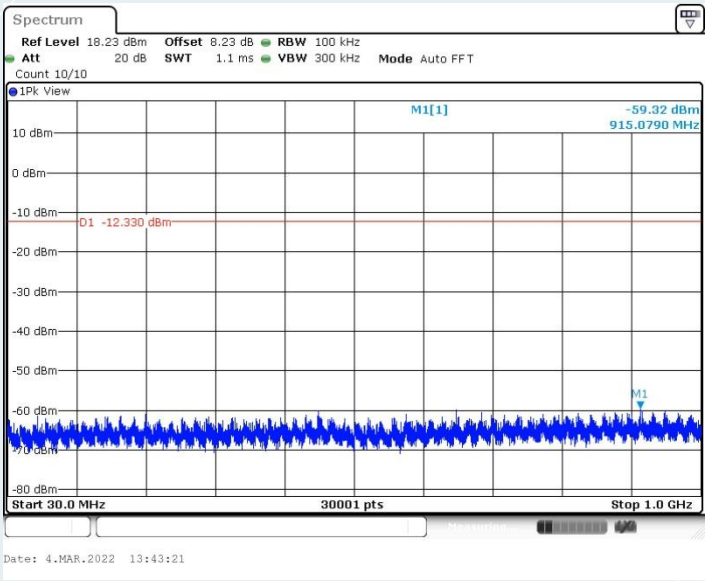
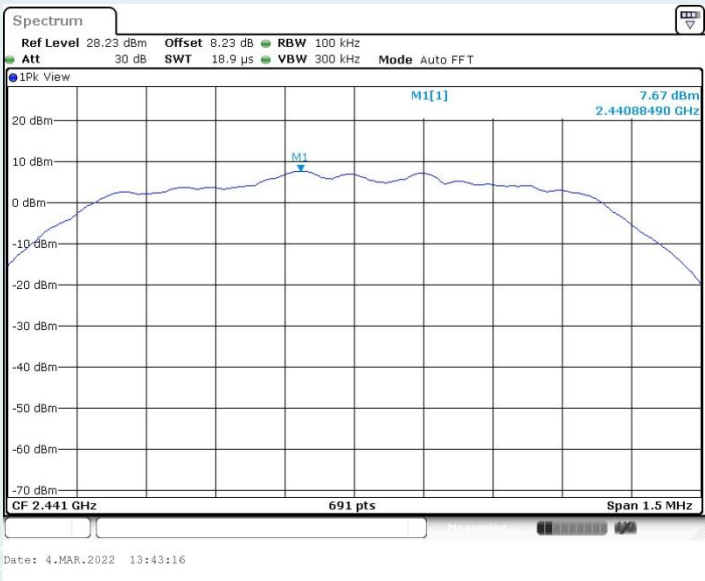
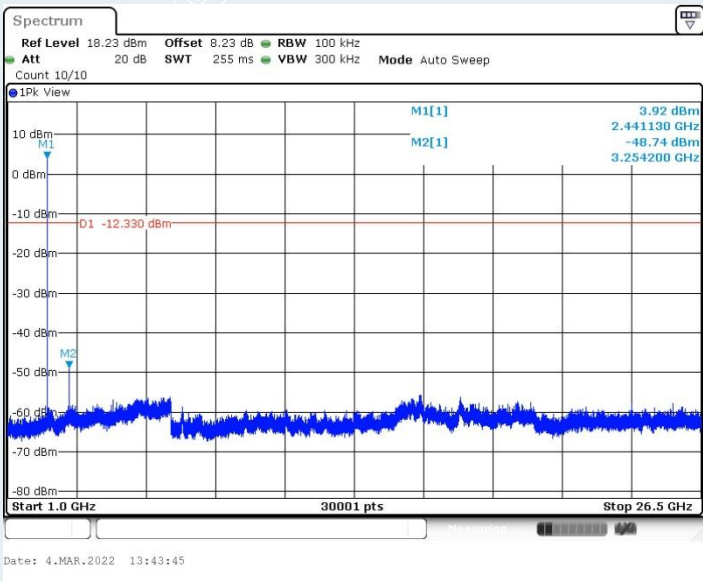
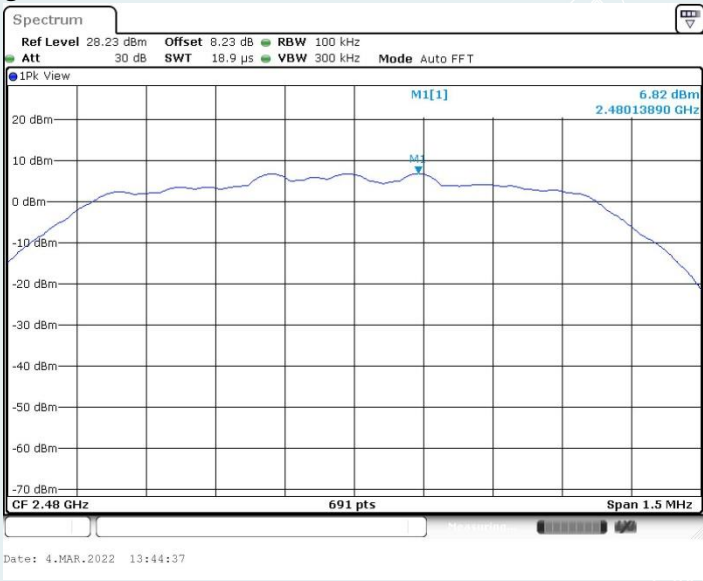


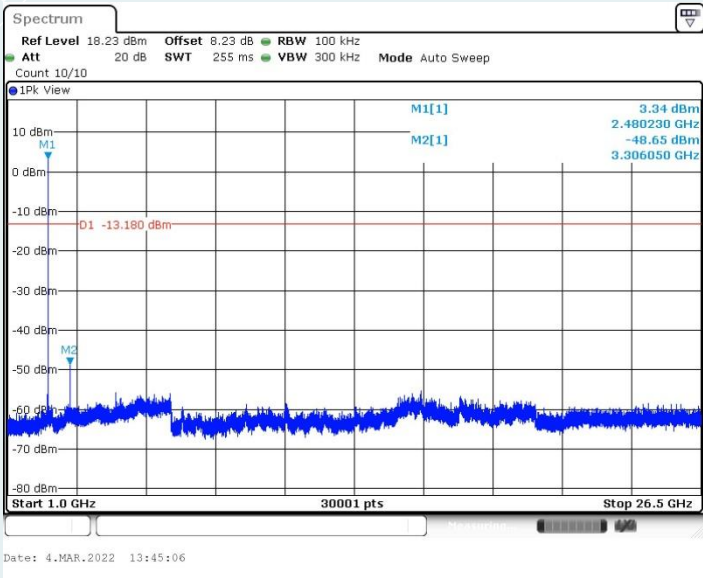
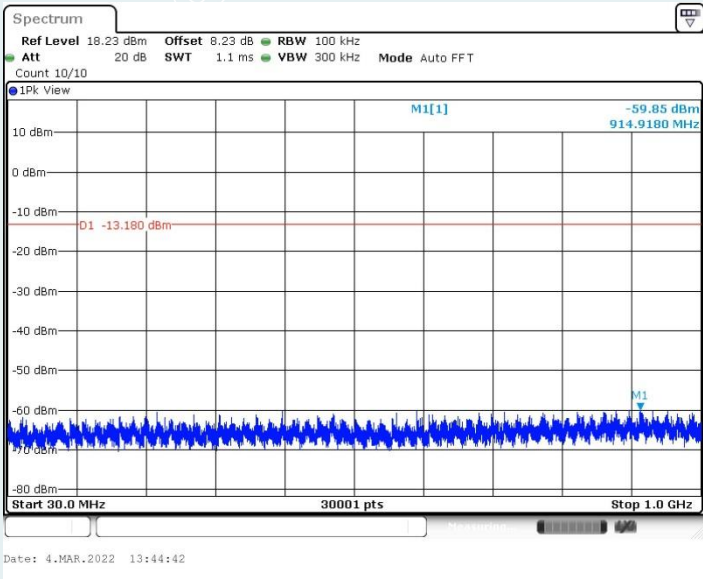
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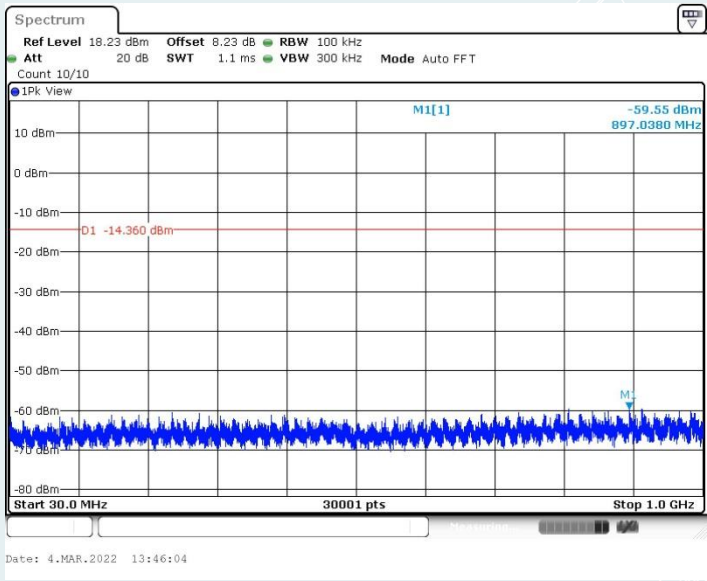
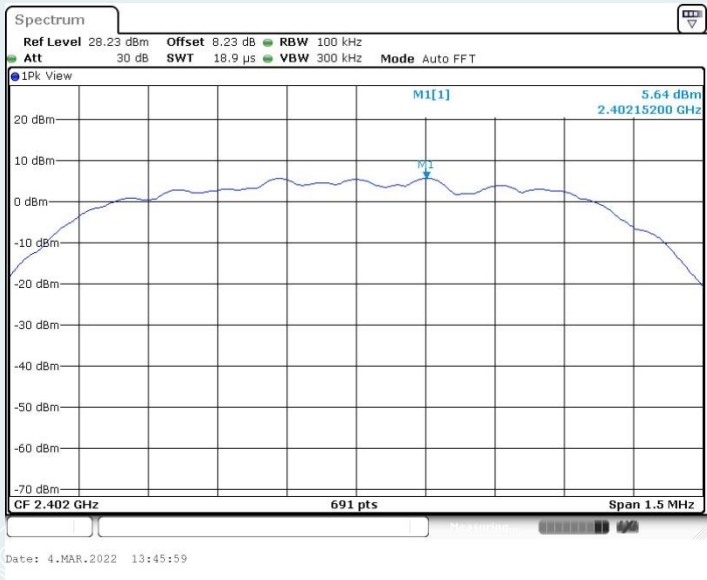


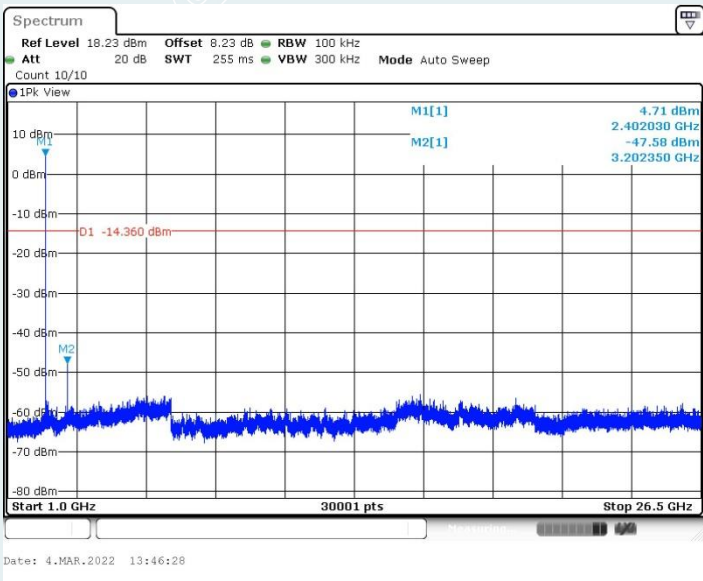
CH High



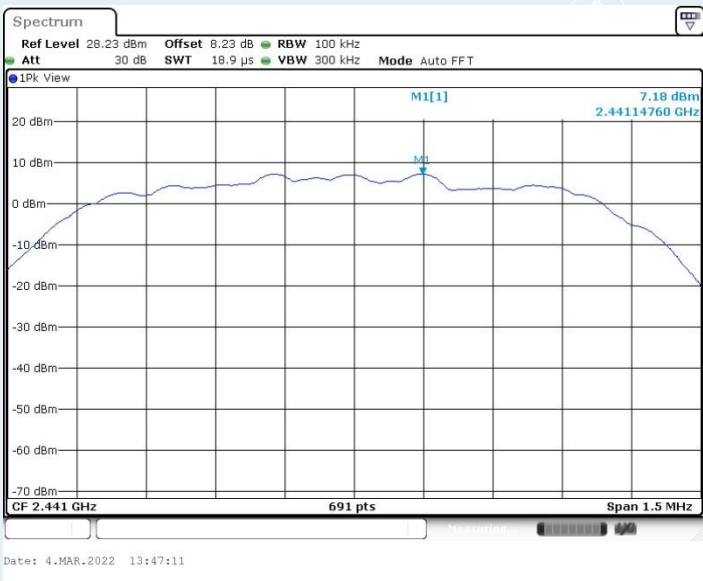


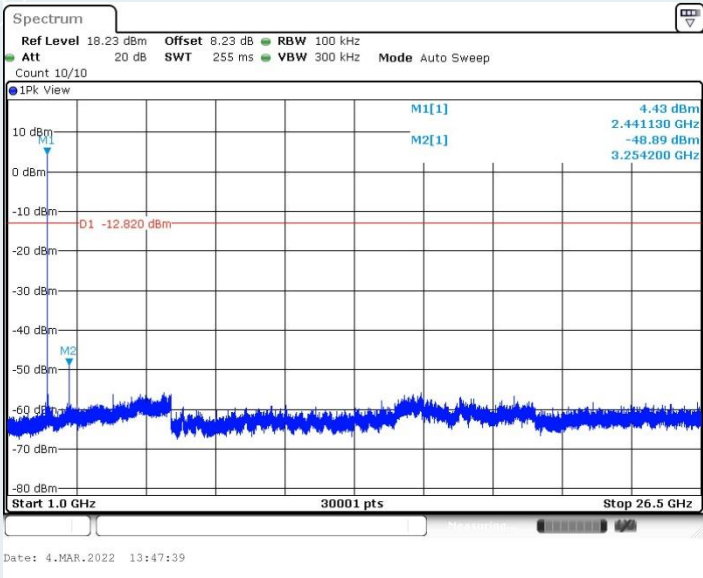
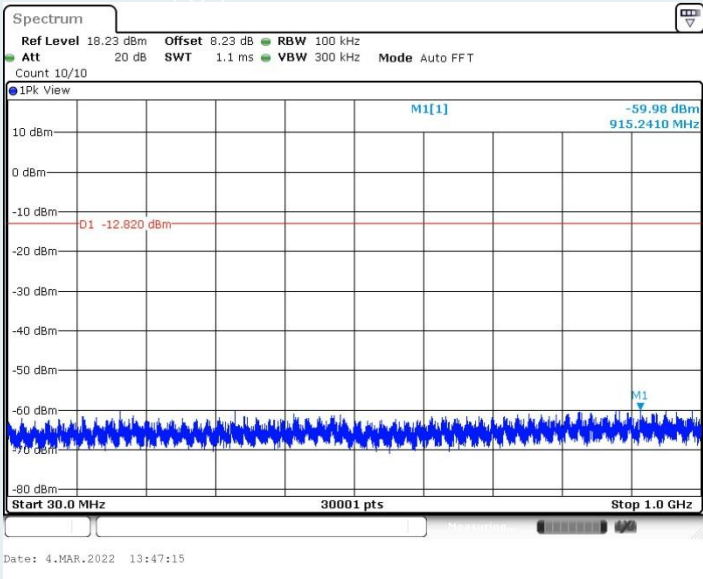
3DH5
CH Low



