

RUGGEDIZED SERIES • L2+ MANAGED INDUSTRIAL POE SWITCH

AL-IPG512-4F

8-P Gigabit + 4-SFP(100/1G) slot Industrial Managed Switch, w/ 8-Port 802.3at PoE (240W)

The Antek Labs AL-IPG512-4F is an Layer-2+ managed industrial switch built for the cabinet and the field. It delivers 52Gbps (non-blocking) non-blocking switching with store-and-forward forwarding at 20.83Mpps, integrated IEEE 802.3af/at PoE sourcing, and fanless, wide-temperature operation on a wide DC input for continuous duty in surveillance, ITS, rail, energy and industrial-automation networks. A full L2+ feature set — VLAN, LACP, RSTP, ERPS sub-20 ms ring recovery, IGMP multicast, ACL, QoS and SNMP/Web/CLI management — is included.

KEY FEATURES

- Non-blocking store-and-forward switching at full wire speed across all ports.
- Gigabit RJ45 and SFP fiber uplink combination for flexible copper/fiber network builds.
- Integrated PoE PSE — 802.3af/at — with per-port power management and priority.
- L2+ management: 4K VLAN, QinQ, GVRP; LACP link aggregation; RSTP and ERPS (<20 ms) ring protection.
- IGMP/MLD multicast, ACL, rate-limiting and QoS; SNMP v1/v2c/v3, Web, CLI and NTP.
- Broadcast-storm suppression and port mirroring for diagnostics.
- Fanless aluminium housing with wide-temperature operation and anti-reverse-polarity DC input.
- DIN-rail or desktop mounting; industrial EMC, surge and lightning protection.

SWITCHING

Port configuration	8-P Gigabit + 4-SFP(100/1G) slot Industrial Managed Switch, w/ 8-Port 802.3at PoE (240W)
Standards	IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x
Forwarding mode	Store-and-forward (full wire speed)
Switching capacity	52Gbps (non-blocking)
Forwarding rate (64 byte)	20.83Mpps
MAC address table	8K
Packet buffer	6M
Jumbo frame	9.6K

POWER OVER ETHERNET

PoE standard	IEEE 802.3af/at
PoE ports	Per port configuration above
Max power per port	240 W
PoE pinout	1/2 (+), 3/6 (-), Mode A
PoE management	Per-port on/off, status, priority

L2+ MANAGEMENT

Link aggregation	LACP, Static aggregation, Max 7 aggregation groups and 8 ports per group.
------------------	---

Port mirroring	Bidirectional data mirroring based on port
DHCP / management	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay

POWER

DC input	DC44-57V (anti-reverse), Phoenix terminal
Redundant input	Dual V+/V- redundant DC feed
External PSU	Optional Antek industrial DIN-rail PSU (ordered separately)

PHYSICAL

Dimensions (L×W×H)	165*148*54mm
Weight	1.1kg/ 1.3kg
Housing	Aluminium alloy, fanless
Mounting	Desktop, 35mm DIN Rail

ENVIRONMENTAL & PROTECTION

Operating temperature	-40~+80°C, 5%~90% RH non-condensing
Storage temperature	-40 °C to +85 °C, 5-95 % RH
Ingress protection	IP40
Surge / lightning	6KV 8/20us (8/20 μs)

EMC & IMMUNITY

ESD (IEC 61000-4-2)	±8kV contact discharge, ±15kV air discharge
EFT/Burst (IEC 61000-4-4)	Power cable: ±4kV, data cable: ±2kV
Surge (IEC 61000-4-5)	Power cable: CM±4kV/ DM±2kV, data cable: ±4kV
Radiated RF (IEC 61000-4-3)	10V/m (80-1000MHz)
Conducted RF (IEC 61000-4-6)	10V(150 kHz- 80 MHz)
Power-freq magnetic (IEC 61000-4-8)	100A/m, 1000A/m, 1s
Pulsed magnetic (IEC 61000-4-9)	1000A/m
Damped oscillation (IEC 61000-4-10)	30A/m 1MHz
Common-mode (IEC 61000-4-16)	30V, 300V, 1s
Mechanical (IEC 60068)	Vibration, shock and free-fall tested (IEC 60068-2-6/-27/-32)

COMPLIANCE & WARRANTY

Regulatory	CE · CE/LVD (EN 62368-1) · FCC Part 15 Class A · RoHS
Warranty	5 years, lifetime support

ORDERING INFORMATION

AL-IPG512-4F 8-P Gigabit + 4-SFP(100/1G) slot Industrial Managed Switch, w/ 8-Port 802.3at PoE (240W).

© Antek Labs LLC · www.anteklabs.com · support@anteklabs.com. Specifications subject to change without notice. Antek Part Code is the sole product identifier.