



TEST REPORT

Report Number: R13420954-E1

Applicant : Hunter Industries
1940 Diamond St.
San Marcos, CA, 92078, U.S.A

Model : BOC-100, BOC-100-FL, BOC-200, BOC-400

FCC ID : M3UBOC

IC : 2772A-BOC

EUT Description : Battery Operated Controller

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C: 2026
ISED RSS-247 ISSUE 4: 2025
ISED RSS-GEN ISSUE 6: 2026

Date Of Issue:
2026-10-02

Prepared by:
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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2021-09-30	Initial Issue	Haley Ackun
V2	2026-08-06	Updated standard references Revised and clarified model differences in section 6.1	B. Kiewra
V3	2026-10-02	Revised Antenna Gain	Charles Moody

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Hunter Industries
1940 Diamond St.
San Marcos, CA, 92078, U.S.A

EUT DESCRIPTION: Battery Operated Controller

MODEL: BOC-100, BOC-100-FL, BOC-200, BOC-400

SERIAL NUMBER: Non-serialized

SAMPLE RECEIPT DATE: 2021-08-27

DATE TESTED: 2021-09-27 TO 2021-09-30

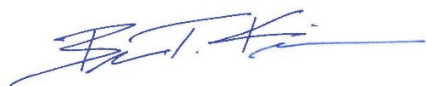
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C: 2026	See Section 2
ISED RSS-247 Issue 4: 2025	See Section 2
ISED RSS-GEN Issue 6: 2026	See Section 2

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.

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	Not Performed.	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: 2026, ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, RSS-GEN Issue 6: 2026, and RSS-247 Issue 4: 2025.

4. FACILITIES AND ACCREDITATION

UL LLC is accredited by a2La, cert. # 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
☐	Building: 12 Laboratory Dr RTP, NC 27709, U.S.A	US0067	2180C	703469
☒	Building: 2800 Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A	US0067	27265	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:

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

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 battery-operated controller that contains LoRa technology.

This EUT contains 5 different models: BOC-100, BOC-100-FL, BOC-200, and BOC-400. All BOC-XXX models use the same RF hardware, antenna, PCB design, operating frequency range, and firmware. The differences between models are limited to the number of irrigation stations and associated output configurations, which do not affect the radio performance or RF exposure characteristics of the device. BOC-400 was tested as worst-case.

6.2. MAXIMUM OUTPUT POWER

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
915- 921	LoRa	14.01	25.18

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a helix antenna, with a maximum gain of -2.64 dBi.

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was version 0.36.000.

The test utility software used during testing was Hunter WVOM application.

6.5. WORST-CASE CONFIGURATION AND MODE

For radiated emissions below 30MHz, the EUT was set to transmit on the channel with highest output power as worst-case scenario.

Radiated emissions 30-18000MHz were performed with the EUT set to transmit at the highest power on low and high channels.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

The EUT utilizes (4) 1.5V alkaline batteries and therefore, AC line conducted emissions were not performed.

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer/Brand	Model	Serial Number	FCC ID
Solenoids	Hunter	-	458200	-

I/O CABLES

Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	1	5	I/O	Non-shielded	<3m	Cables connected to solenoids
2	2	1	I/O	Non-shielded	<3m	Cable connecting battery pack to EUT. Battery Pack contains 4-1.5V batteries

TEST SETUP

Test software exercised the radio card.

SETUP DIAGRAMS

Please refer to R13420954-EP1 for setup diagrams

7. MEASUREMENT METHOD

Duty Cycle: ANSI C63.10 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 -11.9.1.3 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)

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

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

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

8. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer/ Brand	Model Number	Last Cal.	Next Cal.
SA0025	Spectrum Analyzer	Keysight Technologies	N9030A	2021-04-01	2022-04-01
HI0092	Environmental Meter	Fisher Scientific	160938893	2021-09-23	2022-09-23
HI0091	Environmental Meter	Fisher Scientific	161024885	2021-07-12	2022-07-12
PWM005	RF Power Meter	Keysight Technologies	N1912A	2021-07-27	2022-07-27
PWS004 (PRE0126443)	Peak and Avg Power Sensor, 50MHz to 6GHz	Keysight Technologies	E9323A	2021-08-19	2022-08-19
SOFTEMI	Antenna Port Software	UL	Version 2021.09.26	NA	NA

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 4)

Equip. ID	Description	Manufacturer /Brand	Model Number	Last Cal.	Next Cal.
	30-1000 MHz				
206210	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2021-03-11	2022-03-11
	1-18 GHz				
206211	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2021-03-11	2022-03-11
	Gain-Loss Chains				
C4-SAC02	Gain-loss string: 25-1000MHz	Various	Various	2021-05-07	2022-05-07
C4-SAC03	Gain-loss string: 1-18GHz	Various	Various	2021-05-07	2022-05-07
	Receiver & Software				
206496	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-09	2022-03-09
SOFTEMI	EMI Software	UL	Version 9.5 (28 Jun 2021)		
	Additional Equipment used				
s/n 210701941	Environmental Meter	Fisher Scientific	15-077-963	2021-8-16	2023-08-16
HPF012	1GHz high-pass filter, 2W, F _{high} =18GHz	Micro-Tronics	HPM18129	2021-02-15	2022-02-15

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

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	0.009-30MHz				
AT0079	Active Loop Antenna	ETS-Lindgren	6502	2021-08-19	2022-08-19
	Gain-Loss Chains				
N-SAC01	Gain-loss string: 0.009-30MHz	Various	Various	2021-07-20	2022-07-20
	Receiver & Software				
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2021-03-30	2022-03-30
SOFTEMI	EMI Software	UL	Version 9.5 (09 Aug 2021)		
	Additional Equipment used				
s/n 200037610	Environmental Meter	Fisher Scientific	06-662-4	2020-01-22	2022-01-22

*Note: All equipment was in calibration at the time testing was performed.

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

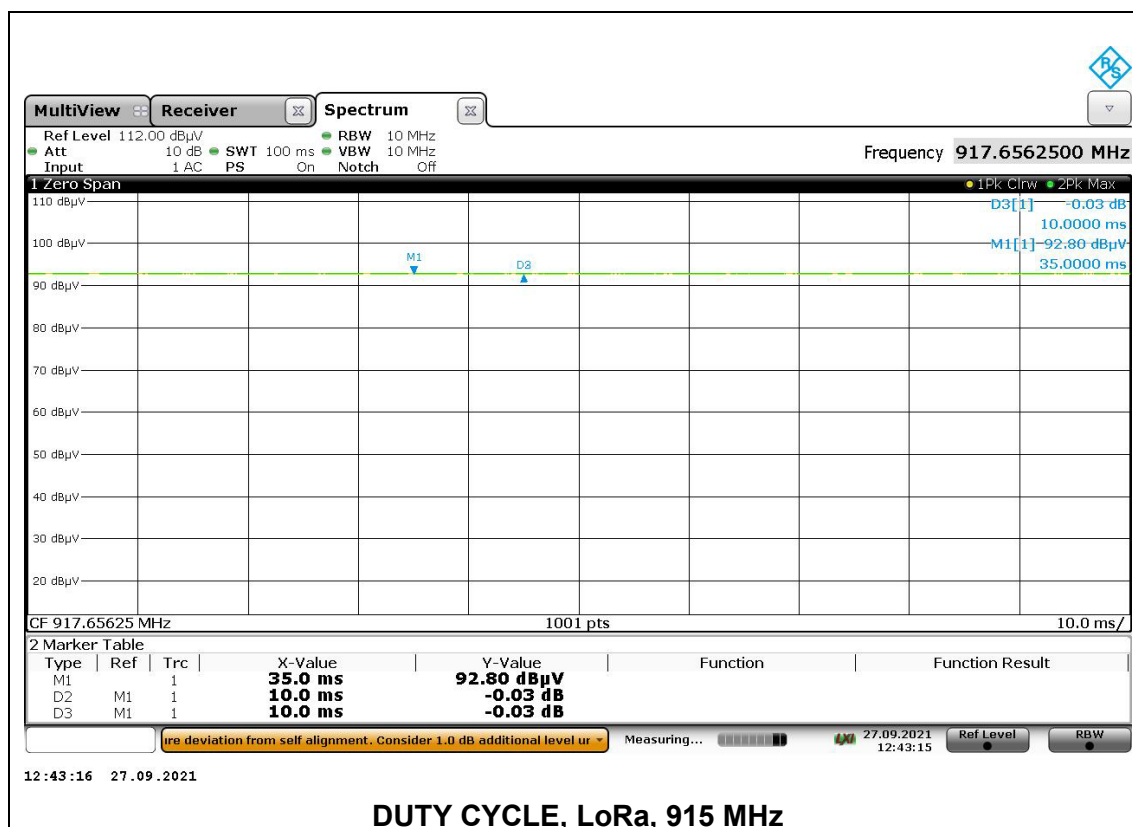
PROCEDURE

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)
900 MHz Band						
LoRa	10.000	10.000	1.000	100.00%	0.00	0.010

