

RT-1000G-M12

10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router



- Compliant with EN50155
- 10x 10/100/1000T(x) M12 connector with 8x IEEE 802.3at PoE+
- Support Bypass function for non-stop communication even when no power exists on port 9 and port 10
- Built for harsh environments and wide temperature range application
- TTDP embedded software, automatically configure train consists
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 512 groups
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- Supports industrial automation protocols Ethernet/IP and Modbus TCP
- Supports PoE PD Alive Check Function for PoE Device Power Recycle
- Isolated redundant PoE power 165W

Specifications

Technology

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3ab 1000BaseT
IEEE 802.3x Flow Control
IEEE 802.3af Power over Ethernet
IEEE 802.3at PoE+
IEEE 802.3az Energy-Efficient Ethernet
IEEE 802.3ad/802.1AX LACP
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid STP
IEEE 802.1s Multiple STP
ITU-T G.8032 / Y.1344 ERPS
IEEE 802.1Q VLAN Tagging
IEEE 802.1ad Stacked VLANs
IEEE 802.1p Class of Service
IEEE 802.1X Network Authentication
IEEE 802.1AB LLDP
IEEE 1588 PTP

Processing Type Store and Forward

Switch Properties

Switch Fabric 20Gbps

Priority Queues 8 Queues

Jumbo Frame 9216bytes

MAC Table Size 16K

Packet Buffer 12Mbits

VLAN Table Size 4094

IGMP Group 512

ACL Group 512

Router Forwarding Rate 5Mbits

Software Feature

Network Redundancy RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP

Security 802.1X, RADIUS, TACACS+, SSL, SSH

Management IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP

Diagnostics RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP

Configuration DHCP Server/Client, Relay Option 82, TFTP

Filter 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning

Time Sync.	NTP, IEEE1588v2 OC (Software Timestamp), BC (Software Timestamp), TC (Hardware Timestamp)
QoS	CoS, DSCP, WRR/SPQ Queuing, Storm Protection
PoE	Powering Status, PoE Monitoring, Scheduling, PD Alive Check
Industrial Profiles	Ethernet/IP, Modbus TCP, Profinet, TTDP
L3 Routing	NAT

Interface

Network Connector	10x 10/100/1000T(x) M12 Female X-coded 8-pole with 8x PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X
LED Indicators	Per unit: PWR1, PWR2, Status Ports: Link/Active with highest speed(Green), low speed(Amber) PoE: Output Power
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC
Serial Console	1x RS232 in M12 Male A-coded 5-pole connector with console cable, 115.2Kbps, 8N1

Power Requirements

Operation Voltage	9-36VDC, 19-75VDC, 43-160VDC, redundant dual inputs, >50VDC for PoE+ output recommended
Connection	M12 Male S-coded 4-pole
Power Consumption	15W without PDs' consumption
PoE Power Budget	Max. 30 W per PoE port. Max. total output power for PD: 190W@24V input.
Protection	Overload Current Protected, Reverse Polarity Protected

Features with star(*) implies those are under development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

Mechanical Construction

Enclosure	SECC
Protection Class	IP40/IP54(Optional)
Dimensions	143x209x77 mm (WxHxD)
Weight	2.16 kg
Mounting	Wall Mounting Kits, Optional DIN-Rail Mounting

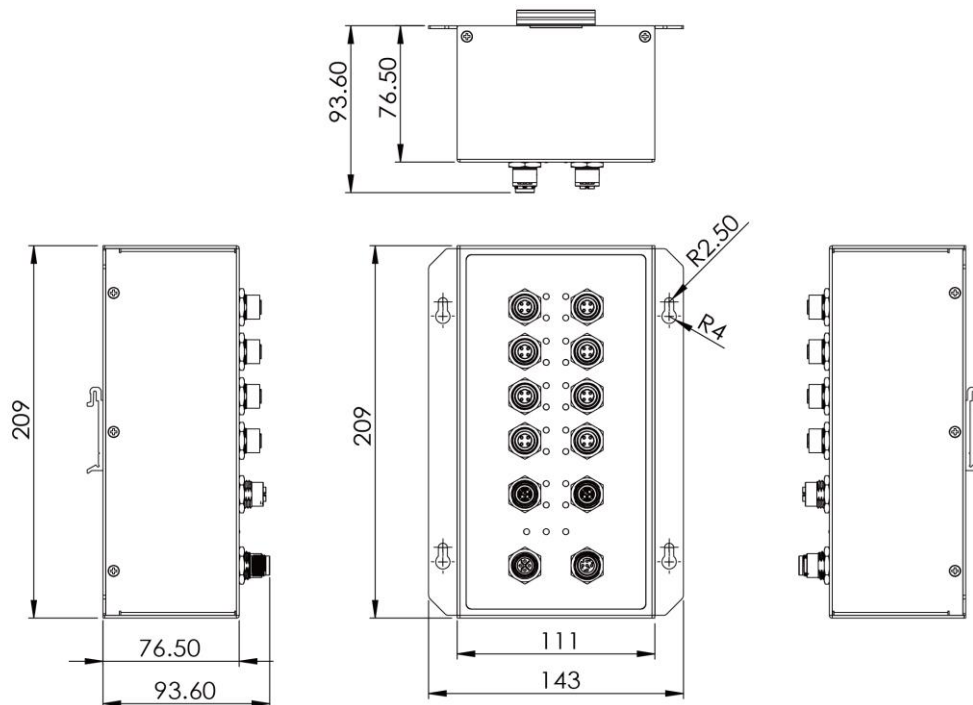
Environmental Limits

Operating Temperature	Extended: -40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (Non-Condensing)

Regulatory Approvals

EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC61373
Vibration	IEC61373
Green	RoHS Compliant
Certifications	EN 50155 EN 45545-2
MTBF	>100,000 hours
Warranty	5 Years

Dimensions (unit = mm)



Ordering Information

RT-1000G-M12-24V2U-T	10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router - 10x 10/100/1000T(x) M12 connector with 8x 30W PSE - Power Input: 24VDC - Max. Power Budget: 165W - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - Protection Class: IP40
RT-1000G-M12-24V2U-WT	10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router - 10x 10/100/1000T(x) M12 connector with 8x 30W PSE - Power Input: 24VDC - Max. Power Budget: 165W - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - Protection Class: IP54
RT-1000G-M12-48V2U-T	10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router - 10x 10/100/1000T(x) M12 connector with 8x 30W PSE - Power Input: 48VDC - Max. Power Budget: 165W - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - Protection Class: IP40
RT-1000G-M12-48V2U-WT	10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router - 10x 10/100/1000T(x) M12 connector with 8x 30W PSE - Power Input: 48VDC - Max. Power Budget: 165W - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - Protection Class: IP54
RT-1000G-M12-HV2U-T	10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router - 10x 10/100/1000T(x) M12 connector with 8x 30W PSE - Power Input: 72-110VDC - Max. Power Budget: 156W - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - Protection Class: IP40
RT-1000G-M12-HV2U-WT	10 Port M12 Industrial Managed PoE+ Booster Gigabit Ethernet Router - 10x 10/100/1000T(x) M12 connector with 8x 30W PSE - Power Input: 72-110VDC - Max. Power Budget: 156W - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - Protection Class: IP54