

Shenzhen Toby Technology Co., Ltd.



Report No.: TBR-C-202209-0184-20 Page: 1 of 36

FCC Radio Test Report FCC ID: 2AXWO-M46

Report No.	1	TBR-C-202209-0184-20
Applicant	:	Doors Korea Co.,Ltd
Equipment Under	Test	E(EUT)
EUT Name	-	UHF Microphone
Model No.	<	M46
Serial Model No.	2	M43-SE, M43-US, M43-CE, M43-KR, M46-SE, M46-US, M46-CE, M46-KR
Brand Name	:	Miracle,M the Sing
Sample ID	2:	202209-0184-10-1# & 202209-0184-10-2#
Receipt Date	61	2022-10-14
Test Date		2022-10-14 to 2022-12-05
Issue Date	-	2022-12-15
Standards		FCC Part 15, Subpart C (15.249)
Test Method	:	ANSI C63.10: 2013
Conclusions	Bil	PASS
		In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC requirements

Test/Witness Engineer

Engineer Supervisor

Approved & Authorized

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 the report.

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TB-RF-074-1.0



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Revision History

Report No.	Version	Description	Issued Date
TBR-C-202209-0184-20	Rev.01	Initial issue of report	2022-12-15
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MOBI	RUSH		MUB
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0000		S CON	0000
	TO V	TOP TOP	
	6105		
000	33	TOP3 TO TO	E Contractioner
m BI	TOD		mB1
an mos		A LONG	



1. General Information about EUT

1.1 Client Information

Applicant : Doors Korea Co.,Ltd				
Address : 1F, 27, Mangu-ro 81-gil, Jungnang-gu, Seoul, South Korea				
Manufacturer : DONGGUAN TUCHI ELECTRONIC TECHNOLOGY CO.LTD				
:	Room 201, 4th Building, No.1,XINWEI 1st Road, ShaJiao District, Humen, DongGuan, GD, CN			

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	UHF Microphone				
Model No.		M46, M43-SE, M43-US, M43-CE, M43-KR, M46-SE, M46-US,				
woder No.		M46-CE, M46-KR				
Model Difference		All these models are on	the same PCB, the layout and circuit are			
		the same, the only difference is the sale model is different.				
A LUN	1	Operation Frequency:	Wireless microphone: 902.1-927.9 MHz			
		Number of Channel: Please see the note (2)				
Product	:	Output power: 84.93 dBuV/m@3m Peak				
Description	10	Antenna Gain: -0.96dBi Internal Antenna				
		Equipment System:	Analog signal			
Dower Doting		Input: DC 5V				
Power Rating	P	DC 3.7V by 1200mAh Rechargeable Li-ion battery				
Software Version	-	1.0	1.0			
Hardware Version	:	V2.0				
Connecting I/O Port(S)		Please refer to the User's Manual				

Note:

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Channel List:



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Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	902.1	16	909.6	31	923.4
02	902.6	17	910.1	32	923.9
03	903.1	18	910.6	33	924.4
04	903.6	19	911.1	34	924.9
05	904.1	20	911.6	35	925.4
06	904.6	21	918.4	36	925.9
07	905.1	22	918.9	37	926.4
08	905.6	23	919.4	38	926.9
09	906.1	24	919.9	39	927.4
10	906.6	25	920.4	40	927.9
11	907.1	26	920.9		
12	907.6	27	921.4		
13	908.1	28	921.9		
14	908.6	29	922.4		
15	909.1	30	922.9		

1.3 Block Diagram Showing the Configuration of System Tested

Adapter

EUT

EUT





1.4 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Radiated Test					
Final Test Mode Description					
Mode 1	TX Mode(902.1MHz/911.6MHz/927.9MHz)				

Note:

For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

(1) According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels.

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis, X-plane, Y-plane and Z-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.5 Description of Test Software Setting

During testing channel & Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF mode.

