



FCC RADIO TEST REPORT

FCC ID	:	2AFZZ123G
Equipment	:	Mobile Phone
Brand Name	:	ΧΙΑΟΜΙ
Model Name	:	2201123G
Applicant	:	Xiaomi Communications Co., Ltd.
		#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	:	Xiaomi Communications Co., Ltd.
		#019, 9th Floor, Building 6, 33 Xi'erqi Middle
		Road, Haidian District, Beijing, China, 100085
Standard	:	FCC Part 15 Subpart C §15.247

The product was received on Nov. 15, 2021 and testing was performed from Nov. 19, 2021 to Dec. 08, 2021. 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
FR1N0901C	01	Initial issue of report	Dec. 20, 2021



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(a)(2)	6dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.247(b)	Power Output Measurement	Pass	-
3.3	15.247(e)	Power Spectral Density	Pass	-
2.4	Conducted Band Edges	Pass	-	
3.4 15.247(d)		Conducted Spurious Emission	Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission		3.11 dB under the limit at 2390.000 MHz
3.6	15.207	AC Conducted Emission Pass u		15.90 dB under the limit at 2.396 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	Pass	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

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: Lewis Ho Report Producer: Clio Lo



1 General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, Wi-Fi 6GHz 802.11ax, NFC, WPC/WPT, and GNSS.

Product Feature					
Sample 1	EMMC 8G + 256GB				
ample 2EMMC 12G + 256GB					
Sample 3 EMMC 8G + 128GB					
	WWAN: PIFA Antenna				
	WLAN 2.4GHz:				
	<ant. 16="">: PIFA Antenna</ant.>				
	<ant. 18="">: PIFA Antenna</ant.>				
	WLAN 5GHz:				
	<ant. 17="">: PIFA Antenna</ant.>				
	<ant. 18="">: PIFA Antenna</ant.>				
Antenna Type	WLAN 6GHz:				
Antenna Type	<ant. 17="">: PIFA Antenna</ant.>				
	<ant. 18="">: PIFA Antenna</ant.>				
	Bluetooth:				
	<ant. 16="">: PIFA Antenna</ant.>				
	<ant. 18="">: PIFA Antenna</ant.>				
	GPS/Glonass/BDS/Galileo/SBAS/QZSS: PIFA Antenna				
	NFC: Planar Antenna				
	WPC/WPT: Coil Antenna				

Antenna information					
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	<ant. 16="">: -2.5 <ant. 18="">: -3.0</ant.></ant.>			

Remark: The above EUT's information is declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory		
Test Site LocationNo.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.CTEL: +886-3-327-3456FAX: +886-3-328-4978			
Test Site No.	Sporton Site No.		
Test Site No.	CO05-HY (TAF Code: 1190)		
Remark The Conducted Emission test item subcontracted to Sporton Ir Inc. EMC & Wireless Communications Laboratory.			

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

Test Site	Sporton International Inc. Wensan Laboratory		
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855		
Test Site No.	Sporton Site No. TH05-HY, 03CH20-HY		

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

FCC designation No.: TW1190 and TW3786

1.4 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 C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v05r02
- 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 WPC Charging Mode, and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane and WPC Charging Mode as worst plane.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band Channel		Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		



2.2 Test Mode

The final test modes consider the modulation and the worst data rates as shown in the table below.

MIMO Antenna

Modulation	Data Rate	
802.11b	1 Mbps	
802.11g	6 Mbps	
802.11n HT20 (Covered by HE20)	MCS0	
802.11n HT40 (Covered by HE40)	MCS0	
802.11ax HE20	MCS0	
802.11ax HE40	MCS0	

Note:

High

- 1. Since the verify power, the smaller power can be covered by the higher power. The SISO Mode is covered by MIMO Mode.
- 2. For 802.11ax, since the verify power & PSD, the smaller power can be covered by the higher power. The Partial RU is covered by Full RU.

Test Cases							
AC Conduct	AC Conducted Mode 1 :Bluetooth Link + WLAN (2.4GHz) Link + MPEG4 + USB Cable 1						
Emission	((Charging from Adapter) for	Sample 1				
Remark: For Radiated Test Cases, the tests were performed with USB Cable 1 and Sample 1.							
2400-2483.5 MHz							
Ch #		2400-24	83.5 MHz				
Ch. #	802.11b	2400-24 802.11g	83.5 MHz 802.11ax HE20	802.11ax HE40			
Ch. # Low	802.11b			802.11ax HE40 03			

Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

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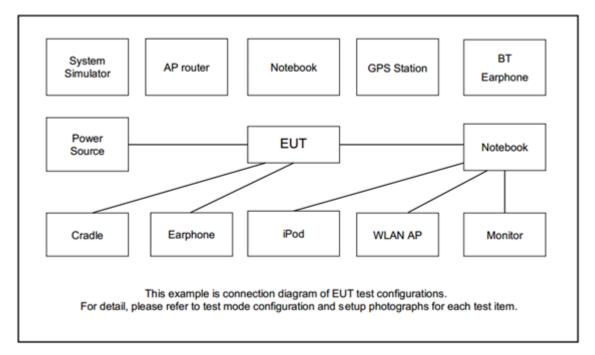
09

11

11



2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

ltem	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Wireless Charger	YU-live	K8	N/A	N/A	N/A
2.	Notebook	DELL	Latitude5310	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Notebook	DELL	Latitude3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
5.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m

2.5 EUT Operation Test Setup

The RF test items, make the EUT (SW: MIUI13) get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

The Partial RU test items, utility "QSPR Version 5.0-00188" was installed in EUT 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 10 dB attenuator.

