



Report No: AAEMT/EMC/211004-01-02

# FCC RADIO TEST REPORT Part 15 subpart E

## FCC ID: 2AZOIION4L3

Report Reference No:	AAEMT/EMC/211004-01-02
Date of issue:	2021-11-29
Testing Laboratory:	AA Electro Magnetic Test Laboratory Private Limited
Address:	Plot No 174, Udyog Vihar - Phase 4, Sector 18,
/ Kuress	Gurgaon, Haryana, India
Applicant's name:	HFCL Limited
Address:	Plot no. 38, Institutional Area, Sector 32, Gurgaon -122001
Manufacturer:	HFCL Limited
	Plot no. 38, Institutional Area, Sector 32, Gurgaon -122001
Test specification:	
Test item description:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna
Trade Mark:	
	AND AN AND AND AND AND AND AND AND AND A
Model/Type reference:	ion413
Ratings:	DC24V (nominal), 0.625A input through PoE
	Input: AC100~264V, 50~60Hz.0.45A
	Output: DC24V (nominal), 0.625A

Declaration of Conformity:

Declaration of conformity of the results is based as per the standard limits

Prepared By:

Aburar Cum

Abhinav Kumar

**Reviewed & Approved by:** 

Dr. Lenin Raja (Authorized Representative) (/ lenin83/)





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<b>2</b>   P a g e	Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India	

Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com





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Applicant	:	HFCL Limited			
Address	:	Plot no. 38, Institutional Area, Sector 32, Gurgaon -122001			
Equipment under Test	:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna			
Model No	:	ion413			
Trade Mark	:				
Manufacturer	:	HFCL Limited			
Address	:	Plot no. 38, Institutional Area, Sector 32, Gurgaon -122001			

## **TEST REPORT DECLARE**

Test Standard Used: FCC Part 15E 15.407

Test procedure used: ANSI C63.10-2013 and KDB 789033 D02 General UNII Test Procedures New Rules v02r01 .

#### We Declare:

The equipment described above is tested by AA Electro Magnetic Test Laboratory Private Limited and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and AA Electro Magnetic Test Laboratory Private Limited is assumed of full responsibility for the accuracy and completeness of these tests.

# After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

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Date of Test:	Oct. 05 ~ Oct. 07, 2021	Date of Report:	Nov. 29, 2021

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of AA Electro Magnetic Test Laboratory Private Limited





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## 1. SUMMARY OF TEST RESULTS

The EUT have been tested according to the applicable standards as referenced below.							
FCC Part15 (15.407) , Subpart E							
Description of Test Item Standard Results							
AC Power Line Conducted Emissions	FCC §15.207/ RSS-Gen	PASS					
Spurious Radiated Emissions	FCC §15.209(a), 15.407(b)	PASS					
26 dB and 99% Emission Bandwidth	FCC §15.407(a)	PASS					
Maximum Conducted Output Power	FCC §407(a)(1)	PASS					
Band Edges	FCC §2.1051, §15.407(b)	PASS					
Power Spectral Density	FCC §15.407(a)(1)	PASS					
Spurious Emissions at Antenna Terminals	FCC §2.1051, §15.407(b)	PASS					
Antenna Requirement	FCC §15.203	PASS					





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## 2. GENERAL TEST INFORMATION

## **2.1. DESCRIPTION OF EUT**

EUT Name	:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	
Model Number	:	ion4l3	
Power supply	:	<b>24VDC (nominal), 0.625A input through PoE</b> Input: 100~240VAC, 50~60Hz Output: 24VDC (nominal), 0.625A	
Operation frequency	:	WiFi: 802.11a/n(HT20)/ac(VHT20): 5180MHz~5240MHz; 5745MHz~5825MHz 802.11n(HT40)/ac(VHT40): 5190MHz~5230MHz; 5755MHz~5795MHz 802.11ac(VHT80): 5210MHz; 5775MHz	
Modulation	:	802.11a/n: BPSK/QPSK/16QAM/64QAM 802.11ac: BPSK/QPSK/16QAM/64QAM/256QAM	
Data Rate	:	802.11a:6,9,12,18,24,36,48,54Mbps; 802.11n(HT20):MCS0-MCS7; 802.11n(HT40):MCS0-MCS7; 802.11ac(VHT20):MCS0-MCS7 802.11ac(VHT40/80):MCS0-MCS9	
Antenna Type	:	Integrated Antenna	
Antenna gain	:	25dBi	
H/W No.	:	B1	
S/W No.	:	3.3.1.1	
Battery	:	N/A	
Date of Receipt	:	Oct. 04, 2021	
Condition of Sample on receipt:	:	Good	
Note	:	For 5GHz (Port J1-Chain 1) is the worst case.	

Disclaimer: Type of Antenna, Modulation of operation and Antenna gain information's are provided by the manufacturer data sheet while consider the result of e.i.r.p.





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			Chanı	nel List				
			802.11a/n/	/ac (20MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	
36	5180	40	5200	44	5220	48	5240	
149	5745	153	5765	157	5785	161	5805	
165	5825							
			802.11n/a	c (40MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	
38	5190	46	5230	151	5755	159	5795	
	802.11ac (80MHz)							
ChannelFrequency (MHz)ChannelFrequency (MHz)Frequency (MHz)Frequency (MHz)Channel							Frequency (MHz)	
42	5210	-	-	-	-	155	5775	

### **2.2. ACCESSORIES OF EUT**

Description of Accessories	Shielded Type	Ferrite Core	Length
-	-	-	-

## 2.3. ASSISTANT EQUIPMENT USED FOR TEST

Description of Assistant equipment	Manufacturer		EMC Compliance	SN
Laptop	DELL	Latitude 3490	-	5M2Z1W2
DC Power Supply	JUNKE	JK1504K	-	20181126-43





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# 3. EQUIPMENTS LIST FOR ALL TEST ITEMS

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	Spectrum Analyzer	Rohde and Schwarz	FSP40	101163	2020/12/11	2022/12/10
2	Loop antenna	DAZE Beijing	ZN30900C	18052	2020/01/29	2022/01/28
3	Hi power horn antenna	DAZE Beijing	ZN30700	18012	2020/01/30	2022/01/29
4	Horn antenna	DAZE Beijing	ZN30702	18006	2020/01/30	2022/01/29
5	Horn antenna	DAZE Beijing	ZN30703	18005	2020/01/30	2022/01/29
6	Preamplifier	KELIANDA	LNA-0009295	-	2021/01/13	2022/01/13
7	Preamplifier	KELIANDA	CF-00218	-	2021/01/13	2022/01/13
8	Bi conical Antenna	DAZE Beijing	ZN30505C	17038	2020/01/28	2022/01/29
9	EMI-RECEIVER	Schwarzbeck	FCKL	1528194	2021/01/13	2022/01/13
10	Spectrum Analyzer	ADVANTEST	R3361	-	2021/01/13	2022/01/13
11	LISN	Kyoritsu	KNW-407	8-1789-5	2021/01/13	2022/01/13
12	Network-LISN	Schwarzbeck	NNBM8125	81251314	2021/01/13	2022/01/13
13	Network-LISN	Schwarzbeck	NNBM8125	81251315	2021/01/13	2022/01/13
14	PULSELIMITER	Rohde and Schwarz	ESH3-Z2	100681	2021/05/13	2022/05/12
15	50ΩCoaxialSwitch	DAIWA	1565157	-	2021/05/13	2022/05/12
16	50ΩCoaxialSwitch	-	-	-	2021/05/13	2022/05/12
17	Wireless signal power meter	DARE!!	RPR3006W	RFSW190220	2021/01/13	2022/01/13
18	Signal Generator	KEYSIGHT	N5181A	512071	2021/01/13	2022/01/13
19	RF Vector Signal Generator	Keysight	N5182B	512094	2021/01/13	2022/01/13
20	Spectrum analyzer	R&S	FSV-40N	101385	2021/01/13	2022/01/13





1						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
21	Radio Communication Tester	R&S	CMW 500	124589	2021/5/15	2022/5/14
22	Signal Generator	R&S	SMP02	837017/004 836593/005	2021/5/15	2022/5/14
23	DC Power Supply	Guanker	JK15040K	TNC/ET/C/0 01/15	2020/2/2	2022/2/1
24	Pro. Temp & Humi. chamber	MENTEK	MHP-150-1C	MAA081125 01	2020/2/2	2022/2/1
25	Attenuators	AGILENT	8494B	-	-	-
26	Attenuators	AGILENT	8495B	-	-	-





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## **3.1. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST**



## **3.2. TEST ENVIRONMENT CONDITIONS**

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25°C
Humidity range:	40-75%
Pressure range:	86-106kPa

### **3.3. MEASUREMENT UNCERTAINTY**

No.	Item	Uncertainty
1	Conducted Emission Test	2.74dB
2	Radiated Emission Test	3.09dB
3	RF power, conducted	2.44dB
4	RF power density, conducted	2.26dB
5	Spurious emissions, conducted	2.71dB
6	All emissions, radiated(<1G)	3.98dB
7	All emissions, radiated(>1G)	3.75dB

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

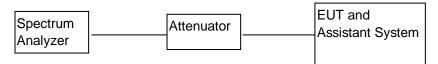




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## 4. POWER SPECTRAL DENSITY TEST

## 4.1. BLOCK DIAGRAM OF TEST SETUP



## 4.2. APPLIED PROCEDURES / LIMIT

#### According to FCC §15.407(a)(3)

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi..





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### 4.3. TEST PROCEDURE

(For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW  $\geq 1/T$ , where T is defined in section II.B.l.a).

b) Set VBW  $\geq$  3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.</li>e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHZ is available on nearly all spectrum analyzers.





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CH. No.	Frequency	power density (dBm/MHz)	Limit (dBm/MHz)	Result
		TX 802.11a Mode		
CH36	5180	7.73	15	Pass
CH44	5220	7.61	15	Pass
CH48	5240	7.97	15	Pass
CH. No.	Frequency	power density (dBm /500KHz)	Limit (dBm/500KHz)	Result
CH 149	5745	3.32	11	Pass
CH 157	5785	2.97	11	Pass
CH 165	5825	2.63	11	Pass
		TX 802.11n20 Mode		
CH36	5180	7.62	15	Pass
CH44	5220	7.89	15	Pass
CH48	5240	7.55	15	Pass
CH. No.	Frequency	power density (dBm /500KHz)	Limit (dBm/500KHz)	Result
CH 149	5745	3.35	11	Pass
CH 157	5785	2.74	11	Pass
CH 165	5825	3.16	11	Pass
		TX 802.11ac20 Mode		
CH36	5180	6.68	15	Pass
CH44	5220	7.58	15	Pass
CH48	5240	7.58	15	Pass
CH. No.	Frequency	power density (dBm /500KHz)	Limit (dBm/500KHz)	Result
CH 149	5745	1.84	11	Pass
CH 157	5785	2.41	11	Pass
CH 165	5825	1.82	11	Pass

## 4.4. TEST RESULT





Result

Pass

(dBm/500KHz)

11

CH. No.	Frequency	power density (dBm/MHz)	Limit (dBm/MHz)	Result
		TX 802.11n40 Mode		
CH38	5190	5.36	15	Pass
CH46	5230	8.43	15	Pass
CH. No.	Frequency	power density (dBm /500KHz)	Limit (dBm/500KHz)	Result
CH151	5755	1.01	11	Pass
CH159	5795	0.76	11	Pass
		TX 802.11ac40 Mode		
CH38	5190	7.08	15	Pass
CH46	5230	6.41	15	Pass
CH. No.	Frequency	power density (dBm /500KHz)	Limit (dBm/500KHz)	Result
CH151	5755	1.40	11	Pass
CH159	5795	1.23	11	Pass
		- 		
CH. No.	Frequency	power density (dBm/MHz)	Limit (dBm/MHz)	Result
		TX 802.11ac80 Mode		
CH42	5210	6.38	15	Pass
CH. No.	Frequency	power density	Limit	Result

(dBm /500KHz)

0.96

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CH. No.

CH155

Frequency

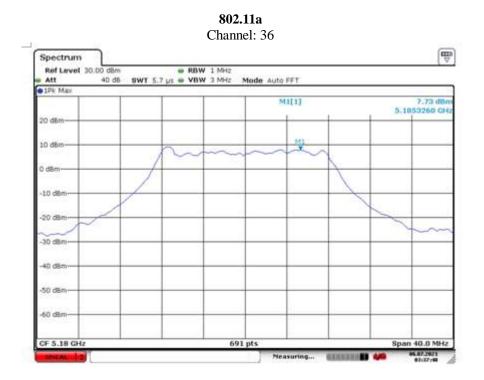
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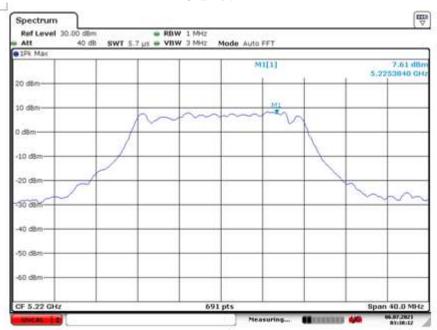


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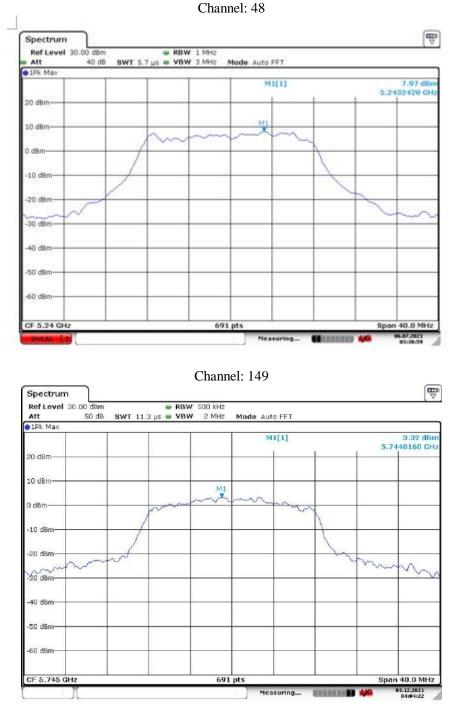
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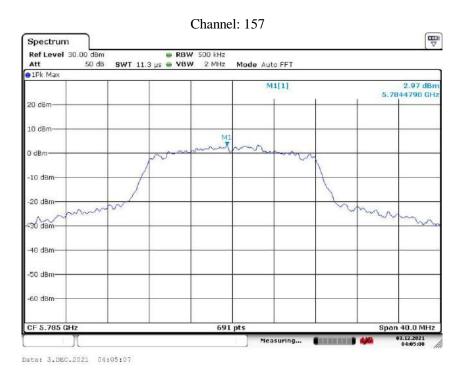


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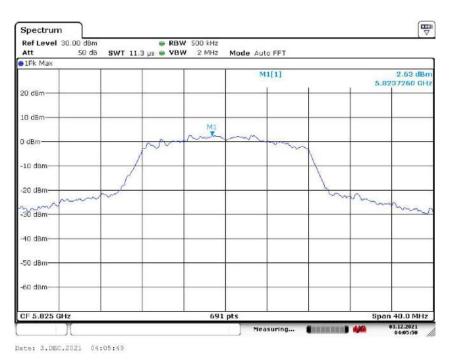




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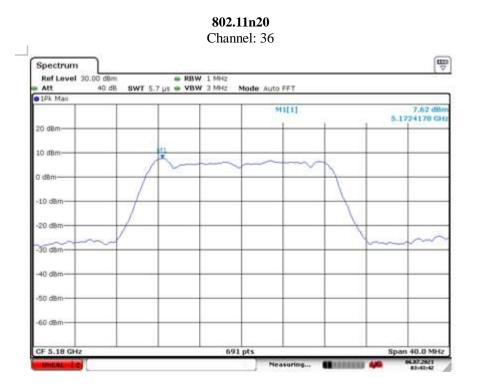
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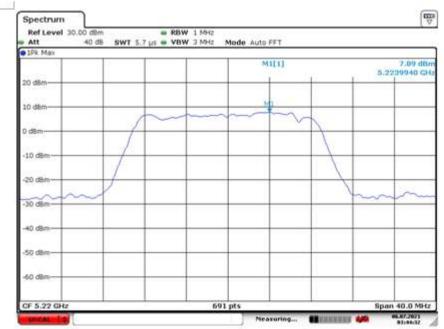




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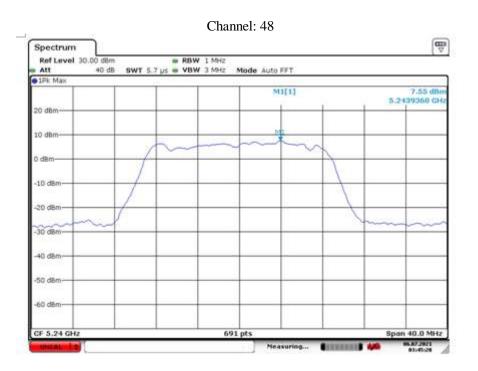


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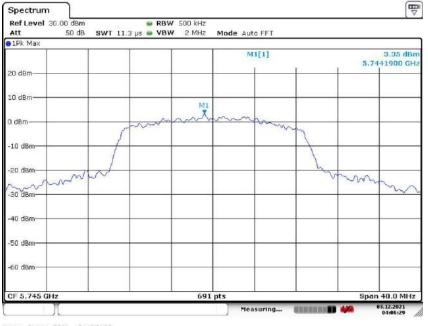








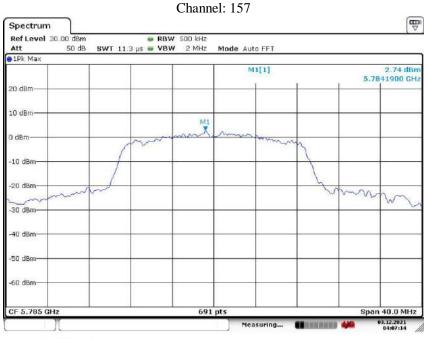








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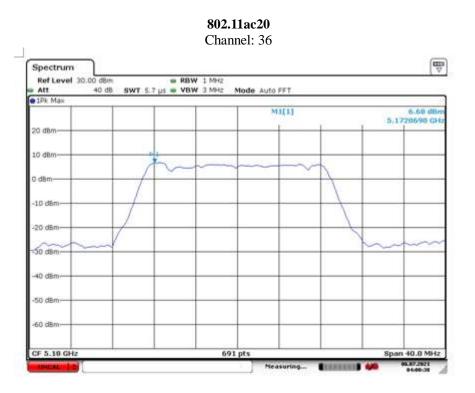


