

Report No.: SHEM180900813601

588 West Jindu Road, Xingiao, Songjiang, 201612 Shanghai, China

Telephone: +86 (0) 21 6191 5666

Fax: +86 (0) 21 6191 5678 Page: 1 of 51

ee.shanghai@sgs.com

TEST REPORT

Application No.: SHEM1809008136CR

FCC ID: 2ADTD-H2TP23

Applicant: Hangzhou Hikvision Digital Technology Co., Ltd.

Address of Applicant: No. 555 Qianmo Road, Binjiang District, Hangzhou 310052, China

Manufacturer: Hangzhou Hikvision Digital Technology Co., Ltd.

Address of Manufacturer: No. 555 Qianmo Road, Binjiang District, Hangzhou 310052, China

Factory: 1. Hangzhou Hikvision Technology Co., Ltd.

2. Hangzhou Hikvision Electronics Co., Ltd.

Address of Factory: 1. No.700, Dongliu Road, Binjiang District, Hangzhou City, Zhejiang,

310052, China

2. No.299, Qiushi Road, Tonglu Economic Development Zone, Tonglu

County, Hangzhou, Zhejiang, 310052, China

Equipment Under Test (EUT):

EUT Name: Handheld thermography camera

Model No.: Refer to page 2; ¤

Please refer to section 2 of this report which indicates which model was

actually tested and which were electrically identical.

Trade mark: HIKVISION

Standard(s): 47 CFR Part 15, Subpart C 15.247

 Date of Receipt:
 2018-09-13

 Date of Test:
 2018-09-21

 Date of Issue:
 2018-10-16

Test Result: Pass*



Parlam Zhan E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

^{*} In the configuration tested, the EUT complied with the standards specified above.



Report No.: SHEM180900813601

Page: 2 of 51

Model No.:

DS-2TP23-10VM/W, DS-2TPH36-10VMW, DS-2TPH32-10VMW, DS-2TPH38-10VMW, DS-2TP23-10VF/W, DS-2TPH36-10VFW, DS-2TPH32-10VFW, DS-2TPH36-15VMW, DS-2TPH32-15VMW, DS-2TPH32-15VMW, DS-2TPH38-15VFW, DS-2TPH38-15VFW, DS-2TPH36-07VMW, DS-2TPH38-07VMW, DS-2TPH36-07VFW, DS-2TPH36-07VFW, DS-2TPH32-07VFW, DS-2TPH38-07VFW, DS-2TPH38-13VMW, DS-2TPH38-13VMW, DS-2TPH38-13VMW, DS-2TPH38-13VFW, DS-2TPH36-13VFW, DS-2TPH36-13VFW, DS-2TPH36-19VFW, DS-2TPH36-19VFW, DS-2TPH38-19VFW, DS-2TP



Report No.: SHEM180900813601

Page: 3 of 51

Revision Record							
Version Description Date Remark							
00	Original	2018-10-16	/				

Authorized for issue by:		
	Vincent Zhu	
	Vincent Zhu / Project Engineer	
	Parlam Zhan	
	Parlam Zhan / Reviewer	



Report No.: SHEM180900813601

Page: 4 of 51

2 Test Summary

Radio Spectrum Technical Requirement							
Item	Standard	Method	Requirement	Result			
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass			

Radio Spectrum Matter Part						
Item	Standard	Method	Requirement	Result		
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass		
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247			Pass		
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass		
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass		
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass		
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass		
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass		

Note: Declaration of EUT Family Grouping:

There are series models mentioned in this report and they are the similar in electrical and electronic characters. Only the model DS-2TP23-10VM/W was tested since their differences are model number, trade name and appearance



Report No.: SHEM180900813601

Page: 5 of 51

3 Contents

		P	'age
1	COVE	ER PAGE	1
2	TEST	SUMMARY	4
3	CON	TENTS	5
4	GENE	ERAL INFORMATION	7
	4.1	DETAILS OF E.U.T.	7
	4.2	DESCRIPTION OF SUPPORT UNITS	7
	4.3	Measurement Uncertainty	8
		TEST LOCATION	
		TEST FACILITY	
		DEVIATION FROM STANDARDS	
		ABNORMALITIES FROM STANDARD CONDITIONS	
5	EQUI	PMENT LIST	10
_			
6	RADI	O SPECTRUM TECHNICAL REQUIREMENT	11
	6.1	Antenna Requirement	11
	6.1.1		
	6.1.2	Conclusion	11
7	RADI	O SPECTRUM MATTER TEST RESULTS	12
	7.1	MINIMUM 6DB BANDWIDTH	12
	7.1.1	E.U.T. Operation	
	7.1.2		
	7.1.3	· · · ·	
	7.2	CONDUCTED PEAK OUTPUT POWER	13
	7.2.1	E.U.T. Operation	
	7.2.2		13
	7.2.3		
		POWER SPECTRUM DENSITY	
	7.3.1 7.3.2	E.U.T. Operation Test Setup Diagram	
	7.3.2		
		CONDUCTED BAND EDGES MEASUREMENT	
	7.4.1	E.U.T. Operation	
	7.4.2	Test Setup Diagram	
	7.4.3		
	7.5	CONDUCTED SPURIOUS EMISSIONS	
	7.5.1	E.U.T. Operation	
	7.5.2	Test Setup Diagram	
	7.5.3	Measurement Procedure and Data	
	7.6 7.6.1	RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS	
	7.6.1 7.6.2	Test Setup Diagram	
	7.6.3	Measurement Procedure and Data	
		RADIATED SPURIOUS EMISSIONS	
	7.7.1	E.U.T. Operation	
	7.7.2	Test Setup Diagram	43



Report No.: SHEM180900813601

Page: 6 of 51

	7.7.3	Measurement Procedure and Data	44
8	TEST S	SETUP PHOTOGRAPHS	51
9	EUT C	ONSTRUCTIONAL DETAILS	51



Report No.: SHEM180900813601

Page: 7 of 51

4 General Information

4.1 Details of E.U.T.

Power supply: Rechargeable Li-ion Battery 3.6V 5Ah 18Wh

Test voltage: DC 3.6V Antenna Gain 3.37 dBi

Antenna Type PCB Antenna

Channel Spacing 5MHz

Modulation Type 802.11b: DSSS (CCK, DQPSK, DBPSK)

802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)

Number of Channels 802.11b/g/n(HT20):11

802.11n(HT40):7

Operation Frequency 802.11b/g/n(HT20): 2412MHz to 2462MHz

802.11n(HT40): 2422MHz to 2452MHz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	Lenovo	ThinkPad X100e	/
SecureCRT	VanDyke	V 6.2.0	/
Serial port adapter plate	1	Test Plate 3	/



Report No.: SHEM180900813601

Page: 8 of 51

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.25 x 10-8
2	Timeout	2s
3	Duty cycle	0.37%
4	Occupied Bandwidth	3%
5	RF conducted power	0.75dB
6	RF power density	2.84dB
7	Conducted Spurious emissions	0.75dB
8	DE Dedicted newer	4.5dB (Below 1GHz)
0	RF Radiated power	4.8dB (Above 1GHz)
		4.2dB (Below 30MHz)
9	Redicted Spurious emission test	4.4dB (30MHz-1GHz)
9	Radiated Spurious emission test	4.6dB (1GHz-18GHz)
		5.2dB (Above 18GHz)
10	Temperature test	1°C
11	Humidity test	3%
12	Supply voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



Report No.: SHEM180900813601

Page: 9 of 51

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

4.5 Test Facility

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

• CNAS (No. CNAS L0599)

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• NVLAP (Certificate No. 201034-0)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program(NVLAP). Certificate No. 201034-0.

• FCC -Designation Number: CN5033

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN5033. Test Firm Registration Number: 479755.

• Industry Canada (IC) – IC Assigned Code: 8617A

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1.

• VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



Report No.: SHEM180900813601

Page: 10 of 51

5 Equipment List

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Conducted Emission at AC					
EMI test receiver	R&S	ESR7	SHEM162-1	2017-12-20	2018-12-19
LISN	Schwarzbeck	NSLK8127	SHEM061-1	2017-12-20	2018-12-19
LISN	EMCO	3816/2	SHEM019-1	2017-12-20	2018-12-19
Pulse limiter	R&S	ESH3-Z2	SHEM029-1	2017-12-20	2018-12-19
CE test Cable	/	CE01	/	2017-12-26	2018-12-25
Conducted Test	,	020:	,		
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2017-12-20	2018-12-19
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2018-08-13	2019-08-12
Signal Generator	R&S	SMR20	SHEM006-1	2018-08-13	2019-08-12
Signal Generator	Agilent	N5182A	SHEM182-1	2018-08-13	2019-08-12
Communication Tester	R&S	CMW270	SHEM183-1	2018-08-13	2019-08-12
Switcher	Tonscend	JS0806	SHEM184-1	2018-08-13	2019-08-12
Power Sensor	Keysight	U2021XA * 4	SHEM184-1	2018-08-13	2019-08-12
Splitter	Anritsu	MA1612A	SHEM185-1	/	/
Coupler	e-meca	803-S-1	SHEM186-1		/
High-low Temp Cabinet	Suzhou Zhihe	TL-40	SHEM087-1	2017-09-25	2020-09-24
AC Power Stabilizer	WOCEN	6100	SHEM045-1	2017-12-26	2018-12-25
DC Power Supply	QJE	QJ30003SII	SHEM046-1	2017-12-26	2018-12-25
Conducted test Cable	/	RF01~RF04	/	2017-12-26	2018-12-25
Radiated Test					I.
С	R&S	ESU40	SHEM051-1	2017-12-20	2018-12-19
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2017-12-20	2018-12-19
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2017-04-10	2020-04-09
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2017-02-28	2020-02-27
Antenna (25MHz-3GHz)	Schwarzbeck	HL562	SHEM010-1	2017-02-28	2020-02-27
Horn Antenna (1-8GHz)	Schwarzbeck	HF906	SHEM009-1	2017-10-24	2020-10-23
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2017-01-14	2020-01-13
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2017-12-03	2020-12-02
Pre-amplifier (9KHz-2GHz)	CLAVIIO	BDLNA-0001	SHEM164-1	2018-08-13	2019-08-12
Pre-amplifier (1-18GHz)	CLAVIIO	BDLNA-0118	SHEM050-2	2018-08-13	2019-08-12
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2017-12-20	2018-12-19
Signal Generator	R&S	SMR40	SHEM058-1	2018-08-13	2019-08-12
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	/	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	/	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	/	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2017-07-22	2020-07-21
RE test Cable	/	RE01, RE02, RE06	/	2017-12-26	2018-12-25



Report No.: SHEM180900813601

Page: 11 of 51

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(c)

6.1.2 Conclusion

Standard Requirement:

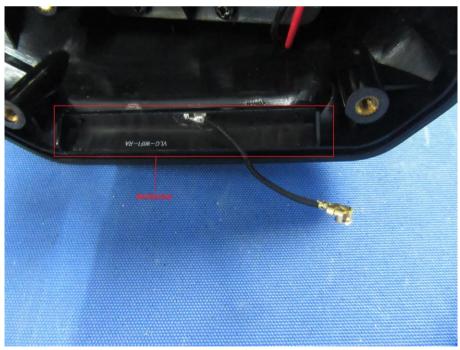
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit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

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is PCB Antenna and no consideration of replacement. The best case gain of the antenna is 3.37dBi.





Report No.: SHEM180900813601

Page: 12 of 51

7 Radio Spectrum Matter Test Results

7.1 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
Test Method: ANSI C63.10 (2013) Section 11.8.1

Limit: ≥500 kHz

7.1.1 E.U.T. Operation

Operating Environment:

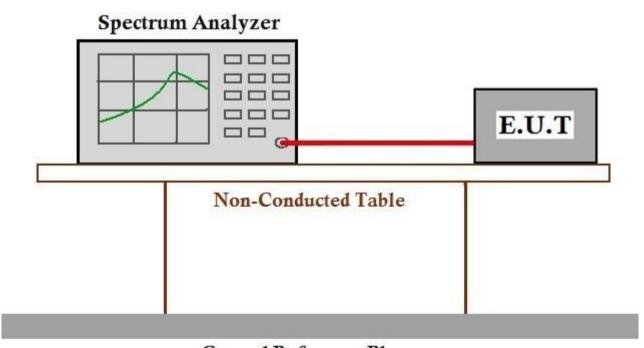
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

7.1.2 Test Setup Diagram



Ground Reference Plane

7.1.3 Measurement Procedure and Data

The detailed test data see: Appendix A for SHEM180900813601.



Report No.: SHEM180900813601

Page: 13 of 51

7.2 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method: ANSI C63.10 (2013) Section 11.9.1

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)		
	1 for ≥50 hopping channels		
902-928	0.25 for 25≤ hopping channels <50		
	1 for digital modulation		
	1 for ≥75 non-overlapping hopping channels		
2400-2483.5	0.125 for all other frequency hopping systems		
	1 for digital modulation		
5725-5850	1 for frequency hopping systems and digital modulation		

7.2.1 E.U.T. Operation

Operating Environment:

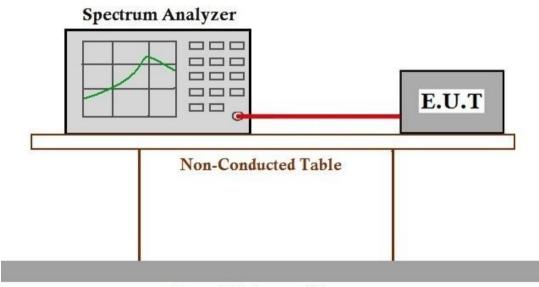
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

7.2.2 Test Setup Diagram



Ground Reference Plane

7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix A for SHEM180900813601.



Report No.: SHEM180900813601

Page: 14 of 51

7.3 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)
Test Method: ANSI C63.10 (2013) Section 11.10.2

Limit: ≤8dBm in any 3 kHz band during any time interval of continuous

transmission

7.3.1 E.U.T. Operation

Operating Environment:

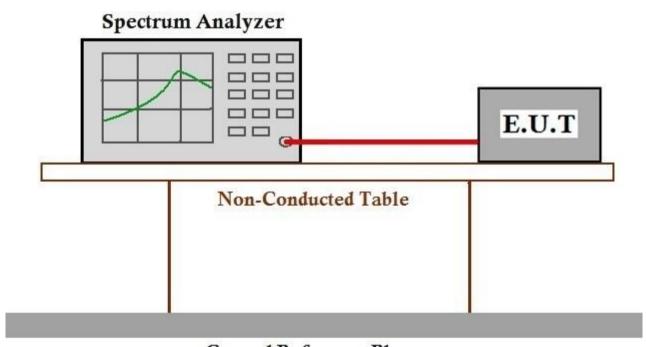
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

7.3.2 Test Setup Diagram



Ground Reference Plane

7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix A for SHEM180900813601.



Report No.: SHEM180900813601

Page: 15 of 51

7.4 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.13.3.2

Limit: In any 100 kHz bandwidth outside th

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

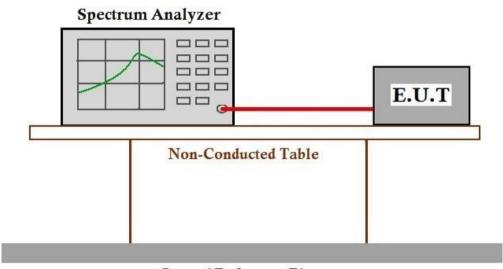
Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

§15.209(a) (see §15.205(c)

7.4.2 Test Setup Diagram



Ground Reference Plane

7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix A for SHEM180900813601.



Report No.: SHEM180900813601

Page: 16 of 51

7.5 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.11

Limit: In any 100 kHz bandwidth outside the frequency band in which the spread

spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in

§15.205(a), must also comply with the radiated emission limits specified in

§15.209(a) (see §15.205(c)

7.5.1 E.U.T. Operation

Operating Environment:

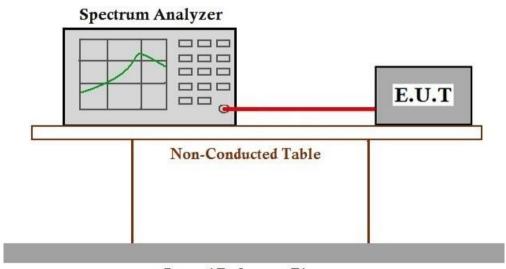
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1002 mbar

Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

7.5.2 Test Setup Diagram



Ground Reference Plane

7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix A for SHEM180900813601.



Report No.: SHEM180900813601

Page: 17 of 51

7.6 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.247(d)

Test Method: ANSI C63.10 (2013) Section 6.10.5

Limit:

Frequency(MHz)	Field strength(microvolts/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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.6.1 E.U.T. Operation

Operating Environment:

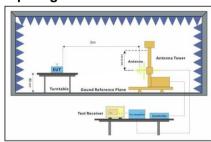
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

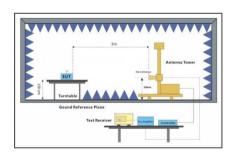
Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

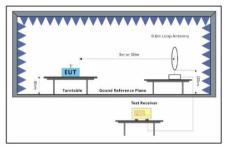
types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

7.6.2 Test Setup Diagram









Report No.: SHEM180900813601

Page: 18 of 51

7.6.3 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

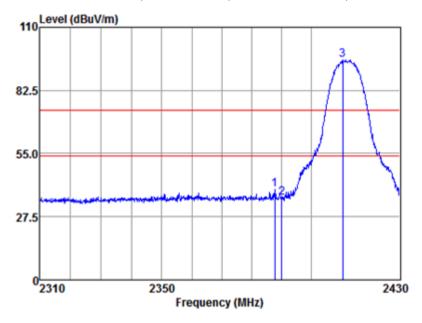
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.
- Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