DUTY CYCLE PLOTS



9.2. 99% BANDWIDTH

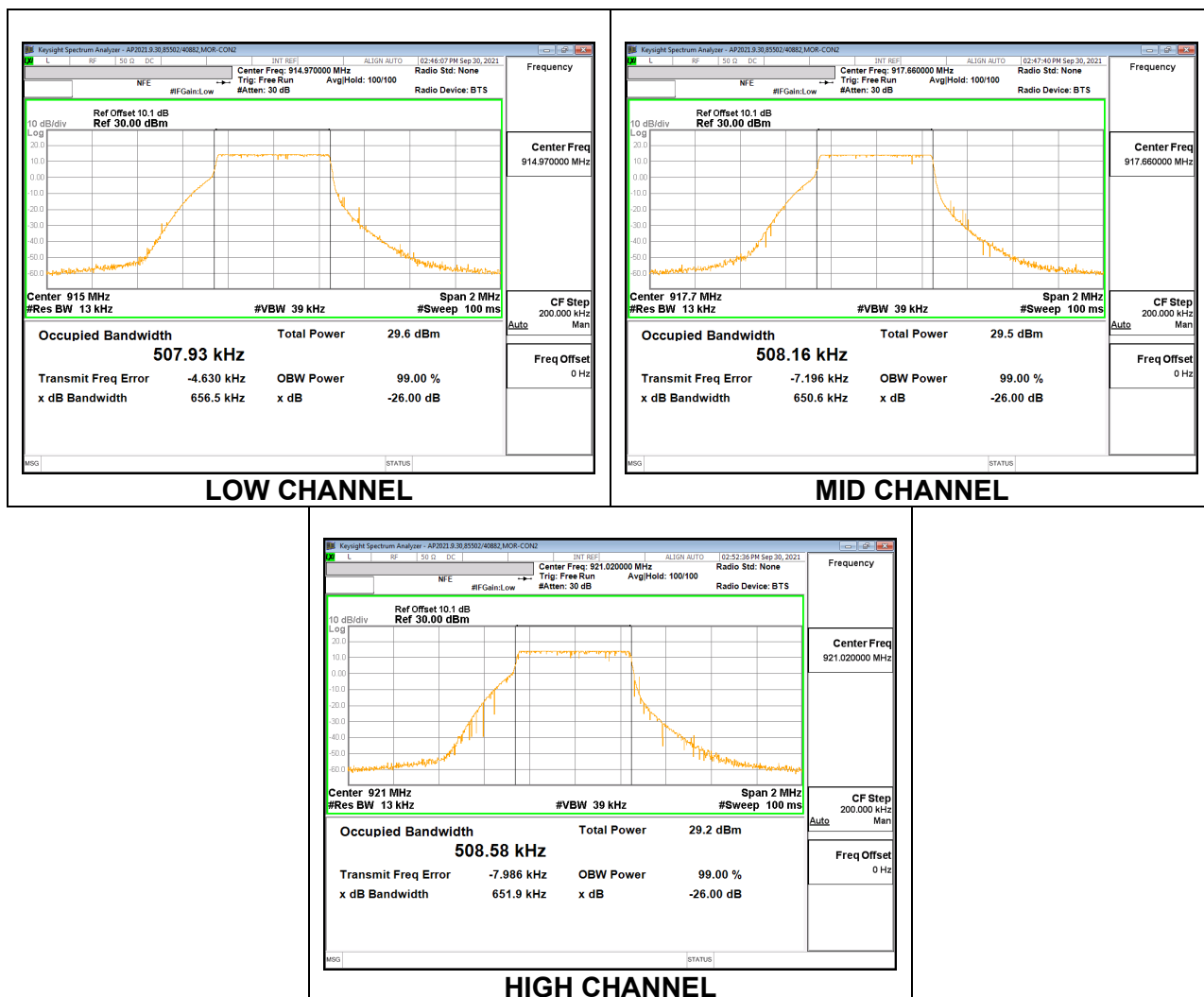
LIMITS

None; for reporting purposes only.

RESULTS

9.2.1. LoRa

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	915	0.5079
Middle	917.7	0.5082
High	921	0.5086



9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

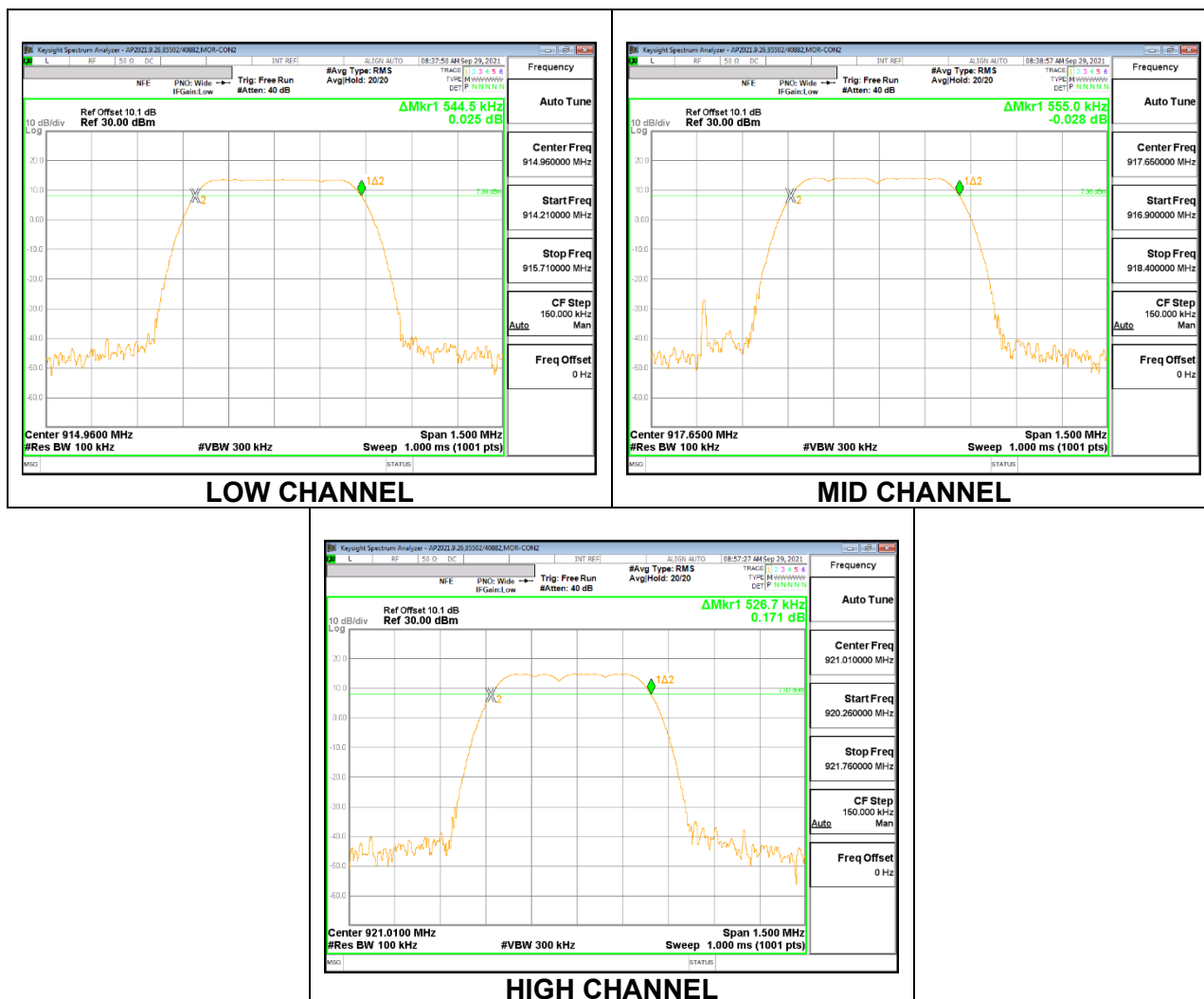
RSS-247 5.2 (a)

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

RESULTS

9.3.1. LoRa

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	915	0.5445	0.5
Middle	917.65	0.5550	0.5
High	921	0.5267	0.5



9.1. 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. No offset required.

