

Industrial Ethernet Switches

PIGE-12T4GB-MX

Provisional data Sheet – Nov 2013 (Due for release May 2014)



12 x 10/100/1000Base-T / Tx ports PoE+ and 4x100/1000Base SFP Slots SFP



FACT SHEET

KEY FEATURES

- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4W power
- CAT-5 cable length diagnostic function
- PoE Power management
- PoE Power input range from 46~57VDC
- Reset button for auto image/ configuration upgrade
- USB Port for image / configuration backup restore and upgrade
- Hardware based IEEE 1588v2 for precise timing applications
- Redundant power inputs for higher system reliability
- Advanced X-Ring+ for <10ms self-healing time
- STP, RSTP, MSTP and X-Ring+ for better redundancy
- Advanced security mechanisms including SSL, SSH, 802.1X, MAC, IP Filtering, RADIUS, TACAS+, VLAN for access protection
- IPv6 management for future requirements*
- G.8032 Ethernet Ring Protection Switching (ERPS)*

SWITCH PROPERTIES

MAC Address	16k entries
Switching bandwidth:	32Gbps
Packet Buffer:	1.5MB
Jumbo Frame:	12KB
Priority Queues:	8
Simultaneous VLAN:	4K
VLAN ID Range:	1~4094
Multicast Group:	1024
MAX trunk Port/groups:	8 / 128

SPECIFICATIONS

Interface 12T	6 GigE Ports PoE +, 6 GigE Ports PoE,
I/O Ports	4 x 100 / 1000 FX / X SFP (P1 – 4)
Console port	RJ-45 Back up Port USB
PoE Pin out	V+: Pin1, 2 V- :Pin3,6
Power Connect	6-Pin screw Terminal block (including relay)
Physical	Aluminium Shell
Protection	IP 30
Installation	DIN rail
Dimensions	86W x 165H x 126D (mm)
LED Display	System PWR1, PWR 2, SYS, CG and Alarm Port Link / Speed / Activity / PoE
Operating Temperature	-40 ⁰ C ~ +75 ⁰ C (-40~167 ⁰ F)
Storage Temperature	-40 ⁰ C ~ +85 ⁰ C (-40~185 ⁰ F)
Ambient Relative Humidity	5 ~ 95% (non-condensing)

Technology	802.1AB -LLDP 802.1D - STP 802.1S - MSTP 802.1p - CoS 802.3 - 10BaseT 802.3af - PoE 802.3at - PoE+	802.1ad - Provider bridging 802.1w - RSTP 802.1Q - VLAN Tagging 802.1x - Authentication 802.3ab - 1000 BaseT(x) 802.3ac - VLAN Tagging 802.3ad - Port Trunk with LACP 802.3u 100 - BaseT(x)+100 Base FX 802.3z - 1000 Base x
Compliance	768 - User Datagram Protocol 783 - TFTP Protocol 791 - Internet Protocol 792 - ICMP 793 - TCP 826 - ARP 896 - Congestion Control in IP / TCP internetworks	1534 - Interoperation DHCP and BOOTP 1541 - DHCP 1901 -Community-based SNMPv2 1908 -Coexistence between Version 1 and Version 2 of the Internet-Standard Network Management framework 2030 - SNTP V4 for IPv4, IPv6 and OSI
IEEE	1588v2 - PTP 1034 Domain Names- Concepts and Facilities 1035 Domain names – Implementation and specification 1157 – SNMP 1321 - MDS Message-Digest Algorithm	802.3ad - Port Trunk with LACP 802.3u 100 - BaseT(x)+100 Base FX 802.3z - 1000 Base x 1534 - Interoperation DHCP and BOOTP 1541 - DHCP 1901 -Community-based SNMPv2 1908 -Coexistence between Version 1 and Version 2 of the Internet-Standard Network Management framework 2030 - SNTP V4 for IPv4, IPv6 and OSI 2068 - HTTP, 2131 -Dynamic Host Configuration Protocol 2132 - DHCP Options and BOOTP Vendor Extensions 2688 -RADIUS Accounting 2865 - RADIUS 3580 - IEEE 802.1X RADIUS (Usage Guidelines) 4251 - SSH Protocol Architecture 4253 - SSH Transport Layer Protocol 4254 - SSH Connection Protocol
RFC	1034 Domain Names- Concepts and Facilities 1035 Domain names – Implementation and specification 1157 – SNMP 1321 - MDS Message-Digest Algorithm	2068 - HTTP, 2131 -Dynamic Host Configuration Protocol 2132 - DHCP Options and BOOTP Vendor Extensions 2688 -RADIUS Accounting 2865 - RADIUS 3580 - IEEE 802.1X RADIUS (Usage Guidelines) 4251 - SSH Protocol Architecture 4253 - SSH Transport Layer Protocol 4254 - SSH Connection Protocol

Power Consumption	~ 21.82 Watts (system both 12T and 8T) 12T Model - ~294.22 Watts (Up to 6 PoE+ ports, & 6 PoE ports) 8T Model - ~ 201.82 Watts (Up to 4 PoE+ ports & 4 PoE ports)
Power Input	48 (46~ 57v) VDC dual inputs (>50VDC PoE+ output recommended)

