

## COMPANY OVERVIEW

Kumpulan Abex Sdn Bhd, a subsidiary of Abex Medical System established since 4 January 1988.

Built up to meet the rising needs for Fiber Optics Test & Measurement Instrument, Optical Fiber Communications and Building Security & Automation. We are one of the pioneering home grown companies in Malaysia to focus in Photonics products and solutions with extensive experiences in product development.

With our solid knowledge in the industry forefront, we started to branch out to our well-tested and well-qualified fiber optics passive component product portfolio as our key business.

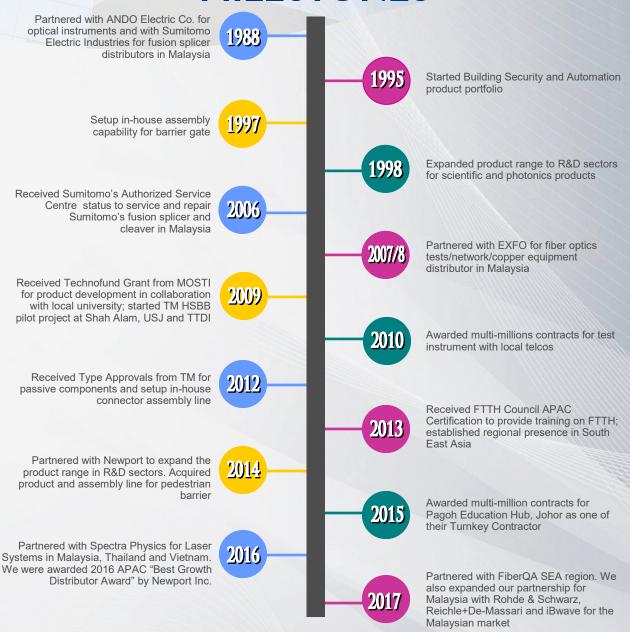
With the recognition from our partners on our technical capabilities, we are authorized to provide in-house repair and calibration services on their equipment and instruments.

Enhanced by the hands-on experiences in the FTTH roll-out in Malaysia plus the possession of the certification by the FTTH council, we also provide training courses in FTTH and other related fields.

Currently we are operating our overseas business from our associates' offices located in countries like Vietnam and Singapore.

In July 2013, we started a new operation in Bangkok,
Thailand namely
Abex Technologies Co. Ltd.,
with one of our
Associate Companies in
Thailand.

## **MILESTONES**





### **10G SFP+**

#### **FEATURES**

- Supports 9.95 to 11.3Gb/s and hot-pluggable SFP footprint
- Simple/Duplex LC Interface
- Built-in digital diagnostic monitoring functions
- Metal housing for superior EMI Performance
  Compliant with IEEE 80.3ae (10GBASE-SR/SW,10GBASE-LR/LW,
  10GBASE-ER/EW and 10GBASE-ZR/ZW).
  Compliant with SFP+ MSA specification
- Electronic Interface compliant with SFF-8431 and SFF-8432
- Digital diagnostic monitor function compatible with SFF-8472
- RŎHS6 and REACH compliant



#### **SPECIFICATIONS**

P.N	Туре	Data Rate	Wav. (nm)	Link Budget	Interface	Tx.	Power (dBm)	Rx.	Sen. (dBm)	Temp.
	Duplex SFP+									
AXMPP8510GL-03			850	300m	LC	VCSEL	-7 <b>~</b> -1	PIN	<-11	0~70°C
AXSPP3110GL-2				1310	2km	LC	FP	-6.5 ~ -1	PIN	<-11
AXSPP3110GL-10	Duplex	10G	1310	10km	LC	DFB	-6.5 ~ -1	PIN	<-15	0~70°C
AXSPP5510GL-40			1550	40km	LC	EML	-1 ~ +4	PIN	<-16	0~70°C
AXSPP5510GL-80			1550	80km	LC	EML	0 ~ +5	APD	<-23	0~70°C
				BIDI WD	M SFP+					
AXBPP3710GL-10			1330(TX) 1270 (RX)	10km	LC	DFB	-5 ~ O	PIN	<-15	0~70°C
AXBPP7310GL-10	BIDI	10G	1270 (TX) 1330 (RX)	10km	LC	DFB	-5 ~ O	PIN	<-15	0~70°C
AXBPP3710GL-40	ыы	10G	1330(TX) 1270 (RX)	40km	LC	DFB	-1 ~ +4	PIN	<-15	0~70°C
AXBPP7310GL-40			1270 (TX) 1330 (RX)	40km	LC	DFB	-1 ~ +4	PIN	<-15	0~70°C
				CWDM	SFP+					'
AXCPPXX10GL-20			1270-1450	20km	LC	DFB	-6.5 ~ -1	PIN	<-15	0~70°C
AXCPPXX10GL-40	CWDM	10G	1470-1610	40km	LC	EML	-1~ +4	PIN	<-16	0~70°C
AXCPPXX10GL-80			1470-1610	80km	LC	EML	0~ +5	APD	<-23	0~70°C
				DWDM	SFP+					
AXDPPXX10GL-40	DWDM	100	ITU-GRID	40km	LC	EML	-1 ~ +4	PIN	<-16	0~70°C
AXDPPXX10GL-80	DWDM	10G	C17-C61	80km	LC	EML	0 ~ +5	APD	<-23	0~70°C

