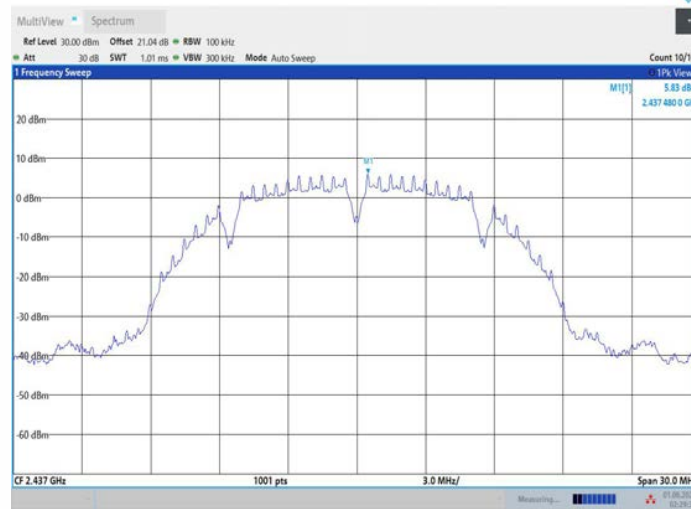
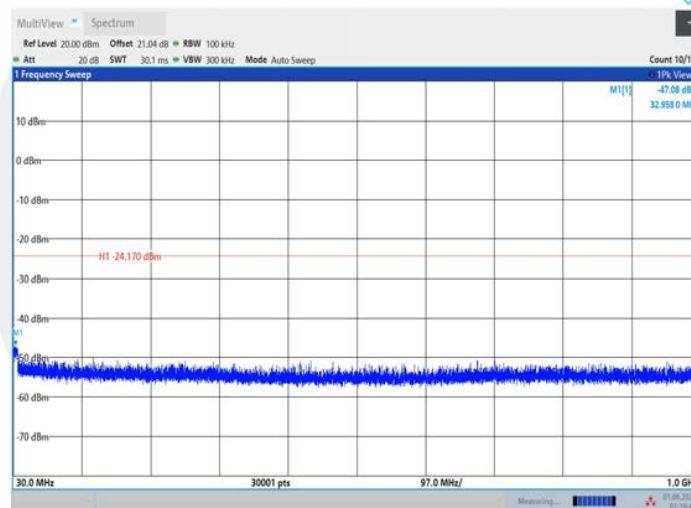


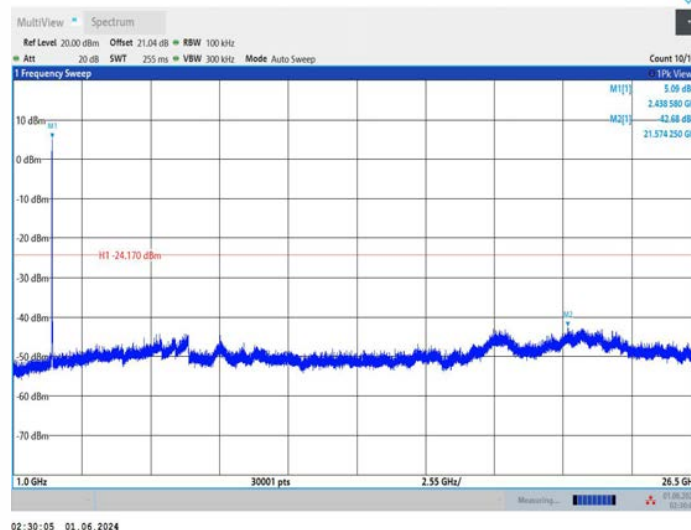
11B_Ant2_2437_0~Reference



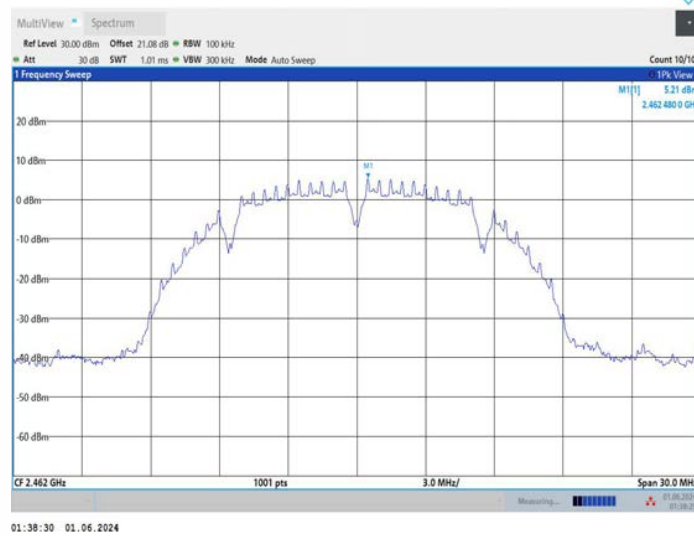
11B_Ant2_2437_30~1000



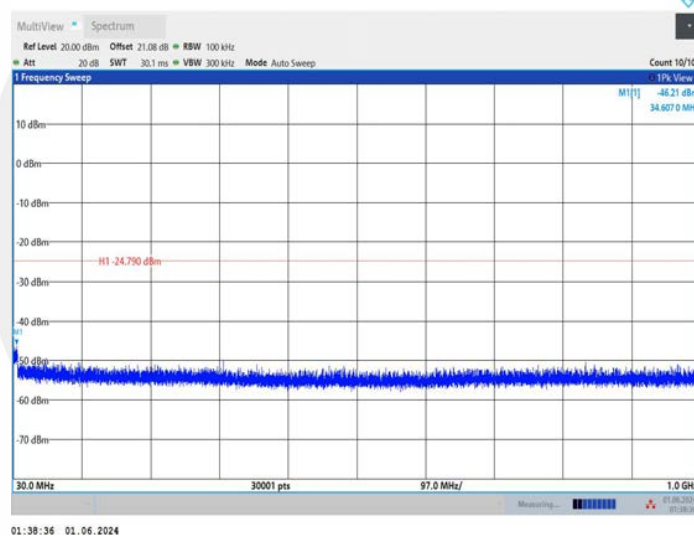
11B_Ant2_2437_1000~26500



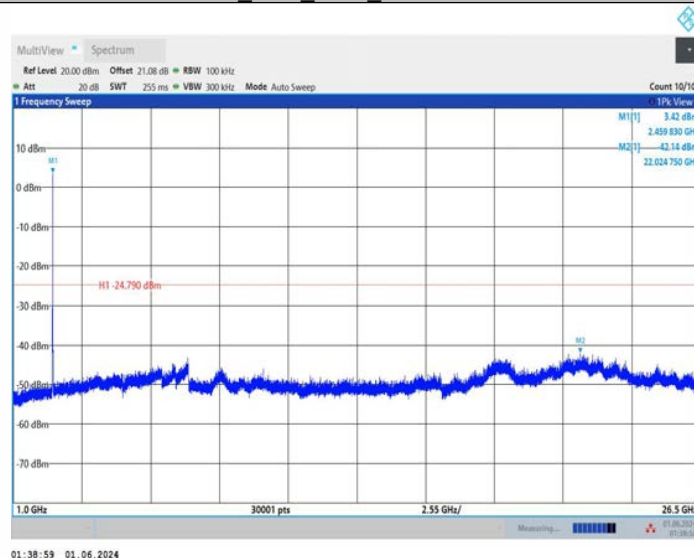
11B_Ant1_2462_0~Reference



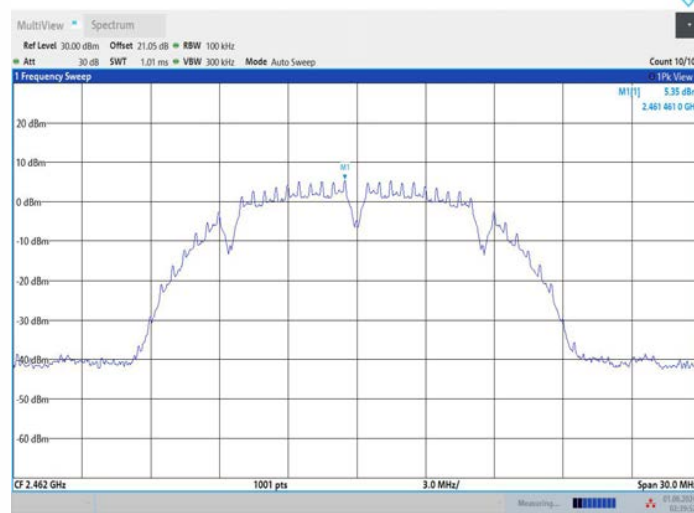
11B_Ant1_2462_30~1000



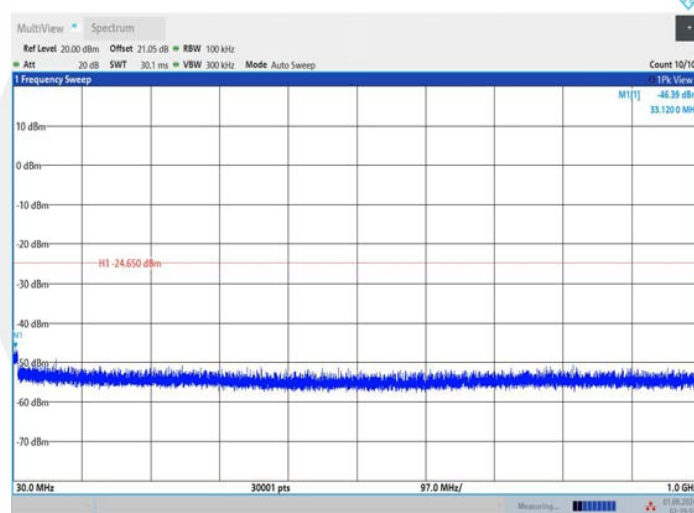
11B_Ant1_2462_1000~26500



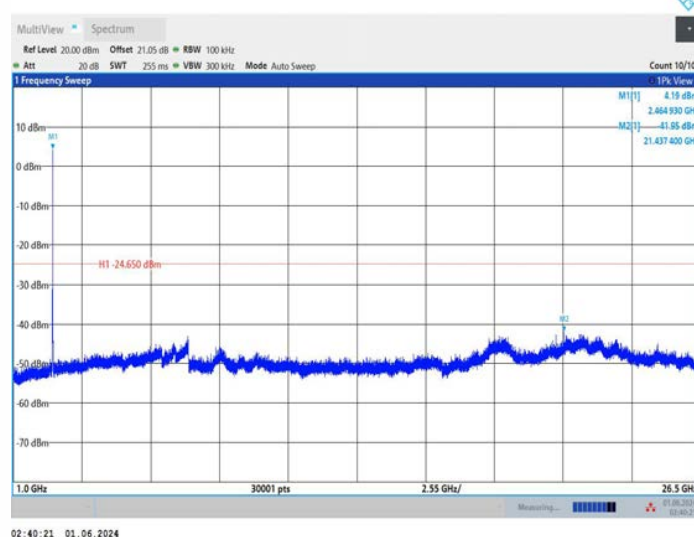
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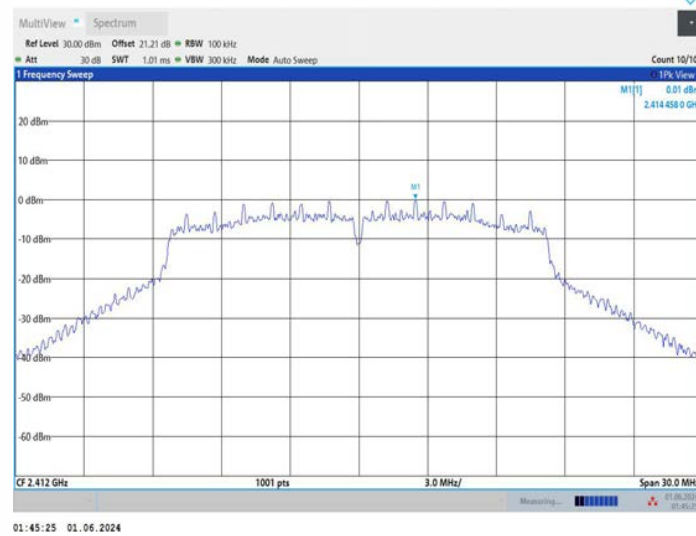
11B_Ant2_2462_30~1000



