DIVERSIFIED
T.E.S.T.
TECHNOLOGIES, INC.
4675 Burr Drive ● Liverpool, NY 13088 ● 1-800-724-6452 ● FAX: 315-457-0428 ● 315-457-0245

July 31, 2012

Mr. Dave Deyo
Arcom Labs
185 Ainsley Drive
Syracuse, NY 13201

Dear Mr. Deyo:

Enclosed is the test report for the Arcom Labs QAM Snare Navigator QSNARE-60 which was tested at our facility located at 4675 Burr Drive in Liverpool, NY. This facility is on file with the Federal Communications Commission (FCC) per 47 CFR 2.948. (Site File Registration Number: 306552)

As narrated in the report, the product configuration meets the requirements of the FCC per CFR 47 Part 15.247 Class C for Intentional Radiators. Additionally, all spurious emissions signals are greater than 20 dB below the limit of FCC Part 15.209 and are not reported. Therefore, the unit under test meets the FCC Part 15.209 requirements. The plots indicated ambient scans.

Thank you for selecting Diversified T.E.S.T. Technologies, Inc. for your testing needs. We look forward to working with you on future projects. Should you have any questions or concerns regarding this report, contact me at 315-457-0245. Please feel free to visit our website at www.dttlab.com.

Sincerely,

Michael McElroy
Technical Associate

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Emissions Testing

Documentation

Test Report

Laboratory
Diversified TEST Technologies, Inc.
4675 Burr Drive
Liverpool, NY 13088
315-457-0245

Manufacturer
Arcom Labs
185 Ainsley Drive
Syracuse, NY 13201

Report Issue Date: **July 31, 2012**
Project Number: **6366**
Report Number: **6366-073112 FCCC – (Edition 1)**

Date Received: **July 31, 2012**
Date Tested: **July 31, 2012**
Product: **QAM Snare Navigator**
Model Numbers: QSNARE-60

Traceability: *Reference standards of measurement have been calibrated by a competent body using standards traceable to NIST.*

The testing performed by Diversified TEST Technologies, Inc. has shown that the product referenced above complies with the electromagnetic compatibility requirements according to the standard(s) specified on page 3 of the test report. The results in this test report apply only to the product denoted above. The manufacturer is responsible for ensuring that additional units are manufactured with identical mechanical and electrical characteristics.
The equipment listed above conforms to the specified requirements of the test standards listed on page 3 of this report.

Complied by:
Signature:  Date: July 31, 2012
Michael McElroy
Technical Associate

Reviewed by:
Signature:  Date: July 31, 2012
Annelle Frierson
Vice- President

Emissions Test Regulations

The emissions tests were performed according to the following regulations:

☐EN 50081-1:1992

☐EN 50081-2:1995

☐EN 55011:1998 / A1:1999 / A2:2001 ☐Group 1 ☐Group 2
☐Class A ☐Class B

☐EN 55013:1990 / A12:1994 / A13:1996 / A14:1999

☐EN 55014:1993 / A1: 1997 ☐Household appliances and similar
☐Portable tools
☐Semiconductor devices

☐EN 55022:1998 ☐Class A ☐Class B

☒**FCC Part 15.247** ☐Class A ☐Class B ☒**Class C**

☒**Certification**
☐Verification
☐Declaration of Conformity

Emissions Test Conditions: FCC PART 15.247

The Harmonics and Bandwidth measurements were tested in a horizontal and vertical polarization at the following test location:

☒ Diversified TEST Technologies, Inc. Open Area Test Site
☐ Diversified TEST Technologies, Inc. Lab

at a test distance of:

☒ 1 meter
☒ 3 meters
☐ 30 meters

Test equipment used:

Manufacturer	**Model**	**Description**	**Serial #**
Hewlett Packard	8593EM	Spectrum Analyzer	3536A00139
Electro-Metrics	RGA60	Ridge Horn Antenna	2981
Hewlett Packard	7550A	Plotter	2407A00476
Electro-Metrics	LPA-25	Log Periodic Antenna 200-1000 MHz	1242
	MFR-57500	Blue low-loss transmit cable	337
		Non-conductive wooden turntable	
		10-meter open field test range, grounded with ¼ ” x ¼ ” hardware cloth	
Hewlett Packard	8595E	Spectrum Analyzer	3746A03177
Agilent	E7402A	Spectrum Analyzer	MY45103221

Equipment under Test (EUT) Test Operation Mode – Emissions Tests:

The device under test was operated under the following conditions during emissions testing:

☐ Standby

☒ Normal Operating Mode

☐ Practice Operation

Description / Configuration of the device under test:

The QAM Snare Navigator is designed for use by a CATV technician with the responsibility to find and fix RF leaks in a CATV system. The Navigator receives CATV spectrum samples over a wireless GSM network from a QAM Snare Signal Processor installed at the CATV Headend. The Navigator compares those samples to new samples received at the antenna connected to the Navigator. Leakage is detected when both sets of samples match. Then a mathematical calculation of the leak location is performed with data from an on-board GPS receiver, flags are placed on a map displayed on the LCD screen, and a database contained in the Headend Signal Processor is updated with the corresponding leak data

The unit was powered by a 3.7 V Battery during the collection of data.

Rationale for EUT setup / configuration:

ANSI C63.4:2003

Emissions Test Results:

FCC Part 15.247 Part C for 902, 915, and 927 MHz
The requirements are ☒ **MET** ☐ **NOT MET**

IC RSS-210, Issue 8, December 2010
The requirements are ☒ **MET** ☐ **NOT MET**

General Remarks:

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Measurements were taken up to the tenth harmonic.

Peak power measurements did not exceed 1W. (30 dBm)

The EUT was evaluated in 1 orthogonal orientation and the worst case data is reflected in the test report.

FCC ID: POF209101QSNAV
IC # 10603A-QSNARE60

Summary:

The requirements according to the technical regulations are

☒ Met.
☐ Not met.

The device under test does

☒ fulfill the general approval requirements mentioned on page 3.
☐ not fulfill the general approval requirements mentioned on page 3.

Testing Start Date: July 17, 2012

Testing End Date: July 24, 2012

Test Setup Photographs:

FCC PART 15.247 CLASS C – 902/915/927 MHZ

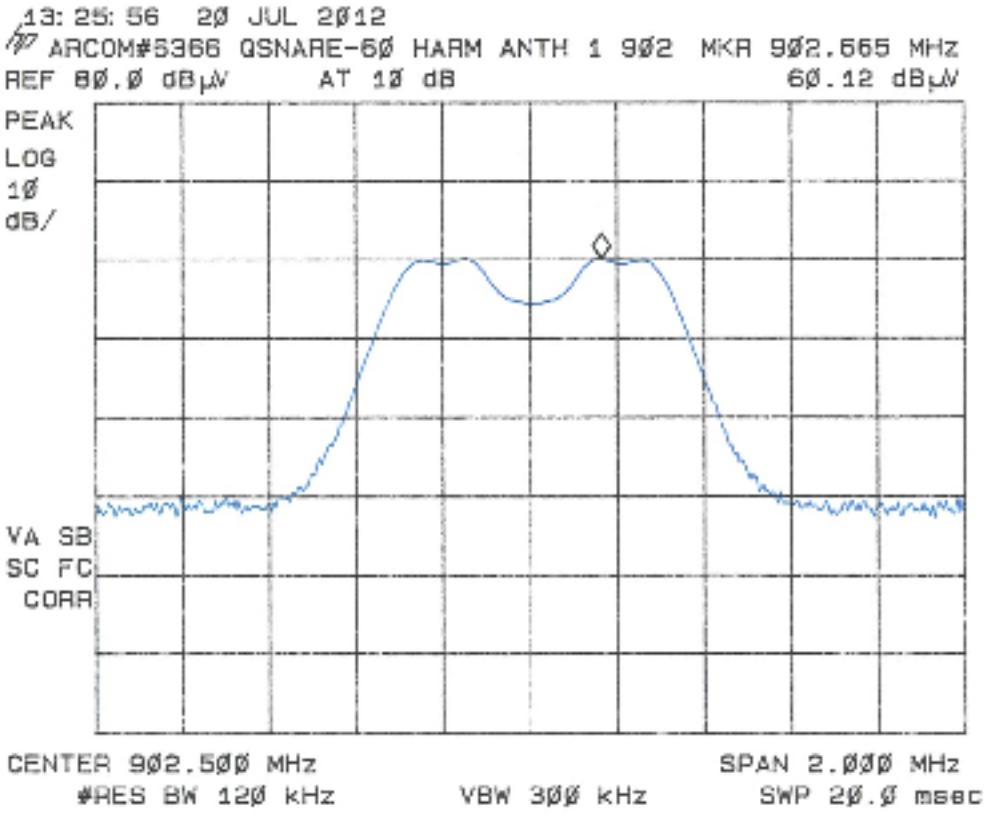
Photograph 1: FCC Part 15.247 Class C

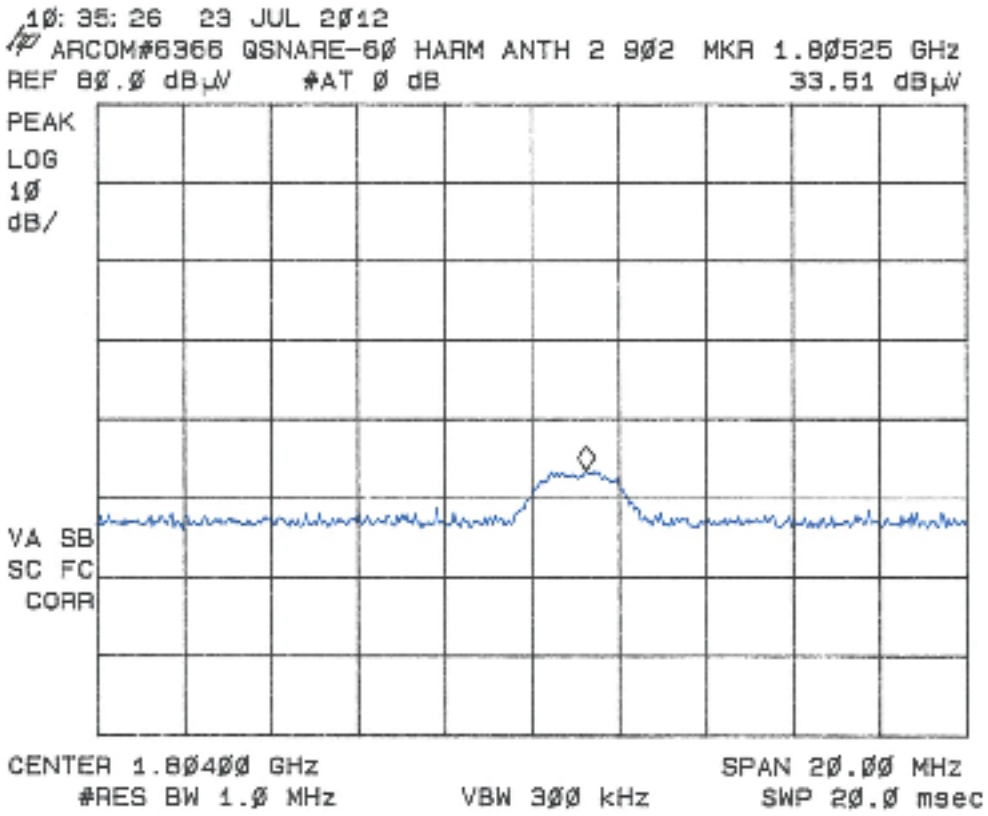
Harmonics Test Datasheets – 902 MHz

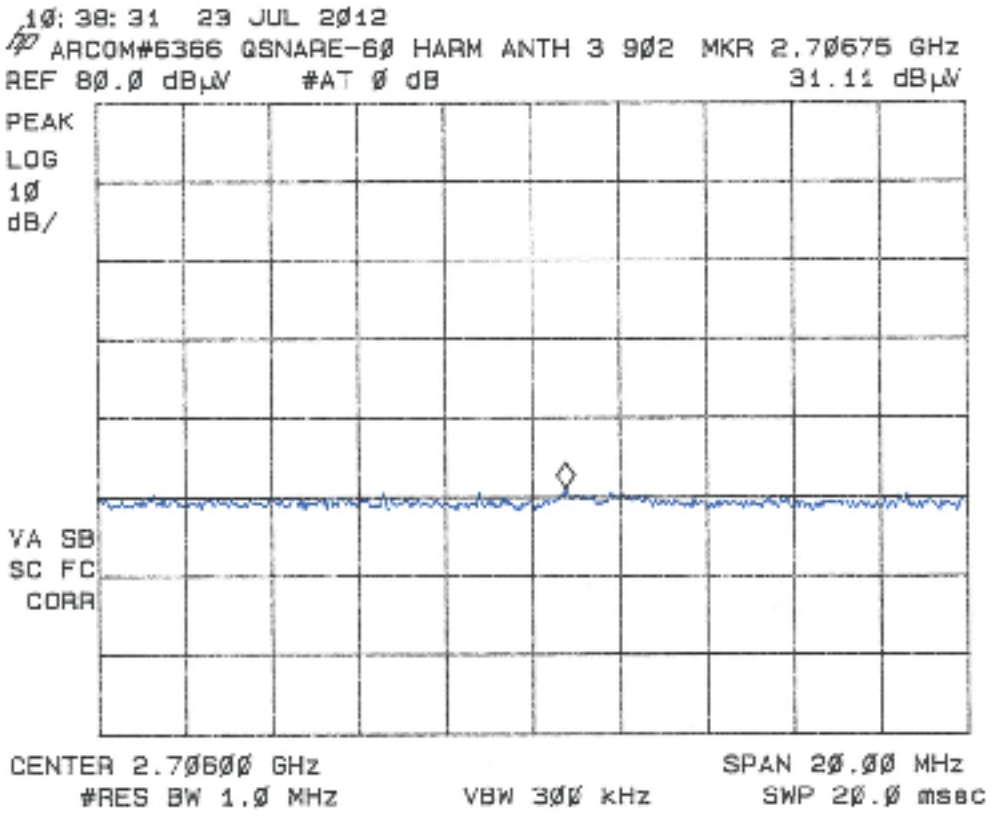
11 pages to follow.

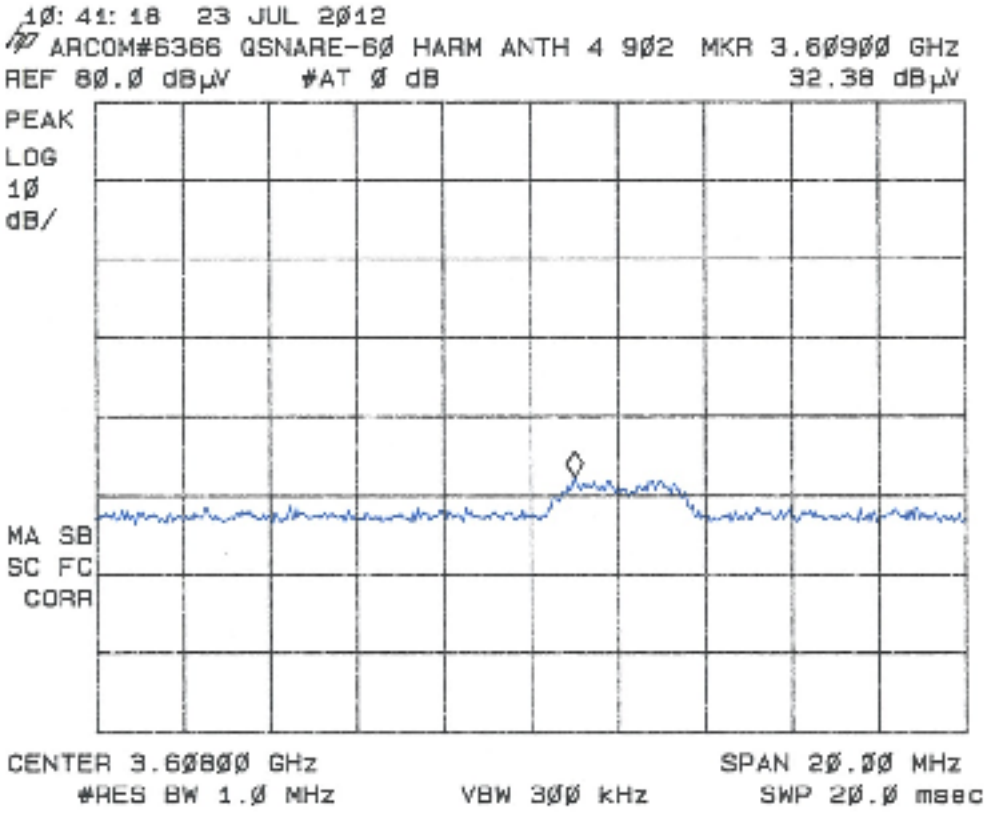
Limits for transmitters
Tested July 20, 2012
October 17, 2012

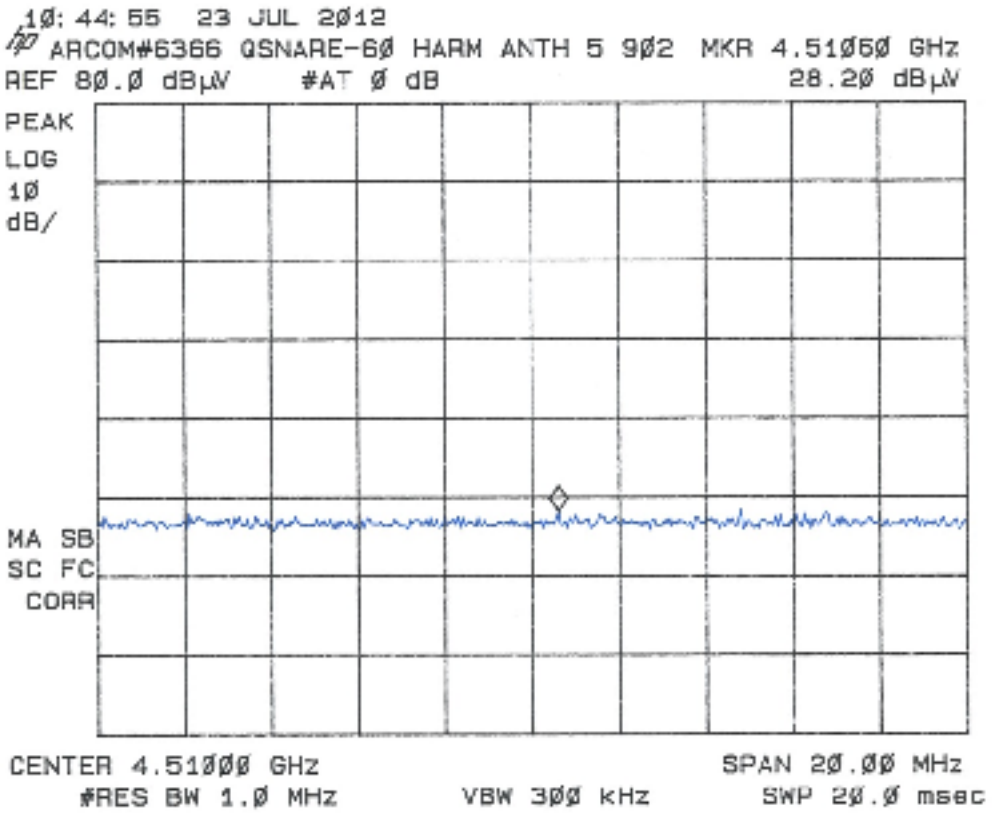
FCC Harmonics Test 902 MHz										
Measured	Res.	DUT	Measured	Cable	Amplifier	Measurement	FCC	Corrected	Margin	
Field Strength	Bandwidth	Frequency	Frequency	Factor	Gain	Distance	Limit	Field Strength		Polarity
(dBµV)	(Khz)	(Mhz)	(Mhz)	(dBuV)	(dBuV)	(Meters)	(dBuV)	(dBuV/M)	(dBuV/M)	
60.12	120	902	902	9.4	0	3	136.99	69.52	-67.47	Horizontal
33.51	1000	902	1804	2.0	0	1	54	35.51	-18.49	Horizontal
31.10	1000	902	2706	2.0	0	1	54	33.10	-20.90	Horizontal
32.38	1000	902	3608	2.2	0	1	54	34.58	-19.42	Horizontal
28.20	1000	902	4510	2.4	0	1	54	30.60	-23.40	Horizontal
29.08	1000	902	5412	2.4	0	1	54	31.48	-22.52	Horizontal
27.44	1000	902	6314	2.4	0	1	54	29.84	-24.16	Horizontal
23.41	1000	902	7216	2.5	0	1	54	25.91	-28.09	Horizontal
22.93	1000	902	8118	2.6	0	1	54	25.53	-28.47	Horizontal
23.95	1000	902	9020	2.7	0	1	54	26.65	-27.35	Horizontal
67.49	120	902	902	9.4	0	3	136.99	76.89	-60.10	Vertical
37.49	1000	902	1804	2.0	0	1	54	39.49	-14.51	Vertical
32.92	1000	902	2706	2.0	0	1	54	34.92	-19.08	Vertical
29.78	1000	902	3608	2.2	0	1	54	31.98	-22.02	Vertical
28.31	1000	902	4510	2.4	0	1	54	30.71	-23.29	Vertical
27.49	1000	902	5412	2.4	0	1	54	29.89	-24.11	Vertical
28.27	1000	902	6314	2.4	0	1	54	30.67	-23.33	Vertical
23.74	1000	902	7216	2.5	0	1	54	26.24	-27.76	Vertical
22.37	1000	902	8118	2.6	0	1	54	24.97	-29.03	Vertical
24.69	1000	902	9020	2.7	0	1	54	27.39	-26.61	Vertical
*Antenna factors are pre-calculated into Measured Field Strength (dBµV)										
Unit Under Test: QSNARE-60										

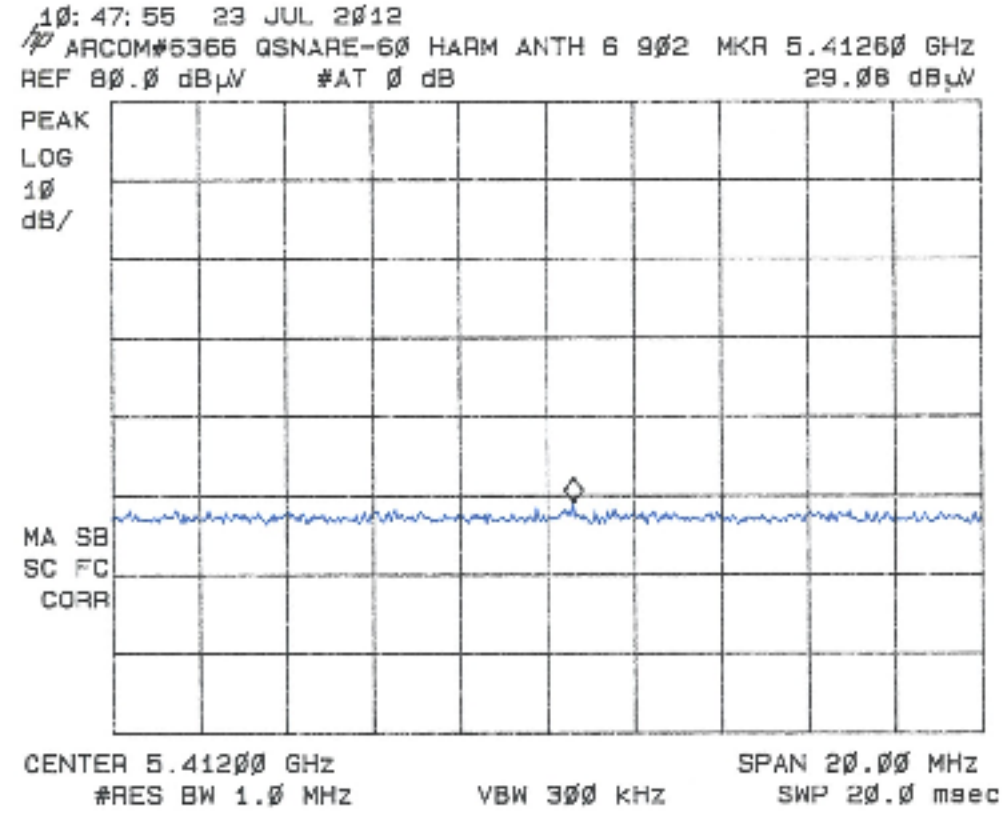

13: 25: 56 20 JUL 2012
ARCOM#5366 QSNARE-60 HARM ANTH 1 902 MKR 902.665 MHz
REF 80.0 dBµV AT 10 dB 60.12 dBµV
PEAK
LOG
10
dB/
VA SB
SC FC
CORR
CENTER 902.500 MHz SPAN 2.000 MHz
#RES BW 120 kHz VBW 300 kHz SWP 20.0 msec

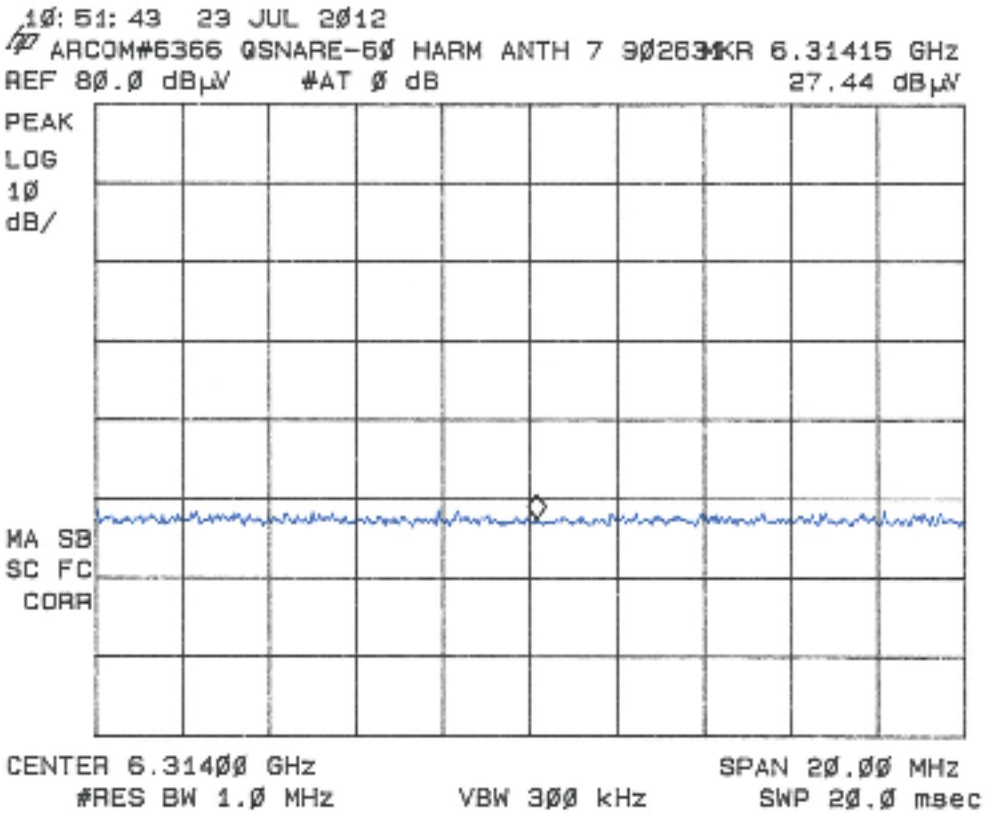

10: 35: 26 23 JUL 2012
ARCOM#5366 QSNARE-60 HARM ANTH 2 902 MKR 1.80525 GHz
REF 80.0 dBµV #AT 0 dB 33.51 dBµV
PEAK
LOG
10
dB/
VA SB
SC FC
CORR
CENTER 1.804000 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec

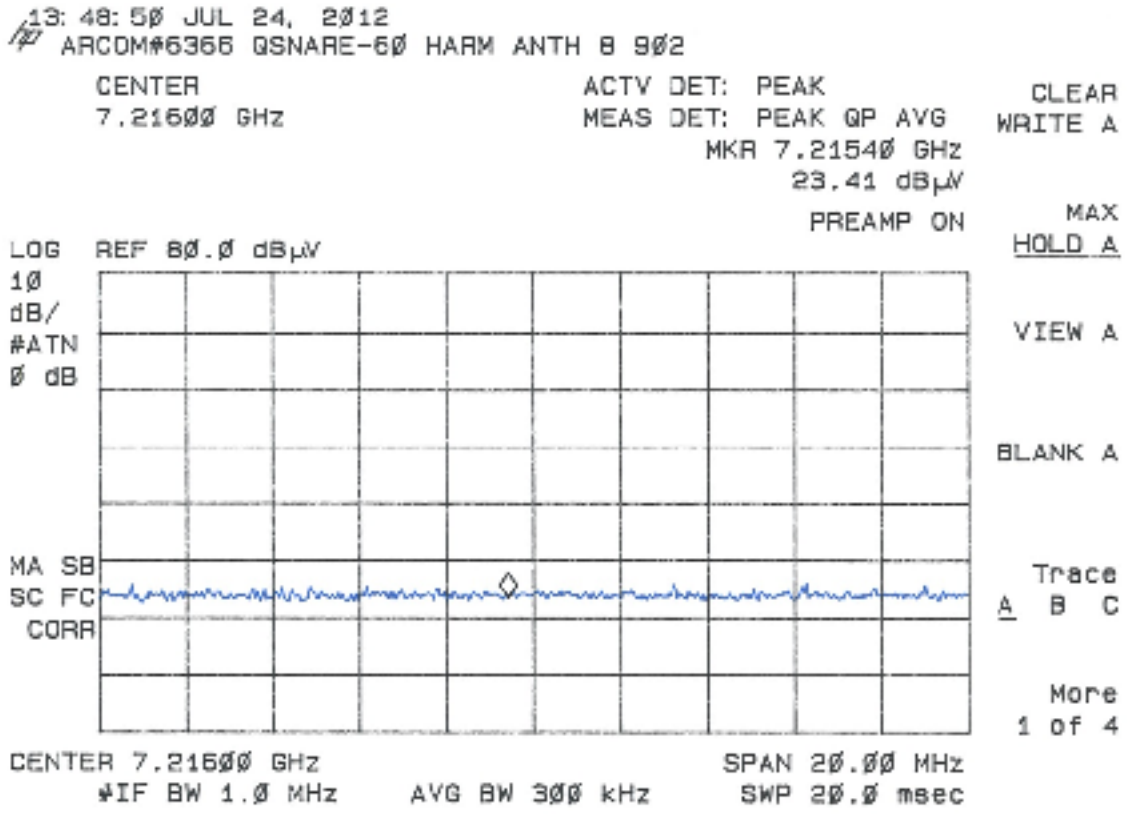

10: 38: 31 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 3 902 MKR 2.70675 GHz
REF 80.0 dBµV #AT 0 dB 31.11 dBµV
PEAK
LOG
10
dB/
VA SB
SC FC
CORR
CENTER 2.70600 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


10: 41: 18 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 4 902 MKR 3.60900 GHz
REF 80.0 dBµV #AT 0 dB 32.38 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 3.60800 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


10: 44: 55 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 5 902 MKR 4.51060 GHz
REF 80.0 dBµV #AT 0 dB 28.20 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 4.51000 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


10: 47: 55 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 6 902 MKR 5.41260 GHz
REF 80.0 dBµV #AT 0 dB 29.06 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 5.41200 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec

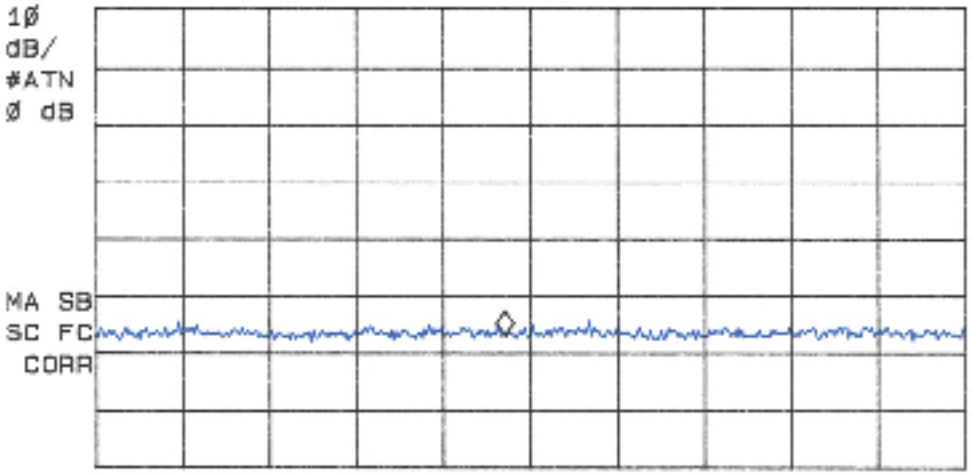

10: 51: 43 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 7 902634
MKR 6.31415 GHz
REF 80.0 dBµV
#AT 0 dB
27.44 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 6.31400 GHz
SPAN 20.00 MHz
#RES BW 1.0 MHz
VBW 300 kHz
SWP 20.0 msec


13: 48: 50 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTH 8 902
CENTER
7.21600 GHz
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.21540 GHz
23.41 dBµV
PREAMP ON
LOG REF 80.0 dBµV
10
dB/
#ATN
0 dB
MA SB
SC FC
CORR
CENTER 7.21600 GHz
SPAN 20.00 MHz
#IF BW 1.0 MHz
AVG BW 300 kHz
SWP 20.0 msec
CLEAR
WRITE A
MAX
HOLD A
VIEW A
BLANK A
Trace
A B C
More
1 of 4

13:51:19 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTH 9 90

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.11740 GHz
22.93 dBµV
PREAMP ON

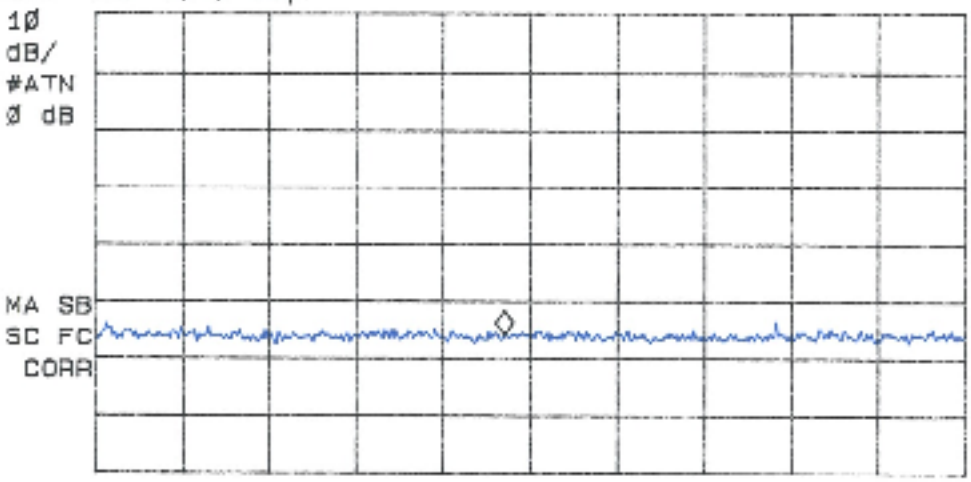
CLEAR
WRITE A
MAX
HOLD A
VIEW A
BLANK A
Trace
A B C
More
1 of 4



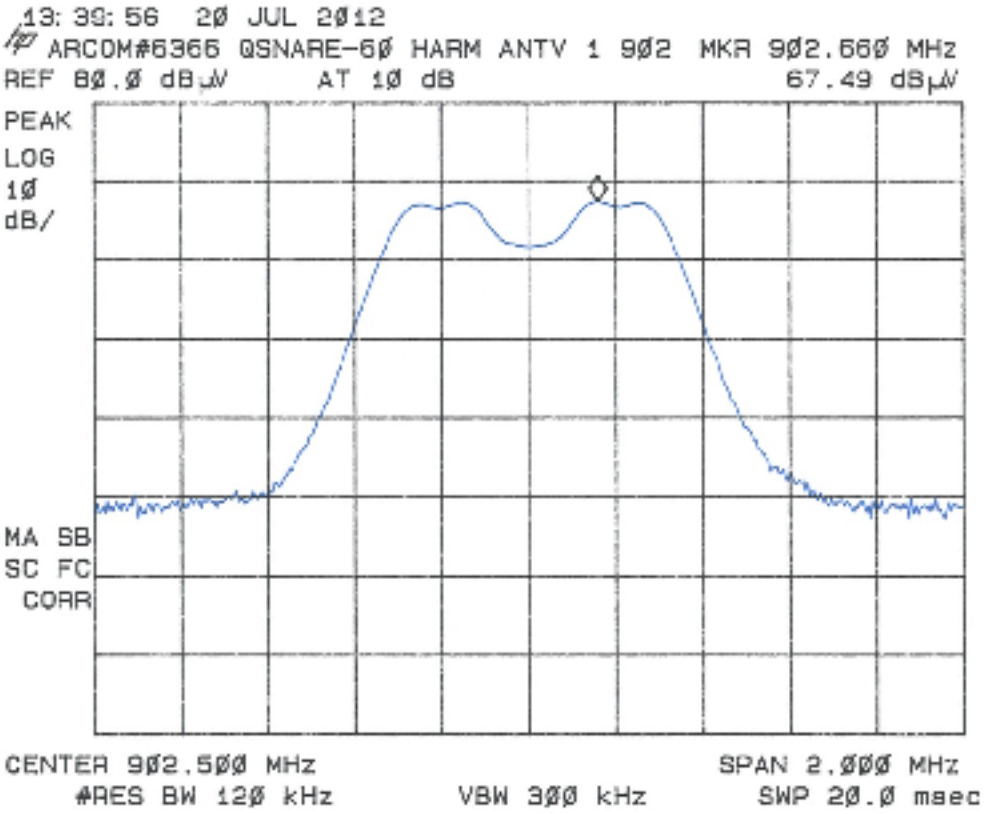
CENTER 8.11800 GHz
SPAN 20.00 MHz
#IF BW 1.0 MHz
AVG BW 300 kHz
SWP 20.0 msec

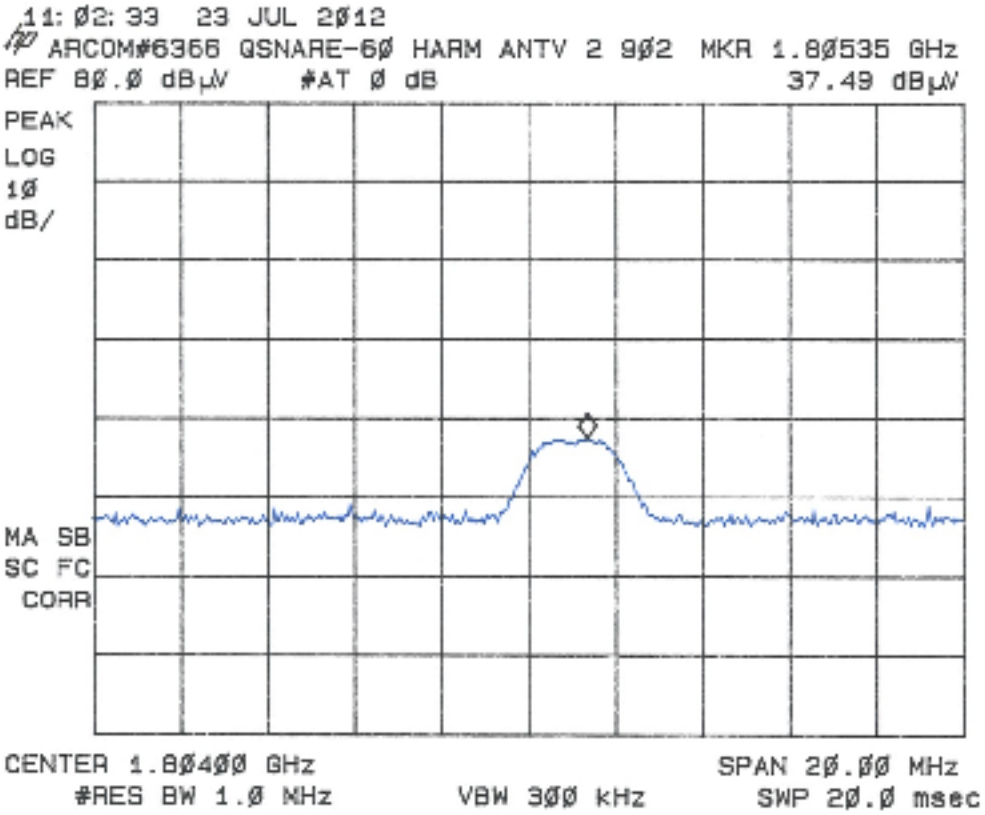
13:53:39 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTH 10 902

