

Report No.: TB-FCC173957 Page: 1 of 35

FCC Radio Test Report FCC ID: 2AQ7C-L100

Original Grant

Report No.	: TB-FCC173957	
Applicant	:	SHENZHEN TOVISION TECHNOLOGY CO., LTD
Equipment Under Tes	st (E	EUT)
EUT Name	:	trail camera
Model No.	:	L100
Series Model No.	:	N/A
Brand Name	:	
Sample ID	:	TBBJ-20200509-02
Receipt Date	:	2020-06-01
Test Date	:	2020-06-02 to 2020-06-29
Issue Date	:	2020-06-30
Standards	:	FCC Part 15, Subpart C 15.247
Test Method	:	ANSI C63.10: 2013
Conclusions	:	PASS

: Jack : WAN SU : fugda.

In the configuration tested, the EUT complied with the standards specified above,

Test/Witness Engineer

Engineer Supervisor



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.

TB-RF-074-1.0



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Revision History

Report No.	Version	Description	Issued Date
TB-FCC173957	Rev.01	Initial issue of report	2020-06-30



1. General Information about EUT

1.1 Client Information

Applicant	:	SHENZHEN TOVISION TECHNOLOGY CO., LTD		
Address	:	5B1, Building 4, Fuhong industrial park, Fuhai street, Bao'an District, SHENZHEN City, CHINA		
Manufacturer	:	SHENZHEN TOVISION TECHNOLOGY CO., LTD		
Address	:	5B1, Building 4, Fuhong industrial park, Fuhai street, Bao'an District, SHENZHEN City, CHINA		

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	trail camera		
Model(s) No.	•••	L100		
Model Different	:	N/A		
		Operation Frequency:	2478MHz	
		Number of Channel:	1 channels	
Product		RF Output Power:	22.355 dBm (Max)	
Description	:	Antenna Gain:	2 dBi Dipole Antenna	
		Modulation Type:	GFSK	
		Bit Rate of Transmitter:	200Kbps	
Power Rating	:	DC 12*1.5V AA Battery. DC 6V from USB Port.		
Software Version	:	L100_V010		
Hardware Version	:	L100_M_V02		
Connecting I/O Port(S)	••	Please refer to the User's Manual		

Note:

This Test Report is FCC Part 15.247 for 2.4G, the test procedure follows the FCC KDB 558074 D01 DTS Means Guidance v05.

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Antenna information provided by the applicant.

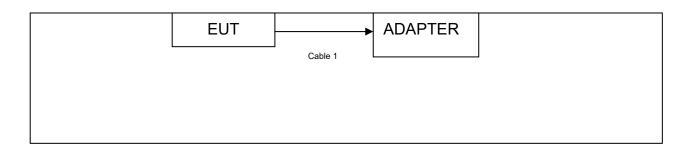


(3) Channel List:

Channel	Frequency (MHz)	
01	2478	

1.3 Block Diagram Showing the Configuration of System Tested

Conducted Test



Radiated Test

EUT		

1.4 Description of Support Units

Equipment Information					
Name	Model	FCC ID/VOC	Manufacturer	Used "√"	
ADAPTER			BAISHIYUAN	\checkmark	
Cable Information					
Number	Shielded Type	Ferrite Core	Length	Note	
Cable 1	YES	YES	0.8m	Accessories	



1.5 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 Conducted Test			
Final Test Mode Description			
Mode 1	Charging+2.4G TX Mode		
For Radiated Test			
Final Test Mode Description			
Mode 2	TX Mode(Channel 01)		
Mode 3 TX Mode (Channel 01)			
Note : The antenna gain provided by the applicant, the adapter and verified for the RF			
conduction test provided by TOBY test lab.			

Note:

(1) 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.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

2.4G Mode: GFSK Modulation Transmitting mode.

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a Fixed unit; in normal use it was positioned on X-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.



1.6 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 setting.

Test Software Version	N/A
Frequency	2478MHz
Parameters	DEF

1.7 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	\pm 3.50 dB	
	150kHz to 30MHz	±3.10 dB	
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	\pm 4.60 dB	
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.50 dB	
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB	



1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at:1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, 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: 2005 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: 2005 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.

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

	FCC Pa	rt 15 Subpart C(15.2	47)/RSS 247 Issue 2		
Standard S	ection	Te of liters			Dements
FCC	IC	Test Item	Test Sample(s)	Judgment	Remark
15.203		Antenna Requirement	TBBJ-20200509-02	PASS	N/A
15.207(a)	RSS-GEN 7.2.4	Conducted Emission	TBBJ-20200509-02	PASS	N/A
15.205&15.247(d)	RSS-GEN 7.2.2	Band-Edge & Unwanted Emissions into Restricted Frequency	TBBJ-20200509-02	PASS	N/A
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	TBBJ-20200509-02	PASS	N/A
15.247(b)(3)	RSS 247 5.4 (4)	Conducted Max Output Power	TBBJ-20200509-02	PASS	N/A
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	TBBJ-20200509-02	PASS	N/A
15.205, 15.209&15.247(d)	RSS 247 5.5	Transmitter Radiated Spurious &Unwanted Emissions into Restricted Frequency	TBBJ-20200509-02	PASS	N/A
Note: N/A is an abbre	viation for Not A	Applicable.			