Report No.: SHEM180900813601

Page: 19 of 51

Mode:a; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low



Antenna Polarity : HORIZONTAL

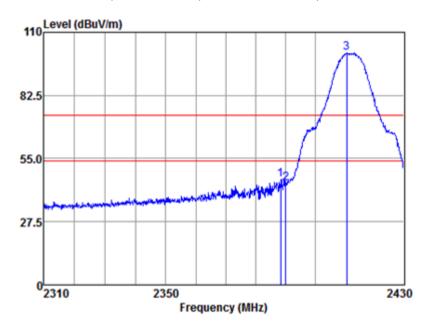
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2387.67	44.42	26.03	6.47	37.36	39.56	74.00	-34.44	Peak
2390.00	40.72	26.03	6.47	37.36	35.86	74.00	-38.14	Peak
2410.63	100.76	26.06	6.50	37.35	95.97	74.00	21.97	Peak



Report No.: SHEM180900813601

Page: 20 of 51

Mode:a; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low



Antenna Polarity : VERTICAL

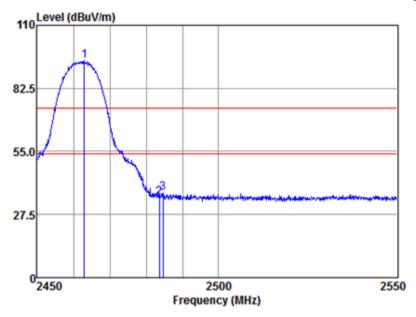
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2388.27	50.93	26.03	6.47	37.36	46.07	74.00	-27.93	Peak
2390.00	48.96	26.03	6.47	37.36	44.10	74.00	-29.90	Peak
2410.63	105.78	26.06	6.50	37.35	100.99	74.00	26.99	Peak



Report No.: SHEM180900813601

Page: 21 of 51

Mode:a; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:High



Antenna Polarity : HORIZONTAL

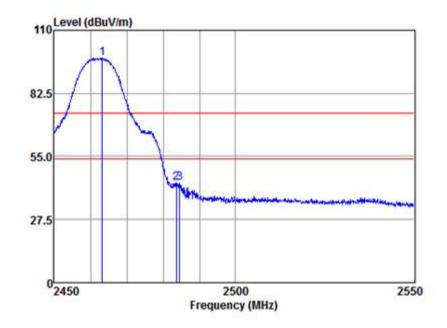
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2462.97	99.10	26.15	6.68	37.46	94.47	74.00	20.47	Peak
2483.50	39.46	26.18	6.80	37.51	34.93	74.00	-39.07	Peak
2484.55	41.35	26.18	6.80	37.51	36.82	74.00	-37.18	Peak



Report No.: SHEM180900813601

Page: 22 of 51

Mode:a; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High



Antenna Polarity : VERTICAL

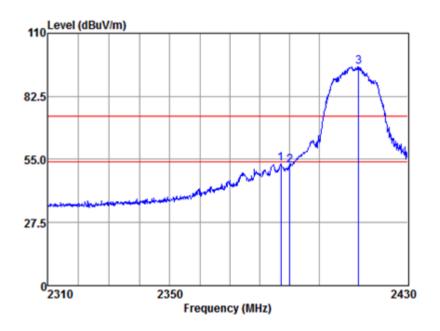
	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2463.17	102.58	26.15	6.68	37.46	97.95	74.00	23.95	Peak
2483.50	47.84	26.18	6.80	37.51	43.31	74.00	-30.69	Peak
2484.45	47.87	26.18	6.80	37.51	43.34	74.00	-30.66	Peak



Report No.: SHEM180900813601

Page: 23 of 51

Mode:a; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:Low



Antenna Polarity : HORIZONTAL

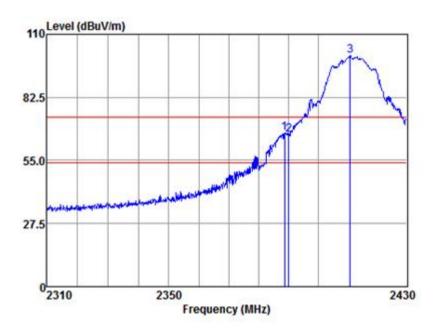
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2387.07	57.84	26.03	6.47	37.36	52.98	74.00	-21.02	Peak
2390.00	57.13	26.03	6.47	37.36	52.27	74.00	-21.73	Peak
2413.44	100.07	26.08	6.50	37.36	95.29	74.00	21.29	Peak



Report No.: SHEM180900813601

Page: 24 of 51

Mode:a; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:Low



Antenna Polarity : VERTICAL

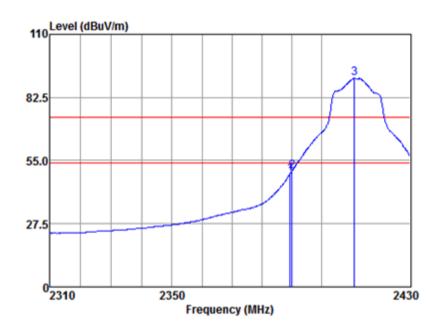
	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2388.64	71.72	26.03	6.47	37.36	66.86	74.00	-7.14	Peak
2390.00	70.86	26.03	6.47	37.36	66.00	74.00	-8.00	Peak
2410.88	105.43	26.06	6.50	37.35	100.64	74.00	26.64	Peak



Report No.: SHEM180900813601

Page: 25 of 51

Mode:a; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:Low



Antenna Polarity : VERTICAL

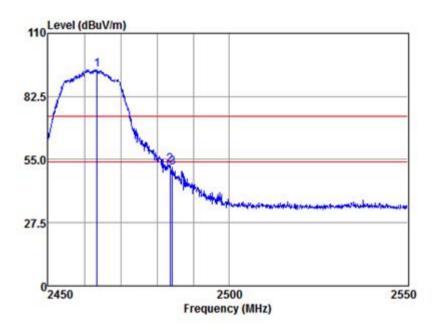
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2389.36	54.04	26.03	6.47	37.36	49.18	54.00	-4.82	Average
2390.00	55.01	26.03	6.47	37.36	50.15	54.00	-3.85	Average
2411.12	95.74	26.06	6.50	37.35	90.95	54.00	36.95	Average



Report No.: SHEM180900813601

Page: 26 of 51

Mode:a; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:High



Antenna Polarity : HORIZONTAL

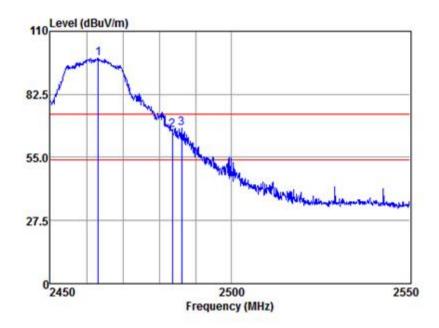
	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2463.47	98.96	26.15	6.68	37.46	94.33	74.00	20.33	Peak
2483.50	57.34	26.18	6.80	37.51	52.81	74.00	-21.19	Peak
2484.25	56.10	26.18	6.80	37.51	51.57	74.00	-22.43	Peak



Report No.: SHEM180900813601

Page: 27 of 51

Mode:a; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High



Antenna Polarity : VERTICAL

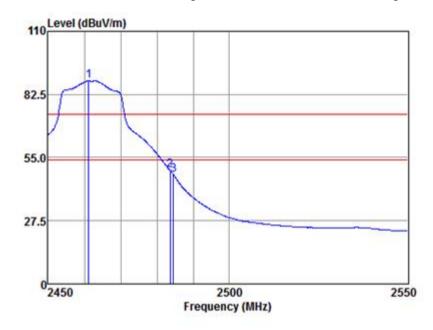
	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2463.17	102.77	26.15	6.68	37.46	98.14	74.00	24.14	Peak
2483.50	71.50	26.18	6.80	37.51	66.97	74.00	-7.03	Peak
2486.14	72.23	26.18	6.80	37.51	67.70	74.00	-6.30	Peak



Report No.: SHEM180900813601

Page: 28 of 51

Mode:a; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High



Antenna Polarity : VERTICAL

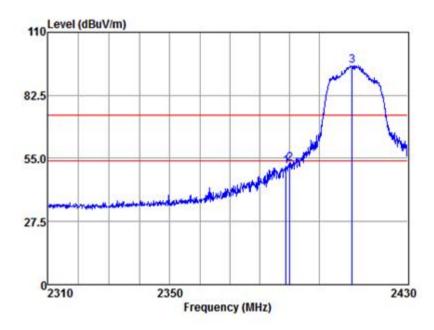
			17.00				Remark
dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
93.19	26.15	6.68	37.46	88.56	54.00	34.56	Average
53.99	26.18	6.80	37.51	49.46	54.00	-4.54	Average
52.20	26.18	6.80	37.51	47.67	54.00	-6.33	Average
	Level dBuv	Level Factor dBuv dB/m 93.19 26.15 53.99 26.18	Level Factor Loss dBuv dB/m dB 93.19 26.15 6.68 53.99 26.18 6.80	dBuv dB/m dB dB 93.19 26.15 6.68 37.46 53.99 26.18 6.80 37.51	dBuv dB/m dB dB dBuv/m 93.19 26.15 6.68 37.46 88.56 53.99 26.18 6.80 37.51 49.46	dBuv dB/m dB dB dBuv/m dBuv/m 93.19 26.15 6.68 37.46 88.56 54.00 53.99 26.18 6.80 37.51 49.46 54.00	Level Factor Loss Factor Level Line Limit dBuv dB/m dB dB uv/m dBuv/m dB uv/m dB 93.19 26.15 6.68 37.46 88.56 54.00 34.56 53.99 26.18 6.80 37.51 49.46 54.00 -4.54