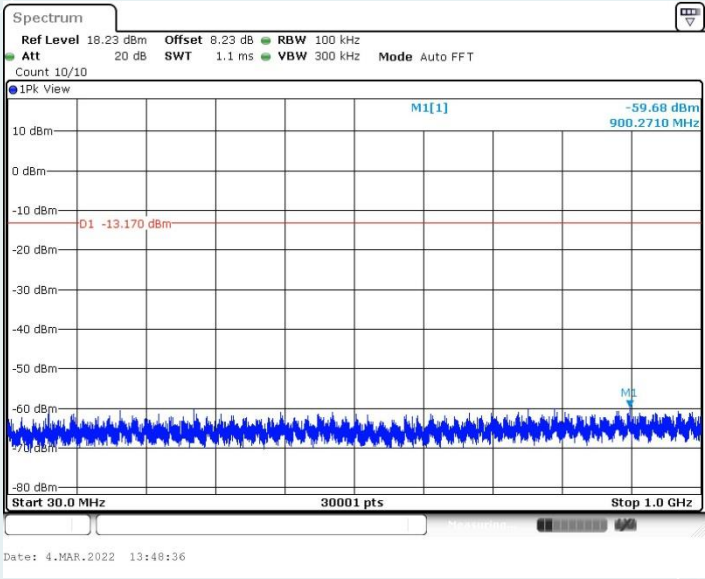
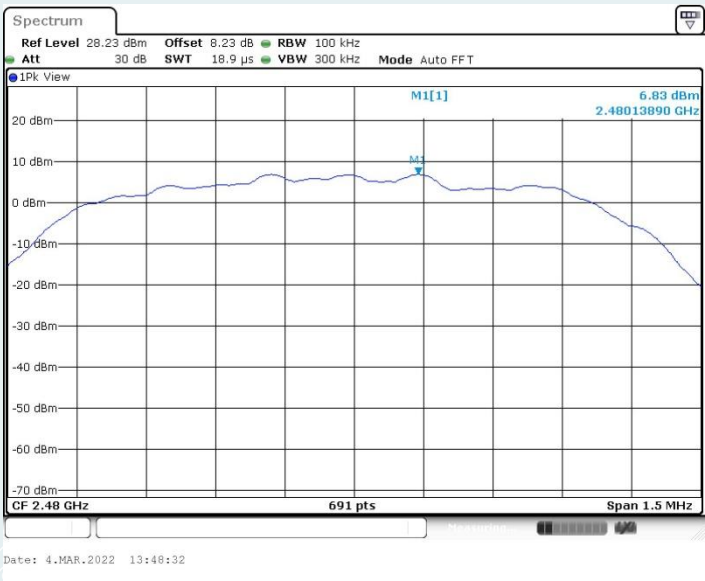


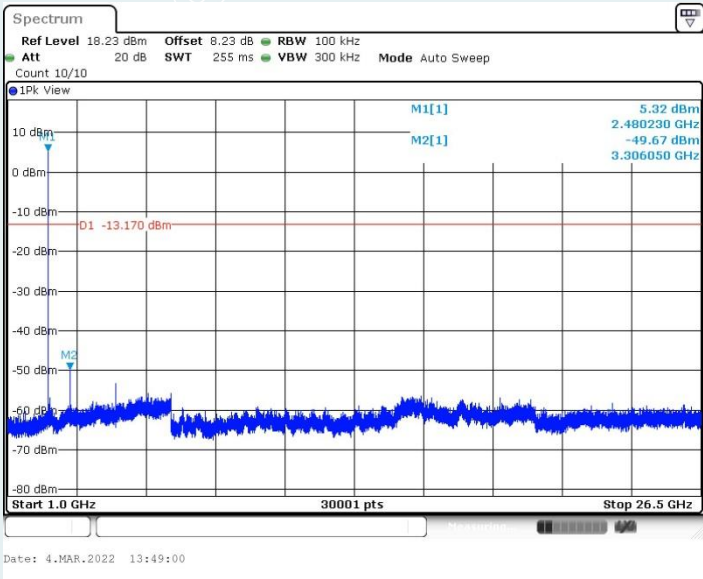
CH Mid





CH High





----- The following blanks -----

5.8 RADIATED SPURIOUS EMISSIONS

5.8.1 LIMITS

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

Frequency (MHz)	Quasi-peak($\mu\text{V/m}$)	Measurement distance(m)	Quasi-peak(dB $\mu\text{V/m}$)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

NOTE:

- (1) The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.
- (2) The lower limit shall apply at the transition frequencies.
- (3) Above 18GHz test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dB $\mu\text{V/m}$).
The Avg Limit=54+20*log(3/1)=63.54 (dB $\mu\text{V/m}$).

5.8.2 TEST PROCEDURES

1) Sequence of testing 9kHz to 30MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 °to 360 °.
- The antenna height is 1.0 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0 °to 360 °) and by rotating the elevation axes (0 °to 360 °).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QP detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30MHz to 1GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0 °to 360 °.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 4 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0 °to 360 °and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1GHz to 18GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0 °to 360 °.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 4 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0 °to 360 °and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18GHz**Setup:**

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

Pre measurement:

- The antenna is moved spherical over the EUT in different polarisations of the antenna.

Final measurement:

- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

NOTE:

- (a).The frequency from 9kHz to 150kHz, Set RBW=300Hz(for Peak & AVG), VBW=300Hz(for Peak & AVG). The frequency from 150kHz to 30MHz, Set RBW=9kHz, VBW=9kHz, (for QP Detector).

- (b).The frequency from 30MHz to 1GHz, Set RBW=120kHz, VBW=300kHz, (for QP Detector).
- (c).The frequency above 1GHz, for Peak detector: Set RBW=1MHz,VBW=3MHz.
- (d). The frequency above 1GHz, for Avg detector: Set RBW=1MHz, if the EUT is configured to transmit with duty cycle $\geq 98\%$, set $VBW \leq RBW/100$ (i.e.,10kHz) but not less than 10Hz. Where duty cycle is defined in section 2.9.

----- The following blanks -----

5.8.3 TEST SETUP

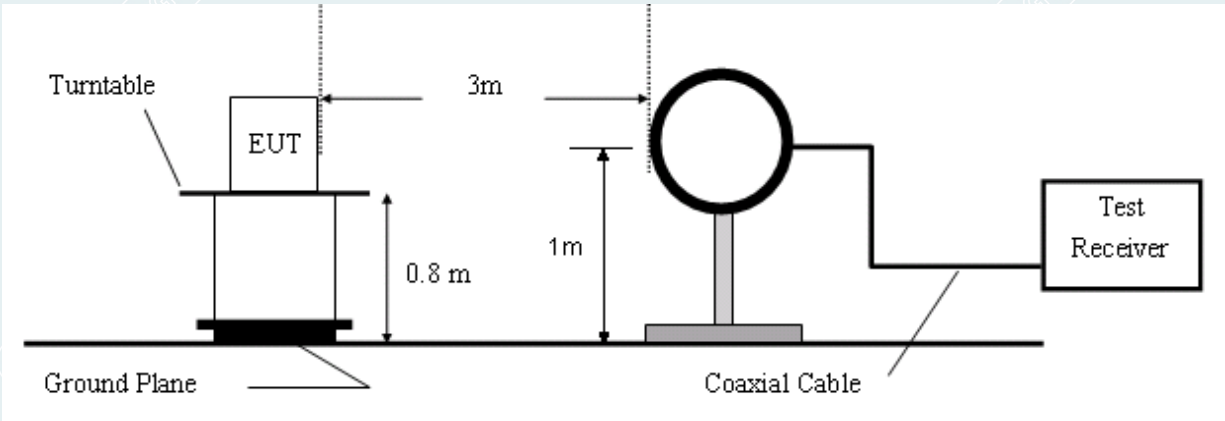


Figure 1. 9kHz to 30MHz radiated emissions test configuration

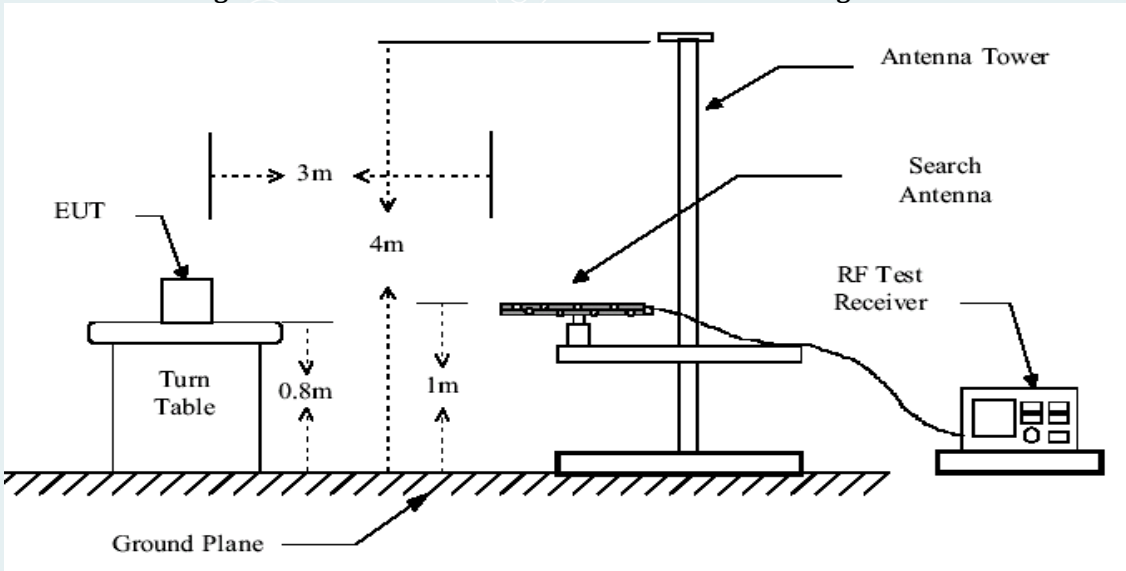


Figure 2. 30MHz to 1GHz radiated emissions test configuration

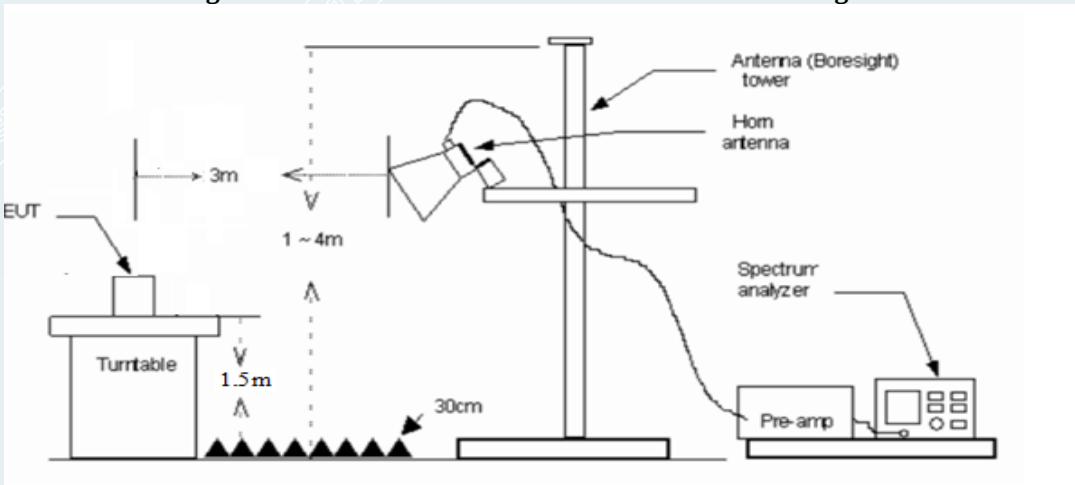


Figure 3. 1GH to 18GHz radiated emissions test configuration

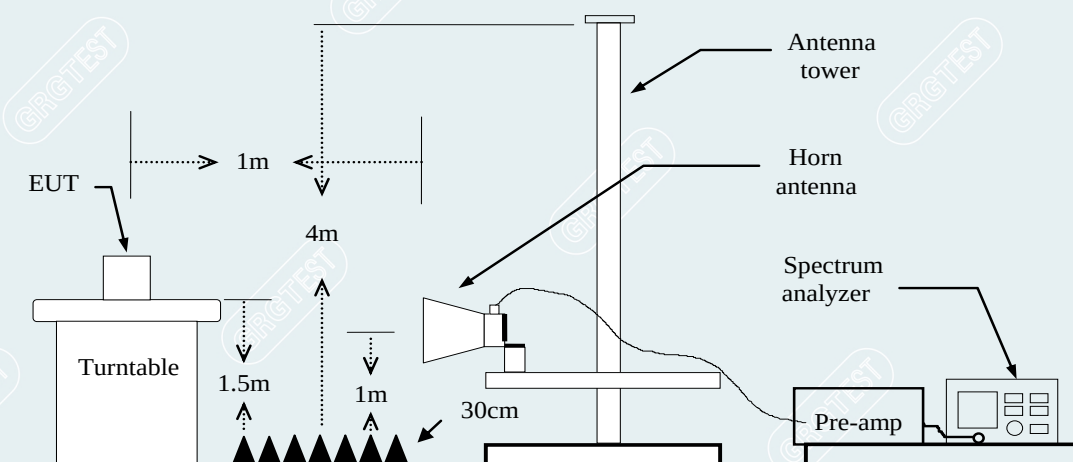


Figure 4. 18GHz to 26.5GHz radiated emissions test configuration

5.8.4 DATA SAMPLE

30MHz to 1GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	37.06	-15.48	21.58	40.00	-18.42	QP	Vertical

1GHz-18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	65.45	-11.12	54.33	74.00	-19.67	peak	Vertical
xxx	xxx	63.00	-11.12	51.88	54.00	-2.12	AVG	Vertical

Above 18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	68.86	57.66	-11.20	83.54	25.88	peak	Vertical
xxx	xxx	68.89	-11.20	57.69	63.54	5.85	AVG	Vertical

Frequency (MHz) = Emission frequency in MHz

Ant.Pol. (H/V) = Antenna polarization

Reading (dBuV) = Uncorrected Analyzer / Receiver reading

Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Remark Result (dBuV/m) – Limit (dBuV/m)

Peak = Peak Reading

QP = Quasi-peak Reading

AVG = Average Reading

5.8.5 TEST RESULTS

Below 1GHz:

Recorded the worst case test results model TR3392/40 & TR3382/40 DH5(2402MHz) mode in this report.

