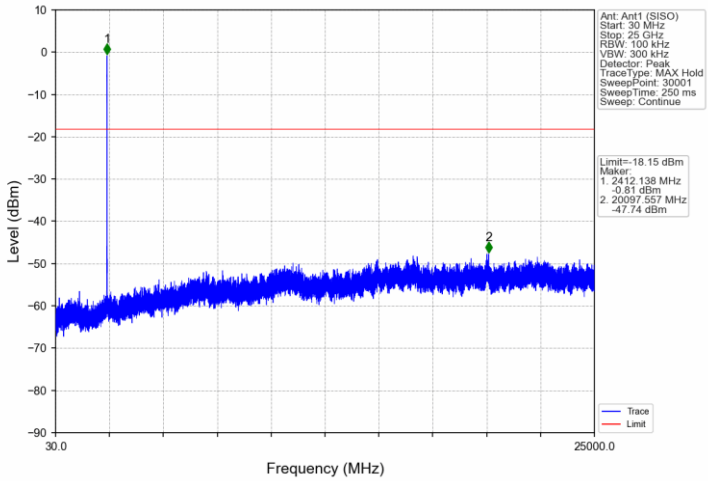
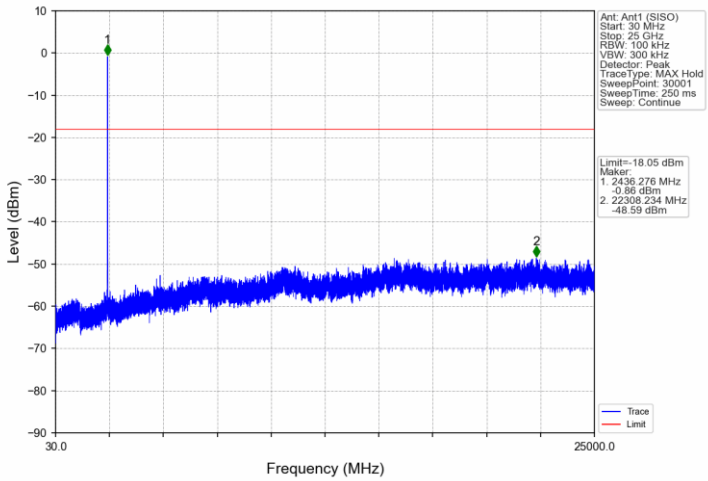
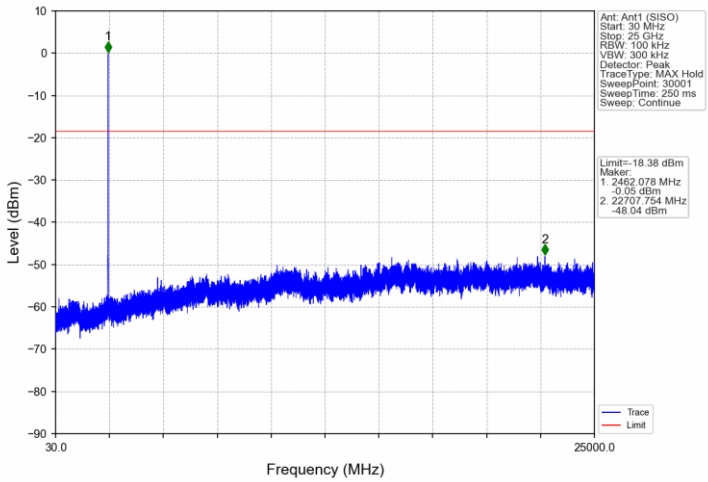
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV

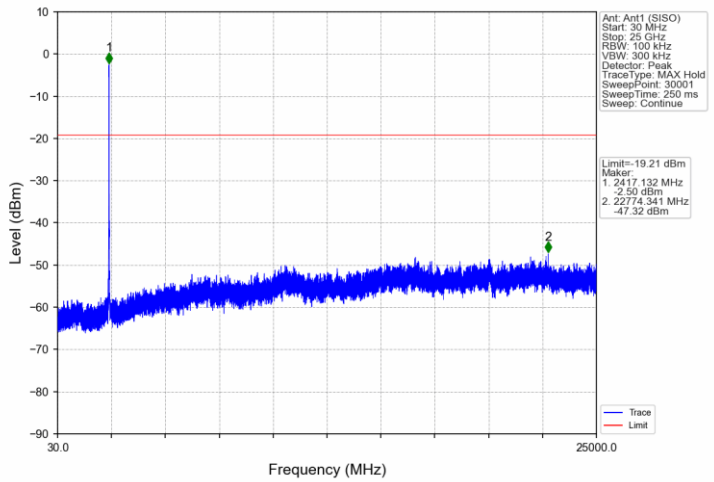


802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

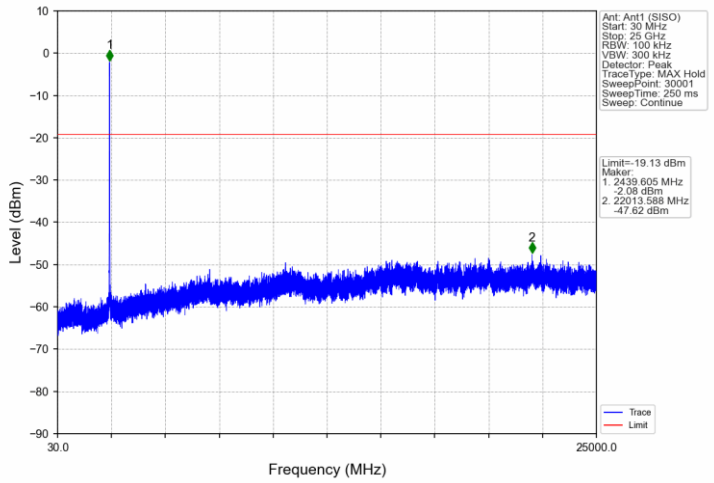


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

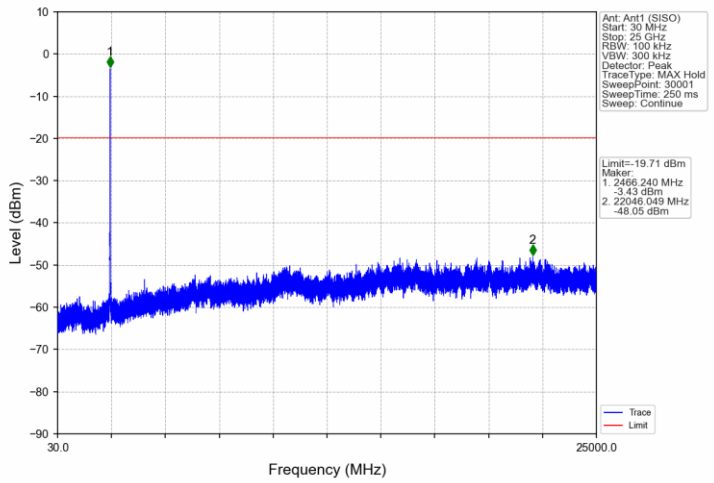
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



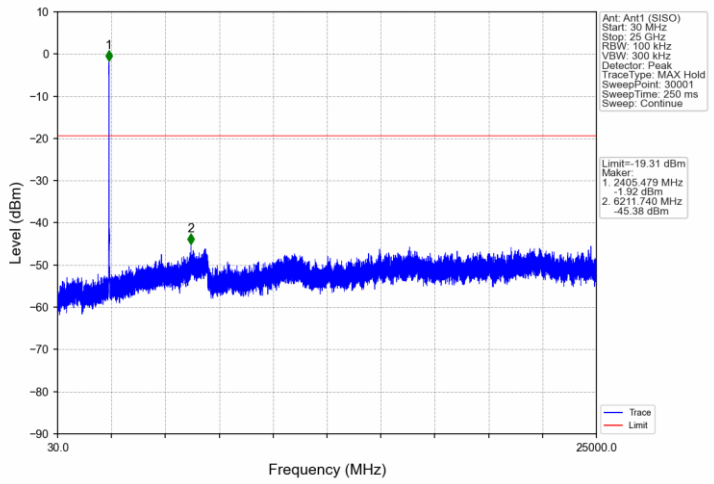
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



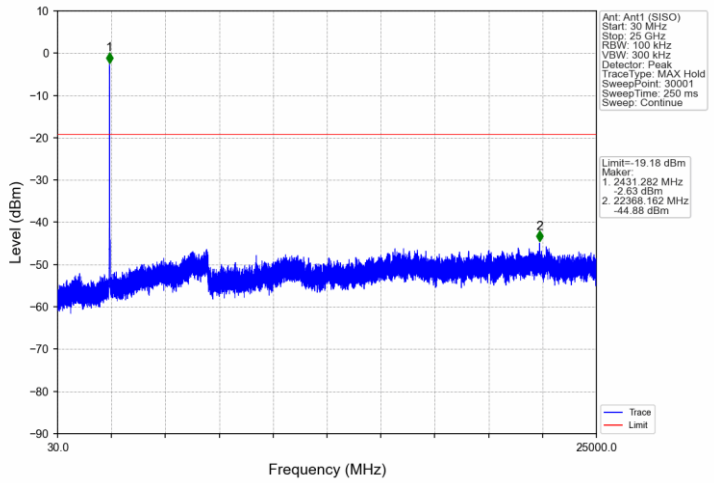
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



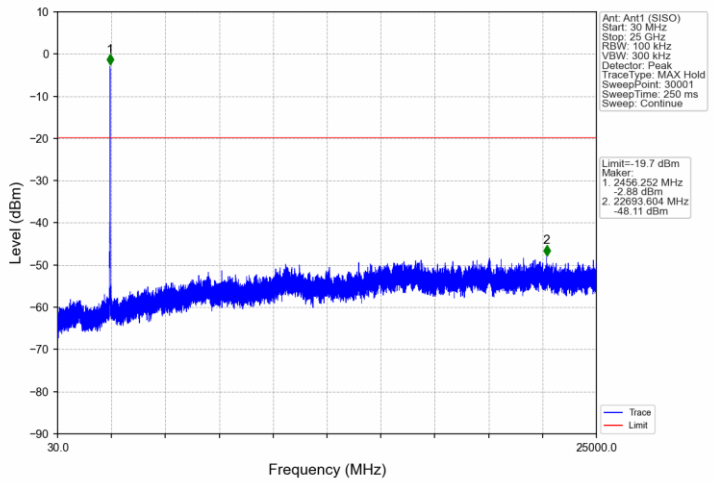
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



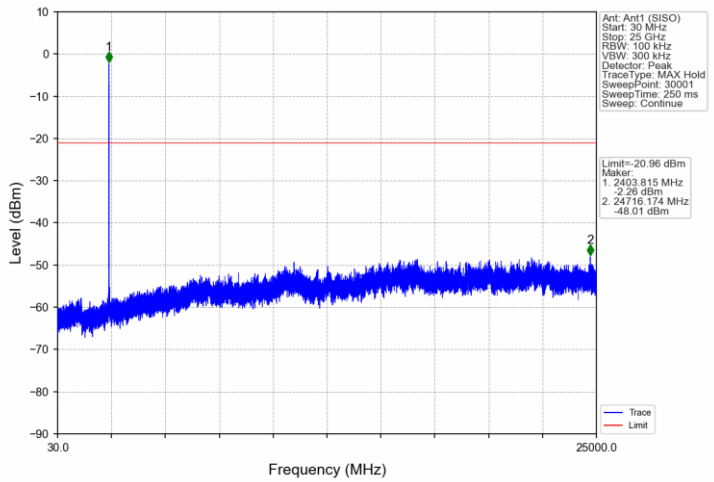
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



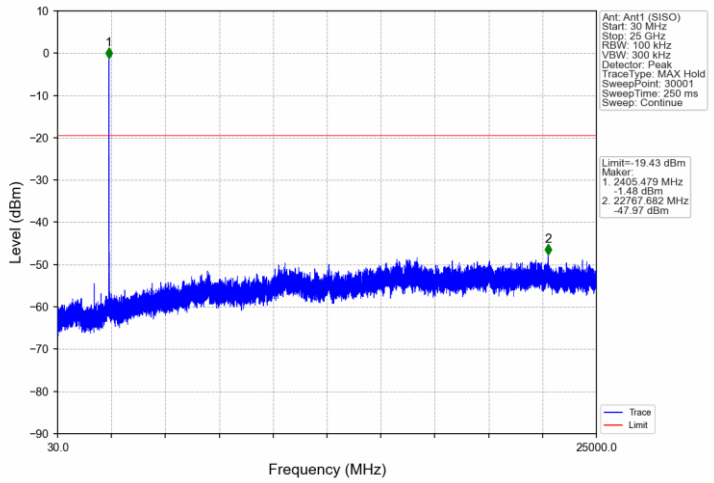
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



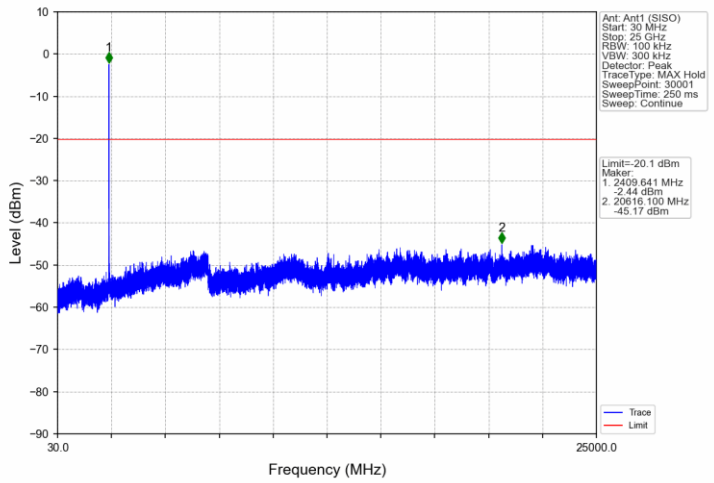
802.11ax(HEW20)_LCH_2412MHz_RU26_0_Ant1 (SISO)_NTNV



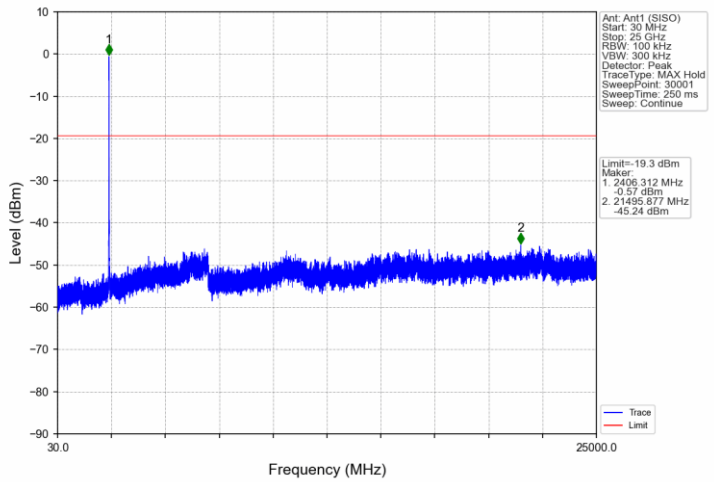
802.11ax(HEW20)_LCH_2412MHz_RU52_37_Ant1 (SISO)_NTNV



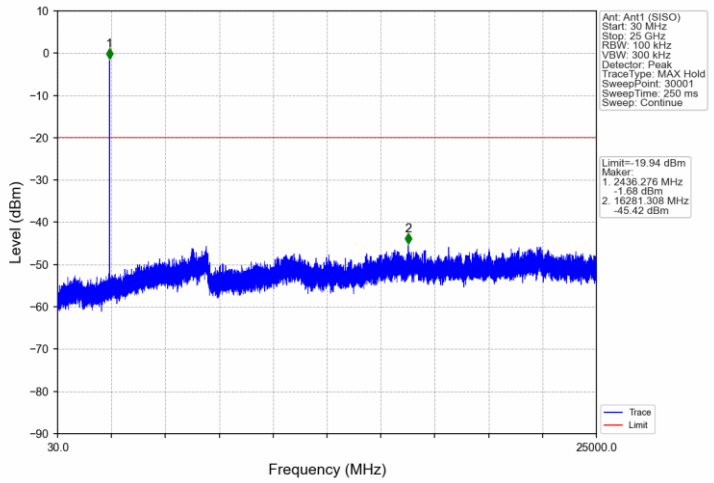
802.11ax(HEW20)_LCH_2412MHz_RU106_53_Ant1 (SISO)_NTNV



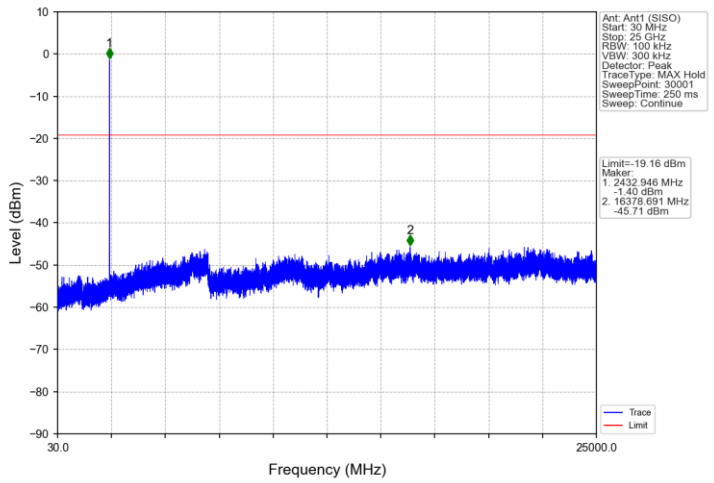
802.11ax(HEW20)_LCH_2412MHz_RU242_61_Ant1 (SISO)_NTNV



802.11ax(HEW20)_MCH_2437MHz_RU26_4_Ant1 (SISO)_NTNV

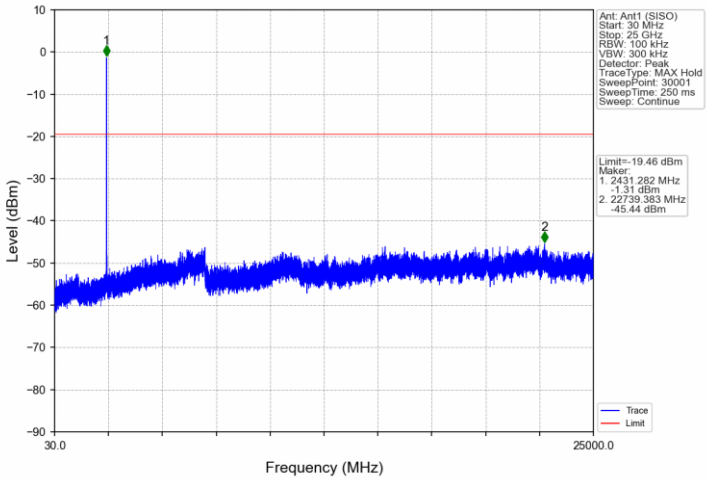


802.11ax(HEW20)_MCH_2437MHz_RU52_38_Ant1 (SISO)_NTNV

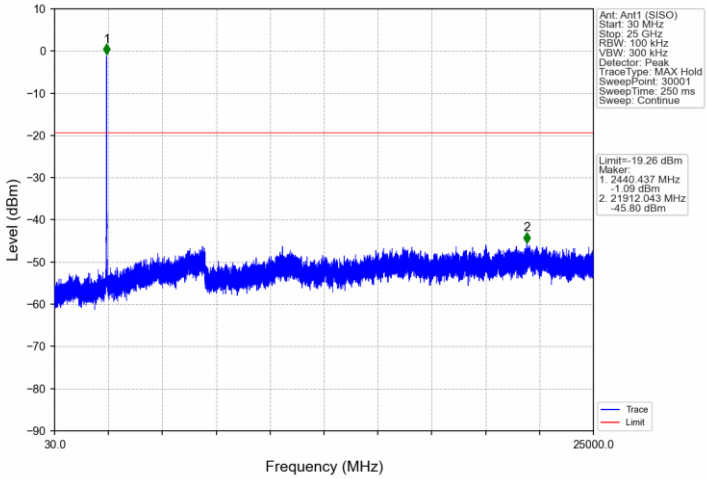


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

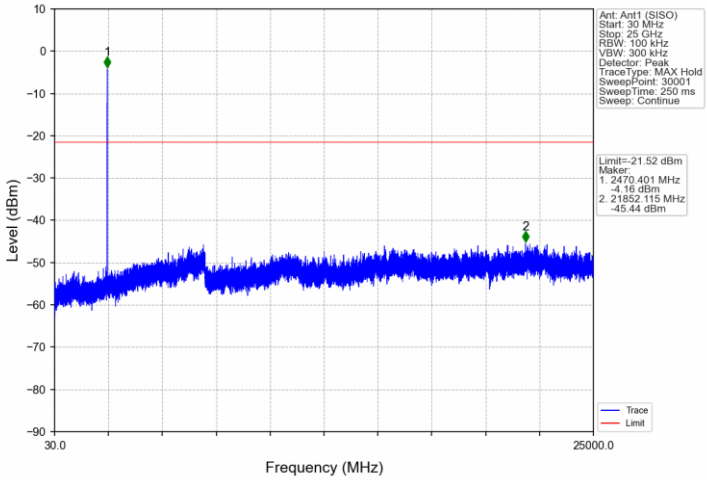
802.11ax(HEW20)_MCH_2437MHz_RU106_54_Ant1 (SISO)_NTNV



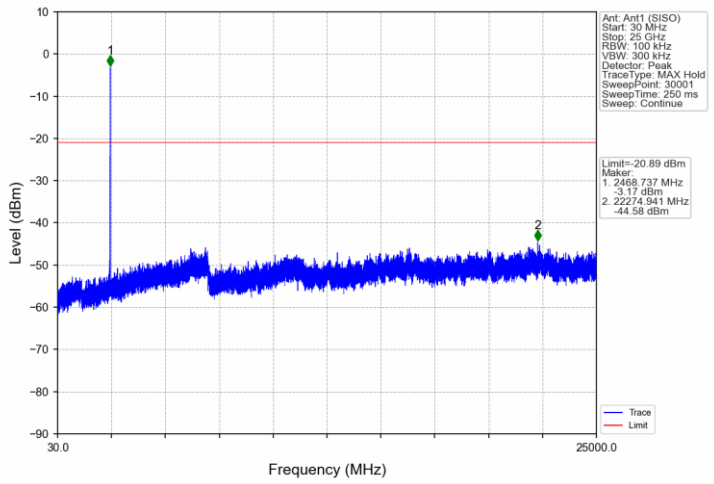
802.11ax(HEW20)_MCH_2437MHz_RU242_61_Ant1 (SISO)_NTNV



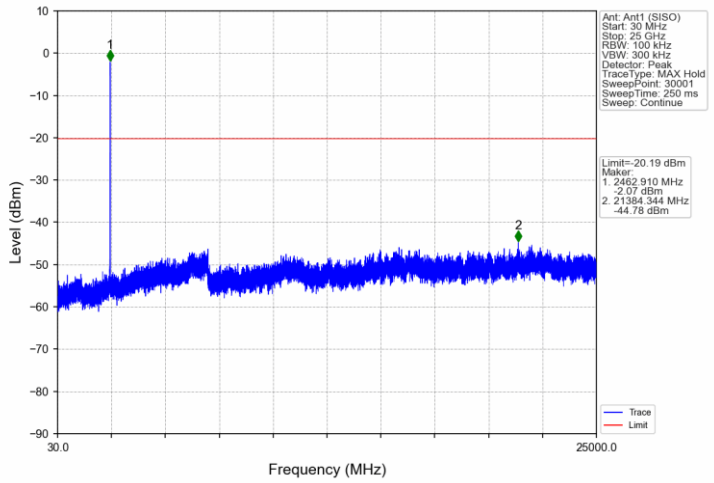
802.11ax(HEW20)_HCH_2462MHz_RU26_8_Ant1 (SISO)_NTNV



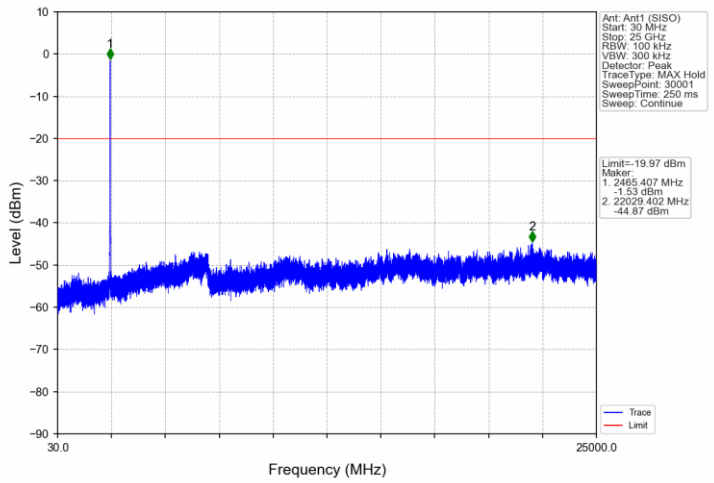
802.11ax(HEW20)_HCH_2462MHz_RU52_40_Ant1 (SISO)_NTNV



802.11ax(HEW20)_HCH_2462MHz_RU106_54_Ant1 (SISO)_NTNV



802.11ax(HEW20)_HCH_2462MHz_RU242_61_Ant1 (SISO)_NTNV



9.6 Band Edge Testing

Test Method

1. The RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously. Set the EUT to the lowest frequency channel.
3. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector, Trace: Max hold, Sweep time: Coupled, Span: Wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products that fall outside of the authorized band of operation. Allow the trace to stabilize.
4. Set the marker on the emission at the band edge, or on the highest modulation product outside of the band, if this level is greater than that at the band edge. Enable the marker-delta function, and then use the marker-to-peak function to move the marker to the peak of the in-band emission.
5. Set the EUT to the highest frequency channel and repeat step 2) to 4)
6. Enable the EUT hopping mode, repeat the test.

Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the100 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 that the transmitter demonstrates compliance with the peak conducted power limits.

Frequency Range MHz	Limit (dBc)
30-25000	-20

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Test Result

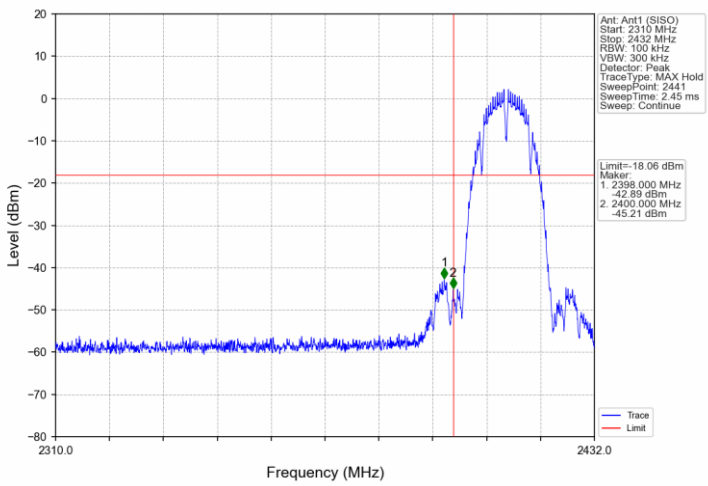
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	1.94	-18.06	Pass
		2437	/	/	1	1.69	-18.31	Pass
		2462	/	/	1	1.49	-18.51	Pass
802.11g	SISO	2412	/	/	1	0.71	-19.29	Pass
		2437	/	/	1	0.80	-19.20	Pass
		2462	/	/	1	-0.09	-20.09	Pass
802.11n (HT20)	SISO	2412	/	/	1	0.66	-19.34	Pass
		2437	/	/	1	0.72	-19.28	Pass
		2462	/	/	1	-0.06	-20.06	Pass
802.11ax (HEW20)	SISO	2412	RU26	0	1	-0.33	-20.33	Pass
			RU52	37	1	4.03	-15.97	Pass
			RU106	53	1	-0.17	-20.17	Pass
			RU242	61	1	0.48	-19.52	Pass
		2437	RU26	4	1	-0.44	-20.44	Pass
			RU52	38	1	0.39	-19.61	Pass
			RU106	53	1	0.07	-19.93	Pass
			RU242	61	1	0.46	-19.54	Pass
		2462	RU26	8	1	-1.56	-21.56	Pass
			RU52	40	1	-1.37	-21.37	Pass
			RU106	54	1	-1.29	-21.29	Pass
			RU242	61	1	-0.48	-20.48	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.								

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	2	1.85	-18.15	Pass
		2437	/	/	2	1.95	-18.05	Pass
		2462	/	/	2	1.62	-18.38	Pass
802.11g	SISO	2412	/	/	2	0.79	-19.21	Pass
		2437	/	/	2	0.87	-19.13	Pass
		2462	/	/	2	0.29	-19.71	Pass
802.11n (HT20)	SISO	2412	/	/	2	0.69	-19.31	Pass
		2437	/	/	2	0.82	-19.18	Pass
		2462	/	/	2	0.30	-19.70	Pass
802.11ax (HEW20)	SISO	2412	RU26	0	2	-0.96	-20.96	Pass
			RU52	37	2	0.57	-19.43	Pass
			RU106	53	2	-0.10	-20.10	Pass
			RU242	61	2	0.70	-19.30	Pass
		2437	RU26	4	2	0.06	-19.94	Pass
			RU52	38	2	0.84	-19.16	Pass
			RU106	54	2	0.54	-19.46	Pass
			RU242	61	2	0.74	-19.26	Pass
		2462	RU26	8	2	-1.52	-21.52	Pass
			RU52	40	2	-0.89	-20.89	Pass
			RU106	54	2	-0.19	-20.19	Pass
			RU242	61	2	0.03	-19.97	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.								

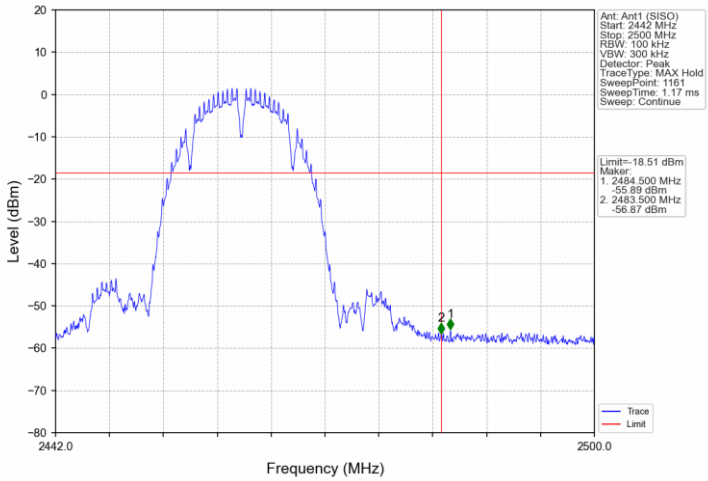
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Band edge testing

802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV

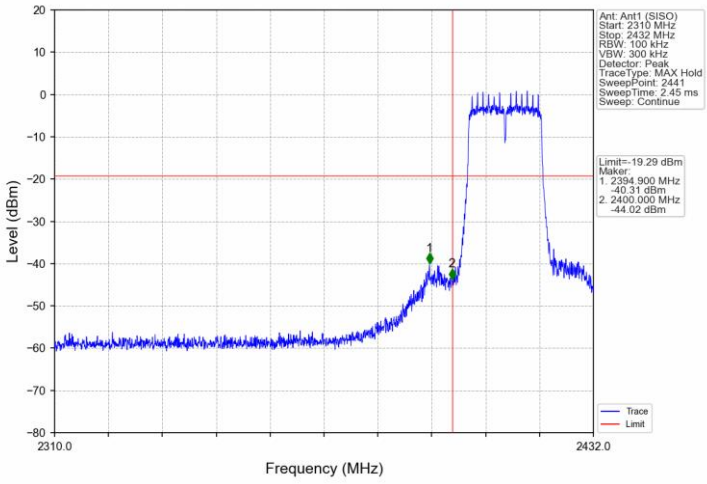


802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

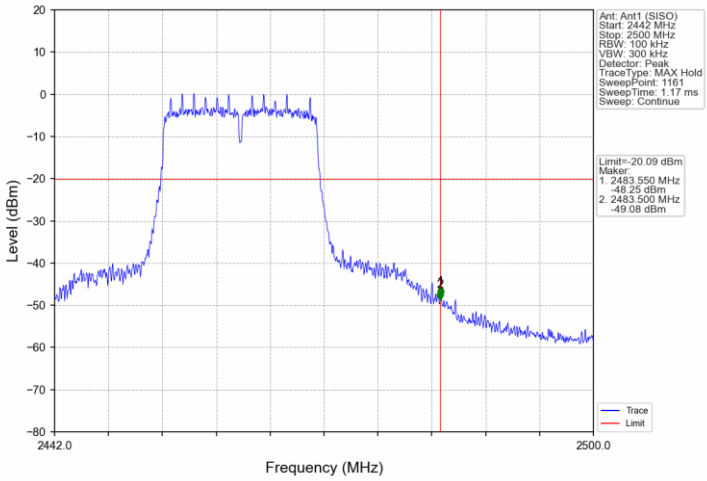


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

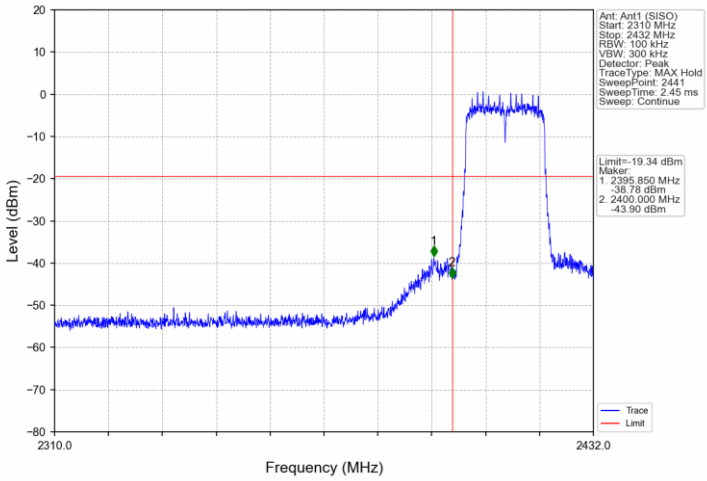


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

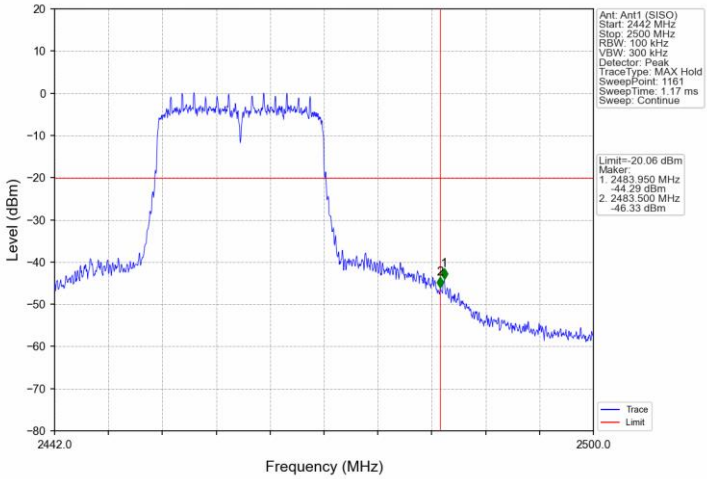


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV

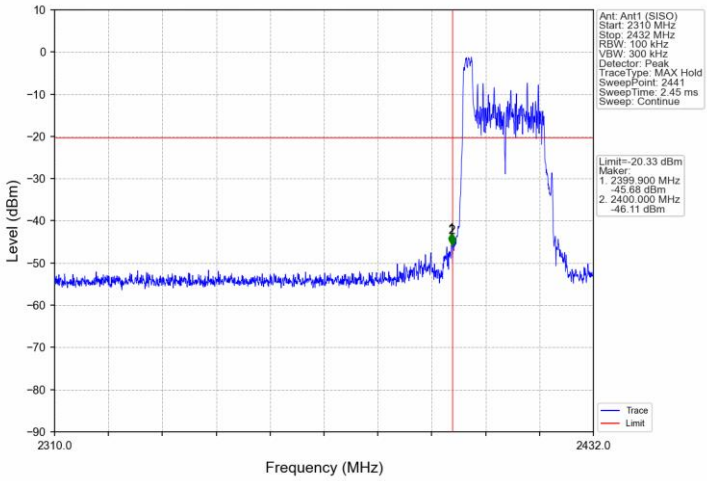


802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV

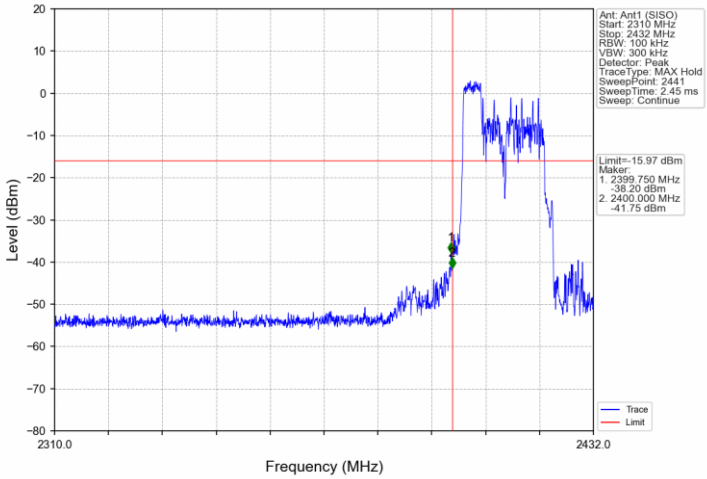


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_LCH_2412MHz_RU26_0_Ant1 (SISO)_NTNV

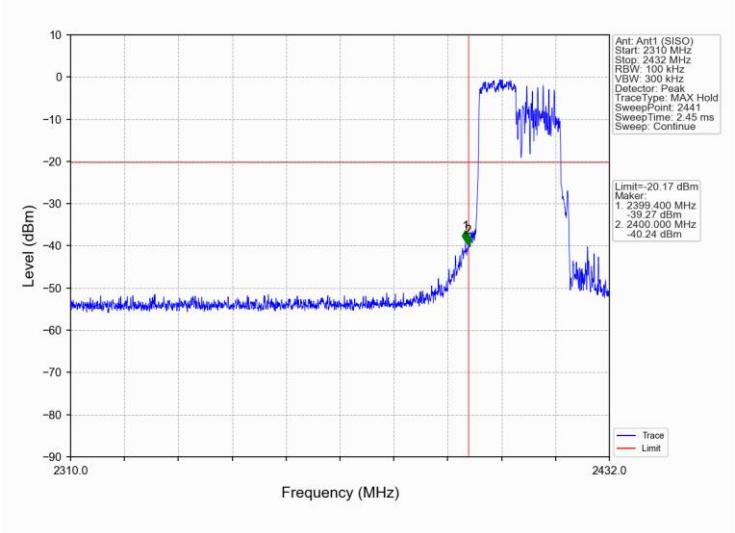


802.11ax(HEW20)_LCH_2412MHz_RU52_37_Ant1 (SISO)_NTNV

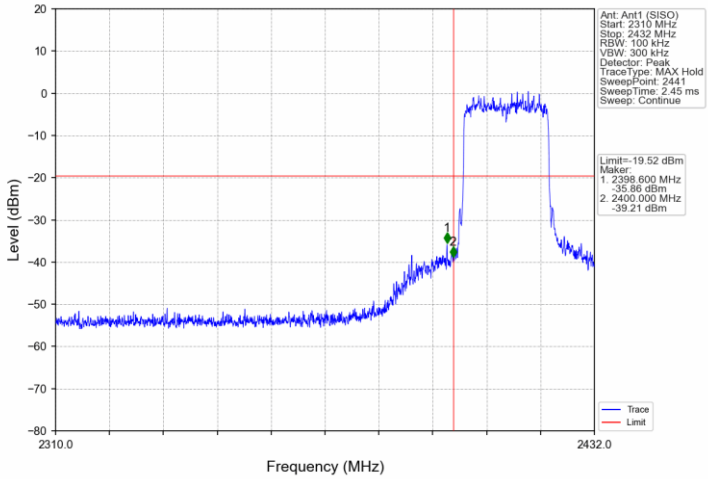


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_LCH_2412MHz_RU106_53_Ant1 (SISO)_NTNV

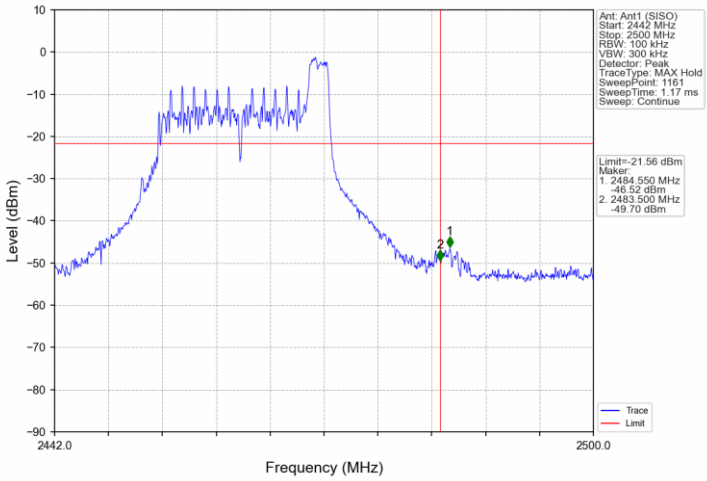


802.11ax(HEW20)_LCH_2412MHz_RU242_61_Ant1 (SISO)_NTNV

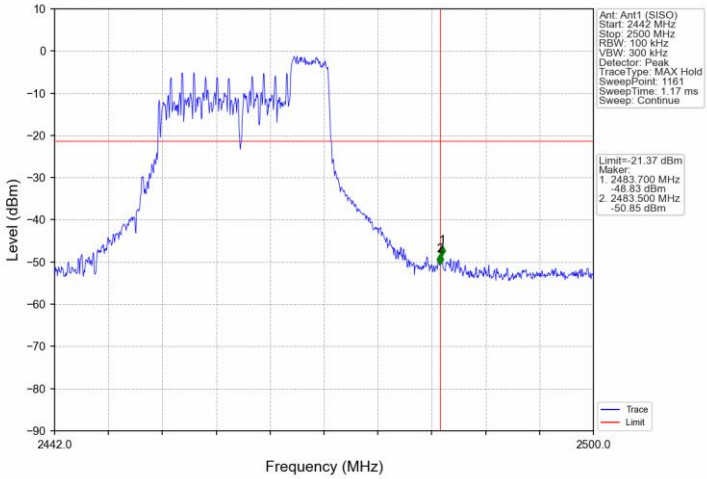


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_HCH_2462MHz_RU26_8_Ant1 (SISO)_NTNV

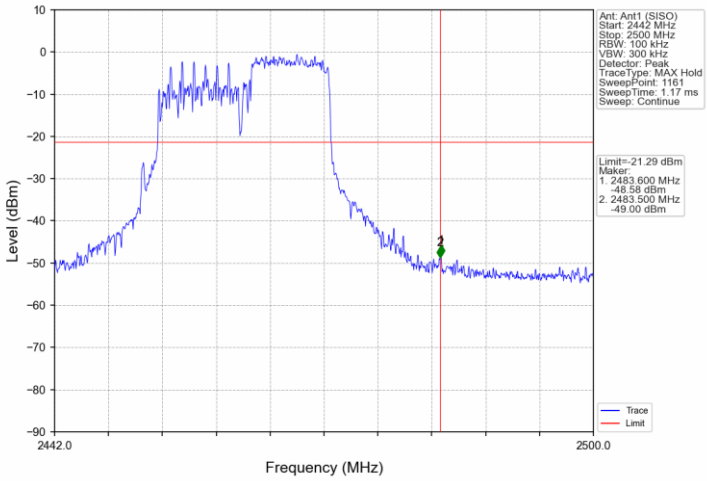


802.11ax(HEW20)_HCH_2462MHz_RU52_40_Ant1 (SISO)_NTNV

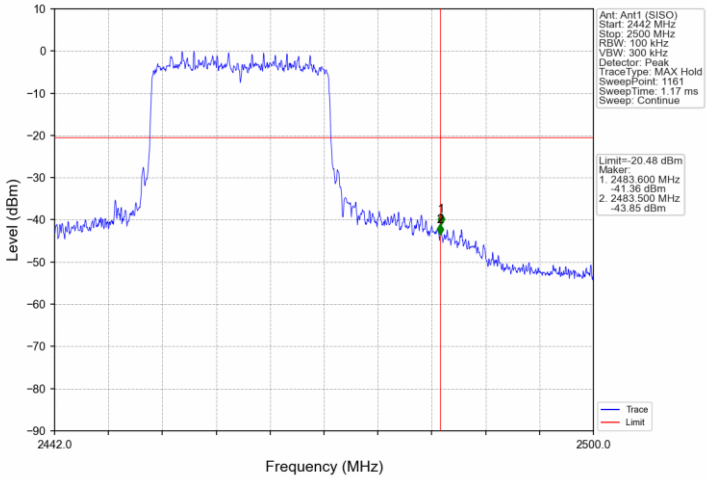


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_HCH_2462MHz_RU106_54_Ant1 (SISO)_NTNV

