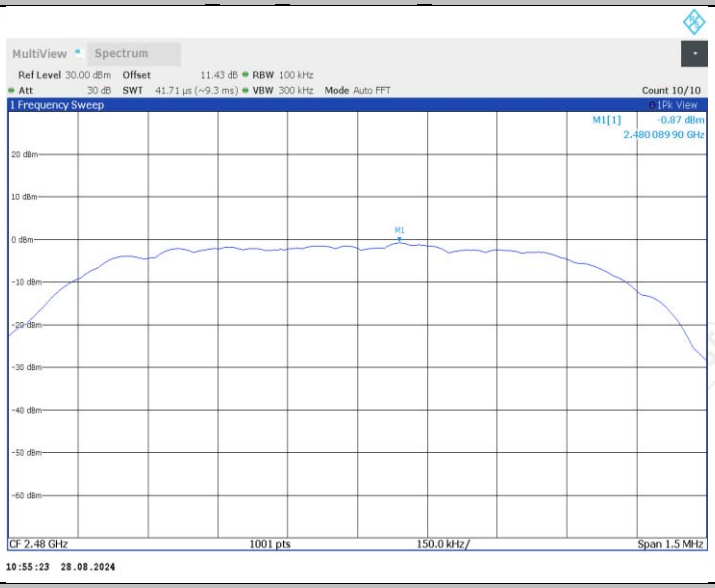
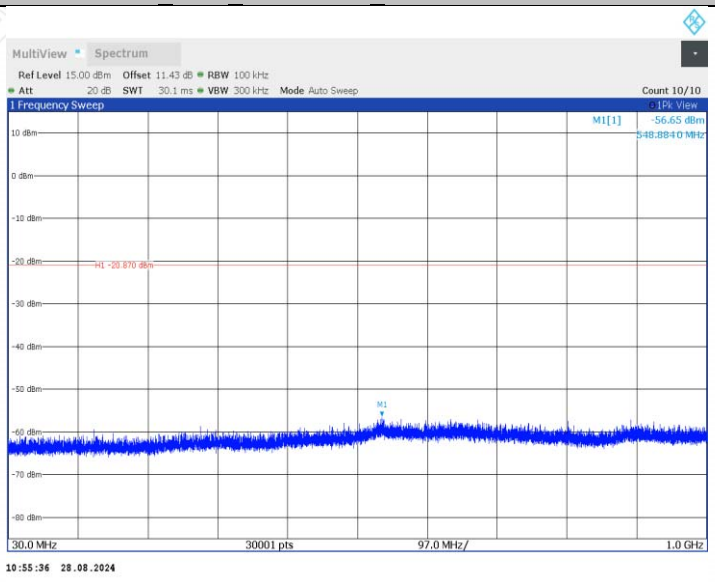
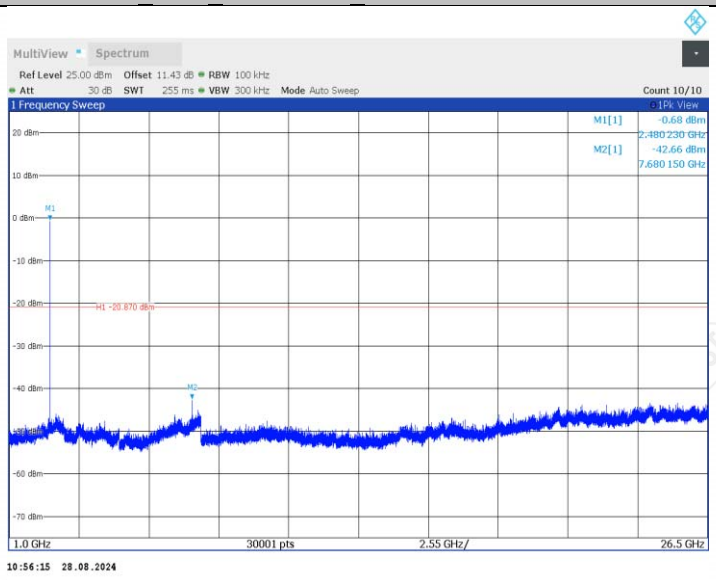
3DH5_Ant1_2480 MHz _0~Reference

3DH5_Ant1_2480 MHz _30 MHz ~1000 MHz


3DH5_Ant1_2480 MHz _1000 MHz ~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.

