



# FCC RADIO TEST REPORT

FCC ID	:	A4RGB7N6
Equipment	:	Phone
Applicant	:	Google LLC
		1600 Amphitheatre Parkway,
		Mountain View, California, 94043 USA
Standard	:	FCC Part 15 Subpart E §15.407

The product was received on Jun. 03, 2021 and testing was performed from Jun. 11, 2021 to Dec. 15, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu Sporton International Inc. Wensan Laboratory No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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## History of this test report

Report No.	Version	Description	Issue Date		
FR0D2942-19A	01	Initial issue of report	Dec. 19, 2022		
FR0D2942-19A	02	Revise Appendix A	Feb. 22, 2023		



## Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark	
3.1	15.403(i) 15.407(a)(10)	26dB Emission Bandwidth	Pass	-	
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-	
3.2	15.407(a)(7)	Fundamental Maximum EIRP	Pass	-	
3.3	15.407(a)(7)	Fundamental Power Spectral Density	Pass	-	
3.4	15.407(b)(6)	In-Band Emissions (Channel Mask)	Pass	-	
3.5	15.407(d)(6)	Contention Based Protocol	Pass		
3.6	15.407(b)	Unwanted Emissions	Pass	1.96 dB under the limit at 5908.840 MHz	
3.7	15.207	AC Conducted Emission	Pass	21.45 dB under the limit at 12.683 MHz	
3.8	15.203 15.407(a)	Antenna Requirement	Pass	-	

**Remark:** Except Conducted and Unwanted Emissions test items are carrying out, the FR0D2942-19A report reuses test data from the FR0D2942-05G report.

#### Declaration of Conformity:

 The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.

2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

#### Comments and Explanations:

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

#### Reviewed by: William Chen Report Producer: Ruby Zou

### **1** General Description

### **1.1 Product Feature of Equipment Under Test**

Product Feature					
Equipment	Phone				
FCC ID	A4RGB7N6				
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/ NFC/GNSS/WPT WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE				

Remark: The above EUT's information was declared by manufacturer.

EUT Information List					
S/N	Performed Test Item				
15191FDF60004E	Conducted Measurement				
15171FDF600099	Radiated Spurious Emission				
15141FDF600064	Conducted Emission				
15191FDF60004R	Contention Based Protocol				



1.2	Product	<b>Specification</b>	of Equipment	Under Test
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Product Specification is subject to this standard				
	5925 MHz ~ 6425 MHz			
Tx/Rx Frequency Range	6525 MHz ~ 6875 MHz			
	<5925 MHz ~ 6425 MHz>			
	MIMO <ant. 4+3=""></ant.>			
	802.11a: 23.26 dBm / 0.2118 W			
	802.11ax HE20: 23.21 dBm / 0.2094 W			
	802.11ax HE40: 22.51 dBm / 0.1782 W			
	802.11ax HE80: 22.43 dBm / 0.1750 W			
Mariana Ordered Damas	802.11ax HE160: 22.27 dBm / 0.1687 W			
Maximum Output Power	<6525 MHz ~ 6875 MHz>			
	MIMO <ant. 4+3=""></ant.>			
	802.11a: 23.26 dBm / 0.2118 W			
	802.11ax HE20: 23.61 dBm / 0.2296 W			
	802.11ax HE40: 22.66 dBm / 0.1845 W			
	802.11ax HE80: 22.11 dBm / 0.1626 W			
	802.11ax HE160: 21.77 dBm / 0.1503 W			
	MIMO <ant. 4=""></ant.>			
	802.11a: 17.98 MHz			
	802.11ax HE20: 19.48 MHz			
	802.11ax HE40: 38.26 MHz			
	802.11ax HE80: 77.44 MHz			
00% Occupied Departuridth	802.11ax HE160: 157.04 MHz			
99% Occupied Bandwidth	MIMO <ant. 3=""></ant.>			
	802.11a: 17.43 MHz			
	802.11ax HE20: 19.38 MHz			
	802.11ax HE40: 38.06 MHz			
	802.11ax HE80: 77.20 MHz			
	802.11ax HE160: 156.80 MHz			
	<5925 MHz ~ 6425 MHz>			
	<ant. 4="">: ILA Antenna</ant.>			
Antenna Type	<ant. 3="">: IFA Antenna</ant.>			
Antenna Type	<6525 MHz ~ 6875 MHz>			
	<ant. 4="">: ILA Antenna</ant.>			
	<ant. 3="">: IFA Antenna</ant.>			
	<5925 MHz ~ 6425 MHz>			
	<b><ant. 4="">:</ant.></b> -1.0 dBi			
Antenna Gain	<b><ant. 3="">:</ant.></b> -0.1 dBi			
June dun	<6525 MHz ~ 6875 MHz>			
	<b><ant. 4="">:</ant.></b> -1.5 dBi			
	<b><ant. 3="">:</ant.></b> -1.4 dBi			



Product Specification is subject to this standard						
Type of Modulation802.11a : OFDM (BPSK/QPSK/16QAM/64QAM)802.11ax : OFDMA802.11ax : OFDMA(BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM)						
Antenna Function Description	802.11a/ax	Ant. 4 V	Ant. 3 V			
	MIMO					

#### Remark:

1. MIMO Ant. 4+3 Directional Gain is a calculated result from MIMO Ant. 4 and MIMO Ant. 3. The formula used in calculation is documented in section 1.2.1.

- 2. Power of MIMO Ant. 4 + Ant. 3 is a calculated result from sum of the power MIMO Ant. 4 and MIMO Ant. 3.
- 3. The EUT's information above is declared by manufacturer. Please refer to Comments and Explanations in report summary.



#### <For CDD Mode>

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)ii)

Directional gain =  $G_{ANT}$  + Array Gain, where Array Gain is as follows:

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for  $N_{ANT} \le 4$ .

GANT is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation.

$$DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;  $N_{SS}$  = the number of independent spatial streams of data;  $N_{ANT}$  = the total number of antennas  $g_{j,k} = 10^{G_k/20}$  if the *k*th antenna is being fed by spatial stream *j*, or zero if it is not;  $G_k$  is the gain in dBi of the kth antenna.

As minimum N<sub>SS</sub>=1 is supported by EUT, the formula can be simplified as:

Directional gain =  $10^{100} \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] dBi$ 

Where G1, G2....GN denote single antenna gain.

The directional gain "DG" is calculated as following table.

			DG	DG
			for	for
	Ant 4	Ant 3	Power	PSD
	(dBi)	(dBi)	(dBi)	(dBi)
5925 MHz ~ 6425 MHz	-1.00	-0.10	-0.10	2.47
6525 MHz ~ 6875 MHz	-1.50	-1.40	-1.40	1.56

Calculation example:

If a device has two antenna, GANT1= -1.0 dBi; GANT2=-0.10 dBi

Directional gain of power measurement = max(-1.0, -0.10) + 0 = -0.10 dBi

Directional gain of PSD derived from formula which is

10 x log { { [ 10^ (-1.0 dBi / 20) + 10^ (-0.10 dBi / 20) ] ^ 2 } / 2 }

=2.47 dBi



### **1.3 Modification of EUT**

No modifications made to the EUT during the testing.

### **1.4 Testing Location**

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
Test Sile NO.	DF02-HY (TAF Code: 1190)	
RemarkThe Contention Based Protocol test item subcontracted to Sport International Inc. EMC & Wireless Communications Laboratory.		
Test Site	Sporton International Inc. Wensan Laboratory	
	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,	
Test Site Location	Taoyuan City 333010, Taiwan (R.O.C.)	
	TEL: +886-3-327-0868	
	FAX: +886-3-327-0855	
Test Site No.	Sporton Site No.	
1651 Sile 140.	TH05-HY, 03CH16-HY, CO07-HY	

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW1190 and TW3786

### **1.5 Applicable Standards**

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v01r01
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

#### Remark:

- 1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
- 2. The TAF code is not including all the FCC KDB listed without accreditation.

