CE Radio Test Report

Project No.	:	2504C143
Equipment	:	AC650 Wireless Dual Band USB Adapter
Brand Name	:	Cudy
Model Name	:	WU650
Applicant	:	Shenzhen Cudy Technology Co., Ltd.
Address	:	7/F, Lepu Tower (West), 66 Xingke Rd, Nanshan, Shenzhen, China
Manufacturer	:	Shenzhen Cudy Technology Co., Ltd.
Address	:	7/F, Lepu Tower (West), 66 Xingke Rd, Nanshan, Shenzhen, China
Factory	:	Shenzhen Cudy Technology Co., Ltd.
Address	:	7/F, Lepu Tower (West), 66 Xingke Rd, Nanshan, Shenzhen, China
Date of Receipt	:	Apr. 16, 2025
Date of Test	:	Apr. 17, 2025 ~ Sep. 02, 2025
Issued Date	:	Oct. 29, 2025
Test Sample	:	Engineering Sample No.: DG202504163 for radiated, DG202504164 for others.
Standard(s)	:	ETSI EN 300 440 V2.2.1 (2018-07)

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.(Dongguan).

Prepared by : Chella Zheng

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Chay Cai

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. BTL assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by BTL.

The report must not be used by the client to claim product certification, approval, or endorsement by A2LA or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-ETSP-4-2504C143	R00	Original Report.	Oct. 29, 2025	Valid

1. RF EMISSIONS MEASUREMENT

1.1 TEST FACILITY

The test facilities used to collect the test data in this report:
For **SSL-CB05**: Room 108-116, 309-310, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan, Guangdong, People's Republic of China.
For **DG-TR13/DG-TR17**: No.3, Jinshagang 1st Road, Dalang, Dongguan, Guangdong People's Republic of China.

1.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) k=1.96 or k=2(which provide confidence levels of respectively 95% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).
Measurement Uncertainty for a Level of Confidence of 95.45%, $U=2\times u_c(y)$.

The BTL measurement uncertainty as below table:

Parameters	**Uncertainty**
Radio frequency	2.7 ppm
RF power (conducted)	1.3 dB
Radiated emission of transmitter/receiver (25MHz ~ 1GHz)	3.76 dB
Radiated emission of transmitter/receiver (1GHz ~ 18GHz)	3.76 dB
Radiated emission of transmitter/receiver (18GHz ~ 40GHz)	4.02 dB
Temperature	0.8 °C
Humidity	2.2 %
Voltage (DC)	1 %
Voltage (AC, < 10 kHz)	2 %

1.3 TEST CONDITIONS

	Normal Test Conditions	Extreme Test Conditions
Temperature	+15°C to +35°C	-10°C to +40°C
Relative Humidity	20% to 75%	N/A
Supply Voltage	DC 5V	DC 4.5-5.5V Note: (2)

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
Equivalent isotropically radiated power (e.i.r.p.)	Normal & Extreme	51-59%	Normal & Extreme	Alex Yin	Aug. 18, 2025-Aug. 26, 2025
Permitted range of operating frequencies	Normal & Extreme	60%	Normal & Extreme	Steve Zhou	May 09, 2025
Unwanted emissions in the spurious domain	23°C	53%	DC 5V	Gavin Ge	May 06, 2025
Duty cycle	25°C	60%	DC 5V	Steve Zhou	Apr. 28, 2025
Adjacent channel selectivity	23°C	53%	DC 5V	Kadin Wu	May 07, 2025
Blocking or desensitization	23°C	53%	DC 5V	Kadin Wu	May 07, 2025
Spurious radiations	23°C	53%	DC 5V	Gavin Ge	May 06, 2025

Note:

(1) For tests at extreme temperatures, measurements shall be made in accordance with the procedures specified in clause 5.7.1.1, at the upper and lower temperatures of one of the following ranges, either:

The temperature range as declared by the manufacturer	-10°C to +40°C	√
Category I (General):	-20°C to +55°C	
Category II (Portable):	-10°C to +55°C	
Category III (Equipment for normal indoor use):	5°C to +35°C	

(2) **Mains voltage:**

1) The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages, for which the equipment was designed.
2) The extreme test voltages for equipment to be connected to an ac mains source shall be the nominal mains voltage ±10 %. For equipment that operates over a range of mains voltages clause 5.7.2.4 applies.

Battery power sources

1) When the radio equipment is intended for operation with the usual types of battery power source, the normal test voltage shall be 1,1 multiplied by the nominal voltage of the battery (e.g. 6 V, 12 V, etc.).
2) When the radio equipment is intended for operation from the usual type of battery power sources the extreme test voltages shall be 1,3 and 0,9 multiplied by the nominal voltage of the battery (6 V, 12 V, etc.).
   For float charge applications using "gel-cell" type batteries the extreme voltage shall be 1,15 and 0,85 multiplied by the nominal voltage of the declared battery voltage.

Power sources using other types of batteries

The lower extreme test voltages for equipment with power sources using batteries shall be as follows:

- for equipment with a battery indicator, the end point voltage as indicated;
- for equipment without a battery indicator the following end point voltages shall be used:
  - for the Leclanché or the lithium type of battery:
    - 0,85 multiplied by the nominal voltage of the battery;
  - for the nickel-cadmium type of battery:
    - 0,9 multiplied by the nominal voltage of the battery;
- for other types of battery or equipment, the lower extreme test voltage for the discharged condition shall be declared by the equipment manufacturer.

The nominal voltage is considered to be the upper extreme test voltage in this case.

Other power sources

1) For operation from other power sources or types of battery (primary or secondary), the normal test voltage shall be that declared by the equipment manufacturer and agreed to by the accredited test laboratory. Such values shall be stated in the test report.
2) For equipment using other power sources, or capable of being operated from a variety of power sources, the extreme test voltages shall be those agreed between the equipment manufacturer and the test laboratory. This shall be recorded in the test report.

1.4 TEST CHANNEL

IEEE 802.11a / IEEE 802.11ac(VHT20)		
Test Channel	EUT Channel	Test Frequency
Low	CH149	5745 MHz
Middle	CH157	5785 MHz
High	CH165	5825 MHz

IEEE 802.11ac(VHT40)		
Test Channel	EUT Channel	Test Frequency
Low	CH151	5755 MHz
High	CH159	5795 MHz

IEEE 802.11ac(VHT80)		
Test Channel	EUT Channel	Test Frequency
High	CH155	5775 MHz

1.5 TEST METHODOLOGY AND RESULTS

Harmonised Standard ETSI EN 300 440					
Requirement			Requirement Conditionality		Observations
No	Description	Reference: Clause No	U/C	Condition	
1	e.i.r.p.	4.2.2	C	Applies to all devices with transmitters	PASS
2	Permitted range of operating frequencies	4.2.3	C	Applies to all devices with transmitters	PASS
3	Unwanted emissions in the spurious domain	4.2.4	C	Applies to all devices with transmitters	PASS **Note (2)**
4	Duty cycle	4.2.5.4	C	Transmitting devices which do not use LBT, DAA, or RFID transmitters operating in the 2 446 to 2 454 MHz band transmitting more than 500 mW e.i.r.p. power level	PASS
5	Additional requirements for FHSS equipment	4.2.6	C	Equipment utilizing FHSS modulation	N/A
6	Adjacent channel selectivity	4.3.3	C	Applies to equipment Category 1 receivers	PASS
7	Blocking or desensitization	4.3.4	C	Applies to category 1, 2, and 3 SRD communication media receivers	PASS
8	Spurious radiations	4.3.5	C	Applies to all receivers, except receivers used in combination with permanently co-located transmitters continuously transmitting	PASS
9	Spectrum access techniques	4.4	C	Equipment which are not using duty cycle restrictions for media access	N/A
10	GBSAR antenna pattern	4.6.4	C	Applies only GBSAR systems	N/A
11	Limits for GBSAR	Annex I	C	Applies only GBSAR systems	N/A

Note:
(1) “U/C”: Indicates whether the requirement is unconditionally applicable (U) or is conditional upon the manufacturer's claimed functionality of the equipment (C).
”N/A”: indicates test is not applicable to this device.
(2) The emission of the transmitter on standby mode is equal to that of receiving mode.

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC650 Wireless Dual Band USB Adapter
Brand Name	Cudy
Test Model	WU650
Model Name	WU650
Model Difference(s)	N/A
Hardware Version	V1.0
Software Version	V1.0
Power Source	Supplied from USB port.
Power Rating	DC 5V
Operation Frequency	5725 MHz ~ 5850 MHz
Modulation Type	IEEE 802.11a/n/ac: OFDM
Bit Rate of Transmitter	IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 150 Mbps IEEE 802.11ac: up to 433.3 Mbps
Max. e.i.r.p.	IEEE 802.11a: 10.51 dBm (11.25 mW) IEEE 802.11ac(VHT20): 10.53 dBm (11.30 mW) IEEE 802.11ac(VHT40): 10.06 dBm (10.14 mW) IEEE 802.11ac(VHT80): 10.50 dBm (11.22 mW)
Categorization	☒ Receiver category 1 ☐ Receiver category 2 ☐ Receiver category 3

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

2. Channel List:

IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20)		IEEE 802.11n(HT40) IEEE 802.11ac(VHT40)		IEEE 802.11ac(VHT80)	
Band 4		Band 4		Band 4	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

3. Table for Filed Antenna:

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	Shenzhen Jiafang Metal Co., Ltd.	WU650	Metal	N/A	-0.42

2.2 DESCRIPTION OF TEST MODES

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 above was evaluated respectively.

Test Items	Mode	Data Rate	Channel
Equivalent isotropically radiated power	IEEE 802.11a	6 Mbps	149/157/165
	IEEE 802.11ac(VHT20)	MCS0	
	IEEE 802.11ac(VHT40)	MCS0	151/159
	IEEE 802.11ac(VHT80)	MCS0	155
Permitted range of operating frequencies	IEEE 802.11a	6 Mbps	149/165
	IEEE 802.11ac(VHT20)	MCS0	
	IEEE 802.11ac(VHT40)	MCS0	151/159
	IEEE 802.11ac(VHT80)	MCS0	155
Unwanted emissions in the spurious domain - Operating / Standby (25MHz~1GHz)	IEEE 802.11ac(VHT20)	6 Mbps	149/165
Unwanted emissions in the spurious domain - Operating / Standby (Above 1GHz)	IEEE 802.11a	6 Mbps	149/165
	IEEE 802.11ac(VHT20)	MCS0	
	IEEE 802.11ac(VHT40)	MCS0	151/159
	IEEE 802.11ac(VHT80)	MCS0	155
Duty cycle	IEEE 802.11a	6 Mbps	149
Adjacent channel selectivity	IEEE 802.11a	6 Mbps	157
Blocking	IEEE 802.11a	6 Mbps	149/165
Spurious radiation - Receiver (25MHz~1GHz)	IEEE 802.11ac(VHT20)	6 Mbps	149/165
Spurious radiation - Receiver (Above 1GHz)	IEEE 802.11ac(VHT20)	6 Mbps	149/165

Note :

(1) VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

(2) For radiated spurious emissions below 1 GHz and receiver spurious emissions above 1 GHz test, the IEEE 802.11ac(VHT20) channel 149/165 are found to be the worst case and recorded.

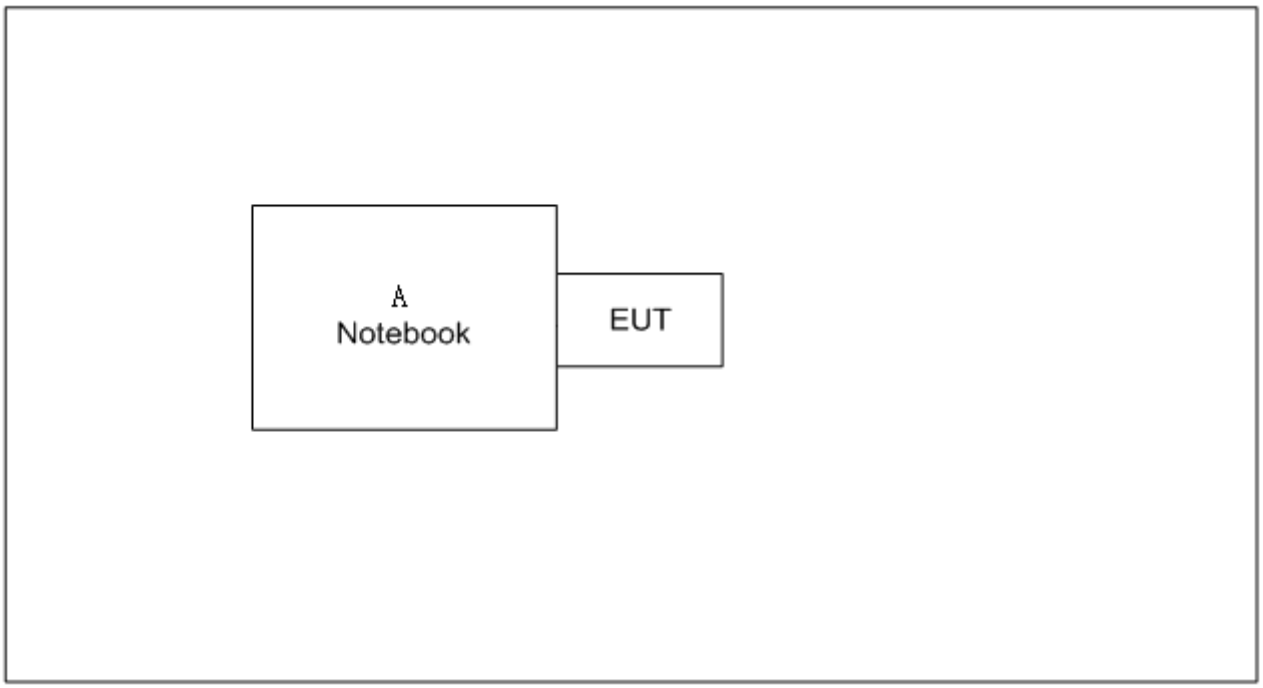
(3) For radiated emission above 18GHz test, only tested the worst case and recorded.

2.3 TABLE OF PARAMETERS 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.

Test Software Version	Win7_MP_Kit_RTL11ac_8821CU_USB_v3.14_20210730(BETA)		
Frequency (MHz)	5745	5785	5825
IEEE 802.11a	37	37	37
IEEE 802.11ac(VHT20)	37	37	37
Frequency (MHz)	5755	5795	
IEEE 802.11ac(VHT40)	33	35	
Frequency (MHz)	5775		
IEEE 802.11ac(VHT80)	35		

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	HONOR	NDR-WFH	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
-	-	-	-	-

2.6 CUSTOMER INFORMATION DESCRIPTION

1) The antenna gain is provided by the manufacturer.
2) Except for radiated spurious emissions, the results of all test items include cable losses. Part of the cable losses (0.3dB) are provided by the manufacturer, while the other parts of the cable losses are provided by the testing laboratory.

3. EQUIVALENT ISOTROPICALLY RADIATED POWER (E.I.R.P.)

3.1 LIMITS

Clause	4.2.2.4
Test Item	Equivalent isotropically radiated power (e.i.r.p.)
Limits	The transmitter maximum e.i.r.p. under normal and extreme test conditions.

Entry	Frequency Bands	Power	Application	Notes
1	2 400 MHz to 2 483,5 MHz	10 mW e.i.r.p.	Non-specific short range devices	
2	2 400 MHz to 2 483,5 MHz	25 mW e.i.r.p.	Radiodetermination devices	
3	(a) 2 446 MHz to 2 454 MHz	500 mW e.i.r.p.	Radio Frequency Identification (RFID) devices	See also table 4 and Annex G
4	(b) 2 446 MHz to 2 454 MHz	4 W e.i.r.p.	Radio Frequency Identification (RFID) devices	See also table 4 and Annex G
5	5 725 MHz to 5 875 MHz	25 mW e.i.r.p.	Non-specific short range devices	
6	9 200 MHz to 9 500 MHz	25 mW e.i.r.p.	Radiodetermination devices	
7	9 500 MHz to 9 975 MHz	25 mW e.i.r.p.	Radiodetermination devices	
8	10,5 GHz to 10,6 GHz	500 mW e.i.r.p.	Radiodetermination devices	
9	13,4 GHz to 14,0 GHz	25 mW e.i.r.p.	Radiodetermination devices	
10	17,1 GHz to 17,3 GHz	400 mW e.i.r.p.	Radiodetermination devices	See Annex H
11	24,00 GHz to 24,25 GHz	100 mW e.i.r.p.	Non-specific short range devices and radiodetermination devices	

NOTE: The spectrum ranges in some entries are not harmonised throughout all EU territory, specifically entries 4, 9, and 11 have been identified as such. Implementers are cautioned to refer to CEPT/ERC Recommendation 70-03 [i.2] as well as current National Radio plans to verify acceptance within intended regions of use.