RESULTS

9.1.1. LoRa

Tested By:	84740/40882
Date:	2021-09-27

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	915	13.97	30	-16.030
Middle	917.65	13.96	30	-16.040
High	921	14.01	30	-15.990

9.2. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter. No offset required.

RESULTS

9.2.1. LoRa

Tested By:	85502/40882
Date:	2021-09-27

Channel	Frequency (MHz)	AV power (dBm)
Low	915	13.95
Middle	917.65	13.93
High	921	13.99

9.1. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

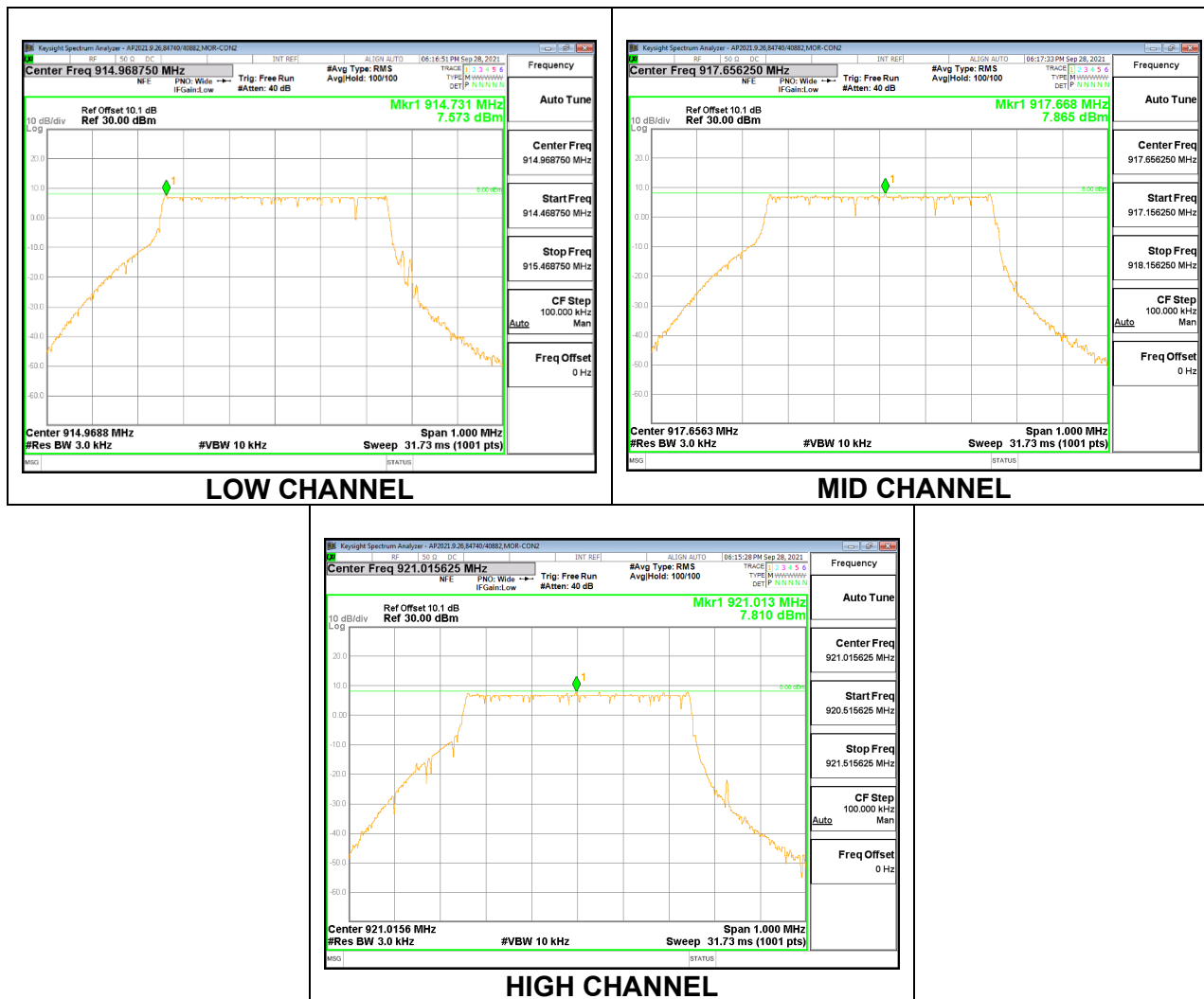
RSS-247 (5.2) (b)

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

9.1.1. LoRa

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	915	7.573	8	-0.43
Middle	918	7.865	8	-0.14
High	921	7.810	8	-0.19



9.1. CONDUCTED SPURIOUS EMISSIONS

LIMITS

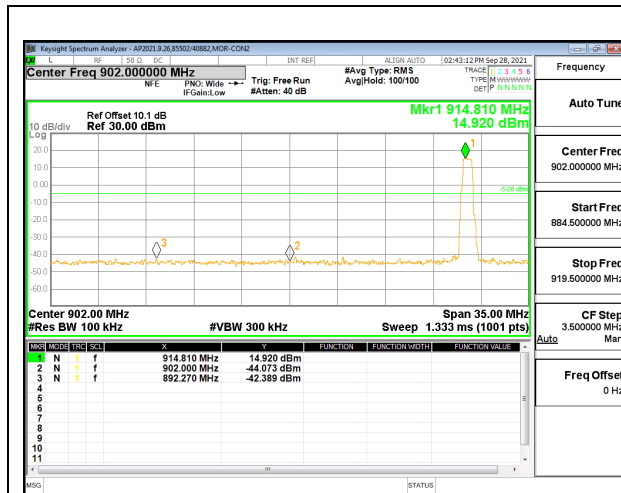
FCC §15.247 (d)

RSS-247 5.5

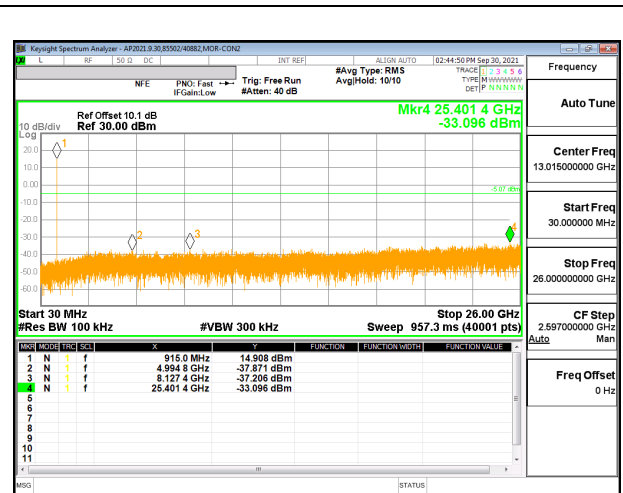
Output power was measured based on the use of a peak measurement, therefore the required attenuation is -20 dBc.