### 2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, , the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape) and accessory (Adapter or Earphone), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and only the worst case emissions were reported in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

BW 20M	Channel	1	5	9	13	17	21	25	29
	Freq. (MHz)	5955	5975	5995	6015	6035	6055	6075	6095
BW 40M	Channel	3	3	11		19		27	
	Freq. (MHz)	59	65	60	05	6045		6085	
BW 80M	Channel		7	7			2	3	
	Freq. (MHz)		59	85			60	65	
BW 160M	Channel				1	5			
BW TOUN	Freq. (MHz)		6025						
DW OOM	Channel	33	37	41	45	49	53	57	61
BW 20M	Freq. (MHz)	6115	6135	6155	6175	6195	6215	6235	6255
BW 40M	Channel	3	5	43		51		59	
	Freq. (MHz)	61	25	6165		6205		6245	
BW 80M	Channel	39				55			
	Freq. (MHz)	6145				6225			
BW 160M	Channel				4	7			
BVV 16UIVI	Freq. (MHz)	6185							

### 2.1 Carrier Frequency and Channel



Bw 20M     Channel     65     69     73     77     81     85     89     93       BW 40M     6275     6295     6315     6335     6355     6375     6395     6415       BW 40M     Channel												
Freq. (MHz)     6275     6295     6315     6335     6355     6375     6395     6415       BW 40M     Channel     67     75     83     91       BW 80M     Channel     71     83     6415       BW 80M     Channel     71     87     6335     6405       BW 80M     Channel     71     87     640       Freq. (MHz)     6235     6325     6375     640       BW 80M     Channel     71     7     87     640       Freq. (MHz)     6355     6375     675     640       BW 80M     Channel     117     121     125     5       BW 80M     Channel     117     121     125     5       BW 80M     Channel     117     121     125     5       BW 80M     Channel     129     133     137     141     145     149     153     157       BW 80M     Channel     131     139     147     149     153     6715     6715       BW 80M     Channel     131     139     147     149     153     157       Freq. (MHz)     6615     6635     6675     6675     6715     6725       BW 80M<	D)4/ 2014	Channel	65	69	73	-	77	81	85	89	93	
BW 40M     Freq. (MHz)     628 <sup></sup>		Freq. (MHz)	6275	6295	6315	6	335	6355	6375	6395	6415	
Freq. (MHz)     6285     6325     6365     6405       BW 80M     Channel     71     87     87       BW 160M     Channel     79     535     535     555       BW 20M     Channel     117     121     125       BW 40M     Channel     117     121     125       Freq. (MHz)     6535     555     6575     6575       BW 40M     Channel     117     123     555     6575       BW 40M     Channel     115     123     555     6575       BW 80M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     131     132     141     145     149     153     157       BW 80M     Channel     129     6615     6655     6675     6695     6715     6725       BW 80M     Channel     131     139     147     147     145     149     153     157 <t< th=""><th rowspan="2">BW 40M</th><th>Channel</th><th>6</th><th>7</th><th colspan="2">75</th><th colspan="2">83</th><th colspan="2">91</th></t<>	BW 40M	Channel	6	7	75		83		91			
BW 80M     Freq. (MHz)     G305     G385       BW 160M     Channel		Freq. (MHz)	6285			6325		6365		6	6405	
Freq. (MHz)     G305     G385       BW 1600     Channel     III7     III     G385       BW 20M     Channel     III7     III     III5       BW 20M     Channel     III7     III     III5       BW 40M     Channel     III7     III     III5       BW 40M     Channel     III7     III7     III5       BW 80M     Channel     III9     III3     III1     III9     III3     III7       BW 20M     Channel     II29     III3     III1     III9     III3     III7       BW 80M     Channel     II29     III3     III1     III9     III3     III7       BW 20M     Channel     II29     III3     III1     III9     III3     III7       BW 20M     Channel     II29     III3     III1     III9     III5       BW 40M     Channel     II29     III3     III7     III5       BW 80M     Channel     II17     III7     III5       Freq. (MHz)     G555     G775     G635     G635     G635     G635       BW 160M     Channel     II13     III7     III7     III15       BW 20M     Channel     II11     II15     III17		Channel				87						
BW 1600     Freq. (MHz)     Channel     117     121     125       BW 20M     Freq. (MHz)     6535     6555     6575       BW 40M     Channel     115     123       Freq. (MHz)     6525     6555     6575       BW 80M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     131     139     147     143     167     6735       BW 80M     Channel     131     139     147     155     6725     6715     6735       BW 80M     Channel     161     165     169     173     177     181     185       BW 20M     Channel     161     165     169     173     177     181     185       BW 20M     Channel     161     165     169     6815     6835     6855		Freq. (MHz)	6305				6385					
Freq. (MHz)       6345         BW 20M       Channel       117       121       125       6575         BW 40M       Channel       115       123       123         Freq. (MHz)       6525       6565       6575       6575         BW 80M       Channel       112       113       137       141       145       149       153       157         BW 80M       Channel       129       133       137       141       145       149       153       157         BW 20M       Channel       129       133       137       141       145       149       153       157         BW 20M       Channel       129       133       137       141       145       149       153       157         BW 40M       Channel       131       139       147       145       6695       6715       6755       6755       6695       6715       6735         BW 80M       Channel       161       165       169       173       177       181       185         BW 160M       Channel       161       165       169       6815       6855       6875       6875       6875       6875	DW/ 4COM	Channel	79									
BW 20M     Freq. (MHz)     6535     6575     6575       BW 40M     Freq. (MHz)     6535     6575     123       BW 80M     Channel     115     123     123       BW 80M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 40M     Channel     129     133     137     141     145     149     153     157       BW 40M     Channel     132     6615     6635     6675     6675     6715     6735       BW 160M     Freq. (MHz)     6605     6615     6635     131     137     141     145     149     153     157       BW 20M     Channel     161     165     169     173     177     181     185       BW 20M     Channel     161     165     6795     6815     6835     6855     <	BW 100W	Freq. (MHz)	6345									
BW 20M     Freq. (MHz)     6535     6575     6575       BW 40M     Freq. (MHz)     6535     6575     123       BW 80M     Channel     115     123     123       BW 80M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 20M     Channel     129     6615     6635     6655     6675     6695     6715     6735       BW 20M     Channel     129     133     137     141     145     149     153     157       BW 40M     Channel     129     6615     6635     6675     6695     6715     6735       BW 40M     Freq. (MHz)     6605     6615     6635     6675     6695     6715     6735       BW 160M     Channel     131     132     137     141     145     149     153     157       BW 20M     Channel     161     165     169     173     177     181     185       BW 20M     Channel     161     165     695     6815     6835     6855     6835     6835     68		Ohannal		447				24		405		
BW 40M         Channel         115         123           Freq. (MHz)         6525         6565           BW 80M         Freq. (MHz) $$	BW 20M											
BW 40M       Freq. (MHz)       6525       6555       6565         BW 80M       Channel       129       133       137       141       145       149       153       157         BW 20M       Channel       129       133       137       141       145       149       153       157         BW 20M       Channel       129       6615       6635       6655       6675       6695       6715       6735         BW 40M       Channel       133       137       141       145       149       153       157         BW 80M       Channel       133       137       6635       6675       6675       6695       6715       6735         BW 160M       Channel       131       133       137       141       145       149       153       157         BW 20M       Channel       161       165       6645       2       2       2       2         BW 20M       Channel       161       165       169       173       177       181       185       6875       6875       6875       6875       6875       6875       6875       6875       6875       6875       6875       6875 <th></th> <th></th> <th colspan="3"></th> <th colspan="3">6555</th> <th></th> <th colspan="3">6575</th>						6555				6575		
BW 80M         Channel         119           Freq. (MHz)         Image: Colspan="4">119           BW 20M         Channel         129         133         137         141         145         149         153         157           BW 20M         Channel         129         133         137         141         145         149         153         157           BW 40M         Channel         131         139         147         155         6735           BW 80M         Channel         131         139         147         155         6735           BW 80M         Channel         131         139         147         155         6735           BW 80M         Channel         131         139         147         151         57           BW 160M         Channel         161         165         6635         6635         6835         6855         6875           BW 20M         Channel         161         165         169         173         177         181         185           BW 20M         Channel         163         167         6795         6815         6835         6855         6875           BW 80M <th>BW 40M</th> <th></th> <th colspan="3"></th> <th></th> <th></th> <th colspan="2"></th> <th colspan="3">123</th>	BW 40M									123		
BW 80M       Freq. (MHz)       6545         BW 20M       Channel       129       133       137       141       145       149       153       157         BW 20M       Channel       129       6615       6635       6655       6675       6695       6715       6735         BW 40M       Channel       131       139       141       145       149       153       157         BW 80M       Channel       131       139       6645       6675       6695       6715       6735         BW 80M       Channel       131       139       147       155       6725         BW 80M       Channel       0607       6625       0675       6705       705       707         BW 160M       Channel       161       165       169       173       177       181       185         BW 20M       Channel       161       165       169       173       177       181       185         BW 20M       Channel       161       165       169       173       177       181       185         BW 20M       Channel       163       167       6805       6815			6525					6565				
Freq. (MHz)     Image: Height of the symbol o	BW 80M	Channel		119								
BW 20M         Freq. (MHz)         6595         6615         6635         66675         6695         6715         6735           BW 40M         Channel         131         139         147         155           BW 80M         Freq. (MHz)         6605         6675         6695         66715         6735         6735           BW 80M         Channel         131         139         6655         6675         6695         6715         6735           BW 80M         Channel         135         6645         6675         6695         6715         6735           BW 160M         Channel         161         165         169         173         177         181         185           BW 20M         Channel         161         165         1695         6815         6835         6855         6875           BW 40M         Channel         161         165         1695         171         181         185           BW 40M         Channel         163         1675         6805         6845         6845         6845           BW 80M         Channel         167         183         185         6845         183           Freq. (MHz) <th></th> <th>Freq. (MHz)</th> <th colspan="8">6545</th>		Freq. (MHz)	6545									
Freq. (MHz)       6595       6615       6635       6675       6695       6715       6735         BW 40M       Channel       131       139       147       155         BW 80M       Channel       131       139       147       155         BW 80M       Channel       133       6635       6675       6695       6715       6735         BW 80M       Channel       131       139       6645       6675       6675       6775       6795         BW 160M       Channel       161       165       169       173       177       181       185         BW 20M       Channel       161       165       6795       6795       6815       6835       6855       6875         BW 20M       Channel       161       165       169       173       177       181       185         BW 40M       Channel       163       169       171       179       6835       6855       6875         BW 80M       Channel       163       167       6785       6785       6785       6845       6845         BW 160M       Channel       167       177       181       185         BW		Channel	129	133	137	1	41	145	149	153	157	
BW 40M         Freq. (MHz) $660^{-}$ $6645$ $6685$ $6725$ BW 80M         Channel $135$ $5645$ $6685$ $6725$ BW 80M         Freq. (MHz) $662^{-}$ $5645$ $5685$ $572^{-}$ BW 160M         Channel         161 $662^{-}$ $570^{-}$ $570^{-}$ $570^{-}$ $570^{-}$ BW 20M         Channel         161         165         169         173         177         181         185           BW 20M         Channel         161         165         6795         6815         6835         6855         6875           BW 40M         Channel         163         171         171         181         185           BW 80M         Channel         163         171         179         6845         6845           BW 80M         Channel         167         6805         6805         6845         6845           BW 160M         Channel         167         6805         6805         6805         6805           BW 80M         Channel         167         6805         6805         6805         6805	BW 20W	Freq. (MHz)	6595	6615	6635	6	655	6675	6695	6715	6735	
Freq. (MHz) $6605$ $6645$ $6685$ $6725$ BW 80M       Channel $135$ $5625$ $5705$ BW 160M       Channel $6615$ $6685$ $6725$ BW 20M       Channel       161       165 $169$ $173$ $177$ $181$ $185$ BW 20M       Channel       161       165       169 $173$ 177       181       185         BW 20M       Channel       161       165       169 $173$ 177       181       185         BW 20M       Channel       161       165       169       173       6835       6855       6875         BW 40M       Channel       161       165       169       173       177       181       185         BW 80M       Channel       163       169       171       179       6845       6845         BW 80M       Channel       167       6785       6805       6865       6865         BW 160M       Channel       167       175       183       185       185		Channel	131			139		1	147 155			
BW 80M         Freq. (MHz)         6625         6705           BW 160M         Channel	BVV 401VI	Freq. (MHz)	6605			6645 6685		685	6725			
Freq. (MHz)         6625         6705           BW 160M         Channel         Freq. (MHz)         143         143           Freq. (MHz)         Freq. (MHz)         6665         6665         6675           BW 20M         Channel         161         165         169         173         177         181         185           BW 20M         Channel         161         165         169         173         177         181         185           BW 40M         Channel         161         165         169         171         181         185           BW 40M         Channel         163         171         177         181         185           BW 80M         Channel         163         171         179         6845         6845           BW 80M         Channel         167         167         183         171         183           BW 80M         Channel         167         6785         68805         6885         183           BW 160M         Channel         167         175         500         500         500         500		Channel	135				151					
BW 160M         Freq. (MHz)         Freq. (MHz)         6665           BW 20M         Channel         161         165         169         173         177         181         185           BW 20M         Freq. (MHz)         6755         6775         6795         6815         6835         6855         6875           BW 40M         Channel         163         171         179         179           Freq. (MHz)         6765         6805         6835         6845         6845           BW 80M         Channel         167         167         183         179           Freq. (MHz)         6765         6805         6865         6865           BW 80M         Channel         167         183         6865           BW 160M         Channel         16785         6865         5		Freq. (MHz)	6625				6705					
Freq. (MHz)       Freq. (MHz) $161$ $165$ $169$ $173$ $177$ $181$ $185$ BW 20M       Channel       161 $165$ $6795$ $6815$ $6835$ $6855$ $6875$ BW 40M       Channel $163$ $171$ $181$ $185$ BW 40M       Channel $163$ $171$ $6835$ $6855$ $6875$ BW 80M       Channel $163$ $171$ $181$ $185$ BW 80M       Channel $6765$ $6805$ $6865$ $6865$ BW 80M       Channel $6785$ $6785$ $6865$ $6865$ BW 160M       Channel $6785$ $175$ $575$ $575$ $575$ $575$		Channel	143									
BW 20M         Freq. (MHz) $6755$ $6795$ $6815$ $6835$ $6855$ $6875$ BW 40M         Channel $163$ $171$ $179$ $179$ BW 80M         Channel $6765$ $6805$ $6835$ $6855$ $6875$ BW 80M         Channel $167$ $6805$ $6805$ $6845$ $6845$ BW 80M         Channel $167$ $6785$ $6805$ $6865$ $6875$ BW 80M         Channel $167$ $6785$ $6865$ $6865$ $6865$ BW 160M         Channel $167$ $177$ $6865$ $6865$		Freq. (MHz)	6665									
Freq. (MHz) $6755$ $6775$ $6795$ $6815$ $6835$ $6855$ $6875$ BW 40M       Channel $163$ $171$ $179$ $179$ BW 80M       Channel $6765$ $6805$ $6835$ $6855$ $6875$ BW 80M       Channel $167$ $6805$ $171$ $179$ $6844$ BW 80M       Channel $167$ $6765$ $6805$ $6865$ $6875$ BW 80M       Channel $6765$ $6765$ $6805$ $6865$ $6865$ BW 160M       Channel $6785$ $177$ $6865$ $6865$		Channel	161	165	1	169	1	73	177	181	185	
BW 40M         Freq. (MHz)         6765         6805         6845           BW 80M         Channel         167         183           Freq. (MHz)         6785         6865           BW 160M         Channel         175	BW 20M	Freq. (MHz)	6755	6775	6	795	68	15	6835	6855	6875	
Freq. (MHz)         6765         6805         6845           BW 80M         Channel         167         183           Freq. (MHz)         6785         6865           BW 160M         Channel         175	BW 40M	Channel		163		171		71	1		179	
BW 80M         Freq. (MHz)         6785         6865           BW 160M         Channel         175		Freq. (MHz)	6765			6805			6845			
Freq. (MHz)         6785         6865           BW 160M         Channel         175		Channel	167			183						
BW 160M	BM 80W	Freq. (MHz)	6785			6865						
EVV TOUNI From (MHz) 6925		Channel	175									
	BW 160M	Freq. (MHz)	6825									



