



Features

- 16-port 10/100/1000Base-T(X) Ethernet
- 4-port dual rate 100/1000Base-(F)X SFP slots
- Multiusers account for security
- Configuration: http, https, CLI Command, Telnet, SNMP, SSH
- Network redundancy: G.8032 ERPS v2/ STP/ RSTP/ MSTP
- Static routes for routing function
- RADIUS, TACACS+ authentication protocol
- QoS, LACP bandwidth control
- VLAN, SNMP v1/v2c/v3, ACL, IP source guard
- Redundant power inputs design
- Operating temperature range
Standard: -10°C ~ 65°C, Extend: -40°C ~ 75°C

Description

XTR-D2020G-4F-X4 is a 20-port managed Gigabit Ethernet switch, which provides 16*10/100/1000 Base-T(X), and 4*100/1000 Fiber Slot. It is full manageable Layer-2 Ethernet switch series, and supports power inputs redundancy. It offers standardized network redundancy ITU-T G.8032 ERPS v2 (Ethernet Ring Protection Switch) protocol, providing <50ms recovery time to the network, to give user the chance to choose your Ethernet switch but not tied up with particular brand's product.

XTR-D2020G-4F-X4 provides comprehensive network security and management capability by supporting Multiusers account, IGMP, GVRP, VLAN, QoS, SNMP, RADIUS, TACACS+, Aggregation(Static, LACP), SSH, SSL, IP source guard to create a highly-secured network environment.

XTR-D2020G-4F-X4 as an industrial Ethernet switch product line is designed to withstand harsh and extreme environment conditions. With fan less design, XTR-D2020G-4F-X4 still manage to be applied in extremely polarized temperature, from -40°C to 75°C, making it the best choice in various industrial applications

Specifications

Technology

Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Fiber IEEE 802.3x Flow Control IEEE 802.1d STP (Spanning Tree Protocol) IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s MSTP (Multiple Spanning Tree Protocol) ITU-T G.8032 / Y.1344 ERPS v1/v2(Ethernet Ring Protection Switch) IEEE 802.1Q Virtual Local Area Network (VLAN) IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization IEEE 802.1X Network Authentication IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.3ad Link Aggregation (LACP)
Processing Type	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control

Switch Properties

Switching Fabric (Back-Plane)	40Gbps
Priority Queues	8
Max. Number of VLANs	4095
VLAN ID Range	VID 1 to 4095
Memory Buffer	4Mbits
Jumbo Frame	9.6Kbytes
MAC Table Size	8K
IGMP Group	1024
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet port

Network Management

Management	IPv4/IPv6, SNMP v1/v2c/v3, LLDP, LLDP-MED, HTTP, HTTPS, SSHv2 telnet, DHCP client, DHCPv6 client, DHCP server, Port Mirror, DNS client/proxy, IP based Access Filter, ICMPv6, syslog, Time Zone /Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, USB configuration backup/restore, Power lost warning, relay trigger
Security	Port-based/Single/Multi 802.1X, ACL(Port/Rate Limiters/ACE), MAC-based Authentication, VLAN assignment, QoS Assignment, Private VLAN, Guest VLAN, RADIUS accounting, TACACS+, IP MAC binding, WEB/CLI authentication, Authorization (15 levels), Port Security Limit Control, ACLs for filtering/policing/port copy, IP source guard, ARP Inspection
L2 Switching	Port/MAC/Protocol/IP Subnet-based VLAN, GARP/ GVRP, Loop Guard, Link Aggregation static/LACP, BPDU guard, Error disable recovery, IGMP snooping v2/v3, MLD snooping v1/v2, IGMP filtering, IPMC throttling / filtering leave proxy, DHCP snooping, G.8032 v1/v2
L3 Switching QoS	DHCP option82, static routes 802.1p Queueing, Input priority mapping, Storm control for Unicast/Multicast/Broadcast, Port/ Queue/ACL policer, Port egress shaper, Queue egress shaper, DiffServ (DSCP), Tag remarking, Scheduler mode
Power Saving	ActiPHY, PerfectReach, IEEE 802.3az EEE power management
Network Redundancy	STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50ms)
Configuration System / Diagnostics	Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3 Dual Image Protection, PING, PING6

Specifications

Interface

RJ45 Ports	16x 10/100/1000 Base-T(X) Auto-Negotiation, Full/Half Duplex, Auto-MDI/MDI-X
Fiber Port	4x 100/1000Base-(F)X SFP slots
Wavelength	Depends on SFP modules
LED Indicators	System: Power 1, Power 2, Master, Ring, Status Ethernet ports: Speed/Link/Active SFP: Link/Active
RS232 Serial Console	1x RS232 in RJ45 connector with console cable, baud rate 115,200bps, 8, N, 1
Configuration Backup	1x USB 2.0 host (type-A) for configuration backup/ restore
Relay Contact	24 VDC, 1A resistive
DI	1x Digital Input (DI): State 0: -30~8VDC / State 1: 10~30VDC, Max. input current: 8mA
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/ TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/ TIA-568 100-ohm (100m) 1000Base-TX: 4-pair UTP/STP Cat. 5/5E cable; EIA/ TIA-568 100-ohm (100m)
Optical Cable	Multi-mode cable - 50/125um or 62.5/125um, Single-mode cable - 9/125um or 10/125um

Power Requirements

Input Voltage	Dual 12-48VDC redundant power inputs
Power Connection	2x removable 4-contact terminal block
Overload Current Protection	Present (Slow-Blow Fuse)
Reverse Polarity Protection	Present
System Power Consumption	Max. 18.4W full loading