RESULTS

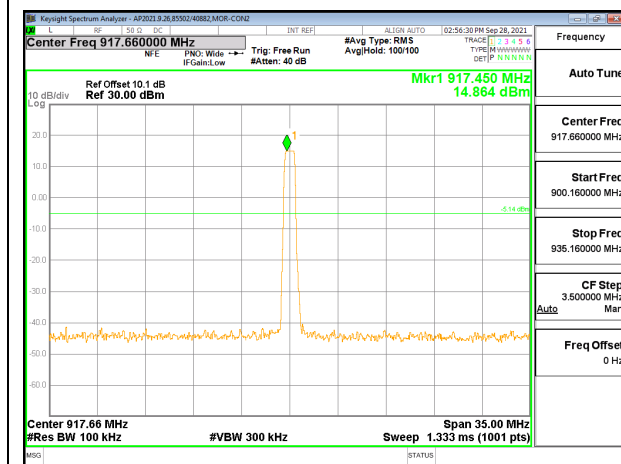
9.1.1. LoRa



LOW CHANNEL BANDEDGE



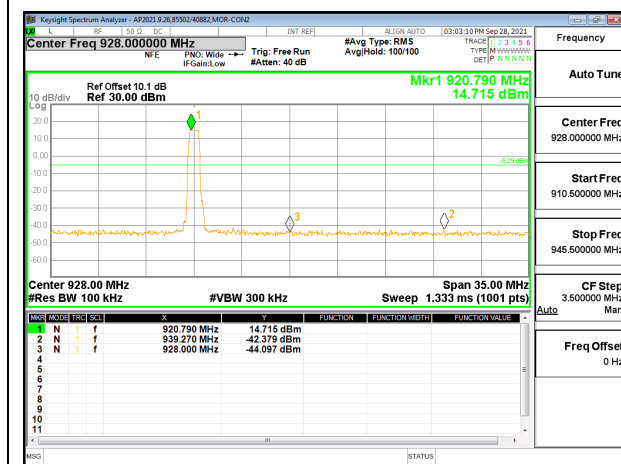
OUT-OF-BAND LOW CHANNEL



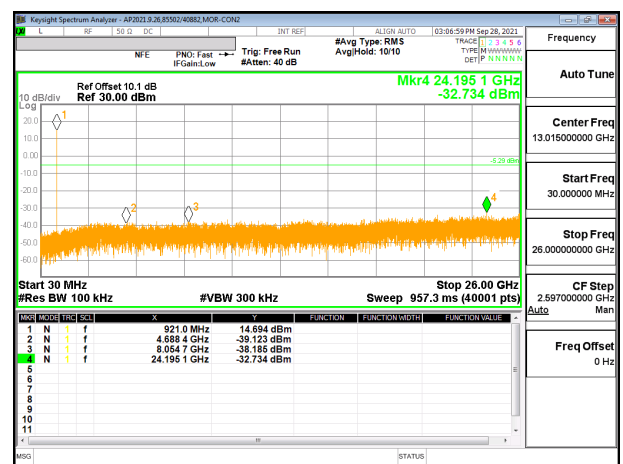
IN-BAND REFERENCE LEVEL



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 (uA/m) at 3 m	Field Strength Limit (dBuA/m) at 3 m
0.009-0.490	6.37/F(kHz) @ 300 m	-
0.490-1.705	63.7/F(kHz) @ 30 m	-
1.705 - 30	0.08 @ 30m	-
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
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 30 MHz to 1000 MHz and 1 GHz to 10 GHz is investigated with the transmitter set to the lowest and highest channels in each applicable band. Below 30 MHz 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.

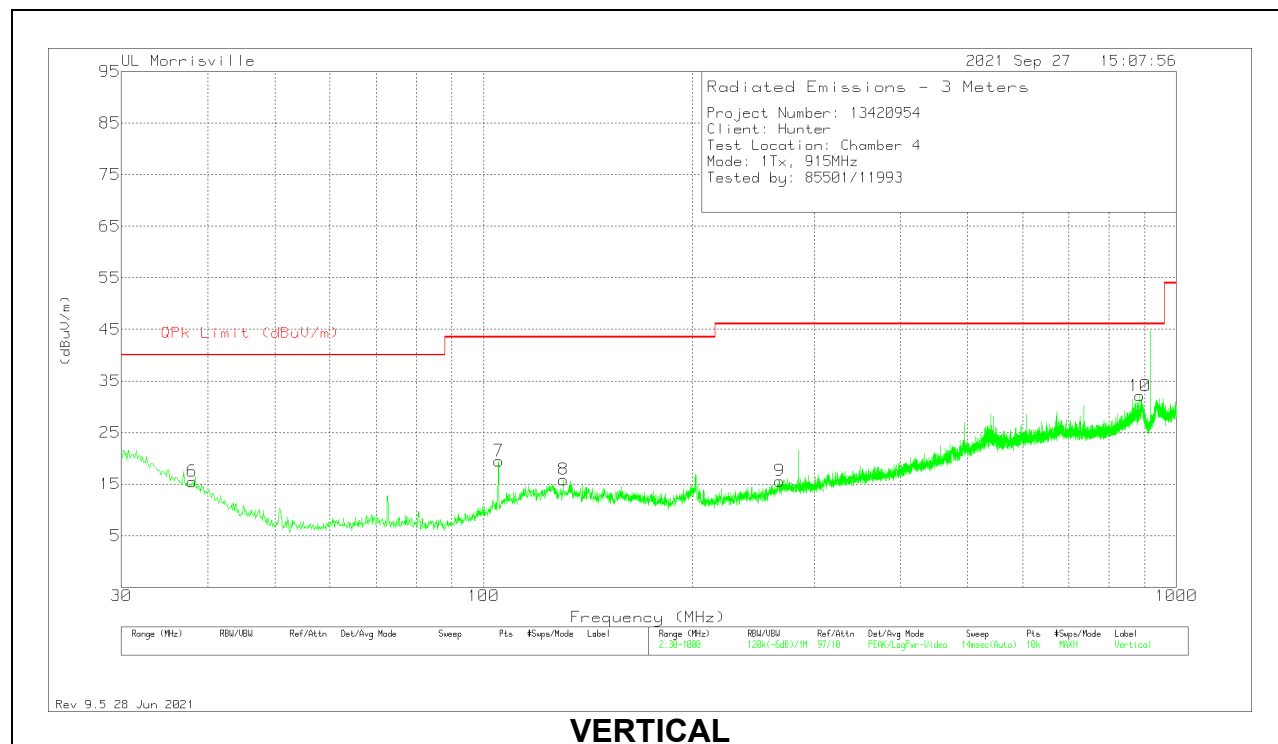
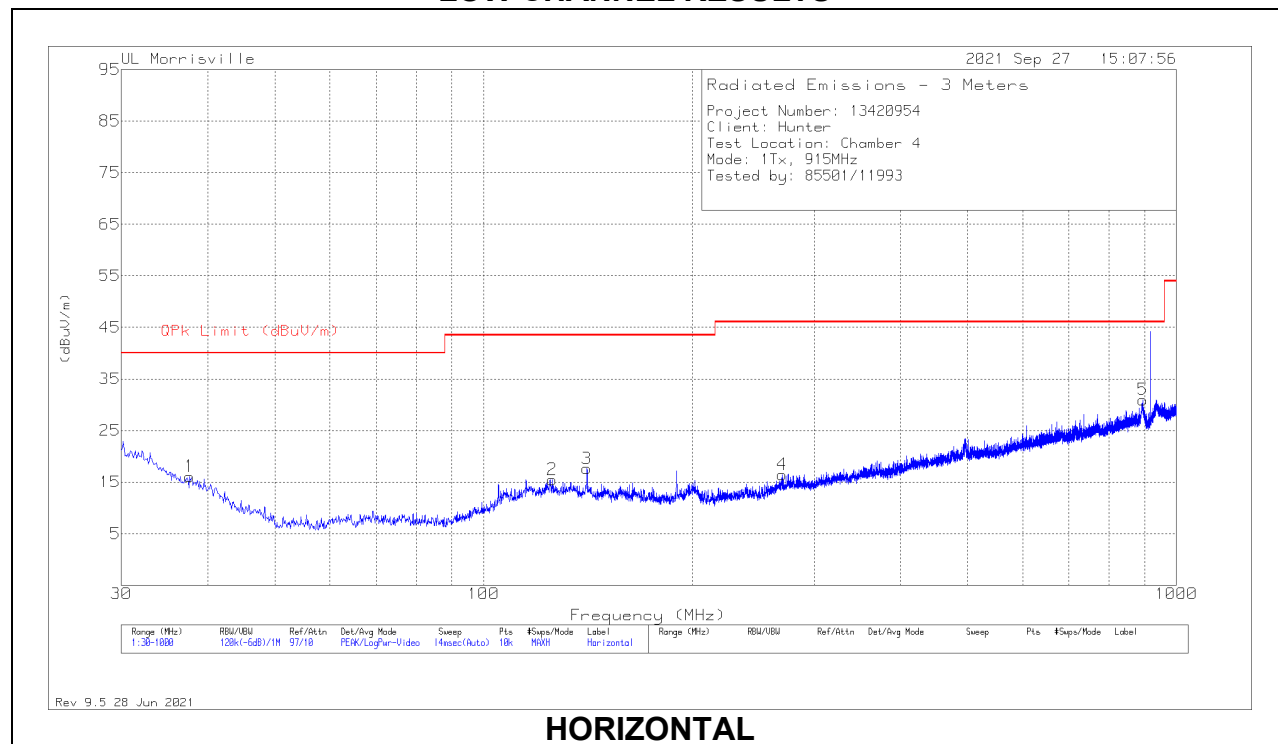
KDB 414788 Open Field Site(OFS) and Chamber Correlation Justification

