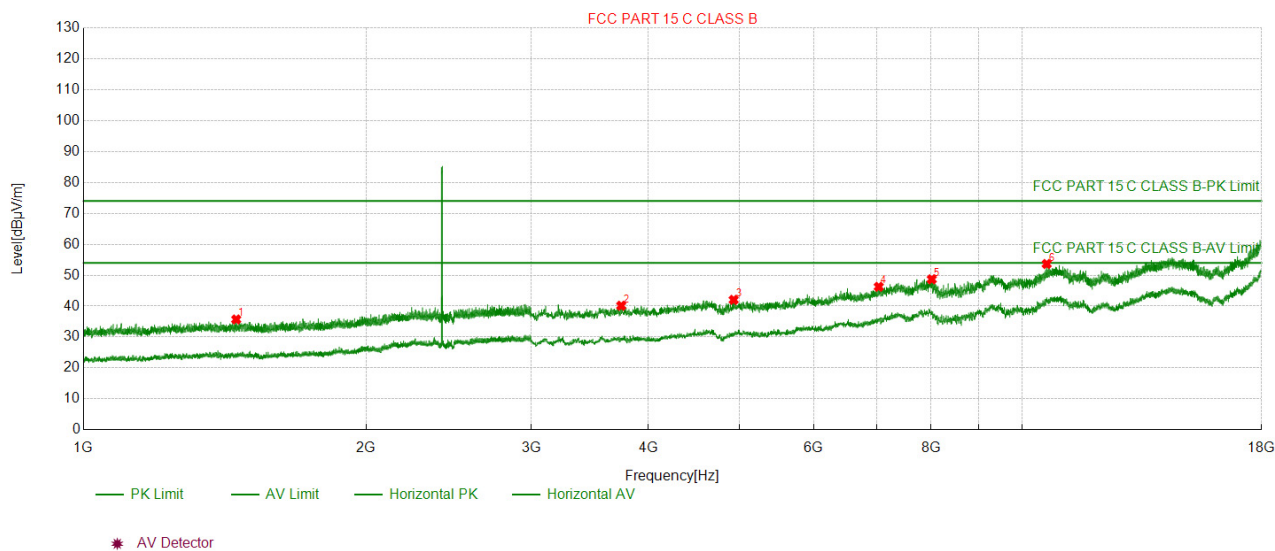




ANT.1+ANT.2:

Antenna polarity: Horizontal

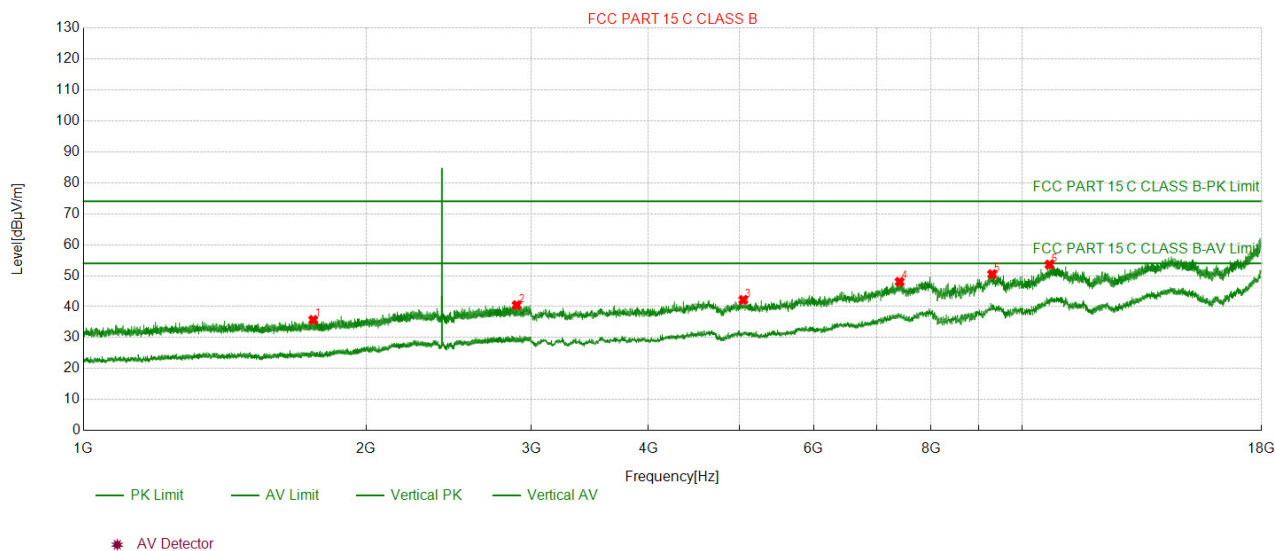


Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1454.645	54.21	35.71	-18.50	74.00	38.29	150	100	Horizontal
2	3741.074	52.30	40.14	-12.16	74.00	33.86	150	230	Horizontal
3	4929.193	51.45	42.04	-9.41	74.00	31.96	150	210	Horizontal
4	7036.904	50.64	46.27	-4.37	74.00	27.73	150	30	Horizontal
5	8015.002	50.46	48.69	-1.77	74.00	25.31	150	280	Horizontal
6	10625.263	51.74	53.64	1.90	74.00	20.36	150	90	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



Antenna polarity: Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1757.076	53.78	35.73	-18.05	74.00	38.27	150	20	Vertical
2	2894.589	53.41	40.48	-12.93	74.00	33.52	150	270	Vertical
3	5047.705	51.29	42.19	-9.10	74.00	31.81	150	300	Vertical
4	7407.441	51.52	48.03	-3.49	74.00	25.97	150	140	Vertical
5	9296.130	51.20	50.48	-0.72	74.00	23.52	150	200	Vertical
6	10698.770	51.04	53.59	2.55	74.00	20.41	150	100	Vertical