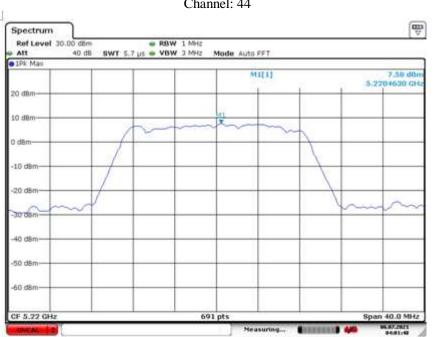


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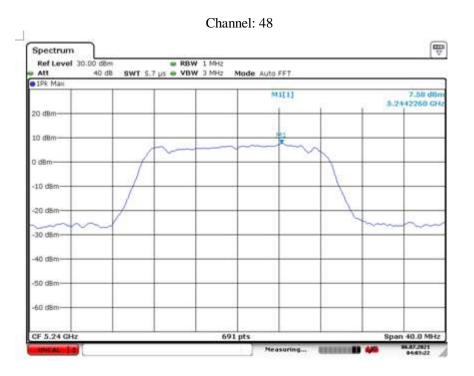




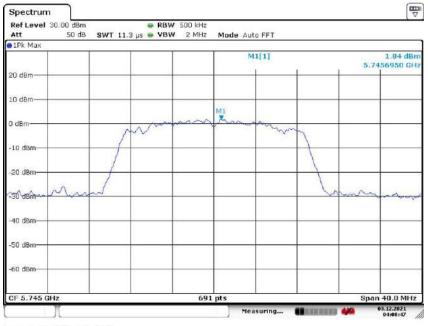
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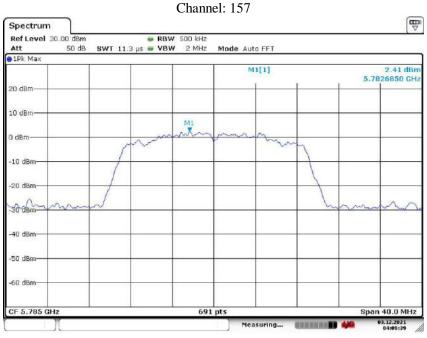


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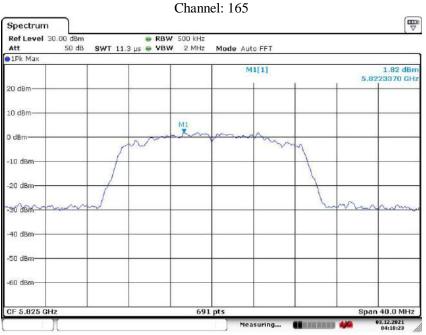




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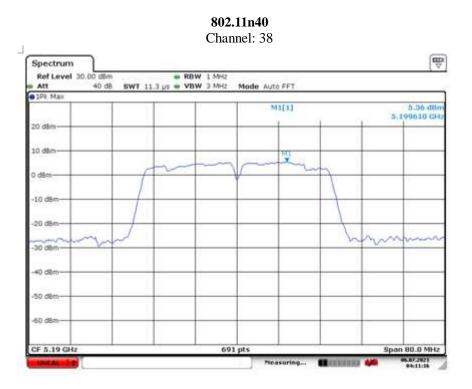


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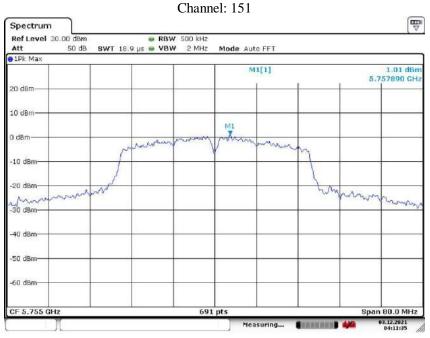
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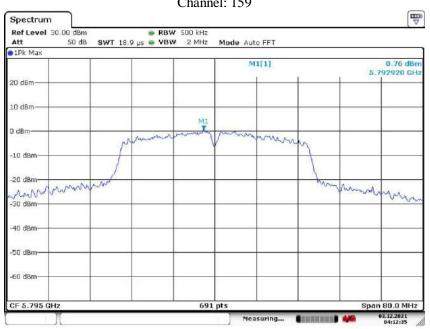




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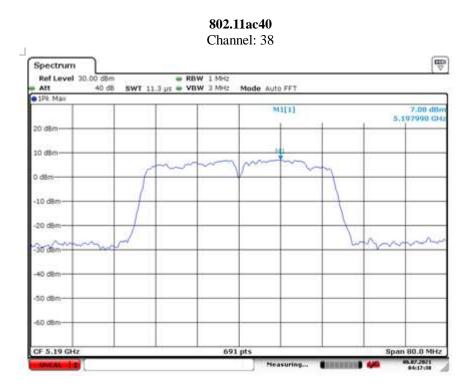


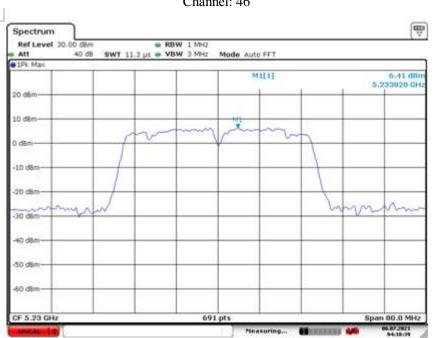
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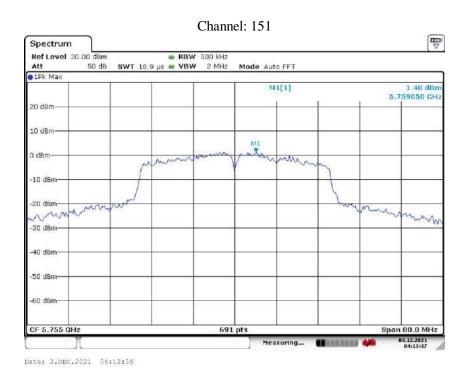




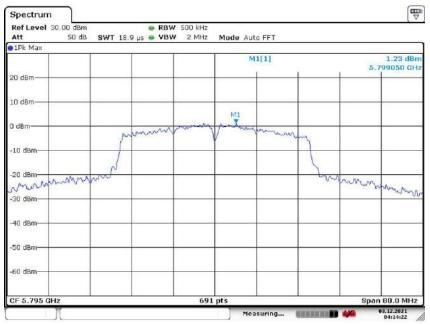
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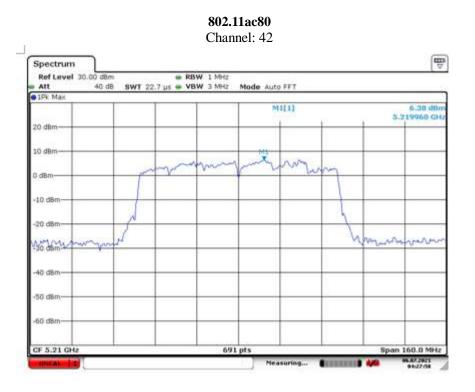
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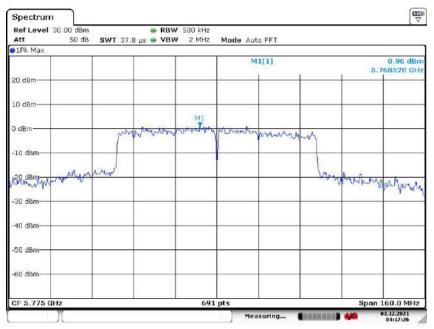
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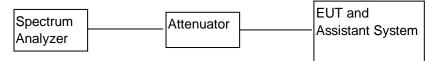




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## 5. 26 dB & 99% Emission Bandwidth

## 5.1. BLOCK DIAGRAM OF TEST SETUP



## 5.2. APPLIED PROCEDURES / LIMIT

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

## **5.3. TEST PROCEDURE**

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.

e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The following procedure shall be used for measuring (99 %) power bandwidth:

- 1. Set center frequency to the nominal EUT channel center frequency.
- 2. Set span = 1.5 times to 5.0 times the OBW.
- 3. Set RBW = 1 % to 5 % of the OBW
- 4. Set VBW  $\geq$  3  $\cdot$  RBW
- 5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- 6. Use the 99 % power bandwidth function of the instrument (if available).
- 7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.





#### Report No: AAEMT/EMC/211004-01-02

## **5.4. TEST RESULT**

		26dB Occ	cupied Band	dwidth (MHz)	99% Oc	cupied Bandw	ridth (MHz)
CH. No.	Frequency (MHz)	802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11a	802.11n (HT20)	802.11ac (VHT20)
36	5180.00	21.766	20.029	19.971	16.584	17.539	17.583
44	5220.00	20.839	19.855	19.797	16.541	17.539	17.583
48	5240.00	20.781	19.855	19.797	16.497	17.539	17.539
		6dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)			
CH. No.	Frequency (MHz)	802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11a	802.11n (HT20)	802.11ac (VHT20)
CH. No. 149	Frequency (MHz) 5745.00	802.11a 15.166			802.11a 16.541		
	<b>. .</b> , ,		(HT20)	(VHT20)		(HT20)	(VHT20)

	<b>E</b>	26dB Occup	ied Bandwidth (MHz)	99% Occupi	ed Bandwidth (MHz)
CH. No.	Frequency (MHz)	802.11n	802.11ac	802.11n	802.11ac
	(MITZ)	(HT40)	(VHT40)	(HT40)	(VHT40)
38	5190.00	39.250	39.130	35.904	35.904
46	5230.00	39.130	39.360	35.964	35.904
	Enggueneu	6dB Occupi	ied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	
CH. No.	Frequency (MHz)	802.11n	802.11ac	802.11n	802.11ac
	(MITZ)	(HT40)	(VHT40)	(HT40)	(VHT40)
151	5755.00	34.96	35.14	35.904	36.023
159	5795.00	35.02	35.02	35.964	35.964

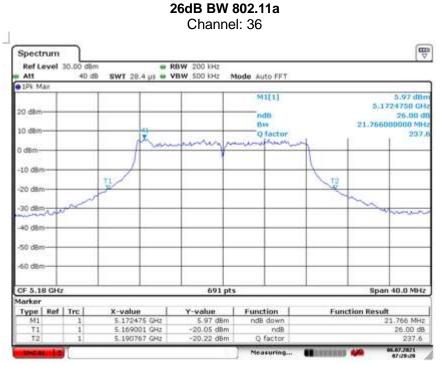
	Energy and and	26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH. No.	Frequency (MHz)	802.11ac	802.11ac
	(MITZ)	(VHT80)	(VHT80)
42	5210.00	83.360	75.524
	Engguarau	6dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
CH. No.	Frequency	6dB Occupied Bandwidth (MHz) 802.11ac	99% Occupied Bandwidth (MHz) 802.11ac
CH. No.	Frequency (MHz)	1 1	• • • • • •



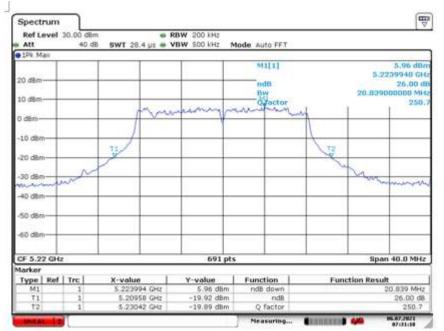


#### Report No: AAEMT/EMC/211004-01-02

#### Test plots as followed:

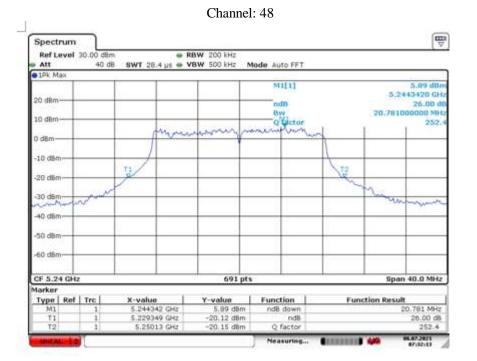


#### Channel: 44





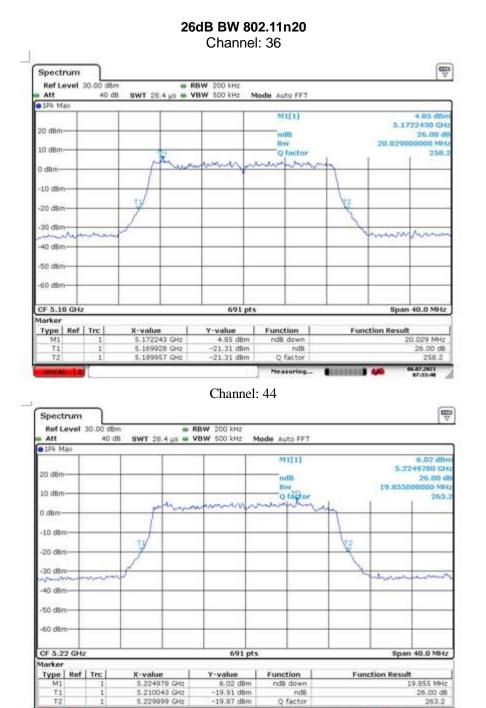








#### Report No: AAEMT/EMC/211004-01-02



**33** | P a g e

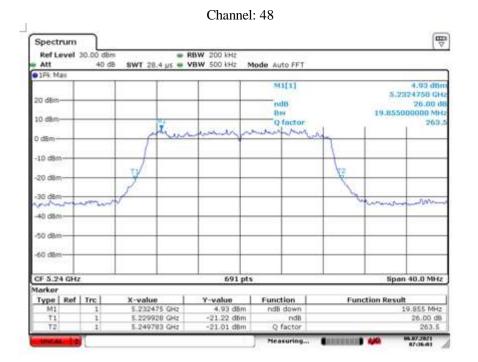
leasuring

COLUMN STATE

87:35:95



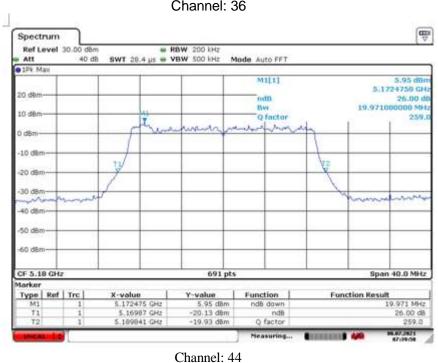




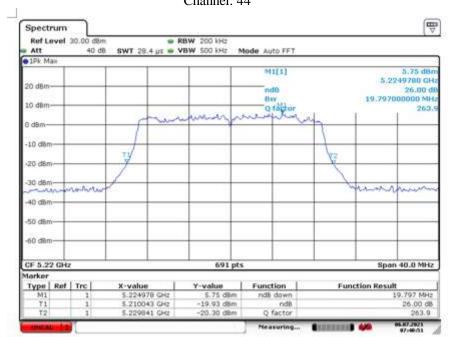




#### Report No: AAEMT/EMC/211004-01-02

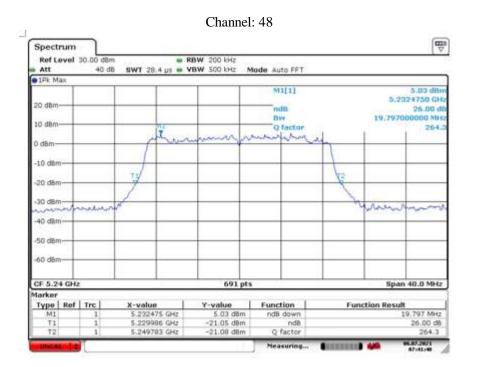


26dB BW 802.11ac20 Channel: 36







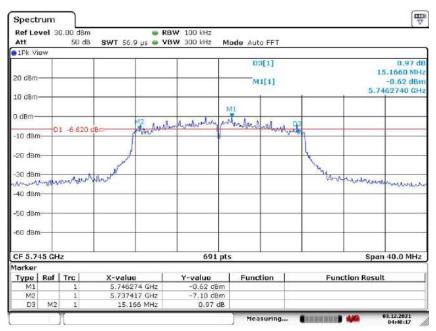




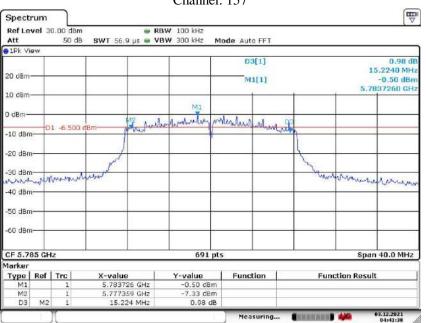


#### Report No: AAEMT/EMC/211004-01-02

### 6dB BW 802.11a Channel: 149



Date: 3.DEC.2021 04:40:17



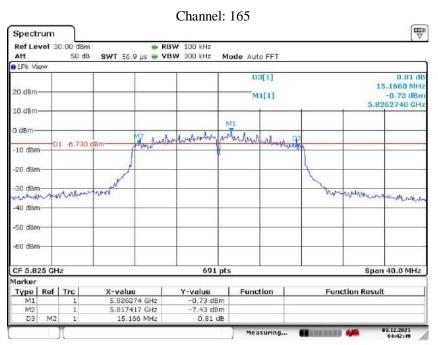
Channel: 157

Date: 3.DEC.2021 04:41:38





### Report No: AAEMT/EMC/211004-01-02

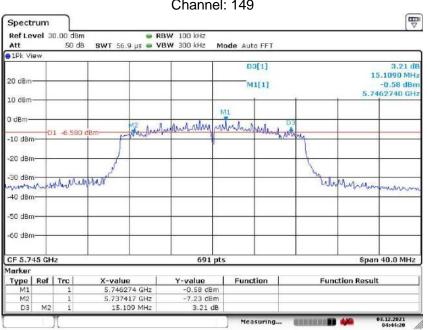


Date: 3.DEC.2021 04:42:49





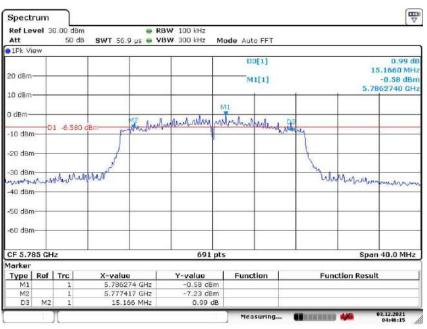
#### Report No: AAEMT/EMC/211004-01-02



6dB BW 802.11n20 Channel: 149

Date: 3.DEC.2021 04:44:20

#### Channel: 157



Date: 3.DEC.2021 04:46:15





### Report No: AAEMT/EMC/211004-01-02

### Channel: 165

Ref Le Att	vel 3	0.00 dBr 50 d			3W 100 kHz BW 300 kHz M	Ande Auto F	FT			
D1Pk Vi	ew/									
20 dBm						D3[1 M1[1				0.66 dl 15,1660 MH -0.72 dBn 5,8237260 GH
10 dBm			-		-	- 1		1	1	-
0 dBm—	-			M2 A J	MI .	Martin	1	D3	_	
-10 dBn	D	1 -6.772	dBm	-pron frank		and so deal May	Mart y	Manag	-	
-20 dBn				-				4		
-30 dBm	Lans	www.	hamout					hyte	have been provided to	monum
-40 dBn			-	-				-	-	
-50 dBn	-+-		-		-				-	
-60 dBn			-							
CF 5.8	25 GH	z			691 pl	ts		-	s	pan 40.0 MHz
Marker					1.20 .00	1			- 1919 - 22	- 122
Type M1	Ref	Trc 1	X-valu	e 726 GHz	Y-value -0.72 dBm	Functio	n	Fu	nction Re	sult
M2		1		417 GHz	-7.22 dBm	-	-			
D3	M2	1		66 MHz	0.66 dB					

