-8431 and SFF-8432

OM3 Multi-Mode Fiber (MMF).

- · Compliant to SFF-8472 Rev 10.2
- · Compliant to IEEE 802.3ae 10GBASE-LR and 10GBASE-LW

#### **Applications**

- · Datacom
- · 10G Ethernet
- · Other high-throughput data transmission network



## Case operating temperature range

Standard: 0°-70°C

#### 10G

Part number	Package Style	Wave	Reach	Transmitter	Receiver
AFCI-A18M2-X	SFP+	850nm	1m,2m,3m,5m,10m,20m,30,50m,100m	VCSEL	PIN
AFCI-A18M2-X	SFP+	850nm	Other distances except above	VCSEL	PIN

#### Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to IEEE 802.3bj
- · Compliant to InfiniBand EDR
- · Compliant to QSFP28 MSA

#### **Applications**

- · 100 Gigabit Ethernet
- · Fiber Channel over Ethernet
- · Data storage and communication industry
- · Data Center Network



# Case operating temperature range

Standard: 0°-70°C

#### 100G

Part number	Package Style	Reach	Wrie Gauge	Description
AFCI-P7D30-X	QSFP28	0.5m~3m	30 AWG	Customized 100Gbps QSFP28 Passive DAC
AFCI-P7D30-X	QSFP28	4m~5m	26 AWG	Customized 100Gbps QSFP28 Passive DAC
AFCI-PAD30-X	4xSFP28	0.5m~2m	30 AWG	Customized 100Gbps QSFP28 to 4xSFP28 Passive DAC
AFCI-PAD30-X	4xSFP28	3m~5m	26 AWG	Customized 100Gbps QSFP28 to 4xSFP28 Passive DAC

PRODUCTS CATALOGUE 29 | 30

Amphenol FCi

# NO.23

Amphenol FCi

# 40G QSFP+ DAC

Amphenol FCI's 40G QSFP+ PCC (Passive Copper Cable), also known as Direct Attach Copper (DAC) cable or Twinax cable, provides robust connections for 40G Ethernet systems. Each cable consists of four lanes each operating at data rates of up to 10Gb/s.

#### Standards and Regulatory Compliance

- · RoHS compliant
- · Compliant to IEEE Std 802.3ba
- · Compliant to QSFP+ MSA (multi-source agreement)

#### **Applications**

· 40G Ethernet (40GBase-CR4) · 10G Ethernet (10GBase-CR)



## Case operating temperature range

Standard: 0°-70°C

#### 40G

Part number	Package Style	Reach	Wrie Gauge	Description
AFCI-P4C30-X	QSFP+	0.5m~3m	30 AWG	Customized 40Gbps QSFP+ Passive DAC
AFCI-P5C30-X	QSFP+ to 4xSFP+	0.5m~3m	30 AWG	Customized 40Gbps QSFP+ to 4xSFP+ Passive DAC
AFCI-P5C30-X	QSFP+ to 4xSFP+	5m	26 AWG	Customized 40Gbps QSFP+ to 4xSFP+ Passive DAC
AFCI-P5C30-X	QSFP+ to 4xSFP+	7m	24 AWG	Customized 40Gbps QSFP+ to 4xSFP+ Passive DAC
AFCI-P3C30-X	QSFP+ to SFP+	0.5m~5m	24 AWG	Customized 40Gbps QSFP+ to 1x10G SFP+ DAC Passive DAC

# 25G SFP28 DAC Amphenol FCl's 25G DAC high-speed cable contains a pair of high-speed copper wires with a data rate of up to 25Gb/s, Each SFP28

Amphenol FCI's 25G DAC high-speed cable contains a pair of high-speed copper wires with a data rate of up to 25Gb/s. Each SFP28 connector contains an EEPROM that provides product information that can be read by the host system. It can be designed to active unlock and passive unlock.

## Standards and Regulatory Compliance

- · RoHS Compliant
- · Compliant to SFP28 MSA (multi-source agreement)

#### **Applications**

- ·Switch/Router/HBA
- · Servers and storage devices
- · Data center network
- · Base station/BBU/RRU
- · Fiber Channel
- · 25Gbs Ethernet



## Case operating temperature range

Standard: 0°-70°C

#### 25G

Part number	Package Style	Reach	Wrie Gauge	Description
AFCI-P25D30-X	SFP28	0.5m~3m	30 AWG	Customized 25G SFP28 Passive DAC
AFCI-P25D30-X	SFP28	3m~5m	26 AWG	Customized 25G SFP28 Passive DAC

PRODUCTS CATALOGUE 31 | 32

**Amphenol** 

# 10G SFP+ DAC

Amphenol FCI's small form-factor pluggable plus transceiver (SFP+) direct attach copper (DAC) cables, also known as Twinax cables, are suitable for in-rack connections between servers and switches. They are suitable for short distances, making them ideal for highly costeffective networking connectivity within a rack and between adjacent racks.