--- 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 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), 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 10 Hz. 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

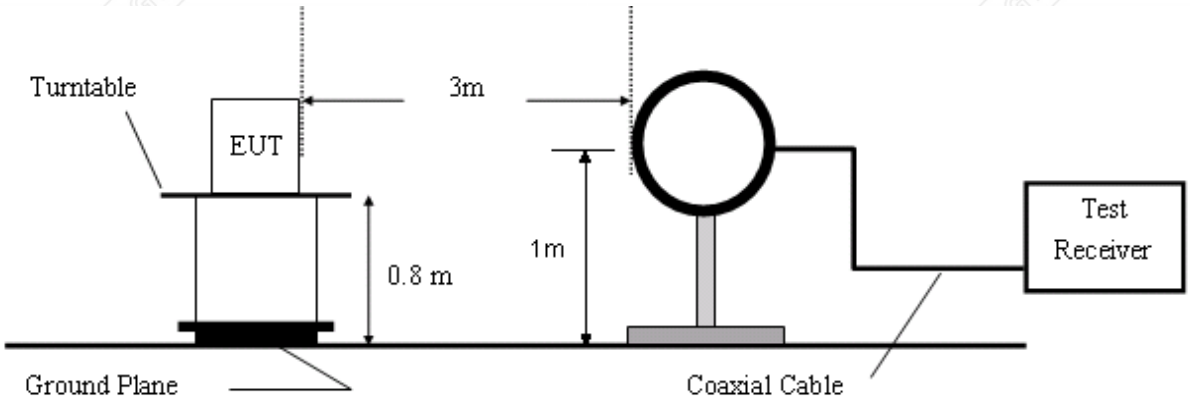

Figure 1. 9kHz to 30MHz radiated emissions test configuration

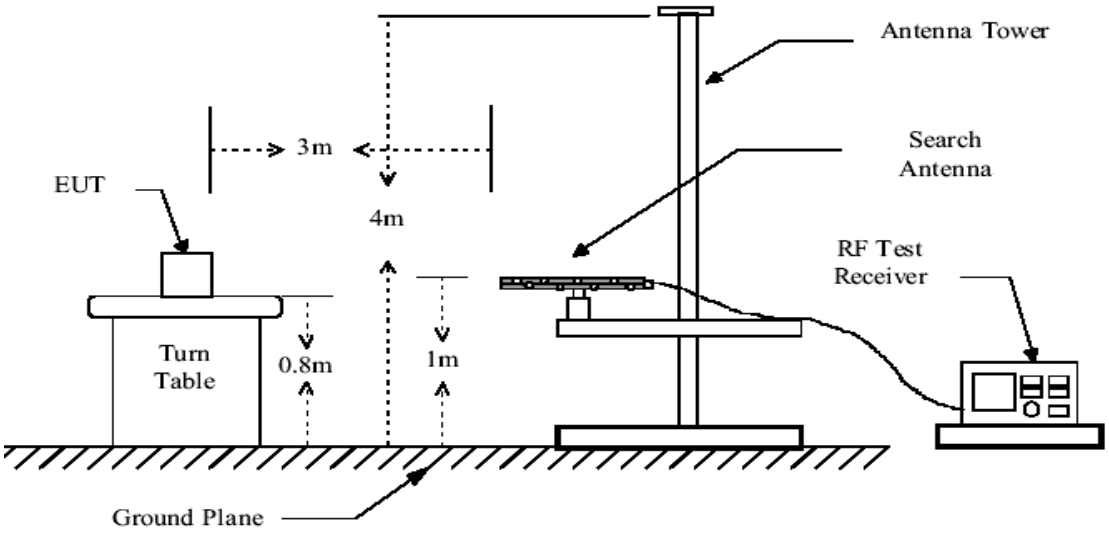

Figure 2. 30MHz to 1GHz radiated emissions test configuration