 $Offset(dB) = RF \ cable \ loss(dB) + attenuator \ factor(dB).$ = 4.2 + 10 = 14.2 (dB)



3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB and 99% Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

- 1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
- 2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
- 3. Set the maximum power setting and enable the EUT to transmit continuously.
- Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
- 5. 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) \ge 3 * RBW.
- 6. Measure and record the results in the test report.

3.1.4 Test Setup



EUT

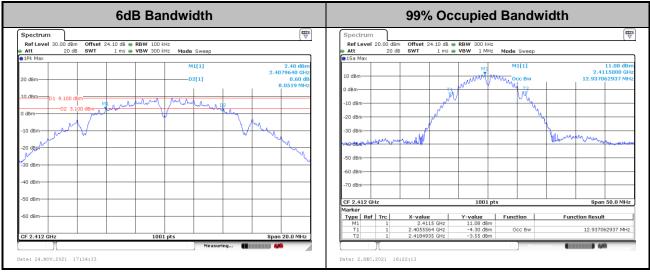
Spectrum Analyzer



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

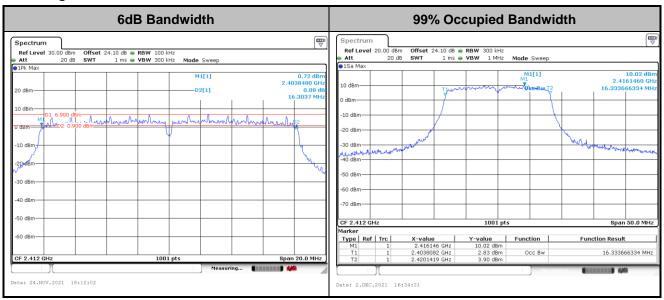
Please refer to Appendix A.

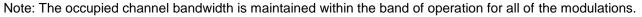
<802.11b>



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

<802.11g>





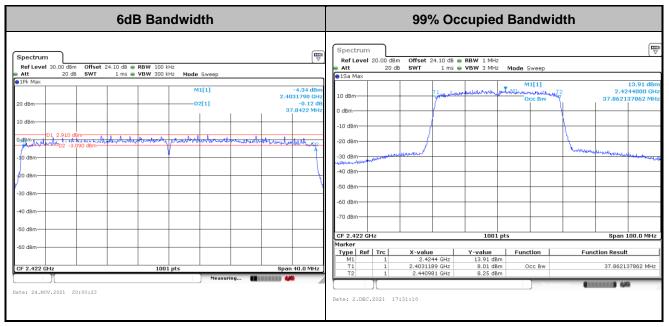


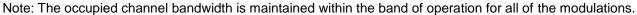
<802.11ax HT20>



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

<802.11ax HT40>







3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna with directional gain greater than 6 dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

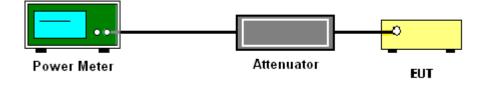
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

- 1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
- 2. The RF output of EUT is connected to the power meter by RF cable and attenuator. The path loss is compensated to the results for each measurement.
- 3. Set the maximum power setting and enable the EUT to transmit continuously.
- 4. Measure the conducted output power and record the results in the test report.
- 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 Average Output Power

Please refer to Appendix A.



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8 dBm in any 3 kHz band at any time interval of continuous transmission.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

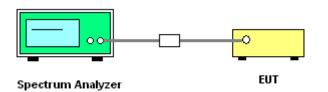
- 1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
- 2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
- 3. Set the maximum power setting and enable the EUT to transmit continuously.
- Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz.
 Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
- 5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
- 6. Measure and record the results in the test report.
- 7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

If measurements performed using method (2) plus 10 log (N) exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

Method (1): 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. Method (2): Measure and add 10 log (N) dB, where N is the number of outputs. (N=2)

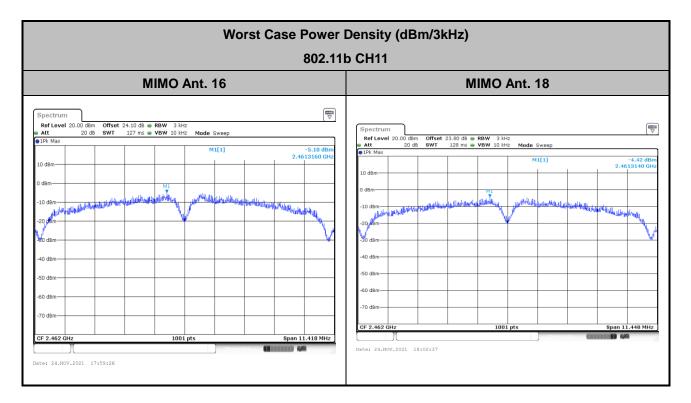
3.3.4 Test Setup

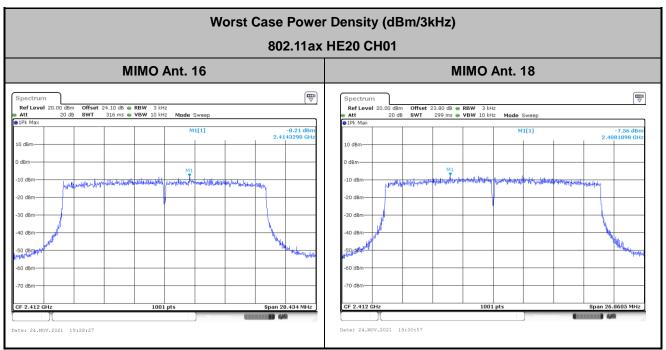




3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.