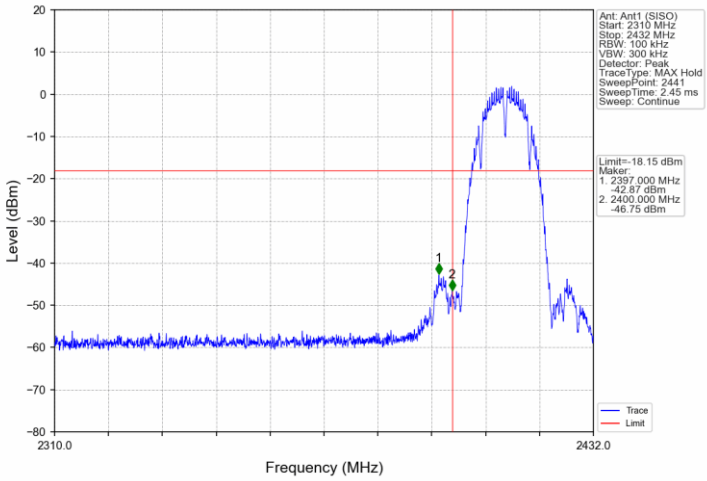


802.11ax(HEW20)_HCH_2462MHz_RU242_61_Ant1 (SISO)_NTNV

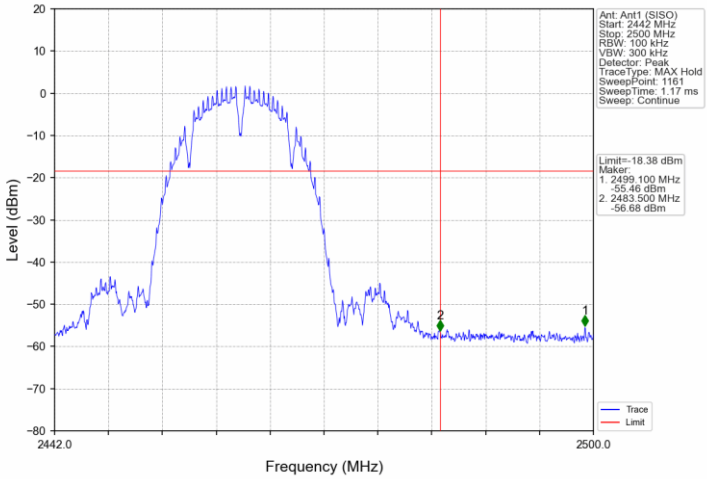


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV

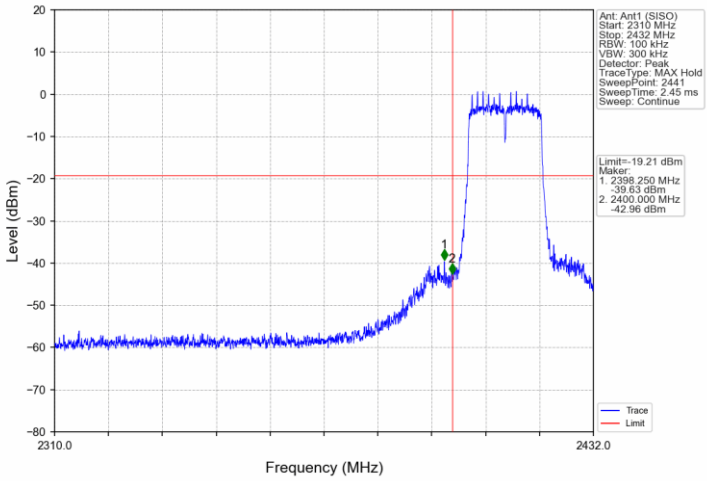


802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV

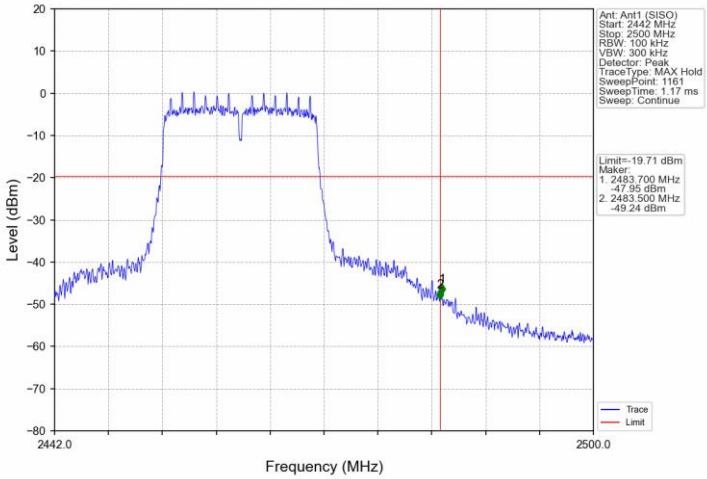


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV

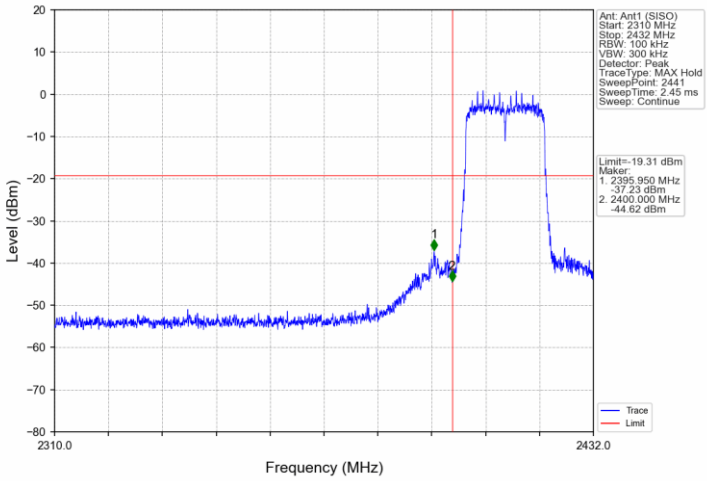


802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV

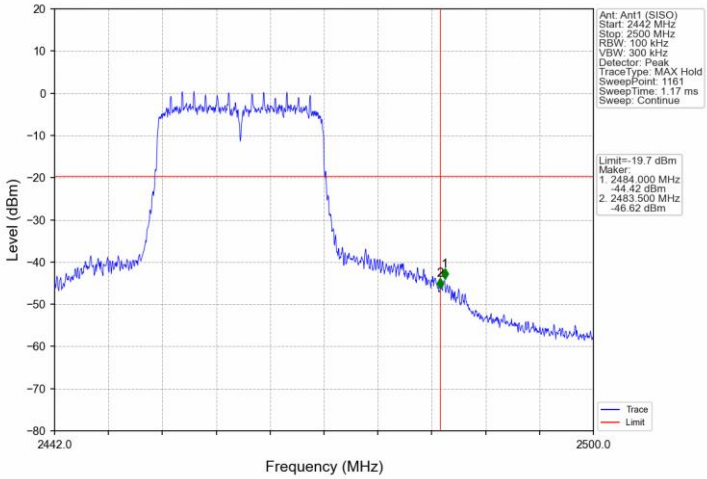


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11n(HT20)_LCH_2412MHz_Ant2 (SISO)_NTNV

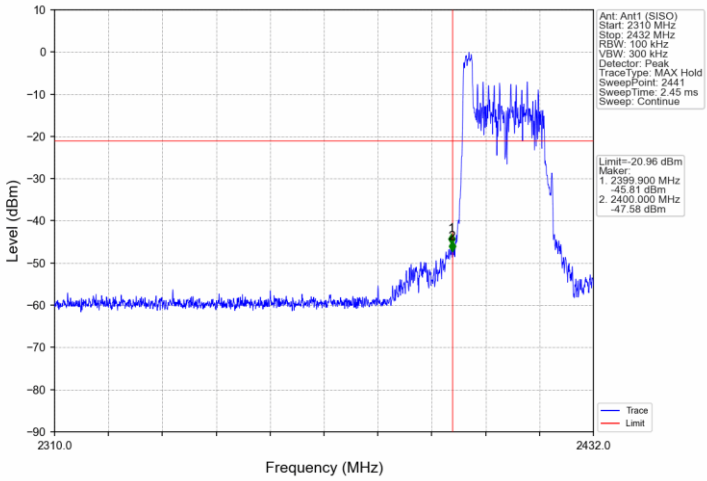


802.11n(HT20)_HCH_2462MHz_Ant2 (SISO)_NTNV

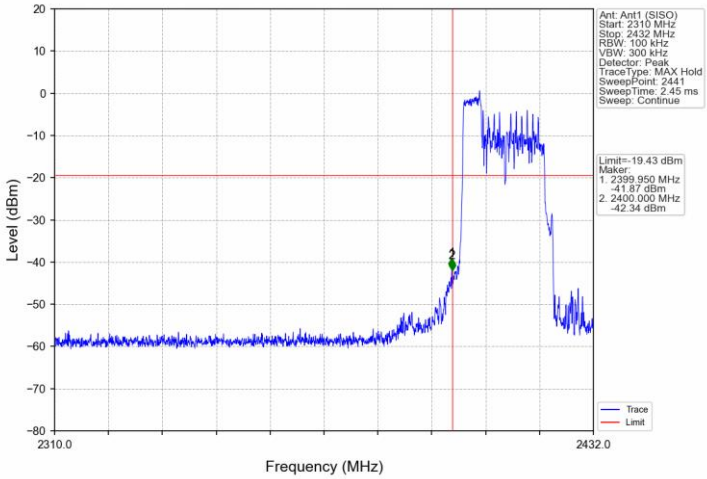


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_LCH_2412MHz_RU26_0_Ant2 (SISO)_NTNV

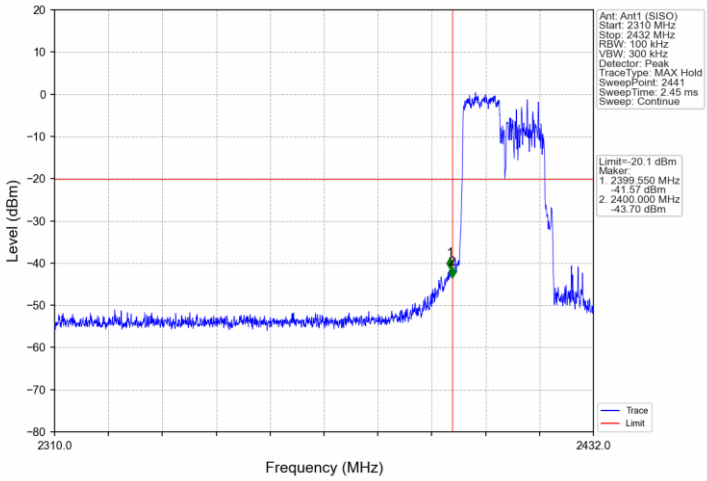


802.11ax(HEW20)_LCH_2412MHz_RU52_37_Ant2 (SISO)_NTNV

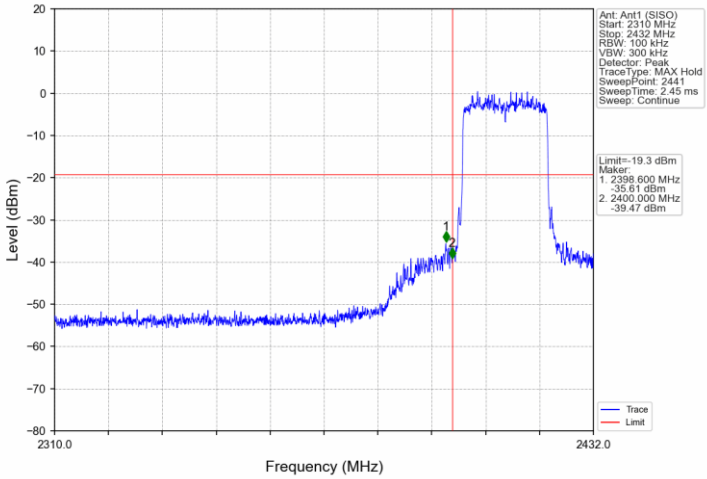


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_LCH_2412MHz_RU106_53_Ant2 (SISO)_NTNV

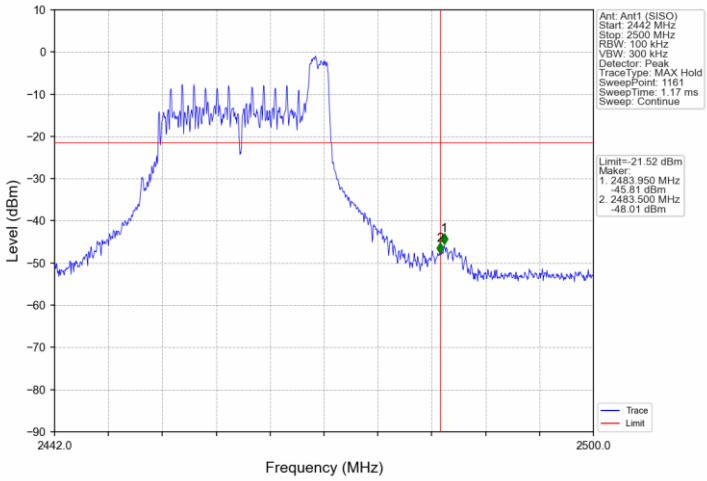


802.11ax(HEW20)_LCH_2412MHz_RU242_61_Ant2 (SISO)_NTNV

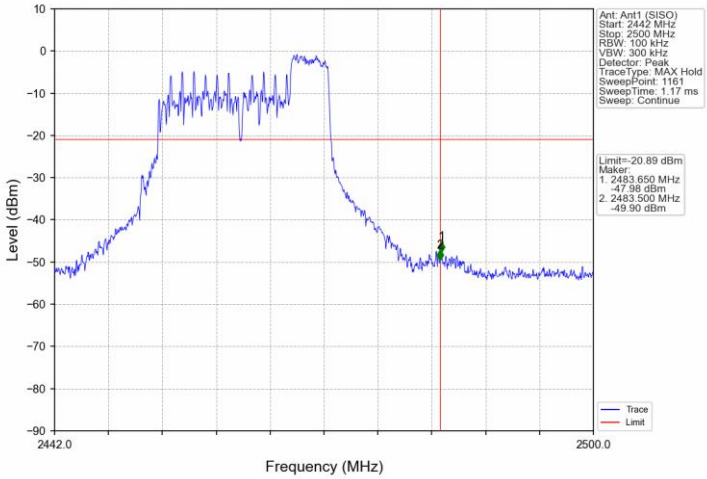


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_HCH_2462MHz_RU26_8_Ant2 (SISO)_NTNV

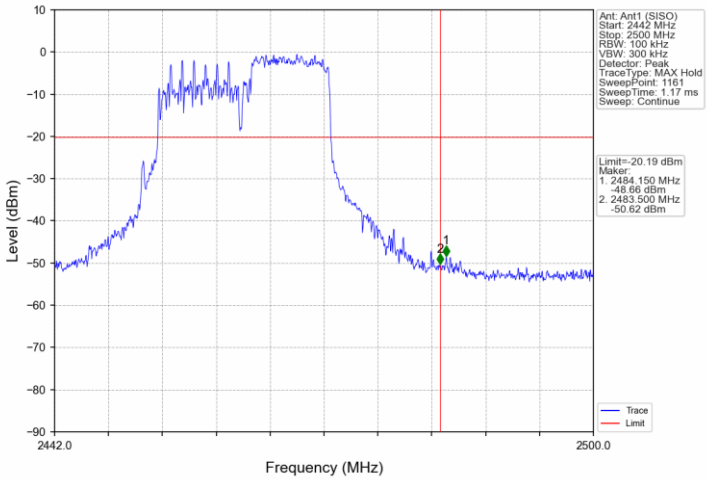


802.11ax(HEW20)_HCH_2462MHz_RU52_40_Ant2 (SISO)_NTNV

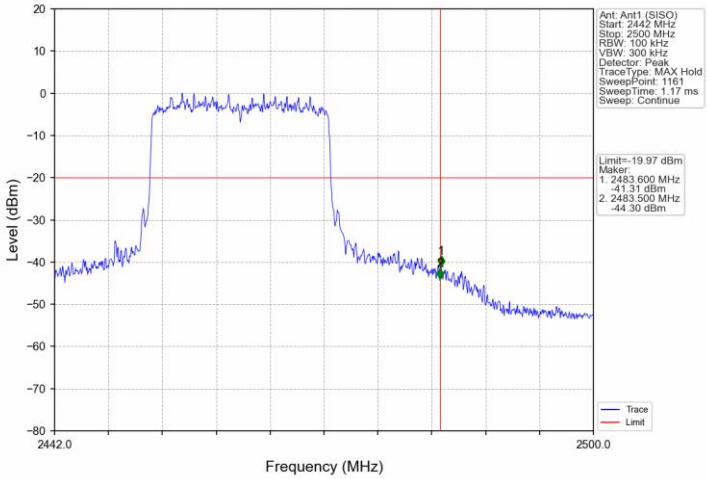


TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax(HEW20)_HCH_2462MHz_RU106_54_Ant2 (SISO)_NTNV



802.11ax(HEW20)_HCH_2462MHz_RU242_61_Ant2 (SISO)_NTNV



TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

9.7 Spurious Radiated Emissions for Transmitter

Test Method

1. The EUT was place on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. Use the following spectrum analyzer settings According to C63.10

   1) Procedure for Unwanted Emissions Measurements Below 1000 MHz

   Span = wide enough to capture the peak level of the in-band emission and all spurious
   RBW = 100 kHz to 120kHz, VBW≥RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

   2) For Peak unwanted emissions Above 1GHz:

   Span = wide enough to capture the peak level of the in-band emission and all spurious
   RBW = 1MHz, VBW≥RBW for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

   Procedures for average unwanted emissions measurements above 1GHz

   a) RBW = 1MHz.
   b) VBW \ [3 × RBW].
   c) Detector = RMS (power averaging), if [span / (# of points in sweep)] \ RBW / 2. Satisfying this condition can require increasing the number of points in the sweep or reducing the span. If the condition is not satisfied, then the detector mode shall be set to peak.
   d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)
   e) Sweep time = auto.
   f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of 1 / D, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)
   g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:
   1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is [10 log (1 / D)], where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.
   2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is [20 log (1 / D)], where D is the duty cycle. For example, if the transmit duty

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

cycle was 50%, then 6 dB shall be added to the measured emission levels.
3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission (AV) at frequency above 1GHz.

Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that 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 § 15.247(b)(3) and RSS 247 section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in § 15.209(a) and RSS-Gen is not required. In addition, radiated emissions which fall in the restricted bands, as defined in§ 15.205(a) and RSS-Gen scetion8.9, must also comply with the radiated emission limits specified in § 15.209(a) and RSS-Gen section 8.10.

Frequency MHz	Field Strength µV/m	Field Strength dBµV/m	Detector	Measurement distance meters
0.009-0.490	2400/F(kHz)	48.5-13.8	AV	300
0.490-1.705	24000/F(kHz)	33.8-23.0	QP	30
1.705-30	30	29.5	QP	30
30-88	100	40	QP	3
88-216	150	43.5	QP	3
216-960	200	46	QP	3
960-1000	500	54	QP	3
Above 1000	500	54	AV	3
Above 1000	5000	74	PK	3

Note 1: Limit 3m(dBµV/m)=Limit 300m(dBµV/m)+40Log(300m/3m) (Below 30MHz)
Note 2: Limit 3m(dBµV/m)=Limit 30m(dBµV/m)+40Log(30m/3m) (Below 30MHz)

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.

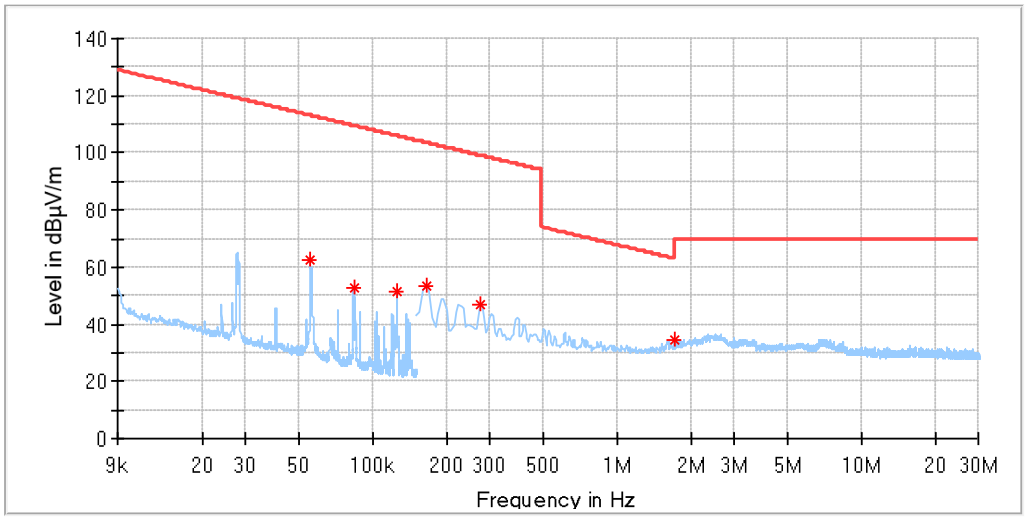
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Spurious Radiated Emissions for Transmitter

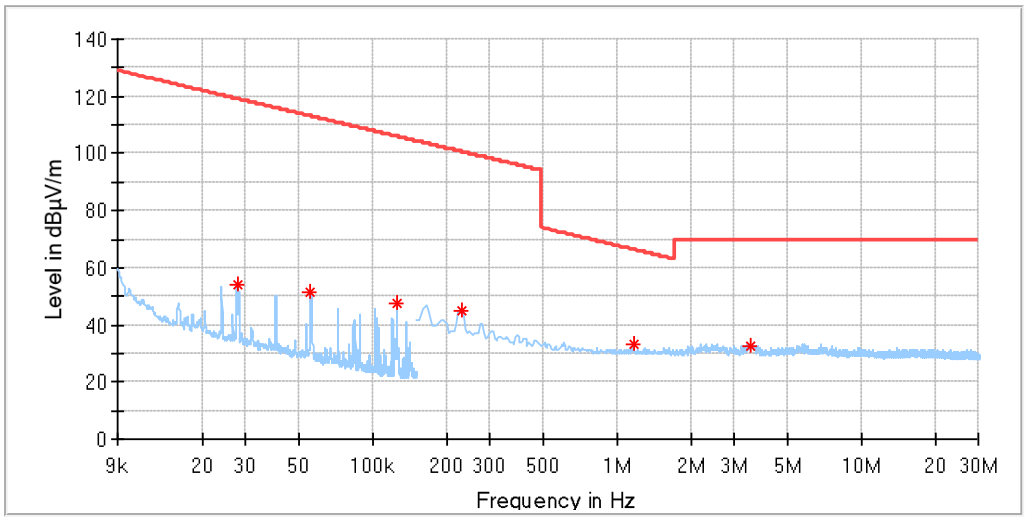
Only the worst case (802.11ax20) test result is listed in the report.

