



- **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.

Gateway Expansion Module for Long Range Private Networks

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).

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.