Report No.: SHEM180900813601

Page: 29 of 51

Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:Low



Antenna Polarity : HORIZONTAL

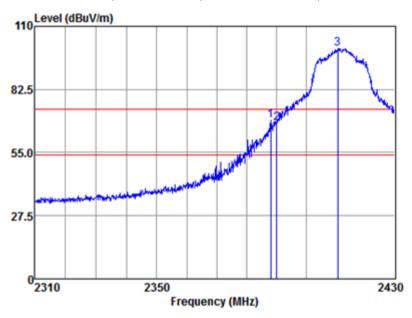
	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2388.88	56.21	26.03	6.47	37.36	51.35	74.00	-22.65	Peak
2390.00	57.82	26.03	6.47	37.36	52.96	74.00	-21.04	Peak
2411.12	100.24	26.06	6.50	37.35	95.45	74.00	21.45	Peak



Report No.: SHEM180900813601

Page: 30 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low



Antenna Polarity : VERTICAL

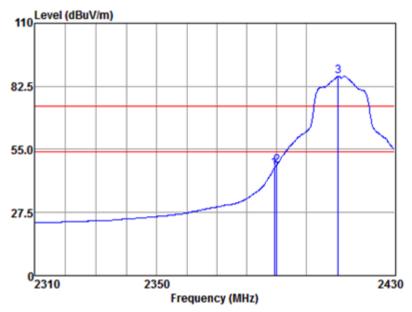
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2388.03	73.79	26.03	6.47	37.36	68.93	74.00	-5.07	Peak
2390.00	72.83	26.03	6.47	37.36	67.97	74.00	-6.03	Peak
2410.76	105.16	26.06	6.50	37.35	100.37	74.00	26.37	Peak



Report No.: SHEM180900813601

Page: 31 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low



Antenna Polarity : VERTICAL

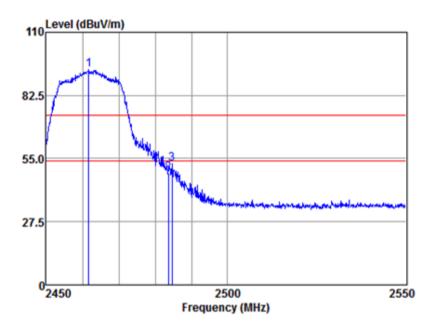
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2389.24	51.73	26.03	6.47	37.36	46.87	54.00	-7.13	Average
2390.00	52.92	26.03	6.47	37.36	48.06	54.00	-5.94	Average
2410.88	91.73	26.06	6.50	37.35	86.94	54.00	32.94	Average



Report No.: SHEM180900813601

Page: 32 of 51

Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High



Antenna Polarity : HORIZONTAL

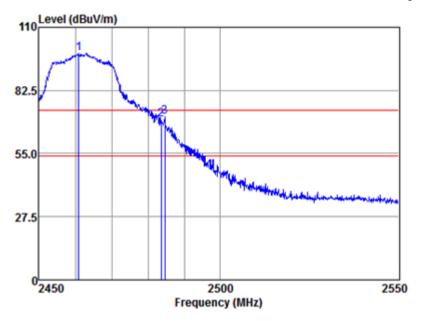
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2461.69	98.37	26.15	6.68	37.46	93.74	74.00	19.74	Peak
2483.50	53.10	26.18	6.80	37.51	48.57	74.00	-25.43	Peak
2484.55	57.13	26.18	6.80	37.51	52.60	74.00	-21.40	Peak



Report No.: SHEM180900813601

Page: 33 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High



Antenna Polarity : VERTICAL

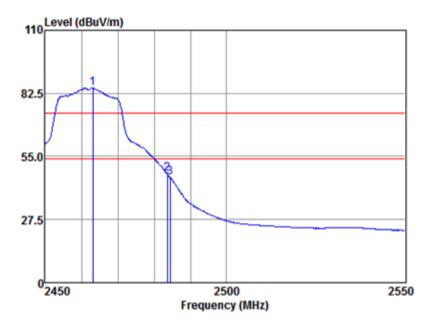
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2460.90	103.12	26.15	6.68	37.46	98.49	74.00	24.49	Peak
2483.50	74.19	26.18	6.80	37.51	69.66	74.00	-4.34	Peak
2484.55	75.44	26.18	6.80	37.51	70.91	74.00	-3.09	Peak



Report No.: SHEM180900813601

Page: 34 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High



Antenna Polarity : VERTICAL

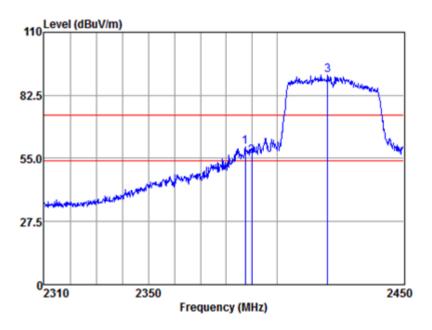
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2463.07	89.48	26.15	6.68	37.46	84.85	54.00	30.85	Average
2483.50	51.90	26.18	6.80	37.51	47.37	54.00	-6.63	Average
2484.35	50.31	26.18	6.80	37.51	45.78	54.00	-8.22	Average



Report No.: SHEM180900813601

Page: 35 of 51

Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low



Antenna Polarity : HORIZONTAL

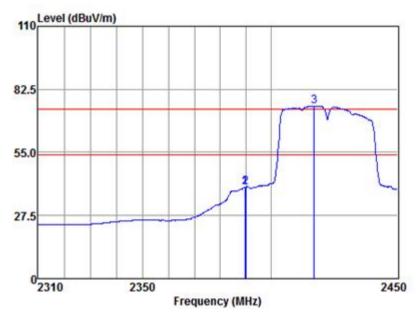
Freq					Emission Level			Remark
		1 40 001	2033	· accor	20101			remar re
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2387.38	64.94	26.03	6.47	37.36	60.08	74.00	-13.92	Peak
2390.00	61.03	26.03	6.47	37.36	56.17	74.00	-17.83	Peak
2419.77	96.14	26.09	6.56	37.38	91.41	74.00	17.41	Peak



Report No.: SHEM180900813601

Page: 36 of 51

Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low



Antenna Polarity : HORIZONTAL

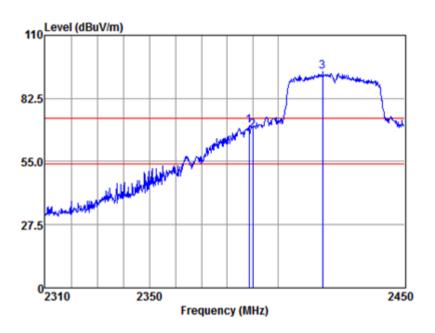
Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Level	Factor	Loss	Factor	Level	Line	Limit	Remark
dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
44.82	26.03	6.47	37.36	39.96	54.00	-14.04	Average
44.65	26.03	6.47	37.36	39.79	54.00	-14.21	Average
80.00	26.08	6.56	37.36	75.28	54.00	21.28	Average
	Level dBuv	dBuv dB/m 44.82 26.03 44.65 26.03	dBuv dB/m dB 44.82 26.03 6.47 44.65 26.03 6.47	dBuv dB/m dB dB 44.82 26.03 6.47 37.36 44.65 26.03 6.47 37.36	dBuv dB/m dB dB dBuv/m 44.82 26.03 6.47 37.36 39.96 44.65 26.03 6.47 37.36 39.79	Level Factor Loss Factor Level Line dBuv dB/m dB dBuv/m dBuv/m dBuv/m 44.82 26.03 6.47 37.36 39.96 54.00 44.65 26.03 6.47 37.36 39.79 54.00	Level Factor Loss Factor Level Line Limit dBuv dB/m dB dB uv/m dBuv/m dBuv/m dB 44.82 26.03 6.47 37.36 39.96 54.00 -14.04 44.65 26.03 6.47 37.36 39.79 54.00 -14.21



Report No.: SHEM180900813601

Page: 37 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low



Antenna Polarity : VERTICAL

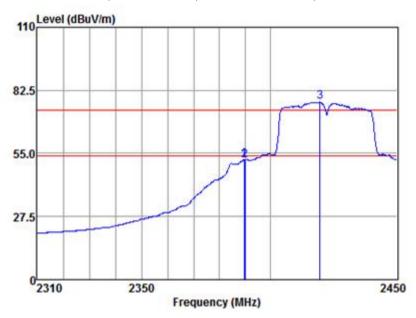
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2388.51	75.68	26.03	6.47	37.36	70.82	74.00	-3.18	Peak
2390.00	73.64	26.03	6.47	37.36	68.78	74.00	-5.22	Peak
2417.49	98.78	26.08	6.56	37.36	94.06	74.00	20.06	Peak