Transmitting spurious emission test result as below:

802.11ax20_2412_242Tone_RU61_ANT2 (9kHz-30MHz)



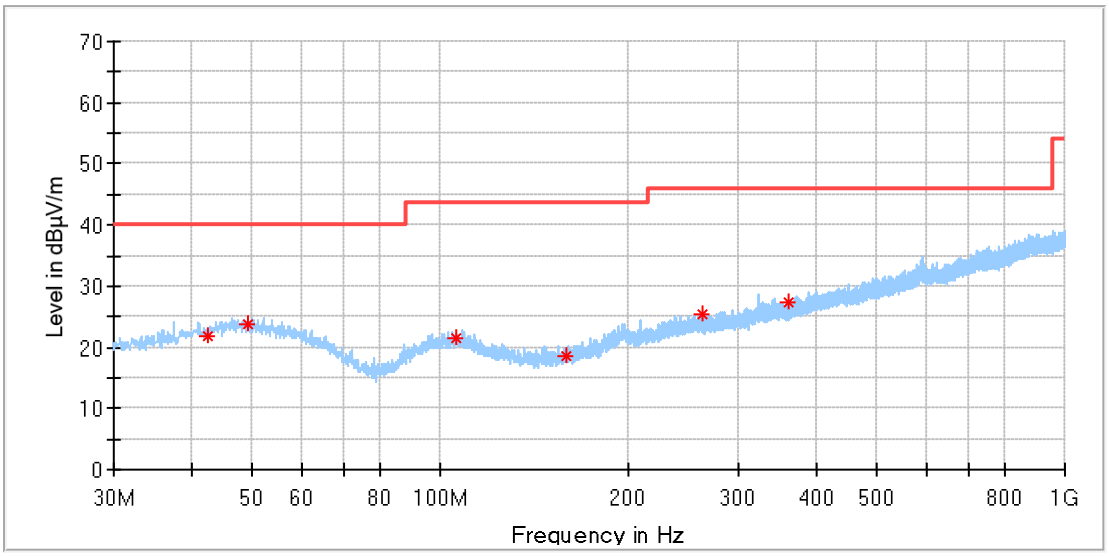
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.055483	62.68	113.07	50.39	H	209.0	19.92
0.083448	52.64	109.50	56.86	H	145.0	19.92
0.124620	51.43	105.99	54.56	H	292.0	19.92
0.164925	53.65	103.54	49.89	H	277.0	19.89
0.274375	46.84	99.08	52.24	H	208.0	19.90
1.702200	34.19	63.01	28.83	H	1.0	20.02



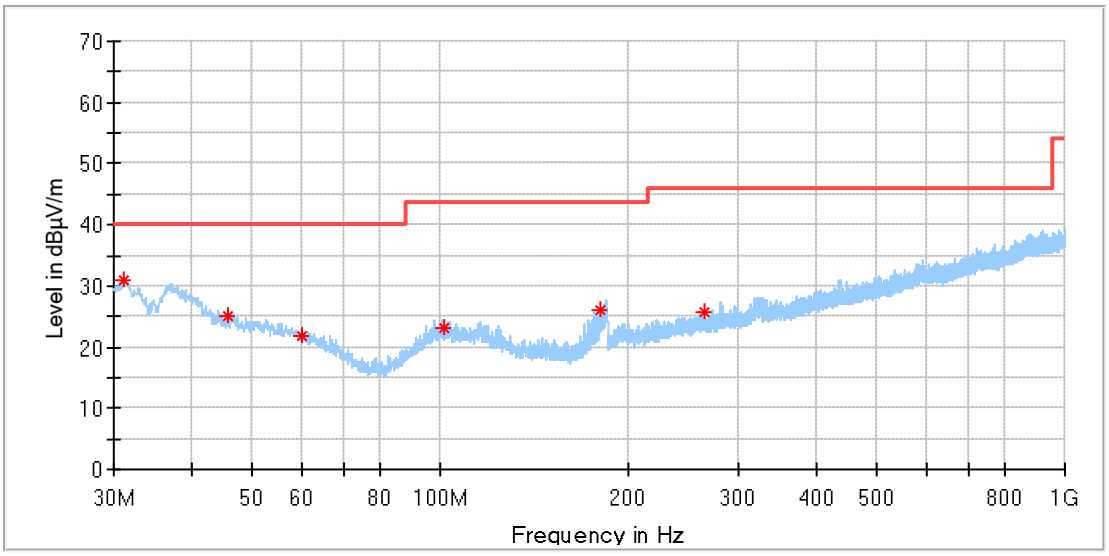
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Azimuth (deg)	Corr. (dB/m)
0.027753	54.06	119.14	65.08	V	286.0	19.88
0.055577	51.26	113.06	61.80	V	278.0	19.92
0.124620	47.53	105.99	58.46	V	0.0	19.92
0.229600	44.73	100.64	55.90	V	266.0	19.88
1.164900	33.00	66.36	33.36	V	109.0	19.94
3.498175	32.84	70.00	37.16	V	232.0	20.13

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2412_242Tone_RU61_ANT2 (30MHz–1GHz)



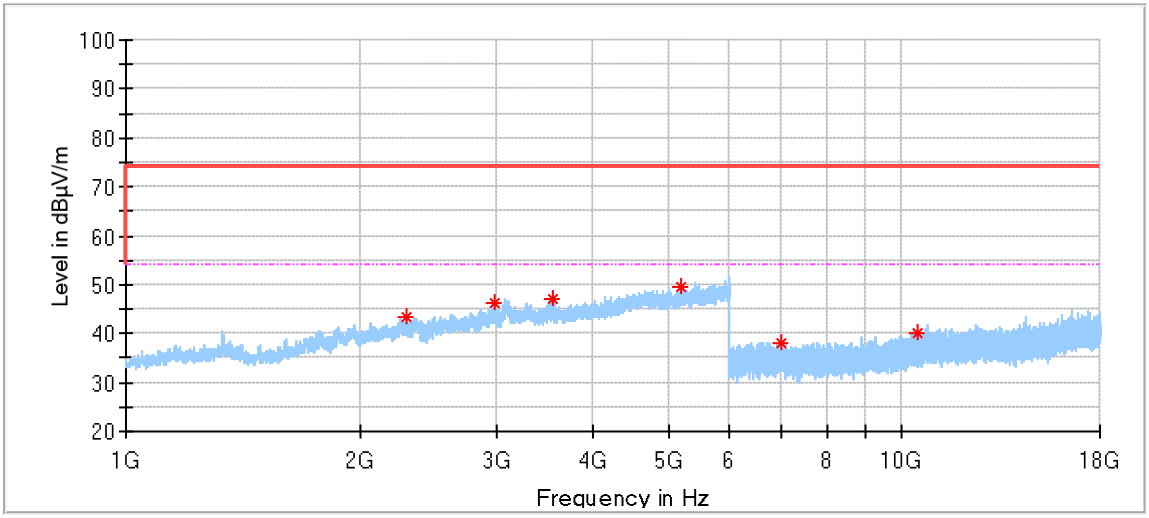
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
42.306875	21.89	40.00	18.11	100.0	H	322.0	20.24
49.157500	23.82	40.00	16.18	100.0	H	115.0	20.97
105.902500	21.59	43.50	21.91	200.0	H	358.0	18.69
159.616250	18.51	43.50	24.99	100.0	H	0.0	15.82
262.254375	25.27	46.00	20.73	200.0	H	141.0	20.50
360.951875	27.19	46.00	18.81	200.0	H	141.0	22.43



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
31.091250	30.77	40.00	9.23	100.0	V	0.0	16.83
45.641250	24.92	40.00	15.08	100.0	V	54.0	20.97
60.070000	21.94	40.00	18.06	100.0	V	174.0	19.56
101.113125	22.99	43.50	20.51	100.0	V	1.0	18.76
179.986250	25.89	43.50	17.61	100.0	V	268.0	16.90
264.921875	25.63	46.00	20.37	200.0	V	261.0	20.29

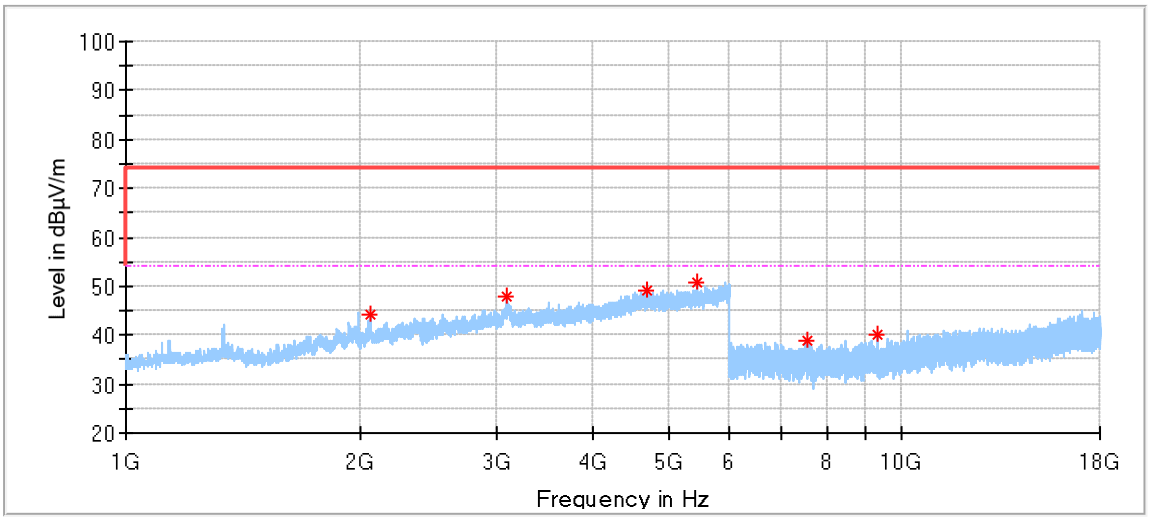
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2412_242Tone_RU61_ANT2 (1–18GHz)



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2296.500000	43.29	74.00	30.71	150.0	H	224.0	-3.25
2991.500000	46.16	74.00	27.84	150.0	H	60.0	-0.61
3550.000000	46.97	74.00	27.03	150.0	H	337.0	0.79
5203.000000	49.50	74.00	24.50	150.0	H	210.0	5.07
6994.000000	38.17	74.00	35.83	150.0	H	63.0	5.29
10455.000000	40.14	74.00	33.86	150.0	H	4.0	9.01

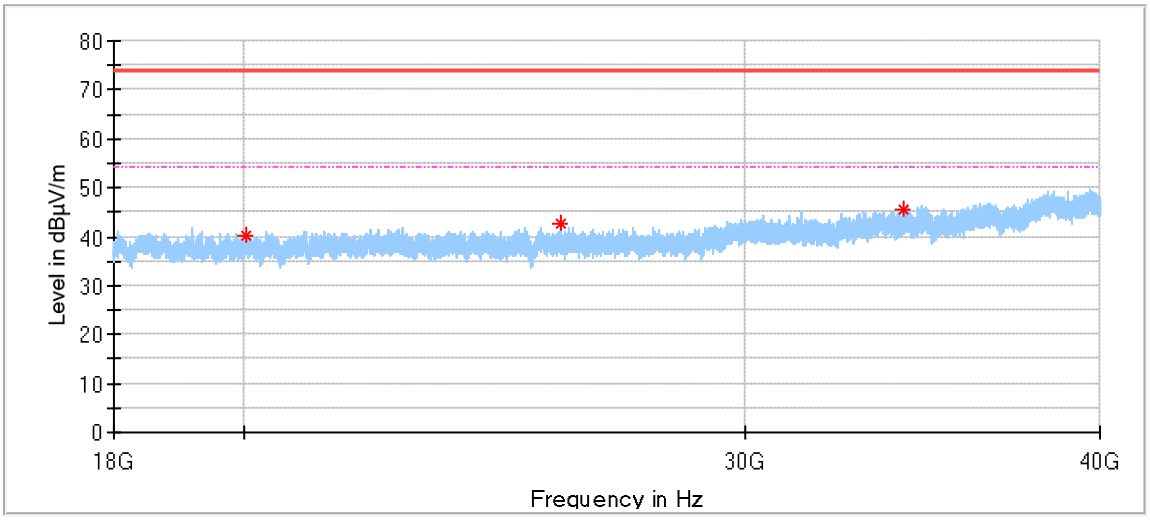


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2062.000000	44.13	74.00	29.87	150.0	V	277.0	-4.48
3100.500000	47.73	74.00	26.27	150.0	V	318.0	1.56
4684.500000	49.20	74.00	24.80	150.0	V	277.0	4.33
5446.500000	50.85	74.00	23.15	150.0	V	136.0	5.69
7574.000000	38.93	74.00	35.07	150.0	V	63.0	5.76
9296.000000	40.14	74.00	33.86	150.0	V	346.0	7.92

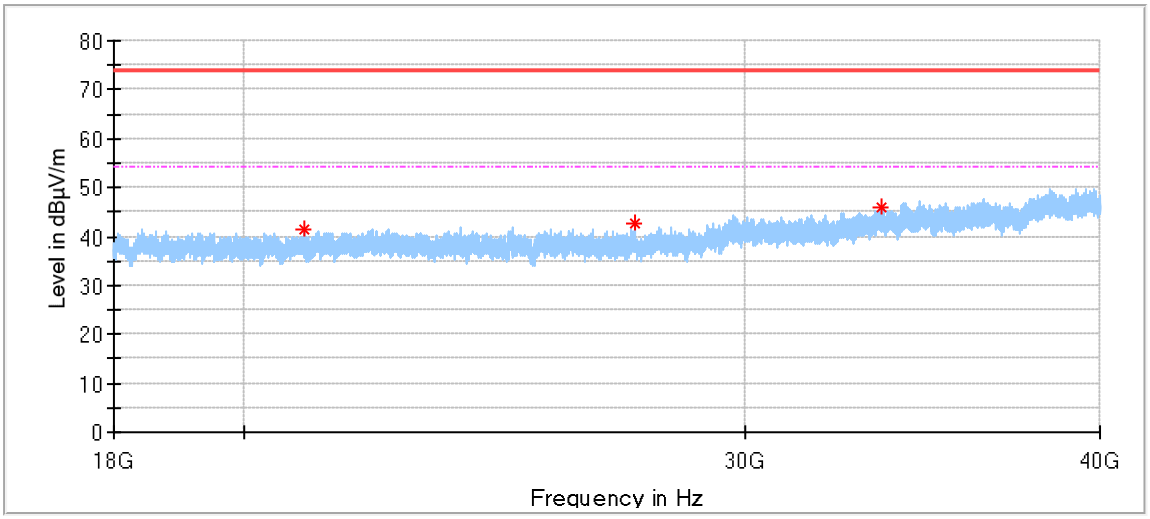
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2412_242Tone_RU61_ANT2 (18–40GHz)



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
20021.250000	40.23	74.00	33.77	150.0	H	207.0	-2.41
25856.062500	42.48	74.00	31.52	150.0	H	220.0	1.64
34130.125000	45.70	74.00	28.30	150.0	H	1.0	3.23

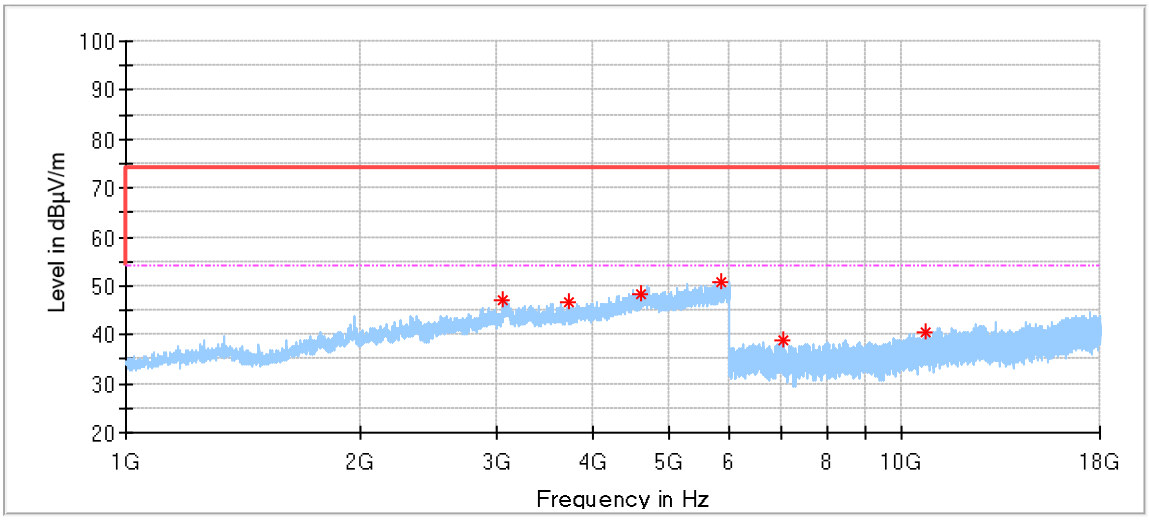


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
20998.875000	41.33	74.00	32.67	150.0	V	17.0	-0.68
27451.750000	42.60	74.00	31.40	150.0	V	345.0	1.65
33536.125000	45.95	74.00	28.05	150.0	V	44.0	2.84

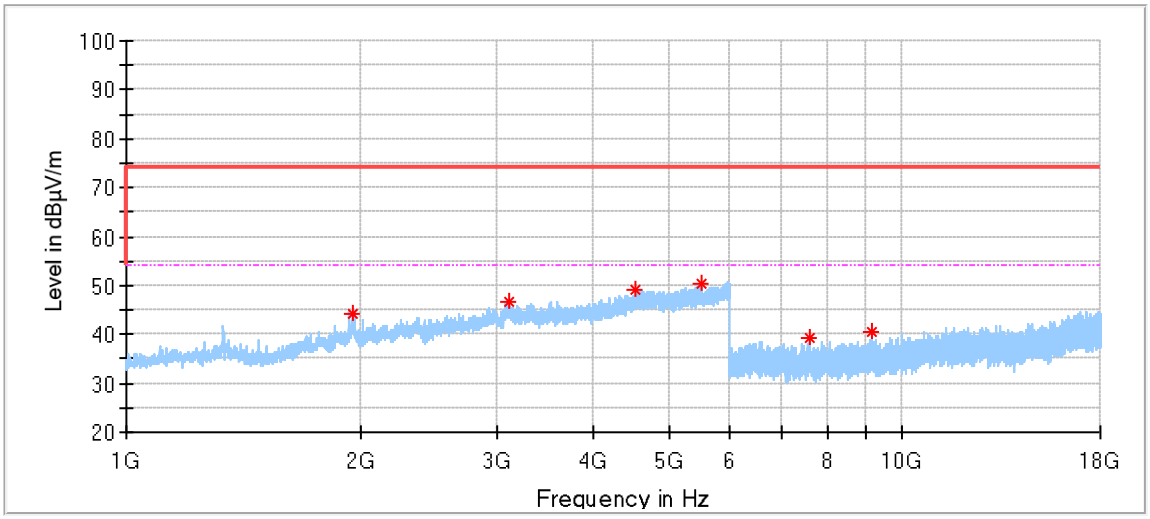
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2437_242Tone_RU61_ANT2 (1–18GHz)



Critical_Freqs

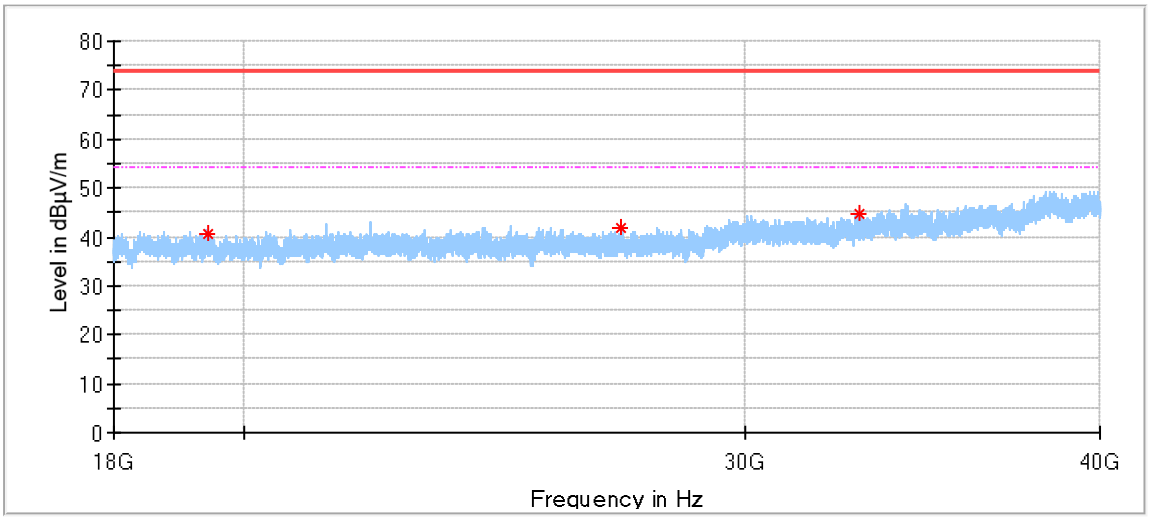
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3068.000000	47.07	74.00	26.93	150.0	H	128.0	0.40
3727.000000	46.62	74.00	27.38	150.0	H	0.0	0.71
4597.500000	48.33	74.00	25.67	150.0	H	74.0	3.97
5854.000000	50.74	74.00	23.26	150.0	H	101.0	6.61
7014.000000	38.79	74.00	35.21	150.0	H	4.0	5.28
10703.000000	40.40	74.00	33.60	150.0	H	32.0	9.21



