



TEST REPORT

Report Number : R13307856-E1

Applicant : Resideo
2 Corporate Center Drive
Melville, NY 11749-3265, USA

Model : SiXRPTRA

FCC ID : CFS8DL6RPTA

IC : 573F-6RPTA

EUT Description : Wireless Repeater

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

Date Of Issue:
2020-07-23

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REPORT REVISION HISTORY

Ver.	Issue Date	Revisions	Revised By
v1	2020-07-08	Initial Issue	Brian T. Kiewra
v2	2020-07-21	Added antenna port conducted emissions test data	Niklas Haydon
v3	2020-07-22	Corrected sections 6.2 and 9.4	Niklas Haydon
v4	2020-07-23	Updated model and EUT description	Niklas Haydon

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Resideo
2 Corporate Center Drive
Melville, NY 11749-3265, USA

EUT DESCRIPTION: Wireless Repeater

MODEL: SiXRPTRA

SERIAL NUMBER: MEL-955

SAMPLE RECEIPT: 2020-06-01

DATE TESTED: 2020-06-01 to 2020-07-21

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Compliant
ISED RSS-247 Issue 2	Compliant
ISED RSS-GEN Issue 5	Compliant

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.

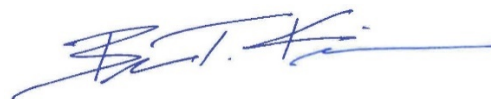
This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim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

Approved & Released
For UL LLC By:

Prepared By:



Jeffrey Moser
Operations Manager
Consumer Technology Division
UL LLC



Brian T. Kiewra
Project Engineer
Consumer Technology Division
UL LLC

2. TEST RESULTS SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
ANSI C63.10 Section 11.6.		Duty Cycle	Compliant	None
ANSI C63.10 Section 6.9.3.	RSS-GEN 6.7	99% OBW		
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW		
15.247 (b) (3)	RSS-247 5.4 (d)	Output Power		
Per ANSI C63.10, Section 11.9.2.3.2.		Average power		
15.247 (e)	RSS-247 5.2 (b)	PSD		
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions		
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions		
15.207	RSS-Gen 8.8	AC Mains Conducted Emissions		

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, KDB 558074 D01 15.247 Meas Guidance v05r02, RSS-GEN Issue 5, and RSS-247 Issue 2.

4. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Drive, Research Triangle Park, NC 27709, USA and 2800 Perimeter Park Dr., Suite B, Morrisville, NC 27560, USA. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

12 Laboratory Dr.	2800 Perimeter Park Dr.
Site Code: 2180C	
<input type="checkbox"/> Chamber A RTP	<input checked="" type="checkbox"/> North Chamber
<input type="checkbox"/> Chamber C RTP	<input checked="" type="checkbox"/> South Chamber

The above test sites and facilities are covered under FCC Test Firm Registration # 703469. Chambers above are covered under Industry Canada company address and respective code.

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

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

5.2. DECISION RULES

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

5.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U _{Lab}
Worst Case Conducted Disturbance, 0.15 to 30 MHz	± 3.07 dB
Worst Case Radiated Disturbance, 9kHz to 26GHz	± 4.88 dB

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

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

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

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Final Voltage (dBuV)} &= \text{Measured Voltage (dBuV)} + \text{Cable Loss (dB)} + \text{Limiter Factor (dB)} + \\ &\text{LISN Insertion Loss.} \\ 36.5 \text{ dBuV} + 0 \text{ dB} + 10.1 \text{ dB} + 0 \text{ dB} &= 46.6 \text{ dBuV} \end{aligned}$$

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a signal repeater with a proprietary 802.15.4 transceiver.

6.2. MAXIMUM OUTPUT POWER

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

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2405 - 2475	802.15.4 - ANT1	20.87	122.18
2405 - 2475	802.15.4 - ANT2	21.52	141.91

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The 802.15.4 transmitters utilizes two PCB trace antennas for diversity with maximum gains of:

Antenna 1: 4.4 dBi

Antenna 2: 3.0 dBi

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was v1.0.39.

The test utility software used during testing was FCCTestFW.

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 at the channel with highest output power as worst-case scenario.

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

The EUT is intended to operate in only one orientation (wall mounted). Therefore, all final radiated testing was performed with the EUT in its intended orientation.

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Power Supply	Honeywell	ADS-6UA-06	N/A	N/A

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC In	1	Screw	Unshielded (2-wire)	<3m	Provides DC power

SETUP DIAGRAMS

Please refer to R13307856-EP1 for setup diagrams

7. TEST AND MEASUREMENT EQUIPMENT

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

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

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
0.009-30MHz (Loop Ant.)					
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2019-08-08	2020-08-08
30-1000 MHz					
AT0074	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2019-07-16	2020-07-16
1-18 GHz					
AT0078	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2019-10-28	2020-10-28
Gain-Loss Chains					
S-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2020-04-23	2021-04-23
S-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2020-04-23	2021-04-23
S-SAC03	Gain-loss string: 1-18GHz	Various	Various	2020-05-15	2021-05-15
Receiver & Software					
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2020-03-27	2021-03-27
SOFTEMI	EMI Software	UL	Version 9.5 (2019-06-12)		
Additional Equipment used					
s/n 181474409	Environmental Meter	Fisher Scientific	15-077-963	2018-07-27	2020-07-27
ATA176	10dB, DC-18GHz, 5W	Mini-Circuits	BW-N10W5	2020-02-19	2021-02-19

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

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
18-40 GHz					
AT0076	Horn Antenna, 18-26.5GHz	ARA	MWH-1826/B	2019-11-07	2020-11-07
Gain-Loss Chains					
N-SAC04	Gain-loss string: 18-40GHz	Various	Various	2020-03-22	2021-03-22
Receiver & Software					
SA0025	Spectrum Analyzer	Agilent	N9030A	2020-03-17	2021-03-17
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
s/n 181474341	Environmental Meter	Fisher Scientific	15-077-963	2018-07-27	2020-07-27

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	2020-03-26	2021-03-26
s/n 181562858	Environmental Meter	Fisher Scientific	14-650-118	2018-09-04	2020-09-04
LISN003	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2019-08-19	2020-08-19
75141 (PRE0101521)	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2019-08-20	2020-08-20
ATA222	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2020-03-26	2021-03-26
PS214	AC Power Source	Elgar	CW2501M (s/n 1523A02396)	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (2015-08-26)		
CDECABLE001	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2019-07-10	2020-07-10

Test Equipment Used - Wireless Conducted Measurement Equipment (Power Measurements)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
72822 (PRE0101715)	Spectrum Analyzer	Agilent Technologies	E4446A	2020-01-02	2021-01-02
PWM003 (PRE0137345)	RF Power Meter	Keysight Technologies	N1911A	2019-08-23	2020-08-23
PWS005 (PRE0126445)	Peak and Avg Power Sensor, 50MHz to 18GHz	Keysight Technologies	N1921A	2020-05-26	2021-05-26
SN 200037610	Environmental Meter	Fisherbrand	06-662-4	2020-01-21	2022-01-21
76022	DC Regulated Power Supply	CircuitSpecialists.Com	CSI3005X5	N/A	N/A
SOFTEMI	EMC Software	UL	Version 2020.7.15	NA	NA

8. MEASUREMENT METHOD

On Time and Duty Cycle: ANSI C63.10-2013 Section 11.6.

6 dB BW: ANSI C63.10 Subclause -11.8.1

Occupied BW (99%): ANSI C63.10-2013 Section 6.9.3

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 - 11.10.3 (average method)

Emissions in non-restricted frequency bands: ANSI C63.10 Subclause -11.11 and 6.10.4

Emissions in restricted frequency bands: ANSI C63.10 Subclause -11.12.1 and 6.10.5

General Radiated Emissions: ANSI C63.10:2013 Sections 6.3 – 6.6

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

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

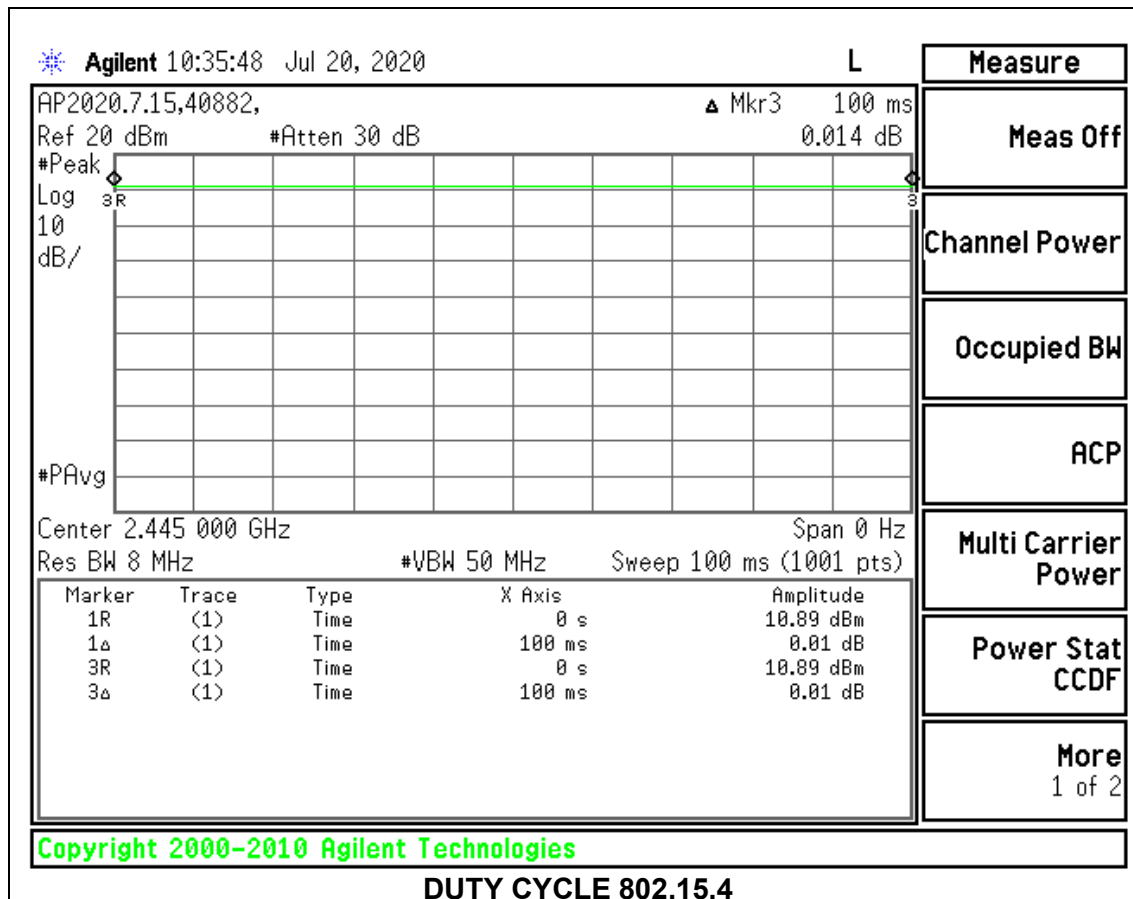
PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

ON TIME AND DUTY CYCLE RESULTS

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						
802.15.4	100.000	100.000	1.000	100.00%	0.00	0.010

DUTY CYCLE PLOTS



9.2. 99% BANDWIDTH

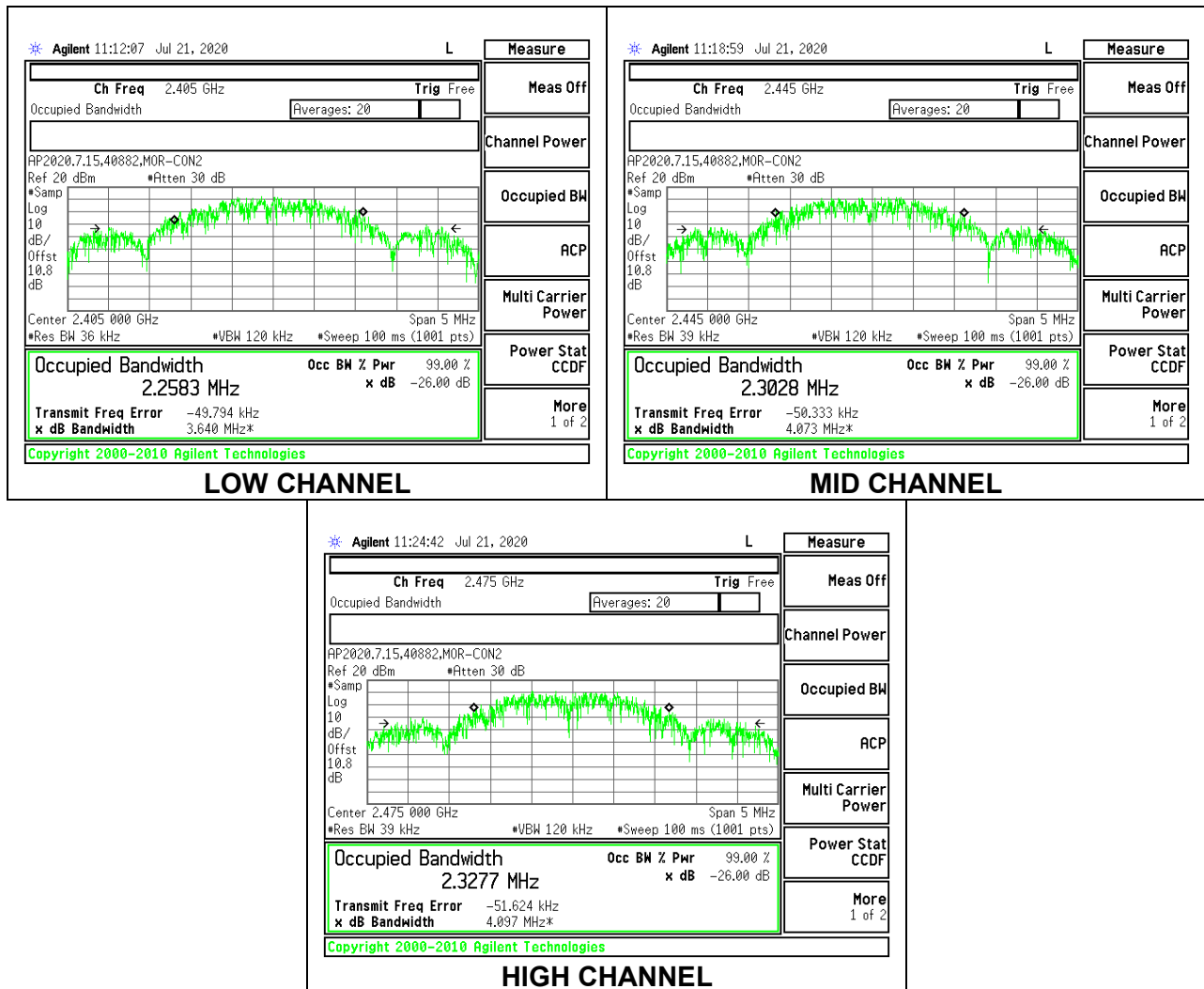
LIMITS

None; for reporting purposes only.

RESULTS

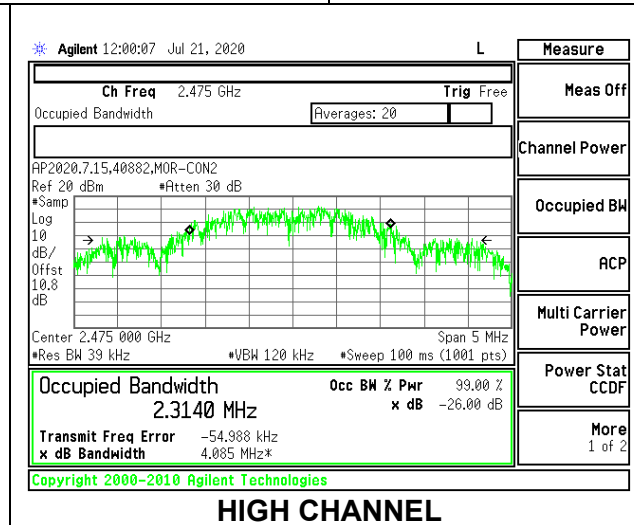
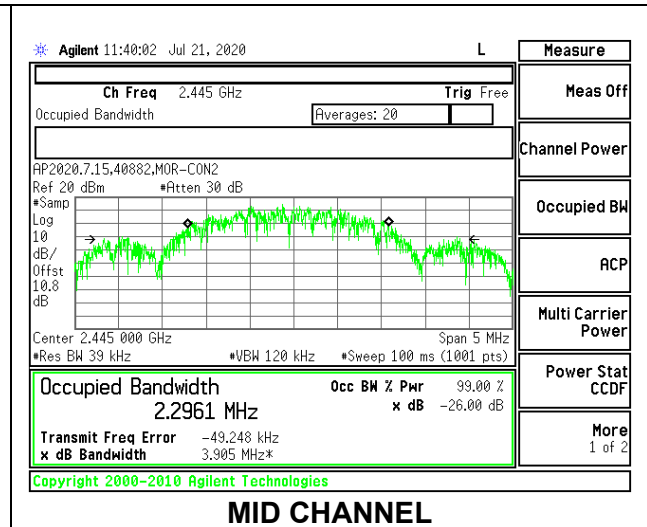
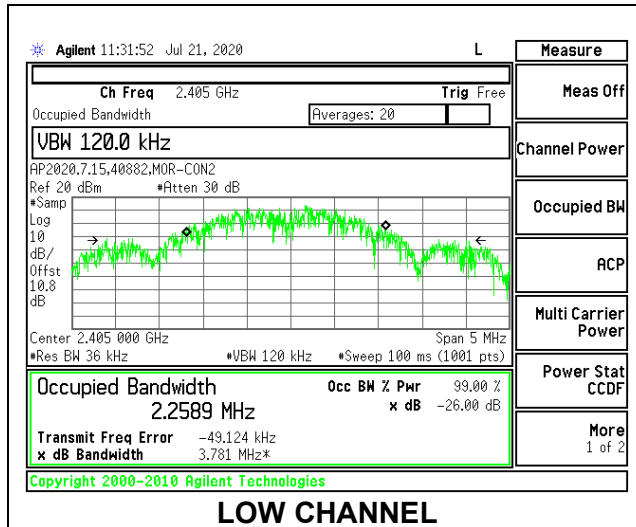
9.2.1. 802.15.4 ANT 1

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2405	2.2583
Middle	2445	2.3028
High	2475	2.3277



9.2.2. 802.15.4 ANT 2

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2405	2.2589
Middle	2445	2.2961
High	2475	2.3140



9.3. 6 dB BANDWIDTH

LIMITS

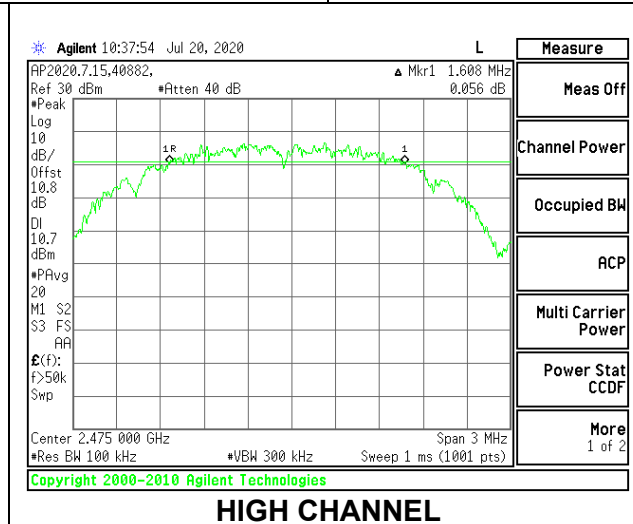
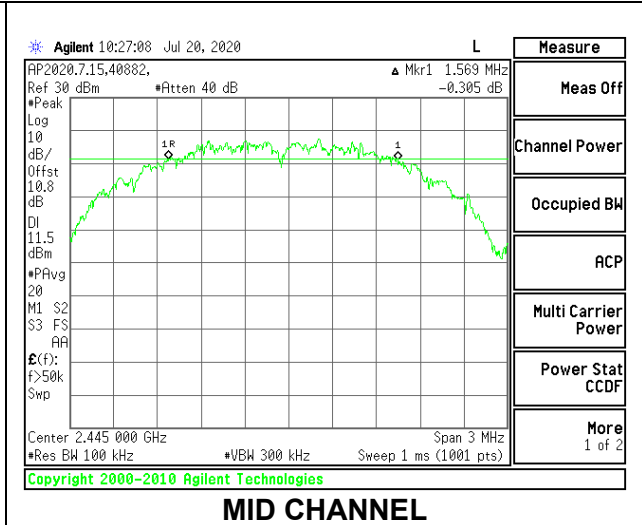
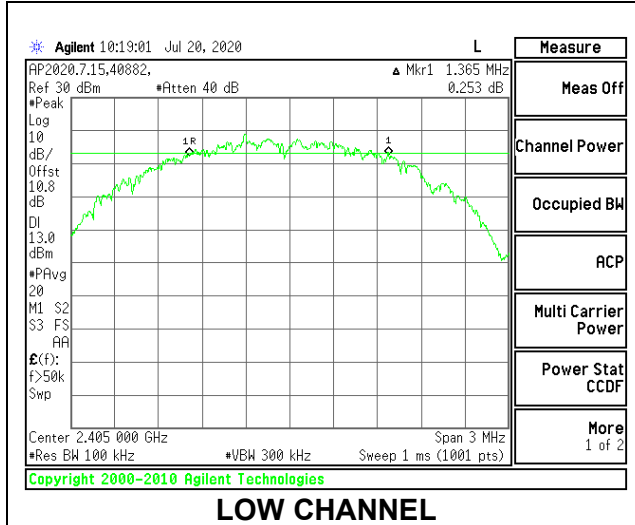
FCC §15.247 (a) (2)
RSS-247 5.2 (a)

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

RESULTS

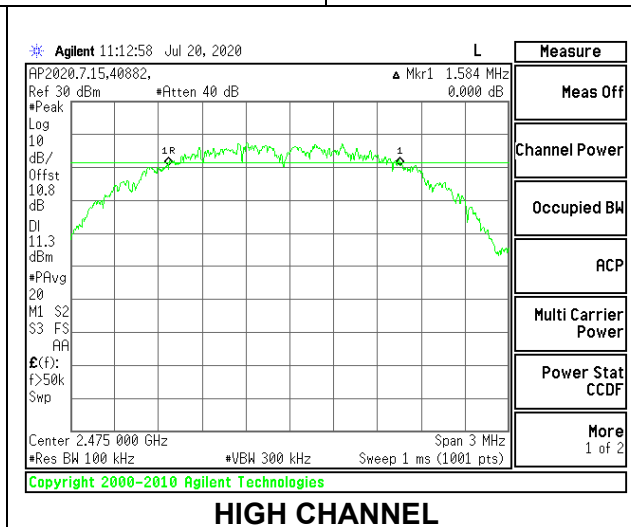
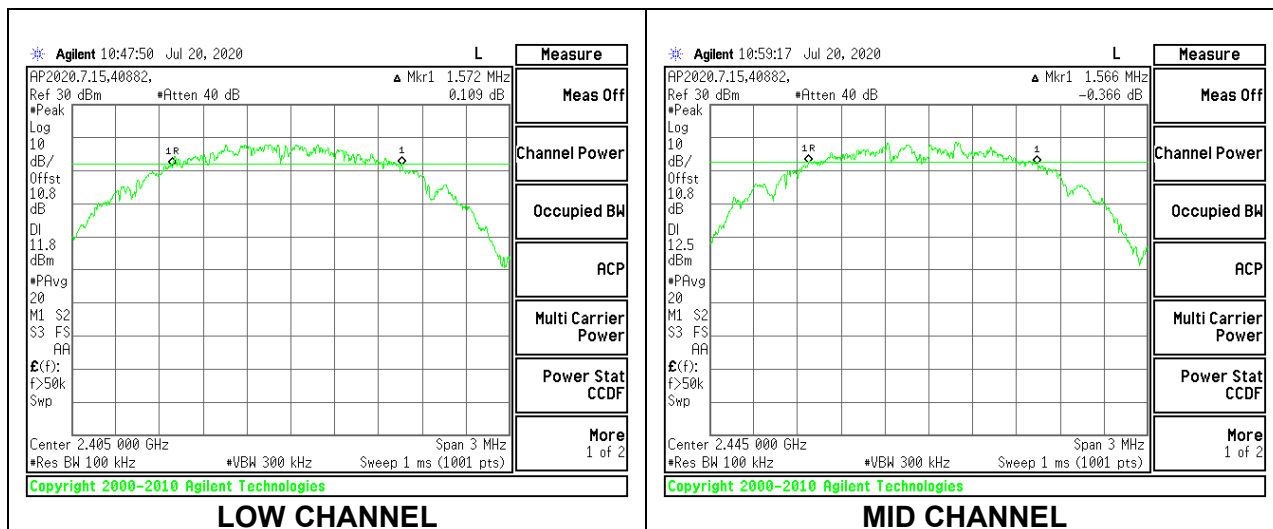
9.3.1. 802.15.4 ANT 1

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2405	1.365	0.5
Middle	2445	1.569	0.5
High	2475	1.608	0.5



9.3.2. 802.15.4 ANT 2

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2405	1.572	0.5
Middle	2445	1.566	0.5
High	2475	1.584	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.

