

Mini Unmanaged Gigabit Ethernet Media Converters Datasheet

EXCELLENT SOLUTION TO EXTENDING COMMUNICATION DISTANCE IN A NETWORK

Ideal for data center and small office network environment of enterprises.



Overview

These Mini Unmanaged Gigabit Ethernet Media Converters provide an economical path to extend the distance of an existing network or the distance between two devices with high performance of data transmission via fiber optic cable. They can build the ISP network solution of FTTH or FTTC for ISPs and FTTBs, or for small office network environment of enterprises.

They can be used as standalone units when powered by their DC adapters or used in FS 12 Slots Mini Media Converter Chassis (MFMC-12DP). This media converter chassis can assist in producing power for these Mini Ethernet Media Converters.

Benefits

- Comply with IEEE 802.3/802.3u/802.3ab/802.3z
- Prevent Packet Loss with Back Pressure and IEEE 802.3x Pause Frame Flow Control
- Choice of SC/LC/ST SFP Connectors for MM & SM
- Support Auto Negotiation and Auto MDI-MDIX
- Support Full/Half Duplex Mode
- LED Indicators Monitor Network Activity Easily
- DIP Switch to Set Different Configurations
- Plug-and-play, Standalone or Chassis Based

Technical Specification

	UMC- GA1SC1T-SM (-FX)	UMC- GA1SC1T-MM	UMC- GA1F1T	UMC- GA1F2T	UMC- 1S1T-R	UMC -2S
Cooper Port (RJ45)	1x10/100/1000M (Auto MDI/MDI-X)		1x10/100/1000M (Auto MDI/MDI-X)	2x10/100/1000M (Auto MDI/MDI-X)	1x 100M/1/2.5/5/10G (Auto MDI/MDI-X)	--
Fiber Port	1xSC		1x SFP		1x SFP+	2xSFP/SFP+
Transmission Speed	10/100Mbps for half/full duplex 1000Mbps for full duplex				1.25/2.5/5/10G	100M/1.25/8.5/10G
Cable Type (Fiber)	SM Fiber Up to 10KM /20KM (-FX)	MM Fiber 220/550M	SM & MM Fiber Depend on Plug-in Fiber Transceiver			
Cable Type (Cooper)	UTP Category 5, 5e, 6 Cable (Maxium 100m) EIA/TIA-568 100Ω STP (Maximum 100m)					
Jumbo Frame	12K			9K	16K	
LED Indicators	TP/LNK, SPD, FX/LNK, PWR	TP/LNK,1000M, FX/LNK, PWR	TP1/LNK, TP2/LNK, FX/LNK, PWR	TP/LNK, SPD, FX/LNK, PWR	SFP2, LOOP, SFP1, PWR	
DIP Switch	LFP Function FX Speed FX Reset	LFP/ALS FX Speed FX Reset	Jumbo Frame Port Isolation FX Speed	LFP/ALS Media Converter Model	Loopback/LFP ALS Transmission mode	
Power Consumption	Full-load<3W			Full-load<5W		
External Power	AC 100V-240V					
Input Power	DC 5-12V					
Dimensions (Hx Wx D)	0.79"x 2.36"x 3.54" (20x60x90mm)					
Standards	IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3x Flow Control		IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE802.3z IEEE 802.3x		IEEE 802.3x IEEE 802.3u IEEE 802.3ab IEEE 802.3bz IEEE 802.3an IEEE 802.3ae	IEEE802.3an IEEE802.3ae
Operating Temp	0 to 50°C (32 to 122°F)		0 to 40°C (32 to 104°F)		0 to 50°C (32 to 122°F)	
Storage Temp	-10 to 70°C (14 to 158°F)		-20 to 85°C (-4 to 185°F)		-10 to 70°C (14 to 158°F)	
Relative Humidity	5% to 90%, non-condensing					
Latency	1us	1us	1us	5us	2us	3us
MTBF	> 50,000Hrs					
Warranty	Two Years					
Certifications	CE/RoHS/ FCC/REACH/RCM					

