PE.**AMI Gateway**

Product Sheet

THE PE.AMI GATEWAY

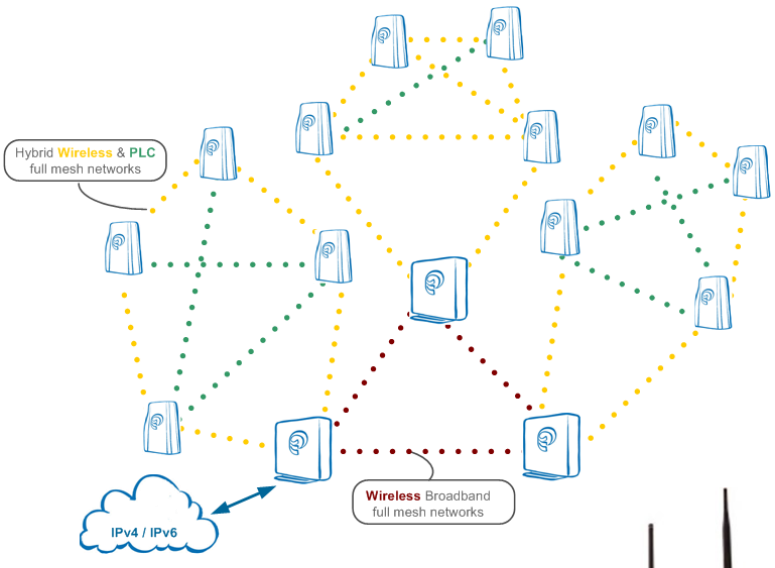
The PE.**AMI Gateway** is the **central and wireless element of the PE.AMI IPv6/6LoWPAN network**, acts as its coordinator/concentrator and serves as central collecting point for data. It is embedded into a rugged enclosure (IP67 rated), allowing outdoor installation. Radio communication is based on 6LoWPAN protocol and uses IPv6 addressing.

FEATURES

PE.**AMI Gateways** provide **pioneering dual narrowband (sub GHz 6LoWPAN) and broadband (2.4/5.4/5.8GHz) integrated network technologies.** This allows setting up broadband wireless networks that can serve as backhaul for the narrow band networks (6LoWPAN, ZigBee, etc.) as well as for any metropolitan wireless broadband network for applications such as cameras, traffic signals or WiFi hotspots – therefore offering a unique and impressive flexibility.

Periodic readings of the data from Nodes managed by the PE.**AMI Gateway** can happen in "push" mode - receiving data spontaneously sent by network elements - or in "pull" mode - through cycling polling. For any measure and data acquired, date and time are recorded (TimeStamp feature). The PE.**AMI Gateway** has an internal flash memory for data storage, used in case of temporary unavailability of the network.

Exchanged data with PE.AMI Nodes and management software are saved in an SQL database within the internal storage allowing to manage and save a considerable amount of information locally. Data can also be saved on removable memory cards, thus granting absolute security through integrated encryption.



The PE.AMI Network

The PE.AMI Gateway

FUNCTIONS

- No technological limits to the **number of PE.AMI Nodes** managed with Paradox Engineering's 6LoWPAN wireless/PLC sub-GHz full mesh network
- Communicates with the network management software (PE.**AMI** Central Management System or other third party software) through the **embedded web server**
- **Manages and routes** all messages from the network management software down to the PE.**AMI** Nodes and back (from/to PE.**AMI** CMS software or other third party software)
- Manages **multiple narrowband networks**: the PE.**AMI Gateway** can manage various sub-Giga Hz wireless network layers based on different frequencies at the same time
- Manages **multiple broadband networks**: the PE.**AMI Gateway** can manage various WLAN network layers based on different frequencies at the same time
- Manages latest generation of mobile networks
- Offers **satellite connection, TCP/IPv4 connectivity**
- Allows the interoperability with third party applications since it is open standard based

The PE.**AMI Gateway** features **an embedded web interface** allowing direct interaction including **configuration and management tools** for both the narrowband and the broadband networks.

The web interface also allows software updates of the narrowband Nodes and the Gateways.

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TECHNICAL SPECIFICATIONS

Narrowband networks	
Radio protocol	802.15.4 e/g—6LoWPAN
Radio frequencies	868 MHz; 915 MHz; 920 MHz
Radio modulation	GFSK
Data rate	50 Kbit/s
Max output power	From -20 dBm to + 27dBm (upon regulation)
Receive sensitivity	-110dBm
Data transmission	Bi-directional
Data encryptions	AES—128bit

Broadband networks	
Radio modules	Up to 3 available slots
Radio protocol	802.11 a/b/g/n/s
Radio frequencies	2,4GHz / 5,4GHz / 5,8GHz
Radio modulation	BPSK, DBPSK, QPSK, DQPSK, 16-QAM, 64-QAM
Data rate	1 ÷ 54 Mbit/s
Max output power:	200mW (+23dBm) – 802.11 a/n/s; 100mW (+20dBm) – 802.11 b/g
Data transmission	Bi-directional
Data encryptions	WPA2—AES—256bit

Ethernet Interface	
Communication port	10/100 Mb base-TX Ethernet
Wiring	Cat5E shielded cable
Wiring distance	100 m maximum
Connector	Outdoor industrial RJ45

Power supply
85 ÷ 265 VAC 50/60 Hz
12/24 VDC
Power consumption: 5W max (may vary upon configuration)

Compliance
CE-ETSI / UL-FCC / UL-ARIB

Environmental	
Case protection	IP67, resistant to oils/greases/fuels, diesel, paraffin/ozone
Case material	rugged metal
Operating temperature	-30°C ÷ +70°C
Dimensions	270 x 240 x 82 mm
Weight	2.8 Kg

ORDER INFORMATION

Product name	**EAN13 Barcode Number**
PE.AMI.GW.TBO.868-5-2	0701142822740
PE.AMI.GW.TBO.920-5-2	0701142822610