Annex 1: Measurement diagrams
to
T E S T R E P O R T
No.: 6-0542-14-3-3g

According to:

FCC Part 15.225

for

Bosch Security Systems BV

DCNM-WDE
DICENTIS Wireless Device Extended

FCC-ID: UX8-DCNMWDE

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

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Table of contents

1. Measurement results

1. Conducted EMI measurements on AC-mains port according 15.207, class B

Not applicable because no AC-mains port. EUT is battery powered which are charged within separate loading charging craddle.

2. Radiated field strength measurements accord. §15.225

Diagram No. 2.10_TX_SpectrumMask_RFID

Date: 21.01.2015 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 Testsoftware:	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-Gen: Issue 4
Operator:	Lor
Operating conditions:	TX-on - nominal channel, continuous, modulation on
Power during tests:	full loaded battery
Comment 1:	nominal channel=13.56MHz

EUT Information

Manufacturer:	Bosch Security
EuT:	DCNM-WDE
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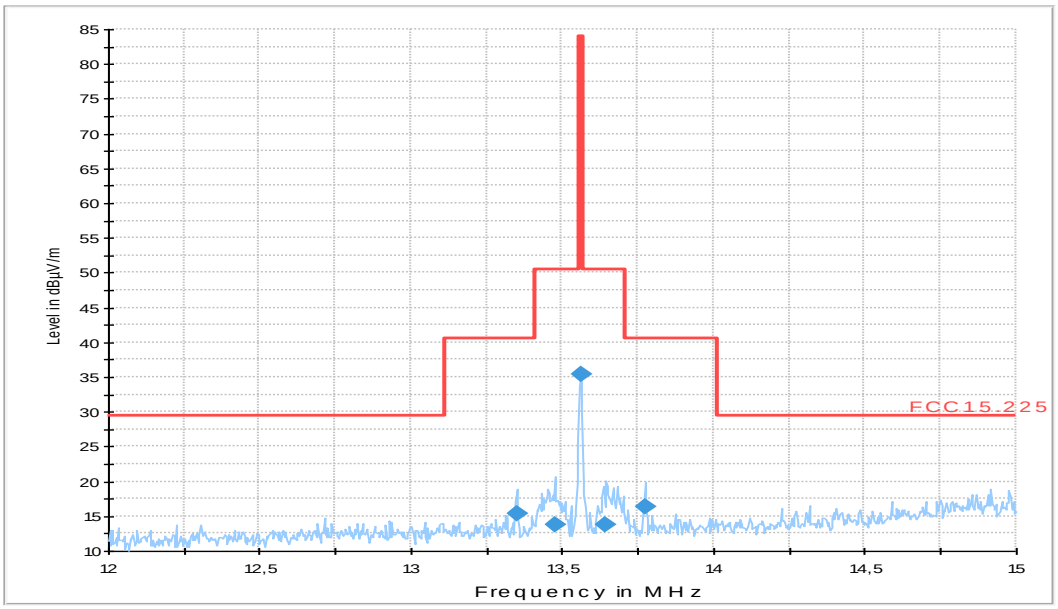
Serial Number:	00:1C:44:01:5C:44
Connected Interfaces:	2 headsets
Power Supply:	7.5V nominal

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	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
13.348000	15.3	1000.0	10.000	V	172.0	0.7	25.20	40.50
13.476000	13.8	1000.0	10.000	V	164.0	0.8	36.60	50.50
13.560000	35.4	1000.0	10.000	V	174.0	0.9	48.60	84.00
13.644000	13.9	1000.0	10.000	V	190.0	1.0	36.60	50.50
13.772000	16.4	1000.0	10.000	V	166.0	1.1	24.10	40.50

EMI Auto Test Template: 01_FCC15.209_magn hor+vert_In_Band_13.56MHz_no_kipp

3. Radiated field strength measurements accord. §15.209&15.205

Diagram No. 2.11_TX_RSE_RFID

Date: 21.01.2015 Page 1 of 3

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 Testsoftware:	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 § 15.209; RSS-Gen: Issue 4
Operator:	Lor
Operating conditions:	TX-on , continuous, modulation on, Channel nominal RFID-Mode
Power during tests:	full loaded batteries
Comment 1:	Channel nominal at 13.56MHz

EUT Information

Manufacturer:	Bosch Security
EuT:	DCNM-WDE
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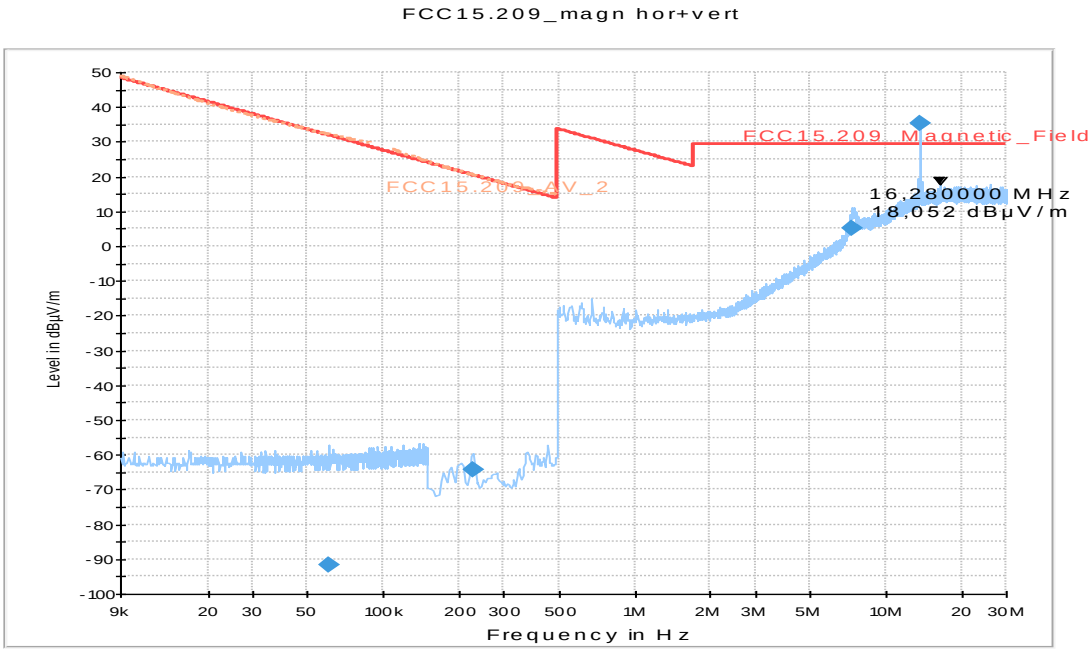
Serial Number:	00:1C:44:01:5C:44
Connected Interfaces:	2 headsets
Power Supply:	7.5V nominal



