



Nemko Test Report: 2015 277276 FCC15255_Rev2

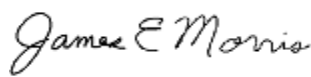
Applicant: LightPointe Communications Inc
11696 Sorrento Valley Road Suite 101
San Diego CA 92121
United States

**Equipment Under Test:
(E.U.T.)** 60 SX

In Accordance With: **FCC Part 15, Subpart C, 15.255**
RSS 210, Issue 8
Operation within the band 57-64 GHz

Tested By: Nemko USA, Inc.
2210 Faraday Ave. Ste 150
Carlsbad, CA 92008
USA

TESTED BY:	David Light, Wireless Engineer	DATE:	09 June 2015
	Mark Phillips, EMC Engineer		
	Kevin Rose, Wireless Engineer	DATE:	14 April 2016

APPROVED BY:		DATE:	21 April 2016
	_____ Jim Morris, EMC Manager		_____

Number of Pages: 37

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Section 1. Summary of Test Results

Manufacturer: LightPointe Communication, Inc.

Model No.: 60 SX

Serial No.: None

General: **All measurements are traceable to national standards.**

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart C, Paragraph 15.255 for operation in the band 57-64 GHz. Radiated tests were conducted in accordance with ANSI C63.10-2013 and KDB Pub. 200443. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

- | | | | |
|-------------------------------------|----------------------------|-------------------------------------|---------------------|
| <input checked="" type="checkbox"/> | New Submission | <input checked="" type="checkbox"/> | Production Unit |
| <input type="checkbox"/> | Class II Permissive Change | <input type="checkbox"/> | Pre-Production Unit |

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".



NVLAP Lab Code 200116-0

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Summary of Test Data

NAME OF TEST	RSS 210 PARA. NO.	FCC Part 15 PARA. NO.	RESULT
Powerline Conducted Emissions	RSS-GEN	15.207(a)	Complies
Operating Restrictions	A.13.2.1	15.255(a)	Complies
EIRP within the band 57 – 64 GHz	A.13.2.2(1)	15.255(b)(1)	Complies
Spurious Emissions	A.13.2.2(2)	15.255(c)	Complies
Emissions in the band 57 – 57.05 GHz	A.13.2.2(2)	15.255(d)	Complies
Peak Conducted Output Power	A.13.2.3	15.255(e)	Complies
Frequency Stability	A.13.2.5	15.255(f)	Complies
Emission Bandwidth	RSS-GEN	15.255	-

Footnotes:

Section 2. Equipment Under Test (E.U.T.)

General Equipment Information

Frequency Band (MHz): 57 to 64 GHz

Operating Frequency of Test Sample: 59.5 GHz and 62.5 GHz fixed

User Frequency Adjustment: Not adjustable by the user

Description of EUT

The AirLink™ 60 radio is a point-to-point outdoor data radio transmitter. The nominal average output power is +8 dBm. There are three antenna configurations that may be used:

60 SX	12 cm integrated antenna	36 dBi
60 MX	30 cm antenna	42 dBi
60 LX	60 cm antenna	47 dBi

Test Conditions

The transmitter was operated at full rf output power with a continuous transmit power for rf power output and spurious emissions testing.

Section 3. EIRP

NAME OF TEST: EIRP	PARA. NO.: 15.255(b)(1)(ii) RSS 210, A.13.2.1
TESTED BY: Kevin Rose	DATE: 7 April 2016

Test Results: Complies.

Test Conditions: 47 % RH
23 °C

Measurement Uncertainty: +/- 1.7 dB

Test Equipment Used: FA001546, FA001946, FA001879, FA002543, Broadband detector, Thermocouple power head

Result

Detector bandwidth: 20 GHz (50 – 75 GHz, flatness +/- 1.5 dB)

EIRP limit calculation:

Antenna configuration	Antenna size (cm)	Gain (dBi)	Amount gain is less than 51 dBi	Avg limit from 15.255(b)(1)(ii) (dBm)	Pk limit from 15.255(b)(1)(ii) (dBm)
60 SX	12	36	15	52	55
60 MX	30	42	9	64	67
60 LX	60	47	4	74	77

Measured EIRP – Low channel – 59.5 GHz:

Avg/Pk	Antenna configuration	Antenna size (cm)	Gain (dBi)	Measured Power (dBm)	Measured EIRP (dBm)	EIRP limit from 15.255(b)(1)(ii) (dBm)	Margin of compliance (dB)
Avg	60 SX	12	36	8.83	44.83	52	7.2
Pk	60 SX	12	36	9.59	45.59	55	9.4
Avg	60 MX	30	42	8.83	50.83	64	13.2
Pk	60 MX	30	42	9.59	51.59	67	15.4
Avg	60 LX	60	47	8.83	55.83	74	18.2
Pk	60 LX	60	47	9.59	56.59	77	20.4

Measured EIRP – High channel – 62.5 GHz:

Avg/Pk	Antenna configuration	Antenna size (cm)	Gain (dBi)	Measured Power (dBm)	Measured EIRP (dBm)	EIRP limit from 15.255(b)(1)(ii) (dBm)	Margin of compliance (dB)
Avg	60 SX	12	36	8.54	44.54	52	7.5
Pk	60 SX	12	36	9.04	45.04	55	10.0
Avg	60 MX	30	42	8.54	50.54	64	13.5
Pk	60 MX	30	42	9.04	51.04	67	16.0
Avg	60 LX	60	47	8.54	55.54	74	18.5
Pk	60 LX	60	47	9.04	56.04	77	21.0

Test and validation data – Output Power

Model Airlink 60sx
 Item LAK2-1250-62U-0ER
 S/N AKML1160321A
 Low channel – 59.5 GHz

Average measured EUT power, dBm	Peak to Average validation with diode detector					Peak to AVG ratio, dB	Calculated EUT Peak power, dBm
	Attenuation, dB	AVG voltage output, mV	Peak voltage output, mV	AVG power output, dBm	Peak power output, dBm		
8.83	18.83	154.6	184	0.49	1.24	0.756	9.59

Model Airlink 60sx
 Item LAK2-1250-62U-0ER
 S/N AKML2160321A
 High channel – 62.5 GHz

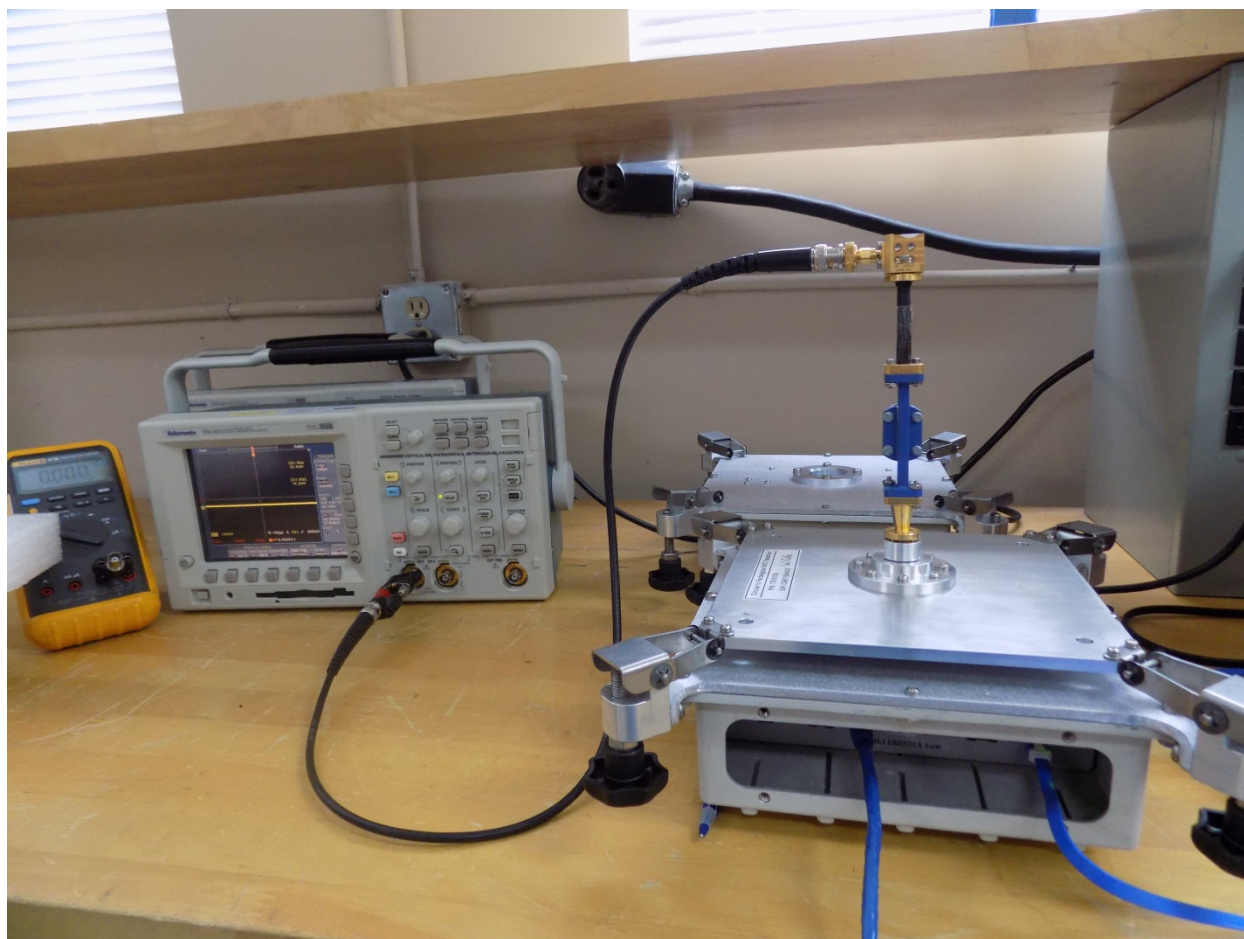
Average measured EUT power, dBm	Peak to Average validation with diode detector					Peak to AVG ratio, dB	Calculated EUT Peak power, dBm
	Attenuation, dB	AVG voltage output, mV	Peak voltage output, mV	AVG power output, dBm	Peak power output, dBm		
8.54	18.54	153.4	172	0.30	0.80	0.0.497	9.04

Procedure:

- 1 EUT AVG power was measured with AVG power meter.
- 2 Attenuation was then added to the EUT output to reduce its level to -10 dBm to allow the diode detector to function per its sensitivity (mV/mW) characteristic.
- 3 The Digital Storage Oscilloscope was used to measure AVG and Peak voltage values of the attenuated output signal coming from detector in mV units. Input channel was 50 ohms.
- 4 Using the calibrated sensitivity conversion factor table measured voltage levels were converted to their power equivalents in mW units.
- 5 The difference between Peak and AVG power levels (the Peak to AVG ratio) was then obtained.
- 6 This ratio (in dB units) was then added to the initial measured AVG result in order to calculate Peak power result.

