FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

Enhanced BFS Plus & Bi-Level Cooler Combo with Near Field Reader

MODEL NUMBER: LZSTL8WSLP

FCC ID: 2AC8R-NFC1
IC: 12430A-NFC1

REPORT NUMBER: 12358755A

ISSUE DATE: 2018-10-30

Prepared for
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Oak Brook, IL 60523-4674
USA

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NVLAP LAB CODE 100414-0

Revision History

Rev.	Issue Date	Revisions	Revised By
1.0	2018-10-30	Initial Issue	BM

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: **Elkay MFG CO**
2222 Camden Ct
Oak Brook, IL 60523-4674
USA

EUT DESCRIPTION: Enhanced BFS Plus & Bi-Level Cooler Combo with Near Field Reader

MODEL: LZSTL8WSLP

SERIAL NUMBER: non-serialized

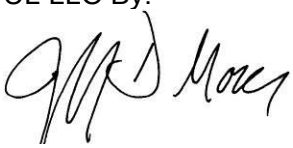
DATE TESTED: 2018-06-14 to 2018-10-24

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART C	Complies
ISED RSS-210 Issue 9, Annex B.6	Complies
ISED RSS-GEN Issue 5	Complies

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL LLC based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. 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:



Jeff Moser
Operations Leader
UL LLC

Prepared By:

Bart Mucha

UL LLC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 5, and RSS-210 Issue 9.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 333 Pfingsten Road, Northbrook, IL 60062 USA.

UL NBK is accredited by NVLAP, Laboratory Code 100414-0.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Sample Calculations
Radiated Field Strength and Conducted Emissions data contained within this report is calculated on the following basis:
Field Strength (dBuV/m) = Meter Reading (dBuV) + AF (dB/m) - Gain (dB) + Cable Loss (dB)
Conducted Voltage (dBuV) = Meter Reading (dBuV) + Cable Loss (dB) + LISN IL (dB)
Conducted Current (dBuA) = Meter Reading (dBuV) + Cable Loss (dB) - Transducer Factor (dBohms)

4.3. MEASUREMENT UNCERTAINTY

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

Test	Range	Equipment	Uncertainty k=2
Radiated Emissions	30-200MHz	Bicon 10m Horz	4.27dB
Radiated Emissions	30-200MHz	Bicon 10m Vert	4.28dB
Radiated Emissions	200-1000MHz	LogP 10m Horz	3.33dB
Radiated Emissions	200-1000MHz	LogP 10m Vert	3.39dB
Conducted Ant Port	30MHz-26GHz	Spectrum Analyzer	2.94

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a wall mounted drinking water fountain incorporating 13.56MHz near field transmitter.

5.2. MAXIMUM ELECTRIC FIELD STRENGHT

The transmitter has a maximum peak radiated field strength as follows:

Frequency Range (MHz)	Mode	Peak Field Strenght dBuV/m	Measurement Distance meters
13.56	TX	30.87	30.00

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an loop antenna.

5.4. SOFTWARE AND FIRMWARE

The device uses a chipset where there is no control over firmware of software related to the radio.

5.5. WORST-CASE CONFIGURATION AND MODE

The EUT is mounted in single orientation only therefore only single configuration was tested.

5.6. MODIFICATIONS

No modifications were made during testing.

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
EUT	Elkay	LZSTL8WSLP	non-serilized	-

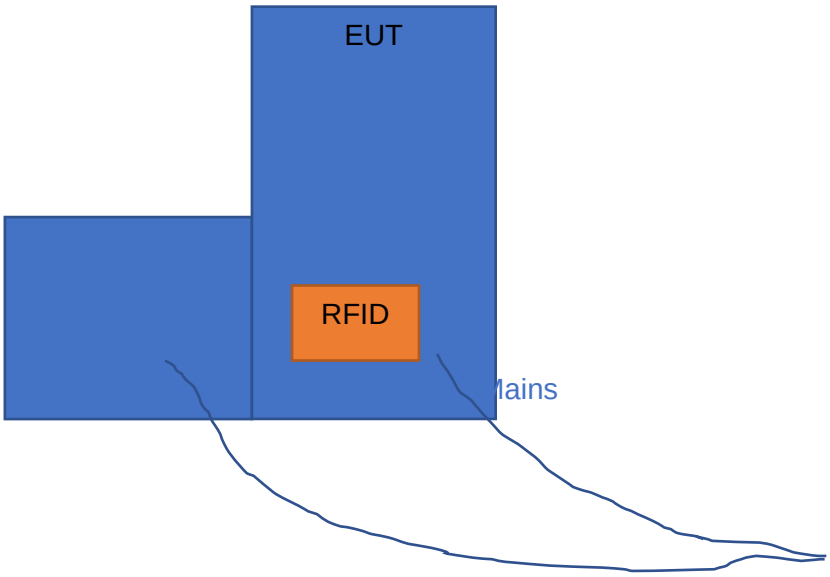
I/O CABLES

None

TEST SETUP

The EUT was placed on 80cm table.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List					
Description	**Manufacturer**	**Model**	**Asset Number**	**Cal Date**	**Cal Due**
Radiated Software	UL	UL EMC	Ver 9.5, July 22, 2014		
Conducted Software	UL	UL EMC	Ver 9.5, May 17 2012		
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC4328	12/21/2017	12/31/2018
Bicon Antenna	Chase	VBA6106A	EMC4078	3/28/2018	3/31/2019
Log-P Antenna	Chase	UPA6109	EMC4313	4/9/2018	4/30/2019
Loop Antenna	EMCO	6502/1	EMC4026	1/10/2018	1/31/2019
EMI Test Receiver	Rohde & Schwarz	ESR	EMC4377	12/23/2017	12/31/2018
Transient Limiter	Electro-Metrics	EM7600-2	EMC4224	N/A	N/A
High-Pass Filter	Solar Electronics	2803-150	EMC4327	N/A	N/A
Attenuator	HP	8494B	2831A00838	N/A	N/A
LISN - L1	Solar Electronics	8602-50-TS-50-N	EMC4066	12/29/2017	12/31/2018
LISN - L2	Solar Electronics	8602-50-TS-50-N	EMC4064	12/29/2017	12/31/2018
Signal Analyzer	Aglient	PXA	EMC4360	12/28/2017	12/31/2018

7. 20 dB AND 99% BW

LIMITS

For reference only

TEST PROCEDURE

ANSI C63.10

The transmitter output is connected to the spectrum analyzer.

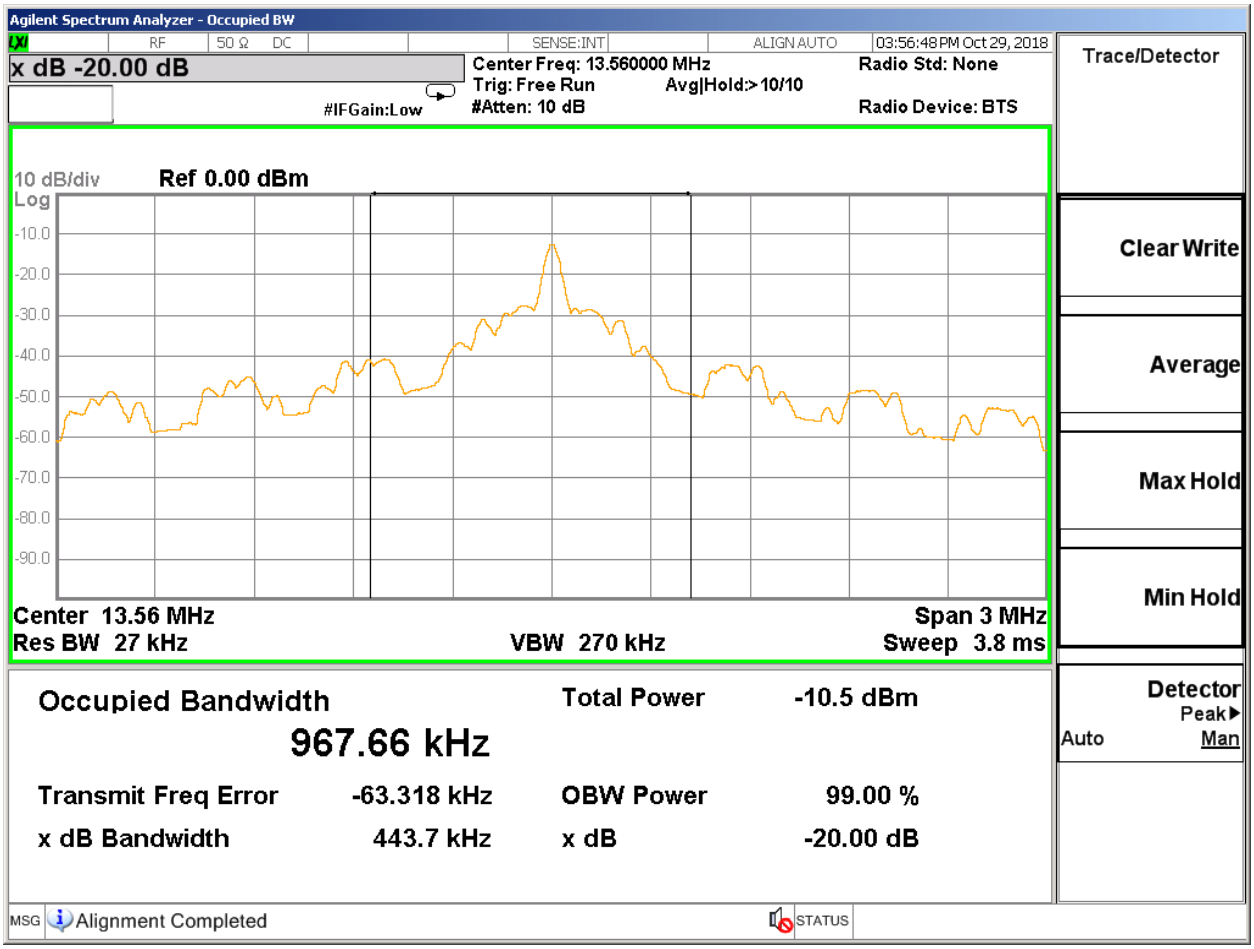
The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

20dB Bandwidth

Frequency (MHz)	20dB Bandwidth (kHz)	99% Bandwidth (kHz)
13.56	443.7	967.66

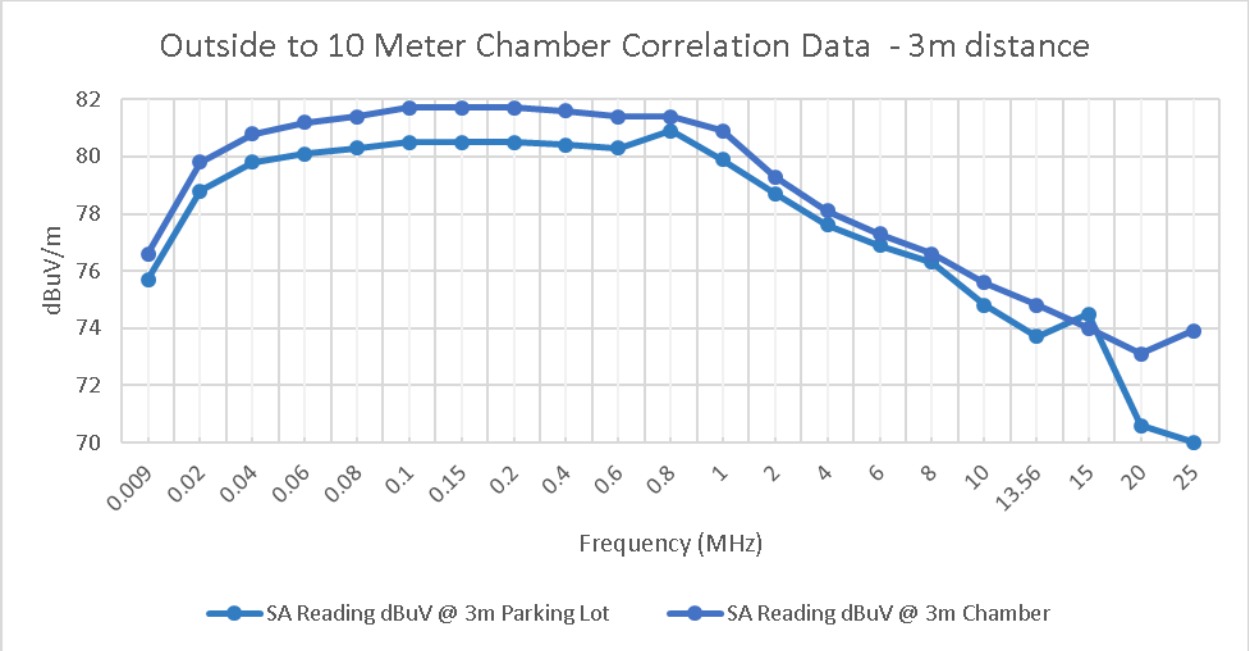
Bandwidth Measurement



8. RADIATED EMISSION TEST RESULTS

8.1. Outdoor to 10m SAC Correlation Data

Correlation Data for measurements 9kHz-30MHz between Outside and 10m semi-anechoic chamber at Underwriter Laboratories in Northbrook, IL.



Correlation measurements were conducted using a signal source with an antenna outside in open area (parking lot). Immediately following the measurements the same setup was moved inside the 10 meter semi-anechoic chamber and the measurements were repeated. The above plot shows the difference in levels measured between outside and the 10 meter semi anechoic chamber.

