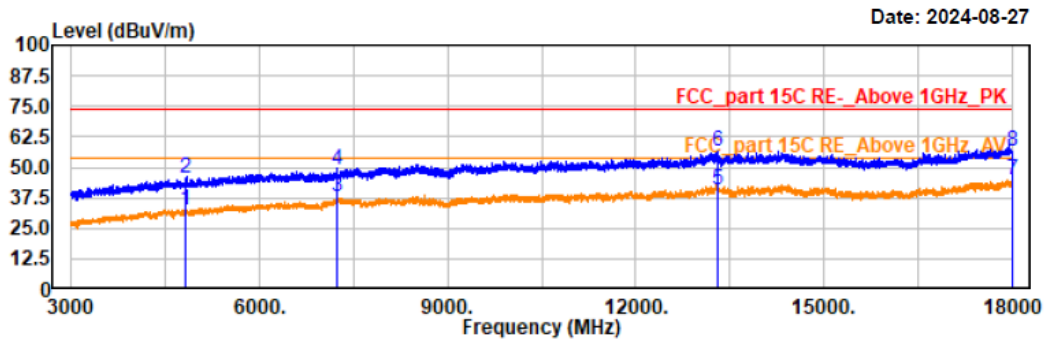


Project No.: 2407W89441E-RF
 Test Mode: 11n20-2412
 EUT Model: MS-C5321-FPE
 Test distance: 3m

Temp/Humi/ATM: 23.4°C/52%/100.1kPa
 Tested by: Wlif Wu
 Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4824.00	36.76	-4.39	32.37	54.00	21.63	vertical	Average
4824.00	49.76	-4.39	45.37	74.00	28.63	vertical	Peak
7236.00	39.35	-1.70	37.65	54.00	16.35	vertical	Average
7236.00	50.69	-1.70	48.99	74.00	25.01	vertical	Peak
13308.00	35.49	5.03	40.52	54.00	13.48	vertical	Average
13308.00	51.28	5.03	56.31	74.00	17.69	vertical	Peak
17998.50	37.14	7.74	44.88	54.00	9.12	vertical	Average
17998.50	48.87	7.74	56.61	74.00	17.39	vertical	Peak

EUT operation mode: Transmitting in Wifi 802.11n20 middle channel

Project No.: 2407W89441E-RF

Test Mode: 11n20-2437

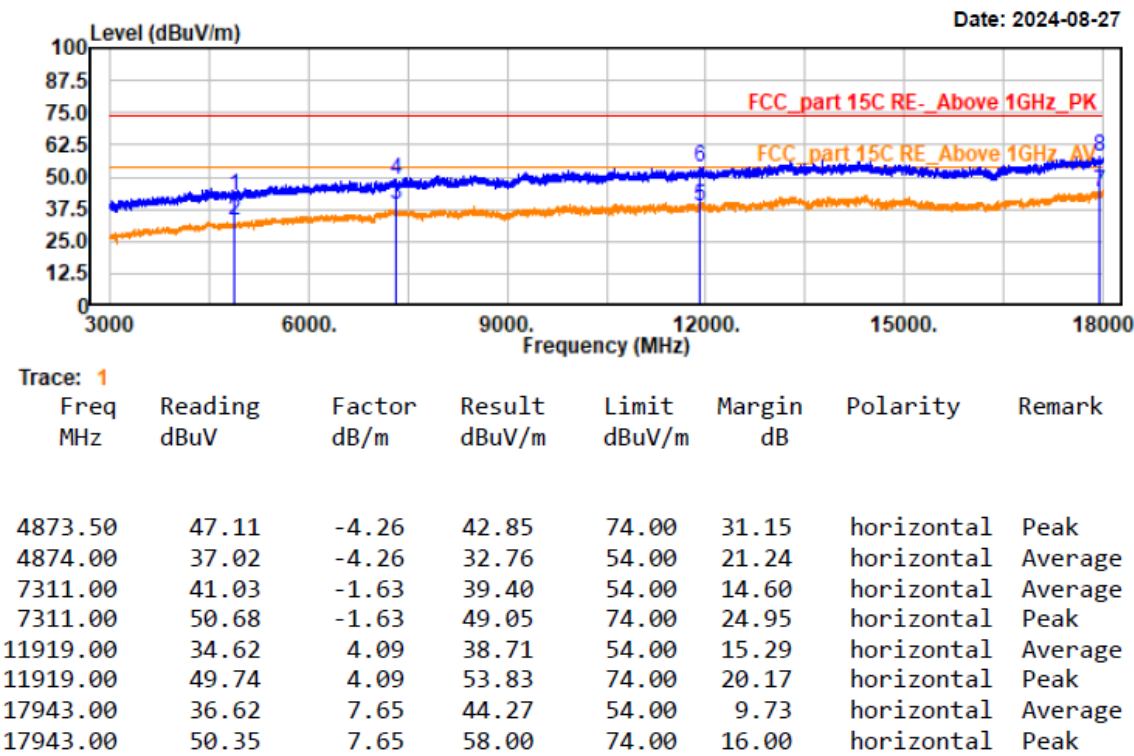
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4℃/52%/100.1kPa

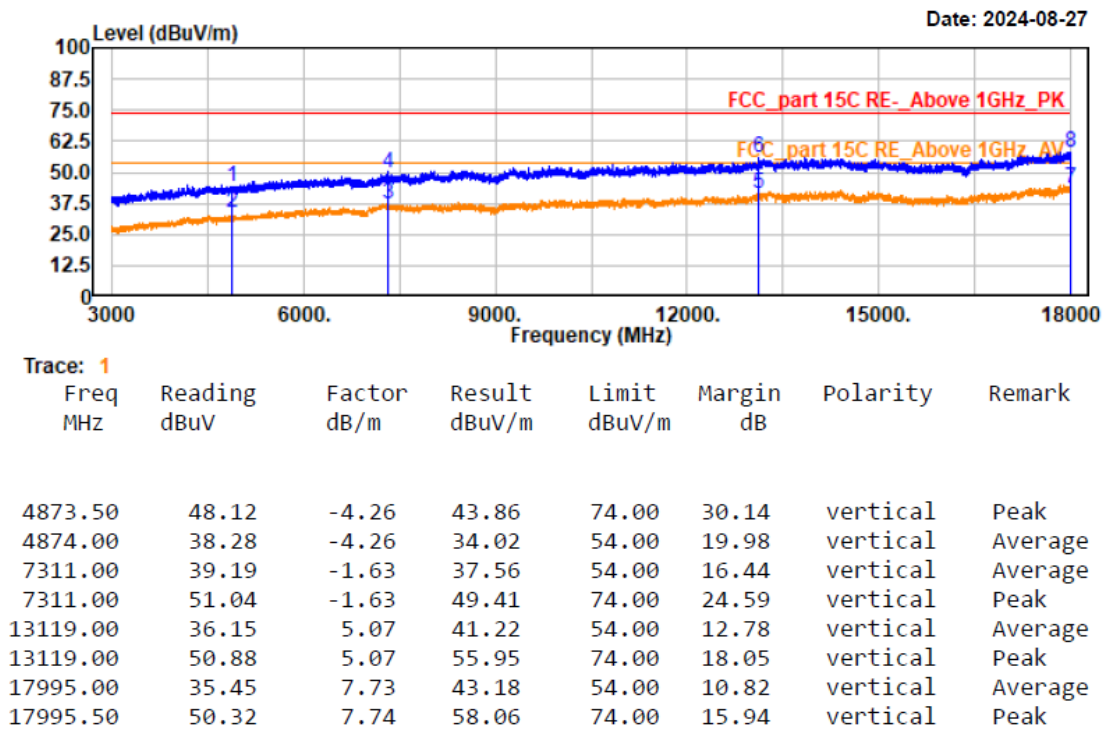
Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF
Test Mode: 11n20-2437
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.4°C/52%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



EUT operation mode: Transmitting in Wifi 802.11n20 high channel

Project No.: 2407W89441E-RF

Test Mode: 11n20-2462

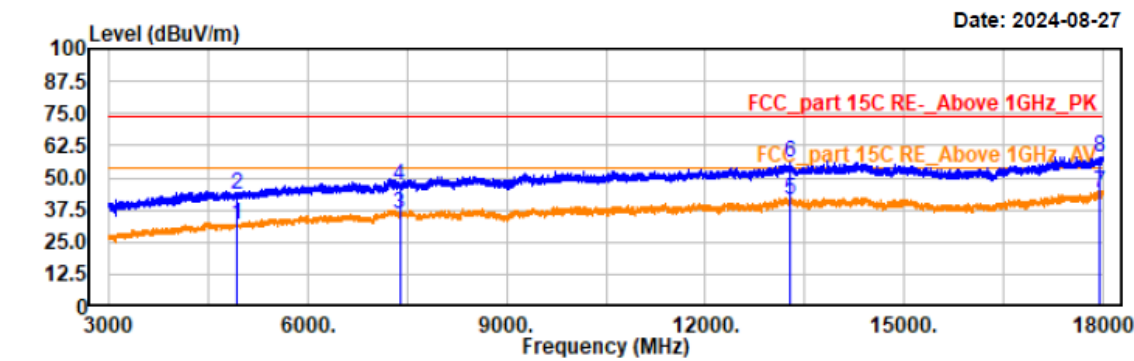
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4℃/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4924.00	35.52	-4.12	31.40	54.00	22.60	horizontal	Average
4924.00	47.86	-4.12	43.74	74.00	30.26	horizontal	Peak
7386.00	37.41	-1.62	35.79	54.00	18.21	horizontal	Average
7386.00	48.79	-1.62	47.17	74.00	26.83	horizontal	Peak
13291.50	36.03	5.05	41.08	54.00	12.92	horizontal	Average
13291.50	50.59	5.05	55.64	74.00	18.36	horizontal	Peak
17956.50	36.50	7.68	44.18	54.00	9.82	horizontal	Average
17956.50	50.42	7.68	58.10	74.00	15.90	horizontal	Peak

Project No.: 2407W89441E-RF

Test Mode: 11n20-2462

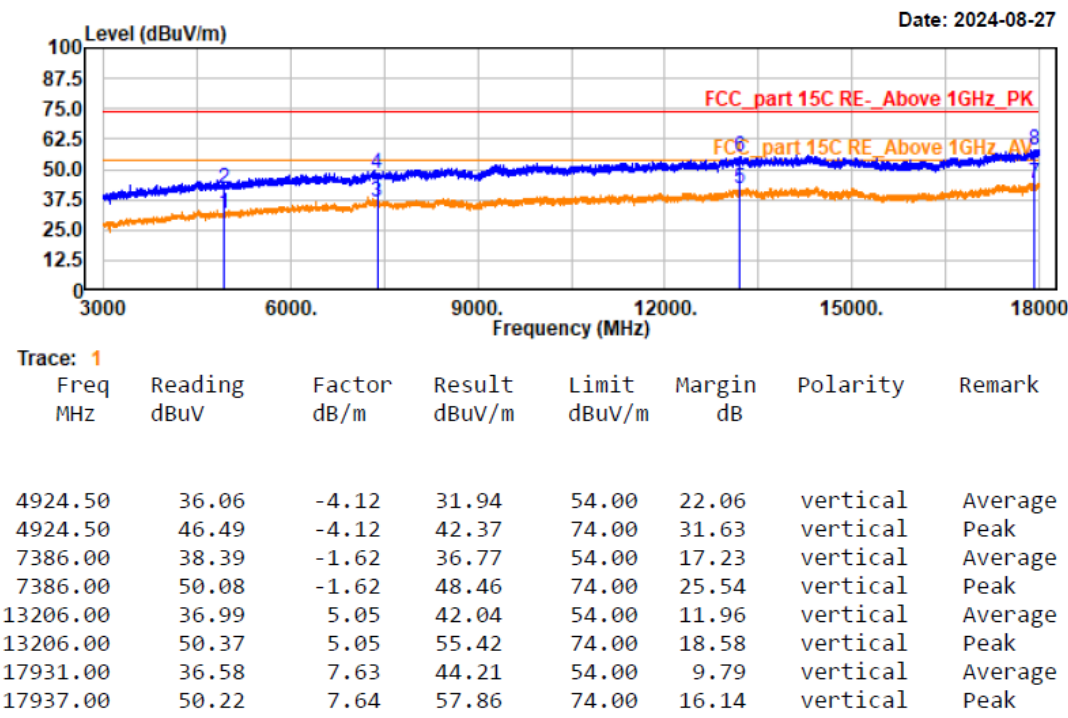
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4℃/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