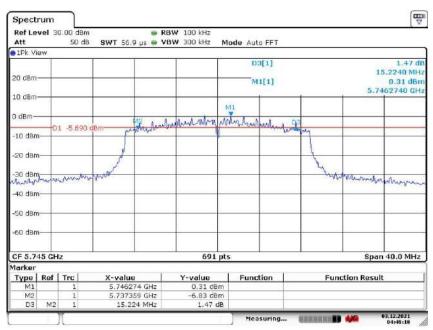
Date: 3.DEC.2021 04:47:34





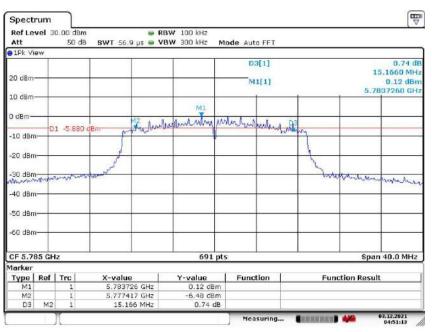
#### Report No: AAEMT/EMC/211004-01-02

### 6dB BW 802.11ac20 Channel: 149



Date: 3.DEC.2021 04:49:18

Channel: 157



Date: 3.DEC.2021 04:51:12





### Report No: AAEMT/EMC/211004-01-02

### Channel: 165

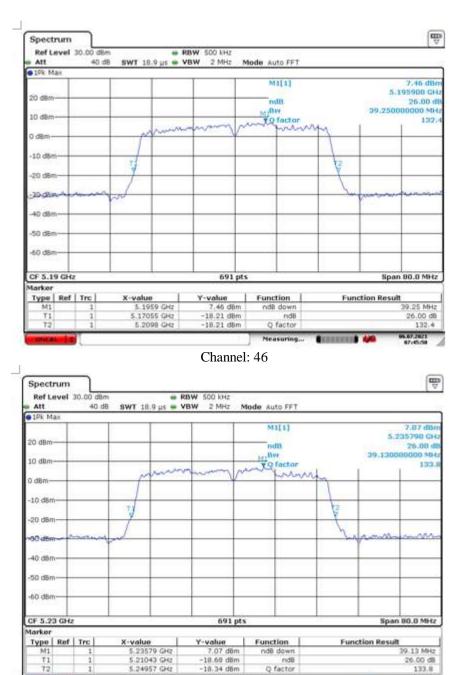
Ref Le	rum vel 3	0.00 dBr	n	🗰 Ri	BW 100 kHz			
Att		50 d	B SWT 56	5.9 µs 🖷 VI	BW 300 kHz M	ode Auto FFT		
1Pk Vi	ew.							
20 dBm	_					D3[1] M1[1]		0.68 di 15,1660 MH -0,97 dBn
10 dBm	-		-	-	-	-	1	5.8237260 GH
0 dBm-	_			M2 . 1	M1	dent s a		
-10 dBn	D	1 -6.970	) dBm	toplant	reduced when per	Mon Man Martin	hating	
-20 dBn	n						1	
-30 dBn	-	molen	newould		-		Want	Marthannahm
-40 dBn	S		-	-	-			
-50 dBn	n		-		-			
-60 dBn	n		-					
CF 5.8	25 GH	z			691 pt	s		Span 40.0 MHz
Marker					1.550			5640 GV 1842
Type M1	Ref	Trc	X-val	726 GHz	-0.97 dBm	Function	Fun	ction Result
M1 M2	_	1		417 GHz	-7.47 dBm			
D3	M2	1		166 MHz	0.68 dB			

Date: 3.DEC.2021 04:52:56





### Report No: AAEMT/EMC/211004-01-02



### 26dB BW 802.11n40 Channel: 38

Measuring...

CONTRACTOR NO.

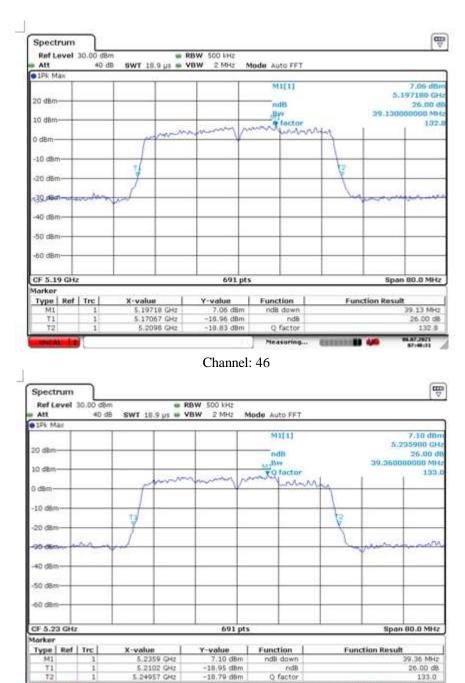
133.8 05.07.2921 87:47:32

5:24957 GHz





### Report No: AAEMT/EMC/211004-01-02



### 26dB BW 802.11ac40 Channel: 38

Seasuring...

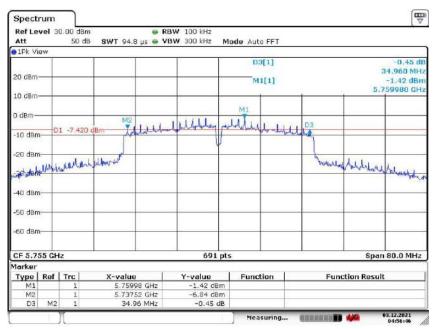
67:49:36





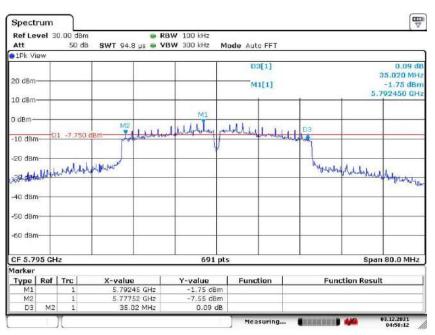
#### Report No: AAEMT/EMC/211004-01-02

### 6dB BW 802.11n40 Channel: 151



Date: 3.DEC.2021 04:56:45

### Channel: 159

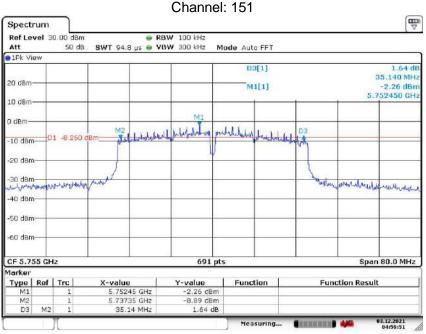


Date: 3.DEC.2021 04:58:11





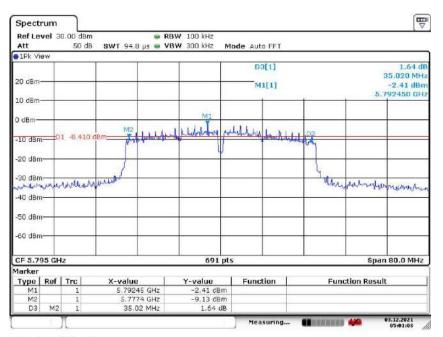
#### Report No: AAEMT/EMC/211004-01-02



# 6dB BW 802.11ac40

Date: 3.DEC.2021 04:59:50

### Channel: 159



Date: 3.DEC.2021 05:01:02





### Report No: AAEMT/EMC/211004-01-02

#### ÷ Spectrum Ref Level 30.00 dB · RBW 1 MHz Att 40 dB SWT 22.7 µs · VBW 3 MHz Mode Auto FFT 1Pk Ma M1[1] 7.16 0 5.234700 GH 20. dBr ndti 26.00 E.w 00.0 DD M 10 48 Q facto 62. 0 dBr 10 di ŢŅ 20 dB 30 dam 40 d 50 dbr -60 d8tr CF 5.21 GHz Span 160.0 MHz 691 pts Marker X-value 5.23478 GHz 5.16855 GHz 5.25191 GHz Type Ref Trc Y-value Function Function Result 7.16 dBm -19.09 dBm -19.88 dBm 83.36 MHz M3 ndB dow ndB Q factor T1 T2 26.00 dB 62.8 87:53:35 Measuring.

### 26dB BW 802.11ac80 Channel: 42

6dB BW 802.11ac80 Channel: 155

Att	vel 3	0.00 dBm 50 dB			RBW 100 kHz VBW 300 kHz M	Iode Auto FFT				
DIPk V	ew.									
20 dBm						D3[1] M1[1]		3.19 dB 75.080 MHz -3.71 dBm		
10 dBm	+		-	-	-		1	5.769910 GH		
0 dBm-					Ma		-			
-10 dBr		1 -9.710	dBm Ma	JALLALLA	Mullim ul	UNILLI Amerille	D3			
	81 2			~ <b>v</b>						
-20 dBr	n		+							
rR0,dBr	Runha	which	Mannel				horabil	rundermanungerunder		
-40 dBr	n							a se obstander Arrender		
-50 dBr	n									
-50 dBr -60 dBr	20 I				-		-			
	n	z			691 pts	2 //		Span 160.0 MHz		
-60 dBr CF 5.7	n	Z			691 pts	8		Span 160.0 MHz		
-60 dBr CF 5.7 1arker Type	n	Trc	X-val		Y-value	; Function	Func	Span 160.0 MHz tion Result		
-60 dBr CF 5.7 1arker	75 GH		5.70	lue 6991 GHz 3734 GHz			Func	300 - 300		

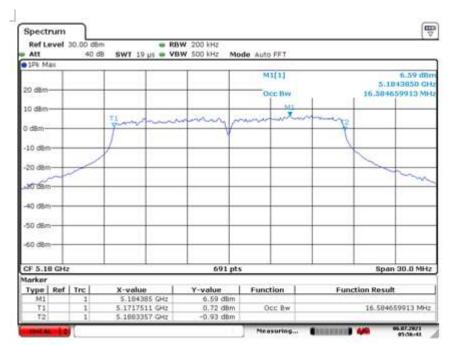
Date: 3.DEC.2021 05:04:39





### Report No: AAEMT/EMC/211004-01-02

### **99% OBW 802.11a** Channel: 36



Channel:	44
----------	----

Att	30.00 d8 40 d		W 200 kHz W 500 kHz Mi	ode Auto FFT		
e 1Pk Max 20 dBm			MI	M1[1] Occ Bw	ę – s	7,17 dB 5,2181330 GF 16,541244573 MF
10 dBm		Thirnes		man	may2	
-10 dbm						
-20 dam-	/					m
-40 d8m					_	
-50 dām						
-60 d8m						
CF 5.22 GH	lz .		691 pt	\$		Span 30.0 MHz
Marker Type Ref	Trc	X-value	Y-value	Function	Fund	tion Result
M1 T1 T2	1	5 218133 GHz 5 2117077 GHz 5 2282489 GHz	7.17 dBm 0.98 dBm 1.17 dBm	Occ Bw		16.541244573 MHz
and a local de	-		2.17 0011	Measuring	<b>H</b> URSTERN	66.87.2621 a5.60.42





### Report No: AAEMT/EMC/211004-01-02

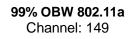
Ref Lo	evel :	30.00 dBr	■ RB 8 SWT 19 µs ■ VB	W 200 kHz	ode Auto FFT				
1Pk M	av.	40.0	0 BMI 19 15 - 40	W 300 KH2 M	DOB AUTO PP 1				
20 dBm					Mi[i] Occ Bw		5,22 dB) 5,2386990 GF 16,497829200 MF		
10 dBm	-			and a					
0 dBm-	-		gandam	time	man	mit			
-10 dBr	-			1					
-20 d8m		1					1		
-30,066	~	0.		-		-	mang		
-40 dbm	,					-			
-50 dBm						-			
-60 dBm	+					-			
CF 5.2	GHZ			691 pt	5		Span 30.0 MHz		
Marker	-								
Type	Ref	Trc	X-value	Y-value	Function	Func	tion Result		
MI		1	5.238598 GHz	5.72 dBm					
T1 T2	-	1	5.2316643 GHz 5.2481621 GHz	+0.70 d8m +0.15 d8m	Occ Bw		16.497829233 MHz		

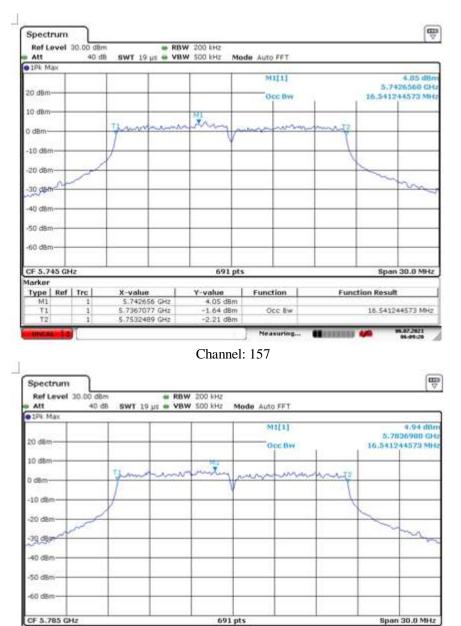
### Channel: 48





### Report No: AAEMT/EMC/211004-01-02





Type Ref Trc

X-value 5.783698 GHz 5.7767077 GHz

5.7932489 GHz

Y-value

4.94 d8m -0.20 d8m -1.34 d8m Function

Occ Bw

Seasuring..

**Function Result** 

16.541244573 MHz

05.87.2021

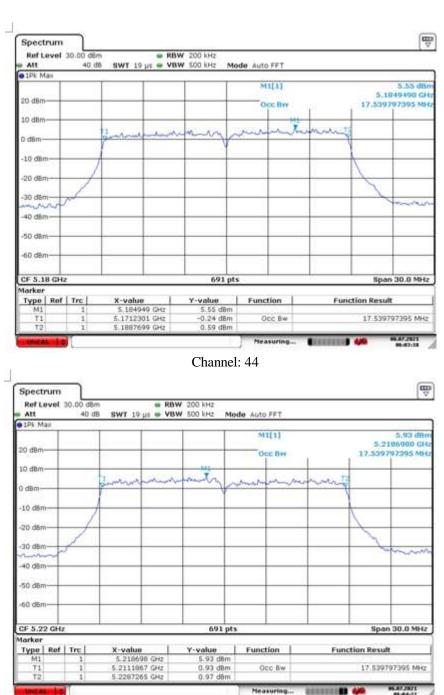


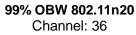


			Channel	: 165		
Spectrum Ref Level	30.00 dB		W 200 kHz			(B)
att a	40 c	18 SWT 19 µs 🖷 VB	W 500 kHz M	ode Auto FFT		
20 dBm				M1[1] Occ Bw		6.67 dB/ 5.8242628 GH 16.584659913 MH
10 dBm			MI		-	1
0 dBm		zannen	America	man	mul	
-10 dBm				_		
-20 dBm	1	<u> </u>			-	1
- 20'd8m-					-	
-40 dām			+ +		-	
-50 d8m					-	
-60 dBm					-	
CF 5.825 G	Hz		691 pt	5	<u> </u>	Span 30.0 MHz
Marker Type Ref	Trc	X-value	Y-value	Function	E	tion Result
M1	1	5.824262 GHz	6.67 dBm	runction	Punc	Line Result
T1 72	1	5.8166643 GHz 5.8332489 GHz	-0.24 dBm 0.25 dBm	Occ Bw		16.584659913 MHz
-				Measuring	<b>CONTRACTOR</b>	96.67.2071 96-11-01



