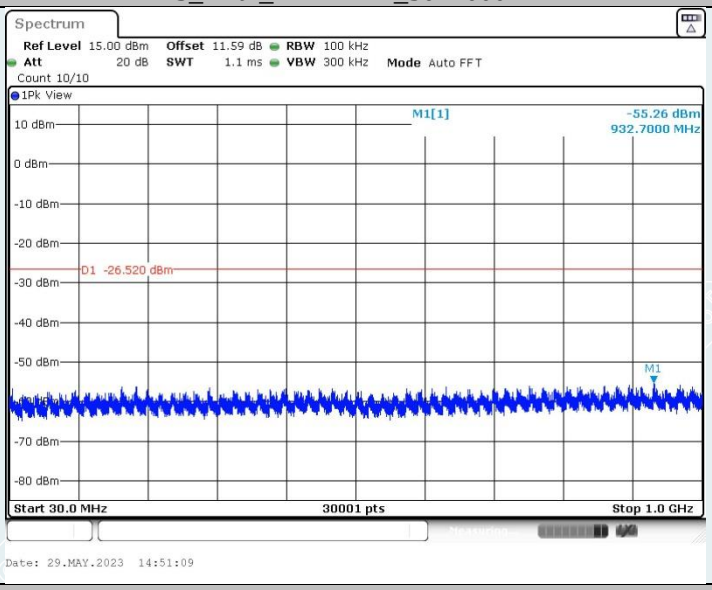
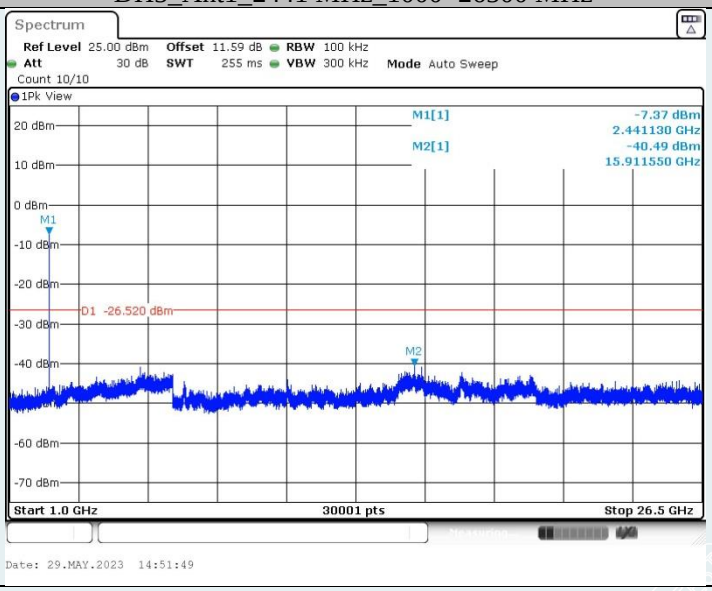
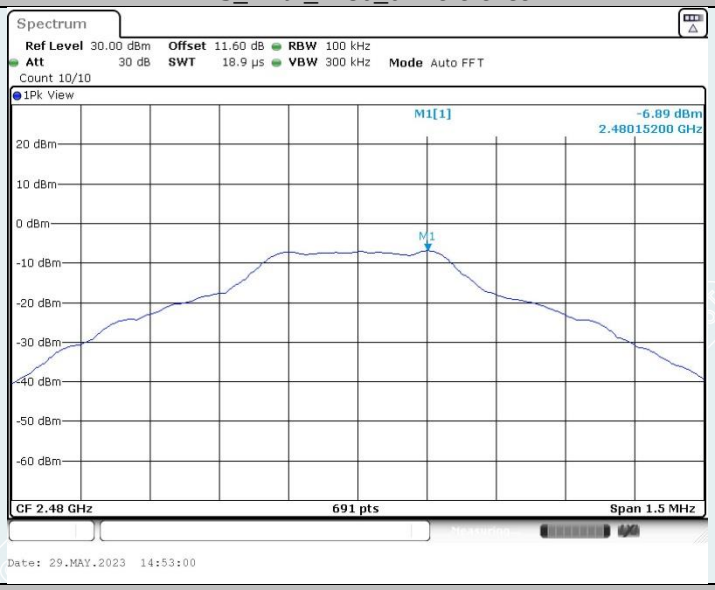
DH5_Ant1_2441 MHz_30~1000 MHz



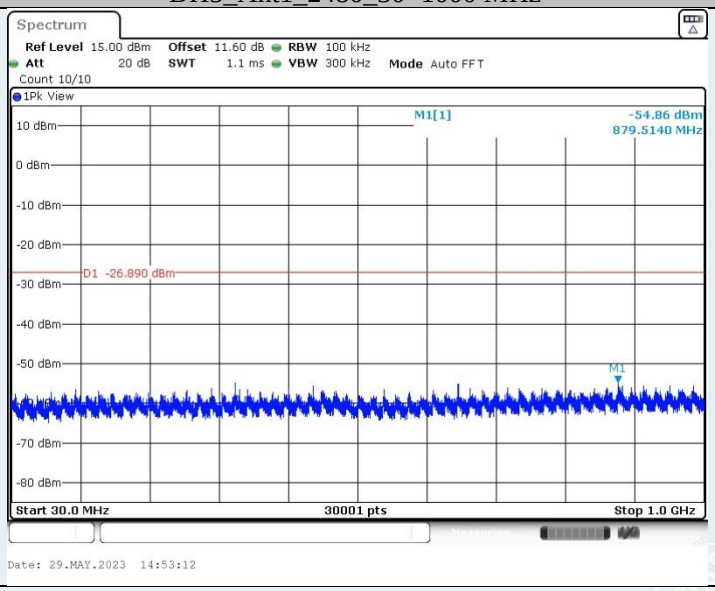
DH5_Ant1_2441 MHz_1000~26500 MHz



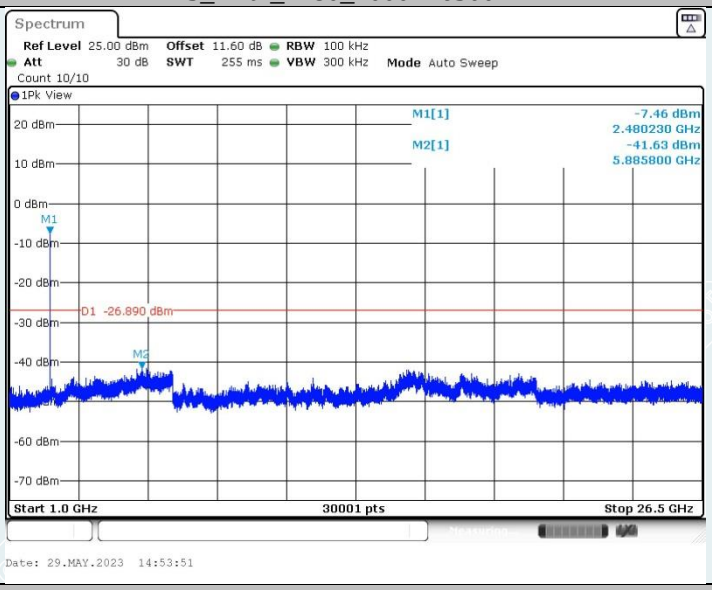
DH5_Ant1_2480_0~Reference



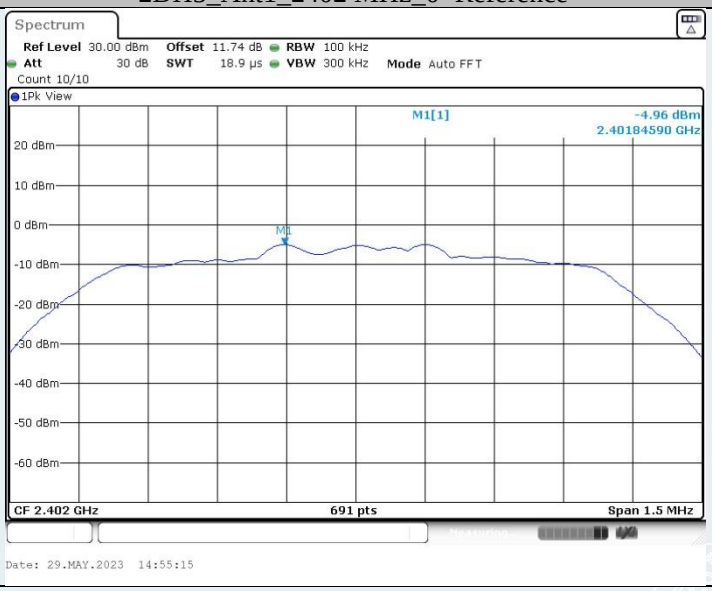
DH5_Ant1_2480_30~1000 MHz

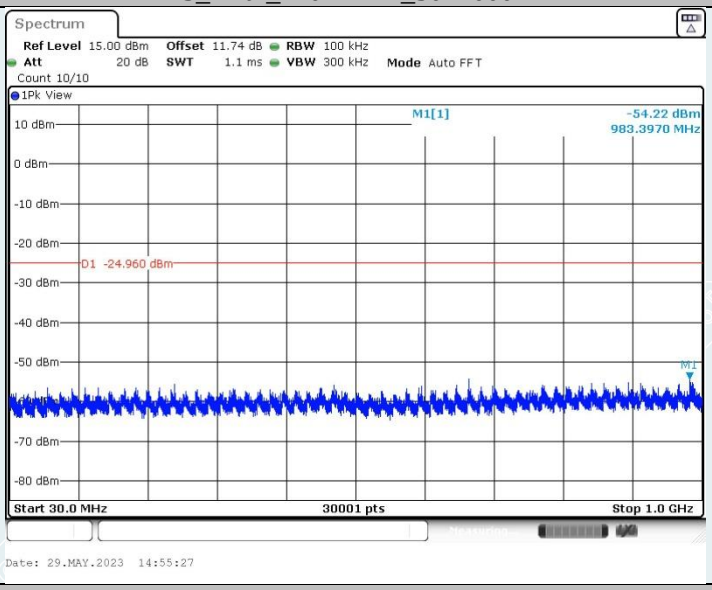


DH5_Ant1_2480_1000~26500 MHz



2DH5_Ant1_2402 MHz_0~Reference



2DH5_Ant1_2402 MHz_30~1000 MHz

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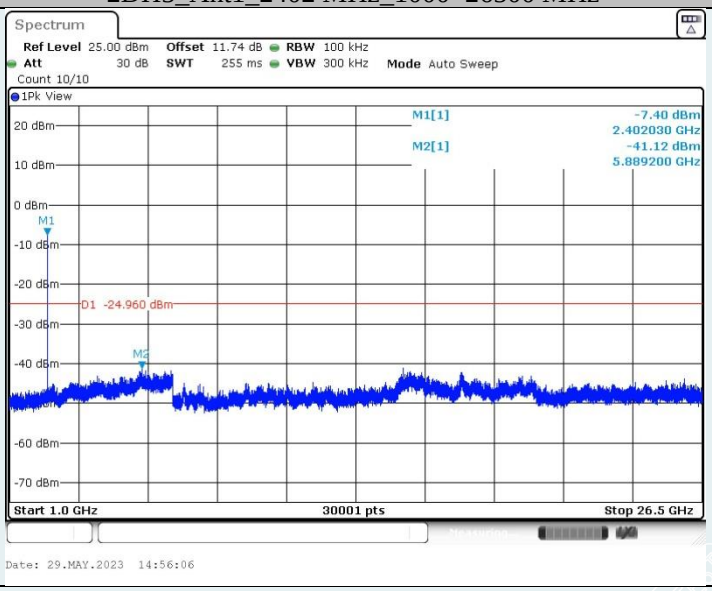
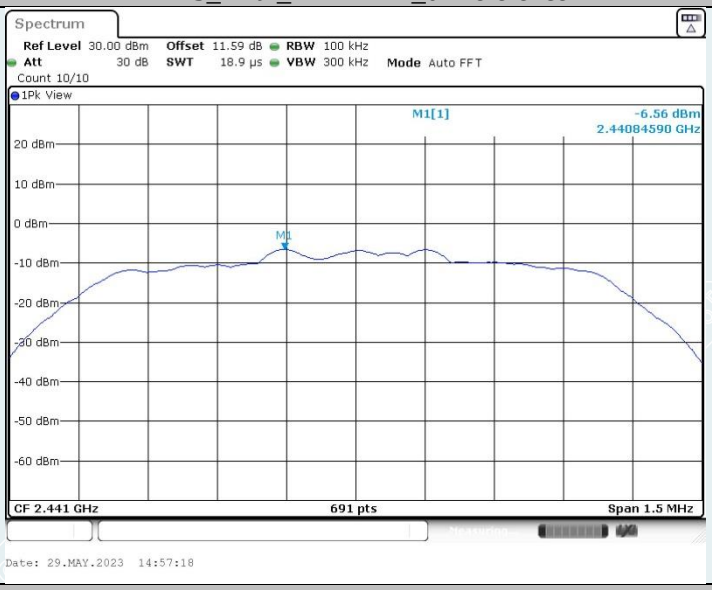


2DH5_Ant1_2441 MHz_0~Reference



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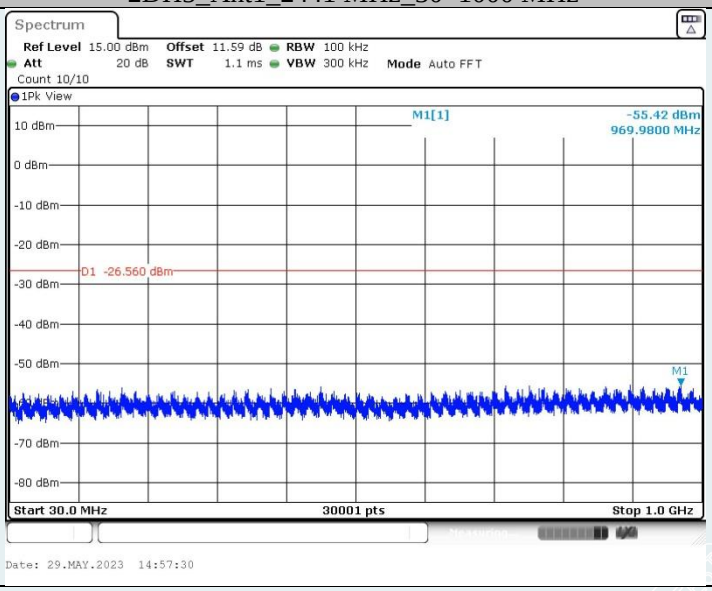
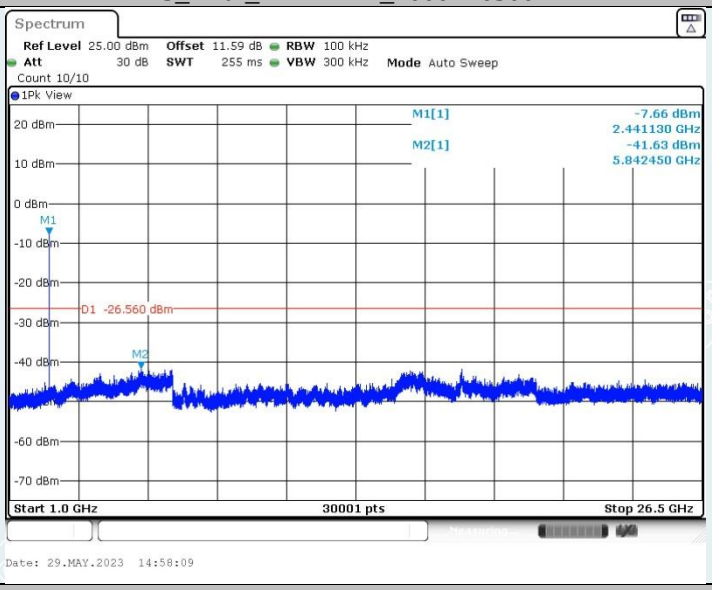