EUT operation mode: Transmitting in Wifi 802.11n40 low channel

Project No.: 2407W89441E-RF

Test Mode: 11n40-2422

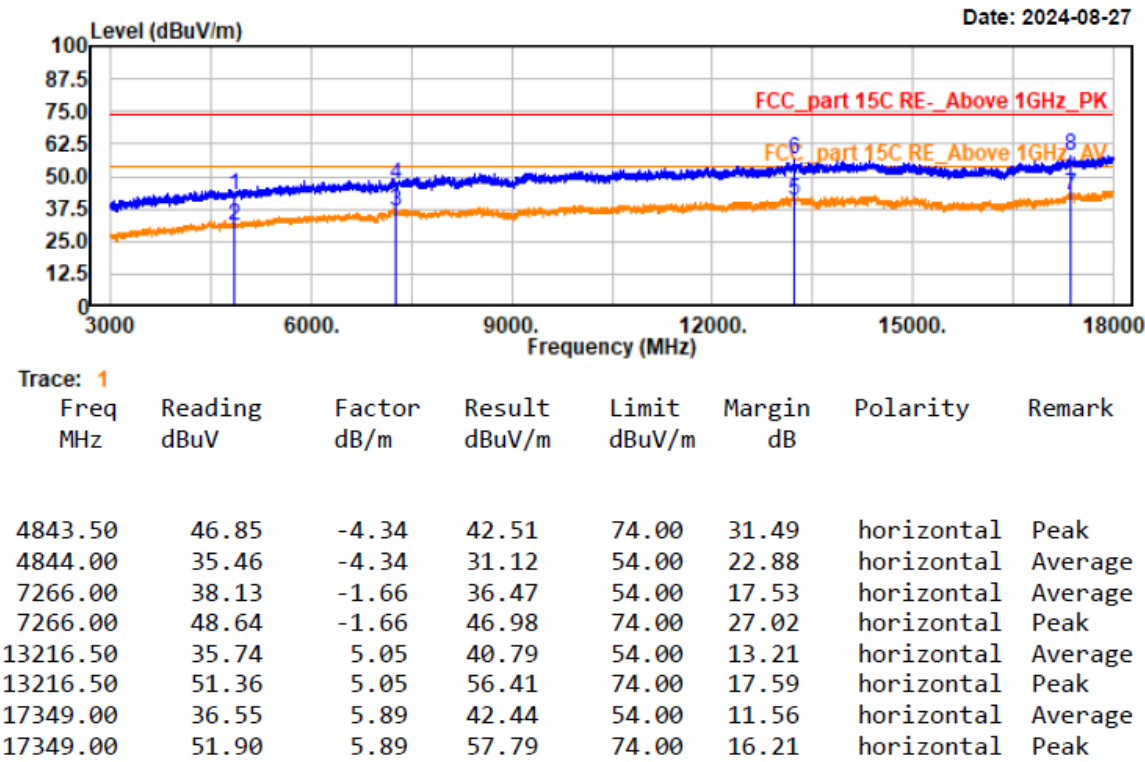
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4℃/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF

Test Mode: 11n40-2422

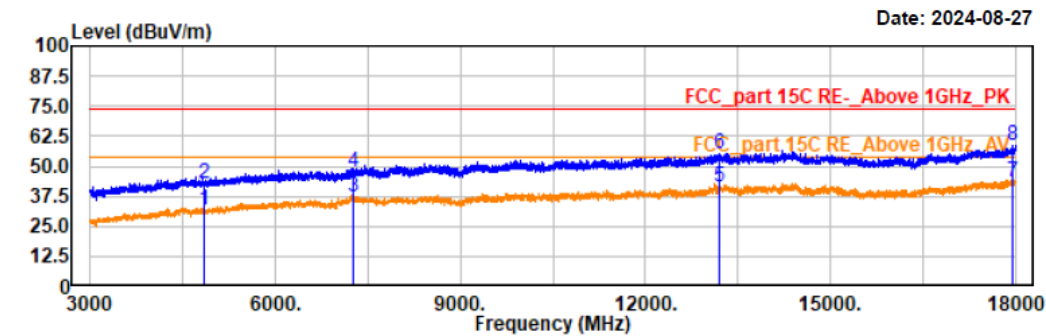
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4℃/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4843.50	36.14	-4.34	31.80	54.00	22.20	vertical	Average
4843.50	46.77	-4.34	42.43	74.00	31.57	vertical	Peak
7266.00	38.58	-1.66	36.92	54.00	17.08	vertical	Average
7266.00	49.17	-1.66	47.51	74.00	26.49	vertical	Peak
13206.00	36.59	5.05	41.64	54.00	12.36	vertical	Average
13206.00	50.34	5.05	55.39	74.00	18.61	vertical	Peak
17959.50	35.75	7.67	43.42	54.00	10.58	vertical	Average
17959.50	50.97	7.67	58.64	74.00	15.36	vertical	Peak

EUT operation mode: Transmitting in Wifi 802.11n40 middle channel

Project No.: 2407W89441E-RF

Test Mode: 11n40-2437

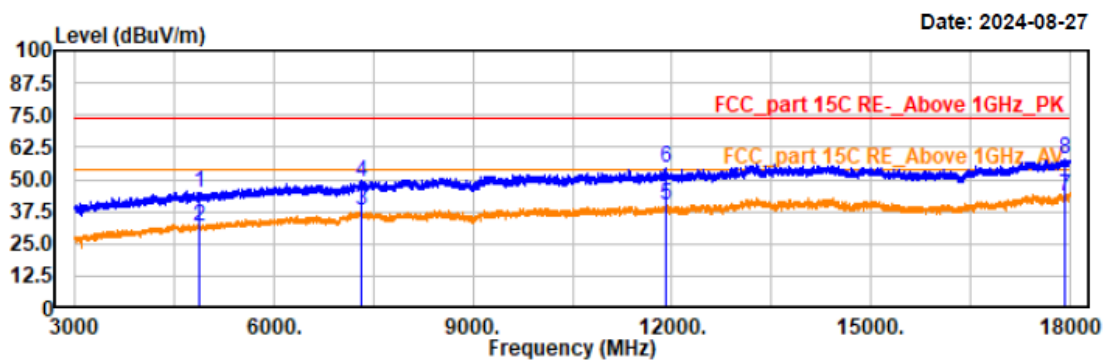
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4°C/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz

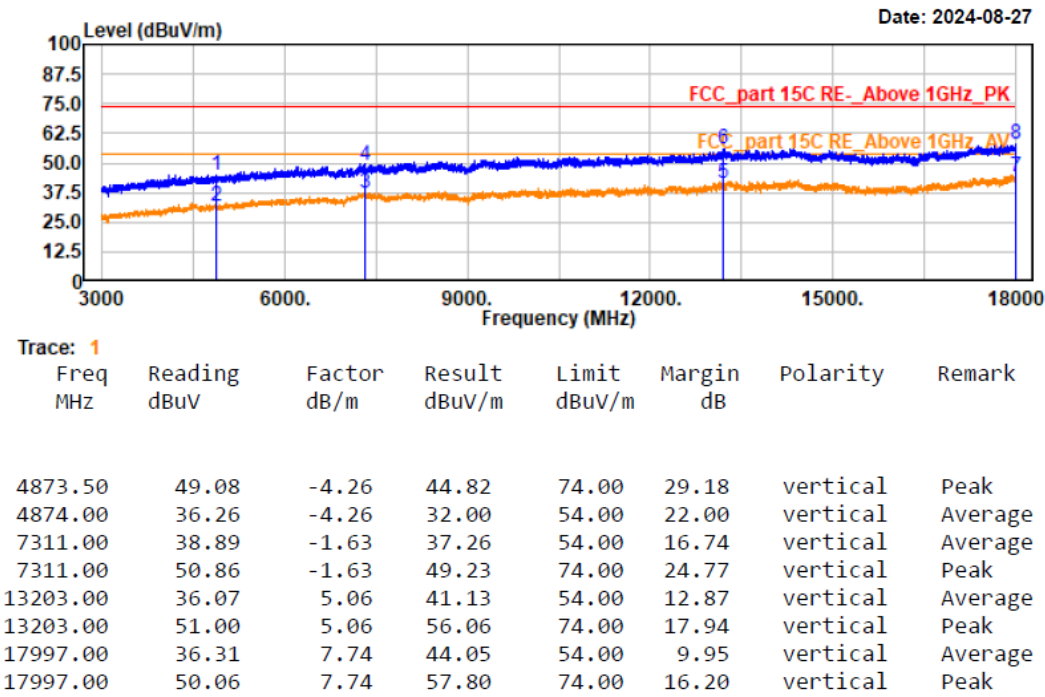


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4873.50	48.92	-4.26	44.66	74.00	29.34	horizontal	Peak
4874.00	35.78	-4.26	31.52	54.00	22.48	horizontal	Average
7311.00	39.54	-1.63	37.91	54.00	16.09	horizontal	Average
7311.00	50.75	-1.63	49.12	74.00	24.88	horizontal	Peak
11901.00	35.77	4.05	39.82	54.00	14.18	horizontal	Average
11901.00	50.34	4.05	54.39	74.00	19.61	horizontal	Peak
17937.00	36.10	7.64	43.74	54.00	10.26	horizontal	Average
17937.00	50.58	7.64	58.22	74.00	15.78	horizontal	Peak

Project No.: 2407W89441E-RF
Test Mode: 11n40-2437
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.4℃/52%/100.1kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



EUT operation mode: Transmitting in Wifi 802.11n40 high channel

Project No.: 2407W89441E-RF

Test Mode: 11n40-2452

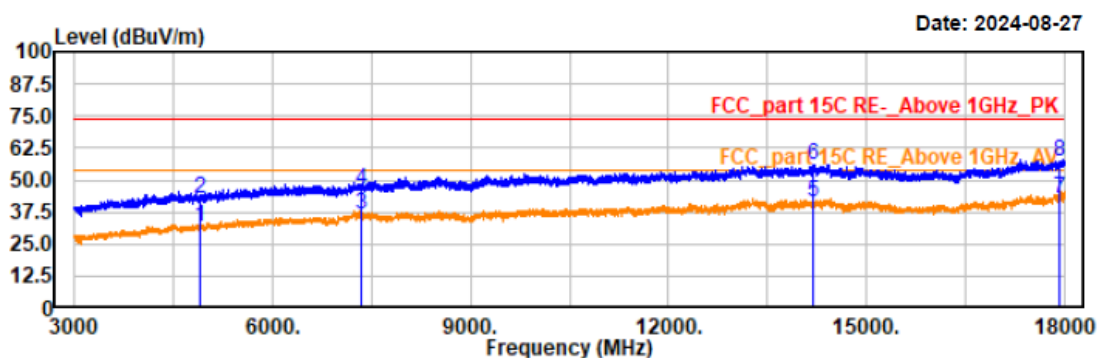
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4°C/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
4904.00	36.01	-4.18	31.83	54.00	22.17	horizontal	Average
4904.00	46.75	-4.18	42.57	74.00	31.43	horizontal	Peak
7356.00	38.01	-1.59	36.42	54.00	17.58	horizontal	Average
7356.00	47.98	-1.59	46.39	74.00	27.61	horizontal	Peak
14200.50	35.90	5.27	41.17	54.00	12.83	horizontal	Average
14200.50	50.91	5.27	56.18	74.00	17.82	horizontal	Peak
17934.00	34.98	7.63	42.61	54.00	11.39	horizontal	Average
17934.00	49.80	7.63	57.43	74.00	16.57	horizontal	Peak

Project No.: 2407W89441E-RF

Test Mode: 11n40-2452

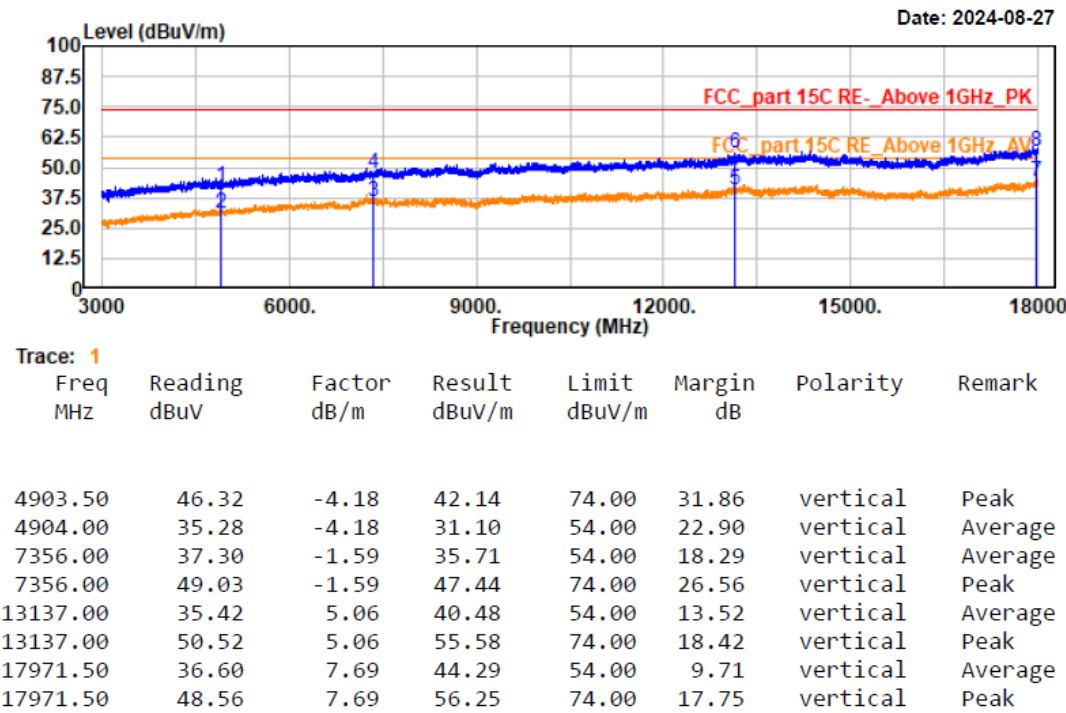
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.4°C/52%/100.1kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