The cable assembly insertion loss of 0.5 dB was entered as an offset in the power meter to allow for a gated average reading of power.

9.4.1. 802.15.4 ANT 1

Tested By:	40882
Date:	6/29/2020

Channel	Frequency (MHz)	Average Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2405	20.87	30	-9.13
Middle	2445	20.63	30	-9.37
High	2475	20.31	30	-9.69

9.4.2. 802.15.4 ANT 2

Tested By:	40882
Date:	6/29/2020

Channel	Frequency (MHz)	Average Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2405	21.52	30	-8.48
Middle	2445	21.52	30	-8.48
High	2475	20.98	30	-9.02

9.5. POWER SPECTRAL DENSITY

LIMITS

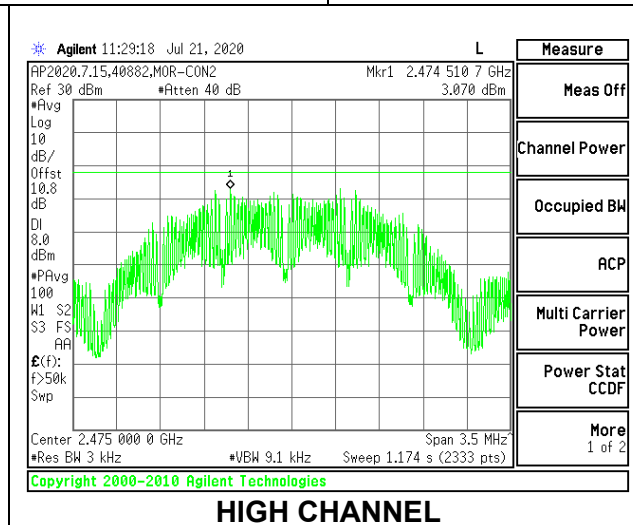
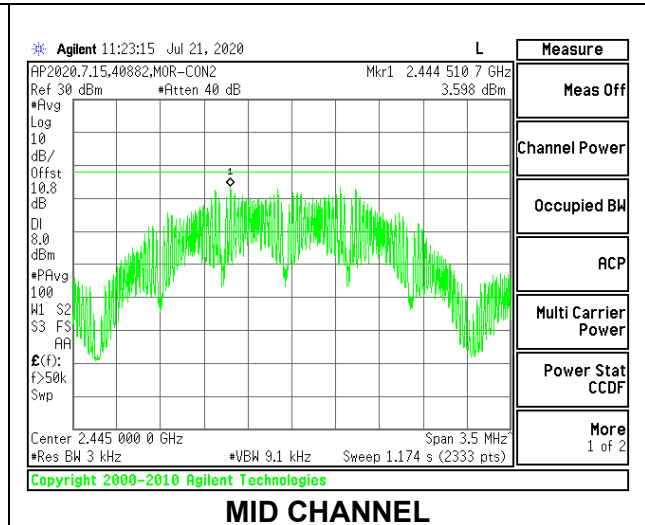
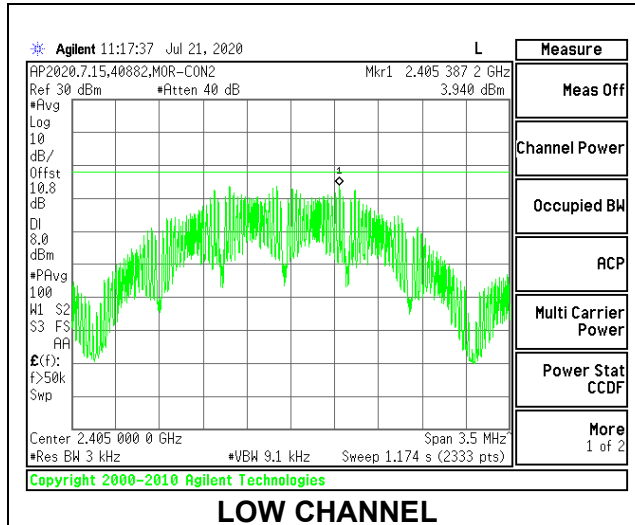
FCC §15.247 (e)
RSS-247 (5.2) (b)

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

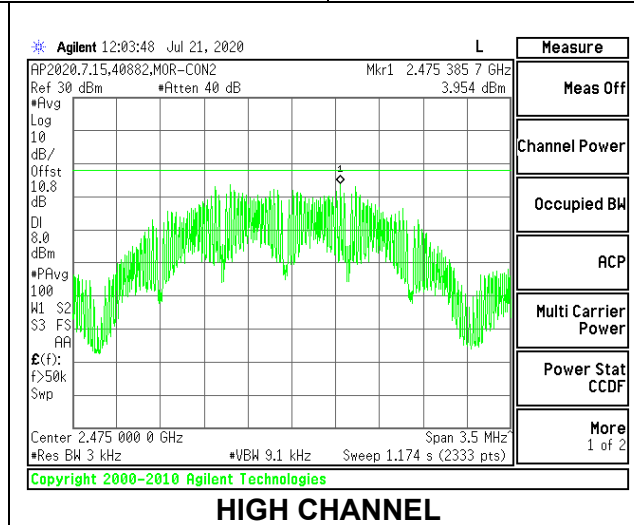
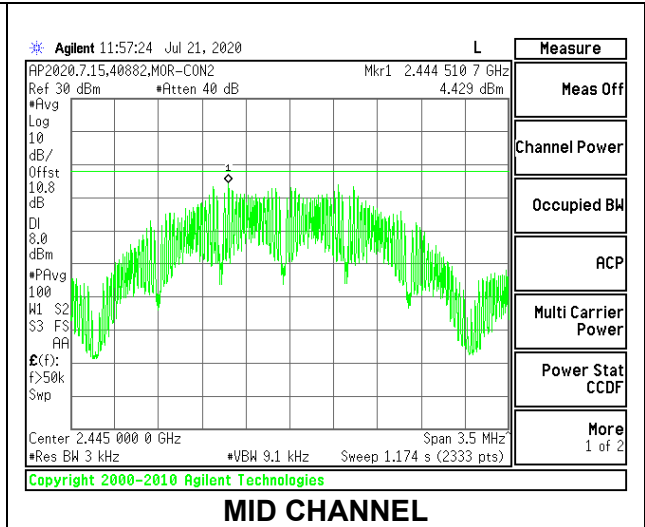
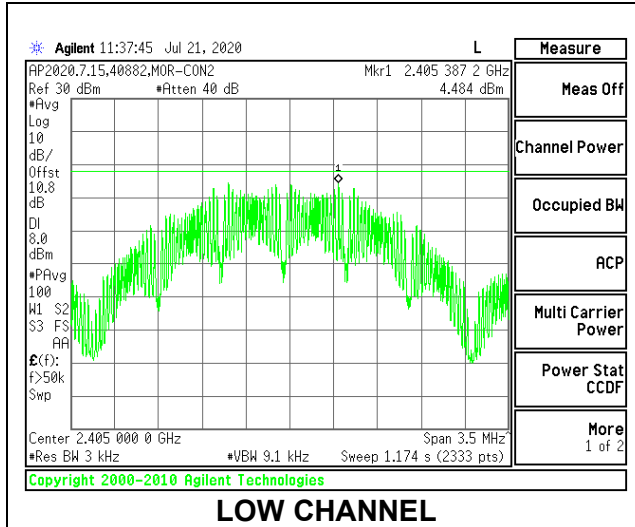
9.5.1. 802.15.4 ANT 1

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2405	3.94	8	-4.06
Middle	2445	3.60	8	-4.40
High	2475	3.07	8	-4.93



9.5.1. 802.15.4 ANT 2

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2405	4.48	8	-3.52
Middle	2445	4.43	8	-3.57
High	2475	3.95	8	-4.05



9.6. CONDUCTED SPURIOUS EMISSIONS

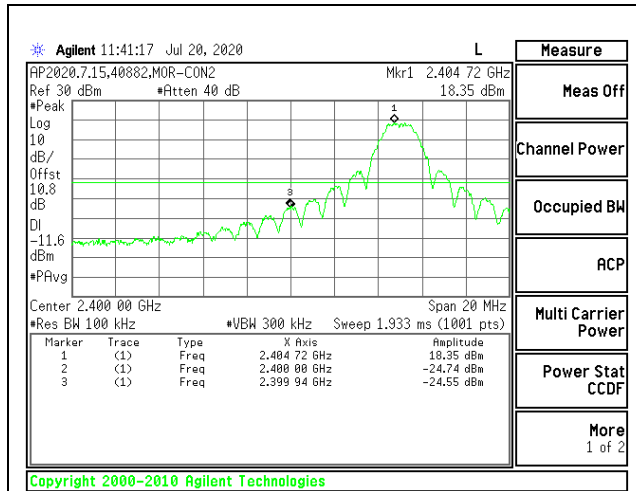
LIMITS

FCC §15.247 (d)
RSS-247 5.5

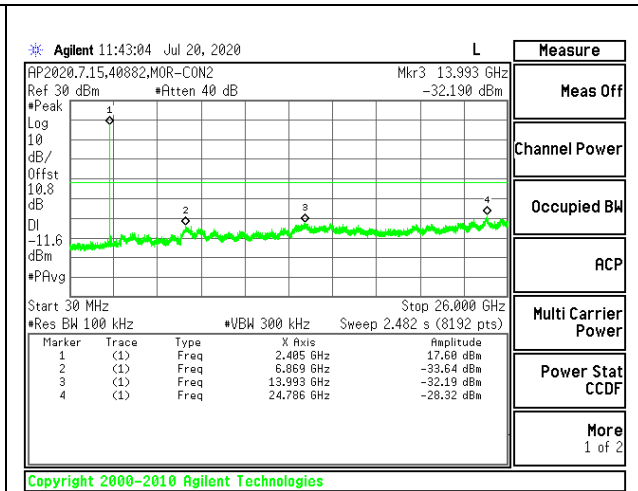
Output power was measured based on the use of an average measurement, therefore the required attenuation is 30 dB.

RESULTS

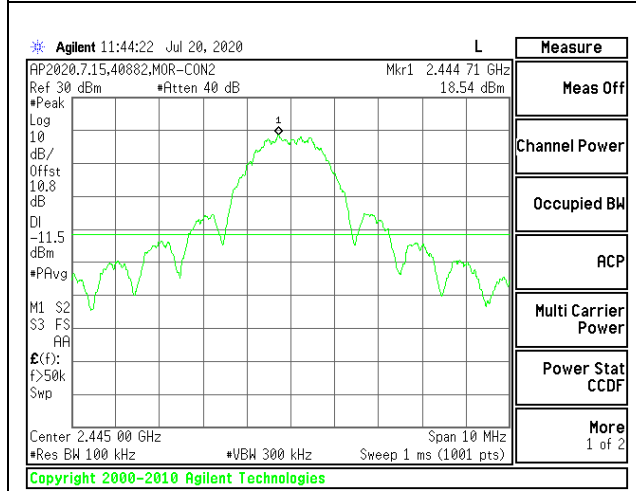
9.6.1. 802.15.4 ANT 1



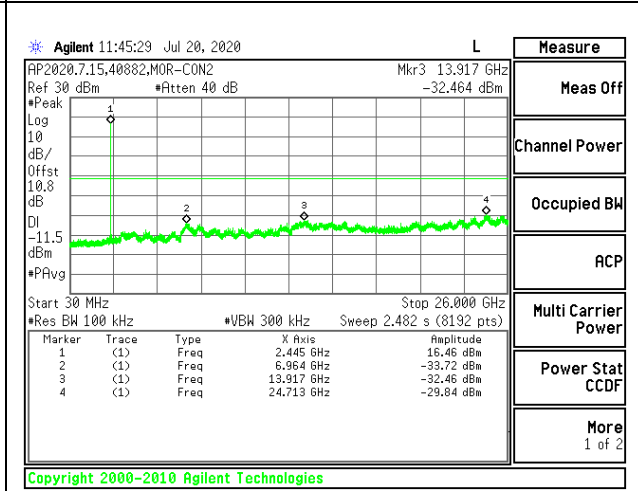
LOW CHANNEL BANDEDGE



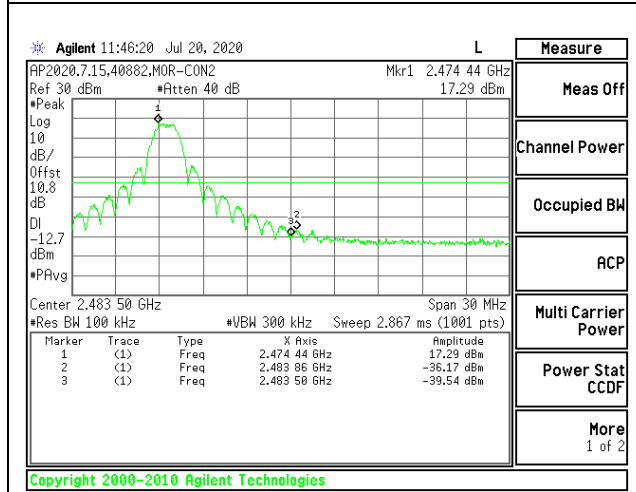
OUT-OF-BAND LOW CHANNEL



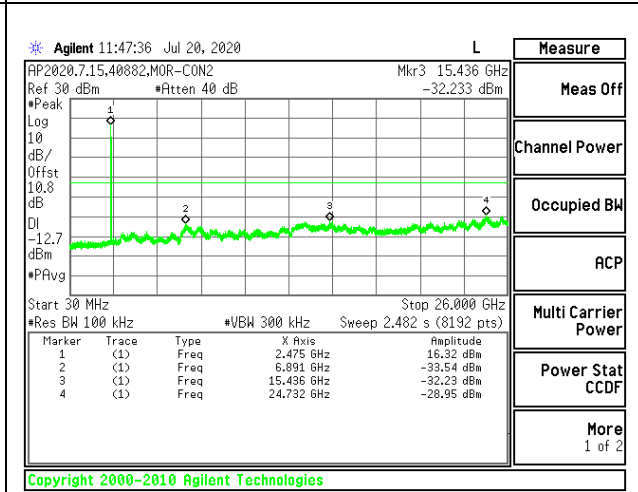
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL

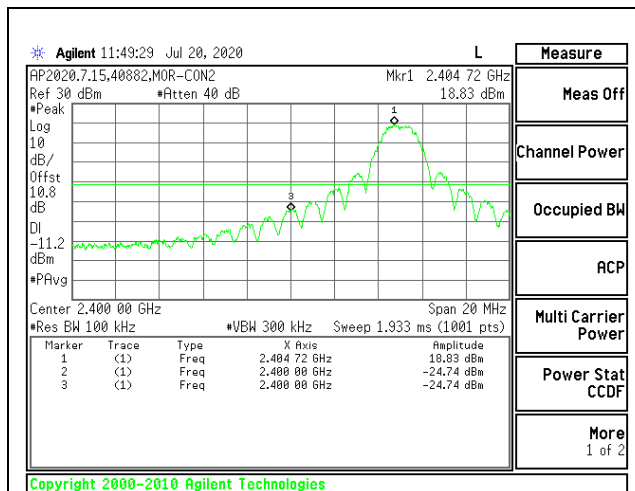


HIGH CHANNEL BANDEDGE

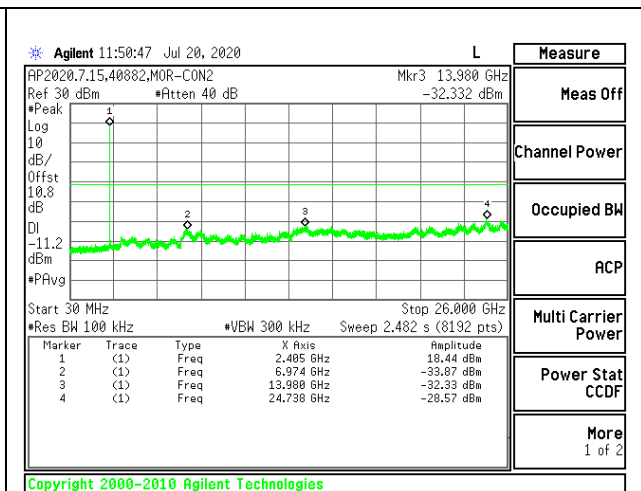


OUT-OF-BAND HIGH CHANNEL

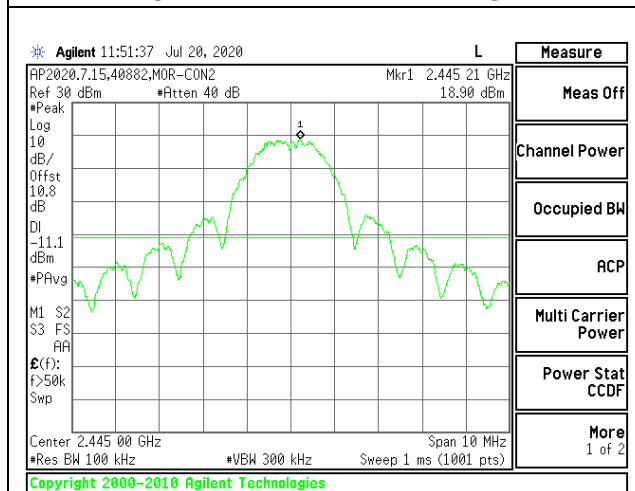
9.6.1. 802.15.4 ANT 2



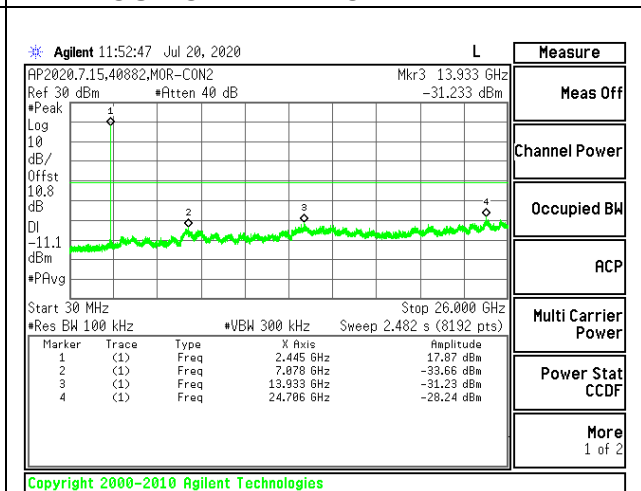
LOW CHANNEL BANDEDGE



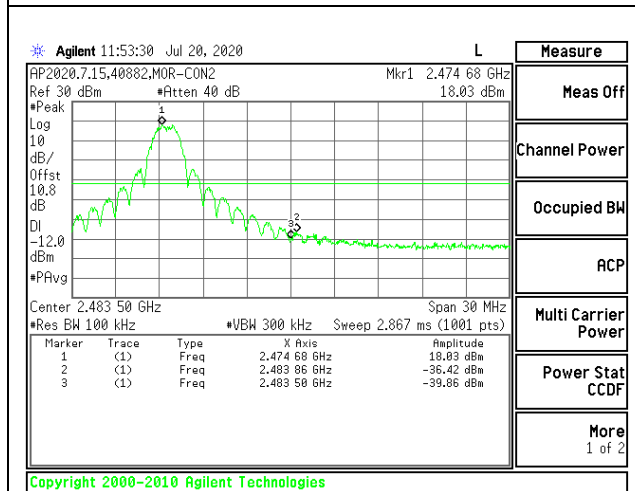
OUT-OF-BAND LOW CHANNEL



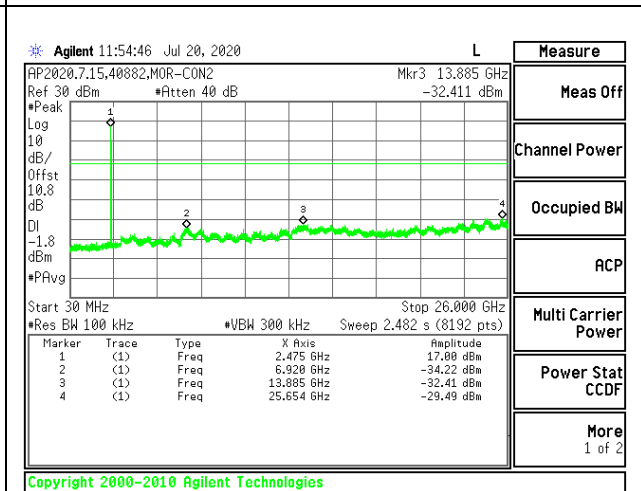
IN-BAND REFERENCE LEVEL



OUT-OF-BAND MID CHANNEL



HIGH CHANNEL BANDEDGE



Note – Limit should read -12 dBm. All measured data below the -12 dBm limit.

OUT-OF-BAND HIGH CHANNEL

10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209
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 120 kHz for peak and/or 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.

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz 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 average measurements. Averaging was voltage with duty cycle correction per KDB 558074 D01 15.247 V05r02, FAQ Answer 3c) for 802.15.4.

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 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.