#### Standards and Regulatory Compliance

- · RoHS compliant
- · Compliant to electrical standards SFF-8431, SFF-8083
- · Compliant to mechanical standard SFF-8432
- · Compliant to EEPROM standard SFF-8472

#### Case operating temperature range

Standard: 0°-70°C

#### **Applications**

- · 10G Ethernet
- · InfiniBand, Fiber Channel 4G/8G/10G
- ·Sonet Multiplatform support
- · High Performance
- Computing Clusters
- · High End Servers
- · Metro Network Switch/Cross Connect



#### 10G

Part number	Package Style	Reach	Wrie Gauge	Description
AFCI-P1830-0-X	SFP+	0.5m~3m	30 AWG	Customized 10G SFP+ Passive DAC
AFCI-P1830-0-X	SFP+	5m	24 AWG	Customized 10G SFP+ Passive DAC
AFCI-P1830-0-X	SFP+	0.5m~7m	30 AWG	Customized 10G SFP+ Passive DAC
AFCI-P1830-0-X	SFP+	3m~7m	28 AWG	Customized 10G SFP+ Passive DAC
AFCI-P1830-0-X	SFP+	10m~14.5m	24 AWG	Customized 10G SFP+ Passive DAC

**NO.25** 

# Media Converter

Amphenol FCI offers 10/100M Ethernet media converters, gigabit media converters, SFP media converters, managed media converters, OEO fiber optic media converters, media converter cards, and media converter chassis. Fiber media converter can convert the signals sent from copper cable to signals that run on the fiber cable. There are copper to fiber and fiber-to-fiber conversion devices, and single mode fiber optic media converters and multimode fiber media converters.

#### Standards and Regulatory Compliance

· IEEE802.3 10Base-T Ethernet, IEEE802.3u 100Base-TX/FX Fast Ethernet, IEEE802.3x Flow control

· IEEE802.1g VLAN, IEEE802.1p Qos, IEEE802.1dSpanning Tree

Case operatina temperature range

Standard: 0°-50°C





#### 10/100M **Dual Fiber**

Part number	Description
AFCI-100-MD-05	10/100MBase-Tx to 100Base-Fx, Multi Mode, 500M SC/ST/FC Optional
AFCI-100-MD-02	10/100MBase-Tx to 100Base-Fx, Multi Mode, 2Km SC/ST/FC Optional
AFCI-100-SD-20	10/100MBase-Tx to 100Base-Fx, Singel Mode, 20Km SC/ST/FC Optional
AFCI-100-SD-40	10/100MBase-Tx to 100Base-Fx, Singel Mode, 40Km SC/ST/FC Optional
AFCI-100-SD-60	10/100MBase-Tx to 100Base-Fx, Singel Mode, 60Km SC/ST/FC Optional
AFCI-100-SD-80	10/100MBase-Tx to 100Base-Fx, Singel Mode, 80Km SC/ST/FC Optional
AFCI-100-SD-100	10/100MBase-Tx to 100Base-Fx, Singel Mode, 100Km SC/ST/FC Optional
AFCI-100-SD-120	10/100MBase-Tx to 100Base-Fx, Singel Mode, 120Km SC/ST/FC Optional

**PRODUCTS CATALOGUE** 33 | 34

#### 10/100M Single Fiber

Part number	Description
AFCI-100-BD-20A	10/100MBase-Tx to 100Base-Fx, WDM, 20Km, Tx 1310, SC/ST/FC Optional
AFCI-100-BD-20B	10/100MBase-Tx to 100Base-Fx, WDM, 20Km, Tx 1550, SC/ST/FC Optional
AFCI-100-BD-40A	10/100MBase-Tx to 100Base-Fx, WDM, 40Km, Tx 1310, SC/ST/FC Optional
AFCI-100-BD-40B	10/100MBase-Tx to 100Base-Fx, WDM, 40Km, Tx 1550, SC/ST/FC Optional
AFCI-100-BD-60A	10/100MBase-Tx to 100Base-Fx, WDM, 60Km, Tx 1310, SC/ST/FC Optional
AFCI-100-BD-60B	10/100MBase-Tx to 100Base-Fx, WDM, 60Km, Tx 1550, SC/ST/FC Optional
AFCI-100-BD-80A	10/100MBase-Tx to 100Base-Fx, WDM, 80Km, Tx 1490, SC/ST/FC Optional
AFCI-100-BD-80B	10/100MBase-Tx to 100Base-Fx, WDM, 80Km, Tx 1550, SC/ST/FC Optional
AFCI-100-BD-100A	10/100MBase-Tx to 100Base-Fx, WDM, 100Km, Tx 1490,SC/ST/FC Optional
AFCI-100-BD-100B	10/100MBase-Tx to 100Base-Fx, WDM, 100Km, Tx 1550, SC/ST/FC Optional

