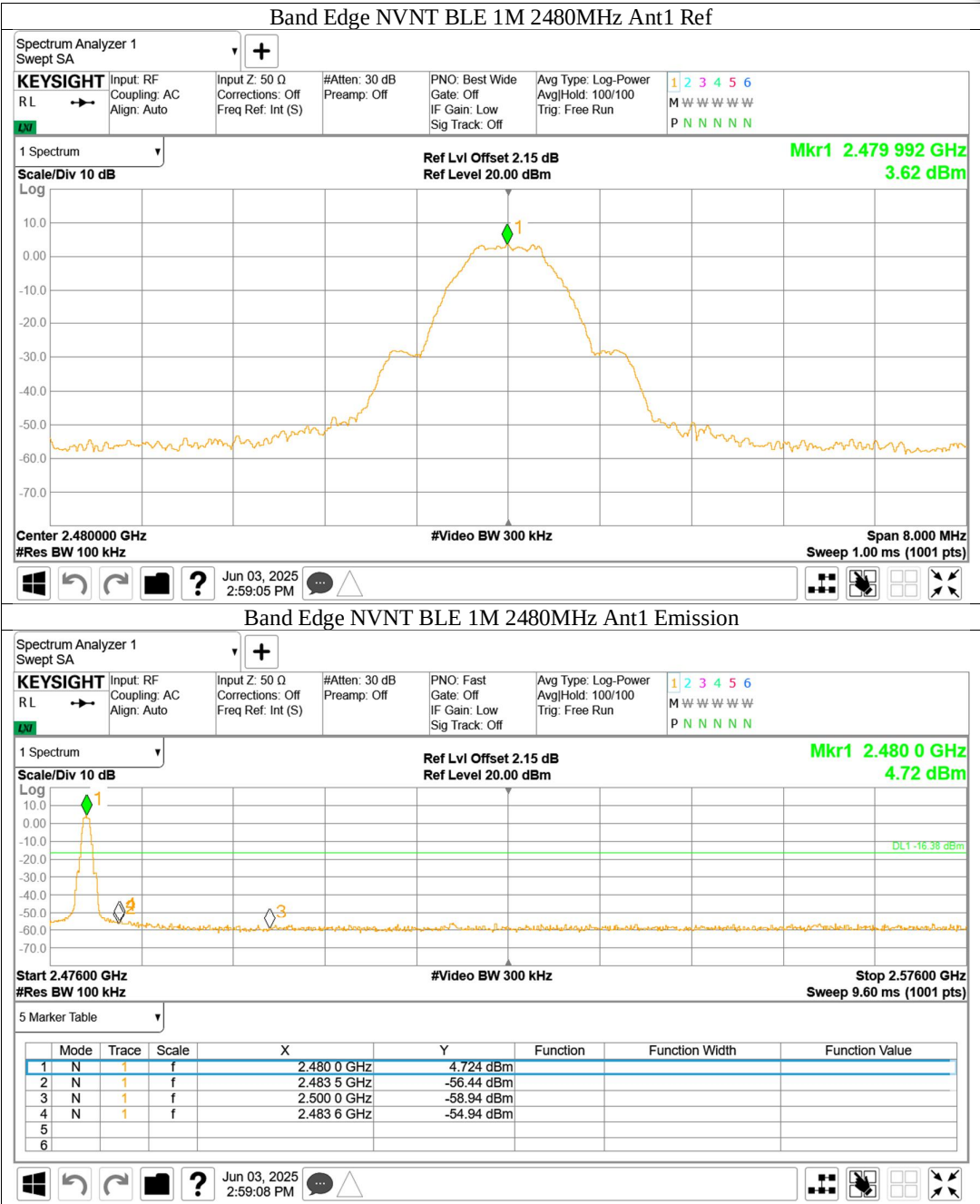
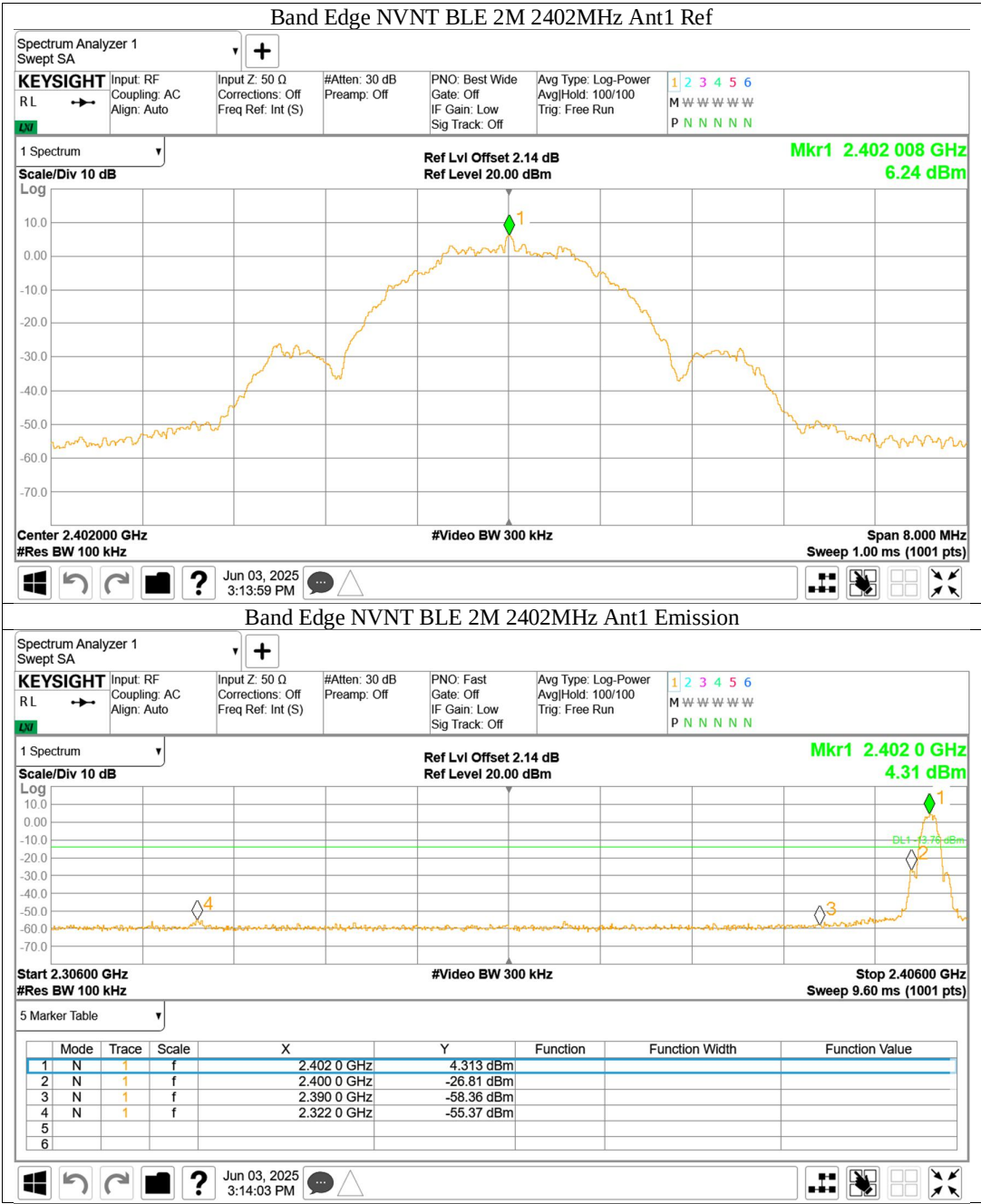
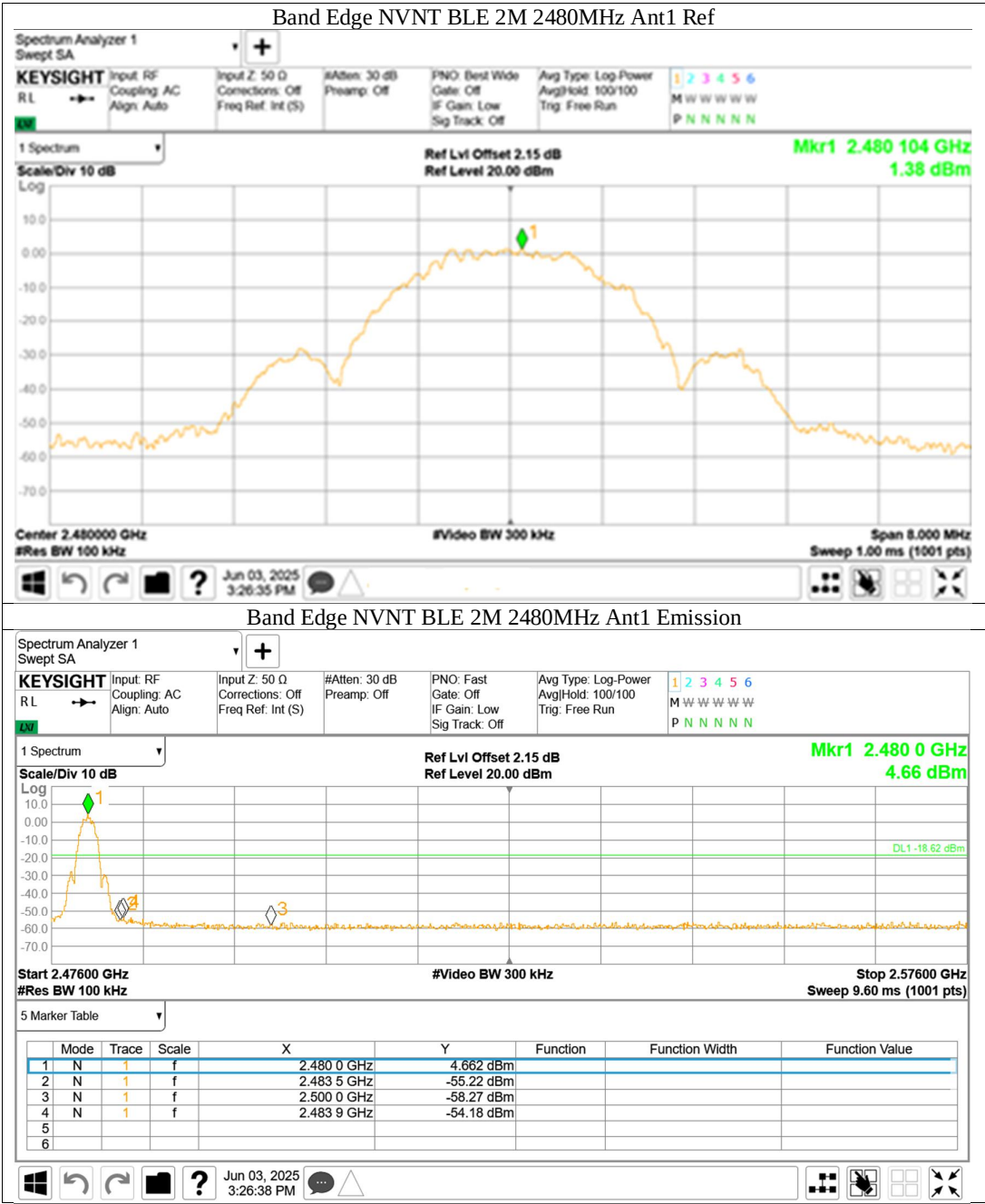








10.7 Spurious radiated emissions for transmitter

Test Method

1. The EUT was placed 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) $VBW \setminus [3 \times RBW]$.
 - c) Detector = RMS (power averaging), if $[span / (\# \text{ of points in sweep})] \setminus RBW / 2$.
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 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), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a).

Frequency MHz	Field Strength $\mu\text{V/m}$	Field Strength $\text{dB}\mu\text{V/m}$	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 $3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 300\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(300\text{m}/3\text{m})$ (Below 30MHz)

Note 2: Limit $3\text{m}(\text{dB}\mu\text{V/m}) = \text{Limit } 30\text{m}(\text{dB}\mu\text{V/m}) + 40\text{Log}(30\text{m}/3\text{m})$ (Below 30MHz)

Spurious radiated emissions for transmitter

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.

Test result

The worst case of Radiated Emission below 30MHz for SC155-WQ3C

0.009-30MHz Radiated Emission**EUT Information**

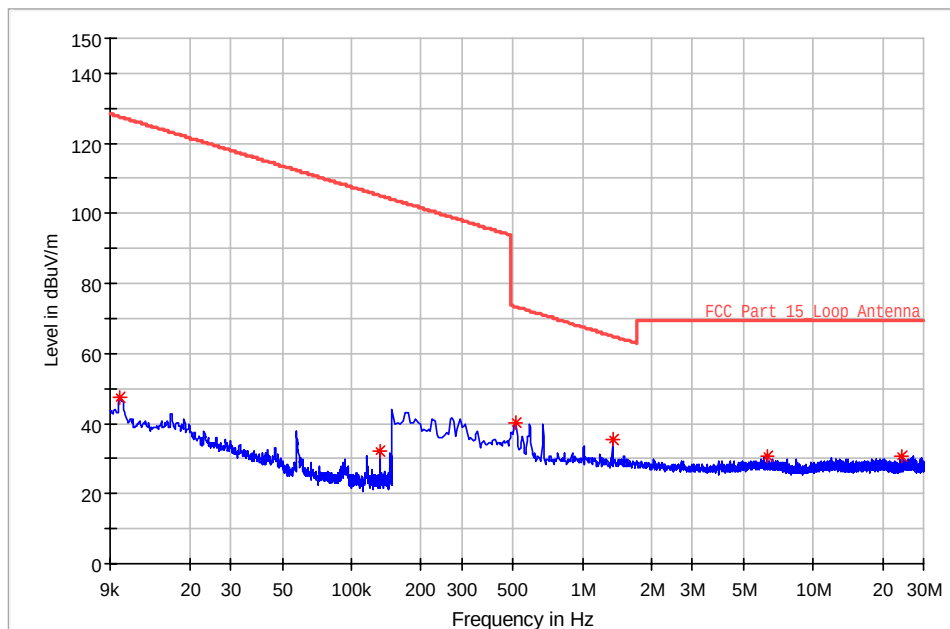
EUT Name: Smart Camera
 Model: SC155-WQ3C
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Horizontal
 Sample No: SHA-912069-2

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6.339485	30.44	69.54	39.11	100.0	H	0.0	18.9
23.986103	30.70	69.54	38.84	100.0	H	11.0	19.5
0.514346	40.33	73.38	33.05	100.0	H	75.0	18.7
0.009881	47.40	127.71	80.31	100.0	H	271.0	19.6
1.357169	35.40	64.95	29.55	100.0	H	345.0	18.8
0.133433	32.19	105.10	72.91	100.0	H	357.0	18.8

0.009-30MHz Radiated Emission

EUT Information

EUT Name: Smart Camera
 Model: SC155-WQ3C
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Vertical
 Sample No: SHA-912069-2

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.010058	51.98	127.55	75.58	100.0	H	6.0	19.6
0.518735	36.91	73.31	36.40	100.0	H	8.0	18.7
5.588846	30.28	69.54	39.27	100.0	H	34.0	19.0
0.037905	46.50	116.03	69.53	100.0	H	52.0	18.9
25.197662	30.39	69.54	39.15	100.0	H	205.0	19.5
0.593360	41.53	72.14	30.60	100.0	H	340.0	18.7

The worst case of Radiated Emission below 1GHz for SC155-WQ3C

30-1000MHz Radiated Emission

EUT Information

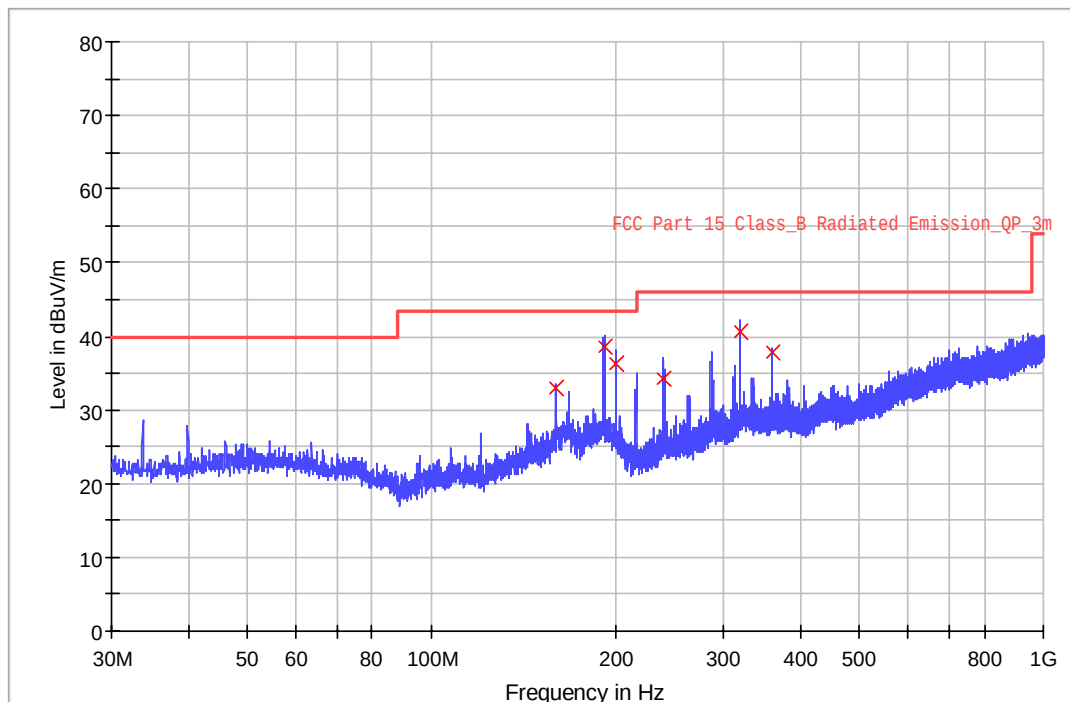
EUT Name: Smart Camera
Model: SC155-WQ3C
Client: Zhejiang Lingzhu Technology Co., Ltd
Op Cond: Power on and TX at 2480MHz_2Mbps
Operator: Guo Chengjie
Test Spec: FCC Part 15.209(a)
Comment: Horizontal
Sample No: SHA-912069-2