KDB 558074 D01 15.247 Meas Guidance V05r02

11. Frequently Asked Questions; Answer 3: c)

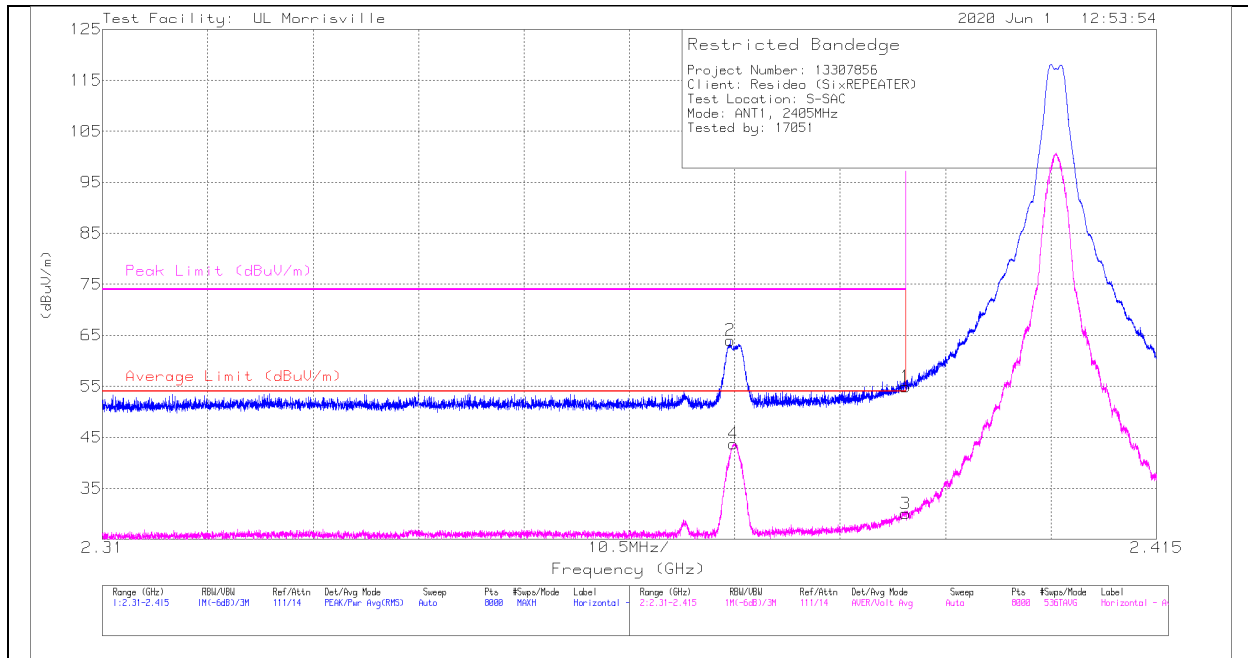
A voltage averaging measurement was taken in accordance to ANSI C63.10. The average measurement was corrected down based on the protocol-limited worst-case duty cycle of 18.656% provided by the manufacturer. The calculation of $20 \cdot \log(0.18656)$ leads to a -14.58dB correction factor that is subtracted from the average measurement.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. ANTENNA 1

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	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	* ** 2.39	36.83	Pk	32	-23.9	10	0	54.93	-	-	74	-19.07	239	176	H
2	* ** 2.37252	45.94	Pk	32	-23.9	10	0	64.04	-	-	74	-9.96	239	176	H
3	* ** 2.39	26.58	ADV	32	-23.9	10	-14.58	30.1	54	-23.9	-	-	239	176	H
4	* ** 2.37288	40.25	ADV	32	-23.9	10	-14.58	43.77	54	-10.23	-	-	239	176	H

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

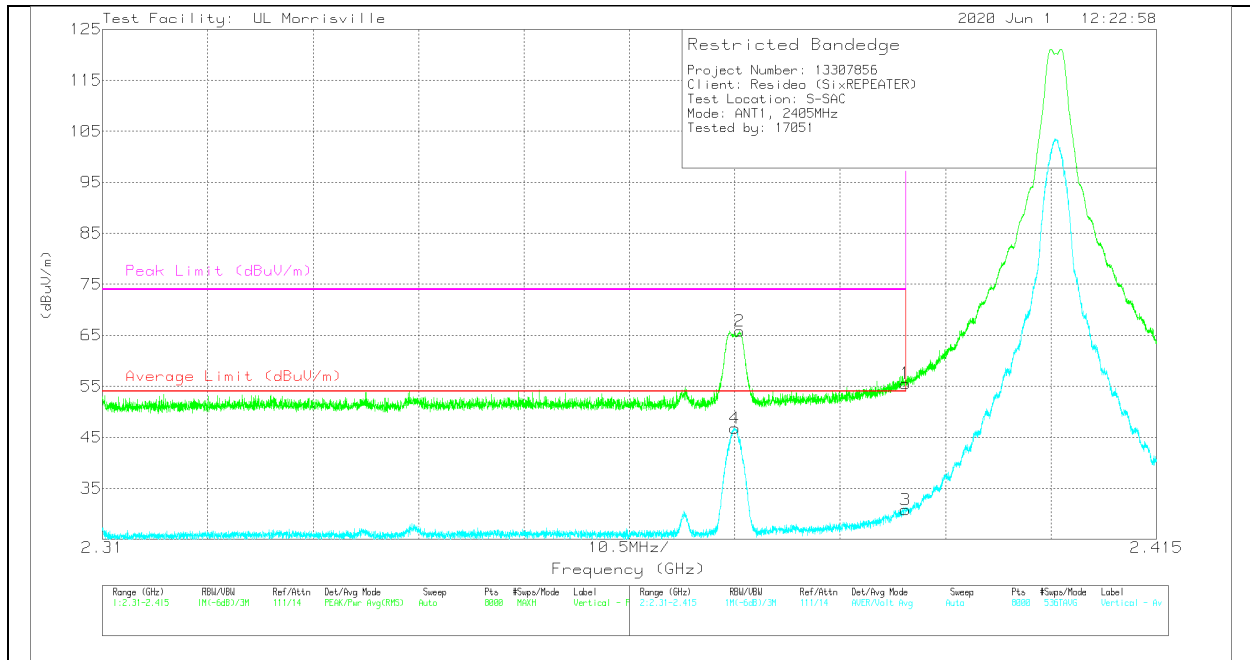
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - AD primary method, Linear Voltage Average

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	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	* ** 2.39	37.46	Pk	32	-23.9	10	0	55.56	-	-	74	-18.44	118	189	V
2	* ** 2.37348	47.76	Pk	32	-23.9	10	0	65.86	-	-	74	-8.14	118	189	V
3	* ** 2.39	27.32	ADV	32	-23.9	10	-14.58	30.84	54	-23.16	-	-	118	189	V
4	* ** 2.37301	43.25	ADV	32	-23.9	10	-14.58	46.77	54	-7.23	-	-	118	189	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

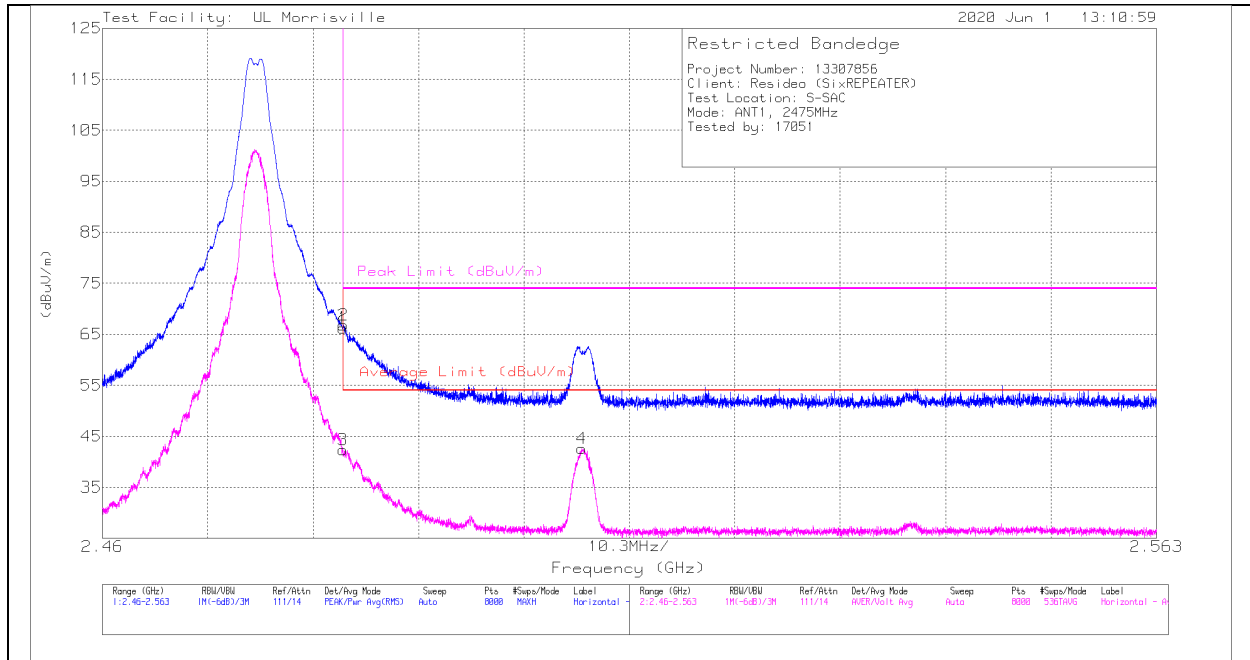
Pk - Peak detector

ADV - AD primary method, Linear Voltage Average

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

BANDEGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	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	*** 2.4835	48.34	Pk	32.1	-24.2	10	0	66.24	-	-	74	-7.76	242	159	H
2	*** 2.48354	48.88	Pk	32.1	-24.2	10	0	66.78	-	-	74	-7.22	242	159	H
3	*** 2.4835	39.03	ADV	32.1	-24.2	10	-14.58	42.35	54	-11.65	-	-	242	159	H
4	** 2.50683	39.46	ADV	32.2	-24.5	10	-14.58	42.58	54	-11.42	-	-	242	159	H

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

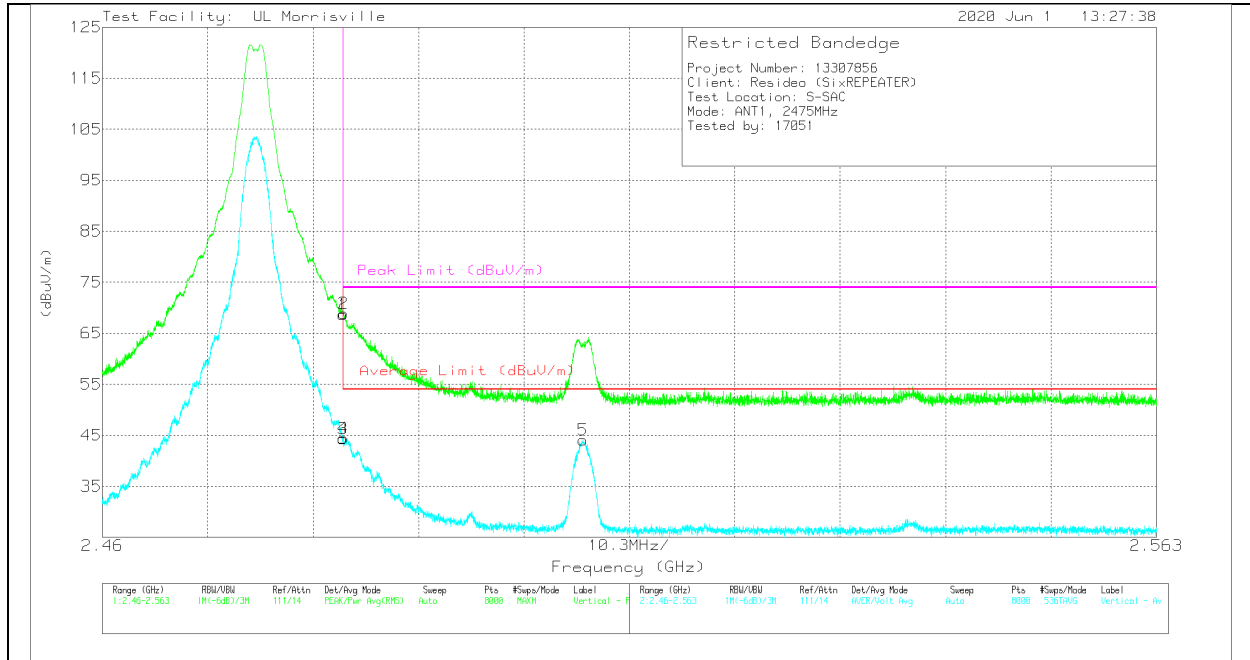
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - AD primary method, Linear Voltage Average

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

VERTICAL RESULT



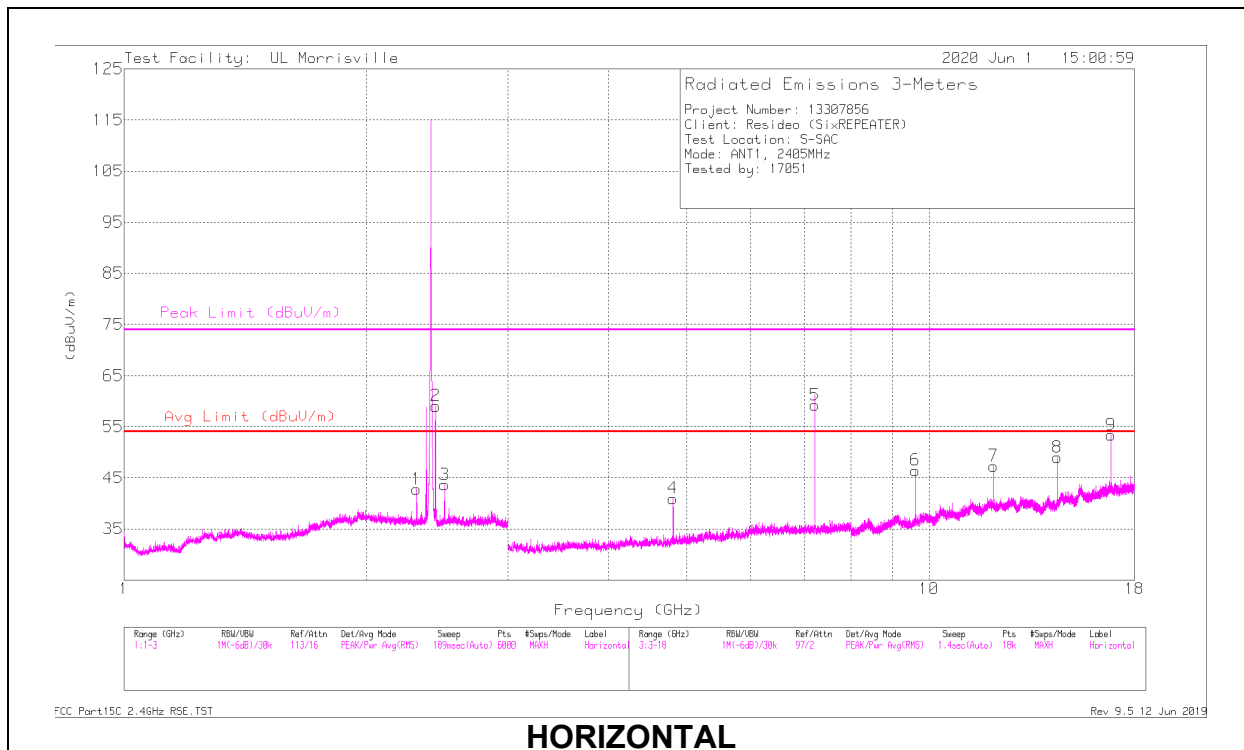
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	50.78	Pk	32.1	-24.2	10	0	68.68	-	-	74	-5.32	120	155	V
2	** 2.48355	51.03	Pk	32.1	-24.2	10	0	68.93	-	-	74	-5.07	120	155	V
3	*** 2.4835	41.04	ADV	32.1	-24.2	10	-14.58	44.36	54	-9.64	-	-	120	155	V
4	*** 2.48354	41.11	ADV	32.1	-24.2	10	-14.58	44.43	54	-9.57	-	-	120	155	V
5	** 2.50694	40.94	ADV	32.2	-24.5	10	-14.58	44.06	54	-9.94	-	-	120	155	V

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

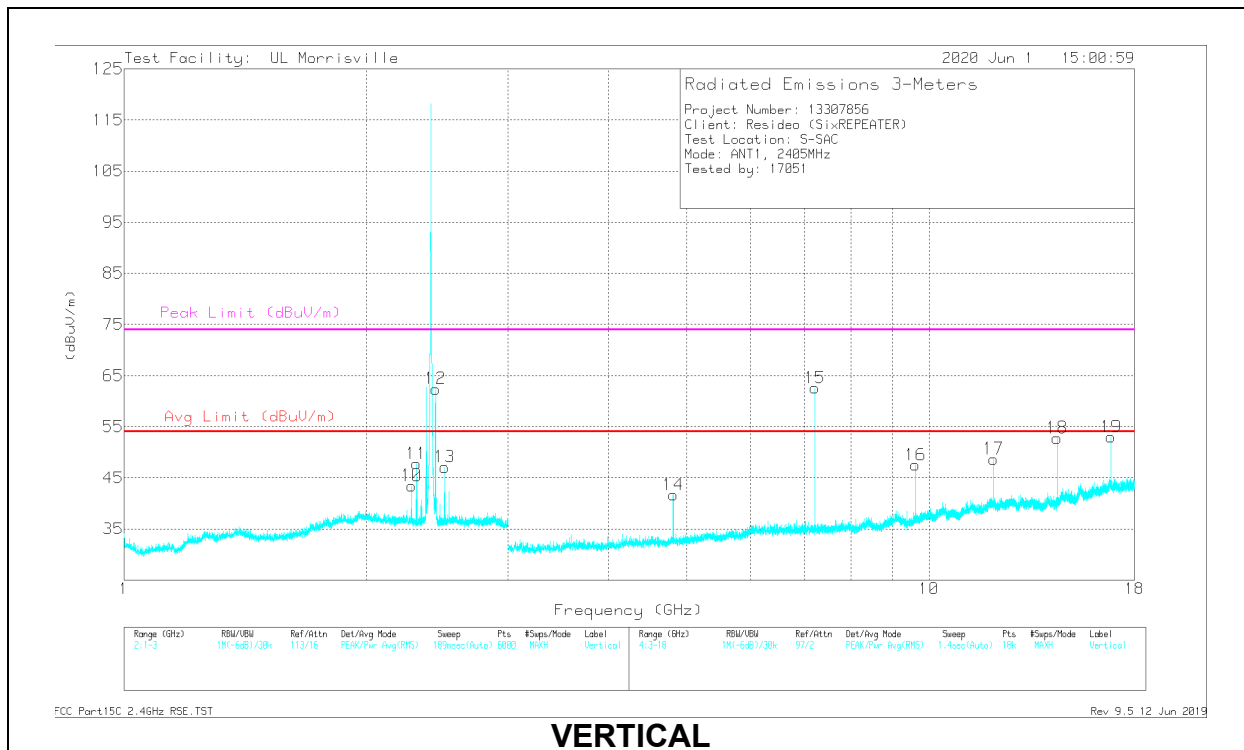
Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (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
3	** 2.50051	43.88	PK2	32.2	-24.3	0	51.78	-	-	74	-22.22	1	111	H
	** 2.50091	36.14	ADV	32.2	-24.3	-14.58	29.46	54	-24.54	-	-	1	111	H
10	*** 2.27737	42.39	PK2	31.7	-23.3	0	50.79	-	-	74	-23.21	126	177	V
	*** 2.27696	34.2	ADV	31.7	-23.3	-14.58	28.02	54	-25.98	-	-	126	177	V
13	** 2.50052	45.87	PK2	32.2	-24.3	0	53.77	-	-	74	-20.23	150	177	V
	** 2.50093	39.12	ADV	32.2	-24.3	-14.58	32.44	54	-21.56	-	-	150	177	V
4	*** 4.80881	46.48	PK2	33.9	-31	0	49.38	-	-	74	-24.62	343	106	H
	*** 4.80916	37.89	ADV	33.9	-31	-14.58	26.21	54	-27.79	-	-	343	106	H
7	*** 12.02727	40.79	PK2	38.6	-23.7	0	55.69	-	-	74	-18.31	190	101	H
	*** 12.02267	31.51	ADV	38.6	-23.8	-14.58	31.73	54	-22.27	-	-	190	101	H
14	*** 4.80898	47.6	PK2	33.9	-31	0	50.5	-	-	74	-23.5	105	251	V
	*** 4.80889	39.7	ADV	33.9	-31	-14.58	28.02	54	-25.98	-	-	105	251	V
17	*** 12.0274	41.99	PK2	38.6	-23.7	0	56.89	-	-	74	-17.11	249	177	V
	*** 12.02729	33.91	ADV	38.6	-23.7	-14.58	34.23	54	-19.77	-	-	249	177	V
1	2.30922	34.8	Pk	31.7	-23.7	0	42.8	-	-	-	-	0-360	199	H
11	2.30922	39.78	Pk	31.7	-23.7	0	47.78	-	-	-	-	0-360	199	V
2	2.43724	50.86	Pk	32.1	-23.9	0	59.06	-	-	-	-	0-360	101	H
12	2.43724	54.2	Pk	32.1	-23.9	0	62.4	-	-	-	-	0-360	199	V
5	7.21274	51.43	Pk	35.6	-27.8	0	59.23	-	-	-	-	0-360	101	H
15	7.21357	54.79	Pk	35.6	-27.8	0	62.59	-	-	-	-	0-360	199	V
6	9.62204	35.97	Pk	36.6	-26.1	0	46.47	-	-	-	-	0-360	101	H
16	9.62204	37.03	Pk	36.6	-26.1	0	47.53	-	-	-	-	0-360	199	V
18	14.42731	38.17	Pk	39.2	-24.6	0	52.77	-	-	-	-	0-360	199	V
8	14.43314	34.32	Pk	39.2	-24.5	0	49.02	-	-	-	-	0-360	101	H
9	16.83828	34.45	Pk	41.5	-22.6	0	53.35	-	-	-	-	0-360	101	H
19	16.83828	34.08	Pk	41.5	-22.6	0	52.98	-	-	-	-	0-360	101	V