Model: TR3392/40

Mode: DH5

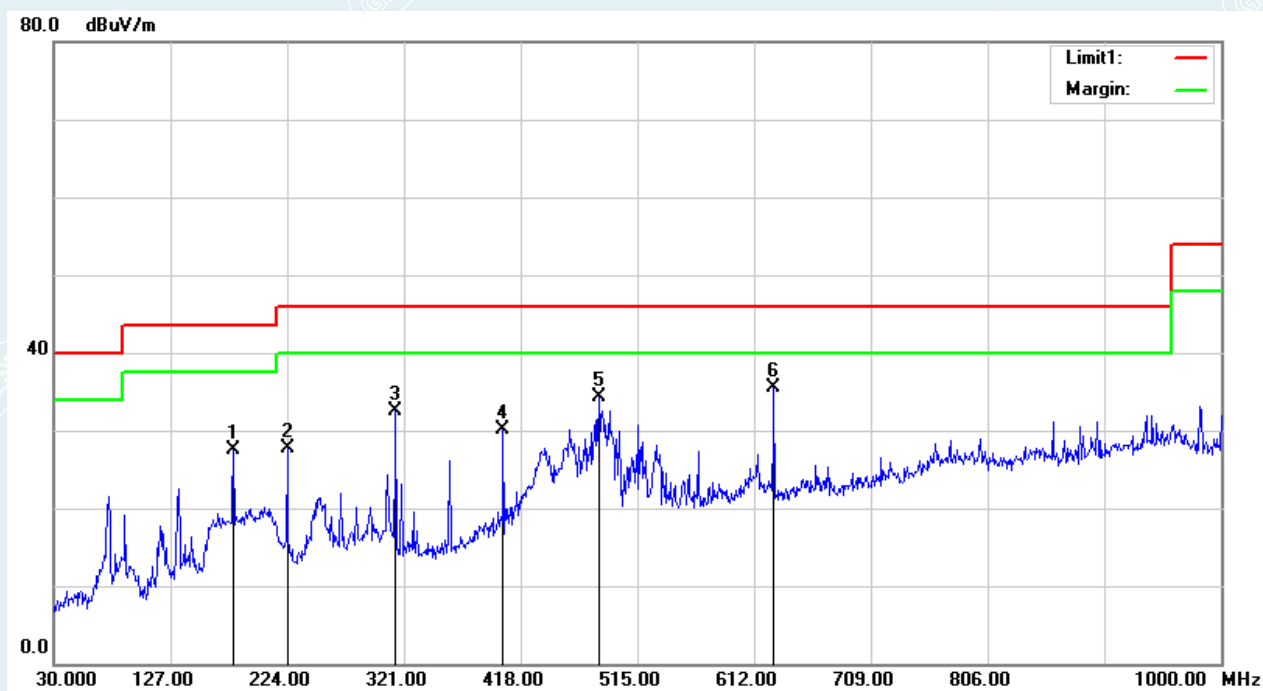
Low Frequency (2402MHz)

Environment: 23.9°C/53%RH/101.0kPa

Test Engineer: Zeng Xianglong

Date: 2022-03-25

Test Voltage: DC 12V



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	179.3800	53.50	-25.99	27.51	43.50	-15.99	119	200	Horizontal
2	224.0000	54.35	-26.60	27.75	46.00	-18.25	36	100	Horizontal
3	314.2100	55.76	-23.21	32.55	46.00	-13.45	259	100	Horizontal
4	403.4500	50.41	-20.37	30.04	46.00	-15.96	93	200	Horizontal
5	482.9900	52.45	-18.19	34.26	46.00	-11.74	258	200	Horizontal
6	628.4900	50.18	-14.62	35.56	46.00	-10.44	359	123	Horizontal

Mode: DH5

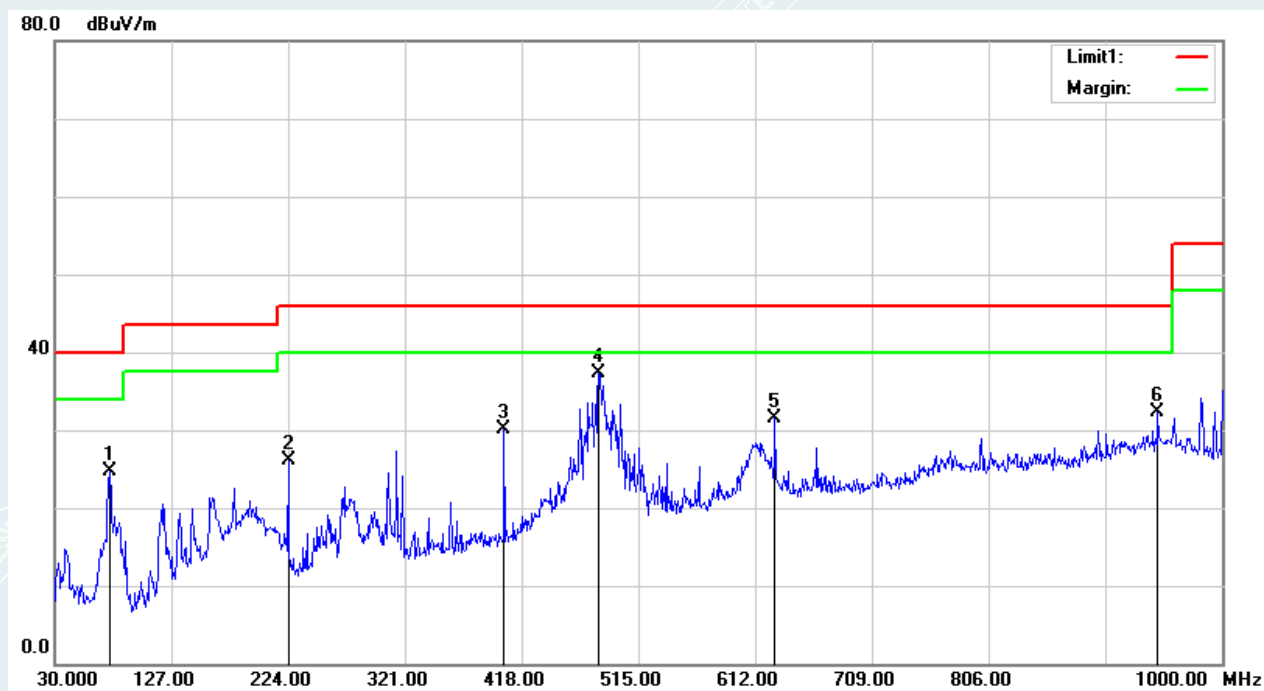
Low Frequency (2402MHz)

Environment: 23.9°C/53%RH/101.0kPa

Test Engineer: Zeng Xianglong

Date: 2022-03-25

Test Voltage: DC 12V



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	75.5900	55.07	-30.43	24.64	40.00	-15.36	144	100	Vertical
2	224.0000	52.75	-26.60	26.15	46.00	-19.85	301	100	Vertical
3	403.4500	50.48	-20.37	30.11	46.00	-15.89	360	144	Vertical
4	482.0200	55.50	-18.21	37.29	46.00	-8.71	196	100	Vertical
5	628.4900	46.03	-14.62	31.41	46.00	-14.59	318	100	Vertical
6	946.6500	41.77	-9.44	32.33	46.00	-13.67	358	100	Vertical

Model: TR3382/40

Mode: DH5

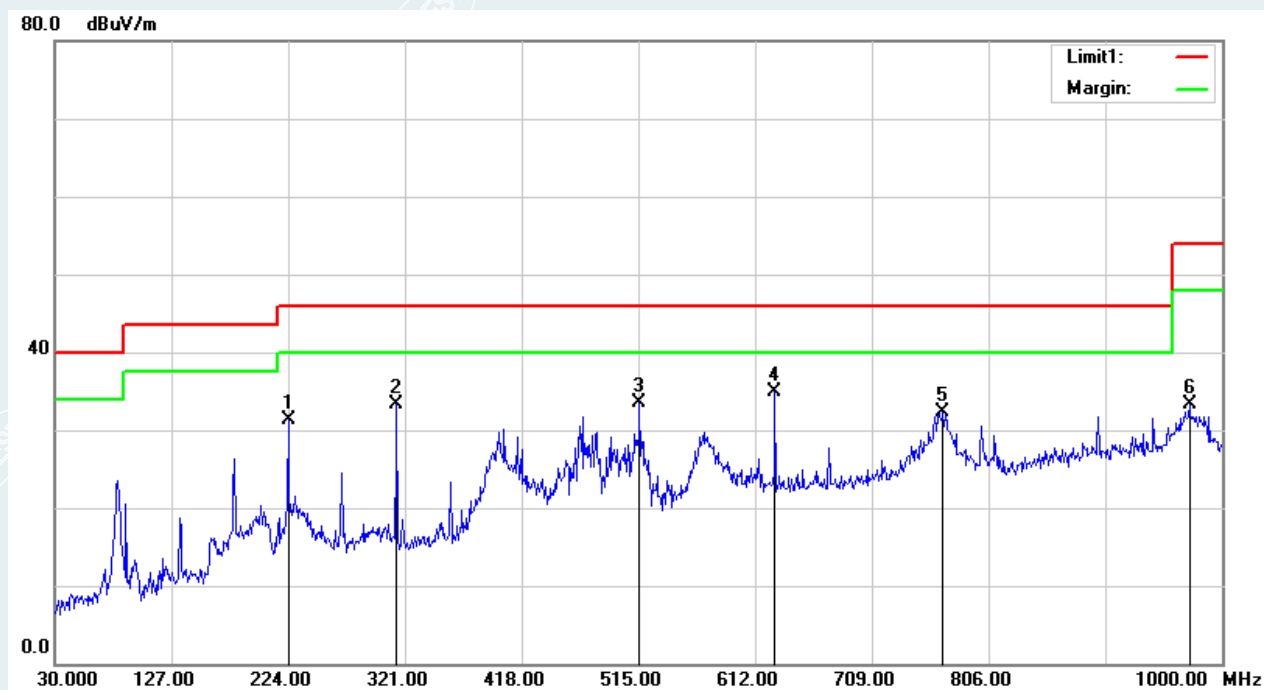
Low Frequency (2402MHz)

Environment: 23.9°C/51%RH/101.0kPa

Test Engineer: Zeng Xianglong

Date: 2022-05-27

Test Voltage: DC 12V



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	224.0000	57.93	-26.60	31.33	46.00	-14.67	104	100	Horizontal
2	314.2100	56.44	-23.21	33.23	46.00	-12.77	25	100	Horizontal
3	515.9700	50.93	-17.50	33.43	46.00	-12.57	327	100	Horizontal
4	628.4900	49.61	-14.62	34.99	46.00	-11.01	360	128	Horizontal
5	768.1700	44.38	-11.99	32.39	46.00	-13.61	98	200	Horizontal
6	972.8400	42.48	-9.14	33.34	54.00	-20.66	147	100	Horizontal

Mode: DH5

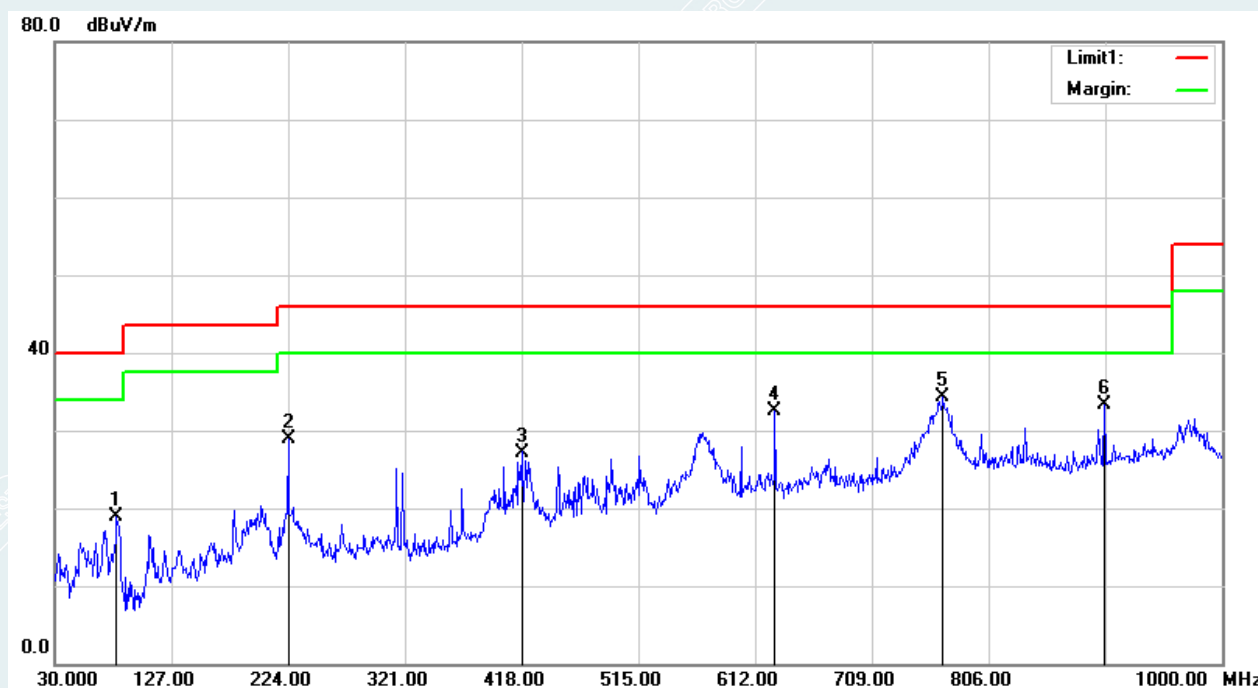
Low Frequency (2402MHz)

Environment: 23.9°C/51%RH/101.0kPa

Test Engineer: Zeng Xianglong

Date: 2022-05-27

Test Voltage: DC 12V



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	81.4100	50.45	-31.49	18.96	40.00	-21.04	337	100	Vertical
2	224.0000	55.55	-26.60	28.95	46.00	-17.05	41	100	Vertical
3	418.0000	47.06	-19.86	27.20	46.00	-18.80	179	200	Vertical
4	628.4900	47.10	-14.62	32.48	46.00	-13.52	341	100	Vertical
5	768.1700	46.23	-11.99	34.24	46.00	-11.76	359	183	Vertical
6	902.0300	43.42	-10.07	33.35	46.00	-12.65	350	100	Vertical

Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Pre-scan all mode and recorded the worst case results in this report (TX-Low Channel(1Mbps))
- 3 Measuring frequencies from 9kHz to the 1GHz.
- 4 Radiated emissions measured in frequency range from 30MHz to 1GHz were made with an instrument using Peak/Quasi-peak detector mode.
- 5 Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 6 The IF bandwidth of SPA between 30MHz to 1GHz was 120kHz.

