



TEST REPORT

Report Number. : R13708588-E2

Applicant : Ademco Inc.
251 Little Falls Dr.
Wilmington, DE, 19808, U.S.A

Model : TH6220WF2006

FCC ID : HS9-TH6220WF01

IC : 573R-TH6220WF01

EUT Description : Wifi Thermostat

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C: 2021
ISED RSS-247 ISSUE 2: 2017
ISED RSS-GEN ISSUE 5 + A2: 2021

Date Of Issue:
2021-10-26

Prepared by:
UL LLC
12 Laboratory Dr.
Research Triangle Park, NC 27709 U.S.A.
TEL: (919) 549-1400



REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2021-10-01	Initial Issue	Haley Ackun
V2	2021-10-12	Antenna gains updated	Haley Ackun
V3	2021-10-26	Antenna gains updated	Haley Ackun

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Ademco Inc.
251 Little Falls Dr.
Wilmington, DE, 19808, U.S.A

EUT DESCRIPTION: Wifi Thermostat

MODEL: TH6220WF2006

SERIAL NUMBER: Radiated Samples: 1942LBJ55642
Conducted Samples: 2012LBJ61707

SAMPLE RECEIPT DATE: 2021-03-26

DATE TESTED: 2021-05-18 TO 2021-05-25

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C: 2021	Complies
ISED RSS-247 Issue 2: 2017	Complies
ISED RSS-GEN Issue 5 + A2: 2021	Complies

UL LLC 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.

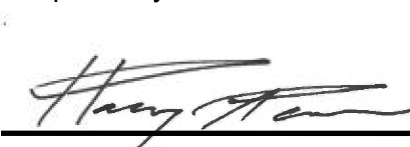
This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by any agency of the U.S. government.

Approved & Released For
UL LLC. By:



Brian T. Kiewra
Project Engineer
Consumer Technology Division
UL LLC.

Prepared By:



Haley Ackun
Laboratory Engineer
Consumer Technology Division
UL LLC.

2. TEST RESULTS SUMMARY

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 6.9.3.
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW	Complies	None.
15.247 (b) (3)	RSS-247 5.4 (d)	Output Power	Complies	None.
See Comment		Average power	Reporting purposes only	Per ANSI C63.10, Section 11.9.2.3.2.
15.247 (e)	RSS-247 5.2 (b)	PSD	Complies	None.
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions	Complies	None.
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions	Complies	None.
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Complies	None.

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

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15: 2021, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, RSS-GEN Issue 5 + A2: 2021, and RSS-247 Issue 2: 2017.

4. FACILITIES AND ACCREDITATION

UL LLC is accredited A2LA, certification # 0751.06, 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
<input type="checkbox"/>	Building: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	703469
<input checked="" type="checkbox"/>	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560	US0067	2180C	703469

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	UNCERTAINTY
Radio Frequency (Spectrum Analyzer)	141.2 Hz
Occupied Channel Bandwidth	1.22%
RF output power, conducted	1.3 dB (PK) 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	1.94 dB
All emissions, radiated	6.01 dB
Conducted Emissions (0.150-30MHz) - LISN	3.40 dB
Temperature	0.57°C
Humidity	3.39%
DC Supply voltages	1.70%
Time	3.39%

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)

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.

$$36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} = 46.6 \text{ dBuV}$$

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a wifi thermostat that supports BLE and 2.4 GHz WLAN. This report covers full testing for BLE.

The EUT contains 2 antennas for diversity only.

6.2. MAXIMUM OUTPUT POWER

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

Antenna 1

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	BLE	7.75	5.96

Antenna 2

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	BLE	8.02	6.34

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type, as provided by the manufacturer' are as follows:

The radio utilizes 2 PCB antennas, antenna 1 with a maximum gain of 1.8 dBi and antenna 2 with a maximum gain of 1.5 dBi.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 1.6.4.5

The test utility software used during testing was Broadcom wl.exe utility.

6.5. WORST-CASE CONFIGURATION AND MODE

Radiated emissions below 1GHz, above 18GHz, and power line conducted emission were performed with the EUT set to transmit on the worst-case antenna and at the channel with the highest output power as worst-case scenario.

Band edge and radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit, on each antenna, at the highest power on low, middle and high channels.

The fundamental of the EUT was investigated in two orthogonal orientations X, Y, and Z on both antennas; it was determined that X orientation was worst-case orientation for antenna 1 and Y orientation was worst-case orientation for antenna 2; therefore, all final radiated testing was performed with the EUT in X orientation for antenna 1 and Y orientation for antenna 2.

The EUT only supports 1 data rate, therefore all final testing was performed with the EUT at 1 Mbps.

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Transformer	Honeywell	AT72D 1683	NA	NA
Laptop	Lenovo	Thinkpad	NA	NA

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	1	1	AC Mains	Shielded	<1m	The EUT is connected to transformer via wallplate with line in and line out wiring.
2	2	1	I/O	Un-shielded	<1m	For configuration only.

TEST SETUP

Test software exercised the radio card.

SETUP DIAGRAMS

Please refer to R13708588-EP1 for setup diagrams

7. MEASUREMENT METHOD

Duty Cycle: ANSI C63.10-2013 Section 11.6

6 dB BW: ANSI C63.10 Subclause -11.8.1

Output Power: ANSI C63.10 Subclause -11.9.1.3 Method PKPM1 Peak-reading power meter
Output Power: ANSI C63.10 Subclause -11.9.2.3.2 Method AVGPM-G (Measurement using a gated RF average-reading power meter)

PSD: ANSI C63.10 Subclause -11.10.2 Method PKPSD (peak PSD)

Radiated emissions non-restricted frequency bands: ANSI C63.10 Subclause -11.11 and 6.10.4

Radiated emissions restricted frequency bands: ANSI C63.10 Subclause -11.12.1 and 6.10.5

General Radiated Spurious Emissions: ANSI C63.10 Sections 6.3-6.6

AC Power Line Conducted Emissions: ANSI C63.10-2013, Section 6.2

8. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2021-04-05	2022-04-05
HI0091	Environmental Meter	Fisher Scientific	14-650-118	2020-06-26	2021-06-26
LISN003	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2020-08-18	2021-08-18
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2020-08-18	2021-08-18
ATA222	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2021-04-05	2022-04-05
PS214	AC Power Source	Elgar	CW2501M (s/n 1523A02396)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (2021-03-04)		

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
HI0090	Environmental Meter	Fisher Scientific	15-077-963	2020-06-26	2021-06-26
SOFTEMI	Antenna Port Software	UL	Version 2021.05.13	NA	NA
SA0026	Spectrum Analyzer	Keysight Technologies	N9030A	2020-07-16	2021-07-16
CBL099	Cable, coax, UFA147A, 1.5-ft, 2,92-mm-male @ both ends	Micro-Coax	UFA147A-0-0180-200200	2020-11-02	2021-11-31
PWS004	Peak and Avg Power Sensor, 50MHz to 6GHz	Keysight Technologies	E9323A	2020-08-12	2021-08-12
PWM002	RF Power Meter	Keysight Technologies	N1911A	2020-07-31	2021-07-31

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville - South Chamber)

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	0.009-30MHz				
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2020-08-20	2021-08-20
	30-1000 MHz				
AT0075	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2020-10-27	2021-10-27
	1-18 GHz				
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2021-05-03	2022-05-03
	18-40 GHz				
AT0063	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2020-10-30	2021-10-30
	Gain-Loss Chains				
S-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2020-07-10	2021-07-10
S-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2020-07-10	2021-07-10
S-SAC03	Gain-loss string: 1-18GHz	Various	Various	2020-07-06	2021-07-06
S-SAC04	Gain-loss string: 18-40GHz	Various	Various	2020-07-07	2021-07-07
	Receiver & Software				
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-10	2022-03-10
SA0026	Spectrum Analyzer	Agilent	N9030A	2020-07-16	2021-07-16
SOFTEMI	EMI Software	UL	Version 9.5 (2021-03-04)		
	Additional Equipment used				
s/n 200037635	Environmental Meter	Fisher Scientific	06-662-4	2020-01-22	2022-01-22

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

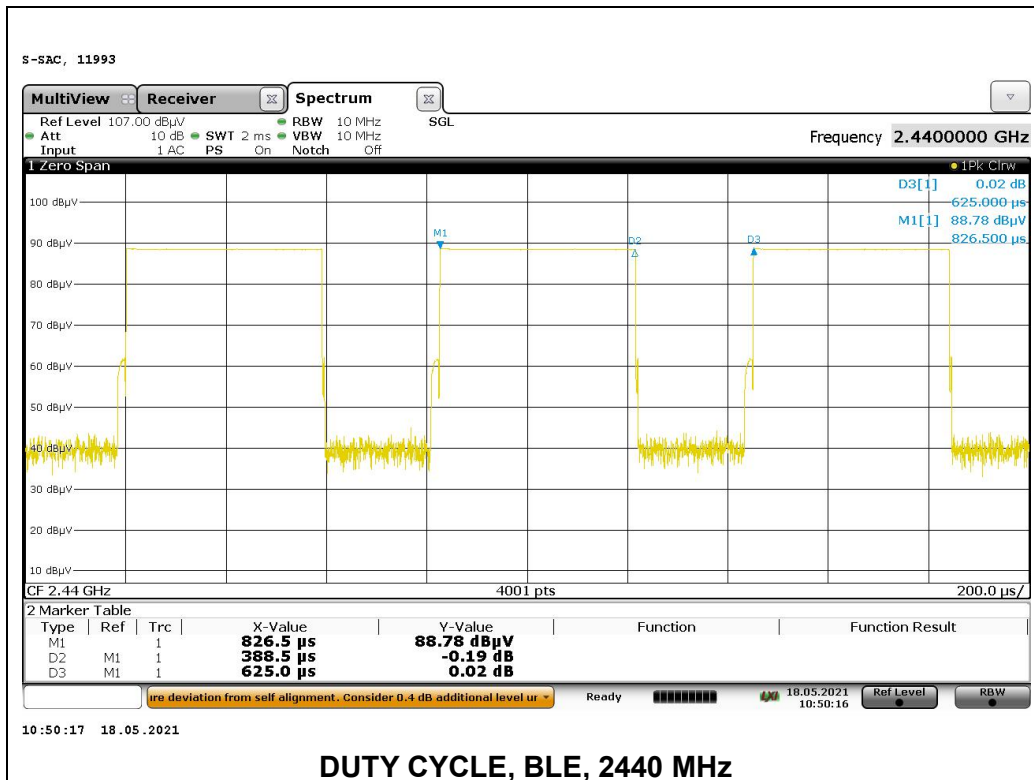
KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

9.1.1. ANTENNA 1

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
BLE	0.389	0.6250	0.622	62.16%	4.13	2.574

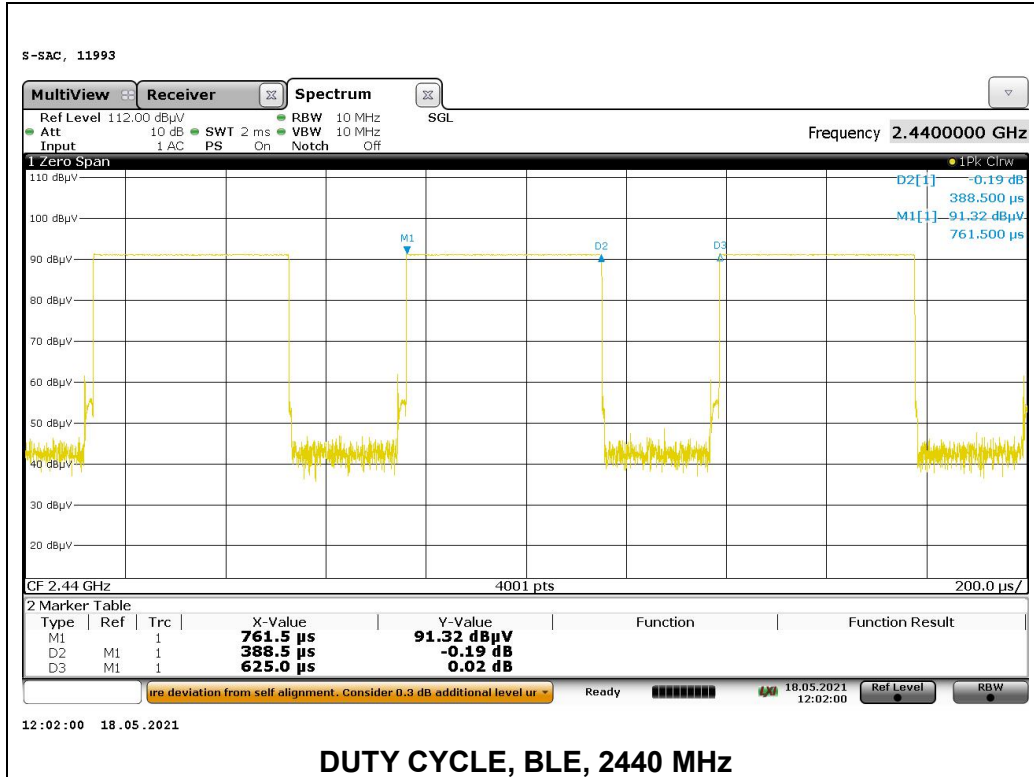
DUTY CYCLE PLOT



9.1.2. ANTENNA 2

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
BLE	0.389	0.6250	0.622	62.16%	4.13	2.574

DUTY CYCLE PLOT



9.2. 99% BANDWIDTH

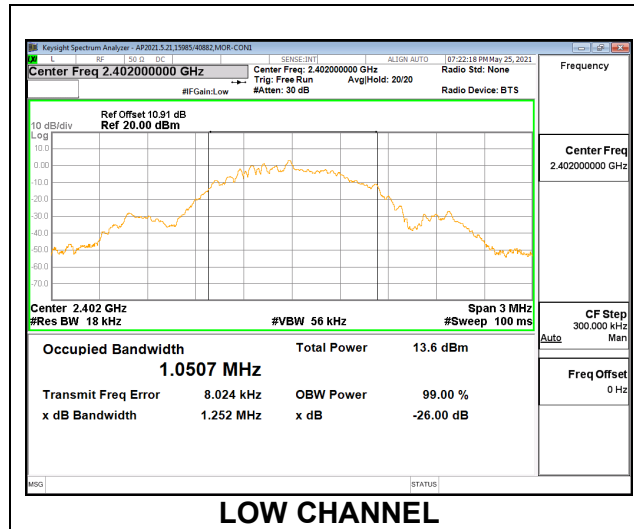
LIMITS

None; for reporting purposes only.

RESULTS

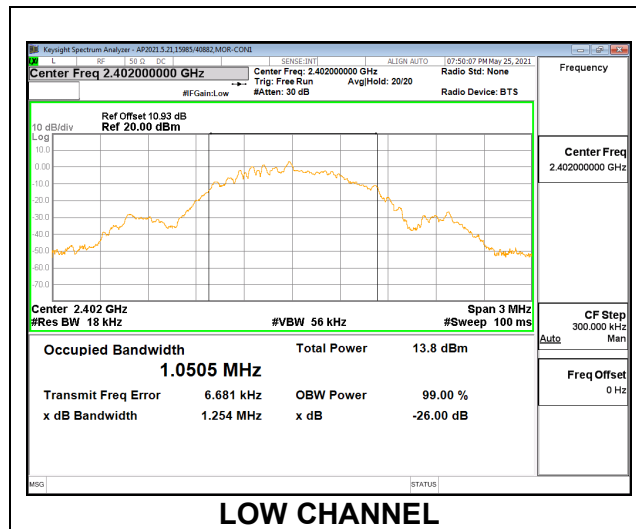
9.2.1. ANTENNA 1

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0507
Middle	2440	1.0502
High	2480	1.0507



9.2.2. ANTENNA 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0505
Middle	2440	1.0503
High	2480	1.0494



9.3. 6 dB BANDWIDTH

LIMITS

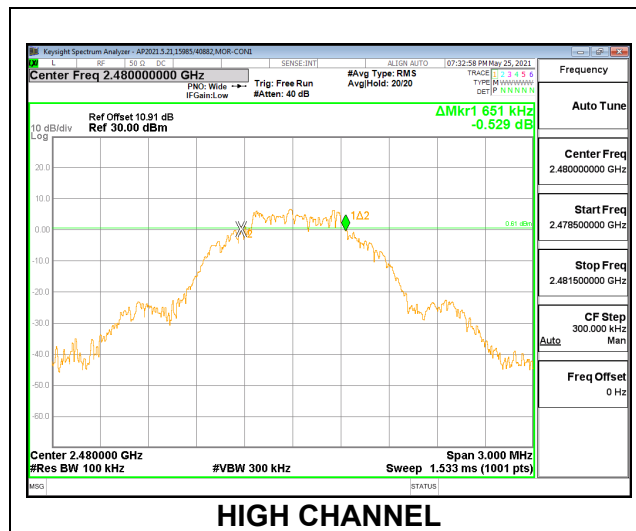
FCC §15.247 (a) (2)
 RSS-247 5.2 (a)

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

RESULTS

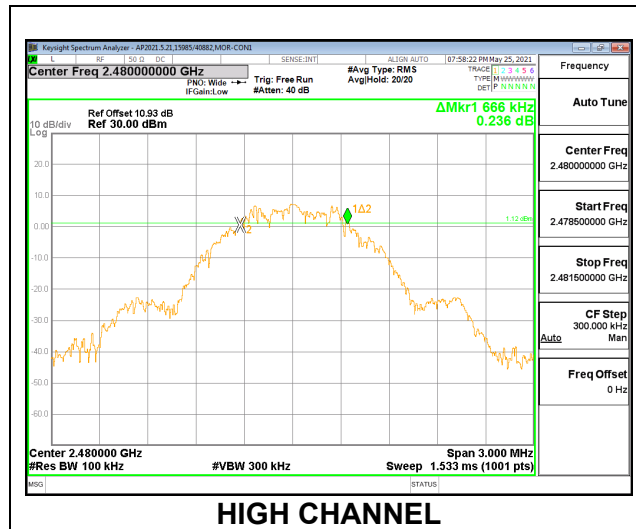
9.3.1. ANTENNA 1

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.678	0.5
Middle	2440	0.690	0.5
High	2480	0.651	0.5



9.3.2. ANTENNA 2

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.675	0.5
Middle	2440	0.723	0.5
High	2480	0.666	0.5



9.4. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

RSS-247 5.4 (d)

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

TEST PROCEDURE

The transmitter output is connected to a power meter for a peak reading of power.

