

FCC Radio Test Report

FCC ID : HBW-GDOCAM360
Equipment : Garage Camera Module
Brand Name : myQ
Model Name : GDOCAM360
Applicant : The Chamberlain Group LLC
300 Windsor Drive Oak Brook, IL 60523 USA
Manufacturer : The Chamberlain Group, LLC
300 Windsor Drive Oak Brook, IL 60523 USA
Standard : 47 CFR FCC Part 15.247

The product was received on Mar. 27, 2025, and testing was started from Apr. 09, 2025 and completed on Apr. 30, 2025. We, SPORTON INTERNATIONAL INC. Hsinhua 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.


Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR532514AC	01	Initial issue of report	May 16, 2025
FR532514AC	02	Revised typo and Updated photographs of EUT. (This report is the latest version replacing for the report issued on May 16, 2025.)	May 20, 2025

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	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	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:

None

Reviewed by: Ben Tseng

Report Producer: Michelle Tsai

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20)	2412-2462	1-11 [11]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX

Note:

- ♦ 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- ♦ 11g and HT20 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	INPAQ	RFPCA471415EMAB401	PIFA	Reverse SMA	2.4G/BLE

Ant.	Port	Gain (dBi)	
		2.4G	Bluetooth
1	1	4.77	4.77

Note 1: The EUT has one antenna.

For 2.4GHz function:

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

Ant. 1 (port 1) could transmit/receive.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	☒ Point-to-multipoint	☐ Point-to-point	
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:	...	
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:	...	
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF (dB)	T (s)	VBW (Hz)_1/T
802.11b_Nss1,(1Mbps)_1TX	1	0	30.001m	10Hz (DC>=0.98)
802.11g_Nss1,(6Mbps)_1TX	1	0	30.001m	10Hz (DC>=0.98)
802.11n HT20_Nss1,(MCS0)_1TX	1	0	30.001m	10Hz (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied 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

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CON04-HY	Rian Chung	21.3~22.9°C / 51~53%	17/Apr/2025
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH06-HY	Johnny Yu	23.2~23.6°C / 53~57%	15/Apr/2025~30/Apr/2025
Radiated	03CH25-HY	Henry Ho	22.1~23.2°C / 51~53%	09/Apr/2025~14/Apr/2025
Radiated (Co-location)	03CH25-HY	Henry Ho	22.5~23.6°C / 52~53%	21/Apr/2025

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
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Emissions in Non-restricted Frequency Bands	0.14 dB	Confidence levels of 95%
Emissions in Restricted Frequency Bands	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software Version	UI_mptool
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Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	29.50
2417MHz	30
2437MHz	30
2457MHz	29.25
2462MHz	28.5
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	25.75
2417MHz	28.75
2437MHz	30
2457MHz	24.25
2462MHz	24.25
802.11n HT20_Nss1,(MCS0)_1TX	-
2412MHz	25.5
2417MHz	29
2437MHz	30
2457MHz	25.25
2462MHz	23.25

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	CTX
1	Adapter Mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
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 < 1GHz	CTX		
1	Adapter Mode		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V		

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	WLAN 2.4GHz + Bluetooth
Refer to Sporton Test Report No.: FA532514 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

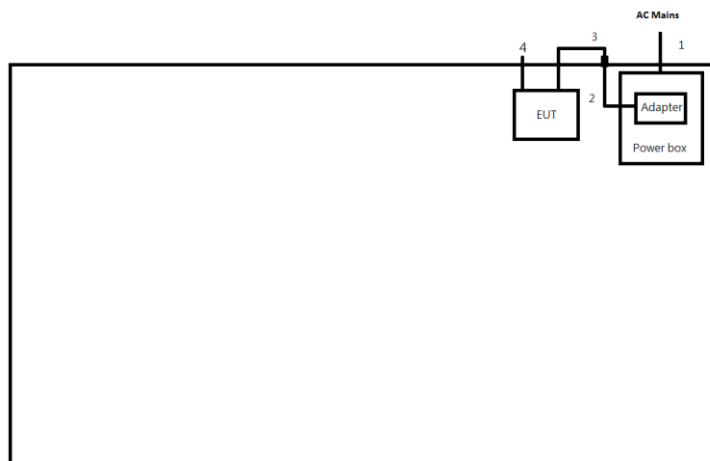
2.3 Support Equipment

Support Equipment – AC Conduction and Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	HTC	TC P2000-US	-	-
2	USB Cable	N/A	N/A	-	-
3	UART Cable	N/A	N/A	-	-
4	console cable	N/A	N/A	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	UART Cable*2	N/A	N/A	-	-
4	5V Adapter*2	HTC	TC P2000-US	-	-
5	Transmission line USB*2	N/A	N/A	-	-
6	console cable*2	N/A	N/A	-	-
7	USB dongle*2	N/A	N/A	-	-

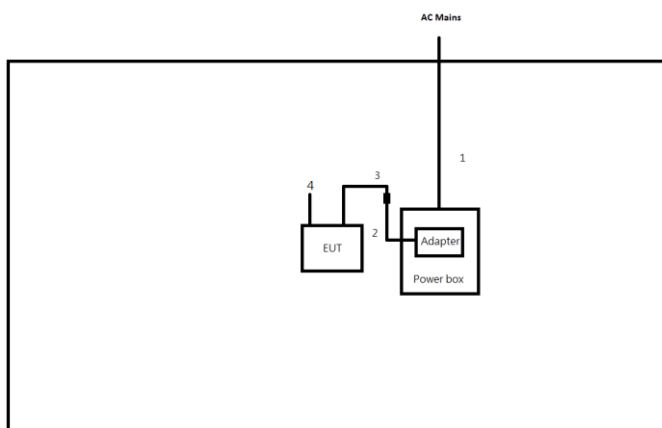
2.4 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB Cable	No	0.9	-
3	UART Cable	No	0.45	-
4	console cable	No	0.5	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	USB Cable	No	0.9	-
3	UART Cable	No	0.45	-
4	console cable	No	0.5	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
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 Measurement Results Calculation

The measured Level is calculated using:

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

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
▪	6 dB bandwidth $\geq$ 500 kHz.

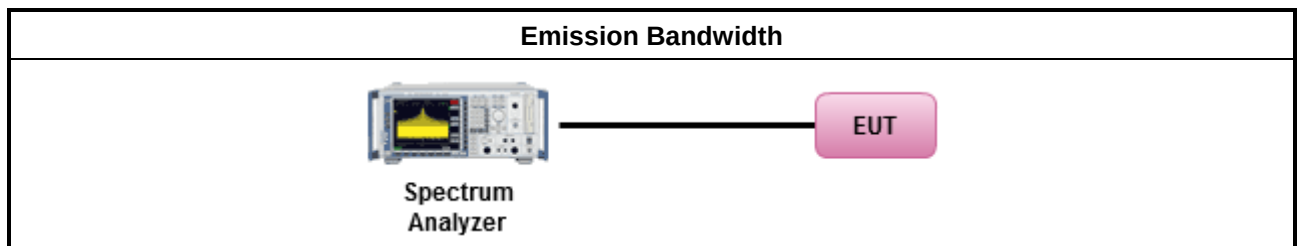
3.2.2 Measuring Instruments

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 KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
☐	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	2400-2483.5 MHz Band
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	Smart antenna system (SAS)
	- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

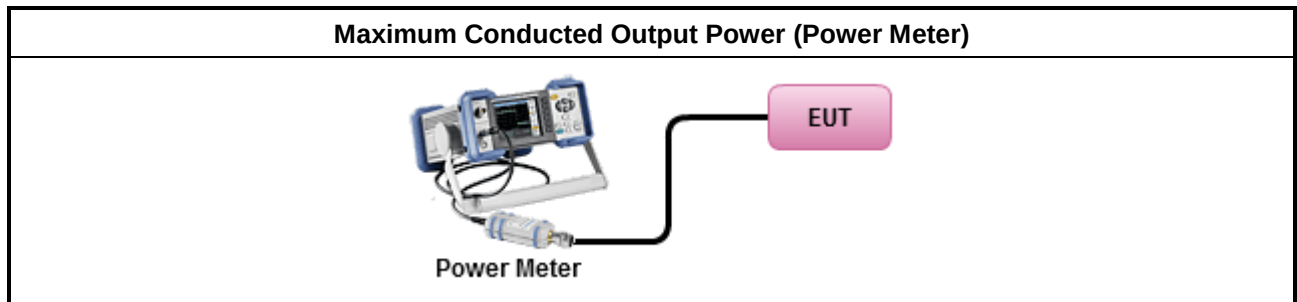
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as 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: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit	
▪	Power Spectral Density (PSD) ≤ 8 dBm/3kHz

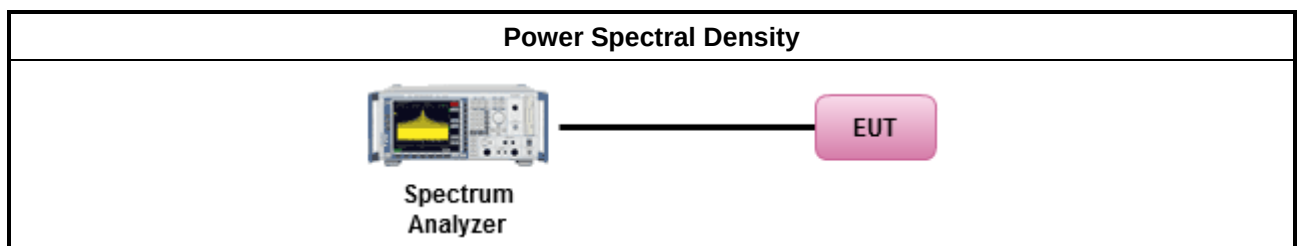
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
▪	Measure and sum the spectra across the outputs. Refer as 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.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average level.	

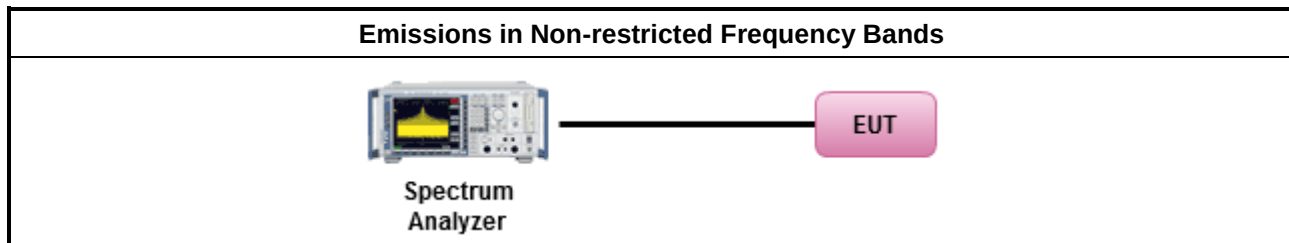
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions 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.