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup: RE_VULB9168
Receiver: [ESR 3]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

RE_VULB9168_pre_Cont_30-1000





Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)
160.040000	32.9	1000.0	120.000	156.0	H	25.0	21.0	10.6
191.800000	38.6	1000.0	120.000	174.0	H	14.0	18.4	4.9
200.000000	36.2	1000.0	120.000	158.0	H	13.0	17.9	7.3
239.760000	34.2	1000.0	120.000	136.0	H	114.0	19.7	11.8
320.000000	40.7	1000.0	120.000	147.0	H	142.0	22.4	5.3
360.000000	37.7	1000.0	120.000	132.0	H	14.0	23.2	8.3

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
160.040000	43.5	
191.800000	43.5	
200.000000	43.5	
239.760000	46.0	
320.000000	46.0	
360.000000	46.0	

Remark:

- (1) Emission level= Original Receiver Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (3) Margin = limit – Corrected Reading



30-1000MHz Radiated Emission

EUT Information

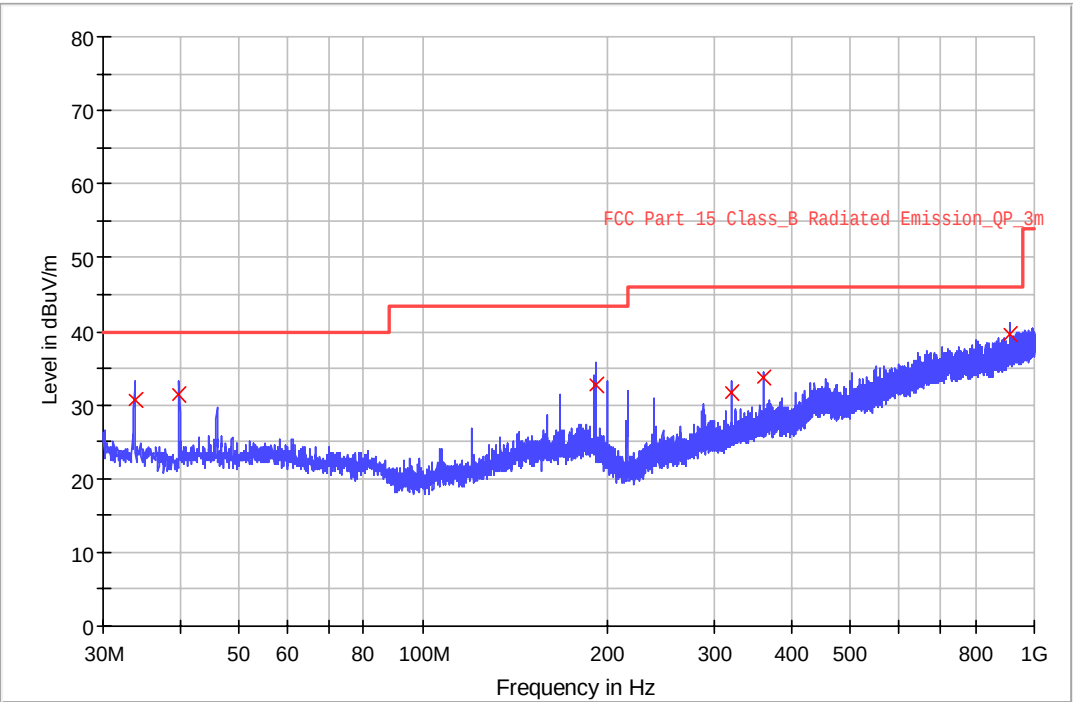
EUT Name: Smart Camera
Model: SC155-WQ3C
Client: Zhejiang Lingzhu Technology Co., Ltd
Op Cond: Power on and TX at 2480MHz_2Mbps
Operator: Guo Chengjie
Test Spec: FCC Part 15.209(a)
Comment: Vertical
Sample No: SHA-912069-2

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup: RE_VULB9168
Receiver: [ESR 3]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

RE_VULB9168_pre_Cont_30-1000



Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)
33.800000	30.6	1000.0	120.000	158.0	V	56.0	19.0	9.4
39.880000	31.4	1000.0	120.000	152.0	V	145.0	19.8	8.6
191.400000	32.6	1000.0	120.000	188.0	V	145.0	18.5	10.9
320.000000	31.8	1000.0	120.000	176.0	V	136.0	22.4	14.2
360.000000	33.8	1000.0	120.000	189.0	V	14.0	23.2	12.2
913.800000	39.7	1000.0	120.000	168.0	V	123.0	34.2	6.3

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
33.800000	40.0	
39.880000	40.0	
191.400000	43.5	
320.000000	46.0	
360.000000	46.0	
913.800000	46.0	

Remark:

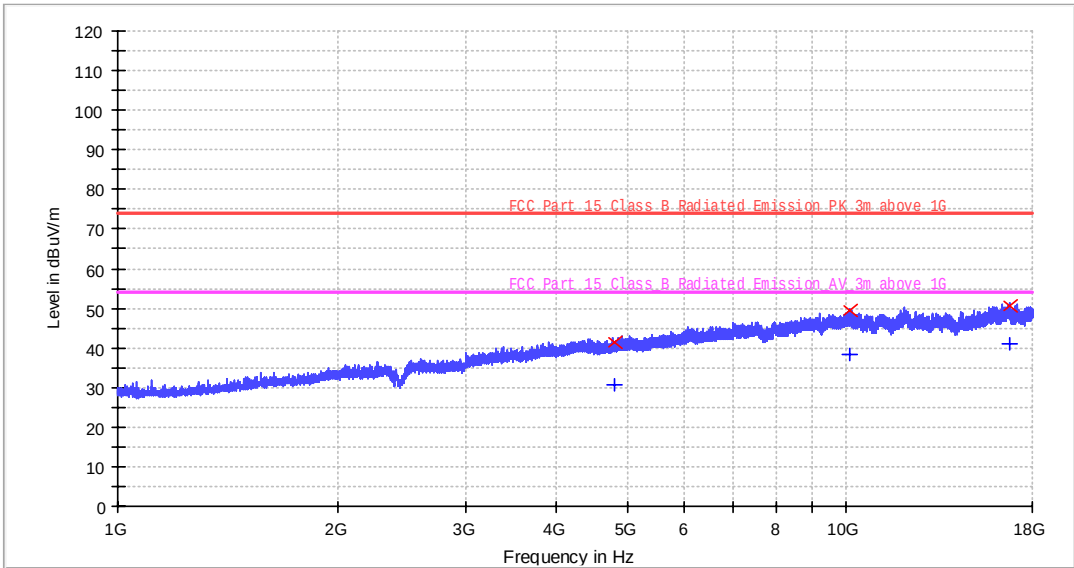
- (4) Emission level= Original Receiver Reading + Correct Factor
- (5) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (6) Margin = limit – Corrected Reading



Radiated Emission 1-18 GHz for SC155-WQ3C

Frequency:2402MHz at 1Mbps

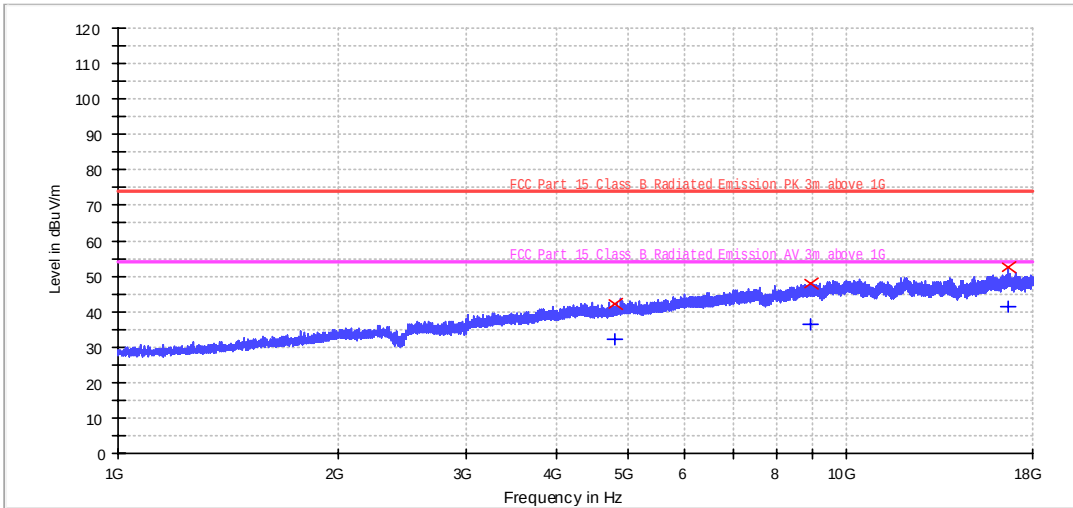
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	41.5	30.7	175.0	H	17.0	-5.2	32.5	74.0	23.3	54.0
10137.400000	49.6	38.4	188.0	H	17.0	3.7	24.4	74.0	15.6	54.0
16723.300000	50.8	41.2	198.0	H	176.0	6.7	23.2	74.0	12.8	54.0

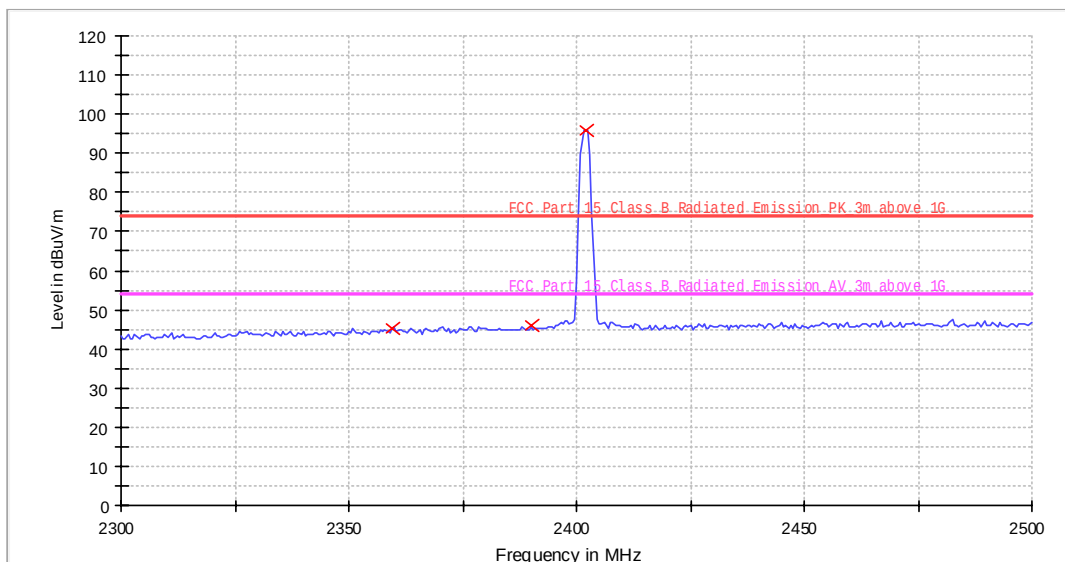
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	42.1	32.2	175.0	V	12.0	-3.5	31.9	74.0	21.8	54.0
8941.000000	48.1	36.3	241.0	V	175.0	2.1	25.9	74.0	17.7	54.0
16681.300000	52.5	41.3	186.0	V	143.0	6.7	21.5	74.0	12.8	54.0

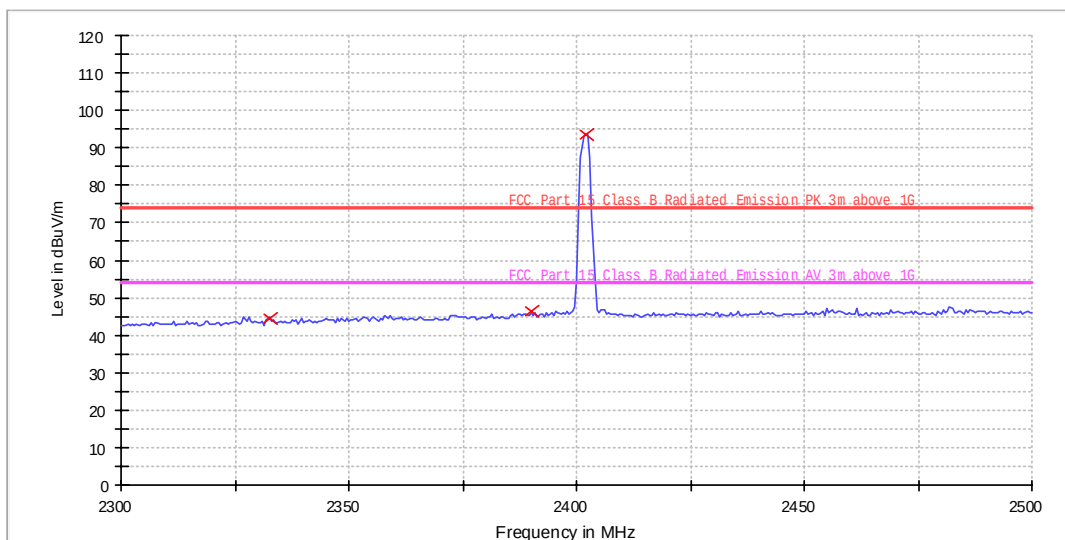
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2359.600000	45.4	1000.0	1000.000	188.0	H	12.0	-0.9	28.6	74.0
2390.000000	45.9	1000.0	1000.000	199.0	H	174.0	-0.8	28.1	74.0
2402.000000	95.7	1000.0	1000.000	176.0	H	358.0	-0.8	--	--

RE_HF907_BRF_Pre



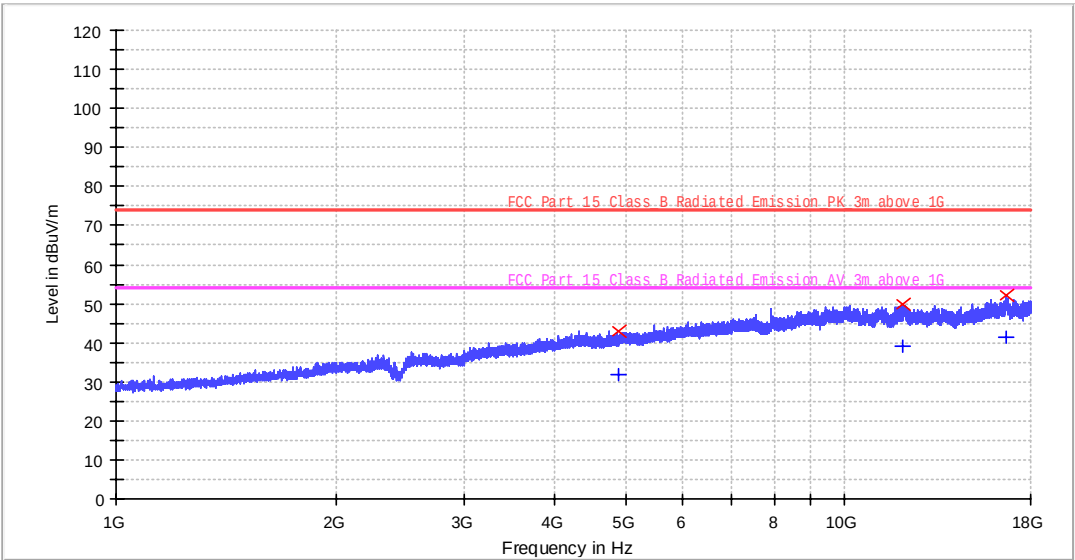
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2332.600000	44.4	1000.0	1000.000	188.0	V	12.0	-1.1	29.6	74.0
2390.000000	46.3	1000.0	1000.000	177.0	V	174.0	-0.8	27.7	74.0
2402.000000	93.5	1000.0	1000.000	198.0	V	138.0	-0.8	--	--



