

CERTIFICATION TEST REPORT

Report Number. : S-4792232056-E2V2

Applicant : SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Model : SM-X940

FCC ID : A3LSMX940

EUT Description : BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax/be and digitizer

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C

Date Of Issue:

2026-07-21

Prepared by:

UL KOREA LTD.

26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

Suwon Test Site: UL KOREA LTD. Suwon Laboratory

218 Maeyeong-ro, Yeongtong-gu,

Suwon-si, Gyeonggi-do, 16675, Korea

TEL: (031) 337-9902

FAX: (031) 213-5433

Revision History

Rev.	Issue Date	Revisions	Presented By
V1	2026-06-19	Initial issue	Myeongjun Kwon
V2	2026-07-21	Update the page 21 data	Myeongjun Kwon

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATION	6
4. DECISION RULES AND MEASUREMENT UNCERTAINTY	7
4.1. METROLOGICAL TRACEABILITY	7
4.2. SAMPLE CALCULATION	7
4.3. MEASUREMENT UNCERTAINTY	7
4.4. DECISION RULES	7
5. EQUIPMENT UNDER TEST	8
5.1. EUT DESCRIPTION	8
5.2. MAXIMUM OUTPUT POWER	8
5.3. DESCRIPTION OF AVAILABLE ANTENNAS	9
5.4. WORST-CASE CONFIGURATION AND MODE	10
5.5. DESCRIPTION OF TEST SETUP	12
6. MEASUREMENT METHOD	14
7. TEST AND MEASUREMENT EQUIPMENT	15
8. TEST RESULTS SUMMARY	16
9. ANTENNA PORT TEST RESULTS	17
9.1. ON TIME AND DUTY CYCLE	17
9.2. 6 dB BANDWIDTH	18
9.2.1. Test data	18
9.2.2. 6 dB BANDWIDTH PLOTS	19
9.3. OUTPUT POWER	21
9.3.1. DIVERSITY MODE TEST DATA	21
9.3.2. DUAL MODE TEST DATA	22
9.3.3. PEAK POWER PLOTS	23
9.4. AVERAGE POWER	27
9.4.1. DIVERSITY MODE TEST DATA	27
9.4.2. DUAL MODE TEST DATA	28
9.5. POWER SPECTRAL DENSITY	29
9.5.1. TEST DATA	29
9.5.2. PSD TEST PLOTS	30
9.6. CONDUCTED SPURIOUS EMISSIONS	34
9.6.1. Test plot	35

10.	RADIATED TEST RESULTS	39
10.1.	LIMITS AND PROCEDURE.....	39
10.2.	TRANSMITTER ABOVE 1 GHz.....	41
10.2.1.	TX ABOVE 1 GHz BLUETOOTH LE 1 Mbps , 125 kbps	41
10.2.2.	TX ABOVE 1 GHz BLUETOOTH LE 2 Mbps.....	45
10.3.	WORST CASE BELOW 1 GHz	49
11.	AC POWER LINE CONDUCTED EMISSIONS	50
11.1.	AC Power Line	51

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

EUT DESCRIPTION: BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax/be and digitizer

MODEL NUMBER: SM-X940

SERIAL NUMBER: R37L301JY5Y, R37L301JY3P (CONDUCTED);
R37L301JYKN, R37L301JXAM (RADIATED)

DATE TESTED: 2026-05-18 ~ 2026-06-19

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
47 CFR Part 15 Subpart C	Complies

UL KOREA LTD. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL KOREA LTD. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL KOREA LTD. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL KOREA LTD. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL KOREA LTD. By:



Seokhwan Hong
Suwon Lab Engineer
UL KOREA LTD.

Tested By:



Myeongjun Kwon
Suwon Lab Engineer
UL KOREA LTD.

2. TEST METHODOLOGY

1. FCC 47 CFR Part 2.
2. FCC 47 CFR Part 15.
3. KDB 558074 D01 15.247 Meas Guidance v05r02.
4. KDB 662911 D01 Multiple Transmitter Output v02r01
5. ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
☒	Chamber 1(3m semi-anechoic chamber)
☒	Chamber 2(3m semi-anechoic chamber)
☒	Chamber 3(3m semi-anechoic chamber)
☐	Chamber 4(3m Full-anechoic chamber)
☐	Chamber 5(3m Full-anechoic chamber)

UL KOREA LTD. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned}\text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 28.9 \text{ dBuV/m} &= 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB}\end{aligned}$$

$$\begin{aligned}\text{AC Corrected Reading (dBuV)} &= \text{Measured Voltage (dBuV)} + \text{Extension Cord Loss} \\ &\text{(dB)} + \text{Cable Loss (dB)} \\ 44.72 \text{ dBuV} &= 34.72 \text{ dBuV} + 9.9 \text{ dB} + 0.1 \text{ dB}\end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
RF Output Power	0.70 dB
Power Spectral Density	1.99 dB
Occupied Bandwidth	0.04 %
Conducted Spurious Emissions	2.00 dB
Conducted Disturbance, 0.15 to 30 MHz	1.84 dB
Radiated Disturbance, 9 kHz to 30 MHz	2.41 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.78 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.25 dB
Radiated Disturbance, Above 18 GHz	5.07 dB

Uncertainty figures are valid to a confidence level of 95%.

4.4. DECISION RULES

Decision rule for statement(s) of conformity is based on Clause 4.4.3 in IEC Guide 115:2023.

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is BT/BLE Tablet + DTS/UNII a/b/g/n/ac/ax/be and digitizer. This test report addresses the DTS (BLE) operational mode.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak and average conducted output power as follows:

Antenna1

Frequency Range[MHz]	Mode	Power Mode	Output Power [dBm]	Output Power [mW]
2 402 ~ 2 480	125 kbps (255 pkt)	Peak	13.83	24.15
		Average	13.63	23.06
2 404 ~ 2 478	2 Mbps (255 pkt)	Peak	13.92	24.66
		Average	13.43	22.03

Antenna2

Frequency Range[MHz]	Mode	Power Mode	Output Power [dBm]	Output Power [mW]
2 402 ~ 2 480	1 Mbps (255 pkt)	Peak	13.55	22.65
		Average	13.24	21.08
2 404 ~ 2 478	2 Mbps (255 pkt)	Peak	13.54	22.59
		Average	13.01	20.00

Antenna Dual mode

Frequency Range[MHz]	Mode	Power Mode	Output Power [dBm]	Output Power [mW]
2 402 ~ 2 480	1 Mbps (255 pkt)	Peak	11.44	13.92
		Average	11.07	12.79
2 404 ~ 2 478	2 Mbps (255 pkt)	Peak	11.34	13.62
		Average	10.80	12.02

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

**The internal antenna was Permanently attached.
Therefore this E.U.T Complies with the requirement of §15.203.**

The radio utilizes a internal antenna, with a maximum gain of:

Frequency Band[MHz]	ANT1 Gain [dBi]	ANT2 Gain [dBi]	Correlated Chains Directional Gain[dBi]
DTS 2400 – 2483.5	-4.70	-5.60	-2.13

Directional gain for the MIMO operations is determined using KDB 662911 D01 Multiple Transmitter Output section F (2)(d)(1) for *Unequal antenna gains, with equal transmit powers*. The gain is calculated using the formula for correlated transmissions across the two transmit antennas.

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$ dBi.

Sample calculation for this device with $N_{ANT} = 2$

Directional gain = $10 \log[(10^{-4.70/20} + 10^{-5.60/20})^2 / 2] = -2.13$ dBi

“WIFI0” and “WIFI1” as indicated in antenna specification are written as ANT1 and ANT2 in this report.

5.4. WORST-CASE CONFIGURATION AND MODE

Both Bluetooth LE Diversity mode and DUAL mode have been investigated and confirmed.

The radiated tests of the EUT were investigated in three orthogonal orientations X, Y and Z. It was determined that below table's orientation was the worst-case orientation.

ANT	BE	RSE
	EUT axis	EUT axis
ANT1	X	Z
ANT2	X	Y
Dual	Y	Z

For conducted power test, both Diversity and DUAL mode were tested and reported. Only Conducted power was reported for Dual mode because no noticeable emissions were detected in other test items.

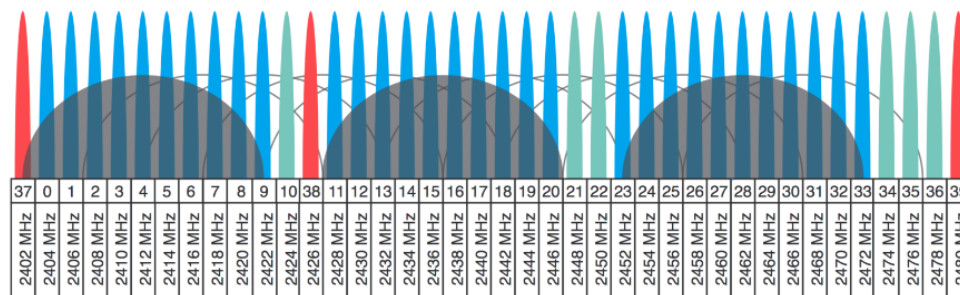
Radiated and power line conducted tests were performed with EUT connected to AC power adapter as the worst-case configuration. Radiated harmonics spurious 1~18 GHz Low/Mid/High channels, 18-26GHz were performed with the EUT set at the Diversity and DUAL mode. Radiated emission below 1GHz and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

For Radiated band-edge and spurious test, tests were performed on Diversity and DUAL mode.

Due to modulation characteristics, BLE coded data was worse than 1Mbps in the RBW 3kHz PSD results. However, based on the RBW (1MHz) when measuring radiated spurious, the PSD of 1Mbps is higher, so 1Mbps was selected as the worst case to suit the radiation test environment.

All radiated and power line conducted tests were performed attached with travel adapter for the worst-case condition mode.

The EUT does not supported Primary PHY channels (2402[37] / 2426[38] / 2480[39] MHz) at the BLE 2Mbps data-rate. BLE Channels that used for testing are follows in below.



Power verification

The output power of all data rates was investigated. The 1 Mbps, 125 kbps, 2 Mbps modes represent the worst case in terms of symbol rate. All tests were performed in these three modes.

Symbol Rate [Ms/s]	Mode	Freq. [MHz]	Conducted Burst Avg [dBm]	Symbol Rate [Ms/s]	Mode	Freq. [MHz]	Conducted Burst Avg [dBm]
1	1 Mbps 37 pkt ANT1	2 402	13.151	2	2 Mbps 37 pkt ANT1	2 404	12.764
		2 440	13.290			2 440	13.062
		2 480	12.308			2 478	12.067
	1 Mbps 37 pkt ANT2	2 402	13.006		2 Mbps 37 pkt ANT2	2 404	12.930
		2 440	12.979			2 440	12.843
		2 480	13.232			2 478	13.011
	1 Mbps 255 pkt ANT1	2 402	13.240		2 Mbps 255 pkt ANT1	2 404	12.662
		2 440	13.321			2 440	13.430
		2 480	12.395			2 478	12.092
	1 Mbps 255 pkt ANT2	2 402	13.073		2 Mbps 255 pkt ANT2	2 404	12.920
		2 440	13.027			2 440	12.849
		2 480	13.239			2 478	13.011
1 Coded S=8	125 kbps 37 pkt ANT1	2 402	13.066	1 Coded S=2	500 kbps 37 pkt ANT1	2 402	13.457
		2 440	13.565			2 440	13.544
		2 480	12.639			2 480	12.623
	125 kbps 37 pkt ANT2	2 402	12.012		500 kbps 37 pkt ANT2	2 402	12.012
		2 440	12.005			2 440	11.998
		2 480	12.171			2 480	12.174
	125 kbps 255 pkt ANT1	2 402	13.105		500 kbps 255 pkt ANT1	2 402	13.462
		2 440	13.628			2 440	13.557
		2 480	12.660			2 480	12.665
	125 kbps 255 pkt ANT2	2 402	12.028		500 kbps 255 pkt ANT2	2 402	12.037
		2 440	12.019			2 440	12.021
		2 480	12.189			2 480	12.188

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-T2510	N/A	N/A
Data Cable	SAMSUNG	EP-DN980	N/A	N/A