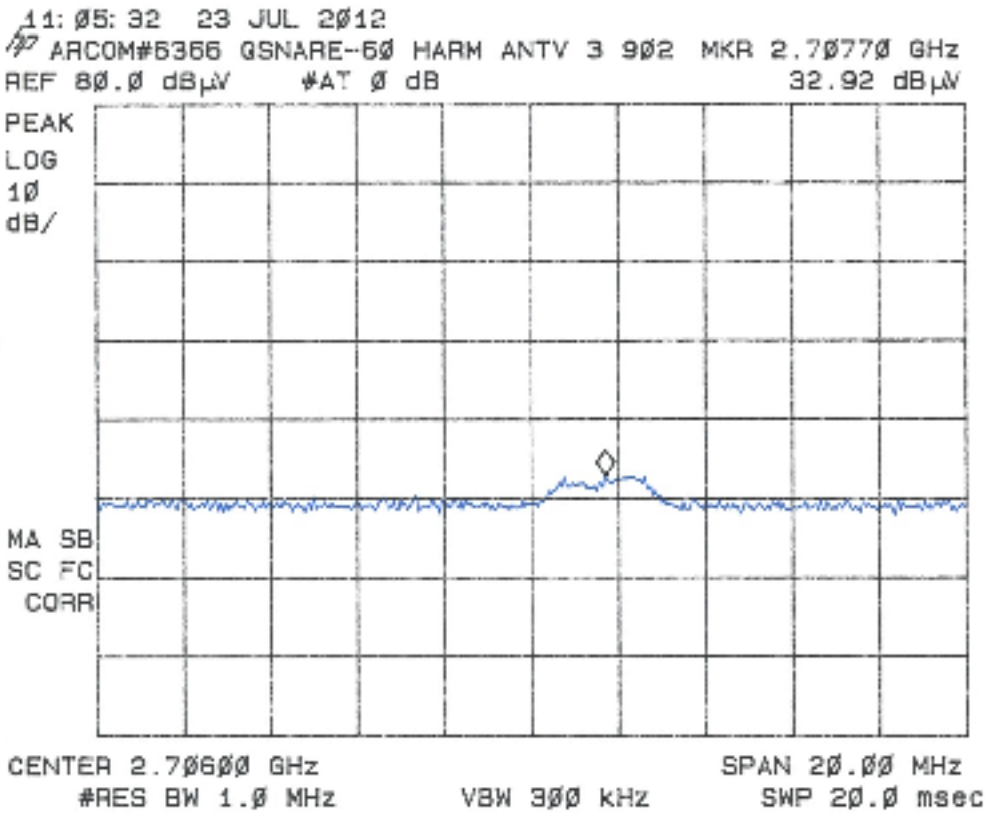
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 9.01940 GHz
23.95 dBµV
PREAMP ON

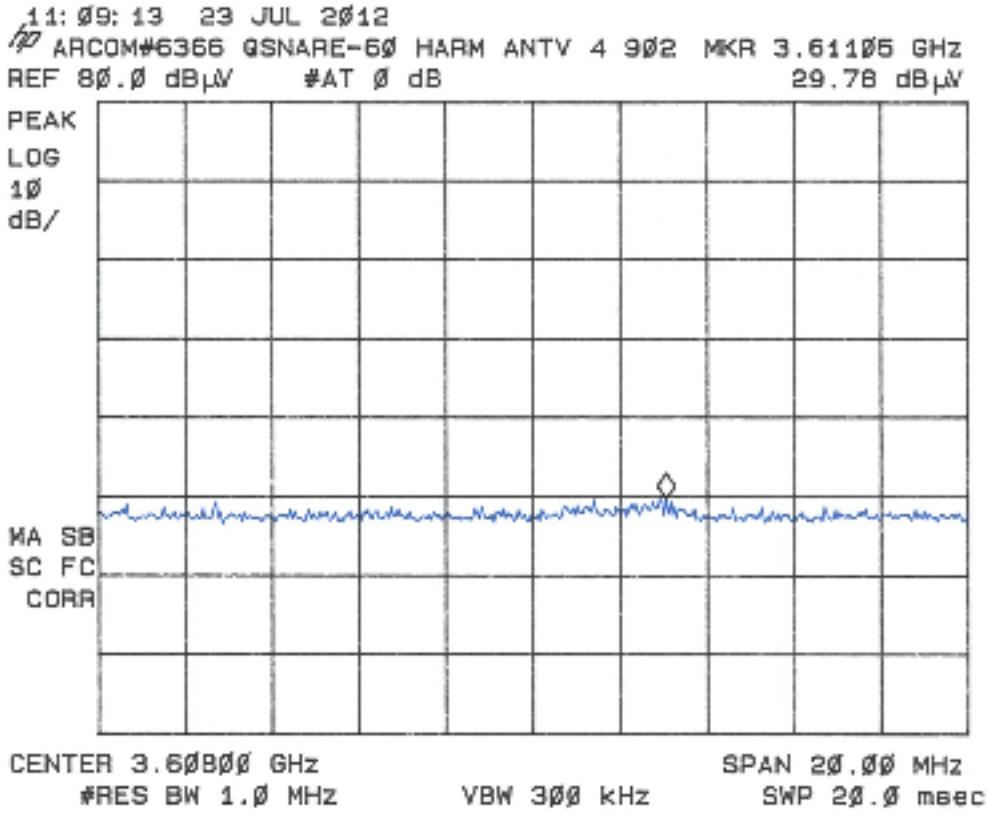


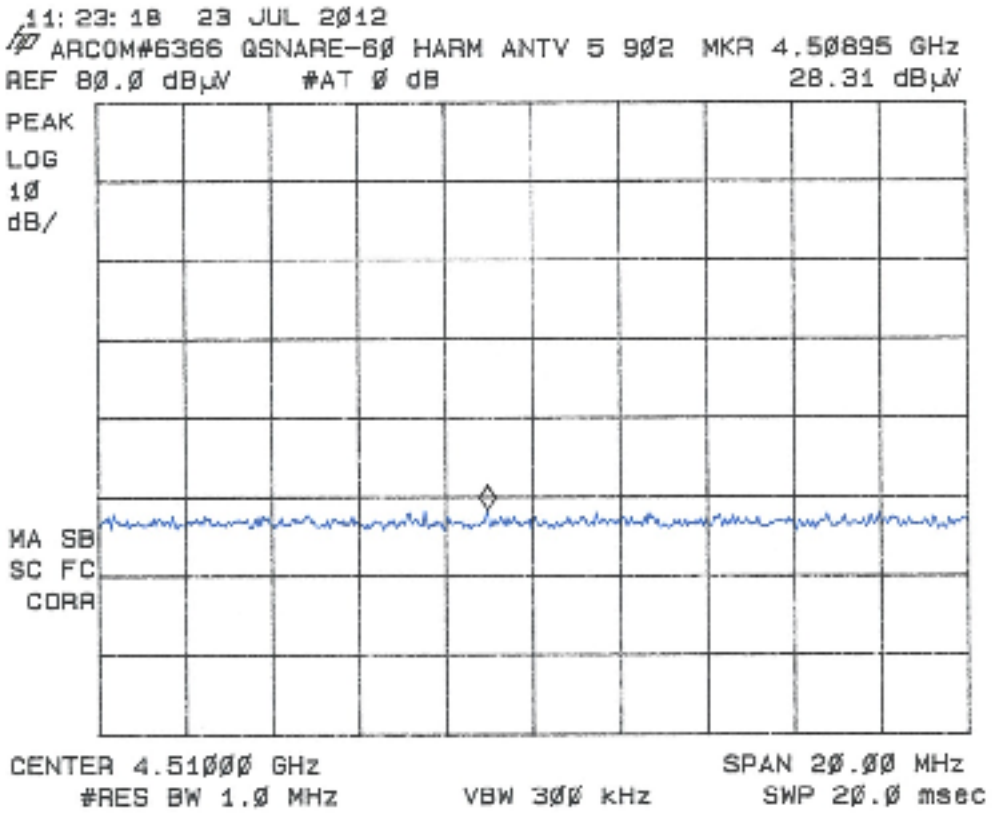
CENTER 9.02000 GHz
SPAN 20.00 MHz
#IF BW 1.0 MHz
AVG BW 300 kHz
SWP 20.0 msec

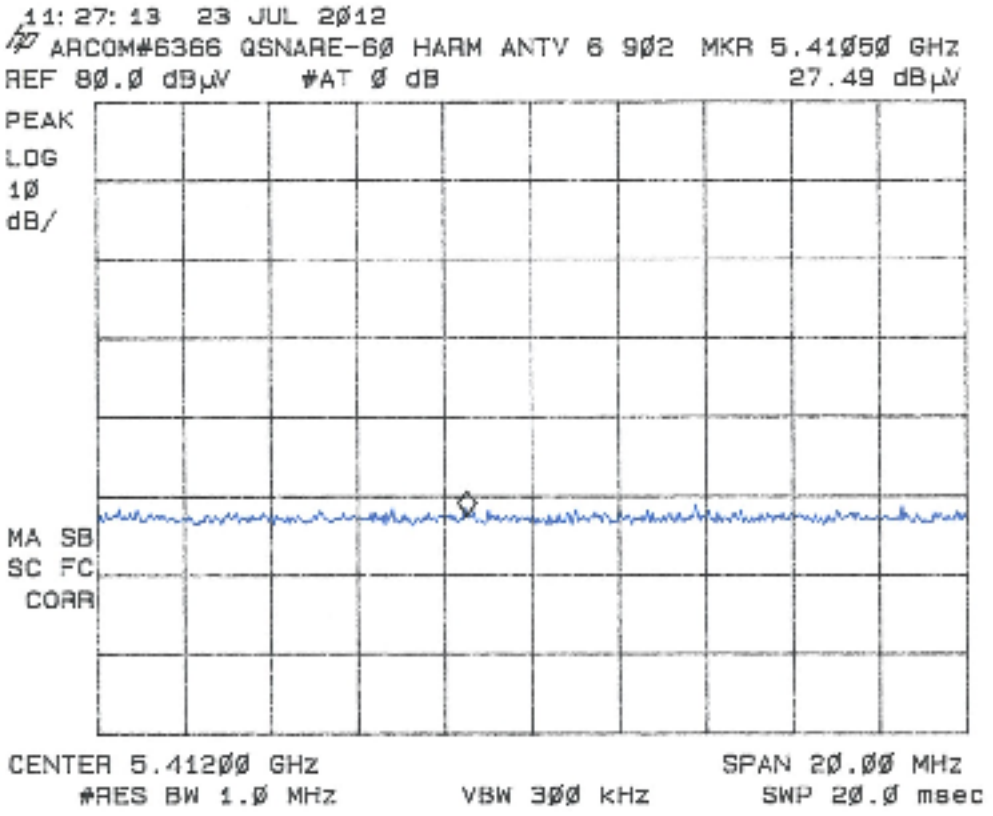

13: 39: 56 2Ø JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 1 9Ø2 MKR 9Ø2.66Ø MHz
REF 8Ø.Ø dBµV AT 1Ø dB 67.49 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 9Ø2.5ØØ MHz SPAN 2.ØØØ MHz
#RES BW 12Ø kHz VBW 3ØØ kHz SWP 2Ø.Ø msec

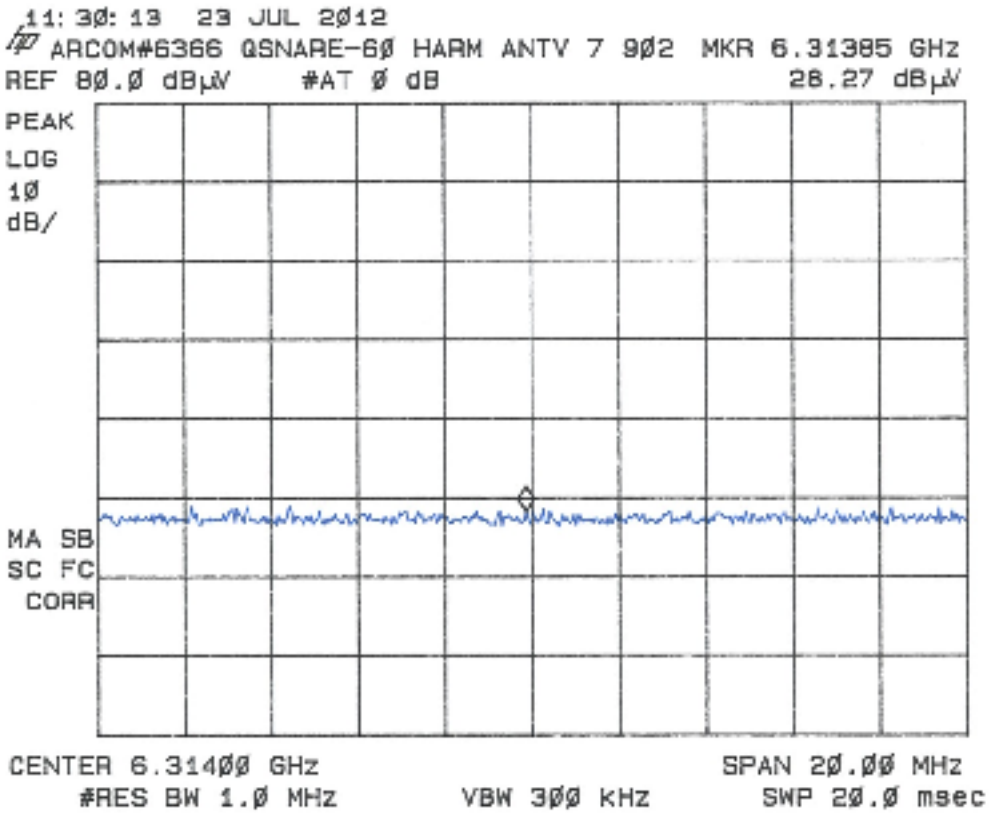

11: Ø2: 33 23 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 2 9Ø2 MKR 1.8Ø535 GHz
REF 8Ø.Ø dBµV #AT Ø dB 37.49 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 1.8Ø4ØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

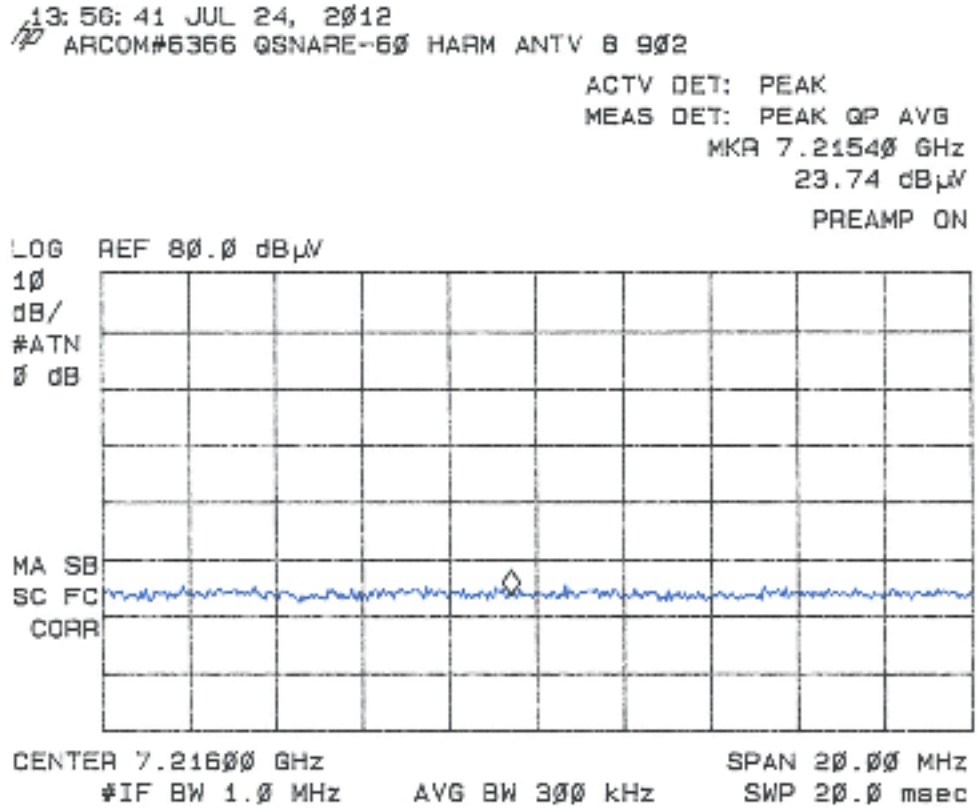

11: Ø5: 32 23 JUL 2Ø12
ARCOM#6366 GSNARE-6Ø HARM ANTV 3 9Ø2 MKR 2.7Ø77Ø GHz
REF 8Ø.Ø dBµV #AT Ø dB 32.92 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 2.7Ø6ØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

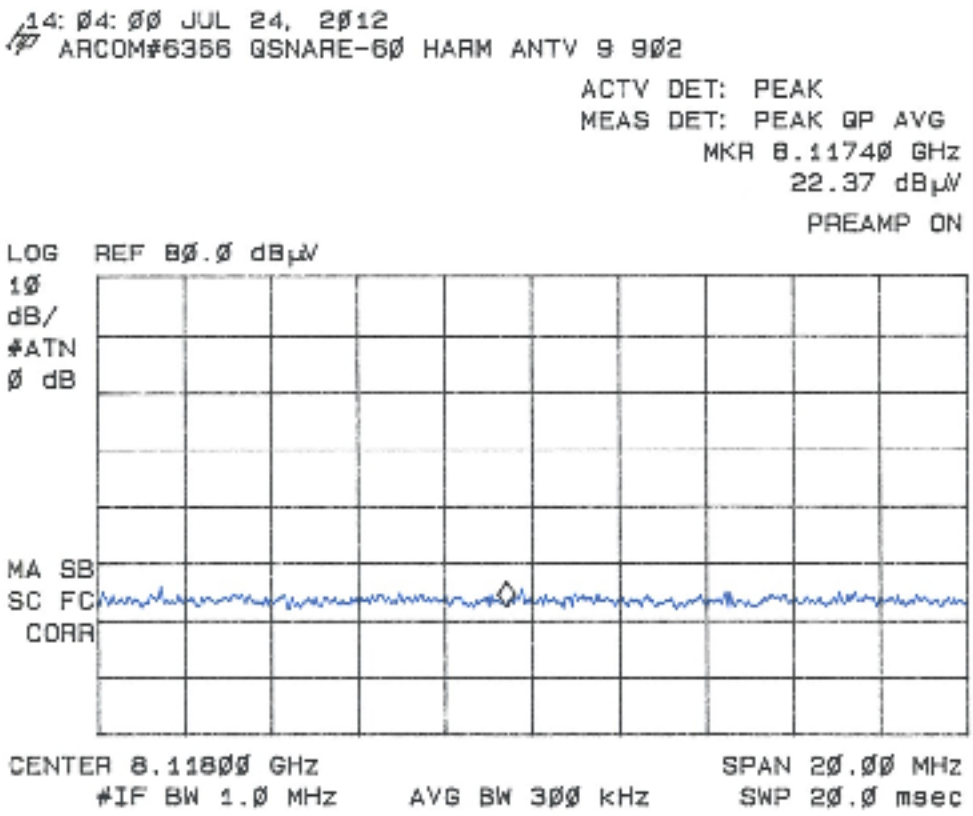

11: Ø9: 13 23 JUL 2Ø12
ARCOM#6366 GSNARE-6Ø HARM ANTV 4 9Ø2 MKR 3.611Ø5 GHz
REF 8Ø.Ø dBµV #AT Ø dB 29.78 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 3.6ØBØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

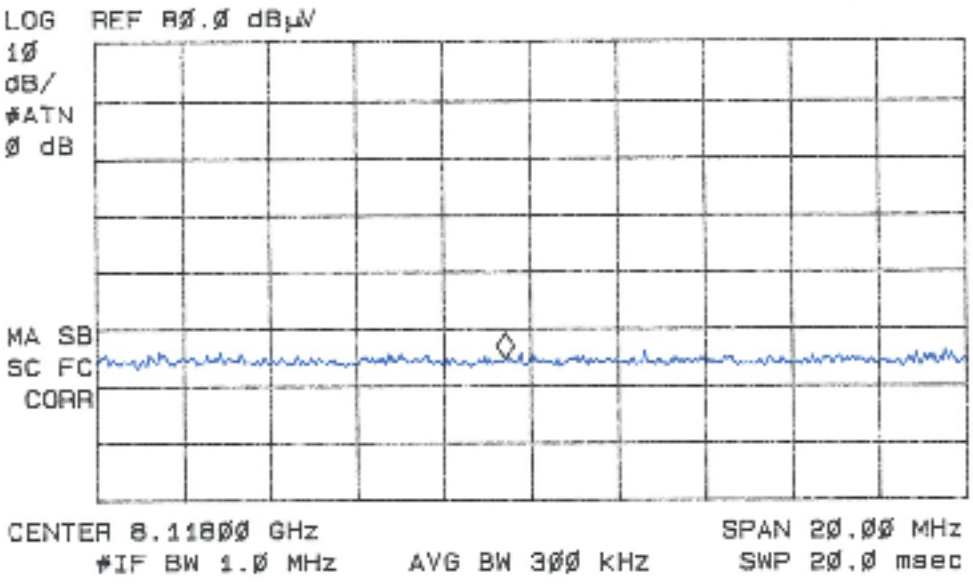

11: 23: 18 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 5 902 MKR 4.50895 GHz
REF 80.0 dBµV #AT 0 dB 28.31 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 4.51000 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


11: 27: 13 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 6 902 MKR 5.41050 GHz
REF 80.0 dBµV #AT 0 dB 27.49 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 5.41200 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


11: 30: 13 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 7 902 MKR 6.31385 GHz
REF 80.0 dBµV #AT 0 dB 28.27 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 6.31400 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


13: 56: 41 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTV 8 902
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.21540 GHz
23.74 dBµV
PREAMP ON
LOG REF 80.0 dBµV
10
dB/
#ATN
0 dB
MA SB
SC FC
CORR
CENTER 7.21600 GHz SPAN 20.00 MHz
#IF BW 1.0 MHz AVG BW 300 kHz SWP 20.0 msec


14: Ø4: ØØ JUL 24, 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 9 9Ø2
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.1174Ø GHz
22.37 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
#ATN
Ø dB
MA SB
SC FC
CORR
CENTER 8.118ØØ GHz
SPAN 2Ø.ØØ MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

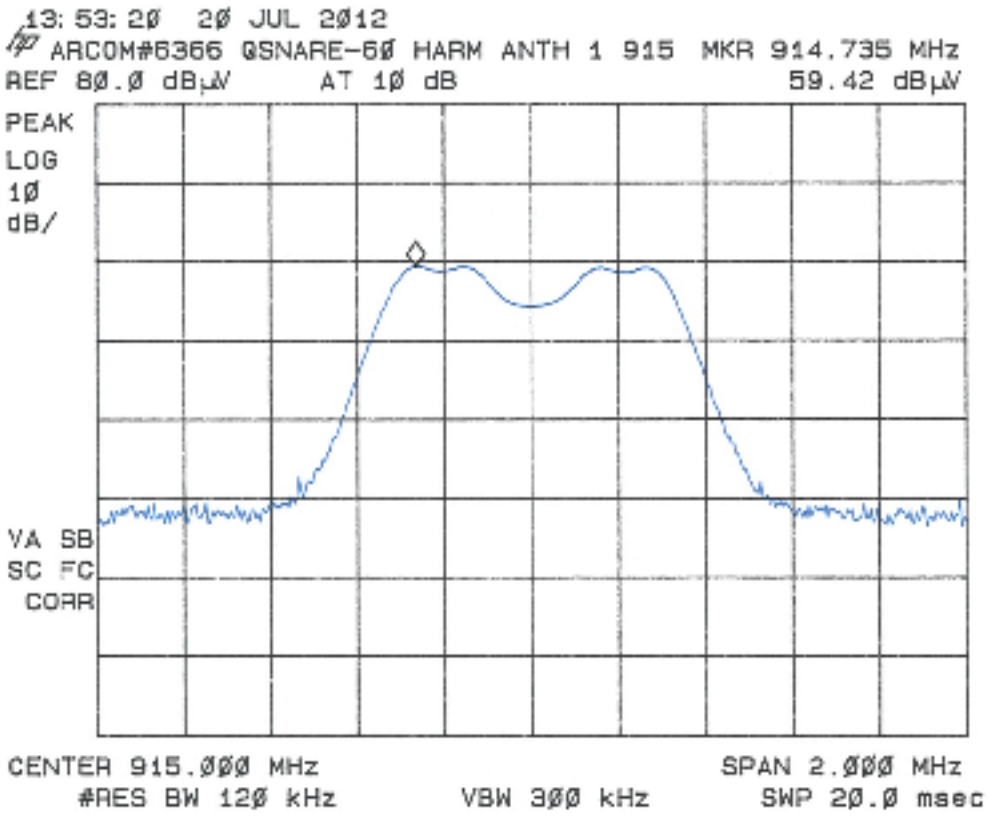

14: Ø7: 31 JUL 24, 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 1Ø 9Ø2
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.1174Ø GHz
24.69 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
#ATN
Ø dB
MA SB
SC FC
CORR
CENTER 8.118ØØ GHz
SPAN 2Ø.ØØ MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

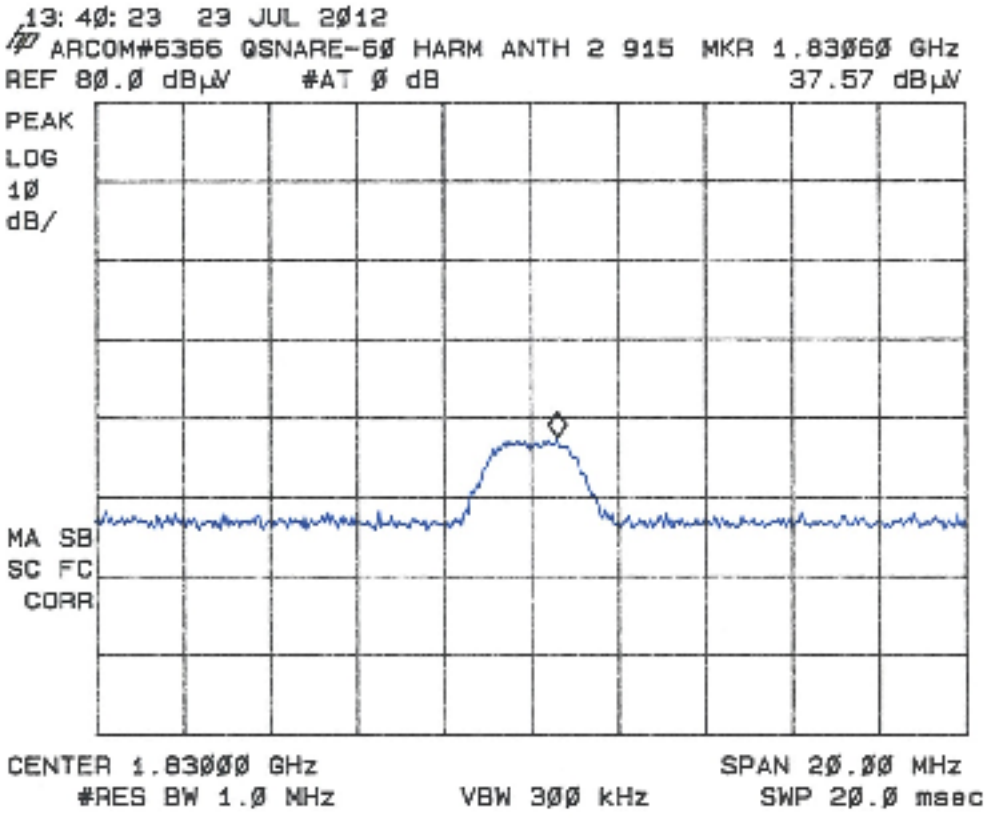
Harmonics Test Datasheets – 915 MHz

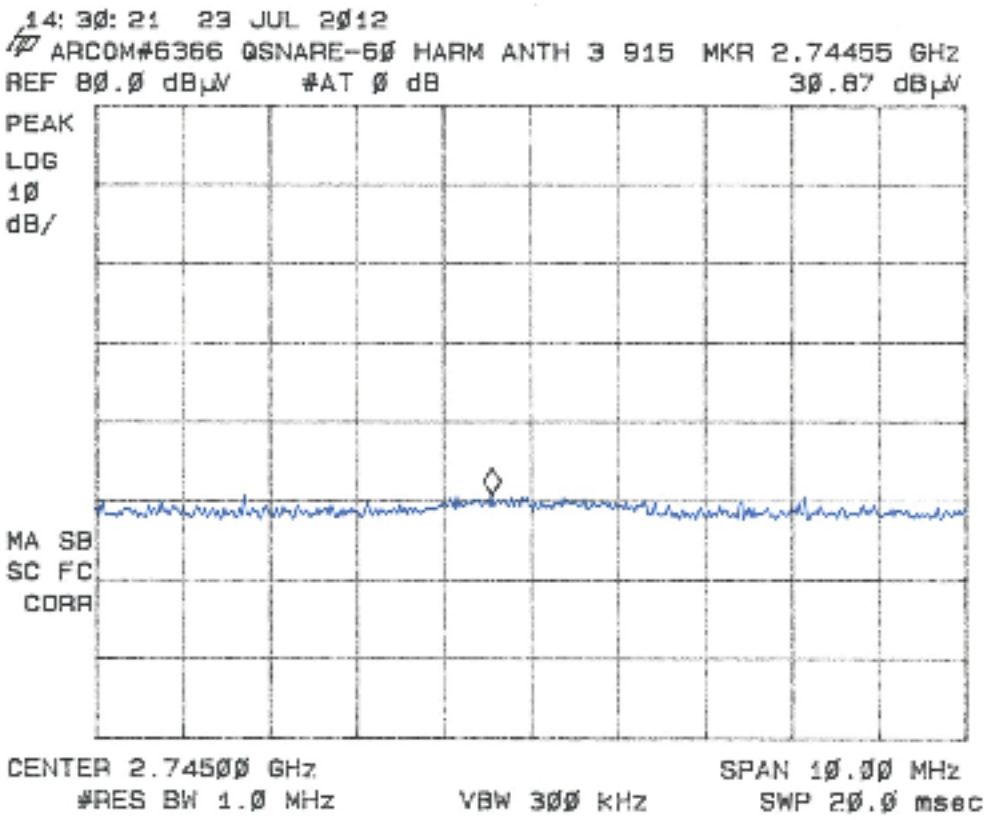
11 pages to follow.

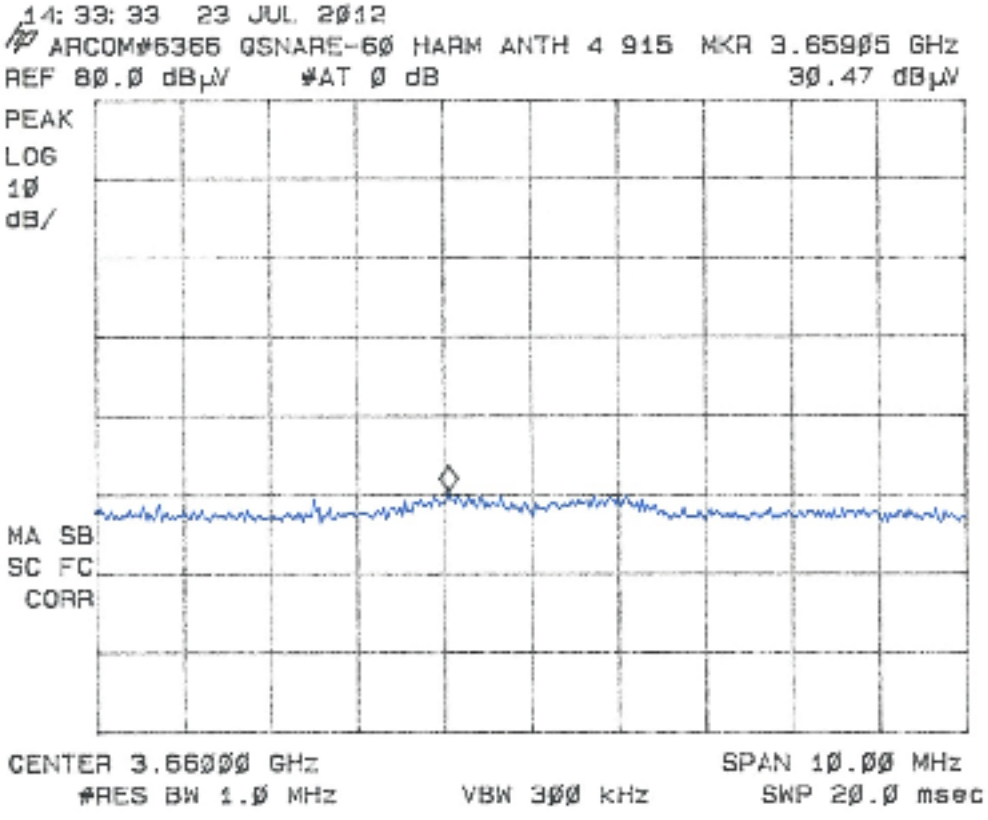
Limits for transmitters
Tested: July 20, 2012
October 17, 2012

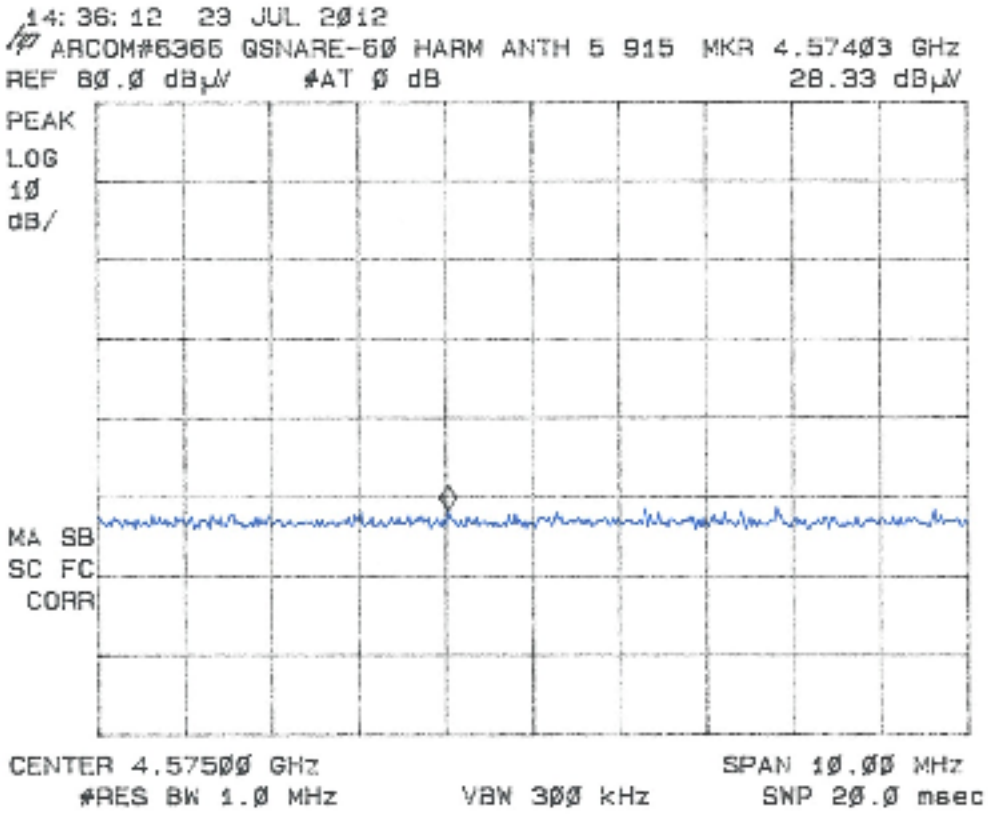
FCC Harmonics Test 915 MHz										
Measured	Res.	DUT	Measured	Cable	Amplifier	Measurement	FCC	Corrected	Margin	
Field Strength	Bandwidth	Frequency	Frequency	Factor	Gain	Distance	Limit	Field Strength		Polarity
(dBµV)	(Khz)	(Mhz)	(Mhz)	(dBuV)	(dBuV)	(Meters)	(dBuV)	(dBuV/M)	(dBuV/M)	
59.42	120	915	915	9.6	0	3	136.99	69.02	-67.97	Horizontal
37.57	1000	915	1830	2.1	0	1	54	39.67	-14.33	Horizontal
30.87	1000	915	2745	2.2	0	1	54	33.07	-20.93	Horizontal
30.47	1000	915	3660	2.2	0	1	54	32.67	-21.33	Horizontal
28.33	1000	915	4575	2.4	0	1	54	30.73	-23.27	Horizontal
29.42	1000	915	5490	2.6	0	1	54	32.02	-21.98	Horizontal
27.48	1000	915	6405	2.7	0	1	54	30.18	-23.82	Horizontal
24.32	1000	915	7320	2.7	0	1	54	27.02	-26.98	Horizontal
23.48	1000	915	8235	2.9	0	1	54	26.38	-27.62	Horizontal
23.95	1000	915	9150	3.0	0	1	54	26.95	-27.05	Horizontal
67.10	120	902	915	9.6	0	3	136.99	76.70	-60.29	Vertical
39.40	1000	902	1830	2.1	0	1	54	41.50	-12.50	Vertical
34.37	1000	902	2745	2.2	0	1	54	36.57	-17.43	Vertical
29.85	1000	902	3660	2.2	0	1	54	32.05	-21.95	Vertical
28.51	1000	902	4575	2.4	0	1	54	30.91	-23.09	Vertical
28.29	1000	902	5490	2.6	0	1	54	30.89	-23.11	Vertical
28.24	1000	902	6405	2.7	0	1	54	30.94	-23.06	Vertical
23.16	1000	902	7320	2.7	0	1	54	25.86	-28.14	Vertical
25.25	1000	902	8235	2.9	0	1	54	28.15	-25.85	Vertical
22.72	1000	902	9150	3.0	0	1	54	25.72	-28.28	Vertical
*Antenna factors are pre-calculated into Measured Field Strength (dBµV)										
Unit Under Test: QSNARE-60										

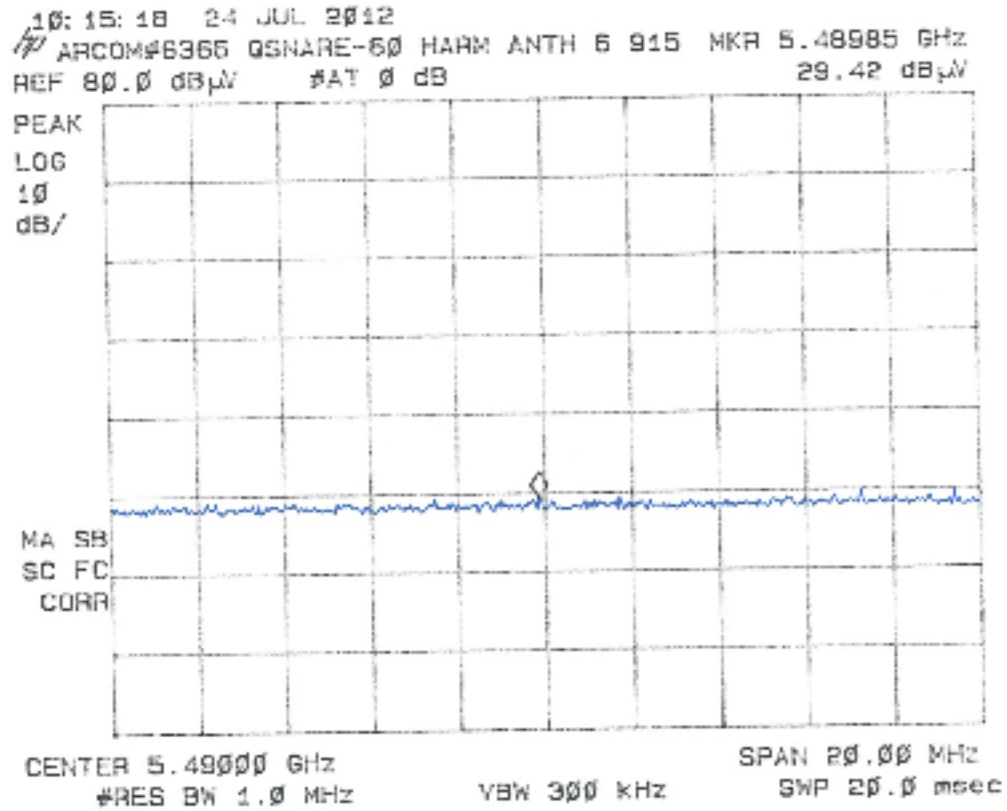

13: 53: 2Ø 2Ø JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTH 1 915 MKR 914.735 MHz
REF 8Ø.Ø dBµV AT 1Ø dB 59.42 dBµV
PEAK
LOG
1Ø
dB/
VA SB
SC FC
CORR
CENTER 915.ØØØ MHz SPAN 2.ØØØ MHz
#RES BW 12Ø kHz VBW 3ØØ kHz SWP 2Ø.Ø msec

