Kaiterra Gateway

kaiterra

Compatible with the Sensedge Go, Sensedge Duct (Wireless), and Sensedge Go for Outdoors

Product Variants Overview

Kaiterra Product Name	Kaiterra SKU
GW-68 NA Gateway	GW-68-NA-915M-EG95-NA-POE
GW-68 EMEA Gateway	GW-68-EMEA-868M-EG95-E-POE
GW-68 IN Gateway	GW-68-IN-868M-EC25-E-POE
GW-68 AU Gateway	GW-68-AU-915M-EC25-AU-POE
GW-68 APAC Gateway	GW-68-APAC-915M-EC25-E-POE
GW-68 JP Gateway	GW-68-JP-915M-EC25-J-POE

Features

Hardware

- 8 LoRa channels
- Supports 2.4 GHz WiFi AP for easy configuration
- 100M Base-T Ethernet with PoE (Power over Ethernet)
- RP-SMA LoRa antenna connector
- Multi-backhaul options with Ethernet, WiFi, and Cellular
- SD card for log backup and LoRa frame buffering (in case of backhaul failover)
- LTE Cat 4 network
- Breathing light for visual monitoring the gateway's status

Software

- WisGateOS 2 for enhanced security and functionality
- Extension add-ons for customized gateway functionality:
  - Compatibile with WisGateOS 2 version 2.2.x or later
  - Compatible with WisGateOS 2 versions 2.0.x and 2.1.x
- WisDM for remote management and monitoring
- Built-in Network Server
- Basics Station and Packet Forwarder modes
- LoRa Frame Filtering (node whitelisting in Packet Forwarder mode)
- MQTT v3.1 Bridging with TLS encryption (compatible with ChirpStack LNS)
- LoRa frame buffering in Packet Forwarder mode in case of NS outage, ensuring no data loss

Note: Product specifications are subject to change without notice. Feature availability may differ by model.

Main Specifications

Feature	Specifications
Computing	MT7628, 128 MB DDR2 RAM
LoRa Feature	• SX1302 Mini PCIe card • 8 Channels • Frequency: EU868/IN865/RU864/US915/AU915/KR920/AS923-1-2-3-4/EU433/CN470 • LoRa Radio: Refer to the LoRa Radio Specifications section for detailed information.
WiFi Feature	• Frequency: 2.4 GHz (802.11b/g/n) • Channels: 1-13 (2.4 GHz) • WiFi Radio: Refer to the WiFi Radio Specifications section for detailed information.
Cellular	• Nano SIM Card: 12 mm x 9 mm x 0.67 mm • Supports Quectel EG95-E/EG95-NA/EC25-J/EC25-AU/EC25-E (IoT/M2M -optimized LTE Cat 4 Module) • LTE Radio: Refer to the LTE Radio Specifications section for detailed information.
Power Supply	• PoE (IEEE 802.3 af), 36-57 VDC — supported by all models • 12 VDC - 1 A – available on selected models • 9-24 VDC – available on selected models • Power consumption: 3 W (typical)
Antenna	• LoRa: External antenna / RP-SMA connector • WiFi: Internal antenna • LTE: Internal antenna or External antenna / RP-SMA connector (depending on version)
Ingress Protection	IP30
Enclosure Material	Plastic (PC+ABS)
Weight	0.3 kg
Dimensions	166 mm x 127.5 mm x 36 mm Gateway only (no antenna, no bracket)

Operating Conditions	• Operating Temperature: -10°C to +55°C • Storage Temperature: -40°C to +85°C • Operating Humidity: 0-95% RH non-condensing • Storage Humidity: 0-95% RH non-condensing
Installation Method	• Desktop mounting • Wall mounting (via included bracket) • Rail mounting (via included bracket)

Hardware

This section provides an overview of the hardware specifications for the gateway, including its interfaces, core functions, and key board parameters.

RF Specifications

LoRa Radio Specifications

Parameter	Specifications
Operating Frequency	EU868/IN865/RU864/US915/AU915/KR920/AS923-1/2/3/4/EU433/CN470
Transmit Power	27 dBm (Max
Receiver Sensitivity	-139 dBm (Min)

WiFi Radio Specifications

Parameter	Specifications	
Wireless Standard	IEEE 802.11b/g/n	
Frequency	ISM band: 2.412-2.472 GHz	
Channels	1-13 (2.4 GHz)	
Transmit Power (The max power maybe different depending on local regulations): per chain	• 802.11b • 19 dBm @1 Mbps • 19 dBm @11 Mbps • 802.11g • 18 dBm @6 Mbps • 16 dBm @54 Mbps	• 802.11n (2.4 GHz) • 18 dBm @MCS0 (HT20) • 16 dBm @MCS7 (HT20) • 17 dBm @MCS0 (HT40) • 15 dBm @MCS7 (HT40)
Receiver Sensitivity (Typical)	• 802.11b • -95 dBm @1 Mbps • -88 dBm @11 Mbps • 802.11g • -90 dBm @6 Mbps • -75 dBm @54 Mbps	• 802.11n (2.4 GHz) • -89 dBm @MCS0 (HT20) • -72 dBm @MCS7 (HT20) • -86 dBm @MCS0 (HT40) • -68 dBm @MCS7 (HT40)

LTE Radio Specifications

Module / Region	Supported Bands
EG95-E (EMEA Region)	• LTE FDD: B1/B3/B7/B8/B20/B28A • WCDMA: B1/B8 • GSM/EDGE: B3/B8
EG95-NA (North America)	• LTE FDD: B2/B4/B5/B12/B13 • WCDMA: B2/B4/B5
EC25-J (Japan)	• LTE FDD: B1/B3/B8/B18/B19/B26 • WCDMA: B1/B6/B8/B19 • LTE TDD: B41
EC25-AU (LATAM / AU / NZ)	• LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28 • WCDMA: B1/B2/B5/B8 • LTE TDD: B40 • GSM: B2/B3/B5/B8
EC25-E (Korea/India)	• LTE FDD: B1/B3/B5/B7/B8/B20 • WCDMA: B1/B5/B8 • LTE TDD: B38/B40/B41 • GSM: B3/B8
Other PCIE LTE modules	Optional support for global bands (custom module)

Note: Product specifications are subject to change without notice.

Software

The gateway runs on WisGateOS 2, a robust software platform designed for efficient network management and integration. For more detailed information on software configurations and usage, refer to the WisGateOS 2 User Guide.

LoRa	Network	Management
Gateway OTA management	Wi-Fi AP mode	WisDM
LoRaWAN Packet Forwarding (Packet Forwarder, Basics Station)	Wi-Fi Client mode	SSH2
Frequency Band Setup	LTE APN Setup	Firmware update
Country Code Setup	VLAN (802.1Q) Support	Built-in Network Server
TX Power Setup	Uplink backup	MQTT Bridge
Data logger	Firewall	OpenVPN, Ping Watch Dog
Location Setup	DHCP Server/Client	Web UI
LoRa Statistics	NTP	
Supports Class A and C		
Server Address and Port Setup		

Certification

- ANATEL Certification
- CE Certification
- ISED Certification
- FCC Certification
- JRL Certification
- JTBL Certification
- KC Certification
- RCM Certification
- REACH Certification
- RoHS Certification
- RSM Certification
- UKCA Certification
- WPC Certification