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0



4. Test Equipment

Conducted Emission	Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 13, 2019	Jul. 12, 2020
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 13, 2019	Jul. 12, 2020
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 13, 2019	Jul. 12, 2020
LISN	Rohde & Schwarz	ENV216	101131	Jul. 13, 2019	Jul. 12, 2020
Radiation Emission T	est	-			-
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 13, 2019	Jul. 12, 2020
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 13, 2019	Jul. 12, 2020
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jul. 13, 2019	Jul. 12, 2020
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.01, 2020	Feb. 28, 2021
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.01, 2020	Feb. 28, 2021
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Aug.07, 2019	Aug. 06, 2020
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 13, 2019	Jul. 12, 2020
Pre-amplifier	Sonoma	310N	185903	Mar.01, 2020	Feb. 28, 2021
Pre-amplifier	HP	8449B	3008A00849	Mar.01, 2020	Feb. 28, 2021
Pre-amplifier	SKET	LNPA_1840G-50	SK201904032	Jul. 27, 2019	Jul. 26, 2020
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.01, 2020	Feb. 28, 2021
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted	Emission			-	
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 13, 2019	Jul. 12, 2020
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 13, 2019	Jul. 12, 2020
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 16, 2019	Sep. 15, 2020
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 16, 2019	Sep. 15, 2020
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO26	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO29	Sep. 16, 2019	Sep. 15, 2020
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO31	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO33	Sep. 16, 2019	Sep. 15, 2020



5. Conducted Emission Test

- 5.1 Test Standard and Limit
 - 5.1.1Test Standard FCC Part 15.207
 - 5.1.2 Test Limit

Conducted Emission Test Limit

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

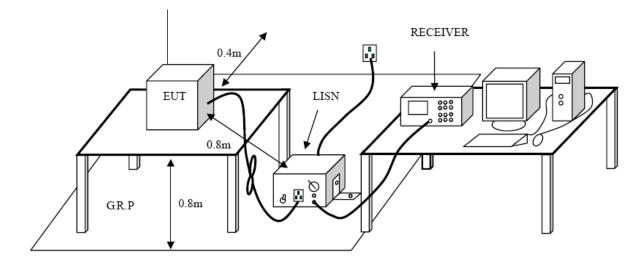
Notes:

(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.

5.2 Test Setup





5.3 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 at least 80 cm from nearest part of EUT chassis.

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

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

Please refer to the Attachment A.



6. Radiated Emission Test

- 6.1 Test Standard and Limit
 - 6.1.1 Test Standard
 - FCC Part 15.247(d)
 - 6.1.2 Test Limit

Radiated Emission Limits (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	Distance Meter	s(at 3m)
(MHz)	Peak (dBuV/m)	Average (dBuV/m)
Above 1000	74	54

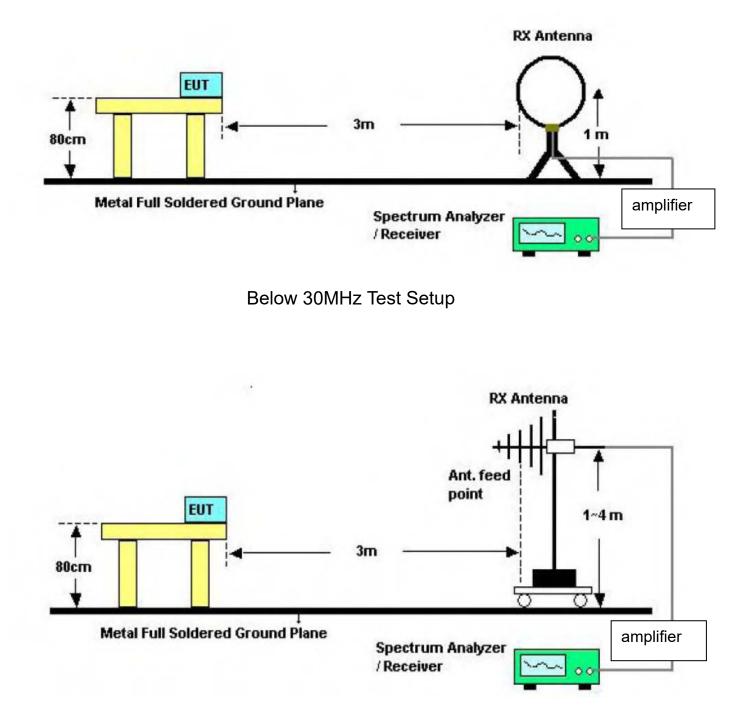
Note:

(1) The tighter limit applies at the band edges.

(2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

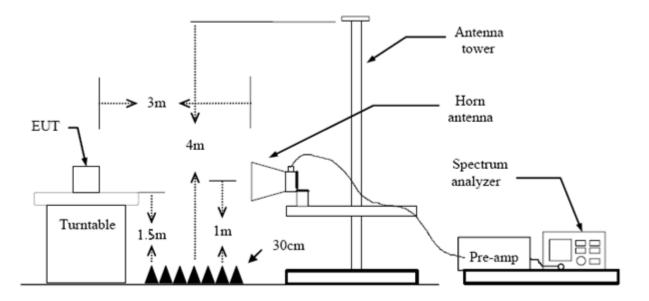


6.2 Test Setup



Below 1000MHz Test Setup





Above 1GHz Test Setup

6.3 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 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.



6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.6 Test Data

Remark: During testing 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.

Please refer to the Attachment B.