Test Software Version		the corresponding tra	
wireless microphone	902.1 MHz	911.6MHz	927.9MHz
FSK	DEF	DEF	DEF



TOBY

1.6 Measurement Uncertainty

The reported uncertainty of measurement y \pm U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	±3.50 dB ±3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB

1.7 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F.,Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01. FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A.





2. Test Summary

Standard Section	Test Item	Judgment	Remark
15.203	Antenna Requirement	PASS	N/A
15.205	Restricted Bands	PASS	N/A
15.207	AC Power Conducted Emission	PASS	N/A
15.249 &15.209	Radiated Spurious Emission	PASS	N/A
15.215(C)	20dB Bandwidth	PASS	N/A



3. Test Equipment

Conducted Emissio	n Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 23, 2022	Jun. 22, 2023
nn -	Compliance				6002
RF Switching Unit	Direction Systems	RSU-A4	34403	Jun. 23, 2022	Jun. 22, 2023
	Inc	SI CI	133	AUS	
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 22, 2022	Jun. 21, 2023
LISN	Rohde & Schwarz	ENV216	101131	Jun. 22, 2022	Jun. 21, 2023
Radiation Emission	Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 23, 2022	Jun. 22, 2023
MXA Signal Analyzer	Agilent	N9020A	MY47380425	Sep. 01, 2022	Aug. 31, 2023
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jun. 23, 2022	Jun. 22, 2023
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472	Feb. 26, 2022	Feb.25, 2023
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Feb. 27, 2022	Feb. 26, 2024
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Dec. 05, 2021	Dec. 04, 2023
Horn Antenna	ETS-LINDGREN	3117	00143207	Feb. 26, 2022	Feb. 25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	May 20, 2021	May 19, 2023
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 26, 2022	Feb. 25, 2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
Pre-amplifier	SONOMA	310N	185903	Feb. 26, 2022	Feb. 25, 2023
Pre-amplifier	HP	8449B	3008A00849	Feb. 26, 2022	Feb.25, 2023
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Sep. 01, 2022	Aug. 31, 2023
HF Amplifier	Tonscend	TAP051845	AP21C806141	Sep. 01, 2022	Aug. 31, 2023
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Sep. 01, 2022	Aug. 31, 2023
Antenna Conducted	I Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jun. 23, 2022	Jun. 22, 2023
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 23, 2022	Jun. 22, 2023
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 01, 2022	Aug. 31, 2023
Spectrum Analyzer	KEYSIGT	N9020B	MY60110172	Sep. 01, 2022	Aug. 31, 2023
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO26	Sep. 01, 2022	Aug. 31, 2023
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO29	Sep. 01, 2022	Aug. 31, 2023





	DARE!! Instruments		17100015SNO31	Sep. 01, 2022	Aug. 31, 2023
MURD	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO33	Sep. 01, 2022	Aug. 31, 2023
RF Control Unit	Tonsced	JS0806-2	21F8060439	Sep. 01, 2022	Aug. 31, 2023



4. Conducted Emission Test

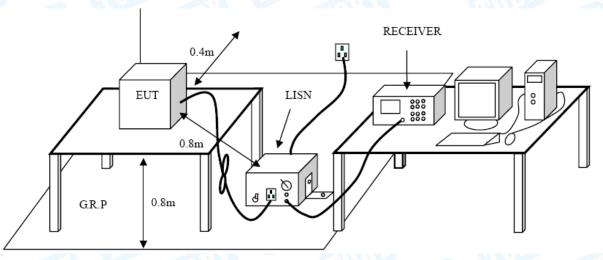
- 4.1 Test Standard and Limit
 - 4.1.1Test Standard FCC Part 15.207
 - 4.1.2 Test Limit

Conducted Emission Test Limit

Freedoment	Maximum RF Line Voltage (dBµV)				
Frequency	Quasi-peak Level	Average Level			
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *			
500kHz~5MHz	56	46			
5MHz~30MHz	60	50			

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
- 4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.





Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN is at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Data

Please refer to the Attachment A.



5. Radiated Emission Test

- 5.1 Test Standard and Limit
 - 5.1.1 Test Standard
 - FCC Part 15.209
 - 5.1.2 Test Limit

Radiated Emission Limit (9kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Emission Limit (Above 1000MHz)

Frequency	(dBuV/m)(at 3 M)			
(MHz)	Peak	Average		
Above 1000	74	54		

Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(Uv/m)

Limits of radiated emission measurement (15.249)

FCC Part 15 (15.249), Subpart C

Limit	Frequency Range (MHz)		
Field strength of fundamental	000 1 007 0		
50000 μV/m (94 dBμV/m) @ 3 m	902.1~927.9		
Field strength of harmonics	Polow 002 1 and Above 027 0		
500 μV/m (54 dBμV/m) @ 3 m	Below 902.1 and Above 927.9		

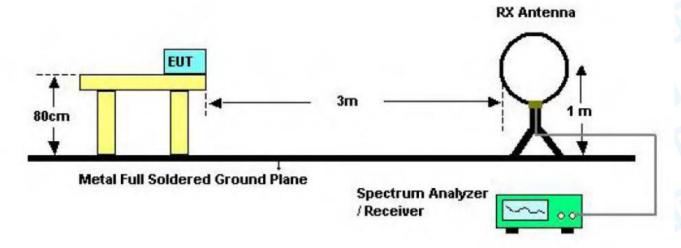




Restricted bands requirement for equipment operating in 5725MHz to 5875 MHz (15.249)

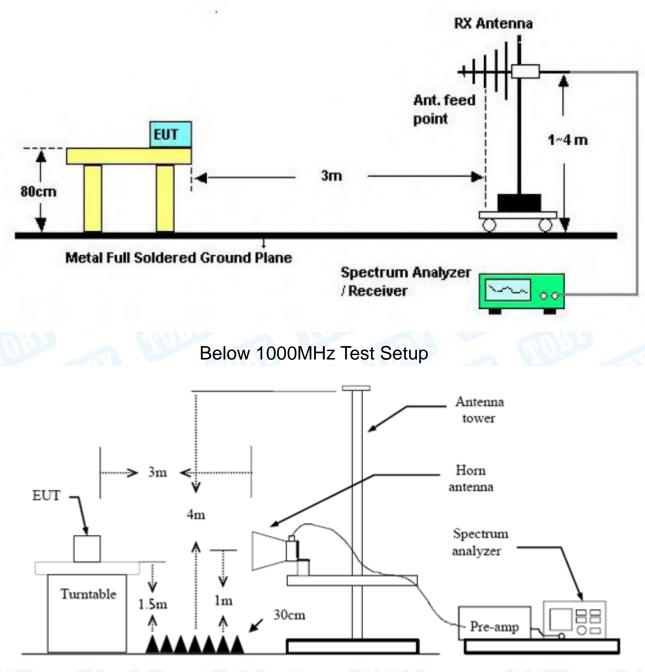
Restricted Frequency Band (MHz)	(dBuV/m)(at 3 M)		
	Attenuated by at least 50 dB below the level		
5725~5875	of the fundamental or to the general radiated		
5725~5675	emission limits in 15.209, whichever is the		
	lesser attenuation		

5.2 Test Setup



Bellow 30MHz Test Setup





Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to



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determine the position of the highest radiation.

- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

5.4 EUT Operating Condition

The EUT was set to Continual Transmitting in maximum power, and new batteries are used during testing.

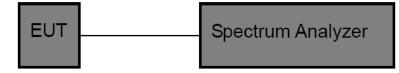
5.5 Test Data

Please refer to the Attachment B.



6. Bandwidth Test

6.1 Test Setup



6.2 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Spectrum Setting:

Bandwidth: RBW=10 kHz, VBW=30kHz.