11B_Ant2_2462_1000~26500

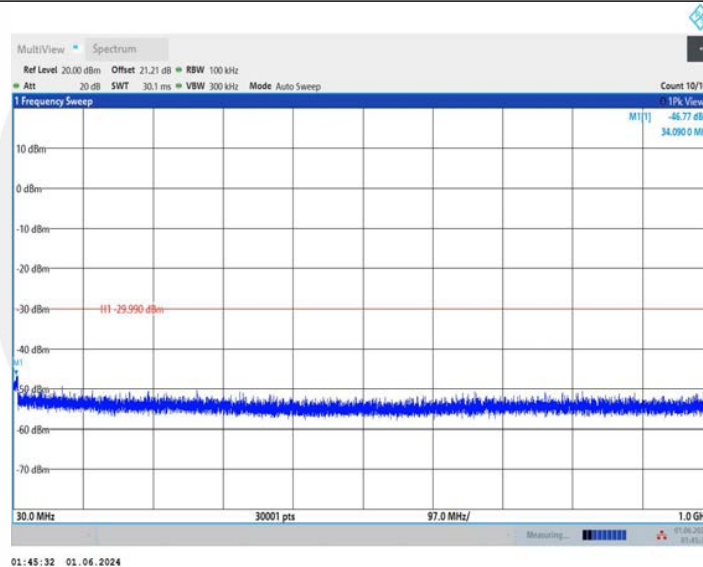


11G_Ant1_2412_0~Reference



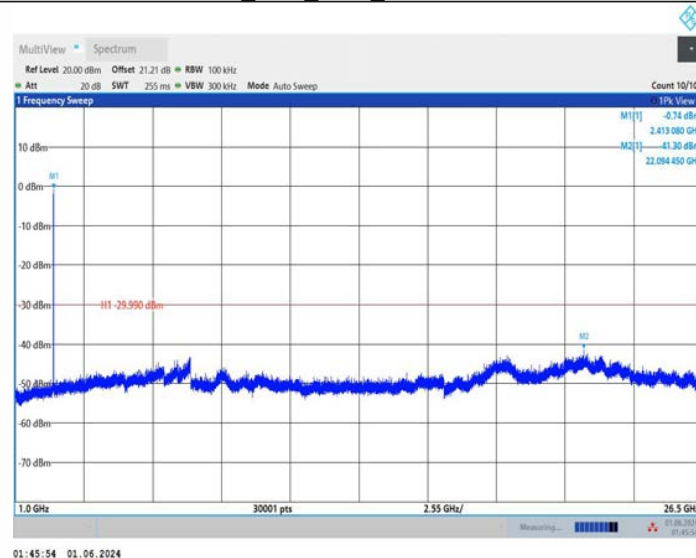
01:45:25 01.06.2024

11G_Ant1_2412_30~1000



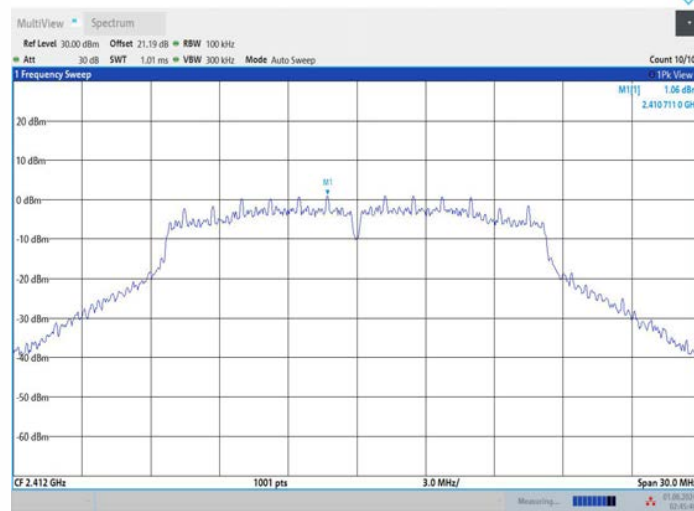
01:45:32 01.06.2024

11G_Ant1_2412_1000~26500

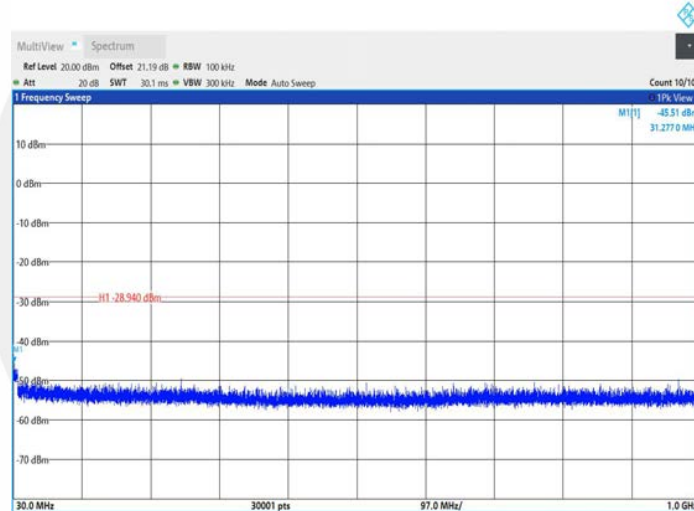


01:45:54 01.06.2024

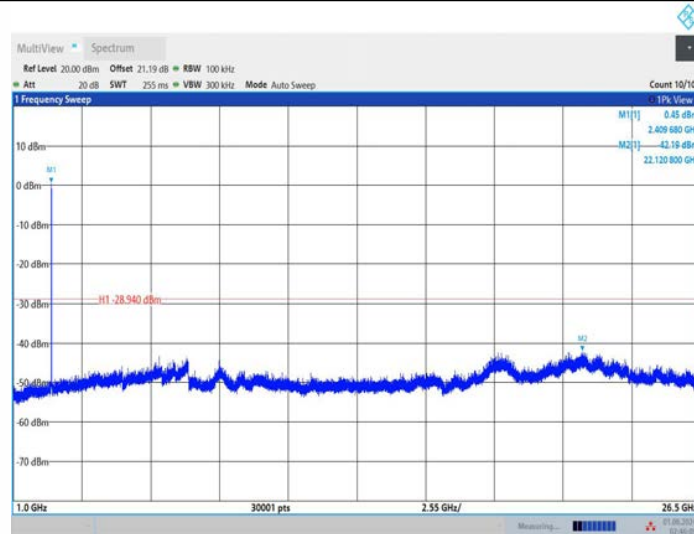
11G_Ant2_2412_0~Reference



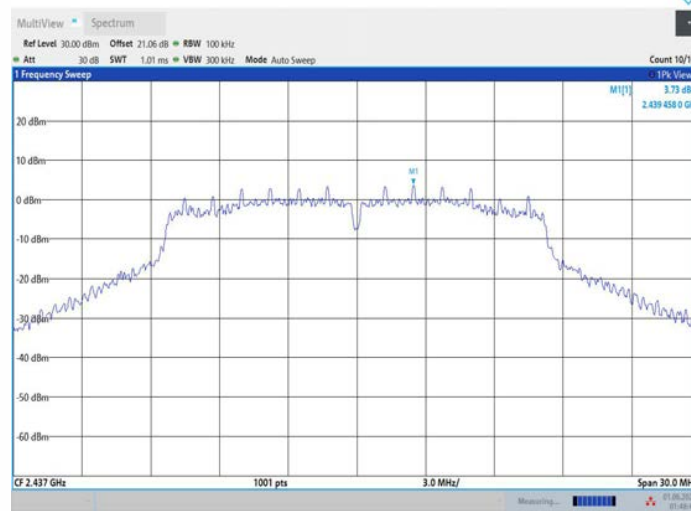
11G_Ant2_2412_30~1000



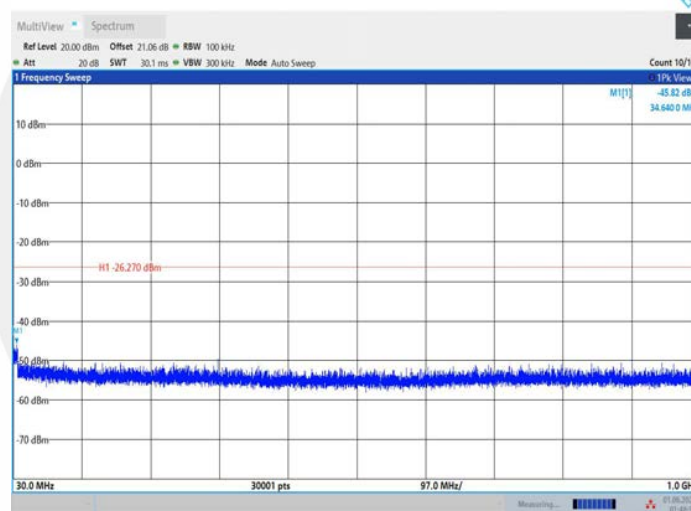
11G_Ant2_2412_1000~26500



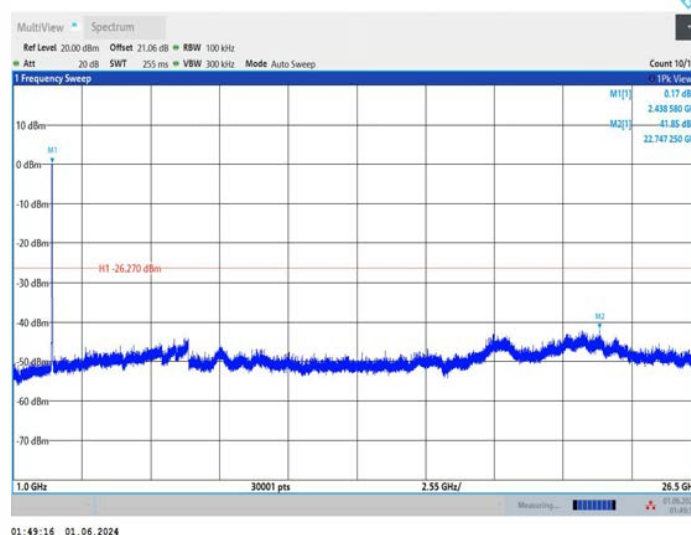
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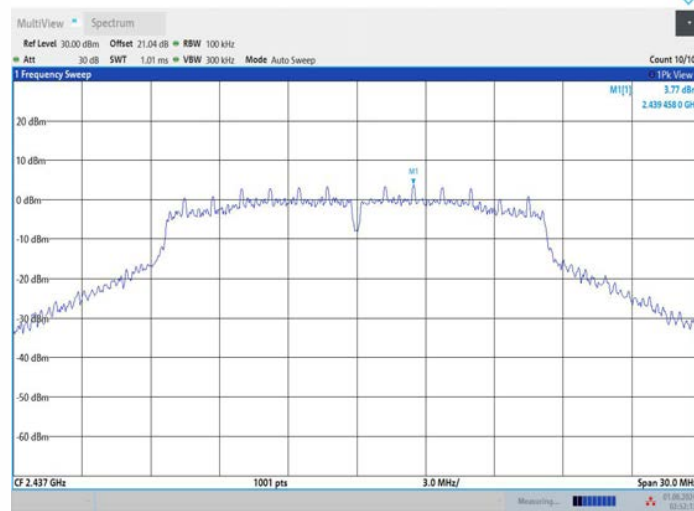
11G_Ant1_2437_30~1000



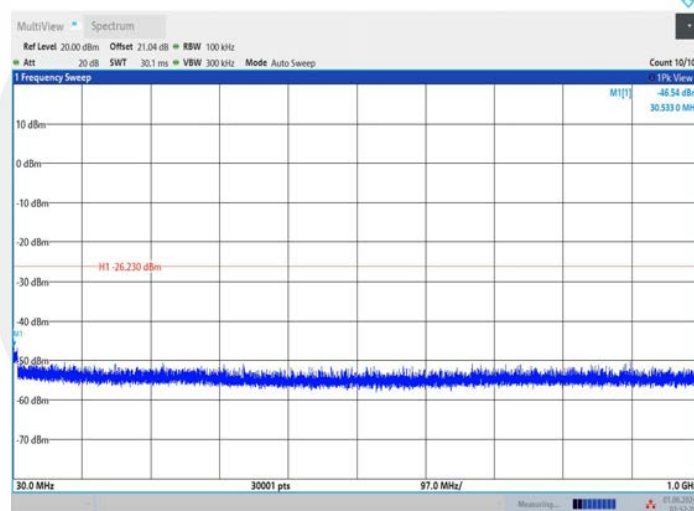
11G_Ant1_2437_1000~26500



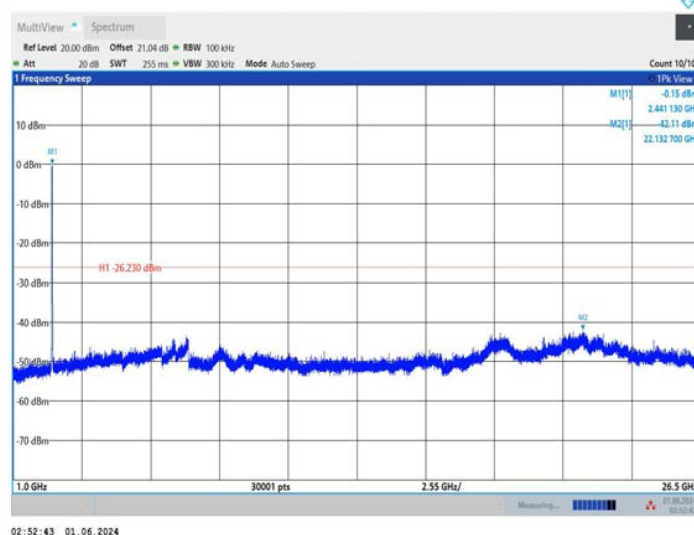
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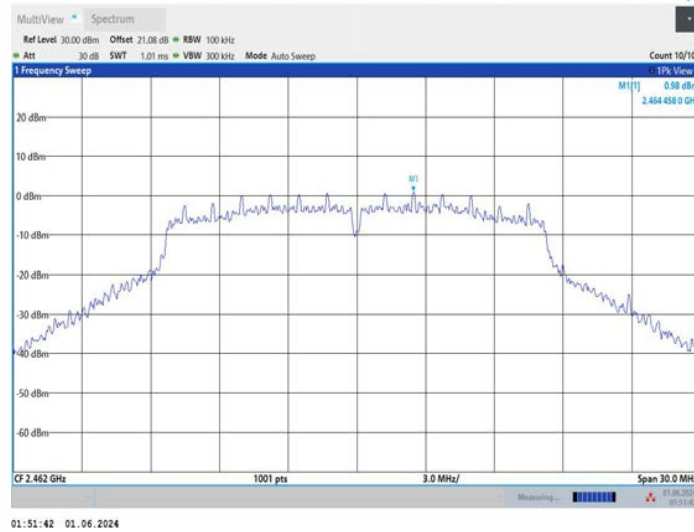
11G_Ant2_2437_30~1000