#### **ORDERING INFORMATION**

AX	Туре	Package	Wav. (TX/RX)	Data Rate	Interface	Distance	Temp.*
AX	B=BIDI	PP=SFP+	85=850	10G=9.95-11.7G	L=LC	03=300M	I = -40 ~ +85°C
	C=CWDM	XP=XFP	31=1310			2=2KM	
	D=DWDM		55=1550			10=10KM	
	M=MM Duplex		37=1330/1270			20=20KM	
	S=SM Duplex		73=1270/1330			40=40KM	
			xx = 1270-1610 (CWDM)			80=80KM	
			xx = C17-C61 (DWDM)				

#### Notes:

- 1. All default 10G Modules support DOM/DDM Function
- 2. If Temp. item is empty, it means it works under 0 ~ +70°C
  3. Please specify if it is required for other network system compatible issue (e.g. HUAWEI, MARCONI, CISCO, Ericsson, ZTE etc.)



#### **FEATURES**

- Supports 9.95 to 11.3Gb/s and hot-pluggable XFP footprint
- Optical Simplex/Duplex LC Interface (XFI electrical Interface)
- No reference clock required
- Compliant with IEEE 802.3ae (10GBASE-SR/SW, 10GBASE-LR/LW, 10GBASE-ER/EW and 10GBASE-ZR/ZW)

  Compliant With XFP MSA specification and INF-8077i
- Digital diagnostic monitor function compatible with SFF-8472
- ROHS6 and REACH compliant



#### **SPECIFICATIONS**

P.N	Туре	Data Rate	Wav. (nm)	Link Budget	Interface	Tx.	Power (dBm)	Rx.	Sen. (dBm)	Temp.			
Duplex XFP													
AXMXP8510GL-03				850	300m	LC	VCSEL	-7 <b>~</b> -1	PIN	<-11	0~70°C		
AXSXP3110GL-2					1310	2km	LC	FP	-6.5 ~ -1	PIN	<-11	0~70°C	
AXSXP3110GL-10	Duplex	10G	1310	10km	LC	DFB	-6.5 ~ -1	PIN	<-15	0~70°C			
AXSXP5510GL-40			1550	40km	LC	EML	-1 ~ +4	PIN	<-16	0~70°C			
AXSXP5510GL-80			1550	80km	LC	EML	0 ~ +5	APD	<-24	0~70°C			
				BIDI WDI	M XFP								
AXBXP3710GL-10			1330(TX) 1270 (RX)	10km	LC	DFB	-5 ~ O	PIN	<-15	0~70°C			
AXBXP7310GL-10	BIDI	BIDI	BIDI	BIDI	10G	1270 (TX) 1330 (RX)	10km	LC	DFB	-5 ~ O	PIN	<-15	0~70°C
AXBXP3710GL-40					ыы	100	1330(TX) 1270 (RX)	40km	LC	DFB	-1 ~ +4	PIN	<-15
AXBXP7310GL-40			1270 (TX) 1330 (RX)	40km	LC	DFB	-1 ~ +4	PIN	<-15	0~70°C			
				CWDM	XFP								
AXCXPXX10GL-20			1270-1450	20km	LC	DFB	-6.5 ~ -1	PIN	<-15	0~70°C			
AXCXPXX10GL-40	CWDM	10G	1470-1610	40km	LC	EML	-1 ~ +4	PIN	<-16	0~70°C			
AXCXPXX10GL-80			1470-1610	80km	LC	EML	0 ~ +5	APD	<-23	0~70°C			
				DWDM	XFP								
AXDXPXX10GL-40	DWDM	10G	ITU-GRID C17-C61	40km	LC	EML	-1 ~ +4	PIN	<-16	0~70°C			
AXDXPXX10GL-80	DWDM	100	ITU-GRID C17-C61	80km	LC	EML	0 ~ +5	APD	<-23	0~70°C			

#### **ORDERING INFORMATION**

AX	Туре	Package	Wav. (TX/RX)	Data Rate	Interface	Distance	Temp.*
AX	B=BIDI	PP=SFP+	85=850	10G=9.95-11.7G	L=LC	03=300M	I =-40 ~ +85°C
	C=CWDM	XP=XFP	31=1310			2=2KM	
	D=DWDM		55=1550			10=10KM	
	M=MM Duplex		37=1330/1270			20=20KM	
	S=SM Duplex		73=1270/1330			40=40KM	
			xx = 1270-1610 (CWDM)			80=80KM	
			xx = C17-C61 (DWDM)				

- Notes:
  1. All default 10G Modules support DOM/DDM Function
  2. If Temp. item is empty, it means it works under 0 ~ +70°C
- 3. Please specify if it is required for other network system compatible issue (e.g. HUAWEI, MARCONI, CISCO, Ericsson, ZTE etc)



### SFP BIDI, SFP CWDM and COPPER SFP

#### **FEATURES**

- Supports 155Mb/s to 3.125Gb/s and hot-pluggable SFP footprint Optical Simplex/Duplex LC Interface (SFP electrical Interface) Compliant with SFP MSA specification Digital diagnostic monitor optional support Compatible with SFF-8472 ROHS6 and REACH compliant