8.2. LIMITS AND PROCEDURE

LIMIT

§15.225
IC RSS-210, Annex B.6 (Transmitter)

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/ meter at 30 meters.

(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110– 14.010 MHz and shall not exceed the general radiated emission limits in § 15.209 as follows:
§15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.
§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

Formula for converting the filed strength from uV/m to dBuV/m is:
Limit (dBuV/m) = 20 log limit (uV/m)

Masurements between 9kHz-30MHz were conducted at 3m measurement distance and 30MHz-1GHz at 10m distance. The emissions levels were extrapolated to the limit distance using the following factor:

9kHz - 490kHz: 40*log(3/300)
490kHz – 30MHz: 20*log(3/30)
30MHz-1GHz: 20*log(10/3)

In addition:

§15.225 (d) The emission limits shown the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

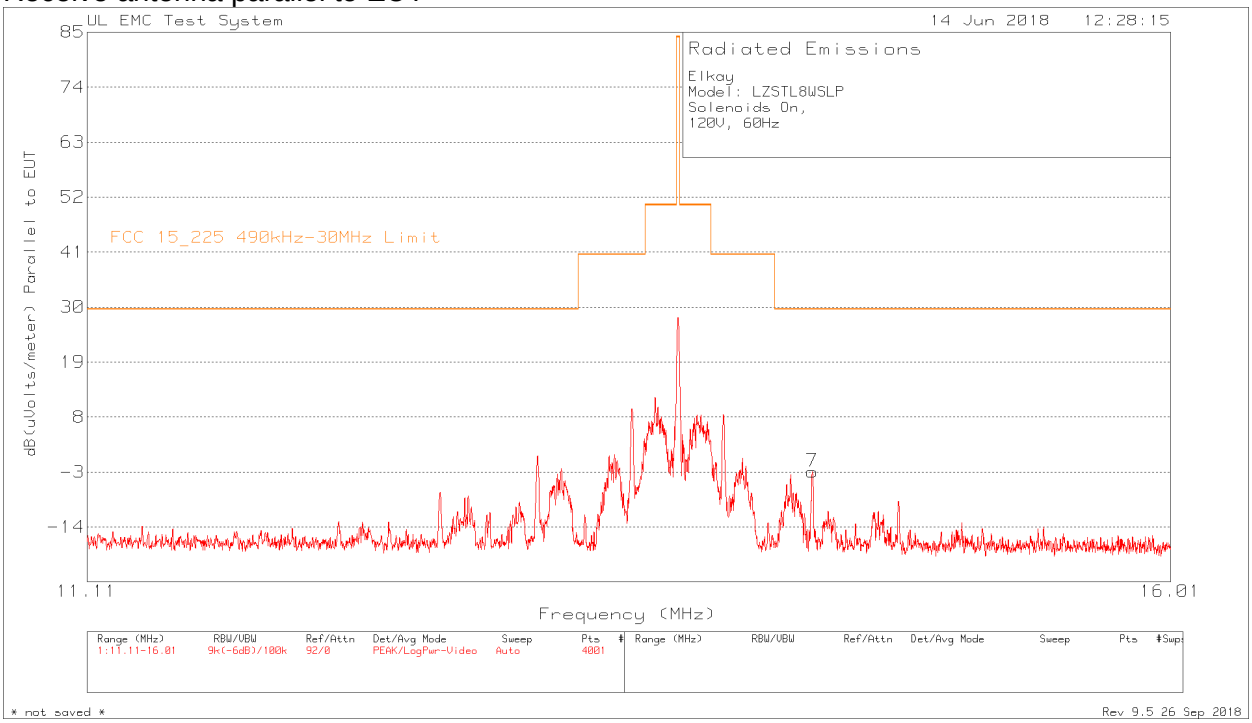
§15.225 (e) The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

RESULTS

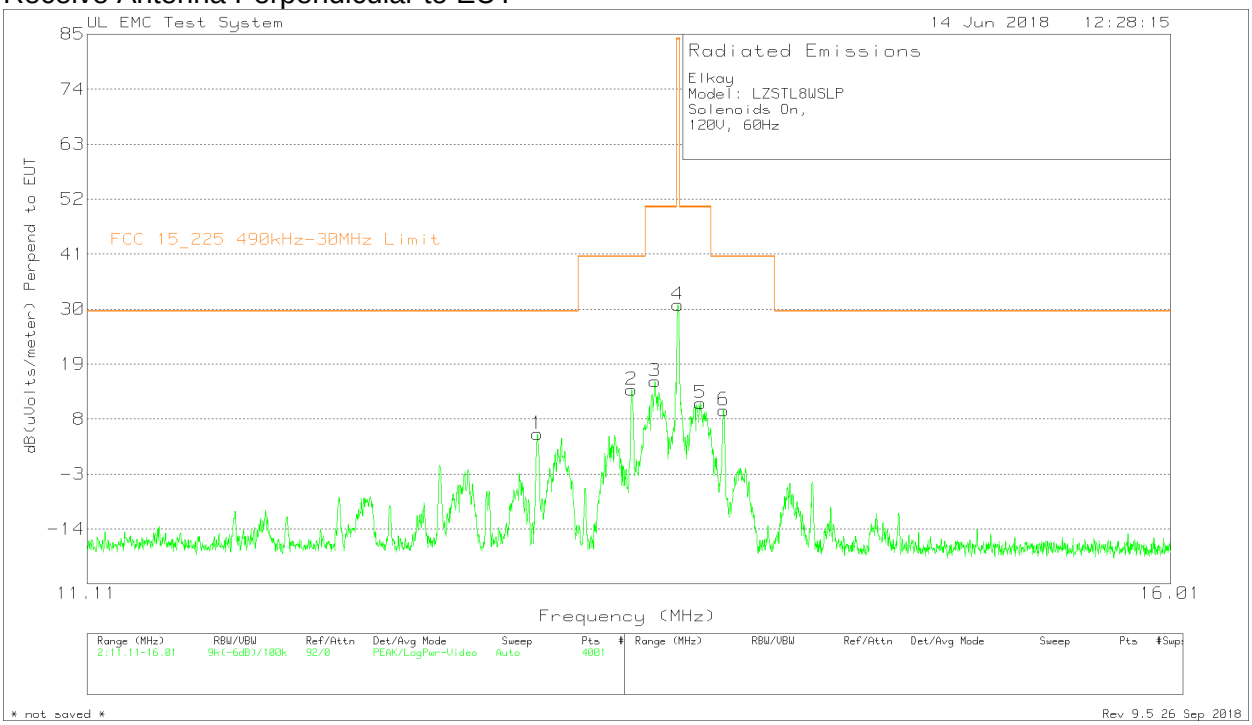
8.2.1. FUNDAMENTAL AND SPURIOUS EMISSIONS (0.15 – 30 MHz)