EQUIPMENT: 60 SX

Test setup photo – RF power output



Section 4. Emission Bandwidth

NAME OF TEST: Emission Bandwidth	PARA. NO.: 15.255 RSS-GEN
TESTED BY: David Light	DATE: 23 March 2015

Test Results: Complies

Measurement Data: See attached plots

Test Conditions: 38 %RH
22 °C

Measurement Uncertainty: +/-1000 Hz

Test Equipment Used: Asset no. E1026

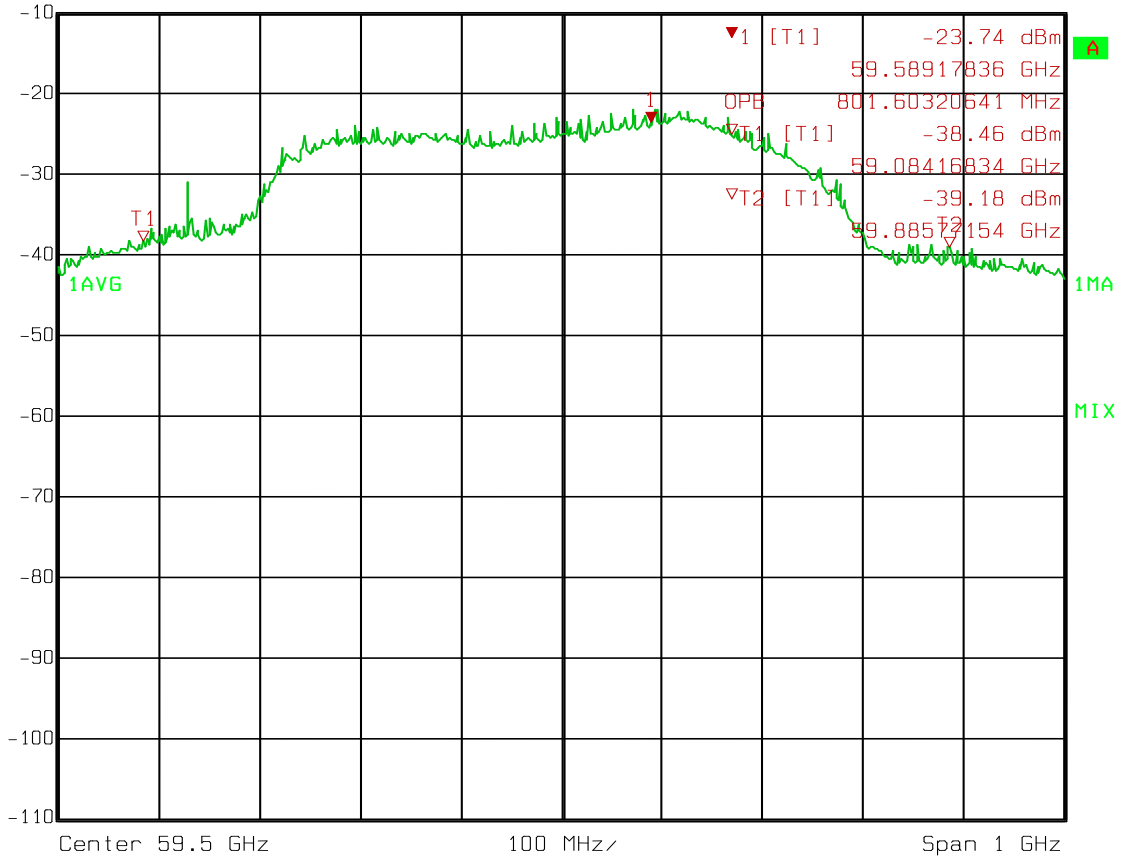
Result

Maximum measured BW: 1.574 GHz

Test Data – Emission Bandwidth

Low Channel


 Ref Lvl -10 dBm
 Marker 1 [T1] -23.74 dBm
 59.58917836 GHz
 RBW 1 MHz #4 CVL 30.0dB
 VBW 1 MHz
 SWT 15 ms Unit dBm



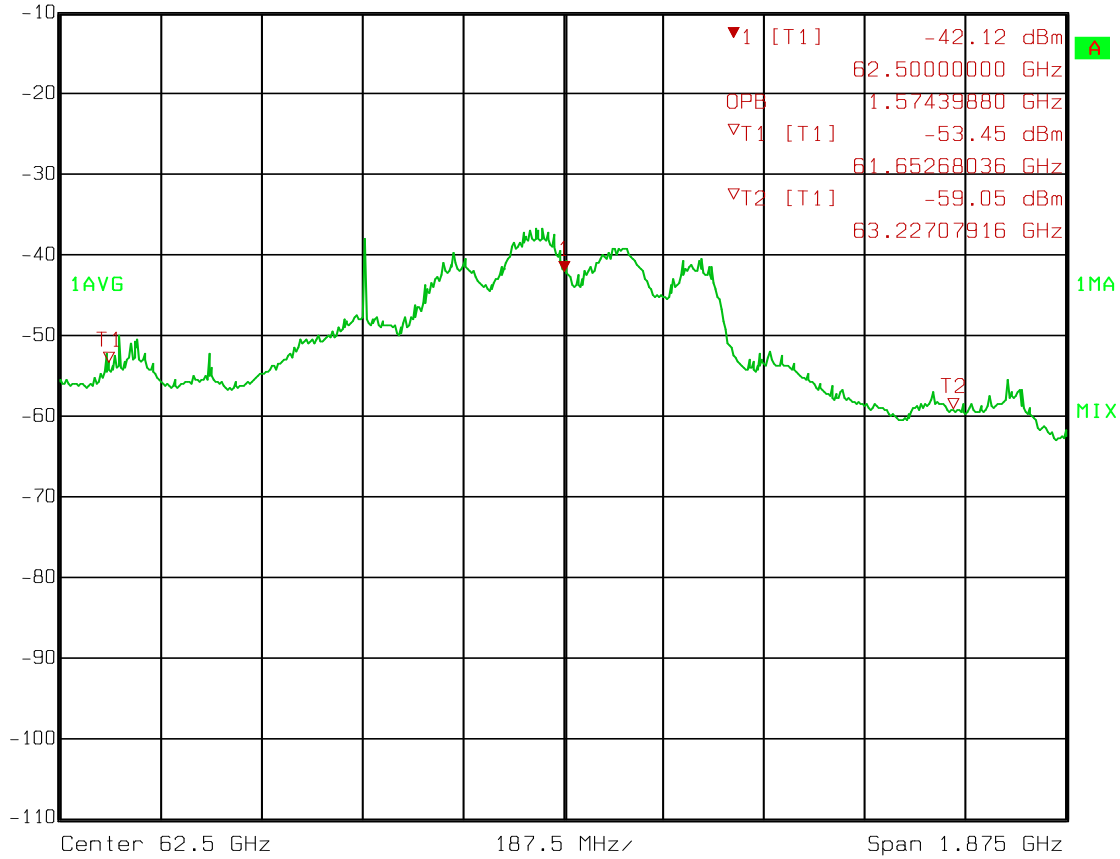
Date: 23.MAR.2015 13:49:06

Test Data – Emission Bandwidth

High Channel



Ref Lvl -10 dBm
 Marker 1 [T1] -42.12 dBm
 62.50000000 GHz
 RBW 1 MHz #6
 VBW 1 MHz
 SWT 29 ms Unit dBm



Date: 23.MAR.2015 14:23:13

Section 5. Radiated Emissions

NAME OF TEST: Radiated Emissions	PARA. NO.: 15.255(c)&(d) RSS 210, A.13.2.2(c)
TESTED BY: David Light and Mark Phillips	DATE: 3/18 – 3/31/15

Test Results: Complies.

Measurement Data: See attached table.

Test Conditions: 48% RH
22°C

Measurement Uncertainty: +/- 3.7 dB

Test Equipment Used:

E1064, Spectrum Analyzer; D1480, Antenna, Bilog; 902, pre amp; 529, Antenna, DRWG; E1029, Preamplifier (20MHz to 18GHz).

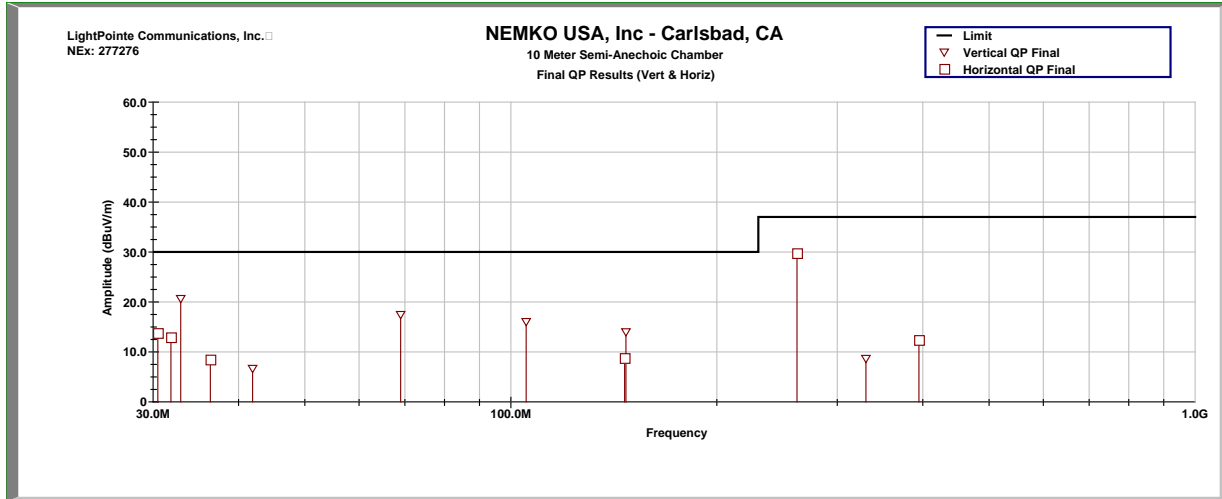
Notes:

- For handheld devices, the EUT was tested on three orthogonal axis'
- The device was tested from 30 MHz to 220 GHz per 15.33
- The device was tested on three channels per 15.31(l).
- No emissions were detected within 20 dB of the specification limit therefore none are reported per 15.31(o). Band edge data is presented below.

