

Annex 4: Diagrams to TEST REPORT No.: 2-0128-14-1-4a-C1

According to:
FCC Regulations
Part 15.207, Part 15.225, Part 15.209

IC-Regulations
RSS-Gen, Issue 4
RSS-210, Issue 8
ICES-003, Issue 5

for

Social Bicycles Inc.

Model SB1
(RFID mode)

FCC ID: 2ADEK102014SBP1
IC Certification Number: 12433A-102014SBP1







Laboratory Accreditation and Listings			
 <p>DAkkS Deutsche Akkreditierungsstelle D-PL-12047-01-01</p>	 <p>Reg. No.: 736496 MRA US-EU 0003</p>	 <p>Industry Canada Reg. No.: 3462D-1 Reg. No.: 3462D-2 Reg. No.: 3462D-3</p>	 <p>Voluntary Controls for Electromagnetic Emissions Reg. No.: R-2666 C-2914, T-1967, G-301</p>
 <p>WiFi ALLIANCE AUTHORIZED RF LABORATORY</p>	 <p>CTIA Authorized Test Lab LAB CODE 20011130-00</p>		
accredited according to DIN EN ISO/IEC 17025			
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1. Diagrams

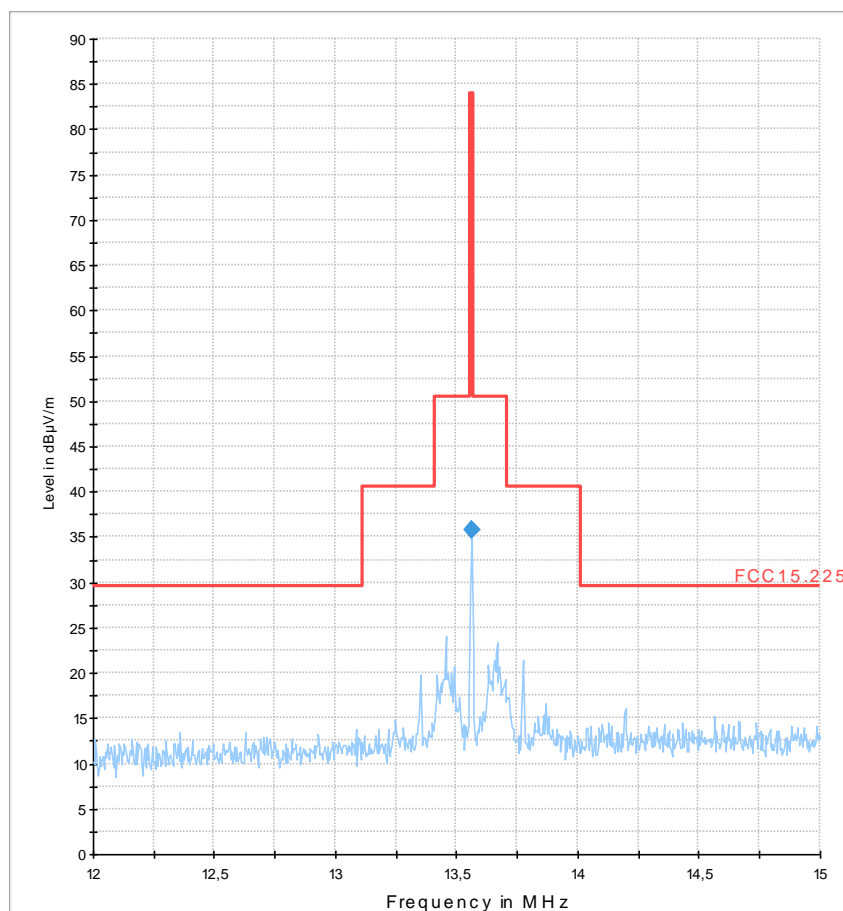
1.1. Radiated field strength emission mask at 13.110-14.010MHz

Diagram No. 2.01

Date: 28.10.2014 Page 1 of 3
 Test description: Magnetic Field strength Measurement related to 30 m distance
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Test software: EMC32 V8.51.0
 Distance correction: used accord. table, pls. see test report
 Technical Data: Please see page 2 for detailed data of measurement setup
 Rec. antenna (pre-scan): height 1.00 m, parallel and 90° to EUT polarisation
 Used filter: bypass
 Test specification: FCC 15.225; RSS-210, Issue 8

 Operator: KRe
 Operating conditions: RFID, TX-on
 Power during tests: Battery 4V
 Comment 1: EUT placed horizontal/laying

01_FCC15.209_magn hor+vert_In_Band_13.56MHz_no_kipp



Final Result 1

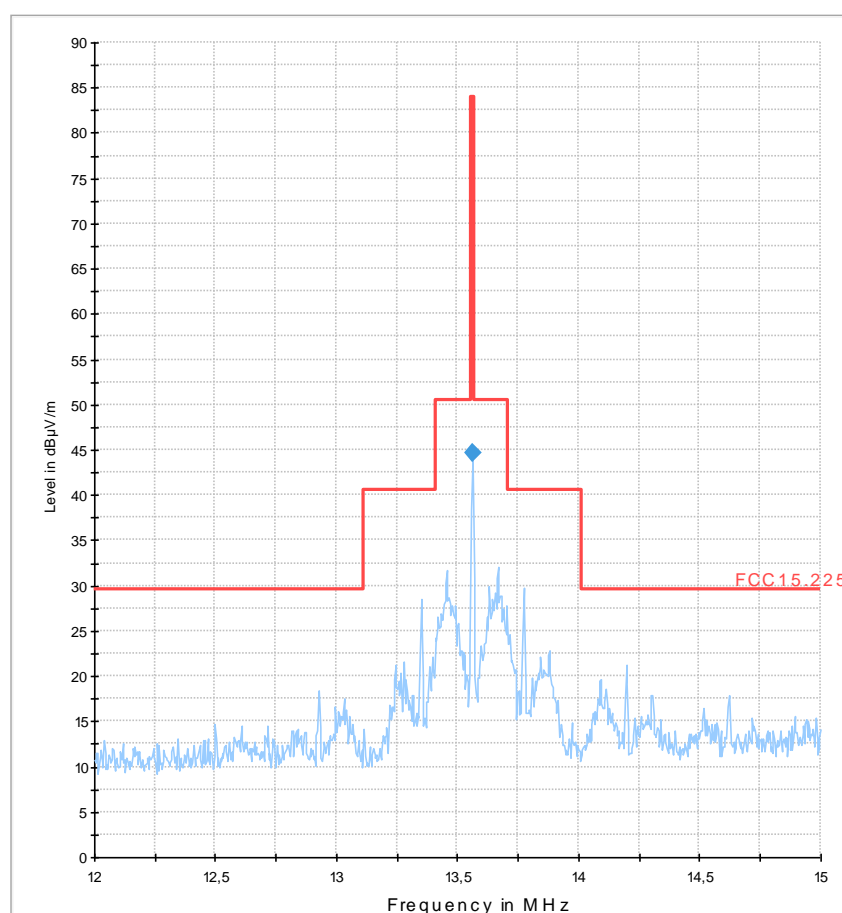
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
13.561000	35.8	1000.0	10.000	H	0.4	48.20	84.00

Diagram No. 2.02

Date: 28.10.2014 Page 1 of 3
 Test description: Magnetic Field strength Measurement related to 30 m distance
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Test software: EMC32 V8.51.0
 Distance correction: used accord. table, pls. see test report
 Technical Data: Please see page 2 for detailed data of measurement setup
 Rec. antenna (pre-scan): height 1.00 m, parallel and 90° to EUT polarisation
 Used filter: bypass
 Test specification: FCC 15.225; RSS-210, Issue 8

 Operator: KRe
 Operating conditions: RFID, TX-on
 Power during tests: Battery 4V
 Comment 1: EUT placed vertical

01_FCC15.209_magn hor+vert_In_Band_13.56MHz_no_kipp



Final Result 1

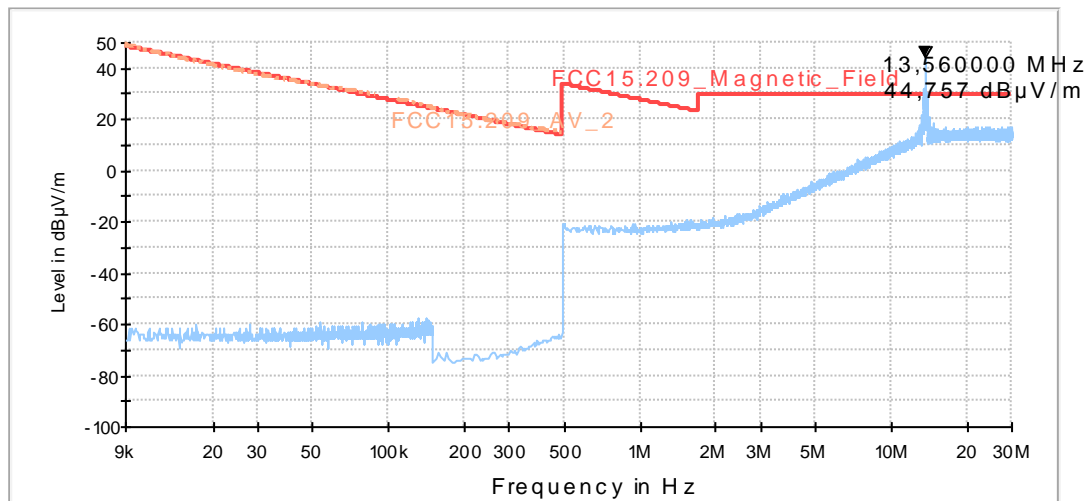
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
13.561000	44.6	1000.0	10.000	H	0.4	39.40	84.00

1.2. General Limit - Radiated field strength emissions below 30 MHz

Diagram No. 2.03_RX_RSE

Date:	28.10.2014	Page 1 of 2
Test description:	Magnetic Field strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of Test software:	EMC32 V8.51.0	
Distance correction:	used accord. table, pls. see test report	
Technical Data:	Please see page 2 for detailed data of measurement setup	
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 3	
Operator:	Lor	
Operating conditions:	RFID, TX-on	
Power during tests:	4.1V DC	
Comment 1:	Channel nominal	