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Report Template No.: BU5-FR15CWL AC MA Version 2.4	Report Version	: 01

3.4 Conducted Band Edges and Spurious Emission Measurement

3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement.

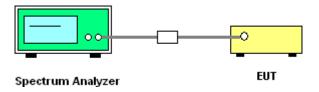
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

- 1. The testing follows the ANSI C63.10 Section 11.11.3 Emission level measurement.
- 2. The RF output of EUT is connected to the spectrum analyzer by RF cable and attenuator. The path loss is compensated to the results for each measurement.
- 3. Set the maximum power setting and enable the EUT to transmit continuously.
- 4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
- 5. Measure and record the results in the test report.
- 6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

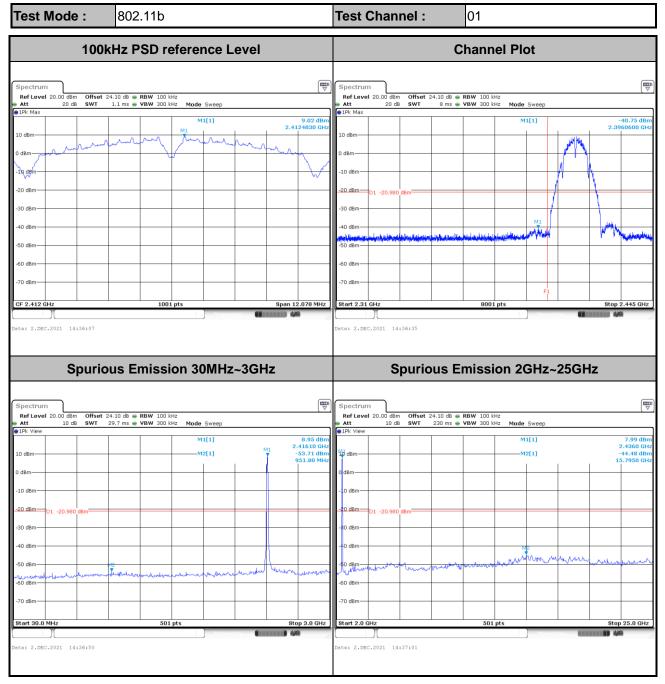
3.4.4 Test Setup





3.4.5 Test Result of Conducted Band Edges and Spurious Emission

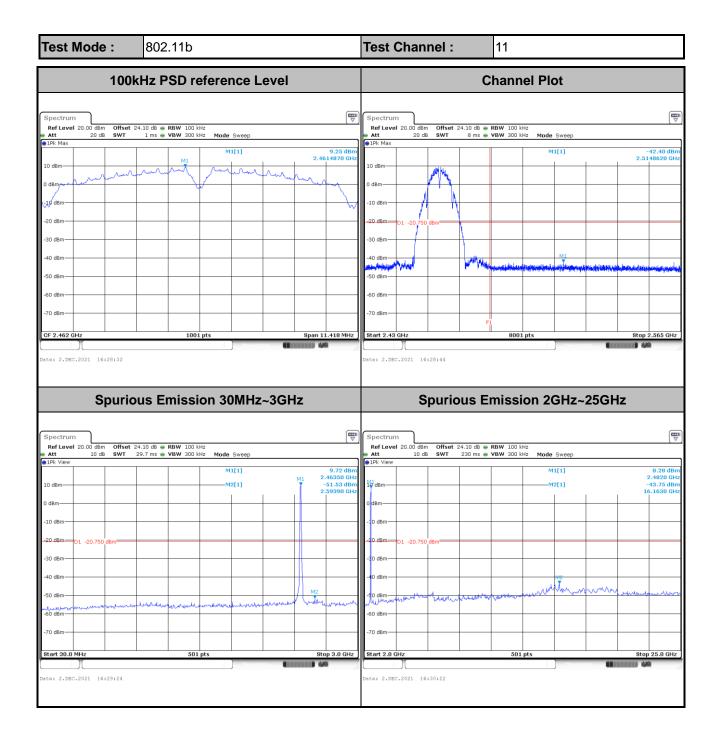
Number of TX = 2, Ant. 16 (Measured)



