

TEST REPORT

Report Number : 15496282-E20V2

Applicant : APPLE INC.
1 APPLE PARK WAY
CUPERTINO, CA 95014, U.S.A.

Model : A3260 (Parent Model)
A3516, A3517, A3518 (Variant Models)

Brand : APPLE

FCC ID : BCG-E8948A (Parent Model)
BCG-E8954A, BCG-E8955A, BCG-E8956A (Variant Models)

IC : 579C-E8948A (Parent Model)
579C-E8954A, 579C-E8955A, 579C-E8956A (Variant Models)

EUT Description : SMARTPHONE

Test Standard(s) : FCC 47 CFR PART 15 SUBPART F §15.519
ISED RSS-220 ISSUE 1 AMENDMENT 1

Date Of Issue:
JULY 14, 2025

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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	7/3/2025	Initial Issue	Marc Alejandro
V2	7/14/2025	Addressed TCB Questions Updated Sections 3, 7, 9.51, 9.6 and 9.7	Marc Alejandro

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1. ATTESTATION OF TEST RESULTS

Applicant Name and Address	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.	
Model	A3260 (Parent Model) A3516, A3517, A3518 (Variant Models)	
Brand	APPLE	
FCC ID	BCG-E8948A (Parent Model) BCG-E8954A, BCG-E8955A, BCG-E8956A (Variant Models)	
IC	579C-E8948A (Parent Model) 579C-E8954A, 579C-E8955A, 579C-E8956A (Variant Models)	
EUT Description	SMARTPHONE	
SERIAL NUMBER	M9X7L91YKY, PJFJHMFJ71, J0Y0TK74CM, FHTQ0XNW4V, CT7P59KGPM	
SAMPLE RECEIPT DATE	APRIL 10, 2025, MAY 08 2025, JUNE 06 2025	
DATE TESTED	MAY 08, 2025 TO JUNE 20, 2025	
Applicable Standards	FCC 47 CFR PART 15 SUBPART F §15.519 ISED RSS-220 ISSUE 1 AMENDMENT 1	
Test Results	COMPLIES	
UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document.		
Approved & Released By:		Prepared & Reviewed By:
		
Thu Chan Staff Engineer UL Verification Services, Inc.		Marc Alejandro Laboratory Engineer Associate UL Verification Services, Inc.

2. TEST RESULTS SUMMARY

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for the validity of results after the integration of the data provided by the customer.

FCC Clause	ISED Clause	Requirement	Result	Comment
See Comment		Duty Cycle	Reporting purposes only	ANSI C63.10 Section 11.6
-	RSS-GEN 6.7	99% OBW	Reporting purposes only	ANSI C63.10 Section 6.9.4
15.503 & 15.519 (b)	RSS-220 Sect. 2	-10 dB BW	Complies	ANSI C63.10 Section 10.1
15.519 (c) & (e)	RSS-220 Sect. 4 (c) & 5.3.1 (d)	Pk Power & Max Avg Emissions	Complies	ANSI C63.10 Section 10.3
15.519 (a)(1)	RSS-220 Sect. 5.3.1 (b)	Cessation Time	Complies	None
15.519 (c) & 15.209 (a)	RSS-220 Sect. 3.4	Emissions Below 960 MHz	Complies	ANSI C63.10 Section 10.2
15.519 (c) & (d)	RSS-220 Sect. 5.3.1 (d) & (e)	Emissions Above 960 MHz	Complies	ANSI C63.10 Section 10.3
15.207 (a)	RSS-Gen 8.8	AC Power Line Conducted Emissions	Complies	ANSI C63.10 Section 6.2

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- *ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024
- CFR Title 47 Part 15 Subpart F
- KDB 393764 D01 UWB FAQ v02r01
- ISED RSS-220 Issue 1 Amendment 1
- ISED RSS GEN Issue 5 Amendment 2

*Note: The use of ANSI C63.10-2020 + Cor. 1-2023 + C63.10a-2024 does not deviate from the testing procedures of ANSI C63.10-2020.

4. FACILITIES AND ACCREDITATION

UL Verification Services Inc. is accredited by A2LA, certification #0751.05, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☐	Building 1: 47173 Benicia Street, Fremont, CA 94538, USA	US0104	2324A	550739
☒	Building 2: 47266 Benicia Street, Fremont, CA 94538, USA			
☐	Building 3: 843 Auburn Ct, Fremont, CA 94538, USA			
☐	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			
☒	Building 5: 47670 Kato Rd, Fremont, CA 94538, USA			

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U _{LAB}
Conducted Antenna Port Emission Measurement	1.940 dB
Power Spectral Density	2.466 dB
Time Domain Measurements Using SA	3.39 %
Radio Frequency (Spectrum Analyzer)	141.16 Hz
Occupied Bandwidth	1.22%
Worst Case Conducted Disturbance, 9KHz to 0.15 MHz	3.78 dB
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40 dB
Worst Case Radiated Disturbance, 9KHz to 30 MHz	2.87 dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	6.01 dB
Worst Case Radiated Disturbance, 1000 to 18000 MHz	4.73 dB
Worst Case Radiated Disturbance, 18000 to 26000 MHz	4.51 dB
Worst Case Radiated Disturbance, 26000 to 40000 MHz	5.29 dB

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

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

$$\begin{aligned}\text{EIRP (dBm)} &= \text{Meter Reading (dBm)} + \text{Antenna Factor (dB/m)} + \text{Pre-Amp Gain/Cbl Loss (dB)} \\ &\quad + \text{dBm-to-dBm Unit Conversion Factor @ 3m} \\ &= -60 \text{ dBm} + 28 \text{ dB/m} + (-27) \text{ dB} + 11.8 \\ &= -47.2 \text{ dBm}\end{aligned}$$

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

$$\begin{aligned}\text{Final Voltage (dBuV)} &= \text{Measured Voltage (dBuV)} + \text{LISN Insertion Loss (dB)} + \text{Cable Loss (dB)} \\ &\quad + \text{Limiter Factor (dB)} \\ &= 42.19 \text{ dBuV} + 0.1 \text{ dB} + 0 \text{ dB} + 9.4 \text{ (dB)} \\ &= 51.69 \text{ dBuV}\end{aligned}$$

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5G NR1, IEEE 802.11a/b/g/n/ac/ax/be, Bluetooth (BT), Ultra-Wideband (UWB), Global Positioning System (GPS), Near-Field Communication (NFC), Narrow-Band (NB) UNII, 802.15.4, 802.15.4ab-Narrow Band (NB), Wireless Power Transfer (WPT) and Mobile Satellite Service (MSS) technologies. The rechargeable battery is not user accessible.

The EUT has a UWB transceiver with one integral antenna (ANT1 = ANT6/UWB). ANT1 operates on 6.5 GHz (Channel 5) and 8 GHz (Channel 9). The antenna is not user accessible.

6.2. MAXIMUM OUTPUT POWER

Highest Average Powers based on ANT/CH are listed as follows:

ANT	CH	CONFIG	PL	Average Power (dBm EIRP)
1	9	701	0	-42.30
1	5	9	125	-42.31

6.3. MODULATION

The UWB signal is BPSK pulsed modulated signal.

6.4. SOFTWARE AND FIRMWARE

The Software and Firmware version used at test is FT: Luck23A256.

7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

SUPPORT EQUIPMENT LIST			
Description	Manufacturer	Model	Serial Number
Laptop + Adapter	Apple	MacBook Pro	FVFWKENDHV29
Brisket – USB Adapter	Apple	Brisket UART Cable Pigtail	F2010M20000798
USB-C Power Adapter	Apple	A2305	F162163404UPM0685
USB-C 96W Power Adapter	Apple	A2166	C4H232105JPPM0WAH
USB-C Ethernet Adapter	Ugreen	CM475	60600
USB-A to USB-C adapter	Anker	A8731	XX02NCP6GR
USB-A Cable with Repeater	Ugreen	10321	X000TT2OLL

I/O CABLES

I/O CABLES					
Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
AC	1	AC	Un-shielded	2	N/A
USB	1	USB	Un-shielded	1	N/A

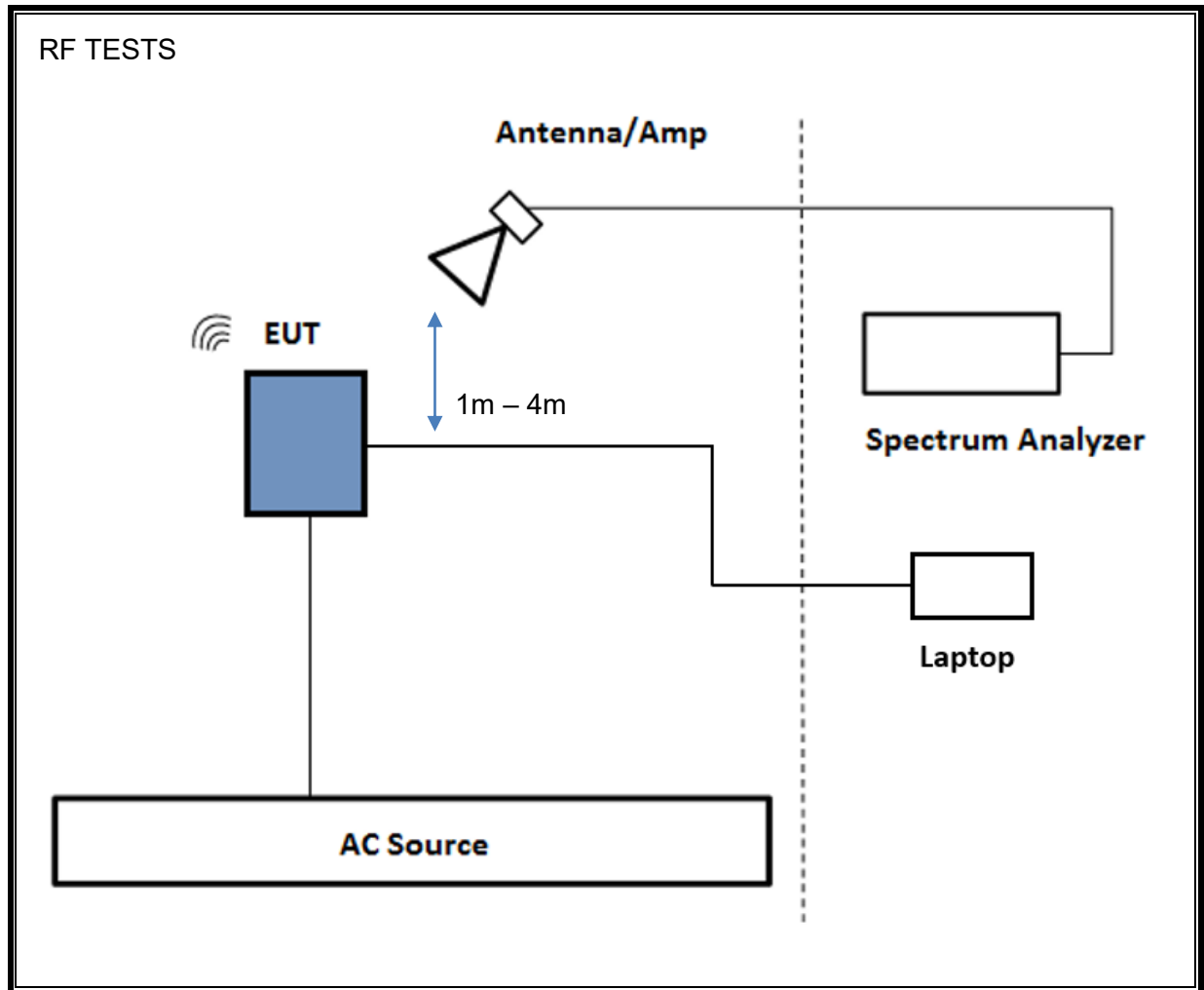
TEST SETUP

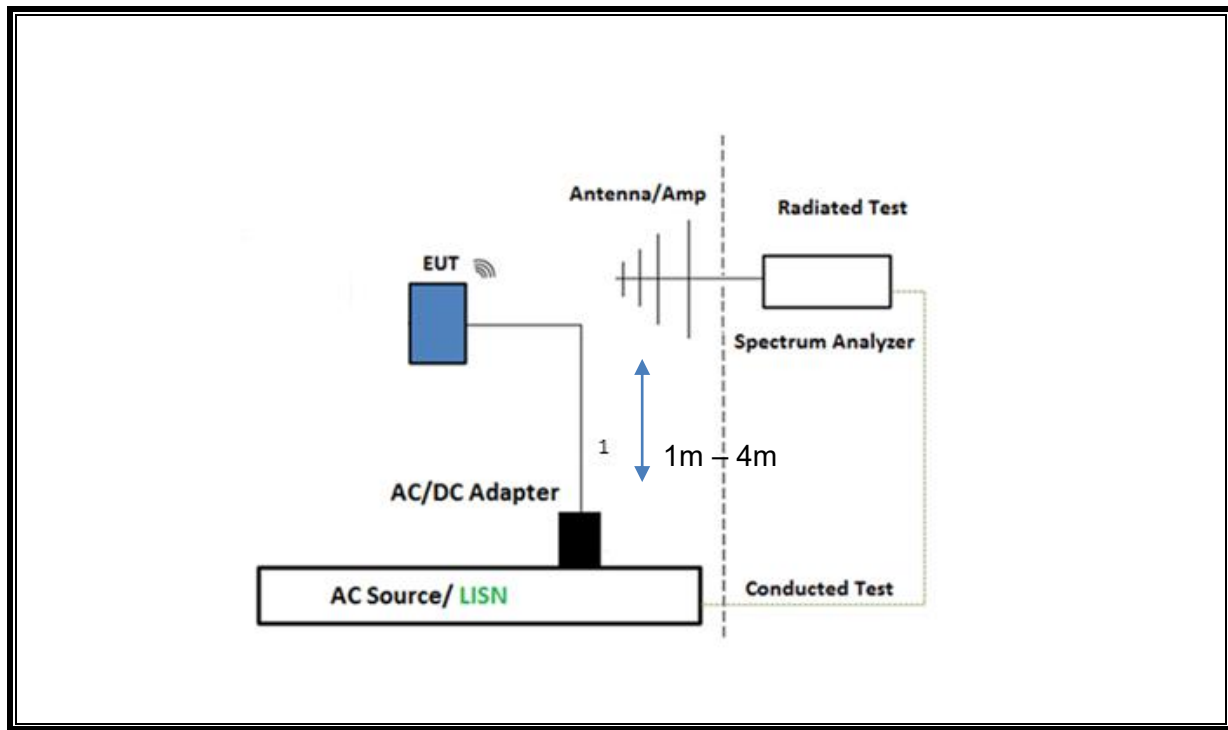
The EUT was examined at pre-scan test using a fundamental frequency in the portrait (z), landscape (y), and flatbed (x) position and the worst-case orientation of individual ANT/CH/CONFIG setting was determined for final spurious emission measurement. All selected configs are used for the Ant/Ch settings that were tested at default power (0 dBm), and Config 9 Payload 125 was chosen for unwanted emission test with both CH5 and CH9 on Ant 1 by setting at maximum output power higher than 0 dBm.

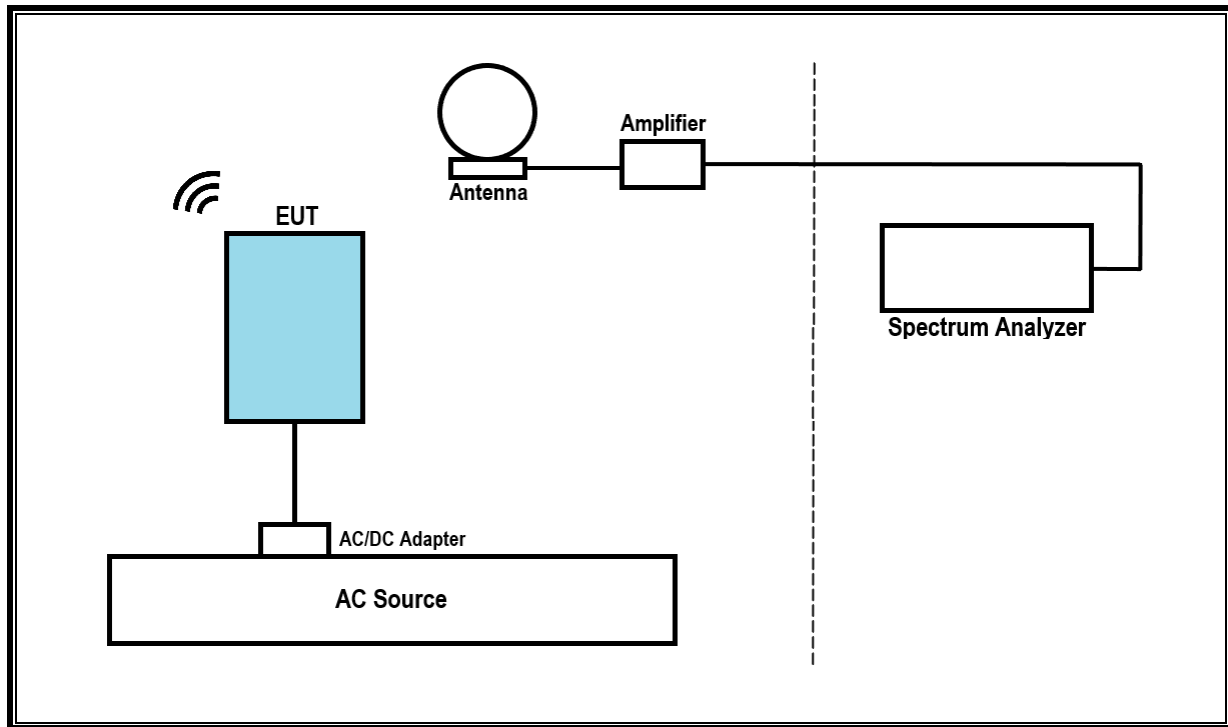
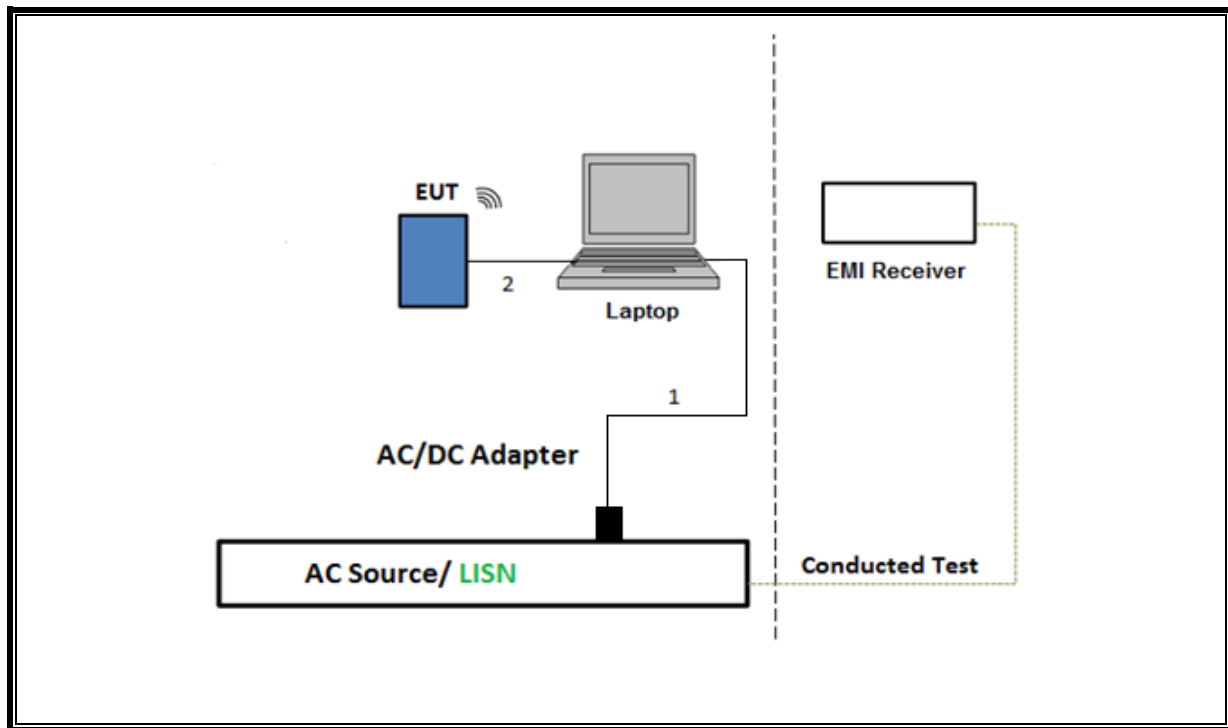
Measurements of spurious average emissions were made with the device operating at a higher power than production power to ensure compliance. Measurements of the in-band signal (peak and average emissions, 10 dBc bandwidth, 99% bandwidth) were all made at the production power settings.

EUT was connected to AC power adapter in all test cases except 0.96 – 5 GHz, 1164 – 1240 MHz, and 1559 – 1610 MHz due to noise unrelated to the UWB signal from the device.

For simultaneous transmission on the same antenna of multiple channels in the UWB and WiFi, no noticeable new emission was found.

SETUP DIAGRAM FOR Above 1GHz TESTS

SETUP DIAGRAM FOR Below 1GHz, Below 30MHz, and AC LINE CONDUCTED TEST

TEST SETUP- Below 30MHz Radiated**TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION**

8. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment					
Description	Manufacturer	Model	Local ID	Cal Due	Cal Date
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	206806	2/28/2026	2/7/2024
RF Filter Box, 1-18GHz	UL-FR1	Silver Box	173233	4/30/2026	4/14/2025
EMI Test Receiver	Rohde & Schwarz	ESW44	235266	2/28/2026	2/17/2025
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	226672	2/28/2026	2/9/2024
RF Filter Box, 1-18GHz	UL-FR1	Frankenstein	231876	4/30/2026	4/25/2025
EMI Test Receiver	Rohde & Schwarz	ESW44	223459	2/28/2026	2/9/2024
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	230300	3/31/2027	3/20/2025
RF Filter Box, 1-18GHz	UL-FR1	RATS 2.0	225474	5/31/2026	5/12/2025
EMI Test Receiver	Rohde & Schwarz	ESW44	201501	2/28/2026	2/11/2025
Antenna, Horn 1-18GHz	ETS-Lindgren	3117	81887	3/31/2027	3/10/2025
RF Filter Box, 1-18GHz	UL-FR1	RATS 2.0	225575	11/30/2025	11/1/2024
EMI Test Receiver	Rohde & Schwarz	ESW44	201498	2/28/2026	2/9/2025
Antenna, Passive Loop, 30Hz - 1MHz	Electro-Metrics	EM-6871	29637	9/30/2026	9/10/2024
Antenna, Passive Loop, 100kHz to 30MHz	Electro-Metrics	EM-6872	29640	9/30/2026	9/10/2024
Link File, @3m, 9kHz-1000MHz Hybrid Path Loss	UL-FR1	Port 0 Factors	230919	4/30/2026	4/6/2025
Link File, @3m, 9kHz-1000MHz Hybrid Path Loss	UL-FR1	Port 0 Factors	230920	4/30/2026	4/6/2025
Antenna, Broadband Hybrid 30 MHz - 2 or 3 GHz	Sunol Sciences Corp.	JB3	171863	11/30/2026	11/8/2024
Antenna, Horn 18-26.5GHz	A.R.A	MWH-1826/B	81139	8/31/2025	8/8/2023
Link File, RF Amplifier Assembly, 18-26.5GHz, 60dB Gain	Ampical	AMP18G26.5-60	220194	4/30/2026	4/9/2025
Antenna, Horn 26.5-40GHz	A.R.A	MWH-2640/B	81105	8/31/2025	8/31/2023
Link File, RF Amplifier Assembly, 26.5-40GHz, 65dB Gain	Ampical	AMP26G40-65	220193	4/30/2026	4/9/2025
EMI Test Receiver	Rohde & Schwarz	ESR3	171646	2/28/2026	2/18/2025
Transient Limiter / Attenuator	Tekbox	TBFL1	207996	9/30/2025	9/24/2024
LISN	Fischer Custom Communications, Inc.	FCC-LISN-50/250-25-2-01-480V	175765	1/31/2026	1/28/2025
Radiated Software	UL	UL EMC	Version 9.5 09 Jan 2023		
AC Line Conducted Software	UL	UL EMC	Version 9.5 09 Jan 2023		

**Tests were performed prior to the calibration date to ensure accurate measurements were recorded.*

9. APPLICABLE LIMITS AND TEST RESULTS

9.1. 99% BANDWIDTH

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

ANSI C63.10 Section 6.9.3

The transmitter output is connected to a spectrum analyzer. The RBW is in the range of 1% to 5% of the OBW bandwidth. The VBW is set to $\geq 3 \times \text{RBW}$. The sweep time is coupled.

Tabulated data provides the test results of all available test configurations. The plots for ANT1, CONFIG 9, Payload 125 on CH9 and CH5 bandwidth measurement are presented and same measurement settings apply to the rest of the test configurations.