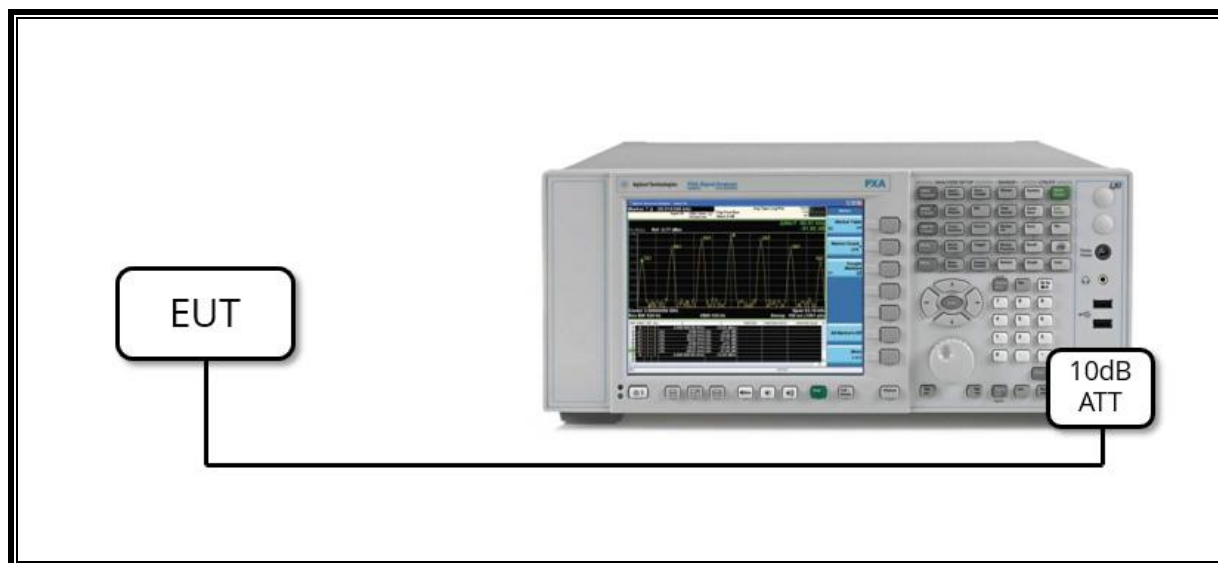
I/O CABLE

I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C Type	Shielded	1.0 m	N/A

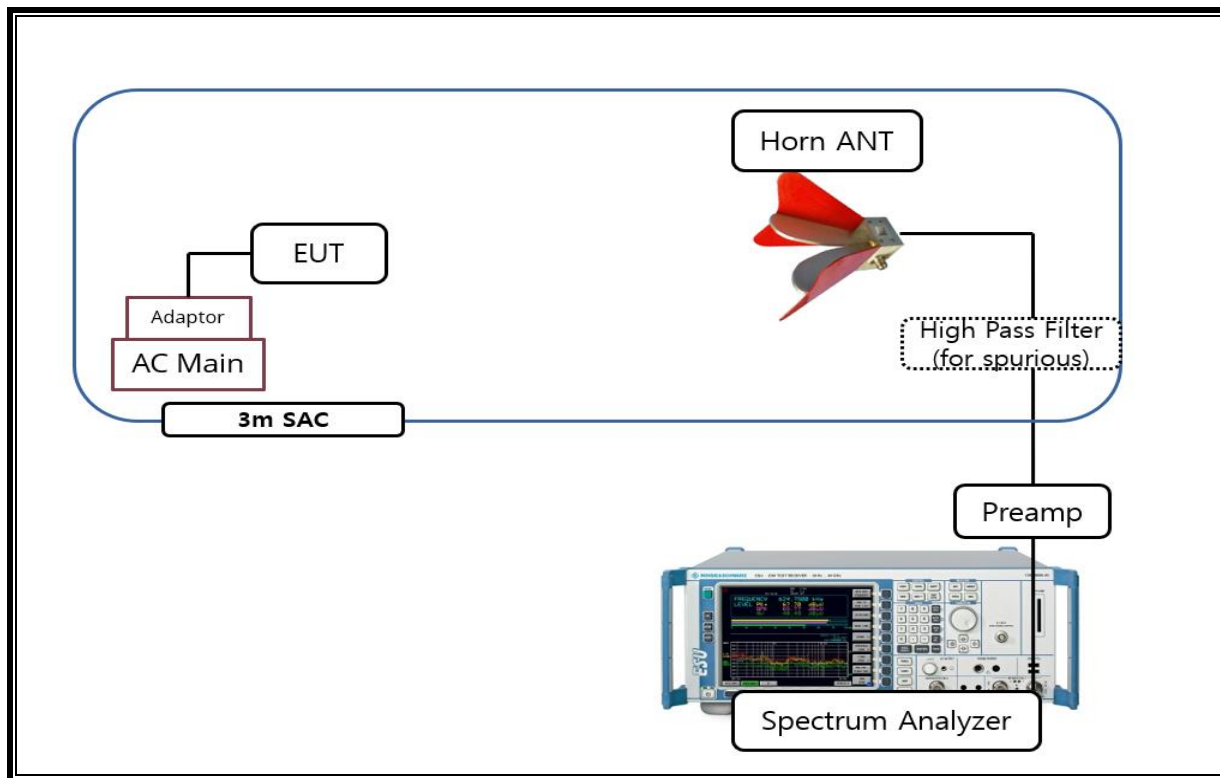
TEST SETUP

The EUT is a stand-alone unit during the tests.
Test software in hidden menu exercised the EUT to enable BLE mode.

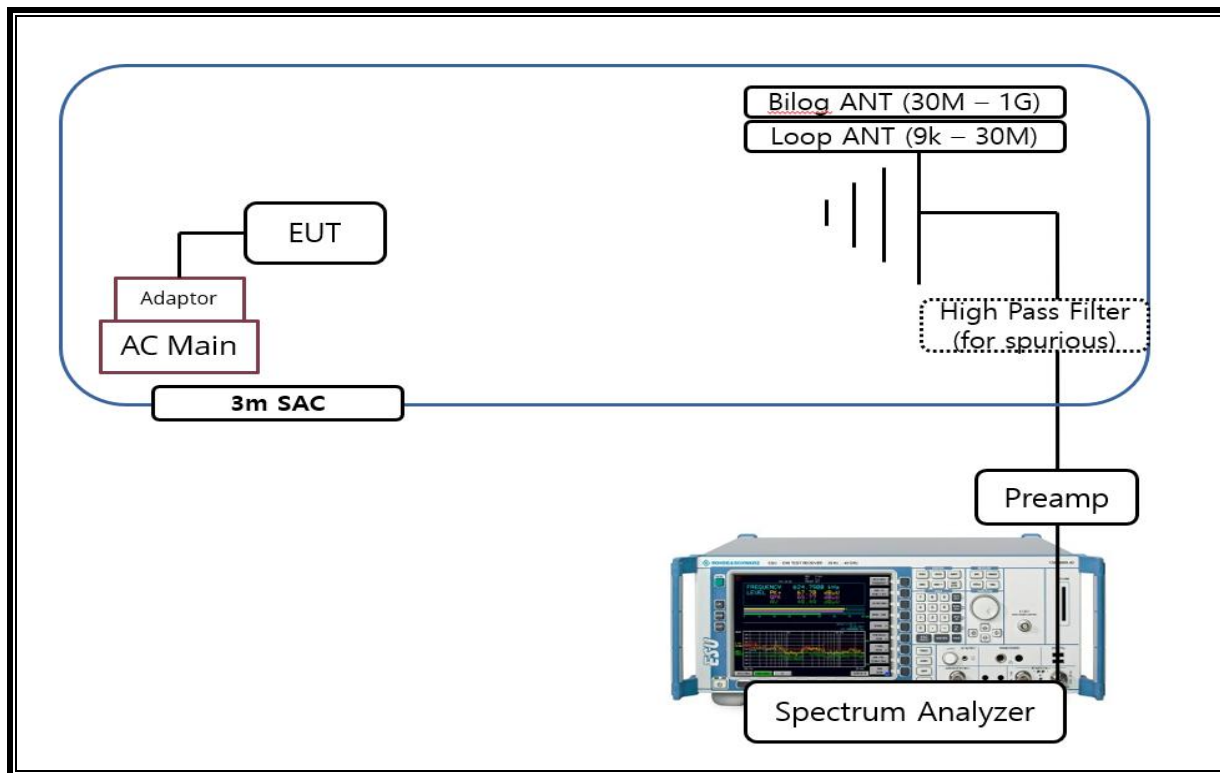
SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP) Below 1GHz



6. MEASUREMENT METHOD

6 dB BW : ANSI C63.10-2020, Section 11.8.2 Option 2

OUTPUT POWER: ANSI C63.10-2020, Section 11.9.1.1 $RBW \geq$ DTS bandwidth

POWER SPECTRAL DENSITY: ANSI C63.10-2020, Section 11.10.2 Method PKPSD (peak PSD)

Out-of-band Emissions (Conducted): ANSI C63.10-2020, Section 11.11 Emissions in nonrestricted frequency bands

Out-of-band Emissions in Non-restricted Bands: ANSI C63.10-2020, Section 11.11 Emissions in nonrestricted frequency bands

Out-of-band Emissions in Restricted Bands: ANSI C63.10-2020, Section 11.12 Emissions in restricted frequency bands

AC Power Line Conducted Emission: ANSI C63.10-2020, Section 6.2

7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	750	2026-07-30
Antenna, Horn, 18 GHz	ETS	3117	00168717	2026-07-17
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2026-07-23
Preamplifier	ETS	3116C-PA	00168841	2026-07-28
Preamplifier, 1000 MHz	Sonoma	310N	341282	2026-07-21
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2026-07-21
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2026-07-21
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2026-12-29
RF Switching Unit	TA Engineering	TA-018S-16	SW-1	N/A
Average Power Sensor	Agilent / HP	U2000A	MY54270007	2026-07-22
Average Power Sensor	Agilent / HP	U2000A	MY54260010	2026-07-22
Attenuator	PASTERNAK	PE7087-10	A001	2026-07-22
Attenuator	PASTERNAK	PE7087-10	A008	2026-07-22
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2026-07-21
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2026-07-21
EMI Test Receive	R&S	ESW 8	101227	2026-07-17
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	2026-07-21
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	2026-07-21
High Pass Filter 6GHz	Micro-Tronics	HPS17542	21	2026-07-21
LISN	R&S	ENV216	101837	2026-07-22
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2E	100900	2027-07-24
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	
AC Line Conducted software	UL	UL EMC	Ver 9.5	

8. TEST RESULTS SUMMARY

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result
15.247 (a)(2)	Occupied Bandwidth(6dB)	> 500kHz	Conducted	Complies
2.1051, 15.247(d)	Band Edge / Conducted Spurious Emission	-20 dBc		Complies
15.247 (b)(3)	TX conducted output power	< 30 dBm		Complies
15.247(e)	PSD	< 8 dBm/3kHz		Complies
15.207(a)	AC Power Line conducted emissions	Section 11	Power Line conducted	Complies
15.205, 15.209	Radiated Spurious Emission	< 54dBuV/m(Av)	Radiated	Complies

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

Mode	On time [msec]	Period [msec]	Duty cycle x [Linear]	Duty Cycle [%]	Duty Cycle Correction Factor [dB]	1/T Minimum VBW [kHz]
2 400 ~ 2 483.5 MHz Bands						
125 kbps [37pkt]	3.089	3.750	0.8237	82.37	0.84	0.32
125 kbps [255pkt]	17.010	17.500	0.9720	97.20	0.12	0.06
1 Mbps [37pkt]	0.384	0.625	0.6138	61.38	2.12	2.61
1 Mbps [255pkt]	2.124	2.500	0.8496	84.96	0.71	0.47
2 Mbps [37pkt]	0.199	0.625	0.3182	31.82	4.97	5.03
2 Mbps [255pkt]	1.068	1.250	0.8544	85.44	0.68	0.94

Note: Due to All diversity and Dual mode have the same duty cycle, the duty cycle of ANT1 is reported as a representative in the table above.



9.2. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

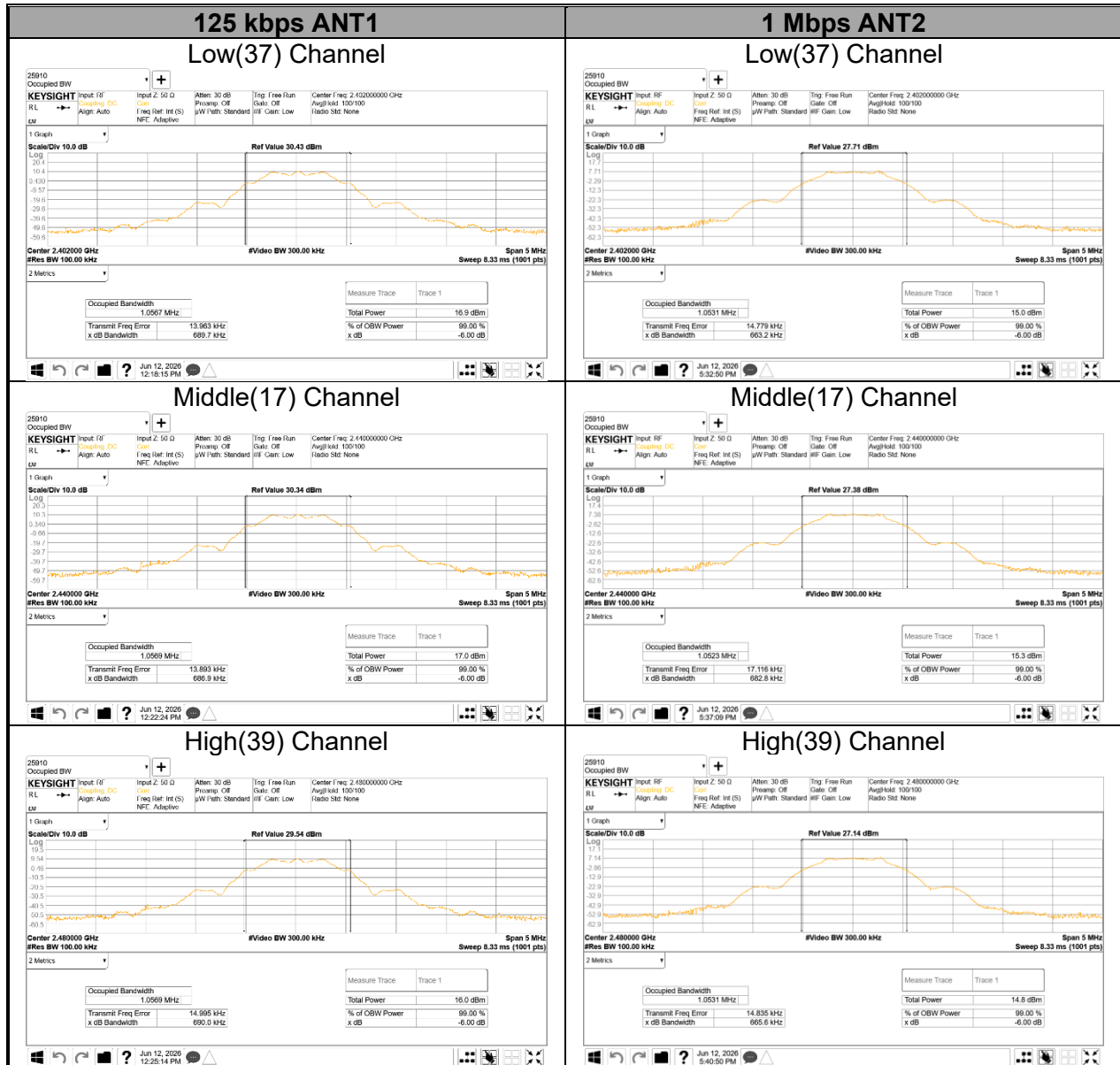
The minimum 6 dB bandwidth shall be at least 500 kHz.