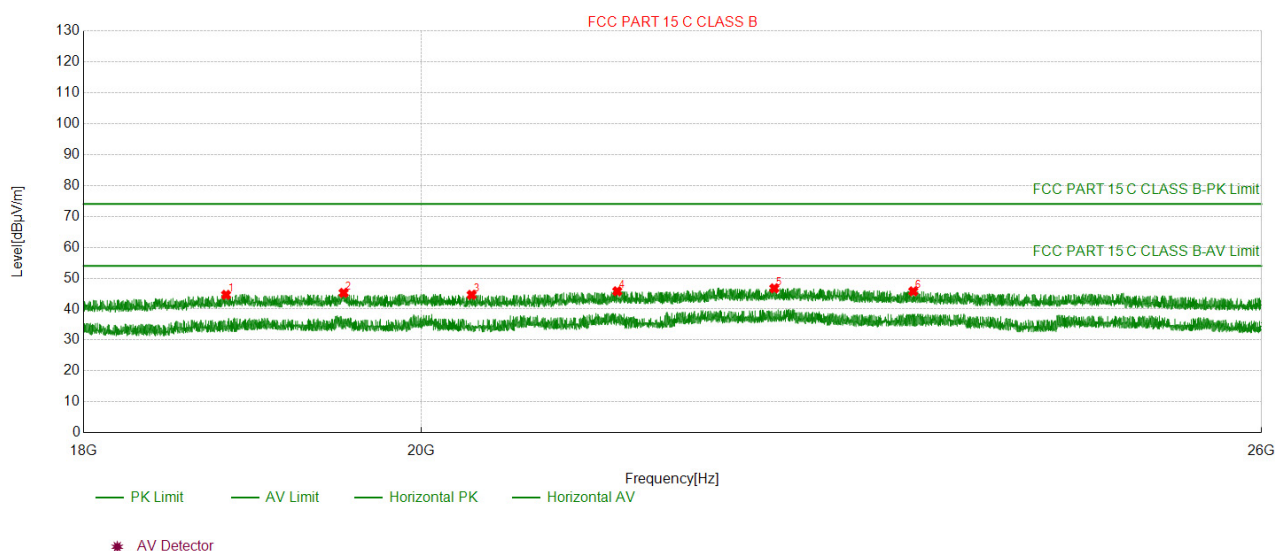
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



For 18GHz to 26GHz

ANT.1:

Antenna polarity: Horizontal



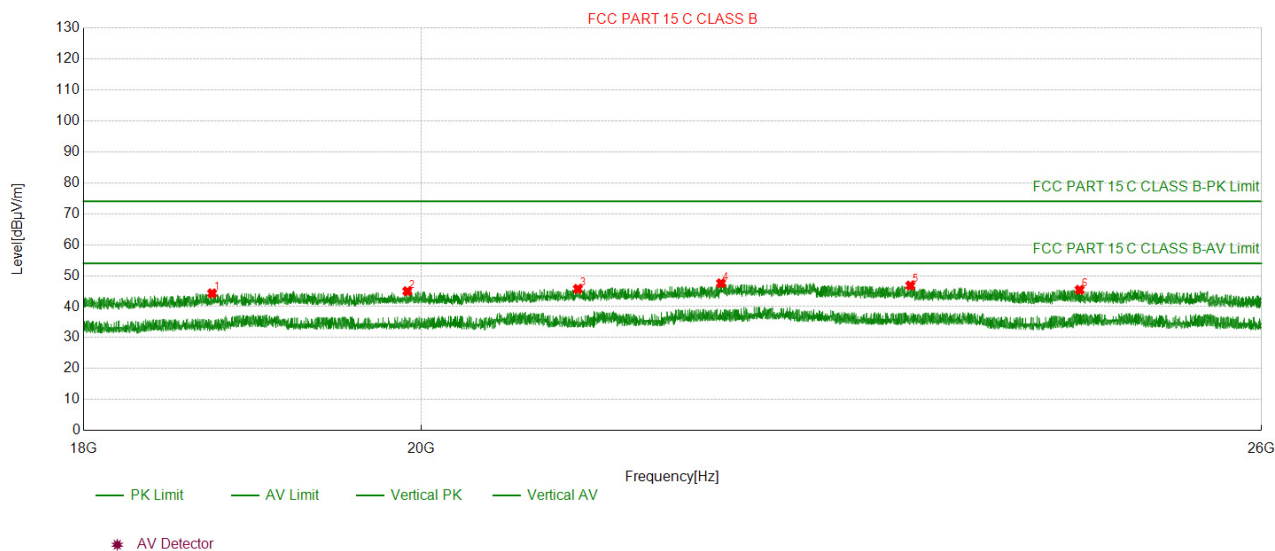
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18819.28	39.07	44.62	5.55	74.00	29.38	150	90	Horizontal
2	19522.55	39.17	45.26	6.09	74.00	28.74	150	90	Horizontal
3	20318.63	38.58	44.61	6.03	74.00	29.39	150	50	Horizontal
4	21263.52	40.50	45.78	5.28	74.00	28.22	150	160	Horizontal
5	22331.63	41.02	46.73	5.71	74.00	27.27	150	170	Horizontal
6	23321.33	40.10	45.77	5.67	74.00	28.23	150	360	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