5) 18GHz~25GHz

EUT operation mode: Transmitting in Wifi 802.11b high channel (Worst case)

Project No.: 2407W89441E-RF

Test Mode: 11b-2462

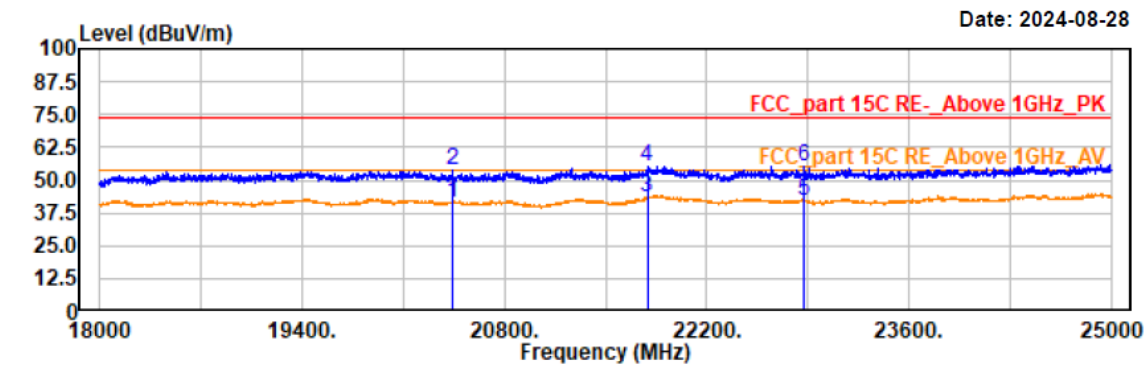
EUT Model: MS-C5321-FPE

Test distance: 1m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa

Tested by: Wlif Wu

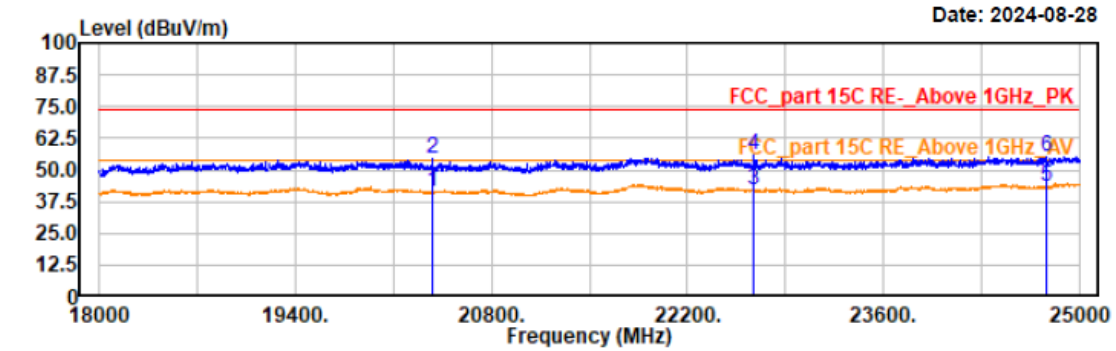
Power Source: AC 120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
20439.80	25.59	15.91	41.50	54.00	12.50	horizontal	Average
20439.80	37.94	15.91	53.85	74.00	20.15	horizontal	Peak
21788.40	27.09	16.27	43.36	54.00	10.64	horizontal	Average
21788.40	39.02	16.27	55.29	74.00	18.71	horizontal	Peak
22868.60	25.70	16.66	42.36	54.00	11.64	horizontal	Average
22868.60	38.52	16.66	55.18	74.00	18.82	horizontal	Peak

Project No.: 2407W89441E-RF
Test Mode: 11b-2462
EUT Model: MS-C5321-FPE
Test distance: 1m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC 120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
20376.00	25.38	15.78	41.16	54.00	12.84	vertical	Average
20376.00	38.73	15.78	54.51	74.00	19.49	vertical	Peak
22677.20	25.59	16.68	42.27	54.00	11.73	vertical	Average
22677.20	39.36	16.68	56.04	74.00	17.96	vertical	Peak
24758.40	24.18	18.93	43.11	54.00	10.89	vertical	Average
24758.40	36.54	18.93	55.47	74.00	18.53	vertical	Peak

Bandedges Emissions:

Project No.: 2407W89441E-RF

Test Mode: 11b-2412

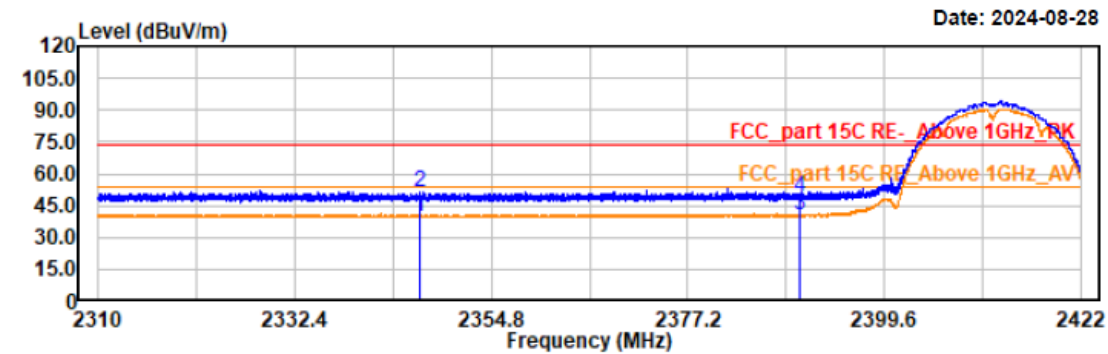
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2346.65	34.88	5.15	40.03	54.00	13.97	horizontal	Average
2346.65	46.54	5.15	51.69	74.00	22.31	horizontal	Peak
2390.00	34.82	5.37	40.19	54.00	13.81	horizontal	Average
2390.00	43.36	5.37	48.73	74.00	25.27	horizontal	Peak

Project No.: 2407W89441E-RF

Test Mode: 11b-2412

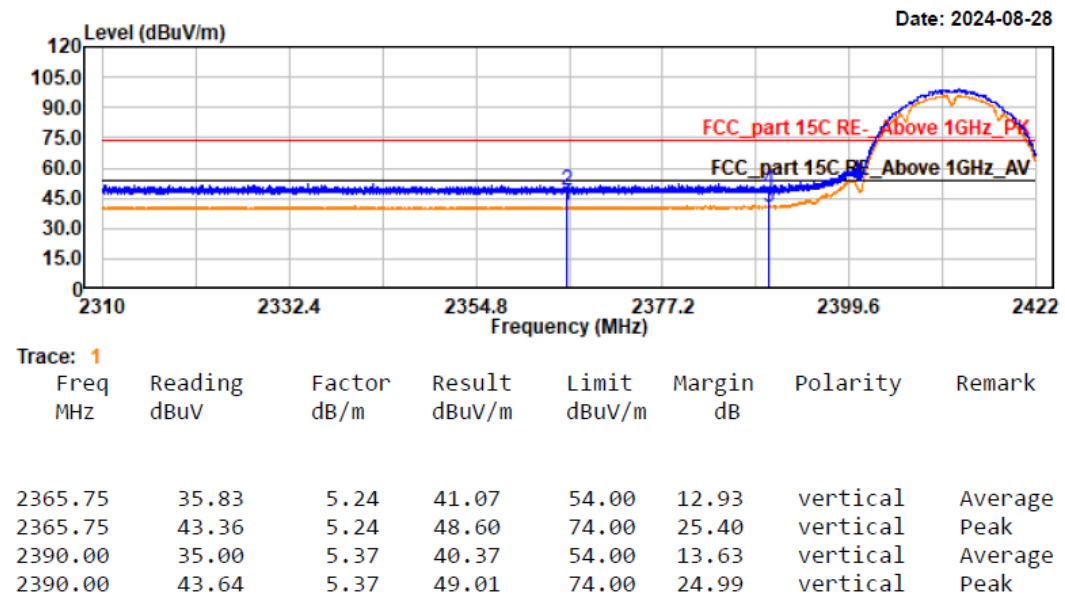
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF

Test Mode: 11b-2462

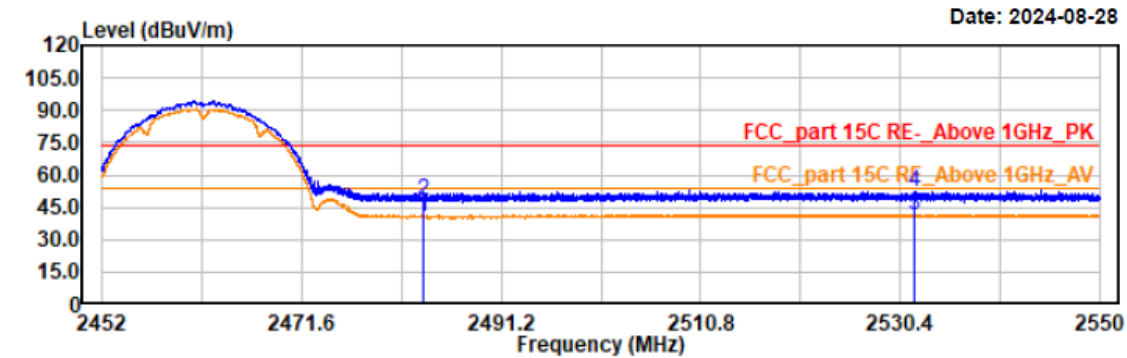
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	34.86	5.83	40.69	54.00	13.31	horizontal	Average
2483.50	42.52	5.83	48.35	74.00	25.65	horizontal	Peak
2531.75	35.85	5.94	41.79	54.00	12.21	horizontal	Average
2531.75	46.32	5.95	52.27	74.00	21.73	horizontal	Peak

Project No.: 2407W89441E-RF

Test Mode: 11b-2462

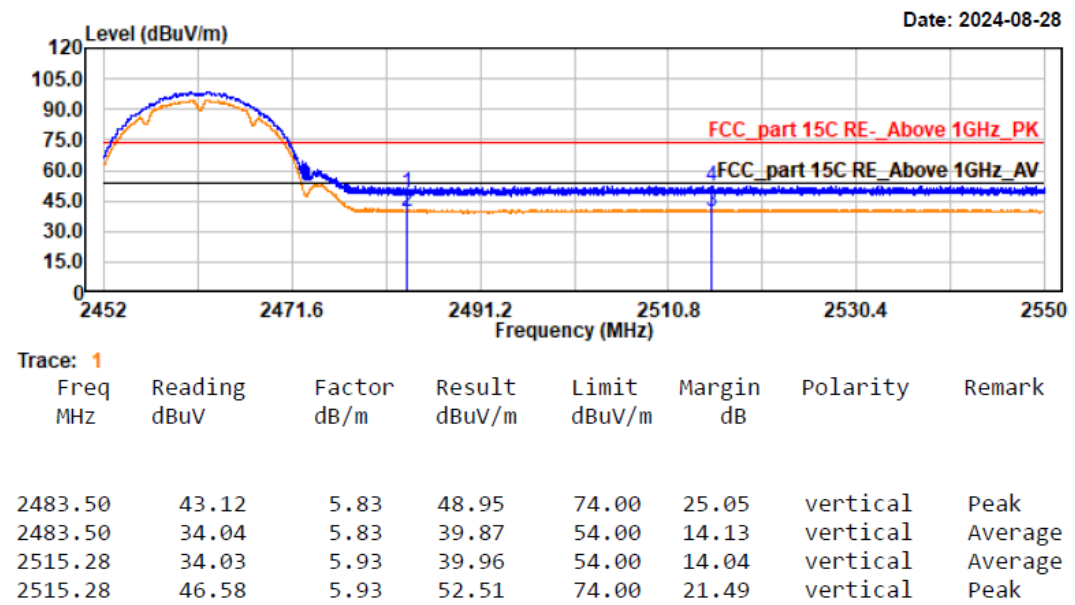
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa

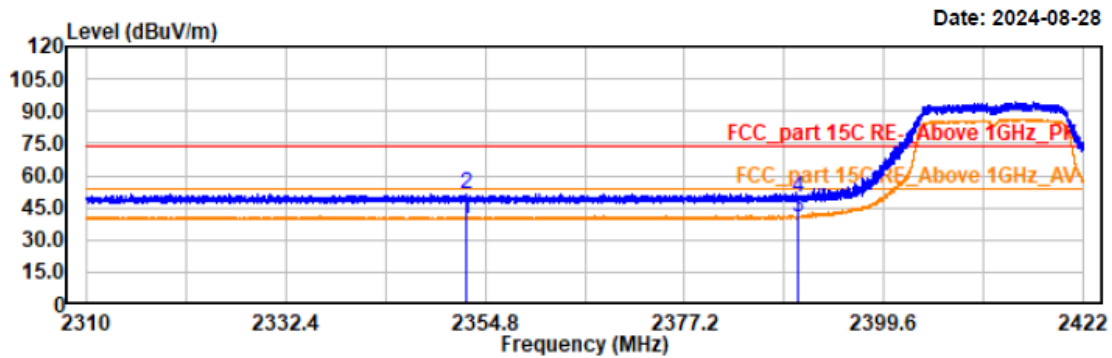
Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF
Test Mode: 11g-2412
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

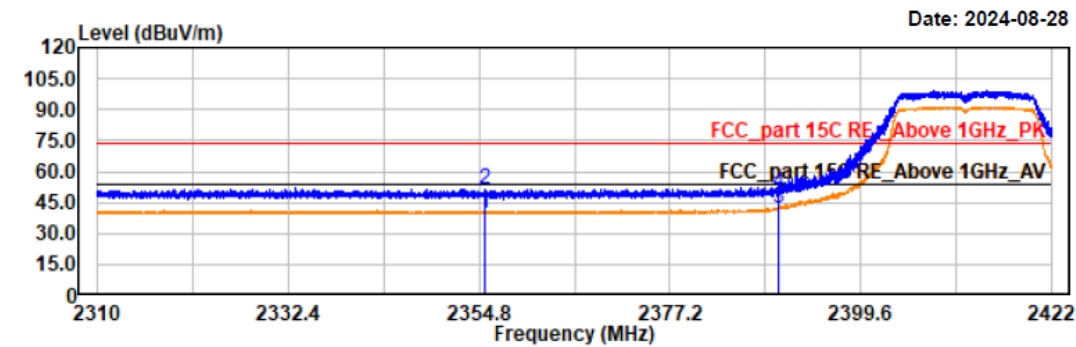


Trace: 1

Freq MHz	Reading dBUV	Factor dB/m	Result dBUV/m	Limit dBUV/m	Margin dB	Polarity	Remark
2352.69	34.78	5.18	39.96	54.00	14.04	horizontal	Average
2352.69	46.25	5.18	51.43	74.00	22.57	horizontal	Peak
2390.00	35.10	5.37	40.47	54.00	13.53	horizontal	Average
2390.00	44.33	5.37	49.70	74.00	24.30	horizontal	Peak

Project No.: 2407W89441E-RF
Test Mode: 11g-2412
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

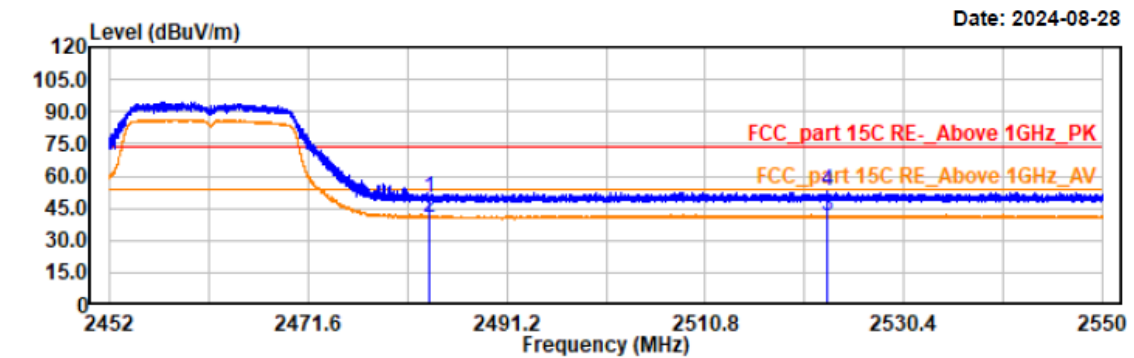


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2355.45	34.79	5.19	39.98	54.00	14.02	vertical	Average
2355.45	46.30	5.19	51.49	74.00	22.51	vertical	Peak
2390.00	36.43	5.37	41.80	54.00	12.20	vertical	Average
2390.00	44.65	5.37	50.02	74.00	23.98	vertical	Peak

Project No.: 2407W89441E-RF
Test Mode: 11g-2462
EUT Model: MS-C5321-FPE
Test distance: 3m

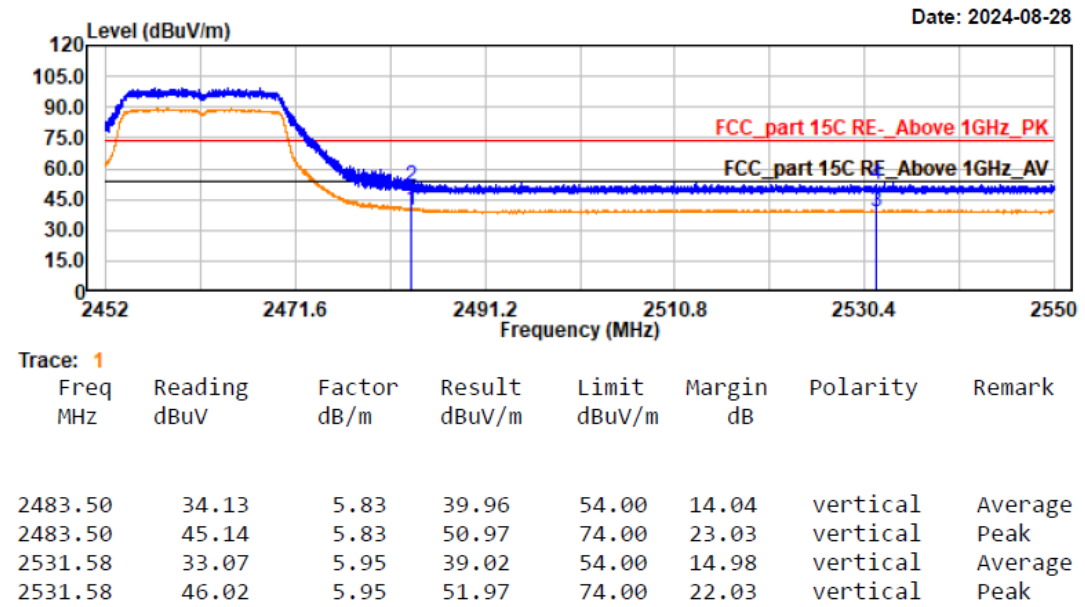
Temp/Humi/ATM: 23.9℃/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	44.21	5.83	50.04	74.00	23.96	horizontal	Peak
2483.50	34.62	5.83	40.45	54.00	13.55	horizontal	Average
2522.82	35.16	5.94	41.10	54.00	12.90	horizontal	Average
2522.82	46.70	5.94	52.64	74.00	21.36	horizontal	Peak

Project No.: 2407W89441E-RF
Test Mode: 11g-2462
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF

Test Mode: 11n20-2412

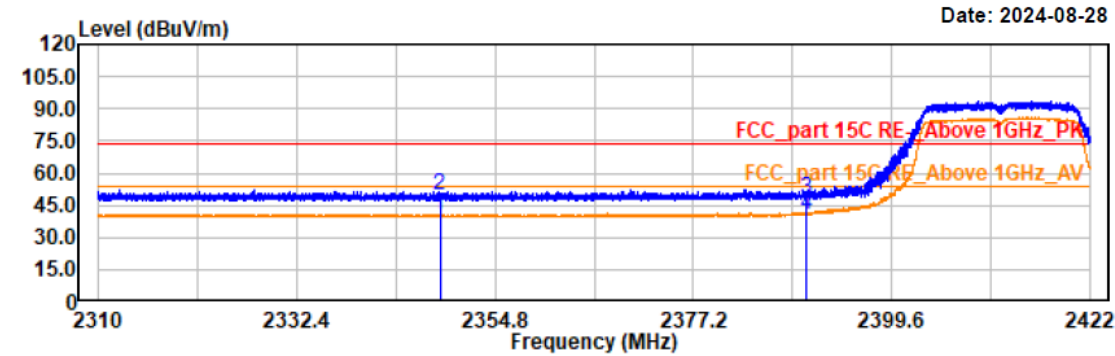
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa

Tested by: Wlif Wu

Power Source: AC120V/60Hz



Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2348.56	35.75	5.17	40.92	54.00	13.08	horizontal	Average
2348.56	44.32	5.17	49.49	74.00	24.51	horizontal	Peak
2390.00	42.76	5.37	48.13	74.00	25.87	horizontal	Peak
2390.00	35.54	5.37	40.91	54.00	13.09	horizontal	Average

Project No.: 2407W89441E-RF

Test Mode: 11n20-2412

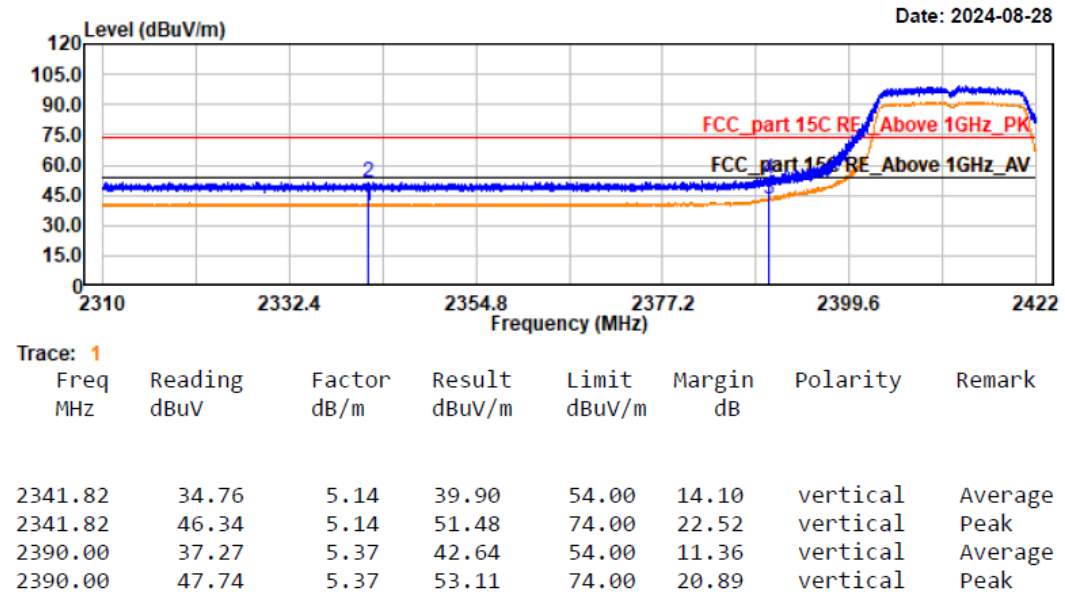
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa

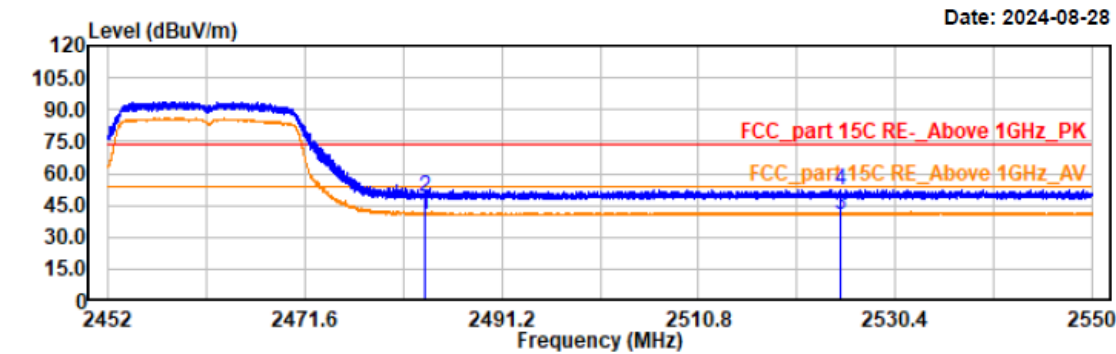
Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF
Test Mode: 11n20-2462
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



Trace: 1							
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	34.96	5.83	40.79	54.00	13.21	horizontal	Average
2483.50	43.00	5.83	48.83	74.00	25.17	horizontal	Peak
2524.88	34.95	5.94	40.89	54.00	13.11	horizontal	Average
2524.88	46.49	5.94	52.43	74.00	21.57	horizontal	Peak