3.2 TEST PROCEDURES

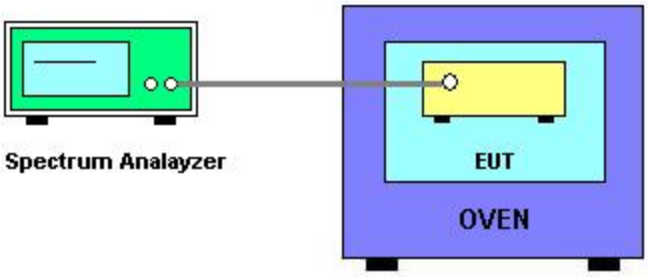
Refer to ETSI EN 300 440, chapter 4.2.2.3.

3.3 TEST SETUP LAYOUT

Normal Condition:



Extreme Condition:



3.4 TEST DEVIATION

There is no deviation with the original standard.

3.5 EUT OPERATION DURING TEST

The measurements shall be performed during continuously transmitting.

3.6 TEST RESULTS

Please refer to the Appendix A.

4. PERMITTED RANGE OF OPERATING FREQUENCIES

4.1 LIMITS

Clause	4.2.3.5
Test Item	Permitted range of operating frequencies
Limits	The width of the power spectrum envelope is f_H -f_L for a given operating frequency. In equipment that allows adjustment or selection of different operating frequencies, the power envelope takes up different positions in the allowed band. The frequency range is determined by the lowest value of f_L and the highest value of f_H resulting from the adjustment of the equipment to the lowest and highest operating frequencies. The occupied bandwidth (i.e. the bandwidth in which 99 % of the wanted emission is contained) of the transmitter shall fall within the assigned frequency band. For all equipment the frequency range shall lie within the frequency band given by clause 4.2.2.4, table 2. For non-harmonized frequency bands the available frequency range may differ between national administrations.

4.2 TEST PROCEDURES

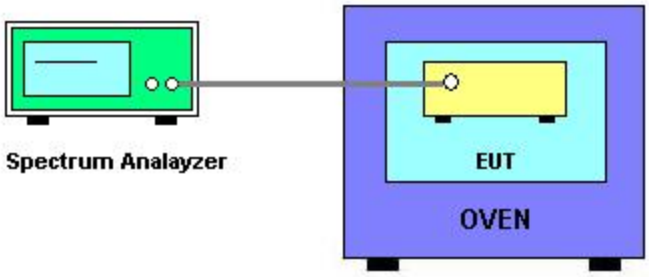
Refer to ETSI EN 300 440, chapter 4.2.3.3.

4.3 TEST SETUP LAYOUT

Normal Condition:



Extreme Condition:



4.4 TEST DEVIATION

There is no deviation with the original standard.

4.5 EUT OPERATION DURING TEST

The measurements shall be performed during continuously transmitting.

4.6 TEST RESULTS

Please refer to the Appendix B.

5. UNWANTED EMISSIONS IN THE SPURIOUS DOMAIN

5.1 LIMITS

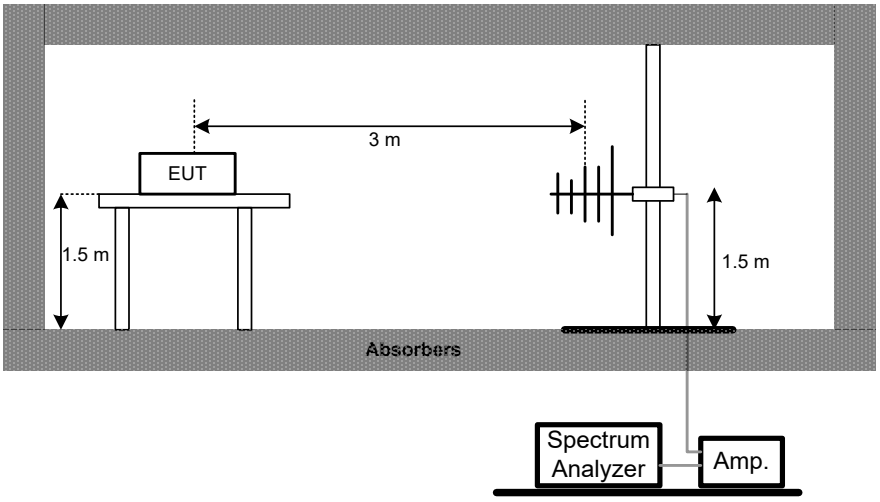
<table>
<tr><td>Clause</td><td colspan="4">4.2.4.4</td></tr>
<tr><td>Test Item</td><td colspan="4">Unwanted emissions in the spurious domain</td></tr>
<tr><td>Limits</td><td colspan="4">The maximum power limits of any unwanted emissions in the spurious domain are given.
<table>
<tr><th>Frequency ranges
State</th><th>47 MHz to 74 MHz
87,5 MHz to 108 MHz
174 MHz to 230 MHz
470 MHz to 862 MHz</th><th>Other frequencies
≤ 1 000 MHz</th><th>Frequencies
> 1 000 MHz</th></tr>
<tr><td>Operating</td><td>4 nW</td><td>250 nW</td><td>1 µW</td></tr>
<tr><td>Standby</td><td>2 nW</td><td>2 nW</td><td>20 nW</td></tr>
</table>
Note: Operating: transmitter switched on, Standby: transmitter switched off.</td></tr>
</table>

5.2 TEST PROCEDURES

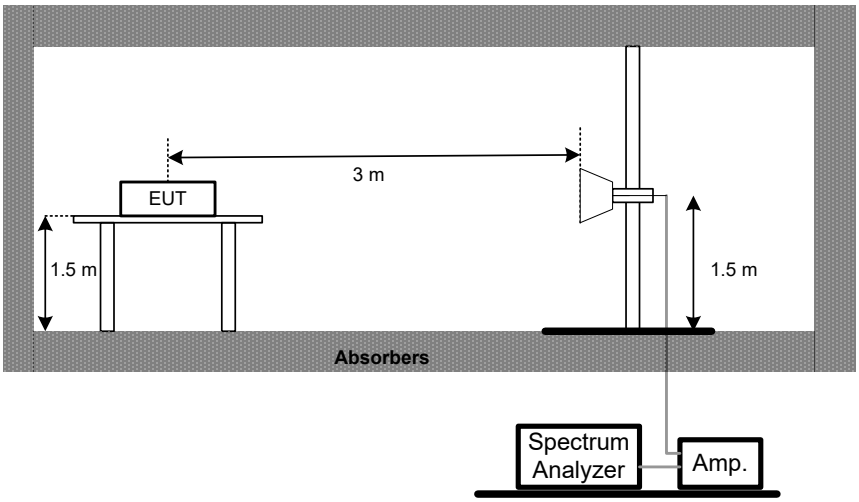
Refer to ETSI EN 300 440, chapter 4.2.4.3.

5.3 TEST SETUP LAYOUT

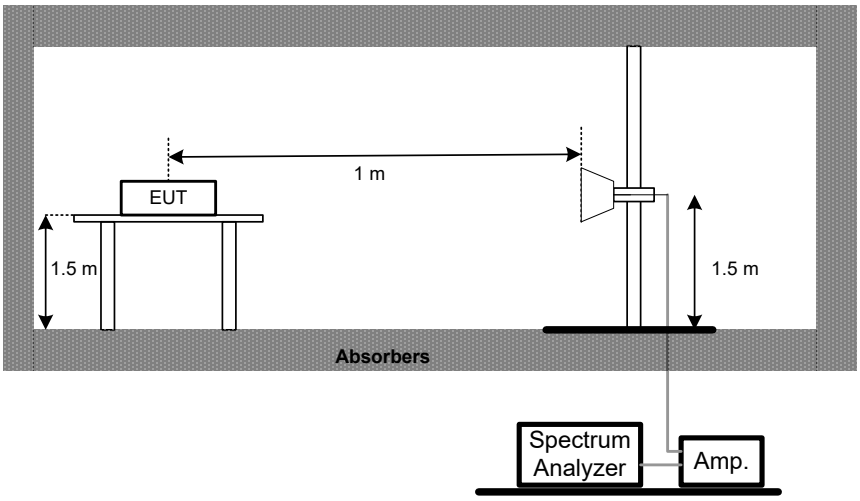
Radiated Measurement Test Set-Up Frequency Below 1 GHz



Radiated Measurement Test Set-Up Frequency 1 GHz - 18 GHz



Radiated Measurement Test Set-Up Frequency Above 18 GHz



5.4 TEST DEVIATION

There is no deviation with the original standard.

5.5 EUT OPERATION DURING TEST

The measurements shall be performed during continuously transmitting.

5.6 TEST RESULTS (25MHZ TO 1000MHZ)

Please refer to the Appendix C for operating mode.
Please refer to the Appendix D for standby mode.

5.7 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the Appendix E for operating mode.
Please refer to the Appendix F for standby mode.

6. DUTY CYCLE

6.1 LIMITS

Clause	4.2.5.4
Test Item	Duty cycle
Limits	See table below

Frequency Band	Duty cycle	Application	Notes
2 400 MHz to 2 483,5 MHz	No Restriction	Generic use	
2 400 MHz to 2 483,5 MHz	No Restriction	Radiodetermination	
(a) 2 446 MHz to 2 454 MHz	No Restriction	RFID	Limits shown in Annex G shall apply
(b) 2 446 MHz to 2 454 MHz	≤ 15 %	RFID	Limits shown in Annex G shall apply
5 725 MHz to 5 875 MHz	No Restriction	Generic use	
9 200 MHz to 9 500 MHz	No Restriction	Radiodetermination	
9 500 MHz to 9 975 MHz	No Restriction	Radiodetermination	
10,5 GHz to 10,6 GHz	No Restriction	Radiodetermination	
13,4 GHz to 14,0 GHz	No Restriction	Radiodetermination	
17,1 GHz to 17,3 GHz	DAA or equivalent techniques	Radiodetermination, limited to GBSAR detecting and movement and alert applications	Limits shown in Annex I shall apply
24,00 GHz to 24,25 GHz	No Restriction	Generic use and for radiodetermination	
NOTE: The spectrum ranges in some entries are not harmonised throughout all EU territory, specifically entries 4, 9, and 11 have been identified as such. Implementers are cautioned to refer to CEPT/ERC Recommendation 70-03 [i.2] as well as current National Radio plans to verify acceptance within intended regions of use.			

Note: The maximum duty cycle within a 1 hour period.

6.2 TEST PROCEDURES

Refer to ETSI EN 300 440, chapter 4.2.5.3.

6.3 TEST SETUP LAYOUT



6.4 TEST DEVIATION

There is no deviation with the original standard.

6.5 EUT OPERATION DURING TEST

The measurements shall be performed during normal transmitting.

6.6 TEST RESULTS

Please refer to the Appendix G.

7. ADJACENT CHANNEL SELECTIVITY

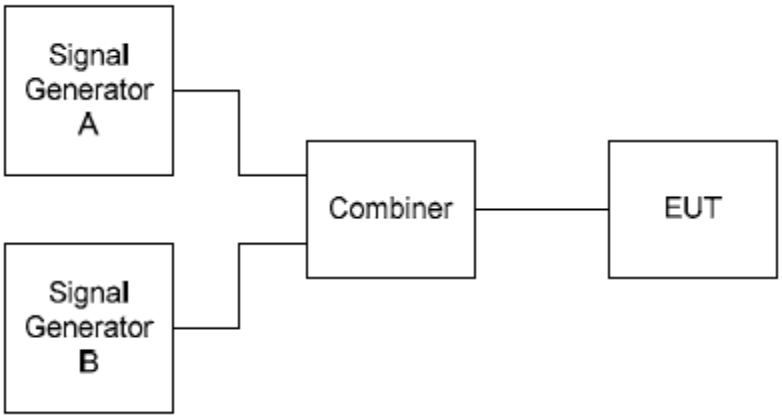
7.1 LIMITS

Clause	4.3.3.4
Test Item	Adjacent channel selectivity
Limits	The adjacent channel selectivity of the equipment under specified conditions shall not be less than -30 dBm + k. The correction factor, k, is as follows: $k = -20\log f - 10\log BW$ Where: - *f* is the frequency in GHz; - *BW* is the occupied bandwidth in MHz. The factor *k* is limited within the following: - -40 dB < k < 0 dB.

7.2 TEST PROCEDURES

Refer to ETSI EN 300 440, chapter 4.3.3.3.

7.3 TEST SETUP LAYOUT



7.4 TEST DEVIATION

There is no deviation with the original standard.

7.5 EUT OPERATION DURING TEST

The measurements shall be performed during normal receiving.

7.6 TEST RESULTS

Please refer to the Appendix H.

8. BLOCKING OR DESENSITIZATION

8.1 LIMITS

Clause	4.3.4.4
Test Item	Blocking or desensitization
Limits	The blocking level, for any frequency within the specified ranges, shall not be less than the values given in table, except at frequencies on which spurious responses are found.

Receiver category	Limit
1	-30 dBm + k
2	-45 dBm + k
3	-60 dBm + k

The correction factor, k, is as follows:

$$k = -20\log f - 10\log BW$$

Where:

- *f* is the frequency in GHz;
- *BW* is the occupied bandwidth in MHz.

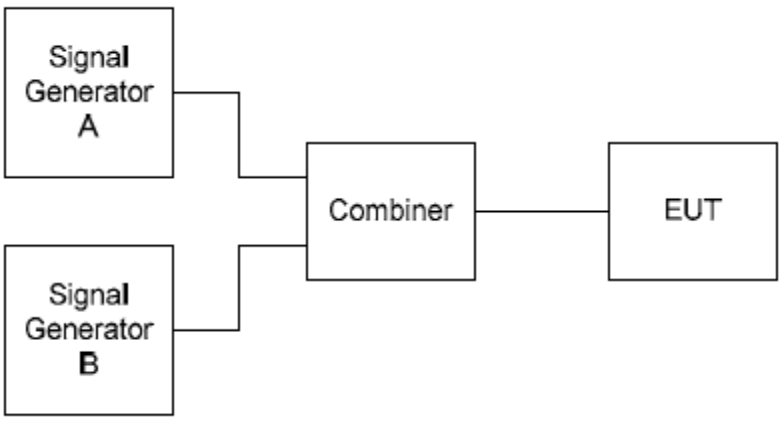
The factor *k* is limited within the following:

- -40 dB < k < 0 dB.

8.2 TEST PROCEDURES

Refer to ETSI EN 300 440, chapter 4.3.4.3.

8.3 TEST SETUP LAYOUT



8.4 TEST DEVIATION

There is no deviation with the original standard.

8.5 EUT OPERATION DURING TEST

The measurements shall be performed during normal receiving.

8.6 TEST RESULTS

Please refer to the Appendix I.

9. SPURIOUS RADIATIONS

9.1 LIMITS

<table>
<tr><td>Clause</td><td>4.3.5.4</td></tr>
<tr><td>Test Item</td><td>Spurious radiations</td></tr>
<tr><td>Limit</td><td>The power of any spurious emission shall not exceed 2 nW in the range 25 MHz to 1 GHz and shall not exceed 20 nW on frequencies above 1 GHz.
<table>
<tr><th>Other frequencies
25 MHz to 1000 MHz</th><th>Frequencies
Above 1000 MHz</th></tr>
<tr><td>2 nW (-57dBm)</td><td>20 nW (-47dBm)</td></tr>
</table></td></tr>
</table>

9.2 TEST PROCEDURES

Refer to ETSI EN 300 440, chapter 4.3.5.3.

9.3 TEST SETUP LAYOUT

Refer to clause 5.3.

9.4 TEST DEVIATION

There is no deviation with the original standard.

9.5 EUT OPERATION DURING TEST

The measurements shall be performed during continuously receiving.

9.6 TEST RESULTS (25MHZ TO 1000MHZ)

Please refer to the Appendix J.

9.7 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the Appendix K.

