



FCC CFR47 PART 15 SUBPART C

NFC

CERTIFICATION TEST REPORT

FOR

DTS b/g/n, LE and NFC player

MODEL NUMBER : IWINGTV 100

FCC ID: 2AUMM-IWING100

REPORT NUMBER: 4789155370-E3V2

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ACCREDITED

Testing Laboratory

TL-637

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	11/08/19	Initial issue	Hoonpyo, Lee
V2	11/19/19	Updated to address about the TCB's question	Hoonpyo, Lee

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: MFLARE CO.,LTD
EUT DESCRIPTION: DTS b/g/n, LE and NFC player
MODEL NUMBER: IWINGTV 100
SERIAL NUMBER: #2
DATE TESTED: SEP 18, 2019 – NOV 18, 2019;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass

UL Korea, Ltd. 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 Korea, Ltd. 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 Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. 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 IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Korea, Ltd. By:



Changyoung Choi
Suwon Lab Engineer
UL Korea, Ltd.

Tested By:



Hoonpyo Lee
Suwon Lab Engineer
UL Korea, Ltd.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.
3. ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. 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.

218 Maeyeong-ro	
<input checked="" type="checkbox"/>	Chamber 1
<input checked="" type="checkbox"/>	Chamber 2
<input type="checkbox"/>	Chamber 3

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <http://www.iasonline.org/wp-content/uploads/2017/05/TL-637.pdf>.

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

Where relevant, the following sample calculation is provided:

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	2.35 dB
Radiated Disturbance, 9 kHz to 30 MHz	1.72 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.49 dB

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

4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 1, Clause 4.4.2 in IEC Guide 115:2007.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a DTS b/g/n, LE and NFC player.
This test report addresses the DXX (NFC) operational mode.

5.2. MAXIMUM E-FIELD STRENGTH

The testing was performed at 3 meter. The transmitter maximum E-field at 30m distance is 14.87 dBuV/m which convert from 3 meter data.

5.3. WORST-CASE CONFIGURATION AND MODE

The NFC function was tested at its' fundamental and only operational frequency of 13.56 MHz. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z. It was determined that the X orientation was the worst-case orientation; therefore all final radiated testing was performed with the EUT in the X orientation while generating continuous emissions.

Radiated(fundamental level and spurious emissions below 30MHz) tests were performed both without reading a passive tag condition[test mode] and with reading a passive tag condition.

Note : The radiated tests for 30MHz ~1000MHz were performed with monitor for the worst case condition mode. The remaining tests were similar or worst in standalone.

5.4. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

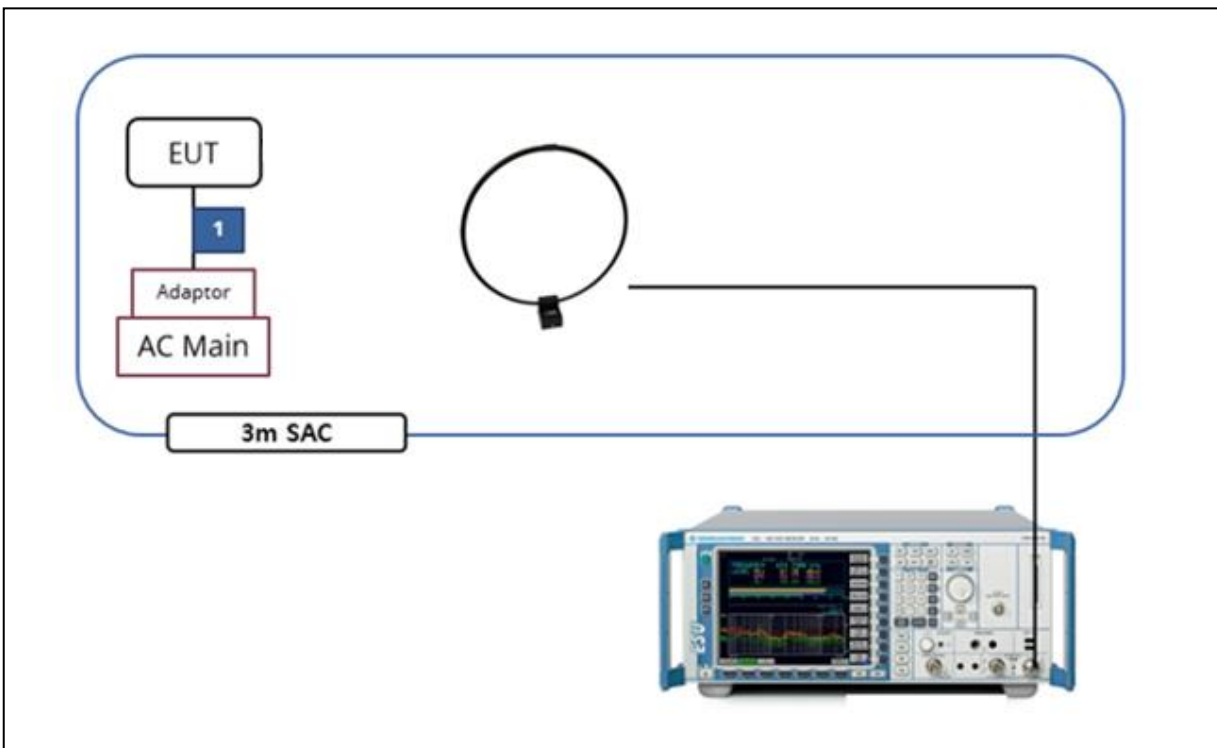
Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Adapter	SAMSUNG	EP-TA200	R37M14P3GY1SE3	N/A
Micro USB Cable	N/A	N/A	N/A	N/A
Monitor	SAMSUNG	LS24PULKF/EN	PU24H9XZ201088Y	N/A
Adapter (For Monitor)	SAMSUNG	ADS-30SI-12-2	N/A	N/A
HDMI Cable	SONY	N/A	N/A	N/A