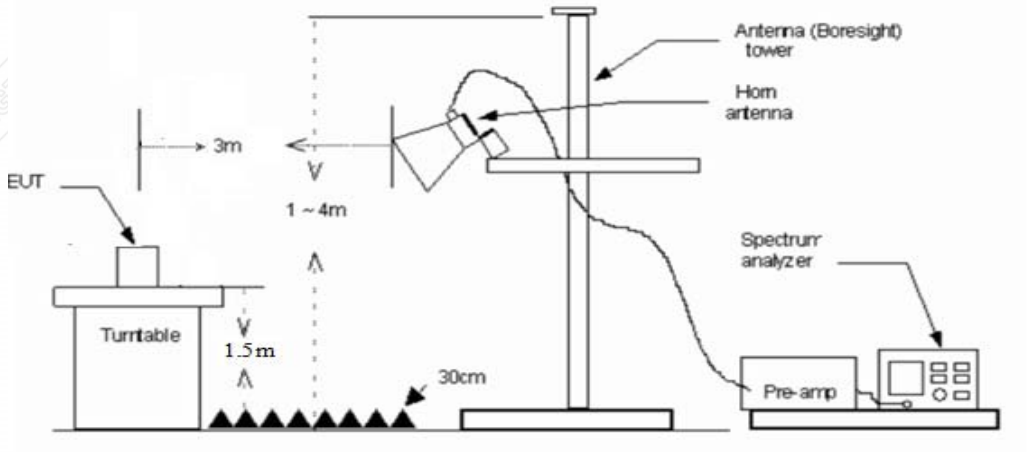

Figure 3. 1GHz to 18GHz radiated emissions test configuration

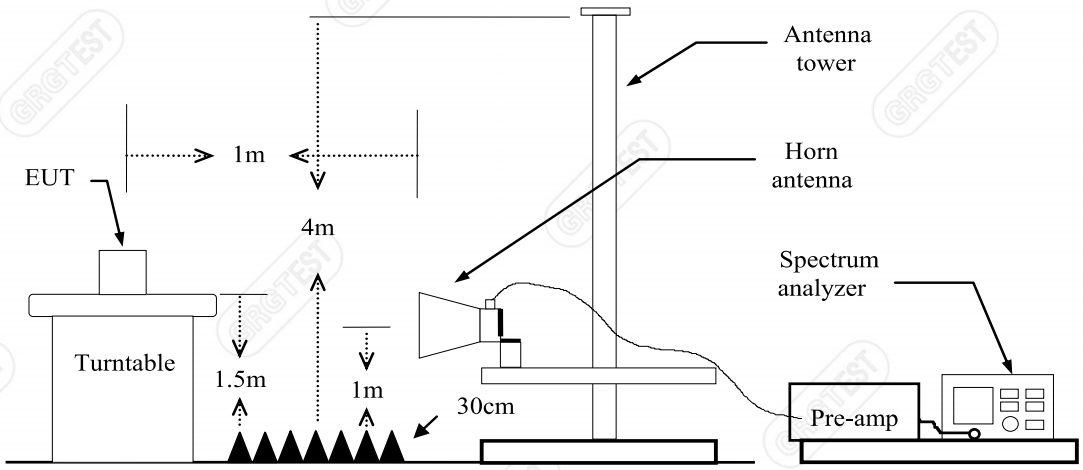

Figure 4. 18GHz to 26.5GHz radiated emissions test configuration

13.4 DATA SAMPLE

30MHz to 1GHz

Suspected Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity
xxxx	xxxx	66.85	31.09	-35.76	40.00	8.91	PK	200	351	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
xxxx	xxxx	-31.57	71.28	39.71	46.00	6.29	100	196	Horizontal

