



FCC RADIO TEST REPORT

FCC ID	: MSQI005D
Equipment	: ASUS Phone(Mobile Phone)
Brand Name	: ASUS
Model Name	: ASUS_1005D
	ASUS_1005DC
Standard	: FCC Part 15 Subpart C §15.247

The product was received on Nov. 02, 2020 and testing was started from Nov. 11, 2020 and completed on Dec. 30, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications 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 of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

His	story o	f this test report	3
Su	mmary	/ of Test Result	4
1	Gener	al Description	5
	1.1	Applicant	5
	1.2	Manufacturer	5
	1.3	Product Feature of Equipment Under Test	5
	1.4	Modification of EUT	6
	1.5	Testing Location	7
	1.6	Applicable Standards	7
2	Test C	Configuration of Equipment Under Test	8
	2.1	Carrier Frequency and Channel	8
	2.2	Test Mode	8
	2.3	Connection Diagram of Test System	9
	2.4	Support Unit used in test configuration and system	10
	2.5	EUT Operation Test Setup	10
	2.6	Measurement Results Explanation Example	10
3	Test F	Result	11
	3.1	6dB and 99% Bandwidth Measurement	11
	3.2	Output Power Measurement	13
	3.3	Power Spectral Density Measurement	14
	3.4	Conducted Band Edges and Spurious Emission Measurement	19
	3.5	Radiated Band Edges and Spurious Emission Measurement	56
	3.6	AC Conducted Emission Measurement	
	3.7	Antenna Requirements	62
4	List of	f Measuring Equipment	64
5	Uncer	tainty of Evaluation	66
Ap	pendix	A. Conducted Test Results	
Ар	pendix	B. AC Conducted Emission Test Result	
Ар	pendix	C. Radiated Spurious Emission	
Ар	pendix	CD. Radiated Spurious Emission Plots	
Ар	pendix	c E. Duty Cycle Plots	

Appendix F. Setup Photographs



History of this test report

Report No.	Version	Description	Issued Date
FR082114C	01	Initial issue of report	Feb. 04, 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	3.4 15.247(d)	Conducted Band Edges	Pass	-
3.4		Conducted Spurious Emission	Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	Under limit 2.29 dB at 2483.530 MHz
3.6	15.207	AC Conducted Emission	Pass	Under limit 4.92 dB at 0.152 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 declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang Report Producer: Cindy Liu



1 General Description

1.1 Applicant

ASUSTeK COMPUTER INC.
 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan

1.2 Manufacturer

- Guangdong Enok Communication Co., Ltd. No. 137, 139, Lixiang Road., Songmushan Village, Dalang Town, Dongguan City, Guangdong Province, China
- 2. PT. SAT NUSAPERSADA TBK JALAN PELITA VI. NO. 99, BATAM, 29443,INDONESIA

1.3 Product Feature of Equipment Under Test

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

Product Specification subjective to this standard			
Sample 1	mple 1 Model Name: ASUS_1005D		
Sample 2	Model Name: ASUS_1005DC		
Antenna Type	WWAN: PIFA Antenna WLAN <ant. 4="">: PIFA Antenna <ant. 5="">: PIFA Antenna <ant. 6="">: PIFA Antenna Bluetooth <ant. 4="">: PIFA Antenna <ant. 5="">: PIFA Antenna <ant. 6="">: PIFA Antenna GPS / Glonass / BDS / Galileo: PIFA Antenna NFC: Loop Antenna</ant.></ant.></ant.></ant.></ant.></ant.>		

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	Ant. 4: -0.5 dBi Ant. 5: -0.8 dBi Ant. 6: 2.7 dBi

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



Sample Information			
Model Name	ASUS_I005D ASUS_I005DC		
SKU	SKU1	SKU2	
360	UE2S3	UE2S2	
High-end or Entry level	High-end WW	High-end CN	
(Back cover CN or WW)	(Etching + Black)	(Etching + Black)	
	PMOLED	Light guide plate	
PCB Manufacturer	COMPEQ	COMPEQ	
Front Camera			
24M	TRIPLEWIN/CASF0-000A	LUXVISIONS/0BFO01P3	
(Brand/Model name)			
Rear CAM 64M+13M	PRIMAX/50-704JHASC8	PRIMAX/50-704JHASC8	
(Brand/Model name)	1 1(10/27/04/31/2808		
Rear CAM 8M	TSPRECISION/05F9323 VERA1	TSPRECISION/05F9323 VERA1	
(Brand/Model name)			
BATT	SCUD/C21P2001	SCUD/C21P2001	
(Brand/Model name)	300D/0211 2001	0000/0211 2001	
CPU	QUALCOMM/	QUALCOMM/	
(Brand/Model name)	SM-8350-1-MPSP1393-TR-00-0-AB	SM-8350-1-MPSP1393-TR-00-0-AB	
DDR	12G	12G	
Brand/Model name	Micron/MT62F1536M64D8CH-031WT:A	Micron/MT62F1536M64D8CH-031WT:A	
UFS	512G	256G	
Brand/Model name	Micron/MTFC512GARATAM-WT	Samsung/KLUEG8UHDC-B0E1	

1.4 Modification of EUT

No modifications are made to the EUT during all test items.