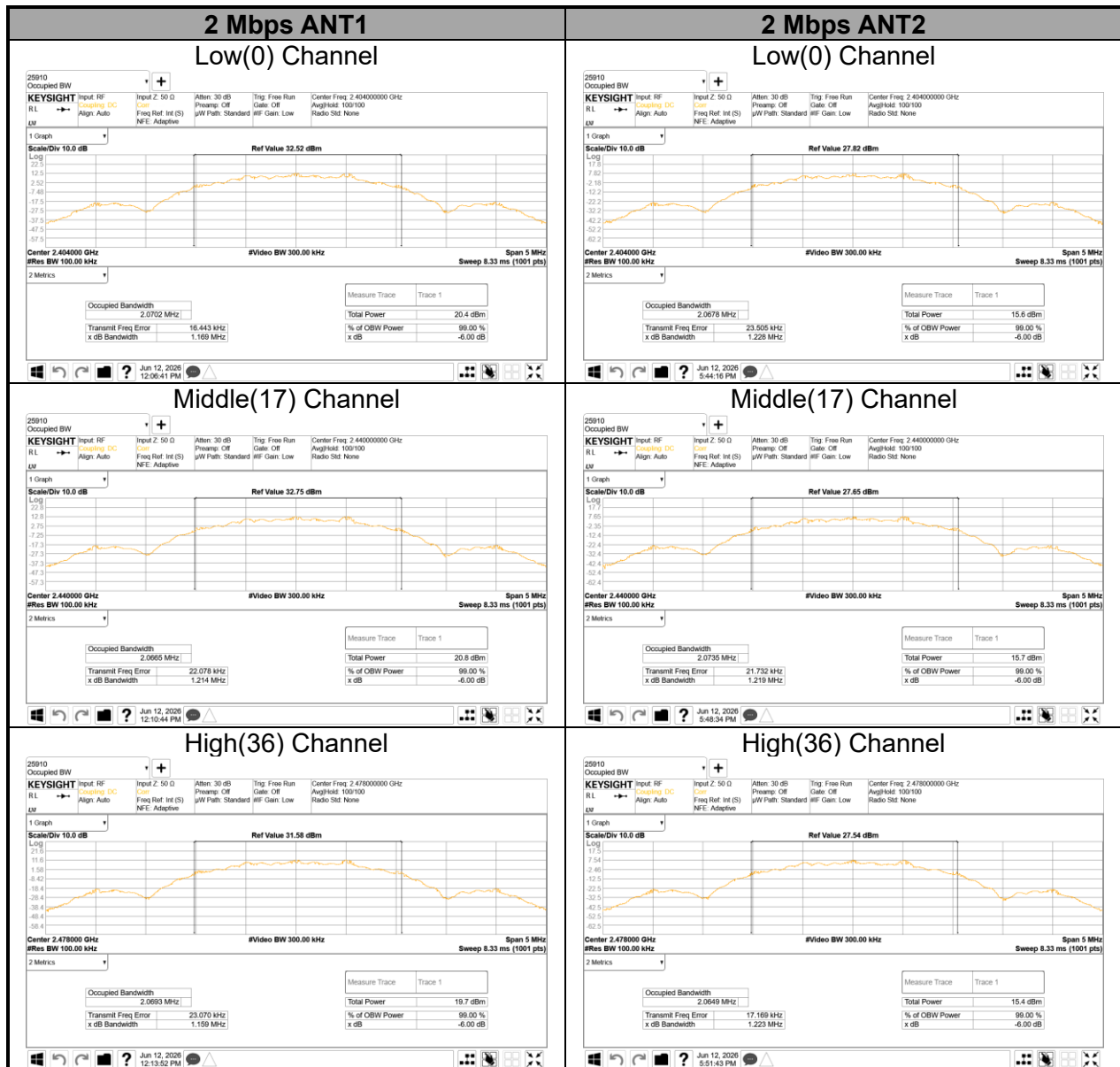
RESULTS

9.2.1. Test data

Mode	Antenna	Channel	Frequency [MHz]	6 dB Bandwidth [kHz]	Minimum Limit [kHz]
125 kbps (255pkt)	ANT1	37	2 402	689.7	500.0
		17	2 440	686.9	
		39	2 480	690.0	
1 Mbps (255pkt)	ANT2	37	2 402	663.2	
		17	2 440	682.8	
		39	2 480	665.6	
2 Mbps (255pkt)	ANT1	0	2 404	1 169.0	
		17	2 440	1 214.0	
		36	2 478	1 159.0	
	ANT2	0	2 404	1 228.0	
		17	2 440	1 219.0	
		36	2 478	1 223.0	
Worst				663.2	

9.2.2. 6 dB BANDWIDTH PLOTS





9.3. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

Peak power is measured using ANSI C63.10(2020) under section 11.9.1.1 utilizing spectrum analyzer(RBW $\geq$ DTS bandwidth).

RESULTS

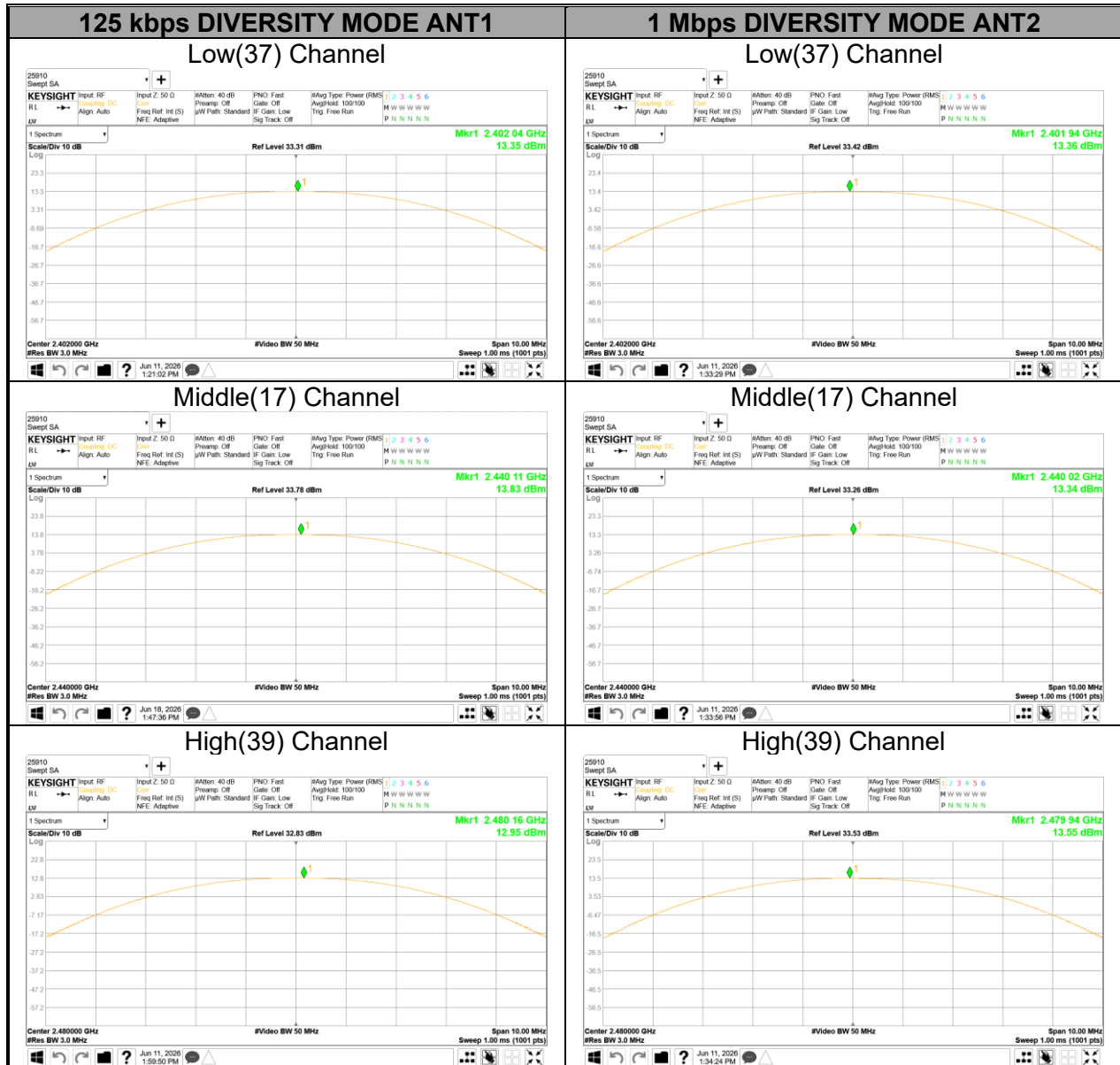
9.3.1. DIVERSITY MODE TEST DATA

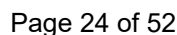
Mode	Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
125 kbps (255 pkt)	ANT1	37	2 402	13.35	30.00	-16.65
		17	2 440	13.83		-16.17
		39	2 480	12.95		-17.05
1 Mbps (255 pkt)	ANT2	37	2 402	13.36		-16.64
		17	2 440	13.34		-16.66
		39	2 480	13.55		-16.45
2 Mbps (255 pkt)	ANT1	0	2 404	13.08		-16.92
		17	2 440	13.92		-16.08
		36	2 478	12.59		-17.41
	ANT2	0	2 404	13.33		-16.67
		17	2 440	13.34		-16.66
		36	2 478	13.54		-16.46
Worst				13.92	-16.08	

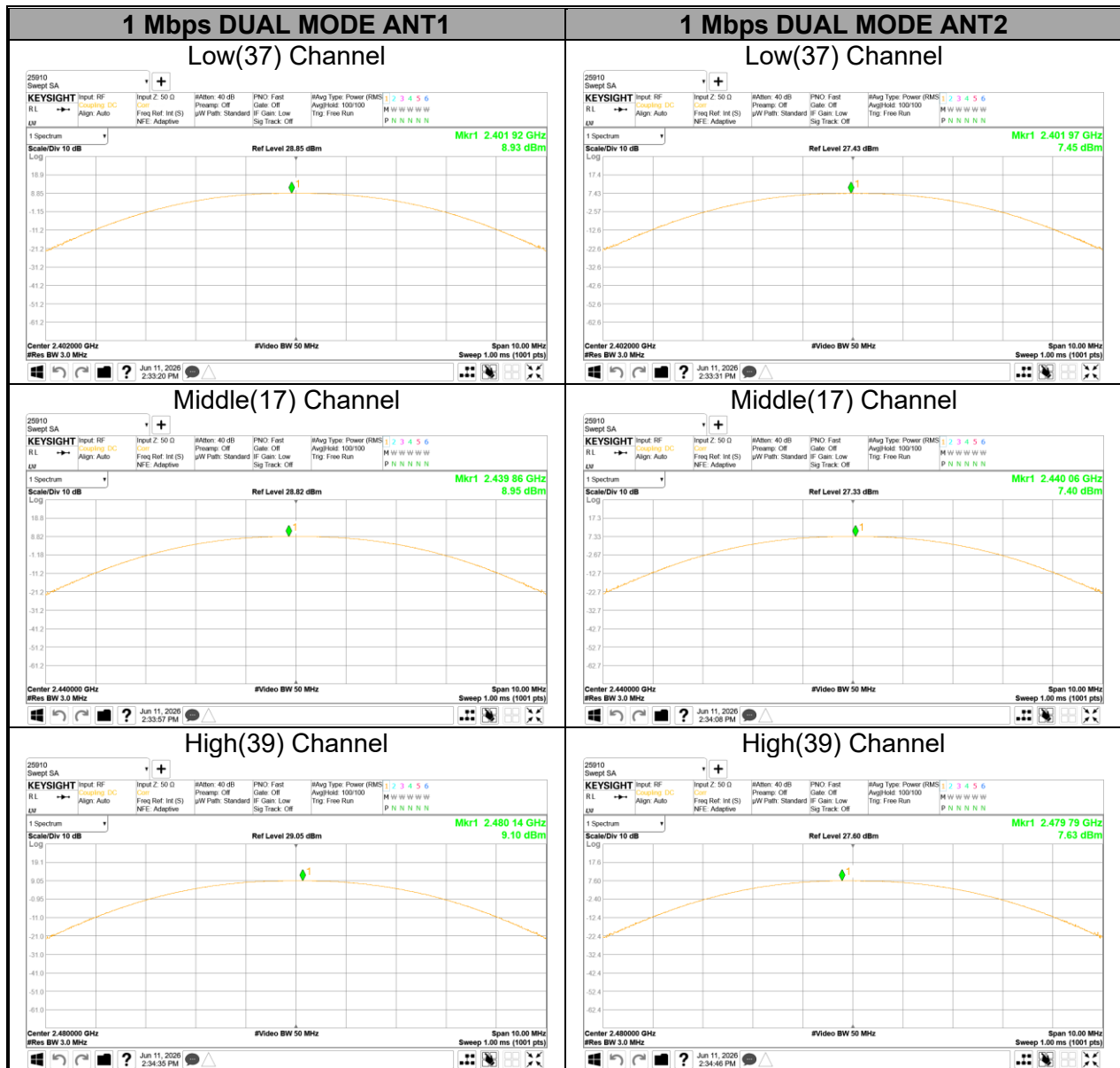
9.3.2. DUAL MODE TEST DATA

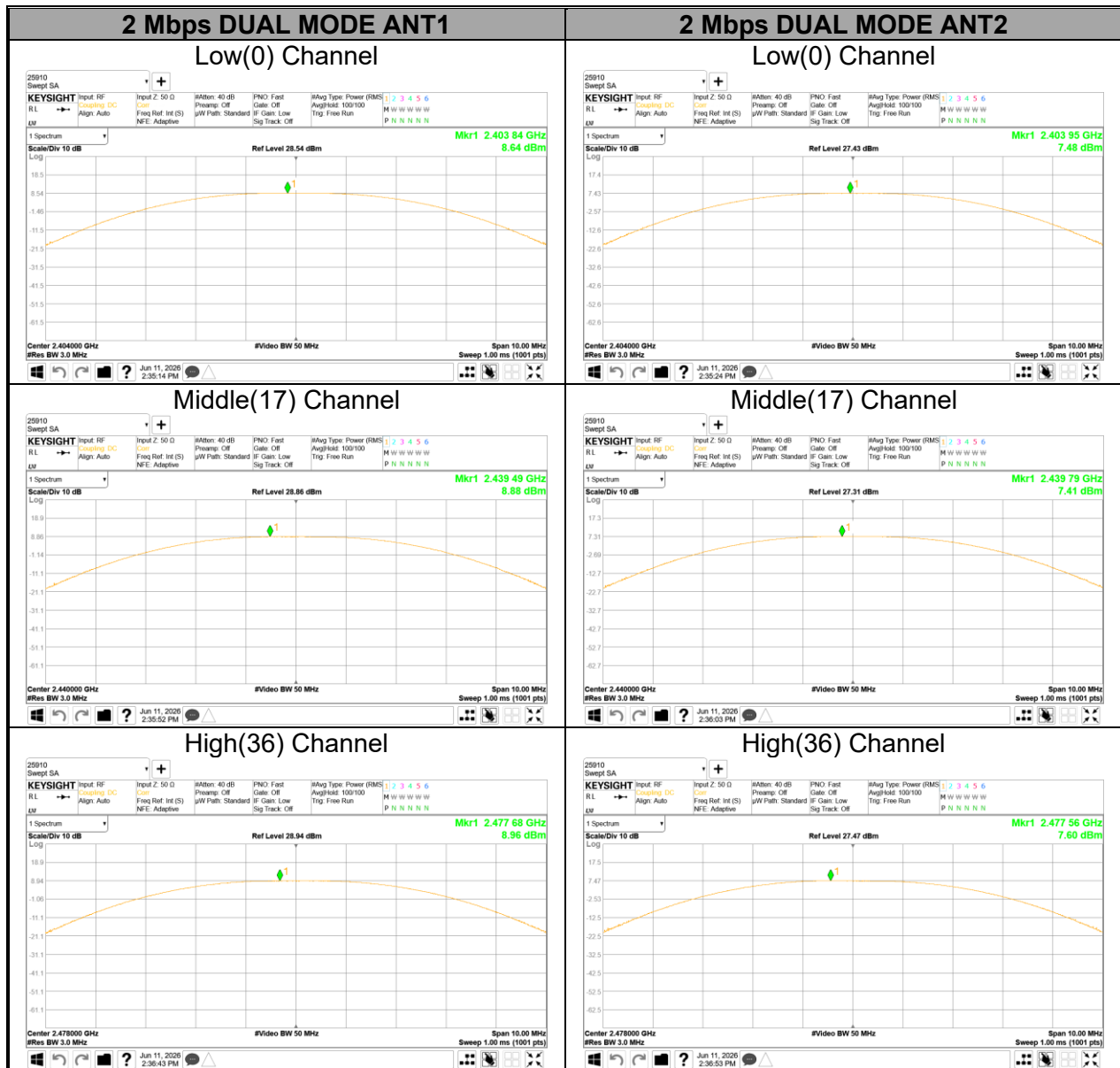
Mode	Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]	
1 Mbps (255 pkt)	DUAL ANT1	37	2 402	8.93	30.00		
		17	2 440	8.95			
		39	2 480	9.10			
	DUAL ANT2	37	2 402	7.45			
		17	2 440	7.40			
		39	2 480	7.63			
	DUAL ANT1+2	37	2 402	11.26		-18.74	
		17	2 440	11.25		-18.75	
		39	2 480	11.44		-18.56	
2 Mbps (255 pkt)	DUAL ANT1	0	2 404	8.64		30.00	
		17	2 440	8.88			
		36	2 478	8.96			
	DUAL ANT2	0	2 404	7.48			
		17	2 440	7.41			
		36	2 478	7.60			
	DUAL ANT1+2	0	2 404	11.11	-18.89		
		17	2 440	11.22	-18.78		
		36	2 478	11.34	-18.66		
Worst				11.44			-18.56