Antenna polarity: Vertical



Suspected Data List

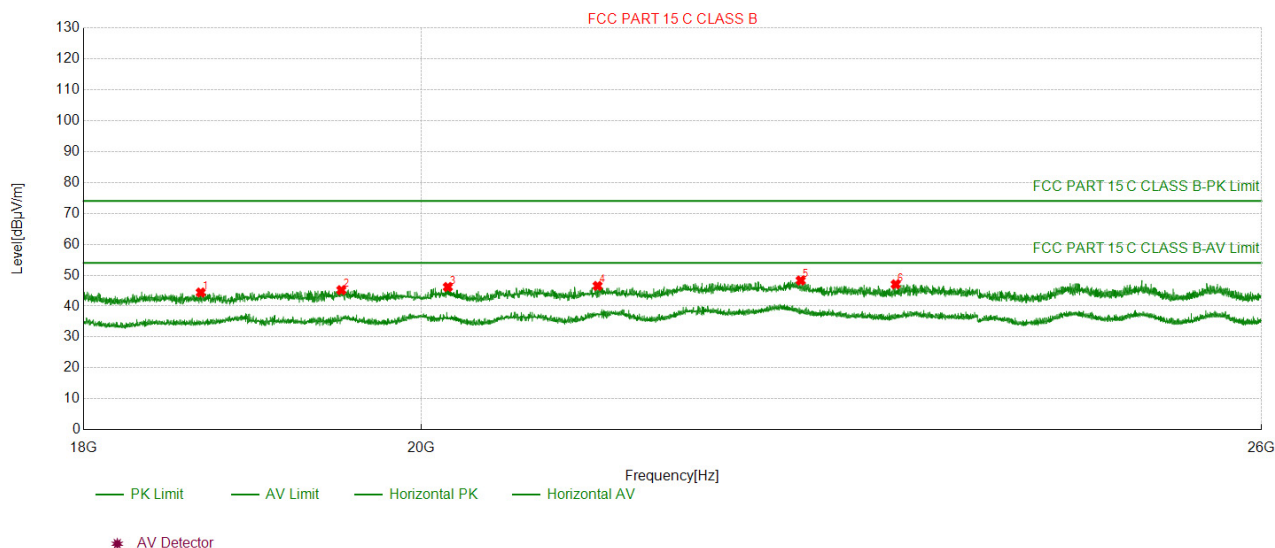
NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18737.67	38.81	44.31	5.50	74.00	29.69	150	230	Vertical
2	19914.59	38.83	45.00	6.17	74.00	29.00	150	350	Vertical
3	21003.50	40.39	45.74	5.35	74.00	28.26	150	120	Vertical
4	21963.59	41.85	47.56	5.71	74.00	26.44	150	310	Vertical
5	23300.53	41.15	46.82	5.67	74.00	27.18	150	250	Vertical
6	24564.65	39.62	45.44	5.82	74.00	28.56	150	260	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



ANT.2:

Antenna polarity: Horizontal

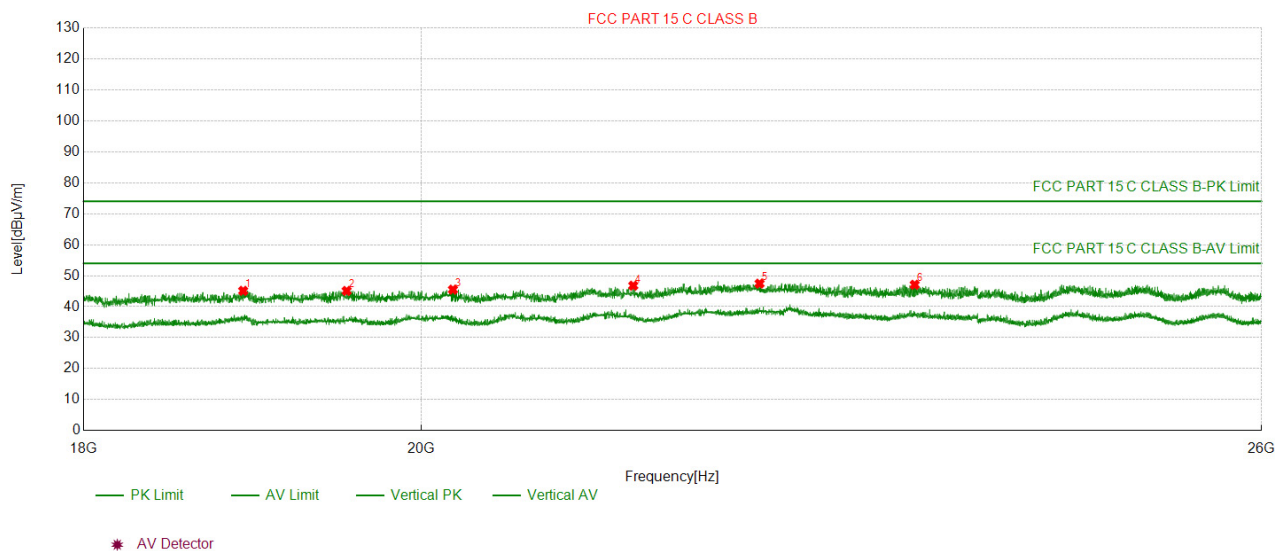


Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18671.267	38.96	44.41	5.45	74.00	29.59	150	350	Horizontal
2	19508.951	39.08	45.18	6.10	74.00	28.82	150	220	Horizontal
3	20168.217	40.09	46.19	6.10	74.00	27.81	150	310	Horizontal
4	21133.113	41.24	46.55	5.31	74.00	27.45	150	200	Horizontal
5	22516.452	42.67	48.30	5.63	74.00	25.70	150	110	Horizontal
6	23194.119	41.42	47.06	5.64	74.00	26.94	150	220	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



