

RAK7267 WisGate Soho Pro

Thank you for choosing RAK7267 WisGate Soho Pro in your awesome IoT Project! 🙌 To help you get started, we have provided you with all the necessary information for your product.

Resources

- For more information, check the Frequently Asked Questions [🔗](#) for WisGate Edge.
- Visit the RAKwireless Forum [🔗](#) for specialized assistance from the RAKstars community and RAKwireless experts.
- Check our extensive collection of Applications & Tutorials [🔗](#) to get inspiration on exciting new use cases.
- Need more specialized product assistance? Contact RAKwireless Support [🔗](#).

Product Description

The RAK7267 WisGate Soho Pro is an innovative 8-channel LoRaWAN gateway designed for outdoor deployments. It supports Wi-Fi and cellular connectivity.

This gateway uses an IP67-rated Unify Enclosure, a weatherproof and flame-retardant enclosure made of UV stabilized ABS plastic that protects internal components from dust and water. The new enclosure is designed to allow the LoRa, LTE, Wi-Fi, and GPS antennas to be inside the enclosure.

In addition, RAK7267 operates under WisGateOS 2 [🔗](#), which is built on the latest OpenWrt kernel. The OS Web UI features a new design and supports multiple extension installations, enabling remote management using WisDM [🔗](#) for personalized gateway customization.

Product Features

Hardware

- IP67 Unify enclosure
- LoRa Concentrator for up to **8 channels**
- Backhaul: Wi-Fi and LTE
- GPS
- Supports 9~36 VDC power supply and RAK Solar Battery Kit
- Internal antenna for LoRa, LTE, Wi-Fi, and GPS

Software

- WisGateOS 2 [↗](#)
- **WisGateOS 2 Extensions:** Adds support for features such as OpenVPN, WireGuard VPN, and more. Use the appropriate installation guide based on your WisGateOS 2 version:
 - For WisGateOS 2 version 2.2.x or later [↗](#)
 - For WisGateOS 2 versions 2.0.x and 2.1.x [↗](#)
- Remote management with WisDM [↗](#) Fleet Management
- Built-in Network Server (LoRaWAN support v1.0.3)
- LoRaWAN Stack support with Semtech SX1303
- LoRa Frame filtering (node whitelisting in Packet Forwarder mode)
- MQTT v3.1 bridging with TLS encryption
- Listen Before Talk
- Fine timestamping
- Buffering of LoRa frames in Packet Forwarder mode in case of NS outage (no data loss)

Field Applications

As the Internet of Things (IoT) technology gradually penetrates into various industries and all aspects of life, the application scenarios of LoRaWAN gateways have become very extensive. This section highlights field applications of the RAK7267 WisGate Soho Pro outdoor gateways, aiming to provide inspiration for your solutions.

Agriculture

Its easy installation and compatibility with non-traditional power sources, like solar panels, make it perfect for rural areas. The compact design with integrated antennas reduces the risk of damage from wildlife, such as birds, to external antennas, ensuring that your connectivity is as resilient as your crops. Ideal for monitoring soil moisture, weather conditions, and crop health, the WisGate Soho Pro helps maximize yields with minimal effort.

- Soil moisture monitoring
- Environmental monitoring
- Weather conditions
- Irrigation control
- Crop health

Industry

The Industrial Internet of Things (IIoT) is the foundation of Industry 4.0 and smart factories. The low power consumption of the LoRaWAN® network, as well as its range of several kilometers and its penetration in buildings, makes it feasible in various industrial fields such as automation, remote monitoring, and predictive maintenance.

- Supply chain robotics
- Solar and wind power
- Analysis of liquid flow in a pipe, valve or tank
- Smoke detection
- Equipment monitoring


Smart City

Smart city leverages advanced LoRaWAN® technology and data-driven approaches to enhance city operations, services, and connectivity for its citizens. With its low-cost Cat-1 LTE connectivity and robust outdoor durability, the WisGate Soho Pro allows for efficient management and maintenance of city IoT facility systems, making them smarter and more sustainable without breaking the bank.