9.3.3. PEAK POWER PLOTS









9.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband RF frame average power sensor.
The cable assembly insertion loss and duty cycle correction factor were entered as an offset in the power meter to allow for direct reading of power.

RESULTS

9.4.1. DIVERSITY MODE TEST DATA

Mode	Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
125 kbps (255 pkt)	ANT1	37	2 402	13.105	20.441
		17	2 440	13.628	23.057
		39	2 480	12.660	18.450
1 Mbps (255 pkt)	ANT2	37	2 402	13.073	20.291
		17	2 440	13.027	20.077
		39	2 480	13.239	21.081
2 Mbps (255 pkt)	ANT1	0	2 404	12.662	18.459
		17	2 440	13.430	22.029
		36	2 478	12.092	16.188
	ANT2	0	2 404	12.920	19.588
		17	2 440	12.849	19.271
		36	2 478	13.011	20.003

9.4.2. DUAL MODE TEST DATA

Mode	Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
1 Mbps (255 pkt)	DUAL ANT1	37	2 402	8.572	
		17	2 440	8.583	
		39	2 480	8.741	
	DUAL ANT2	37	2 402	7.089	
		17	2 440	7.072	
		39	2 480	7.246	
	DUAL ANT1+2	37	2 402	10.904	12.314
		17	2 440	10.903	12.311
		39	2 480	11.067	12.786
2 Mbps (255 pkt)	DUAL ANT1	0	2 404	8.150	
		17	2 440	8.379	
		36	2 478	8.440	
	DUAL ANT2	0	2 404	6.965	
		17	2 440	6.886	
		36	2 478	7.020	
	DUAL ANT1+2	0	2 404	10.608	11.503
		17	2 440	10.707	11.767
		36	2 478	10.798	12.018

9.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

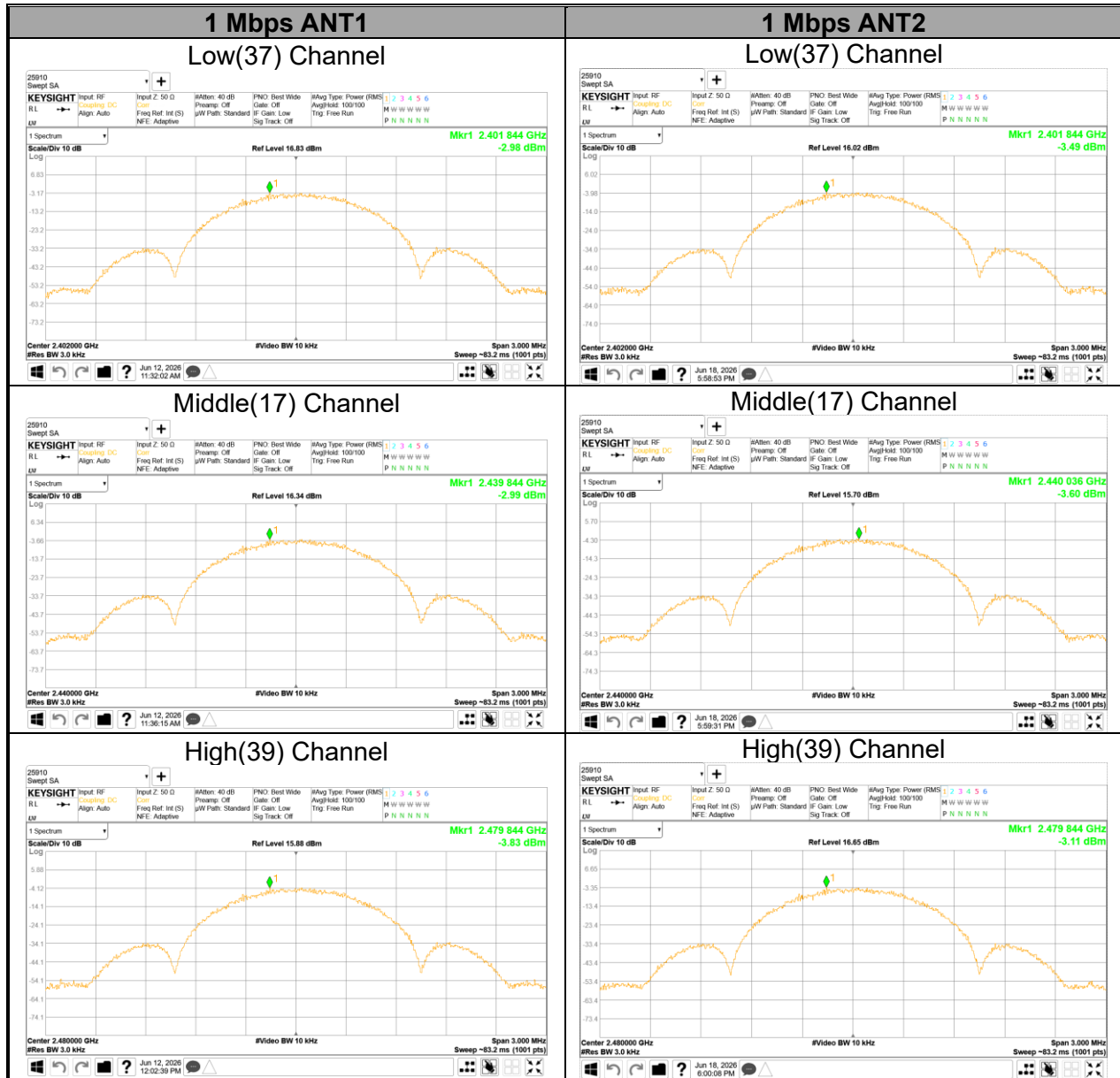
ANSI C63.10-2020, Section 11.10.2 Method PKPSD (peak PSD)