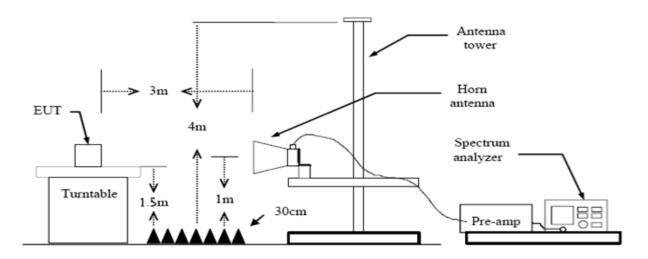


7. Restricted Bands Requirement

- 7.1 Test Standard and Limit
 - 7.1.1 Test Standard FCC Part 15.247(d) FCC Part 15.205
 - 7.1.2 Test Limit

Restricted Frequency	Distance M	eters(at 3m)
Band (MHz)	Peak (dBuV/m)	Average (dBuV/m)
2310 ~2390	74	54
2483.5 ~2500	74	54

7.2 Test Setup



7.3 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 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.
- 7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

- 7.6 Test Data
 - Remark: During testing 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.

Please refer to the Attachment C.

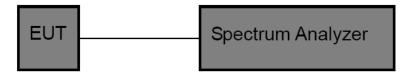


8. Bandwidth Test

- 8.1 Test Standard and Limit
 - 8.1.1 Test Standard
 - FCC Part 15.247 (a)(2)
 - 8.1.2 Test Limit

FCC P	art 15 Subpart C(15.247)/F	RSS-247
Test Item	Limit	Frequency Range(MHz)
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5

8.2 Test Setup



8.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The bandwidth is measured at an amplitude level reduced 6dB 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.
- (3)Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:100 kHz, and Video Bandwidth:300 kHz, Detector: Peak, Sweep Time set auto.

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.

8.6 Test Data

Please refer to the Attachment D.



9. Peak Output Power Test

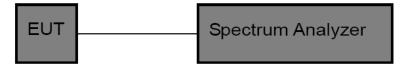
- 9.1 Test Standard and Limit
 - 9.1.1 Test Standard

FCC Part 15.247 (b)(3)

9.1.2 Test Limit

FCC Par	t 15 Subpart C(15.247)/RS	S-247
Test Item	Limit	Frequency Range(MHz)
Peak Output Power	1 Watt or 30 dBm	2400~2483.5

9.2 Test Setup



9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to section 9.1.1 of KDB 558074 D01 DTS Meas Guidance v05.

- (1) Set the RBW≥DTS Bandwidth
- (2) Set VBW≥3*RBW
- (3) Set Span≥3*RBW
- (4) Sweep time=auto
- (5) Detector= peak
- (6) Trace mode= maxhold.
- (7) Allow trace to fully stabilize, and then use peak marker function to determine the peak amplitude level.

9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

9.6 Test Data

Please refer to the Attachment E.

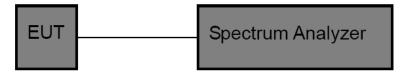


10. Power Spectral Density Test

- 10.1 Test Standard and Limit
 - 10.1.1 Test Standard
 - FCC Part 15.247 (e)
 - 10.1.2 Test Limit

FC	CC Part 15 Subpart C(15.2	47)
Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

10.2 Test Setup



10.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser centre frequency to DTS channel centre frequency.
- (3) Set the span to 1.5 times the DTS bandwidth.
- (4) Set the RBW to: 3 kHz
- (5) Set the VBW to: 10 kHz
- (6) Detector: peak
- (7) Sweep time: auto
- (8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

10.4 Deviation From Test Standard

No deviation

10.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

10.6 Test Data

Please refer to the Attachment F.



11. Antenna Requirement

11.1 Standard Requirement

10.1.1 Standard

FCC Part 15.203

10.1.2 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.

11.2 Deviation From Test Standard

No deviation

11.3 Antenna Connected Construction

The gains of the antenna used for transmitting is 2 dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

11.4 Result

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

Antenna Type
Permanent attached antenna
Unique connector antenna
Professional installation antenna



