Report No. : FR372004AB





RADIO TEST REPORT

FCC ID	: RIWZAT6000
Equipment	: ATSC 3.0 STB
Brand Name	: ZINWELL
Model Name	: ZAT-6000
Applicant	: ZINWELL CORPORATION No. 2 Wen-Hua Road, Hsinchu Industrial Park, Hsinchu, Taiwan
Manufacturer	: ZINWELL CORPORATION No. 2 Wen-Hua Road, Hsinchu Industrial Park, Hsinchu, Taiwan
Standard	: 47 CFR FCC Part 15.407

The product was received on Aug. 23, 2023, and testing was started from Aug. 24, 2023 and completed on Sep. 04, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)

TEL : 886-3-656-9065 FAX : 886-3-656-9085 Report Template No.: CB-A12_1 Ver1.4 Page Number: 1 of 28Issued Date: Sep. 14, 2023Report Version: 01



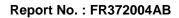
Table of Contents

Histor	ry of this test report	3
Summ	nary of Test Result	4
1	General Description	5
1.1	Information	5
1.2	Applicable Standards	7
1.3	Testing Location Information	7
1.4	Measurement Uncertainty	7
2	Test Configuration of EUT	8
2.1	Test Channel Mode	8
2.2	The Worst Case Measurement Configuration	9
2.3	EUT Operation during Test	10
2.4	Accessories	10
2.5	Support Equipment	10
2.6	Test Setup Diagram	12
3	Transmitter Test Result	15
3.1	AC Power-line Conducted Emissions	15
3.2	Emission Bandwidth	17
3.3	Maximum Output Power	18
3.4	Power Spectral Density	20
3.5	Unwanted Emissions	23
4	Test Equipment and Calibration Data	27
Apper	ndix A. Test Results of AC Power-line Conducted Emissions	
Apper	ndix B. Test Results of Emission Bandwidth	
Apper	ndix C. Test Results of Maximum Output Power	

- Appendix D. Test Results of Power Spectral Density
- Appendix E. Test Results of Unwanted Emissions

Appendix G. Test Photos

Photographs of EUT v01





History of this test report

Report No.	Version	Description	Issued Date
FR372004AB	01	Initial issue of report	Sep. 14, 2023



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Output Power	PASS	-
3.4	15.407(a)	Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

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

Reviewed by: Sam Chen

Report Producer: Viola Huang



1 General Description

1.1 Information

1.1.1 **RF General Information**

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250		5180-5240	36-48 [4]
5725-5850	a, n (HT20), ac (VHT20)	5745-5825	149-165 [5]
5150-5250	n (UT40) og (\/UT40)	5190-5230	38-46 [2]
5725-5850	n (HT40), ac (VHT40)	5755-5795	151-159 [2]
5150-5250		5210	42 [1]
5725-5850	ac (VHT80)	5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX
5.15-5.25GHz	802.11n HT20	20	1TX
5.15-5.25GHz	802.11ac VHT20	20	1TX
5.15-5.25GHz	802.11n HT40	40	1TX
5.15-5.25GHz	802.11ac VHT40	40	1TX
5.15-5.25GHz	802.11ac VHT80	80	1TX
5.725-5.85GHz	802.11a	20	1TX
5.725-5.85GHz	802.11n HT20	20	1TX
5.725-5.85GHz	802.11ac VHT20	20	1TX
5.725-5.85GHz	802.11n HT40	40	1TX
5.725-5.85GHz	802.11ac VHT40	40	1TX
5.725-5.85GHz	802.11ac VHT80	80	1TX

Note:

• 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

 VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.

• BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

	Dort	B		lame Antenna Type	0		Gain (dBi)	
Ant.	Port	Brand	Model Name		Connector	2.4GHz	5GHz UNII 1	5GHz UNII 3
1	1	INPAQ	ZAT-6000	PCB Antenna	I-PEX	2.42	3.13	4.41

Note: The above information was declared by manufacturer.

<For 2.4GHz Band>

For IEEE 802.11b/g/n mode (1TX/1RX)

Only Port 1 can be used as transmitting/receiving antenna.

<For 5GHz Band UNII 1, UNII 3>

For IEEE 802.11a/n/ac mode (1TX/1RX)

Only Port 1 can be used as transmitting/receiving antenna.

1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.945	0.25	2.065m	1k
802.11ac VHT20	0.937	0.28	1.934m	1k
802.11ac VHT40	0.901	0.45	953.75u	3k
802.11ac VHT80	0.821	0.86	461.25u	3k

Note:

DC is Duty Cycle.

DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter				
Beamforming Function	nforming Function			Without beamforming	
Function		Outdoor P2M		Indoor P2M	
		Fixed P2P	\boxtimes	Client	
	\boxtimes	Point-to-multipoint		Point-to-point	
Channel Puncturing Function		Supported 🛛 Unsupported		Unsupported	
Test Software Version		DOS [ver 10.0.10586]			

Note: The above information was declared by manufacturer.



1.2 Applicable Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 789033 D02 v02r01
- The following reference test guidance is not within the scope of accreditation of TAF.
- FCC KDB 662911 D01 v02r01
- FCC KDB 412172 D01 v01r01
- FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information					
Test Lab. : Sporton International Inc. Hsinchu Laboratory					
Hsinchu	Hsinchu ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)				
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085				
	Test site Designation No. TW3787 with FCC.				
	Conformity Assessment Body Identifier (CABID) TW3787 with ISED.				

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	KJ Chang	22.5~24.7 / 62~68	Sep. 04, 2023
Radiated Below 1GHz	03CH03-CB	Wendy Hsu	22.4~23.5 / 55~58	Aug. 31, 2023
Radiated Above 1GHz	03CH03-CB	Wendy Hsu	22.4~23.5 / 55~58	Aug. 24, 2023~Sep. 02, 2023
AC Conduction	CO01-CB	Summer Li	22~23 / 50~51	Sep. 04, 2023

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.1 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	3.1 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.1 dB	Confidence levels of 95%
Bandwidth Measurement	2.2%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	61
5200MHz	63
5240MHz	63
5745MHz	63
5785MHz	63
5825MHz	63
802.11ac VHT20_Nss1,(MCS0)_1TX	-
5180MHz	62
5200MHz	63
5240MHz	63
5745MHz	63
5785MHz	63
5825MHz	63
802.11ac VHT40_Nss1,(MCS0)_1TX	-
5190MHz	49
5230MHz	63
5755MHz	63
5795MHz	63
802.11ac VHT80_Nss1,(MCS0)_1TX	-
5210MHz	48
5775MHz	60

Note:

 Evaluated VHT20/VHT40/VHT80 mode only due to the similar modulation. The power setting of HT20/HT40 mode are the same or lower than VHT20/VHT40.



2.2 The Worst Case Measurement Configuration

	The Worst Case Mode for Following Conformance Tests			
Tests Item	AC power-line conducted emissions			
Condition AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz				
Operating Mode Normal Link				
1	EUT with WLAN 2.4GHz + Coaxial port-Video IN + USB port-load + Adapter			
2	EUT with WLAN 5GHz + Coaxial port-Video IN + USB port-load + Adapter			
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.				
3	EUT with WLAN 2.4GHz + Coaxial port-load + USB port-Video IN + Adapter			
For operating mode 3	For operating mode 3 is the worst case and it was record in this test report.			

	The Worst Case Mode for Following Conformance Tests		
Tests Item	Emission Bandwidth Maximum Output Power Power Spectral Density		
Test Condition	Conducted measurement at transmit chains		

	The Worst Case Mode for Following Conformance Tests			
Tests Item	Unwanted Emissions			
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.			
Operating Mode <	Normal Link			
1GHz	After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.			
1	EUT in Z axis with WLAN 2.4GHz + Coaxial port-Video IN + USB port-load + Adapter			
2	EUT in Z axis with WLAN 5GHz + Coaxial port-Video IN + USB port-load + Adapter			
Mode 2 has been evalu this same test mode.	uated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow			
3	EUT in Z axis with WLAN 5GHz + Coaxial port-load + USB port-Video IN + Adapter			
For operating mode 3	is the worst case and it was record in this test report.			
Operating Made	СТХ			
Operating Mode > 1GHz	After evaluating, the worst case was found at Z axis, so it was selected to perform test and its test result was written in the report.			
1	EUT in Z axis			



2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	APD	WB-18Q12FU1	INPUT: 100-240V~,50-60Hz,0.6A Max. OUTPUT: 12V, 1.5A
		Other	
Remote controller*1			
HDMI cable*1: Shielding, 3m			
Coaxial cable*1: Shielding, 3m			
Window antenna*1			

2.5 Support Equipment

For AC Conduction:

	Support Equipment				
No.	No. Equipment Brand Name Model Name FCC ID				
А	Flash disk3.0	Transcend	JetFlash-700	N/A	
В	LCD Monitor	PHILIPS	288E2A/96	N/A	
D	AP Router	ASUS	RT-AX88U	MSQ-RTAXHP00	
Е	LAN NB	DELL	T3400	N/A	

For Radiated (below 1GHz):

	Support Equipment				
No.	No. Equipment Brand Name Model Name FCC ID				
А	WLAN AP	NETGEAR	N600	N/A	
В	LAN NB	DELL	E4300	N/A	
С	LCD TV	PHILIPS	288E2A/96	N/A	
D	Flash disk3.0	Transcend	JetFlash-700	N/A	

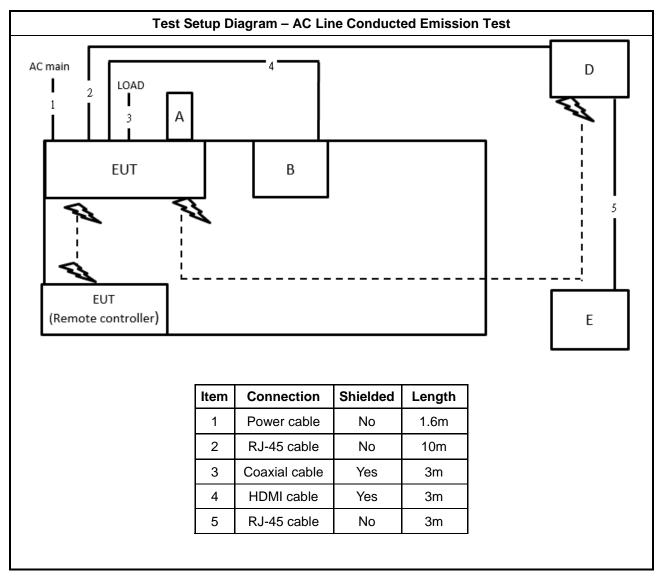


For Radiated (above 1GHz) and RF Conducted:

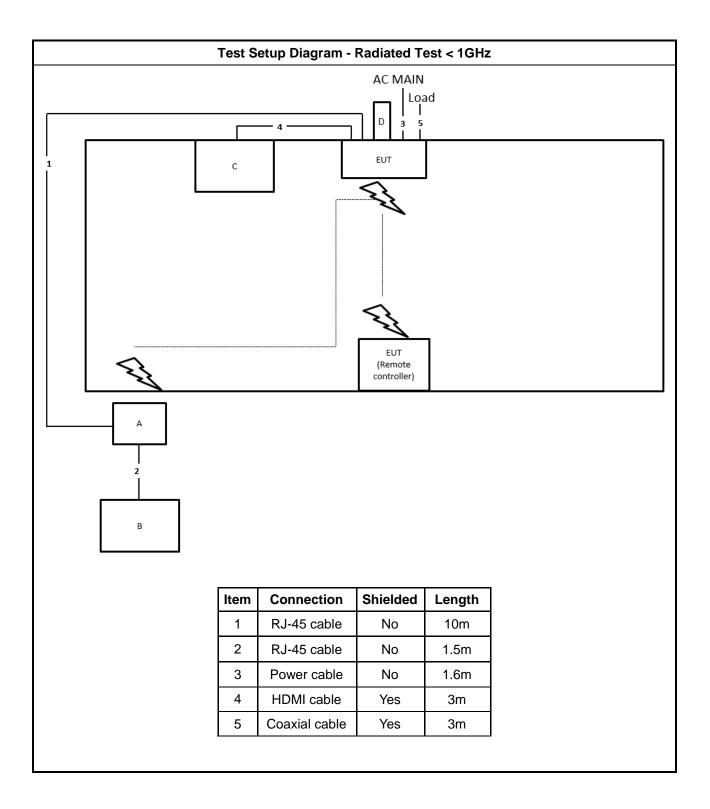
		Support Equ	ipment	
No.	Equipment	Brand Name	Model Name	FCC ID
А	NB	DELL	E4300	N/A



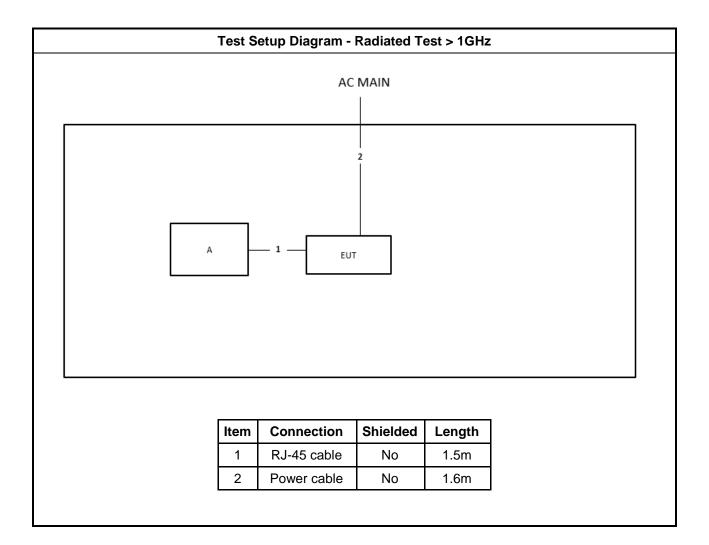
2.6 Test Setup Diagram













3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Powe	er-line Conducted Emissions I	_imit
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

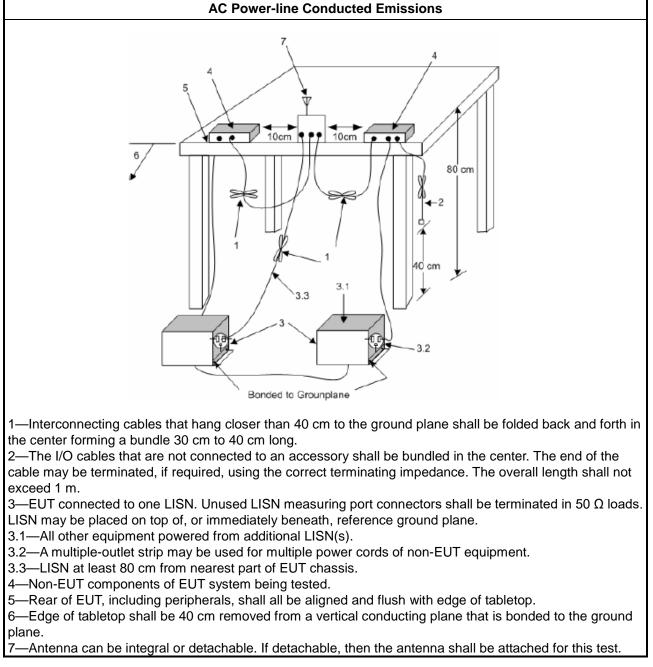
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method

Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level

b. Margin = -Limit + Level

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



3.2 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

	Emission Bandwidth Limit			
UN	II Devices			
\boxtimes	For the 5.15-5.25 GHz band, N/A			
	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.			
	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.			
\square	For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz.			
LE-	LAN Devices			
	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.			
	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz			
	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz			
	For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz.			

