FiberPlex™ Industrial Gigabit Managed 90W PoE Switch
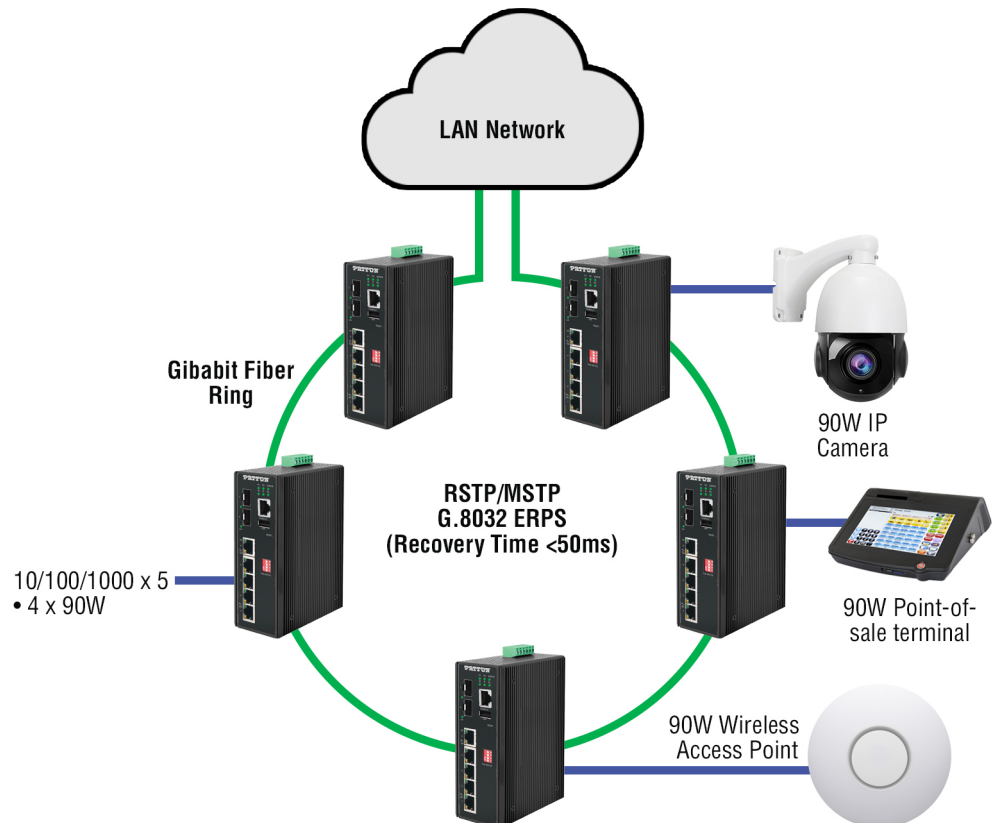## Model FP2005E/BT

The FP2005E/BT is an industrial-grade, 7-port 90W Power over Ethernet switch ideally suited for industrial Ethernet communications over a moderate bandwidth gigabit fiber trunk. Light Layer 3 management enables this switch to provide reliable redundant connectivity throughout your network.

- *Supports 4*10/100/1000Tx IEEE 802.3bt compliant with 90W port, 1*10/100/1000Tx RJ45 port, and 2*100/1000 SFP slots*
- *Network redundancy support: RSTP/ MSTP, and G.8032 ERPS v1/v2 (recovery time <50 ms)*
- *Configuration: web console, Telnet, CLI command*
- *Supports IGMP v1/v2/v3, up to 1024 groups*
- *Supports QoS (IEEE 802.1p) and CoS/ToS*
- *Supports IEEE 802.1Q VLAN, SNMP v1/v2c*
- *Power input: 48–55 VDC in 6-pin terminal block*
- *Reverse polarity protection*
- *IP30 protection*
- *DIN-rail or wall mountable*
- *Operating temperature ranges:*
  - *STD: 14 to 149°F (-10 to 65°C)*
  - *EOT: -40 to 167°F (-40 to 75°C)*

Patton's FP2005E/BT is a 7-port industrial Gigabit PoE++ managed Ethernet switch embedded with 4*10/100/1000Tx Ethernet ports that support IEEE802.3at/af/bt for a maximum of 90W/port, 1*10/100/1000Tx gigabit Ethernet port, and 2*100/1000 dual rate SFP slots for fiber connection. The FP2005E/BT is a fully manageable Light Layer 3 Ethernet switch that is pre-loaded with a user-friendly web management console design. It supports the ring network redundancy function using the market's open standard ITU-T G.8032 Ethernet Ring Protection Switch (ERPS) protocol that has a <50ms network recovery time. The advanced network filtering and security functions, such as IGMP, VLAN, QoS, SNMP, RMON, Modbus TCP, and 802.1X/HTTPS/SSH/SSL increase determinism and improve network management for remote SCADA systems or control networks.

The FP2005E/BT is IP30 rated and DIN-rail mountable. It also provides high EFT and ESD protection for industrial networking applications, such as power/utility, water wastewater, oil/gas/mining, factory automation, security surveillance, ITS and any other outdoor or harsh environment.

Visit patton.com for more information.

