

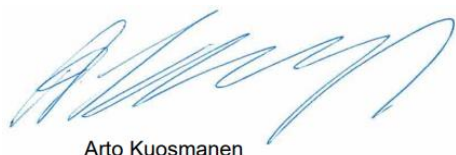
Radio Test Report

According to

**FCC part 15C,
RSS-247, RSS-Gen**

DUT Name: KALLOS
Model No: KALLOS
Customer: Intrex Inc
Address: 1896 Preston White Drive, 20191, Reston, VA, United States
Summary IN COMPLIANCE
Date of Reception: 28.3.2024
Date(s) of Test(s): 8.4.2024 – 29.4.2024

Tested by Test Engineer


Arto Kuosmanen

Approved by Technical Manager


Jukka Rauma

The test report shall not be reproduced except in full, without the written approval of the laboratory. This report is only for the equipment which is described in page 4.

CONTENTS

1. General Information	3
2. Test Samples	4
3. Configuration and Operation Modes	6
4. Test equipment.....	7
5. Uncertainties	8
7. Test conditions	10
8. Summary.....	13
9. Occupied bandwidth	14
10. 6 dB bandwidth	16
11. Peak conducted output power	18
12. Peak Power Spectral Density	20
13. AC power line conducted emissions.....	22
14. Band edge emissions compliance (transmitter)	25
15. Tx spurious emissions, conducted.....	28
16. Emissions in restricted frequency bands	31
17. Tx spurious emissions, radiated	35
18. Receiver spurious emissions, radiated	48
19. Photographs – Equipment External.....	51
20. Photographs – Equipment Internal	54
21. Photographs – Test Setups	56

Document Version History	Date of issue	Comments	Approved by
v0.1	7.6.2024	Initial version	
v1.0	12.6.2024	Approved version	Jukka Rauma

1. General Information

Test Engineers: Arto Kuosmanen, Pekka Pulkkinen

Location:

Test Firm Name	Eurofins Electric & Electronics Finland Oy (EEEF)
Test Site	Yrttipellontie, Peltola
Address of Test Site	Yrttipellontie 6, 90230 Oulu, Finland
FCC Designation number	FI0008
FCC site registration number	771880
ISED number	29576
CAB Identifier	T290

Customer: Intrex Inc
Ted Tzirimis
1896 Preston White Drive, 20191, Reston, VA, United States
tel: +17034833255
e-mail: ted@intrex.com

Climate Conditions: Temperature: 15 - 35 °C
Air pressure: 860 - 1060 hPa
Humidity: 30-60 rH%
These limits were not exceeded during testing.

2. Test Samples

General description:

Product is one device in Rythmos+ community system. Safety and wellness solution for senior communities.

Test sample (Conducted RF):

Sample number	Serial number	Manufacturer	DUT Type	Model	HW version	SW version
3941ER002	MDR_04_02_12	Intrex Inc	Wearable safety and wellness device	KALLOS	MRD_04	2024.03.1x.1

Test sample (Radiated and conducted emissions):

Sample number	Serial number	Manufacturer	DUT Type	Model	HW version	SW version
3941ER004	MRD_04_01_1	Intrex Inc	Wearable safety and wellness device	KALLOS	MRD_04	2024.03.1x.1
3941ER005	MRD_04_10	Intrex Inc	Wearable safety and wellness device	KALLOS	MRD_04	2024.03.1x.1
3941ER008	MRDCHG_02_0	Intrex Inc	Charging adapter	CHRG_1	MRD_CHG_02	NA

Accessories / Monitoring devices:

Sample number	Serial number	Manufacturer	DUT Type	Model	HW version	SW version	Comments
3941ER009	NA	Apple	Power adapter	A2118	NA	NA	
3941ER010	NA	NA	USB-A to UAB-C cable, 0.5m	NA	NA	NA	

Description	Information	
Additional model	KALLOS	
Brand Names(s)	Rythmos	
PMN	KALLOS	
HVIN	KALLOS	
FVIN	2024.03.1x.1	
HMN	Rythmos	
FCC ID	2AWYMKALLOS	
IC ID	31261-KALLOSNA01	
Equipment type	End product	
Radio type	Transceiver	
- operating frequency range:	2400.0 MHz – 2483.5 MHz	
- Nominal Channel Bandwidth:	1 MHz	
Radio technology / type of equipment	Bluetooth 5.4	
Modulation:	GFSK	
Number of antennas	1	
Radio chip	Nordic Semiconductor nRF5340	
Bluetooth Specification	LE 1Mbps PHY	Yes
	LE 2Mbps PHY	No
	LE Coded PHY S=2 (500 kbit)	No
	LE Coded PHY S=8 (125 kbit)	No
	Stable Modulation Index - Transmitter	No
	Stable Modulation Index - Reer	No
Antenna	Type	Integrated
	Model	LDS
	Manufacturer	Amphenol
	Gain	-8.95 dBi
Supply voltage	3.7VDC	
Type of Power source	Battery operated	
Manufacturer	Intrex Inc 1896 Preston White Drive, 20191, Reston, VA, United States	

3. Configuration and Operation Modes

Conducted RF test:

Test modes / description
GFSK modulation, data rate 1 Mbps, duty cycle 63%
Continuous modulated carrier at 2402 MHz, 2442 MHz and 2480 MHz, power level setting 8 dBm

Conducted and radiated emission test:

Test modes / description
EUT battery powered, continuous modulated carrier at 2402 MHz, 2442 MHz and 2480 MHz, power level setting max, data rate 1 Mbps, PBR9.
EUT battery powered, continuous reception at 2442 MHz

4. Test equipment

Conducted RF tests

R&S TS8997 Test System equipment list:

Equipment	Certification-No.	Calibration Date	Next calibration
SMW200A	1035089-D-K-15195-01-00-2022-03	26.06.2023	25.06.2026
SMB100A	1041326-D-K-15195-01-00-2022-03	26.06.2023	25.06.2026
OSP-B157WX+OSP220	300642762-D-K-15195-01-00-2022-03	26.06.2023	25.06.2024
OSP-B157W8plus+OSP150	300639878-D-K-15195-01-00-2022-03	26.06.2023	25.06.2024
ESW	1039208-D-K-15195-01-00-2022-03	05.07.2023	04.07.2024
CMW500	300693633-D-K-15195-01-00-2023-04	25.04.2023	24.04.2024

Emission tests

New ID	Manufacturer	Equipment type	Description	Serial	Calibration information	Next calibration
G4C265	Rohde & Schwarz	ESW26	EMI test receiver	101324	6.7.2023	6.7.2024
G4C273	Frankonia	ALX-4000E	Broadband Antenna, 25MHz-4GHz with 6dB (50-A-MFN-06) att.	00816+1531	22.1.2024	22.1.2027
G4C292	Rohde & Schwarz	TS-LNA 1840	RF Preamplicifier 18 to 40 GHz	100841	9.6.2022	9.6.2024
G4C298	Rohde & Schwarz	CMW500	Wideband radio communication tester	170980	29.6.2023	29.6.2024
G4C469	Rohde & Schwarz	TS_PRE2	RF Preamplicifier	101541	9.6.2022	9.6.2024
G4C294	Rohde & Schwarz	Antenna	Horn Antenna -> 40GHz	101067	4.11.2022	4.11.2025
G4C576	Rohde & Schwarz	HF907	Double-Ridged Waveguide Horn Antenna 800MHz-18GHz	100163	9.8.2022	9.8.2025

New ID	Manufacturer	Equipment type	Description	Serial	Calibration information	Next calibration
G4C265	Rohde & Schwarz	ESW26	EMI test receiver	101324	6.7.2023	6.7.2024
G4C515	Rohde & Schwarz	ENV216	Two-line V-Network LISN	101472	14.5.2023	14.5.2024

Test software

Description	Manufacturer	Name	Version
EMC Software	Rohde & Schwarz	EMC32	10.60.20
RF Software	Rohde & Schwarz	WMS32	11.60.00

5. Uncertainties

Description	Expanded Uncertainty (k=2)
RF Output Power	0,99
Peak Power	0,80
Power Spectral Density	0,99
Accumulated Transmit Time	0,01%
Minimum Frequency Occupation Time	0,01%
Hopping Frequency Separation	0,60%
Occupied Channel Bandwidth	2,08 %
Out-of-band emissions	0,89
Transmitter unwanted emissions in the spurious domain	1,76
AC conducted emission	2,24
Radiated emission ≤ 1 GHz	4,62
Radiated emission > 1 GHz	5,72

6. Sample emission level calculation

The following is a description of term and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBuV.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strength to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. RF path losses, including RF cables and preamplifiers, have been included with the A.F to simplify the calculations. The antenna factor is used in calculations as follows:

$$\text{Reading on Analyzer (dBuV)} + \text{A.F. (dB/m)} = \text{Net field strength (dBuV/m)}$$

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of dBuV/m). The FCC limits are given in units of uV/m. The following formula is used to convert the units of uV/m to dbuV/m:

$$\text{Limit (dBuV/m)} = 20 * \log(\text{uV/m})$$

Margin :

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

Reading + AF	= Net Reading :	Net reading – FCC limit	= Margin
+ 21.5 dBuV + 26 dB/m	= 47.5 dBuV/m :	47.5 dBuV/m – 57.0 dBuV/m	= -9.5 dB

7. Test conditions

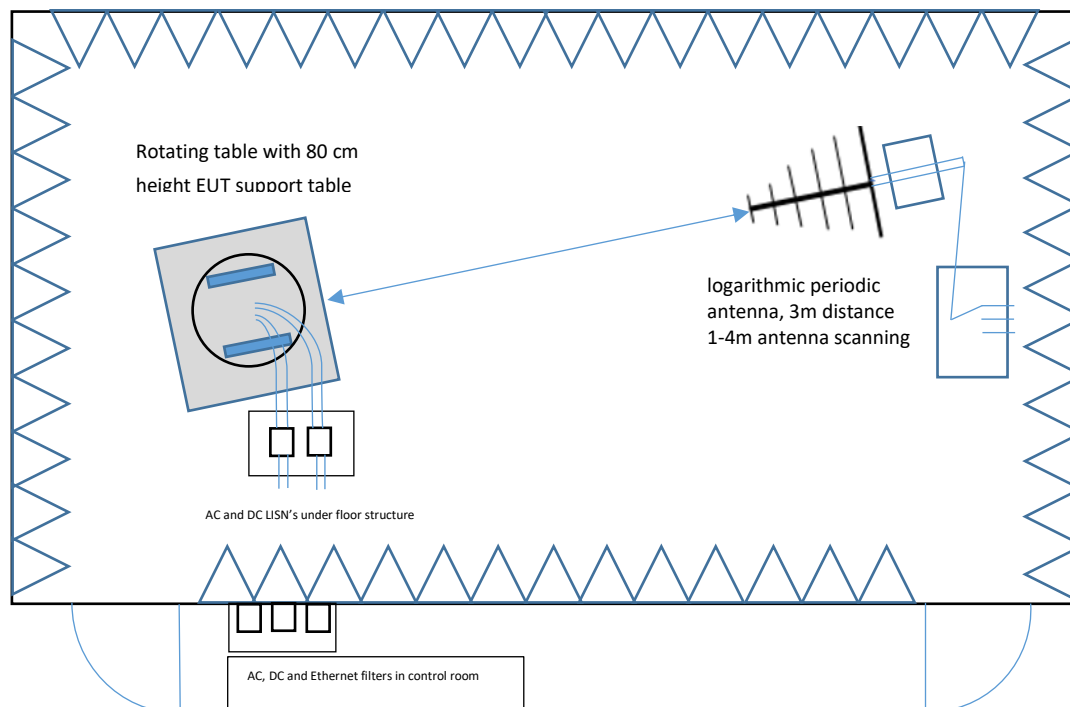
All radiated tests were performed in a semi-anechoic chamber, where the measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz, 1 GHz-18 GHz Double-ridged horn antenna and 18 GHz-40 GHz horn antenna) is located at a distance of 3 m.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height (all antennas) was varied from 1 to 4 meters to find the maximum radiated emission.

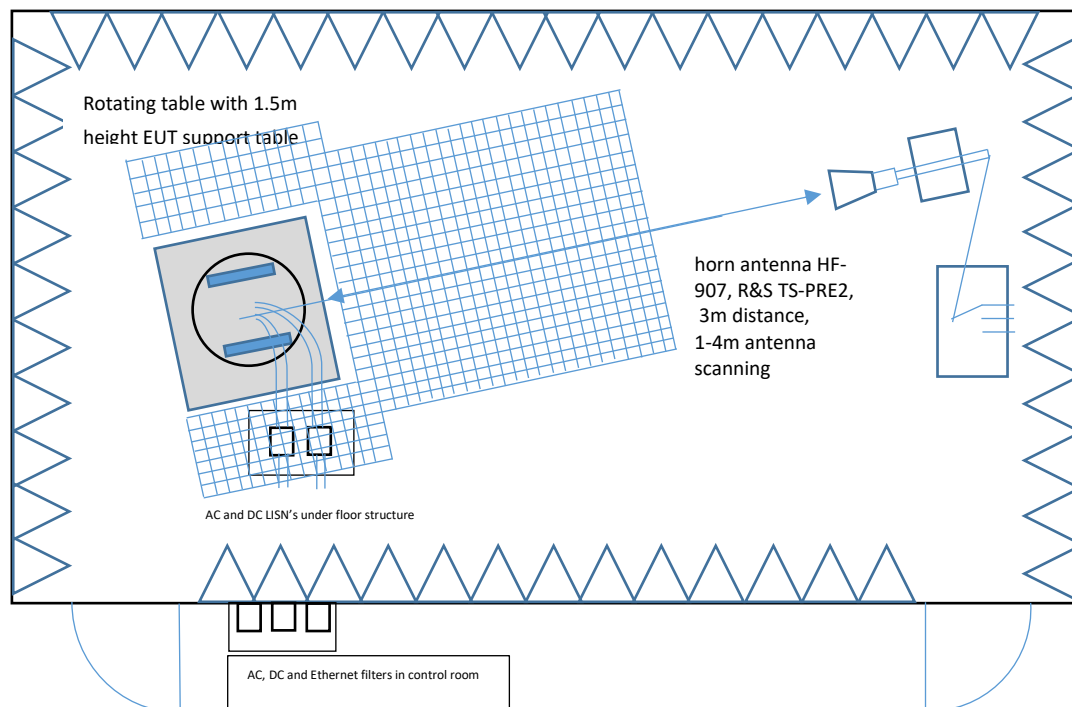
Measurements were made in both horizontal and vertical planes of polarization.

A resolution bandwidth / video bandwidth of 100 kHz / 300 kHz was used for frequencies below 1 GHz and 1 MHz / 3 MHz for frequencies above 1 GHz.

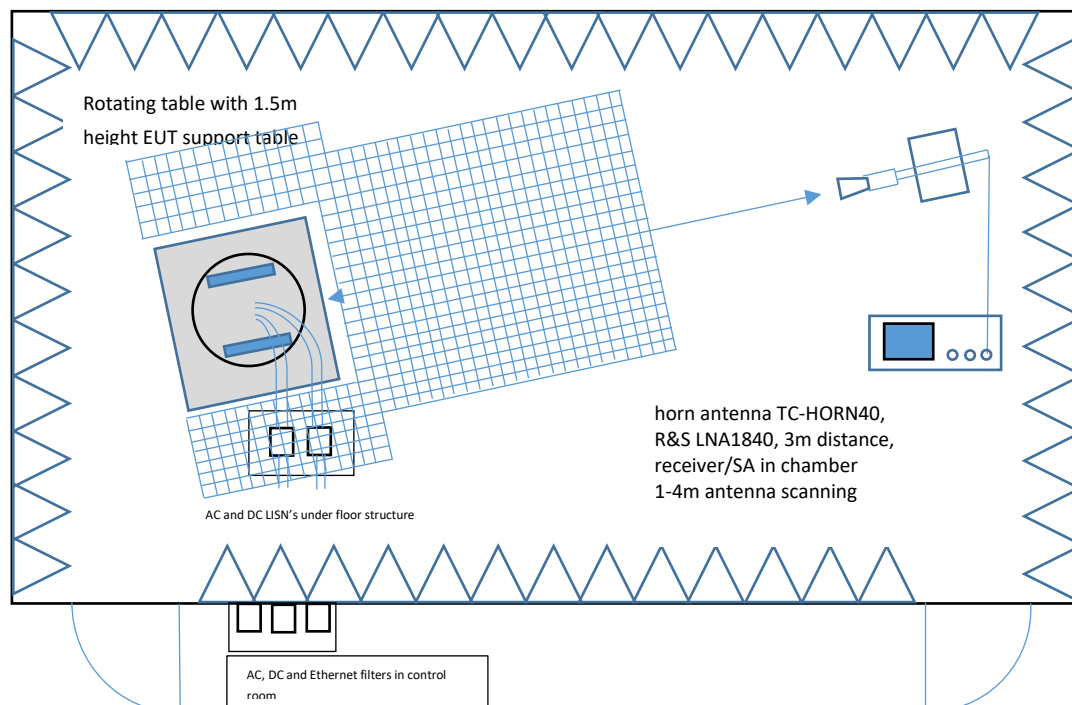
Radiated measurements setup from 30 MHz to 1 GHz:



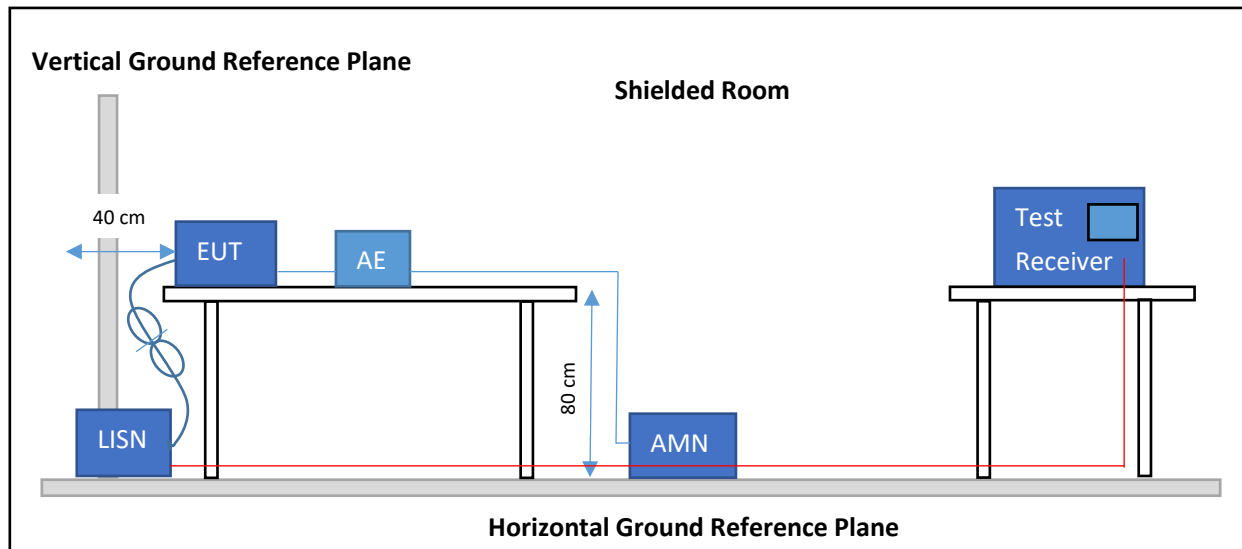
Radiated measurements setup from 1 GHz to 18 GHz:



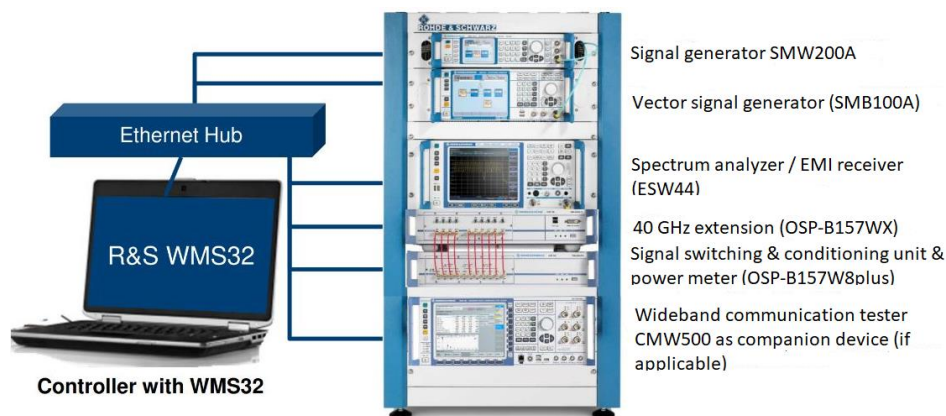
Radiated measurements setup from 18 GHz to 26 / 40 GHz:



Conducted emission setup



Conducted RF measurement system:



8. Summary

FCC/ISED Requirement (15.247 / RSS-247)		Reference method	Result	Remark
Occupied Bandwidth	ISED RSS-Gen, Issue 5 A2 (section 6.7)	ANSI C63.10-2013	N/R	Informational only
6 dB Bandwidth	FCC § 15.247(a)(2) / RSS-247, Issue 3 (section 5.2 (a))	ANSI C63.10-2013	PASS	
Maximum peak conducted power	FCC § 15.247(b) / RSS-247, Issue 3 (section 5.4 (d))	ANSI C63.10-2013	PASS	
Power spectral density	FCC § 15.247(e) / RSS-247, Issue 3 (section 5.2)	ANSI C63.10-2013	PASS	
AC power line conducted emissions	FCC § 15.207 / RSS-247, Issue 3 (section 3.1)	ANSI C63.10-2013	PASS	
Band edge compliance	FCC § 15.247(d) / RSS-247, Issue 3 (section 5.5)	ANSI C63.10-2013	PASS	
Conducted spurious emissions	FCC § 15.247(d) / RSS-247, Issue 3 (section 5.5)	ANSI C63.10-2013	PASS	
Transmitter radiated spurious emissions	FCC § 15.247(d), FCC § 15.209 / RSS-Gen, Issue 5 A2 (section 6.13)	ANSI C63.10-2013	PASS	
Receiver radiated spurious emissions	ISED RSS-247, Issue 3 (section 3.1)	ANSI C63.4-2014	PASS	
Possible test case verdicts: PASS = Tested device meets the requirements FAIL = Tested device does not meet the requirements N/A = Test requirement not applicable for tested device N/T = Test requirement applicable for tested device, but not tested				
Applicable FCC KDB(s): KDB 558074 DO1: DTS measurement guidance v 0502 (Apr 2, 2019)				

