Mode: IEEE 802.11g
Middle Frequency (2437MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1195.4000	61.85	42.85	-19.00	74.00	31.15	200	100	Horizontal
2	1997.4000	60.30	44.84	-15.46	74.00	29.16	100	103	Horizontal
3	2357.2000	61.30	47.09	-14.21	74.00	26.91	100	156	Horizontal
4	3984.0000	54.90	46.73	-8.17	74.00	27.27	100	130	Horizontal
5	4806.0000	53.88	51.56	-2.32	74.00	22.44	100	88	Horizontal
6	12130.5000	40.26	54.15	13.89	74.00	19.85	200	271	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.6960	-2.32	48.59	46.27	54.00	7.73	102	78.8	Horizontal
2	12120.4975	13.89	27.70	41.59	54.00	12.41	180	289.2	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1164.2000	60.64	40.67	-19.97	74.00	33.33	100	338	Vertical
2	1826.4000	61.46	44.24	-17.22	74.00	29.76	100	258	Vertical
3	2161.8000	59.38	45.48	-13.90	74.00	28.52	100	0	Vertical
4	3327.0000	58.61	46.56	-12.05	74.00	27.44	100	155	Vertical
5	4806.0000	53.63	51.28	-2.35	74.00	22.72	200	296	Vertical
6	13402.5000	40.35	54.10	13.75	74.00	19.90	200	20	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.6260	-2.35	46.98	44.63	54.00	9.37	150	303.9	Vertical
2	13468.4475	13.75	26.90	40.65	54.00	13.35	126	317.3	Vertical

Mode: IEEE 802.11g
Highest Frequency (2462MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1662.0000	64.29	46.60	-17.69	74.00	27.40	100	175	Horizontal
2	1997.6000	61.99	46.53	-15.46	74.00	27.47	100	107	Horizontal
3	2501.4000	60.56	47.80	-12.76	74.00	26.20	100	148	Horizontal
4	3991.5000	57.75	49.64	-8.11	74.00	24.36	100	353	Horizontal
5	4806.0000	53.16	50.84	-2.32	74.00	23.16	100	21	Horizontal
6	12871.5000	40.50	54.12	13.62	74.00	19.88	100	327	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3984.7995	-8.11	41.02	32.91	54.00	21.09	101	143.9	Horizontal
2	4806.7650	-2.32	48.22	45.90	54.00	8.10	122	93.5	Horizontal
3	12826.9825	13.62	27.13	40.75	54.00	13.25	100	184.2	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1499.6000	60.56	43.22	-17.34	74.00	30.78	200	189	Vertical
2	1661.8000	64.31	45.85	-18.46	74.00	28.15	200	162	Vertical
3	2660.6000	63.54	50.70	-12.84	74.00	23.30	100	218	Vertical
4	4806.0000	53.33	50.98	-2.35	74.00	23.02	200	268	Vertical
5	5994.0000	53.46	51.94	-1.52	74.00	22.06	100	162	Vertical
6	13549.5000	40.42	54.19	13.77	74.00	19.81	200	91	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2665.1430	-12.84	45.12	32.28	54.00	21.72	100	199.5	Vertical
2	4806.6960	-2.35	47.35	45.00	54.00	9.00	148	294.4	Vertical
3	5977.1720	-1.52	36.82	35.30	54.00	18.70	101	183.4	Vertical
4	13561.4625	13.77	27.03	40.80	54.00	13.20	200	115	Vertical

Mode: IEEE 802.11n HT20
Lowest Frequency (2412MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1660.6000	64.91	47.22	-17.69	74.00	26.78	100	171	Horizontal
2	2364.0000	62.16	47.95	-14.21	74.00	26.05	100	157	Horizontal
3	2830.6000	58.59	47.26	-11.33	74.00	26.74	200	253	Horizontal
4	3987.0000	56.02	47.87	-8.15	74.00	26.13	100	174	Horizontal
5	4806.0000	52.54	50.22	-2.32	74.00	23.78	100	64	Horizontal
6	12133.5000	39.65	53.59	13.94	74.00	20.41	200	161	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.6960	-2.32	42.75	40.43	54.00	13.57	100	42	Horizontal
2	12122.0825	13.94	27.23	41.17	54.00	12.83	200	157.1	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1199.2000	62.04	43.03	-19.01	74.00	30.97	200	265	Vertical
2	1664.8000	65.61	47.15	-18.46	74.00	26.85	200	170	Vertical
3	2165.8000	59.47	45.60	-13.87	74.00	28.40	100	320	Vertical
4	2955.2000	55.68	44.75	-10.93	74.00	29.25	100	89	Vertical
5	4806.0000	54.36	52.01	-2.35	74.00	21.99	100	94	Vertical
6	13464.0000	39.88	53.82	13.94	74.00	20.18	200	204	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.6260	-2.35	48.25	45.90	54.00	8.10	101	86.1	Vertical
2	13503.5500	13.94	26.80	40.74	54.00	13.26	200	181	Vertical

Mode: IEEE 802.11n HT20
Middle Frequency (2437 MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1661.6000	64.93	47.24	-17.69	74.00	26.76	100	177	Horizontal
2	1999.4000	60.41	44.99	-15.42	74.00	29.01	100	260	Horizontal
3	2362.0000	60.86	46.65	-14.21	74.00	27.35	100	150	Horizontal
4	4806.0000	52.82	50.50	-2.32	74.00	23.50	200	306	Horizontal
5	7716.0000	46.04	49.72	3.68	74.00	24.28	200	49	Horizontal
6	13314.0000	40.08	54.01	13.93	74.00	19.99	200	347	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.6960	-2.32	44.89	42.57	54.00	11.43	200	304.9	Horizontal
2	7683.1700	3.68	33.47	37.15	54.00	16.85	100	13.8	Horizontal
3	13266.0200	13.93	26.95	40.88	54.00	13.12	200	285.9	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1272.0000	59.47	41.86	-17.61	74.00	32.14	100	28	Vertical
2	1600.4000	63.33	45.39	-17.94	74.00	28.61	100	232	Vertical
3	1662.6000	64.52	46.07	-18.45	74.00	27.93	100	177	Vertical
4	1999.4000	62.52	45.81	-16.71	74.00	28.19	100	327	Vertical
5	4806.0000	53.14	50.79	-2.35	74.00	23.21	200	319	Vertical
6	13162.5000	38.96	53.36	14.40	74.00	20.64	200	290	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.0000	-2.35	50.24	47.89	54.00	6.11	200	319	Vertical
2	13162.5000	14.40	32.04	46.44	54.00	7.56	200	290	Vertical

Mode: IEEE 802.11n HT20
Highest Frequency (2462MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1164.0000	59.45	40.34	-19.11	74.00	33.66	200	246	Horizontal
2	1599.8000	65.50	47.17	-18.33	74.00	26.83	100	230	Horizontal
3	2302.4000	59.49	46.42	-13.07	74.00	27.58	100	150	Horizontal
4	3367.5000	56.76	45.01	-11.75	74.00	28.99	100	146	Horizontal
5	4806.0000	51.61	49.29	-2.32	74.00	24.71	100	20	Horizontal
6	11367.0000	42.09	53.50	11.41	74.00	20.50	200	87	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.7650	-2.32	47.18	44.86	54.00	9.14	120	24.1	Horizontal
2	11372.4250	11.41	28.37	39.78	54.00	14.22	100	84.3	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1164.2000	62.03	42.06	-19.97	74.00	31.94	200	341	Vertical
2	1661.8000	66.35	47.89	-18.46	74.00	26.11	200	177	Vertical
3	2159.0000	60.04	46.12	-13.92	74.00	27.88	100	327	Vertical
4	3999.0000	55.70	47.15	-8.55	74.00	26.85	100	19	Vertical
5	4927.5000	51.57	49.47	-2.10	74.00	24.53	100	116	Vertical
6	12166.5000	40.40	53.94	13.54	74.00	20.06	200	21	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4924.3625	-2.10	39.41	37.31	54.00	16.69	100	141.9	Vertical
2	12227.0675	13.54	27.26	40.80	54.00	13.20	200	223.6	Vertical

Mode: IEEE 802.11n HT40
Lowest Frequency (2422MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1666.2000	65.89	48.22	-17.67	74.00	25.78	100	210	Horizontal
2	1998.8000	60.23	44.79	-15.44	74.00	29.21	100	48	Horizontal
3	2157.0000	60.48	45.79	-14.69	74.00	28.21	100	48	Horizontal
4	2373.0000	65.59	51.39	-14.20	74.00	22.61	100	155	Horizontal
5	4806.0000	52.84	50.52	-2.32	74.00	23.48	100	123	Horizontal
6	13170.0000	39.31	53.56	14.25	74.00	20.44	200	122	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2372.3480	-14.20	53.21	39.01	54.00	14.99	100	151.8	Horizontal
2	4806.6960	-2.32	46.00	43.68	54.00	10.32	121	145.3	Horizontal
3	13178.2000	14.25	27.08	41.33	54.00	12.67	109	104.2	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1162.2000	61.12	41.10	-20.02	74.00	32.90	100	143	Vertical
2	1661.2000	65.73	47.28	-18.45	74.00	26.72	200	225	Vertical
3	1792.8000	64.22	46.71	-17.51	74.00	27.29	100	20	Vertical
4	3319.5000	57.28	45.13	-12.15	74.00	28.87	100	201	Vertical
5	4783.5000	53.92	51.05	-2.87	74.00	22.95	100	311	Vertical
6	12120.0000	39.47	53.08	13.61	74.00	20.92	100	92	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.7595	-2.87	46.14	43.27	54.00	10.73	182	308	Vertical
2	12121.0500	13.61	27.04	40.65	54.00	13.35	132	115.6	Vertical

