

# VBOX Radio Modules Overview



Racelogic Radio Modules are designed to be used with the Racelogic VBOX range, and are capable of transmitting and receiving RS232 serial data wirelessly.

## What are VBOX Radio Modules used for ?

- Differential GPS Corrections
  - Connecting to a BaseStation to transmit positional corrections to a remote VBOX
  - Connecting to a VBOX to receive positional corrections from a BaseStation
- Communication between two VBOX units
- Telemetry
  - Connecting to a remote VBOX to transmit serial data to a laptop PC
  - Connecting to a laptop PC to receive serial data from a remote VBOX



As there are many different radio requirements around the world, Racelogic have a number of Radio Modules available, allowing you to select the most suitable frequency and range for your region.

## 868 MHz Radios

The 868 MHz radios can be used throughout the UK and Europe and have a max range of 1.8km. The radios can be used with a BaseStation to provide DGPS corrections to a VBOX, and can also be used to provide telemetry to a PC.

## 915 MHz Radios

The 915 MHz radios can be used in the USA and have a max range of 1.8km. The radios can be used with a BaseStation to provide DGPS corrections to a VBOX.

## Variable Frequency Radios

The variable frequency radios can be set to transmit / receive data between 403 and 470MHz. The variable frequency and power of these radios makes them accepted in many countries. With a max range of 10km (at 500mW), the radios can be used with a BaseStation to provide DGPS corrections to a VBOX.

## 2.4 GHz Range

The 2.4GHz range can be used in most countries but are especially suited for use in Japan. The radios have a max range of 1.4km and can be used with a BaseStation to provide DGPS corrections to a VBOX. Two 2.4GHz radios (RLRTM24TR) can be used to provide the link between two VBOX units at a range of 600m, which is used for ADAS testing where measurement of vehicle separation is required.

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## VBOX Radio Comparison Chart

Stock code	Connect to	Application	Transmit / Receive	Frequency	Countries	Power	Max Range
RLRTM868BS	BaseStation	Transmit DGPS corrections	Transmit	868MHz	Europe	500mW	1.8km
RLRTM868TR	VBOX	Receive DGPS corrections + VBOX telemetry	Transmit and Receive	868MHz	Europe	500mW	1.8km
RLRTM915BS	BaseStation	Transmit DGPS corrections	Transmit	915MHz	USA	500mW	1.8km
RLRTM915TR	VBOX	Receive DGPS corrections	Receive	915MHz	USA	-	1.8km
RLRTMVARBS	BaseStation	Transmit DGPS corrections	Transmit	403 - 470MHz	Most	100 - 1000mW	10km
RLRTMVARR	VBOX	Receive DGPS corrections	Receive	403 - 470MHz	Most	-	10km
RLRTM24BS	BaseStation	Transmit DGPS corrections	Transmit	2.4GHz	Most	50mW	1.4km
RLRTM24RV	VBOX	Receive DGPS corrections	Receive	2.4GHz	Most	-	1.4km
RLRTM24TR	VBOX	Communicate between VBOX units	Transmit and Receive	2.4GHz	Most	50mW	600m

### Please Note

Allowable frequencies and power outputs vary in every country. Users must ensure that the radio to be used is legal in the country, and that any required licenses are held.