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

10.2. TRANSMITTER BELOW 1 GHz

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

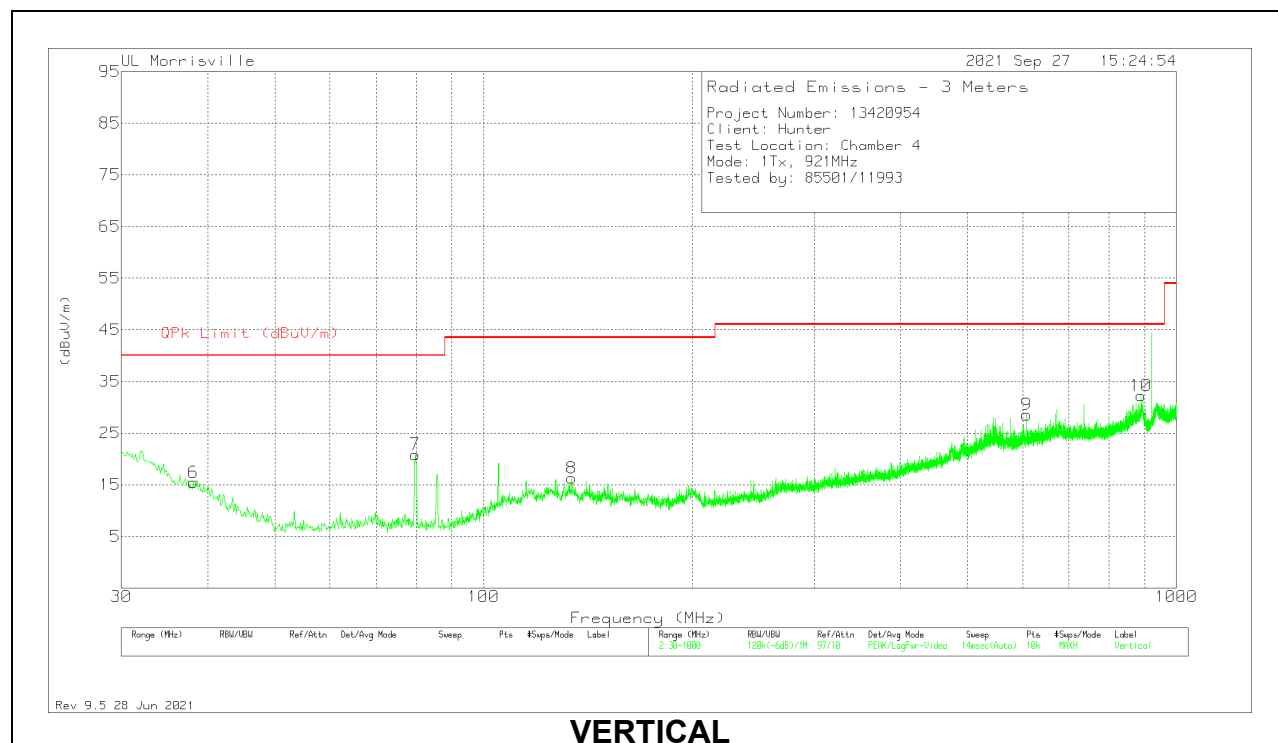
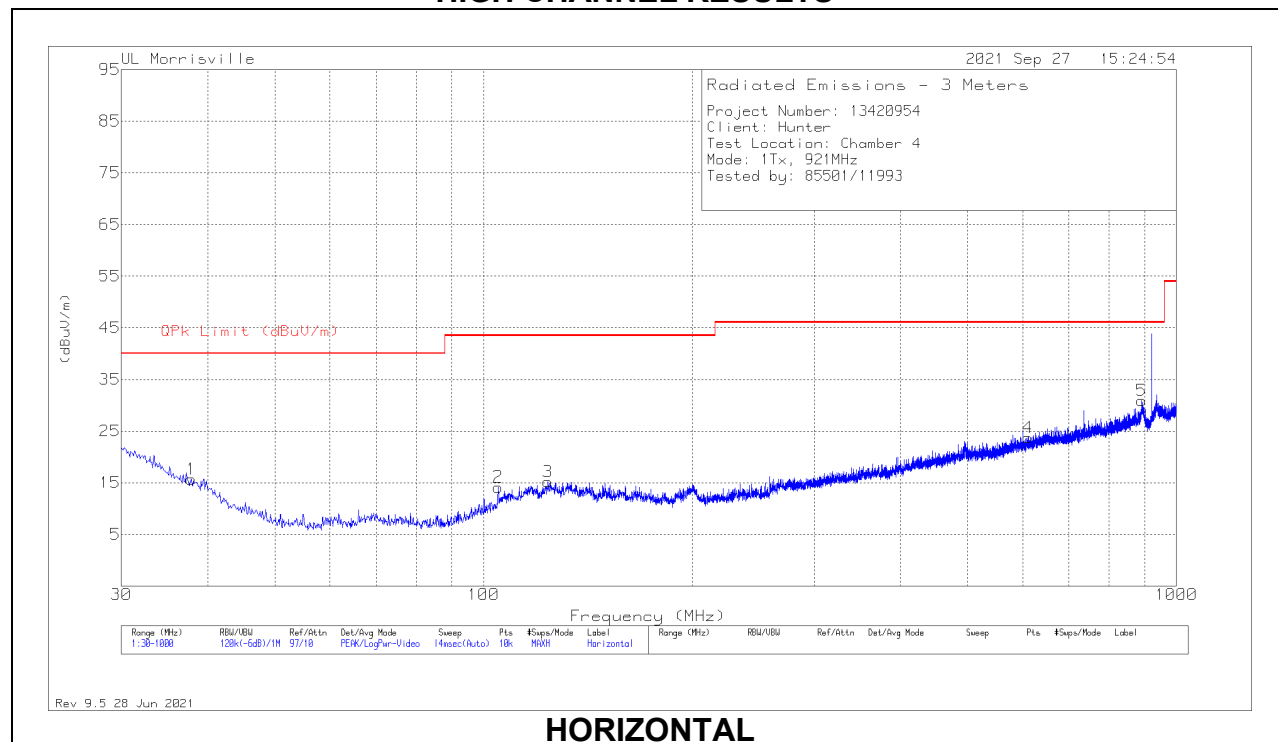
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	206210 (dB/m)	Amp/Cbl (dB)	Filter (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 37.663	26.98	Pk	20.1	-31.1	.1	16.08	40	-23.92	0-360	300	H
2	* ** 125.642	27.08	Pk	18.1	-29.8	.1	15.48	43.52	-28.04	0-360	200	H
4	* ** 270.075	26.87	Pk	17.7	-28.4	.3	16.47	46.02	-29.55	0-360	100	H
5	** 895.628	25.38	Pk	26.7	-23.8	2.7	30.98	46.02	-15.04	0-360	200	H
6	* ** 37.954	26.51	Pk	19.9	-31.1	.2	15.51	40	-24.49	0-360	100	V
8	* ** 130.492	27.57	Pk	18	-29.8	.1	15.87	43.52	-27.65	0-360	100	V
9	* ** 267.553	26.22	Pk	17.6	-28.5	.3	15.62	46.02	-30.4	0-360	100	V
10	** 886.122	28.11	Pk	26.5	-24	1.5	32.11	46.02	-13.91	0-360	100	V
7	105.175	33.58	Pk	15.9	-30.1	.1	19.48	43.52	-24.04	0-360	100	V
3	141.065	29.74	Pk	17.3	-29.6	.2	17.64	43.52	-25.88	0-360	100	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	206210 (dB/m)	Amp/Cbl (dB)	Filter (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 37.857	26.68	Pk	20	-31.1	.1	15.68	40	-24.32	0-360	200	H
3	*** 123.896	26.78	Pk	18.1	-29.8	.1	15.18	43.52	-28.34	0-360	300	H
4	*** 610.642	25.92	Pk	23.5	-26.3	.6	23.72	46.02	-22.3	0-360	300	H
5	** 891.069	25.51	Pk	26.6	-23.9	2.7	30.91	46.02	-15.11	0-360	100	H
6	*** 38.148	26.55	Pk	19.8	-31.1	.2	15.45	40	-24.55	0-360	200	V
8	*** 134.081	28	Pk	17.8	-29.7	.2	16.3	43.52	-27.22	0-360	100	V
9	*** 608.023	30.75	Pk	23.5	-26.3	.6	28.55	46.02	-17.47	0-360	100	V
10	** 889.032	27.84	Pk	26.5	-23.9	1.8	32.24	46.02	-13.78	0-360	100	V
7	79.761	39.24	Pk	11.9	-30.5	.2	20.84	-	-	0-360	100	V
2	105.078	28.24	Pk	15.9	-30.1	.1	14.14	-	-	0-360	300	H