TEST SETUP

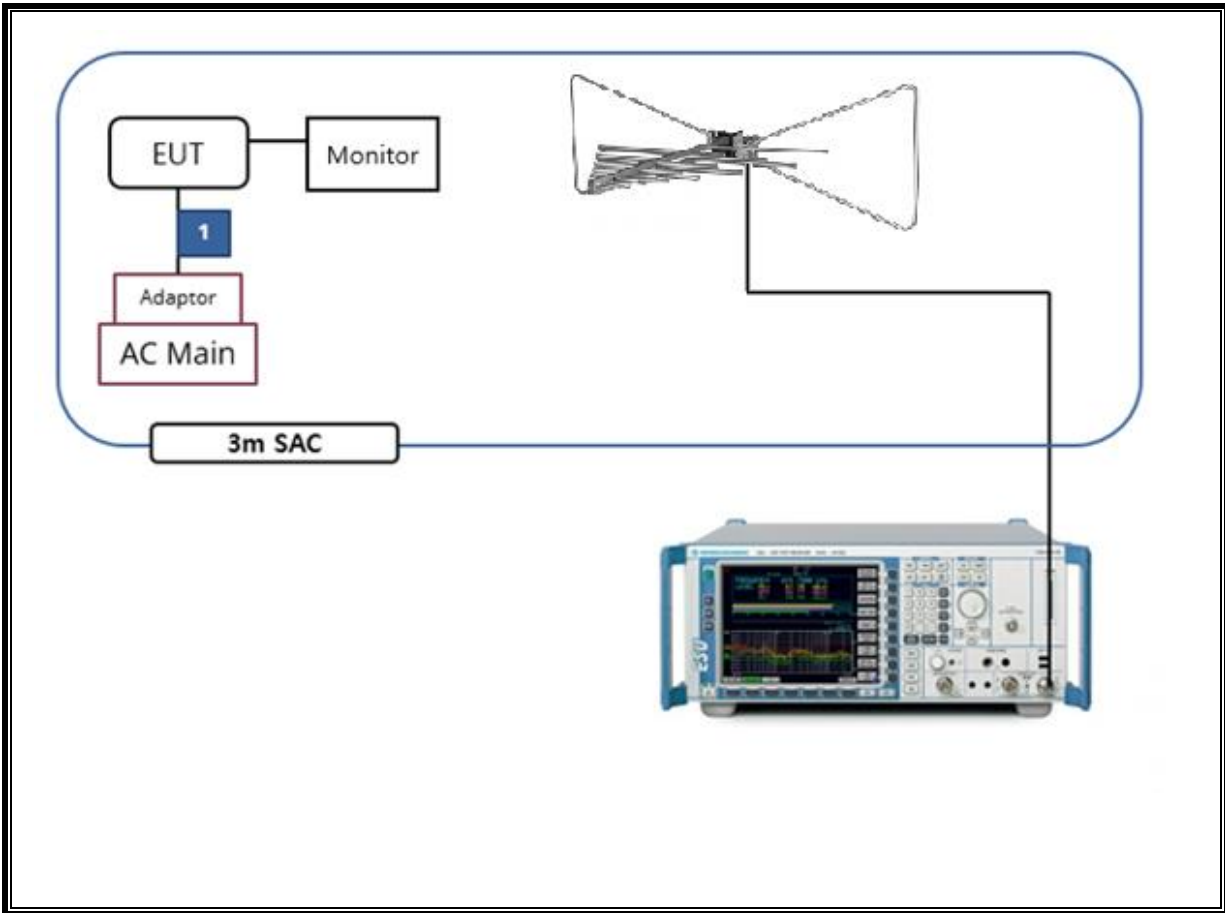
The EUT transmitted continuously. Modulation type is ISO/IEC14443 Type A.