Frequency:2440MHz at 1Mbps

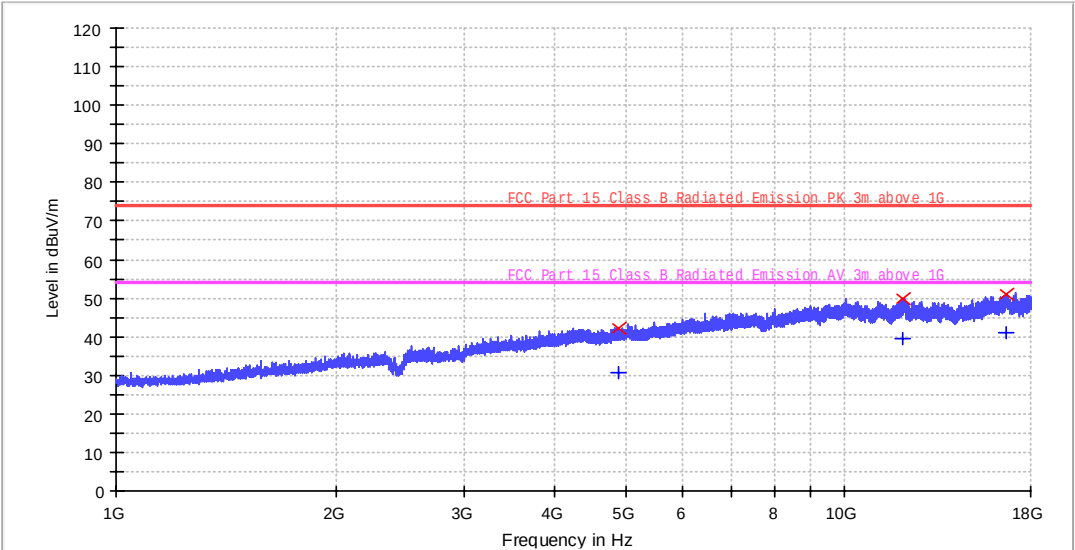
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+	Limit - PK+	Margin - AV	Limit - AV
4880.000000	43.0	31.8	189.0	H	17.0	-3.0	31.1	74.0	22.2	54.0
12028.600000	49.8	39.3	186.0	H	154.0	5.2	24.2	74.0	14.7	54.0
16694.800000	52.0	41.3	175.0	H	15.0	6.7	22.0	74.0	12.7	54.0

RE_HF907_BRF_Pre



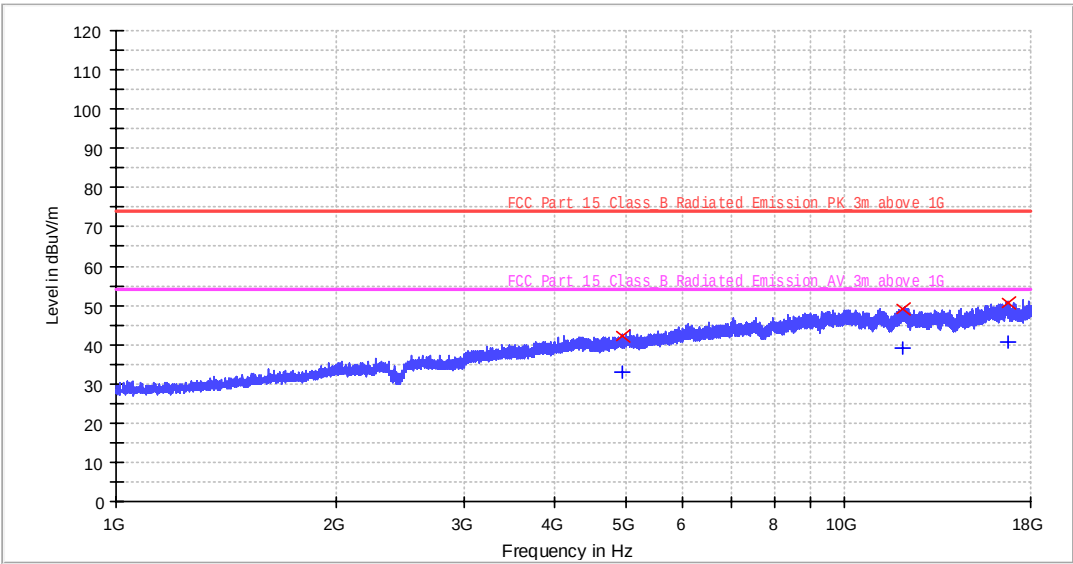
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	42.2	30.6	199.0	V	175.0	-5.1	31.8	74.0	23.4	54.0
12011.200000	49.8	39.4	187.0	V	174.0	5.2	24.2	74.0	14.6	54.0
16633.600000	51.0	40.9	158.0	V	11.0	6.6	23.0	74.0	13.1	54.0



Frequency:2480MHz at 1Mbps

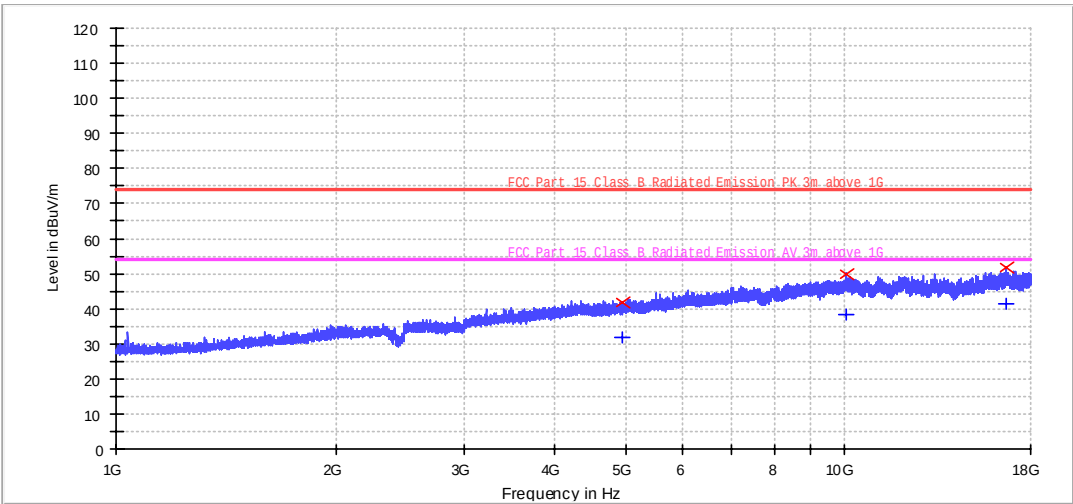
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	42.4	32.8	153.0	H	12.0	-2.3	31.7	74.0	21.2	54.0
12038.800000	49.1	39.1	178.0	H	174.0	5.2	24.9	74.0	14.9	54.0
16776.400000	50.6	40.5	198.0	H	135.0	6.6	23.4	74.0	13.5	54.0

RE_HF907_BRF_Pre



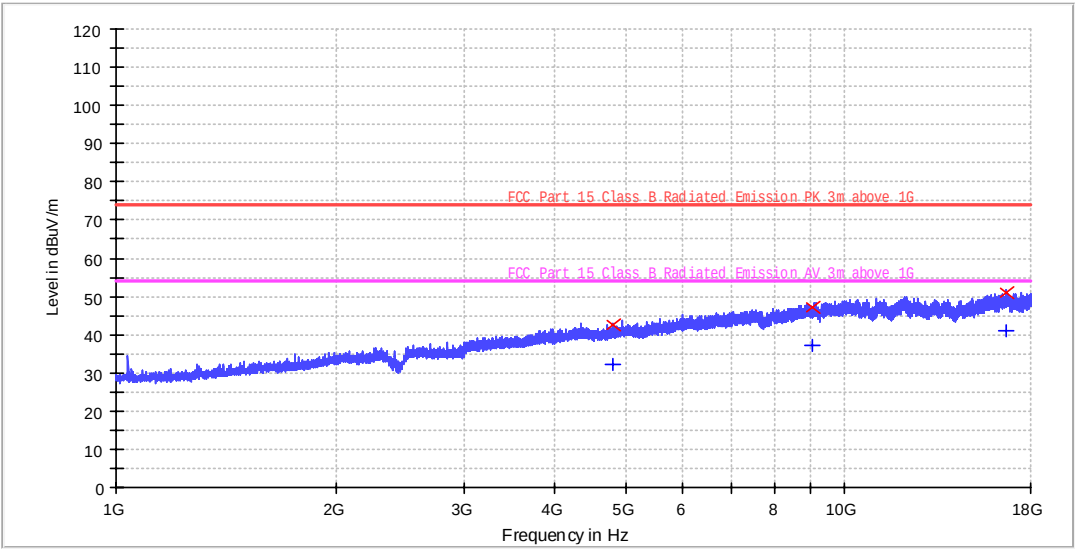
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	41.7	31.8	189.0	V	14.0	-4.0	32.4	74.0	22.2	54.0
10061.500000	50.0	38.4	174.0	V	23.0	3.6	24.0	74.0	15.6	54.0
16700.500000	51.8	41.3	169.0	V	175.0	6.7	22.2	74.0	12.7	54.0



Frequency:2402MHz at 2Mbps

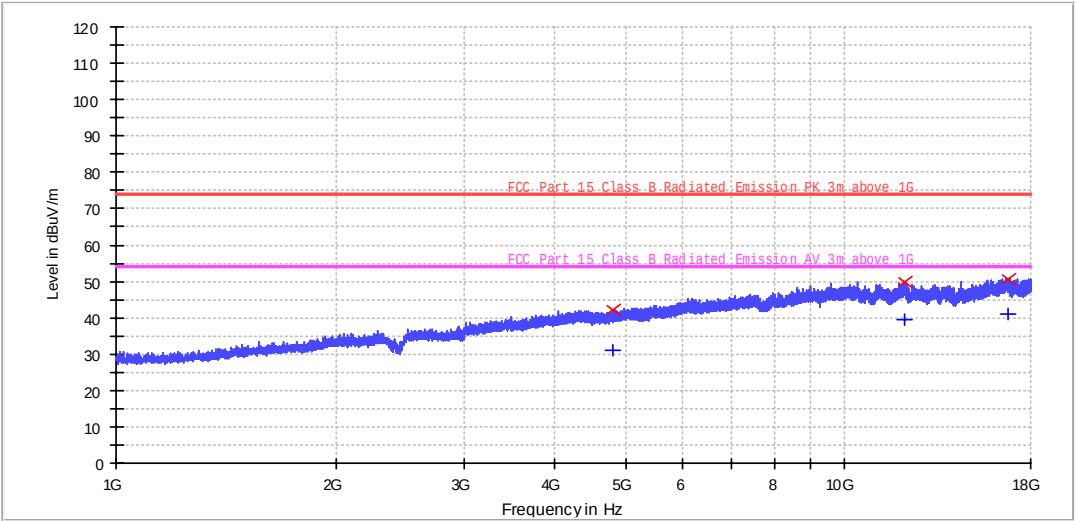
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	42.4	32.0	177.0	H	14.0	-3.5	31.6	74.0	22.0	54.0
9012.400000	47.1	37.1	199.0	H	174.0	2.2	26.9	74.0	16.9	54.0
16678.900000	51.0	41.2	214.0	H	11.0	6.7	23.0	74.0	12.8	54.0

RE_HF907_BRF_Pie

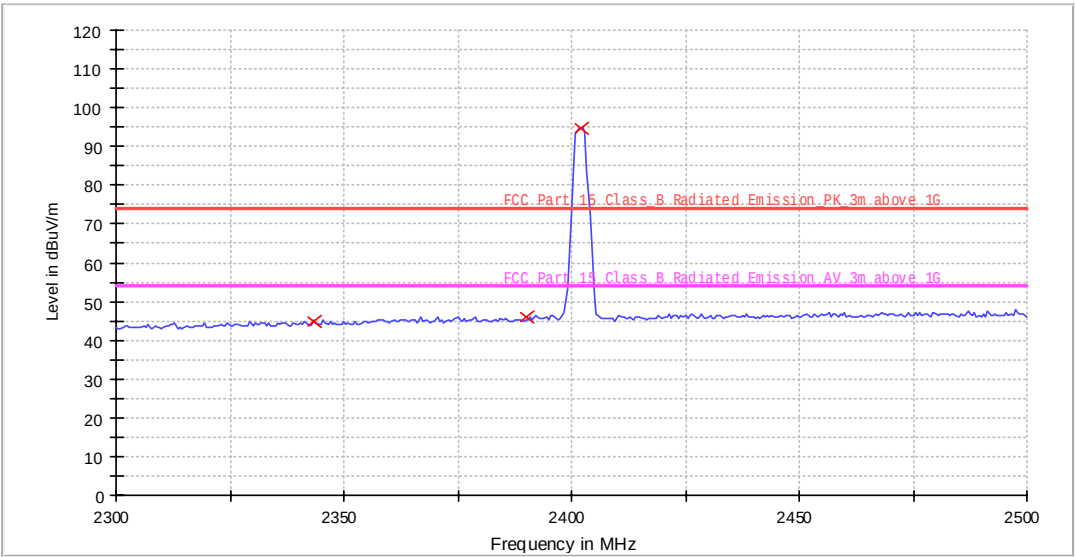


Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	42.3	31.2	189.0	V	14.0	-4.6	31.7	74.0	22.8	54.0
12071.800000	49.9	39.6	167.0	V	147.0	5.2	24.1	74.0	14.4	54.0
16712.200000	50.6	41.0	189.0	V	176.0	6.7	23.4	74.0	13.1	54.0



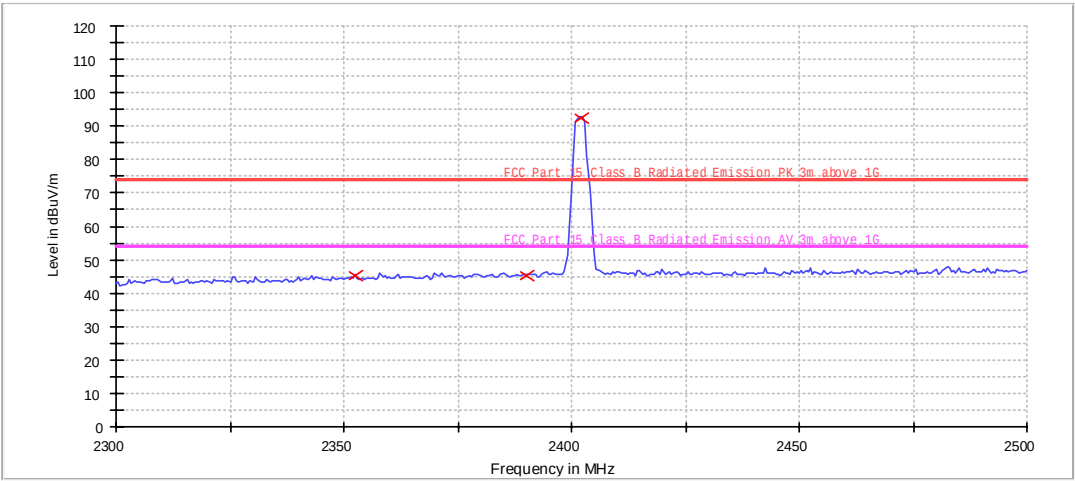
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2343.400000	44.9	1000.0	1000.000	177.0	H	14.0	-1.0	29.1	74.0
2390.000000	46.0	1000.0	1000.000	186.0	H	135.0	-0.8	28.0	74.0
2402.000000	94.8	1000.0	1000.000	215.0	H	147.0	-0.8	--	--

RE_HF907_BRF_Pre



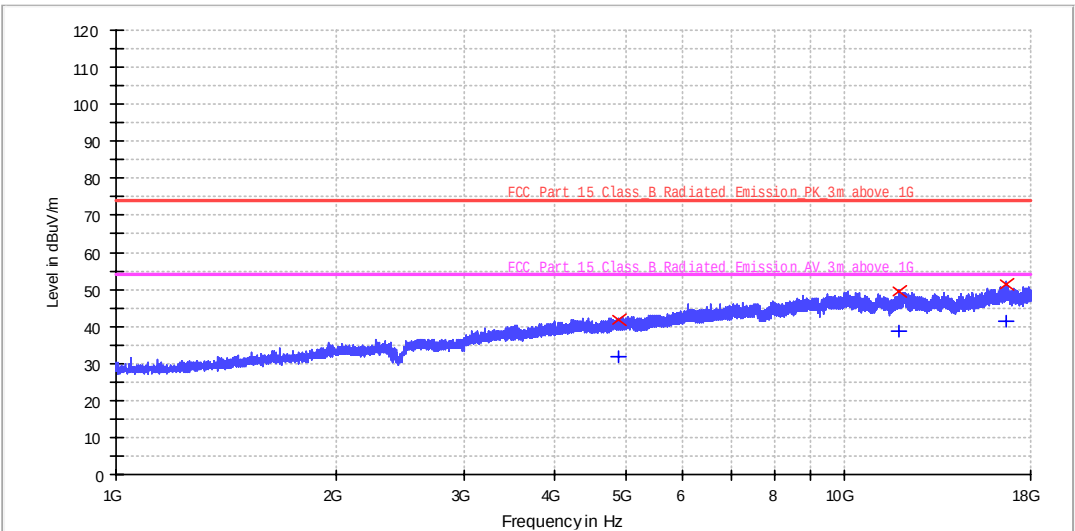
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2352.400000	45.1	1000.0	1000.000	177.0	V	31.0	-0.9	28.9	74.0
2390.000000	45.4	1000.0	1000.000	168.0	V	175.0	-0.8	28.6	74.0
2401.900000	92.3	1000.0	1000.000	174.0	V	135.0	-0.8	--	--