For antenna 1, the cable assembly insertion loss of 10.912 dB (9.72 dB pad, 0.35 dB test cable, and 0.84 dB EUT cable) was entered as an offset in the power meter.

For antenna 2, the cable assembly insertion loss of 10.932 dB (9.72 dB pad, 0.35 dB test cable, and 0.86 dB EUT cable) was entered as an offset in the power meter.

RESULTS

9.4.1. ANTENNA 1

Tested By:	15985/40882
Date:	2021-05-25

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	7.75	30	-22.250
Middle	2440	7.54	30	-22.460
High	2480	7.37	30	-22.630

9.4.2. ANTENNA 2

Tested By:	15985/40882
Date:	2021-05-25

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	8.00	30	-22.000
Middle	2440	8.02	30	-21.980
High	2480	7.86	30	-22.140

9.5. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a RF power meter for a gated average reading of power.

For antenna 1, the cable assembly insertion loss of 10.912 dB (9.72 dB pad, 0.35 dB test cable, and 0.84 dB EUT cable) was entered as an offset in the power meter.

For antenna 2, the cable assembly insertion loss of 10.932 dB (9.72 dB pad, 0.35 dB test cable, and 0.86 dB EUT cable) was entered as an offset in the power meter.

RESULTS

9.5.1. ANTENNA 1

Tested By:	15985/40882
Date:	2021-05-25

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	7.61
Middle	2440	7.45
High	2480	7.04

9.5.2. ANTENNA 2

Tested By:	15985/40882
Date:	2021-05-25

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	7.84
Middle	2440	7.79
High	2480	7.44

9.6. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

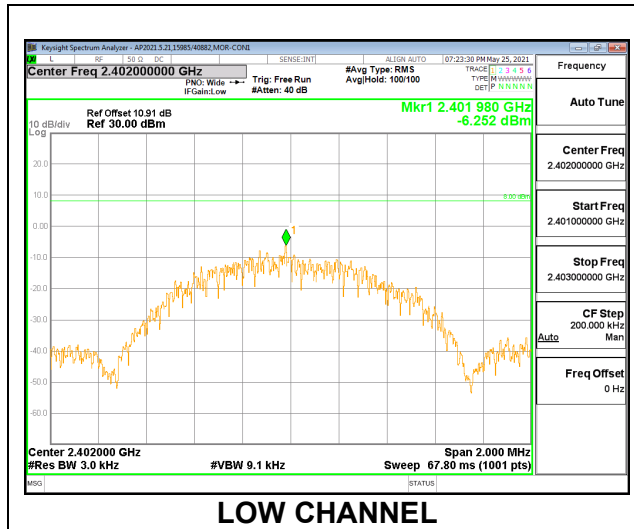
RSS-247 (5.2) (b)

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

RESULTS

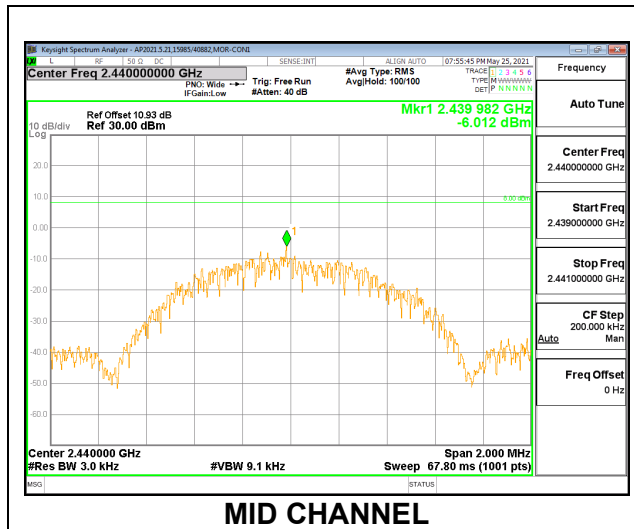
9.6.1. ANTENNA 1

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2402	-6.252	8	-14.25
Middle	2440	-6.739	8	-14.74
High	2480	-6.837	8	-14.84



9.6.2. ANTENNA 2

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2402	-6.166	8	-14.17
Middle	2440	-6.012	8	-14.01
High	2480	-6.445	8	-14.45



9.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

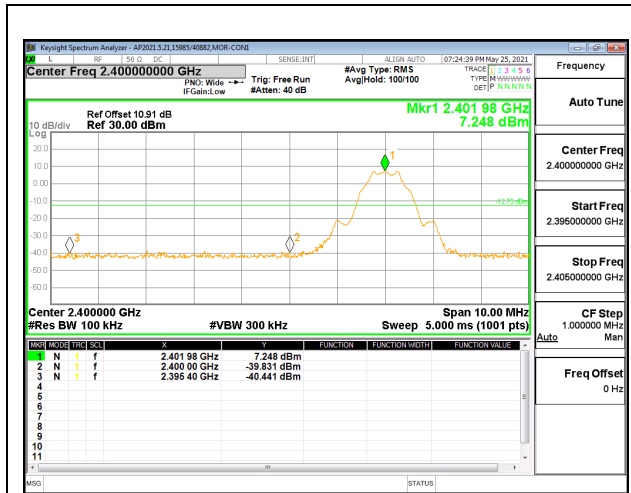
FCC §15.247 (d)

RSS-247 5.5

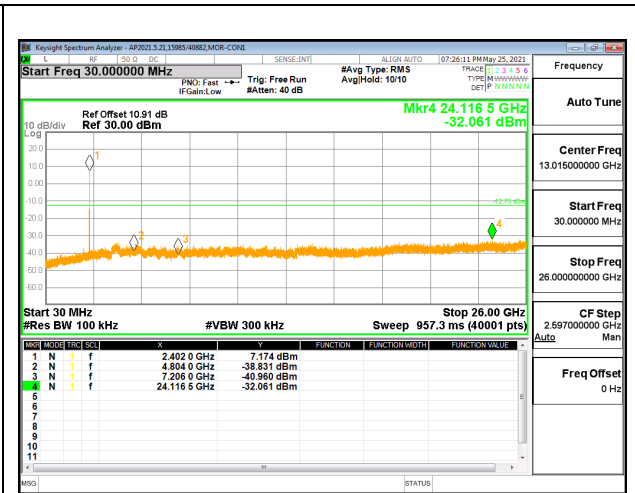
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dBc.

RESULTS

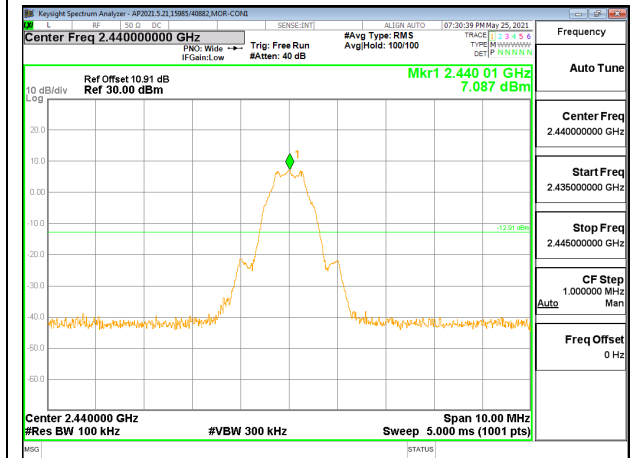
9.7.1. ANTENNA 1



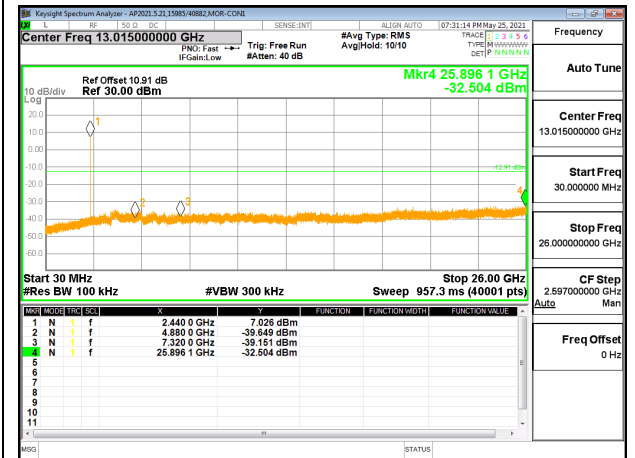
LOW CHANNEL BANDEDGE



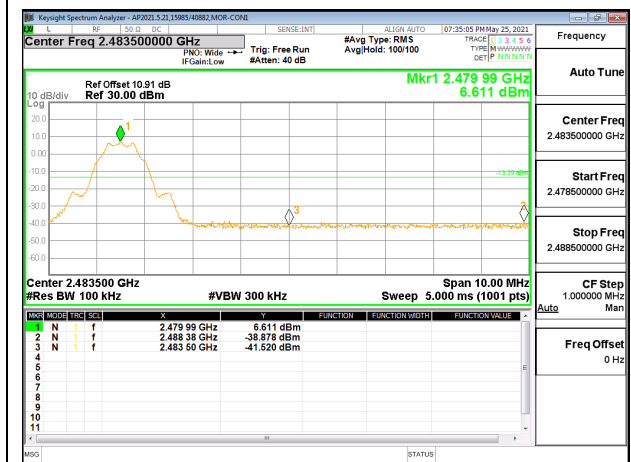
OUT-OF-BAND LOW CHANNEL



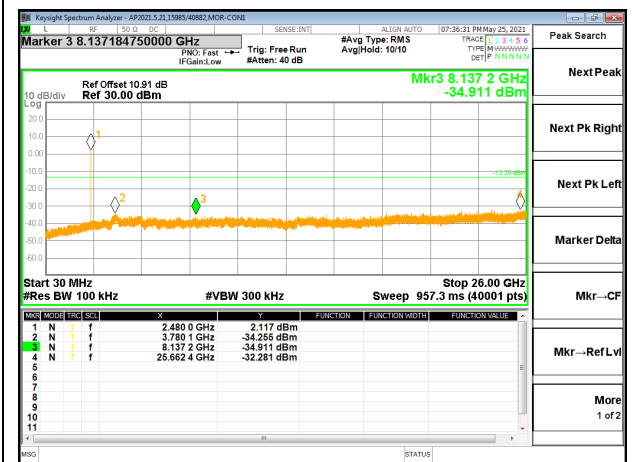
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL

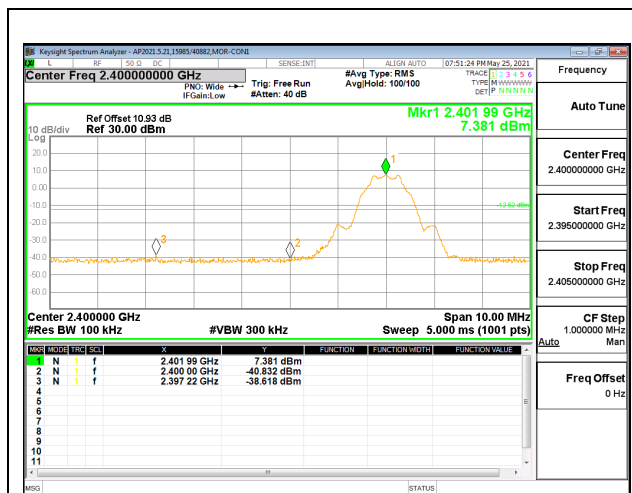


HIGH CHANNEL BANDEDGE

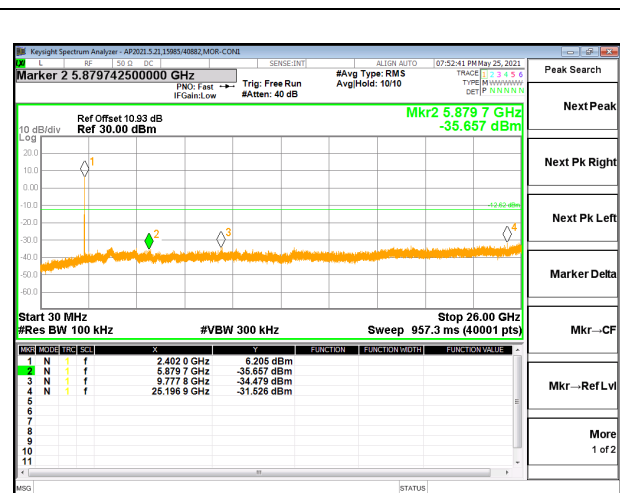


OUT-OF-BAND HIGH CHANNEL

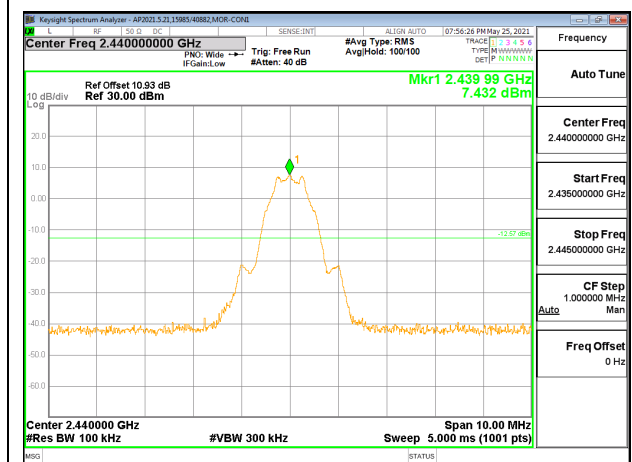
9.7.2. ANTENNA 2



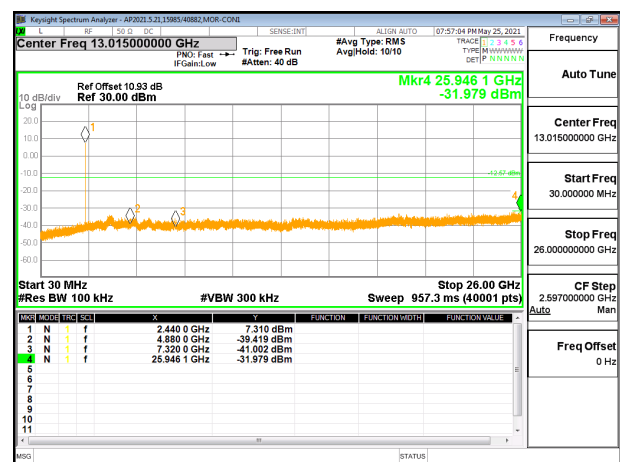
LOW CHANNEL BANDEDGE



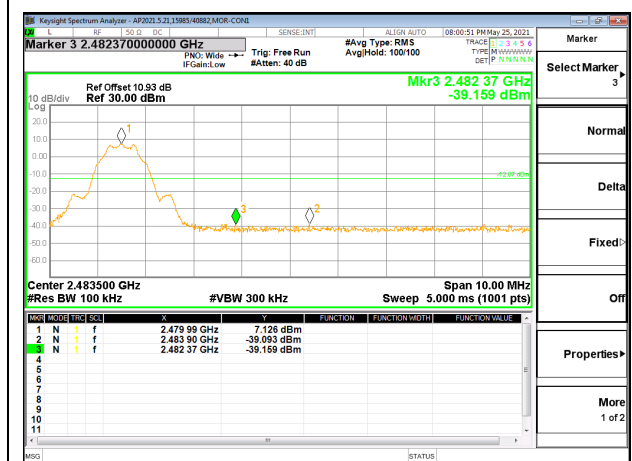
OUT-OF-BAND LOW CHANNEL



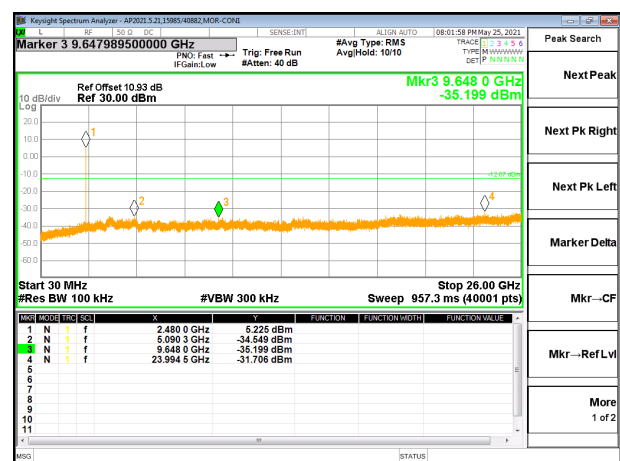
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



OUT-OF-BAND HIGH CHANNEL

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. Peak detection is used unless otherwise noted as quasi-peak or average (9-90kHz and 110-490kHz).

