

## Wi-SOS 480 Star Wireless Monitoring System

# 4G rugged gateway - edge with internal antenna

The Wi-SOS 480 4G rugged gateway is part of the Worldensing 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), 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 30 data messages per minute).

Compatible with the Connectivity Management Tool (CMT) Edge software

### 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 slot (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)	LTE FDD: - Max 150Mbps (DL) - Max 50Mbps (UL)  LTE TDD: - Max 130Mbps (DL) - Max 35Mbps (UL)
	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+)		
WCDMA	Band 1 (2100)	DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.7Mbps (UL) WCDMA: - Max 384Kbps (DL) - Max 384Kbps (UL)
	Band 2 (1900 PCS)	
	Band 4 (1700/2100 AWS-1)	
	Band 5 (850)	
	Band 6 (850 Japan)	
	Band 8 (900)	
GSM	B2 (1900 PCS)	EDGE: - Max 296Kbps (DL) - Max 236.8Kbps (UL) GPRS: - Max 107Kbps (DL) - Max 85.6Kbps (UL)
	B3 (1800 dcs)	
	B5 (850)	
	B8 (900)	

Network Rail Approved  
London Underground Approved Product (ID 3576)

## ACCESSORIES

External antenna
Optional vertical omni-directional outdoor antenna kit, 3 dBi, 868 MHz, 30 cm length.
Optional vertical omni-directional outdoor antenna kit, 3 dBi, 915/923 MHz, 30 cm length.
Optional vertical omni-directional outdoor antenna kit, 6dBi, 915/923 MHz, 110 cm length.
Surge protection
Loadsensing gateway lightning antenna protection Coaxial surge protector.
Loadsensing gateway lightning Ethernet protection PoE surge protector.
Power supply
12V in 48V out PoE, Solar Charge Controller. Dual input.*

\* In case you are interested in the PoE input, please note that passive PoE is required. The PoE injector supplied with the gateway is not compatible with this second input.

### 4G gateway compatible with CMT Edge

#### Product ordering references:

RX: 863- 873MHz, TX: 863-873MHz (according to device capabilities).

RX: 902-915MHz, TX: 922-928MHz (according to device capabilities).

RX: 915-928 MHz, TX: 915-928MHz (according to device capabilities).



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