Media Converters and Optical Modules

This document includes scenario and spec information for Cudy models start with MC/SM, including MC220, MC220P, MC10G, MC100GMA-05, MC100GSA-20, MC100GSA-40, MC100GSA-60, MC100GSA-80, MC100GSB-20AB, MC100GSB-40AB, MC100GSB-60AB, SM220, SM25G, SM10GL, SM100GMA-05, SM100GSA-20, SM100GSA-40, SM100GSB-3AB, SM100GSB-20AB, SM10GMA-03, SM10GMA-03H, SM10GSA-10, SM10GSA-10H, SM25GMA-01, SM25GSA-10, SM25GSA-10S, SM25GSB-10AB

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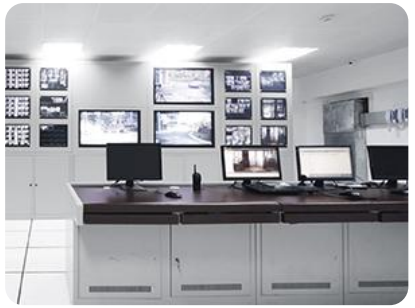
Media Converters / Fiber Modules Application

Media converters / fiber modules bridge Ethernet and fiber-optic media, allowing network builders to take full advantage of fiber's long-distance coverage, low signal loss, and immunity to electromagnetic interference. When combined with optical modules, they offer a flexible and cost-effective way to extend networks far beyond the limits of traditional copper cabling.

High-Speed Transmissions

1G 2.5G 10G



Long-Distance Connections

550m 10km 20km 40km

Flexible

BiDi Single-Fiber / Dual-Fiber
Multi-Mode / Single-Mode
Non-PoE / PoE

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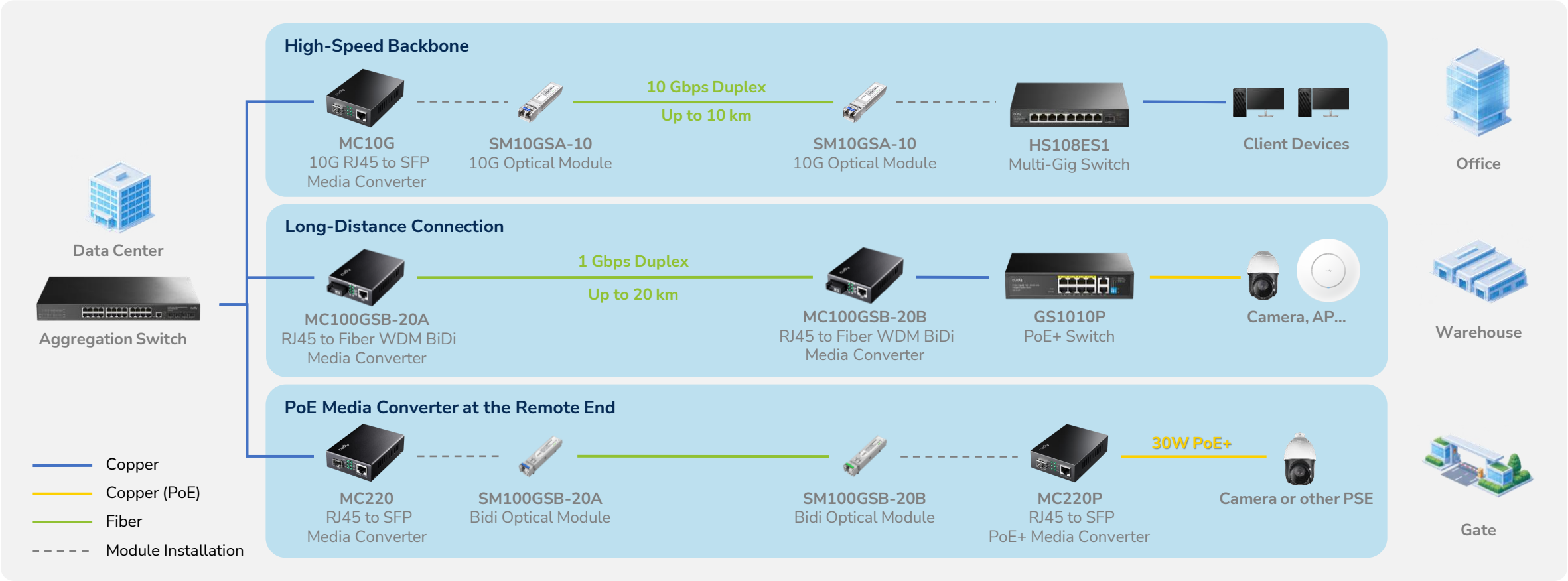
Fiber Transmission Solutions