2DH5_Ant1_2441 MHz_1000~26500 MHz

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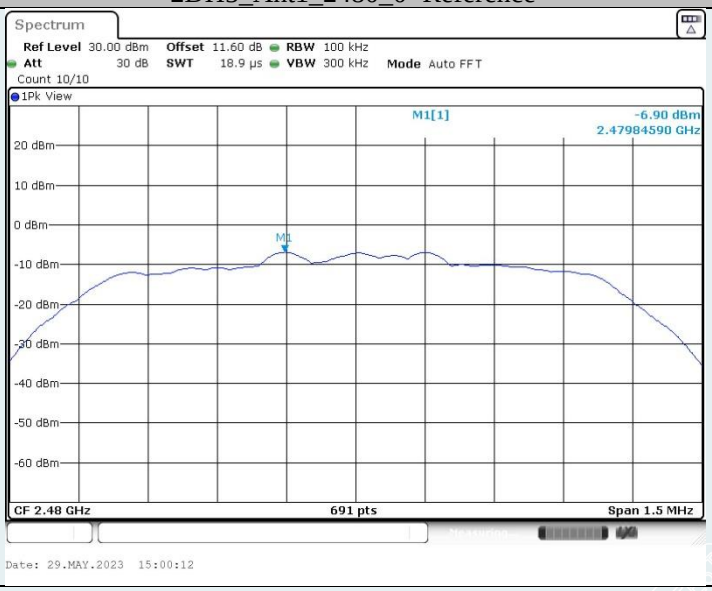
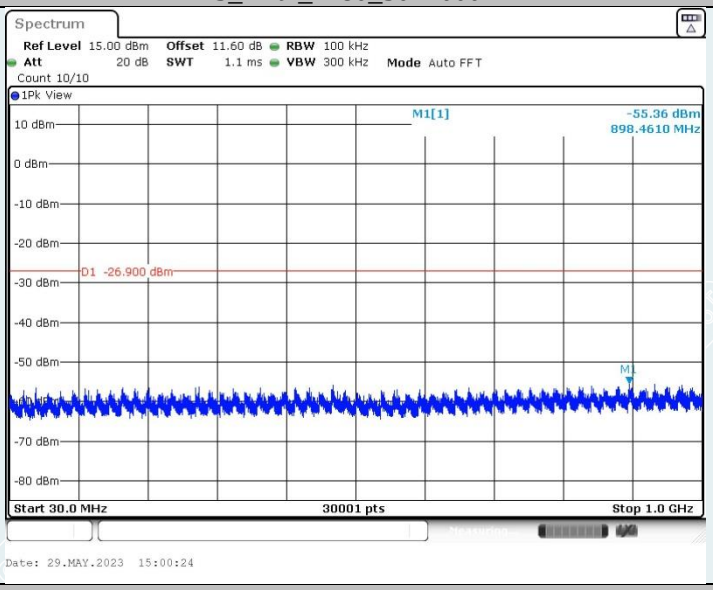
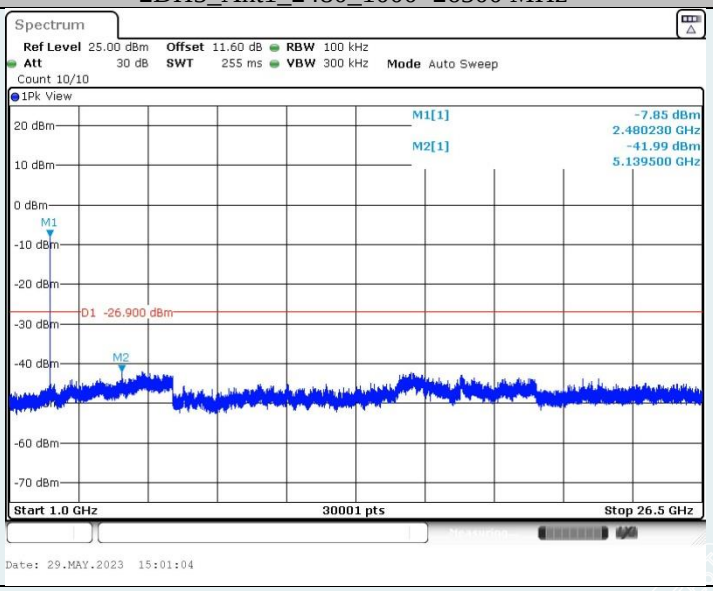
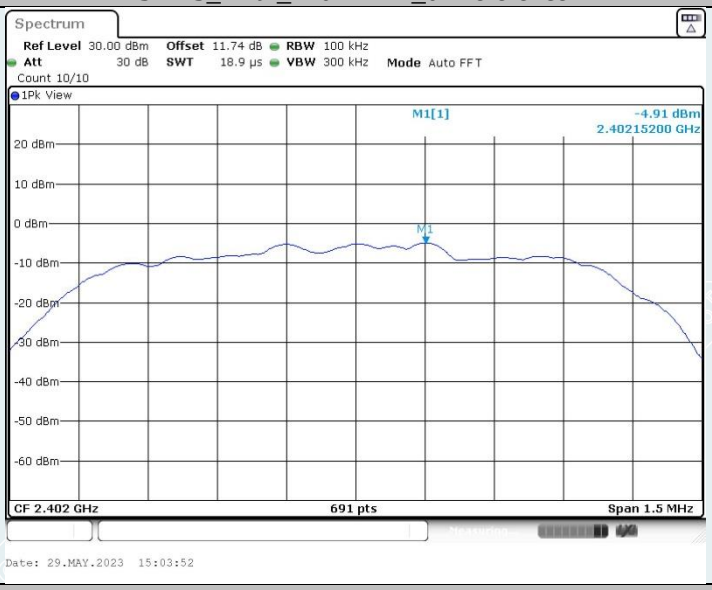
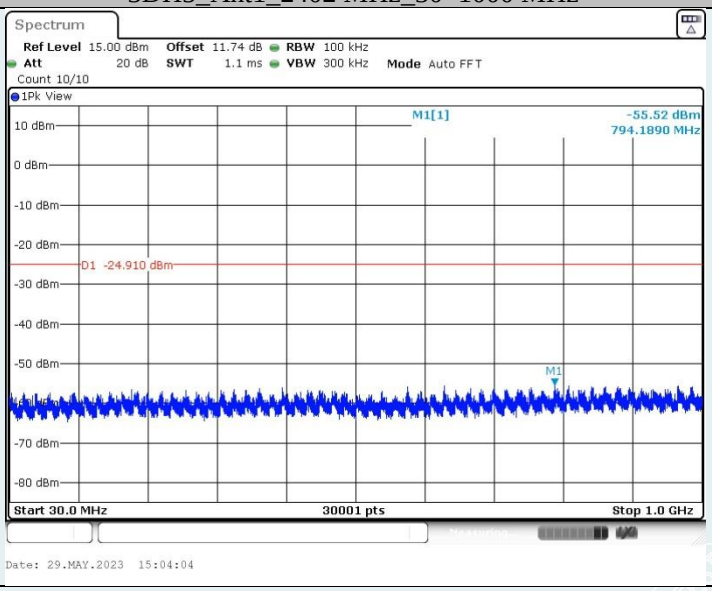
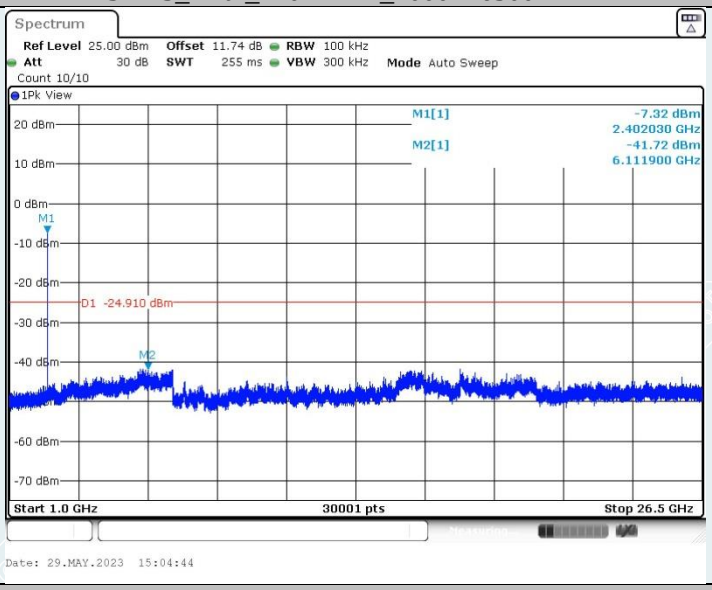


2DH5_Ant1_2480_30~1000 MHz

2DH5_Ant1_2480_1000~26500 MHz


3DH5_Ant1_2402 MHz_0~Reference

3DH5_Ant1_2402 MHz_30~1000 MHz


3DH5_Ant1_2402 MHz_1000~26500 MHz

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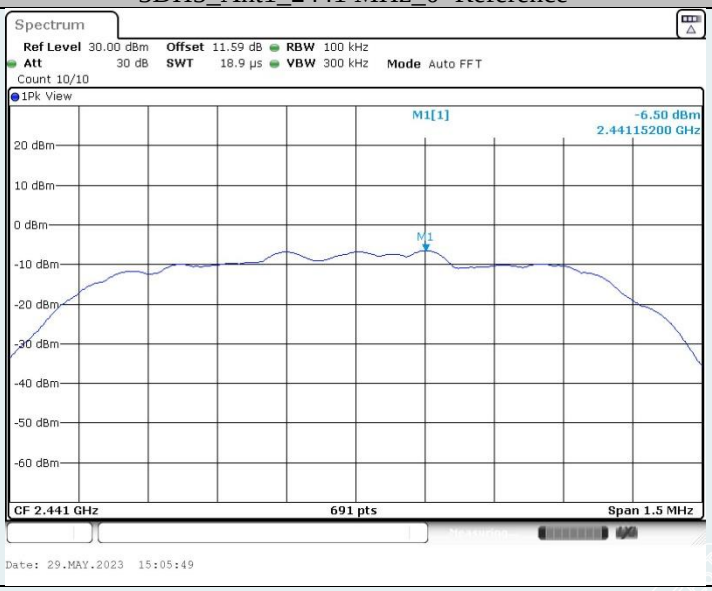

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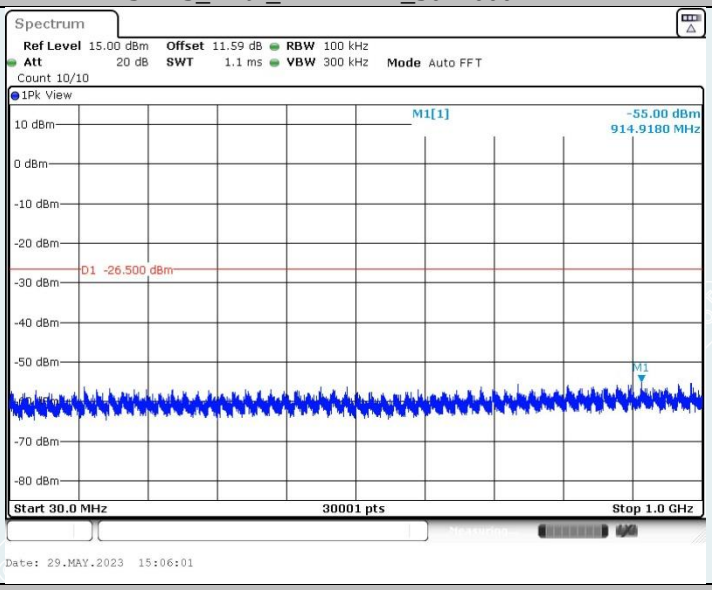
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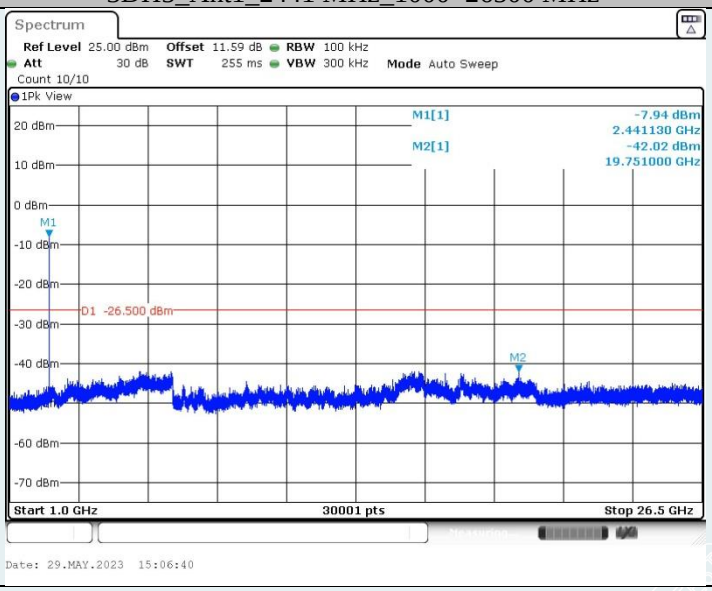
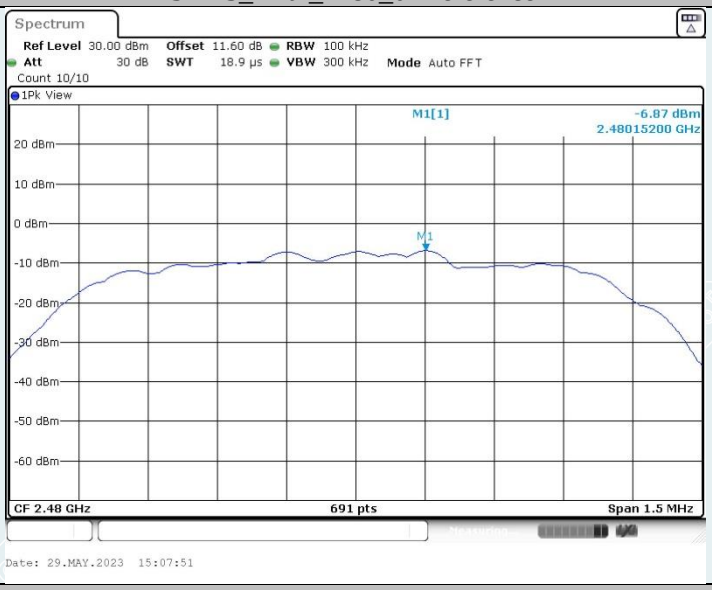
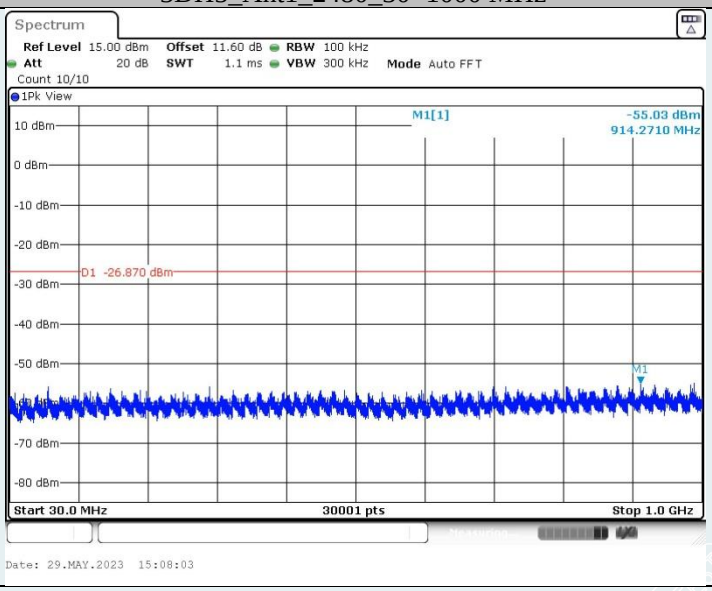
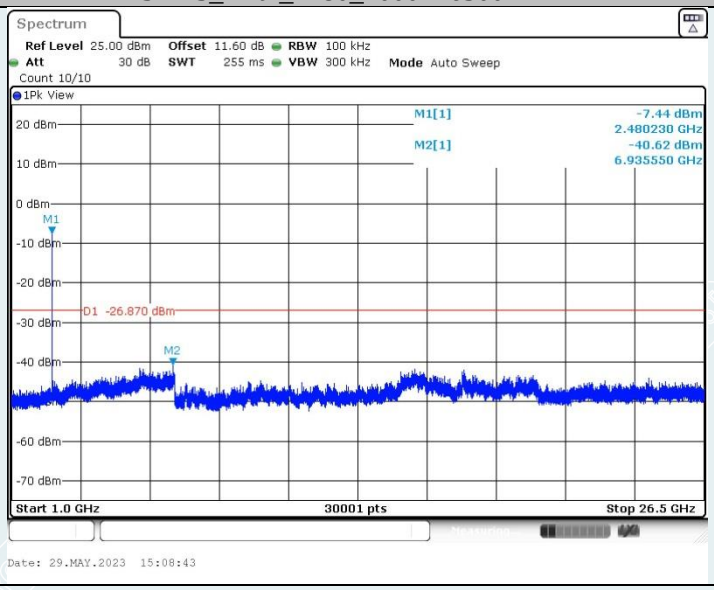


3DH5_Ant1_2480_0~Reference

3DH5_Ant1_2480_30~1000 MHz


3DH5_Ant1_2480_1000~26500 MHz


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13. RADIATED SPURIOUS EMISSIONS

13.1 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(μV/m)	Measurement distance(m)	Quasi-peak(dBμV/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 9-90kHz and 110-490kHz 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 (dBμV/m).
The Avg Limit=54+20*log(3/1)=63.54 (dBμV/m).