In band Data

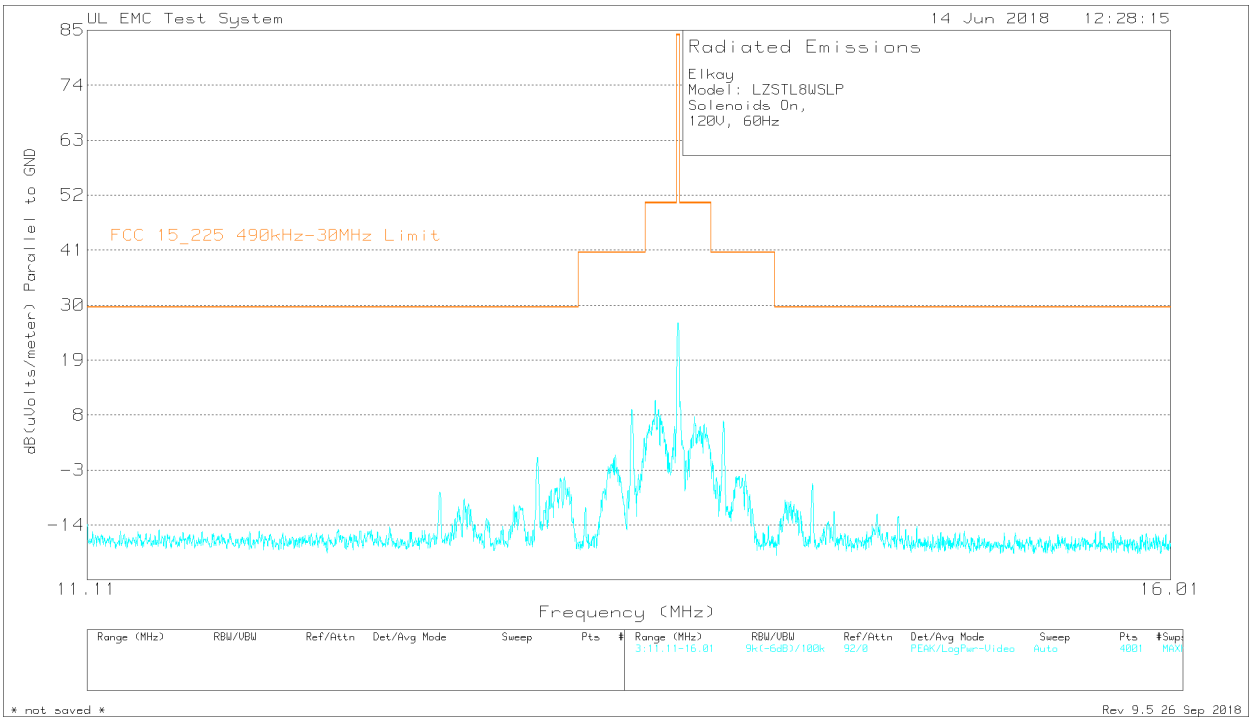
Receive antenna parallel to EUT



Receive Antenna Perpendicular to EUT



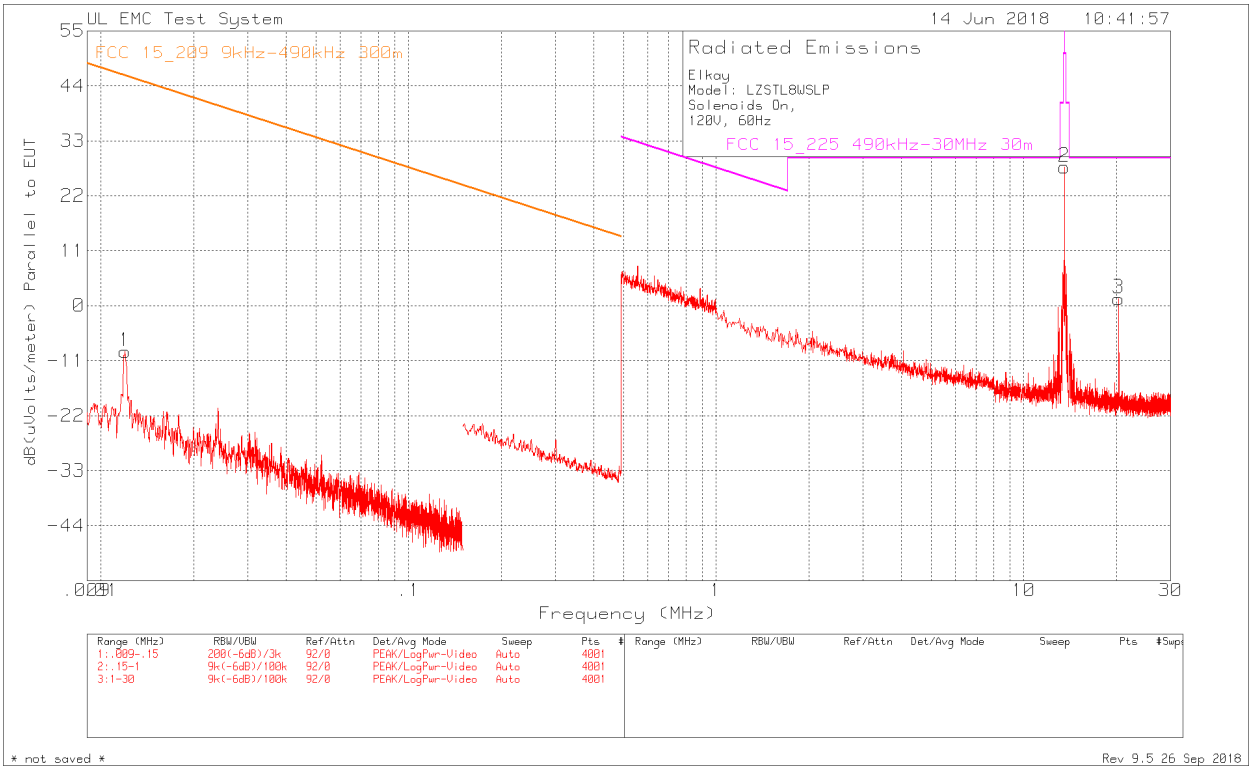
Receive Antenna Parallel to Ground



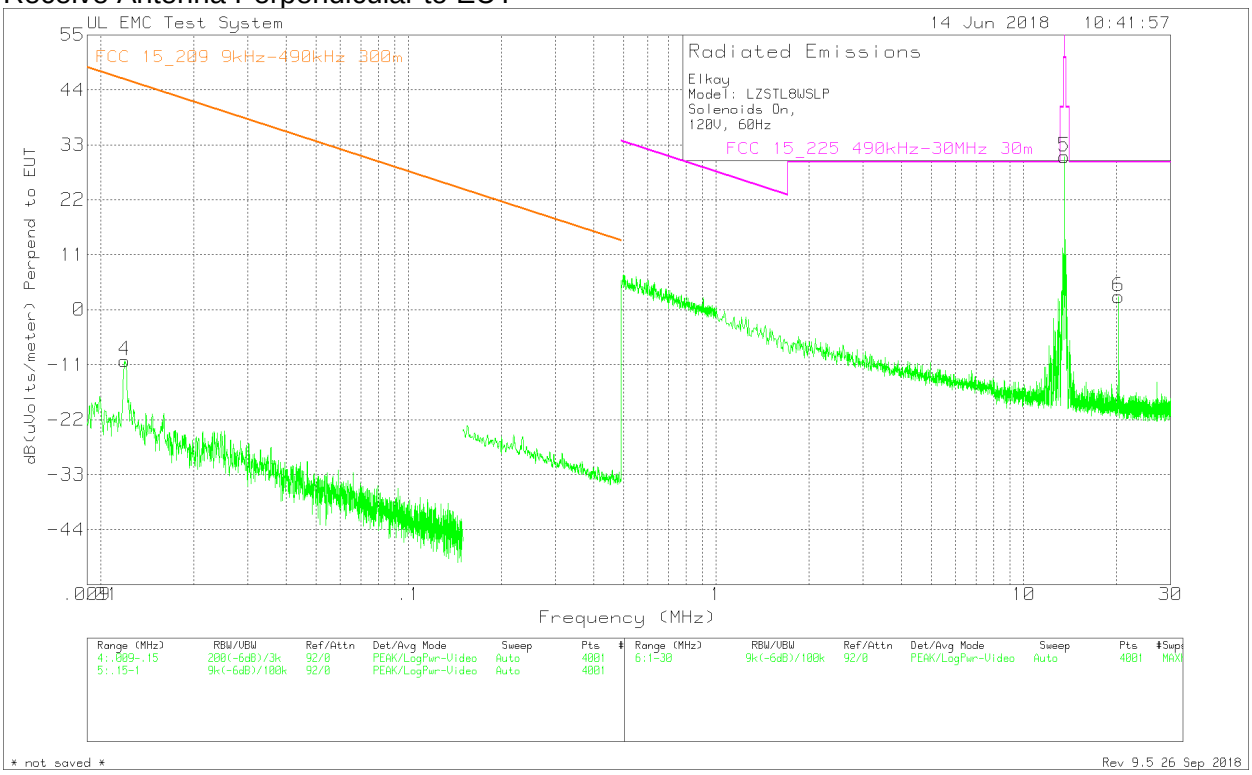
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Distance Factor dB	Level dBuV/m	Limit FCC 15_225 @ 30m dBuV/m	Margin (dB)	Azimuth [Degs]
1	12.9328	33.15	Pk	11.5	0.4	-40	5.05	29.54	-24.49	0-360
2	13.35053	41.94	Pk	11.5	0.4	-40	13.84	40.51	-26.67	0-360
3	13.45588	43.69	Pk	11.5	0.4	-40	15.59	50.47	-34.88	0-360
4	13.56	59.07	Pk	11.4	0.4	-40	30.87	84	-53.13	0-360
5	13.66413	39.37	Pk	11.4	0.4	-40	11.17	50.47	-39.3	0-360
6	13.77009	37.97	Pk	11.4	0.4	-40	9.77	40.51	-30.74	0-360

9kHz-30MHz Data

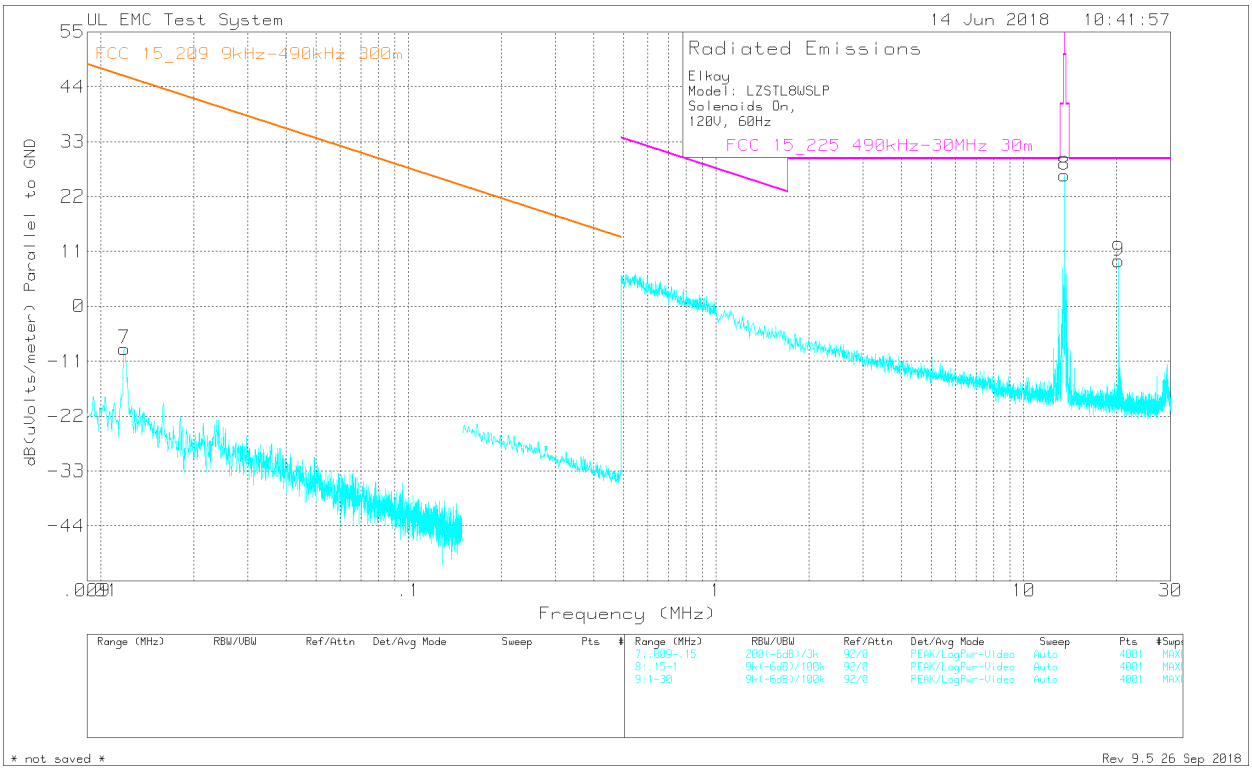
Receive Antenna Parallel to EUT



Receive Antenna Perpendicular to EUT

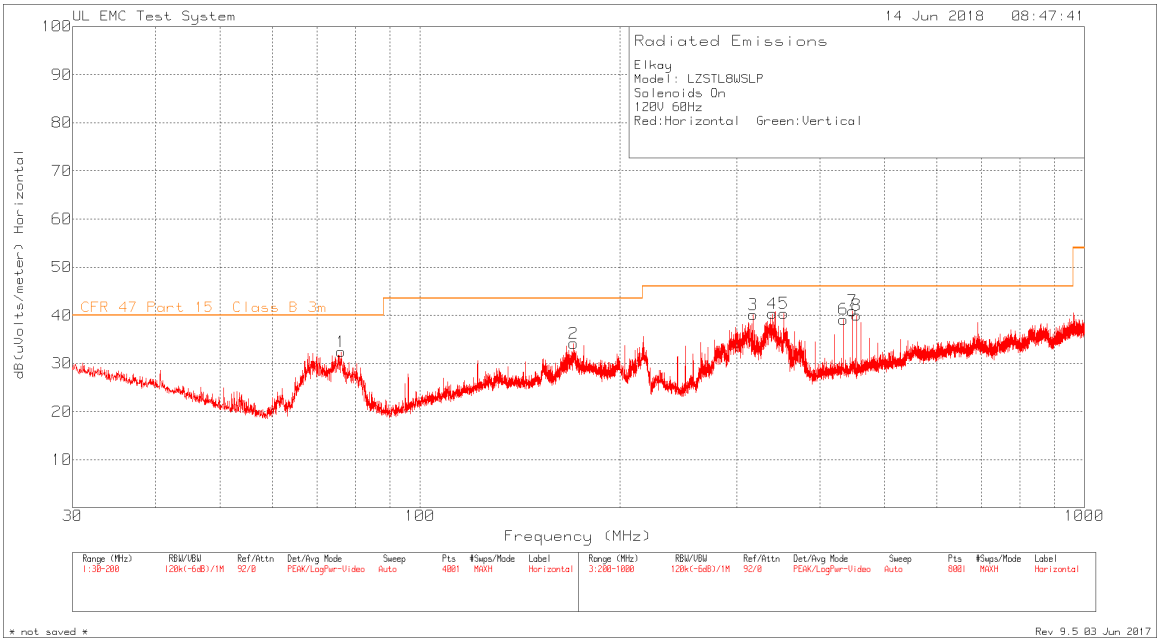


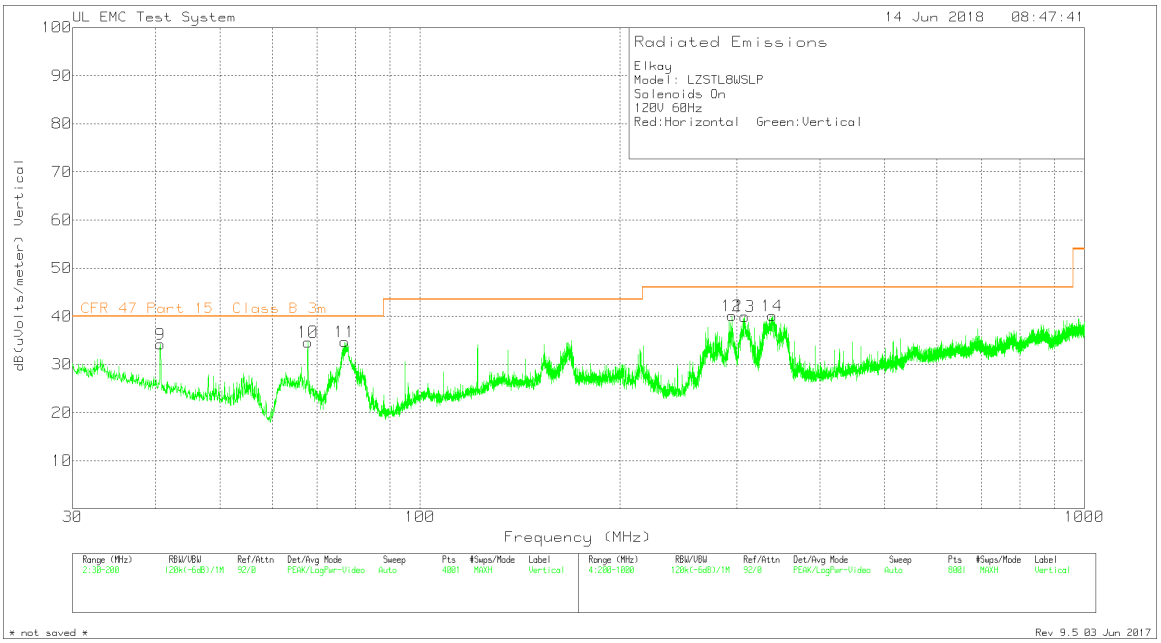
Receive Antenna Parallel to Ground



Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Distance Factor dB	Level dBuV/m	Limit FCC 15_209 9kHz-490kHz @ 300m dBuV/m	Margin (dB)	Limit FCC 15_225 490kHz-30MHz @ 30m dBuV/m	Margin (dB)	Azimuth [Degs]
1	0.011975	48.75	Pk	22.1	0	-80	-9.15	46.03	-55.18	-	-	0-360
2	13.56425	55.98	Pk	11.4	0.4	-40	27.78	-	-	84	-56.22	0-360
3	20.3285	30.34	Pk	10.6	0.5	-40	1.44	-	-	29.54	-28.1	0-360
4	0.01194	47.74	Pk	22.1	0	-80	-10.16	46.06	-56.22	-	-	0-360
5	13.56425	58.86	Pk	11.4	0.4	-40	30.66	-	-	84	-53.34	0-360
6	20.343	31.55	Pk	10.6	0.5	-40	2.65	-	-	29.54	-26.89	0-360
7	0.011905	49.38	Pk	22.1	0	-80	-8.52	46.08	-54.6	-	-	0-360
8	13.56425	54.49	Pk	11.4	0.4	-40	26.29	-	-	84	-57.71	0-360
9	20.343	38.05	Pk	10.6	0.5	-40	9.15	-	-	29.54	-20.39	0-360
Pk - Peak detector												