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

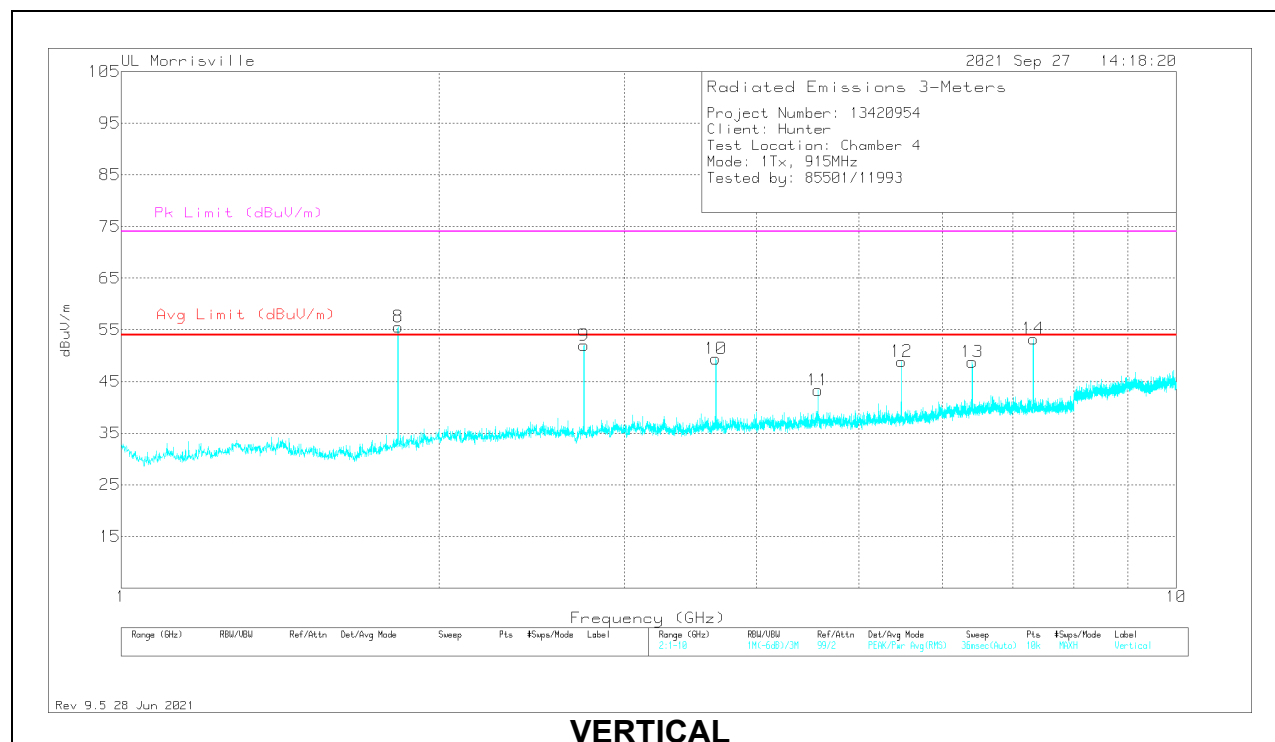
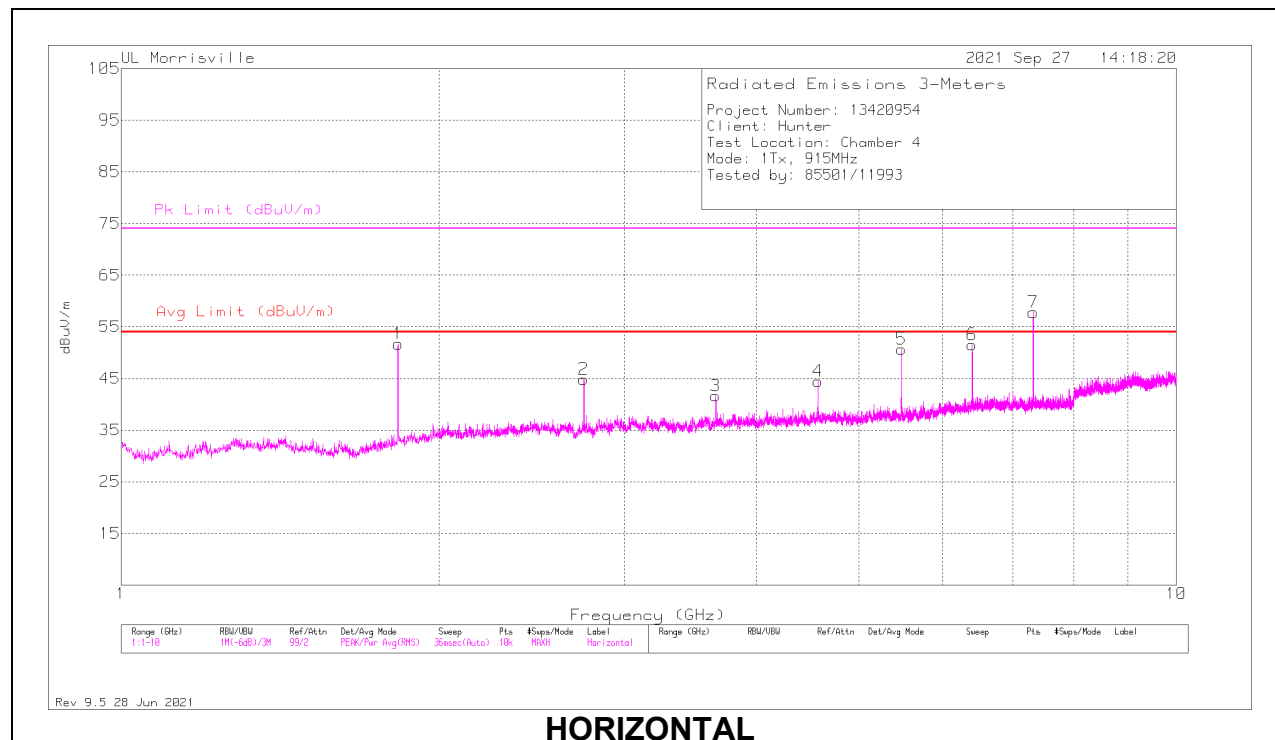
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.3. TRANSMITTER ABOVE 1 GHz

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	Corrected Reading dBuV/m	Avg Limit (dBuV/m)	Margin (dB)	Pk Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.8298	57.6	Pk	30.3	-36.6	.4	51.7	-	-	-	-	0-360	100	H
2	* ** 2.7442	48.93	Pk	31.9	-36.5	.5	44.83	54	-9.17	74	-29.17	0-360	100	H
3	* ** 3.6586	42.83	Pk	33.1	-34.8	.5	41.63	54	-12.37	74	-32.37	0-360	100	H
4	* ** 4.5748	42.77	Pk	34.1	-32.8	.4	44.47	54	-9.53	74	-29.53	0-360	100	H
7	* ** 7.31976	48.59	PK2	35.6	-29.4	.6	55.39	-	-	74	-18.61	80	169	H
	* ** 7.32048	37.46	ADV	35.6	-29.4	.6	44.26	54	-9.74	-	-	80	169	H
8	** 1.8298	61.47	Pk	30.3	-36.6	.4	55.57	-	-	-	-	0-360	200	V
9	* ** 2.74432	55.97	PK2	31.9	-36.5	.5	51.87	-	-	74	-22.13	70	203	V
	* ** 2.74487	50.43	ADV	31.9	-36.5	.5	46.33	54	-7.67	-	-	70	203	V
10	* ** 3.65913	51.01	PK2	33.1	-34.8	.5	49.81	-	-	74	-24.19	84	196	V
	* ** 3.65979	42.66	ADV	33.1	-34.8	.5	41.46	54	-12.54	-	-	84	196	V
11	* ** 4.5748	41.61	Pk	34.1	-32.8	.4	43.31	54	-10.69	74	-30.69	0-360	300	V
14	* ** 7.31982	47.44	PK2	35.6	-29.4	.6	54.24	-	-	74	-19.76	50	212	V
	* ** 7.31893	35.15	ADV	35.6	-29.4	.6	41.95	54	-12.05	-	-	50	212	V
5	5.4883	48.37	Pk	34.4	-32.5	.4	50.67	-	-	-	-	0-360	100	H
12	5.4901	46.58	Pk	34.4	-32.5	.4	48.88	-	-	-	-	0-360	200	V
6	6.4036	45.82	Pk	35.3	-30.3	.7	51.52	-	-	-	-	0-360	100	H
13	6.4063	43.09	Pk	35.3	-30.3	.7	48.79	-	-	-	-	0-360	200	V

