# MICHELIN MEMS Evolution 4 RF Module User Manual



**MICHELIN® MENMS® EVOLUTION 4**
**IMPROVING YOUR EFFICIENCY**
**EASIER THAN EVER BEFORE.**


**STRENGTHEN SAFETY**
**REDUCED MAINTENANCE COSTS**
**REDUCED TIRE BUDGET**
**SECURED PRODUCTION**

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**PRODUCT NOTICE**

Contents

1 PRODUCT NAME
2 PRODUCT DESCRIPTION
3 FCC / IC CERTIFICATION
4 PRODUCT SPECIFICATION
5 DISPOSAL
6 CONTACT DETAILS – Technical Support
7 PRODUCT INFORMATION
8 Documents / Resources
9 Related Posts

## PRODUCT NAME

MEMS RF 433MHz MODULE – Part Number CAI 499802

## PRODUCT DESCRIPTION

The MEMS EVOLUTION 4 RF MODULE is mounted in a MEMS EVOLUTION 4 TRANSCEIVER and receives, via externally mounted antennas, pressure and temperature data transmitted by the MEMS SENSORS. This information is forwarded to the MEMS EVOLUTION 4 SERVER, together with any messages that may require corrective action to be taken in order to maximise the service life of the tire. 2 metal SMA to TNC adapters, to connect antenna cables, are included.

## FCC / IC CERTIFICATION

| | |
|---|---|
| Model | : RV7-01 |
| HVIN | : RV7-01 |
| PMN | : RV7-01 |
| FCC ID | : FI5-RV701 |
| IC | : 5056A-RV701 |

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.
“Federal Communications Commission (FCC) Statement 15.105(a)
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.” “15.21
You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user’s authority to operate the equipment.”
“FCC RF Radiation Exposure Statement:
1. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

**“Caution:** Exposure to Radio Frequency Radiation
1. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.”

## PRODUCT SPECIFICATION

RF Performance

- RX frequency: 433.92MHz ISM band
- Receiver sensitivity: -100dBm or better
- Antenna: 2 external dipole through a TNC-F connector

Electrical Performance

- Powered by a MEMS EVOLUTION 4 TRANSCEIVER.

Operating Conditions

- Operating temperature: -20°C to +60°C, -4°F to +140°F Storage Conditions
- Storage temperature: -40 to +70°C, -40°F to +158°F

Physical Characteristics

- Dimensions: L=180mm. W= 65mm. D=20mm (including connectors)
- Weight: approximately 500g
- Aluminium case, anodized

Environment

- RoHS compliant

## DISPOSAL

The MEMS EVOLUTION 4 RF MODULE must not be disposed of in landfill.
At the end of its life the MEMS EVOLUTION 4 RF MODULE must be removed from the vehicle and deposited in a container dedicated to the recycling of electronic.
If users do not have access to the appropriate recycling facility, your local Michelin MEMS representative is able to provide a container dedicated to the purpose of collecting MEMS equipment.

## CONTACT DETAILS – Technical Support

For more information or assistance, please contact the Michelin MEMS representative for your country.

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|---|---|
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| USA, Canada & México | : +1 864 458 5000 |
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| South Africa | : +27 115 790 300 |
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## PRODUCT INFORMATION

For correct operation, the coupling torque of all SMA connectors is 0.34 – 0.57Nm. Failure to tighten to this range can result in loss of performance and/or damage to the connector during use.

Features, specifications are subject to change withoDocument version 7.0 

## Documents / Resources

| | |
|---|---|
|  | MICHELIN MEMS Evolution 4 RF Module [pdf] User Manual<br>RV701, FI5-RV701, FI5RV701, MEMS Evolution 4 RF Module, MEMS Evolution 4, RF Module, Module |