ROCKET*LINX* ES9528-XT

Industrial Managed Switch

HIGHLIGHTS

- 28-port managed switch featuring 10/100-TX and 4-port gigabit RJ45/SFP combo (10/100/1000BASE-TX, 1000BASE-X)

- 12.8Gbps switch fabric

- 8K MAC address table

- Supports jumbo frame up to 9,216 bytes

- Max 12 x 100M rings and 2 gigabit rings aggregation capabilities

- VLAN, GVRP, QoS, IGMP snooping V1/V2/V3, rate control, port trunking, LACP, online multi-port mirroring

- Management via console CLI , Web, SNMP V1/V2c/V3, RMON, HTTPS, SSH and NetVision

- Advanced security features support IP security, port security, DHCP server, IP and MAC binding, 802.1x network access control

- Event notification by e-mail, SNMP trap, syslog

- -40° to +74° C operating temperature for extreme environments

- Rackmount installation, low-power

- NEMA TS2 compliant

Part Number
32071-5*

Extreme Temperature Ratings
-40°C to +74°C

NEMA CERTIFIED TS2

Product Description

The RocketLinx ES9528-XT is a layer 2 managed Industrial Ethernet switch, equipped with 24 10/100BASE-TX ports and four gigabit RJ45/GBIC combo ports. The four gigabit combo port design allows 10/100/1000 triple speed, and the SFP ports accept all types of gigabit SFP transceivers, including SX, LX, LHX, ZX and XD for a variety of connections and distances. It is specially designed for control rooms and applications where high-port density and performance are required.

The ES9528 is typcially mounted within a 19-inch rack, along with other 19-inch public servers or other network devices. When lower industrial switches are aggregated to the ES9528-XT, the 24 port plus 4G design allows the connection of up to 12 100M rings plus two Gigabit rings. Each having its own ring redundancy protection.

The RocketLinx ES9528-XT is a fan-less rackmount switch with low-power consumption and supports a wide operating temperature. It supports Jumbo Frame featuring up to 9,216 bytes packet size for large file transmissions.

The embedded software supports full Layer 2 management features, multi-form ring redundancy, network control, monitoring, security and notification. The RocketLinx ES9528-XT provides the perfect foundation for building your industrial Ethernet infrastructure.

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SPECIFICATIONS

HARDWARE

Bus Interface Specification 10/100/1000BASE-TX
1000BASE-SX/LX/LHX/
XD/ZX Gigabit Fiber

Enclosure Black Finished Steel
Installation Method 19-inch, 1U Rack Mount
LED Indicators
  Power, Ring Master(R.M)
  10/100Base-TX Link/Activity
  10/100Base-TX Full/Half Duplex
  Gigabit Copper Link/Activity, Duplex
  Gigabit SFP Link/Activity
Dimensions 17.2" x 6.7" x 1.7"
Product Weight 3.7 lb

TECHNOLOGY

Standards
  IEEE802.3 for 10BASE-T
  IEEE802.3u for 100BASE-TX
  IEEE802.3ab for 1000BASE-TX
  IEEE802.3z Gigabit Ethernet Fiber
  IEEE802.1D-2004 Rapid Spanning Tree Protocol (RSTP)
  IEEE802.1Q VLAN Tagging and GVRP
  IEEE802.1p Class of Service
  IEEE802.3ad for Port Trunk with Link Aggregation Control
    Protocol (LACP)
  IEEE802.1X Port Based Network Access Control
  IEEE802.1AB Link Layer Discovery Protocol
Protocols
  IGMP v1/v2/v3, SNMP v1/v2/v3, SNTP, HTTP, HTTPS, SSL,
  SSH, GMRP, GVRP, DHCP Server/ Client, DHCP Option 82,
  Syslog, RMON, LACP, RSTP, STP, LLDP
Flow Control
  IEEE802.3x Flow Control and Back-Pressure

PERFORMANCE

Switch Technology 12.8Gbps Switch Fabric
Store and Forward
Switch Technology
System Throughput 14,880pps for 10Mbps
148,880pps for 100Mbps
1,488,100 for Gigabit
Ethernet
Number of MAC Address 8K
Packet Buffer Memory 2Mbits
Transfer Packet Size 64 – 1536 Bytes
Jumbo Frame Size Up to 9216 Bytes
Priority Queues per Port 4
Port Trunk (Max) 8 Static Trunk
Ports per Trunk 2 – 8 Ports
VLAN (Max) 64
DHCP Server Up to 255 Dynamic IP
Pool