9. Occupied bandwidth

Reference: ISED RSS-Gen, Issue 5 A2 (section 6.7)

Test method: ANSI C63.10 (6.9.3)

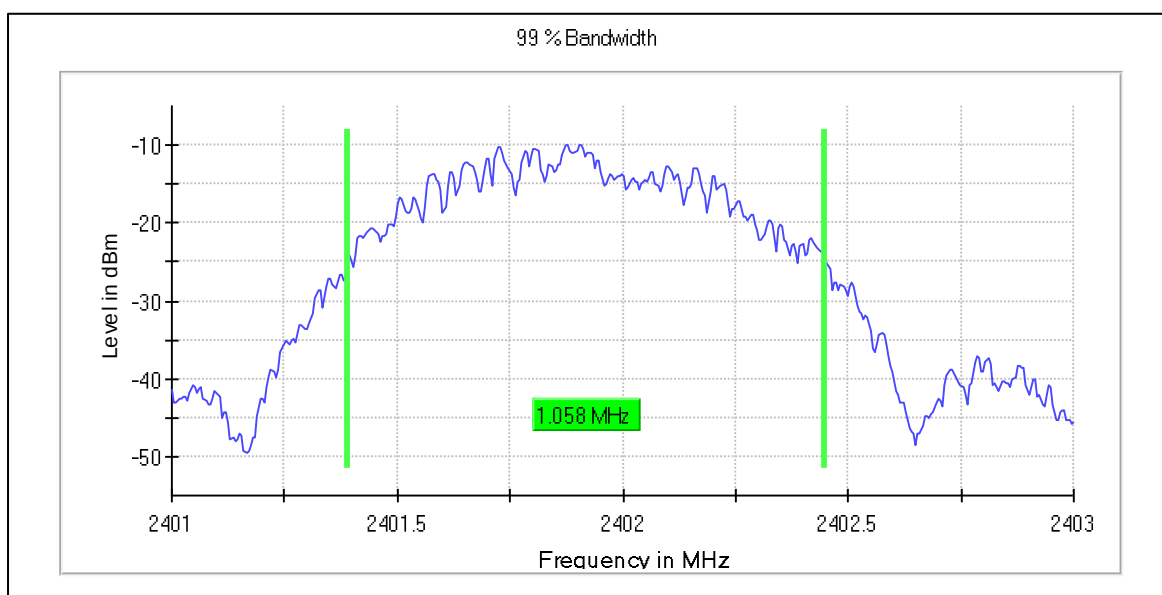
Limits
None (Informational only)

Procedure
1. EUT transmitter is activated in test mode under normal conditions 2. Spectrum analyzer is set to peak detection and maximum hold with a span twice the emission spectrum 3. The resolution bandwidth is set to the range of 1% to 5% of the occupied bandwidth 4. The occupied bandwidth is measured with the build-in analyzer function

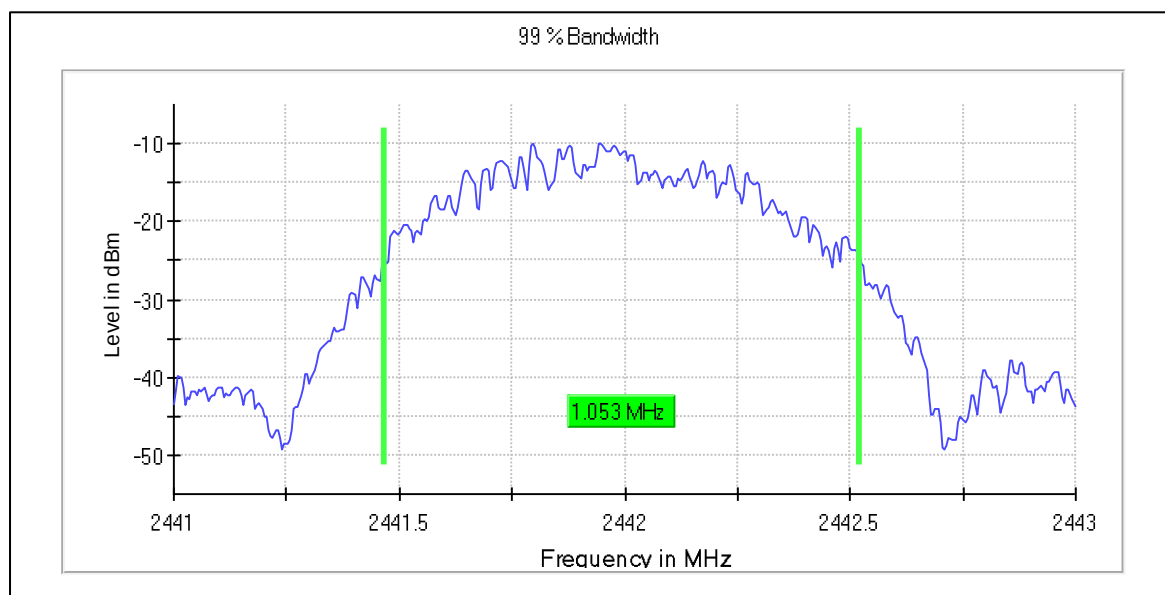
Summary:

Summary		
Mode / modulation	Frequency (MHz)	Bandwidth (MHz)
Bluetooth LE, 1 Mbps	2402	1.057645
Bluetooth LE, 1 Mbps	2442	1.052632
Bluetooth LE, 1 Mbps	2480	1.062657

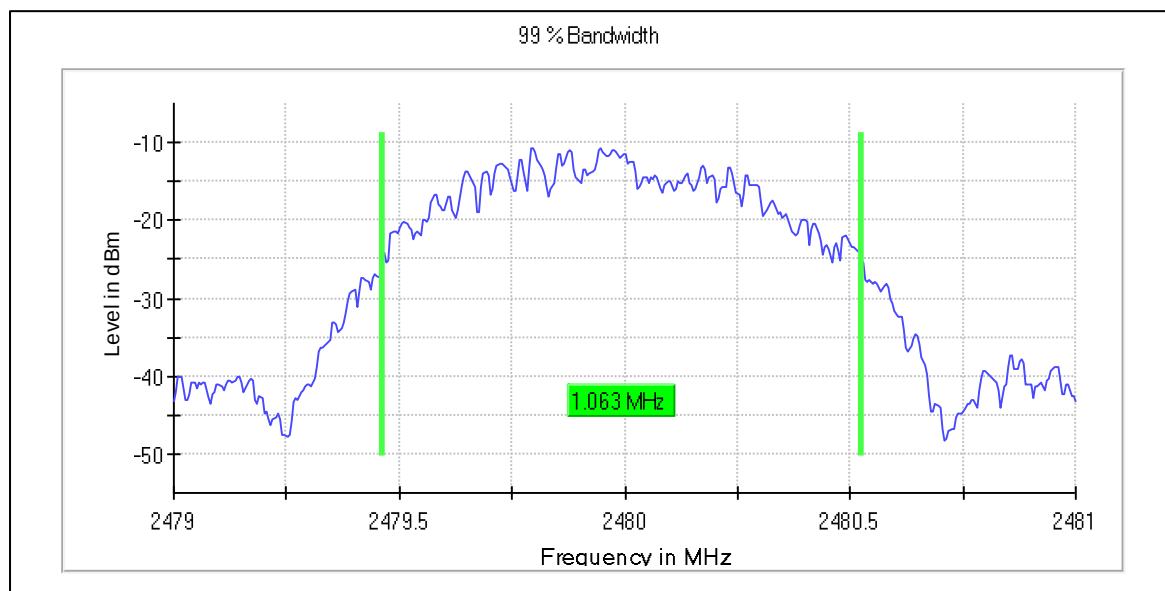
Occupied bandwidth, low channel



Occupied bandwidth, middle channel



Occupied bandwidth, high channel



10. 6 dB bandwidth

Reference: FCC title 47 part 15 §15.247(a), ISSED RSS-247, Issue 3 (section 5.2)

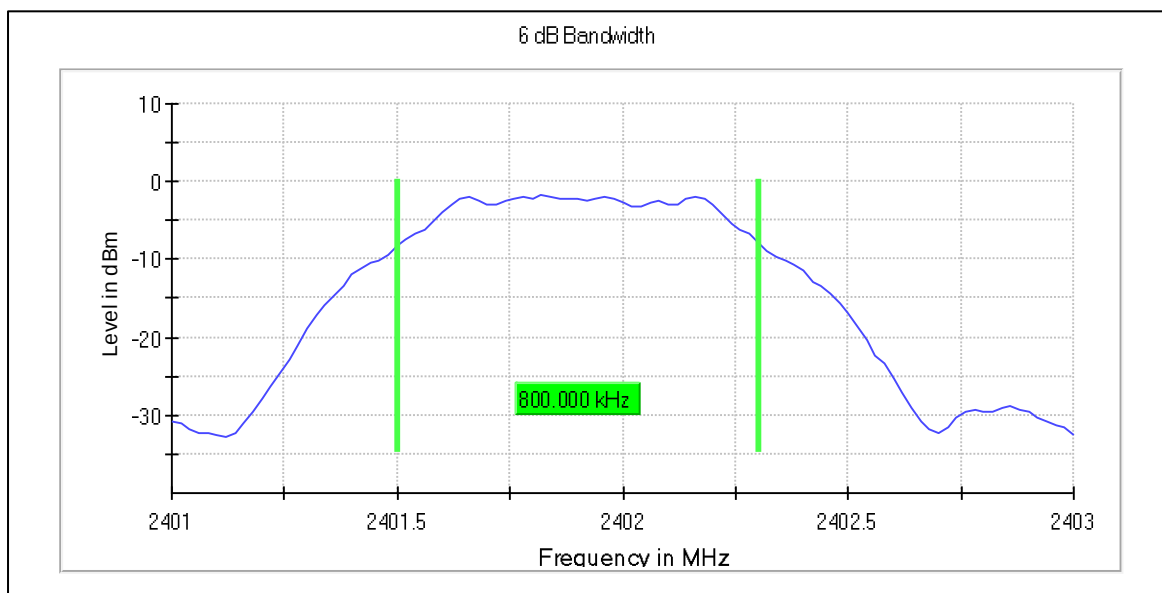
Test method: KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 (11.8.1)

Limits
The minimum 6 dB bandwidth shall be at least 500 kHz.

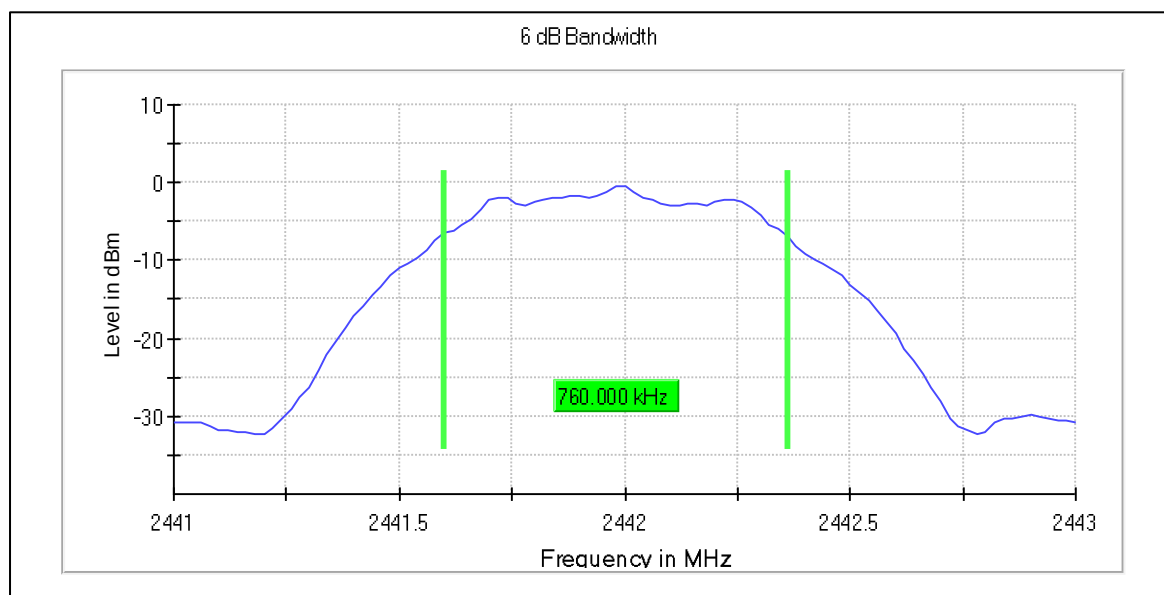
Test procedure
1. EUT set to test mode 2. Span set to at least twice the emission spectrum 3. Detector set to peak and max hold and BW is set to 100 kHz 4. Envelope peak value of emission spectrum is selected 5. Marker on envelope of spectrum is set to level of -6 dB to the left of the peak 6. Marker on envelope of spectrum is set to level of -6 dB to the right of the peak 7. 6 dB bandwidth is determined by marker frequency separation

Mode / modulation	DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
Bluetooth LE, 1 Mbps	2402.000000	0.800000	0.500000	---	2401.500000	2402.300000	-1.8	PASS
Bluetooth LE, 1 Mbps	2442.000000	0.760000	0.500000	---	2441.600000	2442.360000	-0.4	PASS
Bluetooth LE, 1 Mbps	2480.000000	0.780000	0.500000	---	2479.580000	2480.360000	-1.2	PASS

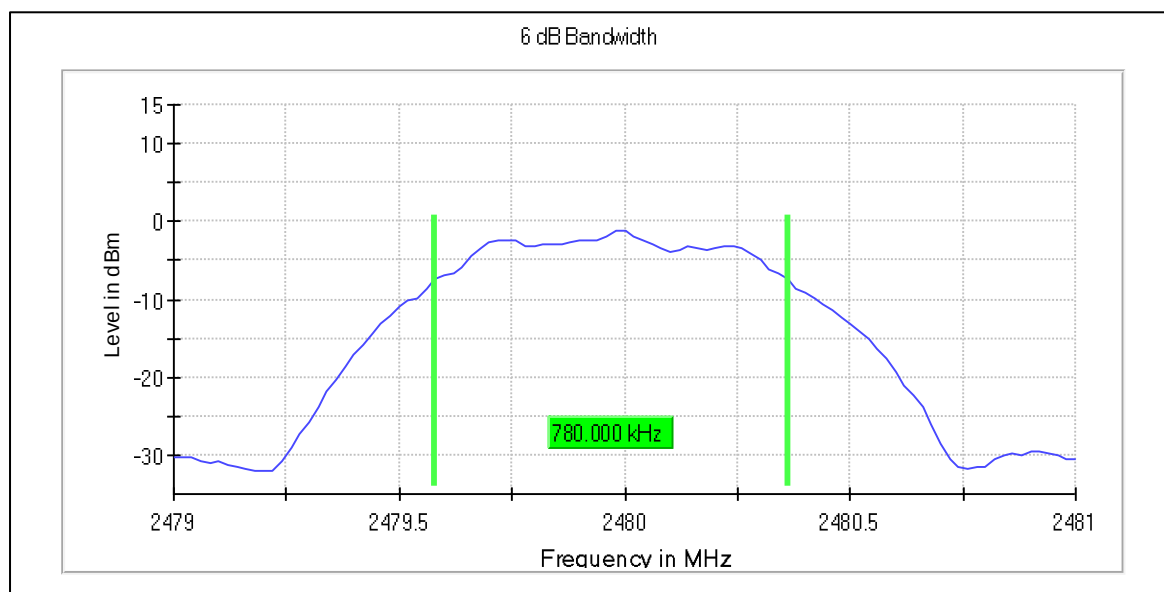
6 dB Bandwidth, low channel:



6 dB Bandwidth, middle channel:



6 dB Bandwidth, high channel:



11. Peak conducted output power

Reference: FCC part 15 §15.247(b), ISD RSS-247, Issue 3 (section 5.4)

Test method: KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 (11.9.1.1)

Limits
For systems using digital modulation in the 2400-2483.5 MHz band: 1 watt (30 dBm). The e.i.r.p. shall not exceed 4 W (36 dBm) (Canada).
The conducted output power limit specified above is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in the table, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

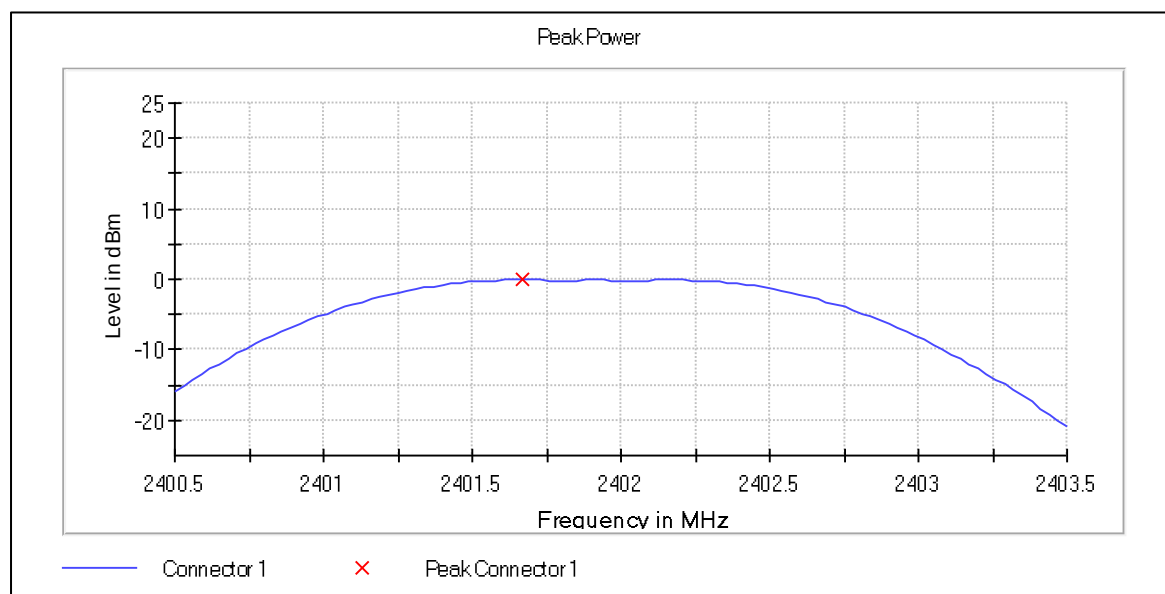
Test procedure
1. EUT set to test mode (communication tested is used if needed)
2. Analyzer resolution bandwidth is set $\geq$ DTS bandwidth
3. Detector set to peak and max hold
4. Sweep time is set to auto
5. After trace has stabilized a marker is set to peak envelope

The EIRP power (dBm) is calculated by adding the declared maximum antenna gain to the measured conducted power.