13.2 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.

--- Set the EUT transmit continuously with maximum output power.

--- 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.

--- Set the EUT transmit continuously with maximum output power.

--- 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.

--- Set the EUT transmit continuously with maximum output power.

--- 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.

--- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

--- The EUT is placed on a desktop position in the center of the turntable.

--- The measurement distance is 1 meter.

--- The EUT was set into operation.

Pre measurement:

--- The pre measurement distance is 1 meter.

--- 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 at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak detector.

--- The final measurement distance is 3 meter.

--- 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 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), RBW=300Hz(for Peak&AVG). the frequency from 150kHz to 30MHz, Set RBW=9kHz, RBW=9kHz,(for QP Detector).
(b).The frequency from 30MHz to 1GHz, Set RBW=120kHz, RBW=300kHz,(for QP Detector).
(c).The frequency above 1GHz, for Peak detector: Set RBW=1MHz, RBW=3MHz.
(d).The frequency above 1GHz, for Avg detector: Set RBW=1MHz, if the EUT is configured to transmit with duty cycle ≥98%，set VBW≤RBW/100 (i.e.,10kHz) but not less than 10Hz. if the EUT duty cycle is ＜98%，set VBW≥1/T, Where T is defined in section 2.8.

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13.3 TEST SETUP

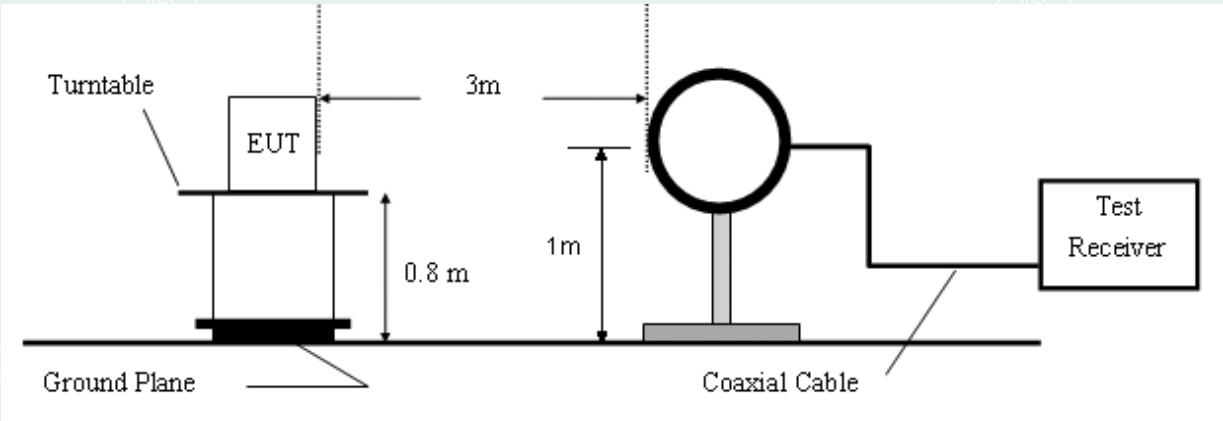

Figure 1. 9kHz to 30MHz radiated emissions test configuration

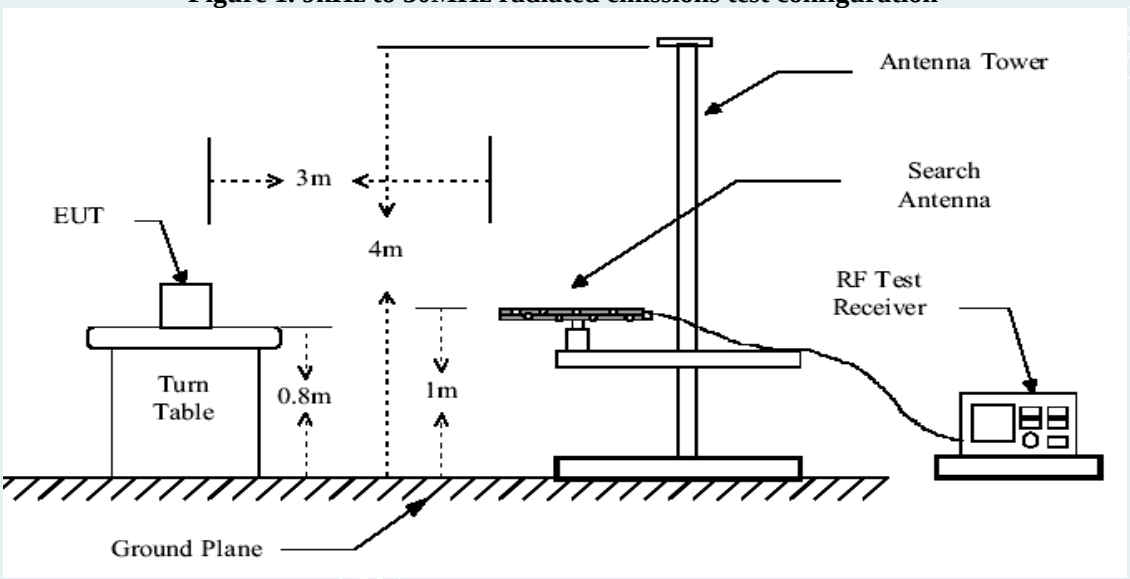

Figure 2. 30MHz to 1GHz radiated emissions test configuration

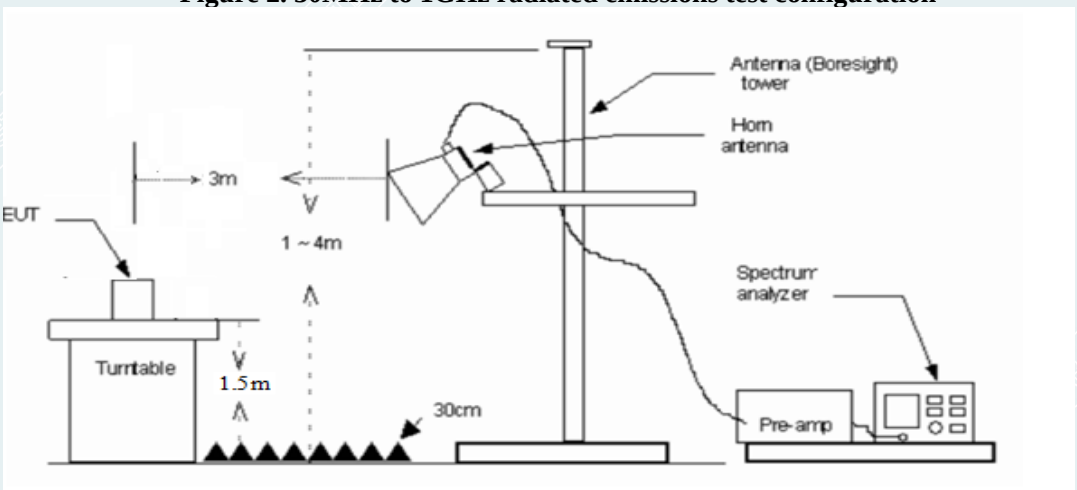

Figure 3. 1GHz to 18GHz radiated emissions test configuration

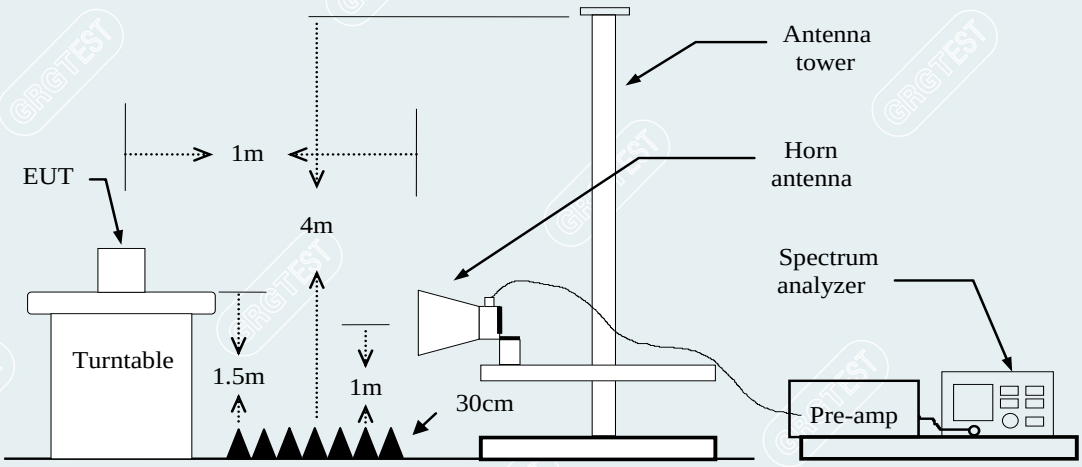

Figure 4. 18GHz to 26.5GHz radiated emissions test configuration

13.4 DATA SAMPLE

30MHz to 1GHz

No.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
xxx	XXXX	63.53	36.38	-27.15	43.50	7.12	0	100	Horizontal

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV/m) = Uncorrected Analyzer / Receiver reading
Level (dBuV/m) = Reading (dBuV) + Factor (dB)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Limit(dBuV/m) – Level (dBuV/m)
Polarity = Antenna polarization

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1GHz-18GHz

No.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
xxx	xxxx	78.01	55.30	-22.71	74.00	18.70	100	50	Horizontal	Peak
xxx	xxxx	66.37	43.66	-22.71	54.00	10.34	100	50	Horizontal	AVG

Above 18GHz

No.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Remark
xxx	xxxx	54.49	42.38	-12.11	83.54	41.16	100	211	Vertical	Peak
xxx	xxxx	43.99	31.88	-12.11	63.54	31.66	100	211	Vertical	AVG

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV/m) = Uncorrected Analyzer / Receiver reading

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

Level (dBuV/m) = Reading (dBuV/m) + Factor (dB)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Limit (dBuV/m) – Level (dBuV/m)

Polarity = Antenna polarization

Peak = Peak Reading

AVG = Average Reading

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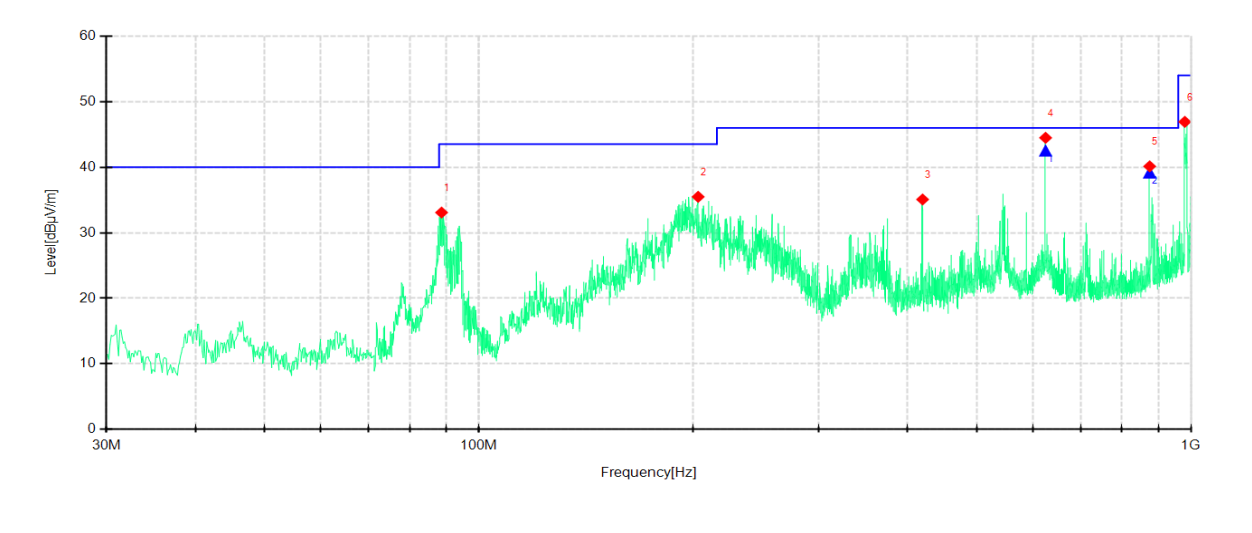
13.5 TEST RESULTS

Below 1GHz

Pre-scan all mode and recorded the worst case results in this report (Lowest Channel(DH5))

Mode: DH5
Lowest Frequency (2402MHz) Date: 2023-05-26
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Zishan Probe : Horizontal

Test Graph

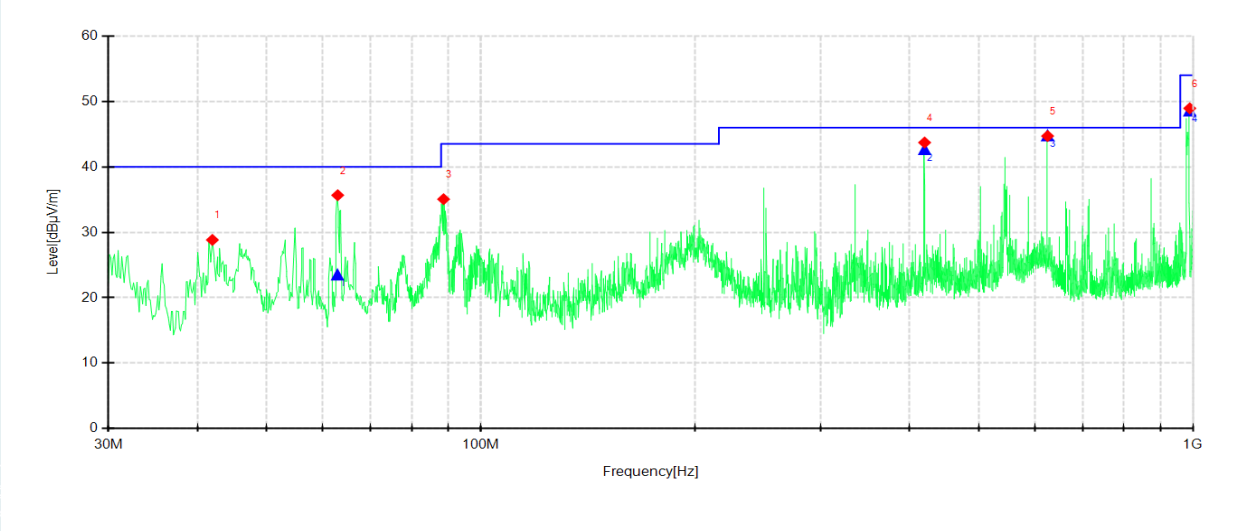


Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	88.692	68.84	33.08	-35.76	43.50	10.42	200	36	Horizontal
2	203.287	69.56	35.48	-34.08	43.50	8.02	100	144	Horizontal
3	419.988	61.69	35.08	-26.61	46.00	10.92	100	314	Horizontal
4	625.048	66.47	44.48	-21.99	46.00	1.52	100	14	Horizontal
5	875.096	58.93	40.13	-18.80	46.00	5.87	100	336	Horizontal
6	980.355	65.07	46.92	-18.15	54.00	7.08	100	0	Horizontal

Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBµV/m]	Level [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	625.0209	-21.99	64.48	42.49	46.00	3.51	102	16.9	Horizontal
2	874.9954	-18.80	57.96	39.16	46.00	6.84	163	260.8	Horizontal

Mode: DH5
Lowest Frequency (2402MHz) Date: 2023-05-26
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Zishan Probe : Vertical

Test Graph



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.005	59.54	28.84	-30.70	40.00	11.16	100	166	Vertical
2	62.984	67.68	35.67	-32.01	40.00	4.33	100	176	Vertical
3	88.692	70.82	35.06	-35.76	43.50	8.44	100	137	Vertical
4	419.988	70.33	43.72	-26.61	46.00	2.28	100	66	Vertical
5	625.048	66.70	44.71	-21.99	46.00	1.29	200	203	Vertical
6	989.692	66.93	48.94	-17.99	54.00	5.06	100	360	Vertical

Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBµV/m]	Level [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	62.9285	-32.01	55.53	23.52	40.00	16.48	100	132.1	Vertical
2	419.9948	-26.61	69.29	42.68	46.00	3.32	101	71	Vertical
3	625.0209	-21.99	66.78	44.79	46.00	1.21	102	220.1	Vertical
4	989.463	-17.99	66.57	48.58	54.00	5.42	116	0	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-Highest Channel(DH5))
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.