Attachment A-- Conducted Emission Test Data

Femperatur	e:	24.5 ℃		F	Relative Hu	midity:	44%	
Fest Voltage	e:	AC 120V	60Hz					
Terminal:		Line						
Test Mode:		Mode 1						
Remark:		Only wor	se case(Ir	put: AC 1	20V 60Hz)	is reporte	ed.	
90.0 dBuV								
							QP: AVG:	
	-							
X								
40	mVnp	MALA LA		× ×				
	· 1	IN MANYA	un an	When the standing of the	wythornaryover	http://www.warmer.	Withowshindland	and make and pea
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							and the second se	
-10								
0.150		0.5		(6.11.)	5			30.000
				(MHz)	5			00.000
			Reading			<u>.</u>		
No.	Mk.	Freq.	Reading Level	Correct	t Measure	⊱ Limit	Over	
No.	Mk.	Freq. MHz	-	Correct	t Measure		Over dB	Detector
No.	Mk.		Level	Correct Factor	t Measure ment	Limit dBu∨		
	Mk.	MHz	Level dBuV	Correct Factor dB	t Measure ment dBuV	Limit dBuV 64.76	dB	Detector
1	Mk.	MHz 0.1740	Level dBuV 30.48	Correct Factor dB 9.79	t Measure ment dBuV 40.27	Limit dBuV 64.76 54.76	dB -24.49	Detector
1	Mk.	MHz 0.1740 0.1740	Level dBuV 30.48 14.00	Correct Factor dB 9.79 9.79	Measure ment dBuV 40.27 23.79	Limit dBuV 64.76 54.76 62.02	dB -24.49 -30.97	Detector QP AVG
1 2 3 4	Mk.	MHz 0.1740 0.1740 0.2420	Level dBuV 30.48 14.00 27.23	Correct Factor dB 9.79 9.79 9.80	Measure ment dBuV 40.27 23.79 37.03	Limit dBuV 64.76 54.76 62.02 52.02	dB -24.49 -30.97 -24.99	Detector QP AVG QP
1 2 3 4		MHz 0.1740 0.1740 0.2420 0.2420	Level dBuV 30.48 14.00 27.23 11.47	Correct Factor dB 9.79 9.79 9.80 9.80	Measure ment dBuV 40.27 23.79 37.03 21.27	Limit dBuV 64.76 54.76 62.02 52.02 56.30	dB -24.49 -30.97 -24.99 -30.75	Detector QP AVG QP AVG
1 2 3 4 5		MHz 0.1740 0.1740 0.2420 0.2420 0.4820	Level dBuV 30.48 14.00 27.23 11.47 25.94	Correct Factor dB 9.79 9.79 9.80 9.80 9.80 9.93	Measure ment dBuV 40.27 23.79 37.03 21.27 35.87	Limit dBuV 64.76 54.76 62.02 52.02 56.30 46.30	dB -24.49 -30.97 -24.99 -30.75 -20.43	Detector QP AVG QP AVG QP
1 2 3 4 5 6		MHz 0.1740 0.1740 0.2420 0.2420 0.4820 0.4820	Level dBuV 30.48 14.00 27.23 11.47 25.94 13.03	Correct Factor 9.79 9.79 9.80 9.80 9.93 9.93	t Measure ment dBuV 40.27 23.79 37.03 21.27 35.87 22.96	Limit dBuV 64.76 54.76 62.02 52.02 56.30 46.30 56.00	dB -24.49 -30.97 -24.99 -30.75 -20.43 -23.34	Detector QP AVG QP AVG QP AVG
1 2 3 4 5 6 7		MHz 0.1740 0.1740 0.2420 0.2420 0.4820 0.4820 0.6100	Level dBuV 30.48 14.00 27.23 11.47 25.94 13.03 19.28	Correct Factor 9.79 9.79 9.80 9.80 9.93 9.93 9.93	Measure ment dBuV 40.27 23.79 37.03 21.27 35.87 22.96 29.22	Limit dBuV 64.76 54.76 62.02 52.02 56.30 46.30 56.00 46.00	dB -24.49 -30.97 -24.99 -30.75 -20.43 -23.34 -26.78	Detector QP AVG QP AVG QP AVG QP
1 2 3 4 5 6 7 8 9		MHz 0.1740 0.2420 0.2420 0.4820 0.4820 0.6100 0.6100 1.6460	Level dBuV 30.48 14.00 27.23 11.47 25.94 13.03 19.28 7.96 16.22	Correct Factor dB 9.79 9.79 9.80 9.80 9.93 9.93 9.93 9.94 9.94 9.85	t Measure ment dBuV 40.27 23.79 37.03 21.27 35.87 22.96 29.22 17.90 26.07	Limit dBuV 64.76 54.76 62.02 52.02 56.30 46.30 56.00 46.00 56.00	dB -24.49 -30.97 -24.99 -30.75 -20.43 -20.43 -23.34 -26.78 -28.10 -29.93	Detector QP AVG QP AVG QP AVG QP AVG QP
1 2 3 4 5 6 7 8		MHz 0.1740 0.2420 0.2420 0.2420 0.4820 0.4820 0.6100	Level dBuV 30.48 14.00 27.23 11.47 25.94 13.03 19.28 7.96	Correct Factor dB 9.79 9.79 9.80 9.80 9.93 9.93 9.93 9.94 9.94	Measure ment dBuV 40.27 23.79 37.03 21.27 35.87 22.96 29.22 17.90	Limit dBuV 64.76 54.76 62.02 52.02 56.30 46.30 56.00 46.00 56.00 46.00	dB -24.49 -30.97 -24.99 -30.75 -20.43 -23.34 -23.34 -26.78 -28.10	Detector QP AVG QP AVG QP AVG QP AVG

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



Temperature:	24.5°	2		Relative H	umidity:	44%	
Test Voltage:	AC 12	20V 60Hz					
Terminal:	Neutr	al					
Test Mode:	Mode	1					
Remark:	Only	worse case(Input: AC 1	20V 60Hz) i	is reported	J.	
90.0 dBuV						QP:	_
						AVG:	
40 Min v	×						
40 Mining	Manhan	Manunch mit Marine	and the work when		hand the state of the second		
manna		, Jawalah	cud . An induk	Andrease and a particular	k-y-witchild happy his witch	Muhammu	www.www.peak
	WANNAN	Minuteningenipph Markovic	artenitteran esteration	ag freedom to a second	and a second a second and a second a se	-	AVG
-10							
0.150	0.5		(MHz)	5			30.000
No. Mk. F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1 0.1	1500	33.52	9.60	43.12	65.99	-22.87	QP
2 0.1	1500	16.49	9.60	26.09	55.99	-29.90	AVG
3 0.1	1980	28.97	9.56	38.53	63.69	-25.16	QP
4 0.1	1980	12.50	9.56	22.06	53.69	-31.63	AVG
5 0.2	2863	24.46	9.70	34.16	60.63	-26.47	QP
6 0.2	2863	11.95	9.70	21.65	50.63	-28.98	AVG
7 * 0.4	4820	27.20	9.78	36.98	56.30	-19.32	QP
8 0.4	4820	13.84	9.78	23.62	46.30	-22.68	AVG
9 1.0	0020	16.82	9.62	26.44	56.00	-29.56	QP
10 1.0	0020	6.82	9.62	16.44	46.00	-29.56	AVG
11 1.4	4900	17.91	9.81	27.72	56.00	-28.28	QP
12 1.4	1900	7.37	9.81	17.18	46.00	-28.82	AVG
Remark: 1. Corr. Factor (dB) 2. Margin (dB) =Qua							