FCC15.209_magn hor+vert



1.3. General Limit - Radiated field strength emissions, 30 MHz - 1 GHz

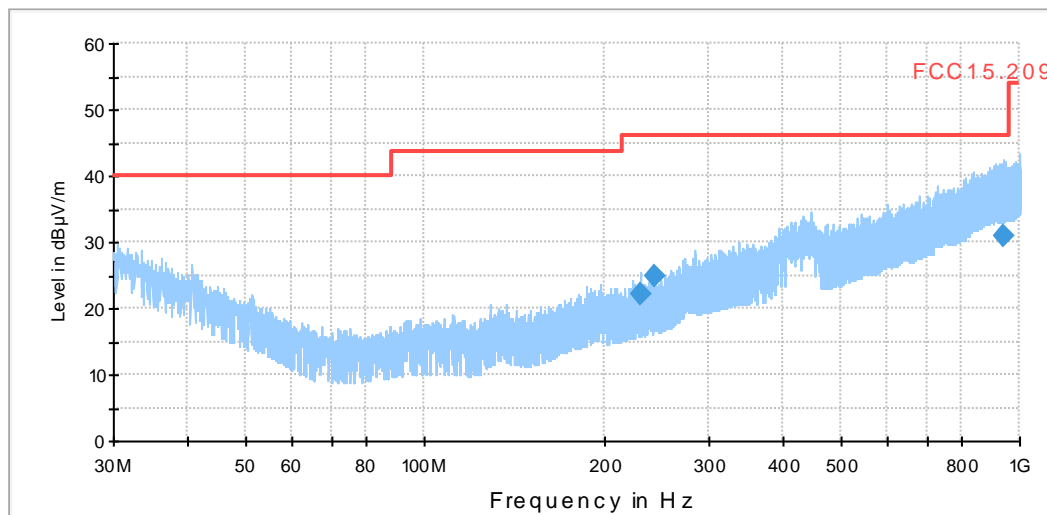
Diagram No. 3.01_TX_RSE

29.10.2014 Page 1 of 2

Test description: Electric Field strength Measurement
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Test software: EMC32 V8.51.0
 Distance correction: not used
 Used filter: not used
 Technical Data: please see page 2 for detailed data of measurement setup
 Test specification.: FCC 15.209; RSS-Gen: Issue 3

Operator: Kmo
 Operating conditions: RFID TX-on continuous
 Power during tests: battery full 4.1V
 Comment 1: --

01_FCC15.209_hor+vert_kipp



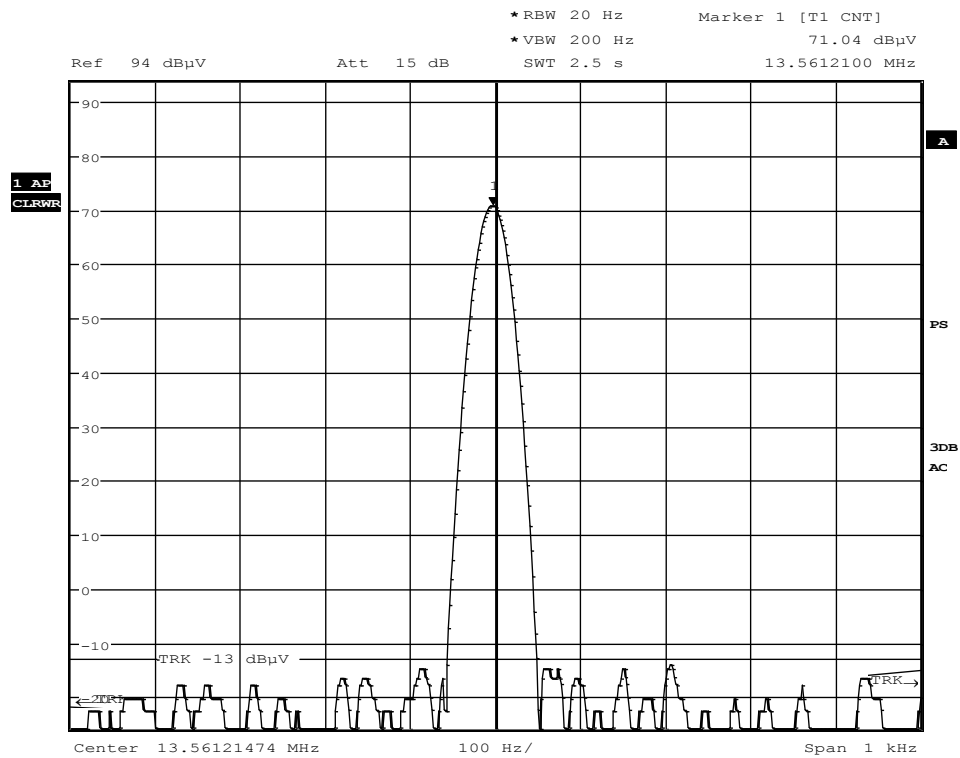
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Correction (dB)	Margin (dB)
230.520000	22.2	1000.0	120.000	105.0	H	257.0	90.0	12.9	23.80
244.090000	25.0	1000.0	120.000	105.0	H	274.0	90.0	13.2	21.00
941.210000	31.0	1000.0	120.000	358.0	H	222.0	0.0	27.2	15.00

(continuation of the "Final Result 1" table from column 10 ...)

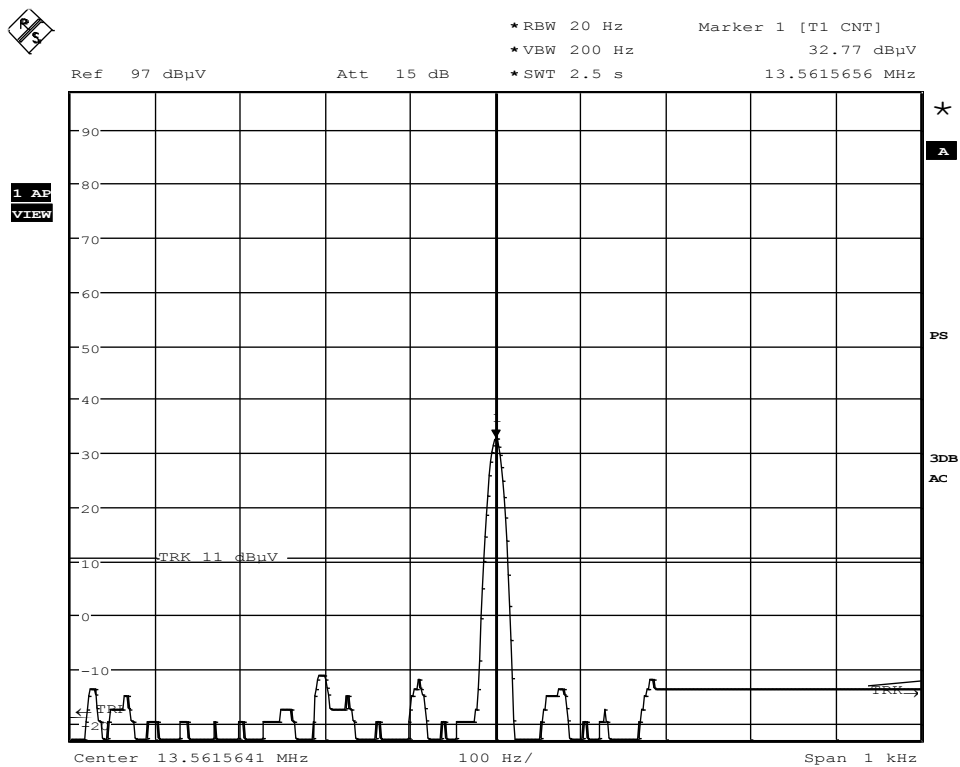
Frequency (MHz)	Limit (dBµV/m)
230.520000	46.00
244.090000	46.00
941.210000	46.00

