

Industrial Ethernet Switches

R2 – 16TxP-10S-G



- 16 x Gig TX PoE Ports, 2 x BT
- 10 x 1.25 Gigabit SFP Ports
- STP, RSTP, MSTP, EPPS, EAPS
- Operating Temperature -20C ~ +55C
- Power Consumption Max 300W
- Backplane: 128Gbps
- Packet Forwarding 40.32Mpps
- Packet Buffer: 4.1MB
- Flash: 16M
- RAM 128M
- SNMP, Telnet, Web Management

FACT SHEET

Hardware Features	
Number of Gbps Copper Ports	16 x PoE, 14 x AF / AT, Plus 2 x BT
Number of Gigabit Fibre ports	10 x 1000Mbps SFP
Console Port	1 Console Port
Reset Key	1
Switching Technology	Store and Forward (40.32 Mpps)
MAC Addresses	8K
Backplane	128Gbps
LED Indicators	PWR: Power LED
	SYS: System LED
	1~16 Link 10/100M Link, 1000M= Gigabit Link
	17-26: SFP LED
Voltage	Built in Power AC 100 – 240Vac / 50-60hz
Power	Max Power 300 Watts
Operating Temperature	-20C ~ +55C; 5% ~ 90% RH Non-Condensing
Product size	440mm x 290mm x 45mm
Packaging Size	515mm x 375mm x 95mm
Net Weight / Gross Weight	3.7Kg / 4.5Kg
Installation	Rack-mounted
Lightning Protection	3KV 8/20us
Housing	IP30
Certification	CE Mark, Commercial ; CE / LVD EN 60950 FCC Part 15 Class B; RoHS

Ordering Information	
Feature	Description
R2-16TxP-10S G	Layer 2 rack mounted switch 16 x Tx PoE Ports (2 of which are BT) and 10 x SFP Ports, AC Power Supply operating temperature -20C ~ +55C

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R2-16TxP-10S-G Software Features	
Network	IEEE 802.3 10 Base-T
	IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3x
Protocols	IEEE 802.3z 1000Base-X, IEEE 802.3af/at / bt, IEEE 802.3ad, IEEE 802.3q
	IEEE 802.3q (VLAN), IEEE 802.1p (Multicast Filtering)
	STP, RSTP / MSTP, EPPS, EAPS ring network protocol
Port Shutdown	Supported
Port Speed	Auto-Negotiation, full-1000, full-100, half-100, full-10, half-10
Flow Control	Support for full duplex IEEE 802.3x, half-duplex back-pressure
Storm Control	Support for rate limit broadcast, multicast and DLF packets
Storm Constraint	Supports the detection of broadcast packets, multicast packets or Unicast packets on the port if the rate is over the threshold
Port Mirroring	Supported
Port Rate Limiting	Supported on port ingress and port egress rate limiting
Link Aggregation	Support for LACP dynamic link aggregation
	Support for manual link aggregation.
	Supports up to 8 aggregation groups, each group up to 8 ports
	Supports source MAC, destination MAC, source destination MAC, source IP, destination IP, source destination IP routing strategy
Power Over Ethernet	
Switch Control	Support PoE powering on and off of ports
Power Control	Ability to set total power for switch
Advanced Settings	Support for PoE scheduling policy and PD Online query etc.
MAC TABLE	
MAC Table Capacity	8K
MAC Table Management	Supported
Forwarding Mode	Support IVL Forwarding mode
Static MAC Address	Supported
MAC Address Binding	Supported
Mac Address Filtering	Supported
MAC Learning Control	Control of the MAC address learning based on the port
VLAN	
Number of VLANS	4000
802.1q-based VLAN	Supported
MAC Based VLAN	Supported
IP Based VLAN	Supported
Protocol Based VLAN	Supported
PVLAN	Supported (Private VLANS)
Voice VLAN	Supported
VLAN Mapping	Support for 1:1 mapping
Q-in-Q	Support for basic Q-in-Q, Support for flexible Q-in-Q
Reliability	
Spanning Tree	Support for STP (Spanning Tree Protocol) / RSTP / MSTP
Port Loop Detection	Supported
EAPS / ERPS	Support for EAPS for RFC 3619, Support for ERPS for G.8032 / Y.1344
LLDP	Support for LLDP & LLDP-MED
UDLD	Fully compatible with Cisco's UDLD Protocol
IP	
ARP	Support for static and dynamic ARP
Static Routes	Supports 0.0.0.0 route and other static routes, but NOT L3 Forwarding
VLAN Interface	Supports 32 VLAN Interfaces