Attachment B-- Radiated Emission Test Data

9 KHz~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

peratu	ire:	2	3.8	С				Relativ	ve Hur	nidity:	4	3%		
Volta	ge:	D	DC 6	ν										
Pol.		F	loriz	zont	al									
Mode	:	Ν	/lode	e 2										
ark:		C	Dnly	wo	rse	case i	s reported	k						
) dBuV/	/m	_												
	_		_	_						(RF)F	CC 15C :	3M Radi	ation	
					_							Marg	in -6 dE	
												5		
					<u> </u>				3 X			×	к Х	
								1 X	m	4 1. 1 Å		Mart	WWW	Nutratio
Ma								× V		MMMM	Monday.			_
m	m	maan		and	mm	m	manne	Allan						
	_		_											
).000	40	50	60	70	80		(MHz)		300	400	500	600	700	1000.00
					_									
No	Mk	F	rea							Limit	С	ver		
											,	dB	Det	ector
1				2										2P
-														
					4	1.79	-21.68			40.0				ΩP
3		53.	317	9	3	9.99	-23.72	16.	27	40.0	0 -2	23.73	(ΩP
4		144	.334	18	4	2.45	-22.02	20.	43	43.5	0 -2	23.07	(٦P
							40.00	27.	42	43.5	0 1	16.07		
5	*	210	.786	60	4	6.71	-19.28	<u> </u>	43	40.0		10.07		٦P
	Mode ark:) авич.) авич.)))))))))))))))))))	Mode: ark:	Mode: N ark: C dBuV/m dBuV/m 0.000 40 50 No. Mk. F 1 34. 2 45.	Mode: Mode ark: Only O dBuV/m O d	Mode: ark: Only wo OdBuV/m	Mode: Mode 2 ark: Only worse 0 dBuV/m 0 0 dBuV/m 0 <td>Mode 2 ark: Only worse case i 0 dBuV/m 0 0 dBuV 0 0 dBuV 0 0 dBuV 0 0 dBuV 0 1 34.7602 37.78 2 45.0583 41.79</td> <td>Mode 2 ark: Only worse case is reported 0 dBuV/m 0 <t< td=""><td>Mode : Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 1 dBuV 0 dBuV 0 dBuV 0 dBuV dBuV dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported J dBuV/m (RF) J dBuV/m J dBuV J dBuV/m J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV <thj< td=""><td>Mode: Mode 2 ark: Only worse case is reported 0 d8uV/m 0 d8uV 0 d8uV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m Image: Control of the strength of the strengt of the strength of the strength of the strength of</td></thj<></td></t<></td>	Mode 2 ark: Only worse case i 0 dBuV/m 0 0 dBuV 0 0 dBuV 0 0 dBuV 0 0 dBuV 0 1 34.7602 37.78 2 45.0583 41.79	Mode 2 ark: Only worse case is reported 0 dBuV/m 0 <t< td=""><td>Mode : Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 1 dBuV 0 dBuV 0 dBuV 0 dBuV dBuV dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported J dBuV/m (RF) J dBuV/m J dBuV J dBuV/m J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV <thj< td=""><td>Mode: Mode 2 ark: Only worse case is reported 0 d8uV/m 0 d8uV 0 d8uV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m Image: Control of the strength of the strengt of the strength of the strength of the strength of</td></thj<></td></t<>	Mode : Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV	Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 1 dBuV 0 dBuV 0 dBuV 0 dBuV dBuV dBuV	Mode: Mode 2 ark: Only worse case is reported J dBuV/m (RF) J dBuV/m J dBuV J dBuV/m J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV J dBuV <thj< td=""><td>Mode: Mode 2 ark: Only worse case is reported 0 d8uV/m 0 d8uV 0 d8uV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV</td><td>Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m Image: Control of the strength of the strengt of the strength of the strength of the strength of</td></thj<>	Mode: Mode 2 ark: Only worse case is reported 0 d8uV/m 0 d8uV 0 d8uV	Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m 0 dBuV 0 dBuV	Mode: Mode 2 ark: Only worse case is reported 0 dBuV/m Image: Control of the strength of the strengt of the strength of the strength of the strength of

*:Maximum data x:Over limit !:over margin

Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)

- 2. QuasiPeak (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = QuasiPeak (dB μ V/m)-Limit QPK(dB μ V/m)