10. MEASUREMENT INSTRUMENTS LIST

Equivalent Isotropically Radiated Power (e.i.r.p.)					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	4TX Mimo Power Test Set	Keysight	X8750A	MY59400118	N/A
2	USB Peak and Average Power Sensor	Keysight	U2063XA	MY58000233	May 31, 2025
3	USB Peak and Average Power Sensor	Keysight	U2063XA	MY58000234	May 31, 2025
4	Isolation attenuator	Z-Link	ASMA-10-18-2W	N/A	N/A
5	Isolation attenuator	Z-Link	ASMA-10-18-2W	N/A	N/A
6	Cable	RegalWay	20240202 020	RWP50-402-SM SM-1M	N/A
7	Cable	RegalWay	20210802 015	RWP50-402-SM SM-1M	N/A
8	Measurement Software	keysight	IOT0047A	N/A	N/A

Permitted Range of Operating Frequency					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP38	100852	May 31, 2025
2	Isolation attenuator	Z-Link	ASMA-16-18-2W	N/A	N/A
3	Cable	Woke	20210802 001	RWP50-402-SMS M-1M	N/A
4	Desktop Constant Temperature Chamber	BELL	BTH-50C	20170306001	Jan. 10, 2026
5	DC power supply	UNI-T	UDP6721	AWP7224050031	Dec. 06, 2025

Transmitter and Receiver Spurious Emission (Radiated Measurement)_Below 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	01381	Sep.26,2025
2	Attenuator	EMC INSTRUMENT	EMCI-N-6-06	AT-06009	Sep.26,2025
3	Preamplifier	EMC INSTRUMENT	EMC330N	980855	Jun. 28, 2025
4	Cable	RegalWay	SW50T-CA038-3000	N/A	N/A
5	Cable	RegalWay	SW50T-CA038-4000	N/A	N/A
6	Cable	RegalWay	SW50T-CA038-4000	N/A	N/A
7	Signal & Spectrum Analyzer	R&S	FSV3004	101285	Jun. 28, 2025
8	Top precision	Pneumatic Mast Contorller	N/A	N/A	N/A
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10*	Chamber room	ETS	1055	Q2162	Aug. 21, 2027

Transmitter and Receiver Spurious Emission (Radiated Measurement)_Above 1GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Top precision	Pneumatic Mast Contorller	N/A	N/A	N/A
2	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
3	Signal & Spectrum Analyzer	R&S	FSV3044	101377	Jun. 28, 2025
4	Cable	RegalWay	SW50T-CA004-4000	N/A	N/A
5	Cable	RegalWay	SW50T-CA0037-2500	N/A	N/A
6	Cable	RegalWay	SW50T-CA004-3000	N/A	N/A
7	Double-Ridged Waveguide Horn Antennas	ETS-LINDGREN	3117-PA	00252542	Sep. 13, 2025
8	Preamplifier	ETS-LINDGREN	3117-PA	00252542	Jun. 28, 2025
9	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	1137	Oct. 12, 2025
10	Pre-Amplifier	EMC INSTRUMENT	EMC184045SE	980911	Jun. 28, 2025
11	Cable	RegalWay	RWLP50-2.6A-2.92 M2.92M-5M	N/A	N/A
12	Cable	RegalWay	RWLP50-2.6A-2.92 M2.92M-1.5M	N/A	N/A
13*	Chamber room	ETS	1055	Q2162	Aug. 21, 2027
14	Band Reject Filter	COM-MW	ZHPF6-M6500-18000-547	07213124	Jun. 28, 2025

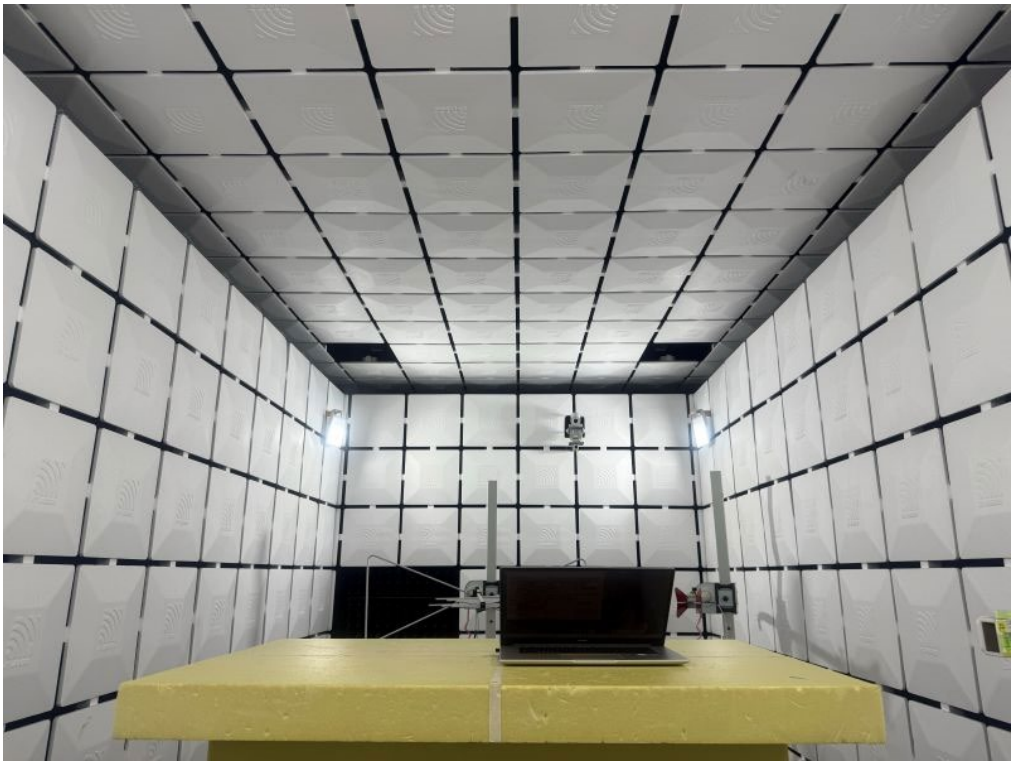
Duty Cycle & Occupied Channel Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP38	100852	May 31, 2025
2	Measurement Software	BTL	BTL Conducted Test	N/A	N/A
3	Isolation attenuator	Z-Link	ASMA-16-18-2W	N/A	N/A
4	Cable	Woke	20210802 001	RWP50-402-SM SM-1M	N/A

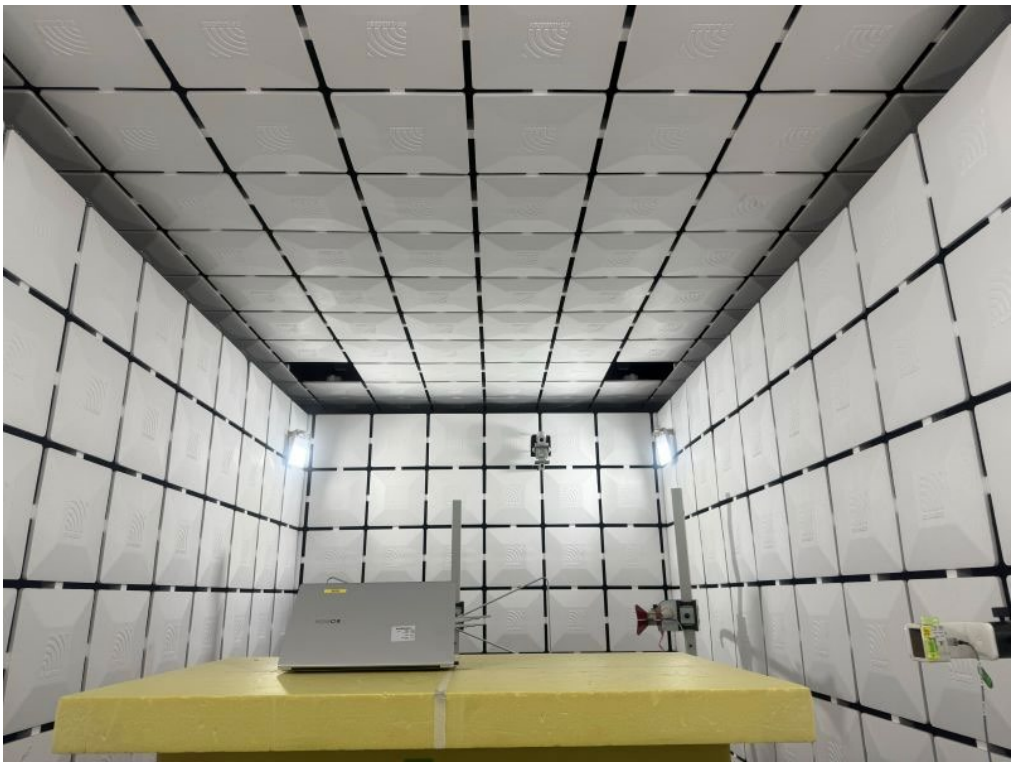
Adjacent channel selectivity & Blocking					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	wideband radio communication tester	R&S	CMW500	152372	Dec. 06, 2025
2	Shielding box	JiaChen	JC-PB2015	PB20132310378 A	NA
3	Power Divider	RegalWay	RW-PD2-0118SF30	N/A	Jun. 28, 2025
4	Cable	RegalWay	RWP50-402-SMSM-2 M	N/A	N/A
5	Cable	RegalWay	RWP50-402-SMSM-1. 5M	N/A	N/A
6	Cable	RegalWay	RWP50-402-SMSM-1. 5M	N/A	N/A
7	Cable	RegalWay	RWP50-402-SMSM-1 M	N/A	N/A
8	MXG Vector Signal Generator	Keysight	N5182B	MY57300568	May 31, 2025
9	Cable	RegalWay	RWP50-402-SMSM-2 M	N/A	N/A
10	Frequency Extender	Keysight	N5182BX07	MY59362506	May 31, 2025

Remark: “N/A” denotes no model name, serial no. or calibration specified.
“*” calibration period of equipment list is five year.
Except * item, all calibration period of equipment list is one year.

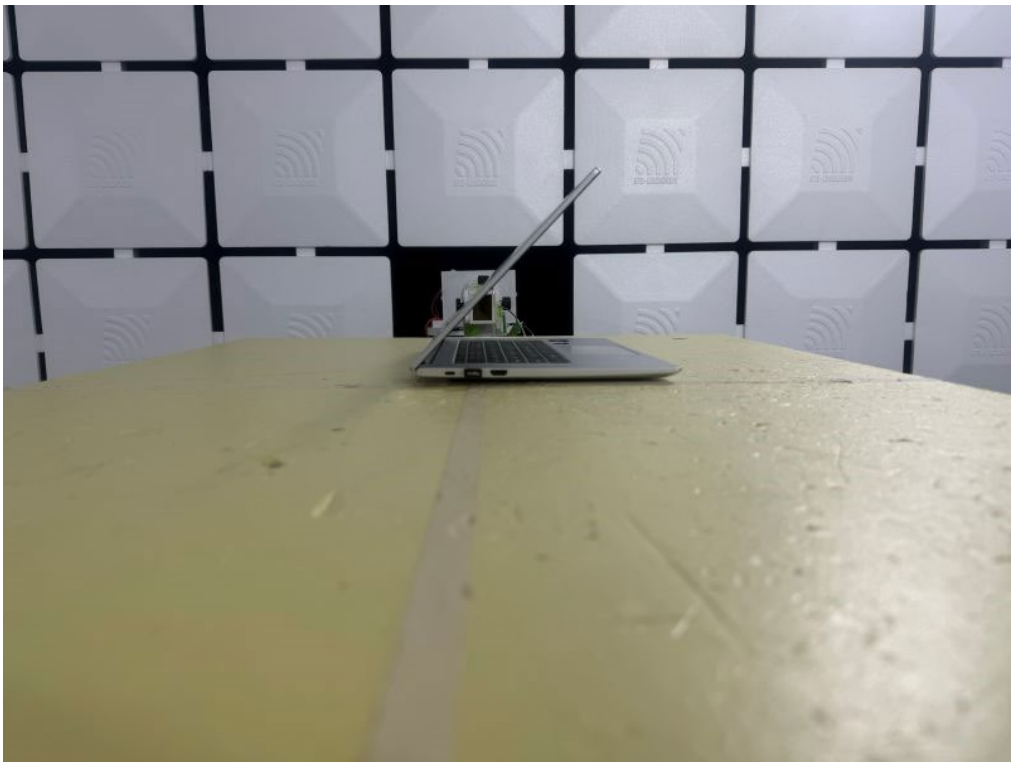
11. EUT TEST PHOTO

Radiated Emissions Test Photos - Below 18 GHz





Radiated Emissions Test Photos - Above 18 GHz





APPENDIX A - EQUIVALENT ISOTROPICALLY RADIATED POWER

Test Mode: IEEE 802.11a Mode						
Test Conditions				Average e.i.r.p. (dBm)		
				CH149	CH157	CH165
T_{nom} (°C)	25	V_{nom} (V)	5.0	9.92	10.13	9.99
T_{min} (°C)	-10	V_{max} (V)	5.5	10.40	10.44	10.35
		V_{min} (V)	4.5	10.36	10.51	10.41
T_{max} (°C)	40	V_{max} (V)	5.5	9.59	9.67	9.51
		V_{min} (V)	4.5	9.49	9.69	9.65
Max. e.i.r.p.				10.51		
Limits				13.98dBm (25mW)		
Result				Pass		

Test Mode: IEEE 802.11ac(VHT20) Mode						
Test Conditions				Average e.i.r.p. (dBm)		
				CH149	CH157	CH165
T_{nom} (°C)	25	V_{nom} (V)	5.0	10.03	9.78	10.03
T_{min} (°C)	-10	V_{max} (V)	5.5	10.53	10.17	10.36
		V_{min} (V)	4.5	10.47	10.25	10.43
T_{max} (°C)	40	V_{max} (V)	5.5	9.59	9.33	9.68
		V_{min} (V)	4.5	9.53	9.44	9.72
Max. e.i.r.p.				10.53		
Limits				13.98dBm (25mW)		
Result				Pass		

Test Mode: IEEE 802.11ac(VHT40) Mode					
Test Conditions				Average e.i.r.p. (dBm)	
				CH151	CH159
T_{nom} (°C)	25	V_{nom} (V)	5.0	9.71	9.63
T_{min} (°C)	-10	V_{max} (V)	5.5	10.06	10.06
		V_{min} (V)	4.5	10.03	10.02
T_{max} (°C)	40	V_{max} (V)	5.5	9.27	9.31
		V_{min} (V)	4.5	9.39	9.30
Max. e.i.r.p.				10.06	
Limits				13.98dBm (25mW)	
Result				Pass	

Test Mode: IEEE 802.11ac(VHT80) Mode				
Test Conditions				Average e.i.r.p. (dBm)
				CH155
T_{nom} (°C)	25	V_{nom} (V)	5.0	10.02
T_{min} (°C)	-10	V_{max} (V)	5.5	10.41
		V_{min} (V)	4.5	10.50
T_{max} (°C)	40	V_{max} (V)	5.5	9.63
		V_{min} (V)	4.5	9.54
Max. e.i.r.p.				10.50
Limits				13.98dBm (25mW)
Result				Pass

Note:
1) e.i.r.p. = Conducted output power + G (Ant Gain)
2) Conducted output power = Measure result + Cable loss

APPENDIX B - PERMITTED RANGE OF OPERATING FREQUENCIES

Test Mode: IEEE 802.11a Mode					
Test Conditions				Frequency Range (MHz)	
				f_L CH149	f_H CH165
T_{nom} (°C)	25	V_{nom} (V)	5.0	5736.3000	5833.8000
T_{min} (°C)	-10	V_{max} (V)	5.5	5736.5000	5833.5000
		V_{min} (V)	4.5	5736.5000	5833.5000
T_{max} (°C)	40	V_{max} (V)	5.5	5736.5000	5833.5000
		V_{min} (V)	4.5	5736.5000	5833.5000
Min. f_L / Max. f_H Band Edges				5736.3000	5833.8000
Limits				f_L > 5725.0 MHz	f_H < 5875.0 MHz
Result				Pass	

Test Mode: IEEE 802.11a Mode			
Test Conditions		Occupied Channel Bandwidth (MHz)	
		CH149	CH165
T_{nom} (°C)	25	17.00	17.00
F_L OBW		5736.50	-
F_H OBW		-	5833.50
Limits		f_L > 5725.0 MHz	f_H < 5875.0 MHz

Test Mode: IEEE 802.11ac(VHT20) Mode					
Test Conditions				Frequency Range (MHz)	
				f_L CH149	f_H CH165
T_{nom} (°C)	25	V_{nom} (V)	5.0	5735.9000	5834.2000
T_{min} (°C)	-10	V_{max} (V)	5.5	5735.9000	5834.1000
		V_{min} (V)	4.5	5735.9000	5834.1000
T_{max} (°C)	40	V_{max} (V)	5.5	5735.9000	5834.0000
		V_{min} (V)	4.5	5735.9000	5834.0000
Min. f_L / Max. f_H Band Edges				5735.9000	5834.2000
Limits				f_L > 5725.0 MHz	f_H < 5875.0 MHz
Result				Pass	