1GHz to 18GHz

Mode: DH5
Lowest Frequency (2402MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1196.6	70.27	47.50	-22.77	74.00	26.50	100	104	Horizontal
2	1665.8	69.38	47.77	-21.61	74.00	26.23	100	143	Horizontal
3	2497.8	61.30	46.23	-15.07	74.00	27.77	100	32	Horizontal
4	4999.5	59.65	49.08	-10.57	74.00	24.92	200	198	Horizontal
5	9271.5	49.76	48.64	-1.12	74.00	25.36	200	168	Horizontal
6	15610.5	44.25	52.62	8.37	74.00	21.38	100	232	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	4999.5	-10.57	50.25	39.68	54.00	14.32	200	198	Horizontal
2	15610.5	8.37	34.25	42.62	54.00	11.38	100	232	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1164.8	69.62	46.08	-23.54	74.00	27.92	100	146	Vertical
2	1661	70.33	47.95	-22.38	74.00	26.05	100	137	Vertical
3	2498	61.24	46.02	-15.22	74.00	27.98	200	32	Vertical
4	4999.5	59.07	48.30	-10.77	74.00	25.70	100	176	Vertical
5	9292.5	49.73	48.56	-1.17	74.00	25.44	200	15	Vertical
6	15064.5	44.68	51.45	6.77	74.00	22.55	100	360	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	4999.5	-10.77	55.27	44.50	54.00	9.50	100	176	Vertical
2	15064.5	6.77	34.52	41.29	54.00	12.71	100	360	Vertical

Mode: DH5
Middle Frequency (2440MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1197.8	71.58	48.80	-22.78	74.00	25.20	100	113	Horizontal
2	1659.8	69.48	47.86	-21.62	74.00	26.14	100	143	Horizontal
3	2654.2	64.05	46.62	-17.43	74.00	27.38	200	283	Horizontal
4	4999.5	57.38	46.81	-10.57	74.00	27.19	100	181	Horizontal
5	10239	48.53	48.92	0.39	74.00	25.08	200	346	Horizontal
6	15604.5	44.51	52.94	8.43	74.00	21.06	100	140	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	1197.8	-22.78	61.25	38.47	54.00	15.53	100	113	Horizontal
2	15604.5	8.43	34.25	42.68	54.00	11.32	100	140	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	1200	70.75	47.97	-22.78	74.00	26.03	200	30	Vertical
2	1664.8	69.86	47.46	-22.40	74.00	26.54	100	193	Vertical
3	1997.4	67.31	46.37	-20.94	74.00	27.63	200	90	Vertical
4	6588	53.18	46.07	-7.11	74.00	27.93	100	360	Vertical
5	10555.5	46.58	48.73	2.15	74.00	25.27	200	16	Vertical
6	17890.5	44.29	50.33	6.04	74.00	23.67	200	16	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	17890.5	6.04	33.65	39.69	54.00	14.31	200	16	Vertical

Mode: DH5
Highest Frequency (2480MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1195	70.90	48.13	-22.77	74.00	25.87	200	273	Horizontal
2	1663.4	69.90	48.29	-21.61	74.00	25.71	100	144	Horizontal
3	2537.2	63.09	46.70	-16.39	74.00	27.30	100	32	Horizontal
4	4999.5	58.14	47.57	-10.57	74.00	26.43	100	181	Horizontal
5	13105.5	45.48	50.58	5.10	74.00	23.42	200	45	Horizontal
6	15622.5	43.83	52.07	8.24	74.00	21.93	200	177	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	15622.5	8.24	34.58	42.82	54.00	11.18	200	177	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1199.8	73.68	50.90	-22.78	74.00	23.10	200	344	Vertical
2	1662	69.70	47.31	-22.39	74.00	26.69	100	186	Vertical
3	2665	65.69	48.17	-17.52	74.00	25.83	100	33	Vertical
4	4999.5	63.14	52.37	-10.77	74.00	21.63	200	157	Vertical
5	10500	47.80	49.63	1.83	74.00	24.37	200	226	Vertical
6	13839	45.34	51.65	6.31	74.00	22.35	200	318	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	1199.8	-22.78	60.33	37.55	54.00	16.45	200	344	Vertical
2	5000.0065	-10.77	60.83	50.06	54.00	3.94	147	162.1	Vertical
3	13839	6.31	34.21	40.52	54.00	13.48	200	318	Vertical

Mode: 2DH5
Lowest Frequency (2402MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1162.8	69.01	46.31	-22.70	74.00	27.69	100	147	Horizontal
2	1664	68.44	46.83	-21.61	74.00	27.17	200	86	Horizontal
3	2315.6	64.81	47.29	-17.52	74.00	26.71	100	137	Horizontal
4	2536.8	62.35	45.98	-16.37	74.00	28.02	200	35	Horizontal
5	4999.5	59.52	48.95	-10.57	74.00	25.05	100	179	Horizontal
6	15760.5	45.35	51.97	6.62	74.00	22.03	100	280	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	4999.5	-10.57	55.27	44.70	54.00	9.30	100	179	Horizontal
2	15760.5	6.62	34.22	40.84	54.00	13.16	100	280	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	1197.8	73.24	50.41	-22.83	74.00	23.59	200	16	Vertical
2	1992.4	68.75	47.83	-20.92	74.00	26.17	200	136	Vertical
3	3333	63.89	48.21	-15.68	74.00	25.79	100	134	Vertical
4	4999.5	63.70	52.93	-10.77	74.00	21.07	200	163	Vertical
5	9199.5	49.57	49.48	-0.09	74.00	24.52	100	344	Vertical
6	15066	44.59	51.39	6.80	74.00	22.61	100	134	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	1197.8	-22.83	60.25	37.42	54.00	16.58	200	16	Vertical
2	3333	-15.68	55.27	39.59	54.00	14.41	100	134	Vertical
3	5000.1515	-10.77	60.79	50.02	54.00	3.98	158	165.2	Vertical
4	15066	6.80	34.58	41.38	54.00	12.62	100	134	Vertical

Mode: 2DH5
Middle Frequency (2440MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1194.2	69.07	46.30	-22.77	74.00	27.70	100	127	Horizontal
2	1666	69.40	47.79	-21.61	74.00	26.21	100	148	Horizontal
3	2537	62.79	46.41	-16.38	74.00	27.59	100	25	Horizontal
4	4999.5	57.93	47.36	-10.57	74.00	26.64	100	181	Horizontal
5	9201	48.29	47.99	-0.30	74.00	26.01	200	182	Horizontal
6	15610.5	43.79	52.16	8.37	74.00	21.84	100	48	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	15610.5	8.37	34.28	42.65	54.00	11.35	100	48	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1199.2	74.39	51.59	-22.80	74.00	22.41	200	16	Vertical
2	1665	69.24	46.84	-22.40	74.00	27.16	100	123	Vertical
3	2002.4	66.59	45.69	-20.90	74.00	28.31	200	147	Vertical
4	2654.2	65.50	48.00	-17.50	74.00	26.00	100	26	Vertical
5	4999.5	64.46	53.69	-10.77	74.00	20.31	100	177	Vertical
6	15609	44.65	51.90	7.25	74.00	22.10	100	136	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	1199.165	-22.80	60.21	37.41	54.00	16.59	160	17	Vertical
2	5000.0785	-10.77	61.04	50.27	54.00	3.73	134	172.7	Vertical
3	15609	7.25	34.25	41.50	54.00	12.50	100	136	Vertical

Mode: 2DH5
Highest Frequency (2480MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1195.6	69.75	46.98	-22.77	74.00	27.02	200	289	Horizontal
2	1662.4	70.33	48.71	-21.62	74.00	25.29	200	85	Horizontal
3	2537.2	62.68	46.29	-16.39	74.00	27.71	100	66	Horizontal
4	4999.5	58.69	48.12	-10.57	74.00	25.88	100	183	Horizontal
5	10557	48.15	49.40	1.25	74.00	24.60	200	62	Horizontal
6	15619.5	43.90	52.17	8.27	74.00	21.83	200	103	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	1662.4	-21.62	60.25	38.63	54.00	15.37	200	85	Horizontal
2	4999.5	-10.57	55.39	44.82	54.00	9.18	100	183	Horizontal
3	15619.5	8.27	34.57	42.84	54.00	11.16	200	103	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	1197	72.11	49.26	-22.85	74.00	24.74	100	188	Vertical
2	1987	69.53	48.62	-20.91	74.00	25.38	200	109	Vertical
3	2658.4	63.26	45.75	-17.51	74.00	28.25	100	128	Vertical
4	3319.5	63.24	47.36	-15.88	74.00	26.64	100	132	Vertical
5	4999.5	63.94	53.17	-10.77	74.00	20.83	100	172	Vertical
6	15057	45.79	52.38	6.59	74.00	21.62	200	37	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	1197	-22.85	62.25	39.40	54.00	14.60	100	188	Vertical
2	5000.0065	-10.77	59.36	48.59	54.00	5.41	134	175	Vertical
3	15057	6.59	34.57	41.16	54.00	12.84	200	37	Vertical

Mode: 3DH5
Lowest Frequency (2402MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1194.4	70.60	47.83	-22.77	74.00	26.17	100	187	Horizontal
2	1662	69.84	48.22	-21.62	74.00	25.78	200	85	Horizontal
3	2498.2	61.87	46.82	-15.05	74.00	27.18	200	35	Horizontal
4	4999.5	58.49	47.92	-10.57	74.00	26.08	100	182	Horizontal
5	9973.5	50.86	50.31	-0.55	74.00	23.69	200	198	Horizontal
6	15622.5	43.88	52.12	8.24	74.00	21.88	100	293	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	1662	-21.62	61.24	39.62	54.00	14.38	200	85	Horizontal
2	15622.5	8.24	35.24	43.48	54.00	10.52	100	293	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	1195.4	72.33	49.45	-22.88	74.00	24.55	100	175	Vertical
2	1664	69.60	47.20	-22.40	74.00	26.80	100	186	Vertical
3	2995.6	62.98	46.82	-16.16	74.00	27.18	200	96	Vertical
4	4999.5	63.89	53.12	-10.77	74.00	20.88	100	173	Vertical
5	8766	50.69	48.98	-1.71	74.00	25.02	200	284	Vertical
6	15595.5	44.91	52.22	7.31	74.00	21.78	100	335	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	1195.4	-22.88	61.24	38.36	54.00	15.64	100	175	Vertical
2	5000.0065	-10.77	59.39	48.62	54.00	5.38	134	175	Vertical
3	15595.5	7.31	34.57	41.88	54.00	12.12	100	335	Vertical

Mode: 3DH5
Middle Frequency (2440MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1162.2	68.84	46.15	-22.69	74.00	27.85	100	157	Horizontal
2	1666	69.93	48.32	-21.61	74.00	25.68	200	87	Horizontal
3	2315.2	64.03	46.52	-17.51	74.00	27.48	100	348	Horizontal
4	4999.5	61.51	50.94	-10.57	74.00	23.06	100	180	Horizontal
5	6000	56.66	48.35	-8.31	74.00	25.65	200	235	Horizontal
6	15604.5	43.88	52.31	8.43	74.00	21.69	200	22	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	1666	-21.61	61.24	39.63	54.00	14.37	200	87	Horizontal
2	5000.2235	-10.57	56.90	46.33	54.00	7.67	124	182.5	Horizontal
3	15604.5	8.43	34.25	42.68	54.00	11.32	200	22	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1199.6	73.37	50.58	-22.79	74.00	23.42	200	356	Vertical
2	1993.4	69.55	48.62	-20.93	74.00	25.38	200	124	Vertical
3	3327	62.68	46.90	-15.78	74.00	27.10	100	134	Vertical
4	4999.5	64.20	53.43	-10.77	74.00	20.57	100	172	Vertical
5	10536	47.79	49.87	2.08	74.00	24.13	200	104	Vertical
6	15598.5	44.11	51.47	7.36	74.00	22.53	200	4	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	1199.6	-22.79	62.54	39.75	54.00	14.25	200	356	Vertical
2	5000.0065	-10.77	60.61	49.84	54.00	4.16	129	173.4	Vertical
3	15598.5	7.36	34.51	41.87	54.00	12.13	200	4	Vertical

Mode: 3DH5
Highest Frequency (2480MHz) Date: 2023-05-19
Environment: 21.5℃;Humi:65%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Zhang Qiang

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1197.6	72.18	49.40	-22.78	74.00	24.60	200	279	Horizontal
2	1660	70.25	48.63	-21.62	74.00	25.37	100	144	Horizontal
3	2577	64.02	46.79	-17.23	74.00	27.21	100	27	Horizontal
4	4999.5	58.72	48.15	-10.57	74.00	25.85	100	177	Horizontal
5	13849.5	45.70	51.89	6.19	74.00	22.11	200	26	Horizontal
6	15669	45.18	52.74	7.56	74.00	21.26	100	348	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	1197.6	-22.78	60.24	37.46	54.00	16.54	200	279	Horizontal
2	1660	-21.62	61.27	39.65	54.00	14.35	100	144	Horizontal
3	15669	7.56	34.58	42.14	54.00	11.86	100	348	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	1198.8	72.40	49.59	-22.81	74.00	24.41	100	21	Vertical
2	1660.8	69.70	47.32	-22.38	74.00	26.68	100	122	Vertical
3	2659	62.78	45.27	-17.51	74.00	28.73	100	324	Vertical
4	4999.5	62.69	51.92	-10.77	74.00	22.08	200	177	Vertical
5	10440	48.42	50.29	1.87	74.00	23.71	200	96	Vertical
6	15603	44.69	52.03	7.34	74.00	21.97	100	275	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	1198.8	-22.81	61.24	38.43	54.00	15.57	100	21	Vertical
2	5000.0785	-10.77	60.85	50.08	54.00	3.92	146	162.3	Vertical
3	15603	7.34	35.25	42.59	54.00	11.41	100	275	Vertical

Remark:

1 Measuring frequencies from 1 GHz to 18GHz harmonic of highest fundamental frequency.

2 Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

3 Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.

4 Spectrum setting:
a. Peak Setting 1GHz–26.5GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = auto.
b. AV Setting 1GHz–26.5GHz, Set RBW=1MHz, if the EUT is configured to transmit with duty cycle ≥98%，set VBW≤RBW/100 (i.e.,10kHz) but not less than 10 Hz. if the EUT duty cycle is ＜98%，set VBW≥1/T, Where T is defined in section 2.8.

Test result: The unit does meet the requirements.

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

18GHz to 26.5GHz

Pre-scan all modes and recorded the worst case results in this report (2DH5)**.** The peak test results is less than the average limits, so the average test results had not reported.

Mode: 2DH5
Lowest Frequency (2402MHz) Date: 2023-05-18
Environment: 21.6℃;Humi:64%RH /101.0kPa Test Voltage: DC 12.0V
Test Engineer: Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18555.475	54.34	36.86	-17.48	83.54	46.68	100	283	Horizontal
2	19371.05	53.73	36.84	-16.89	83.54	46.70	100	345	Horizontal
3	20839.85	54.38	38.07	-16.31	83.54	45.47	100	143	Horizontal
4	22807.175	50.93	36.16	-14.77	83.54	47.38	100	189	Horizontal
5	24359.275	50.07	35.81	-14.26	83.54	47.73	100	298	Horizontal
6	25183.35	48.33	34.39	-13.94	83.54	49.15	100	205	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	18804.1	54.74	37.58	-17.16	83.54	45.96	100	280	Vertical
2	19290.3	54.81	37.55	-17.26	83.54	45.99	100	248	Vertical
3	20839.85	55.82	39.60	-16.22	83.54	43.94	100	343	Vertical
4	22624.85	51.46	36.30	-15.16	83.54	47.24	100	16	Vertical
5	23837.8	49.60	35.00	-14.60	83.54	48.54	100	32	Vertical
6	24733.7	48.48	34.48	-14.00	83.54	49.06	100	280	Vertical

Note: The pre measurement result margin is greater than 20dB, and final measurement is not required

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

Mode: 2DH5
Middle Frequency (2441MHz) Date: 2023-05-18
Environment: 21.6℃;Humi:64%RH /101.0kPa Test Voltage: DC 12.0V
Test Engineer: Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19219.325	54.56	37.65	-16.91	83.54	45.89	100	282	Horizontal
2	19676.625	54.22	37.46	-16.76	83.54	46.08	100	346	Horizontal
3	20839.85	52.84	36.53	-16.31	83.54	47.01	100	205	Horizontal
4	21540.25	52.26	36.38	-15.88	83.54	47.16	100	282	Horizontal
5	22665.225	51.18	36.28	-14.90	83.54	47.26	100	346	Horizontal
6	24487.625	50.59	36.36	-14.23	83.54	47.18	100	174	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	19094.8	53.54	36.39	-17.15	83.54	47.15	100	18	Vertical
2	20031.075	53.11	36.34	-16.77	83.54	47.20	100	158	Vertical
3	20839.85	54.98	38.76	-16.22	83.54	44.78	100	189	Vertical
4	21794.825	51.50	35.58	-15.92	83.54	47.96	100	220	Vertical
5	22797.4	50.64	35.55	-15.09	83.54	47.99	100	250	Vertical
6	24589.625	49.29	35.15	-14.14	83.54	48.39	100	80	Vertical

Note: The pre measurement result margin is greater than 20dB, and final measurement is not required

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

Mode: 2DH5
Highest Frequency (2480MHz) Date: 2023-05-18
Environment: 21.6℃;Humi:64%RH /101.0kPa Test Voltage: DC 12.0V
Test Engineer: Zhang Zishan

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	19161.525	54.13	37.21	-16.92	83.54	46.33	100	189	Horizontal
2	20839.85	53.69	37.38	-16.31	83.54	46.16	100	0	Horizontal
3	22820.775	51.46	36.69	-14.77	83.54	46.85	100	204	Horizontal
4	23208.8	51.57	36.63	-14.94	83.54	46.91	100	236	Horizontal
5	25174.85	48.81	34.87	-13.94	83.54	48.67	100	221	Horizontal
6	25373.325	48.98	34.87	-14.11	83.54	48.67	100	344	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	18806.225	53.94	36.78	-17.16	83.54	46.76	100	78	Vertical
2	19467.1	53.66	36.57	-17.09	83.54	46.97	100	78	Vertical
3	20839.85	56.78	40.56	-16.22	83.54	42.98	100	16	Vertical
4	22662.25	51.00	35.84	-15.16	83.54	47.70	100	219	Vertical
5	24486.35	49.00	34.76	-14.24	83.54	48.78	100	109	Vertical
6	25033.325	48.35	34.38	-13.97	83.54	49.16	100	297	Vertical

Note: The pre measurement result margin is greater than 20dB, and final measurement is not required

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

14. RESTRICTED BANDS OF OPERATION

14.1 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)).