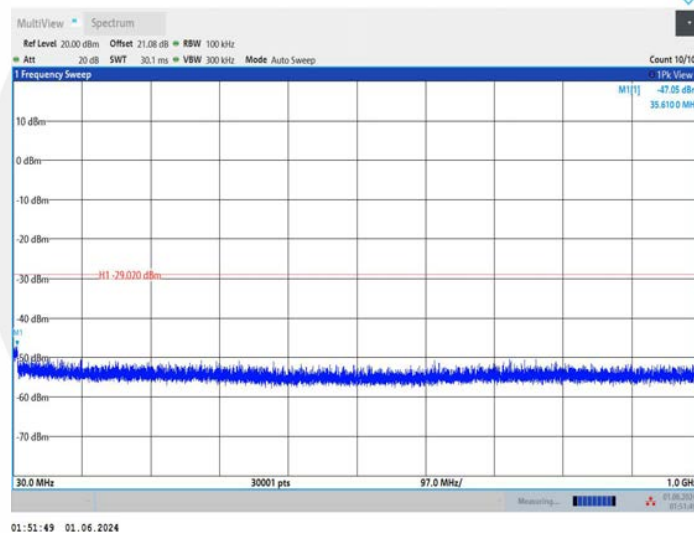
11G_Ant2_2437_1000~26500



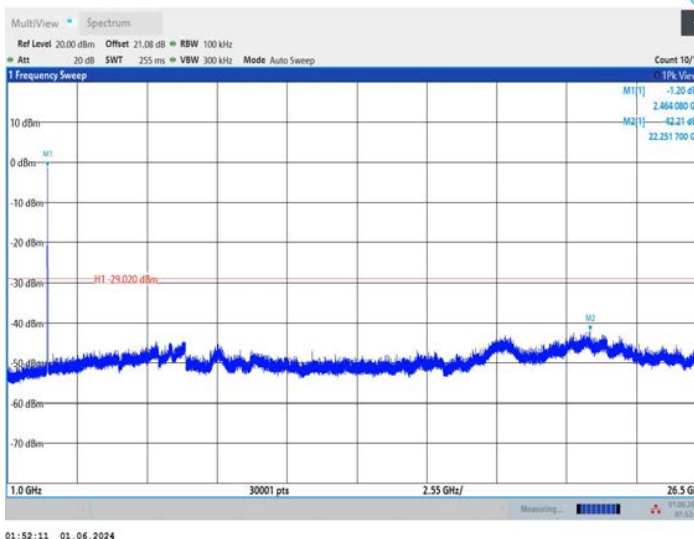
11G_Ant1_2462_0~Reference



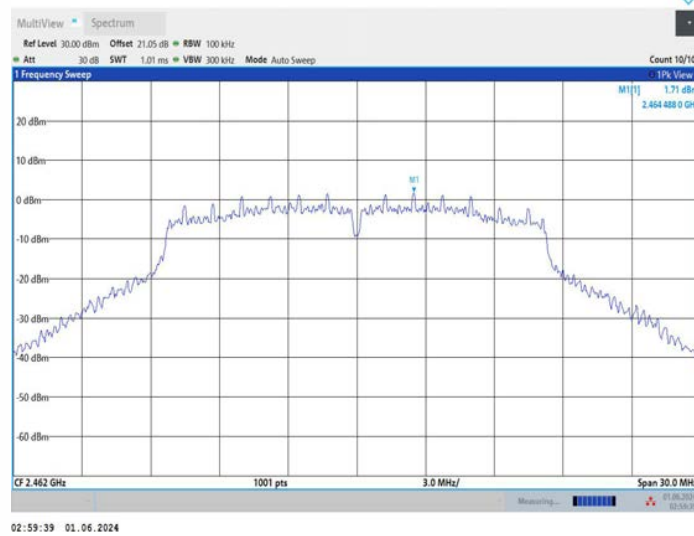
11G_Ant1_2462_30~1000



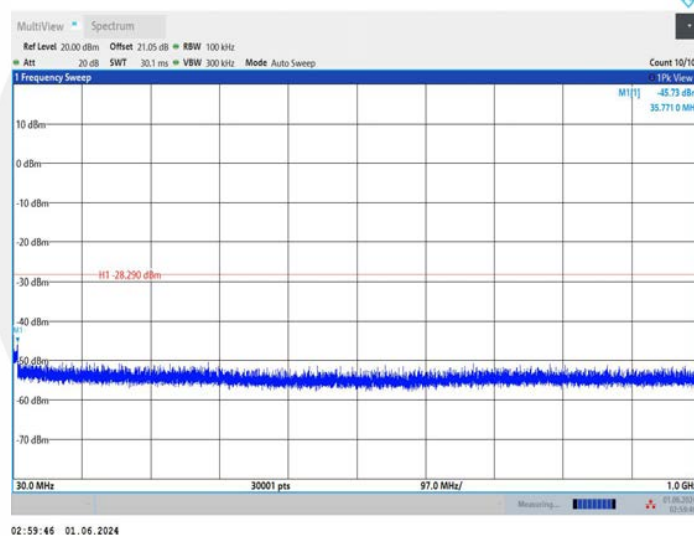
11G_Ant1_2462_1000~26500



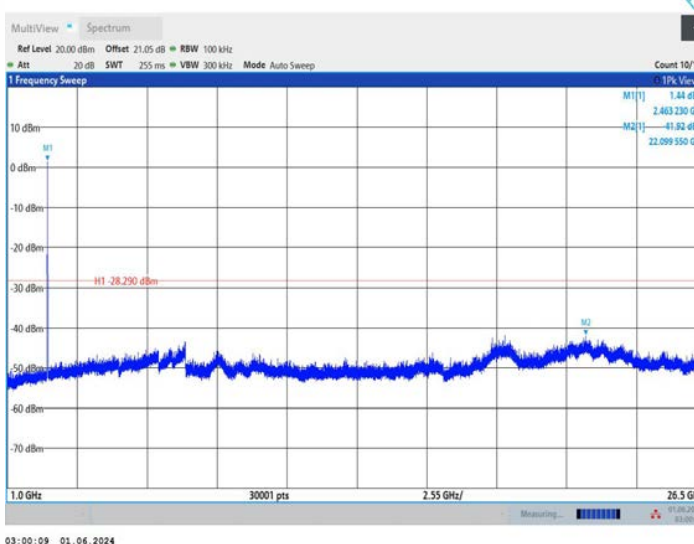
11G_Ant2_2462_0~Reference



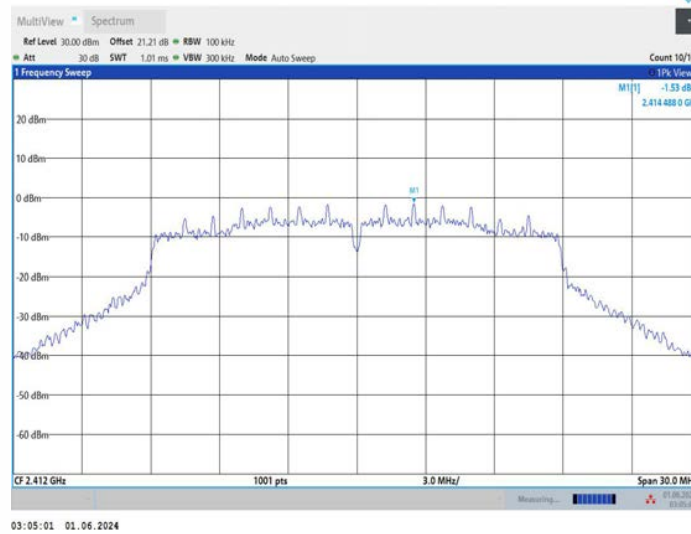
11G_Ant2_2462_30~1000



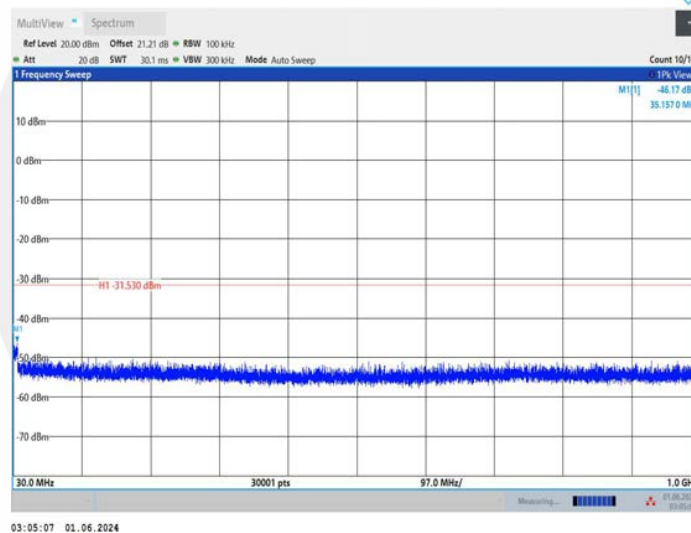
11G_Ant2_2462_1000~26500



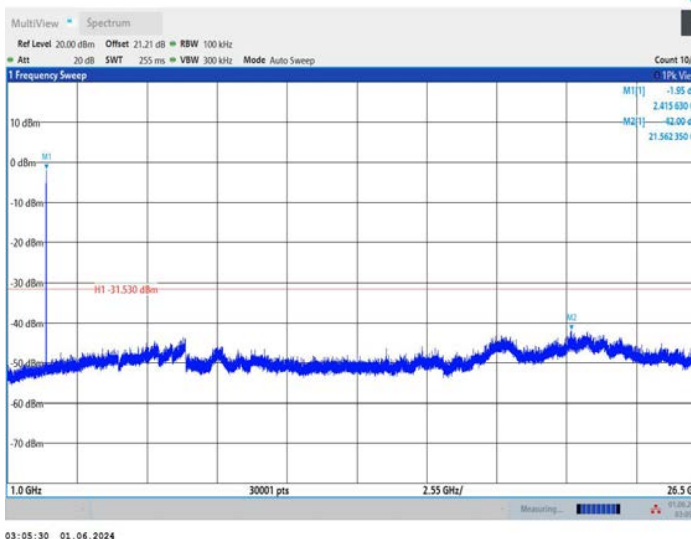
11N20MIMO_Ant1_2412_0~Reference



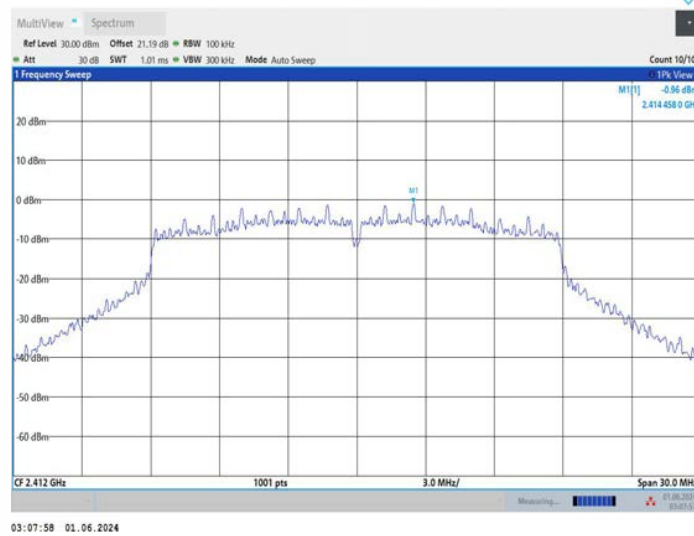
11N20MIMO_Ant1_2412_30~1000



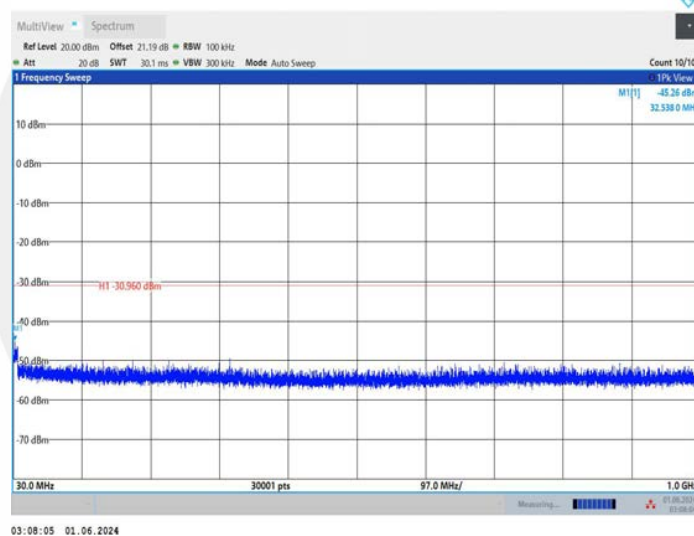
11N20MIMO_Ant1_2412_1000~26500



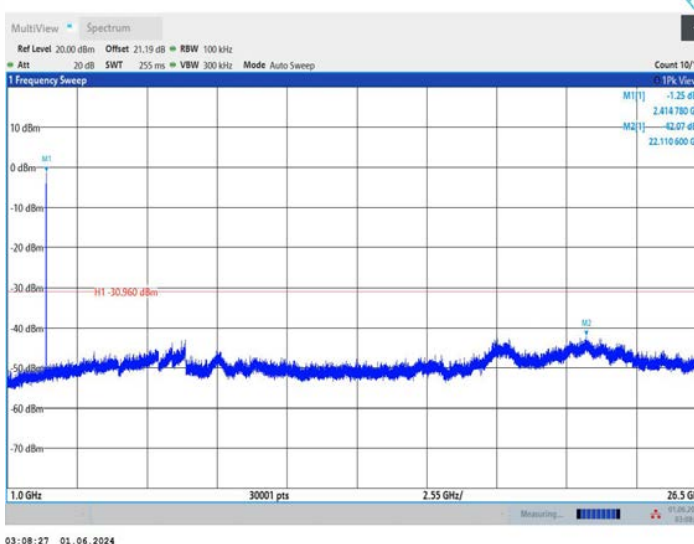
11N20MIMO_Ant2_2412_0~Reference



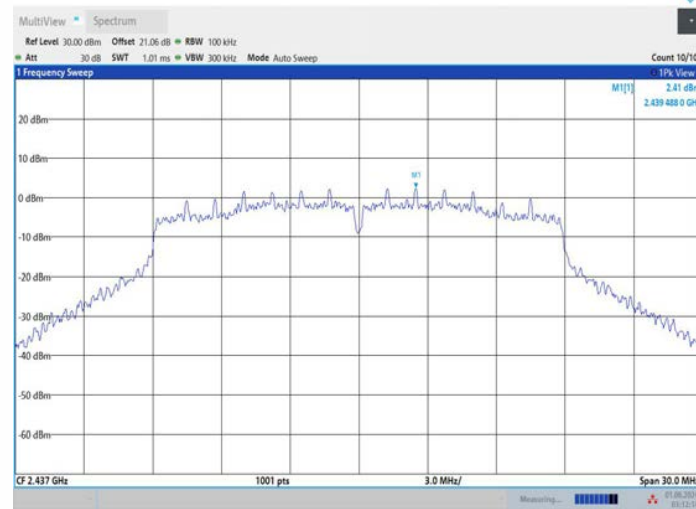
11N20MIMO_Ant2_2412_30~1000



11N20MIMO_Ant2_2412_1000~26500

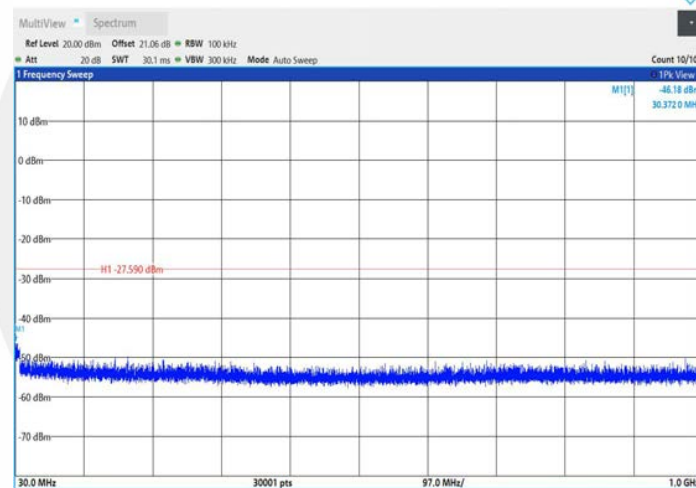


11N20MIMO_Ant1_2437_0~Reference



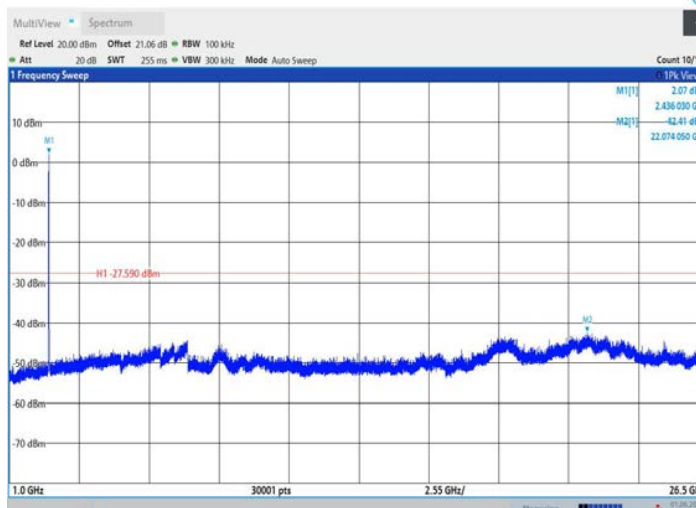
03:12:15 01.06.2024

11N20MIMO_Ant1_2437_30~1000



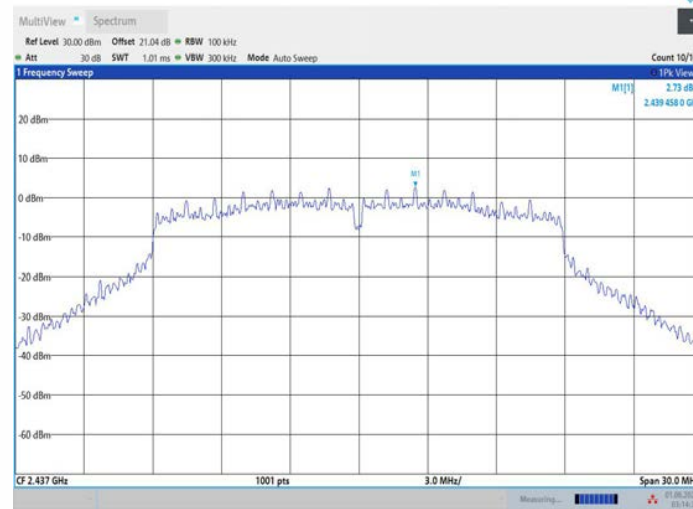
03:12:22 01.06.2024

11N20MIMO_Ant1_2437_1000~26500



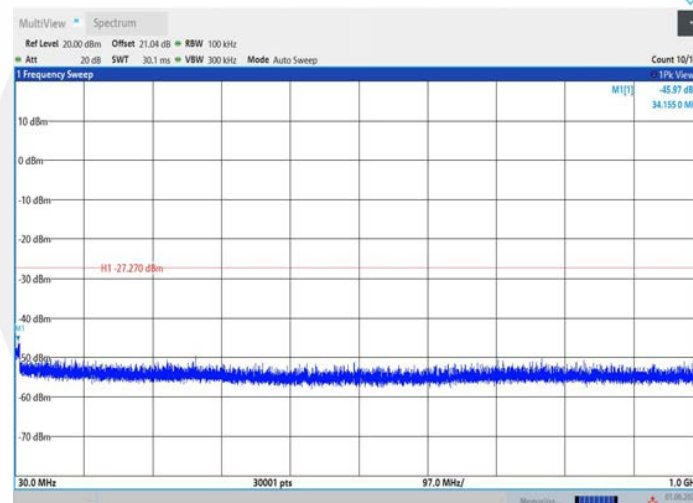
03:12:44 01.06.2024

11N20MIMO_Ant2_2437_0~Reference



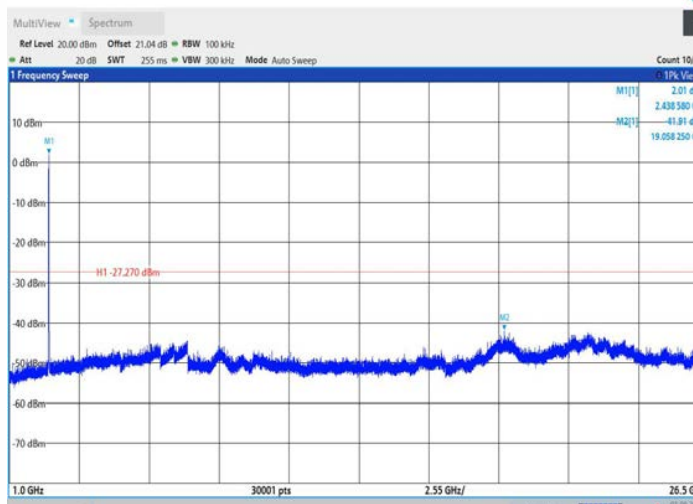
03:14:36 01.06.2024

11N20MIMO_Ant2_2437_30~1000



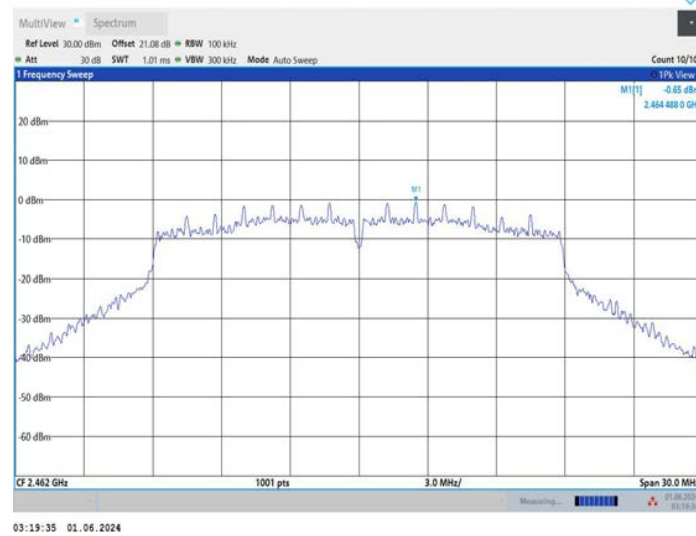
03:14:43 01.06.2024

11N20MIMO_Ant2_2437_1000~26500

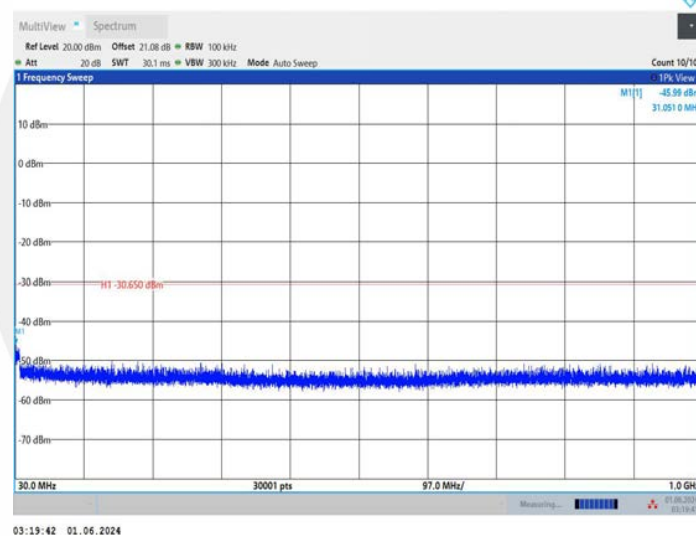


03:15:05 01.06.2024