Mode: IEEE 802.11n HT40
Middle Frequency (2437 MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1497.4000	61.80	43.39	-18.41	74.00	30.61	100	73	Horizontal
2	1660.6000	63.66	45.97	-17.69	74.00	28.03	200	214	Horizontal
3	2163.6000	60.82	46.19	-14.63	74.00	27.81	100	46	Horizontal
4	2371.4000	62.67	48.47	-14.20	74.00	25.53	100	154	Horizontal
5	4806.0000	51.93	49.61	-2.32	74.00	24.39	100	27	Horizontal
6	13363.5000	39.47	53.57	14.10	74.00	20.43	200	146	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2363.9530	-14.20	51.88	37.68	54.00	16.32	100	149.9	Horizontal
2	4806.6960	-2.32	47.13	44.81	54.00	9.19	100	30.4	Horizontal
3	13316.3125	14.10	26.81	40.91	54.00	13.09	128	132.9	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1663.0000	64.31	45.86	-18.45	74.00	28.14	200	223	Vertical
2	1994.8000	62.00	45.28	-16.72	74.00	28.72	100	347	Vertical
3	3994.5000	55.34	46.79	-8.55	74.00	27.21	100	339	Vertical
4	4806.0000	52.79	50.44	-2.35	74.00	23.56	100	94	Vertical
5	5325.0000	53.46	53.45	-0.01	74.00	20.55	100	53	Vertical
6	14128.5000	39.46	53.31	13.85	74.00	20.69	100	203	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.7650	-2.35	47.66	45.31	54.00	8.69	102	86	Vertical
2	5327.3120	-0.01	38.14	38.13	54.00	15.87	100	42.5	Vertical
3	14117.6675	13.85	26.37	40.22	54.00	13.78	163	229	Vertical

Mode: IEEE 802.11n HT40
Highest Frequency (2452MHz) Date: 2023-11-27
Environment: 23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1663.2000	65.43	47.76	-17.67	74.00	26.24	100	190	Horizontal
2	2358.8000	62.62	48.40	-14.22	74.00	25.60	100	150	Horizontal
3	2827.4000	58.14	46.81	-11.33	74.00	27.19	200	272	Horizontal
4	3999.0000	54.70	46.64	-8.06	74.00	27.36	100	130	Horizontal
5	4806.0000	52.24	49.92	-2.32	74.00	24.08	200	75	Horizontal
6	12135.0000	39.43	53.40	13.97	74.00	20.60	100	62	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2367.6750	-14.22	51.31	37.09	54.00	16.91	102	151.5	Horizontal
2	4806.7650	-2.32	46.52	44.20	54.00	9.80	138	68.8	Horizontal
3	12122.3550	13.97	27.05	41.02	54.00	12.98	100	85.5	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1163.4000	62.27	42.27	-20.00	74.00	31.73	100	160	Vertical
2	1664.4000	65.87	47.41	-18.46	74.00	26.59	200	177	Vertical
3	1993.0000	60.99	44.26	-16.73	74.00	29.74	100	327	Vertical
4	2164.4000	58.42	44.54	-13.88	74.00	29.46	100	339	Vertical
5	4806.0000	52.54	50.19	-2.35	74.00	23.81	100	169	Vertical
6	13435.5000	40.13	53.90	13.77	74.00	20.10	200	358	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4806.6960	-2.35	45.64	43.29	54.00	10.71	100	150	Vertical
2	13436.2825	13.77	26.56	40.33	54.00	13.67	199	224.4	Vertical

18GHz-26.5GHz:

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

Note: Pre-scan all modes, the worst power supply is AC 120/60Hz(DC 5V/2A power by Adapter). In the two power supply modes, only the worst case(IEEE 802.11n HT20 2437MHz) in the worst power supply is recorded, in this report.
Mode: IEEE 802.11n HT20
Lowest Frequency (2437MHz) Date: 2023-11-27
Environment:23.5℃/27%RH 101.0kPa Voltage:AC 120V/60Hz
Tested By:Zhang Zishan

Suspected Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Level for 1m [dBμV/m]	Level for 3m [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18225.2500	49.90	31.80	22.26	-18.10	74.00	51.74	100	360	Horizontal
2	19921.8500	49.21	32.66	23.12	-16.55	74.00	50.88	100	137	Horizontal
3	22949.5500	46.81	32.07	22.53	-14.74	74.00	51.47	100	332	Horizontal
4	23988.2500	47.04	32.79	23.25	-14.25	74.00	50.75	200	89	Horizontal
5	24957.6750	46.83	32.97	23.43	-13.86	74.00	50.57	100	332	Horizontal
6	25305.7500	47.52	33.48	23.94	-14.04	74.00	50.06	200	282	Horizontal

Suspected Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Level for 1m [dBμV/m]	Level for 3m [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19063.7750	48.72	31.61	22.07	-17.11	74.00	51.93	200	114	Vertical
2	19912.9250	48.65	31.82	22.28	-16.83	74.00	51.72	200	345	Vertical
3	22050.2500	46.06	30.24	20.7	-15.82	74.00	53.30	100	138	Vertical
4	23005.2250	45.57	30.84	21.3	-14.73	74.00	52.70	100	224	Vertical
5	23940.2250	47.09	32.47	22.93	-14.62	74.00	51.07	100	64	Vertical
6	25453.6500	47.00	32.93	23.39	-14.07	74.00	50.61	100	64	Vertical

Remark:

1 Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2 Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4 Above 18G test distance is 1m, so the Level for 3m= Level for 1m + 20*log(1/3)

7. 6dB BANDWIDTH

7.1 LIMITS

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.

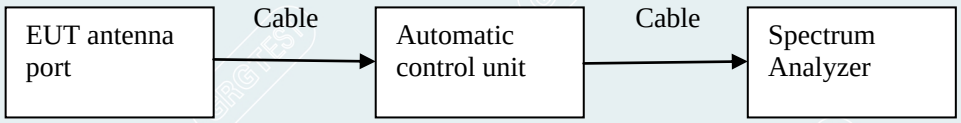
7.2 TEST PROCEDURES

a) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer**.**

b) Set resolution bandwidth (RBW) = 100kHz.Set the video bandwidth (VBW) ≥ 3 x RBW. Detector = Peak. Trace mode = max hold. Sweep = auto couple. Allow the trace to stabilize, record 6dB bandwidth value.

c) Repeat above procedures until all frequencies measured were complete.

7.3 TEST SETUP



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7.4 TEST RESULTS

Environment: 25.4℃/45%RH/101.0kPa Voltage:DC 5V
Tested By: Huang Tianmei Date: 2023-11-20

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	F_L[MHz]	F_H[MHz]	Limit[MHz]	Verdict
IEEE 802.11b	Ant4	2412	10.08	2406.96	2417.04	0.5	PASS
		2437	10.08	2431.96	2442.04	0.5	PASS
		2462	10.08	2456.96	2467.04	0.5	PASS
IEEE 802.11g	Ant4	2412	16.32	2403.84	2420.16	0.5	PASS
		2437	16.32	2428.84	2445.16	0.5	PASS
		2462	16.32	2453.84	2470.16	0.5	PASS
IEEE 802.11n HT20	Ant4	2412	17.28	2403.24	2420.52	0.5	PASS
		2437	16.92	2428.60	2445.52	0.5	PASS
		2462	17.52	2453.24	2470.76	0.5	PASS
IEEE 802.11n HT40	Ant4	2422	35.36	2404.24	2439.60	0.5	PASS
		2437	35.52	2419.24	2454.76	0.5	PASS
		2452	35.68	2434.24	2469.92	0.5	PASS