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Specs - Media Converters (1/2)

Subcategories	RJ45 to SFP Media Converters			RJ45 to Fiber Media Converters (Dual-Fiber)				
Models	MC220	MC220P	MC10G	MC100GMA-05	MC100GSA-20	MC100GSA-40	MC100GSA-60	MC100GSA-80
Images								
Copper Ports	GbE	GbE, PoE+, 30W	10GbE	GbE	GbE	GbE	GbE	GbE
Fiber Ports	SFP	SFP	SFP+	Dual SC/UPC	Dual SC/UPC	Dual SC/UPC	Dual SC/UPC	Dual SC/UPC
Wavelength	Depends on the Installed Optical Module			TX/RX: 850 nm	TX/RX: 1310 nm	TX/RX: 1310 nm	TX/RX: 1550 nm	TX/RX: 1550 nm
Fiber Type				Multi-Mode	Single-Mode	Single-Mode	Single-Mode	Single-Mode
Optical Distance				550 m	20 km	40 km	60 km	80 km
FEF and LEF	●	●	-	●	●	-	-	-
Indicators	1000M, 100M, Fiber Act, RJ45 Act, Full Duplex Status, Power	1000M, 100M, Fiber Act, RJ45 Act, PoE, Power	10G, RJ45 Link, RJ45 Act, Fiber Link/Act, Fiber Signal, Power	1000M, 100M, Fiber Act, RJ45 Link/Act, Full Duplex Status, Power				
Power	5V ⎓ 0.55A	54V ⎓ 0.66A	12V ⎓ 1A	5V ⎓ 0.55A	5V ⎓ 0.55A	5V ⎓ 0.55A	5V ⎓ 0.55A	5V ⎓ 0.55A
Adapter in Box	Input: 100-240V~, 50/60Hz							
Environment	Operating Temperature: 0~50 °C (32~122 °F), Storage Temperature: -40~70 °C (-40~158 °F) Operating Humidity: 10%~90% non-condensing, Storage Humidity: 5%~95% non-condensing							
Dimension	70×94×26 mm (2.76×3.7×1.02”)							
Installation	Desktop, Chassis							

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Specs - Media Converters (2/2)

Subcategories	RJ45 to Fiber WDM BiDi Media Converters (Single-Fiber)		
Models	MC100GSB-20AB	MC100GSB-40AB	MC100GSB-60AB
Images			
Copper Ports	GbE	GbE	GbE
Fiber Ports	SC/UPC Single-Fiber	SC/UPC Single-Fiber	SC/UPC Single-Fiber
Wavelength	A: TX 1310 nm, RX 1550 nm B: TX 1550 nm, RX 1310 nm	A: TX 1310 nm, RX 1550 nm B: TX 1550 nm, RX 1310 nm	A: TX 1310 nm, RX 1550 nm B: TX 1550 nm, RX 1310 nm
Fiber Type	Single-Mode	Single-Mode	Single-Mode
Optical Distance	20 km	40 km	60 km
FEF and LEF	●	-	-
Indicators	1000M, 100M, Fiber Act, RJ45 Link/Act, Full Duplex Status, Power		
Power	5V ⎓ 0.55A	5V ⎓ 0.55A	5V ⎓ 0.55A
Adapter in Box	Input: 100-240V~, 50/60Hz		
Environment	Operating Temperature: 0~50 °C (32~122 °F), Storage Temperature: -40~70 °C (-40~158 °F) Operating Humidity: 10%~90% non-condensing, Storage Humidity: 5%~95% non-condensing		
Dimension	70×94×26 mm (2.76×3.7×1.02”)		
Installation	Desktop, Chassis		

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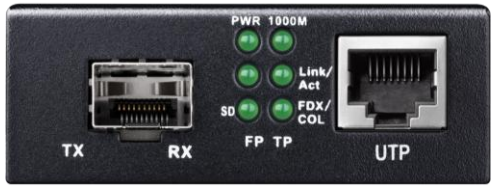
Gallery - RJ45 to SFP Media Converters

Models	Overview	Front	Back
MC220			
MC220P			
MC10G			

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Gallery - RJ45 to Fiber Media Converters

Models	Overview	Front	Back
MC100GMA-05			
MC100GSA-20 MC100GSA-40 MC100GSA-60 MC100GSA-80 MC100GSA-100			
MC100GSB-20AB (A Side) MC100GSB-40AB (A Side) MC100GSB-60AB (A Side)			
MC100GSB-20AB (B Side) MC100GSB-40AB (B Side) MC100GSB-60AB (B Side)			

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Specs - 1.25G/2.5G Optical Modules