#### SFP Port

Part number	Description
AFCI-100N-11-SFP	10/100MBase-Tx to 100Base-Fx, GE SFP Port

#### 10/100/1000M Dual Fiber

Part number	Description
AFCI-1000N-MD-05	10/100/1000MBase-Tx to 1000Base-Fx, Multi Mode, 500M SC/ST/FC Optional
AFCI-1000N-SD-20	10/100/1000MBase-Tx to 1000Base-Fx, Singel Mode, 2Km SC/ST/FC Optional
AFCI-1000N-SD-40	10/100/1000MBase-Tx to 1000Base-Fx, Singel Mode, 20Km SC/ST/FC Optional
AFCI-1000N-SD-40	10/100/1000MBase-Tx to 1000Base-Fx, Singel Mode, 40Km SC/ST/FC Optional
AFCI-1000N-SD-60	10/100/1000MBase-Tx to 1000Base-Fx, Singel Mode, 60Km SC/ST/FC Optional
AFCI-1000N-SD-80	10/100/1000MBase-Tx to 1000Base-Fx, Singel Mode, 80Km SC/ST/FC Optional

#### 10/100/1000M Single Fiber

Part number	Description
AFCI-1000N-BD-20A	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 20Km, Tx 1310, SC/ST/FC Optional
AFCI-1000N-BD-20B	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 20Km, Tx 1550, SC/ST/FC Optional
AFCI-1000N-BD-40A	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 40Km, Tx 1310, SC/ST/FC Optional
AFCI-1000N-BD-40B	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 40Km, Tx 1550, SC/ST/FC Optional
AFCI-1000N-BD-60A	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 60Km, Tx 1490,SC/ST/FC Optional
AFCI-1000N-BD-60B	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 60Km, Tx 1550, SC/ST/FC Optional
AFCI-1000N-BD-80A	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 80Km, Tx 1490, SC/ST/FC Optional
AFCI-1000N-BD-80B	10/100/1000MBase-Tx to 1000Base-Fx, WDM, 80Km, Tx 1550, SC/ST/FC Optional

#### SFP Port

Part number	Description
AFCI-1000N-11-SFP	10/100/1000MBase-Tx to 1000Base-Fx, GE SFP Port



PRODUCTS CATALOGUE 35 | 36

# Amphenol FCi

# Media Converter Chassis

Amphenol FCI has two types of rack-mounted chassis for unmanaged media converters 2U 14 slots media converter chassis and 2U 16 slots media converter chassis. The 14 slots media converter chassis supports plug-and-play installation of stand-alone media converters convert modules, can hold at most 14 pieces media converters. The 16 slots media converter chassis media converter chassis should be used with card-type media converters. The 16 slots media converter chassis can hold at most 16 card-type converters of 10/100M.



#### 19 inch 2U 14/16 Slot Media Converter Chassis

Part number	Description
AFCI-81/6-2A	19 inch 2U 16 Slot Rack-mounted chassis for card type media converters, dual power supply 220V
AFCI-81/6-2A/B	19 inch 2U 16 Slot Rack-mounted chassis for card type media converters, dual power supply AC220V+DC48V
AFCI-81/6-2B	19 inch 2U 16 Slot Rack-mounted chassis for card type media converters, dual power supply 48V
AFCI-81/4-2A	19 inch 2U 14 Slot Rack-mounted chassis for standalone media converters, dual power supply 220V
AFCI-81/4-2A/B	19 inch 2U 14 Slot Rack-mounted chassis for standalone media converters, dual power supply AC220V+DC48V
AFCI-81/4-2B	19 inch 2U 14 Slot Rack-mounted chassis for standalone media converters, dual power supply 48V

# **Amphenol FC**

For more Information, please contact Amphenol FCI at:-

#123/1, Kammana Halli, Begur Hobli, Bannerghatta Road Bangalore: - 560076 Karnataka India Tel: +91 080 42819908/42819965