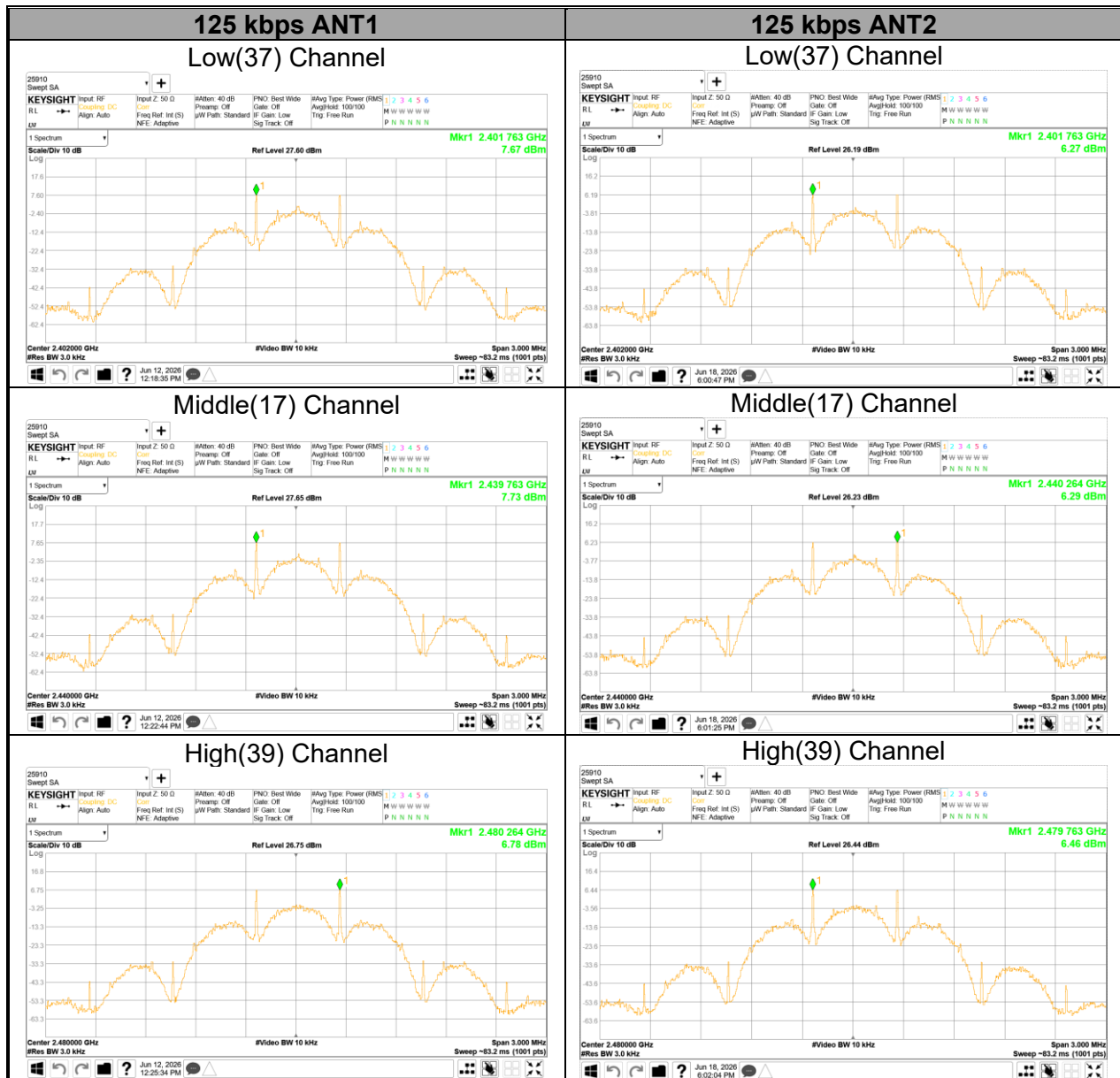
RESULTS

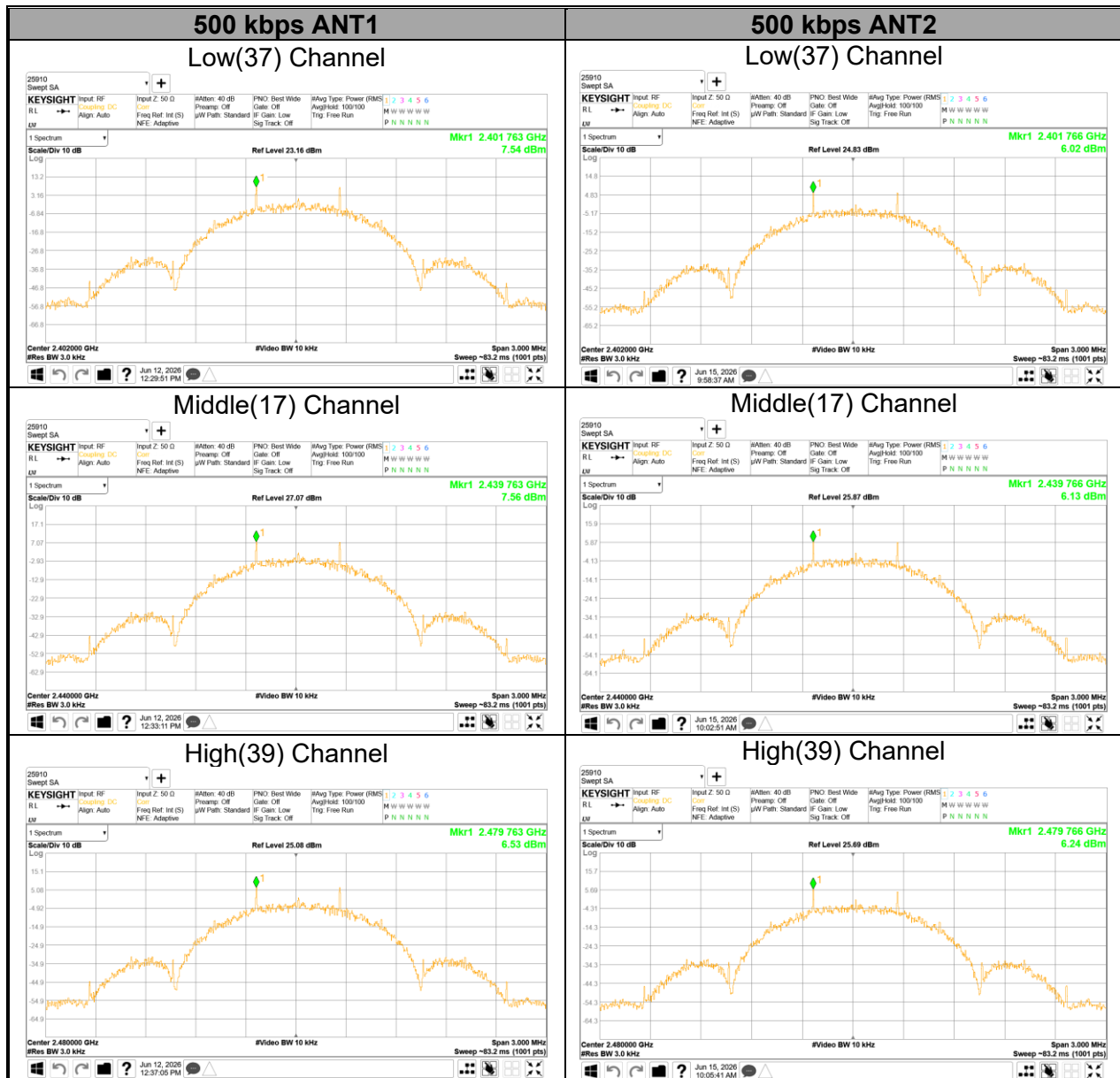
9.5.1. TEST DATA

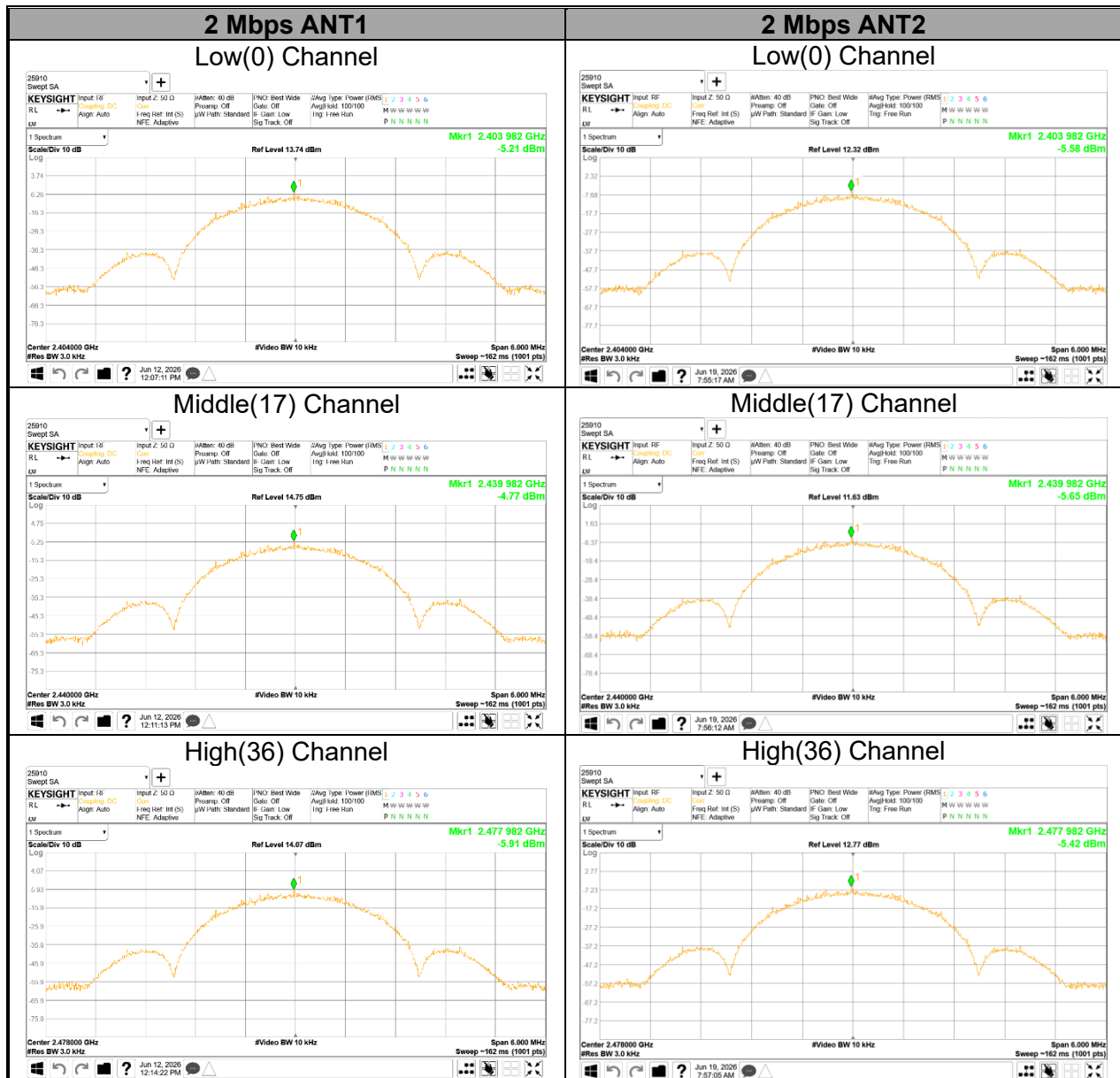
Mode	Antenna	Channel	Frequency [MHz]	PSD [dBm/3kHz]	Limit [dBm/3kHz]	Margin [dB]
1 Mbps (255 pkt)	ANT1	37	2 402	-2.98	8.00	-10.98
		17	2 440	-2.99		-10.99
		39	2 480	-3.84		-11.84
	ANT2	37	2 402	-3.49		-11.49
		17	2 440	-3.60		-11.60
		39	2 480	-3.11		-11.11
125 kbps (255 pkt)	ANT1	37	2 402	7.67		-0.33
		17	2 440	7.73		-0.27
		39	2 480	6.78		-1.22
	ANT2	37	2 402	6.27		-1.73
		17	2 440	6.29		-1.71
		39	2 480	6.46		-1.54
500 kbps (255 pkt)	ANT1	37	2 402	7.54		-0.46
		17	2 440	7.56		-0.44
		39	2 480	6.53		-1.47
	ANT2	37	2 402	6.02		-1.98
		17	2 440	6.13		-1.87
		39	2 480	6.24		-1.76
2 Mbps (255 pkt)	ANT1	0	2 404	-5.21		-13.21
		17	2 440	-4.77		-12.77
		36	2 478	-5.91		-13.91
	ANT2	0	2 404	-5.58		-13.58
		17	2 440	-5.65		-13.65
		36	2 478	-5.42		-13.42
Worst				7.73	-0.27	

9.5.2. PSD TEST PLOTS









9.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

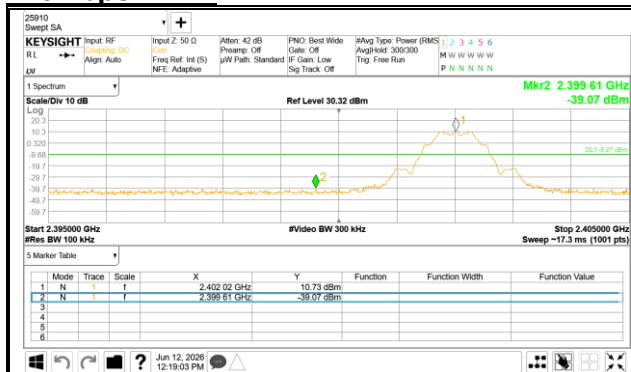
FCC §15.247 (d)

Output power was measured based on the use of a peak measurement.
Therefore, spurious emissions are required to be 20 dBc.

