

# PowerLine Module

GE LAN | RS-485 | DI/DO | Industrial IoT | ITU-T G.hn

## PM-1540

As per ITU-T standards, Comtrend's Power Module series utilizes G.hn technology to provide a wired, secure, bounded latency, high speed, and real-time connection. With Gigabit LAN port(s), RS-485 and DI/DO interfaces, Power Modules can collect and transfer data over power lines from power meters (or EVSE) and IoT devices to replace Ethernet cable wiring/unstable wireless connections of existing field applications. It enables significant cost savings on installation, maintenance and wiring materials.

The Power Module series works within an electric wire domain of up to 250 nodes: enabling large scale deployment, ideal for EV charging station (EVSE) backend communication, smart parking and data centers.

From an installation point of view, the Power Module design provides a terminal block (for power wire insert), mounting holes and a DIN rail mounting kit option.



### KEY FEATURES

- ❑ Data and power on a single wire, reuses existing wiring
- ❑ Up to 250 nodes in one power group connection
- ❑ Up to 16 levels of repetition
- ❑ Reaches up to 700 meters in field tests
- ❑ Automatic Self-Healing - node to node will find the best path via software
- ❑ Plug and Play
- ❑ FEC improved reliability and performance

# PM-1540

GE LAN | RS-485 | DI/DO | Industrial IoT | ITU-T G.hn

## SPECIFICATIONS

HARDWARE	
Model	PM-1540
Flash	SPI 8MByte
Interfaces	1 x DI/DO, 1 x RS-485, 4 x GE LAN Port
Ethernet	IEEE 802.3/802.3u/802.3ab 10/100/1000 BASE-T, auto-sense Support MDI/MDX
Button	1 x RESET
LED	Power, G.hn Link quality, LAN
POWER LINE COMMUNICATION	
ITU-T	ITU-T G.9960 & G.9961 compliant
Frequency Band	G.hn 50MHz MIMO Boost
POWER REQUIREMENT	
AC Input	100-240 VAC, 50Hz/60Hz, 3 wires for terminal
Power Consumption	< 4.5W
MANAGEMENT	
Local WebGUI	HTTP Web-based
ACS	TR-069 over IPv4/v6 dual stack (Optional)
MODULATIONS	
Modulation and Coding Techniques	OFDM, FEC
DIMENSIONS	
W/O Casing	115mm (H) x 65 mm (W) x 21 mm
With Casing	120mm (H) x 70 mm (W) x 26.5 mm
ENVIRONMENT & PHYSICAL	
Certification	CE, BSMI
Temperature Range	Operating: 0°C ~ 65°C (-40°C ~ 65°C as an option) Storage: -25°C ~ 65°C (-13°F ~ 149°F)
Humidity (non-condensing)	Operating: 10 ~ 90% RH, non-condensing Storage: 5 ~ 90% RH, non-condensing



### Warning

- Disconnect the PLC from the power source before servicing
- Do NOT open the casing
- For indoor use only
- Do NOT use near water

## COMTREND

**Taiwan:**  
3F-1, No.10, Lane 609, Chongxin Road, Section 5,  
Sanchong Dist, New Taipei City 241405, Taiwan  
Tel: +886-2-29998261

**India:**  
446 Sector 8, IMT Manesar, Gurugram,  
Haryana 122051, India  
E-mail: India.admin@comtrend.com

**USA & Canada:**  
530 Technology Dr. Suite 100, Irvine,  
CA 92618, USA  
Tel: +1-949-753-9640

**Spain:**  
C/ Proción, 7 portal 2, 1° C - Edif. América II  
28023 Madrid, Spain  
Tel: 34-917990403

**Czech Republic:**  
TOKOVO Jankovcova 1518/2, 170 00, Prague 7,  
Czech Republic  
Tel: +420-266-782040

Maximum performance, actual data rates, and coverage will vary depending on network conditions and environmental factors. Product specifications and design are subject to change without notice.