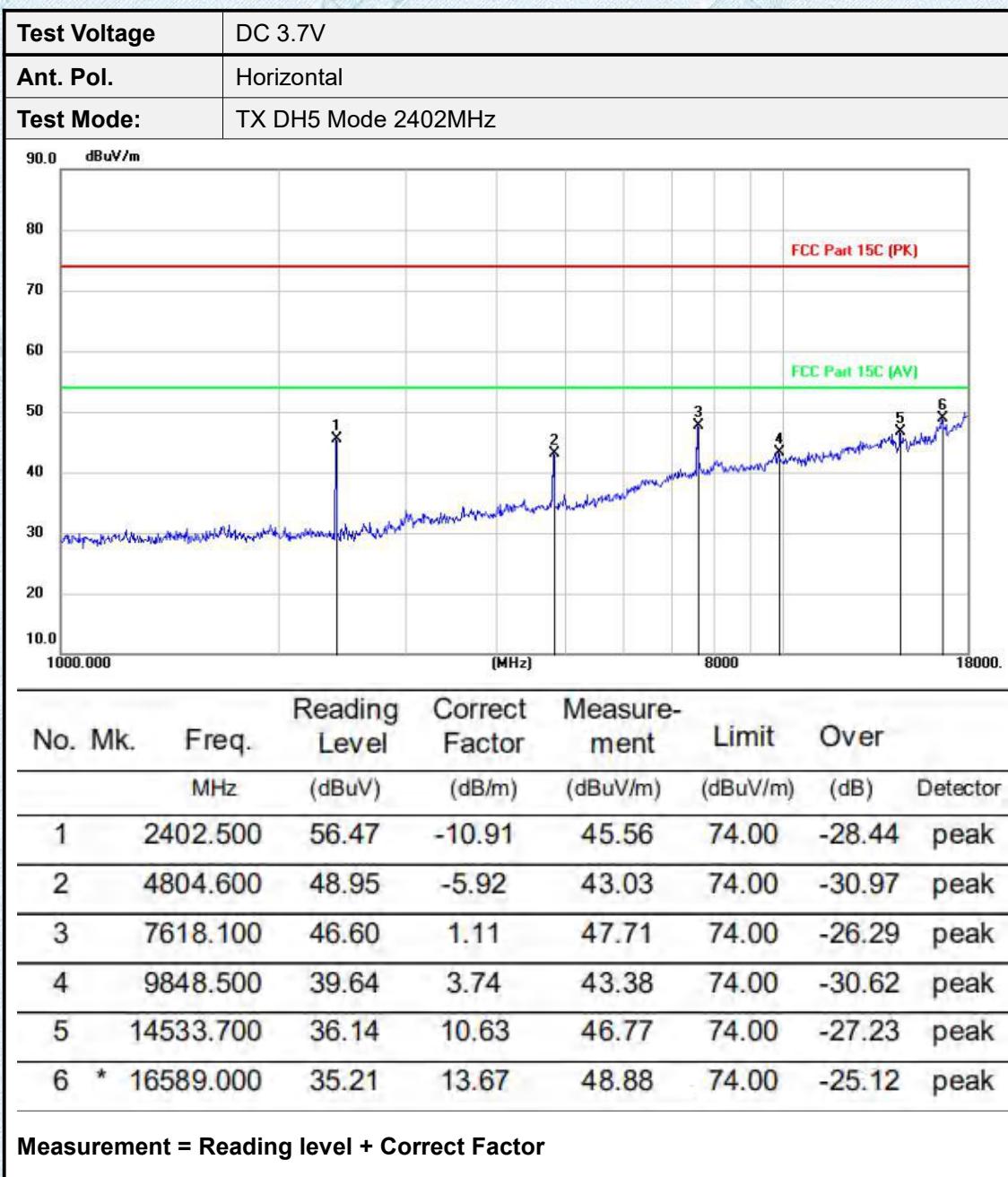


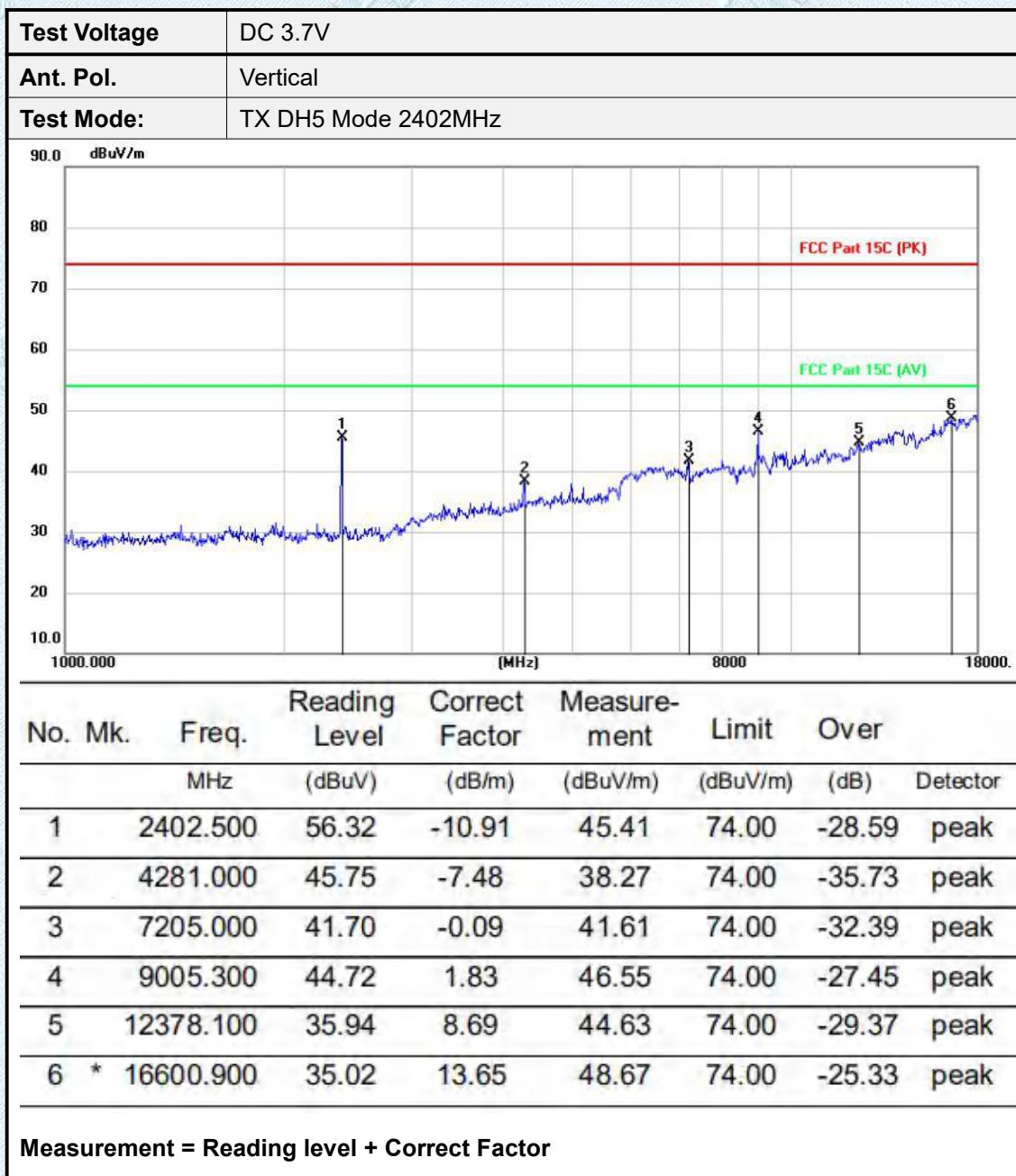
Adobe 1GHz



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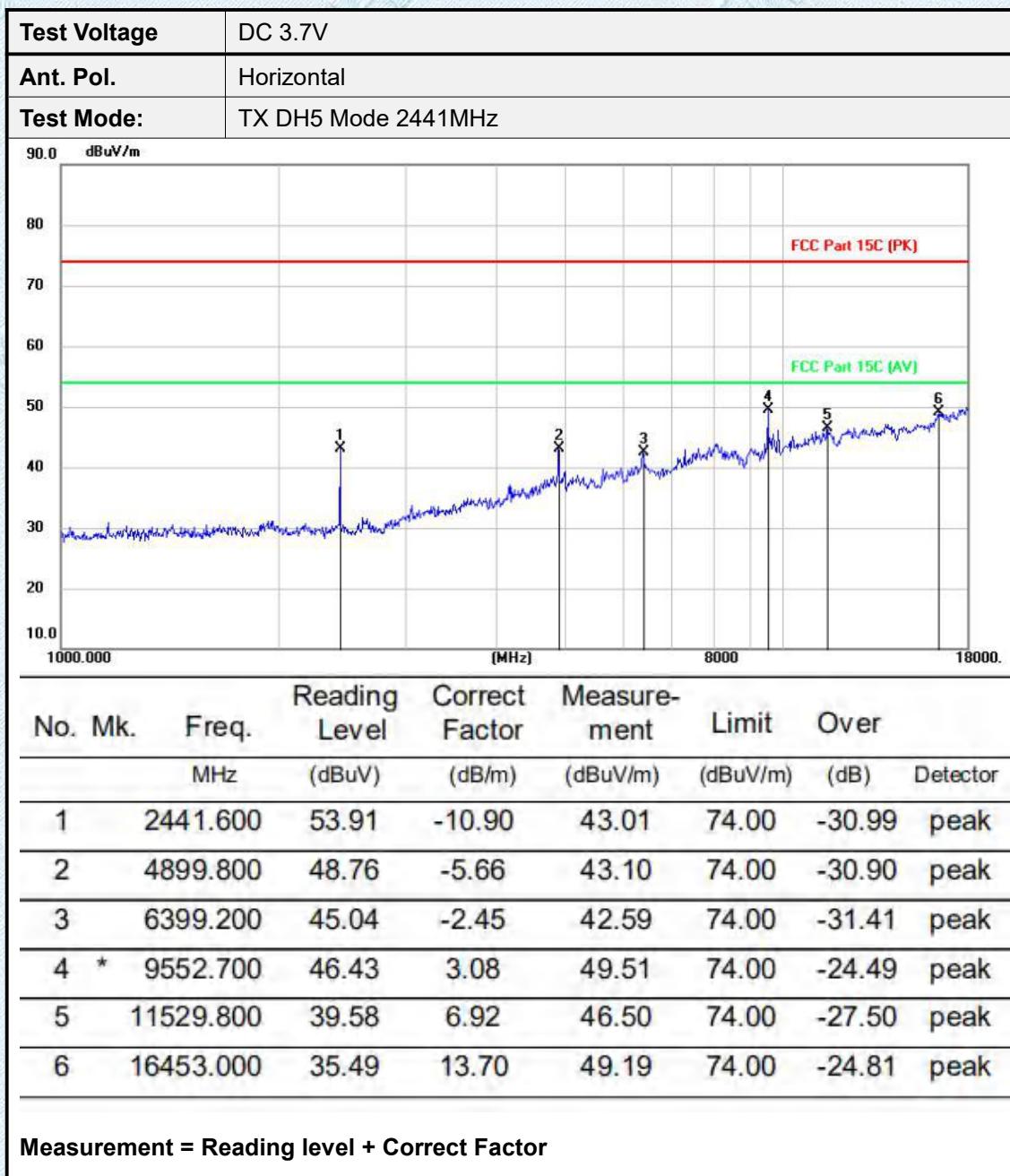
