TEST REPORT

Report Number: 15982152-E24V2

Applicant	:	APPLE INC. 1 APPLE PARK WAY CUPERTINO, CA 95014, U.S.A.
Model	:	A3472 (Parent) A3713, A3714 (Variants)
Brand	:	APPLE
FCC ID	:	BCG-E9186A (Parent) BCG-E9192A, BCG-E9193A (Variants)
IC	:	579C-E9186A (Parent) 579C-E9192A, 579C-E9193A (Variants)
EUT Description	:	SMARTPHONE
Test Standard(s)	:	FCC 47 CFR PART 2, PART 25 ISED RSS-GEN ISSUE 5 + A1 + A2, RSS-170 ISSUE 4

Date Of Issue:
2026-08-19

Prepared by:
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ACCREDITED
CERT #0751.05

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2026-06-18	Initial Review	--
V2	2026-08-19	Revise model numbers on cover page	Thu Chan

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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	A3472 (Parent) A3713, A3714 (Variants)
Brand	Apple
FCC ID	BCG-E9186A (Parent) BCG-E9192A, BCG-E9193A (Variants)
IC	579C-E9186A (Parent) 579C-E9192A, 579C-E9193A (Variants)
EUT Description	Smartphone
Serial Number	Radiated: JQK96VV1QF Conducted: C07HNY0001D0001AMR
Sample Receipt Date	2026-01-09
Date Tested	2026-01-09 to 2026-06-09
Applicable Standards	FCC 47 CFR PART 2, PART 25 ISED RSS-GEN ISSUE 5 + A1 + A2, RSS-170 ISSUE 4
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.	Chris Xiong Senior Test Engineer UL Verification Services Inc.

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2. SUMMARY OF TEST RESULTS

This report contains data provided by the customer which can impact the validity of results. UL Verification Services Inc. is only responsible for correctly integrating customer-provided data with measurements performed by UL Verification Services Inc.

Below is a list of the data provided by the customer:

1. Antenna gain, type and cable loss (see Section 6.4)
2. Cable loss (see Section 8)

Requirement Description	Requirement Clause Number (FCC)	Requirement Clause Number (ISED)	Result	Remarks
RF Output Power	25.204 (a)	RSS-170 §5.5	Complies	
Occupied Bandwidth	2.1049	RSS-Gen	Complies	
Emissions Mask - within 250% of Authorized Bandwidth	25.202 (f)(1)&(2)	RSS-170 §5.8 (a) (b)	Complies	
Out of Band Emissions	25.202 (f)(3)	RSS-170 §5.8 (c)	Complies	
Frequency Stability	25.202 (d)	RSS-170 §5.3	Complies	
Field Strength of Spurious Radiation	25.202 (f)(3)	RSS-170 §5.8 (c)	Complies	
Additional Unwanted Emission (1559-1610MHz)	25.216 (c)&(g) FCC 03-283	RSS-170 §5.9.1	Complies	
Carrier-Off State Emissions (1559-1610MHz)	25.216 (i) FCC 03-283	RSS-170 §5.10	Complies	

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with the following.
FCC published lists of measurement procedures for compliance testing.
ISED published lists of normative test standards and acceptable alternatives procedures.

- ANSI C63.26:2015
- ANSI/TIA-603-E (2016)
- FCC 47 CFR Part 2, Part 25
- FCC KDB 971168 D01 : Power Meas License Digital Systems (ISED acceptable alternative procedure)
- FCC KDB 971168 D02 : Misc Rev Approv License Devices
- FCC KDB 412172 D01 : Determining ERP and EIRP
- ISED RSS-GEN ISSUE 5 + A1 + A2, RSS-170 ISSUE 4

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 Court, Fremont, CA 94538, USA			
☒	Building 4: 47658 Kato Rd, Fremont, CA 94538, USA			
☒	Building 5: 47670 Kato Rd, Fremont, CA 94538, USA			

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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: CTECH Operations - North America - NA MUs - All Documents (sharepoint.com) → check the latest MU number here and delete this

PARAMETER	U_{Lab}
Conducted Antenna Port Emission Measurement	1.940 dB
Power Spectral Density	2.466 dB
Time Domain Measurements Using SA	3.39 %
RF Power Measurement Direct Method Using Power Meter	0.450 dB Average 1.300 dB Peak
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:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

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6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The Apple iPhone is a smartphone with cellular GSM, GPRS, EGPRS, WCDMA, LTE, 5GNR1, 5GNR2, 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. This device is not user-serviceable and requires special tools to disassemble.

6.2. MAXIMUM OUTPUT POWER

LIMITS

FCC: §25.204
(a) In bands shared coequally with terrestrial radio communication services, the equivalent isotropically radiated power transmitted in any direction towards the horizon by an earth station, other than an ESV, operating in frequency bands between 1 and 15 GHz, shall not exceed the following limits except as provided for in paragraph (c) of this section:

+ 40 dBW in any 4 kHz band for $\theta \leq 0°$
+ 40 + 3θ dBW in any 4 kHz band for $0° < \theta \leq 5°$

where θ is the angle of elevation of the horizon viewed from the center of radiation of the antenna of the earth station and measured in degrees as positive above the horizontal plane and negative below it.

ISED: RSS-170§5.5: Transmitter output power for MESs (Mobile Earth Stations)
The application for MES certification shall state the MES e.i.r.p. that is necessary for satisfactory communication. The maximum permissible e.i.r.p. will be the stated e.i.r.p. plus a 2 dB margin. If a detachable antenna is used, the certification application shall state the recommended antenna type and manufacturer, the antenna gain and the maximum transmitter output power at the antenna terminal.

EIRP/ERP TEST PROCEDURE

ANSI C63.26:2015
KDB 971168 D01 Section 5.6

EIRP = PMeas + GT − LC
where: EIRP = effective isotropic radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);
PMeas = measured transmitter output power or PSD, in dBm or dBW;
GT = gain of the transmitting antenna, in dBi (EIRP);
LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

The transmitter has a maximum average conducted and EIRP output powers as follows:

Frequency (MHz)	Conducted Average Power (dBm)	Antenna Gain (dBi)	Limit (W)	EIRP		99% BW (kHz)	Emission Designator
				(dBm)	(W)		
1610.17	28.44	-5.1	10000	23.34	0.216	205.74	206KG1D
1618.40	**28.70**		10000	23.60	0.229	203.52	204KG1D
1626.03	28.58		10000	23.48	0.223	205.56	206KG1D

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6.3. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was version 24A343

6.4. DESCRIPTION OF AVAILABLE ANTENNAS AND CABLE LOSS

The antenna(s) gain and the SMA cable loss as provided by the manufacturer' are as follows:

Band	Frequency Range (MHz)	ANT 4 (dBi)	Cable Loss (dB)
L	1610.17 – 1626.03	-5.1	2

The cable was used for RF antenna port tests that had been offset to the test equipment during testing.

6.5. WORST-CASE CONFIGURATION AND MODE

The EUT was investigated in three orthogonal orientations X/Y/Z on all available antennas to determine the worst-case orientation. The full tests of the EUT have made upon the orientations shown in the table below.

ANT 4
Y

The emissions mask tests were performed based on declared authorized bandwidths of 200kHz, 230kHz and 280kHz.

Radiated spurious emissions were investigated from 9kHz to 30MHz, 30MHz-1GHz and above 1GHz. There were no emissions found with less than 20dB of margin from 9kHz to 30MHz, 30MHz-1GHz.

For simultaneous transmission of multiple channels in the 2.4GHz/5GHz WLAN, tests were conducted for various configurations having the highest power, least separation in frequencies and widest operation bandwidths. No noticeable new emission was found.

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6.6. DESCRIPTION OF TEST SETUP

SUPPORT TEST EQUIPMENT				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID/ DoC**
Laptop	Apple	MacBook Pro	F5JJ42D7R9	DoC
Laptop AC/DC Adapter	Apple	61W Charger	C06939403RAJFYFBU	DoC
EUT AC/DC Cable	Apple	A246F	FTLHDB001KW0001061	DoC
EUT AC/DC Adapter	Apple	B820	C4H9516000GPF4F4H	DoC

I/O CABLES (RF CONDUCTED TEST)						
Cable No.	**Port**	**# Of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	3	US 115V	Un-shielded	2.0	N/A
2	USB	1	Type-C	Shielded	2.0	N/A
3	RF In/Out	1	SMA	Shielded	1.0	N/A
4	RF In/Out	1	SMA	Shielded	0.5	N/A
5	RF In/Out	1	SMA Adapter	N/A	N/A	N/A

I/O CABLES (RF RADIATED TEST)						
Cable No.	**Port**	**# Of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	Type-C	Un-shielded	1.0	N/A