RESULTS

Employee IDs: 32440, 32316, 26051

Location: Chamber 05-RDE-B

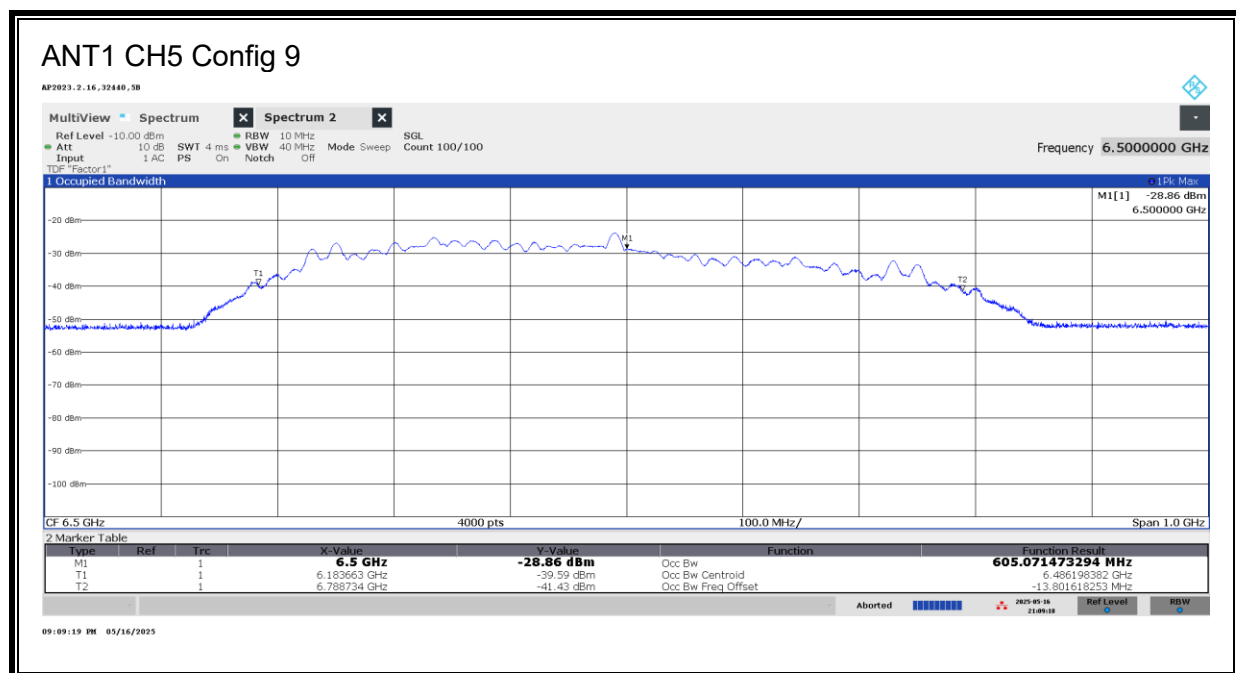
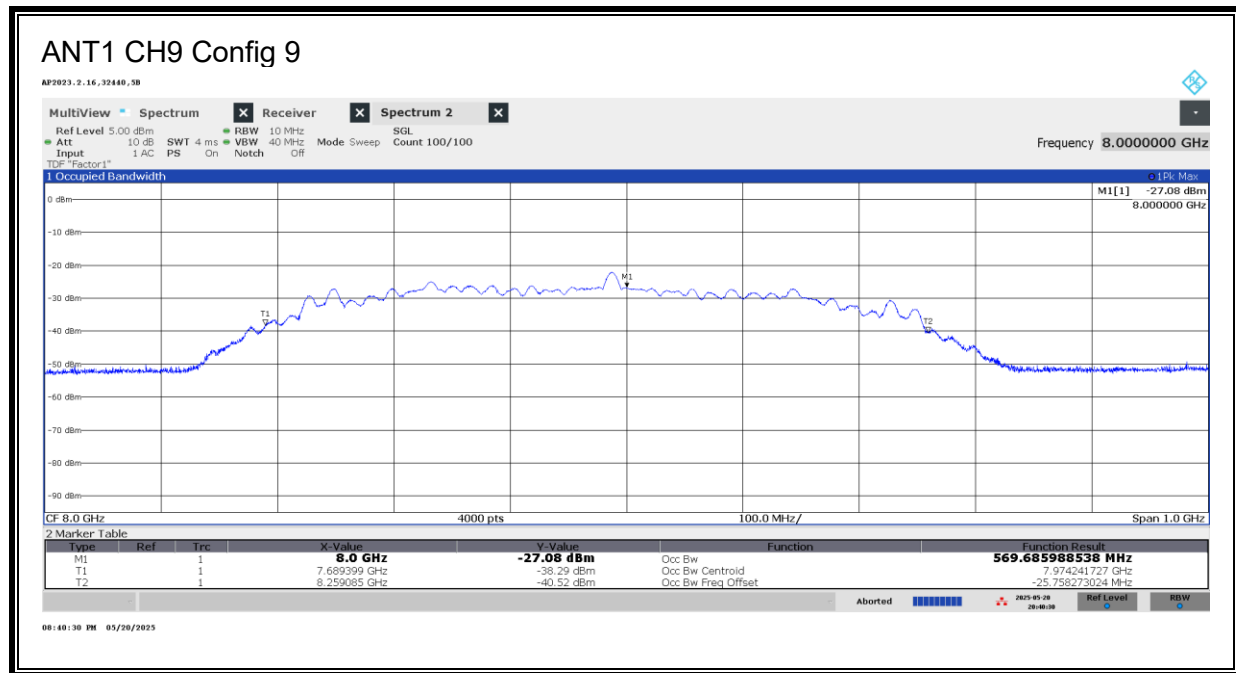
Test Date: 5/16/2025 to 5/22/2025

ANT1, CH9

ANT	CH	CF	PL	EUT Orientation	Ant. Polarity	99% BW (MHz)
1	9	0	25	Portrait	H	560.588
1	9	1	45	Portrait	H	560.017
1	9	6	125	Portrait	H	568.228
1	9	9	125	Portrait	H	569.686
1	9	10	25	Portrait	H	559.364
1	9	11	25	Portrait	H	558.825
1	9	11	65	Portrait	H	559.229
1	9	101	25	Portrait	H	558.268
1	9	101	65	Portrait	H	559.363
1	9	102	25	Portrait	H	558.899
1	9	102	65	Portrait	H	559.373
1	9	103	25	Portrait	H	559.983
1	9	103	125	Portrait	H	564.487
1	9	202	625	Portrait	H	806.527
1	9	402	445	Portrait	H	700.018
1	9	501	0	Portrait	H	599.827
1	9	503	0	Portrait	H	597.553
1	9	601	0	Portrait	H	594.801
1	9	605	0	Portrait	H	589.823
1	9	607	0	Portrait	H	590.366
1	9	701	0	Portrait	H	586.211
1	9	702	0	Portrait	H	583.479
1	9	703	0	Portrait	H	585.057
1	9	704	0	Portrait	H	607.811
1	9	705	0	Portrait	H	595.478
1	9	706	0	Portrait	H	597.184
1	9	405	4093	Portrait	H	774.336
1	9	407	4093	Portrait	H	739.222
1	9	409	4093	Portrait	H	752.275
1	9	801	0Gap0	Portrait	H	589.526
1	9	801	0Gap64	Portrait	H	591.354
1	9	802	0	Portrait	H	590.295
1	9	803	0	Portrait	H	587.809
1	9	804	0Gap0	Portrait	H	599.094
1	9	804	0Gap64	Portrait	H	600.372
1	9	805	0	Portrait	H	602.369
1	9	806	0	Portrait	H	597.755
1	9	807	0Gap0	Portrait	H	589.052
1	9	807	0Gap64	Portrait	H	593.417
1	9	808	0	Portrait	H	592.407
1	9	809	0	Portrait	H	593.466
1	9	80A	0Gap0	Portrait	H	600.328
1	9	80A	0Gap64	Portrait	H	595.543
1	9	80B	0	Portrait	H	593.724
1	9	80C	0	Portrait	H	595.473

ANT1, CH5

ANT	CH	CF	PL	EUT Orientation	Ant. Polarity	99% BW (MHz)
1	5	0	25	Portrait	H	589.620
1	5	1	45	Portrait	H	586.010
1	5	6	125	Portrait	H	602.459
1	5	9	125	Portrait	H	605.071
1	5	10	25	Portrait	H	587.745
1	5	11	25	Portrait	H	581.989
1	5	11	65	Portrait	H	586.988
1	5	101	25	Portrait	H	582.630
1	5	101	65	Portrait	H	585.471
1	5	102	25	Portrait	H	582.339
1	5	102	65	Portrait	H	584.420
1	5	103	25	Portrait	H	585.300
1	5	103	125	Portrait	H	592.581
1	5	202	625	Portrait	H	819.720
1	5	402	445	Portrait	H	733.461
1	5	501	0	Portrait	H	578.389
1	5	503	0	Portrait	H	578.161
1	5	601	0	Portrait	H	598.749
1	5	605	0	Portrait	H	585.866
1	5	607	0	Portrait	H	586.834
1	5	701	0	Portrait	H	593.543
1	5	702	0	Portrait	H	580.361
1	5	703	0	Portrait	H	584.780
1	5	704	0	Portrait	H	617.681
1	5	705	0	Portrait	H	599.930
1	5	706	0	Portrait	H	602.343
1	5	405	4093	Portrait	H	769.367
1	5	407	4093	Portrait	H	734.609
1	5	409	4093	Portrait	H	761.927
1	5	801	0Gap0	Portrait	H	596.544
1	5	801	0Gap64	Portrait	H	596.336
1	5	802	0	Portrait	H	600.441
1	5	803	0	Portrait	H	591.673
1	5	804	0Gap0	Portrait	H	613.669
1	5	804	0Gap64	Portrait	H	616.292
1	5	805	0	Portrait	H	615.632
1	5	806	0	Portrait	H	614.572
1	5	807	0Gap0	Portrait	H	597.464
1	5	807	0Gap64	Portrait	H	596.955
1	5	808	0	Portrait	H	601.618
1	5	809	0	Portrait	H	599.505
1	5	80A	0Gap0	Portrait	H	618.553
1	5	80A	0Gap64	Portrait	H	605.861
1	5	80B	0	Portrait	H	611.306
1	5	80C	0	Portrait	H	607.818

99% BW

9.2. OPERATING BANDWIDTH

LIMITS

FCC

§15.503 (a) *UWB bandwidth*. For the purpose of this subpart, the UWB bandwidth is the frequency band bounded by the points that are 10 dB below the highest radiated emission, as based on the complete transmission system including the antenna. The upper boundary is designated f_H and the lower boundary is designated f_L . The frequency at which the highest radiated emission occurs is designated f_M .

§15.503 (b) *Center frequency*. The center frequency, f_C , equals $(f_H + f_L)/2$.

§15.503 (c) *Fractional bandwidth*. The fractional bandwidth equals $2(f_H - f_L)/(f_H + f_L)$.

§15.503 (d) *Ultra-wideband (UWB) transmitter*. An intentional radiator that, at any point in time, has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth.

§15.519 (b) The UWB bandwidth of a device operating under the provisions of this section must be contained between 3100 MHz and 10,600 MHz.

RSS-220

Section 2 A *UWB device* is an intentional radiator that has either a *-10 dB bandwidth* of at least 500 MHz or a *-10 dB fractional bandwidth* greater than 0.2.

Section 5.1 (a) The -10 dB bandwidth of the device shall be totally contained in the band 3.1-10.6 GHz.

“-10 dB bandwidth B_{-10} ” and “-10 dB fractional bandwidth μ_{-10} ” are defined as follows:

$$B_{-10} = f_H - f_L$$

$$\mu_{-10} = B_{-10}/f_C$$

where:

f_M is the frequency of maximum UWB transmission;

f_H is the highest frequency at which the power spectral density of the UWB transmission is -10 dB relative to f_M ;

f_L is the lowest frequency at which the power spectral density of the UWB transmission is -10 dB relative to f_M ; and

$f_C = (f_H + f_L)/2$ is the centre frequency of the -10 dB bandwidth.

TEST PROCEDURE

ANSI C63.10 Clause 10.1

RSS-220 Section 2 of the Annex

Tabulated data provides the test results of all available test configurations. The plots for ANT1, CONFIG 9, Payload 125 on CH9 and CH5 bandwidth measurement on are presented and same measurement settings apply to the rest of the test configurations.

RESULTS

Employee IDs: 32440, 32316, 26051

Location: Chamber 05-RDE-B

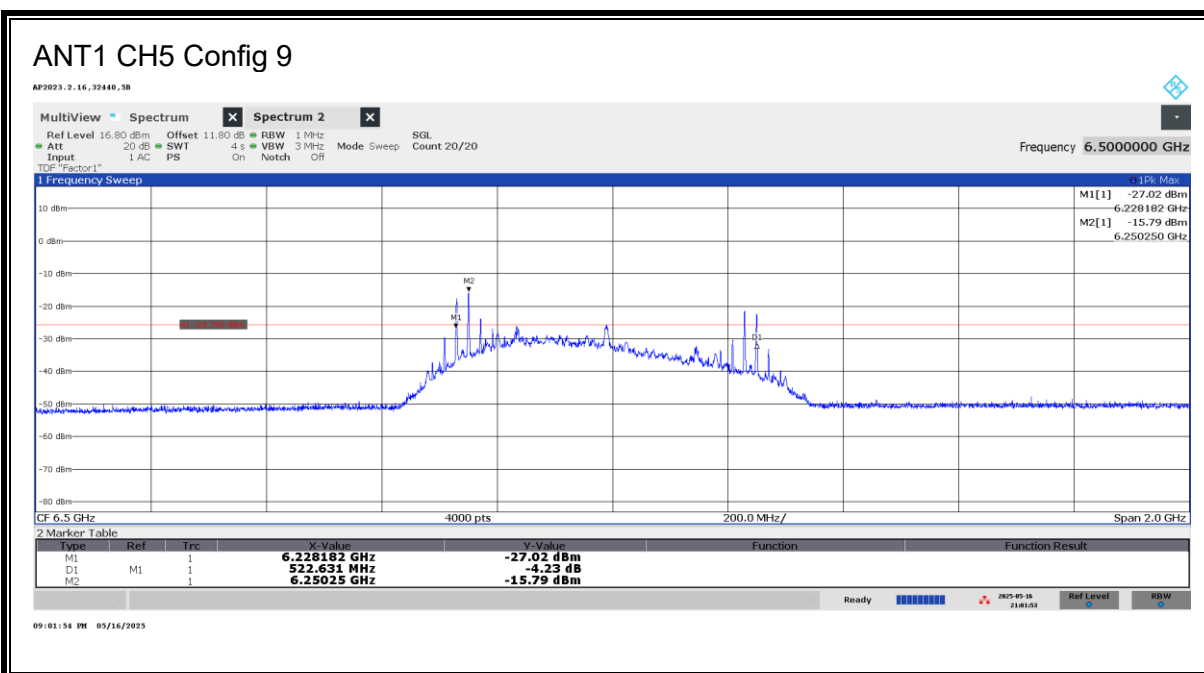
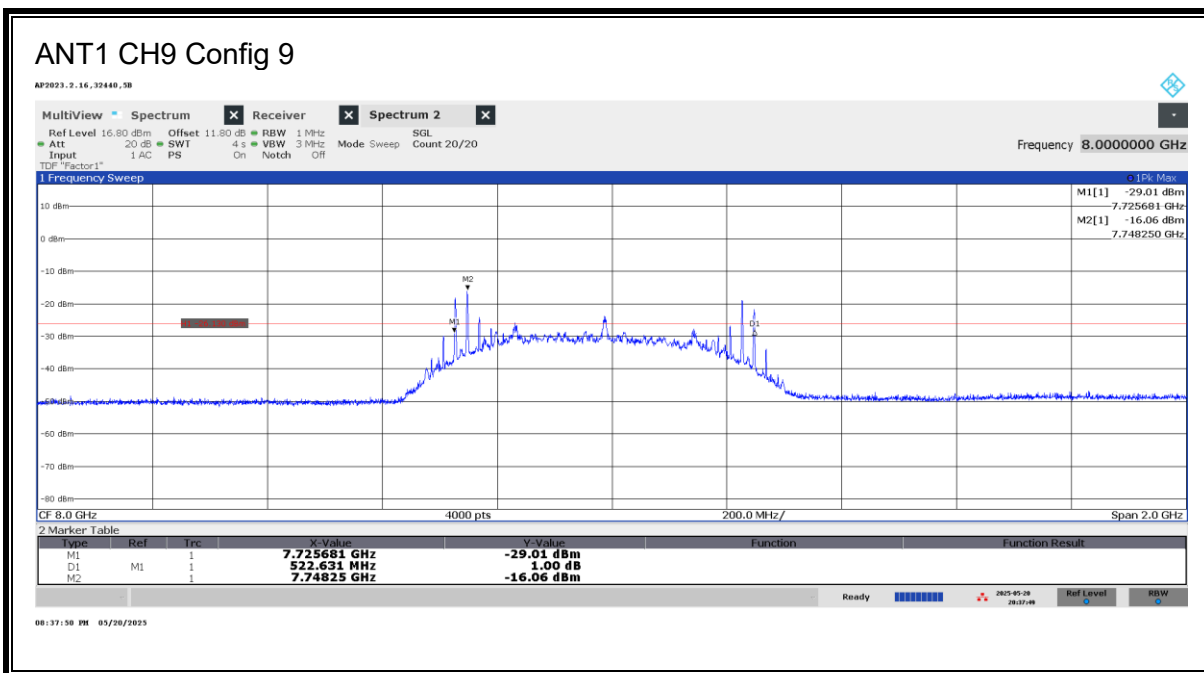
Test Date: 5/16/2025 to 5/22/2025

ANT1, CH9

ANT	CH	CF	PL	EUT Orientation	Ant. Polarity	FM (GHz)	FL (GHz)	FH (GHz)	FC (GHz)	OBW (MHz)	Min. OBW (MHz)	OBW Margin (MHz)	OBW Pass/Fail
1	9	0	25	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.631	500	25.631	P
1	9	1	45	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.631	500	25.631	P
1	9	6	125	Portrait	H	7.74825	7.725181	8.269812	7.9974965	544.631	500	44.631	P
1	9	9	125	Portrait	H	7.74825	7.725681	8.248312	7.9869965	522.631	500	22.631	P
1	9	10	25	Portrait	H	7.74775	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	11	25	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	11	65	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	101	25	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	101	65	Portrait	H	7.74825	7.724181	8.249312	7.9867465	525.13	500	25.131	P
1	9	102	25	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	102	65	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	103	25	Portrait	H	7.74825	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	103	125	Portrait	H	7.74775	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	202	625	Portrait	H	7.74775	7.724181	8.249812	7.9869965	525.63	500	25.631	P
1	9	402	445	Portrait	H	8.22625	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	501	0	Portrait	H	8.22675	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	503	0	Portrait	H	8.22625	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	601	0	Portrait	H	8.22625	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	605	0	Portrait	H	8.22625	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	607	0	Portrait	H	8.22625	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	701	0	Portrait	H	8.22625	7.724181	8.251313	7.987747	527.13	500	27.132	P
1	9	702	0	Portrait	H	8.22625	7.724181	8.251313	7.987747	527.13	500	27.132	P
1	9	703	0	Portrait	H	8.22625	7.724181	8.251313	7.987747	527.13	500	27.132	P
1	9	704	0	Portrait	H	8.22575	7.724181	8.265816	7.9949985	541.64	500	41.635	P
1	9	705	0	Portrait	H	8.22575	7.724181	8.254314	7.9892475	530.13	500	30.133	P
1	9	706	0	Portrait	H	8.22625	7.724181	8.271818	7.9979995	547.64	500	47.637	P
1	9	405	4093	Portrait	H	8.22625	7.725181	8.264316	7.9947485	539.14	500	39.135	P
1	9	407	4093	Portrait	H	8.22675	7.725181	8.271318	7.9982495	546.14	500	46.137	P
1	9	409	4093	Portrait	H	8.22675	7.725181	8.250312	7.9877465	525.13	500	25.131	P
1	9	801	0Gap0	Portrait	H	8.22625	7.724181	8.282821	8.003501	558.64	500	58.64	P
1	9	801	0Gap64	Portrait	H	8.22625	7.724181	8.274319	7.99925	550.14	500	50.138	P
1	9	802	0	Portrait	H	8.22625	7.724181	8.274319	7.99925	550.14	500	50.138	P
1	9	803	0	Portrait	H	8.22625	7.724181	8.274319	7.99925	550.14	500	50.138	P
1	9	804	0Gap0	Portrait	H	8.22625	7.724181	8.282821	8.003501	558.64	500	58.64	P
1	9	804	0Gap64	Portrait	H	8.22625	7.724181	8.271318	7.9977495	547.14	500	47.137	P
1	9	805	0	Portrait	H	8.22625	7.724181	8.271318	7.9977495	547.14	500	47.137	P
1	9	806	0	Portrait	H	8.22625	7.724181	8.274319	7.99925	550.14	500	50.138	P
1	9	807	0Gap0	Portrait	H	8.22575	7.724181	8.273818	7.9989995	549.64	500	49.637	P
1	9	807	0Gap64	Portrait	H	8.22575	7.724181	8.323321	8.023751	599.14	500	99.14	P
1	9	808	0	Portrait	H	8.22625	7.724181	8.282821	8.003501	558.64	500	58.64	P
1	9	809	0	Portrait	H	8.22625	7.724181	8.282821	8.003501	558.64	500	58.64	P
1	9	80A	0Gap0	Portrait	H	8.22675	7.724681	8.312821	8.018751	588.14	500	88.14	P
1	9	80A	0Gap64	Portrait	H	8.22575	7.724681	8.283321	8.004001	558.64	500	58.64	P
1	9	80B	0	Portrait	H	8.22625	7.724681	8.282821	8.003751	558.14	500	58.14	P
1	9	80C	0	Portrait	H	8.22625	7.724181	8.282321	8.003251	558.14	500	58.14	P

ANT1, CH5

ANT	CH	CF	PL	EUT Orientation	Ant. Polarity	FM (GHz)	FL (GHz)	FH (GHz)	FC (GHz)	OBW (MHz)	Min. OBW (MHz)	OBW Margin (MHz)	OBW Pass/Fail
1	5	0	25	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	1	45	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	6	125	Portrait	H	6.25025	6.227682	6.752813	6.4902475	525.13	500	25.131	P
1	5	9	125	Portrait	H	6.25025	6.228182	6.750813	6.4894975	522.63	500	22.631	P
1	5	10	25	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	11	25	Portrait	H	6.25025	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	11	65	Portrait	H	6.25025	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	101	25	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	101	65	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	102	25	Portrait	H	6.25025	6.226682	6.751313	6.4889975	524.63	500	24.631	P
1	5	102	65	Portrait	H	6.25025	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	103	25	Portrait	H	6.25025	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	103	125	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	202	625	Portrait	H	6.25075	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	402	445	Portrait	H	6.25075	6.22625	6.75231	6.48928	526.06	500	26.06	P
1	5	501	0	Portrait	H	6.25075	6.226682	6.752313	6.4894975	525.63	500	25.631	P
1	5	503	0	Portrait	H	6.25075	6.226682	6.752312	6.489497	525.63	500	25.63	P
1	5	601	0	Portrait	H	6.25025	6.226682	6.751812	6.489247	525.13	500	25.13	P
1	5	605	0	Portrait	H	6.25075	6.226682	6.752313	6.4894975	525.63	500	25.631	P
1	5	607	0	Portrait	H	6.25025	6.226682	6.751813	6.4892475	525.13	500	25.131	P
1	5	701	0	Portrait	H	6.25075	6.225181	6.753313	6.489247	528.13	500	28.132	P
1	5	702	0	Portrait	H	6.25075	6.225181	6.753313	6.489247	528.13	500	28.132	P
1	5	703	0	Portrait	H	6.25075	6.225181	6.752813	6.488997	527.63	500	27.632	P
1	5	704	0	Portrait	H	6.25025	6.225181	6.752813	6.488997	527.63	500	27.632	P
1	5	705	0	Portrait	H	6.25075	6.224181	6.752813	6.488497	528.63	500	28.632	P
1	5	706	0	Portrait	H	6.25075	6.22168	6.752813	6.4872465	531.13	500	31.133	P
1	5	405	4093	Portrait	H	6.25075	6.212678	6.751813	6.4822455	539.14	500	39.135	P
1	5	407	4093	Portrait	H	6.25025	6.222681	6.751813	6.487247	529.13	500	29.132	P
1	5	409	4093	Portrait	H	6.25025	6.21811	6.75181	6.48496	533.70	500	33.7	P
1	5	801	0Gap0	Portrait	H	6.42725	6.22168	6.75281	6.487245	531.13	500	31.13	P
1	5	801	0Gap64	Portrait	H	6.25125	6.216179	6.752813	6.484496	536.63	500	36.634	P
1	5	802	0	Portrait	H	6.25075	6.216179	6.752813	6.484496	536.63	500	36.634	P
1	5	803	0	Portrait	H	6.25075	6.21679	6.753424	6.485107	536.63	500	36.634	P
1	5	804	0Gap0	Portrait	H	6.36475	6.22068	6.752313	6.4864965	531.63	500	31.633	P
1	5	804	0Gap64	Portrait	H	6.25075	6.216679	6.752813	6.484746	536.13	500	36.134	P
1	5	805	0	Portrait	H	6.25075	6.216179	6.752813	6.484496	536.63	500	36.634	P
1	5	806	0	Portrait	H	6.25075	6.216179	6.752813	6.484496	536.63	500	36.634	P
1	5	807	0Gap0	Portrait	H	6.41025	6.20518	6.75332	6.47925	548.14	500	48.14	P
1	5	807	0Gap64	Portrait	H	6.40975	6.217679	6.752813	6.485246	535.13	500	35.134	P
1	5	808	0	Portrait	H	6.41025	6.225681	6.752813	6.489247	527.13	500	27.132	P
1	5	809	0	Portrait	H	6.41025	6.21818	6.752814	6.485497	534.63	500	34.634	P
1	5	80A	0Gap0	Portrait	H	6.36475	6.224181	6.752813	6.488497	528.63	500	28.632	P
1	5	80A	0Gap64	Portrait	H	6.36475	6.22018	6.75281	6.486495	532.63	500	32.63	P
1	5	80B	0	Portrait	H	6.36475	6.224181	6.752813	6.488497	528.63	500	28.632	P
1	5	80C	0	Portrait	H	6.36475	6.22118	6.75281	6.486995	531.63	500	31.63	P

OPERATING BANDWIDTH

9.3. PEAK POWER AND MAXIMUM AVERAGE EMISSIONS

LIMITS

FCC

15.519 (e) There is a limit on the peak level of the emissions contained within a 50 MHz bandwidth centered on the frequency at which the highest radiated emission occurs, f_M . That limit is 0 dBm EIRP.

15.519 (c) The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

Frequency in MHz	EIRP in dBm
3100 - 10600	-41.3

RSS-220

Annex, Section 4 (c) Peak measurements shall be made in addition to average measurements. Transmissions shall not exceed 0 dBm e.i.r.p. in any 50 MHz bandwidth when the average limit is -41.3 dBm/MHz.