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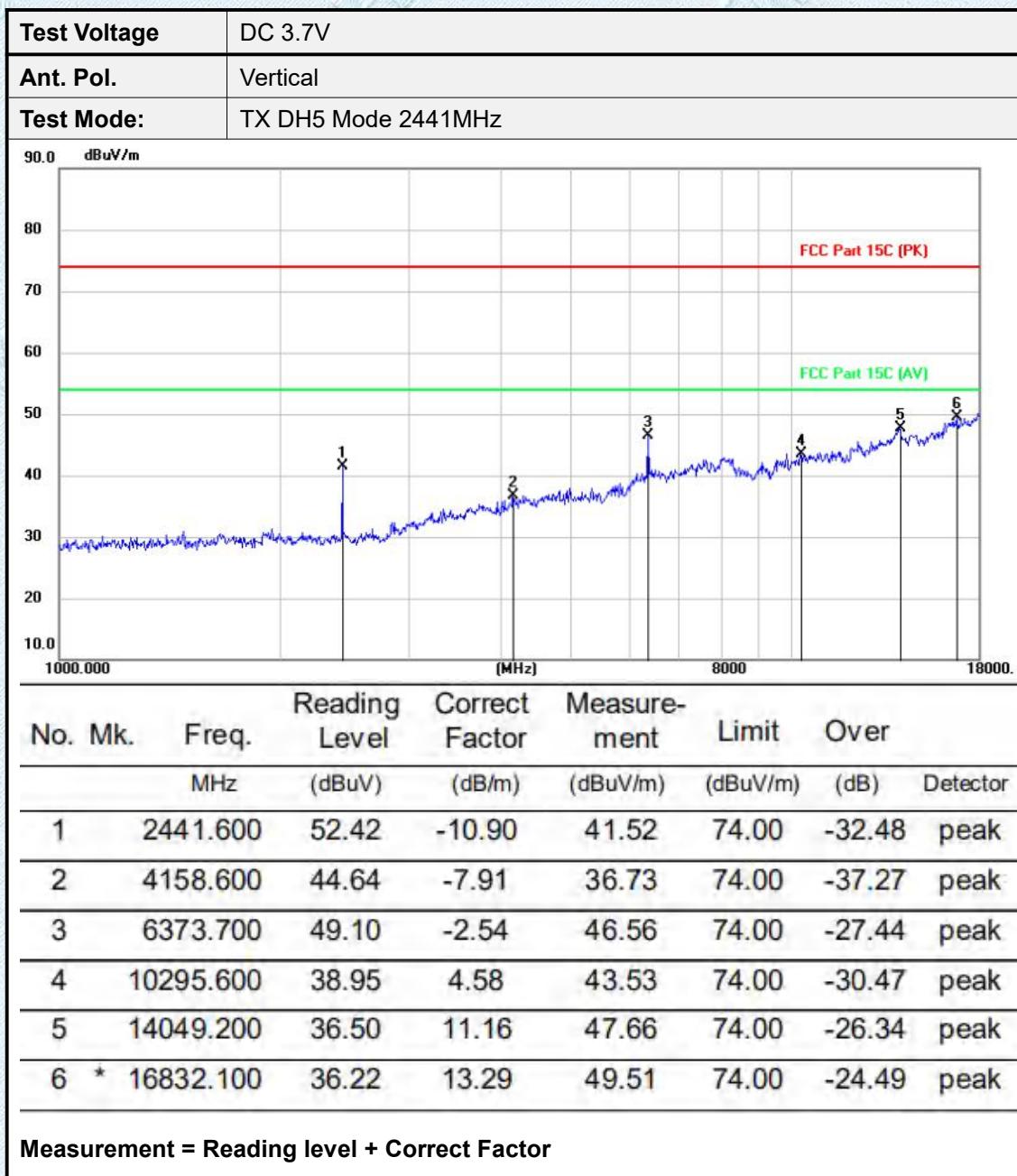
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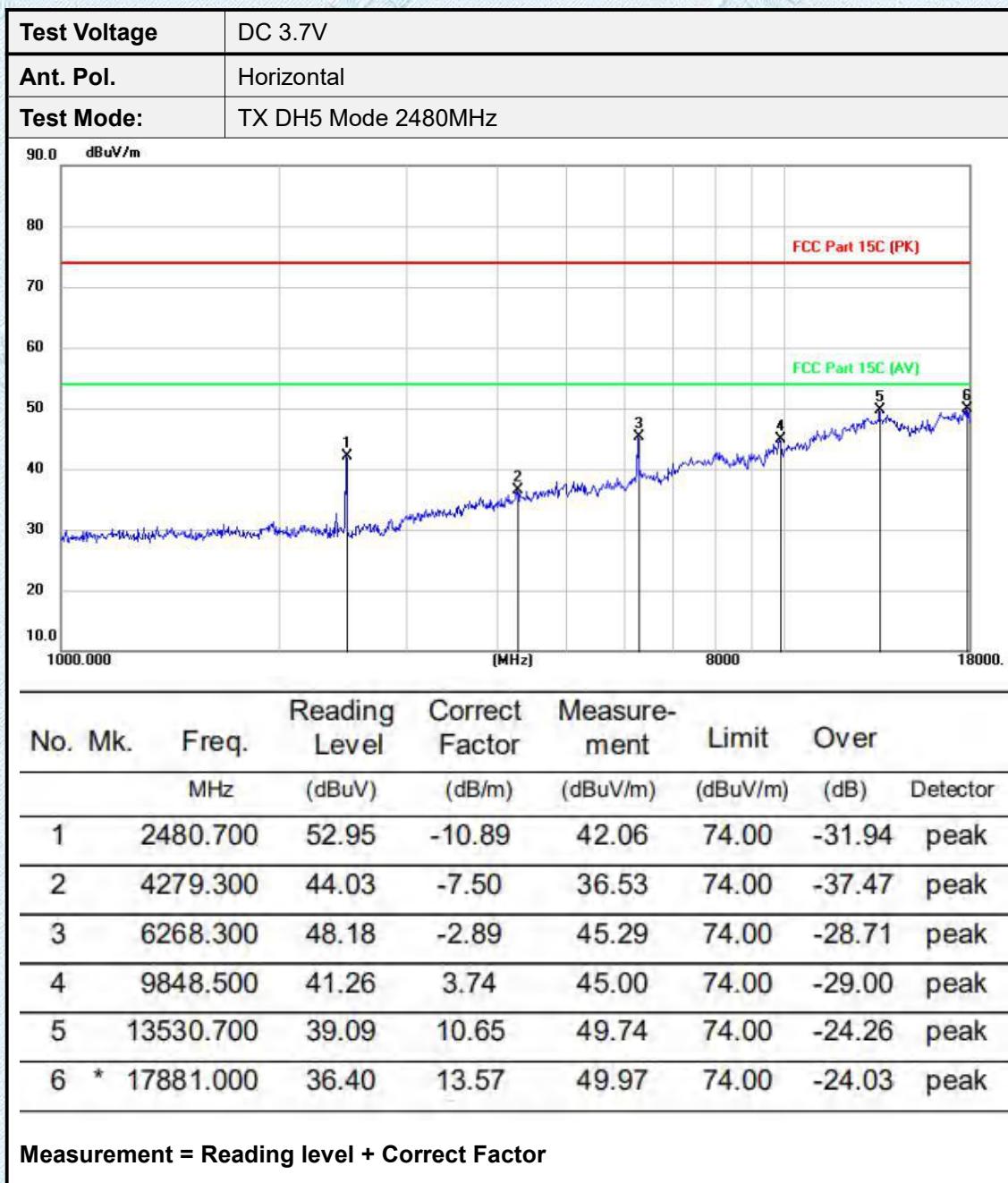