(3) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.

6.3 EUT Operating Condition

The EUT was set to continuously transmitting for the Bandwidth Test.

6.4 Test Data

Please refer to the Attachment C.



7. Antenna Requirement

- 7.1 Standard Requirement
 - 7.1.1 Standard
 - FCC Part 15.203
 - 7.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

7.2 Antenna Connected Construction

The gains of the antenna used for transmitting is -0.96 dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

7.3 Result

The EUT antenna is a Internal Antenna. It complies with the standard requirement.

Antenna Type				
3 000	Permanent attached antenna			
	Unique connector antenna			
Curry and	Professional installation antenna			



Attachment A-- Conducted Emission Test Data

Temperatu	re: 24.3°C		R	elative Hum	idity:	58%	
Test Voltag	e: AC 12	20V/60Hz		20	A	NIS-	
Terminal:	Line	1000		CITE)	3		Un UD
Test Mode:	Mode	1	1	Less.	-	17	Care and
Remark:	Only	worse case is	s reported.	1	N.		1
80.0 dE	3uV						
						QP: AVG:	
-							
×		↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓					
	XX W WM.						
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	Mummu	- M	and and a state	an an an an an an	and preservation	were broken and and and	with mut peak
A	Munim	- M	And and and	Mark and a	*** **********************************	natur bing and first states	AVG
	/ Winghow Wing	- M	here and adde				and the second
	Mu Wi White way	- M	here and and				and the second
-20	Mu walka	- M	MHz)	5			and the second
		0.5	(MH2)	5			AVG
0.150		ns Reading	IMH21 Correct	5 Measure-	Limit	Over	AVG
	lk. Freq.	ns Reading Level	IMH21 Correct Factor	5 Measure- ment	Limit	Over	AVG
No. M	lk. Freq. MHz	0.5 Reading Level dBuV	IMH21 Correct Factor dB	5 Measure- ment dBuV	dBuV	dB	AVG 30.000
0.150	lk. Freq.	ns Reading Level	IMH21 Correct Factor	5 Measure- ment	dBuV		30.000
0.150 No. M	lk. Freq. MHz	0.5 Reading Level dBuV	IMH21 Correct Factor dB	5 Measure- ment dBuV	dBuV 65.56	dB	30.000
No. M	Ik. Freq. MHz 0.1580	Reading Level dBuV 31.20	Correct Factor dB 11.09	Measure- ment dBuV 42.29	dBuV 65.56 55.56	dB -23.27	30.000 Detector
No. M	Ik. Freq. MHz 0.1580 0.1580	0.5 Reading Level dBuV 31.20 12.43	Correct Factor dB 11.09 11.09	Measure- ment dBuV 42.29 23.52	dBuV 65.56 55.56 63.69	dB -23.27 -32.04	AVG 30.000 Detector QP AVG QP
No. M	Ik. Freq. MHz 0.1580 0.1580 0.1980	Reading Level dBuV 31.20 12.43 26.46	Correct Factor dB 11.09 11.09 11.01	Measure- ment dBuV 42.29 23.52 37.47	dBuV 65.56 55.56 63.69 53.69	dB -23.27 -32.04 -26.22	AVG 30.000 Detector QP AVG
No. M 1 2 3 4	Ik. Freq. MHz 0.1580 0.1580 0.1980 0.1980	Reading Level dBuV 31.20 12.43 26.46 5.27	Correct Factor dB 11.09 11.01 11.01	Measure- ment dBuV 42.29 23.52 37.47 16.28	dBuV 65.56 55.56 63.69 53.69 63.04	dB -23.27 -32.04 -26.22 -37.41	Detector QP AVG QP AVG

17.46

34.83

22.64

17.98

10.29

51.36 -33.90

56.00 -21.17

46.00 -23.36

56.00 -38.02

46.00 -35.71

AVG

QP

AVG

QP

AVG

Remark:

8

9 *

10

11 12

TOBY

1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)

6.55

23.93

11.74

7.88

0.19

10.91

10.90

10.90

10.10

10.10

0.2620

0.6500

0.6500

3.9180

3.9180

2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)





Temperature:	24.3 ℃	Relative Humidity:	58%
Test Voltage:	AC 120V/60Hz		1
Terminal:	Neutral	any a	
Fest Mode:	Mode 1		- GUD
Remark:	Only worse case is	reported.	51
			QP: AVG:
-20			

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	0.1580	31.73	11.00	42.73	65.56	-22.83	QP
2	0.1580	13.08	11.00	24.08	55.56	-31.48	AVG
3	0.1980	27.21	11.12	38.33	63.69	-25.36	QP
4	0.1980	5.68	11.12	16.80	53.69	-36.89	AVG
5	0.2700	26.72	11.01	37.73	61.12	-23.39	QP
6	0.2700	9.16	11.01	20.17	51.12	-30.95	AVG
7 *	0.6500	28.11	10.88	38.99	56.00	-17.01	QP
8	0.6500	17.32	10.88	28.20	46.00	-17.80	AVG
9	1.9020	16.58	10.56	27.14	56.00	-28.86	QP
10	1.9020	7.96	10.56	18.52	46.00	-27.48	AVG
11	10.5500	14.03	10.20	24.23	60.00	-35.77	QP
12	10.5500	6.82	10.20	17.02	50.00	-32.98	AVG

Remark: 1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)

2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)





Attachment B-- Radiated Emission Test Data

Field Strength of the Fundamental

Temperature:	22.6 ℃			Relative Humi	dity:	42%
Fest Voltage:	AC 120V/6	0Hz				
Ant. Pol.	Horizontal		NJ V	(AD)	2	~
Fest Mode:	TX 902.1M	IHz		1	655	BD
Remark:	CM.	19	alor		10	
100.0 dBuV/m						
90				(RF)FCC 15 Margin -6 d		ation
40				Margin -u u		
20 10 0 -10	som	non hutapitat anna	4.000 ¹ 000 ⁻	ntreinnen er het binnen aller hannen er	www.	
-20						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	860.0000	34.73	-8.96	25.77	46.00	-20.23	peak
2 *	902.0340	93.40	-8.52	84.88	94.00	-9.12	peak



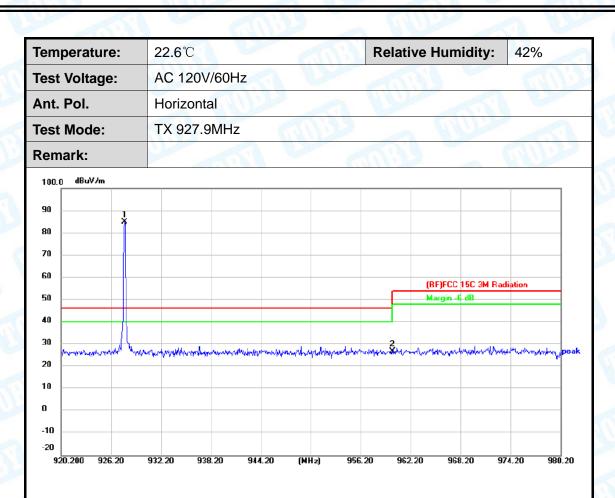


Cemperature:	22.6 ℃			Rela	ative H	umidity:	42%
est Voltage:	AC 120	V/60Hz	-	180		1	620
Ant. Pol.	Vertical		COD)			Ult	-
est Mode:	TX 902	1MHz	Charles and a	and a	5		NUD
Remark:	25	N		Chine and	-		
100.0 dBuV/m							
90							
80							
70					2		
60							
50						C 15C 3M Radia	ation
40					Margin	-6 dB	
30 <i>wywialchide/departmenter</i> 20	morganthinstand	utotheren territed and	madministration	nderholdsternette	www.	Unit Manthamborganition	
10							
0							
-10							
-20 839.865 847.82	855.77 8	63.72 871.67	(MHz) 88	7.57 89	5.52 9	03.47 911	.42 919.3