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
0.061100	-91.6	1000.0	0.200	V	248.0	-95.6	123.50	31.90
0.226000	-64.3	1000.0	10.000	H	17.0	-90.7	84.80	20.50
7.320000	5.2	1000.0	10.000	H	21.0	-9.8	24.30	29.50
13.560000	35.4	1000.0	10.000	H	170.0	0.9	-5.90	29.50

EMI Auto Test Template: FCC15.209_magn hor+vert

Diagram No. 3.01_RSE_TX_RFID

29.01.2015 Page 1 of 3

Test description:	Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	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 4
Operator:	Lor
Operating conditions:	RFID TX on , continuous
Power during tests:	7,5 V nominal
Comment 1:	EUT standing (intended position)
Comment 2:	PC+Router place inside Chamber

EUT Information

Manufacturer:	Bosch Security
EuT:	DCNM-WDE
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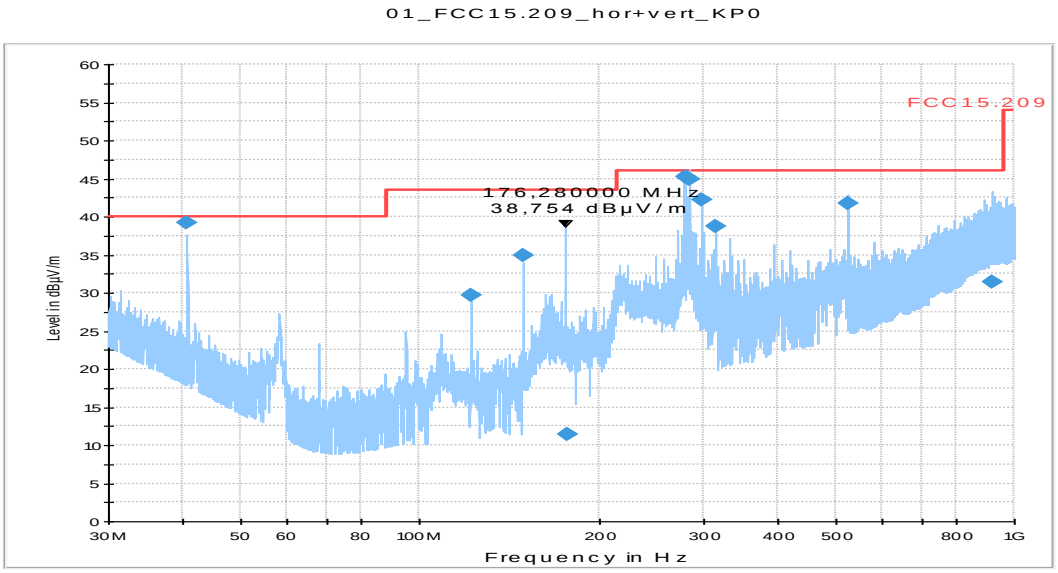
Serial Number:	00:1C:44:01:5C:44
Connected Interfaces:	2 headsets
Power Supply:	7.5V nominal



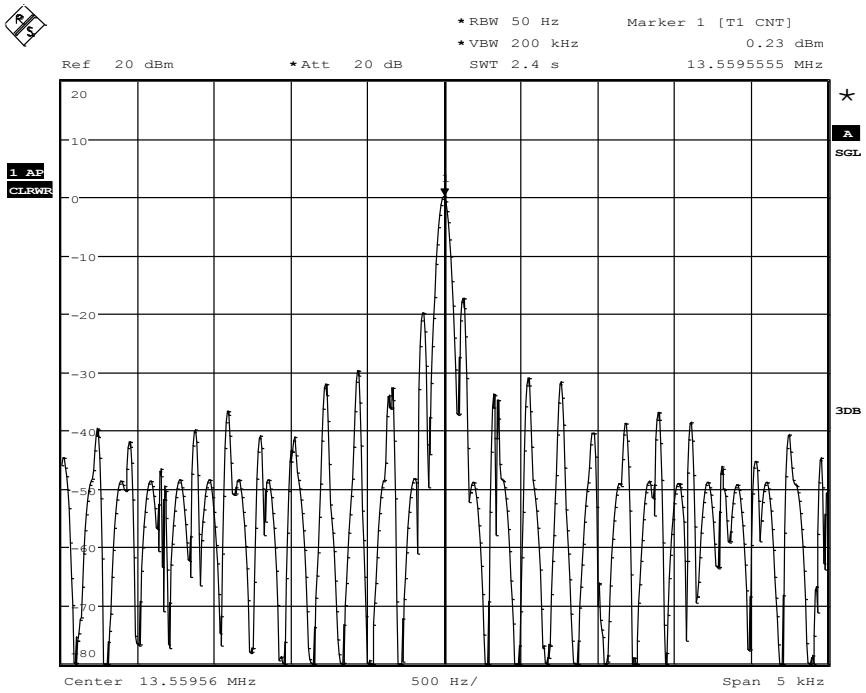
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
40.680000	39.2	1000.0	120.000	105.0	V	256.0	17.2	0.80	40.00
122.020000	29.7	1000.0	120.000	105.0	V	25.0	8.1	13.80	43.50
149.150000	35.0	1000.0	120.000	133.0	H	301.0	8.8	8.50	43.50
177.180000	11.5	1000.0	120.000	351.0	V	349.0	10.9	32.00	43.50
279.280000	45.3	1000.0	120.000	105.0	H	92.0	14.9	0.70	46.00
284.770000	45.0	1000.0	120.000	105.0	H	92.0	14.9	1.00	46.00
297.290000	42.2	1000.0	120.000	116.0	H	106.0	15.2	3.90	46.00
315.300000	38.8	1000.0	120.000	159.0	V	356.0	15.6	7.20	46.00
524.990000	41.8	1000.0	120.000	168.0	H	0.0	20.8	4.20	46.00
920.700000	31.5	1000.0	120.000	159.0	V	55.0	27.1	14.50	46.00