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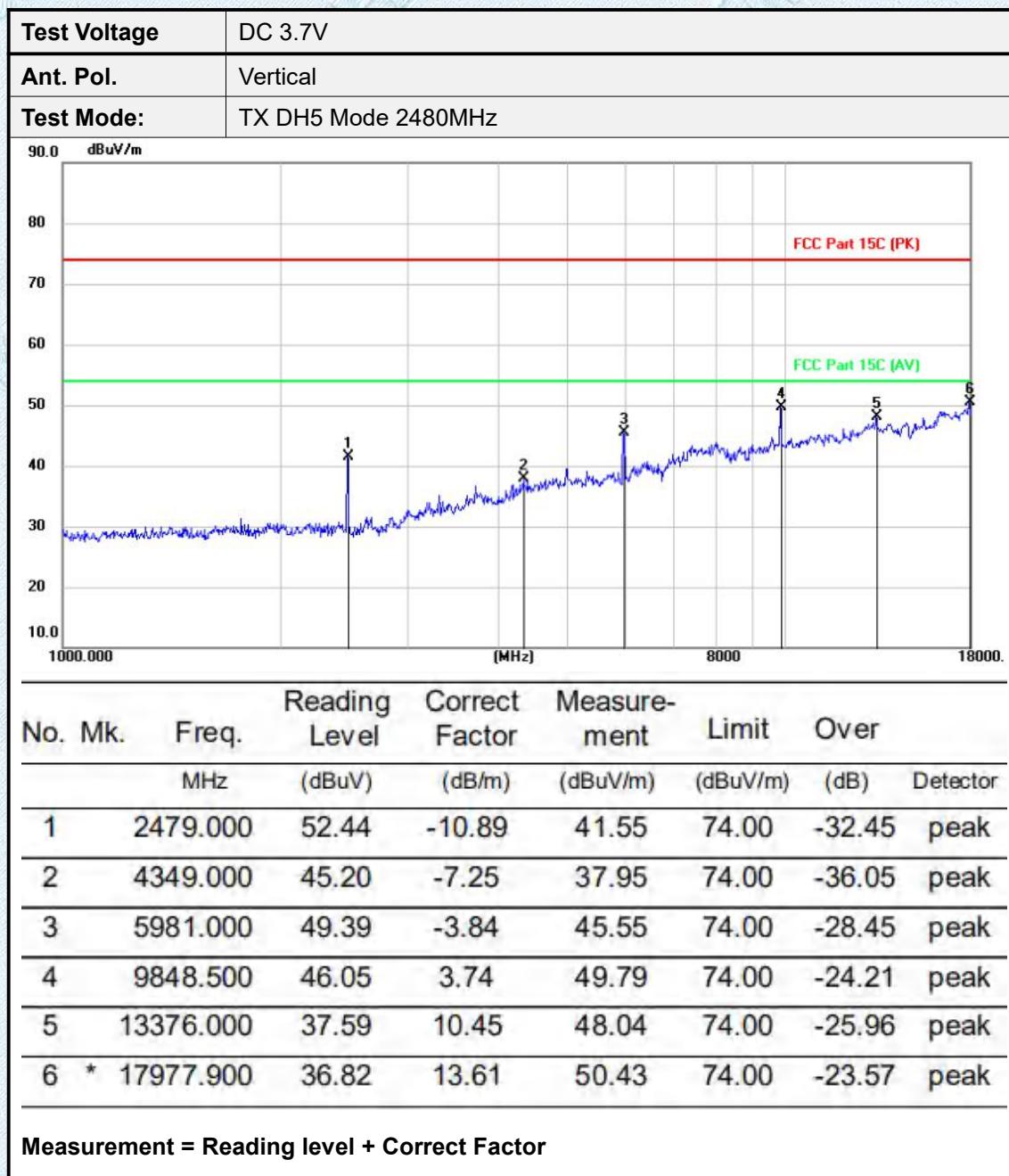
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Note:

All test modes had been tested. The GFSK(DH5) modulation is the worst case and recorded in the report.

3.10. Conducted Emission

Limit

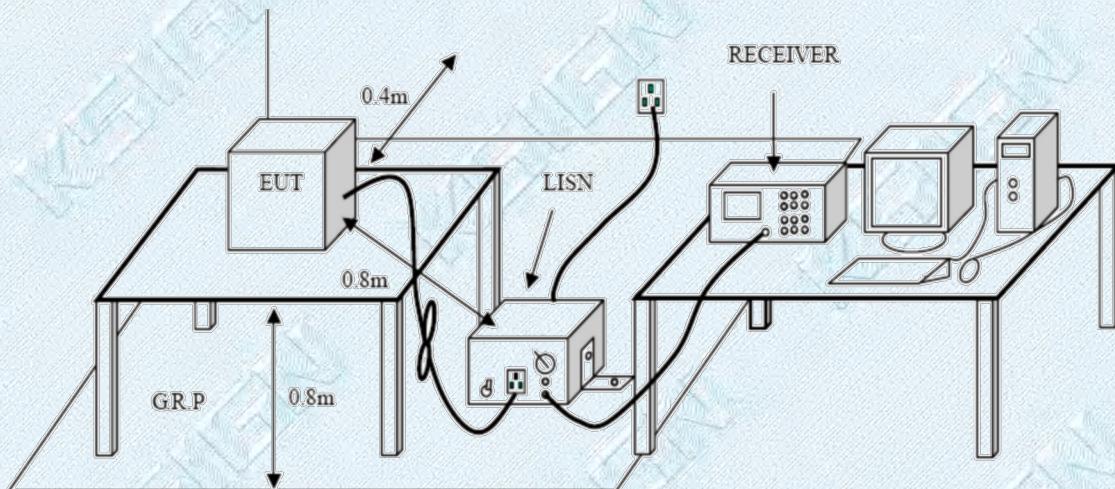
Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Test Configuration



Test Procedure

1. The EUT was setup according to ANSI C63.10:2020 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50ohm /50uH coupling impedance for the measuring equipment.
The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
7. During the above scans, the emissions were maximized by cable manipulation.

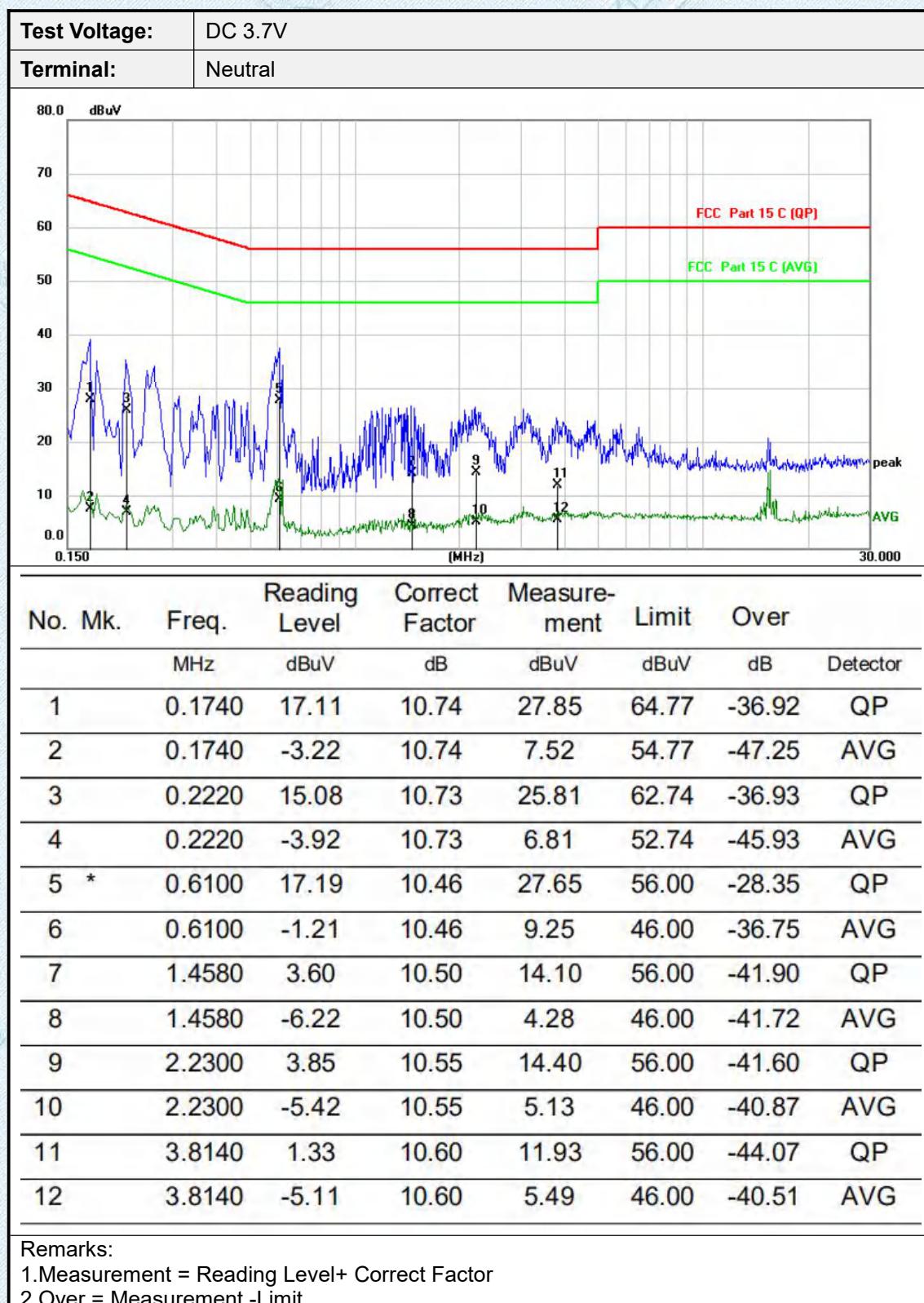
Test Mode:

Please refer to the clause 2.2

Test Results

Pre-scan DH5, 2DH5,3DH5 modulation, and found the DH5 modulation 2402MHz which it is worse case, so only show the test data for worse case.