Above 1GHz:

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.

Model: TR3392/40**Mode:** DH5**Lowest Frequency** (2402MHz)**Environment:** 25°C/60%RH/101.0kPa**Test Engineer:** Zhang zishan**Date:** 2022-03-28**Test Voltage:** DC 12V**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.2000	63.64	41.95	-21.69	74.00	32.05	200	204	Horizontal
2	1900.0000	65.51	45.09	-20.42	74.00	28.91	100	196	Horizontal
3	3100.0000	63.02	47.08	-15.94	74.00	26.92	100	80	Horizontal
4	4804.6000	60.47	50.11	-10.36	74.00	23.89	100	155	Horizontal
5	7206.8000	56.39	51.69	-4.70	74.00	22.31	100	134	Horizontal
6	12761.8000	49.33	53.76	4.43	74.00	20.24	100	16	Horizontal

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4804.0234	-10.36	58.47	48.11	54.00	5.89	151	227.4	Horizontal

Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	64.61	43.43	-21.18	74.00	30.57	100	331	Vertical
2	2000.2000	63.66	43.98	-19.68	74.00	30.02	100	310	Vertical
3	3100.0000	65.44	49.40	-16.04	74.00	24.60	100	352	Vertical
4	4999.6000	56.78	49.60	-7.18	74.00	24.40	100	336	Vertical
5	7205.7000	56.62	52.83	-3.79	74.00	21.17	100	301	Vertical
6	12761.8000	45.83	49.81	3.98	74.00	24.19	100	221	Vertical

AV Final Data List

NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4999.9000	-7.17	44.77	37.60	54.00	16.40	130	315.1	Vertical

Mode: DH5
Middle Frequency (2441MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang zishan

Date: 2022-03-28
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	64.50	41.72	-22.78	74.00	32.28	100	87	Horizontal
2	1894.6000	63.12	42.56	-20.56	74.00	31.44	100	279	Horizontal
3	3100.0000	63.25	47.31	-15.94	74.00	26.69	100	80	Horizontal
4	5972.2000	60.54	53.25	-7.29	74.00	20.75	100	50	Horizontal
5	7322.3000	61.25	55.67	-5.58	74.00	18.33	100	139	Horizontal
6	12761.8000	48.94	53.37	4.43	74.00	20.63	100	10	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7322.9590	-5.59	53.48	47.89	54.00	6.11	111	158.7	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.2000	67.43	42.93	-24.50	74.00	31.07	100	71	Vertical
2	3100.0000	66.45	50.41	-16.04	74.00	23.59	100	356	Vertical
3	5000.2000	55.87	48.71	-7.16	74.00	25.29	100	335	Vertical
4	5896.6000	50.19	47.71	-2.48	74.00	26.29	200	313	Vertical
5	7322.3000	59.61	54.02	-5.59	74.00	19.98	100	101	Vertical
6	12761.8000	46.45	50.43	3.98	74.00	23.57	100	278	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7322.9224	-5.60	55.86	50.26	54.00	3.74	151	96.3	Vertical

Mode: DH5
Highest Frequency (2480MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang zishan

Date: 2022-03-28
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1903.0000	68.91	48.54	-20.37	74.00	25.46	100	243	Horizontal
2	3100.0000	63.14	47.20	-15.94	74.00	26.80	100	86	Horizontal
3	4409.8000	57.52	45.42	-12.10	74.00	28.58	100	49	Horizontal
4	5888.2000	50.28	47.69	-2.59	74.00	26.31	200	305	Horizontal
5	7440.0000	64.92	59.64	-5.28	74.00	14.36	100	135	Horizontal
6	12761.8000	49.59	54.02	4.43	74.00	19.98	100	18	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7439.9628	-5.28	56.76	51.48	54.00	2.52	110	15.3	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1360.0000	64.12	42.87	-21.25	74.00	31.13	100	358	Vertical
2	1999.6000	64.46	44.77	-19.69	74.00	29.23	100	7	Vertical
3	3100.0000	65.28	49.24	-16.04	74.00	24.76	100	354	Vertical
4	5000.2000	57.60	50.44	-7.16	74.00	23.56	100	331	Vertical
5	7440.0000	63.56	58.42	-5.14	74.00	15.58	100	38	Vertical
6	12761.8000	46.45	50.43	3.98	74.00	23.57	100	227	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4999.9500	-7.16	45.08	37.92	54.00	16.08	100	315.5	Vertical
2	7440.0000	-5.14	50.35	45.21	54.00	8.79	172	323.4	Vertical

Mode: 2DH5
 Lowest Frequency (2402MHz)
 Environment: 25°C/60%RH/101.0kPa
 Test Engineer: Zhang zishan

Date: 2022-03-28
 Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	64.23	41.45	-22.78	74.00	32.55	100	72	Horizontal
2	3100.0000	63.00	47.06	-15.94	74.00	26.94	100	88	Horizontal
3	4409.8000	58.26	46.16	-12.10	74.00	27.84	100	50	Horizontal
4	4803.4000	58.41	48.05	-10.36	74.00	25.95	100	188	Horizontal
5	12000.6000	46.80	51.17	4.37	74.00	22.83	100	220	Horizontal
6	12761.8000	49.13	53.56	4.43	74.00	20.44	100	18	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4804.0244	-10.36	52.34	41.98	54.00	12.02	172	133.9	Horizontal
2	12762.0552	4.43	48.76	53.19	54.00	0.81	161	17	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	63.56	42.38	-21.18	74.00	31.62	100	327	Vertical
2	3100.0000	65.17	49.13	-16.04	74.00	24.87	100	348	Vertical
3	5000.8000	55.85	48.69	-7.16	74.00	25.31	100	331	Vertical
4	5897.2000	50.92	48.45	-2.47	74.00	25.55	100	44	Vertical
5	10388.0000	45.97	48.65	2.68	74.00	25.35	100	27	Vertical
6	12761.8000	47.20	51.18	3.98	74.00	22.82	100	259	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4999.9249	-7.16	47.15	39.99	54.00	14.01	141	341.9	Vertical
2	12760.9705	3.98	32.06	36.04	54.00	17.96	101	343.8	Vertical

Mode: 2DH5
Middle Frequency (2441MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang zishan

Date: 2022-03-28
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	66.43	43.65	-22.78	74.00	30.35	100	69	Horizontal
2	1750.0000	65.76	43.20	-22.56	74.00	30.80	100	12	Horizontal
3	3100.0000	63.20	47.26	-15.94	74.00	26.74	100	86	Horizontal
4	4409.8000	58.91	46.81	-12.10	74.00	27.19	100	54	Horizontal
5	5802.4000	51.11	47.83	-3.28	74.00	26.17	100	134	Horizontal
6	12761.8000	48.81	53.24	4.43	74.00	20.76	100	11	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	12761.9914	4.43	43.76	48.19	54.00	5.81	131	34.5	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	64.22	43.04	-21.18	74.00	30.96	100	333	Vertical
2	1999.6000	64.62	44.93	-19.69	74.00	29.07	100	6	Vertical
3	3100.0000	65.45	49.41	-16.04	74.00	24.59	100	353	Vertical
4	4999.6000	56.42	49.24	-7.18	74.00	24.76	100	326	Vertical
5	11999.5000	46.49	51.17	4.68	74.00	22.83	100	264	Vertical
6	12761.8000	45.62	49.60	3.98	74.00	24.40	200	129	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4999.9000	-7.17	46.76	39.59	54.00	14.41	142	342	Vertical
2	12762.0552	3.98	40.95	44.93	54.00	9.07	200	342	Vertical

Mode: 2DH5
 Highest Frequency (2480MHz)
 Environment: 25°C/60%RH/101.0kPa
 Test Engineer: Zhang zishan

Date: 2022-03-28
 Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1738.0000	68.77	46.13	-22.64	74.00	27.87	200	87	Horizontal
2	3100.0000	62.50	46.56	-15.94	74.00	27.44	100	92	Horizontal
3	4409.2000	57.36	45.26	-12.10	74.00	28.74	100	54	Horizontal
4	4960.0000	56.92	47.93	-8.99	74.00	26.07	100	242	Horizontal
5	7438.9000	55.32	50.02	-5.30	74.00	23.98	100	235	Horizontal
6	12761.8000	49.32	53.75	4.43	74.00	20.25	100	149	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7439.9414	-5.30	46.57	41.27	54.00	12.73	100	77	Horizontal
2	12762.1829	4.43	48.42	52.85	54.00	1.15	131	21	Horizontal
3	4960.0000	-8.99	45.50	36.51	54.00	17.49	110	256	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.2000	66.73	42.23	-24.50	74.00	31.77	200	78	Vertical
2	2000.2000	63.99	44.31	-19.68	74.00	29.69	100	1	Vertical
3	3100.0000	64.86	48.82	-16.04	74.00	25.18	100	354	Vertical
4	4999.6000	55.52	48.34	-7.18	74.00	25.66	100	332	Vertical
5	7441.1000	55.23	50.12	-5.11	74.00	23.88	100	42	Vertical
6	12761.8000	47.63	51.61	3.98	74.00	22.39	100	273	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4999.9250	-7.17	40.98	33.81	54.00	20.19	110	22	Vertical
2	7439.9838	-5.11	47.31	42.20	54.00	11.80	100	96	Vertical
3	12762.0552	3.98	45.80	49.78	54.00	4.22	100	223	Vertical

Mode: 3DH5
 Lowest Frequency (2402MHz)
 Environment: 25°C/60%RH/101.0kPa
 Test Engineer: Zhang zishan

Date: 2022-03-28
 Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1250.2000	62.86	41.24	-21.62	74.00	32.76	100	271	Horizontal
2	1750.0000	65.63	43.07	-22.56	74.00	30.93	100	12	Horizontal
3	3100.0000	62.61	46.67	-15.94	74.00	27.33	100	87	Horizontal
4	4804.0000	58.38	48.02	-10.36	74.00	25.98	100	184	Horizontal
5	12000.6000	47.29	51.66	4.37	74.00	22.34	100	321	Horizontal
6	12761.8000	49.45	53.88	4.43	74.00	20.12	100	21	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4804.0000	-10.36	52.42	42.06	54.00	11.94	172	132	Horizontal
2	12762.1190	4.43	48.31	52.74	54.00	1.26	101	16	Horizontal
3	12000.0000	4.37	38.97	43.34	54.00	10.66	161	16	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.2000	67.51	43.01	-24.50	74.00	30.99	100	75	Vertical
2	2000.2000	64.78	45.10	-19.68	74.00	28.90	100	2	Vertical
3	3100.0000	65.52	49.48	-16.04	74.00	24.52	100	353	Vertical
4	4999.6000	55.29	48.11	-7.18	74.00	25.89	100	332	Vertical
5	5889.4000	50.21	47.66	-2.55	74.00	26.34	200	2	Vertical
6	12761.8000	46.95	50.93	3.98	74.00	23.07	100	343	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	12762.1190	3.98	39.43	43.41	54.00	10.59	162	341	Vertical
2	4999.9250	-7.17	47.04	39.87	54.00	14.13	109	316	Vertical

Mode: 3DH5
Middle Frequency (2441MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang zishan

Date: 2022-03-28
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	64.87	42.09	-22.78	74.00	31.91	100	17	Horizontal
2	3100.0000	62.57	46.63	-15.94	74.00	27.37	100	91	Horizontal
3	4409.8000	57.37	45.27	-12.10	74.00	28.73	100	55	Horizontal
4	5884.6000	50.42	47.81	-2.61	74.00	26.19	100	279	Horizontal
5	11999.5000	46.79	51.17	4.38	74.00	22.83	100	53	Horizontal
6	12761.8000	48.13	52.56	4.43	74.00	21.44	100	6	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	12762.0552	4.43	48.16	52.59	54.00	1.41	130	21	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.2000	68.86	44.36	-24.50	74.00	29.64	100	60	Vertical
2	2000.2000	64.09	44.41	-19.68	74.00	29.59	100	12	Vertical
3	3100.0000	64.85	48.81	-16.04	74.00	25.19	100	350	Vertical
4	4999.6000	56.09	48.91	-7.18	74.00	25.09	100	339	Vertical
5	5882.8000	50.57	47.95	-2.62	74.00	26.05	200	281	Vertical
6	11999.5000	44.85	49.53	4.68	74.00	24.47	100	259	Vertical

Mode: 3DH5
 Highest Frequency (2480MHz)
 Environment: 25°C/60%RH/101.0kPa
 Test Engineer: Zhang zishan