8.2.2. TX SPURIOUS EMISSION 30 TO 1000 MHz





Elkay

Model: LZSTL8WSLP

Solenoids On

120V 60Hz

Red:Horizontal Green:Vertical

Trace MArkers

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	10m to 3m Conversion dB	Level dBuV/m	CFR 47 Part 15.209 limit dBuV/m 3m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	76.0275	45.55	Pk	6.4	-30	10.5	32.45	40	-7.55	0-360	398	H
2	170.2075	37.88	Pk	15.2	-29.4	10.5	34.18	43.52	-9.34	0-360	248	H
9	40.6675	39.73	Pk	13.9	-29.9	10.5	34.23	40	-5.77	0-360	101	V
10	67.7825	48.25	Pk	6.1	-30.2	10.5	34.65	40	-5.35	0-360	251	V
11	77.09	47.7	Pk	6.5	-30	10.5	34.7	40	-5.3	0-360	398	V
3	317.2	44.78	Pk	13.8	-28.9	10.5	40.18	46.02	-5.84	0-360	199	H
4	339	43.96	Pk	14.4	-28.5	10.5	40.36	46.02	-5.66	0-360	199	H
5	352.8	43.13	Pk	15.2	-28.4	10.5	40.43	46.02	-5.59	0-360	199	H
6	433.9	40.19	Pk	16.5	-28	10.5	39.19	46.02	-6.83	0-360	99	H
7	447.5	41.74	Pk	16.9	-28.2	10.5	40.94	46.02	-5.08	0-360	199	H
8	454.3	41.35	Pk	16.7	-28.5	10.5	40.05	46.02	-5.97	0-360	399	H
12	294.6	45.5	Pk	13.2	-29.1	10.5	40.1	46.02	-5.92	0-360	98	V
13	308	45.06	Pk	13.3	-28.9	10.5	39.96	46.02	-6.06	0-360	299	V
14	338.8	43.83	Pk	14.4	-28.6	10.5	40.13	46.02	-5.89	0-360	299	V

Radiated Emissions Data

	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	10m to 3m Conversion dB	Level dBuV/m	CFR 47 Part 15.209 limit dBuV/m 3m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	40.6863	38.1	Qp	13.9	-29.9	10.5	32.6	40	-7.4	32	101	V
	298.3245	37.84	Qp	13.2	-29	10.5	32.54	46.02	-13.48	13	155	H
	339.0045	44.29	Qp	14.4	-28.5	10.5	40.69	46.02	-5.33	209	228	H
	352.5693	41.32	Qp	15.2	-28.6	10.5	38.42	46.02	-7.6	207	173	H
	447.4823	42.97	Qp	16.8	-28.2	10.5	42.07	46.02	-3.95	144	159	H
	339.0046	40.07	Qp	14.4	-28.5	10.5	36.47	46.02	-9.55	50	100	V

Pk - Peak Detector

Qp - Quasi-Peak detector

9. AC MAINS LINE CONDUCTED EMISSIONS

LIMITS

§15.207
IC RSS-GEN, Section 8.8

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges.

Frequency range (MHz)	Limits (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Notes: 1. The lower limit shall apply at the transition frequencies 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

TEST PROCEDURE

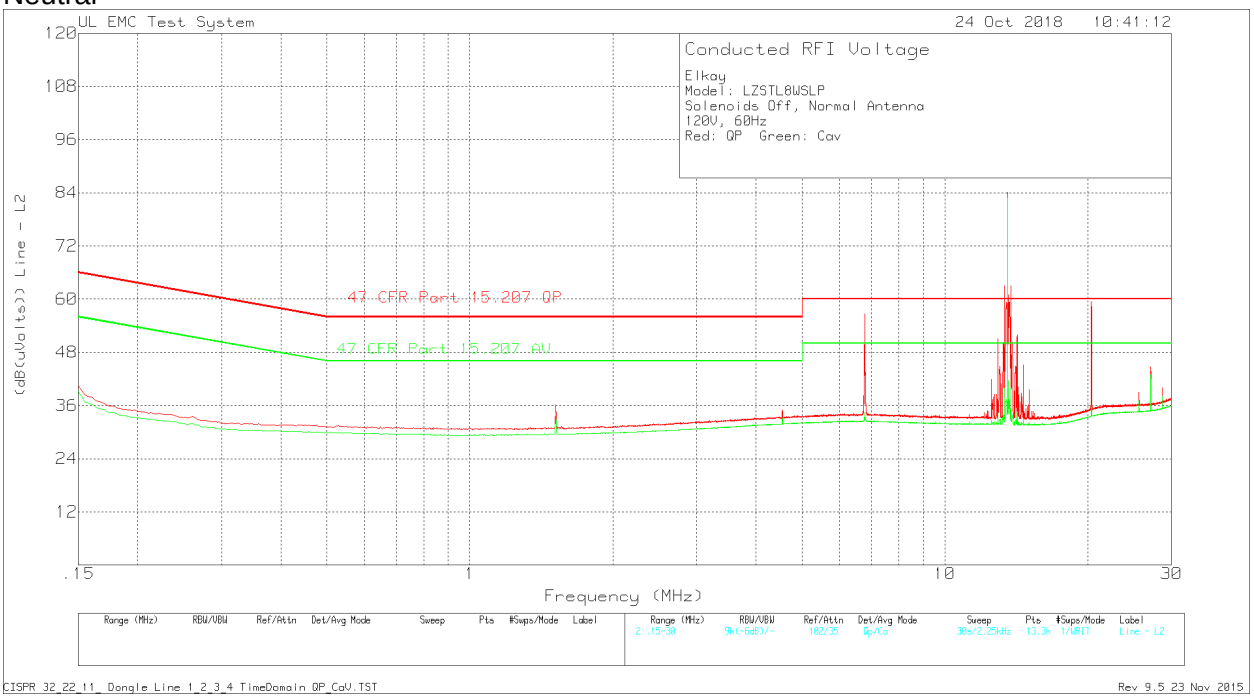
ANSI C63.10

RESULTS

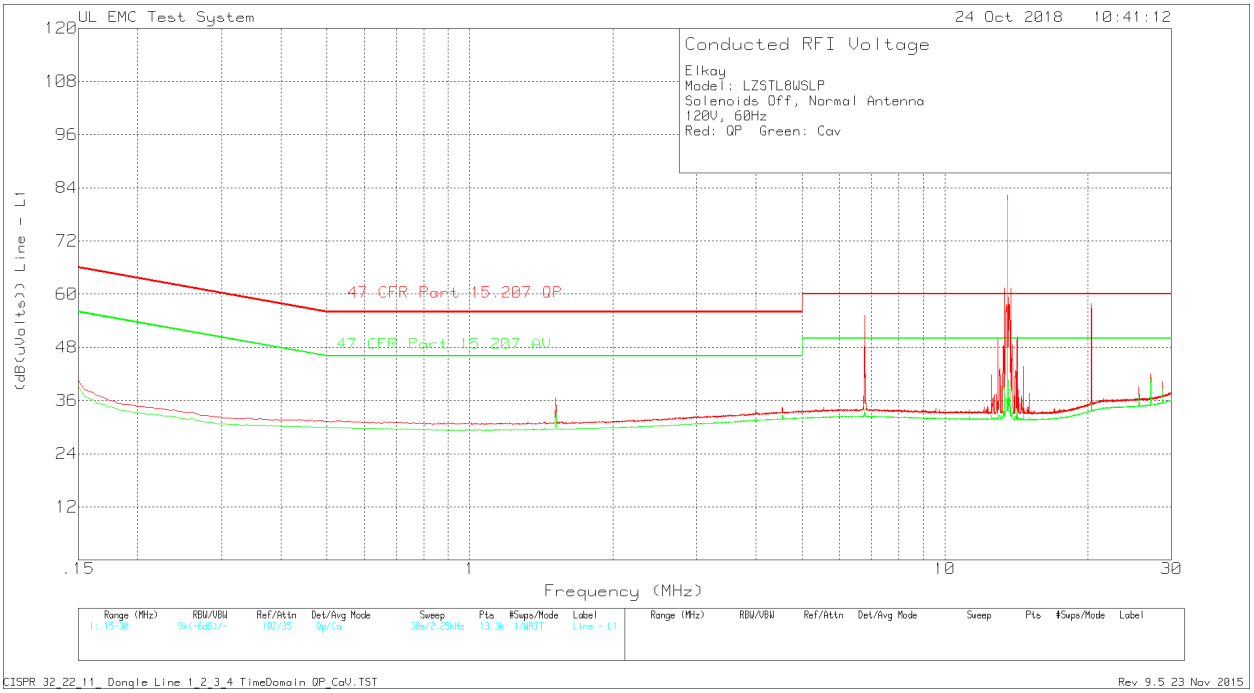
No non-compliance noted:

AC Line Conducted Emissions with normal antenna

Neutral



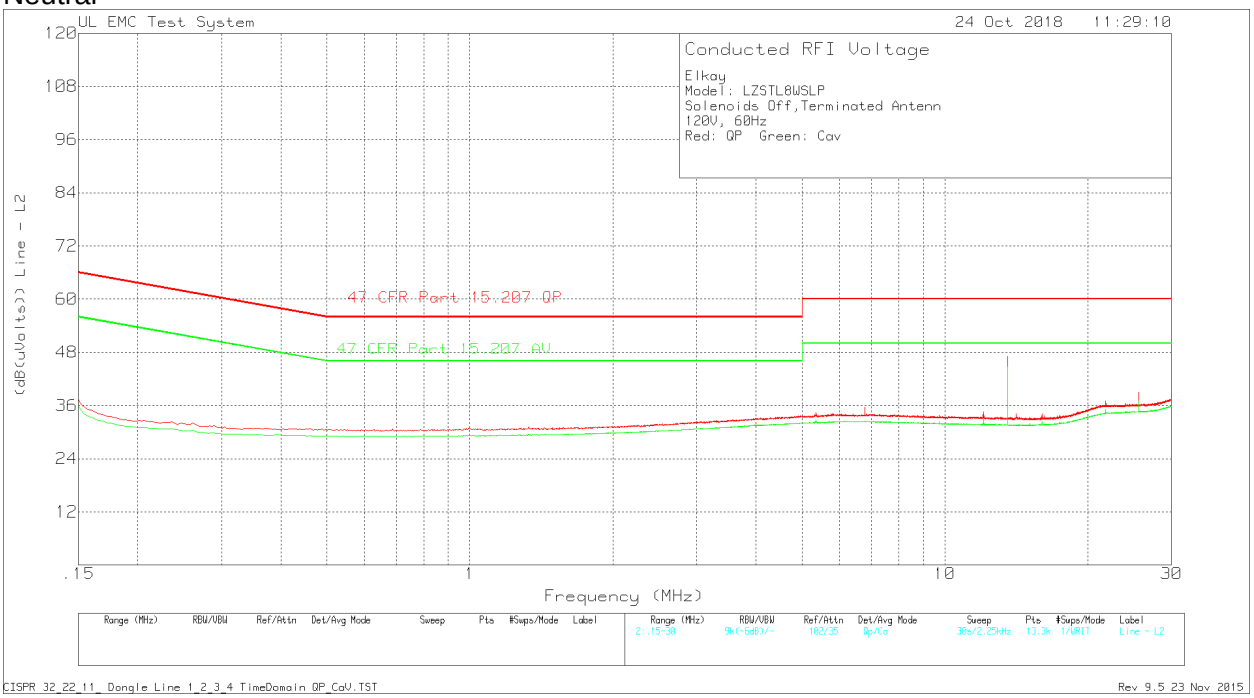
Line



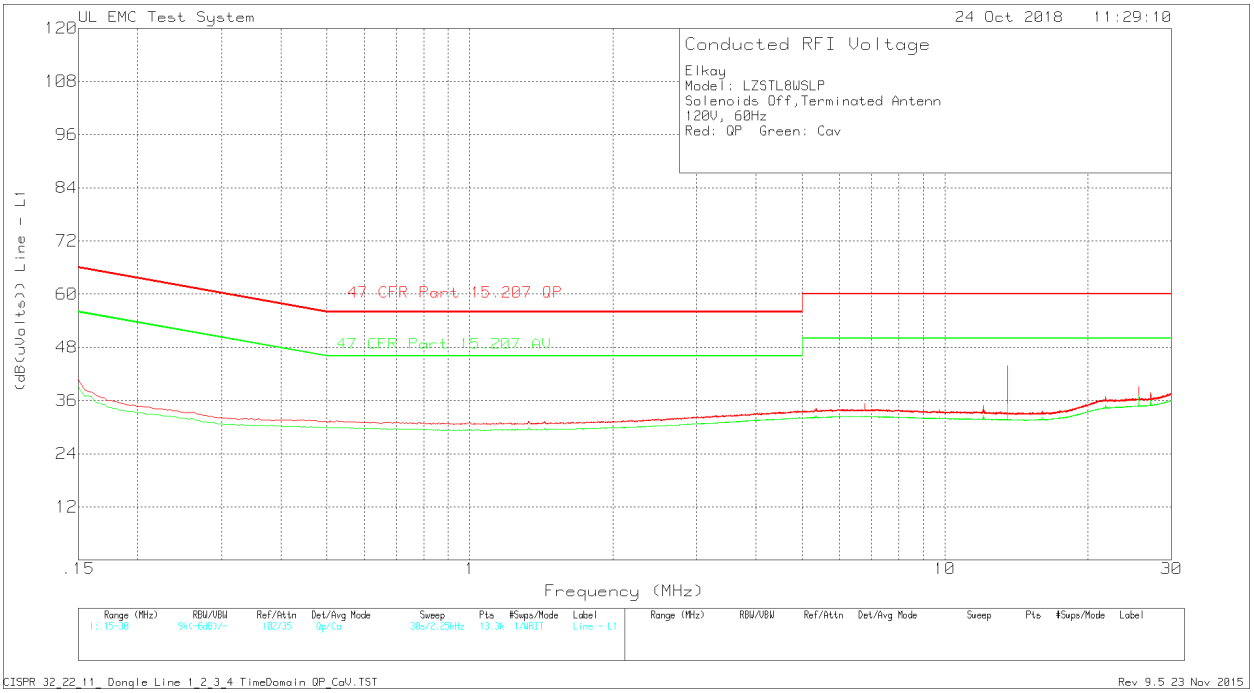
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	LISN factor dB	Path Factor dB	Doungle Factor dB	Level dBuV	47 CFR Part 15.207 QP	QP Margin (dB)	47 CFR Part 15.207 AV	Margin (dB)
Line										
6.77963	44.29	Qp	0	10.8	0.1	55.19	60	-4.81	-	-
6.77963	23.23	Ca	0	10.8	0.1	34.13	-	-	50	-15.87
12.93225	38.48	Qp	0	11.1	0.3	49.88	60	-10.12	-	-
12.93225	22.78	Ca	0	11.1	0.3	34.18	-	-	50	-15.82
13.27875	37.07	Qp	0	11.1	0.3	48.47	60	-11.53	-	-
13.27425	22.12	Ca	0	11.1	0.3	33.52	-	-	50	-16.48
13.35075	49.93	Qp	0	11.1	0.4	61.43	60	1.43	-	-
13.35075	27.5	Ca	0	11.1	0.4	39	-	-	50	-11
13.48125	46.21	Qp	0	11.1	0.4	57.71	60	-2.29	-	-
13.48125	25.1	Ca	0	11.1	0.4	36.6	-	-	50	-13.4
13.56	70.91	Qp	0	11.1	0.4	82.41	60	22.41	-	-
13.56	69.68	Ca	0	11.1	0.4	81.18	-	-	50	31.18
13.63875	46.18	Qp	0	11.1	0.4	57.68	60	-2.32	-	-
13.63875	25.1	Ca	0	11.1	0.4	36.6	-	-	50	-13.4
13.76925	49.91	Qp	0	11.1	0.4	61.41	60	1.41	-	-
13.76925	27.45	Ca	0	11.1	0.4	38.95	-	-	50	-11.05
13.848	37.03	Qp	0	11.1	0.4	48.53	60	-11.47	-	-
13.848	21.96	Ca	0	11.1	0.4	33.46	-	-	50	-16.54
14.18775	38.72	Qp	0	11.2	0.4	50.32	60	-9.68	-	-
14.18775	22.58	Ca	0	11.2	0.4	34.18	-	-	50	-15.82
20.33925	45.51	Qp	0.1	11.5	0.8	57.91	60	-2.09	-	-
20.33925	23.25	Ca	0.1	11.5	0.8	35.65	-	-	50	-14.35
Neutral										
6.7785	45.73	Qp	0	10.9	0.1	56.73	60	-3.27	-	-
6.78075	23.44	Ca	0	10.9	0.1	34.44	-	-	50	-15.56
12.93225	39.65	Qp	0	11.1	0.3	51.05	60	-8.95	-	-
12.93225	23.07	Ca	0	11.1	0.3	34.47	-	-	50	-15.53
13.27875	38.62	Qp	0	11.1	0.3	50.02	60	-9.98	-	-
13.27425	22.45	Ca	0	11.1	0.3	33.85	-	-	50	-16.15
13.35075	51.58	Qp	0	11.1	0.3	62.98	60	2.98	-	-
13.35075	28.5	Ca	0	11.1	0.3	39.9	-	-	50	-10.1
13.48125	47.97	Qp	0	11.1	0.3	59.37	60	-0.63	-	-
13.48125	26	Ca	0	11.1	0.3	37.4	-	-	50	-12.6
13.56	72.66	Qp	0	11.1	0.3	84.06	60	24.06	-	-
13.56	71.35	Ca	0	11.1	0.3	82.75	-	-	50	32.75
13.63875	47.97	Qp	0	11.1	0.3	59.37	60	-0.63	-	-
13.63875	25.95	Ca	0	11.1	0.3	37.35	-	-	50	-12.65
13.76925	51.66	Qp	0	11.1	0.3	63.06	60	3.06	-	-
13.76925	28.54	Ca	0	11.1	0.3	39.94	-	-	50	-10.06
13.84125	38.94	Qp	0	11.1	0.3	50.34	60	-9.66	-	-
13.848	22.48	Ca	0	11.1	0.3	33.88	-	-	50	-16.12
14.18775	40.38	Qp	0	11.2	0.4	51.98	60	-8.02	-	-
14.18775	23.1	Ca	0	11.2	0.4	34.7	-	-	50	-15.3
20.33925	47.27	Qp	0	11.5	0.7	59.47	60	-0.53	-	-
20.33925	23.79	Ca	0	11.5	0.7	35.99	-	-	50	-14.01
Qp - Quasi-Peak detector										
Ca - CISPR Average detection										

AC Line Conducted Emissions with antenna terminated with equivalent non-radiating impedance

Neutral



Line



Test Frequency (MHz)	Meter Reading (dBuV)	Detector	LISN Factor dB	Path Factor dB	Doungle Factor dB	Level dBuV	47 CFR Part 15.207 QP	QP Margin (dB)	47 CFR Part 15.207 AV	Margin (dB)
Line										
13.56	32.4	Qp	0	11.1	0.4	43.9	60	-16.1	-	-
13.56	23.86	Ca	0	11.1	0.4	35.36	-	-	50	-14.64
Neutral										
13.56	35.63	Qp	0	11.1	0.3	47.03	60	-12.97	-	-
13.56	33.3	Ca	0	11.1	0.3	44.7	-	-	50	-5.3
Qp - Quasi-Peak detector										
Ca - CISPR Average detection										

10. FREQUENCY STABILITY

LIMIT

§15.225 (e) The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency, over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

RSS-210 Annex B.6: Carrier frequency stability shall be maintained to ±0.01% (±100 ppm).

TEST PROCEDURE

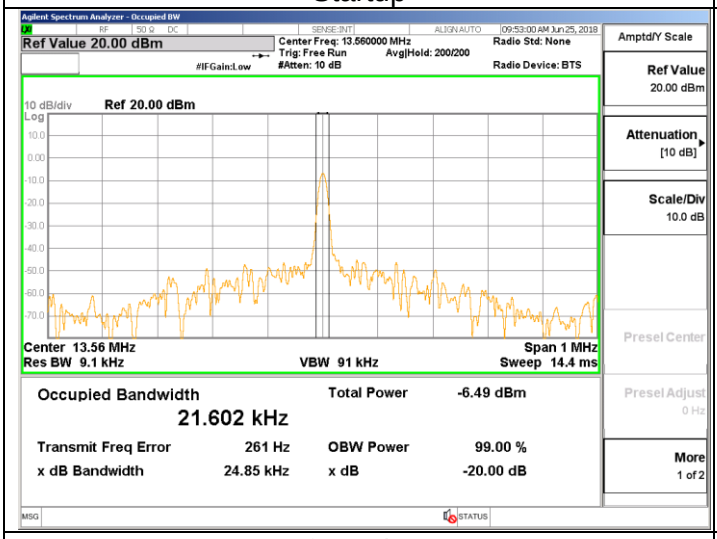
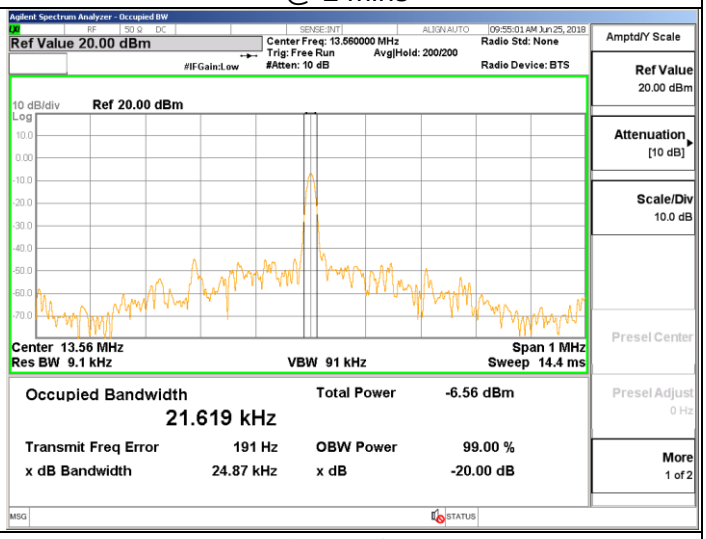
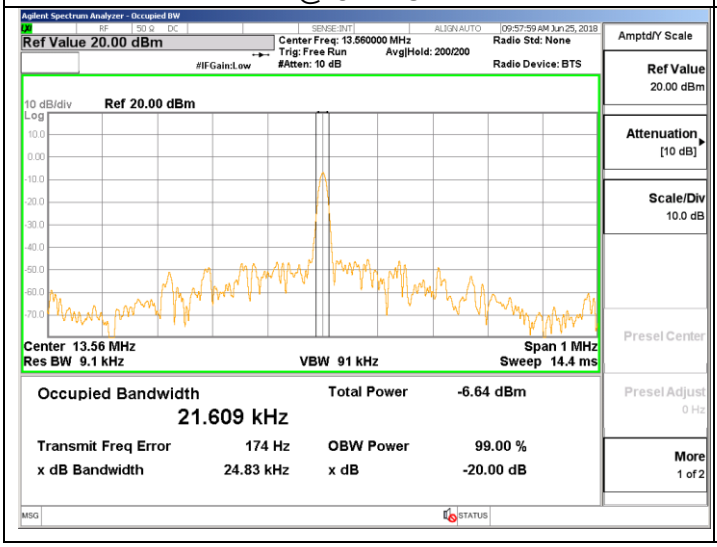
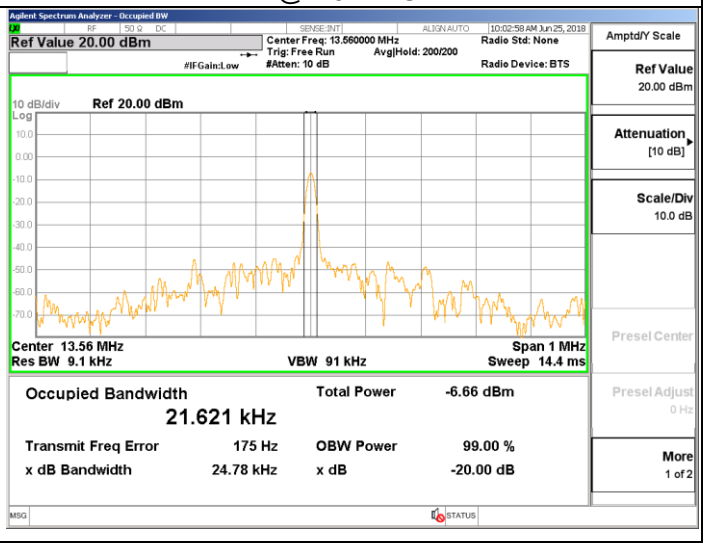
ANSI 63.10:2013 Clause 6.8.1 and 6.8.2

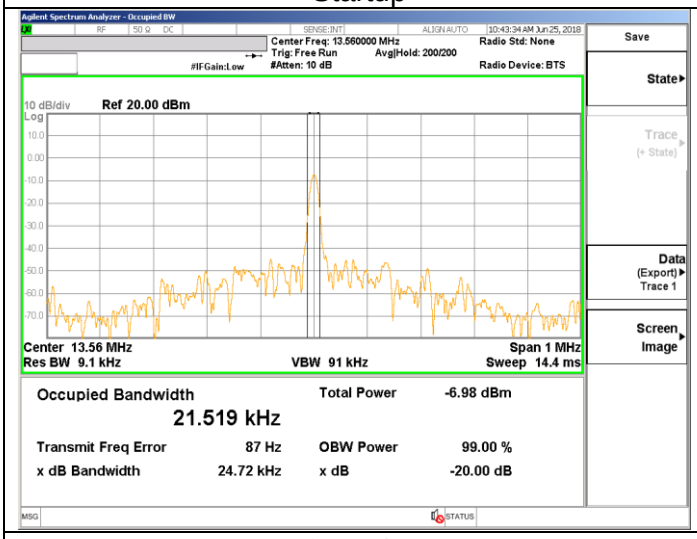
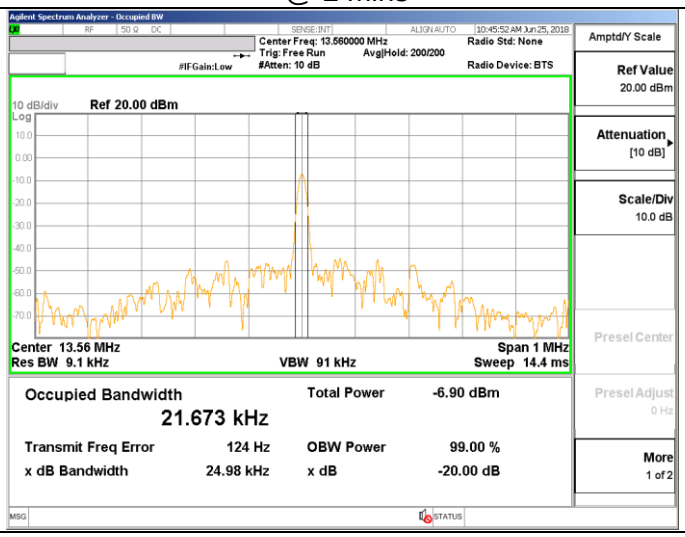
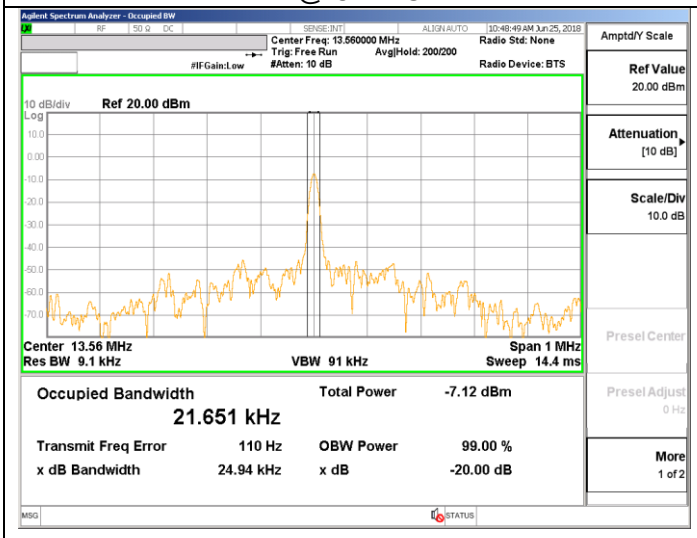
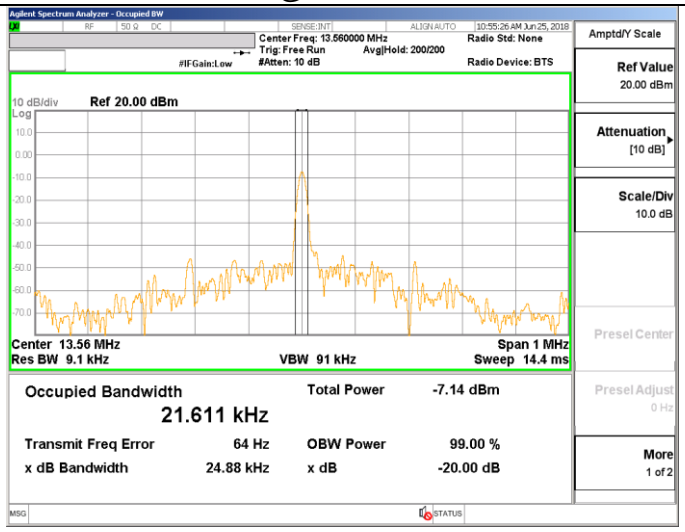
RESULTS