1.5 Testing Location

Test Site SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH05-HY, CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	Sporton Site No. 03CH15-HY	

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

FCC designation No.: TW1190 and TW0007

1.6 Applicable Standards

According to the specifications of 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 test items were verified and recorded according to the standards and without any deviation during the test.
- 2. The TAF code is not including all the FCC KDB listed without accreditation.
- 3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

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, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Normal Mode: X plane for Ant. 4 and Ant. 5; Camera Mode: Z plane for Ant. 6 and Ant. 5) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

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		

2.1 Carrier Frequency and Channel

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

MIMO Antenna

Modulation	Data Rate
802.11b	1 Mbps
802.11g (Covered by HE20)	6 Mbps
802.11n HT20 (Covered by HE20)	MCS0
802.11n HT40 (Covered by HE40)	MCS0
802.11ac VHT20 (Covered by HE20)	MCS0
802.11ac VHT40 (Covered by HE40)	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0

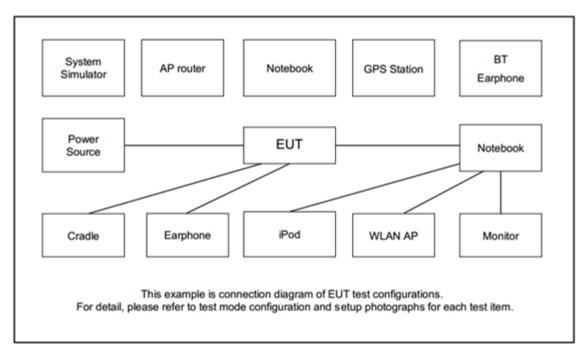


		Test Cases
AC	Mode 1	: GSM850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + Camera (Front)
Conducted		+ NFC On + USB Cable (Bottom USB Port) (Charging from Adapter) + X
Emission		mode + Aura sync + SIM 1 for Sample 1
Remark: For Radiated Test Cases, the tests were performed with Sample 1		

Ch #	2400-2483.5 MHz			
Ch. #	802.11b	802.11ax HE20	802.11ax HE40	
Low	01	01	03	
Middle	06	-	-	
High	11	11	09	

Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	ASUS	Unshielded, 1.8 m
4.	Notebook	DELL	Latitude E3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Earphone	ASUS	EA009B	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility "QRCT Ver.4.0.00175.0" 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 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

See list of measuring equipment of 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 was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT 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

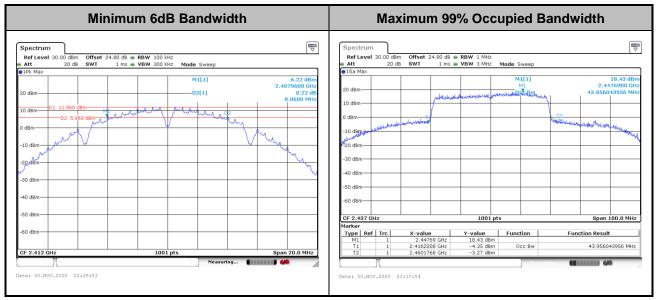
Spectrum Analyzer



3.1.5 Test Result of 6dB and 99% Occupied Bandwidth

Please refer to Appendix A.

<Normal Mode>



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

<Camera Mode>



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



3.2 Output Power Measurement

3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for output power is 30dBm. If transmitting antenna with directional gain greater than 6dBi 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 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

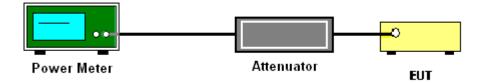
3.2.2 Measuring Instruments

See list of measuring equipment of 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 was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT 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 8dBm in any 3kHz band at any time interval of continuous transmission.

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

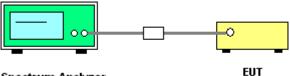
- 1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
- 2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT transmit continuously.
- 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.
- 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



