

# **HMC-672**

## RJ-45 To Fiber Hardened Media Converter

10/100/1000Base-T to Gigabit SFP Media Converter

#### Description

The HMC-672 Gigabit SFP Media Converter is ideally designed to convert 1000Base-SX/LX to 10/100/1000Base-TX or vice versa and extend network services in harsh environments. Built with field-hardened components and enclosed in rugged IP30 grade casing, the HMC-672 ensures that your mission-critical applications are running continuously in wide temperatures ranging from -20°C to 60°C (-40°C to 70°C for HMC-672W). Integrated with LFS (Link Fault Signalling) and LEDs, the converter allows you to continuously monitor link activity/status and enables you to quickly detect and recover link failures.

The HMC-672 is equipped with 1-10/100/1000Mbps TX and 1-Gigabit SFP ports to give you the utmost flexibility in installing various connections over fiber. By converting media transmissions from Ethernet to fiber or fiber to Ethernet, the HMC-672 extends the reach of Gigabit Ethernet connectivity over single-mode or multi-mode fiber or SFP module. The HMC-672 offers you the most economic and cost-effective solution to meet your need for long distance transmissions and provide a gradual migration path from existing Fast Ethernet networks to Gigabit Ethernet networks.











#### **Features Highlight**

## **Rugged and Robust Design**

Responding to the issues of consistent operation in harsh industrial and mission-critical environments, the HMC-672W is built in a rugged and durable housing. Enclosed in IP30-grade casing, the media converter provides superior protection from severe temperatures extending from -40°C to 70°C. Capable of DIN-Rail mounting, the device is simple to install easy to fit in industrial environments that have limited spaces. The HMC-672W also features DC jack with locking function to ensure continuous power connectivity in mission-critical applications where vibration plays a key role and extremely tight connections are crucial.



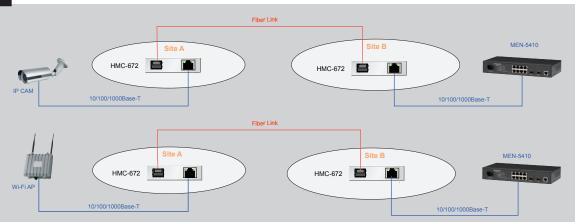
### **User-friendly Monitoring**

Network administrators can now easily monitor and troubleshoot issues associated with device functionality and link activity using the HMC-672 advanced features. LFS (Link Fault Signalling) feature on the device enables you to easily detect optical signal strengths and faulty links on copper and fiber ports, and significantly minimizes outage. And the LEDs on the HMC-672 convey essential diagnostic and status information of device power, link activity on ports etc. and allow you to easily monitor without having to get into tight spaces.

#### **Easy Plug-and-play Operation**

Being a compact, lightweight media converter, the HMC-672 is an easy-to-setup and ready-to-use solution for harsh industrial environments. Featuring Auto-MDI/MDIX and Auto-negotiation, the media converter automatically detects and configures the best mode of operation over a link. This eliminates the need of user setup or configuration procedure and simplifies installation. And once installed the media converter operates automatically. In addition, the Link Fault Pass-through DIP switch on the HMC-672 provides a simplest and quickest way to enable or disable LFS (Link Fault Signalling) function on the device.

## **Applications**



<sup>\*</sup> The diagram illustrates a typical application for the HMC-672 converter. The actual distances will depend on several factors, including the SFP Module, quality of cables used and the terminal equipment employed.