Report No.: SHEM180900813601

Page: 38 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low



Antenna Polarity : VERTICAL

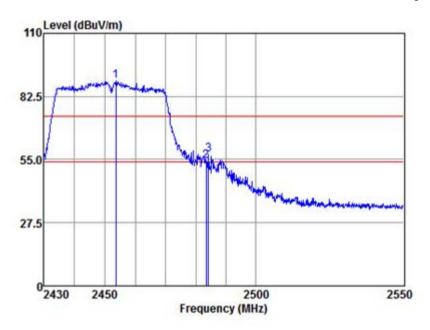
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2389.63	57.16	26.03	6.47	37.36	52.30	54.00	-1.70	Average
2390.00	56.92	26.03	6.47	37.36	52.06	54.00	-1.94	Average
2419.49	82.06	26.09	6.56	37.38	77.33	54.00	23.33	Average



Report No.: SHEM180900813601

Page: 39 of 51

Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High



Antenna Polarity : HORIZONTAL

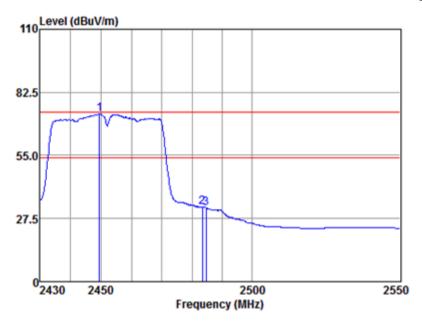
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2453.54	93.92	26.14	6.68	37.45	89.29	74.00	15.29	Peak
2483.50	58.96	26.18	6.80	37.51	54.43	74.00	-19.57	Peak
2484.24	61.56	26.18	6.80	37.51	57.03	74.00	-16.97	Peak



Report No.: SHEM180900813601

Page: 40 of 51

Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High



Antenna Polarity : HORIZONTAL

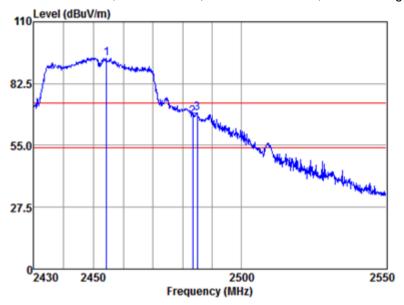
Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2449.40	77.81	26.13	6.68	37.43	73.19	54.00	19.19	Average
2483.50	37.02	26.18	6.80	37.51	32.49	54.00	-21.51	Average
2484.72	36.80	26.18	6.80	37.51	32.27	54.00	-21.73	Average



Report No.: SHEM180900813601

Page: 41 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High



Antenna Polarity : VERTICAL

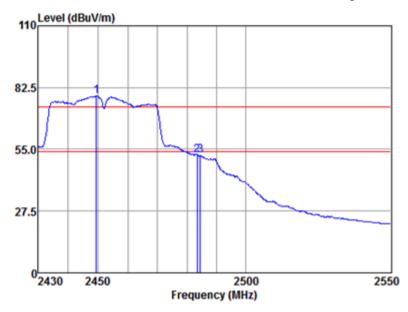
	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2454.37	98.41	26.14	6.68	37.45	93.78	74.00	19.78	Peak
2483.50	72.42	26.18	6.80	37.51	67.89	74.00	-6.11	Peak
2484.96	73.95	26.18	6.80	37.51	69.42	74.00	-4.58	Peak



Report No.: SHEM180900813601

Page: 42 of 51

Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High



Antenna Polarity : VERTICAL

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
2449.40	83.46	26.13	6.68	37.43	78.84	54.00	24.84	Average
2483.50	57.08	26.18	6.80	37.51	52.55	54.00	-1.45	Average
2484.48	56.75	26.18	6.80	37.51	52.22	54.00	-1.78	Average



Report No.: SHEM180900813601

Page: 43 of 51

7.7 Radiated Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.247(d)

Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6

Limit:

Frequency(MHz)	Field strength(microvolts/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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.7.1 E.U.T. Operation

Operating Environment:

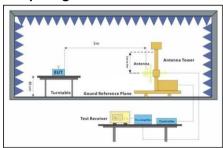
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

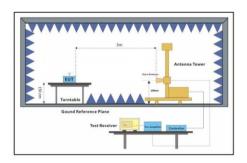
Test mode a:TX mode_Keep the EUT in continuously transmitting mode with all modulation

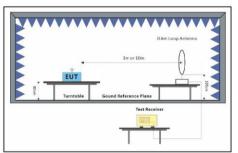
types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40).

Only the data of worst case is recorded in the report.

7.7.2 Test Setup Diagram







This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Report No.: SHEM180900813601

Page: 44 of 51

7.7.3 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark:

- 1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

- 3) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown

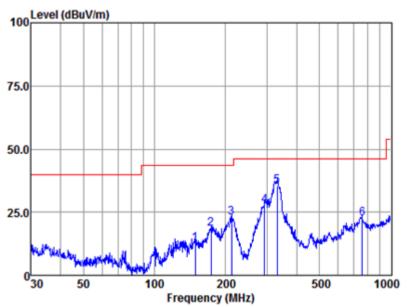


Report No.: SHEM180900813601

Page: 45 of 51

Below 1GHz:

Mode:a; Polarization:Horizontal



Antenna Polarity : HORIZONTAL

Test mode :a

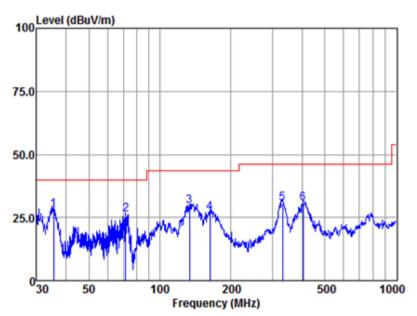
		Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
1	148.96	43.77	11.84	0.62	43.72	12.51	43.50	-30.99	QP
2	173.81	50.05	11.71	0.65	43.78	18.63	43.50	-24.87	QP
3	211.53	55.87	9.92	0.71	43.66	22.84	43.50	-20.66	QP
4	292.06	57.76	12.94	0.83	43.69	27.84	46.00	-18.16	QP
5	331.35	64.06	13.85	0.90	43.57	35.24	46.00	-10.76	QP
6	758.04	43.13	21.23	1.91	43.69	22.58	46.00	-23.42	QP



Report No.: SHEM180900813601

Page: 46 of 51

Mode:a; Polarization:Vertical



Antenna Polarity : VERTICAL

Test mode :a

		Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
1	35.38	55.81	15.87	0.20	43.68	28.20	40.00	-11.80	QP
2	71.58	58.63	10.86	0.34	43.74	26.09	40.00	-13.91	QP
3	133.15	60.24	12.30	0.59	43.74	29.39	43.50	-14.11	QP
4	163.18	57.32	12.60	0.64	43.76	26.80	43.50	-16.70	QP
5	331.35	59.41	13.85	0.90	43.57	30.59	46.00	-15.41	QP
6	404.67	58.19	15.20	1.00	43.58	30.81	46.00	-15.19	QP



Report No.: SHEM180900813601

Page: 47 of 51

Above 1GHz:

a	Polarization:	Horizontal;	Modulation	:b; bandwi	dth:20MHz;	Channel:Low
Frequency	y RX_R	Factor	Emission	Limit	Over Limit	Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4824	40.45	6.40	46.85	54	-7.15	peak
7236	40.03	10.76	50.79	54	-3.21	peak
9648	33.80	14.37	48.17	54	-5.83	peak
Mode:a; F	Polarization:	Vertical; M	odulation:b;	bandwidth	n:20MHz; C	hannel:Low
Frequency	y RX_R	Factor	Emission	Limit	Over Limit	Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4824	42.00	6.40	48.40	54	-5.60	peak
7236	36.41	10.76	47.17	54	-6.83	peak
9648	33.94	14.37	48.31	54	-5.69	peak
Mode:a; F						Channel:middle
Frequency		Factor	Emission	Limit	Over Limit	Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4874	39.92	6.92	46.84	54	-7.16	peak
7311	38.37	11.08	49.45	54	-4.55	peak
9748	36.64	14.36	51.00	54	-3.00	peak
					001411 0	
Mode:a: F	olarization:	Vertical; M	odulation:b;	bandwidth	n:20MHz; Cl	hannel:middle
Frequenc	y RX_R	Factor	Emission	Limit	Over Limit	
Frequency MHz	y RX_R dBuV	Factor dB	Emission dBuV/m	Limit dBuV/m	Over Limit dB	Detector
Frequency MHz 4874	y RX_R dBuV 39.92	Factor dB 6.92	Emission dBuV/m 46.84	Limit dBuV/m 54	Over Limit dB -7.16	Detector
Frequency MHz 4874 7311	y RX_R dBuV 39.92 34.02	Factor dB 6.92 11.08	Emission dBuV/m 46.84 45.10	Limit dBuV/m 54 54	Over Limit dB -7.16 -8.90	Detector peak peak
Frequency MHz 4874	y RX_R dBuV 39.92	Factor dB 6.92	Emission dBuV/m 46.84	Limit dBuV/m 54	Over Limit dB -7.16	Detector
Frequency MHz 4874 7311 9748	y RX_R dBuV 39.92 34.02 31.13	Factor dB 6.92 11.08 14.36	Emission dBuV/m 46.84 45.10 45.49	Limit dBuV/m 54 54 54	Over Limit dB -7.16 -8.90 -8.51	Detector peak peak peak
Frequency MHz 4874 7311 9748 Mode:a; F	y RX_R dBuV 39.92 34.02 31.13	Factor dB 6.92 11.08 14.36 Horizontal;	Emission dBuV/m 46.84 45.10 45.49	Limit dBuV/m 54 54 54 b; bandwi	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz;	peak peak peak Channel:High
Frequency MHz 4874 7311 9748 Mode:a; F Frequency	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R	Factor dB 6.92 11.08 14.36 Horizontal; Factor	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission	Limit dBuV/m 54 54 54 b; bandwi Limit	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit	peak peak peak Channel:High
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB	Detector peak peak peak Channel:High Detector
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68	peak peak peak Channel:High Detector peak
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40	peak peak Channel:High Detector peak peak
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68	peak peak peak Channel:High Detector peak
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386 9848	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19 32.83	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60 47.21	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54 54	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40 -6.79	peak peak peak Channel:High Detector peak peak peak peak
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386 9848 Mode:a; F	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19 32.83	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60 47.21	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54 54	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40	peak peak peak Channel:High Detector peak peak peak peak hannel:High
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386 9848 Mode:a; F Frequency	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19 32.83 Polarization: y RX_R	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60 47.21 odulation:b; Emission	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54 54 54 bandwidth Limit	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40 -6.79 n:20MHz; Ci Over Limit	peak peak peak Channel:High Detector peak peak peak peak hannel:High
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386 9848 Mode:a; F Frequency MHz	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19 32.83 Polarization: y RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor dB	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60 47.21 odulation:b; Emission dBuV/m	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40 -6.79 n:20MHz; Ci Over Limit dB	peak peak peak Channel:High Detector peak peak peak peak peak peak peak hannel:High
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386 9848 Mode:a; F Frequency MHz 4924	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19 32.83 Polarization: y RX_R dBuV 41.76	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor dB 7.31	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60 47.21 odulation:b; Emission dBuV/m 49.07	Limit dBuV/m 54 54 55 b; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m 54	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40 -6.79 n:20MHz; Ci Over Limit dB -4.93	peak peak peak Channel:High Detector peak peak peak peak peak peak peak pea
Frequency MHz 4874 7311 9748 Mode:a; F Frequency MHz 4924 7386 9848 Mode:a; F Frequency MHz	y RX_R dBuV 39.92 34.02 31.13 Polarization: y RX_R dBuV 40.01 39.19 32.83 Polarization: y RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor dB	Emission dBuV/m 46.84 45.10 45.49 Modulation Emission dBuV/m 47.32 50.60 47.21 odulation:b; Emission dBuV/m	Limit dBuV/m 54 54 54 b; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m	Over Limit dB -7.16 -8.90 -8.51 dth:20MHz; Over Limit dB -6.68 -3.40 -6.79 n:20MHz; Ci Over Limit dB	peak peak peak Channel:High Detector peak peak peak peak peak peak peak hannel:High



Report No.: SHEM180900813601

Page: 48 of 51

Frequenc	cy RX_R	Factor	Emission	Limit	Over Limit	Channel:Low Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4824	40.81	6.40	47.21	54	-6.79	peak
7236	36.60	10.76	47.36	54	-6.64	peak
9648	33.93	14.37	48.30	54	-5.70	peak
Mode:a;	Polarization:\	/ertical; M	odulation:g;	bandwidth	n:20MHz; Cl	hannel:Low
Frequenc	cy RX_R	Factor	Emission	Limit	Over Limit	Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4824	39.36	6.40	45.76	54	-8.24	peak
7236	38.36	10.76	49.12	54	-4.88	peak
9648	35.03	14.37	49.40	54	-4.60	peak
Mode:a;	Polarization:	Horizontal;	Modulation:	g; bandwi	dth:20MHz;	Channel:middle
Frequenc		Factor	Emission	Limit	Over Limit	
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4874	41.07	6.92	47.99	54	-6.01	peak
7311	35.44	11.08	46.52	54	-7.48	peak
9748	33.18	14.36	47.54	54	-6.46	peak
Mode:a;	Polarization:\	/ertical; M	odulation:g;	bandwidth	n:20MHz; Cl	hannel:middle
Frequenc		Factor	Emission	Limit	Over Limit	
MHz	, dBuV	dB	dBuV/m	dBuV/m	dB	
4874	38.42	6.92	45.34	54	-8.66	peak
7311	35.30	11.08	46.38	54	-7.62	peak
9748	31.68	14.36	46.04	54	-7.96	
				0.	-7.90	peak
Mode:a:	Polarization:	Horizontal:	Modulation:			
				g; bandwi	dth:20MHz;	Channel:High
Frequenc	cy RX_R	Factor	Emission	g; bandwi Limit	dth:20MHz; Over Limit	Channel:High
Frequenc MHz	cy RX_R dBuV	Factor dB	Emission dBuV/m	g; bandwi Limit dBuV/m	dth:20MHz; Over Limit dB	Channel:High Detector
Frequenc MHz 4924	cy RX_R dBuV 43.59	Factor dB 7.31	Emission dBuV/m 50.90	g; bandwi Limit dBuV/m 54	dth:20MHz; Over Limit dB -3.10	Channel:High Detector peak
Frequence MHz 4924 7386	ey RX_R dBuV 43.59 38.06	Factor dB 7.31 11.41	Emission dBuV/m 50.90 49.47	g; bandwi Limit dBuV/m 54 54	dth:20MHz; Over Limit dB -3.10 -4.53	Channel:High Detector peak peak
Frequenc MHz 4924	cy RX_R dBuV 43.59	Factor dB 7.31	Emission dBuV/m 50.90	g; bandwi Limit dBuV/m 54	dth:20MHz; Over Limit dB -3.10	Channel:High Detector peak
Frequence MHz 4924 7386 9848	ey RX_R dBuV 43.59 38.06	Factor dB 7.31 11.41 14.38	Emission dBuV/m 50.90 49.47 45.49	g; bandwi Limit dBuV/m 54 54 54	dth:20MHz; Over Limit dB -3.10 -4.53 -8.51	Channel:High Detector peak peak peak peak
Frequence MHz 4924 7386 9848	ey RX_R dBuV 43.59 38.06 31.11	Factor dB 7.31 11.41 14.38	Emission dBuV/m 50.90 49.47 45.49	g; bandwi Limit dBuV/m 54 54 54	dth:20MHz; Over Limit dB -3.10 -4.53 -8.51	Channel:High Detector peak peak peak peak hannel:High
Frequence MHz 4924 7386 9848 Mode:a;	ey RX_R dBuV 43.59 38.06 31.11	Factor dB 7.31 11.41 14.38 /ertical; M	Emission dBuV/m 50.90 49.47 45.49 odulation:g;	g; bandwi Limit dBuV/m 54 54 54 bandwidth	dth:20MHz; Over Limit dB -3.10 -4.53 -8.51	Channel:High Detector peak peak peak peak hannel:High
Frequence MHz 4924 7386 9848 Mode:a; Frequence	cy RX_R dBuV 43.59 38.06 31.11 Polarization:	Factor dB 7.31 11.41 14.38 /ertical; M Factor	Emission dBuV/m 50.90 49.47 45.49 odulation:g; Emission	g; bandwi Limit dBuV/m 54 54 54 bandwidth Limit	dth:20MHz; Over Limit dB -3.10 -4.53 -8.51 n:20MHz; Cl	Channel:High Detector peak peak peak peak hannel:High
Frequence MHz 4924 7386 9848 Mode:a; Frequence MHz	cy RX_R dBuV 43.59 38.06 31.11 Polarization:\ cy RX_R dBuV	Factor dB 7.31 11.41 14.38 /ertical; M Factor dB	Emission dBuV/m 50.90 49.47 45.49 odulation:g; Emission dBuV/m	eg; bandwi Limit dBuV/m 54 54 54 bandwidth Limit dBuV/m	dth:20MHz; Over Limit dB -3.10 -4.53 -8.51 h:20MHz; Cl Over Limit dB	Channel:High Detector peak peak peak hannel:High Detector
Frequence MHz 4924 7386 9848 Mode:a; Frequence MHz 4924	cy RX_R dBuV 43.59 38.06 31.11 Polarization: cy RX_R dBuV 42.93	Factor dB 7.31 11.41 14.38 /ertical; M Factor dB 7.31	Emission dBuV/m 50.90 49.47 45.49 odulation:g; Emission dBuV/m 50.24	eg; bandwi Limit dBuV/m 54 54 54 bandwidth Limit dBuV/m 54	dth:20MHz; Over Limit dB -3.10 -4.53 -8.51 h:20MHz; Cl Over Limit dB -3.76	Channel:High Detector peak peak peak hannel:High Detector peak