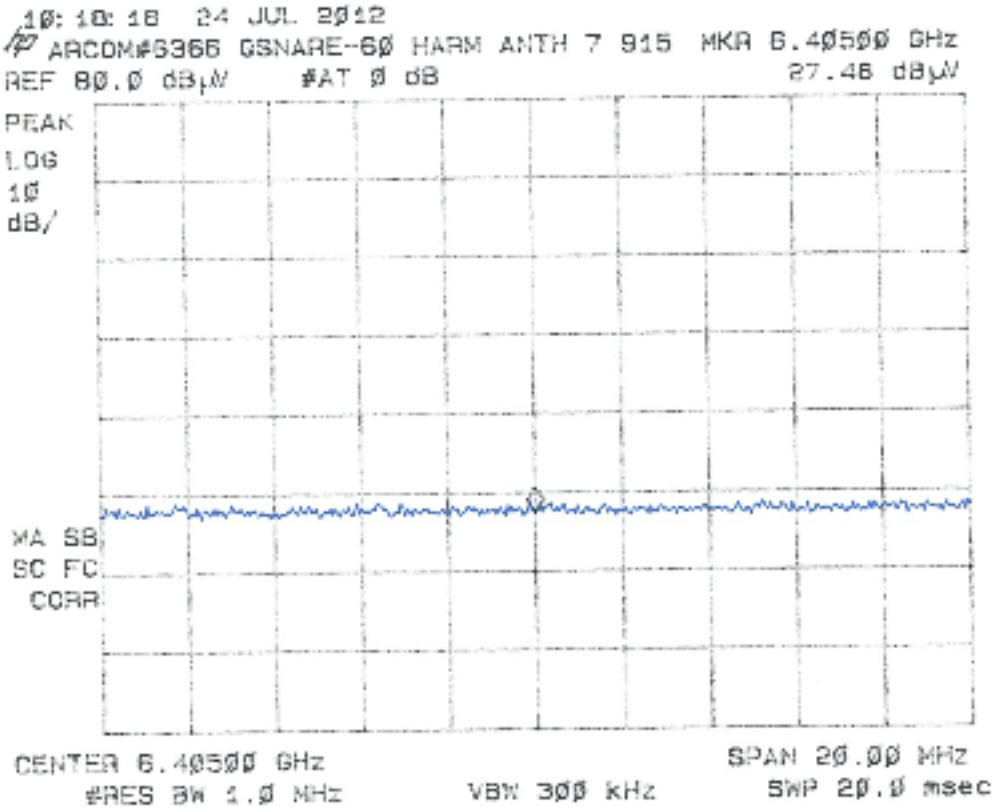

13: 4Ø: 23 23 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTH 2 915 MKR 1.83Ø6Ø GHz
REF 8Ø.Ø dBµV #AT Ø dB 37.57 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 1.83ØØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

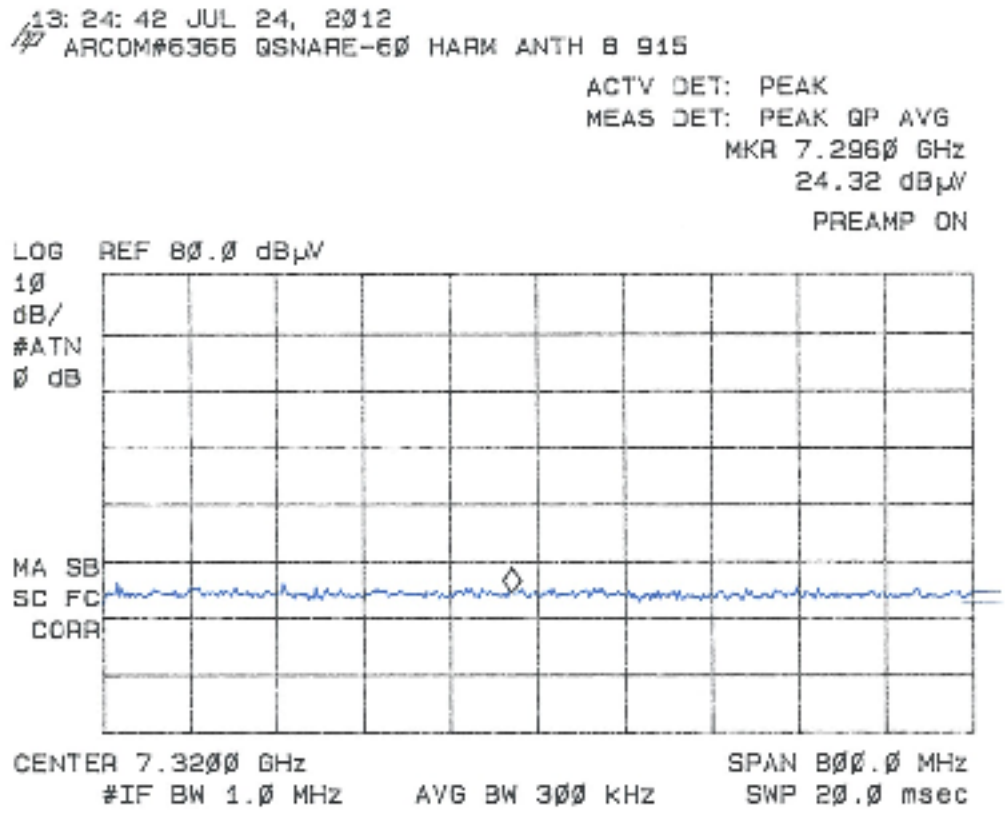

14: 30: 21 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 3 915 MKR 2.74455 GHz
REF 80.0 dBµV #AT 0 dB 30.87 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 2.74500 GHz SPAN 10.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


14: 33: 33 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 4 915 MKR 3.65905 GHz
REF 80.0 dBµV #AT 0 dB 30.47 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 3.66000 GHz SPAN 10.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


14: 36: 12 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 5 915 MKR 4.574Ø3 GHz
REF 8Ø.Ø dBµV #AT Ø dB 28.33 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 4.575ØØ GHz SPAN 1Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

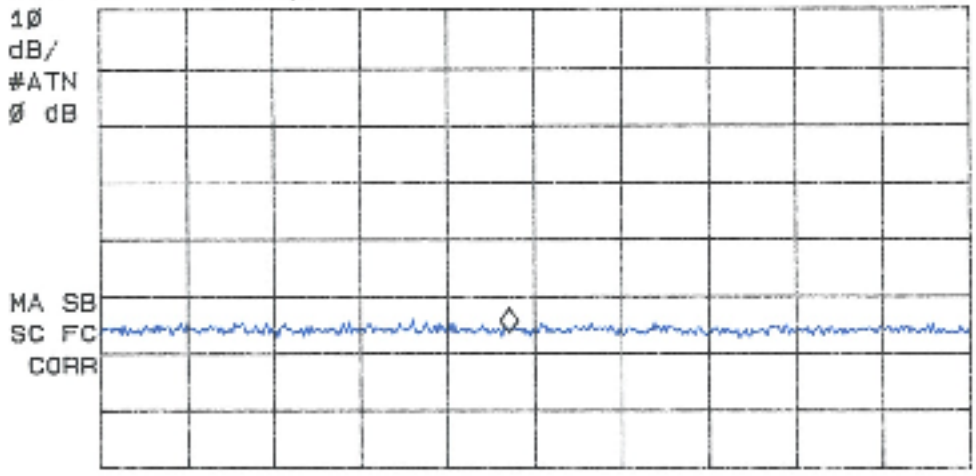

1Ø: 15: 18 24 JUL 2Ø12
ARCOM#6366 QSNARE-60 HARM ANTH 6 915 MKR 5.48985 GHz
REF 8Ø.Ø dBµV #AT Ø dB 29.42 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 5.49ØØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec


10: 10: 18 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 7 915 MKR 6.4050Q GHz
REF 80.0 dBµV #AT 0 dB 27.46 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 6.4050Q GHz
SPAN 20.0Q MHz
#RES BW 1.0 MHz
VBW 300 kHz
SWP 20.0 msec


13: 24: 42 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTH 8 915
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.296Q GHz
24.32 dBµV
PREAMP ON
LOG REF 80.0 dBµV
10
dB/
#ATN
0 dB
MA SB
SC FC
CORR
CENTER 7.320Q GHz
SPAN 80Q.0 MHz
#IF BW 1.0 MHz
AVG BW 300 kHz
SWP 20.0 msec

13: 39: 56 JUL 24, 2012
ARCOM#6366 GSNARE-60 HARM ANTH 9 915

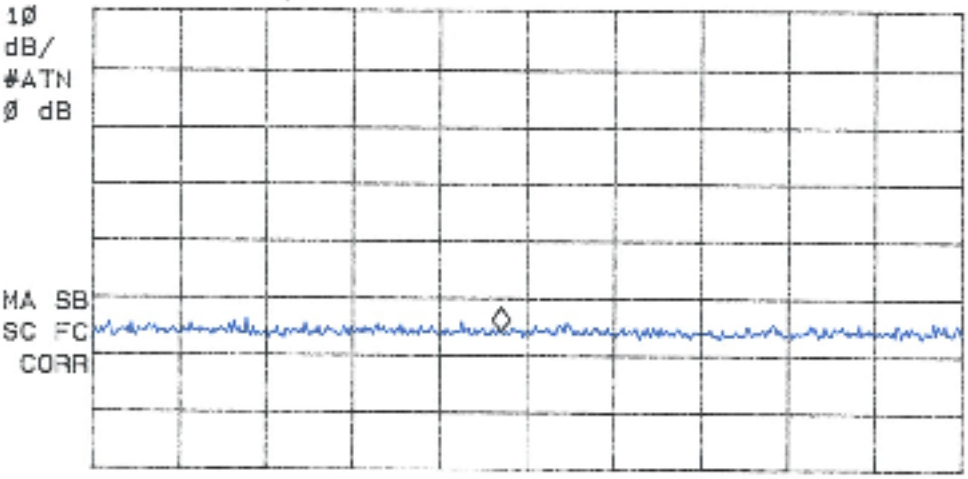
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.2110 GHz
23.48 dBµV
PREAMP ON



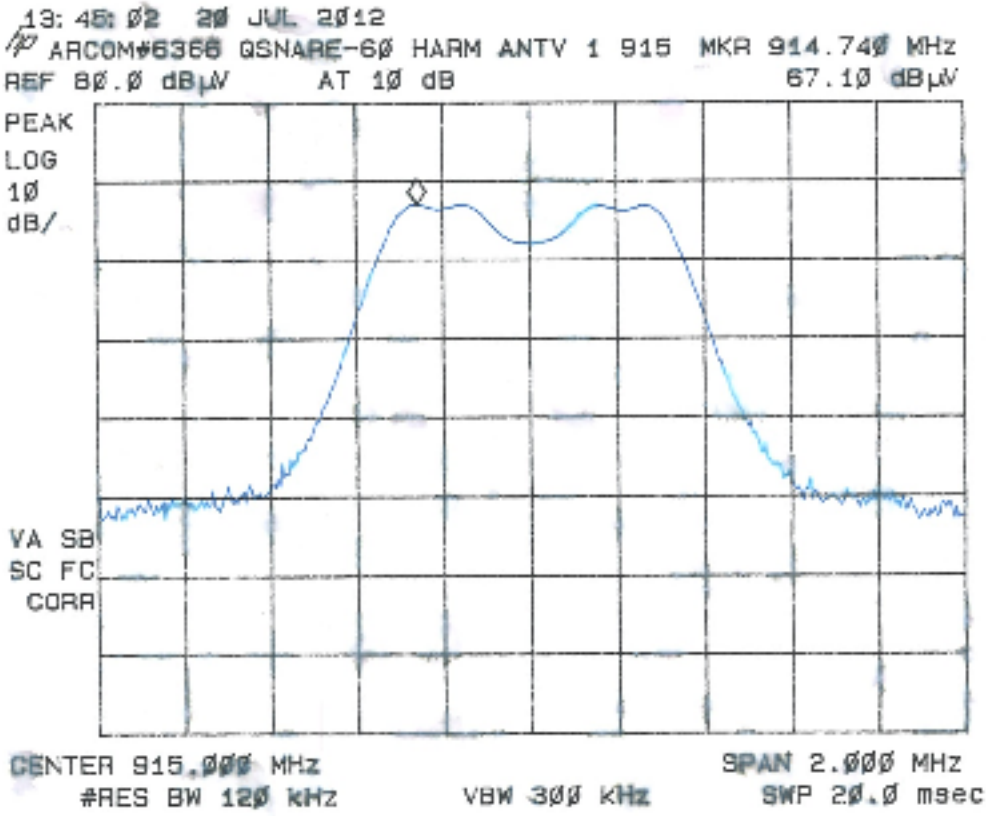
CENTER 8.2350 GHz
SPAN 800.0 MHz
#IF BW 1.0 MHz
AVG BW 300 kHz
SWP 20.0 msec

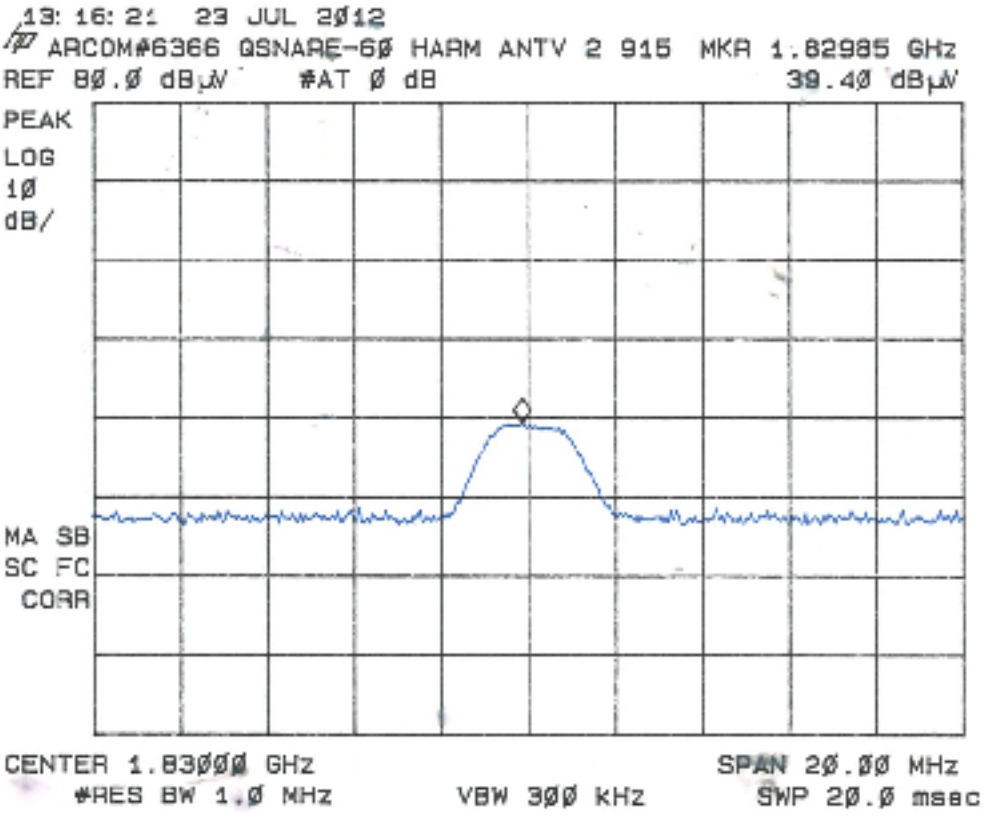
13: 44: 31 JUL 24, 2012
ARCOM#6366 GSNARE-60 HARM ANTH 10 915

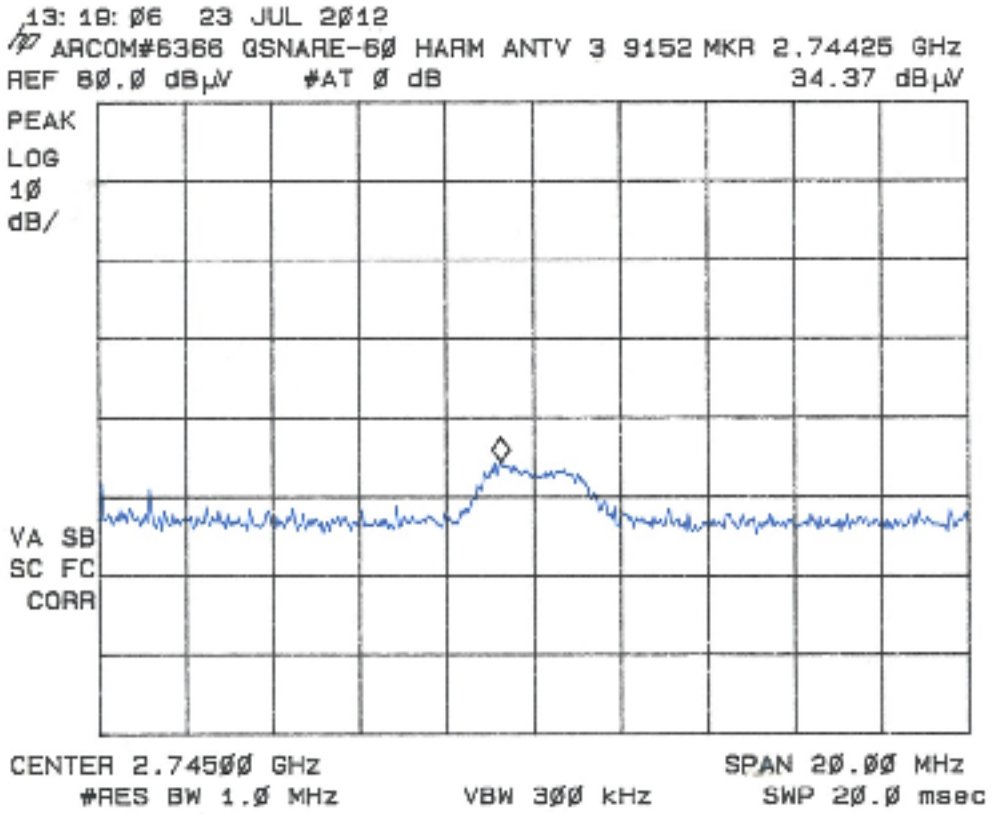
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 9.1494Ø GHz
23.95 dBµV
PREAMP ON

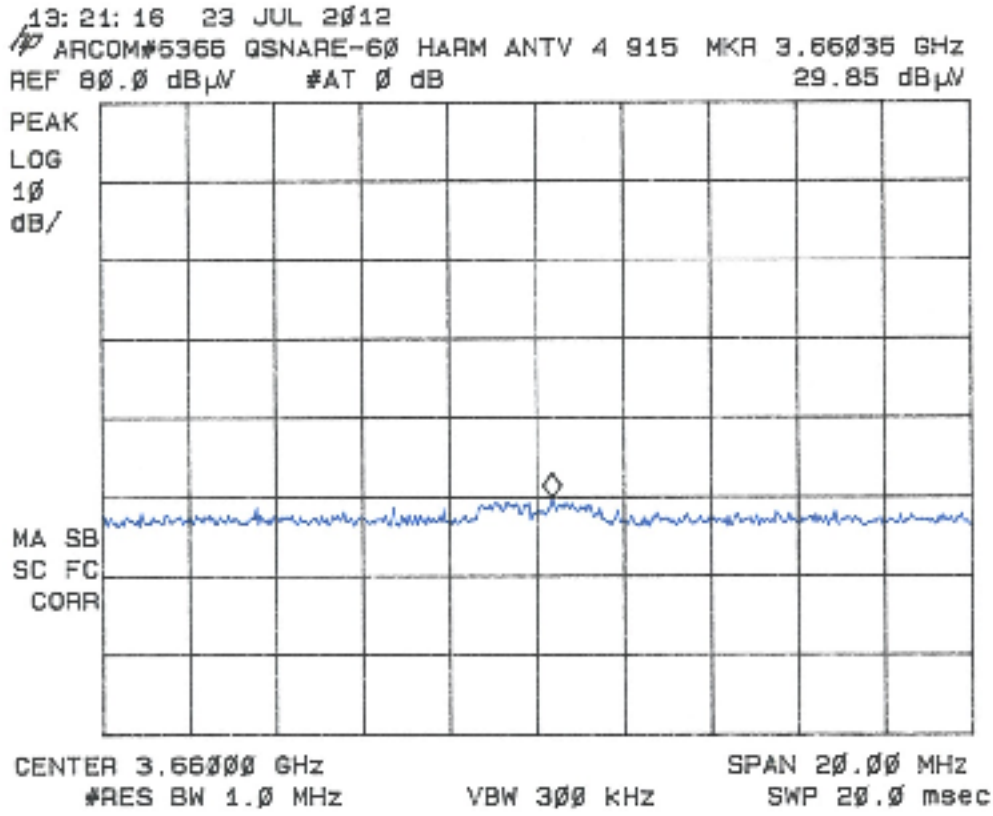


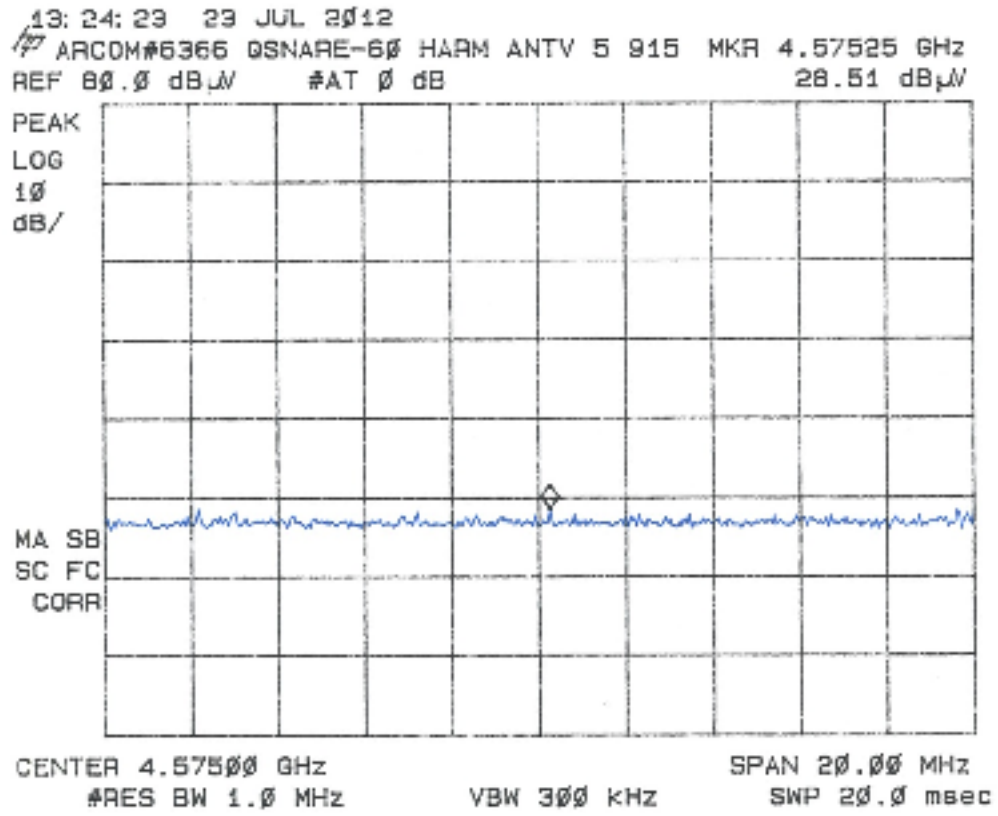
CENTER 9.1500Ø GHz
SPAN 20.ØØ MHz
#IF BW 1.0 MHz
AVG BW 3ØØ kHz
SWP 20.0 msec

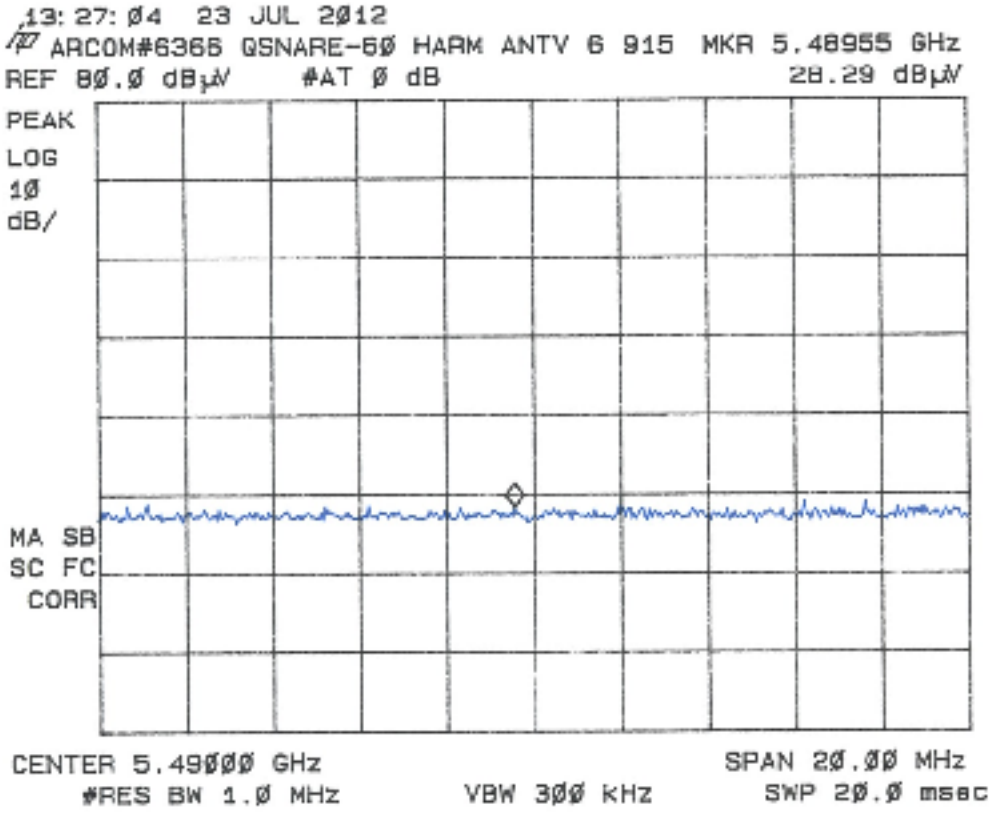

13: 45: Ø2 2Ø JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 1 915 MKR 914.74Ø MHz
REF 8Ø.Ø dBµV AT 1Ø dB 67.1Ø dBµV
PEAK
LOG
1Ø
dB/
VA SB
SC FC
CORR
CENTER 915.ØØØ MHz
SPAN 2.ØØØ MHz
#RES BW 12Ø kHz
VBW 3ØØ kHz
SWP 2Ø.Ø msec

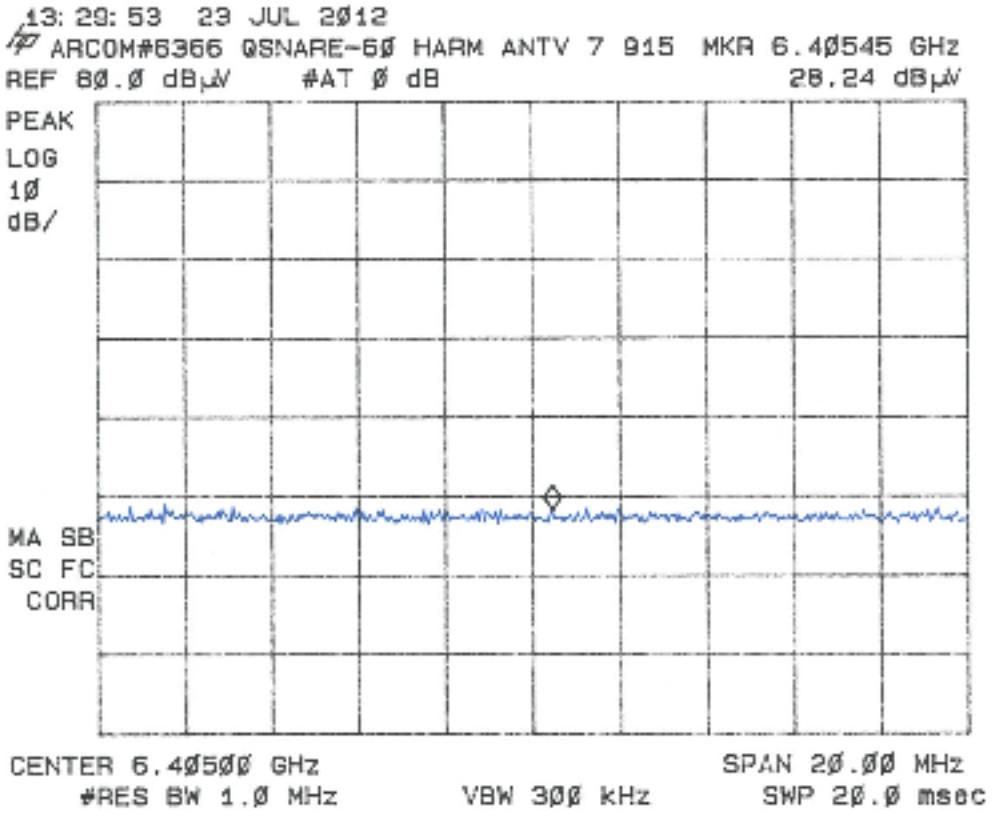

13: 16: 21 23 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 2 915 MKR 1.82985 GHz
REF 8Ø.Ø dBµV #AT Ø dB 39.4Ø dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 1.83ØØØ GHz
SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz
VBW 3ØØ kHz
SWP 2Ø.Ø msec

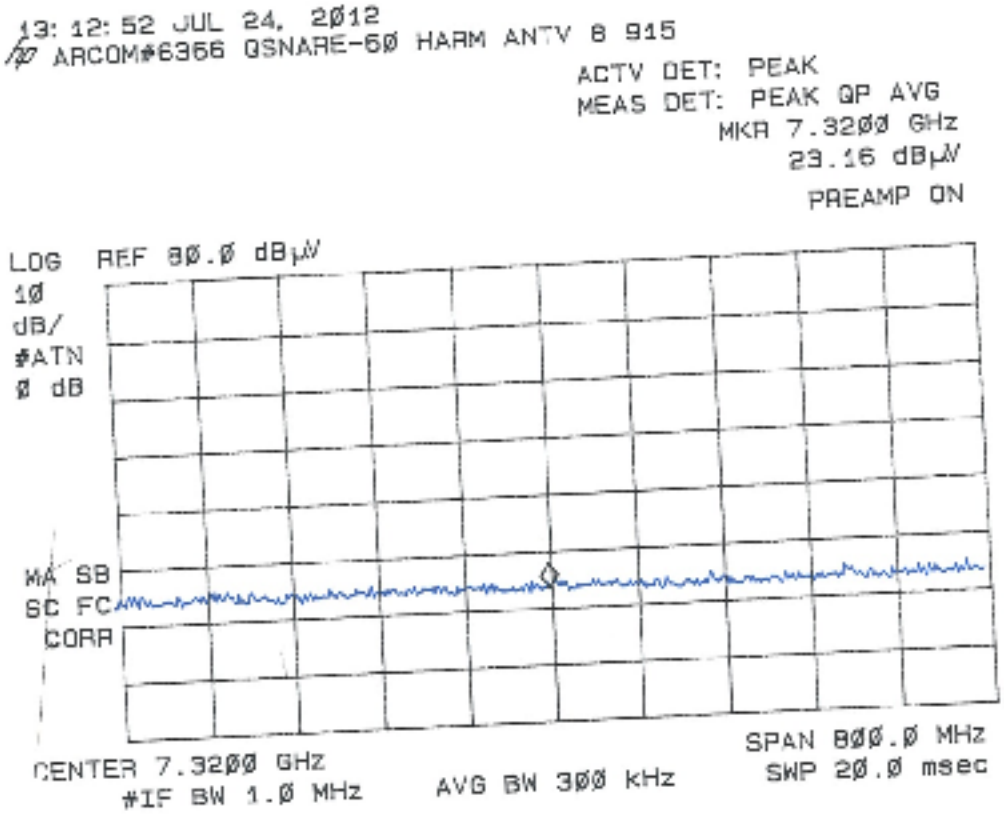

13: 18: Ø6 23 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 3 9152 MKR 2.74425 GHz
REF 8Ø.Ø dBµV #AT Ø dB 34.37 dBµV
PEAK
LOG
1Ø
dB/
VA SB
SC FC
CORR
CENTER 2.745ØØ GHz
SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz
VBW 3ØØ kHz
SWP 2Ø.Ø msec


13: 21: 16 23 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 4 915 MKR 3.66Ø35 GHz
REF 8Ø.Ø dBµV #AT Ø dB 29.85 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 3.66ØØØ GHz
SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz
VBW 3ØØ kHz
SWP 2Ø.Ø msec


13: 24: 23 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 5 915 MKR 4.57525 GHz
REF 80.0 dBµV #AT 0 dB 28.51 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 4.57500 GHz
SPAN 20.00 MHz
#RES BW 1.0 MHz
VBW 300 kHz
SWP 20.0 msec

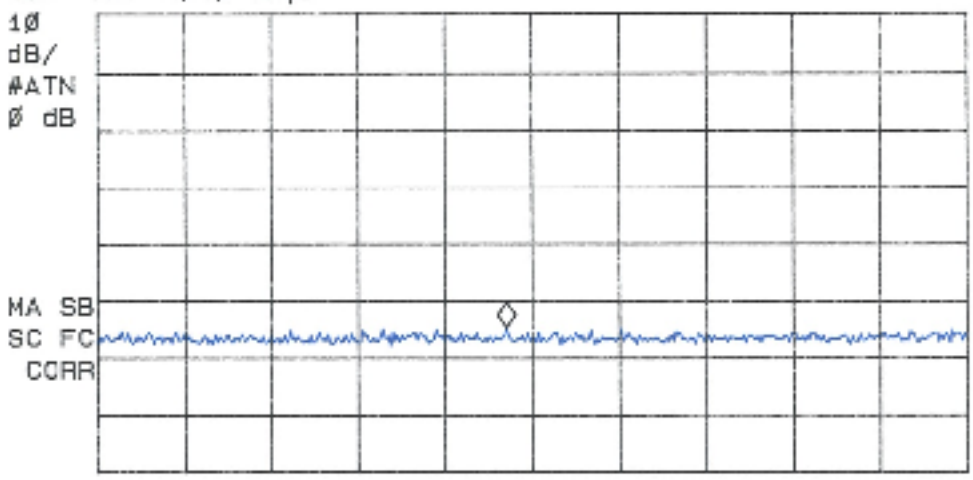

13: 27: 04 23 JUL 2012
ARCOM#6365 QSNARE-60 HARM ANTV 6 915 MKR 5.48955 GHz
REF 80.0 dBµV #AT 0 dB 28.29 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 5.49000 GHz
SPAN 20.00 MHz
#RES BW 1.0 MHz
VBW 300 kHz
SWP 20.0 msec


13: 29: 53 23 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 7 915 MKR 6.4054S GHz
REF 80.0 dBµV #AT 0 dB 28.24 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 6.4050Ø GHz
SPAN 20.ØØ MHz
#RES BW 1.0 MHz
VBW 300 kHz
SWP 20.0 msec


13: 12: 52 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTV 8 915
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.32ØØ GHz
23.16 dBµV
PREAMP ON
LOG REF 80.0 dBµV
10
dB/
#ATN
0 dB
MA SB
SC FC
CORR
CENTER 7.32ØØ GHz
SPAN 8ØØ.Ø MHz
#IF BW 1.0 MHz
AVG BW 3ØØ kHz
SWP 20.0 msec

13: 16: 41 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTV 9 915

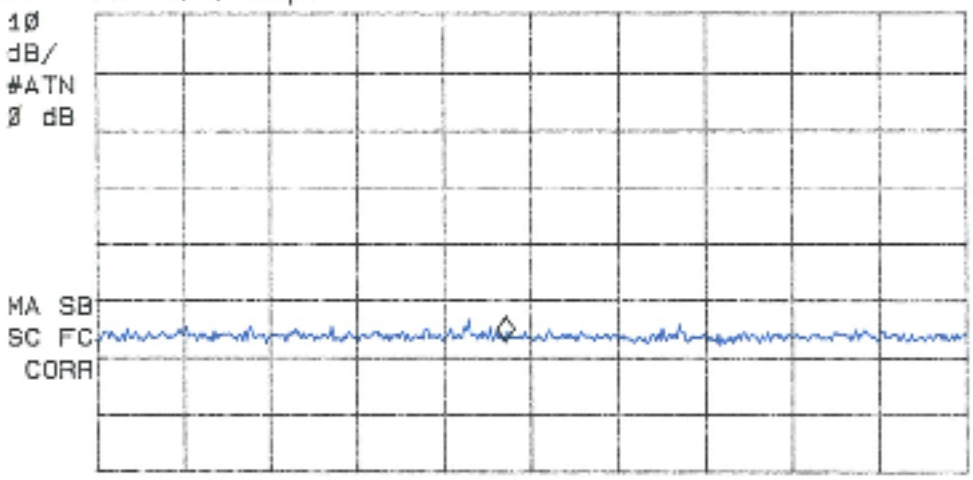
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.211Ø GHz
25.25 dBµV
PREAMP ON



CENTER 8.235Ø GHz
SPAN 3ØØ.Ø MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

13: 19: 13 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTV 1Ø 915

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 9.126Ø GHz
22.72 dBµV
PREAMP ON



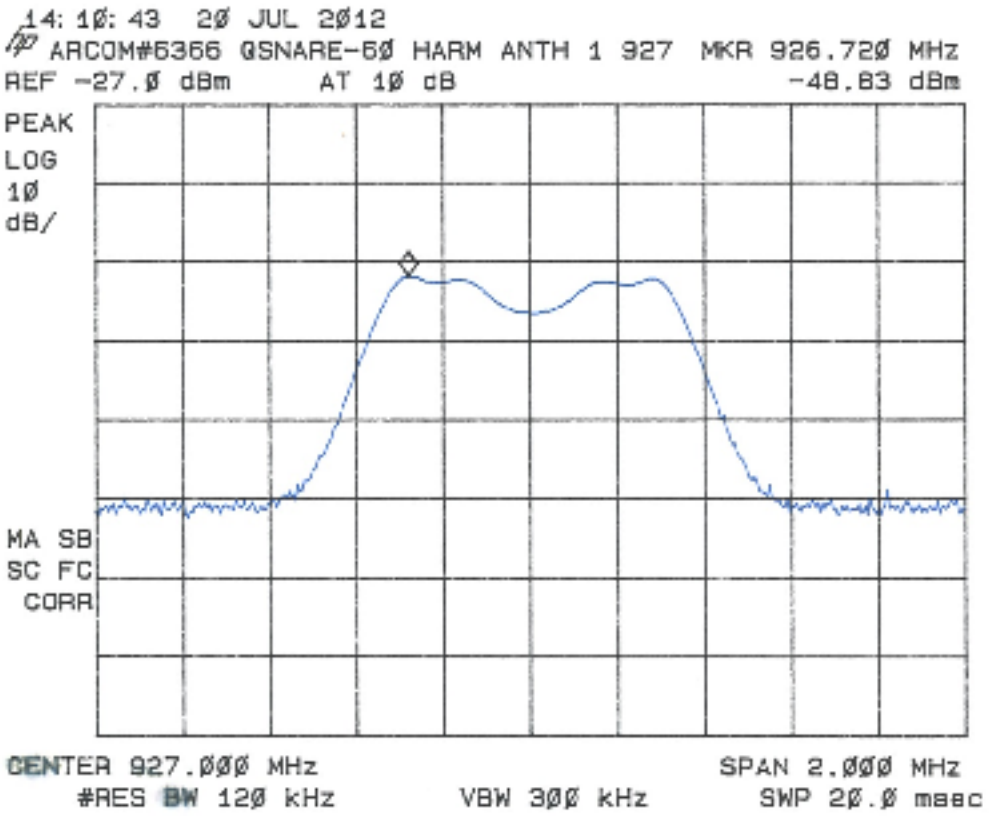
CENTER 9.15ØØ GHz
SPAN 8ØØ.Ø MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

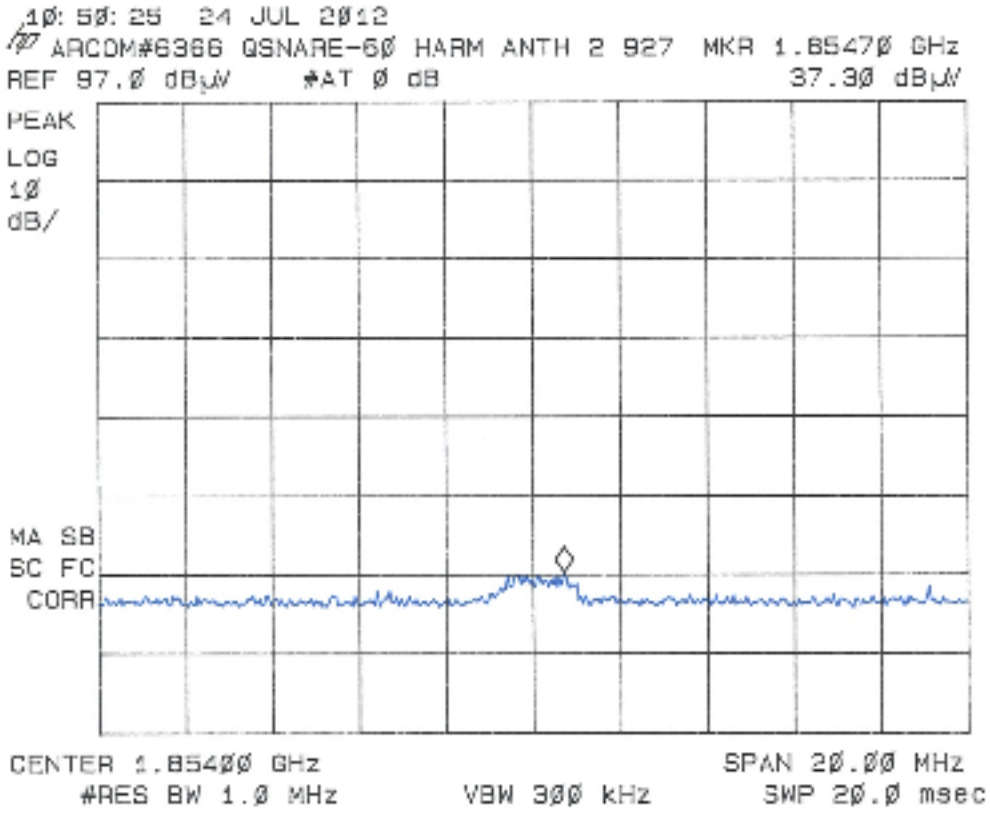
Harmonics Test Datasheets – 927 MHz

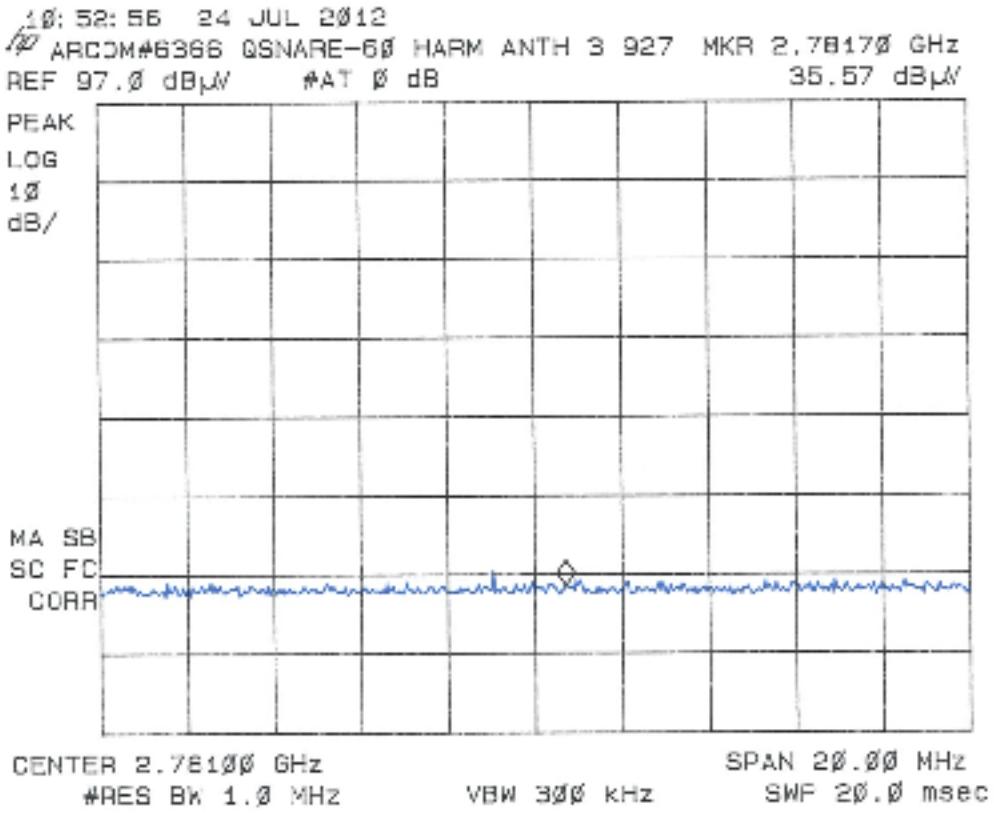
11 pages to follow.