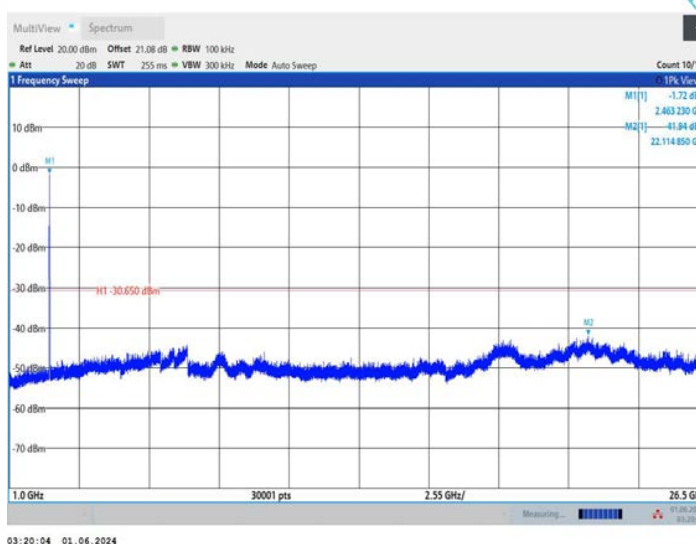
11N20MIMO_Ant1_2462_0~Reference



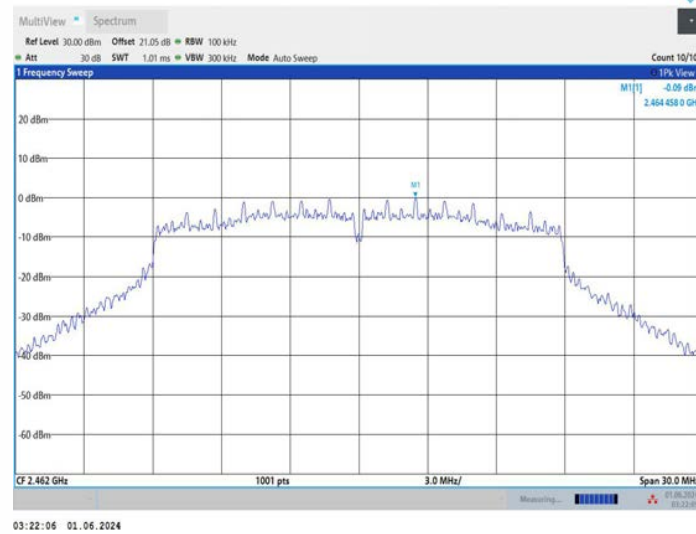
11N20MIMO_Ant1_2462_30~1000



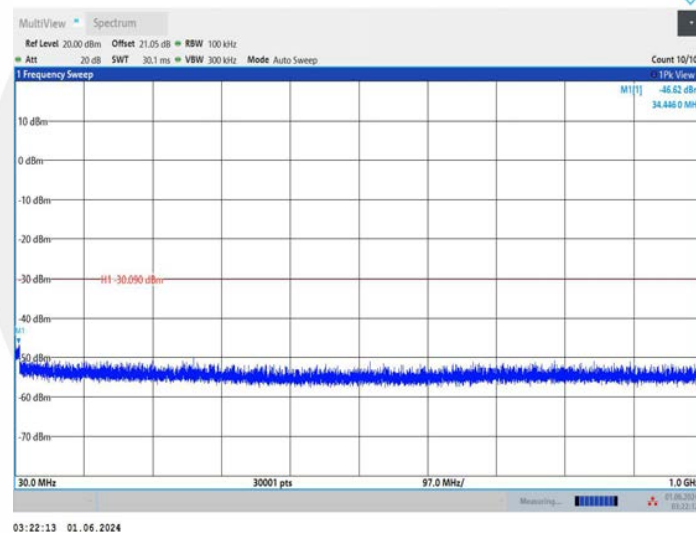
11N20MIMO_Ant1_2462_1000~26500



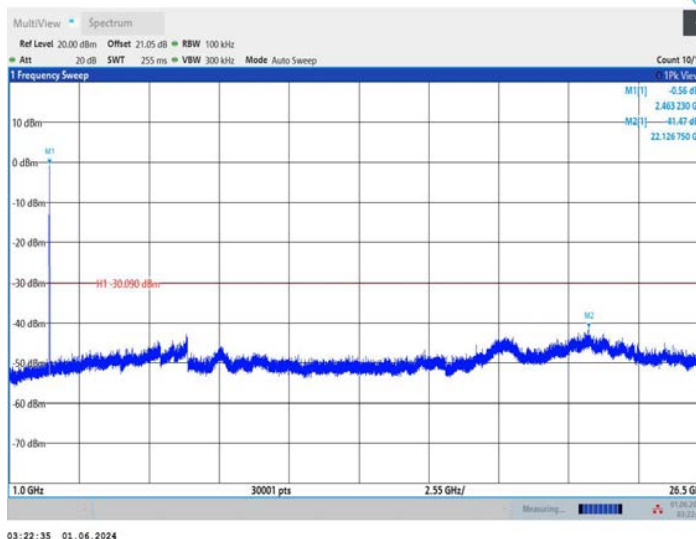
11N20MIMO_Ant2_2462_0~Reference



11N20MIMO_Ant2_2462_30~1000



11N20MIMO_Ant2_2462_1000~26500



The screenshot displays a Spectrum Analyzer interface with the following details:

- Top Bar:** MultiView, Spectrum
- Parameters:**
 - Ref Level: 30.00 dBm
 - Offset: 21.10 dB
 - RBW: 100 kHz
 - Att: 30 dB
 - SWT: 1.01 ms
 - VBW: 300 kHz
 - Mode: Auto Sweep
- Plot Area:**
 - Y-axis: Power in dBm, ranging from -60 to 20.
 - X-axis: Frequency in GHz, ranging from 2.422 to 2.428.
 - Signal: A noisy signal with a prominent notch at approximately 2.417 GHz.
 - Grid: A 10x10 grid is visible.
- Right Panel:**
 - Count: 10/10
 - 1Pk View
 - M1[1]: -5.40 dBm
 - 2.417 025 0 GHz
- Bottom Bar:**
 - CF: 2.422 GHz
 - 1001 pts
 - 6.0 MHz/
 - Span: 60.0 MHz
 - Measuring... (Progress bar)
 - 01:00:20

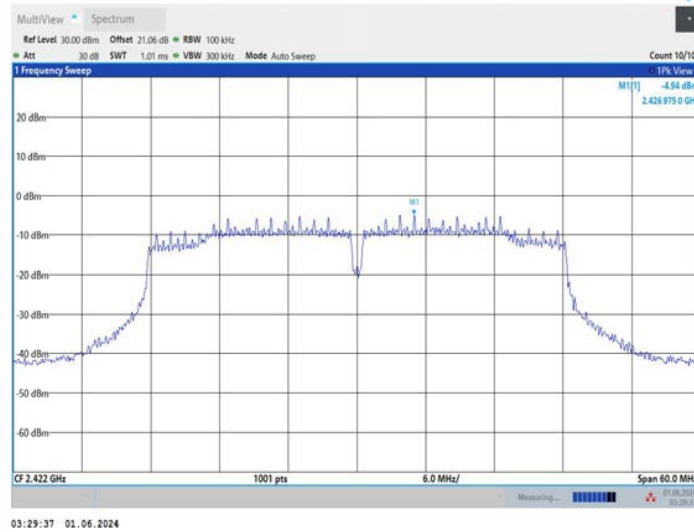
The screenshot displays the Spectrum Analyzer window in Keysight ADS. The main plot area shows a noisy signal with a peak at 35.400 dBm. The x-axis represents frequency from 1.0 GHz to 26.5 GHz, and the y-axis represents power in dBm from -80 dBm to 10 dBm. The top status bar indicates the 'MultiView' and 'Spectrum' tabs. The bottom status bar shows '30001 pts' and '2.55 GHz'.