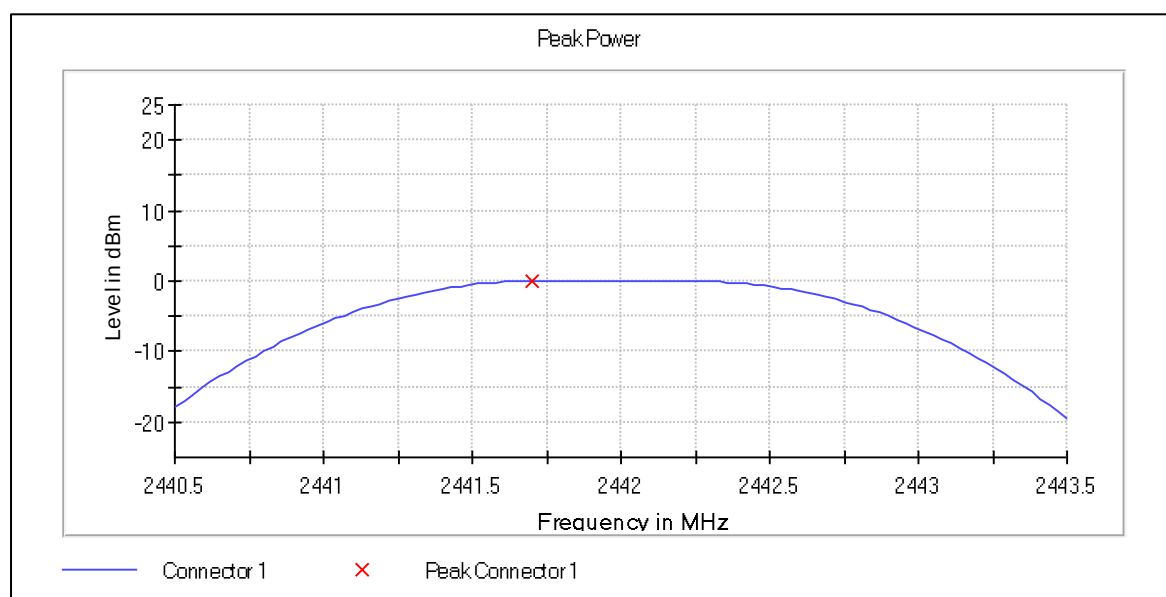
Maximum Declared Antenna Gain: -8.5 dBi

Mode / modulation	DUT Frequency (MHz)	Peak Power (dBm)	EIRP Power (dBm)	Result
Bluetooth LE, 1 Mbps	2402.000000	-0.1	-8.6	PASS
Bluetooth LE, 1 Mbps	2442.000000	0.0	-8.5	PASS
Bluetooth LE, 1 Mbps	2480.000000	-0.6	-9.1	PASS

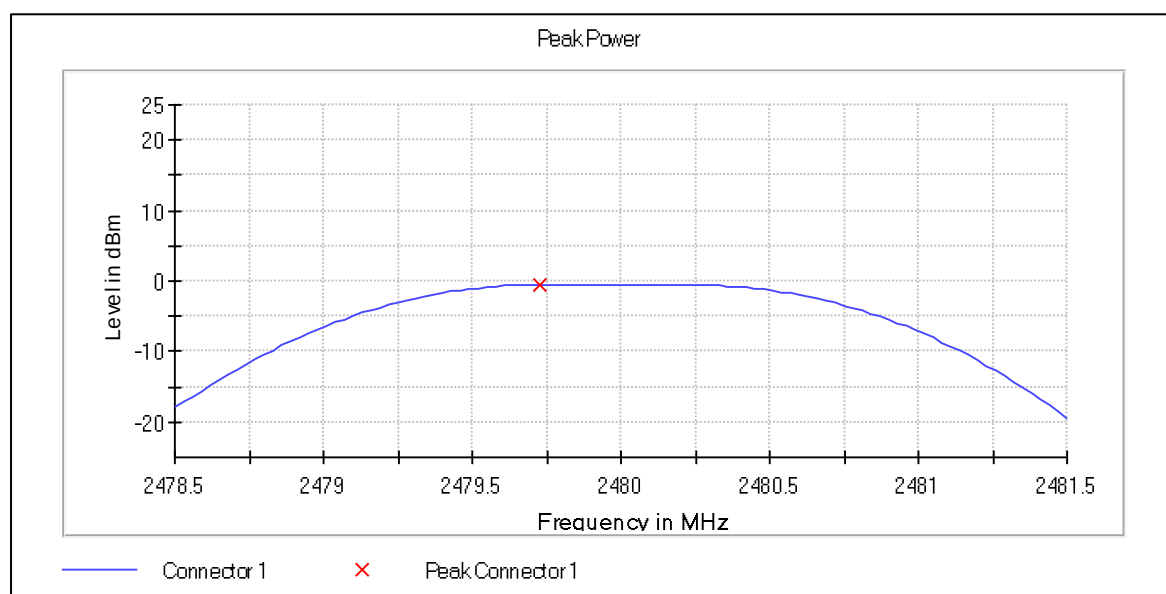
Peak power, low channel



Peak power, middle channel



Peak power, high channel



12. Peak Power Spectral Density

Reference: FCC §15.247(a),(e), ISSED RSS-247, Issue 3 (section 5.2)

Test method: KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013 (11.10.2, 14.3.2)

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

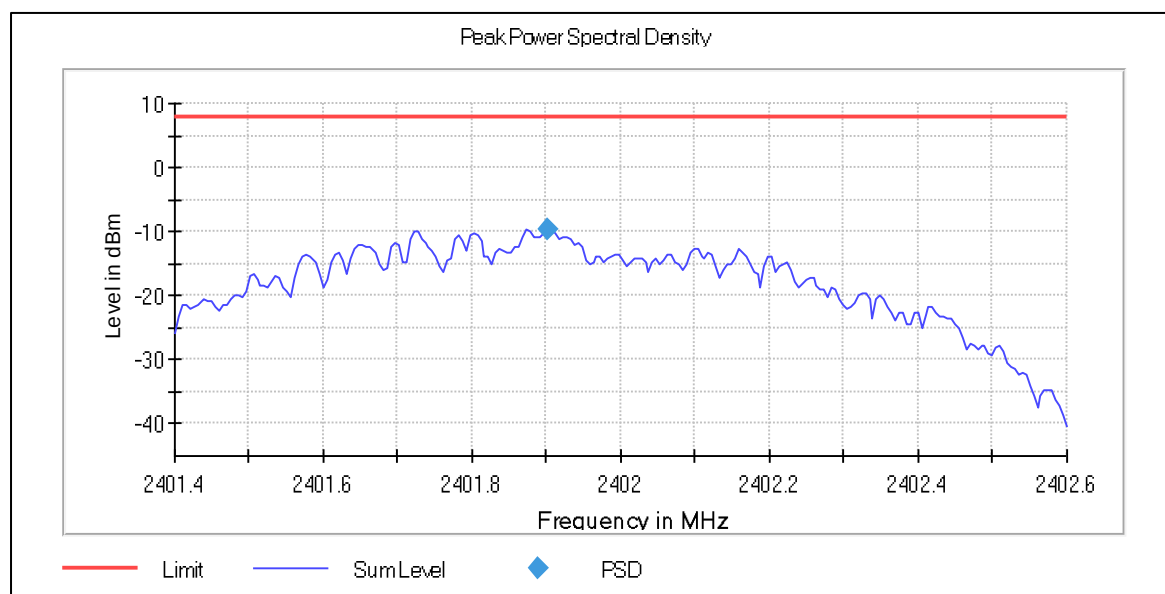
Limits
≤ 8 dBm / 3 kHz

Test procedure
1. EUT set to test mode 2. The analyser is set to DTS channel center frequency with a span of 1.5 times the DTS bandwidth 3. The analyzer is set to 100 kHz with VBW ≥ RBW and the detector is set to peak with max hold 4. After trace has stabilized a marker is set to the envelope maximum 5. If the power spectral density is above the limit the RBW is reduces (not lower than 3 kHz) and the measurement is repeated 6. If the EUT has more than one transmit chain the procedure is repeated for each chain

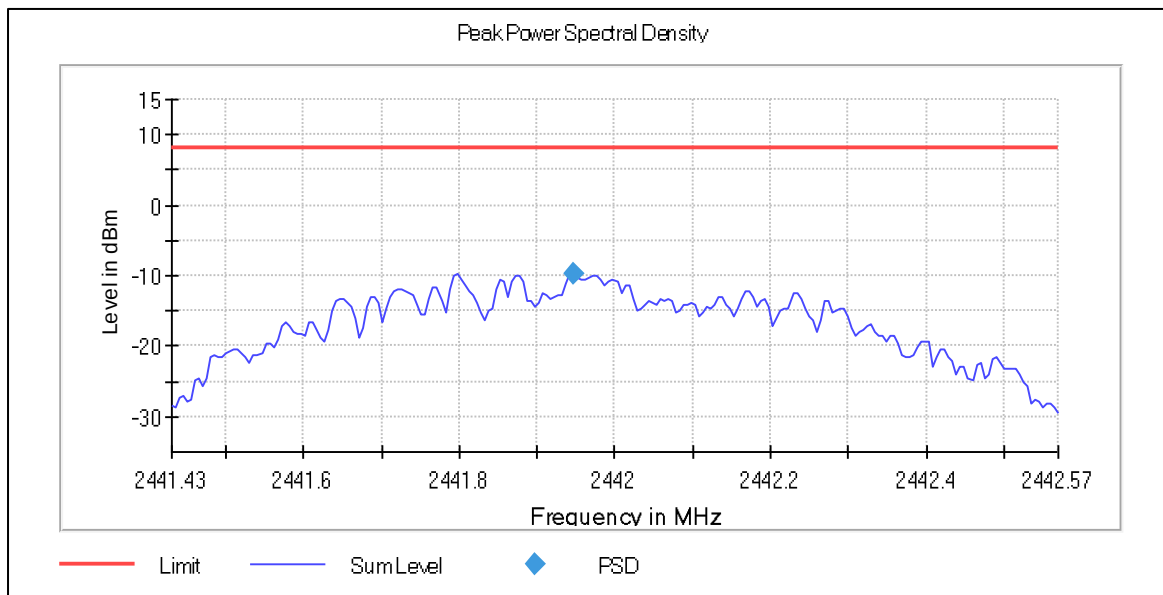
Summary

Mode / modulation	DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
Bluetooth LE, 1 Mbps	2402.000000	2401.902092	-9.724	8.0	PASS
Bluetooth LE, 1 Mbps	2442.000000	2441.947269	-9.605	8.0	PASS
Bluetooth LE, 1 Mbps	2480.000000	2479.947275	-10.555	8.0	PASS

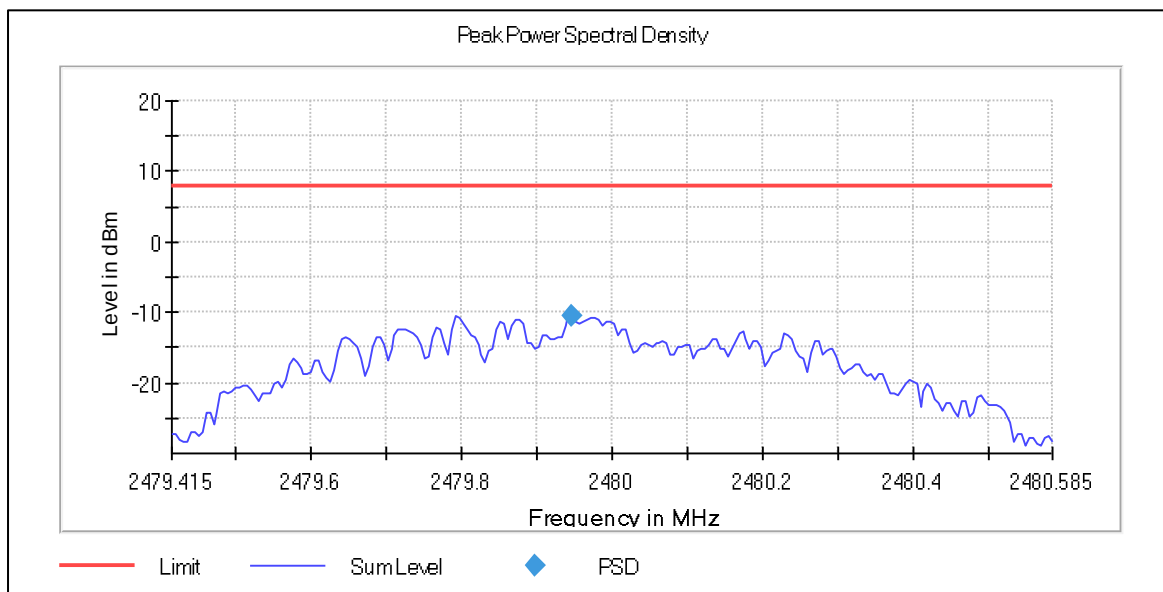
Peak power spectral density, low channel



Peak power spectral density, middle channel



Peak power spectral density, high channel:



13. AC power line conducted emissions

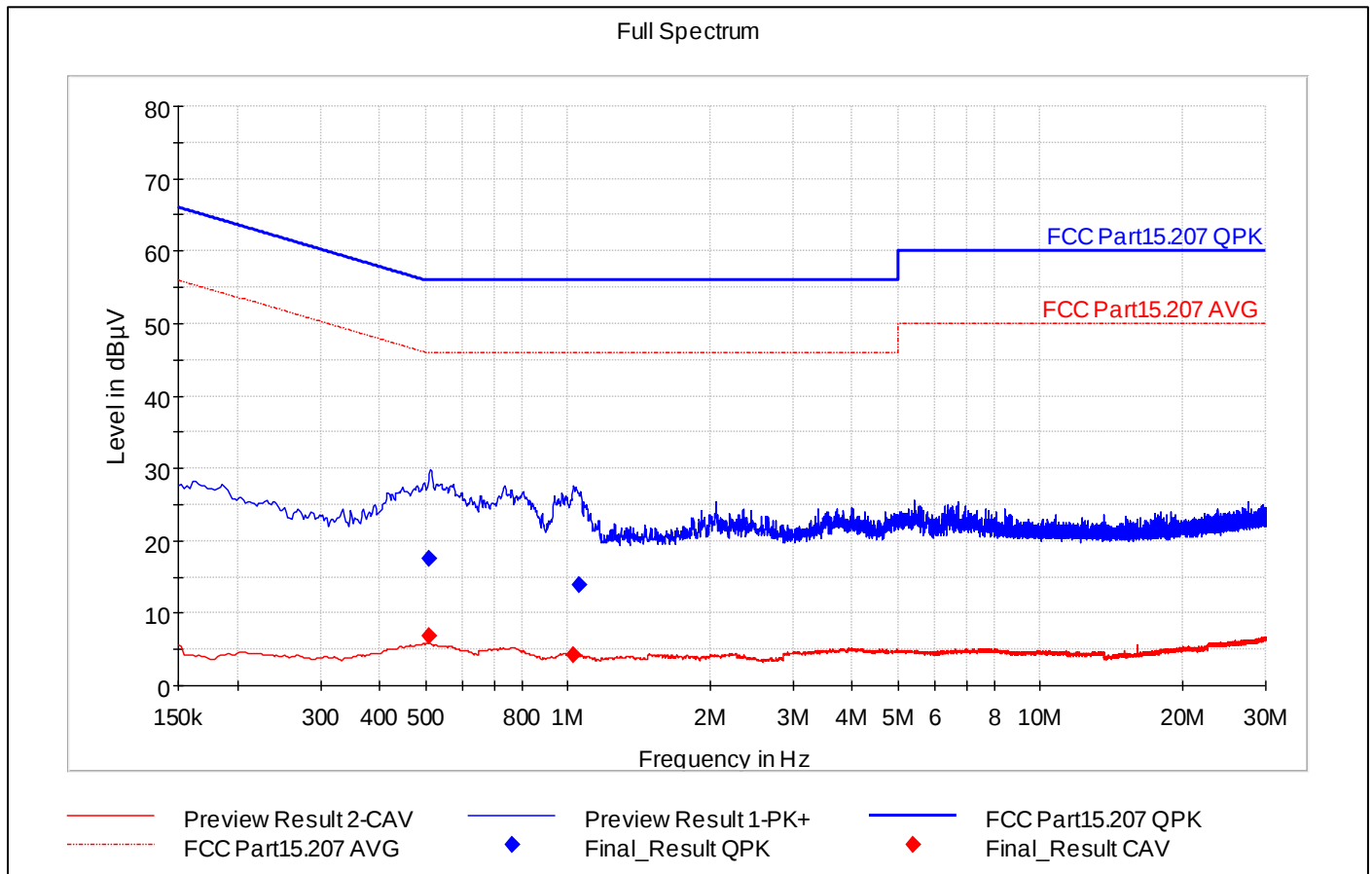
Reference: FCC §15.207, ISED RSS-247, Issue 3 (section 3.1)

Test method: ANSI C63.10-2013 (6.2)

Limits		
Frequency (MHz)	Quasi-Peak (dBuV)	Average (dBuV)
0.15 – 0.5	66 -56*	56 – 46*
0.5 – 5	56	46
5 - 30	60	50
*Limit decreases linearly with the logarithm of the frequency		

Operation mode(s)	Configuration	Test Verdict
Bluetooth LE RX, 1 Mbps	Mid channel, 2442 MHz, 3941ER004	PASS

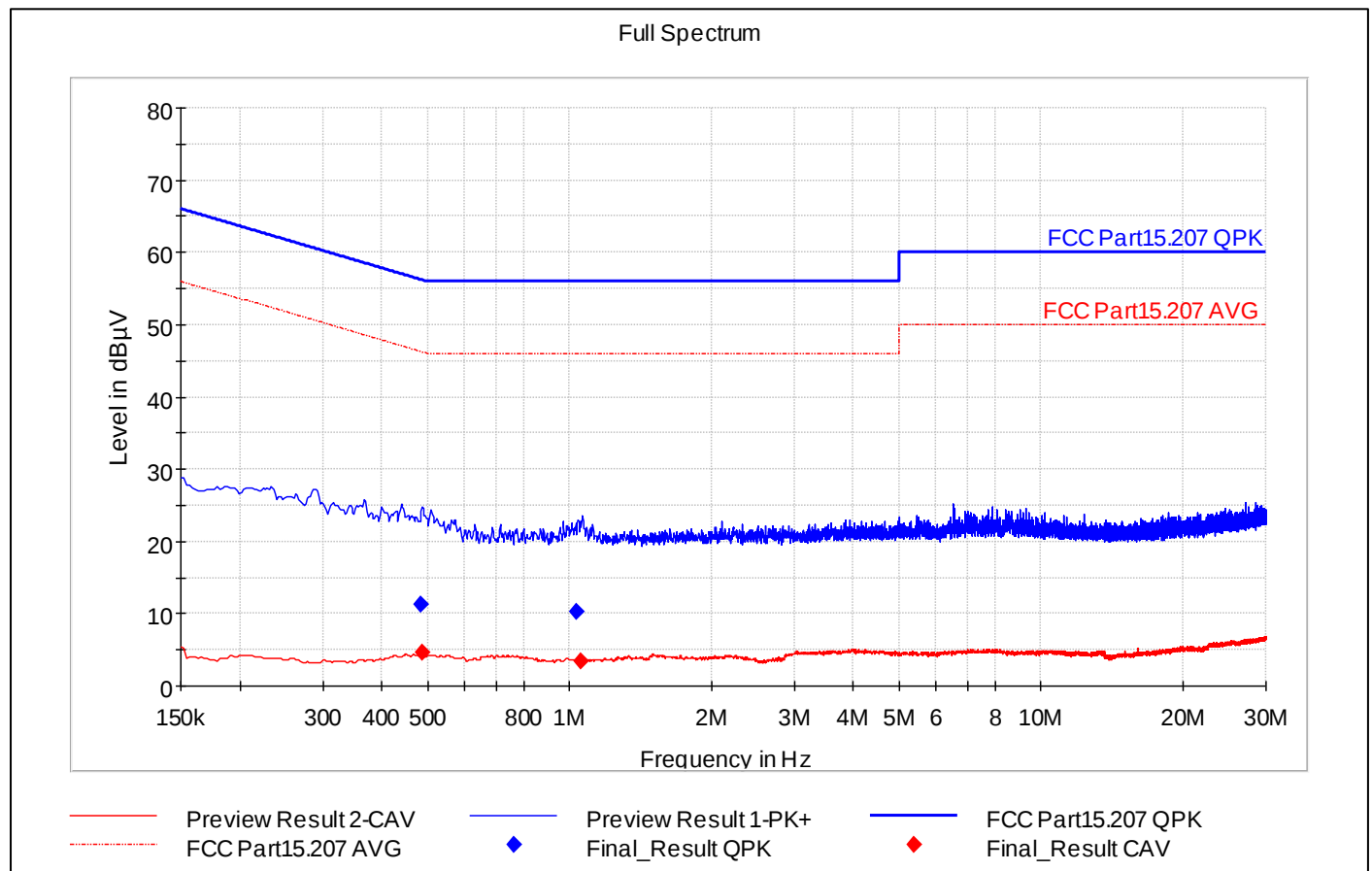
Conducted emission at the mains power port according to 47 CFR Part 15.207, Phase



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.510000	---	6.84	46.00	39.16	15000.0	9.000	L1	ON	10.0	PASS
0.510000	17.52	---	56.00	38.48	15000.0	9.000	L1	ON	10.0	PASS
1.029750	---	4.23	46.00	41.77	15000.0	9.000	L1	ON	9.8	PASS
1.054500	14.00	---	56.00	42.00	15000.0	9.000	L1	ON	9.8	PASS

Conducted emission at the mains power port according to 47 CFR Part 15.207, Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.483000	11.25	---	56.29	45.03	15000.0	9.000	N	ON	9.9	PASS
0.487500	---	4.60	46.21	41.61	15000.0	9.000	N	ON	9.9	PASS
1.034250	10.20	---	56.00	45.80	15000.0	9.000	N	ON	9.8	PASS
1.054500	---	3.52	46.00	42.48	15000.0	9.000	N	ON	9.8	PASS

14. Band edge emissions compliance (transmitter)

Reference: FCC §15.247(d), ISSED RSS-247, Issue 3 (section 5.5)

Test method: KDB 558074 D01 DTS Meas Guidance v05r02 8.7 and ANSI C63.10-2013 (11.13)

Specification: In any 100 kHz bandwidths outside the frequency band in which the 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Limits	
Power measurement	Out-of-band attenuation (dB)
Peak	20
RMS	30

Limits
1. EUT set to test mode (communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 100 kHz
4. Peak emission level(s) within frequency band and outside frequency band is measured
5. Band edge attenuation is determined from level difference

Summary

Mode / modulation	DUT Frequency (MHz)	Result
Bluetooth LE, 1 Mbps	2402.000000	PASS
Bluetooth LE, 1 Mbps	2480.000000	PASS

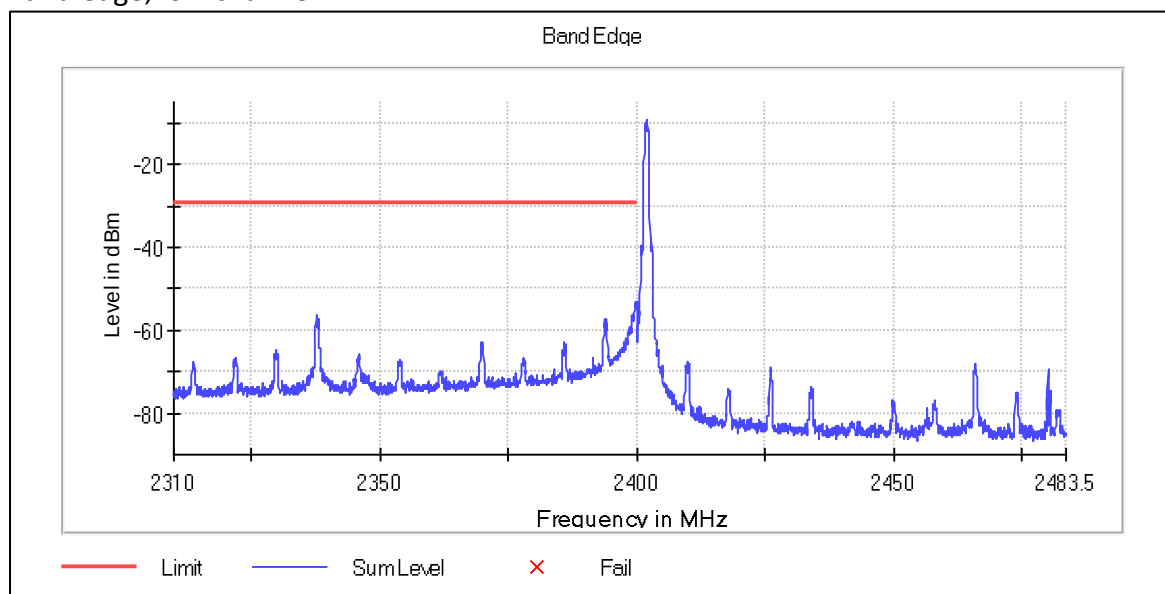
Measurements, band edge low

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.899944	-53.0	23.6	-29.4	PASS
2399.949972	-53.1	23.6	-29.4	PASS
2399.799889	-53.4	23.9	-29.4	PASS
2399.749861	-53.4	23.9	-29.4	PASS
2399.849917	-54.3	24.9	-29.4	PASS
2399.699833	-54.6	25.2	-29.4	PASS
2399.649805	-55.0	25.6	-29.4	PASS
2399.599778	-55.1	25.7	-29.4	PASS
2399.549750	-56.0	26.6	-29.4	PASS
2399.199555	-56.3	26.9	-29.4	PASS
2337.915509	-56.4	27.0	-29.4	PASS
2399.449694	-56.4	27.0	-29.4	PASS
2399.149528	-56.5	27.0	-29.4	PASS
2399.399666	-56.5	27.0	-29.4	PASS
2337.865481	-56.5	27.1	-29.4	PASS