EMI Auto Test Template: 01_FCC15.209_hor+vert_KP0

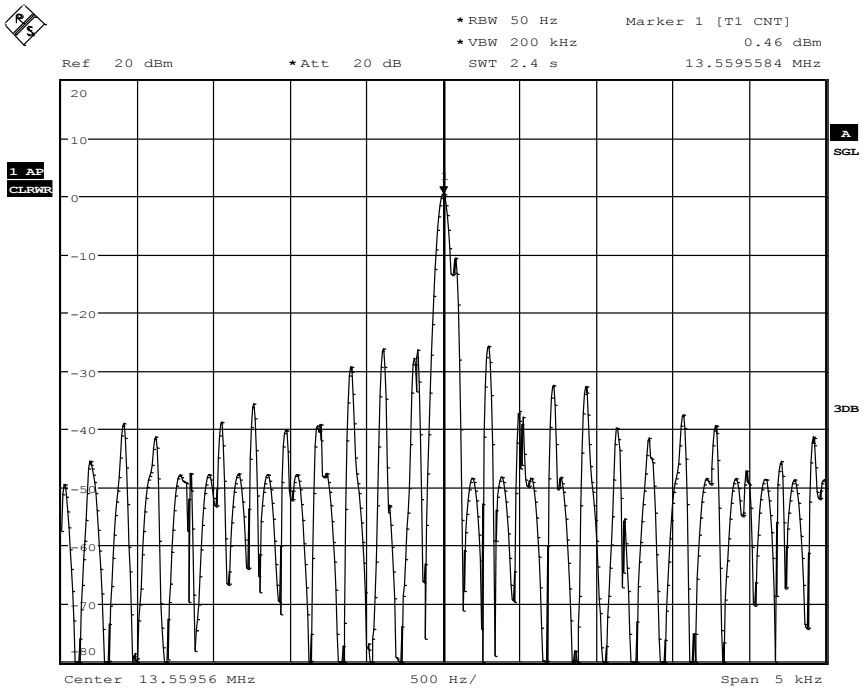
4. Frequency Error

Frequency Error for Tnom=21°C and Vnom=7.5V (Reference)



Date: 29.JAN.2015 15:45:50

Frequency Error for T=10°C and Vnom=7.5V



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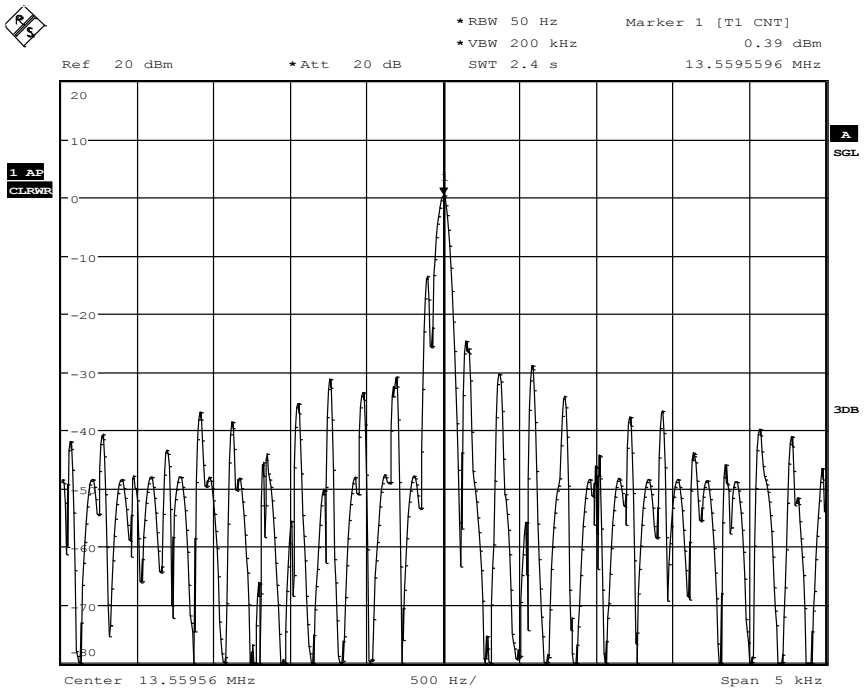
On TX-Start Up



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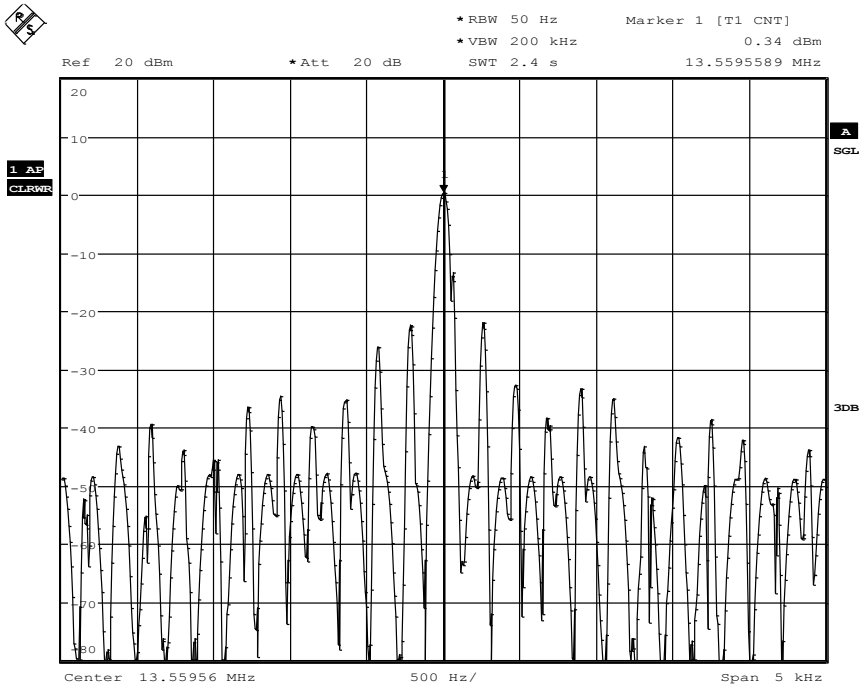
On 2Minutes after TX-Start Up