1.4. Frequency error(tolerance)



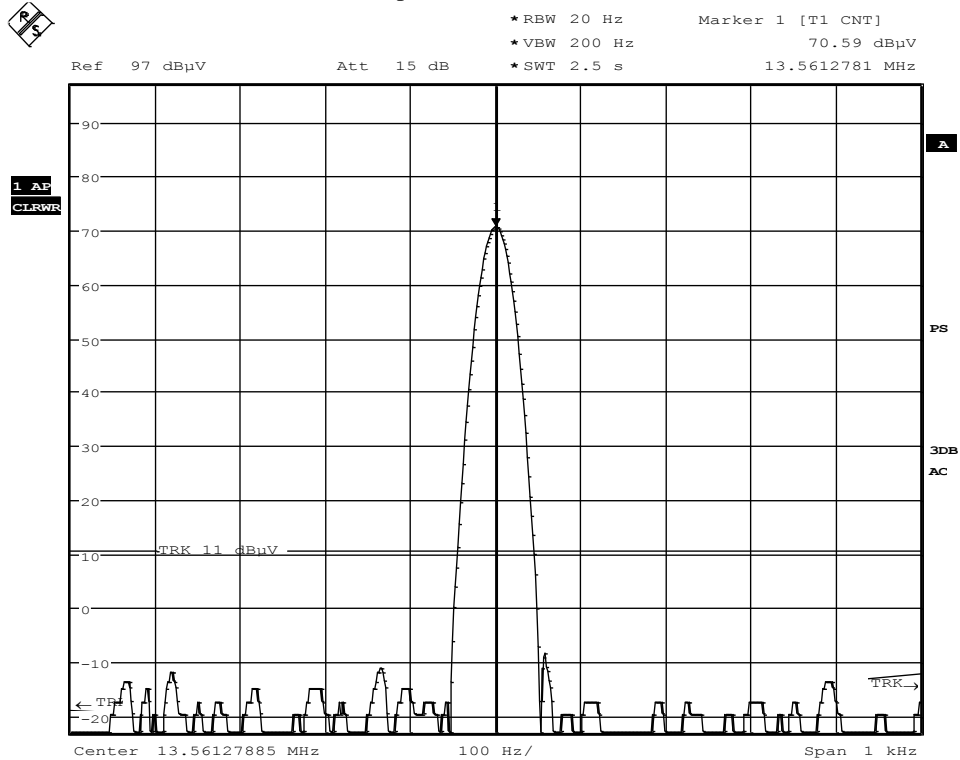
Date: 10.NOV.2014 11:24:31

T=21°, Vnom=4.0VDC



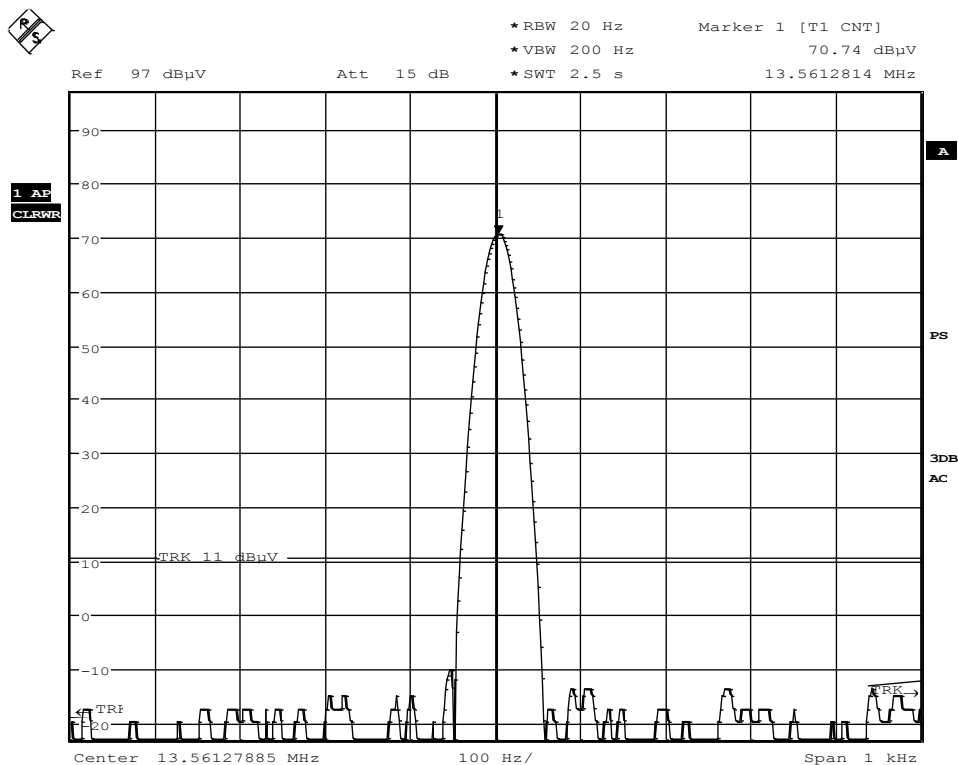
Date: 12.NOV.2014 14:45:30

T=-20°, Vnom=4.0VDC, after startup



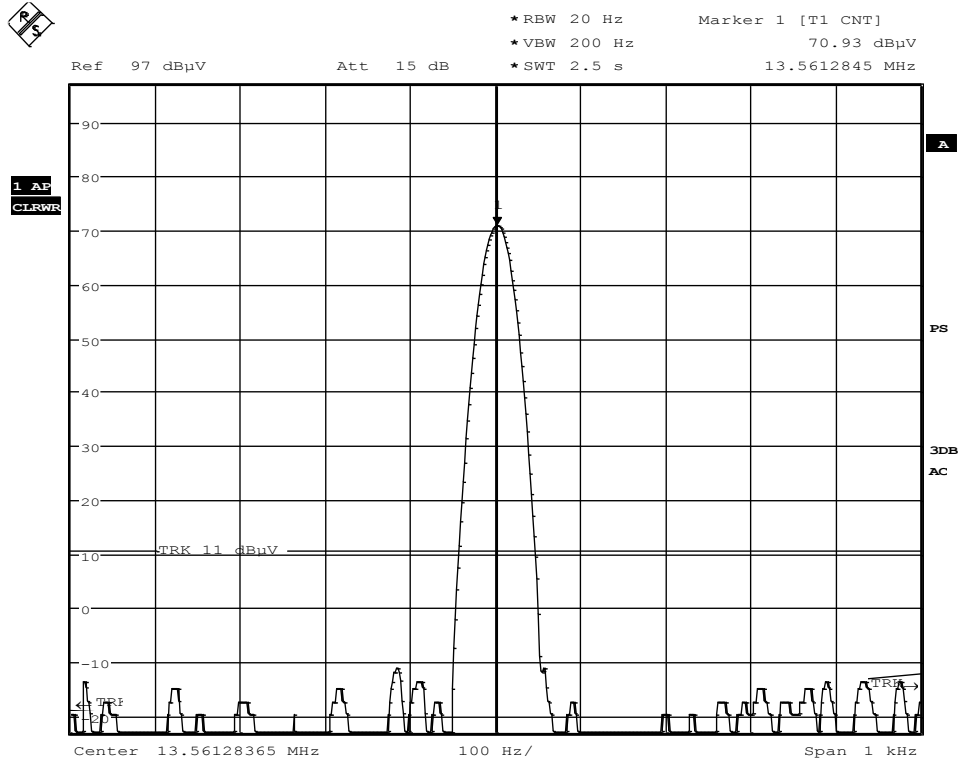
Date: 12.NOV.2014 14:47:58

T=-20°, Vnom=4.0VDC, after 2 minutes



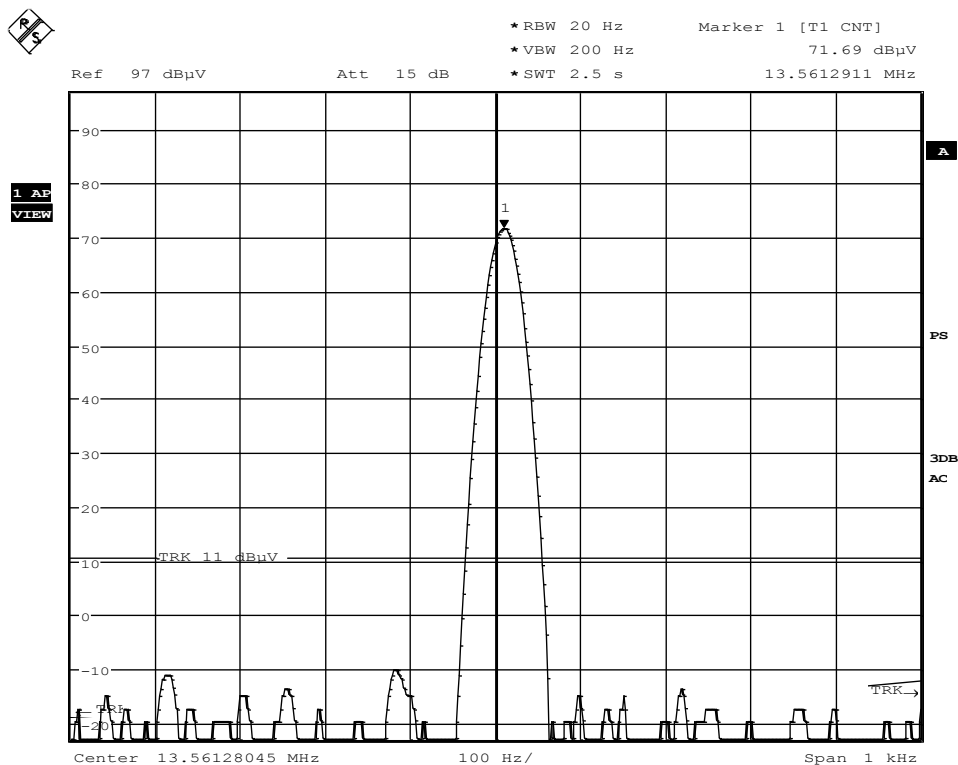
Date: 12.NOV.2014 14:50:41

T=-20°, Vnom=4.0VDC, after 5 minutes



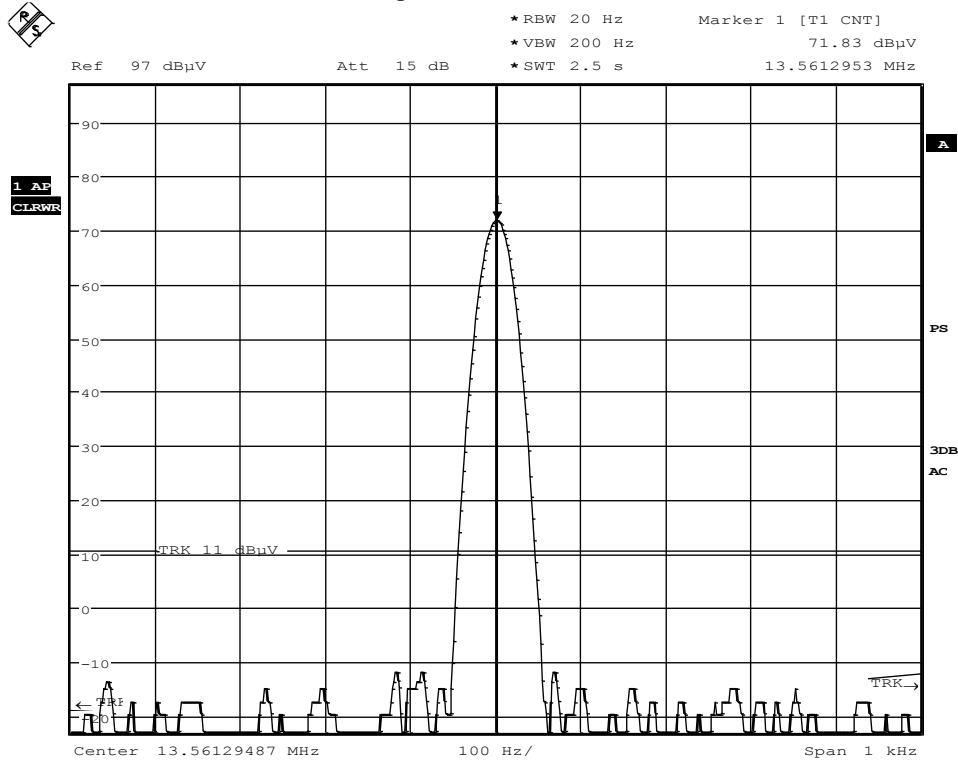
Date: 12.NOV.2014 14:55:35

T=-20°, Vnom=4.0VDC, after 10 minutes



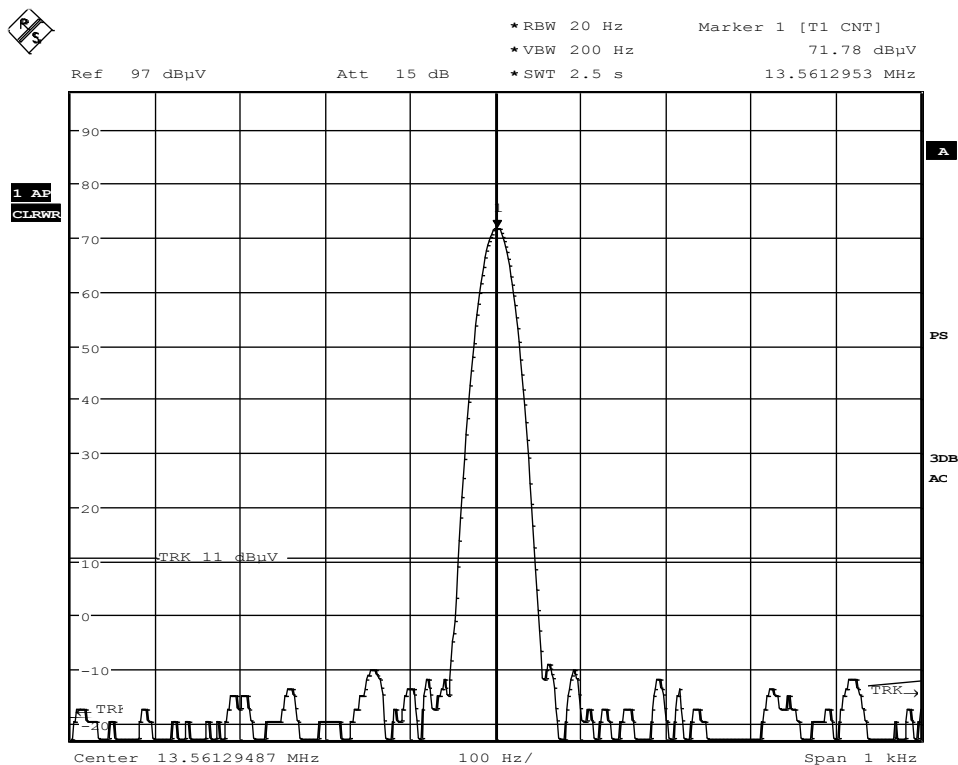
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T=-10°, Vnom=4.0VDC, after startup