Antenna polarity: Vertical



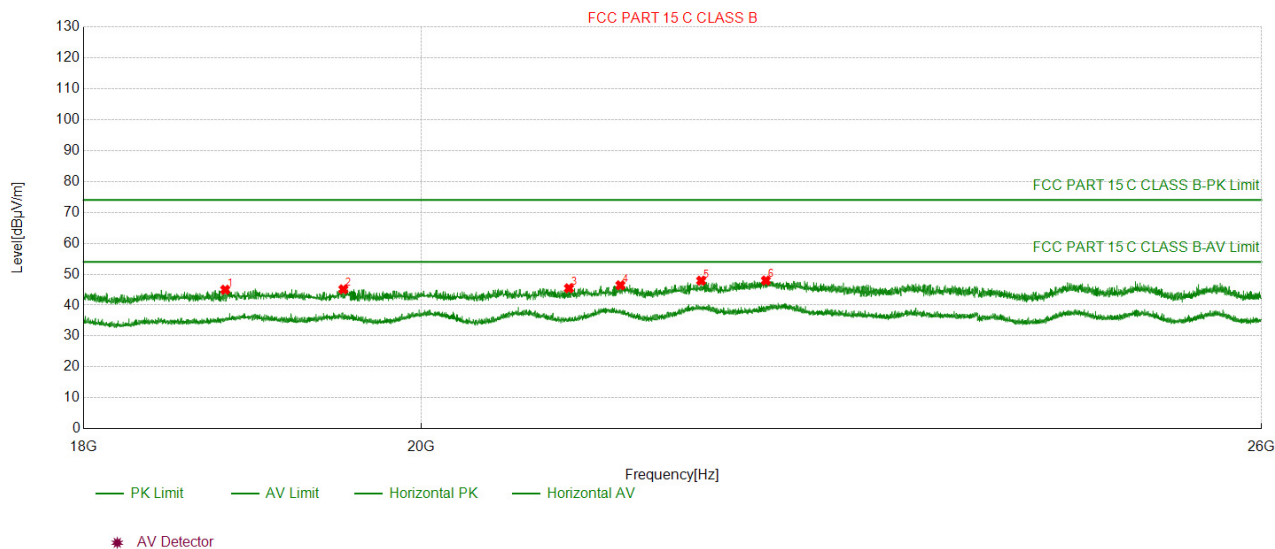
Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18920.092	39.51	45.13	5.62	74.00	28.87	150	300	Vertical
2	19540.954	39.01	45.11	6.10	74.00	28.89	150	280	Vertical
3	20200.220	39.43	45.51	6.08	74.00	28.49	150	260	Vertical
4	21369.937	41.50	46.79	5.29	74.00	27.21	150	90	Vertical
5	22229.223	41.72	47.46	5.74	74.00	26.54	150	80	Vertical
6	23331.733	41.42	47.09	5.67	74.00	26.91	150	270	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



ANT.1+ANT.2:
Antenna polarity: Horizontal

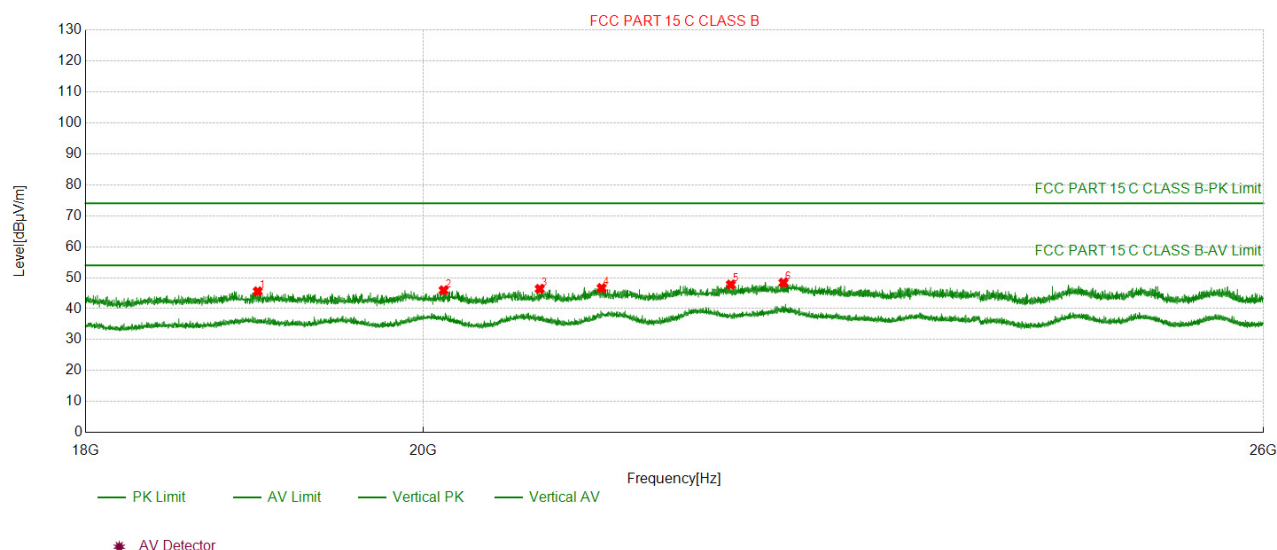
**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18814.481	39.43	44.98	5.55	74.00	29.02	150	60	Horizontal
2	19520.952	39.03	45.12	6.09	74.00	28.88	150	350	Horizontal
3	20945.095	40.03	45.46	5.43	74.00	28.54	150	30	Horizontal
4	21284.328	41.16	46.43	5.27	74.00	27.57	150	330	Horizontal
5	21827.583	42.33	47.91	5.58	74.00	26.09	150	300	Horizontal
6	22273.227	42.24	47.97	5.73	74.00	26.03	150	110	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



Antenna polarity: Vertical



Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18994.499	39.92	45.59	5.67	74.00	28.41	150	40	Vertical
2	20129.013	39.81	45.93	6.12	74.00	28.07	150	130	Vertical
3	20741.874	40.67	46.39	5.72	74.00	27.61	150	60	Vertical
4	21146.715	41.35	46.65	5.30	74.00	27.35	150	190	Vertical
5	22017.202	42.04	47.78	5.74	74.00	26.22	150	80	Vertical
6	22381.238	42.69	48.38	5.69	74.00	25.62	150	60	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



4.4 Maximum Peak Output Power Measurement

4.4.1 Limit

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 Test Procedure

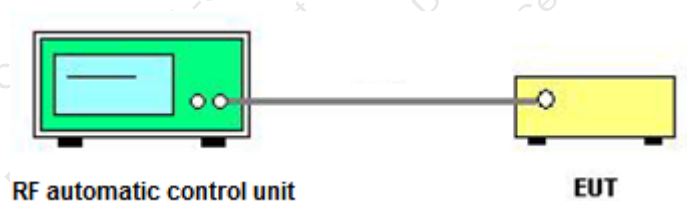
The maximum peak conducted output power may be measured using a broadband peak RF automatic control unit. The RF automatic control unit shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

The maximum Average conducted output power may be measured using a wideband RF automatic control unit with a thermocouple detector or equivalent. The RF automatic control unit shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

4.4.3 Deviation from Standard

No deviation.