Project No.: 2407W89441E-RF

Test Mode: 11n20-2462

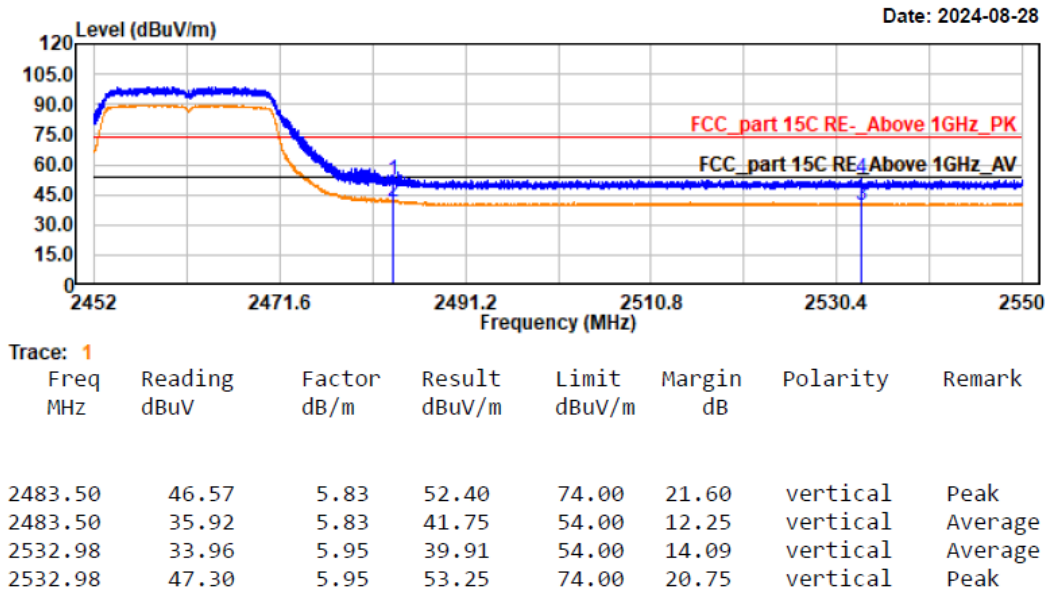
EUT Model: MS-C5321-FPE

Test distance: 3m

Temp/Humi/ATM: 23.9℃/55%/100.6kPa

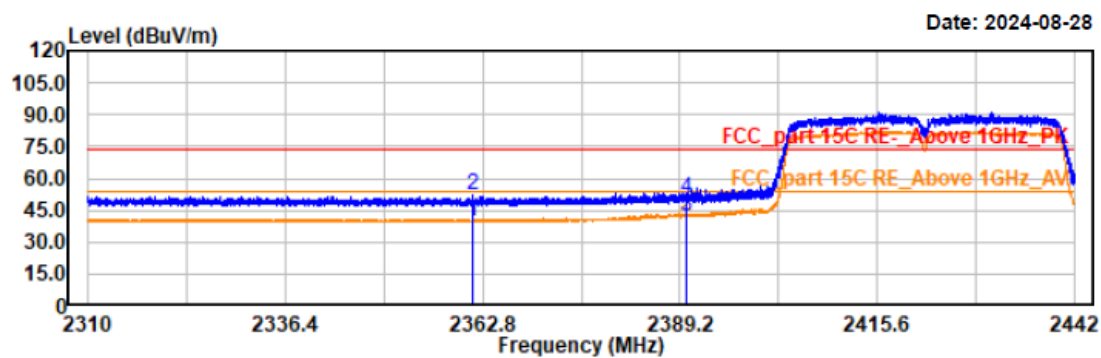
Tested by: Wlif Wu

Power Source: AC120V/60Hz



Project No.: 2407W89441E-RF
Test Mode: 11n40-2422
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

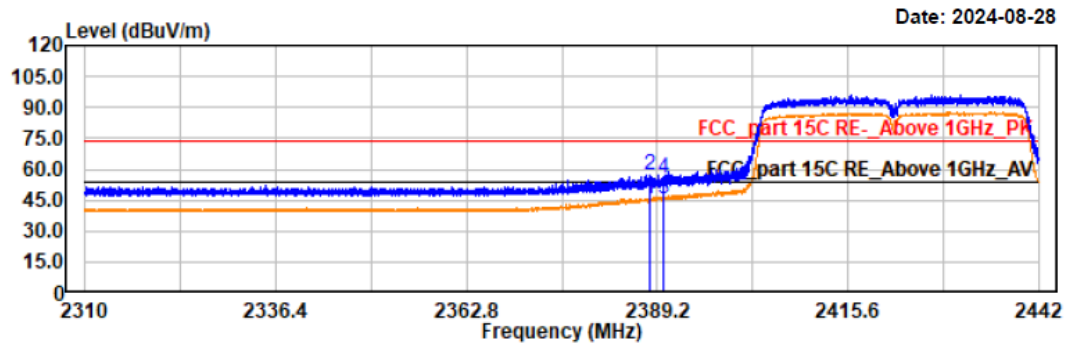


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2361.38	34.73	5.22	39.95	54.00	14.05	horizontal	Average
2361.38	46.74	5.22	51.96	74.00	22.04	horizontal	Peak
2390.00	36.91	5.37	42.28	54.00	11.72	horizontal	Average
2390.00	45.05	5.37	50.42	74.00	23.58	horizontal	Peak

Project No.: 2407W89441E-RF
Test Mode: 11n40-2422
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

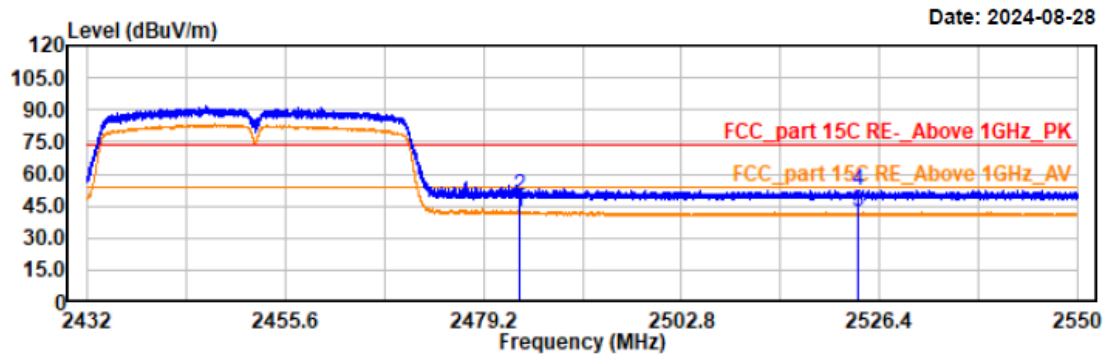


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2388.14	39.95	5.36	45.31	54.00	8.69	vertical	Average
2388.14	51.72	5.36	57.08	74.00	16.92	vertical	Peak
2390.01	40.31	5.37	45.68	54.00	8.32	vertical	Average
2390.01	49.82	5.37	55.19	74.00	18.81	vertical	Peak

Project No.: 2407W89441E-RF
Test Mode: 11n40-2452
EUT Model: MS-C5321-FPE
Test distance: 3m

Temp/Humi/ATM: 23.9°C/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz

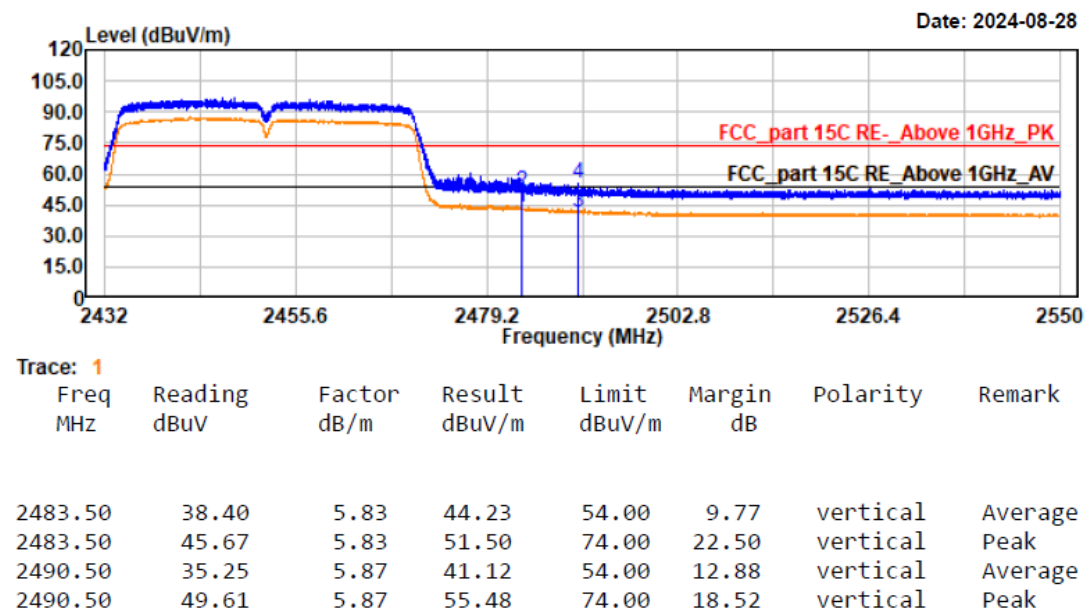


Trace: 1

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	36.22	5.83	42.05	54.00	11.95	horizontal	Average
2483.50	43.96	5.83	49.79	74.00	24.21	horizontal	Peak
2523.86	36.13	5.94	42.07	54.00	11.93	horizontal	Average
2523.86	46.40	5.94	52.34	74.00	21.66	horizontal	Peak

Project No.: 2407W89441E-RF
Test Mode: 11n40-2452
EUT Model: MS-C5321-FPE
Test distance: 3m

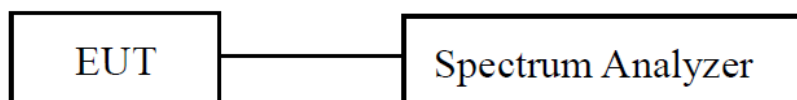
Temp/Humi/ATM: 23.9℃/55%/100.6kPa
Tested by: Wlif Wu
Power Source: AC120V/60Hz



FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH

Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

EUT Setup**Test Procedure**

According to ANSI C63.10-2013 Section 11.8

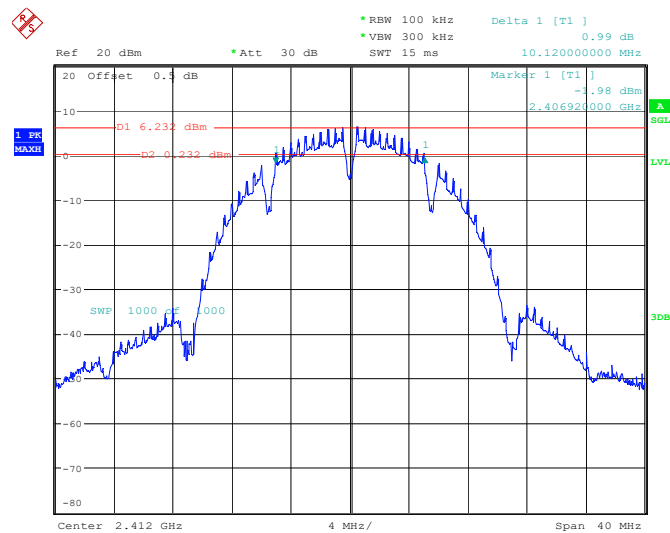
- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Data

Test Mode:	Transmitting	Test Engineer:	Stein Peng
Test Date:	2024-08-14	Test Voltage:	AC 120V/60Hz
Test Result:	Compliance	Environment:	Temp.: 23.7°C Humi.: 58% Atm : 100.3 kPa
Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
802.11b	2412	10.12	0.5
	2437	10.12	0.5
	2462	10.12	0.5
802.11g	2412	16.4	0.5
	2437	16.4	0.5
	2462	16.4	0.5
802.11n HT20	2412	17.6	0.5
	2437	17.6	0.5
	2462	17.6	0.5
802.11n HT40	2422	35.36	0.5
	2437	35.36	0.5
	2452	35.36	0.5

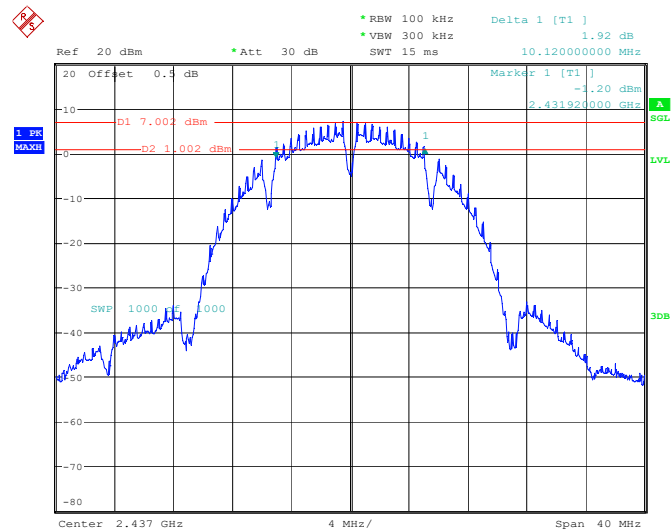
Please refer to below plots:

802.11b Mode Low Channel



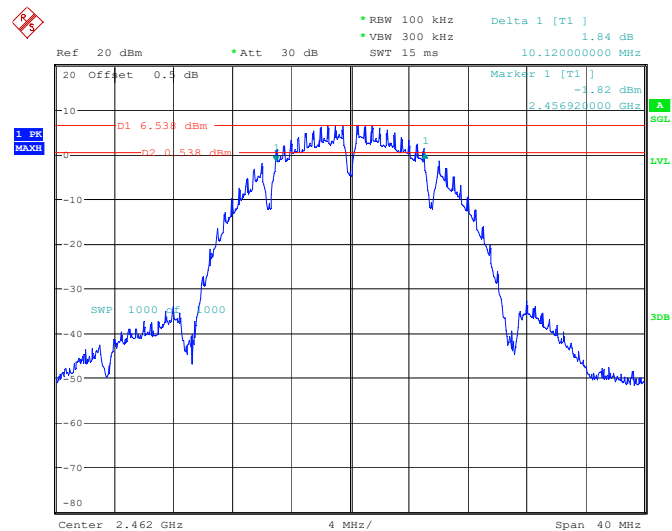
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:15:31

802.11b Mode Middle Channel



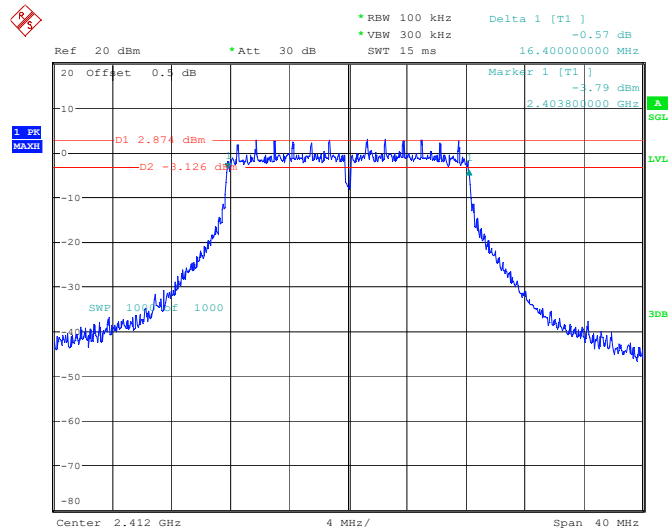
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:17:00

802.11b Mode High Channel



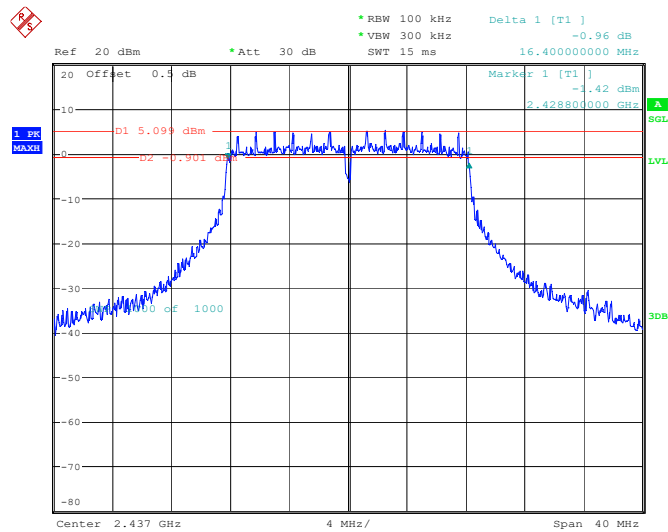
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:19:00

802.11g Mode Low Channel



ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:20:53

802.11g Mode Middle Channel



ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:22:19

* RBW 100 kHz
 * VBW 300 kHz
 SWT 15 ms

Delta 1 [T1]
 -0.95 dB
 16.400000000 MHz

Ref 20 dBm
 * Att 30 dB

20 Offset 0.1 dB

1 PR
 MAG

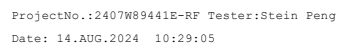
D1 4.80 dBm
 D2 -1.191 dBm

Marker 1 [T1]
 -1.52 dBm
 2.453800000 GHz

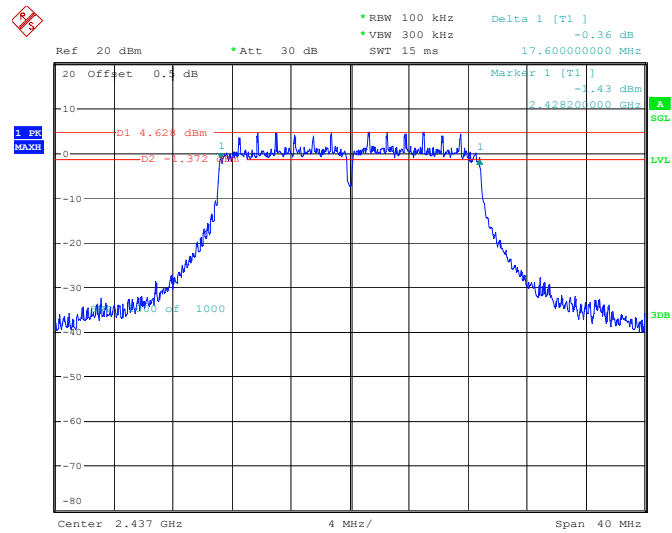
100 of 1000

Center 2.462 GHz
 4 MHz/
 Span 40 MHz

802.11n-ht20 Mode Low Channel

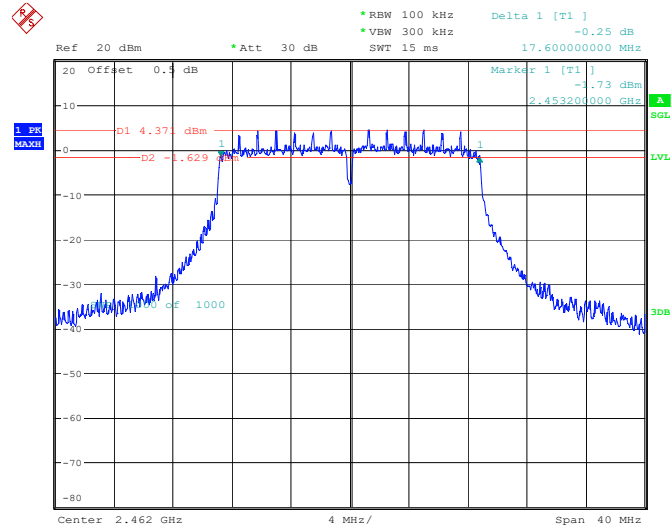


802.11n-ht20 Mode Middle Channel



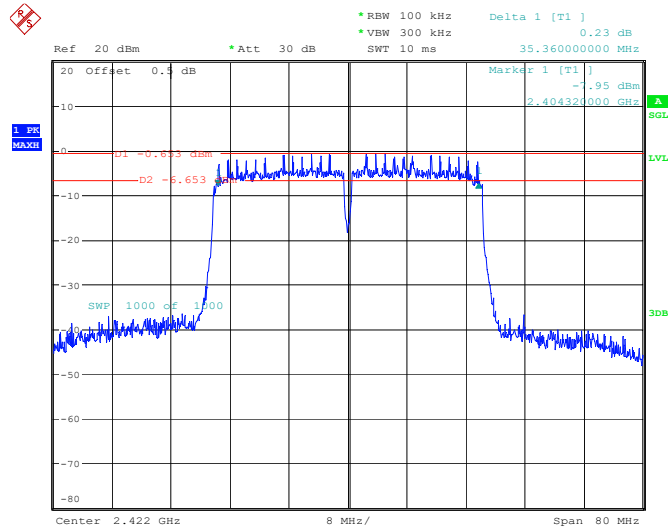
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:30:40

802.11n-ht20 Mode High Channel



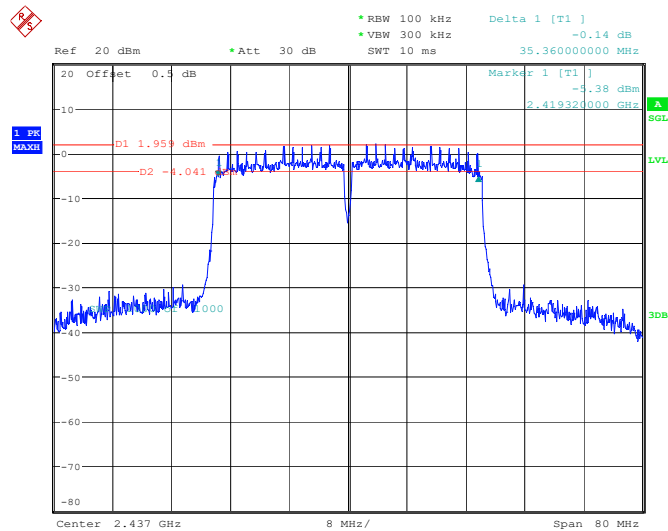
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:32:46

802.11n-ht40 Mode Low Channel



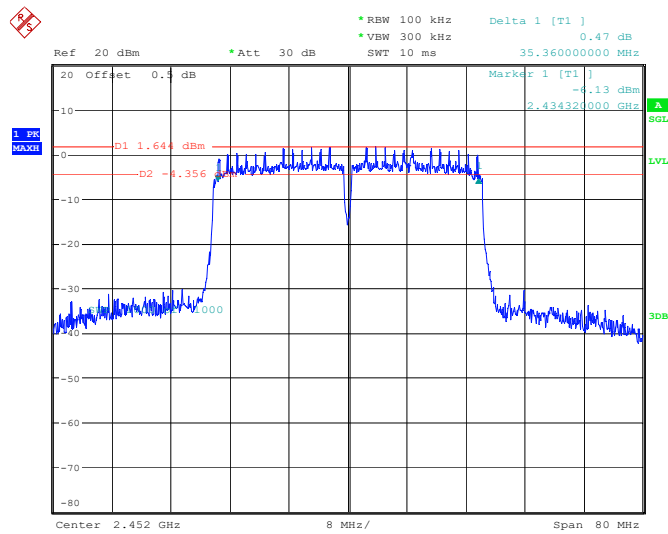
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:34:08

802.11n-ht40 Mode Middle Channel



ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:35:18

802.11n-ht40 Mode High Channel



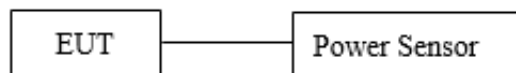
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 10:36:22

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

EUT Setup



Test Procedure

According to ANSI C63.10-2013 11.9.2.3.1 Method AVGPM

a) As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied:

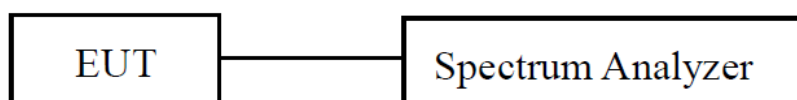
- 1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- b) If the transmitter does not transmit continuously, measure the duty cycle, D, of the transmitter output signal as described in 11.6.
- c) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
- d) Adjust the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle.