Temperature:	23.8 ℃	Re	elative Humic	dity: 4	13%	
Test Voltage:	DC 6V					
Ant. Pol.	Vertical					
Test Mode:	Mode 2					
Remark:	Only worse case	e is reported				
80.0 dBuV						
				(RF)FCC 15	C 3M Radiation	
					Margin -6	dB
		_				
30 X		3 X 4	5 .X		6	m
munut	2		mm	mon	who we want	· ·
	Whenthe	w	them	~ .		
-20	0 60 70	(MHz)	300	400 500) 600 700	1000.000
	Deedir	. Correct	Maaaura			
No. Mk.	Readir Freq. Level	-	Measure- ment	Limit	Over	
	MHz dBuV		dBuV	dBuV	dB	Detector
1 * 48	3.6719 53.66	uD.	30.76	40.00	-9.24	QP
	4.8865 44.17		20.15	40.00	-19.85	QP
3 14	4.3348 53.25	-22.02	31.23	43.50	-12.27	QP
4 17	0.7926 48.54	-20.46	28.08	43.50	-15.42	QP
	5.8164 46.15	-17.86	28.29	46.00	-17.71	QP
5 23	0.0101 40.10					
		-8.55	26.40	46.00	-19.60	QP
		-8.55	26.40	46.00	-19.60	QP
		-8.55	26.40	46.00	-19.60	QP

*:Maximum data x:Over limit !:over margin

Remark:

Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)

3. Margin (dB) = QuasiPeak (dBµV/m)-Limit QPK(dBµV/m)



Above 1GHz

Temper	ature):	25 ℃			Relative Hu	midity:	55%	
Test Vo	ltage		DC 6\	/					
Ant. Po	Ι.		Horizo	ontal					
Test Mo	de:		TX 24	78MHz					
Remark				oort for the e ibed limit.	emission w	hich more tha	an 10 dB b	below the	
No.	Mk.	F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		N	1Hz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		1956	000	45.00	44.40	E0.02	74.00	-14.07	
		4000	6.000	45.80	14.13	59.93	74.00	-14.07	peak
2	*		6. 000	45.80 38.15	14.13	59.93	54.00	-1.72	peak AVG

Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)

2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)

3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)

Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 6V		
Ant. Pol.	Vertical		
Test Mode:	TX 2478MHz		
Remark:	No report for the emission prescribed limit.	which more than 10 dE	below the

No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4956.000	36.54	14.13	50.67	54.00	-3.33	AVG
2		4956.200	46.10	14.13	60.23	74.00	-13.77	peak

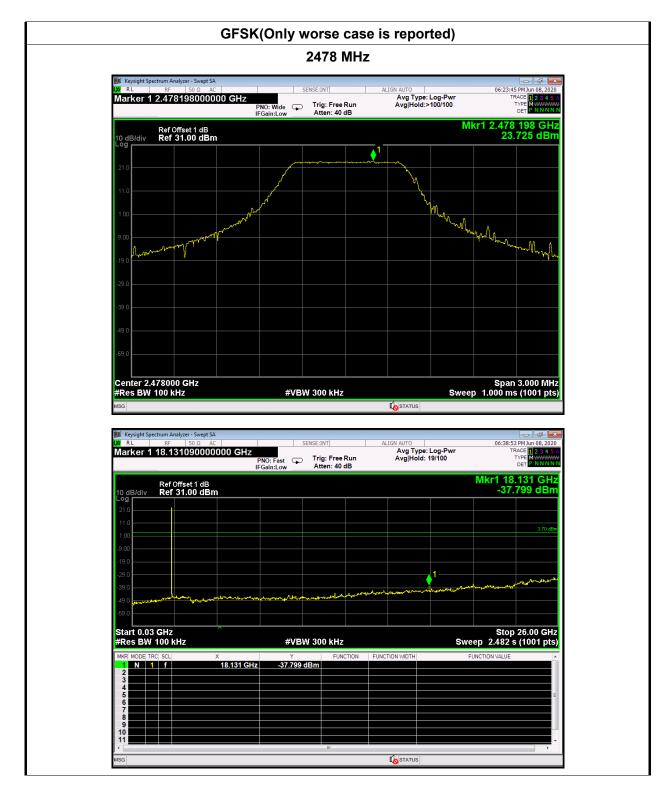
Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)

3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



Conducted Emission Test Data





Attachment C-- Restricted Bands Requirement and Band

Edge Test Data

(1) Radiation Test

emperature:	25 ℃		R	elative Hum	idity:	55%	
est Voltage:	DC 6V						
nt. Pol.	Horizonta	al					
est Mode:	TX 2478	MHz					
emark:	N/A						
120.0 dBu∀/m							
					(RF) FCC I	PART 15C (PEAK)	
70					5 X		
						PART 15C (AVG)	
	1 X 3				s (nr)ru X	, FANT TSU (AVO)	
	² X						
	$\mathcal{N}_{\mathbf{x}}$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mh	~~~	Lund		
20.0	2384.00	2404.00 2424	.00 2444.00) 2464.00 24	184.00 2504.	.00 25	544.00 MH
	2384.00	2404.00 2424	.00 2444.00	0 2464.00 24	184.00 2504.	.00 25	544.00 MH
	2384.00	2404.00 2424	.00 2444.00) 2464.00 24	184.00 2504.	.00 25	544.00 MH
2344.000 2364.00		Reading	Correct	t Measure-	-		j44.00 MH
	Freq.	Reading Level		t Measure- ment	Limit	Over	
2344.000 2364.00		Reading	Correct	t Measure-	-	Over	
2344.000 2364.00	Freq.	Reading Level	Correct Factor	t Measure- ment	Limit	Over n dB	Detect
2344.000 2364.00 No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	t Measure- ment dBuV/m	Limit dBuV/m	Over dB -23.23	Detecto
2344.000 2364.00 No. Mk. 1 2 2 2	Freq. MHz 374.000	Reading Level dBuV 49.55	Correct Factor dB/m 1.22	t Measure- ment dBuV/m 50.77	Limit dBuV/m 74.00	Over dB -23.23 -9.79	Detection peal AVC
2344.000 2364.00 No. Mk. 1 2 2 2 3 2	Freq. MHz 374.000 374.000	Reading Level dBuV 49.55 42.99	Correct Factor dB/m 1.22 1.22	t Measure- ment dBuV/m 50.77 44.21	Limit dBuV/m 74.00 54.00	Over dB -23.23 -9.79 -27.51	Detecti peal AVC peal
2344.000 2364.00 No. Mk. 1 2 2 2 3 2 4 2	Freq. MHz 374.000 374.000 390.000	Reading Level dBuV 49.55 42.99 45.21	Correct Factor dB/m 1.22 1.22 1.28	t Measure- ment dBuV/m 50.77 44.21 46.49	Limit dBuV/m 74.00 54.00 74.00	Over dB -23.23 -9.79 -27.51 -18.28	Detecto peal AVC peal AVC
2344.000 2364.00 No. Mk. 1 2 2 2 2 3 2 4 2 5 2	Freq. MHz 374.000 374.000 390.000 390.000	Reading Level dBuV 49.55 42.99 45.21 34.44	Correct Factor dB/m 1.22 1.22 1.28 1.28	t Measure- ment dBuV/m 50.77 44.21 46.49 35.72	Limit dBuV/m 74.00 54.00 74.00 54.00	Over dB -23.23 -9.79 -27.51 -18.28 -6.08	Detecto peal AVC peal AVC