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
QP = Quasi-peak Reading

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

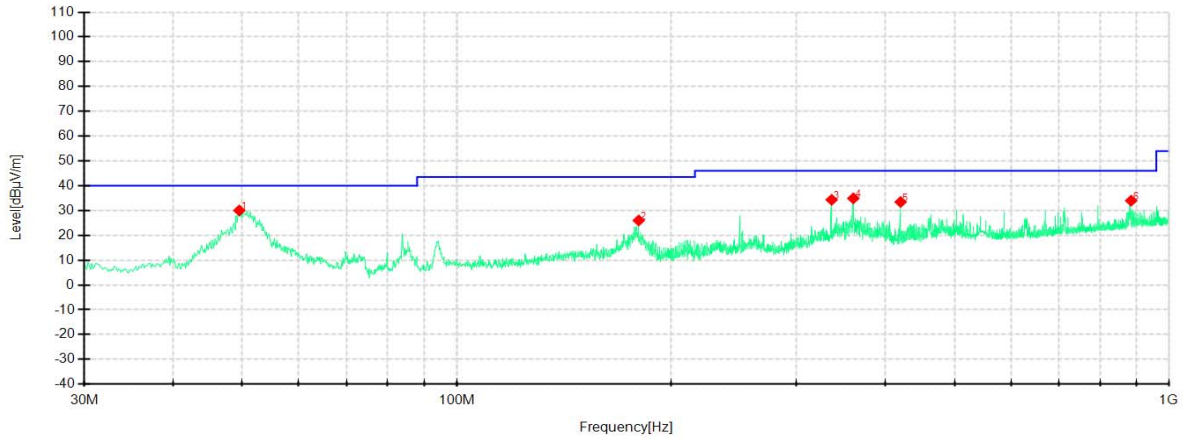
Below 1GHz

All models were pretested and only the worst modes and channels were recorded in this report (2DH5-2480MHz).

The chart below shows the highest readings taken from the final data.

Mode: 2DH5
Highest Frequency (2480MHz) Date: 2024-07-30
Environment: 26.3℃/58%RH/101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting Probe : Horizontal

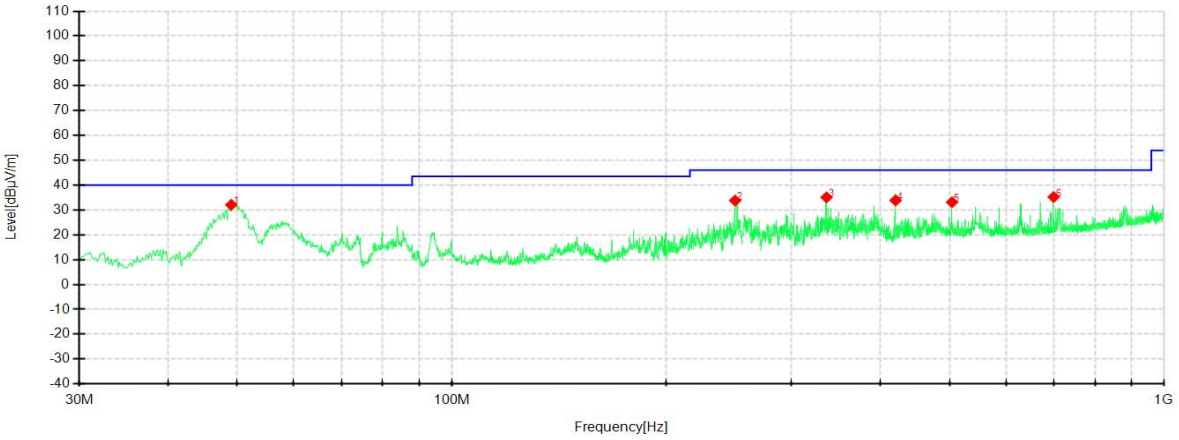
Test Graph



Suspected Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity
1	49.5237	58.87	30.02	-28.85	40.00	9.98	PK	200	313	Horizontal
2	180.1263	56.01	26.01	-30.00	43.50	17.49	PK	200	74	Horizontal
3	336.0733	60.55	34.33	-26.22	46.00	11.67	PK	200	339	Horizontal
4	360.4476	60.35	34.90	-25.45	46.00	11.10	PK	100	71	Horizontal
5	419.9887	56.68	33.45	-23.23	46.00	11.38	PK	100	241	Horizontal
6	884.9194	49.65	33.97	-15.68	46.00	12.03	PK	100	266	Horizontal