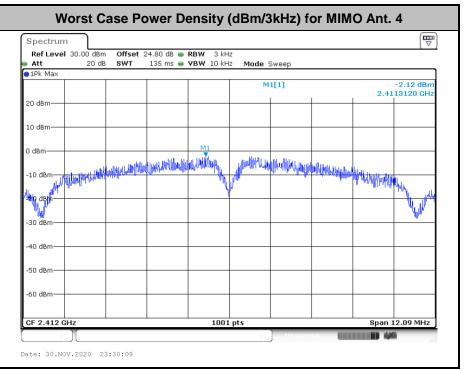
Spectrum Analyzer

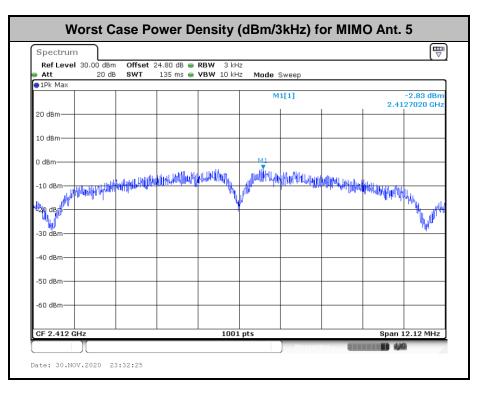


3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

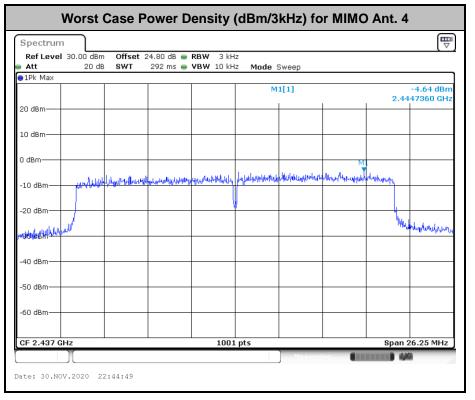
<Normal Mode>

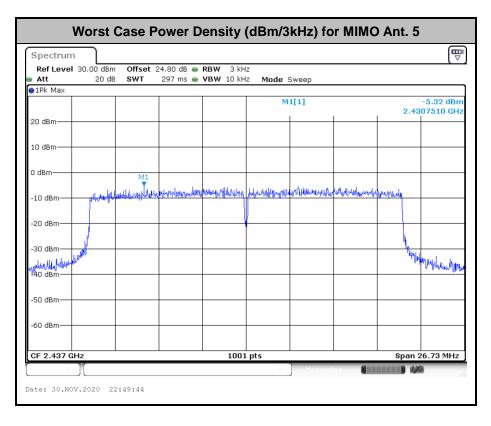






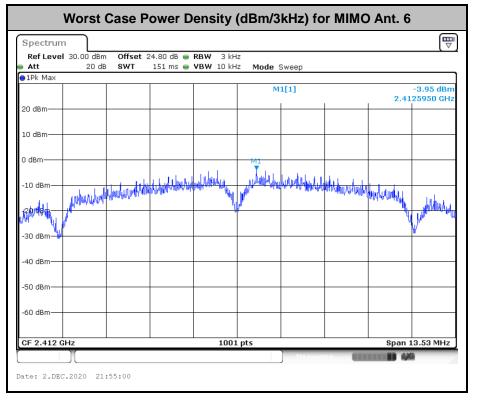
<802.11ax Mode>

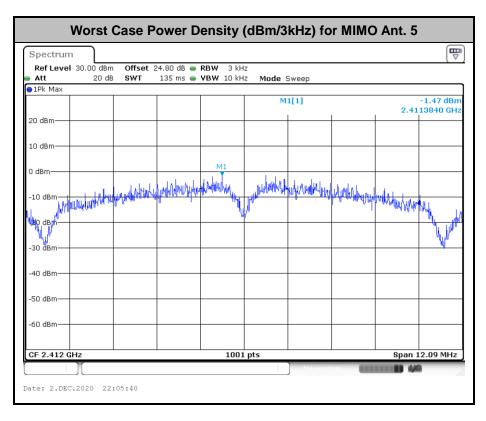






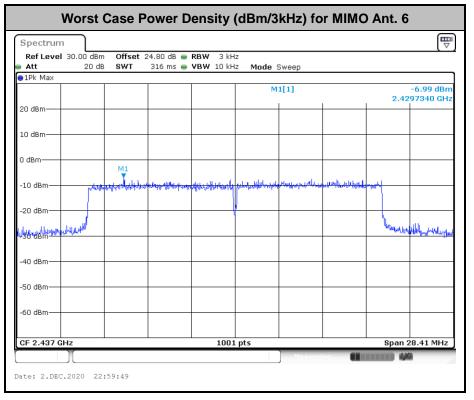
<Camera Mode>

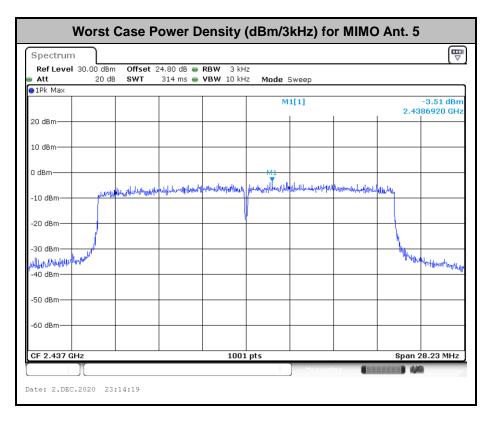






<802.11ax Mode>





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.

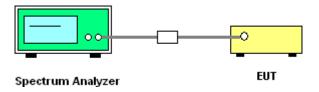
3.4.2 Measuring Instruments

See list of measuring equipment of 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 was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT 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



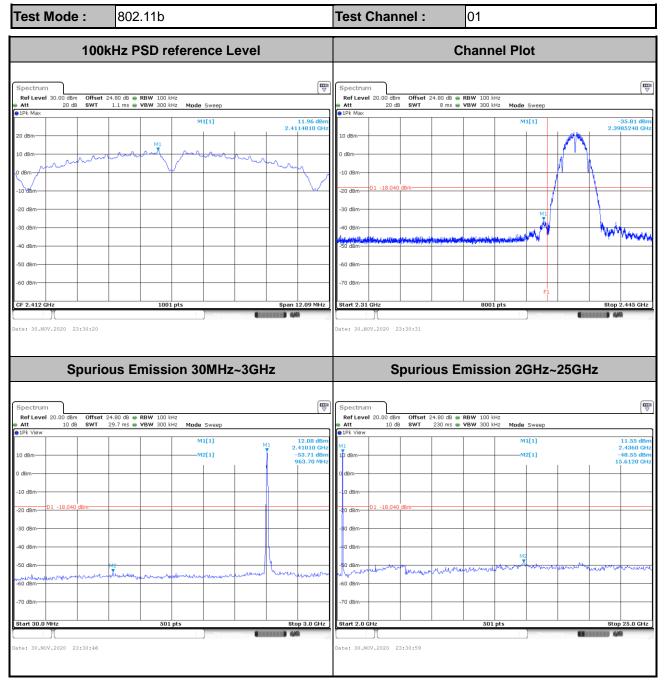


3.4.5 Test Result of Conducted Band Edges and Spurious Emission

Test Engineer : Derek Hsu	Temperature :	21~25 ℃	
Test Engineer .	Delek lisu	Relative Humidity :	51~54%

