

RUGGEDIZED SERIES • INDUSTRIAL POE MEDIA CONVERTER

AL-IMC3011FP

1-P 10/100/1000Base-T to 1-P 100/1000Base-X SFP slot Industrial PoE Media Converter

The Antek Labs AL-IMC3011FP is an industrial fiber media converter that bridges copper Ethernet to an SFP fiber uplink for hardened, long-reach connectivity. It sources IEEE 802.3af PoE to the copper port(s) to power cameras, APs and IoT endpoints over the same cable. Fanless, aluminium-housed and DIN-rail mountable, it runs across a wide DC input and wide-temperature range for outdoor cabinets and industrial enclosures.

KEY FEATURES

- Transparent copper-to-fiber conversion with store-and-forward switching and auto-negotiation.
- SFP fiber uplink accepts multi-mode or single-mode optics for reach from 550 m to 120 km.
- Integrated PoE PSE — 802.3af — powering the endpoint over the copper port.
- Fanless aluminium housing, wide DC input, wide-temperature operation.
- DIN-rail or desktop mounting with industrial EMC and surge protection.

CONVERSION

Port configuration	1-P 10/100/1000Base-T to 1-P 100/1000Base-X SFP slot Industrial PoE Media Converter
Standards	IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x
Forwarding mode	Store-and-forward (full wire speed)
Switching capacity	10Gbps (non-blocking)
Copper reach	10/100/1000BASE-T, auto MDI/MDI-X, Cat 5e ≤100 m
Fiber uplink	SFP — MM 550 m/2 km · SM 20/40/80/120 km (module-dependent)

POWER OVER ETHERNET

PoE standard	IEEE 802.3af
Max power per port	15.4 W
PoE pinout	1/2 (+), 3/6 (-), Mode A

POWER

DC input	DC12-48V (anti-reverse)
Power consumption	Standby<3W, Full load<5W

PHYSICAL

Dimensions (L×W×H)	92*88*32mm
Weight	0.3kg / 0.4kg
Housing	Aluminium alloy, fanless
Mounting	Desktop, 35mm DIN Rail

ENVIRONMENTAL & PROTECTION

Operating temperature	-40~+75°C, 5%~90% RH Non condensing
Storage temperature	-40 °C to +85 °C
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(150kHz~80MHz)
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-IMC3011FP 1-P 10/100/1000Base-T to 1-P 100/1000Base-X SFP slot Industrial PoE Media Converter.

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