Frequency:2440MHz at 2Mbps

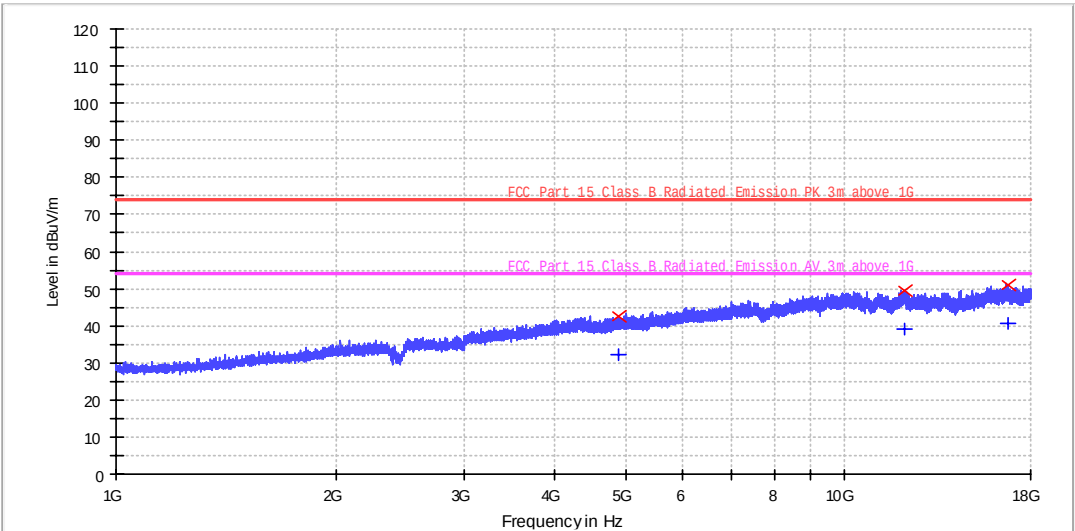
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	41.8	31.8	189.0	H	12.0	-3.1	32.2	74.0	22.2	54.0
11903.500000	49.5	38.6	176.0	H	175.0	5.1	24.5	74.0	15.4	54.0
16688.800000	51.5	41.2	176.0	H	359.0	6.7	22.5	74.0	12.8	54.0

RE_HF907_BRF_Pie



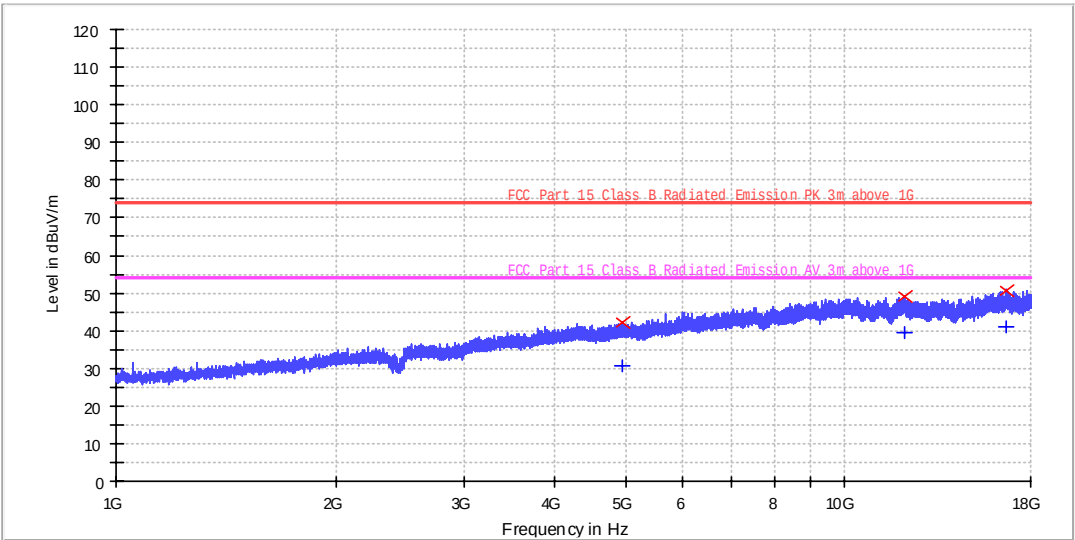
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	42.7	32.0	175.0	V	12.0	-3.5	31.3	74.0	22.0	54.0
12102.100000	49.3	39.2	189.0	V	174.0	5.2	24.7	74.0	14.8	54.0
16781.800000	50.9	40.7	176.0	V	145.0	6.6	23.1	74.0	13.3	54.0



Frequency:2480MHz at 2Mbps

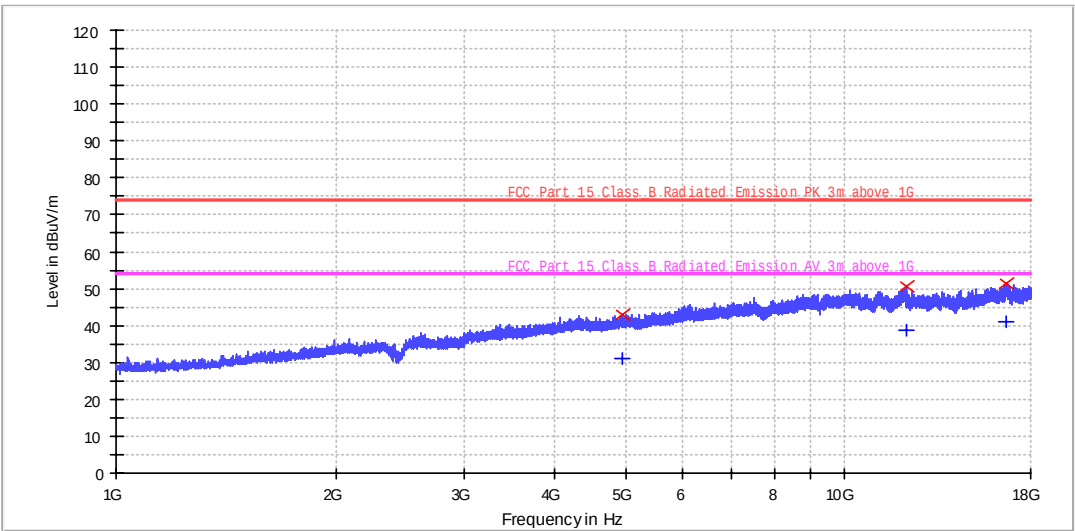
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	42.2	30.8	189.0	H	209.0	-5.1	31.8	74.0	23.2	54.0
12050.500000	49.0	39.3	179.0	H	188.0	5.2	25.0	74.0	14.7	54.0
16652.800000	50.8	40.9	168.0	H	166.0	6.6	23.2	74.0	13.1	54.0

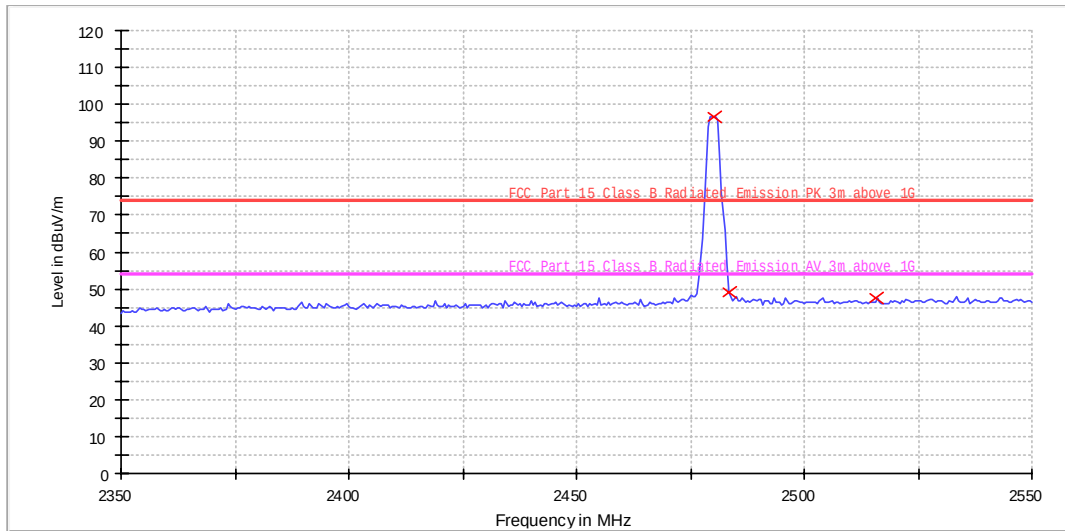
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	43.1	31.0	178.0	V	145.0	-4.5	31.0	74.0	23.0	54.0
12138.100000	50.5	38.9	199.0	V	142.0	5.3	23.5	74.0	15.1	54.0
16669.300000	51.5	41.0	175.0	V	359.0	6.6	22.5	74.0	13.0	54.0

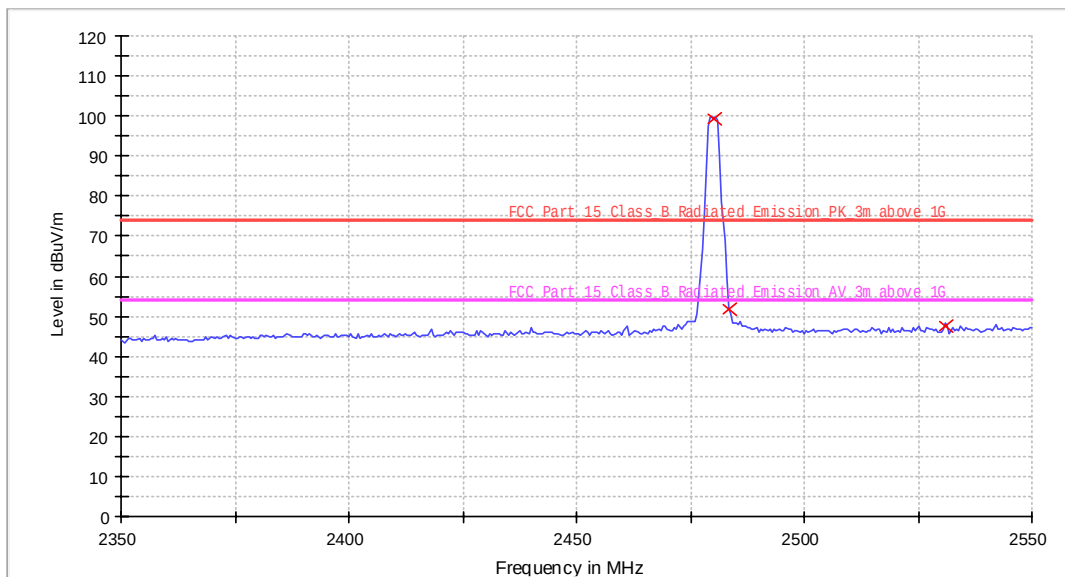
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2480.000000	96.7	1000.0	1000.000	178.0	H	17.0	-0.3	--	--
2483.500000	49.0	1000.0	1000.000	177.0	H	175.0	-0.3	25.0	74.0
2515.900000	47.4	1000.0	1000.000	168.0	H	14.0	-0.1	26.6	74.0

RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2480.000000	99.4	1000.0	1000.000	189.0	V	14.0	-0.3	--	--
2483.500000	51.7	1000.0	1000.000	177.0	V	123.0	-0.3	22.3	74.0
2530.900000	47.7	1000.0	1000.000	198.0	V	17.0	0.0	26.3	74.0

Worst case Radiated Emission 18-25 GHz

18-25GHz Radiated Emission

EUT Information

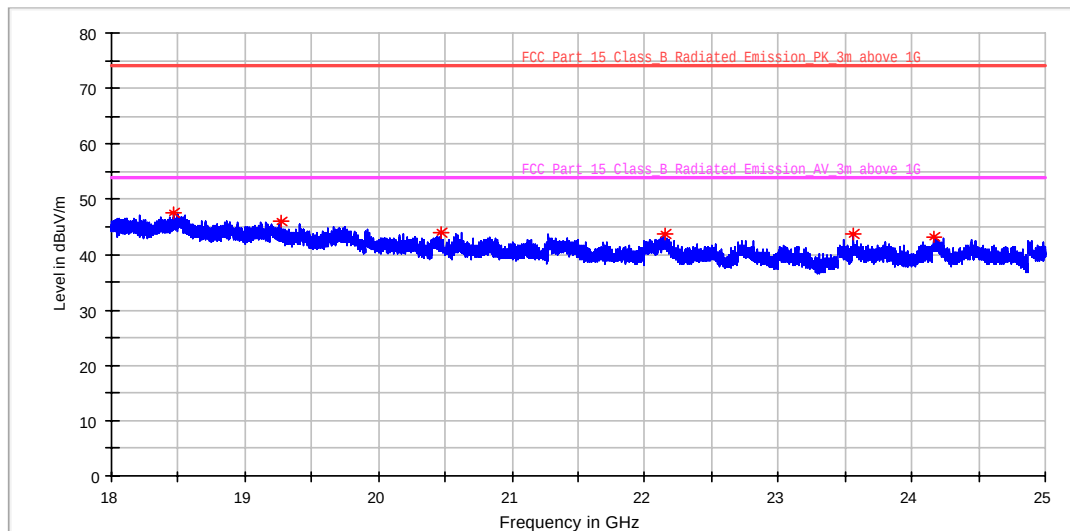
EUT Name: Smart Camera
 Model: SC155-WQ3C
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Horizontal
 Sample No: SHA-912069-2

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
18 GHz - 25 GHz	500 kHz	PK+ ; AVG	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18470.000000	47.51	74.00	26.49	100.0	H	0.0	8.1
19270.500000	45.96	74.00	28.04	100.0	H	291.0	8.2
20475.500000	43.97	74.00	30.03	100.0	H	172.0	8.4
22147.500000	43.72	74.00	30.28	100.0	H	184.0	8.8
23566.500000	43.72	74.00	30.28	100.0	H	37.0	8.9
24169.500000	43.21	74.00	30.79	100.0	H	265.0	9.0

Remark:

- (1) Emission level= Original Receiver Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (3) Margin = limit – Corrected Reading

18-25GHz Radiated Emission

EUT Information

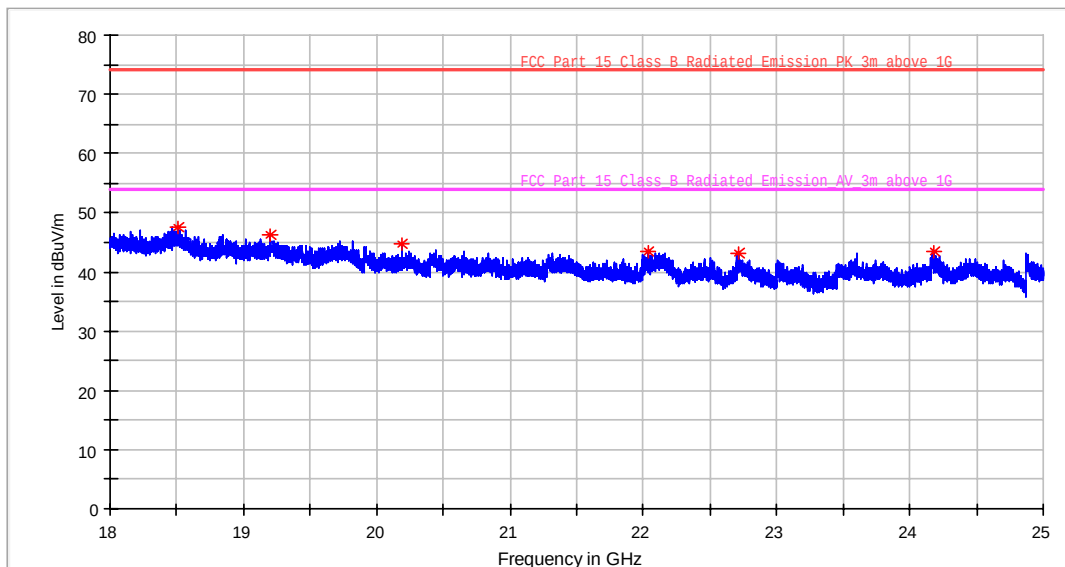
EUT Name: Smart Camera
 Model: SC155-WQ3C
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Vertical
 Sample No: SHA-912069-2

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
18 GHz - 25 GHz	500 kHz	PK+ ; AVG	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18513.500000	47.52	74.00	26.48	100.0	V	166.0	8.1
19196.500000	46.16	74.00	27.84	100.0	V	355.0	8.2
20184.500000	44.64	74.00	29.36	100.0	V	71.0	8.3
22034.500000	43.47	74.00	30.53	100.0	V	219.0	8.8
22713.000000	43.12	74.00	30.88	100.0	V	280.0	8.9
24186.000000	43.45	74.00	30.55	100.0	V	143.0	9.0

Remark:

- (4) Emission level= Original Receiver Reading + Correct Factor
- (5) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (6) Margin = limit – Corrected Reading

