



## Product Description

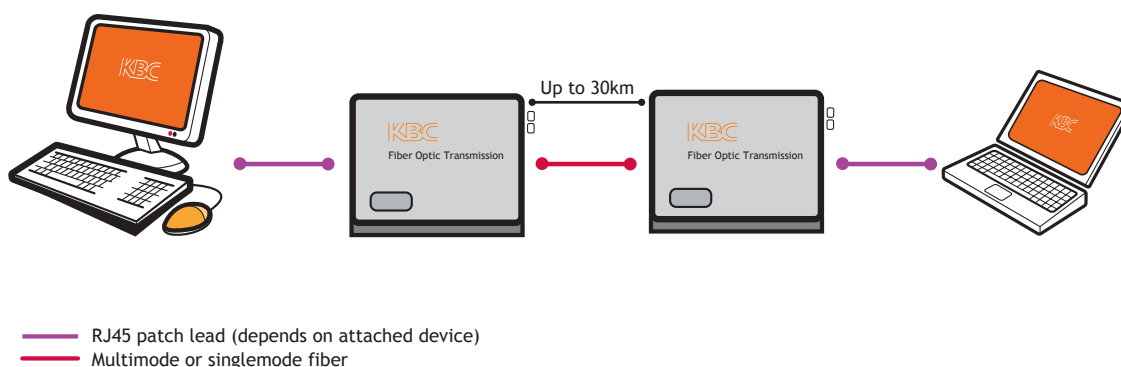
The KBC MCG1 series is a fully ruggedized 10/100/1000 Ethernet media converter. It supports transmission of an Ethernet channel over either one or two, multimode or singlemode optical fibers. Full duplex operation enables distances in excess of 30km on singlemode fiber. The plug-and-play design ensures ease of installation with no electrical or optical adjustment needed. LED indicators are provided to show the operational status of the unit clearly. The series is available in Compact, DIN rail or 3U chassis card configurations.



## Product Features

- IEEE802.3ab compliant
- 10/100/1000 auto-sensing
- MDI/MDIX
- Ultra-compact footprint
- Multimode and singlemode interfaces
- Single and dual fiber
- Up to 30km on singlemode fiber
- Wide operational temperature range

## Typical System Configuration



## Specifications

### Standards

IEEE Standard

IEEE 802.3 10BASE-T  
IEEE 802.3u 100BASE-TX  
IEEE 802.3ab 1000BASE-T  
IEEE 802.3z 1000BASE-X Fiber  
IEEE 802.3x Full duplex

### Environmental

Operating Temperature  
Storage Temperature  
Operating Humidity  
Mean Time Between Failure (MTBF)

-40° ~ +74° C / -40° ~ +165° F  
-40° ~ +74° C / -40° ~ +165° F  
0 to 95% non-condensing  
>100,000 Hours

### Data

Data Formats  
Two Way Channels  
Data Rate

Ethernet  
1  
10/100/1000Mbps auto-sensing  
half & full duplex

### Mechanical

Dimensions (W x H x D)  
Compact & DIN rail

70mm x 61mm x 44mm  
(2.76" x 2.40" x 1.73")

### Optical

Wavelength  
Fiber  
Number of Fibers

1310nm / 1550nm  
Multimode or Singlemode  
1 or 2

### Connectors

Ethernet  
Fiber  
Power<sup>(2)</sup> Compact & DIN Rail

1 x RJ45  
ST, SC or FC  
(ST fitted as standard)  
Screw block terminal

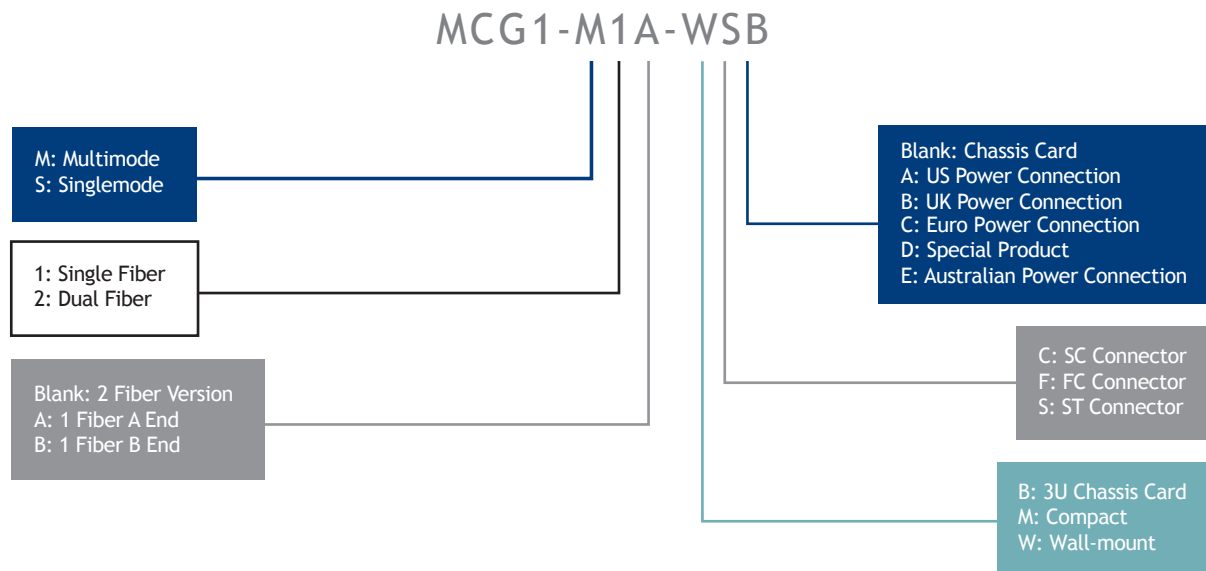
### Power

Power Input  
Power Supply<sup>(1)</sup>

12-24 Vac/dc  
Input: 100 ~ 240 Vac  
Output: +12 Vdc  
UL and cUL listed PSU  
Supplied from FR3 chassis

Chassis Card

## Part Number Configurator



## Optical Budget

Part Code	Fiber Type	No.	Optical Budget			Wavelength nm	Approximate Transmission Distance <sup>(3)</sup>
			50µm	62.5µm	9µm		
MCG1-M2*	Multimode	2	6dB			1310	0~1.5km
MCG1-M2*	Multimode	2		10dB		1310	0~2km
MCG1-M1*	Multimode	1	6dB			1310/1550	0~1.5km
MCG1-M1*	Multimode	1		10dB		1310/1550	0~2km
MCG1-S2*	Singlemode	2			17dB	1310	0~30km
MCG1-S1*	Singlemode	1			17dB	1310/1550	0~30km

Transmission distances up to 80km are available please contact KBC Networks for details. All KBC Networks optical transmitters are LASER based.

1. Please select the power plug from US Standard, Euro 2 Circular or UK 3 Pin square when placing order
2. Power lines are crimped and fitted to screw block connector in factory.
3. Transmission distance is limited by optical loss of the fiber and loss introduced by connectors, splices and patch panels. Fiber bandwidth also limits the transmission distance.

Due to ongoing technological improvements, product specifications are subject to change without notice. KBC is not liable for any errors, omissions or changes of any description of the goods contained herein. This information is for the sole purpose of identifying the products, and KBC makes no warranty that the products conform to any description contained herein. Do not rely solely on any representations, statements, or assertions concerning these Products contained herein.