

## ES1645-51

### 16-port Gigabit PoE+ with 4 Combo SFP Rack-mount Web Smart PoE Switch



- 16-Port 10/100/1000BaseT(X) PoE+ with 4 Combo SFP Open Slots
- IEEE 802.3at, up to 30W per port
- Maximum 250W power consumption
- Web-based Configuration and Management
- 8K MAC, 802.1Q VLAN, QoS, Link Aggregation, RSTP, IGMP Snooping and IEEE 802.1X
- Up to 9K Jumbo Frame

### Key Features

#### IEEE 802.3at Power over Ethernet (PoE) ports

ES1645-51 features 16 IEEE 802.3at Power over Ethernet (PoE) ports supplying up to 30 watts per port. This product can convert standard 100~240V/AC power into low-voltage DC that runs over existing LAN cable to power up IEEE 802.3at compliant network accessories. It also features PoE awareness to verify whether the network device receive power is IEEE 802.3at compliant, or only the data will be sent through LAN cable. By adding ES1645-51 to existing networking, installing networking products such as Access Points and IP cameras can be easily managed and set up. Wireless device deployments are easily located with available power outlets and network administrators don't need to use heavy AC power adapters anymore.

#### 4 Combo SFP Open Slots

ES1645-51 supports 4 Combo SFP open slots to uplink to servers, storage, or other switching devices for long loop reach applications.

#### High-Speed Networking and Jumbo Frames Support

ES1645-51 provides an excellent solution for expanding your Gigabit network. By Gigabit speed, this product provides high flexibility and high bandwidth connectivity to servers, workstations and other attached devices. It enables you to save time transferring large files. In addition, it also supports Jumbo Frames 9.6K to improve network utilization of large file transfers.

### Exceptionally Smart

The ES1645-51 features management interface that can be managed through Web Browser and it provides Smart features that are ideal for network applications and basic monitoring tools to improve network efficiency. Through a Web-based interface, an administrator can set up VLANs to segregate traffic, QoS to prioritize mission-critical data, RSTP to avoid network loop, link aggregation to create fat traffic pipelines, bandwidth control to limit traffic load and IEEE 802.1X to secure port access on your network. All of these features offer extra protection on the network edge.

### Advanced Security

ES1645-51 supports specific IP Addresses filtering for every port, and then only identifiers have the privilege to pass through the specific ports. On port access control, the switch also supports IEEE802.1x port authentication.

### Specifications

<b>Standards</b>	Ethernet: IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX, IEEE 802.ab 1000BaseT, IEEE 802.3z 1000BaseSX/LX IEEE 802.3x Full-duplex and Flow Control IEEE 802.1Q VLAN IEEE 802.3ad Link Aggregation Control Protocol IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1p Class of Service IEEE 802.1X Port-based Network Access Control IEEE 802.3at Power Over Ethernet (PoE+)
<b>Features</b>	Number of Ports: 16 10/100/1000M RJ-45 Ports: 16 ports with IEEE 802.3at PoE+ Gigabit SFP: 4, Combo with 4 10/100/1000M RJ-45 MAC Address: 8K Buffer Memory: 500 Kb Jumbo Frames: 9.6 KB Transmission Method: Store and Forward
<b>Smart Features</b>	VLAN: 16, VLAN ID: 1~ 4094 Rapid Spanning Tree Protocol IGMP Snooping V1&V2 LACP/Trunk: up to 8 groups Quality of Service: up to 4 queues, 802.1p PoE Control: PoE Port Enabled/Disable, Status IEEE 802.1X, Source IP Filter Storm Control: Broadcast, Multicast, Flood Unicast



	Port: Port State, Speed/Duplex, Flow Control Rate Limiting, Port Mirroring Management: Web GUI, SNMP, Password protection Configuration upload/download, Firmware upgrade
<b>Filtering/Forwarding Rates</b>	1000Mbps port – 1,488,000pps 100Mbps port - 148,800pps, 10Mbps port - 14,880pps
<b>Transmission Media</b>	10BaseT Cat. 3, 4, 5 UTP/STP, 100BaseTX Cat. 5 UTP/STP 1000BaseT Cat. 5E UTP/STP
<b>Led Indicators</b>	Per Port: Link/Act; Per Unit: Power
<b>Power Input</b>	100~240V/AC, 50~60Hz
<b>Power Output</b>	53V /DC Per Port Output
<b>Power Consumption</b>	250 Watts (Max)
<b>Dimensions</b>	44 x 440 x 331 mm (H x W x D)
<b>Weight</b>	4.6 kg
<b>Operating Temperature</b>	0 to 40°C
<b>Storage Temperature</b>	-20 to 90°C
<b>Humidity</b>	10 to 90% RH (non-condensing)
<b>Certifications</b>	FCC Class A, CE