Section 5.3.1 (d) Radiated emissions above 960 MHz from a device shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz.

Frequency	E.I.R.P. in a Resolution Bandwidth of 1 MHz
4.75 – 10.6 GHz	-41.3

TEST PROCEDURE

ANSI C63.10 Clause 10.3

RSS-220 Annex

Peak EIPR power is measured using RBW of 50 MHz.

**Peak measurements were validated to have same readings as a wider bandwidth receiver, regardless of YIG Filter Bandwidth Notice.*

The radiated emissions of 5 - 9 GHz frequency band are performed at 3-meter test distance.

Tabulated data provides the test results of all available test configurations. Plots for ANT1, CONFIG 9, Payload 125 on CH9 and CH5 peak and maximum average power measurements are presented and same measurement settings apply to the rest of test configurations.

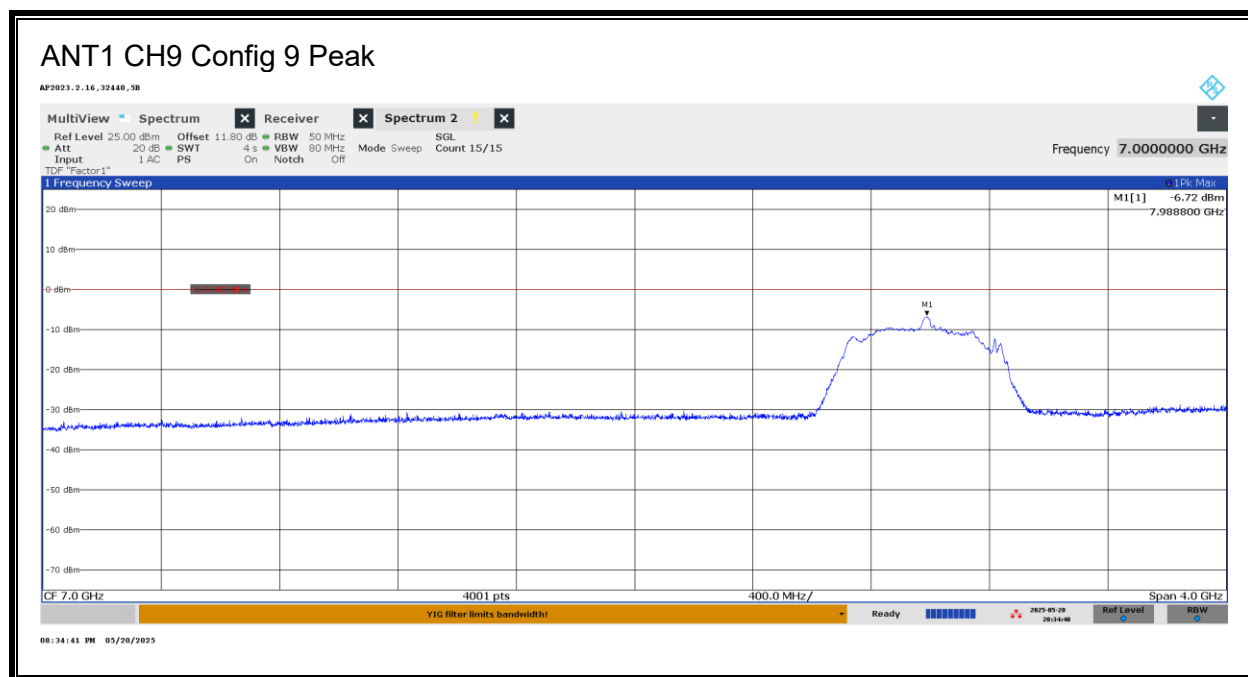
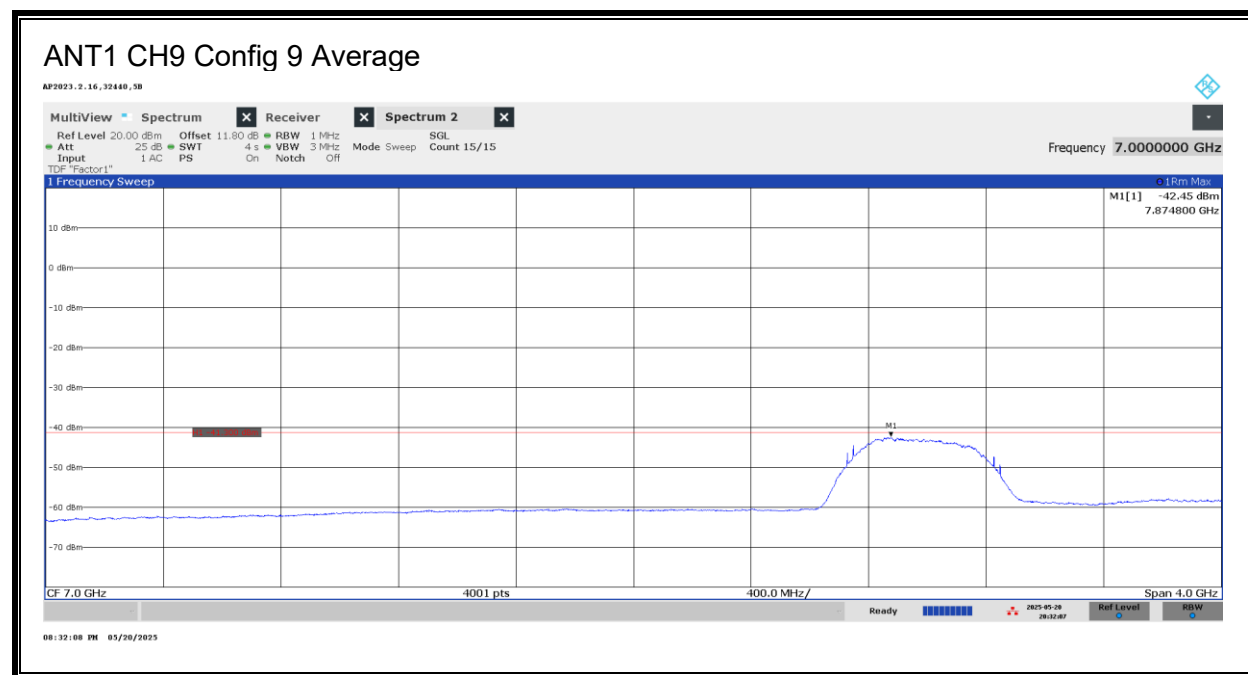
RESULTS

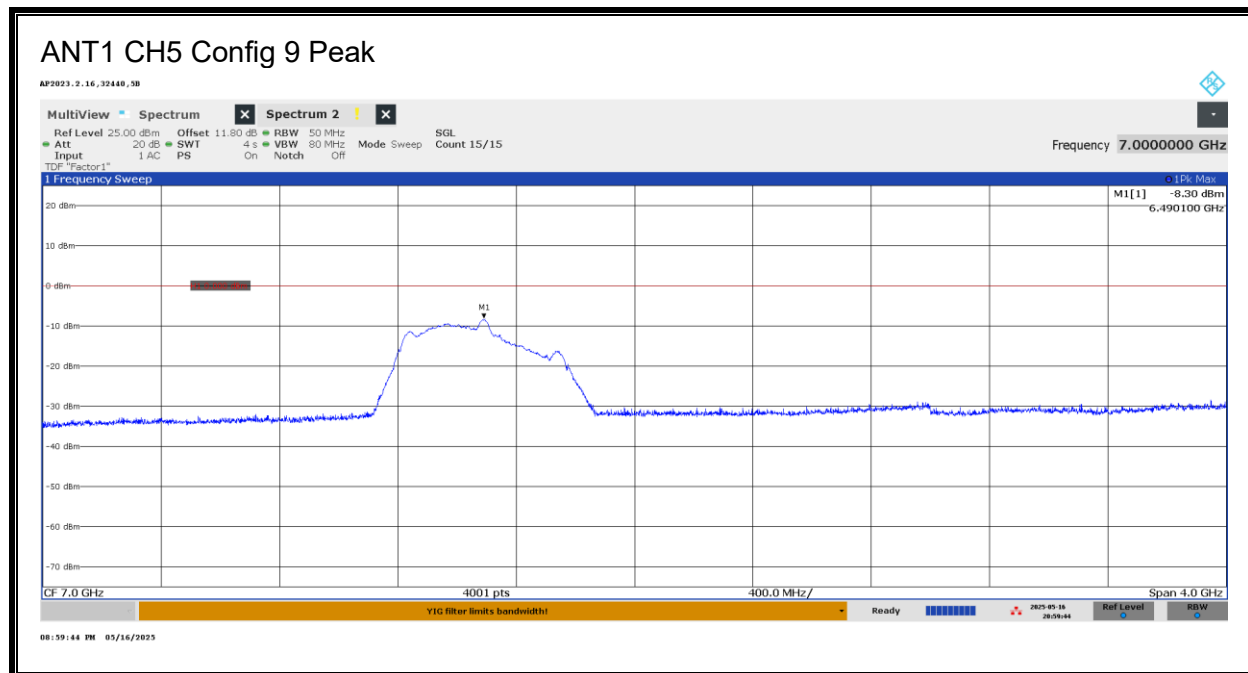
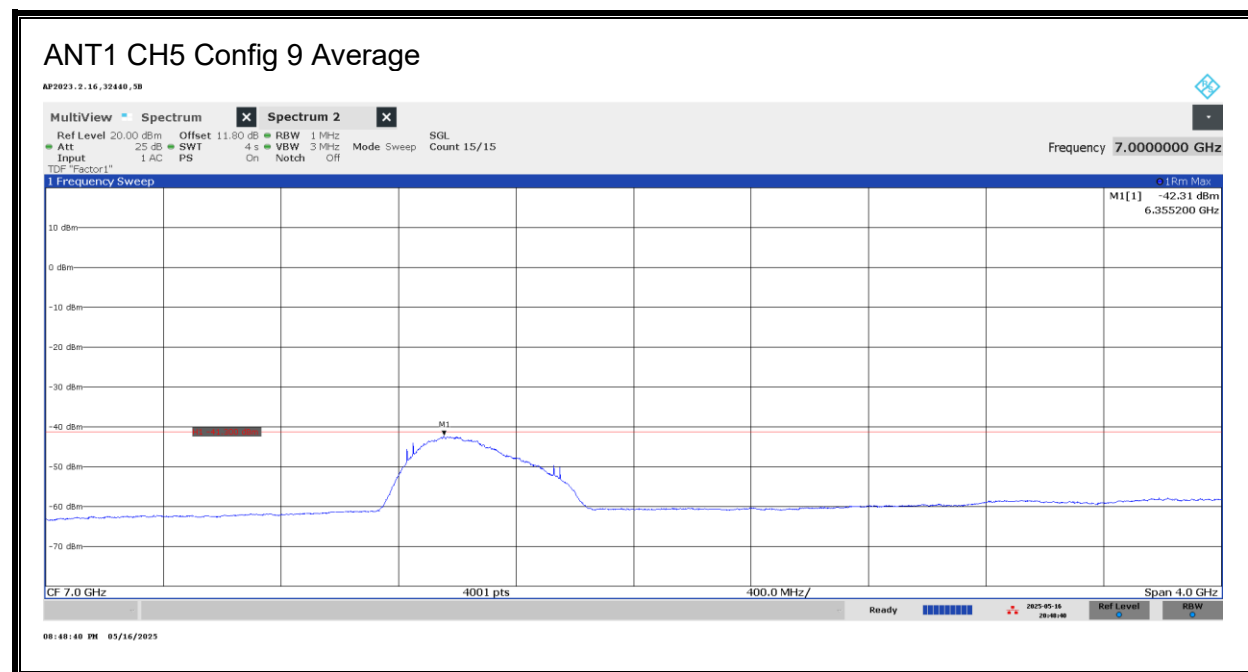
ANT1, CH9

ANT	CH	CF	PL	EUT Orientation	Ant. Polarity	Peak EIRP Power				Average EIRP Power			
						FM (GHz)	Adj Pk	Pk Limit	Margin (dB)	FM (GHz)	Adj Av	Avg Limit	Margin (dB)
1	9	0	25	Portrait	H	7.9878	-1.84	0	-1.84	7.8558	-42.42	-41.3	-1.12
1	9	1	45	Portrait	H	7.9858	-1.14	0	-1.14	7.8778	-42.46	-41.3	-1.16
1	9	6	125	Portrait	H	7.9888	-5.85	0	-5.85	7.8668	-42.58	-41.3	-1.28
1	9	9	125	Portrait	H	7.9888	-6.72	0	-6.72	7.8748	-42.45	-41.3	-1.15
1	9	10	25	Portrait	H	7.9838	-2.19	0	-2.19	7.9088	-42.77	-41.3	-1.47
1	9	11	25	Portrait	H	7.9848	-1.49	0	-1.49	7.9128	-43.65	-41.3	-2.35
1	9	11	65	Portrait	H	7.9868	-2.19	0	-2.19	7.8938	-42.80	-41.3	-1.50
1	9	101	25	Portrait	H	7.9848	-1.10	0	-1.10	7.9128	-43.56	-41.3	-2.26
1	9	101	65	Portrait	H	7.9858	-1.97	0	-1.97	7.9558	-42.66	-41.3	-1.36
1	9	102	25	Portrait	H	7.9838	-1.43	0	-1.43	7.9128	-43.62	-41.3	-2.32
1	9	102	65	Portrait	H	7.9858	-1.87	0	-1.87	7.8938	-42.49	-41.3	-1.19
1	9	103	25	Portrait	H	7.9878	-2.09	0	-2.09	7.8558	-42.74	-41.3	-1.44
1	9	103	125	Portrait	H	7.9868	-4.46	0	-4.46	7.8778	-42.56	-41.3	-1.26
1	9	202	625	Portrait	H	7.8698	-13.92	0	-13.92	7.8628	-42.33	-41.3	-1.03
1	9	402	445	Portrait	H	8.2177	-7.42	0	-7.42	8.1387	-42.39	-41.3	-1.09
1	9	501	0	Portrait	H	8.2177	-1.19	0	-1.19	8.2267	-46.63	-41.3	-5.33
1	9	503	0	Portrait	H	8.2167	-1.30	0	-1.30	8.2267	-46.56	-41.3	-5.26
1	9	601	0	Portrait	H	8.2167	-1.16	0	-1.16	8.1507	-44.20	-41.3	-2.90
1	9	605	0	Portrait	H	8.2357	-1.08	0	-1.08	8.1427	-44.48	-41.3	-3.18
1	9	607	0	Portrait	H	8.2377	-1.28	0	-1.28	8.1427	-44.74	-41.3	-3.44
1	9	701	0	Portrait	H	8.2357	-1.57	0	-1.57	8.0877	-42.30	-41.3	-1.00
1	9	702	0	Portrait	H	8.2357	-1.05	0	-1.05	8.0857	-43.46	-41.3	-2.16
1	9	703	0	Portrait	H	8.2357	-1.01	0	-1.01	8.0937	-43.40	-41.3	-2.10
1	9	704	0	Portrait	H	8.2367	-6.93	0	-6.93	8.0897	-42.56	-41.3	-1.26
1	9	705	0	Portrait	H	8.1167	-3.65	0	-3.65	8.0887	-42.69	-41.3	-1.39
1	9	706	0	Portrait	H	8.0587	-4.66	0	-4.66	8.0917	-42.32	-41.3	-1.02
1	9	405	4093	Portrait	H	8.2377	-13.40	0	-13.40	8.0927	-42.38	-41.3	-1.08
1	9	407	4093	Portrait	H	8.2367	-12.92	0	-12.92	8.0917	-42.51	-41.3	-1.21
1	9	409	4093	Portrait	H	8.2357	-12.56	0	-12.56	8.0907	-42.36	-41.3	-1.06
1	9	801	0Gap0	Portrait	H	8.2367	-2.74	0	-2.74	8.0387	-42.67	-41.3	-1.37
1	9	801	0Gap64	Portrait	H	8.2347	-2.96	0	-2.96	8.0907	-42.35	-41.3	-1.05
1	9	802	0	Portrait	H	8.2367	-2.96	0	-2.96	8.0907	-42.32	-41.3	-1.02
1	9	803	0	Portrait	H	8.2357	-1.96	0	-1.96	8.0907	-42.42	-41.3	-1.12
1	9	804	0Gap0	Portrait	H	8.2357	-5.70	0	-5.70	8.1117	-42.36	-41.3	-1.06
1	9	804	0Gap64	Portrait	H	8.2357	-5.59	0	-5.59	8.0907	-42.46	-41.3	-1.16
1	9	805	0	Portrait	H	8.2357	-5.80	0	-5.80	8.0907	-42.63	-41.3	-1.33
1	9	806	0	Portrait	H	8.2357	-4.91	0	-4.91	8.0907	-42.39	-41.3	-1.09
1	9	807	0Gap0	Portrait	H	8.2367	-2.47	0	-2.47	8.1117	-42.39	-41.3	-1.09
1	9	807	0Gap64	Portrait	H	8.2167	-1.38	0	-1.38	8.1407	-43.50	-41.3	-2.20
1	9	808	0	Portrait	H	8.2177	-1.58	0	-1.58	8.1417	-43.28	-41.3	-1.98
1	9	809	0	Portrait	H	8.2177	-1.26	0	-1.26	8.1217	-44.02	-41.3	-2.72
1	9	80A	0Gap0	Portrait	H	8.2177	-3.11	0	-3.11	8.1537	-42.43	-41.3	-1.13
1	9	80A	0Gap64	Portrait	H	8.2167	-2.53	0	-2.53	8.1487	-42.48	-41.3	-1.18
1	9	80B	0	Portrait	H	8.2177	-2.20	0	-2.20	8.1487	-42.31	-41.3	-1.00
1	9	80C	0	Portrait	H	8.2177	-2.46	0	-2.46	8.1417	-42.54	-41.3	-1.24

ANT1, CH5

ANT	CH	CF	PL	EUT Orientation	Ant. Polarity	Peak EIRP Power				Average EIRP Power			
						FM (GHz)	Adj Pk	Pk Limit	Margin (dB)	FM (GHz)	Adj Av	Avg Limit	Margin (dB)
1	5	0	25	Portrait	H	6.3752	-3.37	0	-3.37	6.3492	-42.53	-41.3	-1.23
1	5	1	45	Portrait	H	6.3752	-2.79	0	-2.79	6.3492	-42.42	-41.3	-1.12
1	5	6	125	Portrait	H	6.4901	-7.34	0	-7.34	6.3572	-42.50	-41.3	-1.20
1	5	9	125	Portrait	H	6.4901	-8.30	0	-8.30	6.3552	-42.31	-41.3	-1.01
1	5	10	25	Portrait	H	6.3752	-3.44	0	-3.44	6.3492	-42.57	-41.3	-1.27
1	5	11	25	Portrait	H	6.3752	-1.98	0	-1.98	6.3492	-42.71	-41.3	-1.41
1	5	11	65	Portrait	H	6.3762	-3.47	0	-3.47	6.3962	-42.44	-41.3	-1.14
1	5	101	25	Portrait	H	6.3372	-1.64	0	-1.64	6.3962	-42.58	-41.3	-1.28
1	5	101	65	Portrait	H	6.4901	-3.37	0	-3.37	6.3962	-42.50	-41.3	-1.20
1	5	102	25	Portrait	H	6.3772	-1.88	0	-1.88	6.3962	-42.67	-41.3	-1.37
1	5	102	65	Portrait	H	6.3752	-3.41	0	-3.41	6.3962	-42.39	-41.3	-1.09
1	5	103	25	Portrait	H	6.3752	-3.47	0	-3.47	6.4111	-42.57	-41.3	-1.27
1	5	103	125	Portrait	H	6.3742	-5.95	0	-5.95	6.3962	-42.51	-41.3	-1.21
1	5	202	625	Portrait	H	6.3652	-14.10	0	-14.10	6.3652	-42.50	-41.3	-1.20
1	5	402	445	Portrait	H	6.3662	-12.57	0	-12.57	6.4071	-42.53	-41.3	-1.23
1	5	501	0	Portrait	H	6.2412	-2.69	0	-2.69	6.4061	-42.51	-41.3	-1.21
1	5	503	0	Portrait	H	6.2392	-2.41	0	-2.41	6.4071	-42.60	-41.3	-1.30
1	5	601	0	Portrait	H	6.2392	-5.40	0	-5.40	6.3822	-42.56	-41.3	-1.26
1	5	605	0	Portrait	H	6.2392	-2.73	0	-2.73	6.3822	-42.42	-41.3	-1.12
1	5	607	0	Portrait	H	6.2412	-2.69	0	-2.69	6.3822	-42.42	-41.3	-1.12
1	5	701	0	Portrait	H	6.2382	-4.95	0	-4.95	6.3712	-42.62	-41.3	-1.32
1	5	702	0	Portrait	H	6.2402	-2.86	0	-2.86	6.4061	-42.34	-41.3	-1.04
1	5	703	0	Portrait	H	6.2402	-2.47	0	-2.47	6.3622	-42.41	-41.3	-1.11
1	5	704	0	Portrait	H	6.3652	-8.10	0	-8.10	6.3932	-42.60	-41.3	-1.30
1	5	705	0	Portrait	H	6.3652	-3.37	0	-3.37	6.3932	-42.62	-41.3	-1.32
1	5	706	0	Portrait	H	6.3642	-4.97	0	-4.97	6.3952	-42.56	-41.3	-1.26
1	5	405	4093	Portrait	H	6.2382	-15.85	0	-15.85	6.3612	-42.41	-41.3	-1.11
1	5	407	4093	Portrait	H	6.2402	-15.15	0	-15.15	6.3962	-42.48	-41.3	-1.18
1	5	409	4093	Portrait	H	6.3642	-14.24	0	-14.24	6.3942	-42.62	-41.3	-1.32
1	5	801	0Gap0	Portrait	H	6.2402	-5.85	0	-5.85	6.3652	-42.65	-41.3	-1.35
1	5	801	0Gap64	Portrait	H	6.2402	-5.61	0	-5.61	6.3432	-42.42	-41.3	-1.12
1	5	802	0	Portrait	H	6.2402	-5.82	0	-5.82	6.3432	-42.64	-41.3	-1.34
1	5	803	0	Portrait	H	6.2412	-4.65	0	-4.65	6.3432	-42.60	-41.3	-1.30
1	5	804	0Gap0	Portrait	H	6.2372	-8.54	0	-8.54	6.3652	-42.65	-41.3	-1.35
1	5	804	0Gap64	Portrait	H	6.2412	-8.47	0	-8.47	6.3962	-42.61	-41.3	-1.31
1	5	805	0	Portrait	H	6.2402	-8.45	0	-8.45	6.3962	-42.78	-41.3	-1.48
1	5	806	0	Portrait	H	6.2392	-7.09	0	-7.09	6.3962	-42.72	-41.3	-1.42
1	5	807	0Gap0	Portrait	H	6.2402	-5.80	0	-5.80	6.3652	-42.68	-41.3	-1.38
1	5	807	0Gap64	Portrait	H	6.2392	-5.44	0	-5.44	6.3942	-42.40	-41.3	-1.10
1	5	808	0	Portrait	H	6.2392	-5.35	0	-5.35	6.3752	-42.57	-41.3	-1.27
1	5	809	0	Portrait	H	6.2392	-5.50	0	-5.50	6.3942	-42.47	-41.3	-1.17
1	5	80A	0Gap0	Portrait	H	6.2422	-8.73	0	-8.73	6.4071	-42.58	-41.3	-1.28
1	5	80A	0Gap64	Portrait	H	6.2412	-7.20	0	-7.20	6.4011	-42.47	-41.3	-1.17
1	5	80B	0	Portrait	H	6.2432	-7.41	0	-7.41	6.4011	-42.64	-41.3	-1.34
1	5	80C	0	Portrait	H	6.2392	-7.41	0	-7.41	6.4021	-42.54	-41.3	-1.24

PEAK POWER AND MAXIMUM AVERAGE EMISSIONS



9.4. CESSATION TIME

LIMITS

FCC

§15.519(a)(1) A UWB device operating under the provisions of this section shall transmit only when it is sending information to an associated receiver. The UWB intentional radiator shall cease transmission within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB intentional radiator at least every 10 seconds or the UWB device must cease transmitting.

RSS-220

Section 5.3.1 (b) The device is to transmit only when it is sending information to an associated receiver. The device shall cease transmission of information within 10 seconds unless it receives an acknowledgement from the associated receiver that its transmission is being received. An acknowledgment of reception must continue to be received by the UWB device at least every 10 seconds or the UWB device shall cease transmitting any information other than periodic signals used for the establishment or re-establishment of a communication link with an associated receiver.