<Normal Mode>

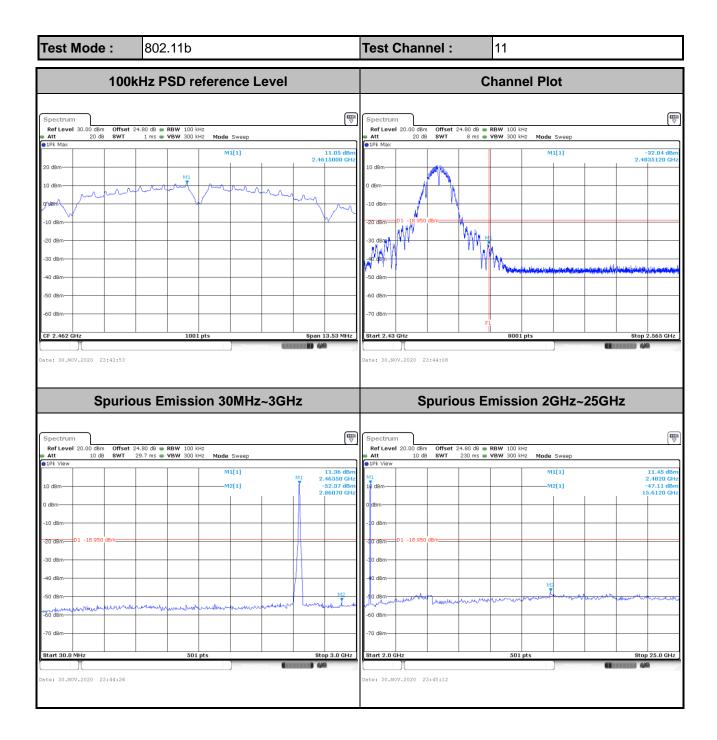
Number of TX = 2, Ant. 4 (Measured)





Test Mode :	802.11b	Test Ch	nannel : 06	
100	kHz PSD reference Leve	el	Channel Plo)t
Spectrum Ref Lovel 30.00 dBm Offset 3 Att 20 dB PIPK Max 20 dBm 10 dBm 0 -10 dBm	24.80 dB @ RBW 100 HH: 1.1 ms @ VBW 300 HH2 Mode Sweep M1[1] M1 M1 M1 M1 M1 M1 M1 M1 M1 M1	10.38 dBm 2.4374980 GHz		
Spuric	ous Emission 30MHz~30	GHz	Spurious Emission 20	Hz~25GHz
Spectrum Ref Level 20.00 dBm Offset 1 10 dB SWT IDk View 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm -70 dBm -70 dBm -70 dBm	24.80 dB RBW 100 kHz 29.7 ms VBW 300 kHz Mode Sweep M1[1] M2[1] M2[1]	-20 dBm -0 dBm -	10 dB SWT 230 ms • VBW 300 kHz Mode s	(1) 0.33 dBm 2.4360 GHz (1) 2.4360 GHz (1) 0.9730 GHz 0.9730 GHz (1) 0.9730 GHZ (
Date: 30.NOV.2020 23:39:07	Mexsiling	Date: 30.NOV.20		







Test Mode : 802.11ax HE20 Full RU	Test Channel : 01
100kHz PSD reference Level	Channel Plot
Spectrum Image: Control of the set of	Spectrum Image: Constraint of the sector of th
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Image: Constraint of the second secon	Spectrum W Ref Level 20.00 dBm Offset 24.80 dB • RBW 100 kHz Mode Sweep • IPK View -19K View 4.50 dBm • IPK View M1[1] 2.3900 GHz • IPK View M1[1] 2.3900 GHz • O dBm M2[1] -47.49 dBm • ID dBm M2[1] -47.49 dBm • ID dBm -10 dBm -10 dBm • ID dBm





Test Mode :	802.11ax HE20 Full RU	Test Channel : 11
100k	Hz PSD reference Level	Channel Plot
Spectrum Offset 2: Ref Level 30.00 dbm Offset 2: Att 20 db 9 1Pk Max 10 dbm 10 dbm 0 dbm -10 dbm	2.45699	10 dBm 10 dBm 10 dBm 0 dBm 10 dBm 10 dBm -10 dBm 10 dBm 10 dBm -20 dBm 10 dBm 10 dBm -30 dBm 10 dBm 10 dBm -50 dBm 10 dBm 10 dBm -50 dBm 10 dBm 10 dBm -70 dBm 10 dBm 10 dBm
Spurio	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	M2[1] M3 2.629	Spectrum Image: Constraint of the sector of th



Test Mode : 802.11ax HE40 Full RU	Test Channel : 03
100kHz PSD reference Level	Channel Plot
Spectrum Image: Spectrum Image: Spectrum Spectru	Spectrum Image: Construction of the state o
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Image: Constraint of the sector of th	Spectrum The sector is a s



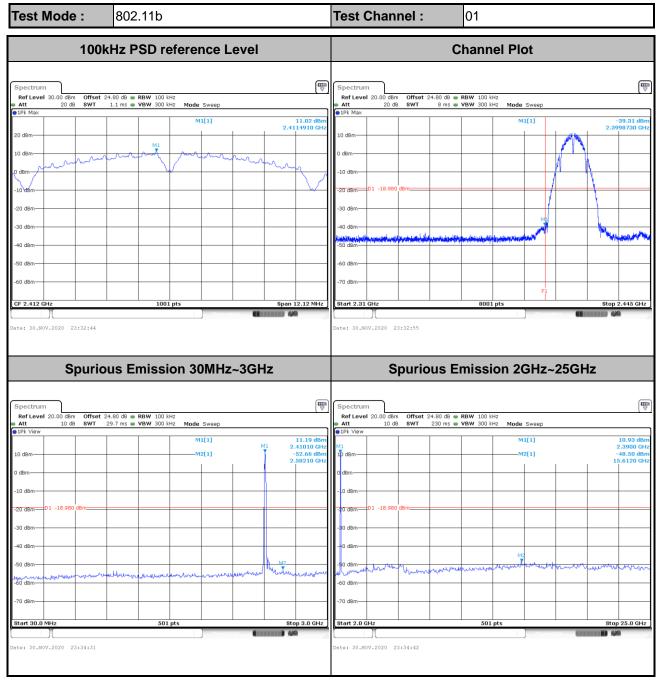
Test Mode : 802.11ax HE40 Full RU	Test Channel : 06
100kHz PSD reference Level	Channel Plot
Spectrum Refuevel 30.00 dBm Offset 24.00 dB RBW 100 kHz Att 20 dB SWT 1.1 ms VBW 300 kHz Mode Sweep 0 JPK Max M1[1] 8, 2.4407 20 dBm M1[1] 8, 1.1 ms 1.1	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
10 dBm	Spectrum W Ref Level 20.00 dBm Offset 24.80 dB = RBW 100 kHz + Att 10 dB SWT 230 ms = VBW 300 kHz Mode Sweep Mode Sweep 6 dBm



