ReliaWAN 10-12

Gateway Expansion Module for Long Range Private Networks



- **Expansion Module for Long Range Private Networks**
- **Infrastructure-less and Cloud Connected**
- **EU and NA Bands**
- **Long Range (15 km/10 miles)**
- **ISM Band Scan**
- **Industrial Grade**
- **Open Platform**

Features

Expansion Module for Long Range Private Networks - Add to the ReliaGate/DynaGATE 10-12 to create private/personal long range networks that are compatible with LoRa end-points

Infrastructure-Less and Cloud Connected - No need to connect to a public LoRaWAN. It bridges LoRa end-points with the Cloud via Cellular, Wi-Fi and Ethernet

EU and NA Bands - Supports global deployment with European 868MHz (863-870MHz) and North American 915MHz (902- 928MHz) bands

Long Range - Covers long distances: high power radio with 15km / 10miles line of sight range (2km / 1.5miles in urban conditions); European ISM transmit power / duty-cycle limitations are supported

ISM Band Scan - Provides optimal performance allows end node frequency change to improve interference rejection and dynamic link rate adaptation

Industrial Grade - Compact and sturdy, with reliable terminal block interfaces and a wide operating temperature range

Open Platform - Supported by Everyware Software Framework (ESF), the IoT Java/OSGi based-middleware for IoT Edge Gateways that accelerates gateway development and enables remote management

Description

The ReliaWAN 10-12 is an expansion module that allows connecting LoRa end points to the Cloud without the need to join a public LoRaWAN network: this allows substantial savings and brings control back to the user.

The ReliaWAN 10-12 is an expansion module for the ReliaGATE 10-12 and DynaGATE 10-12; it is a concentrator for LoRa-based endpoints which creates a private/personal long range network. The data packets generated by or directed to any standard LoRa compatible end point are managed by the seamless combination of ReliaWAN 10-12 and one Eurotech IoT Edge Gateway which can then forward them to the Cloud via any standard channel (Wi-Fi, Ethernet and Cellular).

Based on the Semtech SX1301 data concentrator, a multi-channel high performance transmitter/receiver, the ReliaWAN 10-12 is the fastest way to bridge a LoRa-based device with any Cloud application.; it comes in an industrial grade device that supports wide temperature range (-20 to +70°C) and features an impact-resistant ABS enclosure. Its compact design ensures simple deployment even in the most space-constraint applications.

The ReliaWAN 10-12 is a global device that supports European and North American ISM bands; its long range radio reaches up to 15km / 10miles in unobstructed applications. In difficult environments, such as urban areas with multiple building its penetration reaches a radius of 2km / 1.5miles.

Robust interference rejection and dynamic link rate adaptation dramatically improve performance in crowded networks; further efficiency is provided by the Listen Before Talk protocol, which allows multiple users on the same channel.

The ReliaWAN 10-12 is supported by Everyware Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT gateways.

Distributed and supported by Eurotech, ESF adds advanced security, diagnostics, provisioning, remote access and full integration with Everyware Cloud (EC), Eurotech's IoT Integration Platform (separately available).

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Ordering code: REWAN-10-12-xx			
XX		- 01	- 02
PROCESSOR	Data Concentrator	Semtech SX1301	
I/O INTERFACES	Exp. Connector	Yes, for Side Expansion Modules	
RADIO INTERFACES	LoRa Bands	European 868MHz (863-870MHz)	North American 915MHz (902-928MHz)
	Transmission Power	- 6 to 25 dBm	- 6 to 27 dBm
	Receiver Sensitivity	-140 dBm Max	-137 dBm Max
	Antennas (External)	1x RP-SMA	
POWER	Consumption	3W Max	
ENVIRONMENT	Operating Temp	-20 to +70°C	
	Storage Temp	-40 to +85°C	
CERTIFICATIONS	Regulatory	CE	FCC, ISED
	Safety	EN 62368, UL 60950 (§)	
	Environmental	RoHS3, REACH	
	ISM Radio	CE (RED)	FCC, ISED
	Ingress	IP40	
MECHANICAL	Enclosure	Material: ABS - Color: Aluminum	
	Dimensions	96x21x45mm (LxWxH) - With Connectors	

Software		
SOFTWARE	IoT Framework	Everyware Software Framework (Java/OSGi)

(§) UL, NRTL listing Factory Option.

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