LAN Network

Gibabit Fiber Ring

RSTP/MSTP G.8032 ERPS (Recovery Time <50ms)

10/100/1000 x 5 • 4 x 90W

90W IP Camera

90W Point-of-sale terminal

90W Wireless Access Point

PATTON®
let's Connect!™

Specifications

Technology

- **L2 Switching**: Port/MAC/Protocol/IP Subnet-based VLAN, GARP/GVRP, Loop Guard, Link Aggregation static/LACP, BPDU guard, Error disable recovery, IGMP snooping v1/v2/v3, MLD snooping v1/v2, IGMP filtering, IPMC throttling / filtering leave proxy, DHCP snooping, G.8032 v1/v2

- **L3 Switching**: DHCP option82, static routes

- **QoS**: 802.1p Queueing, Input priority mapping, Storm control for Unicast/Multicast/Broadcast, Port/Queue/ACL policer, Port egress shaper, Queue egress shaper, DiffServ (DSCP), Tag remarking, Scheduler mode

- **Power Saving**: ActiPHY, PerfectReach, IEEE 802.3az EEE power management

- **Network Redundancy**: STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50 ms)

- **Configuration**: Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3

- **System/Diagnostics**: Dual Image Protection, PING, PING6

Switch Properties

- **Switch Architecture**: Back-Plane (Switching Fabric): 24 Gbps

- **Protocols**: IPv4/IPv6, SNMP v1/v2c/v3, LLDP, LLDP-MED, HTTP, HTTPS, SSHv2 telnet, DHCP client, DHCPv6 client, DHCP server, Port Mirror, DNS client/proxy, IP based Access Filter, ICMPv6, syslog, Time Zone /Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, USB configuration backup/restore, Power lost warning, relay trigger

- **Priority Queues**: 8

- **Processing Type**: Store and Forward

- **Flow Control**: IEEE 802.3x for full duplex mode, back pressure for half duplex mode

- **Transfer Rate**: 14,880 pps for Ethernet port; 148,800 pps for Fast Ethernet port; 1,488,000 pps for gigabit Ethernet port

- **Packet Buffer**: 4 Mbits

- **Jumbo Frame**: 9.6 Kbytes

- **MAC Table Size**: 8K

- **VLAN Group**: 4095

- **IGMP Group**: 1024

Port Interface

- **Ethernet Port**: 5*10/100/1000Base-TX (90W/port for ports 1~4 only); Auto negotiation speed; Full/Half duplex mode; and auto MDI/MDI-X connection

- **SFP Port**: 2*100/1000 SFP slots

- **RS232 Serial Console**: 1*RS232 in RJ45

- **LED Indicators**: System: Power 1, Power 2, Master, Ring, Status, PoE Load (P/L), Ethernet ports: Speed/Link/Active, PoE: On-connected to PD devices, SFP: Link/Active

Protection

- **Network Cable**: 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m); 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m); 1000Base-TX: 4-pair UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)

Mechanical Characteristics

- **Housing**: Metal, IP30 protection

- **Dimensions**: 2.1W x 5.6H x 3.9D in. (54W x 142H x 99D mm)

- **Weight**: Unit: 2.29 lbs (1.04 kg); Shipping: 3.01 lbs (1.37 kg)

- **Mounting**: DIN-Rail Mounting, Wall Mounting
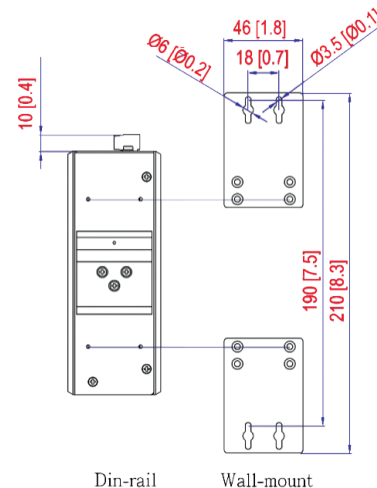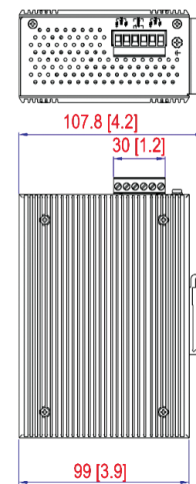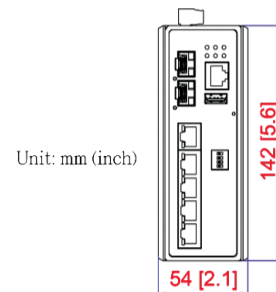
Power Requirement

- **Input Voltage**: 48–55 VDC Redundant Input (53–55 VDC power input for BT PoE PSE)

- **Power Connection**: Removable 6-Contact Terminal Block

- **Relay Contact**: 24VDC, 1A resistive

- **PoE Pin Assignment**: V-, V-, V+, V+ for pin 1, 2, 3, 6; V+, V+, V-, V- for pin 4, 5, 7, 8 *Support Modes: Mode A, Mode B, 4-Pair Mode

- **Overload Current Protection**: Present

- **Reverse Polarity Protection**: Present

- **System Power Consumption**: 10.8W

- **PoE Power Budget**: 240W @48–55VDC

Environmental Limits

- **Operating Temperature**: STD: 14 to 149°F (-10 to 65°C), EOT: -40 to 167°F (-40 to 75°C)

- **Storage Temperature**: -40 to 185°F (-40 to 85°C)

- **Ambient Relative Humidity**: 5 to 95%, (non-condensing)

Regulatory Approvals

- **EMI**: FCC Part 15 Subpart B Class A, CE EN55032/EN61000-6-4 Class A

- **EMS**: CE EN55035/EN61000-6-2 Class A, IEC61000-4-2,3,4,5,6,8

- **Free Fall**: IEC60068-2-32

- **Shock**: IEC60068-2-27

- **Vibration**: IEC60068-2-6

- **Green**: RoHS Compliant

- **Certifications**: FCC, CE

Unit: mm (inch)

142 [5.6]

54 [2.1]

107.8 [4.2]

30 [1.2]

99 [3.9]

46 [1.8]

Ø6 [Ø0.2]

18 [0.7]

Ø3.5 [Ø0.1]

10 [0.4]

190 [7.5]

210 [8.3]

Din-rail   Wall-mount

Specifications subject to change without notice