Critical_Freqs

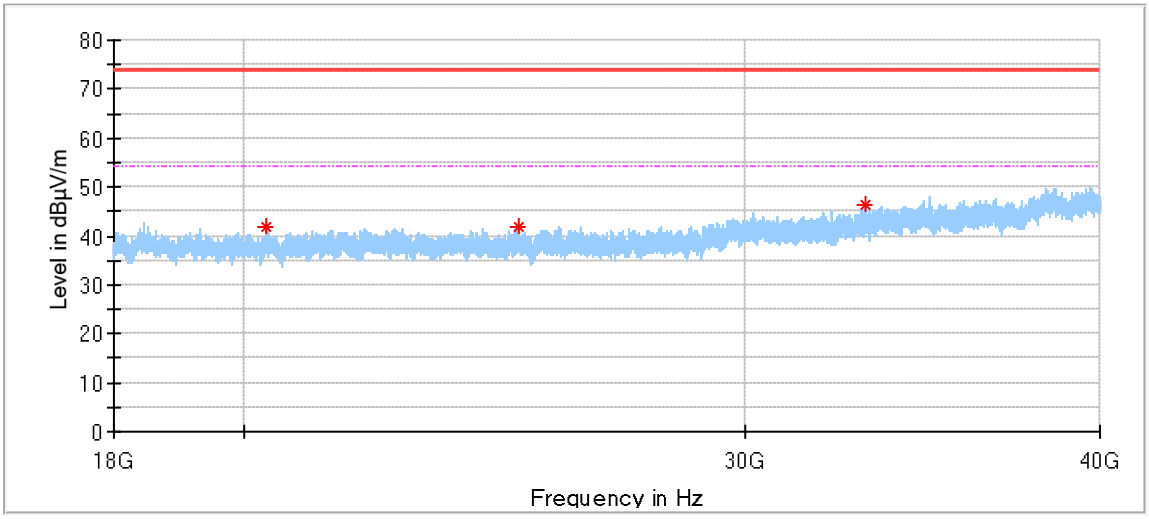
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1961.000000	44.38	74.00	29.62	150.0	V	224.0	-4.17
3111.000000	46.84	74.00	27.16	150.0	V	210.0	1.19
4533.500000	48.96	74.00	25.04	150.0	V	356.0	3.62
5519.500000	50.35	74.00	23.65	150.0	V	169.0	5.62
7596.000000	39.30	74.00	34.70	150.0	V	348.0	5.81
9149.000000	40.69	74.00	33.31	150.0	V	294.0	7.82

802.11ax20_2437_242Tone_RU61_ANT2 (18–40GHz)



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
19438.250000	40.73	74.00	33.27	150.0	H	154.0	-2.46
27127.250000	41.81	74.00	32.19	150.0	H	30.0	1.61
32905.687500	44.63	74.00	29.37	150.0	H	0.0	2.26

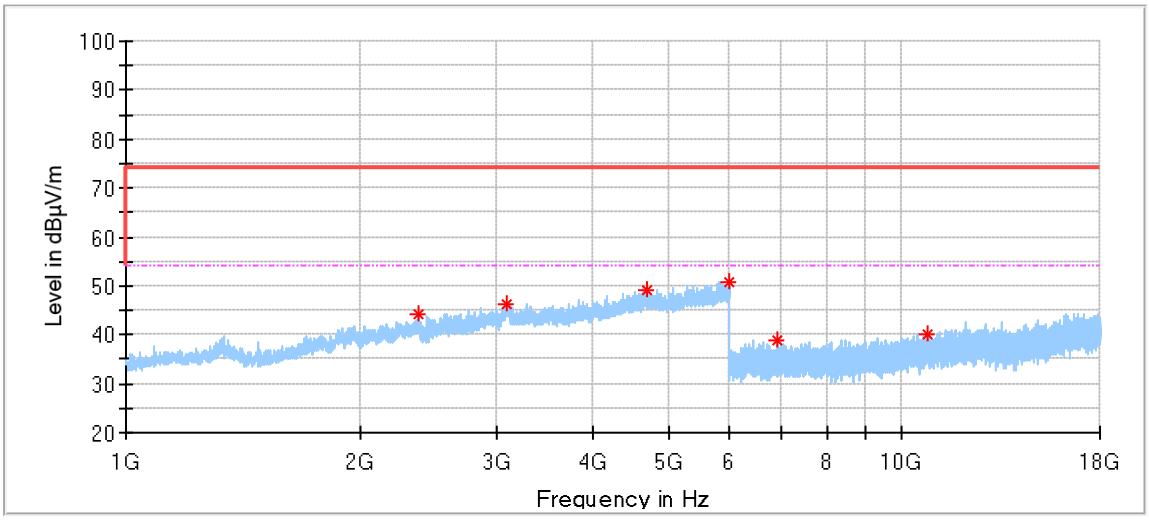


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
20378.750000	41.68	74.00	32.32	150.0	V	0.0	-1.62
24973.312500	42.00	74.00	32.00	150.0	V	73.0	1.20
33065.187500	46.48	74.00	27.52	150.0	V	233.0	2.41

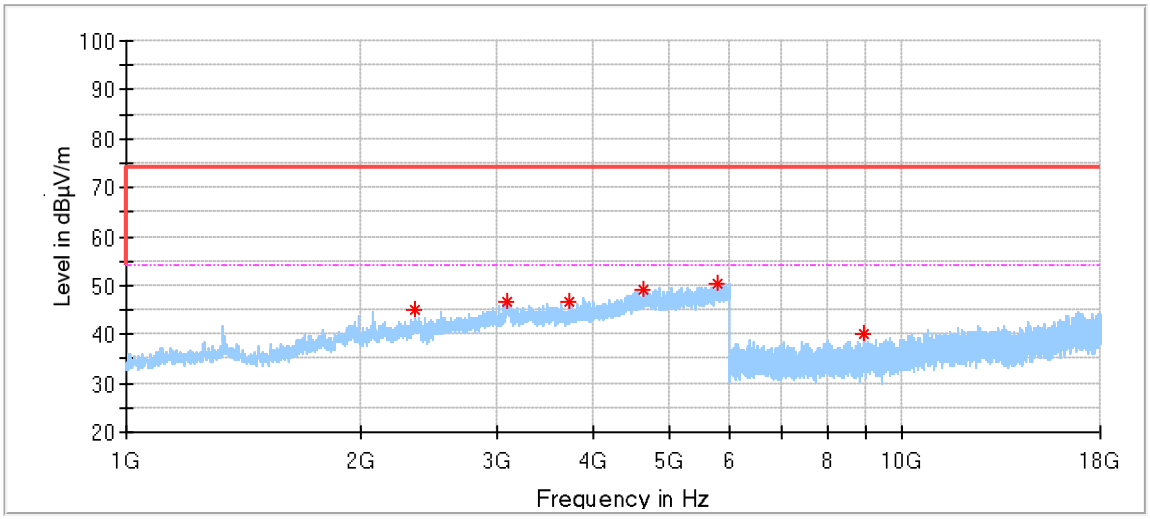
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2462_242Tone_RU61_ANT2 (1–18GHz)



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2386.500000	44.36	74.00	29.64	150.0	H	140.0	-2.52
3094.000000	46.24	74.00	27.76	150.0	H	347.0	1.35
4690.500000	48.98	74.00	25.02	150.0	H	127.0	4.34
5977.000000	50.72	74.00	23.28	150.0	H	127.0	7.05
6893.500000	38.88	74.00	35.12	150.0	H	92.0	5.40
10808.000000	40.12	74.00	33.88	150.0	H	290.0	9.24

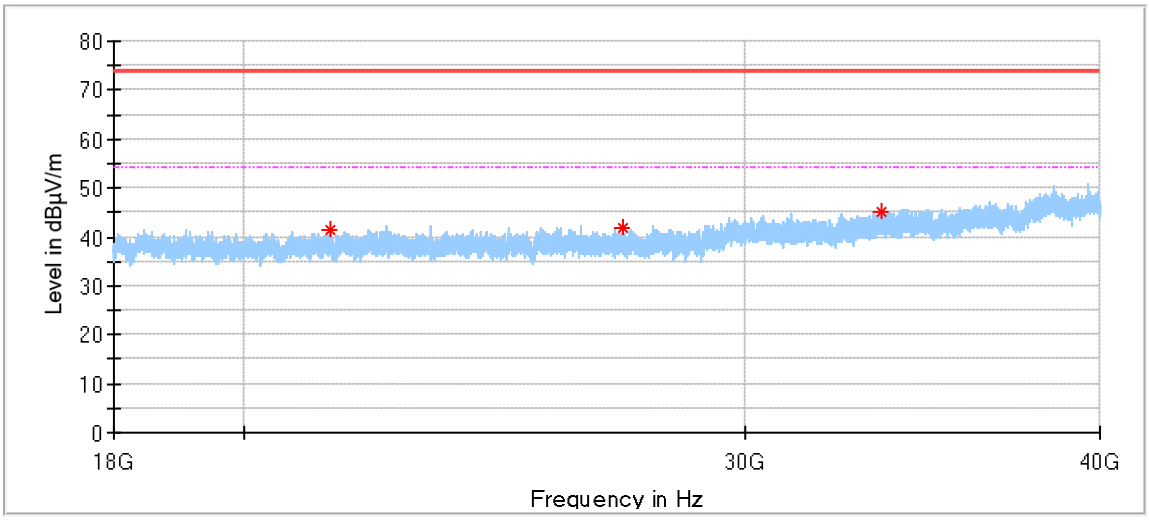


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2361.000000	44.99	74.00	29.01	150.0	V	115.0	-2.70
3092.000000	46.86	74.00	27.14	150.0	V	347.0	1.27
3715.500000	46.80	74.00	27.20	150.0	V	306.0	0.68
4645.000000	49.10	74.00	24.90	150.0	V	7.0	4.29
5777.500000	50.46	74.00	23.54	150.0	V	2.0	6.11
8932.000000	40.05	74.00	33.95	150.0	V	4.0	7.61

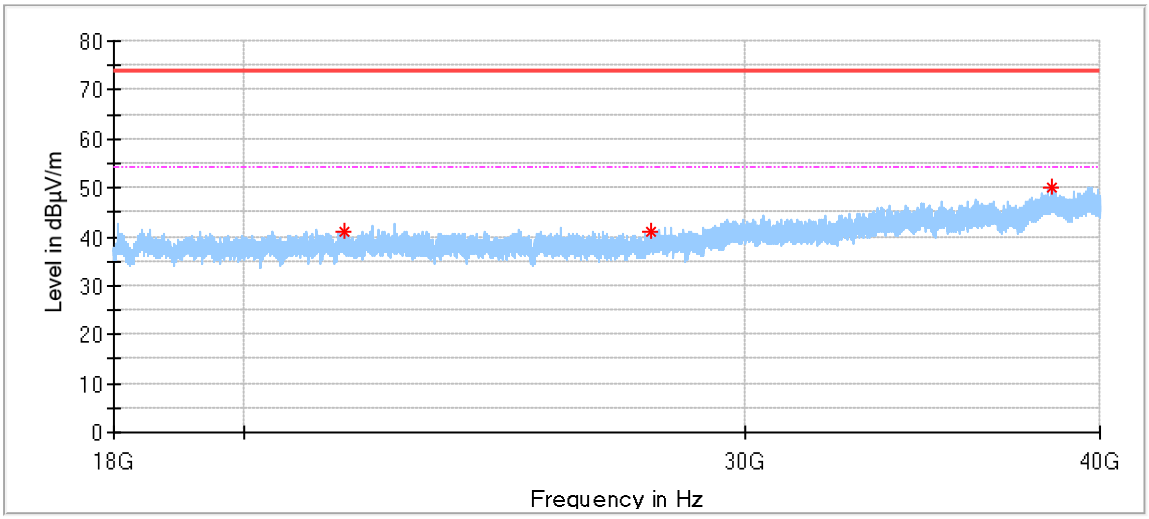
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2462_242Tone_RU61_ANT2 (18–40GHz)



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
21447.812500	41.50	74.00	32.50	150.0	H	179.0	-0.47
27191.187500	41.92	74.00	32.08	150.0	H	300.0	1.69
33509.312500	45.23	74.00	28.77	150.0	H	126.0	2.80



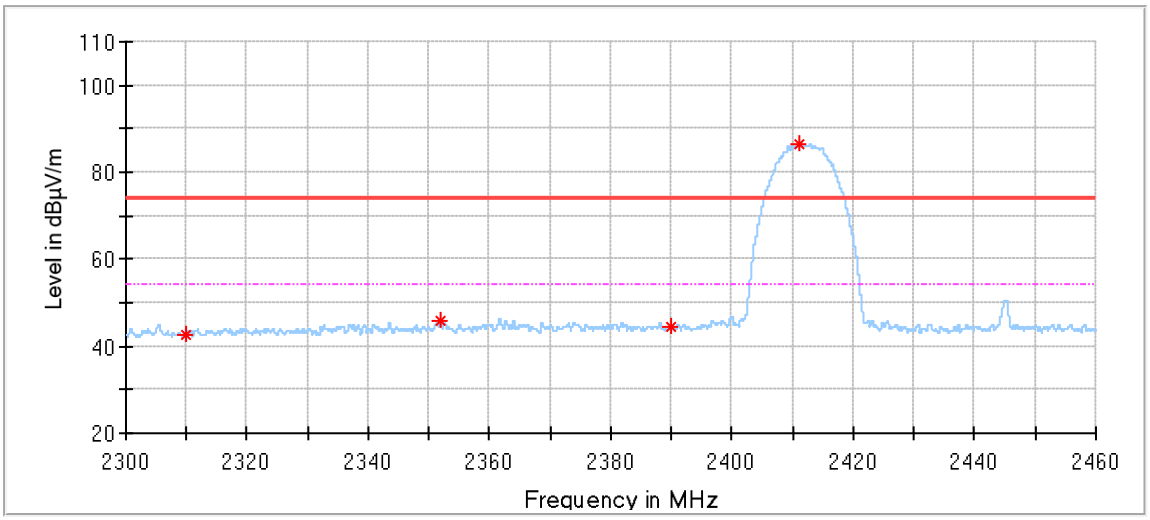
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
21684.312500	40.89	74.00	33.11	150.0	V	218.0	-0.23
27804.437500	40.84	74.00	33.16	150.0	V	0.0	1.41
38471.000000	50.23	74.00	23.77	150.0	V	0.0	6.57

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

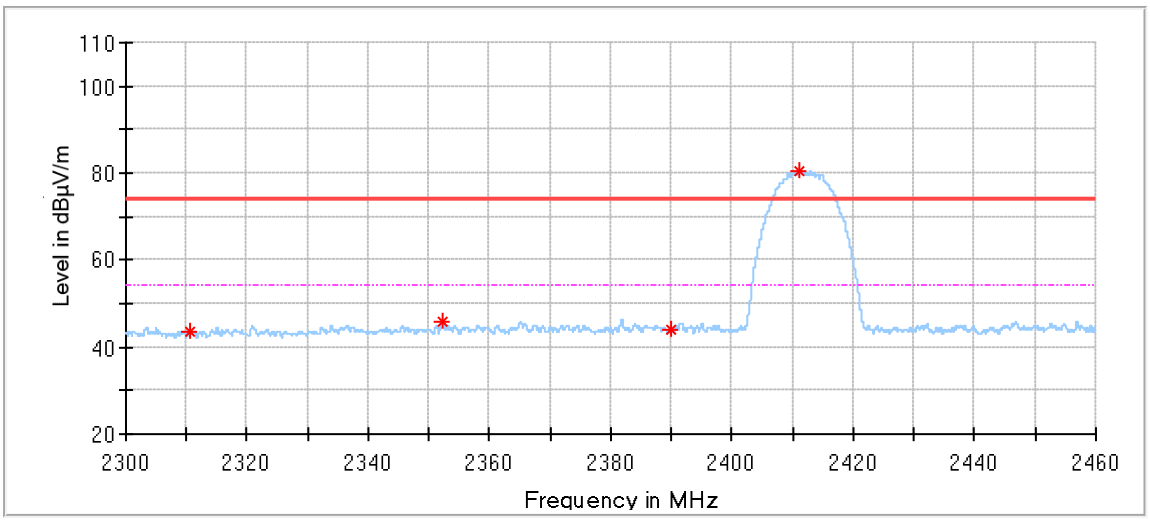
Restricted-band band-edge

802.11b_2412_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.856000	42.71	74.00	31.29	150.0	H	47.0	-3.74	Spurious
2351.872000	45.78	74.00	28.22	150.0	H	38.0	-3.41	Spurious
2390.000000	44.38	74.00	29.62	150.0	H	155.0	-3.05	Spurious
2411.104000	86.67	74.00	-12.67	150.0	H	340.0	-3.01	Fundamental Frequency

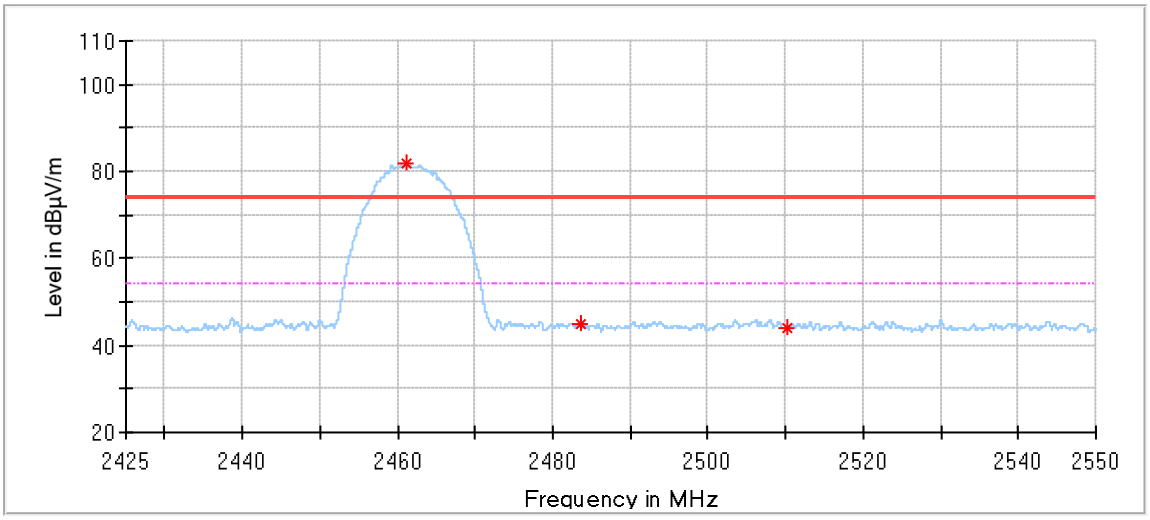


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.640000	43.72	74.00	30.28	150.0	V	52.0	-3.74	Spurious
2352.144000	45.88	74.00	28.12	150.0	V	181.0	-3.40	Spurious
2390.000000	43.99	74.00	30.01	150.0	V	321.0	-3.05	Spurious
2411.104000	80.56	74.00	-6.56	150.0	V	301.0	-3.01	Fundamental Frequency

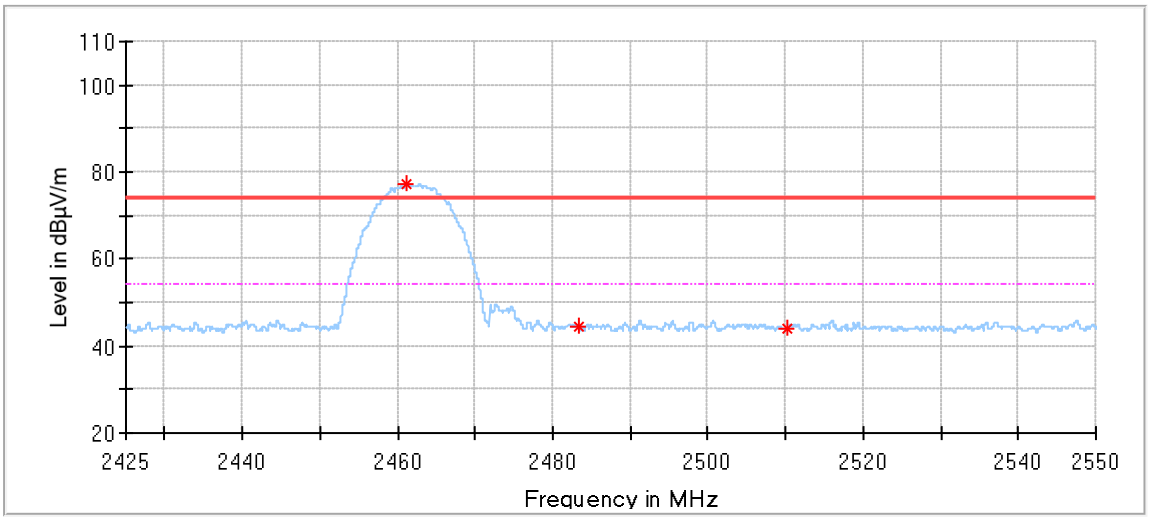
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11b_2462_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2461.100000	81.83	74.00	-7.83	150.0	H	330.0	-2.97	Fundamental Frequency
2483.700000	44.78	74.00	29.22	150.0	H	45.0	-3.06	Spurious
2510.137500	44.00	74.00	30.00	150.0	H	321.0	-3.13	Spurious

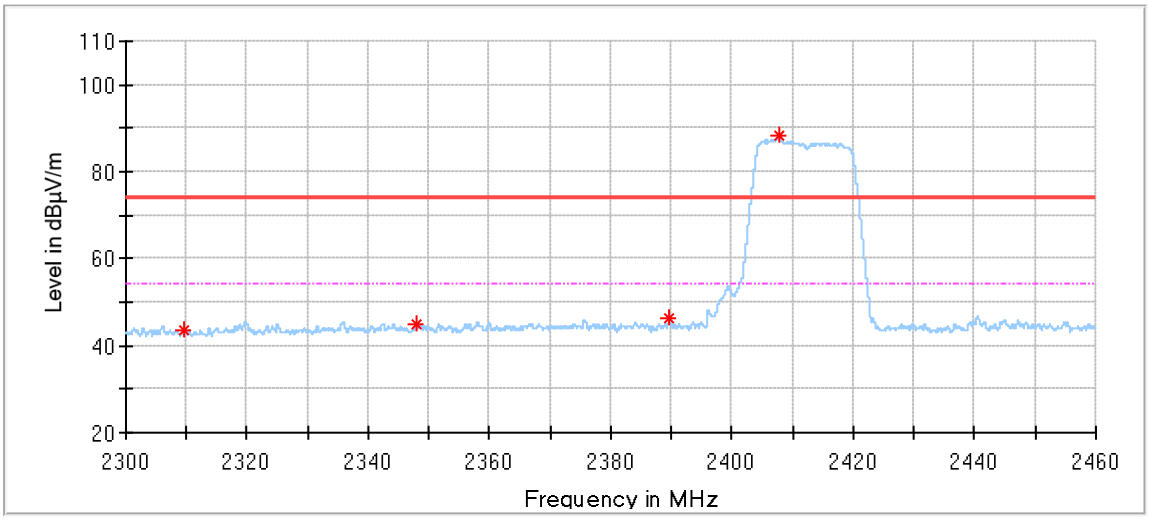


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2461.125000	77.35	74.00	-3.35	150.0	V	268.0	-2.97	Fundamental Frequency
2483.300000	44.43	74.00	29.57	150.0	V	186.0	-3.06	Spurious
2510.112500	43.97	74.00	30.03	150.0	V	112.0	-3.13	Spurious