Mode: 2DH5
Highest Frequency (2480MHz) Date: 2024-07-30
Environment: 26.3℃/58%RH/101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting Probe : Vertical

Test Graph



Suspected Data List										
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Height [cm]	Angle [°]	Polarity
1	49.0386	60.95	32.07	-28.88	40.00	6.41	PK	100	250	Vertical
2	249.9750	63.20	33.78	-29.42	46.00	12.22	PK	100	250	Vertical
3	335.9520	61.31	35.09	-26.22	46.00	10.91	PK	100	262	Vertical
4	419.9887	57.08	33.85	-23.23	46.00	9.34	PK	100	79	Vertical
5	504.0255	54.56	33.11	-21.45	46.00	12.89	PK	100	172	Vertical
6	700.1113	53.14	35.21	-17.93	46.00	10.79	PK	100	132	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(2DH5))
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.
7 If the margin of the pre-test results is greater than 6dB, it meets the requirements of quasi peak value, and final testing is no longer required.

1GHz to 18GHz

Mode: DH5
Lowest Frequency (2402MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1217.2000	49.17	40.39	-8.78	74.00	33.61	100	155	Horizontal
2	1906.2000	47.56	43.94	-3.62	74.00	30.06	100	142	Horizontal
3	2495.8000	47.49	47.08	-0.41	74.00	26.92	200	340	Horizontal
4	4803.0000	56.27	49.13	-7.14	74.00	24.87	200	254	Horizontal
5	5644.5000	50.38	45.44	-4.94	74.00	28.56	200	126	Horizontal
6	14131.5000	35.94	49.02	13.08	74.00	24.98	100	324	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	4803.9730	-7.14	54.13	46.99	54.00	7.01	189	258	Horizontal
2	14131.5000	13.08	27.58	40.66	54.00	13.34	100	324	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	1049.4000	51.52	41.49	-10.03	74.00	32.51	100	23	Vertical
2	1905.4000	47.65	43.92	-3.73	74.00	30.08	200	180	Vertical
3	2494.4000	47.08	46.58	-0.50	74.00	27.42	100	49	Vertical
4	3981.0000	51.89	41.59	-10.30	74.00	32.41	200	150	Vertical
5	4803.0000	59.81	52.76	-7.05	74.00	21.24	100	138	Vertical
6	13258.5000	35.64	48.92	13.28	74.00	25.08	200	100	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	4804.0430	-7.05	57.57	50.52	54.00	3.48	140	141.9	Vertical
2	13258.5000	13.28	28.32	41.60	54.00	12.40	200	100	Vertical

Mode: DH5
Middle Frequency (2441MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1219.0000	48.66	39.90	-8.76	74.00	34.10	100	178	Horizontal
2	1916.2000	47.28	43.60	-3.68	74.00	30.40	100	203	Horizontal
3	2902.0000	48.71	47.47	-1.24	74.00	26.53	100	347	Horizontal
4	4881.0000	55.34	48.35	-6.99	74.00	25.65	200	244	Horizontal
5	5644.5000	50.73	45.79	-4.94	74.00	28.21	200	150	Horizontal
6	11392.5000	37.72	48.78	11.06	74.00	25.22	100	166	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	4882.0600	-6.99	53.93	46.94	54.00	7.06	161	242.1	Horizontal
2	11392.5000	11.06	28.67	39.73	54.00	14.27	100	166	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	1133.8000	52.01	41.98	-10.03	74.00	32.02	100	32	Vertical
2	1217.2000	52.03	43.06	-8.97	74.00	30.94	100	359	Vertical
3	2990.0000	46.48	45.98	-0.50	74.00	28.02	200	193	Vertical
4	3981.0000	52.68	42.38	-10.30	74.00	31.62	200	154	Vertical
5	4881.0000	58.98	52.05	-6.93	74.00	21.95	100	145	Vertical
6	13266.0000	35.87	49.16	13.29	74.00	24.84	100	289	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	4881.9890	-6.93	56.41	49.48	54.00	4.52	100	142.9	Vertical
2	13266.0000	13.29	28.46	41.75	54.00	12.25	100	289	Vertical