Test Mode: IEEE 802.11ac(VHT20) Mode			
Test Conditions		Occupied Channel Bandwidth (MHz)	
		CH149	CH165
T_{nom} (°C)	25	17.80	17.80
F_L OBW		5736.10	-
F_H OBW		-	5833.90
Limits		f_L > 5725.0 MHz	f_H < 5875.0 MHz

Test Mode: IEEE 802.11ac(VHT40) Mode					
Test Conditions				Frequency Range (MHz)	
				f_L CH151	f_H CH159
T_{nom} (°C)	25	V_{nom} (V)	5.0	5736.7000	5813.4000
T_{min} (°C)	-10	V_{max} (V)	5.5	5736.7000	5813.3000
		V_{min} (V)	4.5	5736.7000	5813.3000
T_{max} (°C)	40	V_{max} (V)	5.5	5736.8000	5813.2000
		V_{min} (V)	4.5	5736.8000	5813.2000
Min. f_L / Max. f_H Band Edges				5736.7000	5813.4000
Limits				f_L > 5725.0 MHz	f_H < 5875.0 MHz
Result				Pass	

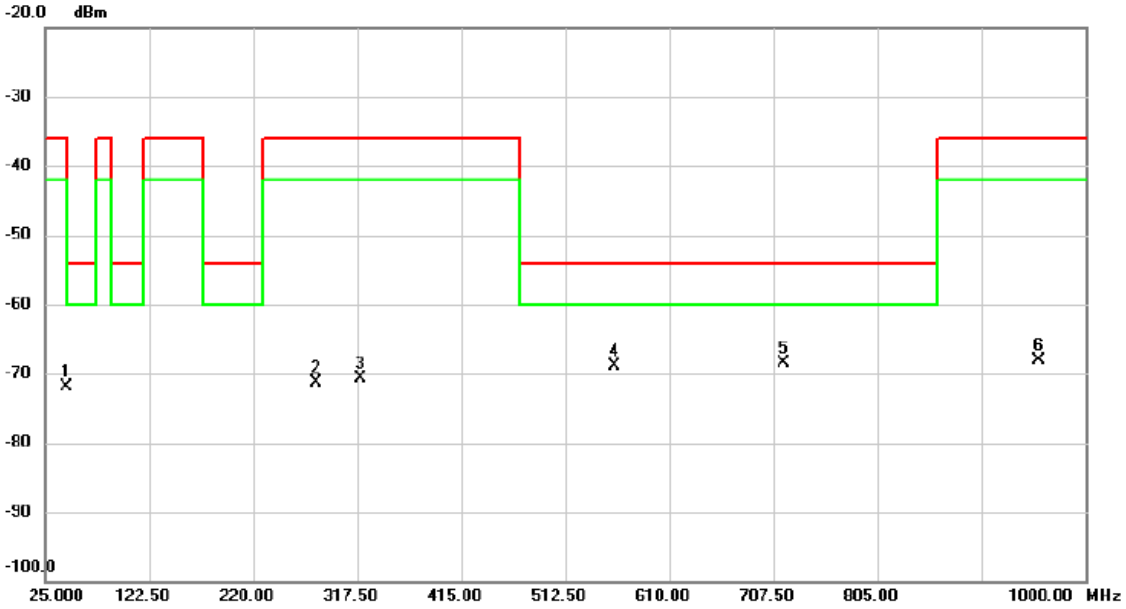
Test Mode: IEEE 802.11ac(VHT40) Mode			
Test Conditions		Occupied Channel Bandwidth (MHz)	
		CH151	CH159
T_{nom} (°C)	25	36.80	37.00
F_L OBW		5736.60	-
F_H OBW		-	5813.60
Limits		f_L > 5725.0 MHz	f_H < 5875.0 MHz

Test Mode: IEEE 802.11ac(VHT80) Mode					
Test Conditions				Frequency Range (MHz)	
				f_L CH155	f_H CH155
T_{nom} (°C)	25	V_{nom} (V)	5.0	5736.6000	5813.4000
T_{min} (°C)	-10	V_{max} (V)	5.5	5736.6000	5813.4000
		V_{min} (V)	4.5	5736.6000	5813.4000
T_{max} (°C)	40	V_{max} (V)	5.5	5737.0000	5813.4000
		V_{min} (V)	4.5	5737.0000	5813.4000
Min. f_L / Max. f_H Band Edges				5736.6000	5813.4000
Limits				f_L > 5725.0 MHz	f_H < 5875.0 MHz
Result				Pass	

Test Mode: IEEE 802.11ac(VHT80) Mode			
Test Conditions		Occupied Channel Bandwidth (MHz)	
		CH155	
T_{nom} (°C)	25	76.00	
F_L OBW		5737.00	
F_H OBW		5813.00	
Limits		f_L > 5725.0 MHz	f_H < 5875.0 MHz

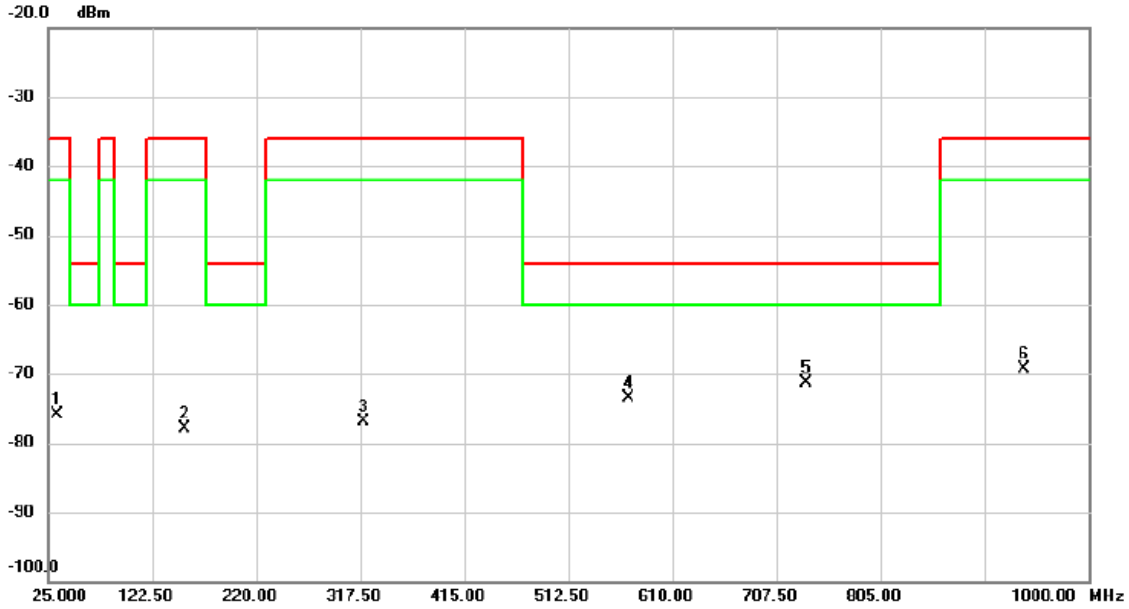
APPENDIX C - UNWANTED EMISSIONS IN THE SPRIOUS DOMAIN - OPERATING (25MHZ TO 1000MHZ)

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Vertical



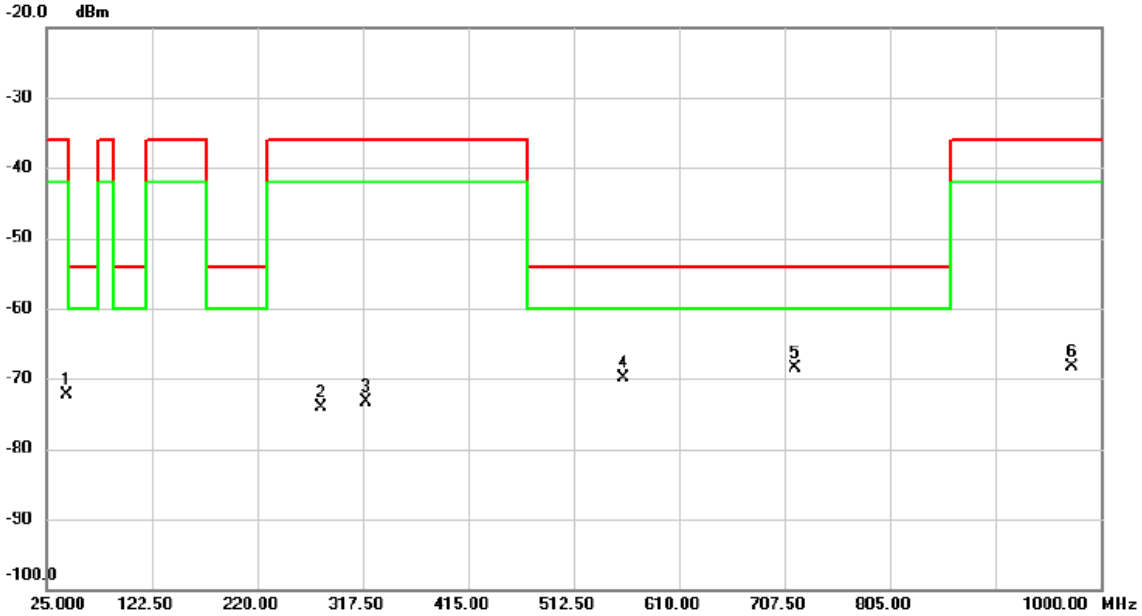
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		45.670	-74.24	2.26	-71.98	-36.00	-35.98	peak	
2		279.670	-68.61	-2.75	-71.36	-36.00	-35.36	peak	
3		320.864	-69.27	-1.41	-70.68	-36.00	-34.68	peak	
4		558.032	-72.22	3.26	-68.96	-54.00	-14.96	peak	
5	*	716.665	-74.19	5.74	-68.45	-54.00	-14.45	peak	
6		956.661	-76.95	8.88	-68.07	-36.00	-32.07	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Horizontal



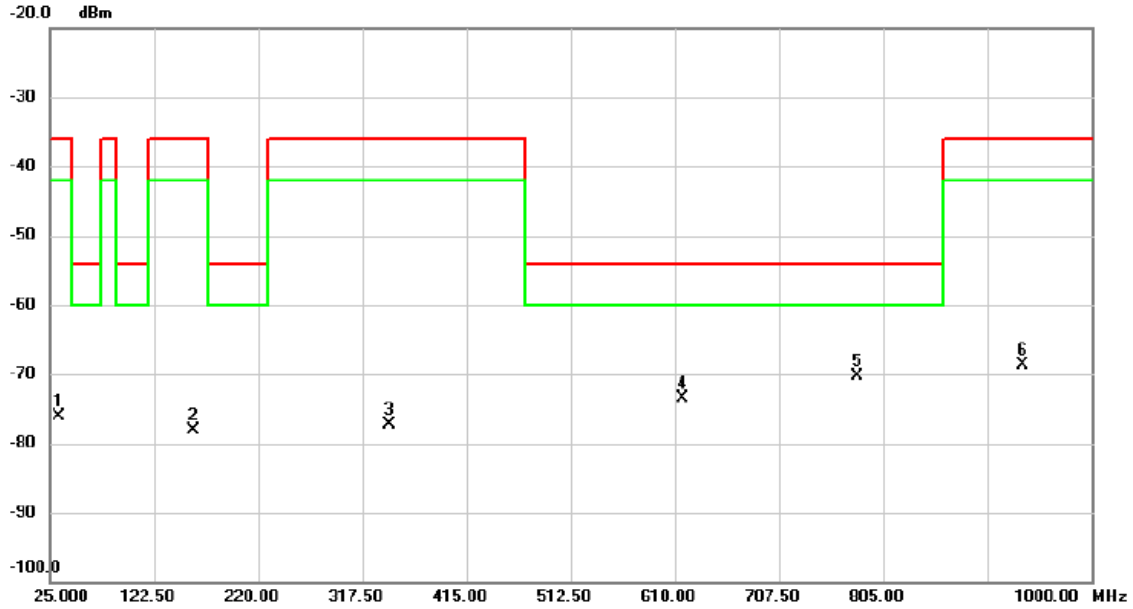
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		34.019	-74.70	-1.24	-75.94	-36.00	-39.94	peak	
2		152.627	-77.17	-0.69	-77.86	-36.00	-41.86	peak	
3		321.156	-75.72	-1.21	-76.93	-36.00	-40.93	peak	
4		568.465	-77.08	3.57	-73.51	-54.00	-19.51	peak	
5	*	735.336	-77.65	6.30	-71.35	-54.00	-17.35	peak	
6		939.258	-78.00	8.62	-69.38	-36.00	-33.38	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		43.720	-74.12	1.81	-72.31	-36.00	-36.31	peak	
2		279.134	-71.31	-2.75	-74.06	-36.00	-38.06	peak	
3		320.913	-71.86	-1.41	-73.27	-36.00	-37.27	peak	
4		559.251	-73.10	3.28	-69.82	-54.00	-15.82	peak	
5	*	716.665	-74.27	5.74	-68.53	-54.00	-14.53	peak	
6		972.846	-77.36	9.07	-68.29	-36.00	-32.29	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		34.019	-74.88	-1.24	-76.12	-36.00	-40.12	peak	
2		159.257	-77.27	-0.78	-78.05	-36.00	-42.05	peak	
3		342.265	-76.67	-0.67	-77.34	-36.00	-41.34	peak	
4		617.508	-77.66	4.24	-73.42	-54.00	-19.42	peak	
5	*	781.064	-77.14	6.83	-70.31	-54.00	-16.31	peak	
6		936.040	-77.34	8.60	-68.74	-36.00	-32.74	peak	

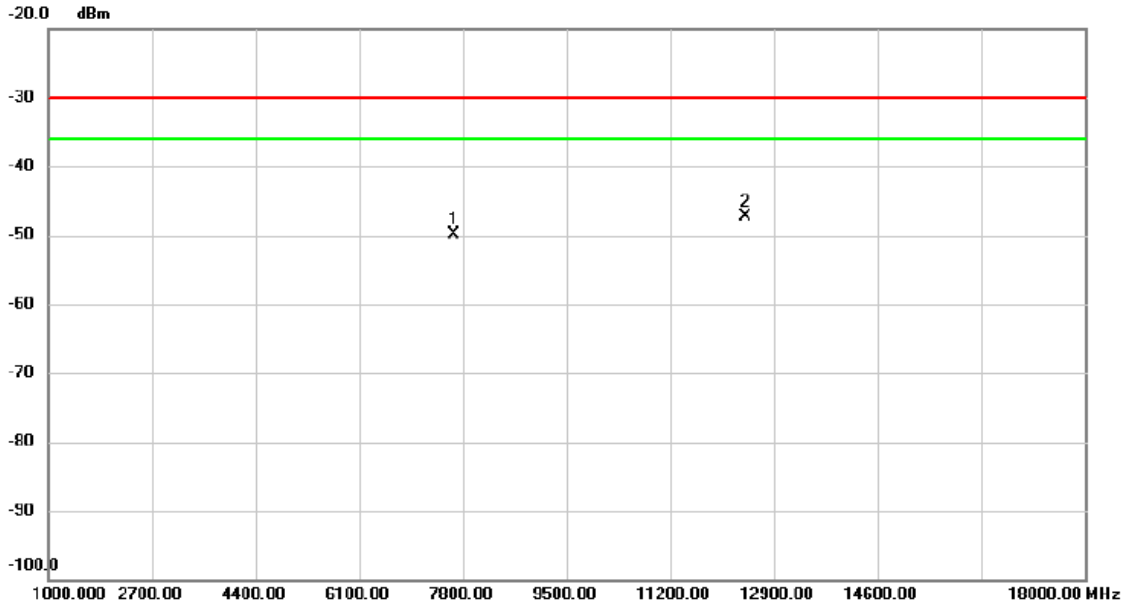
APPENDIX D - UNWANTED EMISSIONS IN THE SPRIOUS DOMAIN - STANDBY (25MHZ TO 1000MHZ)

Test Mode: N/A

Note: “N/A” denotes test is not applicable to this device.

