ROCKET*LINX* ES7506

Industrial Managed PoE Plus Switch

HIGHLIGHTS

- Four 10/100BASE-TX Power over Ethernet Plus ports and two redundant 10/100BASE-TX uplink ports

- DC 48V Power Input for IEEE 802.3af PoE output (IEEE 802.3af)

- Up to 30W per port for PoE plus High Power solution with DC 55V Power Input (IEEE 802.3at)

- Power Input for 24VDC output through Ethernet (Non-standard PoE)

- UP to 100W for total power budget

- Support IEEE 802.3af for PoE detection and PoE classification resistors

- PoE control and schedule by hour/weekly basis

- Auto-detect Powered Device status for device auto-reset (LPLD)

- Redundant Ring technology, back up system recovery time less than 5ms

- SNMP v1/v2c/v3, IGMP snooping v1/v2/v3, RMON, VLAN, QoS

- Network security by IP/MAC address, SSL and SSH

- Built-in hardware watchdog timer for system auto-reset

- Aluminum rugged enclosure with IP31 grade protection

- Forced mode powering

- Wide operating temperature range (-20º to 60º C)

PoE Plus is IEEE 802.3at and IEEE 802.3af compliant

Part Number
32050-0

Product Description

Comtrol's RocketLinx ES7506 PoE Plus switch is designed for industrial PoE applications such as IP surveillance or wireless access points, where the power source is not conveniently located.

The RocketLinx ES7506 supports intelligent PoE control and schedule management. Each of the four PoE Plus ports can be configured in a weekly schedule by hourly basis and PoE on/off can be remotely controlled via SNMP and Web.

It is compliant to both the pioneer standard of IEEE 802.3at PoE Plus designed for boosting PoE delivery up to 30W in each of the four PoE ports as well as the IEEE 802.3af standard. The RocketLinx ES7506 can auto-detect 24V and 48V power input and can deliver 24V and 48V PoE outputs which allow more applications where 48VDC is not an option.

The two uplink ports can be configured as Redundant Ring ports recovering network failure in less than 5ms, or RSTP ports integrating with other standard switches. Full network management features such as SNMP v3, QoS, IGMP v3 are all supported. If the powered device fails to respond after a pre-configured time interval, the product will reboot the powered device and continue to monitor the powered device in every pre-configured time interval. Also, unmanageable powered devices can be managed through the RocketLinx switch.

The IP31 rigid aluminum flat casing and wide operation temperature range ensure reliable operation in places such as mass transit vehicles or outdoor usage.

COMTROL®
Network Enabling Devices

SPECIFICATIONS

HARDWARE
- Bus Interface Specification   10/100BASE-TX
- Enclosure   IP31 Grade Aluminum
- Installation Method
  Panel Mount or DIN-Rail Mount
- LED Indicators
  Power 1, Power 2, Ring Master (R.M.)10/100BASE-TX
  Link/Activity, Alarm, PoE Status
- Dimensions   6.4" x 1.75" x 5.35"
- Product Weight   1.44 lbs

TECHNOLOGY
- Standard

IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-T
IEEE 802.1p	Class of Service
IEEE 802.3af	Power Over Ethernet
IEEE 802.3at	High Power
IEEE 802.1d	Spanning Tree
IEEE 802.1w	Rapid Spanning Tree

- Flow Control

IEEE 802.3x	Flow Control and Back-Pressure

PERFORMANCE
- Switch Technology
  3.2Gbps wire-speed non-blocking Switch Fabric Store
  and Forward Switch Technology
- System Throughput
  14,880pps for 10Mbps; 148,880pps for 100Mbps
- Number of MAC Address   2K
- Packet Buffer Memory   1Mbits
- Transfer performance   64 to 1522Bytes
  (with port-based VLAN)
- Priority Queues per Port   4
- PoE Technology
  End-Span wiring architecture
  PD classification detection, class ID 0-3 follow IEEE 802.3af
  standard, and 30W High power deliver procedures for
  class ID 4
  Pin assignment: V+ (RJ45 Pin 4,5), V- (RJ45 Pin 7,8), TX
  (RJ45 Pin 1,2), RX (RJ45 Pin 3,6)
  Protection: Provides over-current protection by PD class ID

MANAGEMENT FEATURES
- Configuration
  NetVision Utility, HTTP, HTTPS, SSH, SNMP V1/V2C/V3, Traps,
  Web Browser, CLI Management, Admin Password, DHCP
  Client, status, Scheduling, TFTP/HTTP/NetVision update for
  firmware
- Management Security
  4 entries for web, telnet, SNMP management security
- SNMP Trap
  Provides Cold start, Warm start, Port event, Power event,
  Authentication failure, PoE trap and private trap for
  proprietary functions
- SNMP MIB
  RFC 1213 MIBII, RFC 1493 Bridge MIB, RFC 1757 RMON MIB,
  RFC 2674 VLAN MIB, RFC 1643 Ethernet like MIB, RFC1215
  Trap MIB, RFC 3621 Power Ethernet MIB, Private MIB
- Firmware upgrade
  TFTP, HTTP and NetVision
- System Log
  1000 system entries for system or remote log server
- Event Alarm Relay
  Relay alarm for Port link down, PoE, and system power events
- Quality of Service
  Quality of Service determined by port, Tag and IPv4 Type of
  Service
- Class of Service
  IEEE 802.1p class of service, with 4 priority queues
- DHCP
  DHCP Cilent and Server function with specified IP exclusion
  and MAC binding function
- Timer
  Supports Network Time Protocol (NTP) to synchronize time
  from NTP Server
- VLAN
  Port based VLAN
- IGMP Snooping
  Supports IGMP Snooping v1/v2/v3 and IGMP Query v1/v2
- IP Security
  IP security to prevent unauthorized access