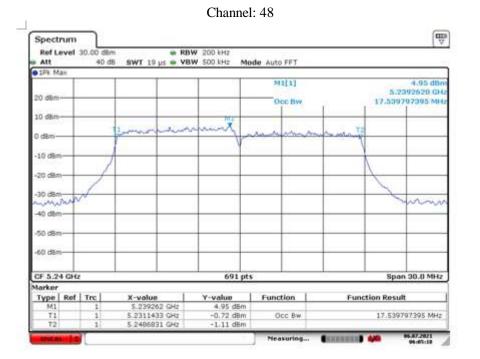






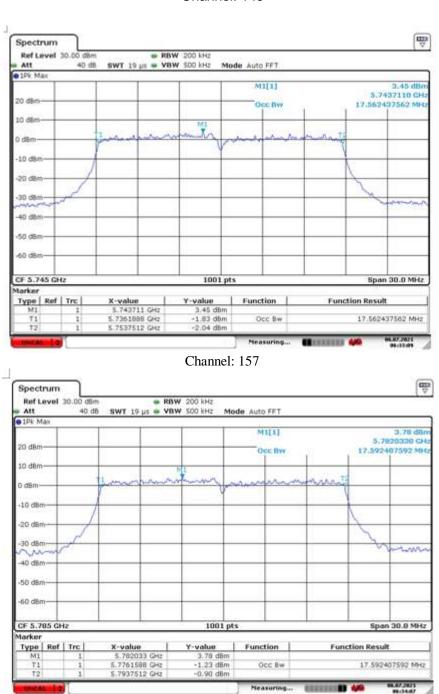






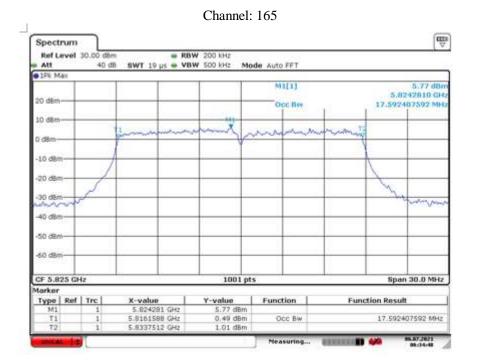








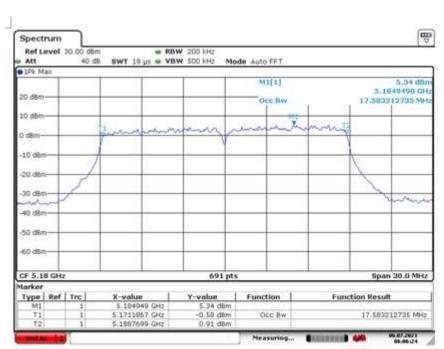








### Report No: AAEMT/EMC/211004-01-02



### **99% OBW 802.11ac20** Channel: 36

Channel: 44

att.		30.00 dB 40 d		W 200 kHz W 500 kHz M	lode Auto FFT			
• 1Pk M	ан							
20 dBm	+				Mi[1] Occ Bw	30 6		6.07 dB/ 86980 CH 12735 MH
10 dBm	-			- 10		-		
0 dBm-	_		Jumman and	manty	manim	mini	-	
-10 dBn	-							
-20 dBn		1	(			_	1	
-30 d5n	-	1					2	
-40 dBn								mun
-50 dBn								
-60 dBn	-					-		
CF 5.2	2 GHz			691 p	ts		Span	30.0 MHz
Marker Type	Rof	Tecl	X-value	Y-value	Function	<b>C</b>	tion Result	6. 
M1	POBI	1	5.218698 GHz	6.07 d8m		Punc	cion Result	
T1 72		1	5.2111867 GHz 5.2287699 GHz	0.66 dBm 0.10 dBm	Occ Bw		17.5832	12735 MHz
	-	-	Sinceriory dist.	0.10 000	Measuring	<b>CONTRACT</b>	and a	95.07.2921





### Report No: AAEMT/EMC/211004-01-02

Ref Level			W 200 kHz		
Att	40 di	8 SWT 19 µs 🖷 VB	W SOO KHZ MO	de Auto FFT	
That make		1 1	1 1	MATA	5.74 d8
20 d8m-		-			5.2386980 GH
1.121				Occ Bw	17.539797395 Mi
10 dBm-			MI		
		Immin	man	Ample An	TE
0 dBm		1	1	AnnoneDira P. Suna Carlo	
		1			
-10 d8m					
-20 d8m-	1				
	1				
-30 d8m	1			-	
mon					- march
-40 d8m					
10.000					
-50 dBm					
-60 d8m-					
-00 0011					
CF 5.24 GH	2		691 pts	5	Span 30.0 MHz
larker					
Type   Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	5.238698 GHz	5.74 dBm		
T1 T2	1	5.2311433 GHz 5.2486831 GHz	-0.57 dBm -1.18 dBm	Occ Bw	17.539797395 MHz

### Channel: 48





### Report No: AAEMT/EMC/211004-01-02

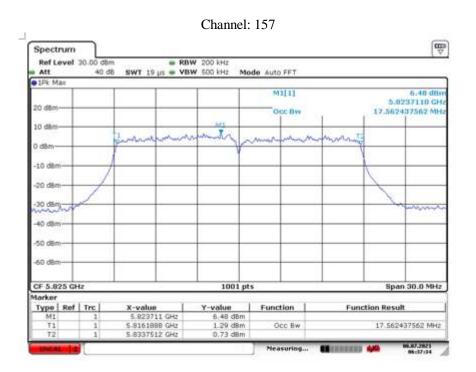
#### ₩. Spectrum RBW 200 kHz SWT 19 µs = VBW 500 kHz Ref Level 30.00 40 dB Mode Auto FFT Att 1Pk Ma: M1[1] 5.743 5.2386988 CH 20 d8 Occ Bw 17.509797395 MH 10 d8n A D dB -10 dbr -20 dB 30 dBr 40 dbm -50 dBn 60 dBm CF 5.24 GHz 691 pts Span 30.0 MHz Marker Type Ref Trc Y-value Function Function Result X-value 98 GH2 5.74 dām -0.57 dām 5.238698 GHz 5.2311433 GHz 5.2486831 GHz Occ Bw 17.539797395 MHz Τ1 T -1.18 dBm 05.87.2821 Measuring... Channel: 157 Spectrum SWT 19 µs SWT 200 kHz Ref Level 30.00 de Att 40 d8 Mode: Auto FFT 1Pk Mar MILLI 4,60 0 5.7836810 GH 20 d8r Occ Bw 17.562407562 MH

### **99% OBW 802.11ac20** Channel: 149

10 dBrr X Sec. 0 dB 10 dBr -20 d8 30 d8r 40 dbm 50 dBr -60 dBm CF 5.785 GHz 1001 pts Span 30.0 MHz larker X-value 5.783681 GHz 5.7761888 GHz 5.7937512 GHz Y-value 4.60 dBm -0.71 dBm -0.59 dBm Type Ref Trc Function **Function Result** 17.662437562 MHz OCC BW 06.87.2925 Measuring.... 1224 AM

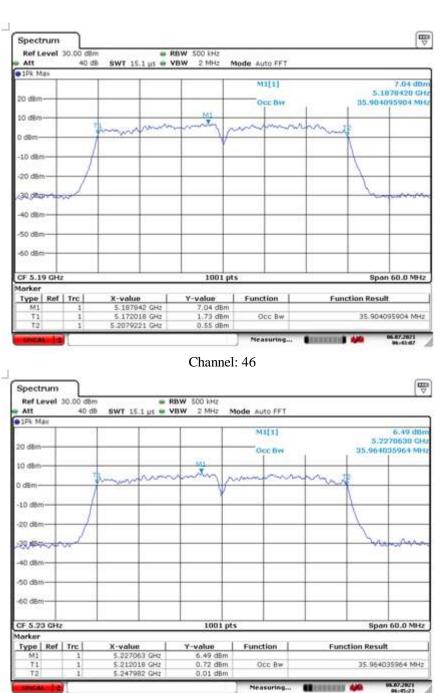








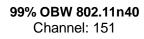


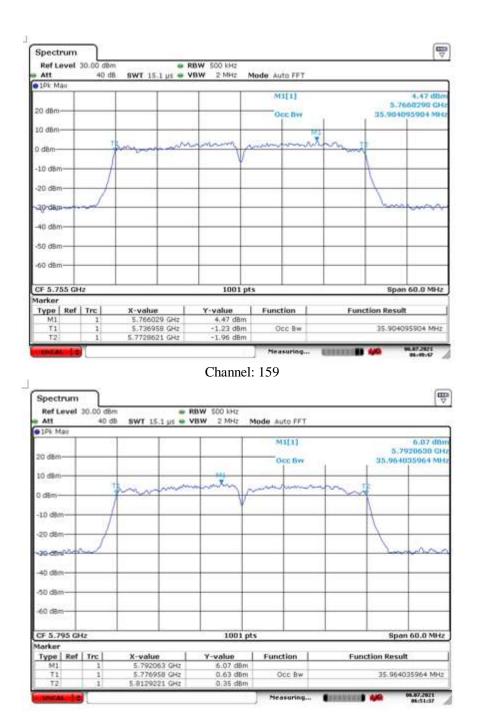








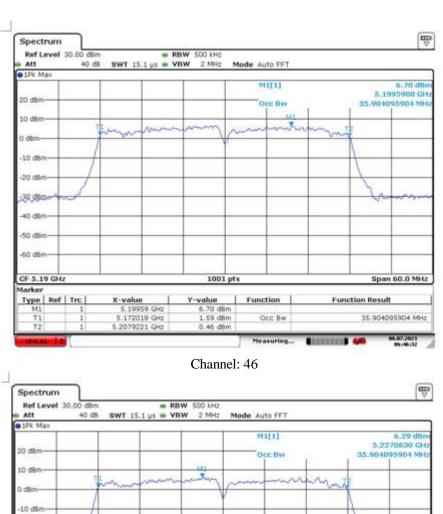








### Report No: AAEMT/EMC/211004-01-02



### **99% OBW 802.11ac40** Channel: 38

20 de 10, de 40 de 50 de

CF 5.23 GHz Marker

M

T1 T2

Type | Ref | Trc |

1001 pts

1

Function

Occ Bw

Measuring ...

Y-value 6.29 dBm 1.33 dBm -0.02 dBm

X-value 5.227063 GHz 5.212018 GHz 5.2479221 GHz Span 60.0 MHz

35.904095904 MHz

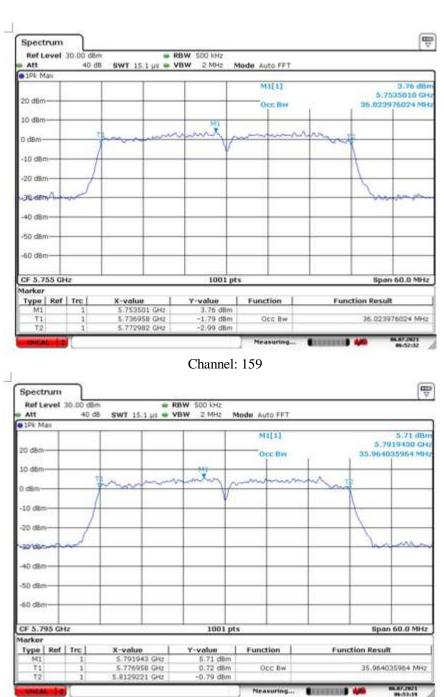
09.07.2921

Function Result





### Report No: AAEMT/EMC/211004-01-02

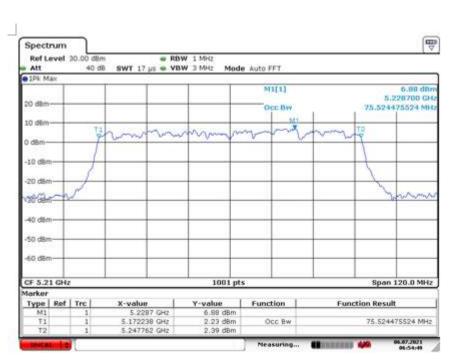


### 99% OBW 802.11ac40 Channel: 151





### Report No: AAEMT/EMC/211004-01-02



### **99% OBW 802.11ac80** Channel: 42

### **99% OBW 802.11ac80** Channel: 155

Ref L	lave	30.00 dB/ 40 d	Sec. Sec.	W I MHZ	de Auto FFT				
1Pk M	81			a shear man	de Motorre				
					2412113		5.21 dBm 5.760610 GHz		
20 dBm	-			+ +	Occ Ber		75.644355644 M		
10 dBm									
10 dem		. *			and the store	ett 185/8=5	12		
0 dBm-	-	7	hann	many	- mon	man	19		
		1			-				
-10 dBr		- 1		+ +		_			
-20 d8n		1							
		al d					have		
-30 dBr	mer					_			
	·								
-40 dBn									
-50 d8m	_		-	-					
				1 1					
-60 dBr				+ +					
CF 5.7	75 GH	iz :		1001 p	its		Span 120.0 MH		
Marker			and a second sec	S1000 111					
Type M1	Ref	Trc	X-value 5.76061 GHz	Y-value 5.21 dBm	Function	Fu	nction Result		
 T1		1	5.737238 GHz	0.59 dBm			75.644355644 MH		
T2		1	5.812882 GHz	1.03 dBm	Store Store		and the second sec		





Report No: AAEMT/EMC/211004-01-02

### Test Requirement: FCC Part15 E Section 15.407 Test Method: KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Limit: For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 250mW. For the band 5.745-5.850 GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 30dBm Test setup: **Power Meter** E.U.T Non-Conducted Table Ground Reference Plane Test procedure: Measurement using an RF average power meter Measurements may be performed using a wideband RF power meter with (i) a thermocouple detector or equivalent if all of the conditions listed below are satisfied a) The EUT is configured to transmit continuously or to transmit with a constant duty cycle. b) At all times when the EUT is transmitting, it must be transmitting at its maximum power control level. c) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five. (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section B). (iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter. (iv) Adjust the measurement in dBm by adding $10 \log(1/x)$ where x is the duty cycle (e.g., $10\log(1/0.25)$ if the duty cycle is 25 percent). Test Instruments: Refer to section 5.10 for details Test mode: Refer to section 5.3 for details





### Report No: AAEMT/EMC/211004-01-02

### 6.1. TEST RESULT

CH.		(	Output Powe	er (dBm)		
No.	Frequency (MHz)	802.11a	802.11n (HT20)	802.11ac (VHT20)	Limit(dBm)	Result
36	5180.00	07.92	09.03	07.97	28	Pass
44	5220.00	08.01	08.20	07.76	28	Pass
48	5240.00	08.31	08.09	08.43	28	Pass
149	5745.00	07.89	07.69	08.56	11	Pass
157	5785.00	08.21	07.87	08.76	11	Pass
165	5825.00	07.34	07.89	08.32	11	Pass

CH.		Out	put Power (dBm)			
No.	Frequency (MHz)	802.11n (HT40)	802.11ac (VHT40)	Limit(dBm)	Result	
38	5190.00	08.21	08.05	28	Pass	
46	5230.00	08.41	07.34	28	Pass	
151	5755.00	08.02	07.39	11	Pass	
159	5795.00	07.43	07.61	11	Pass	

CH.	Frequency (MHz)	Output Power (dBm)	Limit(dBm)	Result
No.	r requercy (writz)	802.11ac(VHT80)	Lillit(dDill)	Result
42	5210.00	07.76	28	Pass
155	5775.00	08.24	11	Pass





### Report No: AAEMT/EMC/211004-01-02

## 7. Band Edges Measurement

Test Requirement:	FCC Part15 E Section 15.407 and 5.205	
Test Method:	ANSI C63.10:2013	
Limit:	<ul> <li>Undesirable emission limits:</li> <li>(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.</li> <li>(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.</li> <li>(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.</li> </ul>	
Test Procedure:	<ul> <li>a. The Transmitter output of EUT was connected to the spectrum analyzer. Equipment mode: Spectrum analyzer Detector function: Peak mode SPAN: 100MHz RBW: 1 MHz VBW: 1 MHz Sweep time= Auto.</li> <li>b. Using Peak Search to read the peak power of Carrier frequencies after Maximum Hold function is completed.</li> <li>c. Find the next peak frequency outside the operation frequency band.</li> </ul>	
Test setup:	EUT SPECTRUM ANALYZER	
Test results:	Pass	