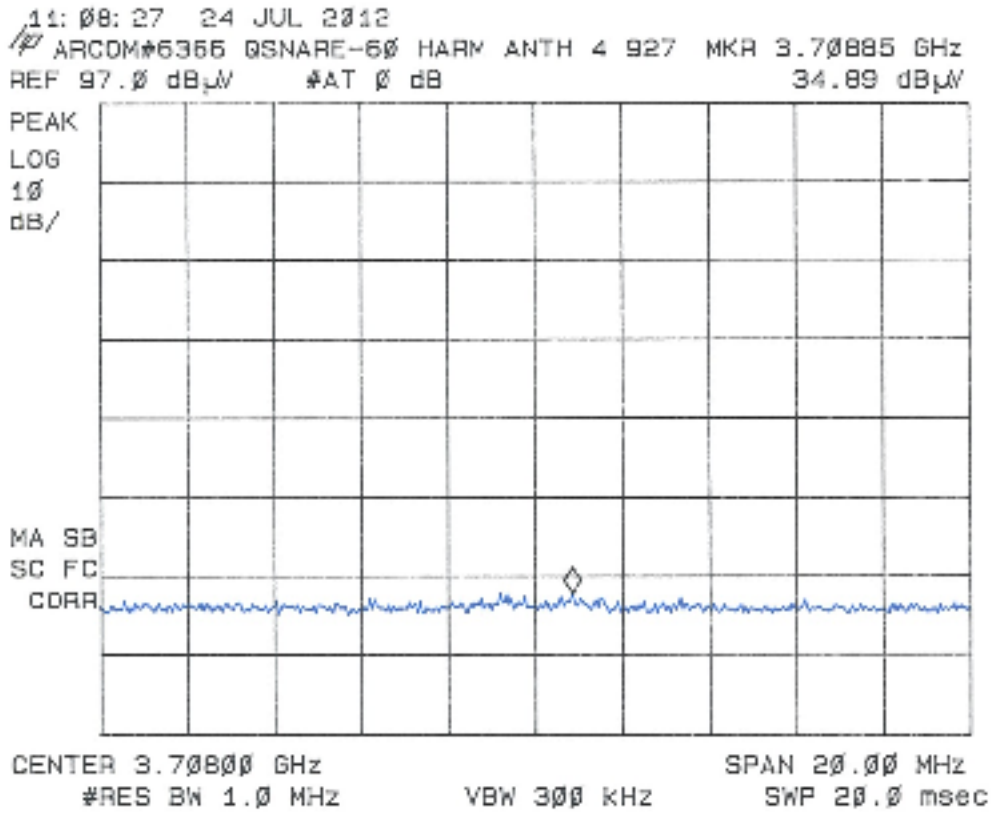
Limits for transmitters
Tested: July 20, 2012
October 17, 2012

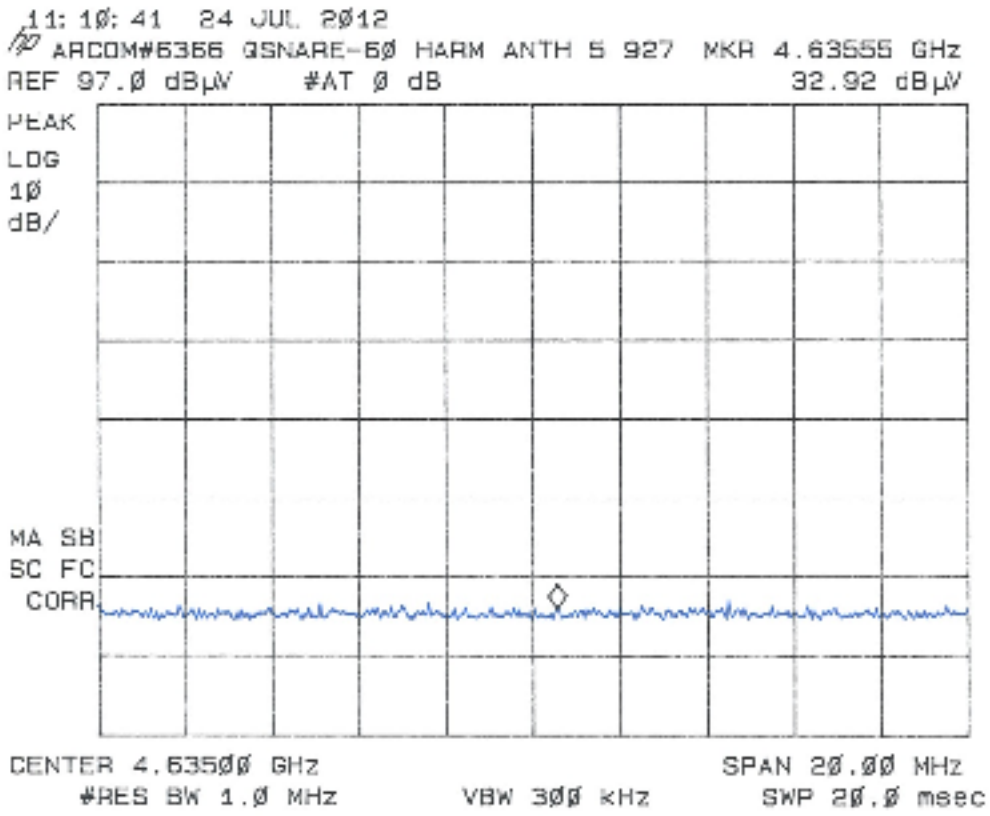
FCC Harmonics Test 927 MHz										
Measured	Res.	DUT	Measured	Cable	Amplifier	Measurement	FCC	Corrected	Margin	
Field Strength	Bandwidth	Frequency	Frequency	Factor	Gain	Distance	Limit	Field Strength		Polarity
(dBµV)	(Khz)	(Mhz)	(Mhz)	(dBuV)	(dBuV)	(Meters)	(dBuV)	(dBuV/M)	(dBuV/M)	
58.16	120	927	927	9.7	0	3	136.99	67.86	-69.13	Horizontal
37.30	1000	927	1854	2.2	0	1	54	39.50	-14.50	Horizontal
35.57	1000	927	2781	2.4	0	1	54	37.97	-16.03	Horizontal
34.89	1000	927	3708	2.6	0	1	54	37.49	-16.51	Horizontal
32.92	1000	927	4635	2.7	0	1	54	35.62	-18.38	Horizontal
32.85	1000	927	5562	2.9	0	1	54	35.75	-18.25	Horizontal
33.04	1000	927	6489	3.0	0	1	54	36.04	-17.96	Horizontal
25.11	1000	927	7416	3.1	0	1	54	28.21	-25.79	Horizontal
24.53	1000	927	8343	3.1	0	1	54	27.63	-26.37	Horizontal
24.58	1000	927	9270	3.2	0	1	54	27.78	-26.22	Horizontal
65.43	120	927	927	9.7	0	3	136.99	75.13	-61.86	Vertical
39.58	1000	927	1854	2.2	0	1	54	41.78	-12.22	Vertical
36.05	1000	927	2781	2.4	0	1	54	38.45	-15.55	Vertical
34.27	1000	927	3708	2.6	0	1	54	36.87	-17.13	Vertical
33.33	1000	927	4635	2.7	0	1	54	36.03	-17.97	Vertical
33.79	1000	927	5562	2.9	0	1	54	36.69	-17.31	Vertical
34.32	1000	927	6489	3.0	0	1	54	37.32	-16.68	Vertical
23.69	1000	927	7416	3.1	0	1	54	26.79	-27.21	Vertical
23.32	1000	927	8343	3.1	0	1	54	26.42	-27.58	Vertical
23.09	1000	927	9270	3.2	0	1	54	26.29	-27.71	Vertical
*Antenna factors are pre-calculated into Measured Field Strength (dBµV)										
Unit Under Test: QSNARE-60										

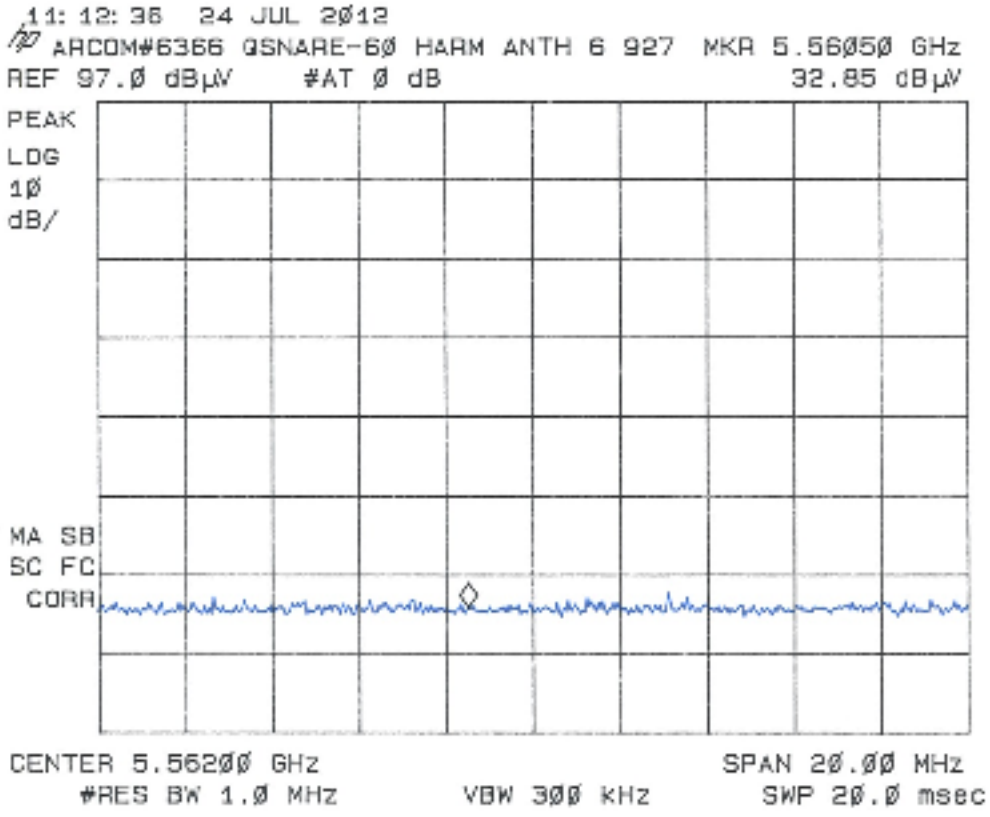

14: 10: 43 20 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 1 927 MKR 926.720 MHz
REF -27.0 dBm AT 10 dB -48.83 dBm
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 927.000 MHz
SPAN 2.000 MHz
#RES BW 120 kHz
VBW 300 kHz
SWP 20.0 msec

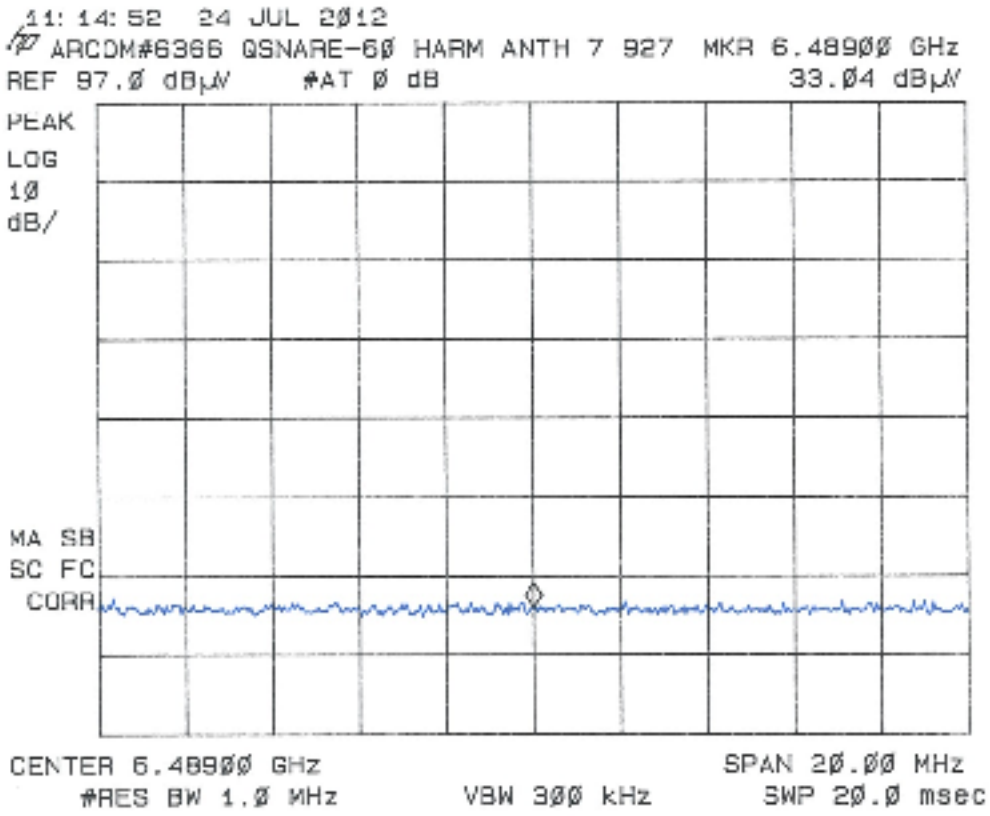

10: 50: 25 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 2 927 MKR 1.85470 GHz
REF 97.0 dBµV #AT 0 dB 37.30 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 1.85400 GHz
SPAN 20.00 MHz
#RES BW 1.0 MHz
VBW 300 kHz
SWP 20.0 msec

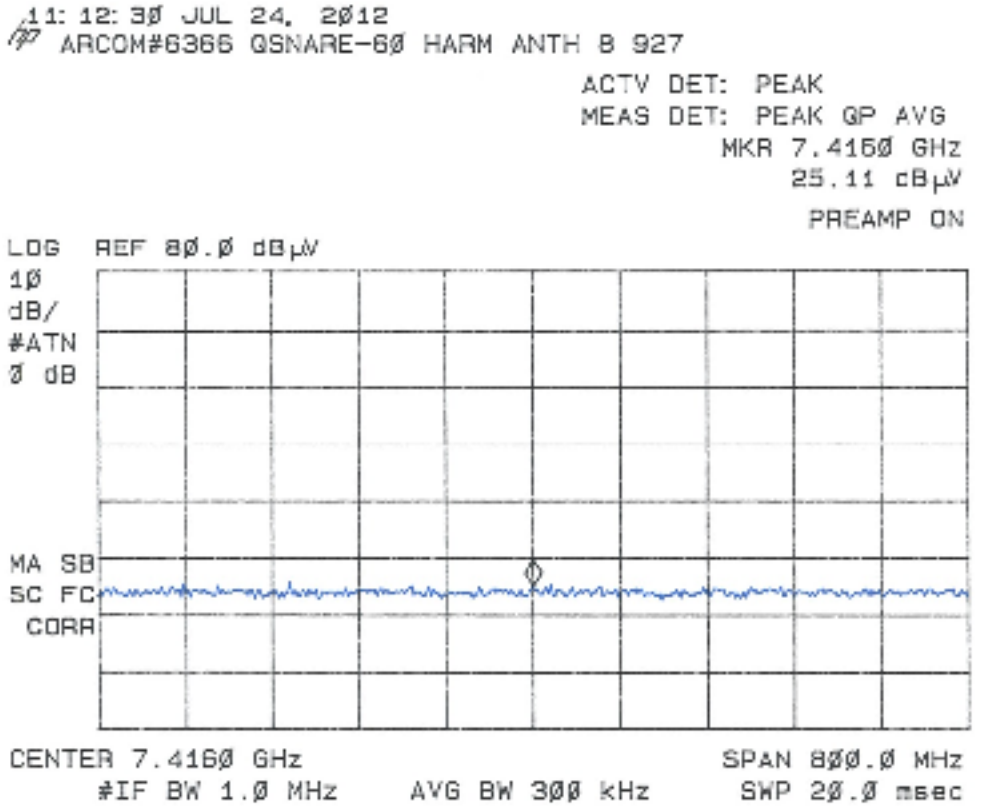

10: 52: 56 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 3 927 MKR 2.78170 GHz
REF 97.0 dBµV #AT 0 dB 35.57 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 2.76100 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


11: 08: 27 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 4 927 MKR 3.70885 GHz
REF 97.0 dBµV #AT 0 dB 34.89 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 3.70800 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


11: 1Ø: 41 24 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTH 5 927 MKR 4.63555 GHz
REF 97.Ø dBµV #AT Ø dB 32.92 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 4.635ØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

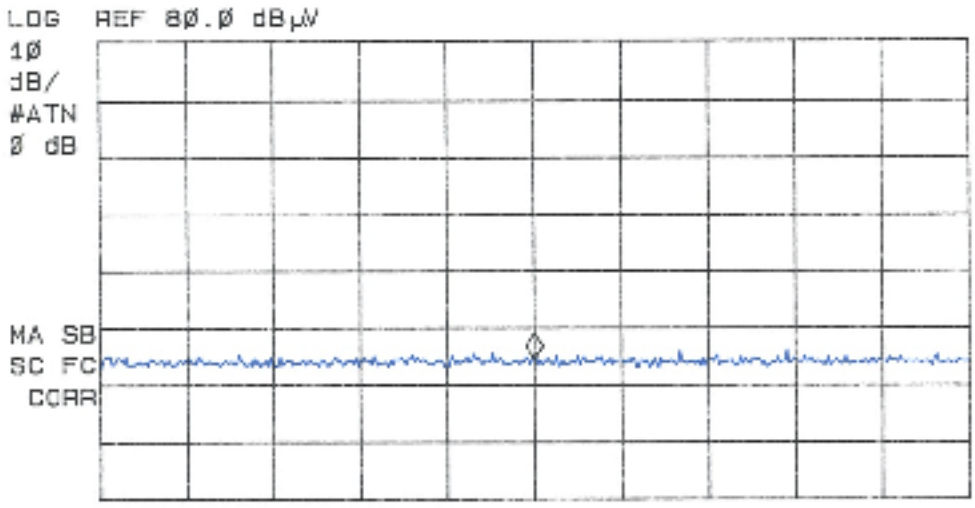

11: 12: 36 24 JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTH 6 927 MKR 5.56Ø5Ø GHz
REF 97.Ø dBµV #AT Ø dB 32.85 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 5.562ØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec


11: 14: 52 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTH 7 927 MKR 6.48900 GHz
REF 97.0 dBµV #AT 0 dB 33.04 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 6.48900 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


11: 12: 30 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTH 8 927
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.4160 GHz
25.11 cBµV
PREAMP ON
LOG REF 80.0 dBµV
10
dB/
#ATN
0 dB
MA SB
SC FC
CORR
CENTER 7.4160 GHz SPAN 800.0 MHz
#IF BW 1.0 MHz AVG BW 300 kHz SWP 20.0 msec

11: 28: 5Ø JUL 24, 2Ø12
ARCOM#6366 GSNARE-6Ø HARM ANTH 9 927

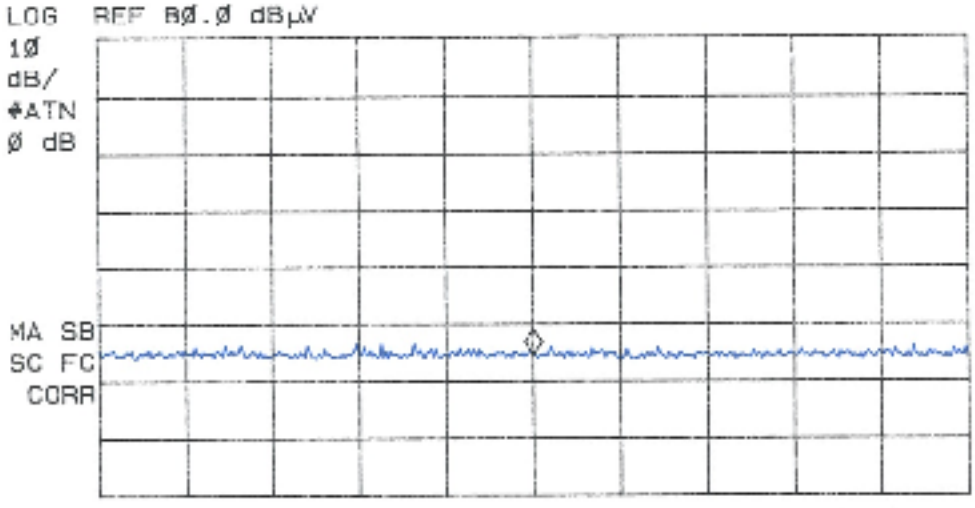
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.343Ø GHz
24.53 dBµV
PREAMP ON



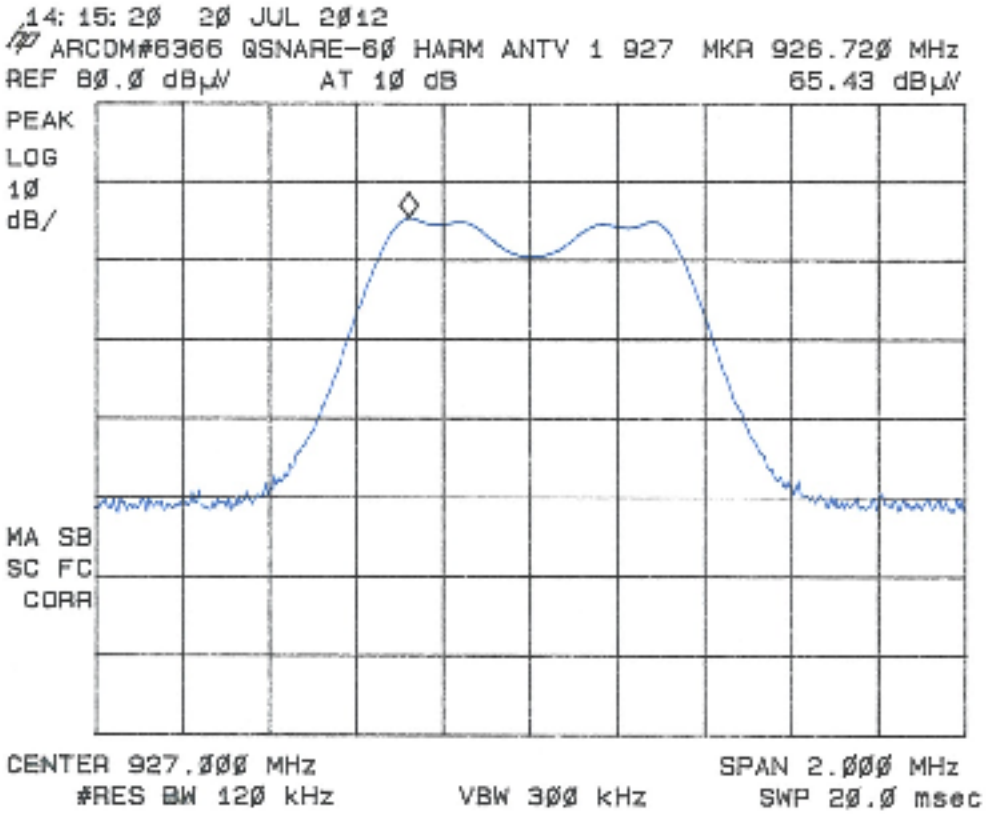
CENTER 8.343Ø GHz
SPAN 8ØØ.Ø MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

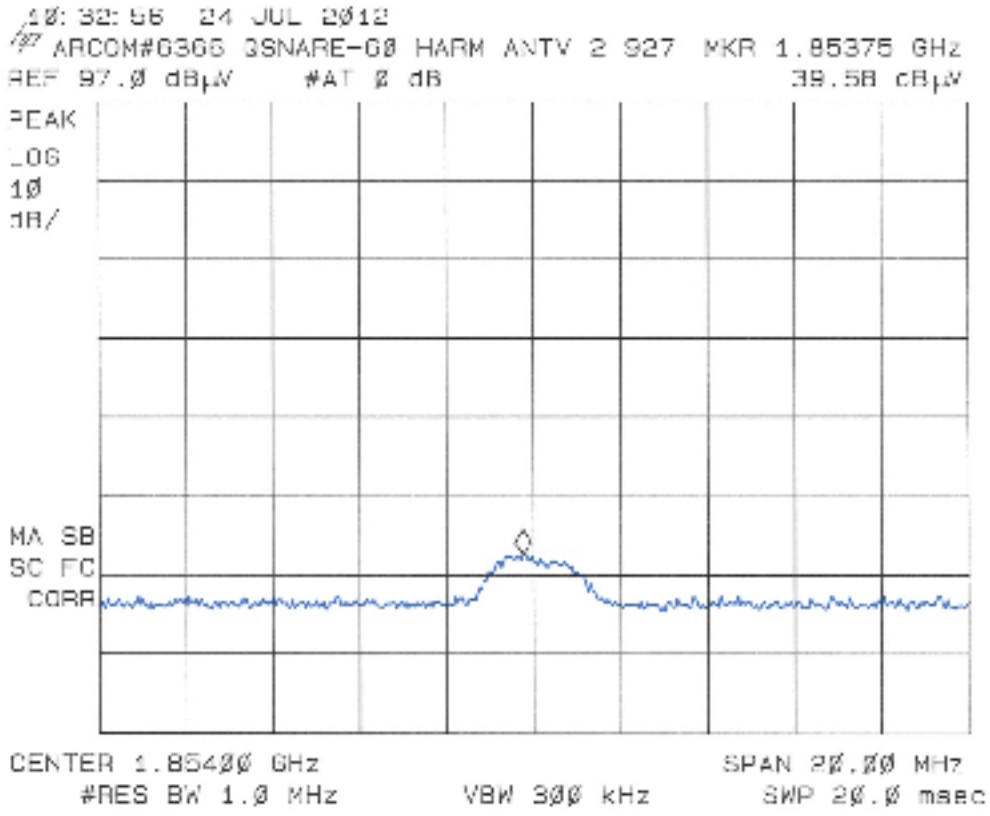
11: 36: 36 JUL 24, 2Ø12
ARCOM#6366 GSNARE-6Ø HARM ANTH 1Ø 927

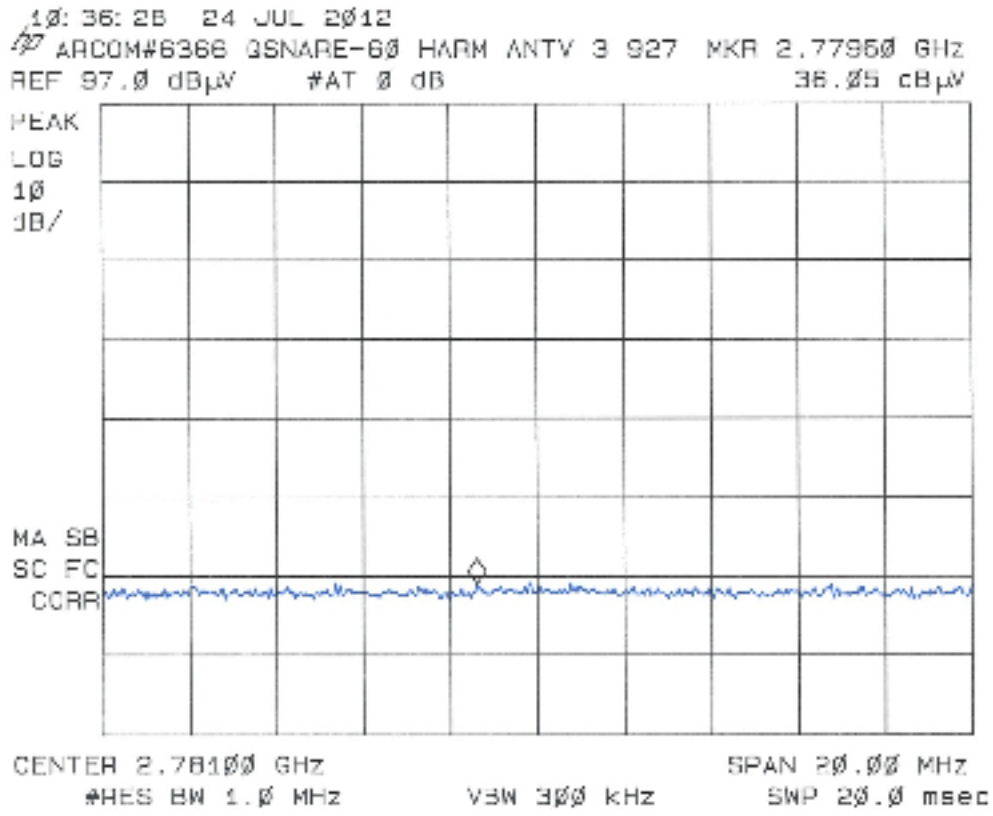
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 9.27ØØ GHz
24.58 dBµV
PREAMP ON

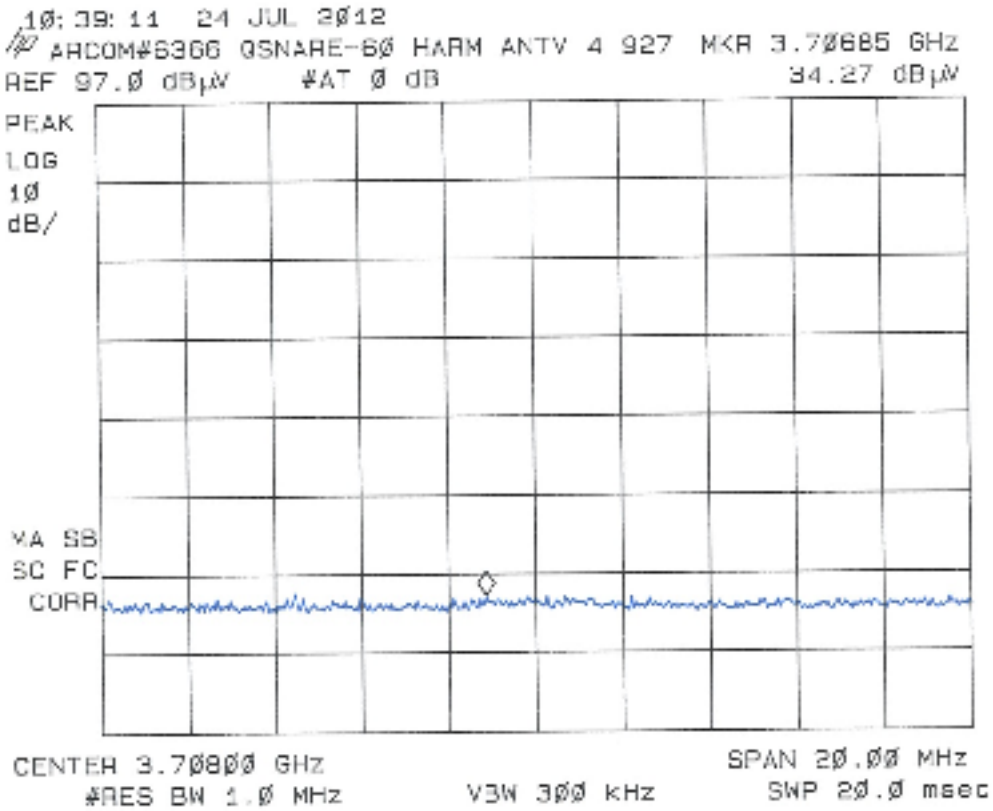


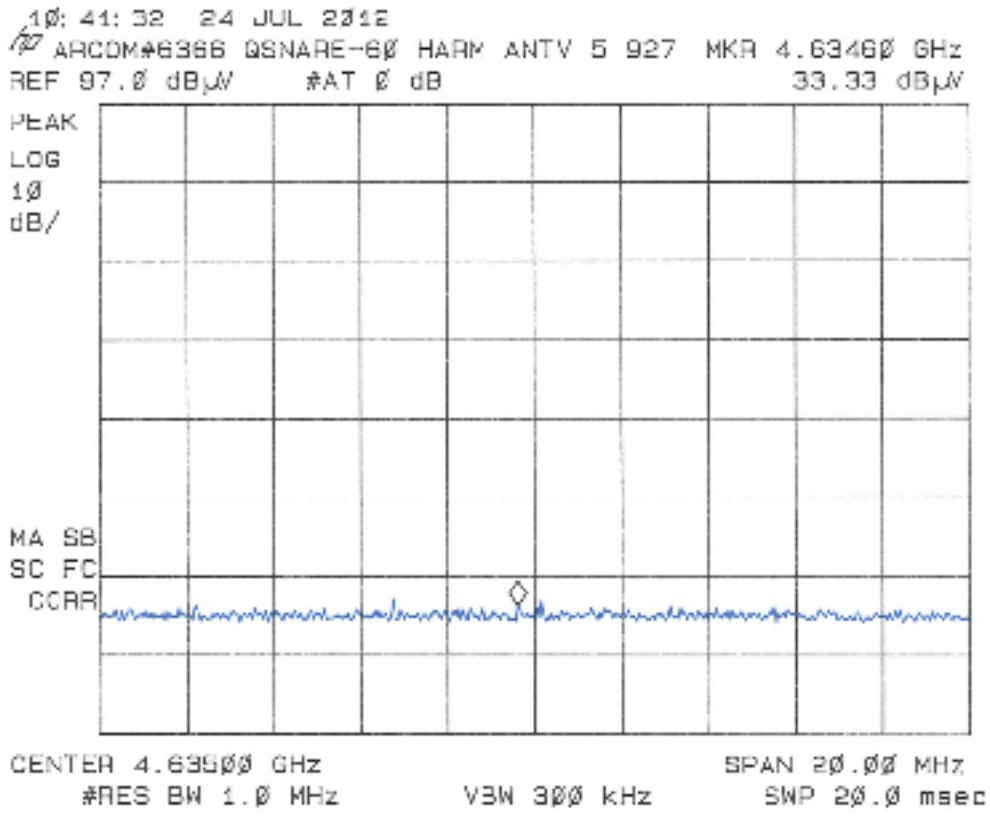
CENTER 9.27ØØ GHz
SPAN 3ØØ.Ø MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

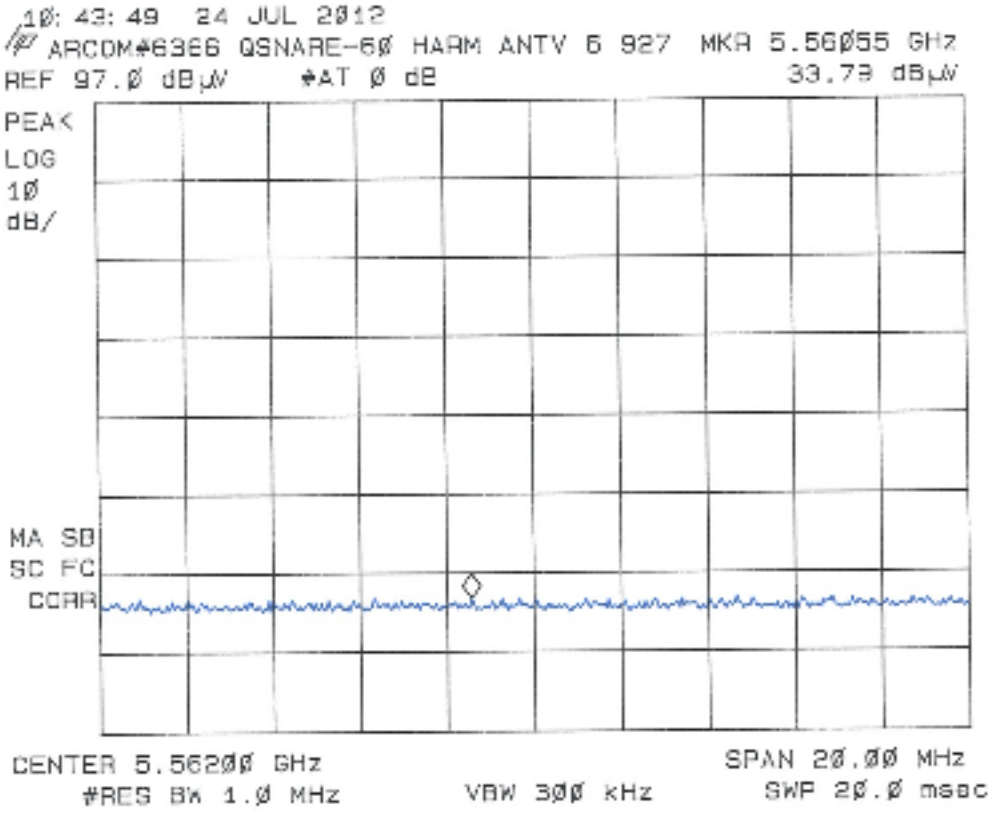

14: 15: 2Ø 2Ø JUL 2Ø12
ARCOM#6366 QSNARE-6Ø HARM ANTV 1 927 MKR 926.72Ø MHz
REF 8Ø.Ø dBµV AT 1Ø dB 65.43 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 927.ØØØ MHz SPAN 2.ØØØ MHz
#RES BW 12Ø kHz VBW 3ØØ kHz SWP 2Ø.Ø msec

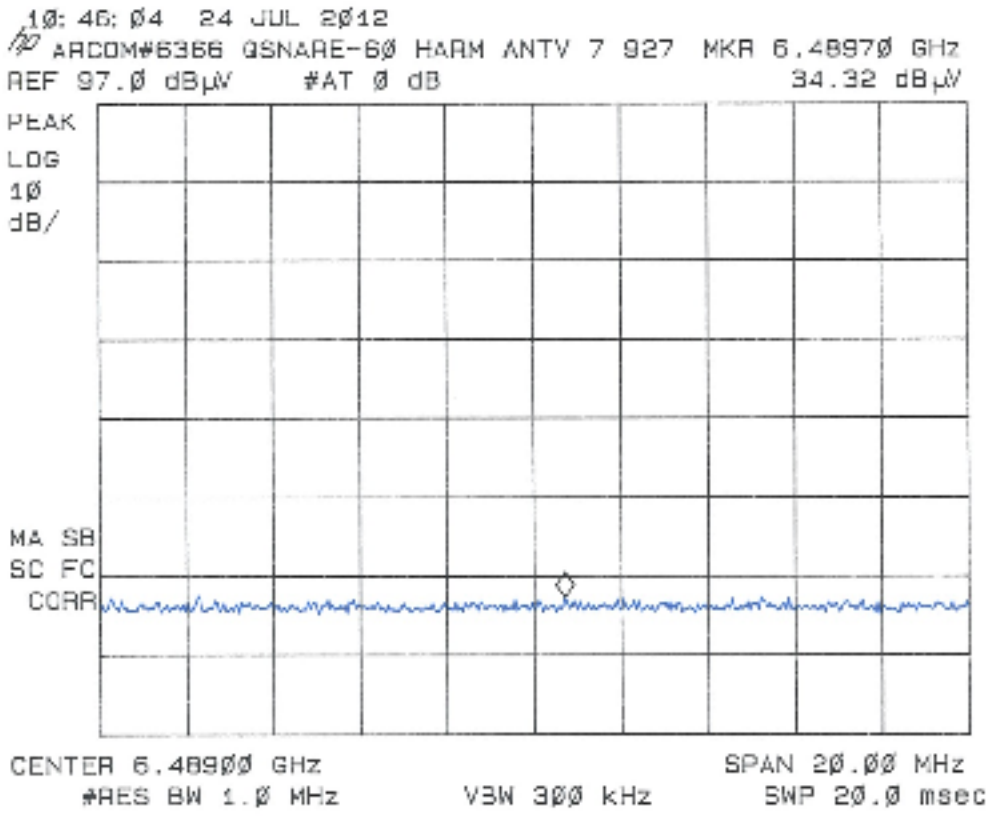

1Ø: 32: 56 24 JUL 2Ø12
ARCOM#6366 3SNARE-6Ø HARM ANTV 2 927 MKR 1.85375 GHz
REF 97.Ø dBµV #AT Ø dB 39.58 dBµV
PEAK
LOG
1Ø
dB/
MA SB
SC FC
CORR
CENTER 1.854ØØ GHz SPAN 2Ø.ØØ MHz
#RES BW 1.Ø MHz VBW 3ØØ kHz SWP 2Ø.Ø msec