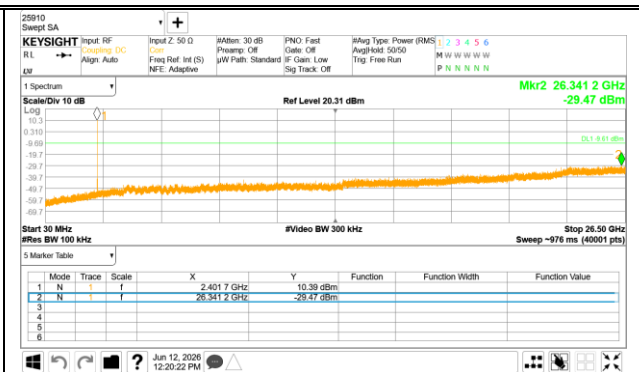
RESULTS

9.6.1. Test plot

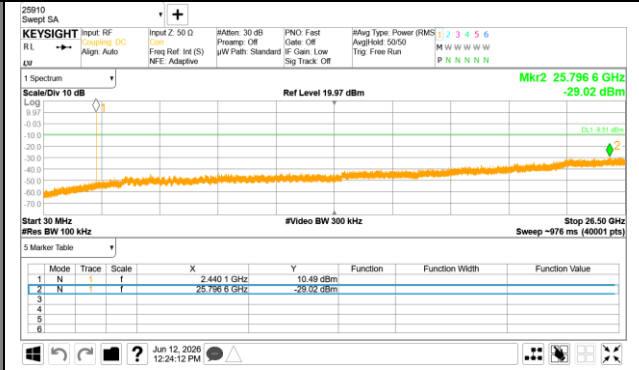
125 kbps ANT1



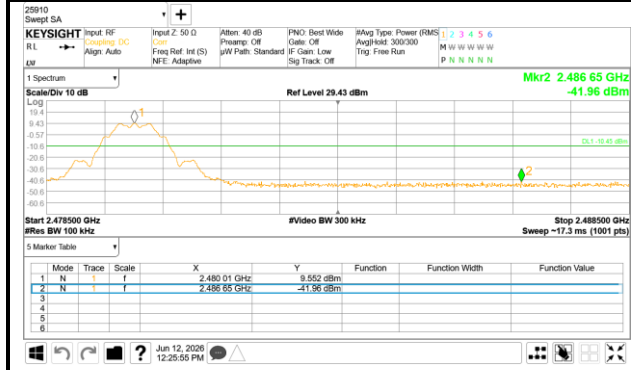
LOW(37) CHANNEL BANDEDGE



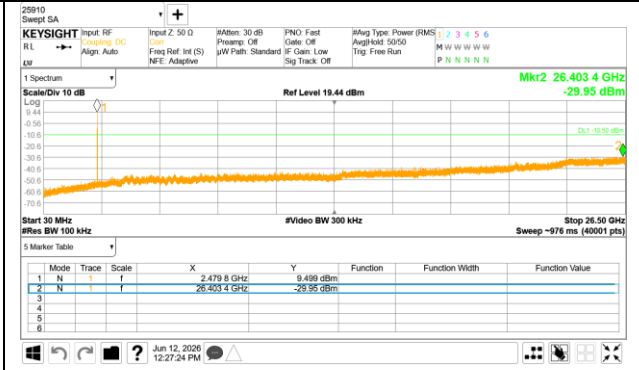
OUT-OF-BAND LOW(37) CHANNEL



OUT-OF-BAND MIDDLE(17) CHANNEL

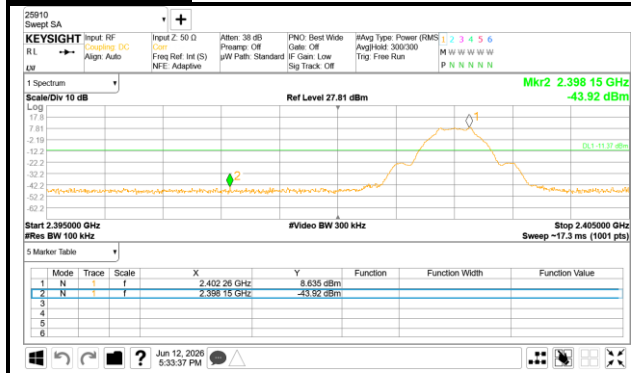


HIGH(39) CHANNEL BANDEDGE

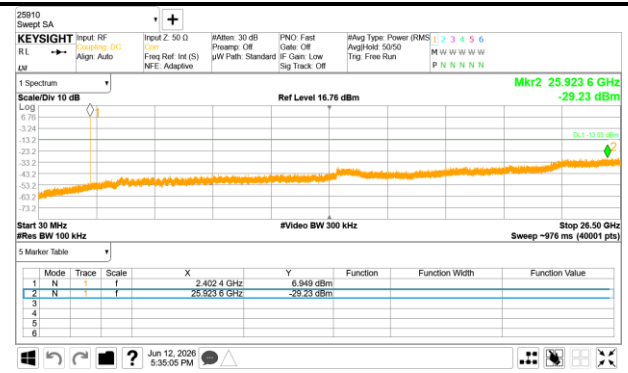


OUT-OF-BAND HIGH(39) CHANNEL

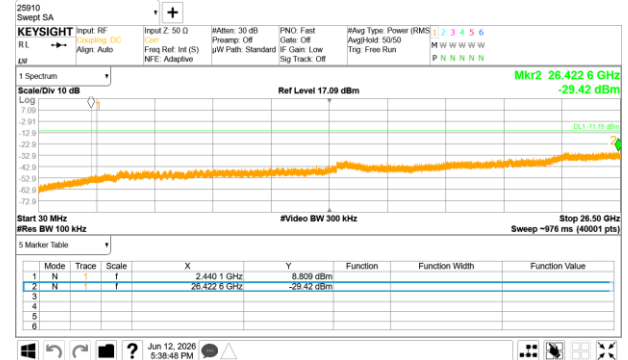
1 Mbps ANT2



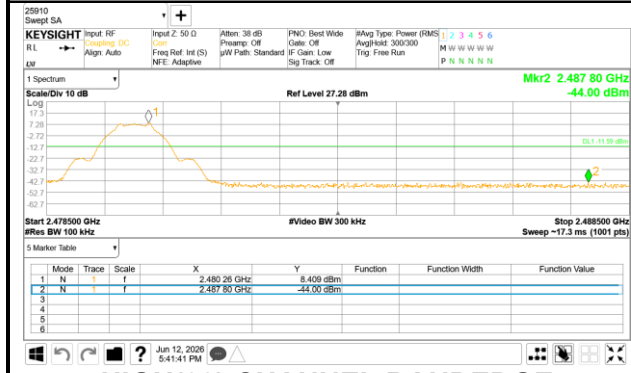
LOW(37) CHANNEL BANDEDGE



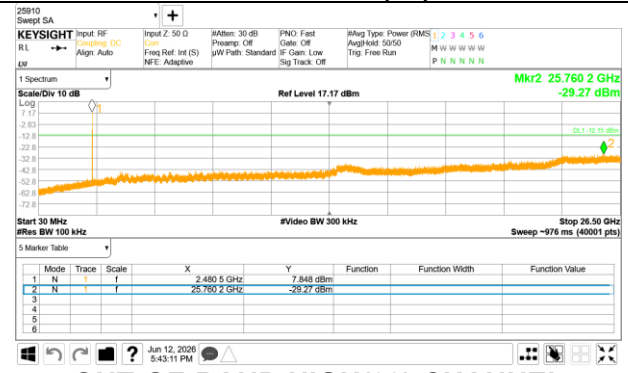
OUT-OF-BAND LOW(37) CHANNEL



OUT-OF-BAND MIDDLE(17) CHANNEL

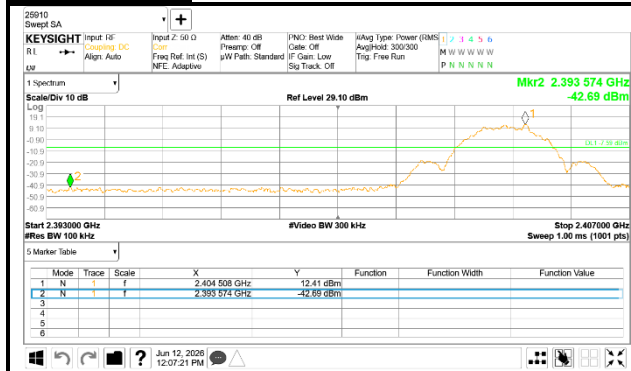


HIGH(39) CHANNEL BANDEDGE

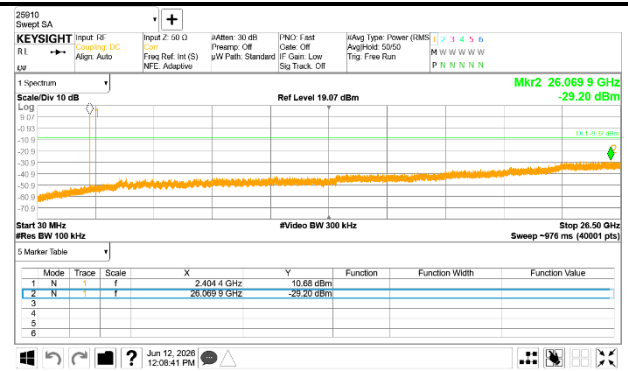


OUT-OF-BAND HIGH(39) CHANNEL

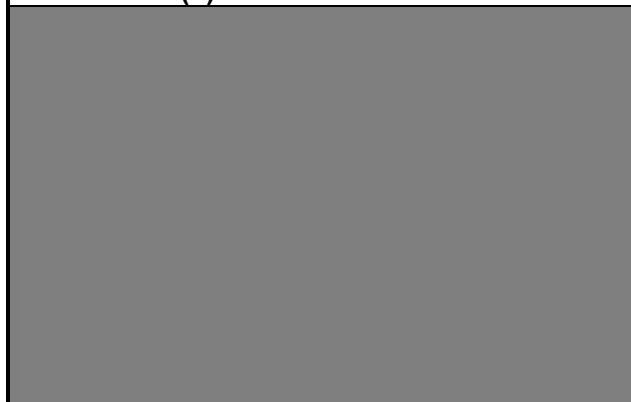
2 Mbps ANT1



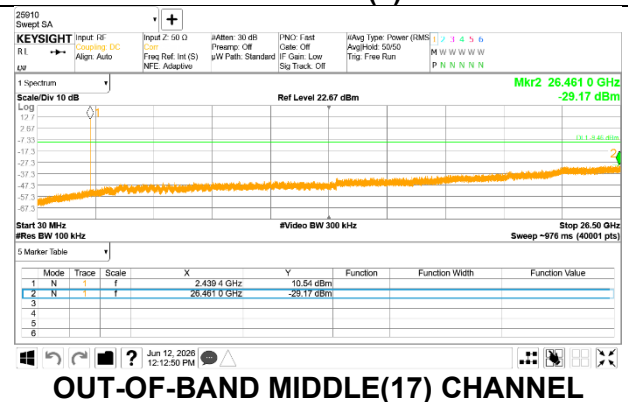
LOW(0) CHANNEL BANDEDGE



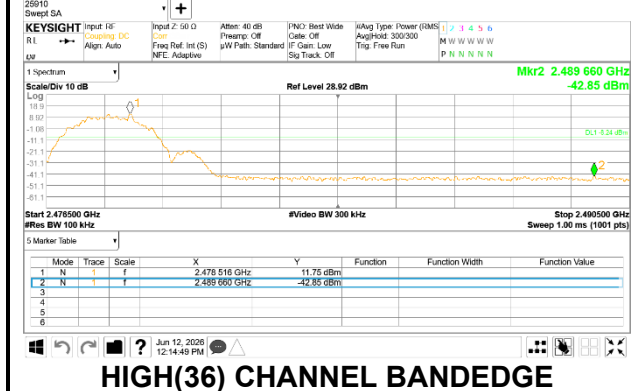
OUT-OF-BAND LOW(0) CHANNEL



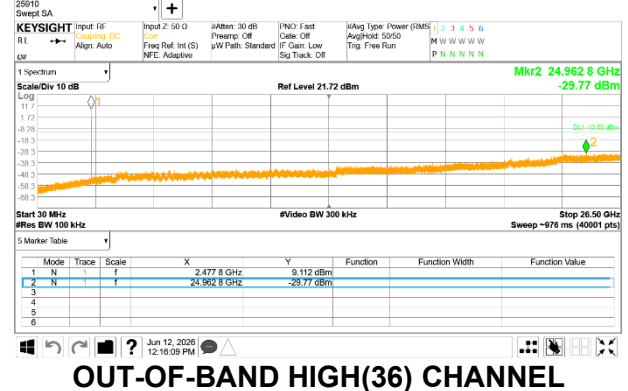
HIGH(36) CHANNEL BANDEDGE



OUT-OF-BAND MIDDLE(17) CHANNEL

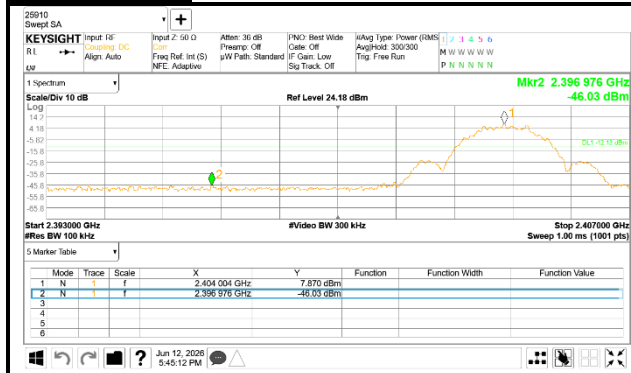


HIGH(36) CHANNEL BANDEDGE

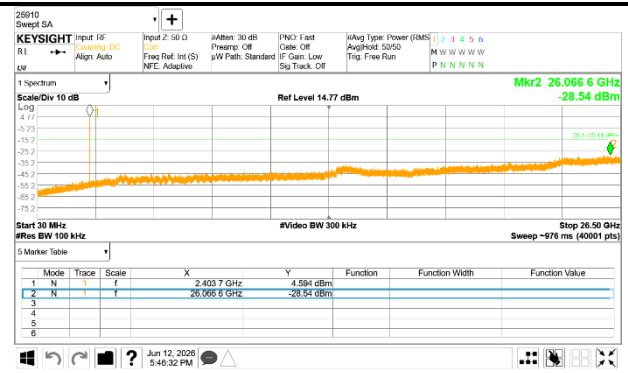


OUT-OF-BAND HIGH(36) CHANNEL

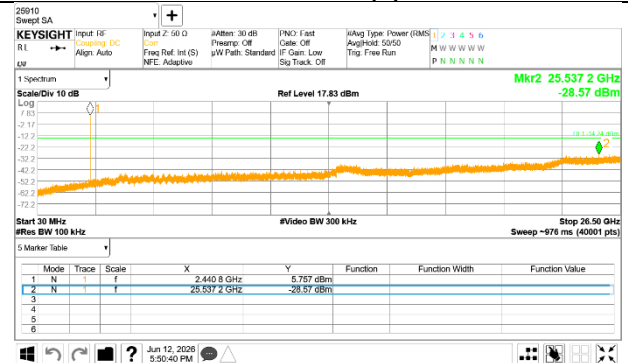
2 Mbps ANT2



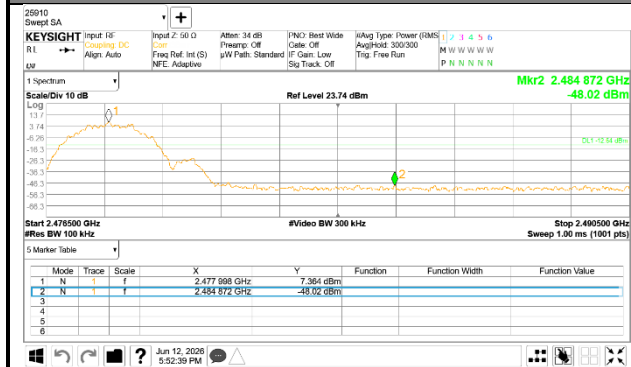
LOW(0) CHANNEL BANDEDGE



OUT-OF-BAND LOW(0) CHANNEL



OUT-OF-BAND MIDDLE(17) CHANNEL



HIGH(36) CHANNEL BANDEDGE



OUT-OF-BAND HIGH(36) CHANNEL

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. (Restricted band-edge, Final detection of spurious harmonic emissions)

Duty cycle factor = $10 \log (1/x)$. For this sample:

Mode	Duty cycle x [Linear]	Duty Cycle Correction Factor [dB]	Antenna
125 kbps [255pkt]	0.9720	0.7079	Antenna 1, 2 and Dual mode
1 Mbps [255pkt]	0.8496	0.1233	Antenna 1, 2 and Dual mode
2 Mbps [255pkt]	0.8544	0.6834	Antenna 1, 2 and Dual mode

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

The spectrum from 1 GHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Note : Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).

Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open are test site.

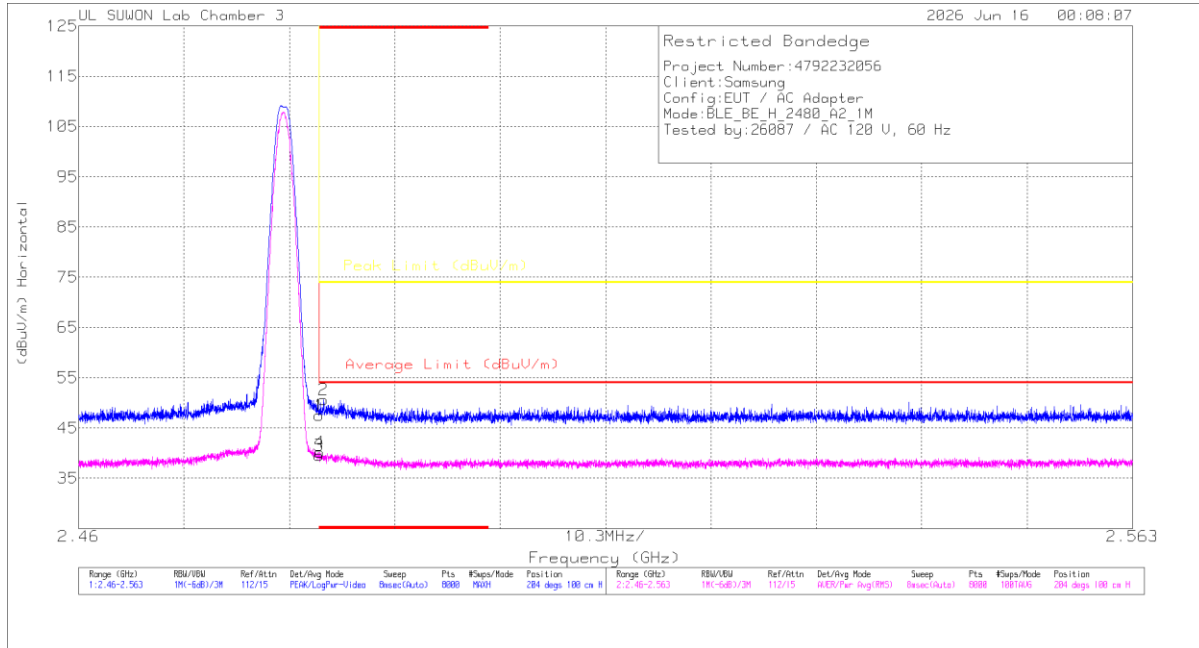
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. TX ABOVE 1 GHz BLUETOOTH LE 1 Mbps ,125 kbps

BANDEDGE (WORST CASE: 1Mbps, 2480 MHz, ANT2)

HORIZONTAL RESULT



Trace Markers

Marker	Frequency (GHz)	Motor Reading (dBuV)	Det	Antenna_Factor (dBm)	10dB_Path Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	39.96	Pk	32.4	-24.9	0	47.46	-	-	74	-26.54	204	100	H
2	* 2.48395	43.13	Pk	32.4	-24.9	0	50.63	-	-	74	-23.37	204	100	H
3	* 2.4835	31.3	RMS	32.4	-24.9	.71	39.51	54	-14.49	-	-	204	100	H
4	* 2.48355	31.95	RMS	32.4	-24.9	.71	40.16	54	-13.84	-	-	204	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE TEST DATA