MANAGEMENT FEATURES

Configuration
  Cisco-compatible CLI, NetVision Utility, HTTP, HTTPS, SSH,
  TFTP/Web Update for firmware and configuration backup/
  restore, DHCP client, Warm reboot, Reset to default, Admin
  password, Port speed/Duplex Control, status, statistic, MAC
  Address table display, Static MAC, Aging Time, SNMP V1/V2C/
  V3, Traps, RMON, Dual Firmware Images
Jumbo Frame Enable/Disable Yes
Up to 9216 Bytes
Link Layer Discovery Protocol (LLDP)
  LLDP to advertise system/port identity and local network's
  capability
SNMP
  SNMP v1, v2, v3, and Traps
SNMP MIB
  MIB-II, Bridge MIB, VLAN MIB, SNMP MIB, RMON, Private MIB
SNTP
  SNTP to synchronize time
Port Trunk
  Up to 8 Static Trunk and IEEE802.3ad LACP
  2 to 8 ports per trunk
VLAN
  IEEE802.1Q VLAN, GVRP. Up to 255 VLAN Groups
Quality of Service (QoS)
  Four Priority Queues/ Port
  IEEE802.1 Class of Service and Layer 3 TOS/DiffServ
IGMP Snooping
  IGMP Snooping V1/V2/V3 for multicast filtering
  IGMP Query
GMRP GVRP Multicast
Registration Protocol

Rate Control
  Ingress Filtering for Broadcast, Multicast, Unknown DA or
  all packets
  Egress Filtering for all packets
Embedded Watchdog
  Embedded hardware watchdog time auto reset system in case of
  a switch system failure
Port Mirroring
  Online traffic monitoring on multiple selected ports
Port Security
  Assign authorized MAC to specific port
IP Security
  IP Security to prevent unauthorized access
Access Control List
  Permit/ Deny Access Control Lists
802.1x
  802.1x Port based Network Access Control
DHCP Server
  Up to 255 Dynamic IP Pool
DHCP Option 82
  Relay the DHCP request to remote server
Alarm
  E-mail warning by pre-defined events
System Log
  Both Local mode and Server mode supported

NETWORK REDUNDANCY

Rapid Spanning Tree Protocol (RSTP)
  IEEE802.1D-2004 RSTP
  Compatible with Legacy STP
Rapid Super Ring (RSR) Yes
Rapid Dual Homing (RDH)
  Multiple uplink paths to one or multiple switches
MultiRing
  Multiple Rapid Super Rings
  Maximum of 14 Rings at RocketLinx ES9528
Legacy Super Ring
  Backward compatible in Client Mode

ELECTRICAL SPECIFICATIONS

Device
  AC Input Voltage 90-264VAC
  Power Consumption (maximum) 20W
Power Connector 1
Power Connector Type IEC320-C14 connector

ENVIRONMENTAL SPECIFICATIONS

Air Temperature
  System On -40° to $+74^{\circ}$ C
  System Off -40° to $+74^{\circ}$ C
Operating Humidity
  Non-condensing 5% to 95%
MTBF (Mean Time Between Failures) 25.11 Years

ETHERNET SPECIFICATIONS

Connector Type RJ-45
Number of Ports 28

Standard for RJ45 Ports
  (24) 10/100BASE-TX Auto MDI/MDI-X, Auto
  negotiation
  (4) 10/100/1000Base-TX, Combo with SFP
Standard for Optional SFP
  (4) 1000Base-SX/LX/LHX/XD/ZX Gigabit Fiber
Ethernet Cable Type
  CAT-3, CAT-4, CAT-5, CAT-5e (UTP or STP)
Link Distance 100 Meters
Port Alarm Relay Alarm Relay for Port
Failure Notification

SERIAL CONSOLE PORT SPECIFICATIONS

Connector Type DB9 Male
Number of Port 1
Serial Interface RS-232 (TXD, RXD,
Signal GND)
Baud Rate 9600Bps
Device Data Control
  Data Bits 8
  Parity None
  Stop Bits 1
  Flow Control None

EXPORT INFORMATION

Packaged Shipping Weight 5.9 lb
Package Dimensions 19.8" x 3.5" x 12"
UPC Code 7-56727-32070-8
ECCN 5A991
Schedule B Number 8517.62.0050

REGULATORY APPROVALS

Emissions
  Canadian EMC Requirements
    ICES-003
  European Standard EN55022
  FCC Part 15 Subpart B
    Class A limit
Immunity
  European Standard EN55024
  IEC 1000-4-2/EN61000-4-2: ESD
  IEC 1000-4-3/EN61000-4-3: RF
  IEC 1000-4-4/EN61000-4-4: Fast Transient
  IEC 1000-4-5/EN61000-4-5: Surge
  IEC 1000-4-6/EN61000-4-6: Conducted Disturbance
  IEC 1000-4-8/EN61000-4-8: Magnetic Field
  IEC 1000-4-11/EN61000-4-11: Dips and Voltage Variations
Safety
  IEC 60950/EN60950 (LISTED)
    CSA C22.2 No. 60950/UL60950 Third Edition
Other
  European Standard: 2002/95/EC Directive (RoHS)
Regulatory Approvals

CE ᶜ(UL)ᵤₛ ✓RoHS

ORDERING INFORMATION

32071-5 RocketLinx ES9528-XT

PRODUCT SUPPORT & SERVICE INFORMATION

Warranty Information
Comtrol offers a 30-day satisfaction
guarantee and 5-year limited warranty.

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