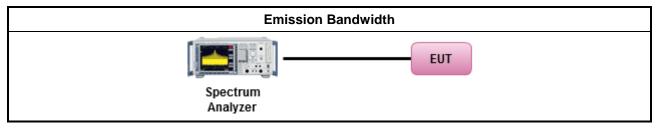
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

	Test Method			
•	For the emission bandwidth shall be measured using one of the options below:			
	Refer as FCC KDB 789033 D02, clause C f	or EBW and clause D for OBW measurement.		
	Refer as ANSI C63.10, clause 6.9.1 for occu	upied bandwidth testing.		
	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.			

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Output Power

3.3.1 Limit

	Maximum Output Power Limit
UNI	I Devices
\boxtimes	For the 5.15-5.25 GHz band:
	 Outdoor AP: the maximum conducted output power (Pout) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then Pout = 30 - (G_{TX} - 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm]
	 Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6)
	 Point-to-point AP: the maximum conducted output power (Pout) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then P_{Out} = 30 - (G_{TX} - 23).
	 Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 - (G_{TX} - 6).
	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
\boxtimes	For the 5.725-5.85 GHz band:
	 Point-to-multipoint systems (P2M): the maximum conducted output power (Pout) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then Pout = 30 - (G_{TX} - 6).
	 Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
LE-	LAN Devices
	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
	For the 5.725-5.85 GHz band:
	 Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6).
	 Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
	t = maximum conducted output power in dBm, = the maximum transmitting antenna directional gain in dBi.



3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

		Test Method				
	Ave	rage over on/off periods with duty factor				
		Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).				
	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow speed)					
	Wid	eband RF power meter and average over on/off periods with duty factor				
	\boxtimes	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).				
\boxtimes	For	conducted measurement.				
	•	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.				
	•	If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = P _{total} + DG				
	For	radiated measurement.				
		Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"				
		Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.				
		Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.				
	•					

3.3.4 Test Setup

Con	ducted Measurement (Power Meter)
P	EUT EUT

3.3.5 Test Result of Maximum Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Limit

	Peak Power Spectral Density Limit
UNI	I Devices
\boxtimes	For the 5.15-5.25 GHz band:
	• Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	 Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 6 dBi, then P_{Out} = 17 - (G_{TX} - 6).
	 Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23).
	 Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 - (G_{TX} - 6)
	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If G _{TX} > 6 dBi, then PPSD= 11 - (G _{TX} - 6).
	For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If G _{TX} > 6 dBi, then PPSD= 11 - (G _{TX} - 6).
\boxtimes	For the 5.725-5.85 GHz band:
	• Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) \leq 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then PPSD= 30 - ($G_{TX} - 6$).
	 Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
LE-	LAN Devices
	For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) \leq 10 dBm/MHz.
	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz.
	 e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for 0° ≤ θ < 8°; -13 - 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 - 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45°; -42 dBW/MHz for θ > 45°
	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz.
	For the 5.725-5.85 GHz band:
	• Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) \leq 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then PPSD= 30 - ($G_{TX} - 6$).
	■ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
pow	SD = peak power spectral density that he same method as used to determine the conducted output rer shall be used to determine the power spectral density. And power spectral density in dBm/MHz = the maximum transmitting antenna directional gain in dBi.

3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.



3.4.3 Test Procedures

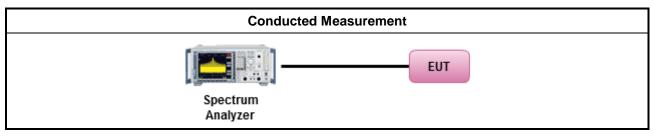
		Test Method
•	outp func	k power spectral density procedures that the same method as used to determine the conducted ut power shall be used to determine the peak power spectral density and use the peak search tion on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density be measured using below options:
		Refer as FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
	[duty	/ cycle ≥ 98% or external video / power trigger]
	\square	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
		Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty	cycle < 98% and average over on/off periods with duty factor
	\boxtimes	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
		Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
\boxtimes	For	conducted measurement.
	•	If the EUT supports multiple transmit chains using options given below:
		Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
		Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
		Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
		If multiple transmit chains, EIRP PPSD calculation could be following as methods: PPSD _{total} = PPSD ₁ + PPSD ₂ + + PPSD _n (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = PPSD _{total} + DG
	For	radiated measurement.
	•	Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	•	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.



Test Method

Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit							
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)				
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300				
0.490~1.705	24000/F(kHz)	33.8 - 23	30				
1.705~30.0	30	29	30				
30~88	100	40	3				
88~216	150	43.5	3				
216~960	200	46	3				
Above 960	500	54	3				

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

Un-restricted band emissions above 1GHz Limit							
Operating Band	Limit						
🔀 5.15 - 5.25 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
🔲 5.25 - 5.35 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
🗌 5.47 - 5.725 GHz	e.i.r.p27 dBm [68.2 dBuV/m@3m]						
⊠ 5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.						
performed in the n equipment. When	ay be performed at a distance other than the limit distance provided they are not ear field and the emissions to be measured can be detected by the measurement performing measurements at a distance other than that specified, the results shall the specified distance using an extrapolation factor of 20 dB/decade (inverse of						



linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

3.5.2 Measuring Instruments

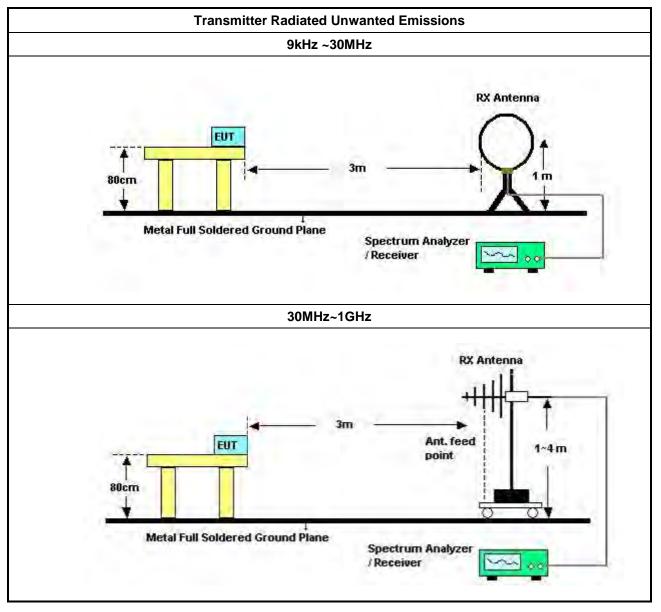
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

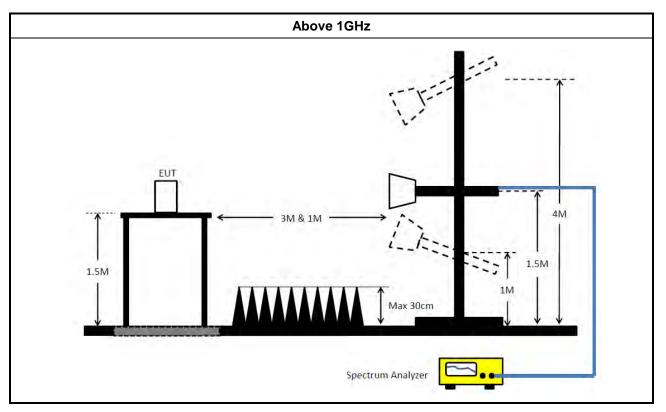
			Test Method
•	perfe equi abov are i be e dista	orme pme ve 30 impra extrap ance	ments may be performed at a distance other than the limit distance provided they are not ad in the near field and the emissions to be measured can be detected by the measurement nt. Measurements shall not be performed at a distance greater than 30 m for frequencies 0 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less actical. When performing measurements at a distance other than that specified, the results shall polated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear for field-strength measurements, inverse of linear distance-squared for power-density ments).
•	The	aver	age emission levels shall be measured in [duty cycle \geq 98 or duty factor].
•	For	the tr	ansmitter unwanted emissions shall be measured using following options below:
	•	Ref	er as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	•	Ref	er as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
			Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).
		\square	Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
			Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
			Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
		\boxtimes	Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
			Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
•	For	radia	ted measurement.
	-	Ref	er as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	-	Ref	er as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	•	Ref	er as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
•	The	any	unwanted emissions level shall not exceed the fundamental emission level.
•			tude of spurious emissions that are attenuated by more than 20 dB below the permissible value eed to be reported.



3.5.4 Test Setup







3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



Test Equipment and Calibration Data 4

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 20, 2023	Feb. 19, 2024	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	04083	150kHz ~ 100MHz	Feb. 16, 2023	Feb. 15, 2024	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 27, 2023	Apr. 26, 2024	Conduction (CO01-CB)
Pulse Limiter	Rohde& Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 09, 2023	Feb. 08, 2024	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH03-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH03-CB	30 MHz ~ 1 GHz	Jan. 17, 2023	Jan. 16, 2024	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 04, 2023	May 03, 2024	Radiation (03CH03-CB)
Bilog Antenna with 6 dB attenuator	Schaffner & EMCI	CBL6112B & N-6-06	2928 & AT-N0608	20MHz ~ 2GHz	Feb. 19, 2023	Feb. 18, 2024	Radiation (03CH03-CB)
Horn Antenna	ETS • Lindgren	3115	6821	750MHz~18GHz	Feb. 03, 2023	Feb. 02, 2024	Radiation (03CH03-CB)
Horn Antenna	SCHWARZB ECK	BBHA 9170	BBHA9170507	15GHz ~ 40GHz	Jun. 28, 2023	Jun. 27, 2024	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8447D	2944A10259	9kHz ~ 1.3GHz	Jan. 09, 2023	Jan. 08, 2024	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jun. 30, 2023	Jun. 29, 2024	Radiation (03CH03-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 12, 2023	Jun. 11, 2024	Radiation (03CH03-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 13, 2023	Jun. 12, 2024	Radiation (03CH03-CB)
RF Cable-low	Woken	RG402	Low Cable-02+29	30MHz ~ 1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)

TEL: 886-3-656-9065 FAX: 886-3-656-9085 Report Template No.: CB-A12_1 Ver1.4 Page Number : 27 of 28

: Sep. 14, 2023 Issued Date

Report Version : 01



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 14, 2023	Aug. 13, 2024	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Oct. 17, 2022	Oct. 16, 2023	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Oct. 17, 2022	Oct. 16, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-02	1 GHz –26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.



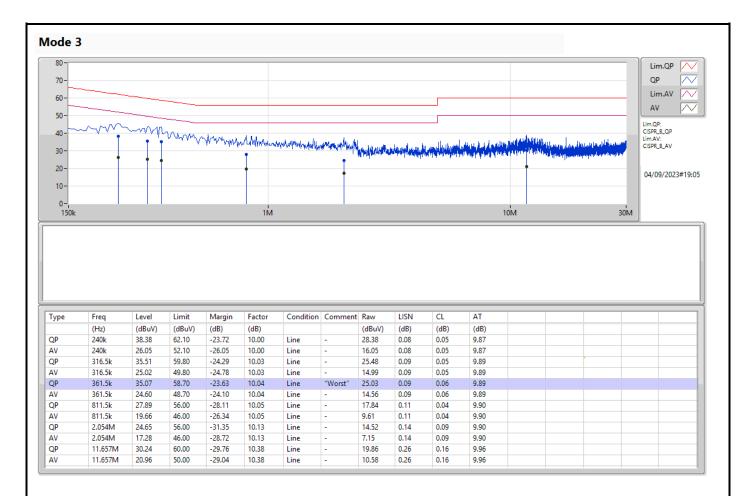
Conducted Emissions at Powerline

Appendix A

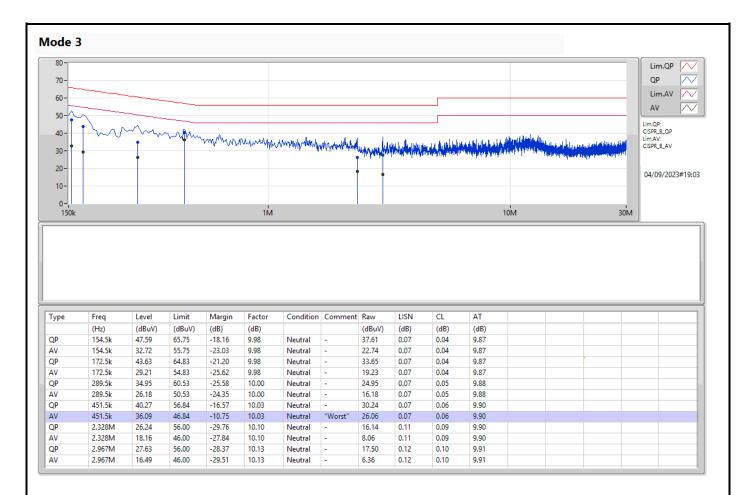
Summary									
Mode	Result	Туре	Freq	Level	Limit	Margin	Condition		
			(Hz)	(dBuV)	(dBuV)	(dB)			
Mode 3	Pass	AV	451.5k	36.09	46.84	-10.75	Neutral		