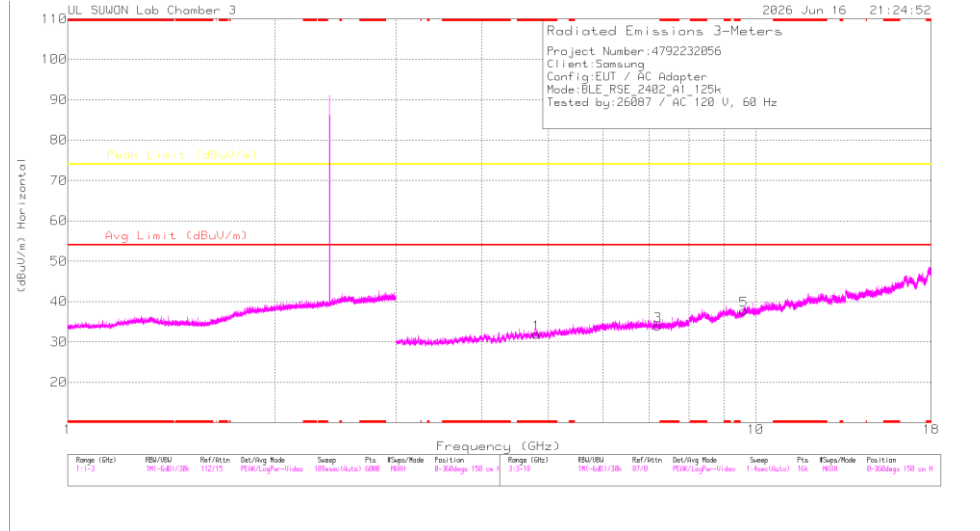
Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	ANT1	* 2.39	40.03	Pk	32.10	-24.90	0.00	47.23	-	-	74.00	-26.77	127	256	H
		* 2.36513	42.12	Pk	32.00	-25.00	0.00	49.12	-	-	74.00	-24.88	127	256	H
		* 2.39	29.09	RMS	32.10	-24.90	0.84	37.13	54.00	-16.87	-	-	127	256	H
		* 2.3416	30.66	RMS	32.00	-25.00	0.84	38.50	54.00	-15.50	-	-	127	256	H
		* 2.39	39.04	Pk	32.10	-24.90	0.00	46.24	-	-	74.00	-27.76	207	318	V
		* 2.34119	42.44	Pk	32.00	-25.00	0.00	49.44	-	-	74.00	-24.56	207	318	V
		* 2.39	29.58	RMS	32.10	-24.90	0.84	37.62	54.00	-16.38	-	-	207	318	V
		* 2.3619	30.94	RMS	32.00	-25.00	0.84	38.78	54.00	-15.22	-	-	207	318	V
2480	ANT1	* 2.4835	40.39	Pk	32.40	-24.90	0.00	47.89	-	-	74.00	-26.11	120	297	H
		* 2.559	42.93	Pk	32.40	-24.70	0.00	50.63	-	-	74.00	-23.37	120	297	H
		* 2.4835	29.58	RMS	32.40	-24.90	0.84	37.92	54.00	-16.08	-	-	120	297	H
		* 2.544	31.20	RMS	32.40	-24.60	0.84	39.84	54.00	-14.16	-	-	120	297	H
		* 2.4835	40.89	Pk	32.40	-24.90	0.00	48.39	-	-	74.00	-25.61	209	297	V
		* 2.536	42.55	Pk	32.40	-24.80	0.00	50.15	-	-	74.00	-23.85	209	297	V
		* 2.4835	30.53	RMS	32.40	-24.90	0.84	38.87	54.00	-15.13	-	-	209	297	V
		* 2.48556	31.32	RMS	32.40	-24.80	0.84	39.76	54.00	-14.24	-	-	209	297	V
2402	ANT2	* 2.39	39.96	Pk	32.10	-24.90	0.00	47.16	-	-	74.00	-26.84	207	128	H
		* 2.35963	42.34	Pk	32.00	-24.90	0.00	49.44	-	-	74.00	-24.56	207	128	H
		* 2.39	29.44	RMS	32.10	-24.90	0.71	37.35	54.00	-16.65	-	-	207	128	H
		* 2.38547	30.77	RMS	32.10	-25.00	0.71	38.58	54.00	-15.42	-	-	207	128	H
		* 2.39	40.06	Pk	32.10	-24.90	0.00	47.26	-	-	74.00	-26.74	100	284	V
		* 2.37329	42.52	Pk	32.00	-25.00	0.00	49.52	-	-	74.00	-24.48	100	284	V
		* 2.39	29.31	RMS	32.10	-24.90	0.71	37.22	54.00	-16.78	-	-	100	284	V
		* 2.38927	30.66	RMS	32.10	-24.90	0.71	38.57	54.00	-15.43	-	-	100	284	V
2480	ANT2	* 2.4835	39.96	Pk	32.40	-24.90	0.00	47.46	-	-	74.00	-26.54	204	100	H
		* 2.48395	43.13	Pk	32.40	-24.90	0.00	50.63	-	-	74.00	-23.37	204	100	H
		* 2.4835	31.30	RMS	32.40	-24.90	0.71	39.51	54.00	-14.49	-	-	204	100	H
		* 2.48355	31.95	RMS	32.40	-24.90	0.71	40.16	54.00	-13.84	-	-	204	100	H
		* 2.4835	39.93	Pk	32.40	-24.90	0.00	47.43	-	-	74.00	-26.57	102	296	V
		* 2.545	42.65	Pk	32.40	-24.70	0.00	50.35	-	-	74.00	-23.65	102	296	V
		* 2.4835	30.01	RMS	32.40	-24.90	0.71	38.22	54.00	-15.78	-	-	102	296	V
		* 2.561	30.96	RMS	32.40	-24.70	0.71	39.37	54.00	-14.63	-	-	102	296	V
2402	DUAL	* 2.39	38.79	Pk	32.10	-24.90	0.00	45.99	-	-	74.00	-28.01	207	115	H
		* 2.34946	42.37	Pk	32.00	-25.00	0.00	49.37	-	-	74.00	-24.63	207	115	H
		* 2.39	29.40	RMS	32.10	-24.90	0.71	37.31	54.00	-16.69	-	-	207	115	H
		* 2.36206	30.77	RMS	32.00	-25.00	0.71	38.48	54.00	-15.52	-	-	207	115	H
		* 2.39	39.33	Pk	32.10	-24.90	0.00	46.53	-	-	74.00	-27.47	87	269	V
		* 2.38429	42.30	Pk	32.10	-25.00	0.00	49.40	-	-	74.00	-24.60	87	269	V
		* 2.39	29.21	RMS	32.10	-24.90	0.71	37.12	54.00	-16.88	-	-	87	269	V
		* 2.37756	30.63	RMS	32.10	-25.00	0.71	38.44	54.00	-15.56	-	-	87	269	V
2480	DUAL	* 2.4835	40.31	Pk	32.40	-24.90	0.00	47.81	-	-	74.00	-26.19	204	100	H
		* 2.533	42.26	Pk	32.40	-24.70	0.00	49.96	-	-	74.00	-24.04	204	100	H
		* 2.4835	29.82	RMS	32.40	-24.90	0.71	38.03	54.00	-15.97	-	-	204	100	H
		* 2.559	30.99	RMS	32.40	-24.70	0.71	39.40	54.00	-14.60	-	-	204	100	H
		* 2.4835	40.82	Pk	32.40	-24.90	0.00	48.32	-	-	74.00	-25.68	87	255	V
		* 2.527	43.06	Pk	32.40	-24.80	0.00	50.66	-	-	74.00	-23.34	87	255	V
		* 2.4835	29.29	RMS	32.40	-24.90	0.71	37.50	54.00	-16.50	-	-	87	255	V
		* 2.558	30.90	RMS	32.40	-24.70	0.71	39.31	54.00	-14.69	-	-	87	255	V

Note1. Pk - Peak detector, RMS - RMS detector

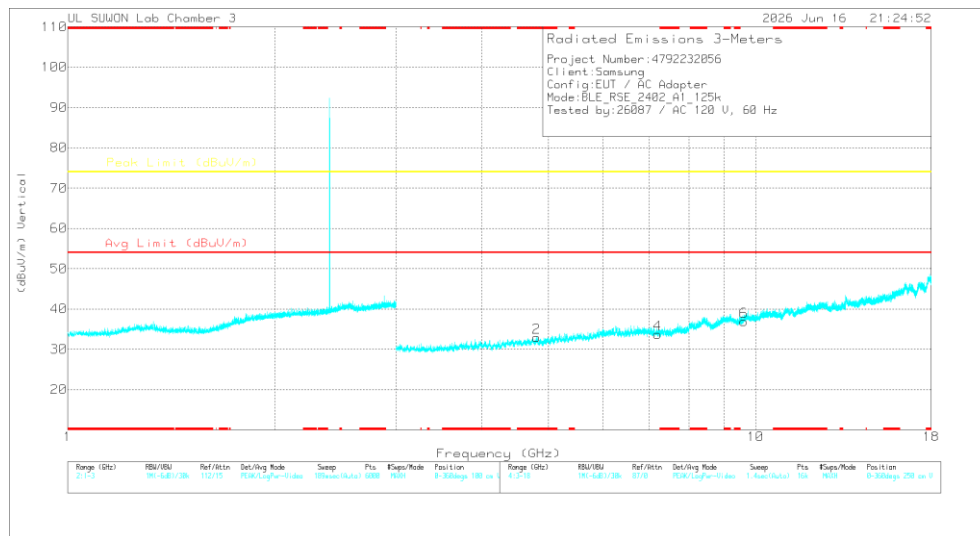
Note2. * - indicates frequency in 47 CFR Pt 15 / IC RSS-Restricted Band

HARMONICS AND SPURIOUS EMISSIONS (WORST CASE:125kbps, 2402 MHz, ANT1)

2402 MHz RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna Factor (dB/m)	3GHz HP Path Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.80371	40.48	PK2	34.3	-30.1	0	44.68	-	-	74	-29.32	63	135	H
* 4.80363	30.5	MAv1	34.3	-30.1	.84	35.54	54	-18.46	-	-	63	135	H
* 4.80188	38.33	PK2	34.3	-30.2	0	42.43	-	-	74	-31.57	333	100	V
* 4.80337	27.16	MAv1	34.3	-30.1	.84	32.2	54	-21.8	-	-	333	100	V
7.20673	36.33	PK2	35.8	-25.8	0	46.33	-	-	74	-27.67	350	100	H
7.20251	34.72	PK2	35.8	-25.8	0	44.72	-	-	74	-29.28	0	100	V
9.60357	32.5	PK2	36.7	-21.7	0	47.5	-	-	74	-26.5	0	100	H
9.60362	32.62	PK2	36.7	-21.7	0	47.62	-	-	74	-26.38	0	100	V

* - indicates frequency in 47 CFR Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