Key parameters visible in the interface include:

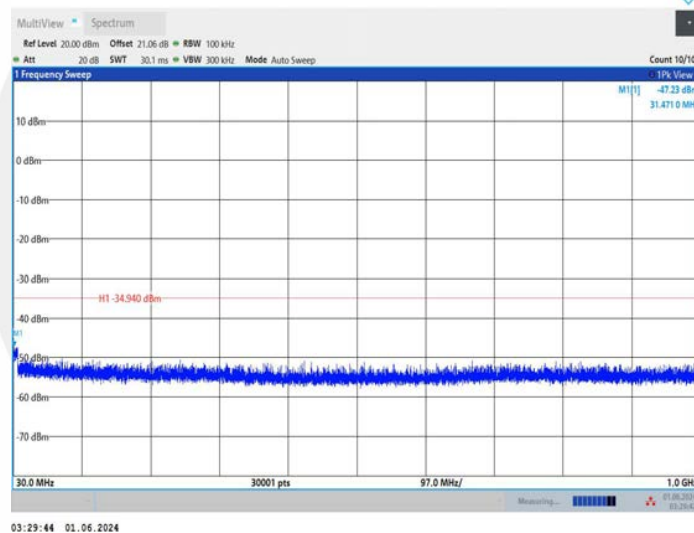
- Ref Level:** 20.00 dBm
- Offset:** 21.10 dB
- RBW:** 100 kHz
- SWT:** 255 ms
- VBW:** 300 kHz
- Mode:** Auto Sweep
- Count:** 10/10
- 1% View:** -6.08 dBm
- M1:** 2.414 780 GHz
- M2:** 21.548 750 GHz