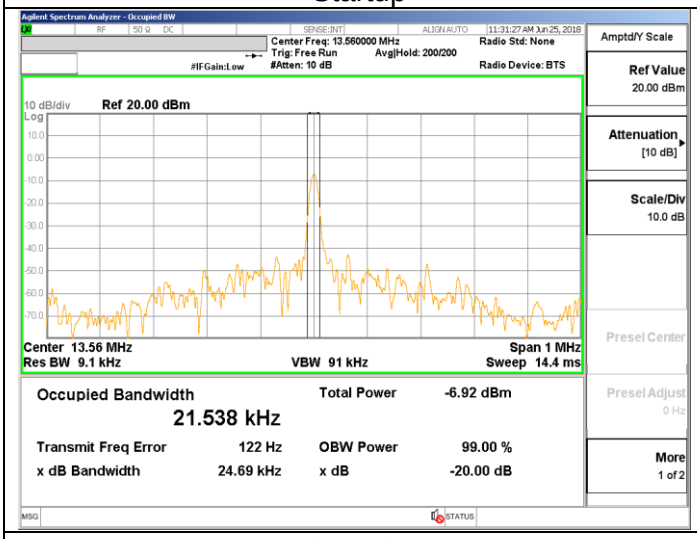
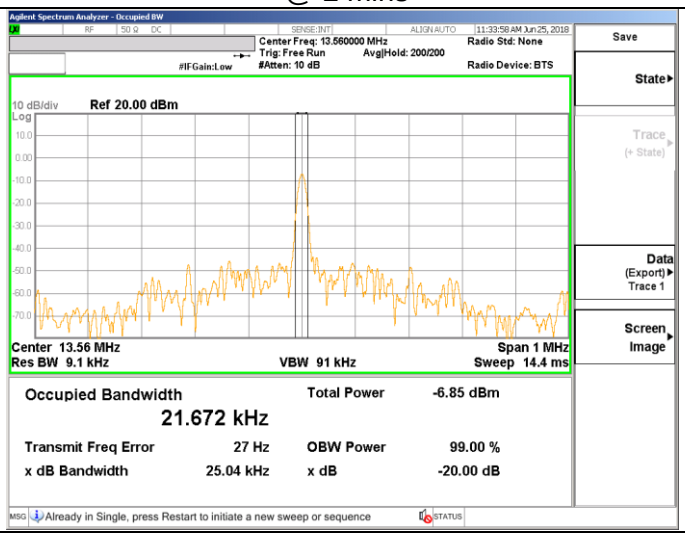
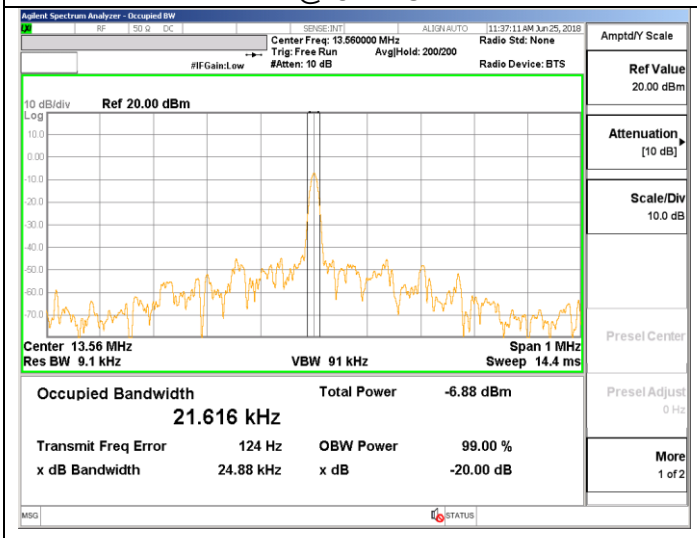
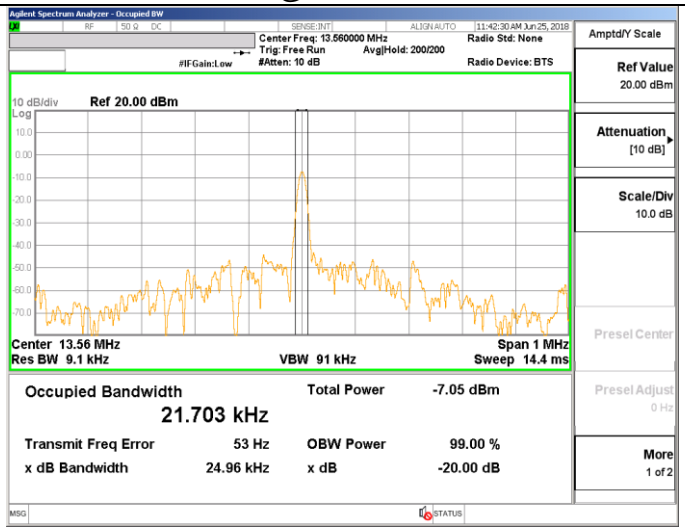
Reference Frequency: EUT Channel 13.56 MHz @ 20ºC Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measureed with Time Elapse								
(VDC)	(ºC)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
5.00	50	13.5600870	12.832	13.5601240	10.103	13.5601100	11.136	13.5600640	14.528	± 100
5.00	40	13.5601220	10.251	13.5600270	17.257	13.5601240	10.103	13.5600530	15.339	± 100
5.00	30	13.5600780	13.496	13.5601690	6.785	13.5600970	12.094	13.5601720	6.563	± 100
5.00	***20***	***13.5602610***	***0.000***	***13.5601910***	***5.162***	***13.5601740***	***6.416***	***13.5601750***	***6.342***	***± 100***
5.00	10	13.5601750	6.342	13.5602590	0.147	13.5602600	0.074	13.5602110	3.687	± 100
5.00	0	13.5602300	2.286	13.5602700	-0.664	13.5601560	7.743	13.5602370	1.770	± 100
5.00	-10	13.5601950	4.867	13.5602050	4.130	13.5602090	3.835	13.5602620	-0.074	± 100
5.00	-20	13.5602300	2.286	13.5602080	3.909	13.5600880	12.758	13.5602150	3.392	± 100
4.25	20	13.5601850	5.605	13.5601710	6.637	13.5601430	8.702	13.5601670	6.932	± 100
5.75	20	13.5601420	8.776	13.5601490	8.260	13.5602110	3.687	13.5602260	2.581	± 100

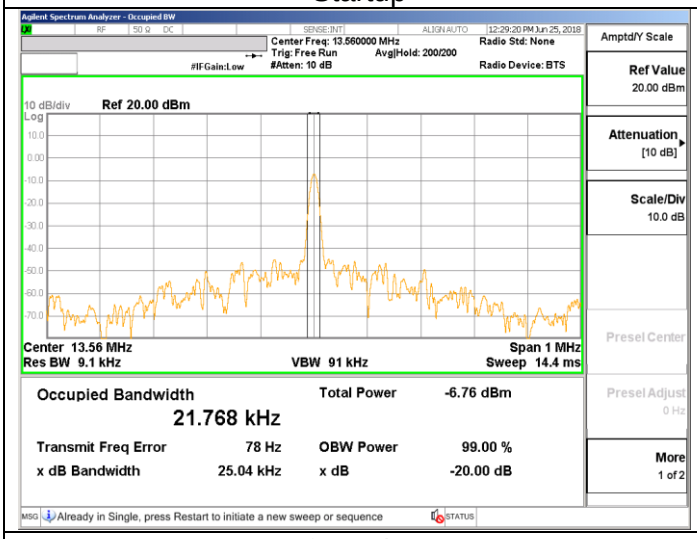
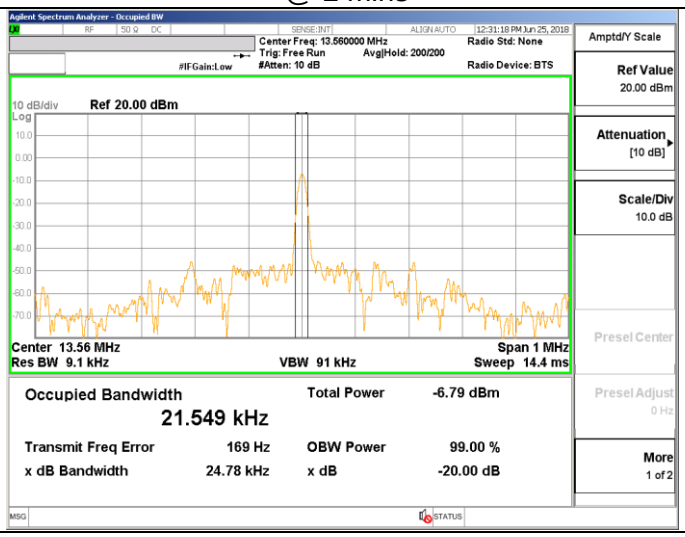
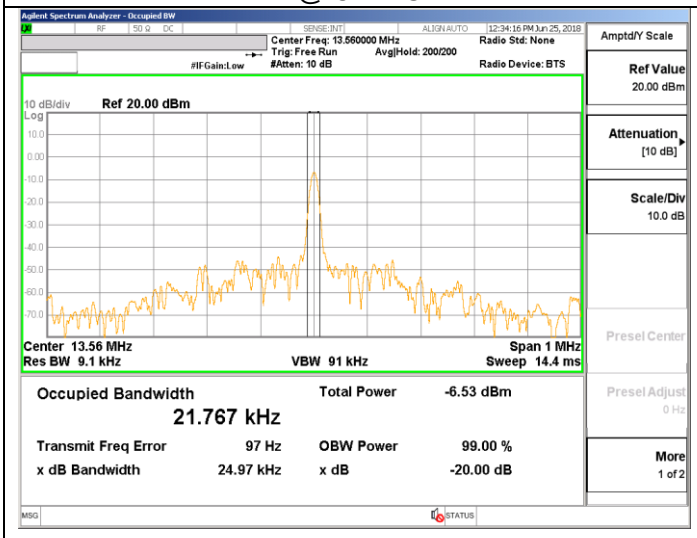
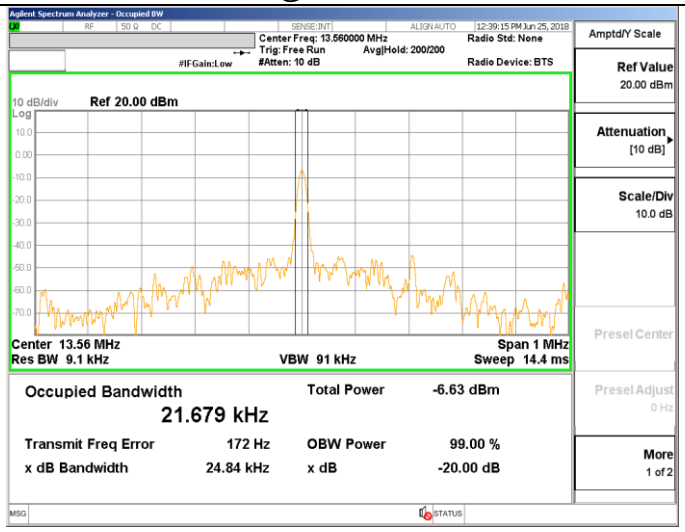
TEST INFORMATION