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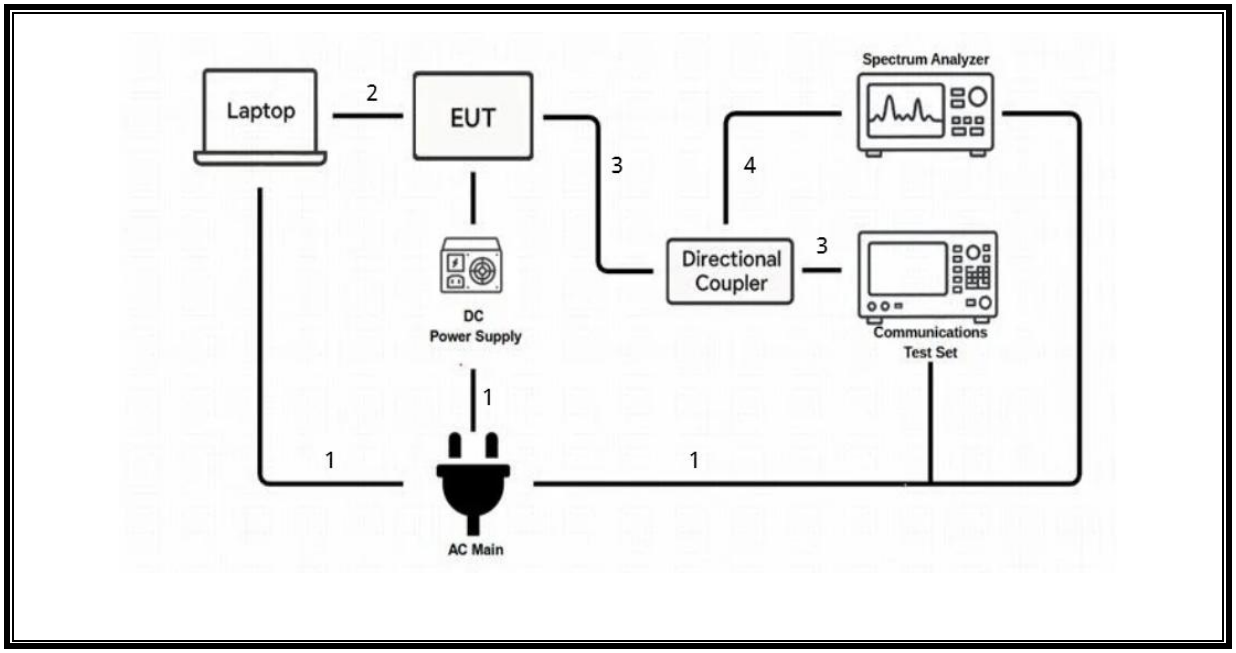
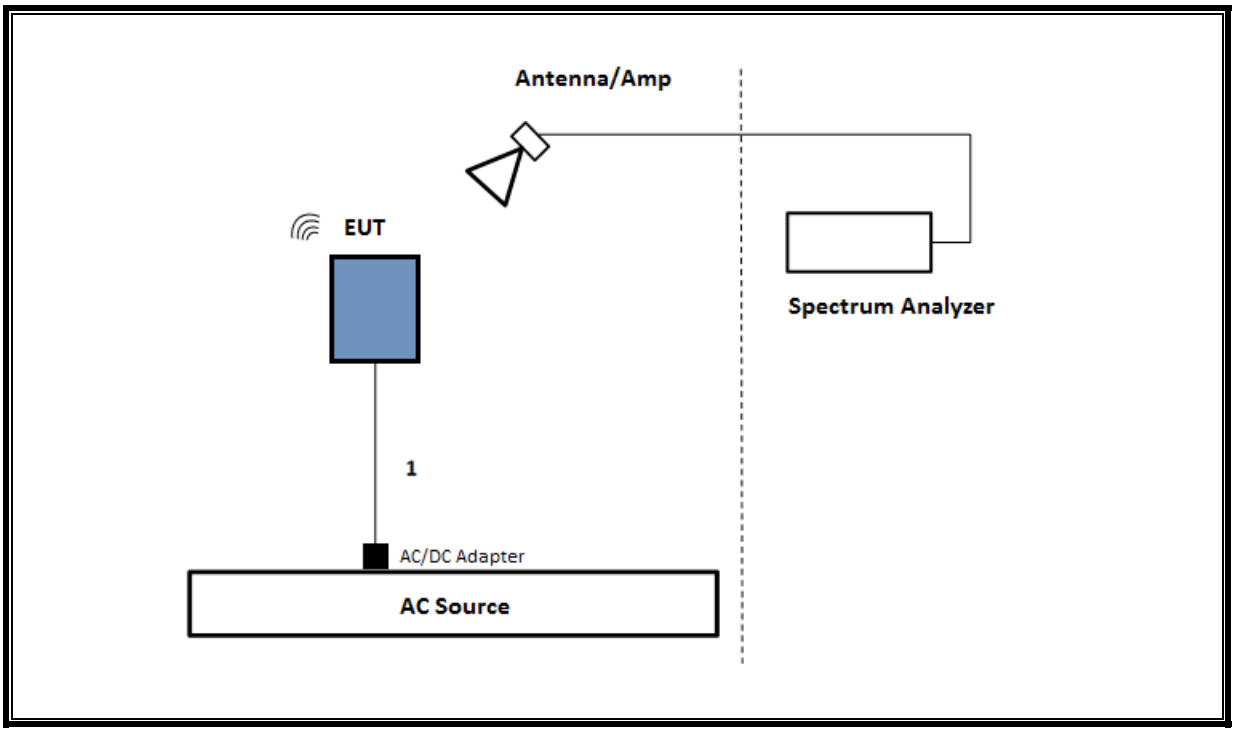
CONDUCTED SETUP



RADIATED SETUP



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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**	**Asset**	**Cal Due**
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	275999	2027-03-31
Antenna, Horn 1-18GHz	ETS Lindgren	3117	200784	2027-03-31
RF Filter Box, 1-18GHz, 12 Port	UL-FR1	Frankenstein	279299	2027-05-31
EMI TEST RECEIVER	Rohde & Schwarz	ESW44	169933	2027-02-28
Antenna, Horn 1-18GHz	ETS Lindgren	3117	80402	2027-07-31
RF Filter Box, 1-18GHz, 12 Port	UL-FR1	Frankenstein	231874	2027-01-31
Antenna, Passive Loop 30Hz - 1MHz	ELECTRO METRICS	EM-6871	170014	2027-09-30
Antenna, Passive Loop 100KHz - 30MHz	ELECTRO METRICS	EM-6872	29640	2026-09-30
Antenna, BroadBand Hybrid, 30MHz to 3GHz	Sunol Sciences Corp.	JB3	174374	2027-06-30
Amplifier 9 KHz - 1 GHz	SONOMA INSTRUMENT	310N	230311	2027-02-28
Directional Coupler	KRYTAR	152610	254457	2026-09-04
PXA Signal Analyzer	Keysight Technologies Inc	N9030B	276680	2027-01-31
Wideband Communication Call Box	Rohde & Schwarz	CMW500	262741	2027-02-11
UL AUTOMATION SOFTWARE				
Conducted Software	UL	Antenna Port	Ver.2022.8.16& 2021.5.13	
Conducted Software	UL	Station Tool	Ver. 5.0 & 5.3	

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8. RF OUTPUT POWER VERIFICATION

LIMITS

FCC: §25.204
(a) In bands shared coequally with terrestrial radio communication services, the equivalent isotropically radiated power transmitted in any direction towards the horizon by an earth station, other than an ESV, operating in frequency bands between 1 and 15 GHz, shall not exceed the following limits except as provided for in paragraph (c) of this section:

+ 40 dBW in any 4 kHz band for $\theta \leq 0°$
+ 40 + 3θ dBW in any 4 kHz band for $0° < \theta \leq 5°$

where θ is the angle of elevation of the horizon viewed from the center of radiation of the antenna of the earth station and measured in degrees as positive above the horizontal plane and negative below it.

ISED: RSS-170§5.5: Transmitter output power for MESs (Mobile Earth Stations)
The application for MES certification shall state the MES e.i.r.p. that is necessary for satisfactory communication. The maximum permissible e.i.r.p. will be the stated e.i.r.p. plus a 2 dB margin. If a detachable antenna is used, the certification application shall state the recommended antenna type and manufacturer, the antenna gain and the maximum transmitter output power at the antenna terminal.

TEST PROCEDURE

The transmitter output is connected to a wideband power meter/sensor which is greater than the occupied bandwidth as worst-case scenario, also the total power readings still comply with the required limit.

The cable assembly insertion loss of 12.70 dB (ANT 4) (including 10.70 dB coupler and 2.00 dB cable) was entered as an offset in the power meter to allow for a gated average reading of power.

RESULTS

Test Engineer ID:	32546	Test Date:	2026-06-09

Test Frequency (MHz)	Conducted Average Power (dBm)	Antenna Gain (dBi)	EIRP Average Power (dBm)
	ANT 4	ANT 4	ANT 4
1610.17	28.44	-5.1	23.34
1618.40	**28.70**		**23.60**
1626.03	28.58		23.48

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9. CONDUCTED TEST RESULTS

9.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049
ISED: RSS-GEN

LIMITS

For reporting purposes only.

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the middle channel in each band. The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW. The 99% bandwidths were measured and recorded.