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for linear voltage averaging measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the worst-case antenna and the channel with the highest output power was tested.

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

3D antenna use - For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel).

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

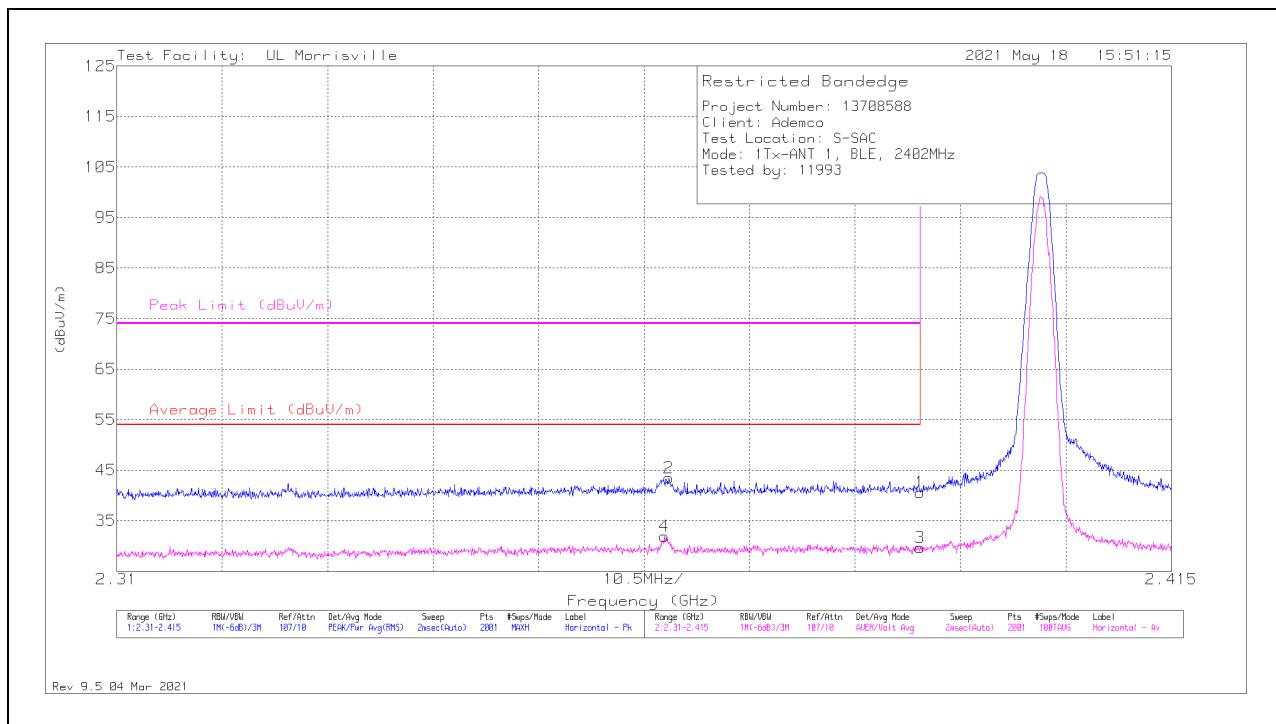
OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. ANTENNA 1

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.38996	32.7	Pk	31.9	-24	0	40.6	-	-	74	-33.4	122	272	H
2	*** 2.36497	35.15	Pk	32.2	-23.9	0	43.45	-	-	74	-30.55	122	272	H
3	*** 2.38996	17.6	ADV	31.9	-24	4.13	29.63	54	-24.37	-	-	122	272	H
4	*** 2.36455	19.47	ADV	32.2	-23.9	4.13	31.9	54	-22.1	-	-	122	272	H

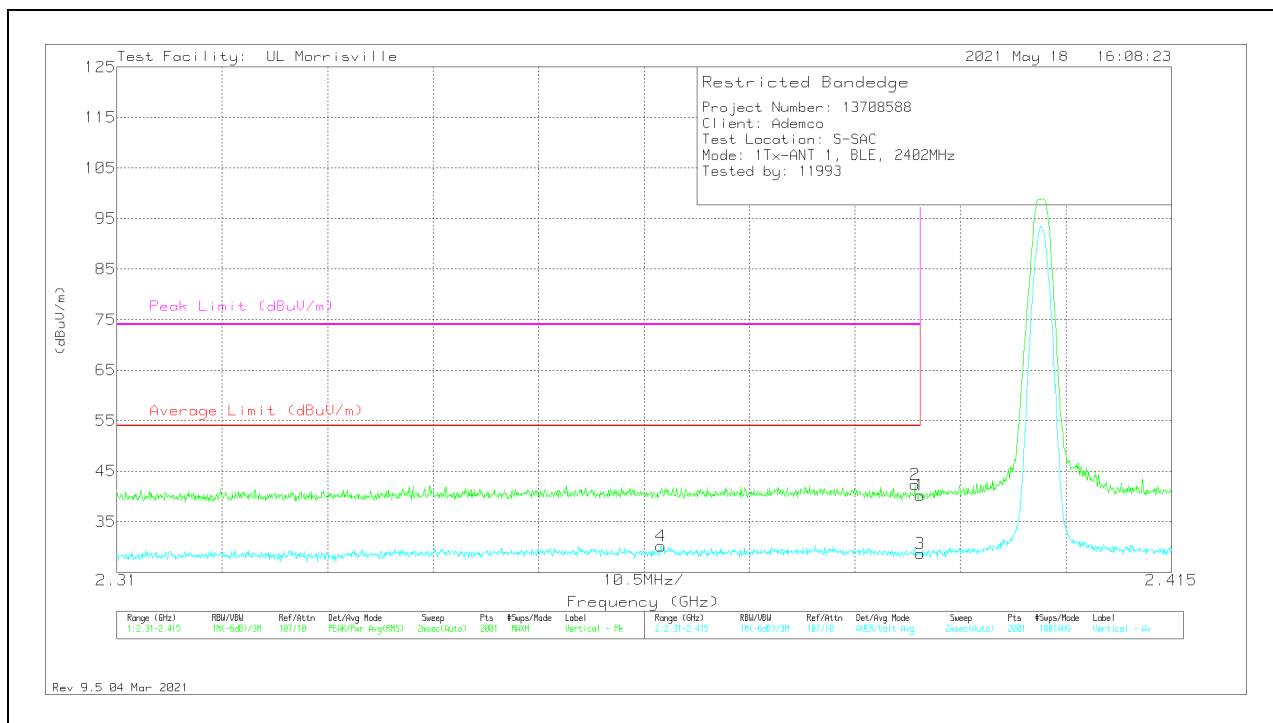
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.38996	32.35	Pk	31.9	-24	0	40.25	-	-	74	-33.75	279	394	V
2	* ** 2.38949	34.46	Pk	31.9	-24	0	42.36	-	-	74	-31.64	279	394	V
3	* ** 2.38996	16.64	ADV	31.9	-24	4.13	28.67	54	-25.33	-	-	279	394	V
4	* ** 2.36418	17.74	ADV	32.2	-23.9	4.13	30.17	54	-23.83	-	-	279	394	V

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

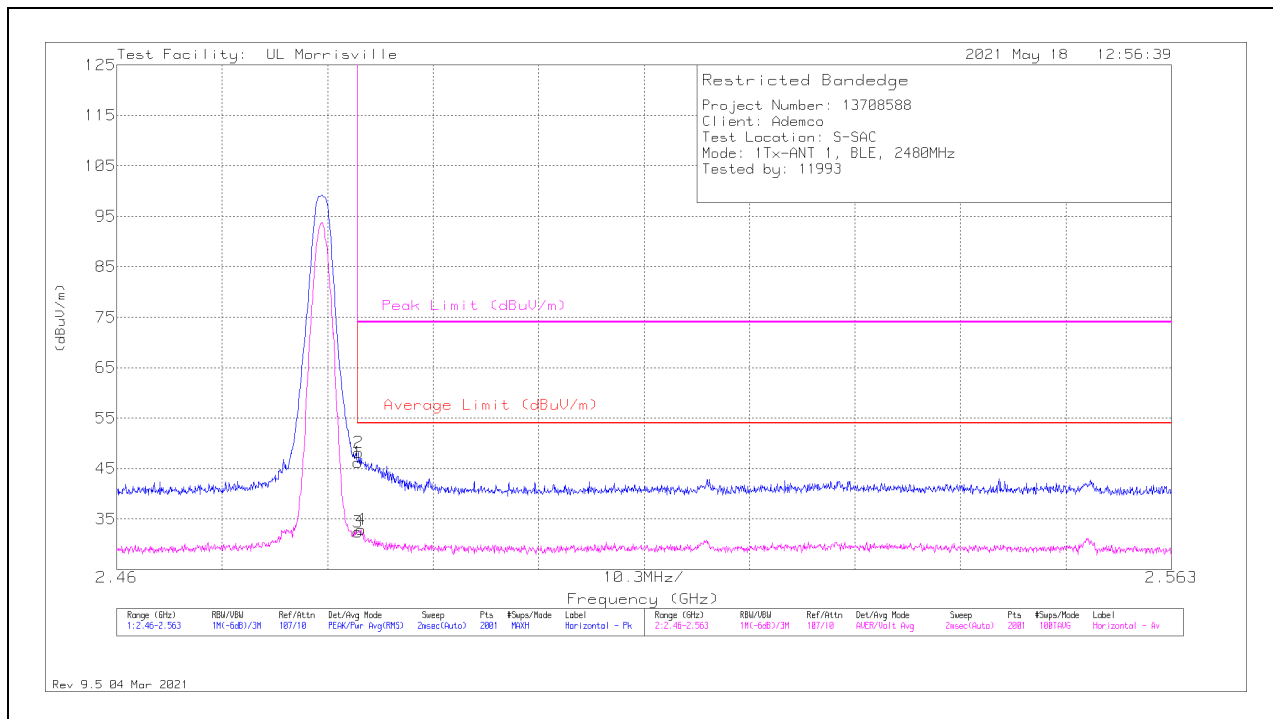
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	38.1	Pk	32.5	-24.4	0	46.2	-	-	74	-27.8	143	219	H
2	* ** 2.48364	40.12	Pk	32.5	-24.4	0	48.22	-	-	74	-25.78	143	219	H
3	* ** 2.48354	20.16	ADV	32.5	-24.4	4.13	32.39	54	-21.61	-	-	143	219	H
4	* ** 2.48384	20.65	ADV	32.5	-24.4	4.13	32.88	54	-21.12	-	-	143	219	H

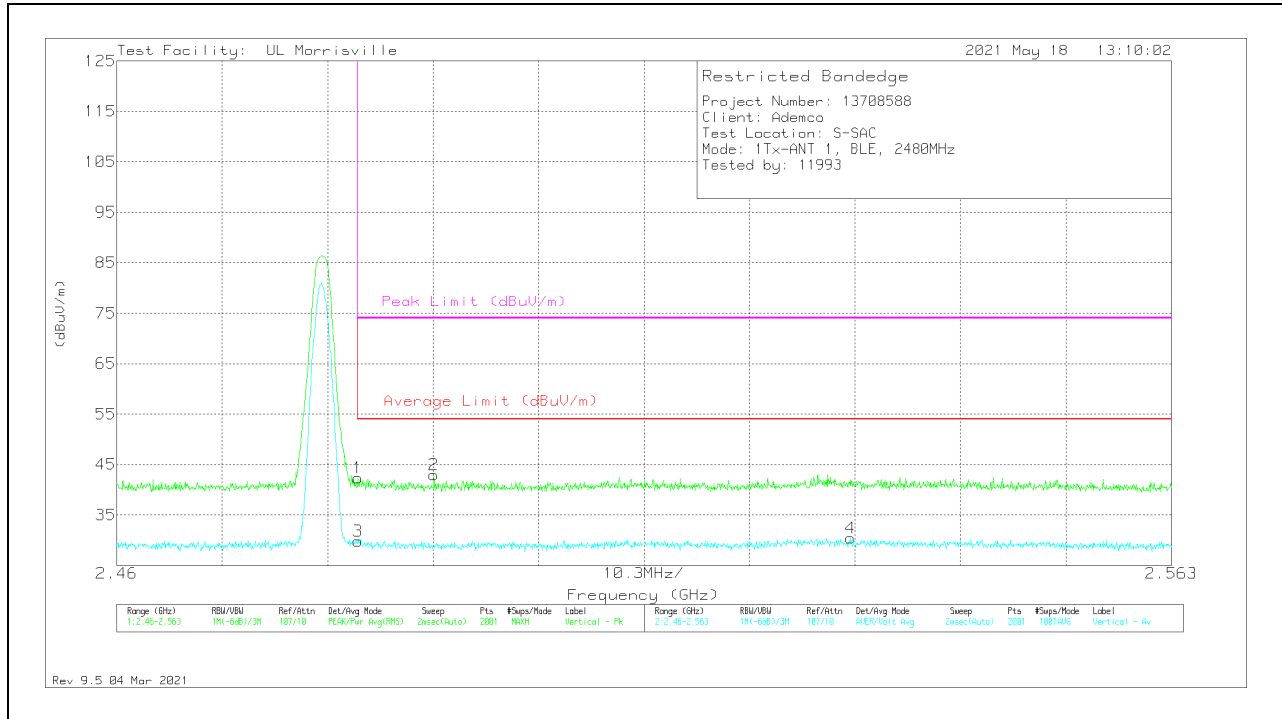
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

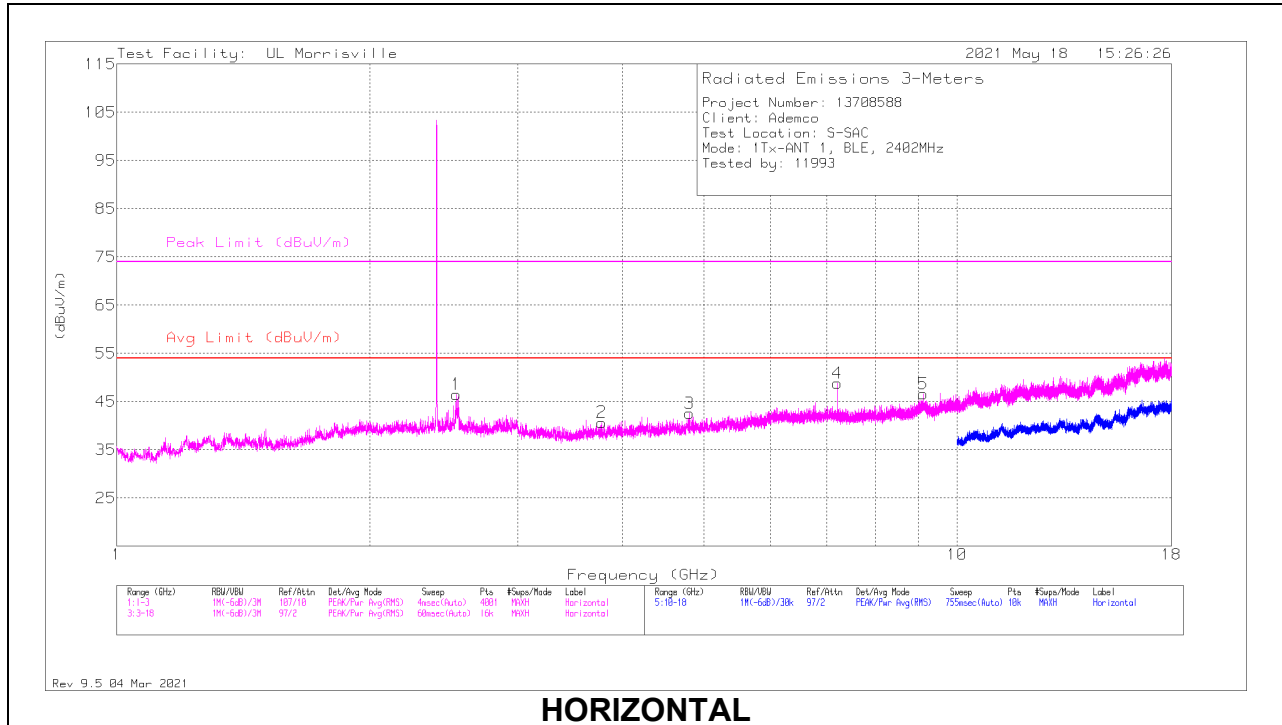


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	34.22	Pk	32.5	-24.4	0	42.32	-	-	74	-31.68	15	150	V
2	* ** 2.49095	35.18	Pk	32.4	-24.6	0	42.98	-	-	74	-31.02	15	150	V
3	* ** 2.48354	17.59	ADV	32.5	-24.4	4.13	29.82	54	-24.18	-	-	15	150	V
4	** 2.53164	17.94	ADV	33.1	-24.8	4.13	30.37	54	-23.63	-	-	15	150	V