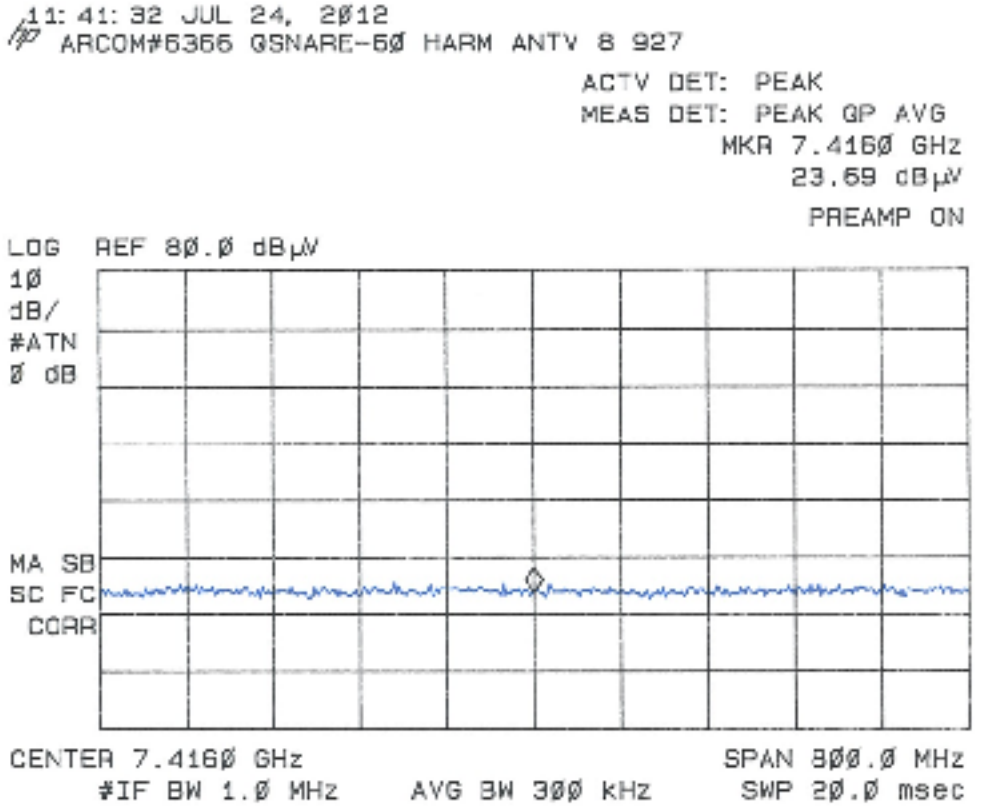

10: 36: 28 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 3 927 MKR 2.77960 GHz
REF 97.0 dBµV #AT 0 dB 36.05 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 2.78100 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec

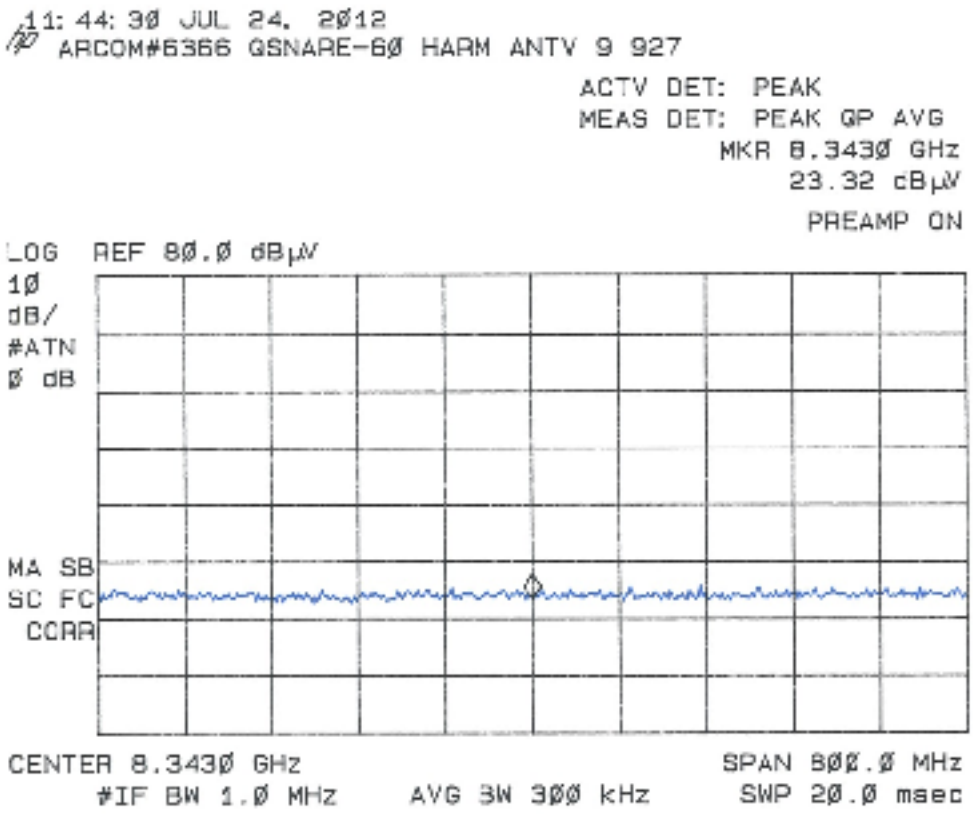

10: 39: 11 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 4 927 MKR 3.70685 GHz
REF 97.0 dBµV #AT 0 dB 34.27 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 3.70800 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec

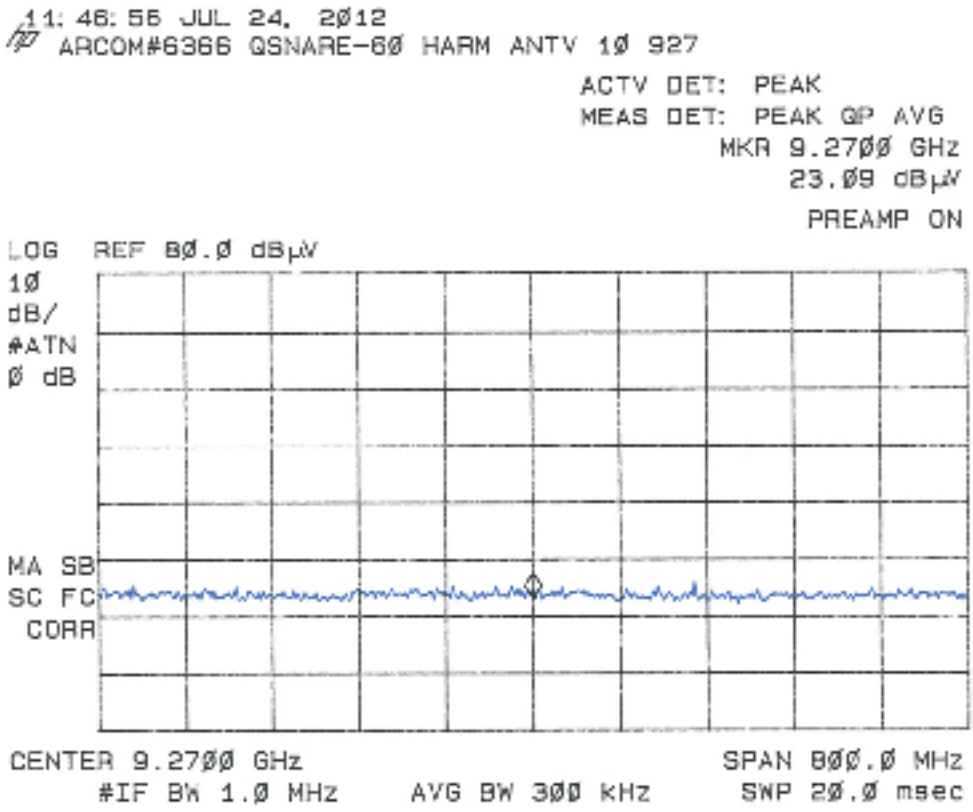

10: 41: 32 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 5 927 MKR 4.63460 GHz
REF 97.0 dBµV #AT 0 dB 33.33 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 4.63500 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


10: 43: 49 24 JUL 2012
ARCOM#6366 QSNARE-60 HARM ANTV 6 927 MKR 5.56055 GHz
REF 97.0 dBµV #AT 0 dB 33.79 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 5.56200 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec


10: 46: 04 24 JUL 2012
ARCOM#6366 GSNARE-60 HARM ANTV 7 927 MKR 6.48970 GHz
REF 97.0 dBµV #AT 0 dB 34.32 dBµV
PEAK
LOG
10
dB/
MA SB
SC FC
CORR
CENTER 6.48900 GHz SPAN 20.00 MHz
#RES BW 1.0 MHz VBW 300 kHz SWP 20.0 msec

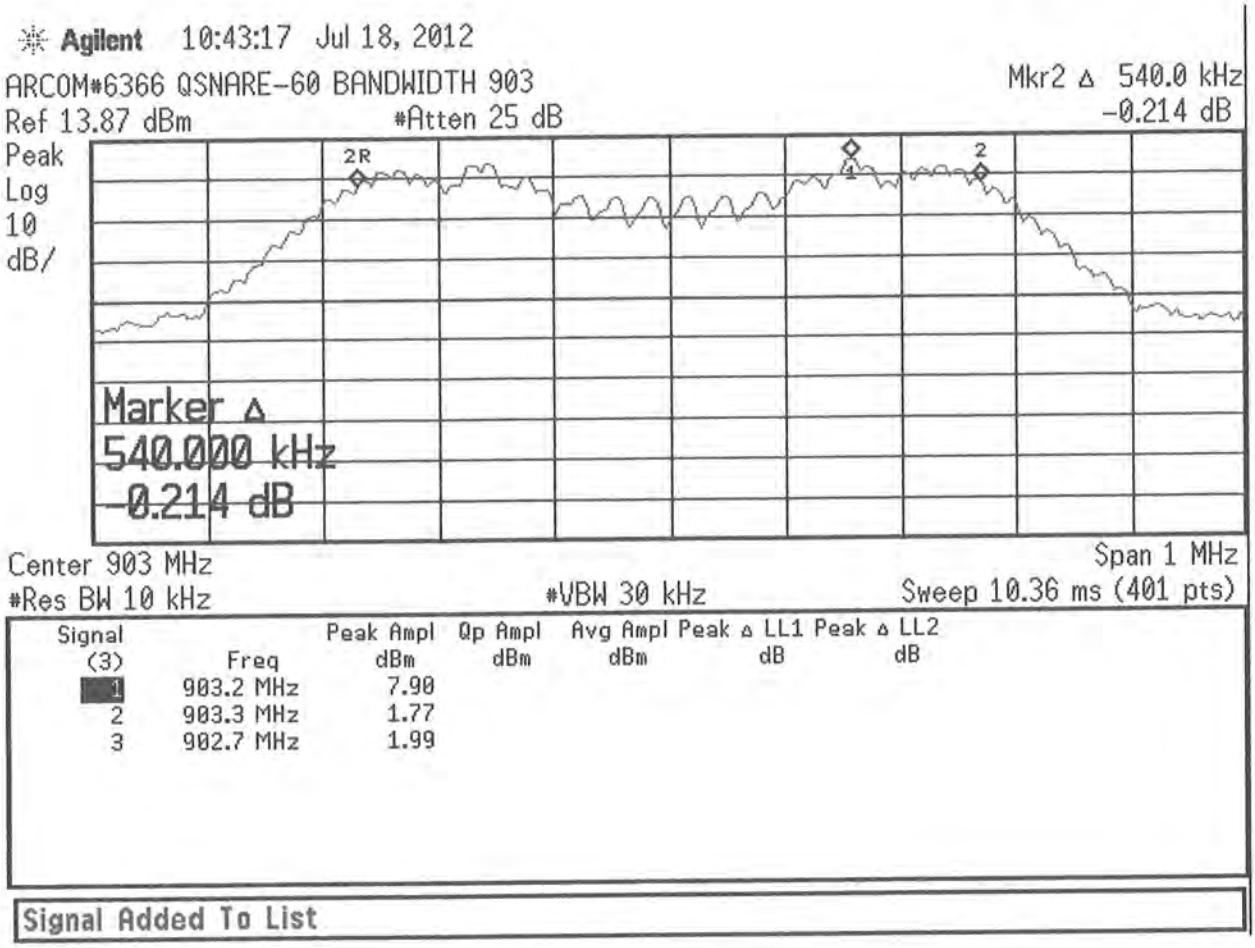

11: 41: 32 JUL 24, 2012
ARCOM#6366 GSNARE-60 HARM ANTV 8 927
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.4160 GHz
23.69 dBµV
PREAMP ON
LOG REF 80.0 dBµV
10
dB/
#ATN
0 dB
MA SB
SC FC
CORR
CENTER 7.4160 GHz SPAN 800.0 MHz
#IF BW 1.0 MHz AVG BW 300 kHz SWP 20.0 msec


11: 44: 30 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTV 9 927
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.343Ø GHz
23.32 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
#ATN
Ø dB
MA SB
SC FC
CORR
CENTER 8.343Ø GHz
SPAN 8ØØ.Ø MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec


11: 46: 56 JUL 24, 2012
ARCOM#6366 QSNARE-60 HARM ANTV 1Ø 927
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 9.27ØØ GHz
23.Ø9 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
#ATN
Ø dB
MA SB
SC FC
CORR
CENTER 9.27ØØ GHz
SPAN 8ØØ.Ø MHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 2Ø.Ø msec

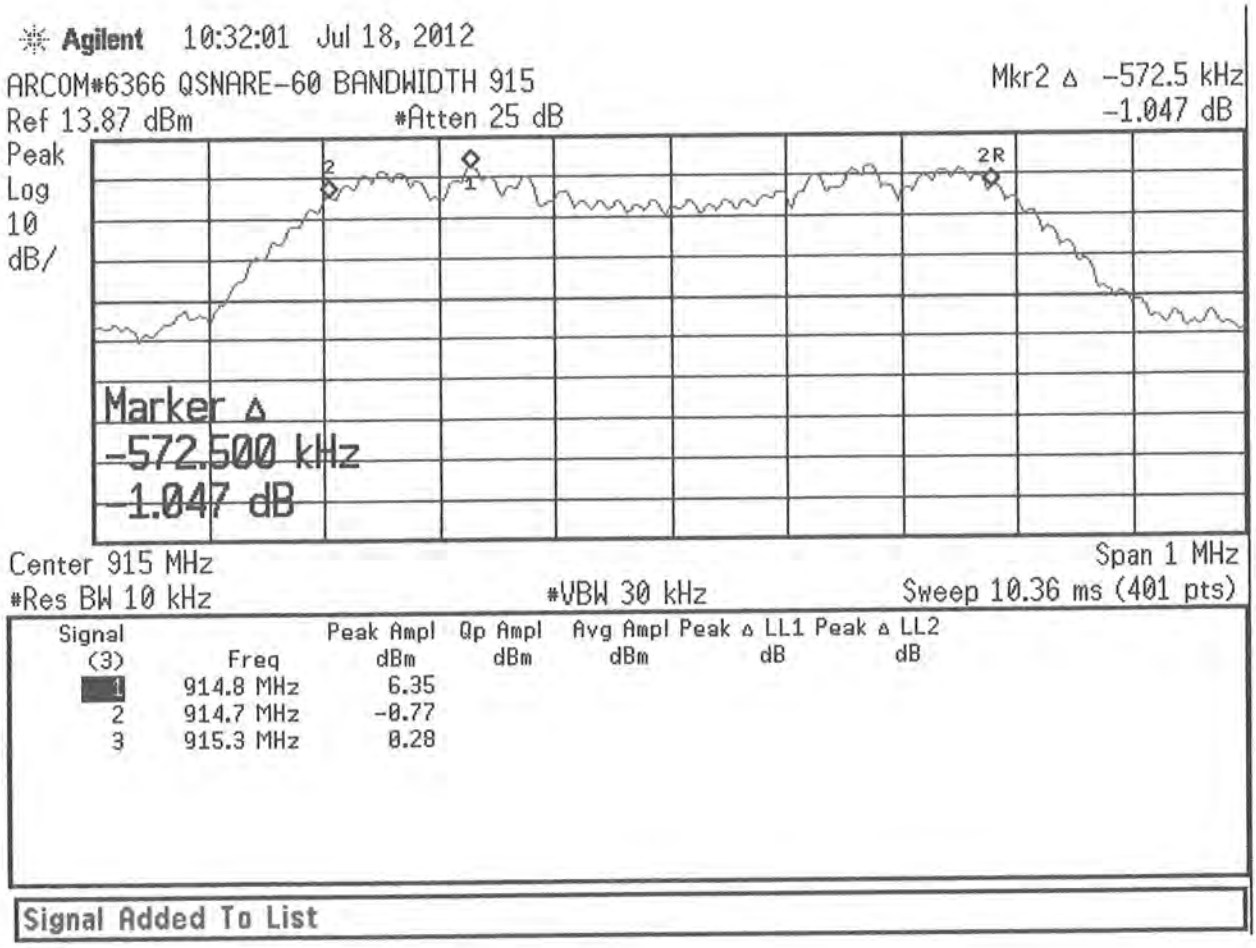
Test Datasheet-Bandwidth Test Minimum 6dB Bandwidth more than 500 KHz- 902 MHz

1 Page of Data to Follow


Agilent 10:43:17 Jul 18, 2012
ARCOM#6366 QSNARE-60 BANDWIDTH 903
Mkr2 Δ 540.0 kHz
-0.214 dB
Ref 13.87 dBm
#Atten 25 dB
Peak
Log
10
dB/
2R
1
2
Marker Δ
540.000 kHz
-0.214 dB
Center 903 MHz
Span 1 MHz
#Res BW 10 kHz
#VBW 30 kHz
Sweep 10.36 ms (401 pts)
Signal (3) Freq Peak Ampl dBm Qp Ampl dBm Avg Ampl dBm Peak Δ LL1 dB Peak Δ LL2 dB
1 903.2 MHz 7.90
2 903.3 MHz 1.77
3 902.7 MHz 1.99
Signal Added To List

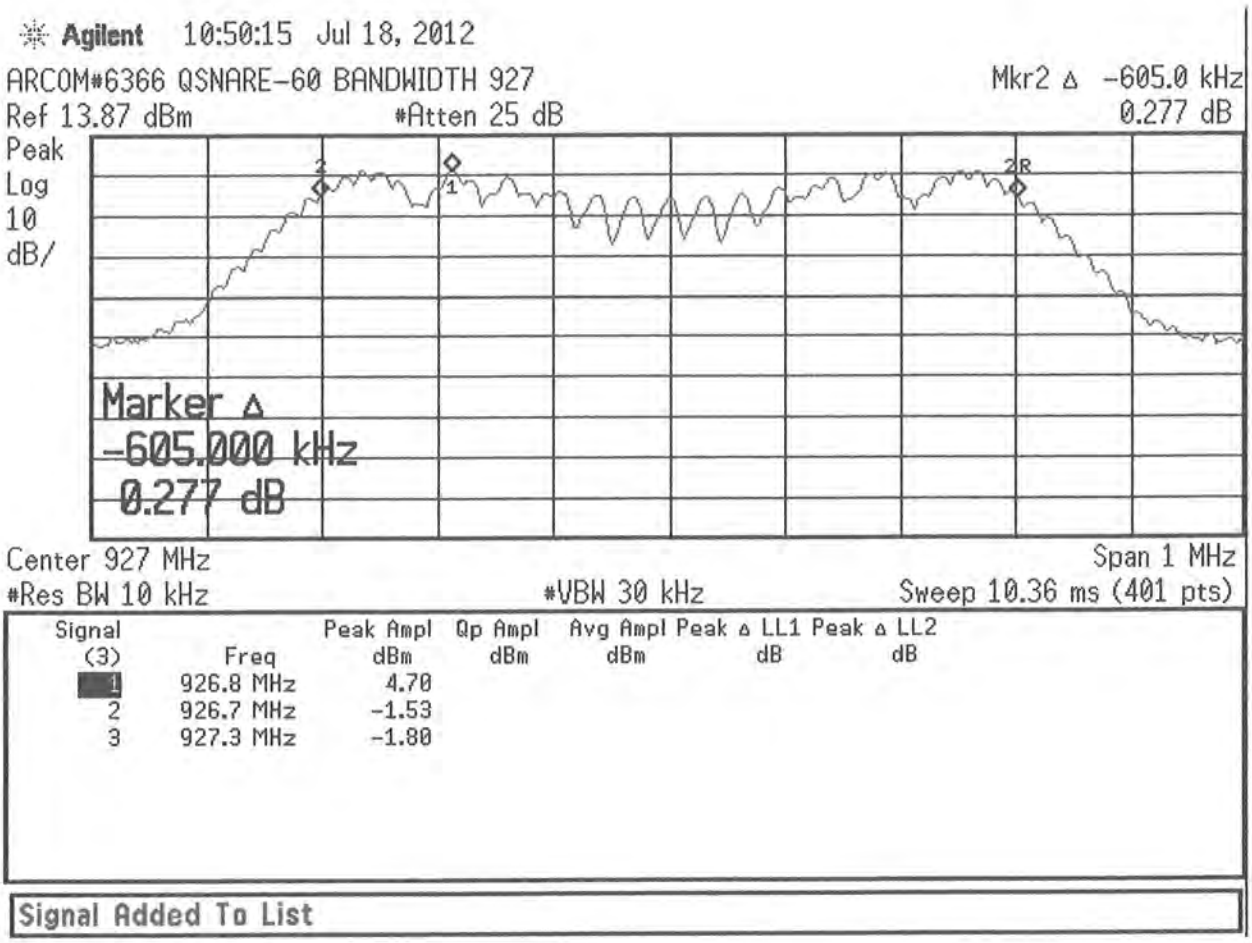
Test Datasheet-Bandwidth Test Minimum 6dB Bandwidth more than 500 KHz- 915 MHz

1 Page of Data to Follow


Agilent 10:32:01 Jul 18, 2012
ARCOM#6366 QSNARE-60 BANDWIDTH 915
Mkr2 Δ -572.5 kHz
-1.047 dB
Ref 13.87 dBm
#Atten 25 dB
Peak
Log
10
dB/
2
1
2R
Marker Δ
-572.500 kHz
-1.047 dB
Center 915 MHz
#Res BW 10 kHz
#VBW 30 kHz
Span 1 MHz
Sweep 10.36 ms (401 pts)
Signal (3) Freq Peak Ampl dBm Qp Ampl dBm Avg Ampl dBm Peak Δ LL1 dB Peak Δ LL2 dB
1 914.8 MHz 6.35
2 914.7 MHz -0.77
3 915.3 MHz 0.28
Signal Added To List

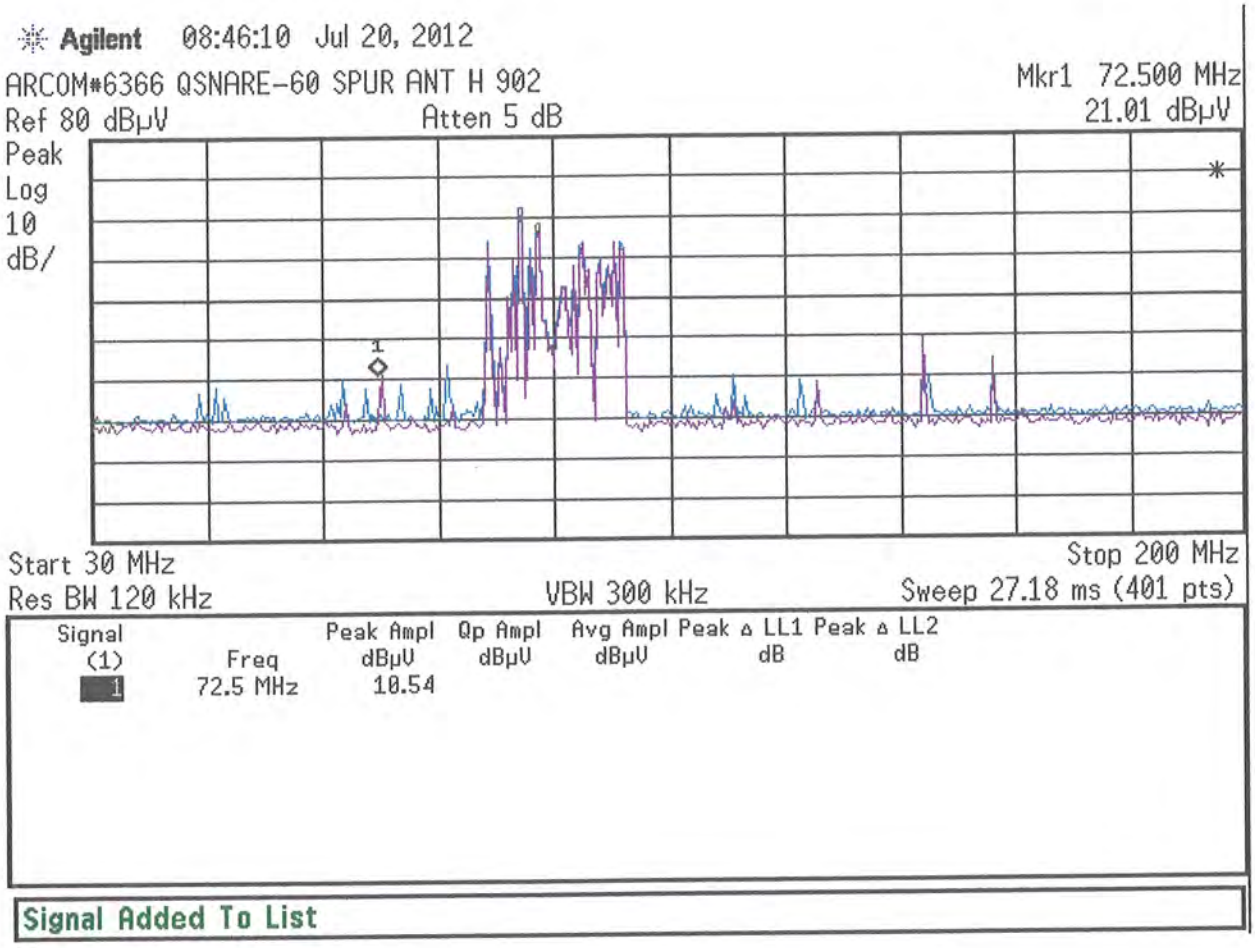
Test Datasheet-Bandwidth Test Minimum 6dB Bandwidth more than 500 KHz- 927 MHz

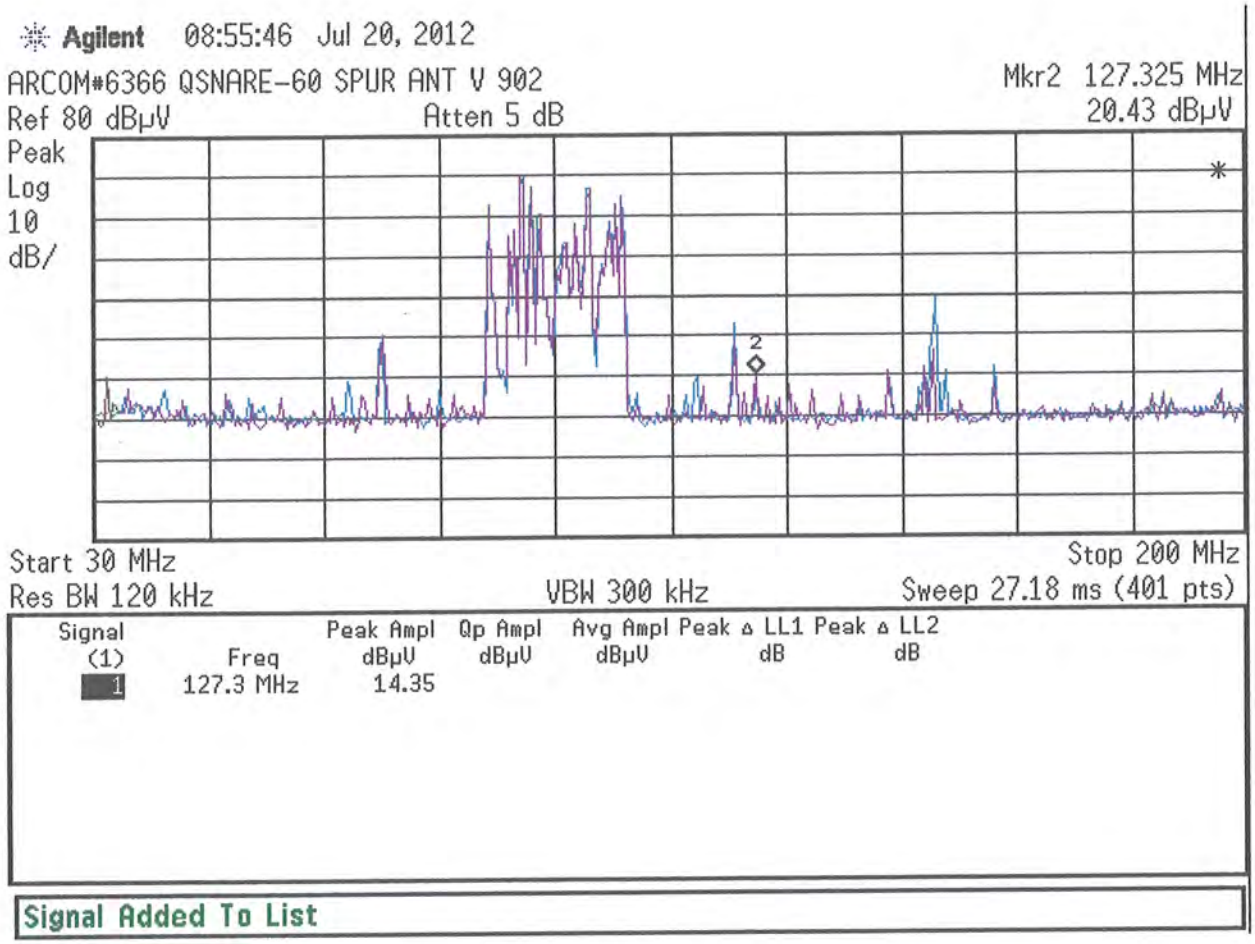
1 Page of Data to Follow

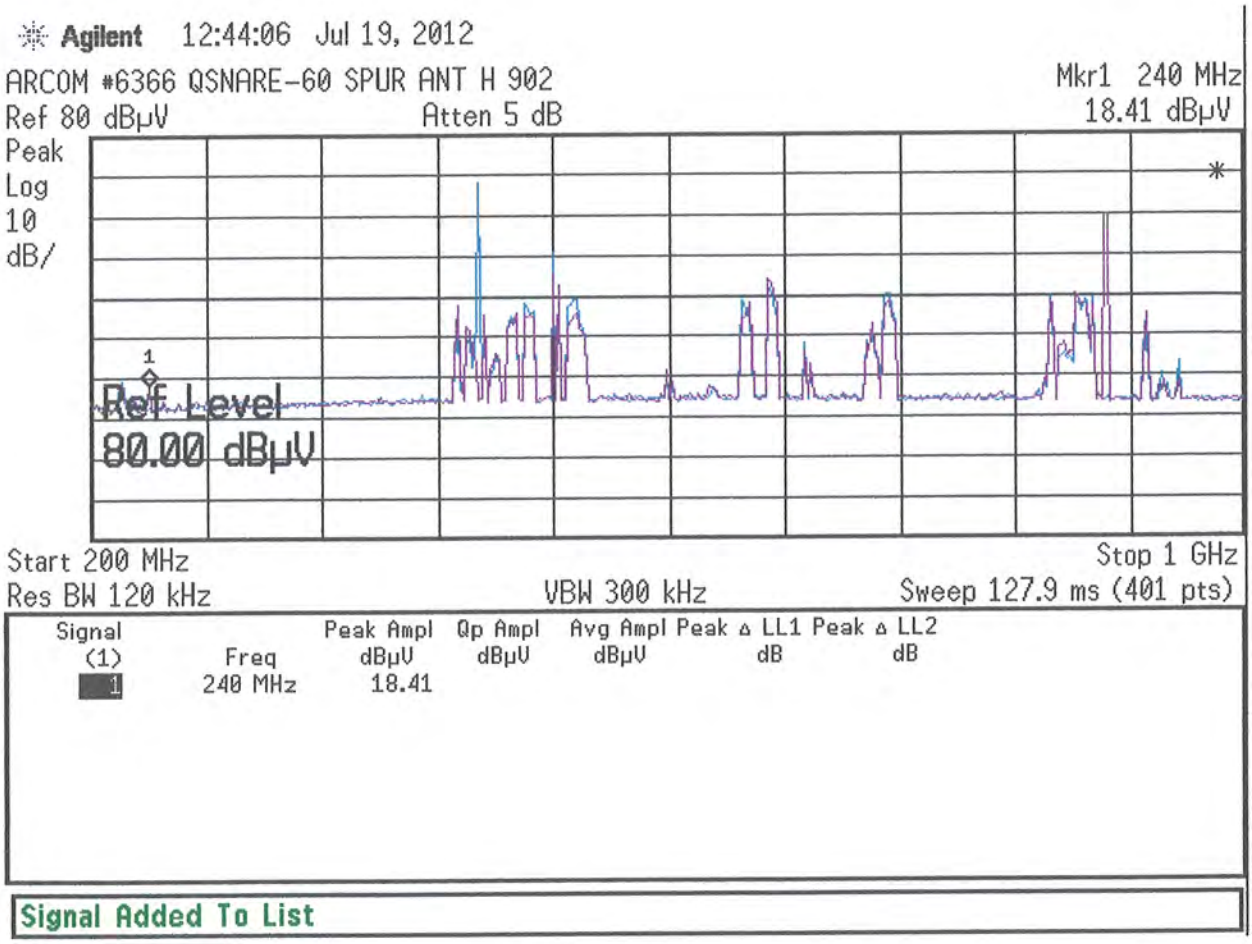

Agilent 10:50:15 Jul 18, 2012
ARCOM#6366 QSNARE-60 BANDWIDTH 927
Mkr2 Δ -605.0 kHz
Ref 13.87 dBm
#Atten 25 dB
0.277 dB
Peak
Log
10
dB/
2
1
2R
Marker Δ
-605.000 kHz
0.277 dB
Center 927 MHz
Span 1 MHz
#Res BW 10 kHz
#VBW 30 kHz
Sweep 10.36 ms (401 pts)
Signal (3) Freq Peak Ampl dBm Qp Ampl dBm Avg Ampl dBm Peak Δ LL1 dB Peak Δ LL2 dB
1 926.8 MHz 4.70
2 926.7 MHz -1.53
3 927.3 MHz -1.80
Signal Added To List

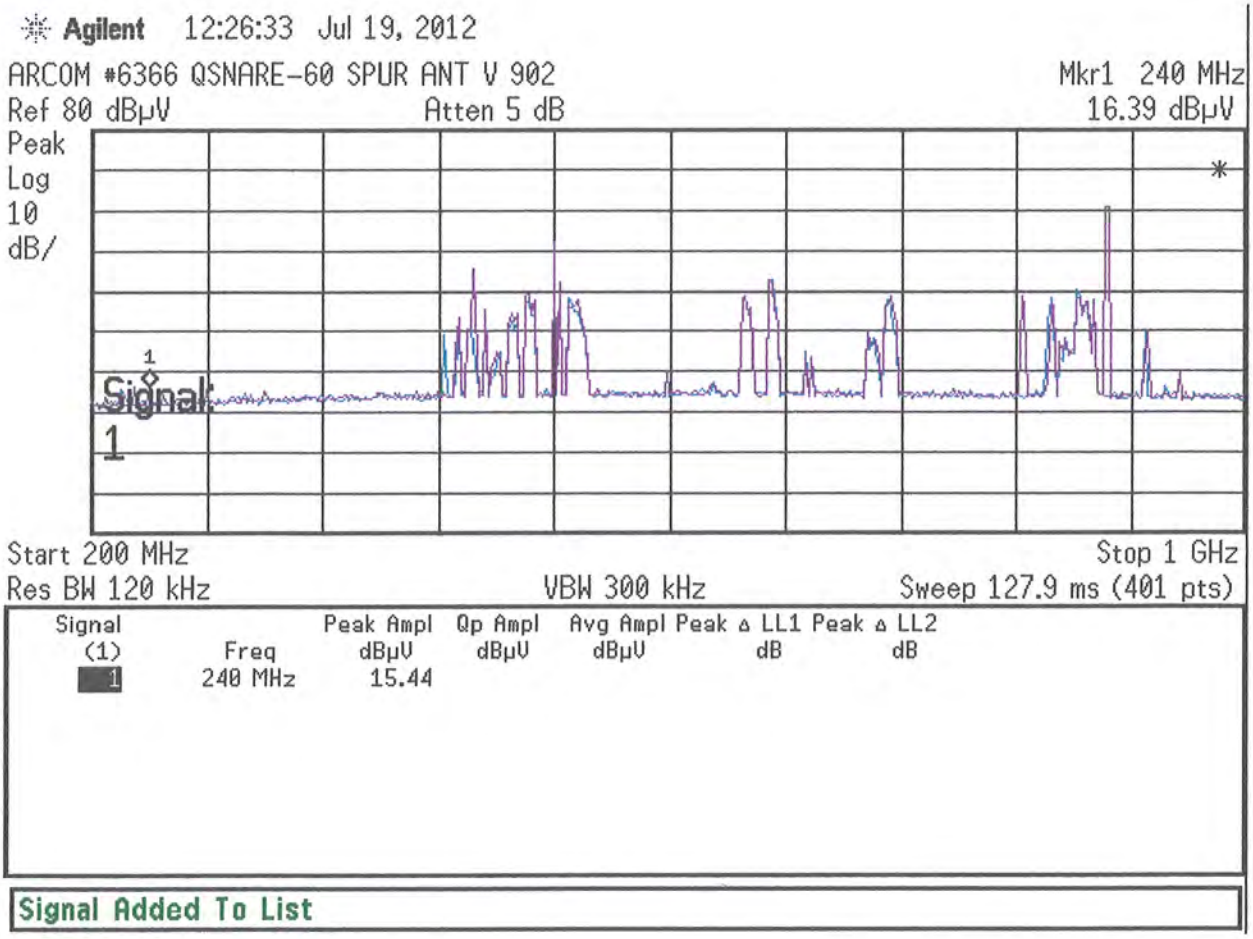
Spurious Emissions Test Data- 902 MHz

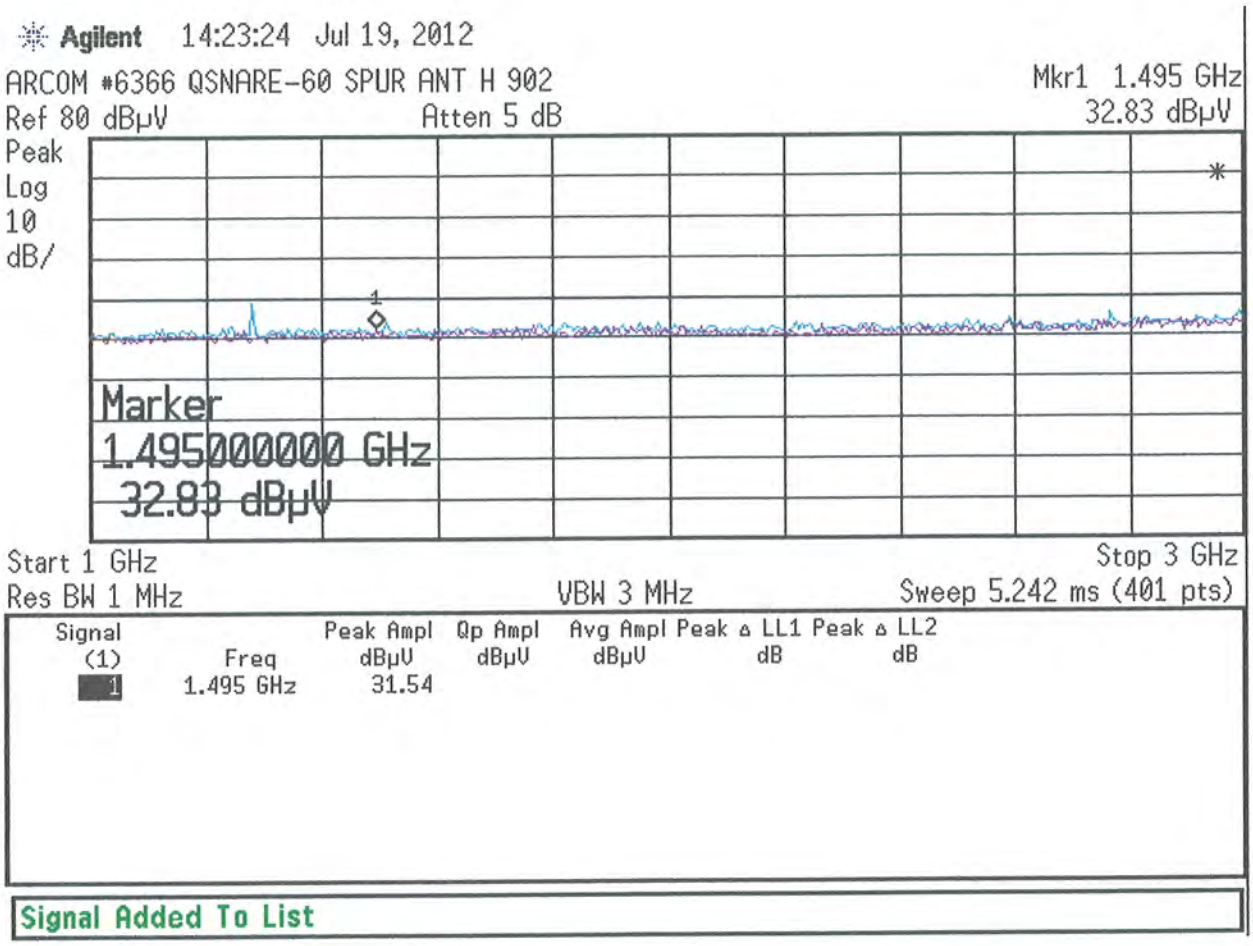
8 Pages to follow.