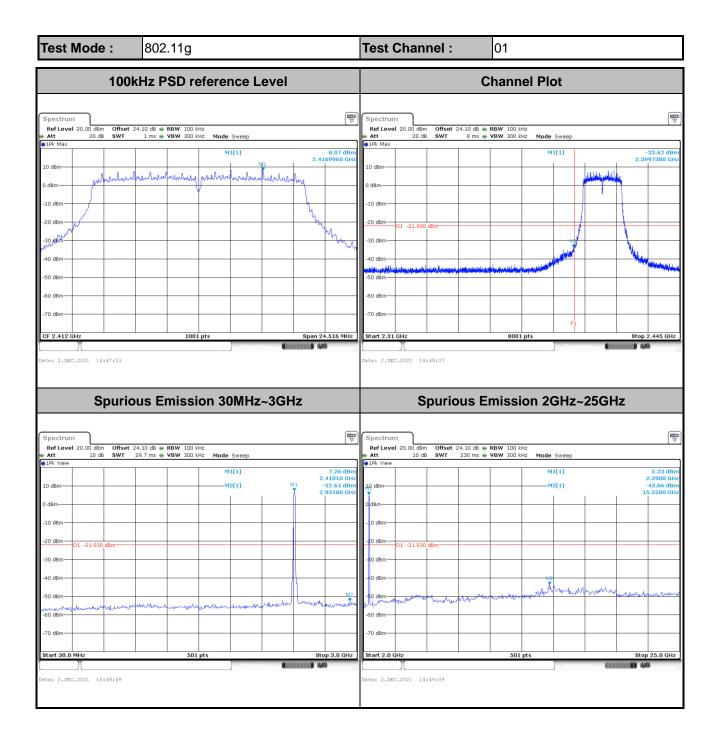


Test Mode :	802.11b	Test Channel : 06
100k	Hz PSD reference Level	Channel Plot
Spectrum Ref Level 20.00 dBm Offset 24 Att 20 dB SWT ID dBm 10 dBm -10 dBm -20 dBm -30 dBm -60 dBm -70 dBm -70 dBm Date: 2.DEC.2021 16:24:35	10 dB • RBW 100 kHz 1.1 ms • VBW 300 kHz Mode Sweep M1 9.12 .4364733 M2 9.12 .4364733 M2 9.12 .4364733 .001 pts Span 10.7595	
Spuriou	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm • 10 dB • 1Pk View 10 dBm 10 dBm -10 dBm -20.dBm -30 dBm -40 dBm -50 dBm -70 dBm -70 dBm	9.7 ms	Het Bit dam 2.3600 GHz 11
Date: 2.DEC.2021 16:25:12		Date: 2.DEC.2021 16:25:25





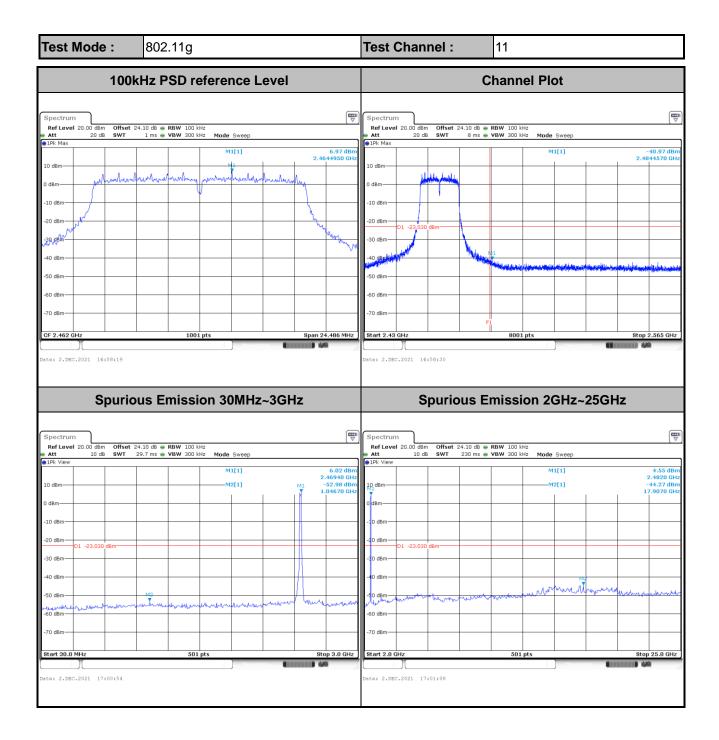






Test Mode :	802.11g	Test Channel : 06
100k	Hz PSD reference Level	Channel Plot
Att 20 dB SWT IPk Max 10 dBm	.10 dB = RBW 100 kHz 1 ms = VBW 300 kHz Mode Sweep M1[1] 7.14 d 2.4394790 d mm/hum/hum/hum/hum/hum/hum/hum/hum/hum/h	
Spuriou	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Lovel 20.00 dBm Offset 24 Att 10 dB 9 TPk View 10 dBm 10 dBm 10 dBm 10 dBm 10 dBm -10 dBm 10 dBm -20 dBm 01 -22.860 dBm -30 dBm -60 dBm -50 dBm -70 dBm -50 dBm -70 dBm	.10 dB @ RBW 100 kHz 9.7 ms @ VBW 300 kHz Mode Sweep 9.7 ms @ VBW 300 kHz Mode Sweep 2.43990 d M1[1] 6.27 d 1.74990 d M2[1] M1 -52.96 d M30 M30 d 1.74930 d	10 dBm
Date: 2.DEC.2021 16:55:27		Date: 2.DEC.2021 16:55:46