3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

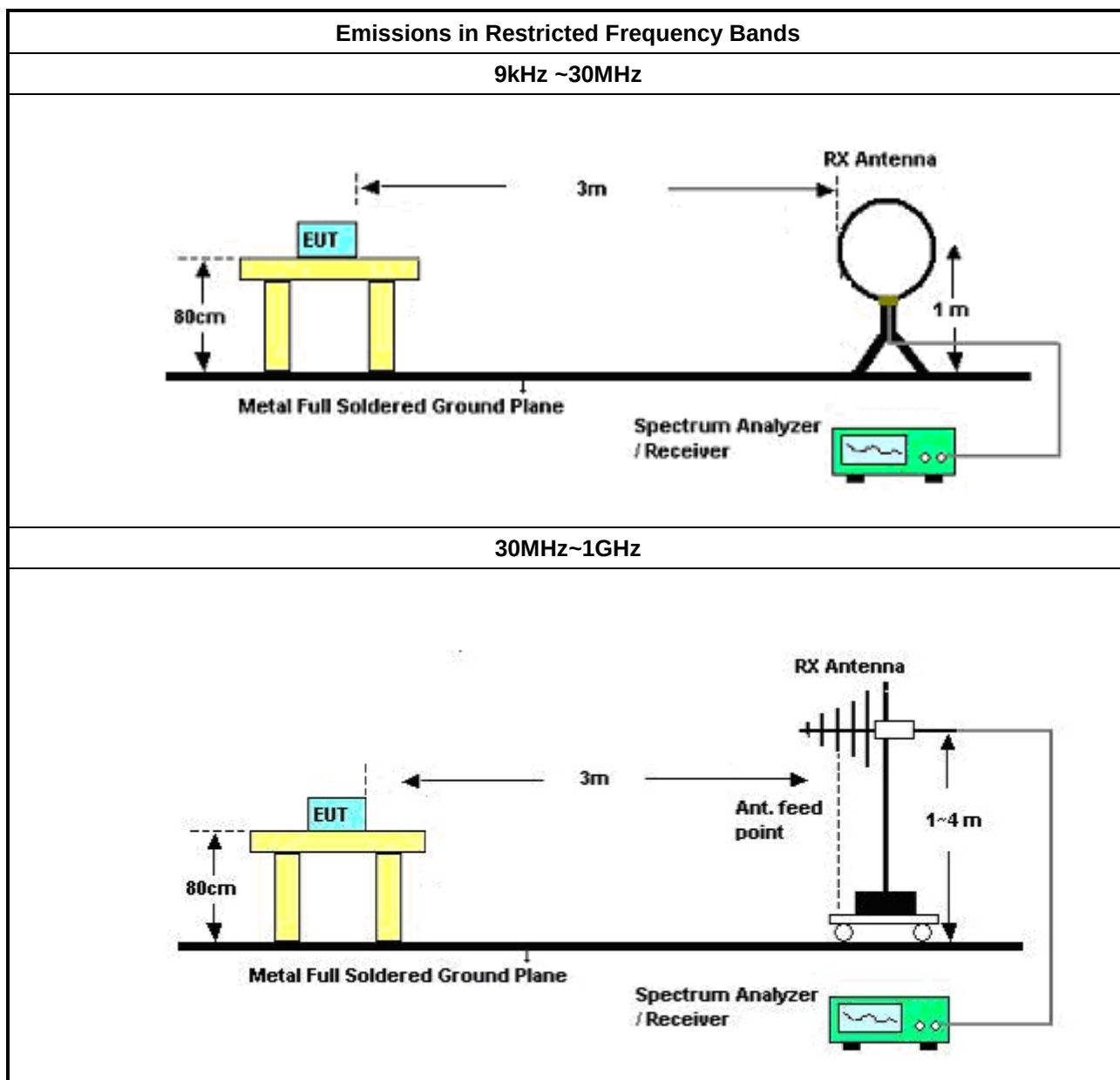
Test Method	
▪	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
	Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪	For the transmitter unwanted emissions shall be measured using following options below:
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
▪	For the transmitter band-edge emissions shall be measured using following options below:
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
▪	Use the following spectrum analyzer settings:
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
▪	KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.
	Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

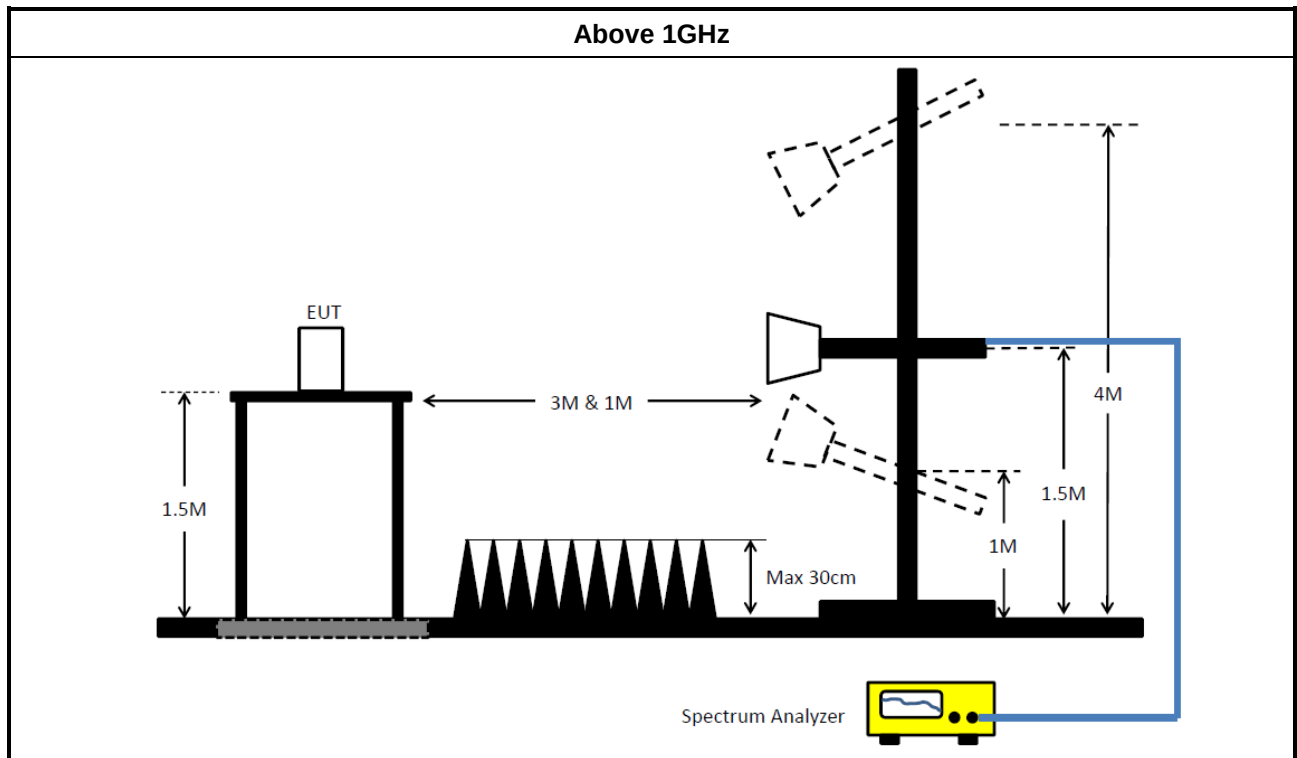
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.6.5 Test Setup





3.6.6 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	ROHDE & SCHWARZ	ESR3	102051	9kHz ~ 3.6GHz	17/May/2024	16/May/2025
Two-Line V-Network	ROHDE & SCHWARZ	ENV 216	101578	9kHz ~ 30MHz	11/Oct/2024	10/Oct/2025
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	26/Feb/2025	25/Feb/2026
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	17/Oct/2024	16/Oct/2025
Software	Sporton	SENSE-EMI	V5.11.3	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	28/Oct/2024	27/Oct/2025
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	16/Oct/2024	15/Oct/2025
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	28/Mar/2025	27/Mar/2026
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	28/Mar/2025	27/Mar/2026
SENSE-15247_DTS	Sporton	V5.11.23	N/A	N/A	01/Oct/2022	02/Nov/2030

Instrument for Radiated Test (Co-location)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	08/Aug/2024	07/Aug/2025
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101410	10Hz~44GHz	18/Nov/2024	17/Nov/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	11/Jul/2024	10/Jul/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	04/Oct/2024	03/Oct/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	15/Feb/2025	14/Feb/2026
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	24/May/2024	23/May/2025
Amplifier	EM	EM18G40GA	060874	18GHz ~ 40GHz	18/Apr/2025	17/Apr/2026
SENSE-EMI	Sporton	V5.11.6	NA	NA	NA	NA

**Instrument for Radiated Test**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	20/Jul/2024	19/Jul/2025
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	08/Aug/2024	07/Aug/2025
ESR7 EMI Test Receiver	ROHDE & SCHWARZ	ESR7	102956	9kHz~3.6GHz	27/Aug/2024	26/Aug/2025
Signal Analyzer	ROHDE & SCHWARZ	FSV3044	101410	10Hz~44GHz	18/Nov/2024	17/Nov/2025
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	20/Mar/2025	19/Mar/2026
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 04002-06	63537/001	30MHz~1GHz	30/May/2024	29/May/2025
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	11/Jul/2024	10/Jul/2025
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	04/Oct/2024	03/Oct/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	9kHz~1GHz	24/Apr/2024	23/Apr/2025
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	15/Feb/2025	14/Feb/2026
Preamplifier	SGH	PRAMP 903	20230515-1	25MHz~3GHz	24/May/2024	23/May/2025
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz~18GHz	24/May/2024	23/May/2025
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40GA	060604	18GHz ~ 40GHz	19/Apr/2024	18/Apr/2025
SENSE-15247-DTS	Sporton	V5.11.23	NA	NA	NA	NA



Conducted Emissions at Powerline

Appendix A

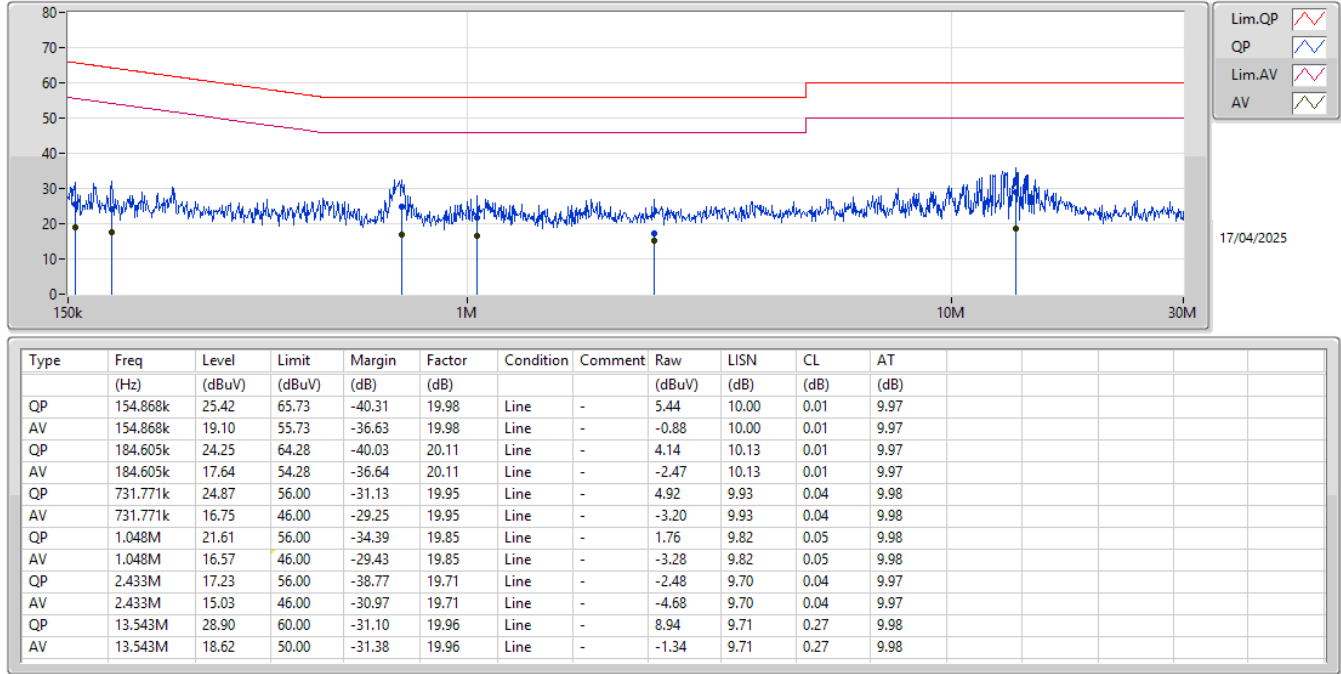
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	150k	42.19	56.00	-13.81	Neutral