RESULTS

Test Engineer ID:	32546	Test Date:	2026-01-21

Test Frequency (MHz)	99% Bandwidth (kHz) ANT 4
1610.17	205.74
1618.40	203.52
1626.03	205.56

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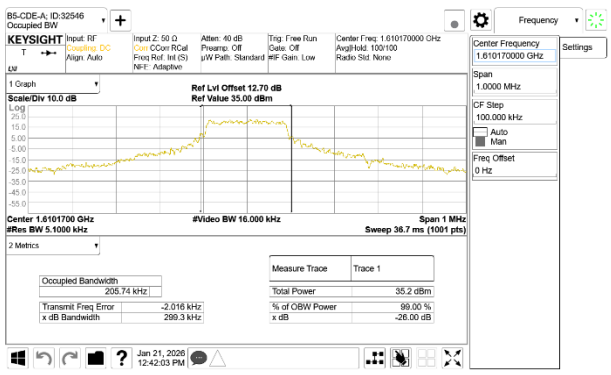
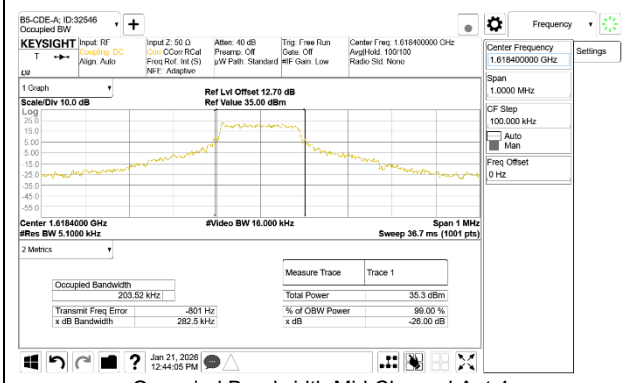
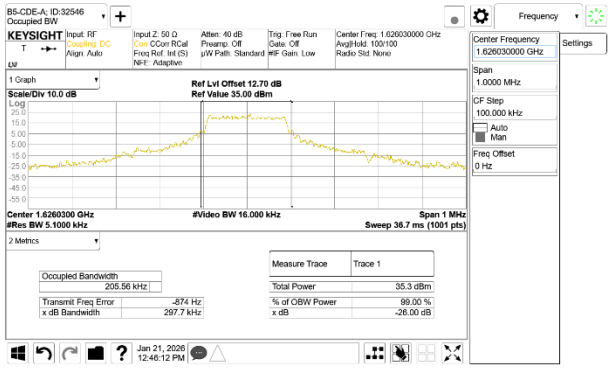


Occupied Bandwidth Low Channel Ant 4



Occupied Bandwidth Mid Channel Ant 4



Occupied Bandwidth High Channel Ant 4

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9.2. EMISSIONS MASK WITHIN 250% OF AUTHORIZED BANDWIDTH

LIMITS

FCC §25.202
(f) Emission limitations. Except for SDARS terrestrial repeaters and as provided for in paragraph (i), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the schedule set forth in paragraphs (f)(1) through (f)(4) of this section. The out-of-band emissions of SDARS terrestrial repeaters shall be attenuated in accordance with the schedule set forth in paragraph (h) of this section.

(1) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: 25 dB;

(2) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: 35 dB;

ISED RSS-170§ 5.8: Unwanted emission limits for MESs in all frequency bands
The average power of unwanted emissions shall be attenuated below the average output power, P (dBW), of the transmitter, as specified below:

a. 25 dB in any 4 kHz, the frequency of which is offset from the channel centre frequency by more than 50%, up to and including 100% of the occupied bandwidth or necessary bandwidth, whichever is greater
b. 35 dB in any 4 kHz, the frequency of which is offset from the channel centre frequency by more than 100%, up to and including 250% of the occupied bandwidth or necessary bandwidth, whichever is greater

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The channel edge emissions were measured on the low, mid and high channels. The limits within 250% of the authorized bandwidth are relative to the total in-band (channel) power. The measurement bandwidth (RBW) is set to >= 4kHz and VBW set to at least 3 times the RBW. To measure the average value of the emissions the detector is set to rms while observing the minimum required number of points as detailed in ANSI C63.26 for average rms measurements. The sweep time is set to 2ms multiplied by the number of points to obtain the average over 2ms. Multiple sweeps with max hold enabled are made to capture the maximum average value.

RESULTS

The tests were performed based on declared authorized bandwidths of 200kHz, 230kHz and 280kHz.

Test Engineer ID:	32546	Test Date:	2026-06-09

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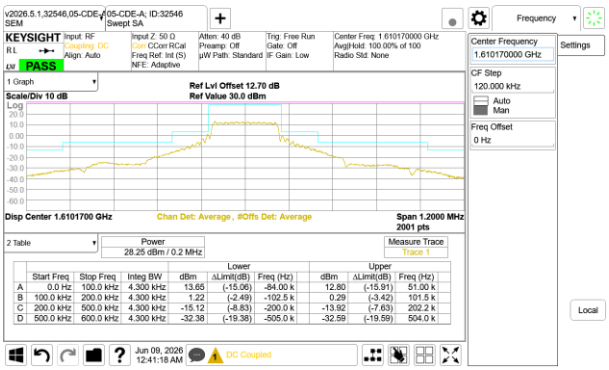
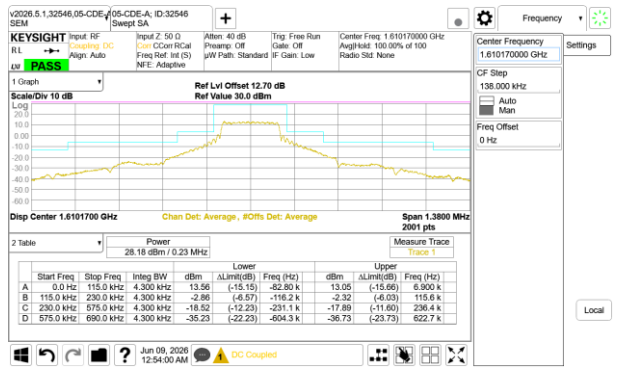
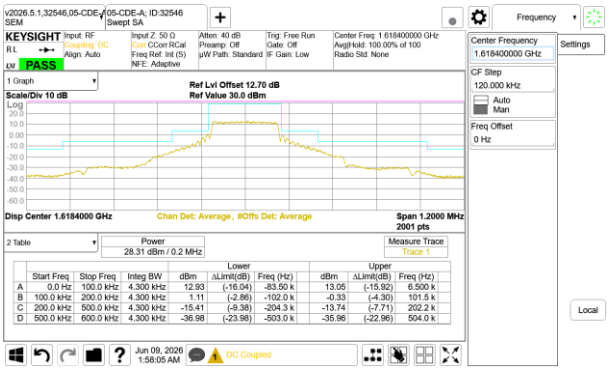
9.2.1. ANT 4