Summary

Mode	Max-N dB	Max-OBW	ITU-Code	Min-N dB	Min-OBW
	(Hz)	(Hz)		(Hz)	(Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	34.98M	19.017M	19M0D1D	32.56M	17.52M
802.11ac VHT20_Nss1,(MCS0)_1TX	39.82M	19.946M	19M9D1D	37.455M	18.962M
802.11ac VHT40_Nss1,(MCS0)_1TX	81.73M	37.939M	37M9D1D	41.25M	36.368M
802.11ac VHT80_Nss1,(MCS0)_1TX	82.06M	75.877M	75M9D1D	82.06M	75.877M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.555M	27.004M	27M0D1D	16.225M	25.866M
802.11ac VHT20_Nss1,(MCS0)_1TX	17.765M	27.973M	28M0D1D	17.6M	25.832M
802.11ac VHT40_Nss1,(MCS0)_1TX	36.41M	53.285M	53M3D1D	36.3M	50.14M
802.11ac VHT80_Nss1,(MCS0)_1TX	75.46M	99.592M	99M6D1D	75.46M	99.592M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band; Max-OBW = Maximum 99% occupied bandwidth; Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band; Min-OBW = Minimum 99% occupied bandwidth



Mode	Result	Limit	Port 1-N dB	Port 1-OBW
		(Hz)	(Hz)	(Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	34.65M	17.52M
5200MHz	Pass	Inf	34.98M	19.017M
5240MHz	Pass	Inf	32.56M	18.344M
5745MHz	Pass	500k	16.555M	25.866M
5785MHz	Pass	500k	16.5M	26.053M
5825MHz	Pass	500k	16.225M	27.004M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	39.82M	18.962M
5200MHz	Pass	Inf	37.455M	19.946M
5240MHz	Pass	Inf	38.005M	19.422M
5745MHz	Pass	500k	17.71M	25.832M
5785MHz	Pass	500k	17.765M	26.867M
5825MHz	Pass	500k	17.6M	27.973M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	41.25M	36.368M
5230MHz	Pass	Inf	81.73M	37.939M
5755MHz	Pass	500k	36.41M	50.14M
5795MHz	Pass	500k	36.3M	53.285M
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	82.06M	75.877M
5775MHz	Pass	500k	75.46M	99.592M

Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band Port X-OBW = Port X 99% occupied bandwidth

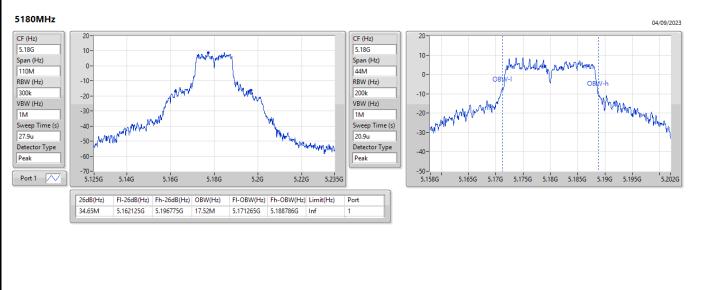


EBW

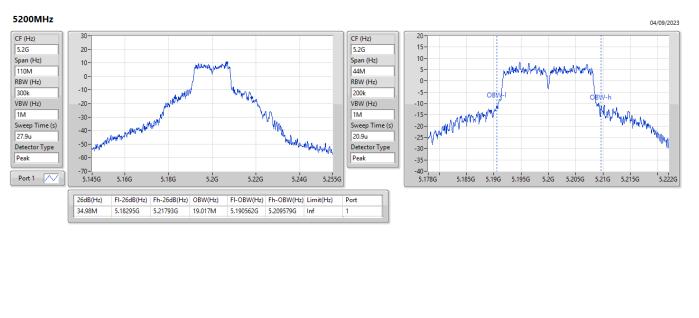
EBW



5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX

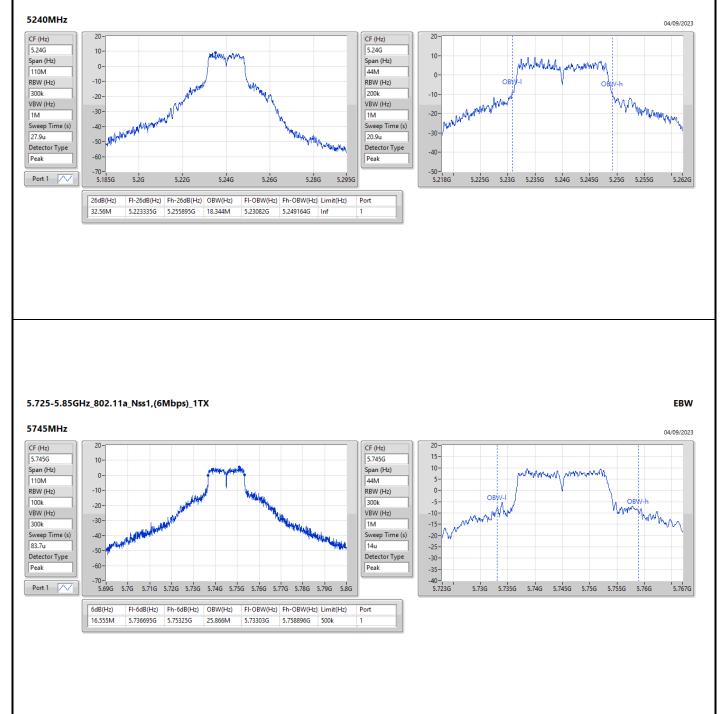


5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX



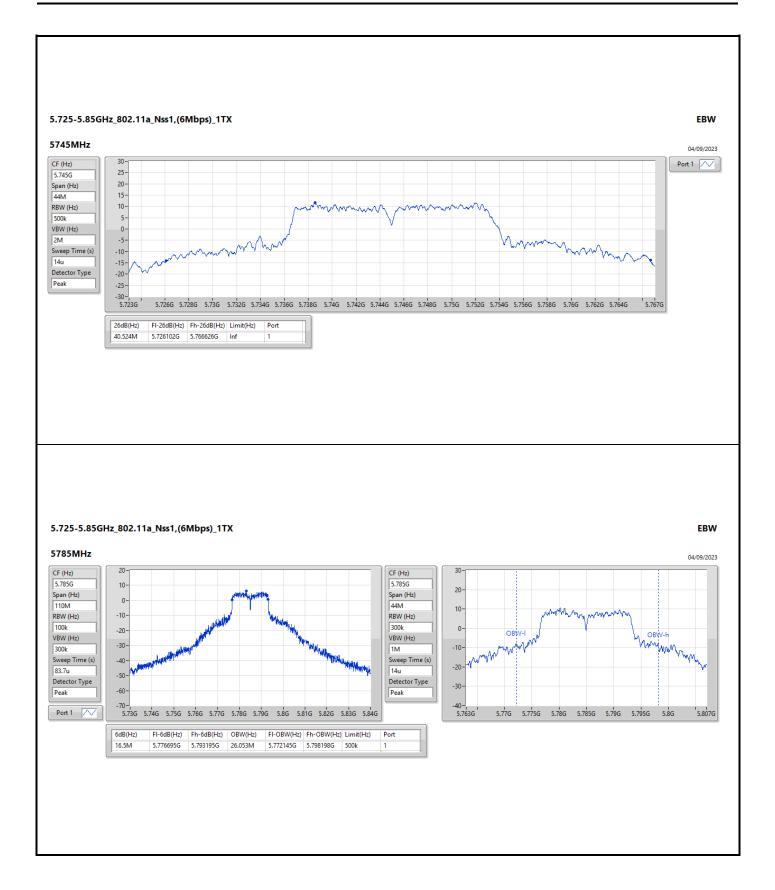


5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX

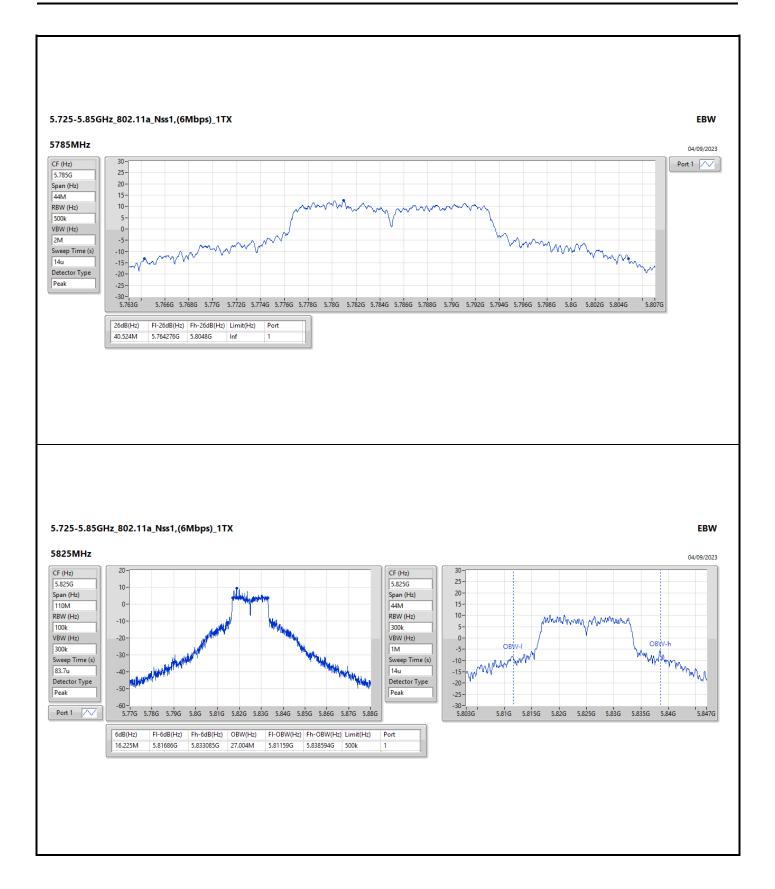


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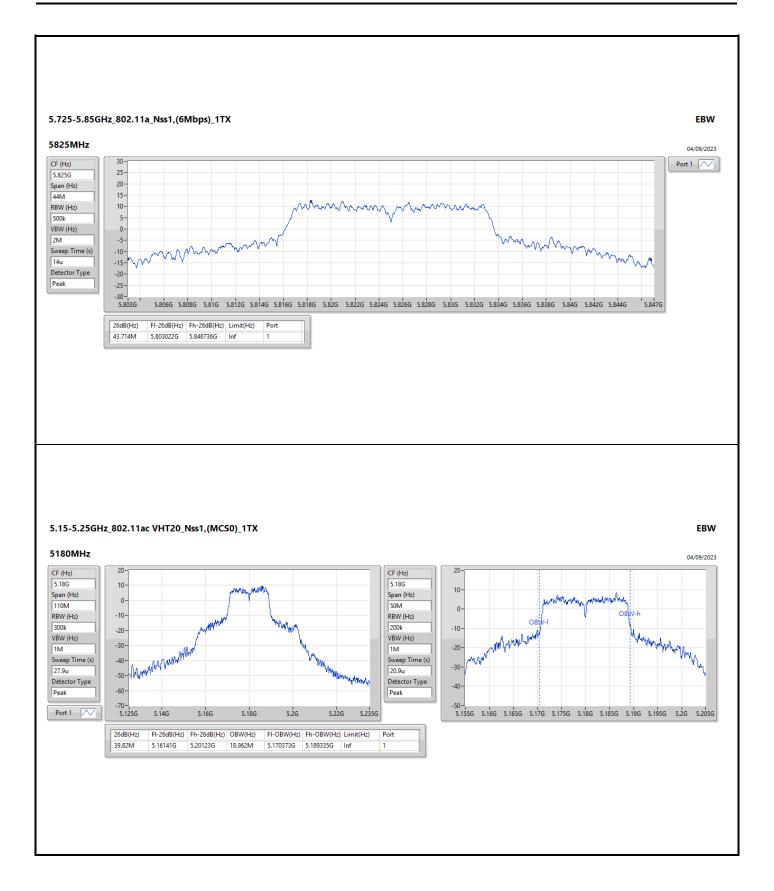






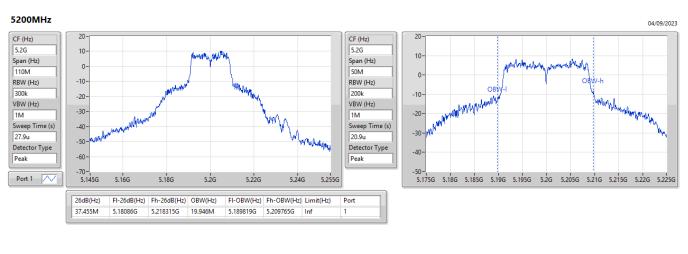








5.15-5.25GHz_802.11ac VHT20_Nss1,(MCS0)_1TX



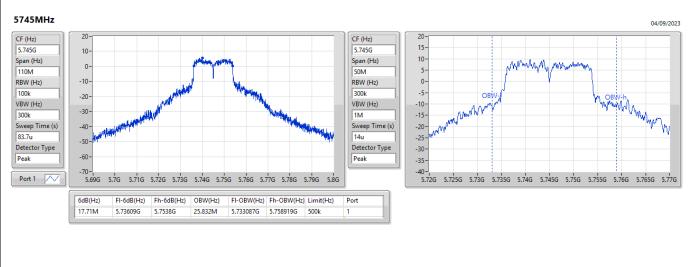
5.15-5.25GHz_802.11ac VHT20_Nss1,(MCS0)_1TX

