

WiSenMeshWAN: SmartGateway & Mini Wireless Monitoring System



SmartGateway Mini

WiSenMeshWAN SmartGateway Mini is a mini USB SmartGateway for WiSenMeshWAN sensor nodes. It manages the scheduling of the connected sensors and reads data from the node and transmits it to the local data server over USB connection. Locally stored data can be pushed to the Wisen cloud or imported immediately to the monitoring software. The SmartGateway Mini is directly powered from the USB connection.

SmartGateway Mini Features

- WiSenMeshWAN control unit
- USB A connector
- Designed for offline local PC connectivity
- No need for external power

SmartGateway

WiSenMeshWAN SmartGateway is a connection gateway and edge computing data hub for WiSenMeshWAN nodes. It manages the scheduling of the connected sensors and reads data from the node and transmits it to the Wisen data server using the integrated modem. In case of communication failure, data is buffered locally until the communication is restored. The SmartGateway has an internal battery which can last up to 8 months but it can also be powered externally.

SmartGateway Features

- Onboard SD memory card
- COM interface
- Digital interface
- Integrated radio
- Battery life up to 8 months
- External DC solutions
- Central WiSenMeshWAN data hub



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WiSenMeshWAN: SmartGateway & Mini

	SMARTGATEWAY MINI	SMARTGATEWAY
BASICS		
Primary DC Power	5VDC via USB	4 x ER34615 battery
Battery Connection		Standard Aluminium Battery Holder
Battery Life Expectancy	-	Internal power only - 7 days @ 1 minute (always on), 8 months @ 1h intervals. (extendable with DTU to 1.5 years) External AC/DC - Unlimited / Dependant on secondary power
Secondary DC Power	-	7V ~ 32VDC (Min. Current \geq 2Amp) (WiSen 110~240VAC to 12VDC adaptor, WiSen M002 Battery unit, WiSen M101 Solar Unit & 15W PV panel)
Mobile Network Stop Voltage	-	\geq 2.65VDC
Local Storage	-	8GB (Min. 1.5 Yrs Storage)
Physical Properties	Enclosure 52mm x 50mm x 40mm, Overall device weight ~80g (excluding antenna)	Enclosure 180mm x 140mm x 60mm, Overall device weight ~2.0kg
Cable Gland	1 x USB-A data & power connection	1 x EMC CMA12 for external RS232 connection 1 x EMC CMA14 for external DC input power connection
Wire Connection	-	External DC Input Spring type wiring terminal
EXTERNAL INTERFACE		
Wireless Module	-	Compatible with 2G/2.5G/3G/4G of Micro SIM card
Wired Port	USB	RS232
WIRELESS SENSOR NETWORK INTERFACE		
Protocol	WiSenMeshWAN® proprietary radio encryption	WiSenMeshWAN® proprietary radio encryption
Low Power Mode	-	Interval \geq 3 min and Server Connection Ratio = 1~99
STANDARD SYSTEM PARAMETER		
Temperature	Range: -40 ~ 85 °C , Accuracy : \pm 2°C	Range: -40 ~ 85 °C , Accuracy : \pm 2°C
Voltage	Accuracy: \pm 0.1V	Accuracy: \pm 0.1V
RE-CALIBRATION METHOD		
Inspection Period	Every 3 Years by Manufacturer (or inspected by arranged methods)	Every 3 Years by Manufacturer (or inspected by arranged methods)
INDUSTRIAL STANDARD		
Casing and Painting Materials	Polycarbonate plastic	Aluminium Alloy & Epoxy Polyester Powder Coating
Environmental Operating Parameters	IP66, Operating Temperature -40 to 85 °C	IP66, Operating Temperature -40 to 85 °C
Certificates	CE, FCC, ACMA, RCM	CE, FCC, ACMA, RCM
DATA SERVER SOFTWARE		
WiSen Serial Port Software	v3.0.11 or above	N/A

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