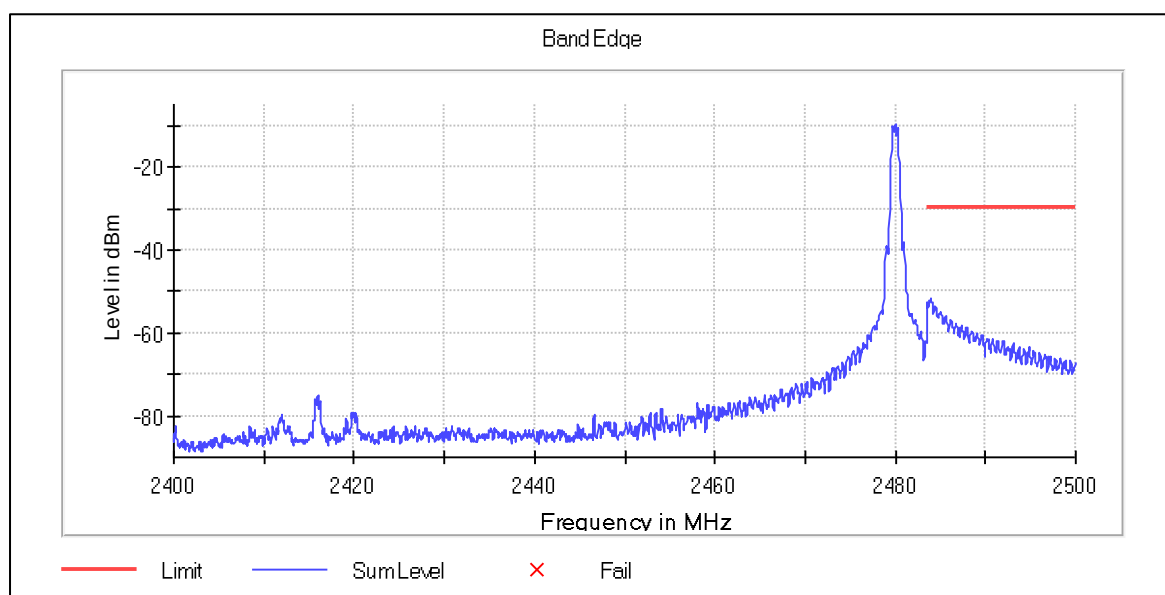
Measurements, band edge high

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.901216	-51.8	22.2	-29.6	PASS
2483.851064	-52.1	22.5	-29.6	PASS
2483.800912	-52.2	22.6	-29.6	PASS
2483.951368	-52.3	22.7	-29.6	PASS
2484.001520	-52.4	22.8	-29.6	PASS
2484.051672	-52.7	23.1	-29.6	PASS
2483.550152	-52.8	23.2	-29.6	PASS
2484.402736	-53.4	23.8	-29.6	PASS
2483.700608	-53.4	23.8	-29.6	PASS
2483.650456	-53.6	24.0	-29.6	PASS
2483.750760	-53.7	24.0	-29.6	PASS
2484.452888	-53.7	24.1	-29.6	PASS
2483.600304	-53.8	24.2	-29.6	PASS
2484.503040	-53.9	24.2	-29.6	PASS
2484.101824	-54.1	24.5	-29.6	PASS

Band edge, low channel



Band edge, high channel



15. Tx spurious emissions, conducted

Reference: FCC §15.247(d), ISSED RSS-247, Issue 3 (section 5.5)

Test method: KDB 558074 D01 DTS Meas Guidance v05r02 8.5 and ANSI C63.10-2013 (11.11.2 & 11.11.3)

Limits	
Power measurement	Out-of-band attenuation (dB)
Peak	20
RMS	30

Test procedure
1. EUT set to test mode (communication tester is used if needed) 2. Span set around lower band edge and detector is set to peak and max hold 3. Resolution bandwidth is set to 100 kHz 4. Markers are set to peak emission levels outside frequency band

Mode / modulation	DUT Frequency (MHz)	Result
Bluetooth LE, 1 Mbps	2402.000000	PASS
Bluetooth LE, 1 Mbps	2440.000000	PASS
Bluetooth LE, 1 Mbps	2480.000000	PASS

Pre Measurements, low channel

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4803.154762	-48.2	18.4	-29.8
9602.440476	-48.5	18.7	-29.8
2340.000000	-59.8	30.0	-29.8
7202.797619	-63.4	33.7	-29.8
2370.000000	-64.5	34.7	-29.8
2390.000000	-64.8	35.1	-29.8
2380.000000	-65.3	35.5	-29.8
2280.000000	-65.6	35.9	-29.8
2523.494048	-66.8	37.0	-29.8
2330.000000	-67.0	37.2	-29.8
2360.000000	-67.6	37.9	-29.8
2250.000000	-67.8	38.0	-29.8
2553.489583	-68.1	38.3	-29.8
2653.474702	-68.7	39.0	-29.8
2150.000000	-69.2	39.5	-29.8

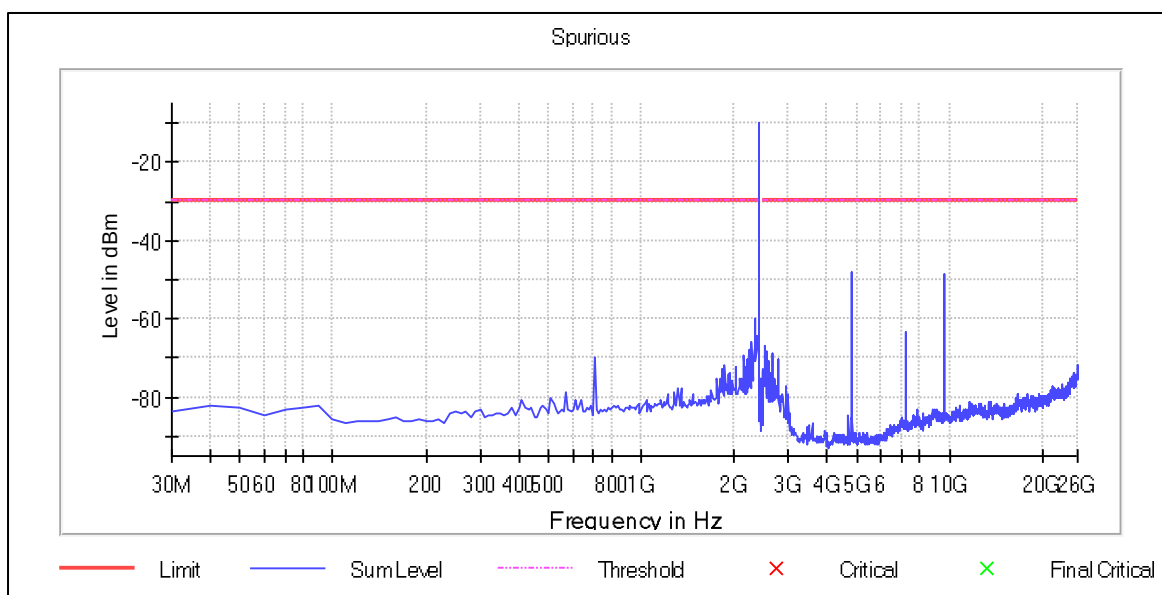
Pre Measurements, middle channel

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4883.142857	-48.3	18.1	-30.2
7322.779762	-53.4	23.2	-30.2
2320.000000	-64.9	34.7	-30.2
2563.488095	-65.3	35.1	-30.2
2503.497024	-65.8	35.6	-30.2
2380.000000	-66.0	35.8	-30.2
9762.416667	-68.1	37.9	-30.2
12212.052083	-69.2	39.0	-30.2
2290.000000	-69.9	39.7	-30.2
2593.483631	-70.6	40.4	-30.2
2390.000000	-71.5	41.3	-30.2
2493.498512	-72.1	41.9	-30.2
2310.000000	-72.2	42.0	-30.2
730.000000	-72.4	42.2	-30.2
25420.086310	-73.0	42.7	-30.2

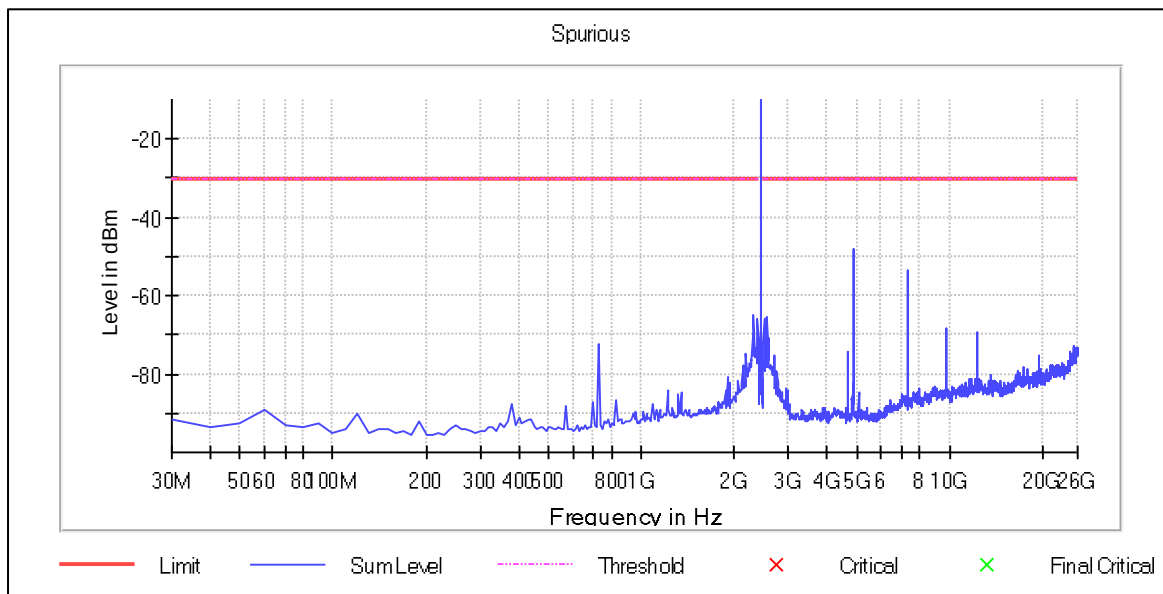
Pre Measurements, top channel

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4953.132440	-46.3	16.1	-30.2
7442.761905	-52.7	22.4	-30.2
7432.763393	-53.5	23.3	-30.2
25400.089286	-61.0	30.7	-30.2
25820.026786	-62.9	32.7	-30.2
25350.096726	-63.2	33.0	-30.2
25880.017857	-63.4	33.2	-30.2
25410.087798	-63.5	33.2	-30.2
25950.007440	-63.6	33.4	-30.2
25920.011905	-63.7	33.5	-30.2
25450.081845	-64.0	33.7	-30.2
25850.022321	-64.0	33.8	-30.2
25800.029762	-64.1	33.9	-30.2
25560.065476	-64.1	33.9	-30.2
25830.025298	-64.2	33.9	-30.2

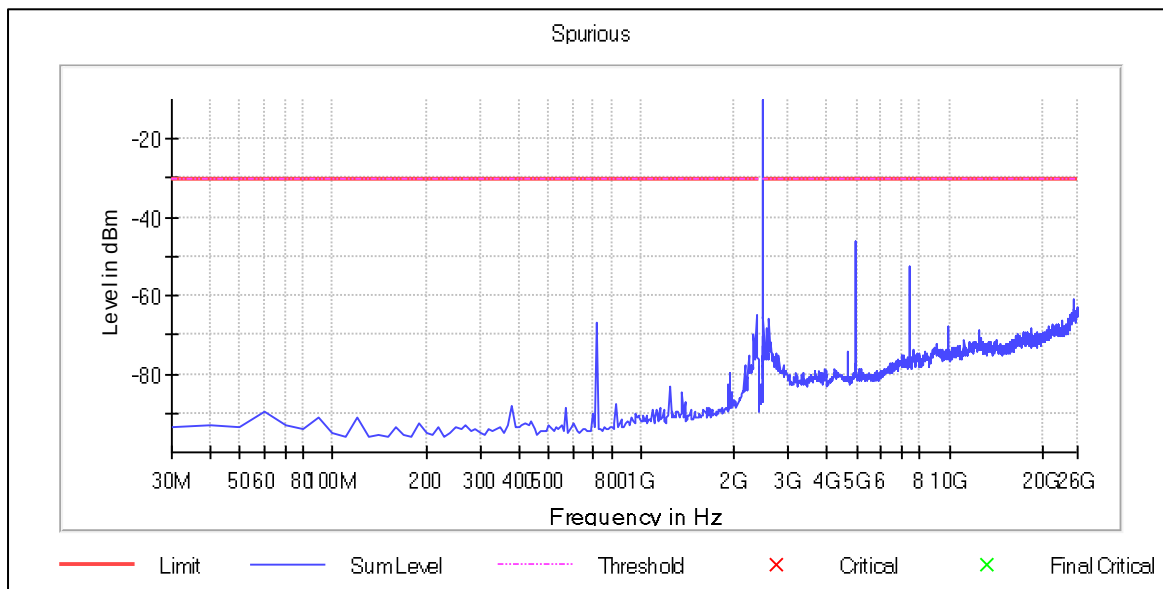
Low channel



Middle channel



High channel



16. Emissions in restricted frequency bands

Reference: FCC §15.247(d), ISSED RSS-247, Issue 3 (section 6.2)

Test method: KDB 558074 D01 DTS Meas Guidance v05r02 8.6 and ANSI C63.10-2013 (11.12)

Limits	
Power measurement	Out-of-band attenuation (dB)
Peak	according to FCC §15.209 and FCC §15.205

Test procedure
1. EUT set to test mode (communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 300 Hz
4. Markers are set to peak emission levels outside frequency band

Summary		
Mode / modulation	Frequency (MHz)	Bandwidth (MHz)
Bluetooth LE, 1 Mbps	2402.000000	PASS
Bluetooth LE, 1 Mbps	2440.000000	PASS
Bluetooth LE, 1 Mbps	2480.000000	PASS

Pre Measurements, low channel

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4803.585824	-44.9	23.7	-21.2
4803.085806	-45.0	23.8	-21.2
4804.585861	-45.1	23.9	-21.2
4804.085843	-45.1	23.9	-21.2
4805.085880	-47.8	26.6	-21.2
4802.585787	-48.0	26.8	-21.2
4802.085769	-56.3	35.1	-21.2
4805.585898	-56.6	35.4	-21.2
2389.996427	-57.6	36.4	-21.2
4670.080886	-58.1	36.9	-21.2
2369.989282	-58.5	37.3	-21.2
2274.455163	-58.8	37.6	-21.2
2274.955341	-59.5	38.3	-21.2
2242.443730	-59.7	38.5	-21.2
2365.487674	-59.8	38.6	-21.2

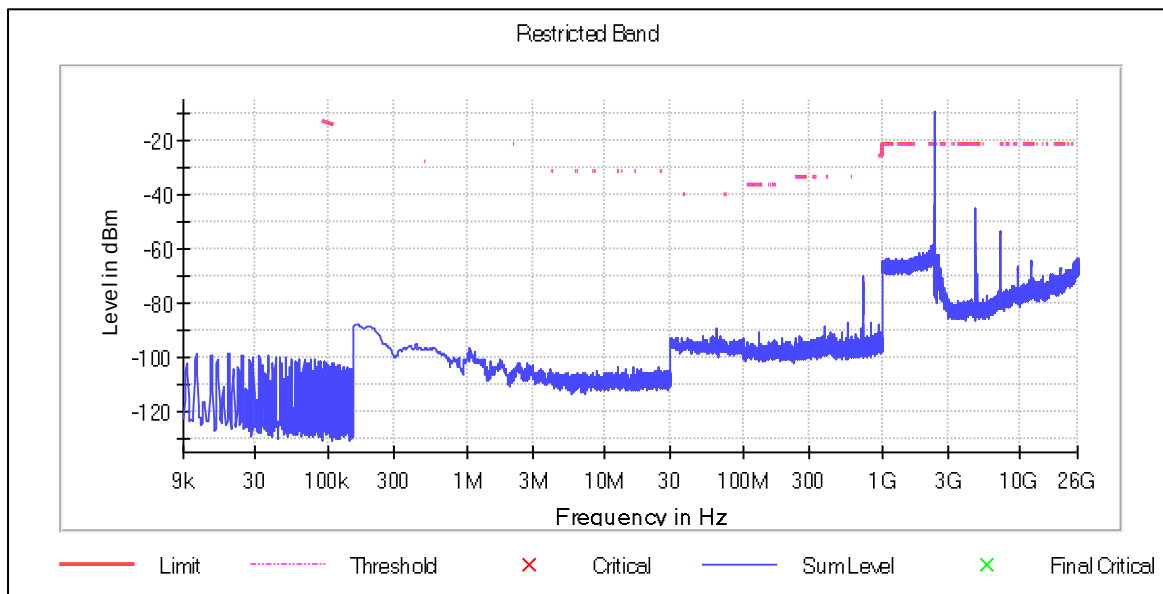
Pre Measurements, middle channel

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4883.588784	-47.5	26.3	-21.2
4883.088765	-47.6	26.4	-21.2
4884.088802	-47.9	26.7	-21.2
4884.588821	-48.1	26.9	-21.2
4885.088839	-50.9	29.7	-21.2
4882.588747	-51.2	30.0	-21.2
7326.679158	-51.6	30.4	-21.2
7325.679121	-51.8	30.6	-21.2
7325.179103	-51.8	30.6	-21.2
7326.179140	-51.9	30.7	-21.2
7327.179177	-52.2	31.0	-21.2
7324.679084	-52.5	31.3	-21.2
4885.588858	-57.3	36.1	-21.2
7327.679195	-57.8	36.6	-21.2
7324.179066	-58.5	37.3	-21.2

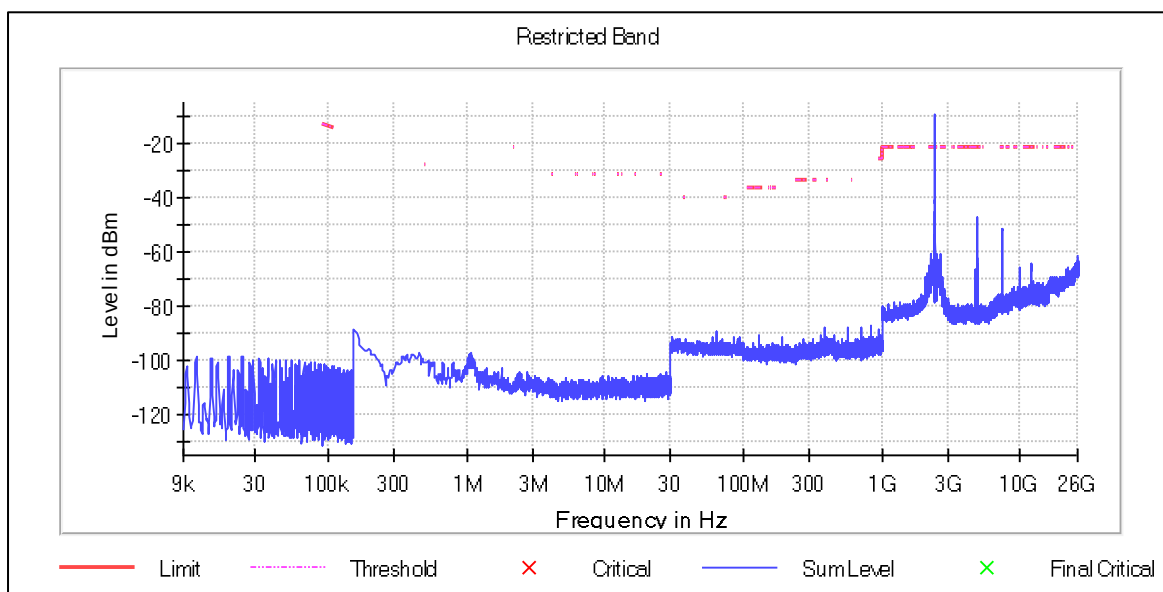
Pre Measurements, top channel

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2488.000166	-41.3	20.1	-21.2
2484.000018	-43.2	22.0	-21.2
2484.500037	-44.6	23.4	-21.2
4960.591632	-45.3	24.1	-21.2
4960.091614	-45.4	24.2	-21.2
4959.591595	-45.6	24.4	-21.2
4959.091577	-45.7	24.5	-21.2
4961.091651	-48.1	26.9	-21.2
4958.591558	-48.5	27.3	-21.2
2485.000055	-50.7	29.5	-21.2
7440.683375	-50.7	29.5	-21.2
7439.683338	-50.8	29.6	-21.2
7439.183320	-51.1	29.9	-21.2
7440.183357	-51.1	29.9	-21.2
2489.000203	-51.4	30.2	-21.2

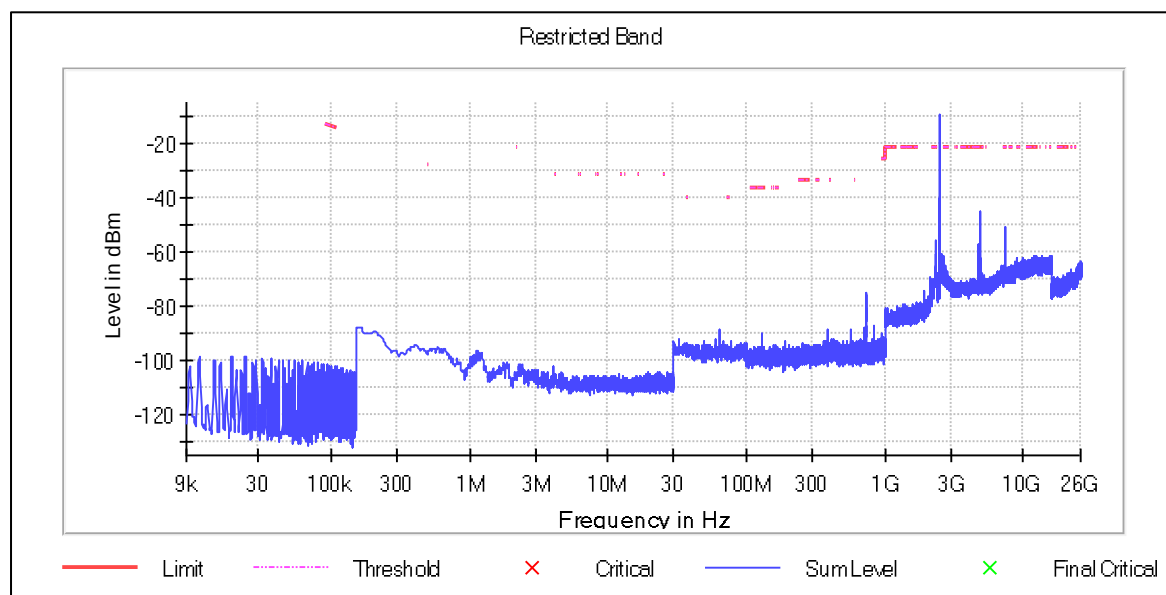
Low channel



Middle channel



High channel



17. Tx spurious emissions, radiated

Reference: FCC §15.247(d), FCC §15.209, ISSED RSS-Gen Issue 5 A2 (section 6.13)

Test method: KDB 558074 D01 DTS Meas Guidance v05r02 8.5 and ANSI C63.10-2013 (6.4, 6.5, 6.6 & 11.12)

Specification: Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)/RSS-Gen):

Limits				
Frequency range (MHz)	Detector	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
0.009 – 0.09	Average	2400/F(kHz)	-	300
0.09 – 0.110	Quasi-Peak	2400/F(kHz)	-	300
0.110 – 0.490	Average	2400/F(kHz)	-	300
0.490 – 1.705	Quasi-Peak	24000/F(kHz)	-	30
1.705 – 30.0	Quasi-Peak	30	-	30
30 - 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 - 1000	Quasi-Peak	500	54	3
>1000	Average	500	54	3

Test procedure 30 MHz -1 GHz	
1.	EUT is placed on a non conducting support at the center of a turn table 0.8m above the ground
2.	EUT set to test mode
3.	The receiver is set to peak detection with max hold
4.	The EUT is rotated through 360 degrees (orientation varied), measurements were made in both horizontal and vertical planes of polarization
5.	Found peak values were further maximized by adjusting turntable position $\pm 22,5$ degrees around detected value and scanning the antenna height 1 to 4m
6.	For maximized values, final measurement was done with the corresponding final detector.