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

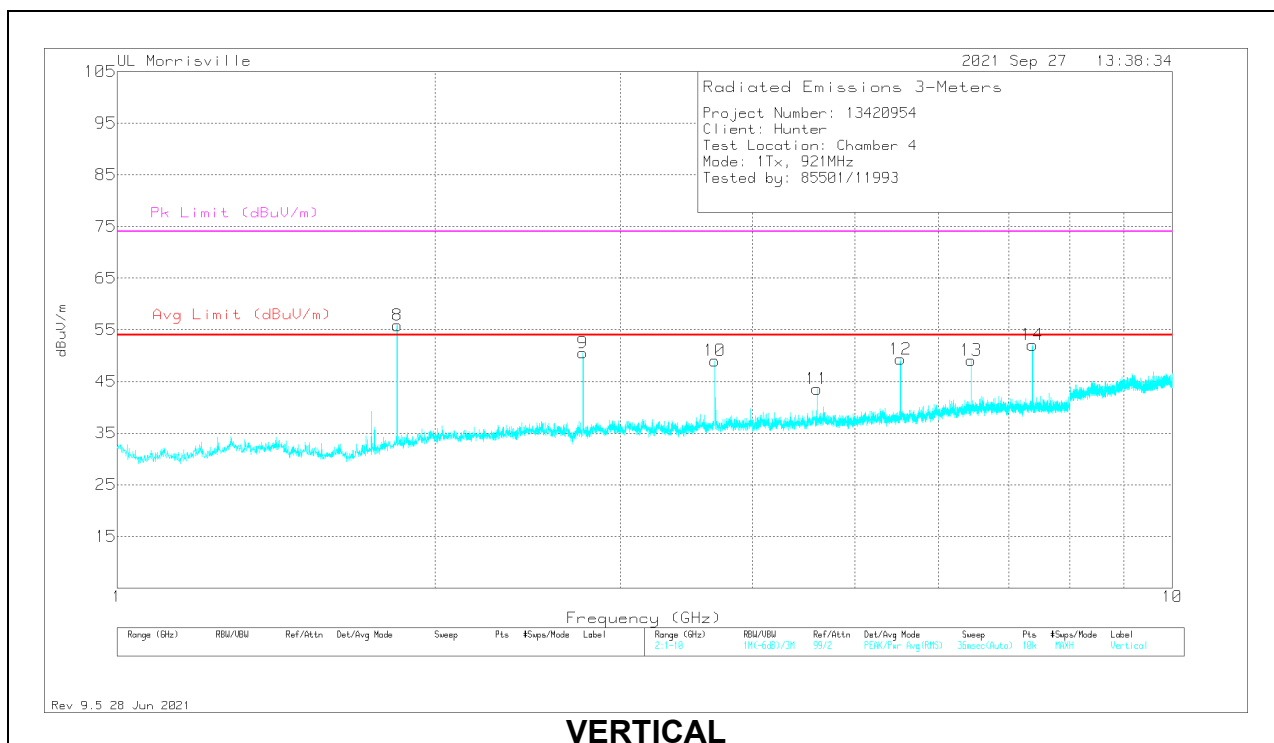
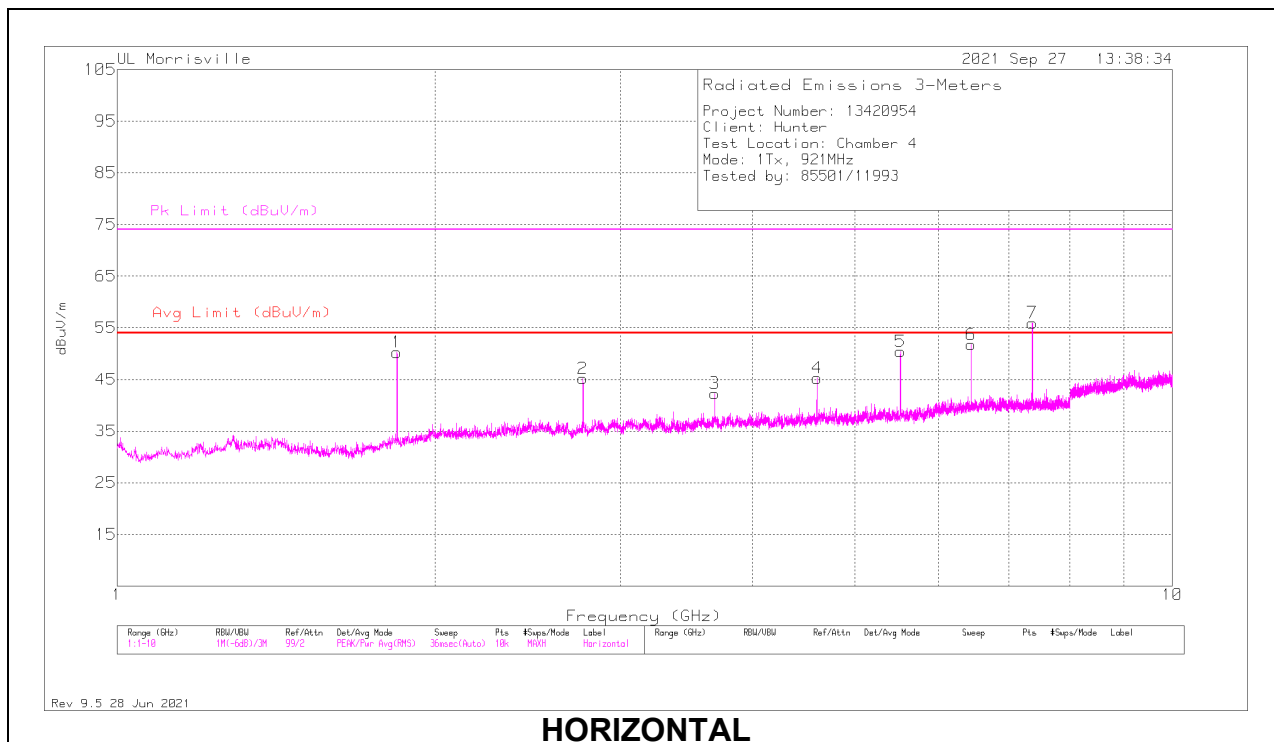
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

PK2 - Maximum Peak

ADV - Linear Voltage Average

HIGH CHANNEL RESULTS



RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Filter (dB)	Corrected Reading dBuV/m	Avg Limit (dBuV/m)	Margin (dB)	Pk Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	** 1.8415	56.05	Pk	30.4	-36.6	.4	50.25	-	-	-	-	0-360	100	H
2	*** 2.7631	49.18	Pk	32	-36.5	.5	45.18	54	-8.82	74	-28.82	0-360	100	H
3	*** 3.6847	43.16	Pk	33.1	-34.5	.5	42.26	54	-11.74	74	-31.74	0-360	100	H
4	*** 4.6063	43.55	Pk	34.2	-32.9	.4	45.25	54	-8.75	74	-28.75	0-360	100	H
7	*** 7.36946	48.22	PK2	35.6	-29.4	.6	55.02	-	-	74	-18.98	81	169	H
	*** 7.3684	35.77	ADV	35.6	-29.4	.6	42.57	54	-11.43	-	-	81	169	H
8	** 1.8424	61.66	Pk	30.4	-36.6	.4	55.86	-	-	-	-	0-360	300	V
9	*** 2.7626	55.63	PK2	32	-36.5	.5	51.63	-	-	74	-22.37	68	211	V
	*** 2.76308	49.92	ADV	32	-36.5	.5	45.92	54	-8.08	-	-	68	211	V
10	*** 3.68467	49.39	PK2	33.1	-34.5	.5	48.49	-	-	74	-25.51	39	195	V
	*** 3.68417	40.26	ADV	33.1	-34.5	.5	39.36	54	-14.64	-	-	39	195	V
11	*** 4.6045	41.86	Pk	34.2	-32.9	.4	43.56	54	-10.44	74	-30.44	0-360	300	V
14	*** 7.3686	46.16	PK2	35.6	-29.4	.6	52.96	-	-	74	-21.04	33	220	V
	*** 7.36895	33.78	ADV	35.6	-29.4	.6	40.58	54	-13.42	-	-	33	220	V
5	5.5252	47.89	Pk	34.4	-32.3	.4	50.39	-	-	-	-	0-360	100	H
12	5.5252	46.79	Pk	34.4	-32.3	.4	49.29	-	-	-	-	0-360	200	V
13	6.4477	42.99	Pk	35.4	-30.1	.8	49.09	-	-	-	-	0-360	300	V
6	6.4486	45.63	Pk	35.4	-30.1	.8	51.73	-	-	-	-	0-360	100	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