4.4.4 Test Setup



4.4.5 Test Results

Channel	Channel Frequency (Mhz)	Maximum Peak Conducted Output Power (dBm)	Limit (dBm)	Result
Low	2402	-0.30	30.00	Pass
Middle	2440	-0.96		Pass
High	2480	-2.00		Pass

Note: The test results including the cable loss.



4.5 Power Spectral Density

4.5.1 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

4.5.2 Test Procedure

Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.

Set the RBW =10 kHz.

Set the VBW =30 kHz.

Set the span to 1.5 times the DTS channel bandwidth.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum power level.

If measured value exceeds limit, reduce RBW(no less than 3 kHz)and repeat.

The resulting peak PSD level must be 8 dBm.

4.5.3 Deviation from Standard

No deviation.

4.5.4 Test Setup





4.5.5 Test Results

Channel	Channel frequency (MHz)	Result (dBm/10kHz)	10log (3/10)	Test Result (dBm/3kHz)
Low	2402	-10.13	-5.23	-15.36
Middle	2440	-10.87	-5.23	-16.10
High	2480	-11.73	-5.23	-16.96
Limit : 8dBm/3KHz				
Test Result (dBm/3kHz)= Result (dBm/10kHz)+10log (3/10)				
Test Result	PASS			

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4.6 6dB Bandwidth

4.6.1 Limit

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

4.6.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW=100 KHz and VBW=300 KHz. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.6.3 Deviation from Standard

No deviation.

4.6.4 Test Setup



4.6.5 Test Result

Channel	Channel frequency (MHz)	6dB Bandwidth (MHz)	Limit (KHz)	Result
Low	2402	0.676	≥ 500	Pass
Middle	2440	0.668		Pass
High	2480	0.704		Pass



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4.7 Occupied Bandwidth

4.7.1 Test Procedure

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

RBW=1% to 5% of the OBW

VBW=approximately 3 X RBW

Detector=Peak

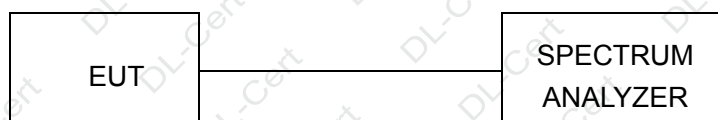
Trace Mode: Max Hold

Use the 99% power bandwidth function of the instrument to measure the Occupied Bandwidth and recorded.

4.7.2 Deviation from Standard

No deviation.

4.7.3 Test Setup



4.7.4 Test Result

N/A



4.8 Band Edge

4.8.1 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under FCC rules in section 5.8.1, the attenuation required shall be 30 dB instead of 20 dB.

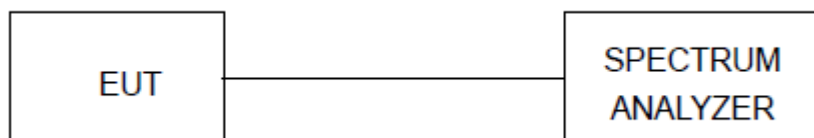
4.8.2 Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Span = wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products which fall outside of the authorized band of operation, RBW $\geq$ 1% of the span, VBW $\geq$ RBW, Sweep = auto, Detector function = peak, Trace = max hold.

4.8.3 Deviation from Standard

No deviation.