The worst case of Radiated Emission below 30MHz for SC256-WQ5

0.009-30MHz Radiated Emission

EUT Information

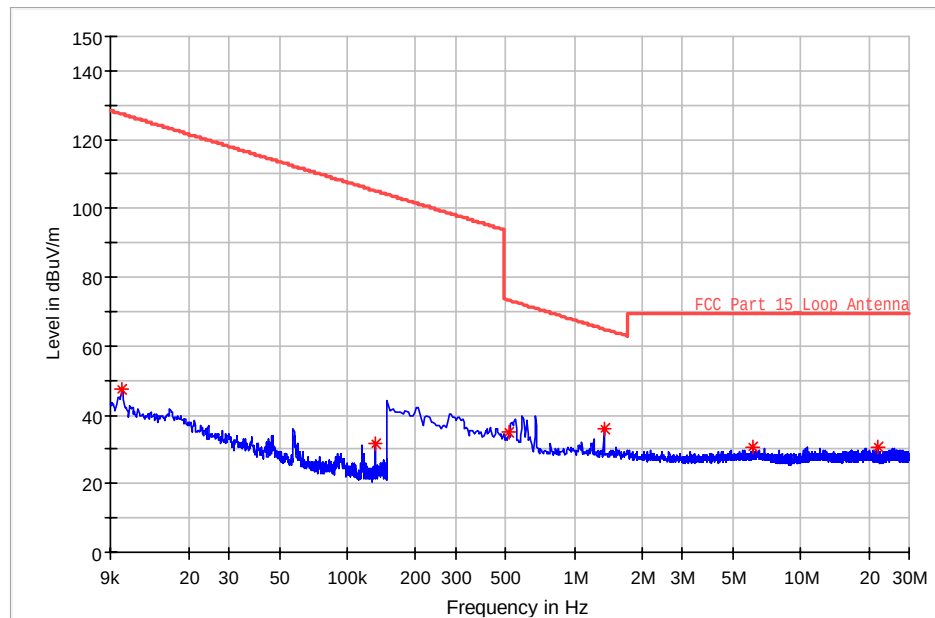
EUT Name: Smart Camera
 Model: SC256-WQ5
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Horizontal
 Sample No: SHA-912069-4

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.133433	31.82	105.10	73.27	100.0	H	0.0	18.8
1.352780	35.79	64.98	29.19	100.0	H	4.0	18.8
0.518735	34.78	73.31	38.53	100.0	H	80.0	18.7
0.010146	47.24	127.48	80.23	100.0	H	101.0	19.6
21.843927	30.65	69.54	38.90	100.0	H	190.0	19.3
6.098052	30.51	69.54	39.03	100.0	H	223.0	19.0

0.009-30MHz Radiated Emission

EUT Information

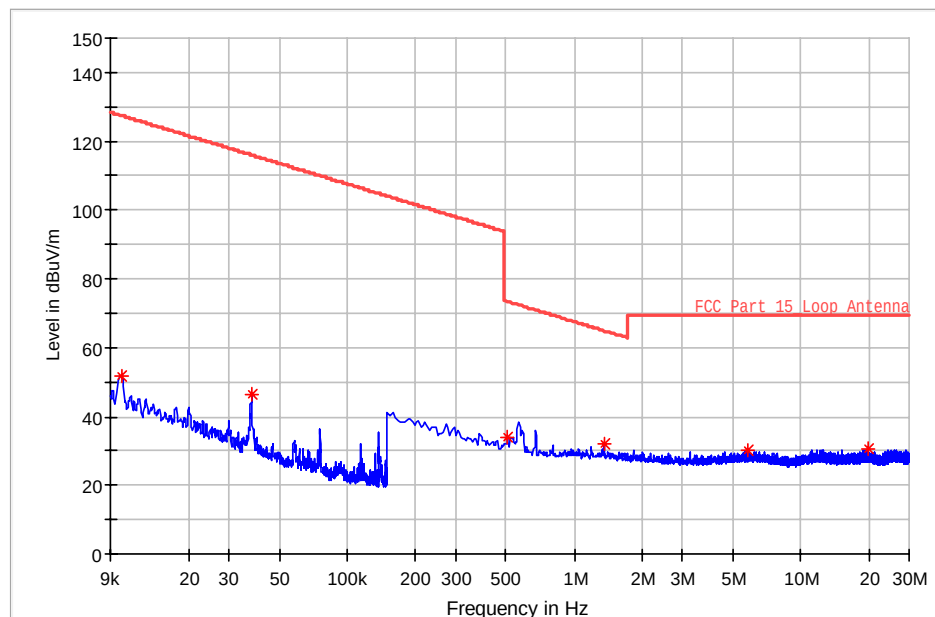
EUT Name: Smart Camera
 Model: SC256-WQ5
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Vertical
 Sample No: SHA-912069-4

Sweep Setup: RE_Loop E_pre [EMI radiated]

Hardware Setup: RE_Loop Antenna V
 Receiver: [ESR 3]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
9 kHz - 150 kHz	88.125 Hz	PK+	200 Hz	0.01 s	0 dB
150 kHz - 30 MHz	4.39 kHz	PK+	9 kHz	0.01 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.037905	46.53	116.03	69.50	100.0	H	37.0	18.9
1.357169	32.06	64.95	32.89	100.0	H	89.0	18.8
19.798324	30.60	69.54	38.95	100.0	H	150.0	19.1
5.847838	30.20	69.54	39.34	100.0	H	154.0	19.0
0.509956	34.05	73.45	39.40	100.0	H	174.0	18.7
0.010058	51.97	127.55	75.59	100.0	H	290.0	19.6

The worst case of Radiated Emission below 1GHz for SC256-WQ5
30-1000MHz Radiated Emission

EUT Information

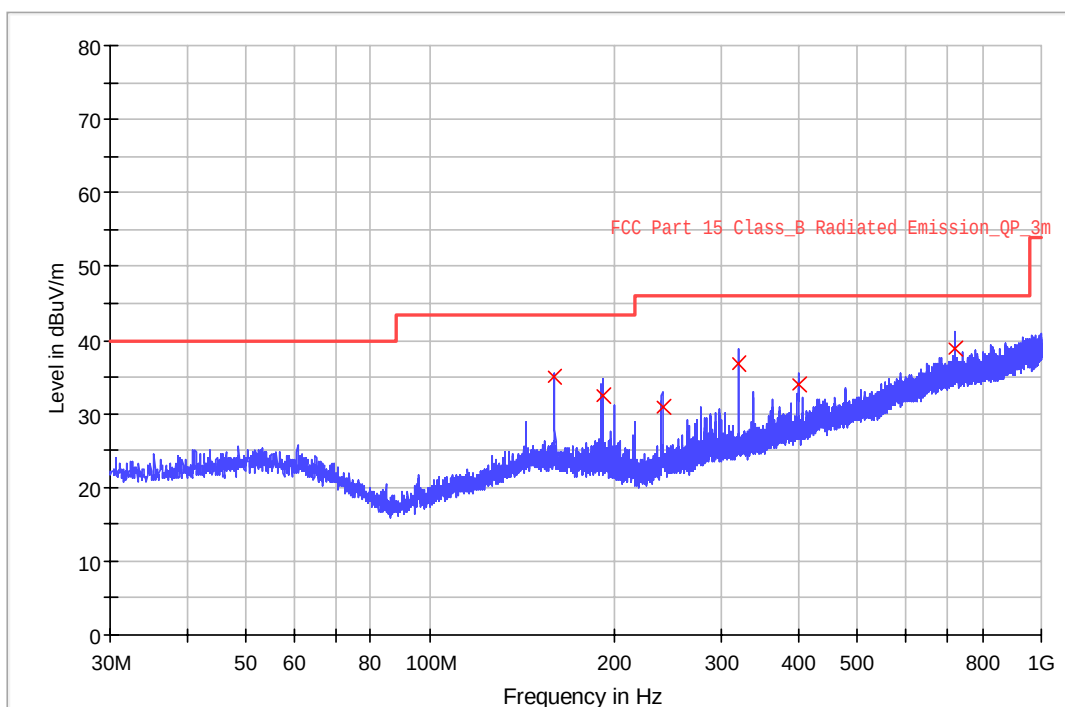
EUT Name:	Smart Camera
Model:	SC256-WQ5
Client:	Zhejiang Lingzhu Technology Co., Ltd
Op Cond:	Power on and TX at 2480MHz_2Mbps
Operator:	Guo Chengjie
Test Spec:	FCC Part 15.209(a)
Comment:	Horizontal
Sample No:	SHA-912069-4

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup:	RE_VULB9168
Receiver:	[ESR 3]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

RE_VULB9168_pre_Cont_30-1000





Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)
159.960000	34.9	1000.0	120.000	156.0	H	11.0	21.0	8.6
191.520000	32.6	1000.0	120.000	185.0	H	12.0	18.5	10.9
239.960000	31.0	1000.0	120.000	138.0	H	185.0	19.7	15.1
320.000000	36.7	1000.0	120.000	225.0	H	158.0	22.4	9.3
399.920000	33.9	1000.0	120.000	235.0	H	11.0	24.3	12.1
719.920000	38.8	1000.0	120.000	178.0	H	125.0	31.4	7.3

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
159.960000	43.5	
191.520000	43.5	
239.960000	46.0	
320.000000	46.0	
399.920000	46.0	
719.920000	46.0	

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)
 Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)



30-1000MHz Radiated Emission

EUT Information

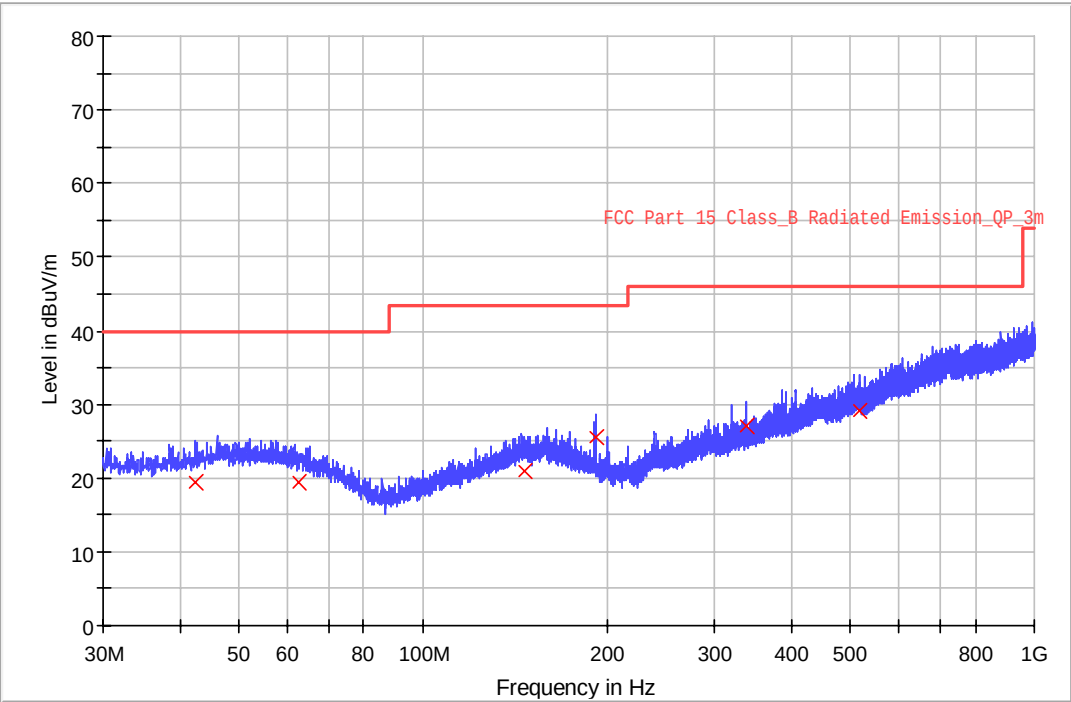
EUT Name: Smart Camera
Model: SC256-WQ5
Client: Zhejiang Lingzhu Technology Co., Ltd
Op Cond: Power on and TX at 2480MHz_2Mbps
Operator: Guo Chengjie
Test Spec: FCC Part 15.209(a)
Comment: Vertical
Sample No: SHA-912069-4

Sweep Setup: RE_VULB9168_pre_Cont_30-1000 [EMI radiated]

Hardware Setup: RE_VULB9168
Receiver: [ESR 3]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
30 MHz - 1 GHz	48.5 kHz	PK+	120 kHz	0.2 s	20 dB

RE_VULB9168_pre_Cont_30-1000





Limit and Margin

Frequency (MHz)	QuasiPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)
42.400000	19.4	1000.0	120.000	158.0	V	175.0	20.1	20.6
62.880000	19.4	1000.0	120.000	144.0	V	12.0	20.2	20.6
147.080000	20.9	1000.0	120.000	128.0	V	12.0	21.0	22.6
191.880000	25.6	1000.0	120.000	235.0	V	125.0	18.4	17.9
337.520000	27.2	1000.0	120.000	145.0	V	12.0	22.8	18.8
515.720000	29.0	1000.0	120.000	175.0	V	185.0	27.4	17.0

(continuation of the "Limit and Margin" table from column 16 ...)

Frequency (MHz)	Limit - QPK (dBuV/m)	Comment
42.400000	40.0	
62.880000	40.0	
147.080000	43.5	
191.880000	43.5	
337.520000	46.0	
515.720000	46.0	

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

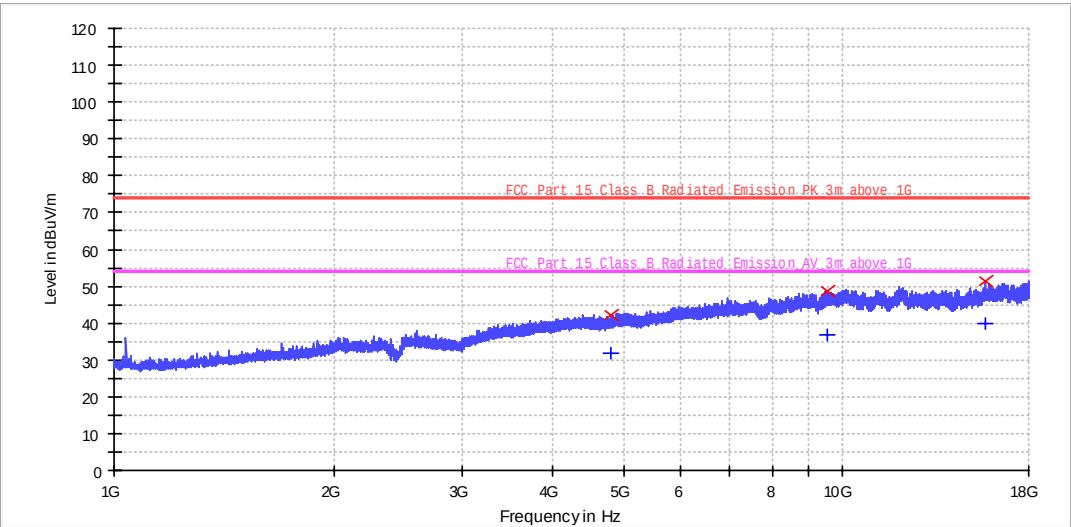
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)



Radiated Emission 1-18 GHz for SC256-WQ5

Frequency:2402MHz at 1Mbps

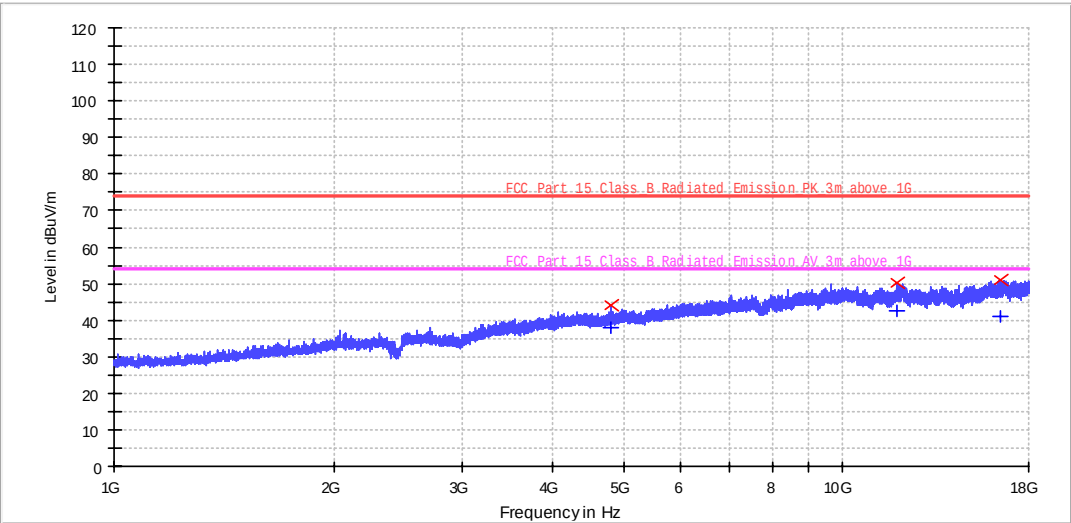
RE_HF907_BRF_Pie



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	42.3	31.9	175.0	H	14.0	-6.2	31.7	74.0	22.1	54.0
9511.600000	48.8	37.0	189.0	H	13.0	2.9	25.2	74.0	17.1	54.0
15692.200000	51.2	40.0	177.0	H	175.0	5.3	22.8	74.0	14.0	54.0