Date: 2022-03-28
 Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0000	66.35	43.57	-22.78	74.00	30.43	100	66	Horizontal
2	3100.0000	62.59	46.65	-15.94	74.00	27.35	100	87	Horizontal
3	4959.4000	56.03	47.02	-9.01	74.00	26.98	100	135	Horizontal
4	7438.9000	57.46	52.16	-5.30	74.00	21.84	100	133	Horizontal
5	11999.5000	46.90	51.28	4.38	74.00	22.72	100	326	Horizontal
6	12761.8000	49.32	53.75	4.43	74.00	20.25	100	9	Horizontal

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4959.9703	-9.01	46.80	37.79	54.00	16.21	110	255	Horizontal
2	7439.9786	-5.30	45.35	40.05	54.00	13.95	100	77	Horizontal
3	12762.0552	4.43	48.51	52.94	54.00	1.06	161	16	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.2000	68.25	43.75	-24.50	74.00	30.25	200	65	Vertical
2	1999.6000	63.90	44.21	-19.69	74.00	29.79	100	318	Vertical
3	3100.0000	65.24	49.20	-16.04	74.00	24.80	100	355	Vertical
4	5884.6000	50.67	48.07	-2.60	74.00	25.93	200	268	Vertical
5	7440.0000	56.62	51.48	-5.14	74.00	22.52	100	48	Vertical
6	12761.8000	47.07	51.05	3.98	74.00	22.95	100	278	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	12762.0552	3.98	45.74	49.72	54.00	4.28	130	221	Vertical

Model: TR3382/40**Mode:** DH5**Lowest Frequency** (2402MHz)**Environment:** 25°C/60%RH/101.0kPa**Test Engineer:** Zhang qiang**Date:** 2022-06-23**Test Voltage:** DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1121.7652	67.39	42.56	-24.83	74.00	31.44	100	200	Horizontal
2	1255.782	68.55	46.54	-22.01	74.00	27.46	200	351	Horizontal
3	1599.3249	63.80	41.46	-22.34	74.00	32.54	100	285	Horizontal
4	2908.7386	64.55	47.06	-17.49	74.00	26.94	100	110	Horizontal
5	6381.0476	53.61	43.76	-9.85	74.00	30.24	200	227	Horizontal
6	10169.0211	44.15	45.96	1.81	74.00	28.04	200	64	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1118.2648	68.20	45.81	-22.39	74.00	28.19	100	200	Vertical
2	1256.032	68.98	44.15	-24.83	74.00	29.85	100	338	Vertical
3	1463.808	65.89	43.46	-22.43	74.00	30.54	200	146	Vertical
4	1733.3417	64.96	43.49	-21.47	74.00	30.51	100	133	Vertical
5	4803.9755	55.42	42.50	-12.92	74.00	31.50	100	196	Vertical
6	7202.4003	47.54	44.14	-3.40	74.00	29.86	200	27	Vertical

Mode: DH5
Middle Frequency (2441MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1116.5146	67.95	43.08	-24.87	74.00	30.92	100	202	Horizontal
2	1256.032	68.19	46.18	-22.01	74.00	27.82	100	341	Horizontal
3	1465.3082	64.39	41.34	-23.05	74.00	32.66	100	238	Horizontal
4	3453.8067	57.08	40.84	-16.24	74.00	33.16	200	182	Horizontal
5	6390.4238	53.62	43.95	-9.67	74.00	30.05	100	102	Horizontal
6	9473.3092	45.21	45.53	0.32	74.00	28.47	200	128	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1114.2643	67.39	45.15	-22.24	74.00	28.85	100	208	Vertical
2	1329.7912	66.93	44.78	-22.15	74.00	29.22	100	203	Vertical
3	1465.5582	66.91	44.44	-22.47	74.00	29.56	200	196	Vertical
4	3453.8067	58.17	41.43	-16.74	74.00	32.57	200	182	Vertical
5	6360.4201	54.40	44.12	-10.28	74.00	29.88	200	230	Vertical
6	7845.6057	47.62	44.51	-3.11	74.00	29.49	100	104	Vertical

Mode: DH5
Highest Frequency (2480MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.032	68.16	46.15	-22.01	74.00	27.85	100	346	Horizontal
2	1729.8412	67.01	44.27	-22.74	74.00	29.73	100	148	Horizontal
3	1897.3622	67.89	47.23	-20.66	74.00	26.77	100	244	Horizontal
4	3453.8067	57.12	40.88	-16.24	74.00	33.12	200	181	Horizontal
5	6382.9229	54.38	44.57	-9.81	74.00	29.43	200	223	Horizontal
6	10152.144	44.01	45.88	1.87	74.00	28.12	100	339	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1065.7582	68.41	45.85	-22.56	74.00	28.15	100	142	Vertical
2	1671.0839	63.64	41.54	-22.10	74.00	32.46	200	179	Vertical
3	2791.2239	61.59	43.64	-17.95	74.00	30.36	200	186	Vertical
4	4959.62	56.24	45.29	-10.95	74.00	28.71	100	140	Vertical
5	6375.4219	55.99	45.98	-10.01	74.00	28.02	200	80	Vertical
6	7440.5551	52.00	46.42	-5.58	74.00	27.58	200	176	Vertical

Mode: 2DH5
Lowest Frequency (2402MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.032	67.00	44.99	-22.01	74.00	29.01	100	348	Horizontal
2	1892.3615	63.22	42.44	-20.78	74.00	31.56	100	359	Horizontal
3	3191.2739	62.89	46.20	-16.69	74.00	27.80	100	274	Horizontal
4	4262.0328	58.22	43.78	-14.44	74.00	30.22	100	140	Horizontal
5	7854.9819	47.22	43.82	-3.40	74.00	30.18	100	147	Horizontal
6	11252.9066	43.07	47.28	4.21	74.00	26.72	200	81	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1113.2642	67.51	45.31	-22.20	74.00	28.69	100	201	Vertical
2	1460.8076	67.65	45.29	-22.36	74.00	28.71	100	171	Vertical
3	2798.9749	62.01	44.03	-17.98	74.00	29.97	100	171	Vertical
4	4258.2823	59.67	45.50	-14.17	74.00	28.50	100	140	Vertical
5	6369.7962	54.98	44.87	-10.11	74.00	29.13	100	223	Vertical
6	11266.0333	42.69	46.81	4.12	74.00	27.19	100	351	Vertical

Mode: 2DH5
Middle Frequency (2441MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.282	68.04	46.03	-22.01	74.00	27.97	200	360	Horizontal
2	1463.0579	64.32	41.23	-23.09	74.00	32.77	100	202	Horizontal
3	2798.9749	65.23	47.93	-17.30	74.00	26.07	100	178	Horizontal
4	3718.2148	59.30	43.54	-15.76	74.00	30.46	200	201	Horizontal
5	6382.9229	56.18	46.37	-9.81	74.00	27.63	200	224	Horizontal
6	12183.0229	42.43	47.20	4.77	74.00	26.80	100	326	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1116.2645	67.26	44.94	-22.32	74.00	29.06	200	202	Vertical
2	1255.782	68.25	43.41	-24.84	74.00	30.59	100	346	Vertical
3	1595.0744	65.96	42.42	-23.54	74.00	31.58	100	286	Vertical
4	3189.3987	60.98	43.60	-17.38	74.00	30.40	100	200	Vertical
5	6403.5504	53.10	43.56	-9.54	74.00	30.44	100	86	Vertical
6	7204.2755	47.17	43.71	-3.46	74.00	30.29	200	146	Vertical

Mode: 2DH5
Highest Frequency (2480MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.032	68.91	46.90	-22.01	74.00	27.10	100	335	Horizontal
2	1462.3078	67.45	44.35	-23.10	74.00	29.65	200	200	Horizontal
3	2012.1265	64.23	43.25	-20.98	74.00	30.75	200	208	Horizontal
4	3453.8067	57.47	41.23	-16.24	74.00	32.77	100	182	Horizontal
5	4959.62	53.30	42.03	-11.27	74.00	31.97	100	308	Horizontal
6	9990.8739	44.89	46.05	1.16	74.00	27.95	200	55	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1120.015	67.30	44.84	-22.46	74.00	29.16	200	202	Vertical
2	2009.3762	63.83	43.63	-20.20	74.00	30.37	200	208	Vertical
3	3453.8067	57.87	41.13	-16.74	74.00	32.87	100	189	Vertical
4	6388.5486	54.22	44.44	-9.78	74.00	29.56	100	225	Vertical
5	8734.4668	46.33	44.94	-1.39	74.00	29.06	200	194	Vertical
6	11399.1749	42.85	46.95	4.10	74.00	27.05	200	115	Vertical

Mode: 3DH5
Lowest Frequency (2402MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.032	67.90	45.89	-22.01	74.00	28.11	200	334	Horizontal
2	1902.1128	63.95	43.35	-20.60	74.00	30.65	200	159	Horizontal
3	3264.4081	63.11	46.12	-16.99	74.00	27.88	200	169	Horizontal
4	3656.332	61.06	45.13	-15.93	74.00	28.87	200	181	Horizontal
5	6394.1743	53.69	44.10	-9.59	74.00	29.90	200	97	Horizontal
6	11232.279	43.31	47.44	4.13	74.00	26.56	100	169	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1117.0146	67.75	45.40	-22.35	74.00	28.60	100	201	Vertical
2	1255.782	67.64	42.80	-24.84	74.00	31.20	200	352	Vertical
3	1669.0836	63.58	41.44	-22.14	74.00	32.56	200	172	Vertical
4	3453.8067	57.79	41.05	-16.74	74.00	32.95	200	182	Vertical
5	6386.6733	53.81	44.00	-9.81	74.00	30.00	200	219	Vertical
6	11241.6552	43.00	47.12	4.12	74.00	26.88	100	135	Vertical

Mode: 3DH5
Middle Frequency (2441MHz)
Environment: 25°C/60%RH/101.0kPa
Test Engineer: Zhang qiang

Date: 2022-06-23
Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1256.032	68.50	46.49	-22.01	74.00	27.51	200	9	Horizontal
2	1595.5744	63.59	41.26	-22.33	74.00	32.74	200	250	Horizontal
3	3453.8067	58.59	42.35	-16.24	74.00	31.65	200	183	Horizontal
4	4267.6585	56.38	41.92	-14.46	74.00	32.08	200	134	Horizontal
5	6366.0458	56.69	46.54	-10.15	74.00	27.46	100	224	Horizontal
6	11444.1805	42.77	46.79	4.02	74.00	27.21	100	207	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1114.7643	66.58	44.32	-22.26	74.00	29.68	100	207	Vertical
2	1465.3082	66.16	43.69	-22.47	74.00	30.31	100	165	Vertical
3	1892.6116	69.57	47.40	-22.17	74.00	26.60	200	9	Vertical
4	3193.1491	60.20	42.78	-17.42	74.00	31.22	100	87	Vertical
5	6379.1724	59.09	49.14	-9.95	74.00	24.86	100	218	Vertical
6	11061.6327	43.40	47.16	3.76	74.00	26.84	200	26	Vertical

Mode: 3DH5
 Highest Frequency (2480MHz)
 Environment: 25°C/60%RH/101.0kPa
 Test Engineer: Zhang qiang

Date: 2022-06-23
 Test Voltage: DC 12V

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1066.7583	69.83	45.00	-24.83	74.00	29.00	200	166	Horizontal
2	1255.782	68.01	46.00	-22.01	74.00	28.00	100	359	Horizontal
3	1599.825	63.60	41.26	-22.34	74.00	32.74	200	304	Horizontal
4	3453.8067	58.01	41.77	-16.24	74.00	32.23	100	188	Horizontal
5	6384.7981	52.28	42.50	-9.78	74.00	31.50	200	98	Horizontal
6	10857.2322	42.61	46.01	3.40	74.00	27.99	100	56	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1118.7648	66.91	44.50	-22.41	74.00	29.50	100	202	Vertical
2	1256.032	68.64	43.81	-24.83	74.00	30.19	200	360	Vertical
3	1596.3245	64.93	41.39	-23.54	74.00	32.61	100	323	Vertical
4	3740.7176	58.28	42.29	-15.99	74.00	31.71	200	140	Vertical
5	6381.0476	53.84	43.93	-9.91	74.00	30.07	200	74	Vertical
6	10139.0174	44.13	46.14	2.01	74.00	27.86	100	241	Vertical

Remark:

- 1 Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2 The amplitude of 18GHz to 26.5GHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.
- 3 Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

5.9 RESTRICTED BANDS OF OPERATION

5.9.1 LIMITS

Section 15.247(d) In addition, Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	
13.36 - 13.41			

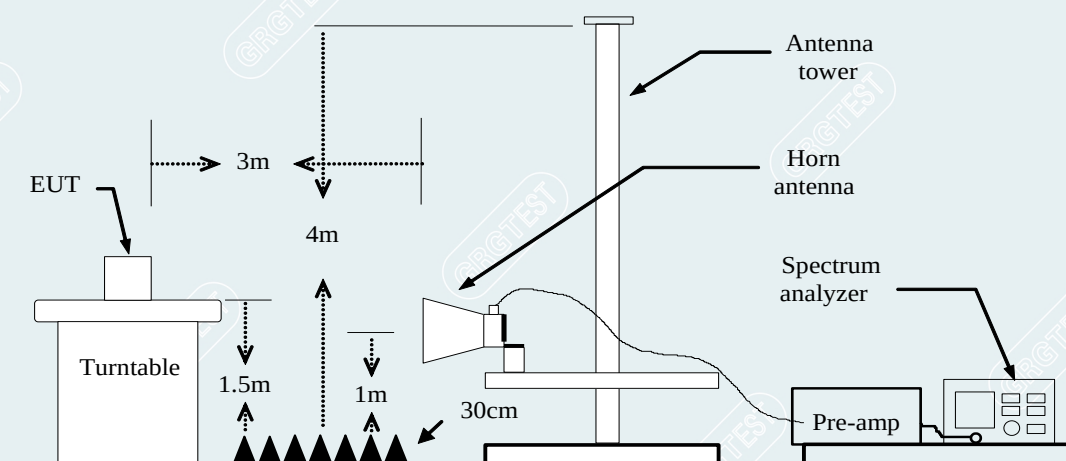
Frequency (MHz)	Quasi-peak(μ V/m)	Measurement distance(m)	Quasi-peak(dB μ V/m)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30 ~ 88	100	3	40
88~216	150	3	43.5
216 ~ 960	200	3	46
Above 960	500	3	54

5.9.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 15.247 measurement guidance v05r02.