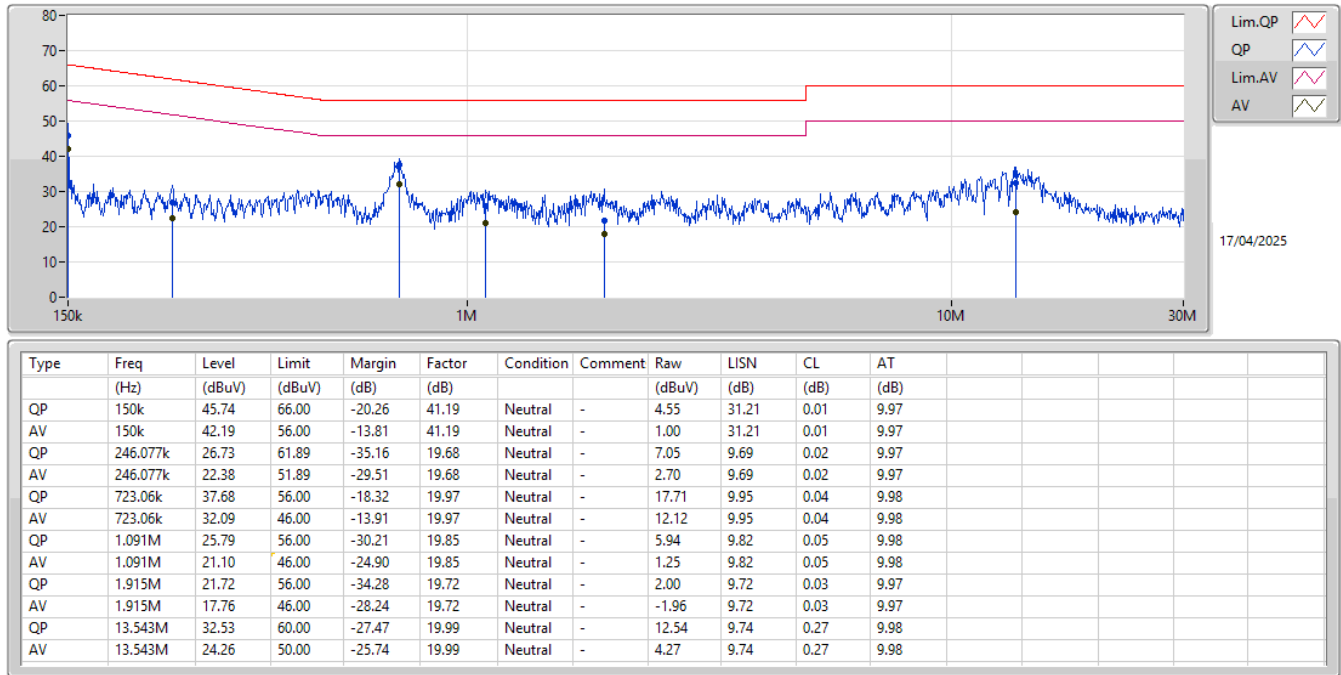
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	154.868k	25.42	65.73	-40.31	Line
Mode 1	Pass	AV	154.868k	19.10	55.73	-36.63	Line
Mode 1	Pass	QP	184.605k	24.25	64.28	-40.03	Line
Mode 1	Pass	AV	184.605k	17.64	54.28	-36.64	Line
Mode 1	Pass	QP	731.771k	24.87	56.00	-31.13	Line
Mode 1	Pass	AV	731.771k	16.75	46.00	-29.25	Line
Mode 1	Pass	QP	1.048M	21.61	56.00	-34.39	Line
Mode 1	Pass	AV	1.048M	16.57	46.00	-29.43	Line
Mode 1	Pass	QP	2.433M	17.23	56.00	-38.77	Line
Mode 1	Pass	AV	2.433M	15.03	46.00	-30.97	Line
Mode 1	Pass	QP	13.543M	28.90	60.00	-31.10	Line
Mode 1	Pass	AV	13.543M	18.62	50.00	-31.38	Line
Mode 1	Pass	QP	150k	45.74	66.00	-20.26	Neutral
Mode 1	Pass	AV	150k	42.19	56.00	-13.81	Neutral
Mode 1	Pass	QP	246.077k	26.73	61.89	-35.16	Neutral
Mode 1	Pass	AV	246.077k	22.38	51.89	-29.51	Neutral
Mode 1	Pass	QP	723.06k	37.68	56.00	-18.32	Neutral
Mode 1	Pass	AV	723.06k	32.09	46.00	-13.91	Neutral
Mode 1	Pass	QP	1.091M	25.79	56.00	-30.21	Neutral
Mode 1	Pass	AV	1.091M	21.10	46.00	-24.90	Neutral
Mode 1	Pass	QP	1.915M	21.72	56.00	-34.28	Neutral
Mode 1	Pass	AV	1.915M	17.76	46.00	-28.24	Neutral
Mode 1	Pass	QP	13.543M	32.53	60.00	-27.47	Neutral
Mode 1	Pass	AV	13.543M	24.26	50.00	-25.74	Neutral

Conducted Emissions at Powerline_Mode 1



Conducted Emissions at Powerline_Mode 1



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	9.55M	14.393M	14M4G1D	9.075M	13.973M
802.11g_Nss1,(6Mbps)_1TX	15.3M	19.152M	19M2D1D	15.05M	16.36M
802.11n HT20_Nss1,(MCS0)_1TX	15.65M	18.891M	18M9D1D	14.65M	17.441M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9.1M	14.393M
2437MHz	Pass	500k	9.075M	14.363M
2462MHz	Pass	500k	9.55M	13.973M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.075M	16.36M
2437MHz	Pass	500k	15.3M	19.152M
2462MHz	Pass	500k	15.05M	16.36M
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.65M	17.466M
2437MHz	Pass	500k	15.45M	18.891M
2462MHz	Pass	500k	14.65M	17.441M

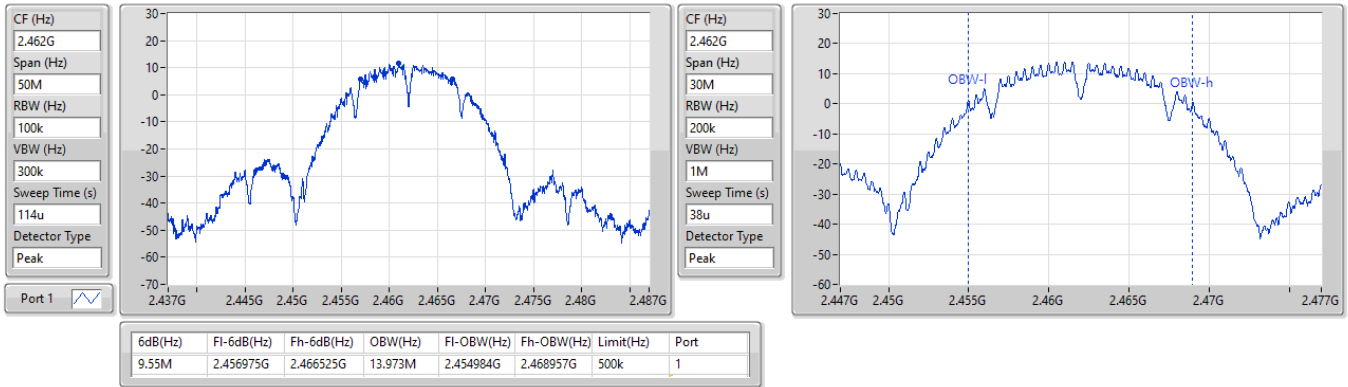
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

EBW

2462MHz

15/04/2025

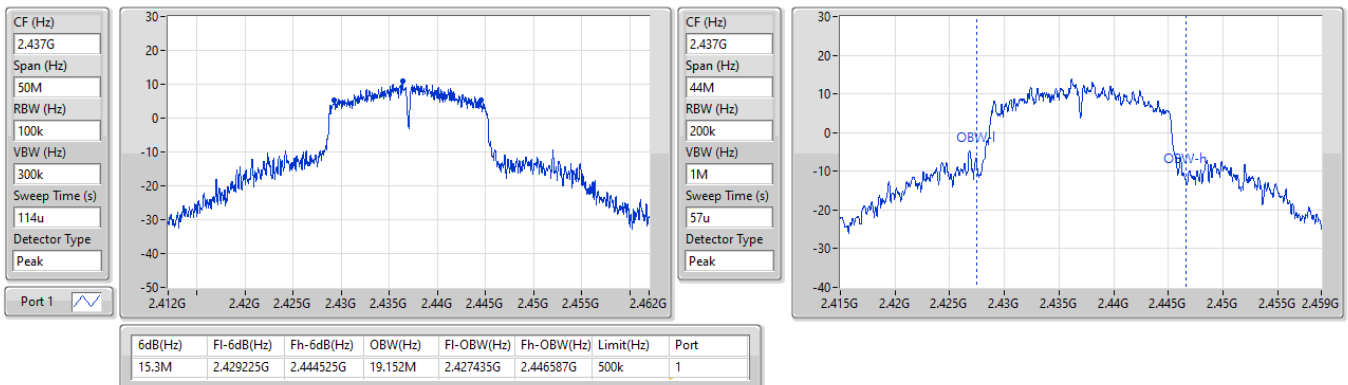


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

EBW

2437MHz

15/04/2025

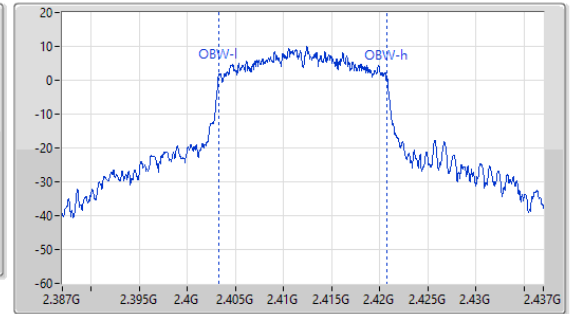
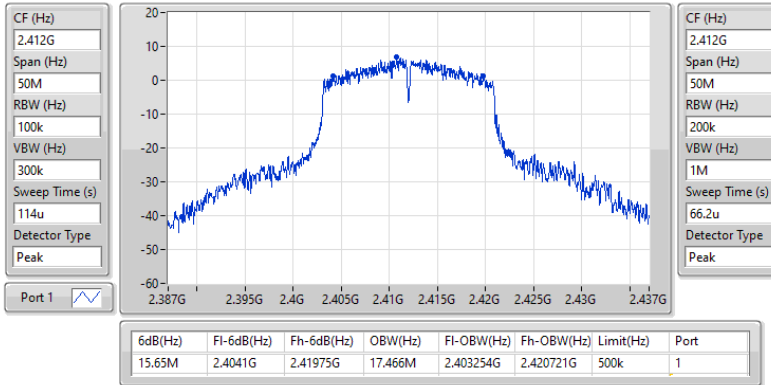


2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

EBW

2412MHz

15/04/2025





Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	24.56	0.28576
802.11g_Nss1,(6Mbps)_1TX	23.73	0.23605
802.11n HT20_Nss1,(MCS0)_1TX	23.68	0.23335



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.77	24.36	24.36	30.00
2417MHz	Pass	4.77	24.52	24.52	30.00
2437MHz	Pass	4.77	24.56	24.56	30.00
2457MHz	Pass	4.77	23.36	23.36	30.00
2462MHz	Pass	4.77	22.62	22.62	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.77	20.22	20.22	30.00
2417MHz	Pass	4.77	23.25	23.25	30.00
2437MHz	Pass	4.77	23.73	23.73	30.00
2457MHz	Pass	4.77	18.91	18.91	30.00
2462MHz	Pass	4.77	18.62	18.62	30.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.77	20.21	20.21	30.00
2417MHz	Pass	4.77	22.99	22.99	30.00
2437MHz	Pass	4.77	23.68	23.68	30.00
2457MHz	Pass	4.77	19.56	19.56	30.00
2462MHz	Pass	4.77	17.42	17.42	30.00

DG = Directional Gain; Port X = Port X output power;
Inf = There's no restriction for the limit.

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-1.97
802.11g_Nss1,(6Mbps)_1TX	-3.74
802.11n HT20_Nss1,(MCS0)_1TX	-3.74

RBW = 3kHz;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.77	-1.97	-1.97	8.00
2437MHz	Pass	4.77	-2.08	-2.08	8.00
2462MHz	Pass	4.77	-3.70	-3.70	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.77	-7.22	-7.22	8.00
2437MHz	Pass	4.77	-3.74	-3.74	8.00
2462MHz	Pass	4.77	-9.04	-9.04	8.00
802.11n HT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.77	-7.07	-7.07	8.00
2437MHz	Pass	4.77	-3.74	-3.74	8.00
2462MHz	Pass	4.77	-10.24	-10.24	8.00

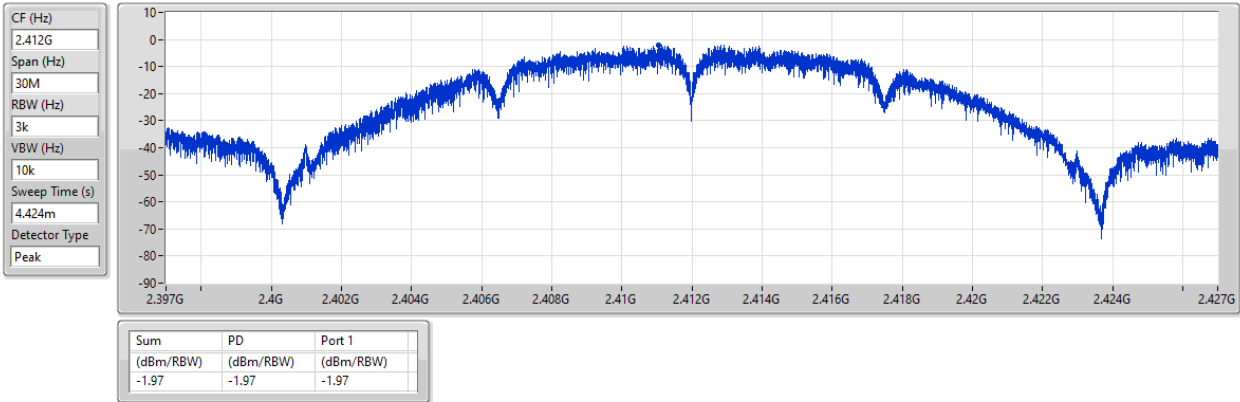
DG = Directional Gain; RBW = 3kHz;
 PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;
 Inf = There's no restriction for the limit.