Sub Categories	RJ45 to SFP Transceivers			RJ45 to Fiber Transceivers			RJ45 to Fiber BiDi Transceivers	
Models	SM220	SM25G	SM10GL	SM100GMA-05	SM100GSA-20	SM100GSA-40	SM100GSB-3AB	SM100GSB-20AB
Images								
SFP Interfaces	SFP	SFP	SFP+	SFP	SFP	SFP	SFP	SFP
Copper Ports	GbE	2.5GbE	10GbE	-	-	-	-	-
Optical Ports	-	-	-	Dual SC/UPC	Dual SC/UPC	Dual SC/UPC	SC/UPC Single-Fiber	SC/UPC Single-Fiber
Wavelength	-	-	-	TX/RX: 850 nm	TX/RX: 1310 nm	TX/RX: 1310 nm	A: TX/RX: 1310/1550 nm B: TX/RX: 1550/1310 nm	A: TX/RX: 1310/1550 nm B: TX/RX: 1550/1310 nm
Fiber Type	-	-	-	Multi-Mode	Single-Mode	Single-Mode	Single-Mode	Single-Mode
Distance	100 m	100 m	30 m	550 m	20 km	40 km	3 km	20 km
Power Consumption	1.05W	1.5W	3W	1.05W	1.05W	1.05W	1.05W	1.05W

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Specs - 10G/25G Optical Modules

Sub Categories	10G Transceivers				25G Transceivers			25G BiDi Transceivers
Models	SM10GMA-03	SM10GMA-03H	SM10GSA-10	SM10GSA-10H	SM25GMA-01	SM25GSA-10	SM25GSA-10S	SM25GSB-10AB
Images								
SFP Interfaces	SFP+	SFP+	SFP+	SFP+	SFP28	SFP28	SFP28	SFP28
Optical Ports	LC Duplex	LC Duplex	LC Duplex	LC Duplex	LC Duplex	LC Duplex	LC Duplex	LC Simplex
Wavelength	TX/RX: 850 nm	TX/RX: 850 nm	TX/RX: 1310 nm	TX/RX: 1310 nm	TX/RX: 850 nm	TX/RX: 1310 nm	TX/RX: 1310 nm	A: TX/RX: 1270/1330 nm B: TX/RX: 1330/1270 nm
Fiber Type	Multi-Mode	Multi-Mode	Single-Mode	Single-Mode	Multi-Mode	Single-Mode	Single-Mode	Single-Mode
Optical Distance	300 m	300 m	10 km	10 km	100 m	10 km	10km	10 km
Others		Works with HP		Works with HP			Industrial Grade -40 to +85 °C Ambient Temp.	
Power Consumption	1.05W	1.05W	1.05W	1.05W	1.05W	1.05W	1.05W	1.05W

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Package and Carton Information

Sub Categories	Models	Package Content	Retail Package Dimension	Units per Carton	Carton Dimension
RJ45 to SFP Media Converters RJ45 to Dual-Fiber Converters	MC220 MC220P MC10G MC100GMA-05 MC100GSA-20 MC100GSA-40 MC100GSA-60 MC100GSA-80 MC100GSA-100	1× Media Converter 1× Power Adapter 1× Installation Guide	185×129×56 mm 7.28×5.08×2.2"	40	53.7×30.3×39.1 cm 21.14×11.93×15.39"
RJ45 to BiDi WDM Fiber Media Converter	MC100GSB-20AB MC100GSB-40AB MC100GSB-60AB	2× Media Converters 2× Power Adapters 1× Installation Guide	185×129×56 mm 7.28×5.08×2.2"	40	53.7×30.3×39.1 cm 21.14×11.93×15.39"
SFP to Dual-Fiber Transceivers SFP to RJ45 Transceivers	SM220 SM25G SM10GL SM100GMA-05 SM100GSA-20 SM100GSA-40 SM10GMA-03 SM10GMA-03H SM10GSA-10 SM10GSA-10H SM25GMA-01 SM25GSA-10 SM25GSA-10S	1× Fiber Optical Module 1× Installation Guide	114×55×24 mm 4.49×2.17×0.94"	200	50×30×24.5 cm 19.69×11.81×9.65”
SFP to BiDi WDM Fiber Transceivers	SM100GSB-3AB SM100GSB-20AB SM25GSB-10AB	2× Fiber Optical Modules 1× Installation Guide	114×80×24 mm 4.49×3.15×0.94"	100	41.5×26.5×24.5 cm 16.34×10.43×9.65”

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Media Converter Chassis

2U 19-Inch 14-Slot Dual-Power Chassis

MC1402

A standard chassis for organizing media converters.

- 14 Media Converter Slots
- Standard 19-Inch Width, 2U Height
- Dual-Power Redundancy
- Desktop, Rack-Mount

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