

# Telemetry Radios (Satel - EU)

## (RLRTM869BS / RLRTM869RV)



The Satel radio modules are designed for use with the VBOX range of products. Each module contains a high power radio modem capable of transmitting and receiving RS232 serial data.

Operating at a frequency range between 869.4125 and 869.6375 MHz, the radios can be used with a Base Station throughout Europe to provide DGPS corrections to a VBOX.

The **Base Station variant (RLRTM869BS)** is designed to connect to the Racelogic Base Station and transmit DGPS corrections to a remote VBOX.



The **VBOX variant (RLRTM869RV)** is designed to connect to a VBOX to receive DGPS corrections from a Base Station.

### Transmission Range

- **Difficult environment (e.g. buildings, reinforced concrete):**  
400 m (1,300 Feet)
- **Open environment with antennas at ground level (e.g. vehicle roofs):**  
1000 m (3,200 Feet)
- **In view with Base Station antennas at height (e.g. building roof):**  
5,000 m (16,400 Feet)

Note: Obstacles such as walls and trees can greatly affect the range.

### Features

- Powerful 500mW radio giving range up to 5000m (16,400 Feet)
- Simple connection directly to VBOX (one cable)
- Each radio supplied with magnetic mounting antenna
- Pan-European licence free frequency band 869.400 ... 869.650 MHz

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### Specifications

<b>Input Voltage</b>	6 - 30V DC
<b>Radio Transmission Power</b>	10, 20, 50, 100, 200, 500mW
<b>Base Station Duty Cycle</b>	< 10%
<b>Carrier Frequency</b>	869.40 – 869.65MHz
<b>Radio Data Rate</b>	19200 bps
<b>RS232 Data Rate</b>	300 – 38.400 bps (configurable)
<b>Approvals</b>	Complies with the following international standards: EN 300 113-2 (Annex A), EN60950 (Safety), EN 301 489 (EMC), FCC CFR47 section 90

### Physical

<b>Module Dimensions</b>	88 x 49 x 9 mm
<b>Weight</b>	50g
<b>Operating Temperature</b>	-30°C to +65°C
<b>Storage Temperature</b>	-40°C to +80°C

### Package Contents

#### RLRTM868BS

Description	Product Code
<b>Base Station Transmit Radio Module</b>	<b>YM6501</b>
VBOX Base Station Antenna (Variable) – 5m	RLACS142-VAR

*For improved range a Mast Mount Option can be ordered separately (RLACS153-VAR).*

#### RLRTM868TR

Description	Product Code
<b>VBOX Transmit &amp; Receive Radio Module</b>	<b>YM6501</b>
Magnetic Mount Antenna	KG-MAG
Satel Radio Modem to VBOX DGPS Cable	RLCAB096L