RAK831

LoRa/LoRaWAN Gateway Module
To Achieve a Large Area of IoT Low–cost Full Coverage

▮ Support 433MHz / 868MHz / 915MHz communication band

▮ Based on Semtech SX1301, half–duplex gateway module

▮ Support 10 channels, 8 downlink and 1 uplink channel, 1 FSK channel

▮ RF output power of 25.2dBm, receiving sensitivity up to –139dBm, up to 15KM

RAK831 is a high performance multi–channel concentrator transmitter/receiver module, which is designed to receive several LoRa data–packets.Meanwhile use different spreading factors on multiple channels. It can be the front end of the gateway,which enables long range and stable communication between Lora gateway and large amount of LoRa end–nodes .

RAK831 indicate 8 channels. In the United States, for example, seven LoRa gateway signals can cover the Downtown Manhattan area ,with Star topology gateways and long–distance communications coverage.
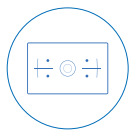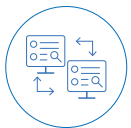
▮ Applications
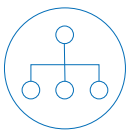
Remote Control	Wireless Star Networks	Smart Metering	Wireless Sensors
M2M	Wireless Alarm & Security System	Industrial Automation	Building Automation
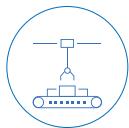
▮ Parameters

Operating Voltage	DC 5V
Operating temperature	–40 ℃ to +85 ℃
Wireless chipset	SX1301
Output power	Level up to25.2dBm
Sensitivity	Down to –142.5 dBm
GPS receiver	Optional
SNR processing	9dB
Interface	SPI
Dimension	80mmx50mmx5mm
Interface	Firmware
Range	Up to 15 km (Line of Sight)
Frequency band	433MHz / 868MHz / 915MHz

▮ Ideal Open source hardware solution

LoRa Developer Kit	LoRa Gateway Concentrator Module Kit	LoRa Gateway Developer Kit	LoRaWAN Starter Kit
RAK831 WisNode LoRa & SKM61A GPS Module	RAK831 & FT2232H	RAK831 & Raspberry & MAX–7Q GPS	RAK831 & Raspberry & WisNode LoRa & GPS Module