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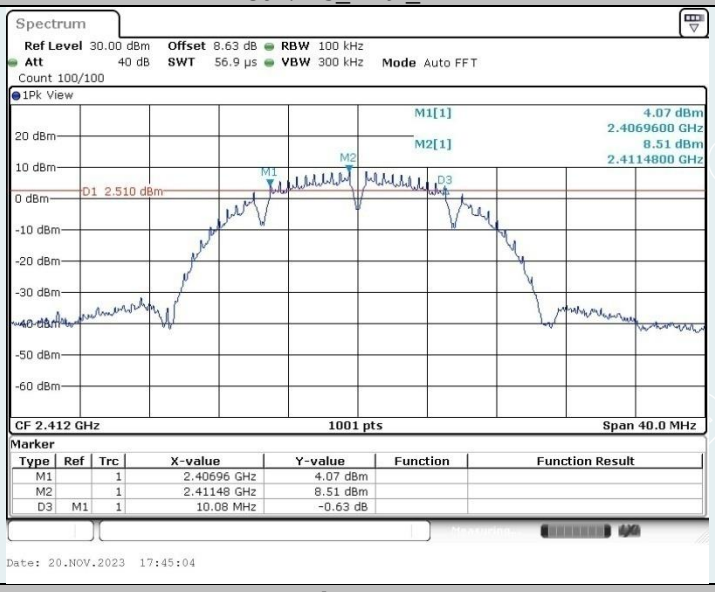
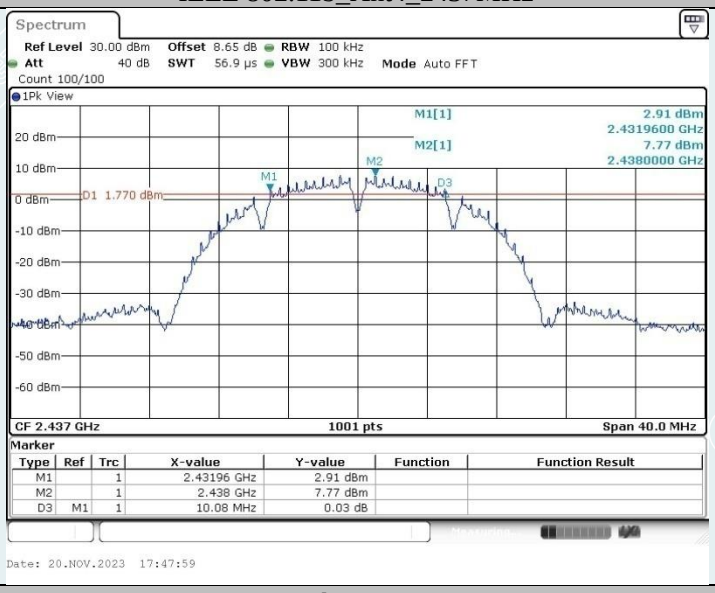
Test Graphs

