



Riot Gateway

Titan Radius Gateway SDI-12 Wireless LPWAN Master



LoRa Gateway for a Radius LPWAN Network

Creates Low Power, Long Range, Wide Network Area.

Overview

The Titan Radius Gateway is the perfect solution to create a wireless Network for your SDI-12 Sensors. The Titan Radius Gateway includes a self-configuring Radio, a low temperature tolerant battery, a power management system, an enclosure, and a mounting bracket.

The Titan Radius Gateway networks incorporate advanced low power, long-range wireless technologies with proprietary mechanical engineering, power management and power

supply, which eliminates the need to have a communications uplink and a data logger at each sensor site.

The Gateway will act as a central hub for your Radius network. It will connect the SDI-12 sensors attached to a Radius Mote over long distances between 3-10 Km depending upon line of sight. The Titan Gateway can support up to 10 SDI 12 sensors per Mote. The Gateway is designed to self-configure and form a wireless network automatically wherever they are installed.

Specifications

Communications

Range	3-10 Km. Signals can penetrate certain foliage, buildings and obstructions. Range depends on antenna height/type and obstacles in path of line of sight.
Wireless frequency	915 and 868 MHz certified, 860–930 MHz frequency range

Sensors

Maximum number of sensors	10
Sensor power	12VDC switched, during measurement

Maximum output current	138 mA (12V), up to 500 mA pulse (12V) with capacitor battery option (available 2018-Q3)
Sensor protocol	SDI-12, v.1.3
On-board sensors	Temperature sensor for optimizing power management and battery charging in cold operations.

Environmental

Operating temperature	–40°C to 75°C
Storage temperature	–40°C to 75°C

Electrical

Input voltage	10–18V, reverse polarity protected.
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Internal battery options	Primary: 8.6Ah – 38Ah, 3.6V Secondary: 10Ah Li-ion rechargeable Custom option: Hybrid
TX output power	128 mA
Optional external battery pack	10–18V

Physical

LED indicators	RSSI, sensor, battery, operating status
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Weight (excluding battery)	12.8 oz (400g)
Weight (including full battery configuration)	19.2 oz (600g)
Warm-up time	30s
External antenna	Wip antenna, high-gain omnidirectional
Security	128 bit AES encryption

For comprehensive details, visit: www.campbellsci.ca/riotgateway- 



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