Mode: DH5
Highest Frequency (2480MHz)
Environment: 25.8℃/54%RH 101.0kPa
Test Engineer: Qin Tingting

Date: 2024-09-13
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	1050.8000	50.41	39.78	-10.63	74.00	34.22	100	127	Horizontal
2	1219.4000	48.67	39.91	-8.76	74.00	34.09	100	166	Horizontal
3	1900.6000	47.49	43.91	-3.58	74.00	30.09	100	21	Horizontal
4	4959.0000	57.14	50.58	-6.56	74.00	23.42	200	250	Horizontal
5	5644.5000	49.73	44.79	-4.94	74.00	29.21	200	144	Horizontal
6	11823.0000	37.48	48.44	10.96	74.00	25.56	200	50	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	4960.0050	-6.56	55.44	48.88	54.00	5.12	158	248.2	Horizontal
2	11823.0000	10.96	28.57	39.53	54.00	14.47	200	50	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	1049.6000	51.32	41.29	-10.03	74.00	32.71	100	13	Vertical
2	1943.0000	47.68	43.65	-4.03	74.00	30.35	200	276	Vertical
3	2782.0000	48.72	47.43	-1.29	74.00	26.57	200	9	Vertical
4	4960.5000	58.92	52.58	-6.34	74.00	21.42	100	149	Vertical
5	6984.0000	45.16	45.29	0.13	74.00	28.71	100	58	Vertical
6	14586.0000	36.32	48.95	12.63	74.00	25.05	100	291	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	4959.9975	-6.34	55.69	49.35	54.00	4.65	110	152.3	Vertical
2	14586.0000	12.63	28.47	41.10	54.00	12.90	100	291	Vertical

Mode: 2DH5
Lowest Frequency (2402MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1215.8000	49.63	40.84	-8.79	74.00	33.16	100	178	Horizontal
2	1893.2000	47.53	43.76	-3.77	74.00	30.24	100	286	Horizontal
3	2923.0000	47.07	46.10	-0.97	74.00	27.90	100	273	Horizontal
4	4803.0000	58.98	51.84	-7.14	74.00	22.16	200	255	Horizontal
5	5644.5000	50.35	45.41	-4.94	74.00	28.59	200	149	Horizontal
6	13840.5000	35.65	48.84	13.19	74.00	25.16	200	281	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	4804.0430	-7.14	53.59	46.45	54.00	7.55	200	253.6	Horizontal
2	13840.5000	13.19	27.56	40.75	54.00	13.25	200	281	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	1050.4000	50.60	40.57	-10.03	74.00	33.43	200	31	Vertical
2	1218.2000	49.94	41.01	-8.93	74.00	32.99	100	340	Vertical
3	2498.4000	46.71	46.30	-0.41	74.00	27.70	200	258	Vertical
4	4803.0000	63.03	55.98	-7.05	74.00	18.02	100	138	Vertical
5	7206.0000	46.91	48.11	1.20	74.00	25.89	100	165	Vertical
6	13324.5000	35.39	48.77	13.38	74.00	25.23	100	228	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	4803.9730	-7.05	57.66	50.61	54.00	3.39	144	143.3	Vertical
2	7206.0000	1.20	40.09	41.29	54.00	12.71	111	167.6	Vertical
3	13324.5000	13.38	27.76	41.14	54.00	12.86	100	228	Vertical