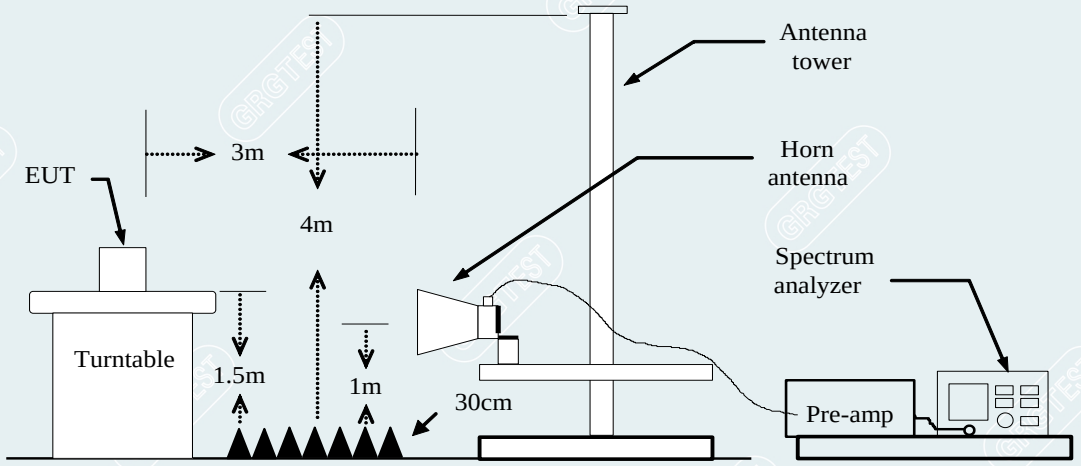
MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 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(μV/m)	Measurement distance(m)	Quasi-peak(dBμV/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

14.2 TEST PROCEDURES

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) PEAK: RBW=1MHz / VBW=1MHz / Sweep=AUTO.
   b) AVERAGE: RBW=1MHz / VBW=1/T / Sweep=AUTO.Where T is defined in section 2.8.
5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

14.3 TEST SETUP



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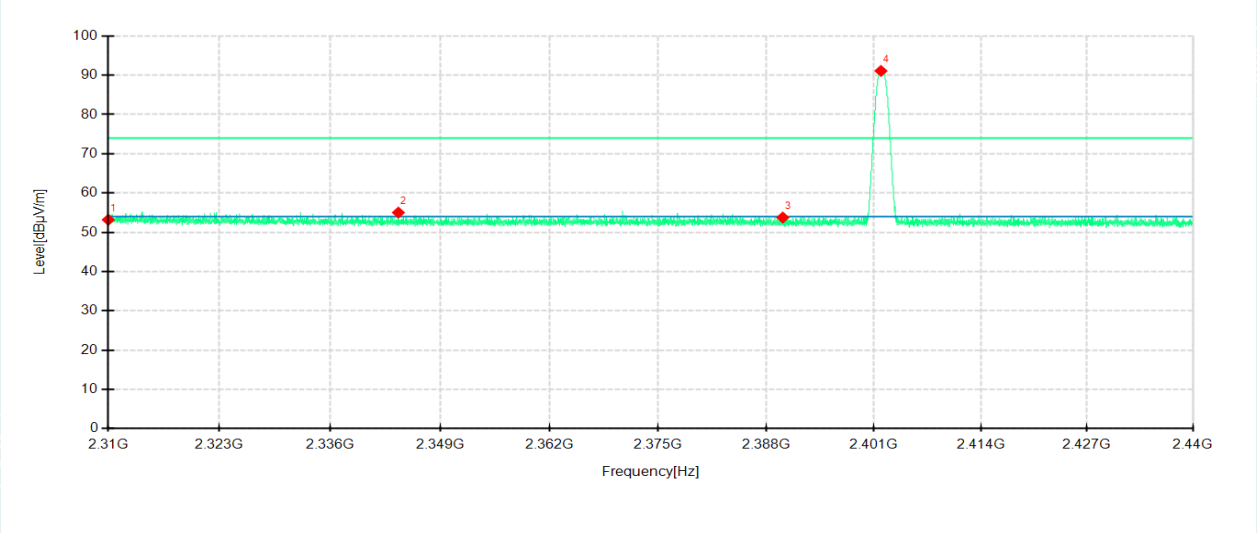
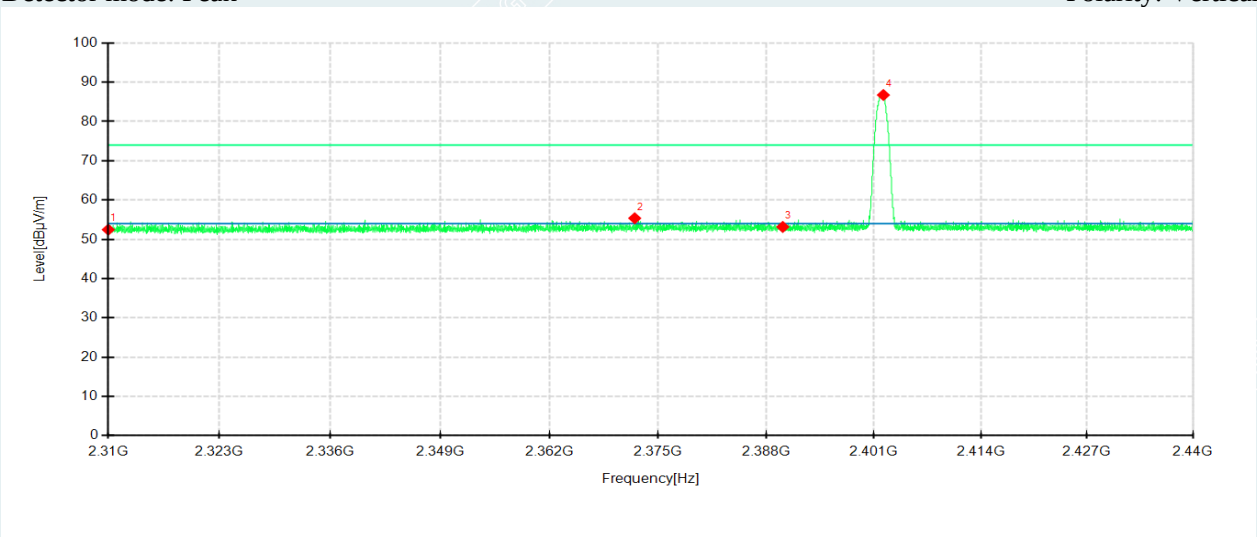
14.4 TEST RESULTS

DH5
Lowest Channel
Frequency 2402MHz
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V
Tested By: Zhang Qiang Date: 2023-05-27
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	43.43	53.20	9.77	74.00	20.80	200	154	Horizontal	/
2	2344.07625	45.90	55.03	9.13	74.00	18.97	100	19	Horizontal	/
3	2390	44.65	53.76	9.11	74.00	20.24	200	124	Horizontal	/
4	2401.8775	81.99	91.11	9.12	-	-	200	281	Horizontal	No limit
1	2310	43.39	52.46	9.07	74.00	21.54	100	341	Vertical	/
2	2372.205	46.02	55.37	9.35	74.00	18.63	200	146	Vertical	/
3	2390	43.63	53.16	9.53	74.00	20.84	200	96	Vertical	/
4	2402.17	77.13	86.75	9.62	-	-	100	281	Vertical	No limit

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

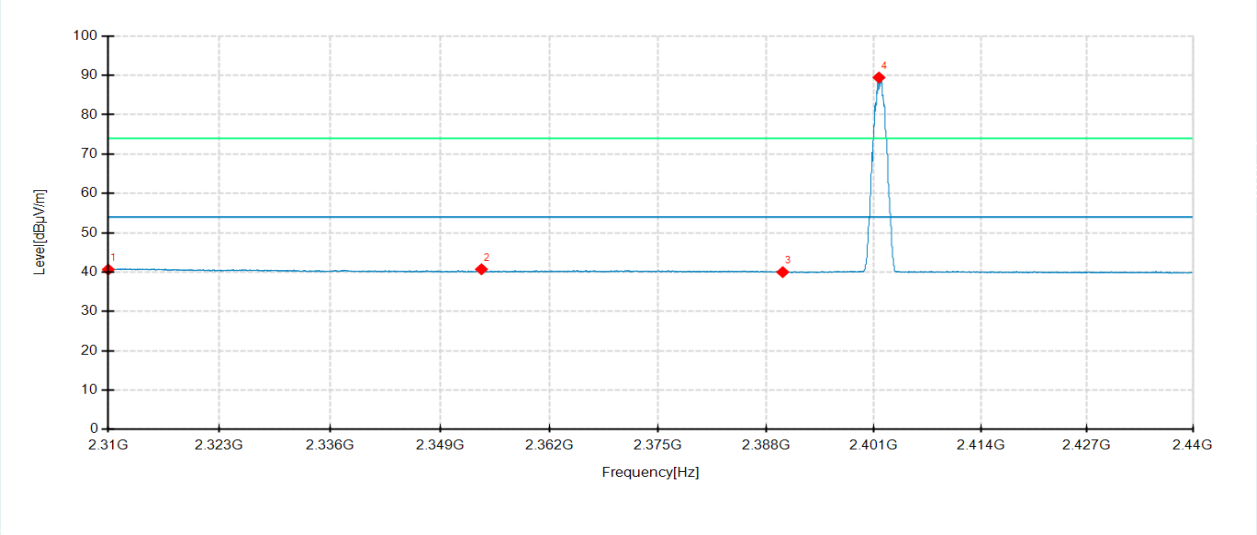
Lowest Channel

Frequency 2402MHz

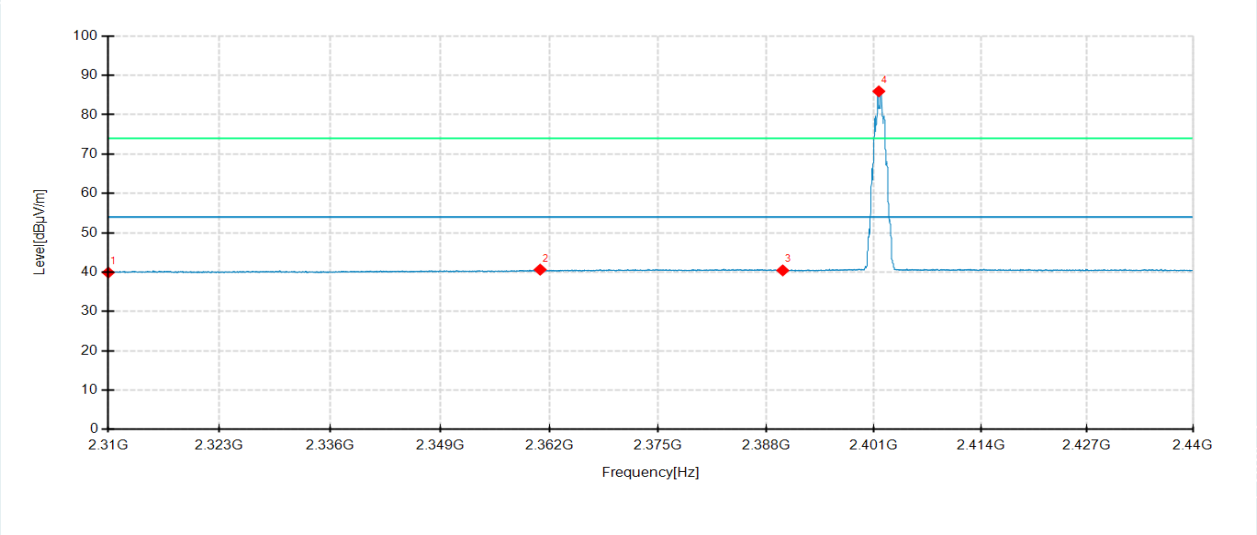
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

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	30.88	40.65	9.77	54.00	13.35	200	352	Horizontal	/
2	2353.92375	31.70	40.72	9.02	54.00	13.28	200	276	Horizontal	/
3	2390	30.89	40.00	9.11	54.00	14.00	200	276	Horizontal	/
4	2401.63375	80.34	89.46	9.12	-	-	200	276	Horizontal	No limit
1	2310	30.81	39.88	9.07	54.00	14.12	100	183	Vertical	/
2	2360.91125	31.39	40.62	9.23	54.00	13.38	200	325	Vertical	/
3	2390	30.90	40.43	9.53	54.00	13.57	100	55	Vertical	/
4	2401.6175	76.34	85.96	9.62	-	-	100	282	Vertical	No limit

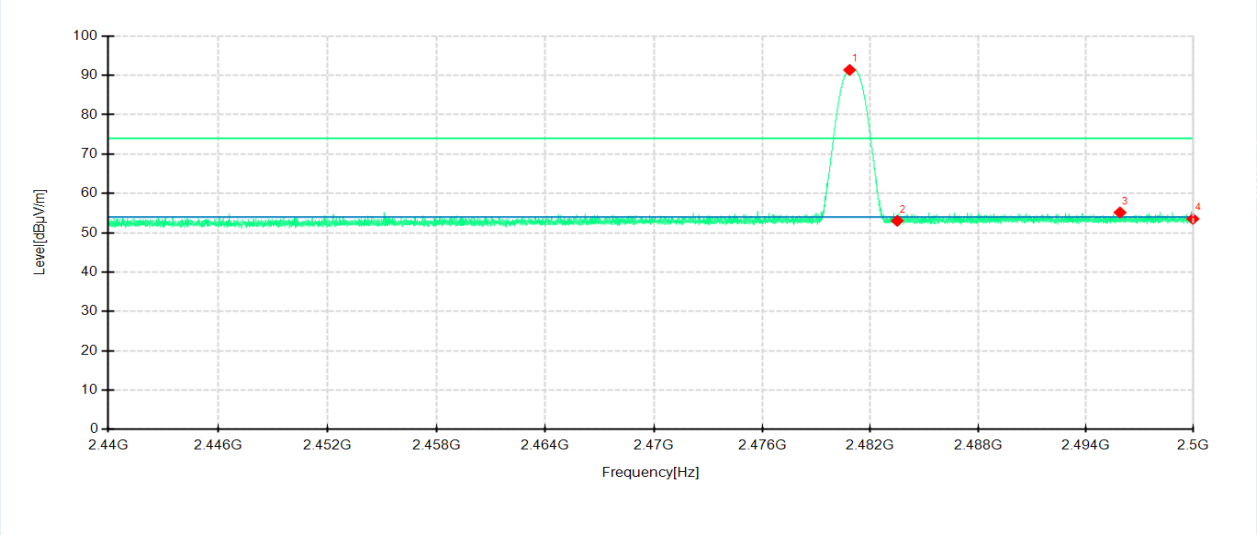
Highest Channel

Frequency 2480MHz

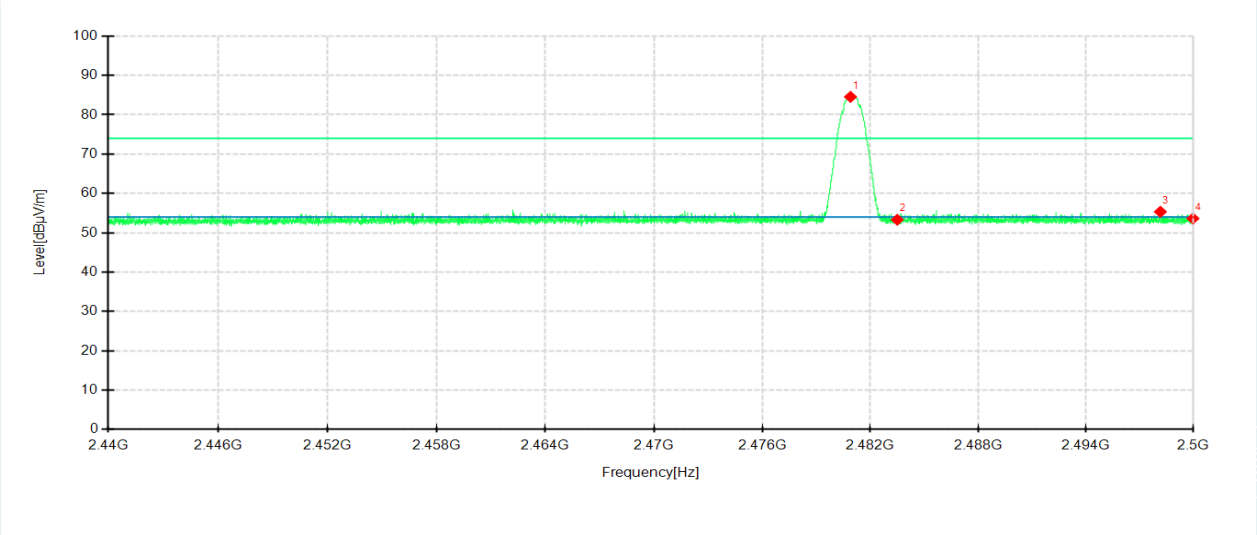
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