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

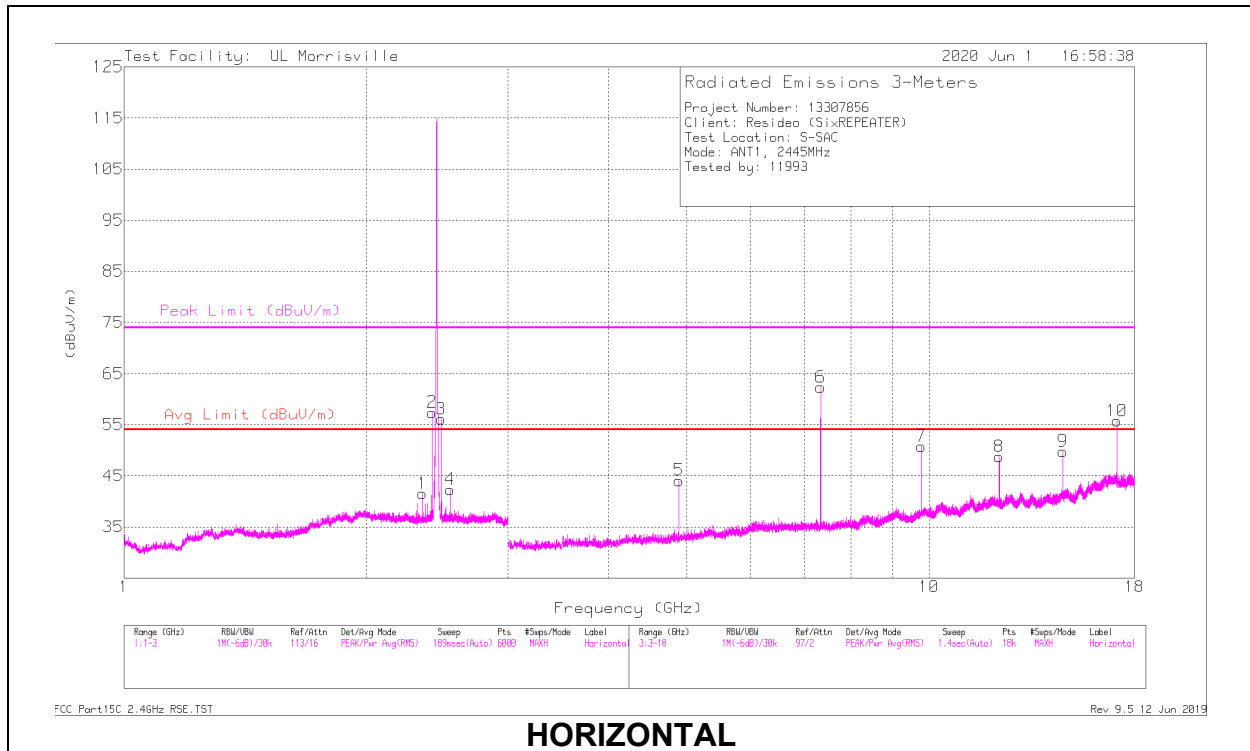
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

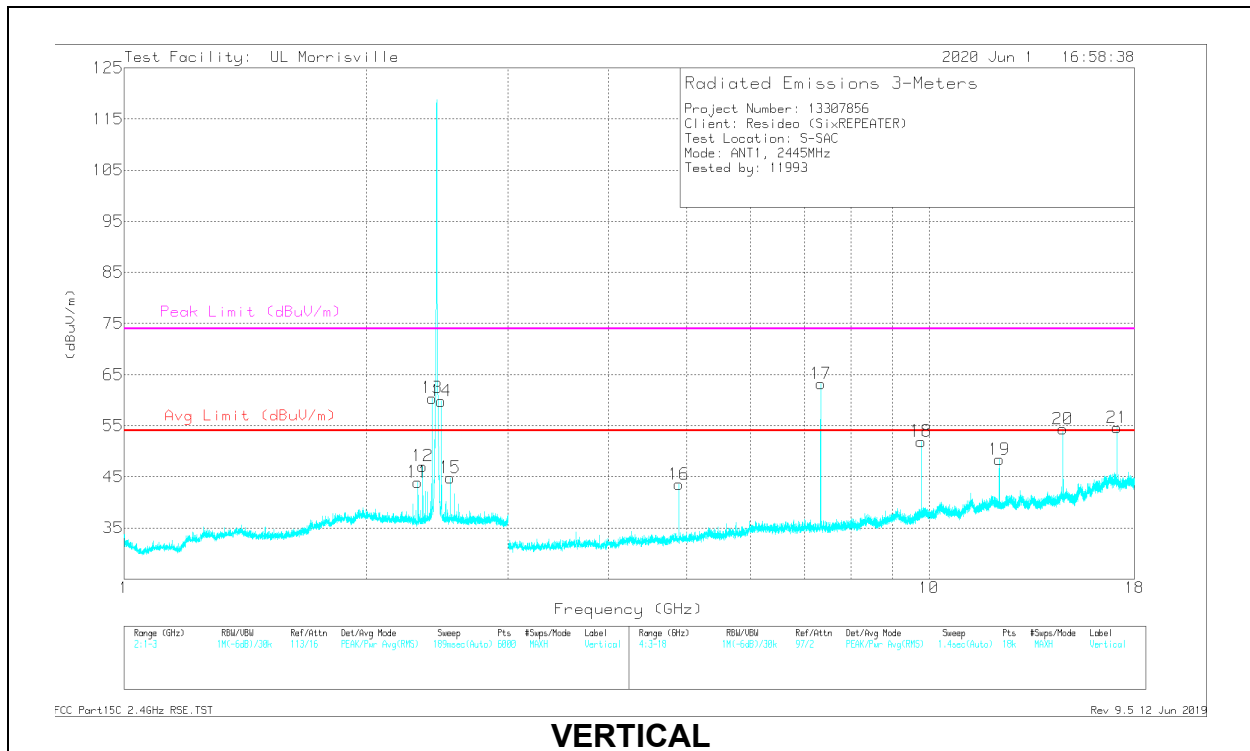
ADV - AD primary method, Linear Voltage Average

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (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	*** 2.34852	38.99	PK2	31.8	-23.5	0	47.29	-	-	74	-26.71	246	174	H
	*** 2.34899	31.95	ADV	31.8	-23.5	-14.58	25.67	54	-28.33	-	-	246	174	H
4	** 2.54108	39.28	PK2	32.4	-24.7	0	46.98	-	-	74	-27.02	360	300	H
	** 2.54097	32.1	ADV	32.4	-24.7	-14.58	25.22	54	-28.78	-	-	360	300	H
11	*** 2.31636	42.32	PK2	31.7	-23.6	0	50.42	-	-	74	-23.58	138	105	V
	*** 2.31704	34.13	ADV	31.7	-23.5	-14.58	27.75	54	-26.25	-	-	138	105	V
12	*** 2.34848	42.05	PK2	31.8	-23.5	0	50.35	-	-	74	-23.65	155	101	V
	*** 2.34898	36.37	ADV	31.8	-23.5	-14.58	30.09	54	-23.91	-	-	155	101	V
15	** 2.54054	41.17	PK2	32.4	-24.7	0	48.87	-	-	74	-25.16	104	106	V
	** 2.54097	34.69	ADV	32.4	-24.7	-14.58	27.81	54	-26.19	-	-	104	106	V
5	*** 4.89089	46.85	PK2	33.8	-30.7	0	49.95	-	-	74	-24.05	357	102	H
	*** 4.88904	37.75	ADV	33.8	-30.7	-14.58	26.27	54	-27.73	-	-	357	102	H
6	*** 7.33344	60.6	PK2	35.6	-27.3	0	68.9	-	-	74	-5.1	337	181	H
	*** 7.3337	52.16	ADV	35.6	-27.3	-14.58	45.88	54	-8.12	-	-	337	181	H
8	*** 12.22238	39.87	PK2	38.8	-23.9	0	54.77	-	-	74	-19.23	192	182	H
	*** 12.22259	31.11	ADV	38.8	-23.9	-14.58	31.43	54	-22.57	-	-	192	182	H
16	*** 4.89095	46.56	PK2	33.8	-30.7	0	49.66	-	-	74	-24.34	122	261	V
	*** 4.89088	38.22	ADV	33.8	-30.7	-14.58	26.74	54	-27.26	-	-	122	261	V
17	*** 7.33642	61.82	PK2	35.6	-27.4	0	70.02	-	-	74	-3.98	306	288	V
	*** 7.33612	53.62	ADV	35.6	-27.4	-14.58	47.24	54	-6.76	-	-	306	288	V
19	*** 12.2273	39.93	PK2	38.8	-24	0	54.73	-	-	74	-19.27	205	173	V
	*** 12.22706	30.66	ADV	38.8	-24	-14.58	30.88	54	-23.12	-	-	205	173	V
2	2.41324	49.1	Pk	32.1	-23.8	0	57.4	-	-	-	-	0-360	199	H
13	2.41324	52.12	Pk	32.1	-23.8	0	60.42	-	-	-	-	0-360	199	V
3	2.47691	48.19	Pk	32.1	-24.2	0	56.09	-	-	-	-	0-360	100	H
14	2.47725	51.91	Pk	32.1	-24.2	0	59.81	-	-	-	-	0-360	101	V
18	9.77788	40.82	Pk	36.8	-25.7	0	51.92	-	-	-	-	0-360	101	V
7	9.78205	39.68	Pk	36.8	-25.7	0	50.78	-	-	-	-	0-360	101	H
9	14.66732	33.09	Pk	39.4	-22.7	0	49.79	-	-	-	-	0-360	101	H
20	14.66732	37.66	Pk	39.4	-22.7	0	54.36	-	-	-	-	0-360	199	V
10	17.11162	36.93	Pk	41.2	-22.4	0	55.73	-	-	-	-	0-360	199	H
21	17.11829	35.93	Pk	41.2	-22.5	0	54.63	-	-	-	-	0-360	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

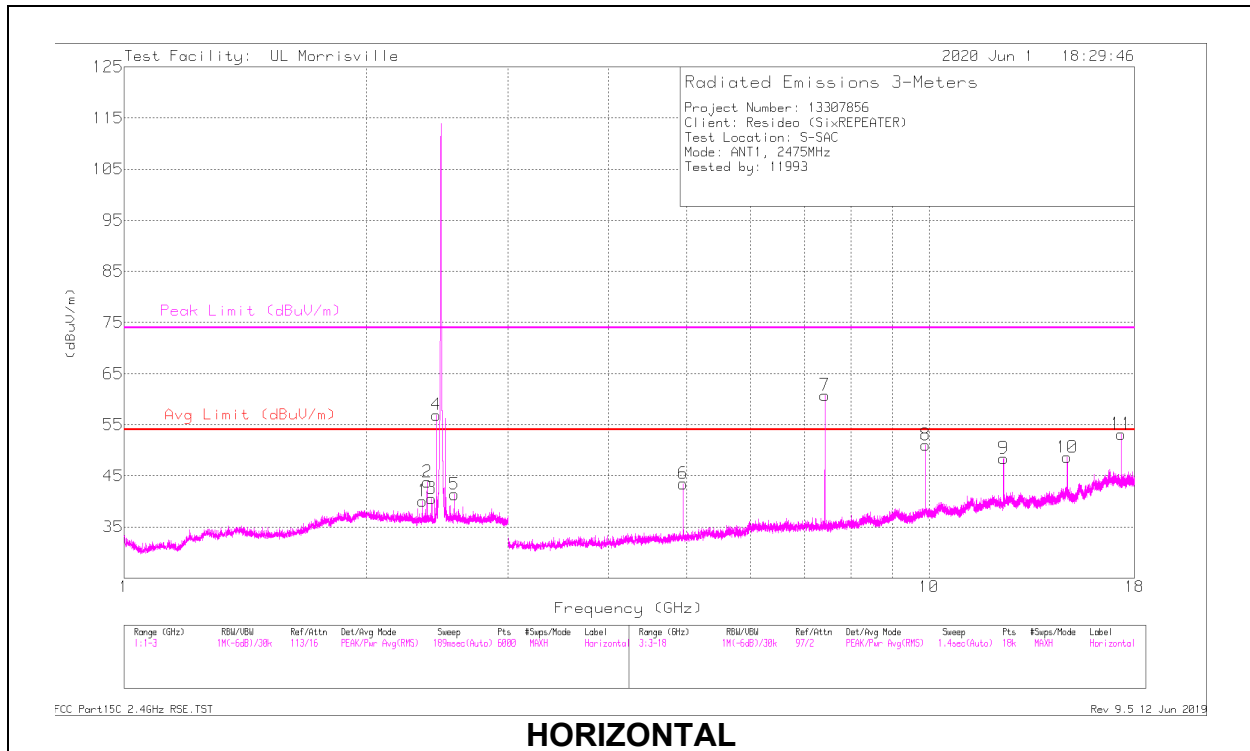
PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

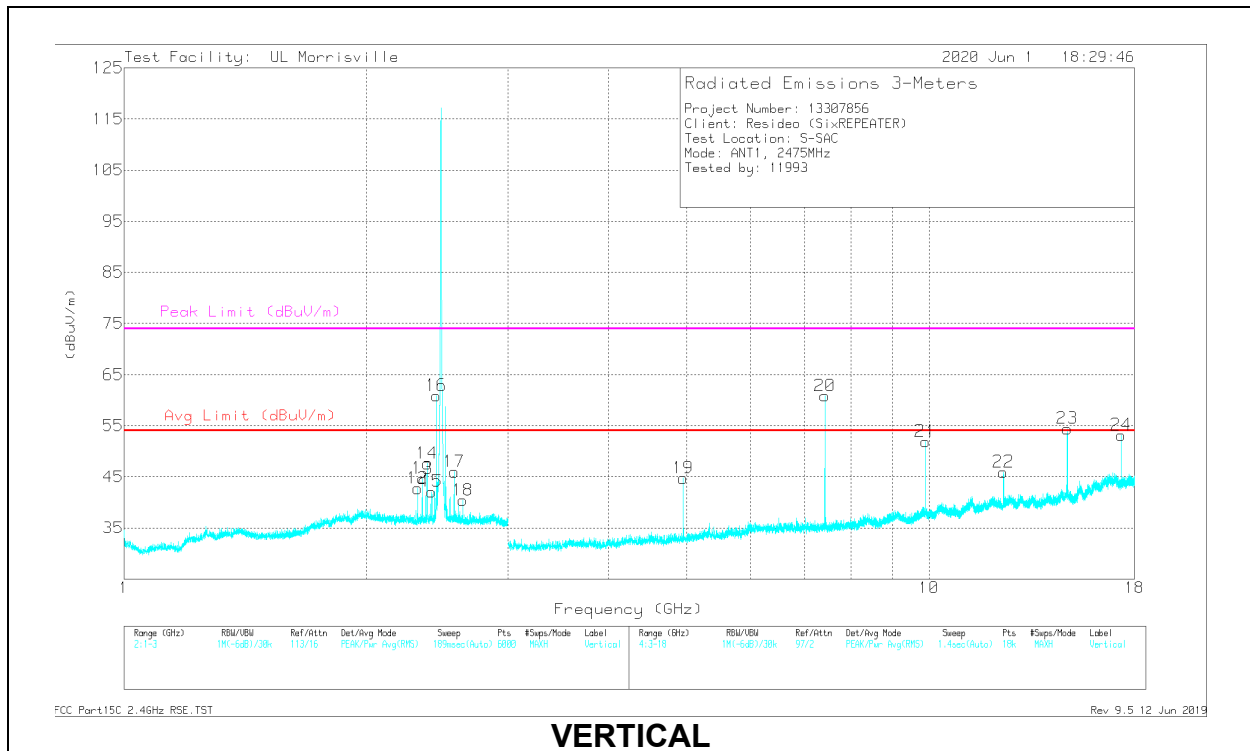
Pk - Peak detector

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (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	*** 2.34651	38.67	PK2	31.8	-23.5	0	46.97	-	-	74	-27.03	246	184	H
	*** 2.34691	30.34	ADV	31.8	-23.5	-14.58	24.06	54	-29.94	-	-	246	184	H
2	*** 2.37898	39.96	PK2	32	-23.8	0	48.16	-	-	74	-25.84	228	194	H
	*** 2.37899	33.26	ADV	32	-23.8	-14.58	26.88	54	-27.12	-	-	228	194	H
5	** 2.57089	39.98	PK2	32.5	-24.8	0	47.68	-	-	74	-26.32	359	104	H
	** 2.57103	32.49	ADV	32.5	-24.8	-14.58	25.61	54	-28.39	-	-	359	104	H
12	*** 2.3153	38.91	PK2	31.7	-23.6	0	47.01	-	-	74	-26.99	156	133	V
	*** 2.31491	31.43	ADV	31.7	-23.6	-14.58	24.95	54	-29.05	-	-	156	133	V
13	*** 2.34645	43.04	PK2	31.8	-23.5	0	51.34	-	-	74	-22.66	157	127	V
	*** 2.34696	35.16	ADV	31.8	-23.5	-14.58	28.88	54	-25.12	-	-	157	127	V
14	*** 2.37946	42.85	PK2	32	-23.8	0	51.05	-	-	74	-22.95	118	122	V
	*** 2.37897	36.98	ADV	32	-23.8	-14.58	30.6	54	-23.4	-	-	118	122	V
17	** 2.57139	44.29	PK2	32.5	-24.8	0	51.99	-	-	74	-22.01	117	105	V
	** 2.57099	36.26	ADV	32.5	-24.8	-14.58	29.38	54	-24.62	-	-	117	105	V
18	** 2.63571	38.97	PK2	32.5	-24.9	0	46.57	-	-	74	-27.53	116	161	V
	** 2.63502	30.67	ADV	32.5	-24.9	-14.58	23.69	54	-30.31	-	-	116	161	V
6	*** 4.94895	46.89	PK2	34	-30.9	0	49.99	-	-	74	-24.01	356	101	H
	*** 4.94896	38.84	ADV	34	-30.9	-14.58	27.36	54	-26.64	-	-	356	101	H
7	*** 7.42335	58.78	PK2	35.6	-28	0	66.38	-	-	74	-7.62	57	188	H
	*** 7.4236	50.29	ADV	35.6	-28	-14.58	43.31	54	-10.69	-	-	57	188	H
9	*** 12.37734	40.27	PK2	38.7	-23.9	0	55.07	-	-	74	-18.93	237	198	H
	*** 12.37744	30.54	ADV	38.7	-23.9	-14.58	30.76	54	-23.24	-	-	237	198	H
19	*** 4.94893	47.75	PK2	34	-30.9	0	50.85	-	-	74	-23.15	97	263	V
	*** 4.95093	39.45	ADV	34	-30.9	-14.58	27.97	54	-26.03	-	-	97	263	V
20	*** 7.42337	60.26	PK2	35.6	-28	0	67.86	-	-	74	-6.14	304	292	V
	*** 7.42357	51.88	ADV	35.6	-28	-14.58	44.9	54	-9.1	-	-	304	292	V
22	*** 12.37234	37.31	PK2	38.7	-23.9	0	52.11	-	-	74	-21.89	313	160	V
	*** 12.37231	27.87	ADV	38.7	-23.9	-14.58	28.09	54	-25.91	-	-	313	160	V
3	2.41057	32.4	PK	32	-23.8	0	40.6	-	-	-	-	0-360	199	H
15	2.4109	33.8	PK	32.1	-23.8	0	42.1	-	-	-	-	0-360	101	V
16	2.44291	52.68	PK	32.1	-23.9	0	60.88	-	-	-	-	0-360	199	V
4	2.44324	48.73	PK	32.1	-23.9	0	56.93	-	-	-	-	0-360	101	H
21	9.89789	40.4	PK	37	-25.5	0	51.9	-	-	-	-	0-360	199	V
8	9.90205	39.46	PK	37	-25.4	0	51.06	-	-	-	-	0-360	199	H
10	14.84733	32.13	PK	39.5	-23	0	48.63	-	-	-	-	0-360	101	H
23	14.85316	37.93	PK	39.5	-23	0	54.43	-	-	-	-	0-360	199	V
11	17.32164	35.46	PK	40.9	-23.2	0	53.16	-	-	-	-	0-360	199	H
24	17.3283	35.35	PK	40.9	-23.1	0	53.15	-	-	-	-	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

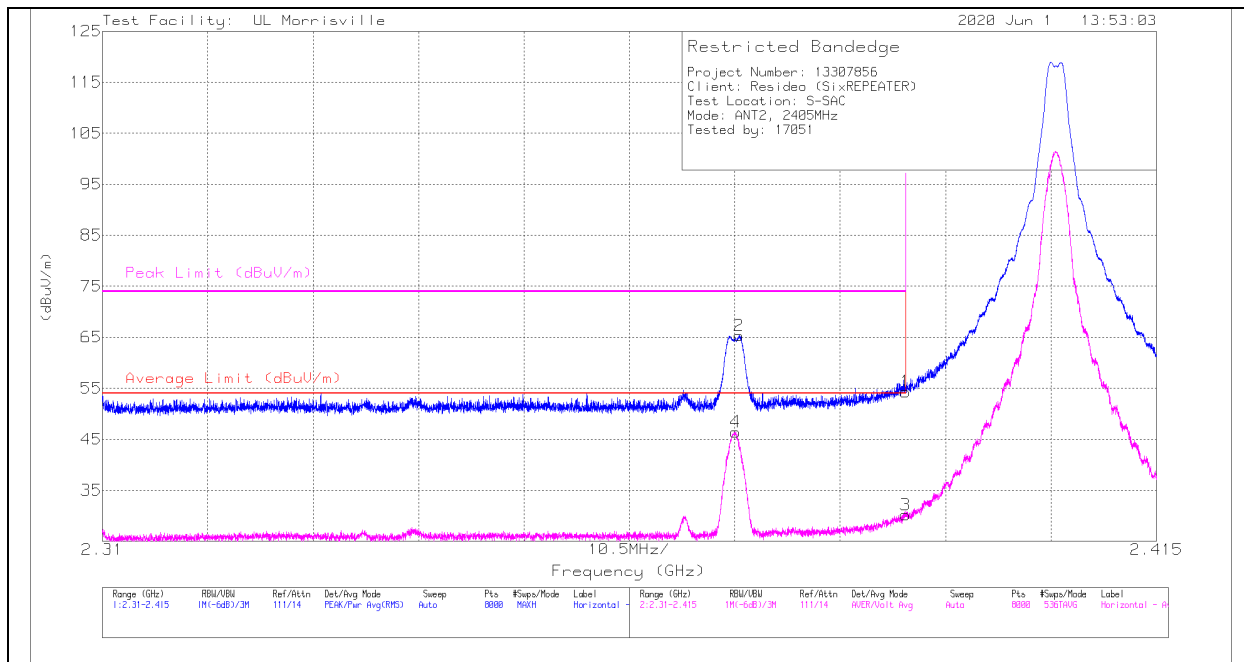
PK - Peak detector

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

10.2.2. ANTENNA 2

BANDEDGE (LOW CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	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	* ** 2.39	36.24	Pk	32	-23.9	10	0	54.34	-	-	74	-19.66	222	235	H
2	* ** 2.37342	47.25	Pk	32	-23.9	10	0	65.35	-	-	74	-8.65	222	235	H
3	* ** 2.39	26.65	ADV	32	-23.9	10	-14.58	30.17	54	-23.83	-	-	222	235	H
4	* ** 2.37308	42.95	ADV	32	-23.9	10	-14.58	46.47	54	-7.53	-	-	222	235	H