Mode: 2DH5
Middle Frequency (2441MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1049.6000	51.16	40.53	-10.63	74.00	33.47	100	142	Horizontal
2	1209.6000	50.01	41.18	-8.83	74.00	32.82	100	180	Horizontal
3	1942.4000	47.36	43.52	-3.84	74.00	30.48	100	274	Horizontal
4	4881.0000	57.59	50.60	-6.99	74.00	23.40	200	240	Horizontal
5	5644.5000	50.33	45.39	-4.94	74.00	28.61	200	137	Horizontal
6	14652.0000	37.03	49.15	12.12	74.00	24.85	100	126	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	4881.9180	-6.99	52.29	45.30	54.00	8.70	188	238.9	Horizontal
2	14652.0000	12.12	27.53	39.65	54.00	14.35	100	126	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	1134.0000	51.26	41.22	-10.04	74.00	32.78	200	24	Vertical
2	1217.0000	50.31	41.34	-8.97	74.00	32.66	100	0	Vertical
3	2498.4000	46.71	46.30	-0.41	74.00	27.70	100	205	Vertical
4	4881.0000	59.58	52.65	-6.93	74.00	21.35	100	149	Vertical
5	7323.0000	45.82	47.02	1.20	74.00	26.98	100	213	Vertical
6	13449.0000	35.80	48.72	12.92	74.00	25.28	100	72	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	4881.9890	-6.93	54.46	47.53	54.00	6.47	110	153.9	Vertical
2	13449.0000	12.92	27.86	40.78	54.00	13.22	100	72	Vertical

Mode: 2DH5
Highest Frequency (2480MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1204.2000	50.06	41.20	-8.86	74.00	32.80	100	184	Horizontal
2	1926.8000	48.15	44.40	-3.75	74.00	29.60	200	143	Horizontal
3	2498.4000	46.58	46.20	-0.38	74.00	27.80	200	116	Horizontal
4	4960.5000	59.55	52.99	-6.56	74.00	21.01	200	245	Horizontal
5	5644.5000	52.03	47.09	-4.94	74.00	26.91	200	134	Horizontal
6	11746.5000	36.77	48.33	11.56	74.00	25.67	200	20	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	4960.0695	-6.56	55.57	49.01	54.00	4.99	159	242.3	Horizontal
2	11746.5000	11.56	27.58	39.14	54.00	14.86	200	20	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	1049.8000	52.15	42.12	-10.03	74.00	31.88	100	28	Vertical
2	1218.6000	50.67	41.75	-8.92	74.00	32.25	100	340	Vertical
3	2503.0000	47.56	47.06	-0.50	74.00	26.94	100	143	Vertical
4	4959.0000	61.40	55.06	-6.34	74.00	18.94	100	157	Vertical
5	9388.5000	39.39	47.13	7.74	74.00	26.87	200	219	Vertical
6	13194.0000	36.34	49.39	13.05	74.00	24.61	100	76	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	4960.0760	-6.34	55.80	49.46	54.00	4.54	111	158.4	Vertical
2	13194.0000	13.05	27.82	40.87	54.00	13.13	100	76	Vertical

Mode: 3DH5
Lowest Frequency (2402MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1211.2000	49.03	40.21	-8.82	74.00	33.79	100	171	Horizontal
2	1906.0000	47.34	43.72	-3.62	74.00	30.28	200	168	Horizontal
3	2994.4000	46.98	46.27	-0.71	74.00	27.73	200	0	Horizontal
4	4803.0000	56.03	48.89	-7.14	74.00	25.11	200	241	Horizontal
5	5644.5000	51.65	46.71	-4.94	74.00	27.29	200	136	Horizontal
6	14713.5000	37.35	49.62	12.27	74.00	24.38	200	358	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	4803.9730	-7.14	49.96	42.82	54.00	11.18	188	236.8	Horizontal
2	14713.5000	12.27	29.17	41.44	54.00	12.56	200	358	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	1050.2000	50.61	40.58	-10.03	74.00	33.42	200	21	Vertical
2	1217.6000	50.23	41.28	-8.95	74.00	32.72	100	339	Vertical
3	2504.0000	47.20	46.67	-0.53	74.00	27.33	100	287	Vertical
4	4803.0000	59.83	52.78	-7.05	74.00	21.22	100	139	Vertical
5	9259.5000	39.45	46.49	7.04	74.00	27.51	200	34	Vertical
6	11788.5000	38.35	49.52	11.17	74.00	24.48	200	59	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	4804.0430	-7.05	54.32	47.27	54.00	6.73	142	142	Vertical
2	11788.5000	11.17	29.26	40.43	54.00	13.57	200	59	Vertical