Technical Specification

	UMC-GA1SC 1T-SM-40	UMC-GA1SC 1T-SM-60	UMC-GA1ST 1T-SM-10	UMC-GA1ST1 T-SM-20
Cooper Port (RJ45)	1x10/100/1000M (Auto MDI/MDI-X)			
Fiber Port	1xSC		1xST	
Transmission Speed	10/100Mbps for half/full duplex 1000Mbps for full duplex			
Cable Type (Fiber)	SM Fiber Up to 10KM/20KM/40KM/60KM (-FX)			
Cable Type (Cooper)	UTP Category 5, 5e, 6 Cable (Maxium 100m) EIA/TIA-568 100Ω STP (Maximum 100m)			
Jumbo Frame	12K			
LED Indicators	TP/LNK, SPD, FX/LNK, PWR			
DIP Switch	LFP Function FX Speed FX Reset			
Power Consumption	Full-load<3W			
External Power	AC 100V-240V			
Input Power	DC 5-12V			
Dimensions (Hx Wx D)	0.79"x 2.36"x 3.54" (20x60x90mm)			
Standards	IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3x Flow Control			
Operating Temp	0 to 50°C (32 to 122°F)			
Storage Temp	-10 to 70°C (14 to 158°F)			
Relative Humidity	5% to 90%, non-condensing			
Latency	1us			
MTBF	> 50,000Hrs			
Warranty	Two Years			
Certifications	CE/RoHS/ FCC/REACH/RCM			

DIP Switch Setting

Model: UMC-GA1SC1T-SM(-FX)/UMC-GA1SC1T-MM/UMC-GA1F1T

UMC-GA1SC1T-SM-40/UMC-GA1SC1T-SM-60/UMC-GA1ST1T-SM-10/UMC-GA1ST1T-SM-20

NO	Function	Status	Description
1	LFP Function ①	OFF	Disable
		ON	Enable
2	ALS Function (Only for SFP) ②	OFF	Disable
		ON	Enable
3	FX Reset ③	OFF	Enable
		ON	Disable
4	FX Speed Set	OFF	FX 1000M
		ON	FX 100M/1000M

① LFP (Link Fault Pass Through) Function: If enabled, when a device is connected to the converter and the TP/fiber line loses the link, the converter's fiber will disconnect the link of transmit.

② ALS (Automatic Laser Shutdown) Function: If enabled, the output power of the SFP transmitter will be automatically shut down in case of fiber break.

③ FX Reset: If enabled, when FX link is down, the power will shut down, but a few seconds later the power will restart automatically.

Model: UMC-GA1F2T

NO	Function	Status	Description
1	Reserved	X	X
2	Jumbo Frame	OFF	Normal (Up to 1500Bytes)
		ON	Up to 9KB
3	Port Isolation ④	OFF	Disable
		ON	Enable
4	FX Speed Set	OFF	FX 1000M
		ON	FX 100M

④ If enabled, Layer 2 network traffic will not be forwarded between the two RJ45 ports in the same VLAN.

Model: UMC-1S1T-R

NO	Function	Status	Description
1	LFP Function	OFF	Disable
		ON	Eable
2	ALS Function	OFF	Disable
		ON	Eable
3	Media Converter Model*	ON	1: TP=10G, FX=10G
		OFF	2: TP=10/100/1000M, FX=1G
4		OFF	TP=10/100/1000M/10G, FX=10G
		ON	

*2 working model can only choose one of two.

Model: UMC-2S

NO	Function	Status	Description
1	SW1 SW2 ⑤	OFF/OFF	125M-11.3G
		ON/OFF	10.35-11.7G
		OFF/ON	8.5G
		OFF/ON	N/A
2	SW3 SW4 ⑥	OFF/OFF	Normal
		ON/OFF	ALS Enable
		OFF/ON	LFP Enable
		ON/ON	LOOP Enable ⑩

- ⑤ SW1 and SW2 are combination switches
- ⑥ SW3 and SW4 are combination switches
- ⑦ LOOP Function: Run a loop back test to check theinterconnection between two Media Converter devices.

Technical Drawing

