

Product Name: JetNet9828G**Product Description: 26 ports Layer 2 managed rack mountable modular switch****Product Picture****Overview**

JetNet9828G is an intelligent modular platform which is an All-in-One solution integrating IEEE1588v2, Sync-E, full gigabit, and both layer 2 availability specifically designed to operate reliably in electrically harsh and climatically demanding utility substation and industrial environments. JetNet9828G supports up to 28 Gigabit fiber/copper ports. JetNet9828G is a 19-inch 1U rack mountable device and supports one 1U slot and six 0.5U slots which offers the maximum flexibility for easy expansion. JetNet9828G supports IEEE1588v2 and synchronous Ethernet protocol with hardware time stamping. JetNet9828G supports many Layer 2 software features such as port, VLAN, multicast, QoS, fast redundant ring and Layer 3 functions such as VRRP, RIP, OSPF, IGMP and PIM. It supports Console, Telnet, Web management and network management software based on SNMP. By expanding the serial server module, the product can provide up to 24 RS232/422/485 serial ports. At present, the product is widely used at the intelligent substation and many other industrial communication systems.

Key Features

- ◆ Flexible modular design for easy expansion, supports max 28 Gigabit fiber/copper ports.
- ◆ Supports Ring, DRP, MSTP for network redundancy.
- ◆ Supports IEEE1588v2 and the synchronization precision reaches ± 100 ns, supports ITU-T.G.8261/G.8262 synchronous Ethernet and the synchronization precision reaches ± 50 ns.
- ◆ Supports IEC61850 MMS management.
- ◆ IEC-61850-3, IEEE 1613 Certificate

Software functions

- ◆ Switching function
 - Supports VLAN (IEEE 802.1Q) and PVLAN.
 - Supports IEC 61850 QoS(Quality of Service) for multiple packet types(Ex: GOOSE、SV、PTP v2)
 - Supports port aggregation.

- Supports flow control.
- Supports broadcast storm suppression.
- ◆ Redundancy protocol
 - Supports Ring, VLAN and the recovery time<50 ms.
 - Supports DHP and DRP and the recovery time<20 ms.
 - Supports RSTP/MSTP and compatible with STP.
 - Supports IEC 62439-3, Parallel Redundancy Protocol (PRP); High-availability Seamless Redundancy(HSR)
- ◆ Multicast protocol
 - Supports IGMP snooping.
 - Supports GMRP.
 - Supports static multicast.
 - Supports IEC61850 GOOSE (Server and Client) MMS
 - Supports IEC61850 GOOSE Publishing and Subscribing.
 - Supports multicast filtering.
- ◆ L3 function (part of sub-models support)
 - Supports ARP proxy
 - Supports RIPv1/v2.
 - Supports OSFPv2.
 - Supports static routing.
 - Supports VRRP.
 - Supports IGMP
 - Supports PIM SM
- ◆ Security
 - Supports IEEE 802.1x.
 - Supports HTTPS/SSL.
 - Supports SSH.
 - Supports SFTP
 - Supports RADIUS.
 - Supports TACACS+.
 - Supports user grading.
 - Supports MAC address binding.
 - Supports port isolate.
- ◆ Service quality management

- Supports ACL.
- Supports 802.1p(CoS),DSCP
- Supports SP and WRR queuing.
- ◆ Management and maintenance
 - Supports Console, Telnet, and HTTP/HTTPS(Web GUI) management methods.
 - Supports SNMPv1/v2c/v3
 - Supports IEC61850 MMS management.
 - Supports file transfer and software update over FTP and TFTP.
 - Supports the IP/MAC address conflict alarm, power failure alarm, power alarm, temperature alarm, port linkdown alarm, port traffic alarm, CRC and packet lose alarm, CPU alarm, memory alarm, Sfp port rx power alarm, transceiver alarm and ring alarm (Web interface doesn't support address conflict alarm. Sfp port rx power alarm, transceiver alarm need supported by hardware).
 - Supports port mirroring.
 - Supports cable test
 - Supports loop detection
 - Supports CRC protection
 - Supports Syslog.
 - Supports RMON
 - Supports LLDP.
 - Supports Link-check.
 - Supports NTP and SNTP.
 - Supports RTC.
- ◆ IP address management
 - Supports Bootp.
 - Supports DHCP server/client.
- ◆ Time synchronization (part of sub-models support)
 - Supports PTPv2 (IEEE1588-2008).
 - Supports Power profile (IEEE Std. C37.238).
 - Supports Telecom profile (in special version).
 - Supports synchronous Ethernet (ITU-T.G.8261/G.8262).
 - Supports TMS function.