TEST PROCEDURES

* Initiator = EUT

* Responder = associated receiver

Transmissions are monitored for two cases:

1. The Initiator ends the UWB link.
2. The Responder ends the UWB link.

RESULTS

Employee ID: 26051

Location: Chamber 02-RDE-F

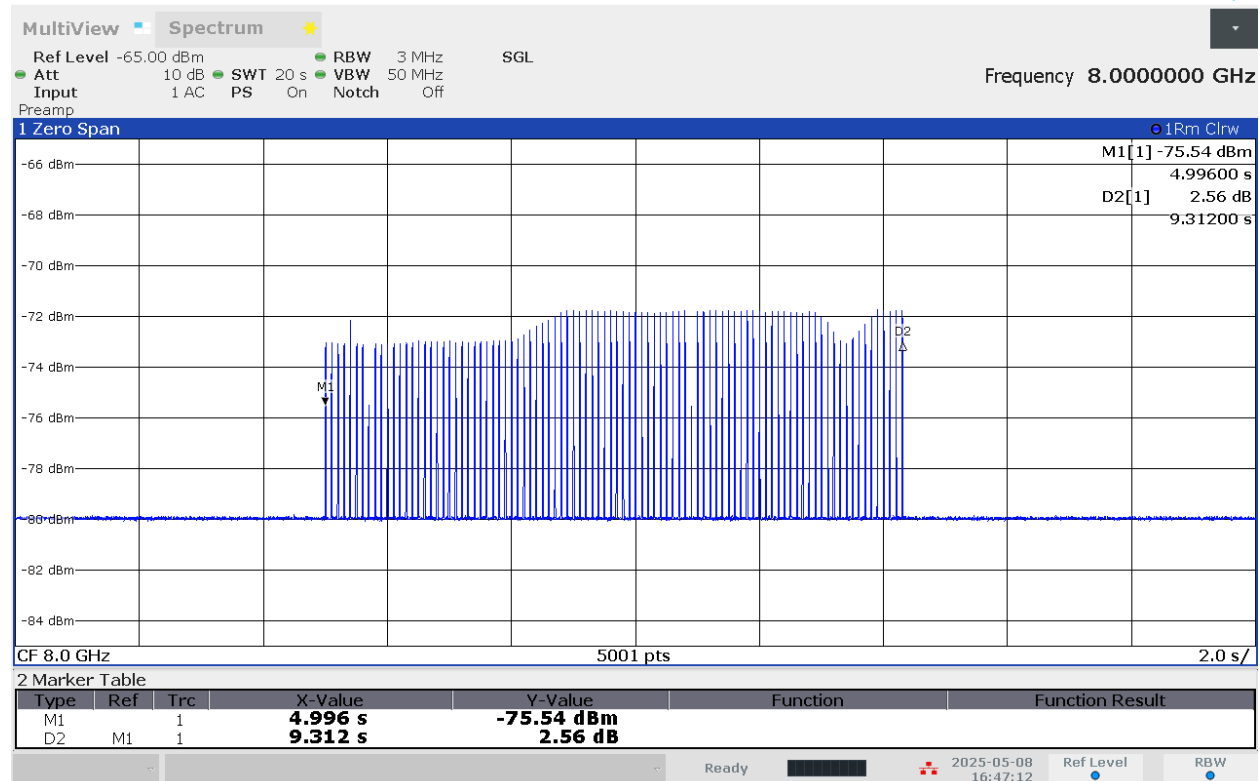
Test Date: 5/8/2025

Signal Levels on all Plots

- Initiator is Low Amplitude
- Responder is High Amplitude

Case 1: Initiator ends the UWB link

AP2021.2.16, 26051, 2F



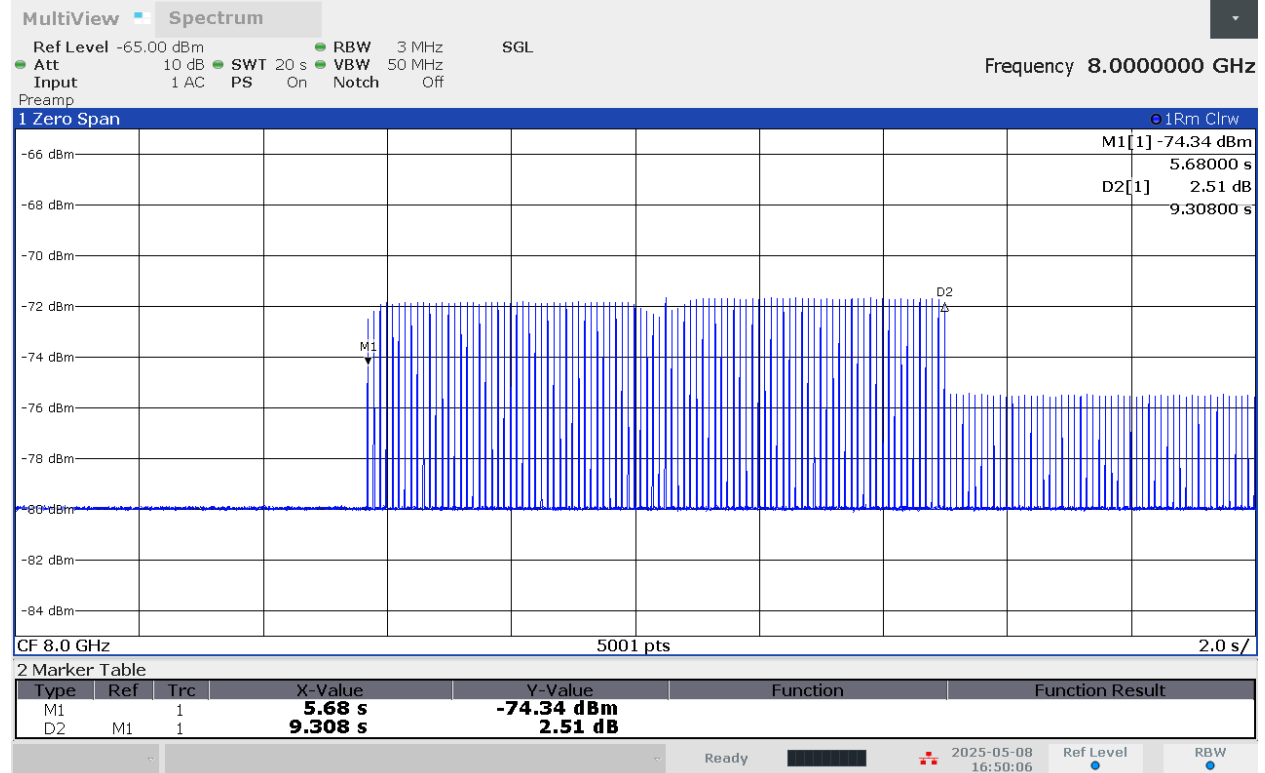
04:47:13 PM 05/08/2025

RESULT

- M1: The Initiator receives an Acknowledgement from the Responder and starts transmitting.
- D2: The Initiator ceases transmission and polling.

Case 2: Responder ends the UWB link

AP2021.2.16, 26051, 2F



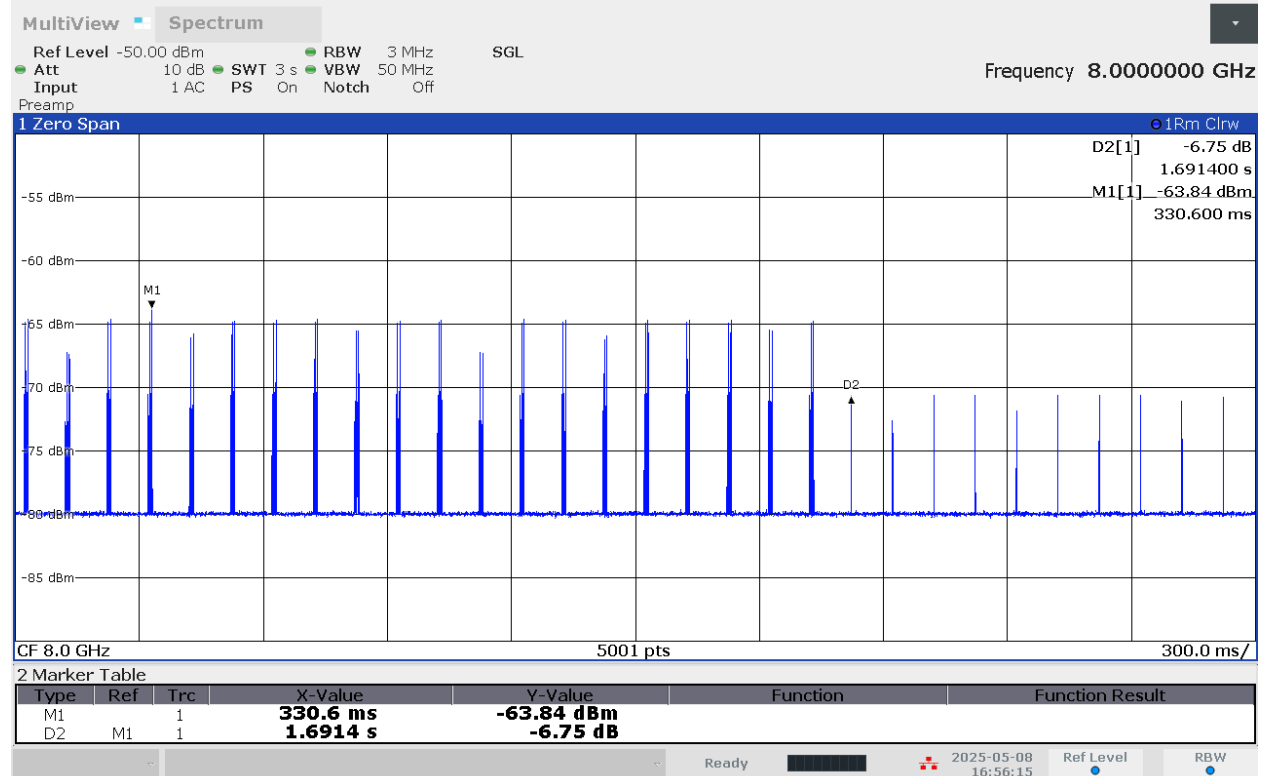
04:50:06 PM 05/08/2025

RESULT

- M1: The Initiator receives an Acknowledgement from the Responder and starts transmitting.
- D2: The Responder stops sending acknowledgments and the Initiator continues polling.

Zoom-in Plot during On-Off Transition

AP2021.2.16, 26051, 2F



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RESULT

- M1: Shows Link Traffic, Acknowledgements and Polling Signals while Link is established
- D2: Shows Polling Signals after Link has ended

9.5. EMISSIONS BELOW 960 MHz**LIMITS****FCC**

§15.519 (c) The radiated emissions at or below 960 MHz from a device operating under the provisions of this section shall not exceed the emission levels in §15.209. The radiated emissions above 960 MHz from a device operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz:

15.209 (a)

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
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

RSS-220

Section 3.4 Radiated emissions at or below 960 MHz for all subclasses of UWB device shall not exceed the following limits. Measurements of radiated emissions at and below 960 MHz are to be made using a CISPR quasi-peak detector. CISPR measurement bandwidth specifications are to be used.

Frequency (MHz)	Field Strength (Microvolts/m)	Measurement Distance (Metres)	E.i.r.p. (dBmW)
0.009-0.490	2,400/F (F in kHz)	300	10 log (17.28 / F ²) (F in kHz)
0.490-1.705	24,000/F (F in kHz)	30	10 log (17.28 / F ²) (F in kHz)
1.705-30	30	30	-45.7
30-88	100	3	-55.2
88-216	150	3	-51.7
216-960	200	3	-49.2

Note: The emission limits for the bands 9-90 kHz and 110-490 kHz are based on measurements employing an average emissions detector.

TEST PROCEDURE

ANSI C63.10 Clause 10.2

RSS-220 Annex

Measurements are made with the antenna feeding a spectrum analyzer via a preamplifier and cables, at a maximum distance of 3m from the EUT.

For below 30 MHz testing, investigation was done on three antenna orientations: RX antenna Face-on, Face-off and horizontal (parallel to ground). The worst-case configurations were determined on RX antenna Face-on and Face-off; therefore, all final tests were performed using these two orientations.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 meter open area test site. Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

A final test is made at any frequencies at which emissions are found. During this final scan, the antenna is kept no further from the EUT than the maximum distance calculated for each band that yields a minimum system noise floor.

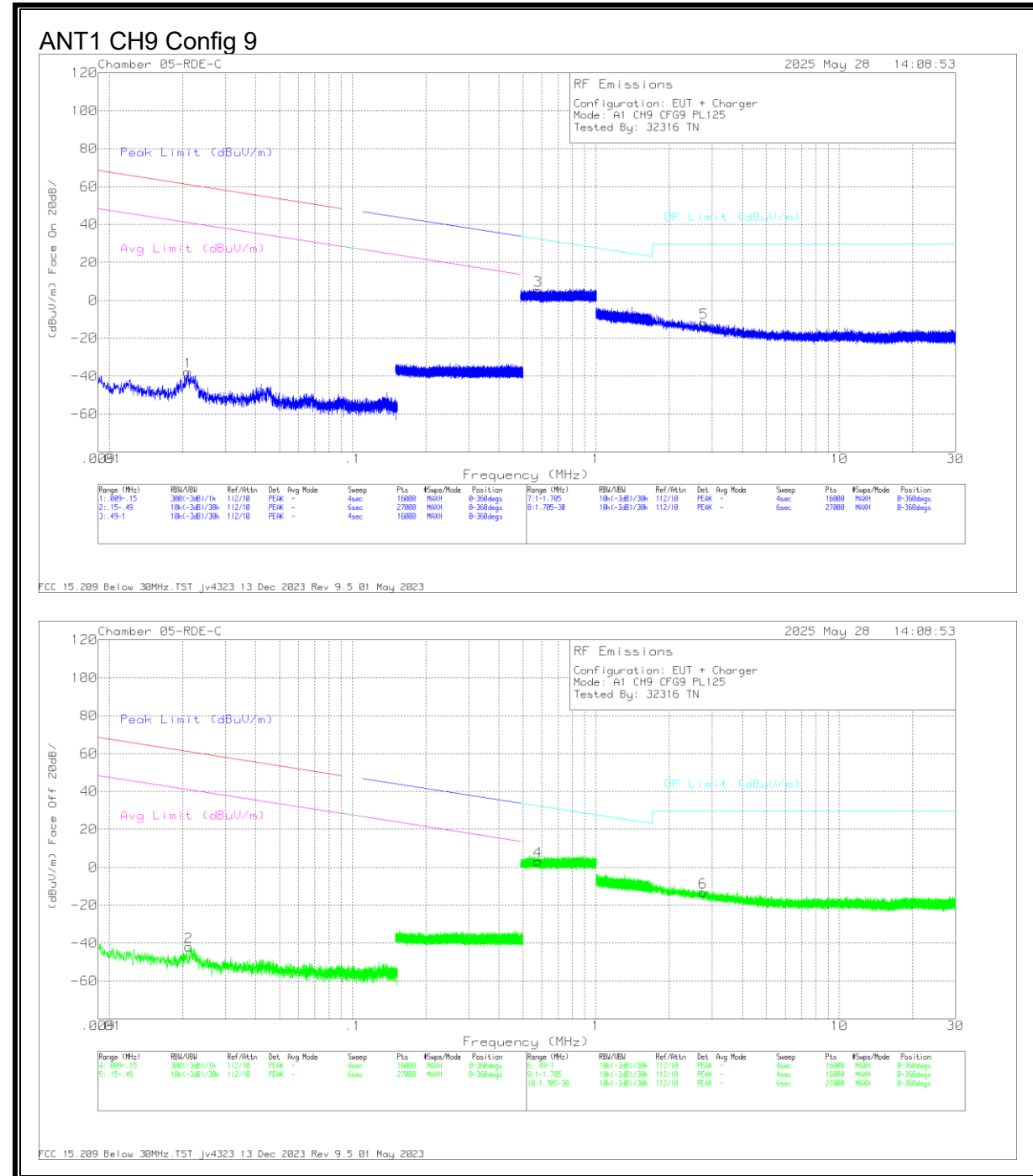
RESULTS**Emissions Summary**

Employee IDs: 112243, 32316

Location: Chamber 05-RDE-D, 05-RDE-C

Test Date: 5/28/2025

Ant	CH	Config	Payload	Power Setting	Frequency Range	
					9 kHz - 30 MHz	30 - 960 MHz
1	9	9	125	Max	PASS	PASS
1	5	9	125	Max	PASS	PASS

9.5.1. EMISSIONS, 9 kHz – 30 MHz**Trace Markers**

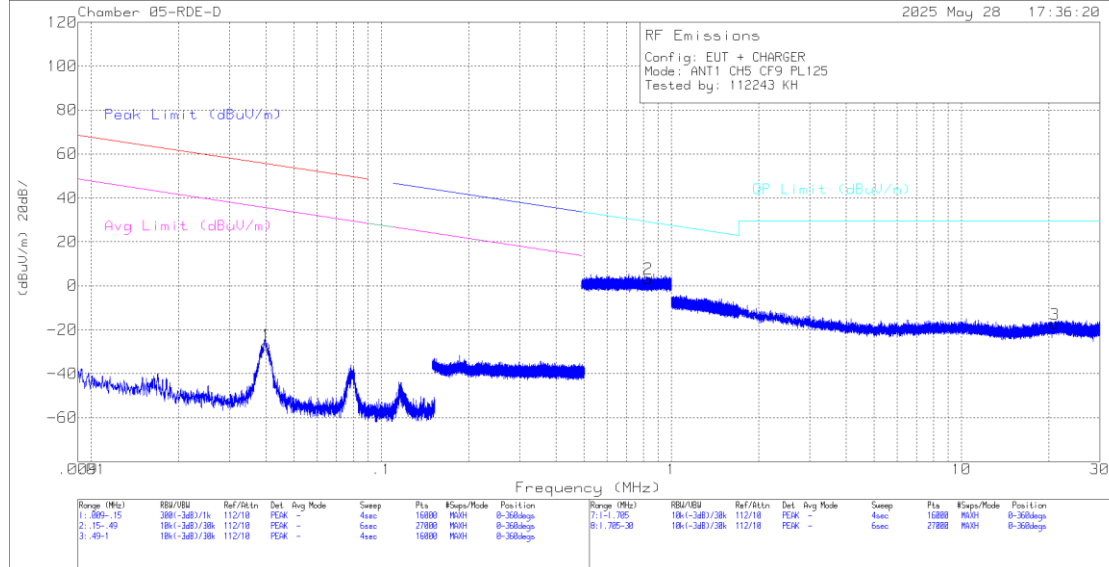
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E (ACF) (dB/m)	CBL AMP (dB)	Dist Corr 300m	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Avg Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.0211	15.07	Pk	59.1	-31.8	-80	-37.63	61.11	-98.74	41.11	-78.74	0-360
2	.0212	10.82	Pk	59.1	-31.8	-80	-41.88	61.05	-102.93	41.05	-82.93	0-360

Pk - Peak detector

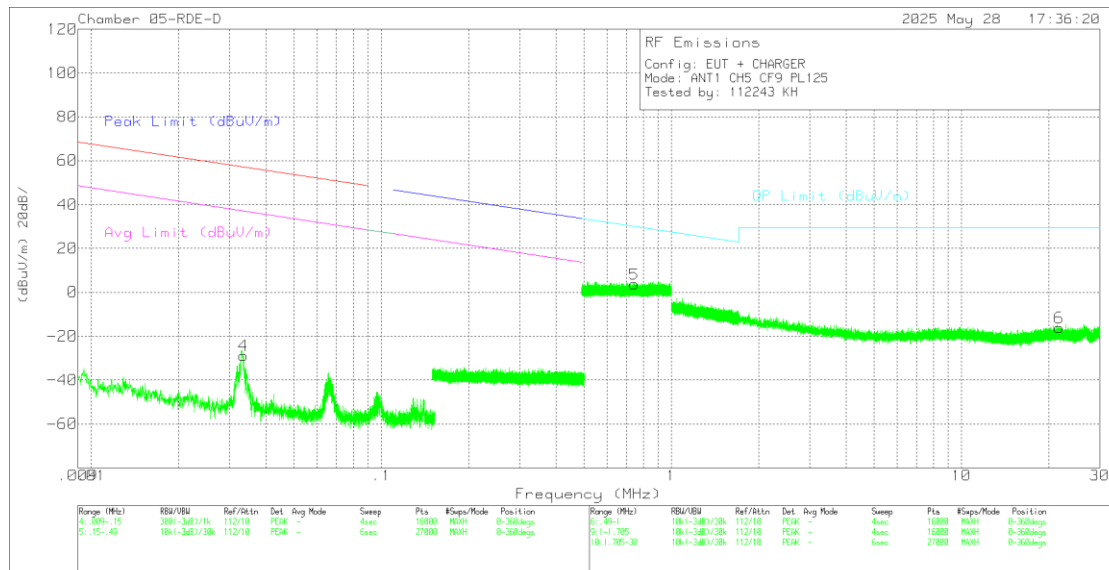
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E (ACF) (dB/m)	CBL AMP (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
3	.5773	20.86	Pk	56.4	-31.9	-40	5.36	32.38	-27.02	0-360
4	.5775	18.78	Pk	56.4	-31.9	-40	3.28	32.38	-29.1	0-360
6	2.7509	19.45	Pk	39.2	-31.8	-40	-13.15	29.5	-42.65	0-360
5	2.7813	20.51	Pk	39.2	-31.5	-40	-11.79	29.5	-41.29	0-360

Pk - Peak detector

ANT1 CH5 Config 9



FCC 15.209 Below 30MHz.TST jv4323 13 Dec 2023



FCC 15.209 Below 30MHz.TST jv4323 13 Dec 2023

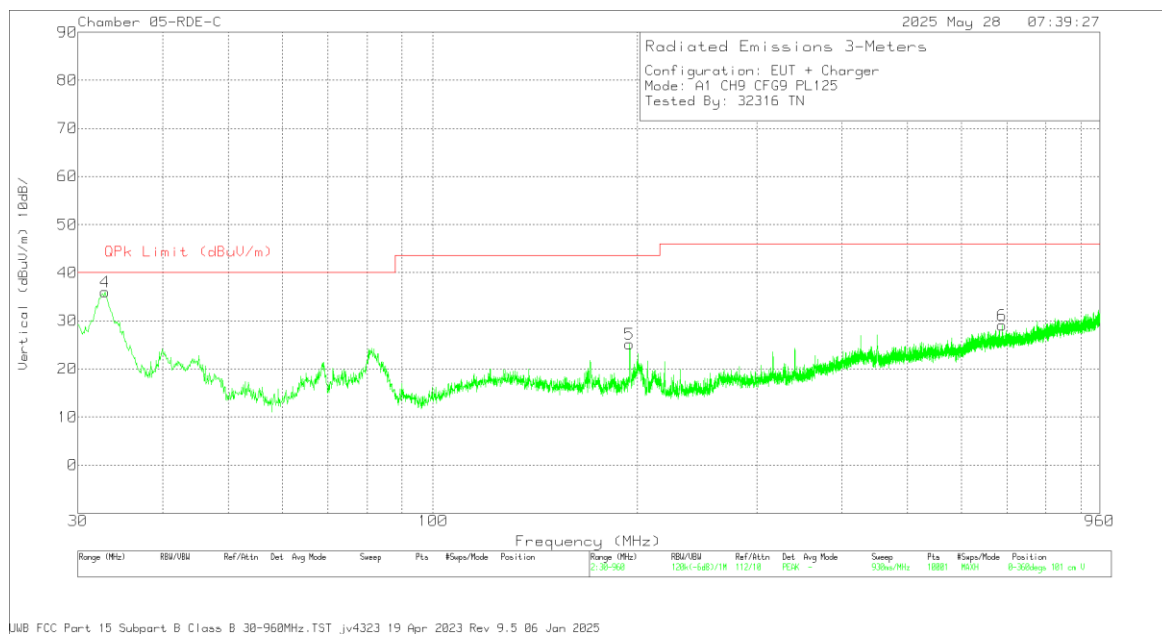
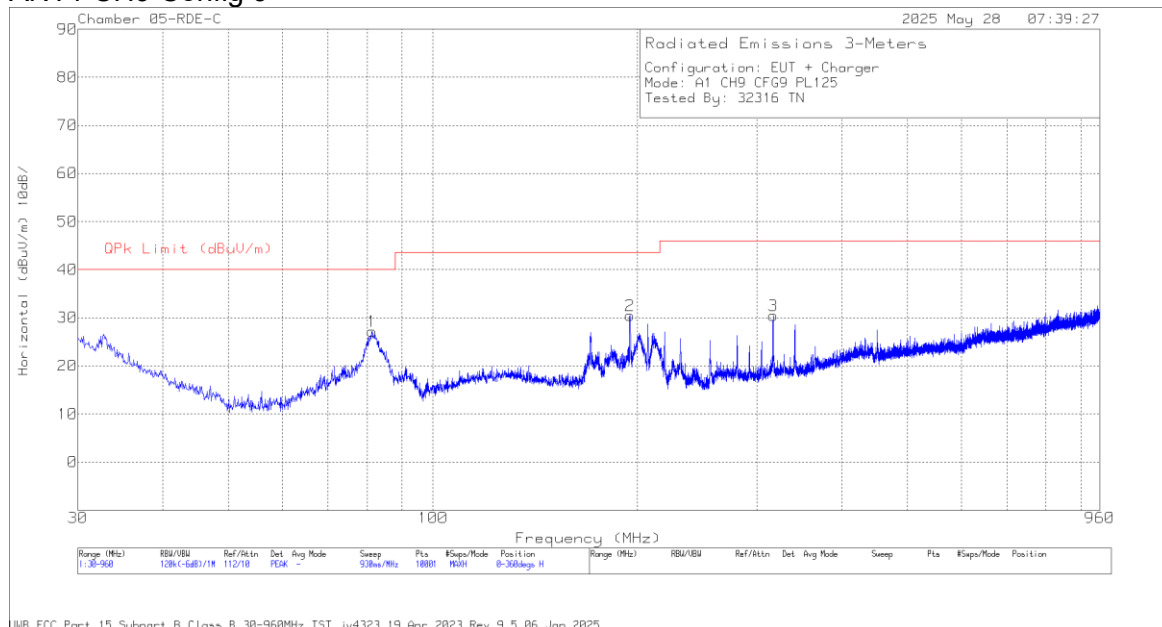
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	Loop Antenna E (ACF) (dB/m)	CBL AMP (dB)	Dist Corr 300m	Corrected Reading (dBUV/m)	Peak Limit (dBUV/m)	Margin (dB)	Avg Limit (dBUV/m)	Margin (dB)	Azimuth (Degs)
4	.0335	26.03	Pk	57.8	-32.6	-80	-28.77	57.09	-85.86	37.09	-65.86	0-360
1	.0403	28.17	Pk	57.3	-32.3	-80	-26.83	55.48	-82.31	35.48	-62.31	0-360

Pk - Peak detector

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna E (ACF) (dB/m)	CBL AMP (dB)	Dist Corr 30m (dB) 40Log	Corrected Reading (dBuV/m)	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
5	.745	19.67	Pk	56.4	-32.4	-40	3.67	30.17	-26.5	0-360
2	.8328	19.44	Pk	56.4	-32.7	-40	3.14	29.21	-26.07	0-360
3	21.0134	21.22	Pk	33.6	-32.2	-40	-17.38	29.5	-46.88	0-360
6	21.7218	22.34	Pk	33.7	-32.2	-40	-16.16	29.5	-45.66	0-360