### 2.2 Test Mode

This device support 26/52/106/242/484/996-tone RU but does not support 2x996-tone RU on 160MHz channel.

The PSD of partial RU is reduced to be smaller than full RU according to TCB workshop interim guidance Oct., 2018.

The 242-tone RU is covered by 20MHz channel, 484-tone RU is covered by 40MHz channel and 996-tone RU is covered by 80MHz channel.

The 802.11ax mode is investigated among different tones, full resource units (RU), partial resource units. The partial RU has no higher power than full RU's, thus the full RU is chosen as main test configuration.

The SISO mode conducted power is covered by MIMO mode per chain, so only the MIMO mode is tested.

The final test modes include the worst data rates for each modulation shown in the table below.

#### MIMO Mode

Modulation	Data Rate		
802.11a	6Mbps		
802.11ax HE20	MCS0		
802.11ax HE40	MCS0		
802.11ax HE80	MCS0		
802.11ax HE160	MCS0		

Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

Test Cases						
AC	Mode 1: WLAN (6GHz) Link + Bluetooth Link + USB Cable 2 (Charging from AC					
Conducted						
Emission	Adapter 2)					
Remark:						
1. For Radiated Test Cases, the tests were performed with Adapter 1 and USB Cable 1.						
2. During the preliminary test, both charging modes (Adapter mode and WPC Charging mode) were verified. It is determined that the adaptor mode is the worst case for official test.						



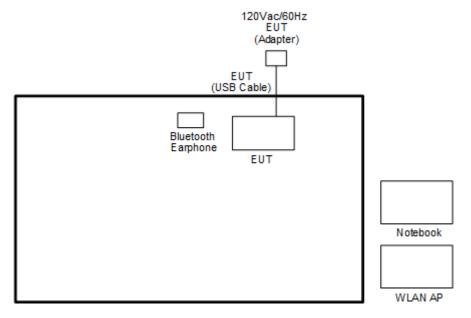
Ch. #		UNII-5 (5925-6425 MHz)	UNII-7 (6525-6875 MHz)		
		802.11a	802.11a		
L	Low	001	117		
М	Middle	049	149		
н	High	093	181		
Ch. #		UNII-5 (5925-6425 MHz)	UNII-7 (6525-6875 MHz)		
		802.11ax HE20	802.11ax HE20		
L	Low	001	117		
М	Middle 049		149		
н	High	093	181		
	Ch. #	UNII-5 (5925-6425 MHz)	UNII-7 (6525-6875 MHz)		
		802.11ax HE40	802.11ax HE40		
L	Low	003	123		
М	Middle	051	147		
Н	High	091	179		
Ch. #					
	Ch. #	UNII-5 (5925-6425 MHz)	UNII-7 (6525-6875 MHz)		
	Ch. #				
L	Ch. # Low	(5925-6425 MHz)	(6525-6875 MHz)		
L		(5925-6425 MHz) 802.11ax HE80	(6525-6875 MHz) 802.11ax HE80		
_	Low	(5925-6425 MHz) 802.11ax HE80 007	(6525-6875 MHz) 802.11ax HE80 135		
M	Low Middle	(5925-6425 MHz) 802.11ax HE80 007 055	(6525-6875 MHz) 802.11ax HE80 135 151		
M	Low Middle	(5925-6425 MHz) 802.11ax HE80 007 055 087	(6525-6875 MHz) 802.11ax HE80 135 151 167		
M	Low Middle High	(5925-6425 MHz) 802.11ax HE80 007 055 087 UNII-5	(6525-6875 MHz) 802.11ax HE80 135 151 167 UNII-7		
M	Low Middle High	(5925-6425 MHz) 802.11ax HE80 007 055 087 UNII-5 (5925-6425 MHz)	(6525-6875 MHz) 802.11ax HE80 135 151 167 UNII-7 (6525-6875 MHz)		
H	Low Middle High Ch. #	(5925-6425 MHz) 802.11ax HE80 007 055 087 UNII-5 (5925-6425 MHz) 802.11ax HE160	(6525-6875 MHz) 802.11ax HE80 135 151 167 UNII-7 (6525-6875 MHz)		

**Remark:** Based on ANSI C63.10 clause 5.6.2.2, b) Spurious emissions, measure the mode with the highest output power and the mode with highest output power spectral density for each modulation family.