Mode: 3DH5
Middle Frequency (2441MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1218.2000	49.49	40.72	-8.77	74.00	33.28	100	178	Horizontal
2	1796.4000	47.63	41.56	-6.07	74.00	32.44	200	315	Horizontal
3	2494.6000	46.67	46.24	-0.43	74.00	27.76	200	276	Horizontal
4	4881.0000	55.94	48.95	-6.99	74.00	25.05	200	241	Horizontal
5	5644.5000	50.60	45.66	-4.94	74.00	28.34	200	151	Horizontal
6	13273.5000	35.87	48.80	12.93	74.00	25.20	200	98	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	4881.9890	-6.99	50.29	43.30	54.00	10.70	189	237.4	Horizontal
2	13273.5000	12.93	28.76	41.69	54.00	12.31	200	98	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	1049.8000	50.68	40.65	-10.03	74.00	33.35	100	23	Vertical
2	1218.2000	49.99	41.06	-8.93	74.00	32.94	100	338	Vertical
3	2502.8000	46.84	46.35	-0.49	74.00	27.65	200	275	Vertical
4	3982.5000	50.66	40.38	-10.28	74.00	33.62	200	125	Vertical
5	4881.0000	58.08	51.15	-6.93	74.00	22.85	100	138	Vertical
6	11829.0000	38.42	49.54	11.12	74.00	24.46	100	19	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	4882.0600	-6.93	53.88	46.95	54.00	7.05	140	140.5	Vertical
2	11829.0000	11.12	28.86	39.98	54.00	14.02	100	19	Vertical

Mode: 3DH5
Highest Frequency (2480MHz) Date: 2024-09-13
Environment: 25.8℃/54%RH 101.0kPa Test Voltage: DC 12V
Test Engineer: Qin Tingting

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1049.8000	50.72	40.09	-10.63	74.00	33.91	100	154	Horizontal
2	1897.2000	47.28	43.63	-3.65	74.00	30.37	100	35	Horizontal
3	2498.2000	47.20	46.81	-0.39	74.00	27.19	100	339	Horizontal
4	4959.0000	56.45	49.89	-6.56	74.00	24.11	200	226	Horizontal
5	5644.5000	51.33	46.39	-4.94	74.00	27.61	200	136	Horizontal
6	13285.5000	36.02	48.95	12.93	74.00	25.05	100	246	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	4960.0760	-6.56	52.12	45.56	54.00	8.44	160	252.6	Horizontal
2	13285.5000	12.93	28.39	41.32	54.00	12.68	100	246	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	1218.8000	50.30	41.38	-8.92	74.00	32.62	100	342	Vertical
2	1893.2000	47.98	44.14	-3.84	74.00	29.86	100	237	Vertical
3	2497.6000	47.03	46.60	-0.43	74.00	27.40	200	143	Vertical
4	3982.5000	52.43	42.15	-10.28	74.00	31.85	200	152	Vertical
5	4959.0000	58.13	51.79	-6.34	74.00	22.21	100	162	Vertical
6	13093.5000	35.80	48.58	12.78	74.00	25.42	200	314	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	4960.0760	-6.34	53.28	46.94	54.00	7.06	143	134.4	Vertical
2	13093.5000	12.78	28.86	41.64	54.00	12.36	200	314	Vertical