Ver.1.0

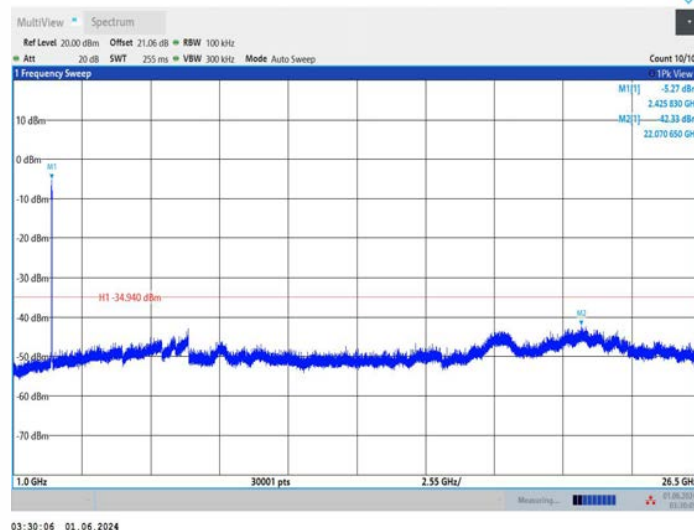
11N40MIMO_Ant2_2422_0~Reference



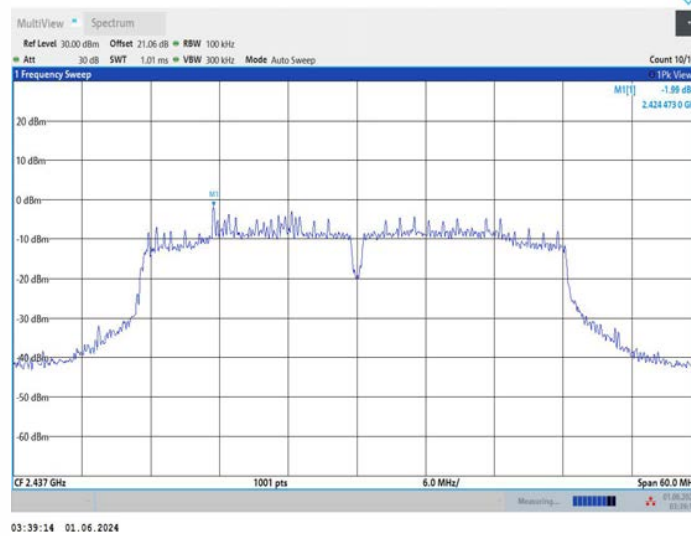
11N40MIMO_Ant2_2422_30~1000



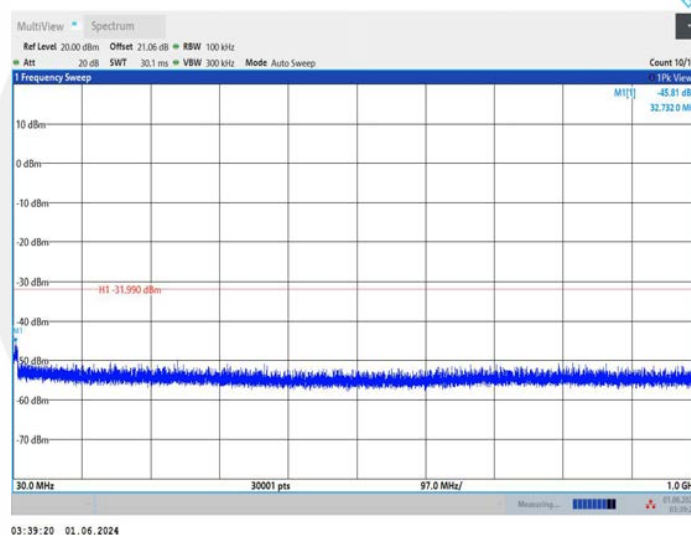
11N40MIMO_Ant2_2422_1000~26500



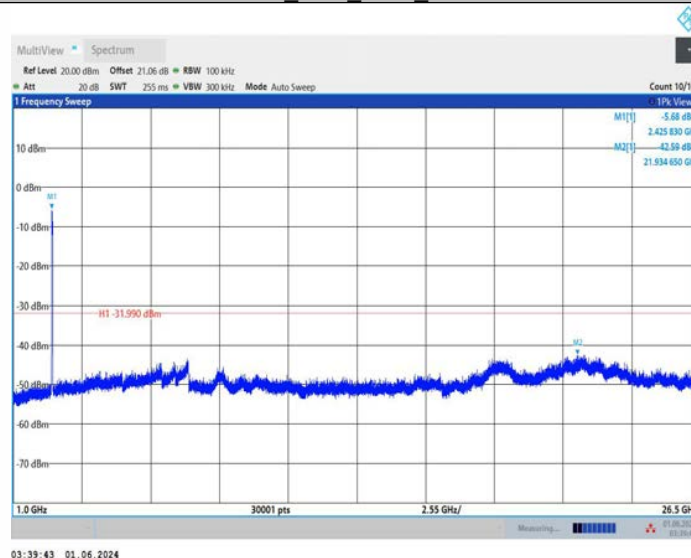
11N40MIMO_Ant1_2437_0~Reference



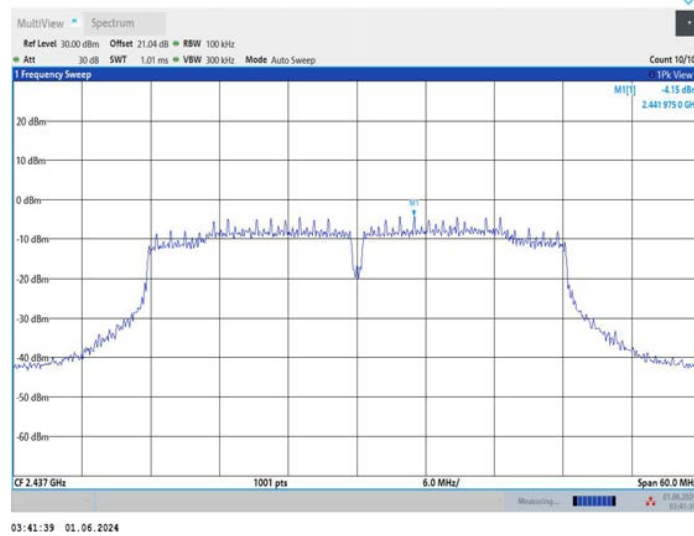
11N40MIMO_Ant1_2437_30~1000



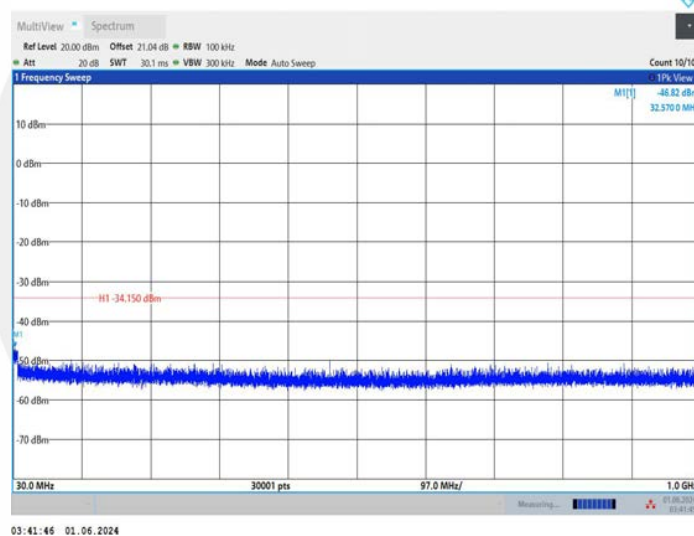
11N40MIMO_Ant1_2437_1000~26500



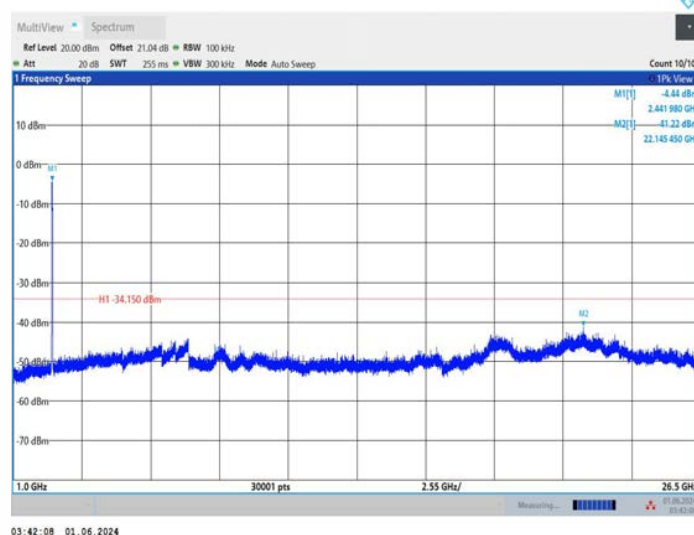
11N40MIMO_Ant2_2437_0~Reference



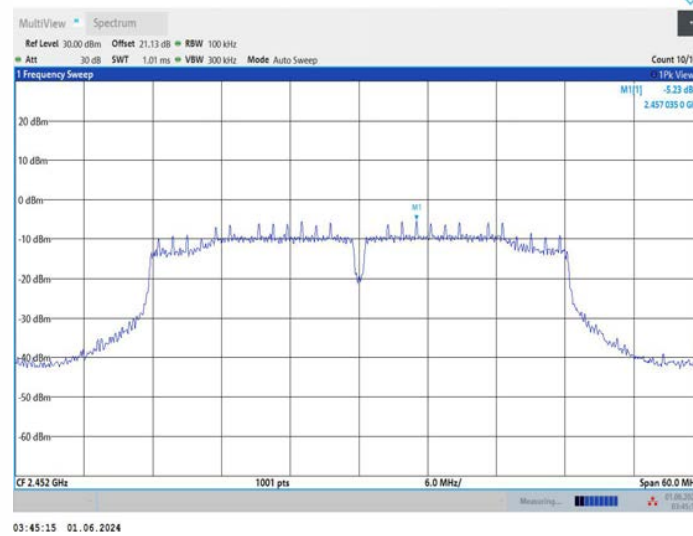
11N40MIMO_Ant2_2437_30~1000



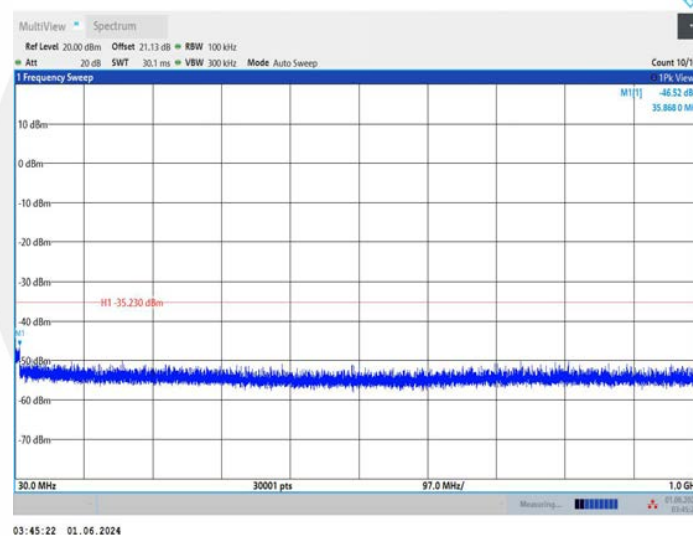
11N40MIMO_Ant2_2437_1000~26500



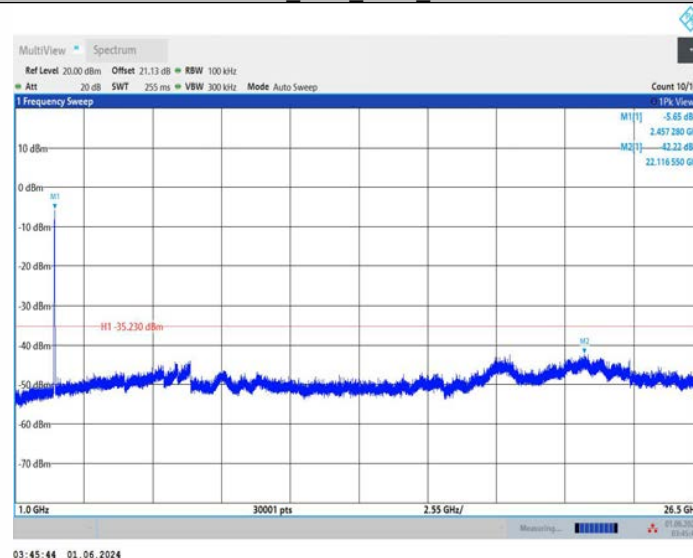
11N40MIMO_Ant1_2452_0~Reference



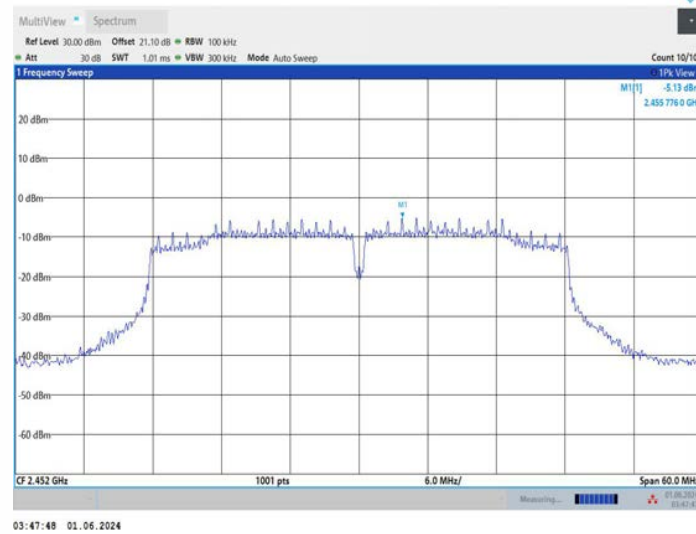
11N40MIMO_Ant1_2452_30~1000



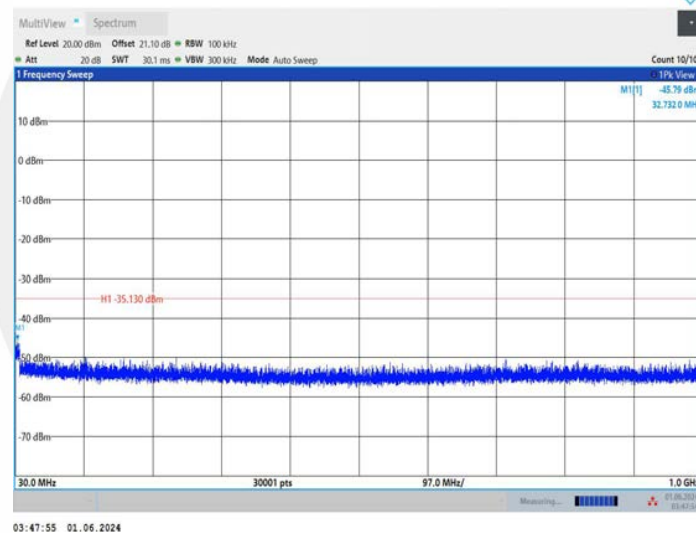
11N40MIMO_Ant1_2452_1000~26500



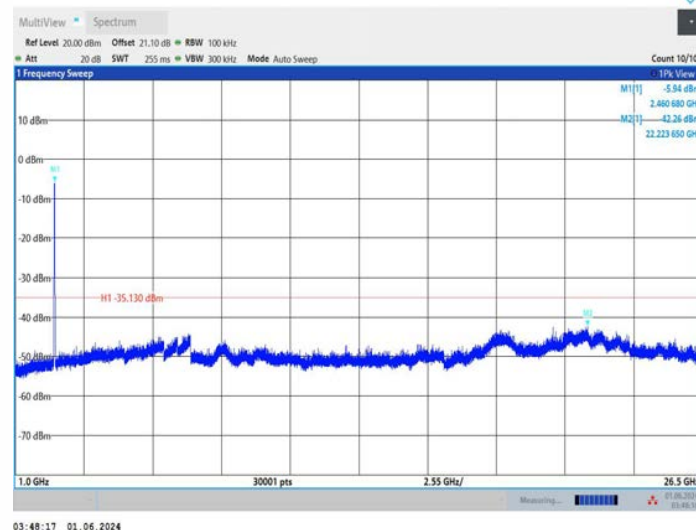
11N40MIMO_Ant2_2452_0~Reference



11N40MIMO_Ant2_2452_30~1000



11N40MIMO_Ant2_2452_1000~26500



8.7 RADIATED SPURIOUS EMISSION

8.7.1 Applicable Standard

According to FCC Part 15.247(d), 15.205, 15.209

According to RSS-Gen and RSS-247

According to 558074 D01 15.247 Meas Guidance v05r02 Section 8.6

According to ANSI C63.10 Section 11.12

8.7.2 Conformance Limit

According to FCC Part 15.247(d): 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)).

According to FCC Part 15.205, Restricted bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

According to FCC Part 15.205 the level of any transmitter spurious emission in Restricted bands shall not exceed the level of the emission specified in the following table

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log (uV/m)	300
0.490-1.705	24000/F(KHz)	20 log (uV/m)	30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

8.7.3 Test Configuration

Test according to clause 7.2 radio frequency test setup

8.7.4 Test Procedure

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

For Above 1GHz:

The EUT was placed on a turn table which is 1.5m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz

VBW ≥ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For average measurements the resolution bandwidth of spectrum analyzer is 1 MHz with the video bandwidth is $\geq 1/T$ with peak detector.

For Below 1GHz:

The EUT was placed on a turn table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 100 kHz for

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For Below 30MHz:

The EUT was placed on a turn table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 9kHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For Below 150KHz:

The EUT was placed on a turn table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Span = wide enough to fully capture the emission being measured

RBW = 200Hz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Follow the guidelines in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit. Submit this data.

8.7.5 Test Results

Temperature:	25° C
Relative Humidity:	60%
ATM Pressure:	1011 mbar
Test Engineer:	CZF

■ Spurious Emission below 30MHz(9KHz to 30MHz)

For Spurious Emission below 30MHz (9KHz to 30MHz), was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

■ Spurious Emission Above 1GHz(1GHz to 25GHz)

All the antenna(Antenna 1&2) and modes(802.11b/g/n) have been tested and the worst(Antenna 1&2, 802.11b) result recorded was report as below:

Test mode:		802.11b		Frequency:		Channel 1: 2412MHz	
Freq. (MHz)	Ant.Pol.	Reading Level (dBuV/m)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Remark
9708.75	V	58.34	-0.73	57.61	74.00	16.39	Peak
11508.7	V	56.8	3.64	60.44	74.00	13.56	Peak
17971.8	V	57.27	10.44	67.71	74.00	6.29	Peak
9708.75	V	39.26	-0.73	38.53	54.00	15.47	Avg
11508.75	V	35.01	3.64	38.65	54.00	15.35	Avg
17971.87	V	33.74	10.44	44.18	54.00	9.82	Avg
10085.6	H	56.73	1.13	57.86	74.00	16.14	Peak
13153.1	H	55.14	6.27	61.41	74.00	12.59	Peak
17968.1	H	57.44	10.32	67.76	74.00	6.24	Peak
10085.62	H	39.23	1.13	40.36	54.00	13.64	Avg
13153.12	H	35.28	6.27	41.55	54.00	12.45	Avg
17968.12	H	33.81	10.32	44.13	54.00	9.87	Avg
Note: (1) Peak RBW = 1 MHz, VBW $\geq 3 \times$ RBW, Detector = Peak; (2) Avg RBW = 1 MHz, VBW = $1/T_{on}$, Detector = Peak, where: T_{on} is transmit duration; (3) Corrected Reading = Reading Level + Correct Factor; (4) Correct Factor = Ant_F + Cab_L - Preamp; (5) Margin = Limit - Corrected Reading;							

Test mode:		802.11b		Frequency:		Channel 6: 2437MHz	
Freq. (MHz)	Ant.Pol.	Reading Level (dBuV/m)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Remark
9264.37	V	57.34	-0.27	57.07	74.00	16.93	Peak
11501.2	V	57.01	3.80	60.81	74.00	13.19	Peak
17038.1	V	55.61	10.18	65.79	74.00	8.21	Peak
9264.375	V	39.04	-0.27	38.77	54.00	15.23	Avg
11501.25	V	35.18	3.80	38.98	54.00	15.02	Avg
17038.12	V	33.22	10.18	43.40	54.00	10.60	Avg
9230.62	H	57.41	-0.51	56.90	74.00	17.10	Peak
13164.3	H	54.89	6.44	61.33	74.00	12.67	Peak
17934.3	H	55.73	9.26	64.99	74.00	9.01	Peak
9230.625	H	39.31	-0.51	38.80	54.00	15.20	Avg
13164.37	H	35.18	6.44	41.62	54.00	12.38	Avg
17934.37	H	33.2	9.26	42.46	54.00	11.54	Avg
Note: (1) Peak RBW = 1 MHz, VBW $\geq 3 \times$ RBW, Detector = Peak; (2) Avg RBW = 1 MHz, VBW = $1/T_{on}$, Detector = Peak, where: T_{on} is transmit duration; (3) Corrected Reading = Reading Level + Correct Factor; (4) Correct Factor = Ant_F + Cab_L - Preamp; (5) Margin = Limit - Corrected Reading;							

Test mode: 802.11b Frequency: Channel 11: 2462MHz

Freq. (MHz)	Ant.Pol.	Reading Level (dBuV/m)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Remark
9238.12	V	57.00	-0.45	56.55	74.00	17.45	Peak
11497.5	V	56.54	3.79	60.33	74.00	13.67	Avg
17958.7	V	57.32	10.02	67.34	74.00	6.66	Peak
9238.125	V	39.34	-0.45	38.89	54.00	15.11	Avg
11497.5	V	35.16	3.79	38.95	54.00	15.05	Peak
17958.75	V	33.49	10.02	43.51	54.00	10.49	Avg
8705.62	H	58.35	-2.56	55.79	74.00	18.21	Avg
11514.3	H	56.52	3.53	60.05	74.00	13.95	Peak
17632.5	H	56.09	11.83	67.92	74.00	6.08	Avg
8705.625	H	39.35	-2.56	36.79	54.00	17.21	Peak
11514.37	H	35.18	3.53	38.71	54.00	15.29	Avg
17632.5	H	33.84	11.83	45.67	54.00	8.33	Peak

Note:

- (1) Peak RBW = 1 MHz, VBW $\geq 3 \times$ RBW, Detector = Peak;
- (2) Avg RBW = 1 MHz, VBW = $1/T_{on}$, Detector = Peak, where: T_{on} is transmit duration;
- (3) Corrected Reading = Reading Level + Correct Factor;
- (4) Correct Factor = Ant_F + Cab_L - Preamp;
- (5) Margin = Limit - Corrected Reading;

■ Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz

All the antenna(Antenna 1&2) and modes(802.11b/g/n) have been tested and the worst(Antenna 1&2, 802.11n(HT20)) result recorded was report as below:

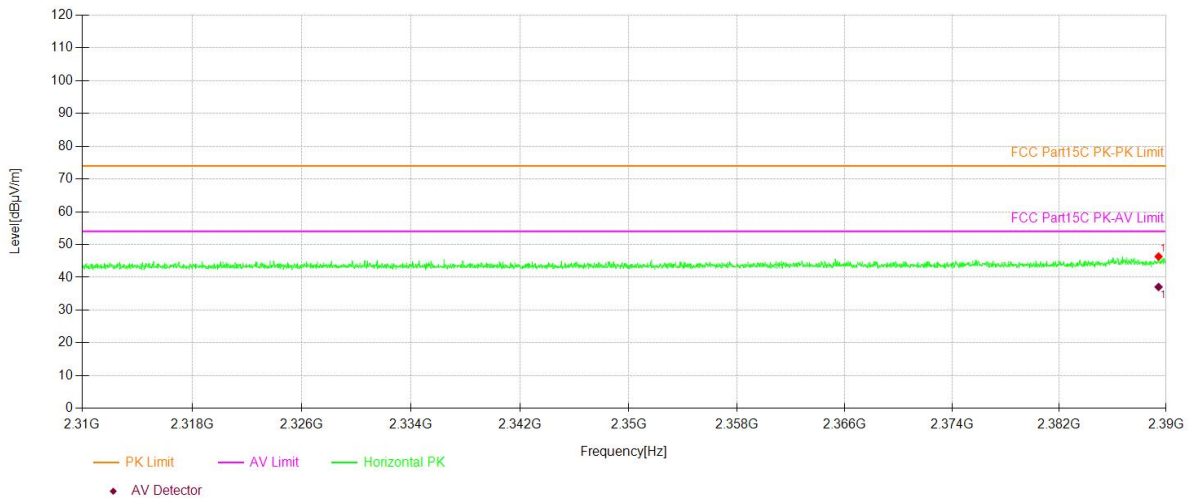
Test mode: 802.11n(HT20) Frequency: Channel 1: 2412MHz

Freq. (MHz)	Ant.Pol.	Reading Level (dBuV/m)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Remark
2390	V	14.68	30.78	45.46	74.00	28.54	Peak
2390	V	6.18	30.78	36.96	54.00	17.04	Avg
2389.43	H	15.56	30.78	46.34	74.00	27.66	Peak
2389.43	H	6.28	30.78	37.06	54.00	16.94	Avg
Note: (1) Peak RBW = 1 MHz, VBW $\geq 3 \times$ RBW, Detector = Peak; (2) Avg RBW = 1 MHz, VBW $\geq 3 \times$ RBW, Detector = RMS; (3) Corrected Reading = Reading Level + Correct Factor; (4) Correct Factor = Ant_F + Cab_L - Preamp; (5) Margin = Limit - Corrected Reading;							

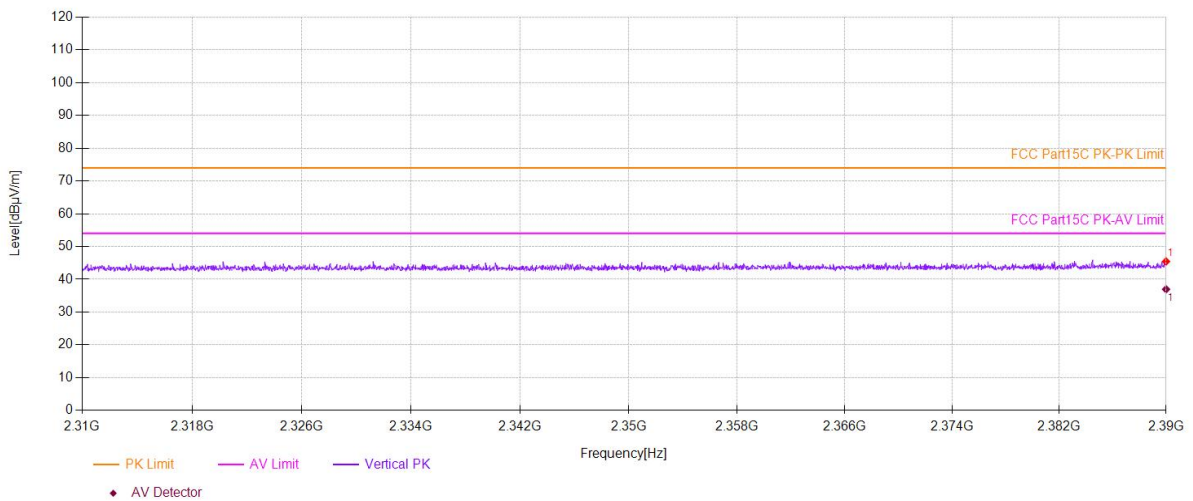
Test mode: 802.11n(HT20) Frequency: Channel 11: 2462MHz

Freq. (MHz)	Ant.Pol.	Reading Level (dBuV/m)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit 3m (dBuV/m)	Margin (dB)	Remark
2483.68	V	15.74	31.04	46.78	74.00	27.22	Peak
2483.68	V	6.23	31.04	37.27	54.00	16.73	Avg
2483.79	H	14.91	31.05	45.96	74.00	28.04	Peak
2483.79	H	6.18	31.05	37.23	54.00	16.77	Avg
Note: (1) Peak RBW = 1 MHz, VBW $\geq 3 \times$ RBW, Detector = Peak; (2) Avg RBW = 1 MHz, VBW = $1/T_{on}$, Detector = Peak, where: T_{on} is transmit duration; (3) Corrected Reading = Reading Level + Correct Factor; (4) Correct Factor = Ant_F + Cab_L - Preamp; (5) Margin = Limit - Corrected Reading;							