Test Mode : 802.11ax HE40 Full RU	Test Channel : 09	
100kHz PSD reference Level	Channel Plot	
Spectrum W Ref Lovel 30.00 dBm Offset 24.80 dB + RBW 100 kHz Att 20 dB Image: Sector and the s	Spectrum Image: Constraint of the second secon	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz	
Spectrum Image: Constraint of the second secon	Spectrum Image: Constraint of the second secon	



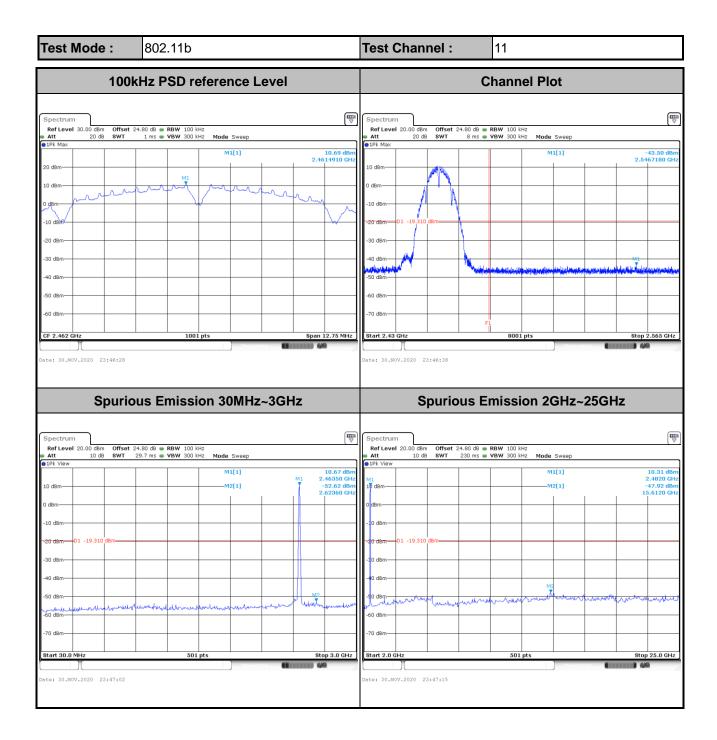
Number of TX = 2, Ant. 5 (Measured)





Test Mode :	802.11b	Test Ch	annel : 06	
100	100kHz PSD reference Level		Channel Plot	
Spectrum Ref Level 30.00 dBm Offset 1 4tt 20 dB SWT 1Pk Max 20 dBm 0 10 dBm 0 dBm -10 dBm	24.60 dB @ RBW 100 kHz 1.1 ms @ VBW 300 kHz Mode Sweep M1[1] M1 M1 M1 M1 M1 M1 M1 M1 M1 M1	9.69 dBm 2.4374960 GHz		
Date: 30.Nov.2020 23:40:31	ous Emission 30MHz	_	Spurious Emission 2GHz-	
	24.80 dB 🖷 RBW 100 kHz 29.7 ms 🖷 VBW 300 kHz 🛛 Mode Sweep	Image: Spectrum Ref Level 20.0 ▲ Att	00 dBm Offset 24.80 dB RBW 100 kHz 10 dB SWT 230 ms VBW 300 kHz Mode Sweep	
1Pk View 10 dBm 0 dBm -10 dBm	M1[1] 	9-38.dBm 4-2.43390.GHz -53.74.dBm 1.87660.GHz 0.dBm -1.0 dBm	M1[1] M2[1]	8.23 dBm 2.4360 GHz -47.96 dBm 15.5660 GHz
-20-dBm D1 -20.120 dBm			20.120 dBm	
-50 dBm	M2	-60 dBm	Macelware and marked and and and and and and and and and an	an a
Start 30.0 MHz	501 pts	Stop 3.0 GHz	501 pts	Stop 25.0 GHz







Test Mode : 802.11ax HE20 Full RU	Test Channel : 01
100kHz PSD reference Level	Channel Plot
Spectrum Image: Constraint of the second secon	Spectrum Image: Spectrum </th
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Image: Constraint of the second secon	Spectrum Control Ref Level 20.00 dBm Offset 24.80 dB @ RBW 100 kHz Made Sweep 91Pk View M1[1] 3.51 dBm 10 dB SWT 230 ms @ VBW 300 kHz Made Sweep 10 dBm M2[1] -47.22 dBm 0 dBm<



Test Mode : 802.11ax HE20 Full RU	Test Channel : 06
100kHz PSD reference Level	Channel Plot
Spectrum Image: Spectrum Ref Level 30.00 dbm Offset 24.00 db @ RBW 100 kHz 20 db SWT 1 ms @ VBW 300 kHz Image: Spectrum Image: VBW 300 kHz Mode Sweep Image: Spectrum M1[1] 10.66 dbm 10 dbm M1[1] Spectrum 10 dbm M1[1] <	
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Image: Construct of the second	Spectrum Image: Constraint of the second secon



Test Mode : 80	2.11ax HE20 Full RU	Test Channel : 11
100kHz	PSD reference Level	Channel Plot
Spectrum Ref Level 30.00 dBm Offset 24.60 dB. Att 20 dB 91Pk Max 30 dBm 10 dBm 40 dBm -10 dBm	RBW 100 kHz Mode Sweep VBW 300 kHz Mode Sweep	CHz 2.4663810 CHz 10 dBm 0 dBm 0 dBm 0 dBm -10 dBm 0 dBm -20 dBm 0 -23,410 dBm -30 dBm 0 -23,410 dBm -30 dBm 0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0
Spurious E	Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm Offset 24.80 dB Att 10 dB SWT 29.7 ms ID dBm 0 0 Bm 0 10 dBm 0 0 0 Bm 0 -10 dBm -0 -20 dBm -0 -23.410 dBm -30 dBm -3	VBW 300 kHz Mode Sweep M1[1] 2,4635 2,4635 2,4635 2,59990 0	CH2 2.4360 CH2 2.4360 CH2 Bin Tr dem