- 1) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - a) The frequency above 1GHz, for Peak detector: Set RBW=1MHz, RBW=3MHz.
 - b) The frequency above 1GHz, for Avg detector: Set RBW=1MHz, if the EUT is configured to transmit with duty cycle $\geq 98\%$, set $VBW \leq RBW/100$ (i.e., 10kHz) but not less than 10Hz, Where duty cycle is defined in section 2.9.
- 5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

5.9.3 TEST SETUP



----- The following blanks -----

5.9.4 TEST RESULTS

Recorded the worst case(model: TR3392/40) test results in the report.

Environment: 25°C/60%RH/101.0kPa
Tested By: Zhang zishan

Voltage: DC 12V
Date: 2022-03-28

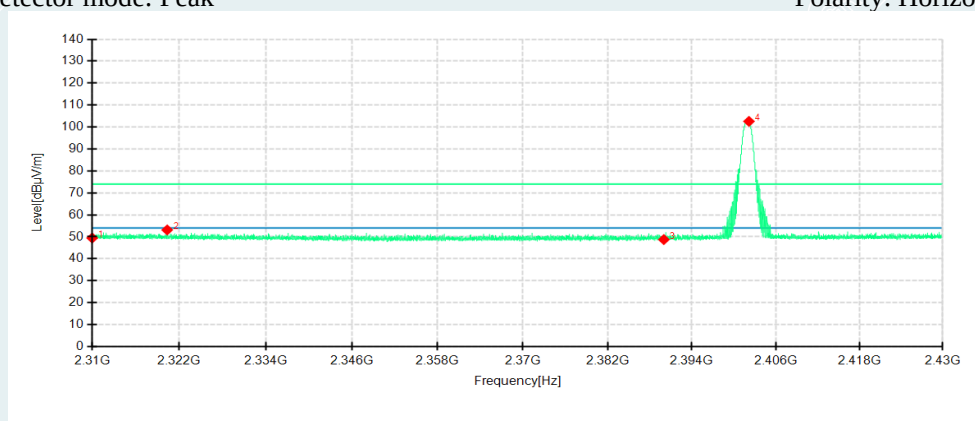
DH5

Lowest Channel

Frequency 2402MHz

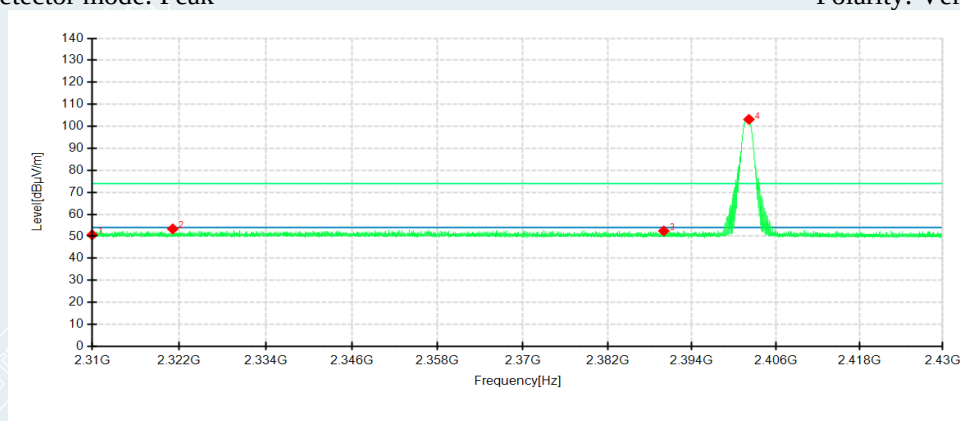
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



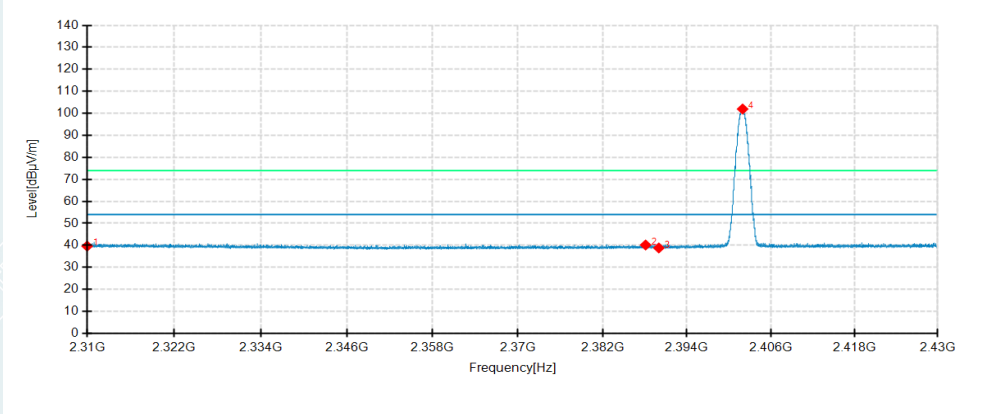
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	45.50	49.43	3.93	74.00	24.57	100	360	Horizontal	/
2	2320.3440	49.44	53.12	3.68	74.00	20.88	200	202	Horizontal	/
3	2390.0000	45.60	48.73	3.13	74.00	25.27	200	202	Horizontal	/
4	2402.1480	99.37	102.57	3.20	74.00	-28.57	100	158	Horizontal	No limit
1	2310.0000	46.15	50.66	4.51	74.00	23.34	100	201	Vertical	/
2	2321.1120	48.83	53.38	4.55	74.00	20.62	100	149	Vertical	/
3	2390.0000	48.16	52.43	4.27	74.00	21.57	200	157	Vertical	/
4	2402.1480	98.98	103.13	4.15	74.00	-29.13	100	201	Vertical	No limit

Lowest Channel

Frequency 2402MHz

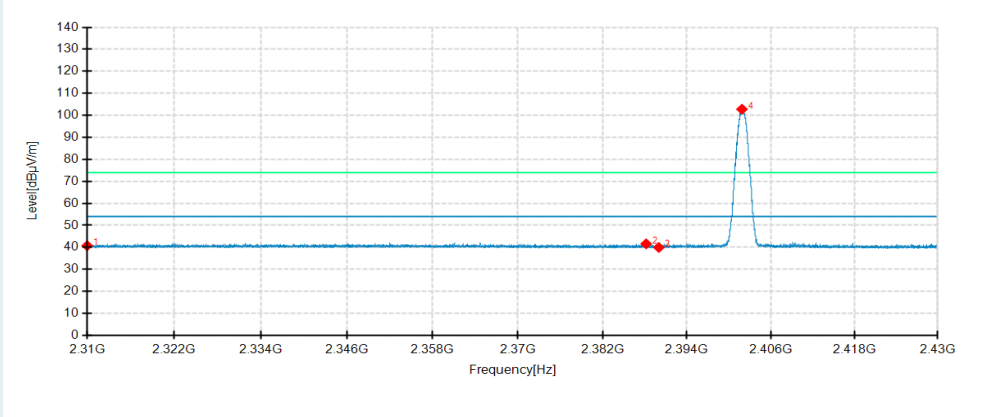
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



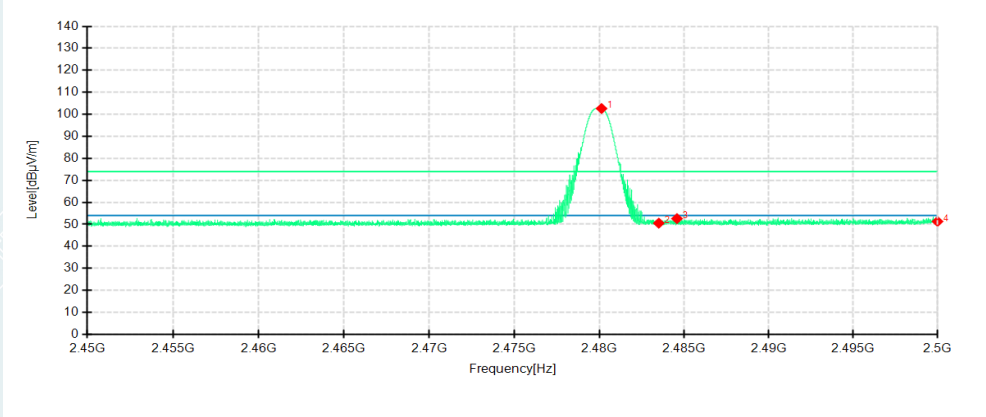
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	35.70	39.63	3.93	54.00	14.37	200	202	Horizontal	/
2	2388.1200	37.01	40.14	3.13	54.00	13.86	200	106	Horizontal	/
3	2390.0000	35.68	38.81	3.13	54.00	15.19	100	157	Horizontal	/
4	2401.9560	98.76	101.96	3.20	54.00	-47.96	100	157	Horizontal	No limit
1	2310.0000	36.24	40.75	4.51	54.00	13.25	200	359	Vertical	/
2	2388.1920	37.29	41.58	4.29	54.00	12.42	100	42	Vertical	/
3	2390.0000	35.67	39.94	4.27	54.00	14.06	100	0	Vertical	/
4	2401.8600	98.59	102.75	4.16	54.00	-48.75	100	203	Vertical	No limit

Highest Channel

Frequency 2480MHz

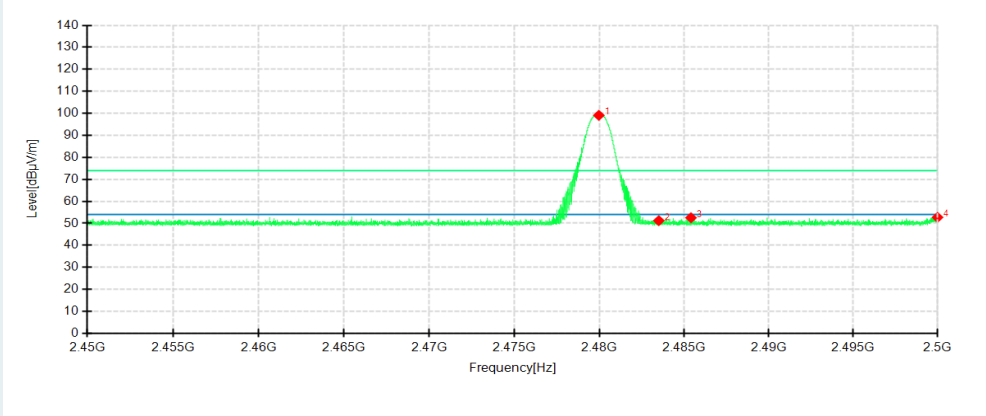
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



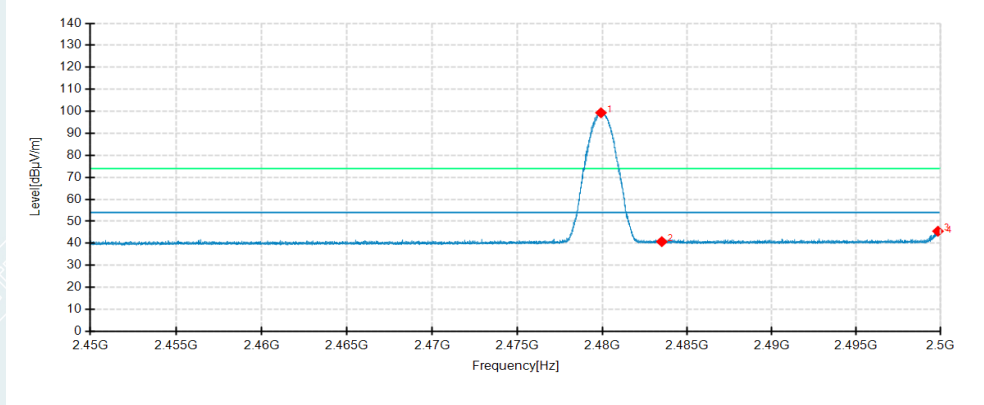
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.1250	98.37	102.63	4.26	74.00	-28.63	100	157	Horizontal	No limit
2	2483.5000	46.20	50.53	4.33	74.00	23.47	100	162	Horizontal	/
3	2484.5750	48.24	52.59	4.35	74.00	21.41	100	157	Horizontal	/
4	2500.0000	46.64	51.29	4.65	74.00	22.71	100	242	Horizontal	/
1	2479.9650	95.41	99.09	3.68	74.00	-25.09	100	202	Vertical	No limit
2	2483.5000	47.53	51.22	3.69	74.00	22.78	200	158	Vertical	/
3	2485.4000	48.84	52.54	3.70	74.00	21.46	200	158	Vertical	/
4	2500.0000	48.97	52.72	3.75	74.00	21.28	100	202	Vertical	/

Highest Channel

Frequency 2480MHz

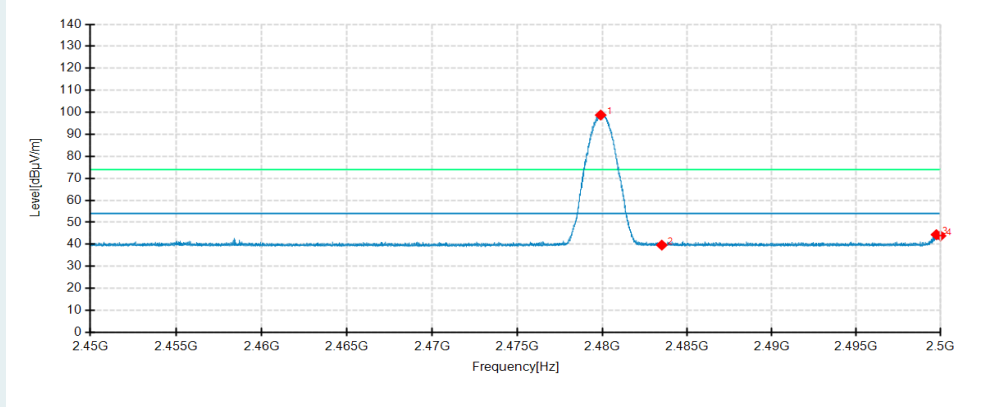
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