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	2480.8525	81.75	91.38	9.63	-	-	200	284	Horizontal	No limit
2	2483.5	43.35	53.03	9.68	74.00	20.97	200	35	Horizontal	/
3	2495.92	45.20	55.16	9.96	74.00	18.84	200	302	Horizontal	/
4	2500	43.48	53.53	10.05	74.00	20.47	100	118	Horizontal	/
1	2480.8975	74.81	84.54	9.73	-	-	100	162	Vertical	No limit
2	2483.5	43.56	53.31	9.75	74.00	20.69	200	216	Vertical	/
3	2498.1775	45.50	55.34	9.84	74.00	18.66	100	153	Vertical	/
4	2500	43.78	53.63	9.85	74.00	20.37	100	15	Vertical	/

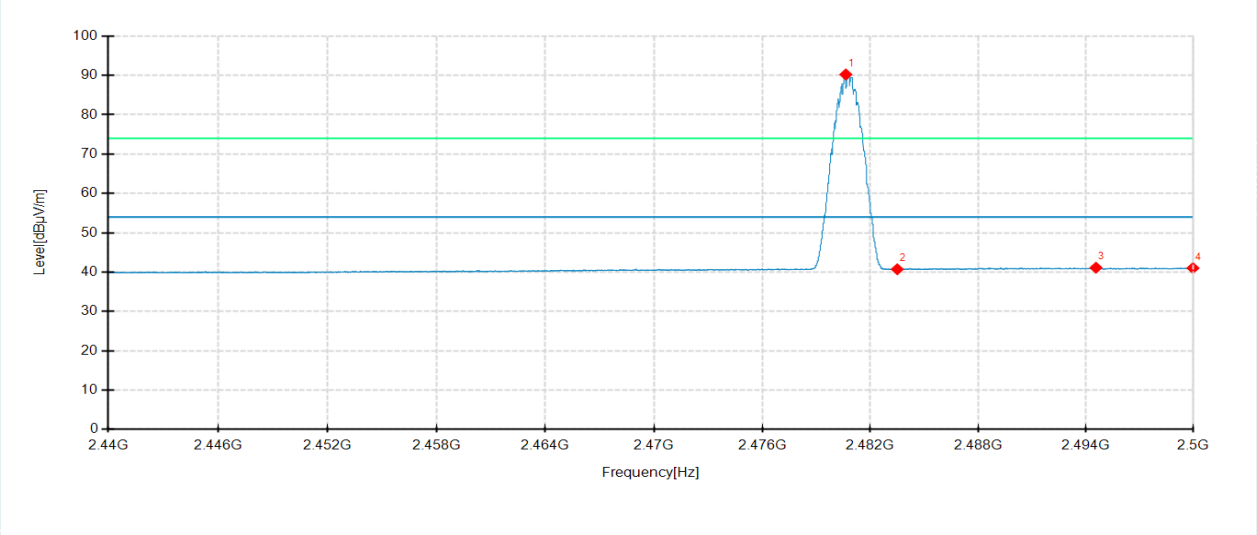
Highest Channel

Frequency 2480MHz

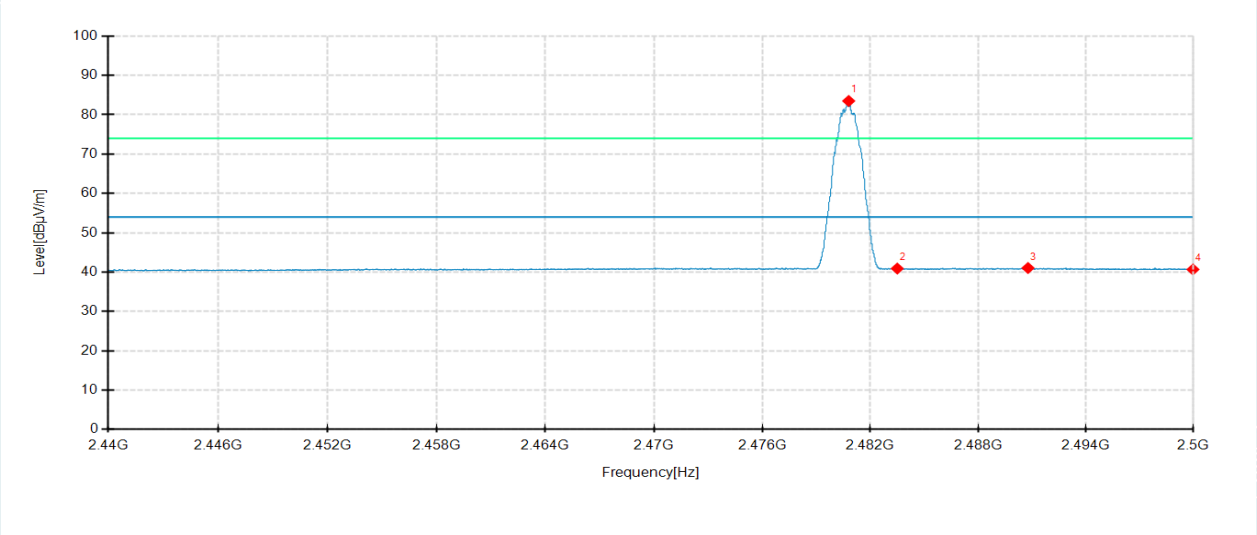
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

Detector mode: Average Polarity: Horizontal

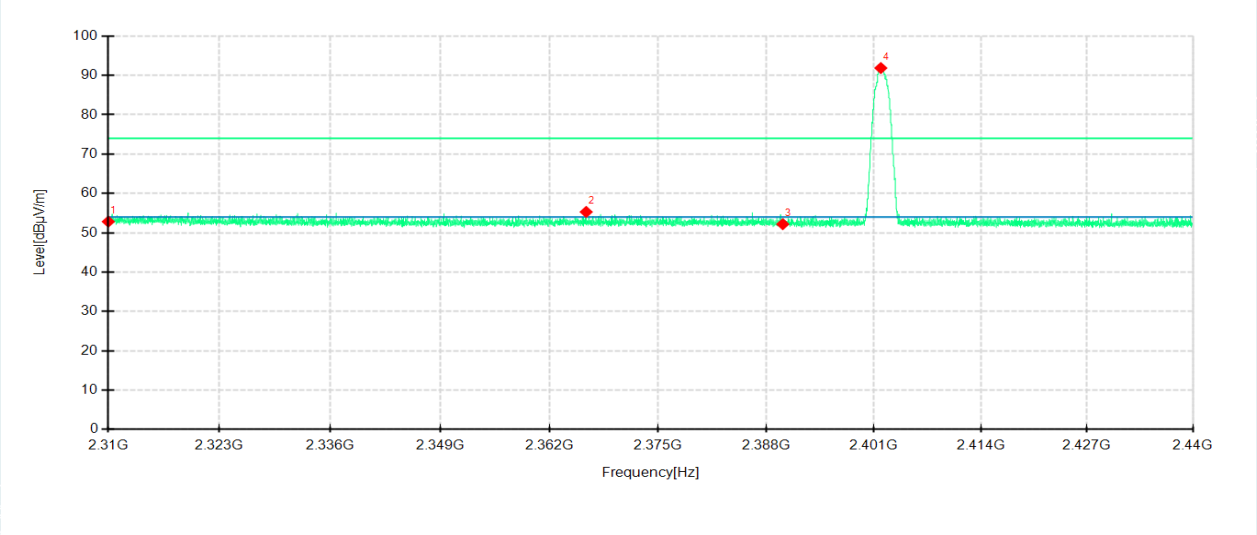


Detector mode: Average Polarity: Vertical

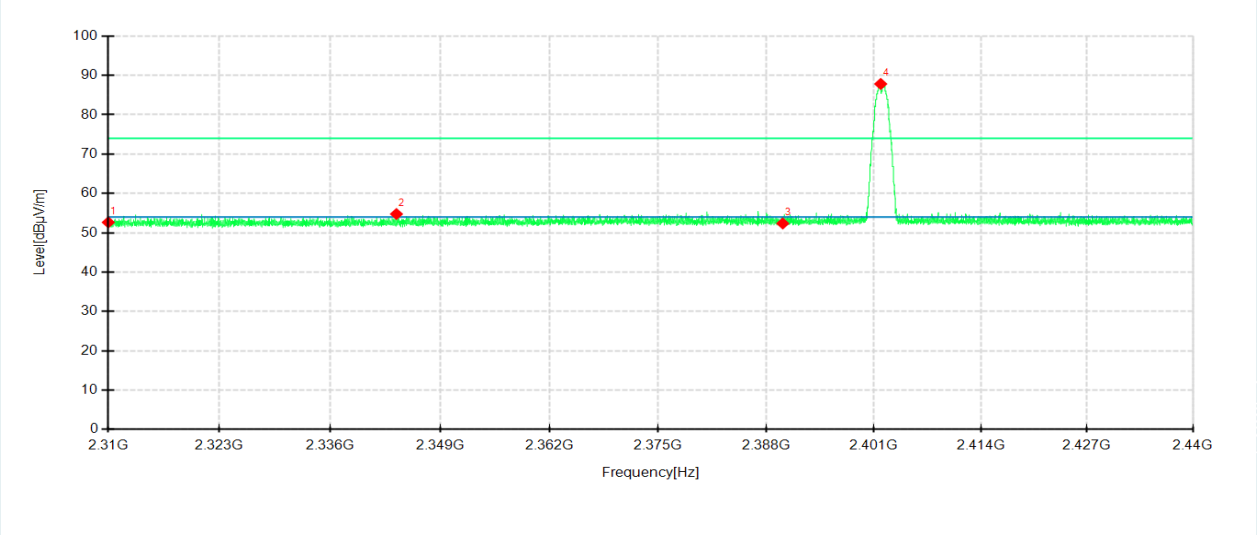


No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.6425	80.61	90.23	9.62	-	-	200	280	Horizontal	No limit
2	2483.5	31.04	40.72	9.68	54.00	13.28	100	316	Horizontal	/
3	2494.5775	31.19	41.12	9.93	54.00	12.88	200	153	Horizontal	/
4	2500	30.97	41.02	10.05	54.00	12.98	100	336	Horizontal	/
1	2480.8	73.77	83.50	9.73	-	-	100	162	Vertical	No limit
2	2483.5	31.16	40.91	9.75	54.00	13.09	200	345	Vertical	/
3	2490.7825	31.25	41.04	9.79	54.00	12.96	100	242	Vertical	/
4	2500	30.82	40.67	9.85	54.00	13.33	200	60	Vertical	/

2DH5
Lowest Channel
Frequency 2402MHz
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V
Tested By: Zhang Qiang Date: 2023-05-27
Detector mode: Peak Polarity: Horizontal

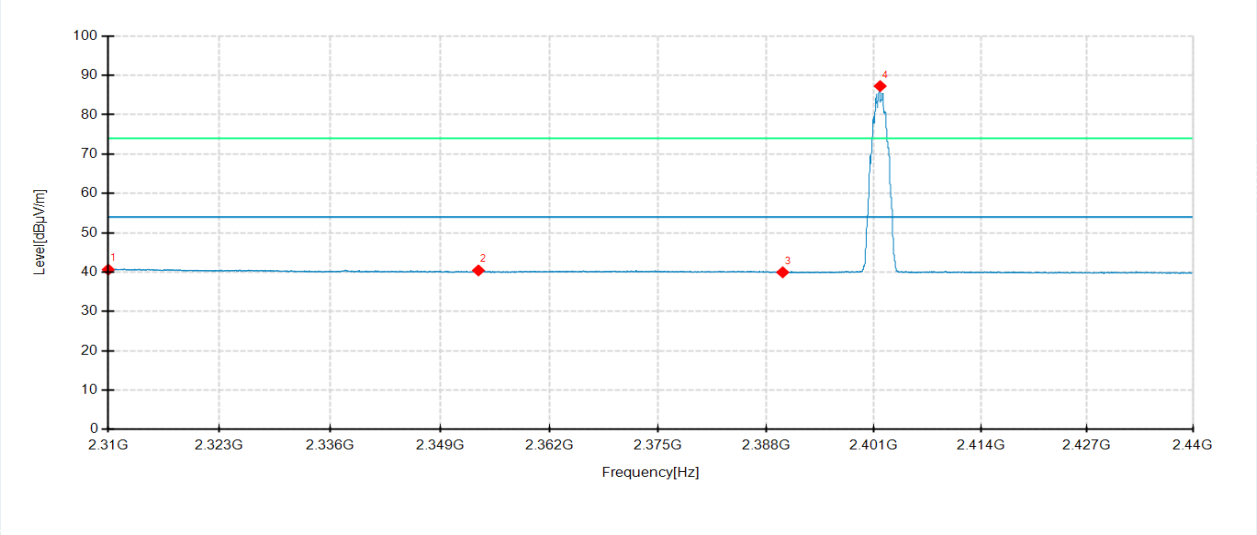


Detector mode: Peak Polarity: Vertical

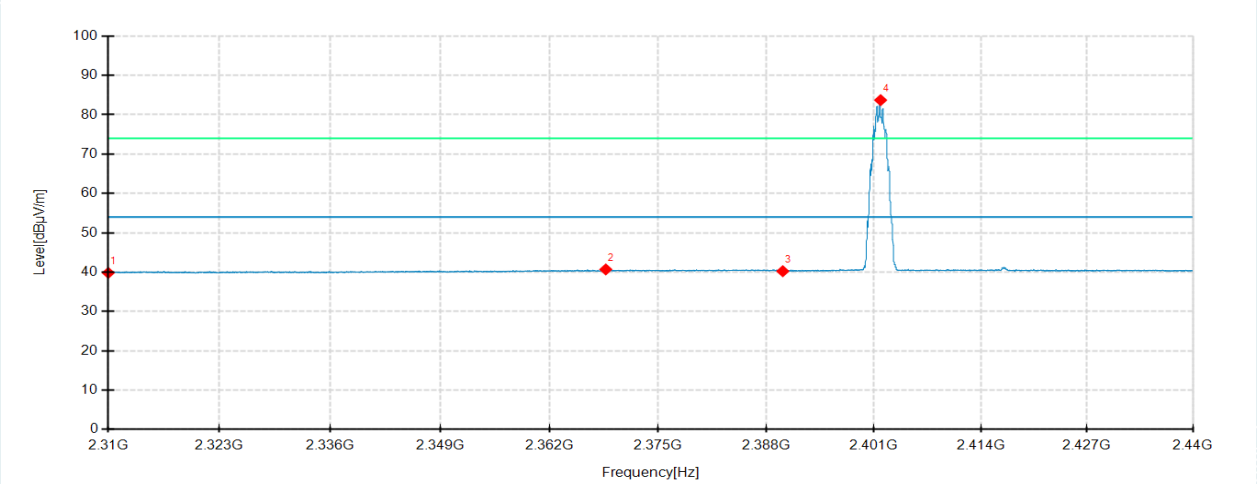


No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2310	43.06	52.83	9.77	74.00	21.17	100	20	Horizontal	/
2	2366.40375	46.25	55.30	9.05	74.00	18.70	200	65	Horizontal	/
3	2390	43.07	52.18	9.11	74.00	21.82	200	210	Horizontal	/
4	2401.86125	82.74	91.86	9.12	-	-	200	280	Horizontal	No limit
1	2310	43.58	52.65	9.07	74.00	21.35	100	184	Vertical	/
2	2343.84875	45.65	54.76	9.11	74.00	19.24	100	75	Vertical	/
3	2390	42.83	52.36	9.53	74.00	21.64	100	281	Vertical	/
4	2401.845	78.21	87.83	9.62	-	-	100	271	Vertical	No limit