2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

15/04/2025

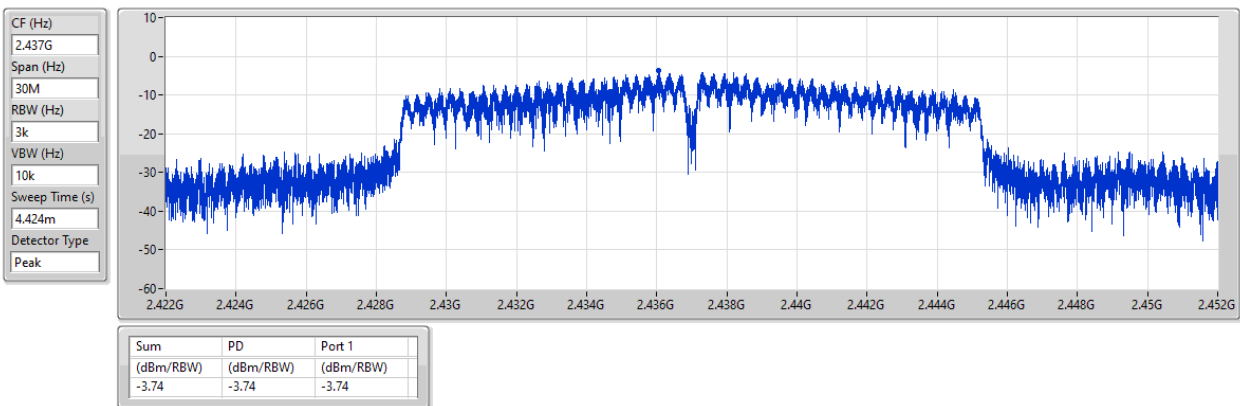


2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

15/04/2025

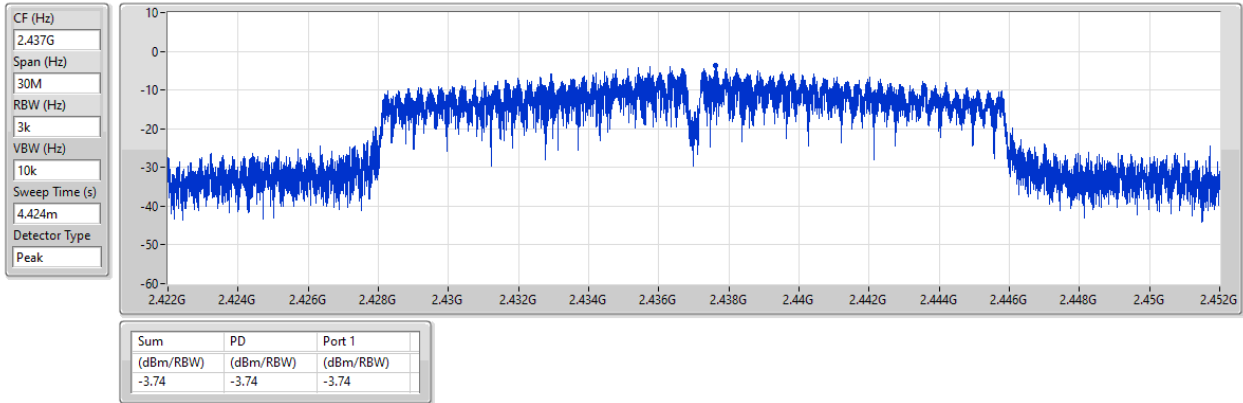


2.4-2.4835GHz_802.11n HT20_Nss1,(MCS0)_1TX

PSD

2437MHz

15/04/2025





Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	2.4354G	14.90	-15.10	2.01633G	-54.38	2.39752G	-15.59	2.4G	-27.16	2.51038G	-52.86	16.26226G	-41.13	1
802.11g_Nss1,(6Mbps)_1TX	Pass	2.43641G	11.03	-18.97	1.98371G	-55.28	2.39984G	-19.40	2.4G	-19.82	2.50518G	-52.75	17.61647G	-42.19	1
802.11n HT20_Nss1,(MCS0)_1TX	Pass	2.43641G	10.99	-19.01	2.30991G	-54.69	2.39864G	-20.07	2.4G	-19.18	2.50566G	-53.27	17.27651G	-42.07	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4354G	14.90	-15.10	2.01633G	-54.38	2.39752G	-15.59	2.4G	-27.16	2.51038G	-52.86	16.26226G	-41.13	1
2437MHz	Pass	2.4354G	14.90	-15.10	2.12351G	-54.69	2.39904G	-45.45	2.4G	-46.00	2.5111G	-53.61	16.93094G	-42.72	1
2462MHz	Pass	2.4354G	14.90	-15.10	2.03846G	-54.41	2.39408G	-53.08	2.4G	-54.97	2.50486G	-52.65	16.29598G	-41.79	1
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43641G	11.03	-18.97	1.98371G	-55.28	2.39984G	-19.40	2.4G	-19.82	2.50518G	-52.75	17.61647G	-42.19	1
2437MHz	Pass	2.43641G	11.03	-18.97	2.15147G	-54.46	2.39984G	-35.74	2.4G	-37.65	2.50006G	-50.13	23.28055G	-41.87	1
2462MHz	Pass	2.43641G	10.67	-19.33	2.13283G	-55.62	2.39864G	-53.05	2.4G	-55.62	2.5003G	-49.53	23.34798G	-42.36	1
802.11n_HT20_Nss1,(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43641G	10.99	-19.01	2.30991G	-54.69	2.39864G	-20.07	2.4G	-19.18	2.50566G	-53.27	17.27651G	-42.07	1
2437MHz	Pass	2.43641G	10.99	-19.01	2.30874G	-54.68	2.39952G	-37.57	2.4G	-38.70	2.5007G	-48.81	24.67971G	-42.13	1
2462MHz	Pass	2.43641G	10.67	-19.33	2.15496G	-55.04	2.3976G	-52.54	2.4G	-54.84	2.50214G	-52.73	23.30864G	-42.44	1

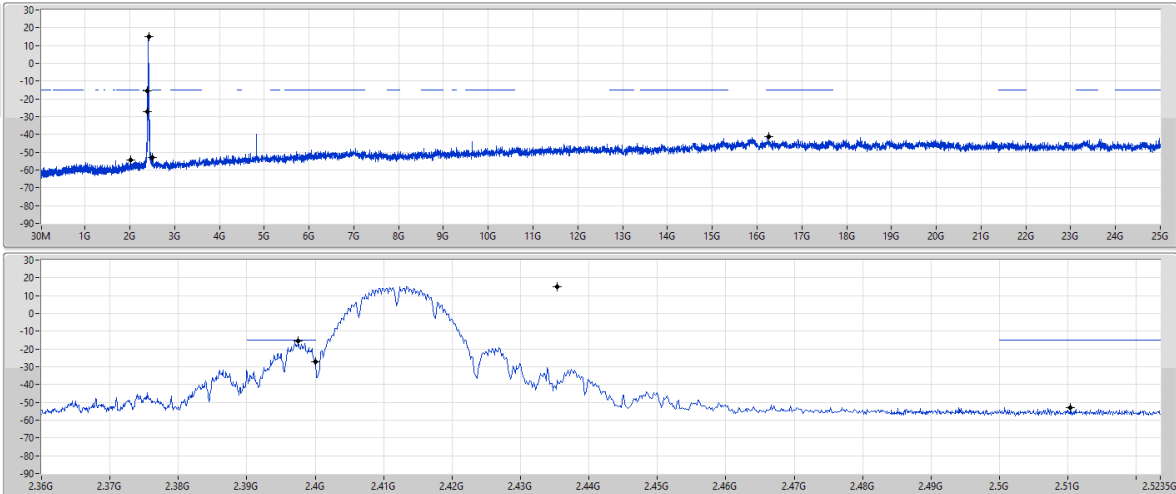
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

CSEndB

2412MHz

15/04/2025

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4354G	14.90	-15.10	2.01633G	-54.38	2.39752G	-15.59	2.4G	-27.16	2.51038G	-52.86	16.26226G	-41.13	1

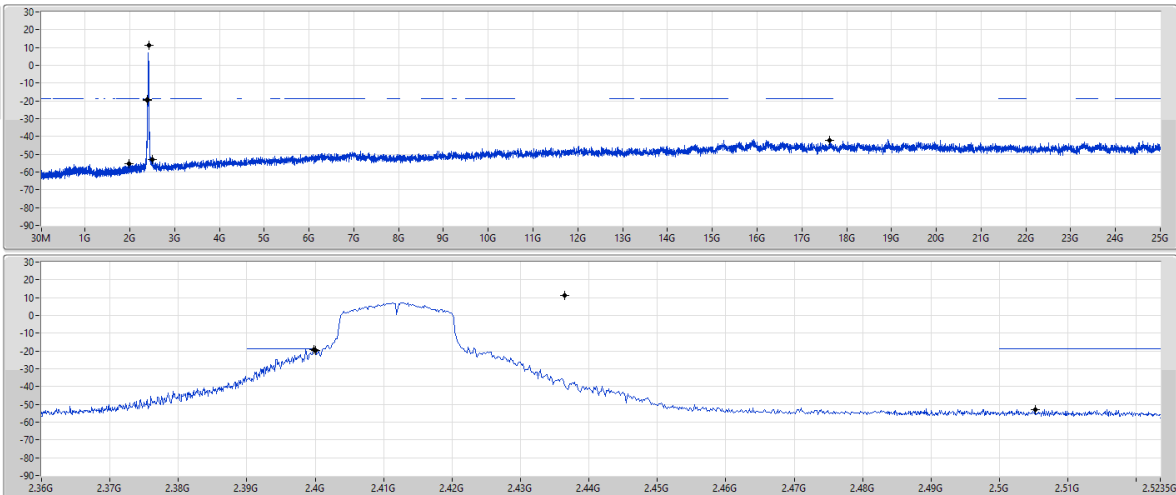
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

CSEndB

2412MHz

15/04/2025

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43641G	11.03	-18.97	1.98371G	-55.28	2.39984G	-19.40	2.4G	-19.82	2.50518G	-52.75	17.61647G	-42.19	1

2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

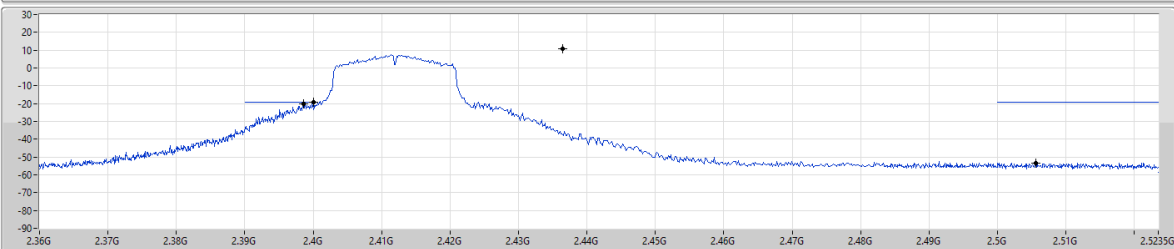
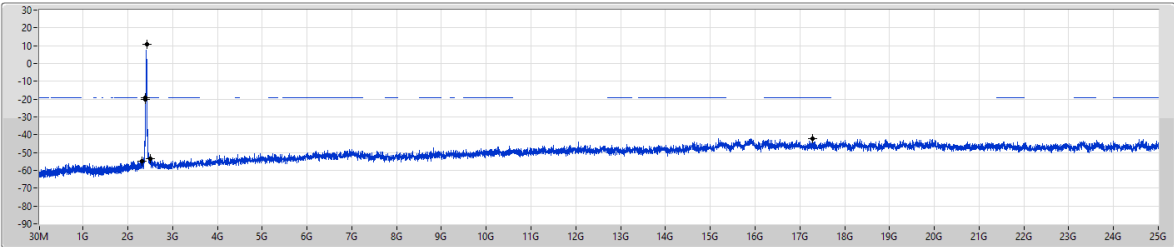
CSEndB