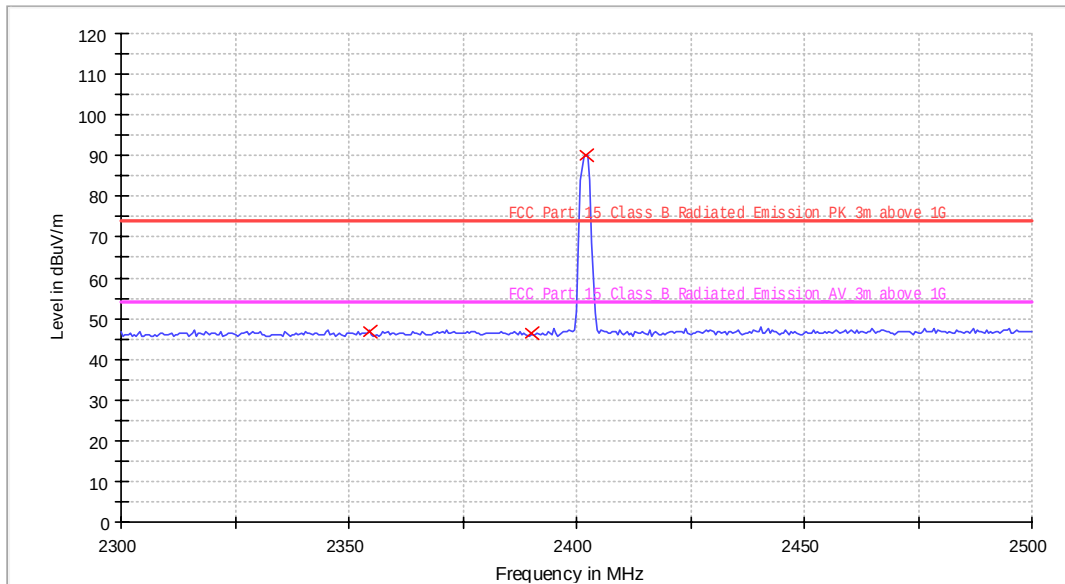
RE_HF907_BRF_Pie



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	44.0	38.0	198.0	V	15.0	-2.7	30.0	74.0	16.0	54.0
11892.100000	50.1	42.4	214.0	V	155.0	5.1	23.9	74.0	11.6	54.0
16470.100000	51.1	40.9	221.0	V	215.0	6.2	22.9	74.0	13.1	54.0

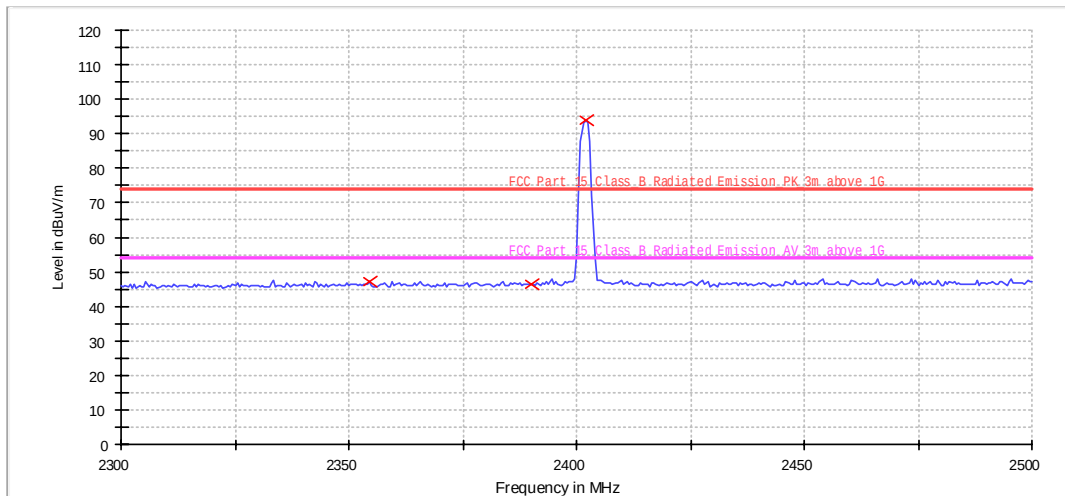
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2354.500000	46.9	1000.0	1000.000	185.0	H	145.0	-0.9	27.1	74.0
2390.000000	46.3	1000.0	1000.000	177.0	H	132.0	-0.8	27.8	74.0
2402.000000	90.2	1000.0	1000.000	198.0	H	125.0	-0.8	--	--

RE_HF907_BRF_Pre



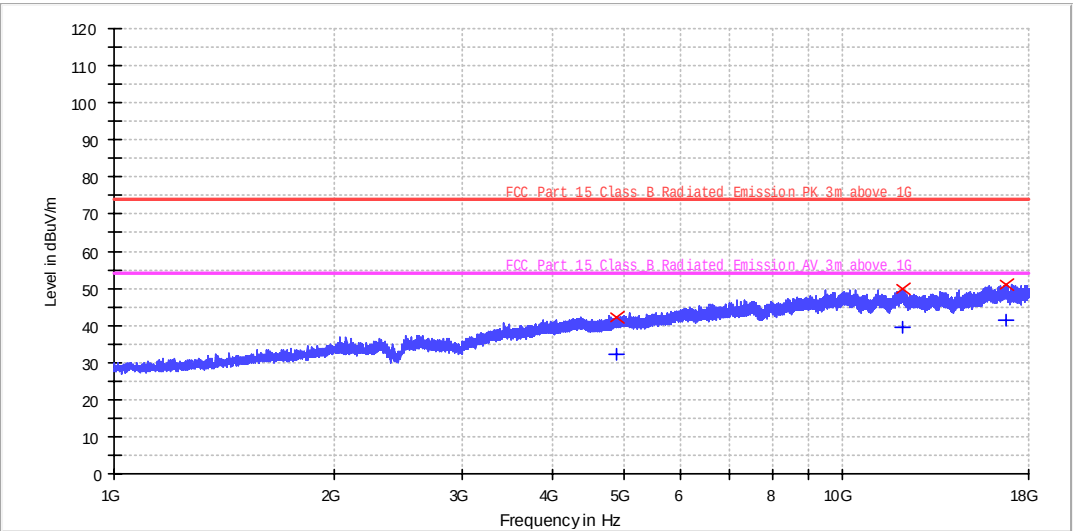
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2354.500000	47.0	1000.0	1000.000	189.0	V	257.0	-0.9	27.0	74.0
2390.000000	46.2	1000.0	1000.000	176.0	V	175.0	-0.8	27.8	74.0
2402.000000	93.9	1000.0	1000.000	167.0	V	175.0	-0.8	--	--



Frequency:2440MHz at 1Mbps

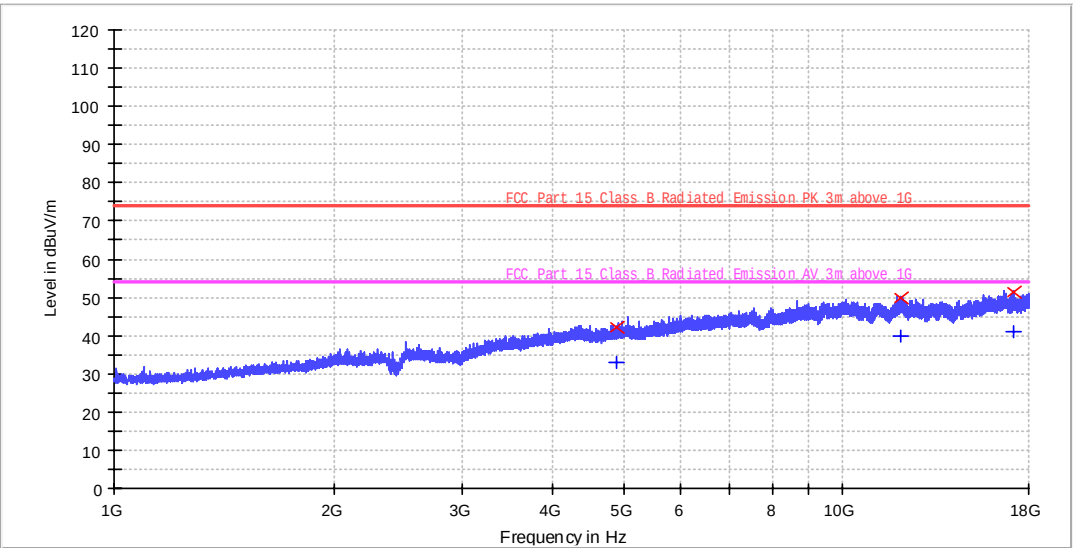
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	42.3	32.2	198.0	H	12.0	-2.8	31.7	74.0	21.8	54.0
12105.700000	49.9	39.7	217.0	H	186.0	5.2	24.2	74.0	14.4	54.0
16713.700000	50.9	41.2	198.0	H	13.0	6.7	23.1	74.0	12.8	54.0

RE_HF907_BRF_Pre



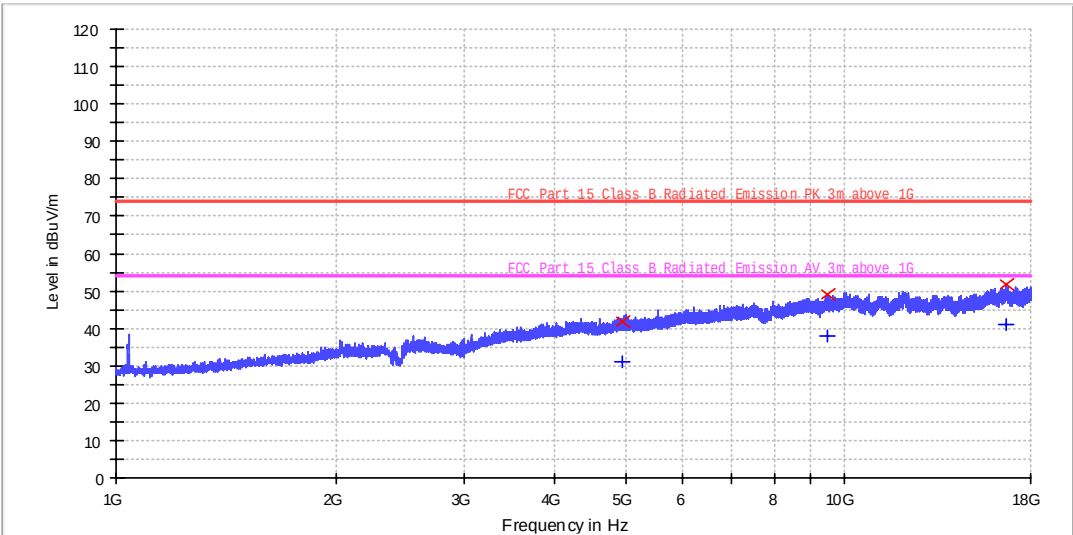
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	42.0	32.8	187.0	V	221.0	-2.4	32.0	74.0	21.2	54.0
12020.200000	49.8	40.0	213.0	V	16.0	5.2	24.2	74.0	14.0	54.0
17141.500000	51.3	41.0	187.0	V	211.0	6.8	22.7	74.0	13.0	54.0



Frequency:2480MHz at 1Mbps

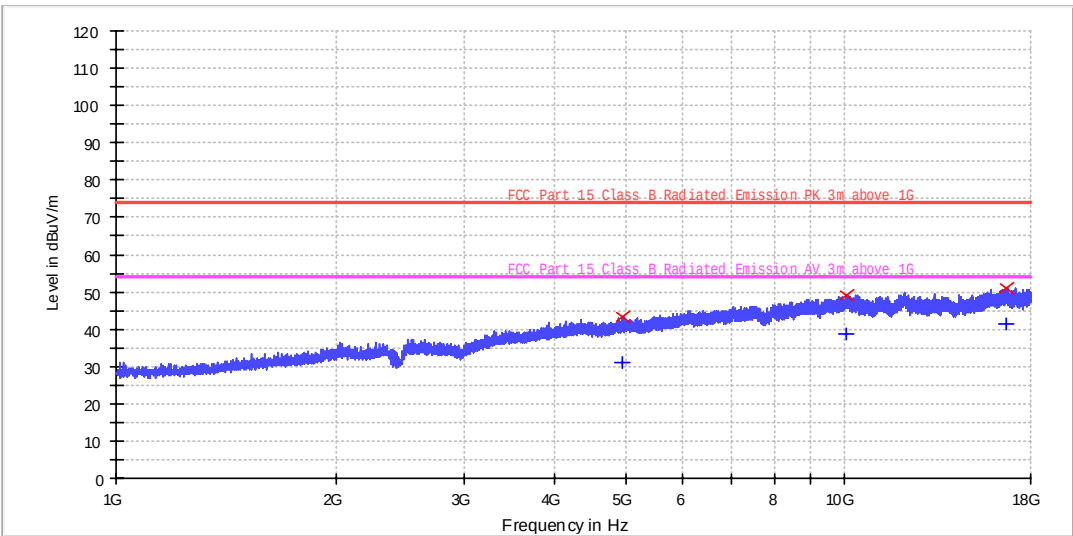
RE_HF907_BRF_Pie



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	42.0	31.1	189.0	H	12.0	-4.7	32.0	74.0	22.9	54.0
9460.300000	49.2	38.0	241.0	H	146.0	2.8	24.8	74.0	16.0	54.0
16679.200000	51.7	41.2	176.0	H	175.0	6.7	22.3	74.0	12.8	54.0

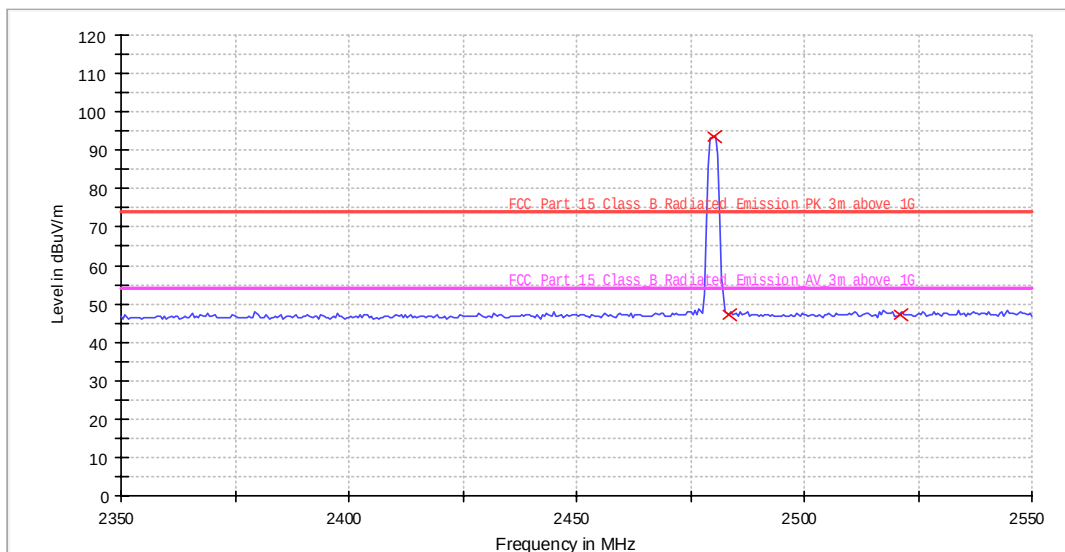
RE_HF907_BRF_Pie



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	43.3	31.0	177.0	V	13.0	-4.9	30.7	74.0	23.0	54.0
10045.000000	49.3	38.8	186.0	V	46.0	3.6	24.8	74.0	15.2	54.0
16675.000000	51.1	41.2	179.0	V	175.0	6.7	22.9	74.0	12.8	54.0

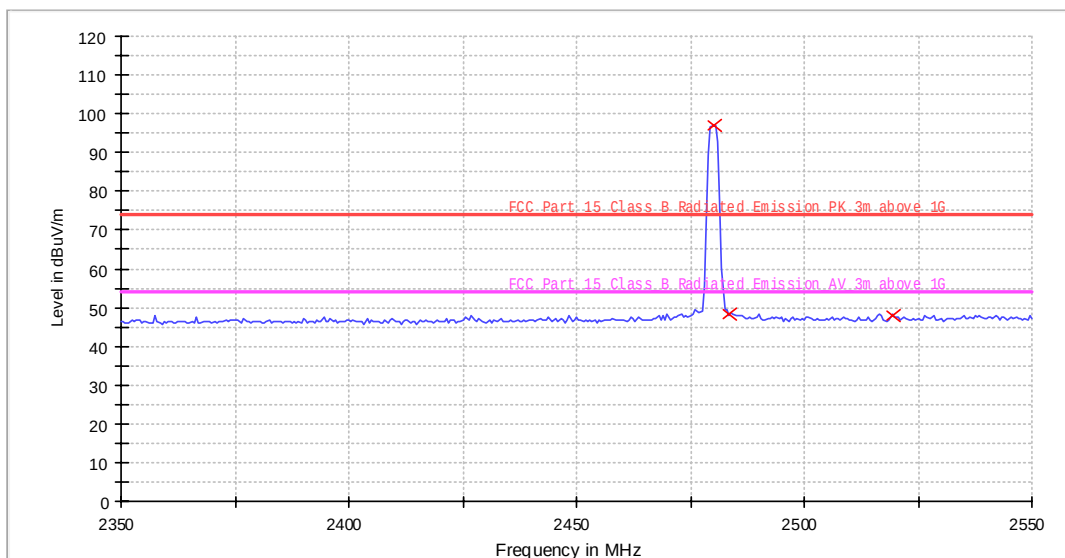
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2480.000000	93.6	1000.0	1000.000	175.0	H	132.0	-0.3	--	--
2483.500000	47.3	1000.0	1000.000	176.0	H	165.0	-0.3	26.7	74.0
2521.000000	47.3	1000.0	1000.000	176.0	H	152.0	-0.1	26.7	74.0