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	860.0000	34.97	-8.96	26.01	46.00	-19.99	peak
2 *	902.0340	79.00	-8.52	70.48	94.00	-23.52	peak



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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	927.8200	93.07	-8.14	84.93	94.00	-9.07	peak
2	960.0000	35.02	-7.96	27.06	46.00	-18.94	peak





emperature:	22.6 ℃			Relative Hu	midity:	42%
est Voltage:	AC 120	V/60Hz		199	12	62
Ant. Pol.	Vertical		A CUM		UPP -	
est Mode:	TX 927.	9MHz	6	TAU Y		AUD.
Remark:	2	N		-	50	
100.0 dBuV/m						
90						
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0						
-10						
-20						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1 *	927.8400	81.29	-8.14	73.15	94.00	-20.85	peak
2	960.0000	34.46	-7.96	26.50	46.00	-19.50	peak





9 KHz to 30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

30MHz-1GHz

Temper	ature:	23.2	°C	1		Rel	ative Humic	lity: 4	1%
Test Vo		AC	120V/	60Hz	and		NU		
Ant. Po	1.	Hori	zontal		-	CITI'S		(IV)	in the
Test Mo	ode:	TX	Node	1		Contraction of the second	100		611
Remark	(:			for the	emission v	which more	than 20 dB b	elow the	•
80.0 di	3uV/m								
70									X
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50							Margin -6-dl	}	
40							4 *	Š	
30					1	2 3 New	h _o	المجاجع ومحادثه والمحاد	1 mm Wepeak
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			estly alphabel	Mad Vanda					
0									
-10 -20									
30.000		60.00			(MHz)	300	0.00		1000.000
No.	Freque (MH:	-		iding 8uV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	125.00	066	44	.08	-22.97	21.11	43.50	-22.39	peak
2	216.02	240	50	.04	-23.54	26.50	46.00	-19.50	peak
3	263.81	190	48	.82	-21.94	26.88	46.00	-19.12	peak
4	336.03	352	55	.01	-19.96	35.05	46.00	-10.95	peak
5	766.08	571	46	.77	-10.45	36.32	46.00	-9.68	peak
6 *	903.30	094	85	.02	-8.50	76.52	Fundamental F	requency	peak

Emission Level= Read Level+ Correct Factor





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Part of	the Cotecno	Group

empe	rature:	23.2	2℃			Rel	ative Humic	dity: 4	1%
est Vo	oltage:	AC	120V/	/60Hz			13.9		au
Ant. Po	ol.	Vert	ical	NO.		A U		R	
est M	ode:	TX	Node		OPD .	12	aV		1200
Remar	k:		601	for the		which more	than 20 dB t	below the	e
80.0	lBuV/m								
70									6 X
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20		ency	Rea	ding uV)		Level	0 00	Margin	Mayer with por
20	Freque	ency Iz)	Rea (dB	ding	мна Factor	Level	Limit	Margin	1000.0
20 10 -10 -20 30.000 NO.	Freque (MH	ency lz) 325	Rea (dB 40.	ding uV)	™⊮₂ Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	1000.0 Detector
20 10 -10 -20 30.000 No.	Freque (MH	ency z) 325 156	Rea (dB 40.	ding uV) .84 .49	Factor (dB/m) -24.08	Level (dBuV/m) 16.76	Limit (dBuV/m) 40.00	Margin (dB) -23.24	1000.0 Detector
20 10 -10 -20 30.000 No. 1 2	Freque (MH 66.73 83.81	ency z) 325 156 243	Rea (dB 40. 37. 42.	ding uV) .84 .49	гмн₂ Factor (dB/m) -24.08 -26.60	Level (dBuV/m) 16.76 10.89	Limit (dBuV/m) 40.00 40.00	Margin (dB) -23.24 -29.11	1000.0 Detector peak peak
20 10 -10 -20 30.000 No. 1 2 3	Freque (MH 66.73 83.81 167.8	ency z) 325 156 243 352	Rea (dB 40. 37. 42. 42.	ding uV) .84 .49 .71	гмна Factor (dB/m) -24.08 -26.60 -22.07	Level (dBuV/m) 16.76 10.89 20.64	Limit (dBuV/m) 40.00 40.00 43.50	Margin (dB) -23.24 -29.11 -22.86	1000.00 Detector peak peak peak