CERTIFICATIONS

Safety	UL 60950-1 Compliant, UL 508 Compliant, CE FCC Class A
EMC	EN61000-6-4, EN61000-6-2, EN61000-4-2 (ESD) Level 4, EN 61000-4-3 (RS) Level 4: EN61000-4-4 (EFT) Level4, EN61000-4-5 (Surge) Level4; EN61000-4-6 (CS) Level3, EN6100-4-8 (Magnetic Field) Level 4
Marine	DNV Compliant
Railways	EN50121-4 Compliant
Hazardous Environment	UL/cUL Class1 Division 2 Groups A/B/C/D
Shock	IEC 600068-2-27
Freefall	IEC600068-2-32
Vibration	IEC600068-2-6

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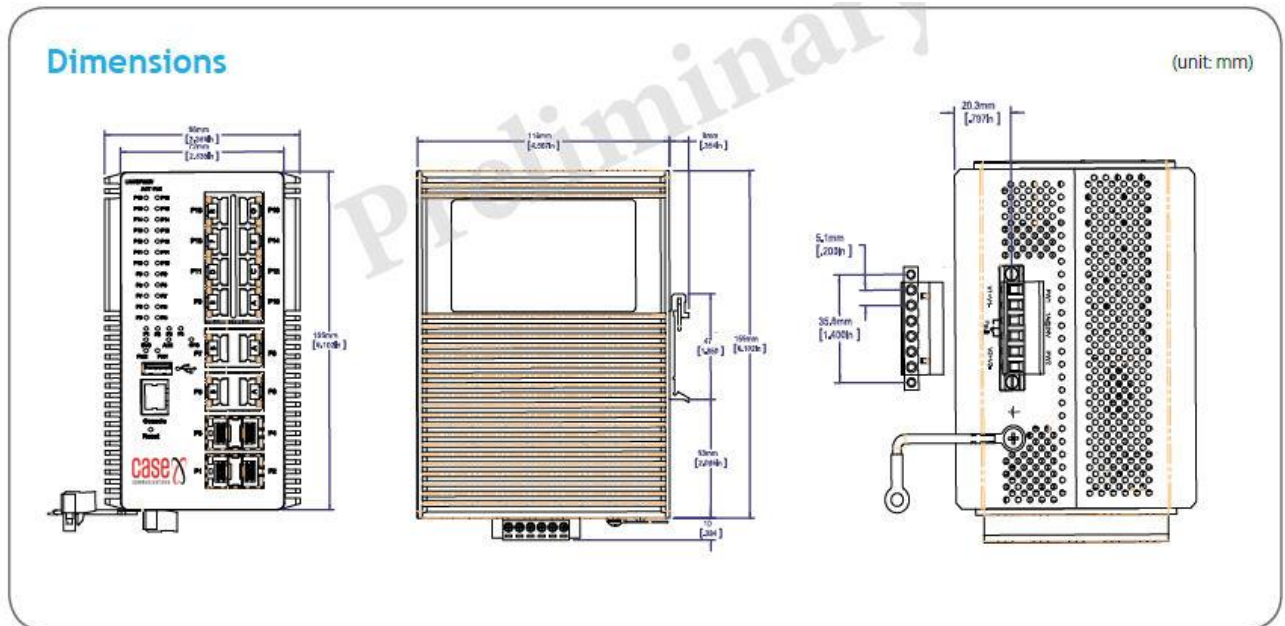


SOFTWARE FEATURES

Benefit	Feature
Advanced Management	SNMP v1 / v2 / v3, RMON Cisco-Like CLI Web GUI, Telnet Alarm LED, Alarm Mail, SNMP traps, SysLog, Text based configuration, Multi-function reset button DHCP L2 relay, DHCP Server with Port-based IP Binding DNS Client Sntp, Embedded RTC, Local / remote user authentication, interface alias
High-availability	X-Ring+ advanced self-healing technology, X-Chain*, Ring Coupling, Dual Homing topology for instant recovery <10ms w/ 250 nodes, STP, RSTP, MSTP, BPDU forwarding, BPDU Filtering, BPDU / Loop/Root Guard, Port Trunk with LACP (Static & 802.3ad), Dual Image, Multiple start-up configuration*, Embedded watchdog, G.8032 ERPS Ring protection *
VLANS	MAC Based, protocol based, IP subnet based, Port based VLAN assignment, 802.1q VLAN, GVRP
Monitoring and diagnostics	Configurable alarm relay, LLDP, LLDP-MED, Industry Standard Discovery protocol (ISDP) Port Mirror, Embedded hardware monitor, Ping, Trace Route, Cable test
Comprehensive Security	Access Control List, Port Security, DoS Protection, ARP Inspection, DHCP Snooping, IEEE802.1X Port / MAC based authentication, RADIUS / TACAS+ Authentication and accounting, SSH, SSL, SFTP, SCP
Advanced Quality of Service	802.3x flow control, 12KB Jumbo Frame, 802.1p / DSCP provisioning and mapping, strict priority and weighted round scheduling, 8 priority queues, Egress rate shaping, Broadcast storm control, bandwidth control
Multicast	IGMPv3 snooping, IGMP query, MLDv2 Snooping, MLD query, GMRP static IP Multi-cast filtering
PoE	PoE Power management
Other features	1588v2 Transparent clock* IPv6 Management*

* Feature available in the future.

FACT SHEET



Ordering Information	Description
PIGE 12T4GB MX	12 x 10/100/1000BaseT/TX Ports, 6 PoE + & 6 x PoE ports, + 4 x 100FX/1000Base-X SFP Slots