

RF Exposure Report

Project Number: 4191450

Report Number: 4191450EMC03 **Revision Level:** 0

Client: Michelin Americas Research Co.

Equipment Under Test: Industrial TPMS Receiver

Model Name: Antenne Active

Model Number: AA-V2.0

FCC ID: FI5-EX1-01

Applicable Standards: 47 C.F.R. §§ 2.1091 and 2.1093; FCC KDB 447498
FCC OET Bulletin 65 Supplement

Remarks: This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Client Information

Name: Michelin Americas Research Co.
Address: 515 Michelin Rd
City, State, Zip, Country: Greenville, SC 29605, USA

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Type of Product: Industrial TPMS Receiver
Model Name: Antenne Active
Model Number: AA-V2.0
Serial Number: Not labeled

Frequency Range: 2402-2480MHz
Data Modes: Bluetooth Low Energy
Antenna: Surface Mount Antenna (-2.8dB)

Rated Voltage: 24Vdc
Test Voltage: 24Vdc

Sample Received Date: 10 August 2017
Dates of testing: 12-16 September 2017

1.4 Operating Modes and Conditions

For this assessment, the EUT's maximum measured conducted power and peak antenna gain were considered.

2 RF Exposure

2.1 Test Result

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 Test Method

Using the maximum conducted power, the power density was calculated. The antenna gain was derived from the conducted power measurements and radiated EIRP measurements. Based on EIRP measurements, the antenna gain was -2.8dBi. For the calculations, this value was used as worst-case.

2.3 Single transmission RF Exposure Levels

Band of Operation		Conducted Power w/tolerance	Antenna Gain	Cable Loss	Average EIRP		Distance (R)	Power Density $EIRP_{avg}/(4\pi R^2)$	FCC	% of Limit	Verdict
Type	MHz	dBm			dBm	mW	cm	mW/cm ²	mW/cm ²		
Bluetooth	2400-2483.5	2.4	-2.8	0.0	-0.4	1	1	0.072	1.00	7%	Pass

1cm was chosen as a worst-case separation distance. This device is not intended for body-worn applications.