

# Media Converters and Optical Modules



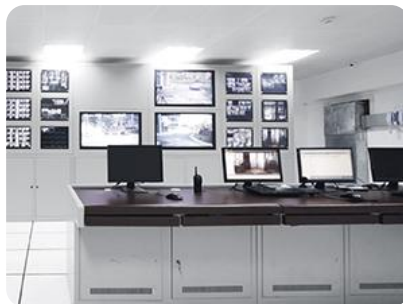
# Media Converters / Fiber Modules Application

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

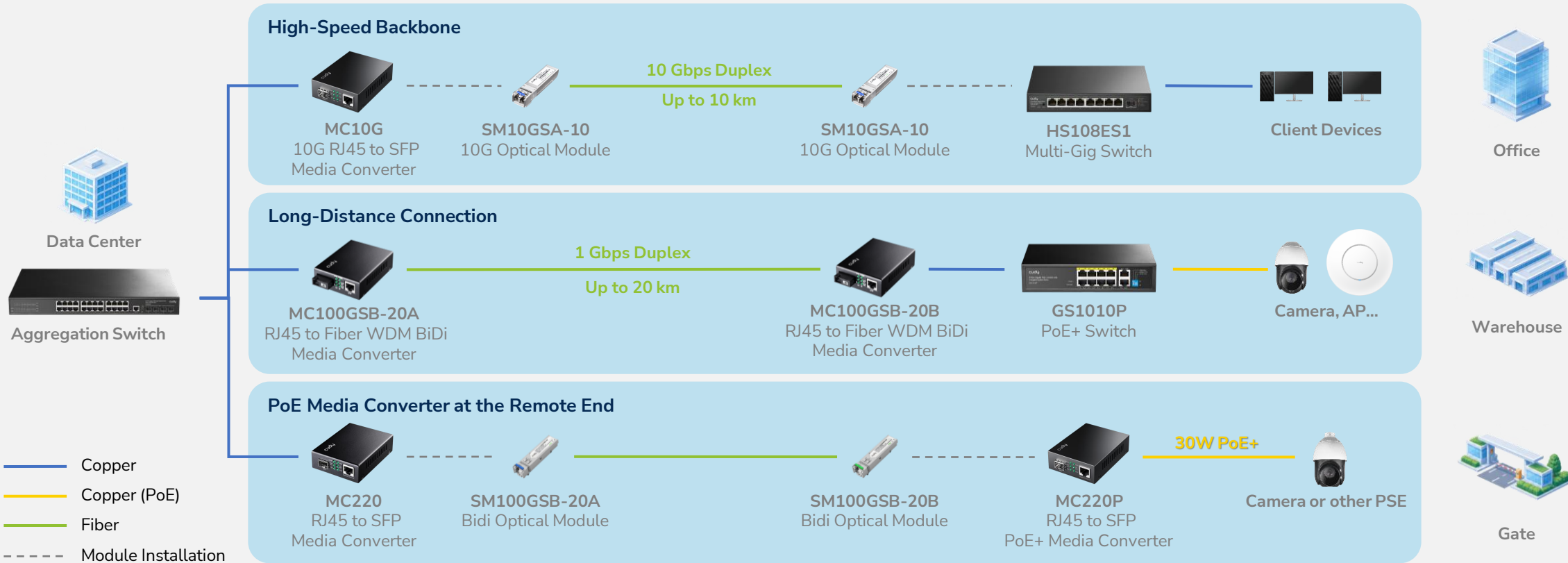
550m 10km 20km 40km



## Flexible

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

# Fiber Transmission Solutions



# 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)<br>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                                                                                                                                                               |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# 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<br>B: TX 1550 nm, RX 1310 nm                                                                                                                         | A: TX 1310 nm, RX 1550 nm<br>B: TX 1550 nm, RX 1310 nm                              | A: TX 1310 nm, RX 1550 nm<br>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)<br>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                                                                                                                                                               |                                                                                     |                                                                                     |

# Gallery - RJ45 to SFP Media Converters

| Models | Overview                                                                            | Front                                                                                | Back                                                                                 |
|--------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| MC220  |   |   |  |
| MC220P |   |   |                                                                                      |
| MC10G  |  |  |                                                                                      |

# Gallery - RJ45 to Fiber Media Converters

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

# 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                                                                             | SM100GMA-05                                                                        | SM100GSA-20                                                                         | SM100GSA-40                                                                         | SM100GSB-3AB                                                                        | SM100GSB-20AB                                                                       |
| Images            |  |  |  |  |  |  |  |
| SFP Interfaces    | SFP                                                                               | SFP                                                                               | SFP                                                                                | SFP                                                                                 | SFP                                                                                 | SFP                                                                                 | SFP                                                                                 |
| Copper Ports      | 1× GbE                                                                            | 1× 2.5GbE                                                                         | -                                                                                  | -                                                                                   | -                                                                                   | -                                                                                   | -                                                                                   |
| 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<br>B: TX/RX: 1550/1310 nm                                    | A: TX/RX: 1310/1550 nm<br>B: TX/RX: 1550/1310 nm                                    |
| Fiber Type        | -                                                                                 | -                                                                                 | Multi-Mode                                                                         | Single-Mode                                                                         | Single-Mode                                                                         | Single-Mode                                                                         | Single-Mode                                                                         |
| Optical Distance  | -                                                                                 | -                                                                                 | 550 m                                                                              | 20 km                                                                               | 40 km                                                                               | 3 km                                                                                | 20 km                                                                               |
| Power Consumption | 1.05W                                                                             | 1.5W                                                                              | 1.05W                                                                              | 1.05W                                                                               | 1.05W                                                                               | 1.05W                                                                               | 1.05W                                                                               |

# 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<br>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<br>-40 to +85 °C<br>Ambient Temp.                                  |                                                                                     |
| Power Consumption | 1.05W                                                                             | 1.05W                                                                             | 1.05W                                                                              | 1.05W                                                                               | 1.05W                                                                               | 1.05W                                                                               | 1.05W                                                                               | 1.05W                                                                               |



# Package and Carton Information

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

# 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