Report No.: SHEM180900813601

Page: 49 of 51

Frequence MHz		Horizontal; Factor dB	Modulation Emission dBuV/m	n; bandwi Limit dBuV/m	dth:20MHz; Over Limit dB	Channel:Low Detector
4824	39.37	6.40	45.77	54	-8.23	peak
7236	34.22	10.76	44.98	54	-9.02	peak
9648	36.51	14.37	50.88	54	-3.12	peak
Mode:a;	Polarization:	Vertical; M	odulation:n;	bandwidth	n:20MHz; Cl	hannel:Low
Frequenc		Factor	Emission	Limit	Over Limit	
MHz	, dBuV	dB	dBuV/m	dBuV/m	dB	
4824	41.28	6.40	47.68	54	-6.32	peak
7236	43.40	10.76	54.16	54	0.16	peak
9648	37.90	14.37	52.27	54	-1.73	peak
Madaiai	Dalarizationd	low-ontol.	Modulation	بيدا المصمادية	alth 200ML lev	Channalinaiddla
		-		.n, bandwi Limit	Over Limit	Channel:middle
Frequenc	•	Factor	Emission			Detector
MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
4874	41.80	6.92	48.72	54	-5.28	peak
7311	34.44	11.08	45.52	54	-8.48	peak
9748	33.52	14.36	47.88	54	-6.12	peak
Mode:a:	Polarization:	Vertical: M	odulation:n:	handuidtl	3.20MI⊔-z. CI	hannal:middla
modo.a,	i dianzandii.	v Giticai, ivi	oddialion.n,	bandwidti	1.20IVII 12, CI	iarinei.middie
Frequenc		Factor	Emission	Limit	Over Limit	
Frequenc	cy RX_R	Factor	Emission	Limit	Over Limit	
Frequenc MHz	cy RX_R dBuV	Factor dB	Emission dBuV/m	Limit dBuV/m	Over Limit dB	Detector
Frequenc MHz 4874	cy RX_R dBuV 42.17	Factor dB 6.92	Emission dBuV/m 49.09	Limit dBuV/m 54	Over Limit dB -4.91	Detector peak
Frequence MHz 4874 7311 9748	ey RX_R dBuV 42.17 34.38 35.21	Factor dB 6.92 11.08 14.36	Emission dBuV/m 49.09 45.46 49.57	Limit dBuV/m 54 54 54	Over Limit dB -4.91 -8.54 -4.43	Detector peak peak peak
Frequence MHz 4874 7311 9748 Mode:a;	cy RX_R dBuV 42.17 34.38 35.21	Factor dB 6.92 11.08 14.36 Horizontal;	Emission dBuV/m 49.09 45.46 49.57 Modulation	Limit dBuV/m 54 54 54 :n; bandwi	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz;	peak peak peak Channel:High
Frequence MHz 4874 7311 9748 Mode:a; Frequence	cy RX_R dBuV 42.17 34.38 35.21 Polarization:I	Factor dB 6.92 11.08 14.36 Horizontal; Factor	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission	Limit dBuV/m 54 54 54 :n; bandwi Limit	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit	peak peak peak Channel:High
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz	ey RX_R dBuV 42.17 34.38 35.21 Polarization:I	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB	Detector peak peak peak Channel:High Detector
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924	cy RX_R dBuV 42.17 34.38 35.21 Polarization:I cy RX_R dBuV 40.67	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02	peak peak peak Channel:High Detector peak
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386	ey RX_R dBuV 42.17 34.38 35.21 Polarization:I ey RX_R dBuV 40.67 38.63	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96	peak peak peak Channel:High Detector peak peak
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924	cy RX_R dBuV 42.17 34.38 35.21 Polarization:I cy RX_R dBuV 40.67	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02	peak peak peak Channel:High Detector peak
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386 9848	ey RX_R dBuV 42.17 34.38 35.21 Polarization:I ey RX_R dBuV 40.67 38.63	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04 48.23	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54 54	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96 -5.77	peak peak peak Channel:High Detector peak peak peak peak
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386 9848 Mode:a;	ey RX_R dBuV 42.17 34.38 35.21 Polarization:1 ey RX_R dBuV 40.67 38.63 33.85	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04 48.23	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54 54	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96 -5.77	peak peak peak Channel:High Detector peak peak peak peak hannel:High
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386 9848	ey RX_R dBuV 42.17 34.38 35.21 Polarization:1 ey RX_R dBuV 40.67 38.63 33.85	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04 48.23	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 54 bandwidth Limit	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96 -5.77 n:20MHz; Cl Over Limit	peak peak peak Channel:High Detector peak peak peak peak hannel:High
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386 9848 Mode:a; Frequence MHz	ey RX_R dBuV 42.17 34.38 35.21 Polarization:1 ey RX_R dBuV 40.67 38.63 33.85 Polarization:1 ey RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor dB	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04 48.23 odulation:n; Emission dBuV/m	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96 -5.77 n:20MHz; Cl Over Limit dB	peak peak peak Channel:High Detector peak peak peak peak peak peak peak hannel:High
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386 9848 Mode:a; Frequence MHz 4924	ey RX_R dBuV 42.17 34.38 35.21 Polarization:1 ey RX_R dBuV 40.67 38.63 33.85 Polarization:2 ey RX_R dBuV 40.67 38.63	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor dB 7.31	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04 48.23 odulation:n; Emission dBuV/m 46.13	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m 54	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96 -5.77 n:20MHz; Cl Over Limit dB -7.87	peak peak peak Channel:High Detector peak peak peak peak peak peak peak pea
Frequence MHz 4874 7311 9748 Mode:a; Frequence MHz 4924 7386 9848 Mode:a; Frequence MHz	ey RX_R dBuV 42.17 34.38 35.21 Polarization:1 ey RX_R dBuV 40.67 38.63 33.85 Polarization:1 ey RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.31 11.41 14.38 Vertical; M Factor dB	Emission dBuV/m 49.09 45.46 49.57 Modulation Emission dBuV/m 47.98 50.04 48.23 odulation:n; Emission dBuV/m	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m	Over Limit dB -4.91 -8.54 -4.43 dth:20MHz; Over Limit dB -6.02 -3.96 -5.77 n:20MHz; Cl Over Limit dB	peak peak peak Channel:High Detector peak peak peak peak peak peak peak hannel:High