Test Voltage:	DC 3.7V						
Terminal:	Line						
Test Frequency:	0.150 - 30.000 MHz						
Test Level:	dBuV						
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over
		MHz	dBuV	dB	dBuV	dBuV	Detector
1		0.1700	17.17	10.73	27.90	64.96	-37.06 QP
2		0.1700	-0.49	10.73	10.24	54.96	-44.72 AVG
3		0.2220	17.57	10.75	28.32	62.74	-34.42 QP
4		0.2220	0.56	10.75	11.31	52.74	-41.43 AVG
5		0.2700	13.98	10.65	24.63	61.12	-36.49 QP
6		0.2700	-1.11	10.65	9.54	51.12	-41.58 AVG
7	*	0.6020	23.87	10.48	34.35	56.00	-21.65 QP
8		0.6020	7.71	10.48	18.19	46.00	-27.81 AVG
9		1.4299	11.94	10.42	22.36	56.00	-33.64 QP
10		1.4299	-2.09	10.42	8.33	46.00	-37.67 AVG
11		2.9460	8.51	10.62	19.13	56.00	-36.87 QP
12		2.9460	-3.29	10.62	7.33	46.00	-38.67 AVG
Remarks:							
1.Measurement = Reading Level+ Correct Factor							
2.Over = Measurement -Limit							



3.11. Pseudorandom Frequency Hopping Sequence

LIMIT

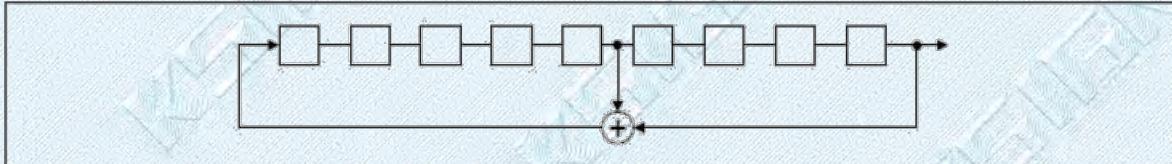
FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(1):

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hop-ping channel, whichever is greater. Al-ternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hop-ping channel bandwidths of their cor-responding transmitters and shall shift frequencies in synchronization with the transmitted signals.

TEST RESULTS

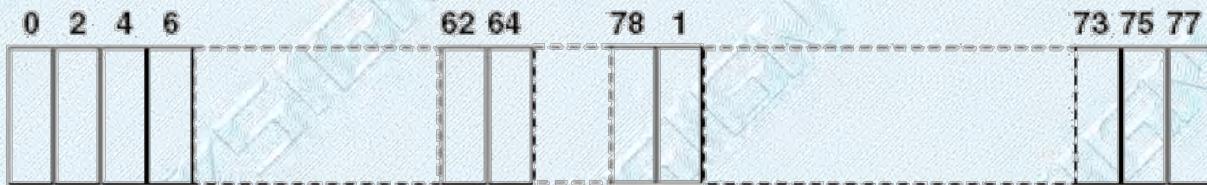
The pseudorandom frequency hopping sequence may be generated in a nice-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the friststage. The sequence begins with the frist one of 9 consecutive ones, for example: the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence: $2^9 - 1 = 511$ bits
- Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An explame of pseudorandom frequency hopping sequence as follows:

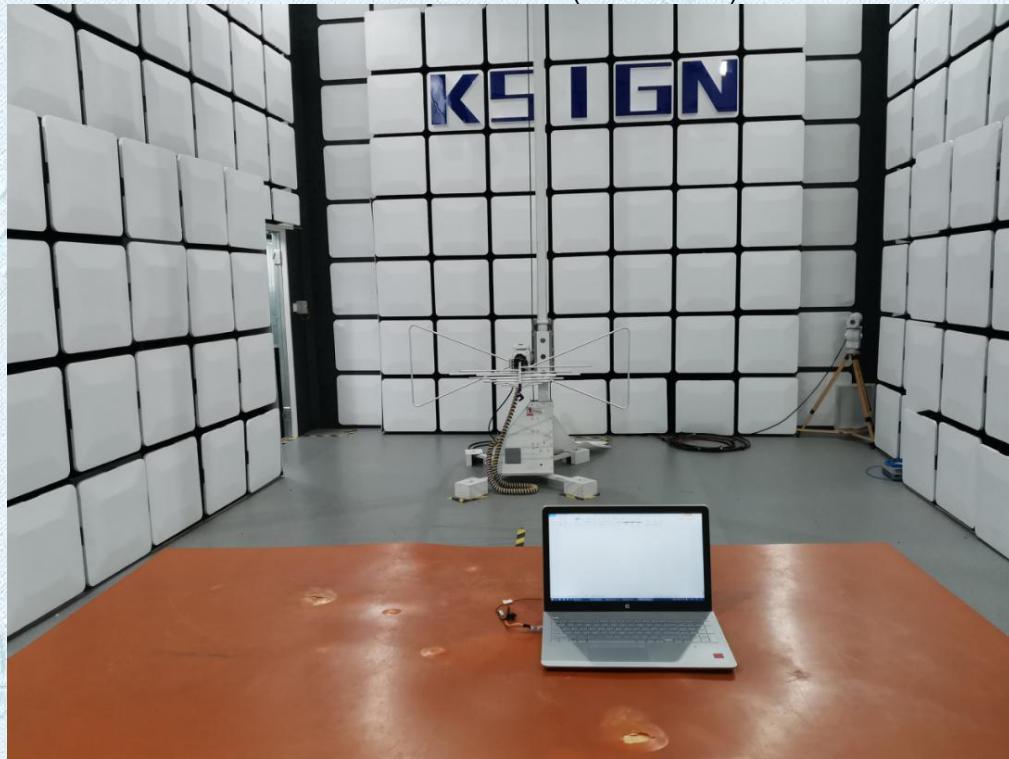


Each frequency used equally one the average by each transmitter.

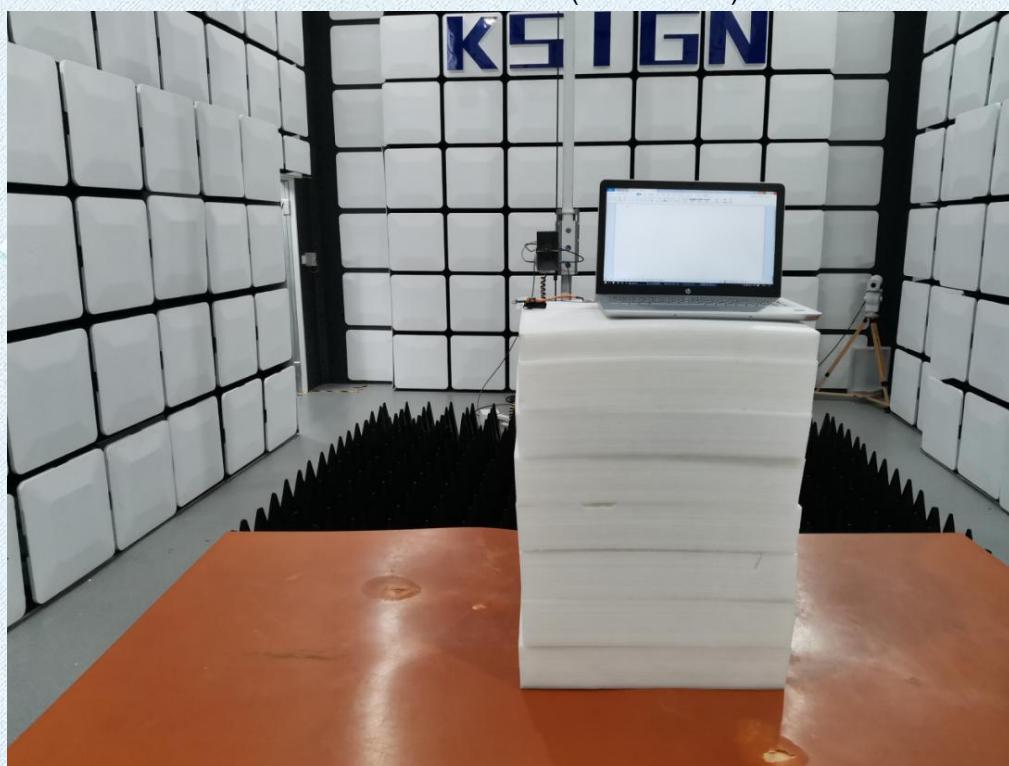
The system receiver have input bandwidths that match the hopping channel bandwidths of their corresponding transmitter and shift frequencies in synchronization with the transmitted signals.