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

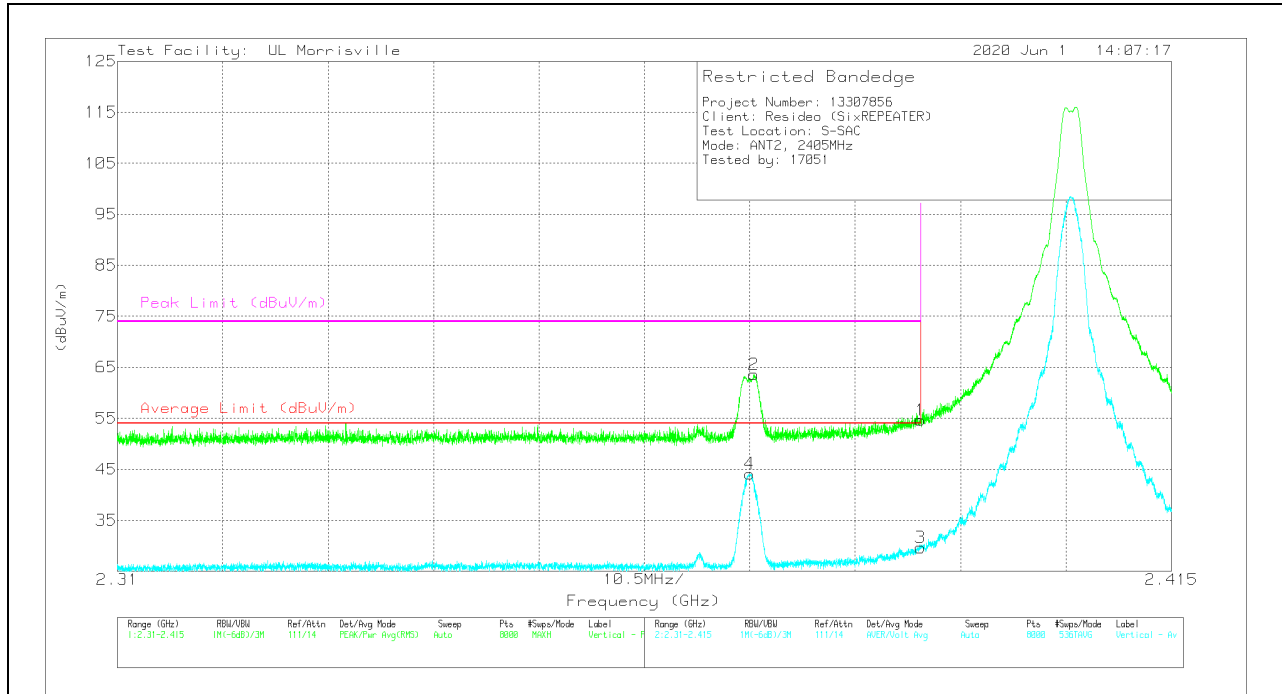
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - AD primary method, Linear Voltage Average

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

VERTICAL RESULT



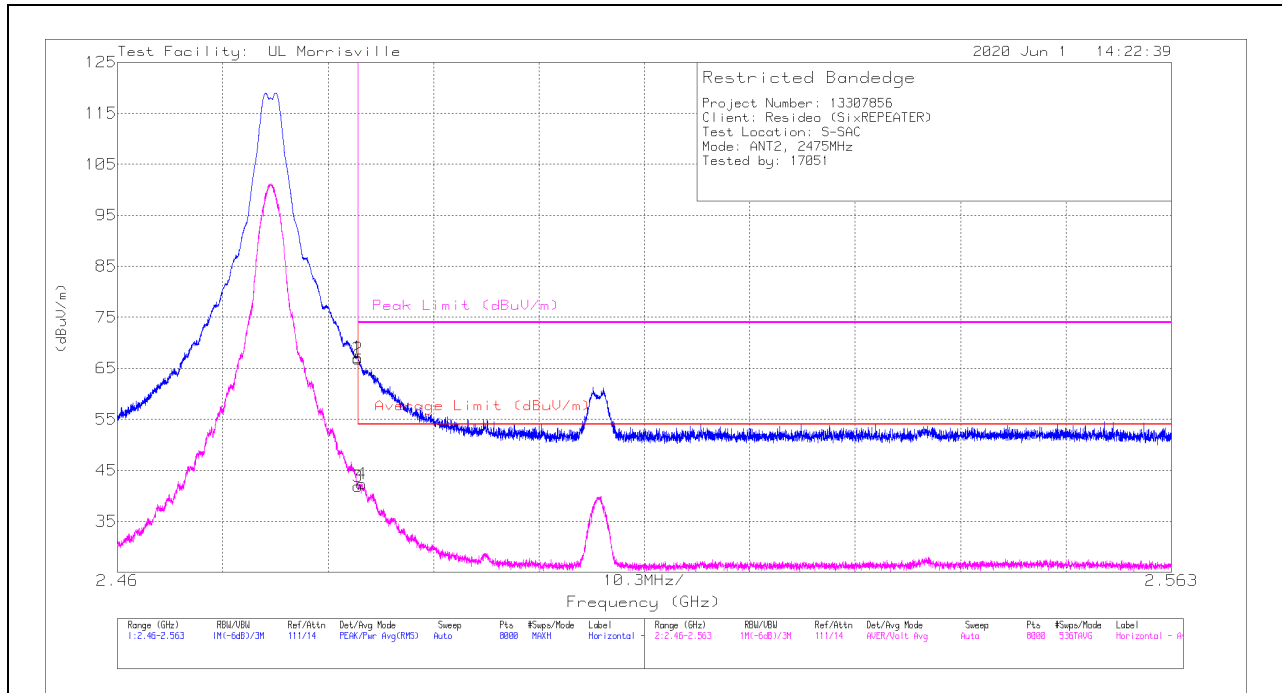
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 2.39	36.52	Pk	32	-23.9	10	0	54.62	-	-	74	-19.38	118	355	V
2	* ** 2.37339	45.54	Pk	32	-23.9	10	0	63.64	-	-	74	-10.36	118	355	V
3	* ** 2.39	26.15	ADV	32	-23.9	10	-14.58	29.67	54	-24.33	-	-	118	355	V
4	* ** 2.37298	40.61	ADV	32	-23.9	10	-14.58	44.13	54	-9.87	-	-	118	355	V

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

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

BANDEDGE (HIGH CHANNEL)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	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	*** 2.4835	49.2	Pk	32.1	-24.2	10	0	67.1	-	-	74	-6.9	227	270	H
2	*** 2.48353	48.95	Pk	32.1	-24.2	10	0	66.85	-	-	74	-7.15	227	270	H
3	*** 2.4835	38.58	ADV	32.1	-24.2	10	-14.58	41.9	54	-12.1	-	-	227	270	H
4	*** 2.48387	39.04	ADV	32.1	-24.2	10	-14.58	42.36	54	-11.64	-	-	227	270	H

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

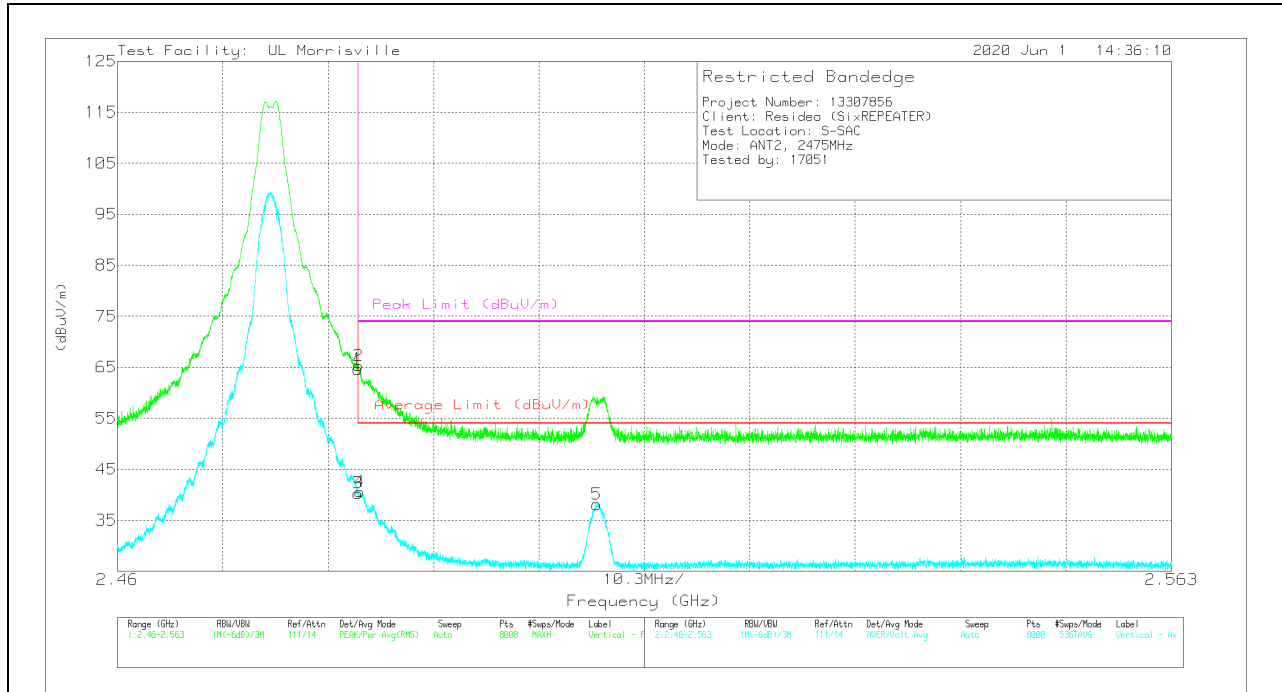
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - U-NII AD primary method, Linear Voltage Average

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

VERTICAL RESULT



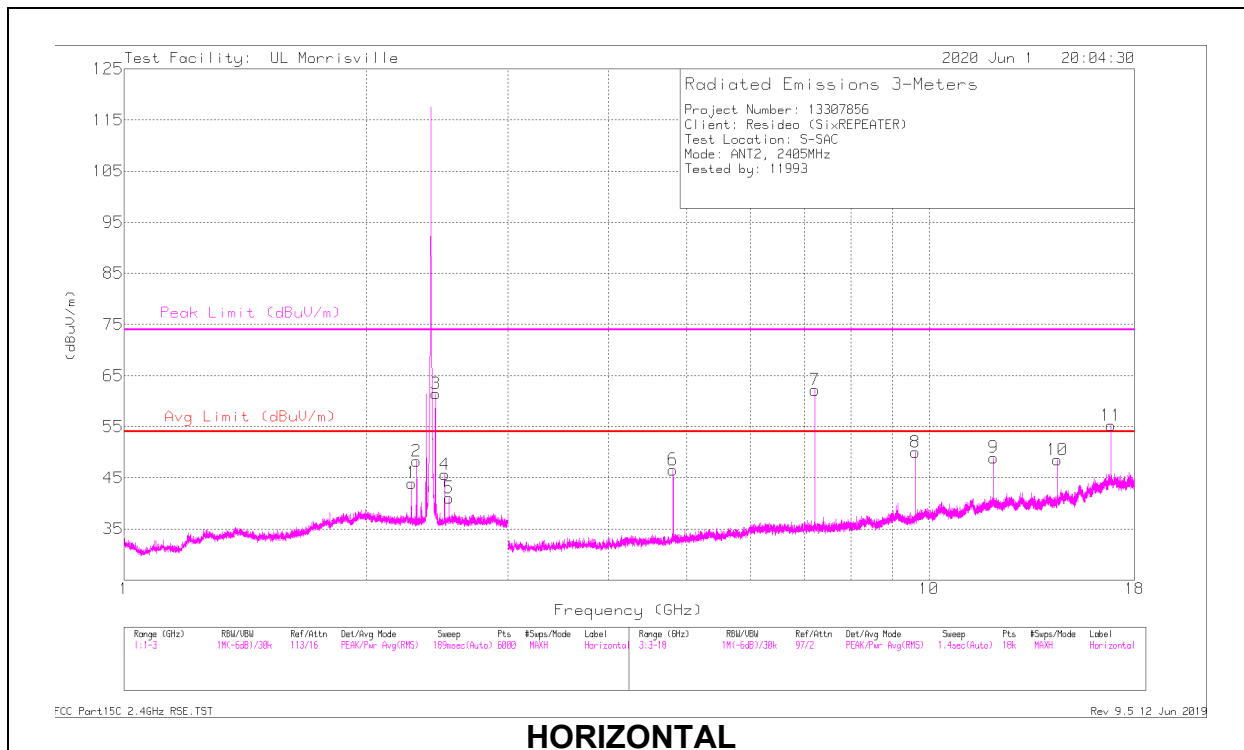
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 2.4835	46.78	Pk	32.1	-24.2	10	0	64.68	-	-	74	-9.32	129	339	V
2	*** 2.48359	47.44	Pk	32.1	-24.2	10	0	65.34	-	-	74	-8.66	129	339	V
3	*** 2.4835	37.03	ADV	32.1	-24.2	10	-14.58	40.35	54	-13.65	-	-	129	339	V
4	*** 2.48371	37.32	ADV	32.1	-24.2	10	-14.58	40.64	54	-13.36	-	-	129	339	V
5	** 2.50682	35.02	ADV	32.2	-24.5	10	-14.58	38.14	54	-15.86	-	-	129	339	V

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

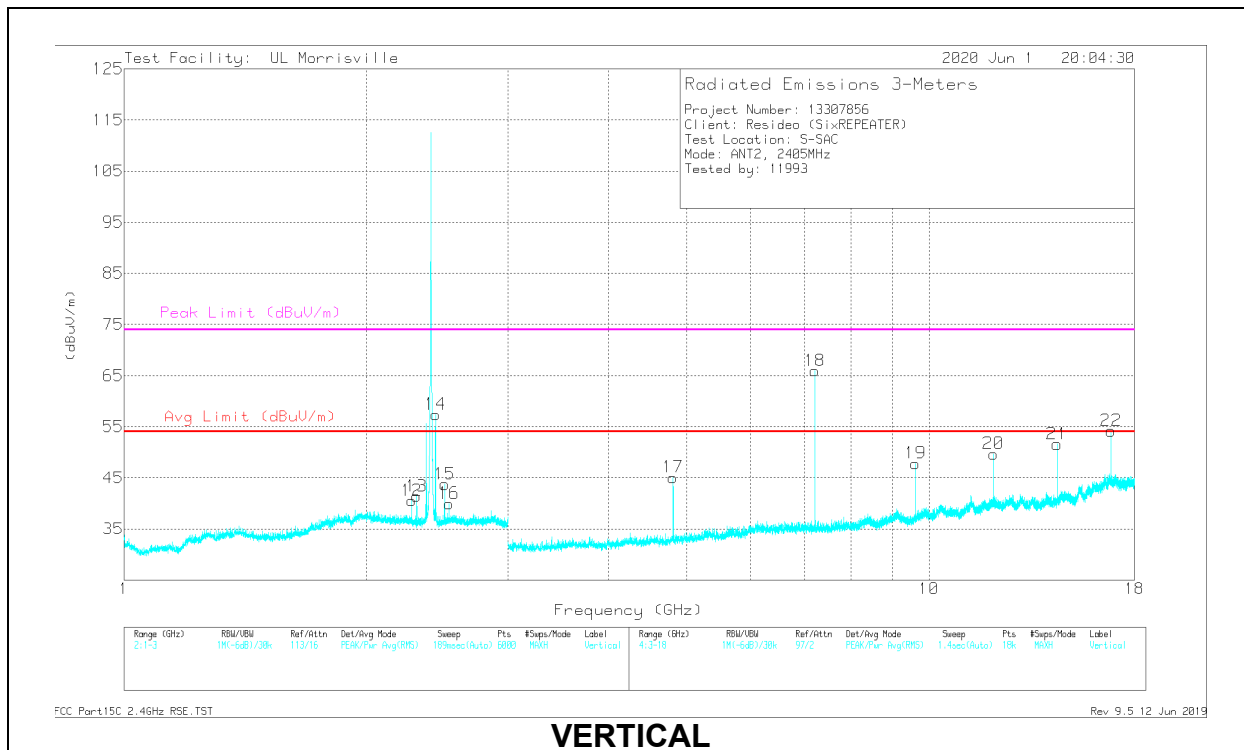
Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (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	*** 2.27735	39.94	PK2	31.7	-23.3	0	48.34	-	-	74	-25.66	225	217	H
	*** 2.27697	34.16	ADV	31.7	-23.3	-14.58	27.98	54	-26.02	-	-	225	217	H
4	** 2.50155	43.4	PK2	32.2	-24.3	0	51.3	-	-	74	-22.7	35	286	H
	** 2.50097	37.97	ADV	32.2	-24.3	-14.58	31.29	54	-22.71	-	-	35	286	H
5	** 2.53296	38.92	PK2	32.3	-24.7	0	46.52	-	-	74	-27.48	221	285	H
	** 2.53298	30.87	ADV	32.3	-24.7	-14.58	23.89	54	-30.11	-	-	221	285	H
12	*** 2.27717	37.75	PK2	31.7	-23.3	0	46.15	-	-	74	-27.85	278	400	V
	*** 2.27697	29.95	ADV	31.7	-23.3	-14.58	23.77	54	-30.23	-	-	278	400	V
15	** 2.50139	40.92	PK2	32.2	-24.3	0	48.82	-	-	74	-25.18	165	375	V
	** 2.50097	34.59	ADV	32.2	-24.3	-14.58	27.91	54	-26.09	-	-	165	375	V
16	** 2.53243	37.26	PK2	32.3	-24.7	0	44.86	-	-	74	-29.14	54	277	V
	** 2.53305	27.63	ADV	32.3	-24.7	-14.58	20.65	54	-33.35	-	-	54	277	V
6	*** 4.80887	49.62	PK2	33.9	-31	0	52.52	-	-	74	-21.48	21	197	H
	*** 4.80909	41.76	ADV	33.9	-31	-14.58	30.08	54	-23.92	-	-	21	197	H
9	*** 12.02738	39.96	PK2	38.6	-23.7	0	54.86	-	-	74	-19.14	267	198	H
	*** 12.02707	31.06	ADV	38.6	-23.7	-14.58	31.38	54	-22.62	-	-	267	198	H
17	*** 4.81092	46.92	PK2	33.9	-31	0	49.82	-	-	74	-24.18	314	209	V
	*** 4.80903	38.05	ADV	33.9	-31	-14.58	26.37	54	-27.63	-	-	314	209	V
20	*** 12.02248	40.83	PK2	38.6	-23.8	0	55.63	-	-	74	-18.37	239	176	V
	*** 12.02266	32.37	ADV	38.6	-23.8	-14.58	32.59	54	-21.41	-	-	239	176	V
13	2.30889	33.4	Pk	31.7	-23.7	0	41.4	-	-	-	-	0-360	101	V
2	2.30922	40.25	Pk	31.7	-23.7	0	48.25	-	-	-	-	0-360	199	H
3	2.43724	53.26	Pk	32.1	-23.9	0	61.46	-	-	-	-	0-360	199	H
14	2.43724	49.21	Pk	32.1	-23.9	0	57.41	-	-	-	-	0-360	199	V
18	7.21357	58.16	Pk	35.6	-27.8	0	65.96	-	-	-	-	0-360	199	V
7	7.21607	54.29	Pk	35.6	-27.7	0	62.19	-	-	-	-	0-360	101	H
8	9.62204	39.51	Pk	36.6	-26.1	0	50.01	-	-	-	-	0-360	101	H
19	9.62204	37.34	Pk	36.6	-26.1	0	47.84	-	-	-	-	0-360	199	V
21	14.42731	37	Pk	39.2	-24.6	0	51.6	-	-	-	-	0-360	199	V
10	14.43314	33.8	Pk	39.2	-24.5	0	48.5	-	-	-	-	0-360	199	H
11	16.83161	36.33	Pk	41.5	-22.6	0	55.23	-	-	-	-	0-360	101	H
22	16.83828	35.3	Pk	41.5	-22.6	0	54.2	-	-	-	-	0-360	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

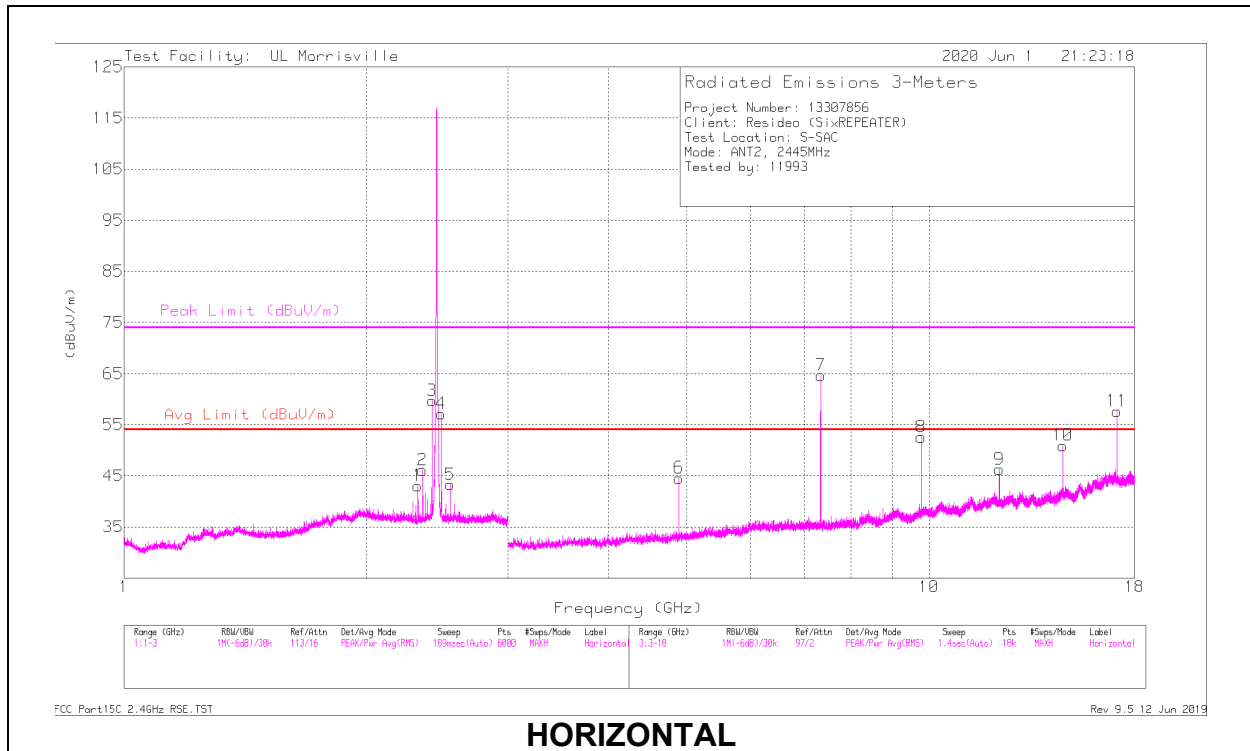
PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