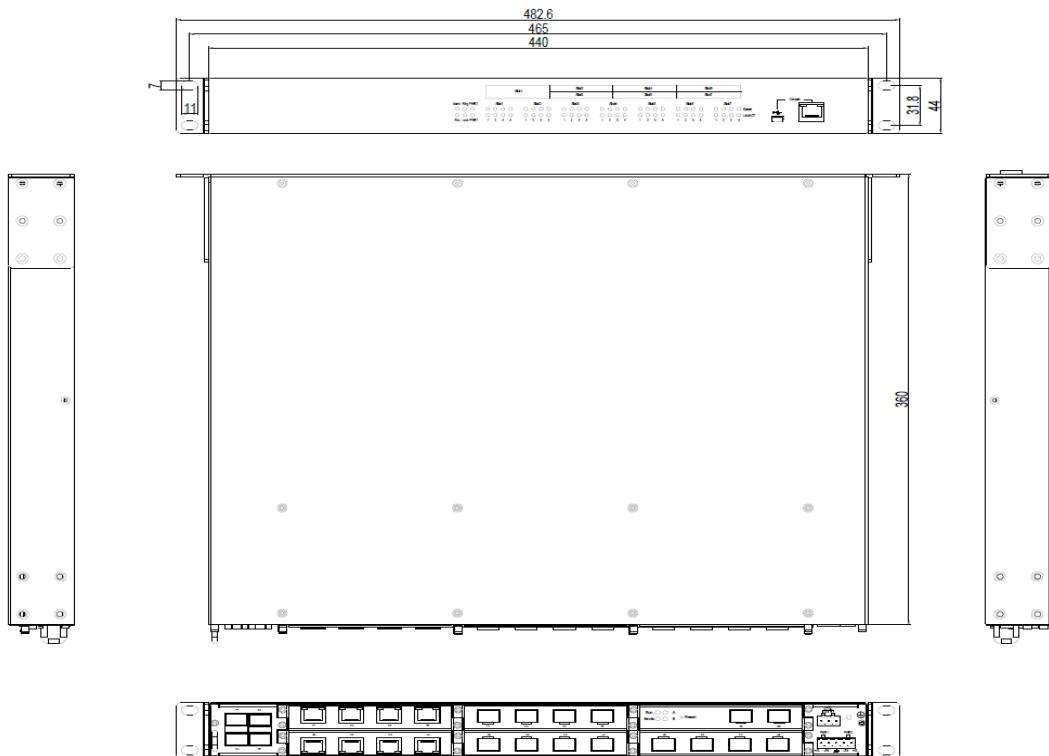
Product Specifications

Technical specifications	Standard	<p>IEEE 802.3i (10Base-T)</p> <p>IEEE 802.3u (100Base-T)</p> <p>IEEE 802.3ab (1000Base-T)</p> <p>IEEE 802.3ad (port aggregation)</p> <p>IEEE 802.3z (1000Base-SX/LX)</p> <p>IEEE 802.3x (flow control)</p> <p>IEEE 802.1p (priority)</p> <p>IEEE 802.1Q (VLAN)</p> <p>IEEE 802.1w (RSTP)</p> <p>IEEE 802.1s (MSTP)</p> <p>IEEE 802.1x</p> <p>IEEE1588-2008 (PTPv2)</p> <p>ITU-T.G.8261/G.8262 (synchronous Ethernet)</p>
Switch properties	Priority queue	8
	Number of VLANs	4K
	VLAN ID	1-4093
	Number of multicast groups	256
	Routing table	8K (L2 chassis do not involve)
	MAC table	16K
	Packet buffer	8Mbit
	Packet forwarding rate	9.5Mpps
	Switching delay	< 10 μs
	Jumbo Frame Size	10KB
Interface	LAN ports	<p>8x10/100/1000Base-T(X) RJ45 ports</p> <p>16x1000Base-X, 100Base-FX SFP ports</p> <p>2 x HSR/PRP-GX SFP ports</p>
	Console port	Mini USB, RJ45

	Alarm contact	3-pin 5.08mm-spacing plug-in terminal block, 250 VAC/220 VDC Max, 2 A Max, 10A@1s, 60 W Max
	Slots for module	1U: 1 0.5U: 6
LED	LED on front panel	Alarm LED: Alarm Running LED: Run Ring Role LED: Ring Synchronization finish LED: Lock Power LED: PWR1, PWR2 Port LED: Link/ACT Port speed LED: Speed
	LED on rear panel	Port LED: Link/ACT Port speed LED: Speed
Power Requirements	Power input	Redundant Power: 100-240VAC;+65~-65VDC. Hot-swappable replacement.
	Power terminal	5-pin 5.08 mm-spacing plug-in terminal block
	Power consumption	< 40 W
	Overload protection	Support
	Reverse connection protection	Support
	Redundancy protection	Support
Physical Characteristics	Housing	Metal
	Cooling	Natural cooling, fanless
	Protection Class	IP20
	Dimensions (W×H×D)	440 mm × 44 mm × 360 mm (17.32×1.73×14.17 in.)
	Weight	< 10 Kg (22.046 pound)
	Mounting	19 inch 1U rack mounting
Environmental limits	Operating temperature	-40°C to +70°C (-40°F to 158°F)

	Storage temperature	-40°C to +85°C (-40°F to 185°F)
	Ambient Humidity	5% to 95% (non-condensing)
Quality assurance	MTBF	359000h
	Warranty	5 years
Certificate	Power Substation	UCAIug IEC-61850-3 , IEEE 1613
	Class of Equipment	Class I
	Over Voltage Category	OVC II
	Vibration and shock (IEEE 1613)	V.S.1 and Shock 25 mm
	Vibration, shock and bump (IEC- 61850-3)	Class I

Mechanical Drawing



Ordering Information



Category	Model Name	Description
Main board & Chassis	JetNet9828G	Max 28 ports L2 Chassis with time synchronization Dual AC : 100-240VAC,50/60Hz
Slot 1 : 1U	JNM2-4SFP/1U	4x1000Base-X, 100Base-FX SFP port, 1U
Slot 2-7 : 0.5U	JNM1-4GE/0.5U	4x10/100/1000Base-T(X) RJ45 port, 0.5U
	JNM1-4SFP/0.5U	4x1000Base-X, 100Base-FX SFP port, 0.5U
	JNM1-2PRP/0.5U	2 x HSR/PRP-GX SFP port-0.5U



Accessory

-SFP GBIC

Speed	Part No	Description
100Mbps	F00ASFP100MM00	[SFP100MM] Multi-mode 100Mbps 2KM Fiber Transceiver , LC, Operating Temp. -10~70°C
1Gbps	F00ASFPGSX0000	[SFPGSX] 1000Base-SX Multi-mode Transceiver 550m, LC, Operating Temp. -10~70°C