RBW=VBW=100 kHz below 1000 MHz
RBW=VBW=1 MHz above 1000 MHz (Peak)
RBW= 1 MHz VBW=10Hz (Average)

Radiated Emissions

Client	LightPointe Communications, Inc.		
NEx #	277276	Temperature	22 °C
EUT Name	AireLink 60GHz Transceiver Series	Humidity	48 %
EUT Model	60 SX	Pressure	100.4 kPa
Governing Doc	EN 301 489-1, EN 301 489-4	Test Location	10 Meter Chamber
Basic Standard	CISPR 22	Test Engineer	Mark Phillips
Test Voltage	230VAC 50Hz	Date	3/18/2015



Vertical

Frequency (MHz)	Quasi-Peak Measured	Quasi-Peak Adjustments	Turn Table (degrees)	Antenna Height (cm)	Corrected Reading	Limit (dBµV/m)	Margin (dB)	Result
32.929	34.79	-14.11	1	147	20.68	30	-9.32	Pass
41.93	25.49	-18.81	1	246	6.69	30	-23.31	Pass
69.016	42.4	-24.91	135	153	17.49	30	-12.51	Pass
105.287	35.57	-19.5	45	153	16.08	30	-13.92	Pass
147.29	32.98	-18.96	135	153	14.02	30	-15.98	Pass
330.359	24.04	-15.36	45	153	8.68	37	-28.32	Pass

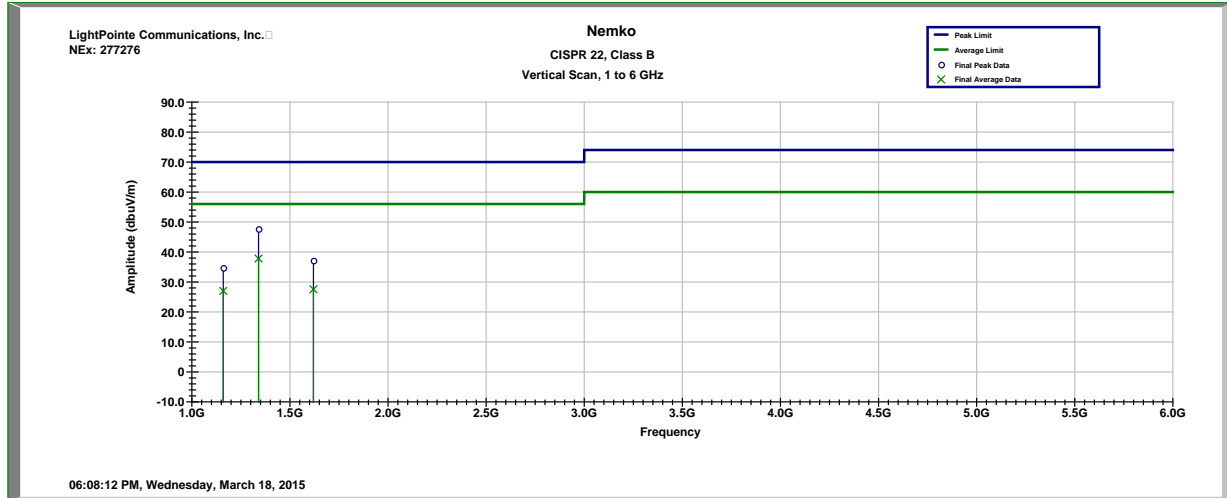
Horizontal

Frequency (MHz)	Quasi-Peak Measured	Quasi-Peak Adjustments	Turn Table (degrees)	Antenna Height (cm)	Corrected Reading	Limit (dBµV/m)	Margin (dB)	Result
30.4882	26.53	-12.73	1	247	13.79	30	-16.21	Pass
31.8623	26.43	-13.49	44	153	12.94	30	-17.06	Pass
36.3795	24.4	-15.91	135	247	8.48	30	-21.52	Pass
146.643	27.71	-18.93	93	247	8.78	30	-21.22	Pass
261.972	45.14	-15.36	30	247	29.78	37	-7.22	Pass
394.794	25.21	-12.82	315	194	12.4	37	-24.6	Pass

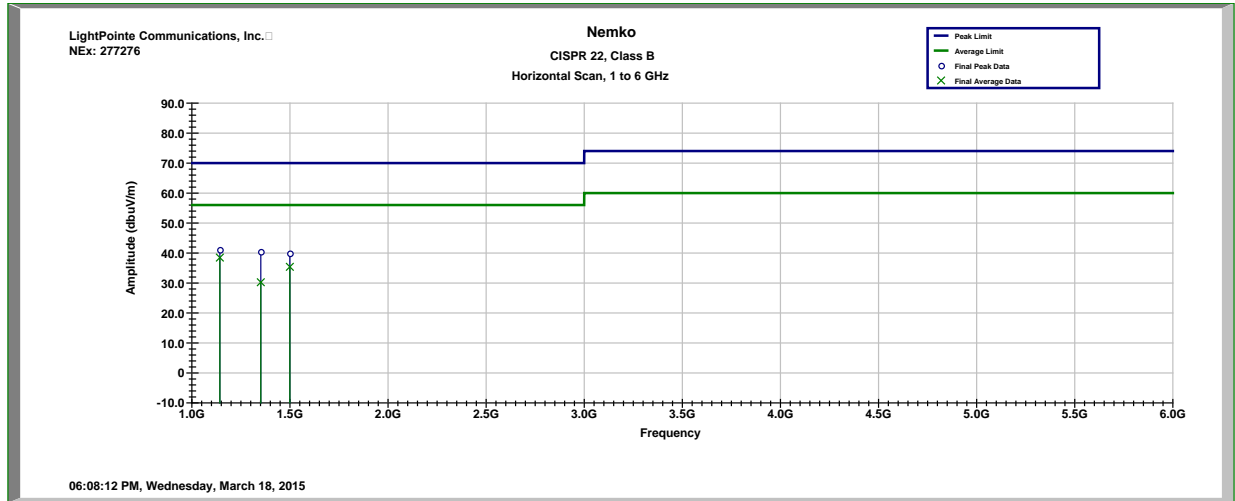
Compliance			
Compliant?	Yes	Additional Comments	N/A

1 GHz – 18 GHz

Client	LightPointe Communications, Inc.		
NEx #	277276	Temperature	22 °C
EUT Name	AireLink 60GHz Transceiver Series	Humidity	48 %
EUT Model	60 SX	Pressure	100.4 kPa
Governing Doc	EN 301 489-1, EN 301 489-4	Test Location	10 Meter Chamber
Basic Standard	CISPR 22	Test Engineer	Mark Phillips
Test Voltage	230VAC 50Hz	Date	3/18/2015



Frequency (MHz)	Measured (dBµV)		Limit (dBµV/m)		Margin (dB)		Result
	Average	Peak	Average	Peak	Average	Peak	
1160.36	27	34.7	56	70	-29	-35.3	Pass
1340.1	37.8	47.7	56	70	-18.2	-22.3	Pass
1619.87	27.5	37.2	56	70	-28.5	-32.8	Pass



Frequency (MHz)	Measured (dBμV)		Limit (dBμV/m)		Margin (dB)		Result
	Average	Peak	Average	Peak	Average	Peak	
1142.95	38.5	41.1	56	70	-17.5	-28.9	Pass
1351.51	30.2	40.4	56	70	-25.8	-29.6	Pass
1499.52	35.4	39.9	56	70	-20.6	-30.1	Pass

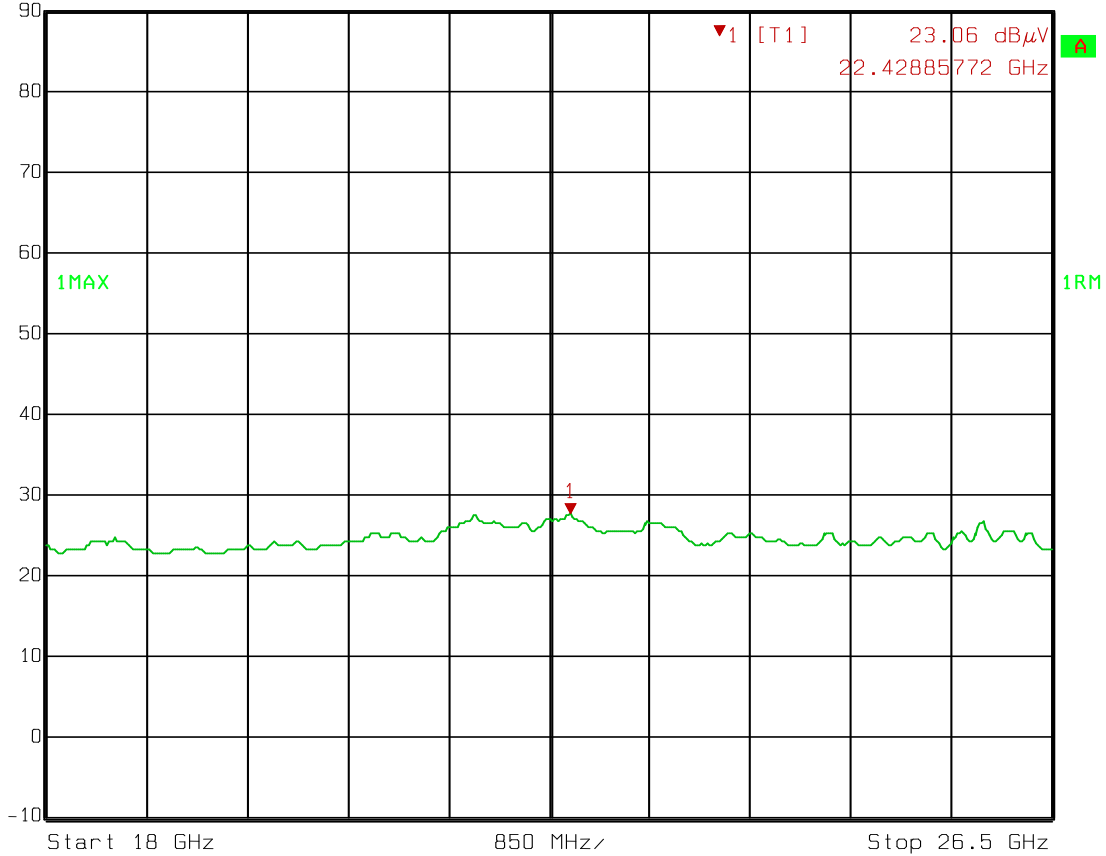
Compliance			
Compliant?	Yes	Additional Comments	N/A

E1064, Spectrum Analyzer; D1480, Antenna, Bilog; 902, pre amp; 529, Antenna, DRWG; E1029, Preamplifier (20MHz to 18GHz).

