

Industrial Managed Ethernet Media Converter Datasheet

INDUSTRIAL NETWORK POWER SOURCING SOLUTION



Overview

These Industrial Managed Gigabit Ethernet Media Converters for harsh environments, features 10/100/1000Base-T RJ45 ports, 100/1000/2500Base-X SFP ports and redundant power system in an IP30 rugged but compact-sized case. They can be installed in any difficult environment as it can operate stably under the temperature range from -40 to 75°C. With such a slim enclosure, it does not need a big space to install. The switch features user-friendly yet advanced IPv6/IPv4 management interfaces, abundant L2/L4 switching functions and Layer 3 static routing capability. It allows either DIN-rail or wall mounting for efficient use of cabinet space. With SFP fiber slots, it can be flexibly applied to extend the connection distance.

Benefits

- Auto-Negotiation and Auto-MDI/MDIX on RJ45 Port
- Auto-negotiation of Half-Duplex / Full-Duplex Transfer Mode
- -40°C to +75°C (-40°F to +167°F) Extended Operating Temperature
- Robust IP30 Aluminum Metal Enclosure for Use in Industrial Environments
- Support IEEE 1588v2 PTP to Achieve Precise Synchronization

Specification

	IMMC-1F1T	IMMC-2F2T	IMMC-2S	IMMC-2S1T-P
Copper Interface	1x 10/100/1000 Base-T RJ45	2x 10/100/1000 Base-T RJ45	/	1x 100M/1G/2.5G/5G/10GBase-T RJ45
Fiber Optic Interface	1x 100/1000/2500 Base-X SFP	2x 100/1000/2500 Base-X SFP	2x 100M/1G/2.5G /10GBase-X SFP+	2x 100M/1G/2.5G /10GBase-X SFP+
Reset Button	< 5 sec: System reboot > 5 sec: Factory default			
ESD Protection		6KV DC	4KV DC Contact / 8KV DC Air	
Weight	273g	390g	576g	604g
Power Requirements	Dual 9~48V DC, 24V AC		/	Dual 9~48V DC, 24V AC or PoE input
Enclosure	IP30 Aluminum Case			
Jumbo Frame	9K			
Installation	DIN-rail kit and wall-mount kit			
Dimensions (WxDxH)	1.26"x3.43"x5.31"(32x87x135mm)		5.31"x3.39"x1.93"(135x86x49mm)	
LED Indicator	System: Power 1 (Green) Power 2 (Green) Fault Alarm (Red) Ring (Green) Ring Owner (Green) Per 10/100/1000T RJ45 Ports: 1000 LNK/ACT (Green) 10/100 LNK/ACT (Amber) Per SFP Interface: 10/100 LNK/ACT (Amber) 1G/2.5G LNK/ACT (Green)		System: Power 1 (Green) Power 2 (Green) Fault Alarm (Red) Per 10GBASE-T RJ45 Port: 100/1G LINK/ACT (Green) 2.5G/5G LINK/ACT (Green) 10G LINK/ACT (Amber) Per 10GBASE-X SFP+ Interface: 100/1G LINK/ACT (Green) 2.5G LINK/ACT (Green) 10G LINK/ACT (Amber)	
Switch Fabric	7Gbps/non-blocking	14Gbps/non-blocking	40Gbps	60Gbps

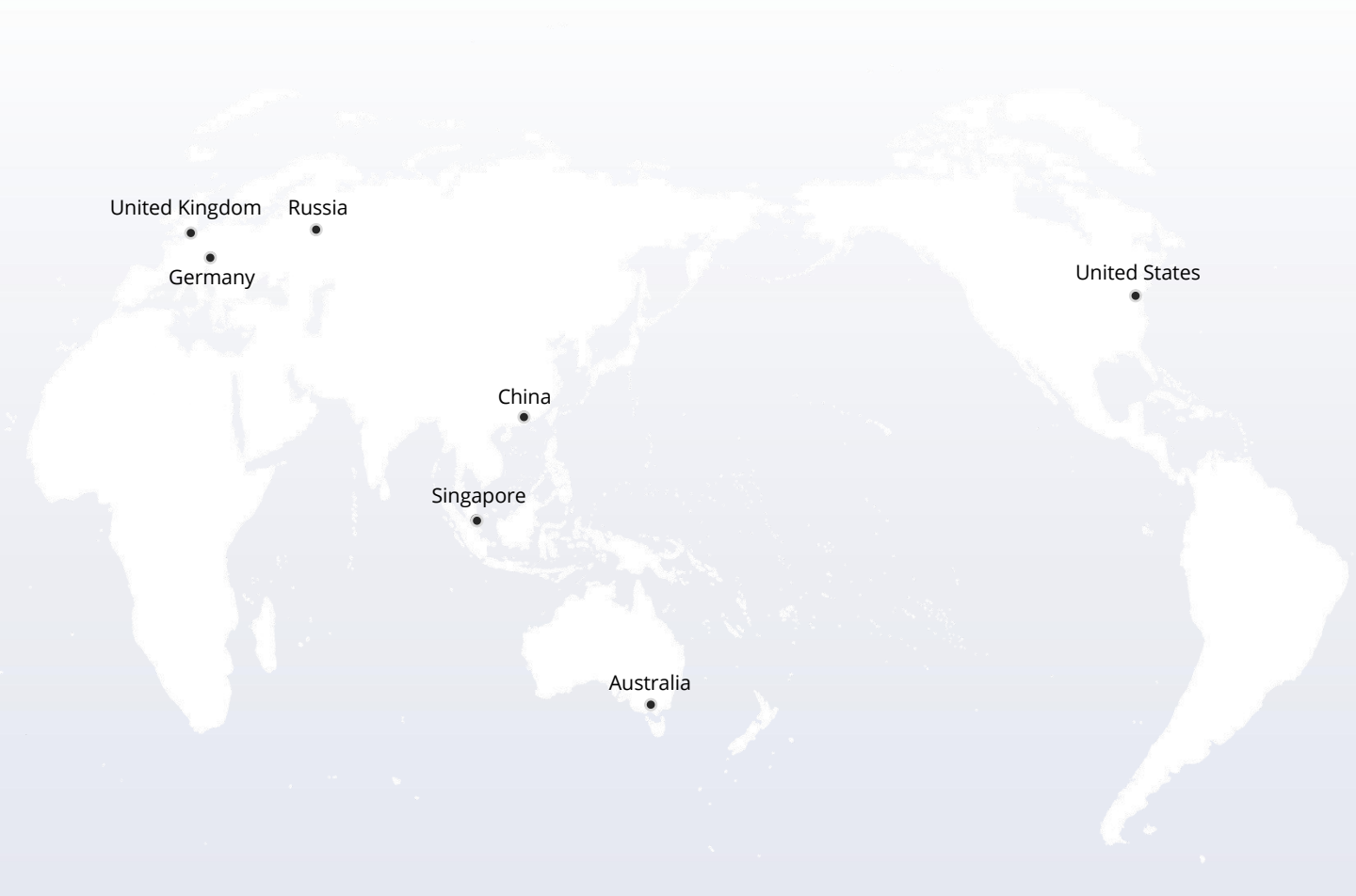
Switch Processing SchemeStore and Forward