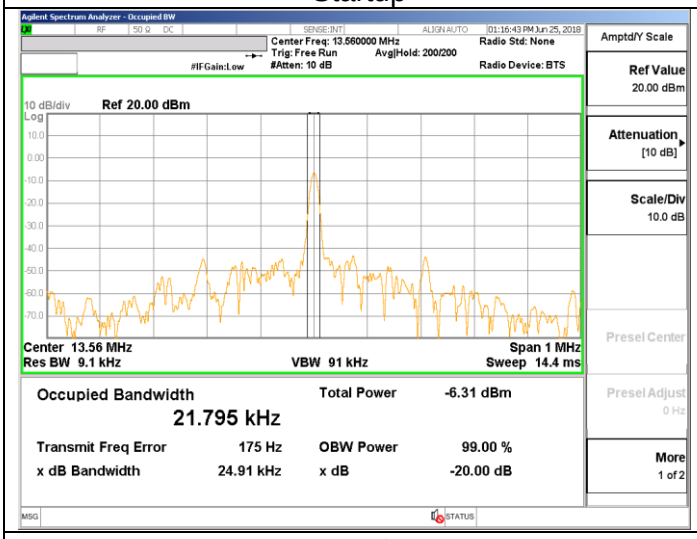
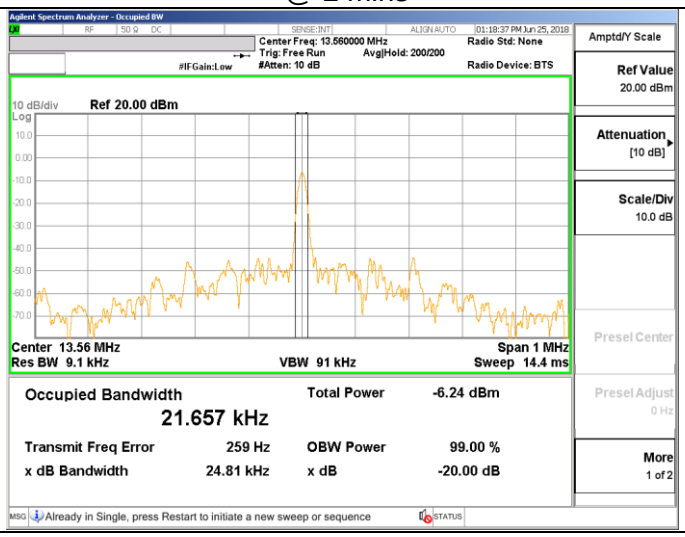
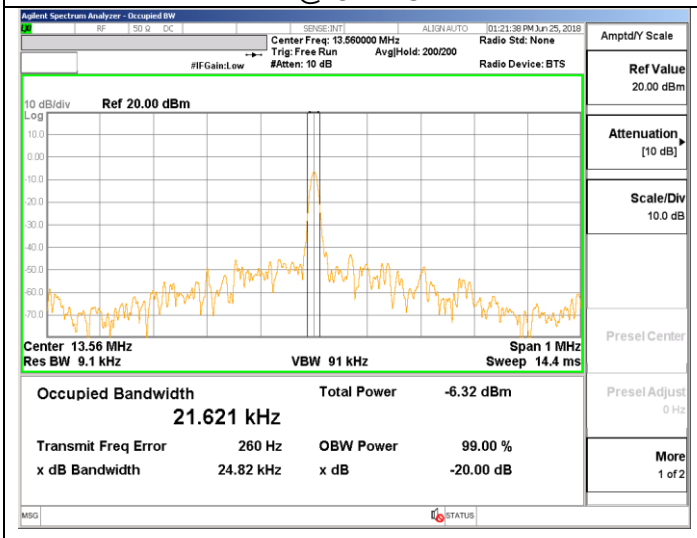
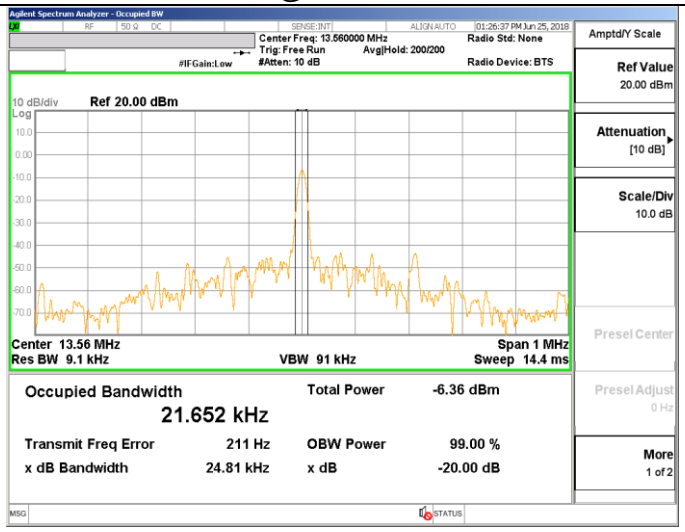
Date – 2018-06-25, 2018-06-26
Project No: 12358755
Tester: 14642 SD

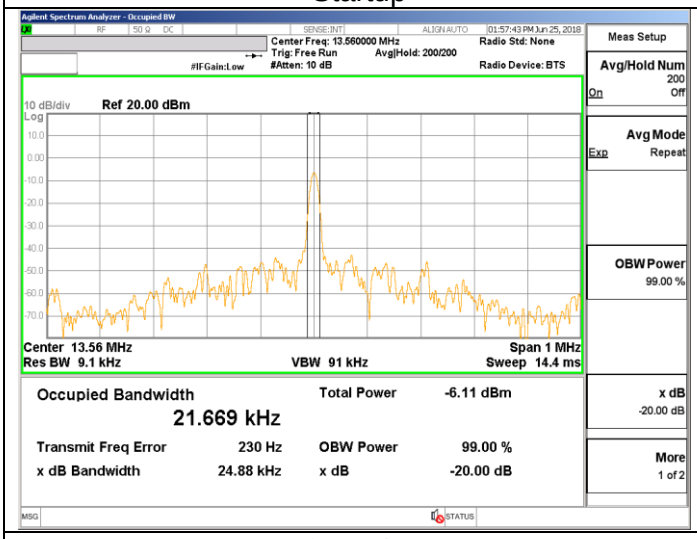
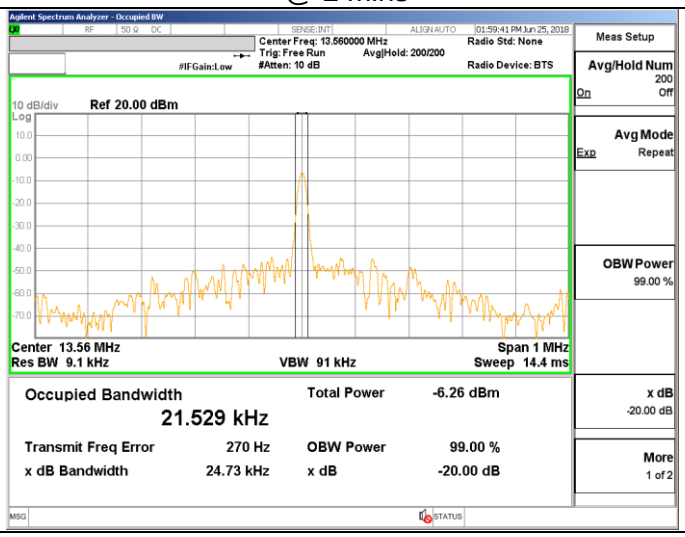
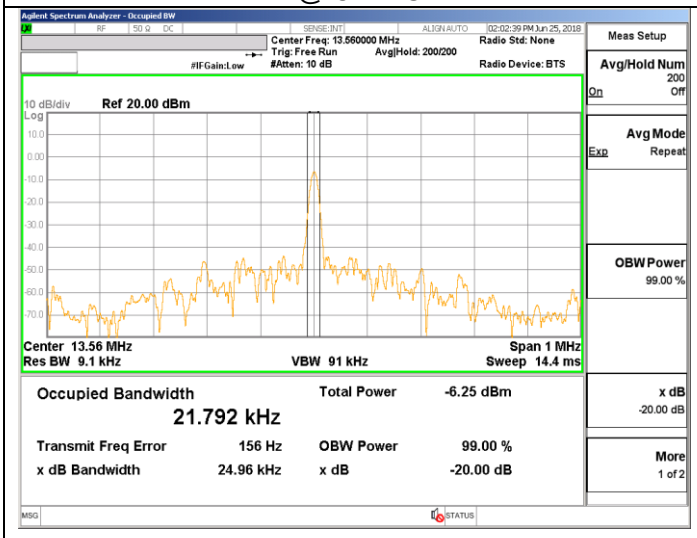
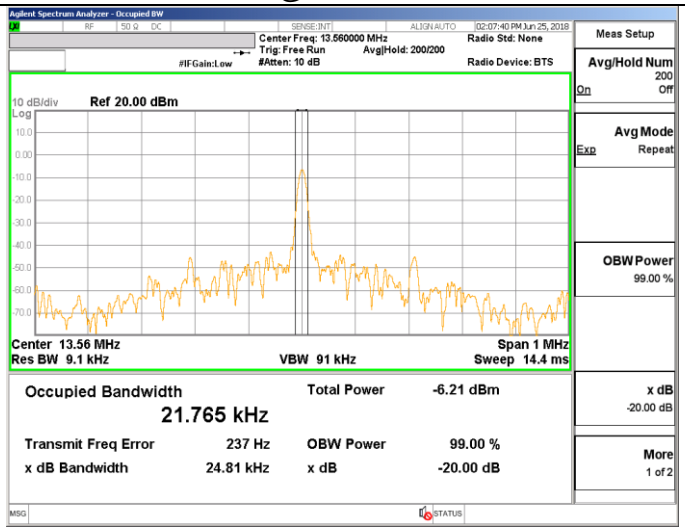
Temperature: 20°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

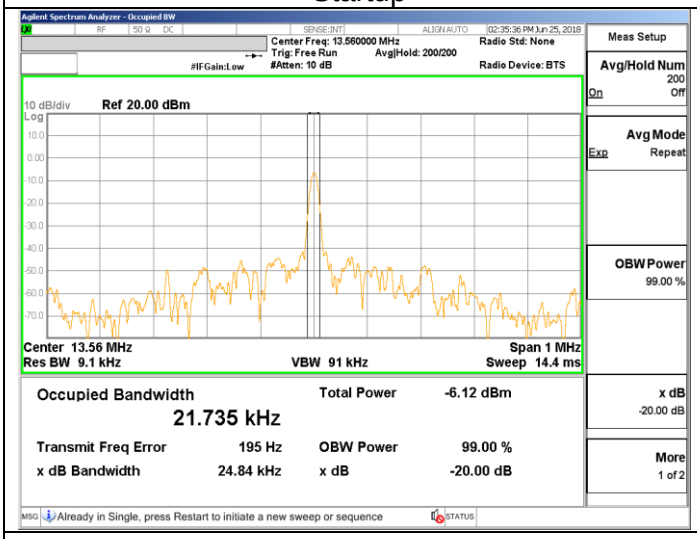
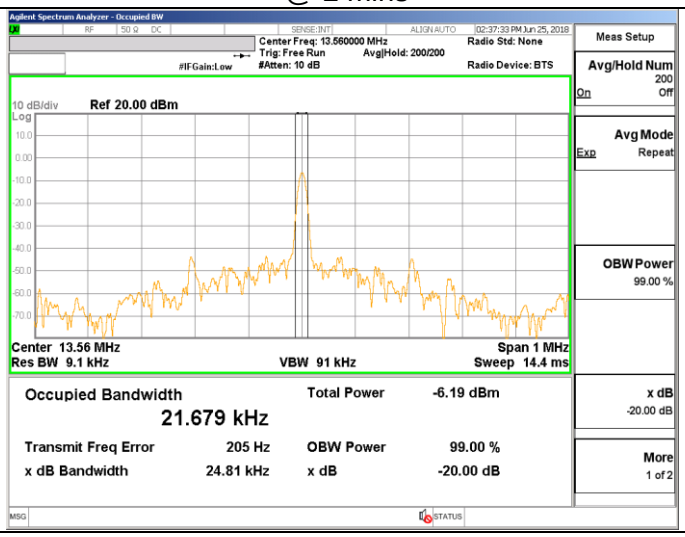
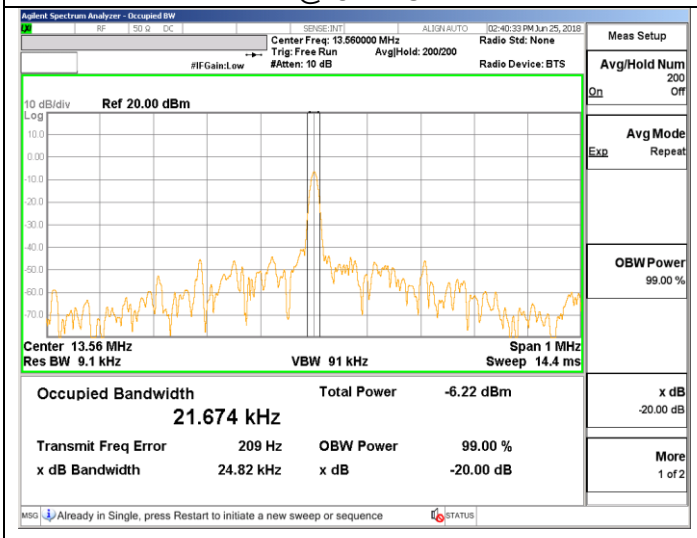
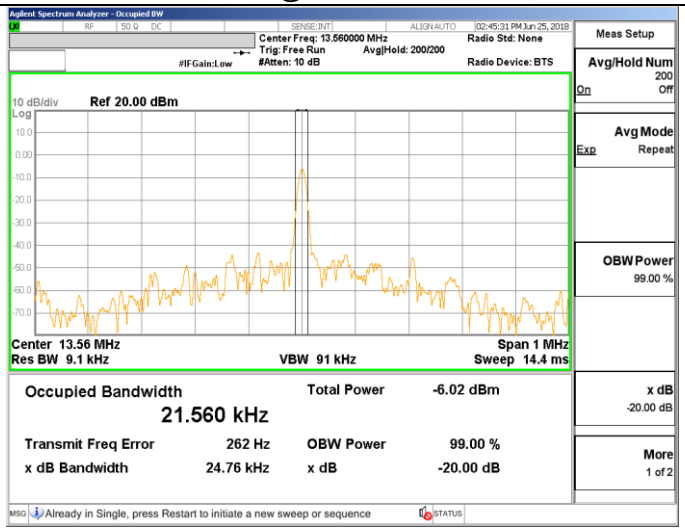
Temperature: 50°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