Test Mode :	802.11ax HE40 Full RU	Test Channel : 03
100k	Hz PSD reference Level	Channel Plot
Spectrum Ref Level 30.00 dBm Offset 2 Att 20 dB SWT ●1Pk Max 20 dB SWT ●1D k Max 20 dBm 10 dBm 10 dBm 0 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm -60 dBm -60 dBm -60 dBm	1 ms • VBW 300 kHz Mode Sweep	Spectrum Ref Level 20.00 dbm Offset 24.90 db. • RBW 100 kHz 3.31 dbm 20 db SWT 8 ms. • VBW 300 kHz 10 dbm 0 dbm 10 dbm 37.67 db -10 dbm -10 dbm -10 dbm -10 dbm -20 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -20 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm -10 dbm <t< th=""></t<>
Spurio	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm Offset 2 Att 10 dB SWT 3WT ● 1Pk View		Spectrum Ref Level 20.00 dbm Offset 24.80 db RBW 100 kHz Att 10 db SWT 230 ms VBW 300 kHz Mode Sweep 10 dbm 10 dbm 11 2.99 nd 2.99 nd M1[1] 2.99 nd -53.01 dbm 10 dbm -47.23 db -47.23 db -47.23 db -47.23 db -65910 GHz 0 dbm -40 dbm -47.23 db -47.23 db -47.23 db -0 dbm -90 dbm



Test Mode :	802.11ax HE40 Full RU	Test Channel : 06
100k	Hz PSD reference Level	Channel Plot
Spectrum Ref Level 30.00 dBm Offset 2 Att 20 dB SWT 0 Pk Max 20 dBm 10 dBm 10 dBm 0 dBm 10 dBm -30 dBm -30 dBm -30 dBm -30 dBm -30 dBm -30 dBm -40 dBm -50 dBm -50 dBm -50 dBm -30 dBm -30 dBm -50 dBm -30 dBm -30 dBm -50 dBm -30 dBm -30 dBm	1 ms YWW 100 HH; 1 ms YWW 200 HH; 1 ms 2.4407540 GH; 1 ms 2.4407540 GH; 1 ms 1.4407540 GH; 1 ms	
Spurio	us Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
Spectrum Ref Level 20.00 dBm Offset 2 Att 10 dB ID dBm 0 10 dBm 0 -10 dBm 0 -20 dBm 01 -22.060 dBm -30 dBm -30 dBm -50 dBm -30 dBm -70 dBm -70 dBm -70 dBm -70 dBm	14.80 db e RBW 100 kHz 29.7 ms e VBW 300 kHz M1[1] 7.77 dbm	Bef Level 20.00 dbm Offset 24.00 dbm PBW 10 dbm Xit Mode Sweep ● 1Pk. View M1[1] 7.41 dbm 7.
Date: 30.NOV.2020 23:17:52		Date: 30.NOV.2020 23:20:06

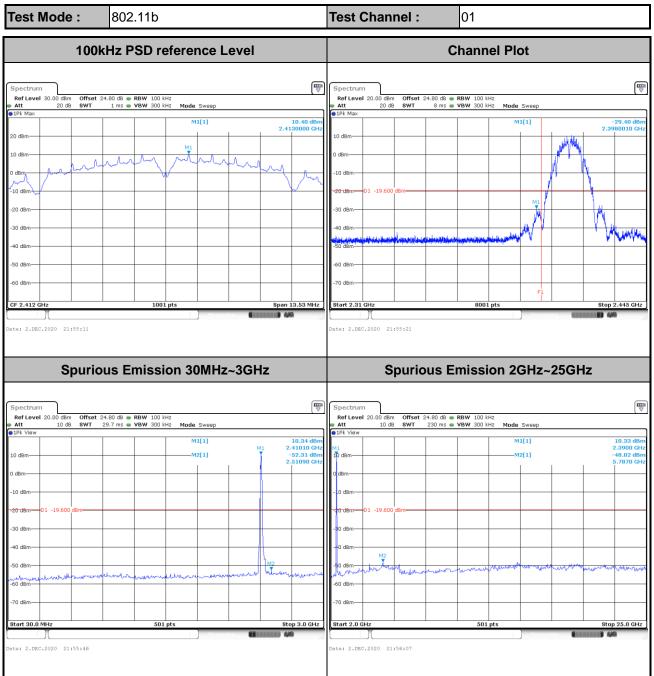


Test Mode : 802.11ax HE40 Full RU	Test Channel : 09			
100kHz PSD reference Level	Channel Plot			
Spectrum W Ref Level 30.00 dBm Offset 24.80 dB = RBW 100 kHz Att 20 dB IPK Max 5.06 dBm 0 dBm 11 ms -10 dBm 11 ms -20 dBm 10 ms	Spectrum W Ref Lovel 20.00 dBm Offset 24.80 dB • RBW 100 kHz Mode Sweep IPK Max MI[1] -43.92 dBm 0 dBm 2.4866510 GHz -43.92 dBm 10 dBm 2.4866510 GHz -43.92 dBm 10 dBm 0 dBm -43.92 dBm 20 dBm 0.1 -24.940 dBm -43.92 dBm 30 dBm -43.92 dBm -43.92 dBm -10 dBm -40 dBm -43.92 dBm -50 dBm -49.940 dBm -49.940 dBm -50 dBm -49.940 dBm -49.940 dBm -27 dBm F1 -49.940 dBm -70 dBm -49.940 dBm -49.940 dBm -20 dBm -49.940 dBm -49.940 dBm -20 dBm -49.940 dBm -49.940 dBm -30 dBm -49.940 dBm -49.940 dBm -20 dBm -49.940 dBm -49.940 dBm -20 dBm -49.940 dBm -49.940 dBm -40 dBm -49.940 dBm -49.940 dBm -20 dBm -49.940 dBm -49.940 dBm -20 dBm <t< th=""></t<>			
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz			
Spectrum The sector of the secto	Spectrum Image: Constraint of the second secon			