Lowest Channel
Frequency 2402MHz
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V
Tested By: Zhang Qiang Date: 2023-05-27
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	30.86	40.63	9.77	54.00	13.37	200	55	Horizontal	/
2	2353.56625	31.40	40.43	9.03	54.00	13.57	200	270	Horizontal	/
3	2390	30.84	39.95	9.11	54.00	14.05	200	16	Horizontal	/
4	2401.78	78.16	87.28	9.12	-	-	200	278	Horizontal	No limit
1	2310	30.73	39.80	9.07	54.00	14.20	100	202	Vertical	/
2	2368.74375	31.37	40.68	9.31	54.00	13.32	200	40	Vertical	/
3	2390	30.70	40.23	9.53	54.00	13.77	100	25	Vertical	/
4	2401.82875	74.09	83.71	9.62	-	-	100	281	Vertical	No limit

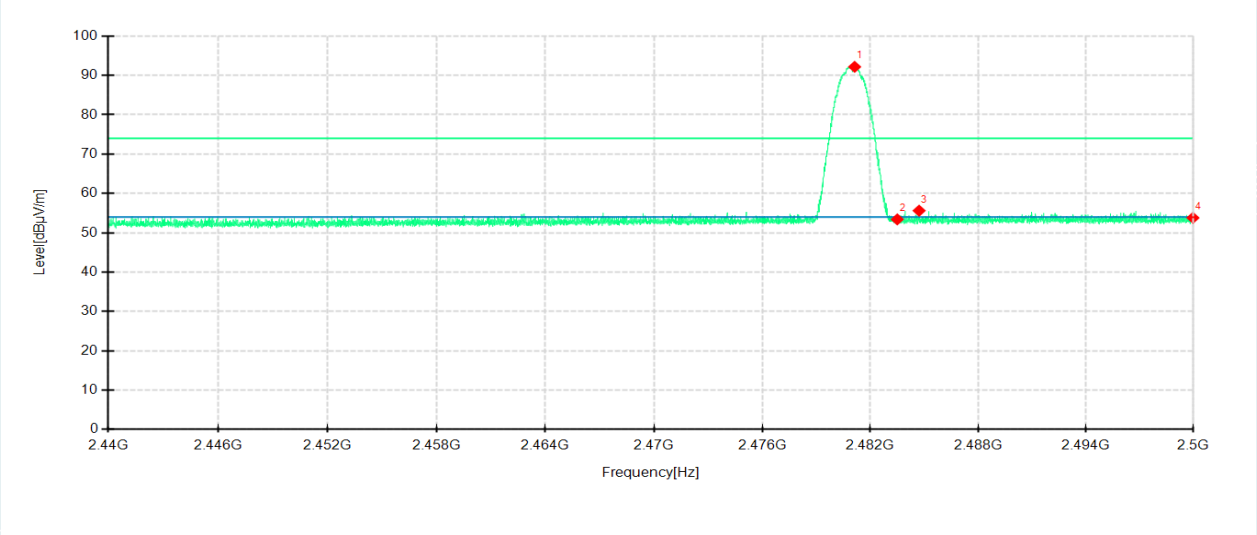
Highest Channel

Frequency 2480MHz

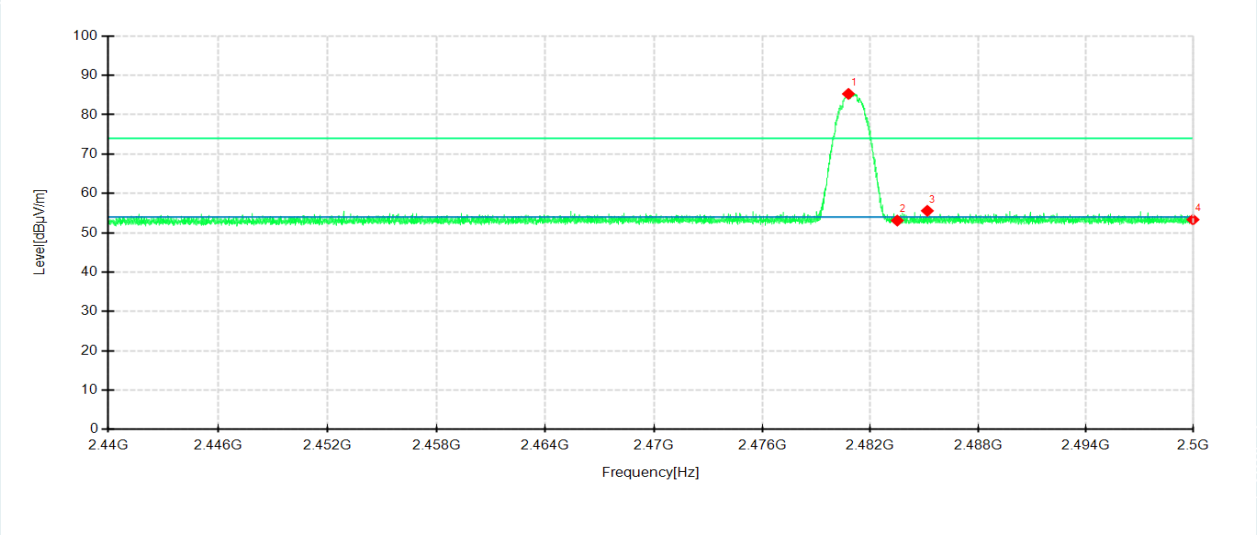
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

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	2481.13	82.55	92.18	9.63	-	-	200	281	Horizontal	No limit
2	2483.5	43.72	53.40	9.68	74.00	20.60	100	237	Horizontal	/
3	2484.715	45.91	55.62	9.71	74.00	18.38	200	16	Horizontal	/
4	2500	43.75	53.80	10.05	74.00	20.20	100	109	Horizontal	/
1	2480.785	75.57	85.30	9.73	-	-	100	163	Vertical	No limit
2	2483.5	43.35	53.10	9.75	74.00	20.90	100	309	Vertical	/
3	2485.1725	45.82	55.58	9.76	74.00	18.42	100	360	Vertical	/
4	2500	43.48	53.33	9.85	74.00	20.67	200	344	Vertical	/

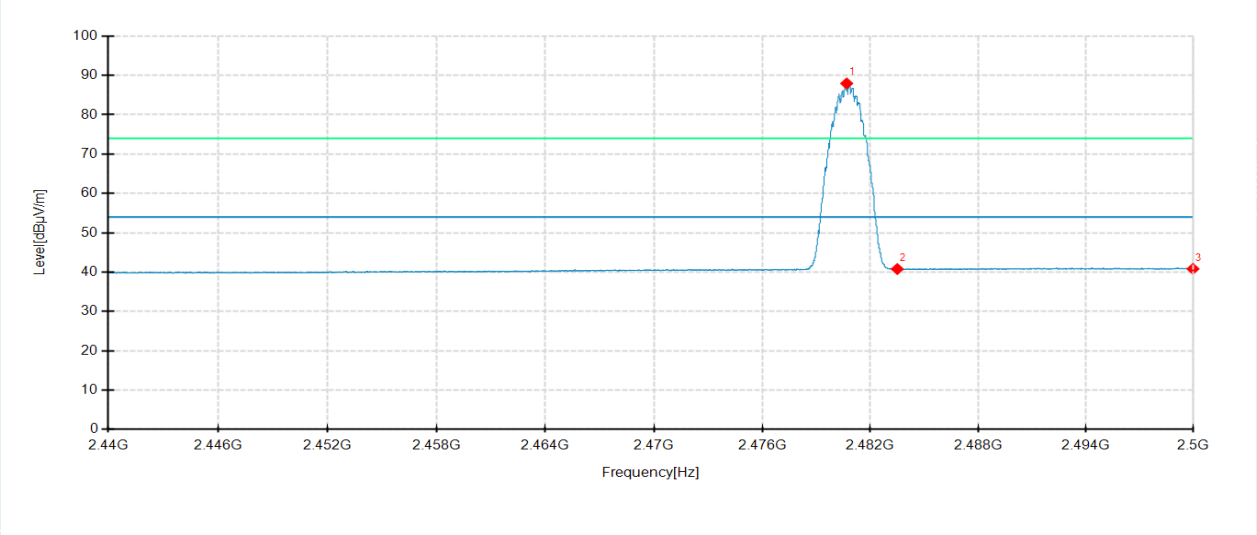
Highest Channel

Frequency 2480MHz

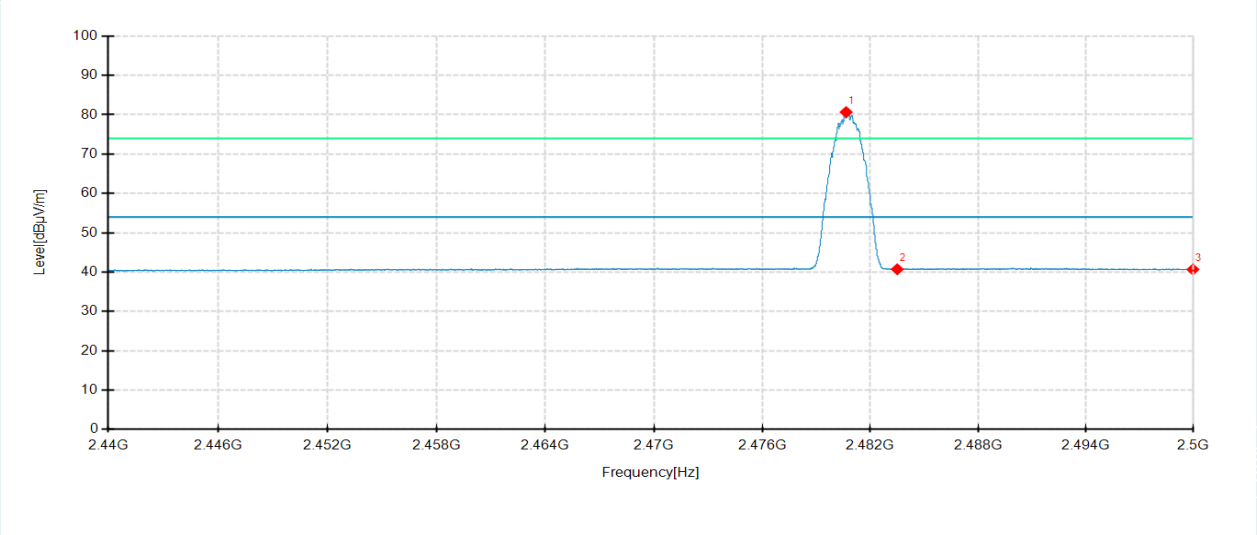
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

Detector mode: Average Polarity: Horizontal

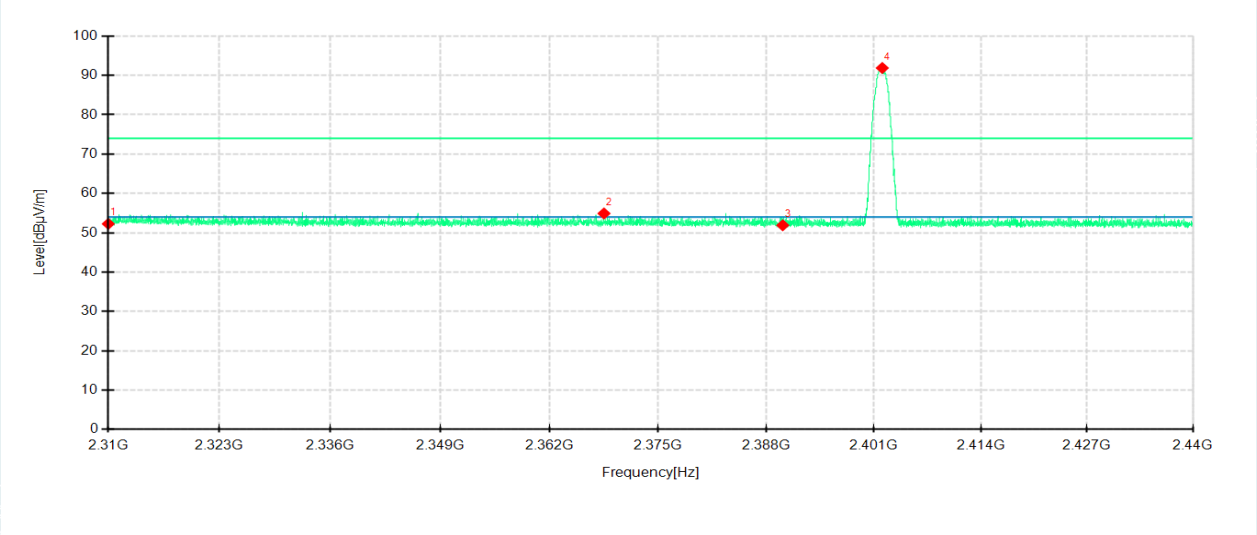


Detector mode: Average Polarity: Vertical

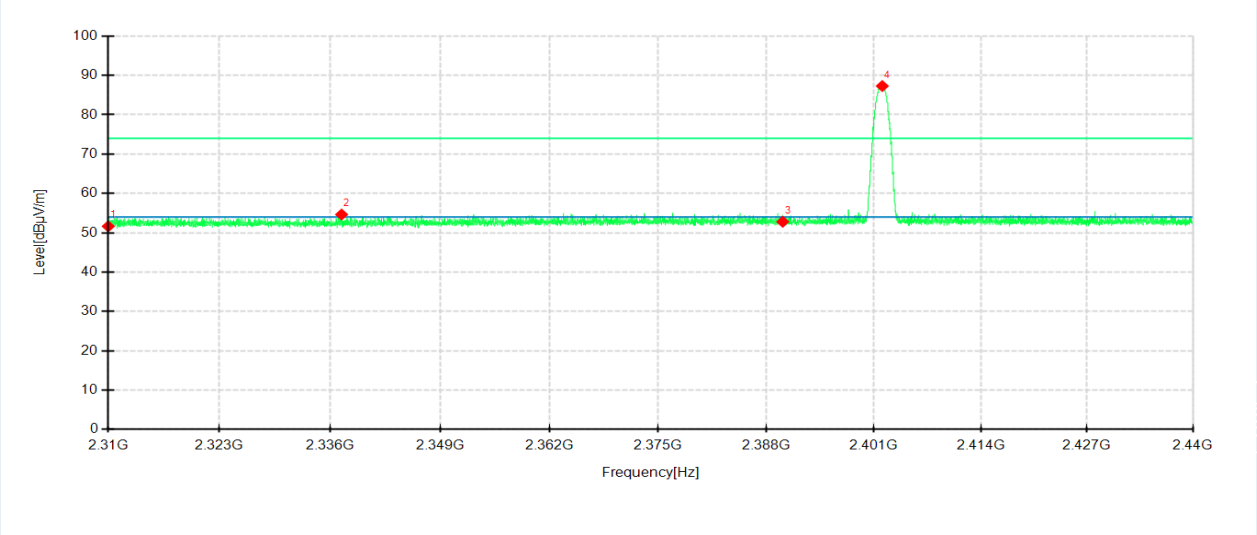


No.	Frequency MHz	Reading dBµV/m	Level dBµV/m	Factor dB	Limit dBuV/m	Margin dB	Height cm	Angle °	Pole	Remark
1	2480.6875	78.33	87.95	9.62	-	-	200	280	Horizontal	No limit
2	2483.5	31.10	40.78	9.68	54.00	13.22	200	212	Horizontal	/
3	2500	30.77	40.82	10.05	54.00	13.18	200	83	Horizontal	/
1	2480.6575	70.93	80.66	9.73	-	-	100	161	Vertical	No limit
2	2483.5	30.97	40.72	9.75	54.00	13.28	200	135	Vertical	/
3	2500	30.82	40.67	9.85	54.00	13.33	100	270	Vertical	/