Specification

	IMMC-1F1T	IMMC-2F2T	IMMC-2S	IMMC-2S1T-P
Throughput (packet per second)	5.21Mpps @ 64 bytes packet	10.42Mpps @ 64 bytes packet	29.76Mpps@64bytes	
Address Table	14K entries, automatic source address learning and aging		16K entries, automatic source address learning and aging	
Flow Control	IEEE 802.3x pause frame for full duplexBack pressure for half duplex			
Port Configuration	Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow control disable/enable Power saving mode control		Port disable/enable Auto-negotiation 100Mbps, 1/2.5/5/10Gbps full and half duplex mode selection Flow control disable/enable	
Port Status	Display each port's speed duplex mode, link status, flow control status, auto negotiation status, trunk status			
VLAN	IEEE 802.1Q tag-based VLAN IEEE 802.1ad Q-in-Q tunneling Private VLAN Edge (PVE) MAC-based VLAN Protocol-based VLAN VLAN Translation Voice VLAN MVR (Multicast VLAN Registration) GVRP Up to 4K VLAN groups, out of 4094 VLAN IDs		IEEE 802.1Q tag-based VLAN IEEE 802.1ad Q-in-Q tunneling Up to 256 VLAN groups, out of 4096 VLAN IDs	
Link Aggregation	IEEE 802.3ad LACP/static trunk Supports 6 trunk groups with 4 ports per trunk group (Only for IMMC-2F2T)			
Bandwidth Control	Per port bandwidth controllIngress: 500Kb~1000Mbps Egress: 500Kb~1000Mbps		Per port bandwidth controllIngress: 16~10,000,000Kbps Egress: 16~10,000,000Kbps	
Operating Temperature	-40 to 75℃			
Storage Temperature	-40 to 85℃			
Operating Humidity	5 to 90%, non-condensing			
RING	Supports ERPS, and complies with ITU-T G.8032 Recovery time < 10ms		Supports ERPS, and complies with ITU-T G.8032 Recovery time < 500ms	

Specification

	IMMC-1F1T	IMMC-2F2T	IMMC-2S	IMMC-2S1T-P
Switch Management	Basic Management Interfaces: Telnet, Web browser, SNMP v1, v2c Secure Management Interfaces: SSHv2, TLS v1.2, SNMP v3			
QoS	Traffic classification based, strict priority and WRR 8-level priority for switching Port number 802.1p priority 802.1Q VLAN tag DSCP/TOS field in IP packet		Traffic classification based, strict priority and WRR 8-level priority for switching Traffic classification: Cos/802.1p DSCP IP Precedence	
MTBF (hrs)	>300,000Hrs	>300,000Hrs	>210,000Hrs	>290,000Hrs
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3z Gigabit SX/LX IEEE 802.3ab Gigabit 1000T IEEE 802.3x flow control and back pressure IEEE 802.3ad port trunk with LACP (IMMC-2F2T only) IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.1p Class of ServiceIEEE 802.1Q VLAN tagging IEEE 802.1ad Q-in-Q VLAN stacking IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDPIEEE 802.3ah OAM IEEE 1588 PTPv2 RFC 768 UDP RFC 793 TFTP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP version 3 RFC 2710 MLD version 1 RFC 3810 MLD version 2 ITU-T G.8032 ERPS Ring		IEEE 802.3u, 100BASE-TX/FX IEEE 802.3ab, 1000BASE-T IEEE 802.3bz, 2.5G/5GBASE-T IEEE 802.3an, 10GBASE-T IEEE 802.3z, 1000BASE-SX/LX IEEE 802.3ae 10GBASE-SR/LR IEEE 802.3x full-duplex flow control IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1ad Q-in-Q VLAN stacking IEEE 802.1ab LLDP RFC 768 UDP RFC 2474 DSCP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP ITU-T G.8032 ERPS Ring	



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