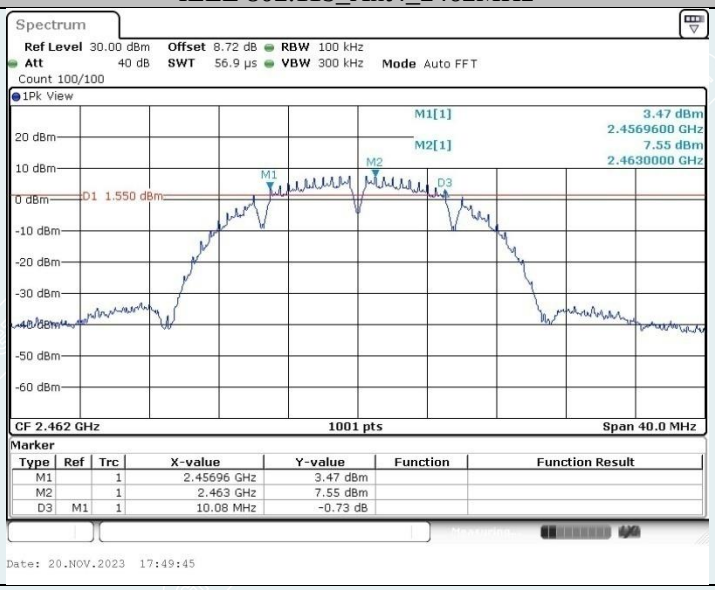
IEEE 802.11b_Ant4_2412MHz



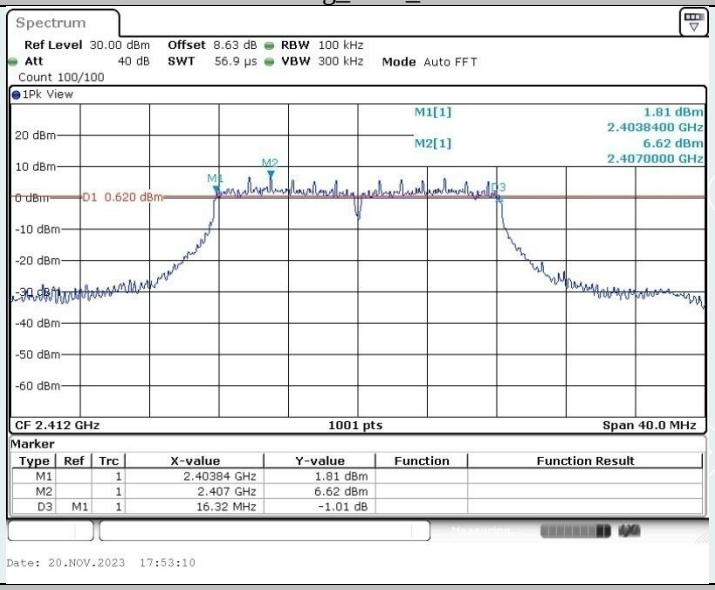
IEEE 802.11b_Ant4_2437MHz



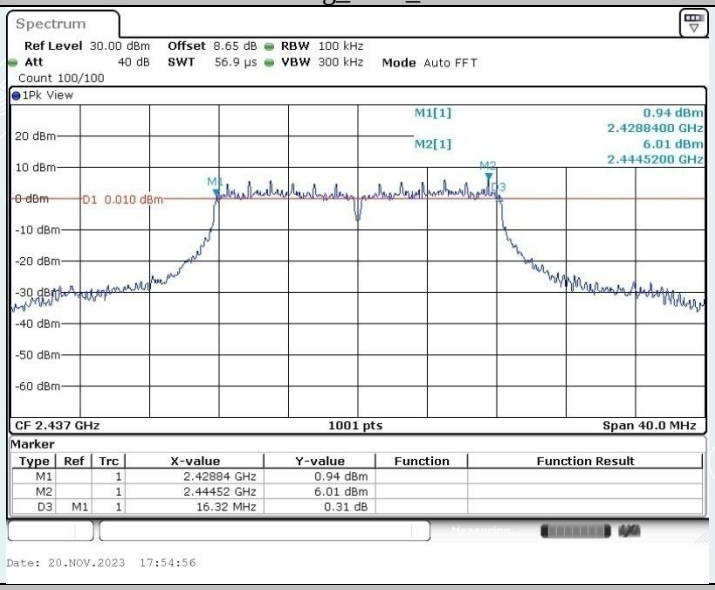
IEEE 802.11b_Ant4_2462MHz



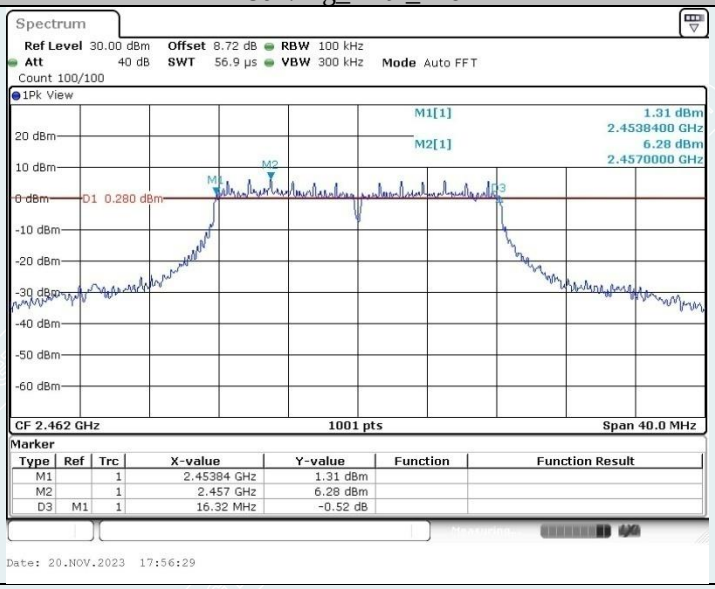
IEEE 802.11g_Ant4_2412MHz



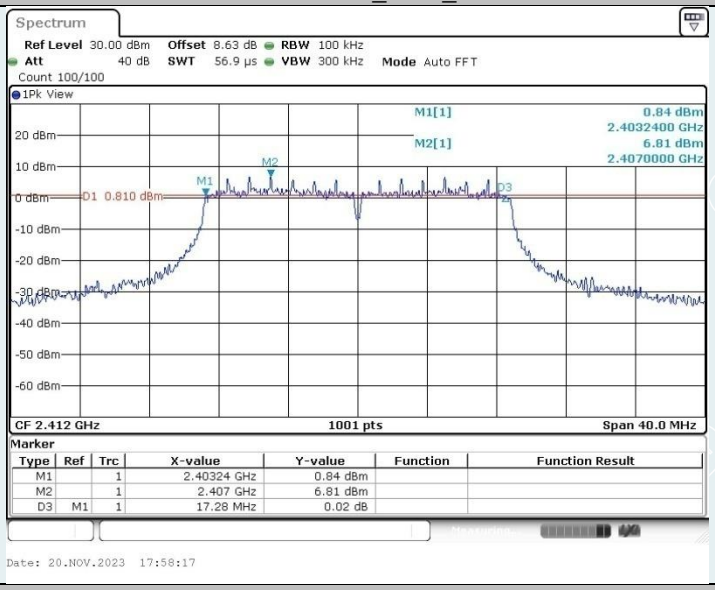
IEEE 802.11g_Ant4_2437MHz



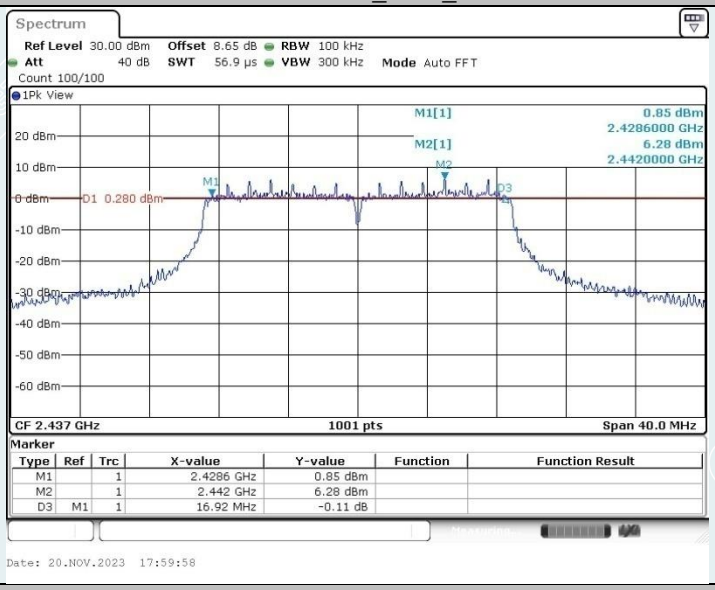
IEEE 802.11g_Ant4_2462MHz



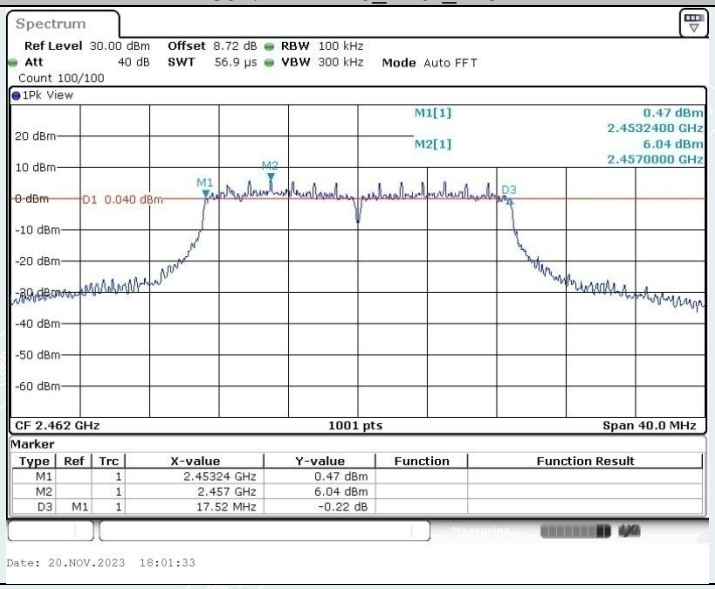
IEEE 802.11n HT20_Ant4_2412MHz



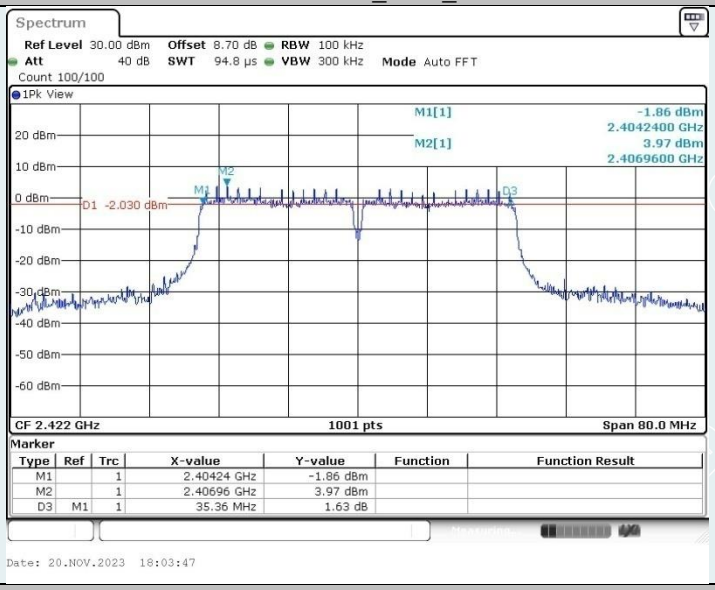
IEEE 802.11n HT20_Ant4_2437MHz



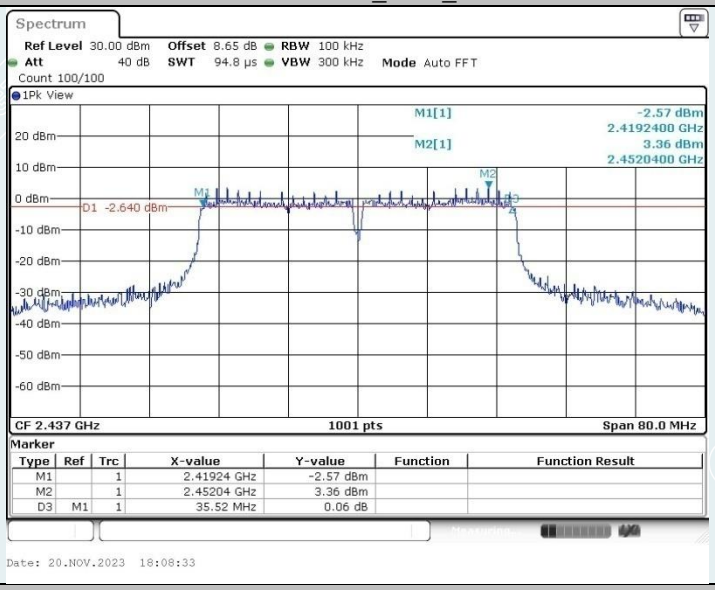
IEEE 802.11n HT20_Ant4_2462MHz



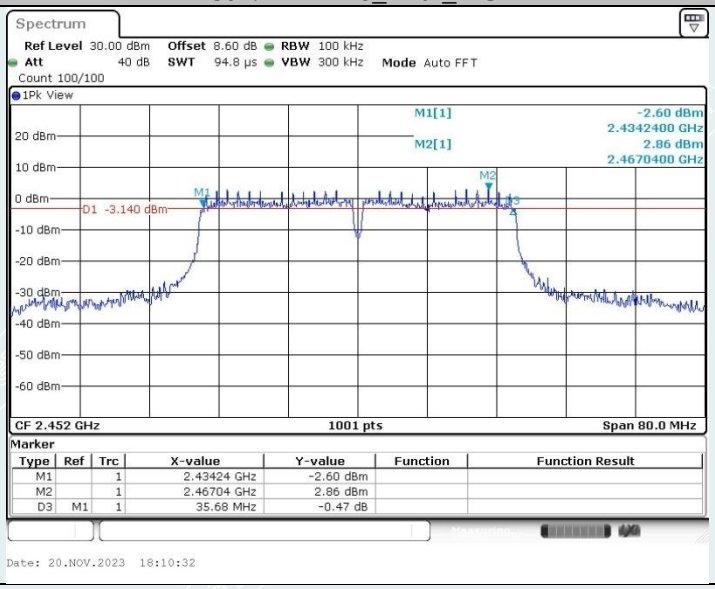
IEEE 802.11n HT40_Ant4_2422MHz



IEEE 802.11n HT40_Ant4_2437MHz



IEEE 802.11n HT40_Ant4_2452MHz



8. MAXIMUM PEAK OUTPUT POWER

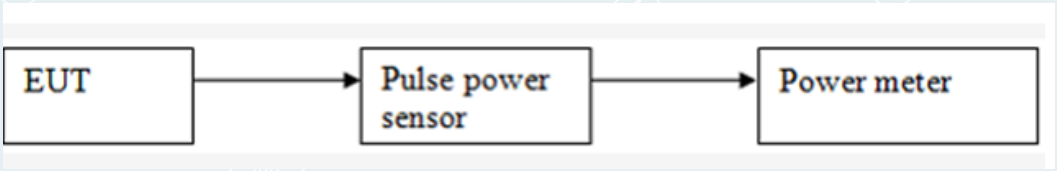
8.1 LIMITS

The maximum Peak output power measurement is 1W

8.2 TEST PROCEDURES

a) RF output of EUT was connected to the broadband peak RF power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
b) Set to the maximum power setting and enable the EUT transmit continuously.
c) Measure the conducted output power and record the results in the test report.

8.3 TEST SETUP



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8.4 TEST RESULT

Environment: 25.4℃/45%RH/101.0kPa Voltage:DC 5V
Tested By: Huang Tianmei Date: 2023-11-20

IEEE 802.11b Mode Antenna 4:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	16.98	Peak	30dBm	Pass
6	2437	16.58			Pass
11	2462	16.40			Pass

IEEE 802.11g Mode Antenna 4:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	17.65	Peak	30dBm	Pass
6	2437	17.48			Pass
11	2462	17.23			Pass

IEEE 802.11n HT20 Mode Antenna 4:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak/ AVG	Limit	Result
1	2412	18.48	Peak	30dBm	Pass
6	2437	18.03			Pass
11	2462	17.38			Pass

IEEE 802.11n HT40 Mode Antenna 4:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak/ AVG	Limit	Result
3	2422	17.91	Peak	30dBm	Pass
6	2437	18.79			Pass
9	2452	18.67			Pass

9. POWER SPECTRAL DENSITY

9.1 LIMITS

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.