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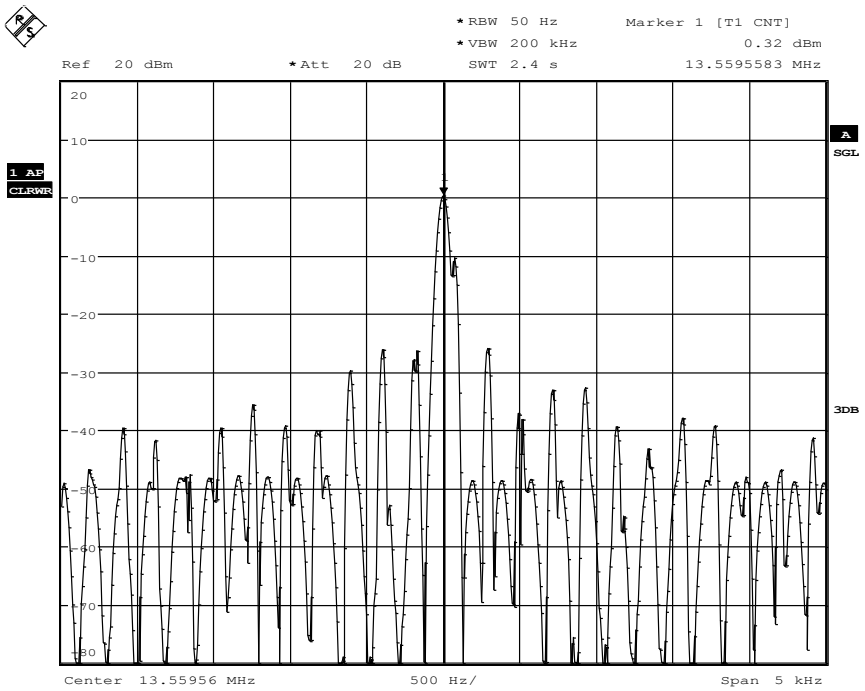

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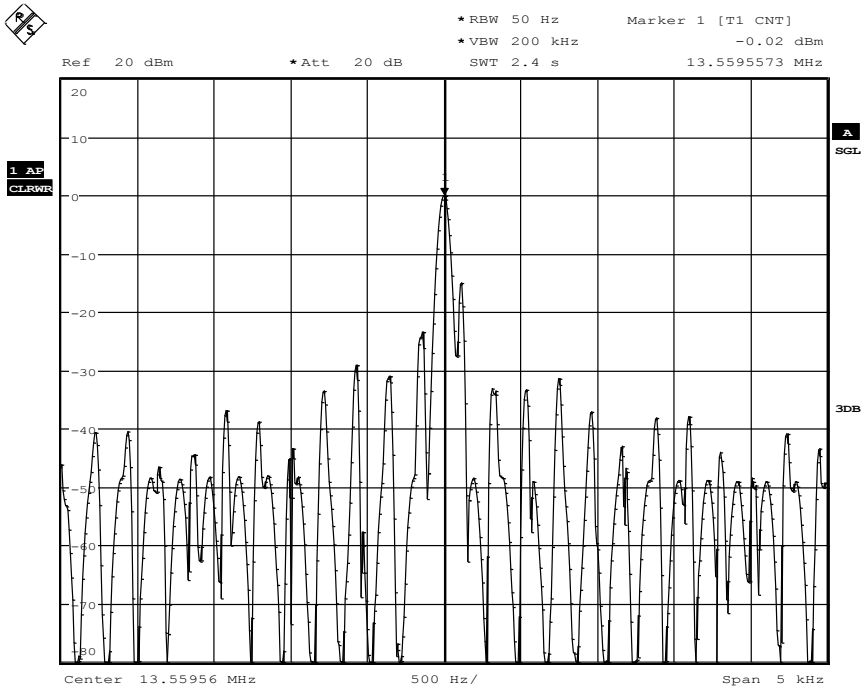
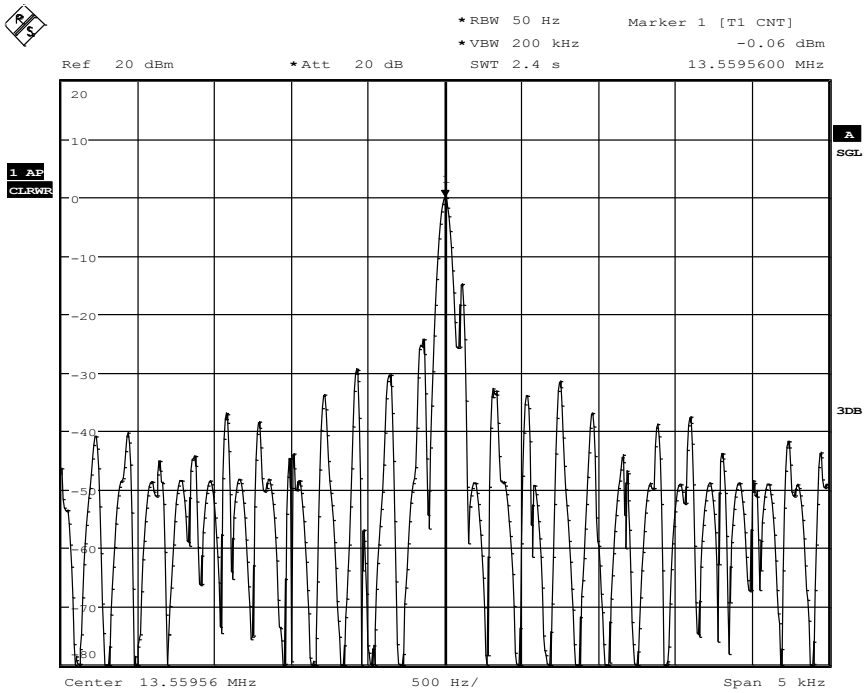
On 10Minutes after TX-Start Up

