



LORA-GW-OUT-8 Outdoor Micro Gateway

Product Description

Chapter 1 – Introduction

Product Design

The dimension of the WAPS-232N IoT Outdoor Micro Gateway is L:230 x W:200 x H:68 mm, with one (or two) external LoRa antenna port, one GPS antenna port and one WAN port with PoE capability. For 4G SKUs, one SIM slot and one 4G antenna port are available.



Product Features

- Up to 16 concurrent channels for LoRa transmission
- 3G/4G backhaul supported (in different SKUs)
- Option support wide frequency range from 470MHz to 928MHz (in different SKUs)
- Long range over 15 kilometers radius
- 1 LAN port (10/100Mbps) with PoE
- GPS built-in
- IP67 waterproof

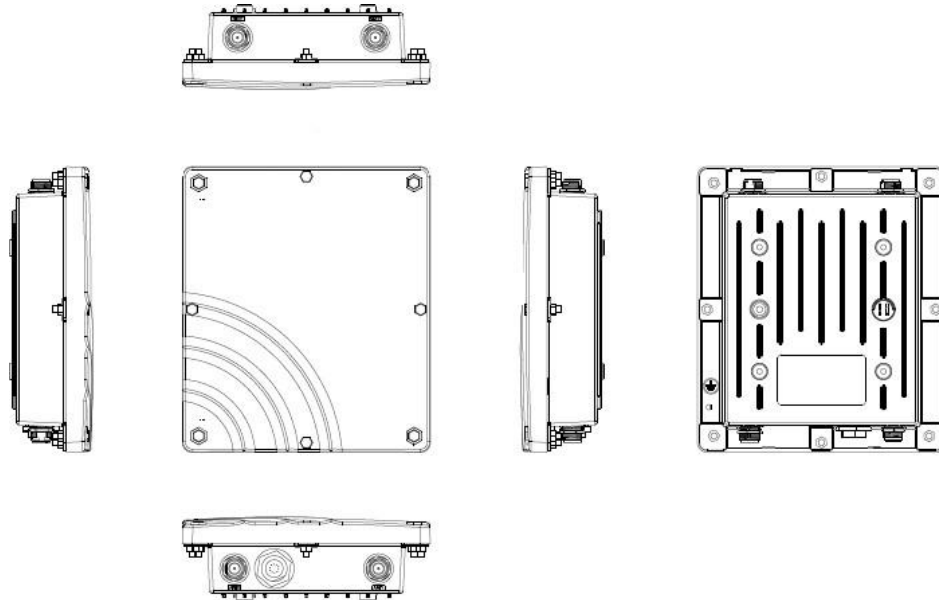
Product SKUs

SKU	Country	Channels	Frequency Band (MHz)	3G/4G Support	3G/4G Module
AU-16	Australia	16	AU920 (915~928)	N	N
AU-16-M	Australia	16	AU920 (915~928)	Y	EC25-AU
AU-8	Australia	8	AU920 (915~928)	N	N
AU-8-M	Australia	8	AU920 (915~928)	Y	EC25-AU
CN-470-16	China	16	CN470 (470~510)	N	N
CN-470-16-M	China	16	CN470 (470~510)	Y	EC20-CE
EU-8-M	Europe	8	EU868 (862~870)	Y	EC25-E
JP-16	Japan	16	920~928	N	N
JP-16-M	Japan	16	920~928	Y	EC25-J
MY-16	Malaysia	16	919~923	N	N
MY-16-M	Malaysia	16	919~923	Y	N
TW-16	Taiwan	16	920~925	N	EC25-AU
TW-16-M	Taiwan	16	920~925	Y	N
US-16	USA	16	US915 (902~928)	N	EC25-AU
US-16-M	USA	16	US915 (902~928)	Y	N

	EC25-E	EC25-J	EC25-A	EC25-AU	EC20-CE
Country	Europe Taiwan Malaysia	Japan	USA	Australia	China
LTE FDD	B1/B3/B5/B7/B8 /B20	B1/B3/B5/B8/B18 /B19/B26	B2/B4/B12	B1/B2/B3/B4/B5 /B7/B8/B28	B1/B3/B8
LTE TDD	B28/B40/B41	B41	X	B40	B38/B39/B40/B41
WCDMA	B1/B5/B8	B1/B6/B8/B19	B2/B4/B5	B1/B2/B5/B8	B1/B8
GSM	B3/B8	X	X	B2/B3/B5/B8	900/1800
TDSCDMA	X	X	X	X	B34/B39
CDMA 1x/EVDO	X	X	X	X	BC0

Chapter 2 – Product Details

I/O Ports



Port	Count	Description
ANT1	1	External N-Type GPS antenna
ANT2	1	External N-Type 3/4G antenna
ANT3	1	External N-Type LoRa antenna
RJ45	1	10/100Mbps Ethernet port with power over Ethernet (PoE) function
SIM Slot	1	Mini SIM card slot for 3/4G module

Package Content

No.	Description	Quantity
1	The Gateway	1
2	GPS antenna + cable	1
3	Mounting kit	1
4	RJ45 water proof kit	1
5	3G/4G antenna	1
6	PoE power adapter & cord	1
7	RF cable for LoRa antenna	1

Chapter 3 – System Specification

Hardware Specification

No.	Item	Description
1	Model Name	WAPS-232N
2	Frequency Band	EU 862~870 MHz
3	CPU	Quad-core Cortex-A9 up to 1.6GHz
4	RAM/Flash	DDRIII 4GB / NAND 8GB
5	RF Transceiver	SX1301 with SX1257
6	Number of Channels	8 Channels
7	WiFi	N/A
8	WAN Port	-10/100Mbps fast Ethernet with PoE - Withstands 6 KV surge at Ethernet RJ45 Port
9	Transmit RF Power	0.5W (up to 27 dBm)
10	Receive Sensitivity	Down to -142 dBm
11	Modulation	LoRa AES 128 bit
12	Security	AES 128 bit
13	USB Port	N/A
14	Working Temperature	-40°C ~ 60°C
15	Storage Temperature	-40°C ~ 60°C
16	Power Supply	55V / 0.6A via PoE Adaptor (Onsemi PD-9001GR 802.11at)
17	Antenna Type	External N-Type antennas
18	Ingress Protection	IP67
20	Interfaces	1 LAN port, 2 LoRa antenna connectors, 1 GPS antenna connector, One (1) 3G/4G antenna, 1 SIM slot
21	Power consumption	< 10W
22	Dimensions	L:230 x W:200 x H:68 mm
23	Weight	2.05 Kg

Regulatory Specification

No.	Item	Standard
1	FCC	ID: MXF-WAPS232N
2	Telec	Low Power No: 201-163369 / 00 High Power No: 201-170679 / 00
3	CE	EN 303 413 V1.1.1 EN 301 489-1-3-19-52 EN 300 220 V3.1.1 EN 301 908-1 V11.1.1 EN 55032 + EN 55024 EN 50385 + EN 62311
4	NCC	ID: CCAF18LP2180T2
5	SRRC	CMIIT ID:2015DJ6089
6	Dekra	Low Power Report No. 1720041R-RFJPP17V00-A