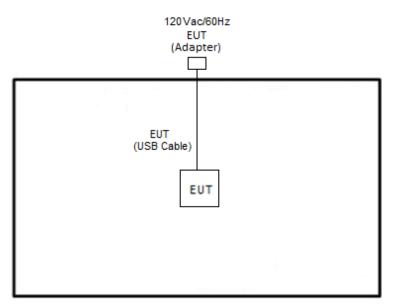


### 2.3 Connection Diagram of Test System

#### <AC Conducted Emission Mode>



<WLAN Tx Mode>



### 2.4 Support Unit used in test configuration and system

ltem	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Google	G1013	N/A	N/A	N/A
2.	WLAN AP	ASUS	GT-AXE11000	MSQ-RTAXJF00	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Latitude E3480	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

### 2.5 EUT Operation Test Setup

The RF test items, utility "ADB Command 1.0.39" was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

### 2.6 Measurement Results Explanation Example

#### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)



### 3 Test Result

### 3.1 26dB & 99% Occupied Bandwidth Measurement

#### 3.1.1 Limit of 26dB & 99% Occupied Bandwidth

#### <FCC 14-30 CFR 15.407>

(a)(10) The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

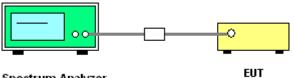
#### 3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.1.3 Test Procedures

- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
- 2. Set RBW = approximately 1% of the emission bandwidth.
- 3. Set the VBW > RBW.
- 4. Detector = Peak.
- 5. Trace mode = max hold
- Measure the maximum width of the emission that is 26 dB down from the peak 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%.
- For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 \* RBW.
- 8. Measure and record the results in the test report.

### 3.1.4 Test Setup



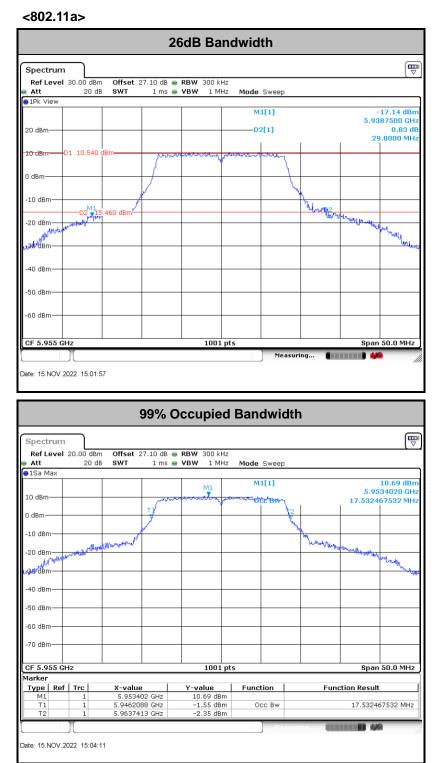
Spectrum Analyzer

### 3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.



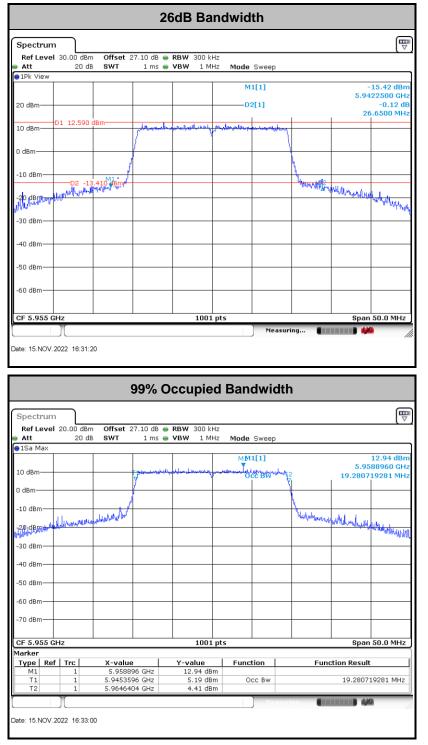
#### MIMO <Ant. 4+3>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



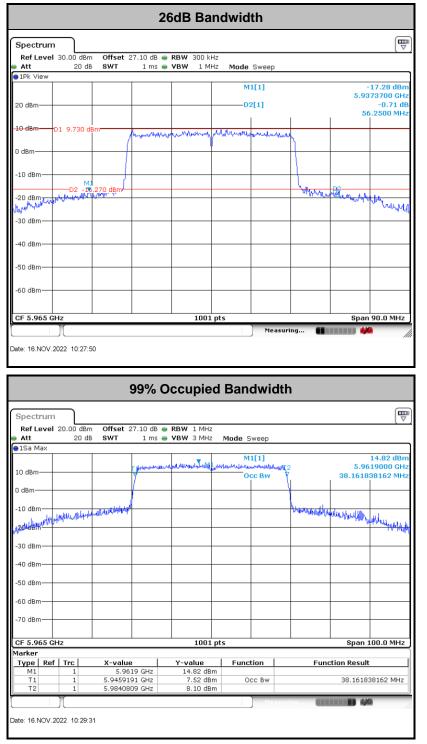
#### <802.11ax HE20>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



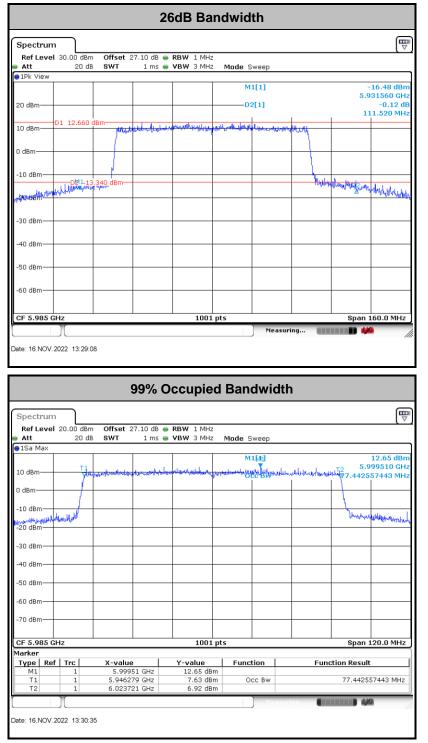
#### <802.11ax HE40>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



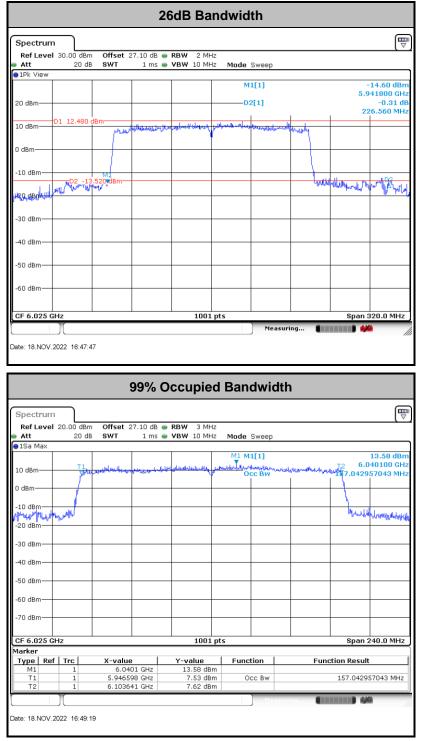
#### <802.11ax HE80>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



#### <802.11ax HE160>



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



### 3.2 Fundamental Maximum EIRP Measurement

#### 3.2.1 Limit of Fundamental Maximum EIRP

#### <FCC 14-30 CFR 15.407>

(a)(7) For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access

point in 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed 17 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm and the device must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power.

#### 3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.2.3 Test Procedures

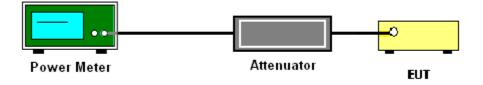
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

- 1. Measurement is performed using a wideband RF power meter.
- 2. The EUT is configured to transmit at its maximum power control level.
- 3. Measure the average power of the transmitter.
- 4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
- 5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.