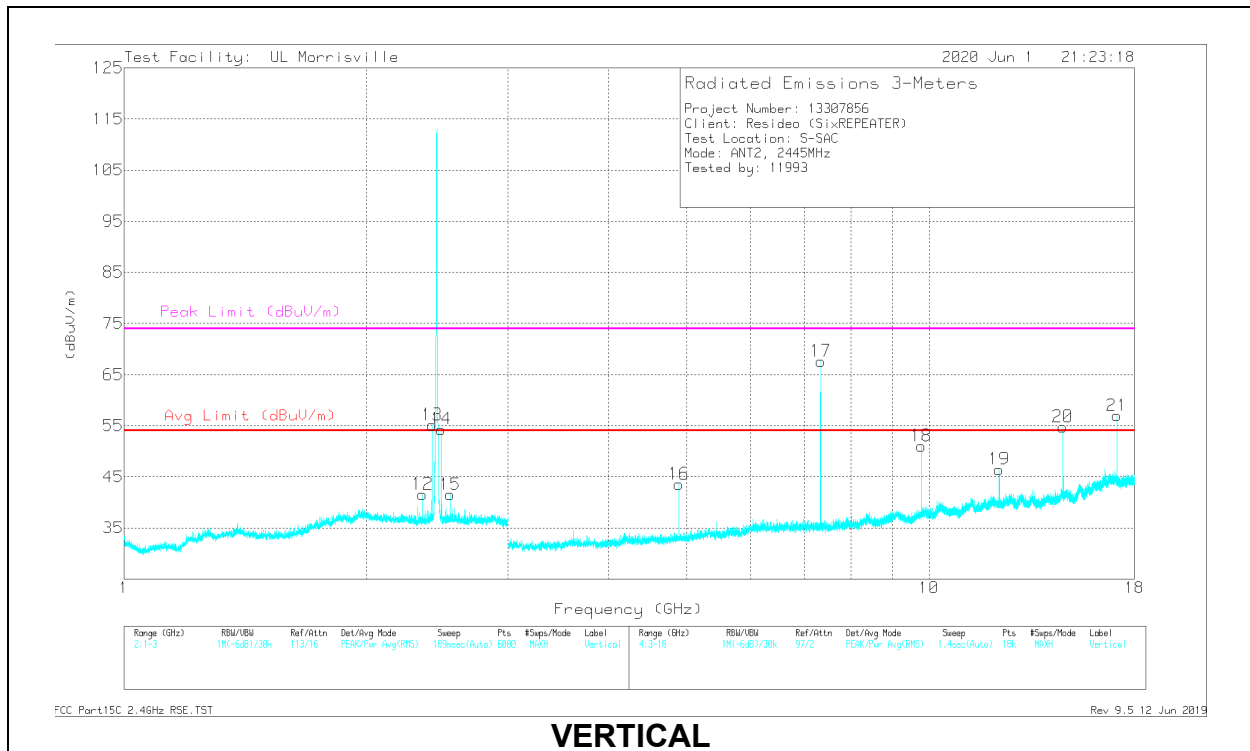
Pk - Peak detector

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

MID CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (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	*** 2.31746	39.92	PK2	31.7	-23.5	0	48.12	-	-	74	-25.88	233	194	H
	*** 2.31695	32.59	ADV	31.7	-23.5	-14.58	26.21	54	-27.79	-	-	233	194	H
2	*** 2.34947	42.13	PK2	31.8	-23.5	0	50.43	-	-	74	-23.57	217	211	H
	*** 2.34896	35.41	ADV	31.8	-23.5	-14.58	29.13	54	-24.87	-	-	217	211	H
5	** 2.54059	40.5	PK2	32.4	-24.7	0	48.2	-	-	74	-25.8	216	315	H
	** 2.5409	33.07	ADV	32.4	-24.7	-14.58	26.19	54	-27.81	-	-	216	315	H
12	*** 2.34944	39.75	PK2	31.8	-23.5	0	48.05	-	-	74	-25.95	330	353	V
	*** 2.34895	32.12	ADV	31.8	-23.5	-14.58	25.84	54	-28.16	-	-	330	353	V
15	** 2.54071	39.74	PK2	32.4	-24.7	0	47.44	-	-	74	-26.56	95	389	V
	** 2.54091	32.69	ADV	32.4	-24.7	-14.58	25.81	54	-28.19	-	-	95	389	V
6	*** 4.89094	45.79	PK2	33.8	-30.7	0	48.89	-	-	74	-25.11	16	216	H
	*** 4.8909	37.27	ADV	33.8	-30.7	-14.58	25.79	54	-28.21	-	-	16	216	H
7	*** 7.33642	61.77	PK2	35.6	-27.4	0	69.97	-	-	74	-4.03	89	201	H
	*** 7.33614	53.33	ADV	35.6	-27.4	-14.58	46.95	54	-7.05	-	-	89	201	H
9	*** 12.22738	38.72	PK2	38.8	-24	0	53.52	-	-	74	-20.48	154	213	H
	*** 12.22719	29.22	ADV	38.8	-24	-14.58	29.44	54	-24.56	-	-	154	213	H
16	*** 4.88893	44.18	PK2	33.8	-30.7	0	47.28	-	-	74	-26.72	320	301	V
	*** 4.88895	36.02	ADV	33.8	-30.7	-14.58	24.54	54	-29.46	-	-	320	301	V
17	*** 7.3364	65.51	PK2	35.6	-27.4	0	73.71	-	-	74	-29	301	186	V
	*** 7.33614	57.16	ADV	35.6	-27.4	-14.58	50.78	54	-3.22	-	-	301	186	V
19	** 12.22236	37.7	PK2	38.8	-23.9	0	52.6	-	-	74	-21.4	239	186	V
	** 12.22248	29.36	ADV	38.8	-23.9	-14.58	29.68	54	-24.32	-	-	239	186	V
3	2.41324	51.41	PK	32.1	-23.8	0	59.71	-	-	-	-	0-360	199	H
13	2.41324	46.83	PK	32.1	-23.8	0	55.13	-	-	-	-	0-360	199	V
14	2.47691	46.41	PK	32.1	-24.2	0	54.31	-	-	-	-	0-360	101	V
4	2.47725	49.25	PK	32.1	-24.2	0	57.15	-	-	-	-	0-360	101	H
8	9.77788	41.49	PK	36.8	-25.7	0	52.59	-	-	-	-	0-360	101	H
18	9.78205	39.94	PK	36.8	-25.7	0	51.04	-	-	-	-	0-360	199	V
10	14.66732	34.25	PK	39.4	-22.7	0	50.95	-	-	-	-	0-360	199	H
20	14.66732	38.07	PK	39.4	-22.7	0	54.77	-	-	-	-	0-360	199	V
11	17.11829	38.95	PK	41.2	-22.5	0	57.65	-	-	-	-	0-360	199	H
21	17.11829	38.28	PK	41.2	-22.5	0	56.98	-	-	-	-	0-360	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

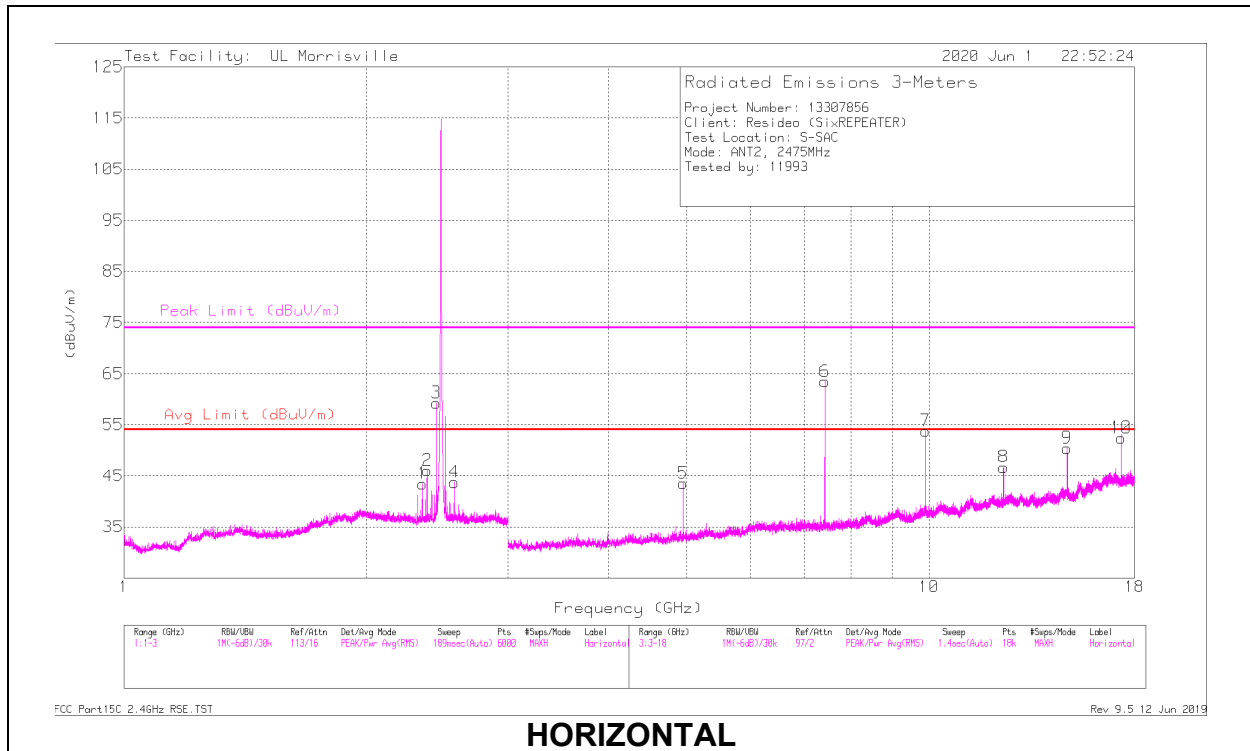
PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

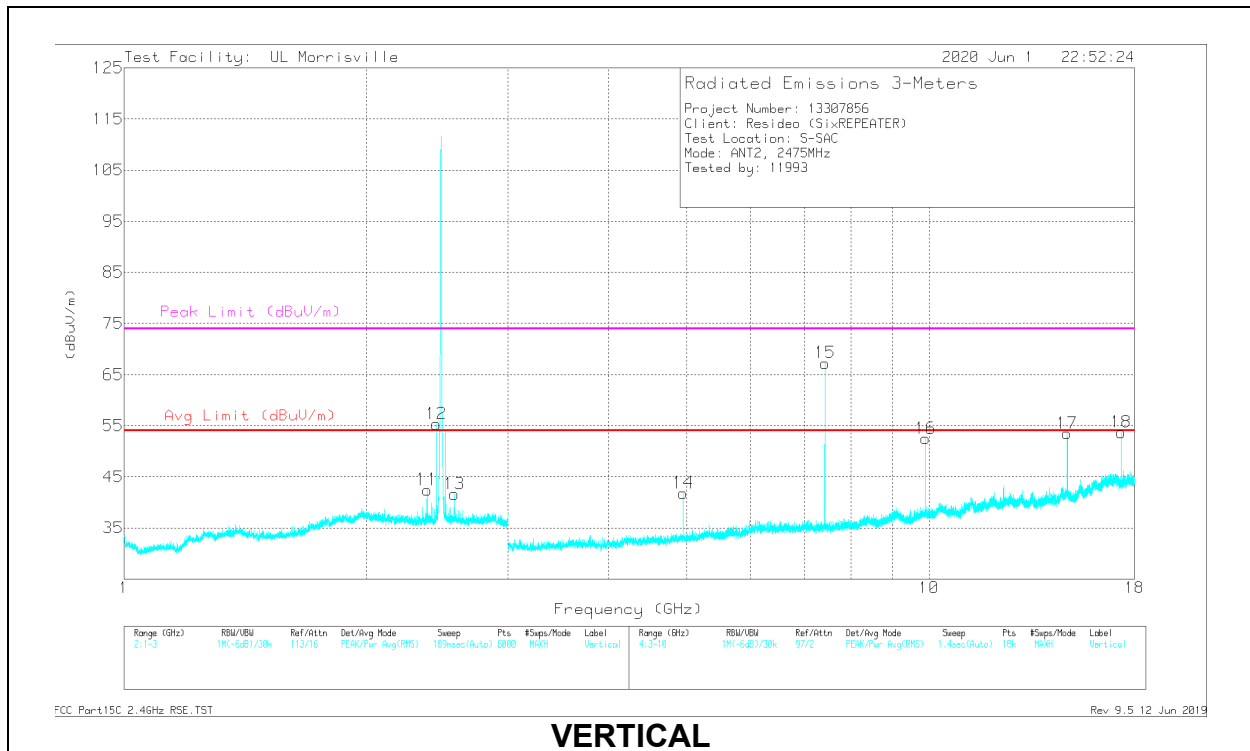
PK - Peak detector

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

HIGH CHANNEL RESULTS



HORIZONTAL



VERTICAL

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0078 (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	*** 2.34643	39.61	PK2	31.8	-23.5	0	47.91	-	-	74	-26.09	22	330	H
	*** 2.34695	32.88	ADV	31.8	-23.5	-14.58	26.6	54	-27.4	-	-	22	330	H
2	*** 2.37855	42	PK2	32	-23.8	0	50.2	-	-	74	-23.8	12	224	H
	*** 2.37897	35.86	ADV	32	-23.8	-14.58	29.48	54	-24.52	-	-	12	224	H
4	** 2.57139	40.34	PK2	32.5	-24.8	0	48.04	-	-	74	-25.96	229	179	H
	** 2.57096	34.01	ADV	32.5	-24.8	-14.58	27.13	54	-26.87	-	-	229	179	H
11	*** 2.37875	39.93	PK2	32	-23.8	0	48.13	-	-	74	-25.87	323	317	V
	*** 2.37895	32.73	ADV	32	-23.8	-14.58	26.35	54	-27.65	-	-	323	317	V
13	** 2.57111	39.77	PK2	32.5	-24.8	0	47.47	-	-	74	-26.53	323	102	V
	** 2.57098	31.63	ADV	32.5	-24.8	-14.58	24.75	54	-29.25	-	-	323	102	V
5	*** 4.95084	44.72	PK2	34	-30.9	0	47.82	-	-	74	-26.18	7	303	H
	*** 4.94895	36.38	ADV	34	-30.9	-14.58	24.9	54	-29.1	-	-	7	303	H
6	*** 7.42347	62.29	PK2	35.6	-28	0	69.89	-	-	74	-4.11	89	191	H
	*** 7.42365	53.67	ADV	35.6	-28	-14.58	46.69	54	-7.31	-	-	89	191	H
8	*** 12.37737	38.37	PK2	38.7	-23.9	0	53.17	-	-	74	-20.83	149	164	H
	*** 12.37737	29.39	ADV	38.7	-23.9	-14.58	29.61	54	-24.39	-	-	149	164	H
14	*** 4.95077	44.48	PK2	34	-30.9	0	47.58	-	-	74	-26.42	311	279	V
	*** 4.94898	36.2	ADV	34	-30.9	-14.58	24.72	54	-29.28	-	-	311	279	V
15	*** 7.42636	65.58	PK2	35.6	-28	0	73.18	-	-	74	-8.2	311	187	V
	*** 7.42617	56.93	ADV	35.6	-28	-14.58	49.95	54	-4.05	-	-	311	187	V
3	2.44324	51.06	Pk	32.1	-23.9	0	59.26	-	-	-	-	0-360	199	H
12	2.44324	47.13	Pk	32.1	-23.9	0	55.33	-	-	-	-	0-360	101	V
7	9.90205	42.16	Pk	37	-25.4	0	53.76	-	-	-	-	0-360	101	H
16	9.90205	40.91	Pk	37	-25.4	0	52.51	-	-	-	-	0-360	199	V
9	14.8465	33.94	Pk	39.5	-23	0	50.44	-	-	-	-	0-360	101	H
17	14.84733	36.98	Pk	39.5	-23	0	53.48	-	-	-	-	0-360	199	V
10	17.3283	34.62	Pk	40.9	-23.1	0	52.42	-	-	-	-	0-360	199	H
18	17.32914	35.92	Pk	40.9	-23.1	0	53.72	-	-	-	-	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

Pk - Peak detector

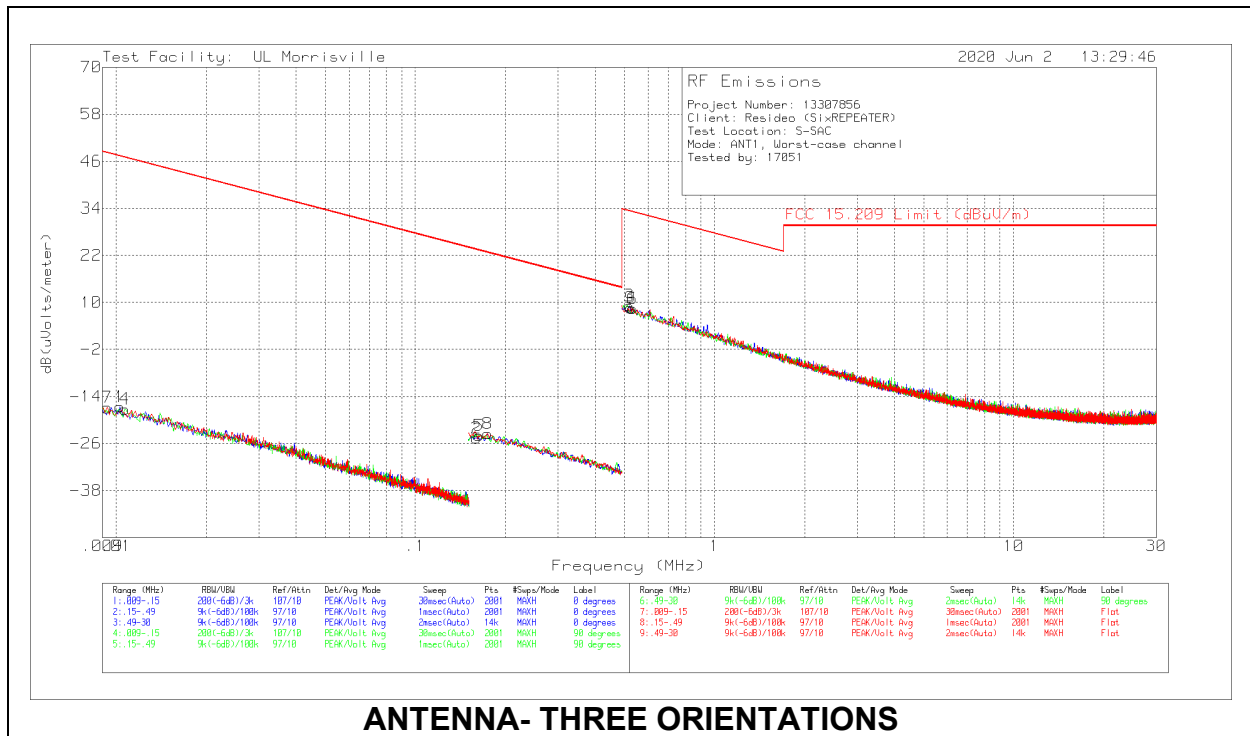
Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

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 $40 \cdot \log(\text{test distance} / \text{specification distance})$.

The below 30 MHz limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency 10.28 KHz resulted in a level of -16.6 dBuV/m, which is equivalent to $-16.6 - 51.5 = -68.1$ dBuA/m, which has the same margin, -63.97 dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

SPURIOUS EMISSIONS BELOW 30 MHz (802.15.4 ANT1 WORST-CASE CONFIGURATION)

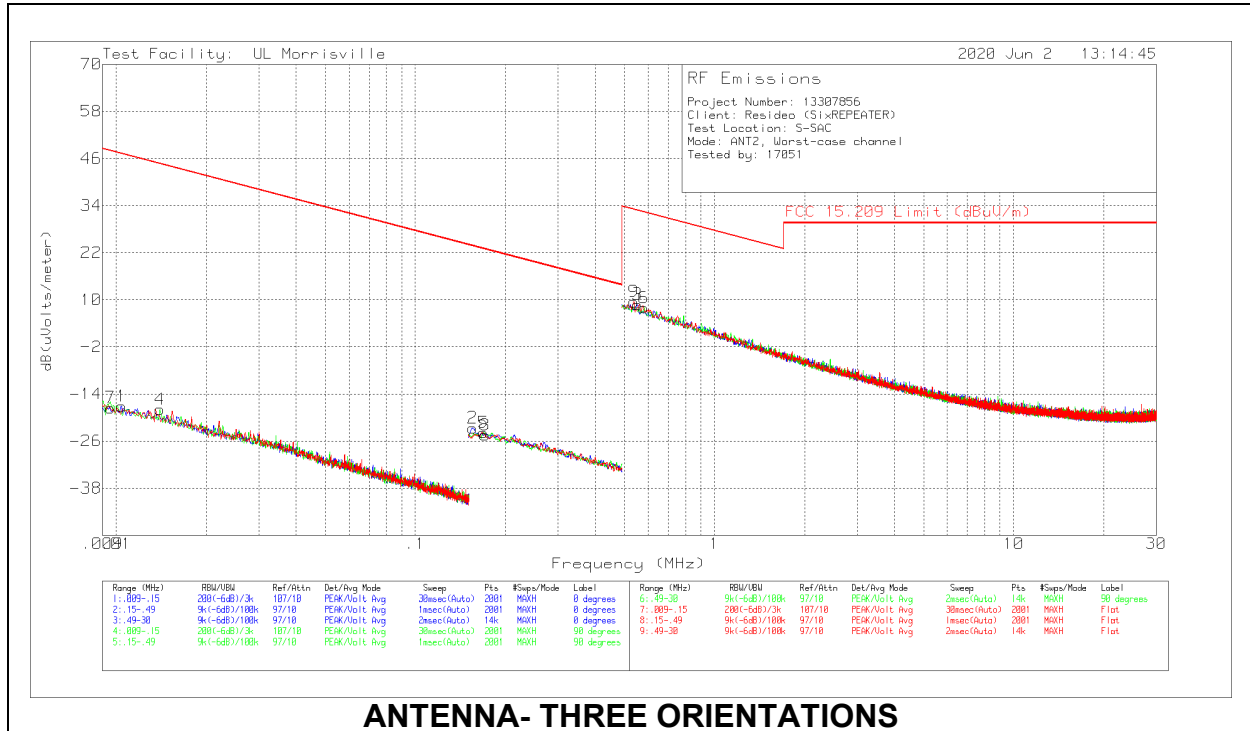


BELOW 30MHz DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 AF (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)	Worst-Case Margin (dB)	Azimuth (Degs)
Loop @ 0°											
1	.01028	45.2	Pk	18.1	.1	-80	-16.6	47.37	67.37	-63.97	0-360
2	.15986	44.31	Pk	11	.1	-80	-24.59	23.53	43.53	-48.12	0-360
3	.51951	38.05	Pk	11	.1	-40	9.15	33.29	-	-24.14	0-360
Loop @ 90°											
4	.0107	44.79	Pk	17.9	.1	-80	-17.21	47.01	67.01	-64.22	0-360
5	.16318	44.91	Pk	11	.1	-80	-23.99	23.35	43.35	-47.34	0-360
6	.53216	37.32	Pk	11	.1	-40	8.42	33.08	-	-24.66	0-360
Loop Flat											
7	.00936	44.35	Pk	18.7	.1	-80	-16.85	48.18	68.18	-65.03	0-360
8	.17431	45.37	Pk	11	.1	-80	-23.53	22.78	42.78	-46.31	0-360
9	.52373	37.48	Pk	11	.1	-40	8.58	33.22	-	-24.64	0-360

Pk - Peak detector

SPURIOUS EMISSIONS BELOW 30 MHz (802.15.4 ANT2 WORST-CASE CONFIGURATION)



