

TEST REPORT

FCC ID.....:	2A578-T02	
Test Report No.:	TCT230103E021	
Date of issue	Feb. 01, 2023	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name	INTRO UNION ELECTRONICS CO., LIMITED	
Address	501, 2 Building, NO.280-2, Dabutou Village, Songyuansha Community, Guanhu Sub-district, Longhua District, Shenzhen, China	
Manufacturer's name	INTRO UNION ELECTRONICS CO., LIMITED	
Address	501, 2 Building, NO.280-2, Dabutou Village, Songyuansha Community, Guanhu Sub-district, Longhua District, Shenzhen, China	
Standard(s).....:	FCC CFR Title 47 Part 2.1091	
Product Name	Bluetooth FM transmitter	
Trade Mark.....:	N/A	
Model/Type reference	MTG BT FM Transmitter, 6132512, T02	
Rating(s)	Input:DC 12V-24V Output:PD30W-5V/2.4A	
Date of receipt of test item	Jan. 03, 2022	
Date (s) of performance of test	Dec. 28, 2022 - Feb. 01, 2023	
Tested by (+signature).....:	Yannie ZHONG	<i>Yannie Zhong</i>
Check by (+signature)	Beryl ZHAO	<i>Beryl Zhao</i>
Approved by (+signature):	Tomsin	<i>Tomsin</i>



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1. General Product Information

1.1. EUT description

Test item description	Bluetooth FM transmitter
Model/Type reference.....	MTG BT FM Transmitter
Sample Number.....	TCT230103E019-0101
Operation Frequency	For BT: 2402MHz~2480MHz For FM: 88.1MHz – 107.9MHz
Modulation Type.....	For BT: GFSK, $\pi/4$ -DQPSK, 8DPSK For FM: FM
Antenna Type.....	For BT: PCB Antenna For FM: Internal Antenna
Antenna Gain.....	2.12dBi
Rating(s).....	Input:DC 12V-24V Output:PD30W-5V/2.4A

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	MTG BT FM Transmitter	<input checked="" type="checkbox"/>
Other models	6132512, T02	<input type="checkbox"/>

Note: MTG BT FM Transmitter is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of MTG BT FM Transmitter can represent the remaining models.

2. Facilities and Accreditations

2.1. 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.

2.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict,
Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

3. Test Results and Measurement Data

The criteria listed in the following table shall be used to evaluate the environment impact of 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)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500	-	-	f/300	6
1500–100,000	-	-	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	-	-	f/1500	30
1500–100,000	-	-	1.0	30

Note: f = frequency in MHz

EVALUATION METHOD

Transmission formula: $Pd = (Pout * G) / (4 * \pi * r^2)$

Where

Pd = power density in mW/cm², **Pout** = output power to antenna in mW, **G** = gain of antenna in linear scale;

Pi = 3.1416, **R** = distance between observation point and center of the radiator in cm

Assessment Result

Passed **Not Applicable**

Frequency range (MHz)	Type	Conducted Power (dBm)	Maximum Tune-up (dBm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
2402-2480	BT-EDR	5.58	6.00	0.0013	1.0000	Pass
88.1 – 107.9	FM	-32.036	-32.000	0.0000002	0.2000	Pass

Note: The exposure evaluation safety distance is 20cm.

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