Pk - Peak detector

9.5.2. EMISSIONS, 30 - 960 MHz**ANT1 CH9 Config 9****Trace Markers**

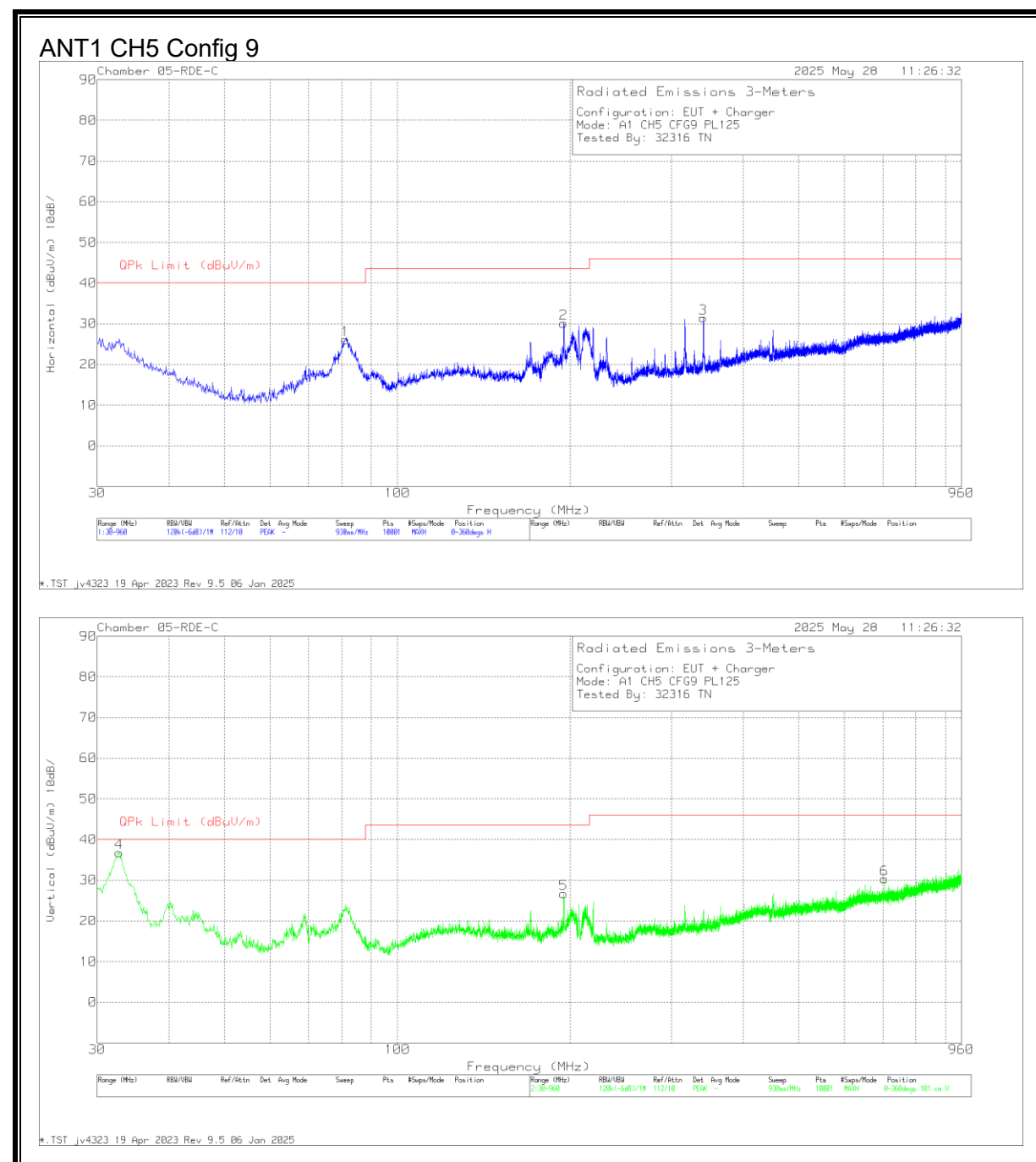
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	171863 ACF (dB/m)	CBL AMP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	32.883	42.01	Pk	24.9	-30.9	36.01	40	-3.99	0-360	101	V
1	81.429	44.41	Pk	13.5	-30.7	27.21	40	-12.79	0-360	198	H
5	194.889	37.86	Pk	17.6	-30.3	25.16	43.52	-18.36	0-360	101	V
2	194.982	43.13	Pk	17.6	-30.3	30.43	43.52	-13.09	0-360	198	H
3	316.998	40.33	Pk	19.8	-29.7	30.43	46.02	-15.59	0-360	100	H
6	689.091	31.86	Pk	25.9	-28.7	29.06	46.02	-16.96	0-360	101	V

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	171863 ACF (dB/m)	CBL AMP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
32.8537	39.23	Qp	24.9	-31	33.13	40	-6.87	347	102	V

Qp - Quasi-Peak detector



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	171863 ACF (dB/m)	CBL AMP (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	32.79	42.92	Pk	24.9	-31	36.82	40	-3.18	0-360	101	V
1	81.15	43.18	Pk	13.5	-30.6	26.08	40	-13.92	0-360	198	H
5	194.796	39.35	Pk	17.6	-30.3	26.65	43.52	-16.87	0-360	199	V
2	194.889	42.77	Pk	17.6	-30.3	30.07	43.52	-13.45	0-360	98	H
3	341.039	41.31	Pk	19.8	-29.7	31.41	46.02	-14.61	0-360	98	H
6	704.715	32.98	Pk	26.1	-28.8	30.28	46.02	-15.74	0-360	101	V

Pk - Peak detector

9.6. AVERAGE EMISSIONS ABOVE 960 MHz**LIMITS****FCC**

15.519 (c)

Frequency in MHz	EIRP in dBm
960-1610	-75.3
1610-1990	-63.3
1990-3100	-61.3
3100-10600	-41.3
Above 10600	-61.3

§15.519 (d) In addition to the radiated emission limits specified in the table in paragraph (c) of this section, UWB transmitters operating under the provisions of this section shall not exceed the following average limits when measured using a resolution bandwidth of no less than 1 kHz:

Frequency in MHz	EIRP in dBm
1164-1240	-85.3
1559-1610	-85.3

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Section 5.3.1 (d) Radiated emissions above 960 MHz from a device shall not exceed the following average limits when measured using a resolution bandwidth of 1 MHz.

Hand-held (Outdoor) Communication, Measurement, Location Sensing, and Tracking Devices	
Frequency	E.i.r.p. in a Resolution Bandwidth of 1 MHz
960-1 610 MHz	-75.3 dBm
1.61-4.75 GHz	-70.0 dBm
4.75-10.6 GHz	-41.3 dBm
Above 10.6 GHz	-61.3 dBm

Section 5.3.1 (e) In addition to the limits specified in paragraph (d) of this section, radiated emissions shall not exceed the following average limits when measured using a resolution bandwidth greater than or equal to 1 kHz. The measurements shall demonstrate compliance with the stated limits at whatever resolution bandwidth is used.

Frequency	E.i.r.p. in a Resolution Bandwidth of no less than 1 kHz
1 164-1 240 MHz	-85.3 dBm
1 559-1 610 MHz	-85.3 dBm

TEST PROCEDURE

ANSI C63.10 Clause 10.3.

RSS-220 Annex

Exploratory measurements for all frequency ranges are performed with the measurement antenna at close distances to the EUT as described in ANSI C63.10 6.6.4.2. Where emissions are observed the measurement antenna is then positioned at a height of 1.5m and a distance of 1m for 18-40GHz and 0.5m for 0.96-5GHz, 1.164-1.240GHz, and 1.559-1.610GHz from the EUT and final measurements are made at the frequencies observed in the exploratory scans using the alternative measurement procedures detailed in ANSI C63.10 section 6.6.5. If no emissions are observed, a plot is made at a test distance of 1m for 18-40GHz and 0.5m for 0.96-5GHz, 1.164-1.240GHz, and 1.559-1.610GHz from the EUT to show the measurement system noise floor.

PROCEDURE FOR 0.96 TO 5 GHz

Measurements are made with the antenna feeding a spectrum analyzer via a preamplifier and cables, at a maximum distance of 0.5m from the EUT.

A low pass filter with a cut off frequency of 5 GHz is used to suppress the fundamental and perform measurement for 0.96 - 5 GHz.

Distance Correction Factor from 3m to 0.5m = $20 \cdot \log(0.5\text{m}/3\text{m}) = -15.56 \text{ dB}$

RESULTS FOR 5 GHz TO 9 GHz

The 5 - 9 GHz frequency band is covered in Section 9.3.

PROCEDURE FOR 9 GHz TO 18 GHz

Measurements are made with the antenna feeding a spectrum analyzer via a preamplifier and cables, at a maximum distance of 0.5m from the EUT.

A high pass filter with pass band frequency beyond 9 GHz is used to suppress the fundamental and perform measurement for 9 - 18 GHz.

Distance Correction Factor from 3m to 0.5m = $20 \cdot \log(0.5\text{m}/3\text{m}) = -15.56 \text{ dB}$

PROCEDURE FOR 1.164 TO 1.240 GHz

Measurements are made with the antenna feeding a spectrum analyzer via a preamplifier and cables, at a maximum distance of 0.5m from the EUT.

RBW = 120 kHz & VBW = 500 kHz were used at pre-scan.

A low pass filter with a cut off frequency of 5 GHz is used to suppress the fundamental and perform measurement for 1.164 – 1.240 GHz.

Distance Correction Factor from 3m to 0.5m = $20 \cdot \log(0.5\text{m}/3\text{m}) = -15.56 \text{ dB}$

PROCEDURE FOR 1.559 TO 1.610 GHz

Measurements are made with the antenna feeding a spectrum analyzer via a preamplifier and cables, at a maximum distance of 0.5m from the EUT.

RBW = 120 kHz & VBW = 500 kHz were used at pre-scan.

A low pass filter with a cut off frequency of 5 GHz is used to suppress the fundamental and perform measurement for 1.559 – 1.610 GHz.

Distance Correction Factor from 3m to 0.5m = $20 \cdot \log(0.5\text{m}/3\text{m}) = -15.56 \text{ dB}$

PROCEDURE FOR 18 GHz TO 40 GHz

Measurements are made with the antenna feeding a spectrum analyzer via a preamplifier and cables, at a maximum distance of 1m from the EUT.

A final test is made at any frequencies at which emissions are found. During this final scan, the antenna is kept no further from the EUT than the maximum distance calculated for each band that yields a minimum system noise floor.

Distance Correction Factor from 3m to 1m = $20 \cdot \log(1\text{m}/3\text{m}) = -9.54 \text{ dB}$

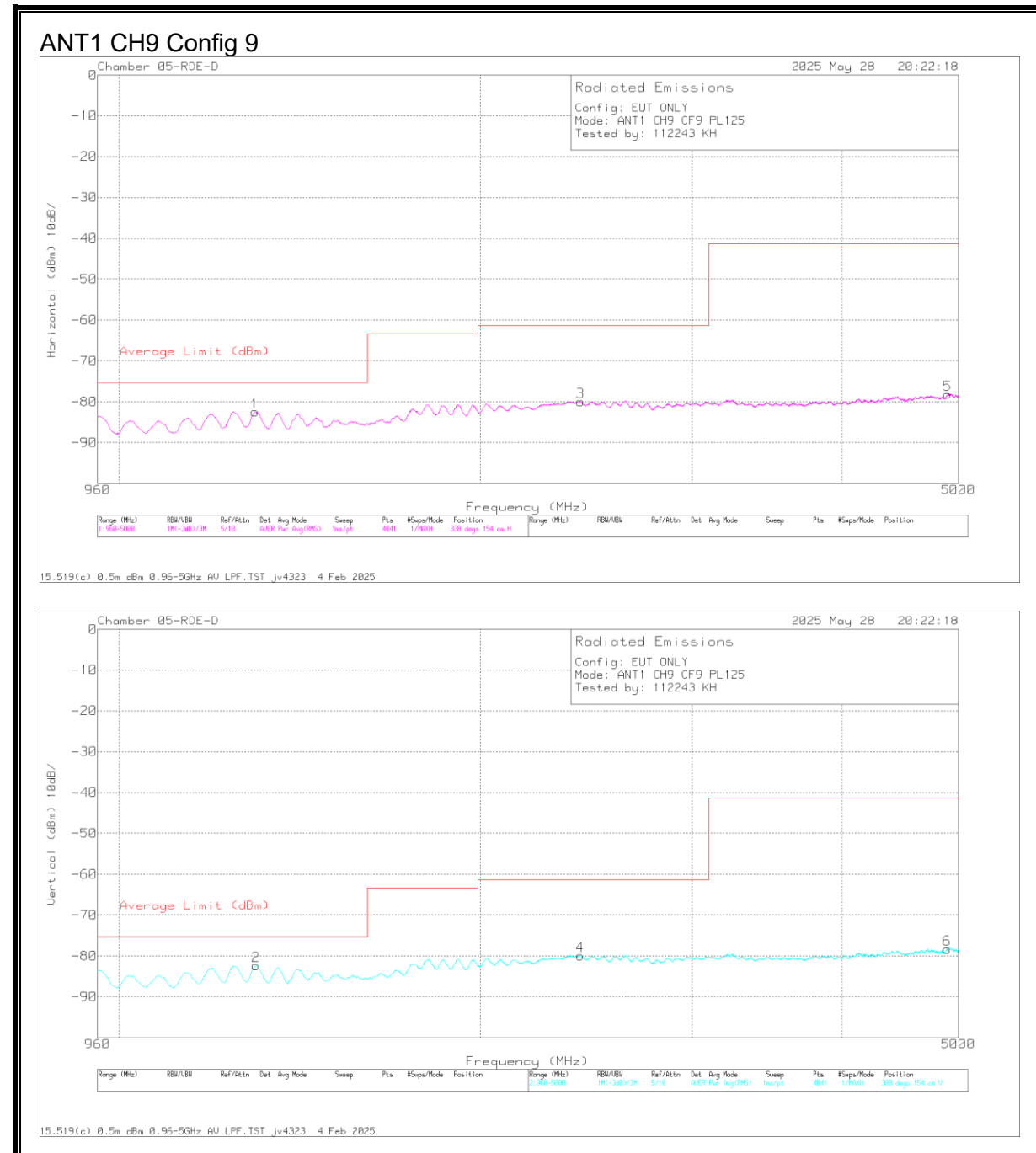
RESULTS**Average Emissions Summary**

Employee IDs: 32440, 112243

Location: Chamber 05-RDE-C, Chamber 05-RDE-D

Test Date: 5/22/2025 to 5/28/2025

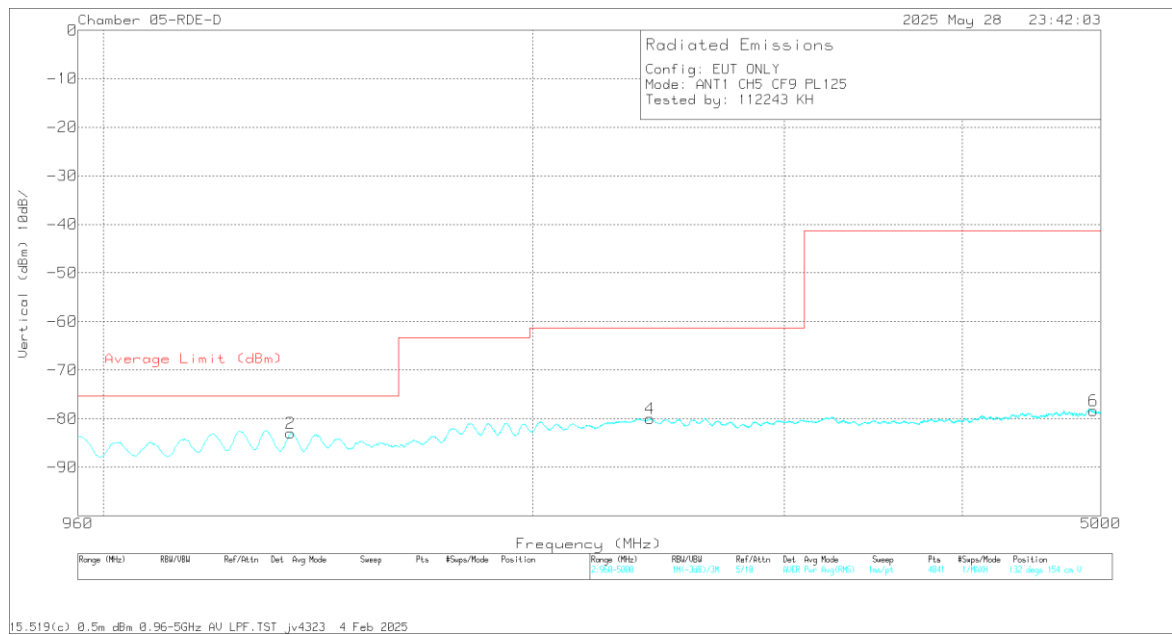
Ant	CH	Config	Payload	Power Setting	Frequency Ranges				
					1164 - 1240 MHz	1559 - 1610 MHz	0.96 - 18 GHz	18 - 26.5 GHz	26.5 - 40 GHz
1	9	9	125	Max	PASS	PASS	PASS	PASS	PASS
1	5	9	125	Max	PASS	PASS	PASS	PASS	PASS

9.6.1. AVERAGE EMISSIONS, 0.96 – 5 GHz**FCC15.519 (C)****Trace Markers**

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	81887 ACF (dBm)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	Average Limit (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1298	-57.84	RMS	29.7	-15.6	11.8	-50.55	-82.49	-75.3	-7.19	294	154	H
2	1301	-57.64	RMS	29.6	-15.6	11.8	-50.56	-82.4	-75.3	-7.1	0	154	V
4	2422	-59.33	RMS	33.5	-15.6	11.8	-50.38	-80.01	-61.3	-18.71	154	154	V
3	2424	-59.35	RMS	33.5	-15.6	11.8	-50.36	-80.01	-61.3	-18.71	316	154	H
6	4893	-61.24	RMS	34.6	-15.6	11.8	-47.88	-78.32	-41.3	-37.02	0	154	V
5	4898	-61.11	RMS	34.6	-15.6	11.8	-47.86	-78.17	-41.3	-36.87	184	154	H

RMS - RMS detection

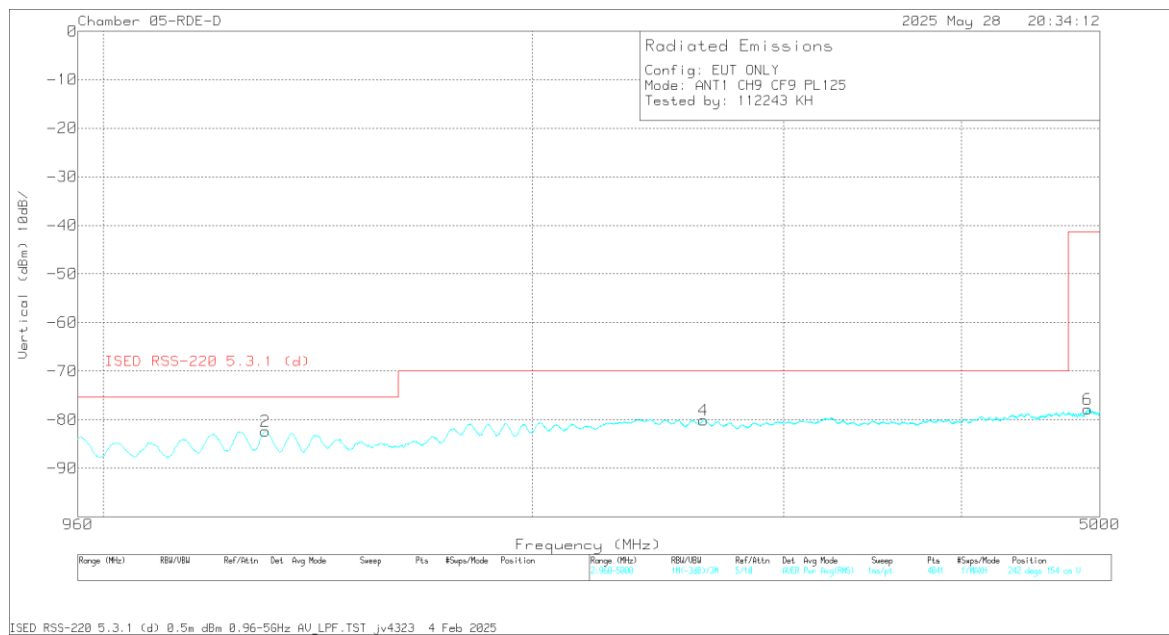
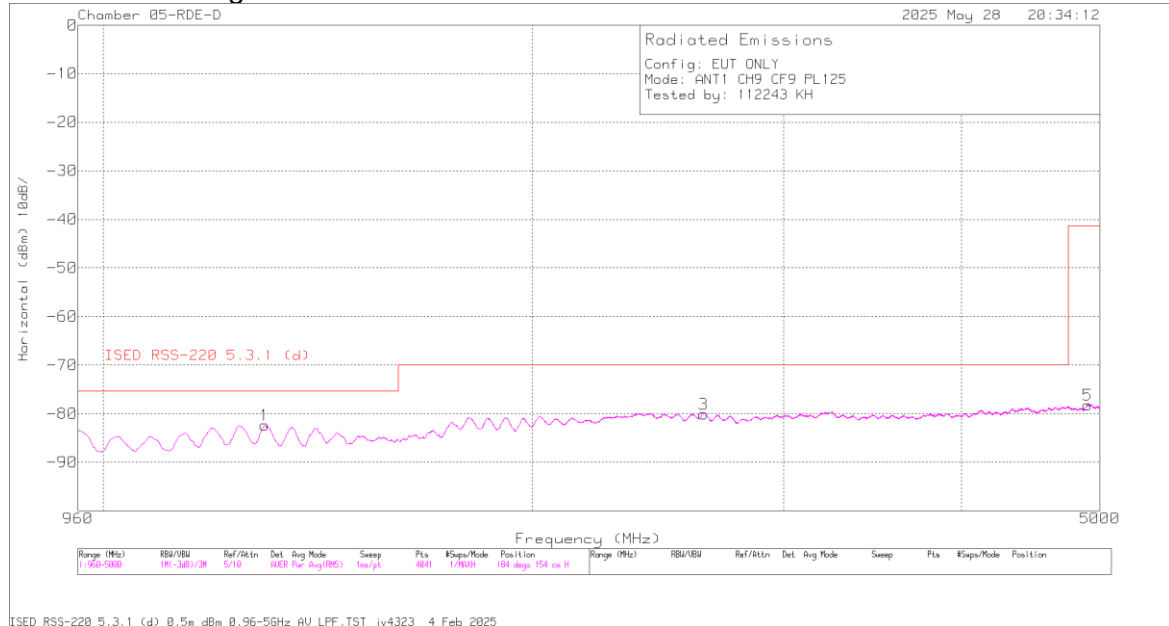
ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	81887 ACF (dBm)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	Average Limit (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	1353	-58.22	RMS	29.4	-15.6	11.8	-50.34	-82.96	-75.3	-7.66	308	154	V
1	1355	-58.23	RMS	29.4	-15.6	11.8	-50.35	-82.98	-75.3	-7.68	316	154	H
4	2416	-59.24	RMS	33.5	-15.6	11.8	-50.39	-79.93	-61.3	-18.63	88	154	V
3	2423	-59.36	RMS	33.5	-15.6	11.8	-50.41	-80.07	-61.3	-18.77	295	154	H
5	4936	-60.77	RMS	34.6	-15.6	11.8	-48.23	-78.2	-41.3	-36.9	250	154	H
6	4941	-60.7	RMS	34.5	-15.6	11.8	-48.32	-78.32	-41.3	-37.02	242	154	V