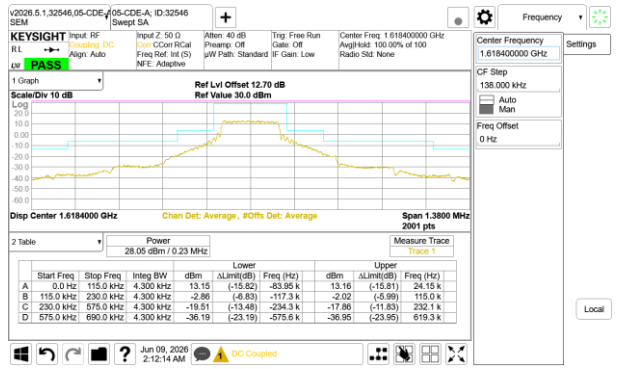
200kHz Authorized BW Low Channel



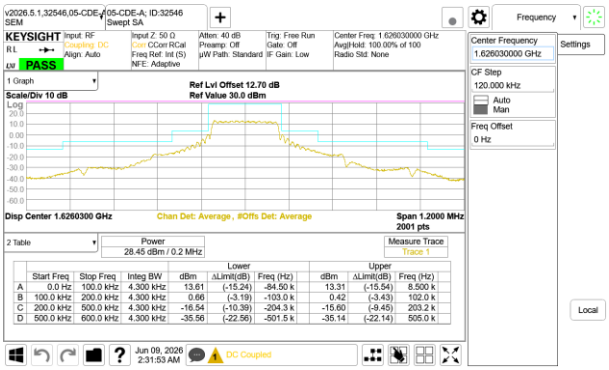
230kHz Authorized BW Low Channel



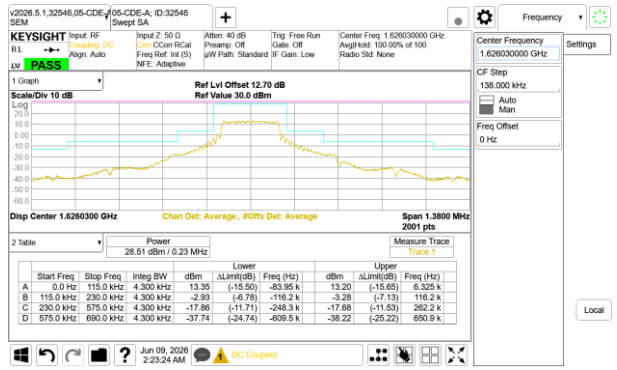
200kHz Authorized BW Mid Channel



230kHz Authorized BW Mid Channel



200kHz Authorized BW High Channel



230kHz Authorized BW High Channel

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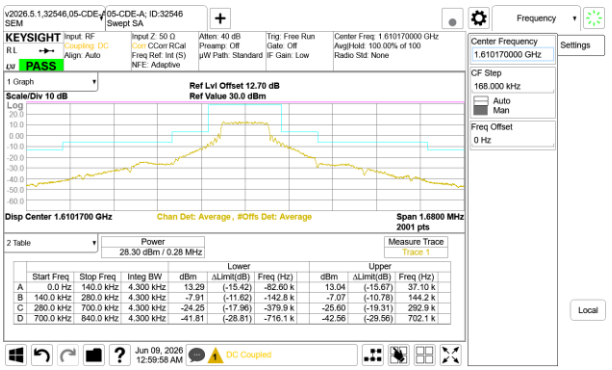
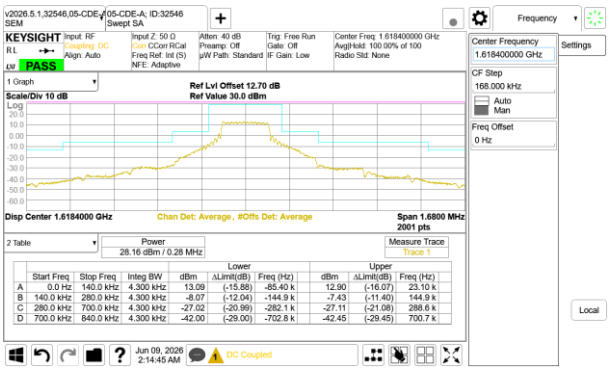
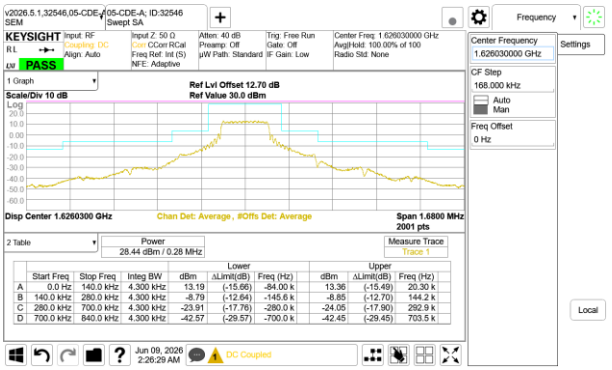


280kHz Authorized BW Low Channel



280kHz Authorized BW Mid Channel



280kHz Authorized BW High Channel

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9.3. OUT OF BAND EMISSIONS

LIMITS

FCC §25.202 and
(f) Emission limitations. Except for SDARS terrestrial repeaters and as provided for in paragraph (i), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the schedule set forth in paragraphs (f)(1) through (f)(4) of this section. The out-of-band emissions of SDARS terrestrial repeaters shall be attenuated in accordance with the schedule set forth in paragraph (h) of this section.

(3) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 250 percent of the authorized bandwidth: An amount equal to 43 dB plus 10 times the logarithm (to the base 10) of the transmitter power in watts.

ISED RSS-170§5.8: Unwanted emission limits for MESs in all frequency bands

c. 43 + 10 log p (watts) in any 4 kHz, the frequency of which is offset from the channel centre frequency by more than 250% of the occupied bandwidth or necessary bandwidth, whichever is greater

TEST PROCEDURE

KDB 971168 D01/D02

For each out of band emissions measurement:

- Set display line at -13 dBm (the limit of 43 + 10Log(P))
- Set RBW >= 4kHz and VBW >= 3 x RBW with peak detector for all measurements. The limit is an average limit so any emissions that exceed the limit using the peak detector are measured using rms detection with an averaging time of 2ms.

RESULTS

Test Engineer ID:	32546	Test Date:	2026-02-04

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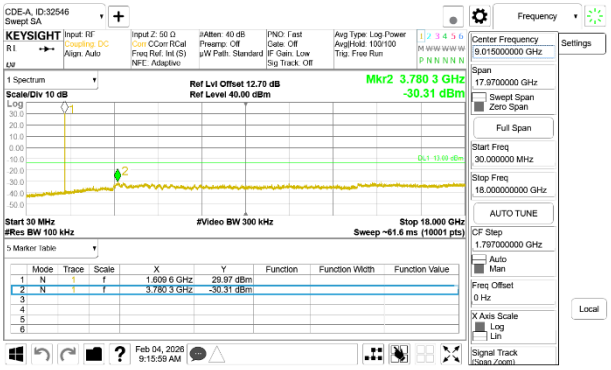
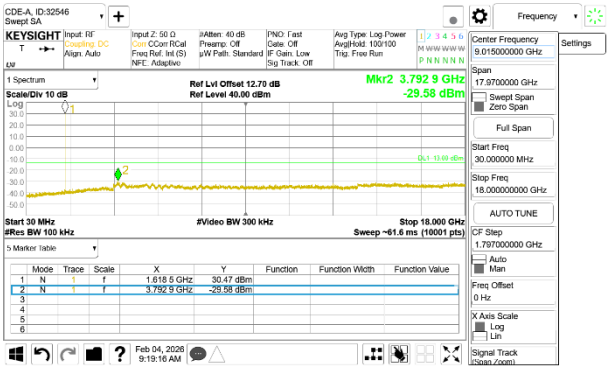
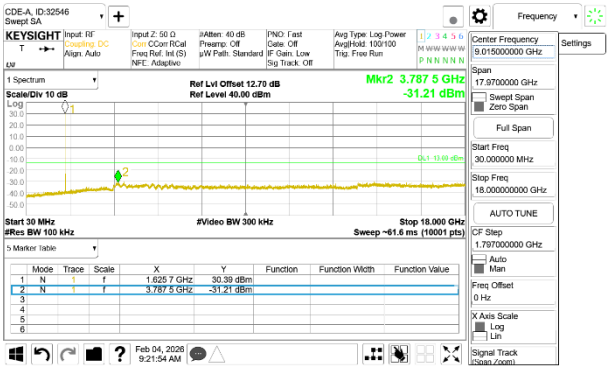


Low Channel 30MHz to 18GHz Ant 4



Mid Channel 30MHz to 18GHz Ant 4



High Channel 30MHz to 18GHz Ant 4

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9.4. FREQUENCY STABILITY

LIMITS

FCC §25.202
(d) Frequency tolerance, Earth stations. The carrier frequency of each earth station transmitter authorized in these services shall be maintained within 0.001 percent of the reference frequency.

ISED RSS-170: 5.3
For MES equipment, the carrier frequency shall not drift from the reference frequency by more than ±10 ppm.

TEST PROCEDURE

Use spectrum with Frequency Error measurement capability.

- Temp. = −30°C to +50°C
- Voltage = (85% - 115%)

  Low voltage, 3.23VDC, Normal, 3.8VDC and High voltage, 4.37VDC.
  End Voltage, 3.00VDC.

Frequency Stability vs Temperature:
The EUT is place inside a temperature chamber. The temperature is set to 20ºC and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50ºC is reached.

Frequency Stability vs Voltage:
The peak frequency error is recorded (worst-case).

RESULTS

Test Engineer ID:	32546	Test Date:	2026-02-25

Frequency Reference (MHz)		1610.17013		Frequency Reading (MHz)	Delta (Hz)	Frequency Stability (ppm)
Condition		F low @ -10dB BW (MHz)	F high @ -10dB BW (MHz)			
Temperature	Voltage					
Normal (20 C)	Normal	1610.078875	1610.261375	1610.17013		
Extreme (50C)		1610.078875	1610.260875	1610.16988	-250.0	-0.16
Extreme (40C)		1610.079938	1610.26075	1610.17034	218.7	0.14
Extreme (30C)		1610.078188	1610.261063	1610.16963	-500.0	-0.31
Extreme (10C)		1610.07825	1610.261063	1610.16966	-468.7	-0.29
Extreme (0C)		1610.07875	1610.261063	1610.16991	-218.8	-0.14
Extreme (-10C)		1610.079438	1610.261875	1610.17066	531.2	0.33
Extreme (-20C)		1610.078813	1610.261563	1610.17019	62.5	0.04
Extreme (-30C)		1610.078813	1610.261813	1610.17031	187.5	0.12
20C	15%	1610.078688	1610.26175	1610.170219	93.7	0.06
	-15%	1610.077938	1610.261313	1610.169625	-500.0	-0.31
	End Point	1610.078125	1610.261938	1610.170031	-93.8	-0.06

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10. RADIATED TEST RESULTS

Radiated measurement using the Field Strength Method

Using the test configuration shown in Figure 6 below, the radiated emissions is measured directly from the EUT and convert the measured field strength or received power to ERP or EIRP, as required, for comparison to the applicable limits. As stated in 5.5.1 of ANSI C63.26-2015, the field strength measurement method using a test site validated to the requirements of ANSI C63.4 is an alternative to the substitution measurement.