- Infrastructure
- Urban traffic management
- Solar-Powered Street Lighting
- Energy Management
- Public security



Software and Services

WisGateOS 2


The latest unified operating system for RAK gateways offers a feature-rich environment to access and configure the LoRaWAN gateway. WisGateOS 2 is built on the latest OpenWrt kernel for enhanced security. It employs a simplified user interface that improves usability and programmability. Integrated with WisDM, it enables remote management of gateways and firmware. With its extensibility, you can add additional features and functions to your gateways. For more information, refer to [WisGateOS 2 User Manual](#) 

WisGateOS 2 Extensions

WisGateOS 2 includes an extension system that lets you add, remove, or update features based on your needs. Use the appropriate installation guide for your WisGateOS 2 version:




- For WisGateOS 2 version 2.2.x or later 
- For WisGateOS 2 versions 2.0.x and 2.1.x 

WisDM

WisDM is a RAKwireless cloud-based device management platform designed to help you optimize the ways of controlling your gateways. The WisDM device management software supports IoT networks of any scale built around commercial-grade LoRaWAN Edge gateways from RAKwireless. Also, the WisDM platform offers you remote configuration, OTAA updates, and scalable management. For more information, refer to [WisDM](#) .

Outdoor Gateway Family

The following table provides a comparative summary of RAK commercial gateways. It highlights key specification differences to assist your selection.

	RAK7240V2/RAK7240CV2	RAK7267	RAK7285/RAK7285C
Product Image			
Gateway Category	Outdoor LoRaWAN Gateway	Outdoor LoRaWAN Gateway	Outdoor LoRaWAN Gateway
OS	WisGateOS 2	WisGateOS 2	WisGateOS 2
LoRa Feature	<ul style="list-style-type: none"> • SX1303 LoRa Core 8 Channels /16 Channels • RX Sensitivity: - 139 dBm (Min) • TX Power: 27 dBm (Max) 	<ul style="list-style-type: none"> • SX1303 LoRa Core 8 Channels • RX Sensitivity: - 140 dBm (Min) • TX Power: 27 dBm (Max) Listen Before Talk 	<ul style="list-style-type: none"> • SX1303 LoRa Core 8 Channels in full-duplex • RX Sensitivity: - 139 dBm (Min) • TX Power: 30 dBm (Max) Listen Before Talk
Cellular Feature	Available with RAK7240CV2 (for the 8-channel variant) IoT/M2M-optimized LTE Cat 4 Module Supports: EG95-E EG95-NA	IoT/M2M -LTE Cat 1 Module Supports: EG915U-EU EG915U-LA EG915Q-NA	Available with RAK7285C IoT/M2M-optimized LTE Cat 4 Module Supports: EG95-E EG95-NA EC25-AU

	RAK7240V2/RAK7240CV2	RAK7267	RAK7285/RAK7285C
Wi-Fi Feature	<ul style="list-style-type: none"> • Frequency: 2.4 GHz (802.11b/g/n) • Operation Channels: 2.4 GHz: 1-13 	<ul style="list-style-type: none"> • Frequency: 2.4 GHz (802.11b/g/n) • Operation Channels: 2.4 GHz: 1-13 	<ul style="list-style-type: none"> • Frequency: 2.4 GHz (802.11b/g/n) • Operation Channels: 2.4 GHz: 1-13
Frequency Band	EU868 IN865 RU864 US915 AU915 KR920 AS923-1/2/3/4 EU433 CN470	EU868 IN865 RU864 US915 AU915 KR920 AS923-1/2/3/4	US915 AU915
Network Connectivity	Ethernet Wi-Fi LTE	Wi-Fi LTE	Ethernet Wi-Fi LTE
GPS	Supports GPS	Supports GPS	Supports GPS
Antenna	LoRa/Wi-Fi/LTE/GPS: External antenna N-Type connector	LoRa/Wi-Fi/LTE/GPS: Internal antenna	LoRa/Wi-Fi/LTE/GPS: External antenna N-Type connector

	RAK7240V2/RAK7240CV2	RAK7267	RAK7285/RAK7285C
Power Pupply	PoE (IEEE 802.3af) : 42~57 V _{DC} 9~24 V _{DC} Compatible with RAK Solar Battery Kit ↗	9~36 V _{DC} Compatible with RAK Solar Battery Kit ↗	PoE (IEEE 802.3at): 42~57 V _{DC} 9~36 V _{DC} Compatible with RAK Solar Battery Kit ↗
Ingress Protection	IP65	IP67	IP67
Enclosure Material	Aluminum	ABS plastic	Aluminum
Dimension (Gateway only)	224 mm x 121 mm x 42 mm	180 mm x 130 mm x 60 mm	310 mm x 290 mm x 146 mm
Operating Condition	<ul style="list-style-type: none"> Operating Temperature: - 30° 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 	<ul style="list-style-type: none"> Operating Temperature: - 30° 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 	<ul style="list-style-type: none"> Operating Temperature: - 30° 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

	RAK7240V2/RAK7240CV2	RAK7267	RAK7285/RAK7285C
Installation Method	Pole or wall mounting	Pole mounting (other options available per request)	Pole or wall mounting



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