P.N	Туре	Data Rate	Wav. (nm)	Link Budget	Inter- face	Tx.	Power (dBm)	Rx.	Sen. (dBm)	DOM/ DDM	Temp.
				Duple	ex SFP						
AXSP311ML-40		155M	1310	40km	LC	FP	-10 ~ -2	PIN	<-35	D/E	C/I
AXSP551ML-80		155M	1550	80km	LC	DFB	<b>-5</b> ~ 0	PIN	<-36	D/E	C/I
AXMP851GL-05		1.25G	850	550m	LC	VCSEL	-12 ~ -3	PIN	<-18	D/E	C/I
AXSP311GL-20		1.25G	1310	20km	LC	FP	-10 ~ -2	PIN	<-22	D/E	C/I
AXSP551GL-40	Duplex	1.25G	1550	40km	LC	DFB	-6 ~ 0	PIN	<-22	D/E	C/I
AXSP551GL-80		1.25G	1550	80km	LC	DFB	0 ~ 5	PIN	<-25	D/E	C/I
AXSP551GL-150		1.25G	1550	150km	LC	DFB	3 ~ 6	APD	<-35	D/E	C/I
AXSP312GL-20		2.5G	1310	20km	LC	DFB	<b>-5</b> ~ 0	PIN	<-18	D/E	C/I
AXSP552GL-80		2.5G	1550	80km	LC	DFB	0 ~ 5	APD	<-27	D/E	C/I
				CWD	M SFP						
AXCPXX1GL-40		1.25G	1270-1610	40km	LC	DFB	-6 <b>~</b> 1	PIN	<-24	D/E	C/I
AXCPXX1GL-80		1.25G	1270-1610	80km	LC	DFB	0 ~ 5	PIN	<-25	D/E	C/I
AXCPXX1GL-150	CWDM	1.25G	1270-1610	150km	LC	DFB	3 ~ 6	APD	<-35	D/E	C/I
AXCPXX2GL-40		2.5G	1270-1610	40km	LC	DFB	-2 ~ 3	PIN	<-20	D/E	C/I
AXCPXX2GL-80		2.5G	1270-1610	80km	LC	DFB	0 ~ 5	APD	<-27	D/E	C/I
				DWD	M SFP						
AXDPXXX1GL-80		1.25G	ITU-GRID C17-C61	80km	LC	DFB	0 ~ 5	PIN	<-26	D/E	C/I
AXDPXXX1GL- 120	DWDM	1.25G	ITU-GRID C17-C61	120km	LC	DFB	0 ~ 5	APD	<-30	D/E	C/I
AXDPXXX2GL-80		2.5G	ITU-GRID C17-C61	80km	LC	DFB	0 ~ 5	APD	<-27	D/E	C/I
				BID	I SFP						
AXBP351GS(L)- 20		1.25G	1310 (TX) 1550 (RX)	20km	SC/LC	FP	-10 ~ -2	PIN	<-22	D/E	C/I
AXBP531GS(L)- 20		1.25G	1550 (TX) 1310 (RX)	20km	SC/LC	DFB	-10 ~ -2	PIN	<-22	D/E	C/I
AXBP451GS(L)- 80		1.25G	1490 (TX) 1550 (RX)	80km	SC/LC	DFB	-2 ~ 3	PIN	<-26	D/E	C/I
AXBP541GS(L)- 80		1.25G	1550 (TX) 1490 (RX)	80km	SC/LC	DFB	-2 ~ 3	PIN	<-26	D/E	C/I
AXBP451GS(L)- 120	BIDI	1.25G	1490 (TX) 1550 (RX)	120km	SC/LC	DFB	0 ~ 5	APD	<-30	D/E	C/I
AXBP541GS(L)- 120	ыы	1.25G	1550 (TX) 1490 (RX)	120km	SC/LC	DFB	0 ~ 5	APD	<-30	D/E	C/I
AXBP352GS(L)- 20		2.5G	1310 (TX) 1550 (RX)	20km	SC/LC	DFB	-5 <b>~</b> 1	PIN	<-18	D/E	C/I
AXBP532GS(L)- 20		2.5G	1550 (TX) 1310 (RX)	20km	SC/LC	DFB	-5 ~ 1	PIN	<-18	D/E	C/I
AXBP452GS(L)- 80		2.5G	1490 (TX) 1550 (RX)	80km	SC/LC	DFB	0 ~ 5	APD	<-27	D/E	C/I
AXBP542GS(L)- 80		2.5G	1550 (TX) 1490 (RX)	80km	SC/LC	DFB	0 ~ 5	APD	<-27	D/E	C/I