3. Margin (dB) = Peak/AVG (dBµV/m)-Limit PK/AVG(dBµV/m)



empera	ature	: 2	25℃						Re	lativ	e Hı	ım	id	ity:	55	5%		
est Vol	tage:		DC 6	V														
nt. Pol	•	١	/ertio	cal														
est Mo	de:	٦	ΓX 24	478M	Hz													
emark		٢	N/A															
110.0	dBuV/m	1																
												Λ						
												$\ $						
												П						
												μ		(RF) FCC	PART	r 15C (F	EAK)	
													3 X					
60														(RF) FC	C PAF	IT 15C	(AVG)	
				1 X							\sim		*					
		Л		2 X			nh	Λ.		A				~~~				
													_					
10.0			2384.0		04.00													
2344.1	000 230	94.00	2304.U	U 240	J4.UU	2424	4. UU	2444	1.00	246	¥. UU	29	84.1	00 2504	¥. UU		23	44.00 MHa
				R	eadi	ng	С	orre	ct	Me	asur	re-						
No.	Mk.	Fr	req.		_eve		F	acto	or	m	ent			Limit		Ove	er	
		М	Hz		dBuV	/	0	:IB/m		dE	Bu∀/n	n		dBuV/r	n	dB		Detect
1		2390	0.00) 4	44.4	0	1	1.28		4	5.68	3		74.00)	-28.	32	peal
2		2390	.000) (33.9	0	1	1.28		3	5.18	3		54.00)	-18.	82	AVG
3		2483	3.500) (64.1	5	1	1.88		6	6.03	3		74.00)	-7.9	97	peal
	*	2483	500) 4	46.1	6	1	1.88		4	8.04	ŀ		54.00)	-5.9	96	AVG
4		2100																

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB) 2. Peak/AVG (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = Peak/AVG (dB μ V/m)-Limit PK/AVG(dB μ V/m)



(2) Conducted Test

Temperature:	25 ℃		Relative Humidity	55%
Test Voltage:	DC 6V	I		
Test Mode:	TX 2478	MHz Mode		
Remark:	The EUT	is programmed ir	continuously transn	nitting mode
🔆 Agiler	ıt		· · ·	Display
Ref 41 d	Bm At	tten 50 dB	Mkr1 2.4780 GHz	
Peak Log			1	Full Screen
10 dB/				Display Line
Offst	Display Lir			-3.02 dBm <u>n Off</u>
uв	3.02 dBm ₄			
DI -3.0	\$	<u> </u>		
dBm —				Limits⊁
	.406 GHz		Span 200 MHz	Active Fctn
Marker	V 100 kHz Trace	Type X Axis	Sweep 20.72 ms (401 pts) Amplitude	Position ► Center
1 2 3	(1)	Freq 2.4780 GHz Freq 2.3900 GHz Freq 2.4000 GHz	23.02 dBm -27.46 dBm -27.39 dBm	Title ►
4	(1)	Freq 2.3510 GHz	-26.48 dBm	
			F	Preferences
× Agiler	-é			
			Mkr1 2.47800 GHz	Display
Ref 41 d Peak	Bm At	tten 50 dB	23.21 dBm	Full Screen
Log 10				Display Line
dB/ Offst	Dis <mark>p</mark> lay Lir	ne		-3.21 dBm
1 dB	3.2 <mark>1 d</mark> Bm			<u> </u>
DI -3.2	n hần nằ	4 3	water and	
dBm _				Limits
Center 2	.518 GHz		Span 100 MHz	
	V 100 kHz		Sweep 10.36 ms (401 pts) Amplitude	Active Fctn Position ►
1 2	(1)	Freq 2.47800 GHz Freq 2.48350 GHz	23.21 dBm	Center
34	(1) (1)	Freq 2.50000 GHz Freq 2.49150 GHz	-27.93 dBm -26.62 dBm	Title ►
				Proferences
				Preferences