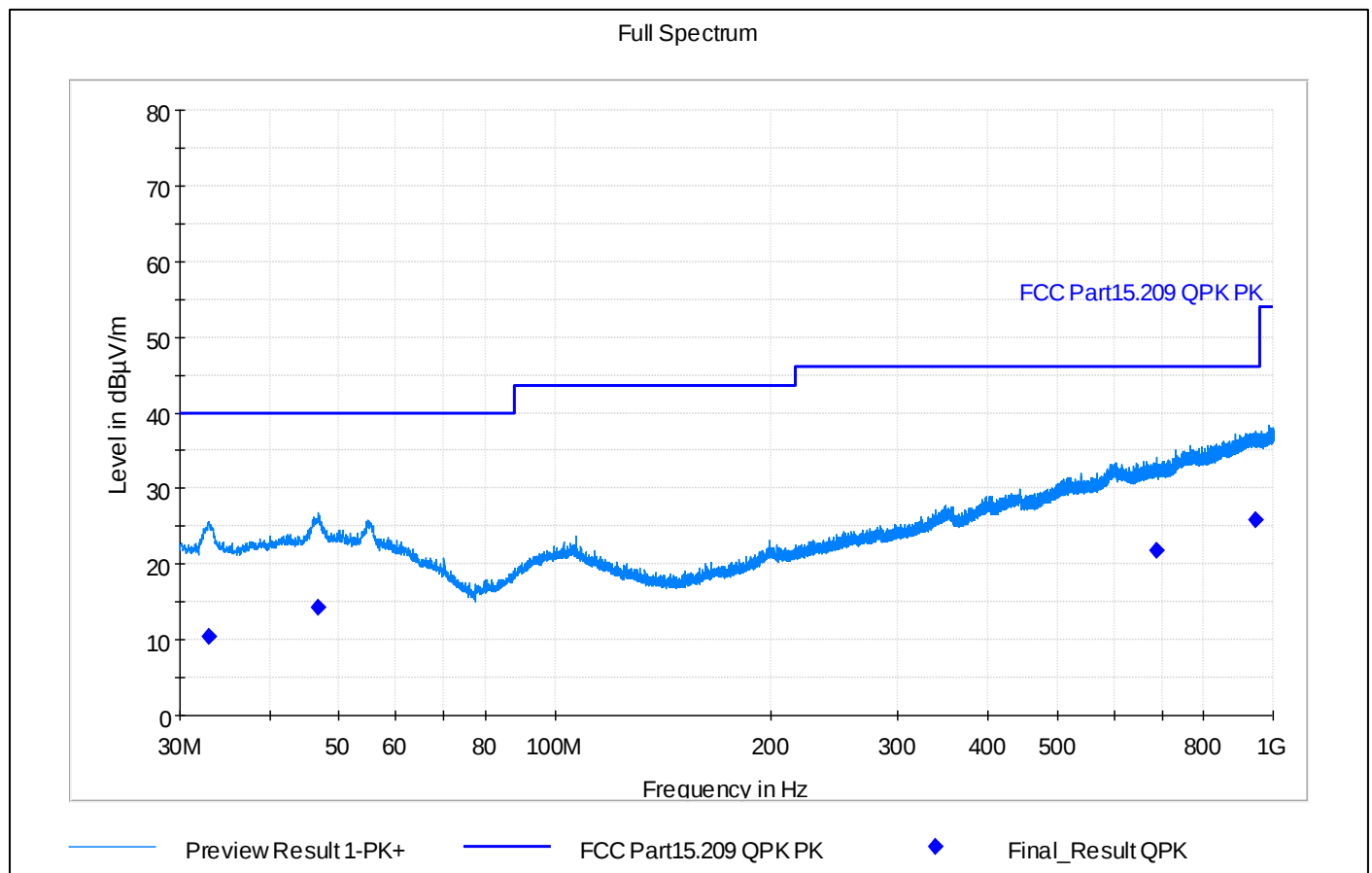
Test procedure > 1 GHz	
1.	EUT is placed on a non conducting support at the center of a turn table 1.5m above the ground
2.	EUT set to test mode
3.	The receiver is set to peak detection with max hold
4.	The EUT is rotated through 360 degrees (orientation varied), measurements were made in both horizontal and vertical planes of polarization.
5.	Found peak values were further maximized by adjusting turntable position $\pm 22,5$ degrees around detected value and scanning the antenna height 1 to 4m
6.	For maximized values, final measurement was done with the corresponding final detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function. RSS-247: Attenuation below the general field strength limits specified in RSS-Gen is not required.

The field strength is calculated by adding correction factor to the measured level from the spectrum analyzer. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

Operation mode(s)	Configuration	Test Verdict
Bluetooth LE TX, 1 Mbps	3941ER005, low channel, 2402 MHz	PASS
Bluetooth LE TX, 1 Mbps	3941ER005, mid channel, 2442 MHz	PASS
Bluetooth LE TX, 1 Mbps	3941ER005, high channel, 2480 MHz	PASS

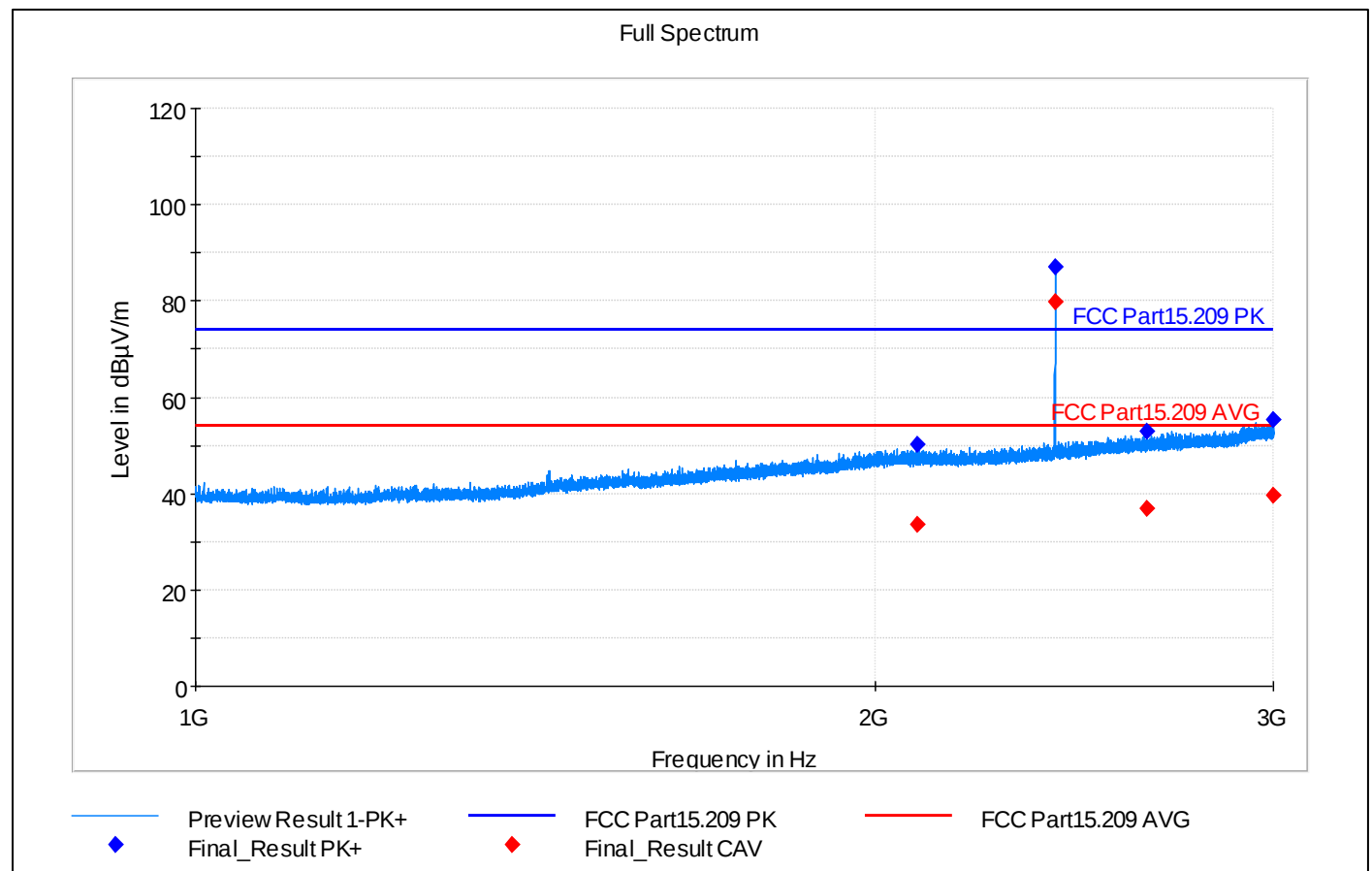
Low channel, 30 MHz – 1 GHz



Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
32.910000	10.45	40.00	29.55	15000.0	120.000	98.0	V	302.0	0.0	16.9	PASS
46.710000	14.26	40.00	25.74	15000.0	120.000	205.0	V	263.0	180.0	21.0	PASS
688.770000	21.78	46.00	24.22	15000.0	120.000	119.0	V	6.0	90.0	30.5	PASS
943.740000	25.80	46.00	20.20	15000.0	120.000	250.0	H	176.0	0.0	34.1	PASS

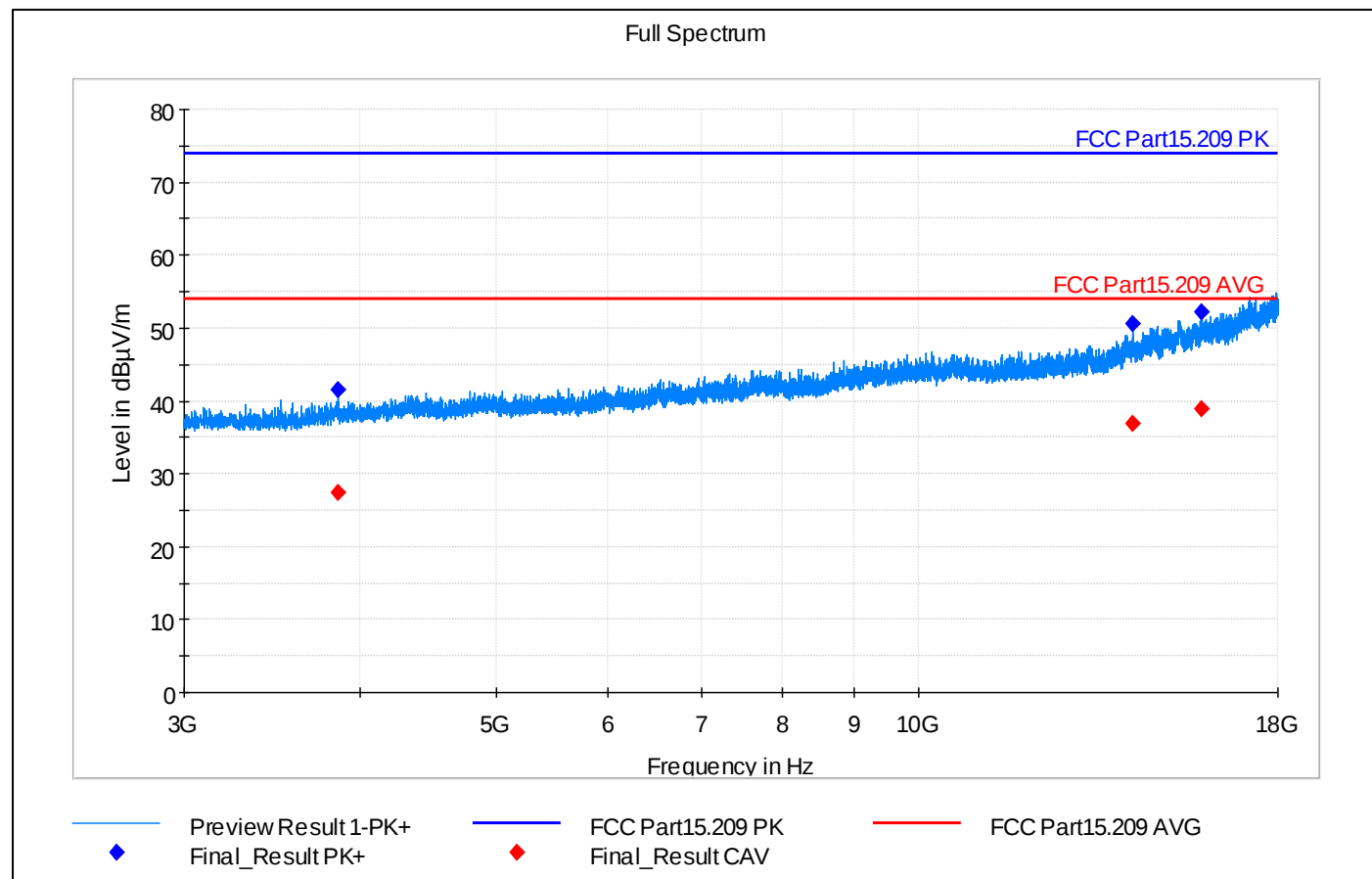
Low channel, 1 – 3 GHz



Note: Frequency 2402,300 MHz is excluded from spurious domain measurements and ignored. See table below.

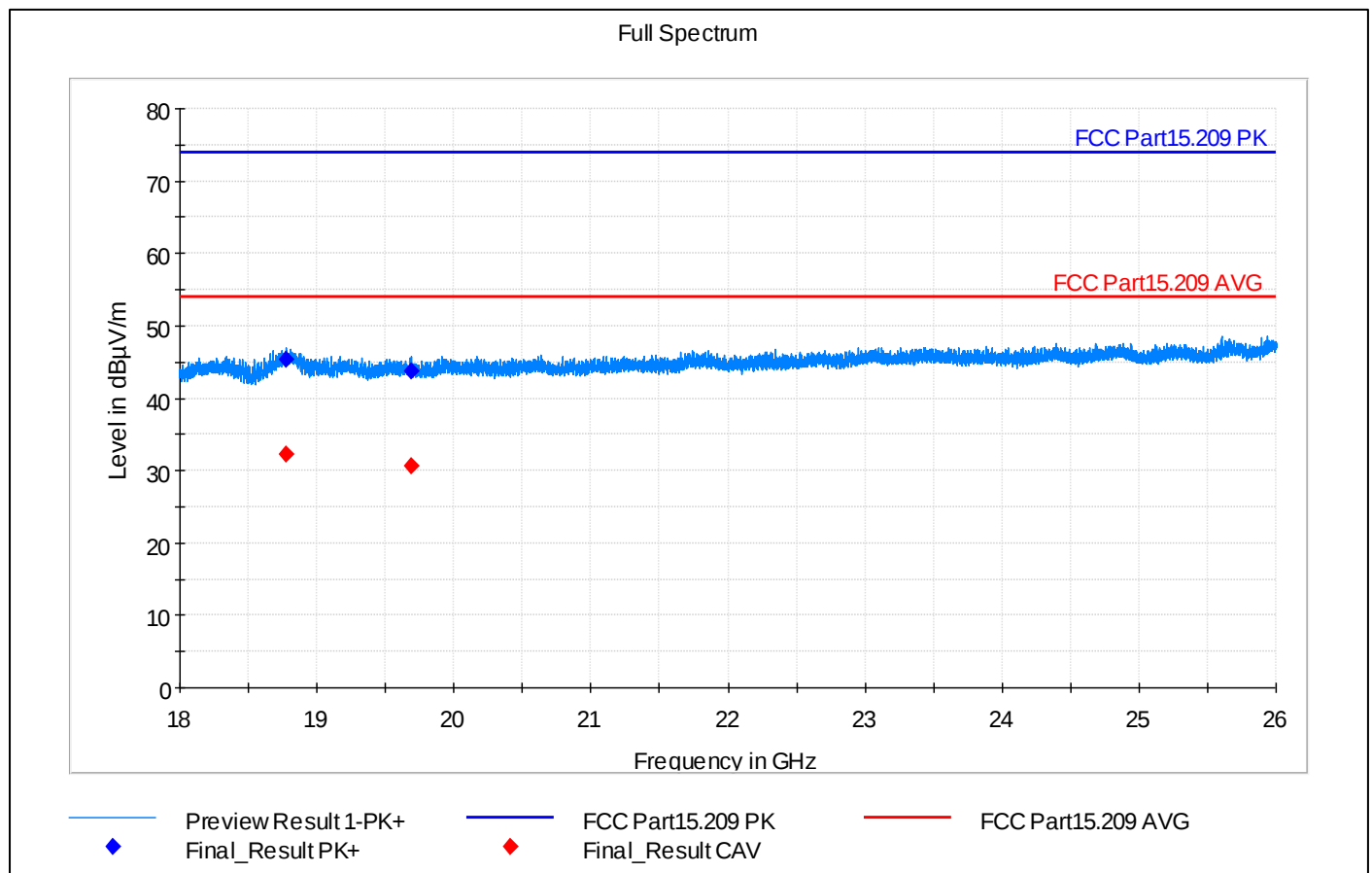
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
2086.650000	50.24	---	74.00	23.76	15000.0	1000.000	355.0	V	188.0	90.0	37.7	PASS
2086.650000	---	33.42	54.00	20.58	15000.0	1000.000	355.0	V	188.0	90.0	37.7	PASS
2402.300000	---	79.92	54.00	-25.92	15000.0	1000.000	136.0	H	167.0	90.0	38.6	TX signal
2402.300000	86.95	---	74.00	-12.95	15000.0	1000.000	136.0	H	167.0	90.0	38.6	TX signal
2639.100000	52.99	---	74.00	21.01	15000.0	1000.000	390.0	V	311.0	0.0	40.0	PASS
2639.100000	---	36.78	54.00	17.22	15000.0	1000.000	390.0	V	311.0	0.0	40.0	PASS
2998.650000	---	39.73	54.00	14.27	15000.0	1000.000	231.0	V	243.0	90.0	41.7	PASS
2998.650000	55.27	---	74.00	18.73	15000.0	1000.000	231.0	V	243.0	90.0	41.7	PASS