2412MHz

15/04/2025

RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Port 1



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43641G	10.99	-19.01	2.30991G	-54.69	2.39864G	-20.07	2.4G	-19.18	2.50566G	-53.27	17.27651G	-42.07	1



Summary

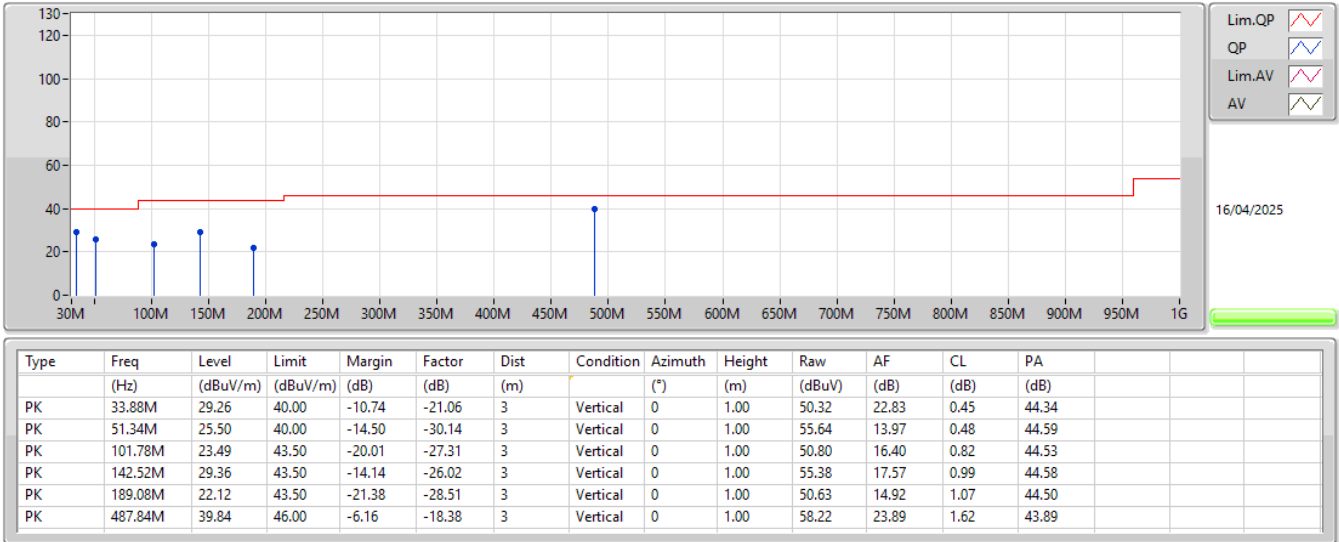
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	487.84M	39.84	46.00	-6.16	3	Vertical	0	1.00

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.11n HT20_Nss1.(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	PK	33.88M	29.26	40.00	-10.74	3	Vertical	0	1.00
2437MHz	Pass	PK	51.34M	25.50	40.00	-14.50	3	Vertical	0	1.00
2437MHz	Pass	PK	101.78M	23.49	43.50	-20.01	3	Vertical	0	1.00
2437MHz	Pass	PK	142.52M	29.36	43.50	-14.14	3	Vertical	0	1.00
2437MHz	Pass	PK	189.08M	22.12	43.50	-21.38	3	Vertical	0	1.00
2437MHz	Pass	PK	487.84M	39.84	46.00	-6.16	3	Vertical	0	1.00
2437MHz	Pass	PK	142.52M	36.00	43.50	-7.50	3	Horizontal	360	1.00
2437MHz	Pass	PK	167.74M	29.21	43.50	-14.29	3	Horizontal	360	1.00
2437MHz	Pass	PK	191.02M	28.03	43.50	-15.47	3	Horizontal	360	1.00
2437MHz	Pass	PK	214.3M	26.56	43.50	-16.94	3	Horizontal	360	1.00
2437MHz	Pass	PK	262.8M	29.07	46.00	-16.93	3	Horizontal	360	1.00
2437MHz	Pass	PK	476.2M	25.32	46.00	-20.68	3	Horizontal	360	1.00

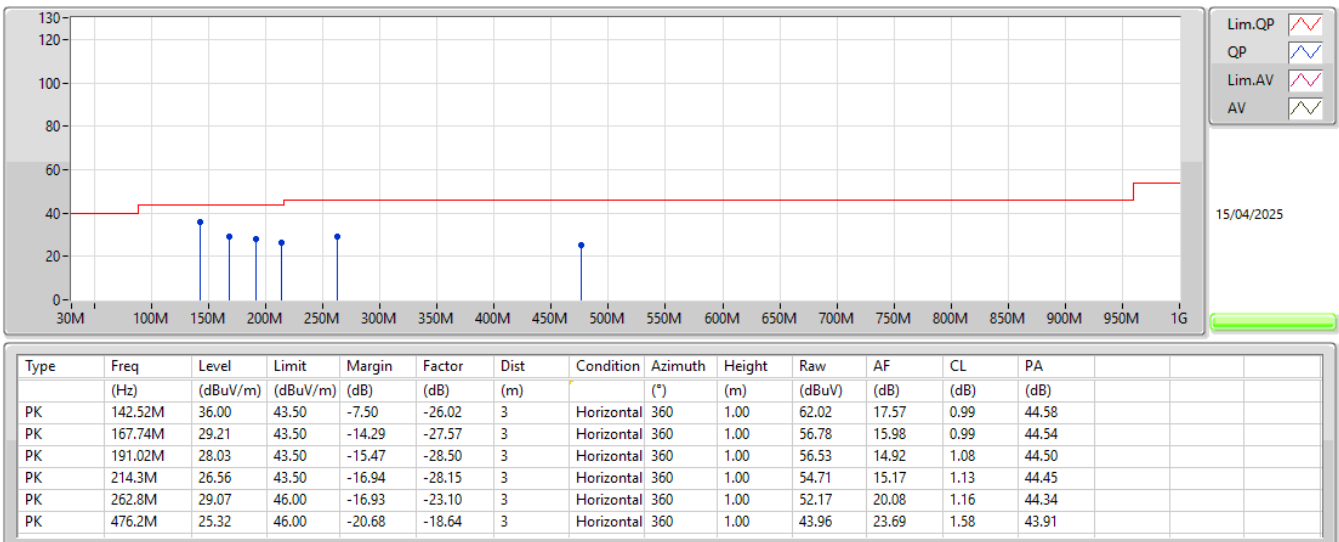
2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2437MHz_Adapter



2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2437MHz_Adapter





Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	Pass	AV	2.4835G	52.67	54.00	-1.33	3	Vertical	71	1.00
802.11g_Nss1,(6Mbps)_1TX	Pass	PK	2.4835G	73.77	74.00	-0.23	3	Vertical	328	2.38
802.11n HT20_Nss1,(MCS0)_1TX	Pass	PK	2.485G	73.85	74.00	-0.15	3	Vertical	329	2.40

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.3862G	51.96	54.00	-2.04	3	Vertical	61	2.72
2412MHz	Pass	AV	2.4128G	109.78	Inf	-Inf	3	Vertical	61	2.72
2412MHz	Pass	PK	2.3898G	61.85	74.00	-12.15	3	Vertical	61	2.72
2412MHz	Pass	PK	2.4122G	112.52	Inf	-Inf	3	Vertical	61	2.72
2412MHz	Pass	AV	2.386G	47.77	54.00	-6.23	3	Horizontal	35	2.93
2412MHz	Pass	AV	2.4128G	105.01	Inf	-Inf	3	Horizontal	35	2.93
2412MHz	Pass	PK	2.3872G	59.56	74.00	-14.44	3	Horizontal	35	2.93
2412MHz	Pass	PK	2.4122G	107.75	Inf	-Inf	3	Horizontal	35	2.93
2412MHz	Pass	AV	4.82396G	49.68	54.00	-4.32	3	Vertical	28	1.50
2412MHz	Pass	PK	4.824G	52.36	74.00	-21.64	3	Vertical	28	1.50
2412MHz	Pass	AV	4.82396G	49.46	54.00	-4.54	3	Horizontal	148	1.11
2412MHz	Pass	PK	4.824G	52.37	74.00	-21.63	3	Horizontal	148	1.11
2417MHz	Pass	AV	2.3802G	51.34	54.00	-2.66	3	Vertical	63	2.73
2417MHz	Pass	AV	2.4178G	109.75	Inf	-Inf	3	Vertical	63	2.73
2417MHz	Pass	PK	2.3794G	61.30	74.00	-12.70	3	Vertical	63	2.73
2417MHz	Pass	PK	2.4172G	112.48	Inf	-Inf	3	Vertical	63	2.73
2417MHz	Pass	AV	2.3802G	48.11	54.00	-5.89	3	Horizontal	26	2.57
2417MHz	Pass	AV	2.4178G	105.98	Inf	-Inf	3	Horizontal	26	2.57
2417MHz	Pass	PK	2.3802G	60.21	74.00	-13.79	3	Horizontal	26	2.57
2417MHz	Pass	PK	2.4178G	108.68	Inf	-Inf	3	Horizontal	26	2.57
2437MHz	Pass	AV	2.389G	46.18	54.00	-7.82	3	Vertical	331	1.50
2437MHz	Pass	AV	2.4378G	107.85	Inf	-Inf	3	Vertical	331	1.50
2437MHz	Pass	AV	2.485G	48.09	54.00	-5.91	3	Vertical	331	1.50
2437MHz	Pass	PK	2.3886G	61.00	74.00	-13.00	3	Vertical	331	1.50
2437MHz	Pass	PK	2.4378G	110.53	Inf	-Inf	3	Vertical	331	1.50
2437MHz	Pass	PK	2.4838G	60.37	74.00	-13.63	3	Vertical	331	1.50
2437MHz	Pass	AV	2.389G	45.21	54.00	-8.79	3	Horizontal	28	2.31
2437MHz	Pass	AV	2.4378G	107.16	Inf	-Inf	3	Horizontal	28	2.31
2437MHz	Pass	AV	2.485G	46.98	54.00	-7.02	3	Horizontal	28	2.31
2437MHz	Pass	PK	2.3898G	58.71	74.00	-15.29	3	Horizontal	28	2.31
2437MHz	Pass	PK	2.4374G	109.88	Inf	-Inf	3	Horizontal	28	2.31
2437MHz	Pass	PK	2.4842G	59.94	74.00	-14.06	3	Horizontal	28	2.31
2437MHz	Pass	AV	4.87396G	48.84	54.00	-5.16	3	Vertical	28	1.50
2437MHz	Pass	AV	7.31172G	47.71	54.00	-6.29	3	Vertical	235	1.59
2437MHz	Pass	PK	4.87392G	51.78	74.00	-22.22	3	Vertical	28	1.50
2437MHz	Pass	PK	7.312G	54.52	74.00	-19.48	3	Vertical	235	1.59
2437MHz	Pass	AV	4.87396G	48.81	54.00	-5.19	3	Horizontal	145	1.79
2437MHz	Pass	AV	7.31172G	51.38	54.00	-2.62	3	Horizontal	170	1.89
2437MHz	Pass	PK	4.87404G	51.66	74.00	-22.34	3	Horizontal	145	1.79
2437MHz	Pass	PK	7.31184G	57.07	74.00	-16.93	3	Horizontal	170	1.89
2457MHz	Pass	AV	2.4578G	110.32	Inf	-Inf	3	Vertical	71	1.00
2457MHz	Pass	AV	2.4835G	52.67	54.00	-1.33	3	Vertical	71	1.00
2457MHz	Pass	PK	2.4572G	113.23	Inf	-Inf	3	Vertical	71	1.00
2457MHz	Pass	PK	2.484G	62.93	74.00	-11.07	3	Vertical	71	1.00
2457MHz	Pass	AV	2.4578G	105.53	Inf	-Inf	3	Horizontal	12	2.58
2457MHz	Pass	AV	2.4835G	49.20	54.00	-4.80	3	Horizontal	12	2.58
2457MHz	Pass	PK	2.457G	108.32	Inf	-Inf	3	Horizontal	12	2.58
2457MHz	Pass	PK	2.4848G	61.04	74.00	-12.96	3	Horizontal	12	2.58
2462MHz	Pass	AV	2.4628G	110.83	Inf	-Inf	3	Vertical	70	1.00
2462MHz	Pass	AV	2.4868G	52.32	54.00	-1.68	3	Vertical	70	1.00
2462MHz	Pass	PK	2.4622G	113.70	Inf	-Inf	3	Vertical	70	1.00
2462MHz	Pass	PK	2.4866G	63.01	74.00	-10.99	3	Vertical	70	1.00
2462MHz	Pass	AV	2.4628G	105.58	Inf	-Inf	3	Horizontal	12	2.56
2462MHz	Pass	AV	2.4868G	48.29	54.00	-5.71	3	Horizontal	12	2.56
2462MHz	Pass	PK	2.462G	108.45	Inf	-Inf	3	Horizontal	12	2.56
2462MHz	Pass	PK	2.487G	61.13	74.00	-12.87	3	Horizontal	12	2.56
2462MHz	Pass	AV	4.92396G	47.73	54.00	-6.27	3	Vertical	60	1.01
2462MHz	Pass	AV	7.38668G	46.64	54.00	-7.36	3	Vertical	1	2.78
2462MHz	Pass	PK	4.924G	51.13	74.00	-22.87	3	Vertical	60	1.01
2462MHz	Pass	PK	7.38744G	53.47	74.00	-20.53	3	Vertical	1	2.78