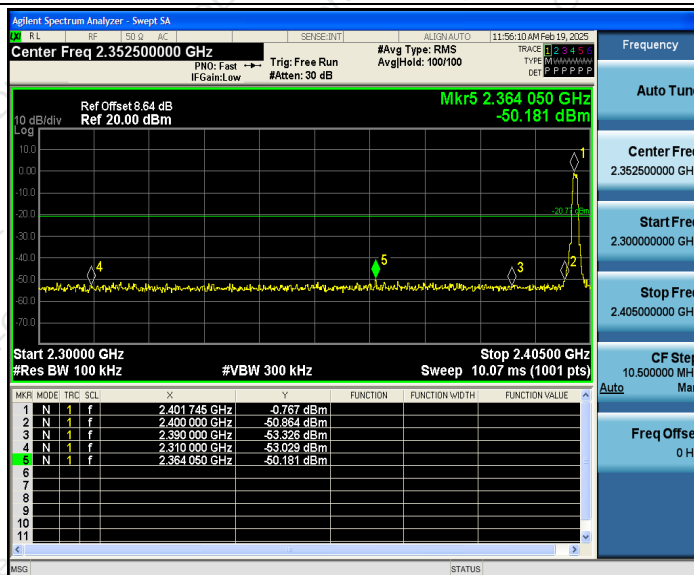
4.8.4 Test Setup



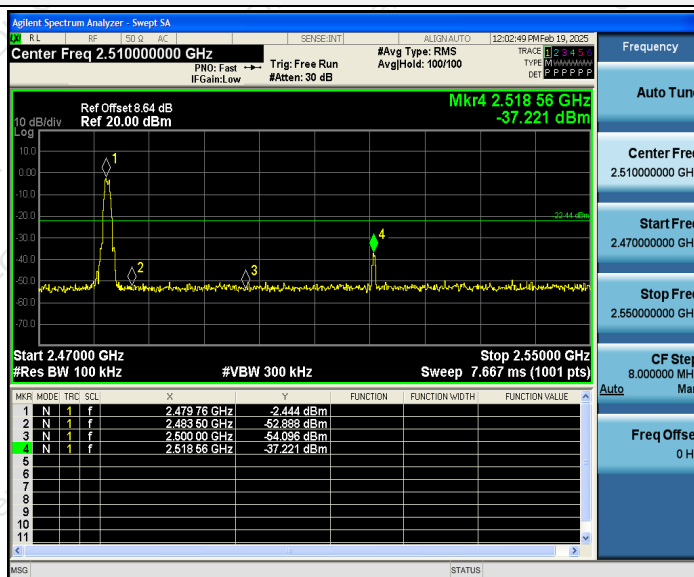


4.8.5 Test Results

PASS



2402



2480



4.9 Conducted Spurious Emissions

4.9.1 Applied Procedures / Limit

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided 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 30 dB instead of 20 dB.

For below 30MHz, For 9KHz-150kHz, 150K-10MHz, We use the RBW 1KHz, 10KHz, So the limit need to calculated by " $10\lg(BW1/BW2)$ ". For example For 9KHz-150kHz, RBW 1KHz, The Limit = the highest emission level-20- $10\lg(100/1)$ = the highest emission level-40.

4.9.2 Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Span = wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products which fall outside of the authorized band of operation, $RBW \geq 1\%$ of the span, $VBW \geq RBW$, Sweep = auto, Detector function = peak, Trace = max hold.

4.9.3 Deviation from Standard

No deviation.