SETUP DIAGRAM FOR TESTS

Radiated Emissions Below 30 MHz:



Radiated Emissions Above 30 MHz:



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	S/N	Cal Due
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	10-02-21
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	08-04-20
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	08-04-20
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	08-04-20
Preamplifier, 1000 MHz	Sonoma	310N	341282	08-05-20
Preamplifier, 1000 MHz	Sonoma	310N	370599	08-05-20
Preamplifier, 1000 MHz	Sonoma	310N	351741	08-05-20
Spectrum Analyzer, 7 GHz	Agilent / HP	N9010A	MY54200580	08-07-20
EMI Test Receive, 3 GHz	R&S	ESR3	101832	08-05-20
DC Power Supply	Agilent / HP	E3640A	MY54226395	08-06-20
Temperature Chamber	ESPEC	PL-3J	15011850	08-06-20
LISN	R&S	ENV216	101837	08-09-20
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	
AC Line Conducted software	UL	UL EMC	Ver 9.5	

6. 20dB BANDWIDTH

LIMITS

§15.215

(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated

§15.225

Operation within the band 13.110 – 14.010MHz

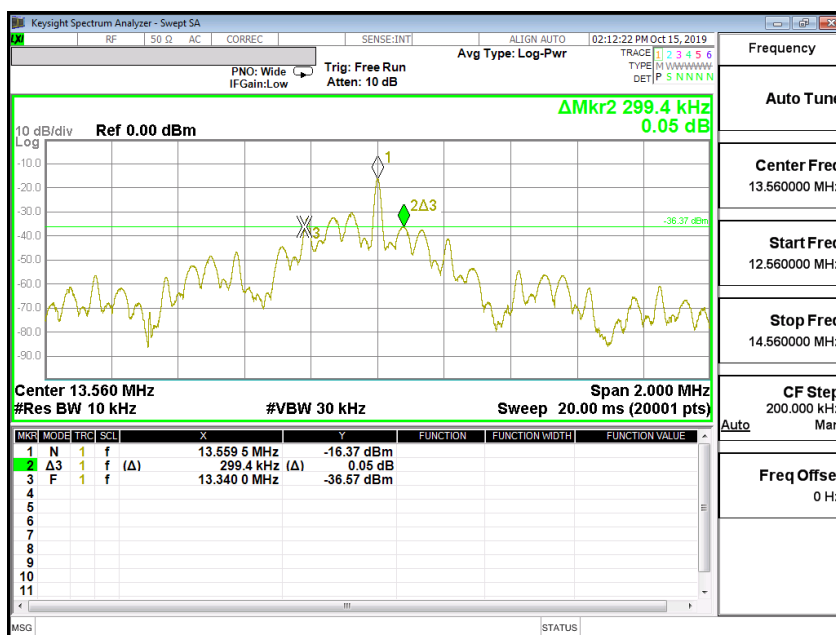
TEST PROCEDURE

The spectrum analyzer connected receive antenna and the EUT placed on near the receive antenna. The RBW is set to 10 kHz. The VBW is set to 3 times the RBW. The sweep time is coupled.

RESULTS

Frequency [MHz]	20dB Bandwidth [kHz]
13.56	299.40

20dB Bandwidth Plot



7. RADIATED EMISSION TEST RESULTS

7.1. LIMITS AND PROCEDURE

LIMIT

§15.225

(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)

In addition:

§15.209 (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.

§15.209 (d) The provisions in §§ 15.225, measuring emissions at distances other than the distances specified in the above table, determining the frequency range over which radiated emissions are to be measured, and limiting peak emissions apply to all devices operated under this part.

