




# TEST REPORT

FCC ID..... :	2AG87RM-3625, 2AG87-RM3625	
Test Report No..... :	TCT210722E017	
Date of issue..... :	Apr. 21, 2022	
Testing laboratory .....	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name..... :	Doodle Labs (SG) Pte Ltd	
Address..... :	150 Kampong Ampat, KA Center, Suite 05-03, Singapore 368324, Singapore	
Manufacturer's name ... :	Doodle Labs (SG) Pte Ltd	
Address..... :	150 Kampong Ampat, KA Center, Suite 05-03, Singapore 368324, Singapore	
Standard(s) .....	FCC CFR Title 47 Part 1.1310	
Product Name..... :	Smart Radio – CBRS	
Trade Mark .....	N/A	
Model/Type reference..... :	RM-3625	
Rating(s) .....	Input: DC 5.5~42V	
Date of receipt of test item .....	Jul. 22, 2021	
Date (s) of performance of test..... :	Jul. 22, 2021 - Apr. 21, 2022	
Tested by (+signature) ... :	Brews XU	
Check by (+signature)..... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	



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## 1. General Product Information

### 1.1. EUT description

Product Name.....:	Smart Radio – CBRS
Model/Type reference.....:	RM-3625
Sample Number.....:	TCT210722E013-0101
Tx Frequency.....:	3555 MHz ~ 3695 MHz
Rx Frequency.....:	3555 MHz ~ 3695 MHz
EUT Type.....:	Citizens Band End User Devices Citizens Band Category A Devices Citizens Band Category B Devices
Type of Modulation.....:	DSSS, OFDM
Antenna Type.....:	External Antenna
Antenna Gain.....:	For End User Device: 3 dBi For Category A Device: 9.5 dBi For Category B Device: 18 dBi
Rating(s).....:	Input: DC 5.5 ~ 42V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

### 1.2. Model(s) list

No.	Model No.	Tested with
1	RM-3625	<input checked="" type="checkbox"/>

## 2. General Information

### 2.1. Test environment and mode

Item	Normal condition
Temperature	+25°C
Voltage	DC 12V
Humidity	56%
Atmospheric Pressure:	1008 mbar
<b>Test Mode:</b>	
Engineering mode:	Keep the EUT in continuous transmitting by select channel

### 2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

**Note:**

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

### 3. Facilities and Accreditations

#### 3.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098  
SHENZHEN TONGCE TESTING LAB  
Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1  
SHENZHEN TONGCE TESTING LAB  
CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

#### 3.2. Location

SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

## 4. Test Results and Measurement Data

### 4.1. Requirements

Limits For Maximum Permissible Exposure (MPE)				
Frequency range (MHz)	Electric field strength(V/m)	Magnetic field Strength(A/m)	Power density (mw/cm <sup>2</sup> )	Averaging time (minutes)
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.0173	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

### 4.2. MPE Calculation

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = Power density (In appropriate units, e.g., mW/cm<sup>2</sup>)

P = Power input to the antenna ( In appropriate units, e.g., mW)

G = Power gain og the antenna in the direction of interest relative to an isotropic radiator, the power gain factor,

Is normally numeric gain

R =Distance tp the center of radiation of the antenna(In appropriate units, e.g., cm

**4.3. Test Result**

Operation Bands	Frequency(MHz)	Max. Output power(dBm)	Cable loss (dB)	Power to Antenna(mW)	Antenna gain	
					Isotropic	Numeric
End User Device	3625	19.59	0.63	78.70	3	2.00
Category A Device	3625	19.59	2.71	48.75	9.5	8.91
Category B Device	3625	19.59	2.71	48.75	18	63.10

Operation Bands	Power (mW)	Antenna gain(G)	Measure Distance(cm)	Power density (mW/cm <sup>2</sup> )	MPE limit (mW/cm <sup>2</sup> )
End User Device	78.70	2.00	20	0.0312	1
Category A Device	48.75	8.91	20	0.0864	1
Category B Device	48.75	63.10	20	0.6120	1

**Results: PASS**

**\*\*\*\*\*END OF REPORT\*\*\*\*\***