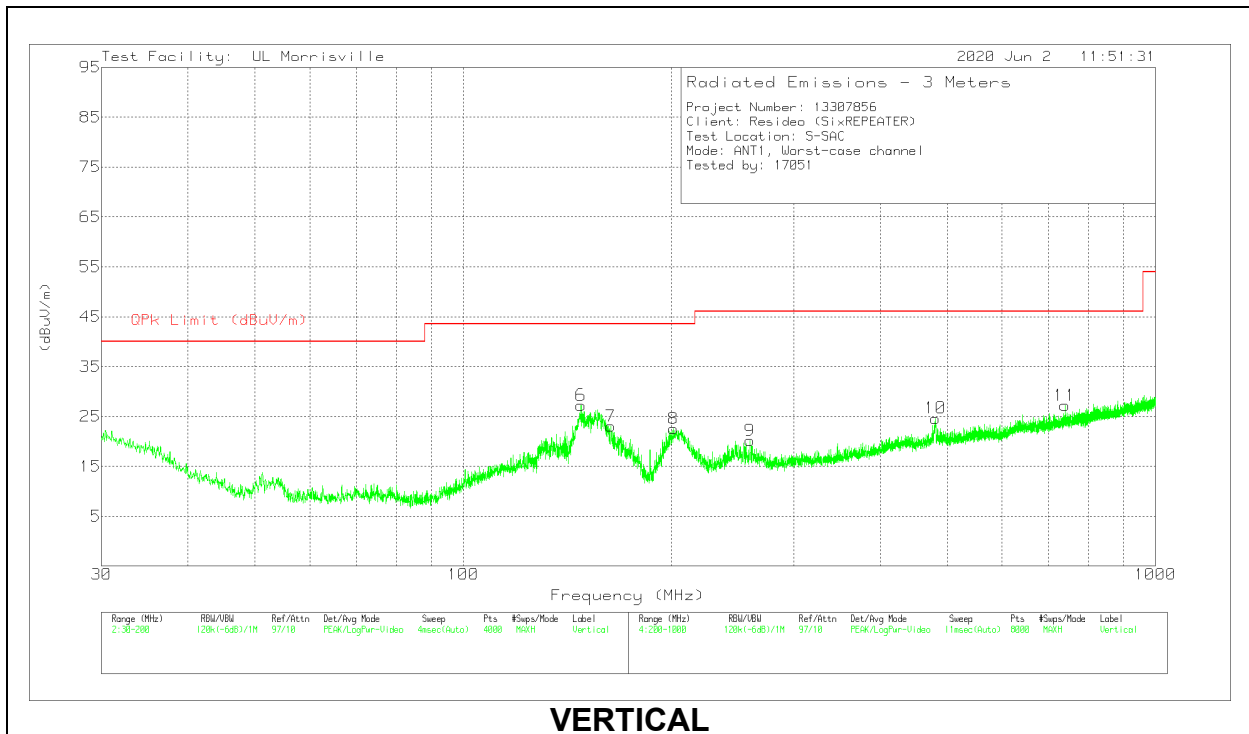
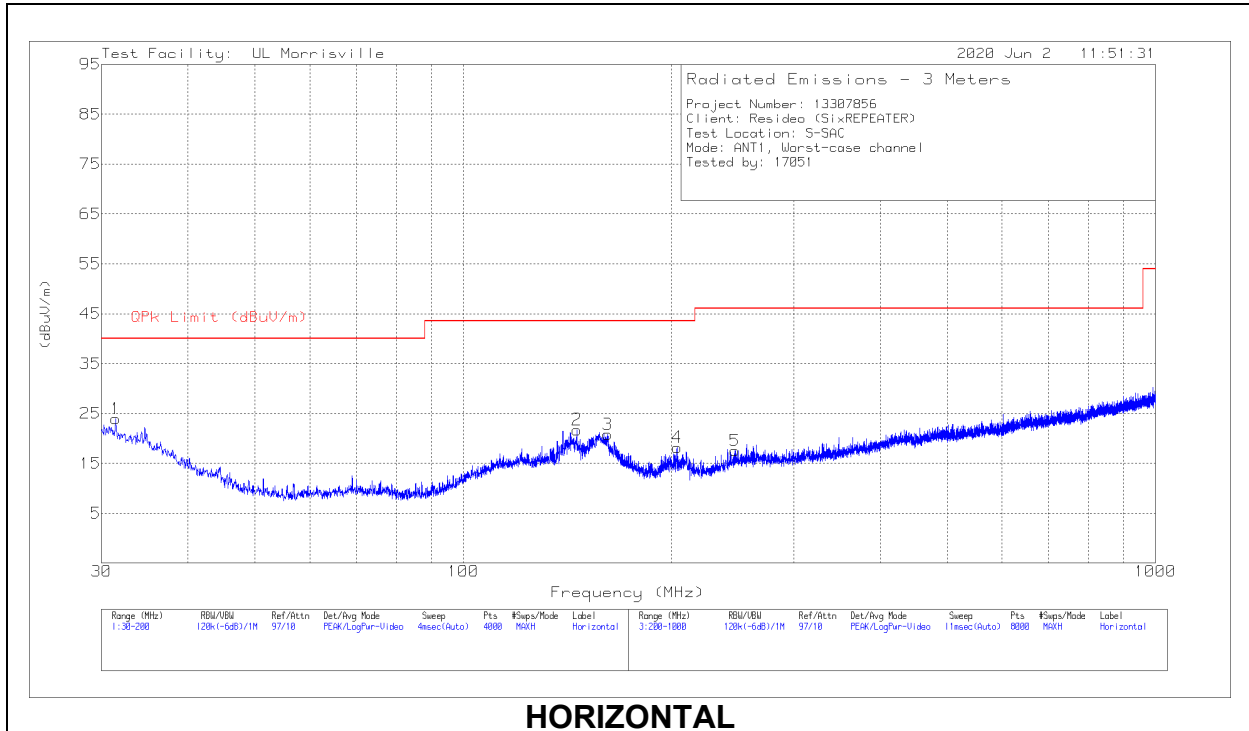
BELOW 30MHz DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 AF (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	FCC 15.209 QP/PK Limit (dBuV/m)	FCC 15.209 AV Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
Loop @ 0°											
1	.01042	44.8	Pk	18	.1	-80	-17.1	47.25	67.25	-64.35	0-360
2	.15561	46.25	Pk	11	.1	-80	-22.65	23.76	43.76	-46.41	0-360
3	.55324	37.71	Pk	11	.1	-40	8.81	32.75	-	-23.94	0-360
Loop @ 90°											
4	.01404	45.49	Pk	16.5	.1	-80	-17.91	44.66	64.66	-62.57	0-360
5	.16913	45.07	Pk	11	.1	-80	-23.83	23.04	43.04	-46.87	0-360
6	.58064	36.89	Pk	11	.1	-40	7.99	32.33	-	-24.34	0-360
Loop Flat											
7	.00957	43.87	Pk	18.5	.1	-80	-17.53	47.99	67.99	-65.52	0-360
8	.17091	44.42	Pk	11	.1	-80	-24.48	22.95	42.95	-47.43	0-360
9	.53638	38.4	Pk	11	.1	-40	9.5	33.01	-	-23.51	0-360

Pk - Peak detector

10.4. WORST CASE 30-1000MHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (802.15.4 ANT1 WORST-CASE CONFIGURATION)



BELOW 1GHz DATA

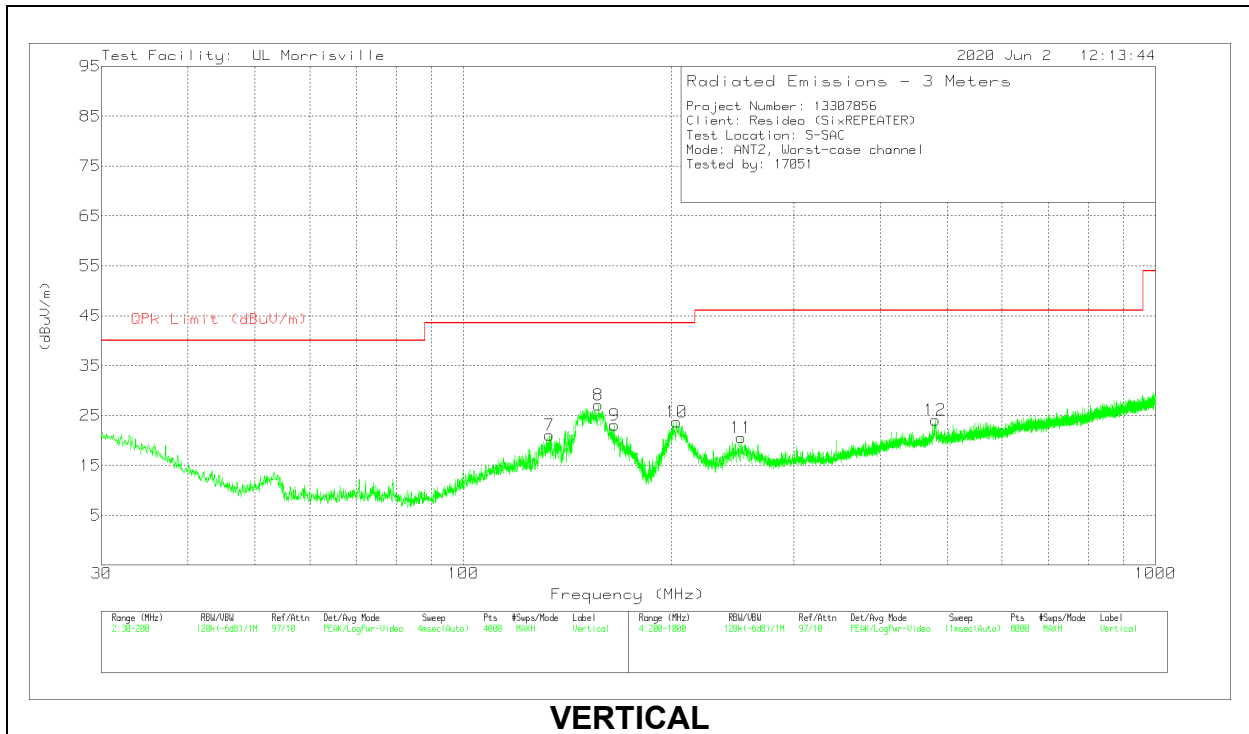
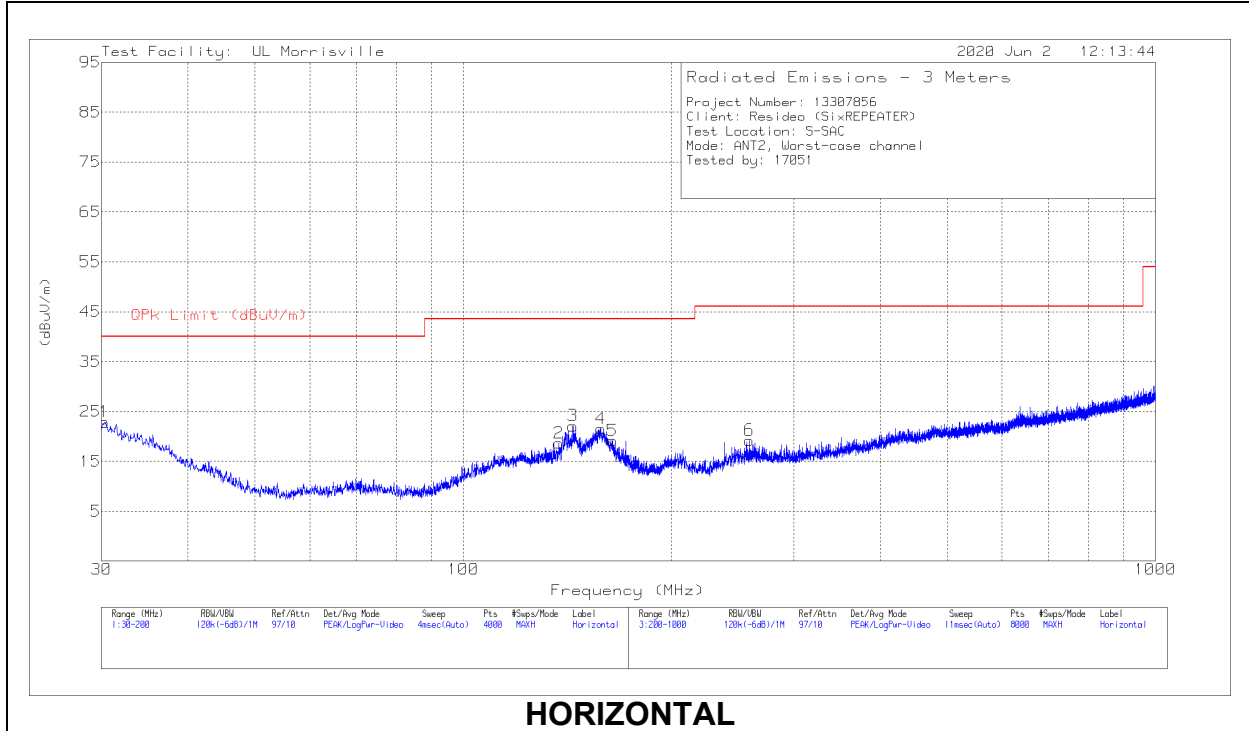
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0074 AF (dB/m)	Cbl/Amp (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	* ** 163.357	35.17	Pk	18.4	-30.5	23.07	43.52	-20.45	0-360	101	V
5	* ** 246.7061	29.87	Pk	17.6	-29.9	17.57	46.02	-28.45	0-360	199	H
9	* ** 259.6077	31.84	Pk	18.1	-29.8	20.14	46.02	-25.88	0-360	101	V
11	** 739.9702	28.71	Pk	26.7	-28.2	27.21	-	-	0-360	199	V
1	31.4454	29.51	Pk	26.1	-31.7	23.91	-	-	0-360	399	H
2	145.885	33.63	Pk	18.7	-30.6	21.73	-	-	0-360	299	H
6	147.9255	39.15	Pk	18.7	-30.6	27.25	-	-	0-360	101	V
3	161.7416	32.94	Pk	18.4	-30.5	20.84	-	-	0-360	299	H
8	201.2002	34.15	Pk	18.6	-30.2	22.55	-	-	0-360	101	V
4	203.6005	30.91	Pk	17.4	-30.1	18.21	-	-	0-360	101	H
10	480.9365	29.74	Pk	23.8	-28.9	24.64	-	-	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

SPURIOUS EMISSIONS 30 TO 1000 MHz (802.15.4 ANT2 WORST-CASE CONFIGURATION)



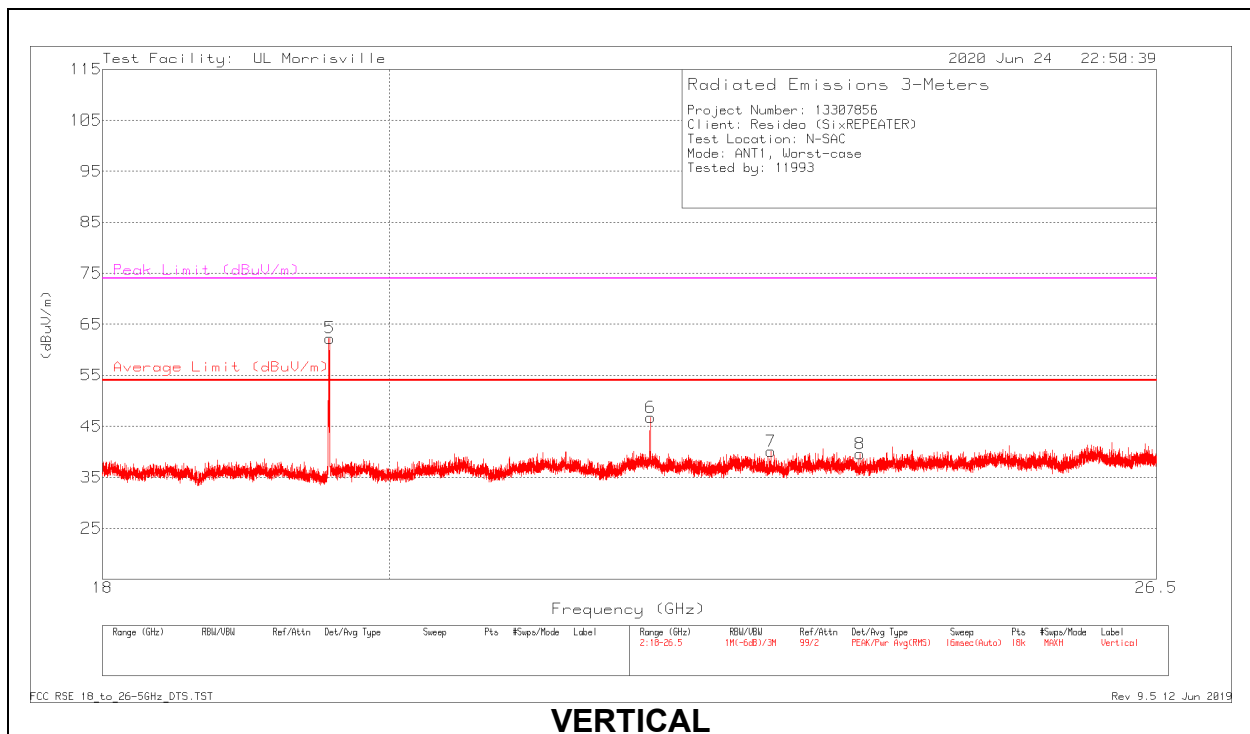
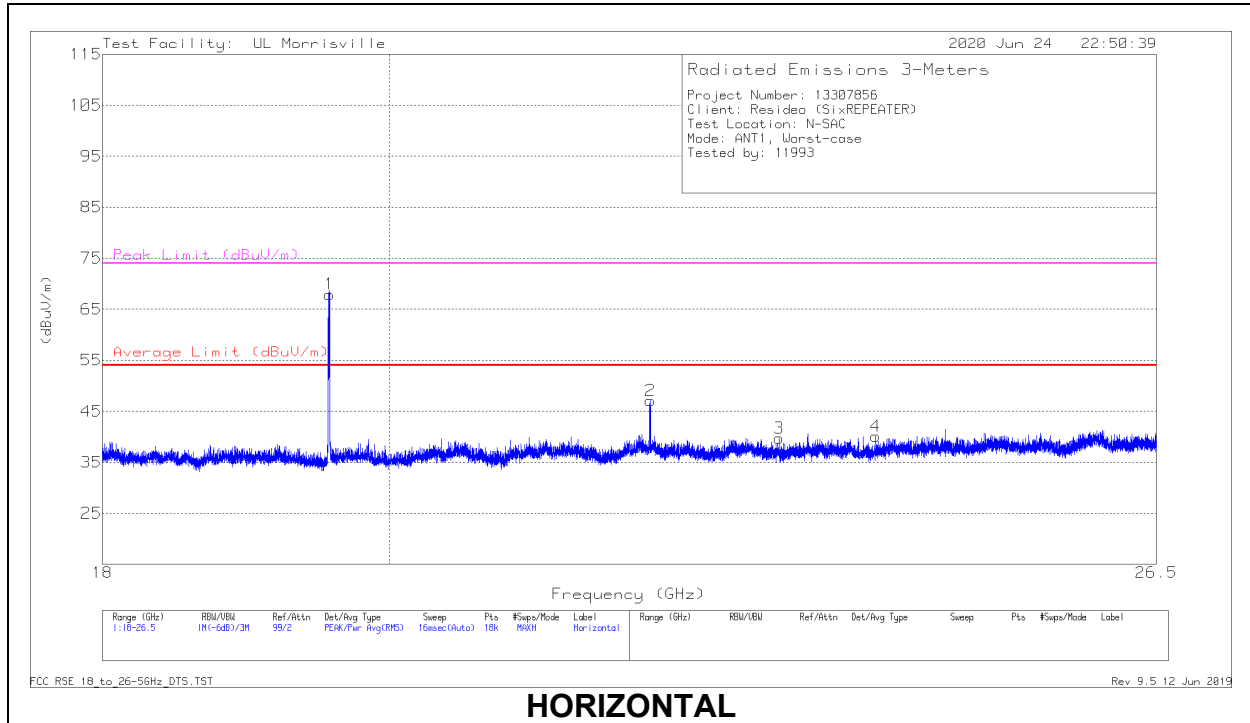
BELOW 1GHz DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0074 AF (dB/m)	Cbl/Amp (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	*** 137.4678	30.08	Pk	19.3	-30.7	18.68	43.52	-24.84	0-360	299	H
5	*** 164.2072	31.35	Pk	18.3	-30.5	19.15	43.52	-24.37	0-360	199	H
7	*** 133.2592	32.16	Pk	19.6	-30.7	21.06	43.52	-22.46	0-360	102	V
9	*** 165.44	35.17	Pk	18.3	-30.4	23.07	43.52	-20.45	0-360	102	V
6	*** 258.8076	31.03	Pk	18	-29.8	19.23	46.02	-26.79	0-360	102	H
11	*** 252.1068	33.06	Pk	17.5	-30	20.56	46.02	-25.46	0-360	101	V
1	30.2976	28.19	Pk	26.5	-31.8	22.89	-	-	0-360	299	H
3	143.9933	33.93	Pk	18.9	-30.7	22.13	-	-	0-360	299	H
8	156.5978	39.1	Pk	18.5	-30.5	27.1	-	-	0-360	102	V
4	158.0431	33.67	Pk	18.5	-30.6	21.57	-	-	0-360	199	H
10	203.3004	36.43	Pk	17.5	-30.2	23.73	-	-	0-360	101	V
12	480.6365	29.16	Pk	23.8	-28.9	24.06	-	-	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 18-26 GHz (802.15.4 ANT1 WORST-CASE CONFIGURATION)



18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0076 AF (dB/m)	Amp/Cbl (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 19.56376	70.07	PK2	32.7	-39.4	0	63.37	-	-	74	-10.63	60	166	H
	*** 19.56372	63.64	ADV	32.7	-39.4	-14.58	42.36	54	-11.64	-	-	60	166	H
3	*** 23.07431	44.94	Pk	33.7	-38.9	0	39.74	54	-14.26	74	-34.26	0-360	148	H
4	*** 23.90641	44.58	Pk	34	-38.5	0	40.08	54	-13.92	74	-33.92	0-360	298	H
5	*** 19.56373	71.54	PK2	32.7	-39.4	0	64.84	-	-	74	-9.16	111	154	V
	*** 19.56371	65.13	ADV	32.7	-39.4	-14.58	43.85	54	-10.15	-	-	111	154	V
7	*** 23.00536	45.16	Pk	33.7	-38.8	0	40.06	54	-13.94	74	-33.94	0-360	201	V
8	*** 23.76945	44.18	Pk	34	-38.6	0	39.58	54	-14.42	74	-34.42	0-360	298	V
2	22.00891	52.83	Pk	33.5	-39.2	0	47.13	54	-6.87	74	-26.87	0-360	102	H
6	22.00986	52.43	Pk	33.5	-39.2	0	46.73	54	-7.27	74	-27.27	0-360	298	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