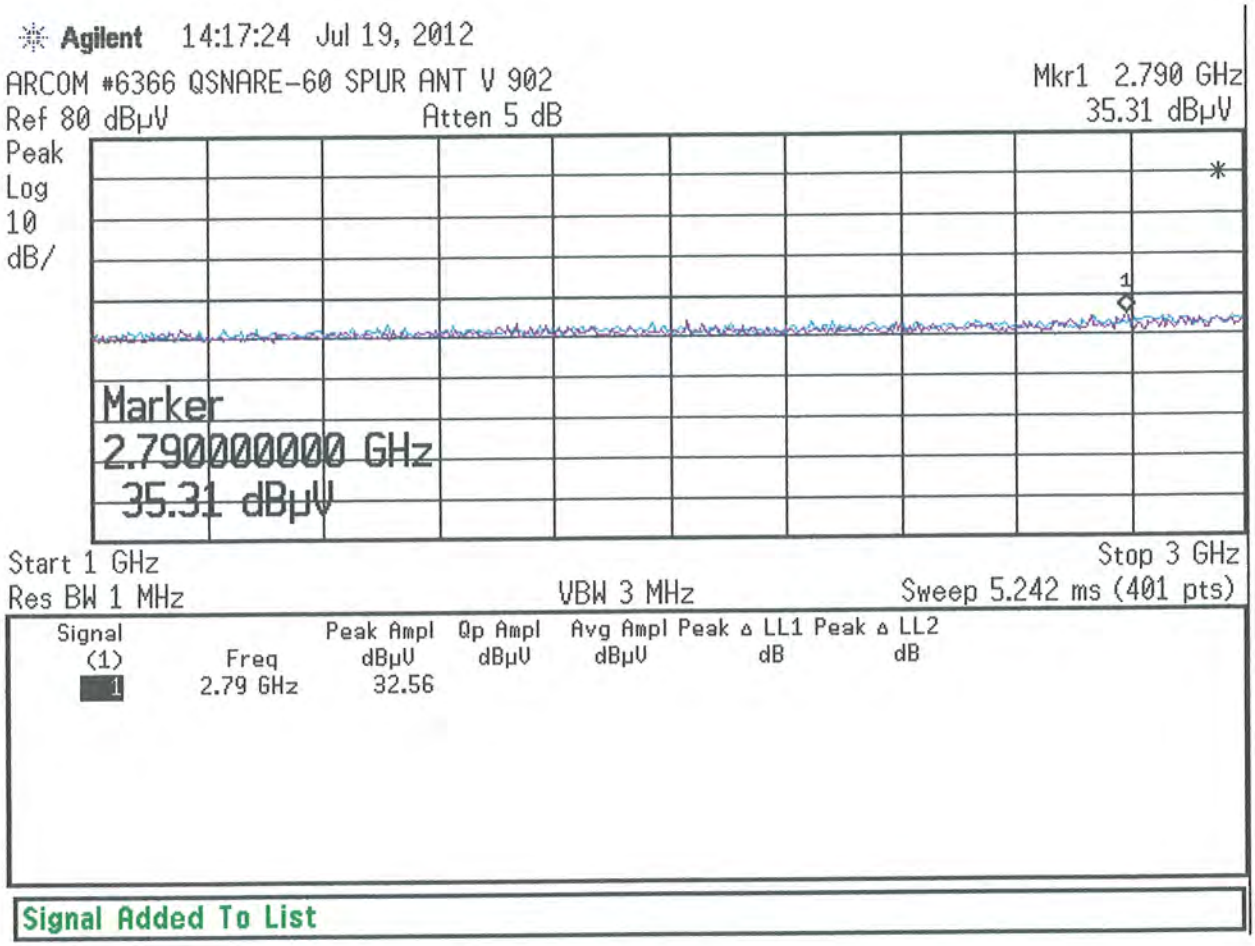

Agilent 08:46:10 Jul 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT H 902
Mkr1 72.500 MHz
21.01 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
Start 30 MHz
Stop 200 MHz
Res BW 120 kHz
VBW 300 kHz
Sweep 27.18 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 72.5 MHz 10.54
Signal Added To List

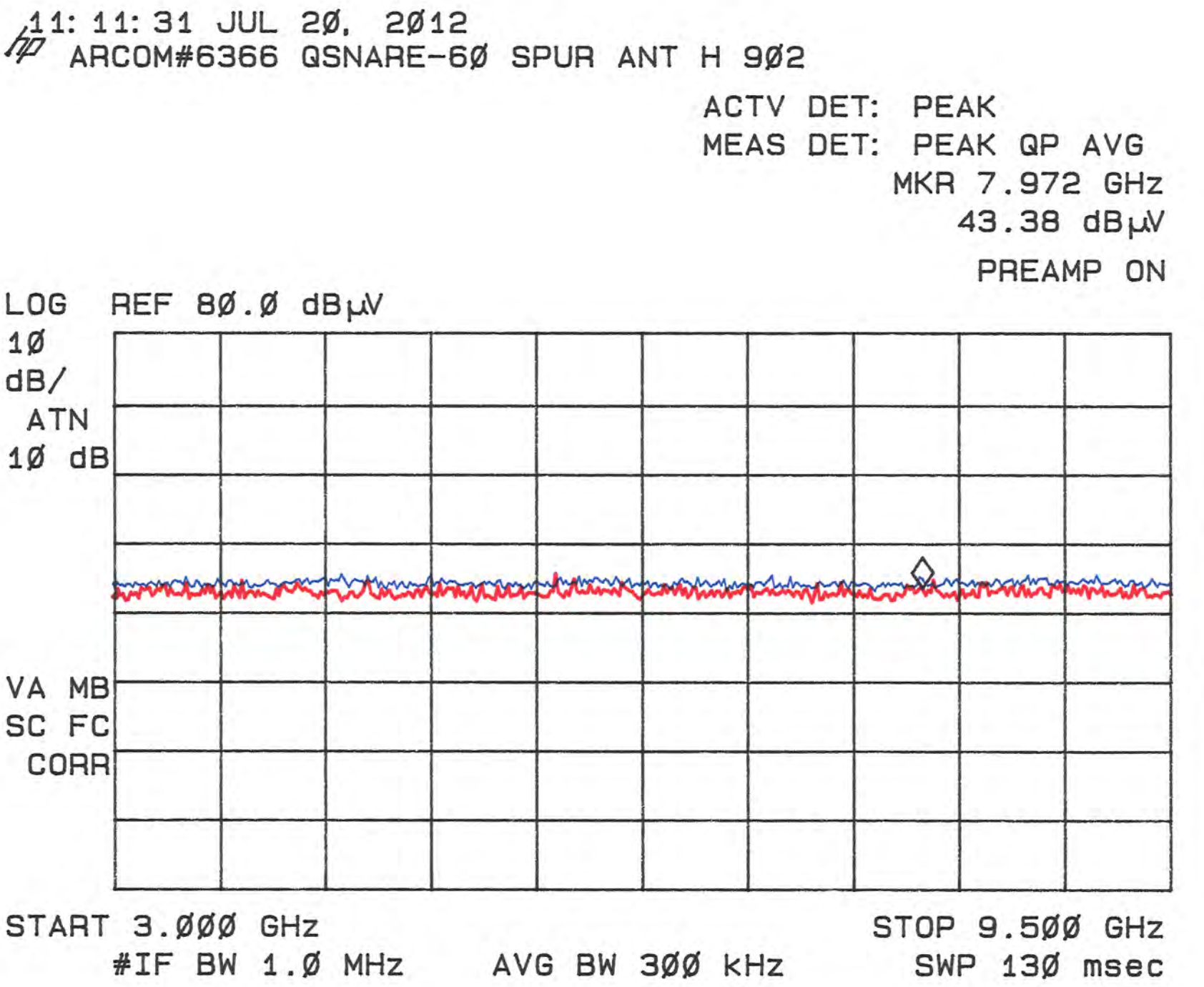

Agilent 08:55:46 Jul 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT V 902
Mkr2 127.325 MHz
20.43 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
Start 30 MHz
Res BW 120 kHz
VBW 300 kHz
Stop 200 MHz
Sweep 27.18 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 127.3 MHz 14.35
Signal Added To List


Agilent 12:44:06 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT H 902
Ref 80 dBµV
Atten 5 dB
Mkr1 240 MHz
18.41 dBµV
Peak
Log
10
dB/
1
Ref Level
80.00 dBµV
Start 200 MHz
Res BW 120 kHz
VBW 300 kHz
Stop 1 GHz
Sweep 127.9 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 240 MHz 18.41
Signal Added To List


Agilent 12:26:33 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT V 902
Mkr1 240 MHz
Ref 80 dBµV
Atten 5 dB
16.39 dBµV
Peak
Log
10
dB/
Signal
1
Start 200 MHz
Stop 1 GHz
Res BW 120 kHz
VBW 300 kHz
Sweep 127.9 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 240 MHz 15.44
Signal Added To List

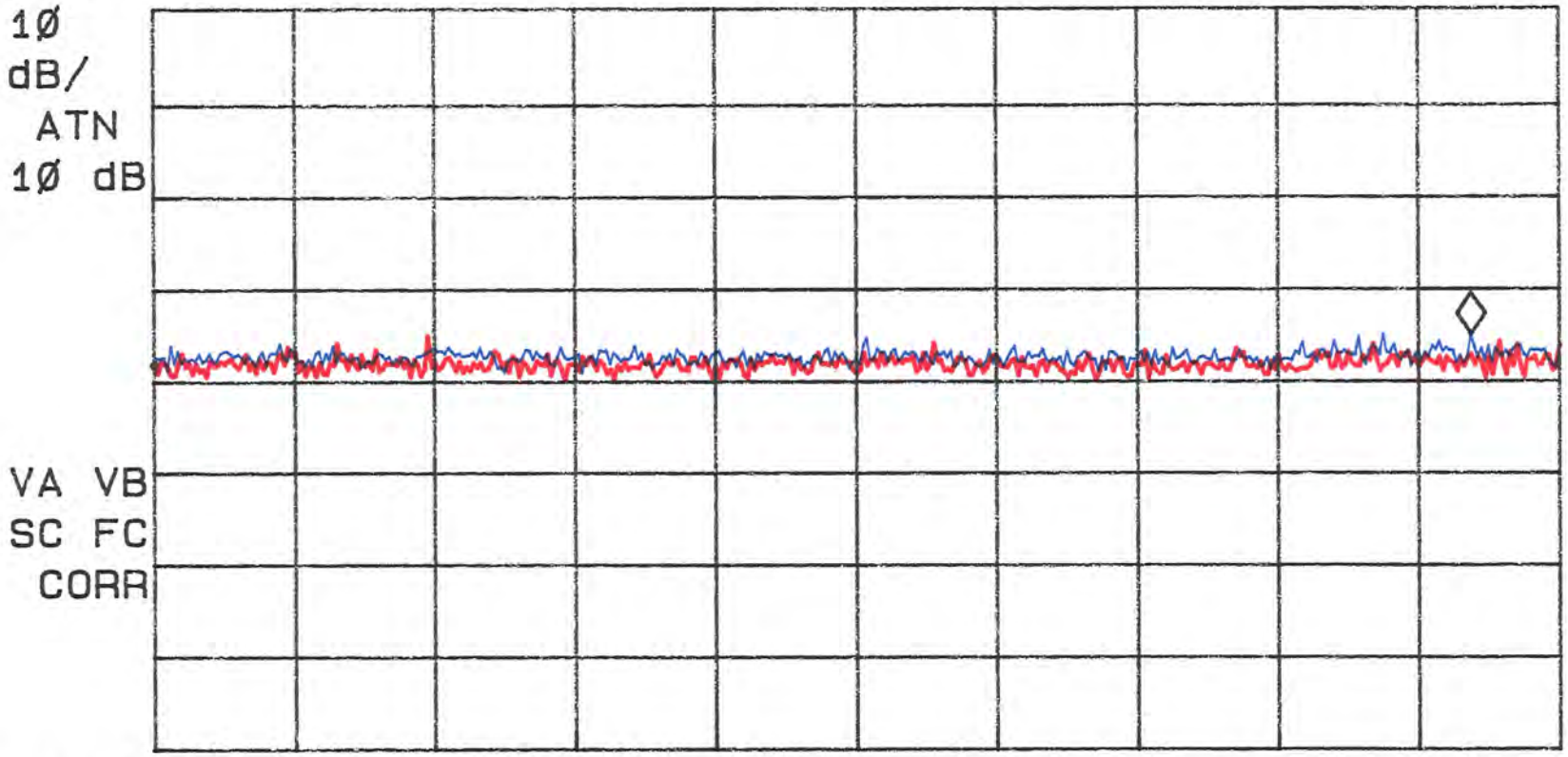

Agilent 14:23:24 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT H 902
Ref 80 dBµV
Atten 5 dB
Mkr1 1.495 GHz
32.83 dBµV
Peak
Log
10
dB/
Marker
1.495000000 GHz
32.83 dBµV
Start 1 GHz
Res BW 1 MHz
VBW 3 MHz
Stop 3 GHz
Sweep 5.242 ms (401 pts)
Signal (1) 1
Freq 1.495 GHz
Peak Ampl dBµV 31.54
Qp Ampl dBµV
Avg Ampl dBµV
Peak Δ LL1 dB
Peak Δ LL2 dB
Signal Added To List


Agilent 14:17:24 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT V 902
Ref 80 dBµV
Atten 5 dB
Mkr1 2.790 GHz
35.31 dBµV
Peak
Log
10
dB/
Marker
2.790000000 GHz
35.31 dBµV
Start 1 GHz
Res BW 1 MHz
VBW 3 MHz
Stop 3 GHz
Sweep 5.242 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 2.79 GHz 32.56
Signal Added To List


11: 11: 31 JUL 2Ø, 2Ø12
ARCOM#6366 QSNARE-6Ø SPUR ANT H 9Ø2
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.972 GHz
43.38 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
ATN
1Ø dB
VA MB
SC FC
CORR
START 3.ØØØ GHz
STOP 9.5ØØ GHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 13Ø msec

11: 19: Ø9 JUL 2Ø, 2Ø12
ARCOM#6366 QSNARE-6Ø SPUR ANT V 9Ø2

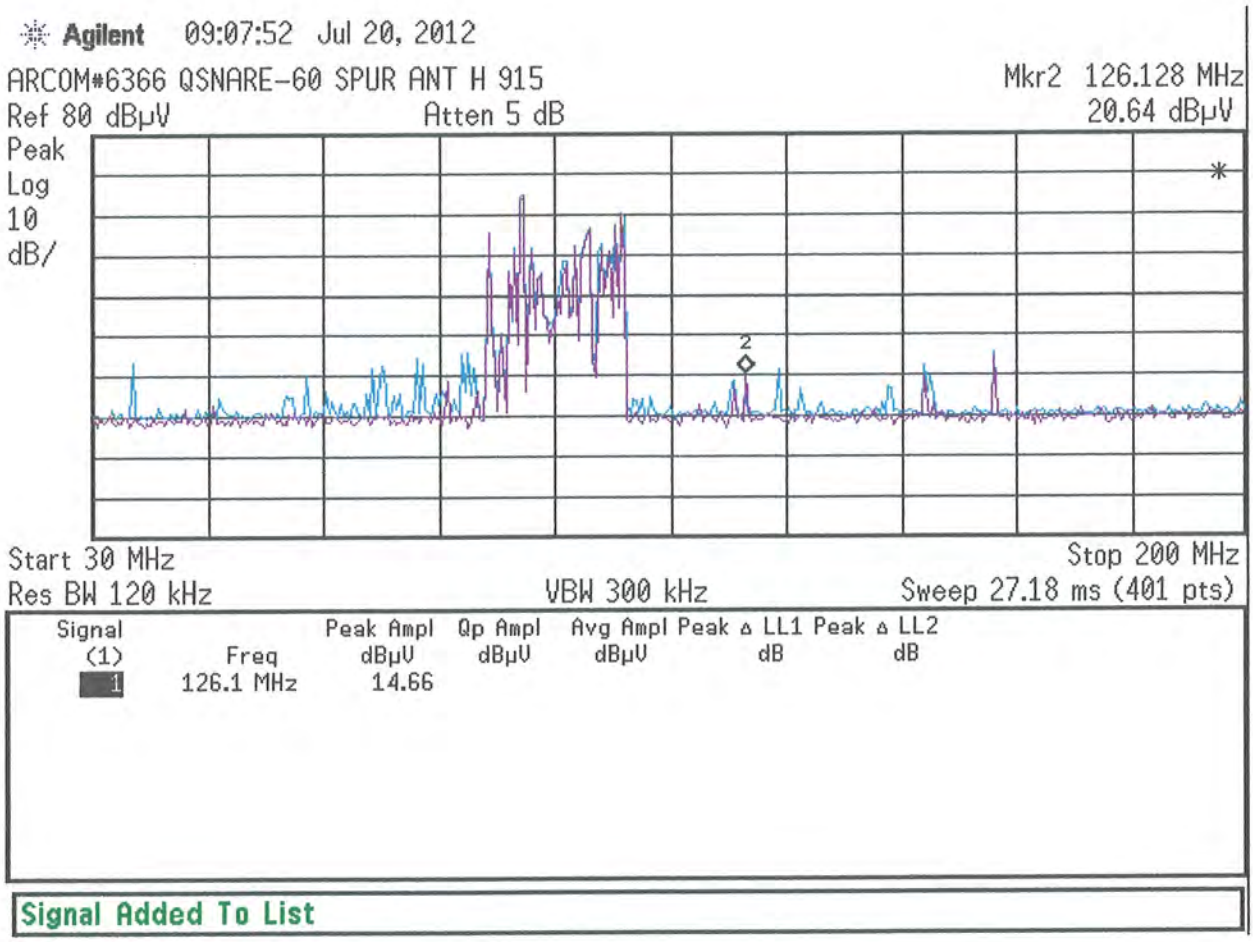
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 9.Ø94 GHz
44.85 dBµV
PREAMP ON

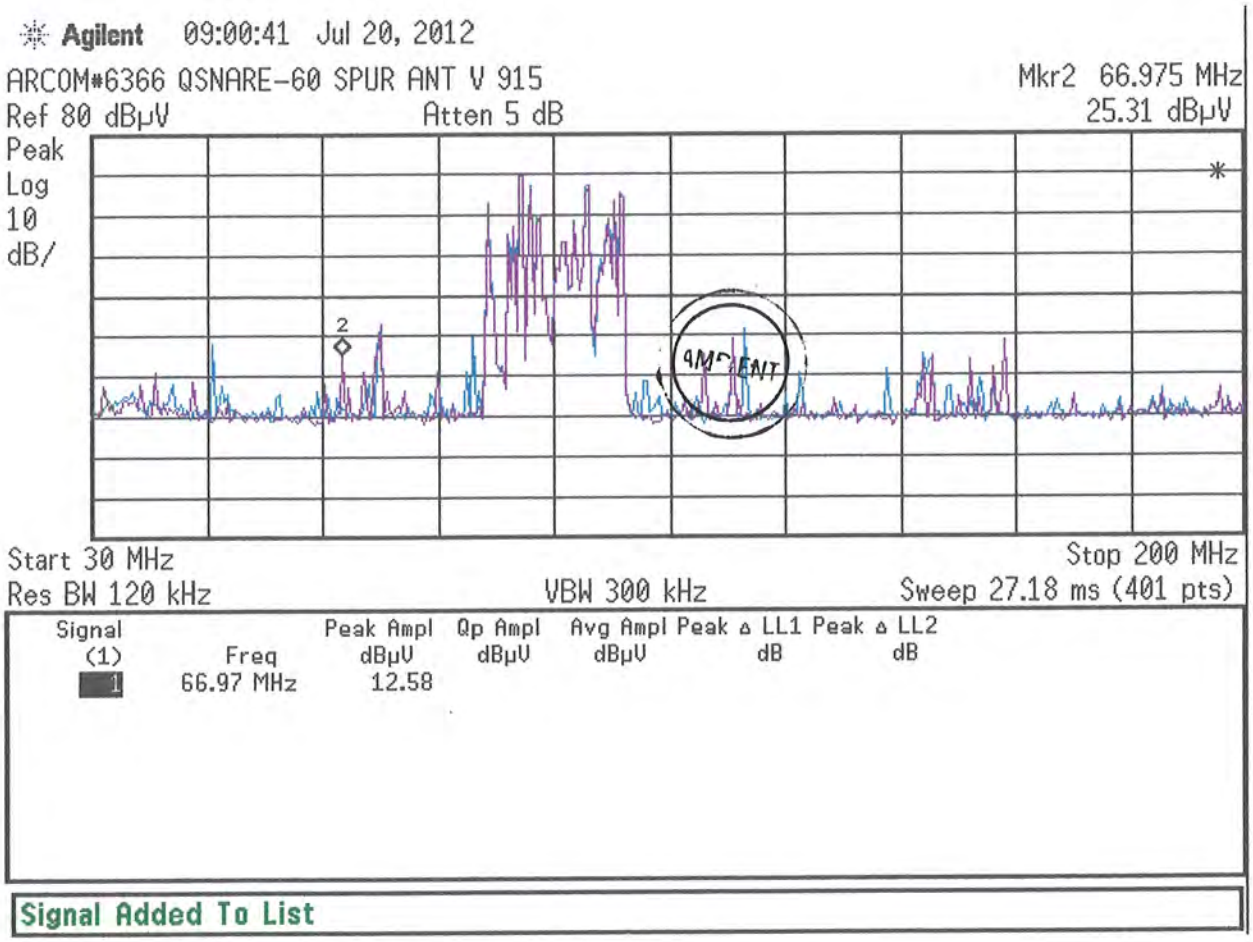


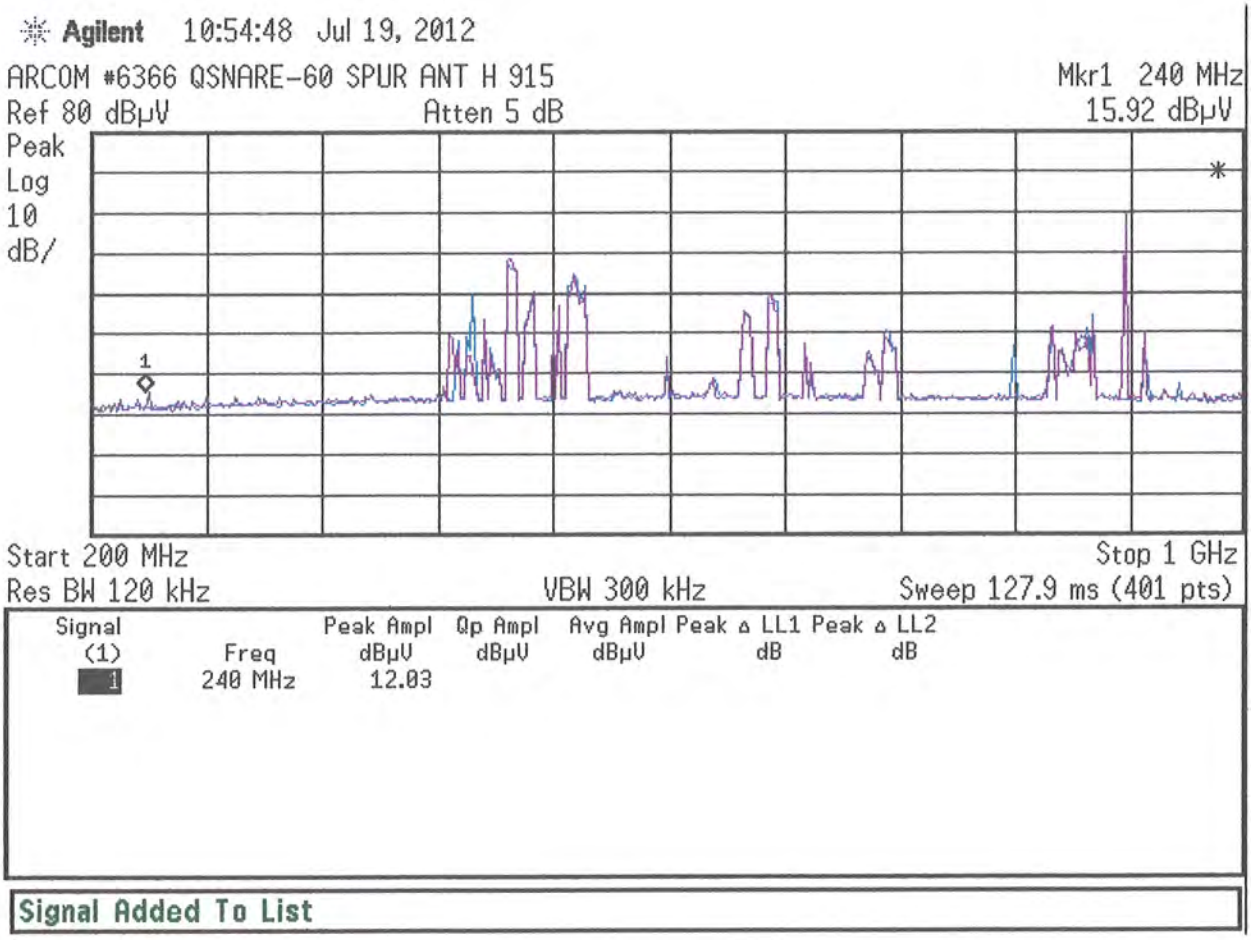
START 3.ØØØ GHz
STOP 9.5ØØ GHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 13Ø msec

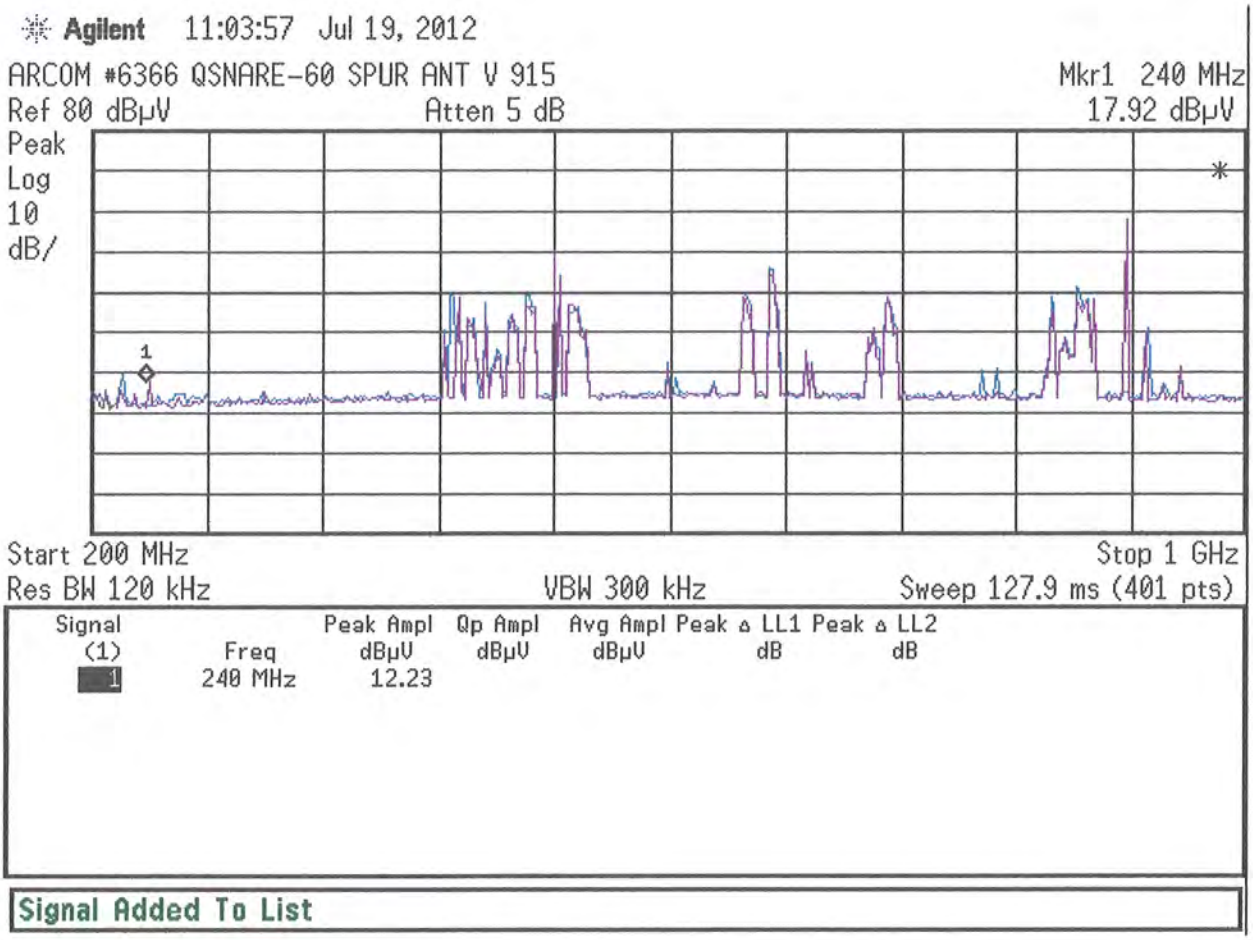
Spurious Emissions Test Data- 915 MHz

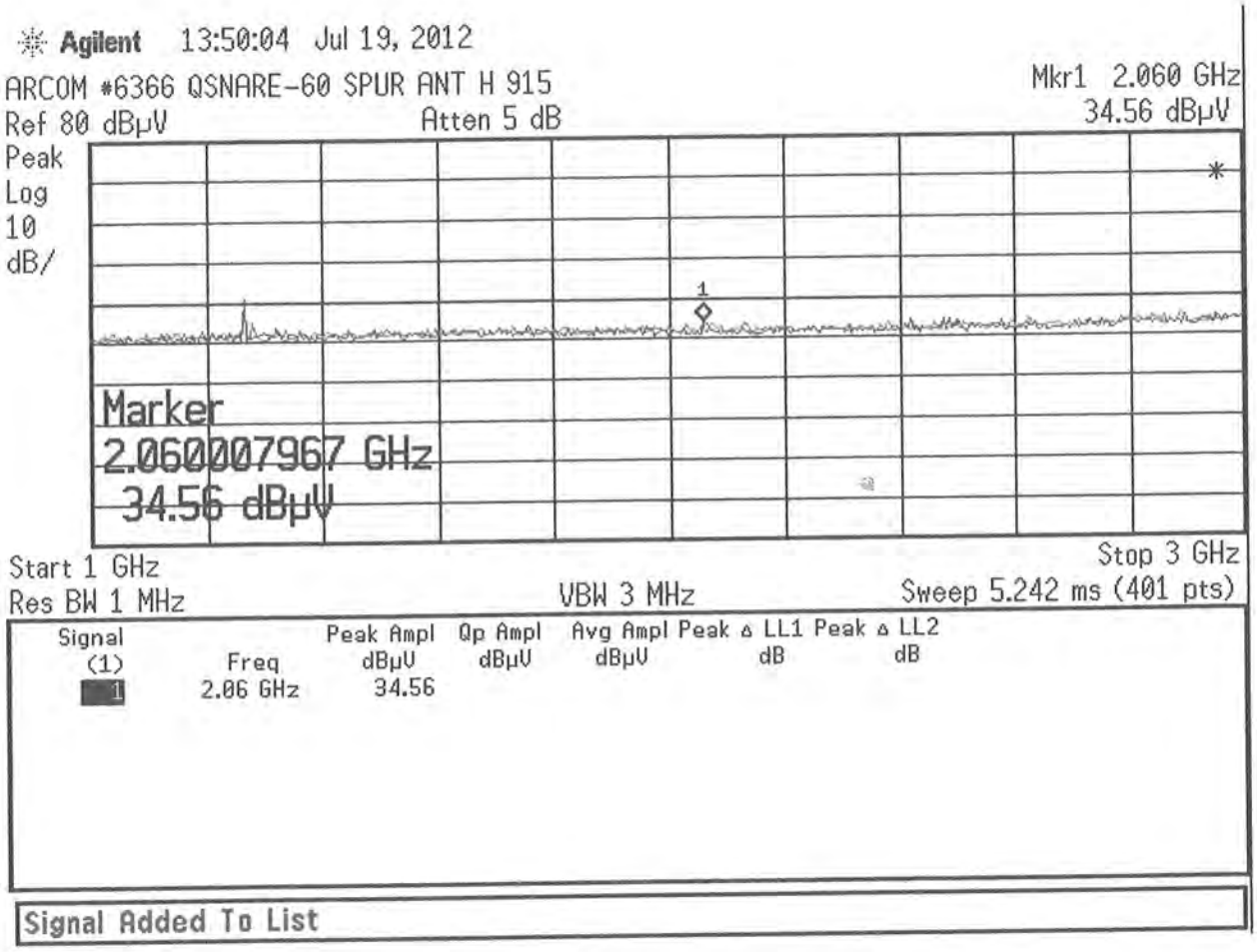
8 Pages to follow.

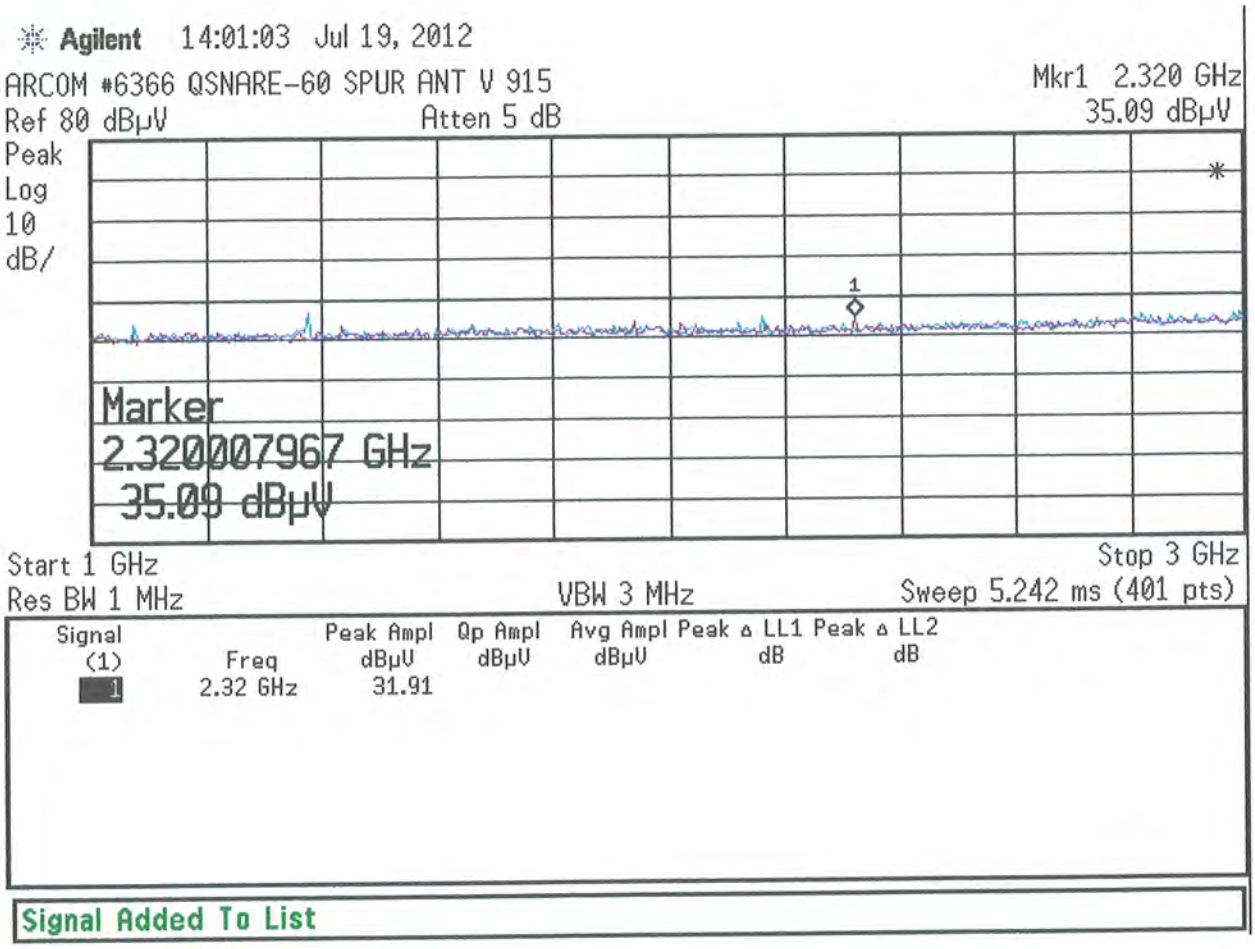

Agilent 09:07:52 Jul 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT H 915
Mkr2 126.128 MHz
20.64 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
2
Start 30 MHz
Stop 200 MHz
Res BW 120 kHz
VBW 300 kHz
Sweep 27.18 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 126.1 MHz 14.66
Signal Added To List


Agilent 09:00:41 Jul 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT V 915
Mkr2 66.975 MHz
25.31 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
2
Start 30 MHz
Stop 200 MHz
Res BW 120 kHz
VBW 300 kHz
Sweep 27.18 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 66.97 MHz 12.58
Signal Added To List


Agilent 10:54:48 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT H 915
Mkr1 240 MHz
Ref 80 dBµV
Atten 5 dB
15.92 dBµV
Peak
Log
10
dB/
1
Start 200 MHz
Stop 1 GHz
Res BW 120 kHz
VBW 300 kHz
Sweep 127.9 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 240 MHz 12.03
Signal Added To List

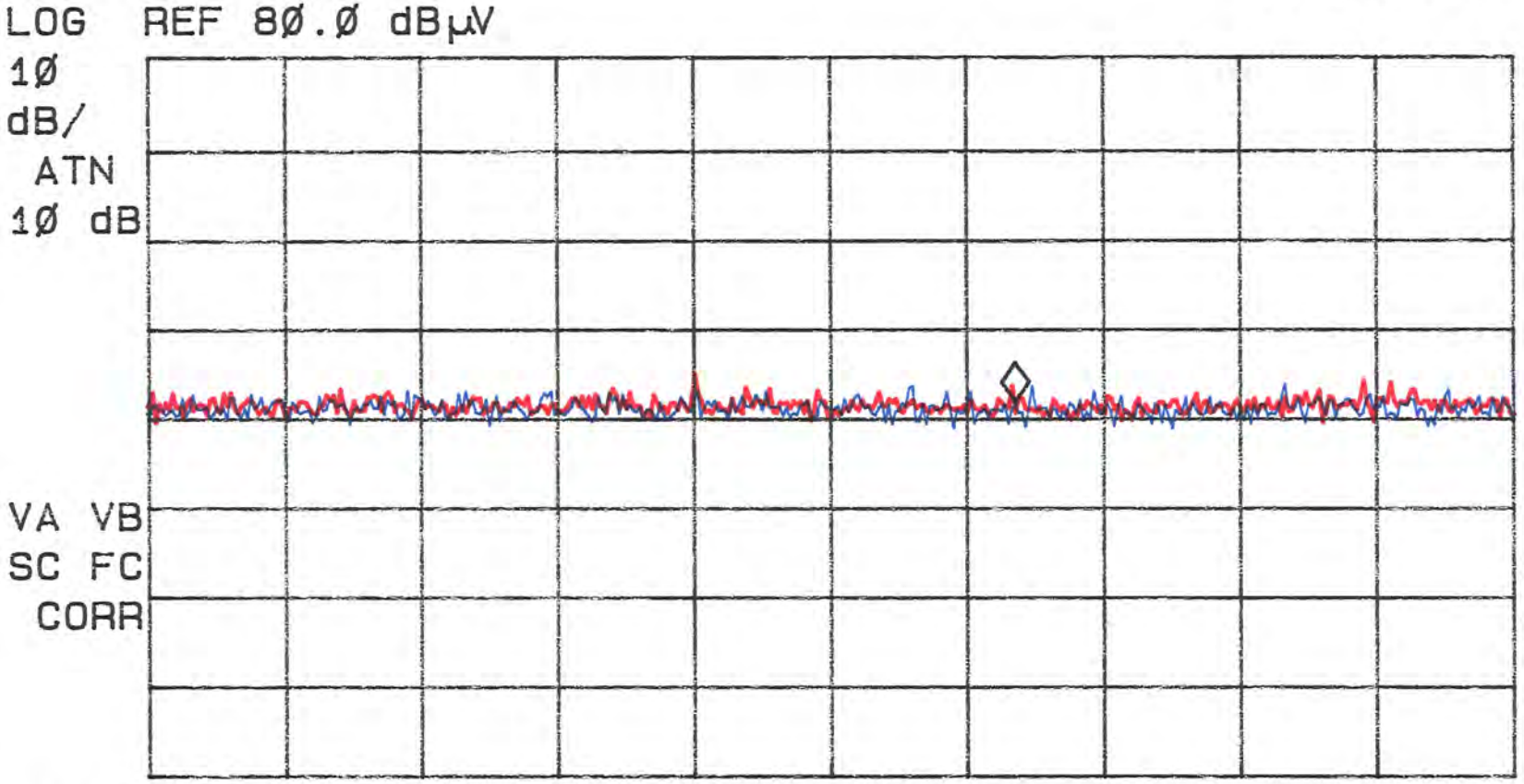

Agilent 11:03:57 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT V 915
Mkr1 240 MHz
Ref 80 dBµV
Atten 5 dB
17.92 dBµV
Peak
Log
10
dB/
1
Start 200 MHz
Stop 1 GHz
Res BW 120 kHz
VBW 300 kHz
Sweep 127.9 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 240 MHz 12.23
Signal Added To List