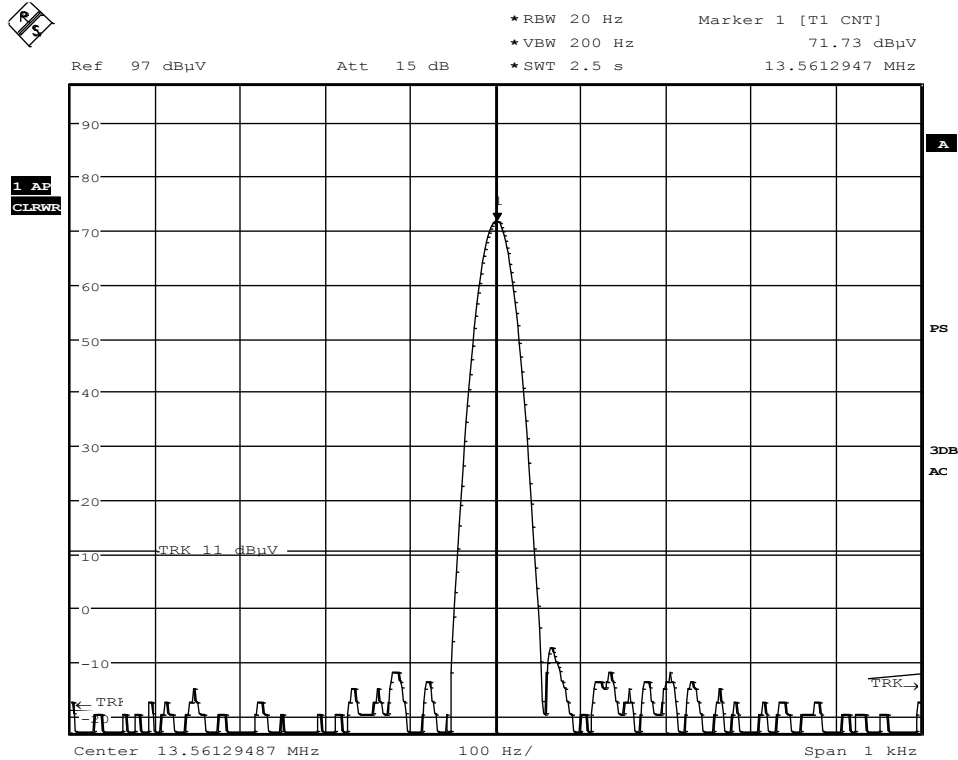
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T=-10°, Vnom=4.0VDC, after 2 minutes



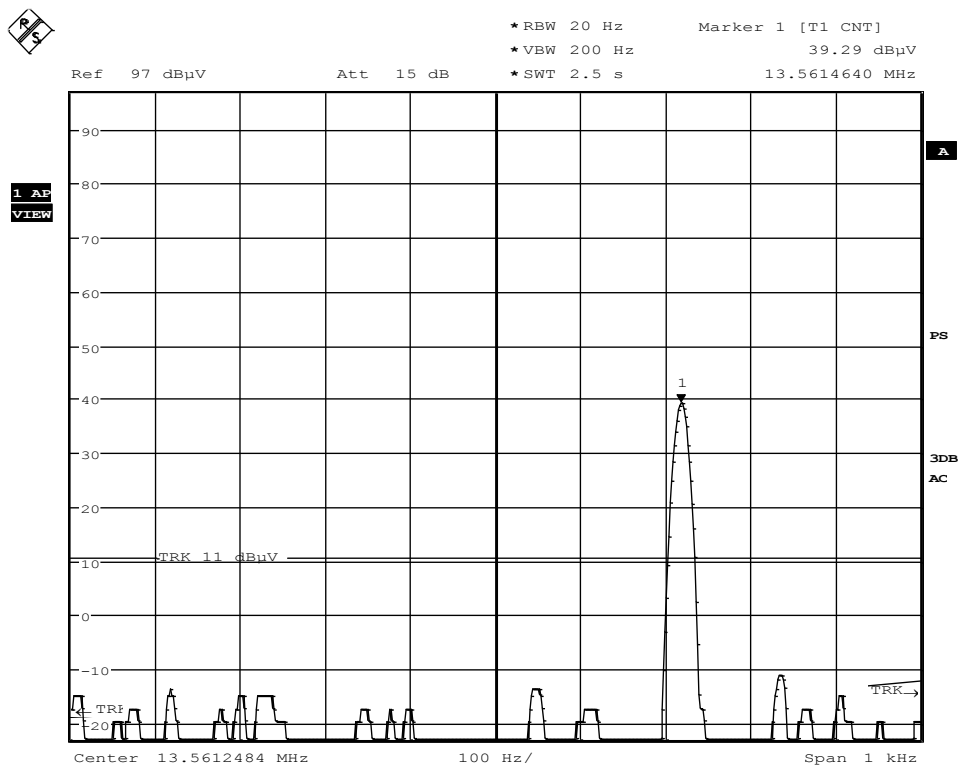
Date: 12.NOV.2014 13:31:35

T=-10°, Vnom=4.0VDC, after 5 minutes



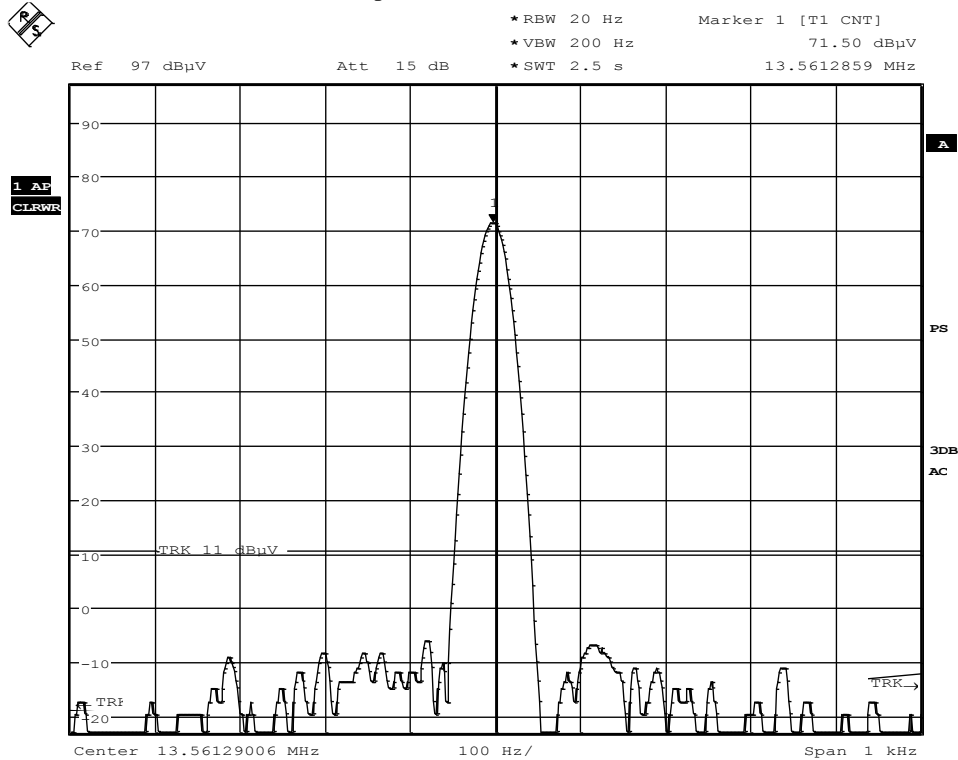
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T=-10°, Vnom=4.0VDC, after 10 minutes