9.2 TEST PROCEDURES

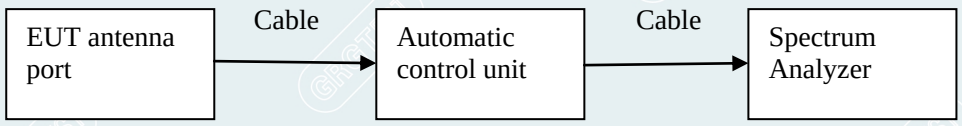
a) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.

b) Position the EUT was set 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.

c) The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:
1) Set analyzer center frequency to DTS channel center frequency.
2) Set the span to 1.5 times the DTS bandwidth.
3) Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.
4) Set the VBW ≥ [3 × RBW].
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 requirement, then reduce RBW (but no less than 3 kHz) and repeat.

d) Repeat above procedures until all frequencies measured were complete.

9.3 TEST SETUP



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9.4 TEST RESULTS

Environment: 25.4℃/45%RH/101.0kPa Voltage:DC 5V
Tested By: Huang Tianmei Date: 2023-11-30

Test Mode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
IEEE 802.11b	Ant4	2412	-9.77	≤8.00	PASS
		2437	-10.8	≤8.00	PASS
		2462	-11.16	≤8.00	PASS
IEEE 802.11g	Ant4	2412	-17.56	≤8.00	PASS
		2437	-18.23	≤8.00	PASS
		2462	-18.86	≤8.00	PASS
IEEE 802.11n HT20	Ant4	2412	-17.65	≤8.00	PASS
		2437	-18.68	≤8.00	PASS
		2462	-18.38	≤8.00	PASS
IEEE 802.11n HT40	Ant4	2422	-20.5	≤8.00	PASS
		2437	-20.71	≤8.00	PASS
		2452	-21.24	≤8.00	PASS

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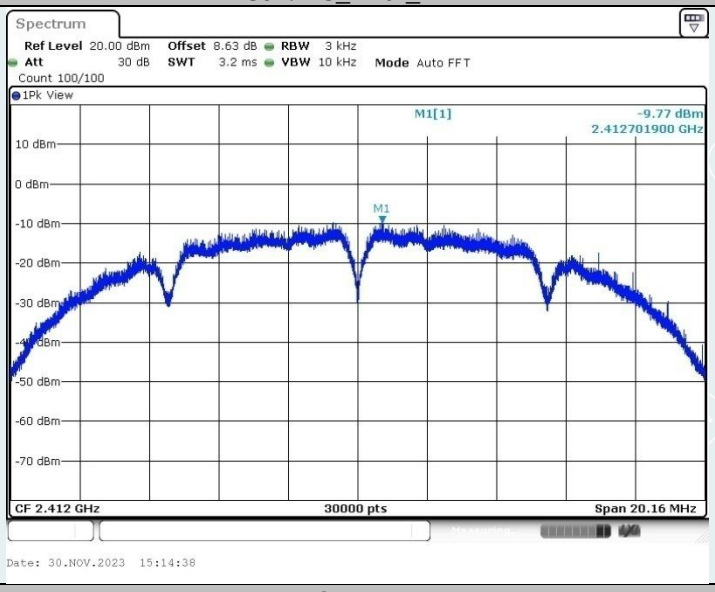
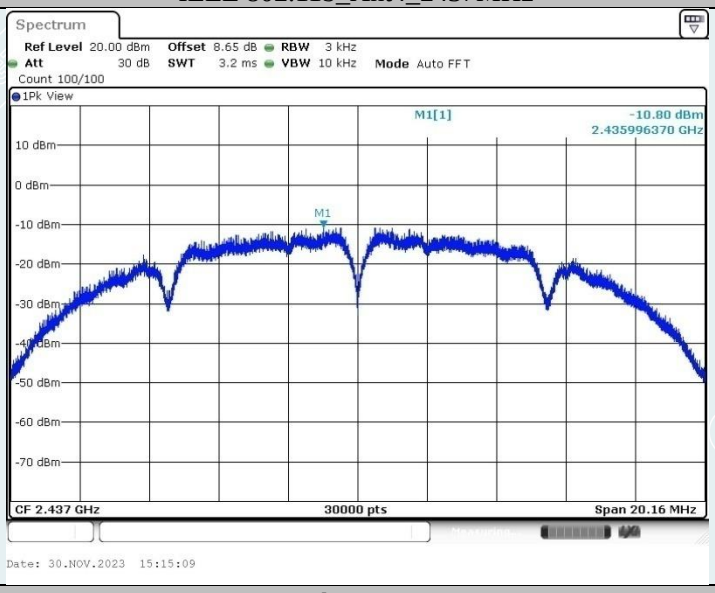
Test Graphs