Radiated Emissions



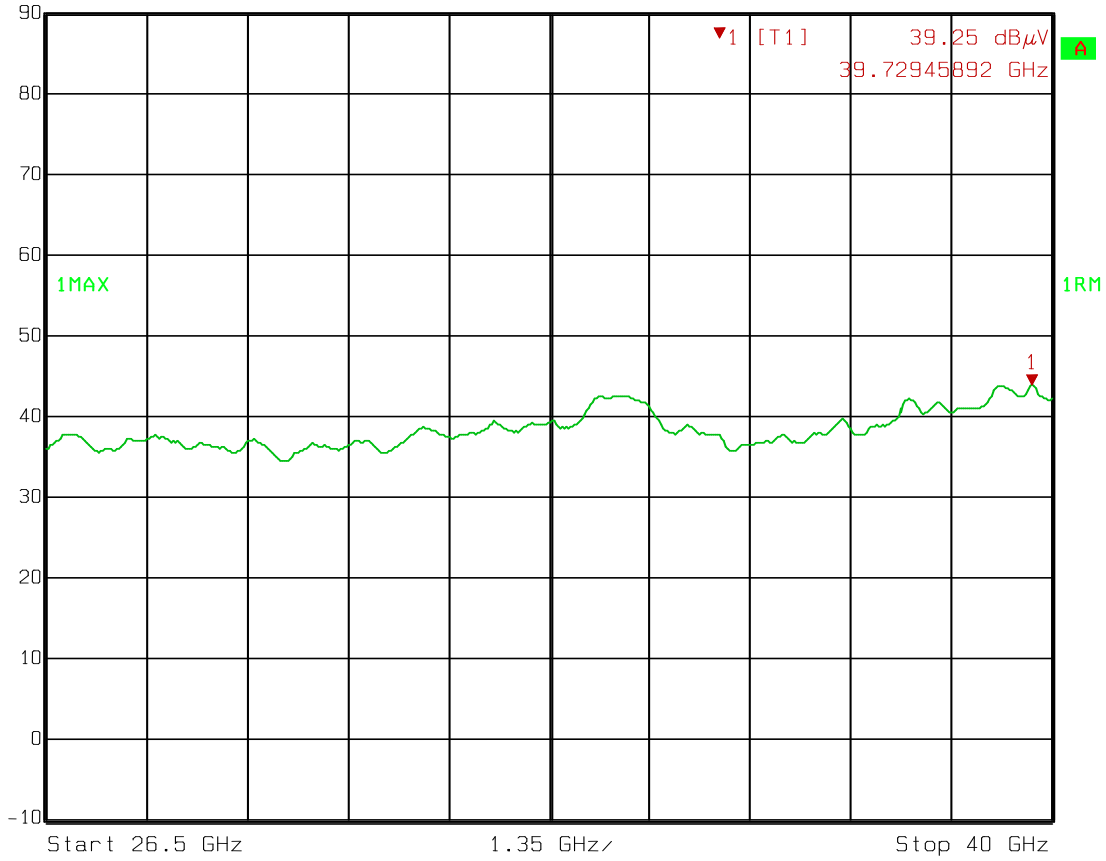
Ref Lvl 90 dB μ V
Marker 1 [T1] 23.06 dB μ V
22.42885772 GHz
RBW 1 MHz RF Att 0 dB
VBW 10 MHz
SWT 1 s Unit dB μ V



Date: 31.MAR.2015 13:34:06



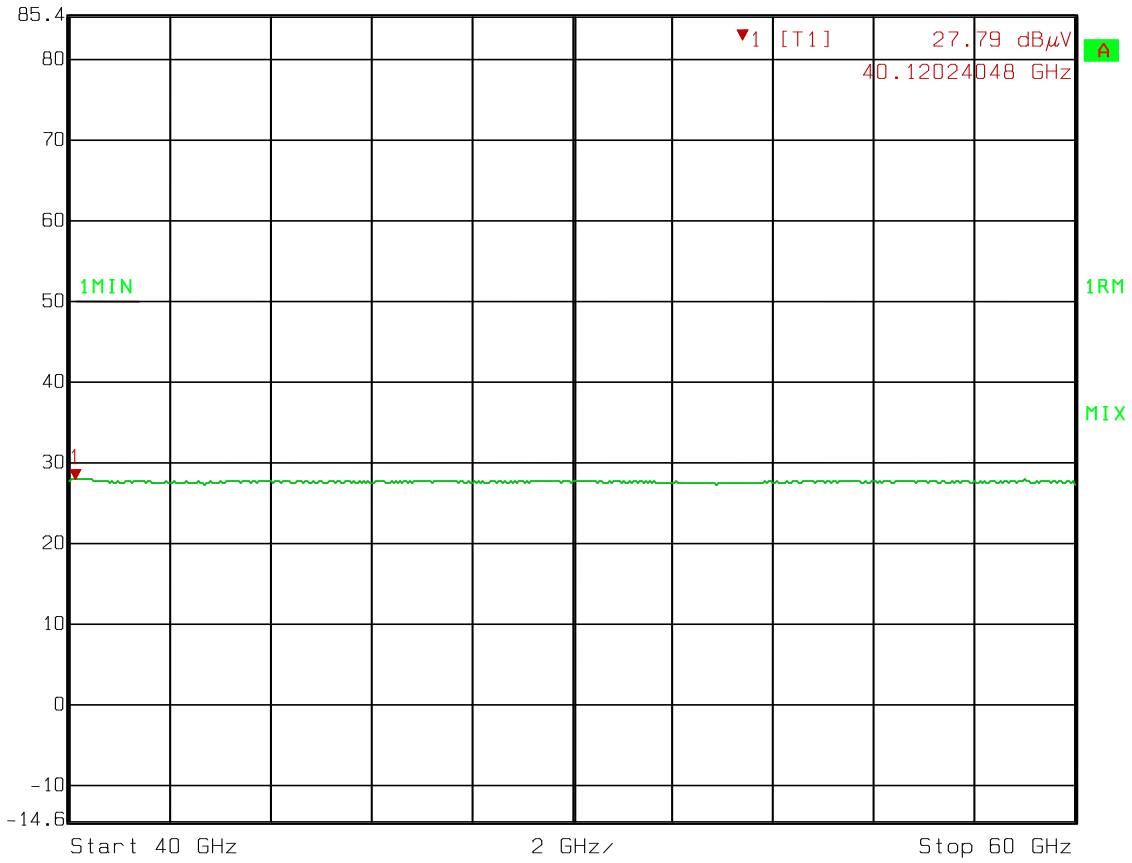
Ref Lvl 90 dB μ V
Marker 1 [T1] 39.25 dB μ V
39.72945892 GHz
RBW 1 MHz RF Att 0 dB
VBW 10 MHz
SWT 1 s Unit dB μ V



Date: 31.MAR.2015 13:32:57

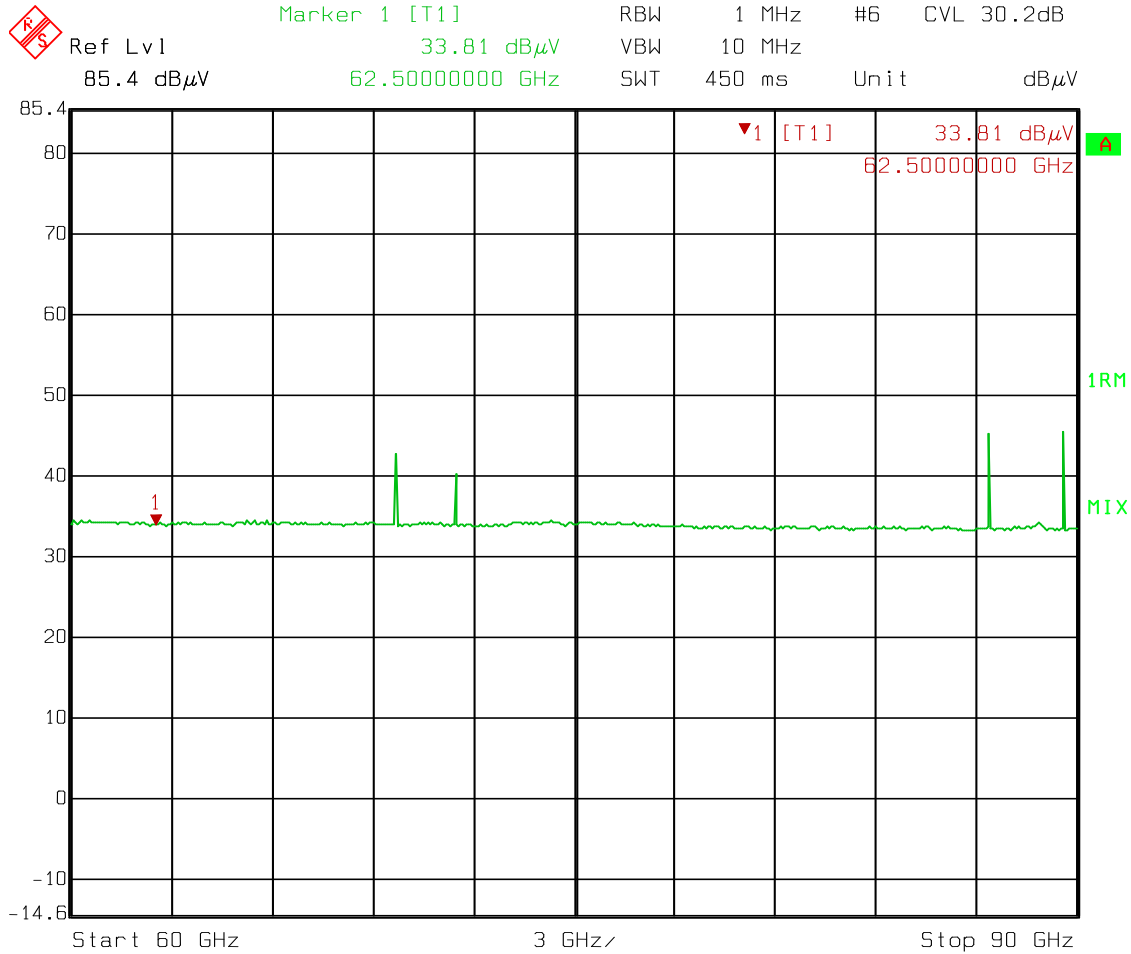


Ref Lvl 85.4 dB μ V
Marker 1 [T1] 27.79 dB μ V
40.12024048 GHz
RBW 1 MHz #4 CVL 25.0dB
VBW 10 MHz
SWT 300 ms Unit dB μ V