## Specifications

| Standards                            |                                                            |
|--------------------------------------|------------------------------------------------------------|
| IEEE 802.3                           | 10Base-T                                                   |
| IEEE 802.3u                          | 100Base-TX                                                 |
| IEEE 802.3ab                         | 1000Base-T                                                 |
| IEEE 802.3z                          | 1000Base-SX/LX                                             |
| Network Function                     |                                                            |
| One 10/100/1000 Mbps Ethernet Port   |                                                            |
| One 1000Base-SX/LX for Gigabit links |                                                            |
| Auto MDI/MDI-X Support on RJ-45      |                                                            |
| Network Management                   |                                                            |
| Link Fault Signaling                 |                                                            |
| Interface                            |                                                            |
| Connectors                           | 1x10/100/1000Base-T RJ-45                                  |
|                                      | 1xGigabit SFP                                              |
| Power                                |                                                            |
| Power Input                          | 12V DC/1.5A, via external power adapter                    |
| Power Consumption                    | 5.3W                                                       |
| Mechanical and Environment           |                                                            |
| Housing                              | IP30 Protection                                            |
| Din-Rail                             | Metal                                                      |
| <b>Operating Temperature</b>         | -20°C~60°C                                                 |
| Wide Operating Temperature           | -40°C~70°C (HMC-672W)                                      |
| Storage Temperature                  | -40°C~85°C                                                 |
| Operating Humidity                   | 10 to 95% RH (non-condensing)                              |
| Storage Humidity                     | 5 to 95% RH (non-condensing)                               |
| Weight                               | 158g                                                       |
| Dimensions                           | 23.4x73.8x109.2mm (HxWxD)                                  |
| Standards and Certifications         |                                                            |
|                                      | EN55011                                                    |
| EMI                                  | EN55022 Class A                                            |
|                                      | EN 61000-6-3                                               |
|                                      | EN 55024<br>EN61000-6-1                                    |
| EMS                                  | EN 61000-6-1<br>EN 61000-4-2 (ESD) Level 3                 |
|                                      | EN 61000-4-2 (ESD) Level 3<br>EN 61000-4-3 (RS) Level 2    |
|                                      | EN 61000-4-3 (RS) Level 2<br>EN 61000-4-4 (EFT) Level 3    |
|                                      | EN 61000-4-4 (EFT) Level 3<br>EN 61000-4-5 (Surge) Level 2 |
|                                      | , ,                                                        |
|                                      | EN 61000-4-6 (CS) Level 2                                  |
|                                      | EN 61000-4-8 (PFMF) Level 2                                |
|                                      | EN 61000-4-9                                               |
|                                      | EN 61000-4-11                                              |

| Approval & Test         |                                                                     |  |
|-------------------------|---------------------------------------------------------------------|--|
| Shock                   | IEC 60068-2-27 (Processing)                                         |  |
| Freefall                | IEC 60068-2-32 (Processing)                                         |  |
| Vibration               | IEC 60068-2-6 (Processing)                                          |  |
| Ordering Information    |                                                                     |  |
| HMC-672                 | Hardened 10/100/1000 to Gigabit SFP                                 |  |
|                         | Media Converter, -20°C ~ 60°C                                       |  |
| HMC-672W                | Hardened 10/100/1000 to Gigabit SFP Media Converter,                |  |
|                         | with wide temperature, -40°C ~ 70°C                                 |  |
| SFP Transceiver Modules |                                                                     |  |
| GBM-104                 | 1000Base-SX 1.25G, Multi-mode SFP, 500m,                            |  |
|                         | 0°C~70°C / -32°F~158°F                                              |  |
|                         | 7 7 77 72 727 737                                                   |  |
| GBM-104I                | 1000Base-SX 1.25G, Multi-mode SFP, 500m,                            |  |
|                         | with wide temperature -40°C~85°C / -40°F~185°F                      |  |
| GBM-104-2               | 1000Base-SX 1.25G, Multi-mode SFP, 2Km,                             |  |
|                         | 0°C~70°C / -32°F~158°F                                              |  |
|                         | 1000Base-SX 1.25G, Multi-mode SFP, 2Km,                             |  |
| GBM-104I-2              | with wide temperature -40°C~85°C / -40°F~185°F                      |  |
|                         | <u>'</u>                                                            |  |
| GBM-104-10              | 1000Base-LX 1.25G, Single mode SFP, 10Km,<br>0°C~70°C / -32°F~158°F |  |
|                         | 0°C~70°C7-32°F~158°F                                                |  |
| GBM-104I-10             | 1000Base-LX 1.25G, Single mode SFP, 10Km,                           |  |
|                         | with wide temperature -40°C~85°C / -40°F~185°F                      |  |
| GBM-123TS               | 1000Base-LX, Bi-Di SFP TX:1310/RX:1550                              |  |
|                         | Single Mode,10Km, 0°C~70°C / -32°F~158°F                            |  |
| GBM-123ITS              | 1000Base-LX, Bi-Di SFP TX:1310/RX:1550 Single Mode                  |  |
|                         | 10Km,with wide temperature -40°C~85°C / -40°F~185°F                 |  |
| GBM-123RS               | 1000Base-LX, Bi-Di SFP TX:1550/RX:1310 Single Mode                  |  |
|                         | 10Km,0°C~70°C / -32°F~158°F                                         |  |
| GBM-123IRS              | 1000Base-LX, Bi-Di SFP TX:1550/RX:1310 Single Mode                  |  |
| CDIII- IZOII (O         | 10Km,with wide temperature -40°C~85°C / -40°F~185°F                 |  |
|                         | 1001                                                                |  |

 ${}^*Specifications \ subject \ to \ change \ without \ notice.$ 

