



# IES2000-T SERIES

Layer-3 Managed 10G Industrial Switch







Varied Service Characteristics Versatile IPv6 Solution Complete Security Mechanism



Wide-range working temperature 800,000 hours MTBF



Advanced Hardware Architecture and Industry-leading Port Density

#### **Product Characteristics**

Lightning protection level: 6KV.IP40 protection, industrial fanless thermal conduction.

Supports dual 220V wide-voltage industrial power input (DC model is optional). Business ports, management ports, power input terminals, and relay alarm output are located on the front panel, complying with industrial operation specifications.

Supports STP/EAPS/ERPS, Supports node self-healing time less than 5 milliseconds, and ring network self-healing time less than 50 milliseconds (typical value). Supports layer-3 static routing, dynamic routing (RIP, OSPF), Virtual Router Redundancy Protocol (VRRP). Supports virtual stacking.

Supports to form a self-healing ring between any two ports, and supports multiple independent self-healing rings. Provides Data Leakage Prevention (DLP), to quickly recover from network failures.

Supports simple network management protocol (SNMP) and cloud-based operating platform (Pallas). The mean time between failures (MTBF): more than 800,000 hours.

## **Product Overview**

BDCOM IES2000-T series, based on the bran-new high-performance hardware and BDROS software system of BDCOM's independent intellectual property rights, supports rich Layer-2/Layer-3 routing and industrial ring network protocols. IES2000-T series adopts die-casting aluminum shell and standard 19-inch rack-mounted installation, and provides redundant wide-voltage industrial power supplies. With the reliable industrial Ethernet ring technology, its hardware-based algorithm can ensure node self-healing time less than 5 milliseconds, and the ring network self-healing time less than 50 milliseconds (typical value).

BDCOM IES2000-T series, with fanless design, low power consumption, wide temperature and wide voltage in compliance with strict industry standards, can adapt to harsh environment requirements for EMC, anti-vibration and shock-proof capabilities, IP40 protection level. IES2000-P series can be widely used in energy, transportation, industrial production, environmental protection, military industry.

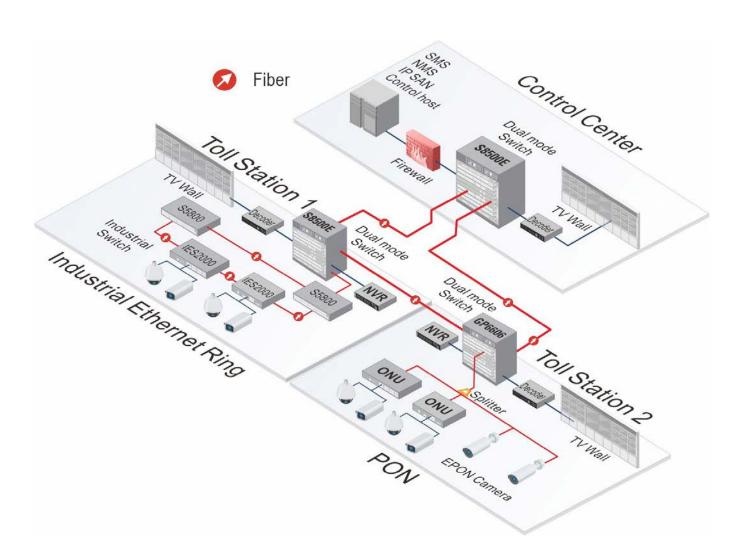
## **Model Lists**



#### IES2000-TU16T4S4X

- 16-Port Gigabit RJ45
- 4-Port Gigabit SFP4-Port 10G/GE SFP+

# **Application Diagram**



# **Product Specifications**

Item		IES2000-TU16T4S4X
Gigabit Interfac	RJ45	16
algabii iiileriac	SFP	4
10G/GE SFP+		4
Console (RJ45)		1
Backplane (Gbps)		128
Forwarding rate (Mpps with 64 bytes)		90
Chassis	Dimensions (WxDxH)(mm)	170x140x100
	Weight (KG)(empty)	2.2
Package	Dimensions (WxDxH)(mm)	300x195x145
	Weight(KG)	2.4
Power consumption	no-load	13.5W
	full-load	31W
Power supply		Dual AC or DC 100~240V
Total output BTU (1000BTU/H=293W)		105.8
MTBF(H)		>800,000
Forwarding mode		Store-forward
Flash (MB)		16
DRAM (MB)		256
MAC		16K
Buffer size(Mb)		12
Jumbo frame		9K
Total SVI		64
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### **Features**

#### VLAN

• 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, Voice-VLAN

#### **Spanning Tree**

- 802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP)
- BPDU guard, root guard and loopback guard

#### **Multicast**

 IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter

#### ΙP

- · Static route, RIP, OSPF
- IPv4/v6 dual stack

#### lpv6

- ICMPv6, DHCPv6, ACLv6 and Telnet
- IPv6 neighbor discovery, Path MTU discovery
- · MLD V1, MLD snooping
- IPv6 Static Routing, RIPng, OSPEv3
- Manual tunnel, ISATAP tunnel,6 to 4 tunnel

#### QoS

 CAR, HQoS, MAC/IP/TCP/UDP/ VLAN/ COS/ DSCP/ TOS based QoS, 802.1P/ DSCP priority relabeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED, flow monitoring and traffic shaping

#### Security

- Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky
- DAI & IP source guard, PPPoE+,
- IEEE 802.1x, AAA, Radius and BDTacacs+
- · L2/L3/L4 ACL flow identification and
- Port security, IP+MAC+port binding filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc.
- Broadcast/multicast/unknown unicast storm-control
- MD5, SHA-256, RSA-1024, AES256, etc.

#### Virtualization

- •Support BDCOM Virtual Stacking System (BVSS)
- ·up to 16 stacking units

#### **DHCP**

- •DHCP server/relay/client
- •DHCP snooping/option82

#### Reliability

- Static/LACP link aggregation, Interface backup
- EAPS and ERPS
- ISSU uninterrupted system upgrade
- BVSS, ups to 16-units per stack
- VRRP
- UDLD

#### Management

- Console, Telnet, SSH v1/2, HTTP, HTTPS, SNMP v1/v2/v3, RMON
- TFTP, FTP, SFTP
- · NTP
- · ZTP
- · SPAN, RSPAN

#### **Environment**

- Operating temperature/ humidity: -40~85°C,10%-90% non-condensing
- Storage temperature/humidity: -40~85°C, 5%-95% non-condensing

#### **Accessories**

 Power cord, rackmount kits, console cable

# **Ordering Information**

Item	Description
IES2000-T Series	
IES2000-TW8S8P	16-Port Gigabit RJ45 + 4-Port Gigabit SFP + 4-Port 10G SFP+ L3-lite Stackable Managed Industrial Switch (supports industrial ring protection protocol, operating temperature -40~85°C;IP40; supports 16-unit virtual stacking, industrial universal AC/DC power input, excluding power cable, Din-rail installation)

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