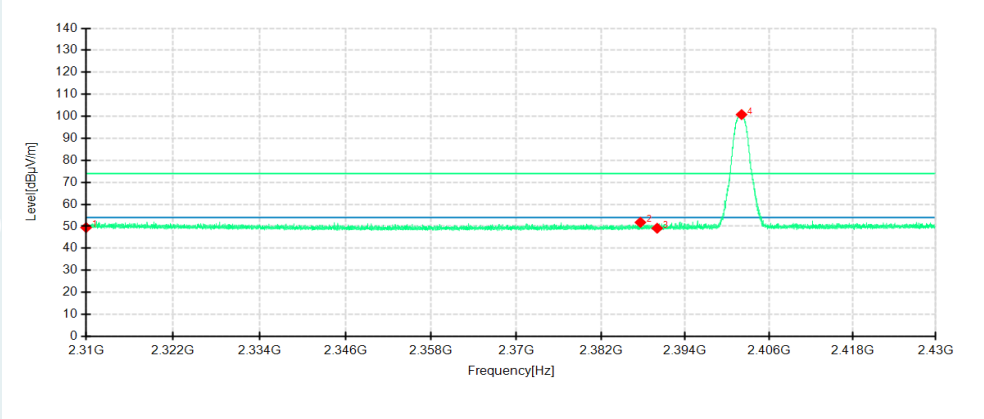
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.9150	95.07	99.33	4.26	54.00	-45.33	100	319	Horizontal	No limit
2	2483.5000	36.43	40.76	4.33	54.00	13.24	100	312	Horizontal	/
3	2499.8500	40.85	45.50	4.65	54.00	8.50	100	158	Horizontal	/
4	2500.0000	39.77	44.42	4.65	54.00	9.58	100	359	Horizontal	/
1	2479.8950	95.07	98.75	3.68	54.00	-44.75	100	202	Vertical	No limit
2	2483.5000	35.95	39.64	3.69	54.00	14.36	100	105	Vertical	/
3	2499.7550	40.65	44.40	3.75	54.00	9.60	100	202	Vertical	/
4	2500.0000	40.09	43.84	3.75	54.00	10.16	100	0	Vertical	/

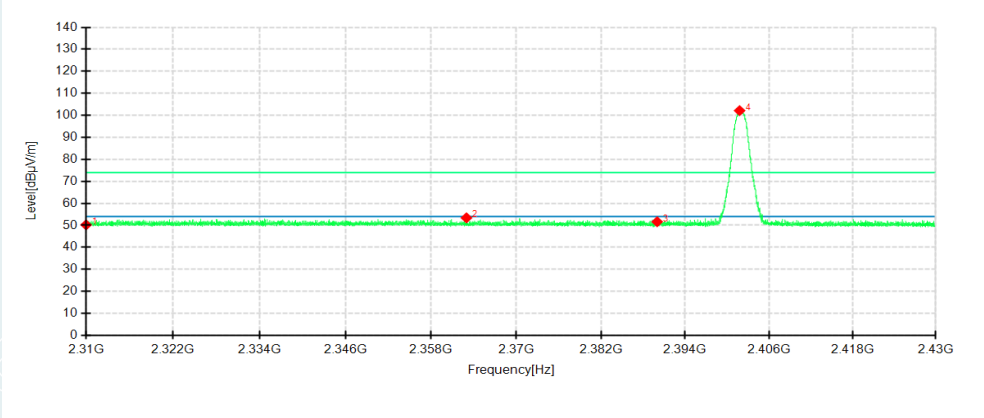
2DH5
Lowest Channel
Frequency 2402MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



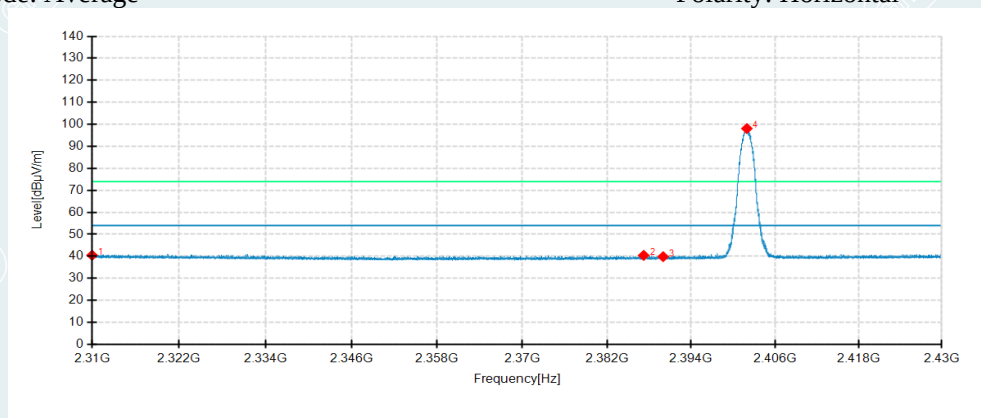
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	45.50	49.43	3.93	74.00	24.57	100	57	Horizontal	/
2	2387.6160	48.66	51.78	3.12	74.00	22.22	200	158	Horizontal	/
3	2390.0000	46.00	49.13	3.13	74.00	24.87	100	201	Horizontal	/
4	2402.0640	97.58	100.78	3.20	74.00	-26.78	100	116	Horizontal	No limit
1	2310.0000	45.69	50.20	4.51	74.00	23.80	200	202	Vertical	/
2	2362.9800	48.86	53.39	4.53	74.00	20.61	200	25	Vertical	/
3	2390.0000	47.34	51.61	4.27	74.00	22.39	200	202	Vertical	/
4	2401.7760	97.97	102.13	4.16	74.00	-28.13	100	308	Vertical	No limit

Lowest Channel

Frequency 2402MHz

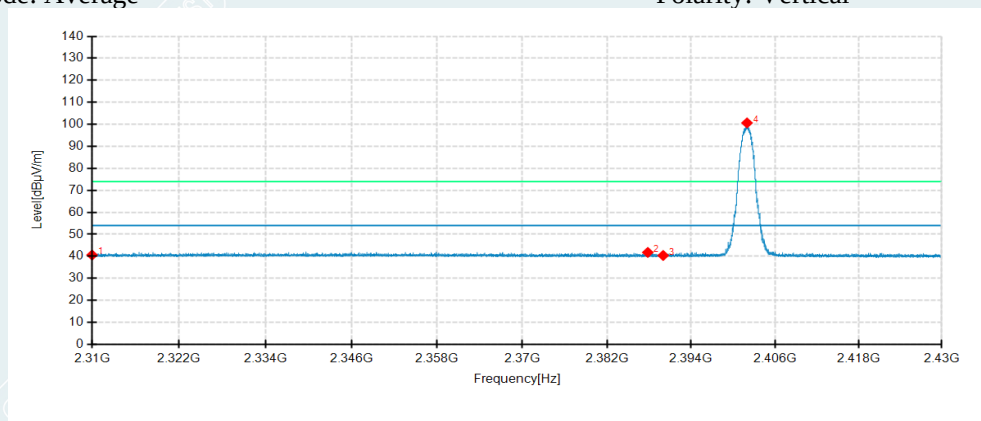
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

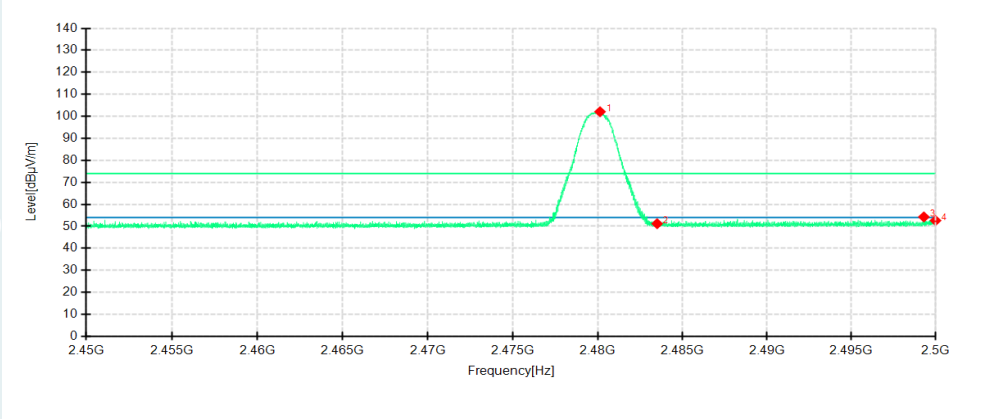
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	36.55	40.48	3.93	54.00	13.52	100	203	Horizontal	/
2	2387.2320	37.31	40.43	3.12	54.00	13.57	200	184	Horizontal	/
3	2390.0000	36.72	39.85	3.13	54.00	14.15	100	0	Horizontal	/
4	2401.9560	94.87	98.07	3.20	54.00	-44.07	100	111	Horizontal	No limit
1	2310.0000	36.09	40.60	4.51	54.00	13.40	100	158	Vertical	/
2	2387.8080	37.50	41.79	4.29	54.00	12.21	200	84	Vertical	/
3	2390.0000	36.12	40.39	4.27	54.00	13.61	200	106	Vertical	/
4	2401.9800	96.46	100.62	4.16	54.00	-46.62	100	312	Vertical	No limit

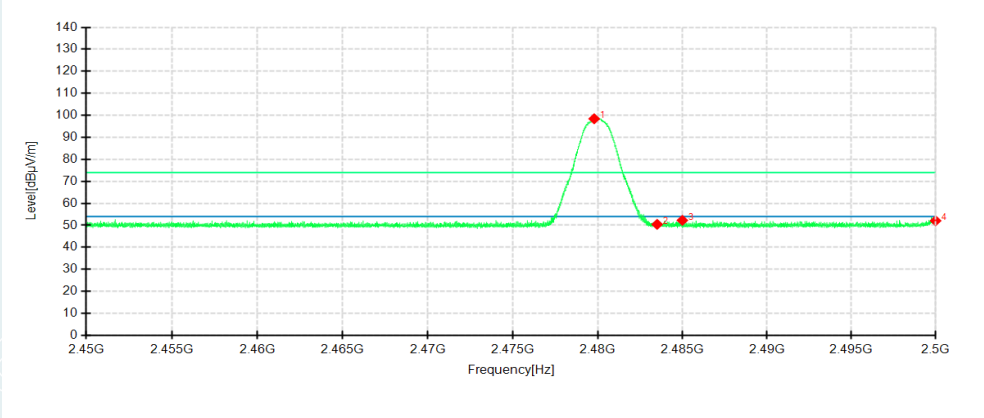
Highest Channel
Frequency 2480MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



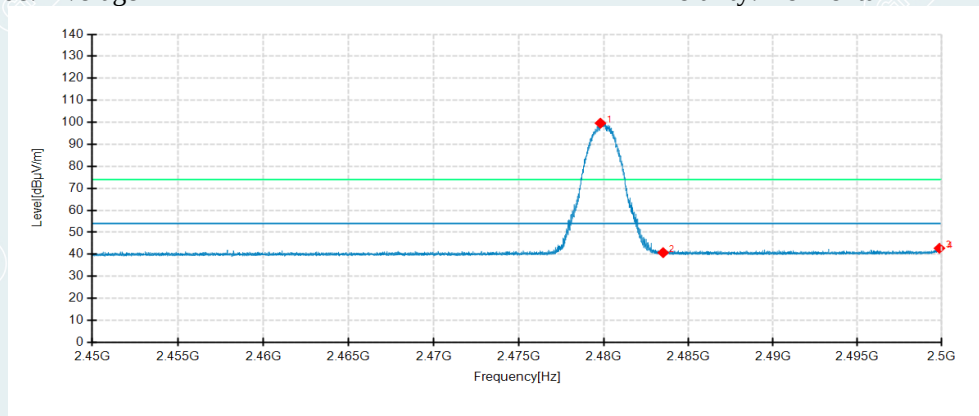
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.1300	97.83	102.09	4.26	74.00	-28.09	100	157	Horizontal	No limit
2	2483.5000	46.87	51.20	4.33	74.00	22.80	200	203	Horizontal	/
3	2499.3050	49.63	54.27	4.64	74.00	19.73	200	148	Horizontal	/
4	2500.0000	47.97	52.62	4.65	74.00	21.38	200	53	Horizontal	/
1	2479.7850	94.75	98.43	3.68	74.00	-24.43	100	202	Vertical	No limit
2	2483.5000	46.74	50.43	3.69	74.00	23.57	100	202	Vertical	/
3	2484.9900	48.56	52.26	3.70	74.00	21.74	100	202	Vertical	/
4	2500.0000	48.32	52.07	3.75	74.00	21.93	100	1	Vertical	/

Highest Channel

Frequency 2480MHz

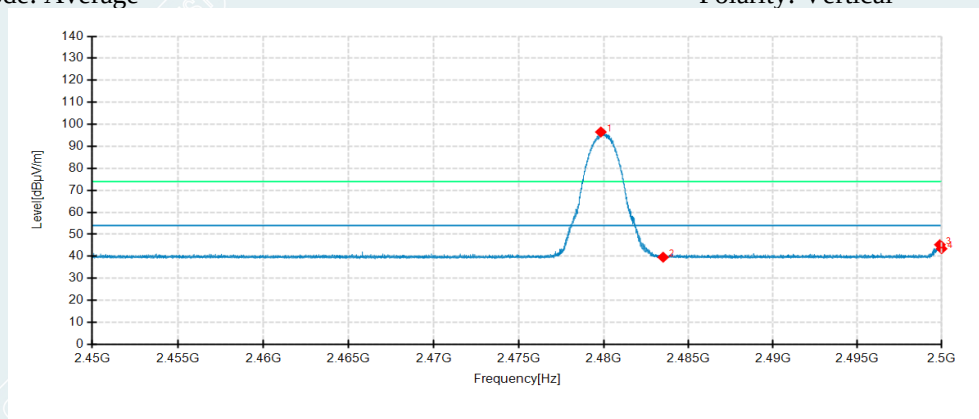
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