TEST PROCEDURE

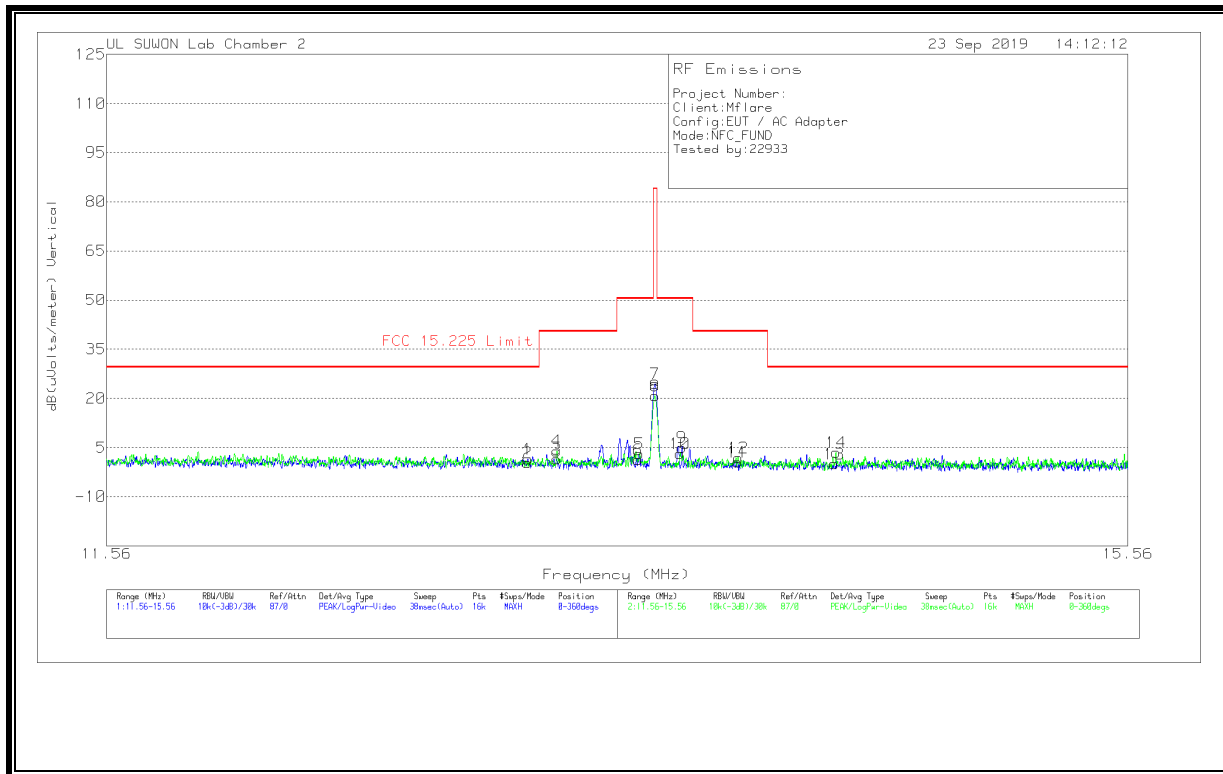
ANSI C63.10-2013

The EUT is an intentional radiator that incorporates a digital device. The highest fundamental frequency generated or used in the device is 13.56 MHz. The frequency range was investigated from 0.15 MHz to the 10th harmonic of the highest fundamental frequency, or 1000 MHz, whichever is greater (1000MHz)

RESULTS

No non-compliance noted:

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



Trace Markers

[Face-On]

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna	Dist Corr 30m	Cable Loss	Corrected Reading dB(uVolts/meter)	FCC 15.225 Limit	Margin (dB)	Azimuth (Degs)
1	13.06738	21.01	Pk	19.9	-40	.5	1.41	29.54	-28.13	0-360
3	13.17688	21.15	Pk	19.9	-40	.5	1.55	40.51	-38.96	0-360
5	13.49788	22.77	Pk	19.9	-40	.5	3.17	50.5	-47.33	0-360
**7	13.56025	44.03	Pk	19.9	-40	.5	24.43	84	-59.57	0-360
9	13.66575	24.45	Pk	19.9	-40	.6	4.95	50.5	-45.55	0-360
11	13.89038	20.22	Pk	19.8	-40	.6	.62	40.51	-39.89	0-360
13	14.286	19.6	Pk	19.8	-40	.6	0	29.54	-29.54	0-360

[Face-Off]

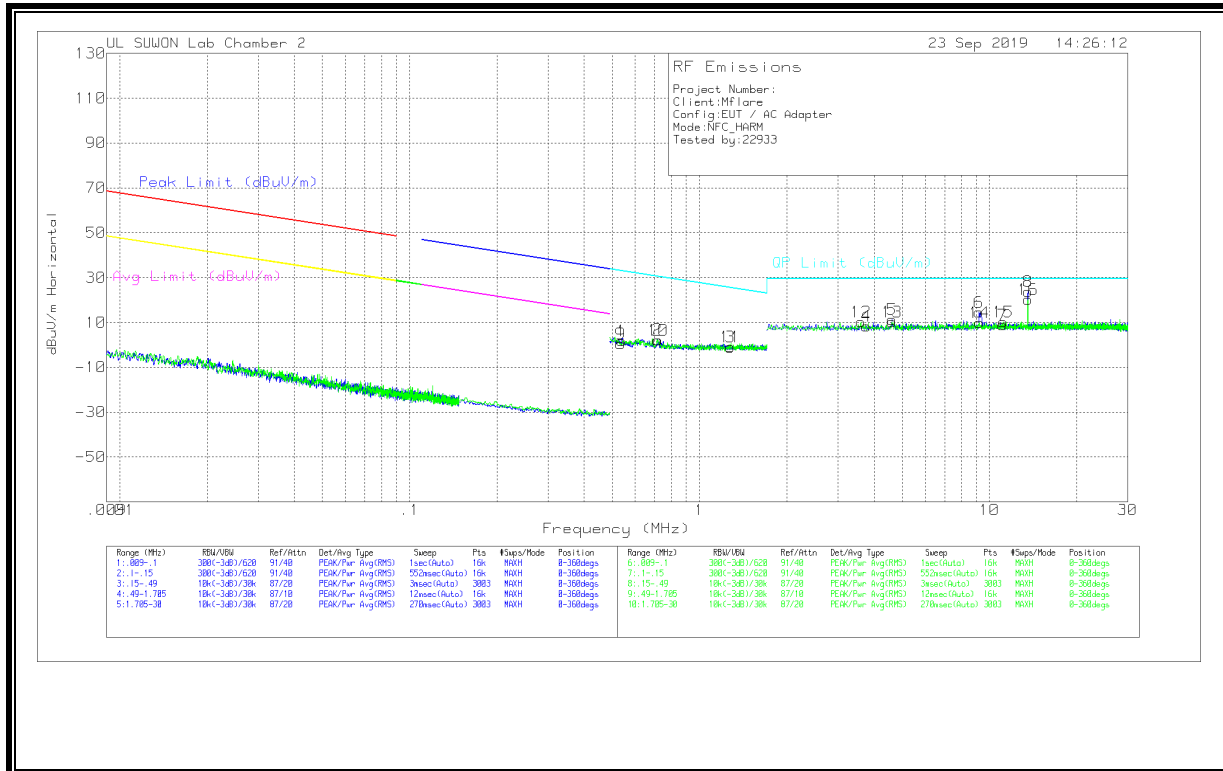
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna	Dist Corr 30m	Cable Loss	Corrected Reading dB(uVolts/meter)	FCC 15.225 Limit	Margin (dB)	Azimuth (Degs)
2	13.067	20.04	Pk	19.9	-40	.5	.44	29.54	-29.1	0-360
4	13.17838	23.59	Pk	19.9	-40	.5	3.99	40.51	-36.52	0-360
6	13.49375	20.87	Pk	19.9	-40	.5	1.27	50.5	-49.23	0-360
**8	13.55963	40.35	Pk	19.9	-40	.5	20.75	84	-63.25	0-360
10	13.65925	22.67	Pk	19.9	-40	.6	3.17	50.5	-47.33	0-360
12	13.8925	21.49	Pk	19.8	-40	.6	1.89	40.51	-38.62	0-360
14	14.293	23.05	Pk	19.8	-40	.6	3.45	29.54	-26.09	0-360