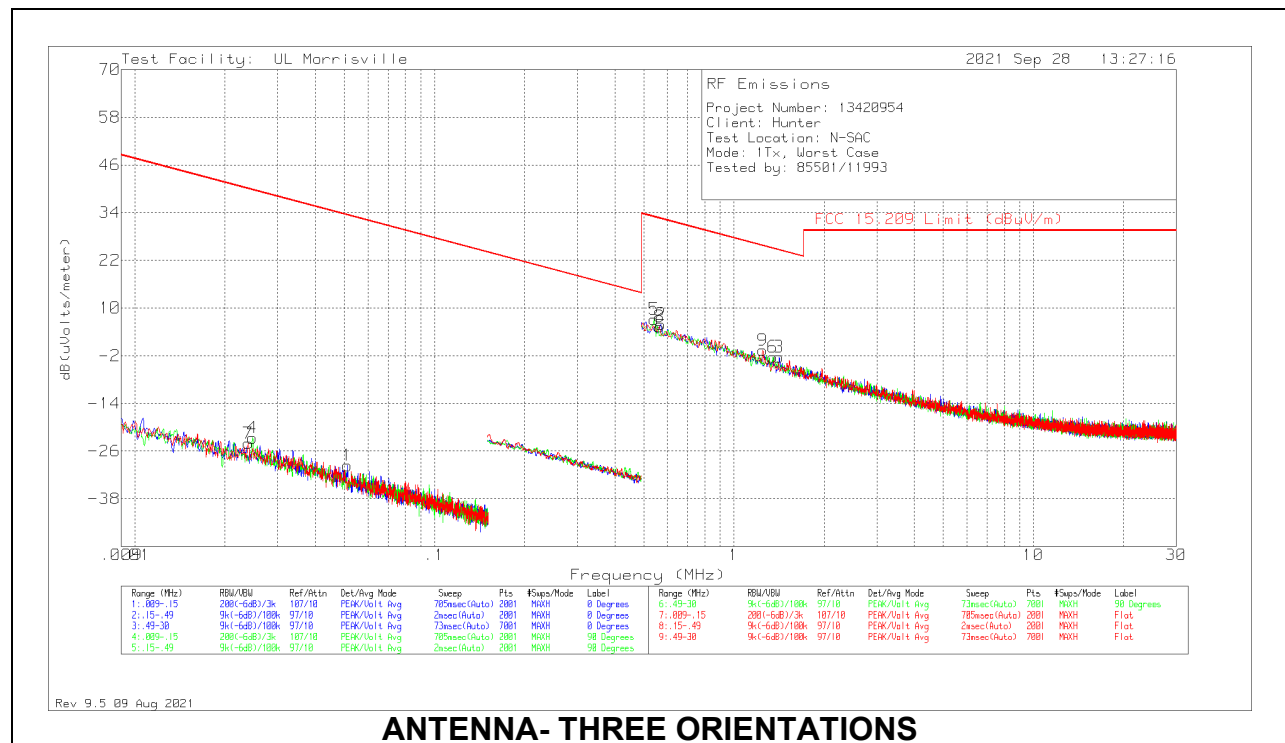
PK2 - Maximum Peak

ADV – Linear Voltage Average

10.4. 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)



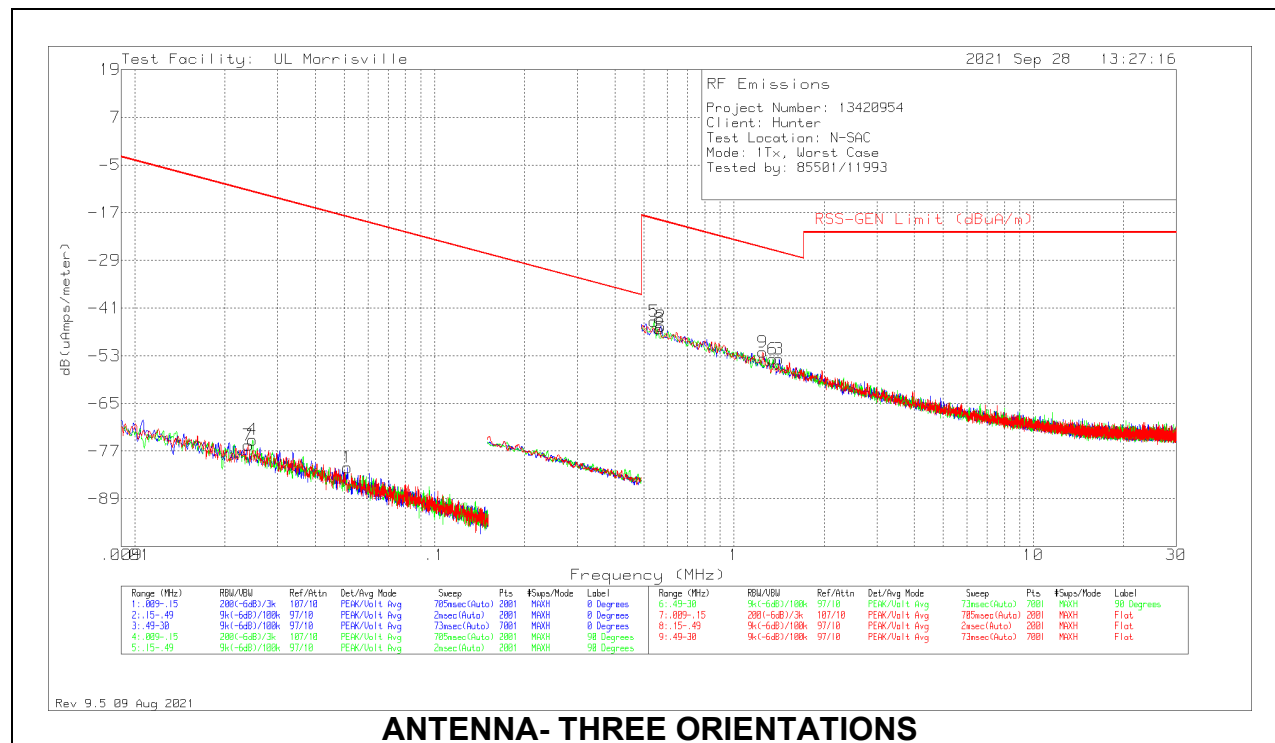
ANTENNA- THREE ORIENTATIONS

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AT0079 (dB/m)	Cbl (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	FCC 15.209 Qp/Av Limit (dBuV/m)	FCC 15.209 Pk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
7	.02391	42.05	Pk	13.8	.1	-80	-24.05	40.03	60.03	-64.08	0-360	400	Flat
4	.02469	43.54	Pk	13.7	.1	-80	-22.66	39.75	59.75	-62.41	0-360	400	90 degs
1	.05117	38.48	Pk	11.8	.1	-80	-29.62	33.42	53.42	-63.04	0-360	400	0 degs
5	.54059	35.77	Pk	11.2	.2	-40	7.17	32.95	-	-25.78	0-360	400	90 degs
8	.56589	33.86	Pk	11.2	.2	-40	5.26	32.55	-	-27.29	0-360	400	Flat
2	.5701	34.5	Pk	11.2	.2	-40	5.9	32.48	-	-26.58	0-360	400	0 degs
9	1.24888	27.89	Pk	11.3	.2	-40	-.61	25.67	-	-26.28	0-360	400	Flat
6	1.35006	26.17	Pk	11.3	.2	-40	-2.33	25	-	-27.33	0-360	400	90 degs
3	1.41752	26.16	Pk	11.3	.2	-40	-2.34	24.57	-	-26.91	0-360	400	0 degs

Pk - Peak detector

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



ANTENNA- THREE ORIENTATIONS

Below 30MHz Data

Marker	Frequency (MHz)	Meter Reading (dBuA)	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)	Height (cm)	Loop Angle
7	.02391	42.05	Pk	-37.7	.1	-80	-75.55	-11.47	8.53	-64.08	0-360	400	Flat
4	.02469	43.54	Pk	-37.8	.1	-80	-74.16	-11.75	8.25	-62.41	0-360	400	90 degs
1	.05117	38.48	Pk	-39.7	.1	-80	-81.12	-18.08	1.92	-63.04	0-360	400	0 degs
5	.54059	35.77	Pk	-40.3	.2	-40	-44.33	-18.55	-	-25.78	0-360	400	90 degs
8	.56589	33.86	Pk	-40.3	.2	-40	-46.24	-18.95	-	-27.29	0-360	400	Flat
2	.5701	34.5	Pk	-40.3	.2	-40	-45.6	-19.02	-	-26.58	0-360	400	0 degs
9	1.24888	27.89	Pk	-40.2	.2	-40	-52.11	-25.83	-	-26.28	0-360	400	Flat
6	1.35006	26.17	Pk	-40.2	.2	-40	-53.83	-26.5	-	-27.33	0-360	400	90 degs
3	1.41752	26.16	Pk	-40.2	.2	-40	-53.84	-26.93	-	-26.91	0-360	400	0 degs

Pk - Peak detector

11. SETUP PHOTOS

Please refer to R13420954-EP1 for setup photos

END OF TEST REPORT