## **SFP BIDI, SFP CWDM and COPPER SFP**

P.N	Туре	Data Rate	Wav. (nm)	Link Budget	Inter- face	Tx.	Power (dBm)	Rx.	Sen.(dBm)	DOM/ DDM	Temp.
	Single Tx. and Rx. Video 3G-SDI SFP										
AXSTP553GL-20		3.125G	1550	20km	LC	DFB	<b>-</b> 5 ~ 0	1	1	D/E	C/I
AXSRP553GL-20	CDI	3.125G	1550	20km	LC	1	1	PIN	<-18	D/E	C/I
AXSTP553GL-40	SDI	3.125G	1550	40km	LC	DFB	-2 ~ 3	1	1	D/E	C/I
AXSRP553GL-40		3.125G	1550	40km	LC	1	1	PIN	<-20	D/E	C/I
			Doub	ole Tx and	d Rx. Vide	o 3G-SD	I SFP				
AXDTP553GL-20		3.125G	1550	20km	LC	DFB	-5 ~ 0	1	1	D/E	C/I
AXDRP553GL-20	ODI	3.125G	1550	20km	LC	1	/	PIN	<-18	D/E	C/I
AXDTP553GL-40	SDI	3.125G	1550	40km	LC	DFB	-2 ~ 3	1	1	D/E	C/I
AXDRP553GL-40		3.125G	1550	40km	LC	1	1	PIN	<-20	D/E	C/I
				3G-SD	Video BI	DI SFP					
AXBP353GL-20		3.125G	1310 (TX) 1550 (RX)	20km	LC	DFB	-6 ~ 0	PIN	<-18	D/E	C/I
AXBP533GL-20	BIDI	3.125G	1550 (TX) 1310 (RX)	20km	LC	DFB	-6 ~ 0	PIN	<-18	D/E	C/I
AXBP353GL-40	ыы	3.125G	1310 (TX) 1550 (RX)	40km	LC	DFB	-1 ~ 3	PIN	<-20	D/E	C/I
AXBP533GL-40		3.125G	1550 (TX) 1310 (RX)	40km	LC	DFB	-2 ~ 3	PIN	<-20	D/E	C/I
			S	ingle Wa	v. Single	Fiber SF	Р				
AXTP551GL-20		1.25G	1550	20km	LC	DFB	-7 ~ 0	PIN	<-18	D/E	C/I
AXTPXX1GL-40	SWSF	1.25G	1470- 1610	40km	LC	DFB	-3 ~ 2	PIN	<-22	D/E	C/I
AXTPXX2GL-20		2.5G	1470- 1610	20km	LC	DFB	-5 ~ 1	PIN	<-16	D/E	C/I
				Co	ompact SI	FP					
AXBC431GL-20	CSFP	1.25G	1490 (DT) 1310 (DR)	20km	LC	FP	-10 ~ -3	PIN	<-22	D	C/I
AXBC341GL-20	COLL	1.25G	1310 (DT) 1490 (DR)	20km	LC	DFB	-10 ~ -3	PIN	<-22	D	C/I
					SGMII SFF	•					
AXHY-GEFX-10	SGMII	100M	1310	10km	LC	FP	-	PIN	-	-	С
				С	opper SF	Р					
AXCOPT-RJ	Copper	100/100 0M	-	100m	RJ45	-	-	-	-	-	С



### **SFP BIDI, SFP CWDM and COPPER SFP**

#### **ORDERING INFORMATION**

AX	Туре	Package	Wav. (TX/RX)	Interface	Distance	Temp.*
AX	B=BIDI	P=SFP	85=850	L=LC	05=550m	I =-40 ~ +85°C
	C=CWDM	C=Compact SFP	31=1310	S=SC	10=10KM	
	D=DWDM		55=1550	R=RJ45	20=20KM	
	M=MM Duplex		35=1310/1550		40=40KM	
	S=SM Duplex		53=1550/1310		80=80KM	
	ST= Single transmitter		45=1490/1550		120=120KM	
	SR=Single receiver		54=1550/1490		150=150KM	
	DT=Double transmitter		43=1490/1310			
	DR=Double receiver		34=1310/1490			
			37=1330/1270			
			73=1270/1330			
			XX=1270-1610 (CWDM) Please Specify			
			XX=1470-1610 (SWSF) Please Specify			
			XXX=C17-C61 (DWDM) Please Specify			

#### Notes:

- 1. All default Modules support DOM/DDM Function
  2. If Temp. item is empty, it means it works under 0 ~ +70°C
  3. Please specify if it is required for other network system compatible issue (e.g. HUAWEI, MARCONI, CISCO, Ericsson, ZTE etc)

## 10/100/1000M GIGABIT ETHERNET MEDIA CONVERTER AX-1000SFP





AX-1000SFP complies with IEEE802.3, IEEE802.3u, IEEE802.3z and IEEE802.3ab standards.

Presently it supports two types of media network connections: 10Base-T/100Base-TX/1000Base-T and 1000Base-SX/LX, inter-converting electrical signals of 10Base-T/100Base-TX/1000Base-T twisted pairs with optical signals of 1000Base-SX/LX.

It extends the transmission distance of network from 100m via copper cable to 20/40/60/80km via fiber optical cable. It supports transmission in multi-mode dual fiber, single mode dual fiber and single mode single fiber.

