IMC-150LPC

Hardened PoE Long Reach Ethernet Extender via Coaxial



Features

- Delivers data up to 300 m (985 ft) at 100Mbps with power via coaxial cable
- Extends power >15.4 watt power with 300 m (985 ft) long coaxial cable
- Railway Trackside EN 50121-4 EMC certified
- Features copper-based Link Fault Pass Through (LFPT)
- Supports Remote PD power ON/OFF by disabling/enabling port via management switch

Introduction

Advantech's IMC-150LPC-M and IMC-150LPC-R are designed to be used as a pair. IMC-150LPC-M is designed for use at a central site while IMC 150LPC-R is used at a remote site. Both devices are capable of extending data and power transmission by >15.4W at 300 m (985 ft) using extant coaxial cables. Indeed, this solution converts analogue cables into Ethernet connection cables while saving on installation/digitalization costs. IMC-150LPC-M and IMC-150LPC-R further support PD power-off via a management switch to enable users to control the unit remotely. This series is compliant with EN50121-4 standards for trackside installation and is capable of withstanding electromagnetic interference for rail networks.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x, 802.3at/af
 LAN 10BASE-T/100BASE-TX
 Transmission Distances *Up to 300 meter

Transmission Speed Up to 100 Mbps

Interface

■ **Connectors** 1 x 10/100Mbps RJ-45

1 x 10/100Mbps BNC Female

DIP Switch
 PIN 1 LFPT ON/OFF

PIN 2 (reserved, no function)

• LED Indicators PWR/PoE

P1: LNK/ACT P2: LNK/ACT

Power

Power Consumption *IMC-150LPC-M: 23.5W

■ Power Input 54~57V_{DC}

Power Output *IMC-150LPC-R: >15.4W

• **Connectors** 2P Pluggable Terminal Block, DC Jack

Physical

Enclosure
 IP30, Metal shell with solid mounting kits
 Dimensions (W x H x D) 84 x 80 x 25 mm (3.3 x 3.15 x .984 in)

MountingWal

Protection

Reverse Polarity Present

Environment

Operating Temperature -40 ~ 75 °C (-40 ~ 167 °F)
 Storage Temperature -40 ~ 85 °C (-40 ~ 185 °F)
 Operating Humidity 10 ~ 95% (non-condensing)
 Storage Humidity 10 ~ 95% (non-condensing)

Certifications

Safety
 EMI
 CE, FCC,
 EMS
 EN 61000-4-2
 EN 61000-4-3
 EN 61000-4-4
 EN 61000-4-5
 EN 61000-4-6
 EN 61000-4-8

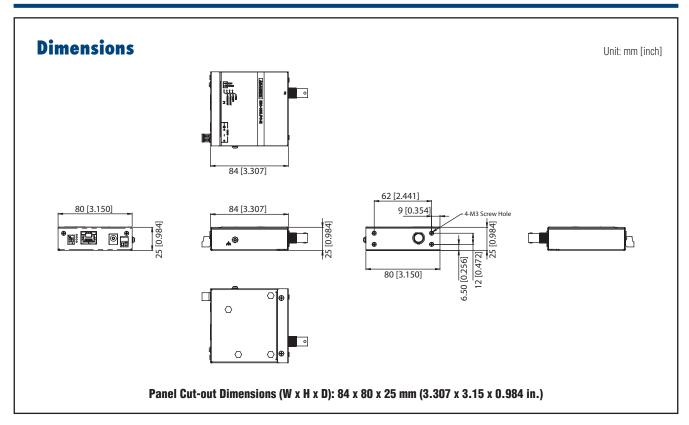
 Railway Trackside
 Shock
 LVD EN62368
 EN 61000-4-2
 EN 50121-4
 Shock

■ Shock IEC 60068-2-27
■ Freefall IEC 60068-2-32
■ Vibration IEC 60068-2-6

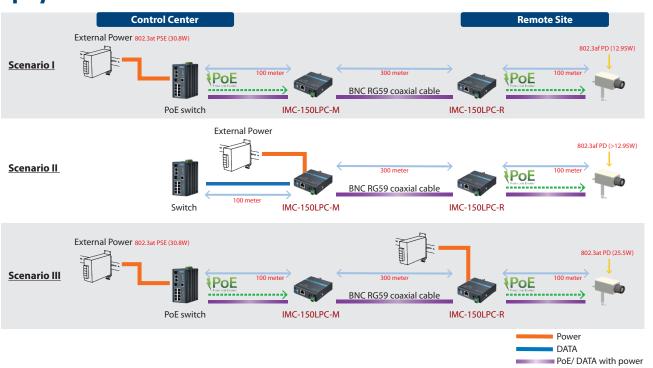
Patent http://www.advantech.com/legal/patent

Ordering Information

IMC-150LPC-M Industrial Long Reach PoE+ Extender, Master
 IMC-150LPC-R Industrial Long Reach PoE+ Extender, Remote
 IMC-150PS-120 Power Adapter, 100-240V,54V, 120W (Sold separately)



Deployment



Note1: Advantech uses RG59 coaxial cables of Belden's 551945 010100, with the DCR conductor resistance value of 15 Ohm/1000ft to conduct tests. The transmitted output power and distance depends on resistance value of coaxial cables installed at field sites.

Note2: The power consumption and power output of IMC-150LPC-M depend on the PD load and the coaxial cable quality and length.

Mouser Electronics

Authorized Distributor

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Advantech:

IMC-150LPC-M IMC-150LPC-R