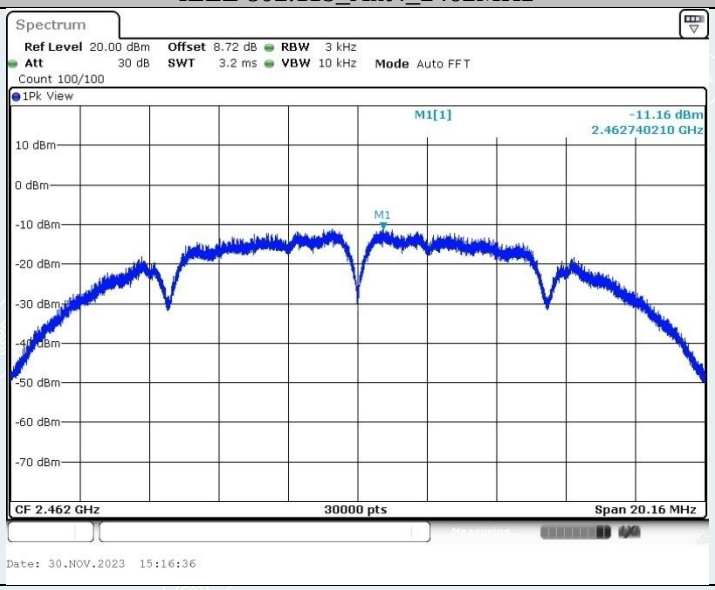
IEEE 802.11b_Ant4_2412MHz



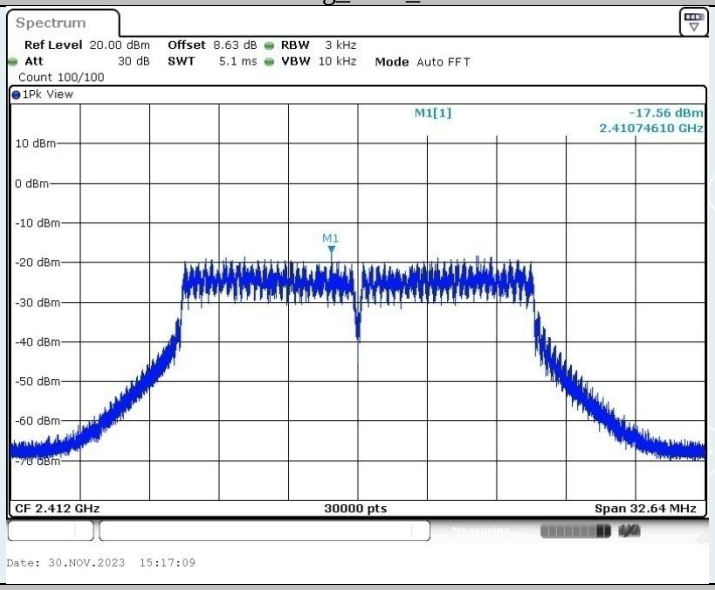
IEEE 802.11b_Ant4_2437MHz



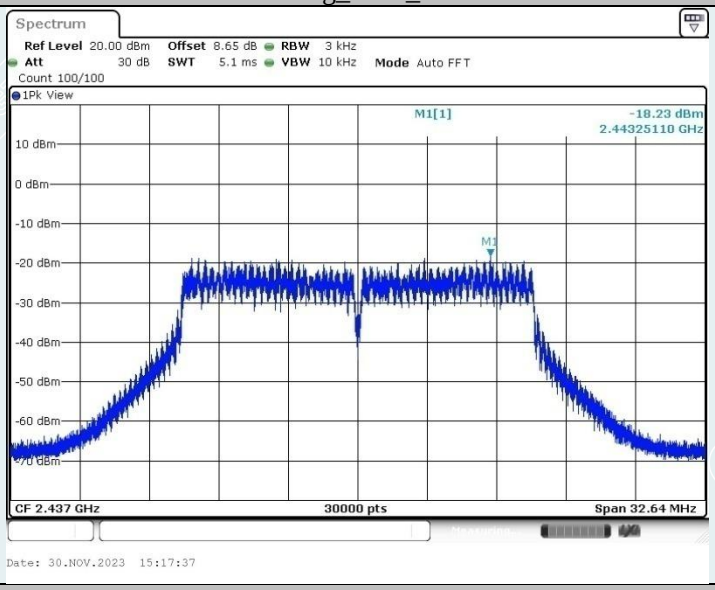
IEEE 802.11b_Ant4_2462MHz



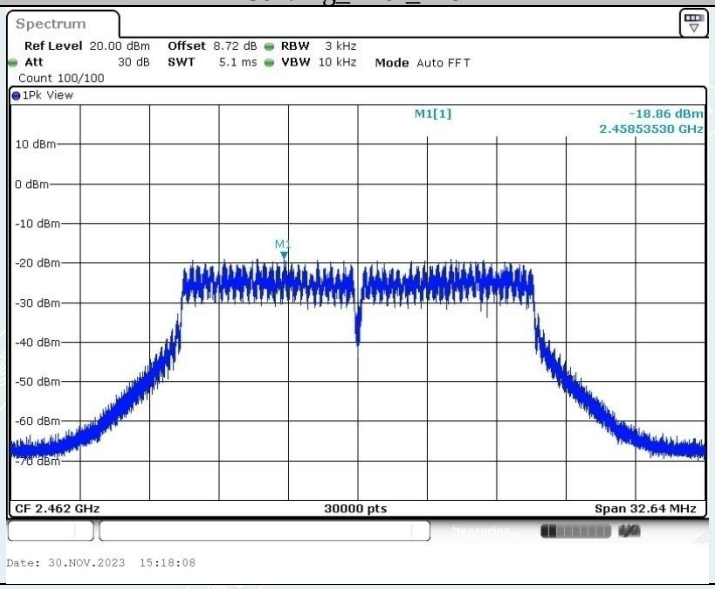
IEEE 802.11g_Ant4_2412MHz



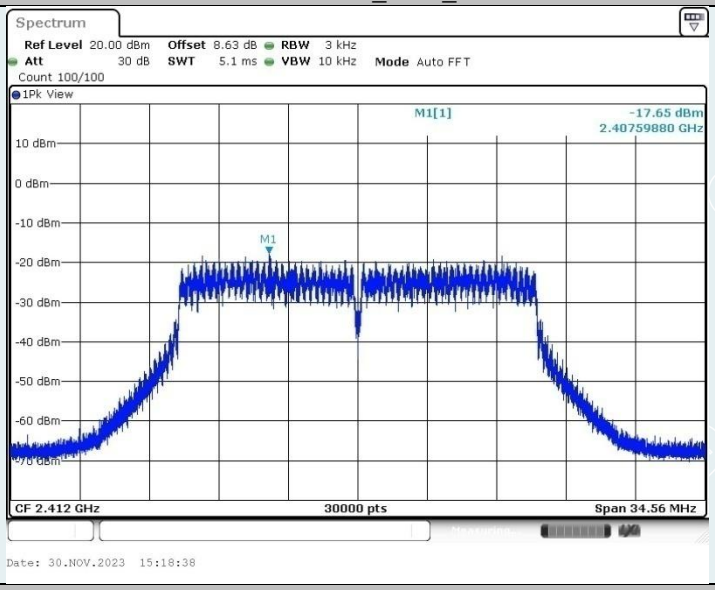
IEEE 802.11g_Ant4_2437MHz



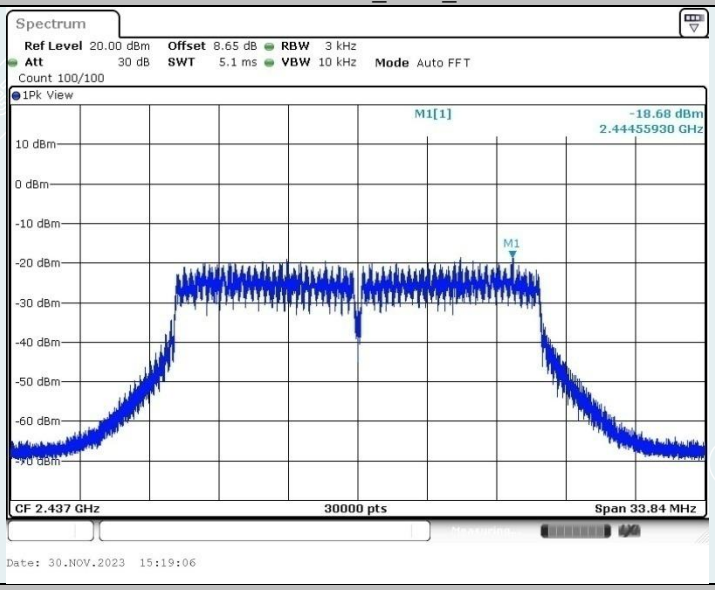
IEEE 802.11g_Ant4_2462MHz



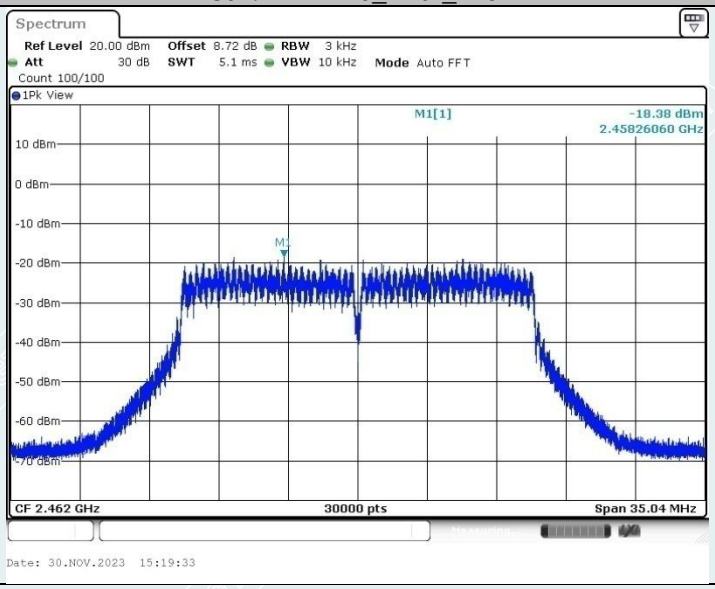
IEEE 802.11n HT20_Ant4_2412MHz



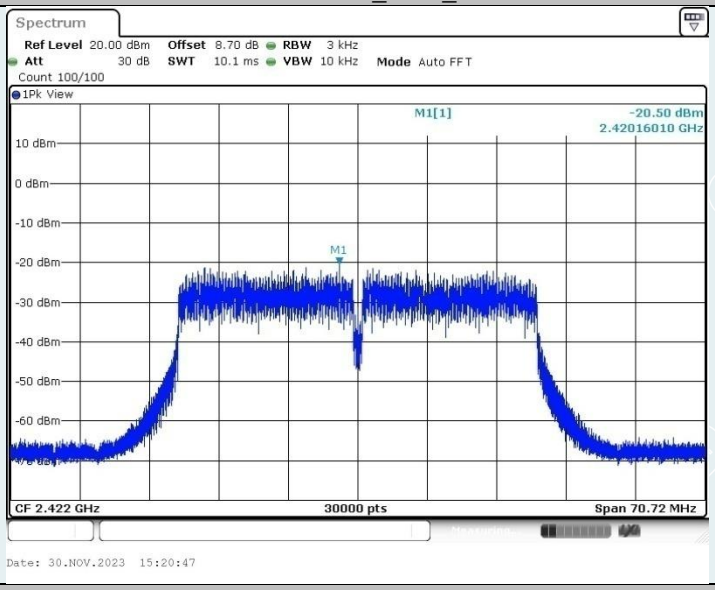
IEEE 802.11n HT20_Ant4_2437MHz



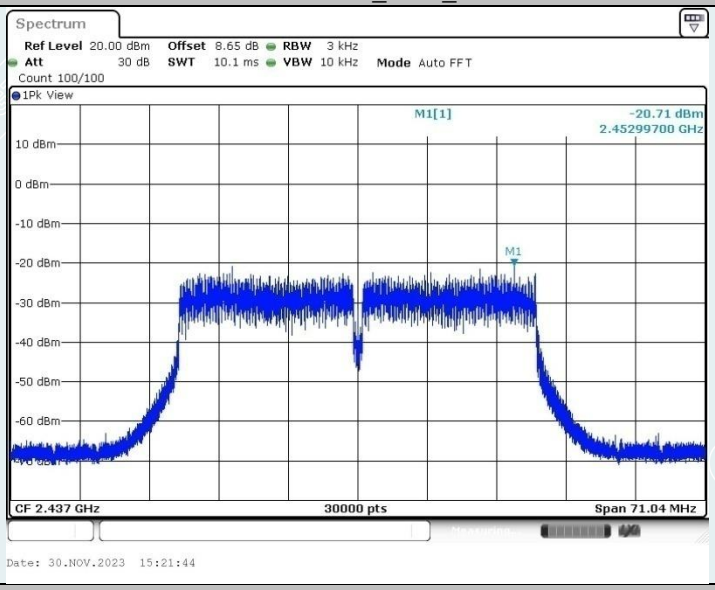
IEEE 802.11n HT20_Ant4_2462MHz



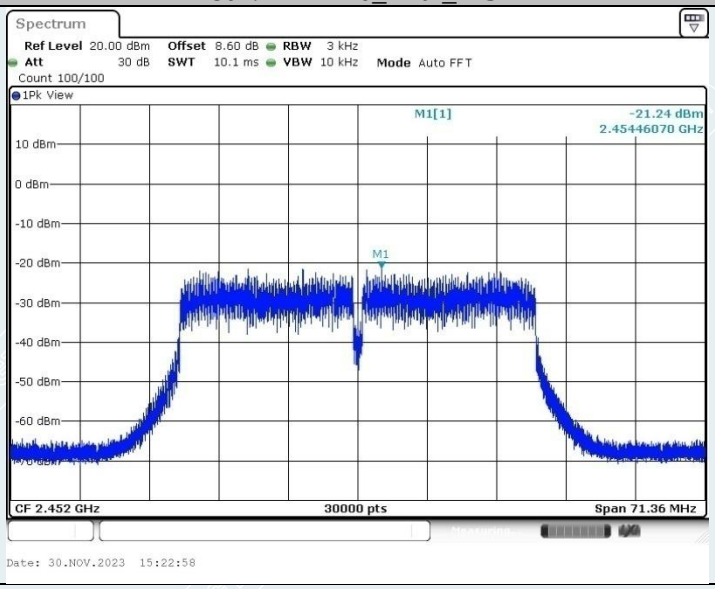
IEEE 802.11n HT40_Ant4_2422MHz



IEEE 802.11n HT40_Ant4_2437MHz



IEEE 802.11n HT40_Ant4_2452MHz



10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS

10.1 LIMITS

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.