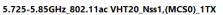
5240MHz 04/09/2023 30 20 CF (Hz) CF (Hz) 5.24G 20. 5.24G 10 Span (Hz) Span (Hz) 10-110M 50M 0 0. RBW (Hz) RBW (Hz) 0 -10-Walter Warner Mannya OE 500k 200k -10 VBW (Hz) VBW (Hz) -20 Andrew 2M 1M -20 -30-10.00 Sweep Time (s) Sweep Time (s) -40 -30 16.7u 20.9u -50-Detector Type Detector Type -40 Peak -60 Peak -70-5.185G -50-5.215G 5.22G 5.225G 5.23G 5.235G 5.24G 5.245G 5.25G 5.255G 5.26G 5.265G Port 1 📈 5.2G 5.22G 5.24G 5.26G 5.28G 5.295G 26dB(Hz) FI-26dB(Hz) Fh-26dB(Hz) OBW(Hz) FI-OBW(Hz) Fh-OBW(Hz) Limit(Hz) Port 38.005M 5.22009G 5.258095G 19.422M 5.230169G 5.249591G Inf 1

EBW



5.725-5.85GHz_802.11ac VHT20_Nss1,(MCS0)_1TX





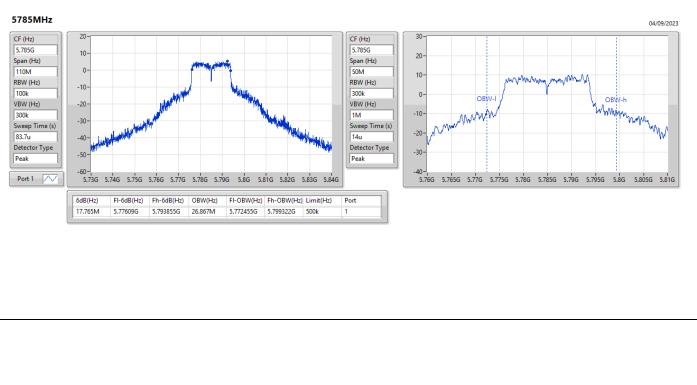
5745MHz 04/09/2023 30 Port 1 📈 CF (Hz) 5.745G 20-Span (Hz) 50M 10-RBW (Hz) 500k 0-VBW (Hz) 2M -10mon Sweep Time (s) -20 14u Detector Type -30 Peak -40-5.72G 5.722G 5.724G 5.726G 5.728G 5.738G 5.732G 5.734G 5.736G 5.738G 5.74G 5.742G 5.744G 5.746G 5.748G 5.758G 5.752G 5.754G 5.758G 5.758G 5.758G 5.762G 5.764G 5.766G 5.768G 5.776G
 FI-26dB(Hz)
 Fh-26dB(Hz)
 Limit(Hz)

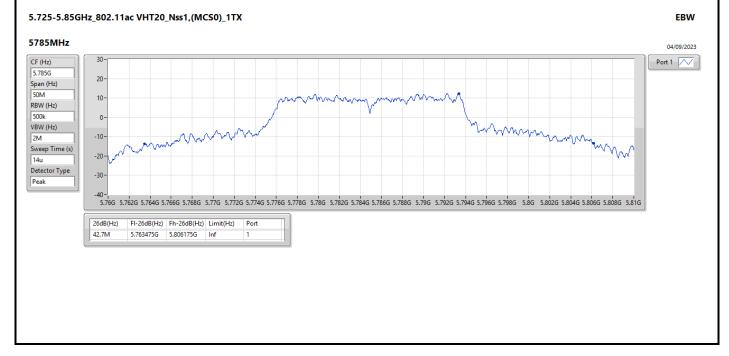
 5.725925G
 5.768025G
 Inf
 26dB(Hz) Port 42.1M

EBW



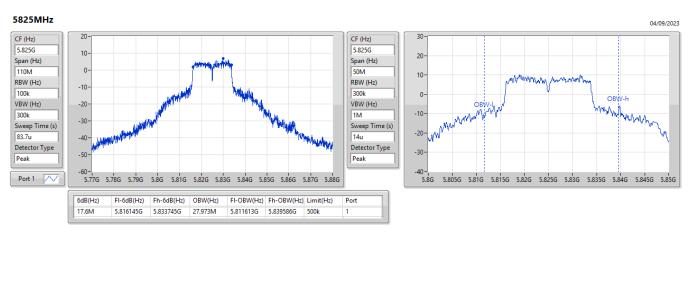
5.725-5.85GHz_802.11ac VHT20_Nss1,(MCS0)_1TX



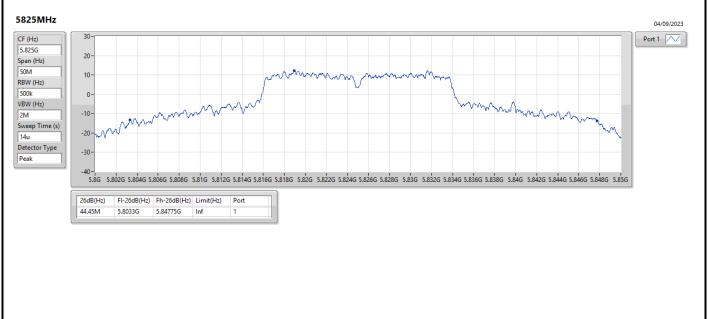




5.725-5.85GHz_802.11ac VHT20_Nss1,(MCS0)_1TX



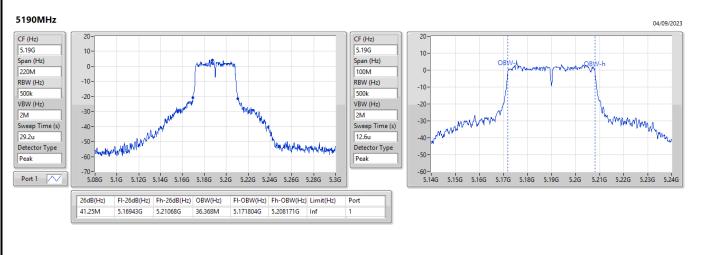
5.725-5.85GHz_802.11ac VHT20_Nss1,(MCS0)_1TX



EBW



5.15-5.25GHz_802.11ac VHT40_Nss1,(MCS0)_1TX



5.15-5.25GHz_802.11ac VHT40_Nss1,(MCS0)_1TX

1M

3M

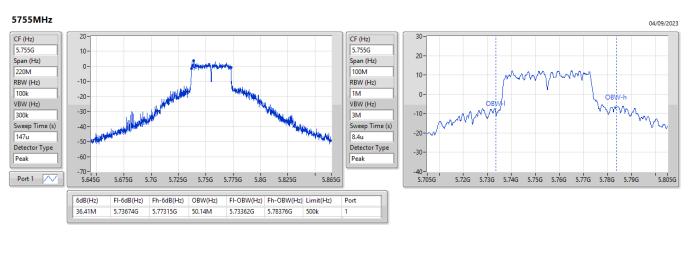
Peak

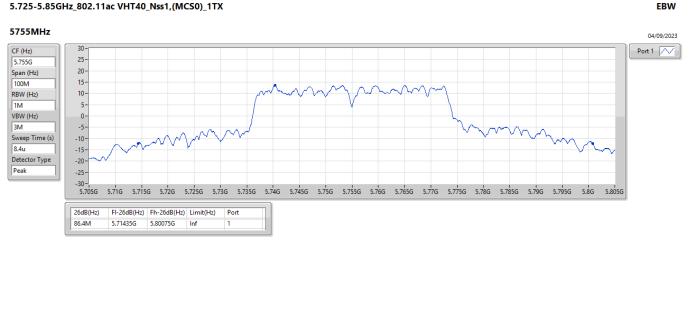
5230MHz 04/09/2023 30 20 CF (Hz) CF (Hz) 5.23G 20. 5.23G 10 Span (Hz) Span (Hz) 10-220M 100M 0 0. RBW (Hz) RBW (Hz) OB -10-500k -10 UM MARANA WANNA VBW (Hz) VBW (Hz) -20 2M -20 -30-'nΝ Sweep Time (s) Sweep Time (s) -40 -30 Winner 14.7u 12.6u -50-Detector Type Detector Type -40 -60 Peak -70-5.12G 5.14G 5.16G 5.18G 5.2G 5.22G 5.24G 5.26G 5.28G 5.3G 5.32G 5.34G -50-5.18G Port 1 📈 5.19G 5.2G 5.21G 5.22G 5.23G 5.24G 5.25G 5.26G 5.27G 5.28G 26dB(Hz) FI-26dB(Hz) Fh-26dB(Hz) OBW(Hz) FI-OBW(Hz) Fh-OBW(Hz) Limit(Hz) Port 81.73M 5.18655G 5.26828G 37.939M 5.210795G 5.248735G Inf

EBW



5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX

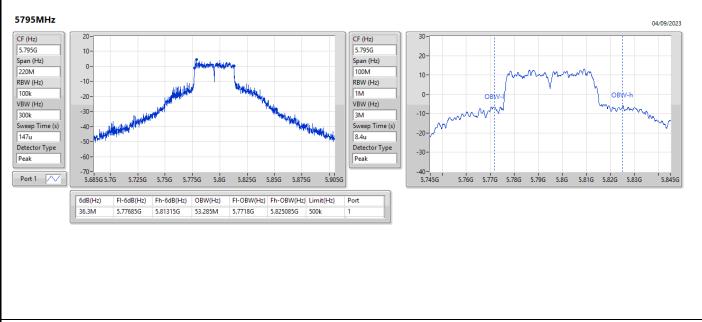




5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX



5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX



5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX



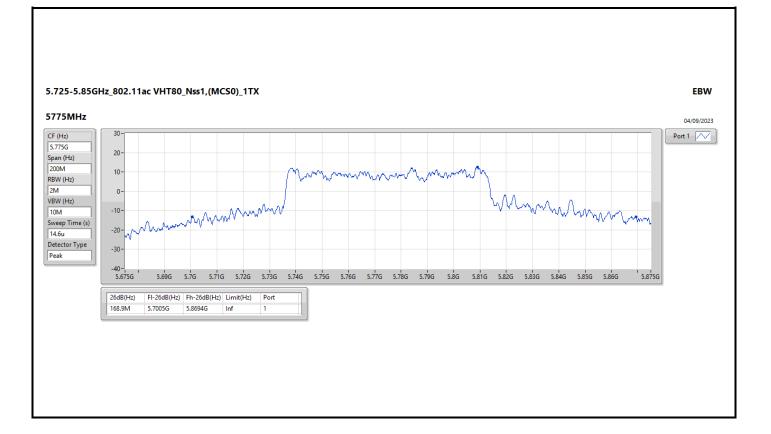
EBW



5.15-5.25GHz_802.11ac VHT80_Nss1,(MCS0)_1TX









Summary

Mode	Total Power	Total Power		
	(dBm)	(W)		
5.15-5.25GHz	-	-		
802.11a_Nss1,(6Mbps)_1TX	18.87	0.07709		
802.11ac VHT20_Nss1,(MCS0)_1TX	18.88	0.07727		
802.11ac VHT40_Nss1,(MCS0)_1TX	18.95	0.07852		
802.11ac VHT80_Nss1,(MCS0)_1TX	13.90	0.02455		
5.725-5.85GHz	-	-		
802.11a_Nss1,(6Mbps)_1TX	19.85	0.09661		
802.11ac VHT20_Nss1,(MCS0)_1TX	19.96	0.09908		
802.11ac VHT40_Nss1,(MCS0)_1TX	19.90	0.09772		
802.11ac VHT80_Nss1,(MCS0)_1TX	19.00	0.07943		



Average Power

Appendix C

Result

Mode	Result	DG	Port 1	Total Power	Power Limit	
		(dBi)	(dBm)	(dBm)	(dBm)	
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	
5180MHz	Pass	3.13	18.16	18.16	23.98	
5200MHz	Pass	3.13	18.87	18.87	23.98	
5240MHz	Pass	3.13	18.77	18.77	23.98	
5745MHz	Pass	4.41	19.60	19.60	30.00	
5785MHz	Pass	4.41	19.85	19.85	30.00	
5825MHz	Pass	4.41	19.79	19.79	30.00	
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-	
5180MHz	Pass	3.13	18.64	18.64	23.98	
5200MHz	Pass	3.13	18.86	18.86	23.98	
5240MHz	Pass	3.13	18.88	18.88	23.98	
5745MHz	Pass	4.41	19.60	19.60	30.00	
5785MHz	Pass	4.41	19.77	19.77	30.00	
5825MHz	Pass	4.41	19.96	19.96	30.00	
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-	
5190MHz	Pass	3.13	14.37	14.37	23.98	
5230MHz	Pass	3.13	18.95	18.95	23.98	
5755MHz	Pass	4.41	19.72	19.72	30.00	
5795MHz	Pass	4.41	19.90	19.90	30.00	
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-	
5210MHz	Pass	3.13	13.90	13.90	23.98	
5775MHz	Pass	4.41	19.00	19.00	30.00	

DG = Directional Gain; Port X = Port X output power



Summary

Mode	PD			
	(dBm/RBW)			
5.15-5.25GHz	-			
802.11a_Nss1,(6Mbps)_1TX	6.32			
802.11ac VHT20_Nss1,(MCS0)_1TX	6.04			
802.11ac VHT40_Nss1,(MCS0)_1TX	3.30			
802.11ac VHT80_Nss1,(MCS0)_1TX	-3.42			
5.725-5.85GHz	-			
802.11a_Nss1,(6Mbps)_1TX	5.83			
802.11ac VHT20_Nss1,(MCS0)_1TX	5.50			
802.11ac VHT40_Nss1,(MCS0)_1TX	2.92			
802.11ac VHT80_Nss1,(MCS0)_1TX	0.50			

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;