Frequency Error for T=0°C and Vnom=7.5V



Date: 10.FEB.2015 14:45:14

On TX-Start Up



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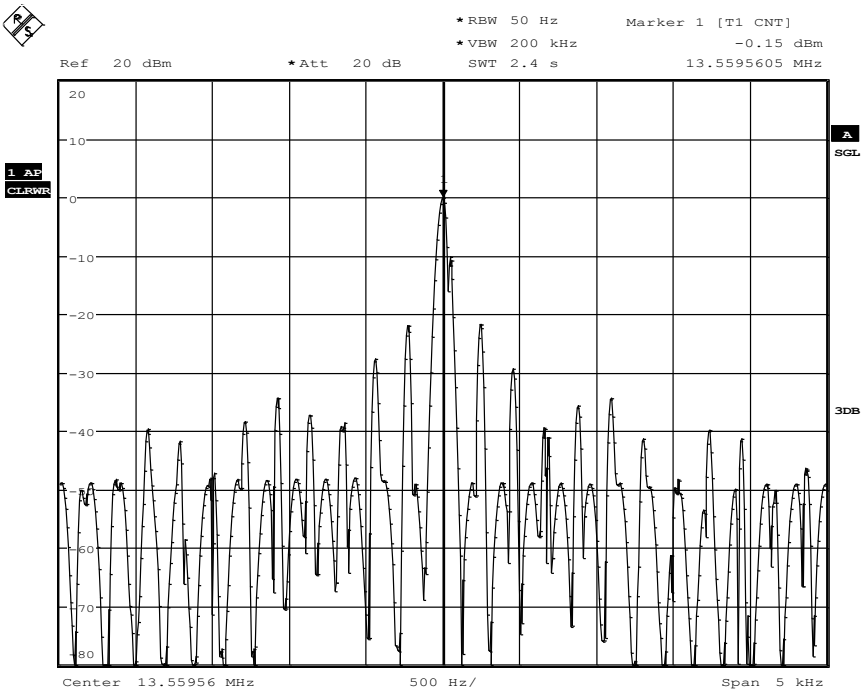

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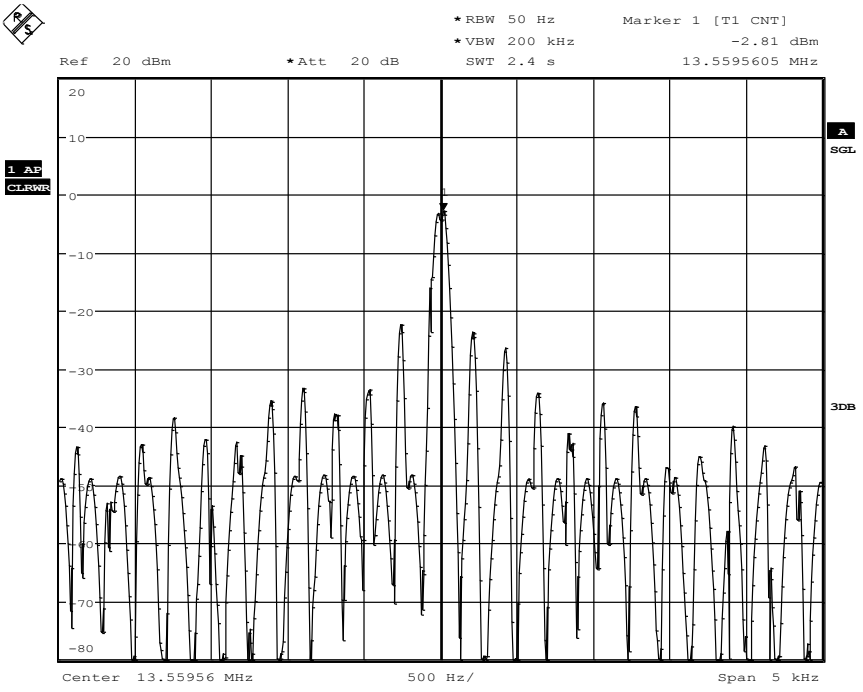
On 5Minutes after TX-Start Up



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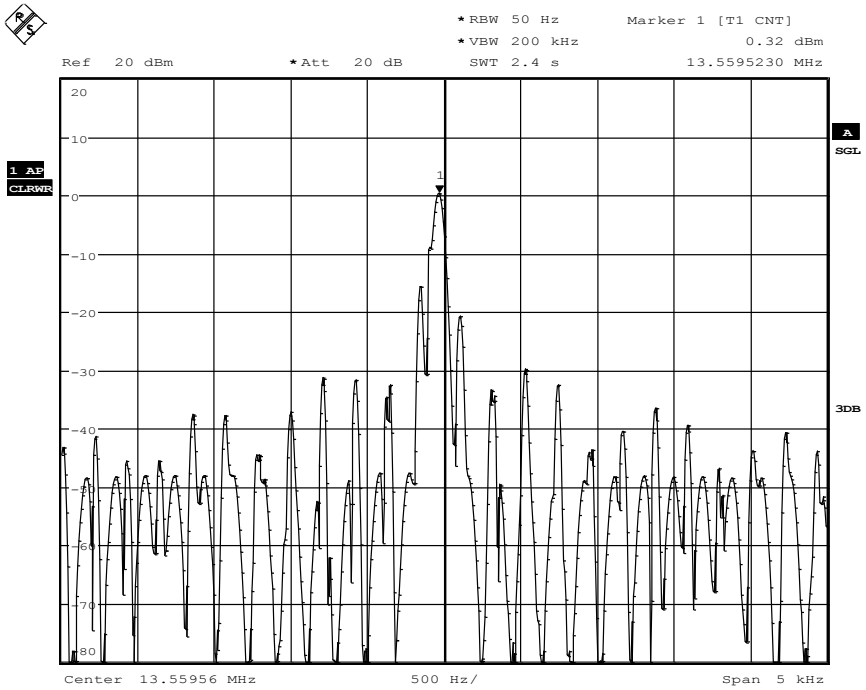
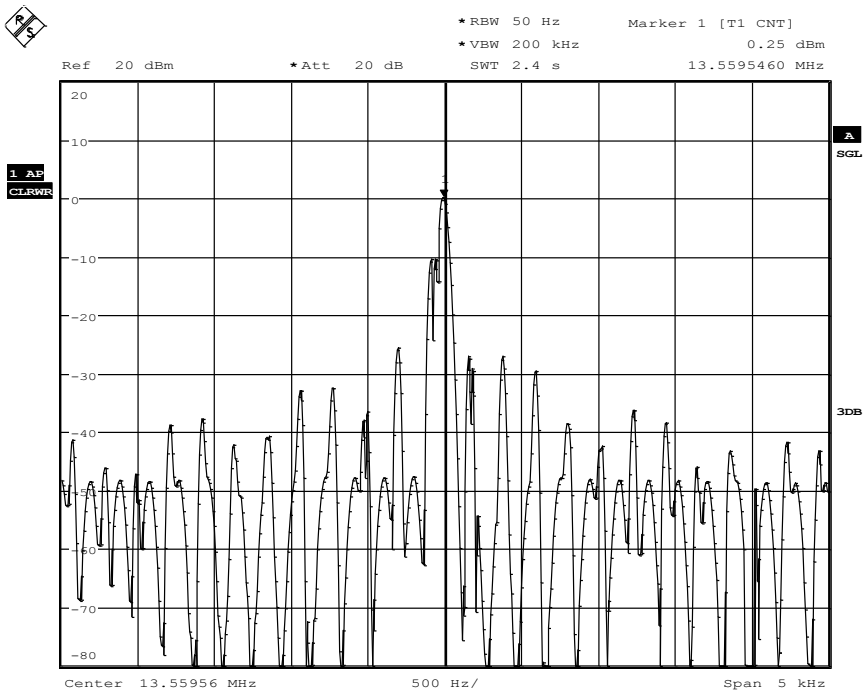
Frequency Error for T=-10°C and Vnom=7.5V