Low channel, 3 – 18 GHz

Final_Result

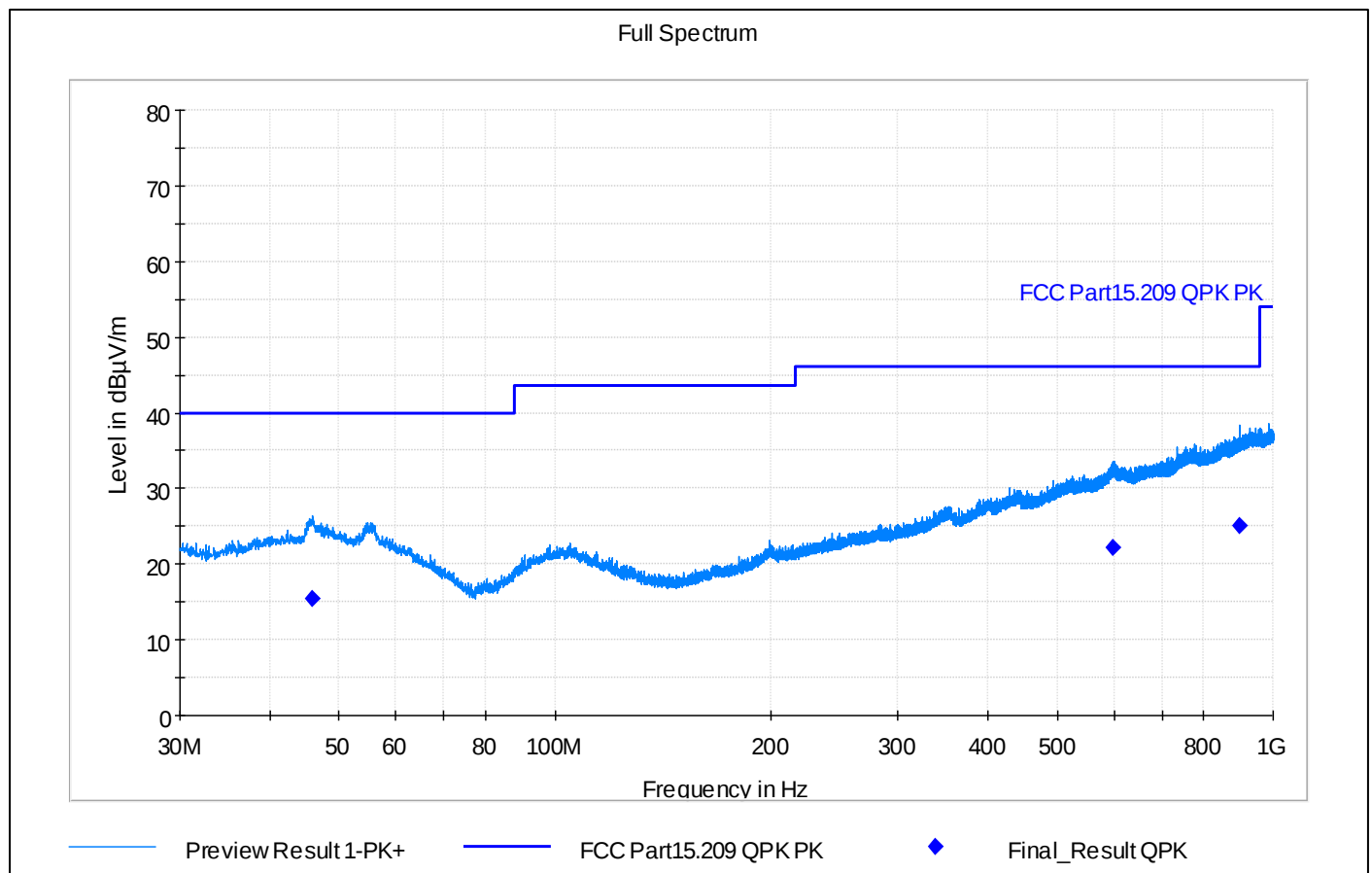
Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
3860.000000	---	27.41	54.00	26.59	15000.0	1000.000	105.0	H	29.0	0.0	7.3	PASS
3860.000000	41.51	---	74.00	32.49	15000.0	1000.000	105.0	H	29.0	0.0	7.3	PASS
14207.750000	50.60	---	74.00	23.40	15000.0	1000.000	392.0	V	345.0	0.0	28.0	PASS
14207.750000	---	36.79	54.00	17.21	15000.0	1000.000	392.0	V	345.0	0.0	28.0	PASS
15905.000000	52.28	---	74.00	21.72	15000.0	1000.000	150.0	V	137.0	0.0	33.1	PASS
15905.000000	---	38.87	54.00	15.13	15000.0	1000.000	150.0	V	137.0	0.0	33.1	PASS

Low channel, 18 – 26 GHz

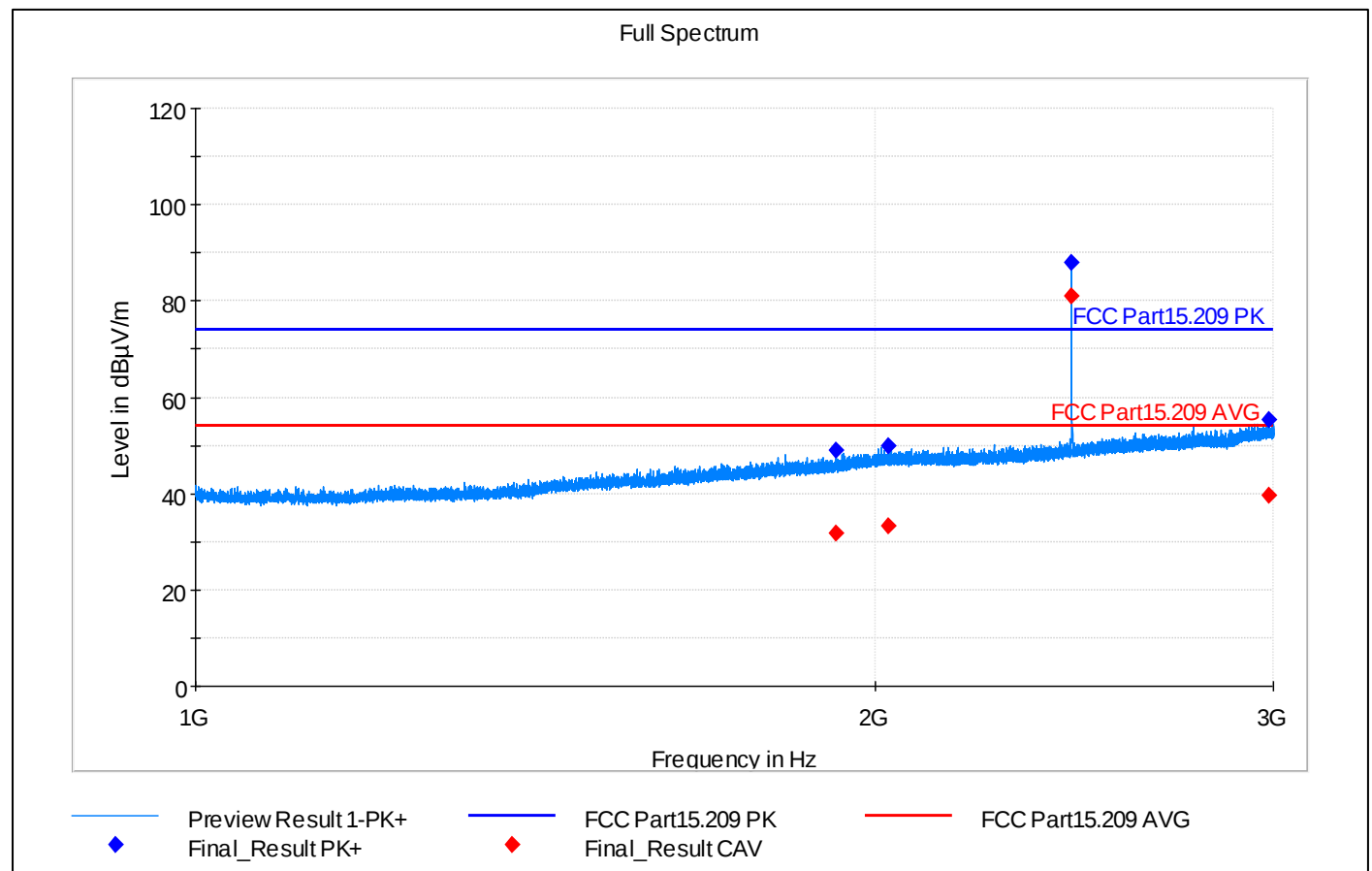


Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
18775.500000	45.29	---	74.00	28.71	3000.0	1000.000	184.0	V	49.0	90.0	23.5	PASS
18775.500000	---	32.18	54.00	21.82	3000.0	1000.000	184.0	V	49.0	90.0	23.5	PASS
19688.750000	43.79	---	74.00	30.21	3000.0	1000.000	359.0	H	199.0	90.0	23.9	PASS
19688.750000	---	30.69	54.00	23.31	3000.0	1000.000	359.0	H	199.0	90.0	23.9	PASS

Mid channel, 30 MHz – 1 GHz

Final_Result

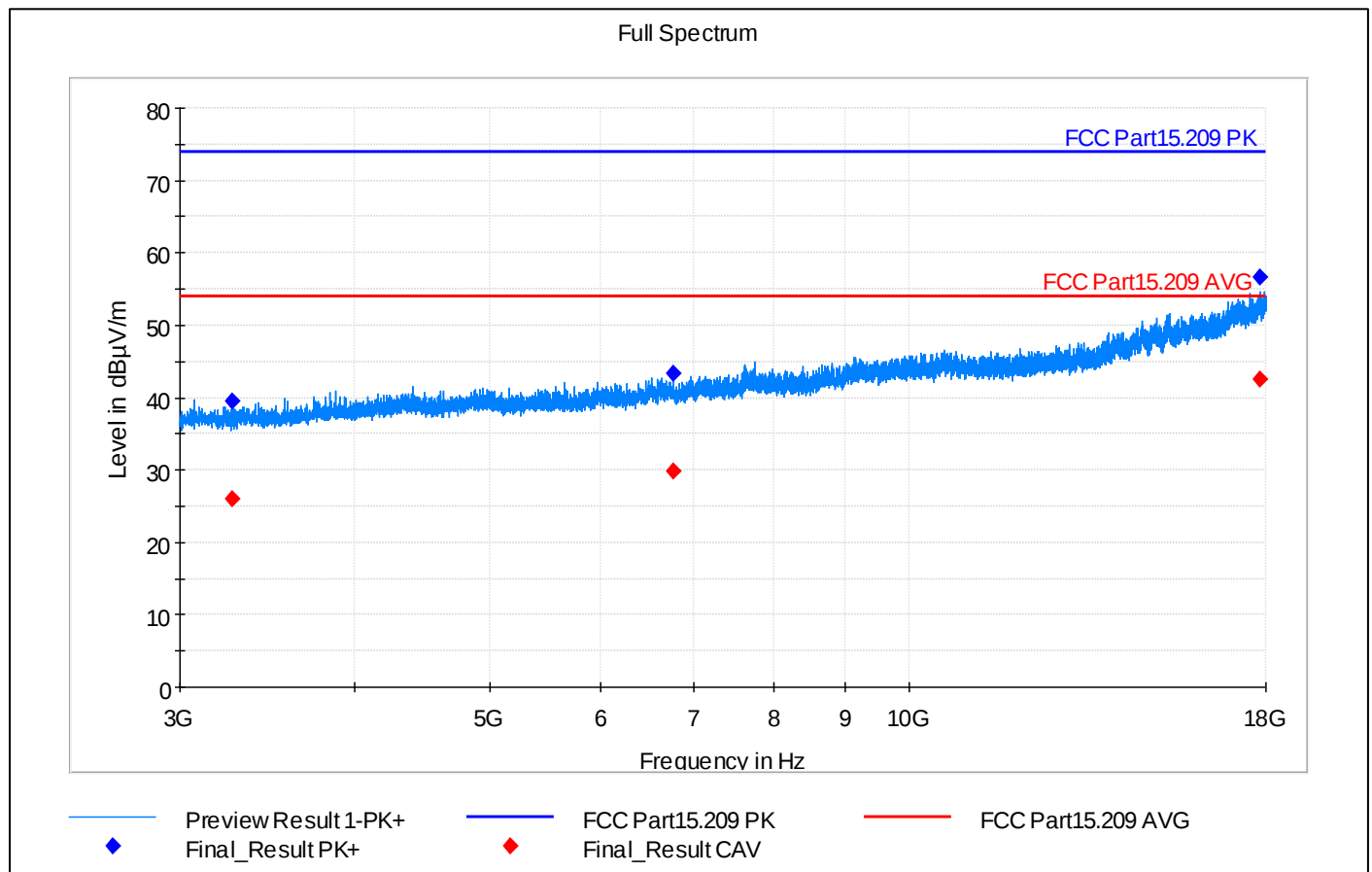
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
45.990000	15.47	40.00	24.53	15000.0	120.000	98.0	V	55.0	180.0	20.9	PASS
598.980000	22.09	46.00	23.91	15000.0	120.000	100.0	V	91.0	90.0	29.8	PASS
897.180000	25.11	46.00	20.89	15000.0	120.000	380.0	V	151.0	90.0	33.7	PASS

Mid channel, 1-3 GHz


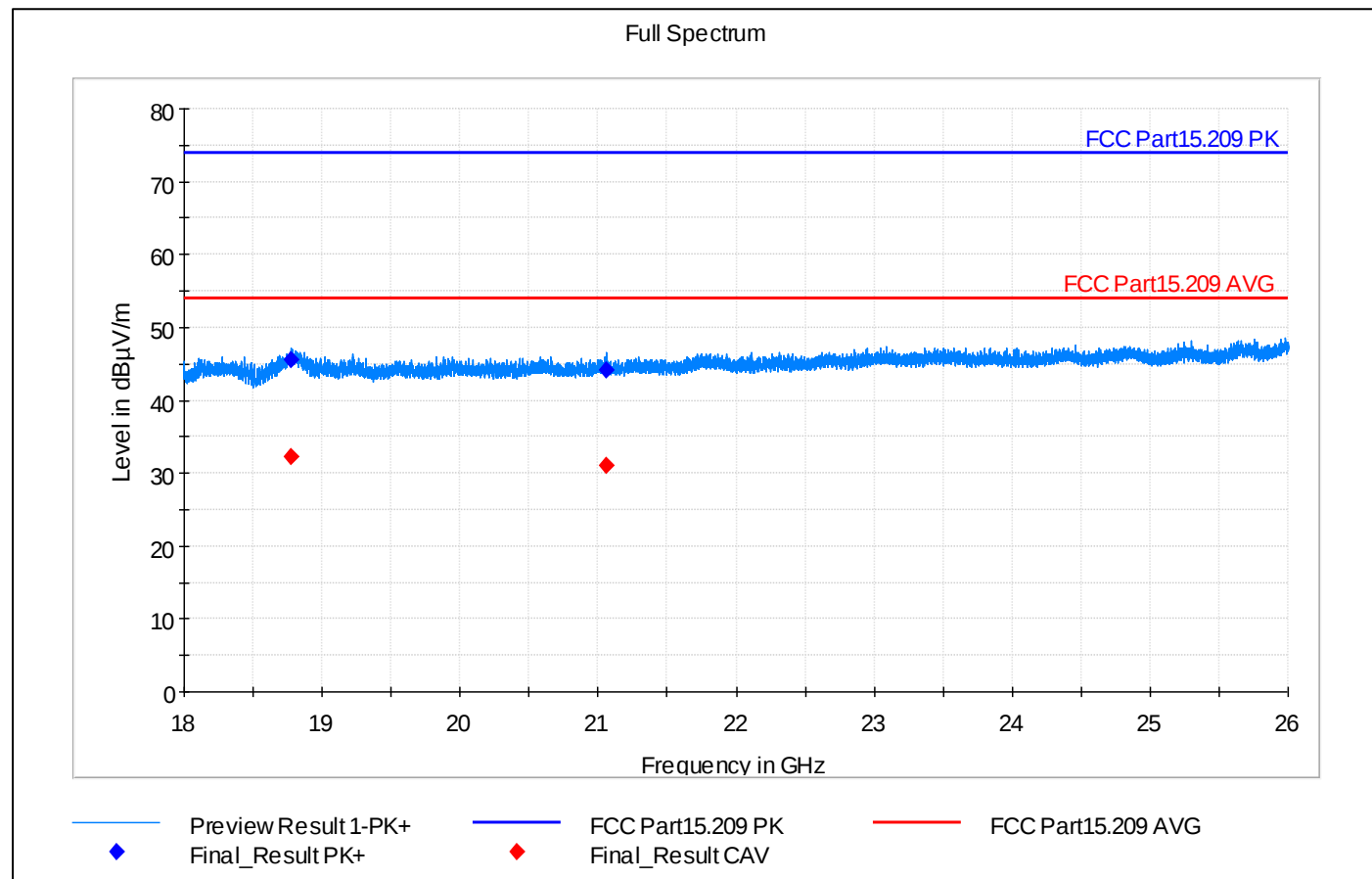
Note: Frequency 2442,300 MHz is excluded from spurious domain measurements and ignored. See table below.

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
1922.050000	---	31.85	54.00	22.15	15000.0	1000.000	321.0	V	272.0	90.0	36.3	PASS
1922.050000	49.11	---	74.00	24.89	15000.0	1000.000	321.0	V	272.0	90.0	36.3	PASS
2026.450000	49.85	---	74.00	24.15	15000.0	1000.000	369.0	H	176.0	0.0	37.6	PASS
2026.450000	---	33.17	54.00	20.83	15000.0	1000.000	369.0	H	176.0	0.0	37.6	PASS
2442.300000	---	80.98	54.00	-26.98	15000.0	1000.000	155.0	H	169.0	90.0	38.9	TX signal
2442.300000	88.01	---	74.00	-14.01	15000.0	1000.000	155.0	H	169.0	90.0	38.9	TX signal
2988.000000	55.40	---	74.00	18.60	15000.0	1000.000	150.0	H	82.0	90.0	41.6	PASS
2988.000000	---	39.68	54.00	14.32	15000.0	1000.000	150.0	H	82.0	90.0	41.6	PASS

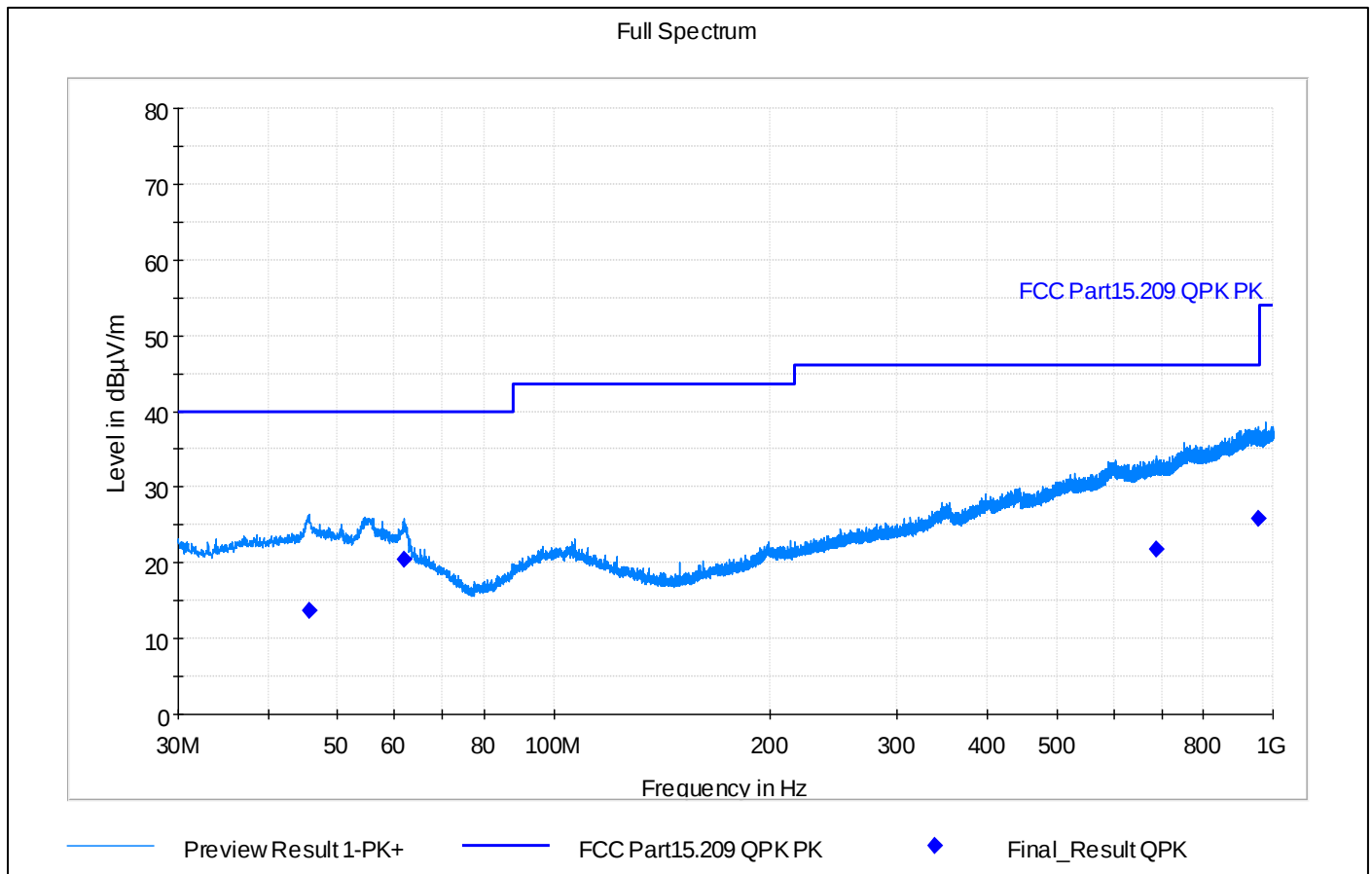
Mid channel, 3–18 GHz

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (s)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
3271.000000	---	25.98	54.00	28.02	15000.0	1000.000	407.0	V	145.0	90.0	5.6	PASS
3271.000000	39.55	---	74.00	34.45	15000.0	1000.000	407.0	V	145.0	90.0	5.6	PASS
6771.250000	43.34	---	74.00	30.66	15000.0	1000.000	188.0	V	59.0	90.0	14.1	PASS
6771.250000	---	29.89	54.00	24.11	15000.0	1000.000	188.0	V	59.0	90.0	14.1	PASS
17811.500000	56.68	---	74.00	17.32	15000.0	1000.000	402.0	V	133.0	90.0	38.3	PASS
17811.500000	---	42.57	54.00	11.43	15000.0	1000.000	402.0	V	133.0	90.0	38.3	PASS

Mid channel, 18–26 GHz

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
18775.500000	---	32.17	54.00	21.83	3000.0	1000.000	253.0	H	-15.0	90.0	23.5	PASS
18775.500000	45.54	---	74.00	28.46	3000.0	1000.000	253.0	H	-15.0	90.0	23.5	PASS
21056.750000	---	31.05	54.00	22.95	3000.0	1000.000	216.0	V	146.0	180.0	24.5	PASS
21056.750000	44.10	---	74.00	29.90	3000.0	1000.000	216.0	V	146.0	180.0	24.5	PASS