Remark: N/A





### Report No: AAEMT/EMC/211004-01-02

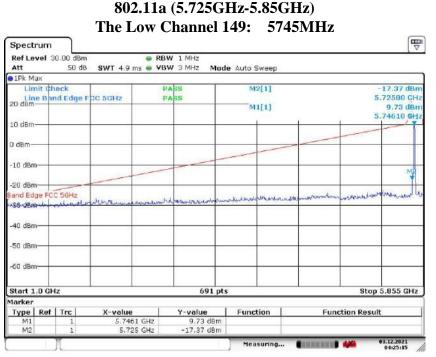
## 7.1. TEST RESULT





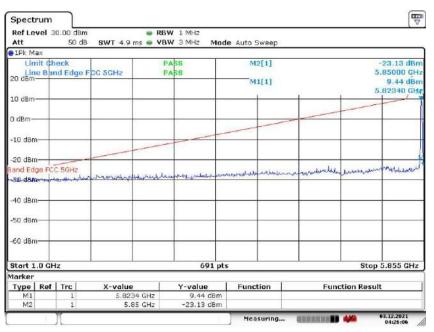


#### Report No: AAEMT/EMC/211004-01-02



Date: 3.DEC.2021 04:25:14

### 802.11a (5.725GHz-5.85GHz ) The High Channel 165: 5825MHz

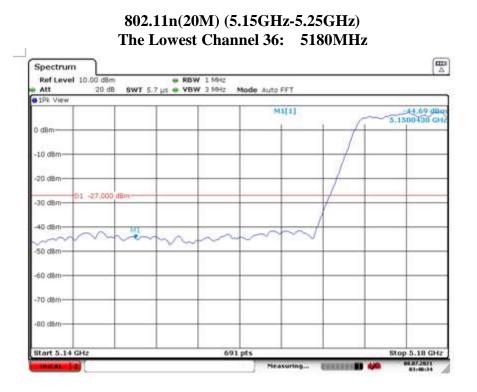


Date: 3.DEC.2021 04:26:05

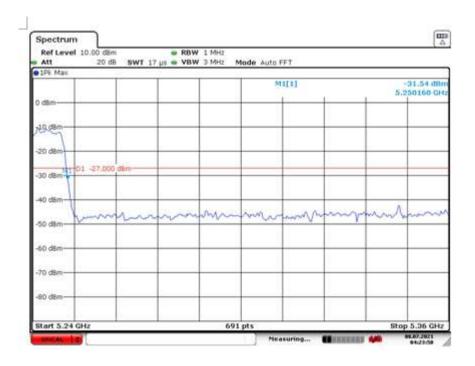




### Report No: AAEMT/EMC/211004-01-02



802.11n(20M) (5.15GHz-5.25GHz) The High Channel 48: 5240MHz

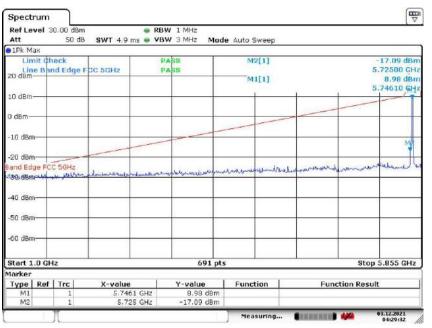






Report No: AAEMT/EMC/211004-01-02

### 802.11n(20M) (5.725GHz-5.85GHz) The Low Channel 149: 5745MHz



Date: 3.DEC.2021 04:29:31

### 802.11n(20M) (5.725GHz-5.85GHz ) The High Channel 165: 5825MHz

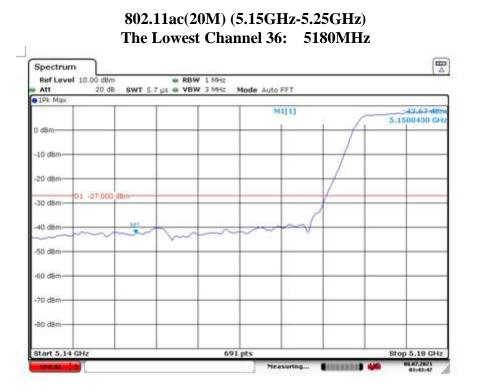
Ref Level	30.00 dBr	n	· RP	W 1 MHz			
Att	50 d				e Auto Sweep		
1Pk Max							
Limit G	heck	a marine a		PASS	M1[1]		4.74 0
20 dBm	ind Edge	FCC 5GHz	1	PASS			5.82340
Lo dom					M2[1]		-24.88 0
10 dBm					-		a.6auuu
0 dBm							
					Second Se		
-10 dBm		-					
-10 dBm						1	
-20 dBm							
-20 d8m	C 5GHz				a market when whith the	and another on	in a second water a counter
-20 d8m	CC 5GHz	applestor and		angenta managen and		monumberse	where and and the mounder
-20 dBm	C 5GHz	application	مواندل معام	enerthingsmash	وهالاستين المراجع والمراجع	man	in the second second seconds
-20 dBm	CC 5GHz	al Manhamana ang sa	-chen - Jalipa L-	anguella angungan sala	and the state of t	an and the second	and an in her way and a
-20 dBm	C SGHz	allower	aka Jalon te	and welling and	an a	monterse	
-10 dBm -20 dBm -and Edge FC -an dBm -40 dBm -50 dBm	CC 5GHz	allananan	-sha-Jali <sup>an</sup> k-	ane with many market	and the second	and a man the sea	wanter and the second
-20 dBm	CC SGHz	Annon	ng ken - J kill <sup>ang</sup> ke	angeel the second s	an a	and an and a second	in the second
-20 dBm land Edge FC -30 dBm	CC SGHz	. All laters the	-cha-Jali <sup>on</sup> te	angual Branch Provinsion	and the second	and a second and a second	industriante for the second line and the secon
-20 dBm and Edge FC -30 dBm -40 dBm -50 dBm -60 dBm		مەرىيە ئەلىلەلىلە مەرىيە ئەلىلەلىلە	ales - Jailes Le			nier with the	
-20 dBm and Edge FC -30 dBm -40 dBm -50 dBm -60 dBm -60 dBm		al Manton toque	alka Jili <sup>ja</sup> k	691 pts		and the second sec	Stop 5.855 G
20 dBm and Edge FC 30 dBm 40 dBm 50 dBm 60 dBm 51 dBm 51 dBm 51 dBm	Hz			691 pts			Stop 5.855 G
20 dBm and Edge FC -30 dBm -40 dBm -50 dBm -60 dBm	Hz	X-value					

Date: 3.DEC.2021 04:27:09

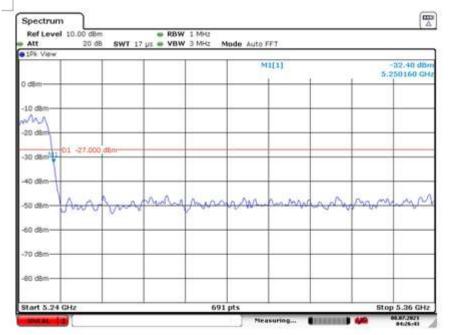




### Report No: AAEMT/EMC/211004-01-02



802.11ac(20M) (5.15GHz-5.25GHz) The High Channel 48: 5240MHz

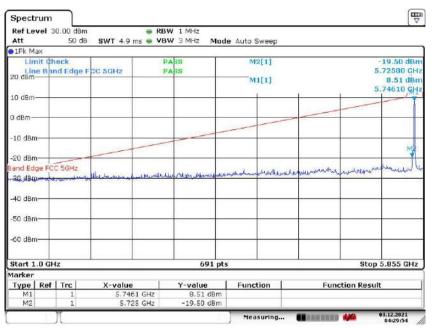






Report No: AAEMT/EMC/211004-01-02

# 802.11ac(20M) (5.725GHz-5.85GHz) The Low Channel 149: 5745MHz



Date: 3.DEC.2021 04:29:54

802.11ac(20M) (5.725GHz-5.85GHz ) The High Channel 165: 5825MHz

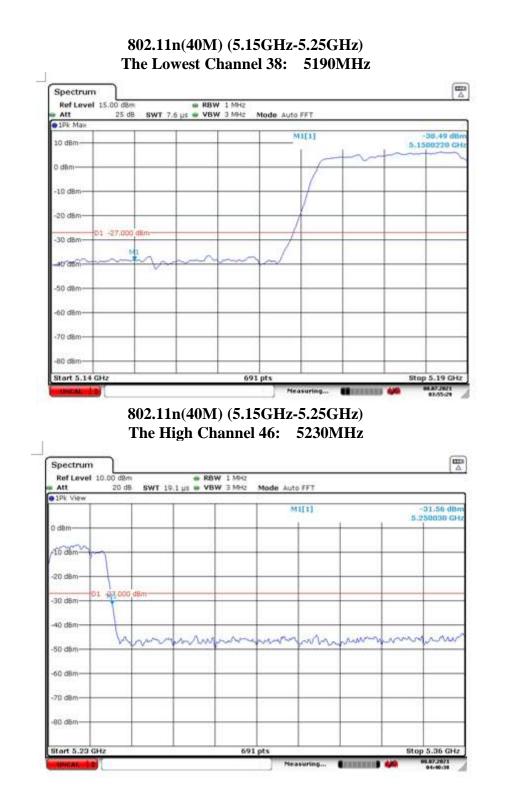
Ref Level	30.00 dBn	î.	🖷 RB	W 1 MHz			
Att	50 d8	SWT 4.9	ms 🖷 VB	SW 3 MHz Mod	de Auto Sweep		
1Pk Max							
Limit G		and the second second		PASS	M2[1]		-24.53 dBn
20 dBm	ind Edge	FCC 5GHz	1	PASS			5.85000 GH
co dominina.					M1[1]		8.28 dBn 5.82340 GH
10 dBm-							3.82340 GH
0 dBm		-		-			
10.40				and the second se			
-10 0BM		-					
-10 0BW							
-10 dBm							
-20 dBm	C 5GHz					المعادية معادم	and and the second an
-20 dBm	C 5GHz	maranna	a dia sa sa ta ka	Nintermisingalisestra	- John Mr. Januar	munununun	monteresting
-20 dBm	C SGHz	Antonia		ninhomusingeheider	and the state of the second	white	monoraliseral and
-20 dBm	CC 5GHz	muteur		Ninthon way districted	and and the second and a second a	whenter	in normal in collections
-20 dBm land Edge F( -30 d3m	CC 5GHz	mulan	and the set white the	Ridon way downly	and and the second	unus and and	an a
-20 dBm land Edge F( -30 d3m	CC 5GHz	mener	and an art of the	Nation and a state of a	and the second second	unal de la contration	annowed we have a second
-20 dBm land Edge Fo -30 dBm -40 dBm -50 dBm	CC 5GHz	And Marcon and	and the second s	ninthismulting absolution	anggalagitiftati atarasita	unale de la constante	in norden with the mole source
-20 dBm	CC 5GHz	Anatoria	alege other	ninthermaliser also before	and a state of the	un and a star	in nordine is the stand
-20 dBm Jand Edge Fo -30 dBm -40 dBm -50 dBm	CC 5GHz		. days out the	Ala Manufa and a data	- JA- VARA INA - VA- VA-	ana kana kana kana kana kana kana kana	an and the second stands of the second stand stands of the second stand stands of the second stands of the second stands of the second
-20 dBm 			o da se series	691 pt		unu de la minute	Stop 5.855 GHz
-20 dBm		American	مين ويدور مور مور مور مور مور مور مور مور مور مور مور مور مور مور مور مور مور			unuter relation	
-20 dBm -20 dBm -20 dBm -40 dBm -50 dBm -60 dBm -60 dBm -60 dBm -60 dBm -70 dB		X-value		691 pt			
-20 dBm- land Edge Fr -30 dBm- -50 dBm- -60 dBm- Start 1.0 G Marker	Hz	X-value 5.82		691 pt	s		Stop 5.855 GHz

Date: 3.DEC.2021 04:30:30





#### Report No: AAEMT/EMC/211004-01-02

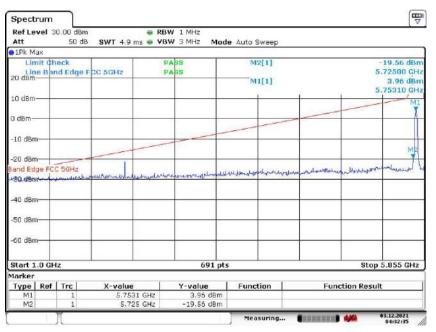






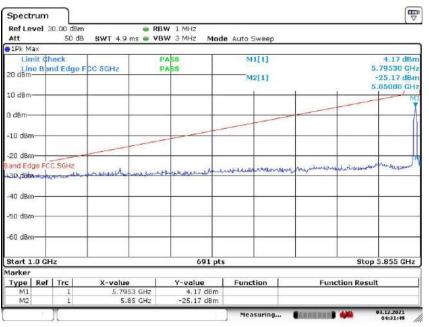
Report No: AAEMT/EMC/211004-01-02

# 802.11n(40M) (5.725GHz-5.85GHz ) The Lowest Channel 151: 5755MHz



Date: 3.DEC.2021 04:32:34

## 802.11n(40M) (5.725GHz-5.85GHz ) The High Channel 159: 5795MHz

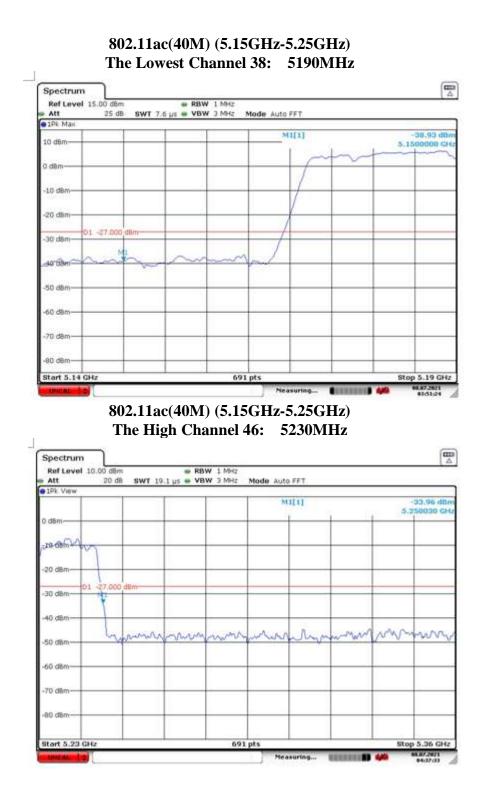


Date: 3.DEC.2021 04:31:49





#### Report No: AAEMT/EMC/211004-01-02

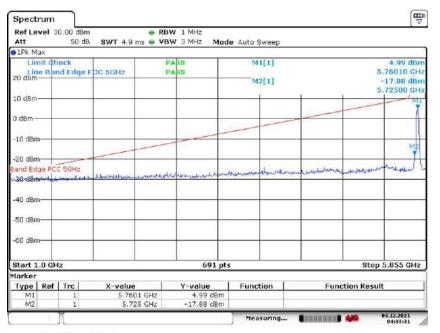






#### Report No: AAEMT/EMC/211004-01-02

# 802.11ac(40M) (5.725GHz-5.85GHz ) The Lowest Channel 151: 5755MHz



Date: 3.DEC.2021 04:33:31

### 802.11ac(40M) (5.725GHz-5.85GHz ) The High Channel 159: 5795MHz

Ref Level 3	0.00 dBm	y	🖷 RE	W 1 MHz				
Att	50 dB	SWT 4.9	ms 🖷 VB	SW 3 MHz Mo	de Auto Sweep			
1Pk Max		a						
Limit Gh		and a start of the		PASS	M1[1]		3,72	
20 dBm	nd Edge F	CC 5GHz	. 1	PASS			5.79530	
20.001					M2[1]		-23.82	
10 dBm						1	5.85000	U GH
								M
0 dBm				-				
								1
-10 dBm								
-20 d8m		-						
-20 dBm	C 5GHz					an an a sala	Landa de abellin Makana	we
	C 5GHz	an we white the	an well	www.unu	warman and	walkersplanterste	- anony and marine	ww
	C 5GHz	o award donly to	har-sold M	moundation	nonether getterder	washing a shike wanta	-arised fishers	we
and Edge FCi	C 5GHz	or survey when the	partie d'	internation we	ane and the second s	and the application of the	-according and the making	www
and Edge FCi	C SGHz	on work designs	pa-s-ve-lt	interior distriction	aneres United and an	and the state at the state of the	- warden and the second	un
	C 56Hz <u>An</u> -MAMA	concerned distant	Barrol MM	moundation	anener United and an	and a spin at a star	- ye wanted and have a	und
and Edge FCi 30,d8m <del>, 4m</del> -40 dBm	C SGHZ	on work dough	and the second second	inenin elisione	www.dameddaddar	en allan and an and	-ansantalaskall-trading	und
and Edge FC Solidamy 40 40 dBm -50 dBm	C 5GHz	an ward ball	Barrow MM	have die a	and the second	and a state of the		un
and Edge FCi 30,d8m <del>, 4m</del> -40 dBm	C 5GHz	on work where the	And Hold MM	traceren discord		and a state of the state of the	-griendeljeshtt-Prishma	und
and Edge FC adjd8my 400 40 dBm 50 dBm 60 dBm		on work where the	Barrel M					
And Edge FC Addudameters 40 dBm 50 dBm 60 dBm 60 dBm 51 dBm			harrish 4M	691 p		and a state of the	Stop 5.855	
and Edge FC BalldBmy ton 40 dBm 50 dBm 60 dBm 60 dBm 51 dBm 61 dBm 61 dBm 61 dBm	Iz			691 p	ts		Stop 5.855	
and Edge FC adjdamy of 40 dBm -50 dBm -60 dBm	Iz	X-value			ts Function			

Date: 3.DEC.2021 04:34:06





Report No: AAEMT/EMC/211004-01-02

### 802.11ac(80M) (5.15GHz-5.25GHz) The Lowest Channel 42: 5210MHz Spectrum Ref Level 15.00 d · RBW 1 MHz SWT 55 µs Att 25 dB · VBW 3 MHz Mode Auto FFT 104 511[1] -30.50 dBr 5.250010 GH 10 di 10 / MOMONT / Jun MM MACH 50 d 60 70 di 60 d tart 5.16 GH 691 pts Stop 5.56 GHz 07.2625 -Spectrum

10 d8m				м	1111	8		-42.25 dBn 150450 GH
0 dBm	-						-	
-10 dBm							www	man
20 dBm-	-					-		
-30 dBm	0 dam	-				-		
and and the feel	mart	Wympo	Crossegn	hyberry	al ward	when		
50 d8m-							-	-
60 dBm							-	
70 d6m	-						-	
Contraction of the second s								





Report No: AAEMT/EMC/211004-01-02

# 802.11ac(80M) (5.725GHz-5.85GHz ) The High Channel 155: 5775MHz

Ref Level 30.0 Att		👄 RB 4.9 ms 🖷 VB	WIMHz WI3MHz Mode	e Auto Sweep		
1Pk Max		a de antes				
Limit Check Line Band E 20 dBm	dge FCC 5GI	łz F	ASS ASS	M1[1] M2[1]		1.83 dBn 5.78120 GH -23.24 dBn
10 d8m			-			5.85000 GH
0 dBm						M
-10 dBm						
-20 dBm and Edge FCC 50	Hz	herry styles we have de	udurburber	hashertyment	normania	mundersund
40 dBm-						
-50 d8m			-			
-60 dBm		_				
Start 1.0 GHz			691 pts			Stop 5.855 GHz
larker						
	c X-1	value	Y-value	Function	Functio	on Result
Type   Ref   Tr		5.7812 GHz	1.83 dBm			

Date: 3.DEC.2021 04:35:15



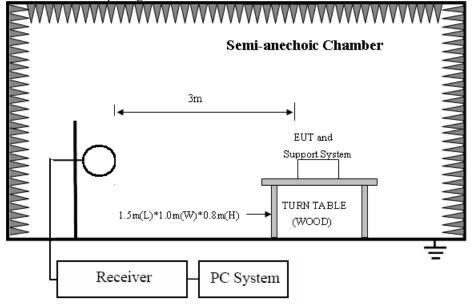


Report No: AAEMT/EMC/211004-01-02

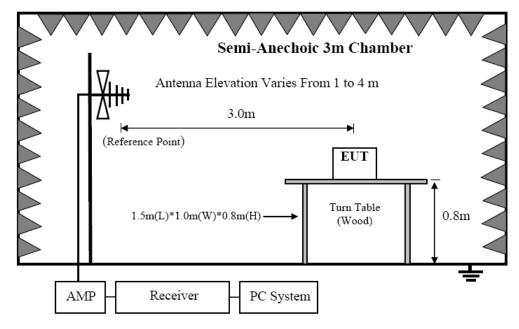
# 8. RADIATED EMISSION MEASUREMENT

# 8.1. Block diagram of test setup

In 3m Anechoic Chamber Test Setup Diagram for 9KHz-30MHz



In 3m Anechoic Chamber Test Setup Diagram for 30MHz-1GHz

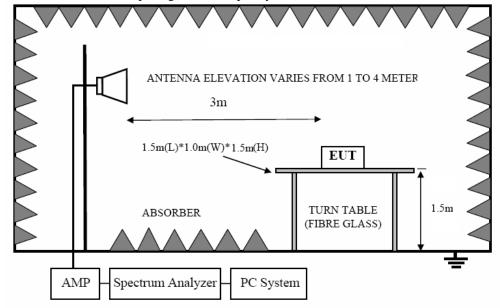






#### Report No: AAEMT/EMC/211004-01-02

In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.