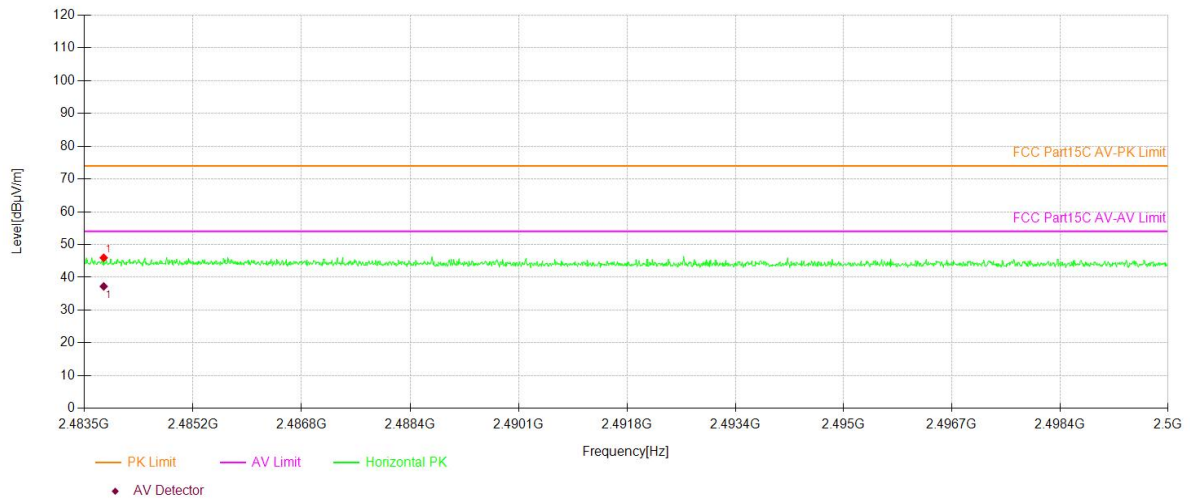
Test Model **Spurious Emission in Restricted Band 2310-2390MHz**
802.11n(HT20) **Channel 1: 2412MHz** **Polarity: H**



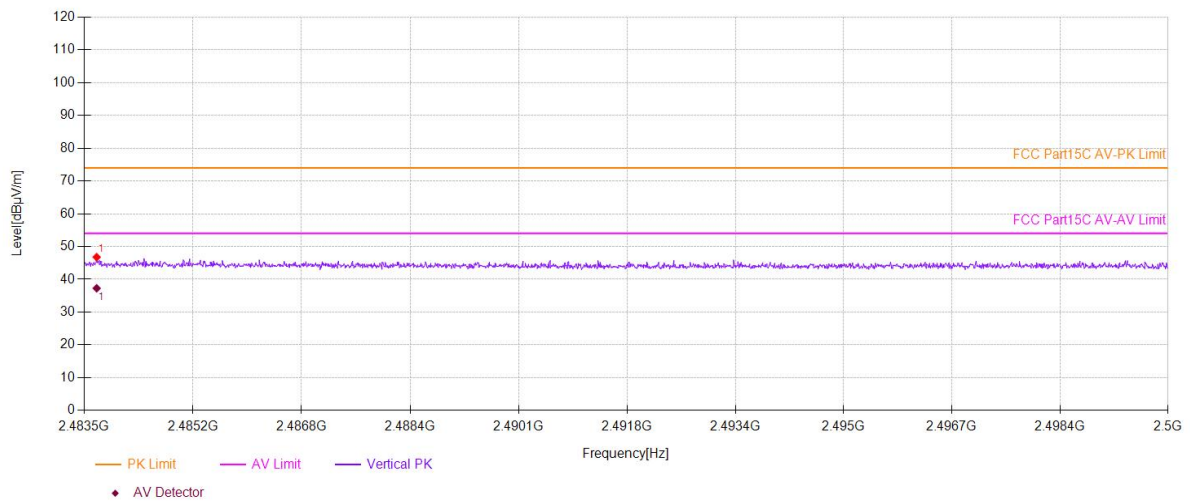
Test Model **Spurious Emission in Restricted Band 2310-2390MHz**
802.11n(HT20) **Channel 1: 2412MHz** **Polarity: V**



Test Model 802.11n(HT20) Spurious Emission in Restricted Band 2483.5-2500MHz
Channel 11: 2462MHz Polarity: H



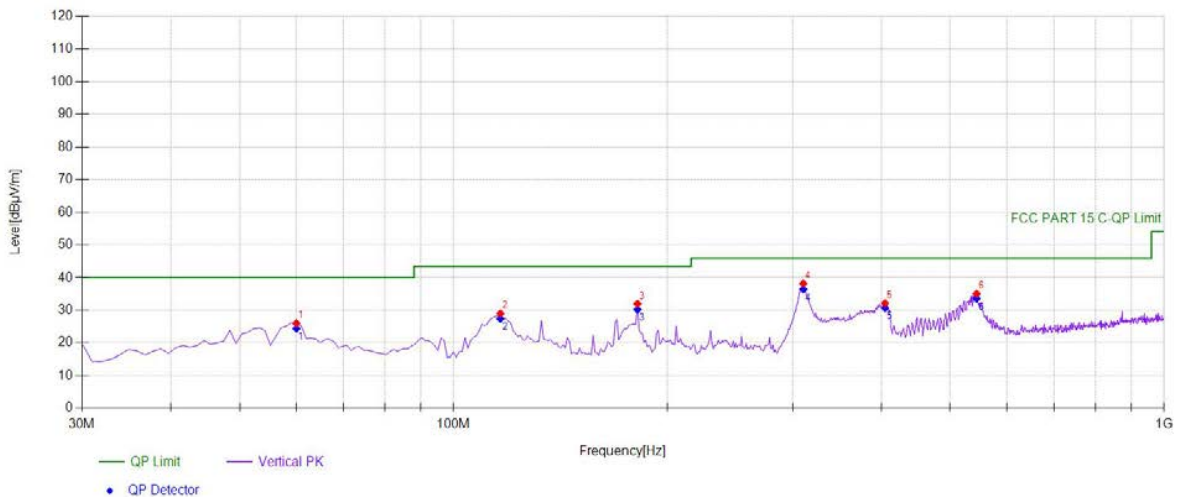
Test Model 802.11n(HT20) Spurious Emission in Restricted Band 2483.5-2500MHz
Channel 11: 2462MHz Polarity: V



■ Spurious Emission below 1GHz (30MHz to 1GHz)

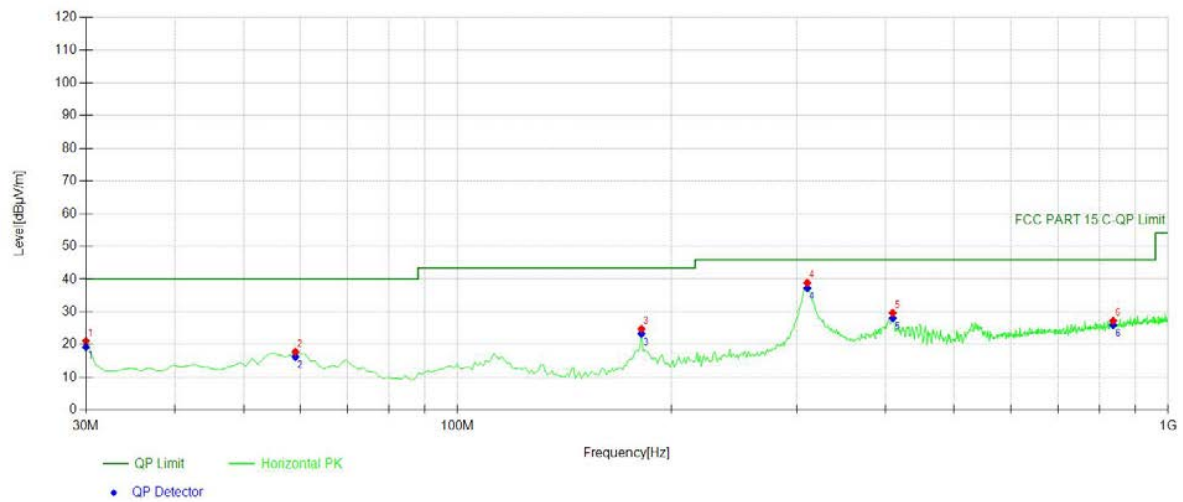
All the antenna(Antenna 1&2) and modes(802.11b/g/n) have been tested and the worst(Antenna 1, 802.11b) result recorded was report as below:

Mode:	11B 2412
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Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	60.1001	44.54	-18.56	25.98	PK	40.00	14.02	Vertical
2	116.416	46.72	-17.71	29.01	PK	43.50	14.49	Vertical
3	181.471	50.28	-18.30	31.98	PK	43.50	11.52	Vertical
4	310.610	52.37	-14.15	38.22	PK	46.00	7.78	Vertical
5	404.794	43.95	-11.79	32.16	PK	46.00	13.84	Vertical
6	544.614	44.28	-9.22	35.06	PK	46.00	10.94	Vertical

Final Data List					
NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	60.1001	-18.56	24.37	40.00	15.63
2	116.4164	-17.71	27.40	43.50	16.10
3	181.4715	-18.30	30.21	43.50	13.29
4	310.6106	-14.15	36.45	46.00	9.55
5	404.7948	-11.79	30.75	46.00	15.25
6	544.6146	-9.22	33.65	46.00	12.35



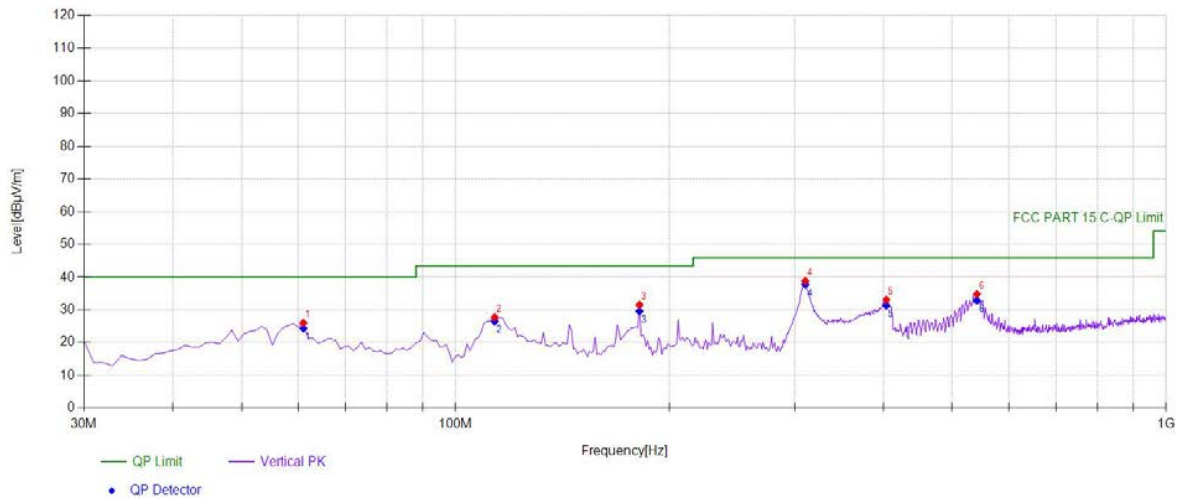
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	30	39.58	-18.53	21.05	PK	40.00	18.95	Horizontal
2	59.1291	36.19	-18.43	17.76	PK	40.00	22.24	Horizontal
3	181.471	43.05	-18.30	24.75	PK	43.50	18.75	Horizontal
4	310.610	53.07	-14.15	38.92	PK	46.00	7.08	Horizontal
5	409.649	41.46	-11.78	29.68	PK	46.00	16.32	Horizontal
6	836.876	31.21	-3.94	27.27	PK	46.00	18.73	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	30	-18.53	19.21	40.00	20.79
2	59.1291	-18.43	16.28	40.00	23.72
3	181.4715	-18.30	23.27	43.50	20.23
4	310.6106	-14.15	37.28	46.00	8.72
5	409.6496	-11.78	28.04	46.00	17.96
6	836.8769	-3.94	25.99	46.00	20.01

Mode:	11B 2437
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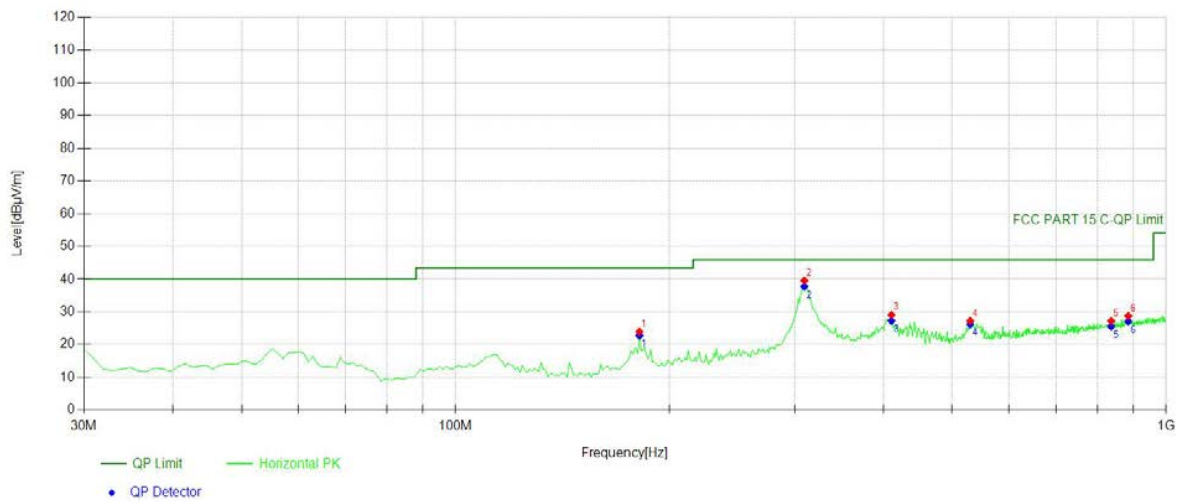


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	61.0711	44.69	-18.70	25.99	PK	40.00	14.01	Vertical
2	113.503	45.28	-17.53	27.75	PK	43.50	15.75	Vertical
3	181.471	49.85	-18.30	31.55	PK	43.50	11.95	Vertical
4	310.610	53.02	-14.15	38.87	PK	46.00	7.13	Vertical
5	403.823	44.87	-11.79	33.08	PK	46.00	12.92	Vertical
6	541.701	44.04	-9.23	34.81	PK	46.00	11.19	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	61.0711	-18.70	24.32	40.00	15.68
2	113.5035	-17.53	26.43	43.50	17.07
3	181.4715	-18.30	29.59	43.50	13.91
4	310.6106	-14.15	37.75	46.00	8.25
5	403.8238	-11.79	31.32	46.00	14.68
6	541.7017	-9.23	32.88	46.00	13.12