Result

Mode	Result	DG	Port 1	PD	PD Limit	
		(dBi)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-	
5180MHz	Pass	3.13	5.74	5.74	11.00	
5200MHz	Pass	3.13	6.32	6.32	11.00	
5240MHz	Pass	3.13	6.15	6.15	11.00	
5745MHz	Pass	4.41	5.40	5.40	30.00	
5785MHz	Pass	4.41	5.67	5.67	30.00	
5825MHz	Pass	4.41	5.83	5.83	30.00	
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-	
5180MHz	Pass	3.13 3.13 3.13 4.41 4.41	5.91	5.91	11.00 11.00 11.00 30.00 30.00	
5200MHz	Pass		6.03	6.03 6.04 5.27 5.48		
5240MHz	Pass		6.04 5.27			
5745MHz	Pass					
5785MHz	Pass		5.48			
5825MHz	Pass	4.41	5.50	5.50	30.00	
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-	
5190MHz	Pass	3.13	-1.07	-1.07	11.00	
5230MHz	Pass	3.13	3.30	3.30	11.00	
5755MHz	Pass	4.41	2.58	2.58	30.00	
5795MHz	Pass	4.41	2.92	2.92	30.00	
802.11ac VHT80_Nss1,(MCS0)_1TX	-	-	-	-	-	
5210MHz	Pass	3.13	-3.42	-3.42	11.00	
5775MHz	Pass	4.41	0.50	0.50	30.00	

DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band; PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;





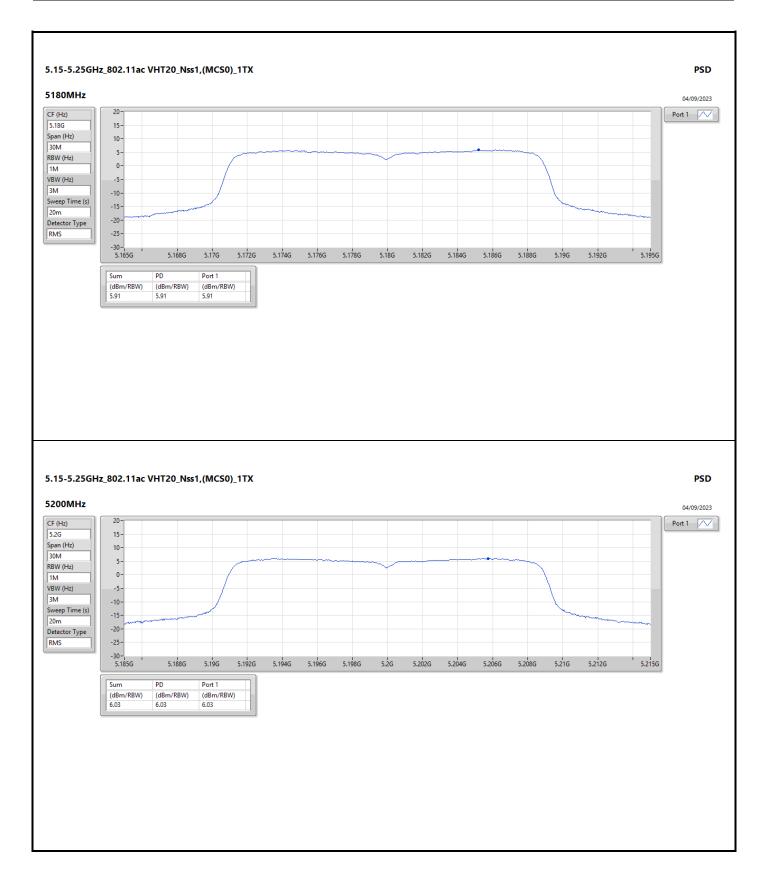








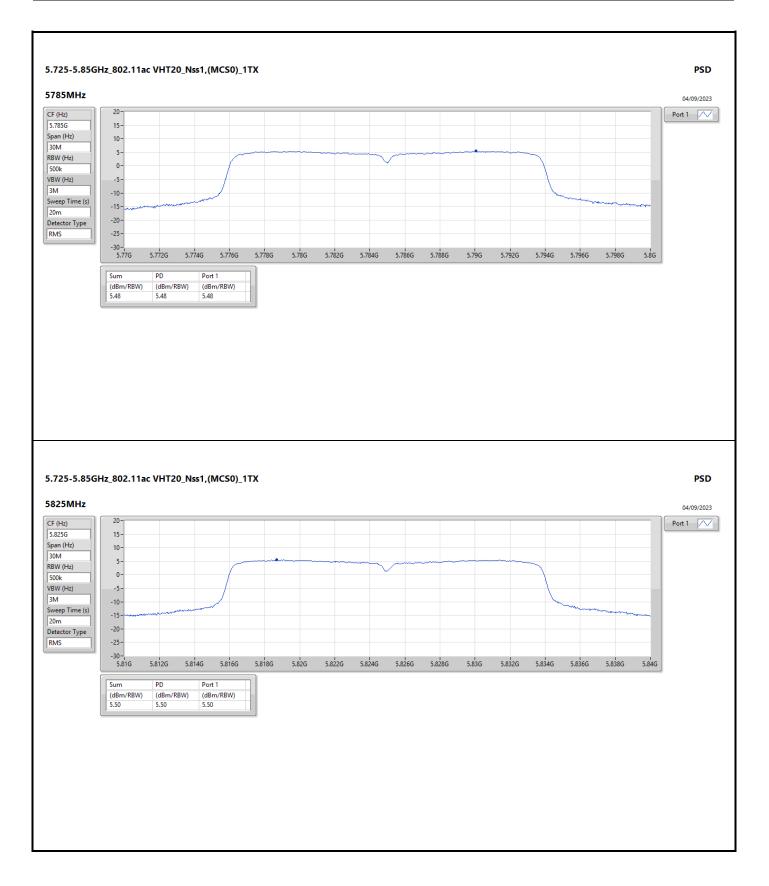




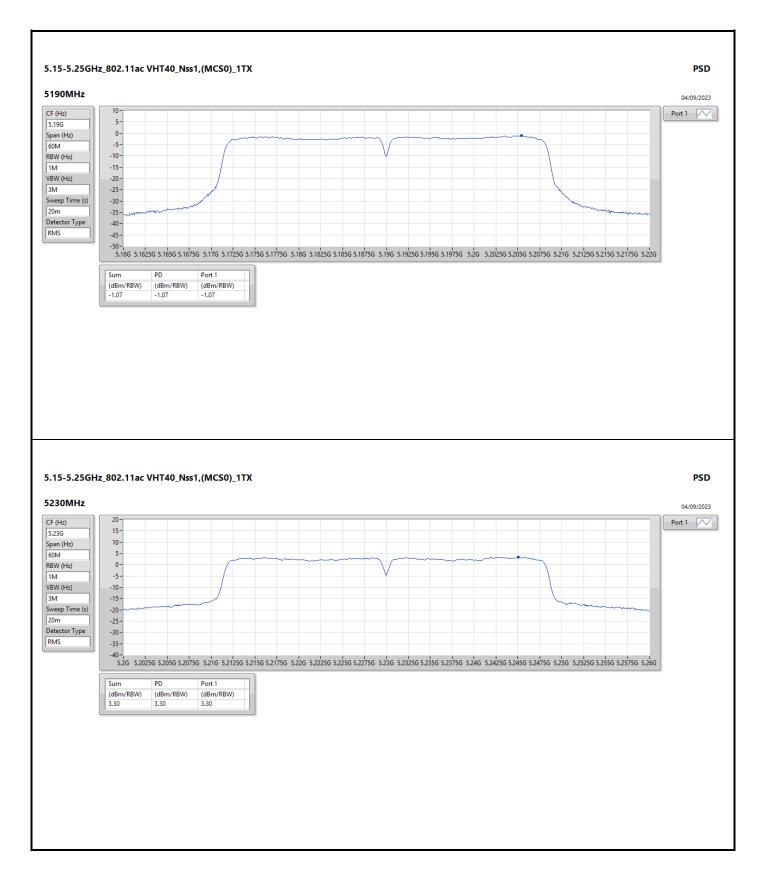








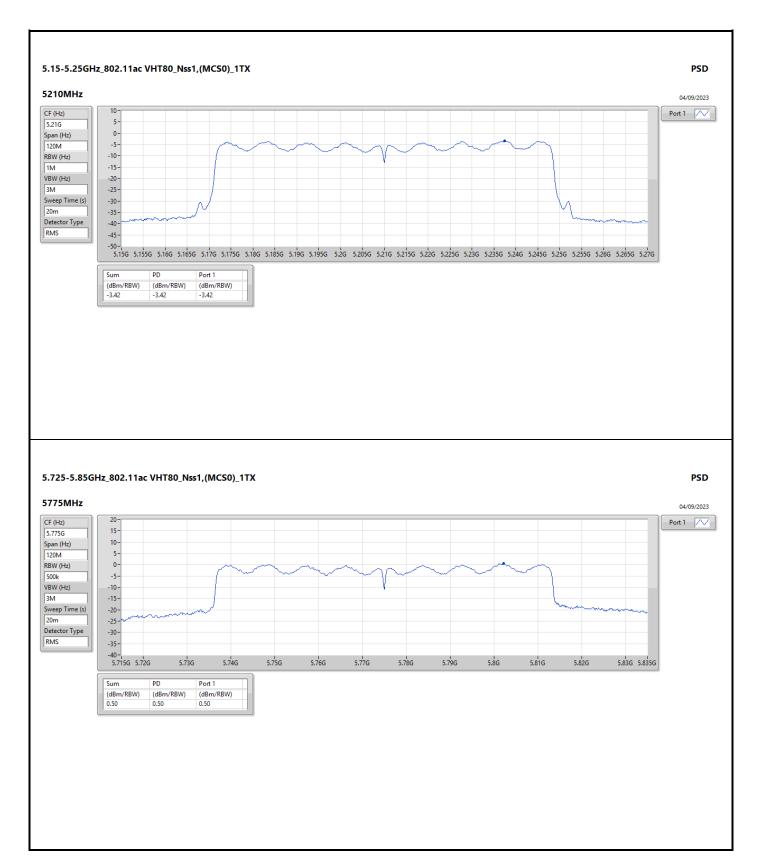














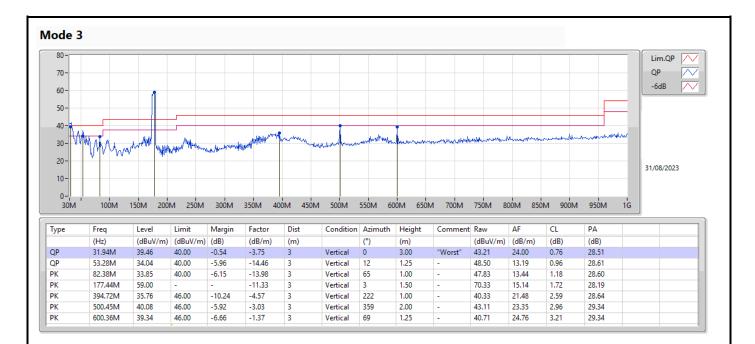
Radiated Emissions below 1GHz

Appendix E.1

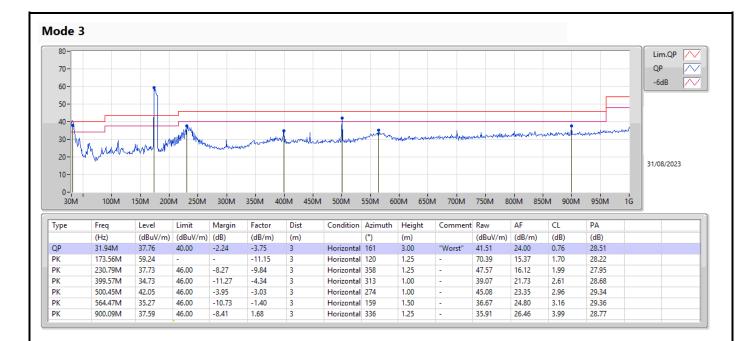
Summary							
Mode	Result	Туре	Freq	Level	Limit	Margin	Condition
			(Hz)	(dBuV/m)	(dBuV/m)	(dB)	
Mode 3	Pass	QP	31.94M	39.46	40.00	-0.54	Vertical



Appendix E.1









RSE TX above 1GHz

Appendix E.2

Summary

Mode	Result	Туре	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
5.15-5.25GHz	-	-	-	-			-	-	-	-	-
802.11ac VHT40_Nss1,(MCS0)_1TX	Pass	AV	5.1492G	53.96	54.00	-0.04	3	Vertical	257	2.44	-