#### Report No: AAEMT/EMC/211004-01-02

# 8.2. Limit

9.3.1 FCC 15.205 Restricted frequency band

	-		
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)

9.3.2. FCC 15.209 Limit.

FREQUENCY	DISTANCE	FIELD STRENG	THS LIMIT
MHz	Meters	μV/m	dB(µV)/m
0.009 ~ 0.490	300	2400/F(KHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(KHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/ 54.0 dB(μV)/m	

- Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz and above 1000MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.
  - (2) At frequencies below 30MHz, measurement may be performed at a distance closer then that specified, and the limit at closer measurement distance can be extrapolated by below formula: Limit<sub>3m</sub>(dBuV/m)= Limit<sub>30m</sub>(dBuV/m) + 40Log(30m/3m)





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9.3.3. Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 30dB below the fundamental emissions, or comply with 15.209 limits.

### 8.3. Test Procedure

(1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber.

(2) Setup EUT and assistant system according clause 2.4 and 7.2

(3) Test antenna was located 3m(except 18GHz-40GHz was 1m) from the EUT on an adjustable mast, and the antenna used as below

tal	ble

Test frequency range	Test antenna used
9KHz-30MHz	Active Loop antenna
30MHz-1GHz	Bilog Broadband Antenna
1GHz-18GHz	Double Ridged Horn Antenna(1GHz-18GHz)
18GHz-40GHz	Horn Antenna(18GHz-40GHz)

According ANSI C63.10:2013 clause 6.4.4.2 and 6,5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical axis for maximum response at each azimuth position around the EUT. And the loop antenna also be positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. for measurement above 30MHz, the Trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

- (4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9KHz to 25GHz:
- (a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1m to 4m(Except loop antenna, it's fixed 1m above ground.)
- (b) Change work frequency or channel of device if practicable.
- (c) Change modulation type of device if practicable.





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- (d) new battery is used during testing
- (e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18GHz to 25GHz, so below final test was performed with frequency range from 9KHz to 18GHz.

- (5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2013 on Radiated Emission test.
- (6) The emissions from 9KHz to 1GHz were measured based on CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz, for emissions from 9KHz-90KHz,110KHz-490KHz and above 1GHz were measured based on average detector, for emissions above 1GHz, peak emissions also be measured and need comply with Peak limit.
- (7) The emissions from 9KHz to 1GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9KHz-150KHz	200Hz
150KHz-30MHz	9KHz
30MHz-1GHz	120KHz

(8) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RBW is set at 1MHz, VBW is set at 10Hz for Average measure(according ANSI C63.10:2013 clause 4.2.3.2.3 procedure for average measure). Peak detector is used for Peak and AV measurement both.

According to KDB 789033 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:

E[dBuV/m] = EIRP[dBm] + 95.2;

For example, if EIRP = -27 dBm

E[dBuV/m] = -27 + 95.2 = 68.2 dBuV/m.





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### 8.4. Test result(Below 30MHz)

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion413
Temperature:	26°C□	<b>Relative Humidity:</b>	57%
Distance:	3m	Test Power:	AC 120V/60Hz
Polarization:		Test Result:	Pass
Test Mode:	Keeping TX mode	Test By:	Ankur

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				Р
				Р

Note:

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

Distance extrapolation factor =20 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

Note: N/A



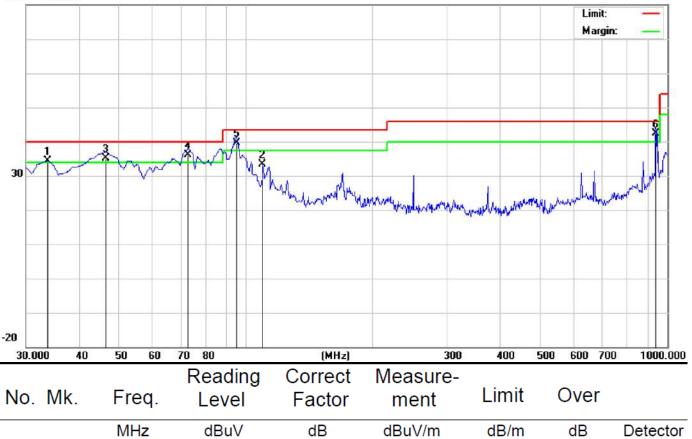


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## TEST RESULTS (Between 30M - 1000 MHz)

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion413
Temperature:	25	<b>Relative Humidity:</b>	56%
Distance:	3m	Test Power:	AC 120V/60Hz
Polarization:	Vertical	Test Result:	Pass
Standard:	(RE)FCC PART 15	Test By:	Ankur
Test Mode:	Keeping TX mode		

#### 80.0 dBu¥/m



1 !	33.8800	43.04	-8.59	34.45	40.00	-5.55	QP
2	109.5400	36.38	-2.93	33.45	43.50	-10.05	QP
3!	46.4900	44.93	-9.87	35.06	40.00	-4.94	QP
4 !	72.6800	42.80	-6.77	36.03	40.00	-3.97	QP
5!	94.9899	42.73	-3.01	39.72	43.50	-3.78	QP
6 *	938.8899	32.66	9.69	42.35	46.00	-3.65	QP

Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India

Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com





### Report No: AAEMT/EMC/211004-01-02

The test result is calculated as the following:

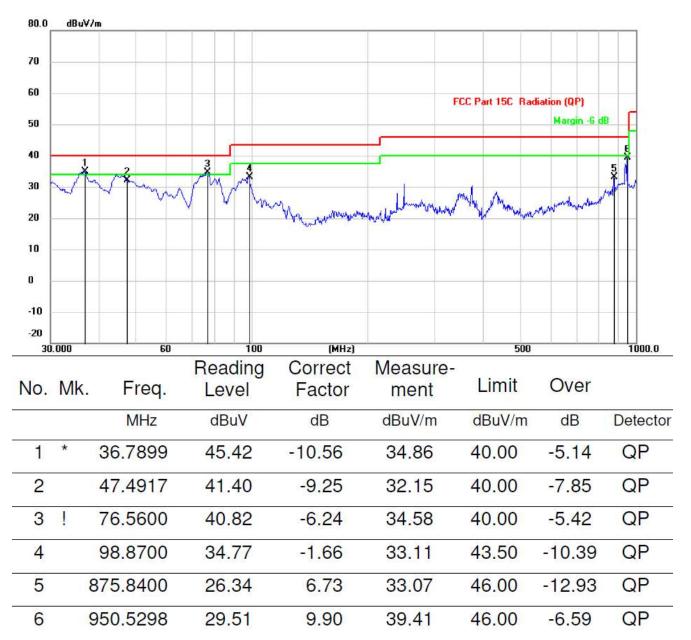
- (1) Result = Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss Amplifier Gain + Attenuator
- (3) Margin = Result Limit





### Report No: AAEMT/EMC/211004-01-02

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion413
Temperature:	25	<b>Relative Humidity:</b>	56%
Distance:	3m	Test Power:	AC 120V/60Hz
Polarization:	Horizontal	Test Result:	Pass
Standard:	(RE)FCC PART 15	Test By:	Ankur
Test Mode:	Keeping TX mode		



The test result is calculated as the following:

- (4) Result = Reading + Correct Factor
- (5) Correct Factor = Antenna Factor + Cable Loss Amplifier Gain + Attenuator
- (6) Margin = Result Limit



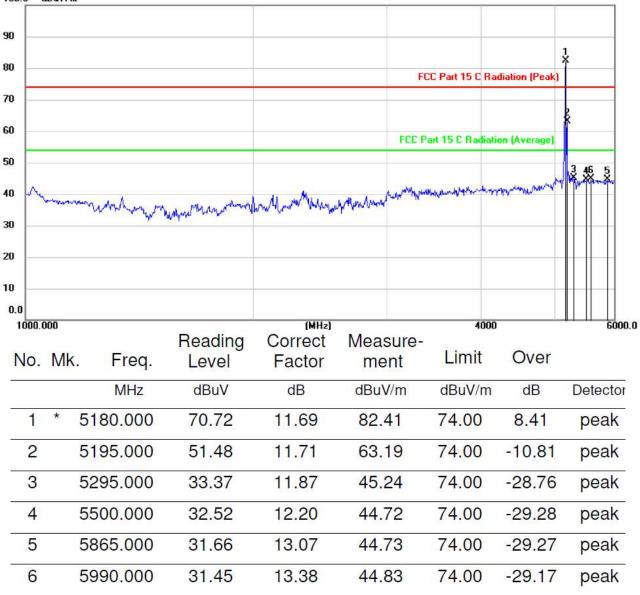


### Report No: AAEMT/EMC/211004-01-02

### TEST RESULTS (Between 1000M - 6000 MHz)

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion413
Temperature:	24	<b>Relative Humidity:</b>	55%
Distance:	3m	Test Power:	AC 120V/60Hz
Polarization:	Vertical	Test Result:	Pass
Standard:	(RE)FCC PART 15	Test By:	Ankur
Test Mode:	Keeping TX mode		





### Note: Marker 1 is intentionally radiated frequency from the EUT.

The test result is calculated as the following:

- (1) Result = Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss Amplifier Gain + Attenuator
- (3) Margin = Result Limit

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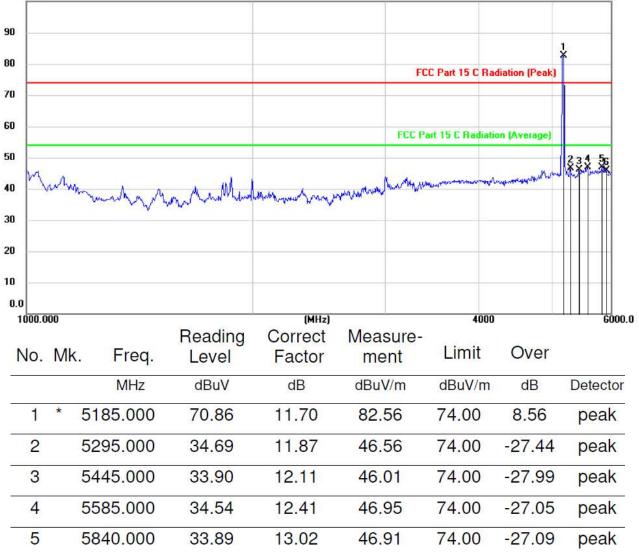




### Report No: AAEMT/EMC/211004-01-02

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion4l3
Temperature:	24	<b>Relative Humidity:</b>	55%
Distance:	3m	Test Power:	AC 120V/60HZ
Polarization:	Horizontal	Test Result:	Pass
Standard:	(RE)FCC PART 15	Test By:	Ankur
Test Mode:	Keeping TX mode		

100.0 dBuV/m



### Note: Marker 1 is intentionally radiated frequency from the EUT.

32.78

The test result is calculated as the following:

5910.000

- (4) Result = Reading + Correct Factor
- (5) Correct Factor = Antenna Factor + Cable Loss Amplifier Gain + Attenuator

13.18

(6) Margin = Result - Limit

6

45.96

74.00

-28.04

peak



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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.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level very low which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

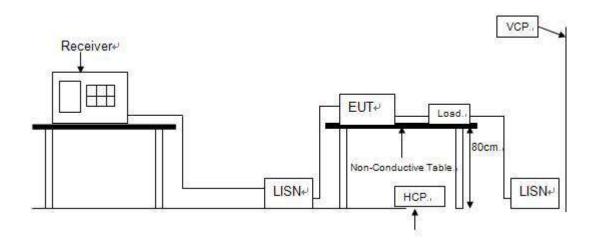




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# 9. POWER LINE CONDUCTED EMISSION

# 9.1. Block diagram of test setup



# 9.2. Power Line Conducted Emission Limits

Frequency	Quasi-Peak Level dB(µV)	Average Level dB(µV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: \* Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.





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### 9.3. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

### 9.4. Test Result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

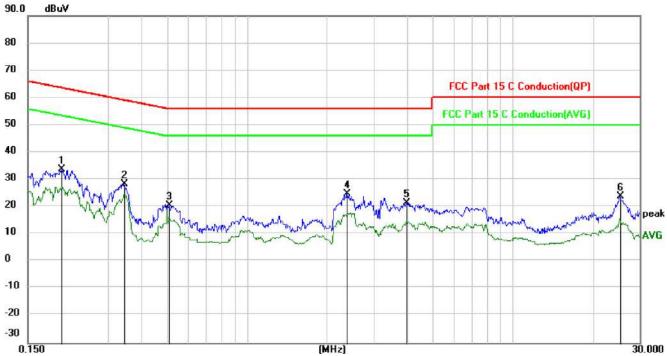
Note2: "-----" means peak detection; "-----" mans average detection





### Report No: AAEMT/EMC/211004-01-02

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion4l3
Temperature:	24°C	<b>Relative Humidity:</b>	54%
Probe:	Line	Test Power:	AC 120V/60Hz
Test Mode:	TX	Test Result:	Pass
Standard:	(CE)FCC PART 15 C_QP		



0.14	10			[miiz]				30.000
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.2006	33.54	0.31	33.85	63.58	-29.73	peak
2		0.3447	28.11	0.23	28.34	59.09	-30.75	peak
3		0.5089	20.50	0.13	20.63	56.00	-35.37	peak
4		2.3718	24.62	0.19	24.81	56.00	-31.19	peak
5		3.9649	21.06	0.25	21.31	56.00	-34.69	peak
6		25.1996	23.71	0.11	23.82	60.00	-36.18	peak

The test result is calculated as the following:

- (1) Result = Reading + Correct Factor
- (2) Correct Factor = (LISN, ISN, PLC or Current Probe) Factor + Cable Loss + Attenuator
- (3) Margin = Result Limit

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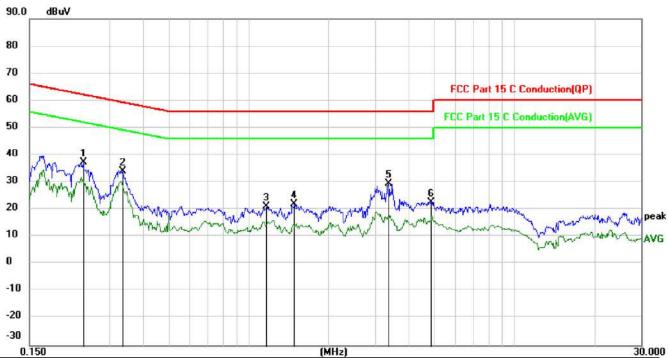
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com





### Report No: AAEMT/EMC/211004-01-02

EUT:	IO 5 GHz 700 Mbps UBR with Integrated 25 dBi Antenna	Model Name. :	ion4l3
Temperature:	25°C	<b>Relative Humidity:</b>	54%
Probe:	Neutral	Test Power:	AC 120V/60Hz
Test Mode:	ТХ	Test Result:	Pass
Standard:	(CE)FCC PART 15 C_QP		



50.000				(19112)			.100	0.1
	Over	Limit	Measure- ment	Correct Factor	Reading Level	Freq.	. Mk.	No.
Detector	dB	dBuV	dBuV	dB	dBuV	MHz		
peak	-24.65	62.15	37.50	0.29	37.21	0.2384	*	1
peak	-25.21	59.31	34.10	0.23	33.87	0.3356		2
peak	-34.95	56.00	21.05	0.17	20.88	1.1653		3
peak	-34.02	56.00	21.98	0.17	21.81	1.4854		4
peak	-26.55	56.00	29.45	0.22	29.23	3.3485		5
peak	-33.22	56.00	22.78	0.28	22.50	4.8738		6

The test result is calculated as the following:

(1) Result = Reading + Correct Factor

(2) Correct Factor = (LISN, ISN, PLC or Current Probe) Factor + Cable Loss +Attenuator

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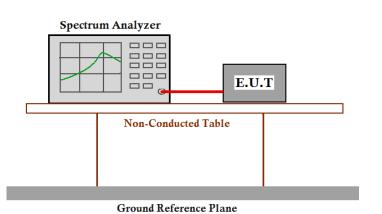
Certificate#5593.01

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### (3) Margin = Result - Limit

# **10. CONDUCTED SPURIOUS EMISSIONS**

Test Requirement:	FCC Part 15 C section 15.407
	(d) 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.
Test Method:	ANSI C63.10: Clause 6.7
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below. Pre-test the EUT under 2 modes: power-supplied by using the AC adapter and power-supplied by using internal battery. After pre-testing, we found the worst case is the test mode of EUT power-supplied by using internal battery.
Test Configuration:	



Test Procedure:

- 1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer or power meter.
- 2. Set the spectrum analyzer: RBW=100 KHz, VBW = 300KHz. Sweep = auto; Detector Function = Peak. Trace = Max Hold, Scan up through 10th harmonic.
- 3. Measure the Conducted Spurious Emissions of the test frequency with special test status.
- 4. Repeat until all the test status is investigated.
- 5. Report the worse case.