RE_HF907_BRF_Pre

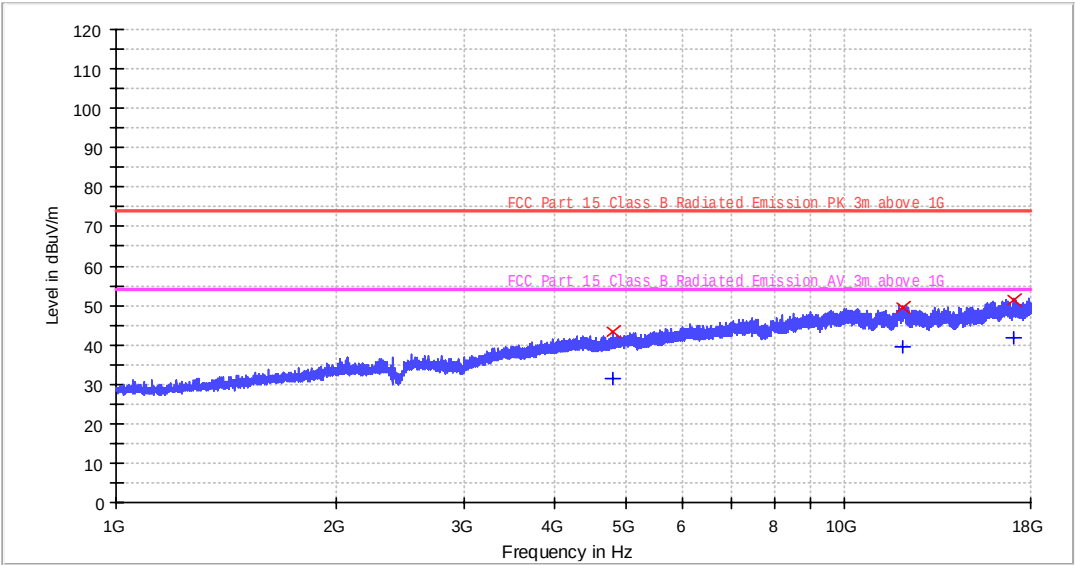


Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2480.000000	97.1	1000.0	1000.000	189.0	V	125.0	-0.3	--	--
2483.500000	48.2	1000.0	1000.000	199.0	V	136.0	-0.3	25.8	74.0
2519.500000	47.9	1000.0	1000.000	178.0	V	142.0	-0.1	26.1	74.0



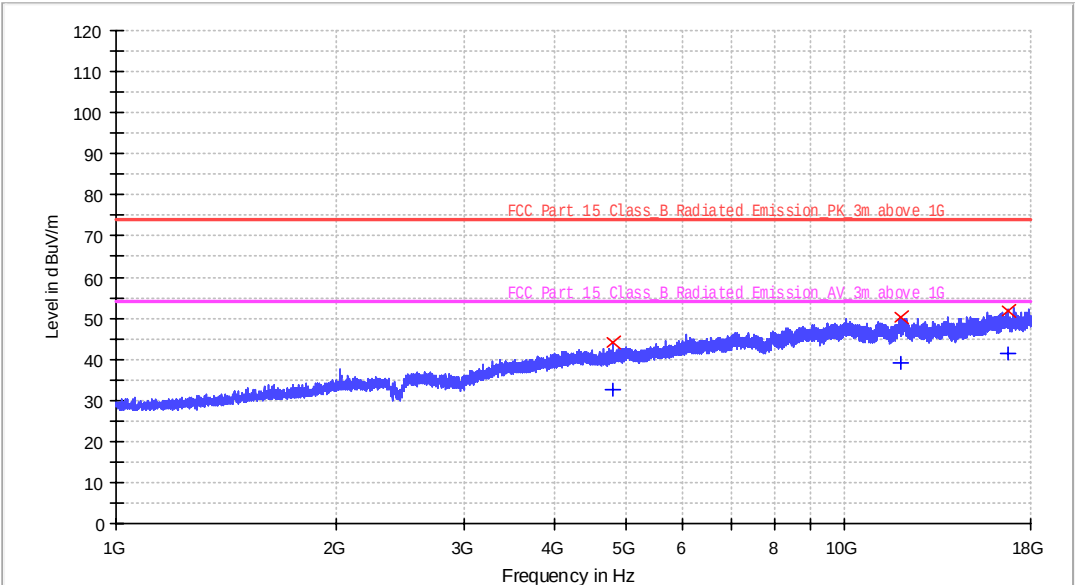
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	43.3	31.4	188.0	H	174.0	-4.6	30.7	74.0	22.6	54.0
12002.200000	49.6	39.6	175.0	H	158.0	5.2	24.4	74.0	14.4	54.0
17109.700000	51.3	41.6	189.0	H	177.0	6.8	22.7	74.0	12.4	54.0

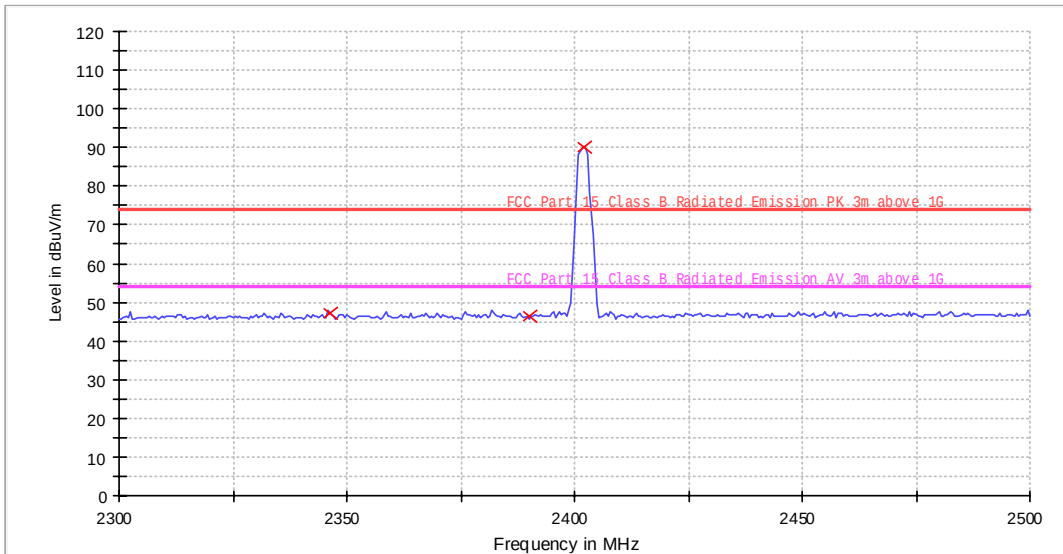
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4804.000000	44.0	32.6	177.0	V	12.0	-2.7	30.0	74.0	21.4	54.0
11917.600000	50.2	39.1	186.0	V	175.0	5.1	23.8	74.0	14.9	54.0
16764.700000	51.8	41.2	185.0	V	123.0	6.6	22.2	74.0	12.8	54.0

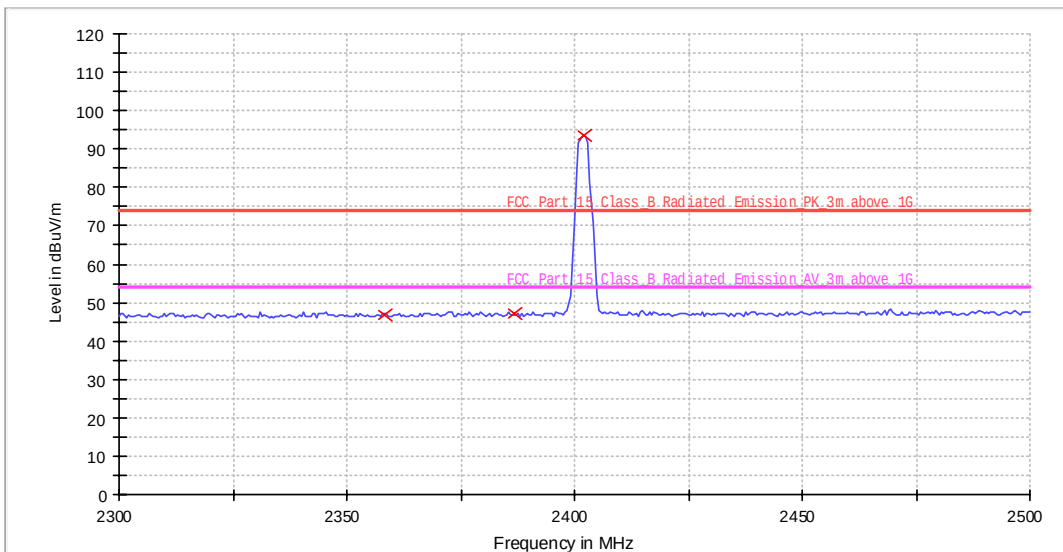
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2346.100000	47.3	1000.0	1000.000	187.0	H	164.0	-1.0	26.7	74.0
2390.000000	46.3	1000.0	1000.000	199.0	H	116.0	-0.8	27.7	74.0
2402.000000	90.1	1000.0	1000.000	236.0	H	143.0	-0.8	--	--

RE_HF907_BRF_Pre



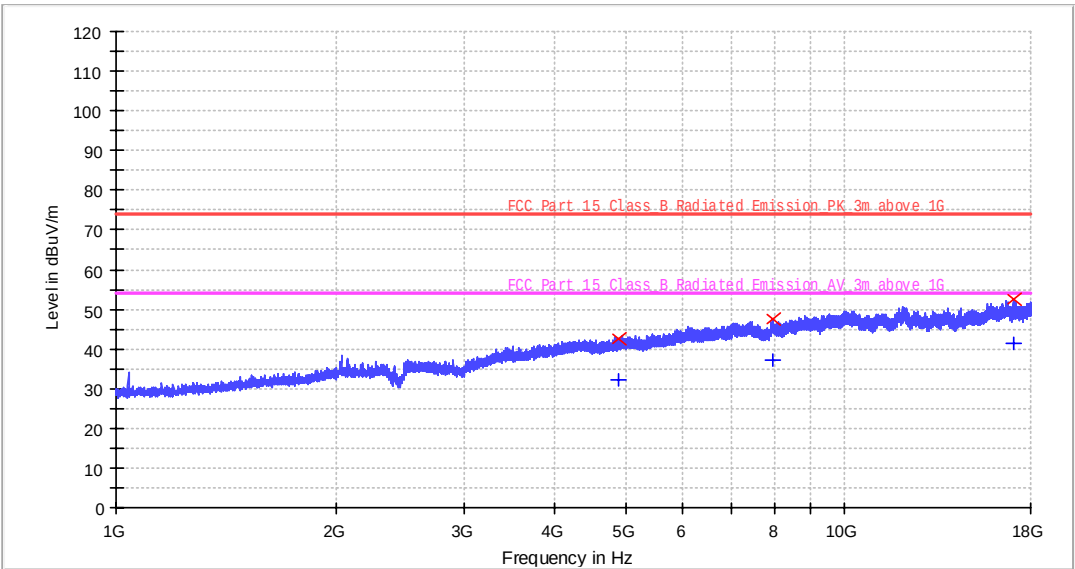
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2358.100000	46.9	1000.0	1000.000	188.0	V	12.0	-0.9	27.1	74.0
2386.900000	47.0	1000.0	1000.000	168.0	V	174.0	-0.8	27.0	74.0
2401.900000	93.4	1000.0	1000.000	199.0	V	136.0	-0.8	--	--



Frequency:2440MHz at 2Mbps

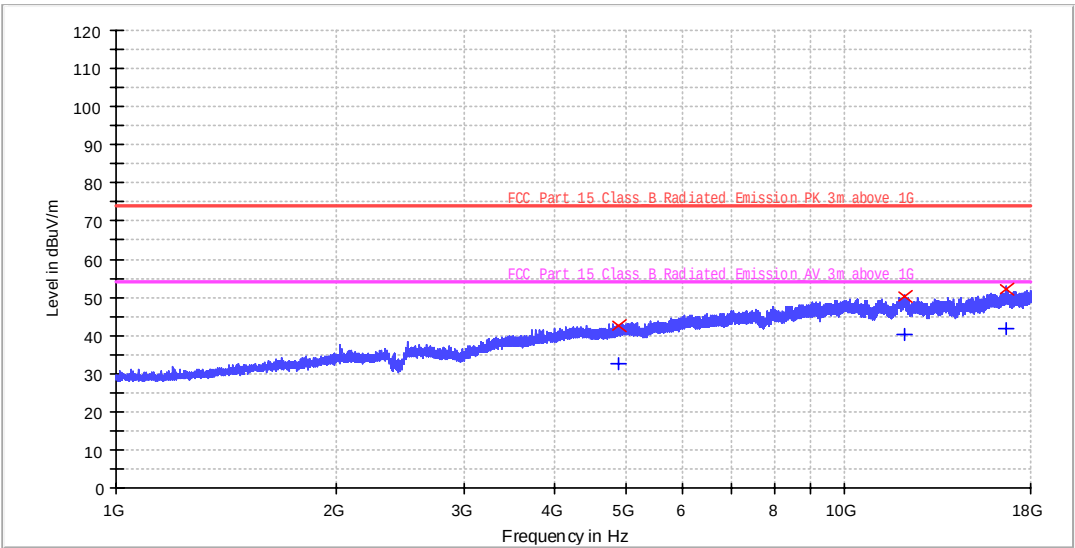
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	42.5	32.3	185.0	H	145.0	-3.5	31.5	74.0	21.7	54.0
7954.000000	47.5	37.0	186.0	H	14.0	1.4	26.5	74.0	17.0	54.0
17073.400000	52.4	41.4	275.0	H	152.0	6.7	21.6	74.0	12.7	54.0

RE_HF907_BRF_Pre



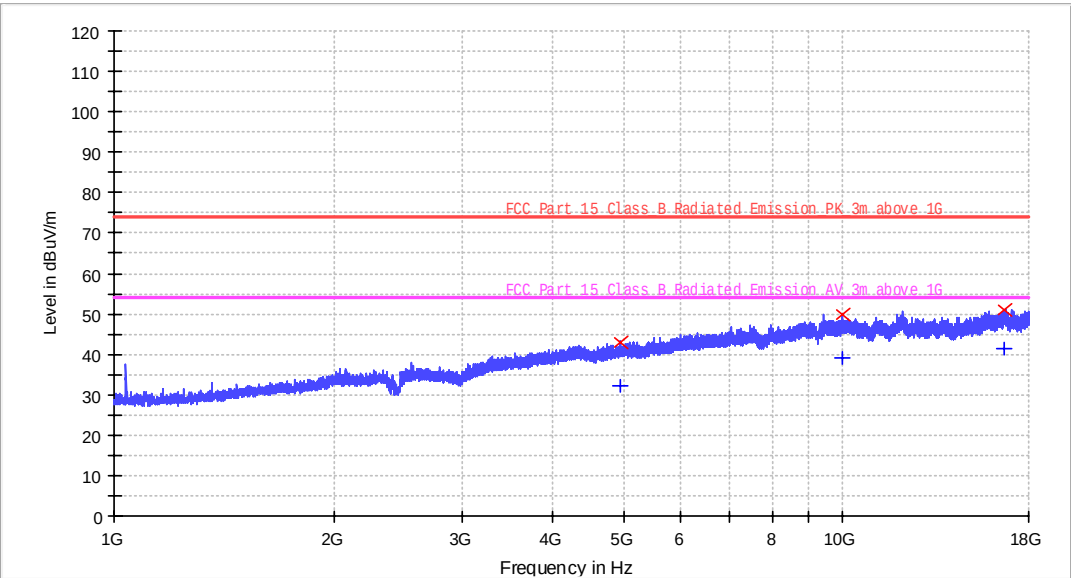
Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4880.000000	42.4	32.6	174.0	V	12.0	-2.4	31.6	74.0	21.4	54.0
12091.900000	50.1	40.1	186.0	V	175.0	5.2	23.9	74.0	13.9	54.0
16667.500000	52.2	41.7	179.0	V	124.0	6.6	21.8	74.0	12.3	54.0



Frequency:2480MHz at 2Mbps

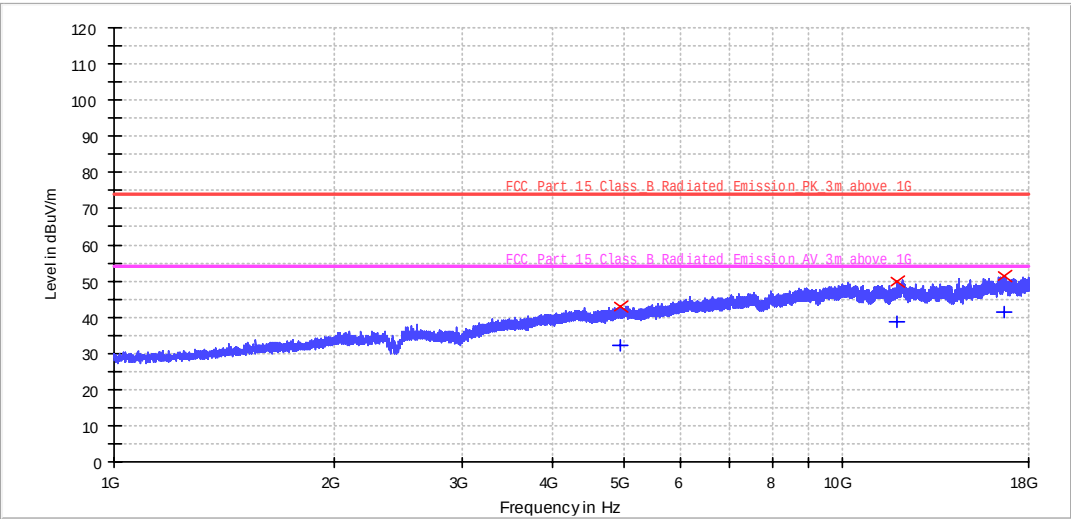
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	43.1	32.2	177.0	H	124.0	-3.5	30.9	74.0	21.8	54.0
10017.400000	49.7	39.0	215.0	H	174.0	3.6	24.3	74.0	15.1	54.0
16683.100000	51.1	41.5	185.0	H	25.0	6.7	22.9	74.0	12.5	54.0

