

# **RBM58FS 5.8GHz RC MODULE**

## **MANUAL**

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**Version 1.0**

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## **VERSION HISTORY**

<b>Version</b>	<b>Comment</b>
<b>1.0</b>	<b>First version</b>

## **1 Summary**

The REDbird RB-M58FS is a module-based 5.8ghz radio control device. It contains a complete radio transceiver module solution with dual-diversity antenna support. A number of digital input/outputs provide connectivity for OEM's to integrate into their host product.

## **2 Technical Specifications**

For approved OEM integrators, contact Garrock, LLC for details.

## **3 Certifications**

RB-M58FS is compliant to the following specifications:

## **4 FCC and IC**

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 accept any interference received, including interference that may cause undesired operation.

### **FCC RF Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This transmitter is considered as mobile device and should not be used closer than 20 cm from a human body. To allow portable use in a known host class 2 permissive change is required. Please contact support@garrock.com for detailed information.

### **IC Statements:**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

### **Antennas:**

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater

than the maximum gain indicated for that type, are strictly prohibited for use with this device. See table 1 for the approved antennas for the RBM58FS.

### **OEM Responsibilities to comply with FCC and Industry Canada Regulations:**

The RBM58FS Module has been certified for integration into products only by OEM integrators under the following conditions:

- The antenna(s) must be installed such that a minimum separation distance of 20cm is maintained between the radiator (antenna) and all persons at all times.
- The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter.

As long as the two conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

**IMPORTANT NOTE:** In the event that these conditions can not be met (for certain configurations or co-location with another transmitter), then the FCC and Industry Canada authorizations are no longer considered valid and the FCC ID and IC Certification Number can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC and Industry Canada authorization.

### **Modification Warning Statement:**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **End Product Labeling:**

The RBM58FS Module is labeled with its own FCC ID and IC Certification Number. If the FCC ID and IC Certification Number are not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following:

“Contains Transmitter Module FCC ID: 2ADVE-RBM58FS”  
“Contains Transmitter Module IC:12612A-RBM58FS”  
or  
“Contains FCC ID: 2ADVE-RBM58FS”  
“Contains IC: 12612A-RBM58FS”

The OEM of the RBM58FS Module must only use the approved antenna(s) described in table 1, which have been certified with this module.

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module or change RF related parameters in the user manual of the end product.

To comply with FCC and Industry Canada RF radiation exposure limits for general population, the antenna(s) used for this transmitter must be installed such that a minimum separation distance of 20cm is maintained between the radiator (antenna) and all persons at all times and must not be co-located or operating in conjunction with any other antenna or transmitter.

## **5 Qualified Antenna Types**

This device has been designed to operate with the antennas listed below, and having a maximum gain of 6dB. The required antenna impedance is 50 ohms.

<b>Qualified Antenna Types for RBM58FS</b>	
<b>Antenna Type</b>	<b>Maximum Gain</b>
Patch	6dBi

Table 1

Any antenna that is of the same type and of equal or less directional gain as listed in table 1 can be used without a need for retesting. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication. Using an antenna of a different type or gain more than 6dBi will require additional testing for FCC and IC. Please, contact support@garrock.com for more information

## **6 Contact information**

Inquiries/Support: [www.garrock.com](http://www.garrock.com)

Garrock, LLC.  
49 W Henderson Rd  
Columbus OH 43214  
USA