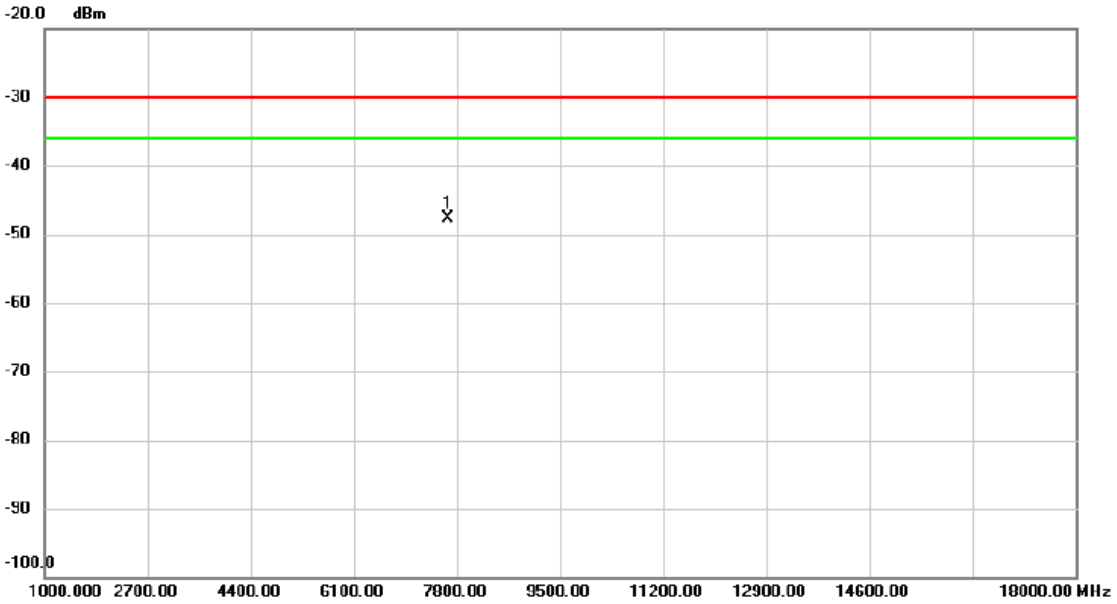
APPENDIX E - UNWANTED EMISSIONS IN THE SPRIOUS DOMAIN - OPERATING (ABOVE 1000MHZ)

Test Mode	TX IEEE 802.11a Mode 5745 MHz	Polarization	Vertical



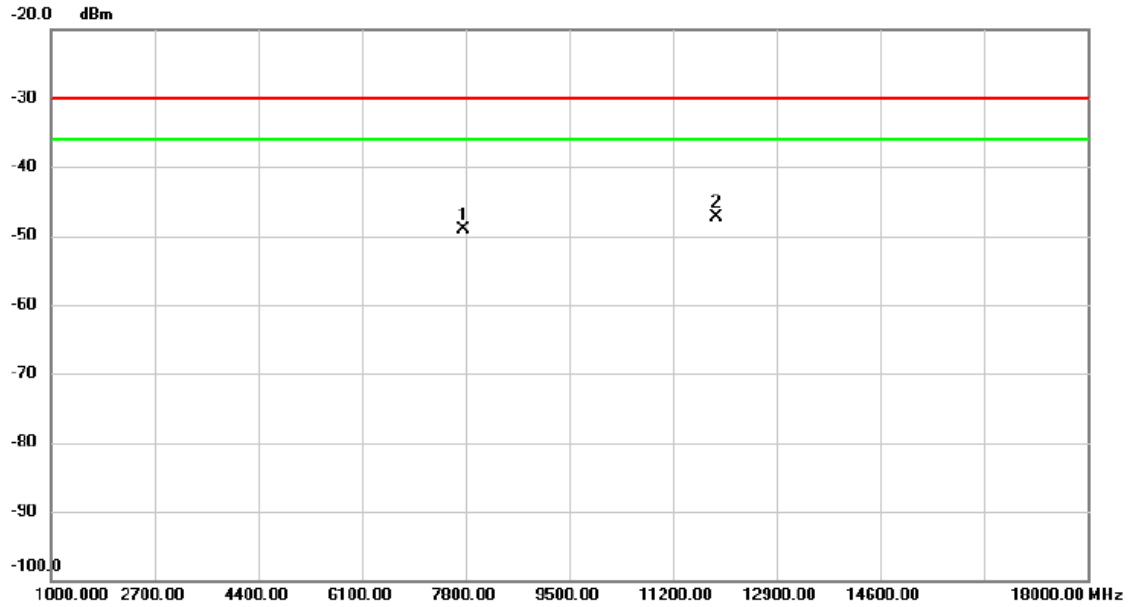
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7659.750	-56.99	7.11	-49.88	-30.00	-19.88	peak	
2	*	12438.450	-56.78	9.58	-47.20	-30.00	-17.20	peak	

Test Mode	TX IEEE 802.11a Mode 5745 MHz	Polarization	Horizontal



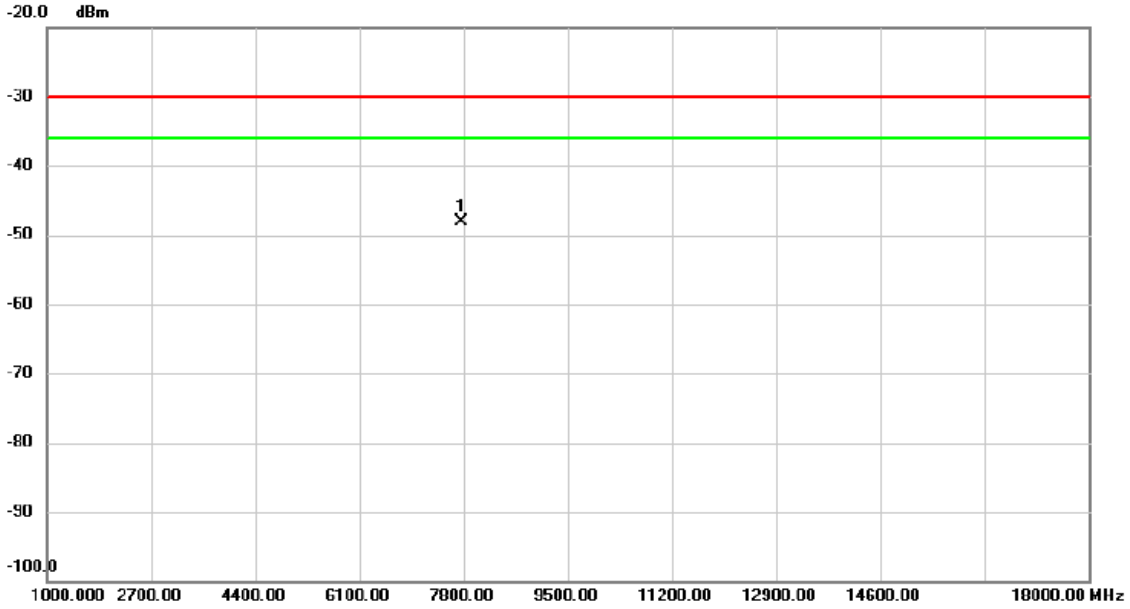
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7659.750	-54.92	7.14	-47.78	-30.00	-17.78	peak	

Test Mode	TX IEEE 802.11a Mode 5825 MHz	Polarization	Vertical



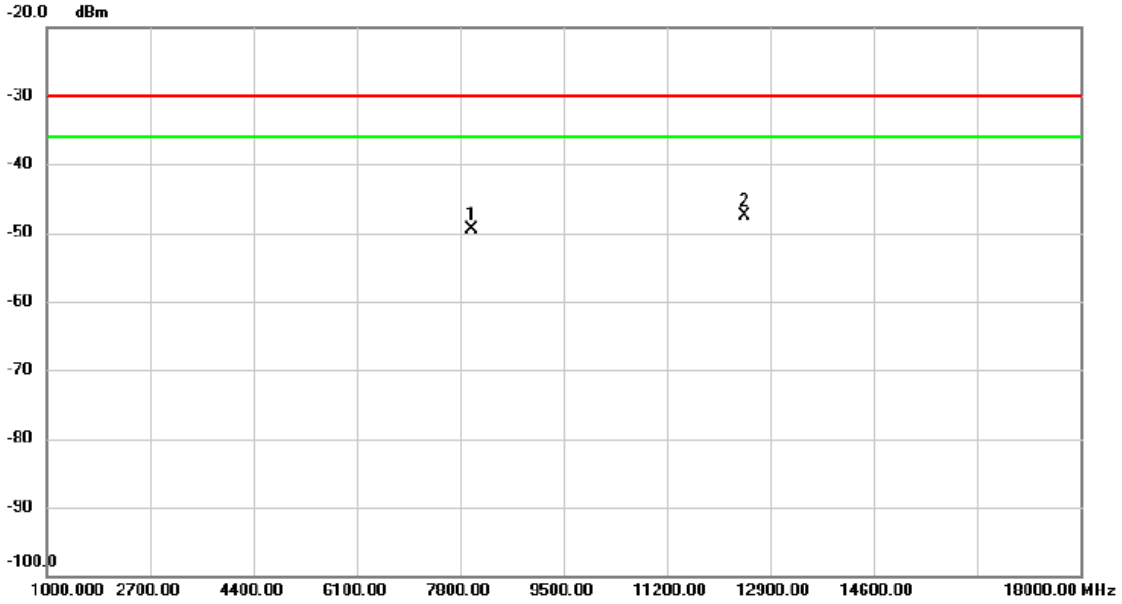
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7766.000	-56.09	7.03	-49.06	-30.00	-19.06	peak	
2	*	11911.450	-57.10	9.87	-47.23	-30.00	-17.23	peak	

Test Mode	TX IEEE 802.11a Mode 5825 MHz	Polarization	Horizontal



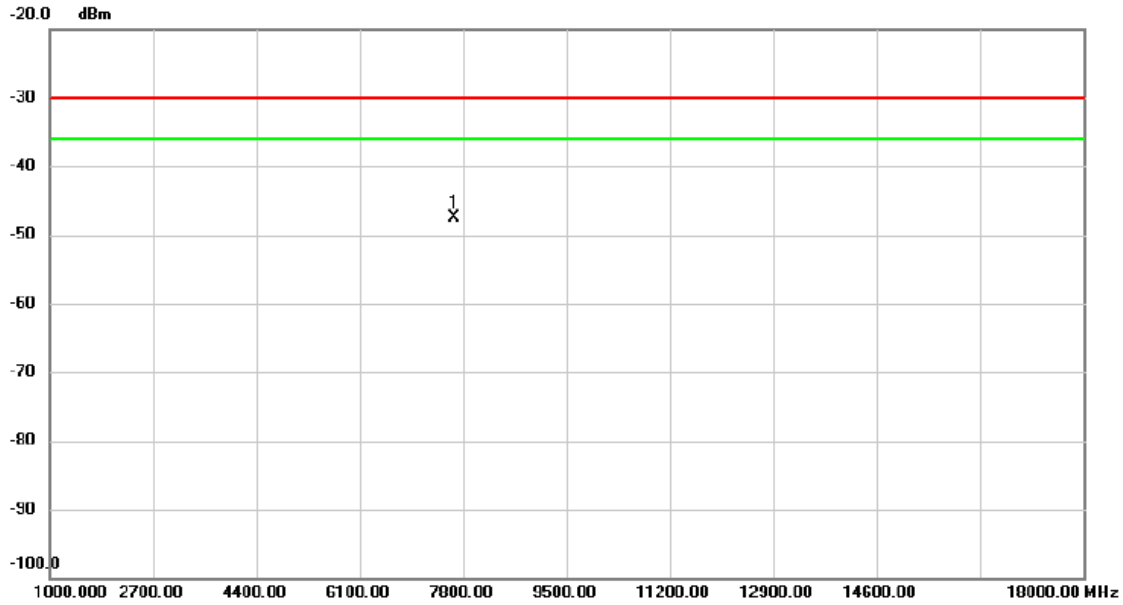
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7766.850	-55.10	7.07	-48.03	-30.00	-18.03	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Vertical



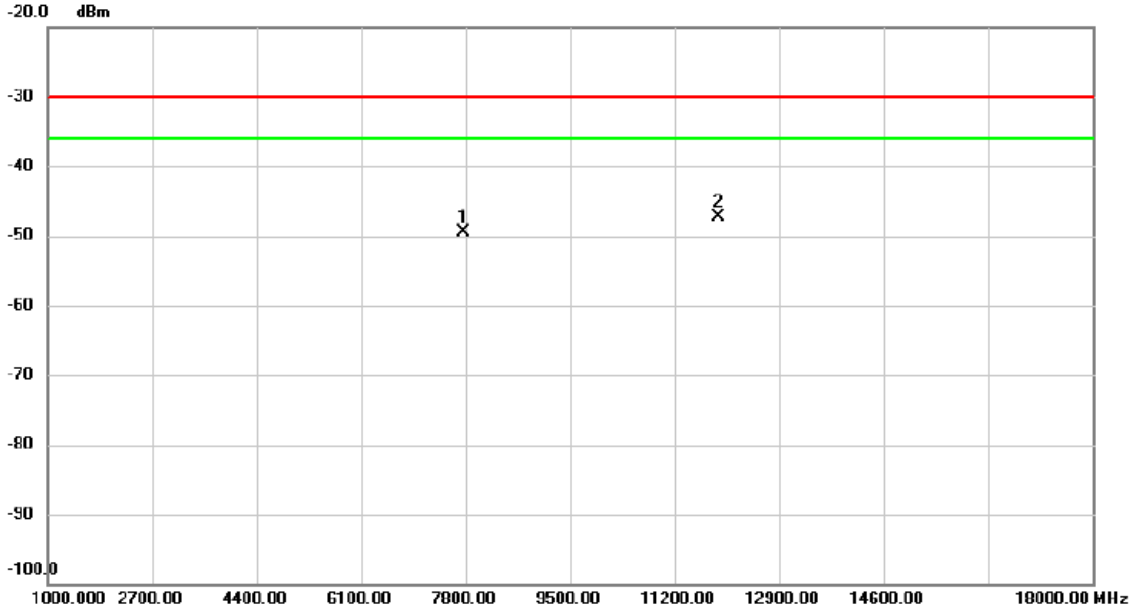
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7984.450	-56.25	6.85	-49.40	-30.00	-19.40	peak	
2	*	12480.100	-57.07	9.55	-47.52	-30.00	-17.52	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Horizontal



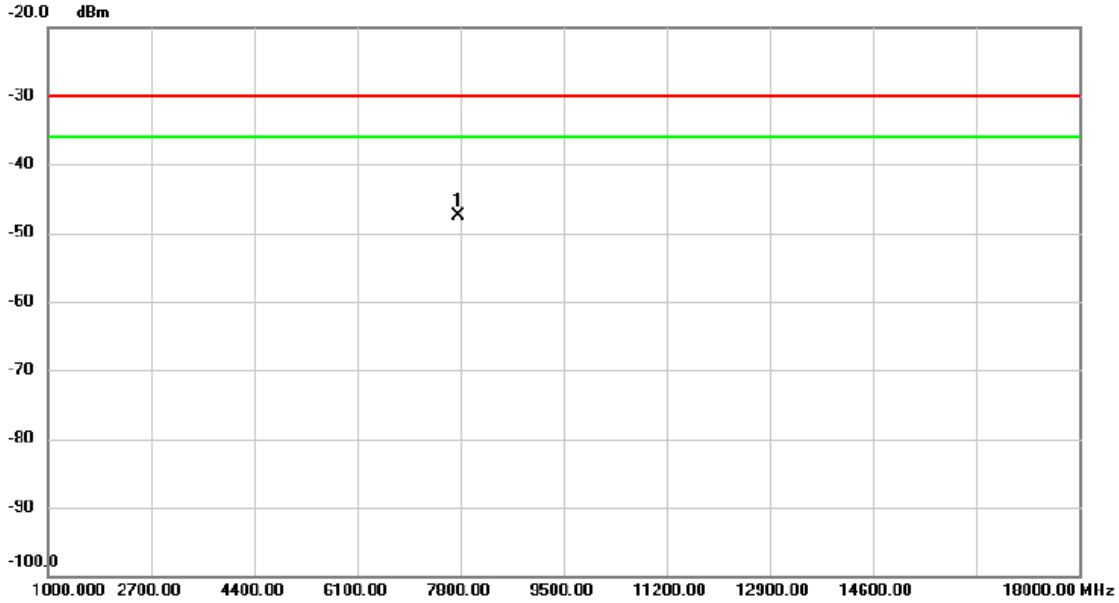
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7659.750	-54.69	7.14	-47.55	-30.00	-17.55	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Vertical