Pk - Peak detector
 **Fundamental

Note 1 : Although these tests were performed other than open filed test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Note 2: Radiated test were investigated with three receiving antenna axes: Face-on, Face-off and horizontal (parallel to the ground plane) and the worse orientations of Face-on and Face-off were set for final test.

7.1.2. SPURIOUS EMISSION 0.09 TO 30 MHz



Trace Markers

[Face On]

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna	Cable Loss	Dist Corr 30m	Corrected Reading dBuV/m	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
1	.53803	21.99	Pk	19.7	.1	-40	1.79	32.99	-31.2	0-360
2	.71732	22.49	Pk	19.7	.1	-40	2.29	30.5	-28.21	0-360
3	1.27728	19.15	Pk	19.7	.2	-40	-.95	25.5	-26.45	0-360
4	3.75965	28.37	Pk	19.8	.3	-40	8.47	29.5	-21.03	0-360
5	4.6079	31.37	Pk	19.8	.3	-40	11.47	29.5	-18.03	0-360
6	9.2073	34.02	Pk	20	.5	-40	14.52	29.5	-14.98	0-360
7	11.08288	28.37	Pk	20	.5	-40	8.87	29.5	-20.63	0-360
**8	13.56165	43.44	Pk	19.9	.5	-40	23.84	29.5	-5.66	0-360

[Face Off]

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Loop Antenna	Cable Loss	Dist Corr 30m	Corrected Reading dBuV/m	QP Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)
9	.53454	20.8	Pk	19.7	.1	-40	.6	33.05	-32.45	0-360
10	.71762	22.27	Pk	19.7	.1	-40	2.07	30.5	-28.43	0-360
11	1.27744	19.21	Pk	19.7	.2	-40	-.89	25.5	-26.39	0-360
12	3.59943	30.13	Pk	19.8	.3	-40	10.23	29.5	-19.27	0-360
13	4.6079	30.16	Pk	19.8	.3	-40	10.26	29.5	-19.24	0-360
14	9.21673	29.5	Pk	20	.5	-40	10	29.5	-19.5	0-360
15	11.15828	29.79	Pk	20	.5	-40	10.29	29.5	-19.21	0-360
**16	13.56165	40.02	Pk	19.9	.5	-40	20.42	29.5	-9.08	0-360