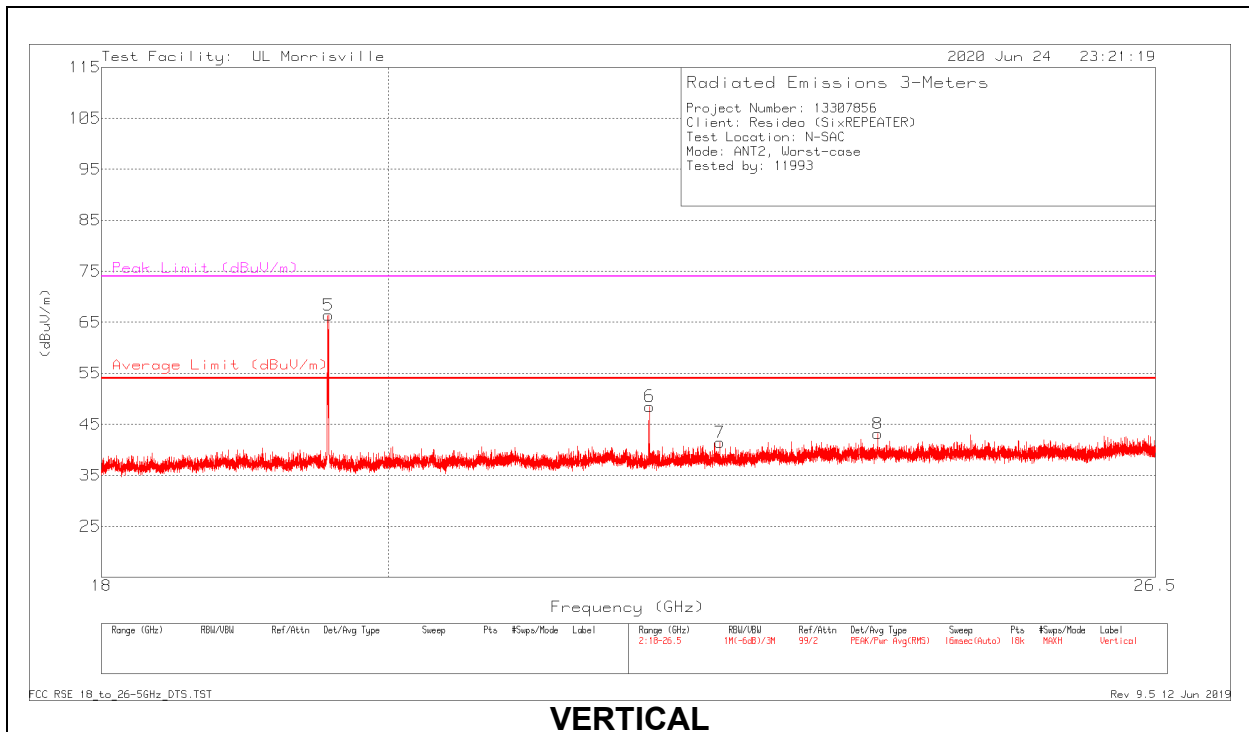
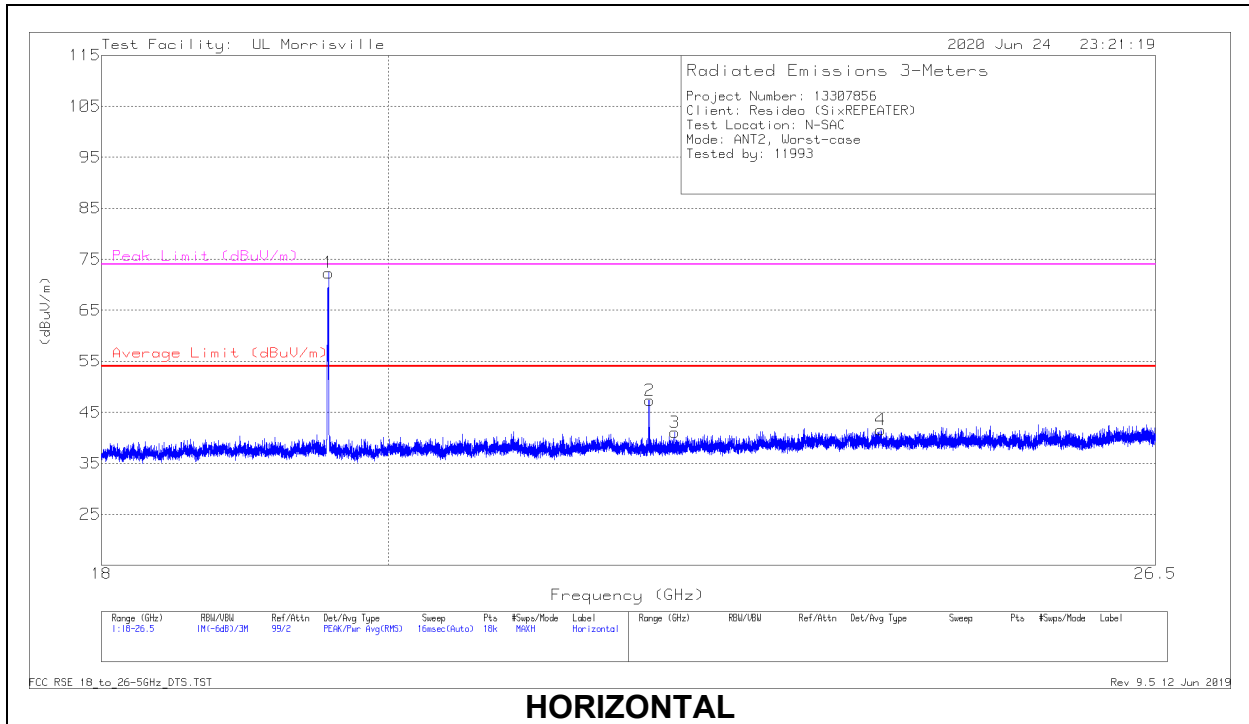
PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

Pk - Peak detector

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

SPURIOUS EMISSIONS 18-26 GHz (802.15.4 ANT2 WORST-CASE CONFIGURATION)



18 – 26GHz DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0076 AF (dB/m)	Amp/Cbl (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 19.56375	79.11	PK2	32.7	-39.4	0	72.41	-	-	74	-1.59	70	179	H
	** 19.56375	72.9	ADV	32.7	-39.4	-14.58	51.62	54	-2.38	-	-	70	179	H
3	** 22.21292	46.8	Pk	33.6	-39.3	0	41.1	54	-12.9	74	-32.9	0-360	298	H
4	*** 23.95835	46.22	Pk	34	-38.6	0	41.62	54	-12.38	74	-32.38	0-360	248	H
5	*** 19.56367	75.32	PK2	32.7	-39.4	0	68.62	-	-	74	-5.38	110	150	V
	** 19.56374	69.08	ADV	32.7	-39.4	-14.58	47.8	54	-6.2	-	-	110	150	V
7	** 22.58506	47.25	Pk	33.4	-39.2	0	41.45	54	-12.55	74	-32.55	0-360	252	V
8	*** 23.93238	47.46	Pk	34	-38.3	0	43.16	54	-10.84	74	-30.84	0-360	298	V
2	22.00939	53.03	Pk	33.5	-39.2	0	47.33	54	-6.67	74	-26.67	0-360	102	H
6	22.00939	54.21	Pk	33.5	-39.2	0	48.51	54	-5.49	74	-25.49	0-360	298	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

PK2 - Maximum Peak

ADV - AD primary method, Linear Voltage Average

Pk - Peak detector

Note: DC correction based on manufacturer declared duty cycle of 18.656%, $20\log(.18656) = -14.58\text{dB}$.

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)
RSS-Gen 8.8

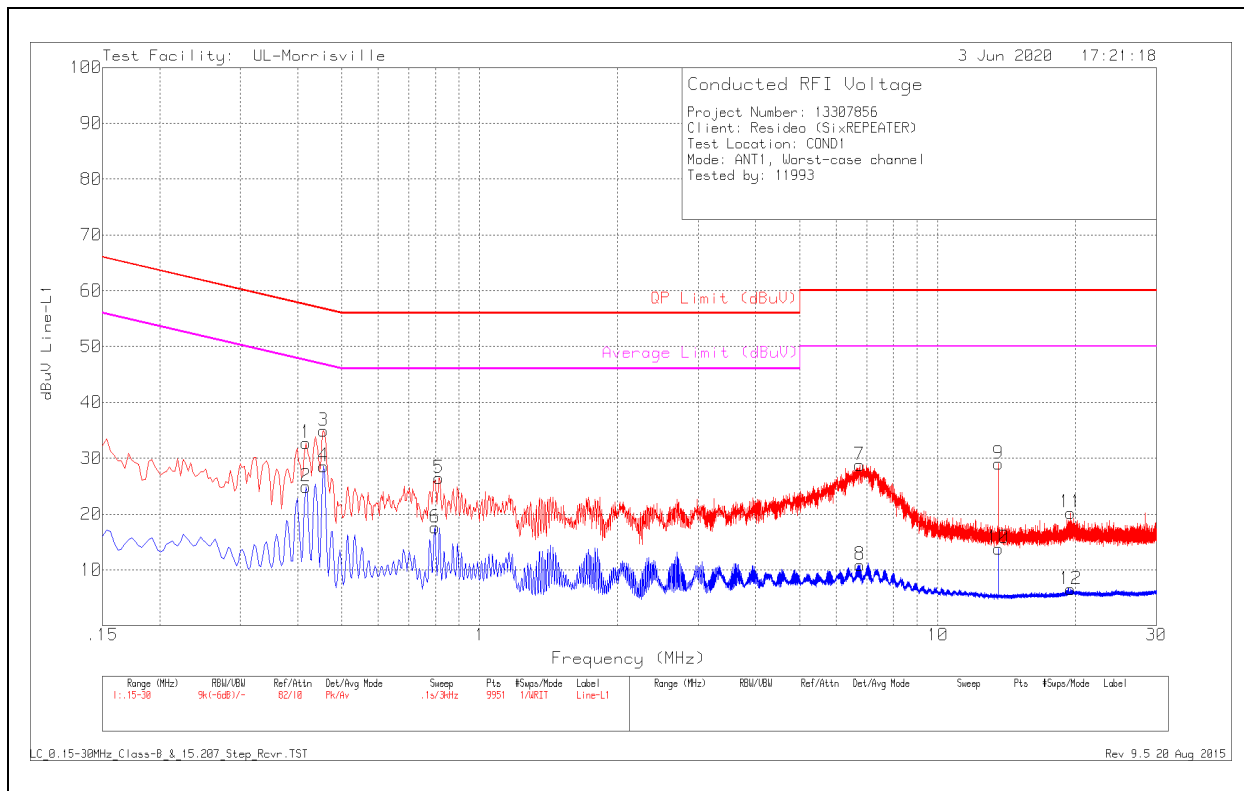
Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

RESULTS

11.1.1. ANTENNA 1

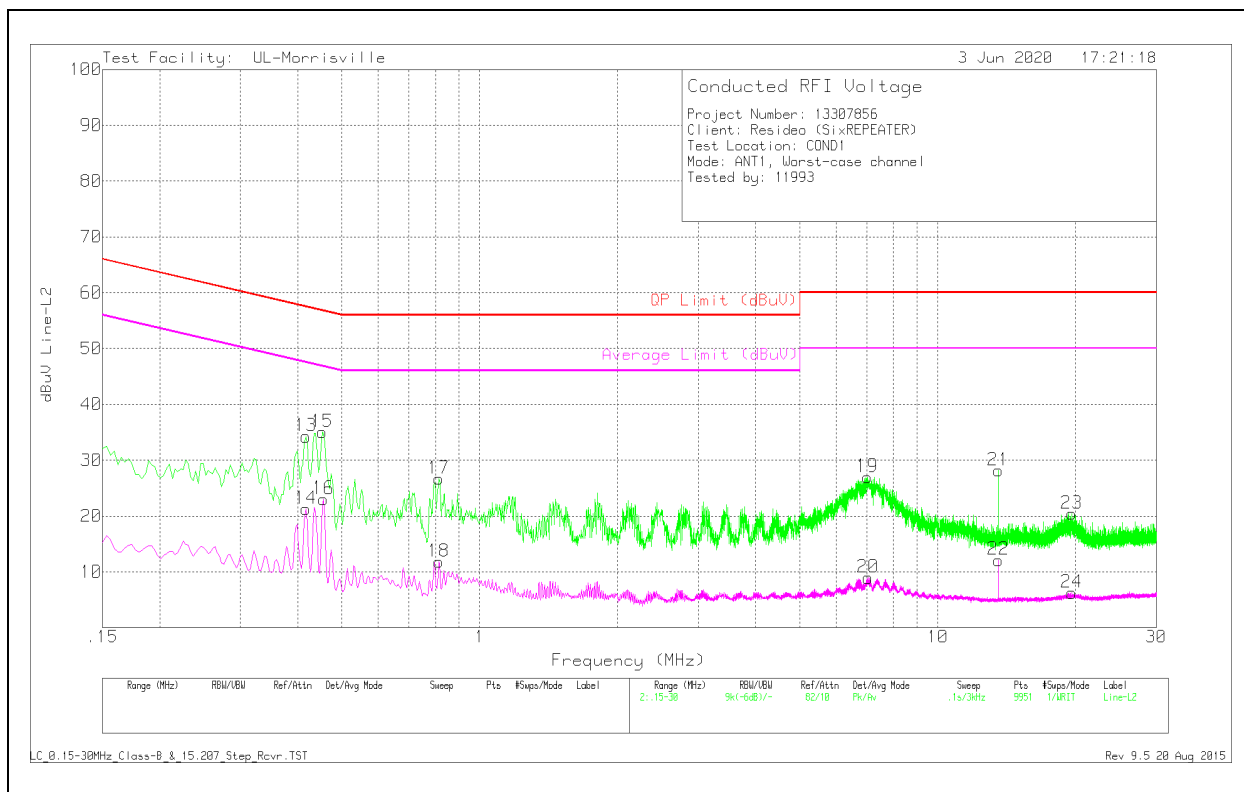
LINE 1 RESULTS



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)
1	.417	22.95	Pk	.1	9.7	32.75	57.51	-24.76	-	-
2	.417	15.12	Av	.1	9.7	24.92	-	-	47.51	-22.59
3	.456	25.03	Pk	.1	9.8	34.93	56.77	-21.84	-	-
4	.456	18.68	Av	.1	9.8	28.58	-	-	46.77	-18.19
5	.8145	16.62	Pk	0	9.8	26.42	56	-29.58	-	-
6	.798	7.83	Av	0	9.8	17.63	-	-	46	-28.37
7	6.75	18.77	Pk	.1	9.9	28.77	60	-31.23	-	-
8	6.753	.89	Av	.1	9.9	10.89	-	-	50	-39.11
9	13.56	18.89	Pk	.1	10	28.99	60	-31.01	-	-
10	13.56	3.75	Av	.1	10	13.85	-	-	50	-36.15
11	19.506	9.94	Pk	.2	10.1	20.24	60	-39.76	-	-
12	19.506	-3.8	Av	.2	10.1	6.5	-	-	50	-43.5

Pk - Peak detector
 Av - Average detection

LINE 2 RESULTS

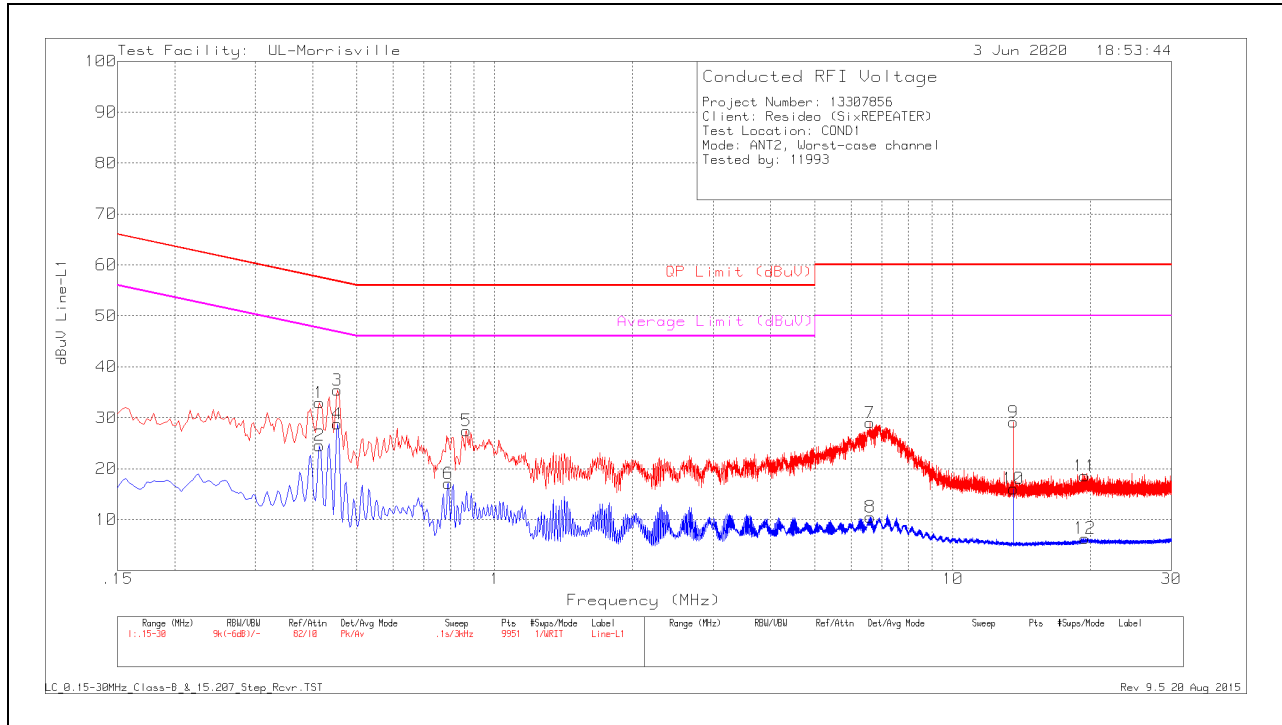


Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.417	24.46	Pk	.1	9.7	34.26	57.51	-23.25	-	-
14	.417	11.49	Av	.1	9.7	21.29	-	-	47.51	-26.22
15	.453	25.14	Pk	.1	9.8	35.04	56.82	-21.78	-	-
16	.456	13.15	Av	.1	9.8	23.05	-	-	46.77	-23.72
17	.813	16.91	Pk	0	9.8	26.71	56	-29.29	-	-
18	.813	2	Av	0	9.8	11.8	-	-	46	-34.2
19	7.023	16.98	Pk	.1	9.9	26.98	60	-33.02	-	-
20	7.041	-1.05	Av	.1	9.9	8.95	-	-	50	-41.05
21	13.56	18.07	Pk	.1	10	28.17	60	-31.83	-	-
22	13.56	2.03	Av	.1	10	12.13	-	-	50	-37.87
23	19.617	10.23	Pk	.1	10.1	20.43	60	-39.57	-	-
24	19.599	-3.96	Av	.1	10.1	6.24	-	-	50	-43.76

Pk - Peak detector
 Av - Average detection

11.1.1. ANTENNA 2

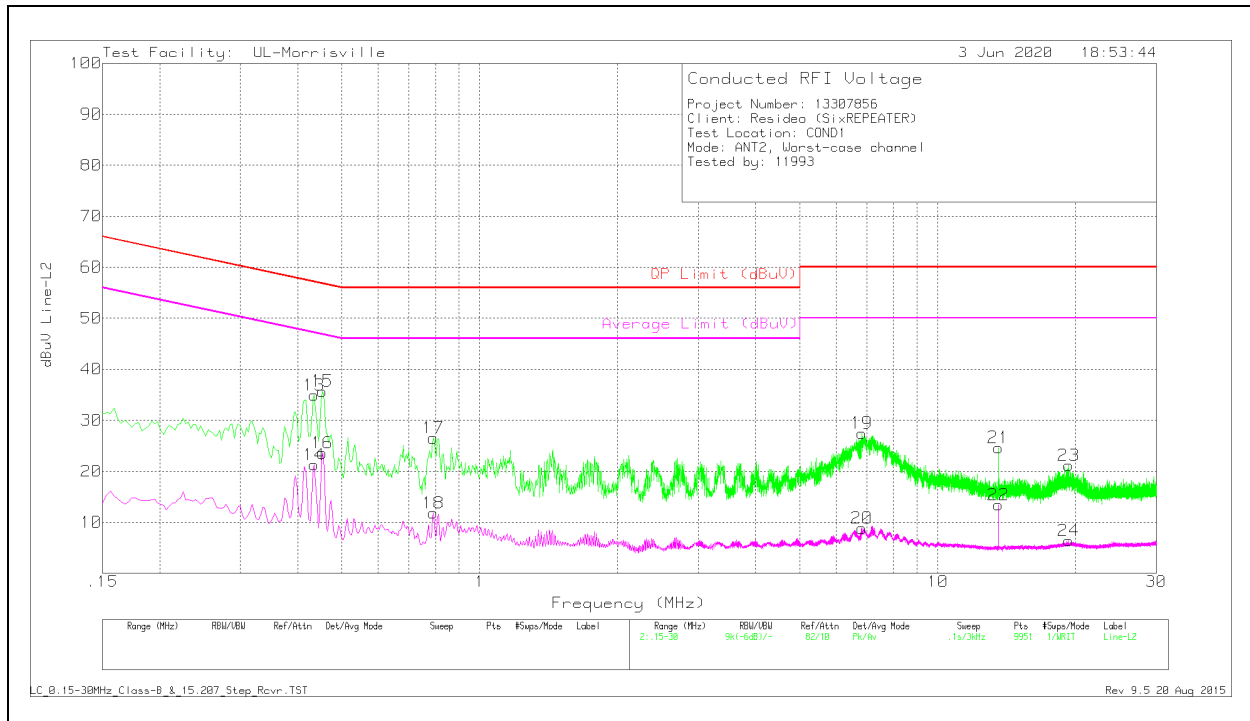
LINE 1 RESULTS



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)
1	.414	23.15	Pk	.1	9.7	32.95	57.57	-24.62	-	-
2	.414	14.75	Av	.1	9.7	24.55	-	-	47.57	-23.02
3	.453	25.48	Pk	.1	9.8	35.38	56.82	-21.44	-	-
4	.453	18.86	Av	.1	9.8	28.76	-	-	46.82	-18.06
5	.867	17.67	Pk	0	9.8	27.47	56	-28.53	-	-
6	.792	7.31	Av	0	9.8	17.11	-	-	46	-28.89
7	6.585	19.06	Pk	.1	9.9	29.06	60	-30.94	-	-
8	6.603	.52	Av	.1	9.9	10.52	-	-	50	-39.48
9	13.563	19.03	Pk	.1	10	29.13	60	-30.87	-	-
10	13.56	5.97	Av	.1	10	16.07	-	-	50	-33.93
11	19.392	8.31	Pk	.2	10.1	18.61	60	-41.39	-	-
12	19.413	-3.97	Av	.2	10.1	6.33	-	-	50	-43.67

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	.435	25.03	Pk	.1	9.8	34.93	57.16	-22.23	-	-
14	.435	11.4	Av	.1	9.8	21.3	-	-	47.16	-25.86
15	.453	25.81	Pk	.1	9.8	35.71	56.82	-21.11	-	-
16	.453	13.68	Av	.1	9.8	23.58	-	-	46.82	-23.24
17	.792	16.72	Pk	0	9.8	26.52	56	-29.48	-	-
18	.792	2.04	Av	0	9.8	11.84	-	-	46	-34.16
19	6.828	17.47	Pk	.1	9.9	27.47	60	-32.53	-	-
20	6.831	-1.18	Av	.1	9.9	8.82	-	-	50	-41.18
21	13.56	14.54	Pk	.1	10	24.64	60	-35.36	-	-
22	13.56	3.34	Av	.1	10	13.44	-	-	50	-36.56
23	19.32	10.96	Pk	.1	10.1	21.16	60	-38.84	-	-
24	19.32	-3.77	Av	.1	10.1	6.43	-	-	50	-43.57

Pk - Peak detector
 Av - Average detection

12. SETUP PHOTOS

Please refer to R13307856-EP1 for setup photos.

END OF TEST REPORT