Date: 31.MAR.2015 13:14:23

Radiated Emissions

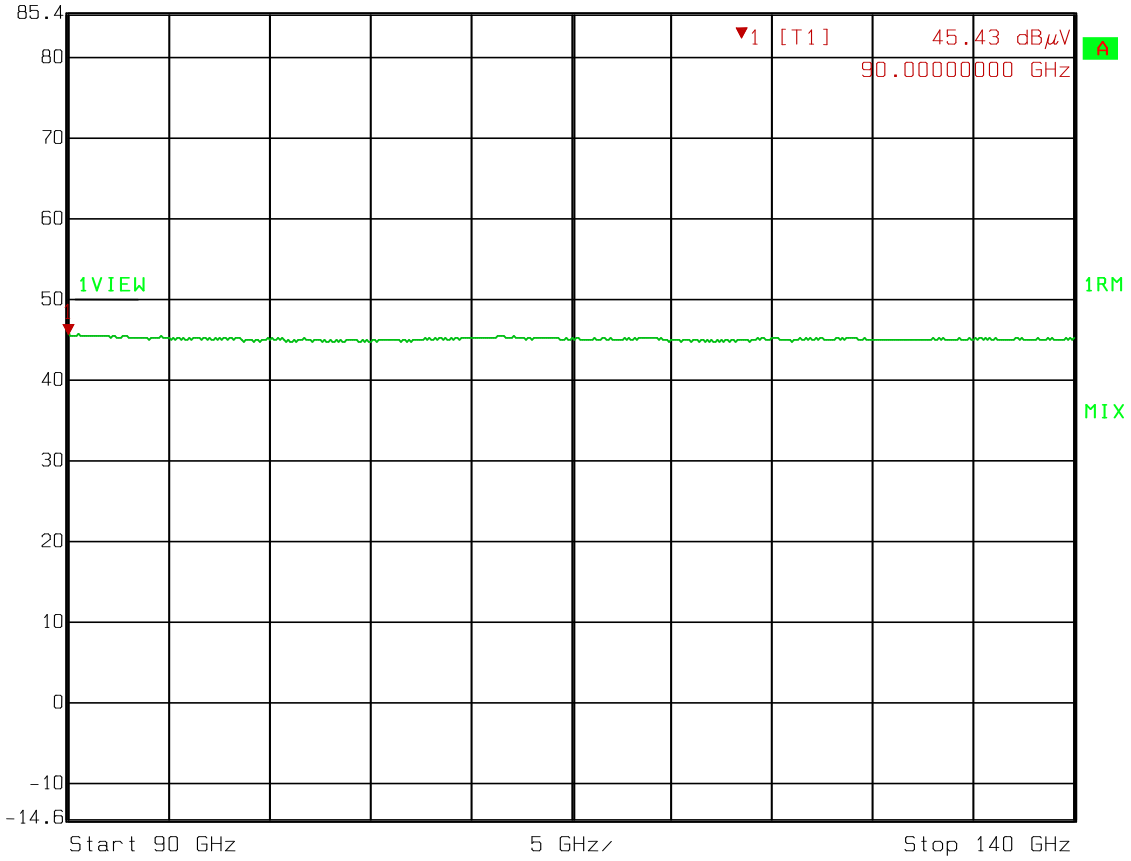


Date: 31.MAR.2015 13:11:21

These signals were confirmed to be “ghost” signals caused from the harmonic mixer



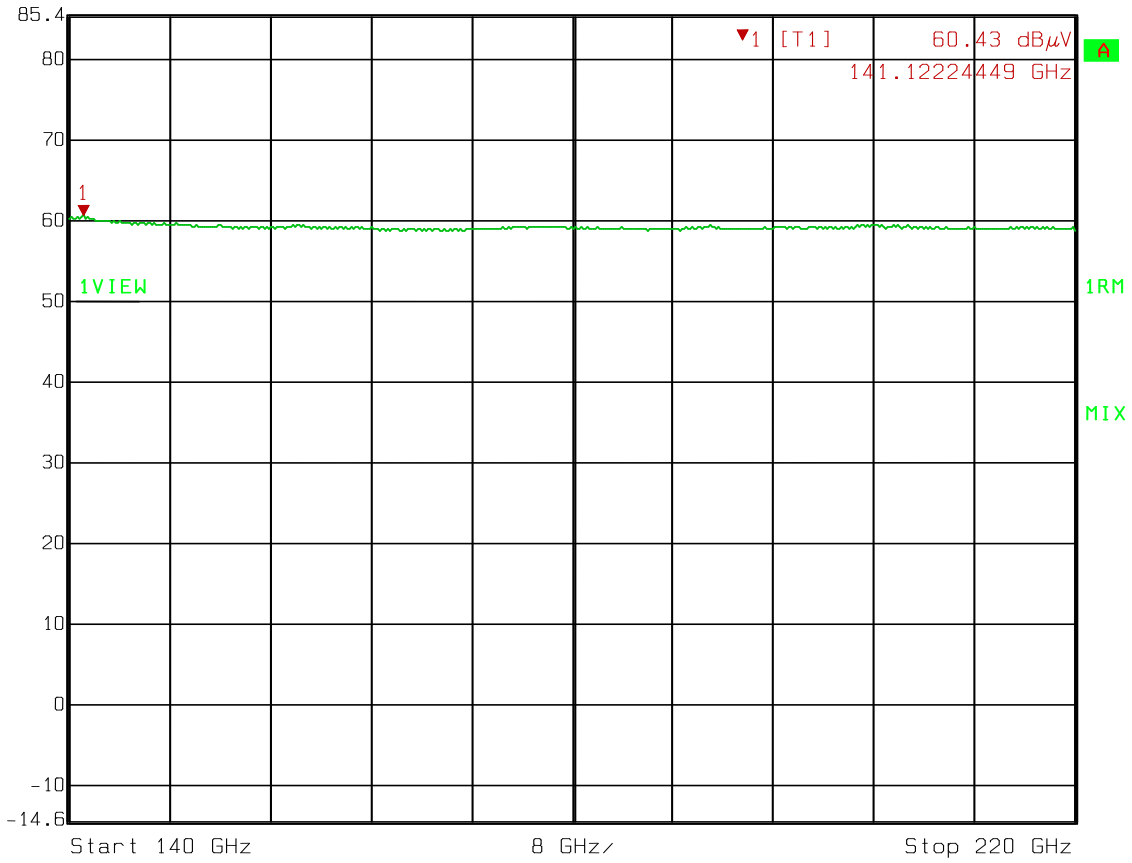
Ref Lvl 85.4 dB μ V
Marker 1 [T1] 45.43 dB μ V
90.00000000 GHz
RBW 1 MHz #10 CVL 40.0dB
VBW 10 MHz
SWT 760 ms Unit dB μ V



Date: 31.MAR.2015 13:17:08



Ref Lvl 85.4 dB μ V
Marker 1 [T1] 60.43 dB μ V
141.12224449 GHz
RBW 1 MHz #16 CVL 55.0dB
VBW 10 MHz
SWT 1.2 s Unit dB μ V