RE_HF907_BRF_Pre

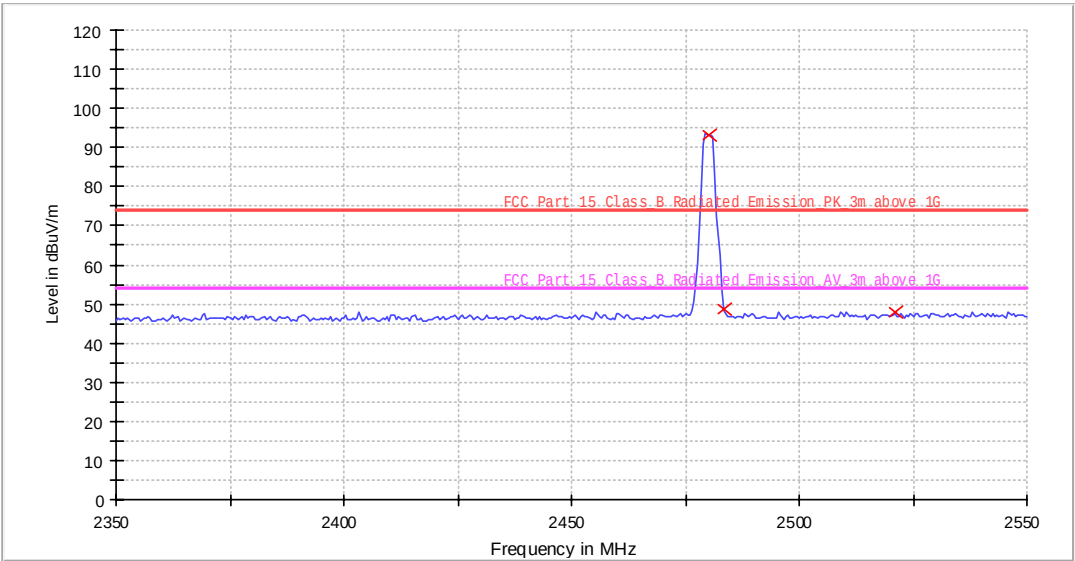


Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	AV (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AV (dB)	Limit - AV (dBuV/m)
4960.000000	42.8	32.2	189.0	V	12.0	-3.4	31.2	74.0	21.8	54.0
11894.200000	50.0	38.6	247.0	V	174.0	5.1	24.0	74.0	15.4	54.0
16700.500000	51.2	41.4	189.0	V	113.0	6.7	22.8	74.0	12.6	54.0



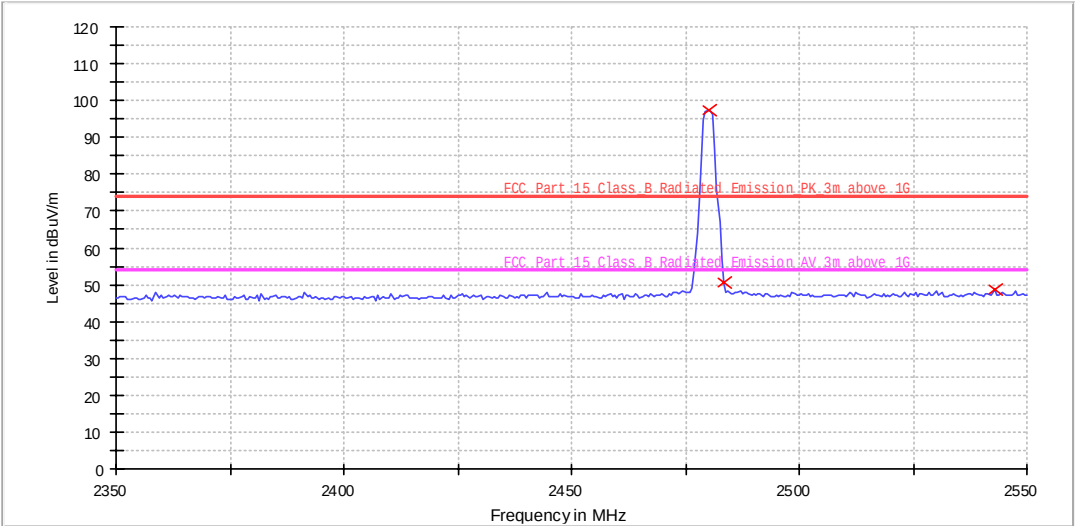
RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2480.000000	93.3	1000.0	1000.000	169.0	H	142.0	-0.3	--	--
2483.500000	48.6	1000.0	1000.000	188.0	H	141.0	-0.3	25.4	74.0
2521.000000	48.0	1000.0	1000.000	174.0	H	132.0	-0.1	26.1	74.0

RE_HF907_BRF_Pre



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2480.000000	97.2	1000.0	1000.000	185.0	V	168.0	-0.3	--	--
2483.500000	50.5	1000.0	1000.000	199.0	V	241.0	-0.3	23.6	74.0
2542.900000	48.6	1000.0	1000.000	178.0	V	168.0	0.1	25.4	74.0

The worst case of Radiated Emission above 18GHz for SC256-WQ5

18-25GHz Radiated Emission

EUT Information

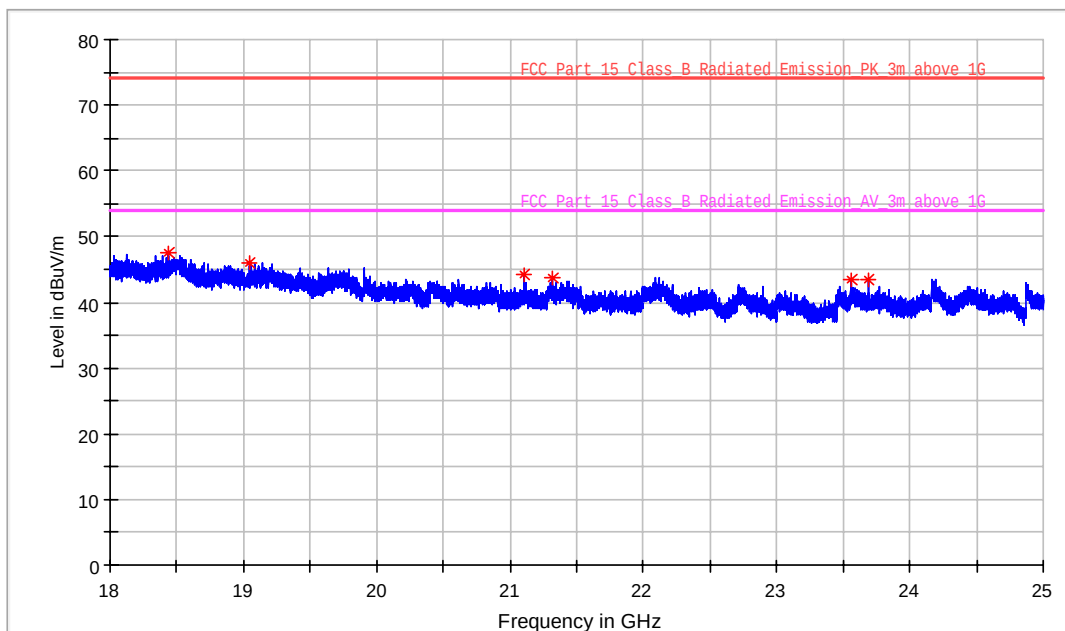
EUT Name: Smart Camera
 Model: SC256-WQ5
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 802.11 g mode_2412MHz
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Horizontal
 Sample No: SHA-912069-4

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
18 GHz - 25 GHz	500 kHz	PK+	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18443.000000	47.48	74.00	26.52	100.0	H	326.0	8.1
19040.500000	46.13	74.00	27.87	100.0	H	35.0	8.1
21105.500000	44.31	74.00	29.69	100.0	H	251.0	8.6
21319.500000	43.79	74.00	30.21	100.0	H	90.0	8.6
23562.000000	43.43	74.00	30.57	100.0	H	187.0	8.9
23684.000000	43.49	74.00	30.51	100.0	H	254.0	8.9

18-25GHz Radiated Emission

EUT Information

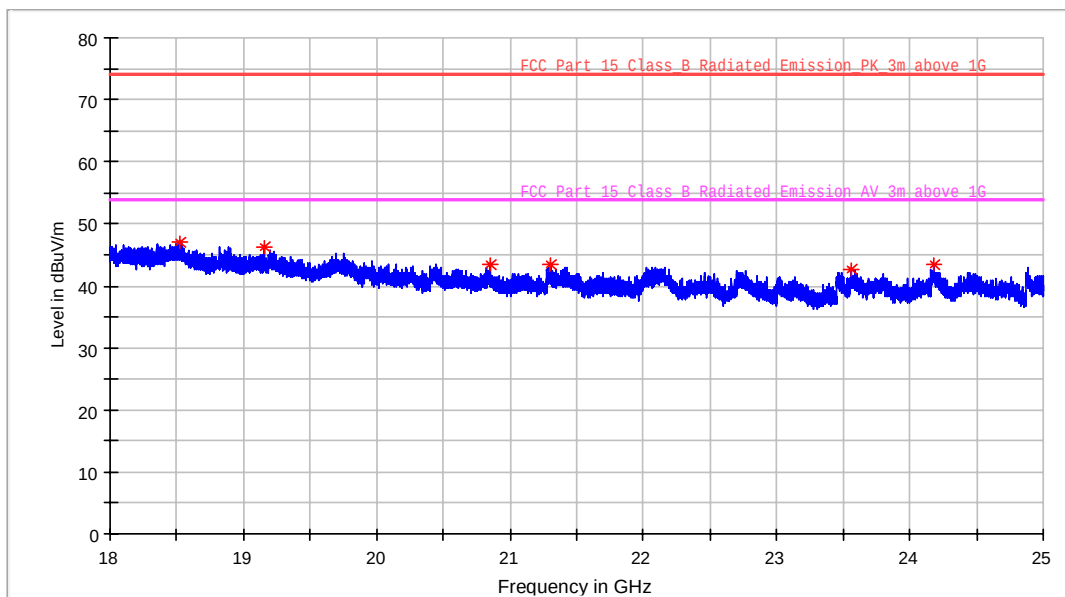
EUT Name: Smart Camera
 Model: SC256-WQ5
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Horizontal
 Sample No: SHA-912069-4

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
18 GHz - 25 GHz	500 kHz	PK+	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
21309.000000	43.47	74.00	30.53	100.0	H	168.0	8.6
23559.000000	42.64	74.00	31.36	100.0	H	220.0	8.9
20850.000000	43.58	74.00	30.42	100.0	H	297.0	8.5
24188.000000	43.33	74.00	30.67	100.0	H	314.0	9.0
19163.000000	46.35	74.00	27.65	100.0	H	317.0	8.2
18524.000000	46.96	74.00	27.04	100.0	H	334.0	8.1

Remark:

- (1) Emission level= Original Receiver Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (3) Margin = limit – Corrected Reading

18-25GHz Radiated Emission

EUT Information

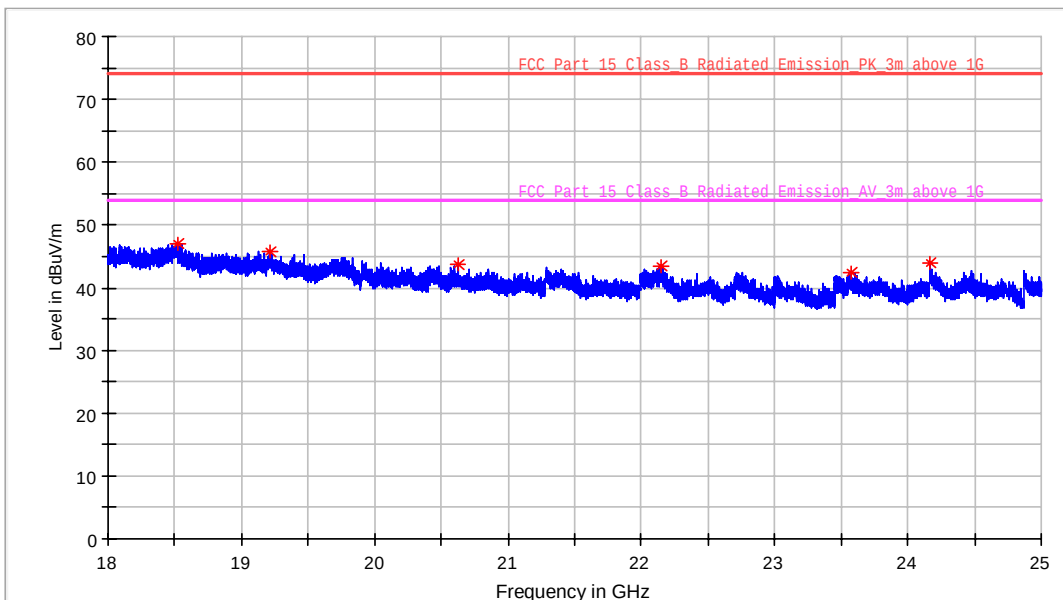
EUT Name: Smart Camera
 Model: SC256-WQ5
 Client: Zhejiang Lingzhu Technology Co., Ltd
 Op Cond: Power on and TX at 2480MHz_2Mbps
 Operator: Guo Chengjie
 Test Spec: FCC Part 15.209(a)
 Comment: Vertical
 Sample No: SHA-912069-4

Sweep Setup: RE_3116C_pre [EMI radiated]

Hardware Setup: RE_3116C
 Receiver: [FSV 40]
 Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
18 GHz - 25 GHz	500 kHz	PK+	1 MHz	0.05 s	0 dB

Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18518.500000	47.06	74.00	26.94	100.0	V	67.0	8.1
19207.000000	45.84	74.00	28.16	100.0	V	110.0	8.2
20624.500000	43.67	74.00	30.33	100.0	V	15.0	8.4
22149.500000	43.49	74.00	30.51	100.0	V	270.0	8.8
23578.500000	42.45	74.00	31.55	100.0	V	276.0	8.9
24164.500000	43.84	74.00	30.16	100.0	V	6.0	9.0

Remark:

- (1) Emission level= Original Receiver Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss -Amplifier gain
- (3) Margin = limit – Corrected Reading

11 Test Equipment List

List of Test Instruments
Test Site1

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE DATE
C	Signal spectrum analyzer	Agilent	N9020B	MY59050168	2025-2-19	2026-2-18
RE	EMI Test Receiver	Rohde & Schwarz	ESR3	101906	2024-8-1	2025-7-31
	Signal Analyzer	Rohde & Schwarz	FSV40	101091	2024-8-1	2025-7-31
	Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9168	961	2024-8-30	2025-8-29
	Double-ridged waveguide horn antenna	Rohde & Schwarz	HF907	102868	2025-4-14	2026-4-13
	Pre-amplifier	Shenzhen HzEMC	HPA-081843	HYP A23026	2025-4-14	2026-4-13
	Loop antenna	Rohde & Schwarz	HFH2-Z2	100443	2024-6-26	2025-6-25
	Double Ridged Horn Antenna	ETS-Lindgren	3116C	00246076	2023-7-7	2026-7-6
	3m Semi-anechoic chamber	TDK	9X6X6	----	2024-5-8	2027-5-7
	Band reject filter	Wainwright	WRCGV10-2382-2402-2480-2500-52SS	38	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 01	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 02	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 03	2024-8-1	2025-7-31
	Coaxial Cable	----	----	RE Cable 04	2024-8-1	2025-7-31

Measurement Software Information			
Test Item	Software	Manufacturer	Version
C	MTS 8310	MWRFTest	3.0.0.0
RE	EMC 32	Rohde & Schwarz	V10.50.40

C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth
- Power spectral density
- Spurious RF conducted emissions
- Band edge

12 System Measurement Uncertainty

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

Items	Extended Uncertainty
Conducted Disturbance at Mains Terminals	150kHz to 30MHz, LISN, 3.16dB
Radiated Disturbance	9kHz to 30MHz, 3.52dB 30MHz to 1GHz, 5.03dB (Horizontal) 5.12dB (Vertical) 1GHz to 18GHz, 5.49dB 18GHz to 40GHz, 5.63dB
RF Conducted Measurement	Power related: 1.16dB Frequency related: 6.00×10^{-8}

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.



13 Photographs of Test Set-ups

Refer to the < Test Setup photos >.

14 Photographs of EUT

Refer to the < External Photos > & < Internal Photos >.

-----End of Test Report-----