<Camera Mode>

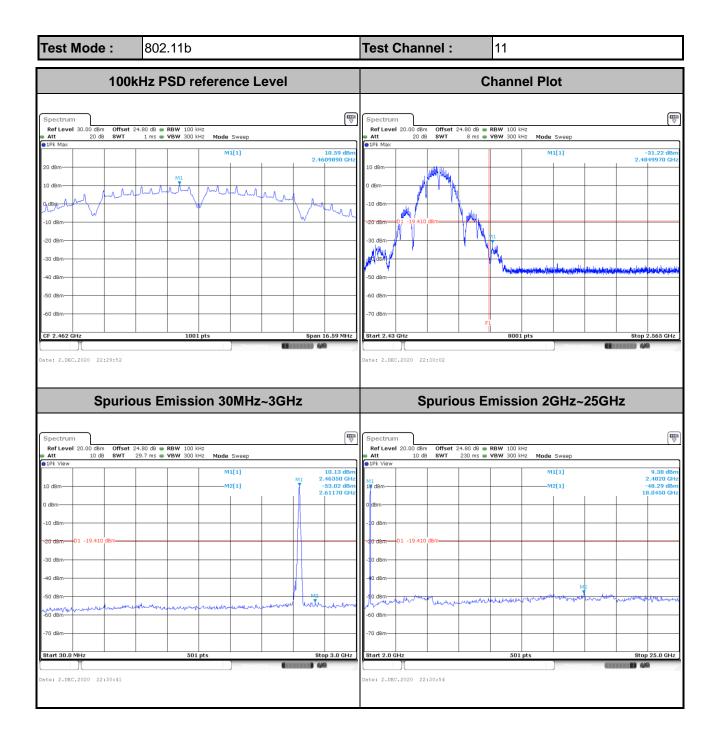
Number of TX = 2, Ant. 6 (Measured)





Test Mode : 802.11b	Test Channel : 06		
100kHz PSD reference Level	Channel Plot		
Spectrum Image: Spectrum Ref Lovel 30.00 dBm Offset 24.80 dB @ RBW 100 HHz Mode Sweep PF Max 9.76 dBm 0 Bm 4.374940 GHz 0 dBm M11 0 dBm M1 -20 dBm 4.374940 GHz -10 dBm M1 -30 dBm -4.374940 GHz -30 dBm -4.374940 GHz -30 dBm -4.374940 GHz -50 dBm -4.3049 -50 dBm -5.3049 -50 dBm -5.049			
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz		
Spectrum Image: Constraint of the second secon	Spectrum Image: Construct and the second		







Test Mode : 802.1	1ax HE20 Full RU	Test Channel :	01	
100kHz PS	D reference Level	Channel Plot		
Spectrum Ref Level 30.00 dBm Offset 24.60 dB = RB • Att 20 dB • IPk Max 11 ms = VB • IPk Max 10 dBm • 0 dBm	W 100 kHz	• IPk Max • IPk Max 10 dBm • I0 dBm • -10 dBm • -20 dBm • -20 dBm • -30 dBm • -40 dBm • -40 dBm • -50 dBm • -70 dBm	vBW 300 kHz Mode Sweep M1[1] Multiple M1[1] Multiple Multiple Multiple </th <th>-27.20 dBm 2.3993170 GHz</th>	-27.20 dBm 2.3993170 GHz
Spurious Em	ission 30MHz~3GHz	Spurious	Emission 2GHz~25GHz	
Spectrum Ref Level 20.00 dBm Offset 24.80 dB RB Att 10 dB SWT 29.7 ms VB	W 100 kHz		RBW 100 kHz VBW 300 kHz Mode Sweep	
DPk View 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -70 dBm -7	M1[1] 3.84 dt 2.416100 M2[1] -53.21 dt 2.64130 C 	12 m 10 dBm		3.32 dBm 2.4360 GHz -48.14 dBm 15.6120 GHz



Channel Plot
Spurious Emission 2GHz~25GHz
Spectrum The sector of the secto



100kHz PSD reference Level			
	Channel Plot		
Spectrum Mail Mail Mail Advector Advecto	10 dBm 2.4037990 GHz 0 dBm -10 dBm -10 dBm -10 dBm -20 dBm -10 dBm -30 dBm -10 dBm -40 dBab -10 dBm -50 dBm -10 dBm -70 dBm -10 dBm		
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz		
RefLevel 20.00 dBm Offset 24.80 dB ■ RBW 100 kHz ● Att 10 dB SWT 29.7 ms ● VBW 300 kHz Mode Sweep	Image: Spectrum Image: Spectrum Image: Spectrum RefLevel 20.00 dBm Offset 24.80 dB ● RBW 100 kHz Mode Sweep Att 10 dB SWT 230 ms ● VBW 300 kHz Mode Sweep		
e1Pk View M1[1] 2.20 dB 2.43760 (D) 10 dBm M2[1] -2.43760 (D) 0 dBm M2[1] -3.22,76 dB -10 dBm M2[1] -3.22,76 dB -10 dBm -10 dBm -20 dBm -30 dBm -30 dBm <td< th=""><th>10 dBm </th></td<>	10 dBm		