Date: 10.FEB.2015 16:05:45

On TX-Start Up



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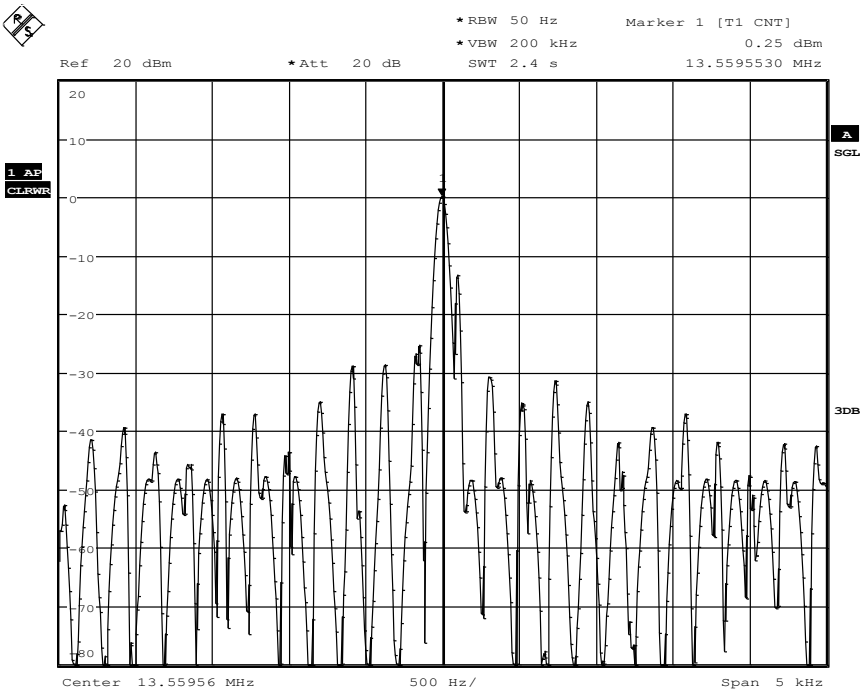
On 2Minutes after TX-Start Up



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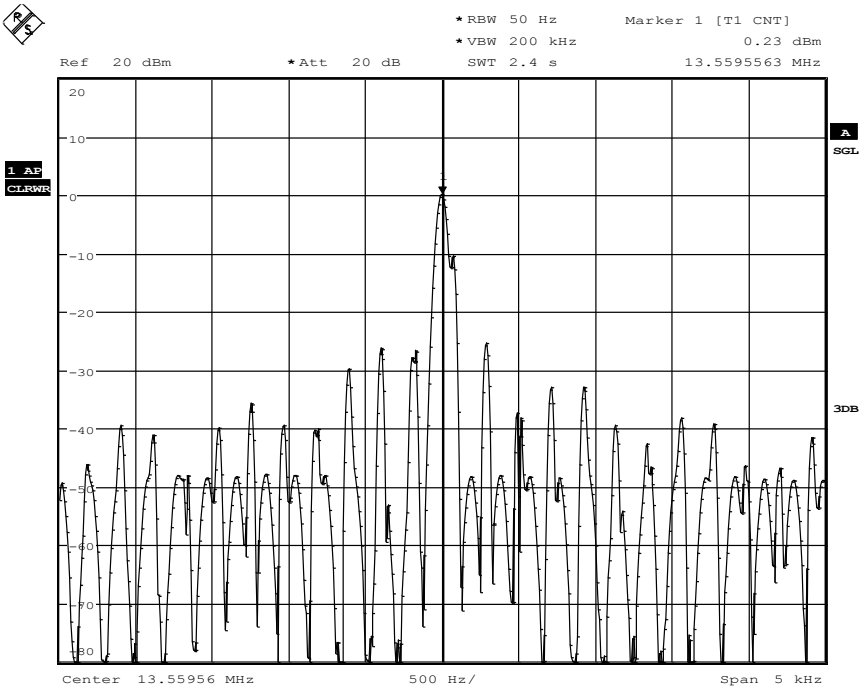
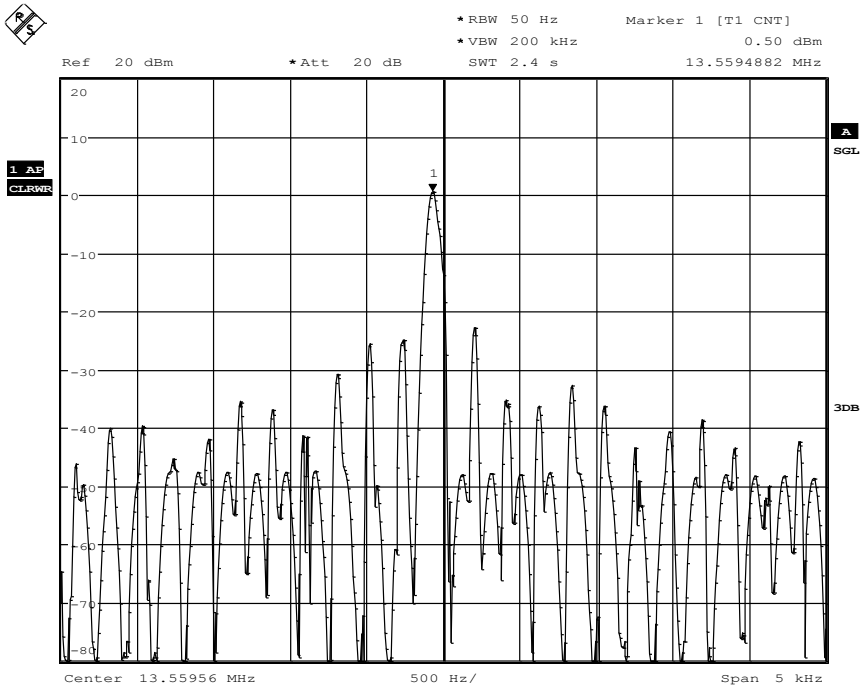