4. EUT TEST PHOTOS

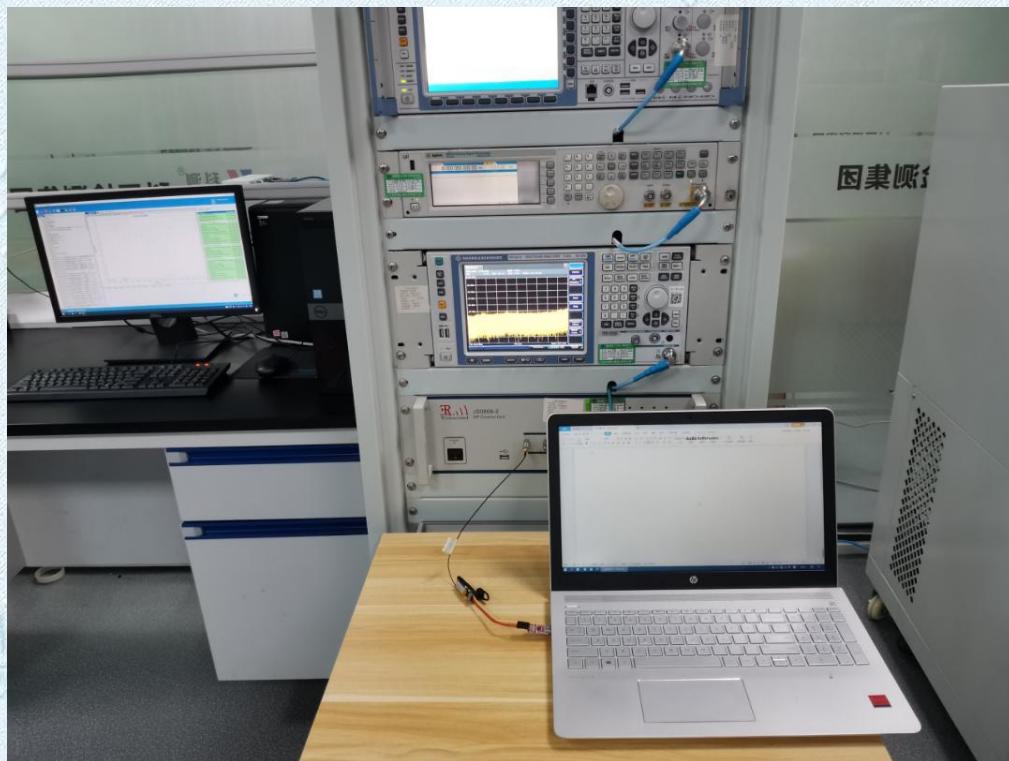
Radiated Measurement (Below 1GHz)



Radiated Measurement (Above 1GHz)



RF Conducted



CONDUCTED EMISSION TEST SETUP



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5.PHOTOGRAPHS OF EUT CONSTRUCTIONAL

