

4G rugged gateway - edge with internal antenna



The Loadsensing 4G rugged gateway is part of the Loadsensing connectivity portfolio. It is an outdoor LoRa gateway equipped with an internal antenna and a 4G worldwide module with 3G/2G fallback. It is suitable for a wide variety of projects: construction areas, tailings dams, open pits, bridges, railways, roadways, soil consolidation projects and others.

FEATURES

- External waterproof connectors (RJ45, SIM card) eliminating the need to open the casing during installation.
- Easy installation mounting kit.
- Integrated internal antenna for GPS, 4G and LoRa (peak gain=2,6dBi), so no external antenna installation required (external LoRa antenna 3dBi or 6dBi available as options).
- USB (type C) connector for local access.
- Faster processor (operating in a single-gateway architecture, it can manage up to 50 data messages per minute).*
- Compatible with the Loadsensing software embedded in the gateway

CONNECTIVITY

- ISM Sub 1 GHz band, sensitivity: down to -137 dBm (SF11).
- Integrated internal antennas GPS, 4G, LoRa (peak gain=2,6dBi).
- DDRAM 256MB, 8GB eMMC (6GB available for user).
- GNSS receiver (GPS, GLONASS, QZSS & SBAS).

POWER

- Powered by:
 - PoE both mode A and mode B (802.3af specifications).
 - +/- 48VDC through RJ45 (isolated power).
- Mean power consumption: 4.5 watts.

- PoE injector for indoor use included in the kit.

MECHANICAL

- Size: 265 x 165 x 100 mm (without external LoRa antenna).
- Weight: 1.4 kg (including mounting kit).
- IP67 aluminum (back), polycarbonate (front), Inox (mounting kit).
- Operating range: -40° to 60°C.
- Two LEDs: 1 x green LED for power, 1 x red LED for system status.
- SIM card (mini-SIM format).



NETWORK INTERFACES

10/100 Ethernet WAN (RJ45 PoE).

Integrated 4G modem & antenna with worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage.

WWAN Capabilities

Technologies	Band	Data rate
LTE	Band 1 (2100) Band 2 (1900 PCS) Band 3 (1800+) Band 4 (1700/2100 AWS-1) Band 5 (850) Band 7 (2600) Band 8 (900) Band 12 (700 ac) Band 13 (700 c) Band 18 (800 lower) Band 19 (800 upper) Band 20 (800 DD) Band 25 (1900+) Band 26 (850+) Band 28 (700 APT) Band 38 (TD 2600) Band 39 (TD 1900+) Band 40 (TD 2300) Band 41 (TD 2600+)	LTE FDD: - Max 150Mbps (DL) - Max 50Mbps (UL) LTE TDD: - Max 130Mbps (DL) - Max 35Mbps (UL)
WCDMA	Band 1 (2100) Band 2 (1900 PCS) Band 4 (1700/2100 AWS-1) Band 5 (850) Band 6 (850 Japan) Band 8 (900) Band 19 (800 upper)	DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.7Mbps (UL) WCDMA: - Max 384Mbps (DL) - Max 384Mbps (UL)
GSM	B2 (1900 PCS) B3 (1800 dcs) B5 (850) B8 (900)	EDGE: - Max 296Mbps (DL) - Max 236.8Mbps (UL) GPRS: - Max 107Mbps (DL) - Max 85.6Mbps (UL)

Contact us if your monitoring plan requires more than 8 messages per minute.

Note: Specifications are subject to review and change without notice.

4G gateway with the Loadsensing software - edge embedded
Product ordering references:

LS-G6-KIO GW-868	RX: 863- 873MHz, TX: 863-873MHz (according to device capabilities).
LS-G6-KIO GW-915	RX: 902-915MHz, TX: 922-928MHz (according to device capabilities).
LS-G6-KIO GW-923	RX: 915-928 MHz, TX: 915-928MHz (according to device capabilities).

ACCESSORIES

External antenna

LS-ACC-SUPGW-01	Optional vertical omni-directional outdoor antenna kit, 3 dBi, 868 MHz, 30 cm length.
LS-ACC-SUPGW-03	Optional vertical omni-directional outdoor antenna kit, 3 dBi, 915/923 MHz, 30 cm length.
LS-ACC-SUPGW-02	Optional vertical omni-directional outdoor antenna kit, 6dBi, 915/923 MHz, 110 cm length.

Surge protection

LS-ACC-LPANT-2	Loadsensing gateway lightning antenna protection Coaxial surge protector.
LS-ACC-LPETH	Loadsensing gateway lightning Ethernet protection PoE surge protector.

Power supply

Dual Input 12V 8A Solar Charge Controller with 48V PoE.



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