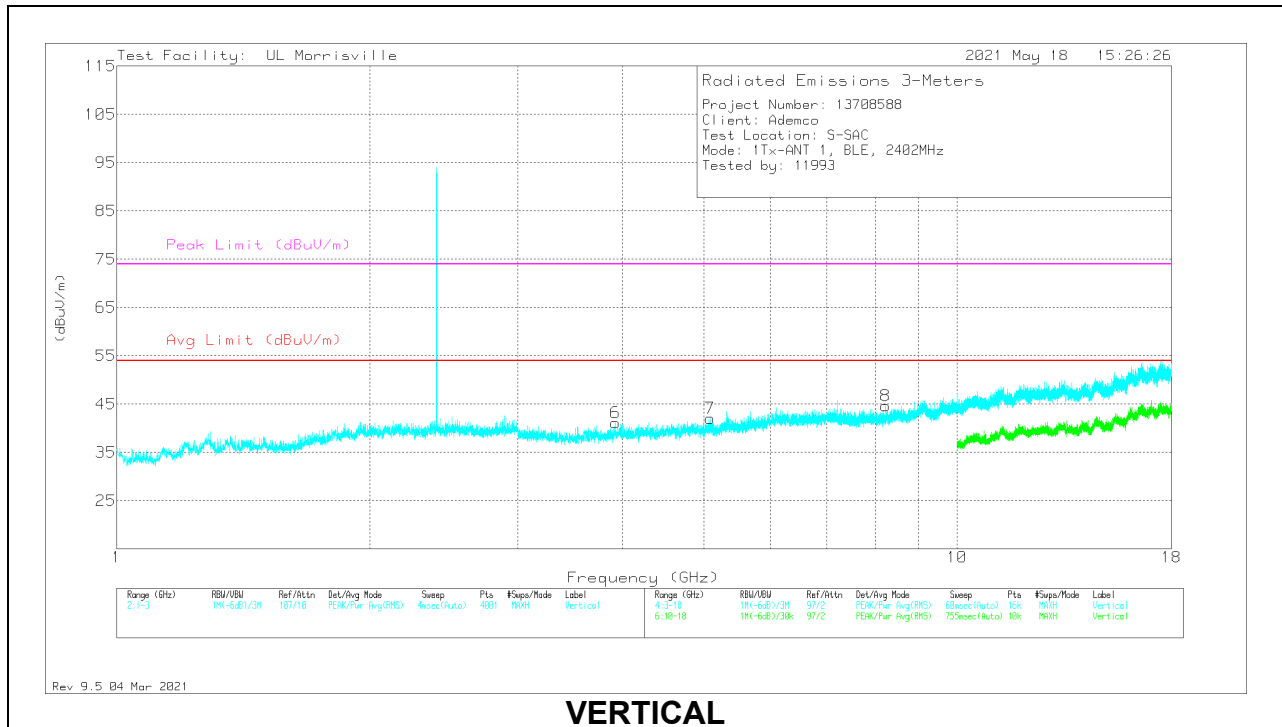
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



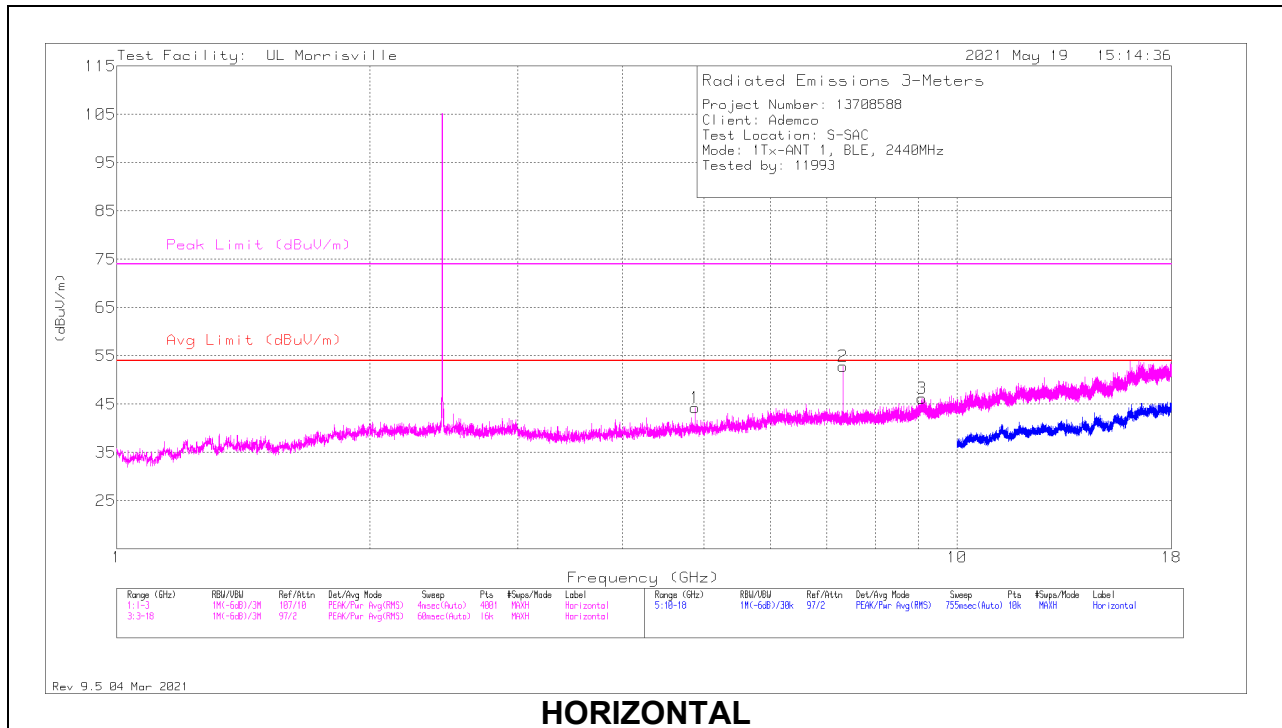
VERTICAL

RADIATED EMISSIONS

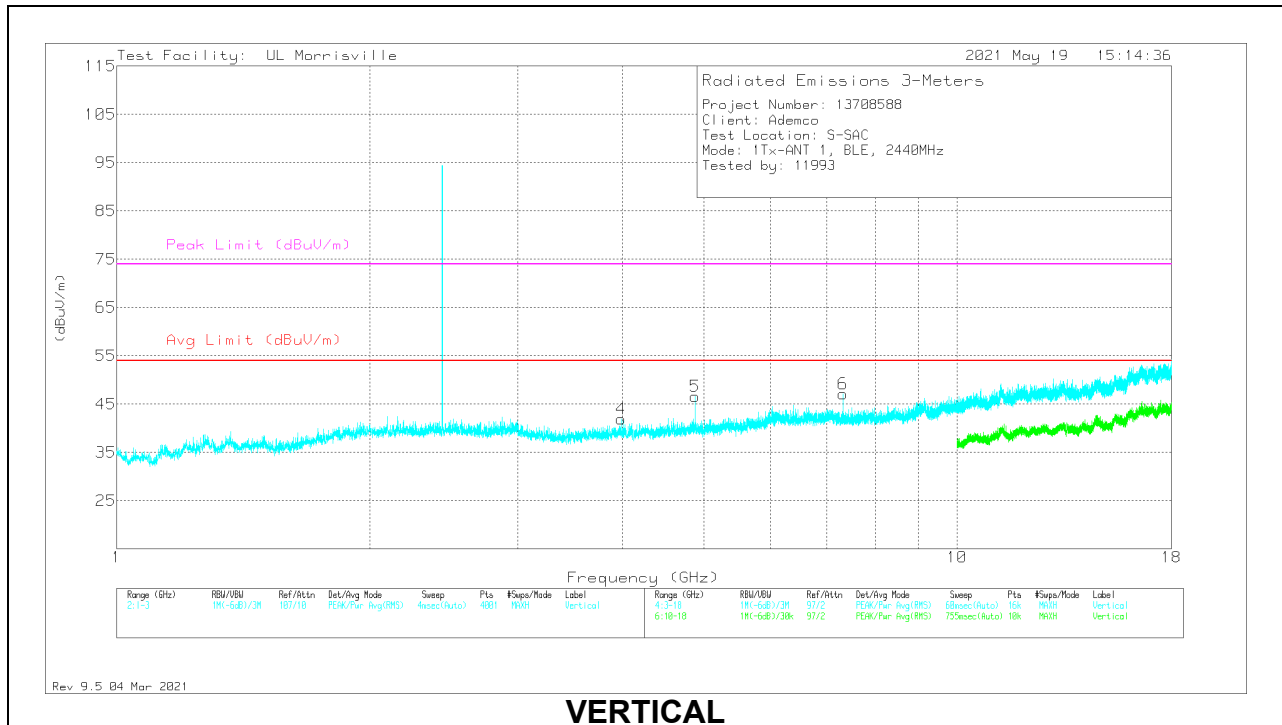
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 2.5365	38.54	Pk	32.8	-24.8	46.54	54	-7.46	74	-27.46	0-360	101	H
2	* ** 3.77813	40.1	Pk	33.3	-32.7	40.7	54	-13.3	74	-33.3	0-360	101	H
3	* ** 4.80375	39.42	Pk	34.1	-30.9	42.62	54	-11.38	74	-31.38	0-360	200	H
5	* ** 9.12188	36.05	Pk	36.3	-25.8	46.55	54	-7.45	74	-27.45	0-360	101	H
6	* ** 3.9225	39.5	Pk	33.5	-31.8	41.2	54	-12.8	74	-32.8	0-360	200	V
7	* ** 5.085	38.65	Pk	34.4	-31	42.05	54	-11.95	74	-31.95	0-360	101	V
8	* ** 8.22281	36.17	Pk	35.8	-27.3	44.67	54	-9.33	74	-29.33	0-360	101	V
4	7.20656	40.92	Pk	35.8	-27.9	48.82	-	-	-	-	0-360	101	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 4.87969	40.88	Pk	34.2	-30.8	0	44.28	54	-9.72	74	-29.72	0-360	101	H
2	* ** 7.31926	46.23	PK2	35.7	-27.4	0	54.53	-	-	74	-19.47	124	102	H
	* ** 7.31928	36.18	ADV	35.7	-27.4	4.13	48.61	54	-5.39	-	-	124	102	H
3	* ** 9.08625	36.15	Pk	36.3	-26.2	0	46.25	54	-7.75	74	-27.75	0-360	101	H
4	* ** 3.98625	40.02	Pk	33.6	-31.7	0	41.92	54	-12.08	74	-32.08	0-360	200	V
5	* ** 4.87969	43.15	Pk	34.2	-30.8	0	46.55	54	-7.45	74	-27.45	0-360	101	V
6	* ** 7.31906	38.85	Pk	35.7	-27.4	0	47.15	54	-6.85	74	-26.85	0-360	200	V

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

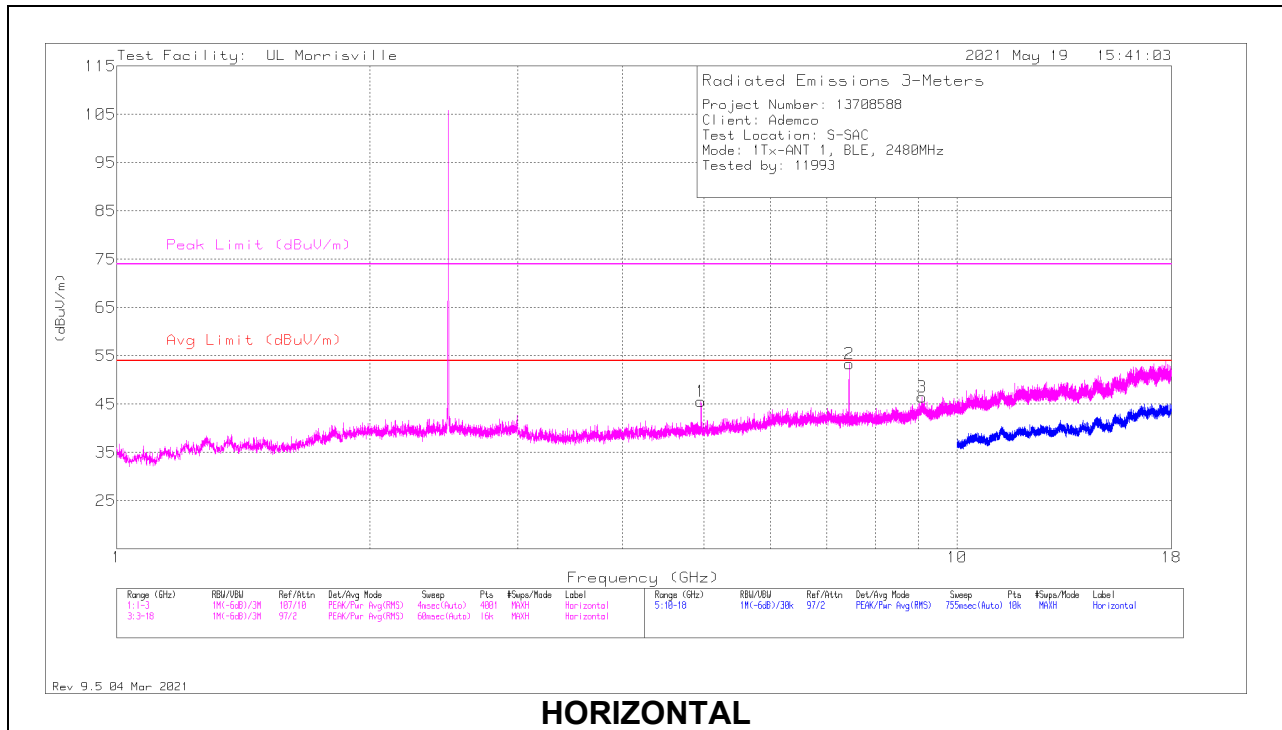
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