PK

AV

5.15G

5.1846G

5.174G

52.31

109.37

98.82

54.00

Inf

Inf

-1.69

-Inf

-Inf

46.31

103.42

92.85

3

3

3

Vertical

Vertical

Vertical

257

257

257

2.45

2.45

2.45

-

34.10

34.03

34.05

6.75

6.78

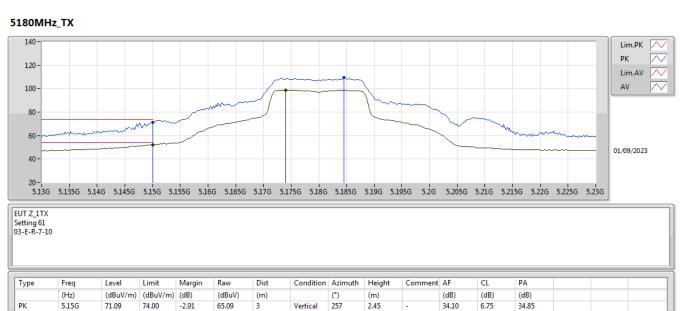
6.77

34.85

34.86

34.85

Appendix E.2





PK

AV

5.1496G

5.1846G

5.185G

52.50

109.72

99.05

54.00

Inf

Inf

-1.50

-Inf

-Inf

46.50

103.77

93.09

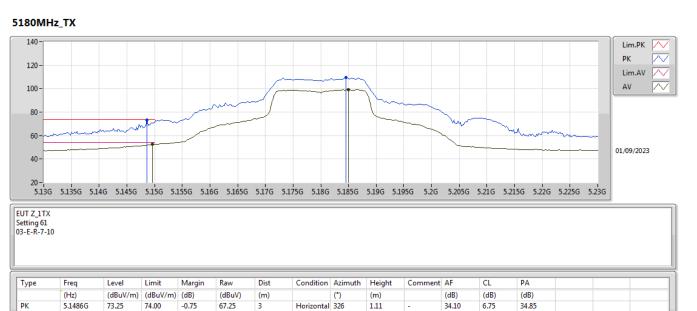
3

3

3

Appendix E.2

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX



Horizontal 326

Horizontal 326

Horizontal 326

1.11

1.11

1.11

-

34.10

34.03

34.03

6.75

6.78

6.79

34.85

34.86

34.86



15.546G

47.41

54.00

-6.59

55.01

3

Vertical

141

2.38

-

38.22

16.25

62.07

Appendix E.2





15.54594G

48.57

54.00

-5.43

56.17

3

Horizontal 360

2.01

-

38.22

16.25

62.07

Appendix E.2





5.2044G

100.46

Inf

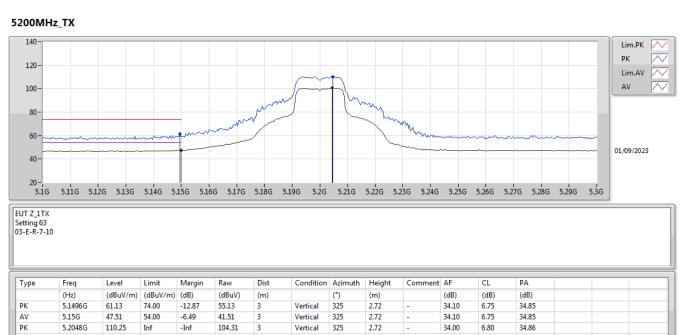
-Inf

94.52

3

Appendix E.2

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_1TX



34.00

6.80

34.86

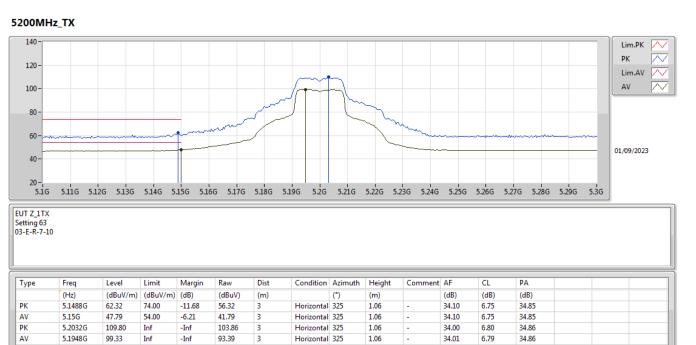
Vertical

325

2.72



Appendix E.2





Appendix E.2





15.5979G

48.10

54.00

-5.90

55.89

3

Horizontal 223

2.23

-

38.01

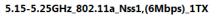
16.30

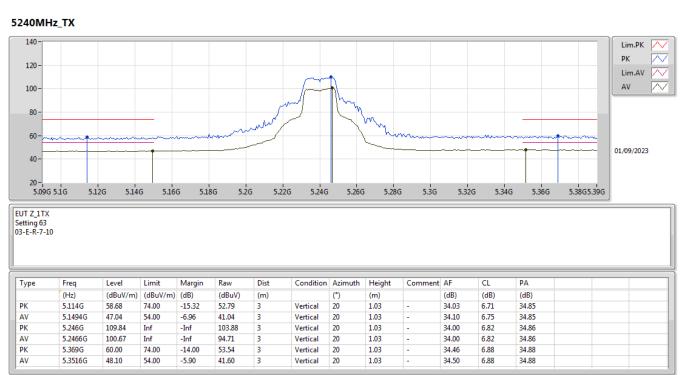
62.10

Appendix E.2

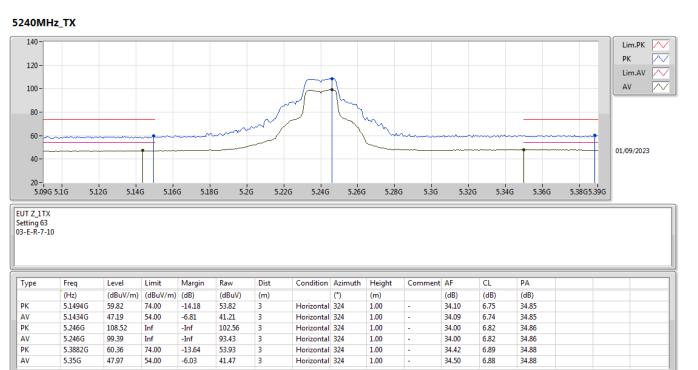


















AV

15.71664G

48.47

54.00

-5.53

56.22

3

Horizontal 360

1.96

38.00

16.42

62.17

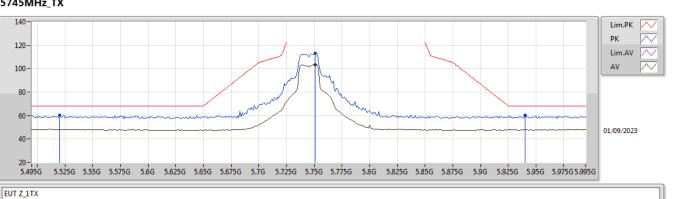
Appendix E.2





5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX





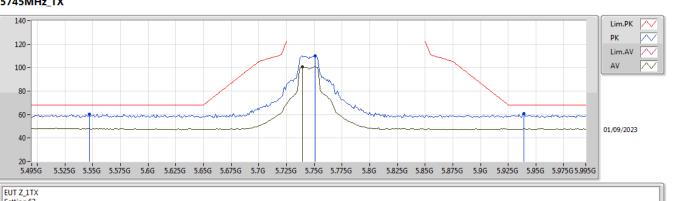
Setting 63 03-E-R-7-10

Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	5.52G	60.46	68.20	-7.74	53.75	3	Vertical	28	1.00	-	34.60	7.02	34.91		
РК	5.751G	112.95	Inf	-Inf	106.59	3	Vertical	28	1.00	-	34.20	7.18	35.02		
AV	5.751G	103.48	Inf	-Inf	97.12	3	Vertical	28	1.00	-	34.20	7.18	35.02		
PK	5.94G	60.18	68.20	-8.02	53.44	3	Vertical	28	1.00	-	34.58	7.27	35.11		



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_1TX





Setting 63 03-E-R-7-10

Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	5.547G	60.43	68.20	-7.77	53.70	3	Horizontal	97	2.78	-	34.60	7.05	34.92		
РК	5.751G	109.92	Inf	-Inf	103.56	3	Horizontal	97	2.78	-	34.20	7.18	35.02		
AV	5.739G	100.66	Inf	-Inf	94.30	3	Horizontal	97	2.78	-	34.20	7.17	35.01		
PK	5.939G	60.71	68.20	-7.49	53.97	3	Horizontal	97	2.78	-	34.58	7.27	35.11		







