

# Variable Frequency Radios

(RLRTMVARBSCH / RLRTMVARRCH)



**These radios are a dedicated to meet Chinese 'licence free' guideline on wireless transmissions.**

They are variable frequency radios that can be set to transmit or receive data between 223.025 – 235 Mhz. (Chinese 'licence free' frequency band)

With a typical max range of 10km (at 2W), 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 2 W radio giving range up to 10km
- Simple connection directly to VBOX (one cable)
- Each radio supplied with magnetic mounting antenna
- Meets Chinese licence free exception

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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, 1000, 2000mW
<b>Base Station Duty Cycle</b>	< 10%
<b>Carrier Frequency</b>	218 – 238 MHz
<b>Radio Data Rate</b>	19200 bps
<b>RS232 Data Rate</b>	300 – 38.400 bps (configurable)

### Physical

<b>Module Dimensions</b>	88 mm 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 (RLRTMVARBSCH)

Description	Product Code
VBOX Transmit and Receive Radio (Satel)	3AS-KR
Base Station Radio Antenna	RLACS142-218

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

#### VBOX Receive Radio Module (RLRTMVARRCH)

Description	Product Code
VBOX Receive Radio (Satel)	YM5000
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
40cm Satel Radio Modem Config Lead (15-Way D to 9-Way D + 2-Way Lemo Socket)	RLCAB097L