External Photographs



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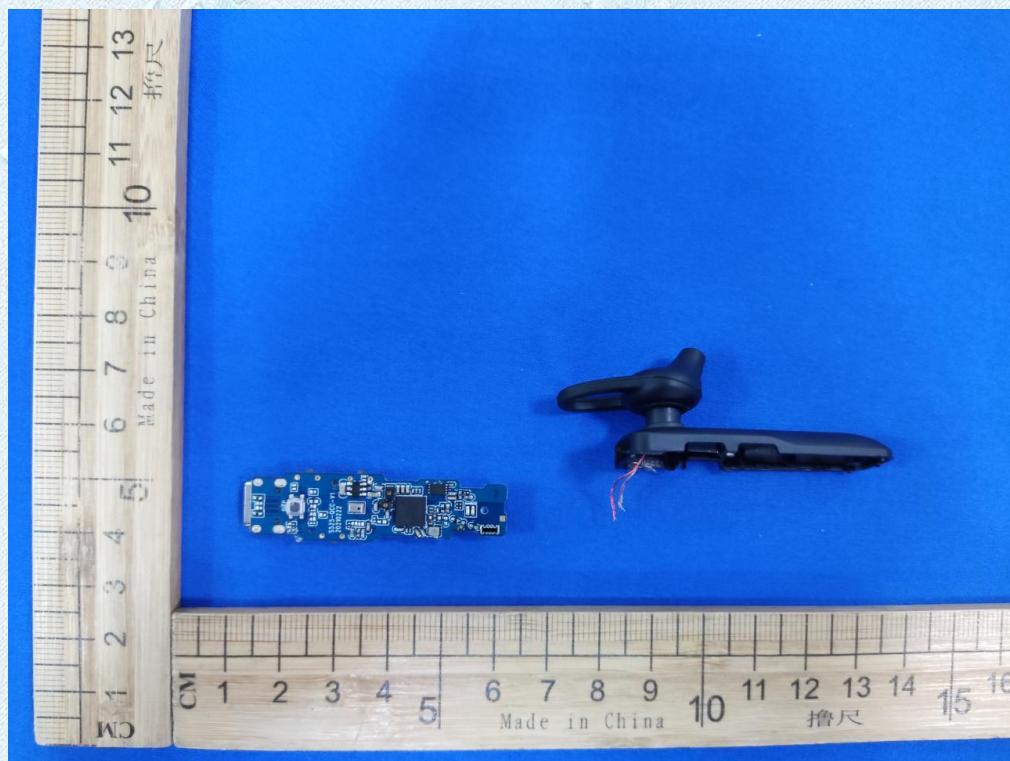
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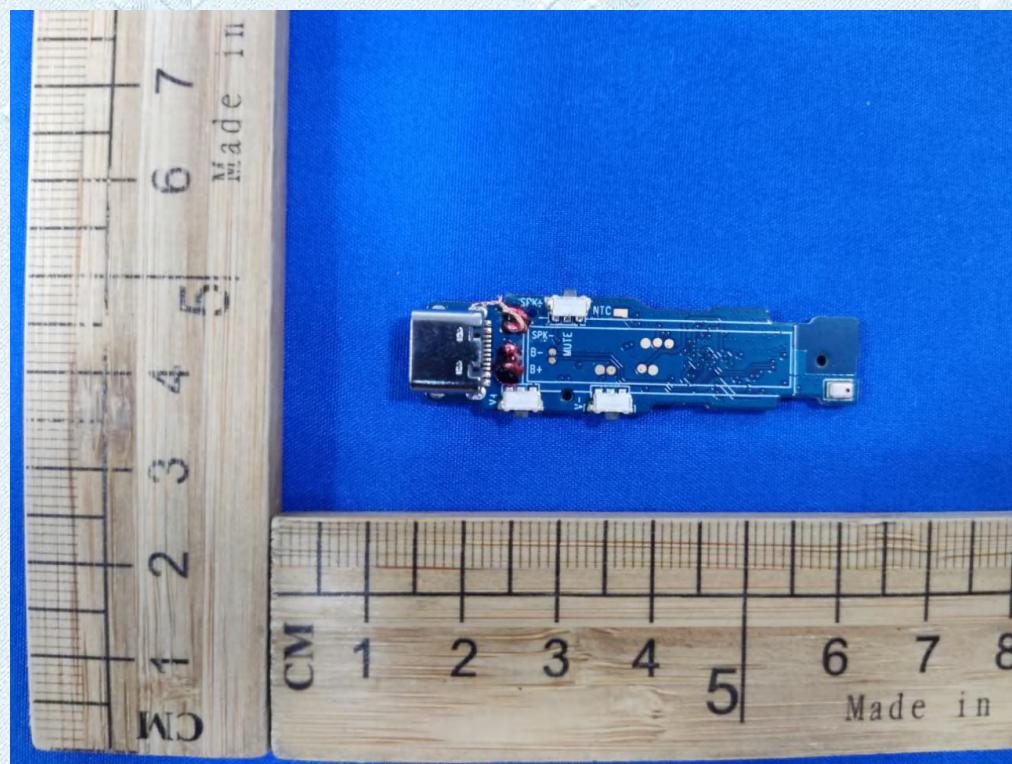
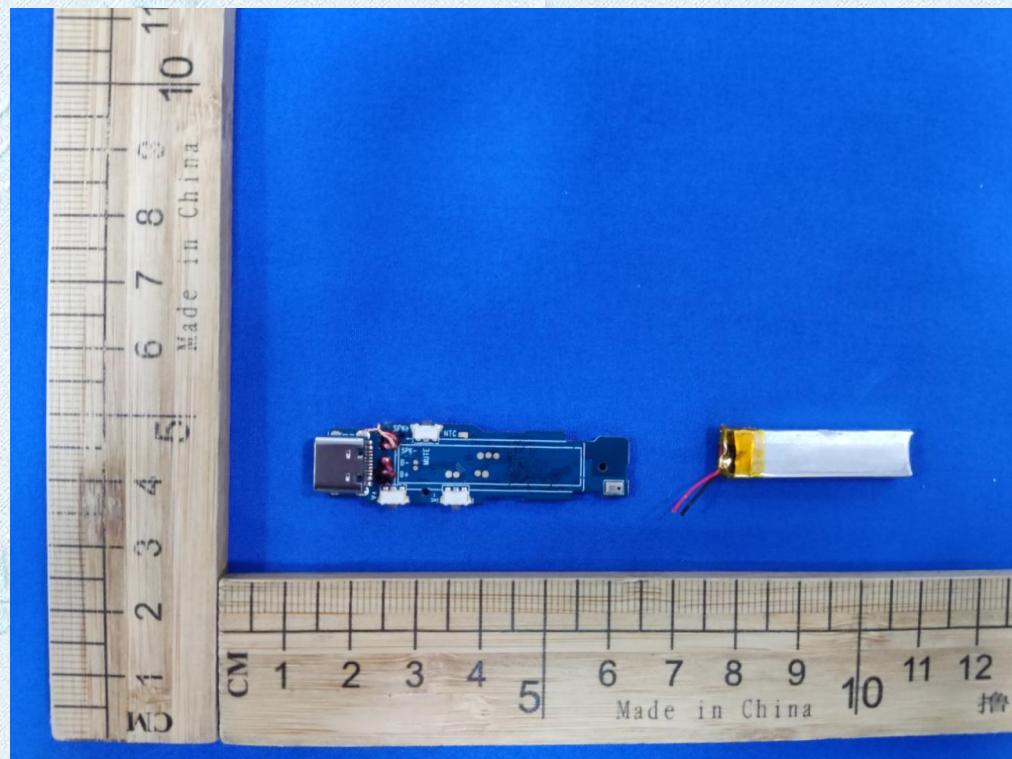
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Internal Photographs