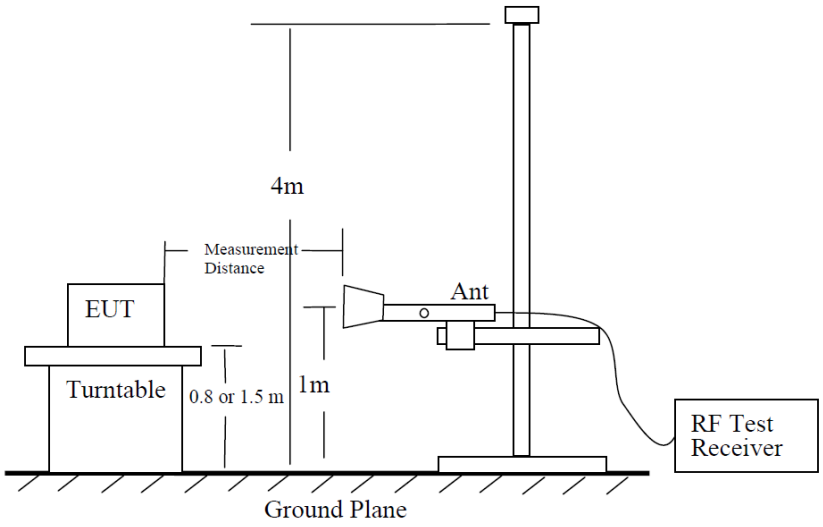

Figure 6—Test site-up for radiated ERP and/or EIRP measurements

Radiated Power Measurement Calculation According to ANSI C63.26-2015

a) E (dBµV/m) = Measured amplitude level (dBµV) + Cable Loss (dB) + Antenna Factor (dB/m).
b) E (dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m).
c) E (dBµV/m) = EIRP (dBm) − 20log(D) + 104.8; where D is the measurement distance (in the far field region) in m.
d) EIRP (dBm) = E (dBµV/m) + 20log(D) − 104.8; where D is the measurement distance (in the far field region) in m.

So, from d)
The measuring distance is usually at 3m, then 20*Log(3)=9.5424

Then, EIRP (dBm) = E (dBµV/m) + 9.5424 − 104.8 = E (dBµV/m) – 95.2576

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10.1. FIELD STRENGTH OF SPURIOUS RADIATION

LIMITS

FCC §25.202
(f) Emission limitations. Except for SDARS terrestrial repeaters and as provided for in paragraph (i), the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the schedule set forth in paragraphs (f)(1) through (f)(4) of this section. The out-of-band emissions of SDARS terrestrial repeaters shall be attenuated in accordance with the schedule set forth in paragraph (h) of this section.

(3) In any 4 kHz band, the center frequency of which is removed from the assigned frequency by more than 250 percent of the authorized bandwidth: An amount equal to 43 dB plus 10 times the logarithm (to the base 10) of the transmitter power in watts;

ISED RSS-170§5.8: Unwanted emission limits for MESs in all frequency bands

c. 43 + 10 log p (watts) in any 4 kHz, the frequency of which is offset from the channel centre frequency by more than 250% of the occupied bandwidth or necessary bandwidth, whichever is greater

TEST PROCEDURE

KDB 971168 D01/D02

For each out of band emissions measurement:

- Set display line at -13 dBm (the limit of 43 + 10Log(P))
- Set RBW >= 4kHz and VBW >= 3 x RBW with peak detector for all measurements. The limit is an average limit so any emissions that exceed the limit using the peak detector are measured using rms detection with an averaging time of 2ms.

RESULTS

Plots are provided for the center channel. Tabular data for all channels is presented.

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10.1.1. Above 1GHz

Date:	2026-02-04
Test Engineer:	111411
Configuration:	EUT + Charger
Chamber #:	03-RDE-A

Channel Frequency (MHz)	Ant. #	Frequency (GHz)	Meter Reading (dBuV)	Det	ACF (dB/m)	EIRP CF	Gain/ Loss (dB)	Correct Reading (dBm)	Limit (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Ch 1610.17	**4**	4.830524	61.6	Pk	34	-95.2	-48.2	-47.8	-13	-34.8	351	127	H
		4.830516	54.13	Pk	34	-95.2	-48.2	-55.27	-13	-42.27	27	174	V
		3.220336	58.4	Pk	32.8	-95.2	-47.07	-51.07	-13	-38.07	62	107	H
		3.220365	57.02	Pk	32.8	-95.2	-47.06	-52.44	-13	-39.44	146	148	V
		* 6.437175	44.18	Pk	35.7	-95.2	-46.1	-61.42	-13	-48.42	0-360	150	H
		* 6.443781	43.76	Pk	35.7	-95.2	-46.1	-61.84	-13	-48.84	0-360	150	V
Mid Ch 1618.4		4.855294	61.99	Pk	34	-95.2	-48.1	-47.31	-13	**-34.31**	340	109	H
		4.855293	57.19	Pk	34	-95.2	-48.1	-52.11	-13	-39.11	5	196	V
		3.236871	52.72	Pk	32.8	-95.2	-47	-56.68	-13	-43.68	12	115	H
		3.236875	54.61	Pk	32.8	-95.2	-47	-54.79	-13	-41.79	145	136	V
		* 6.463128	44.83	Pk	35.7	-95.2	-46.2	-60.87	-13	-47.87	0-360	150	H
		* 6.468791	44.12	Pk	35.7	-95.2	-46.2	-61.58	-13	-48.58	0-360	150	V
High Ch 1626.03		4.878095	54.19	Pk	34	-95.2	-48.3	-55.31	-13	-42.31	322	153	H
		4.878056	50.14	Pk	34	-95.2	-48.3	-59.36	-13	-46.36	3	151	V
		3.25207	52.03	Pk	32.8	-95.2	-47.1	-57.47	-13	-44.47	40	101	H
		3.25209	52.64	Pk	32.8	-95.2	-47.1	-56.86	-13	-43.86	134	157	V
		* 6.394234	44.29	Pk	35.6	-95.2	-45.9	-61.21	-13	-48.21	0-360	149	V
		* 6.406503	43.86	Pk	35.6	-95.2	-46	-61.74	-13	-48.74	0-360	149	H

Pk - Peak detector
* - Noise floor

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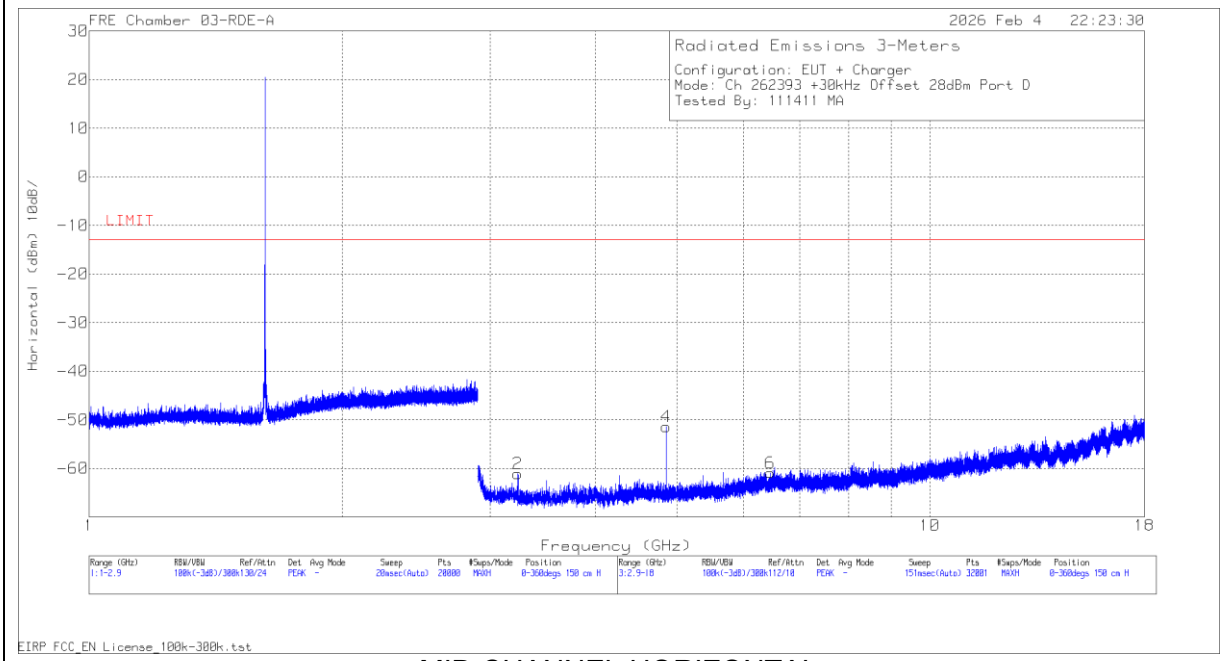
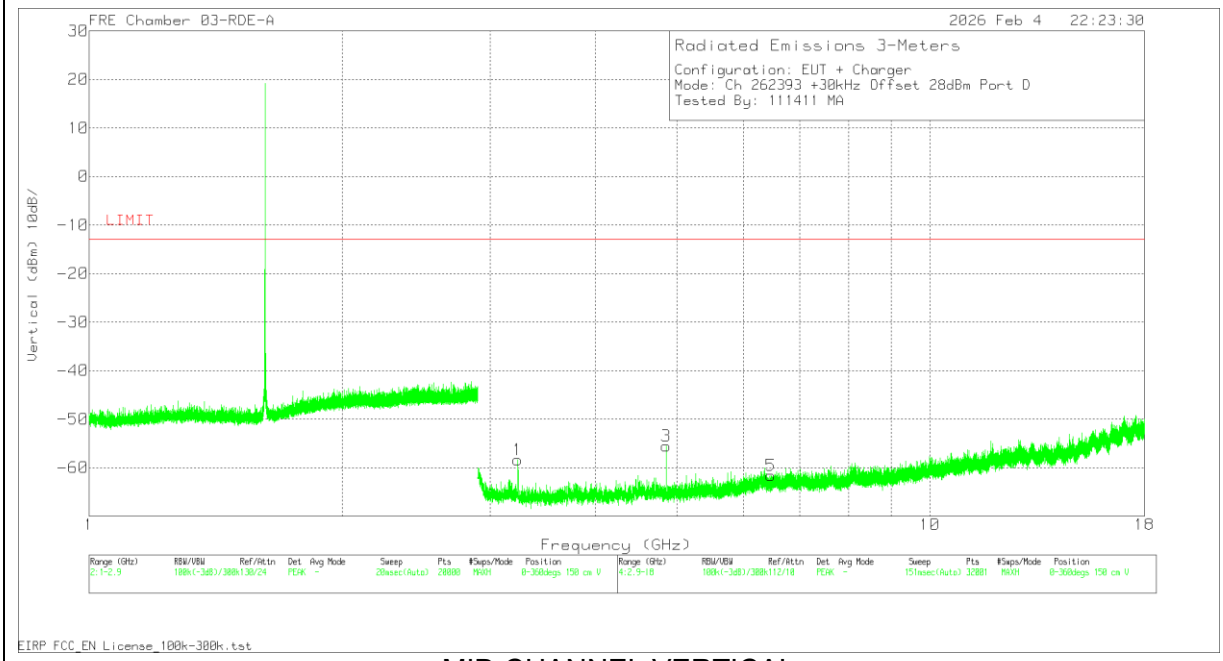
ANT 4



MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL

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10.1.2. Below 1GHz

Date:	2026-02-06
Test Engineer:	111411 MA
Configuration:	EUT + Charger
Mode:	TX
Chamber #:	3-RDE-A

Channel Frequency (MHz)	Ant. #	Frequency (MHz)	Meter Reading (dBuV)	Det	ACF (dB/m)	EIRP CF	Gain/ Loss (dB)	Correct Reading (dBm)	Limit (dBm)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
Low Ch 1610.17	**4**	34.753	31.1	Pk	24.3	-31	-95.2	-70.8	-13	-57.8	0-360	148	H
		39.603	44.91	Pk	20.8	-31.2	-95.2	-60.69	-13	-47.69	0-360	149	V
		115.942	38.69	Pk	19.1	-30	-95.2	-67.41	-13	-54.41	0-360	148	H
		118.949	42.85	Pk	19.4	-29.7	-95.2	-62.65	-13	-49.65	0-360	149	V
		193.348	44.16	Pk	17.5	-29.7	-95.2	-63.24	-13	-50.24	0-360	148	H
		194.027	36.67	Pk	17.6	-29.4	-95.2	-70.33	-13	-57.33	0-360	149	V
Mid Ch 1618.4		31.843	30.34	Pk	26.1	-30.8	-95.2	-69.56	-13	-56.56	0-360	149	H
		39.7	45.3	Pk	20.7	-31.2	-95.2	-60.4	-13	**-47.4**	0-360	149	V
		87.327	47.76	Pk	13.2	-30.4	-95.2	-64.64	-13	-51.64	0-360	149	V
		89.364	41.9	Pk	13.5	-30.2	-95.2	-70	-13	-57	0-360	149	H
		193.542	45.01	Pk	17.6	-29.6	-95.2	-62.19	-13	-49.19	0-360	149	H
		197.034	43.28	Pk	18.3	-29.6	-95.2	-63.22	-13	-50.22	0-360	149	V
High Ch 1626.03		32.619	29.82	Pk	25.6	-30.9	-95.2	-70.68	-13	-57.68	0-360	148	H
		39.7	44.69	Pk	20.7	-31.2	-95.2	-61.01	-13	-48.01	0-360	148	V
		88.976	42.6	Pk	13.5	-30.1	-95.2	-69.2	-13	-56.2	0-360	148	H
		113.032	40.16	Pk	18.8	-30.1	-95.2	-66.34	-13	-53.34	0-360	148	V
		194.221	43.15	Pk	17.6	-29.6	-95.2	-64.05	-13	-51.05	0-360	148	H
		279.29	33.81	Pk	19.2	-29	-95.2	-71.19	-13	-58.19	0-360	148	V

Pk - Peak detector

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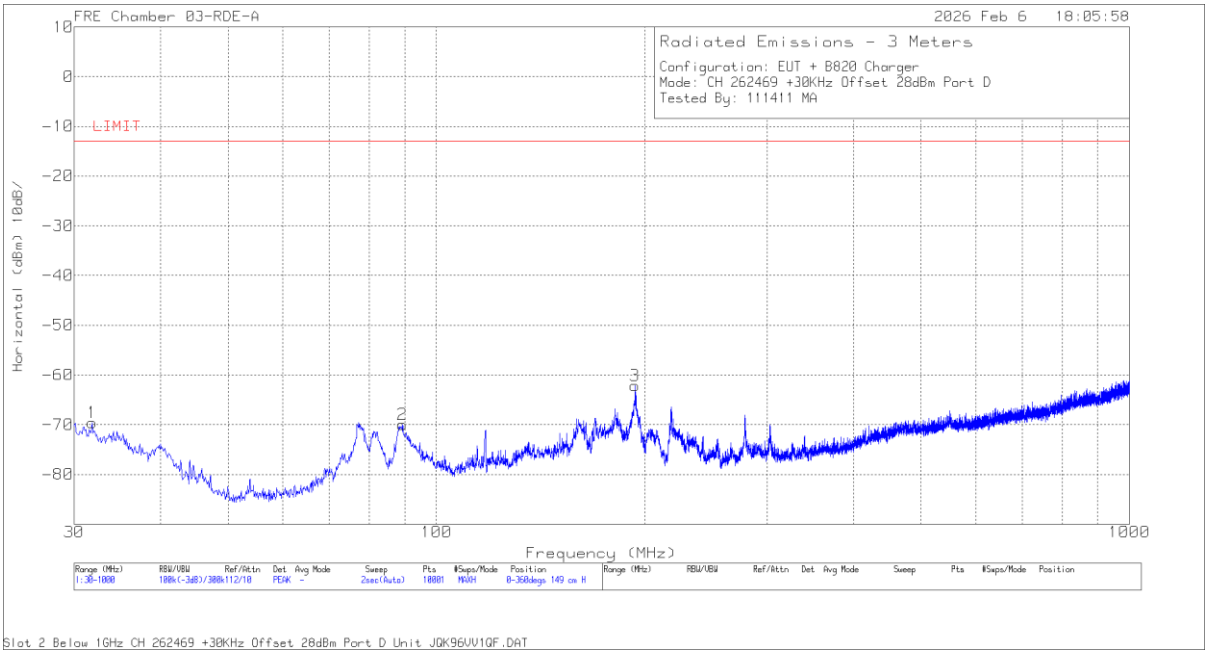
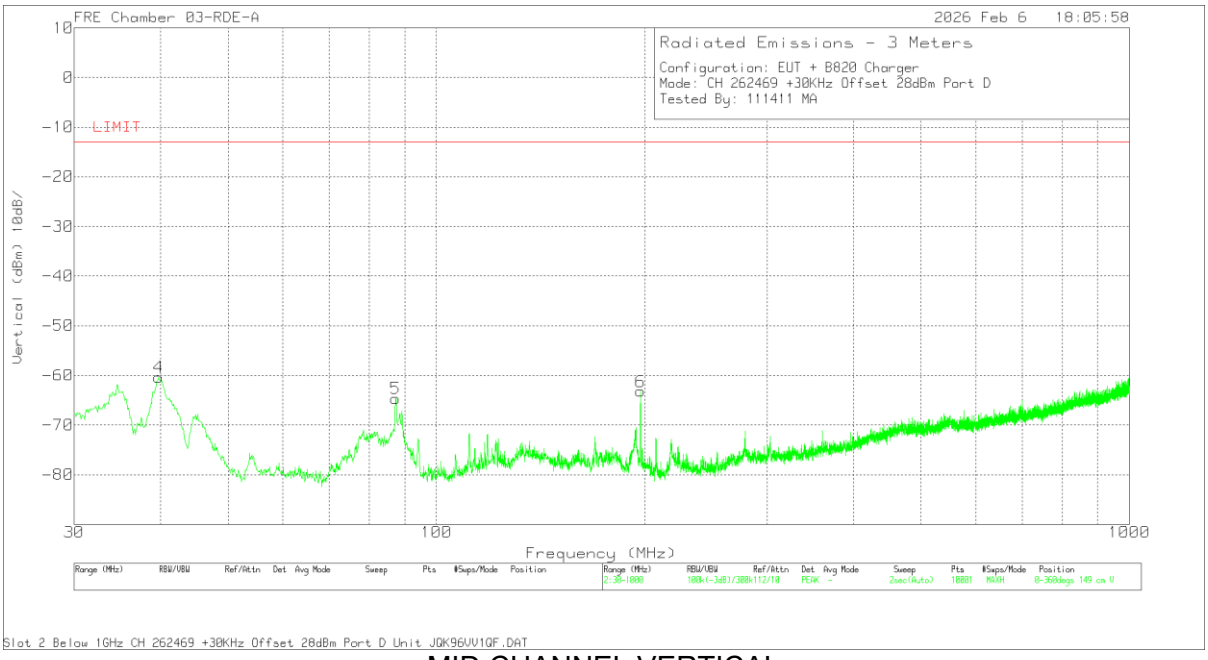
ANT 4



MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL

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10.2. ADDITIONAL UNWANTED EMISSION (1559MHz – 1610MHz)

LIMITS

FCC §25.216

Limits on emissions from mobile earth stations for protection of aeronautical radionavigation-satellite service

(a) The e.i.r.p. density of emissions from mobile earth stations placed in service on or before July 21, 2002 …

(b) The e.i.r.p. density of emissions from mobile earth stations placed in service on or before July 21, 2002 …

(c) The e.i.r.p. density of emissions from mobile earth stations placed in service after July 21, 2002 with assigned uplink frequencies between 1610 MHz and 1660.5 MHz shall not exceed −70 dBW/MHz, averaged over any 2 millisecond active transmission interval, in the band 1559-1605 MHz. The e.i.r.p. of discrete emissions of less than 700 Hz bandwidth from such stations shall not exceed −80 dBW, averaged over any 2 millisecond active transmission interval, in the 1559-1605 MHz band.

FCC §25.216

(g) Mobile earth stations manufactured more than six months after Federal Register publication of the rule changes adopted in FCC 03-283 with assigned uplink frequencies in the 1610-1626.5 MHz band shall suppress the power density of emissions in the 1605-1610 MHz band-segment to an extent determined by linear interpolation from −70 dBW/MHz at 1605 MHz to −10 dBW/MHz at 1610 MHz averaged over any 2 millisecond active transmission interval. The e.i.r.p of discrete emissions of less than 700 Hz bandwidth from such stations shall not exceed a level determined by linear interpolation from −80 dBW at 1605 MHz to −20 dBW at 1610 MHz, averaged over any 2 millisecond active transmission interval.

ISED RSS-170§ 5.9.1: Band 1610-1626.5 MHz

For MESs with transmitting frequencies between 1610 MHz and 1626.5 MHz, the e.i.r.p. density of unwanted emissions shall not exceed the limits shown below, which are the same as those for the band 1605-1610 MHz, averaged over any 2 ms active transmission interval:

a. -70 dBW/MHz at 1605 MHz, linearly interpolated to -10 dBW/MHz at 1610 MHz, for broadband emissions
b. -80 dBW/kHz at 1605 MHz, linearly interpolated to -20 dBW/kHz at 1610 MHz, for discrete emissions

TEST PROCEDURE

KDB 971168 D01/D02

Measure wideband emissions using either:
RBW = 1MHz, VB = 3MHz
RBW < 1MHz, integrate over 1MHz if necessary

Measure narrowband emissions using:
RBW = 10kHz, VB = 30kHz as worst-case setting

Set detector = rms, sweep time ~ number of points x 2ms, and sweep multiple times with max hold enabled. When the detector is set to rms the number of points is set to exceed the minimum number required by ANSI C63.26 for average measurements. A peak detector may be used (e.g. to avoid slow sweep times for the narrowband emissions measurements) in lieu of average rms detection as this will provide a more conservative (higher) measured value than the rms value.

RESULTS

Both horizontal / vertical polarizations and low/ mid/ high channels were investigated on ANT 4. Low channel was found to be worst case for both antennas.

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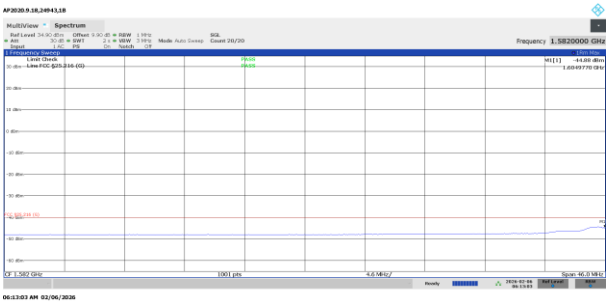
Date:	2026-02-06
Test Engineer:	24943
Configuration:	EUT + Charger
Mode:	TX
Chamber #:	01-RDE-1B

Offset Calculation= Antenna Factor + Amp/Cbl/Fltr/Pad + EIRP CF

Antenna Factor (dB/m)	Amp/Cbl/Fltr/Pad (dB)	EIRP CF	Offset (dB)
28.2	-30.1	11.8	9.9

Plots for Determining Wide Band or Narrow Band Emissions



RBW=1MHz, VBW=3MHz

RBW=10kHz, VBW=30kHz

Note: It was found that the marker 1 @ 1604.9770 MHz frequency which belonged to wideband emission.

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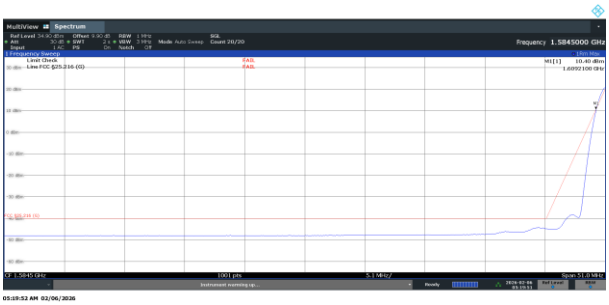
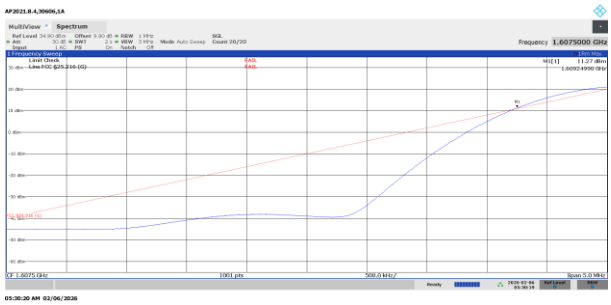
10.2.1. ANT 4 (HORIZONTAL)

Wideband Low Channel 1610.17MHz

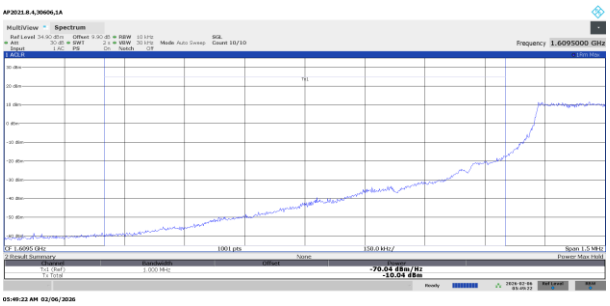


1559MHz -1610MHz

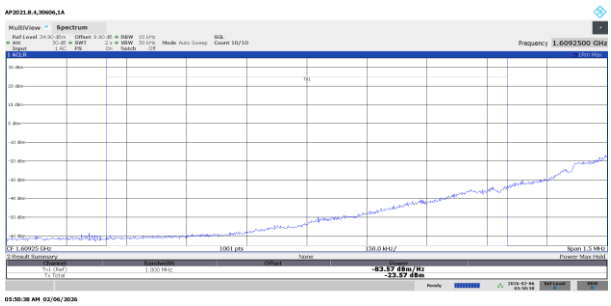


1605MHz -1610MHz (Zoom-in)

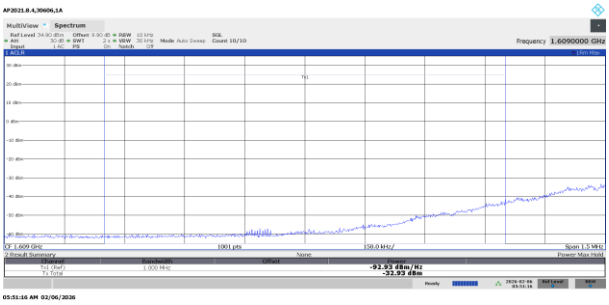
Plots below show passing result using integration method:



1609.5MHz, 1MHz Integration



1609.25MHz, 1MHz Integration



1609.0MHz, 1MHz Integration

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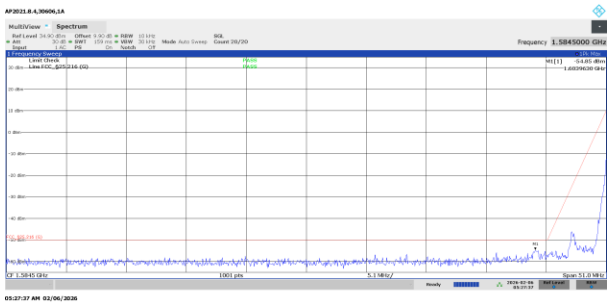
Narrowband Low Channel 1610.17MHz