- Support inter-conversion between adaptive 10Base-T/100Base-TX/1000Base-T and 1000Base-SX/LX
- Support auto-sensing, full-duplex and half-duplex operation
- Support auto-sensation of MDI/MDI-X, facilitating system commissioning and installation
- Support the transmission of extra-long VLAN packets
- Support Quality of Service (QoS) and ensuring the transmission of VoIP packets

#### **FEATURES**

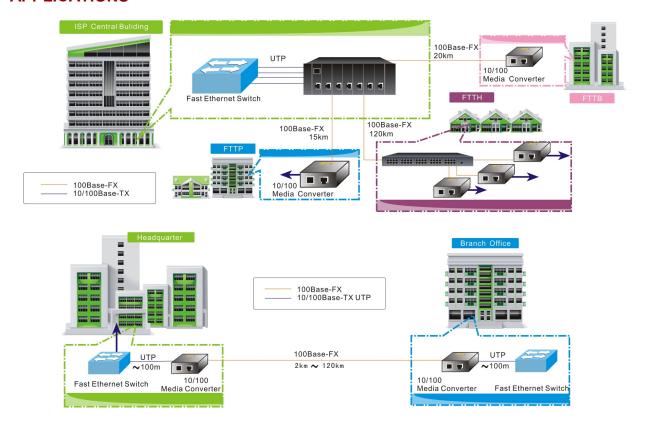
- High compatibility capacity whereby its compatible with network card, hub, switch and repeater of other brands
- Options in single mode dual fiber, multi-mode dual fiber and single mode in single fiber
- Store-and-Forward mechanism

Parameter	Specifications
Data Rate	10/100/1000Mbps Gigabit Ethernet
Standard	IEEE802.3 10Base-T Ethernet, IEEE802.3u 100Base-TX/FX Fast Ethernet, IEEE802.3ab 1000Base-T and IEEE802.3z 1000Base-SX/LX Gigabit Ethernet
Operating Wavelength	850nm/1310nm/1550nm
Transmission Distance	Multi-mode Dual-fiber: 220m (62.5/125μm)/550m (50/125μm) Single mode Dual-fiber: 20/40/60/80 Km Single mode Single fiber: 20/40/60/80 Km Category-5 twisted pairs: 100m
Port	One RJ45 port: Connecting with STP/UTP category-5 twisted pairs One optical port: Multi-mode Dual-fiber: SFP (50, 62.5/125µm) Single mode Dual-fiber: SFP (9/125µm) Single mode Single fiber: SFP (9/125µm)
Operation Mode	Media conversion
BER	<10 <sup>-9</sup>
MTBF	100,000 hours
LED Indicator	POWER (power supply), FX LINK (optical link action) TP LINK1000 (TP cable rate1000M), TP LINK100 (TP cable rate 100M) TP ACT (TP cable packet forwarding action)
Power Supply	External: AC90~264V input, 5V 2A output Internal: AC90~264V input
Power Consumption	5W
Operating Temperature	-10~55°C
Operating Humidity	5%~90%
Storage Temperature	-40~70°C
Storage Humidity	5% ~ 90% non-condensing
Dimensions	$158 mm(W) \times 146 mm(D) \times 40 mm(H) \ (internal power supply) \\ 71 mm \ (W) \times 94 mm \ (D) \times 26 \ mm \ (H) \ (external power supply) \\ 26 mm(W) \times 88 mm(D) \times 114 mm(H) \ (card \ type)$



# 10/100/1000M GIGABIT ETHERNET MEDIA CONVERTER AX-1000SFP

#### **APPLICATIONS**



#### **ORDERING INFORMATION**

Part No	Description
AX-1000SFP	10/100/1000Base-TX to 1000Base-FX(SFP), Gigabit Ethernet Media converter with SFP slot (Exclude SFP Transceiver module) ,power adaptor - 220VAC, standalone

#### **Accessories**

AXMP851GL-05	SFP Transceiver, 1.25G, 850nm, 550m
AXSP311GL-20	SFP Transceiver, 1.25G, 1310nm, 20km
AXSP551GL-80	SFP Transceiver, 1.25G, 1550nm, 80km
AXSP551GL-150	SFP Transceiver, 1.25G, 1550nm, 150km
AXBP351GS(L)-20	WDM SFP Transceiver, 1.25G, 1310/1550nm, 20km
AXBP531GS(L)-20	WDM SFP Transceiver, 1.25G, 1550/1310nm, 20km
XXX	Please specify **contact our sales personnel for more information



## 10/100/1000M GIGABIT ETHERNET MEDIA CONVERTER AX-1000SM1315P



#### **DESCRIPTION**

AX-1000SM1315P complies with IEEE802.3, IEEE802.3u, IEEE802.3z and IEEE802.3ab standards. Presently it supports two types of media network connections: 10Base-T/100Base-TX/1000Base-T and 1000Base-SX/LX, inter-converting electrical signals of 10Base-T/100Base-TX/ 1000Base-T twisted pairs with optical signals of 1000Base-SX/LX.

It extends the transmission distance of network from 100m via copper cable to 40km via fiber optical cable. It supports transmission in single mode single fiber.