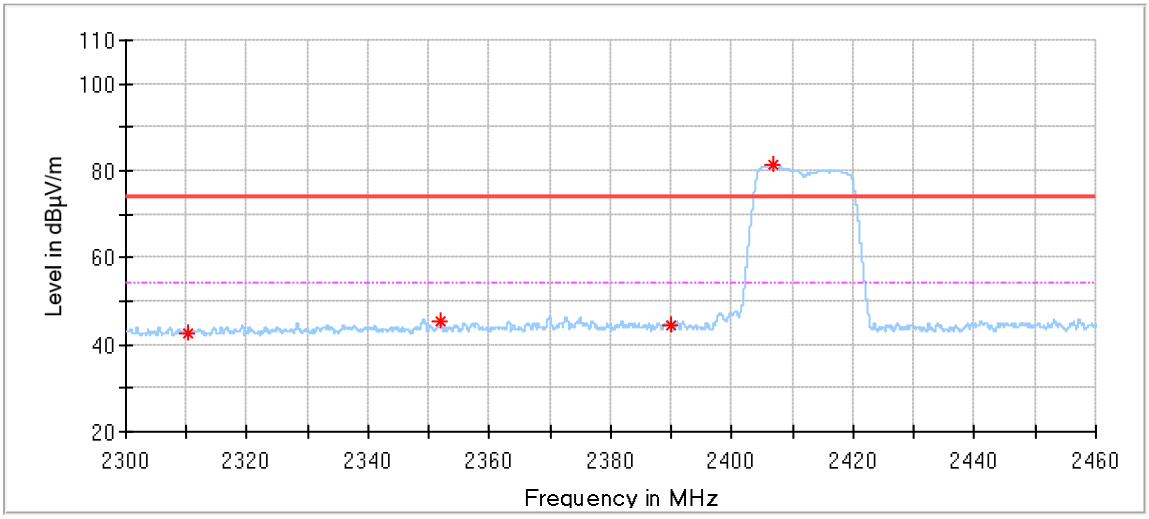
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11g_2412_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.536000	43.32	74.00	30.68	150.0	H	10.0	-3.75	Spurious
2348.080000	45.00	74.00	29.00	150.0	H	308.0	-3.45	Spurious
2389.744000	46.43	74.00	27.57	150.0	H	276.0	-3.05	Spurious
2407.872000	88.24	74.00	-14.24	150.0	H	340.0	-3.01	Fundamental Frequency

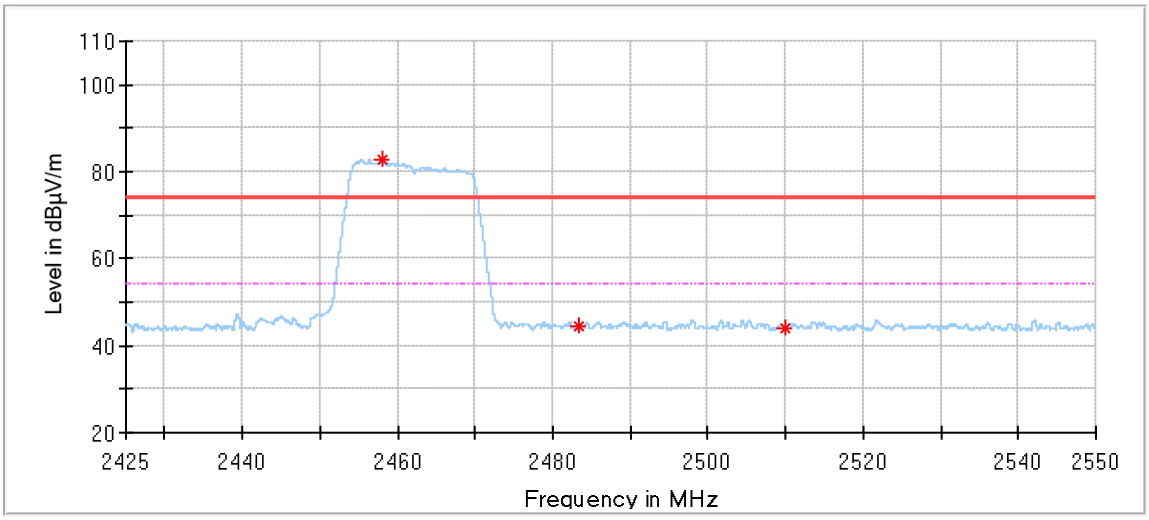


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.192000	42.70	74.00	31.30	150.0	V	272.0	-3.74	Spurious
2351.872000	45.58	74.00	28.42	150.0	V	73.0	-3.41	Spurious
2389.760000	44.35	74.00	29.65	150.0	V	126.0	-3.05	Spurious
2406.768000	81.30	74.00	-7.30	150.0	V	304.0	-3.02	Fundamental Frequency

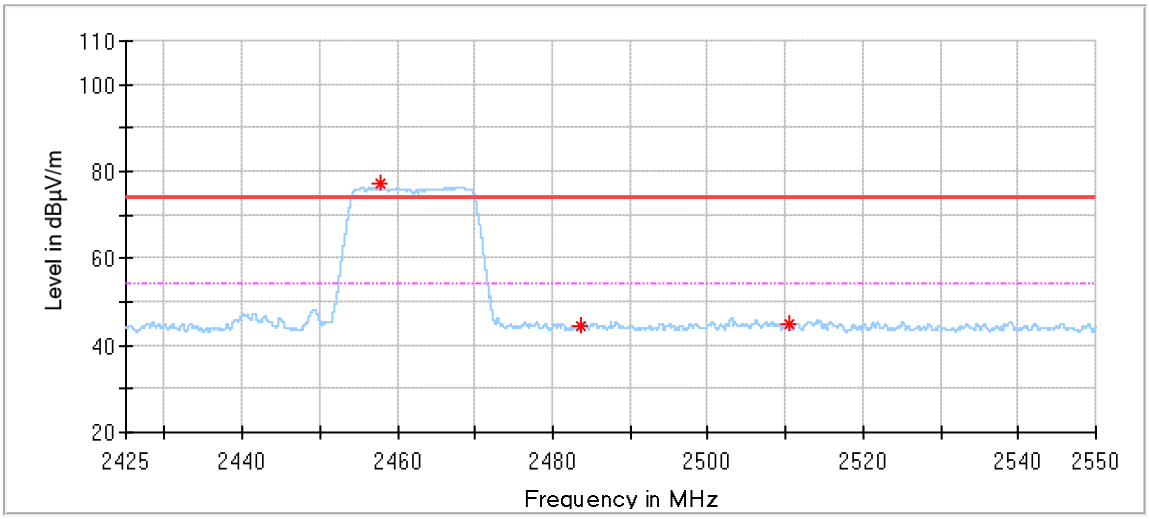
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11g_2462_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2457.937500	82.87	74.00	-8.87	150.0	H	329.0	-2.96	Fundamental Frequency
2483.400000	44.31	74.00	29.69	150.0	H	284.0	-3.06	Spurious
2510.062500	43.99	74.00	30.01	150.0	H	229.0	-3.13	Spurious

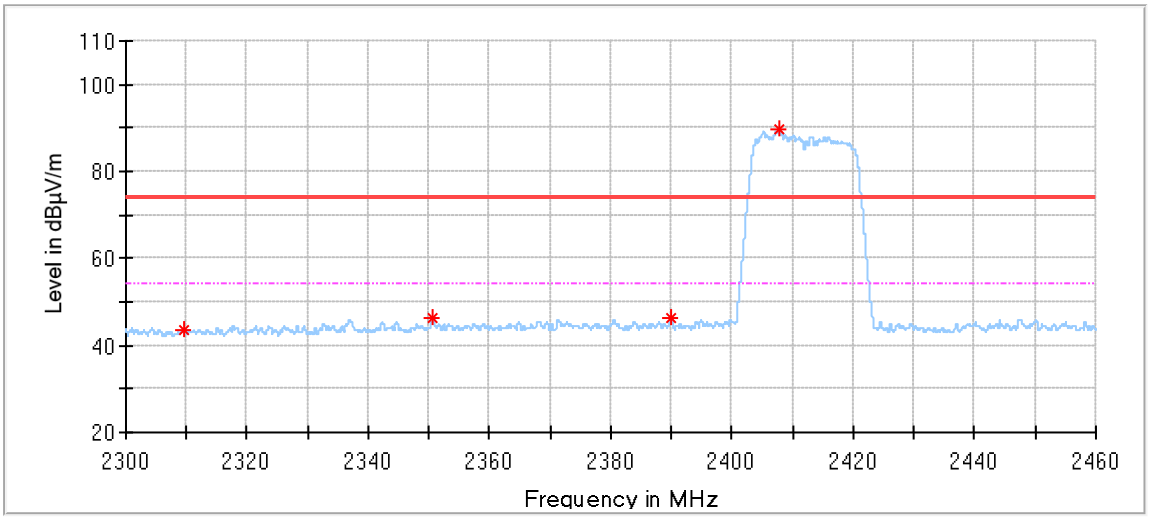


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2457.900000	77.15	74.00	-3.15	150.0	V	264.0	-2.96	Fundamental Frequency
2483.612500	44.24	74.00	29.76	150.0	V	201.0	-3.06	Spurious
2510.500000	44.76	74.00	29.24	150.0	V	56.0	-3.13	Spurious

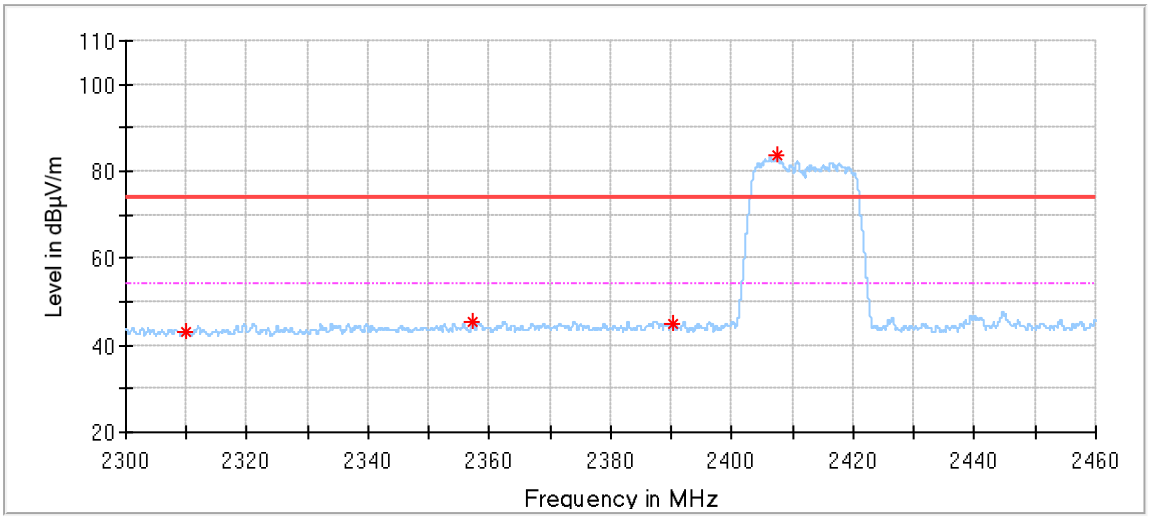
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11n20_2412_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.664000	43.45	74.00	30.55	150.0	H	202.0	-3.75	Spurious
2350.688000	46.30	74.00	27.70	150.0	H	63.0	-3.42	Spurious
2390.000000	46.32	74.00	27.68	150.0	H	0.0	-3.05	Spurious
2407.680000	89.70	74.00	-15.70	150.0	H	334.0	-3.01	Fundamental Frequency

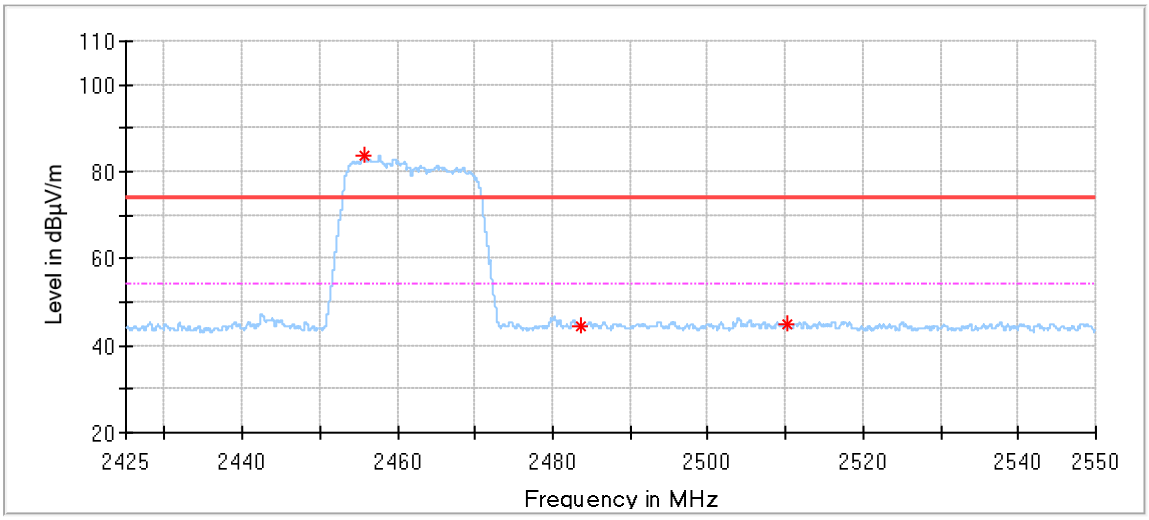


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.968000	42.96	74.00	31.04	150.0	V	0.0	-3.74	Spurious
2357.216000	45.54	74.00	28.46	150.0	V	105.0	-3.34	Spurious
2390.176000	44.76	74.00	29.24	150.0	V	0.0	-3.05	Spurious
2407.504000	83.51	74.00	-9.51	150.0	V	308.0	-3.01	Fundamental Frequency

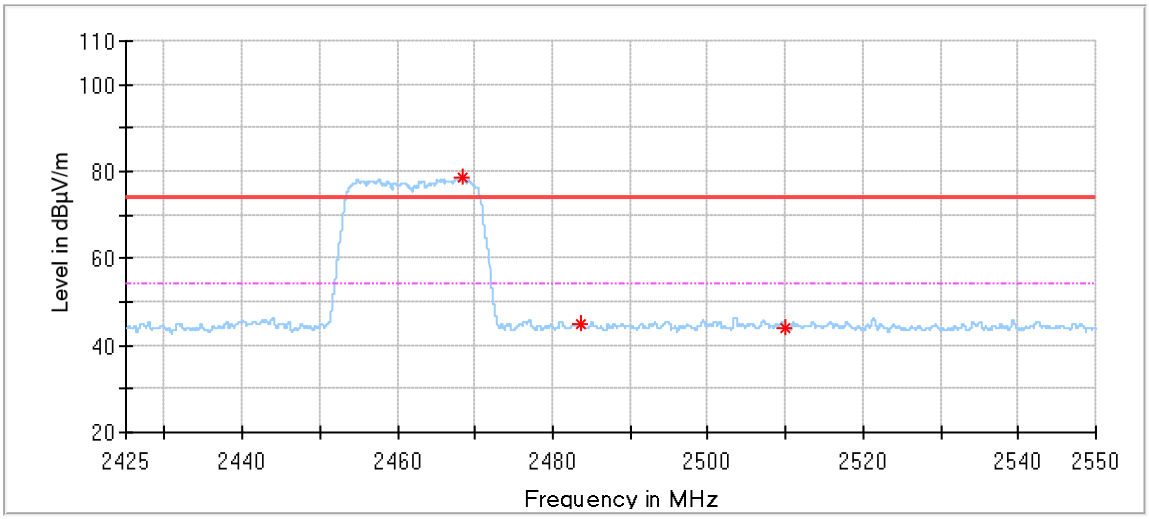
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11n20_2462_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2455.750000	83.68	74.00	-9.68	150.0	H	339.0	-2.95	Fundamental Frequency
2483.600000	44.61	74.00	29.39	150.0	H	157.0	-3.06	Spurious
2510.312500	44.81	74.00	29.19	150.0	H	148.0	-3.13	Spurious

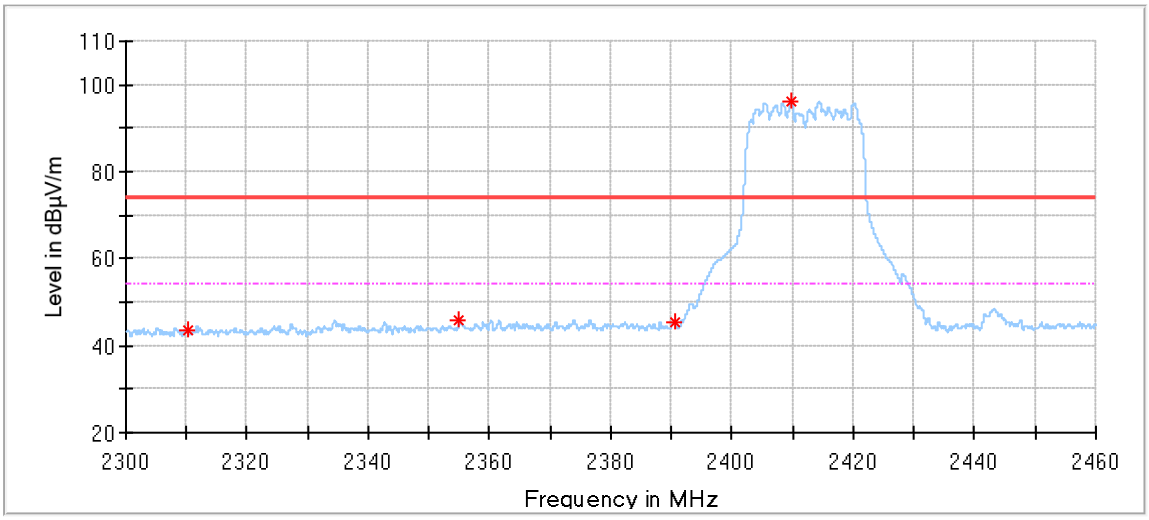


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2468.375000	78.56	74.00	-4.56	150.0	V	268.0	-2.99	Fundamental Frequency
2483.512500	44.75	74.00	29.25	150.0	V	0.0	-3.06	Spurious
2510.000000	44.12	74.00	29.88	150.0	V	0.0	-3.13	Spurious

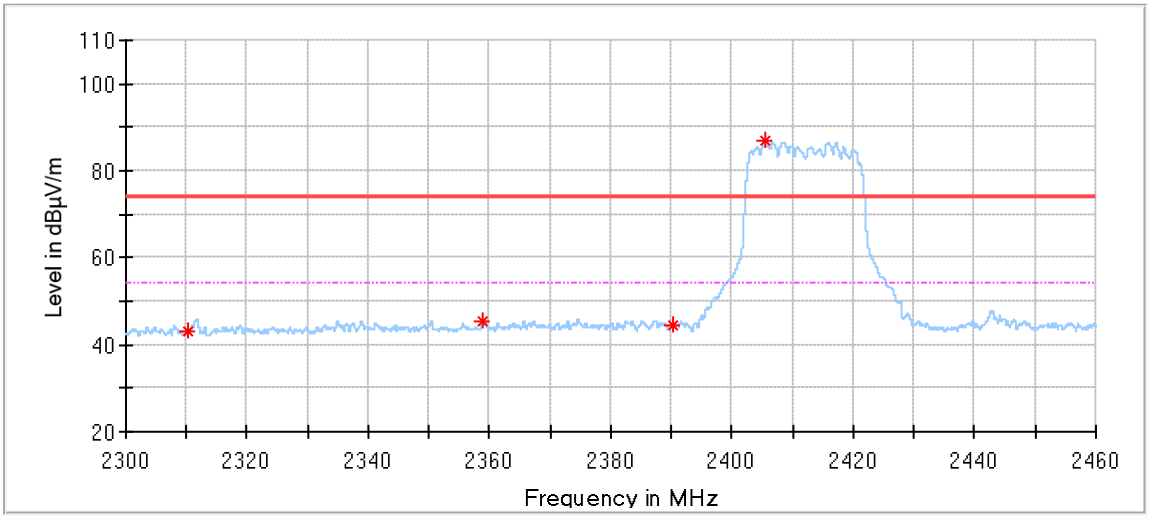
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2412_242Tone_RU61_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.192000	43.35	74.00	30.65	150.0	H	168.0	-3.74	Spurious
2355.008000	46.06	74.00	27.94	150.0	H	190.0	-3.37	Spurious
2390.448000	45.53	74.00	28.47	150.0	H	355.0	-3.05	Spurious
2409.648000	96.00	74.00	-22.00	150.0	H	190.0	-3.01	Fundamental Frequency

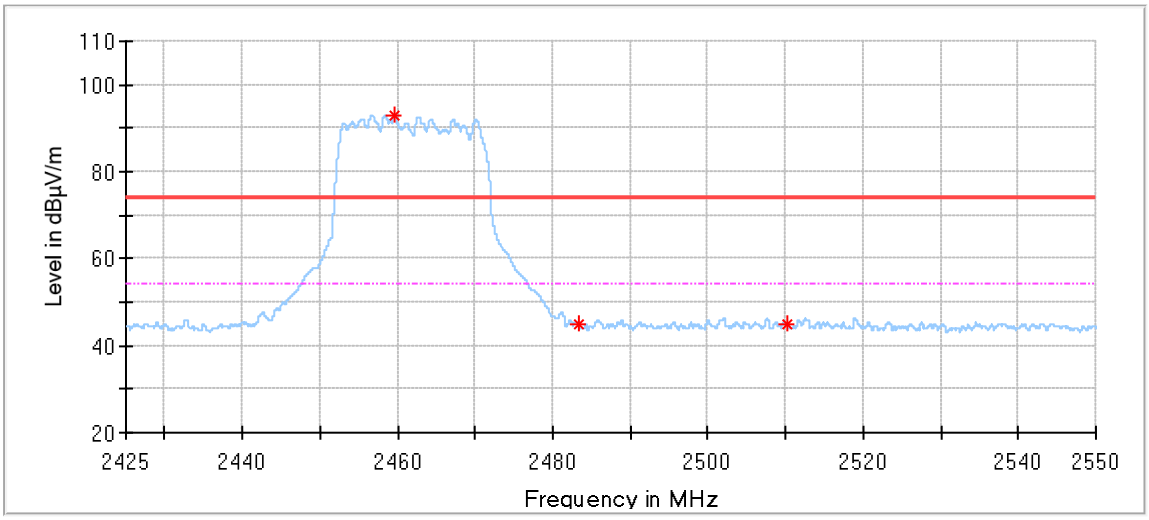


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.128000	43.24	74.00	30.76	150.0	V	0.0	-3.74	Spurious
2358.848000	45.29	74.00	28.71	150.0	V	7.0	-3.32	Spurious
2390.176000	44.24	74.00	29.76	150.0	V	190.0	-3.05	Spurious
2405.376000	87.12	74.00	-13.12	150.0	V	340.0	-3.02	Fundamental Frequency