Date: 10.FEB.2015 16:15:35

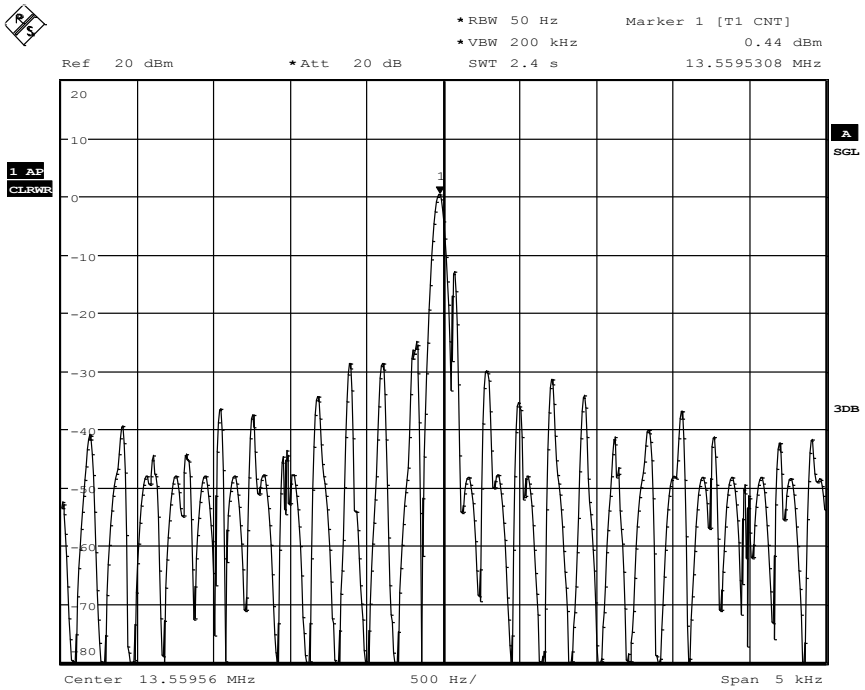
On 10Minutes after TX-Start Up

Frequency Error for T=-20°C and Vnom=7.5V



Date: 11.FEB.2015 09:18:22

On TX-Start Up



Date: 11.FEB.2015 09:20:54

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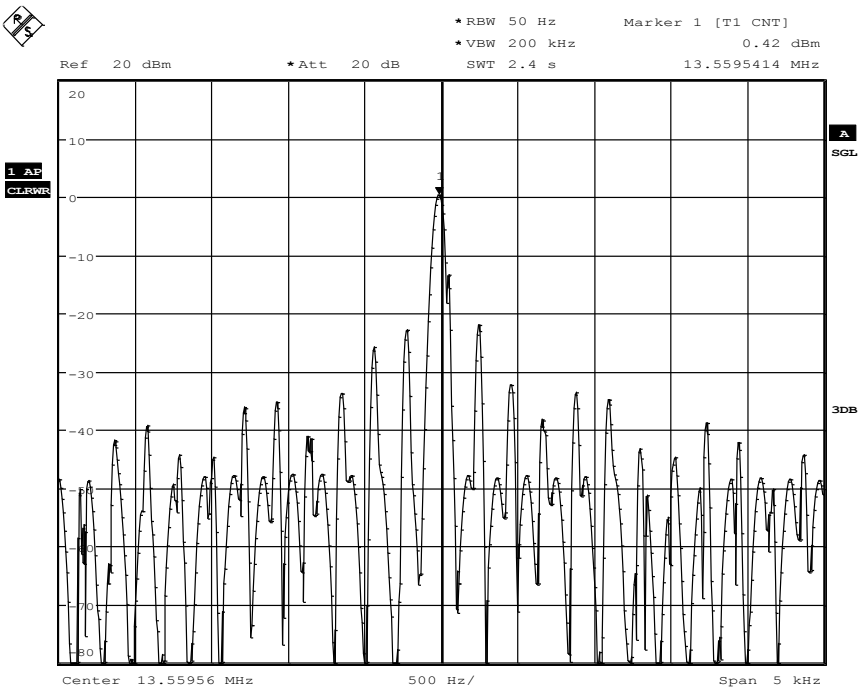

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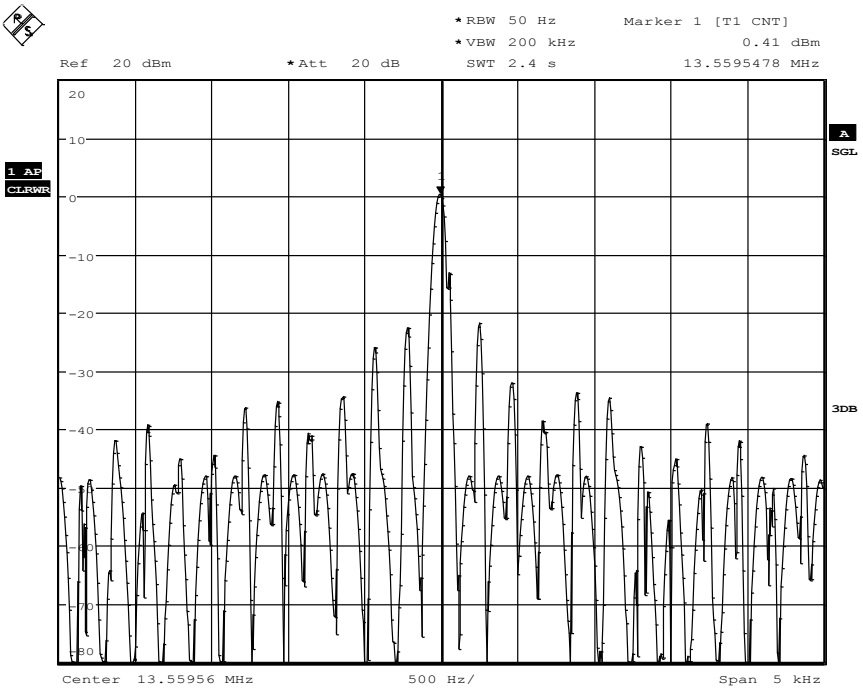