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2462MHz	Pass	AV	4.92396G	49.14	54.00	-4.86	3	Horizontal	291	1.04
2462MHz	Pass	AV	7.38668G	48.68	54.00	-5.32	3	Horizontal	174	2.03
2462MHz	Pass	PK	4.92404G	52.27	74.00	-21.73	3	Horizontal	291	1.04
2462MHz	Pass	PK	7.38604G	55.23	74.00	-18.77	3	Horizontal	174	2.03
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	52.50	54.00	-1.50	3	Vertical	65	1.00
2412MHz	Pass	AV	2.4114G	102.47	Inf	-Inf	3	Vertical	65	1.00
2412MHz	Pass	PK	2.3898G	70.82	74.00	-3.18	3	Vertical	65	1.00
2412MHz	Pass	PK	2.413G	111.65	Inf	-Inf	3	Vertical	65	1.00
2412MHz	Pass	AV	2.39G	48.12	54.00	-5.88	3	Horizontal	348	3.00
2412MHz	Pass	AV	2.4126G	96.72	Inf	-Inf	3	Horizontal	348	3.00
2412MHz	Pass	PK	2.3868G	65.80	74.00	-8.20	3	Horizontal	348	3.00
2412MHz	Pass	PK	2.413G	106.07	Inf	-Inf	3	Horizontal	348	3.00
2412MHz	Pass	AV	4.82396G	35.24	54.00	-18.76	3	Vertical	322	1.10
2412MHz	Pass	PK	4.8272G	49.50	74.00	-24.50	3	Vertical	322	1.10
2412MHz	Pass	AV	4.824G	37.50	54.00	-16.50	3	Horizontal	335	2.24
2412MHz	Pass	PK	4.82684G	52.10	74.00	-21.90	3	Horizontal	335	2.24
2417MHz	Pass	AV	2.39G	52.29	54.00	-1.71	3	Vertical	66	1.00
2417MHz	Pass	AV	2.4176G	103.89	Inf	-Inf	3	Vertical	66	1.00
2417MHz	Pass	PK	2.3886G	72.60	74.00	-1.40	3	Vertical	66	1.00
2417MHz	Pass	PK	2.418G	113.40	Inf	-Inf	3	Vertical	66	1.00
2417MHz	Pass	AV	2.39G	49.14	54.00	-4.86	3	Horizontal	9	2.62
2417MHz	Pass	AV	2.4176G	98.72	Inf	-Inf	3	Horizontal	9	2.62
2417MHz	Pass	PK	2.3886G	68.75	74.00	-5.25	3	Horizontal	9	2.62
2417MHz	Pass	PK	2.418G	108.21	Inf	-Inf	3	Horizontal	9	2.62
2437MHz	Pass	AV	2.3898G	46.48	54.00	-7.52	3	Vertical	330	1.61
2437MHz	Pass	AV	2.4362G	104.72	Inf	-Inf	3	Vertical	330	1.61
2437MHz	Pass	AV	2.4835G	49.66	54.00	-4.34	3	Vertical	330	1.61
2437MHz	Pass	PK	2.3874G	62.22	74.00	-11.78	3	Vertical	330	1.61
2437MHz	Pass	PK	2.4362G	114.04	Inf	-Inf	3	Vertical	330	1.61
2437MHz	Pass	PK	2.4838G	67.54	74.00	-6.46	3	Vertical	330	1.61
2437MHz	Pass	AV	2.3898G	46.21	54.00	-7.79	3	Horizontal	29	2.32
2437MHz	Pass	AV	2.4378G	103.58	Inf	-Inf	3	Horizontal	29	2.32
2437MHz	Pass	AV	2.4838G	48.52	54.00	-5.48	3	Horizontal	29	2.32
2437MHz	Pass	PK	2.3898G	61.33	74.00	-12.67	3	Horizontal	29	2.32
2437MHz	Pass	PK	2.4382G	112.90	Inf	-Inf	3	Horizontal	29	2.32
2437MHz	Pass	PK	2.4838G	66.06	74.00	-7.94	3	Horizontal	29	2.32
2437MHz	Pass	AV	4.874G	36.19	54.00	-17.81	3	Vertical	45	1.50
2437MHz	Pass	AV	7.31012G	45.32	54.00	-8.68	3	Vertical	3	2.91
2437MHz	Pass	PK	4.87496G	50.73	74.00	-23.27	3	Vertical	45	1.50
2437MHz	Pass	PK	7.31068G	60.21	74.00	-13.79	3	Vertical	3	2.91
2437MHz	Pass	AV	4.874G	37.97	54.00	-16.03	3	Horizontal	148	1.19
2437MHz	Pass	AV	7.3102G	48.40	54.00	-5.60	3	Horizontal	174	2.18
2437MHz	Pass	PK	4.87672G	51.67	74.00	-22.33	3	Horizontal	148	1.19
2437MHz	Pass	PK	7.31052G	63.20	74.00	-10.80	3	Horizontal	174	2.18
2457MHz	Pass	AV	2.4576G	101.55	Inf	-Inf	3	Vertical	328	2.38
2457MHz	Pass	AV	2.4835G	51.50	54.00	-2.50	3	Vertical	328	2.38
2457MHz	Pass	PK	2.458G	110.96	Inf	-Inf	3	Vertical	328	2.38
2457MHz	Pass	PK	2.4835G	73.77	74.00	-0.23	3	Vertical	328	2.38
2457MHz	Pass	AV	2.4576G	99.57	Inf	-Inf	3	Horizontal	9	2.51
2457MHz	Pass	AV	2.4835G	50.02	54.00	-3.98	3	Horizontal	9	2.51
2457MHz	Pass	PK	2.458G	108.92	Inf	-Inf	3	Horizontal	9	2.51
2457MHz	Pass	PK	2.4835G	71.66	74.00	-2.34	3	Horizontal	9	2.51
2462MHz	Pass	AV	2.4626G	100.79	Inf	-Inf	3	Vertical	329	2.39
2462MHz	Pass	AV	2.4835G	53.32	54.00	-0.68	3	Vertical	329	2.39
2462MHz	Pass	PK	2.463G	110.19	Inf	-Inf	3	Vertical	329	2.39
2462MHz	Pass	PK	2.4878G	72.87	74.00	-1.13	3	Vertical	329	2.39
2462MHz	Pass	AV	2.4626G	99.03	Inf	-Inf	3	Horizontal	10	2.52
2462MHz	Pass	AV	2.4835G	52.14	54.00	-1.86	3	Horizontal	10	2.52
2462MHz	Pass	PK	2.463G	108.44	Inf	-Inf	3	Horizontal	10	2.52
2462MHz	Pass	PK	2.4878G	71.86	74.00	-2.14	3	Horizontal	10	2.52
2462MHz	Pass	AV	4.92412G	32.40	54.00	-21.60	3	Vertical	331	1.00

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2462MHz	Pass	AV	7.38522G	36.12	54.00	-17.88	3	Vertical	245	1.96
2462MHz	Pass	PK	4.92602G	46.85	74.00	-27.15	3	Vertical	331	1.00
2462MHz	Pass	PK	7.3855G	50.95	74.00	-23.05	3	Vertical	245	1.96
2462MHz	Pass	AV	4.92408G	33.51	54.00	-20.49	3	Horizontal	238	2.10
2462MHz	Pass	AV	7.385G	38.18	54.00	-15.82	3	Horizontal	159	2.86
2462MHz	Pass	PK	4.92026G	47.70	74.00	-26.30	3	Horizontal	238	2.10
2462MHz	Pass	PK	7.38538G	53.88	74.00	-20.12	3	Horizontal	159	2.86
802.11n HT20_Nss1(MCS0)_1TX	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	AV	2.39G	52.34	54.00	-1.66	3	Vertical	330	2.20
2412MHz	Pass	AV	2.4124G	101.29	Inf	-Inf	3	Vertical	330	2.20
2412MHz	Pass	PK	2.39G	71.90	74.00	-2.10	3	Vertical	330	2.20
2412MHz	Pass	PK	2.4128G	110.86	Inf	-Inf	3	Vertical	330	2.20
2412MHz	Pass	AV	2.39G	49.80	54.00	-4.20	3	Horizontal	35	1.30
2412MHz	Pass	AV	2.4124G	98.30	Inf	-Inf	3	Horizontal	35	1.30
2412MHz	Pass	PK	2.39G	68.76	74.00	-5.24	3	Horizontal	35	1.30
2412MHz	Pass	PK	2.4128G	107.85	Inf	-Inf	3	Horizontal	35	1.30
2412MHz	Pass	AV	4.82384G	35.66	54.00	-18.34	3	Vertical	150	1.50
2412MHz	Pass	PK	4.82312G	50.42	74.00	-23.58	3	Vertical	150	1.50
2412MHz	Pass	AV	4.82392G	37.77	54.00	-16.23	3	Horizontal	140	2.58
2412MHz	Pass	PK	4.82744G	52.61	74.00	-21.39	3	Horizontal	140	2.58
2417MHz	Pass	AV	2.39G	52.40	54.00	-1.60	3	Vertical	67	1.50
2417MHz	Pass	AV	2.4174G	103.48	Inf	-Inf	3	Vertical	67	1.50
2417MHz	Pass	PK	2.3898G	70.91	74.00	-3.09	3	Vertical	67	1.50
2417MHz	Pass	PK	2.4178G	113.04	Inf	-Inf	3	Vertical	67	1.50
2417MHz	Pass	AV	2.39G	48.87	54.00	-5.13	3	Horizontal	8	2.75
2417MHz	Pass	AV	2.4174G	98.77	Inf	-Inf	3	Horizontal	8	2.75
2417MHz	Pass	PK	2.3894G	66.87	74.00	-7.13	3	Horizontal	8	2.75
2417MHz	Pass	PK	2.4178G	108.32	Inf	-Inf	3	Horizontal	8	2.75
2437MHz	Pass	AV	2.3898G	46.56	54.00	-7.44	3	Vertical	331	1.61
2437MHz	Pass	AV	2.4374G	104.93	Inf	-Inf	3	Vertical	331	1.61
2437MHz	Pass	AV	2.4835G	49.92	54.00	-4.08	3	Vertical	331	1.61
2437MHz	Pass	PK	2.3882G	63.08	74.00	-10.92	3	Vertical	331	1.61
2437MHz	Pass	PK	2.4378G	114.74	Inf	-Inf	3	Vertical	331	1.61
2437MHz	Pass	PK	2.4846G	70.99	74.00	-3.01	3	Vertical	331	1.61
2437MHz	Pass	AV	2.3898G	46.03	54.00	-7.97	3	Horizontal	29	2.31
2437MHz	Pass	AV	2.4374G	103.14	Inf	-Inf	3	Horizontal	29	2.31
2437MHz	Pass	AV	2.4835G	48.54	54.00	-5.46	3	Horizontal	29	2.31
2437MHz	Pass	PK	2.3898G	61.65	74.00	-12.35	3	Horizontal	29	2.31
2437MHz	Pass	PK	2.4378G	112.93	Inf	-Inf	3	Horizontal	29	2.31
2437MHz	Pass	PK	2.4858G	68.24	74.00	-5.76	3	Horizontal	29	2.31
2437MHz	Pass	AV	4.87384G	37.13	54.00	-16.87	3	Vertical	126	1.32
2437MHz	Pass	AV	7.30932G	44.87	54.00	-9.13	3	Vertical	360	2.86
2437MHz	Pass	PK	4.87208G	51.16	74.00	-22.84	3	Vertical	126	1.32
2437MHz	Pass	PK	7.31736G	61.97	74.00	-12.03	3	Vertical	360	2.86
2437MHz	Pass	AV	4.87376G	37.58	54.00	-16.42	3	Horizontal	140	2.59
2437MHz	Pass	AV	7.30926G	42.45	54.00	-11.55	3	Horizontal	13	1.01
2437MHz	Pass	PK	4.87208G	51.56	74.00	-22.44	3	Horizontal	140	2.59
2437MHz	Pass	PK	7.31754G	58.95	74.00	-15.05	3	Horizontal	13	1.01
2457MHz	Pass	AV	2.4574G	103.24	Inf	-Inf	3	Vertical	70	1.01
2457MHz	Pass	AV	2.4835G	52.27	54.00	-1.73	3	Vertical	70	1.01
2457MHz	Pass	PK	2.4582G	113.10	Inf	-Inf	3	Vertical	70	1.01
2457MHz	Pass	PK	2.4836G	72.50	74.00	-1.50	3	Vertical	70	1.01
2457MHz	Pass	AV	2.4574G	97.73	Inf	-Inf	3	Horizontal	12	2.96
2457MHz	Pass	AV	2.4835G	48.63	54.00	-5.37	3	Horizontal	12	2.96
2457MHz	Pass	PK	2.458G	107.55	Inf	-Inf	3	Horizontal	12	2.96
2457MHz	Pass	PK	2.4835G	67.69	74.00	-6.31	3	Horizontal	12	2.96
2462MHz	Pass	AV	2.4624G	100.00	Inf	-Inf	3	Vertical	329	2.40
2462MHz	Pass	AV	2.4835G	51.61	54.00	-2.39	3	Vertical	329	2.40
2462MHz	Pass	PK	2.4632G	109.62	Inf	-Inf	3	Vertical	329	2.40
2462MHz	Pass	PK	2.485G	73.85	74.00	-0.15	3	Vertical	329	2.40
2462MHz	Pass	AV	2.4624G	97.74	Inf	-Inf	3	Horizontal	11	2.52
2462MHz	Pass	AV	2.4835G	50.16	54.00	-3.84	3	Horizontal	11	2.52