Agilent 13:50:04 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT H 915
Ref 80 dBµV
Atten 5 dB
Mkr1 2.060 GHz
34.56 dBµV
Peak
Log
10
dB/
Marker
2.060007967 GHz
34.56 dBµV
Start 1 GHz
Res BW 1 MHz
VBW 3 MHz
Stop 3 GHz
Sweep 5.242 ms (401 pts)
Signal (1)
Freq
Peak Ampl dBµV
Qp Ampl dBµV
Avg Ampl dBµV
Peak Δ LL1 dB
Peak Δ LL2 dB
1
2.06 GHz
34.56
Signal Added To List

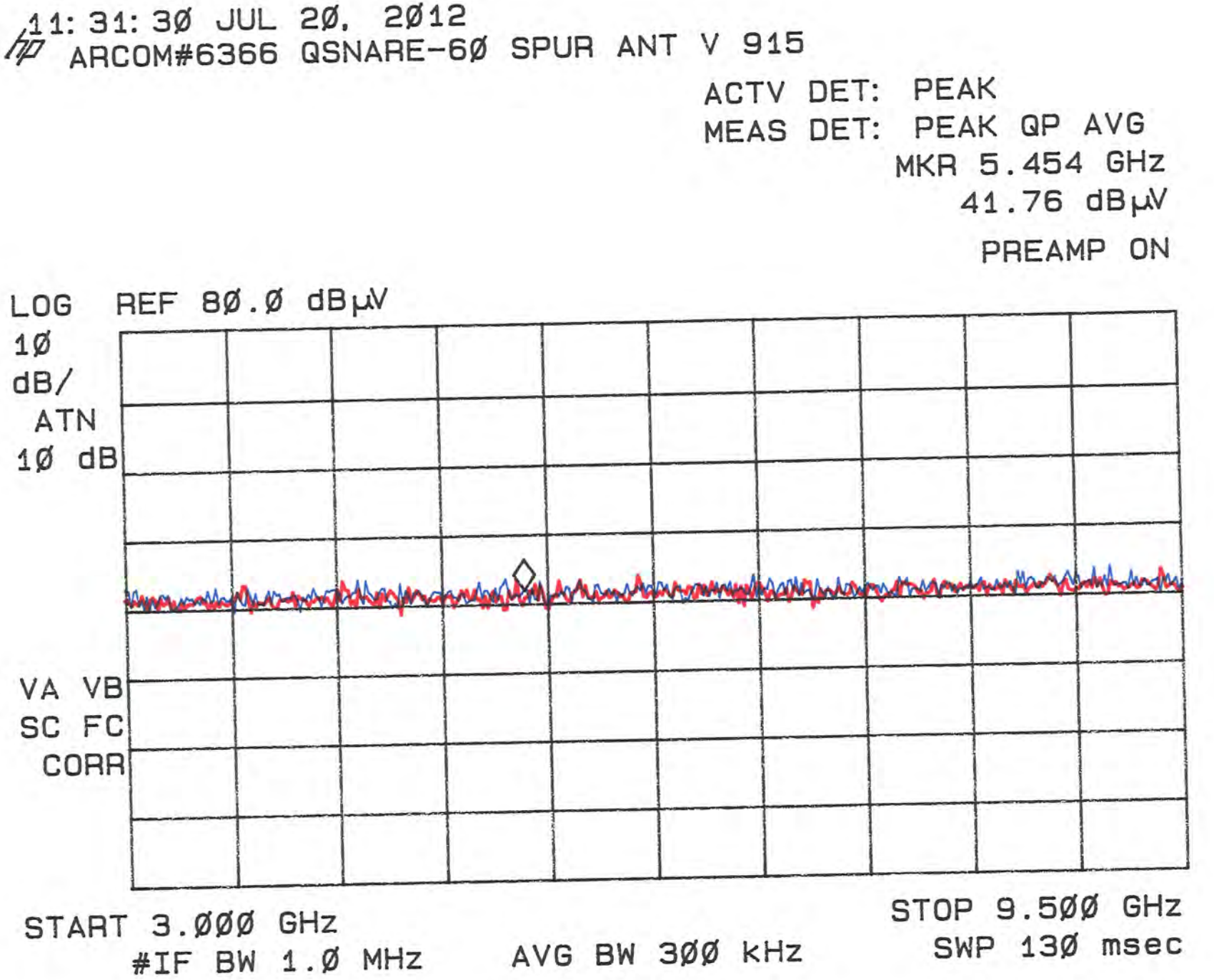

Agilent 14:01:03 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT V 915
Ref 80 dBµV
Atten 5 dB
Mkr1 2.320 GHz
35.09 dBµV
Peak
Log
10
dB/
1
Marker
2.320007967 GHz
35.09 dBµV
Start 1 GHz
Res BW 1 MHz
VBW 3 MHz
Stop 3 GHz
Sweep 5.242 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 2.32 GHz 31.91
Signal Added To List

11: 38: 12 JUL 2Ø, 2Ø12
ARCOM#6366 QSNARE-6Ø SPUR ANT H 915

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 7.127 GHz
41.66 dBµV
PREAMP ON

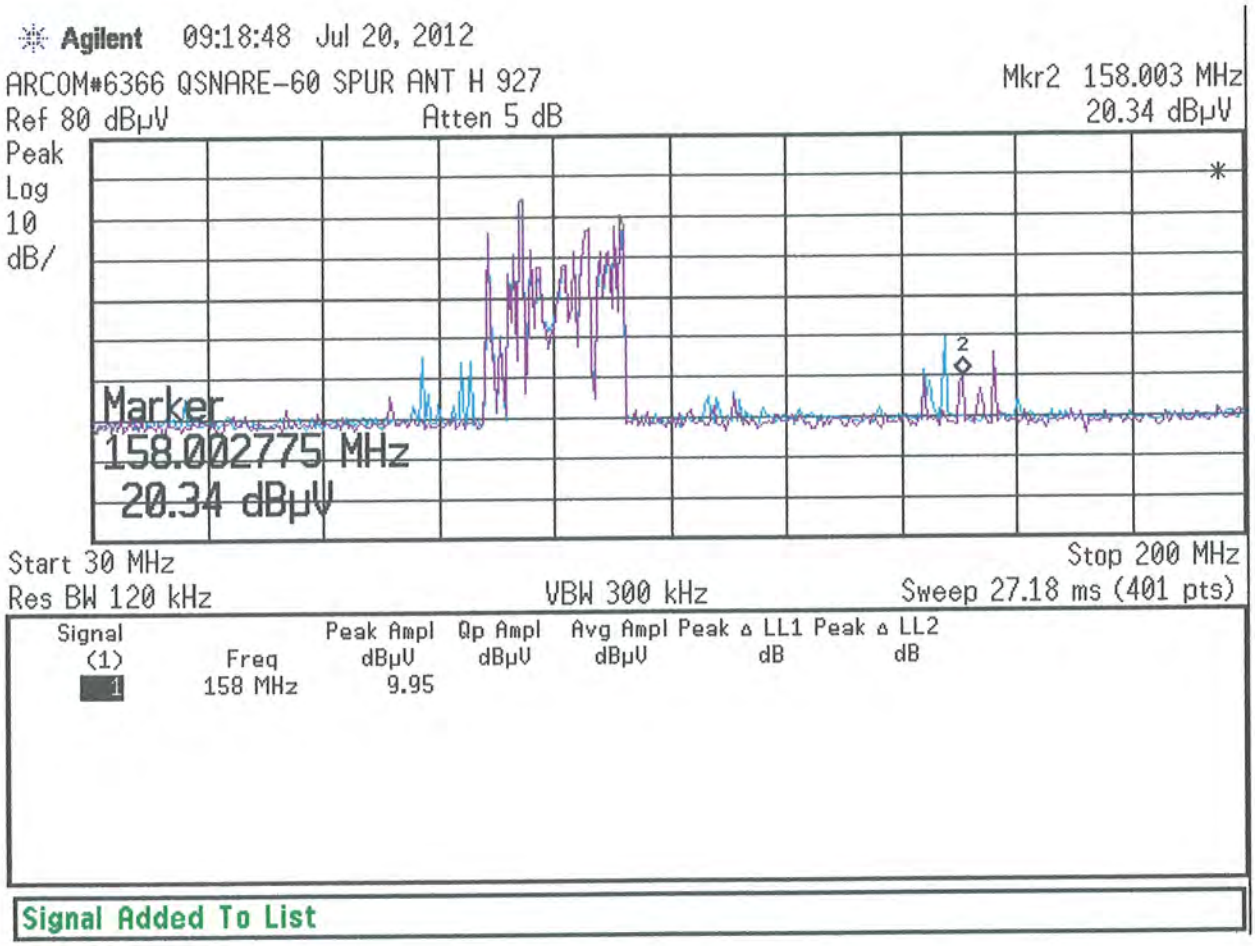


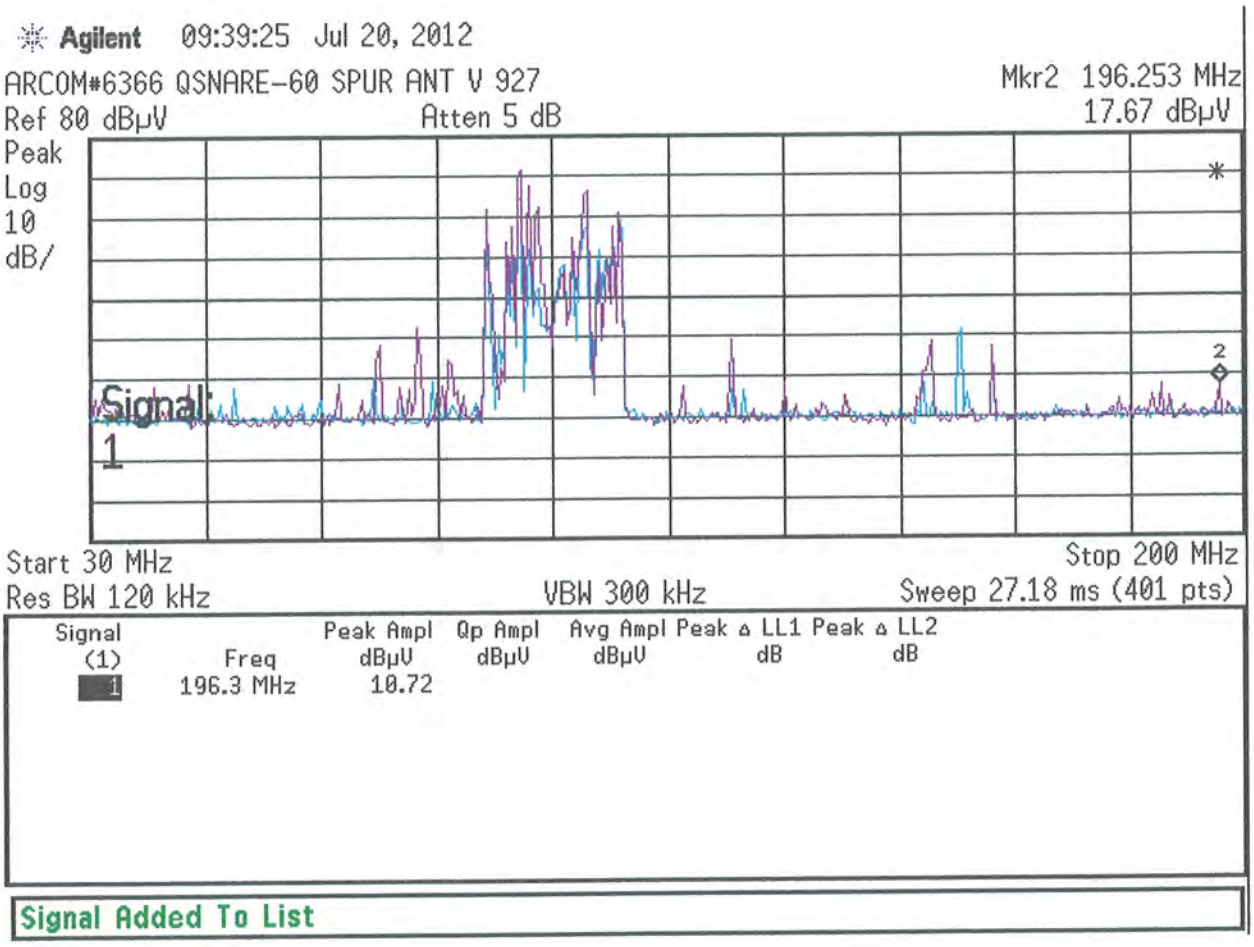
START 3.ØØØ GHz
STOP 9.5ØØ GHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
SWP 13Ø msec

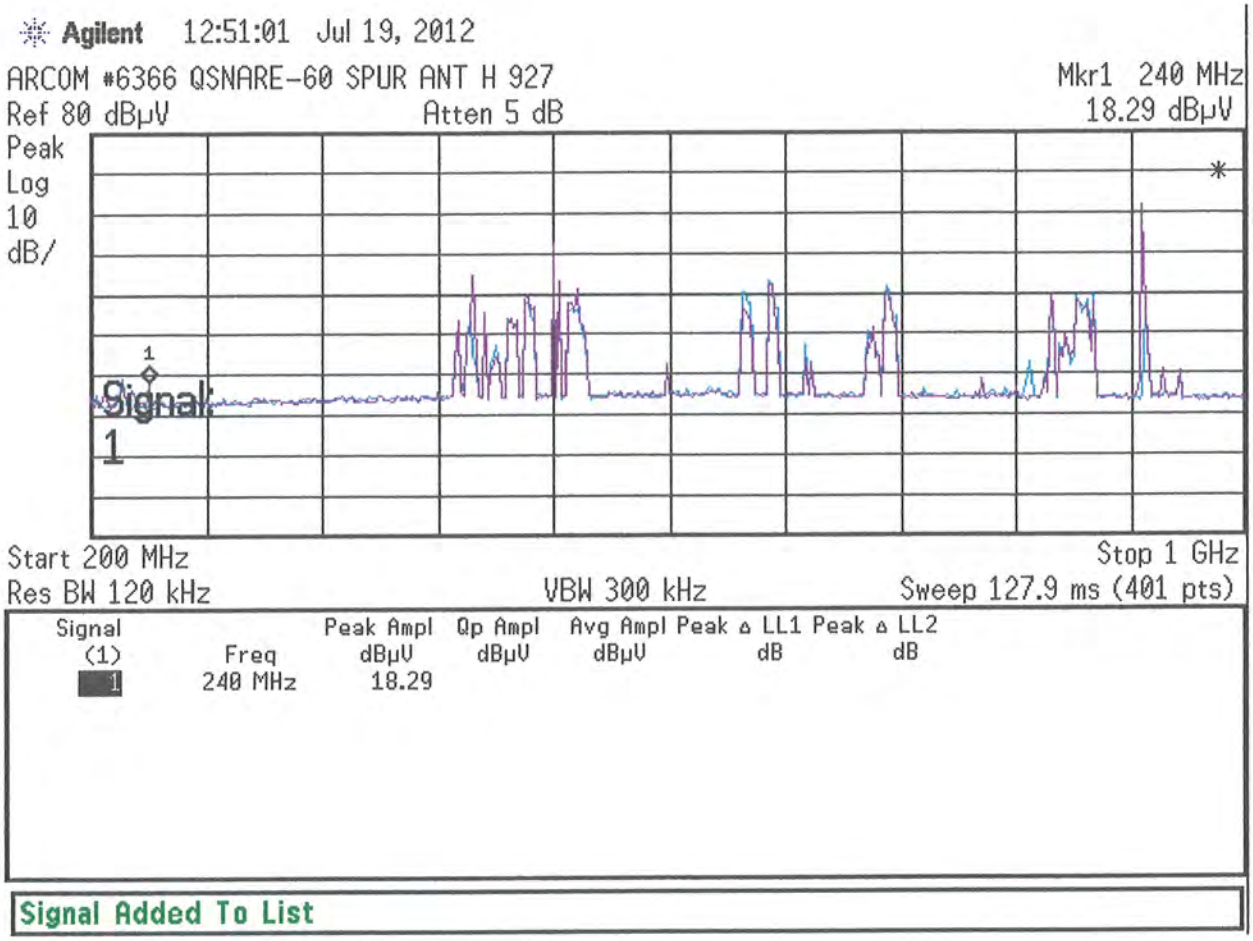

11: 31: 3Ø JUL 2Ø, 2Ø12
ARCOM#6366 QSNARE-6Ø SPUR ANT V 915
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 5.454 GHz
41.76 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
ATN
1Ø dB
VA VB
SC FC
CORR
START 3.ØØØ GHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
STOP 9.5ØØ GHz
SWP 13Ø msec

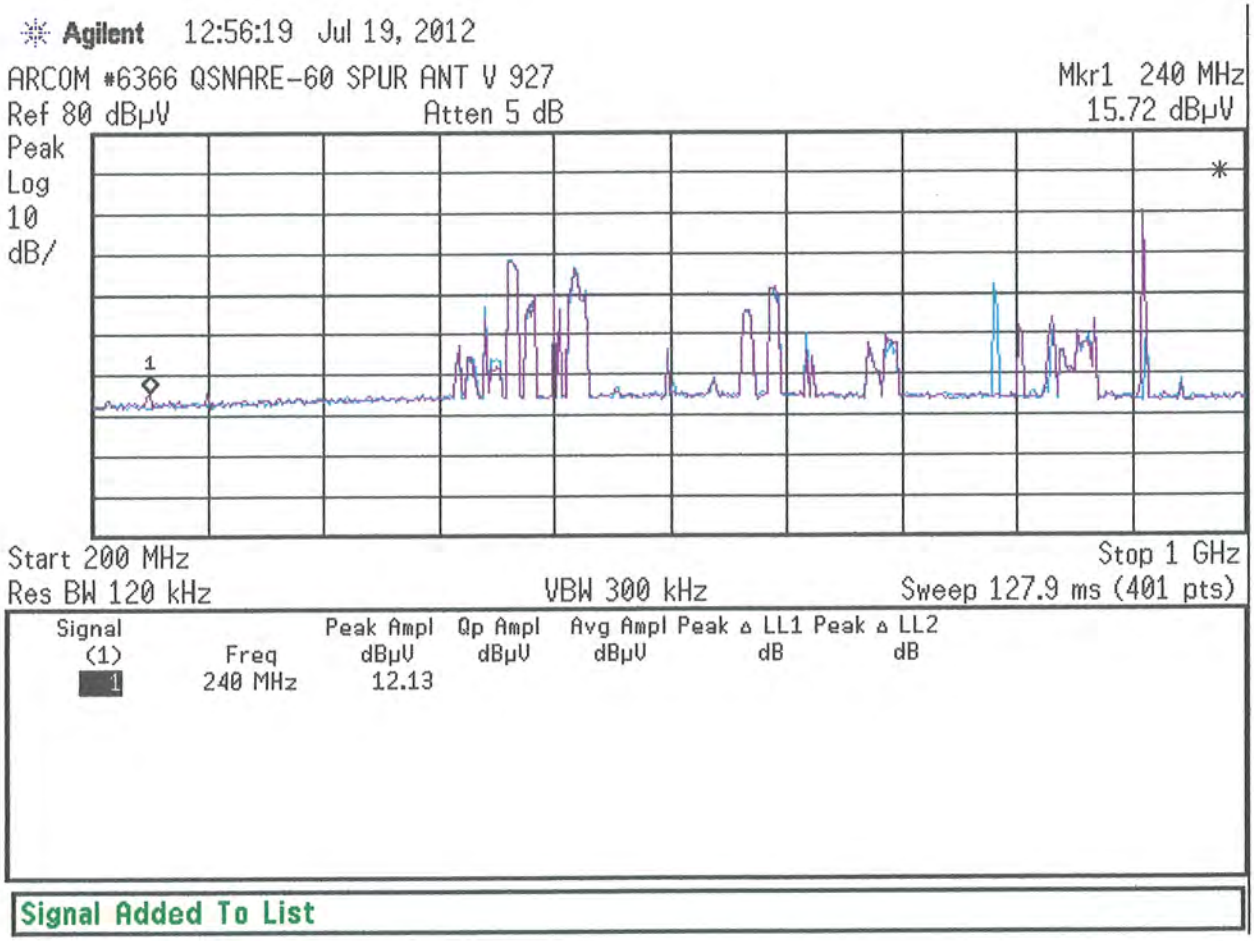
Spurious Emissions Test Data- 927 MHz

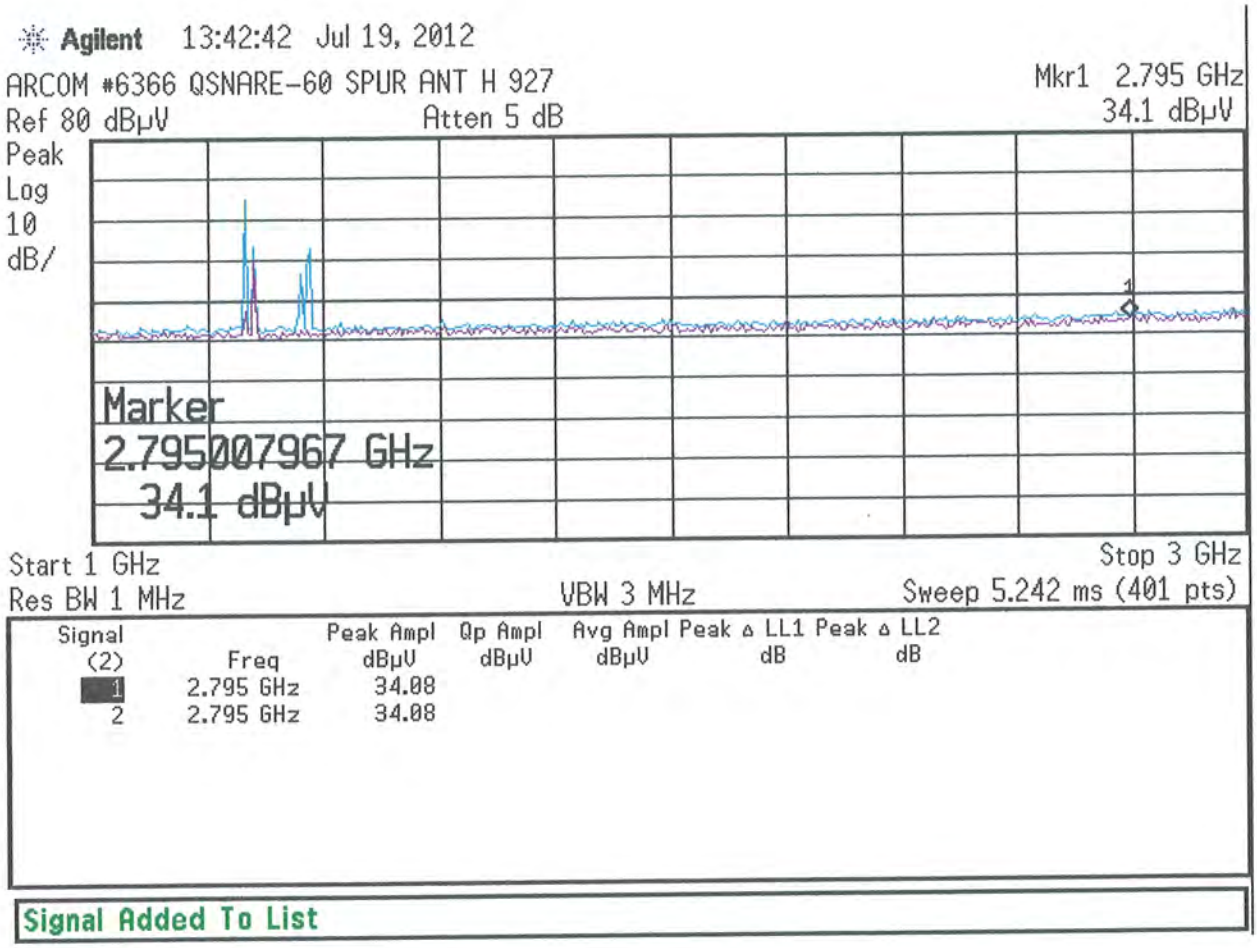
8 Pages to follow.

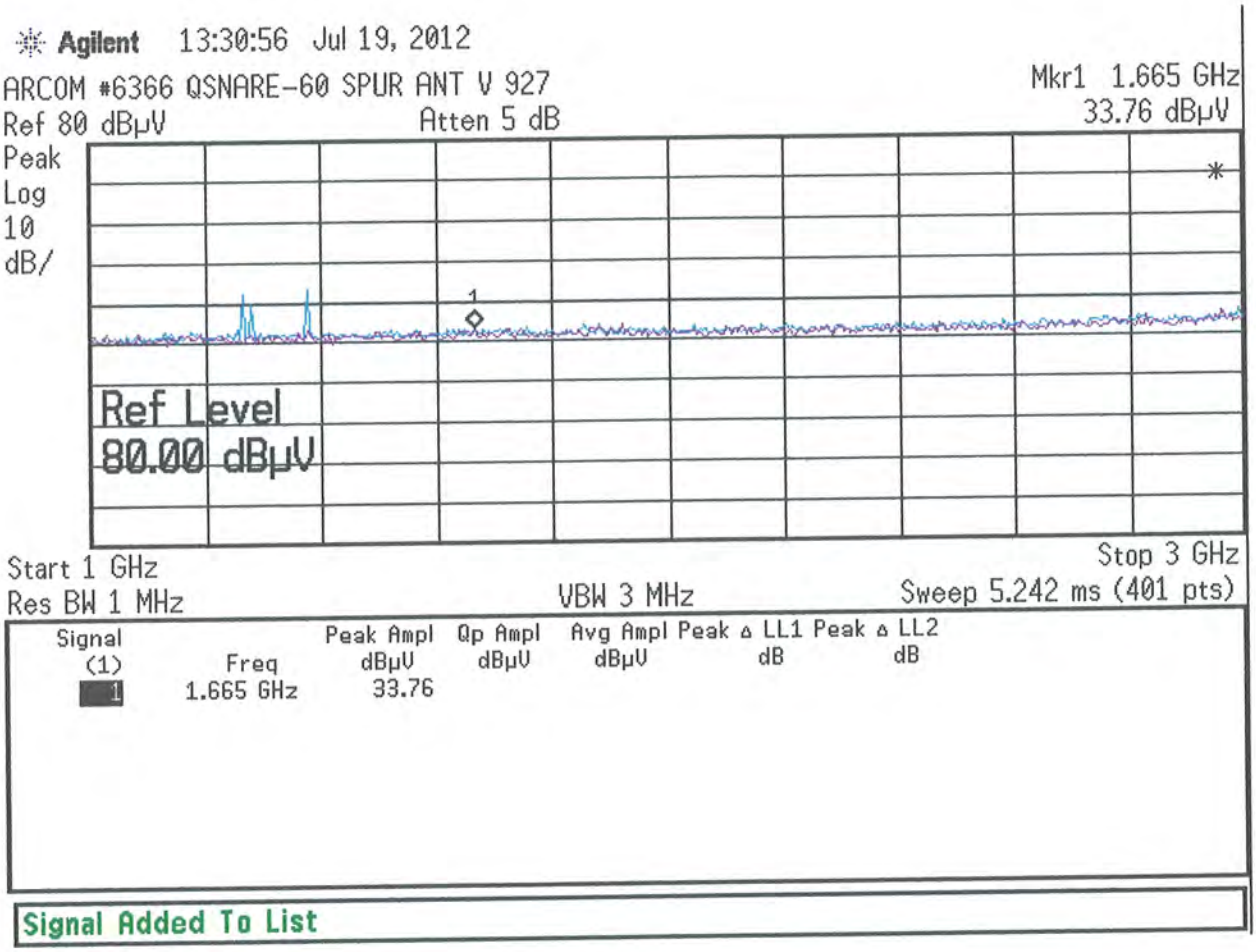

Agilent 09:18:48 Jul 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT H 927
Mkr2 158.003 MHz
20.34 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
Marker
158.002775 MHz
20.34 dBµV
Start 30 MHz
Stop 200 MHz
Res BW 120 kHz
VBW 300 kHz
Sweep 27.18 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 158 MHz 9.95
Signal Added To List

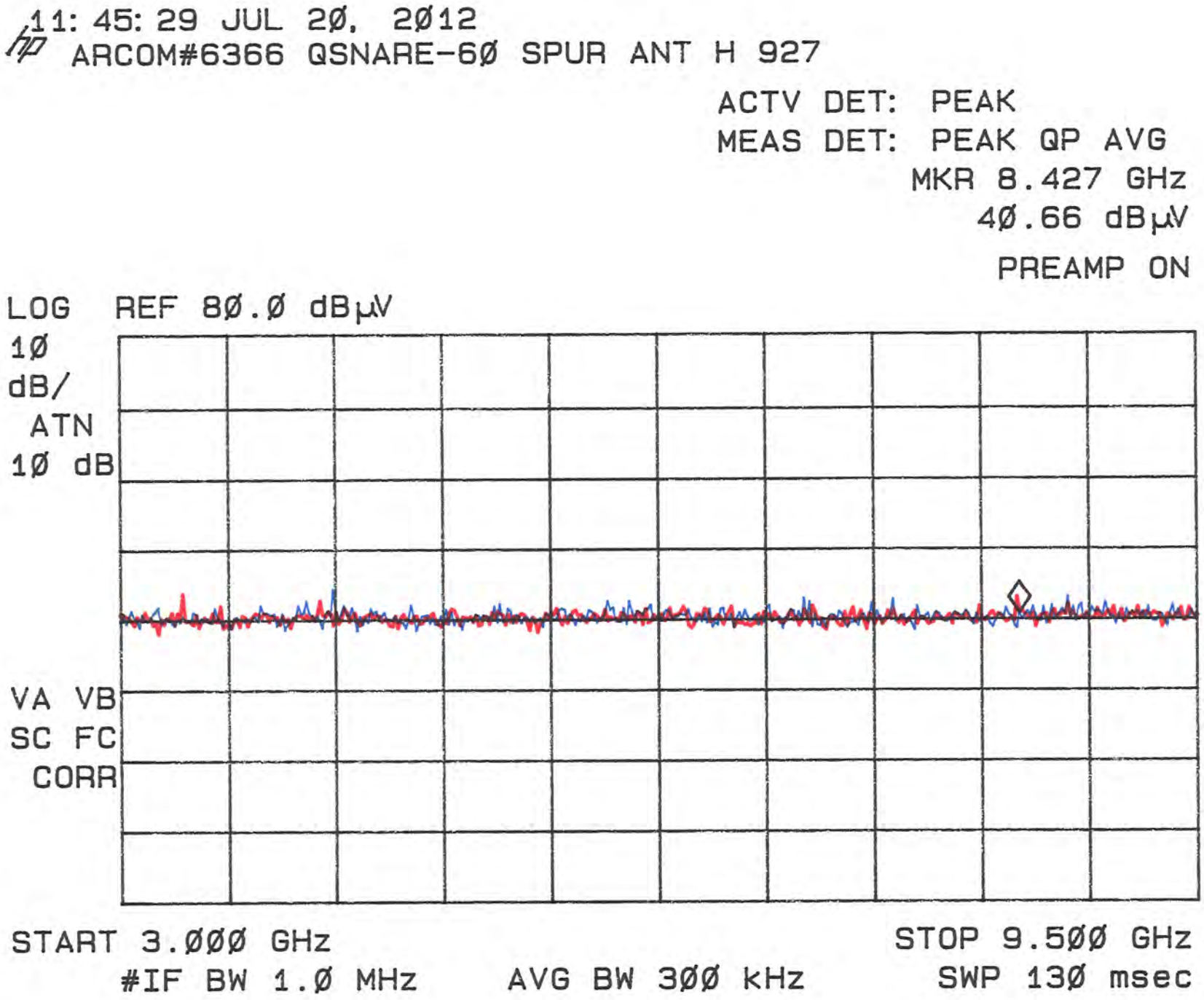

Agilent 09:39:25 Jul 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT V 927
Mkr2 196.253 MHz
17.67 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
Signal
1
2
Start 30 MHz
Stop 200 MHz
Res BW 120 kHz
VBW 300 kHz
Sweep 27.18 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 196.3 MHz 10.72
Signal Added To List


Agilent 12:51:01 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT H 927
Mkr1 240 MHz
Ref 80 dBµV
Atten 5 dB
18.29 dBµV
Peak
Log
10
dB/
1
Signal
1
Start 200 MHz
Stop 1 GHz
Res BW 120 kHz
VBW 300 kHz
Sweep 127.9 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 240 MHz 18.29
Signal Added To List


Agilent 12:56:19 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT V 927
Mkr1 240 MHz
Ref 80 dBµV
Atten 5 dB
15.72 dBµV
Peak
Log
10
dB/
1
Start 200 MHz
Stop 1 GHz
Res BW 120 kHz
VBW 300 kHz
Sweep 127.9 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 240 MHz 12.13
Signal Added To List

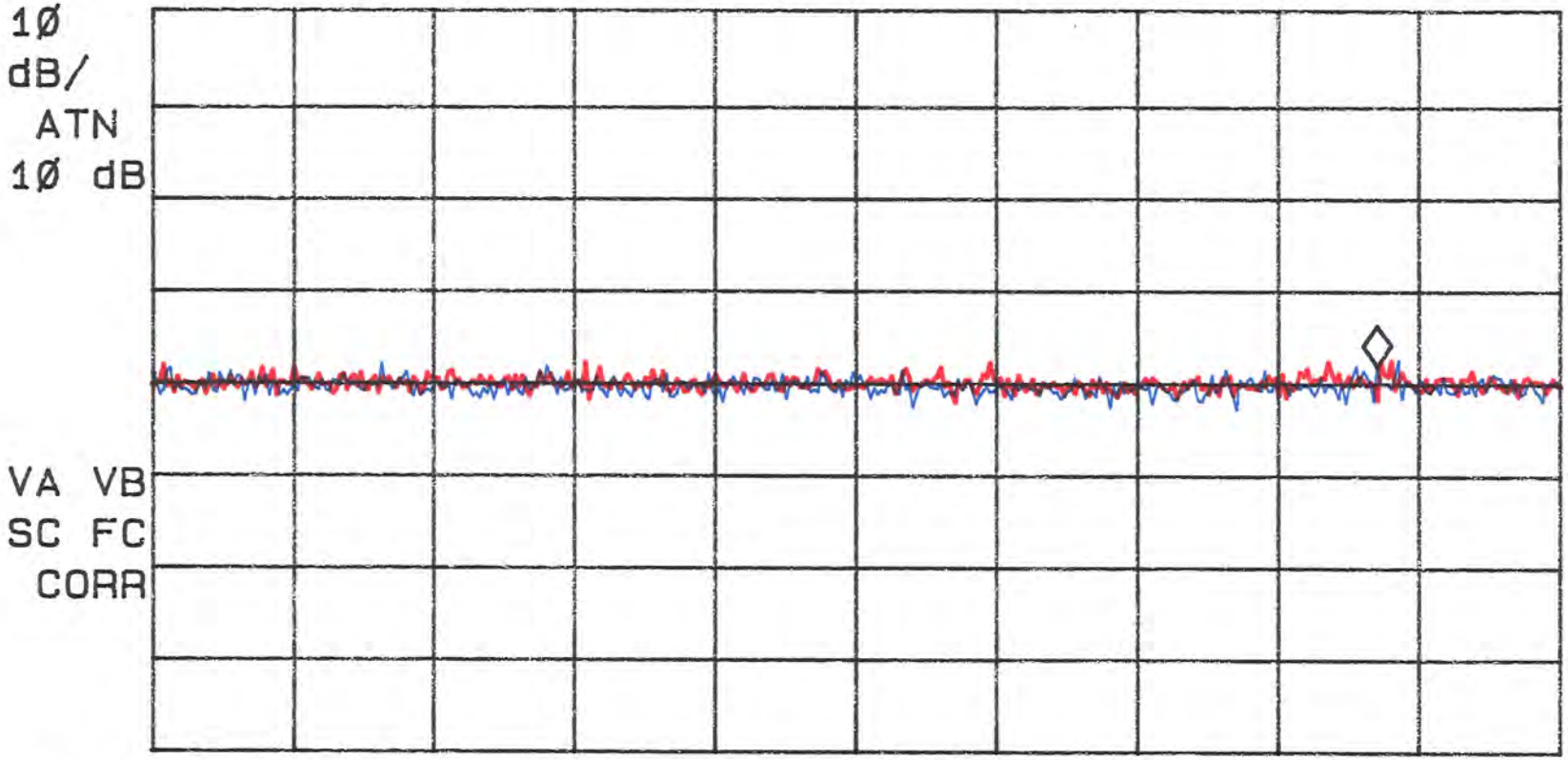

Agilent 13:42:42 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT H 927
Mkr1 2.795 GHz
34.1 dBµV
Ref 80 dBµV
Atten 5 dB
Peak
Log
10
dB/
Marker
2.795007967 GHz
34.1 dBµV
Start 1 GHz
Stop 3 GHz
Res BW 1 MHz
VBW 3 MHz
Sweep 5.242 ms (401 pts)
Signal (2) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 2.795 GHz 34.08
2 2.795 GHz 34.08
Signal Added To List


Agilent 13:30:56 Jul 19, 2012
ARCOM #6366 QSNARE-60 SPUR ANT V 927
Ref 80 dBµV
Atten 5 dB
Mkr1 1.665 GHz
33.76 dBµV
Peak
Log
10
dB/
Ref Level
80.00 dBµV
Start 1 GHz
Res BW 1 MHz
VBW 3 MHz
Stop 3 GHz
Sweep 5.242 ms (401 pts)
Signal (1) Freq Peak Ampl dBµV Qp Ampl dBµV Avg Ampl dBµV Peak Δ LL1 dB Peak Δ LL2 dB
1 1.665 GHz 33.76
Signal Added To List


11: 45: 29 JUL 2Ø, 2Ø12
ARCOM#6366 QSNARE-6Ø SPUR ANT H 927
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.427 GHz
4Ø.66 dBµV
PREAMP ON
LOG REF 8Ø.Ø dBµV
1Ø
dB/
ATN
1Ø dB
VA VB
SC FC
CORR
START 3.ØØØ GHz
#IF BW 1.Ø MHz
AVG BW 3ØØ kHz
STOP 9.5ØØ GHz
SWP 13Ø msec