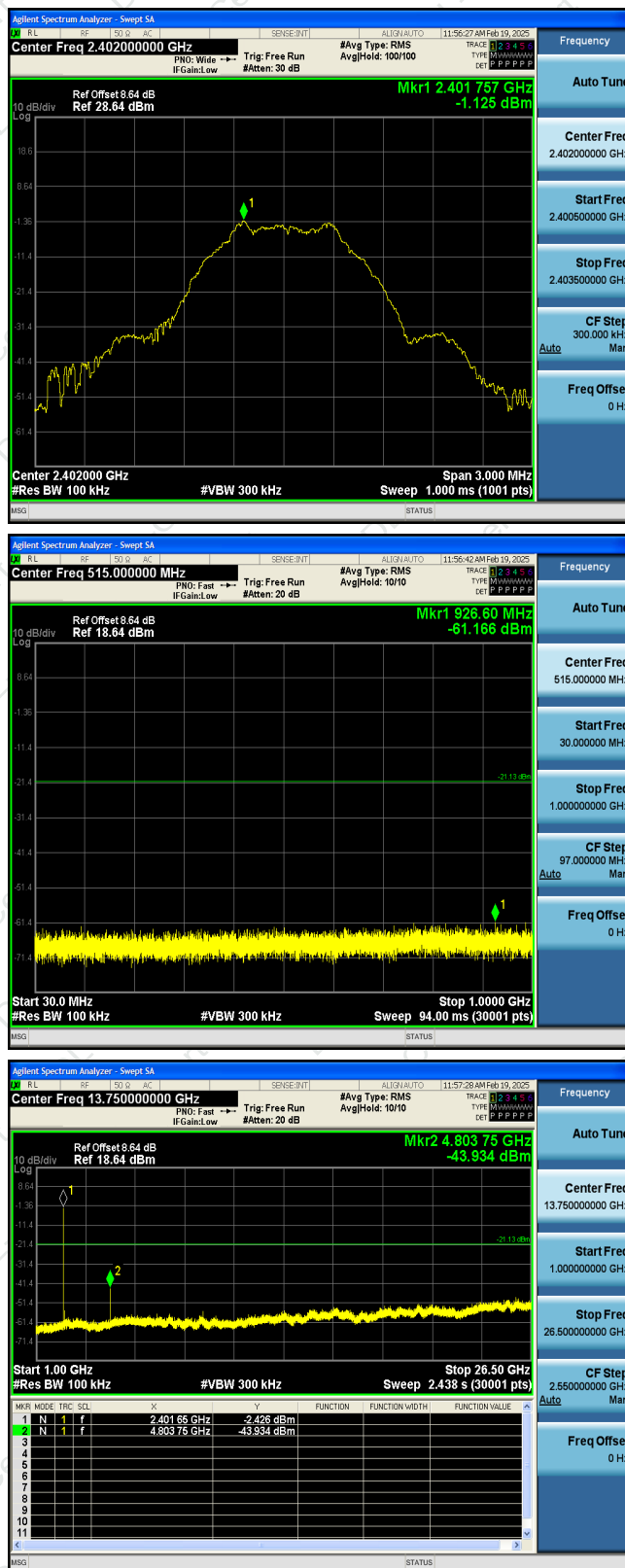
4.9.4 Test Setup





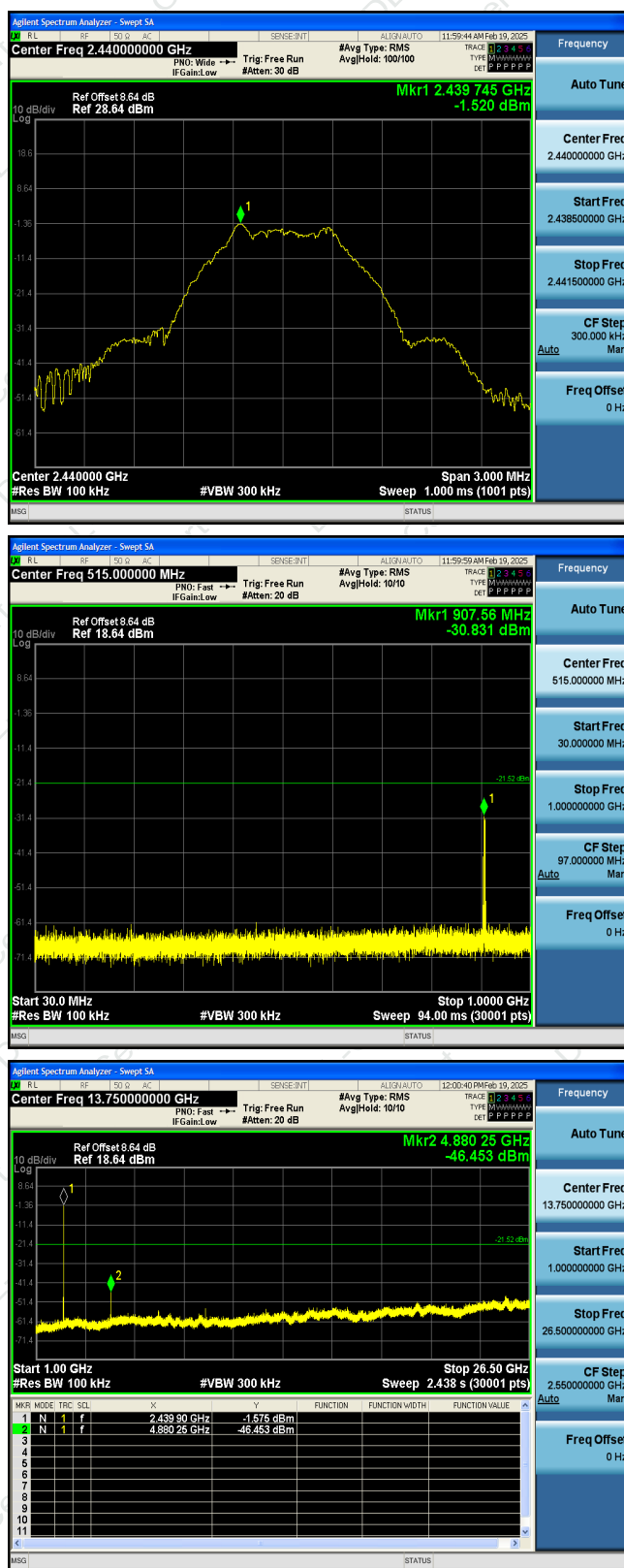
4.9.5 Test Results

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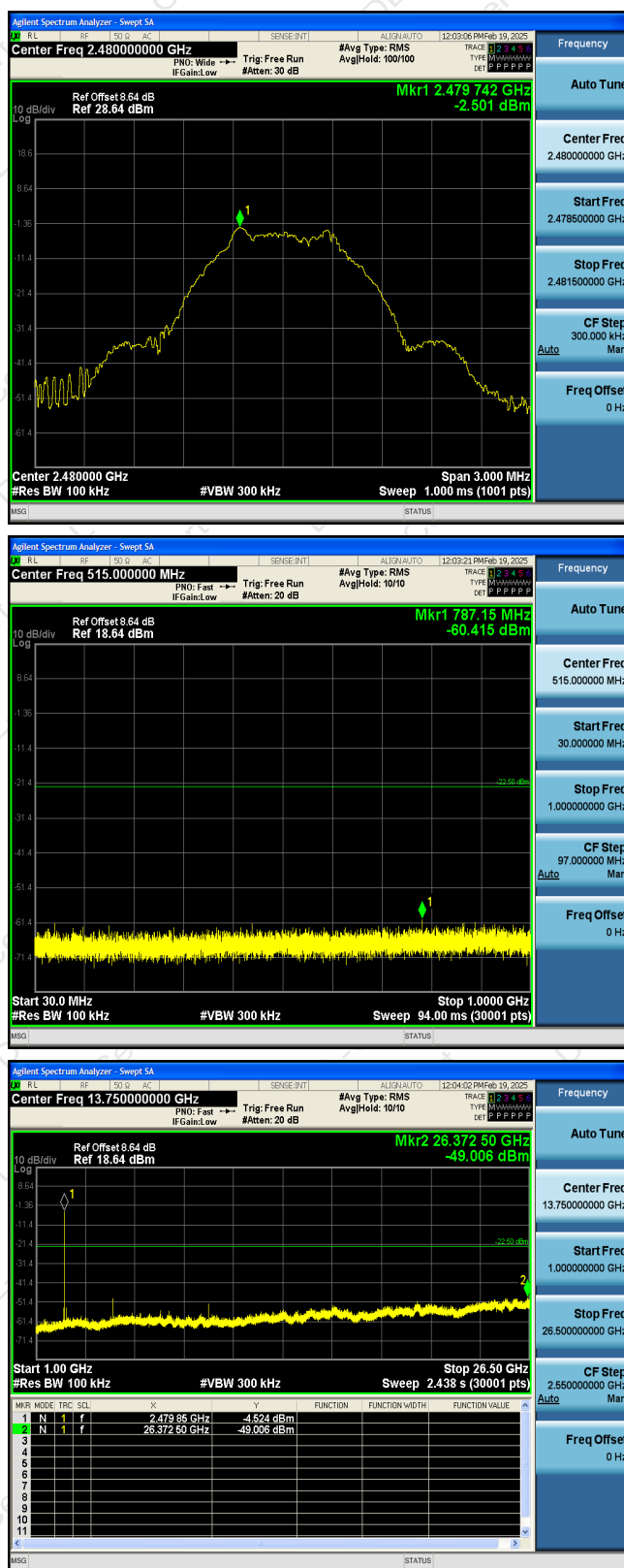