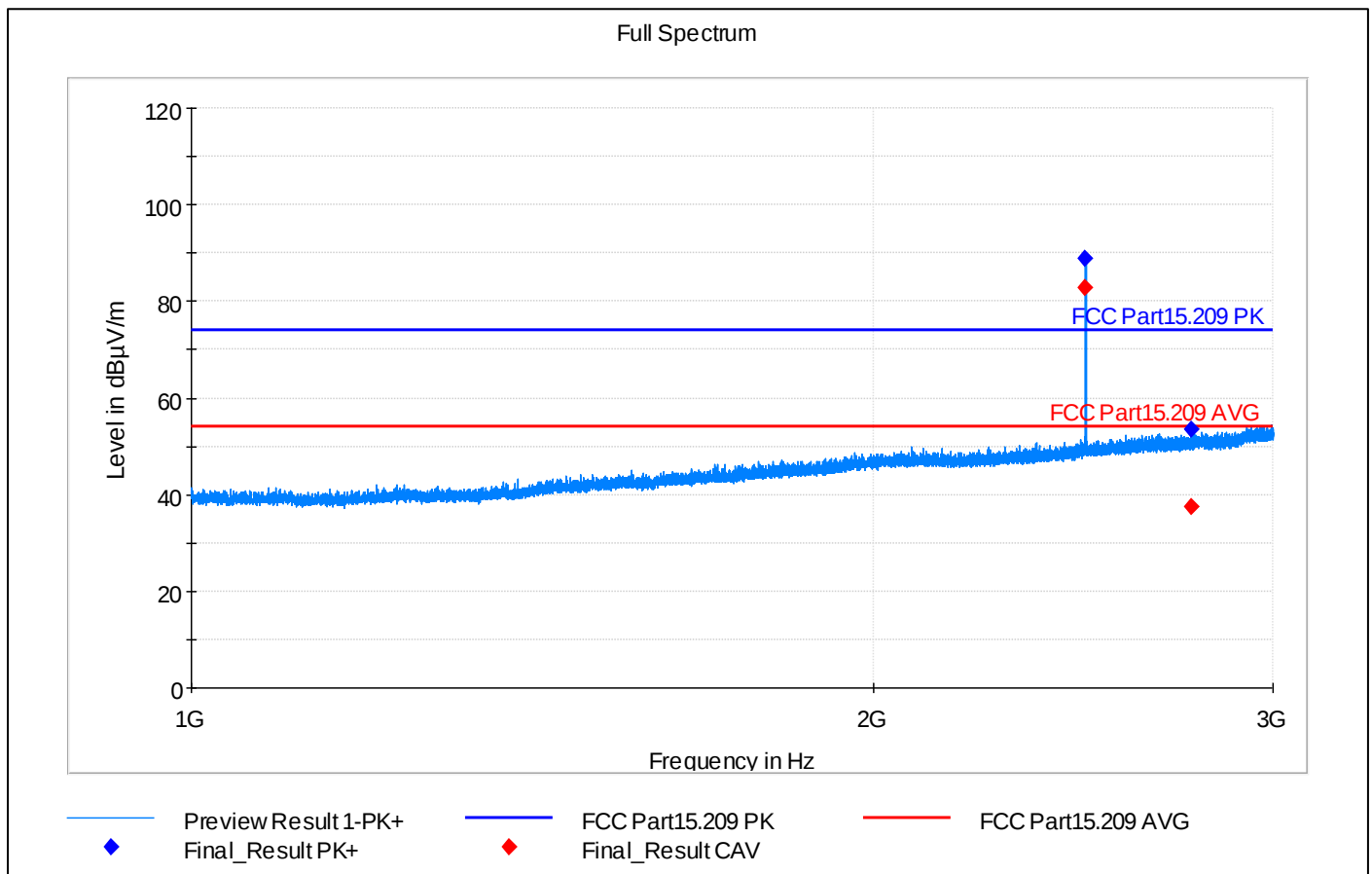
High channel, 30 MHz – 1 GHz



Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
45.660000	13.66	40.00	26.34	15000.0	120.000	220.0	V	12.0	90.0	20.8	PASS
61.950000	20.38	40.00	19.62	15000.0	120.000	386.0	V	67.0	180.0	19.5	PASS
688.020000	21.80	46.00	24.20	15000.0	120.000	174.0	H	112.0	90.0	30.5	PASS
954.570000	25.92	46.00	20.08	15000.0	120.000	347.0	H	247.0	180.0	34.2	PASS

High channel, 1 – 3 GHz

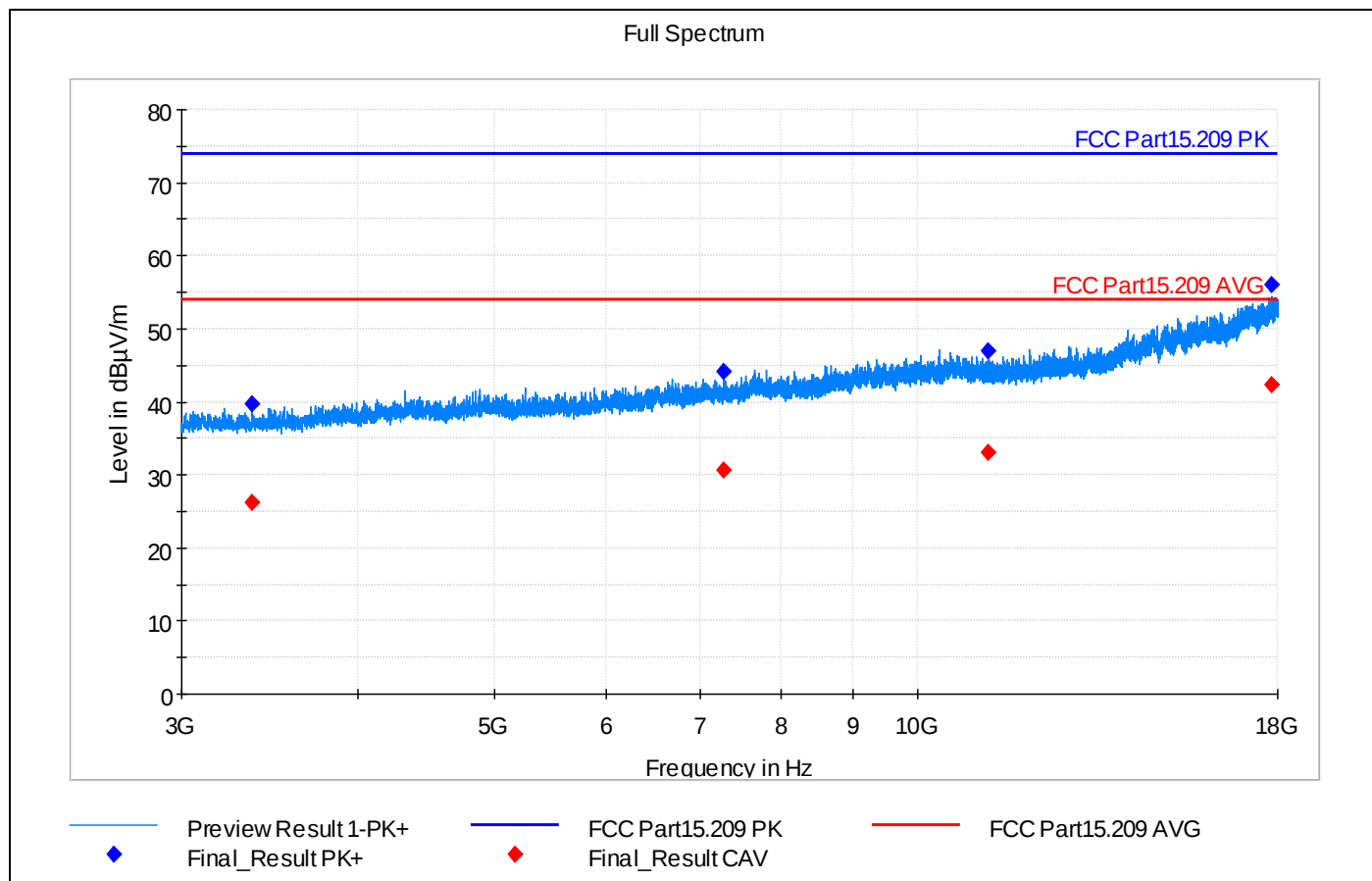


Note: Frequency 2480,200 MHz is excluded from spurious domain measurements and ignored. See table below.

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
2480.200000	88.78	---	74.00	-14.78	15000.0	1000.000	156.0	H	163.0	90.0	39.2	TX signal
2480.200000	---	82.80	54.00	-28.80	15000.0	1000.000	156.0	H	163.0	90.0	39.2	TX signal
2762.650000	53.58	---	74.00	20.42	15000.0	1000.000	166.0	V	43.0	0.0	40.4	PASS
2762.650000	---	37.50	54.00	16.50	15000.0	1000.000	166.0	V	43.0	0.0	40.4	PASS

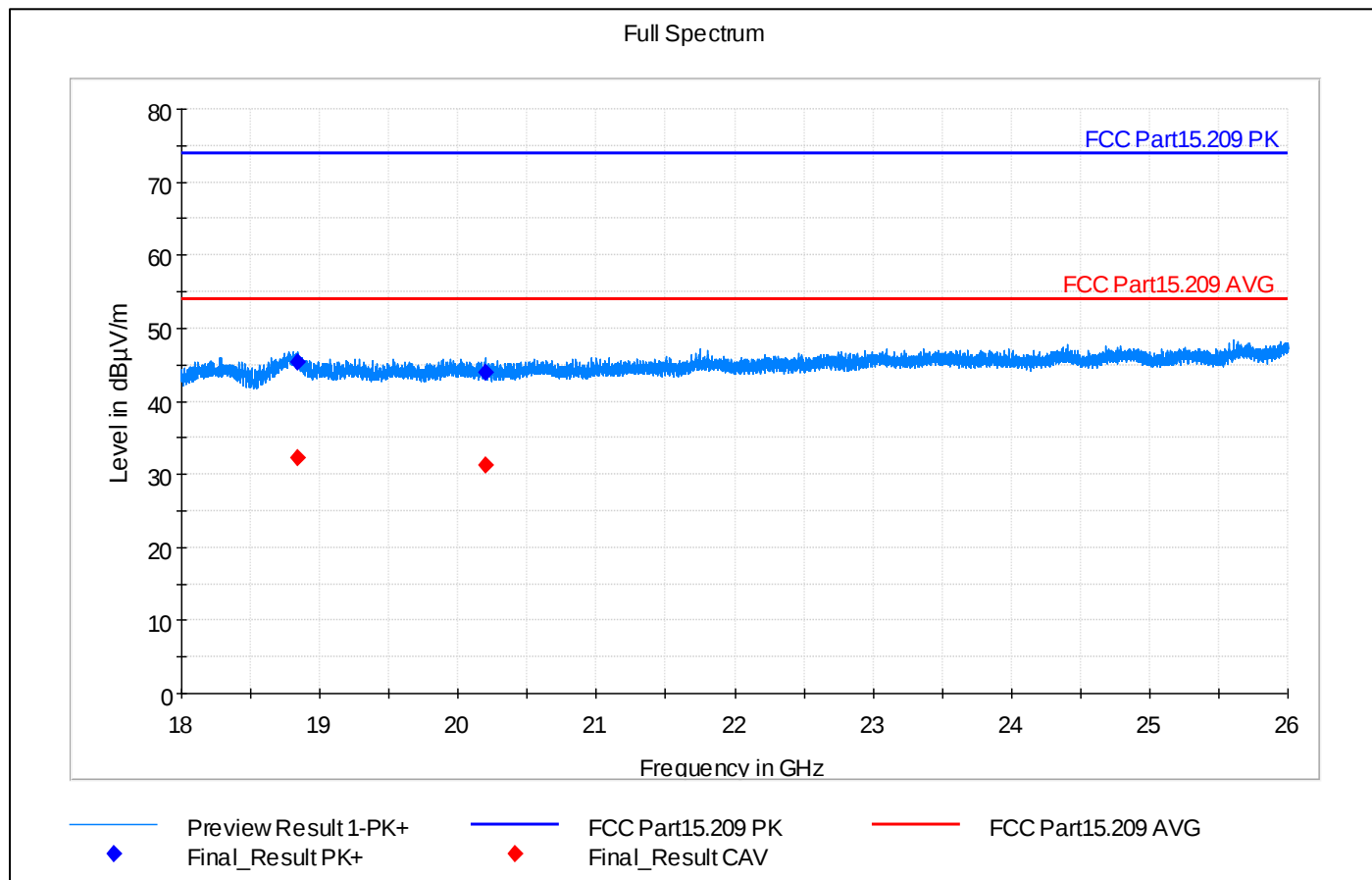
High channel, 3 – 18 GHz



Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
3365.250000	39.65	---	74.00	34.35	15000.0	1000.000	345.0	V	292.0	0.0	6.0	PASS
3365.250000	---	26.15	54.00	27.85	15000.0	1000.000	345.0	V	292.0	0.0	6.0	PASS
7280.750000	---	30.53	54.00	23.47	15000.0	1000.000	307.0	V	89.0	0.0	15.1	PASS
7280.750000	44.17	---	74.00	29.83	15000.0	1000.000	307.0	V	89.0	0.0	15.1	PASS
11206.250000	---	33.04	54.00	20.96	15000.0	1000.000	355.0	V	273.0	0.0	21.8	PASS
11206.250000	46.92	---	74.00	27.08	15000.0	1000.000	355.0	V	273.0	0.0	21.8	PASS
17845.000000	55.96	---	74.00	18.04	15000.0	1000.000	206.0	H	181.0	0.0	38.6	PASS
17845.000000	---	42.39	54.00	11.61	15000.0	1000.000	206.0	H	181.0	0.0	38.6	PASS

High channel, 18 – 26 GHz



Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
18839.250000	45.42	---	74.00	28.58	3000.0	1000.000	118.0	H	337.0	180.0	23.5	PASS
18839.250000	---	32.19	54.00	21.81	3000.0	1000.000	118.0	H	337.0	180.0	23.5	PASS
20196.250000	44.03	---	74.00	29.97	3000.0	1000.000	294.0	V	61.0	90.0	24.0	PASS
20196.250000	---	31.25	54.00	22.75	3000.0	1000.000	294.0	V	61.0	90.0	24.0	PASS

18. Receiver spurious emissions, radiated

Reference: ISED RSS-247, Issue 3 (section 3.1)

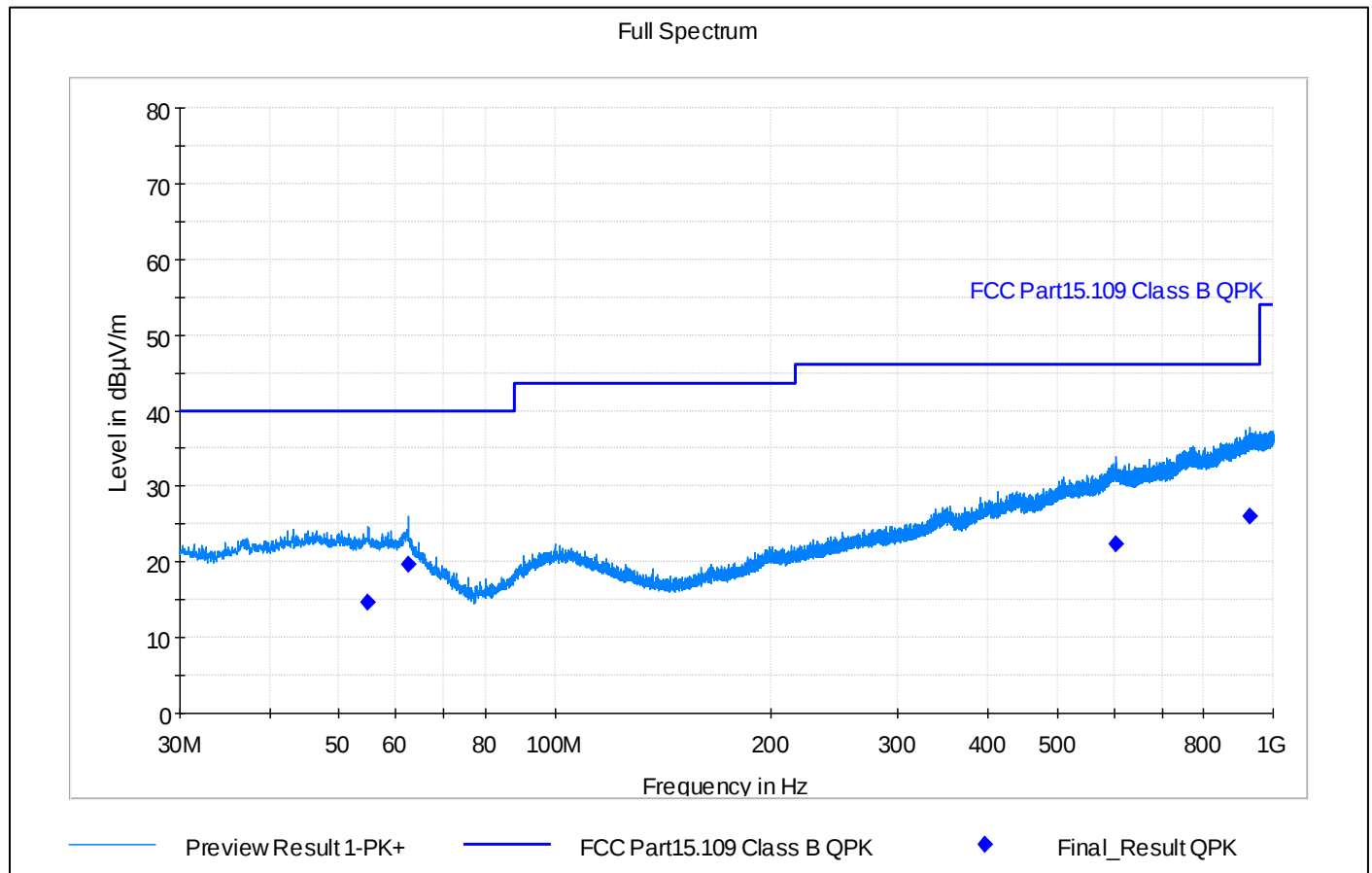
Test method: ANSI C63.4-2014 (8.1 – 8.3)

Limits			
Frequency (MHz)	Detector	Field strength (uV/m)	Measurement distance (m)
30 – 88	Quasi-Peak	100	3
88 - 216	Quasi-Peak	150	3
216 - 960	Quasi-Peak	200	3
960 - 1000	Quasi-Peak	500	3
> 1000	Average	500	3

Test procedure	
1. EUT is placed on a non conducting support at the center of a turn table 0.8m above the ground 2. EUT set to test mode 3. The receiver is set to peak detection with max hold 4. The EUT is rotated through 360 degrees (orientation varied), measurements were made in both horizontal and vertical planes of polarization 5. Found peak values were further maximized by adjusting turntable position $\pm 22,5$ degrees around detected value and scanning the antenna height 1 to 4m 6. For maximized values, final measurement was done with the corresponding final detector.	