Test Mode :	802.11ax HE20	Test Channel : 01
100	kHz PSD reference Level	Channel Plot
Spectrum Ref Level 20.00 dBm Offset Att 20 dB SWT 0 HR Max 10 dBm 0 dBm -10 dBm -20 dB m -30 dBm -50 dBm -60 dBm -70 dBm	24.10 dB @ RBW 100 IHZ Mode Sweep 1.1ms @ VBW 300 IHZ Mode Sweep M1[1] 6.94 dBm 0 0.1 J 0	Spectrum Image: Constraint of the second secon
Spuri	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Att 10 dB SWT	: 24.10 dB ● RBW 100 kHz 29.7 ms ● VBW 300 kHz Mode Sweep	Spectrum Image: Constraint of the second seco
IPL View 10 dBm 0 dBm -10 dBm -20 dBm -10 dBm -20 dBm -10 dBm -50 dBm -50 dBm -70 dBm -70 dBm	M1[1] 3.72 dBm 2.41010 GHz -55.93 dBm M2[1] 1.05260 GHz I 1.05260 GHz I I.05260 GHz I III I IIII I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	• JPk View M1[1] 2.91 dBm 10 dBm -44.77 dBm M1 -13.7950 GHz 0 dBm -10 dBm -10 dBm -10 dBm -30 dBm -10 dBm -30 dBm -10 dBm -70 dBm -10 dBm -70 dBm -10 dBm
Start 30.0 MHz	501 pts Stop 3.0 GHz	Stort 2.0 GHz Stop 25.0 GHz



Test Mode :	802.11ax HE20	Test Channel : 06
100	kHz PSD reference Level	Channel Plot
Att 20 dB SWT 1Pk Max 10 dBm	t 24.10 db @ RBW 100 H4: 1.1 ms @ VBW 300 H4: Mode Sweep M1[1] 6.52 db Multiple 2.4382593 db Multiple 0.000 H4: Multiple 0.000 H4:	
Spuri	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm Offset Att 10 dB 9 TPk View 0 10 dBm 0 -10 dBm 0 -20 dBm 01 -23.480 dBm -30 dBm -10 -23.480 dBm -30 dBm -01 -23.480 dBm -30 dBm -70 dBm	t 24.10 db @ FBW 100 HH: 29.7 ms # VBW 300 HH: Mode Sweep M1[1] 5.70 db M2[1] M1 -52.63 db 1.17710 db 1.17710 db M2	12 2.4360 GHz 10 d8m
Start 30.0 MHz	501 pts Stop 3.0 GH	Start 2.0 GHz Stop 25.0 GHz Date: 2.DEC.2021 17:19:11 000000000000000000000000000000000000



Test Mode : 802.11ax HE20	Test Channel : 11
100kHz PSD reference Level	Channel Plot
Spectrum Image: Construction of the second sec	Spectrum Image: Spectrum </th
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Image: Constraint of the second secon	Spectrum Image: Constraint of the second secon



Test Mode :	802.11ax HE40	Test Channel : 03
100k	Hz PSD reference Level	Channel Plot
Spectrum Ref Level 20.00 dBm Offset 2: Att 20 dB SWT • IPK Max 10 dBm 0 • 0 dBm	4.10 db @ PBW 100 kHz 1 ms @ VBW 300 kHz Mode Sweep	Ref Level 20.00 dbm Offset 24.10 db RBW 100 kHz Mode Sweep 41t 20 db SWT 8 ms VBW 300 kHz Mode Sweep 61Pk Max 10 dbm 2.3994600 GHz -35.42 dbm -35.42 dbm 0 dbm 0 dbm 11 dbm 2.3994600 GHz -30 dbm -20 dbm 01 -26.770 dbm -30 dbm -30 dbm -30 dbm -50 dbm -70 dbm -70 dbm -70 dbm -71 dbm
Spurio	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Offset 2: Ref Level 20.00 dBm Offset 2: Att 10 dB SWT 2 ID dBm 0 -10 dBm - -20 dBm 0126.770 dBm	4.10 db e RBW 100 kHz 29.7 ms e VBW 300 kHz Mode Sweep M1[1] 0.95 dbs 2,43980 dct M2[1]55.17 dbs M1 1.04070 GH	Ref Level 20.00 dBm Offset 24.10 dB @ RBW 100 kHz Att 10 dB SWT 230 ms VBW 300 kHz @ IPI: View M1[1] -0.45 dBm 10 dBm M1[1] -4.41 dBm
-30 dBm -40 dBm -50 dBm -50 dBm -70 dBm -70 dBm Start 30.0 MHz Date: 2.DEC.2021 17:29:53		- 50 dBm