РК

17.24424G

63.16

68.20

-5.04

67.31

3

Horizontal 90

1.01

-

40.72

17.45

62.32

Appendix E.2





AV PK

5.791G

6.003G

103.66

60.01

Inf

68.20

-Inf

-8.19

97.22

53.14

3

3

Vertical

Vertical

36

36

1.12

1.12

34.28

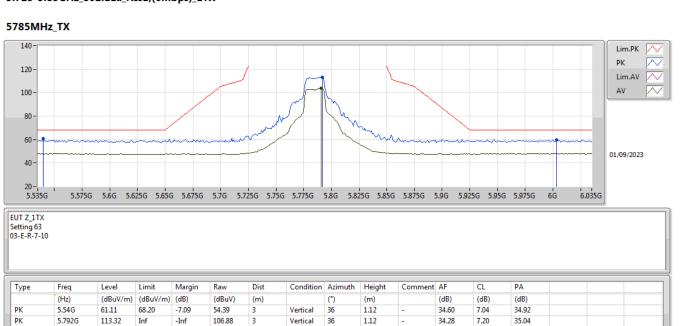
34.71

7.20

7.30

35.04

35.14





AV PK 5.792G

5.791G

6.013G

110.32

100.68

61.14

Inf

Inf

68.20

-Inf

-Inf

-7.06

103.88

94.24

54.23

3

3

3

Horizontal 91

Horizontal 91

Horizontal 91

2.91

2.91

2.91

_

34.28

34.28

34.73

7.20

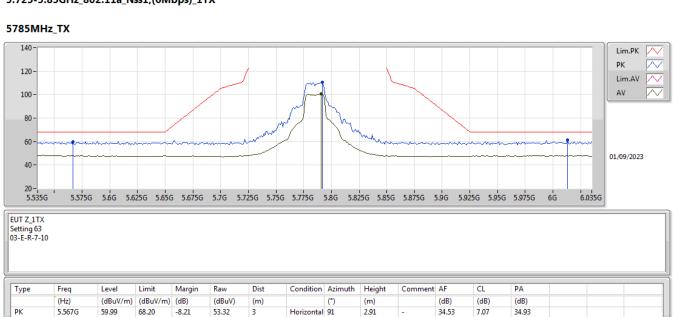
7.20

7.32

35.04

35.04

35.14



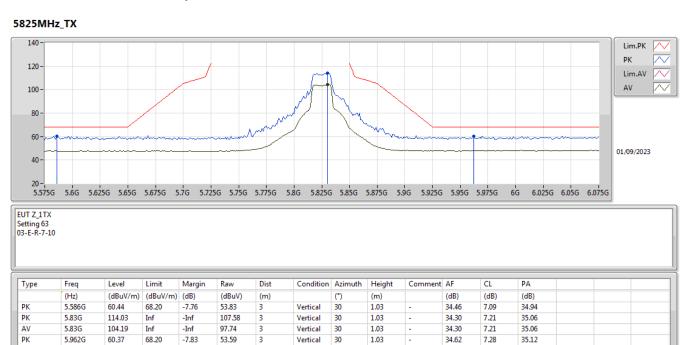




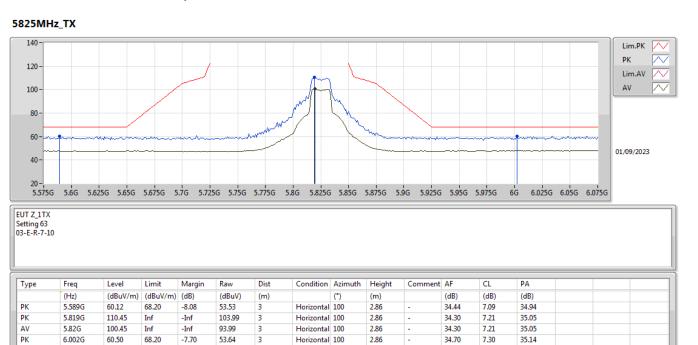






















AV

5.1744G

98.81

Inf

-Inf

92.84

3

Vertical

258

2.31

Appendix E.2

5.15-5.25GHz_802.11ac VHT20_Nss1,(MCS0)_1TX



34.05

6.77

34.85



AV

РК

AV

5.1498G

5.1848G

5.1858G

53.04

109.26

98.99

54.00

Inf

Inf

-0.96

-Inf

-Inf

47.04

103.31

93.03

3

3

3

Horizontal 332

Horizontal 332

Horizontal 332

2.84

2.84

2.84

_

34.10

34.03

34.03

6.75

6.78

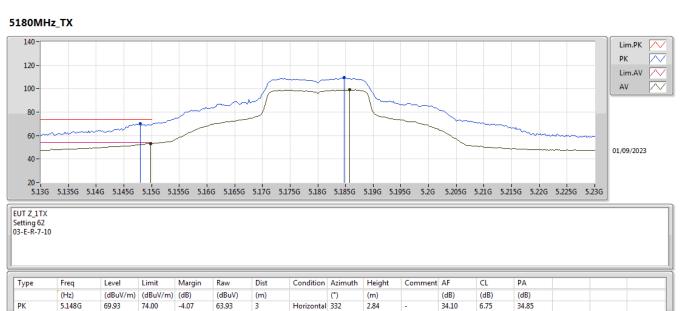
6.79

34.85

34.86

34.86

Appendix E.2





AV

15.5545G

15.5448G

62.04

48.62

74.00

54.00

-11.96

-5.38

69.69

56.23

3

3

Vertical

Vertical

327

327

1.15

1.15

38.18

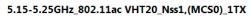
38.22

16.25

16.24

62.08

62.07







AV

15.5449G

15.5582G

61.32

48.79

74.00

54.00

-12.68

-5.21

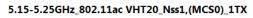
68.93

56.44

3

3

Appendix E.2





Horizontal 360

Horizontal 360

2.60

2.60

-

-

38.22

38.17

16.24

16.26

62.07

62.08



AV

5.1848G

5.1744G

109.07

99.06

Inf

Inf

-Inf

-Inf

103.12

93.09

3

3

Vertical

Vertical

258

258

2.31

2.31

34.03

34.05

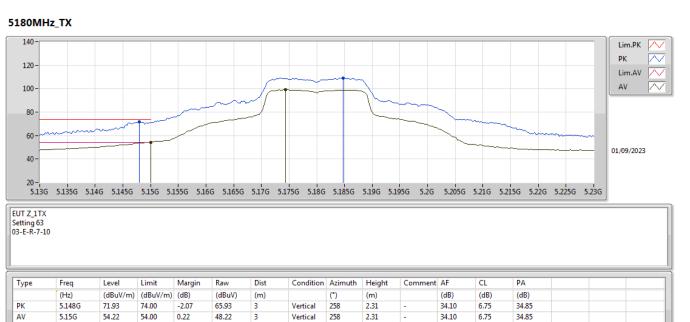
6.78

6.77

34.86

34.85

Appendix E.2





5.194G

98.81

Inf

-Inf

92.87

3

Vertical

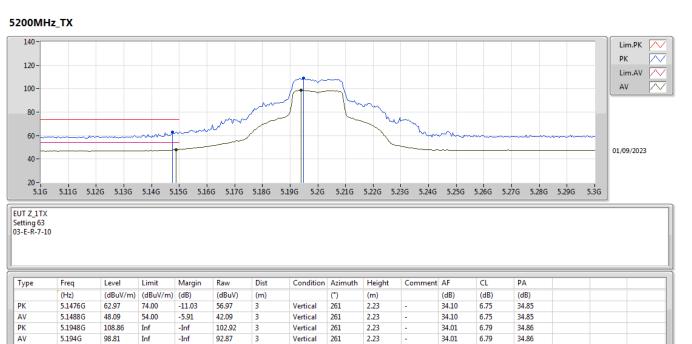
261

2.23

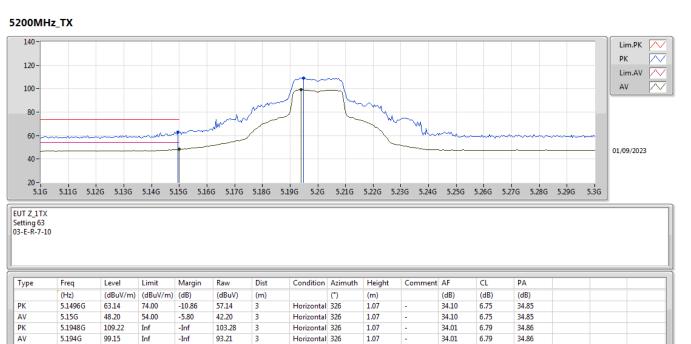
6.79

34.86

Appendix E.2









AV

15.5979G

51.03

54.00

-2.97

58.82

3

Vertical

100

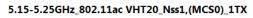
2.06

-

38.01

16.30

62.10







AV

15.5784G

47.94

54.00

-6.06

55.66

3

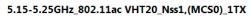
Horizontal 187

2.62

38.09

16.28

62.09









5.3564G

5.3522G

AV

74.00

54.00

-13.72

-5.84

3

3

41.66

Vertical

Vertical

20

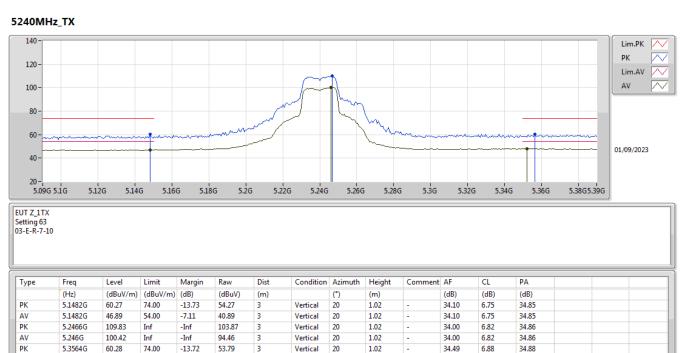
20

1.02

1.02

60.28

48.16



34.49 34.50

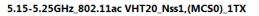
6.88

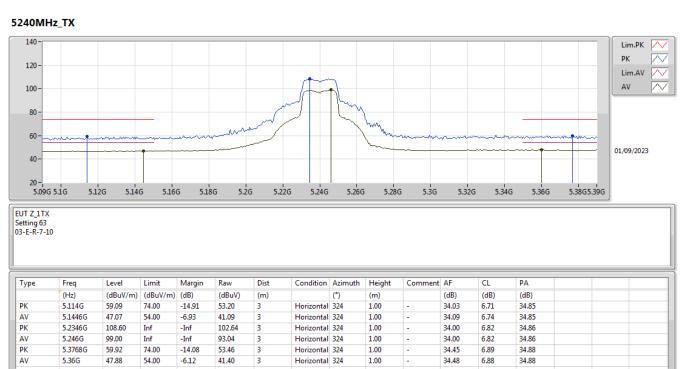
6.88

34.88

34.88









AV

15.71838G

50.90

54.00

-3.10

58.66

3

Vertical

99

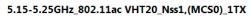
2.12

-

37.99

16.42

62.17







AV

Appendix E.2

5.15-5.25GHz_802.11ac VHT20_Nss1,(MCS0)_1TX

61.54

48.19

15.71892G

74.00

54.00

-12.46

-5.81

69.28

55.95

3

3

Horizontal 0

Horizontal 0

1.99

1.99

-

38.02

37.99

16.41

16.42

62.17

62.17





PK

AV PK 5.593G

5.751G

5.751G

5.927G

61.32

113.45

103.31

61.14

68.20

Inf

Inf

68.20

-6.88

-Inf

-Inf

-7.06

54.74

107.09

96.95

54.43

3

3

3

3

Vertical

Vertical

Vertical

Vertical

30

30

30

30

1.03

1.03

1.03

1.03

_

34.43

34.20

34.20

34.55

7.09

7.18

7.18

7.26

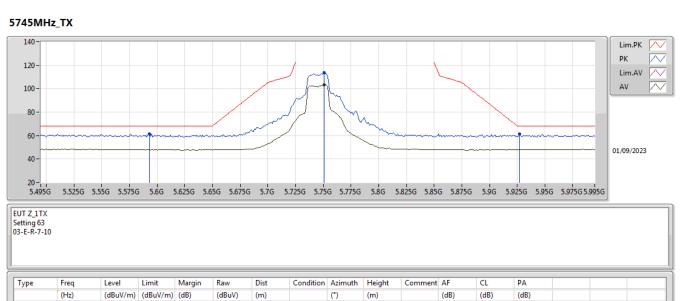
34.94

35.02

35.02

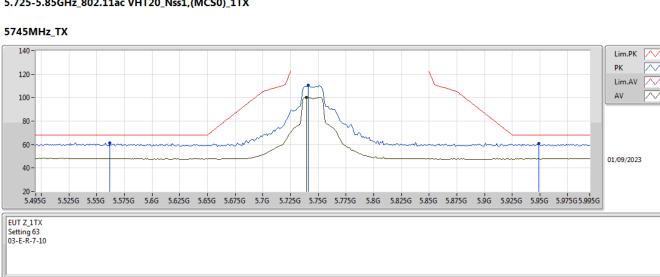
35.10

Appendix E.2



porton International Inc. Hsinchu Laboratory	





Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	5.562G	61.41	68.20	-6.79	54.73	3	Horizontal	99	2.80	-	34.55	7.06	34.93		
PK	5.741G	110.56	Inf	-Inf	104.21	3	Horizontal	99	2.80	-	34.20	7.17	35.02		
AV	5.739G	100.38	Inf	-Inf	94.02	3	Horizontal	99	2.80	-	34.20	7.17	35.01		
PK	5.949G	60.85	68.20	-7.35	54.10	3	Horizontal	99	2.80	-	34.60	7.27	35.12		



РК

17.23674G

64.07

68.20

-4.13

68.27

3

Vertical

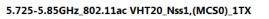
340

1.75

40.68

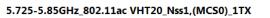
17.44

62.32













AV PK 5.791G

5.79G

6.018G

114.04

103.78

61.17

Inf

Inf

68.20

-Inf

-Inf

-7.03

107.60

97.34

54.23

3

3

3

Vertical

Vertical

Vertical

29

29

29

1.03

1.03

1.03

34.28

34.28

34.74

7.20

7.20

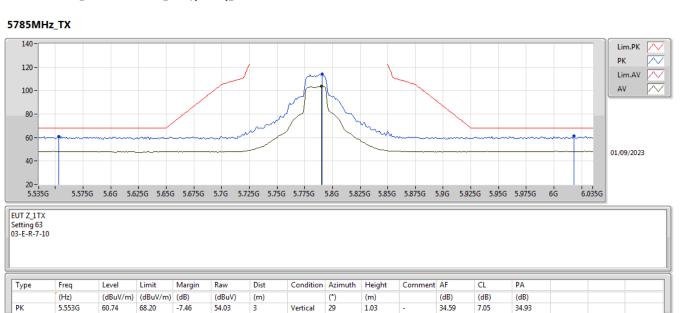
7.33

35.04

35.04

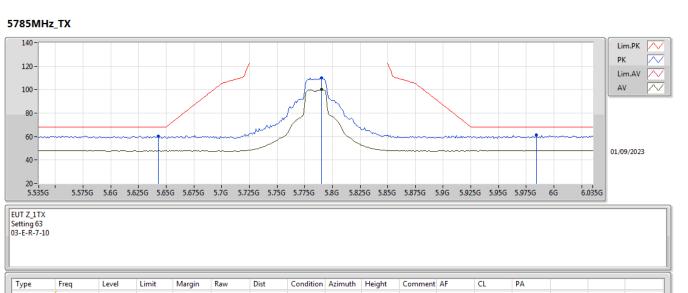
35.13





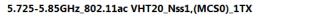


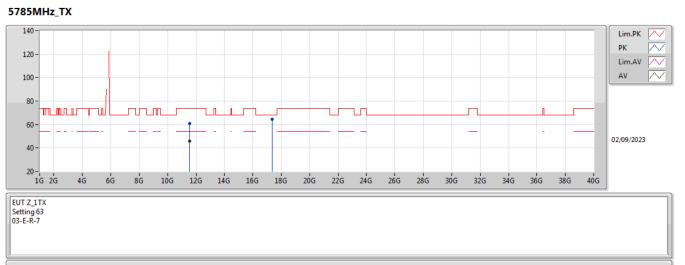




Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	5.643G	60.49	68.20	-7.71	53.94	3	Horizontal	95	2.92	-	34.40	7.12	34.97		
РК	5.79G	110.19	Inf	-Inf	103.75	3	Horizontal	95	2.92	-	34.28	7.20	35.04		
AV	5.79G	99.93	Inf	-Inf	93.49	3	Horizontal	95	2.92	-	34.28	7.20	35.04		
PK	5.984G	61.21	68.20	-6.99	54.38	3	Horizontal	95	2.92	-	34.67	7.29	35.13		







Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	11.5684G	60.65	74.00	-13.35	73.57	3	Vertical	16	1.00	-	39.21	12.86	64.99		
AV	11.5705G	46.12	54.00	-7.88	59.04	3	Vertical	16	1.00	-	39.21	12.86	64.99		
PK	17.3617G	64.54	68.20	-3.66	67.96	3	Vertical	360	1.01	-	41.43	17.52	62.37		



РК

64.64

68.20

-3.56

68.18

3

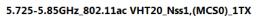
Horizontal 307

1.42

41.31

17.51

62.36







AV PK

5.829G

6.057G

104.20

61.38

Inf

68.20

-Inf

-6.82

97.75

54.28

3

3

Vertical

Vertical

28

28

1.04

1.04

34.30

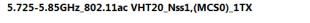
34.83

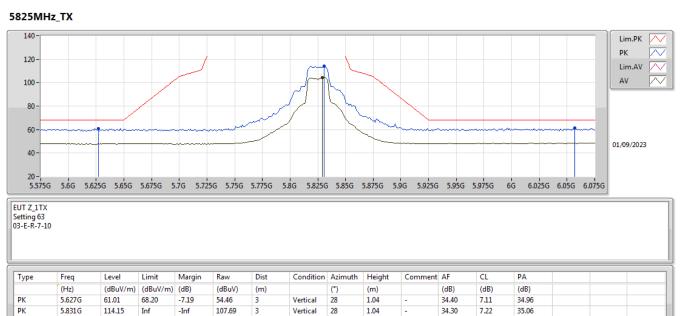
7.21

7.39

35.06

35.12







PK

AV PK 5.831G

5.829G

5.982G

110.29

100.37

61.46

Inf

Inf

68.20

-Inf

-Inf

-6.74

103.83

93.92

54.64

3

3

3

Horizontal 93

Horizontal 93

Horizontal 93

3.00

3.00

3.00

-

34.30

34.30

34.66

7.22

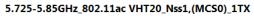
7.21

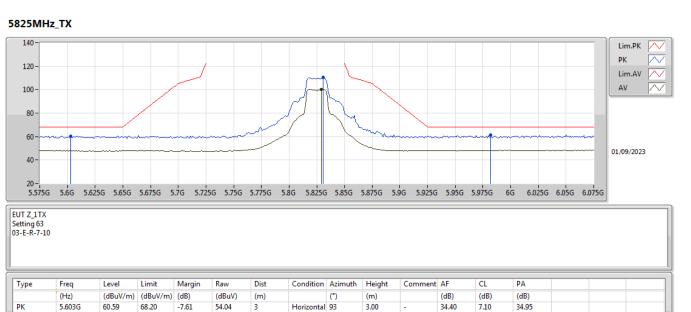
7.29

35.06

35.06

35.13







AV

РК

11.6492G

17.4533G

46.24

66.03

54.00

68.20

-7.76

-2.17

59.01

68.80

3

3

Vertical

Vertical

22

246

1.01

1.42

-

39.35

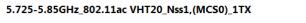
42.07

12.91

17.57

65.03

62.41







AV

РК

11.6301G

17.497G

43.08

65.62

54.00

68.20

-10.92

-2.58

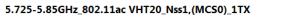
55.87

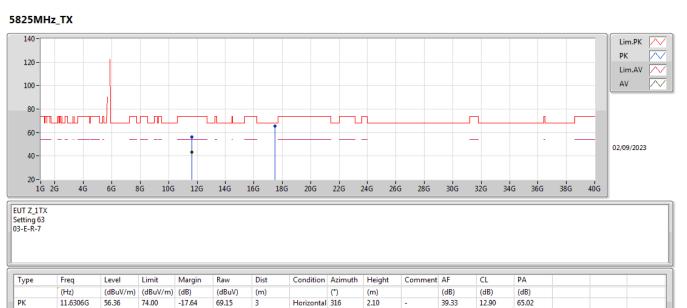
68.07

3

3

Appendix E.2





Horizontal 316

Horizontal 309

2.10

1.54

-

-

39.33

42.38

12.90

17.60

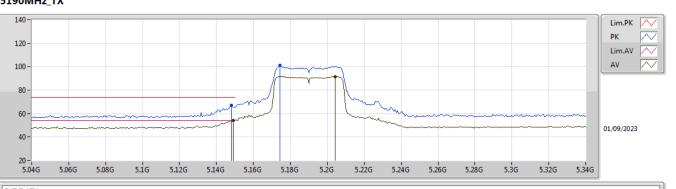
65.02

62.43



5.15-5.25GHz_802.11ac VHT40_Nss1,(MCS0)_1TX





EUT Z_1TX Setting 49 03-E-S-5-10

Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	5.148G	66.93	74.00	-7.07	60.93	3	Vertical	257	2.44	-	34.10	6.75	34.85		
AV	5.1492G	53.96	54.00	-0.04	47.96	3	Vertical	257	2.44	-	34.10	6.75	34.85		
PK	5.1744G	101.37	Inf	-Inf	95.40	3	Vertical	257	2.44	-	34.05	6.77	34.85		
AV	5.2044G	91.63	Inf	-Inf	85.69	3	Vertical	257	2.44	-	34.00	6.80	34.86		