Test Mode :	802.11ax HE40 Full RU	Test Channel : 03		
100	kHz PSD reference Level	Channel Plot		
Spectrum Ref Level 30.00 dBm Att 20 dB 9 TPl: Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm -60 dBm -20 dBm -20 dBm -30 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm -50 dBm -50 dBm -60 dBm -20 dBm -20 dBm -50 dBm -50 dBm -50 dBm -50 dBm -60 dBm -20 dBm	1 ms • VBW 300 kHz Mode Sweep	Spectrum The Level 20.00 dBm Offset 24.80 dB = RBW 100 kHz Att 20 dB = SWT 8 ms * VBW 300 kHz Mode Sweep 2.55 dBm 193270 GHz 10 dBm -34.54 dBm -34.54 dBm 10 dBm -10 dBm -30 dBm -40 dBm -40 dBm -20 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -20 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -20 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 -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -10 dBm		
Spuri	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz		
Spectrum Ref Level 20.00 dBm Offset Att 10 dB ID dBm 0 0 dBm 0 -10 dBm 0 -20 dBm 01 -27.450 dBm -30 dBm 01 -27.450 dBm -50 dBm 01 -27.450 dBm -50 dBm -70 dBm		Image: Spectrum Image: Spe		
Start 30.0 MHz	501 pts Sto	Start 2.0 GHz Start 2.0 GHz Start 2.0 GHz Date: 2.0 EGC.2020 23:38:44		



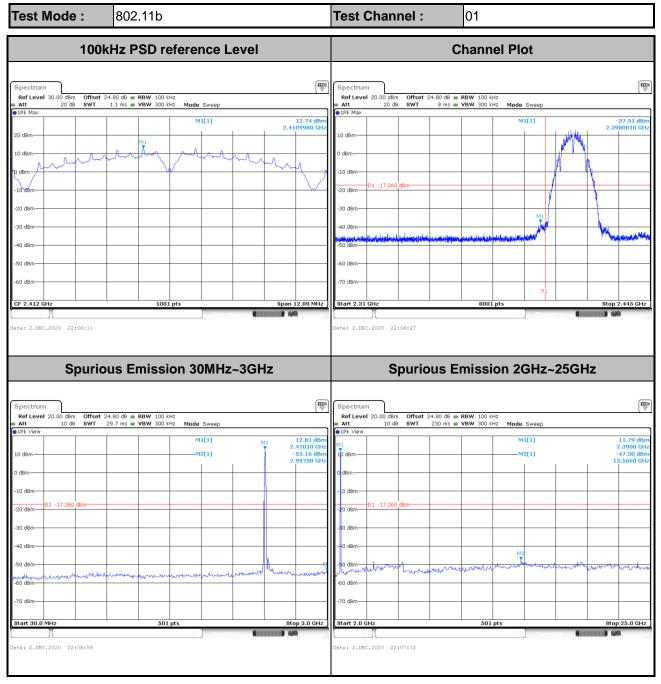
Test Mode :	802.11ax HE40 Full RU	Test Channel : 06				
100	kHz PSD reference Level	Channel Plot				
Att 20 dB SWT IPk Max 20 dBm 10 dBm	24.00 dB @ RBW 100 kH2 1 ms @ VBW 300 kH2 Mode Sweep 1 1 1 6.42 dBm 2.4519870 CH2 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Spuric	ous Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz				
Spectrum Ref Level 20.00 dBm Offset Att 10 dB SWT SWT I0 dBm 0 0 Bm 10 dBm 0 0 Bm -10 dBm -0 -23.580 dBm -30 dBm -30 dBm -30 dBm -30 dBm -50 dBm -70 dBm -70 dBm -70 dBm	24.80 dB • RBW 100 kHz 29.7 ms • VBW 300 kHz Mode Sweep M1[1] 4.11 dBm 2.45160 GHz M2[1] -52.01 dBm 2.57020 GHz M2 M0 M2 M3 M3 <tr< th=""><th>Spectrum Image: Constraint of the second secon</th></tr<>	Spectrum Image: Constraint of the second secon				
Date: 3.DEC.2020 00:43:59		Date: 3.DEC.2020 00:44:18				



Test Channel : 09			
Channel Plot			
10 dBm			
Spurious Emission 2GHz~25GHz			
10 dBm -47.27 dBm 11 dBm 15.5660 GHz 0 dBm -10 dBm -10 dBm -10 dBm -20 dBm -10 dBm -30 dBm -10 dBm -20 dBm -10 dBm -30 dBm -10 dBm -70 dBm -10 dBm -70 dBm -10 dBm			



Number of TX = 2, Ant. 5 (Measured)





Test Mode :	802.11b		Test Channel	: 06		
100kHz PSD reference Level				Channel F	Plot	
Spectrum	24.80 dB = RBW 100 kHz 1.1 ms • VBW 300 kHz Mode Sw M1[1 M1 M1 M1 M1 M1 M1 M1 M1 M1 M	(TTP) weep		Channer		
Date: 2.DEC.2020 22:16:16 Spurio	ous Emission 30N		Spu	rious Emission	2GHz~25GF	
Spectrum Ref Level 20.00 dBm Offset 3 Att 10 dB SWT	24.80 dB RBW 100 kHz 29.7 ms VBW 300 kHz Mode Sw	(TTT) V	Att 10 dB SW	set 24.80 dB ● RBW 100 kHz T 230 ms ● VBW 300 kHz M	lode Sweep	
	M1[1 	M1 2.43080 GHz	IPL View M1 ID dBm O dBm Stort 2.0 GHz T	Lan Man Million Maria	M1[1] 	10.80 dBm 2.4360 GHz -47.55 dBm 18.0450 GHz
Date: 2.DEC.2020 22:17:02		Meanuder (1999) (20	Date: 2.DEC.2020 22:17:15		Measuring	44