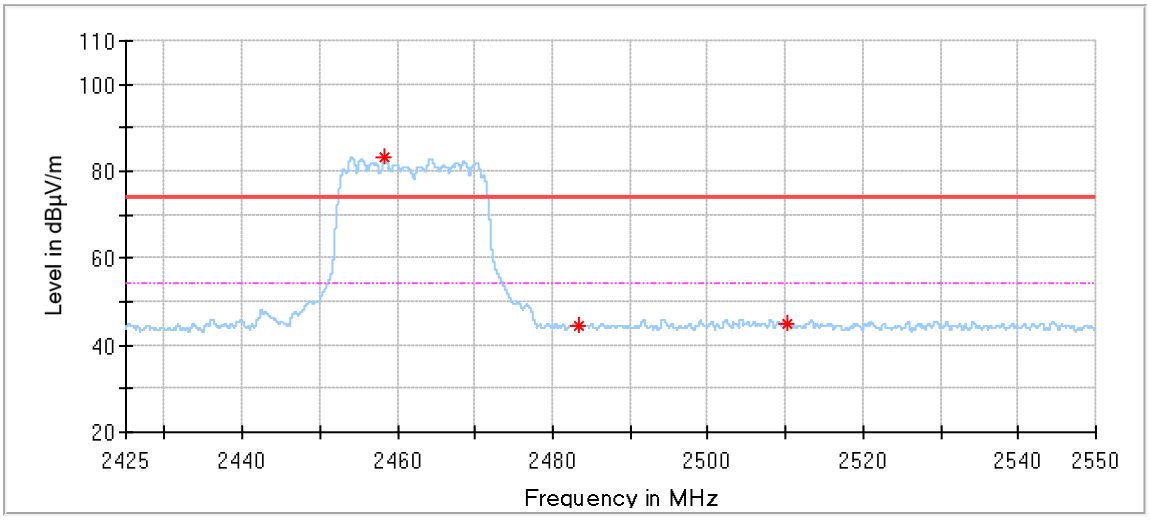
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2462_242Tone_RU61_ANT1



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2459.637500	93.01	74.00	-19.01	150.0	H	198.0	-2.97	Fundamental Frequency
2483.300000	44.99	74.00	29.01	150.0	H	198.0	-3.06	Spurious
2510.100000	45.02	74.00	28.98	150.0	H	34.0	-3.13	Spurious

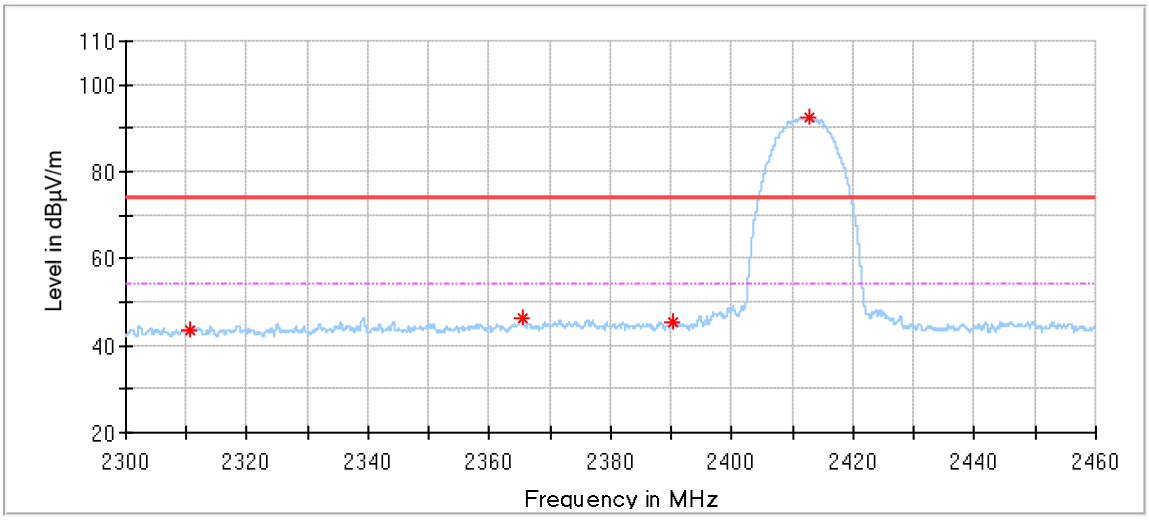


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2458.375000	83.44	74.00	-9.44	150.0	V	22.0	-2.96	Fundamental Frequency
2483.400000	44.53	74.00	29.47	150.0	V	105.0	-3.06	Spurious
2510.100000	45.10	74.00	28.90	150.0	V	196.0	-3.13	Spurious

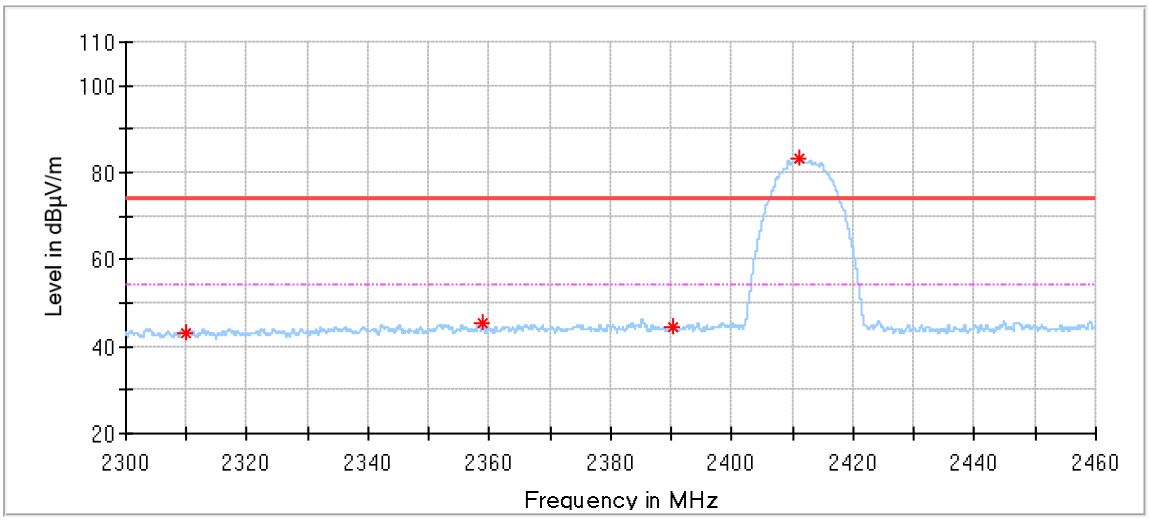
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11b_2412_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.576000	43.52	74.00	30.48	150.0	H	0.0	-3.74	Spurious
2365.408000	46.44	74.00	27.56	150.0	H	20.0	-3.23	Spurious
2390.192000	45.52	74.00	28.48	150.0	H	11.0	-3.05	Spurious
2412.880000	92.56	74.00	-18.56	150.0	H	191.0	-3.00	Fundamental Frequency

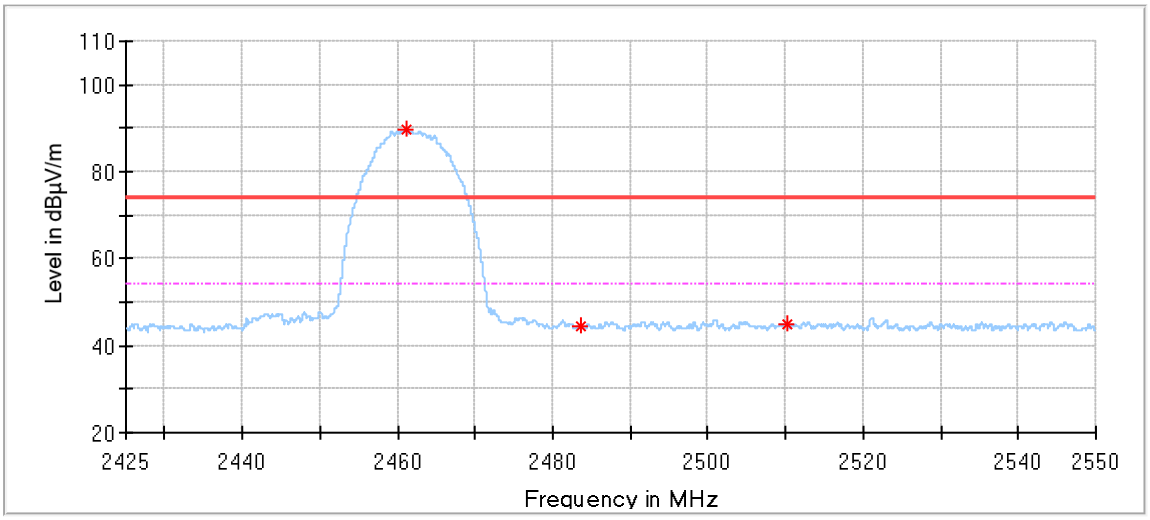


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.808000	43.02	74.00	30.98	150.0	V	264.0	-3.74	Spurious
2358.848000	45.42	74.00	28.58	150.0	V	337.0	-3.32	Spurious
2390.336000	44.49	74.00	29.51	150.0	V	354.0	-3.05	Spurious
2411.120000	83.20	74.00	-9.20	150.0	V	28.0	-3.01	Fundamental Frequency

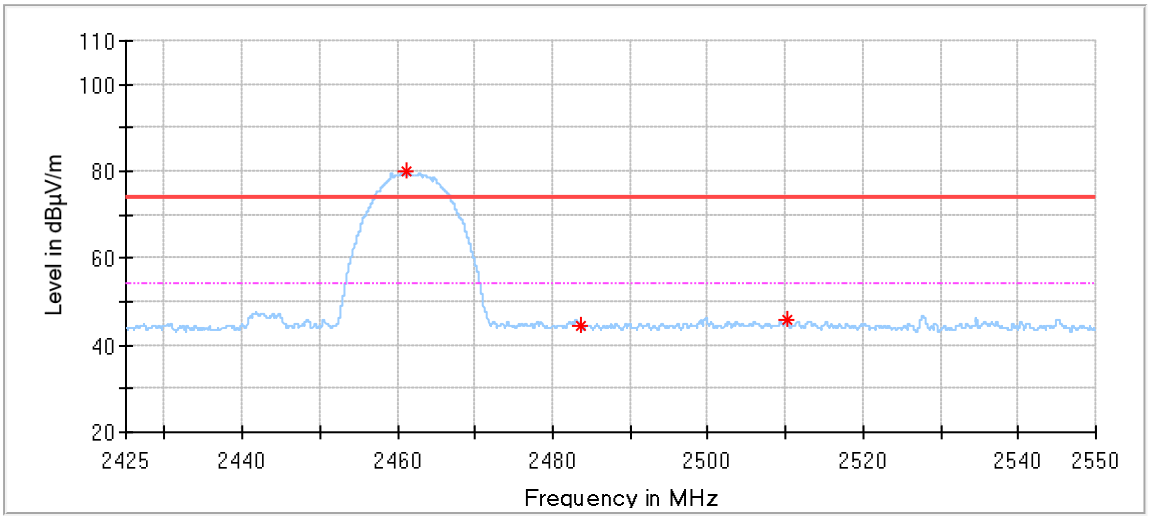
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11b_2462_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2461.100000	89.86	74.00	-15.86	150.0	H	193.0	-2.97	Fundamental Frequency
2483.537500	44.52	74.00	29.48	150.0	H	193.0	-3.06	Spurious
2510.312500	45.05	74.00	28.95	150.0	H	164.0	-3.13	Spurious

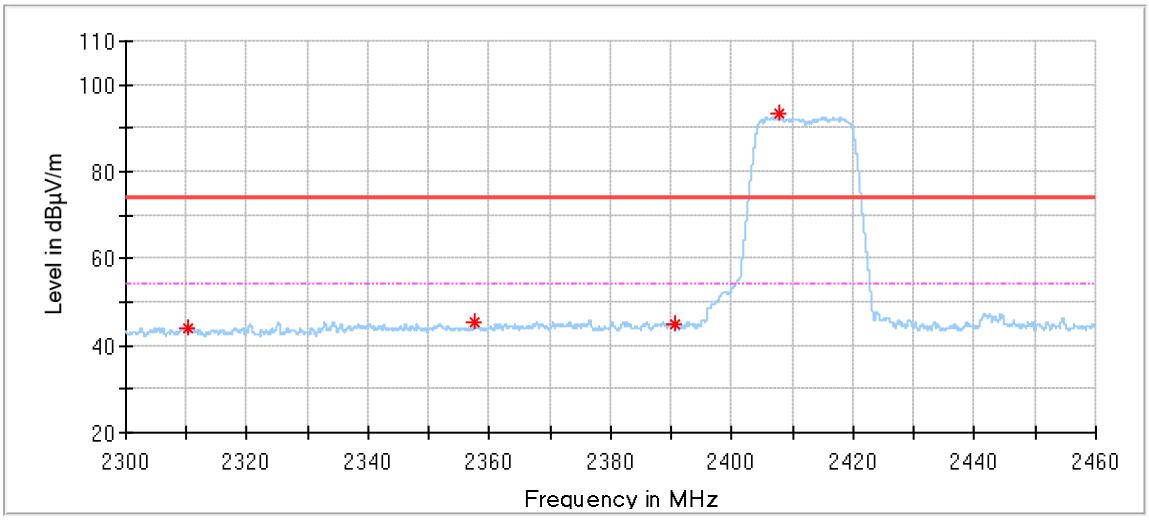


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2461.100000	80.04	74.00	-6.04	150.0	V	339.0	-2.97	Fundamental Frequency
2483.550000	44.24	74.00	29.76	150.0	V	49.0	-3.06	Spurious
2510.200000	45.67	74.00	28.33	150.0	V	294.0	-3.13	Spurious

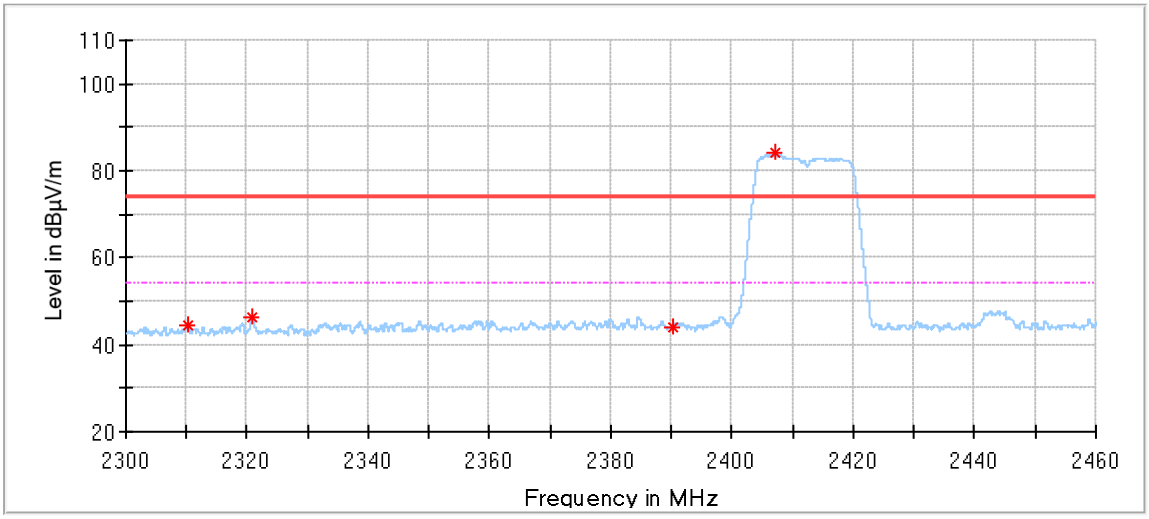
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11g_2412_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.336000	43.88	74.00	30.12	150.0	H	63.0	-3.74	Spurious
2357.664000	45.38	74.00	28.62	150.0	H	179.0	-3.33	Spurious
2390.512000	45.01	74.00	28.99	150.0	H	190.0	-3.05	Spurious
2407.872000	93.38	74.00	-19.38	150.0	H	190.0	-3.01	Fundamental Frequency

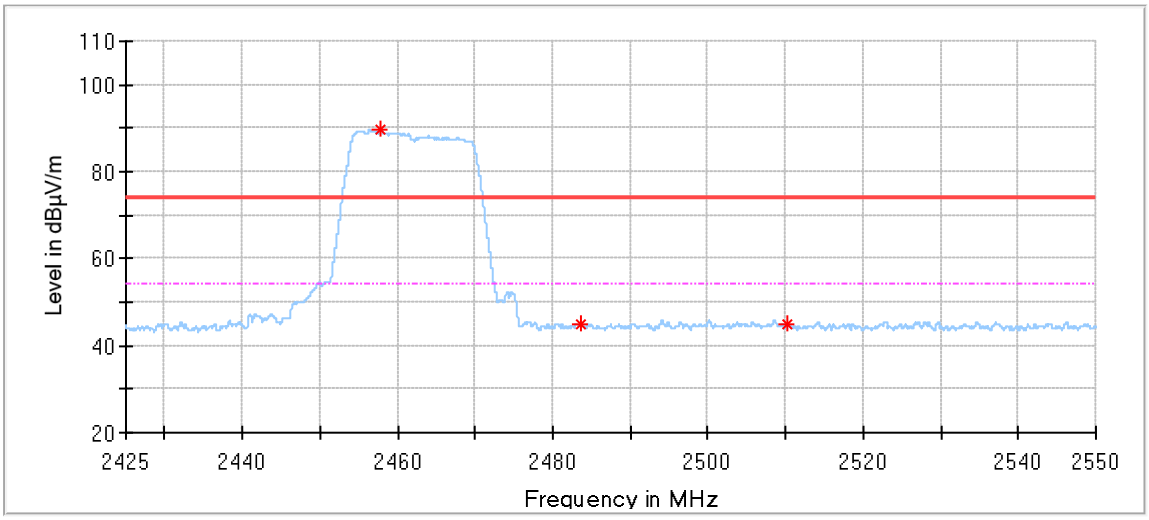


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.192000	44.32	74.00	29.68	150.0	V	340.0	-3.74	Spurious
2320.848000	46.24	74.00	27.76	150.0	V	181.0	-3.68	Spurious
2390.128000	44.22	74.00	29.78	150.0	V	243.0	-3.05	Spurious
2406.976000	84.06	74.00	-10.06	150.0	V	33.0	-3.02	Fundamental Frequency

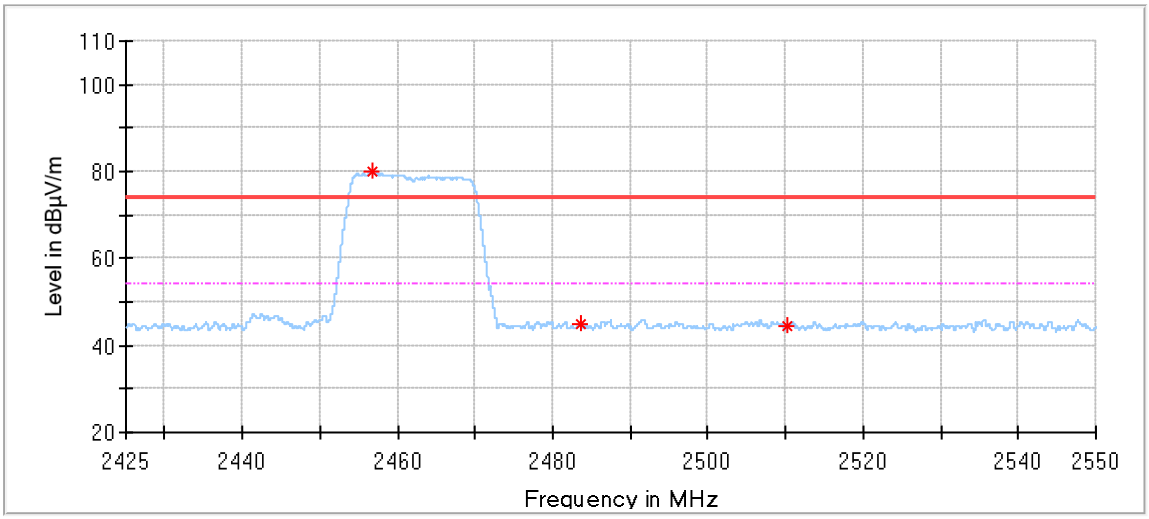
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11g_2462_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2457.850000	89.88	74.00	-15.88	150.0	H	202.0	-2.96	Fundamental Frequency
2483.500000	44.74	74.00	29.26	150.0	H	137.0	-3.06	Spurious
2510.225000	45.03	74.00	28.97	150.0	H	146.0	-3.13	Spurious