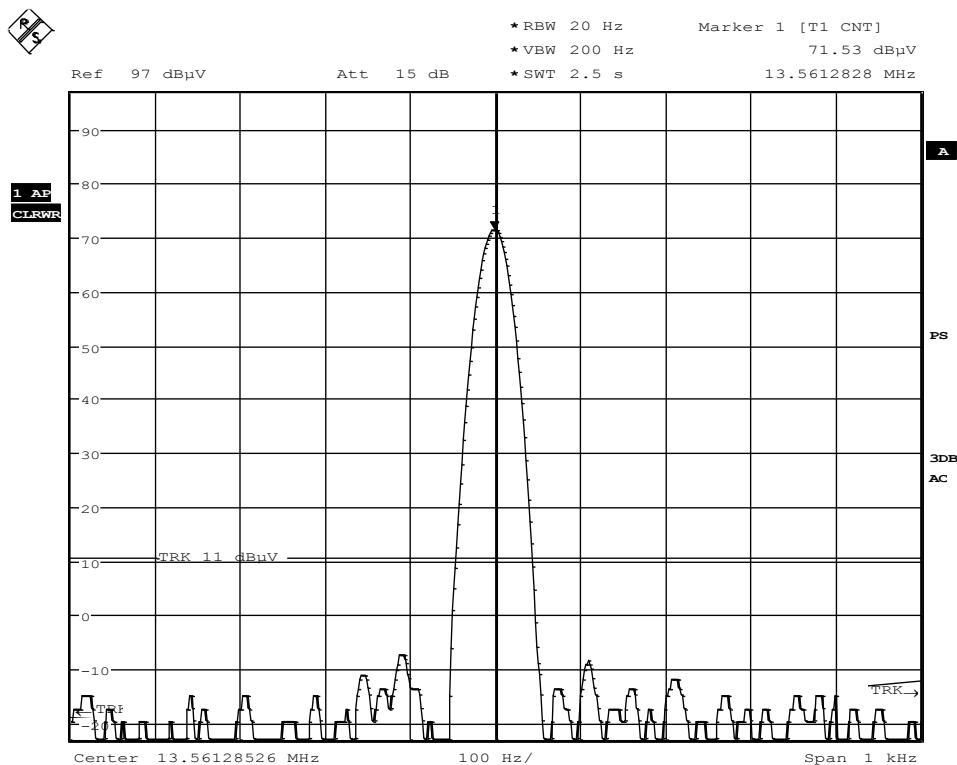
Date: 12.NOV.2014 12:22:39

T=0°, Vnom=4.0VDC, after startup



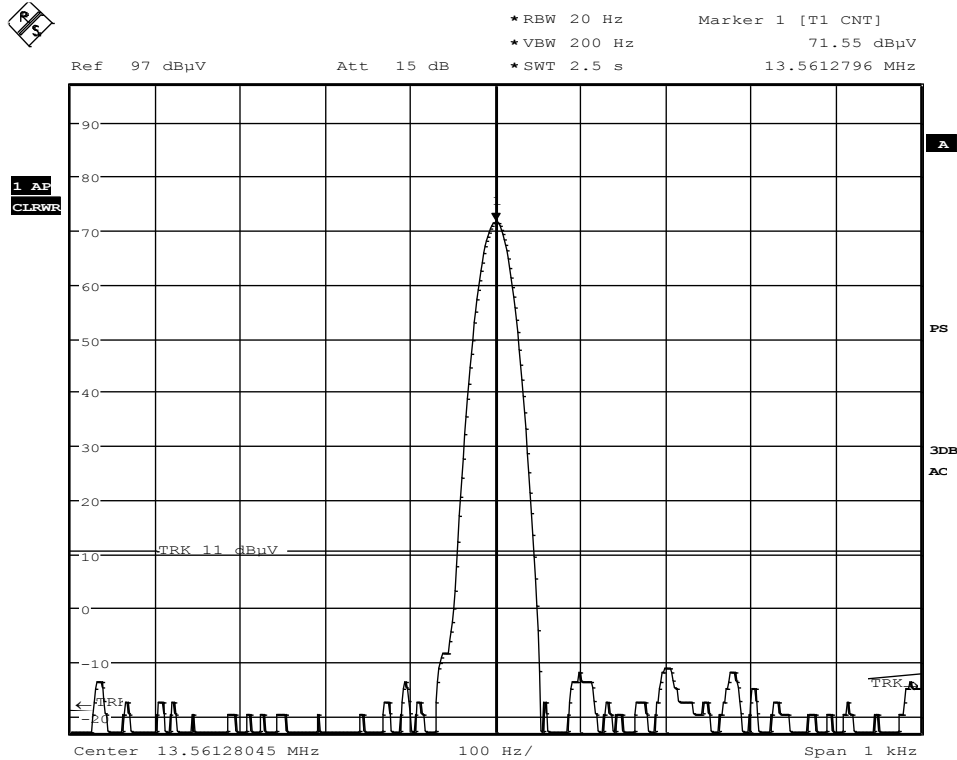
Date: 12.NOV.2014 12:24:37

T=0°, Vnom=4.0VDC, after 2 minutes



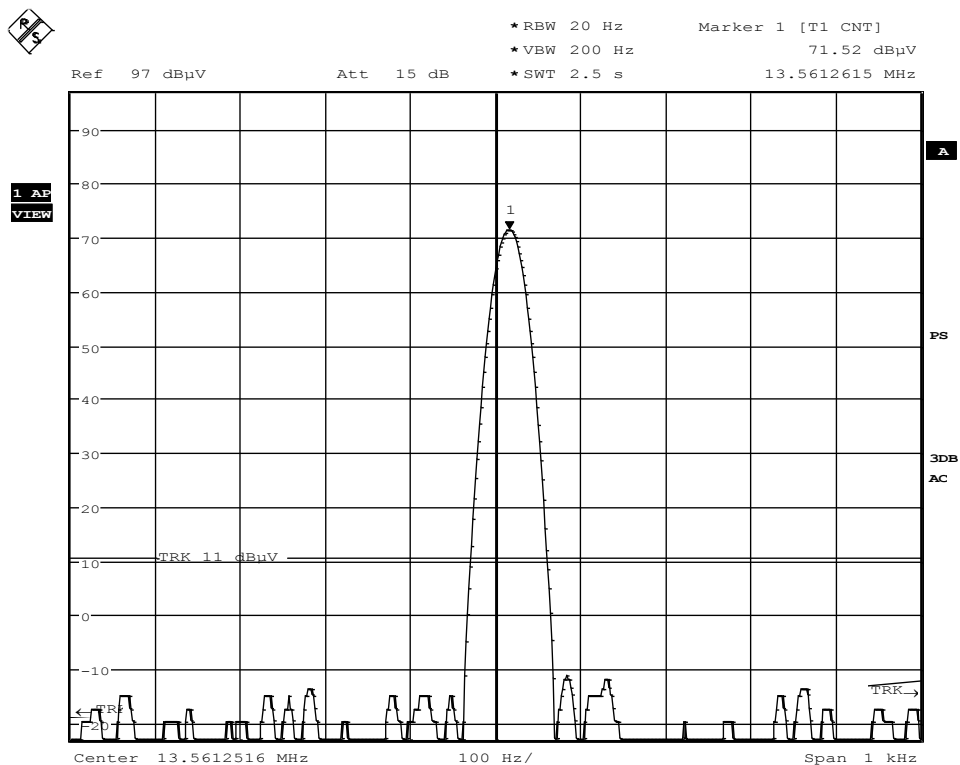
Date: 12.NOV.2014 12:27:37

T=0°, Vnom=4.0VDC, after 5 minutes



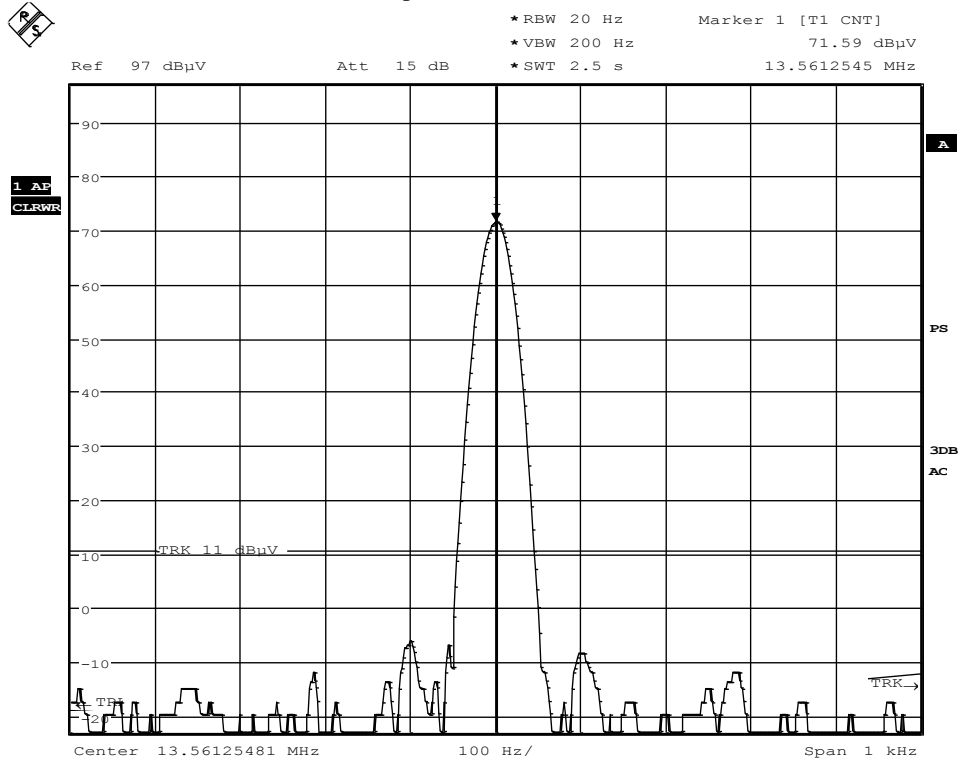
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T=0°, Vnom=4.0VDC, after 10 minutes