NETWORK REDUNDANCY
- Rapid Spanning Tree Protocol (RSTP)
  IEEE 802.1D-2004 STP and RSTP
  IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- Redundant Ring
  Failure recovery in less than 5ms
- Dual Homing
  Inter-operational with higher level switches and RSTP
  protocol compliant

PoE PLUS FEATURES
- Standards

IEEE 802.3at	High Power PoE
IEEE 802.3af	Power Over Ethernet

- Number of PoE Injector Ports   4
- Maximum Power/ PoE Port (Max.)

12.9W @ VIN (non-standard PoE mode)	24VDC
15.4W @ VIN (IEEE 802.3af mode)	48VDC
30W @ VIN (IEEE 802.3at mode)	55VDC

- Total Power Budget   Up to 100W (IEEE 802.3at)
- Standard PoE Voltage Output   IEEE 802.3af compliant 44-57VDC
- Non-Standard PoE Voltage Output   24VDC
- PoE Control
  User-configuration for PoE enable, disable, or schedule-based
  PoE function
- Smart Powered Device Alive-Check
  User-configuration to monitor real-time status of connected
  PD's. PoE port is reset to bring a PD back to working state, if
  connected PD fails
- Real-time Status on Web Interface
  Real-time status on port status, PoE status, PD Status
- Forced Powering
  Advanced feature to supply power to non-standard PoE devices
  that can't be detected as valid PD's
- Power Limit Control
  Standard mode for IEEE 802.3af PD
  Manual mode for user-configuration of power limit to
  IEEE 802.3af standard PD
  Ultra mode for user-configuration to perform at the 30W
  power imitation or forced powering mode for non-standard PD
- PoE Schedule Control
  PoE ports are configurable as on/off by hourly/weekly basis.
  Each PoE port can be scheduled to activate/deactivate PoE
  power with different rule using web interface.

ELECTRICAL SPECIFICATIONS
- Device

DC Input Voltage	24-55VDC
Current Consumption without PD Load	
+24VDC	330mA
+48VDC	170mA
Power Consumption (maximum)	8W (without PD Load)

- Power Connector   1
- Power Connector Type   6-Pin Screw Terminal Block
- Power Input Redundancy   Dual Redundant Independent Power
- Inputs
- Reverse Polarity Protection   Yes
- Power Alarm Relay   Alarm for power failure notification
- Relay Rating   1A Max. @ 24VDC

ENVIRONMENTAL SPECIFICATIONS
- Air temperature

System On	-20° to 60° C
System Off	-40° to 85° C

- Operating Humidity (non-condensing)   5% to 95%
- MTBF (Mean Time Between Failures)   37 Years

ETHERNET SPECIFICATIONS
- Connector Type   RJ45
- Number of Ports   4 x 10/100BASE-TX with PoE Injector; 2 x 10/100BASE-TX
- Ethernet Cable Type   CAT-3, CAT-4, CAT-5, CAT-5e, CAT-6 (UTP or STP)
- Link Distance   100 Meters
- Port Alarm Relay   Alarm Relay for Port Failure Notification
- Relay Rating   1A Max. @ 24VDC

SERIAL CONSOLE PORT SPECIFICATION
- Connector Type   RJ45
- Number of Ports   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   2.14 lbs
- Package Dimensions   10.1" x 7.0" x 3.6"
- UPC Code   7-56727-32050-0
- ECCN   5A991
- Schedule B Number   8517.62.0050

REGULATORY APPROVALS
- Emissions
  Canadian EMC Requirements
    ICES-003

  European Standard EN55022
  CISPR 22
  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/ Burst
  IEC 1000-4-5/EN61000-4-5: Surge
  IEC 1000-4-6/EN61000-4-6: Conducted Disturbance
  IEC 1000-4-6/EN61000-4-8: Magnetic Field
  IEC 1000-4-6/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
  RoHS 2002/95/EC
  CE
  FCC
  UL/cUL

ORDERING INFORMATION

32050-0 RocketLinx ES7506

RECOMMENDED ACCESSORIES

32102-6   PS1100, 100 Watts Industrial DIN Rail
         Power Supply (24V, 100W, DIN Rail)
1200038   24VDC External Power Adapter,
         Bare Wires (24VDC, 24W, 3-Wire)
1200048   48VDC External Power Adapter,
         Bare Wires (48VDC, 120W, 2-Wire)
1200054   Power over Ethernet Splitter
         (24VDC, 24 Watts)

PRODUCT SUPPORT & SERVICE INFORMATION

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

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