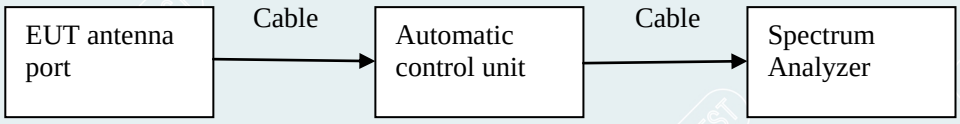
10.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 DTS Measurement Guidance.

Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.

a) Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.
b) Set the spectrum analyzer: RBW =100kHz; VBW =300kHz, Frequency range = 30MHz to 26.5GHz; Sweep = auto; Detector Function = Peak; Trace = Max hold.
c) Measure and record the results in the test report.
d) The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

10.3 TEST SETUP



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10.4 TEST RESULTS

Environment: 25.4℃/45%RH/101.0kPa(2023-11-20), 27.1℃/51%RH/101.0kPa(2023-11-30) Voltage:DC 5V

Tested By: Huang Tianmei Date: 2023-11-20 to 2023-11-30

Band edge

Test Mode	Antenna	Ch Name	Frequency [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
IEEE 802.11b	Ant4	Low	2412	8.49	-33.57	≤-11.51	PASS
		High	2462	8.16	-47.37	≤-11.84	PASS
IEEE 802.11g	Ant4	Low	2412	6.55	-26.71	≤-13.45	PASS
		High	2462	6.30	-38.56	≤-13.7	PASS
IEEE 802.11n HT20	Ant4	Low	2412	6.90	-25.86	≤-13.1	PASS
		High	2462	5.90	-33.25	≤-14.1	PASS
IEEE 802.11n HT40	Ant4	Low	2422	3.44	-26.53	≤-16.56	PASS
		High	2452	3.13	-30.33	≤-16.87	PASS

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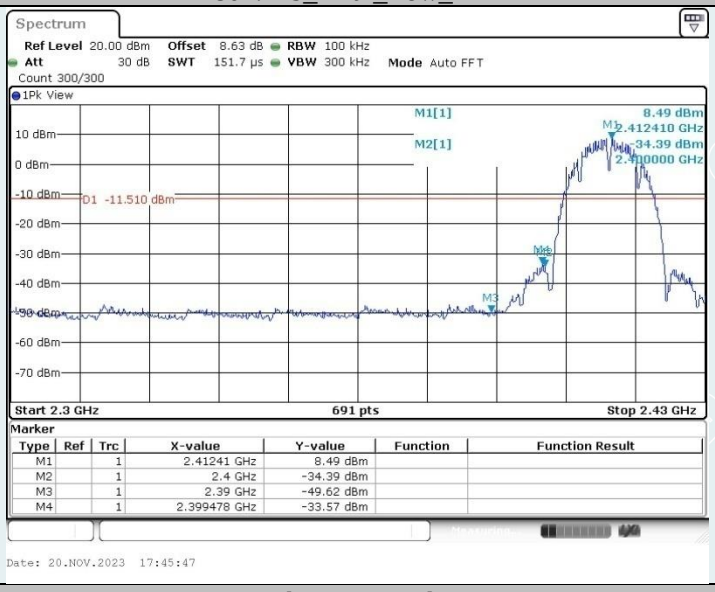
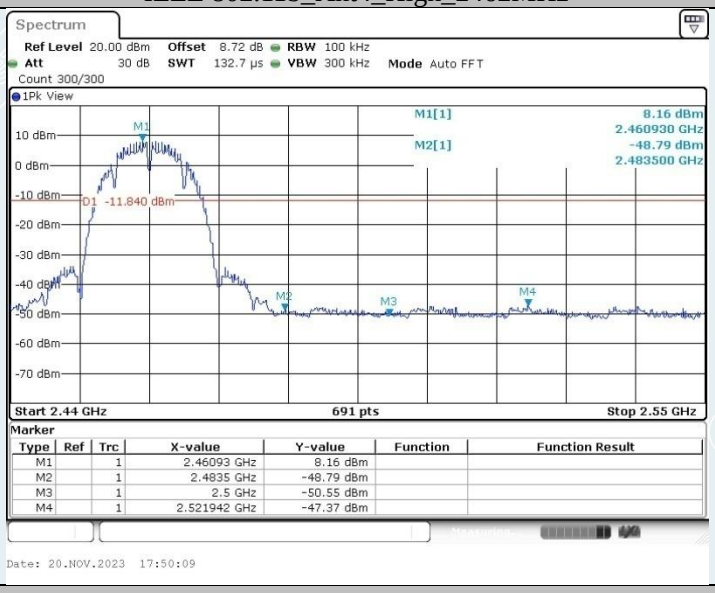
Band edge