### 3.2.4 Test Setup



### 3.2.5 Test Result of Fundamental Maximum EIRP

Please refer to Appendix A.



### 3.3 Fundamental Power Spectral Density Measurement

#### 3.3.1 Limit of Fundamental Power Spectral Density

#### <FCC 14-30 CFR 15.407>

(a)(7) For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access point in 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed 17 dBm e.i.r.p. in any 1-megahertz band.

#### 3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

#### 3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

#### # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

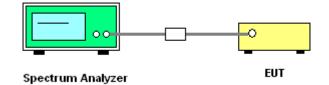
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep  $\geq$  2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.
- 1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
- 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
- 3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Method (a): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points; the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.



### 3.3.4 Test Setup

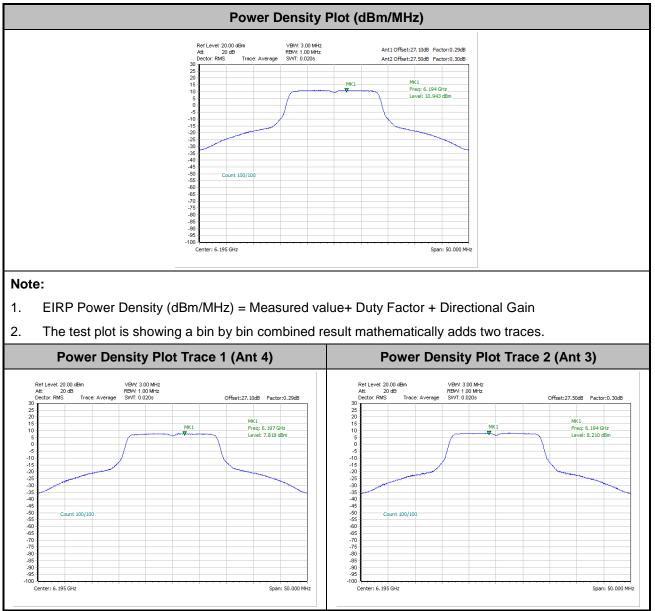


### 3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

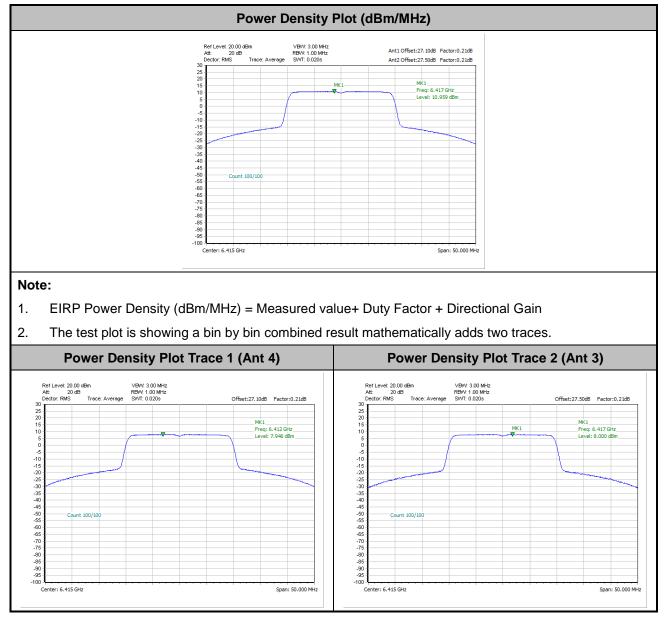






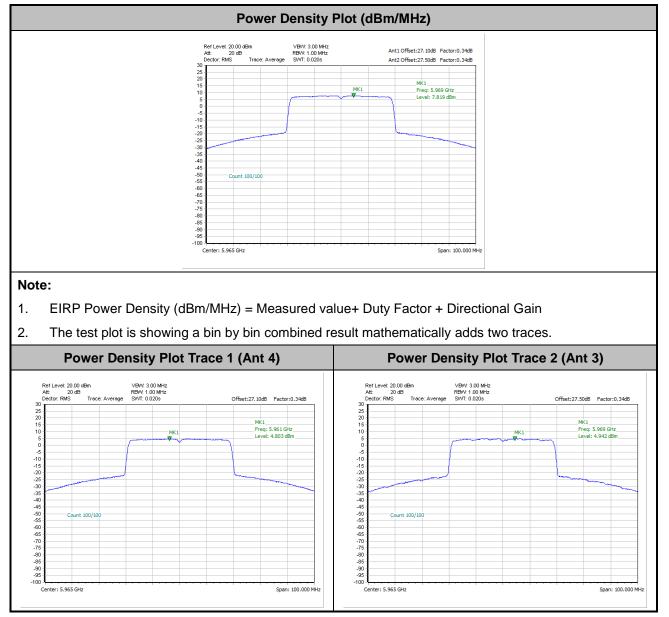


#### <802.11ax HE20>



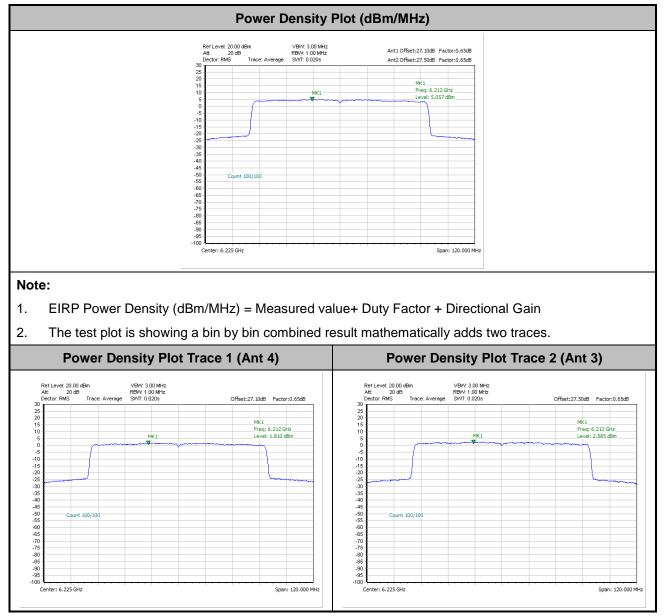


#### <802.11ax HE40>



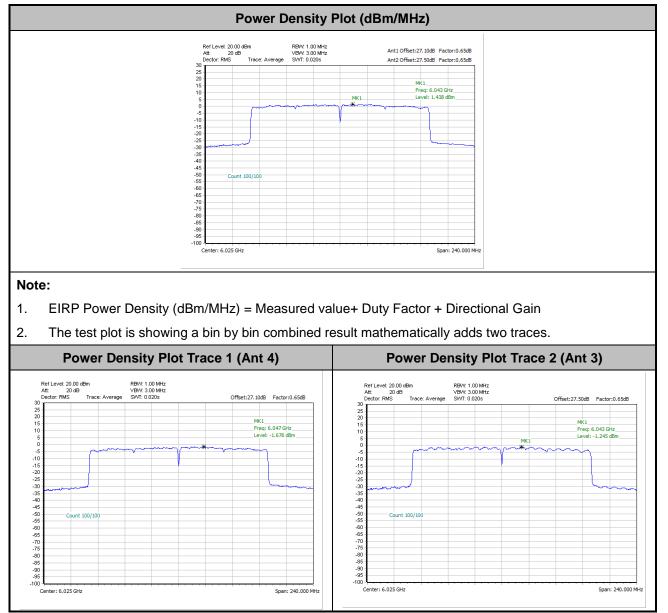


#### <802.11ax HE80>





#### <802.11ax HE160>





### 3.4 In-Band Emissions (Channel Mask)

#### 3.4.1 Limit of Unwanted Emissions

#### <FCC 14-30 CFR 15.407>

(a)(6) For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

#### 3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.



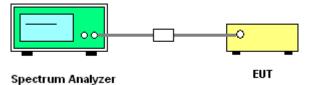
#### 3.4.3 Test Procedures

The testing follows FCC KDB 987594 D02 U-NII 6GHz EMC Measurement v01.

Section J) In-Band Emissions.