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### **Result plot as follows:**

### <u>a20 5.180 GHz</u>

-34.33 dB 705.90 M
_
_
_
AND STREET
unanument.
Stop 1.0 GH
07.07.2071 07:51:59
[9
-31.42 d8
-31.42 d8 20.1342 G 9.95 d8
20.1342 G
20.1342 G/ 9.95 dB 5.1000 G/
20.1342 G

70 dBn

Type

1.0

Start 1.0 GHz Marker

Ref | Trc

X-value 5.188 GHz 20.1342 GHz 691 pts

Function

Y-value 9.95 dBm -31.42 dBm Stop 26.5 GHz

7.07.2925 93:59-46

Function Result





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### a20 5.240 GHz

Att 35		BW 1 MHz BW 3 MHz Mode /	Auto Sweep		
<ul> <li>1Pk Max</li> </ul>			1.000 m		
20 dBm			MILLI	2	-04.28 dB 894.00 MP
10 dBm					
0 dBm	-	_	_		-
-10 d8m	-				-
-20 dam					
-30 dBm 01 -27.0	the second se				49
40 dbm	en manual marine	in the second	noonmall	encontraction	Inner
122 C 1		_			
-50 d8m-					
-60 d8m			_		
1999-0909-1					
-60 dBm		691 pts		8	top 1.0 GH

Att	25.00 dBm 35 dB		RBW 1 MHz	ode Auto Swee	50 50	(B)
1Pk View	30.06	5 SWI 102 ms @	VBW 3 MPI2 M	ode Auto Swee	p	
20 dBm	MB			M2[1] M1[1]	- 1	-00.33 dBr 20.0664 GH 9.05 dBr 5.2250 GH
0 dBm	_					
-10 d8m	-		-			
-20 d6m					142	
-30 dBm	1 -27,000	heren	warm	norman		roughlogunal
-50 dBm			-			
-60 dBm						
-70 dBm-						
Start 1.0 Gł	łz		691 pt	s	100	Stop 26.5 GHz
1		X-value	Y-value	Function	Euno	tion Result
Marker Type Ref	Trc	5.225 GHz	9.05 dBm	and the second		





### Report No: AAEMT/EMC/211004-01-02

### <u>a20 5.745 GHz</u>

PiPk Max	35 dB	2441.1	ms • VBW	a mina pa	ode Auto S	wijith			_
20 dBm			-		M	1[1]			4.60 dB 1.20 MF
10 dBm			-						
0 dBm			-		<u> </u>				
-10 d8m—	-	-	-	-	-	-			
-20 d8m-			-						
-30 d8m-	01 -27.000		_					-9472	
to dam	and the second	num	maning	- anna	homence		yelandara	vinte	erous
-50 d8m			-						
-60 dām—									
-70 dBm—	-		-	-	-				
Start 30.	0 MHz		-	691	pts	-		Stop	1.0 GH

	25.00 dBn 35 dB		RBW 1 MH2 VBW 3 MH2 M	ode Auto Sweep				
<ul> <li>1Pk Max</li> </ul>			1 1	M2[1]		-29.83 d8r		
20 dBm						18,1046 GH		
12/02/01	541			241[1]		7.22 dBr		
10 dBm	Ť			1	- A	5.7420 0		
0 dBm								
-10 d8m					_			
-20 d8m			_	-				
	01 -27.000	dBm	_		912			
	Three and	110	Marchenter	reman	Anowarting	antermanen		
-40 dēm		- marine	- Constant			10		
-40 Gem								
-50 dam-								
-50 dBm								
-50 d8m					_			
2011/07/02/02								
2000/07/2001								
-60 d8m	Hz		691 pt	ts		Stop 26.5 GHz		
-60 dām	Hz		691 pi	ts		Stop 25.5 GHz		
-60 d8m		X-value 5.742 GHz	691 pt	Function	Fun	Stop 26.5 GHz		





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### a20 5.825 GHz

1Pk Mas	Contraction of the local division of the loc	VBW 3 MHz Mod	fe Auto Sweep		
20 dBm-			Ma[3]	.20 VI	-33.77 d8 802.80 Mi
10 dBm					
0 dBm				-	
-10 dBm					
-20 d8m					
-30 d8m-01 -27.0					-
40 dbm	manuman	102 march 100	Alexandericaldo	Understraught	and a second
-50 dBm				-	
-60 dBm					
-70 dBm					
		691 p			Stop 1.0 GH

Ref Level	25.00 dBm 35 dB	Contraction of the second s	RBW 1 MH2 VBW 3 MH2 MM	de Auto Sweep		
1Pk Man	22.00	area and and an	1011 3	de Mate Sheep		
20 dBm-				M2[1]		-28.60 dBr
2.20 22.21	2/12			MILLI		10.51 dbr
10 dBm	Ť				120 22	5.8160 GH
0 dBm						
U MDHI						
-10 d5m-	_					
-20 dBm					M2	
-30 dam	1 -27,000	dBm	manin	mound	marries 1	merina
		human	manne			
-40 dBm			_			
-50 dBm			-		1.1	
10-000						
-60 dBm						
-70 d5m						
Start 1.0 G	42		691 pt			Stop 26.5 GHz
Marker	10		-			
Type   Ref		X-value	Y-value	Function	Functio	n Result
M1	1	5,816 GHz	10.51 dBm			





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### n20 5.180 GHz

Att	4 25.00 dBm 35 dB		B RBW	1 MH2 3 MHz M	ode Auto S	weep			
• 1Pk Mast		-		9 E					
20 dBm			_		M	1[1]			04.17 dBr
10 dBm				-			-	-	
0 dBm								-	
-10 d8m	-			-	-	-	-	-	
-20 d8m									
-30 d8m-	01 -27.000					MI			
Ardam V	minun	at intervention	egelbaum	mound	realista	potende	monutes	enhouse	include
-50 d8m-									
-60 d8m									
-70 dBm		-				-			
Start 30.0	MHz			691	pts			Sto	p 1.0 GHz
Marker					1. July				

Spectrum Ref Level	in the second second		- 00	W 1 MHz					E Ţ		
Att	25.00 de/ 35 dE				ode: Auto	Sween					
1Pk View					0.00	- un enge					
20 dBm-					M	2[1]			-29.82 d8 15.7059 G		
10 dBm	MIS		_		MILI			÷	9.02 dBr 5.1880 CH		
0 d8m						-	_		_		
-10 dBm	_		_			-					
-20 d8m	-		_			-		-			
-30 dBm 0	1 -27,000	dBm			MZ						
L Walker Walk	in the party of	Lane wat	and the second	ad should	Anton	ment	mour	more the	Vurpenen		
-40 d8m-											
-50 dBm						-		-			
-60 dBm			_			-		-			
-70 dBm-			-			-		-	and commonly		
Start 1.0 GH	łz			691 pt	\$				Stop 26.5 GHz		
Marker		1.00000000									
Type Ref		X-value	-	Y-value	Fund	tion		Function	Result		
M1 M2	1	5.188 (		9.82 dBm -29.82 dBm							
	11		-		1	suring.			07.87.2921		





#### Report No: AAEMT/EMC/211004-01-02

### n20 5.240 GHz

19k Max	35 d8	5W1 11	ns 👄 VBW	the party of	ode Auto S	waab			
20 dBm					M	1[1]	n		-33.87 dB/ 915.10 MH
10 dBm								-	
0 d8m								-	
-10 dBm									
-20 dBm	-					-		-	
-30 dBm	01 -27.000					1 12			-
40 dam-	- mar mar	Andlenno	Hurtow	Auflin	with second	-sheep have	an a	Mauring	phane
-50 d8m-	-							-	-
-60 d8m	-								
-70 dBm									
Start 30.0	MHz		1	691	pts			810	op 1.0 GH:

Att     IPk View	35 dB	SWT 102 ms 🖷	TON STATE A	tode Auto	Swawp				
20 dBm	MI				2(1)		-30.66 dt 15.3237 d 8.79 dt		
10 dBm	T							5.2250 CH	
0 dBm-	_					-	-		
-10 d8m	-		_						
-20 d8m						-			
-30 dam	1 -27.000	dêm		MQ-					
mary	And a l	human	mulut	nam	mun	14 man	sound	المراجع والمراجع	
-40 d8m									
-50 d8m							-		
-60 dēm			-		<u> </u>		-		
-70 d8m-			_						
Start 1.0 G	łz		691 p	its			Stop	26.5 GHz	
larker	Incl	X-value	Y-value	1 6.000	1	E.	ction Result		
Type   Ref	1	5.225 GHz	8,79 dBm	and the second se			coon Result		





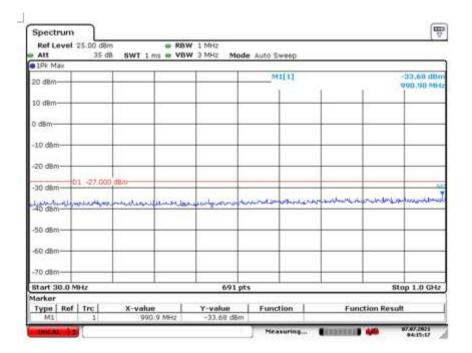
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Certificate#5593.01

### Report No: AAEMT/EMC/211004-01-02

### <u>n20 5.745 GHz</u>



Att	al 25.00 dBr 35 d		VBW 3 MHz Mc	de Auto Sweep		
<ul> <li>1Pk Max</li> </ul>						
20 dBm		1		M2[1]		-30.11 d8 20.0973 GH 7.37 d8 5.7420 GH
0 d8m						
-10 d8m			_			
-20 d8m					1.11	
-30 dām	01 -27:00	demi			5/17	
-30 GBM	And a state of the	Lunder	monum	nononan	www.	manulus
-40 d8m	-		and a state of the second second			0.00 (0.000
-40 d8m						1083 (1083 1-) 
200320000						
-50 d8m						
-50 d8m	GHz		691 pt			
-50 d8m			691 pt	5		Stop 26.5 GHz
-50 d8m		X-value 5.742 Gec				

103 | P a g e





#### Report No: AAEMT/EMC/211004-01-02

### n20 5.825 GHz

Att 35 c	18 SWT 1 ms 🖷 VB	in a main, prior	e Auto Sweep		
20 dBm			MILI	94 - 1920	-04.12 dB/ 980.90 Mil
10 dBm			-		
0 dBm					
-10 d8m-					
-20 dBm				-	
-30 dbm-01 -27.00	-				- 14
40 dem	and the second second second	man	www.estates.s.	autricular marchine	summer a
-50 dām				-	
-60 d8m		-			
-70 d8m					
Start 30.0 MHz		691 pt	\$		Stop 1.0 GHz

Ref Level	25.00 d8m 35 d8	SWT 102 ms	RBW 1 MH2 VBW 3 MH2 MM	de Auto 1	Sweep				
1Pk View								_	
20 dBm-				M2	(1)		-30.34 dBm 19,4331 GHz		
	041			212	123		19.4331 GH		
10 dBm-	Ť		-					5.8160 CH	
0 dêm									
-10 d8m	_							_	
-20 d8m						1000		_	
	1 427.000	dBmy				342		_	
-30 dām	the second		a should be all	hampon	nurth	harberry	monister	in	
40 d8m		Carrow		Service of the		Contraction of the second	15	-	
- to don									
-50 d8m									
		1				1			
-60 d8m								_	
-70 dām									
1122 Bush			- 17			1	di san kara		
Start 1.0 GH	łz		691 pt	5			Stop 26.5 (	IHZ	
Type Ref	Inel	X-value	Y-value	Function		Farmer	tion Result		
M1	1	5.816 GHz	9.38 dBm	ranco	un l	Fun	And PAUSAN	_	
M2	1	19.4331 GHz	-30.34 dBm						





### Report No: AAEMT/EMC/211004-01-02

### ac20 5.180 GHz

Att 1Pk Max	35 dE	S SWT 1	ms . VBW	3 MHZ M	ode Auto S	weep			
20 dBm					M	1[1]	8 6		04.90 dBr
10 dBm			-	-					
0 dBm									
-10 d8m	-		-	-				_	
20 d8m-			-	-					
-30 dBm	01 -27.000	dêm							
-		www.	-	Laugury	encedant	musuu	- which in a	and a start	heranarah
-50 dBm			-						
-60 dBm	-		-	-				_	
-70 d8m		-							
Start 30.0	SHM			691	pts			Sto	p 1.0 GHz

Ref Level 25.00 di Att 35		RBW 1 MHz VBW 3 MHz Mo	de Auto Sweep			
1Pk Max	1.2		Contraction of the			
20 dBm 10 dBm			M2[1] M1[1]		-30.13 dBr 19.0677 GH 10.70 dBr 5.1080 GH	
0 dBm	-	-		-		
-10 dBm				+		
-20 dbm		-		-		
-30 dbm 01 -27.00	00 dBm		M	-		
-30 dBm 01 -27.00	himping	and the second second	unnun	in the second	minume	
-30 dbm	20 dBm	ugunangel geland	union	in the second	minune	
-30 dem	DO dem	warenander	unnun	intra	minine	
-30 dam	Linghtan		and the second	in the second		
-30 dèm	20 dBm		and mark	in the second	minument	
-30 dBm -40 dBm -50 dBm -60 dBm -70 dBm Stort 1.0 GHz	20 dBm	691 pts		and the second sec	Stop 26.5 GHz	
-30 dBm -40 dBm -50 dBm -70 dBm	X-value					





#### Report No: AAEMT/EMC/211004-01-02

### ac20 5.240 GHz

1Pk Mas	35 di	SWT 1	ms 🖷 VBW	3 MHZ MO	de Auto Swe	rep				
20 dBm-	-	-	-		M1[	11	21	-34.59 dBr 993.70 MH		
10 dBm-	-									
0 dBm		_	-		-					
10 dBm-	<u> </u>	<u> </u>								
20 dBm—										
-30 dbm	01 -27.000		-			_	_			
wo dannel	any and an	المستعلم	mannam	mortishild	ullendera	Land	MANA	mobeline		
50 dbm	-		-							
60 d8m-					_		_			
-70 dBm			-							
Start 30.0	MHZ		-	691 p	ts			Stop 1.0 GHz		

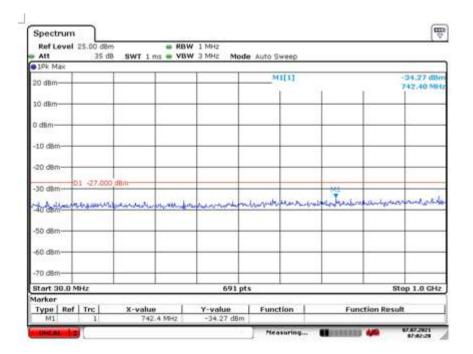
Ref Level Att	25.00 dam 35 dB			BW 1 MH2 BW 3 MH2 M	ode Auto	Sweep.				
1Pk Man										
20 dBm					M	2[1]			-30.18 dBr	
	MO					1111		16.7022 GH 8.57 dBr		
10 d8m-	The state			+ +					5.2250 GH	
							1			
0 dBm										
-10 d8m										
-20 d8m-	-		-	+ +		-	-	-		
Sec. 1	1 -27,000	dBm				142			_	
-30 dam	APR ALLOW AND			mener	adura	mu	warm	richel		
-40 d8m-		moren	Martine		anal C. D	1.572.54		10004103	a name of the	
-40 GBm										
-50 dBm-							_			
									1	
-60 d8m-				+ +		-		-		
-70 d8m										
10.00				5 J. L. Same J.					1.00	
Start 1.0 GH	łz.			691 p	ts			Sto	p 26.5 GHz	
Type Ref	Tre	X-value		Y-value	Fund	tion 1	Eur	iction Resu		
M1	1		25 GHz	8.57 dBm				Contra Resu		
M2	1	16.703	22 GHz	-30.19 d8m						





### Report No: AAEMT/EMC/211004-01-02

### ac20 5.745 GHz



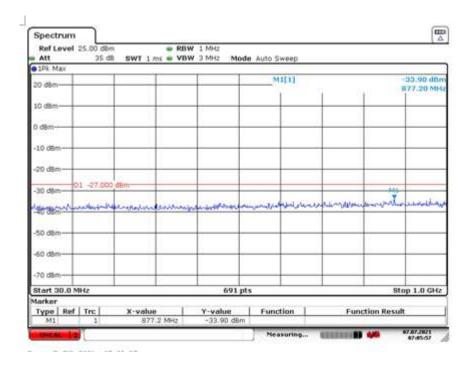
Att     IPk Max	35 dB	SWT 102 ms - V	BW 3 MHz Mo	de Auto Sweep		
20 dBm				M2[1]	-29,86 dBn 19,4700 GH	
10 dBm	A41			M1[1]		6.80 dB/ 5.7420 GH
0 dBm						
-10 dbm-			-		_	
-20 d8m	_		-		-	
	01 -27.000 di	Internet			M2	
Sandle and	June	Timorian	monand	enource	manna	- Pallon march
-40 dBm-	-					
-50 dBm					_	
-60 d8m	-		-		-	
-70 d8m					_	
Start 1.0 G	łz		691 pt	6		Stop 26.5 GHz
Marker Type   Ref	ITerl	X-value	Y-value	Function	Euro	ction Result
M1	1	5.742 GHz	6.80 dBm	runction	Fun	CARDIN PERSON





#### Report No: AAEMT/EMC/211004-01-02

### ac20 5.825 GHz

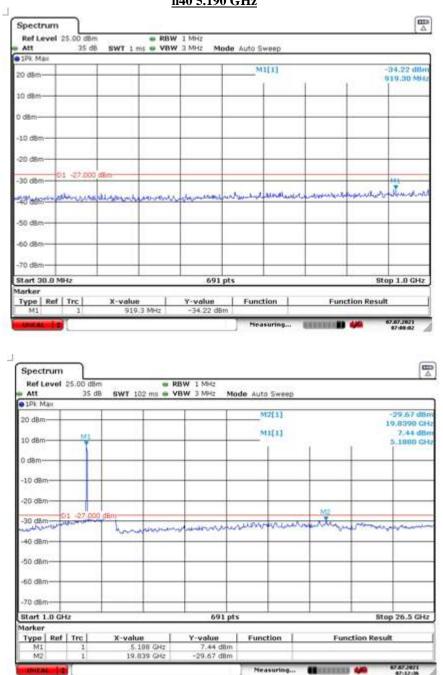


	25.00 dBm		BW 1 MH2			243 P.4
Att     IPk Max	35 dB	SWT 102 ms .	VEW 3 MHZ M	ode Auto Swee	p	
20 dBm			1	M2[1]	-30.07 dBr	
10 dBm	MIS			M1[1]	9.51 dBr 5.8160 GH	
0 dBm	_				_	
-10 d8m						
-20 dBm						
-30 dBm	01 -27.800 d	Em	munda		the way	annowal
-40 dBm		Lunder	a subscription	·····		
-50 d8m						
-60 dBm			-	-		
-70 d8m					_	
Start 1.0 G	Hz		691 pt	\$		Stop 26.5 GHz
Marker	14.1				1	
Type Ref MI			Y-value 9.51 dBm	Function	F	unction Result





### Report No: AAEMT/EMC/211004-01-02

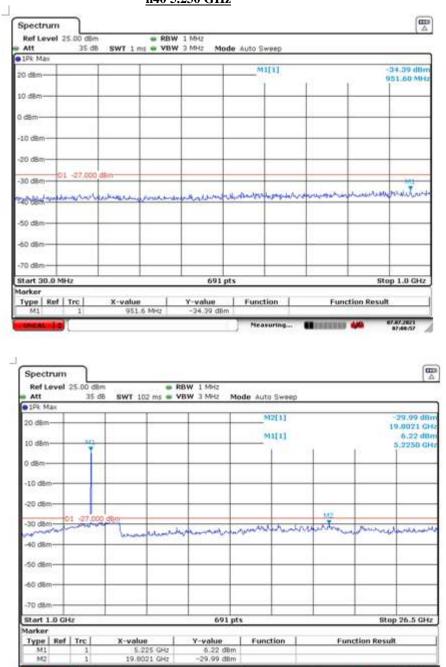


### <u>n40 5.190 GHz</u>





### Report No: AAEMT/EMC/211004-01-02



### <u>n40 5.230 GHz</u>

Heasuring...

