GbE Media Converter Solution

AMC220 Series

- **10/100/1000M auto-negotiation**
- **IEEE802.3U IEEE802.3z 1000Base-Tx/Fx protocol**
- **IEEE802.3x flow control**
- **Supports IEEE 802.X frame flow control for full-duplex mode**
- **500M multimode and 120KM single mode**
- **Loop detection**
- **QoS mode**
- **SNMP management**

AMC200 Series Gigabit Ethernet Media Converter is an economical series of high-performance converters that comply with IEEE 802.3 standards. AMC220 GE converters transforms the transmission media of Ethernet signal from CAT5 to optical fiber. It can extend the transmission distance from a few hundred meters to hundred kilometers.

This converter can be used as a standard alone unit in point to point applications with external power supply modules or a plug-in module to fit the AMC 19 inch converter chassis to save space, and capital expenditure.

AMC220 converters are compatible with various SFPs for different applications. The platform provides high-density ports to allow operators to quickly and easily expand existing networks and services. AMC220 series offers compatibility with all existing Ethernet or Fast Ethernet devices in a network and provides high-performance data transmission with seamless cooperation with ACT routing and switching products

Key Features

- Supports IEEEE 802.3X frame flow control for full-duplex mode

- Store and forward mechanism

- Manual IP address setting/DHCP client for IP address assignment

- SNMP v1 / v2c monitor / private enterprise MIB

- Event trap and SNMP trap support

- Speed duplex mode configuration / flow control setting / bandwidth control on TP / fiber port

- Supports port status / Ethernet statistics on both TP and fiber interface

- Supports maximum frame size of 16 kB

- Loop detection / broadcast / multicast / unicast storm control

- Management VLAN / 16 IEEE 802.1Q VLAN groups / Q-in-Q VLAN

- 802.1p Tag Priority / IP address priority / IP DSCP option in

- Quality of Service mode and strict priority / Weighted Round Robin (WRR) QoS policies

- TS-1000 OAM / IEEE 802.3ah OAM / loop back test

- 16 TCP / UDP filter groups

- Password setting, IP setting and devices description setting through discovery utility

- Firmware upgrade via remote Web interface

- LED indicators for easy network diagnosing

- Reset Button at the front panel for the factory default reset

- Choice of fiber-connector from SC, LC, WDM, multi-mode / single-mode fiber /1000Base-SX / LX mini GBIC module

Specifications

Item	Description
Standards and Protocols	IEEE802.3x full duplex on 10BaseT, 100BaseTX, 1000BaseT IEEE802.3-2002 IEEE802.3u 100BaseTX IEEE802.3ab 1000BaseT IEEE802.3z 1000BaseX IEEE802.3ah-2004
	IEEE 802.1d Spanning Tree
	IEEE 802.1w
	IEEE 802.1p QoS
	IEEE 802.1q VALN TAG IEEE802.3X flow control
Connector	ST, SC/UPC, FC, LC
Operating Wavelength	Multi-mode: 850 nm, 1310 nm
	Single-mode: 1310 nm, 1490 nm, 1550 nm
Optical Fibers	Multi-mode: 50/125, 62.5/125, 100/140 µm
	Single-mode: 8.3/125, 8.7/125, 9/125, 10/125 µm
MAC Address	VLAN 4K
Buffer Space	128K
Max RX Power	≥ -3 dBm
BER	≤ 10^{-7}
Serial Port Configuration	9600 bps/8 bit/none parity/1 stop bit/none low control
User Port	10/100BaseTX or 10/100/1000BaseTX (RJ45), UTP, full/half duplex 100Base-FX 1000Base-FX (SFP module optional)
Fiber Link Option	Dual fiber/single fiber (WDM)
Max Frame Size	1518 Bytes (100M); 9728 Bytes (1000M)
Transmission Distance	Dual fiber: 20/40/60/80/100/120Km
	Single fiber: 20/40/60/80Km
Q-in-Q	Q-in-Q functionality
IEEE802.3ah OAM Standard Function	AMC220 Series has two working modes: Master and Slave. The central office device runs in Master mode, and customer premise devices run in Slave mode. OAM functions originated from the Master device.
LED	Power: Indicate power supply; Fiber link/act: Blink when transmit/receive data; UTP link/act: Blink when transmit/receive data; Full/Half Duplex status: Indicate Half/Full duplex mode; TX connectivity: Indicate status of Ethernet link; FX connectivity: Indicate status of Fiber link
Working Temperature	0 °C to 50 °C (>16h temperature test at -5 °C and 55 °C)
Working Humidity	5 % to 90 % RH (non-condensing); >4 days @ 93 % RH
Storage Temperature	-20 °C to 70 °C
Dimension	94mm*70mm*25mm(L*W*H) (External power supply)
Storage Humidity	5 % to 90 % RH (non-condensing)
Power Supply	85 V AC to 265 V AC @ 50-60Hz Plug in/out ≥ 400 times (90s interval)
	Output Voltage uncertainty ±3% (without load); Continuous current ≥ 90% nominal current; ±5% nominal DC Voltage; Voltage surge protection Vpp ≤ 150mV
Power Consumption	≤5W

Ordering Information

Item	Description
AMC220-GE-D-US-25-AC	AMC220 GE Media Converter, Single Mode, Dual Fiber, 1310RX/1310TX, 20KM 10/100/1000 Base-TX/SX/LX Bridge Converter, SC/UPC, AC Power

wavelength	Fiber Mode	TX power (dBm)	RX Sen. (dBm)	Distance
1310nm	MM,Duplex	-17 ~ -12	≤-20	550m
1310nm	SM, Duplex	-11 ~ -3	≤-24	25km
1310nm	SM, Duplex	-3 ~ 0	≤-24	40km
1550nm	SM, Duplex	-3 ~ 2	≤-24	80km
1550nm	SM, Duplex	-3 ~ 2	≤-27	100km
T1310/R1550	SM, Simplex	≥-9	≤-23	20km
T1310/R1550	SM, Simplex	≥-9	≤-23	20km
T1310/R1550	SM, Simplex	≥-4	≤-24	40km
T1550/R1310	SM, Simplex	≥-4	≤-24	40km
T1490/R1550	SM, Simplex	≥-1	≤-24	60km
T1550/R1490	SM, Simplex	≥-1	≤-24	60km
T1490/R1550	SM, Simplex	≥ 0	≤-27	80km
T1550/R1490	SM, Simplex	≥ 0	≤-27	80km

Contact Information

Ascent Communication Technology Ltd

AUSTRALIA
961 Mountain Highway, Boronia
140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

CHINA
Unit 1907, 600 Luban Road
Unit 1933, 600 Luban Road
Phone: +86-21-60232616

EUROPE
Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

HONG KONG SAR
Unit 9, 12th Floor, Wing Tuck Commercial Centre
177 Wing Lok Street, Sheung Wan, HONG KONG
Phone: +852-2851 4722

USA
2710 Thomes Ave, Cheyenne
WY 82001, USA
Phone: +1-203 816 5188

VIETNAM
15 /F TTC Building, Duy Tan Street, Cau Giay Dist.
Hanoi, VIETNAM
Phone: +84 243 795 5917

Specifications and product availability are subject to change without notice.

Ver. ACT_AMC220_Datasheet_V1b_Jun_2016