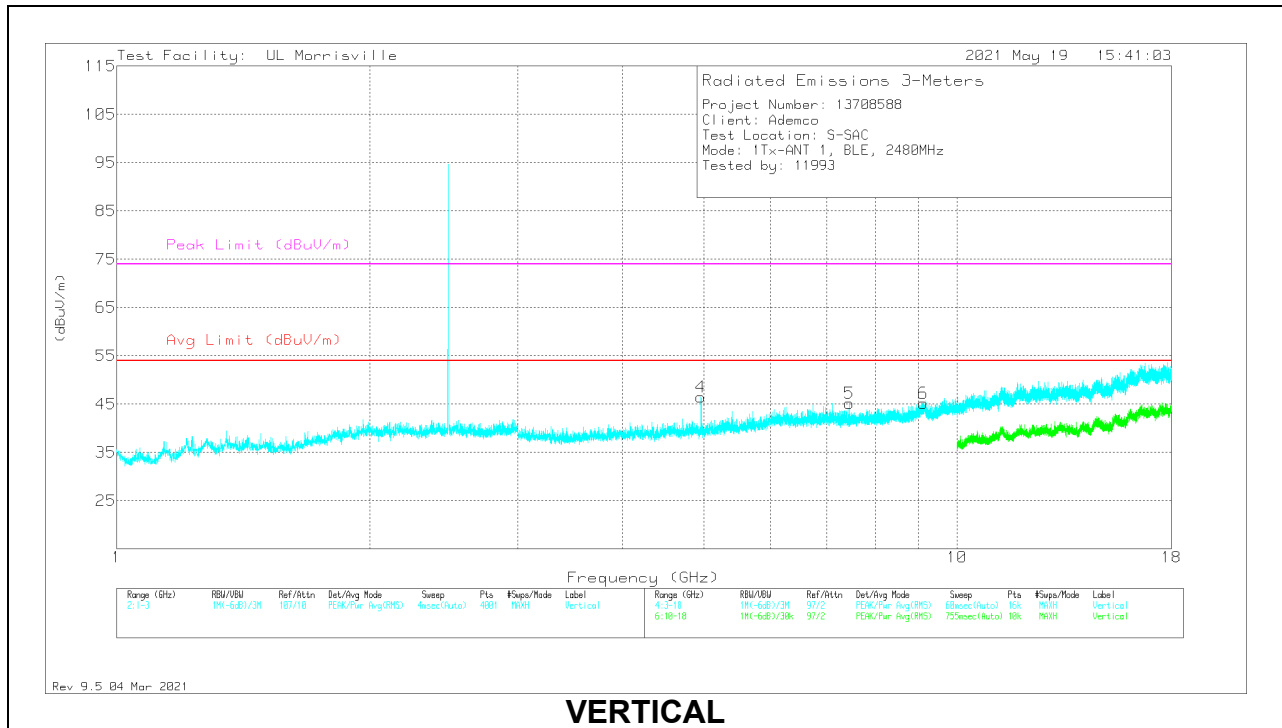
PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 4.95938	42.63	Pk	34	-31	0	45.63	54	-8.37	74	-28.37	0-360	101	H
2	* ** 7.43927	47.56	PK2	35.6	-27.7	0	55.46	-	-	74	-18.54	122	105	H
	* ** 7.43941	38.04	ADV	35.6	-27.7	4.13	50.07	54	-3.93	-	-	122	105	H
3	* ** 9.08813	36.27	Pk	36.3	-26.1	0	46.47	54	-7.53	74	-27.53	0-360	199	H
4	* ** 4.95938	43.46	Pk	34	-31	0	46.46	54	-7.54	74	-27.54	0-360	101	V
5	* ** 7.44094	37.3	Pk	35.6	-27.7	0	45.2	54	-8.8	74	-28.8	0-360	200	V
6	* ** 9.12469	34.82	Pk	36.3	-25.9	0	45.22	54	-8.78	74	-28.78	0-360	200	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

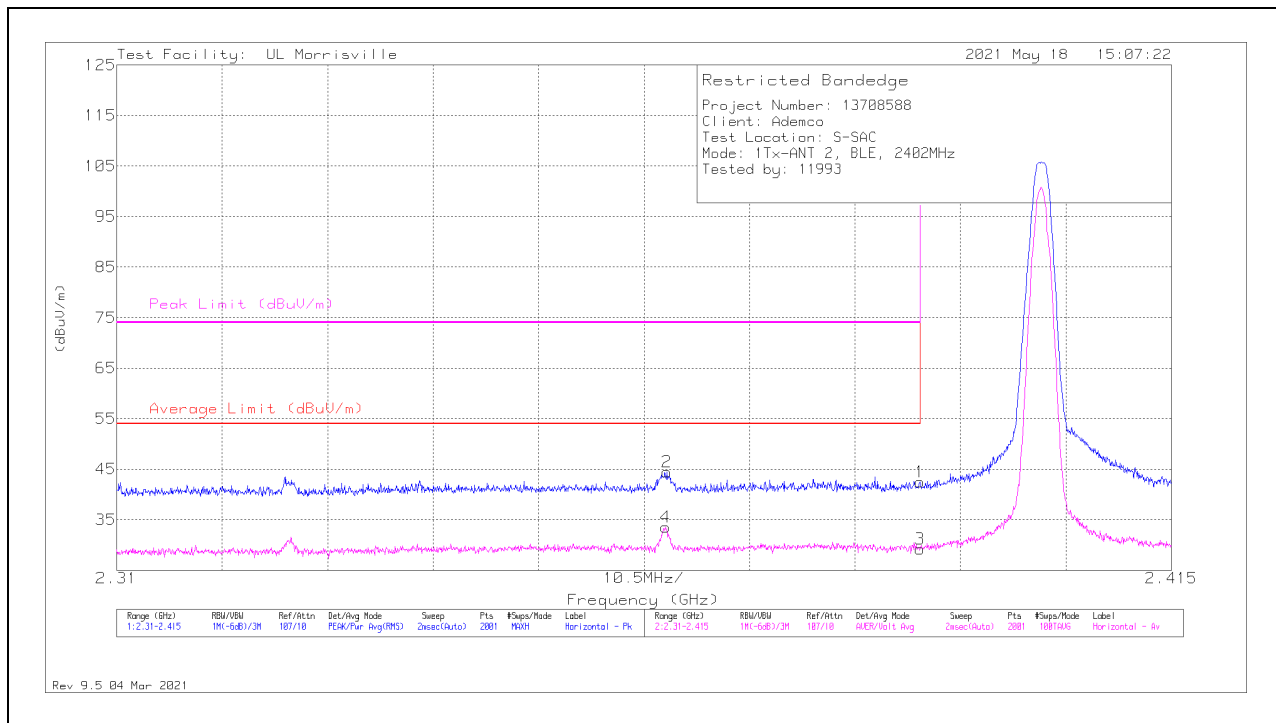
PK2 - Maximum Peak

ADV - Linear Voltage Average

10.2.2. ANTENNA 2

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.38996	34.56	Pk	31.9	-24	0	42.46	-	-	74	-31.54	227	159	H
2	*** 2.36476	36.19	Pk	32.2	-23.9	0	44.49	-	-	74	-29.51	227	159	H
3	*** 2.38996	17.16	ADV	31.9	-24	4.13	29.19	54	-24.81	-	-	227	159	H
4	*** 2.36465	21.09	ADV	32.2	-23.9	4.13	33.52	54	-20.48	-	-	227	159	H

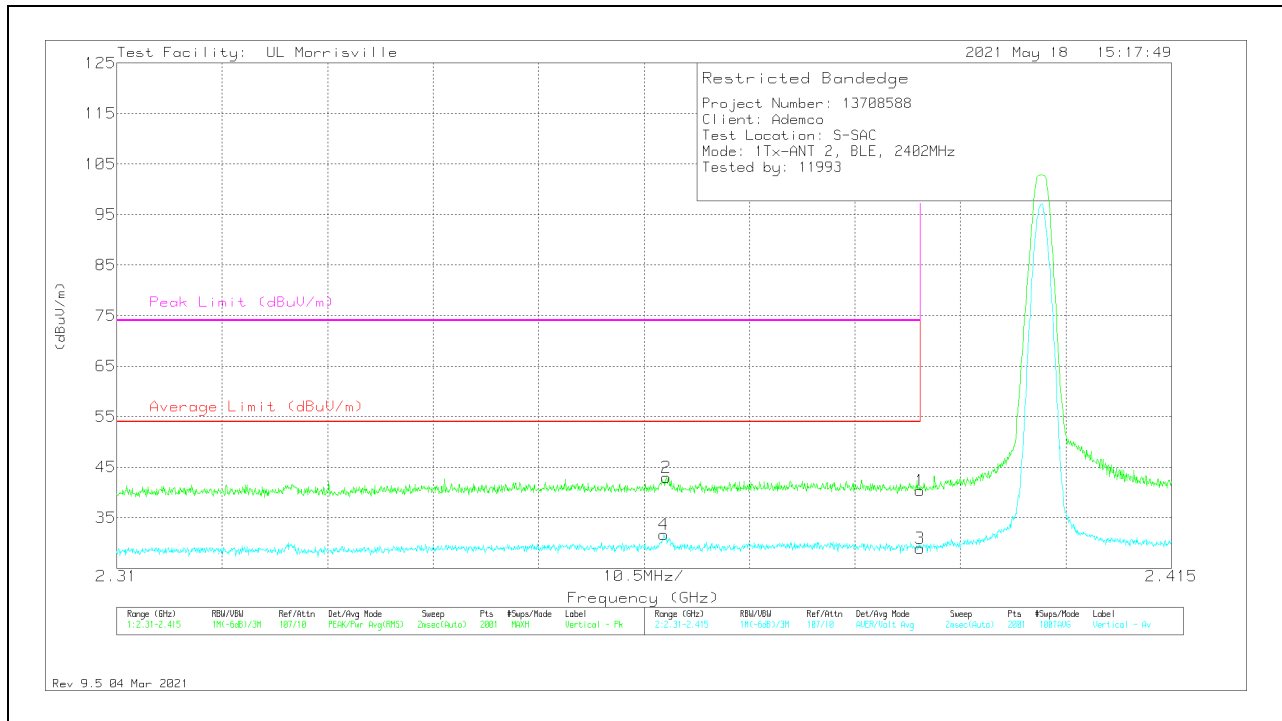
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

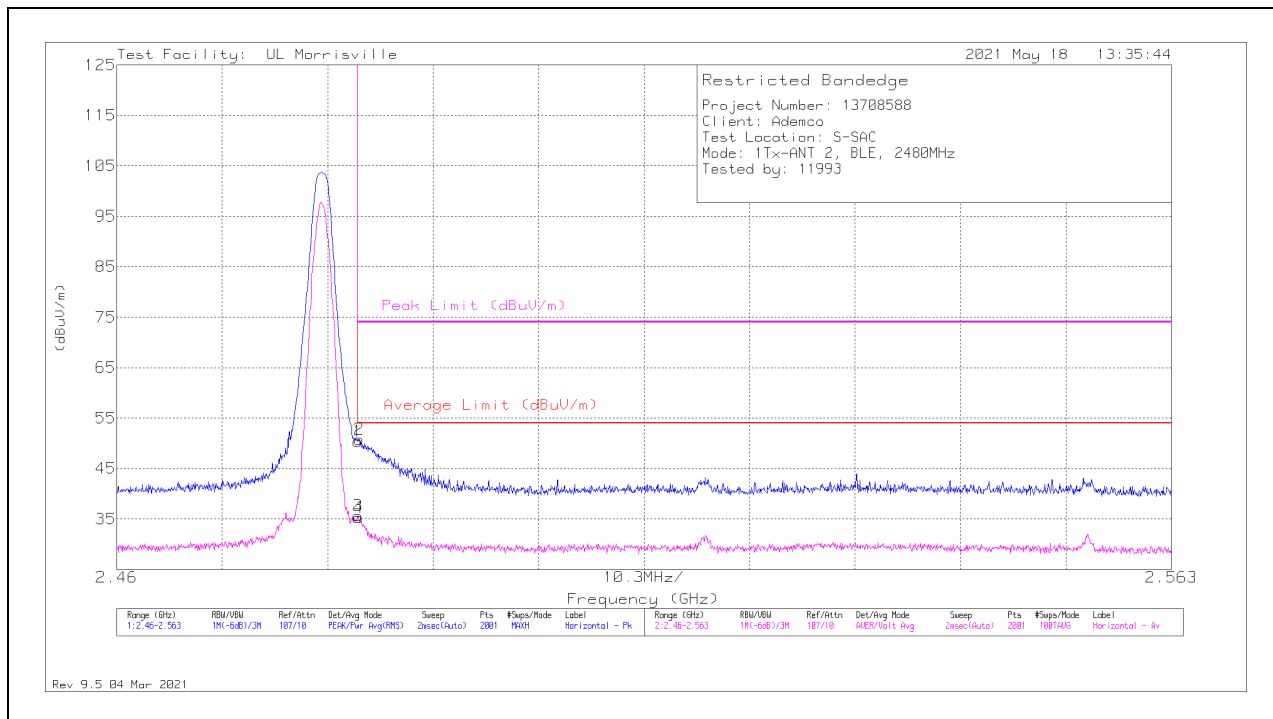


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.38996	32.44	Pk	31.9	-24	0	40.34	-	-	74	-33.66	188	259	V
2	* ** 2.36471	34.71	Pk	32.2	-23.9	0	43.01	-	-	74	-30.99	188	259	V
3	* ** 2.38996	16.9	ADV	31.9	-24	4.13	28.93	54	-25.07	-	-	188	258	V
4	* ** 2.36444	19.21	ADV	32.2	-23.9	4.13	31.64	54	-22.36	-	-	188	258	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	42.36	Pk	32.5	-24.4	0	50.46	-	-	74	-23.54	211	205	H
2	* ** 2.48369	42.64	Pk	32.5	-24.4	0	50.74	-	-	74	-23.26	211	205	H
3	* ** 2.48354	23.4	ADV	32.5	-24.4	4.13	35.63	54	-18.37	-	-	211	204	H
4	* ** 2.48364	22.99	ADV	32.5	-24.4	4.13	35.22	54	-18.78	-	-	211	204	H

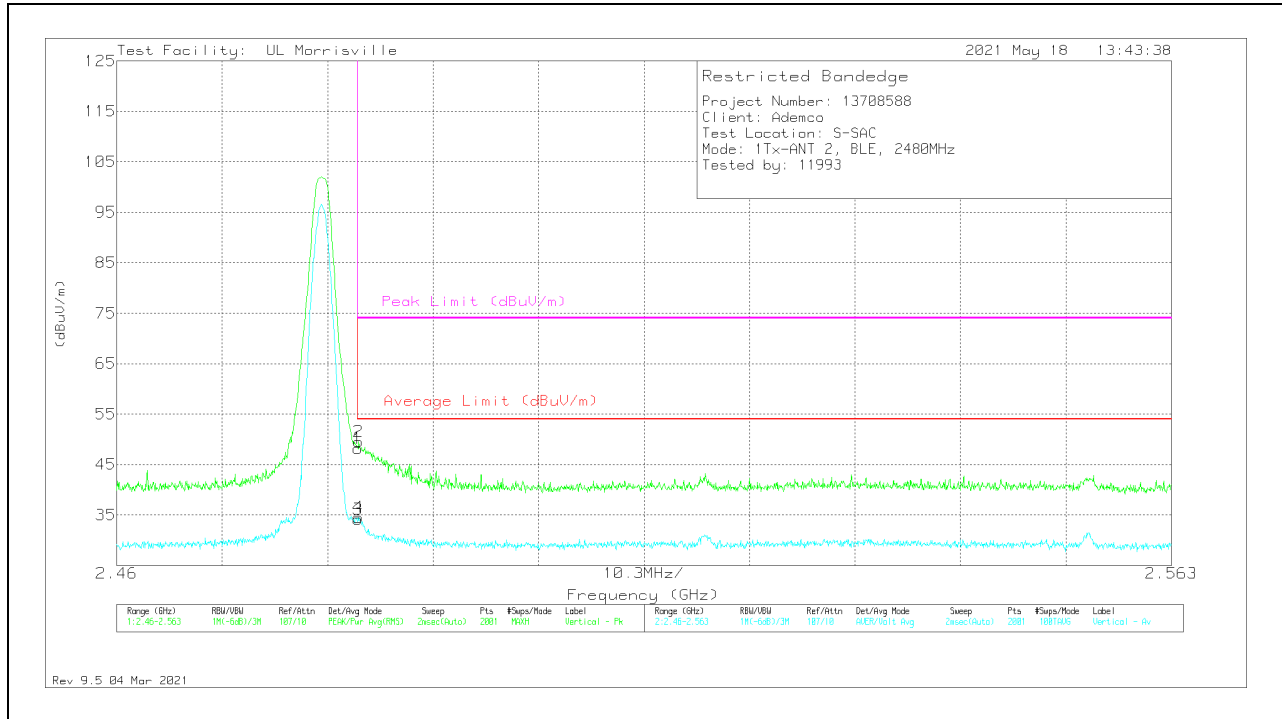
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