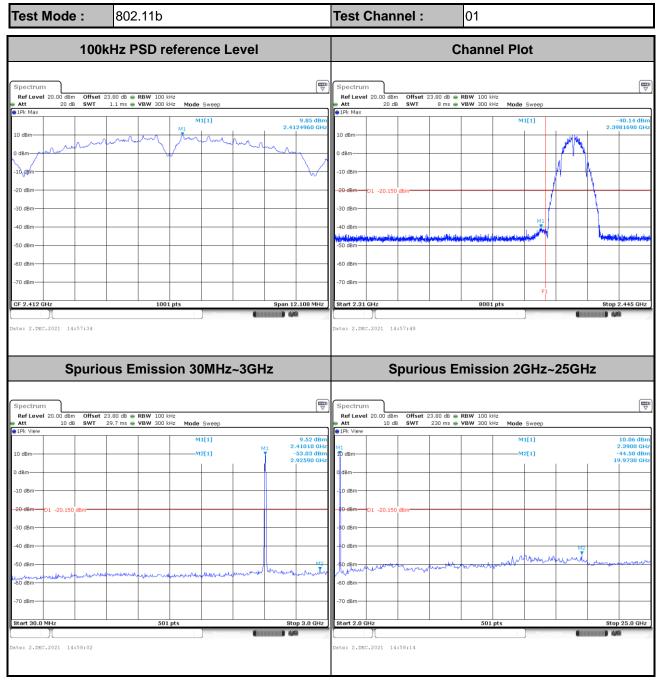
10 dem	Test Mode :	802.11ax HE40	Test Channel : 06
Interlete 10.00 dm Offen 0.11 off 0 4000 100 100 0.17. 10.00 0.00 0000 100 0000 0000 000 0.27. 10.00 0.00 0000 0000 0000 0000 000 0.00 0000 0000 0000 0000 0000 0000 000	100	kHz PSD reference Level	Channel Plot
Spectrum Spectrum Ref Level 20.00 dBm Offset 24.10 dB @ RBW 100 kHz • Att 10 dB SWT 29.7 ms VBW 300 kHz Mode Sweep • IPk View M1[1] 2.46 dBm 0 dBm M1[1] 2.43390 GHz 10 dB M2[1] -2.9.297 dBm M1[1] 2.43390 GHz 10 dB M2[1] -2.9.297 dBm M1[1] 2.43390 GHz 10 dB M2[1] -2.9.297 dBm M1[1] 2.43390 GHz 10 dBm M1[1] 2.83100 GHz M1[1] 2.43390 GHz 10 dBm M1[1] 2.83100 GHz M1 M1 2.43390 GHz 10 dBm M1[1] 2.83100 GHz M1 M1 15.5660 0 dBm 0 0 0 0 0 0 0 -30 dBm 0 0 0 0 0 0 0 0 0 -40 dBm 0 0 0 0 0 0 0 0 0 0 <	Ref Level 20.00 dBm Offset att 20 dB SWT ID dBm ID dBm ID dBm 0 dBm ID dBm ID dBm -10 dBm ID dBm ID dBm -20 dBm ID dBm ID dBm -30 dBm ID dBm ID dBm -70 dBm ID dBm ID dBm -70 dBm ID dBm ID dBm -70 dBm ID dBm ID dBm	24.10 dB @ RBW 100 HHz 1.1 ms @ VBW 300 HHz Mode Sweep M1[1] 3.29 dBm 2.4420045 GHz M1[1] 4.440 H & All And All An	
Ref Level 20.00 dBm Offset 24.10 dB RBW 100 kHz • Att 10 dB 9 VIW 29.7 ms • VIW 300 kHz Mode Sweep • Att 10 dB SWT 29.00 dBm Offset 24.10 dB RBW 100 kHz • Att 10 dB SWT 230 ms • VIW 300 kHz Mode Sweep • Att 10 dB SWT 230 ms • VIW 300 kHz Mode Sweep • Att 10 dB SWT 230 ms • VIW 0.50 2.4350 10 dBm	Spurio	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
-60 d8m	Ref Level 20.00 dBm Offset 9 Mt 10 dB SWT 10 dBm	24.10 dB	Ref Level 20.00 dBm Offset 24.10 dB RBW 100 kHz Mode Sweep • Att 10 dB SWT 230 ms • VBW 300 kHz Mode Sweep • 0.50 dBm • PFV View M1[1] 2.4366 GHz 0.50 dBm 10 dB 0.51 dBm M1[1] 0.50 dBm 10 dBm 0.1 0.55 dBm 0.55 dBm -10 dBm 0.1 0.55 dBm 0.55 dBm -10 dBm 0.1 0.56 dBm -20 dBm 0.1 0.55 dBm -0 dBm 0.1 0.56 dBm -0 dBm 0.0 0.0 -70 dBm 0.0 0.0 -70 dBm



Test Mode :	802.11ax HE40	Test Channel : 09
100	kHz PSD reference Level	Channel Plot
Spectrum Ref Level 20.00 dBm Offset 2 Att 20 dB SWT IPK Max 0 0 SWT 10 dBm 0 0 0 0 -20 dBm -30 dBm -30 dBm -30 dBm -50 dBm -50 dBm -60 dBm -70 dBm	24.10 dB @ RBW 100 kHz 1.1 ms @ VBW 300 kHz Mode Sweep 1.1 ms @ VBW 300 kHz MI[1] 3.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 3.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 dBm 0.1 ms @ VBW 300 kHz MI[1] 0.04 kHz	Spectrum Product Ref Level 20.00 dBm Offset 24.10 dB e RBW 100 lHz Att 20 dB SWT 8 ms ID MI[1] -40.79 dBm -0 dBm -10.70 dBm -0 dBm -11.75 dFL -0 dBm -12.45 dFL -0 dBm -13.45 dFL -0 dBm -14.45 dFL -0 dBm -14.45 dFL -0 dBm -14.45 dFL -0 dBm -14.45 dFL
Spurio	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm Offset 2	24-10 dB ● RBW 100 kHz 29.7 ms ● VBW 300 kHz Mode Sweep M1[1] -0.58 dBm	
10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm -50 dBm -70 dB	S01 pts Stop 3.0 GHz	10 dBm 2.4960 GHz 10 dBm -44.29 dBm 0 dBm -10 dBm -0 dBm -0 dBm
Date: 2.DEC.2021 17:46:12		Date: 2.DEC.2021 17:46:41