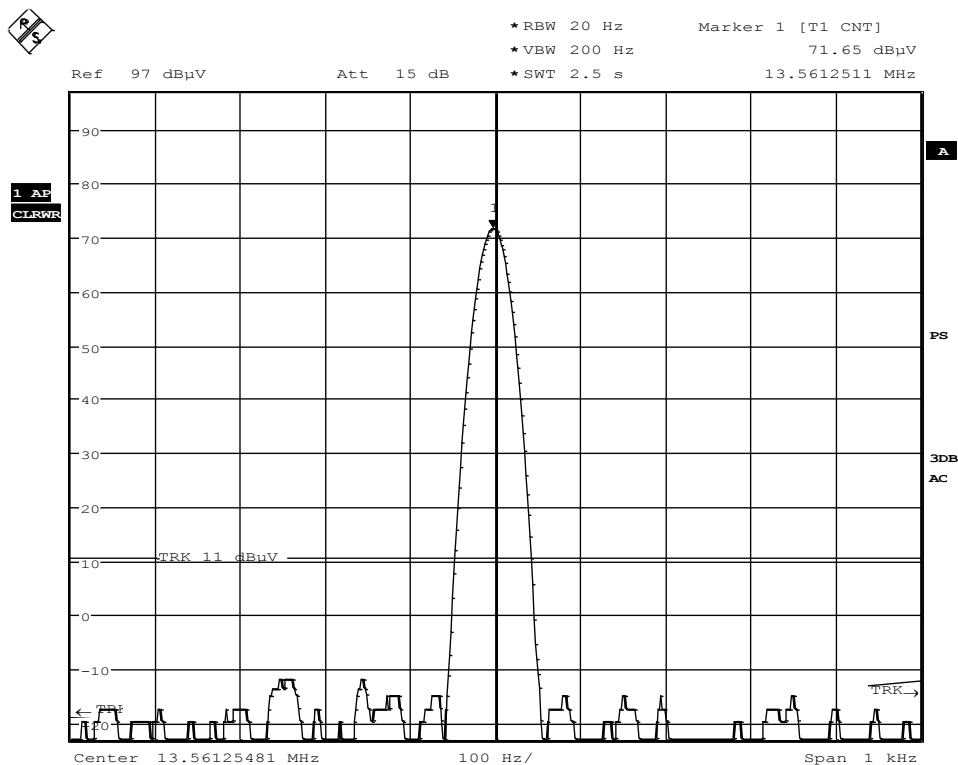
Date: 12.NOV.2014 11:04:09

T=+10°, Vnom=4.0VDC, after startup



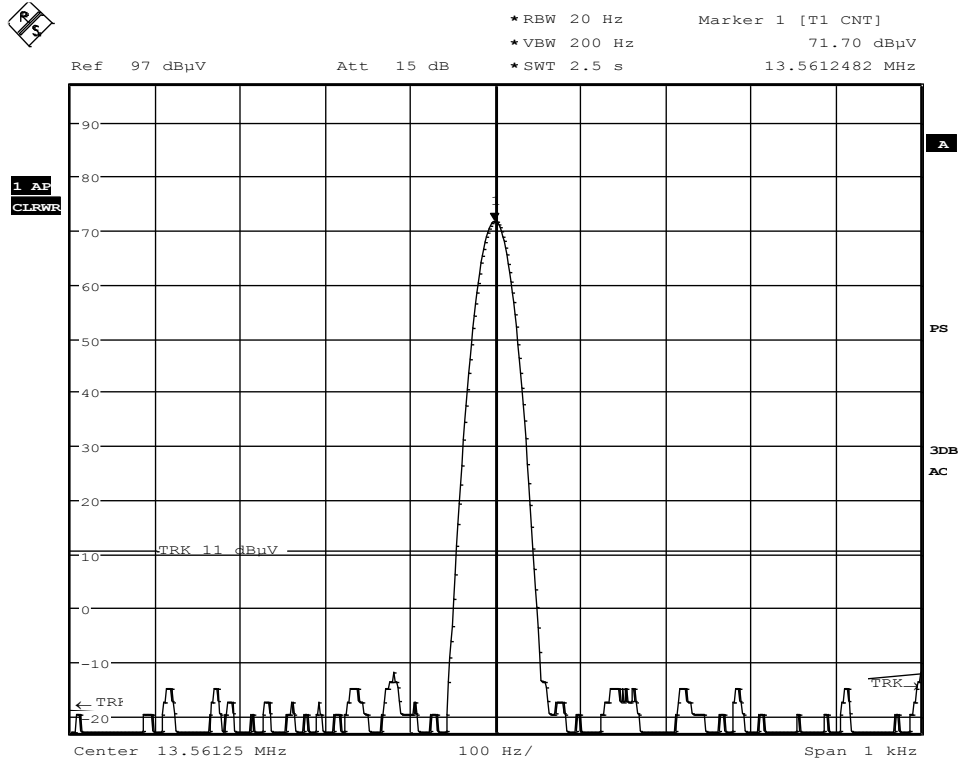
Date: 12.NOV.2014 11:06:09

T=+10°, Vnom=4.0VDC, after 2 minutes



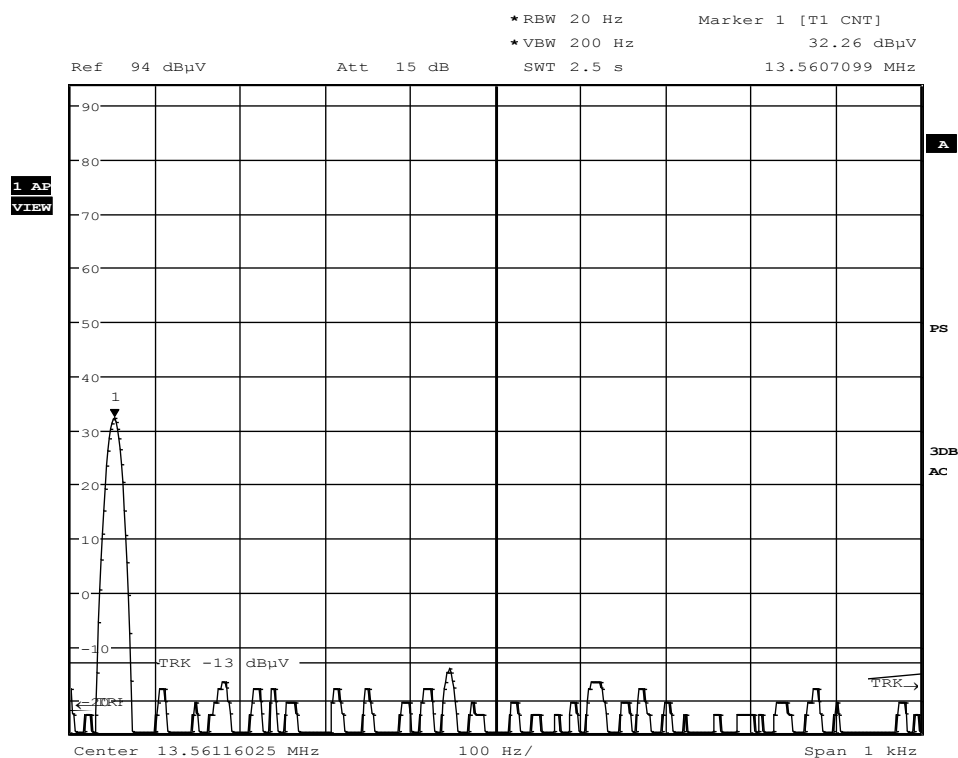
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T=+10°, Vnom=4.0VDC, after 5 minutes



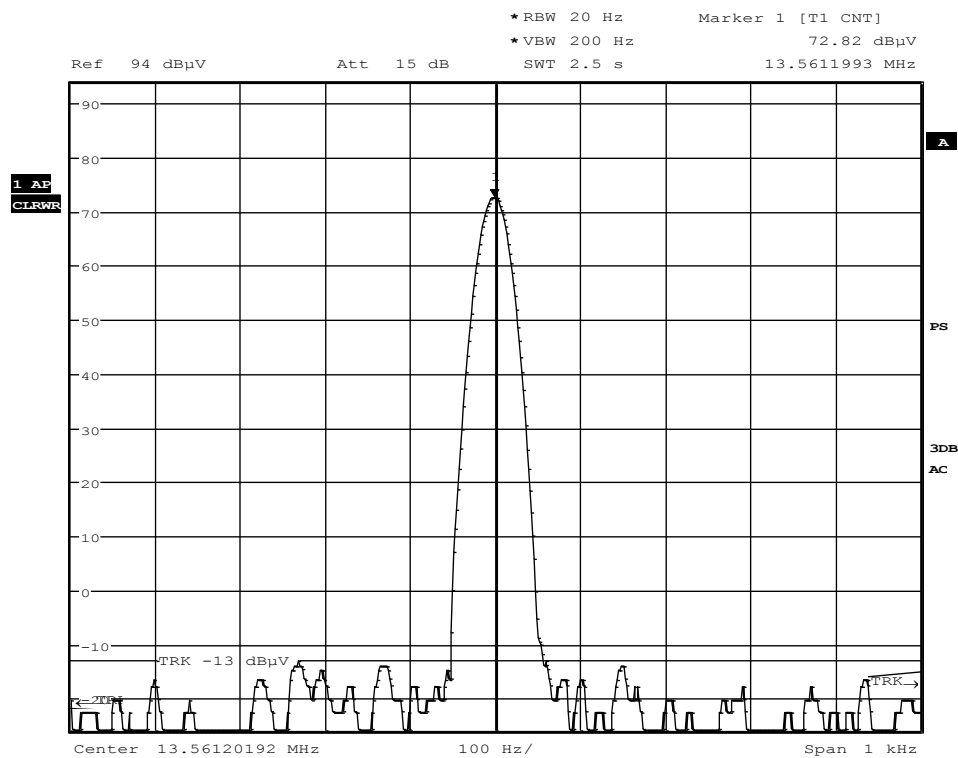
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T=+10°, Vnom=4.0VDC, after 10 minutes



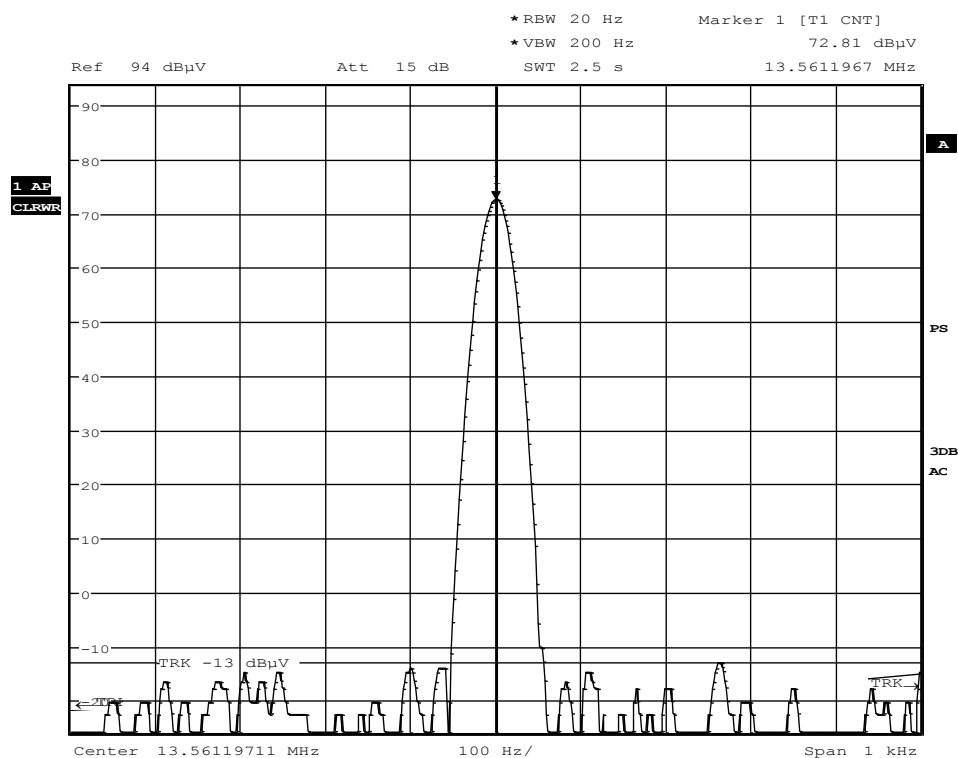
Date: 10.NOV.2014 17:06:35

T=+30°, Vnom=4.0VDC, after startup



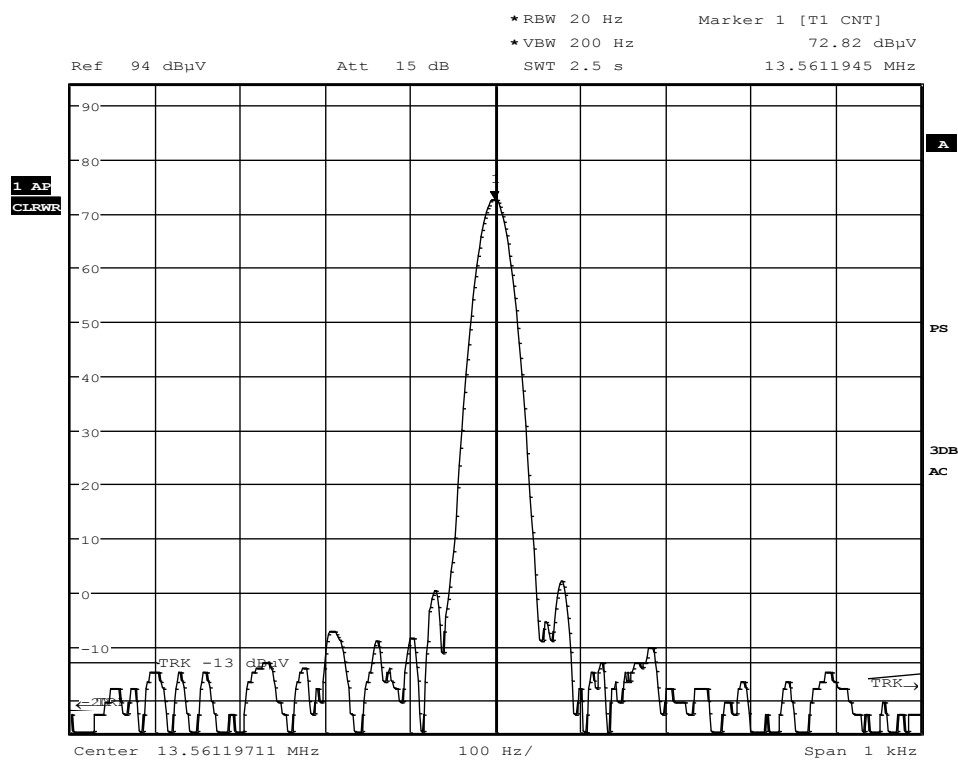
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T=+30°, Vnom=4.0VDC, after 2 minutes