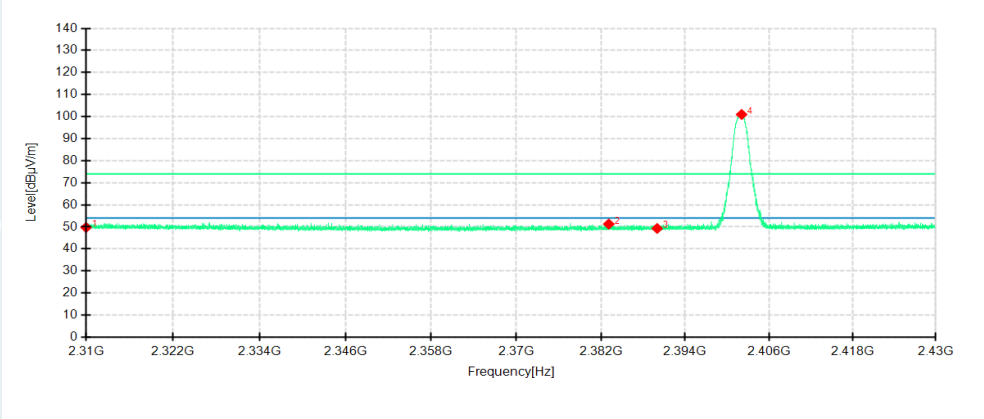
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.8000	95.35	99.60	4.25	54.00	-45.60	100	158	Horizontal	No limit
2	2483.5000	36.44	40.77	4.33	54.00	13.23	100	158	Horizontal	/
3	2499.8750	38.11	42.76	4.65	54.00	11.24	100	158	Horizontal	/
4	2500.0000	37.98	42.63	4.65	54.00	11.37	100	158	Horizontal	/
1	2479.8250	92.81	96.49	3.68	54.00	-42.49	100	201	Vertical	No limit
2	2483.5000	35.91	39.60	3.69	54.00	14.40	100	201	Vertical	/
3	2499.9000	41.55	45.30	3.75	54.00	8.70	100	201	Vertical	/
4	2500.0000	39.70	43.45	3.75	54.00	10.55	100	201	Vertical	/

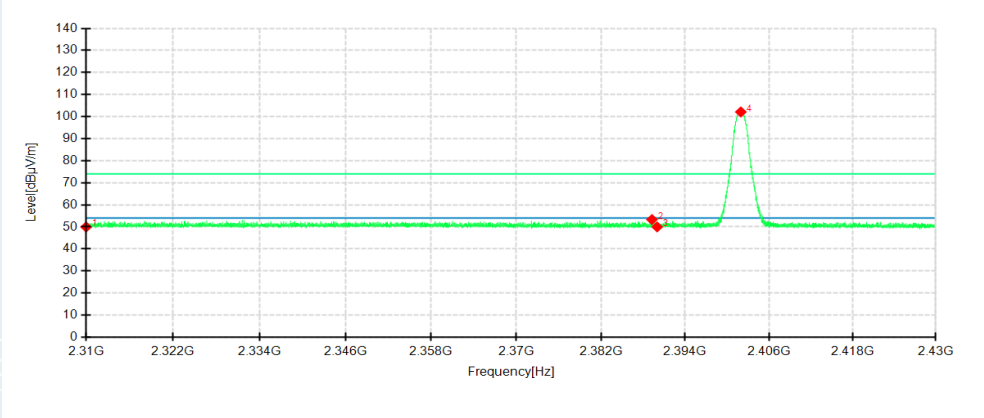
3DH5
Lowest Channel
Frequency 2402MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



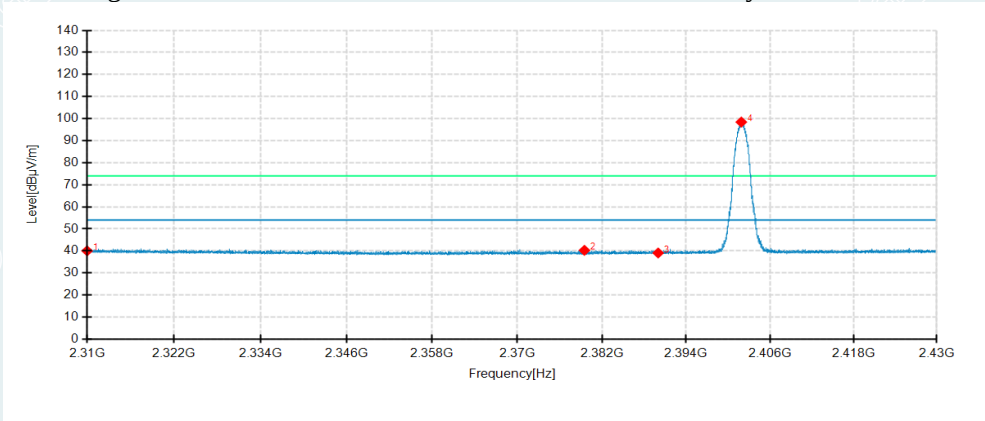
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	45.80	49.73	3.93	74.00	24.27	200	157	Horizontal	/
2	2383.1160	48.18	51.28	3.10	74.00	22.72	100	202	Horizontal	/
3	2390.0000	46.14	49.27	3.13	74.00	24.73	100	202	Horizontal	/
4	2402.0640	97.77	100.97	3.20	74.00	-26.97	100	112	Horizontal	No limit
1	2310.0000	45.44	49.95	4.51	74.00	24.05	100	244	Vertical	/
2	2389.2600	49.03	53.31	4.28	74.00	20.69	100	297	Vertical	/
3	2390.0000	45.70	49.97	4.27	74.00	24.03	200	202	Vertical	/
4	2401.9560	97.94	102.10	4.16	74.00	-28.10	100	308	Vertical	No limit

Lowest Channel

Frequency 2402MHz

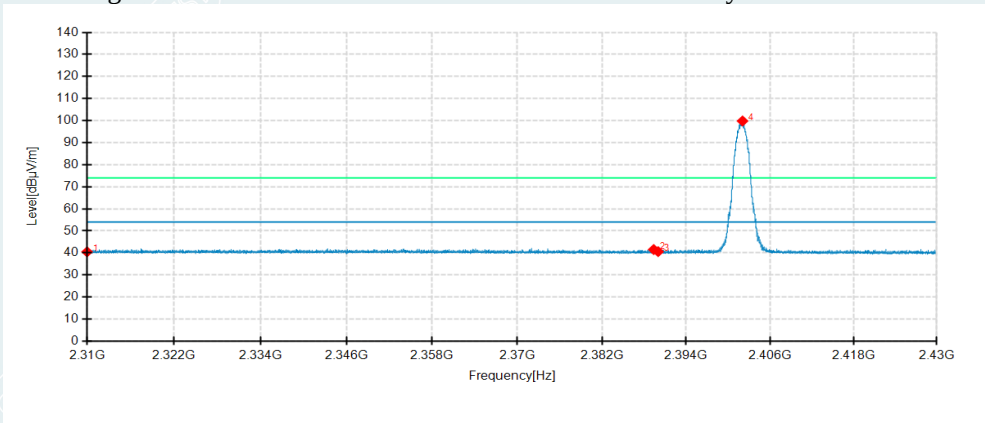
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

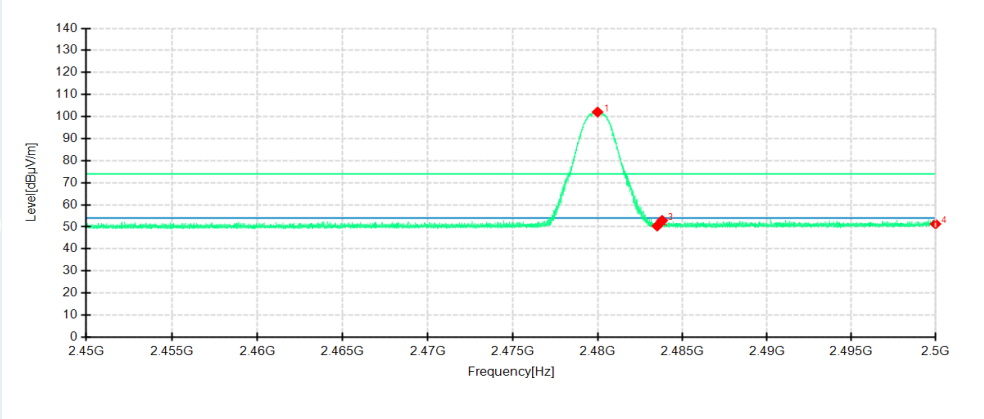
Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310.0000	36.10	40.03	3.93	54.00	13.97	100	156	Horizontal	/
2	2379.5160	37.18	40.27	3.09	54.00	13.73	100	192	Horizontal	/
3	2390.0000	35.94	39.07	3.13	54.00	14.93	100	5	Horizontal	/
4	2401.8720	95.22	98.42	3.20	54.00	-44.42	100	108	Horizontal	No limit
1	2310.0000	35.98	40.49	4.51	54.00	13.51	100	205	Vertical	/
2	2389.3680	37.25	41.53	4.28	54.00	12.47	100	157	Vertical	/
3	2390.0000	36.32	40.59	4.27	54.00	13.41	200	115	Vertical	/
4	2402.0520	95.66	99.81	4.15	54.00	-45.81	100	306	Vertical	No limit

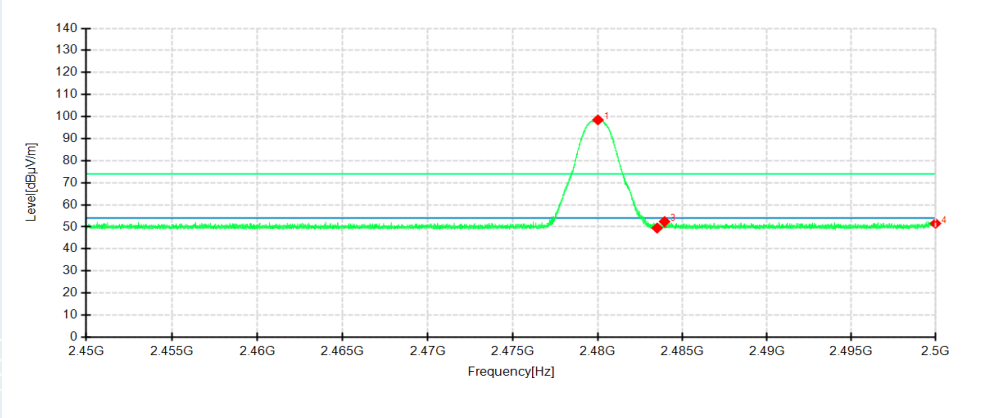
Highest Channel
Frequency 2480MHz
Detector mode: Peak

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



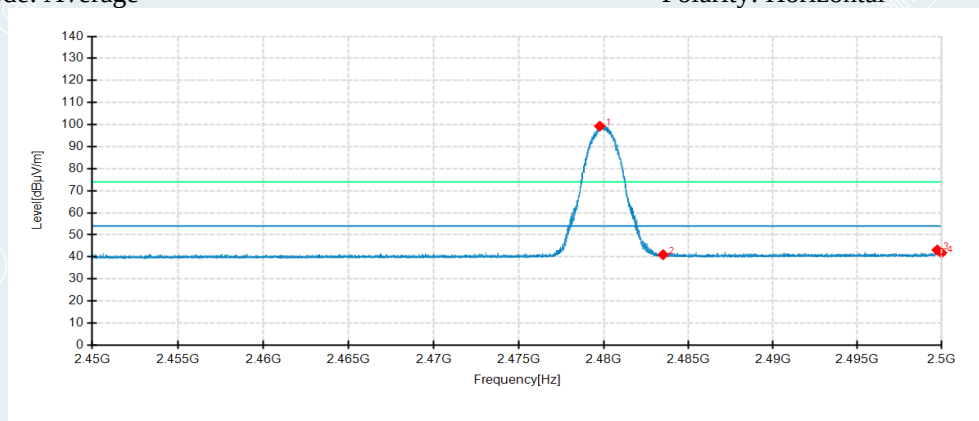
No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.9850	97.79	102.05	4.26	74.00	-28.05	100	106	Horizontal	No limit
2	2483.5000	46.04	50.37	4.33	74.00	23.63	100	122	Horizontal	/
3	2483.7950	48.61	52.94	4.33	74.00	21.06	200	323	Horizontal	/
4	2500.0000	46.66	51.31	4.65	74.00	22.69	100	202	Horizontal	/
1	2480.0050	94.81	98.49	3.68	74.00	-24.49	100	318	Vertical	No limit
2	2483.5000	45.75	49.44	3.69	74.00	24.56	200	201	Vertical	/
3	2483.9400	48.72	52.41	3.69	74.00	21.59	100	287	Vertical	/
4	2500.0000	47.80	51.55	3.75	74.00	22.45	100	222	Vertical	/

Highest Channel

Frequency 2480MHz

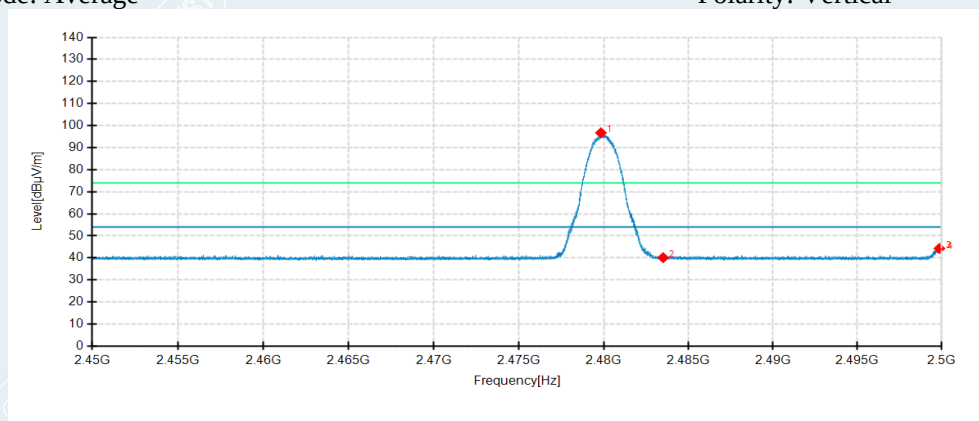
Detector mode: Average

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2479.7600	95.04	99.29	4.25	54.00	-45.29	100	105	Horizontal	No limit
2	2483.5000	36.67	41.00	4.33	54.00	13.00	200	337	Horizontal	/
3	2499.7450	38.51	43.16	4.65	54.00	10.84	100	41	Horizontal	/
4	2500.0000	37.17	41.82	4.65	54.00	12.18	100	201	Horizontal	/
1	2479.8300	93.04	96.72	3.68	54.00	-42.72	100	318	Vertical	No limit
2	2483.5000	36.43	40.12	3.69	54.00	13.88	100	286	Vertical	/
3	2499.8750	40.53	44.28	3.75	54.00	9.72	100	158	Vertical	/
4	2500.0000	40.18	43.93	3.75	54.00	10.07	100	360	Vertical	/

Remark: Max field strength in 3m distance. No any other emission which falls in restricted bands can be detected and be reported.

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the report E20220216738902-4-test setup photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the report E20220216738902-5-EUT photo.

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