



MPE Report

Report No.:STS2604018H03

Issued for

Fortin Auto Radio Inc.

9855 Colbert, Anjou, Quebec, Canada, H1J1Z9

Product Name: ANT-RFIDBT2

Brand Name: Fortin

Model Name: ANT-RFIDBT2

Series Model(s): N/A

FCC ID: 2ACKU-ANTRFIDBT2

Test Standard: FCC 47CFR §2.1091

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the ShenZhen STS Test Services Co., Ltd.

**TEST REPORT****Applicant's Name**.....: Fortin Auto Radio Inc.

Address: 9855 Colbert, Anjou, Quebec, Canada, H1J1Z9

Manufacturer's Name.....: Fortin Auto Radio Inc.

Address: 9855 Colbert, Anjou, Quebec, Canada, H1J1Z9

Product Description

Product Name.....: ANT-RFIDBT2

Brand Name: Fortin

Model Name: ANT-RFIDBT2

Series Model(s).....: N/A

Test Standards: FCC 47CFR §2.1091

447498 D01 Interim General RF Exposure Guidance v06

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Date of Test

Date of receipt of test item.....: 03 Apr. 2026

Date (s) of performance of tests: 03 Apr. 2026 ~ 29 May 2026

Date of Issue.....: 29 May 2026

Test Result.....: **Pass**

Testing Engineer : _____

Aaron Bu

(Aaron Bu)

Technical Manager : _____

Skylar Li

(Skylar Li)

Authorized Signatory : _____

Bovey Yang

(Bovey Yang)





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**Revision History**

Rev.	Issue Date	Report No.	Effect Page	Contents
00	29 May 2026	STS2604018H03	ALL	Initial Issue



1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

Product Name	ANT-RFIDBT2	
Brand Name	Fortin	
Model Name	ANT-RFIDBT2	
Series Model(s)	N/A	
Model Difference	N/A	
Product Description	The EUT is ANT-RFIDBT2	
	Operation Frequency:	BLE: 2402~2480 MHz SRD: 125K
	Modulation Type:	BLE: GFSK SRD: ASK
	Antenna gain:	BLE: 0.5dBi SRD: 0dBi
	Antenna Designation:	BLE: CHIP SRD: Coil
Power Rating	Input: DC 12V	
Adapter	N/A	
Battery	N/A	
Hardware Version	1R0	
Software Version	1.01	

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01



2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
3.0-30	1842/f	4.89/f	*(900/f ²)
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1.34-30	824/f	2.19/f	*(180f ²)
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss Transmission Formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.



Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 Wireless Power Transfer v04

Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

Note 4: The aggregate H-field strengths at 20 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

Maximum Permissible Exposure				
Operation	Separation	Probe from EUT Side	E-field (V/m)	H-field (A/m)
DC 12V	20cm	Front	0.456	0.111
DC 12V	20cm	Rear	0.436	0.119
DC 12V	20cm	Left	0.427	0.114
DC 12V	20cm	Right	0.440	0.128
DC 12V	20cm	Top	0.479	0.145
Limit			614	1.63
Margin Limit (%)			0.08%	8.88%



2.3 TEST RESULT

Tune up

Mode	frequency	Maximum Output Power	Tune up tolerance	Max Tune up
	MHz	dBm	dBm	dBm
GFSK(BLE)	2440	4.55	4±1	5

RF Function	Frequency (MHz)	Separation distance (cm)	Max AVG Power (dBm)	Tune Up Power (dBm)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Ratio	Result
BLE	2440	20	4.55	4±1	5.50	3.548	0.0007	1	0.000706	Pass

Multiple transmission: BLE + 125K = 0.000706 + 0.0888 = 0.089506 < 1

Note: 1. The Maximum power is less than the limit, complies with the exemption requirements.

2. ERP = EIRP - 2.15

※※※※※END OF THE REPORT※※※※※