1559MHz – 1610MHz

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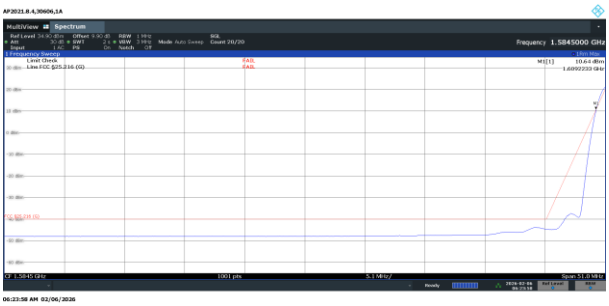
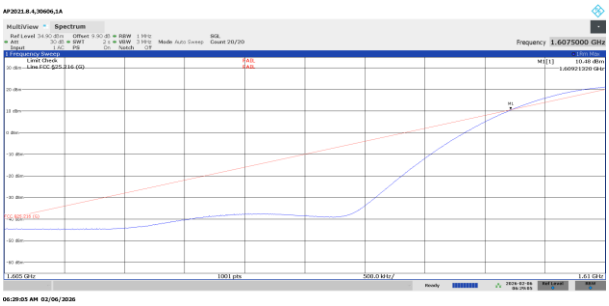
10.2.2. ANT 4 (VERTICAL)

Wideband Low Channel 1610.17MHz

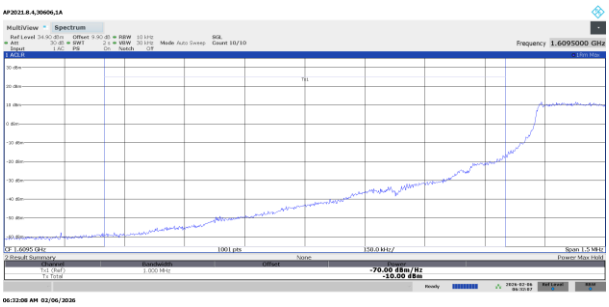


1559MHz -1610MHz

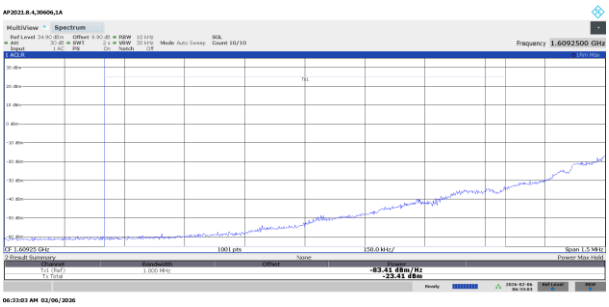


1605MHz -1610MHz (Zoom-in)

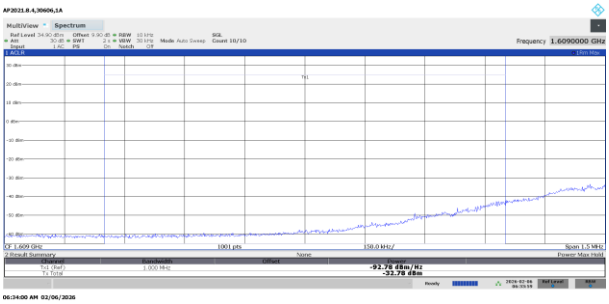
Plots below show passing result using integration method:



1609.5MHz, 1MHz Integration



1609.25MHz, 1MHz Integration



1609.0MHz, 1MHz Integration

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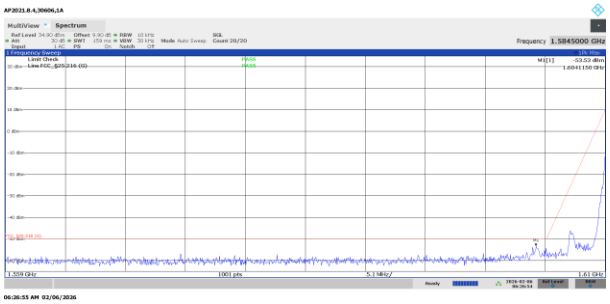
Narrowband Low Channel 1610.17MHz



1559MHz – 1610MHz

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10.3. CARRIER-OFF STATE EMISSIONS (1559MHz – 1610MHz)

LIMITS

FCC §25.216

Limits on emissions from mobile earth stations for protection of aeronautical radionavigation-satellite service

(i) The e.i.r.p density of carrier-off state emissions from mobile earth stations manufactured more than six months after Federal Register publication of the rule changes adopted in FCC 03-283 with assigned uplink frequencies between 1 and 3 GHz shall not exceed −80 dBW/MHz in the 1559-1610 MHz band averaged over any two millisecond interval.

ISED RSS-170§ 5.10: Carrier-off State Emissions

MESs with transmitting frequencies between 1 GHz and 3 GHz shall not exceed -80 dBW/MHz, which is the e.i.r.p. density of carrier-off state emissions in the band 1559-1610 MHz.

TEST PROCEDURE

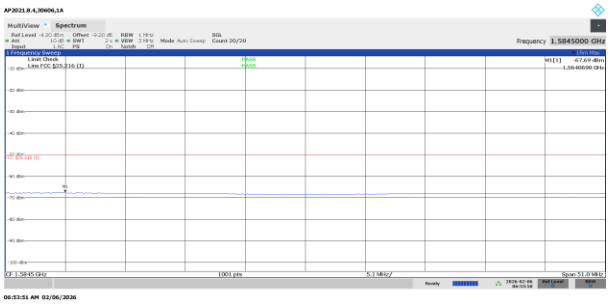
KDB 971168 D01/D02

Set RBW = 1MHz, VB = 3MHz, detector = rms, sweep time ~ number of points x 2ms, and sweep multiple times with max hold enabled.

RESULTS

No emissions were found on both horizontal and vertical polarization for ANT 4.

Date:	2026-02-06
Test Engineer:	30606
Configuration:	EUT + Charger
Mode:	RX (TX Off)
Chamber #:	01-RDE-A



Low Channel Ant 4

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11. SETUP PHOTOS

Refer to 15982152-EP1 for setup photos

12. APPENDIX A – SPOT CHECK EVALUATION

12.1. MODEL DIFFERENCES

The manufacturer hereby declares the following for models A3472, A3713, and A3714. These models are very similar, with only the following differences.

Model	FCC ID	IC ID	Feature Difference	Sim Support	Reference Model
A3472	BCG-E9186A	579C-E9186A	-With FR2 -No LTE B11, B21	eSIM	-
A3713	BCG-E9192A	579C-E9192A	-Without FR2 -Added LTE B11, B21	eSIM	A3472
A3714	BCG-E9193A	579C-E9193A	-Without FR2 -No LTE/5GNR B14, B29, B71 -No LTE B11, B21	eSIM	

Note:

- All Models use the same System, Cellular and Connectivity radio electrical schematics.
- Removal of LTE/ 5GNR bands on models either done by software or de-population of related components. For models without FR2 may have different antenna gains on certain bands. Please refer to data reuse test plan for details.
- All Models use the same Applications Processor and PMU.
- All Models use the same UICC hardware/software interface.
- All Models run the same Baseband firmware and iOS software.

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).

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

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

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12.2. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3713

A3713 SPOT CHECK RESULTS										
Equipment Class / Technology	Worst Mode	Test Item		Channel	Measured Frequency (MHz)	Original Model: A3472 FCC ID : BCG-E9186A IC : 579C-E9186A	Sub Model: A3713 FCC ID : BCG-E9192A IC : 579C-E9192A	Delta (dB or MHz)	Margin	Remarks
TNE / MSS	Ant 4	Avg EIRP Power (dBm)	Fundamental (-5.1dBi)	Mid	1618.40	23.60	23.55	-0.05	-5.10	Note 1
		Avg Additional Unwated Emission (dBm)	1605 - 1610 MHz (Vertical)	Low	1609.5	-10.00	-10.07	-0.07	-24.00	Note 1
		Pk RSE (dBm)	1000 - 18000 MHz (Horizontal)	Mid	4855.294	-47.31	-49.43	-2.12	-34.31	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.

12.3. SPOT CHECK VERIFICATION RESULTS SUMMARY FOR A3714

A3714 SPOT CHECK RESULTS										
Equipment Class / Technology	Worst Mode	Test Item		Channel	Measured Frequency (MHz)	Original Model: A3472 FCC ID : BCG-E9186A IC : 579C-E9186A	Sub Model: A3714 FCC ID : BCG-E9193A IC : 579C-E9193A	Delta (dB or MHz)	Margin	Remarks
TNE / MSS	Ant 4	Avg EIRP Power (dBm)	Fundamental (-5.1dBi)	Mid	1618.40	23.60	23.50	-0.10	-5.10	Note 1
		Avg Additional Unwated Emission (dBm)	1605 - 1610 MHz (Vertical)	Low	1609.5	-10.00	-9.28	0.72	-24.00	Note 1
		Pk RSE (dBm)	1000 - 18000 MHz (Horizontal)	Mid	4855.294	-47.31	-50.59	-3.28	-34.31	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.

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