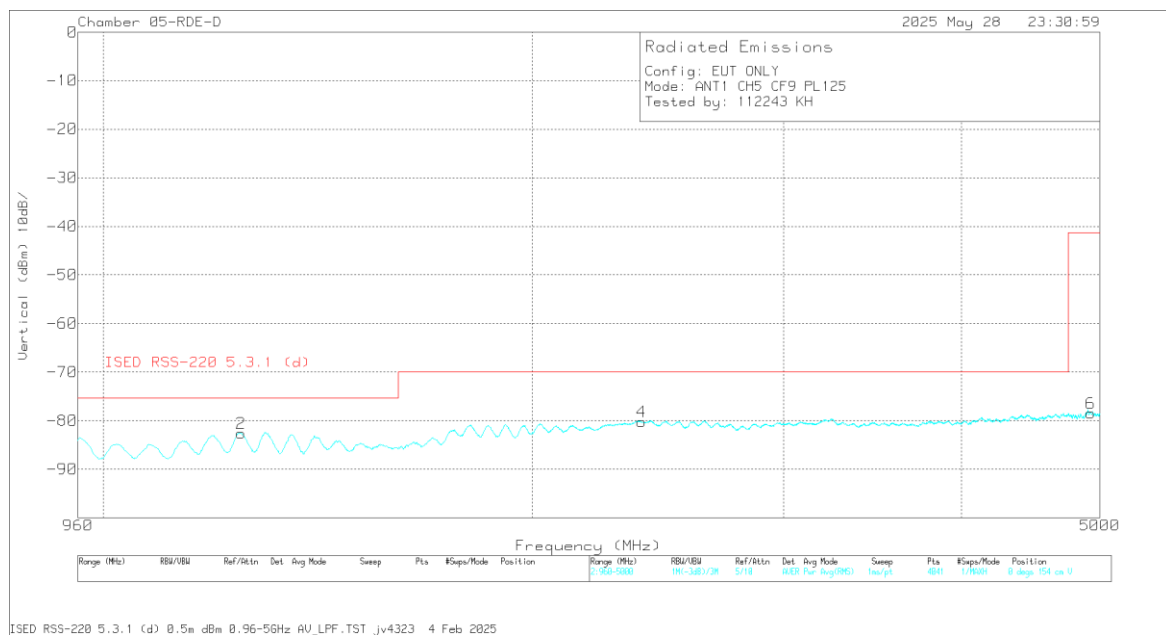
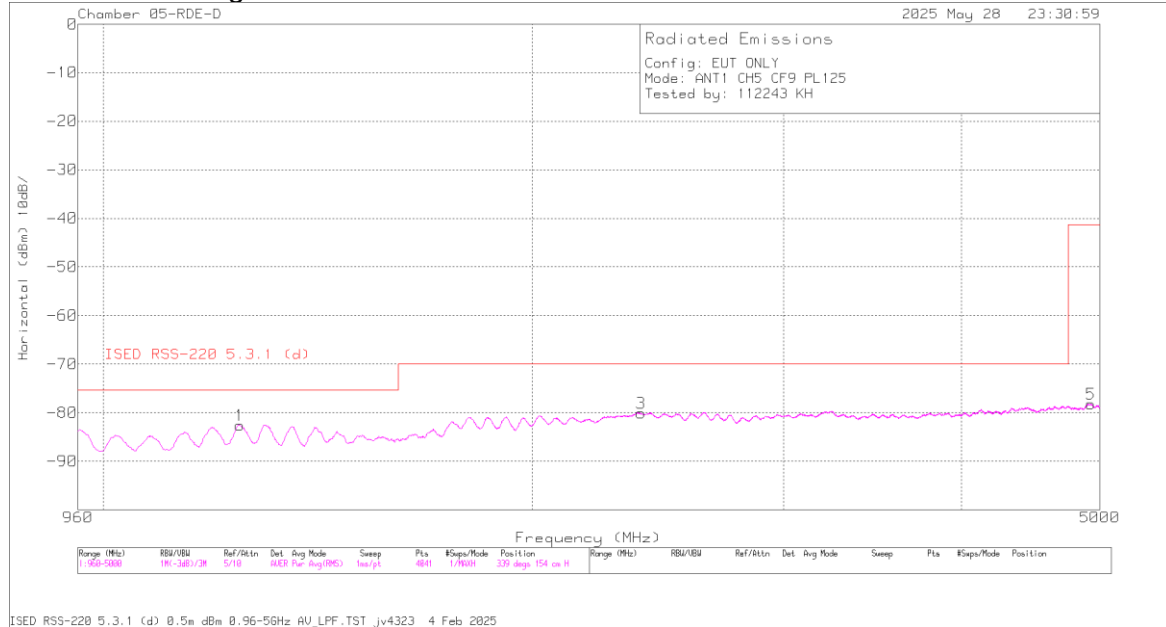
RMS - RMS detection

RSS-220 5.3.1 (d)**ANT1 CH9 Config 9****Trace Markers**

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	81887 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	ISED RSS-220 5.3.1 (d)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1298	-57.68	RMS	29.7	-15.6	11.8	-50.55	-82.33	-75.3	-7.03	97	154	H
2	1299	-57.73	RMS	29.7	-15.6	11.8	-50.56	-82.39	-75.3	-7.09	66	154	V
3	2636	-59.66	RMS	33.3	-15.6	11.8	-49.94	-80.1	-70	-10.1	184	154	H
4	2636	-59.64	RMS	33.3	-15.6	11.8	-49.94	-80.08	-70	-10.08	1	154	V
5	4903	-61.1	RMS	34.6	-15.6	11.8	-47.89	-78.19	-41.3	-36.89	273	154	H
6	4903	-60.75	RMS	34.6	-15.6	11.8	-47.89	-77.84	-41.3	-36.54	286	154	V

RMS - RMS detection

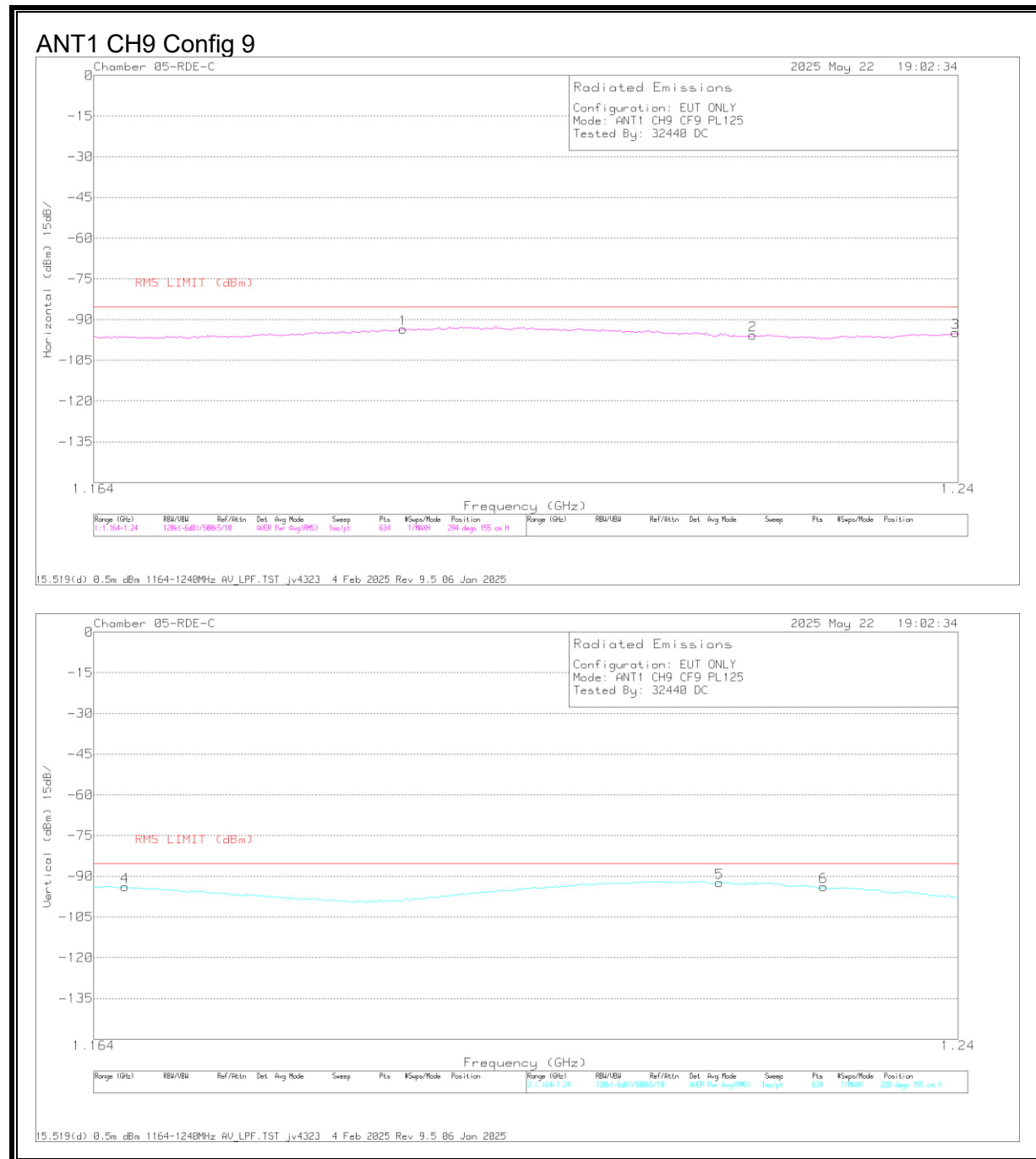
ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	81887 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	ISED RSS-220 5.3.1 (d)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1247	-57.62	RMS	29.5	-15.6	11.8	-50.65	-82.57	-75.3	-7.27	317	154	H
2	1249	-57.59	RMS	29.5	-15.6	11.8	-50.68	-82.57	-75.3	-7.27	264	154	V
3	2384	-59.24	RMS	33.5	-15.6	11.8	-50.6	-80.14	-70	-10.14	75	154	H
4	2385	-59.36	RMS	33.5	-15.6	11.8	-50.56	-80.22	-70	-10.22	264	154	V
6	4928	-60.97	RMS	34.6	-15.6	11.8	-48.26	-78.43	-41.3	-37.13	22	154	V
5	4929	-60.72	RMS	34.6	-15.6	11.8	-48.26	-78.18	-41.3	-36.88	140	154	H

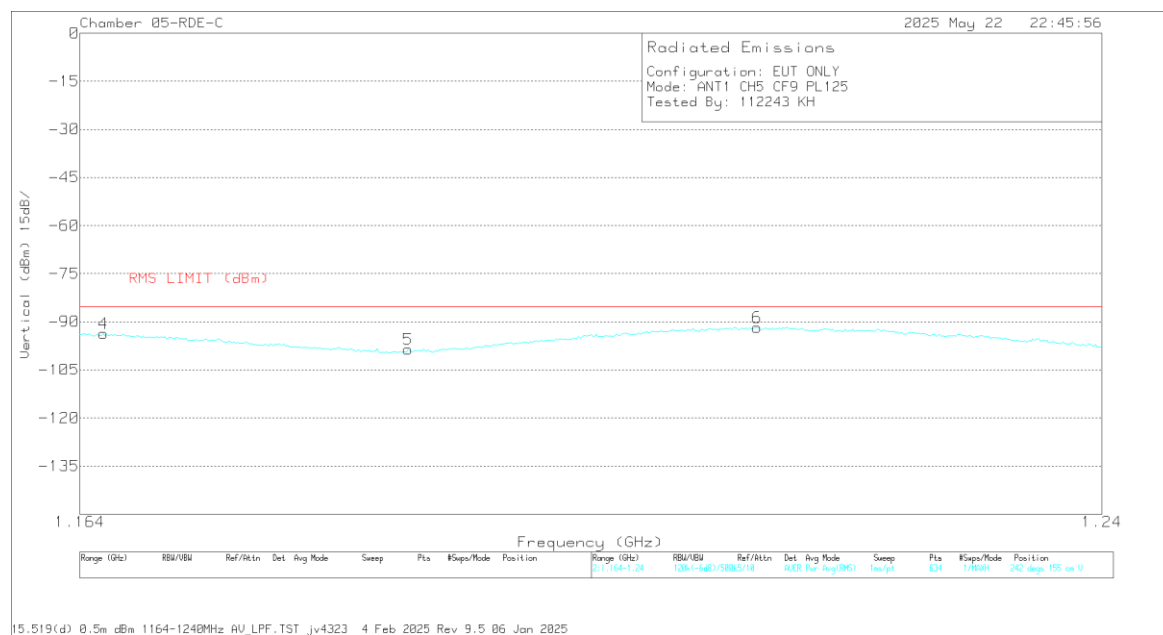
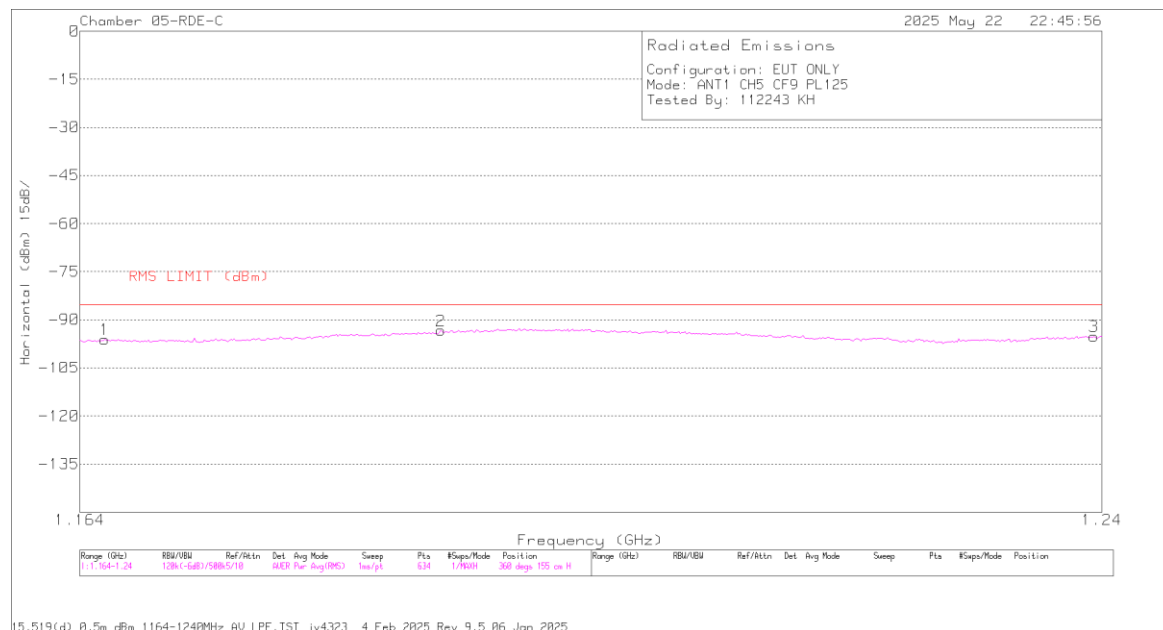
RMS - RMS detection

9.6.2. AVERAGE EMISSIONS, 1.164 – 1.240 GHz**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	RMS LIMIT (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.166641	-68.57	RMS	28.5	-15.6	11.8	-50	-93.87	-85.3	-8.57	242	155	V
1	1.190654	-68.34	RMS	28.8	-15.6	11.8	-50.17	-93.51	-85.3	-8.21	272	155	H
5	1.218509	-67.49	RMS	29	-15.6	11.8	-50.09	-92.38	-85.3	-7.08	110	155	V
2	1.22151	-71.03	RMS	29.1	-15.6	11.8	-50.05	-95.78	-85.3	-10.48	118	155	H
6	1.227874	-68.82	RMS	29.1	-15.6	11.8	-50.36	-93.88	-85.3	-8.58	176	155	V
3	1.23976	-69.98	RMS	29.3	-15.6	11.8	-50.3	-94.78	-85.3	-9.48	294	155	H

RMS - RMS detection

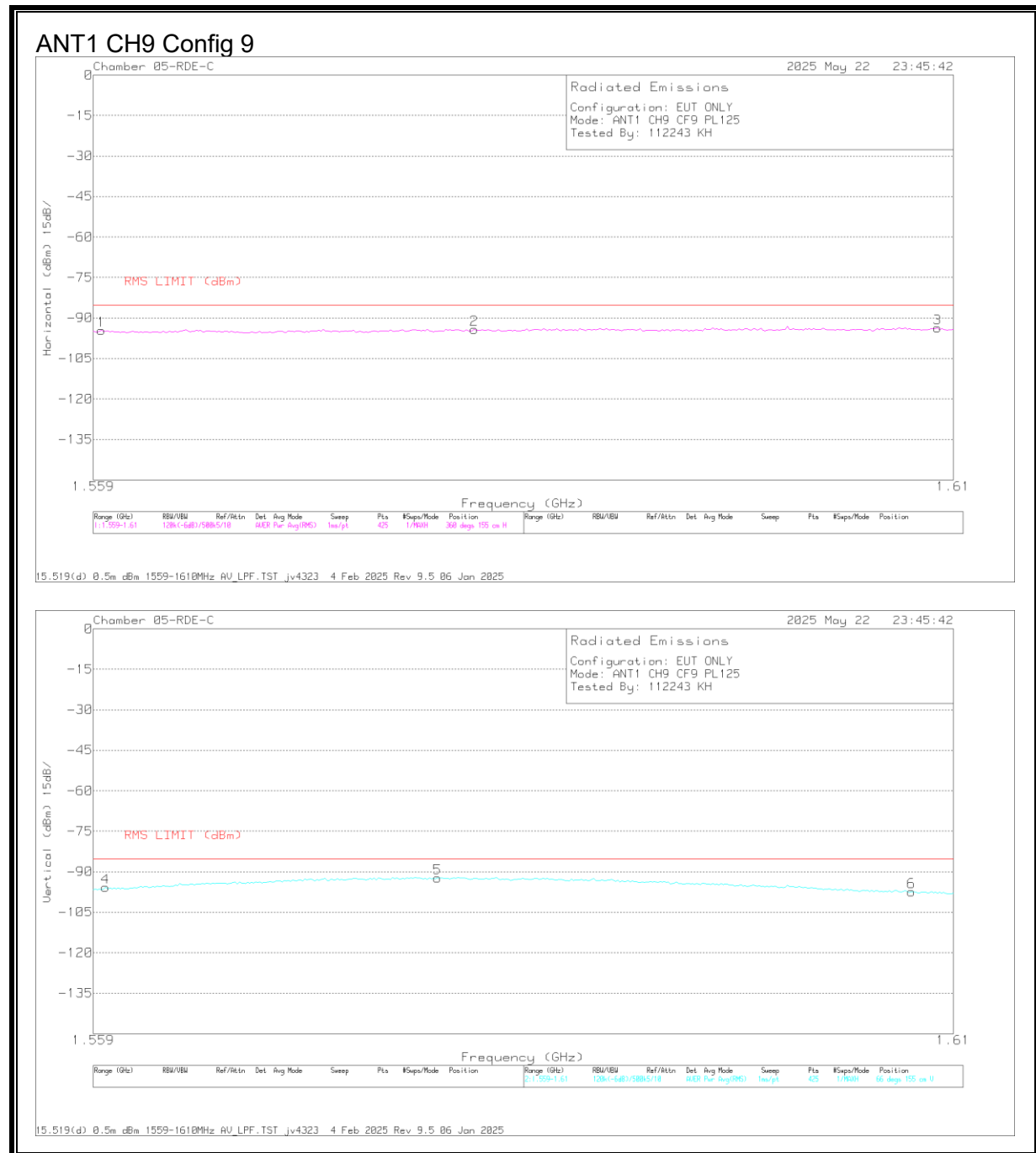
ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dBm)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	RMS LIMIT (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.165681	-68.32	RMS	28.5	-15.6	11.8	-50.06	-93.68	-85.3	-8.38	198	155	V
1	1.165801	-70.78	RMS	28.5	-15.6	11.8	-50.04	-96.12	-85.3	-10.82	162	155	H
5	1.187893	-73.28	RMS	28.7	-15.6	11.8	-50.11	-98.49	-85.3	-13.19	132	155	V
2	1.190294	-68.13	RMS	28.8	-15.6	11.8	-50.24	-93.37	-85.3	-8.07	118	155	H
6	1.213826	-66.82	RMS	29	-15.6	11.8	-50.07	-91.69	-85.3	-6.39	66	155	V
3	1.2394	-70.37	RMS	29.2	-15.6	11.8	-50.16	-95.13	-85.3	-9.83	96	155	H

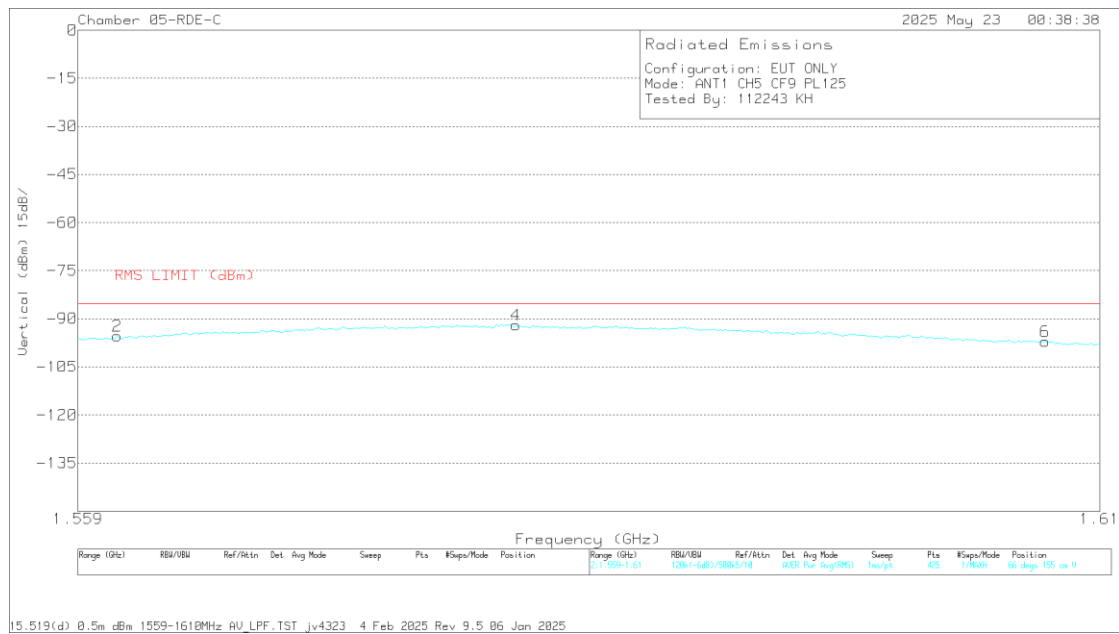
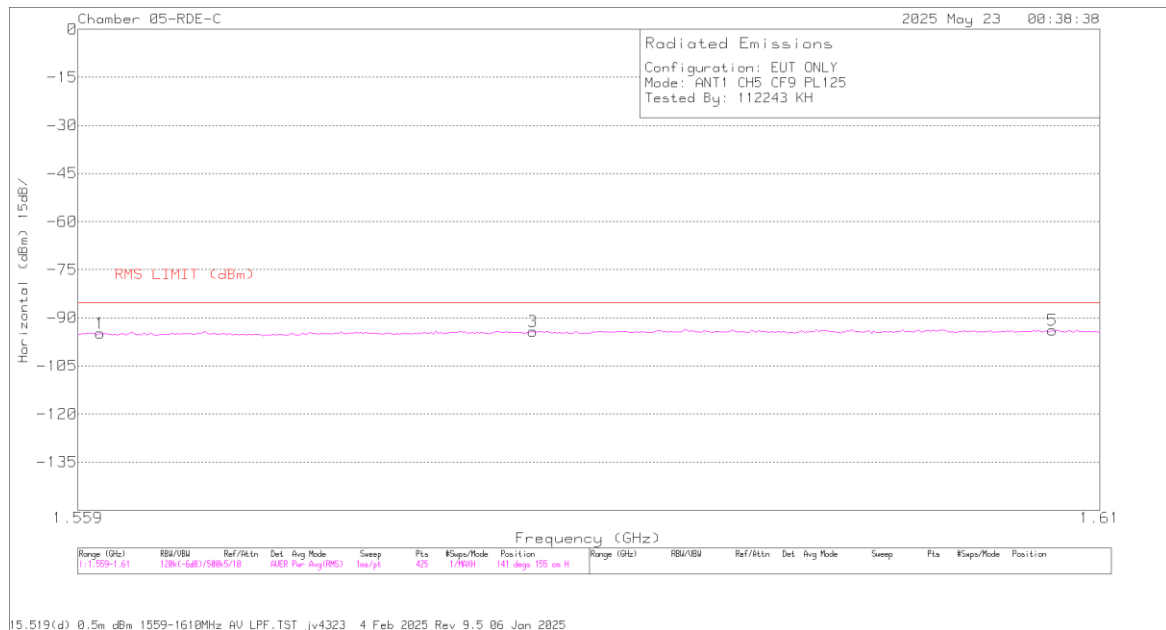
RMS - RMS detection

9.6.3. AVERAGE EMISSIONS, 1.559 – 1.610 GHz**Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	RMS LIMIT (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.559481	-69.77	RMS	28.7	-15.6	11.8	-49.7	-94.57	-85.3	-9.27	228	155	H
4	1.559722	-71.05	RMS	28.7	-15.6	11.8	-49.66	-95.81	-85.3	-10.51	132	155	V
5	1.579208	-67.19	RMS	28.8	-15.6	11.8	-50.06	-92.25	-85.3	-6.95	132	155	V
2	1.581373	-69.16	RMS	28.8	-15.6	11.8	-50.03	-94.19	-85.3	-8.89	75	155	H
6	1.607474	-72.76	RMS	28.9	-15.6	11.8	-49.79	-97.45	-85.3	-12.15	264	155	V
3	1.609038	-69.12	RMS	29	-15.6	11.8	-49.82	-93.74	-85.3	-8.44	140	155	H

