

RUGGEDIZED SERIES • INDUSTRIAL POE SWITCH

AL-IPG404-2F

4-P Gigabit 802.3at PoE + 2-100/1000M SFP Industrial Gigabit Flat type Switch

The Antek Labs AL-IPG404-2F is an industrial PoE switch built for the cabinet and the field. It delivers 12Gbps (non-blocking) non-blocking switching with store-and-forward forwarding at 8.93Mpps, 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.

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.
- 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	4-P Gigabit 802.3at PoE + 2-100/1000M SFP Industrial Gigabit Flat type Switch
Standards	IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x
Forwarding mode	Store-and-forward (full wire speed)
Switching capacity	12Gbps (non-blocking)
Forwarding rate (64 byte)	8.93Mpps
MAC address table	2K
Packet buffer	2M
Jumbo frame	9.2K

POWER OVER ETHERNET

PoE standard	IEEE 802.3af/at
PoE ports	Per port configuration above
Max power per port	30 W
PoE pinout	1/2 (+), 3/6 (-), Mode A
PoE management	Per-port on/off, status, priority

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)
Power consumption	Standby<5W, full load<60W

PHYSICAL

Dimensions (L×W×H)	119*100*30mm
Weight	0.4kg/ 0.5kg
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-IPG404-2F 4-P Gigabit 802.3at PoE + 2-100/1000M SFP Industrial Gigabit Flat type Switch.

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