Rugged FM / Long Range (LoRa) Radio Transmitter

Features:

- Range
  - LORA Mode 7 up to **20Km**
  - LORA Mode 1 up to **5Km**
  - FM Mode up to **4Km**

    (868MHz version only)
- 1-8 Switch Options
- Optional "Acknowledge" signal from receiver
- Waterproof up to IP65
- Internal Rechargeable Battery
- Recharge via either:
  - USB C Socket
  - QI Wireless Recharging
- Supplied Ready to Go
- 868 / 918MHz Technology
- RED (CE) Compliant.
- FCC Certified
- SRD Certified



Applications

- Industrial Remote Switching
- Reliable Remote Switching
- Long Range Control

Description

Taurus is a rugged RF Transmitter which can operate with many RF Solutions receivers to generate a Range Remote Control System. Taurus can operate in several Modes of operation, providing short or longer range. It can be optionally set to request feedback from the receiver to provide the user with visual feedback, and can also provide an automatic background "Watchdog" transmissions.

Housed in a IP65 rated waterproof enclosure, TAURUS has an internal rechargeable Lithium battery which can be recharged via either the external USB C socket or wireless recharging pad using a standard QI (Apple or Samsung) wireless charger. Custom versions are available on request.

TAURUS FM/LoRa Transmitter

Part Numbers



1 Switch	
TAURUS-8T1	868MHz
TAURUS-9T1	918MHz

3 Switch	
TAURUS-8T3	868MHz
TAURUS-9T3	918MHz





4 Switch	
TAURUS-8T4	868MHz
TAURUS-9T4	918MHz

8 Switch	
TAURUS-8T8	868MHz
TAURUS-9T8	918MHz



Also Included

Transmitters ship with Lanyard and USB Charging Cable





Optional Accessory

WCHARGEPAD
Wireless desktop charger with USB Cable



Custom Branding

To create a customised transmitter can be a simple procedure.
Please contact Sales for further info.

Transmitter Dimensions

All measurements in mm



SUPPLIER'S DECLARATION OF CONFORMITY

This device complies with part 15 of the FCC Rules Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must not accept any interference received, including interference that may cause undesired operation

47 CFR 2.1077 Compliance Information

This Declaration of Conformity is hereby issued according to Chapter 1, Subpart A, Part 2 of Title 47 of the code of Federal Regulations by:

RF Solutions Limited
William Alexander House
William Way
Burgess Hill
West Sussex
RH15 9AG
United Kingdom

Trade Name	Model
RF Solutions LoRa Taurus	TAURUS-9T1 TAURUS-9T3 TAURUS-9T4 TAURUS-9T8

Contains FCC ID: P9OLAMBDA62
Complies with FCC Part 15.247

United States Responsible Party
Violette Engineering Corporation
6731 Whittier Avenue, McLean, VA 22101, info@violettecorp.com

The responsible party warrants that each unit of equipment marketed under this Declaration of Conformity will be identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under such Supplier's Declaration of Conformity continue to comply within the variation that can be expected due to quantity production and testing on a statistical basis.

TAURUS FM/LoRa Transmitter

Technical Specifications

Enclosure Rating: IP65
Battery Type: Lithium Polymer 3.7V 980mAH
Operating Temperature –10 to +60 °C

Electrical Characteristics	Min	Typical	Max	Units
Supply Voltage	3.0	4.5	5	V
Frequency:		869.500 918.000		MHz
RF Output Power (ERP) 869.50MHz 918MHz			 +22 +22	dBm

Range Test

Was conducted along the coastline of Brighton, UK seafront providing an open Line of Sight Test.

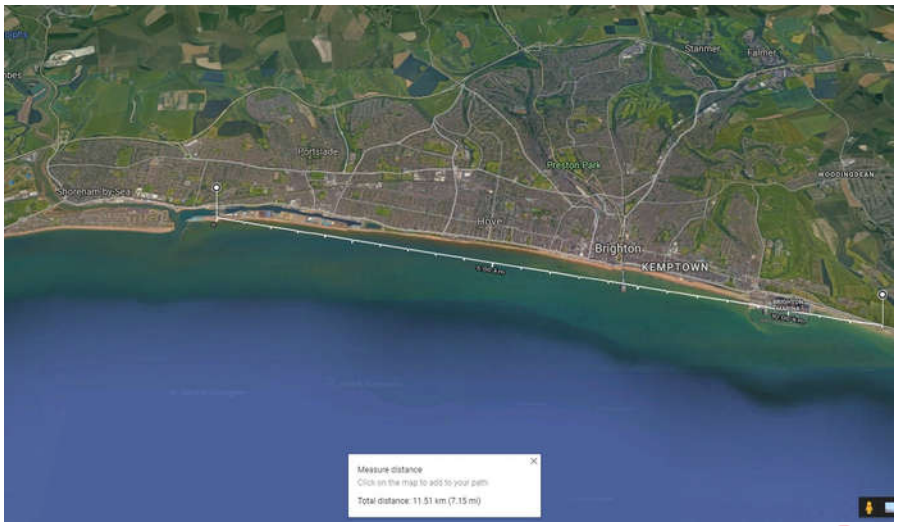
Two TAURUS Transmitters we used with one as a transmitter and the other custom configured to be a Transceiver. When the Transmitter was operated the Transceiver TAURUS received the signal and acknowledged back to the transmitter Thus creating a simple PING PONG between the two.



1. The Transceiver was mounted on railings ~4ft from the ground.
2. We then took the transmitter along the coastline whilst Intermittently operating to test the signal along the way.
3. As we carried out the test Line of sight was lost along with the signal. A Reliable signal was observed to about 3K range, thereafter the signal became intermittent. When the Transmitter and Receiver regained Line of sight a reliable signal was again observed. This continued for the available distance (about 12KM) at which point the terrain prevented further testing. At the longest available range the signal was 100% reliable.

Test conditions

Dry, Broken Sunshine, +21°C, Relative Humidity 45%, poor visibility ~4KM (ozone from sea).



Result

The product performed as expected. Unfortunately we ran out of land to test a LOS beyond 12Km ,so the maximum range is further than tested here. It is also clear that the product performs considerably better when in LOS.

TAURUS FM/LoRa Transmitter

Simplified Declaration of Conformity (RED)

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Meets the following EC Directives:

DO NOT Discard with normal waste, please recycle.

ROHS Directive 2011/65/EU and amendment 2015/863/EU

Specifies certain limits for hazardous substances.

WEEE Directive 2012/19/EU

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfils its WEEE obligations by membership of an approved compliance scheme, environment agency registration number **WEE/JB0104WV.**

Waste Batteries and Accumulators Directive 2006/66/EC

Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point.
RF Solutions battery producer number **BPRN00060.**

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