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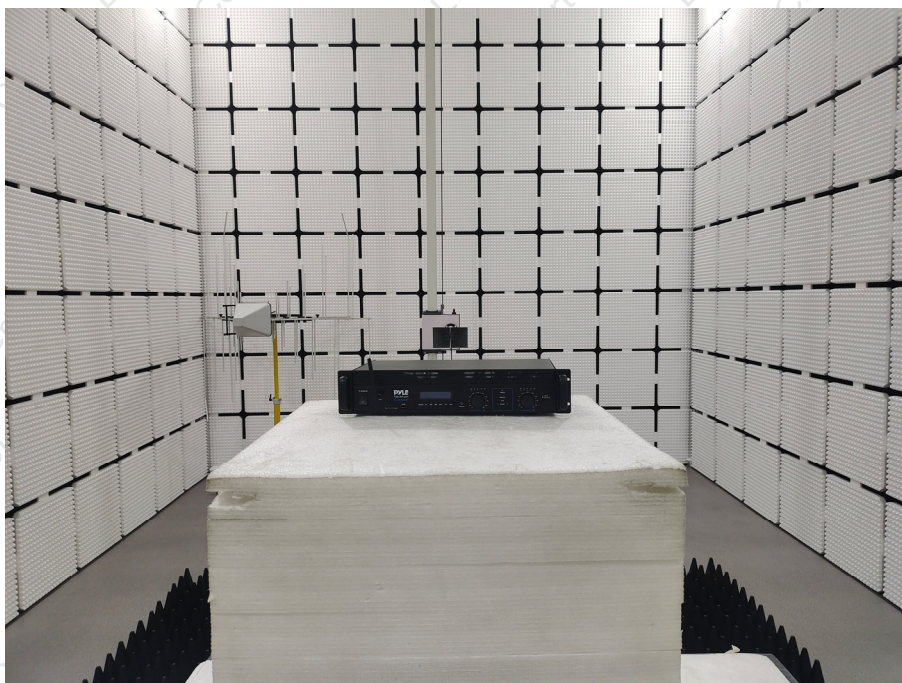
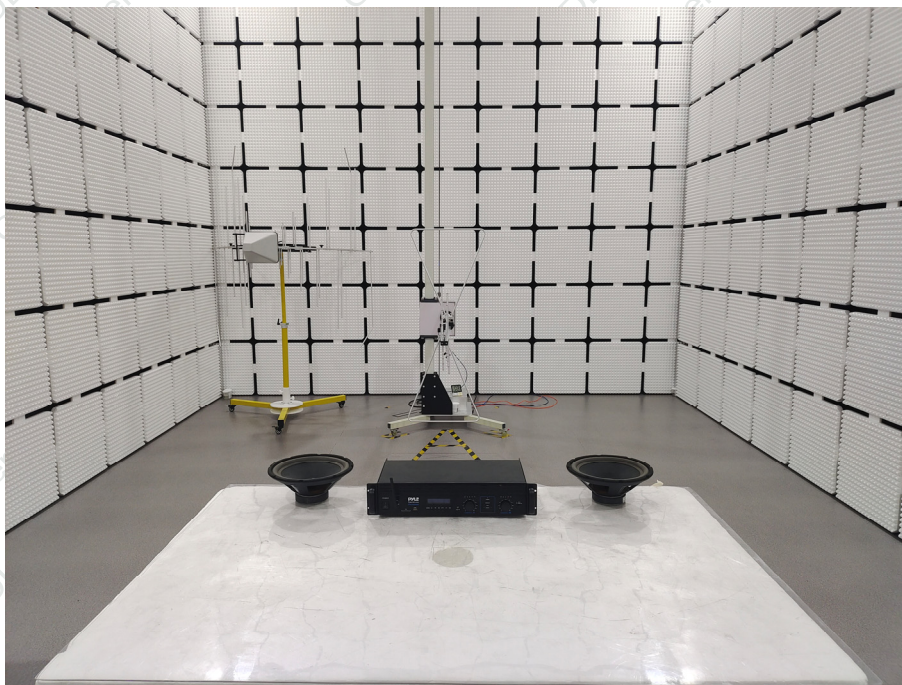
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5 Test Setup Photos

Radiated Emission

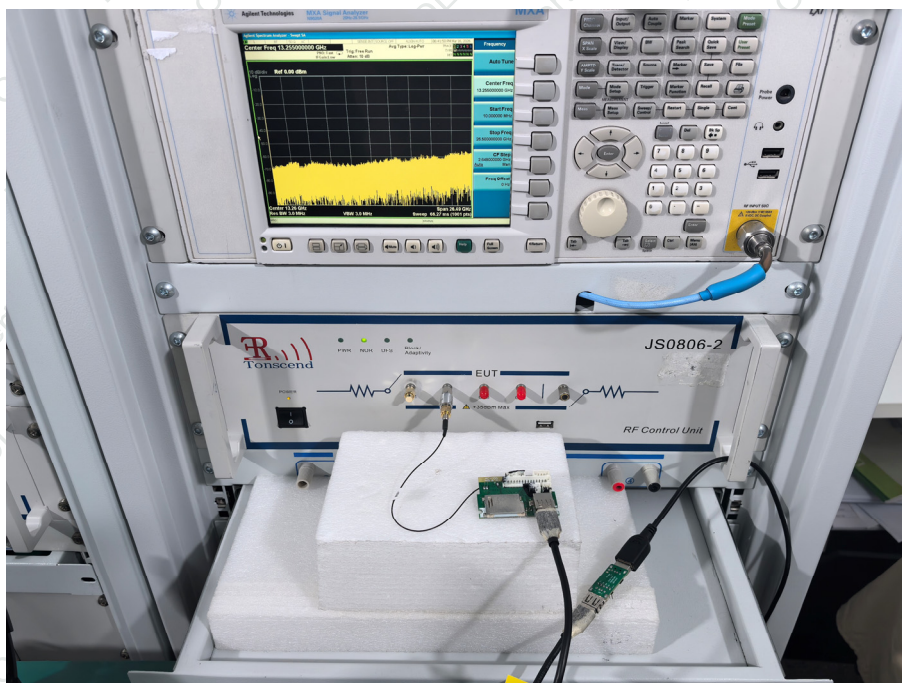




AC Conducted Emission



RF Conducted Emission





6 Photos of the EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos.

-----End of test report-----