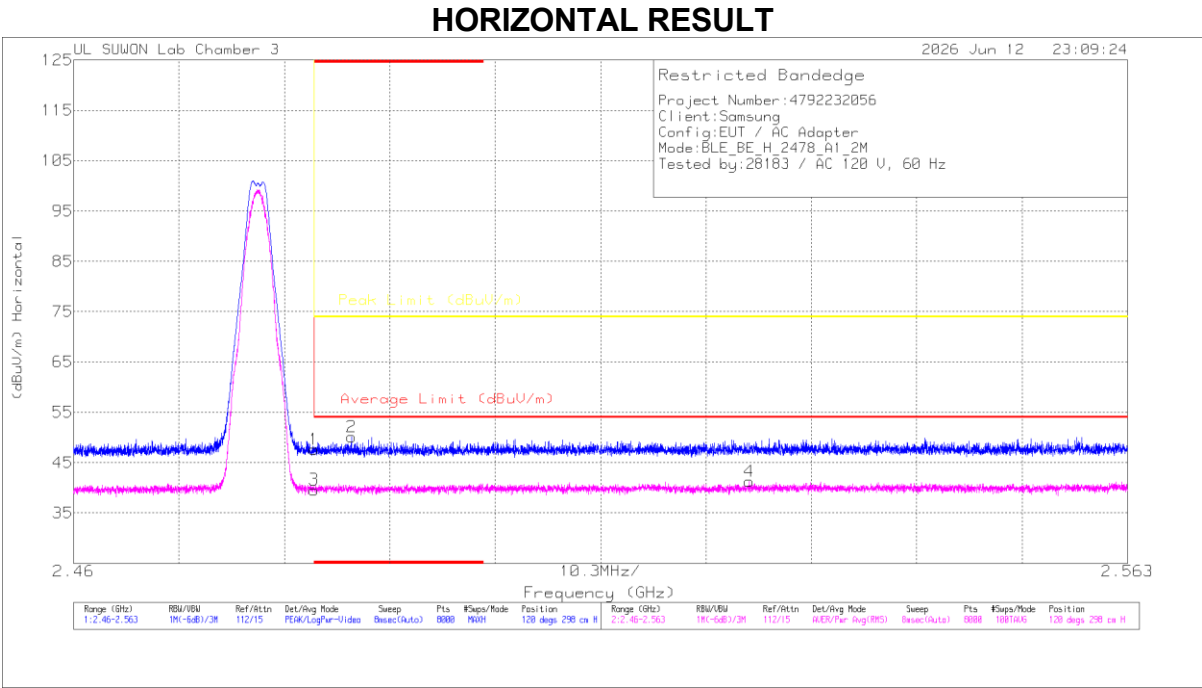
Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2402	ANT1	* 4.80371	40.48	PK2	34.30	-30.10	0.00	44.68	-	-	74.00	-29.32	63	135	H
		* 4.80363	30.50	MAV1	34.30	-30.10	0.84	35.54	54.00	-18.46	-	-	63	135	H
		* 4.80188	38.33	PK2	34.30	-30.20	0.00	42.43	-	-	74.00	-31.57	333	100	V
		* 4.80337	27.16	MAV1	34.30	-30.10	0.84	32.20	54.00	-21.80	-	-	333	100	V
		7.207	36.33	PK2	35.80	-25.80	0.00	46.33	-	-	74.00	-27.67	350	100	H
		7.203	34.72	PK2	35.80	-25.80	0.00	44.72	-	-	74.00	-29.28	0	100	V
		9.604	32.50	PK2	36.70	-21.70	0.00	47.50	-	-	74.00	-26.50	0	100	H
		9.604	32.62	PK2	36.70	-21.70	0.00	47.62	-	-	74.00	-26.38	0	100	V
2440	ANT1	* 4.87979	40.00	PK2	34.20	-30.80	0.00	43.40	-	-	74.00	-30.60	66	155	H
		* 4.88049	29.09	MAV1	34.20	-30.80	0.84	33.33	54.00	-20.67	-	-	66	155	H
		* 4.87961	38.89	PK2	34.20	-30.80	0.00	42.29	-	-	74.00	-31.71	0	162	V
		* 4.88046	28.36	MAV1	34.20	-30.80	0.84	32.60	54.00	-21.40	-	-	0	162	V
		* 7.31575	33.84	PK2	35.80	-25.30	0.00	44.34	-	-	74.00	-29.66	0	100	H
		* 7.32106	34.12	PK2	35.80	-25.20	0.00	44.72	-	-	74.00	-29.28	0	100	V
		9.762	32.55	PK2	36.90	-21.40	0.00	48.05	-	-	74.00	-25.95	0	100	H
		9.760	31.92	PK2	36.90	-21.30	0.00	47.52	-	-	74.00	-26.48	0	100	V
2480	ANT1	* 4.96488	38.95	PK2	34.30	-30.30	0.00	42.95	-	-	74.00	-31.05	66	140	H
		* 4.95977	29.01	MAV1	34.30	-30.40	0.84	33.75	54.00	-20.25	-	-	66	140	H
		* 4.9606	38.58	PK2	34.30	-30.30	0.00	42.58	-	-	74.00	-31.42	0	159	V
		* 4.96035	28.19	MAV1	34.30	-30.30	0.84	33.03	54.00	-20.97	-	-	0	159	V
		* 7.43589	33.91	PK2	35.70	-24.90	0.00	44.71	-	-	74.00	-29.29	0	100	H
		* 7.43776	34.17	PK2	35.70	-24.90	0.00	44.97	-	-	74.00	-29.03	0	100	V
		9.920	32.05	PK2	37.10	-21.50	0.00	47.65	-	-	74.00	-26.35	0	100	H
		9.920	32.36	PK2	37.10	-21.50	0.00	47.96	-	-	74.00	-26.04	0	100	V
2402	ANT2	* 4.80467	38.82	PK2	34.30	-30.10	0.00	43.02	-	-	74.00	-30.98	56	100	H
		* 4.80393	27.61	MAV1	34.30	-30.10	0.71	32.52	54.00	-21.48	-	-	56	100	H
		* 4.80448	39.01	PK2	34.30	-30.10	0.00	43.21	-	-	74.00	-30.79	205	100	V
		* 4.8045	27.94	MAV1	34.30	-30.10	0.71	32.85	54.00	-21.15	-	-	205	100	V
		7.206	34.23	PK2	35.80	-25.80	0.00	44.23	-	-	74.00	-29.77	0	100	H
		7.208	34.54	PK2	35.80	-25.70	0.00	44.64	-	-	74.00	-29.36	0	100	V
		9.610	32.02	PK2	36.70	-21.70	0.00	47.02	-	-	74.00	-26.98	0	100	H
		9.605	33.61	PK2	36.70	-21.70	0.00	48.61	-	-	74.00	-25.39	0	100	V
2440	ANT2	* 4.88137	38.80	PK2	34.20	-30.80	0.00	42.20	-	-	74.00	-31.80	11	100	H
		* 4.87989	27.75	MAV1	34.20	-30.80	0.71	31.86	54.00	-22.14	-	-	11	100	H
		* 4.88055	39.54	PK2	34.20	-30.80	0.00	42.94	-	-	74.00	-31.06	220	176	V
		* 4.88004	28.30	MAV1	34.20	-30.80	0.71	32.41	54.00	-21.59	-	-	220	176	V
		* 7.31605	34.33	PK2	35.80	-25.30	0.00	44.83	-	-	74.00	-29.17	0	100	H
		* 7.3223	34.37	PK2	35.80	-25.20	0.00	44.97	-	-	74.00	-29.03	0	100	V
		9.757	32.14	PK2	36.90	-21.30	0.00	47.74	-	-	74.00	-26.26	0	100	H
		9.758	32.13	PK2	36.90	-21.30	0.00	47.73	-	-	74.00	-26.27	0	100	V
2480	ANT2	* 4.95997	38.81	PK2	34.30	-30.40	0.00	42.71	-	-	74.00	-31.29	8	104	H
		* 4.95944	27.10	MAV1	34.30	-30.40	0.71	31.71	54.00	-22.29	-	-	8	104	H
		* 4.95993	38.66	PK2	34.30	-30.40	0.00	42.56	-	-	74.00	-31.44	3	282	V
		* 4.96034	27.90	MAV1	34.30	-30.30	0.71	32.61	54.00	-21.39	-	-	3	282	V
		* 7.43826	34.09	PK2	35.70	-24.90	0.00	44.89	-	-	74.00	-29.11	0	100	H
		* 7.43665	34.07	PK2	35.70	-24.90	0.00	44.87	-	-	74.00	-29.13	0	100	V
		9.919	31.63	PK2	37.10	-21.50	0.00	47.23	-	-	74.00	-26.77	0	100	H
		9.922	31.55	PK2	37.10	-21.40	0.00	47.25	-	-	74.00	-26.75	0	100	V
2402	DUAL	* 4.8037	39.53	PK2	34.30	-30.10	0.00	43.73	-	-	74.00	-30.27	160	111	H
		* 4.80381	29.07	MAV1	34.30	-30.10	0.71	33.98	54.00	-20.02	-	-	160	111	H
		* 4.80476	38.98	PK2	34.30	-30.10	0.00	43.18	-	-	74.00	-30.82	1	165	V
		* 4.8038	28.89	MAV1	34.30	-30.10	0.71	33.80	54.00	-20.20	-	-	1	165	V
		7.207	34.79	PK2	35.80	-25.70	0.00	44.89	-	-	74.00	-29.11	46	100	H
		7.207	35.00	PK2	35.80	-25.80	0.00	45.00	-	-	74.00	-29.00	44	100	V
		9.609	31.90	PK2	36.70	-21.70	0.00	46.90	-	-	74.00	-27.10	0	100	H
		9.607	31.99	PK2	36.70	-21.70	0.00	46.99	-	-	74.00	-27.01	0	100	V
2440	DUAL	* 4.88	39.95	PK2	34.20	-30.80	0.00	43.35	-	-	74.00	-30.65	62	143	H
		* 4.87984	29.67	MAV1	34.20	-30.80	0.71	33.78	54.00	-20.22	-	-	62	143	H
		* 4.87943	38.59	PK2	34.20	-30.80	0.00	41.99	-	-	74.00	-32.01	202	141	V
		* 4.88049	27.76	MAV1	34.20	-30.80	0.71	31.87	54.00	-22.13	-	-	202	141	V
		* 7.31991	34.26	PK2	35.80	-25.30	0.00	44.76	-	-	74.00	-29.24	48	100	H
		* 7.32055	23.09	MAV1	35.80	-25.20	0.71	34.40	54.00	-19.60	-	-	48	100	H
		* 7.32095	34.08	PK2	35.80	-25.20	0.00	44.68	-	-	74.00	-29.32	42	103	V
		* 7.31954	22.62	MAV1	35.80	-25.30	0.71	33.83	54.00	-20.17	-	-	42	103	V
2480	DUAL	9.765	32.47	PK2	36.90	-21.30	0.00	48.07	-	-	74.00	-25.93	0	100	H
		9.764	32.19	PK2	36.90	-21.30	0.00	47.79	-	-	74.00	-26.21	0	100	V
		* 4.96022	39.32	PK2	34.30	-30.30	0.00	43.32	-	-	74.00	-30.68	295	161	H
		* 4.96023	28.56	MAV1	34.30	-30.30	0.71	33.27	54.00	-20.73	-	-	295	161	H
		* 4.95926	38.76	PK2	34.30	-30.40	0.00	42.66	-	-	74.00	-31.34	206	133	V
		* 4.96039	27.61	MAV1	34.30	-30.30	0.71	32.32	54.00	-21.68	-	-	206	133	V
		* 7.43924	34.80	PK2	35.70	-25.00	0.00	45.50	-	-	74.00	-28.50	47	104	H
		* 7.43932	23.66	MAV1	35.70	-25.00	0.71	35.07	54.00	-18.93	-	-	47	104	H
2480	DUAL	* 7.44064	34.59	PK2	35.70	-25.00	0.00	45.29	-	-	74.00	-28.71	24	278	V
		* 7.43932	23.77	MAV1	35.70	-25.00	0.71	35.18	54.00	-18.82	-	-	24	278	V
		9.919	32.36	PK2	37.10	-21.50	0.00	47.96	-	-	74.00	-26.04	0	100	H
		9.916	31.74	PK2	37.10	-21.40	0.00	47.44	-	-	74.00	-26.56	0	100	V

Note1. PK2 - KDB558074 Method: Maximum Peak / MAV1 - KDB558074 Option 1 Maximum RMS Average

Note2. * - indicates frequency in 47 CFR Pt 15 / IC RSS-Restricted Band

10.2.2. TX ABOVE 1 GHz BLUETOOTH LE 2 Mbps

BANDEDGE (WORST CASE: 2478 MHz, ANT1)



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_Factor (dBm)	10dB_Path Loss (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	40.12	Pk	32.4	-24.9	0	47.62	-	-	74	-26.38	120	298	H
2	* 2.48716	42.5	Pk	32.4	-24.8	0	50.1	-	-	74	-23.9	120	298	H
3	* 2.4835	29.64	RMS	32.4	-24.9	2.46	39.6	54	-14.4	-	-	120	298	H
4	2.52603	31.12	RMS	32.4	-24.7	2.46	41.28	54	-12.72	-	-	120	298	H

* - indicates frequency in 47 CFR Pt 15 / IC RSS-Restricted Band

Pk - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor [dB/m]	Loss [dB]	DC Corr [dB]	Result dBuV/m	AV Limit dBuV/m	AV Margin [dB]	PK Limit dBuV/m	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
2404	ANT1	* 2.39	39.81	Pk	32.10	-24.90	0.00	47.01	-	-	74.00	-26.99	123	301	H
		* 2.37788	42.23	Pk	32.10	-25.00	0.00	49.33	-	-	74.00	-24.67	123	301	H
		* 2.39	29.43	RMS	32.10	-24.90	2.46	39.09	54.00	-14.91	-	-	123	301	H
		* 2.35408	31.03	RMS	32.00	-25.00	2.46	40.49	54.00	-13.51	-	-	123	301	H
		* 2.39	40.67	Pk	32.10	-24.90	0.00	47.87	-	-	74.00	-26.13	207	319	V
		* 2.36545	42.82	Pk	32.00	-25.00	0.00	49.82	-	-	74.00	-24.18	207	319	V
		* 2.39	29.16	RMS	32.10	-24.90	2.46	38.82	54.00	-15.18	-	-	207	319	V
		* 2.37185	31.01	RMS	32.00	-25.00	2.46	40.47	54.00	-13.53	-	-	207	319	V
		* 2.4835	40.12	Pk	32.40	-24.90	0.00	47.62	-	-	74.00	-26.38	120	298	H
		* 2.48716	42.50	Pk	32.40	-24.80	0.00	50.10	-	-	74.00	-23.90	120	298	H
2478	ANT1	* 2.4835	29.64	RMS	32.40	-24.90	2.46	39.60	54.00	-14.40	-	-	120	298	H
		2.526	31.12	RMS	32.40	-24.70	2.46	41.28	54.00	-12.72	-	-	120	298	H
		* 2.4835	40.96	Pk	32.40	-24.90	0.00	48.48	-	-	74.00	-25.54	209	298	V
		2.526	42.52	Pk	32.40	-24.70	0.00	50.22	-	-	74.00	-23.78	209	298	V
		* 2.4835	29.87	RMS	32.40	-24.90	2.46	39.83	54.00	-14.17	-	-	209	298	V
		2.556	31.19	RMS	32.40	-24.80	2.46	41.25	54.00	-12.75	-	-	209	298	V
		* 2.39	39.08	Pk	32.10	-24.90	0.00	46.28	-	-	74.00	-27.72	212	127	H
		* 2.33608	42.72	Pk	31.90	-25.00	0.00	49.62	-	-	74.00	-24.38	212	127	H
		* 2.39	29.79	RMS	32.10	-24.90	2.46	39.45	54.00	-14.55	-	-	212	127	H
		* 2.3688	30.93	RMS	32.00	-25.00	2.46	40.39	54.00	-13.61	-	-	212	127	H
2404	ANT2	* 2.39	38.93	Pk	32.10	-24.90	0.00	46.13	-	-	74.00	-27.87	102	313	V
		* 2.37693	43.26	Pk	32.10	-25.00	0.00	50.36	-	-	74.00	-23.64	102	313	V
		* 2.39	29.31	RMS	32.10	-24.90	2.46	38.97	54.00	-15.03	-	-	102	313	V
		* 2.38552	30.77	RMS	32.10	-25.00	2.46	40.33	54.00	-13.67	-	-	102	313	V
		* 2.4835	39.93	Pk	32.40	-24.90	0.00	47.43	-	-	74.00	-26.57	211	100	H
		2.529	43.16	Pk	32.40	-24.80	0.00	50.76	-	-	74.00	-23.24	211	100	H
		* 2.4835	29.69	RMS	32.40	-24.90	2.46	39.65	54.00	-14.35	-	-	211	100	H
		2.557	31.17	RMS	32.40	-24.80	2.46	41.23	54.00	-12.77	-	-	211	100	H
		2.515	42.70	Pk	32.40	-24.70	0.00	50.40	-	-	74.00	-23.60	95	270	V
		* 2.4835	30.09	RMS	32.40	-24.90	2.46	40.05	54.00	-13.95	-	-	95	270	V
2478	ANT2	2.553	31.21	RMS	32.40	-24.80	2.46	41.27	54.00	-12.73	-	-	95	270	V
		* 2.39	38.87	Pk	32.10	-24.90	0.00	46.07	-	-	74.00	-27.93	207	115	H
		* 2.38296	42.11	Pk	32.10	-25.00	0.00	49.21	-	-	74.00	-24.79	207	115	H
		* 2.39	27.42	RMS	32.10	-24.90	2.46	37.08	54.00	-16.92	-	-	207	115	H
		* 2.37437	29.12	RMS	32.00	-25.00	2.46	38.58	54.00	-15.42	-	-	207	115	H
		* 2.39	39.76	Pk	32.10	-24.90	0.00	46.96	-	-	74.00	-27.04	87	269	V
		* 2.38804	42.53	Pk	32.10	-24.90	0.00	49.73	-	-	74.00	-24.27	87	269	V
		* 2.39	27.76	RMS	32.10	-24.90	2.46	37.42	54.00	-16.58	-	-	87	269	V
		* 2.36873	29.05	RMS	32.00	-25.00	2.46	38.51	54.00	-15.49	-	-	87	269	V
		* 2.4835	39.69	Pk	32.40	-24.90	0.00	47.19	-	-	74.00	-26.81	204	100	H
2478	DUAL	2.560	42.52	Pk	32.40	-24.80	0.00	50.12	-	-	74.00	-23.88	204	100	H
		* 2.4835	27.89	RMS	32.40	-24.90	2.46	37.85	54.00	-16.15	-	-	204	100	H
		2.562	28.96	RMS	32.40	-24.60	2.46	39.22	54.00	-14.78	-	-	204	100	H
		* 2.4835	39.64	Pk	32.40	-24.90	0.00	47.14	-	-	74.00	-26.86	87	255	V
		2.545	42.40	Pk	32.40	-24.70	0.00	50.10	-	-	74.00	-23.90	87	255	V
		* 2.4835	28.35	RMS	32.40	-24.90	2.46	38.31	54.00	-15.69	-	-	87	255	V
		2.562	29.16	RMS	32.40	-24.60	2.46	39.42	54.00	-14.58	-	-	87	255	V
		* 2.39	38.87	Pk	32.10	-24.90	0.00	46.07	-	-	74.00	-27.93	207	115	H
		* 2.38296	42.11	Pk	32.10	-25.00	0.00	49.21	-	-	74.00	-24.79	207	115	H
		* 2.39	27.42	RMS	32.10	-24.90	2.46	37.08	54.00	-16.92	-	-	207	115	H
		* 2.37437	29.12	RMS	32.00	-25.00	2.46	38.58	54.00	-15.42	-	-	207	115	H

Note1. Pk - Peak detector, RMS - RMS detector

Note2. * - indicates frequency in 47 CFR Pt 15 / IC RSS-Restricted Band