RMS - RMS detection

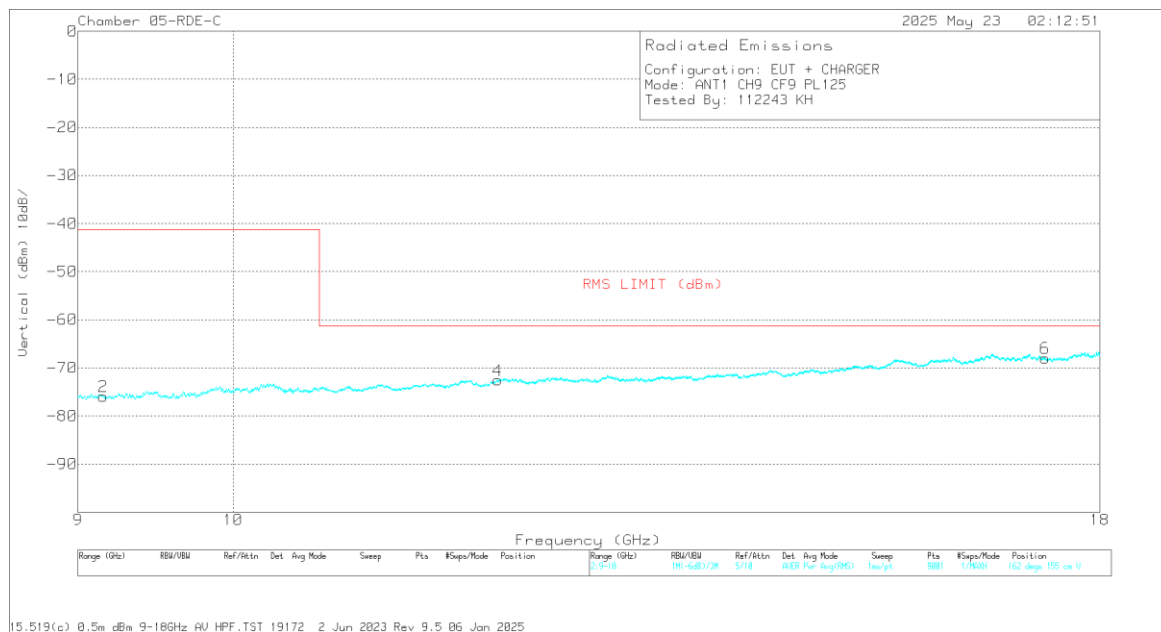
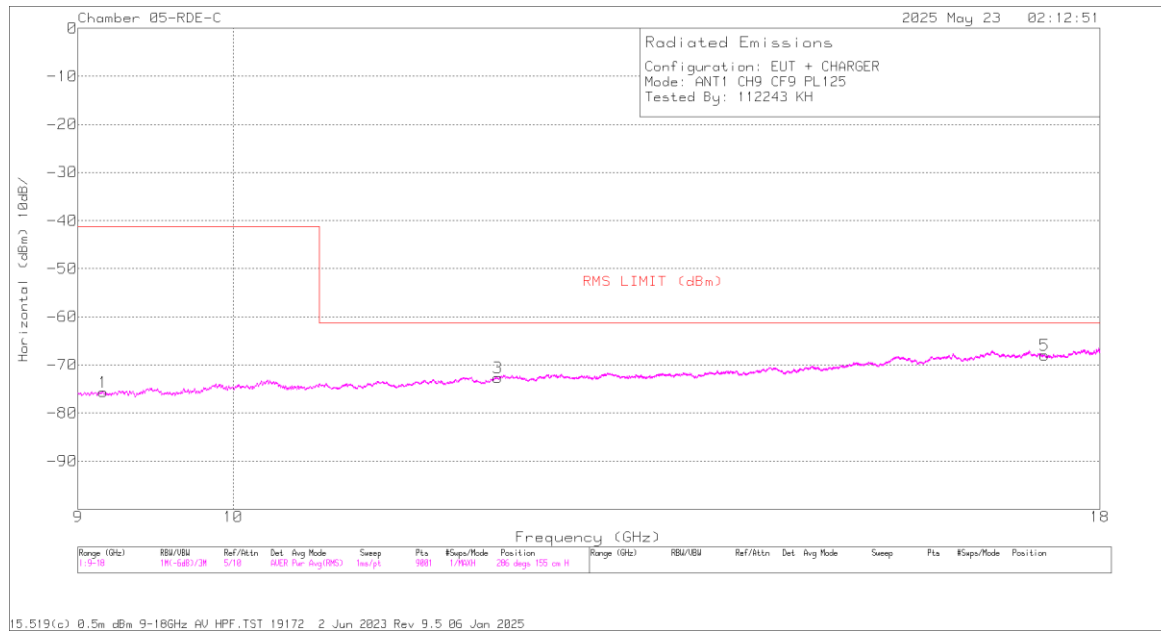
ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	RMS LIMIT (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.560083	-70.06	RMS	28.7	-15.6	11.8	-49.63	-94.79	-85.3	-9.49	250	155	H
2	1.560925	-70.3	RMS	28.7	-15.6	11.8	-49.97	-95.37	-85.3	-10.07	264	155	V
4	1.580651	-66.86	RMS	28.8	-15.6	11.8	-50.03	-91.89	-85.3	-6.59	286	155	V
3	1.581493	-69.25	RMS	28.8	-15.6	11.8	-50	-94.25	-85.3	-8.95	162	155	H
6	1.607233	-72.4	RMS	28.9	-15.6	11.8	-49.75	-97.05	-85.3	-11.75	286	155	V
5	1.607594	-69.15	RMS	28.9	-15.6	11.8	-49.82	-93.87	-85.3	-8.57	250	155	H

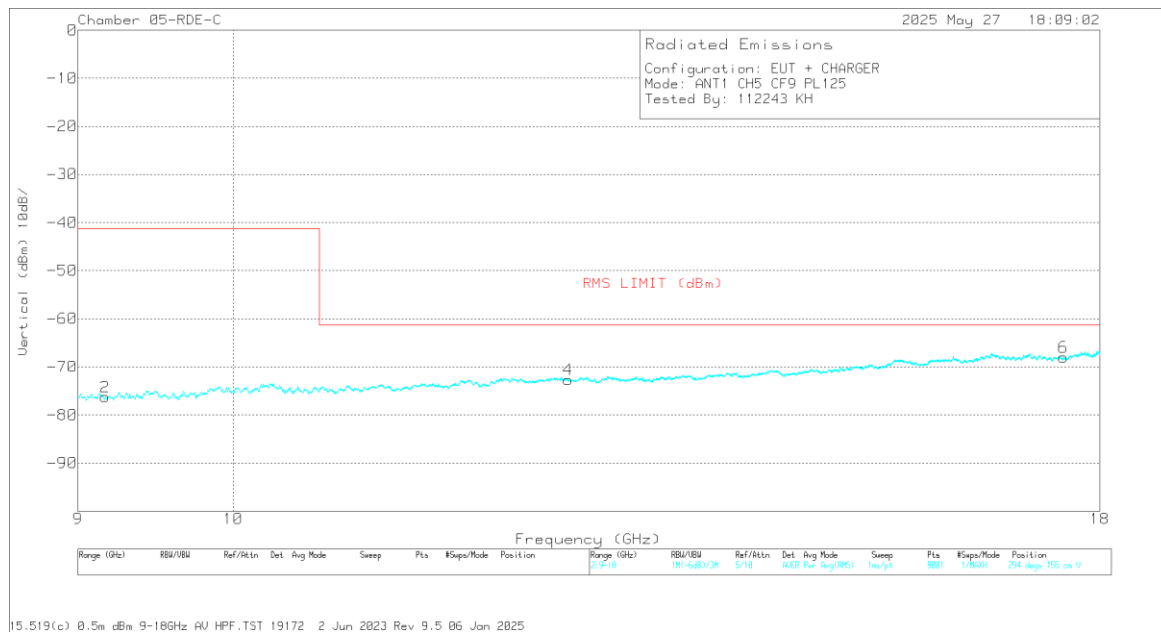
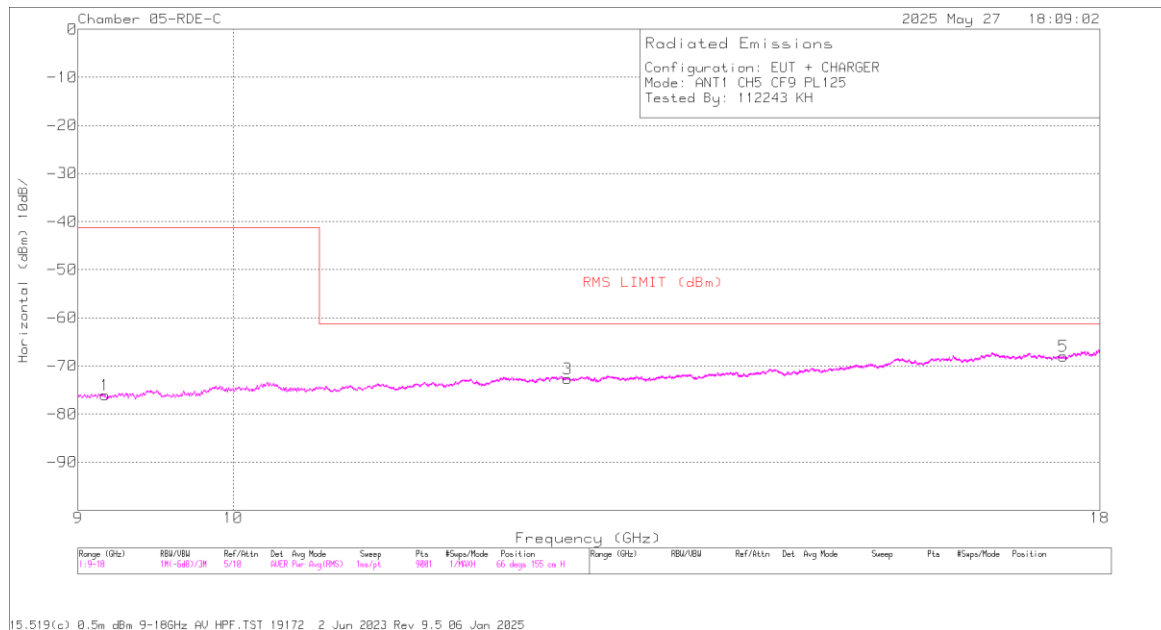
RMS - RMS detection

9.6.4. AVERAGE EMISSIONS, 9 – 18 GHz**ANT1 CH9 Config 9****Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	RMS LIMIT (dBm)	Margin (dB)	Azimuth (Dega)	Height (cm)	Polarity
2	9.155	-64.5	RMS	36.4	-15.6	11.8	-43.98	-75.88	-41.3	-34.58	206	155	V
1	9.156	-64.18	RMS	36.4	-15.6	11.8	-44.04	-75.62	-41.3	-34.32	22	155	H
4	11.963	-63.88	RMS	38.8	-15.6	11.8	-43.71	-72.59	-61.3	-11.29	74	155	V
3	11.964	-63.85	RMS	38.8	-15.6	11.8	-43.78	-72.63	-61.3	-11.33	154	155	H
5	17.34	-62.73	RMS	41	-15.6	11.8	-42.48	-68.01	-61.3	-6.71	286	155	H
6	17.345	-62.71	RMS	41	-15.6	11.8	-42.44	-67.95	-61.3	-6.65	250	155	V

RMS - RMS detection

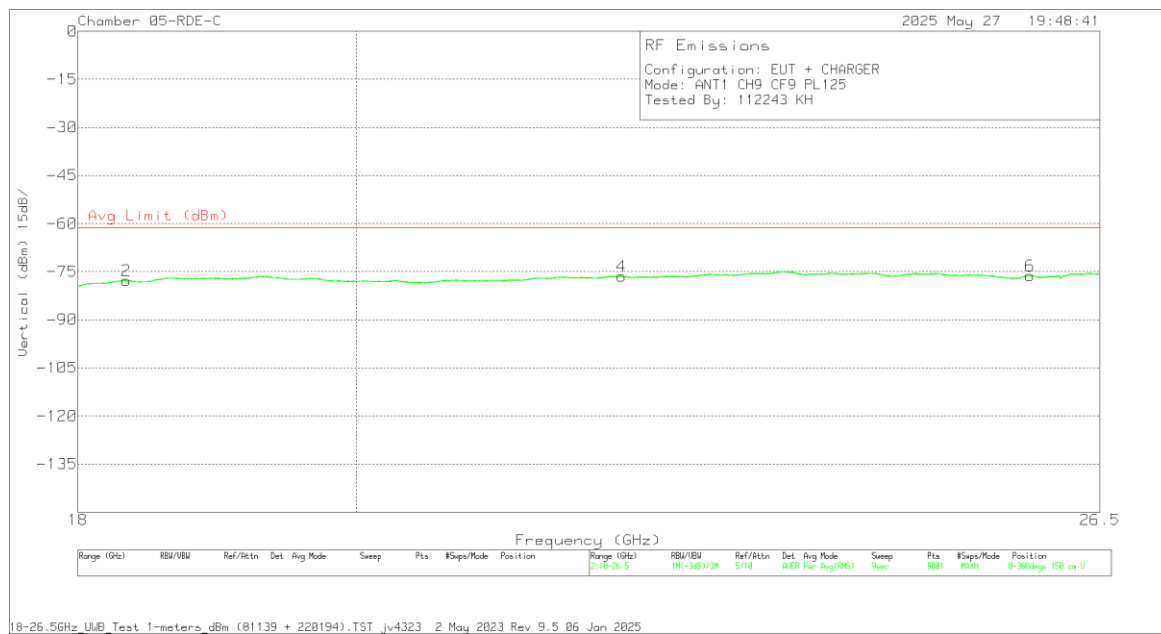
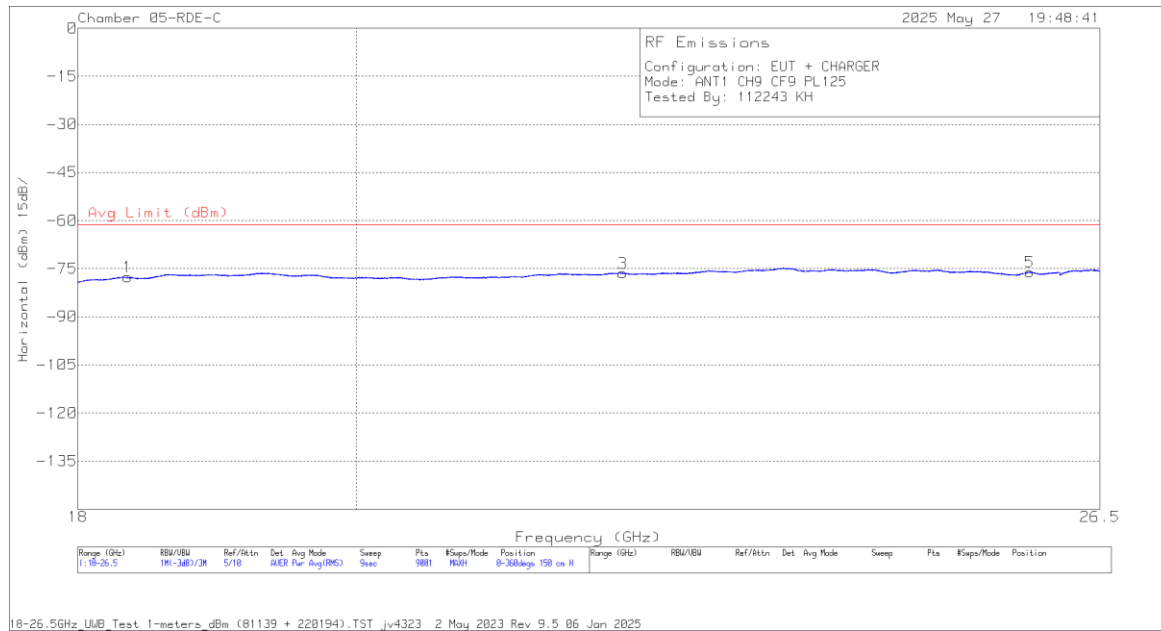
ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	230300 ACF (dB/m)	Dist. Corr. (dB)	Conversion Factor (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	RMS LIMIT (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	9.169	-64.63	RMS	36.4	-15.6	11.8	-44.01	-76.04	-41.3	-34.74	66	155	H
2	9.169	-64.83	RMS	36.4	-15.6	11.8	-44.01	-76.24	-41.3	-34.94	96	155	V
3	12.546	-63.88	RMS	39	-15.6	11.8	-43.92	-72.6	-61.3	-11.3	286	155	H
4	12.551	-63.92	RMS	39	-15.6	11.8	-43.93	-72.65	-61.3	-11.35	338	155	V
6	17.56	-63.65	RMS	41	-15.6	11.8	-41.37	-68.02	-61.3	-6.72	228	155	V
5	17.561	-63.74	RMS	41	-15.6	11.8	-41.39	-67.93	-61.3	-6.63	66	155	H

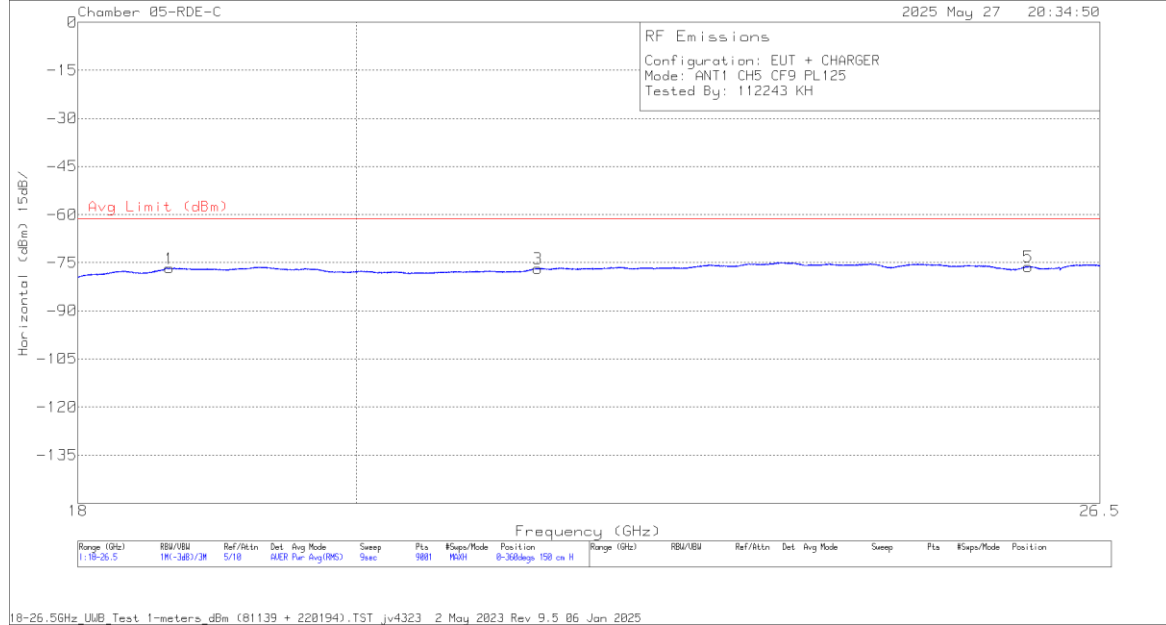
RMS - RMS detection

9.6.5. AVERAGE EMISSIONS, 18 – 26.5 GHz**ANT1 CH9 Config 9****Trace Markers**

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81139 ACF (dBm)	CBL/AMP (dB)	CBL AMP (dB)	Dist Corr (dB)	Conv. Fact. (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
2	18.333389	-63.81	RMS	32.7	-62.3	13.4	-9.5	11.8	-77.71	-61.3	-16.41	0-360	150	V
1	18.340944	-63.69	RMS	32.7	-62.3	13.4	-9.5	11.8	-77.59	-61.3	-16.29	0-360	150	H
4	22.113054	-64.87	RMS	34	-62.5	14.7	-9.5	11.8	-76.37	-61.3	-15.07	0-360	150	V
3	22.122498	-64.85	RMS	34	-62.5	14.7	-9.5	11.8	-76.35	-61.3	-15.05	0-360	150	H
5	25.80583	-66.54	RMS	34.9	-62.8	16.1	-9.5	11.8	-76.04	-61.3	-14.74	0-360	150	H
6	25.806774	-66.7	RMS	34.9	-62.8	16.1	-9.5	11.8	-76.2	-61.3	-14.9	0-360	150	V

RMS - RMS detection

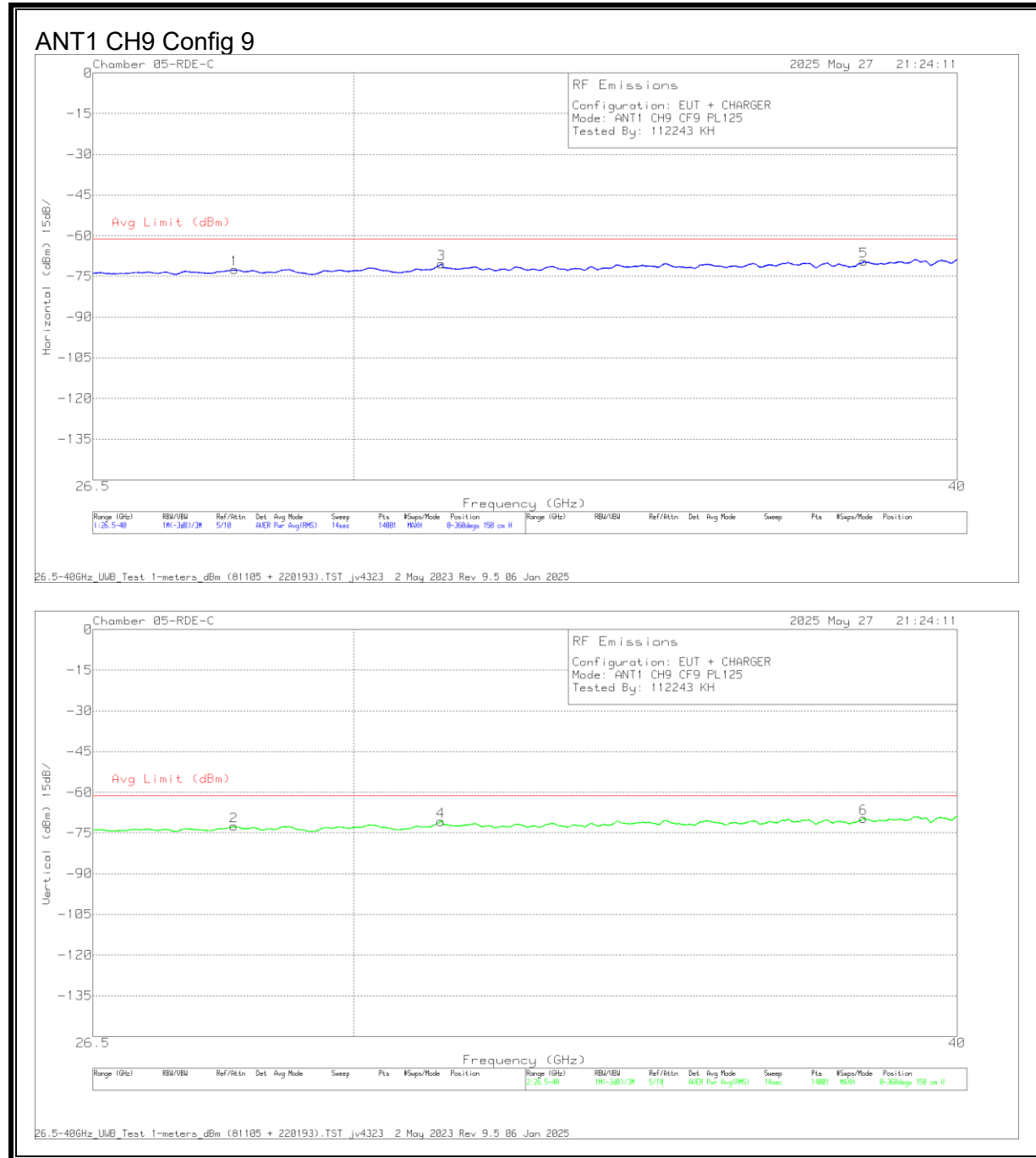
ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81139 ACF (dBm)	CBLAMP (dB)	CBL AMP (dB)	Dist Corr (dB)	Conv. Fact. (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Altitude (feet)	Height (cm)	Polarity
1	18.632777	-63.32	RMS	32.9	-62.2	13.6	-9.5	11.8	-76.72	-61.3	-15.42	0-360	150	H
2	18.634666	-63.43	RMS	32.9	-62.2	13.6	-9.5	11.8	-76.83	-61.3	-15.53	0-360	150	V
3	21.422865	-65.08	RMS	33.9	-62.3	14.3	-9.5	11.8	-76.88	-61.3	-15.58	0-360	150	H
4	21.425026	-64.97	RMS	33.9	-62.4	14.3	-9.5	11.8	-76.87	-61.3	-15.57	0-360	150	V
6	25.789774	-66.8	RMS	34.9	-62.8	16.1	-9.5	11.8	-76.3	-61.3	-15	0-360	150	V
5	25.793552	-66.75	RMS	34.9	-62.8	16.1	-9.5	11.8	-76.25	-61.3	-14.95	0-360	150	H

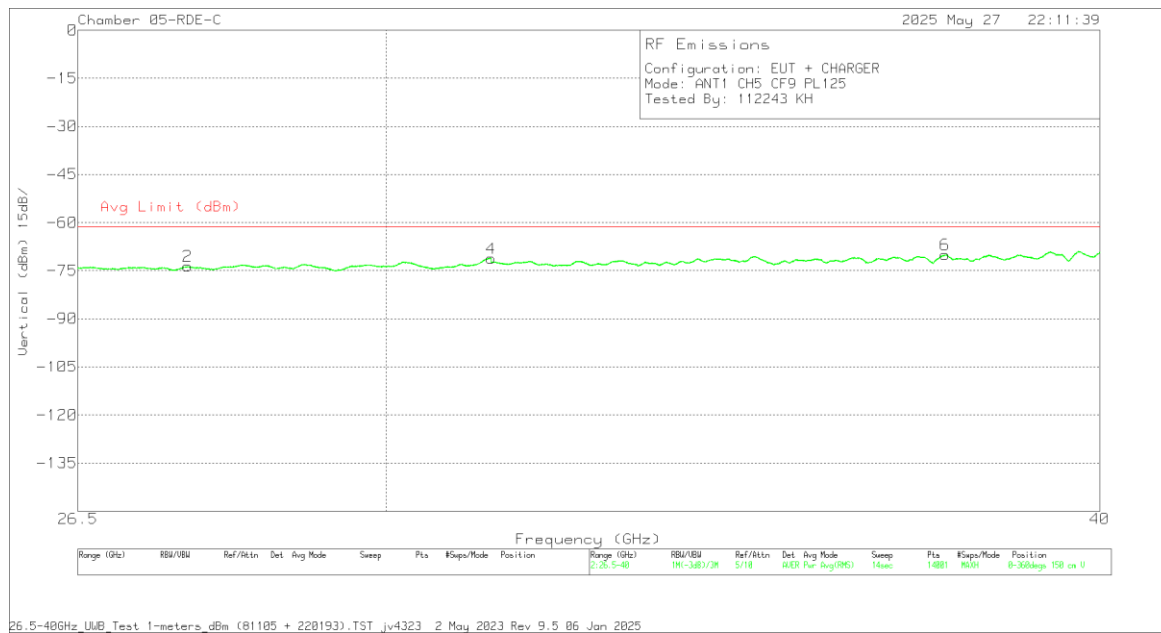
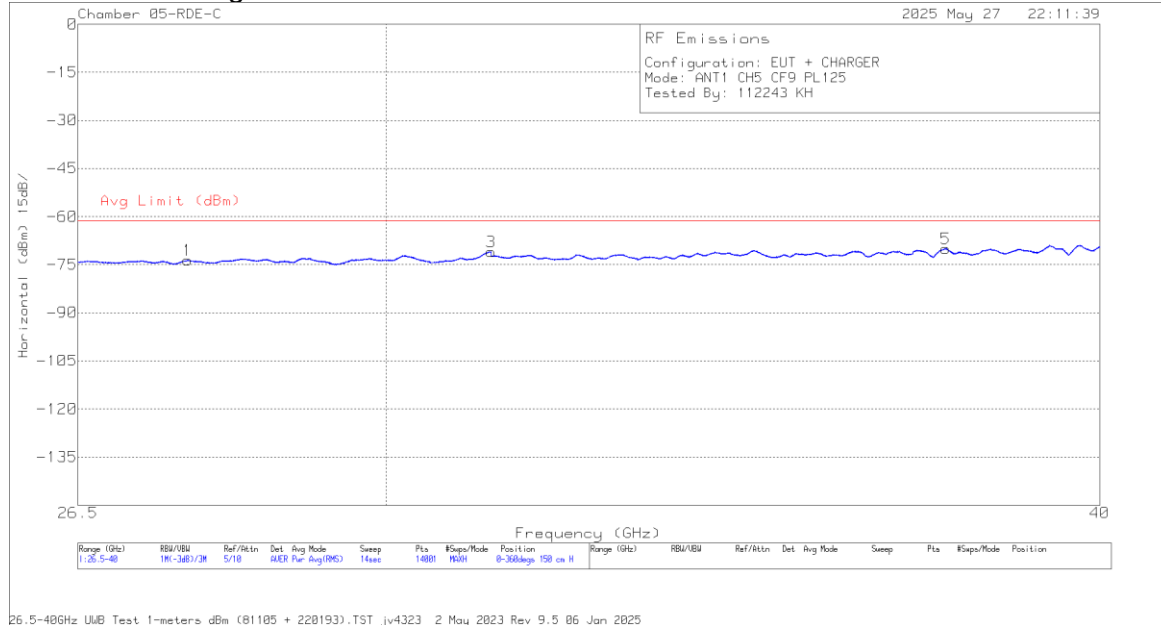
RMS - RMS detection