3DH5
Lowest Channel
Frequency 2402MHz
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V
Tested By: Zhang Qiang Date: 2023-05-27
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	42.49	52.26	9.77	74.00	21.74	200	14	Horizontal	/
2	2368.5325	45.84	54.90	9.06	74.00	19.10	200	350	Horizontal	/
3	2390	42.79	51.90	9.11	74.00	22.10	200	104	Horizontal	/
4	2402.04	82.76	91.88	9.12	-	-	200	280	Horizontal	No limit
1	2310	42.57	51.64	9.07	74.00	22.36	100	260	Vertical	/
2	2337.365	45.54	54.64	9.10	74.00	19.36	100	291	Vertical	/
3	2390	43.27	52.80	9.53	74.00	21.20	200	119	Vertical	/
4	2402.04	77.67	87.29	9.62	-	-	100	281	Vertical	No limit

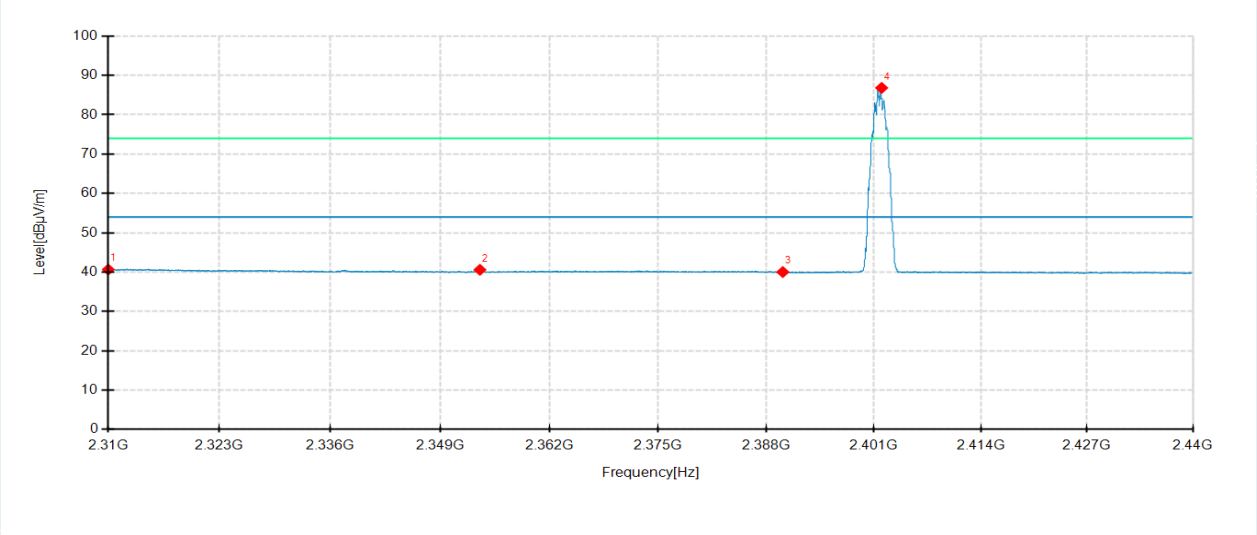
Lowest Channel

Frequency 2402MHz

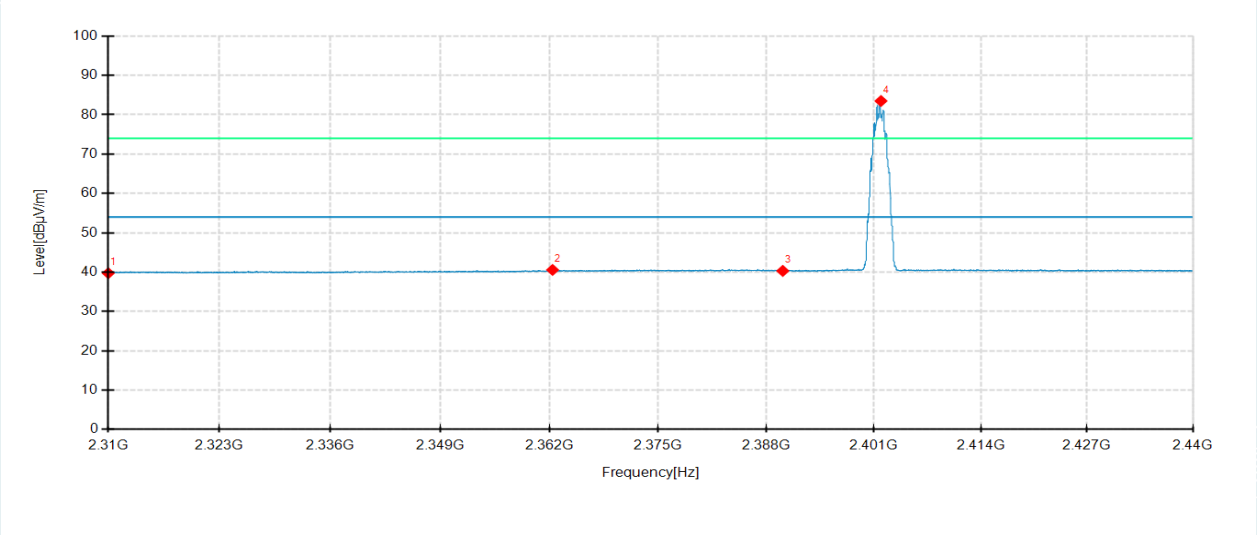
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

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	30.88	40.65	9.77	54.00	13.35	100	245	Horizontal	/
2	2353.745	31.55	40.58	9.03	54.00	13.42	200	272	Horizontal	/
3	2390	30.91	40.02	9.11	54.00	13.98	200	96	Horizontal	/
4	2401.95875	77.71	86.83	9.12	-	-	200	282	Horizontal	No limit
1	2310	30.66	39.73	9.07	54.00	14.27	200	28	Vertical	/
2	2362.39	31.31	40.56	9.25	54.00	13.44	100	144	Vertical	/
3	2390	30.77	40.30	9.53	54.00	13.70	100	114	Vertical	/
4	2401.8775	73.87	83.49	9.62	-	-	100	272	Vertical	No limit

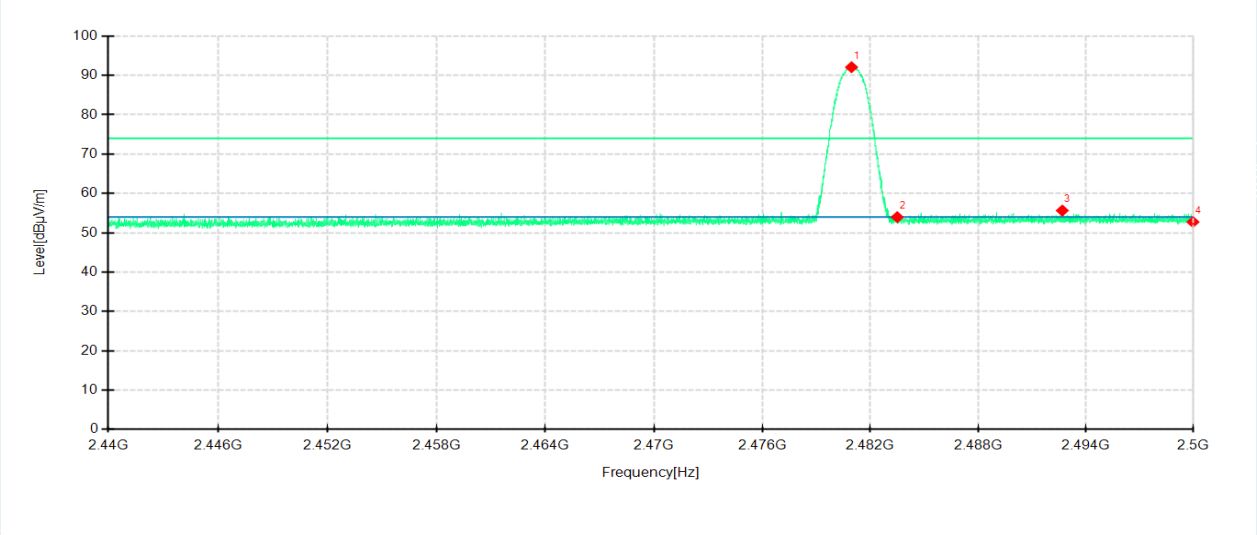
Highest Channel

Frequency 2480MHz

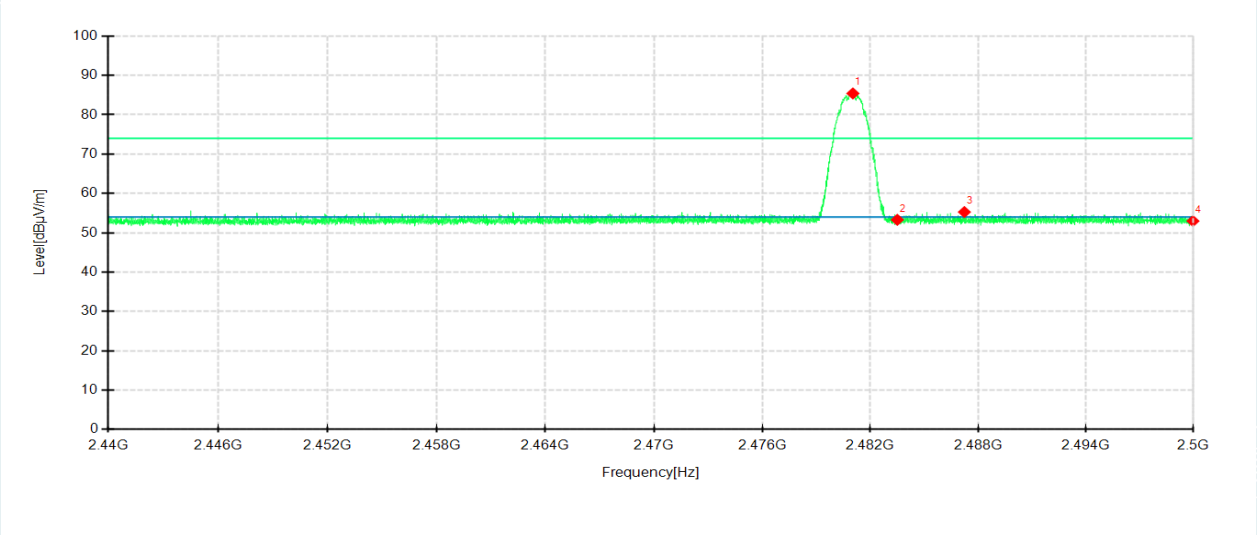
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

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	2480.9575	82.45	92.08	9.63	-	-	200	280	Horizontal	No limit
2	2483.5	44.29	53.97	9.68	74.00	20.03	200	104	Horizontal	/
3	2492.695	45.76	55.65	9.89	74.00	18.35	200	174	Horizontal	/
4	2500	42.68	52.73	10.05	74.00	21.27	200	310	Horizontal	/
1	2481.0325	75.68	85.41	9.73	-	-	100	163	Vertical	No limit
2	2483.5	43.54	53.29	9.75	74.00	20.71	200	228	Vertical	/
3	2487.235	45.50	55.27	9.77	74.00	18.73	200	22	Vertical	/
4	2500	43.13	52.98	9.85	74.00	21.02	200	139	Vertical	/

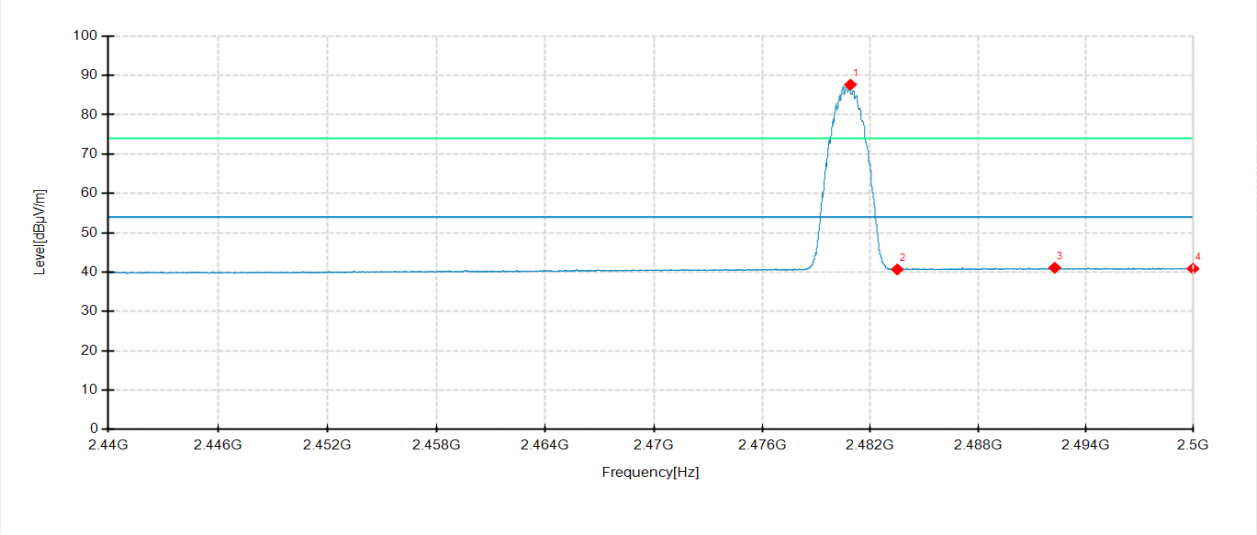
Highest Channel

Frequency 2480MHz

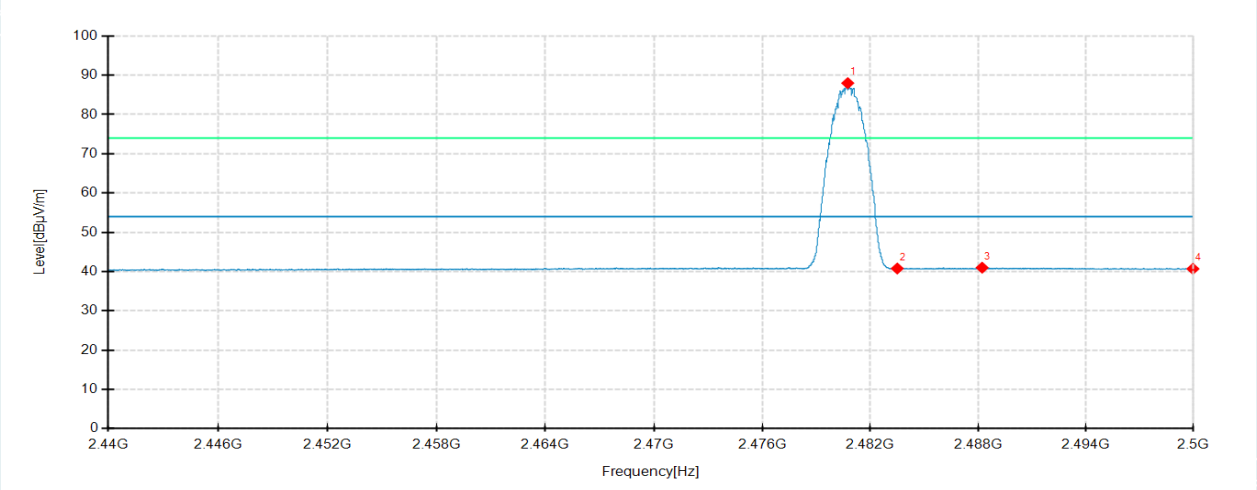
Environment: 22.6℃/65%RH/101.0kPa Test Voltage: DC 12.0V

Tested By: Zhang Qiang Date: 2023-05-27

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	2480.8975	78.01	87.64	9.63	-	-	200	281	Horizontal	No limit
2	2483.5	31.00	40.68	9.68	54.00	13.32	200	300	Horizontal	/
3	2492.275	31.23	41.11	9.88	54.00	12.89	200	104	Horizontal	/
4	2500	30.82	40.87	10.05	54.00	13.13	200	115	Horizontal	/
1	2480.6575	71.43	81.16	9.73	-	-	100	161	Vertical	No limit
2	2483.5	30.97	40.72	9.75	54.00	13.21	100	324	Vertical	/
3	2488.225	31.09	40.87	9.78	54.00	13.00	100	283	Vertical	/
4	2500	30.82	40.67	9.85	54.00	13.30	100	265	Vertical	/

Remark:

1) 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 attached document E20230512370501-8-Test photo.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E20230512370501-9-EUT photo.

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