

# Variable Frequency Radios

(RLRTMVARBS / RLRTMVARR)



The long distance, variable frequency radios can be set to transmit or receive data between 403 and 470MHz.

The variable frequency and power of these radios makes them viable in many countries. Please check local RF licensing regulations.

With a typical max range of 10km (at 1W), the radios can be used with a Base Station to provide DGPS radio coverage to most areas of a proving ground.



## Transmission Range

- **Difficult environment (e.g. buildings, reinforced concrete):**  
1-2km (max. 6,561 ft)
- **Open environment with antennas at ground level (e.g. vehicle roofs):**  
3-5km (max. 16,404 ft)
- **In view with Base Station antenna at height (e.g. building roof):**  
6-10km (max. 32,808 ft)

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

## Features

- Powerful 1 W radio giving range up to 10km
- Simple connection directly to VBOX (one cable)
- Each radio supplied with magnetic mounting antenna

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## Specifications

<b>Input Voltage</b>	3 - 9V DC (Option 1) 6 - 30V DC (Option 2)
<b>Radio Transmission Power</b>	100, 200, 500, 1000mW
<b>Base Station Duty Cycle</b>	< 10%
<b>Carrier Frequency</b>	330 – 420MHz / 403 – 473 MHz
<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 mm 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

### Base Station Transmit Radio Module (RLRTMVARBS)

Description	Product Code
VBOX Transmit and Receive Radio (Satel)	YM6500
Base Station Radio Antenna	RLACS142-VAR

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

### VBOX Receive Radio Module (RLRTMVARR)

Description	Product Code
VBOX Receive Radio (Satel)	YM6500
Mag Mount Antenna with 3m Cable	KG-MAG
40 cm Satel Radio Modem to VBOX DGPS Cable (5-Way Lemo to 15-Way D Plug)	RLCAB096L
40 cm Satel Radio Modem Config Lead (15-Way D to 9-Way D + 2-Way Lemo Socket)	RLCAB097L