- 1. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth
- 2. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
  - a) Set the span to encompass the entire 26 dB EBW of the signal.
  - b) Set RBW = same RBW used for 26 dB EBW measurement.
  - c) Set VBW ≥ 3 X RBW
  - d) Number of points in sweep  $\geq$  [2 X span / RBW].
  - e) Sweep time = auto.
  - f) Detector = RMS (i.e., power averaging)
  - g) Trace average at least 100 traces in power averaging (rms) mode.
  - h) Use the peak search function on the instrument to find the peak of the spectrum.
- 3. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
  - a. Suppressed by 20 dB at 1 MHz outside of the channel edge.
  - b. Suppressed by 28 dB at one channel bandwidth from the channel center.
  - c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
- 4. Adjust the span to encompass the entire mask as necessary.
- 5. Clear trace.
- 6. Trace average at least 100 traces in power averaging (rms) mode.
- 7. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

#### 3.4.4 Test Setup





#### 3.4.5 Test Result

#### MIMO <Ant. 4+3(4)>

Spectrum

) dBm

-10 dBm-

-20 dBm-

-30 dBm

-40 dBm-

-50 dBm--60 dBm-

-70 dBm

80 dBm



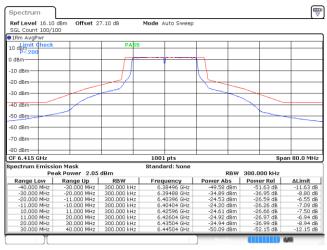
#### Plot on Channel 5955MHz

#### ₽ Spectrum Ref Level 16.10 dBm SGL Count 100/100 P1Rm AvgPwr Limit dbock Ref Level 16.10 dB SGL Count 100/100 1Rm AvgPwr Offset 27.10 dB Mode Auto Sweep Offset 27.10 dB Mode Auto Sweep dBm PAS PAS dBa -10 dBm 20 dBm an dem 40 dBm-50 dBm 60 dBm 70 dBm Span 80.0 MHz Span 80.0 MHz CF 5.955 GHz 1001 pts CF 6.195 GHz 1001 pts ectrum Emission Mask ndard: Non ectrum Emission Mask Standard: None Peak Power 1.92 dBm Range Low Range Low 40.000 HHz -30.000 HHz 300.000 HHz -30.000 HHz -20.000 HHz 300.000 HHz -30.000 HHz -20.000 HHz 300.000 HHz -20.000 HHz -11.000 HHz 300.000 HHz -11.000 HHz -11.000 HHz 300.000 HHz 10.000 HHz 11.000 HHz 300.000 HHz 20.000 HHz 300.000 HHz 300.000 HHz 30.000 HHz 300.000 HHz 300.000 HHz 30.000 HHz 300.000 HHz 300.000 HHz 30.000 HHz 300.000 HHz 300.000 HHz Peak Power 2.51 dBm Range Low Range Low 40.000 HHz -30.000 HHz 300.000 HHz -30.000 HHz -30.000 HHz 300.000 HHz -30.000 HHz -30.000 HHz 300.000 HHz -30.000 HHz -11.000 HHz 300.000 HHz -10.000 HHz -11.000 HHz 300.000 HHz 10.000 HHz 11.000 HHz 300.000 HHz 20.000 HHz 300.000 HHz 300.000 HHz 20.000 HHz 300.000 HHz 300.000 HHz 30.000 HHz 300.000 HHz 300.000 HHz 30.000 HHz 300.000 HHz 300.000 HHz RBW 300.000 kHz RBW 300.000 kHz KBW 300.000 KHz Power Abs Power Rel 47.90 dBm -50.41 dB -32.75 dBm -55.26 dB -22.72 dBm -25.20 dB -22.43 dBm -25.09 dB -22.43 dBm -24.90 dB -26.55 dBm -29.04 dB -26.53 dBm -29.04 dB -26.54 dBm -32.04 dB -32.90 dBm -32.90 dB -47.70 dBm -50.29 dB Norm Solution Power Rel - Power Rel -50.43 dB -35.86 dBm -57.78 dB -25.60 dBm -27.70 dB -25.12 dBm -27.03 dB -25.38 dBm -27.29 dB -29.43 dBm -31.34 dB -35.37 dBm -32.43 dB -49.04 dBm -50.96 dB ALimit -10.43 dB -9.44 dB -7.48 dB -7.87 dB -8.12 dB -7.74 dB -9.24 dB -10.96 dB Frequency Frequency 6.16488 0 .16488 GHz .17496 GHz .18396 GHz .18404 GHz .20596 GHz .21062 GHz .21536 GHz 5.92480 GHz 5.93472 GHz 5.94396 GHz 5.94404 GHz 5.96596 GHz 5.97006 GHz 5.97504 GHz 5.97504 GHz dB dB dB dB dB dB

Date: 15.NOV.2022 15:10:50

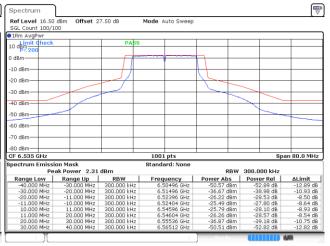
Date: 15.NOV.2022 14:59:30

#### Plot on Channel 6415MHz



#### Plot on Channel 6535MHz

Plot on Channel 6195MHz

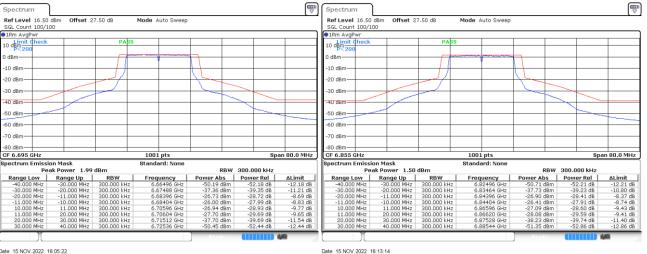


Date: 15.NOV.2022 15:41:45

Date: 15.NOV.2022 15:53:30



#### Plot on Channel 6695MHz



Plot on Channel 6855MHz

Date: 15.NOV.2022 16:05:22

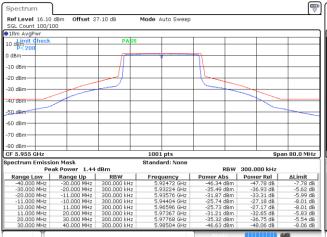
TEL: 886-3-327-0868 FAX: 886-3-327-0855 Report Template No.: BU5-FR15EWLAC MA Version 2.4



EUT Mode :

802.11ax HE20 Full RU

#### Plot on Channel 5955MHz

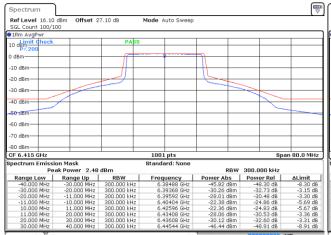


#### Spectrum Ref Level 16.10 dBm Offset 27.10 dB SGL Count 100/100 Mode Auto Sweep 1Rm Avg 10 dBm ) dBm--10 dBm -20 dBm-30 dBm -40 dBm-50 dBm -60 dBm--70 dBmnah 08 CF 6.195 GHz 1001 pts Span 80.0 MHz Total Status Bange Up RBW 300.000 kHz Frequency 6.16496 GHz 6.17352 GHz 6.17673 GHz 6.18404 GHz 6.20596 GHz 6.21375 GHz 6.21616 GHz 6.22504 GHz Power Abs Power Rel -44.74 dBm -47.26 dB Limit -7.26 dB -2.39 dB -2.41 dB -5.06 dB -4.70 dB -2.17 dB -2.10 dB -7.34 dB -44.74 dBm -29.65 dBm -26.36 dBm -21.71 dBm -21.35 dBm -26.54 dBm -28.97 dBm -44.82 dBm -47.26 dB -32.17 dB -28.88 dB -24.23 dB -23.87 dB -29.06 dB -31.49 dB -47.34 dB

Date: 15.NOV.2022 16:30:21

Date: 16.NOV.2022 09:28:54

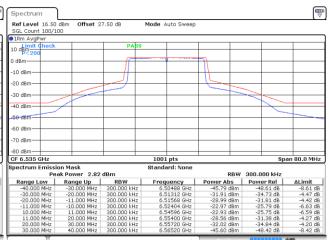
#### Plot on Channel 6415MHz



Date: 16.NOV.2022 09:38:20

#### Plot on Channel 6535MHz

Plot on Channel 6195MHz

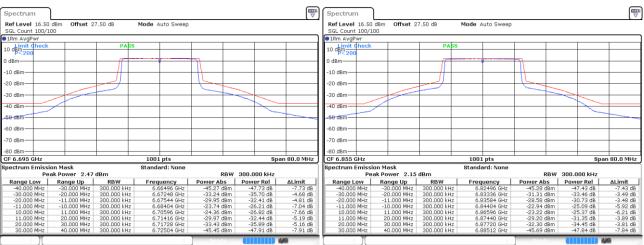


Date: 16.NOV.2022 09:48:54



#### Plot on Channel 6695MHz

#### Plot on Channel 6855MHz



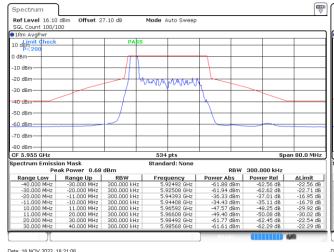
Date: 16.NOV.2022 09:58:54

Date: 16.NOV.2022 10:10:13

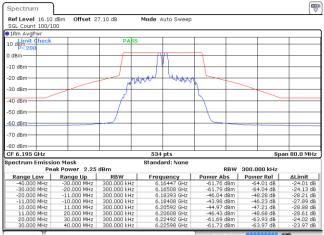


802.11ax HE20 26RU

# Plot on Channel 5955MHz



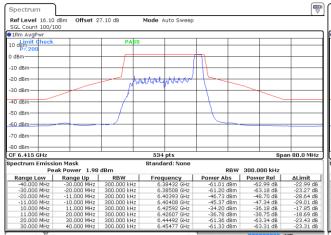
# Plot on Channel 6195MHz



Date: 18.NOV.2022 18:21:06

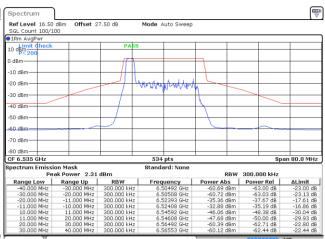
Date: 18.NOV.2022 18:41:14

#### Plot on Channel 6415MHz



Date: 18.NOV.2022 19:00:34

Plot on Channel 6535MHz

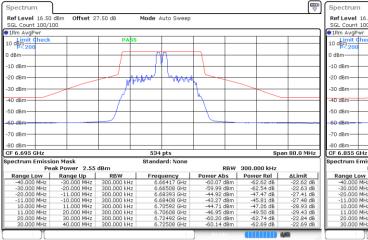


Date: 21.NOV.2022 08:23:22

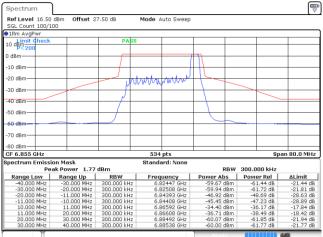
TEL : 886-3-327-0868
FAX : 886-3-327-0855
Report Template No.: BU5-FR15EWLAC MA Version 2.4