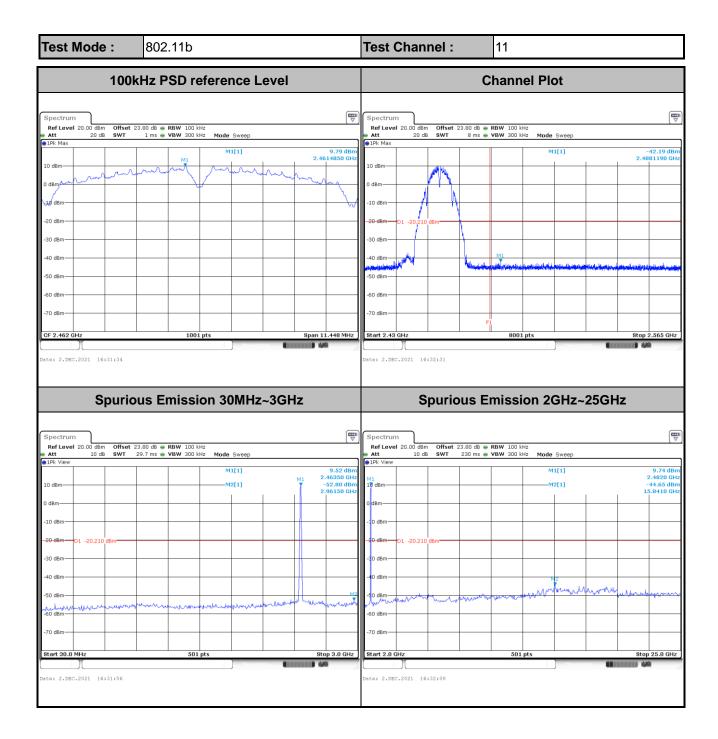
Number of TX = 2, Ant. 18 (Measured)



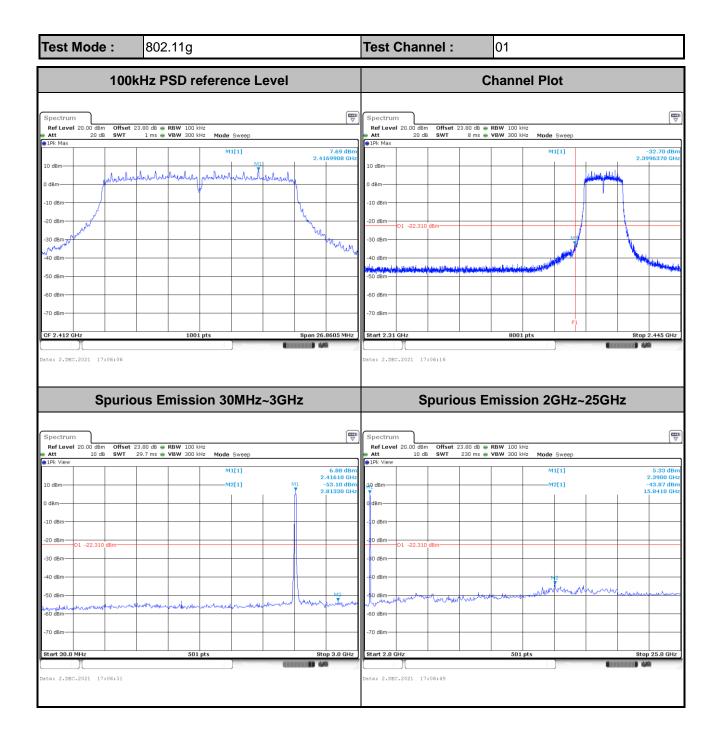


Test Mode :	802.11b	Test Channel : 06
100k	Hz PSD reference Level	Channel Plot
Spectrum Rof Lovel 20.00 dBm Offset 23 • Att 20 dB SWT • IPk Max 0 dBm 0 • 10 dBm	.00 d8 • RBW 100 kH2 1ms • VBW 300 kH2 M1[1] 9.02 dB M1 1 9.03 dB M1 1 9.04 dB M1 1 9.02 dB M1 9.02 dB 9.02 dB	
Spuriou	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm Offset 23	, T	P Spectrum P Ref Level 20.00 dbm Offset 23.80 db @ RBW 100 kHz Mode Sweep # 10 db SWT 230 ms @ VBW 300 kHz Mode Sweep # 11 dbm M1[1] 8.52 dbm # 10 db M1[1] 2.4360 dHz # 10 dbm M1[1] 2.4360 dHz # 10 dbm M2[1] -4.43.6 dbm # 0 dbm M2[1] 2.43.6 dbm - 0 dbm - - - 70 dbm - -
Date: 2.DEC.2021 16:26:30		Date: 2.DEC.2021 16:26:58