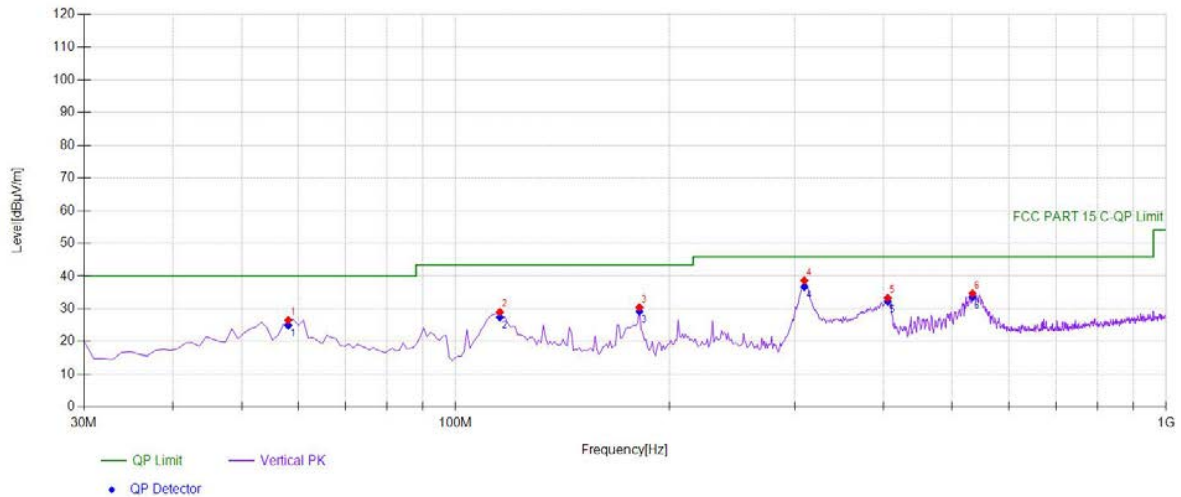
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	181.471	42.20	-18.30	23.90	PK	43.50	19.60	Horizontal
2	309.639	53.75	-14.15	39.60	PK	46.00	6.40	Horizontal
3	410.620	40.85	-11.78	29.07	PK	46.00	16.93	Horizontal
4	530.050	36.70	-9.50	27.20	PK	46.00	18.80	Horizontal
5	836.876	31.12	-3.94	27.18	PK	46.00	18.82	Horizontal
6	884.454	31.65	-2.94	28.71	PK	46.00	17.29	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	181.4715	-18.30	22.69	43.50	20.81
2	309.6396	-14.15	37.75	46.00	8.25
3	410.6206	-11.78	27.22	46.00	18.78
4	530.0501	-9.50	26.19	46.00	19.81
5	836.8769	-3.94	25.53	46.00	20.47
6	884.4545	-2.94	27.06	46.00	18.94

Mode:	11B 2462
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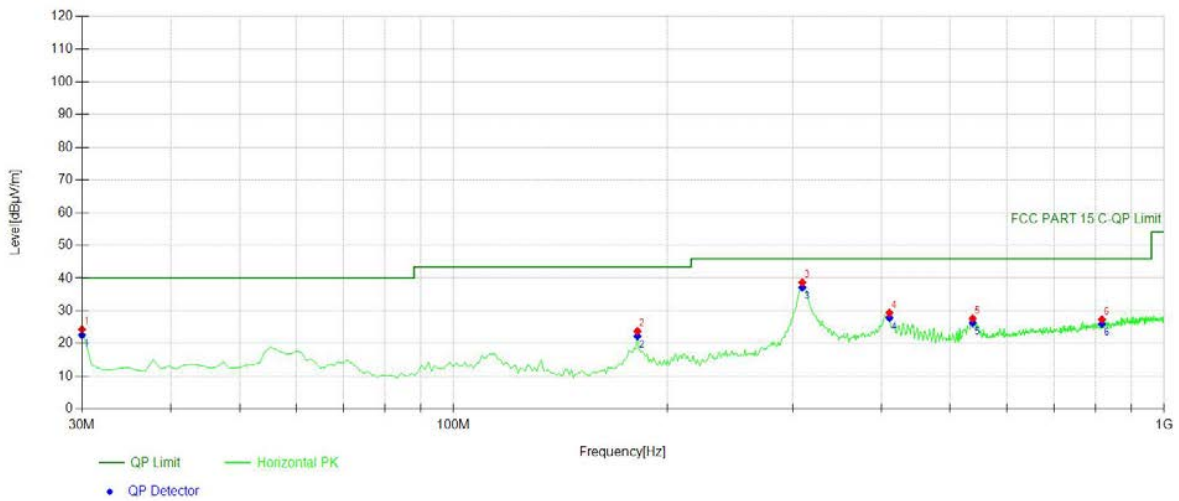


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	58.1582	44.82	-18.30	26.52	PK	40.00	13.48	Vertical
2	115.445	46.67	-17.65	29.02	PK	43.50	14.48	Vertical
3	181.471	48.78	-18.30	30.48	PK	43.50	13.02	Vertical
4	309.639	52.83	-14.15	38.68	PK	46.00	7.32	Vertical
5	405.765	45.10	-11.78	33.32	PK	46.00	12.68	Vertical
6	533.933	44.10	-9.39	34.71	PK	46.00	11.29	Vertical

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	58.1582	-18.30	24.91	40.00	15.09
2	115.4454	-17.65	27.41	43.50	16.09
3	181.4715	-18.30	29.23	43.50	14.27
4	309.6396	-14.15	36.79	46.00	9.21
5	405.7658	-11.78	32.27	46.00	13.73
6	533.9339	-9.39	33.66	46.00	12.34



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Detector	Limit [dBμV/m]	Margin [dB]	Polarity
1	30	42.82	-18.53	24.29	PK	40.00	15.71	Horizontal
2	181.471	42.09	-18.30	23.79	PK	43.50	19.71	Horizontal
3	309.639	52.85	-14.15	38.70	PK	46.00	7.30	Horizontal
4	410.620	41.16	-11.78	29.38	PK	46.00	16.62	Horizontal
5	537.817	36.94	-9.28	27.66	PK	46.00	18.34	Horizontal
6	817.457	31.66	-4.30	27.36	PK	46.00	18.64	Horizontal

Final Data List

NO.	Freq. [MHz]	Factor [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]
1	30	-18.53	22.54	40.00	17.46
2	181.4715	-18.30	22.24	43.50	21.26
3	309.6396	-14.15	37.15	46.00	8.85
4	410.6206	-11.78	27.83	46.00	18.17
5	537.8178	-9.28	26.30	46.00	19.70
6	817.4575	-4.30	26.00	46.00	20.00

8.8 CONDUCTED EMISSION TEST

8.8.1 Applicable Standard

According to FCC Part 15.207(a)

According to RSS-Gen 8.8

8.8.2 Conformance Limit

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

8.8.3 Test Configuration

Test according to clause 7.3 conducted emission test setup

8.8.4 Test Procedure

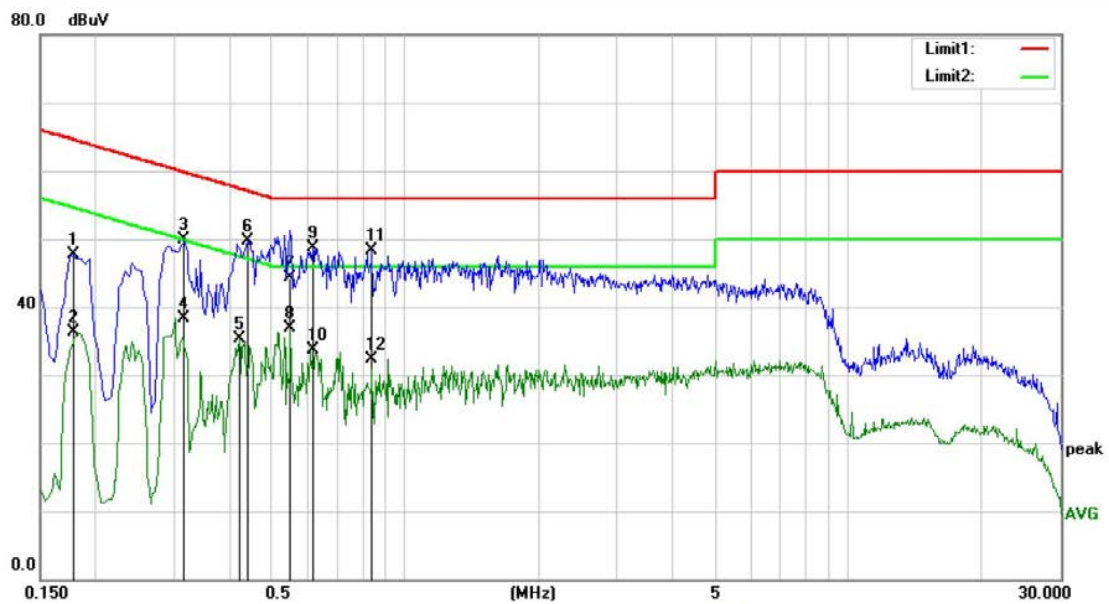
The EUT was placed on a table which is 0.8m above ground plane.

Maximum procedure was performed on the highest emissions to ensure EUT compliance.

Repeat above procedures until all frequency measured were complete.

8.8.5 Test Results

Pass



Site Conduction #1

Phase: **N**

Temperature: 20.8

Limit: (CE)FCC PART 15 class B_QP

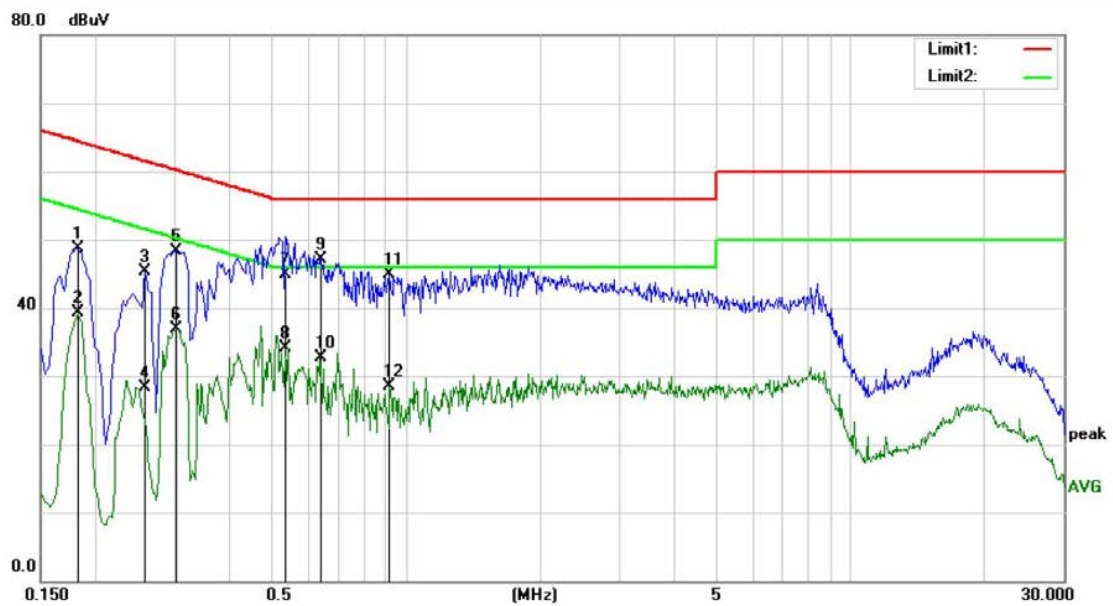
Power: AC 120V/60Hz

Humidity: 61 %

Mode: WIFI2.4G

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1780	37.86	9.84	47.70	64.58	-16.88	QP	
2		0.1780	26.53	9.84	36.37	54.58	-18.21	AVG	
3		0.3180	39.88	9.99	49.87	59.76	-9.89	QP	
4		0.3180	28.24	9.99	38.23	49.76	-11.53	AVG	
5		0.4220	25.47	9.79	35.26	47.41	-12.15	AVG	
6	*	0.4420	39.92	9.76	49.68	57.02	-7.34	QP	
7		0.5500	34.64	9.66	44.30	56.00	-11.70	QP	
8		0.5500	27.21	9.66	36.87	46.00	-9.13	AVG	
9		0.6180	38.96	9.66	48.62	56.00	-7.38	QP	
10		0.6180	24.04	9.66	33.70	46.00	-12.30	AVG	
11		0.8420	38.54	9.74	48.28	56.00	-7.72	QP	
12		0.8420	22.52	9.74	32.26	46.00	-13.74	AVG	



Site Conduction #1 Phase: **L1** Temperature: 20.8
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 61 %
 Mode: WIFI2.4G
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1820	38.81	9.89	48.70	64.39	-15.69	QP	
2		0.1820	29.40	9.89	39.29	54.39	-15.10	AVG	
3		0.2580	35.28	10.06	45.34	61.50	-16.16	QP	
4		0.2580	18.24	10.06	28.30	51.50	-23.20	AVG	
5		0.3020	38.32	10.03	48.35	60.19	-11.84	QP	
6		0.3020	26.97	10.03	37.00	50.19	-13.19	AVG	
7		0.5340	35.23	9.67	44.90	56.00	-11.10	QP	
8		0.5340	24.46	9.67	34.13	46.00	-11.87	AVG	
9	*	0.6420	37.54	9.66	47.20	56.00	-8.80	QP	
10		0.6420	23.03	9.66	32.69	46.00	-13.31	AVG	
11		0.9140	35.07	9.79	44.86	56.00	-11.14	QP	
12		0.9140	18.64	9.79	28.43	46.00	-17.57	AVG	

8.9 ANTENNA APPLICATION

8.9.1 Antenna Requirement

Standard	Requirement
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
FCC 47 CFR Part 15.247 (b)	If transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.
RSS-Gen Section 6.8	The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.
RSS-247 Section 5.4	If the transmitter employs an antenna system that emits multiple directional beams, but does not emit multiple directional beams simultaneously, the total output power conducted to the array or arrays that comprise the device (i.e. the sum of the power supplied to all antennas, antenna elements, staves, etc., and summed across all carriers or frequency channels) shall not exceed the applicable output power limit. However, the total conducted output power shall be reduced by 1 dB below the specified limits for each 3 dB that the directional gain of the antenna/antenna array exceeds 6 dBi. The directional antenna gain shall be computed as the sum of 10 log (number of array elements or staves) plus the directional gain of the element or stave having the highest gain.

8.9.2 Result

PASS.

- Note:
- ☒ Antenna use a permanently attached antenna which is not replaceable.
 - ☐ Not using a standard antenna jack or electrical connector for antenna replacement
 - ☐ The antenna has to be professionally installed (please provide method of installation)

Please refer to the attached document Internal Photos to show the antenna connector.

----- END OF REPORT -----