VERTICAL RESULT

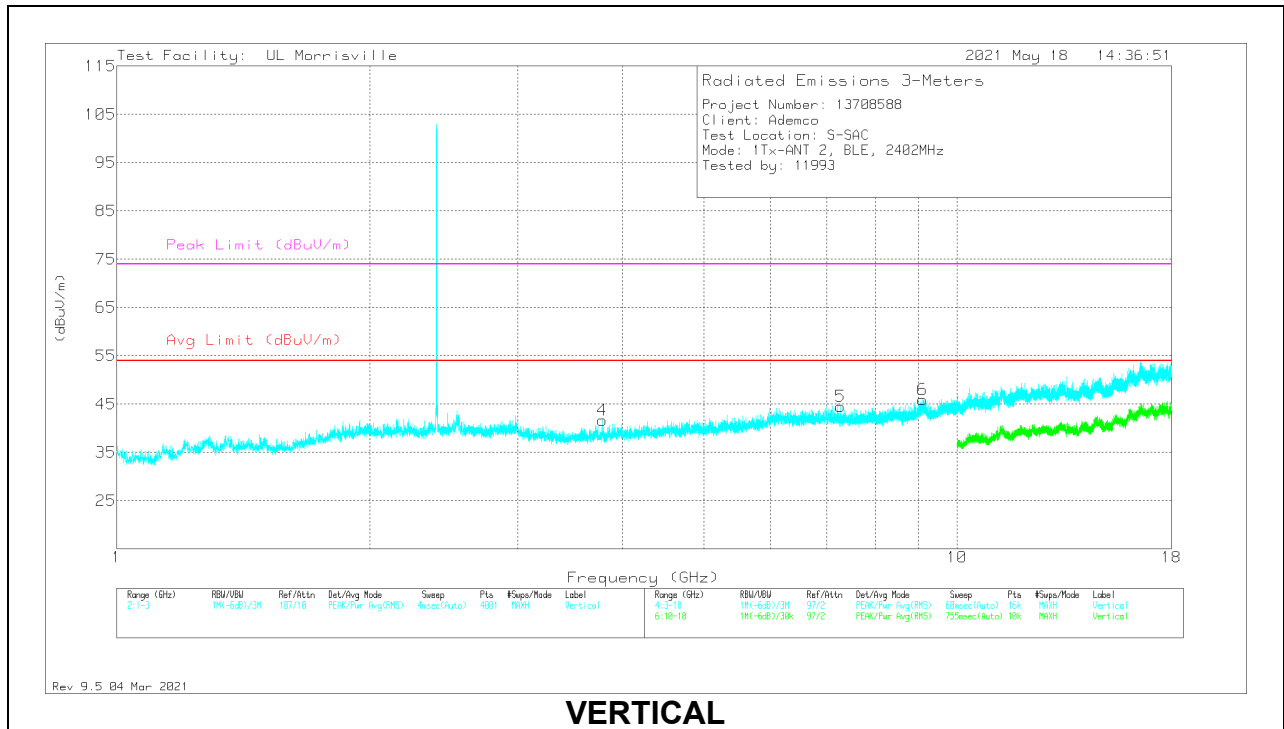
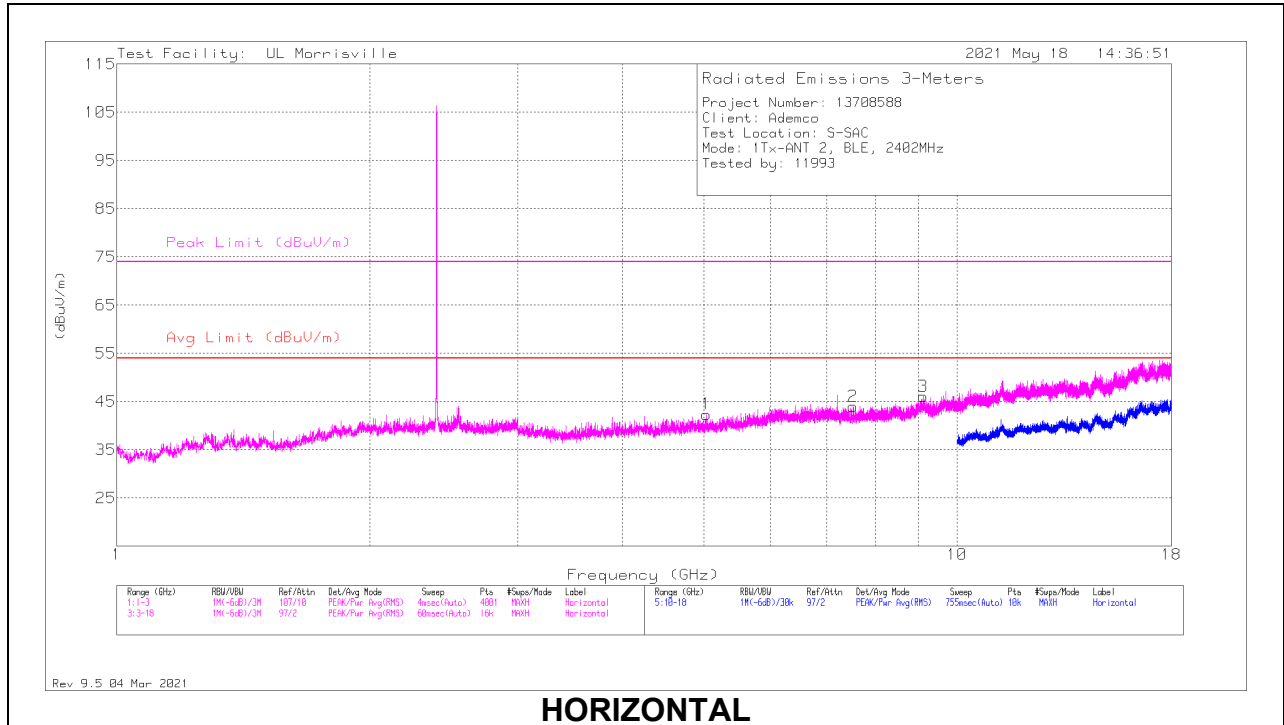


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.48354	40.08	Pk	32.5	-24.4	0	48.18	-	-	74	-25.82	159	313	V
2	* ** 2.48364	41.41	Pk	32.5	-24.4	0	49.51	-	-	74	-24.49	159	313	V
3	* ** 2.48354	21.89	ADV	32.5	-24.4	4.13	34.12	54	-19.88	-	-	159	313	V
4	* ** 2.48359	22.31	ADV	32.5	-24.4	4.13	34.54	54	-19.46	-	-	159	313	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

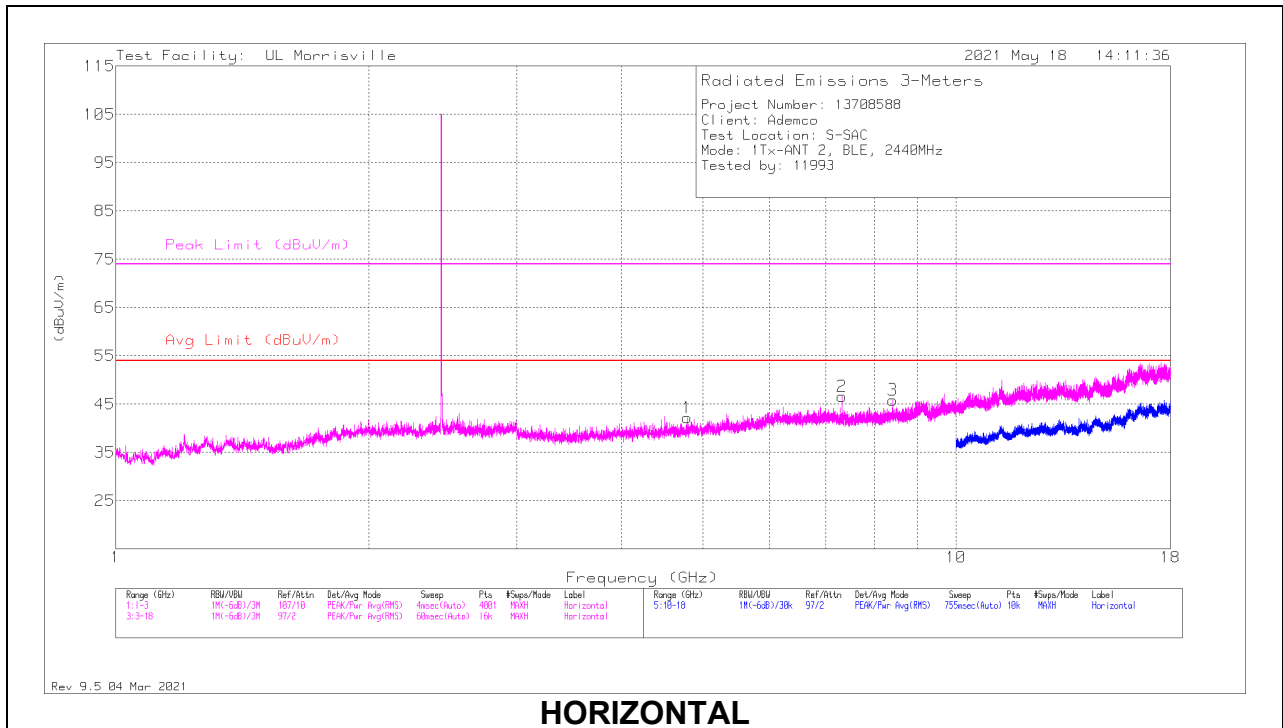
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 5.02969	39.49	Pk	34.3	-31.4	42.39	54	-11.61	74	-31.61	0-360	101	H
2	* ** 7.5225	36.13	Pk	35.7	-27.8	44.03	54	-9.97	74	-29.97	0-360	200	H
3	* ** 9.12	35.71	Pk	36.3	-25.9	46.11	54	-7.89	74	-27.89	0-360	200	H
4	* ** 3.78188	41.1	Pk	33.3	-32.7	41.7	54	-12.3	74	-32.3	0-360	200	V
5	* ** 7.26375	36.63	Pk	35.6	-27.7	44.53	54	-9.47	74	-29.47	0-360	101	V
6	* ** 9.09938	35.62	Pk	36.3	-26	45.92	54	-8.08	74	-28.08	0-360	200	V

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

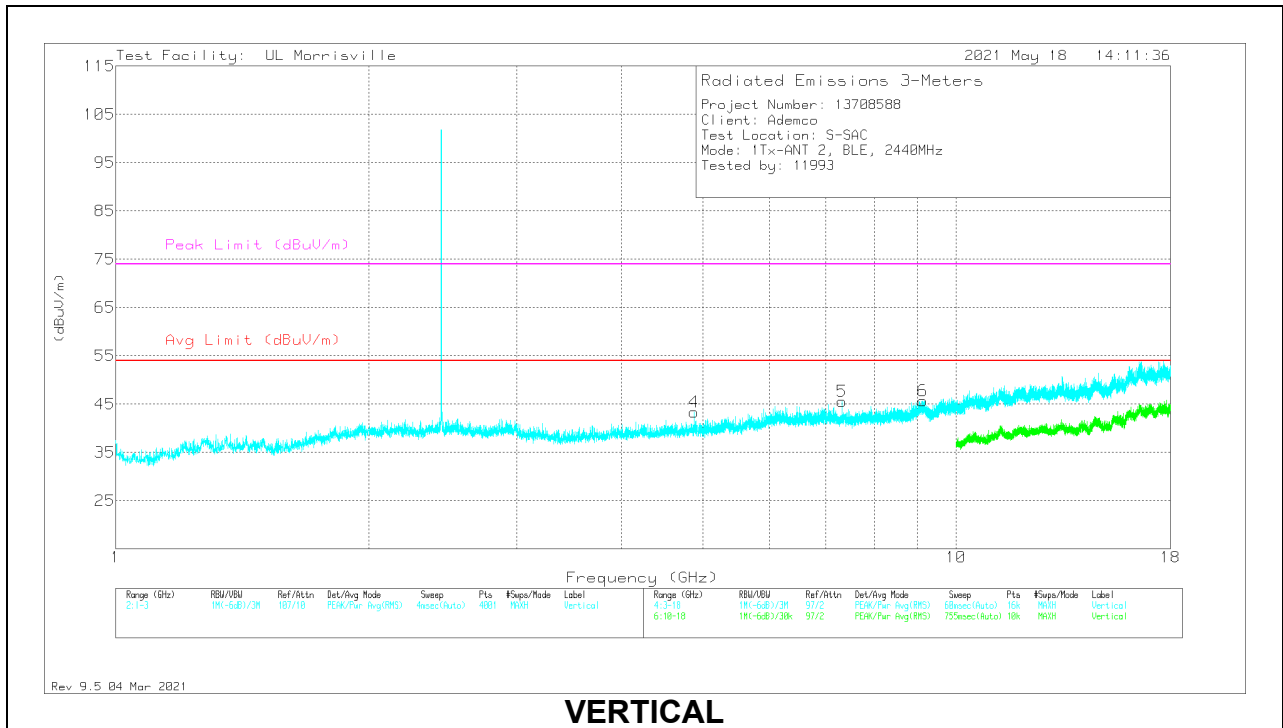
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

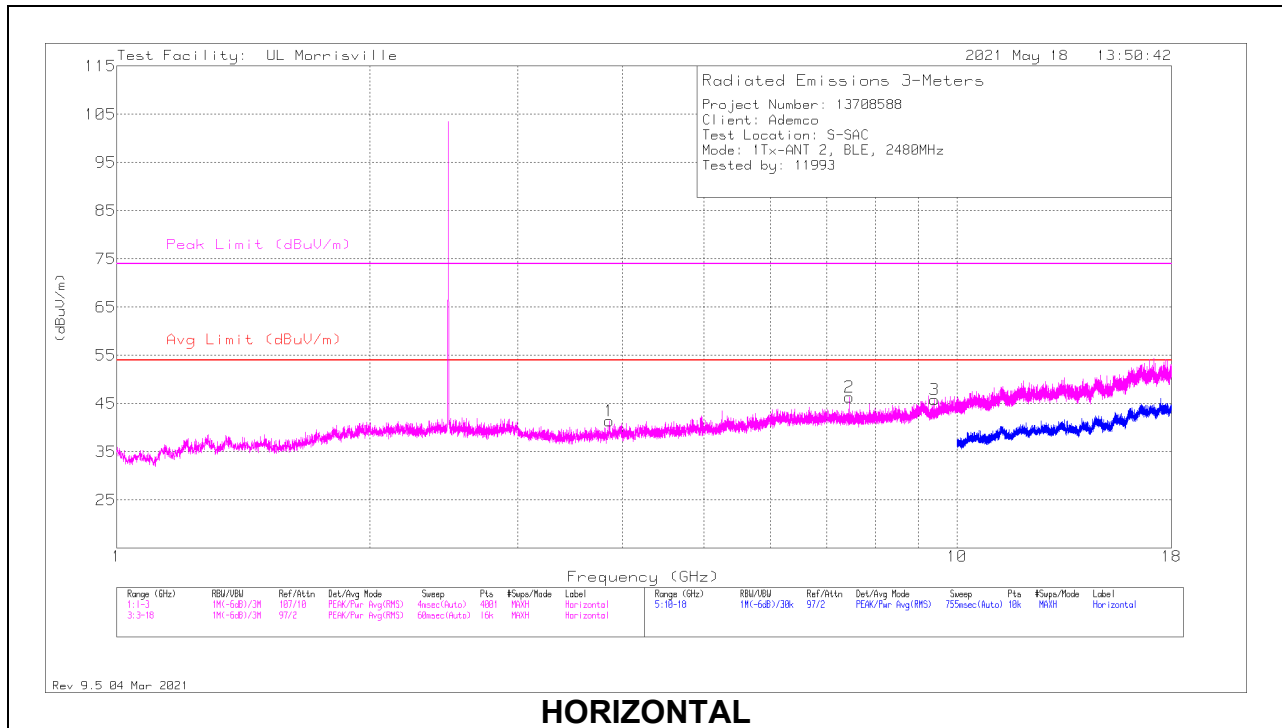
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 4.785	39.44	Pk	34.1	-31.3	42.24	54	-11.76	74	-31.76	0-360	200	H
2	*** 7.31906	38.35	Pk	35.7	-27.4	46.65	54	-7.35	74	-27.35	0-360	200	H
3	*** 8.41219	37.19	Pk	35.9	-27.2	45.89	54	-8.11	74	-28.11	0-360	101	H
4	*** 4.87875	40	Pk	34.2	-30.8	43.4	54	-10.6	74	-30.6	0-360	101	V
5	*** 7.32094	37.31	Pk	35.7	-27.4	45.61	54	-8.39	74	-28.39	0-360	101	V
6	*** 9.13219	35.4	Pk	36.3	-26	45.7	54	-8.3	74	-28.3	0-360	200	V