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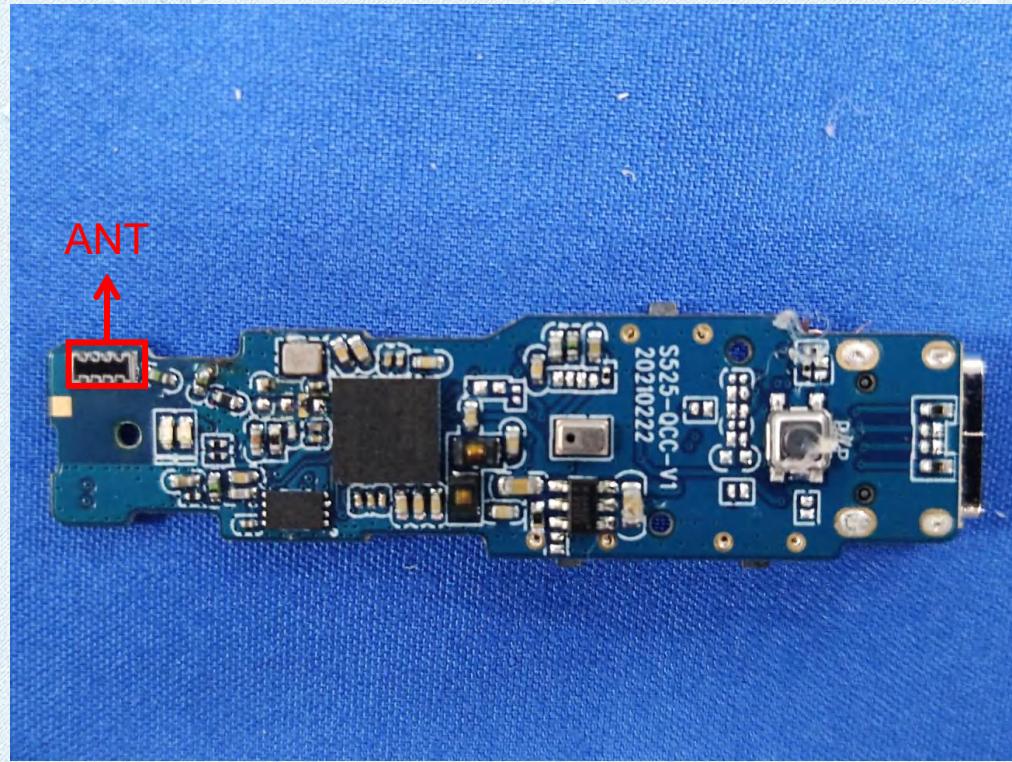
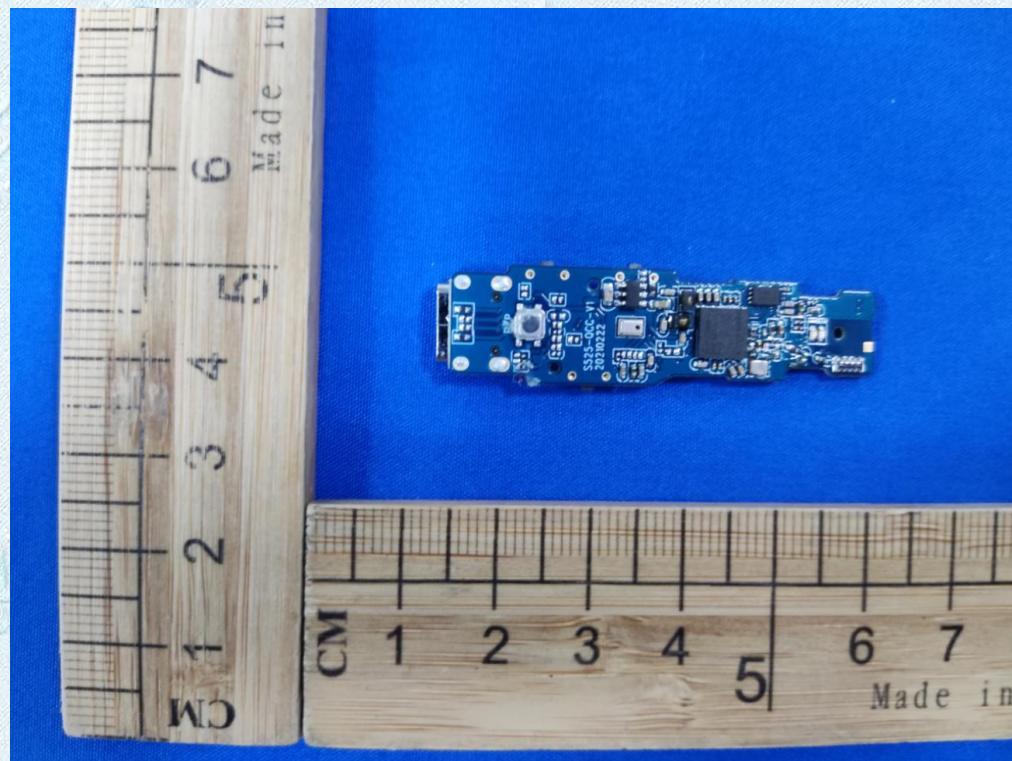
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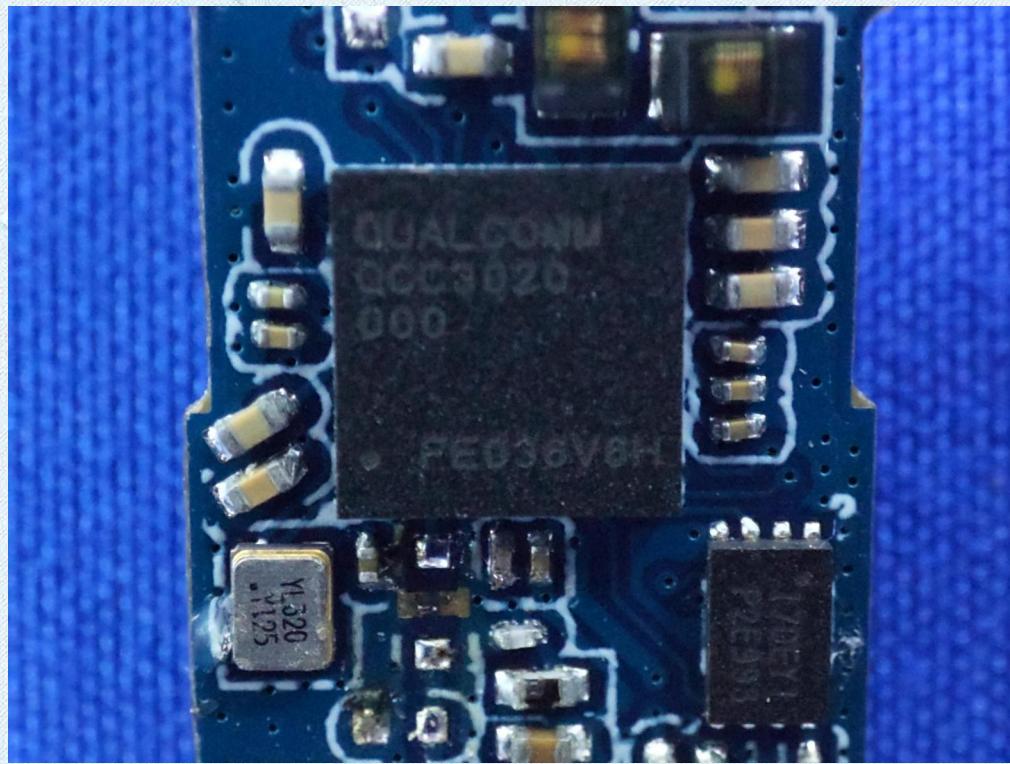
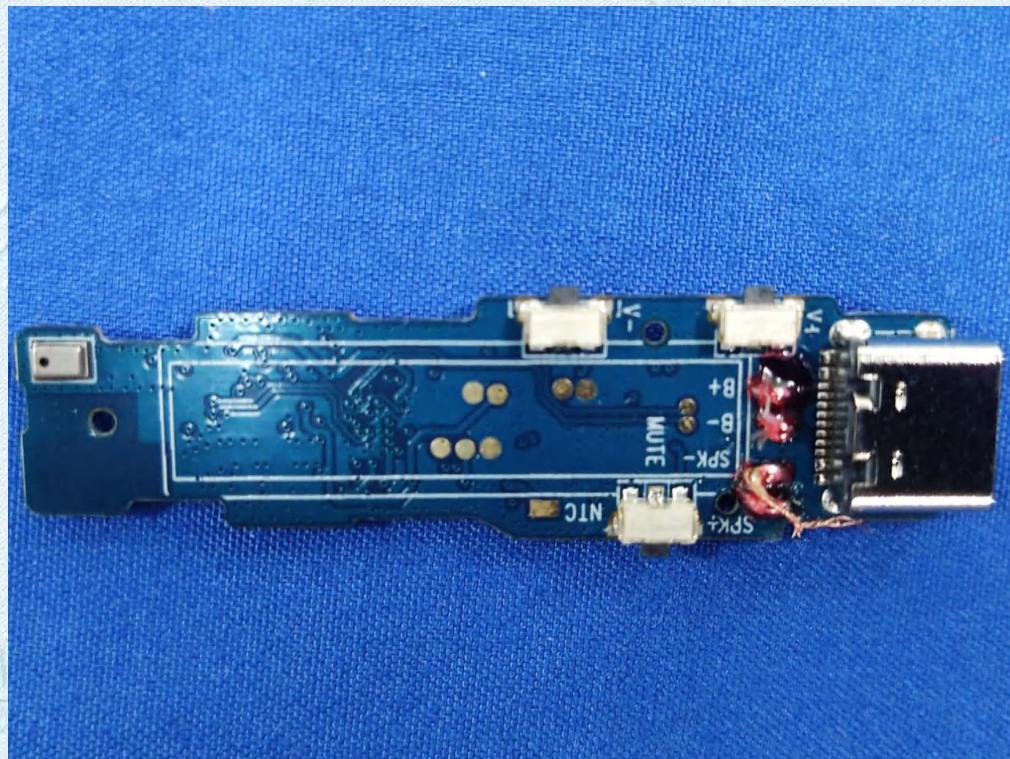
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