



Product Data Sheet: GeoWAN 4G Gateway

The GeoWAN 4G Gateway acts as an always-on base station for a GeoWAN wireless sensor network. It sends data samples to the cloud using an ethernet connection or cellular networks (3G or LTE). Some models also support connecting to a Wi-Fi access point.

Although typically one gateway can cover an entire monitoring zone, additional gateways can be installed with no further configuration allowing for redundant data backhaul and improved network coverage.

No fixed IP address is required for the cellular service; the Gateway simply initiates the connection with Senceive's WebMonitor software over the Internet.

Key features

- Integrated LTE, UMTS/HSPA+ and GSM/GPRS/EDGE Modem
- Waterproof, industrial design with rugged aluminium enclosure
- Incorporates bracket for mounting to pole or wall
- All components are waterproof to IP67, even when using Ethernet
- Gateway firmware is remotely upgradeable over the air reducing costly site visits
- Wide temperature range suitable for extreme conditions



GeoWAN 4G Gateway

Physical Specifications

Parameter	Value
Dimensions without mounting plate	262 x 91 x 257 mm
Total Mass	2.75 kg (approx.)
Housing Material	Die cast aluminium
International Protection Marking	IP67
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +85°C
Relative Humidity	20% to 90%, non-condensing
Mounting Options	Wall and pole mounting available with included mounting plate

GeoWAN Radio Specifications

Parameter	Value
Communication Type	Digital Spread Spectrum Radio using LoRa modulation type
Frequency Band	ISM band depends on region 868 MHz (868 configuration) 902-915 MHz (902 configuration) 915-928 MHz (915 configuration) 920 MHz (920 configuration) 923 MHz (923 configuration)
Maximum Transmit Power	14 dBm (868 configuration) 20 dBm (902 configuration) 20 dBm (915 configuration) 14 dBm (920 configuration) 14 dBm (923 configuration)
Range	Up to 15 km depending on the environment Consult with Senceive for your application
Maximum Network Size	Typically up to 1000 nodes Consult with Senceive to determine the optimal system configuration



GeoWAN 4G Gateway

Cellular Radio Specifications (Standard)

Parameter	Value
Frequency Bands for GSM/GPRS/EDGE	900 / 1800 MHz
Frequency Bands for UMTS/HSPA+	900 / 1800 / 2100 MHz
Frequency Bands for LTE	700 / 800 / 1800 / 2600 MHz
Supported SIM Cards	3 V and 1.8 V
SIM Form Factor	Micro SIM (3FF)

Cellular Radio Specifications (-NA Version)

Parameter	Value
Frequency Bands for GSM/GPRS/EDGE	Not supported
Frequency Bands for UMTS/HSPA+	850 / 1900 MHz
Frequency Bands for LTE	700 / 850 / 1700 / 1900 MHz
Supported SIM Cards	3V and 1.8 V
SIM Form Factor	Micro SIM (3FF)

Cellular Radio Specifications (-AU Version)

Parameter	Value
Frequency Bands for GSM/GPRS/EDGE	Not supported
Frequency Bands for UMTS/HSPA+	850 / 900 / 2100 MHz
Frequency Bands for LTE	700 / 850 / 900 / 1800 / 2100 MHz
Supported SIM Cards	3 V and 1.8 V
SIM Form Factor	Micro SIM (3FF)

GeoWAN 4G Gateway



Power Input

Parameter	Value
Power Requirements	Power over Ethernet IEEE 802.3at
Input Voltage	48 V
Power Required	30 W
Average Power	5 W

Mains Power Adaptor (FP-POE30-x)

Parameter	Value
Dimensions	140 x 65 x 36 mm
Operating Temperature Range	-20°C to +50°C
Input Voltage Range	90-264 VAC
Input Frequency	47-63 Hz
Input Current	0.8A (RMS) maximum at 120VAC 0.55A (RMS) maximum at 240VAC

Mains Power Adaptor (FP-POEIP-x)

Parameter	Value
Dimensions	170 x 140 x 60 mm
Operating Temperature Range	-40°C to +65°C
Input Voltage Range	100-240 VAC
Input Frequency	50-60 Hz
Input Current	1A maximum at 100-240 VAC
Environmental Protection Marking	IP67, NEMA 4X



GeoWAN 4G Gateway

Ordering Information and Accessories

Model	Description
LR3G-M868-LTE-IP67	GeoWAN IP67 LTE/4G Gateway Europe
LR3G-M915-LTE-IP67	GeoWAN IP67 LTE/4G Gateway Outside Europe
LR3G-M915-LTE-IP67-AU	GeoWAN IP67 LTE/4G Gateway Australian Cellular Variant
LR3G-M915-LTE-IP67-NA	GeoWAN IP67 LTE/4G Gateway North American Cellular Variant
LR3G-M868-LTEW-IP67	GeoWAN IP67 LTE/4G Gateway with Wi-Fi Europe
LR3G-M915-LTEW-IP67	GeoWAN IP67 LTE/4G Gateway with Wi-Fi Outside Europe
LR3G-M915-LTEW-IP67-AU	GeoWAN IP67 LTE/4G Gateway with Wi-Fi Australian Cellular Variant
LR3G-M915-LTEW-IP67-NA	GeoWAN IP67 LTE/4G Gateway with Wi-Fi North American Cellular Variant
LR3G-M868-IP67	GeoWAN IP67 Ethernet Only Gateway Europe
LR3G-M915-IP67	GeoWAN IP67 Ethernet Only Gateway Rest of the World
FP-POE30-UK	PoE Mains Adaptor with UK Power Plug
FP-POE30-EU	PoE Mains Adaptor with European Power Plug
FP-POE30-US	PoE Mains Adaptor with USA / Canada Power Plug
FP-POE30-ANZ	PoE Mains Adaptor with Australia / New Zealand Power Plug
FP-POE30-309Y44	PoE Mains Adaptor with IEC60309 Yellow Power Plug
FP-POE30-309B44	PoE Mains Adaptor with IEC60309 Blue Power Plug
FP-POEIP-UK	IP67 PoE Mains Adaptor with UK Power Plug
FP-POEIP-EU	IP67 PoE Mains Adaptor with European Power Plug
FP-POEIP-US	IP67 PoE Mains Adaptor with USA / Canada Power Plug
FP-POEIP-ANZ	IP67 PoE Mains Adaptor with Australia / New Zealand Power Plug
FP-POEIP-309Y44	IP67 PoE Mains Adaptor with IEC60309 Yellow Power Plug
FP-POEIP-309B44	IP67 PoE Mains Adaptor with IEC60309 Blue Power Plug