Radiated Spurious Emission (Above 1 GHz)

Tem	perature:	22.6 ℃		Relative Humidity:	42%
Test	t Voltage:	AC 120V/60H	łz	2 12 0	
Ant	. Pol.	Horizontal	611		-
Tes	t Mode:	TX 902.1MH	z	AND A	MUDE
Ren	nark:	No report for prescribed lin		which more than 20 dB belo	ow the
90.0	dBuV/m				
80				(RF) FCC PART 1	ISC (PEAK)
70					
60				(RF) FCC PART 1	ISC (AVG)
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0 -10					
	00.000 1900.00	2800.00 3700.00	4600.00 (MHz)	6400.00 7300.00 8200.00	9100.00 10000.0

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4771.000	50.79	-8.14	42.65	74.00	-31.35	peak
2 *	5797.000	49.71	-6.72	42.99	74.00	-31.01	peak





Tem	perature:	22.6℃	Relative Humidity:	42%			
Test	t Voltage:	AC 120V/60Hz	The second	Contraction of the second			
Ant.	Pol.	Vertical	The second	-			
Test	t Mode:	TX 902.1MHz					
Rem	nark:	No report for the emis prescribed limit.	e emission which more than 20 dB below the t.				
90.0	dBu¥/m						
80			(RF) FCC PART 15C (PEA	n			
70				<u></u>			
60			(RF) FCC PART 15C (AVG				
50		1	the rest of the second s	hundrendebbe			
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30							
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0 -10							
	00.000 1900.00	2800.00 3700.00 4600.00	(MHz) 6400.00 7300.00 8200.00 9100.0	0 10000.			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4987.000	51.11	-7.57	43.54	74.00	-30.46	peak
2 *	5653.000	50.43	-6.49	43.94	74.00	-30.06	peak





Temperature:	22.6 ℃	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Ant. Pol.	Horizontal					
Test Mode:	TX 911.6MHz					
Remark:	No report for the en prescribed limit.	emission which more than 20 dB below the				
90.0 dBuV/m						
80		(RF) FCC PART 1	ISC (PEAK)			
70						
60		(RF) FCC PART 1	ISC (AVG)			
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-10	2800.00 3700.00 4600.0		9100.00 10000.0			

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4996.000	51.28	-7.54	43.74	74.00	-30.26	peak
2 *	7048.000	50.53	-2.92	47.61	74.00	-26.39	peak





Temperature:	22.6℃	Relative Humidity:	42%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX 911.6MHz	TX 911.6MHz					
Remark:	No report for the en prescribed limit.	nission which more than 20 dB below	/ the				
90.0 dBuV/m							
80		(RF) FCC PART 15	C (PEAK)				
70							
60		(RF) FCC PART 15	C (AVG)				
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1000.000 1900.	00 2800.00 3700.00 4600.0	0 (MHz) 6400.00 7300.00 8200.00	9100.00 10000.0				

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4537.000	51.07	-9.19	41.88	74.00	-32.12	peak
2 *	4996.000	50.27	-7.54	42.73	74.00	-31.27	peak