#### **FEATURES**

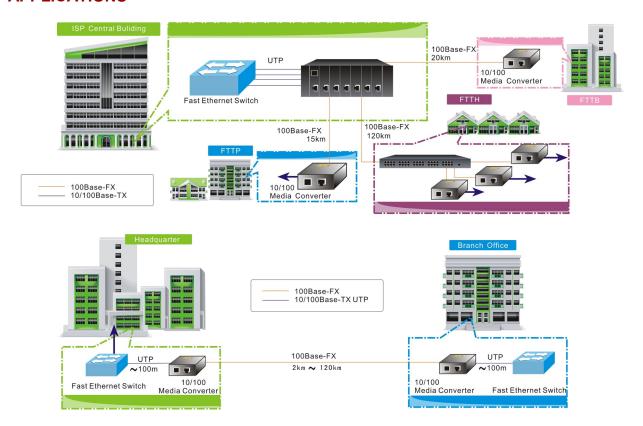
- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T and IEEE 802.3z 1000Base-SX/LX
- Media conversion between 10/100/1000Base-T and 1000Base-SX/LX
- > 10/100/1000M media converter with SFP slot is available
- Support auto-sensing, full-duplex and half-duplex operation
- Support auto-sensation of MDI/MDI-X, facilitating system commissioning and installation
- Support the transmission of extra-long VLAN packets
- Support Quality of Service (QoS) and ensuring the transmission of VoIP packets
- Store-and-Forward mechanism
- Options in single mode single fiber

Parameter	Specifications
Data Rate	10/100/1000Mbps Gigabit Ethernet
Standard	IEEE802.3 10Base-T Ethernet, IEEE802.3u 100Base-TX Fast Ethernet, IEEE802.3ab 1000Base-T and IEEE802.3z 1000Base-SX/LX Gigabit Ethernet
Operating Wavelength	1310nm/1550nm
Transmission Distance	Single mode Single fiber: 20 or 40km Category-5 twisted pairs: 100m
Port	One RJ45 port: Connecting with STP/UTP category-5 twisted pairs, EIA568A/B One optical port: Single mode Single fiber: SC/FC/LC(SFP) (9/125µm)
BER	<10 <sup>-9</sup>
MTBF	100,000 hours
LED Indicator	POWER (power supply), FX LINK (optical link action) TP LINK1000 (TP cable rate1000M), TP LINK100 (TP cable rate 100M) TP ACT (TP cable packet forwarding action), FDX (TP full duplex operation)
Power Supply	External: AC90~264V, 5V 2A output
Power Consumption	Max. 5W
Operating Temperature	-10~55°C
Operating Humidity	5%~90%
Storage Temperature	-40~70°C
Storage Humidity	5% ~ 90% non-condensing
Dimensions	71mm (W) $\times$ 94mm (D) $\times$ 26 mm (H) (external power supply)



# 10/100/1000M GIGABIT ETHERNET MEDIA CONVERTER AX-1000SM1315P

#### **APPLICATIONS**



### **ORDERING INFORMATION**

Part No	Description
AX-1000SM1315P-20	Media converter, 10/100/1000M, Single mode, Single fiber, 20km, SC connector, power adaptor 220VAC, standalone,1310/1550nm, in pair
AX-1000SM1315P-40	Media converter, 10/100/1000M, Single mode, Single fiber, 40km, SC connector, power adaptor 220VAC, standalone,1310/1550nm, in pair



## 10/100/1000M GIGABIT ETHERNET MEDIA CONVERTER AX-1000MM850D-550 AX-1000SM1310D-20/40

#### **DESCRIPTION**



AX-1000MM850D-550/AX-1000SM1310D-20/AX-1000SM1310D-2 complies with IEEE802.3, IEEE802.3u, IEEE802.3z and IEEE802.3ab standards. Presently it supports two types of media network connections: 10Base-T/100Base-TX/100Base-T and 1000Base-SX/LX, inter-converting electrical signals of 10Base-T/100Base-TX/1000Base-T twisted pairs with optical signals of 1000Base-SX/LX.

It extends the transmission distance of network from 100m via copper cable up to 40km only based on model selected below via fiber optical cable. It supports transmission in multi-mode dual fiber and single mode dual fiber

#### **FEATURES**

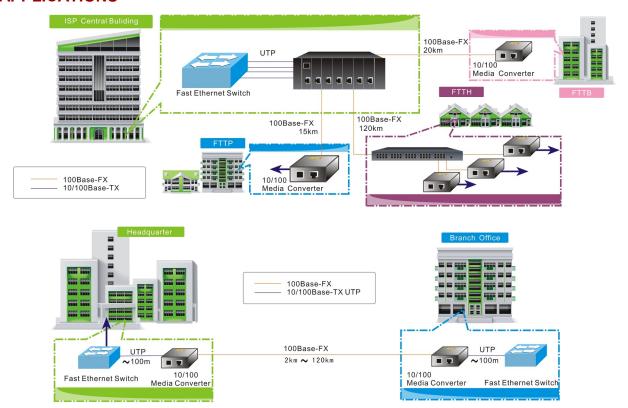
- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T and IEEE 802.3z 1000Base-SX/LX
- Media conversion between 10/100/1000Base-T and 1000Base-SX/LX
- > 10/100/1000M media converter with SFP slot is available
- Support auto-sensing, full-duplex and half-duplex operation
- Support auto-sensation of MDI/MDI-X, facilitating system commissioning and installation
- Support the transmission of extra-long VLAN packets
- Support Quality of Service (QoS) and ensuring the transmission of VoIP packets
- Store-and-Forward mechanism
- Options in single mode dual fiber and multi-mode dual fiber

