RFN-Gate433T-4GQ-zyz
RFN-Gate868T-4GQ-zyz
RFN-Gate915T-4GQ-zyz

Data Sheet

Rev. 1.8 – 24/7/2019

Front View

Back View

1. Overview

The RF-Gate is a complete RF Terminal solution
for RF 433/915 Mhz applications.
Based on Quectel Cellular modems and CC1310 radio.

2. Hardware Interface Description

2.1 Main features of the RF-Gate

Feature	Implementation
Incorporates combination of Short Range and CELLULAR modems, as well as GPS and WiFi	The SMART Linux module handles all RF CELLULAR GPS processing
Product Modem	- Quectel BG96 Cellular Modem - CC1310 Short Range Radio - GPS modem (on request)
Power supply	Single supply voltage 8V DC to 55V DC connector 4 pin micro-fit 3mm
GPIO	1x Open collector drive 100ma 1x RELAY 1A 30V 2x Inputs opto couplers, 0-55v 2 analog inputs 0-30V
Communication	1x RS232, connector D-Type 9pin (DB-9) 1x RS485
Antennas	RF, CELLULAR, (GPS optional) via SMA connectors
Processor	• Arm Cortex
Programming	• C

2.1.1 Product Family

Product -> Modems	P/N	RF	GPS	Cellular	LAN	WiFi	Linux
		CC1310	L70	xG91	Linkit 7688		
4G+(GPS)+ 433 Radio	RFN-GATE433-4GQ-xyz	433Mhz	V		-	-	-
4G+(GPS)+ 915 Radio	RFN-GATE433-4GQ-xyz	915Mhz	V	BG96	-	-	-
4G+(GPS)+ 868 Radio	RFN-GATE868T-4GQ-xyz	868Mhz	V		-	-	-

Naming convention

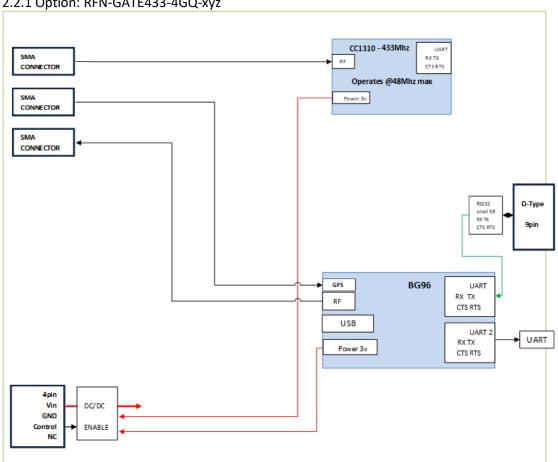x: B for battery installed, 0 no

y: G:GPS, 0 GPS not present

z: SW related

4

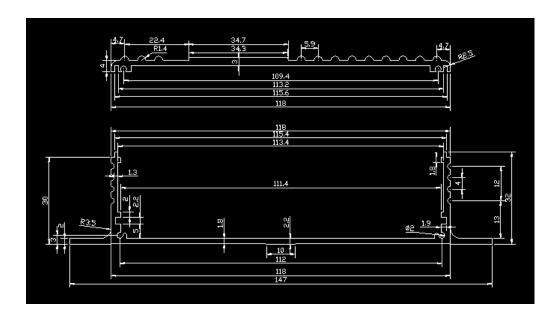## 2.2 Hardware block diagram

2.2.1 Option: RFN-GATE433-4GQ-xyz

4. Mechanical Characteristics

4.1 General mechanical description

Weight	180g
Dimensions (max) L x W x H	147mm x 71.5mm x 34mm
Case material	Aluminum

4.2 Environmental requirements

Operating temperature range	-20°C to +55°C -4°F to 131°F ambient temperature	The module is fully functional (*) in all the temperature range and it fully meets the ETSI specifications.
	-30°C to +70°C -22°F to 158°F	The module is fully functional (*) in all the temperature range. Temperatures outside of the range –20°C to +55°C (-4°F to 131°F) might slightly deviate from ETSI specifications.
Humidity	5% - 85%	

(*)Functional: the module is able to make and receive data calls and SMS.

4.3 Protection class
IP40 Avoid exposing the Terminal to liquid or moisture.

4.4 RoHS compliance
All hardware components are fully compliant with the EU RoHS and WEEE Directives.