Page Number : 37 of 76 Issue Date : Feb. 22, 2023 **Report Version** : 02





#### Plot on Channel 6855MHz



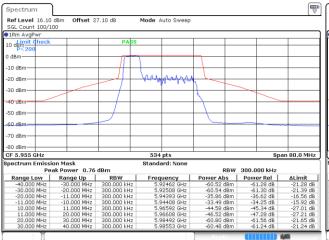
Date: 21.NOV.2022 08:43:50

Date: 21.NOV.2022 09:24:13

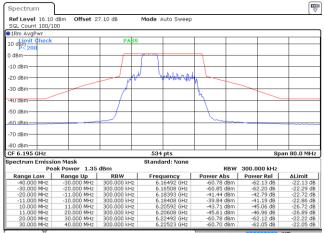


802.11ax HE20 52RU

# Plot on Channel 5955MHz



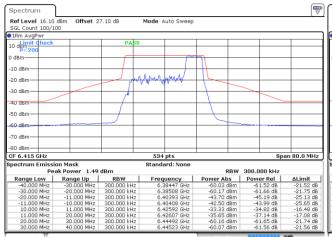
# Plot on Channel 6195MHz



Date: 18.NOV.2022 18:28:36

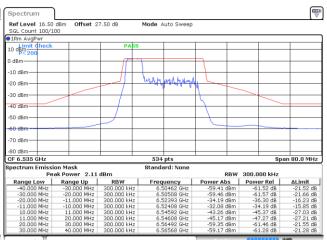
Date: 18.NOV.2022 18:48:57

#### Plot on Channel 6415MHz



Date: 18.NOV.2022 19:08:44

#### Plot on Channel 6535MHz



Date: 21.NOV.2022 08:29:04

Span 80.0 MHz

∆Limit

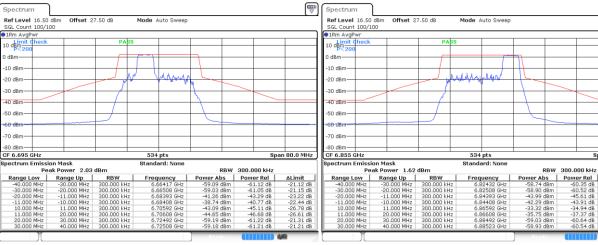
-20.35 dB -20.61 dB -25.54 dB -25.57 dB -16.60 dB -17.30 dB -20.74 dB -20.54 dB

.35 dB .52 dB .61 dB .91 dB .94 dB .37 dB .64 dB .54 dB

-60. -45. -43.