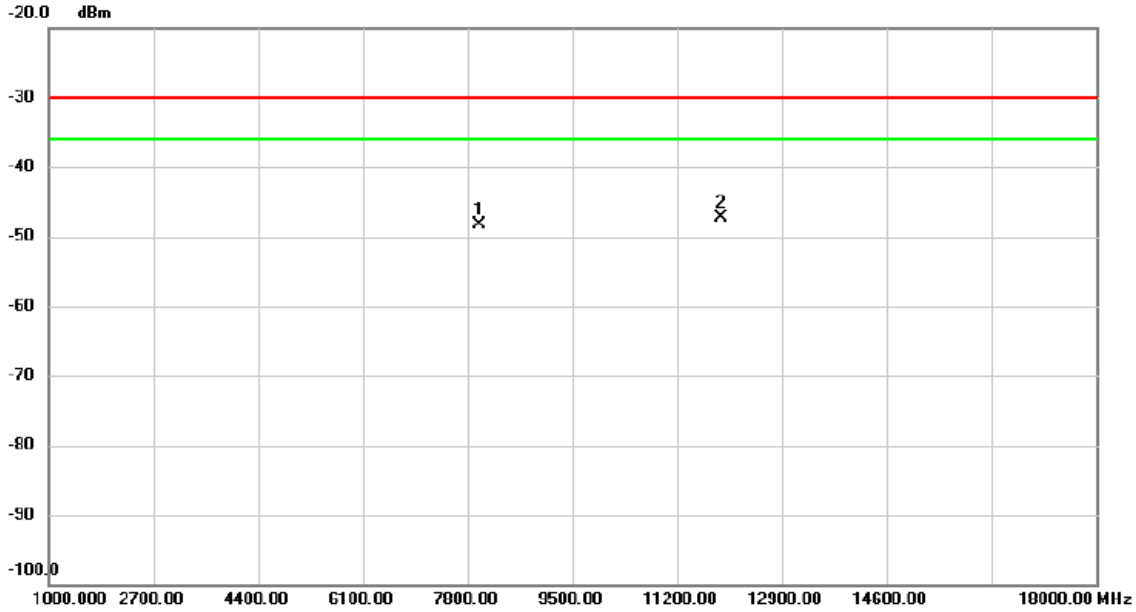
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7766.850	-56.61	7.03	-49.58	-30.00	-19.58	peak	
2	*	11921.650	-57.24	9.88	-47.36	-30.00	-17.36	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Horizontal



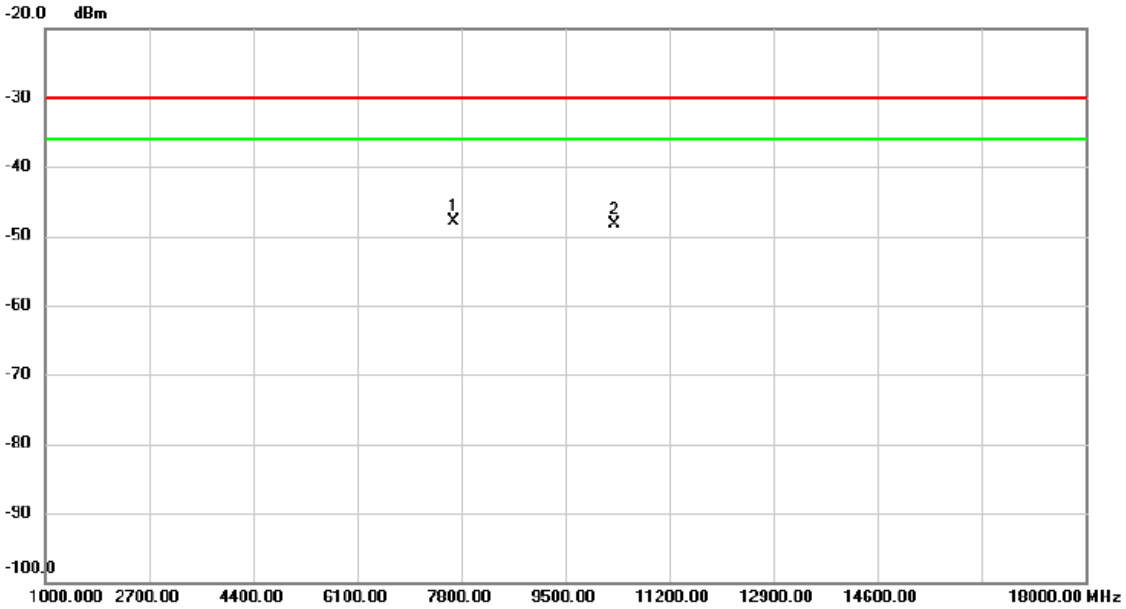
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7766.850	-54.51	7.07	-47.44	-30.00	-17.44	peak	

Test Mode	TX IEEE 802.11ac(VHT40) Mode 5755 MHz	Polarization	Vertical



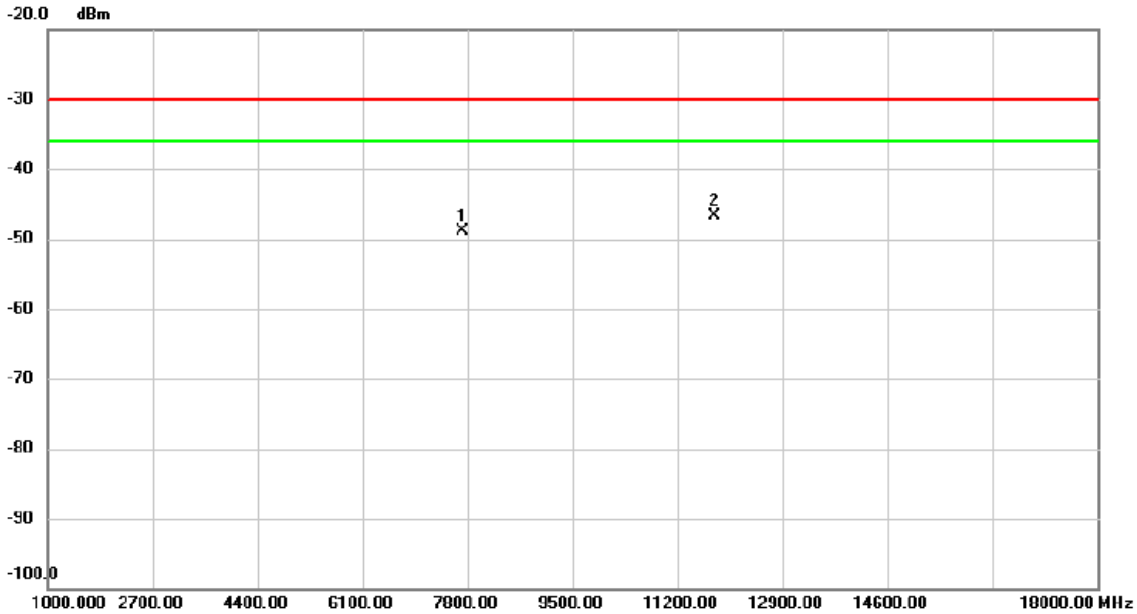
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7995.500	-55.16	6.84	-48.32	-30.00	-18.32	peak	
2	*	11923.350	-57.09	9.88	-47.21	-30.00	-17.21	peak	

Test Mode	TX IEEE 802.11ac(VHT40) Mode 5755 MHz	Polarization	Horizontal



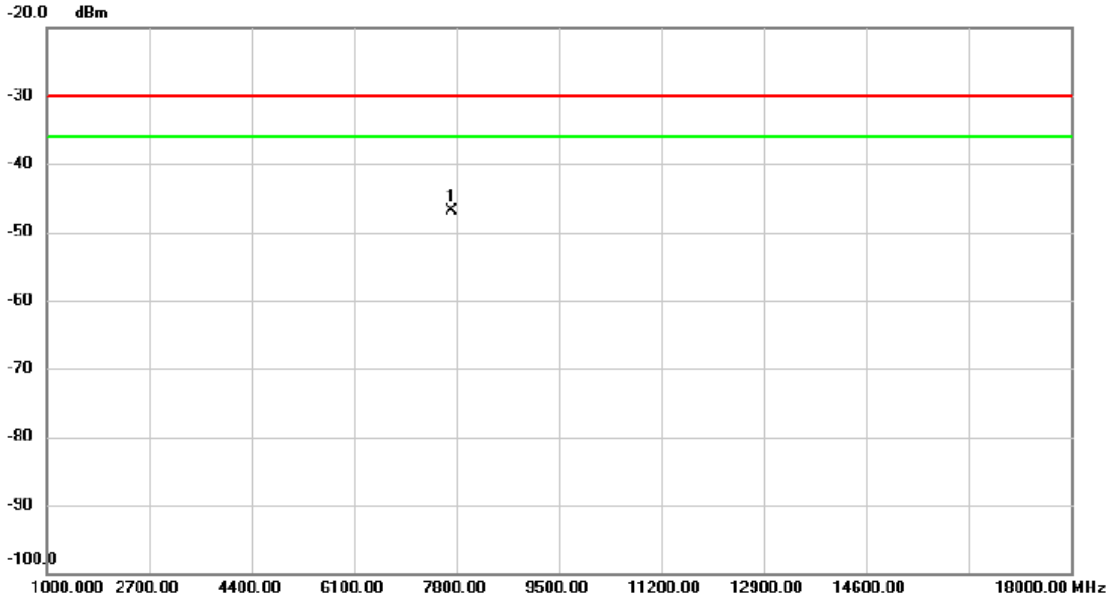
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7673.350	-54.98	7.14	-47.84	-30.00	-17.84	peak	
2		10303.250	-56.73	8.53	-48.20	-30.00	-18.20	peak	

Test Mode	TX IEEE 802.11ac(VHT40) Mode 5795 MHz	Polarization	Vertical



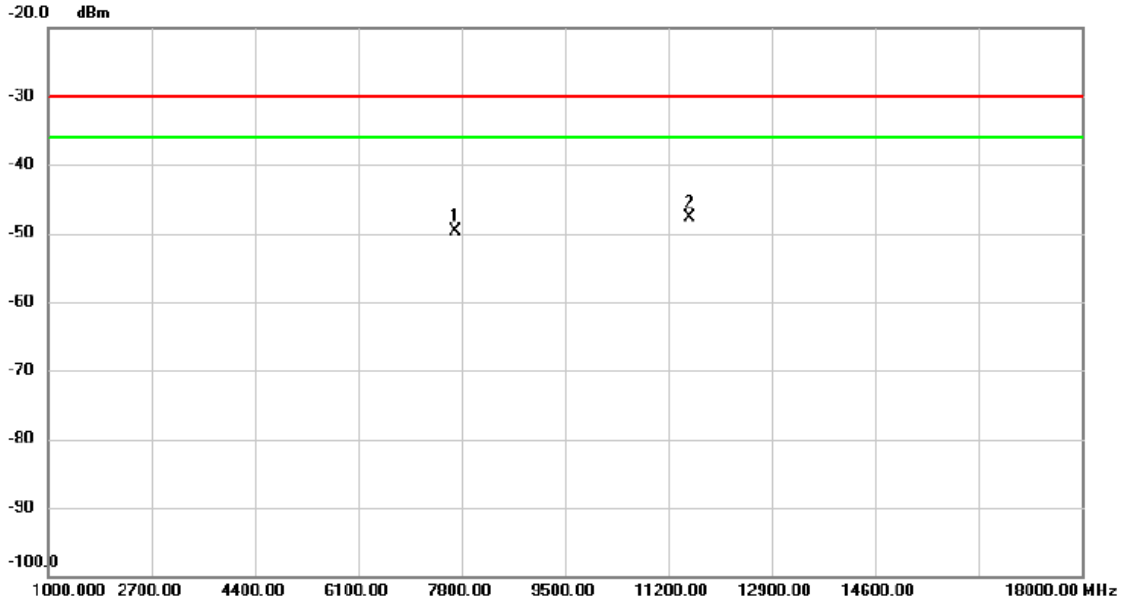
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7726.900	-55.90	7.06	-48.84	-30.00	-18.84	peak	
2	*	11799.250	-56.56	9.84	-46.72	-30.00	-16.72	peak	

Test Mode	TX IEEE 802.11ac(VHT40) Mode 5795 MHz	Polarization	Horizontal



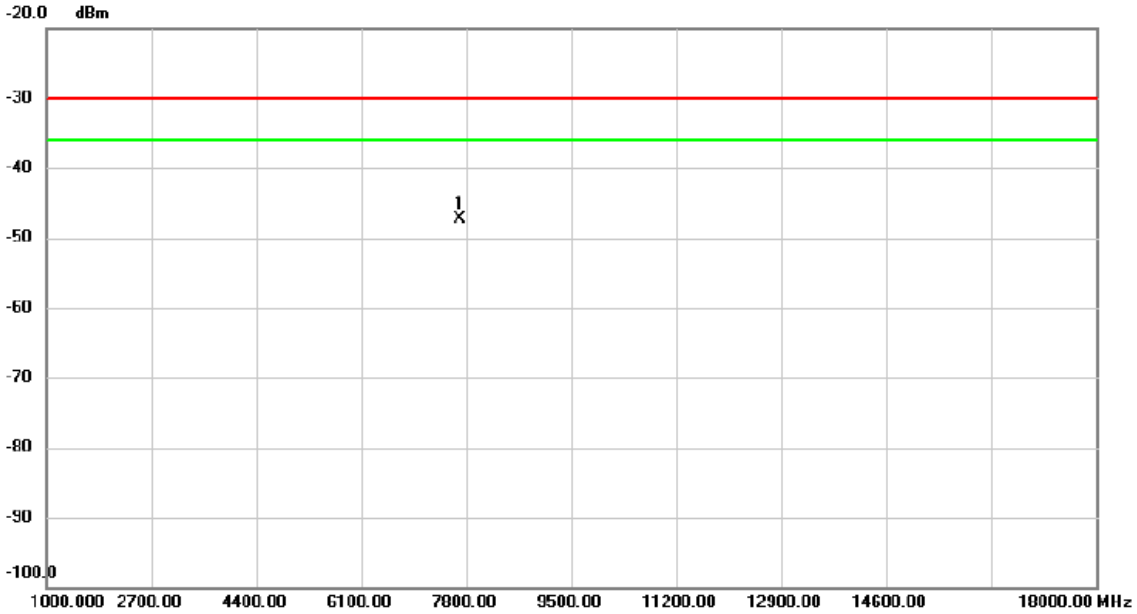
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7726.900	-53.91	7.10	-46.81	-30.00	-16.81	peak	

Test Mode	TX IEEE 802.11ac(VHT80) Mode 5775 MHz	Polarization	Vertical



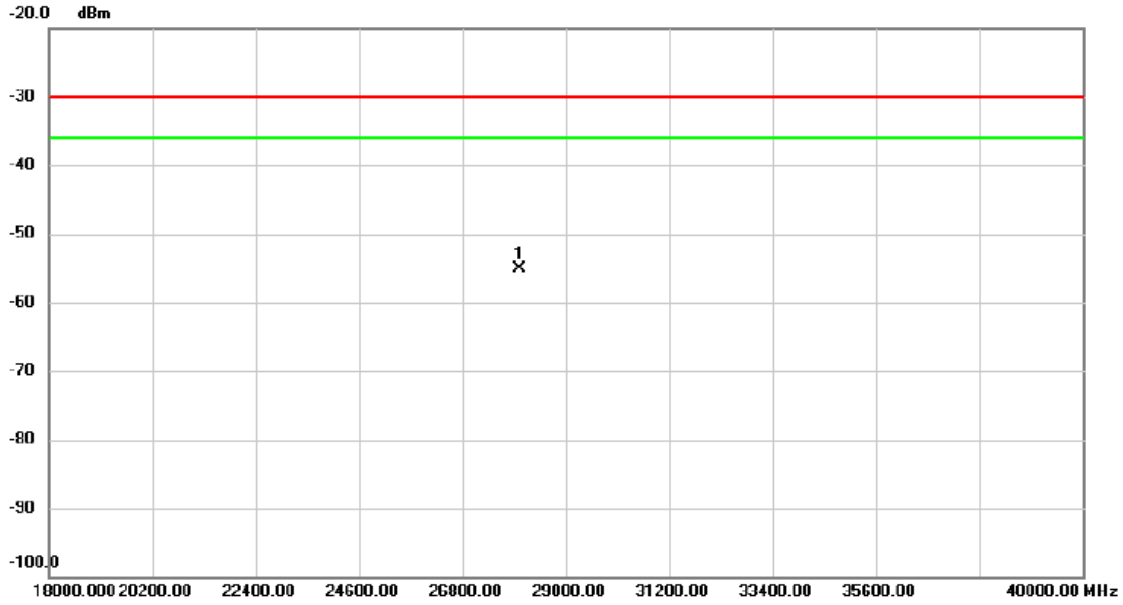
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		7699.700	-56.72	7.08	-49.64	-30.00	-19.64	peak	
2	*	11544.250	-57.51	9.76	-47.75	-30.00	-17.75	peak	