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

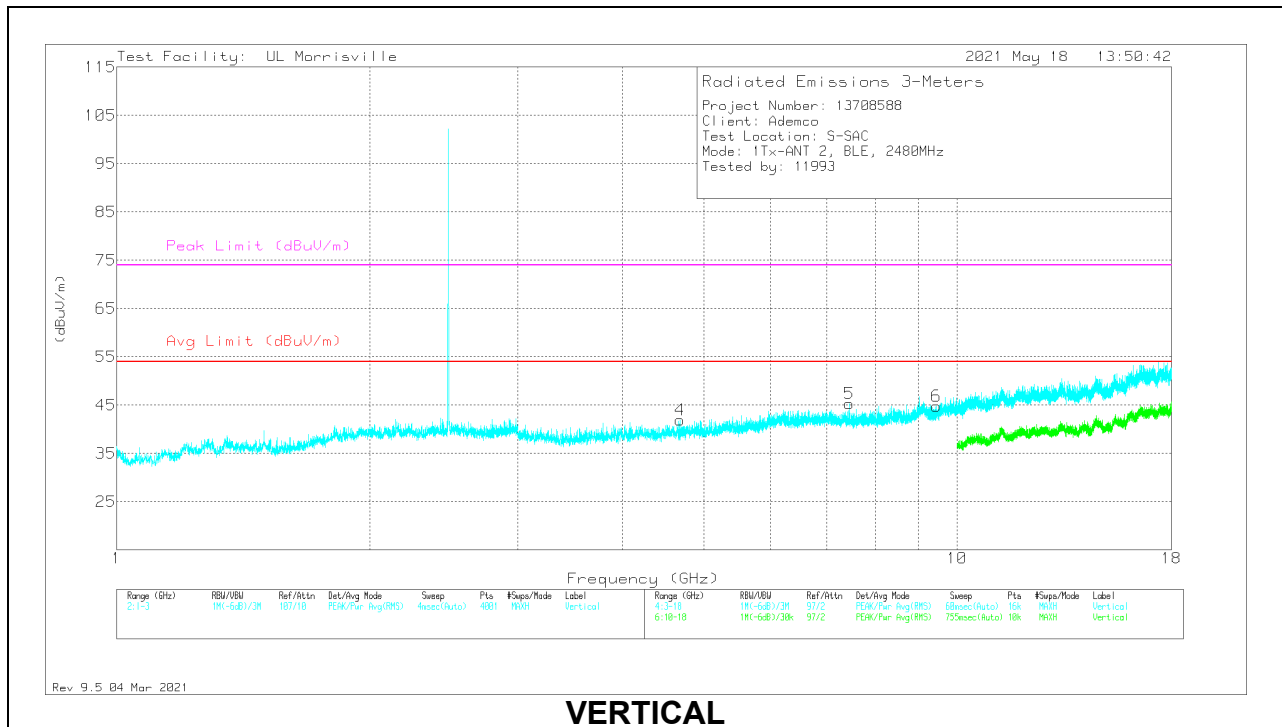
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 3.85688	40.05	Pk	33.4	-32	41.45	54	-12.55	74	-32.55	0-360	101	H
2	* ** 7.44	38.48	Pk	35.6	-27.7	46.38	54	-7.62	74	-27.62	0-360	200	H
3	* ** 9.40688	35.54	Pk	36.7	-26.4	45.84	54	-8.16	74	-28.16	0-360	200	H
4	* ** 4.68281	39.48	Pk	34	-31.6	41.88	54	-12.12	74	-32.12	0-360	101	V
5	* ** 7.44	37.44	Pk	35.6	-27.7	45.34	54	-8.66	74	-28.66	0-360	101	V
6	* ** 9.44719	34.68	Pk	36.6	-26.5	44.78	54	-9.22	74	-29.22	0-360	200	V

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

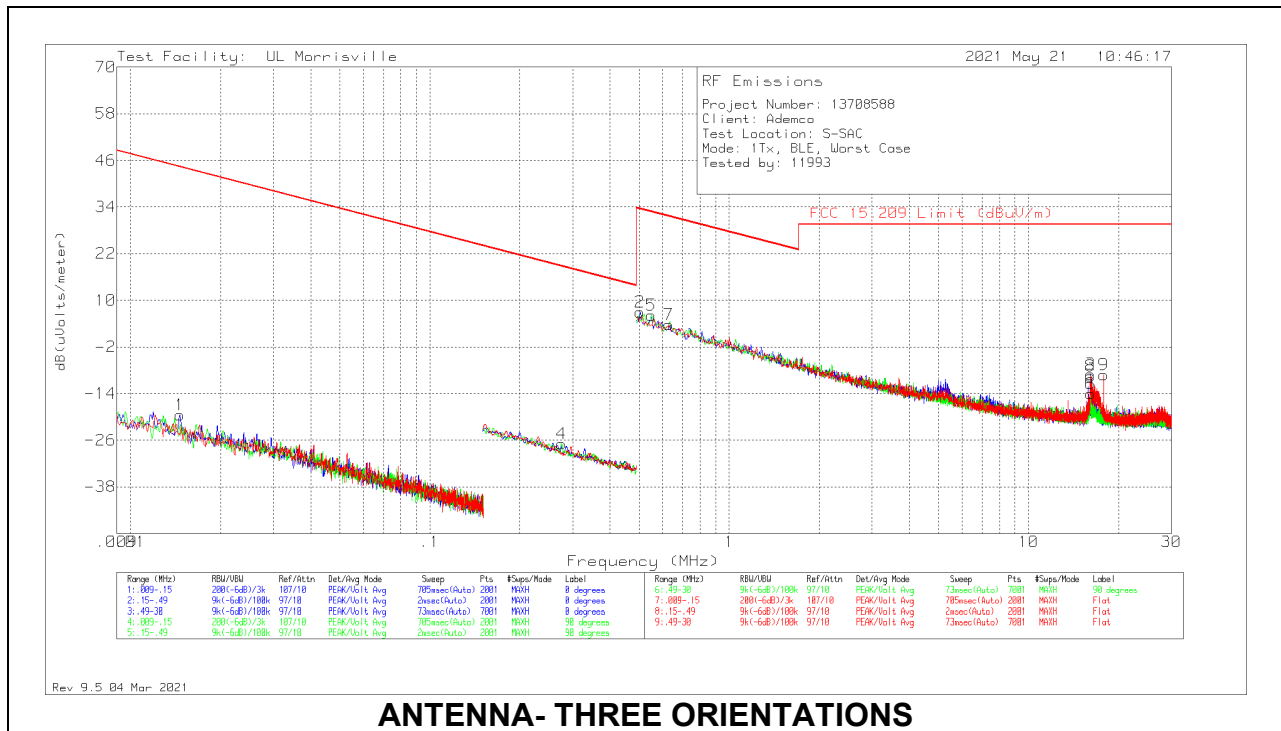
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.3. WORST CASE BELOW 30MHZ

Note for below 30 MHz scans: All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were 40*Log (test distance / specification distance).

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION-E FIELD)

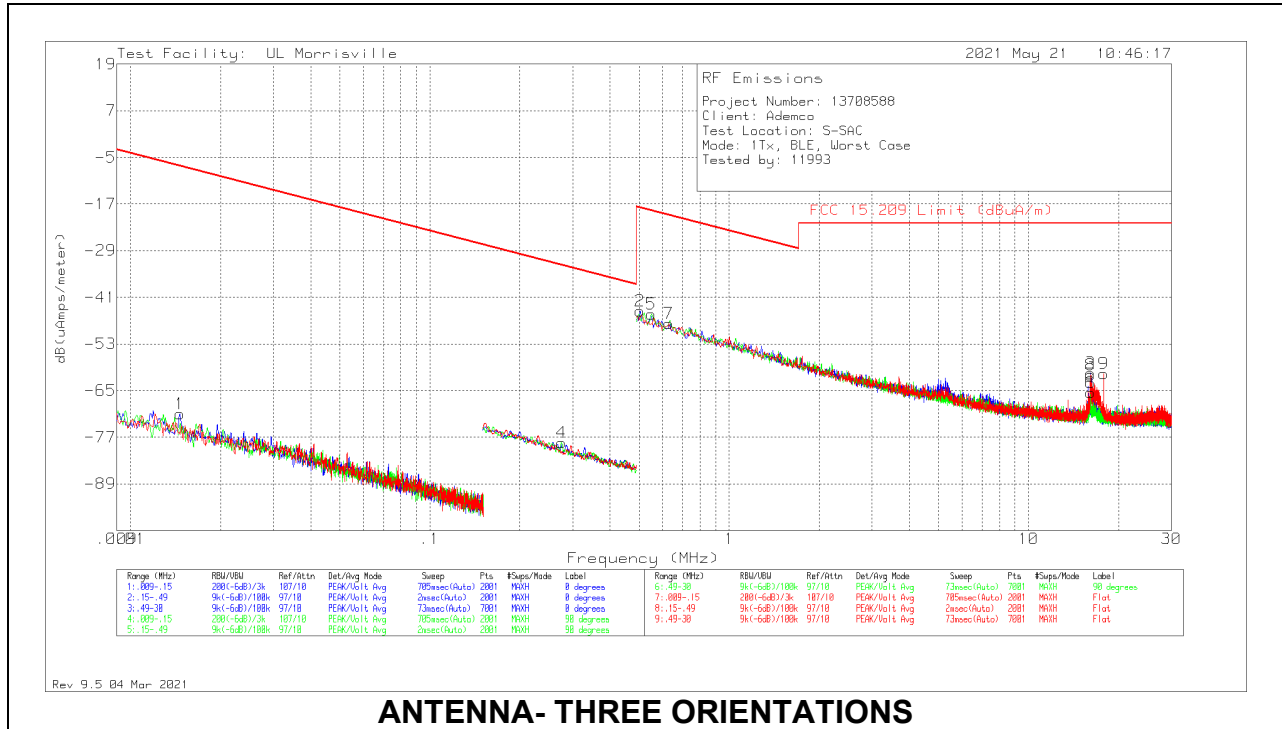


Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	FCC 15.209 Qp/Av Limit (dBuV/m)	FCC 15.209 PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Antenna Face
1	.01461	44.37	Pk	16	.1	-80	-19.53	44.31	64.31	-63.84	0-360	On
2	.50265	36.02	Pk	10.8	.1	-40	6.92	33.58	-	-26.66	0-360	On
3	16.11028	19.94	Pk	10.3	.8	-40	-8.96	29.54	-	-38.5	0-360	On
4	.27504	42.28	Pk	10.7	.1	-80	-26.92	18.82	38.82	-45.74	0-360	Off
5	.54902	35.27	Pk	10.8	.1	-40	6.17	32.81	-	-26.64	0-360	Off
6	16.0892	14.89	PK	10.3	.8	-40	-14.01	29.54	-	-43.55	0-360	Off
7	.62913	32.71	Pk	10.8	.2	-40	3.71	31.63	-	-27.92	0-360	Flat
8	16.0892	19.38	Pk	10.3	.8	-40	-9.52	29.54	-	-39.06	0-360	Flat
9	17.80511	19.92	Pk	10.1	.8	-40	-9.18	29.54	-	-38.72	0-360	Flat

Pk - Peak detector

SPURIOUS EMISSIONS BELOW 30 MHz (WORST-CASE CONFIGURATION-H FIELD)



ANTENNA- THREE ORIENTATIONS

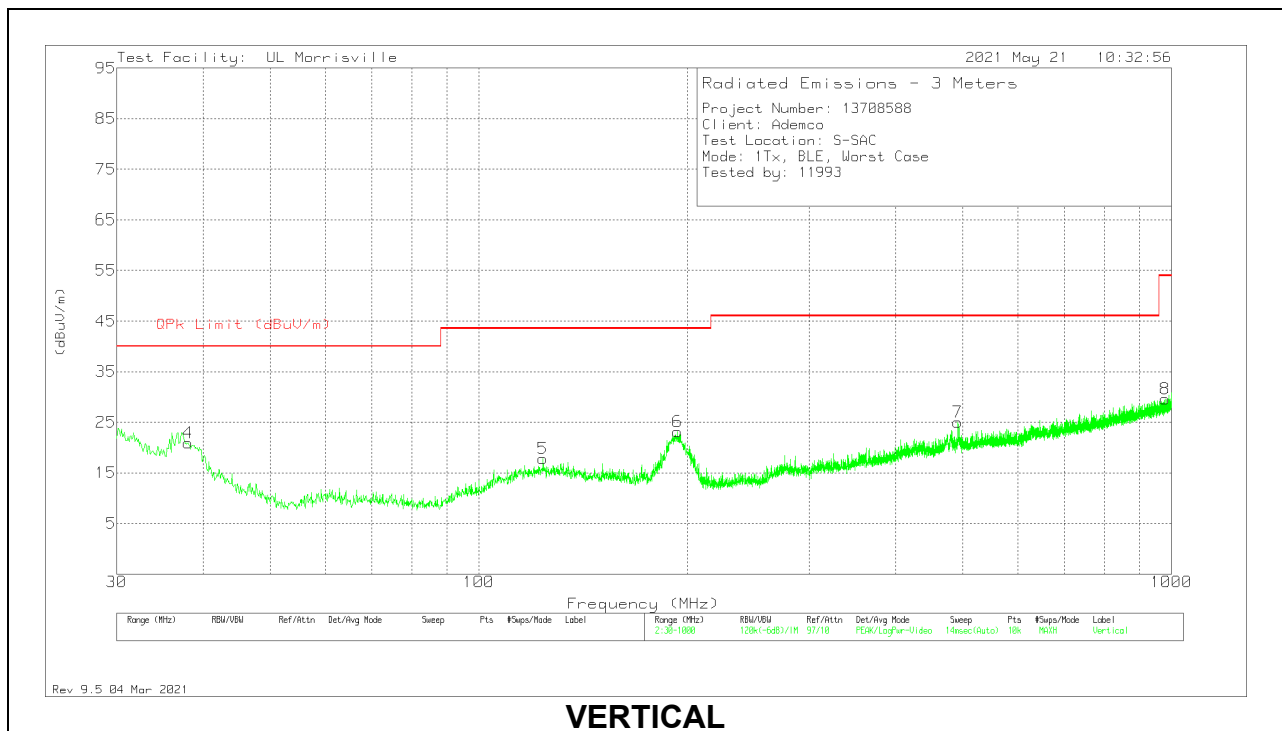
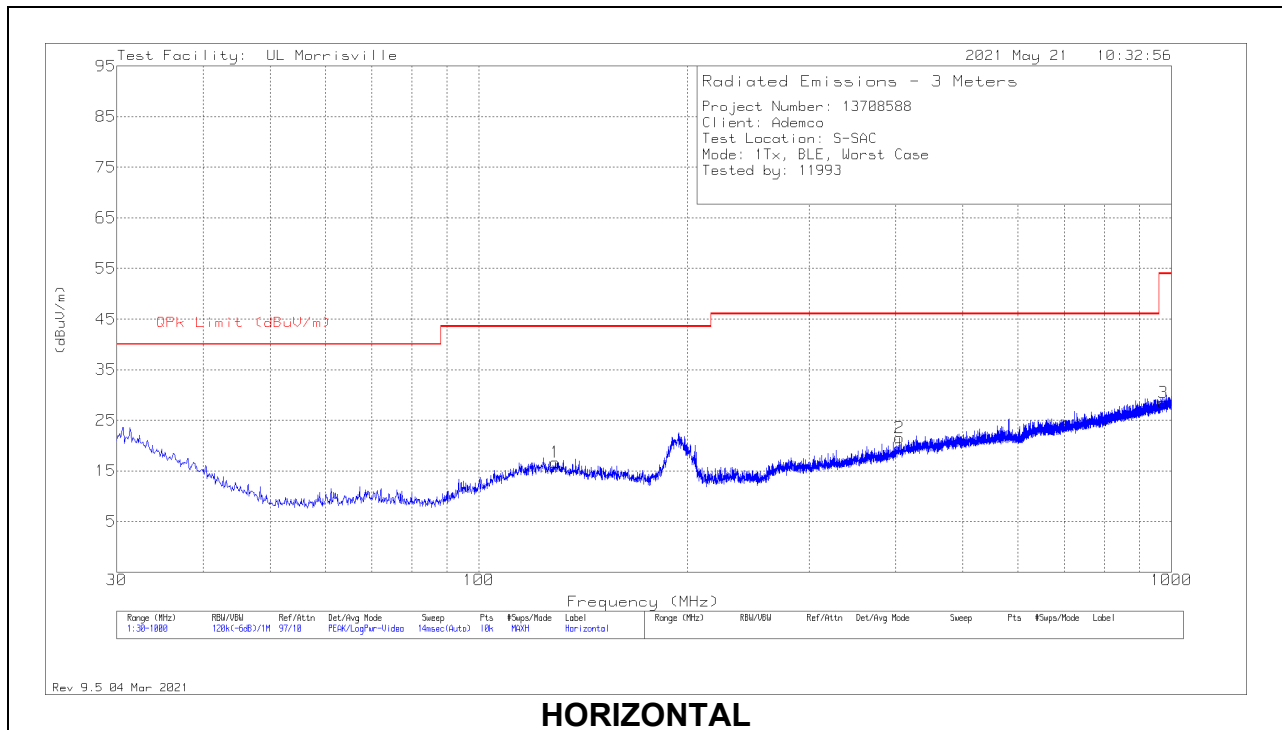
Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	RSS-GEN QP/AV Limit (dBuA/m)	RSS-GEN Pk Limit (dBuA/m)	Margin (dB)	Azimuth (Degs)	Antenna Face
1	.01461	44.37	Pk	-35.5	.1	-80	-71.03	-7.19	12.81	-63.84	0-360	On
2	.50265	36.02	Pk	-40.7	.1	-40	-44.58	-17.92	-	-26.66	0-360	On
3	16.11028	19.94	Pk	-41.2	.8	-40	-60.46	-21.96	-	-38.5	0-360	On
4	.27504	42.28	Pk	-40.8	.1	-80	-78.42	-32.68	-12.68	-45.74	0-360	Off
5	.54902	35.27	Pk	-40.7	.1	-40	-45.33	-18.69	-	-26.64	0-360	Off
6	16.0892	14.89	PK	-41.2	.8	-40	-65.51	-21.96	-	-43.55	0-360	Off
7	.62913	32.71	PK	-40.7	.2	-40	-47.79	-19.87	-	-27.92	0-360	Flat
8	16.0892	19.38	PK	-41.2	.8	-40	-61.02	-21.96	-	-39.06	0-360	Flat
9	17.80511	19.92	PK	-41.4	.8	-40	-60.68	-21.96	-	-38.72	0-360	Flat