Test Data

Test Mode:		Transmitting		Test Engineer:	Stein Peng
Test Date:		2024-08-14		Test Voltage:	AC 120V/60Hz
Test Result:		Compliance		Environment:	Temp.: 23.7°C Humi.: 58% Atm.: 100.3kPa
Test Modes	Test Frequency (MHz)	Maximum Conducted Average Output Power (dBm)	Duty Factor (dB)	Result (dBm)	Limit (dBm)
802.11b	2412	14.75	/	14.75	30
	2437	14.86	/	14.86	30
	2462	15.21	/	15.21	30
802.11g	2412	13.79	0.32	14.11	30
	2437	14.15	0.32	14.47	30
	2462	14.42	0.32	14.74	30
802.11n HT20	2412	13.84	0.34	14.18	30
	2437	14.08	0.34	14.42	30
	2462	14.36	0.34	14.70	30
802.11n HT40	2422	12.69	0.56	13.25	30
	2437	13.21	0.56	13.77	30
	2452	13.29	0.56	13.85	30

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE**Applicable Standard**

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

EUT Setup**Test Procedure**

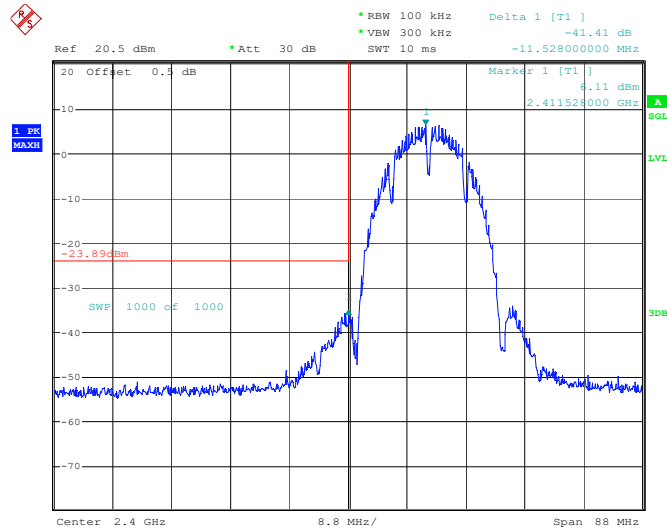
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Data

Test Mode:	Transmitting	Test Engineer:	Stein Peng
Test Date:	2024-08-14	Test Voltage:	AC 120V/60Hz
Test Result:	Compliance	Environment:	Temp.: 23.7°C Humi.: 58% Atm.: 100.3kPa

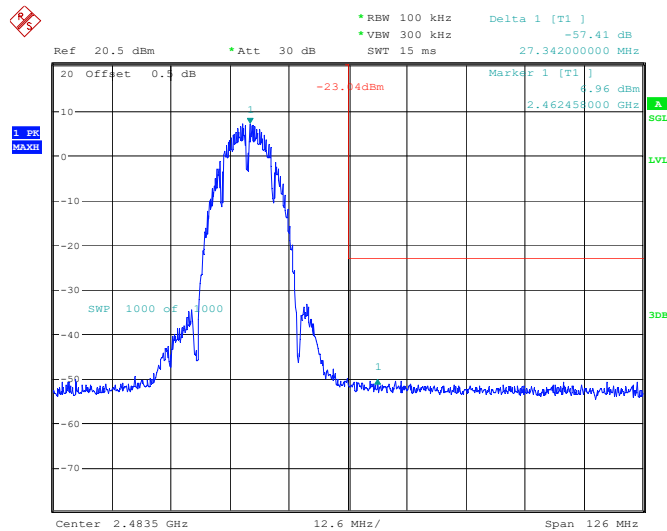
Please refer to below plots:

802.11b Mode Left Side



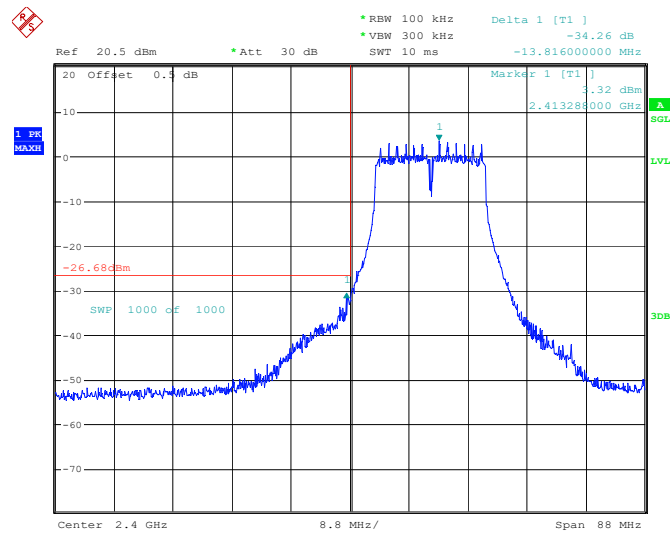
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:21:02

802.11b Mode Right Side



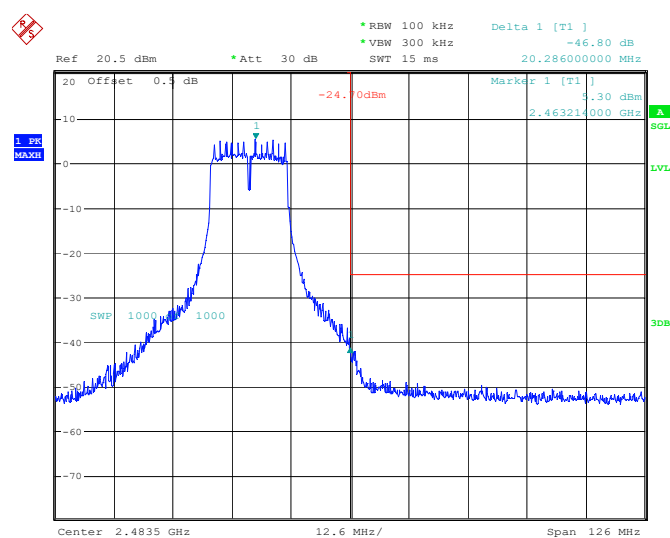
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Date: 14.AUG.2024 17:22:08

802.11g Mode Left Side



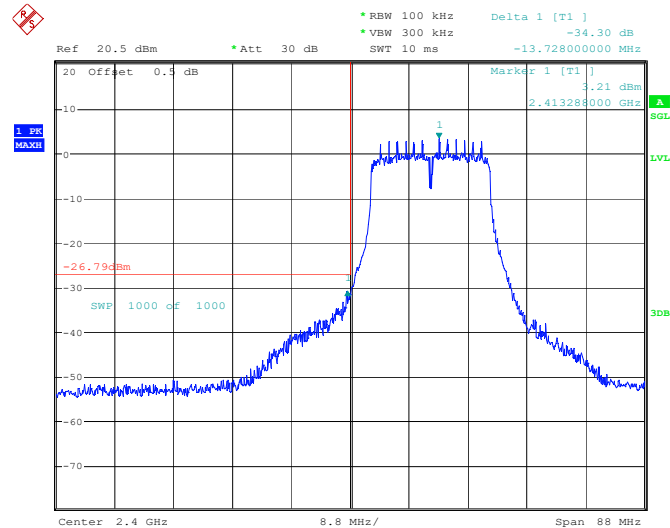
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:23:07

802.11g Mode Right Side



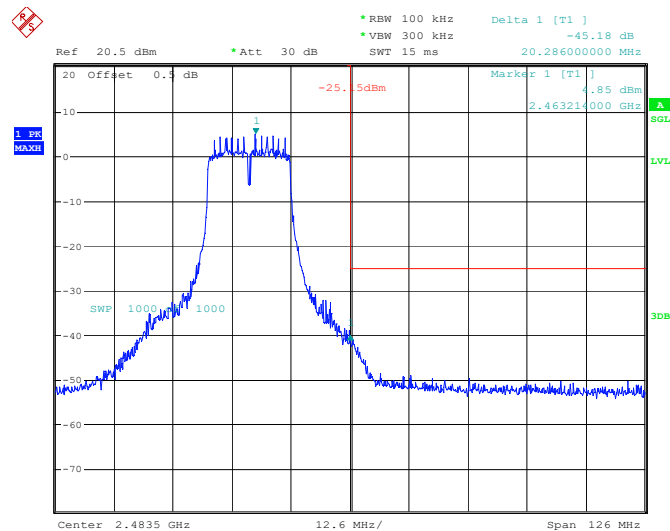
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:24:10

802.11n-ht20 Mode Left Side



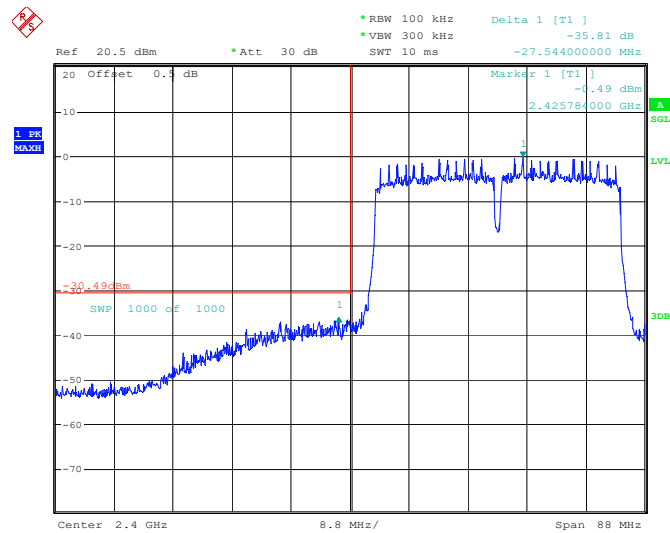
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:25:23

802.11n-ht20 Mode Right Side



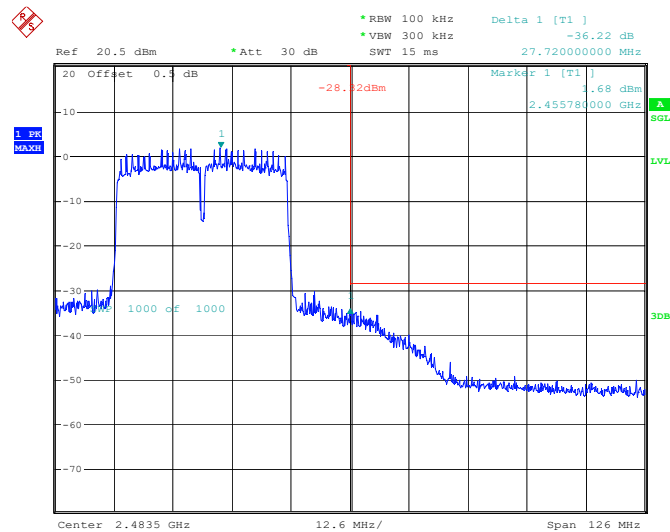
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:26:27

802.11n-ht40 Mode Left Side



ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:27:31

802.11n-ht40 Mode Right Side



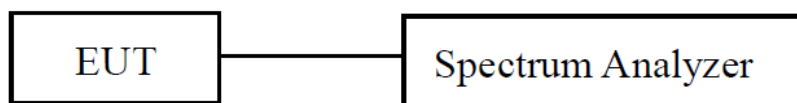
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:28:38

FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

EUT Setup



Test Procedure

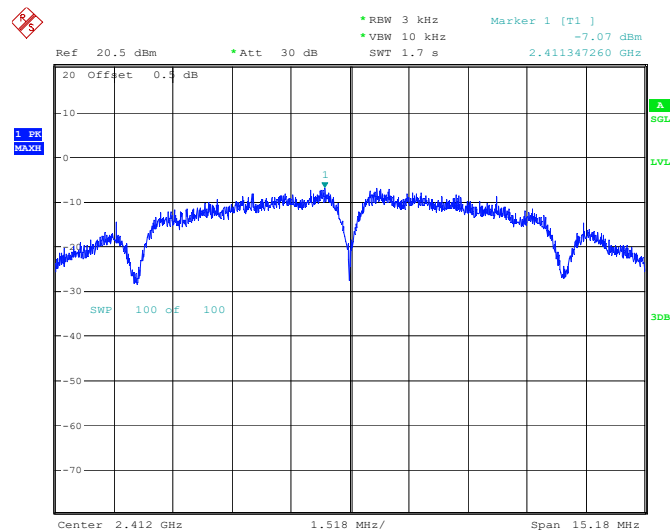
1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW to: $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$.
3. Set the VBW $\geq 3 \times \text{RBW}$.
4. Set the span to 1.5 times the DTS bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Data

Test Mode:	Transmitting	Test Engineer:	Stein Peng
Test Date:	2024-08-14	Test Voltage:	AC 120V/60Hz
Test Result:	Compliance	Environment:	Temp.: 23.7°C Humi.: 58% Atm : 100.3kPa
Test Modes	Test Frequency (MHz)	Reading (dBm/3kHz)	Limit (dBm/3kHz)
802.11b	2412	-7.07	8.00
	2437	-6.53	8.00
	2462	-6.74	8.00
802.11g	2412	-10.89	8.00
	2437	-8.75	8.00
	2462	-9.23	8.00
802.11nHT20	2412	-11.49	8.00
	2437	-9.81	8.00
	2462	-10.02	8.00
802.11nHT40	2422	-14.69	8.00
	2437	-12.16	8.00
	2452	-12.44	8.00

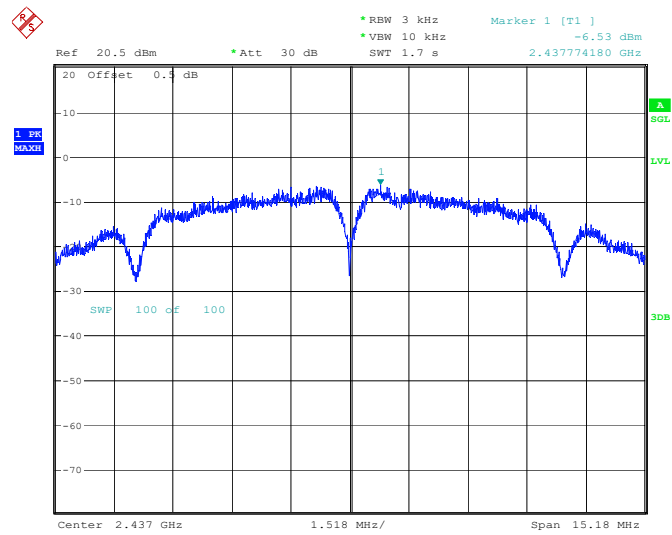
Please refer to below plots:

802.11b Mode Low Channel



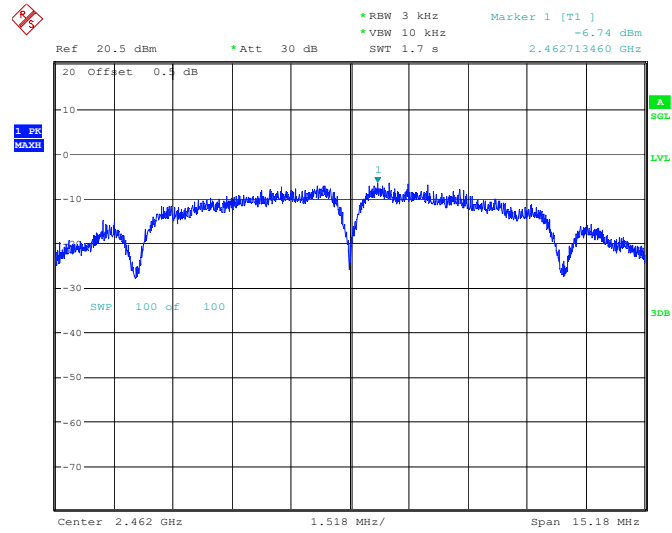
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:38:02

802.11b Mode Middle Channel



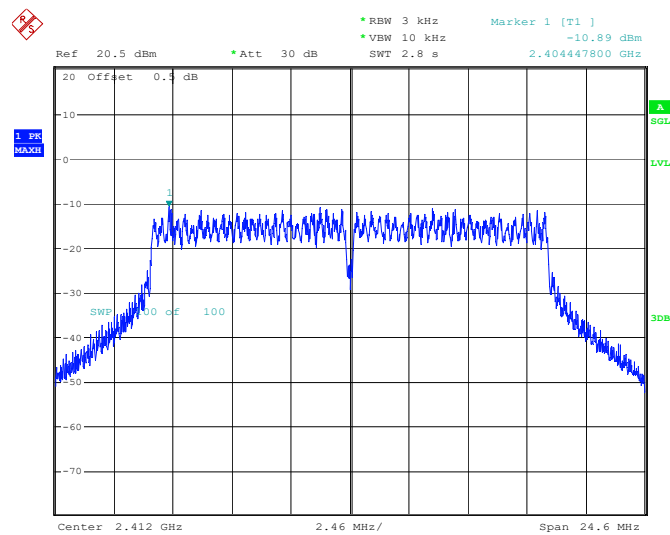
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:41:52

802.11b Mode High Channel



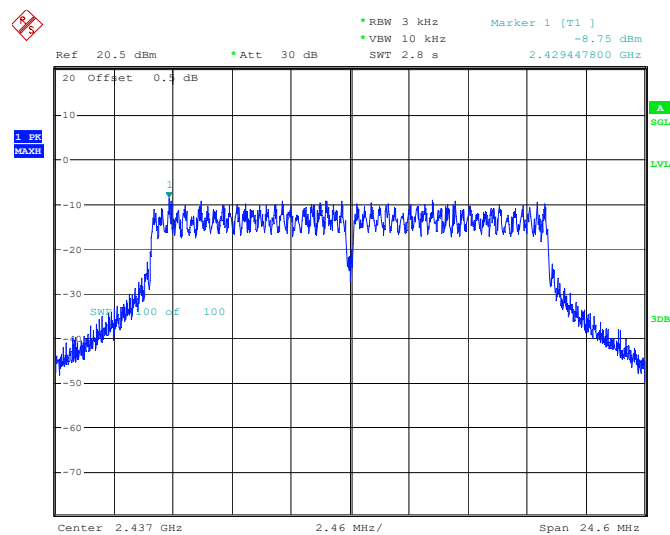
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:45:07

802.11g Mode Low Channel



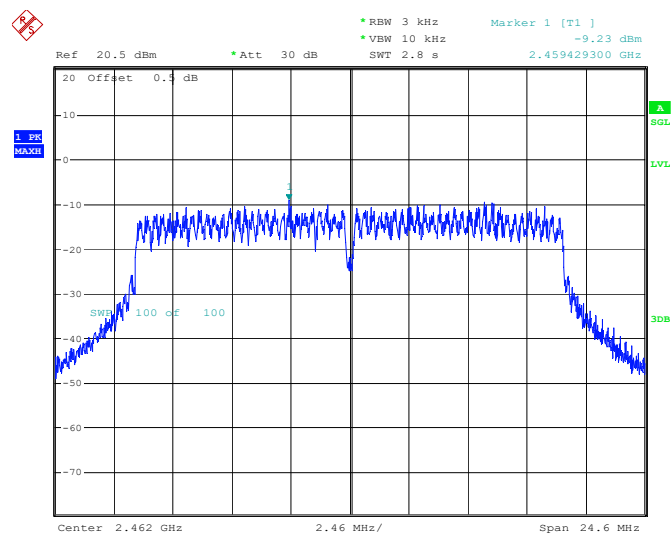
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 17:50:15

802.11g Mode Middle Channel



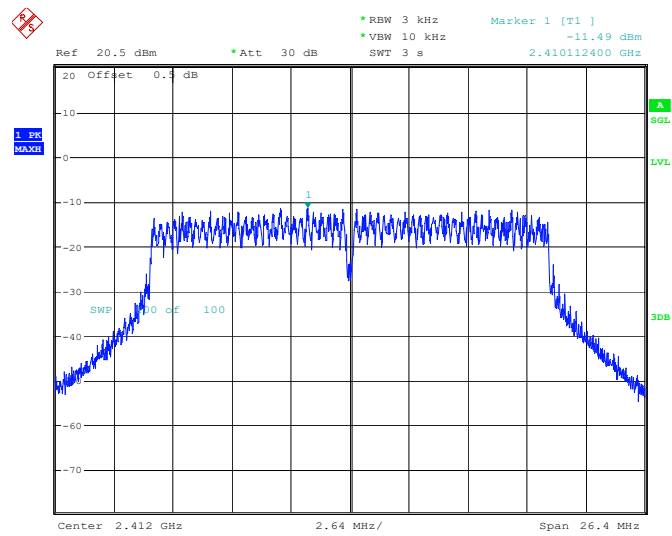
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Date: 14.AUG.2024 17:55:18

802.11g Mode High Channel



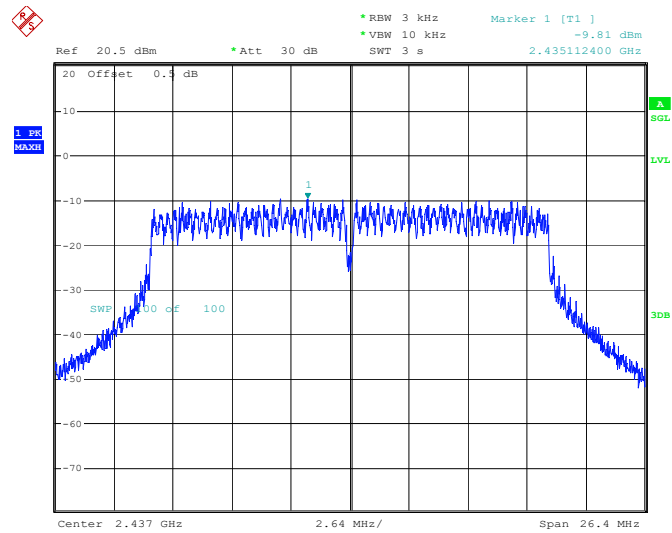
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802.11n-ht20 Mode Low Channel



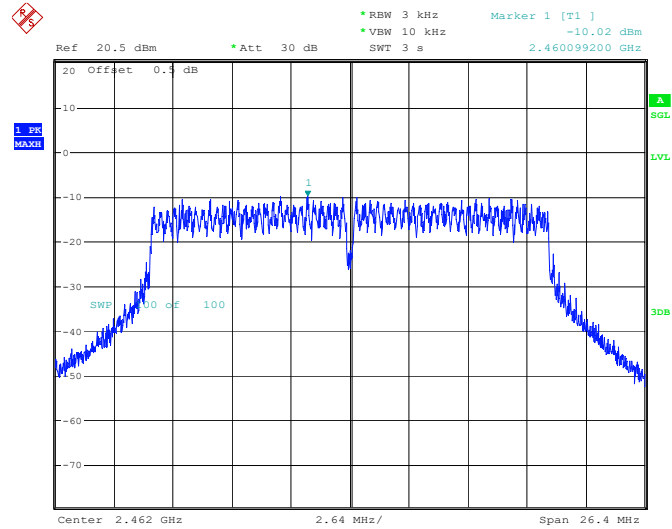
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Date: 14.AUG.2024 18:56:01

802.11n-ht20 Mode Middle Channel



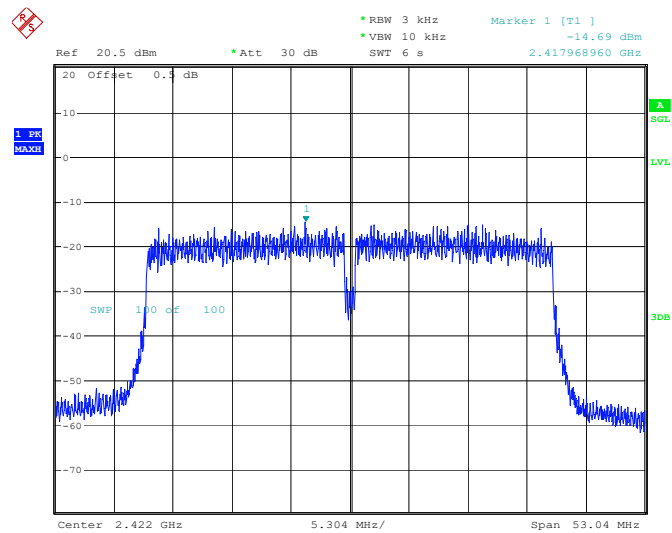
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 19:03:50

802.11n-ht20 Mode High Channel



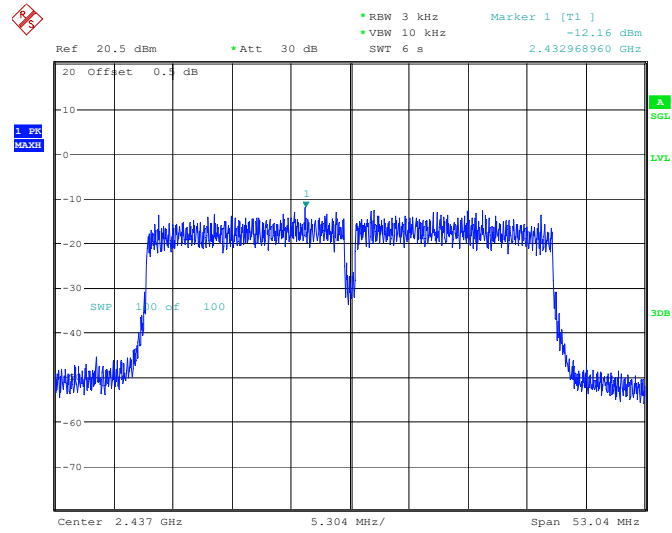
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 19:09:13

802.11n-ht40 Mode Low Channel



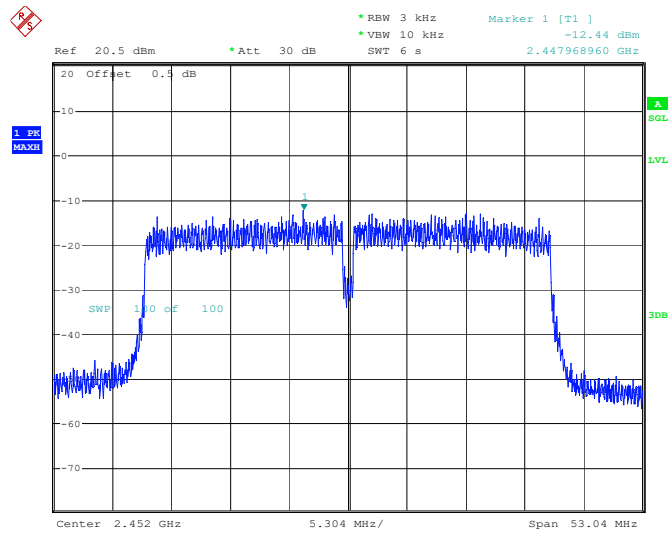
ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 19:28:24

802.11n-ht40 Mode Middle Channel



ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 19:38:49

802.11n-ht40 Mode High Channel



ProjectNo.:2407W89441E-RF Tester:Stein Peng
Date: 14.AUG.2024 19:50:47

EUT PHOTOGRAPHS

Please refer to the attachment 2407W89441E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2407W89441E-RF-INP EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2407W89441E-RF-TSP SETUP PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk “★”.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

******* END OF REPORT *******