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Multicast	
Static Multicast MAC Address	Supported
IGMP Snooping	Support for IGMP Snooping, Support for MLD Snooping
MVR	Support for MVR and GMRP
Access Control Lists	
Standard IP-Based ACL	Standard IP based ACL and extended IP based ACL
MAC IP based ACL	MAC IP based ACL, MAC ARP based ACL, MAC-IP based IP
ACL Port Filtering	ACL Port filtering, Time based filtering
QOS	
Number of Port Queue	8
Port Queue Scheduling Mode	Support for WRR, SP and WFQ
Port-based Classification	Port-based classification and 802.1p based classification
DSCP-based Classification	DSCP based classification and ACL based classification
QoS Policy	Support packet mapping to queue
	Support COS or DSCP Remarking
	Support rate limiting of data flow
	Supports data flow statistics
	Supports Mirroring of Data flow
DHCP	
DHCP	DHCP V4 Client, DHCPv6 Client, DHCP Snooping, DHCP, DHCP Relay, DHCP Server, DHCP Option 82
Management	
DMI	Support for Dynamic Management Interface on SFP's
CLI Management	Support for Console, Telnet and SSH
	Support for Multiple Telnet connections based on IPv4 and IPv6
	Support for multiple SSH Connections based on IPv4 and IPv6
	Support for a running configuration roll back
	Support for ZTP (Zero Touch Configuration)
Web Management	Supported
SNMP Management	Supports SNMPv1, v2c, v3
	Supports SNMP Traps
	Supports a number of standard and private MIBS
	Supports SNMP based on IPv4 and IPv6
User Management	Supports multiple management users
TACAS+	Supports Switch Authentication via TACAS+ Server remote username and password
	Supports password encryption in PAP and CHAP Mode
	Supports TACAS+ Server to authorize the switch's command's
	Supports TACAS+ based on IPv4 and IPv6
Log Management	Supports local log management
	Supports System Log based on IPv4 and IPv6
RMON	Supports RMON 1,2,3 and 9 Groups
Cluster Management	Supports NDP, Supports NTDP
	Supports manual and automatic joining of cluster groups
	Supports cluster unified management
OAM	Supports 802.3ah, Supports 802.1ag
Configuration Files	Supports TFTP and SFTP transmission based on IPv4 and IPv6
	Supports SFTP Client and SFTP Server
Software Upgrades	Supports TFTP and SFTP transmission based on IPv4 and IPv6
	Supports SFTP Client and SFTP Server
Clock Management	Supports Local Clock Management, Supports SNTP based on IPv4 and IPv6

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Security	
Switch Management Security	Supports enabling and disabling TELNET, SSH, WEB and SNMP Services
	Supports Telnet, SSH, WEB and SNMP Services to bind to standard IP ACLs
	Support to limit the number of Telnet Connections
IP MAC Binding	Supports static configuration of IP MAC and port binding
DHCP Snooping	Supports dynamic ARP binding to prevent ARP Spoofing
	Supports dynamic IP, MAC and Port binding
	Supports fixed port to connect to DHCP Server to prevent private connections to the DHCP Server
Prevention of ARP Spoofing	Support for manually configuring MAC ARP-Based ACL Rules to prevent ARP Spoofing
	Supports DHCP Snooping. While obtaining an IP Address by DHCP , the switch will dynamically bind ARP to the port to prevent ARP Spoofing
CPU Protection	The switch will protect itself from large data streams attacking the switch
AAA	
AAA	Support for 802.1x RADIUS Server
	Support for authentication, authorization, and accounting via the RADIUS server
	Support for port-based and MAC-based 802.1x
	Support for 802.1x guest VLAN
IP MAC Binding	
Port Binding	Supports static configuration of IP, MAC and Port Binding
DHCP SNOOPING	
DHCP Snooping	Supports dynamic ARP Binding to prevent ARP Spoofing
	Supports dynamic IP, MAC and port binding
	Supports a fixed port to connect to the DHCP server to prevent a private connection to a DHCP Server
IPv6 Features	
IPv4 / IPv6	IPv4 / IPv6 dual protocol stack supported
IPv6 Addressing	Support for manual address configuration & stateless address auto-configuration
IPv6 Neighbour Discovery	Supported
ICMPv6	Supported
IPv6 Path MTU Discovery	Supported
Diagnostic Tools	
Ping	Support for PING and PING 6
Trace Route	Supported
Telnet Client	Support for TELNET Client based on IPv4 and IPv6
SSH Client	Support for SSH Client based on IPv4 and IPv6
TWAMP	Support TWAMP Server and session-reflector