PK - Peak detector

10.4. WORST CASE BELOW 1 GHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0075 AF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 129.037	26.86	Pk	20	-30.2	16.66	43.52	-26.86	0-360	199	H
2	* ** 404.808	27.61	Pk	22	-28.1	21.51	46.02	-24.51	0-360	199	H
3	* ** 972.743	24.04	Pk	29.2	-24.7	28.54	53.97	-25.43	0-360	299	H
4	* ** 38.051	30.98	Pk	21.3	-31.4	20.88	40	-19.12	0-360	101	V
5	* ** 123.799	27.99	Pk	20.1	-30.3	17.79	43.52	-25.73	0-360	101	V
7	** 491.817	28.87	Pk	23.8	-27.7	24.97	46.02	-21.05	0-360	101	V
8	* ** 978.466	24.91	Pk	29.2	-24.5	29.61	53.97	-24.36	0-360	299	V
6	193.542	34.81	Pk	17.9	-29.6	23.11	-	-	0-360	101	V

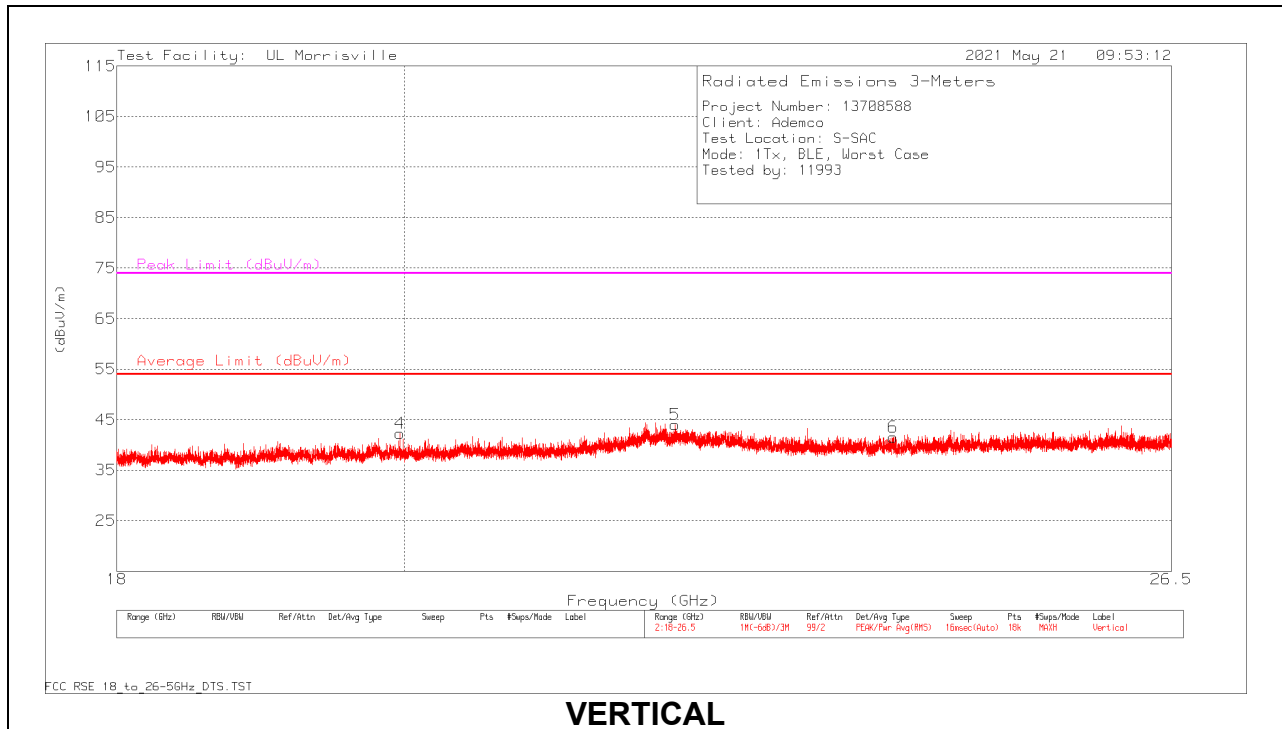
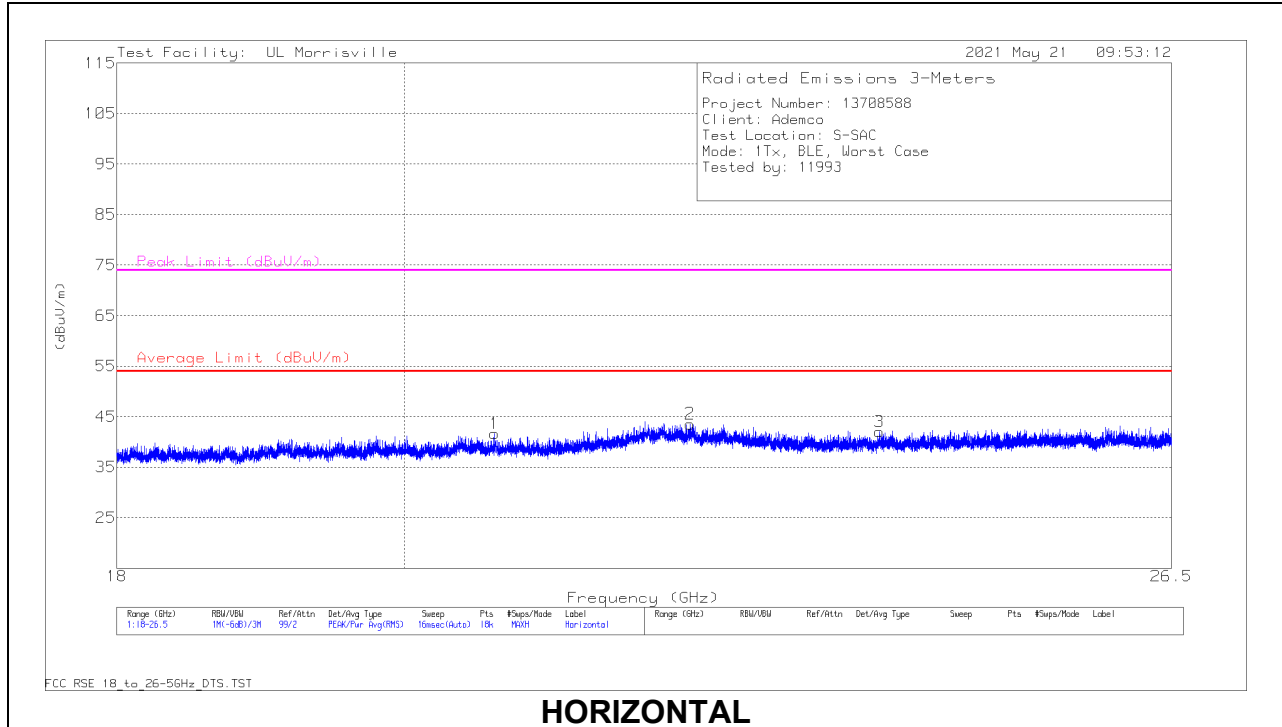
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.5. WORST CASE 18-26 GHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



18-26 GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0063 AF (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 20.67717	46.31	Pk	34	-38.7	41.61	54	-12.39	74	-32.39	0-360	101	H
2	* ** 22.21009	46.28	Pk	36.7	-39.4	43.58	54	-10.42	74	-30.42	0-360	101	H
3	* ** 23.81054	45.66	Pk	34.8	-38.4	42.06	54	-11.94	74	-31.94	0-360	200	H
4	* ** 19.97164	47.73	Pk	33.6	-39.1	42.23	54	-11.77	74	-31.77	0-360	151	V
5	* ** 22.08872	46.5	Pk	36.8	-39.3	44	54	-10	74	-30	0-360	250	V
6	* ** 23.92671	44.98	Pk	34.9	-38.3	41.58	54	-12.42	74	-32.42	0-360	250	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

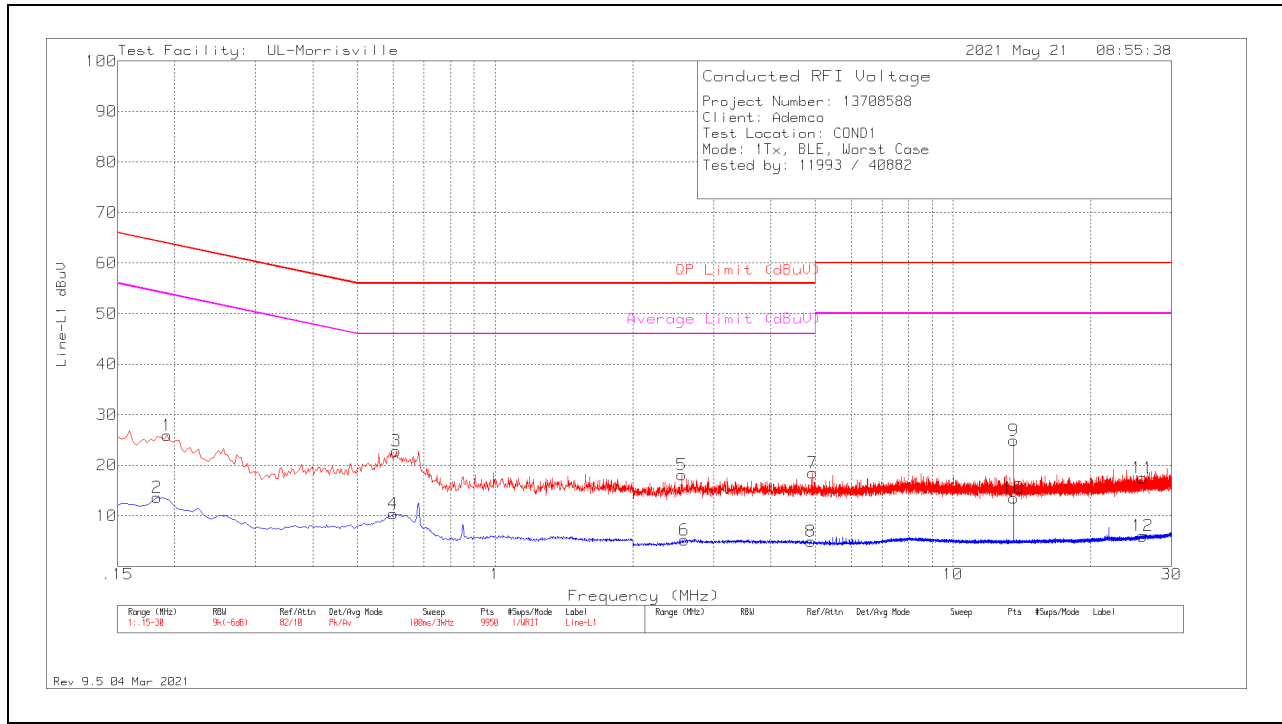
Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

RESULTS

11.1.1. AC Power Line

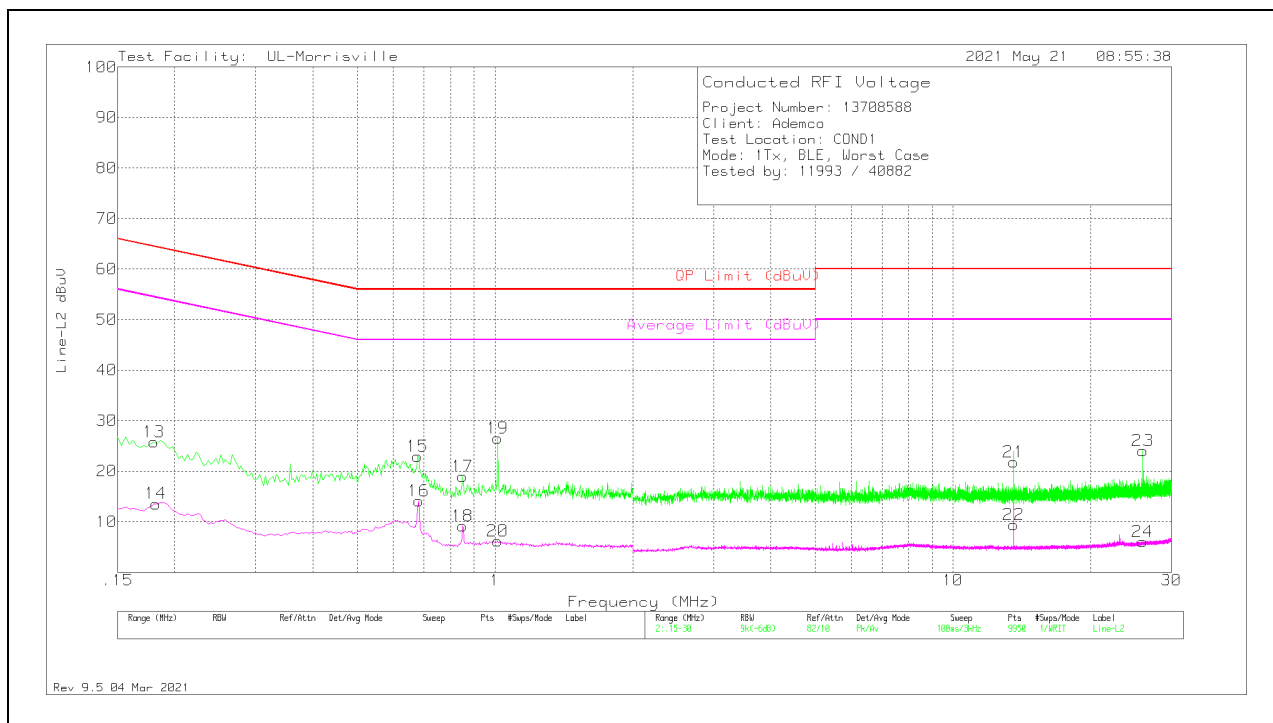
LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
2	.183	3.59	Av	.2	9.8	13.59	-	-	54.35	-40.76
1	.192	15.91	Pk	.2	9.8	25.91	63.95	-38.04	-	-
4	.6	.55	Av	0	9.8	10.35	-	-	46	-35.65
3	.609	12.96	Pk	0	9.8	22.76	56	-33.24	-	-
5	2.556	8.25	Pk	0	9.8	18.05	56	-37.95	-	-
6	2.589	-4.58	Av	0	9.8	5.22	-	-	46	-40.78
8	4.899	-4.98	Av	0	9.9	4.92	-	-	46	-41.08
7	4.935	8.51	Pk	0	9.9	18.41	56	-37.59	-	-
9	13.56	14.73	Pk	.1	10.1	24.93	60	-35.07	-	-
10	13.56	3.26	Av	.1	10.1	13.46	-	-	50	-36.54
12	25.98	-4.51	Av	.3	10.2	5.99	-	-	50	-44.01
11	25.989	6.95	Pk	.3	10.2	17.45	60	-42.55	-	-

Pk - Peak detector
 Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.18	15.8	Pk	.2	9.8	25.8	64.49	-38.69	-	-
14	.1815	3.56	Av	.2	9.8	13.56	-	-	54.42	-40.86
15	.678	13.16	Pk	0	9.8	22.96	56	-33.04	-	-
16	.681	4.32	Av	0	9.8	14.12	-	-	46	-31.88
17	.849	9.14	Pk	0	9.8	18.94	56	-37.06	-	-
18	.849	-67	Av	0	9.8	9.13	-	-	46	-36.87
19	1.014	16.75	Pk	0	9.8	26.55	56	-29.45	-	-
20	1.014	-3.59	Av	0	9.8	6.21	-	-	46	-39.79
21	13.566	11.66	Pk	.1	10.1	21.86	60	-38.14	-	-
22	13.566	-82	Av	.1	10.1	9.38	-	-	50	-40.62
24	25.983	-4.33	Av	.2	10.2	6.07	-	-	50	-43.93
23	25.992	13.64	Pk	.2	10.2	24.04	60	-35.96	-	-

Pk - Peak detector
 Av - Average detection

12. SETUP PHOTOS

Please refer to R13708588-EP1 for setup photos

END OF TEST REPORT