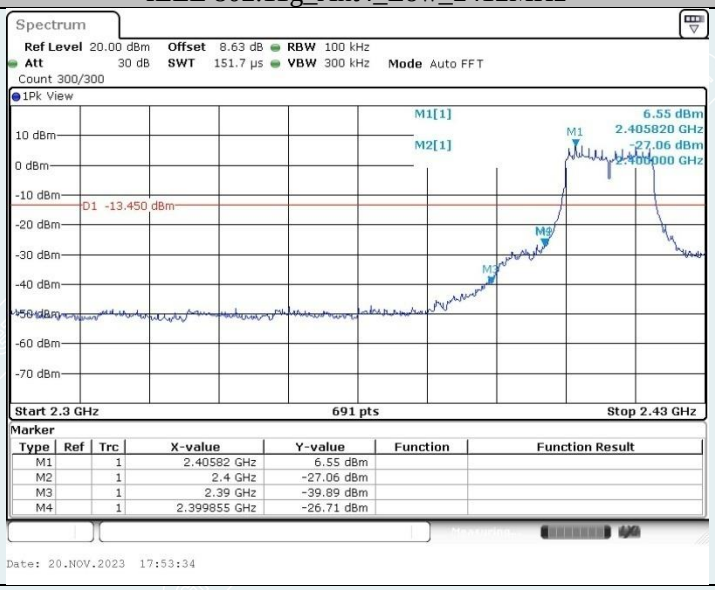
IEEE 802.11b_Ant4_Low_2412MHz



IEEE 802.11b_Ant4_High_2462MHz

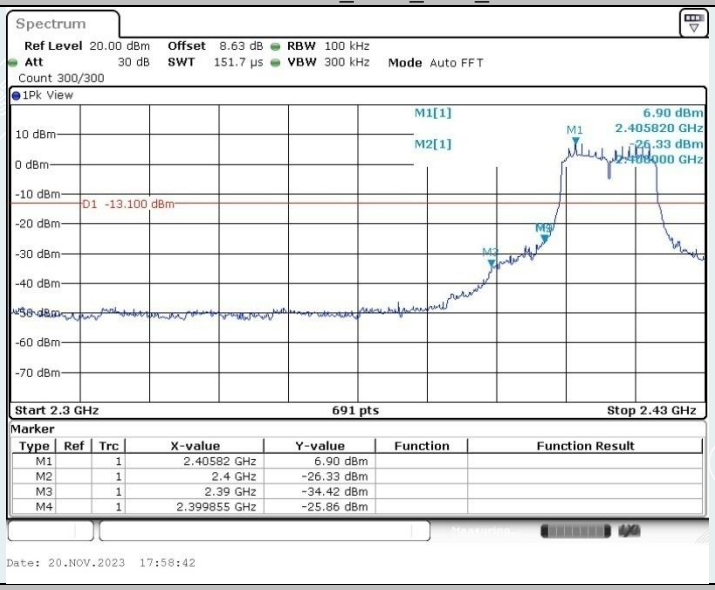


IEEE 802.11g_Ant4_Low_2412MHz

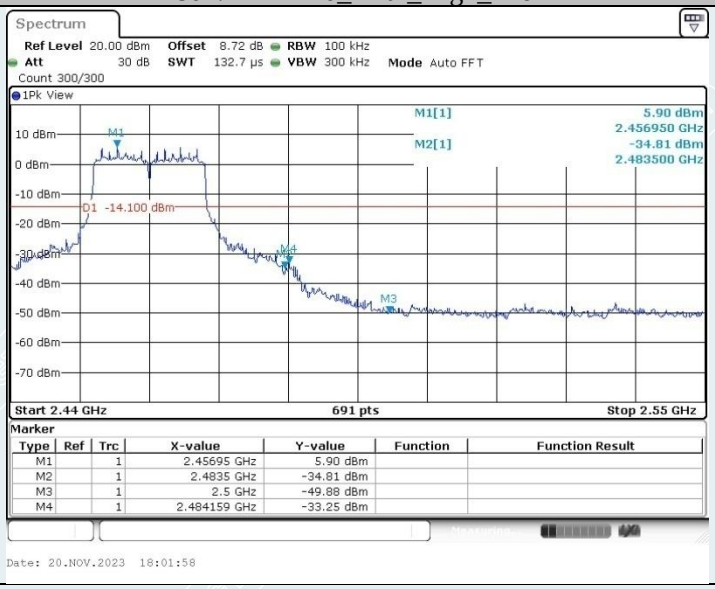


IEEE 802.11g_Ant4_High_2462MHz

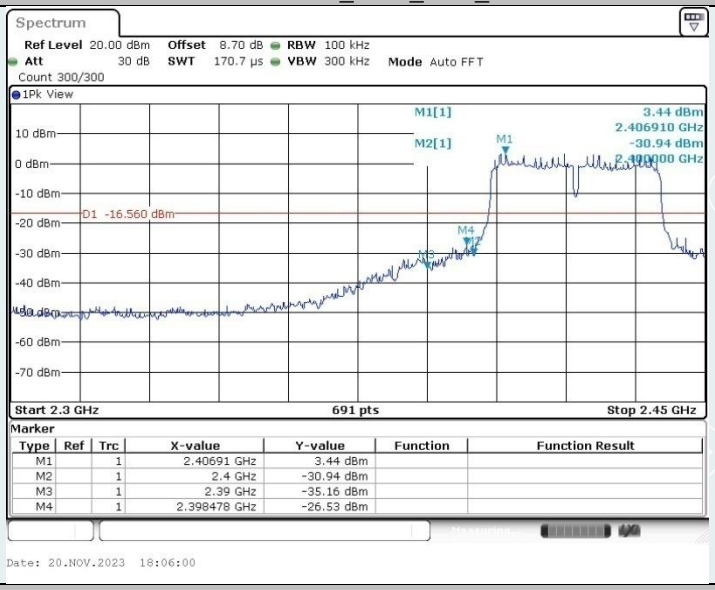
IEEE 802.11n HT20_Ant4_Low_2412MHz



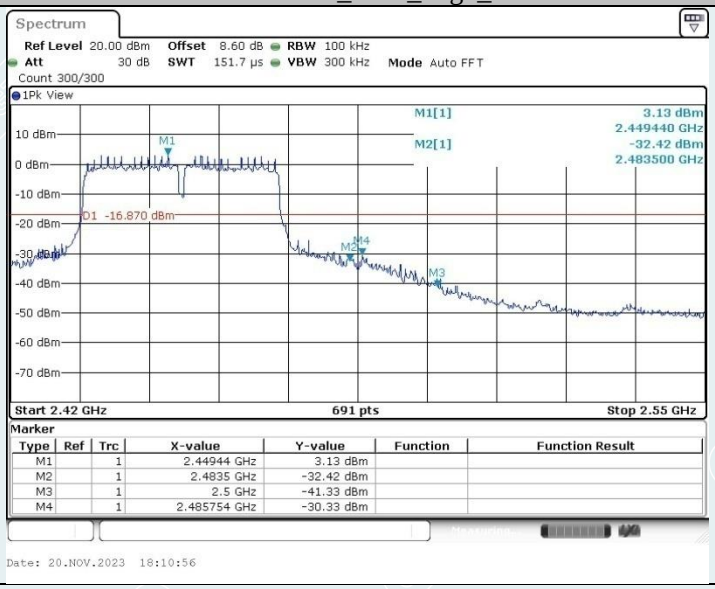
IEEE 802.11n HT20_Ant4_High_2462MHz



IEEE 802.11n HT40_Ant4_Low_2422MHz



IEEE 802.11n HT40_Ant4_High_2452MHz

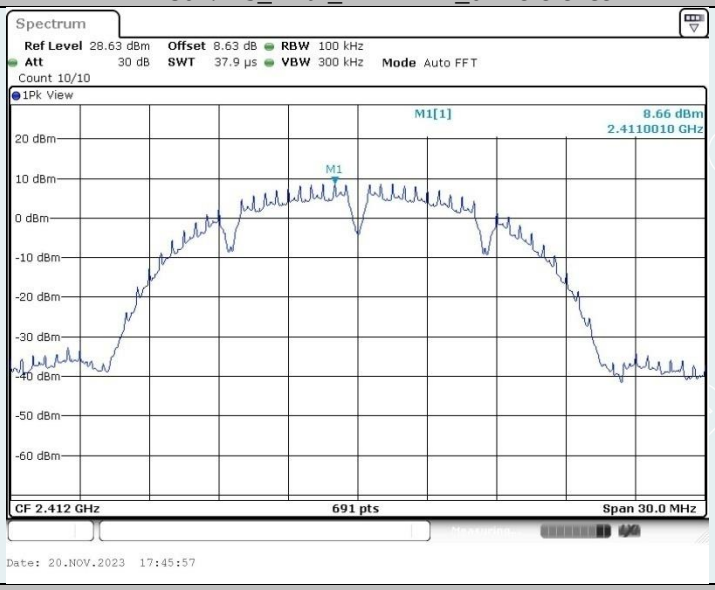


Conducted Spurious Emission

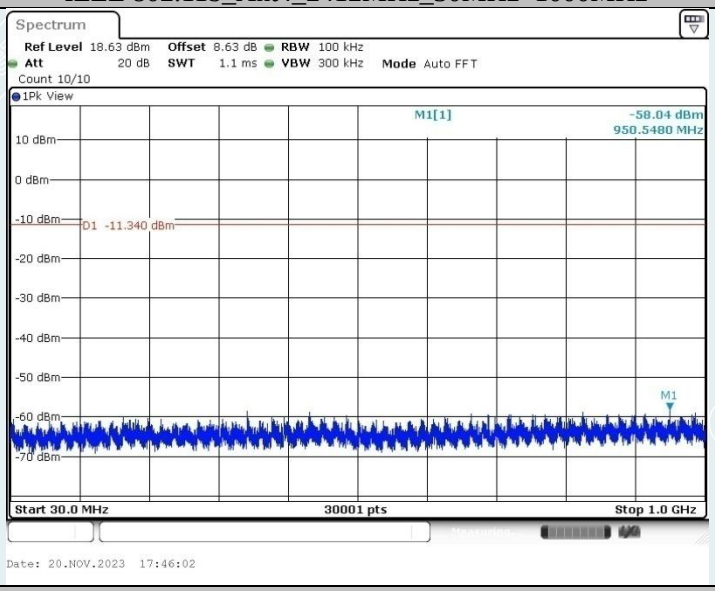
Test Mode	Antenna	Frequency [MHz]	Freq Range [MHz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
IEEE 802.11b	Ant4	2412	Reference	8.66	8.66	---	PASS
			30~1000	8.66	-58.04	≤-11.34	PASS
			1000~26500	8.66	-54.42	≤-11.34	PASS
		2437	Reference	8.06	8.06	---	PASS
			30~1000	8.06	-58.76	≤-11.94	PASS
			1000~26500	8.06	-53.28	≤-11.94	PASS
		2462	Reference	8.14	8.14	---	PASS
			30~1000	8.14	-58.57	≤-11.86	PASS
			1000~26500	8.14	-54.09	≤-11.86	PASS
IEEE 802.11g	Ant4	2412	Reference	6.73	6.73	---	PASS
			30~1000	6.73	-58.02	≤-13.27	PASS
			1000~26500	6.73	-54.28	≤-13.27	PASS
		2437	Reference	6.26	6.26	---	PASS
			30~1000	6.26	-57.58	≤-13.74	PASS
			1000~26500	6.26	-53.45	≤-13.74	PASS
		2462	Reference	6.55	6.55	---	PASS
			30~1000	6.55	-57.94	≤-13.45	PASS
			1000~26500	6.55	-54.94	≤-13.45	PASS
IEEE 802.11n HT20	Ant4	2412	Reference	7.09	7.09	---	PASS
			30~1000	7.09	-58.51	≤-12.91	PASS
			1000~26500	7.09	-54	≤-12.91	PASS
		2437	Reference	6.22	6.22	---	PASS
			30~1000	6.22	-58.47	≤-13.78	PASS
			1000~26500	6.22	-53.8	≤-13.78	PASS
		2462	Reference	6.60	6.60	---	PASS
			30~1000	6.60	-58.28	≤-13.4	PASS
			1000~26500	6.60	-52.97	≤-13.4	PASS
IEEE 802.11n HT40	Ant4	2422	Reference	3.66	3.66	---	PASS
			30~1000	3.66	-57.45	≤-16.34	PASS
			1000~26500	3.66	-54.74	≤-16.34	PASS
		2437	Reference	3.33	3.33	---	PASS
			30~1000	3.33	-57.6	≤-16.67	PASS
			1000~26500	3.33	-54.5	≤-16.67	PASS
		2452	Reference	3.40	3.40	---	PASS
			30~1000	3.40	-57.2	≤-16.6	PASS
			1000~26500	3.40	-54.43	≤-16.6	PASS

Conducted Spurious Emission

IEEE 802.11b_Ant4_2412MHz_0~Reference



IEEE 802.11b_Ant4_2412MHz_30MHz~1000MHz



IEEE 802.11b_Ant4_2412MHz_1000MHz~26500MHz