11:50:39 JUL 20, 2012
ARCOM#6366 QSNARE-60 SPUR ANT V 927

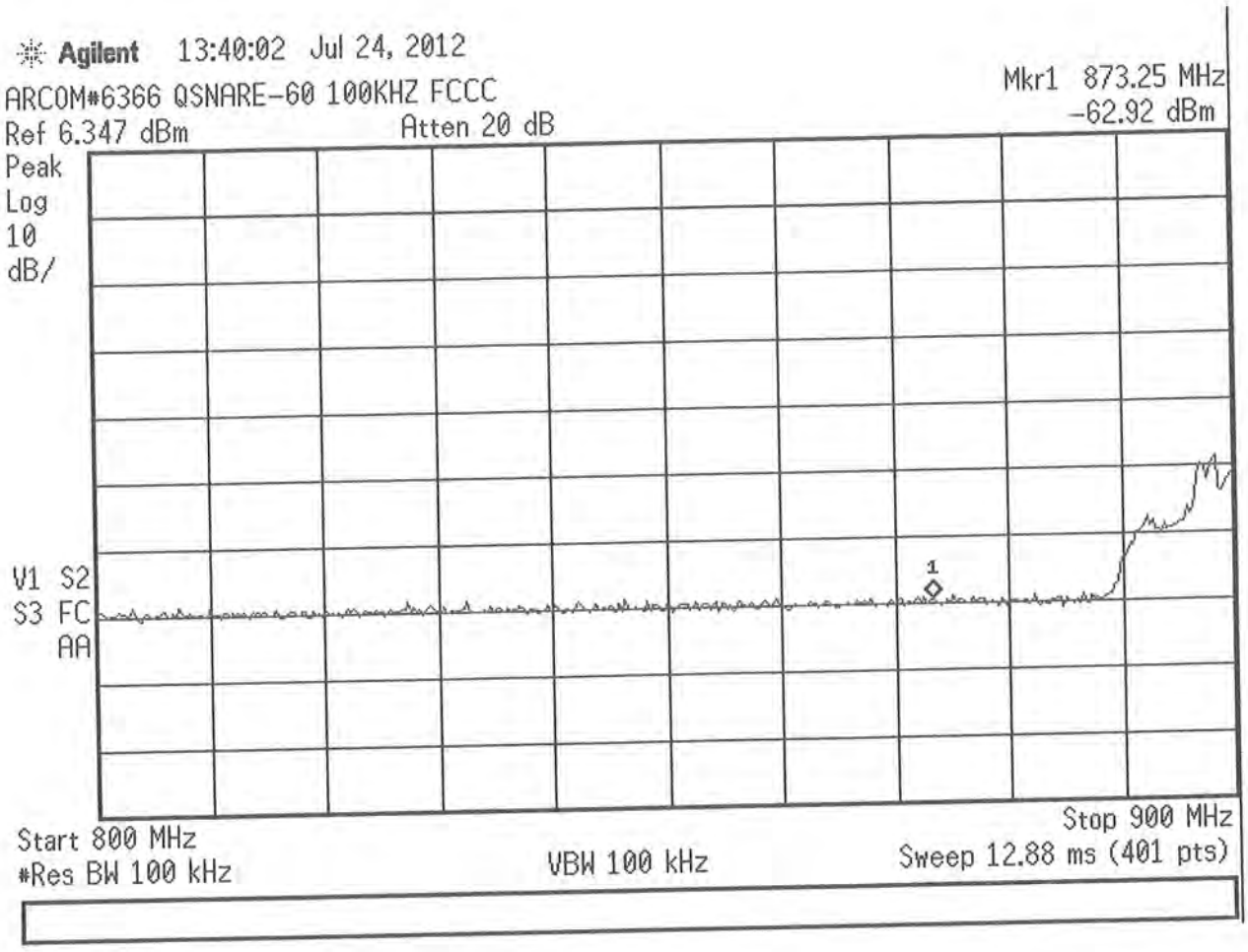
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.655 GHz
41.69 dBµV
PREAMP ON

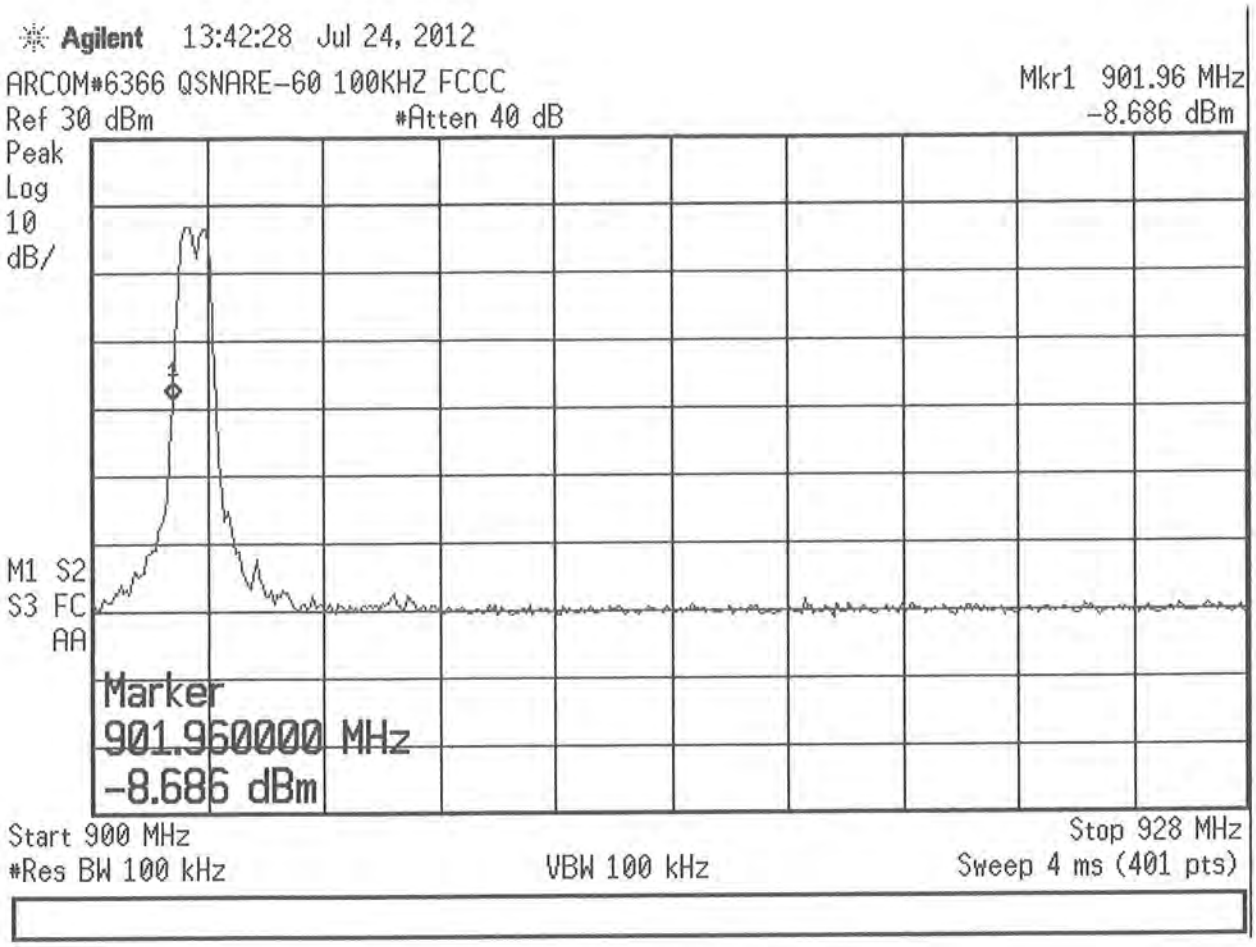


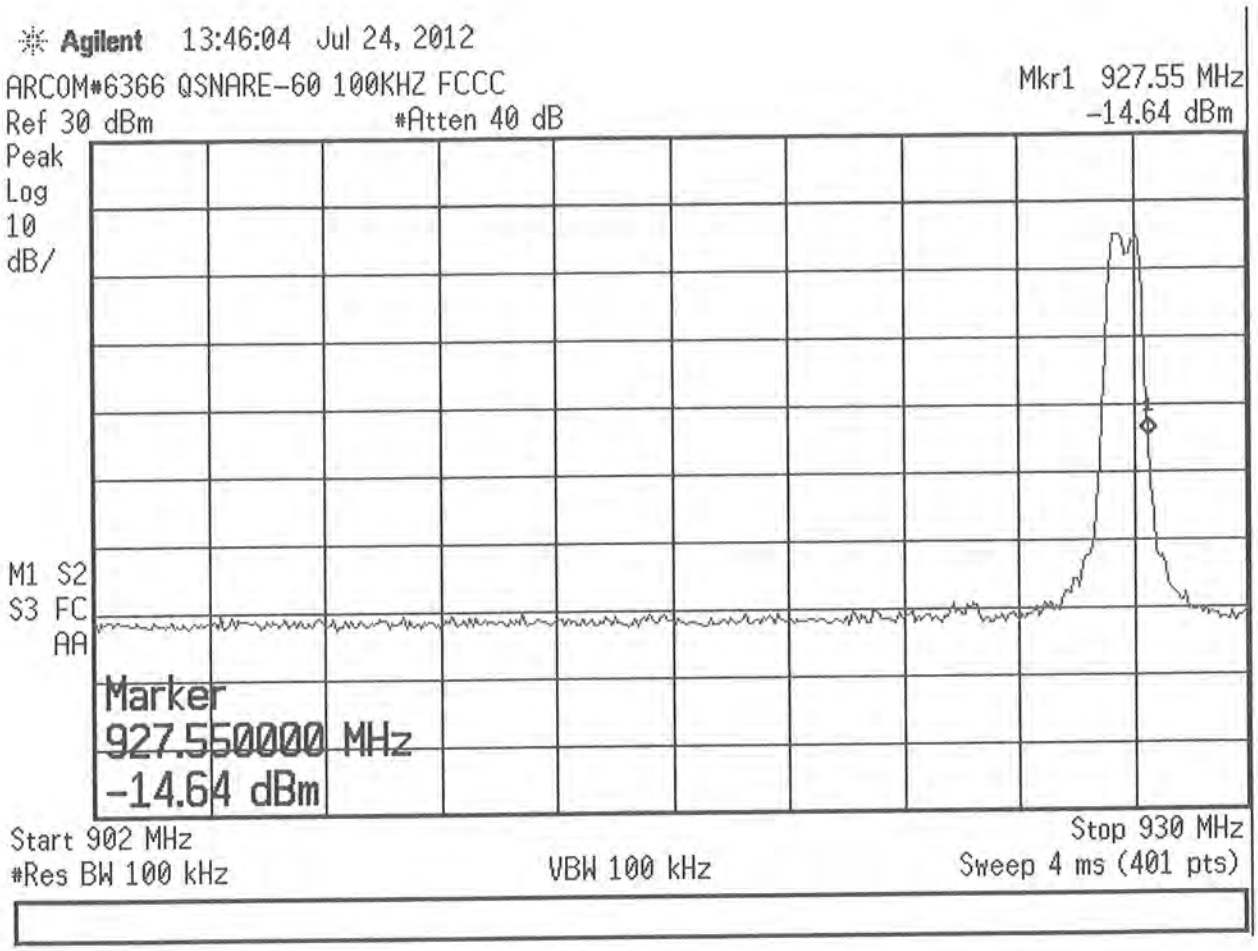
START 3.000 GHz
STOP 9.500 GHz
#IF BW 1.0 MHz
AVG BW 300 kHz
SWP 130 msec

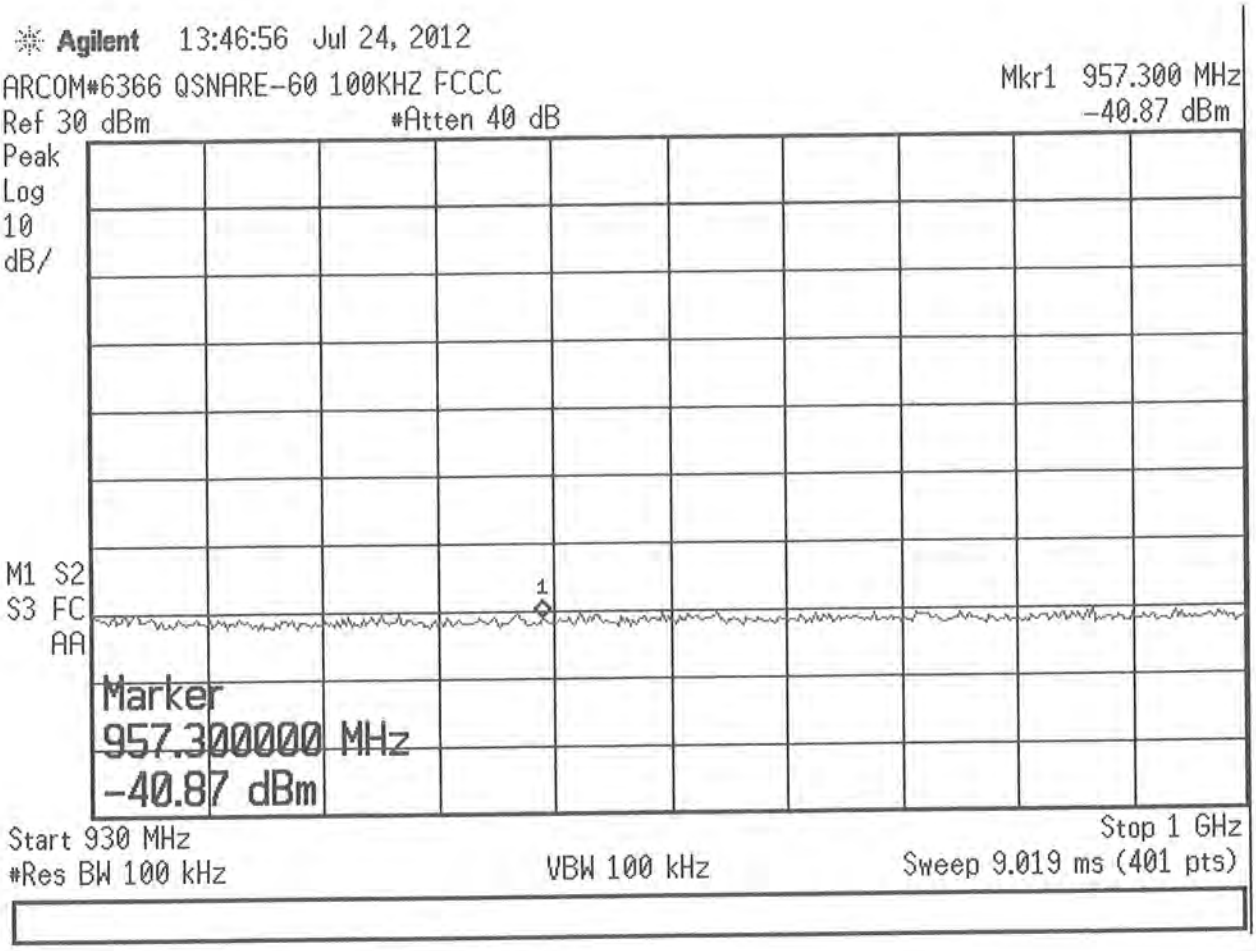
100 kHz Bandwidth Test

4 pages to follow


Agilent 13:40:02 Jul 24, 2012
ARCOM#6366 QSNARE-60 100KHZ FCCC
Mkr1 873.25 MHz
-62.92 dBm
Ref 6.347 dBm
Atten 20 dB
Peak
Log
10
dB/
V1 S2
S3 FC
AA
1
Start 800 MHz
#Res BW 100 kHz
VBW 100 kHz
Stop 900 MHz
Sweep 12.88 ms (401 pts)

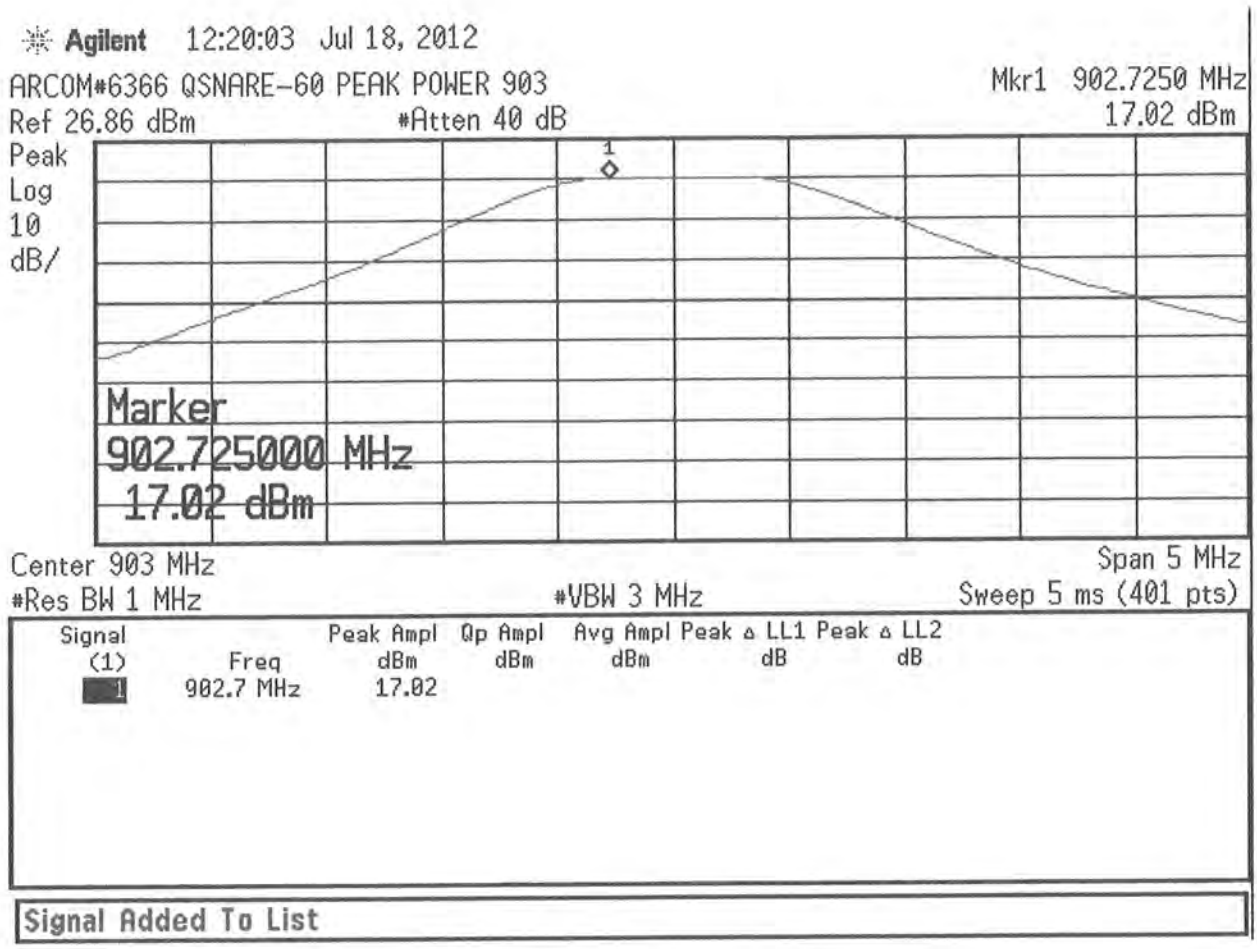

Agilent 13:42:28 Jul 24, 2012
ARCOM#6366 QSNARE-60 100KHZ FCCC
Mkr1 901.96 MHz
-8.686 dBm
Ref 30 dBm
#Atten 40 dB
Peak
Log
10
dB/
M1 S2
S3 FC
AA
Marker
901.960000 MHz
-8.686 dBm
Start 900 MHz
#Res BW 100 kHz
VBW 100 kHz
Stop 928 MHz
Sweep 4 ms (401 pts)


Agilent 13:46:04 Jul 24, 2012
ARCOM#6366 QSNARE-60 100KHZ FCCC
Mkr1 927.55 MHz
-14.64 dBm
Ref 30 dBm
#Atten 40 dB
Peak
Log
10
dB/
M1 S2
S3 FC
AA
Marker
927.550000 MHz
-14.64 dBm
Start 902 MHz
#Res BW 100 kHz
VBW 100 kHz
Stop 930 MHz
Sweep 4 ms (401 pts)


Agilent 13:46:56 Jul 24, 2012
ARCOM#6366 QSNARE-60 100KHZ FCCC
Mkr1 957.300 MHz
-40.87 dBm
Ref 30 dBm
#Atten 40 dB
Peak
Log
10
dB/
M1 S2
S3 FC
AA
1
Marker
957.300000 MHz
-40.87 dBm
Start 930 MHz
#Res BW 100 kHz
VBW 100 kHz
Stop 1 GHz
Sweep 9.019 ms (401 pts)

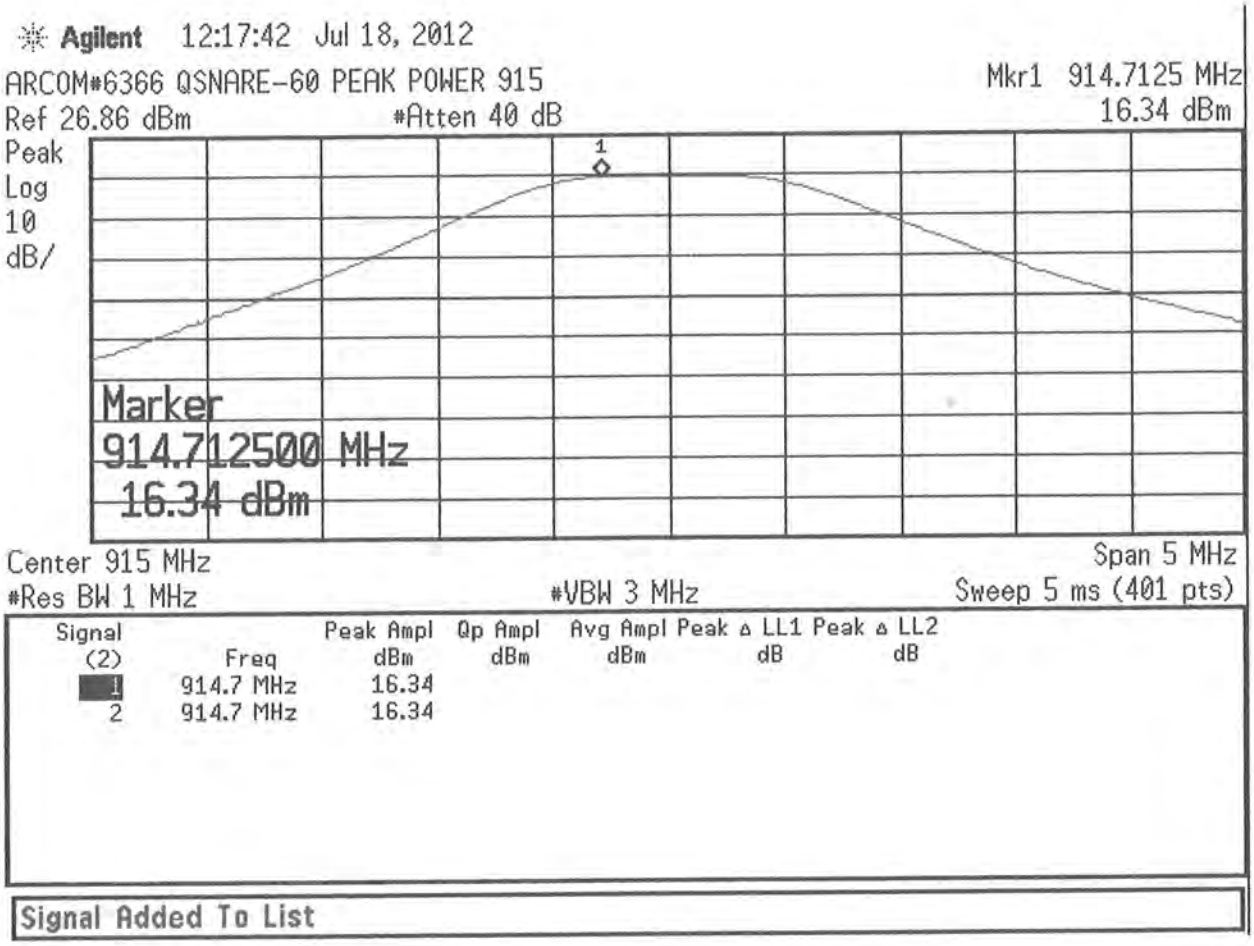
Peak Power Output Test- 902 MHz

1 page to follow.


Agilent 12:20:03 Jul 18, 2012
ARCOM#6366 QSNARE-60 PEAK POWER 903
Mkr1 902.7250 MHz
Ref 26.86 dBm
#Atten 40 dB
17.02 dBm
Peak
Log
10
dB/
1
Marker
902.725000 MHz
17.02 dBm
Center 903 MHz
Span 5 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 5 ms (401 pts)
Signal (1) Freq Peak Ampl dBm Qp Ampl dBm Avg Ampl dBm Peak Δ LL1 dB Peak Δ LL2 dB
1 902.7 MHz 17.02
Signal Added To List

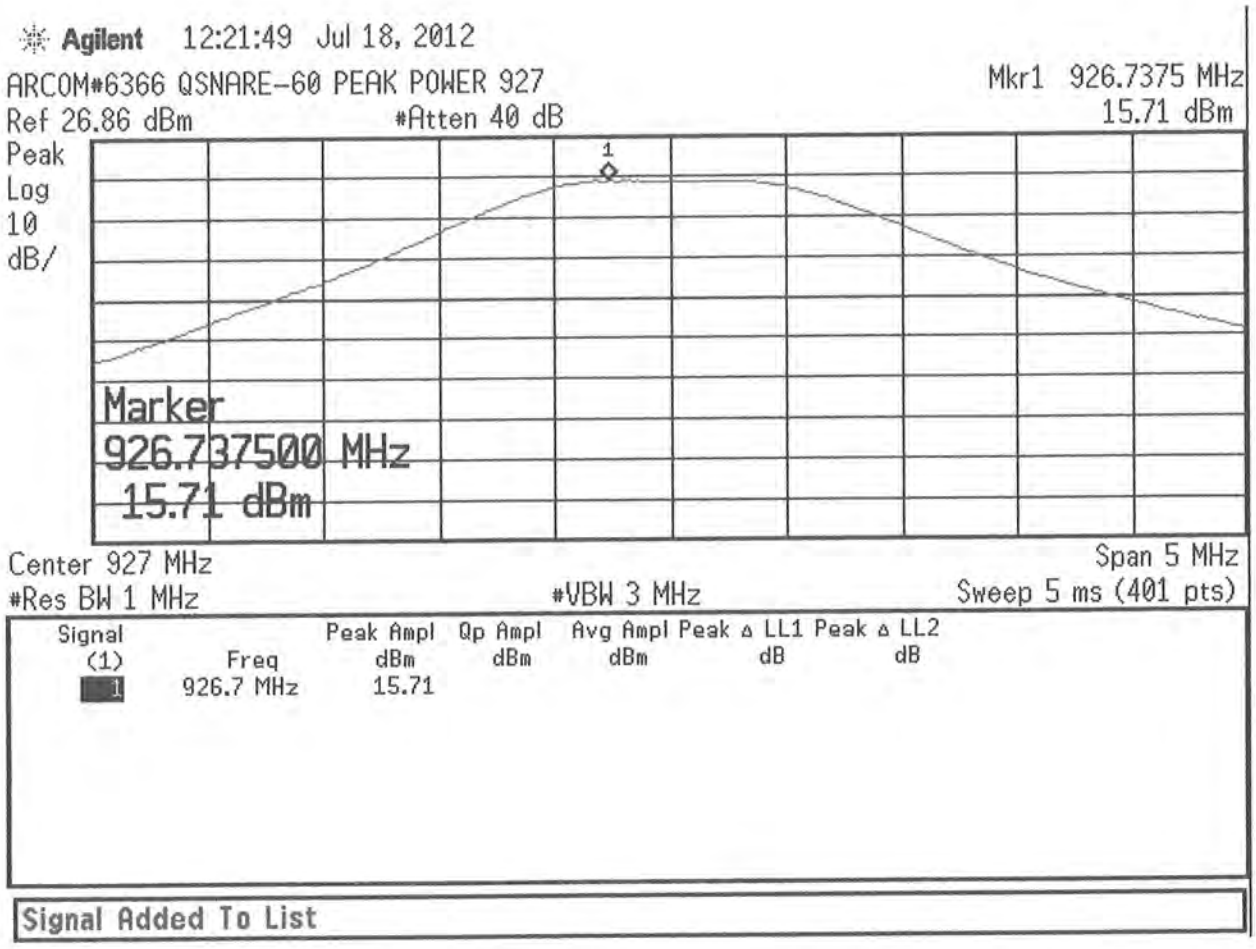
Peak Power Output Test- 915 MHz

1 page to follow.


Agilent 12:17:42 Jul 18, 2012
ARCOM#6366 QSNARE-60 PEAK POWER 915
Mkr1 914.7125 MHz
16.34 dBm
Ref 26.86 dBm
#Atten 40 dB
Peak
Log
10
dB/
1
Marker
914.712500 MHz
16.34 dBm
Center 915 MHz
Span 5 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 5 ms (401 pts)
Signal (2) Freq Peak Ampl dBm Qp Ampl dBm Avg Ampl dBm Peak Δ LL1 dB Peak Δ LL2 dB
1 914.7 MHz 16.34
2 914.7 MHz 16.34
Signal Added To List

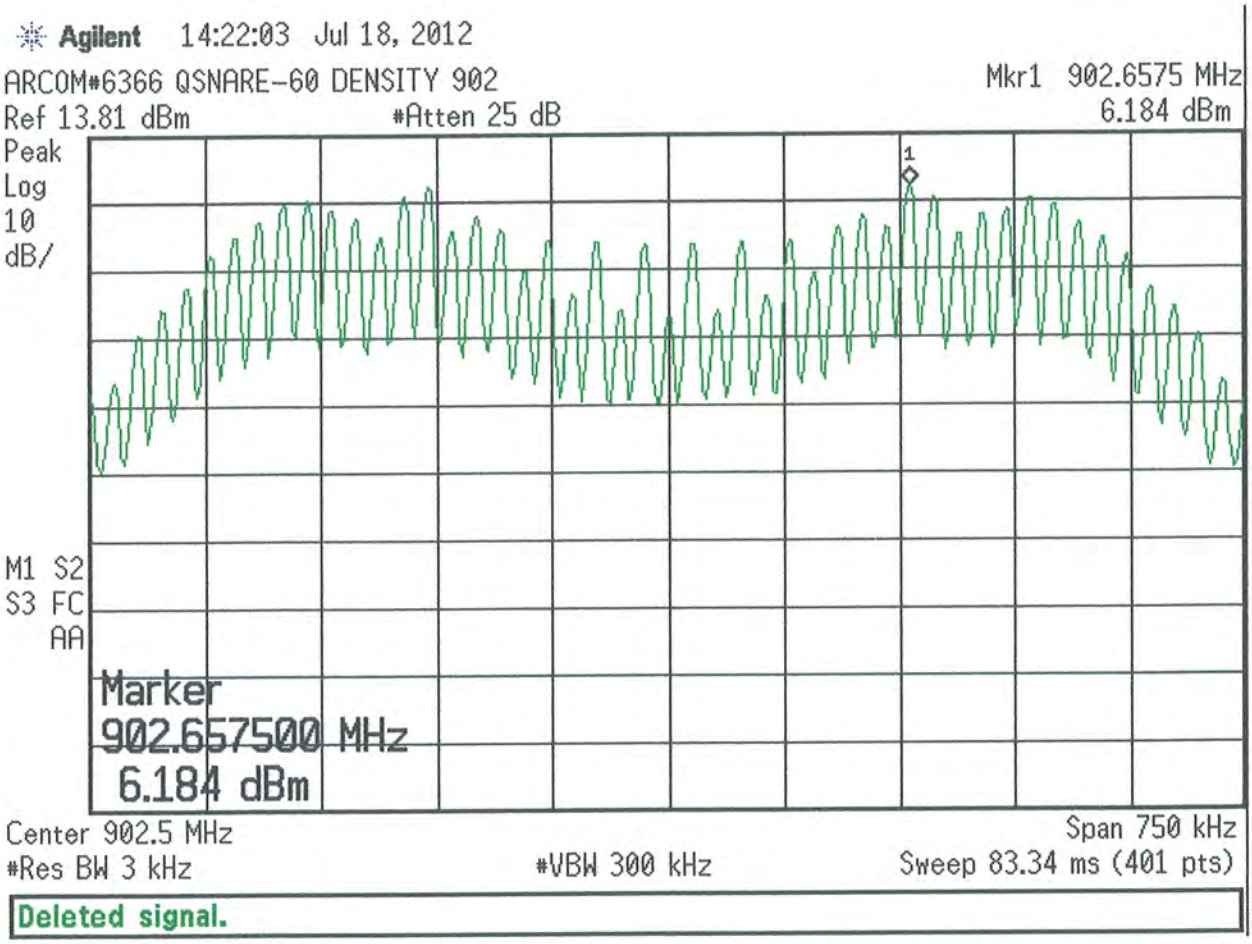
Peak Power Output Test- 927 MHz

1 page to follow.


Agilent 12:21:49 Jul 18, 2012
ARCOM#6366 QSNARE-60 PEAK POWER 927
Mkr1 926.7375 MHz
15.71 dBm
Ref 26.86 dBm
#Atten 40 dB
Peak
Log
10
dB/
1
Marker
926.737500 MHz
15.71 dBm
Center 927 MHz
Span 5 MHz
#Res BW 1 MHz
#VBW 3 MHz
Sweep 5 ms (401 pts)
Signal (1)
Freq
Peak Ampl dBm
Qp Ampl dBm
Avg Ampl dBm
Peak Δ LL1 dB
Peak Δ LL2 dB
1
926.7 MHz
15.71
Signal Added To List

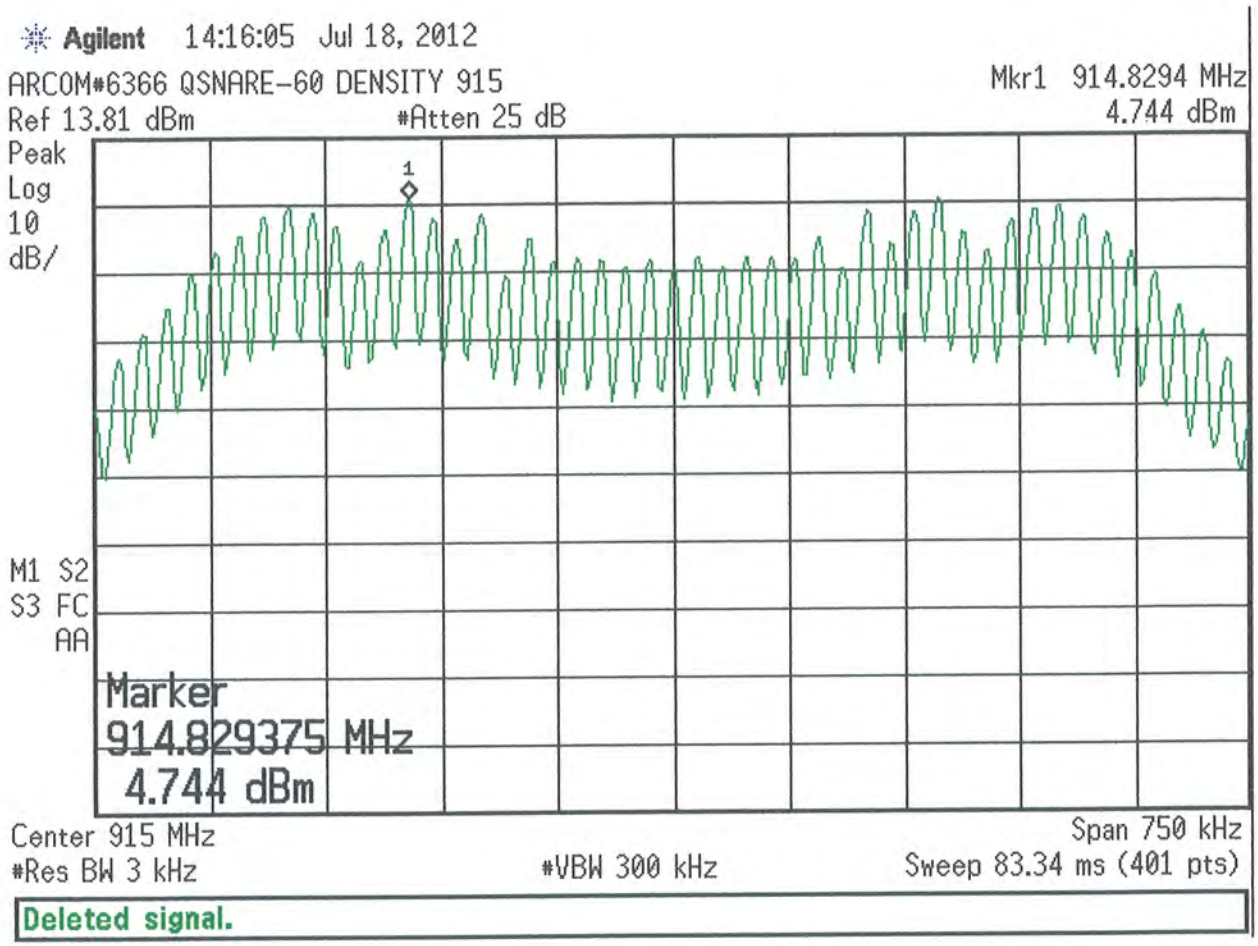
Peak Power Density Test- 902 MHz

1 Page to follow.


Agilent 14:22:03 Jul 18, 2012
ARCOM#6366 QSNARE-60 DENSITY 902
Mkr1 902.6575 MHz
Ref 13.81 dBm
#Atten 25 dB
6.184 dBm
Peak
Log
10
dB/
1
M1 S2
S3 FC
AA
Marker
902.657500 MHz
6.184 dBm
Center 902.5 MHz
Span 750 kHz
#Res BW 3 kHz
#VBW 300 kHz
Sweep 83.34 ms (401 pts)
Deleted signal.

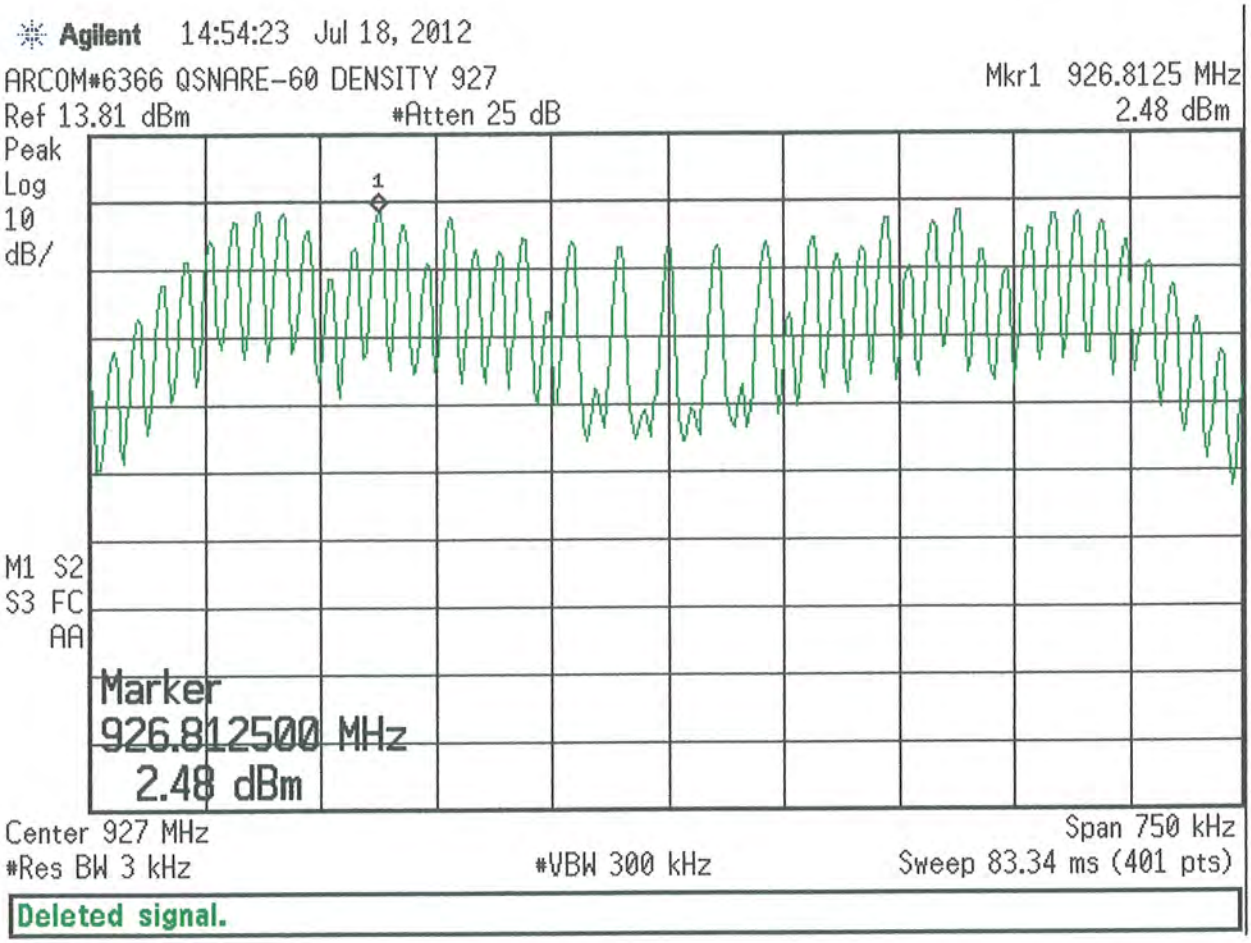
Peak Power Density Test- 915 MHz

1 Page to follow.


Agilent 14:16:05 Jul 18, 2012
ARCOM#6366 QSNARE-60 DENSITY 915
Mkr1 914.8294 MHz
4.744 dBm
Ref 13.81 dBm
#Atten 25 dB
Peak
Log
10
dB/
1
M1 S2
S3 FC
AA
Marker
914.829375 MHz
4.744 dBm
Center 915 MHz
#Res BW 3 kHz
#VBW 300 kHz
Span 750 kHz
Sweep 83.34 ms (401 pts)
Deleted signal.

Peak Power Density Test- 927 MHz

1 Page to follow.


Agilent 14:54:23 Jul 18, 2012
ARCOM#6366 QSNARE-60 DENSITY 927
Mkr1 926.8125 MHz
Ref 13.81 dBm
#Atten 25 dB
2.48 dBm
Peak
Log
10
dB/
1
M1 S2
S3 FC
AA
Marker
926.812500 MHz
2.48 dBm
Center 927 MHz
Span 750 kHz
#Res BW 3 kHz
#VBW 300 kHz
Sweep 83.34 ms (401 pts)
Deleted signal.

Measurement Protocol

The methodology used during the testing performed on the EUT in this report was ANSI C63.4:2003 and KDB 558074 DTS for measurements.

The EUT was powered with a 3.7 volt battery during the collection of data included within this report.

The data is compared to FCC Part 15.247 Class C limits.

Please have a company official review this report and sign.