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67.87.2021 87:14:42





### Report No: AAEMT/EMC/211004-01-02

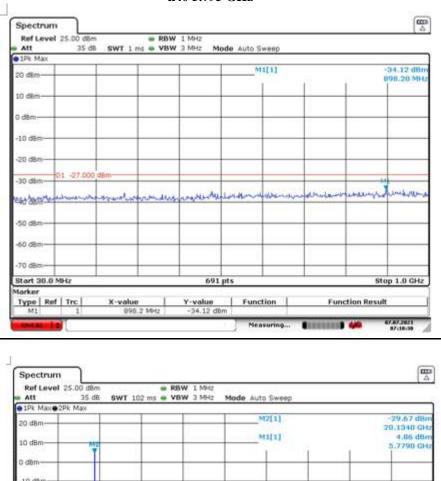
Spectrum							(m)
Ref Level 25	- 00 dBm	- PRV	V 1 MHz				14
Att		1 ms . VBV		ode Auto Sweep			
1Pk Max		11275	11				
20 dBm-	()		_	M1[1]			4,05,dBn
				1		1 50	3.20 MH
10 d8m		_	-		_		
0 dBm		_	+			++	
The second second							
-10 dBm			-		_		
-20 d8m							
-30 dbm	-27.000 d8m*				_		
	22 1 22	26 1000	100 000	True and	man address \$1	1.1	
cap participan	minant	Add the the	the adda partition	and a second second	we w	and and a second second	a drawn
		_					
-50 d8m							
10.494							
-60 dBm							
-70 dBm						-	
			-				
Start 30.0 MH	2		691	pts		Stop	1.8 GHz
Marker Type   Ref		alue	Y-value	Function		ction Result	
MI	1	533.2 MHz	-34.85 dB	m Measuring	ARRENT	<b>**</b> **	87.2921 7:89:41
ITTERE 22		533.2 MHr	-34.85 dB	and the second se	- CARDERAN	· 🦇 "	7.49.41
Spectrum				and the second se	- CARDONNA	07. 07.	7.49.41
ITTINEAL 12	1 	e R	BW 1 MHz	Measuring	. Caracteria	· 🏎	7.49.41
Spectrum Ref Level 25	1 .00 @m 35 d8 \$W1		BW 1 MHz	and the second se		· 🏎 * .	7.09:41
Spectrum Ref Level 25 Att 1Pk Max 22k	1 .00 @m 35 d8 \$W1	e R	BW 1 MHz	Measuring			249541 J
Spectrum Ref Level 25	1 .00 @m 35 d8 \$W1	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]	ARRENAL	-3	0.45 d8n
Spectrum Ref Level 25 Att 19k Max 029k 20 dBm	1 .00 d8m .35 d8 .sw1 Max	e R	BW 1 MHz	Mode Auto Sweep		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum Ref Level 25 Att 1Pk Max 22k	1 .00 @m 35 d8 \$W1	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum Ref Level 25 Att 19k Max 029k 20 dBm	1 .00 d8m .35 d8 .sw1 Max	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum Ref Level 25 Att 20 dBm 10 dBm 0 dBm	1 .00 d8m .35 d8 .sw1 Max	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]		-3	0.45 d8n
Spectrum Ref Level 25 • Att 10 Bm 20 dBm	1 .00 d8m .35 d8 .sw1 Max	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum Ref Level 25 Att 20 dBm 10 dBm 0 dBm	1 .00 d8m .35 d8 .sw1 Max	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum Ref Level 25 • Att 10 dBm 10 dBm -10 dBm -20 dBm	1	e R	BW 1 MHz	Measuring Mode Auto Sweep M2[1]		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum           Ref Level 25           Att           10 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm	1 .00 d8m .35 d8 .sw1 Max	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 25           Att           10 dBm           10 dBm           -10 dBm           -30 dBm	1	e R	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn
Spectrum           Ref Level 25           Att           10 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum Ref Level 25 Att 10 kMax • 29k 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 25           Att           10 dBm           10 dBm           -10 dBm           -30 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum Ref Level 25 Att 10 kMax • 29k 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 25           IPk Max • 2Pk           1Pk Max • 2Pk           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -50 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 23           Att           10 dBm           10 dBm           -10 dBm           -30 dBm           -30 dBm           -30 dBm           -30 dBm           -30 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Measuring		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 25           IPk Max • 2Pk           1Pk Max • 2Pk           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -50 dBm	1	● R 102 ms ● V	BW 1 MHz BW 3 MHz	Mode Auto Sweep		-3	0.45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 23           Att           10k Max © 29k           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm           -70 dBm           -70 dBm	1	● R 102 ms ● V	BW 1 MH2 BW 3 MH2	Measuring		-3	0,45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Lovel 23           Att           10 dBm           10 dBm           0 dBm           10 dBm           -10 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -70 dBm           -70 dBm           -70 dBm           -70 dBm	1 .00 dBm 35 dB SWT Max 	* R 102 ms * V	8W 1 MH2 BW 3 MH2 	Mode Auto Sweep M2[1] M1[1] 	Auberman	-3	0,45 dBn 7760 GH 2.92 dBn 7420 GH
Spectrum           Ref Level 23           Att           10k Max © 29k           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm           -70 dBm           -70 dBm	1	• R	BW 1 MH2 BW 3 MH2	Measuring	Auberman	-B 16. 5. June - Andrea Stop 2	0,45 dBn 7760 GH 2.92 dBn 7420 GH

### <u>n40 5.755 GHz</u>





### Report No: AAEMT/EMC/211004-01-02



## n40 5.795 GHz

ttA e	88965	25.00 di 35		102 ms	BW 1 MH2 BW 3 MH2	Mode Auto S	weep			367
• 1Pk M 20 dBm 10 dBm	Ŧ					9(2) 912[			-29.67 dB/ 29.1340 GH 4.86 dB/ 5.7790 GH	
0 dBm-	-		μ		-				-	_
-10 dbr	n	_		_					-	
DORES	-									
-20 dBr								-		
		1 -27.00	tó diim-					113		
		1 -27.00	x0 dilm	upon	un anno	menne	have	aurola	m	-
-30 dBr	2000	1 -27.0	XQ dBm	up m	man		nut	auroda,	m	-
	2000	1 -27.0	X diim		warene		nun	awala	m	-
-30 dBr	200	1 -27.0	10 dilim	unn	~~~~		nut.	and the		
-30 dBr -40 dBr -50 dBr	D	1 -27.00	X) dBm	unn	wet-wet-struck		un	ente.		
-30 dBr	D	1 -27.00	dim	ur ment			n na	and the		
-30 dBr -40 dBr -50 dBr	n n	1 -27.0	20 dim	- Anno		www.	hinh	unt.	, me	
-30 dBr -40 dBr -50 dBr -60 dBr	n n				691		nouve	under		
-30 dBr -40 dBr -50 dBr -60 dBr -70 dBr							nuur.	unt		
-30 dbr -40 dbr -50 dbr -60 dbr -70 dbr Start J Marker Type		IZ	X-ve	alue	691 Y-volue	pts Functic		unt.		Rop 26.5 GHz
-30 dBr -40 dBr -50 dBr -60 dBr -70 dBr Start J Marker		iz	X-ve		691	pts Function		unt.	5	Rop 26.5 GHz





#### Report No: AAEMT/EMC/211004-01-02

Ref Level	25.00 dBr			V 1 MHz			CC A
Att	35 d8	SWT 1	ms 😐 VBV	V 3 MH₂ Mod	e Auto Sweep		
20 dBm	_			1 1	-04.00 dBr 927.70 MH		
10 dBm				+			
0 dBm	_		-			-	
-10 dBm				+			
-20 dBm							
-30 dBm-	01 -27,000	dBm					T. Law
tad Stanker	Vietan	erene Mars	1447 A.	mundar	August Constant Court	date - South - Fr	an margin ter wa
-50 d8m	_			+ +			
-60 d8m			-				
-70 dBm							
Start 30.0	MHz.			691 pt	5		Stop 1.0 GHz
	srker ype Ref Trc X-value		e /	Y-value -34.88 dBm	Function	Funct	ion Result

#### ac40 5.190 GHz

Ref Level				BW 1 MH2 BW 3 MH2 Mo	de Auto Swe	нер				
• 12k Max•2/ 20 dBm-	Pk: Mair				M2[1]			-29,47 dBm 19,1050 GH 7,33 dBm 5,1880 GH		
0 d8m					1	-		Ê	5.1880 GH	
-10 dBm				-	_				-	
-20 dBm				-						
-30 d8m	1 -27 1	dBm	i an	monun	man	riture	min	mun	m	
-40 dBm		10000				-				
-50 d8m					_					
-60 dBm										
-70 dBm Start 1.0 GH	iz .			691 pt				Sto	p 26.5 GHz	
Marker						115.7			10. 	
Type Ref M1	1		B GHZ	Y-value 7.33 dBm	Function	-	Fund	tion Resul	t	
- M2	1	18.10	5.082.1	-29.47 dBm	Measurin				87.87.2821 87.57.22	

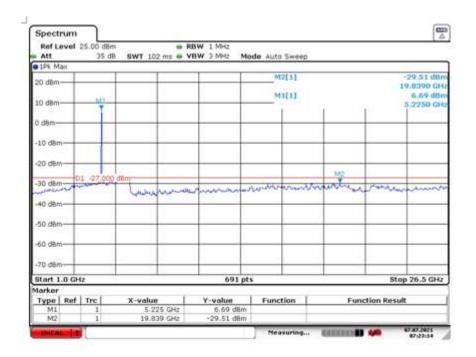




### Report No: AAEMT/EMC/211004-01-02

### ac40 5.230 GHz

Ref Level	25.00 dBn 35 dB		BW BW	1 MHz 3 MHz M	ode Auto S	weep		2000	
• 1Pk Man									
20 dBm					M		-34.01 dBn 969.80 MH		
10 dBm			-	-					
0 dBm		-	-				:		
-10 dBm									
-20 d8m			<u> </u>						
-30 d8m	01 -27.000	dBm							
-	والمر المراجع الم	million	mohorest	unne	and which the	warenautor	unstran	watchingth	
-50 d8m	_								
-60 d8m									
-70 d8m									
Start 30.0	MHz			691	pts			Stop 1.0 GHz	
Marker Type Ref		X-valu		Y-value	Fund	-	Function		







### Report No: AAEMT/EMC/211004-01-02

### <u>ac40 5.755 GHz</u>

1Pk Max	35 dB	SWT 1	ms 🖷 VBW	3 MHz M	ode Auto Si	weep			_
20 dBm			-		M	111	0 5		34.02 dB/ 064.50 MH
10 dBm									
0 dBm			-						
-10 dBm	-	-	-				-		
-20 dBm-									
-30 dBm	01 -27.000							MI	
40 06m	alaphiet	whenese	many	man man	ALLENA	milition	annin	مذيلسان	man
-50 d8m									
-60 d8m			-						
-70 d8m									
Start 30.0 Iarker	MHz		4.	691	pts		·	Sto	p 1.0 GHz

Ref Level 2: Att	5.00 d@m 35 dB	SWT 102 ms = 1	RBW 1 MH2 VBW 3 MH2 MK	de Auto Si	меер				
1Pk Max									
20 dBm-				M2[	1		-30,44 d8n 19,8820 GH		
				MIL	11	4.06 dBr			
10 dBm	MI							5.7790 CH	
0 dBm-	T								
A ADIU-									
-10 d8m-			-				-		
-20 d8m							-		
01	-27:000 di	In	_			M2			
-30 dBm	200mm	and the second	minin	- ANNARA	man	hours a	mon	inte	
-40 dBm		enderne							
HO GOIL									
-50 d8m	_						-	-	
10000									
-60 dBm				-			-	-	
-70 d8m								-	
Start 1.0 GHz			691 pt	5			Stop	26.5 GHz	
Marker									
Type Ref	1	X-value 5.779 GHz	4.06 d8m	Functio		Function Result			
M2	1	19.802 GHz	-30.44 dBm						

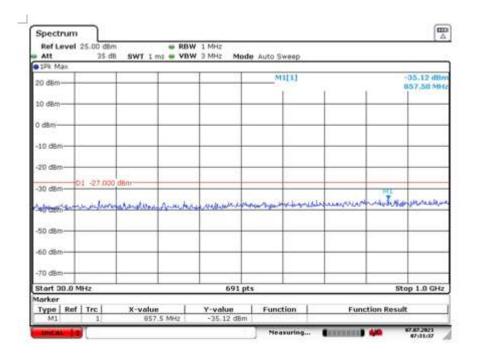






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### ac40 5.795 GHz



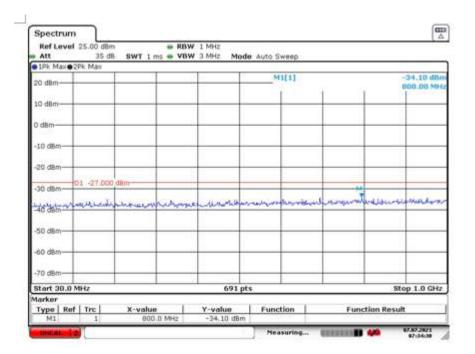
20 dBm-	-		+ +	M3(1)		5.15 d8/ 5.8160 GH -30.01 d8/		
820229-	100			M2[1]				
10 dBm-					4	18.1058 CH		
0 d8m								
-10 d8m-				-				
-20 d8m-				-				
0.0 dtm	01 -27.000	3 dBm			MZ			
-30 dbm-	- And - Contraction of the second sec	hidronid	mon	munn	round	- Manufarran		
-40 d8m	-		All a state of the second second					
2012/02/02								
-50 d8m	-			-				
-60 dēm	-							
0.000								
-70 dim-		+ +						
Start 1.0	GHz	1	691 pt	s ( )		Stop 26.5 GHz		
Marker								
Type R		X-value 5.816 GHz	Y-value 5.15 dBm	Function	Fun	ction Result		
	1	18.105 GHz	-30.01 dBm					





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### ac80 5.210 GHz



Ref Level 25.00 di Att 25	Sec	ABW 1 MH2 /BW 3 MH2 Mo	de Auto Sweep				
19k Max 29k Max     20 dBm     10 dBm			M2[1]		-30.15 dBn 19.1059 GH 3.64 dBn 5.2250 GH		
0 dBm				_			
-10 dBm				-			
-20 dBm-		-					
-30 dBm 01 -27.00	dam www.www.	spinihanelar	monther	man	Jummerstunes		
and different							
-40 d8m							
1.538201		+ +		-			
-50 d8m							
-50 d8m		691 pt:	<u> </u>		Stop 26.5 GHz		





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# <u>ac80 5.775 GHz</u>

Att	25.00 d0n 35 di		ms e VBW	1 MHz 3 MHz Mo	de Auto S	weep			
1Pk Maxe:	2Pk. Mare	1	-			1[1]			-33.70 dBn
20 dBm-			-		m	al al			915.10 MH
10 d8m		-	-						
0 dBm-									-
-10 dBm	_		-	-				-	
-20 d8m									
-30 dbm	01 -27.000	dBm	-						142
Ar damin	marken	names	man	Helenautech	hundre	Marriand	mene m	yound	America
-50 d8m									
-60 d8m									
-70 d8m									
Start 30.0	MHz	-	-	691 (	its			Sto	op 1.0 GHz
larker Type   Ref		X-valu		Y-value	Fund			tion Result	50 C

Type	Ref	Trc	X-va	Lue	Y-value 0.67 dBr		unction	Fu	Function Result		
Marker	JU GH	2			691	pics.			stop 26.5	un	
Start 1	1.1		-	_	691				Stop 26.5	174.4	
-70 d8m				_							
-60 dBr	1			-							
-50 dBr				_				_			
-40 dBm	1										
مغنعهم	- N	a Sen Al-L-C	hannes	nervenir	enner	anar	in the second	mont	manner	ne	
-30 d8m	1	1 -27.000	dBm	-				M2 LAP		_	
-20 d8n		-		-				60			
-10 dBr	-	_	-	-	-		_	_			
0 dBm-	-		-	-				-			
		MI					1		1	1.000	
10 dBm	-			-	-		MILLI		0.6 5.779	7 dBr	
20 dBm	-			-			and party		19.433	0 GH	
	-	K Phate	1	1	1 1		M2(1)		-29.7	3 dB	
D Att	ak <b>a</b> 20	35 d8	SWT	102 ms 👄 V	BW 3 MHz 1	Mode /	uto Sweep				
	and a	25.00 dBn			dBW 1 MHz						





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# **11. ANTENNA REQUIREMENTS**

# 11.1. Limit

15.203 requirement: For intentional device, according to 15.203: 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.

# **11.2. EUT ANTENNA**

The antennas used for this product are Integrated antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 25 dBi. and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.



\*\*End of report\*\*