Test Mode	TX IEEE 802.11ac(VHT80) Mode 5775 MHz	Polarization	Horizontal



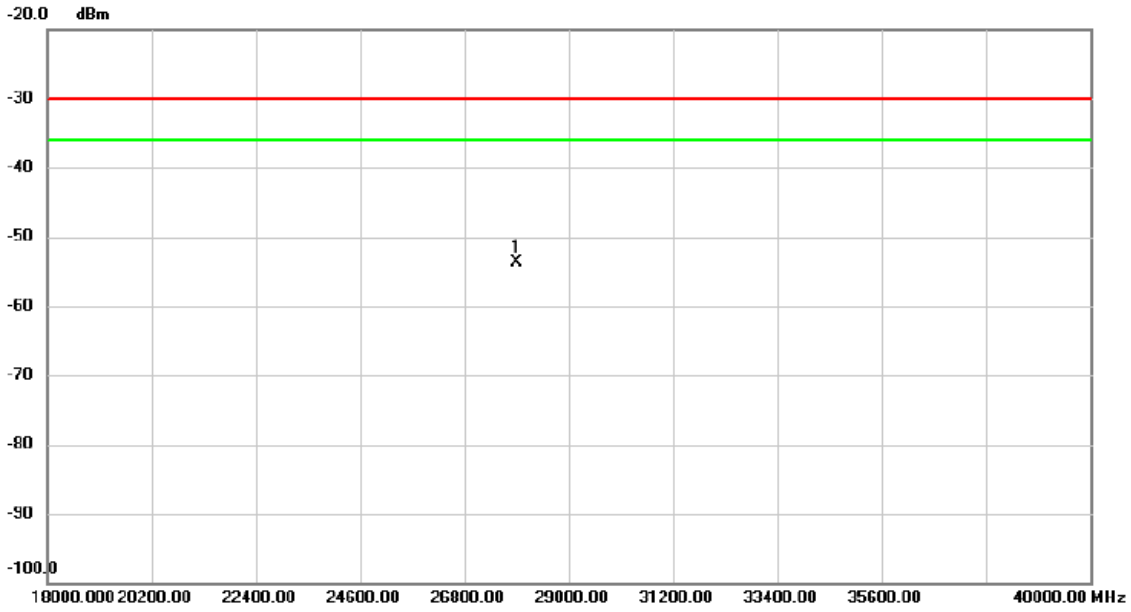
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	7699.700	-54.41	7.12	-47.29	-30.00	-17.29	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	28019.900	-60.35	5.16	-55.19	-30.00	-25.19	peak	

Test Mode	TX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	27896.700	-60.22	6.54	-53.68	-30.00	-23.68	peak	

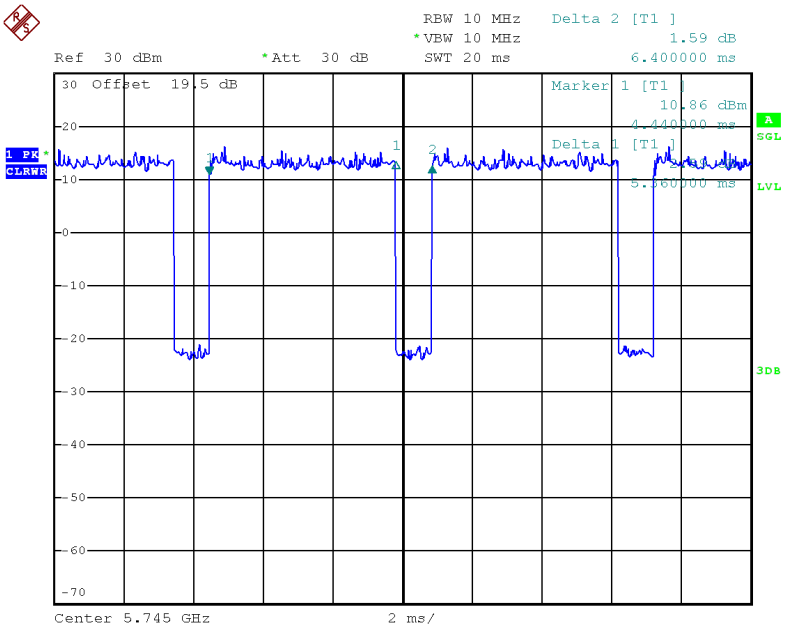
APPENDIX F - UNWANTED EMISSIONS IN THE SPRIOUS DOMAIN - STANDBY (ABOVE 1000MHZ)

Test Mode: N/A

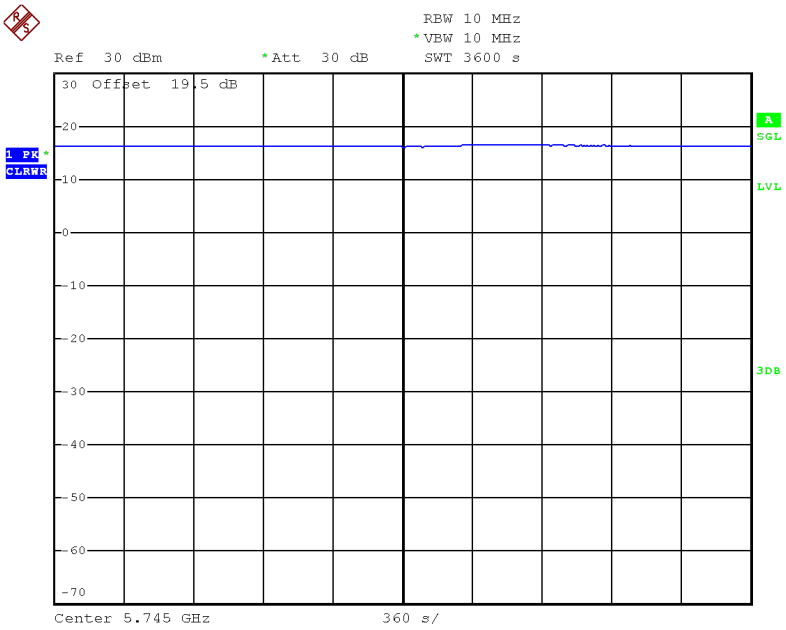
Note: “N/A” denotes test is not applicable to this device.

APPENDIX G - DUTY CYCLE

Test Mode	TX IEEE 802.11a Mode 5745 MHz



Date: 9.MAY.2025 11:49:00



Date: 9.MAY.2025 13:03:15

On time (ms)	Total time (ms)	1H On time (s)	Duty Cycle (%)	Limit	Test Result
5.36	6.40	3600.00	100.00	No Restriction	Pass

Note: 1H On time refers test period for 1 hour.

APPENDIX H - ADJACENT CHANNEL SELECTIVITY

Test Mode	RX IEEE 802.11a Mode 5785 MHz

Frequency (MHz)	99% OBW (MHz)
5785	17.00

Adjacent channel centre freq. (MHz)		k(-40<k<0) (dB)	Power level of unwanted signal (dBm)	Limit (dBm)	Result
Lower	5765	-27.52	-25.00	-57.52	Pass
Upper	5805	-27.58	-20.00	-57.58	Pass

APPENDIX I - BLOCKING

Test Mode	RX IEEE 802.11a Mode 5745 MHz

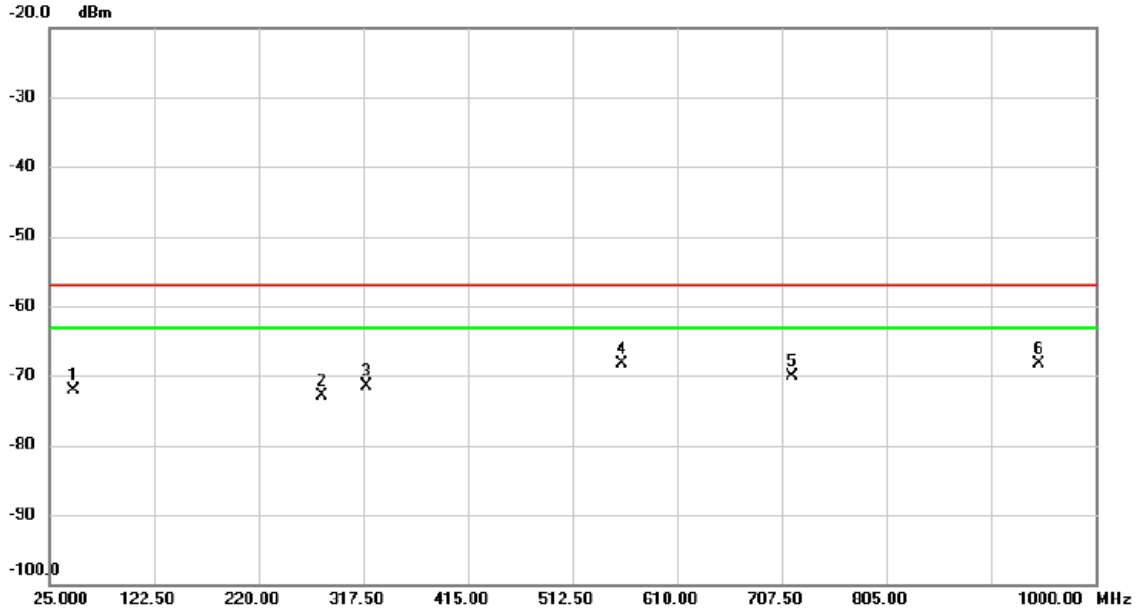
Frequency (MHz)	99% OBW (MHz)	99% OBW-F_L (MHz)	99% OBW-F_H (MHz)		
5745	17.30	5736.50	5753.80		
Times of OBW	Unwanted Signal Freq. (MHz)	k(-40<k<0) (dB)	Power Level of Unwanted Signal (dBm)	Limit (dBm)	Test Result
10	5563.50	-27.29	-27.00	-57.29	Pass
	5926.80	-27.84	-23.00	-57.84	Pass
20	5390.50	-27.01	-22.00	-57.01	Pass
	6099.80	-28.09	-20.00	-58.09	Pass
50	4871.50	-26.13	-7.00	-56.13	Pass
	6618.80	-28.80	-19.00	-58.80	Pass

Test Mode	RX IEEE 802.11a Mode 5825 MHz

Frequency (MHz)	99% OBW (MHz)	99% OBW-F_L (MHz)	99% OBW-F_H (MHz)		
5825	17.50	5816.10	5833.60		
Times of OBW	Unwanted Signal Freq. (MHz)	k(-40<k<0) (dB)	Power Level of Unwanted Signal (dBm)	Limit (dBm)	Test Result
10	5641.10	-27.46	-23.00	-57.46	Pass
	6008.60	-28.01	-15.00	-58.01	Pass
20	5466.10	-27.18	-17.00	-57.18	Pass
	6183.60	-28.26	-22.00	-58.26	Pass
50	4941.10	-26.31	-20.00	-56.31	Pass
	6708.60	-28.96	-21.00	-58.96	Pass

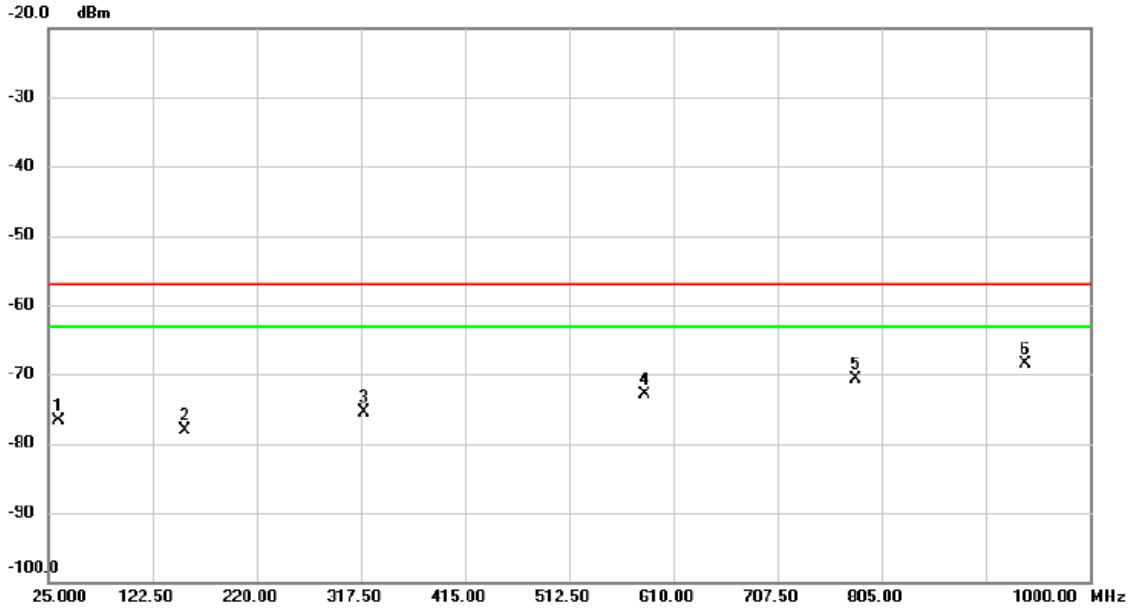
APPENDIX J - SPURIOUS EMISSIONS - RECEIVER (25MHZ TO 1000MHZ)

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Vertical



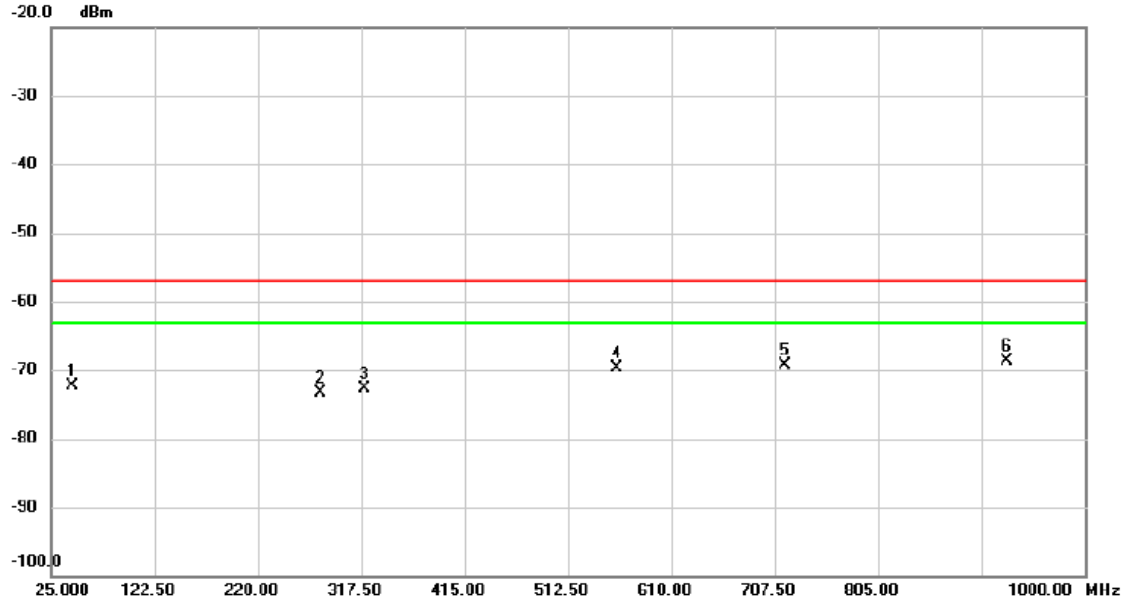
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		47.766	-74.87	2.69	-72.18	-57.00	-15.18	peak	
2		279.475	-70.05	-2.75	-72.80	-57.00	-15.80	peak	
3		320.717	-70.08	-1.41	-71.49	-57.00	-14.49	peak	
4		558.325	-71.57	3.27	-68.30	-57.00	-11.30	peak	
5		716.665	-75.86	5.74	-70.12	-57.00	-13.12	peak	
6	*	947.253	-77.03	8.77	-68.26	-57.00	-11.26	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Horizontal