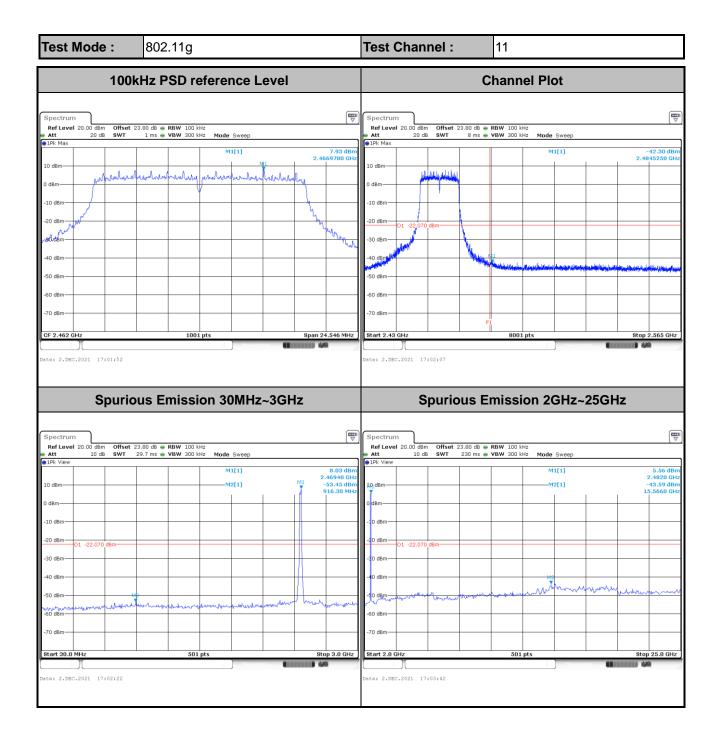






Test Mode :	802.11g	Test Channel : 06
100k	Hz PSD reference Level	Channel Plot
Att 20 dB SWT PIPK Max 10 dBm	NOO dB • RBW 100 kHz 1 ms • VBW 300 kHz Mode Sweep M1[1] 2.4419960 GH MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	
Spuriou	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
1Pk View 10 dBm 0 dBm -10 dBm -20 dBm 01 -22.130 dBm -30 dBm -40 dBm -50 dBm	1.80 d8 RBW 100 kHz 9.7 ms VBW 300 kHz Mode Sweep 2.43390 dH M2[1] 6.64 dBr M2[1] 6.33.90 dBr M2[1] M1 -M2[1] M2 -M2[1] M3 -M3 M4 -M3 M4 -M3 M4 -M4 M4 -M4 M4 -M3 M4 -M3 M4 -M4 M4 -M4 M4	Ref Level 20.00 dbm Offset 23.80 db RBW 100 kHz Mode Sweep Att 10 db SWT 230 ms VBW 300 kHz Mode Sweep In dim 0 dbm M1[1] 4.00 dbm 4.00 dbm 10 dbm M1[1] 2.4350 GHz 4.474 dbm 10 dbm M1[1] -44.74 dbm 0 dbm 15.7950 GHz 30 dbm 15.7950 GHz -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -20 dbm 01 -22.130 dbm -10 dbm -10 dbm -10 dbm -30 dbm -0 dbm -10 dbm -10 dbm -10 dbm -10 dbm -30 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm
Date: 2.DEC.2021 16:57:06		Date: 2.DEC.2021 16:57:17







Test Mode : 80	2.11ax HE20	Test Channel : 01
100kHz	PSD reference Level	Channel Plot
Spectrum Ref Level 20.00 dBm Offset 23.80 dB Att 20 dB SWT 1 ms • IPk Max 10 dBm 0 dBm 0 dBm • 0 dBm	● VBW 300 kHz Mode Sweep M1[1] 7.38 dBm 2.4107388 GHz ▼ ■	Spectrum Image: Constraint of the sector of th
Spurious E	Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Rof Level 20.00 dBm Offset 23.80 dB • 10 dB SWT 29.7 ms • IPk View	RBW 100 HH2 VBW 300 HH2 Mode Sweep M1[1] S.47 dBm 2.41010 CH2 3.10 dBm 2.93780 CH2 M2[1] M1 2.93780 CH2 M2[1] M1 S.10 dBm S.1	Spectrum Image: Constraint of the sector of th



Test Mode :	802.11ax HE20	Test Channel : 06
100kHz PSD reference Level		Channel Plot
Spectrum Ref Level 20.00 dBm Offset 10 dBm 20 dB SWT 0 dBm	23.00 dB @ RBW 100 BH2 Ins @ VBW 300 BH2 Mode Sweep	
Spurio	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum RefLevel 20.00 dBm Offset # Att 10 dB SWT 6 JPF View	23.60 dB ● RBW 100 kHz 29.7 ms ● VBW 300 kHz Mode Sweep	Spectrum RefLevel 20.00 dBm Offset 23.80 dB ● RBW 100 kHz Att 10 dB SWT 230 ms ● VBW 300 kHz Mode Sweep IPk view
10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm -50 dBm	M1[1] 7.72 dB	M1[1] 5.06 dBm An dBm 2.4360 dFz 0 dBm -43.69 dFz -0 dBm -45.69 dFz -0 dBm -45.69 dFz -0 dBm -50 dBm -60 dBm -60 dBm
-70 dBm	501 pts Stop 3.0 GHz	50 dBm stort 2.0 GHz Stop 25.0 GHz Stort 2.0 GHz Stop 25.0 GHz Date: 2.0EC.2021 17:22:37



Test Mode : 802.11ax HE20	Test Channel : 11
100kHz PSD reference Level	Channel Plot
Spectrum Image: Construction of first 23.80 db @ RBW 100 HH; Att 20 db SWT 1.1 ms @ VBW 300 HH2 Mode Sweep I Irk Mak M1[1] 6.77 dbm 0 dbm 0 dbm 0 dbm 0 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm	Ref Level 20.00 dlm Offset 23.80 dlm W 100 kHz Mode Sweep Att 20 dlm 8 ms VBW 300 kHz Mode Sweep Image: State of the second state of
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum W Ref Level 20.00 dbm Offset 23.80 db @ RBW 100 lHz Att 10 db 91Pk View M1[1] 0 dbm M1[1] 0 dbm M2[1] 10 dbm M2[1] 0 dbm M2[1] 10 dbm M2[1] 0 dbm M1 -30 dbm -01 - 23.230 dbm -30 dbm -10 - 30 - 30 - 30 - 30 - 30 - 30 - 30 -	Spectrum Image: Constraint of the second secon