Lim.PK РК

01/09/2023

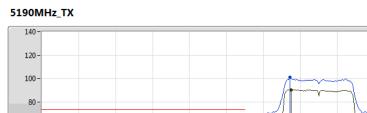
5.32G

5.34G

Lim.AV 📈 AV

 \square

5.15-5.25GHz_802.11ac VHT40_Nss1,(MCS0)_1TX

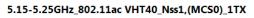




EUT Z_1TX Setting 49 03-E-S-5-10

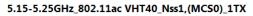
Гуре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA	
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)	
РК	5.1474G	66.35	74.00	-7.65	60.36	3	Horizontal	321	2.87	-	34.09	6.75	34.85	
AV	5.1498G	52.30	54.00	-1.70	46.30	3	Horizontal	321	2.87	-	34.10	6.75	34.85	
РК	5.1744G	101.25	Inf	-Inf	95.28	3	Horizontal	321	2.87	-	34.05	6.77	34.85	
AV	5.175G	90.60	Inf	-Inf	84.63	3	Horizontal	321	2.87	-	34.05	6.77	34.85	







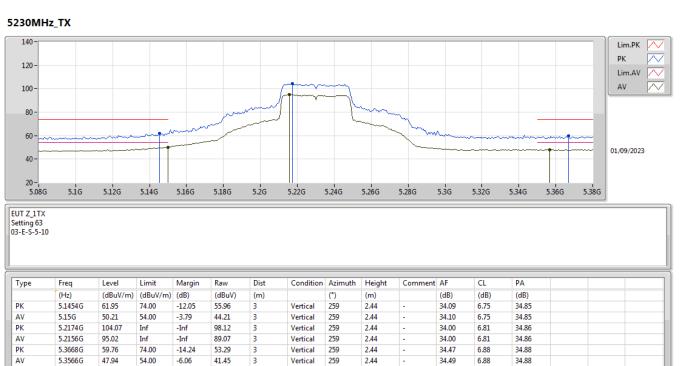




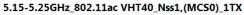




5.15-5.25GHz_802.11ac VHT40_Nss1,(MCS0)_1TX











AV

15.69616G

50.47

54.00

-3.53

58.13

3

Vertical

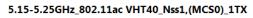
98

2.11

38.10

16.40

62.16







PK

AV

15.68204G

15.68036G

61.15

47.94

74.00

54.00

-12.85

-6.06

68.84

55.63

3

3

Horizontal 36

Horizontal 36

1.80

1.80

-

-

38.08

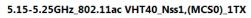
38.08

16.38

16.38

62.15

62.15







PK

AV PK 5.753G

5.754G

6.001G

109.92

100.58

60.14

Inf

Inf

68.20

-Inf

-Inf

-8.06

103.55

94.21

53.28

3

3

3

Vertical

Vertical

Vertical

24

24

24

1.02

1.02

1.02

34.21

34.21

34.70

7.18

7.18

7.30

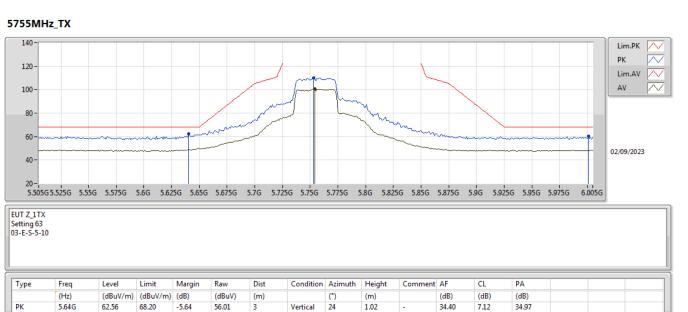
35.02

35.02

35.14

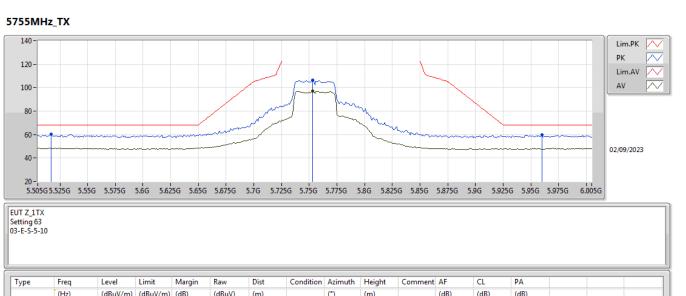
Appendix E.2

5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX



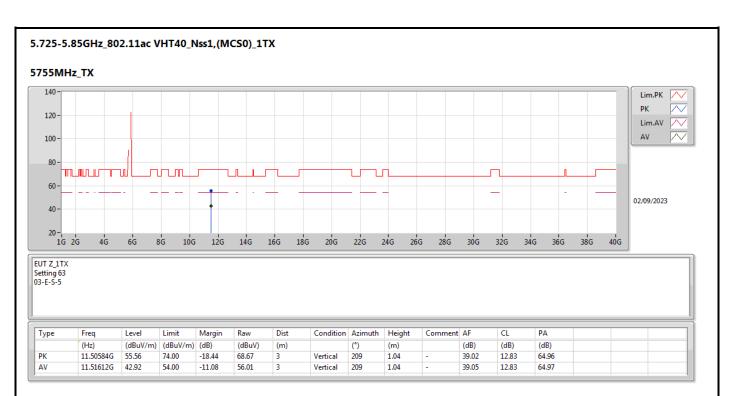


5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX

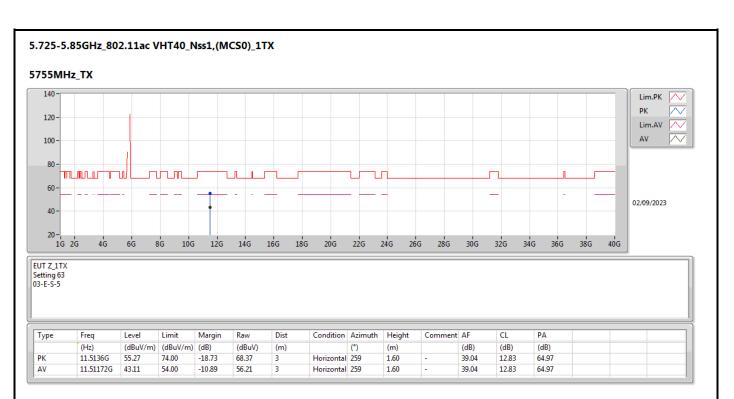


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	5.517G	60.21	68.20	-7.99	53.50	3	Horizontal	96	2.77	-	34.60	7.02	34.91		
PK	5.753G	106.16	Inf	-Inf	99.79	3	Horizontal	96	2.77	-	34.21	7.18	35.02		
AV	5.753G	96.84	Inf	-Inf	90.47	3	Horizontal	96	2.77	-	34.21	7.18	35.02		
PK	5.96G	59.94	68.20	-8.26	53.16	3	Horizontal	96	2.77	-	34.62	7.28	35.12		



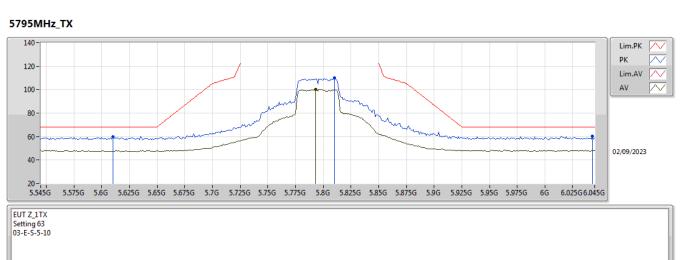








5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX

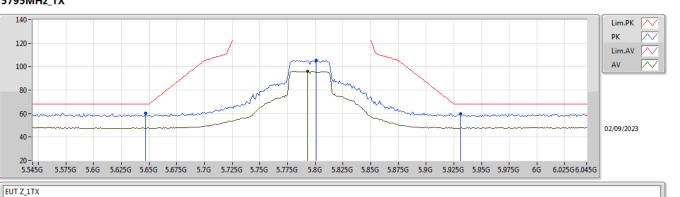


Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	5.61G	59.92	68.20	-8.28	53.37	3	Vertical	28	1.04	-	34.40	7.10	34.95		
РК	5.81G	109.78	Inf	-Inf	103.32	3	Vertical	28	1.04	-	34.30	7.21	35.05		
AV	5.793G	100.23	Inf	-Inf	93.78	3	Vertical	28	1.04	-	34.29	7.20	35.04		
РК	6.043G	60.14	68.20	-8.06	53.11	3	Vertical	28	1.04	-	34.79	7.36	35.12		



5.725-5.85GHz_802.11ac VHT40_Nss1,(MCS0)_1TX





Setting 63 03-E-S-5-10

Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
РК	5.647G	60.34	68.20	-7.86	53.79	3	Horizontal	94	2.89	-	34.40	7.12	34.97		
РК	5.801G	105.60	Inf	-Inf	99.14	3	Horizontal	94	2.89	-	34.30	7.20	35.04		
AV	5.793G	96.25	Inf	-Inf	89.80	3	Horizontal	94	2.89	-	34.29	7.20	35.04		
PK	5.931G	59.78	68.20	-8.42	53.06	3	Horizontal	94	2.89	-	34.56	7.27	35.11		



РК

17.39224G

66.32

68.20

-1.88

69.51

3

Vertical

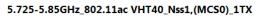
51

1.80

41.65

17.54

62.38







РК

17.38824G

66.00

68.20

-2.20

69.23

3

Horizontal 21

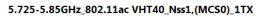
1.79

-

41.62

17.53

62.38

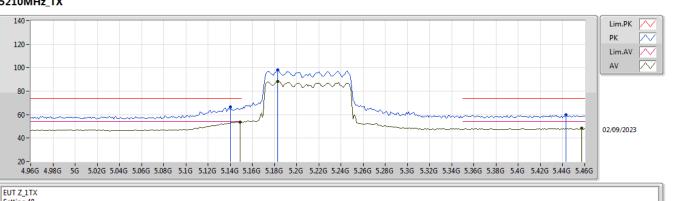






5.15-5.25GHz_802.11ac VHT80_Nss1,(MCS0)_1TX





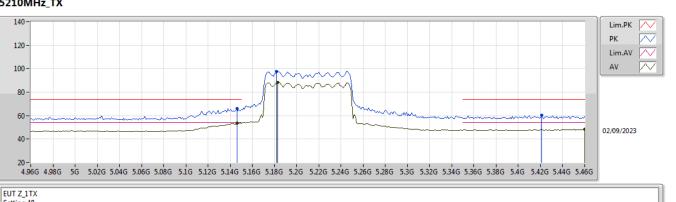
Setting 48 03-E-S-5-10

Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	5.14G	66.72	74.00	-7.28	60.75	3	Vertical	257	2.46	-	34.08	6.74	34.85		
AV	5.149G	53.80	54.00	-0.20	47.80	3	Vertical	257	2.46	-	34.10	6.75	34.85		
PK	5.183G	98.11	Inf	-Inf	92.16	3	Vertical	257	2.46	-	34.03	6.78	34.86		
AV	5.183G	88.34	Inf	-Inf	82.39	3	Vertical	257	2.46	-	34.03	6.78	34.86		
PK	5.443G	59.67	74.00	-14.33	53.05	3	Vertical	257	2.46	-	34.57	6.94	34.89		
AV	5.457G	48.43	54.00	-5.57	41.76	3	Vertical	257	2.46	-	34.60	6.96	34.89		



5.15-5.25GHz_802.11ac VHT80_Nss1,(MCS0)_1TX

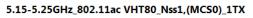




Setting 48 03-E-S-5-10

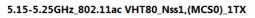
Туре	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA		
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)		
PK	5.146G	66.09	74.00	-7.91	60.10	3	Horizontal	326	1.11	-	34.09	6.75	34.85		
AV	5.146G	53.42	54.00	-0.58	47.43	3	Horizontal	326	1.11	-	34.09	6.75	34.85		
РК	5.182G	97.67	Inf	-Inf	91.71	3	Horizontal	326	1.11	-	34.04	6.78	34.86		
AV	5.183G	88.49	Inf	-Inf	82.54	3	Horizontal	326	1.11	-	34.03	6.78	34.86		
PK	5.421G	60.12	74.00	-13.88	53.61	3	Horizontal	326	1.11	-	34.48	6.92	34.89		
AV	5.46G	48.24	54.00	-5.76	41.57	3	Horizontal	326	1.11	-	34.60	6.96	34.89		















5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_1TX

68.20

-0.24

61.25

3

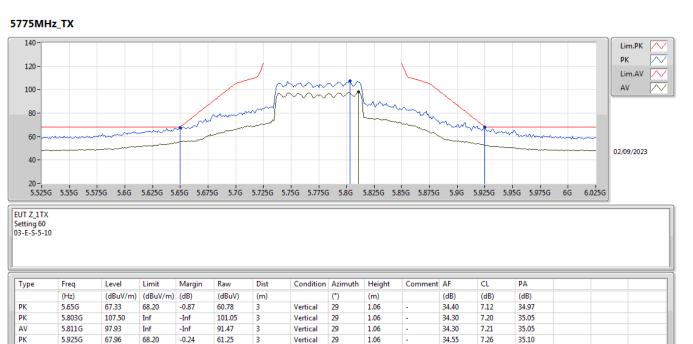
Vertical

29

1.06

67.96

5.925G



34.55

7.26

35.10



PK

AV PK 5.747G

5.748G

5.925G

103.28

93.71

62.07

Inf

Inf

68.20

-Inf

-Inf

-6.13

96.93

87.36

55.36

3

3

3

Horizontal 94

Horizontal 94

Horizontal 94

2.65

2.65

2.65

-

34.20

34.20

34.55

7.17

7.17

7.26

35.02

35.02

35.10

Appendix E.2

5.725-5.85GHz_802.11ac VHT80_Nss1,(MCS0)_1TX