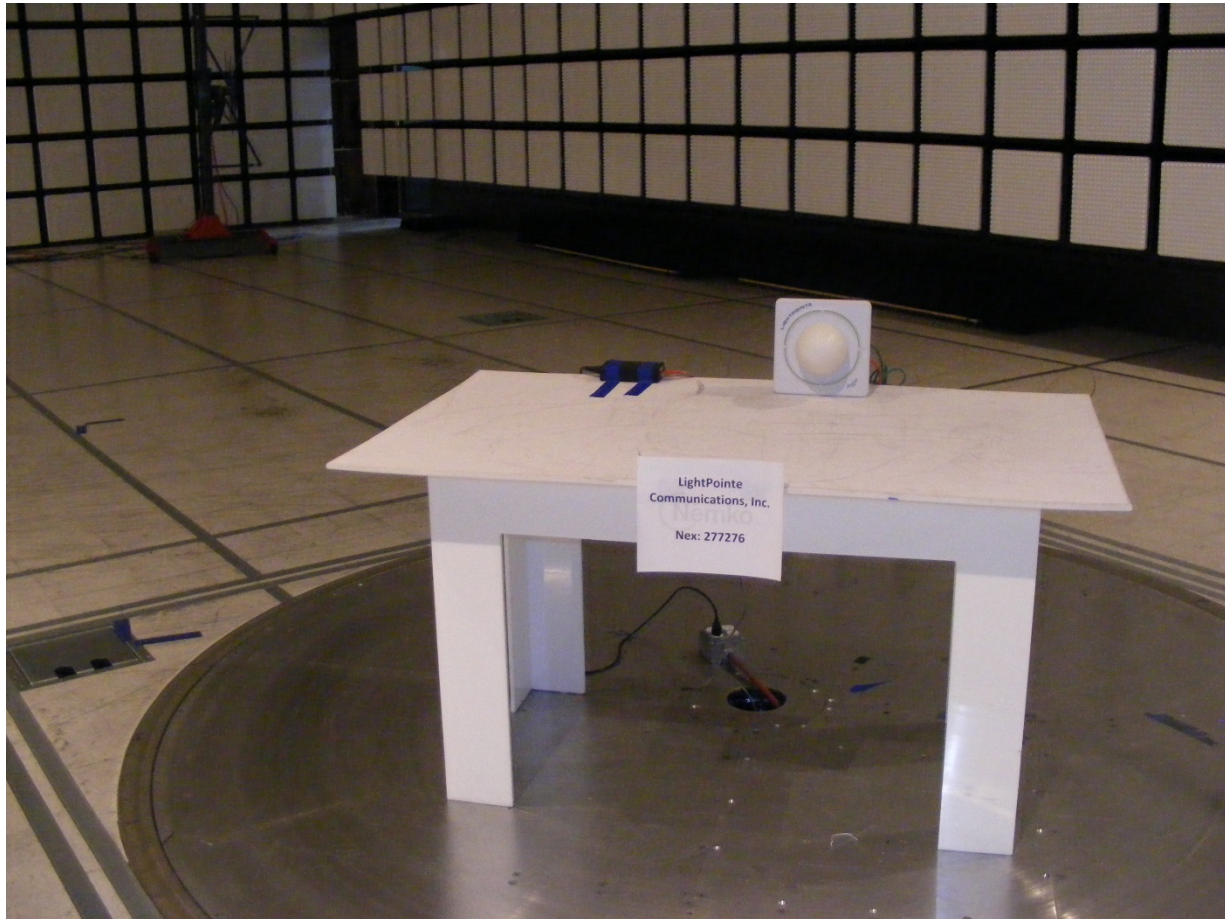


Date: 31.MAR.2015 13:19:25

EQUIPMENT: 60 SX

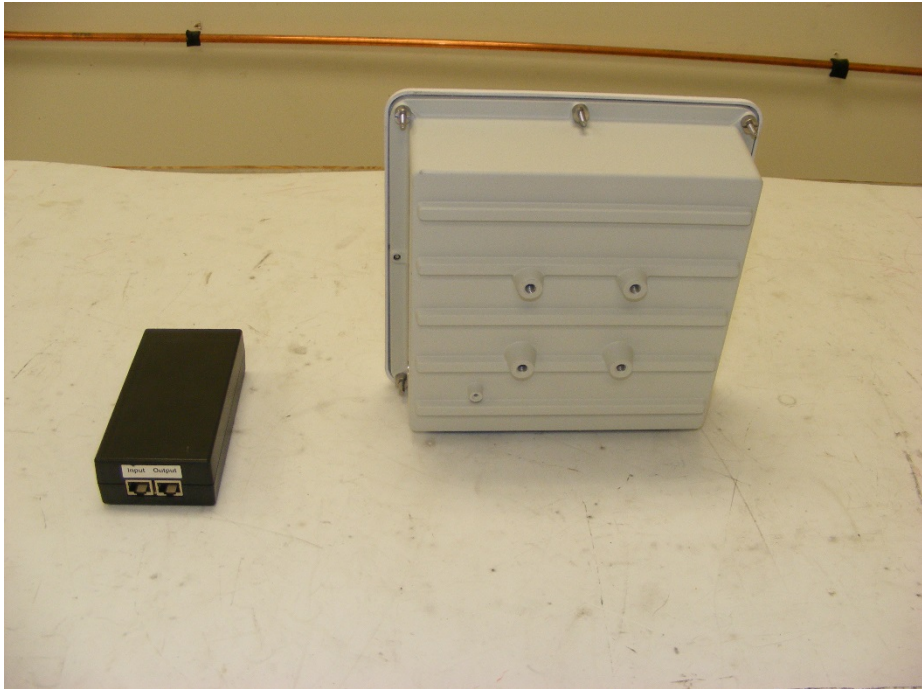
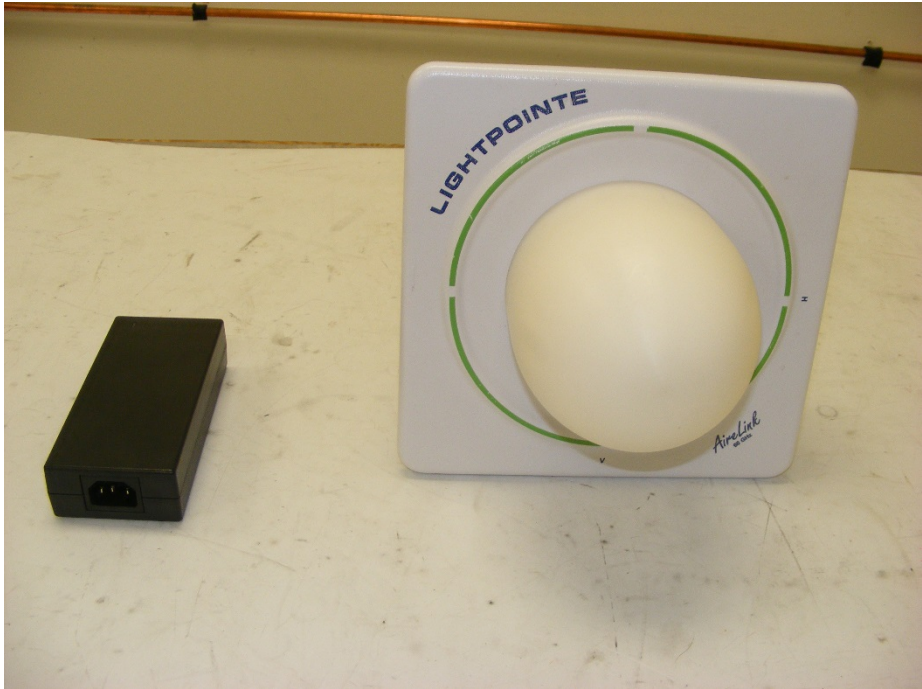
Radiated Photographs

30 MHz – 1 GHz

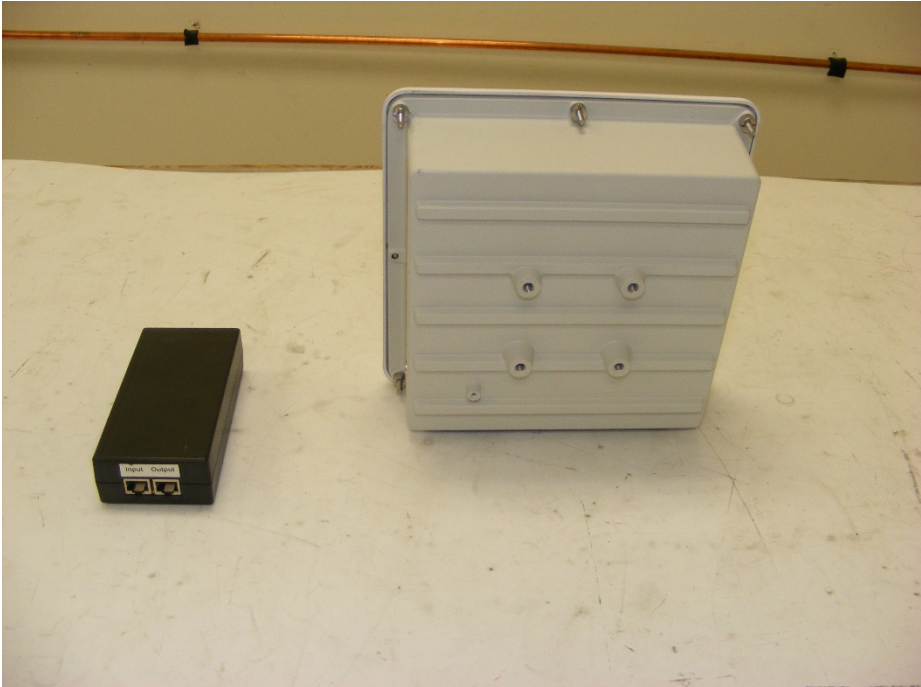


EQUIPMENT: 60 SX

>18 GHz



EQUIPMENT: 60 SX



Section 6. Peak Conducted RF Output Power

NAME OF TEST: Peak Conducted RF Output Power	PARA. NO.: 15.255(e) RSS 219, A13.2.3
TESTED BY: Kevin Rose	DATE: 7 April 2016

Test Results: Complies.

Measurement Data: See attached data.

Test Conditions: 47 % RH
23 °C

Measurement Uncertainty: +/- 1.7 dB

Test Equipment Used: FA001546, FA001946, FA001879, FA002543, Broadband detector, Thermocouple power head

Result

Frequency (GHz)	Peak conducted rf output power (dBm)	Peak conducted rf output power (mW)	Limit (mW)	Margin (dB)
59.5	9.59	9.10	500	17.4
62.5	9.04	8.02	500	17.9

Detector bandwidth: 20 GHz (50 – 75 GHz, flatness +/- 1.5 dB)

Test and validation data – Output Power

Model Airlink 60sx
 Item LAK2-1250-62U-0ER
 S/N AKML1160321A
 Low channel – 59.5 GHz

Average measured EUT power, dBm	Peak to Average validation with diode detector					Peak to AVG ratio, dB	Calculated EUT Peak power, dBm
	Attenuation, dB	AVG voltage output, mV	Peak voltage output, mV	AVG power output, dBm	Peak power output, dBm		
8.83	18.83	154.6	184	0.49	1.24	0.756	9.59

Model Airlink 60sx
 Item LAK2-1250-62U-0ER
 S/N AKML2160321A
 High channel – 62.5 GHz

Average measured EUT power, dBm	Peak to Average validation with diode detector					Peak to AVG ratio, dB	Calculated EUT Peak power, dBm
	Attenuation, dB	AVG voltage output, mV	Peak voltage output, mV	AVG power output, dBm	Peak power output, dBm		
8.54	18.54	153.4	172	0.30	0.80	0.0.497	9.04

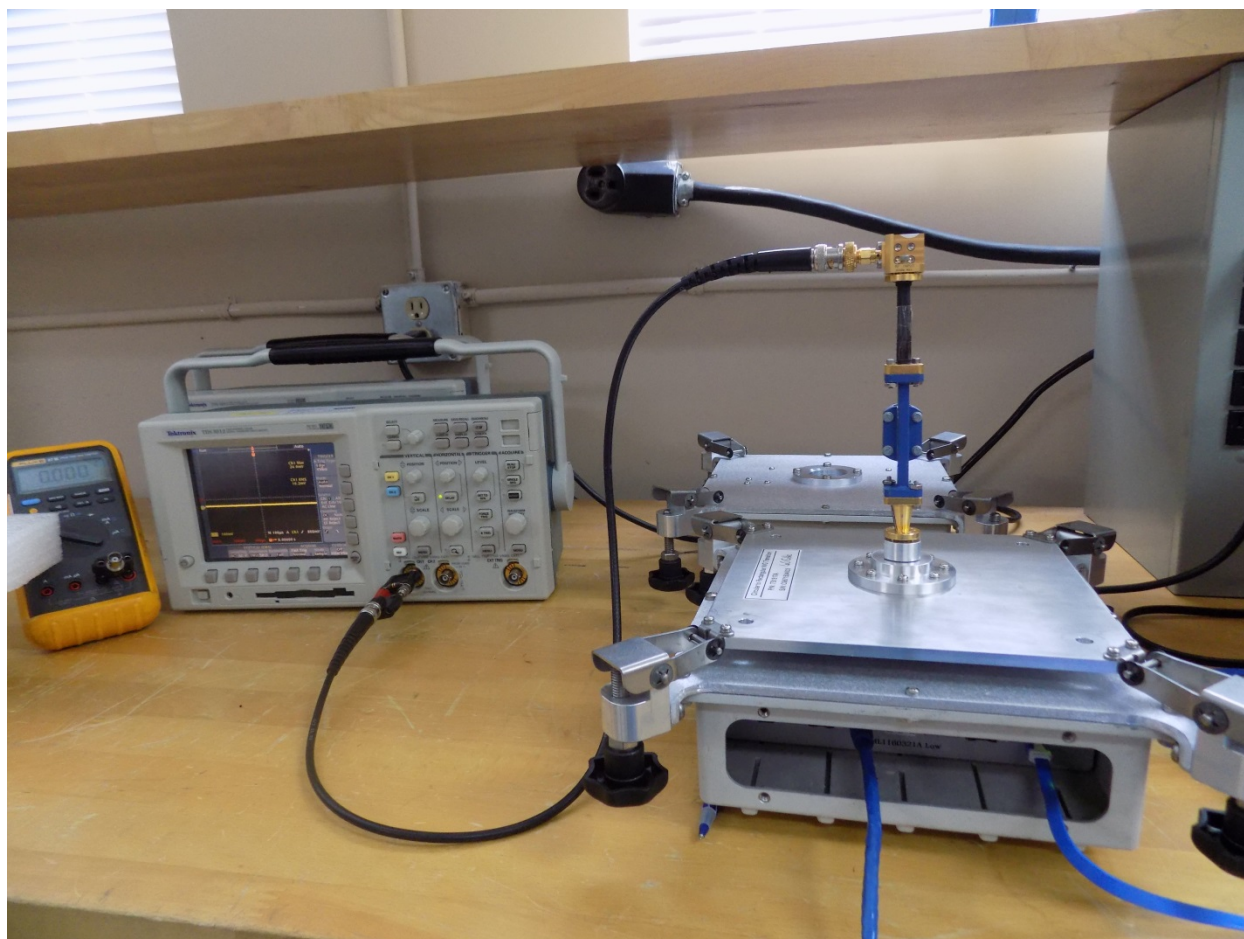
Procedure:

- 1 EUT AVG power was measured with AVG power meter.
- 2 Attenuation was then added to the EUT output to reduce its level to –10 dBm to allow the diode detector to function per its sensitivity (mV/mW) characteristic.
- 3 The Digital Storage Oscilloscope was used to measure AVG and Peak voltage values of the attenuated output signal coming from detector in mV units. Input channel was 50 ohms.
- 4 Using the calibrated sensitivity conversion factor table measured voltage levels were converted to their power equivalents in mW units.
- 5 The difference between Peak and AVG power levels (the Peak to AVG ratio) was then obtained.

This ratio (in dB units) was then added to the initial measured AVG result in order to calculate Peak power result.

EQUIPMENT: 60 SX

Test setup photo – RF power output



Section 7. Frequency Stability

NAME OF TEST: Frequency Stability	PARA. NO.: 15.255(d) RSS 219, A13.2.5
TESTED BY: David Light	DATE: 31 March 2015

Test Results: Complies.

Measurement Data: See attached data.

Test Conditions: Rel. humidity
uncontrolled
-20 to +50 °C

Measurement Uncertainty: 1×10^{-6} ppm

Temperature (deg C)	Measured CW Carrier (GHz)	Carrier setting (GHz)	Drift (kHz)	Drift (ppm)
-20	62.446520500	62.446000000	520.500000000	8.3
20	62.446432000	62.446000000	432.000000004	6.9
50	62.446318200	62.446000000	318.200000002	5.1

Section 8. Powerline Conducted Emissions

NAME OF TEST: Powerline Conducted Emissions	PARA. NO.: 15.207(a) RSS-GEN
TESTED BY: Mark Phillips	DATE: 3/17/2015

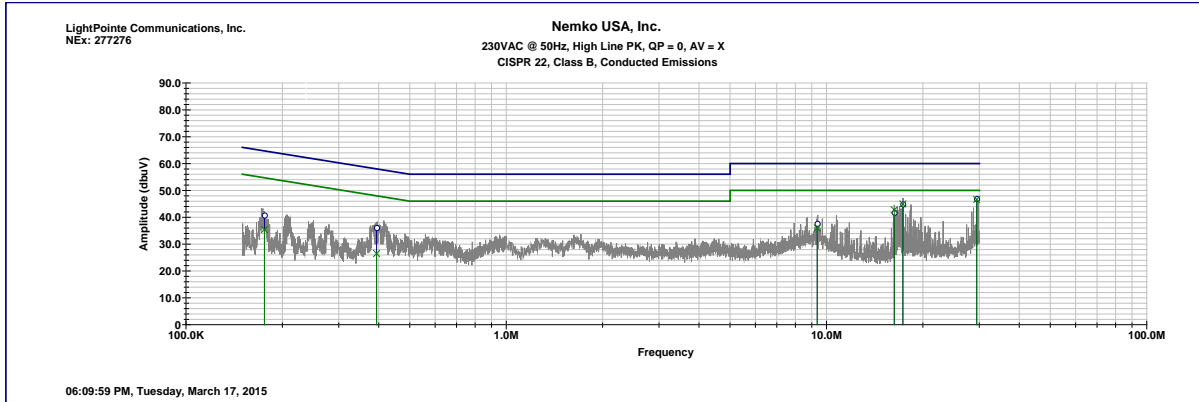
Test Results: Complies.

Measurement Data: See attached plots.

Measurement Uncertainty: +/- 1.7 dB

Test Data – Powerline Conducted Emissions

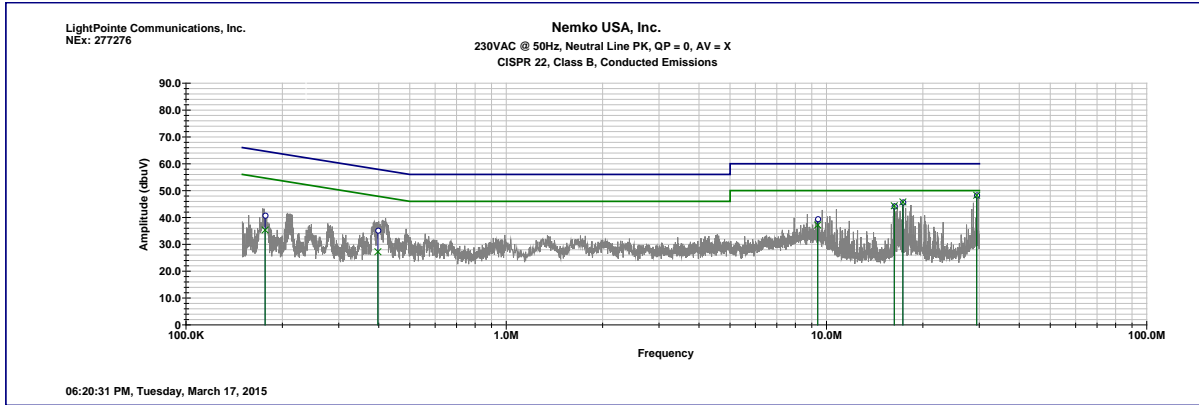
Client	LightPointe Communications, Inc.		
NEx #	277276	Temperature	24 °C
EUT Name	AireLink 60GHz Transceiver Series	Humidity	52 %
EUT Model	60 SX	Pressure	100.3 kPa
Governing Doc	EN 301 489-1, EN 301 489-4	Test Location	Ground Plane 3
Basic Standard	CISPR 22	Test Engineer	Mark Phillips
Test Voltage	230VAC 50Hz	Date	3/17/2015



Frequency (kHz)	Measured (dBµV)		Limit (dBµV)		Margin (dB)		Result
	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	
175.819	40.8	35.4	65.3	55.3	-24.5	-19.8	Pass
393.785	36.1	26.5	59	49	-22.9	-22.5	Pass
9353.57	37.7	36	60	50	-22.3	-14	Pass
16282	41.8	42.8	60	50	-18.2	-7.2	Pass
17317.6	44.9	45	60	50	-15.1	-5	Pass
29439	46.9	46.6	60	50	-13.1	-3.4	Pass

Compliance			
Compliant?	Yes	Additional Comments	N/A

Client	LightPointe Communications, Inc.			
NEx #	277276	Temperature	24	°C
EUT Name	AireLink 60GHz Transceiver Series	Humidity	52	%
EUT Model	60 SX	Pressure	100.3	kPa
Governing Doc	EN 301 489-1, EN 301 489-4	Test Location	Ground Plane 3	
Basic Standard	CISPR 22	Test Engineer	Mark Phillips	
Test Voltage	230VAC 50Hz	Date	3/17/2015	



Frequency (kHz)	Measured (dBµV)		Limit (dBµV)		Margin (dB)		Result
	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	
176.677	40.8	35.3	65.2	55.2	-24.4	-19.9	Pass
397.471	35.2	27.2	58.9	48.9	-23.7	-21.7	Pass
9389.62	39.5	37.2	60	50	-20.5	-12.8	Pass
16278.1	44.2	44.3	60	50	-15.8	-5.7	Pass
17317.6	45.7	45.8	60	50	-14.3	-4.2	Pass
29440.2	48.3	48.3	60	50	-11.7	-1.7	Pass

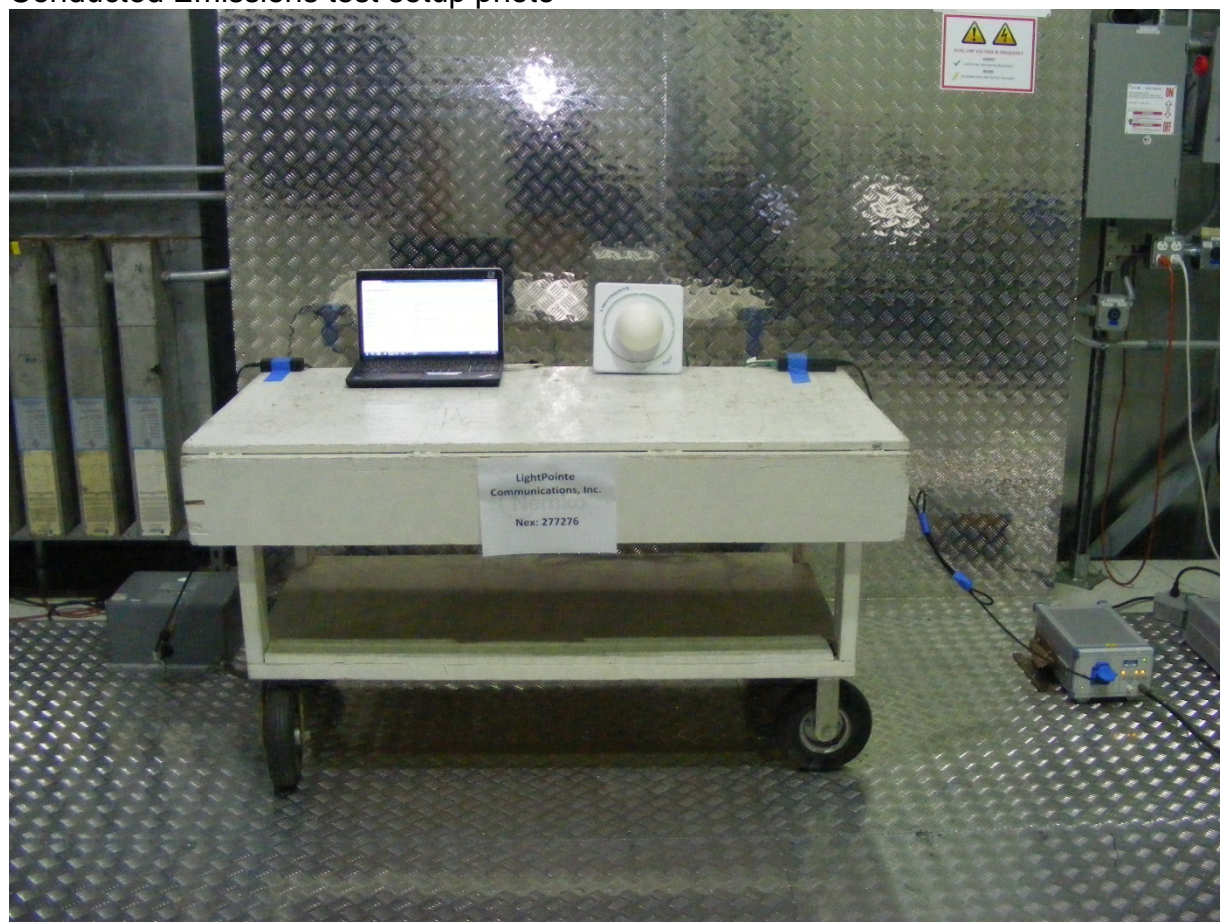
Compliance			
Compliant?	Yes	Additional Comments	N/A