Temp	perature:	22.6 ℃		Relative Humidity:	42%	
Test \	Voltage:	AC 120V/60	Hz			
Ant. I	Pol.	Horizontal	-			
Test I	Mode:	TX 927.9MH	MUDU			
Rema	ark:		o report for the emission which more than 20 dB below the escribed limit.			
90.0	dBuV/m					
80						
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60 -				(RF) FCC PART 1	5C (AVG)	
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-10	N 000 1900 00	2800.00 3700.00		6400.00 7300.00 8200.00		

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	4591.000	51.77	-8.96	42.81	74.00	-31.19	peak
2 *	6733.000	49.52	-3.92	45.60	74.00	-28.40	peak





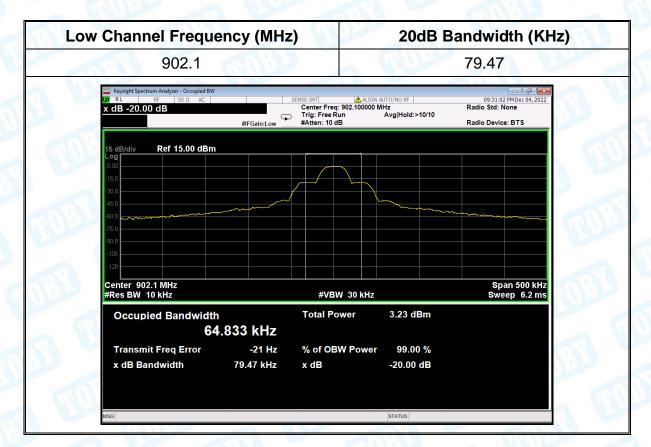
Temperature:	22.6 ℃	Relative Humidity:	42%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX 927.9MHz						
Remark:	No report for the emission which more than 20 dB below the						
	prescribed limit.						
90.0 dBu¥/m							
80							
		(RF) FCC PART 15C ((PEAK)				
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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4717.000	50.86	-8.34	42.52	74.00	-31.48	peak
2 *	6400.000	49.16	-5.03	44.13	74.00	-29.87	peak



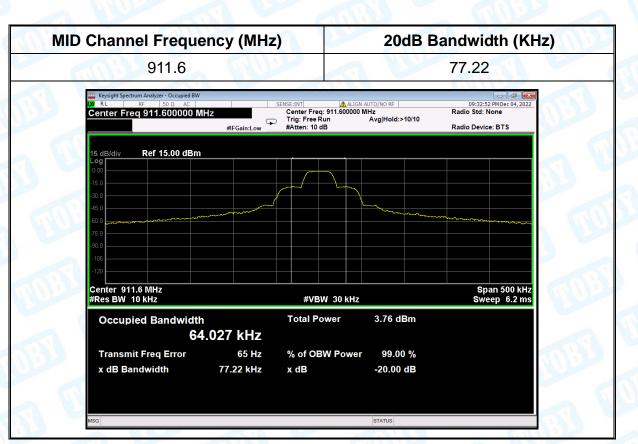


Attachment C--Bandwidth Data



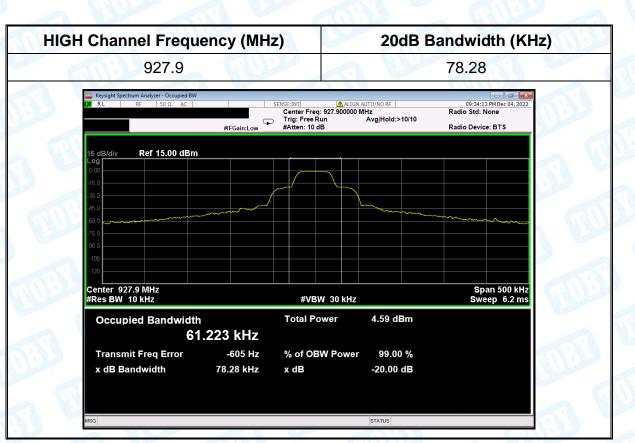












-----End of Report----