Operation mode(s)	Configuration	Test Verdict
Bluetooth LE RX	Mid channel, 2442 MHz, 3941ER005	PASS

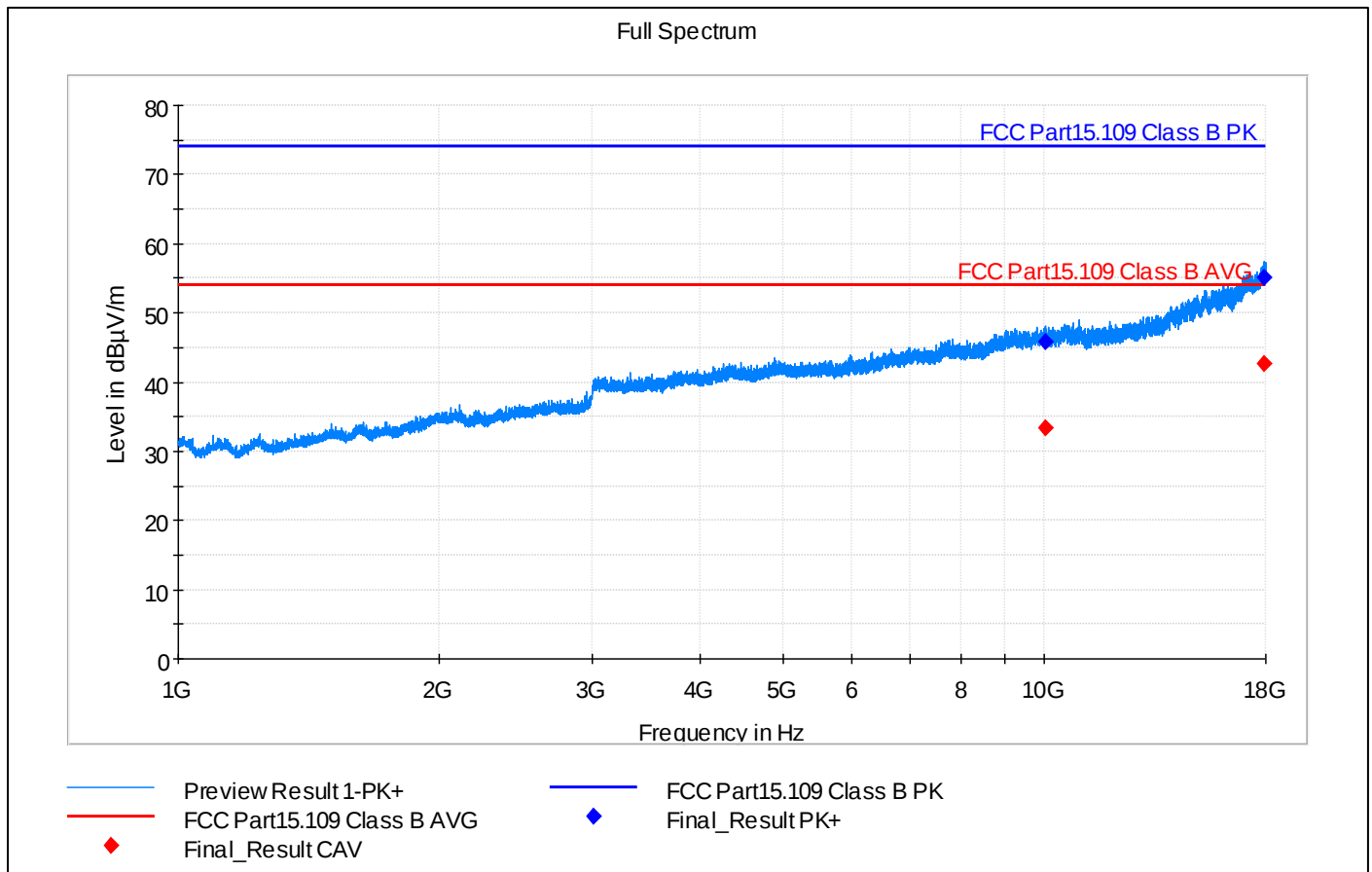
Mid channel, 30 MHz – 1 GHz



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)	Comment
54.870000	14.57	40.00	25.43	15000.0	120.000	108.0	V	303.0	0.0	20.7	PASS
62.460000	19.60	40.00	20.40	15000.0	120.000	400.0	V	19.0	0.0	19.4	PASS
603.300000	22.32	46.00	23.68	15000.0	120.000	198.0	V	208.0	0.0	29.9	PASS
928.410000	26.12	46.00	19.88	15000.0	120.000	242.0	V	225.0	0.0	34.0	PASS

Mid channel, 1 GHz – 18 GHz



Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	CAverage (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
10008.250000	---	33.42	54.00	20.58	500.0	1000.000	288.0	H	292.0	20.0	PASS
10008.250000	45.82	---	74.00	28.18	500.0	1000.000	288.0	H	292.0	20.0	PASS
17965.000000	---	42.61	54.00	11.39	500.0	1000.000	272.0	V	44.0	39.1	PASS
17965.000000	55.03	---	74.00	18.97	500.0	1000.000	272.0	V	44.0	39.1	PASS

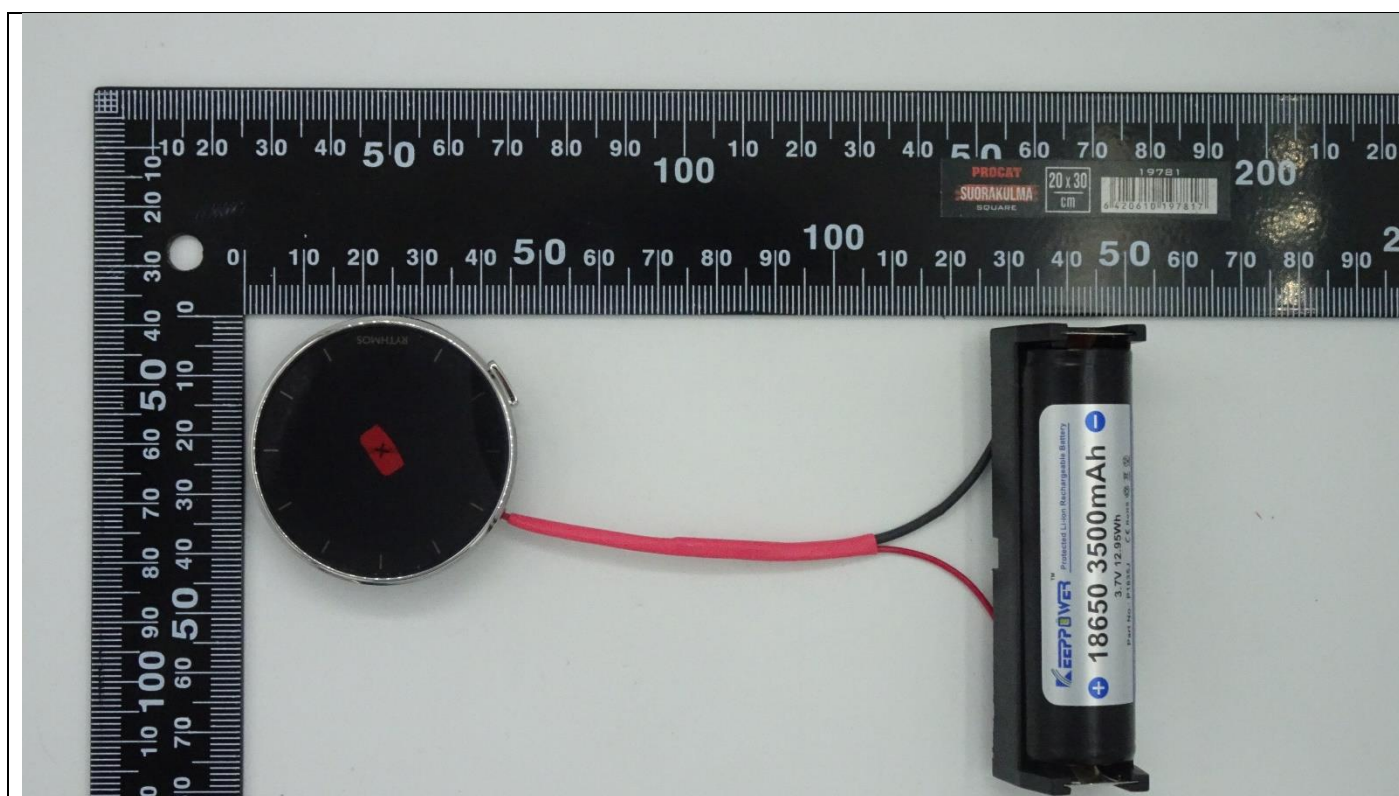
19. Photographs – Equipment External



Picture 1, EUT Top view



Picture 2, EUT Bottom view

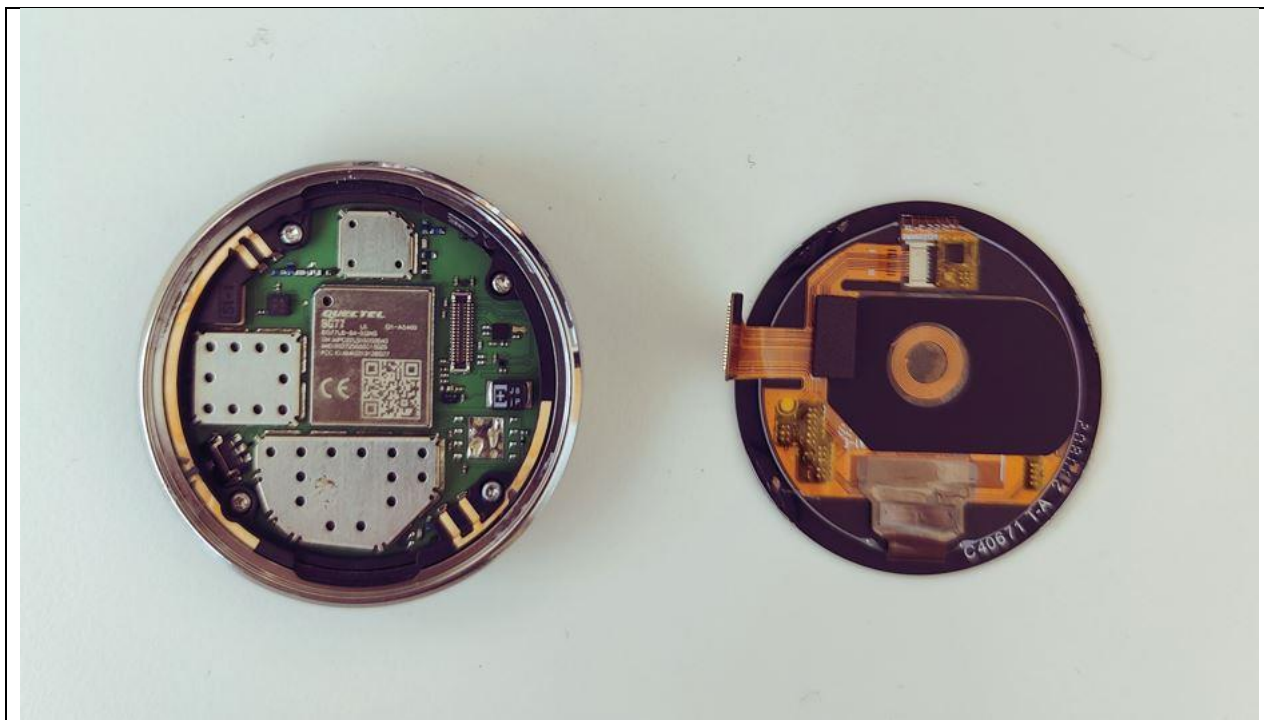


Picture 3, EUT with battery pack

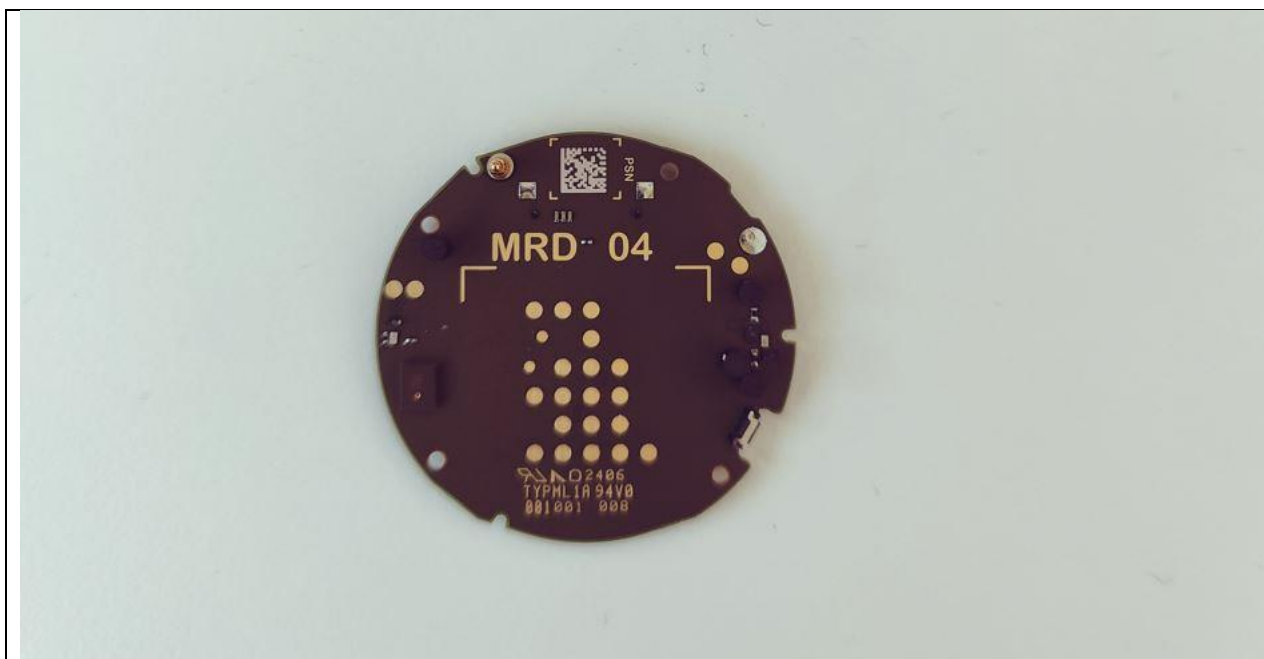


Picture 4, Conducted RF EUT with auxiliary equipment

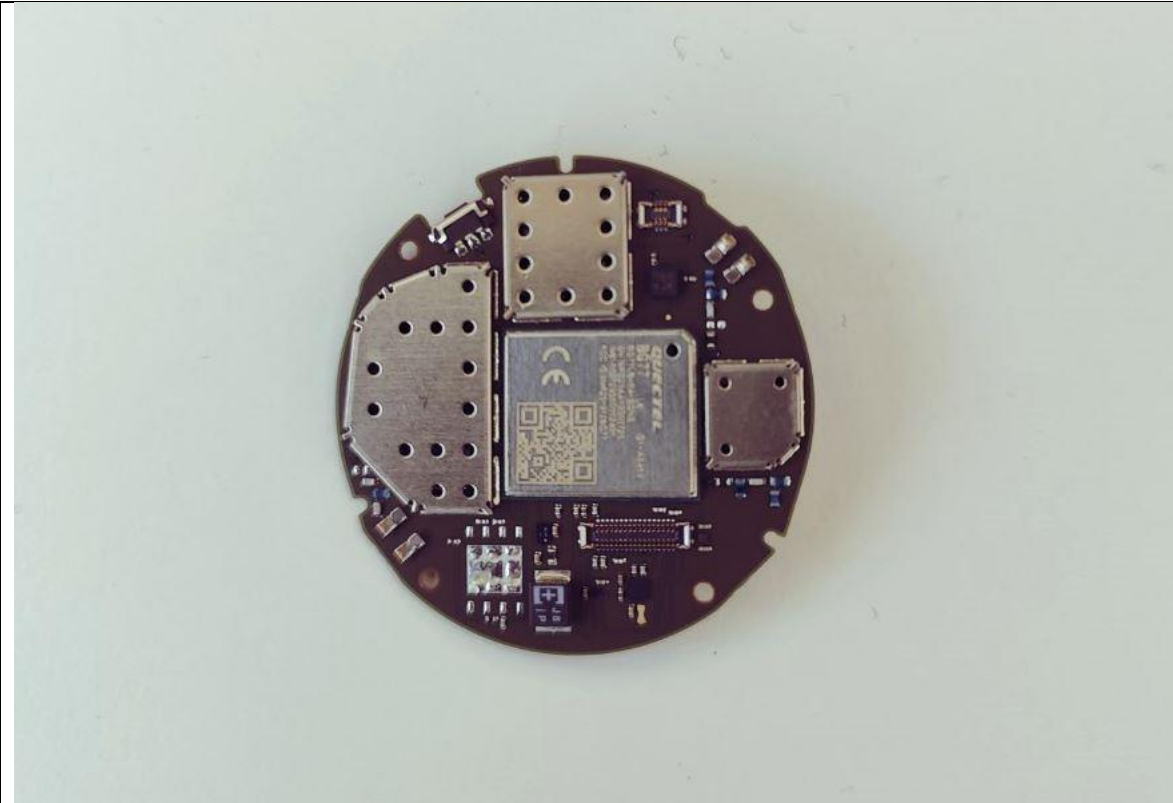
20. Photographs – Equipment Internal



Picture 5, EUT with open cover



Picture 6, EUT MRD_04U bottom



Picture 7, EUT MRD_04U top

21. Photographs – Test Setups



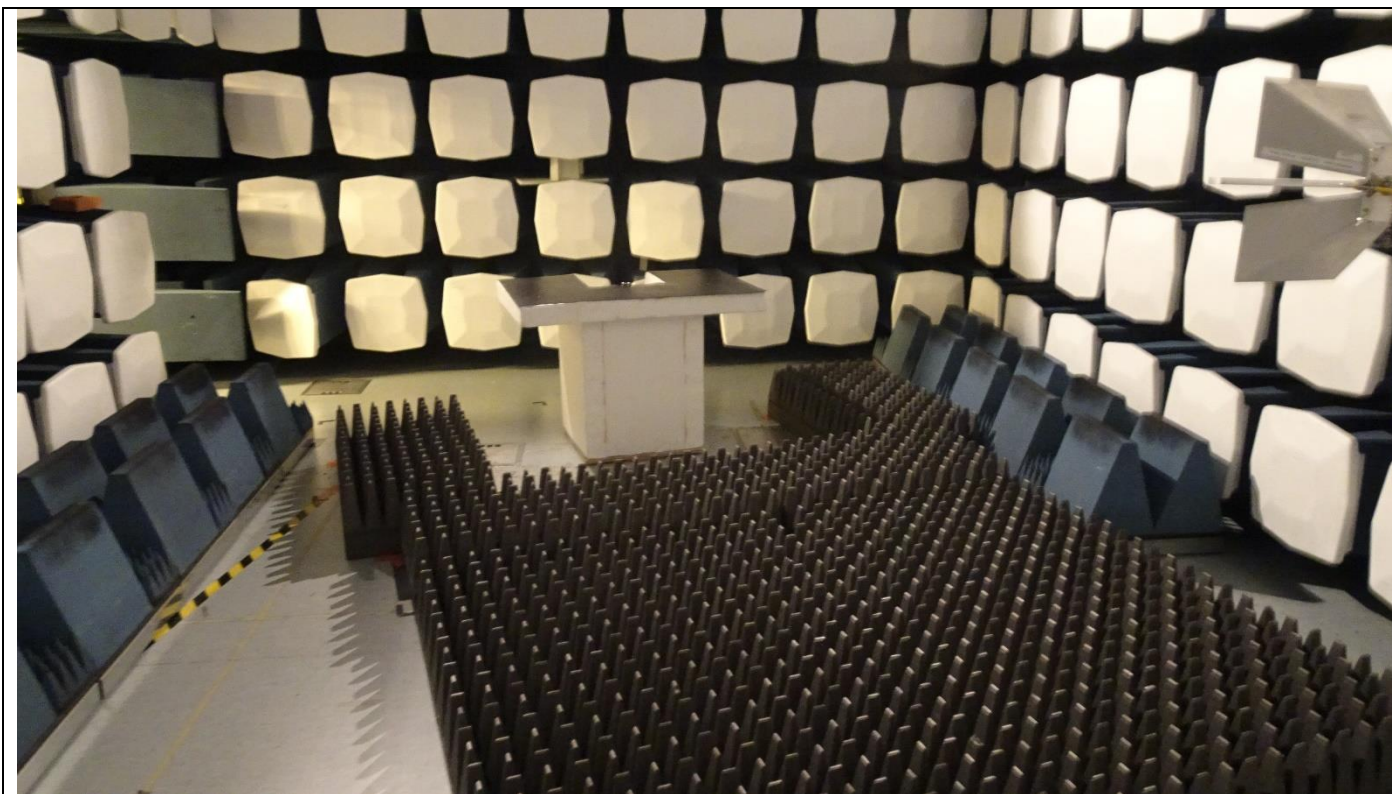
Picture 8, AC Power Line Conducted Emissions



Picture 9, Radiated Spurious Emissions, common setup, TX and RX 30 - 1000 MHz



Picture 10, Radiated Spurious Emissions, common setup, TX, 1 - 26 GHz



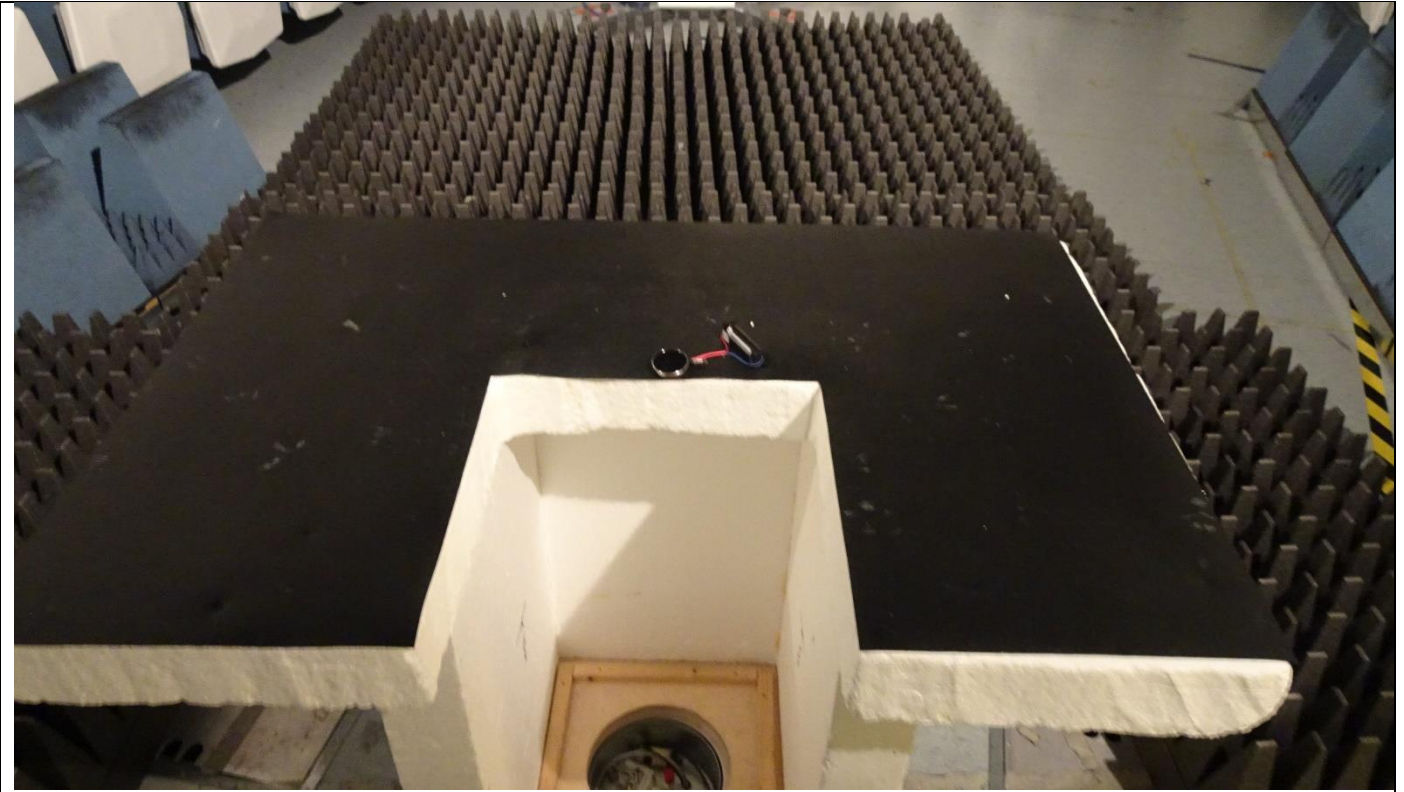
Picture 11, Radiated Spurious Emissions, common setup, RX, 1 – 12,75 MHz



Picture 12, Radiated Spurious Emissions, EUT setup, TX and RX 30 – 1000 MHz



Picture 13, Radiated Spurious Emissions, EUT setup, TX 1 – 26 GHz



Picture 14, Radiated Spurious Emissions, EUT setup, RX 1 – 12,75 GHz