Test Equipment:

E1026, EMI Test Receiver 9 kHz to 7GHz; E1019, Two Line V-Network; 805, LISN.

EQUIPMENT: 60 SX

Conducted Emissions test setup photo



Section 9. Test Equipment List

Asset Tag	Description	Manufacturer	Model	Serial #	Last Cal	Next Cal
529	Antenna, DRWG	EMCO	3115	2505	08-Dec-2014	08-Dec-2016
805	LISN	Solar	9348-50-R-24-BNC	992823	23-Sep-2015	23-Sep-2016
902	pre amp	Sonoma	310 N	185803	21-Aug-2015	21-Aug-2016
E1019	Two Line V-Network	Rohde & Schwarz	ENV216	101045	15-May-2015	15-May-2016
E1026	EMI Test Receiver 9kHz to 7GHz	Rohde & Schwarz	ESCI 7	100800	14-Aug-2014	14-Aug-2015
E1029	Preamplifier (20MHz to 18GHz)	A.H. Systems, Inc.	PAM-0118	343	09-Sep-2015	09-Sep-2016
1026	Frequency counter	Hewlett Packard	5350B	8232A01493	11-Jun-2014	11-Jun-2015
1464	Spectrum Analyzer	Hewlett Packard	8563E	3551A04428	22-Jul-2015	22-Jul-2017
1480	Antenna, Bilog	Schaffner-Chase	CBL6111C	2572	18-May-2015	18-May-2016
E1064	Spectrum Analyzer	Agilent	E4440A	US42221762	22-Dec-2014	22-Dec-2015
1523	Harmonic mixer + horn antenna 40-60 GHz	OML	WR-19	U91220-1	Validated*	Validated*
1524	Harmonic mixer + horn antenna 60-90 GHz	OML	WR-12	E91220-1	Validated*	Validated*
1525	Harmonic mixer + horn antenna 90-140 GHz	OML	WR-08	F91220-1	Validated*	Validated*
1526	Harmonic mixer + horn antenna 140-220 GHz	OML	WR-05	G91220-1	Validated*	Validated*

*This equipment is validated according to procedures in Nemko San Diego ISO 17025 quality management system as there is no reference calibration standard available for frequencies above 40 GHz.

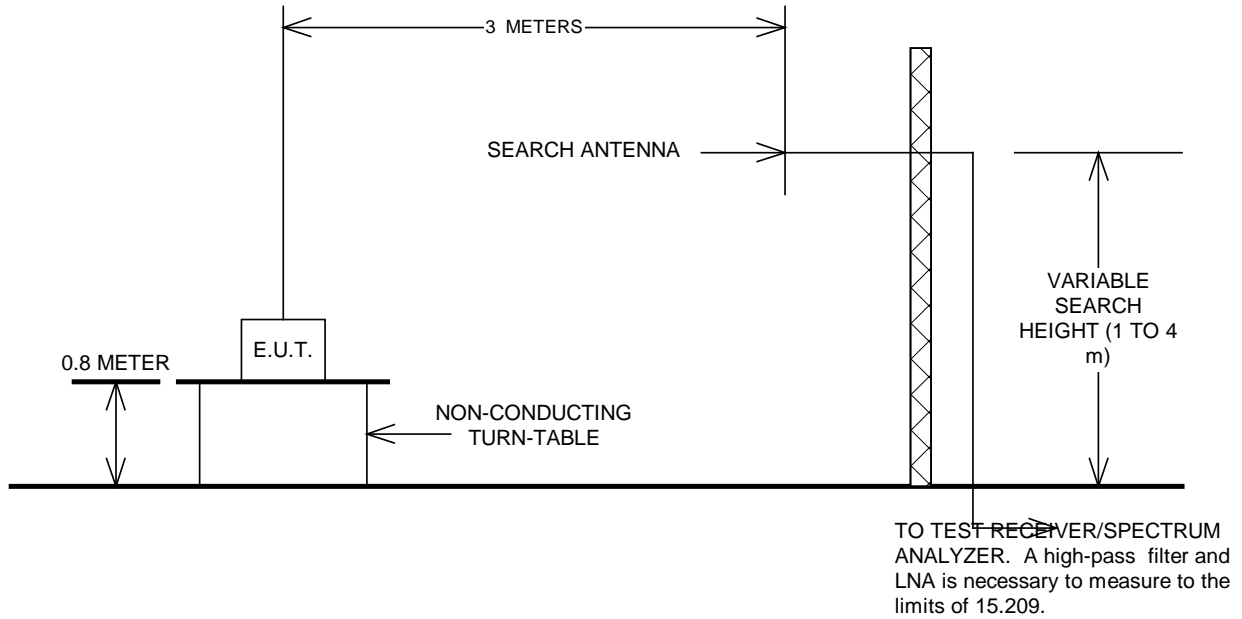
Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
Receiver/spectrum analyzer	Rohde & Schwarz	ESU 40	FA002071	1 year	April. 06/16
Power meter	Agilent	N1911A	FA001946	1 year	Mar. 04/17
Harmonic Generator	Olsen	40200WGS	FA001546	—	VOU
Signal generator	Rhode & Schwarz	SMR 40	FA001879	1 year	Jan. 14/17
Two Channel Oscilloscope	Tektronix	TDS 3032	FA002543	1 year	Oct. 15/16
Broadband detector	Quinstar	QEA-FBFBVP	-	—	VOU
Thermal Couple power head	Keysight	V8486A		2-OCT-2105	2-OCT-2016

Note: NCR - no calibration required, VOU - verify on use

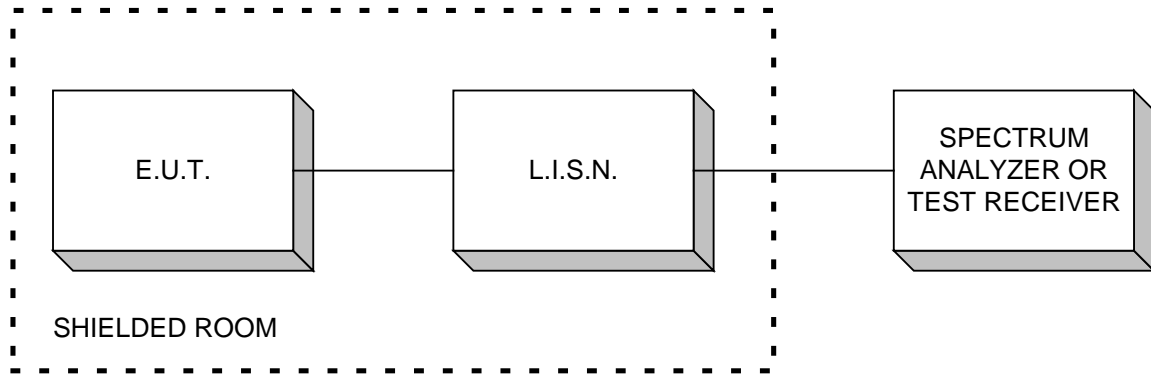
ANNEX A - TEST DIAGRAMS

EQUIPMENT: 60 SX

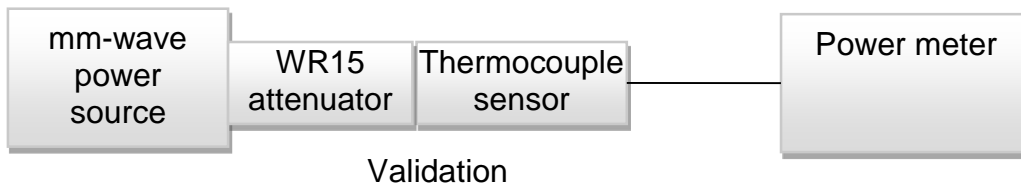
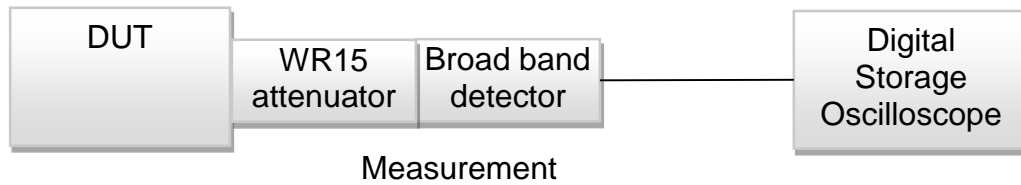
Test Site For Radiated Emissions



Powerline Conducted Emissions



Power at Antenna Terminals



Procedure:

- 1 EUT AVG power was measured with AVG power meter.
- 2 Attenuation was then added to the EUT output to reduce its level to -10 dBm to allow the diode detector to function per its sensitivity (mV/mW) characteristic.
- 3 The Digital Storage Oscilloscope was used to measure AVG and Peak voltage values of the attenuated output signal coming from detector in mV units.
- 4 Using the calibrated sensitivity conversion factor table measured voltage levels were converted to their power equivalents in mW units.
- 5 The difference between Peak and AVG power levels (the Peak to AVG ratio) was then obtained.
- 6 This ratio (in dB units) was then added to the initial measured AVG result in order to calculate Peak power result.