# Plot on Channel 6695MHz



Date: 21.NOV.2022 09:09:48

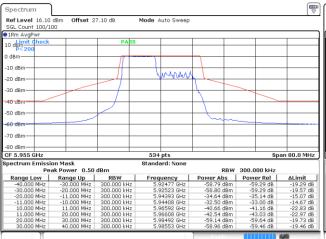
Date: 21.NOV.2022 09:30:38

Plot on Channel 6855MHz

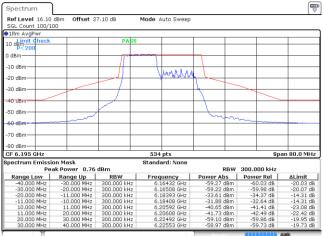


802.11ax HE20 106RU

# Plot on Channel 5955MHz



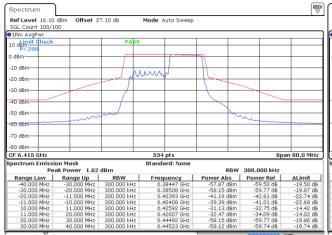
# Plot on Channel 6195MHz



Date: 18.NOV.2022 18:34:29

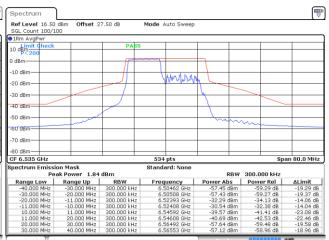
Date: 18.NOV.2022 18:54:33

#### Plot on Channel 6415MHz



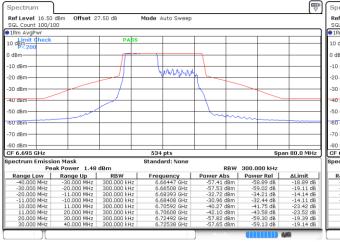
Date: 18.NOV.2022 19:17:40

## Plot on Channel 6535MHz

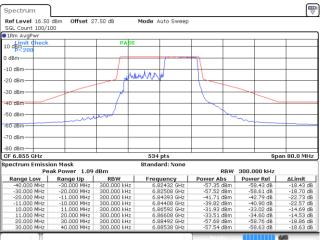


Date: 21.NOV.2022 08:35:30





#### Plot on Channel 6855MHz



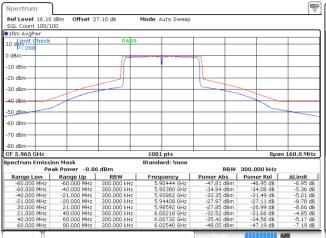
Date: 21.NOV.2022 09:15:31

Date: 21.NOV.2022 09:36:40

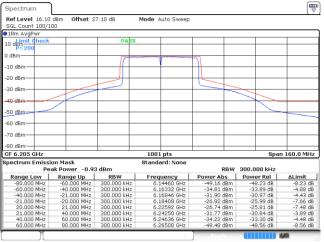


802.11ax HE40 Full RU

# Plot on Channel 5965MHz



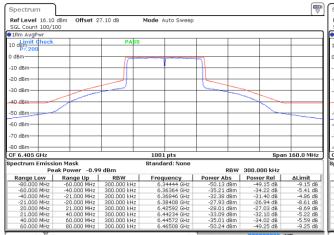
# Plot on Channel 6205MHz



Date: 16.NOV.2022 10:26:39

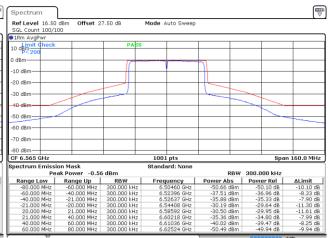
Date: 16.NOV.2022 10:39:07

#### Plot on Channel 6405MHz



Date: 16.NOV.2022 10:53:53

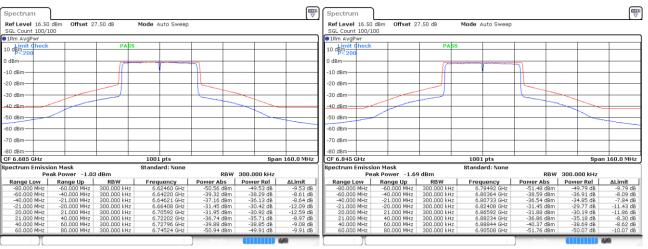
## Plot on Channel 6565MHz



Date: 16.NOV.2022 12:48:57



## Plot on Channel 6845MHz



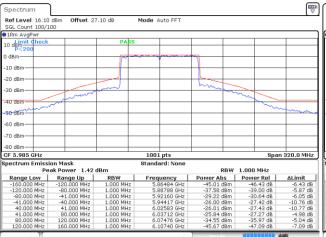
Date: 16.NOV.2022 13:01:02

Date: 16.NOV.2022 13:14:05

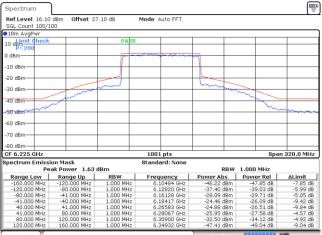


802.11ax HE80 Full RU





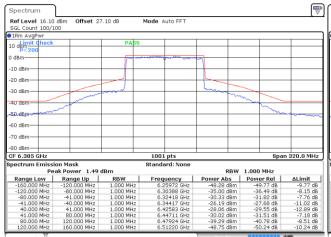
# Plot on Channel 6225MHz



Date: 16.NOV.2022 13:27:56

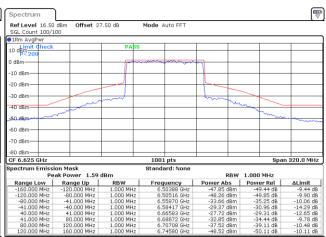
Date: 16.NOV.2022 13:38:04

#### Plot on Channel 6385MHz



Date: 16.NOV.2022 13:47:54

Plot on Channel 6625MHz



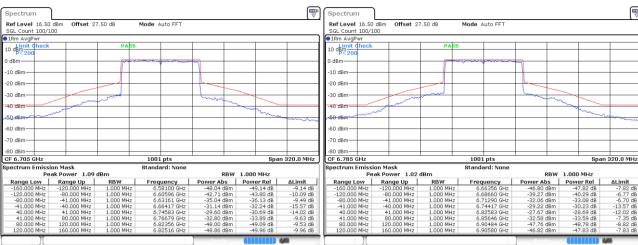
Date: 16.NOV.2022 14:54:41

∆Limit -7.82 dB -6.77 dB -6.70 dB -13.57 dB -12.02 dB -7.35 dB -8.82 dB -7.83 dB



#### Plot on Channel 6705MHz

## Plot on Channel 6785MHz



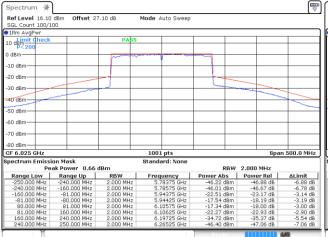
Date: 16.NOV.2022 15:07:38

Date: 16.NOV.2022 15:20:25

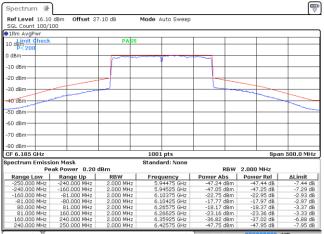


802.11ax HE160 Full RU

# Plot on Channel 6025MHz



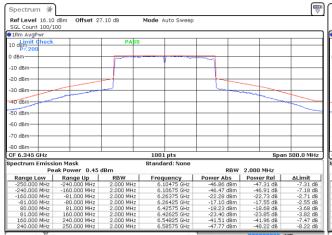
# Plot on Channel 6185MHz



Date: 18.NOV.2022 16:45:34

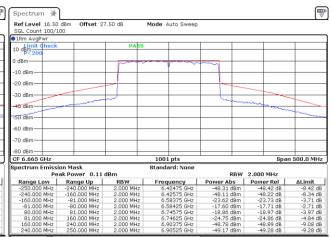
Date: 18.NOV.2022 16:56:07

#### Plot on Channel 6345MHz



Date: 18.NOV.2022 17:07:23

# Plot on Channel 6665MHz



Date: 18.NOV.2022 17:27:18

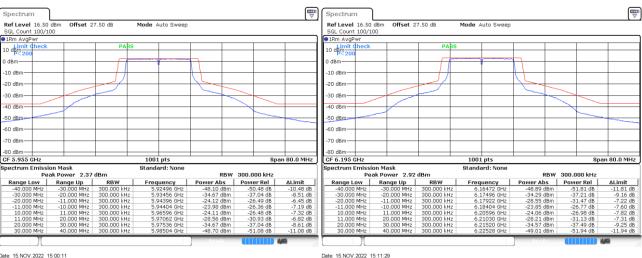


# MIMO <Ant. 4+3(3)>

EUT Mode :

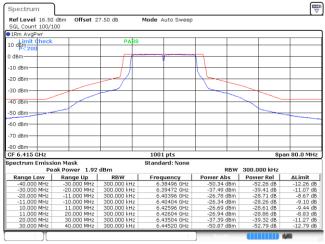
802.11a

#### Plot on Channel 5955MHz



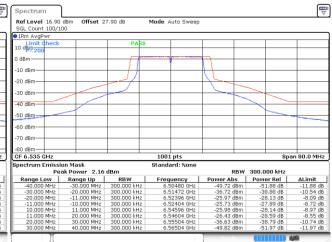
Date: 15.NOV.2022 15:00:11

#### Plot on Channel 6415MHz



Plot on Channel 6535MHz

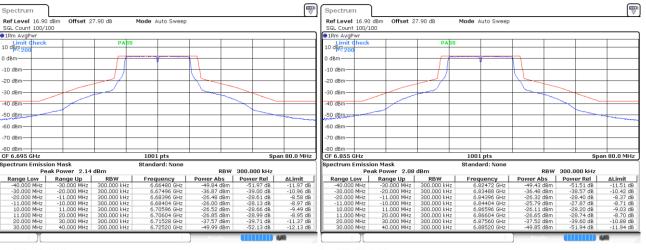
Plot on Channel 6195MHz



Date: 15.NOV.2022 15:42:40

Date: 15.NOV.2022 15:54:06





Date: 15.NOV.2022 16:05:59

Date: 15.NOV.2022 16:13:52

Plot on Channel 6855MHz

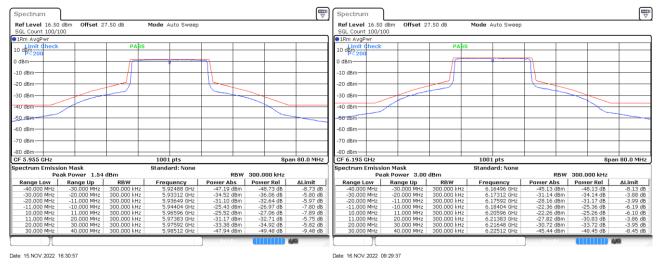




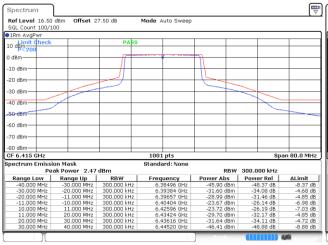
802.11ax HE20 Full RU

# Plot on Channel 5955MHz

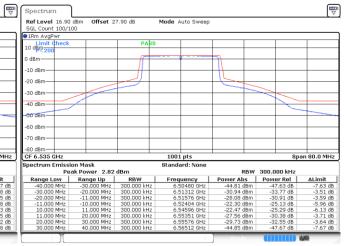
# Plot on Channel 6195MHz



## Plot on Channel 6415MHz



# Plot on Channel 6535MHz

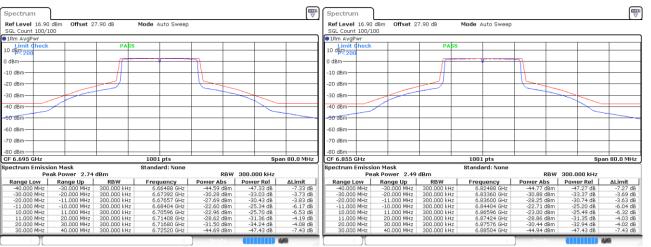


Date: 16.NOV.2022 09:39:04

Date: 16.NOV.2022 09:50:20



## Plot on Channel 6855MHz



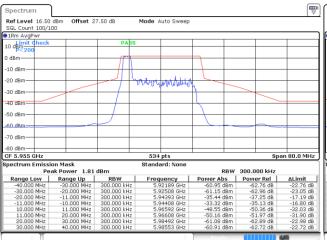
Date: 16.NOV.2022 10:00:26

Date: 16.NOV.2022 10:10:56

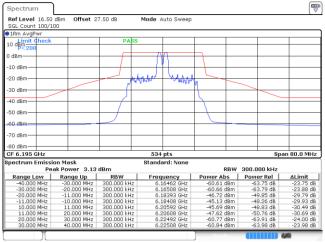


802.11ax HE20 26RU

# Plot on Channel 5955MHz



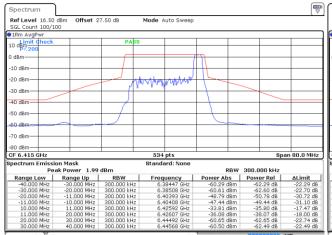
## Plot on Channel 6195MHz



Date: 18.NOV.2022 18:22:12

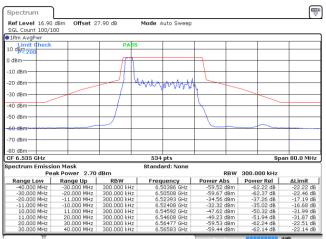
Date: 18.NOV.2022 18:41:55

#### Plot on Channel 6415MHz



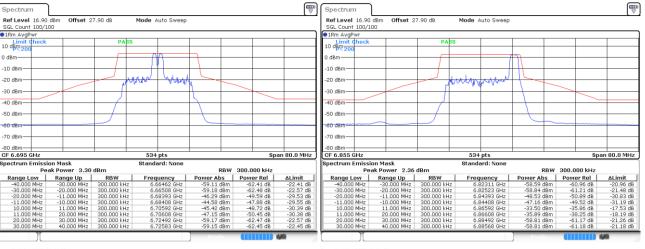
Date: 18.NOV.2022 19:01:34

#### Plot on Channel 6535MHz



Date: 21.NOV.2022 08:24:02





Date: 21.NOV.2022 08:44:29

Date: 21.NOV.2022 09:24:50

Plot on Channel 6855MHz