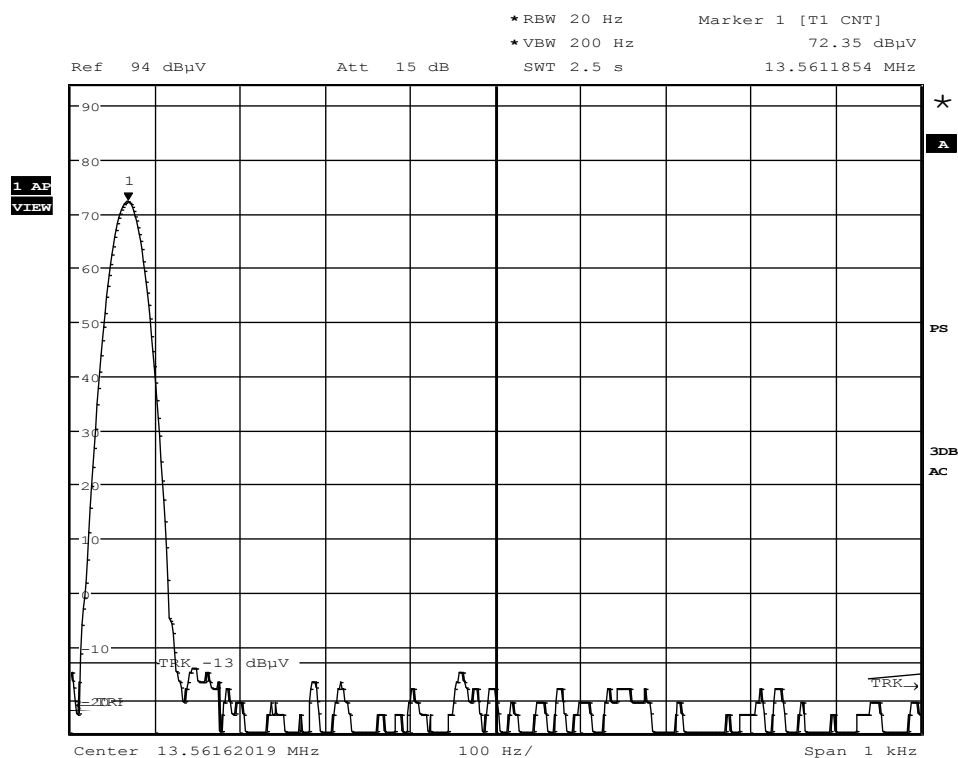
Date: 10.NOV.2014 17:11:48

T=+30°, Vnom=4.0VDC, after 5 minutes



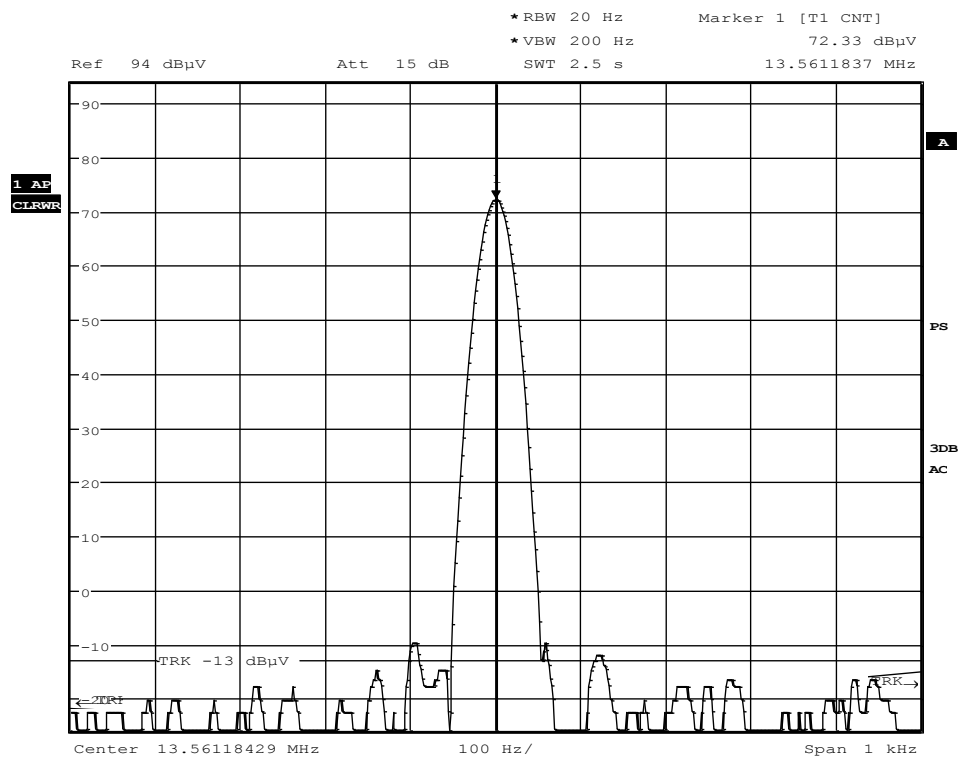
Date: 10.NOV.2014 17:16:47

T=+30°, Vnom=4.0VDC, after 10 minutes



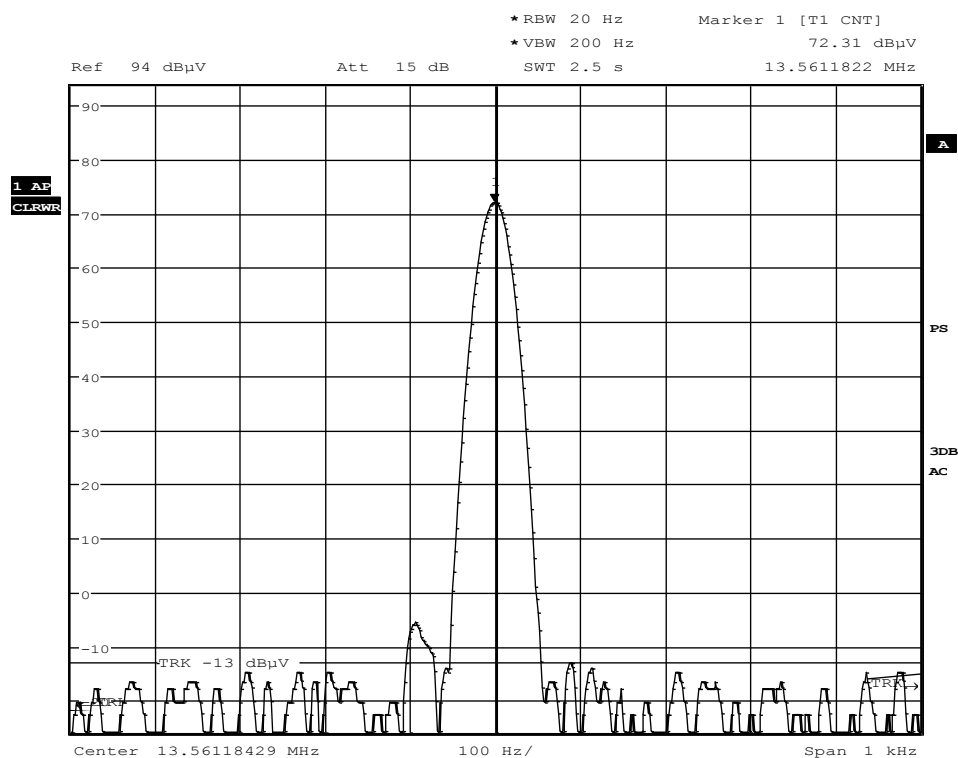
Date: 10.NOV.2014 14:01:04

T=+40°, Vnom=4.0VDC, after startup



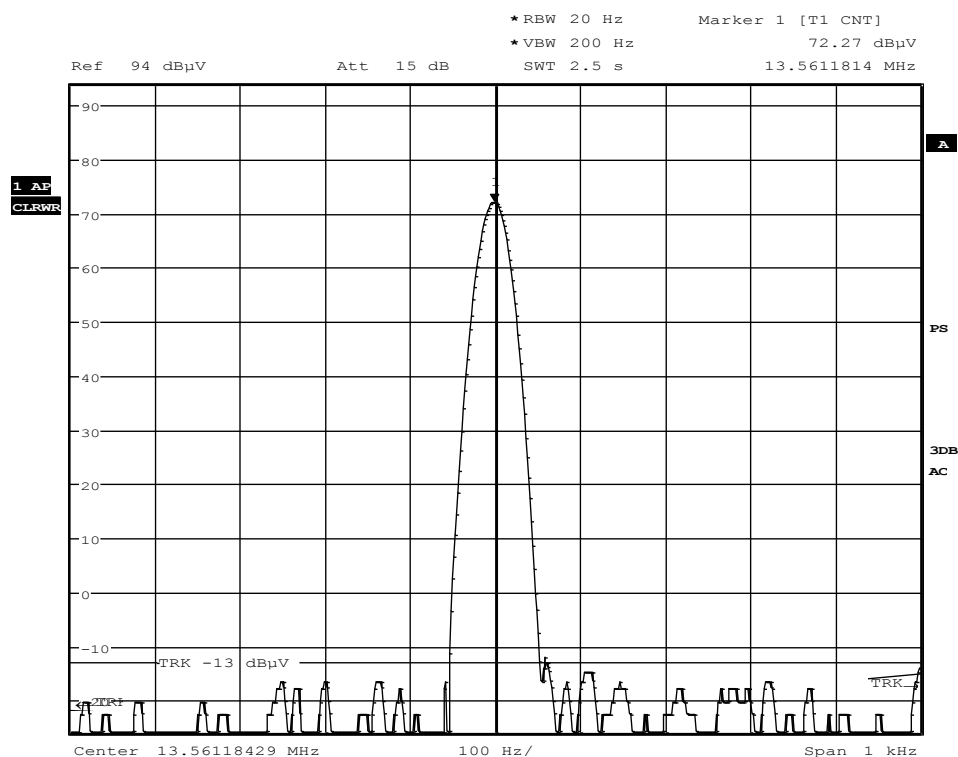
Date: 10.NOV.2014 14:03:18

T=+40°, Vnom=4.0VDC, after 2 minutes



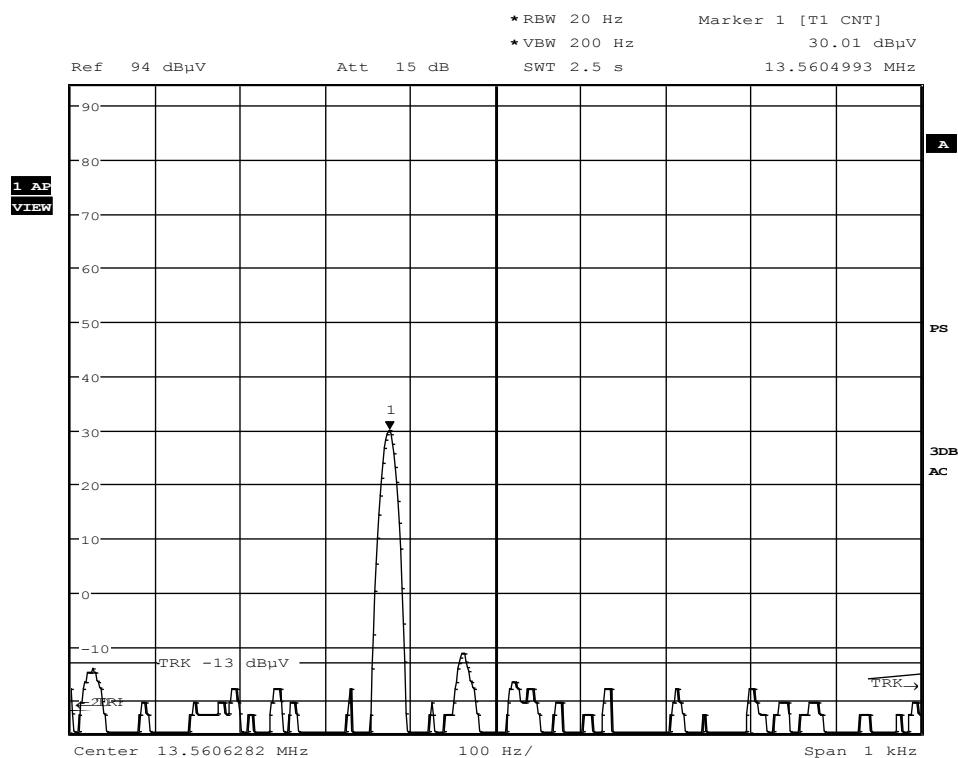
Date: 10.NOV.2014 14:06:49

T=+40°, Vnom=4.0VDC, after 5 minutes