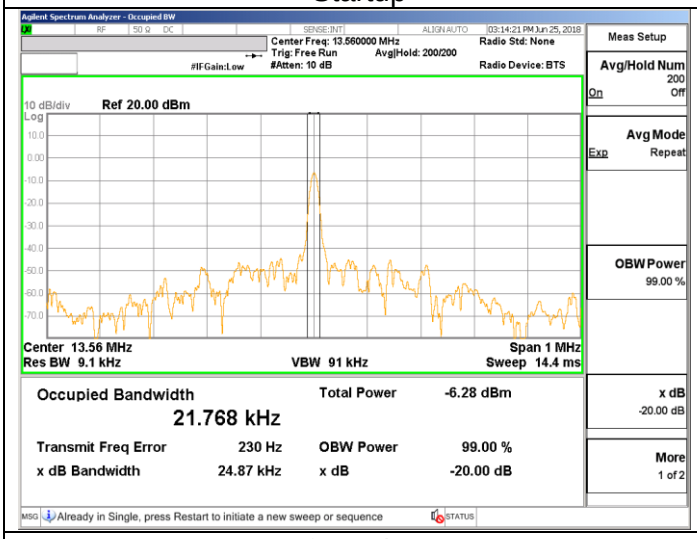
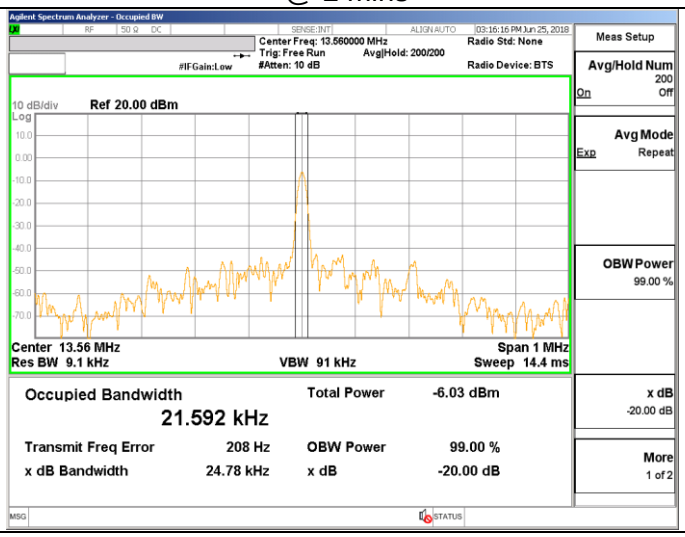
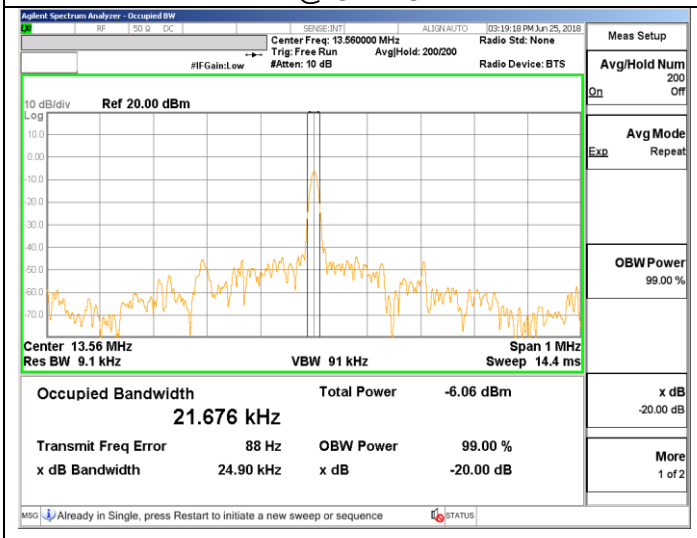
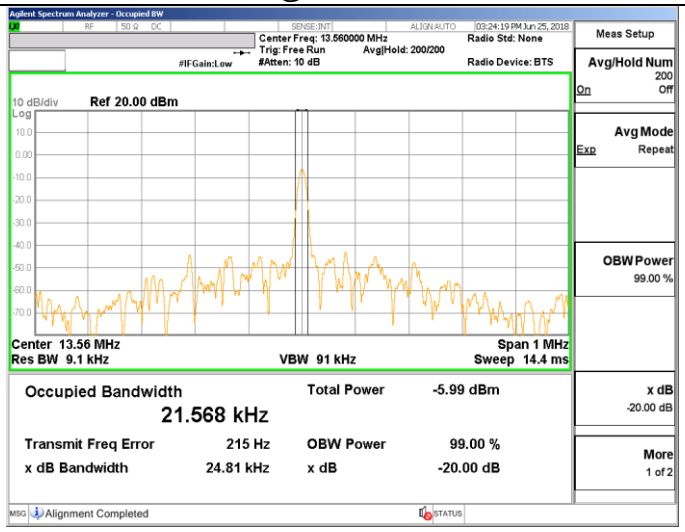
Temperature: 40°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

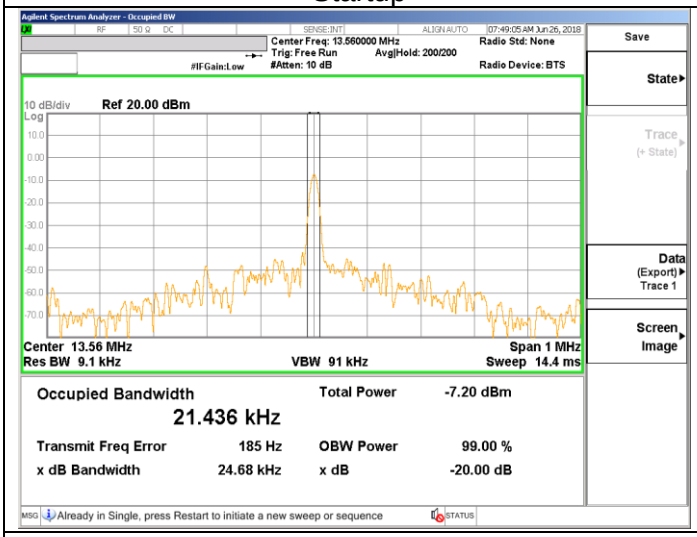
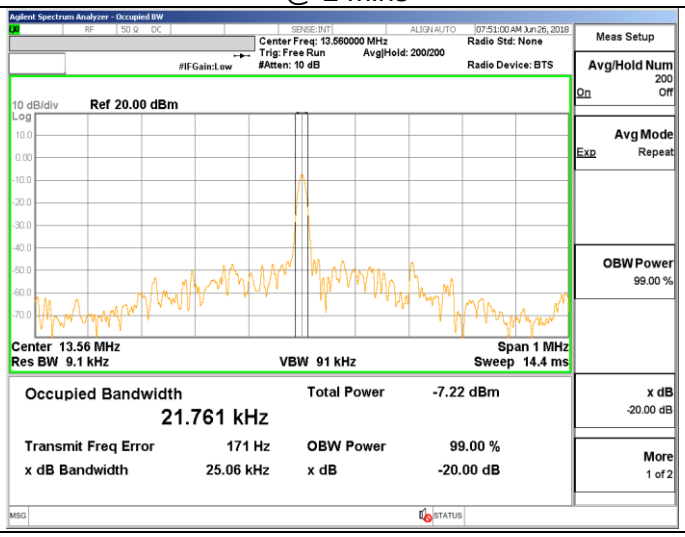
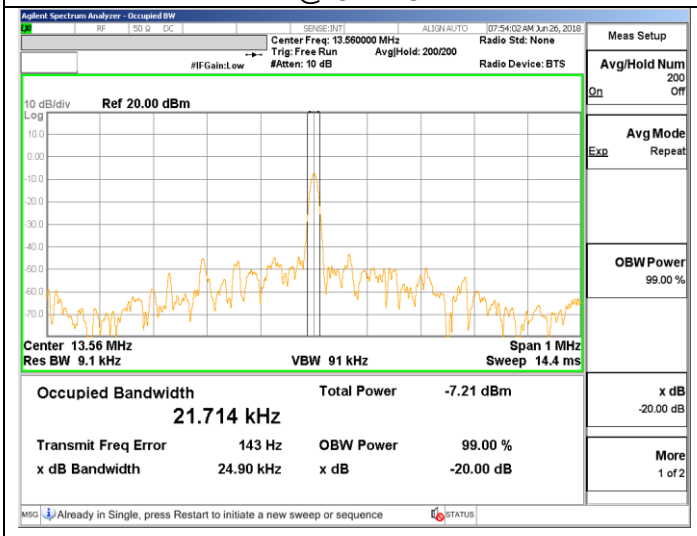
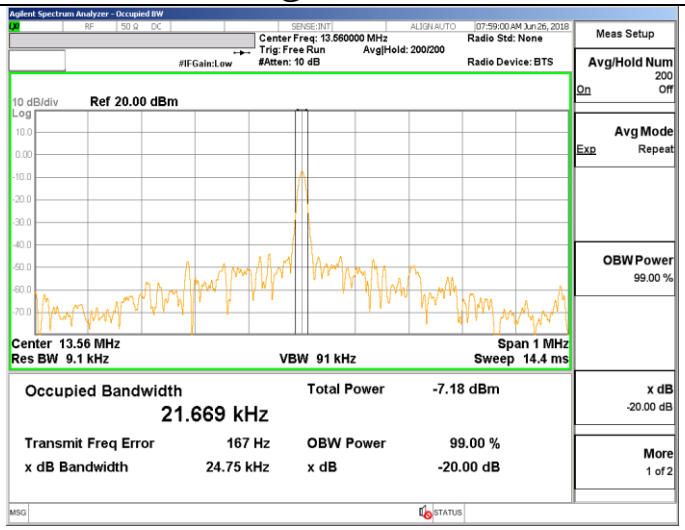
Temperature: 30°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

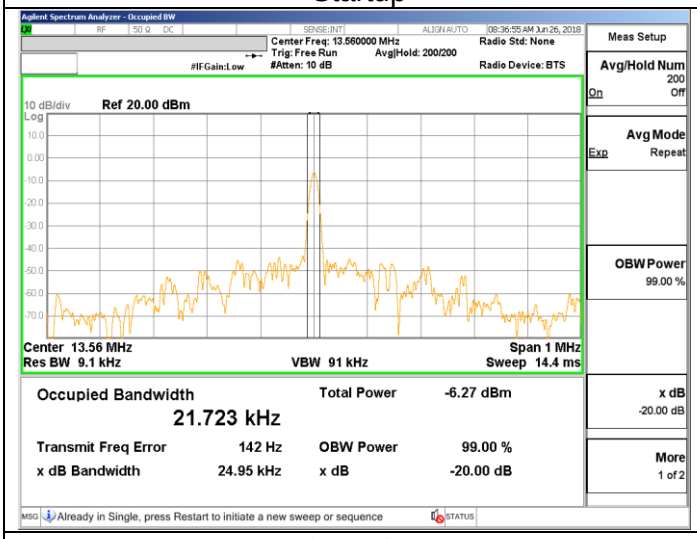
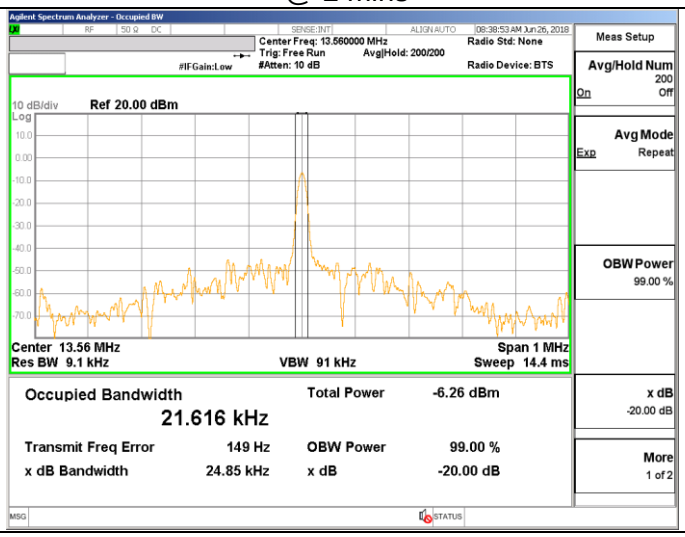
Temperature: 10°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

Temperature: 0°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

Temperature: -10°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

Temperature: -20°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

85% of Rated Supply Voltage (4.25 V), Temperature: 20°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins
	

115% of Rated Supply Voltage (5.75 V), Temperature: 20°C	
Startup	@ 2 mins
	
@ 5 mins	@ 10 mins