Report No.: SHEM180900813601

Page: 50 of 51

Frequency MHz RX_R dBuV Factor dBuV/ml Emission dBuV/ml Limit dBuV/ml Over Limit dB Detector MHz dBuV dB dBuV/ml dB dBuV/ml dB 4844 42.51 6.60 49.11 54 -4.89 peak 7266 35.74 10.89 46.63 54 -7.37 peak 9688 31.06 14.35 45.41 54 -8.59 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB UW dBuV/m dBuV/m dBuV/m	wioac.a, i c	larization:l	Horizontal;	Modulation	n; bandwi	dth:40MHz;	Channel:Low
4844 42.51 6.60 49.11 54 -4.89 peak 7266 35.74 10.89 46.63 54 -7.37 peak 9688 31.06 14.35 45.41 54 -8.59 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low Frequency RX_R Factor Emission Limit Over Limit Detector Detector MH2 dBuV dB dBuV/m dBuV/m dB dBuV/m dBuV/m dB	Frequency	RX_R	Factor	Emission	Limit	Over Limit	Detector
7266 35.74 10.89 46.63 54 -7.37 peak 9688 31.06 14.35 45.41 54 -8.59 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4844 40.40 6.60 47.00 54 -7.00 peak 7266 35.43 10.89 46.32 54 -7.68 peak 9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dB	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
9688 31.06 14.35 45.41 54 -8.59 peak Mode:a; Polarization:Vertical; Polarization:Vertical; Polarization:Vertical; Polarization: Vertical; Polarization: Verti	4844	42.51	6.60	49.11	54	-4.89	peak
Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4844 40.40 6.60 47.00 54 -7.00 peak 7266 35.43 10.89 46.32 54 -7.68 peak 9688 30.11 14.35 44.46 54 -9.54 peak 9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle Detector MHz dBuV dB dBuV/m dBuV/m dBuV/m dBuV/m Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m	7266	35.74	10.89	46.63	54	-7.37	peak
Frequency RX_R Factor dBuV Emission dBuV/m Limit dBuV/m Over Limit dBuV/m Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4844 40.40 6.60 47.00 54 -7.00 peak 7266 35.43 10.89 46.32 54 -7.68 peak 9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz 480V dB dBuV/m	9688	31.06	14.35	45.41	54	-8.59	•
Frequency RX_R Factor dBuV Emission dBuV/m Limit dBuV/m Over Limit dBuV/m Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4844 40.40 6.60 47.00 54 -7.00 peak 7266 35.43 10.89 46.32 54 -7.68 peak 9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz 480V dB dBuV/m							
MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB dW/m dB dB dB dW/m dB dW/m dB dB dB dW/m dB dB dW/m dB dW/m dB dB dW/m dB dW/m dB dB dW/m dB dW/m dB dW/m dB dW/m dB dW/m dW/m dB dW/m dW/m dB dW/m dW/m dW/m dW/m dW/m dB dW/m dW/m							
4844 40.40 6.60 47.00 54 -7.00 peak 7266 35.43 10.89 46.32 54 -7.68 peak 9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Polarization: Frequency RX_R Factor Emission Limit Over Limit Detector Detector MHz dBuV dB dBuV/m dBuV/m dBuV/m dB dB 4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36							Detector
7266 35.43 10.89 46.32 54 -7.68 peak 9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Prequency RX_R Factor Emission Limit Over Limit Detector Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector Detector MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 48.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Chann	MHz		dB		dBuV/m	dB	
9688 30.11 14.35 44.46 54 -9.54 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector Channel:middle Detector MHz dBuV dB dBuV/m dBuV/m dBuV/m dB dBuV/m dBuV/m dB 4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector Detector MHz dBuV dB dBuV/m dB	4844	40.40	6.60	47.00	54	-7.00	peak
Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBv/m dB dB dBv/m dB	7266	35.43	10.89	46.32	54	-7.68	peak
Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector <td>9688</td> <td>30.11</td> <td>14.35</td> <td>44.46</td> <td>54</td> <td>-9.54</td> <td>peak</td>	9688	30.11	14.35	44.46	54	-9.54	peak
Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector <td>Modera: Do</td> <td>Jarization: l</td> <td>Jorizontal:</td> <td>Modulation</td> <td>n: bandwi</td> <td>dth:40MU=-</td> <td>Channelimiddle</td>	Modera: Do	Jarization: l	Jorizontal:	Modulation	n: bandwi	dth:40MU=-	Channelimiddle
MHz dBuV dB dBuV/m dBuV/m dB 4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4874 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak<	•		-		•	·	
4874 38.99 6.92 45.91 54 -8.09 peak 7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 98	. ,						Detector
7311 35.01 11.08 46.09 54 -7.91 peak 9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak			_				
9748 35.58 14.36 49.94 54 -4.06 peak Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	_						•
Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak							•
Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	9748	35.58	14.36	49.94	54	-4.06	peak
Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB dBuV/m dB 4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Modera: Po	Jarization:\	/ertical: M	odulation:n:	handwidth	n·40MHz· Cl	hannel·middle
4874 38.47 6.92 45.39 54 -8.61 peak 7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	wiouc.a, i c	nanzanon.	v Citiodi, ivi	oddidiloi i.i i,	Danawian	1. 101VII 12, O	iai ii ioi.ii ii aaio
7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak							
7311 39.86 11.08 50.94 54 -3.06 peak 9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency	RX_R	Factor	Emission	Limit	Over Limit	
9748 36.42 14.36 50.78 54 -3.22 peak Mode:a; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz	RX_R dBuV	Factor dB	Emission dBuV/m	Limit dBuV/m	Over Limit dB	Detector
Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz 4874	RX_R dBuV 38.47	Factor dB 6.92	Emission dBuV/m 45.39	Limit dBuV/m 54	Over Limit dB -8.61	Detector peak
Frequency RX_R Factor Emission Limit Over Limit Detector MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz 4874 7311	RX_R dBuV 38.47 39.86	Factor dB 6.92 11.08	Emission dBuV/m 45.39 50.94	Limit dBuV/m 54 54	Over Limit dB -8.61 -3.06	Detector peak peak
MHz dBuV dB dBuV/m dBuV/m dB 4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz 4874 7311 9748	RX_R dBuV 38.47 39.86 36.42	Factor dB 6.92 11.08 14.36	Emission dBuV/m 45.39 50.94 50.78	Limit dBuV/m 54 54 54	Over Limit dB -8.61 -3.06 -3.22	Detector peak peak peak
4904 41.12 7.22 48.34 54 -5.66 peak 7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz 4874 7311 9748 Mode:a; Po	RX_R dBuV 38.47 39.86 36.42	Factor dB 6.92 11.08 14.36 Horizontal;	Emission dBuV/m 45.39 50.94 50.78	Limit dBuV/m 54 54 54 :n; bandwi	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz;	peak peak peak Channel:High
7356 35.17 11.28 46.45 54 -7.55 peak 9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz 4874 7311 9748 Mode:a; Po	RX_R dBuV 38.47 39.86 36.42	Factor dB 6.92 11.08 14.36 Horizontal;	Emission dBuV/m 45.39 50.94 50.78	Limit dBuV/m 54 54 54 sn; bandwi Limit	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz;	peak peak peak Channel:High
9808 36.13 14.37 50.50 54 -3.50 peak	Frequency MHz 4874 7311 9748 Mode:a; Po	RX_R dBuV 38.47 39.86 36.42 blarization:F	Factor dB 6.92 11.08 14.36 Horizontal; Factor	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission	Limit dBuV/m 54 54 54 sn; bandwi Limit	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit	peak peak peak Channel:High
·	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz	RX_R dBuV 38.47 39.86 36.42 blarization:R RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB	Detector peak peak peak Channel:High Detector
Mode:a; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904	RX_R dBuV 38.47 39.86 36.42 blarization:R RX_R dBuV 41.12	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66	peak peak peak Channel:High Detector peak
modela, i cianzadon vertical, modeladorin, banamatin formiz, enamioningi	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356	RX_R dBuV 38.47 39.86 36.42 blarization:R RX_R dBuV 41.12 35.17	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45	Limit dBuV/m 54 54 54 :n; bandwi Limit dBuV/m 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55	peak peak peak Channel:High Detector peak peak
Frequency DV D. Foster Emission Limit Over Limit Detector	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808	RX_R dBuV 38.47 39.86 36.42 blarization:R RX_R dBuV 41.12 35.17 36.13	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50	peak peak peak Channel:High Detector peak peak peak
1	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po	RX_R dBuV 38.47 39.86 36.42 blarization:RX_R dBuV 41.12 35.17 36.13	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 54 bandwidth	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl	Detector peak peak Peak Channel:High Detector peak peak peak peak hannel:High
	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po Frequency	RX_R dBuV 38.47 39.86 36.42 blarization: RX_R dBuV 41.12 35.17 36.13	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M Factor	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50 odulation:n; Emission	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 54 bandwidth Limit	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl	Detector peak peak Peak Channel:High Detector peak peak peak peak hannel:High
4904 39.64 7.22 46.86 54 -7.14 peak	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po Frequency MHz	RX_R dBuV 38.47 39.86 36.42 blarization:H RX_R dBuV 41.12 35.17 36.13 blarization:N RX_R dBuV	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M Factor dB	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50 odulation:n; Emission dBuV/m	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl Over Limit dB	peak peak peak Channel:High Detector peak peak peak peak peak peak peak pea
•	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po Frequency MHz 4904	RX_R dBuV 38.47 39.86 36.42 blarization:RX_R dBuV 41.12 35.17 36.13 blarization:RX_R dBuV 39.64	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M Factor dB 7.22	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50 odulation:n; Emission dBuV/m 46.86	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl Over Limit dB -7.14	peak peak peak Channel:High Detector peak peak peak peak peak hannel:High Detector
7356 38.29 11.28 49.57 54 -4.43 peak	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po Frequency MHz 4904 7356	RX_R dBuV 38.47 39.86 36.42 blarization:RX_R dBuV 41.12 35.17 36.13 blarization:RX_R dBuV 39.64 38.29	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M Factor dB 7.22 11.28	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50 odulation:n; Emission dBuV/m 46.86 49.57	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m 54 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl Over Limit dB -7.14 -4.43	peak peak peak Channel:High Detector peak peak peak hannel:High Detector peak peak hannel:High Detector
•	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po Frequency MHz 4904	RX_R dBuV 38.47 39.86 36.42 blarization:RX_R dBuV 41.12 35.17 36.13 blarization:RX_R dBuV 39.64	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M Factor dB 7.22	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50 odulation:n; Emission dBuV/m 46.86	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl Over Limit dB -7.14	peak peak peak Channel:High Detector peak peak peak peak peak hannel:High Detector
•	Frequency MHz 4874 7311 9748 Mode:a; Po Frequency MHz 4904 7356 9808 Mode:a; Po Frequency MHz 4904 7356	RX_R dBuV 38.47 39.86 36.42 blarization:RX_R dBuV 41.12 35.17 36.13 blarization:RX_R dBuV 39.64 38.29	Factor dB 6.92 11.08 14.36 Horizontal; Factor dB 7.22 11.28 14.37 Vertical; M Factor dB 7.22 11.28	Emission dBuV/m 45.39 50.94 50.78 Modulation Emission dBuV/m 48.34 46.45 50.50 odulation:n; Emission dBuV/m 46.86 49.57	Limit dBuV/m 54 54 54 cn; bandwi Limit dBuV/m 54 54 bandwidth Limit dBuV/m 54 54	Over Limit dB -8.61 -3.06 -3.22 dth:40MHz; Over Limit dB -5.66 -7.55 -3.50 n:40MHz; Cl Over Limit dB -7.14 -4.43	peak peak peak Channel:High Detector peak peak peak hannel:High Detector peak peak hannel:High Detector



Report No.: SHEM180900813601

Page: 51 of 51

8 Test Setup Photographs

Refer to the < Test Setup photos-FCC>.

9 EUT Constructional Details

Refer to the < External Photos > & < Internal Photos >.

- End of the Report -