

# ITS EXPRESS

A **HN** HARDENED NETWORKS BRAND



## HN-MC-100 Overview

- ▶ Exceeds NEMA TS-2 Specifications
- ▶ 10/100 Mbps Ethernet BASE-T/TX to 100 SFP (MM or SM) or 10/100 Mbps Ethernet BASE-T/TX to 100 30km SM SC
- ▶ Port supports auto-negotiation for 10/100 full duplex or half duplex data
- ▶ Optical port supports 100 Mbps full duplex data
- ▶ Distances up to 160 km SM with optional SFPs
- ▶ Uses interchangeable SFP modules for fiber type, distance, and connector
- ▶ No in-field optical adjustments required
- ▶ Flexible power 18-46VAC/12-60VDC
- ▶ LED indicators provided for confirming equipment operating status
- ▶ Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events distance and connector

ITS Express/ Hardened Networks products have been specifically engineered to exceed the challenging demands of extreme environmental conditions and high bandwidth 5k multicast video streams.

Whether a media converter or a Full Layer 3 switch, the design incorporates best-in-class chipsets to provide an extremely robust, redundant architecture able to be reliable in any integration.

This true mini, rugged industrial media converter is designed for where critical but space-limited outdoor CAM enclosure. This unit can be powered by a wide range of voltages 18-36 VAC or 12-60 VDC.

With its small, multi-purpose design, it can be used in din-rail or wall-mounted applications; it is easily mounted into a camera housing. It is an ideal unit for IP surveillance, traffic monitoring and security application in critical environments.

This unit can tolerate -40°C to 85°C in harsh environment to perform a reliable network connection.

Switch Model	HN-MC-100
Architecture	Full wire speed conversion, transparent conversion to 802.1Q VLAN tagged packets
<b>Technology</b>	
IEEE Standard	IEEE 802.3 10 Base-T Ethernet IEEE 802.3u 100 Base-TX Fast Ethernet IEEE 802.3x Flow Control and Back Pressure
DIP Switch	Link Fault Pass Through (LFP) Converter Mode, Switch Mode
MAC Address Table Size	1k
Data Processing	Store and Forward
Flow Control	IEEE 802.3x Flow Control for duplex and Back Pressure for half-duplex
LED Indicators	Power, Speed, Link/Act, Speed (TP port), Link/Act (TP and Fiber port)
Packet Buffer Size	1Mbits
Network Connector	RJ-45 10/100M BaseT(X), Auto negotiation, Auto MDI/MDI-Xfunction, Full/ Half duplex Fiber Port: Depends on model: 100BaseFX SC 30km or SFP 100BaseX
<b>Power</b>	
Power Protection	Surge protection diodes on power input
Connector Protection	ESD protection diodes on TX port
Overload Current Protection	Present
Reverse Polarity Protection	Present
Power Input	18V-36VAC, 12V-60VDC, DC jack terminal cable supported (DC Barrel Connector)
Power Consumption (Typ.)	1.44 watts
UL Standards	Use isolated power supply to conform with UL 508 standard
Removable Terminal Block	3 pin contact terminal block for power input
<b>Physical Characteristics</b>	
Housing Design	IP40 Design, high graded aluminum/ din rail mounted/ pan mounted
<b>Environmental</b>	
Storage Temperature	-40 to 90C (-40 to 194F)
Operating Temperature	-40 to 85C (-40 to 185F)
Operating Humidity	5% to 95% Non-condensing

Regulatory Approvals	
EMC/EMS/EMI	CE, FCC, FCC Part 15 Subpart B Class A, CE EN 55022 Class A
EMS	EN61000-4-2 (ESD) Level 3 EN61000-4-3 (RS) Level 2 EN61000-4-4 (EFT) Level 2 EN61000-4-5 (Surge) Level 2 EN61000 4-6 (CS) Level 2 EN 610004-8 (PFMF) Level 1
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Safety	UL508 (Pending)
Rail Traffic	EN 50121-4 (Pending)
Environmental	RoHS, REACH
Warranty	1 Year



# Other Solutions

Hardened Networks has created variety of high quality products to fit your needs. If you did not find what you needed in the HN-MC-100, please browse our other solutions.

## Ethernet Switches

## Communications



**HN-3416**

- 4 Ultra Fiber Ports SFP+ 100Mb/1Gb/2.5Gb/10Gb
- 16 Copper Ports 10Mb/100Mb/1000TX
- 156 GBPS Back-Plane
- Hardened Base Layer 3



**HN-8012-24 V3**

- 4 Ultra Fiber Ports SFP+ 100Mb/1000Mb/2.5Gb/10Gb
- 4 Enhanced Fiber Ports SFP 100Mb/1000Mb/2.5Gb
- 16 Copper Ports 10Mb/100Mb/1000Mb
- 176 GBPS Back-Plane



**HN-3488**

- 4 Ultra Fiber Ports SFP+ 100Mb/1Gb/2.5Gb/10Gb
- 8 Enhanced Fiber Ports SFP Ports 100Mb/1Gb/2.5Gb
- 8 Copper Ports 10Mb/100Mb/1000TX
- 156 GBPS Back-Plane
- Hardened Base Layer 3



**HN-8012-24+ V3**

- 4 Ultra Fiber Ports SFP+ 100Mb/1000Mb/2.5Gb/10Gb
- 4 Enhanced Fiber Ports SFP 100Mb/1000Mb/2.5Gb
- 16 Copper Ports 10Mb/100Mb/1000Mb
- Two sets of bypass fiber ports
- 176 GBPS Back-Plane



**HN- MC-1000**

- 10Mb/100Mb/1000Mbps Ethernet BASE-T/TX to SFP (MM or SM)
- Optical port supports 100Mb or 1000Mb full duplex data



**HN- MC-100**

- 10Mb/100Mbps Ethernet BASE-T/TX to SFP (MM or SM)
- Flexible power 18-46VAC/12-60 VDC



**HN- VC-100**

- High Speed VDSL-2 Technology
- 10Mb/100Mbps Ethernet BASE-T/TX to a pair of copper cables
- Flexible power 18-46VAC/12-60 VDC

We here at Hardened Networks are proud to carry products that are certified by:



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(407) 497-8614