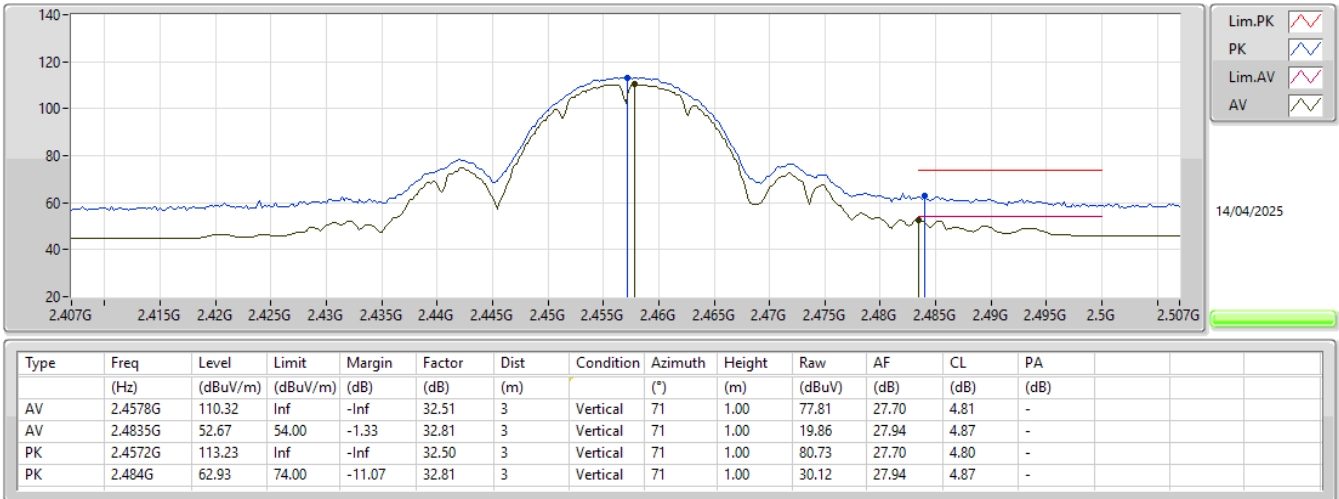
RSE TX above 1GHz

Appendix F.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
2462MHz	Pass	PK	2.4632G	107.36	Inf	-Inf	3	Horizontal	11	2.52
2462MHz	Pass	PK	2.4852G	71.64	74.00	-2.36	3	Horizontal	11	2.52
2462MHz	Pass	AV	4.92404G	32.07	54.00	-21.93	3	Vertical	332	2.17
2462MHz	Pass	AV	7.38424G	35.15	54.00	-18.85	3	Vertical	237	2.01
2462MHz	Pass	PK	4.9276G	46.48	74.00	-27.52	3	Vertical	332	2.17
2462MHz	Pass	PK	7.38412G	52.09	74.00	-21.91	3	Vertical	237	2.01
2462MHz	Pass	AV	4.9238G	32.76	54.00	-21.24	3	Horizontal	229	1.99
2462MHz	Pass	AV	7.38436G	36.64	54.00	-17.36	3	Horizontal	156	2.92
2462MHz	Pass	PK	4.92252G	47.59	74.00	-26.41	3	Horizontal	229	1.99
2462MHz	Pass	PK	7.38416G	53.84	74.00	-20.16	3	Horizontal	156	2.92

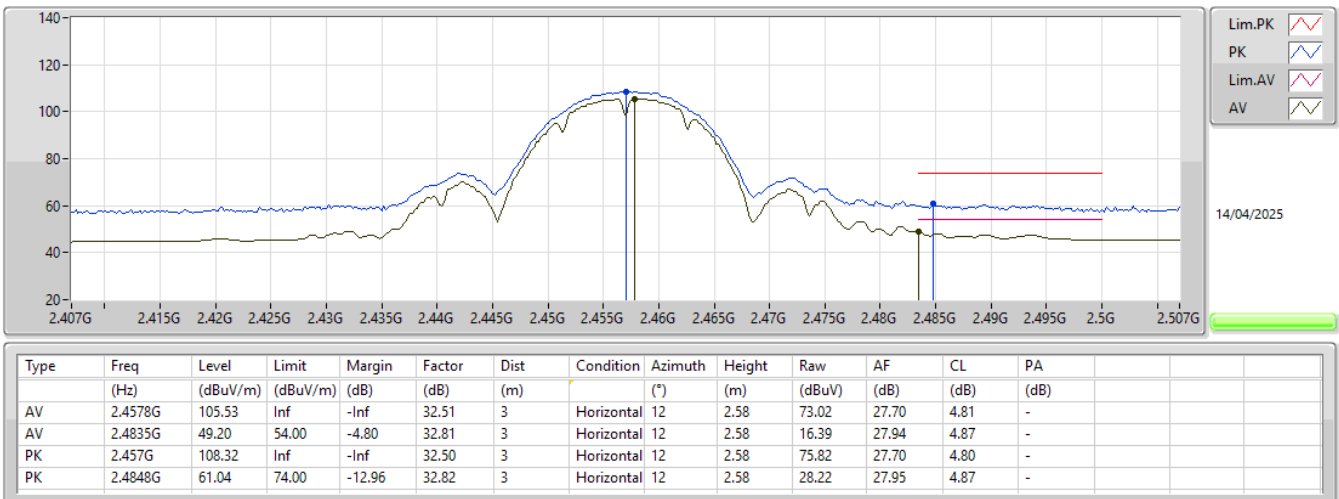
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2457MHz_TX



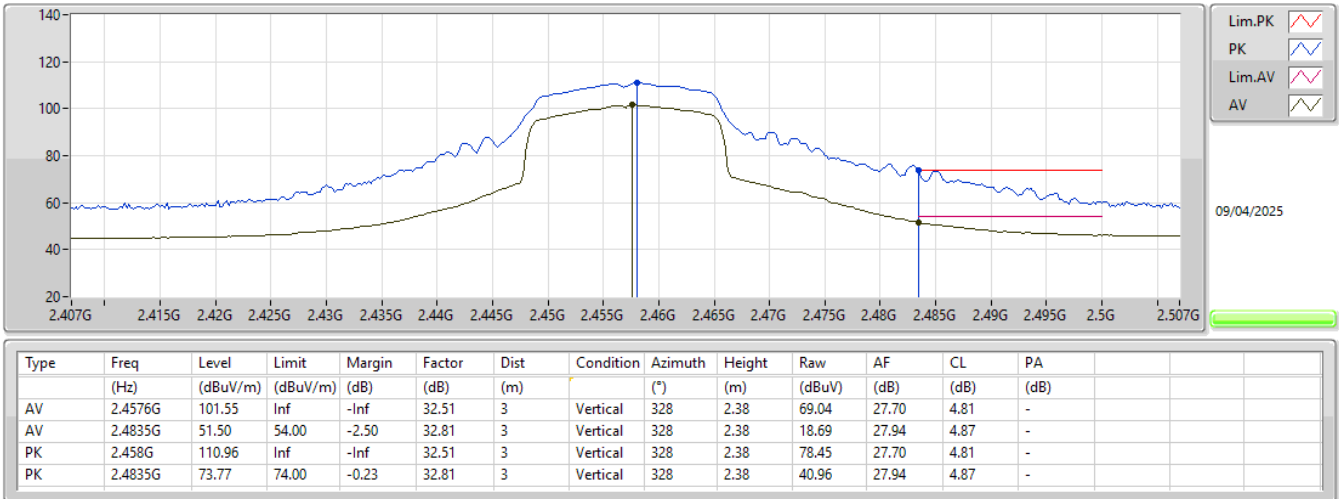
2.4-2.4835GHz_802.11b_Nss1,(1Mbps)_1TX

2457MHz_TX



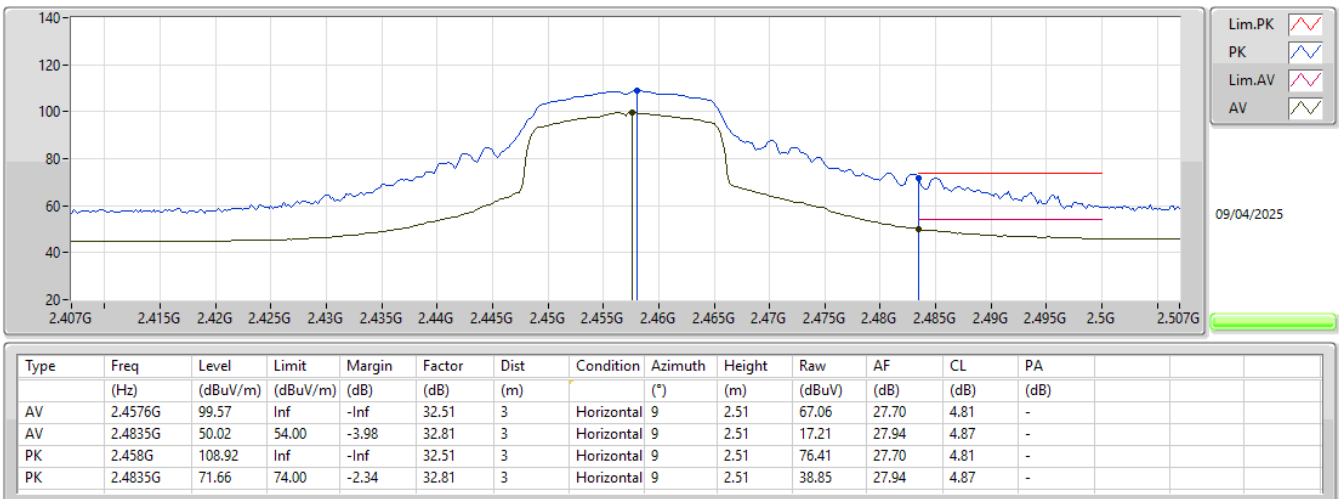
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2457MHz_TX