Parameter	Specifications
Data Rate	10/100/1000Mbps Gigabit Ethernet
Standard	IEEE802.3 10Base-T Ethernet, IEEE802.3u 100Base-TX Fast Ethernet, IEEE802.3ab 1000Base-T and IEEE802.3z 1000Base-SX/LX Gigabit Ethernet
Operating Wavelength	850nm/1310nm/1550nm
Transmission Distance	Multi-mode Dual-fiber: 220m (62.5/125μm)/550m (50/125μm) Single mode Dual-fiber: 20 or 40 Category-5 twisted pairs: 100m
Port	One RJ45 port: Connecting with STP/UTP category-5 twisted pairs, EIA568A/B One optical port: Multi-mode Dual-fiber: SC (SFP) (50, 62.5/125μm) Single mode Dual-fiber: SC (SFP) (9/125μm)
BER	<10 <sup>-9</sup>
MTBF	100,000 hours
LED Indicator	POWER (power supply), FX LINK (optical link action) TP LINK1000 (TP cable rate1000M), TP LINK100 (TP cable rate 100M) TP ACT (TP cable packet forwarding action), FDX (TP full duplex operation)
Power Supply	External: AC90~264V input, 5V 2A output
Power Consumption	Max. 5W
Operating Temperature	-10~55°C
Operating Humidity	5%~90%
Storage Temperature	-40~70°C
Storage Humidity	5% ~ 90% non-condensing
Dimensions	71mm (W) $\times$ 94mm (D) $\times$ 26 mm (H) (external power supply)



# 10/100/1000M GIGABIT ETHERNET MEDIA CONVERTER AX-1000MM850D-550 AX-1000SM1310D-20/40

#### **APPLICATIONS**



#### **ORDERING INFORMATION**

Part No	Description
AX-1000MM850D-550	Gigabit Media converter, 10/100/1000M, Multi mode, dual fiber, 550m, 850nm, SC connector, power adaptor 220VAC, standalone
AX-1000SM1310D-20	Gigabit Media converter, 10/100/1000M, Single mode, dual fiber, 20km, 1310nm, SC connector, power adaptor 220VAC, standalone
AX-1000SM1310D-40	Gigabit Media converter, 10/100/1000M, Single mode, dual fiber, 40km, 1310nm, SC connector, power adaptor 220VAC, standalone



### 10/100M FAST ETHERNET MEDIA CONVERTER AX-100SM1315P



#### **DESCRIPTION**

AX-100SM1315P Ethernet media converter can replace media converter with network management capability to greatly reduce the system cost. It 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 40km 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. It supports transmission in single mode single fiber.

#### **FEATURES**

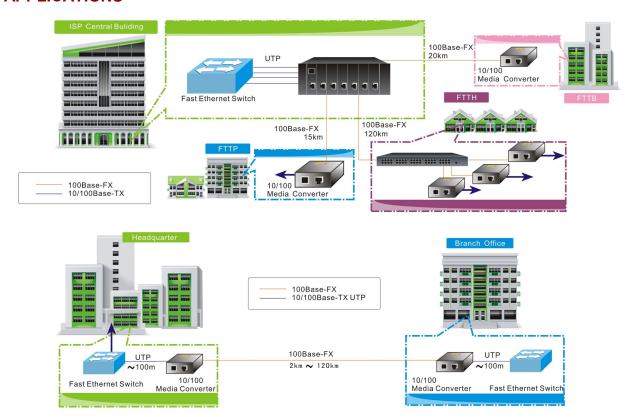
- ➤ 10/100Mbps auto-sensed and facilitating network upgrade
- Built-in efficient switching core to implement flow control and reduce broadcast packets
- Support auto-sensing, full-duplex and half-duplex operation
- Support auto-sense of MDI/MDI-X, facilitating system commissioning and installation
- Support half /full-duplex of FX
- Support 10/100Mbps store-and-forward and 100Mbps cut-through transmission
- Support the transmission of 100Base-Fx or STM-1, compatible with other devices
- Support low-time lag transmission
- Support the transmission of extra-long packets up to 1600 bytes
- Extremely low power consumption (less than 2W), reliable and stable performance
- Options in single mode in single fiber

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Parameter	Specifications
Data Rate	10/100Mbps
Standard	IEEE802.3 10Base-T Ethernet, IEEE802.3u,100Base-TX/FX Fast Ethernet and IEEE802.3x Flow Control
Operating Wavelength	1310nm/1550nm
Transmission Distance	Single fiber single mode: 20 or 40 km Category-5 twisted pairs: 100m
Port	One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B One optical port: Single mode Single fiber: SC (9/125µm)
Operation Mode	Store and Forward mode or Cut-Through mode
Buffer	Built in 128Kb RAM for data buffer
Flow Control	Full duplex: flow control Half duplex: back pressure
BER	<19 <sup>.9</sup>
MTBF	100,000 hours
LED Indicator	POWER (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100 (fiber cable rate 100M)
Power Supply	External: AC90~264V input, 5V1A output
Power Consumption	<40W (the chassis at full load), <2W
Operating Temperature	-10~55°C
Operating Humidity	5%~90%
Storage Temperature	-40~70°C
Storage Humidity	5% ~ 90% non-condensing
Dimensions	71mm (W)×94mm (D)×26 mm (H) (external power supply)