Environmental

Operating Temperature	Standard: -10°C ~ 65°C (14°F ~ 149°F) Extend: -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)

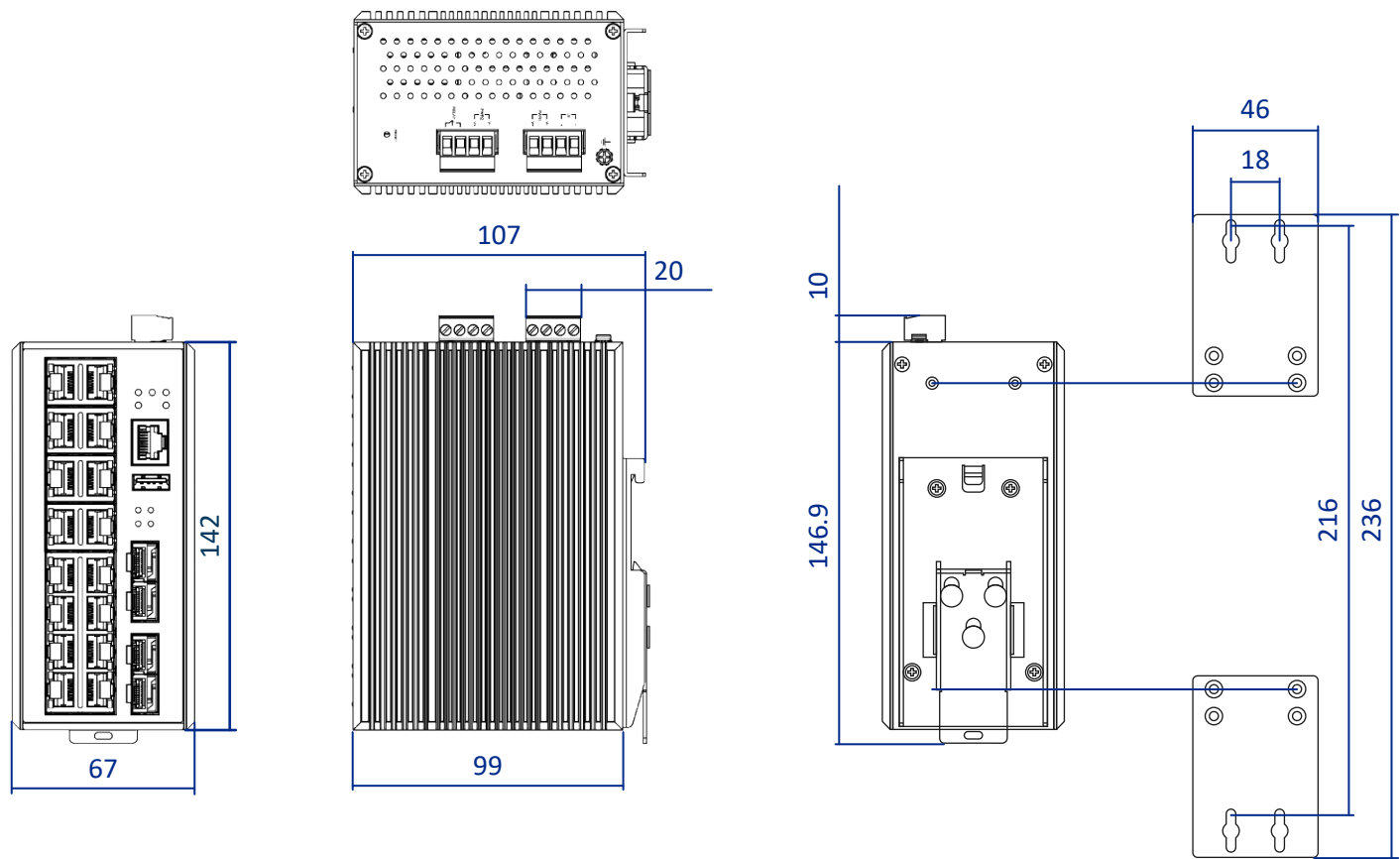
Regulatory Approvals

EMI	FCC Part 15 Subpart B Class A, CE EN55022/EN61000-6-4 Class A
EMS	CE EN55024/EN61000-6-2 Class A: 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 Shock	IEC60068-2-32 IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Safety	UL61010-1, UL61010-2-201
Substation	IEC61850-3 Edition 2.0 (** Conditions Apply)
MTBF (Telcordia SR-332, Issue 3, GB, 25°C)	TBD

Physical

Housing	Metal, IP30 protection
Dimensions (W x H x D) (mm)	67 x 142 x 99
Weight	Unit weight: 1.2kg (2.76 lb), Shipping weight: 1.4kg (3.31 lb)
Mounting	DIN-Rail Mounting, Wall Mounting

■ Mechanical Drawings (Unit = mm)



■ Ordering Codes

Model Number	Description
XTR-D2020G-4F-X4	16x 10/100/1000T(x) + 4x 100/1000F(x) SFP Slot, Operating Temperature: -10°C ~ 65°C
XTR-D2020G-4F-T-X4	16x 10/100/1000T(x) + 4x 100/1000F(x) SFP Slot, Operating Temperature: -40°C ~ 75°C
XTR-D2020G-4F-I-X4	16x 10/100/1000T(x) + 4x 100/1000F(x) SFP Slot, IEC 61850-3, Operating Temperature: -10°C ~ 65°C
XTR-D2020G-4F-I-T-X4	16x 10/100/1000T(x) + 4x 100/1000F(x) SFP Slot, IEC 61850-3, Operating Temperature: -40°C ~ 75°C

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