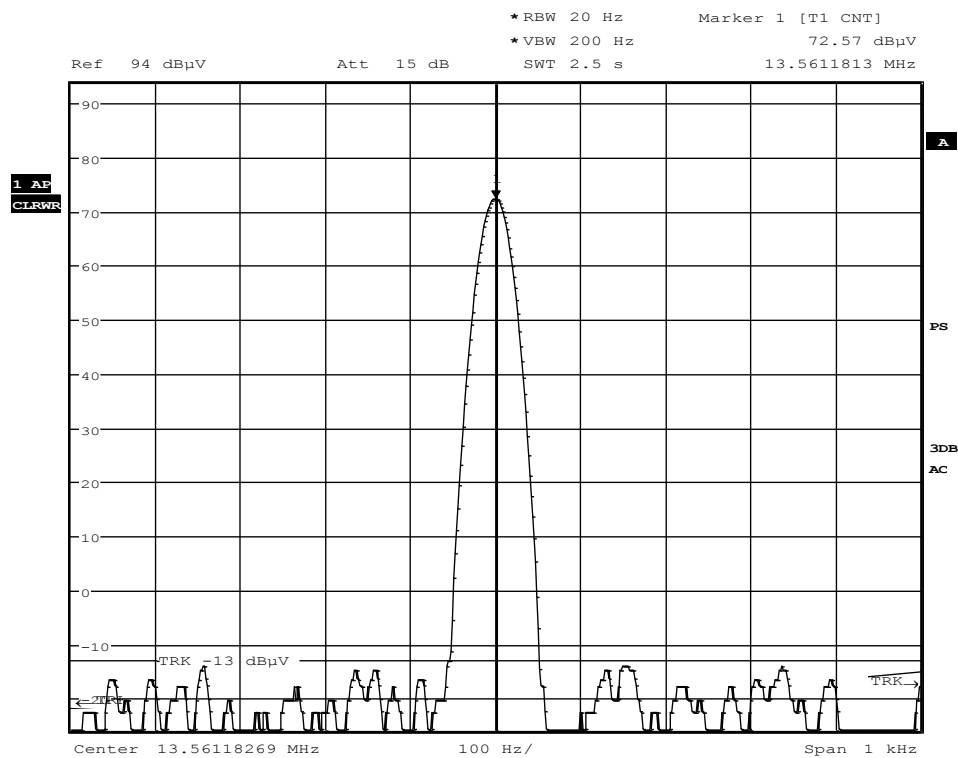
Date: 10.NOV.2014 14:11:27

T=+40°, Vnom=4.0VDC, after 10 minutes



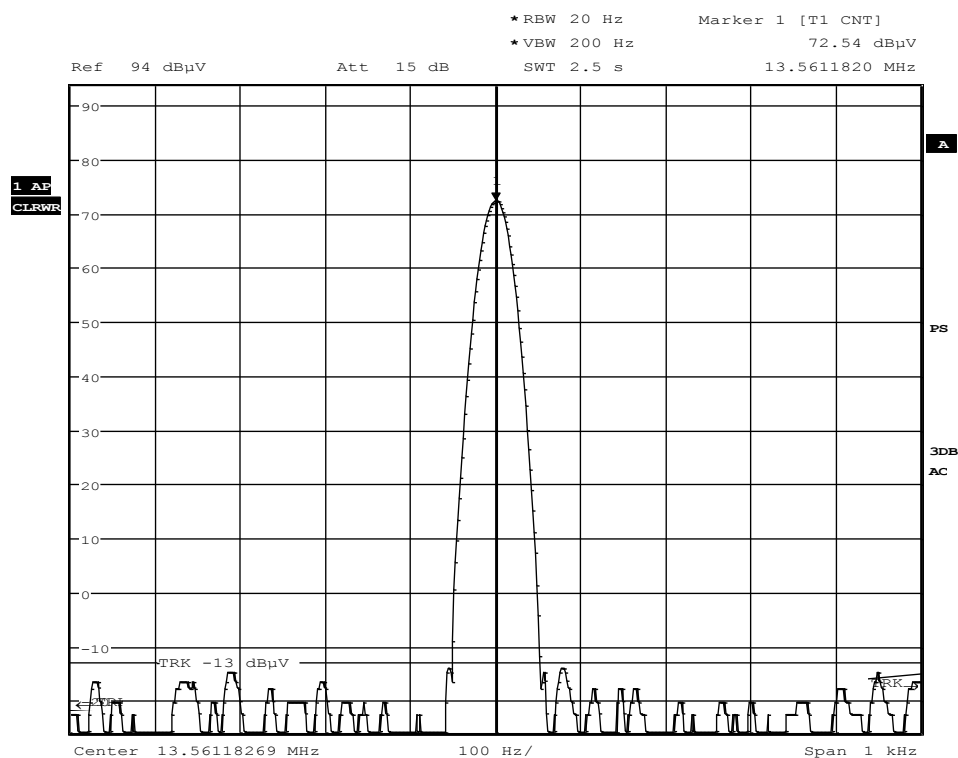
Date: 10.NOV.2014 15:06:15

T=+50°, Vnom=4.0VDC, after startup



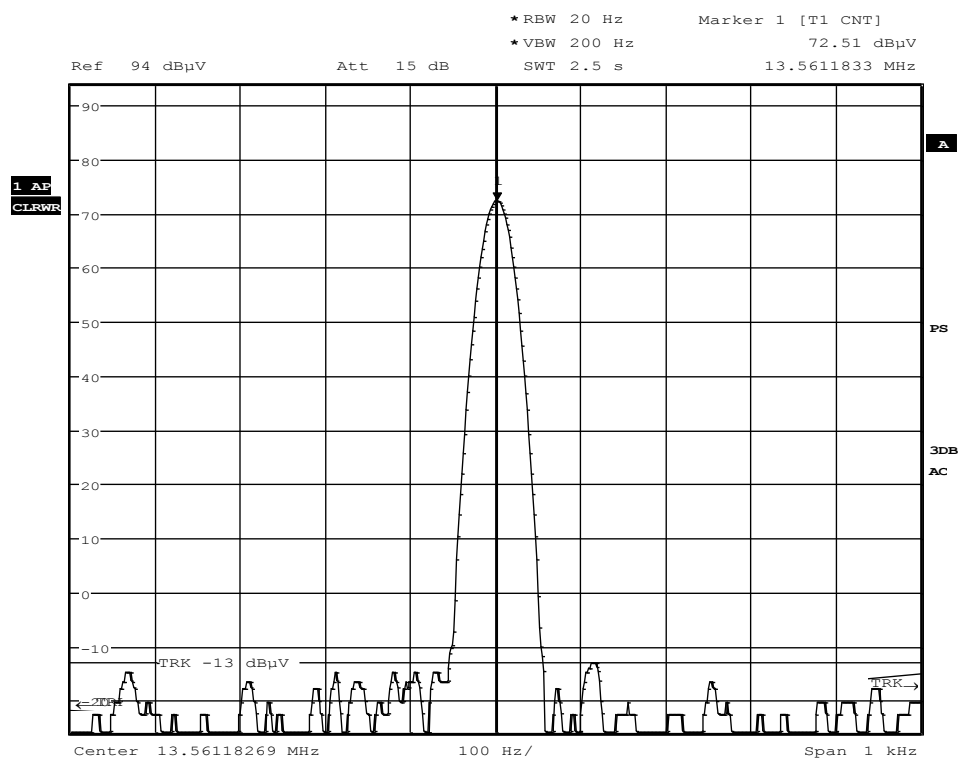
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Date: 10.NOV.2014 15:11:53

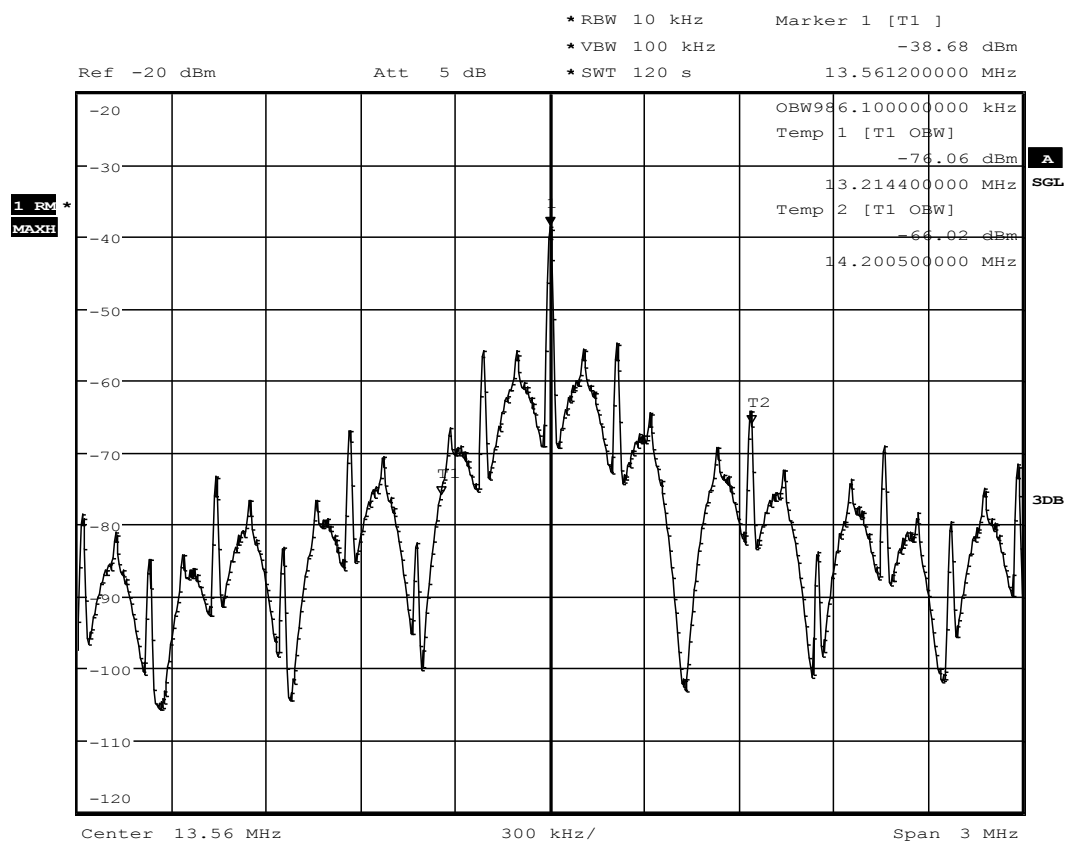
T=+50°, Vnom=4.0VDC, after 5 minutes



Date: 10.NOV.2014 15:16:59

T=+50°, Vnom=4.0VDC, after 10 minutes

1.5. Occupied bandwidth



Date: 14.NOV.2014 09:55:55