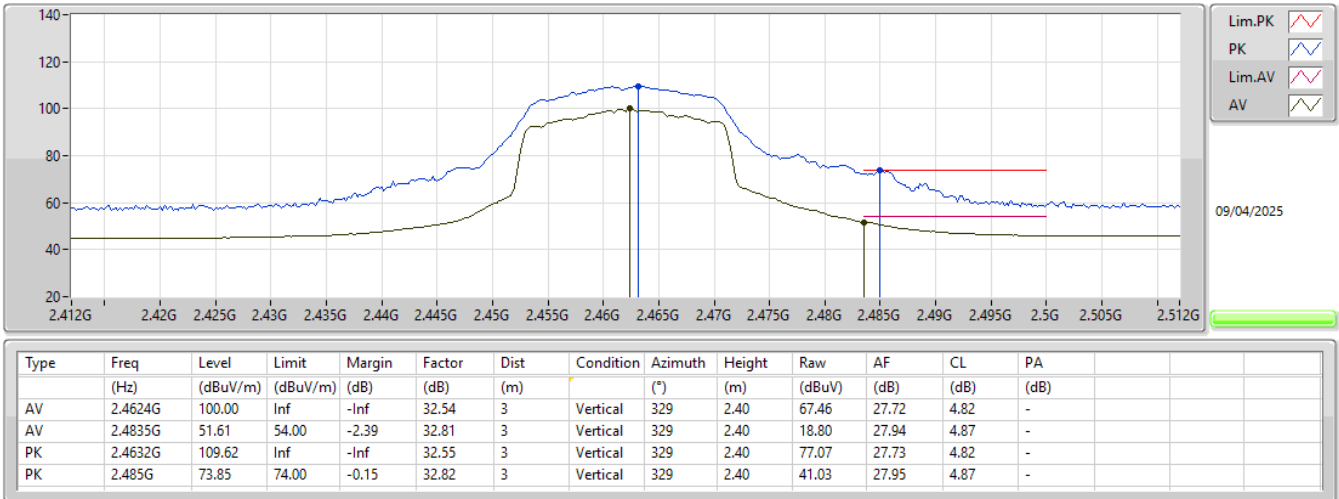
2.4-2.4835GHz_802.11g_Nss1,(6Mbps)_1TX

2457MHz_TX



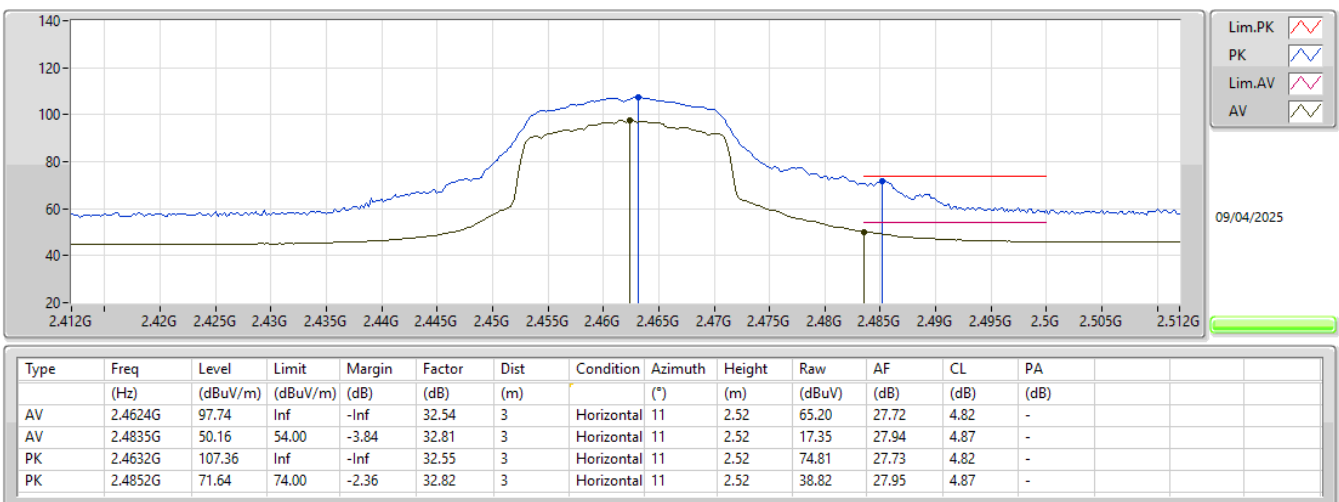
2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX



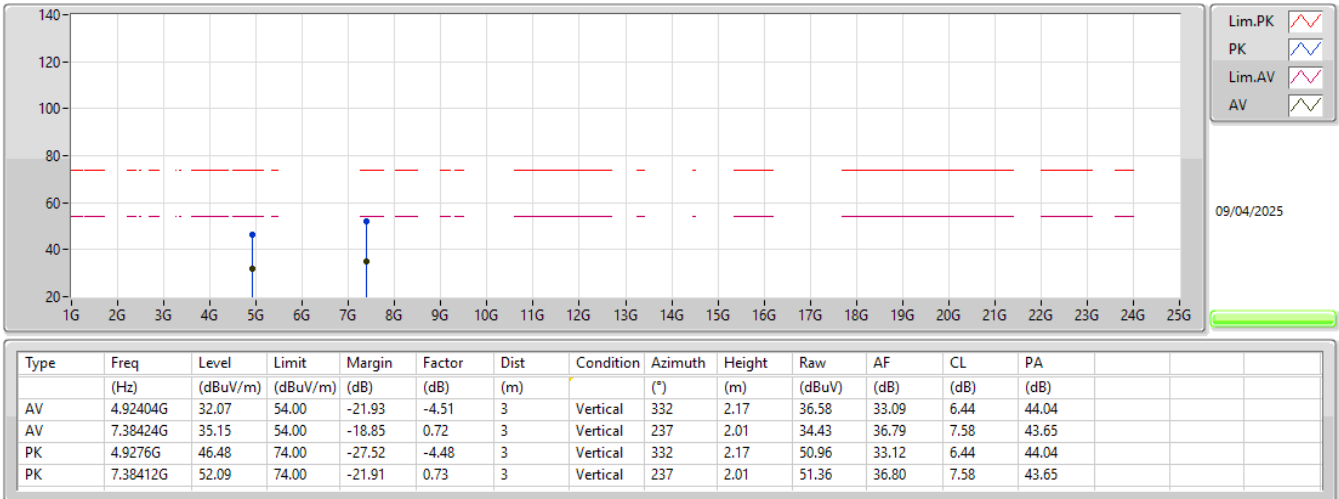
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2462MHz_TX



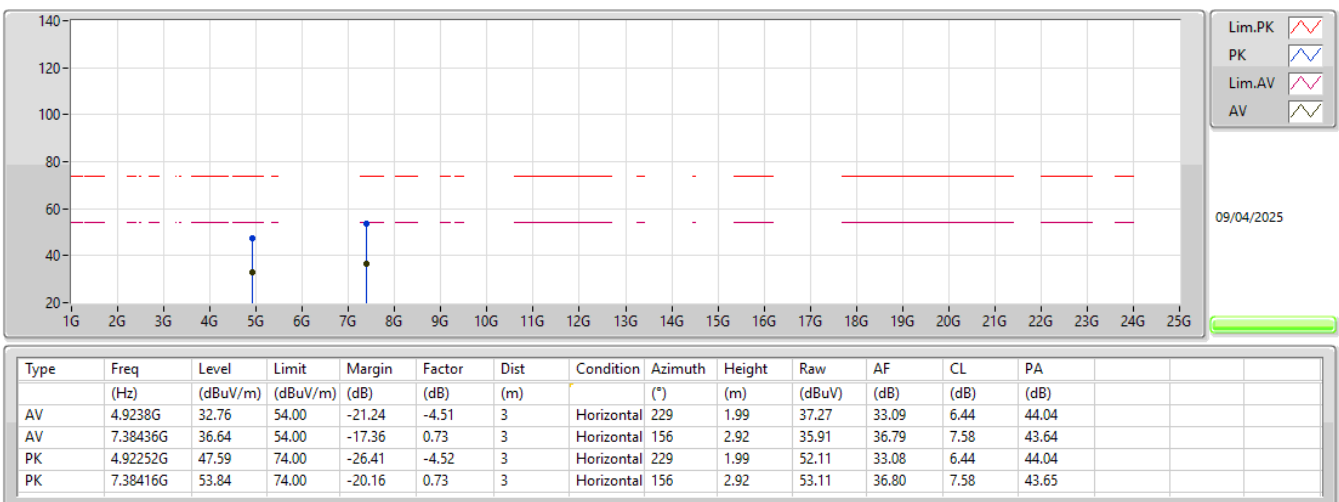
2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX



2.4-2.4835GHz_802.11n_HT20_Nss1,(MCS0)_1TX

2462MHz_TX





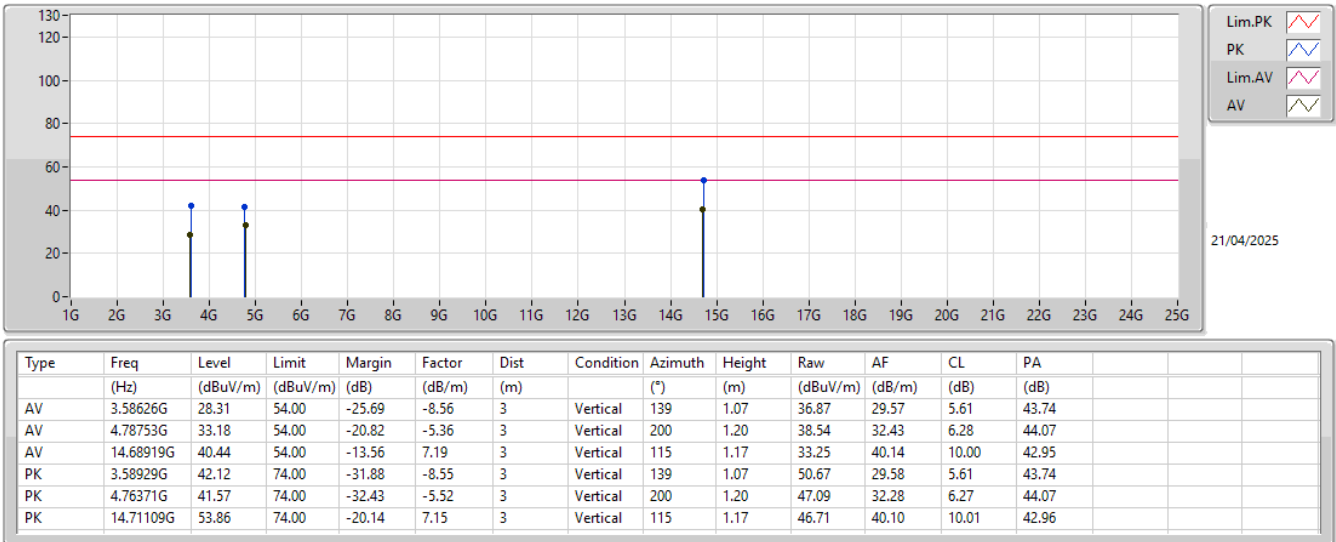
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	AV	14.68919G	40.44	54.00	-13.56	Vertical

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)
Mode 1	Pass	AV	3.58626G	28.31	54.00	-25.69	3	Vertical	139	1.07
Mode 1	Pass	AV	4.78753G	33.18	54.00	-20.82	3	Vertical	200	1.20
Mode 1	Pass	AV	14.68919G	40.44	54.00	-13.56	3	Vertical	115	1.17
Mode 1	Pass	PK	3.58929G	42.12	74.00	-31.88	3	Vertical	139	1.07
Mode 1	Pass	PK	4.76371G	41.57	74.00	-32.43	3	Vertical	200	1.20
Mode 1	Pass	PK	14.71109G	53.86	74.00	-20.14	3	Vertical	115	1.17
Mode 1	Pass	AV	5.091G	30.02	54.00	-23.98	3	Horizontal	130	2.09
Mode 1	Pass	AV	10.15956G	39.33	54.00	-14.67	3	Horizontal	234	1.96
Mode 1	Pass	AV	15.89971G	37.98	54.00	-16.02	3	Horizontal	157	2.01
Mode 1	Pass	PK	5.10465G	42.47	74.00	-31.53	3	Horizontal	130	2.09
Mode 1	Pass	PK	10.1508G	52.31	74.00	-21.69	3	Horizontal	234	1.96
Mode 1	Pass	PK	15.88282G	51.31	74.00	-22.69	3	Horizontal	157	2.01

Radiated Emissions above 1GHz_Mode 1



Radiated Emissions above 1GHz_Mode 1