Pk - Peak detector

**Fundamental

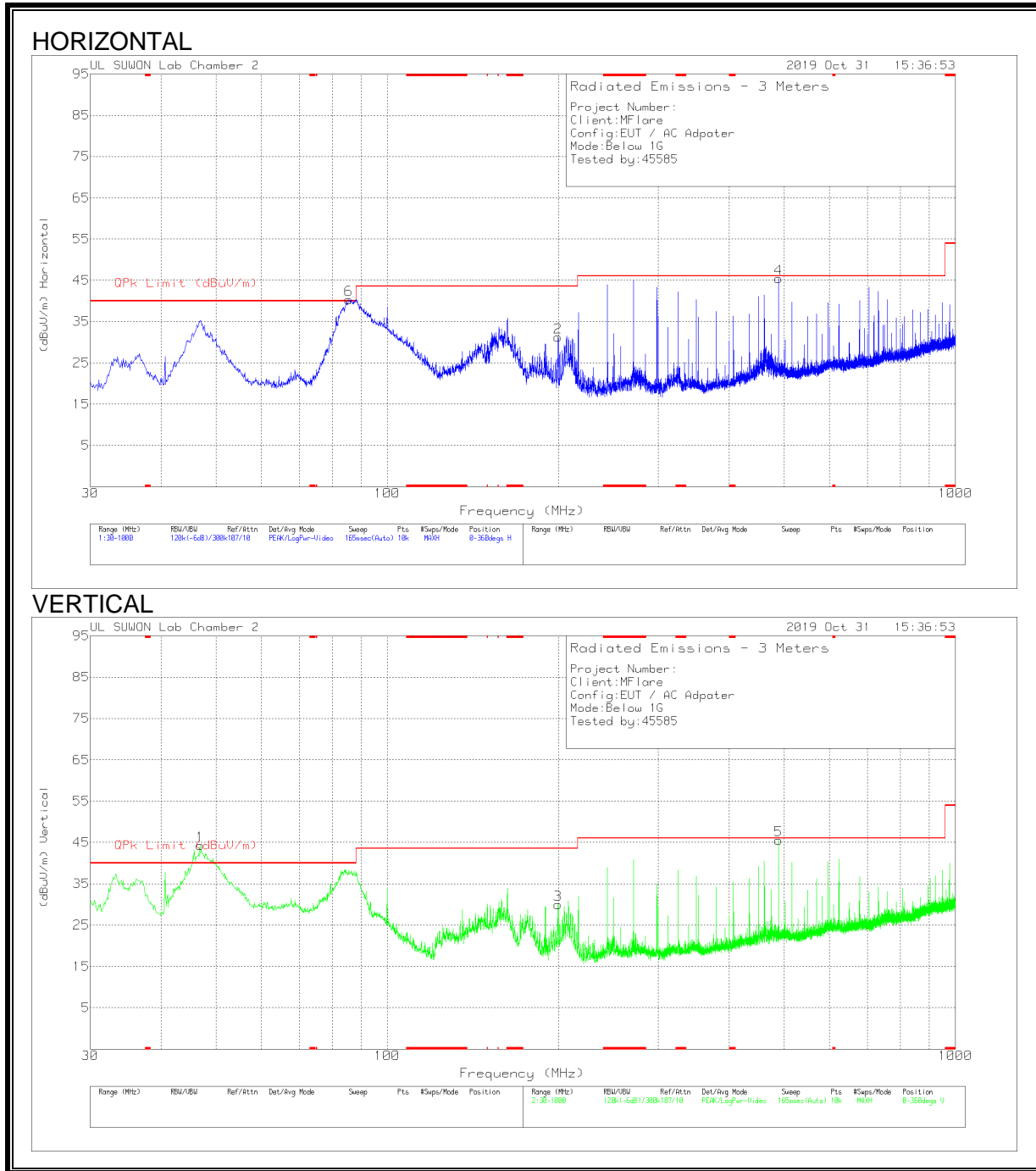
Note 1: The data for marker number 7 and 15 are the fundamental signal.

Please refer to section 8.1.1 about the fundamental level.

Frequency range 0.009MHz ~ 0.490MHz, only noise floor level and more than 20dB margin.

Note 2: Radiated test were investigated with three receiving antenna axes: Face-on, Face-off and horizontal (parallel to the ground plane) and the worse orientations of Face-on and Face-off were set for final test.

7.1.3. TX SPURIOUS EMISSION 30 TO 1000 MHz



Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	199.944	43.77	Pk	18.1	-30.7	31.17	43.52	-12.35	0-360	100	H
4	488.131	52.32	Pk	22.9	-29.8	45.42	46.02	-.6	0-360	200	H
6	85.484	57.85	Pk	13.8	-31.3	40.35	40	.35	0-360	200	H
1	46.878	56.43	Pk	19.8	-31.9	44.33	40	4.33	0-360	100	V
3	199.944	42.58	Pk	18.1	-30.7	29.98	43.52	-13.54	0-360	100	V
5	488.131	52.4	Pk	22.9	-29.8	45.5	46.02	-.52	0-360	100	V

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
200	42.56	Qp	18.1	-30.8	29.86	43.52	-13.66	62	240	H
200	41.78	Qp	18.1	-30.8	29.08	43.52	-14.44	237	200	V
86.6538	55.87	Qp	14.2	-31.5	38.57	40	-1.43	165	215	H
46.878	50.75	Qp	19.8	-31.9	38.65	40	-1.35	216	107	V
488.1476	52.33	Qp	22.9	-29.8	45.43	46.02	-.59	318	107	V
488.1476	52.05	Qp	22.9	-29.8	45.15	46.02	-.87	305	192	H

Qp - Quasi-Peak detector

8. AC MAINS LINE CONDUCTED EMISSIONS

LIMITS

§15.207

(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 50 μ H/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 (dB μ V)	
	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