Attachment D-- Bandwidth Test Data

perature:	25 ℃		Relative Humi	idity:	55%
Voltage:	DC 6V				
Mode:	TX Mod	e			
hannel frequ	lency	99% Bandwidt	h 6dB Bandw	vidth	Limit
(MHz)		(kHz)	(kHz)		(kHz)
2478		1064.2	927.253	}	>=500
		2478	8 MHz		
🔆 Agilent					Meas Setup
	Ch Freq 2	2.478 GHz	Trig	Free	Avg Number
	•			-	
Occupied E	Bandwidth				n Off
Occupied B x dB -6				0	n <u>Off</u>
x dB -6	.00 dB				
	.00 dB	ten 50 dB			n <u>Off</u> Avg Mode <u>xp Repeat</u>
x dB -6 Ref 41 dBn #Peak Log	.00 dB	ten 50 dB			n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold
x dB -6 Ref 41 dBn #Peak Log 10 dB/	n At				n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold <u>n Off</u>
x dB -6 Ref 41 dBn #Peak Log 10	n At		man and a second a		n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold
x dB -6 Ref 41 dBn #Peak Log 10 dB/	n At				n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold <u>on Off</u> Occ BW % Pwi 99.00 %
X dB -6 Ref 41 dBn #Peak Log 10 dB/ Offst 1 dB Center 2.47	5.00 dB		Span 3		n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold <u>n Off</u> Occ BW % Pw
x dB -6 Ref 41 dBn #Peak Log 10 dB/ Offst 1 dB	5.00 dB			۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	Avg Mode <u>xp</u> <u>Repeat</u> Max Hold Occ BW % Pwn 99.00 % OBW Spar 3.00000000 MHz
X dB -6 Ref 41 dBn #Peak Log 10 dB/ Offst 1 dB Center 2.47 #Res BW 1	5.00 dB n At 78 GHz 00 KHz ied Band	#VBW 300 kHz	Span 3 Sweep 5 ms (401 Occ BW % Pwr 99.	3 MHz pts) 00 %	n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold <u>on Off</u> Occ BW % Pwn 99.00 %
X dB -6 Ref 41 dBn #Peak Log 10 dB/ Offst 1 dB Center 2.47 #Res BW 1	5.00 dB n At 78 GHz 00 KHz ied Band	#VBW 300 kHz	Span 3 Sweep 5 ms (401	3 MHz pts) 00 %	m Off Avg Mode <u>xp Repeat</u> Max Hold <u>on Off</u> Occ BW % Pwn 99.00 % OBW Spar 3.00000000 MHz -6.00 dB
X dB -6 Ref 41 dBn #Peak Log 10 dB/ Offst 1 dB Center 2.47 #Res BW 1	5.00 dB At At At At At At At At At At	#VBW 300 kHz	Span 3 Sweep 5 ms (401 Occ BW % Pwr 99.	3 MHz pts) 00 %	n <u>Off</u> Avg Mode <u>xp Repeat</u> Max Hold <u>on Off</u> Occ BW % Pwn 99.00 % OBW Spar 3.00000000 MHz x dB



Attachment E-- Peak Output Power Test Data

perature:	25 ℃		Relative Hum	nidity:	55%	
Voltage:	DC 6V					
Mode:	TX Mode					
nnel frequen	icy (MHz)	Test Res	Limit (dBm			
2478		22.3	355	30		
		2478	MHz	I		
Difference Keysight Spectrum A	nalvzer - Swept SA				- 7 -	
LXI RL RF		SENSE:INT	ALIGN AUTO Avg Type: L	_og-Pwr	01:00:10 AM Jul 01, 2020 TRACE 1 2 3 4 5 6	
		PNO: Fast Frig: Fre IFGain:Low Atten: 4		100/100	TYPE MWWWWW DET PNNNN	
10 dB/div Ref	Offset 1 dB 30.00 dBm			Mkr1	2.477 70 GHz 22.355 dBm	
Log		• • • • • • • • • • • • • • • • • • •				
20.0						
10.0						
0.00						
-10.0					The second se	
-20.0						
-30.0						
-40.0						
-50.0						
-60.0						
Center 2.47800					Span 10.00 MHz	
Genter 2.47800		#VBW 6.0 MH	z	Sweep 1.	000 ms (1001 pts)	
#Res BW 2.0 N						



Attachment F-- Power Spectral Density Test Data

emperature:	25 ℃		Relative Hu	midity:	55%	
est Voltage:	DC 6V				_	
est Mode:	TX Mode					
Channel Freq	uency	Power D	ensity	Lim	it	Resi
(MHz)		(dBm/3	3kHz)	(dBm/3	kHz)	Rest
2478		6.58	36	8		PAS
		2478	MHz			
and the second s						
Keysight Spectrum A		SENSE:INT	ALIGN AUTO Avg Type: I	Log-Pwr	01:00:36 AM Jul 01, 2 TRACE 1 2 3 TYPE MWW	2020
		PNO: Wide Trig: Free IFGain:Low Atten: 40	Run Avg Hold: 3	2/100	DEI	
10 dB/div Ref	Offset 1 dB 30.00 dBm			MIKIT 2	.477 661 G 6.586 dl	
20.0						
10.0						
0.00		And the second second	the for the the second second			
		J. A. T. A.	, the second sec			
-10.0		. utriver	Mart Hys.			
-20.0	. Mary Mar Jah W	P.43		my Linnellan barralistera		
-30.0	ally and you add you to the low of the			· ····································	www.www.www.	V-back
multishill						
-40.0 (1997) -40.0						
-60.0	00 GHz	#VBW 10 kHz			Span 3.000 M 5.3 ms (1001	ИНz

-----END OF REPORT------