9.6.6. AVERAGE EMISSIONS, 26.5 – 40 GHz**Trace Markers**

Marker	Frequency (GHz)	Marker Reading (dBm)	Det	81105 ACF (dBm)	CBL/AMP (dB)	Dist Corr (dB)	Conversion Factor (dB)	CBL AMP (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
2	28.339858	-64.25	RMS	36.8	-64.5	-9.5	11.8	17.1	-72.55	-61.3	-11.25	0-360	150	V
1	28.347572	-64.2	RMS	36.8	-64.5	-9.5	11.8	17.1	-72.5	-61.3	-11.2	0-360	150	H
4	31.277073	-66.7	RMS	37.3	-61.7	-9.5	11.8	18.1	-70.7	-61.3	-9.4	0-360	150	V
3	31.286716	-66.44	RMS	37.3	-61.7	-9.5	11.8	18.1	-70.44	-61.3	-9.14	0-360	150	H
6	38.253682	-62.48	RMS	38.6	-68.3	-9.5	11.8	20.3	-69.58	-61.3	-8.28	0-360	150	V
5	38.257539	-62.39	RMS	38.6	-68.3	-9.5	11.8	20.3	-69.49	-61.3	-8.19	0-360	150	H

RMS - RMS detection

ANT1 CH5 Config 9



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	81105 ACF (dBm)	CBL AMP (dB)	Dist Corr (dB)	Conversion Factor (dB)	CBL AMP (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Altitude (feet)	Height (cm)	Polarity
1	27.696979	-63.62	RMS	36.1	-65.5	-9.5	11.8	17	-73.62	-61.3	-12.32	0-360	150	H
2	27.700536	-63.53	RMS	36.1	-65.5	-9.5	11.8	17	-73.63	-61.3	-12.33	0-360	150	V
3	31.298287	-66.98	RMS	37.3	-61.7	-9.5	11.8	18.1	-70.98	-61.3	-9.68	0-360	150	H
4	31.298287	-67.22	RMS	37.3	-61.7	-9.5	11.8	18.1	-71.22	-61.3	-9.92	0-360	150	V
6	37.578682	-66.37	RMS	38.7	-65.3	-9.5	11.8	20.6	-70.07	-61.3	-8.77	0-360	150	V
5	37.590253	-66.3	RMS	38.7	-65.3	-9.5	11.8	20.6	-70	-61.3	-8.7	0-360	150	H

RMS - RMS detection

9.7. AC POWER-LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a) & RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 [*]	56 to 46 [*]
0.5-5	56	46
5-30	60	50

^{*} Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.10 Section 6.2

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

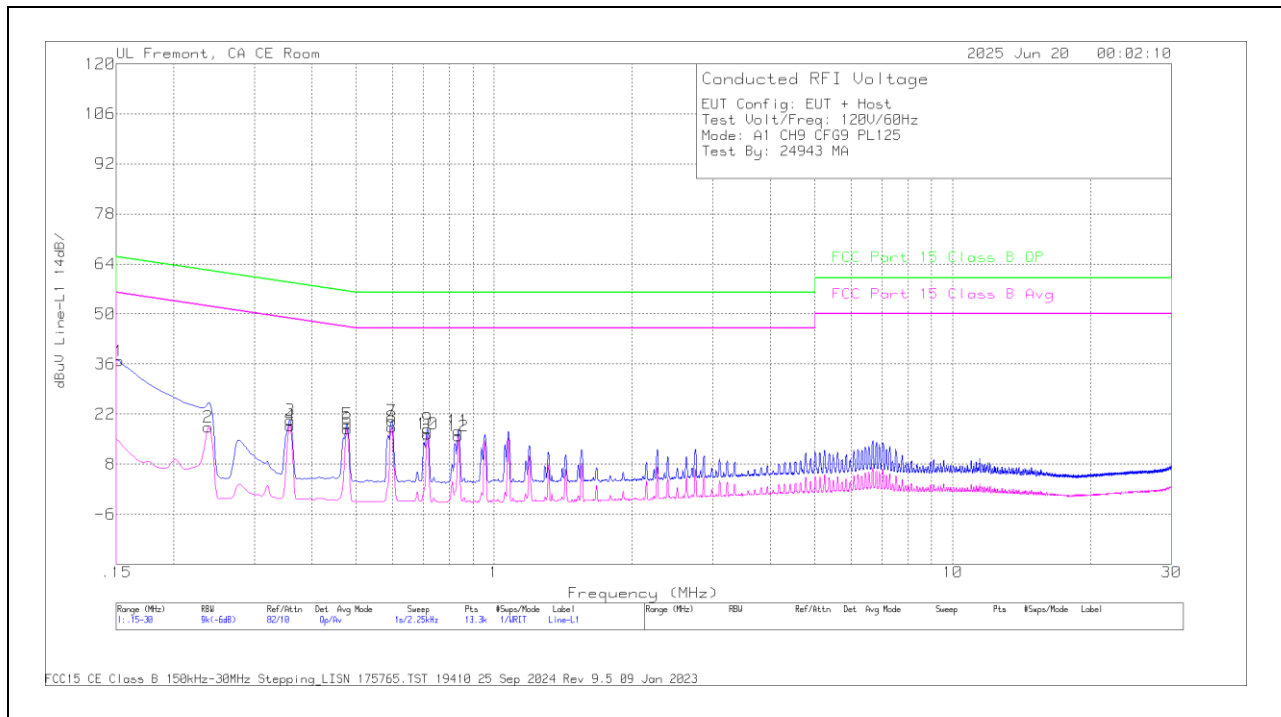
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

Employee IDs: 24943

Location: 04-IMM-A

Test Date: 6/19/25 to 6/20/25

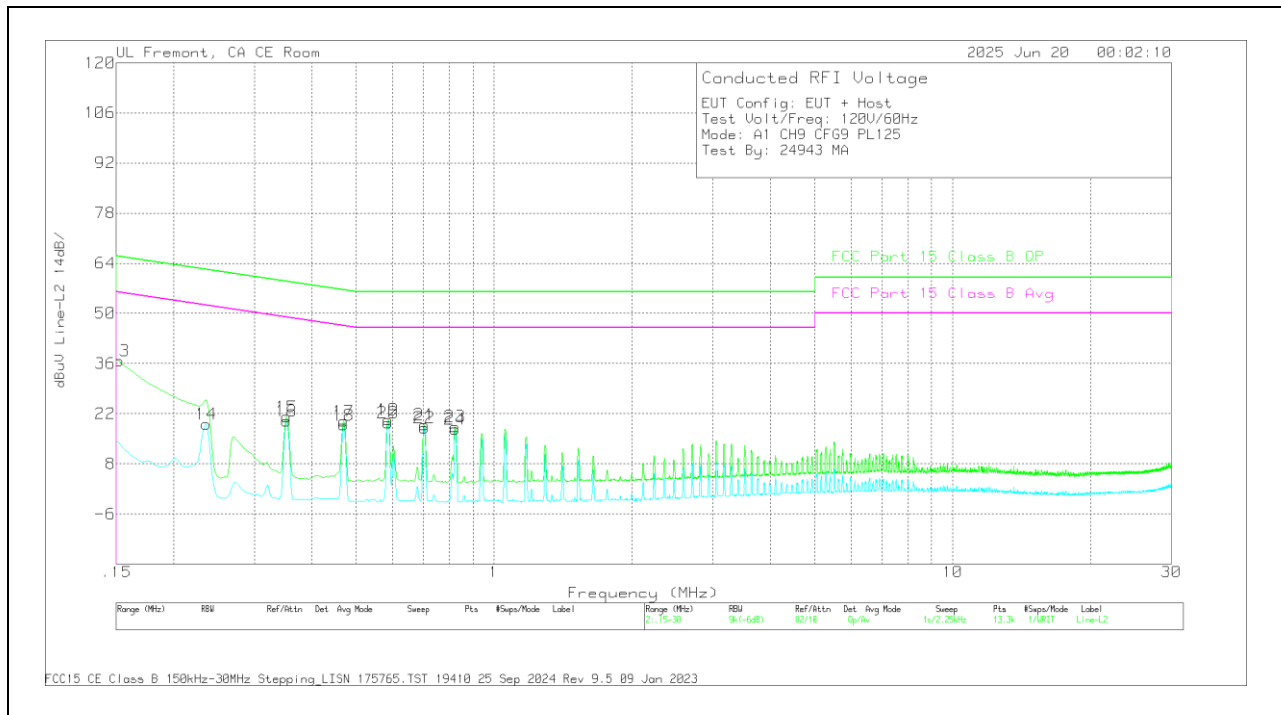
9.7.1. AC Power Line With Laptop**LINE 1 RESULTS****Trace Markers****Range 1: Line-L1 .15 - 30MHz**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Lim iter no Pad_UL (dB)	Corrected Reading dBuV	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av Margin (dB)
2	.2378	8.93	Av	0	9.4	18.33	-	-	52.17	-33.84
4	.3593	9.3	Av	0	9.4	18.7	-	-	48.75	-30.05
6	.4785	8.52	Av	0	9.3	17.82	-	-	46.37	-28.55
8	.5978	9.12	Av	0	9.3	18.42	-	-	46	-27.58
10	.717	7.18	Av	0	9.3	16.48	-	-	46	-29.52
12	.8363	6.44	Av	0	9.4	15.84	-	-	46	-30.16
1	.1523	27.36	Qp	.1	9.4	36.86	65.88	-29.02	-	-
3	.3593	10.85	Qp	0	9.4	20.25	58.75	-38.5	-	-
5	.4785	9.93	Qp	0	9.3	19.23	56.37	-37.14	-	-
7	.5978	10.77	Qp	0	9.3	20.07	56	-35.93	-	-
9	.717	8.5	Qp	0	9.3	17.8	56	-38.2	-	-
11	.8363	7.89	Qp	0	9.4	17.29	56	-38.71	-	-

Qp - Quasi-Peak detector

Av - Average detection

LINE 2 RESULTS



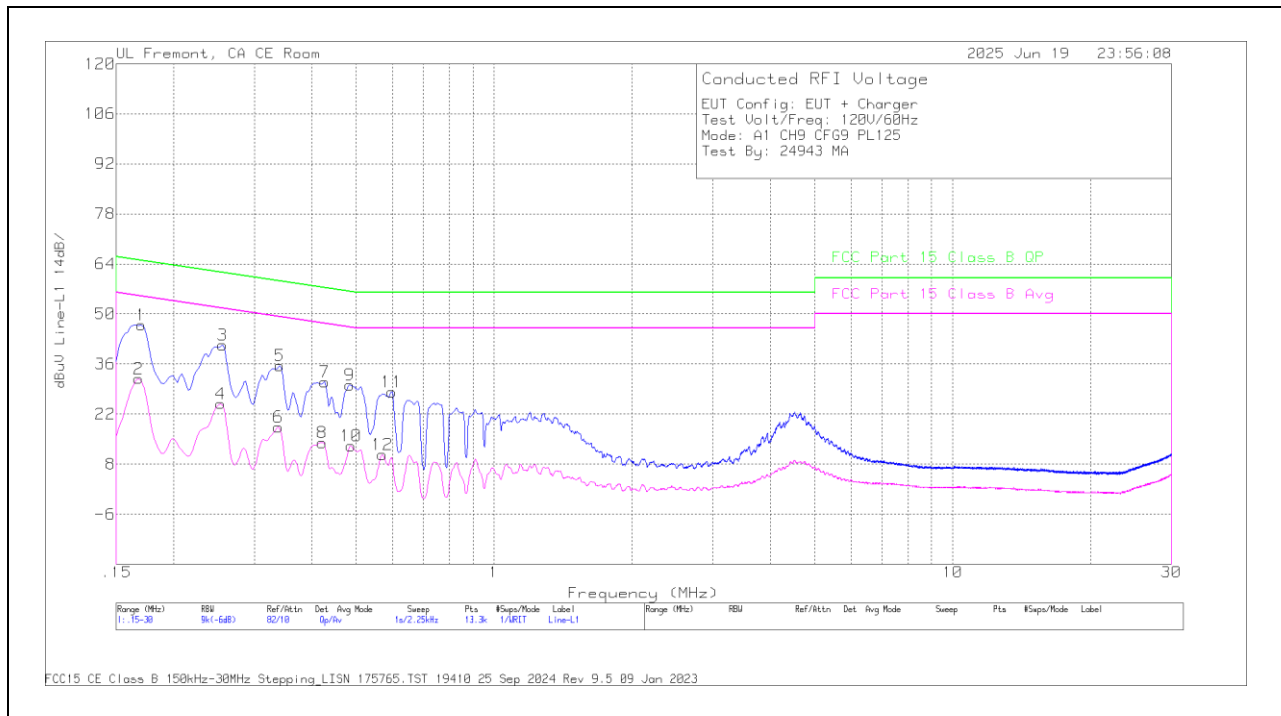
Trace Markers

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 2 C3_C2_Lim iter no Pad_UL (dB)	Corrected Reading dBuV	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av Margin (dB)
14	.2355	9.72	Av	0	9.4	19.12	-	-	52.25	-33.13
16	.3525	10.62	Av	0	9.3	19.92	-	-	48.9	-28.98
18	.4695	9.5	Av	0	9.3	18.8	-	-	46.52	-27.72
20	.5865	10.12	Av	0	9.3	19.42	-	-	46	-26.58
22	.7058	8.72	Av	0	9.3	18.02	-	-	46	-27.98
24	.8228	8.3	Av	0	9.3	17.6	-	-	46	-28.4
13	.1523	27.2	Qp	.1	9.4	36.7	65.88	-29.18	-	-
15	.3525	11.8	Qp	0	9.3	21.1	58.9	-37.8	-	-
17	.4695	10.56	Qp	0	9.3	19.86	56.52	-36.66	-	-
19	.5865	10.94	Qp	0	9.3	20.24	56	-35.76	-	-
21	.7058	9.53	Qp	0	9.3	18.83	56	-37.17	-	-
23	.8228	9.09	Qp	0	9.3	18.39	56	-37.61	-	-

Qp - Quasi-Peak detector

Av - Average detection

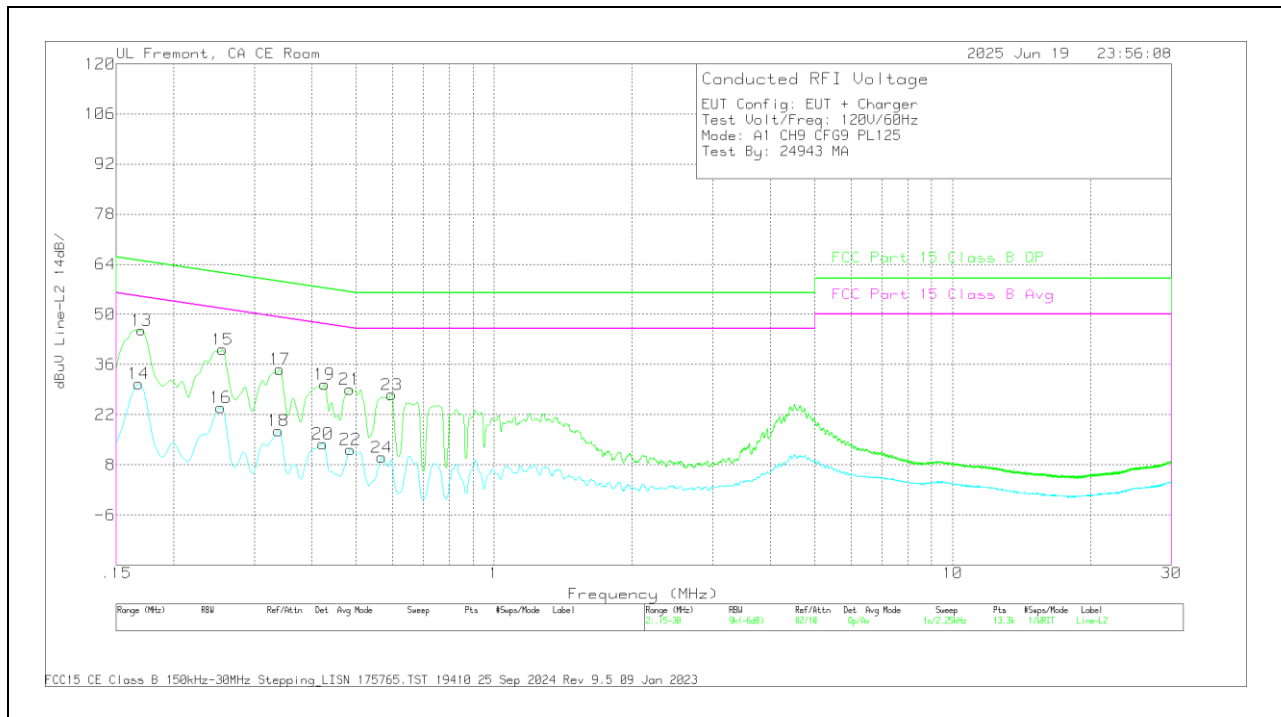
9.7.2. AC Power Line With AC/DC Adapter**LINE 1 RESULTS****Trace Markers**

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 1 C3_C1_Lim iter no Pad_UL (dB)	Corrected Reading dBuV	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av Margin (dB)
2	.168	22.44	Av	.1	9.4	31.94	-	-	55.06	-23.12
4	.2535	15.53	Av	0	9.4	24.93	-	-	51.64	-26.71
6	.339	8.94	Av	0	9.4	18.34	-	-	49.23	-30.89
8	.4223	4.64	Av	0	9.4	14.04	-	-	47.4	-33.36
10	.4875	3.81	Av	0	9.3	13.11	-	-	46.21	-33.1
12	.5708	1.38	Av	0	9.3	10.68	-	-	46	-35.32
1	.1703	37.44	Qp	.1	9.4	46.94	64.95	-18.01	-	-
3	.2558	31.87	Qp	0	9.4	41.27	61.57	-20.3	-	-
5	.3413	26.1	Qp	0	9.4	35.5	59.17	-23.67	-	-
7	.4268	21.72	Qp	0	9.3	31.02	57.32	-26.3	-	-
9	.4853	20.81	Qp	0	9.3	30.11	56.25	-26.14	-	-
11	.5978	18.85	Qp	0	9.3	28.15	56	-27.85	-	-

Qp - Quasi-Peak detector

Av - Average detection

LINE 2 RESULTS



Trace Markers

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN (dB)	Line 2 C3_C2_Lim iter no Pad_UL (dB)	Corrected Reading dBuV	FCC Part 15 Class B QP (dBuV)	QP Margin (dB)	FCC Part 15 Class B Avg (dBuV)	Av Margin (dB)
14	.168	21.19	Av	.1	9.4	30.69	-	-	55.06	-24.37
16	.2535	14.61	Av	0	9.4	24.01	-	-	51.64	-27.63
18	.339	8.25	Av	0	9.3	17.55	-	-	49.23	-31.68
20	.4234	4.46	Av	0	9.3	13.76	-	-	47.38	-33.62
22	.4864	2.95	Av	0	9.3	12.25	-	-	46.23	-33.98
24	.5696	.75	Av	0	9.3	10.05	-	-	46	-35.95
13	.1703	36.21	Qp	0	9.4	45.61	64.95	-19.34	-	-
15	.2558	30.79	Qp	0	9.4	40.19	61.57	-21.38	-	-
17	.3413	25.3	Qp	0	9.3	34.6	59.17	-24.57	-	-
19	.4268	21.12	Qp	0	9.3	30.42	57.32	-26.9	-	-
21	.4853	19.73	Qp	0	9.3	29.03	56.25	-27.22	-	-
23	.5978	18.27	Qp	0	9.3	27.57	56	-28.43	-	-

Qp - Quasi-Peak detector

Av - Average detection

10. SETUP PHOTOS

Please refer to 15496282-EP1V1 for setup photos.

APPENDIX A – SPOT CHECK EVALUATION

1. SPOT CHECK EVALUATION

1.1. MODEL DIFFERENCES

The manufacturer hereby declares the following for models A3260, A3516, A3517 and A3518.

These models have the same PCB layout, design, common components, antennas, antenna locations and housing cases, except for the cellular bands that are enabled/disabled by software as shown below.

Model	FCC ID	IC ID	Feature Difference	Sim Support	Reference Model
A3260	BCG-E8948A	579C-E8948A	_No B11/21	eSIM	-
A3516	BCG-E8954A	579C-E8954A	_Added B11/21 _No B14/29/71		A3260
A3517	BCG-E8955A	579C-E8955A	_No B11/21/14/29/71		
A3518	BCG-E8956A	579C-E8956A	_No B11/21/14/29/71/53/MSS		

The spot check plan allows for data reuse from the reference model where the variant model data meets the limits and has not changed by more than the criteria from KDB 484596 D01 v03 equation (4).

$$d_{dBmax}(M_{dB}) = \begin{cases} (3 + M_{dB}/20) \text{ dB} & , \text{ for } 0 \leq M_{dB} \leq 60 \text{ dB} \\ 6 \text{ dB} & , \text{ for } M_{dB} > 60 \text{ dB} \end{cases} \quad (4)$$

Where: d_{dB} deviation from Reference data, V_{dB} variant spot check level, and R_{dB} measurement level

Alternate sets of power settings are applied to variant models to match the effective equivalent isotropic radiated power (EIRP) results of the reference model.

1.2. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3516

A3516 SPOT CHECK RESULTS										
Equipment Class / Technology	Worst Mode	Channel	Config	Test Item	Measured Frequency (GHz)	Original Model: A3260	Sub Model: A3516	Delta (dB or MHz)	Margin	Remarks
						FCC ID : BCG-E8948A IC : 579C-E8948A	FCC ID: BCG-E8954A IC : 579C-E8954A			
UWB	Ant 1	9	701	Avg EIRP Power (dBm)	6 to 9	-42.30	-42.44	-0.14	1.44	Note 1
				Operating Bandwidth (MHz)	7 to 9	527.13	527.63	0.50	N/A	Note 3
			9	Out-Of-Band Emissions (dBm)	9 to 18	-67.95	-69.73	-1.78	8.43	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

Note 2: Deviation from reference to variant exceeds the value allowed by equation (4) in KDB 484596. Additional tests performed on second channel.

Note 3: For bandwidth the criteria is that the bandwidth for both reference and variants models be larger than 500MHz.

1.3. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3517

A3517 SPOT CHECK RESULTS										
Equipment Class / Technology	Worst Mode	Channel	Config	Test Item	Measured Frequency (GHz)	Original Model: A3260	Sub Model: A3517	Delta (dB or MHz)	Margin	Remarks
						FCC ID : BCG-E8948A IC : 579C-E8948A	FCC ID: BCG-E8955A IC : 579C-E8955A			
UWB	Ant 1	9	701	Avg EIRP Power (dBm)	6 to 9	-42.30	-42.59	-0.29	1.59	Note 1
				Operating Bandwidth (MHz)	7 to 9	527.13	527.63	0.50	N/A	Note 3
			9	Out-Of-Band Emissions (dBm)	9 to 18	-67.95	-69.85	-1.90	8.55	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

Note 2: Deviation from reference to variant exceeds the value allowed by equation (4) in KDB 484596. Additional tests performed on second channel.

Note 3: For bandwidth the criteria is that the bandwidth for both reference and variants models be larger than 500MHz.

1.4. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3518

A3518 SPOT CHECK RESULTS										
Equipment Class / Technology	Worst Mode	Channel	Config	Test Item	Measured Frequency (GHz)	Original Model: A3260	Sub Model: A3518	Delta (dB or MHz)	Margin	Remarks
						FCC ID : BCG-E8948A IC : 579C-E8948A	FCC ID: BCG-E8956A IC : 579C-E8956A			
UWB	Ant 1	9	701	Avg EIRP Power (dBm)	6 to 9	-42.30	-42.55	-0.25	1.55	Note 1
				Operating Bandwidth (MHz)	7 to 9	527.13	527.63	0.50	N/A	Note 3
			9	Out-Of-Band Emissions (dBm)	9 to 18	-67.95	-66.73	1.22	5.43	Note 1

Note 1: Deviation from reference to variant within the value allowed by equation (4) in KDB 484596. Additional tests not required.

Note 2: Deviation from reference to variant exceeds the value allowed by equation (4) in KDB 484596. Additional tests performed on second channel.

Note 3: For bandwidth the criteria is that the bandwidth for both reference and variants models be larger than 500MHz.