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

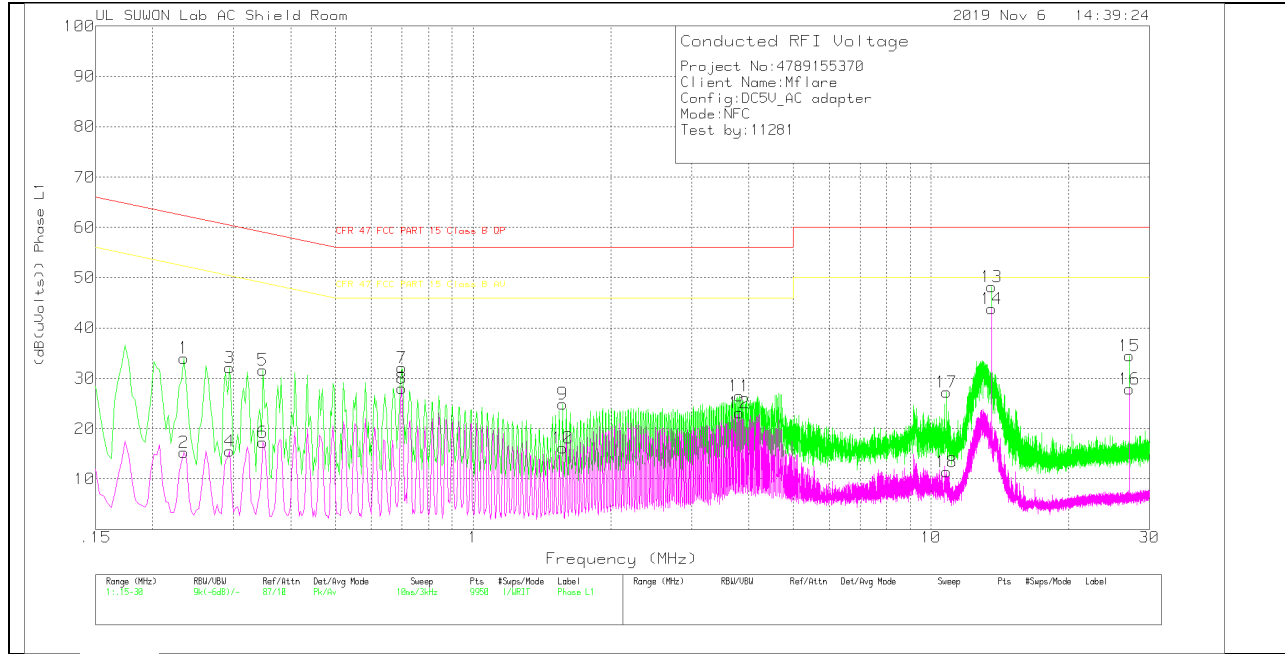
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

No non-compliance noted:

WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

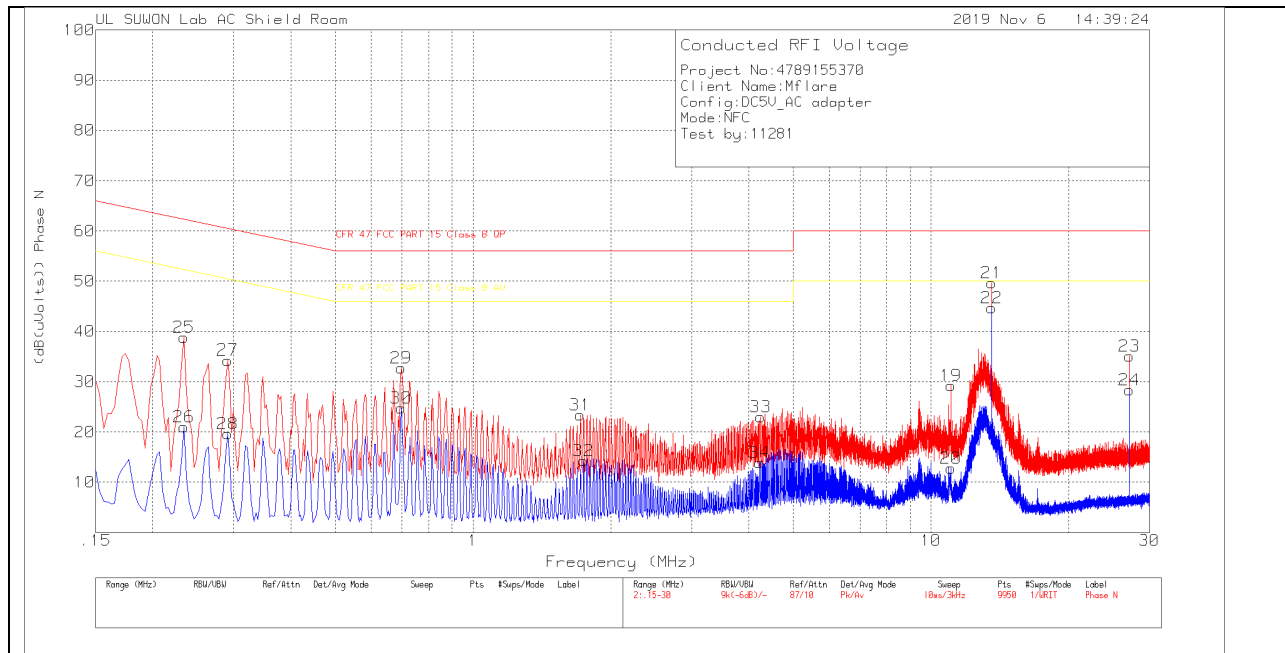
Trace Markers

Range 1: Phase L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	101836_Wit h Ex_L1[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
1	.234	24.04	Pk	9.8	.2	34.04	62.31	-28.27	-	-
2	.234	5.25	Av	9.8	.2	15.25	-	-	52.31	-37.06
3	.294	22.16	Pk	9.8	.2	32.16	60.41	-28.25	-	-
4	.294	5.51	Av	9.8	.2	15.51	-	-	50.41	-34.9
5	.348	21.57	Pk	9.9	.2	31.67	59.01	-27.34	-	-
6	.348	7.19	Av	9.9	.2	17.29	-	-	49.01	-31.72
7	.699	22.03	Pk	9.9	.2	32.13	56	-23.87	-	-
8	.699	17.85	Av	9.9	.2	27.95	-	-	46	-18.05
9	1.569	14.84	Pk	9.8	.3	24.94	56	-31.06	-	-
10	1.569	6.07	Av	9.8	.3	16.17	-	-	46	-29.83
11	3.81	16.43	Pk	9.8	.3	26.53	56	-29.47	-	-
12	3.81	13.06	Av	9.8	.3	23.16	-	-	46	-22.84
13	13.56	37.74	Pk	10.1	.4	48.24	60	-11.76	-	-
14	13.56	33.36	Av	10.1	.4	43.86	-	-	50	-6.14
15	27.12	23.54	Pk	10.6	.3	34.44	60	-25.56	-	-
16	27.12	16.93	Av	10.6	.3	27.83	-	-	50	-22.17
17	10.824	16.94	Pk	10	.3	27.24	60	-32.76	-	-
18	10.824	1.08	Av	10	.3	11.38	-	-	50	-38.62

Pk - Peak detector
 Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Trace Markers

Range 2: Phase N .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	101836_Wit h EX_N[dB]	CABLELOS S(dB)	Corrected Reading (dB(uVolts))	CFR 47 FCC PART 15 Class B QP	Margin (dB)	CFR 47 FCC PART 15 Class B AV	Margin (dB)
19	11.046	18.99	Pk	10	.3	29.29	60	-30.71	-	-
20	11.046	2.52	Av	10	.3	12.82	-	-	50	-37.18
21	13.56	39.16	Pk	10.1	.4	49.66	60	-10.34	-	-
22	13.56	34.18	Av	10.1	.4	44.68	-	-	50	-5.32
23	27.12	24.11	Pk	10.7	.3	35.11	60	-24.89	-	-
24	27.12	17.32	Av	10.7	.3	28.32	-	-	50	-21.68
25	.234	28.88	Pk	9.8	.2	38.88	62.31	-23.43	-	-
26	.234	11.01	Av	9.8	.2	21.01	-	-	52.31	-31.3
27	.291	24.29	Pk	9.8	.2	34.29	60.5	-26.21	-	-
28	.291	9.68	Av	9.8	.2	19.68	-	-	50.5	-30.82
29	.696	22.68	Pk	9.9	.2	32.78	56	-23.22	-	-
30	.696	14.69	Av	9.9	.2	24.79	-	-	46	-21.21
31	1.713	13.25	Pk	9.8	.3	23.35	56	-32.65	-	-
32	1.743	4.16	Av	9.8	.3	14.26	-	-	46	-31.74
33	4.248	12.94	Pk	9.8	.3	23.04	56	-32.96	-	-
34	4.221	3.87	Av	9.8	.3	13.97	-	-	46	-32.03

Pk - Peak detector
 Av - Average detection

9. FREQUENCY STABILITY

LIMIT

§15.225 (e) The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ 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.

TEST PROCEDURE

ANSI C63.10 §6.8

RESULTS

Reference Frequency: EUT Channel 13.56 MHz @ 20°C										
Limit: ± 100 ppm = 1.356 kHz										
Power Supply (Vdc)	Envir. Temp (°C)	Frequency Deviation Measured with Time Elapse								
		Start Up (MHz)	Delta (ppm)	@ 2mins (MHz)	Delta (ppm)	@ 5mins (MHz)	Delta (ppm)	@ 10mins (MHz)	Delta (ppm)	Limit (ppm)
3.80	50	13.559 404 849	3.453	13.559 396 360	4.079	13.559 392 207	4.385	13.559 388 621	4.650	100
3.80	40	13.559 442 226	0.696	13.559 429 226	1.655	13.559 422 664	2.139	13.559 415 202	2.689	100
3.80	30	13.559 469 277	-1.299	13.559 460 644	-0.662	13.559 451 758	-0.007	13.559 447 891	0.279	100
3.80	20	13.559 451 668	0.000	13.559 450 263	0.104	13.559 449 850	0.134	13.559 448 919	0.203	100
3.80	10	13.559 481 971	-2.235	13.559 494 711	-3.174	13.559 503 377	-3.814	13.559 513 731	-4.577	100
3.80	0	13.559 520 913	-5.107	13.559 524 553	-5.375	13.559 529 009	-5.704	13.559 490 959	-2.898	100
3.80	-10	13.559 532 445	-5.957	13.559 531 399	-5.880	13.559 528 140	-5.640	13.559 526 629	-5.528	100
3.80	-20	13.559 528 108	-5.637	13.559 528 965	-5.701	13.559 529 443	-5.736	13.559 528 945	-5.699	100
3.80	-30	13.559 529 266	-5.723	13.559 527 497	-5.592	13.559 525 123	-5.417	13.559 511 637	-4.423	100
4.30	20	13.559 425 788	1.909	13.559 426 125	1.884	13.559 425 776	1.909	13.559 425 838	1.905	100
3.60	20	13.559 427 469	1.785	13.559 427 451	1.786	13.559 427 936	1.750	13.559 427 558	1.778	100

No non-compliance noted.