

meshnet+ Master Gateway

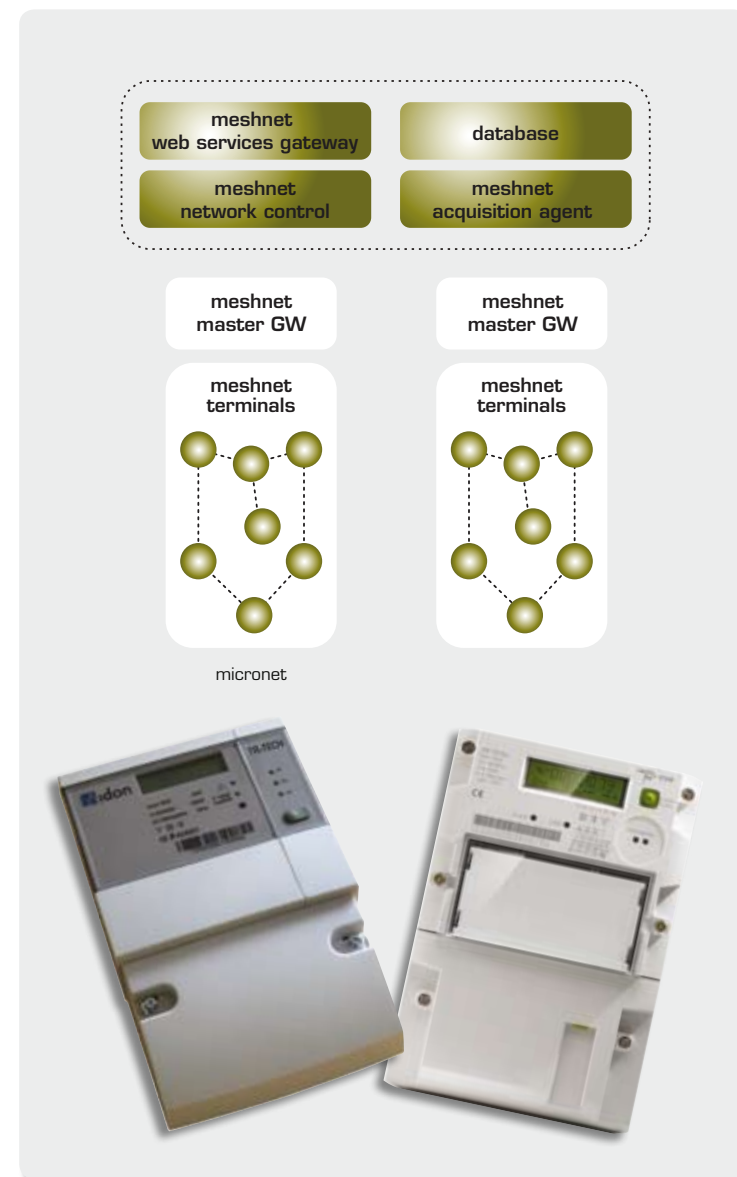
General description

Meshnet Master Gateway is the link between a meshed Micronet and Meshnet Network Control. A master gateway typically utilizes GPRS to interact with Network Control. An individual Meshnet Master Gateway is able to handle up to 100 Meshnet Standard Terminals in one Micronet.

Meshnet Master Gateway is firmware residing in customized hardware or in a generic modem. Integration in a number of electricity meters is available.

Special features

- Handles logical and dynamic addressing within a Micronet
- Time of day broadcast service
- Multiutility support, Wireless MBUS option board
- Remote application upgrade broadcast service
- Transparent access protocol allows for several types of access communication
- Easy to integrate in legacy systems
- Communication redundancy possible with several adjacent Meshnet Master Gateways



Product data

Property/function/components	Value	Comment
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GENERAL

Meter support	Customization	Landis + Gyr, Aidon
CPU	Renesas M16C	
Flash	512K onboard + 1024kB serial data flash	
RAM	32K	
E ²	32K	
RTC	Dallas	
Power backup	SuperCap	RTC 7 days

I/O

GSM/GPRS/3G-modem	Optional	Compliant to supplier specification
Relay Out	6A 230VAC	
Antenna interface	SMB	
Wireless MBUS	EN 13757-4	Optional

RADIO / MESH

Radio transceiver	Chipcon 1021	
PA	Up to 50 mW	
Filter	SAW filter	
Oscillator	TCXO	
Radio frequency	869.400 - 869.650MHz	50 Hz channel width (5 virtual channels)
Modulation technique	(G)FSK/NRZ/Manchester	
Link bandwidth	4800 bits/s (datarate)	9600 bits/s OTA
Range, free sight (antenna height 2m) (20% PER) (pifa antenna)	Up to 1800 m	A network should be planned with a maximum distance of 400 m between nodes
Routing	AODV	IETF RFC 3561
Link layer	LBT, ALL	Link Quality, algorithm for quality evaluation of link over time based on link budget and TX/RX statistics

POWER SUPPLY & POWER CONSUMPTION

Power	1-3x230VAC/DC/	
Power consumption (Rx mode)*	~ 0,5W primary side	Note value is approximation
Power consumption (Tx mode)*	~ 1,0W primary side	Note value is approximation
Output power radio	Max 50 mW	

COMPLIANCE

Compliance radio	EN 300 220 - 3	
Compliance EMC; Emission	EN 301 489 - 3	
Compliance EMC; Immunity	EN 301 489 - 3	
Compliance LVD	EN 61010 - 1	

MMI

LED	2 green, 1 yellow	
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