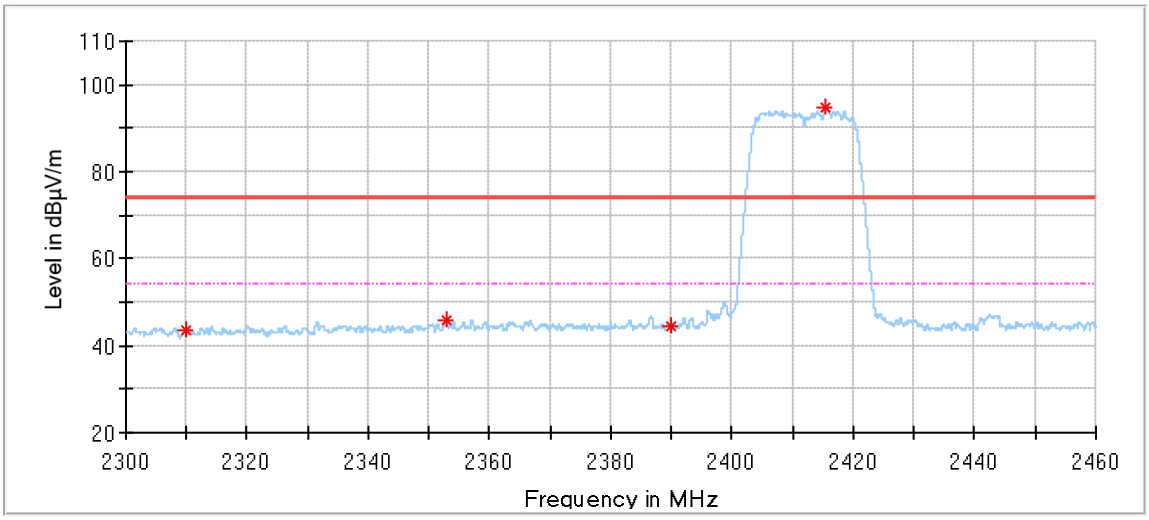


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2456.650000	79.86	74.00	-5.86	150.0	V	339.0	-2.96	Spurious Frequency Frequency
2483.500000	44.93	74.00	29.07	150.0	V	140.0	-3.06	Spurious
2510.287500	44.52	74.00	29.48	150.0	V	49.0	-3.13	Spurious

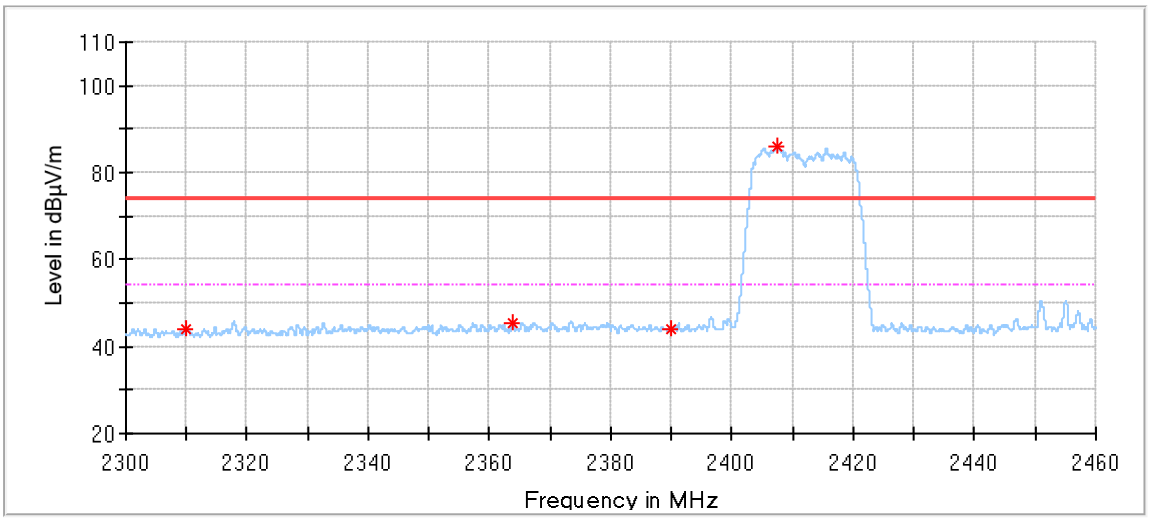
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11n20_2412_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2309.936000	43.47	74.00	30.53	150.0	H	205.0	-3.74	Spurious
2352.800000	45.71	74.00	28.29	150.0	H	14.0	-3.40	Spurious
2389.936000	44.50	74.00	29.50	150.0	H	123.0	-3.05	Spurious
2415.520000	94.73	74.00	-20.73	150.0	H	194.0	-2.99	Fundamental Frequency

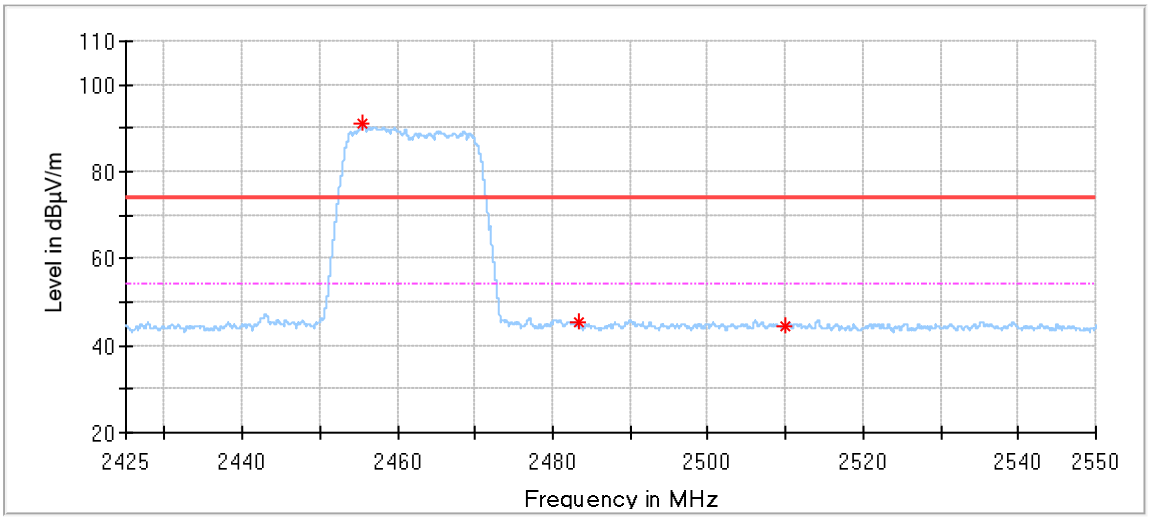


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.064000	44.05	74.00	29.95	150.0	V	21.0	-3.74	Spurious
2363.856000	45.53	74.00	28.47	150.0	V	43.0	-3.25	Spurious
2389.984000	44.20	74.00	29.80	150.0	V	297.0	-3.05	Spurious
2407.488000	85.89	74.00	-11.89	150.0	V	32.0	-3.01	Fundamental Frequency

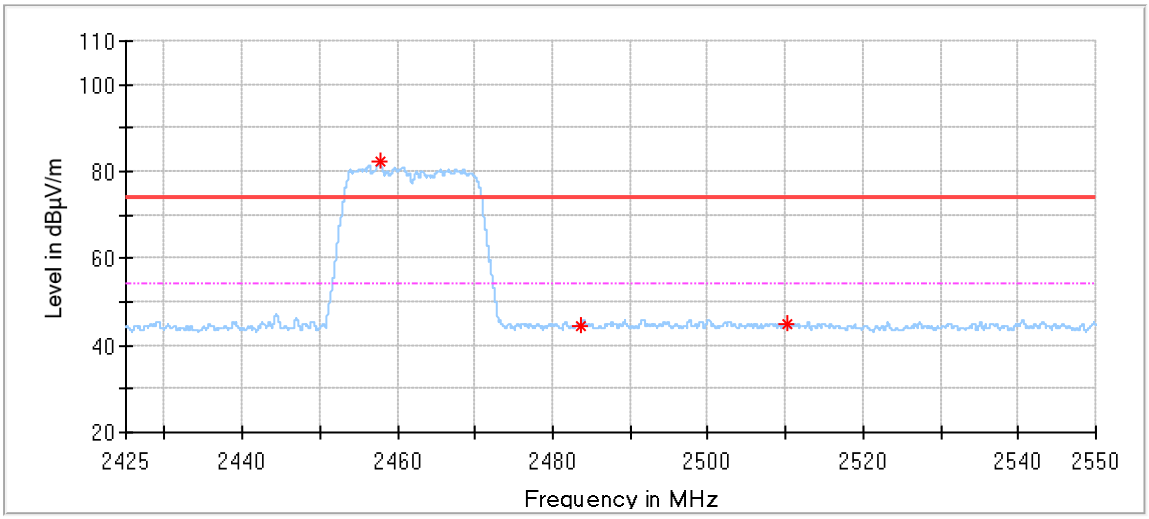
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11n20_2462_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2455.525000	91.20	74.00	-17.20	150.0	H	202.0	-2.95	Fundamental Frequency
2483.400000	45.25	74.00	28.75	150.0	H	128.0	-3.06	Spurious
2510.037500	44.49	74.00	29.51	150.0	H	329.0	-3.13	Spurious

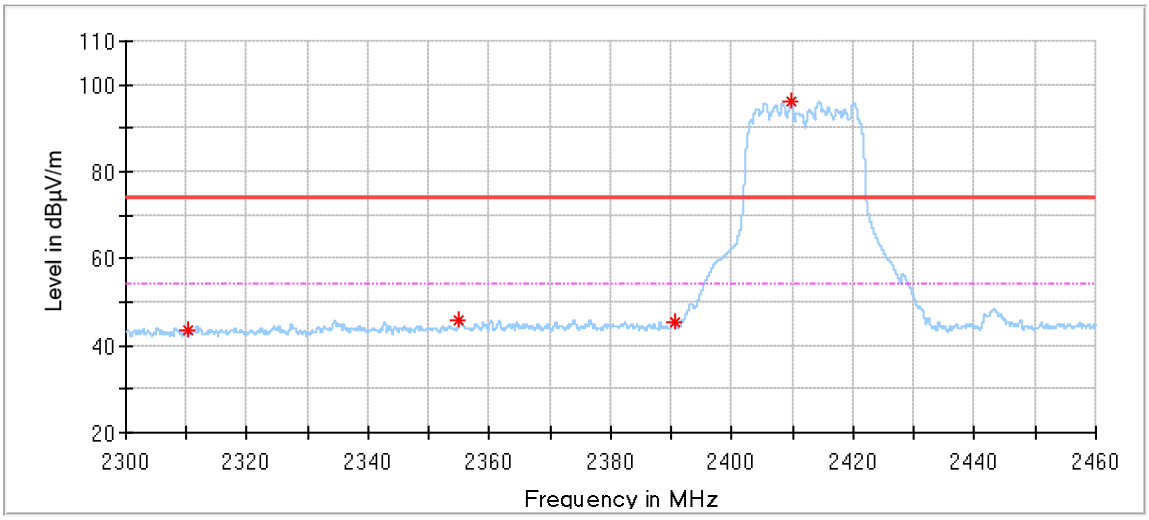


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2457.675000	82.08	74.00	-8.08	150.0	V	339.0	-2.96	Fundamental Frequency
2483.687500	44.56	74.00	29.44	150.0	V	149.0	-3.06	Spurious
2510.162500	45.00	74.00	29.00	150.0	V	86.0	-3.13	Spurious

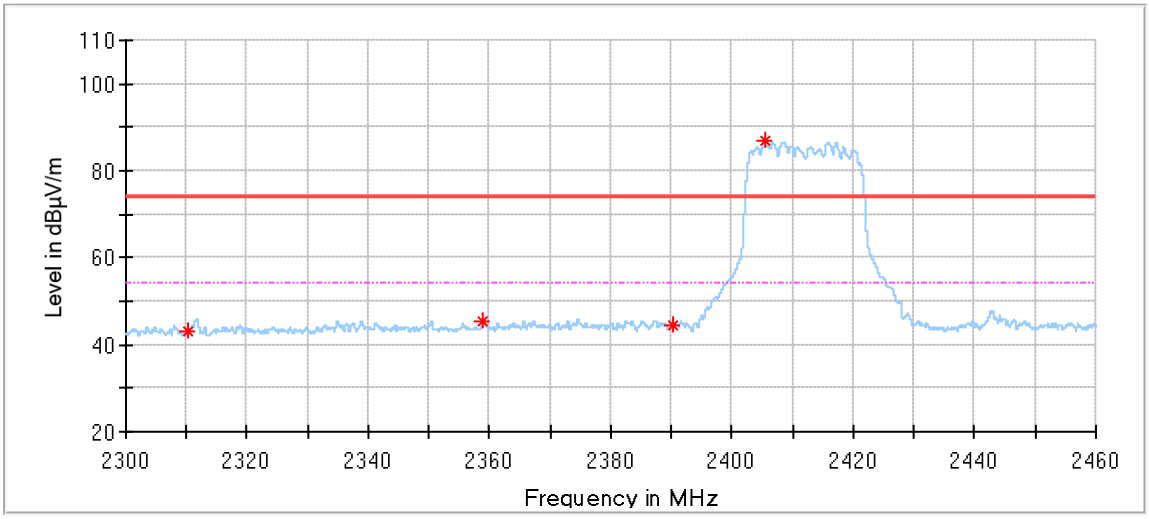
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2412_242Tone_RU61_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.192000	43.35	74.00	30.65	150.0	H	168.0	-3.74	Spurious
2355.008000	46.06	74.00	27.94	150.0	H	190.0	-3.37	Spurious
2390.448000	45.53	74.00	28.47	150.0	H	355.0	-3.05	Spurious
2409.648000	96.00	74.00	-22.00	150.0	H	190.0	-3.01	Fundamental Frequency

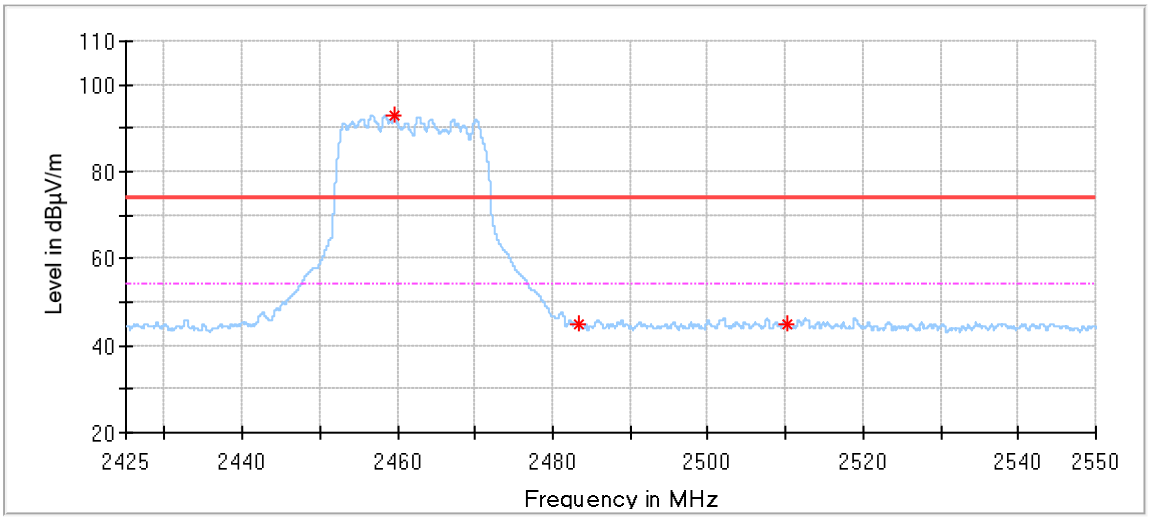


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2310.128000	43.24	74.00	30.76	150.0	V	0.0	-3.74	Spurious
2358.848000	45.29	74.00	28.71	150.0	V	7.0	-3.32	Spurious
2390.176000	44.24	74.00	29.76	150.0	V	190.0	-3.05	Spurious
2405.376000	87.12	74.00	-13.12	150.0	V	340.0	-3.02	Fundamental Frequency

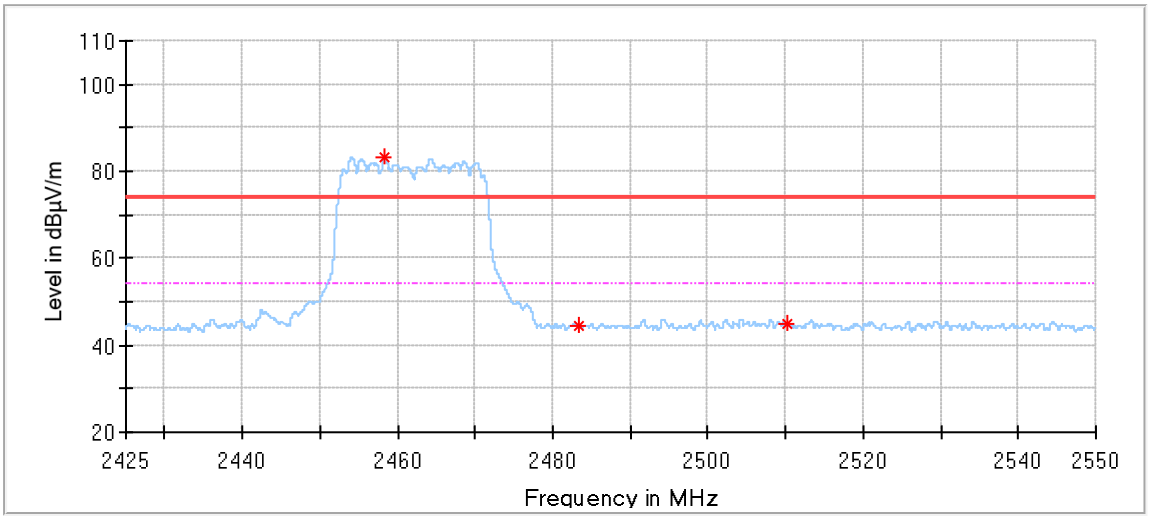
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

802.11ax20_2462_242Tone_RU61_ANT2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2459.637500	93.01	74.00	-19.01	150.0	H	198.0	-2.97	Fundamental Frequency
2483.300000	44.99	74.00	29.01	150.0	H	198.0	-3.06	Spurious
2510.100000	45.02	74.00	28.98	150.0	H	34.0	-3.13	Spurious



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Remark
2458.375000	83.44	74.00	-9.44	150.0	V	22.0	-2.96	Fundamental Frequency
2483.400000	44.53	74.00	29.47	150.0	V	105.0	-3.06	Spurious
2510.100000	45.10	74.00	28.90	150.0	V	196.0	-3.13	Spurious

Remark:

(1) Level= Reading Level + Correction Factor

(2) Above 1GHz: Corrector factor = Antenna Factor + Cable Loss- Amplifier Gain
Below 1GHz: Corrector factor = Antenna Factor + Cable Loss
(The Reading Level is recorded by software which is not shown in the sheet)

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

10 Test Equipment List

List of Test Instruments

Conducted Emission 2# Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	68-4-74-19-002	102590	1	2025-5-13
LISN	Rohde & Schwarz	ENV216	68-4-87-19-001	102472	1	2025-5-12
Attenuator	Shanghai Huaxiang	TS2-26-3	68-4-81-16-003	080928189	1	2025-5-11
Cable	OUQIAO	RG142	68-4-90-19-005-A20	----	----	----
Test software	Rohde & Schwarz	EMC32	68-4-90-19-005-A01	Version10.35.02	N/A	N/A
Shielding Room	TDK	CSR #2	68-4-90-19-005	----	3	2025-10-15

Radiated Emission Test 1# Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 7	68-4-74-19-001	102176	1	2025-5-13
Loop Antenna	Rohde & Schwarz	HFH2-Z2	68-4-80-14-006	100398	1	2024-8-7
Pre-amplifier	Rohde & Schwarz	SCU 18	68-4-29-14-001	102230	1	2025-5-11
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-001	15542	1	2025-5-11
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A20	----	----	----
Cable	HUBER-SUHNER	RG214	68-4-90-14-001-A21	----	----	----
Cable	JUNFLON	MWX221	68-4-90-14-001-A22	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #1	68-4-90-14-001	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-14-001-A10	Version10.35.02	N/A	N/A

Radiated Emission 2# Test

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	68-4-74-14-002	101269	1	2025-5-13
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9162	68-4-80-19-003	284	1	2025-2-22
Wave Guide Antenna	ETS	3117	68-4-80-19-001	00218954	1	2025-4-10
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-001	100745	1	2025-5-11
Pre-amplifier	Rohde & Schwarz	SCU 18F	68-4-29-19-002	100746	1	2025-5-11
Sideband Horn Antenna	Q-PAR	QWH-SL-18-40-K-SG	68-4-80-14-008	12827	1	2025-7-2
Pre-amplifier	Rohde & Schwarz	SCU 40A	68-4-29-14-002	100432	1	2024-8-1
Attenuator	Mini-circuits	UNAT-6+	68-4-81-21-002	15542	1	2025-5-11
Cable	JUNFLON	MWX221	68-4-90-19-006-A20	----	----	----
Cable	JUNFLON	MWX241	68-4-90-19-006-A21	----	----	----
3m Semi-anechoic chamber	TDK	SAC-3 #2	68-4-90-19-006	----	3	2026-10-25
Test software	Rohde & Schwarz	EMC32	68-4-90-19-006-A01	Version10.35.02	N/A	N/A

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

RF Test System

DESCRIPTION	MANUFACTURER	MODEL NO.	EQUIPMENT ID	SERIAL NO.	CAL INTERVAL (YEAR)	CAL. DUE DATE
Signal Analyzer	Rohde & Schwarz	FSV40	68-4-74-14-004	101030	1	2025-5-11
RF Switch Module	Rohde & Schwarz	OSP120/OSP-B157W	68-4-93-14-003	101226/100929	1	2025-5-11
Power Splitter	Weinschel	1580	68-4-85-14-001	SC319	1	2025-5-11
RF Meas. and Switch Matrix Unit	TST PASS	TSCB3023R2	68-4-93-23-001	2811685c	1	2025-5-11
Frequency Extender	TST PASS	TSTCMWEXT7	68-4-93-23-001-A01	WEX230017C	1	2025-5-12
Frequency Extender	TST PASS	TSTSGEXT7	68-4-93-23-001-A02	EX2300BA	1	2025-5-12
Cable	JUNFLON	J12J103539	68-4-90-19-003-A20	----	----	----
Test software	TST PASS	System for BT/WIFI	68-4-93-23-001-A03	Version 2.0	N/A	N/A
Shielding Room	TDK	TS8997	68-4-90-19-003	----	3	2025-10-15

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission in new shielding room (68-4-90-19-005) 150kHz-30MHz (for test using AMN ENV216)	3.15dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 9kHz-30MHz	4.70dB
Uncertainty for Radiated Emission in 3m chamber (68-4-90-14-001) 30MHz-1000MHz	Horizontal: 4.63dB; Vertical: 4.78dB;
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 1000MHz-18000MHz	Horizontal: 5.38dB; Vertical: 5.38dB;
Uncertainty for Radiated Emission in new 3m chamber (68-4-90-19-006) 18GHz-40GHz	Horizontal: 5.29dB; Vertical: 5.29dB;
Uncertainty for Conducted RF test with TS 8997	RF Power Conducted: 1.31dB

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3 and 4.3.4

---THE END OF REPORT---

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong, China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299