# 10/100M FAST ETHERNET MEDIA CONVERTER AX-100MM850D-2/AX-100SM13D-20/40

#### **APPLICATIONS**



### **ORDERING INFORMATION**

Part No	Description
AX-100SM1315P-20	Media converter, 10/100M, Single mode, Single fiber, 20km, SC connector, power adaptor 220VAC, standalone,1310/1550nm, in pair
AX-100SM1315P-40	Media converter, 10/100M, Single mode, Single fiber, 40km, SC connector, power adaptor 220VAC, standalone,1310/1550nm, in pair



### 10/100M FAST ETHERNET MEDIA CONVERTER AX-100MM850D-2/AX-100SM13D-20/40



#### DESCRIPTION

AX-100MM850D-2 / AX-100SM13D Ethernet media converter can replace media converter with network management capability to greatly reduce the system cost. It 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 120 km 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. It supports transmission in multi-mode dual fiber or single mode dual fiber.

#### **FEATURES**

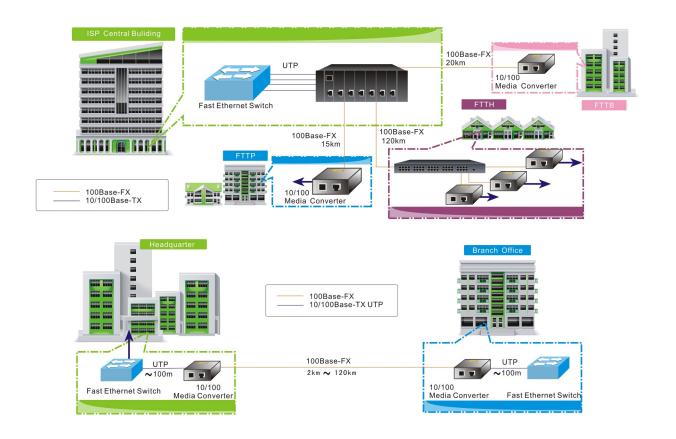
- ➤ 10/100Mbps auto-sensed and facilitating network upgrade
- > Built-in efficient switching core to implement flow control and reduce broadcast packets
- Support auto-sensing, full-duplex and half-duplex operation
- Support auto-sense of MDI/MDI-X, facilitating system commissioning and installation
- Support half /full-duplex of FX
- Support 10/100Mbps store-and-forward and 100Mbps cut-through transmission
- Support the transmission of 100Base-FX or STM-1, compatible with other devices
- Support low-time lag transmission
- Support the transmission of extra-long packets up to1600 bytes
- Extremely low power consumption (less than 2W), reliable and stable performance
- Options in single mode dual fiber or multi-mode dual fiber.

Parameter	Specifications
Data Rate	10/100Mbps
Standard	IEEE802.3 10Base-T Ethernet, IEEE802.3u,100Base-TX/FX Fast Ethernet and IEEE802.3x Flow Control
Operating Wavelength	850nm/1310nm/1550nm
Transmission Distance	Dual-fiber Multi-mode: 2 km Dual-fiber single mode: 20 or 40km Category-5 twisted pairs: 100m
Port	One RJ45 port: Connecting STP/UTP category-5 twisted pairs, EIA568A/B One optical port: Multi-mode Dual-fiber: SC or ST (50/125μm or 62.5/125μm) Single mode Dual-fiber: SC or FC (9/125μm)
Operation Mode	Store and Forward mode or Cut-Through mode
Buffer	Built in 128Kb RAM for data buffer
Flow Control	Full duplex: flow control Half duplex: back pressure
BER	<19 <sup>-9</sup>
MTBF	100,000 hours
LED Indicator	POER (power supply), FX LINK/ACT (optical link action) FDX (full duplex), TX LINK/ACT (TP cable link/action) TX 100 (TP cable rate 100M), FX100(fiber cable rate 100M)
Power Supply	External: AC90~264V input, 5V1A output
Power Consumption	<40W (the chassis at full load), <2W
Operating Temperature	-10~55°C
Operating Humidity	5%~90%
Storage Temperature	-40~70°C
Storage Humidity	5% ~ 90% non-condensing
Dimensions	71mm (W)×94mm (D)×26 mm (H) (external power supply)



# 10/100M FAST ETHERNET MEDIA CONVERTER AX-100MM850D-2/AX-100SM13D-20/40

#### **APPLICATIONS**



#### **ORDERING INFORMATION**

Part No	Description
AX-100MM850D-2	Media converter, 10/100M, Multi mode, Dual fiber, 850nm, 2km, SC connector, power adaptor 220VAC, standalone
AX-100MM13D-2	Media converter, 10/100M, Multi mode, Dual fiber, 1310nm, 2km, SC connector, power adaptor 220VAC, standalone
AX-100SM13D-20	Media converter, 10/100M, Single mode, Dual fiber, 1310nm, 20km, SC connector, power adaptor 220VAC, standalone
AX-100SM13D-40	Media converter, 10/100M, Single mode, Dual fiber, 1310nm, 40km, SC connector, power adaptor 220VAC, standalone



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