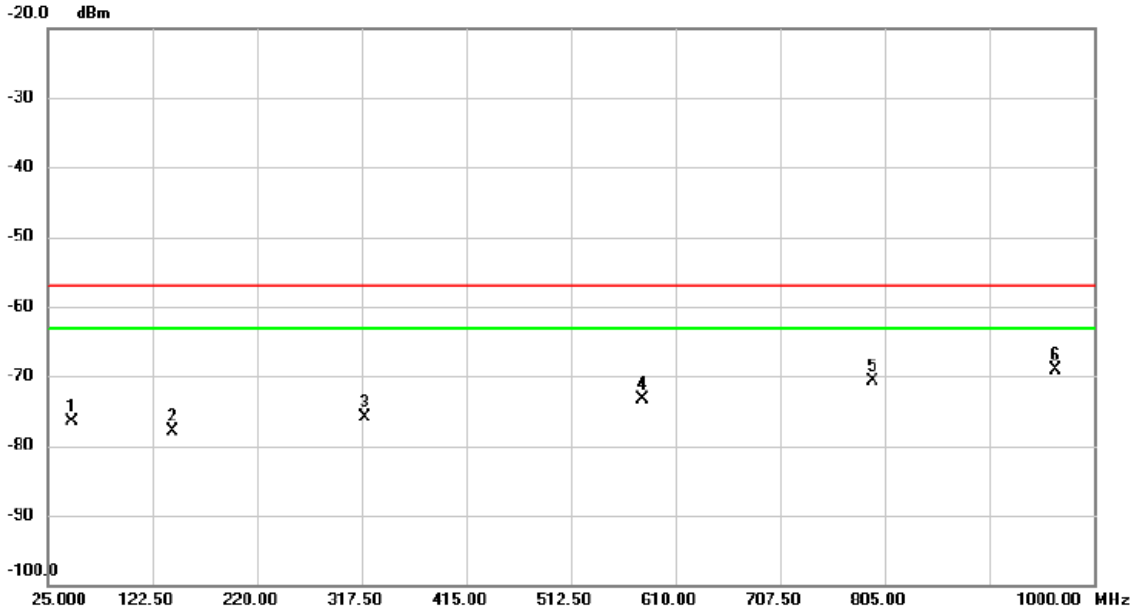
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		34.214	-75.41	-1.22	-76.63	-57.00	-19.63	peak	
2		152.627	-77.33	-0.69	-78.02	-57.00	-21.02	peak	
3		320.669	-74.35	-1.22	-75.57	-57.00	-18.57	peak	
4		583.967	-76.62	3.82	-72.80	-57.00	-15.80	peak	
5		781.064	-77.44	6.83	-70.61	-57.00	-13.61	peak	
6	*	939.989	-77.10	8.62	-68.48	-57.00	-11.48	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		45.670	-74.55	2.26	-72.29	-57.00	-15.29	peak	
2		278.841	-70.51	-2.75	-73.26	-57.00	-16.26	peak	
3		321.010	-71.22	-1.41	-72.63	-57.00	-15.63	peak	
4		558.423	-72.90	3.27	-69.63	-57.00	-12.63	peak	
5		716.665	-74.97	5.74	-69.23	-57.00	-12.23	peak	
6	*	926.826	-77.18	8.47	-68.71	-57.00	-11.71	peak	

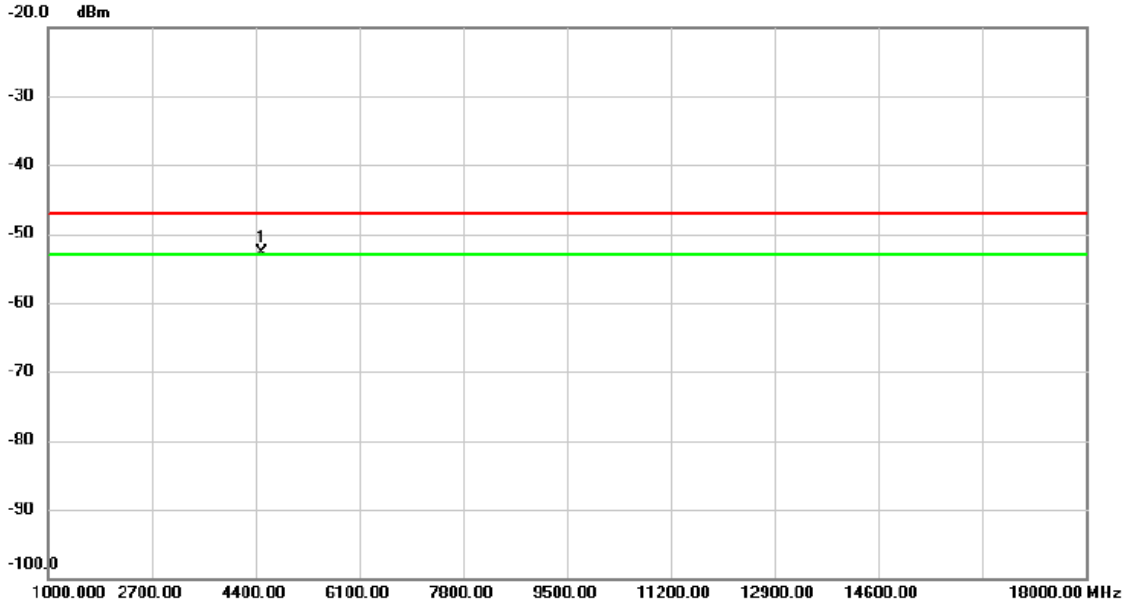
Test Mode	RX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1		47.279	-76.20	-0.22	-76.42	-57.00	-19.42	peak	
2		141.415	-76.67	-1.24	-77.91	-57.00	-20.91	peak	
3		320.766	-74.62	-1.22	-75.84	-57.00	-18.84	peak	
4		580.067	-77.12	3.76	-73.36	-57.00	-16.36	peak	
5		793.592	-77.62	6.86	-70.76	-57.00	-13.76	peak	
6	*	963.633	-77.99	8.88	-69.11	-57.00	-12.11	peak	

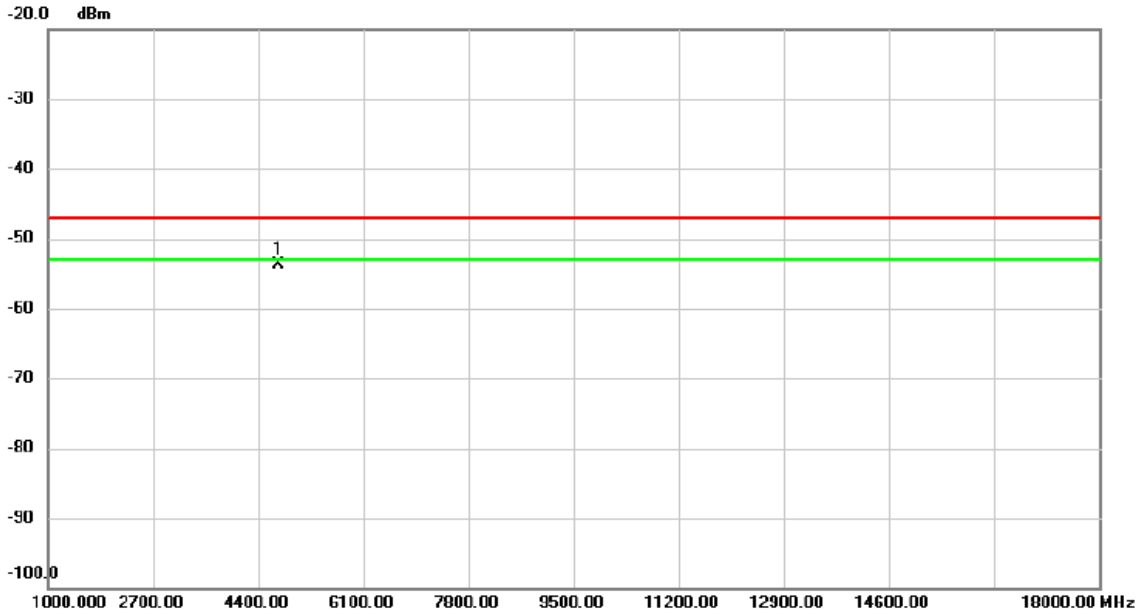
APPENDIX K - SPURIOUS EMISSIONS - RECEIVER (ABOVE 1000MHZ)

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Vertical



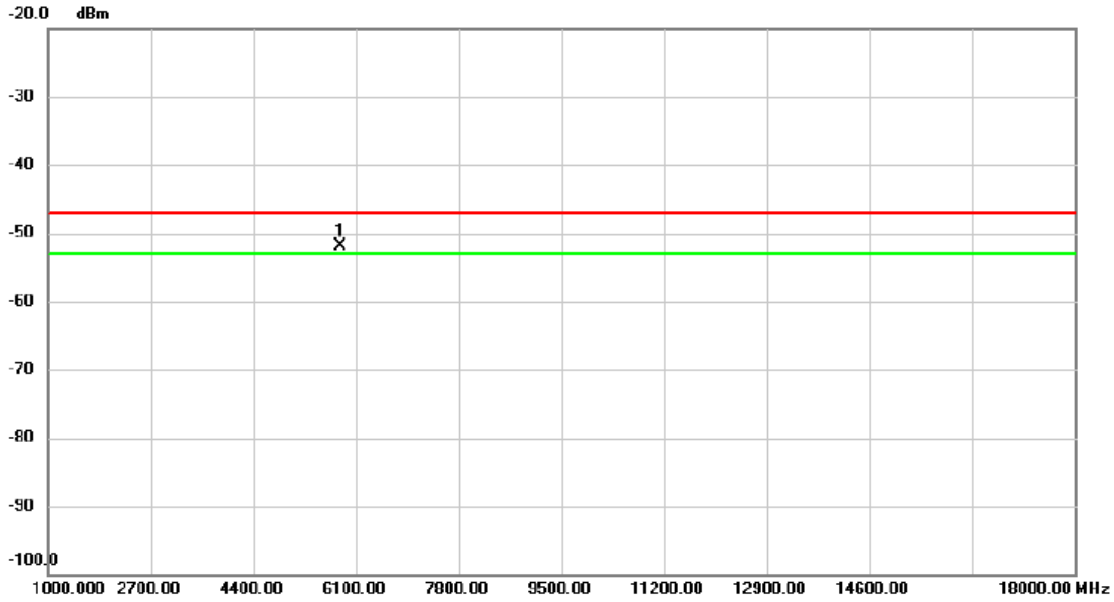
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	4504.550	-56.16	3.46	-52.70	-47.00	-5.70	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Horizontal



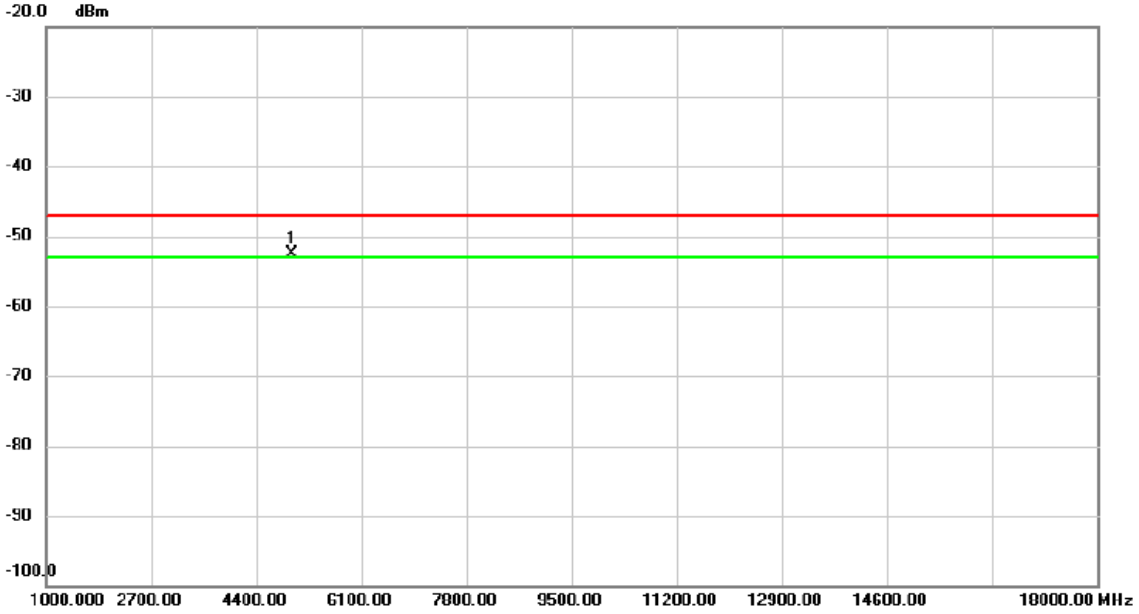
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	4718.750	-56.94	3.32	-53.62	-47.00	-6.62	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Vertical



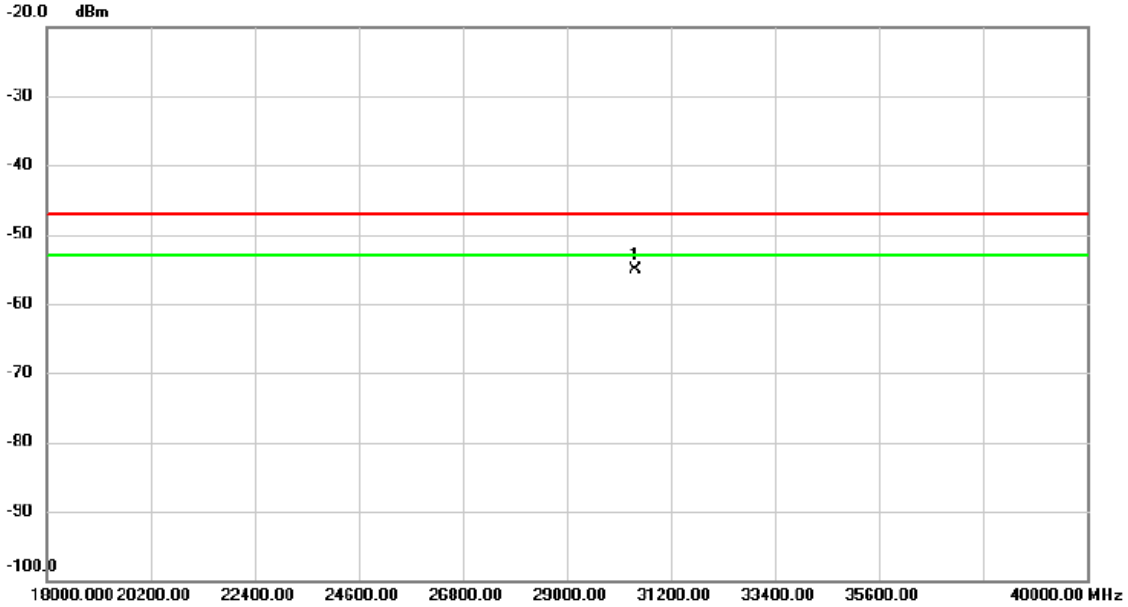
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	5831.400	-56.61	4.66	-51.95	-47.00	-4.95	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5825 MHz	Polarization	Horizontal



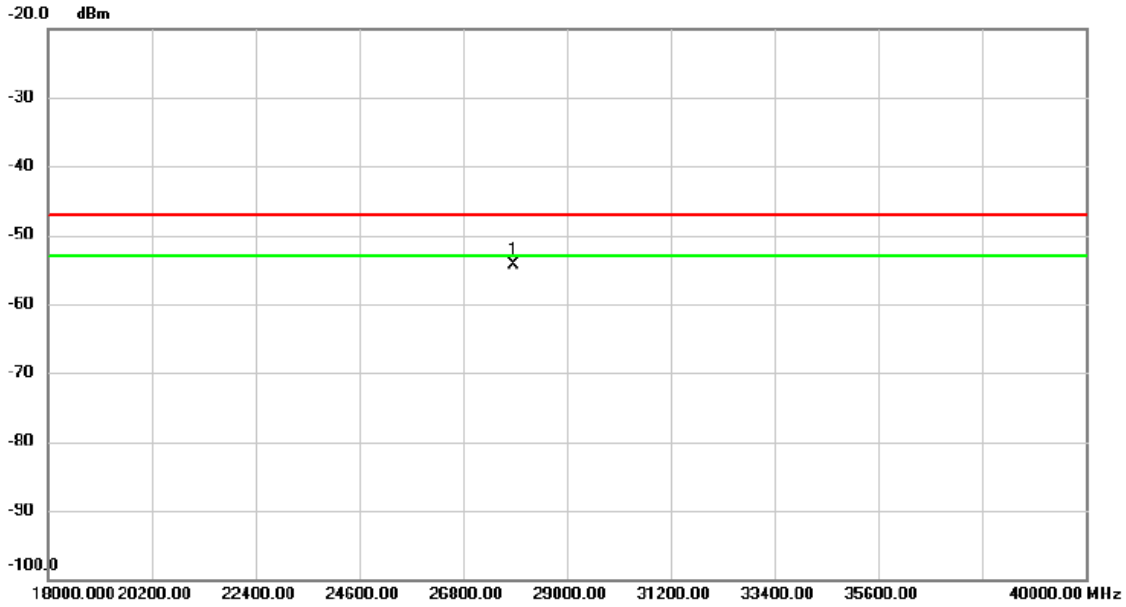
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	4977.150	-55.82	3.27	-52.55	-47.00	-5.55	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	30456.400	-60.88	5.86	-55.02	-47.00	-8.02	peak	

Test Mode	RX IEEE 802.11ac(VHT20) Mode 5745 MHz	Polarization	Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBm	dB	dBm	dBm	dB	Detector	Comment
1	*	27862.600	-60.88	6.57	-54.31	-47.00	-7.31	peak	

End of Test Report