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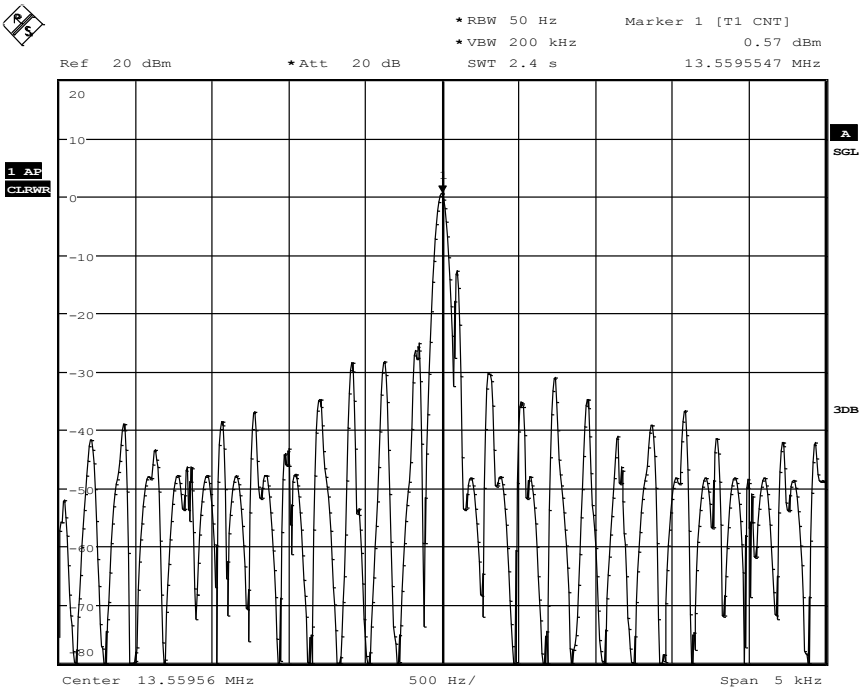
On 10Minutes after TX-Start Up

Frequency Error for T=5°C and Vnom=7.5V



Date: 29.JAN.2015 17:20:59

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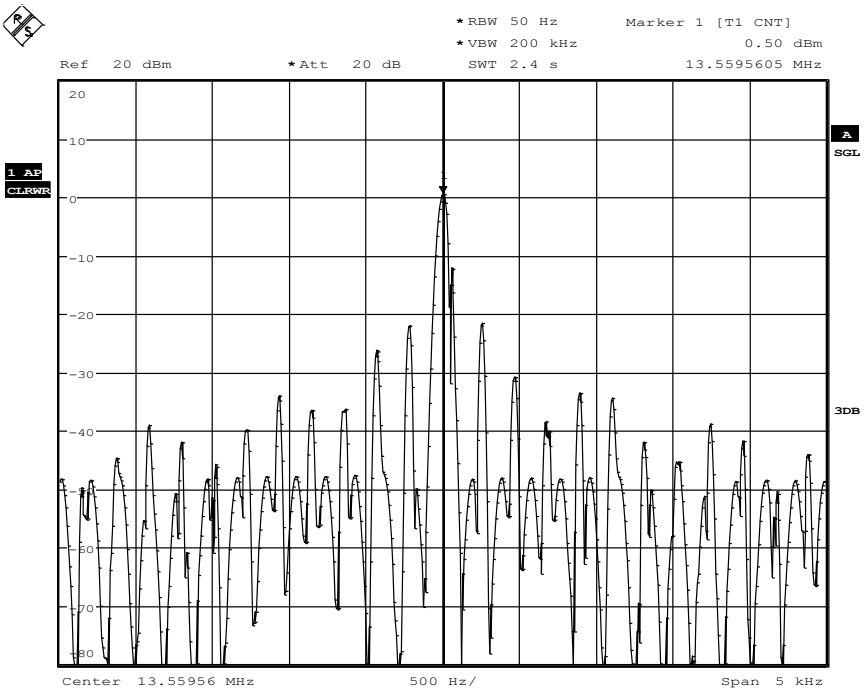

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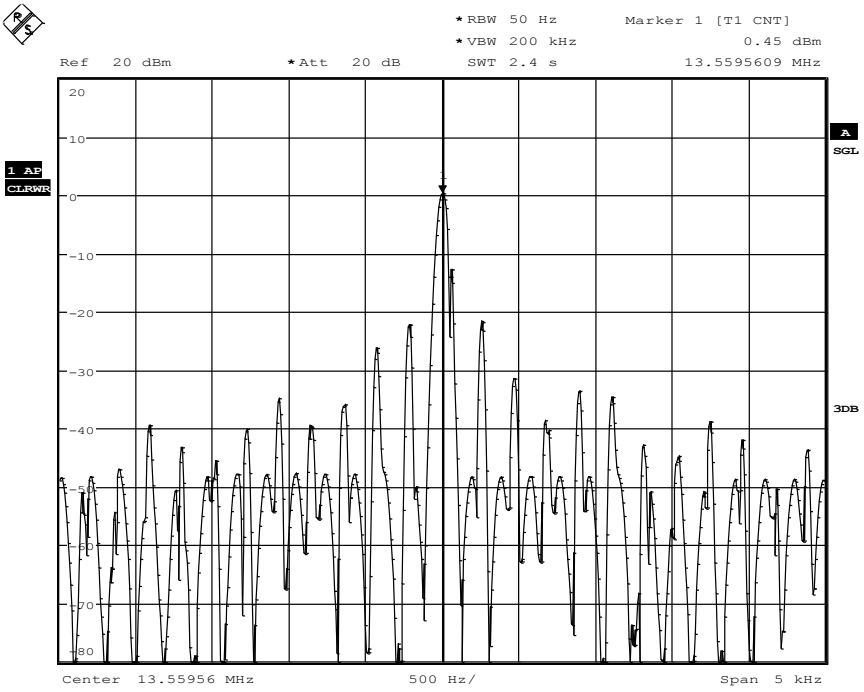

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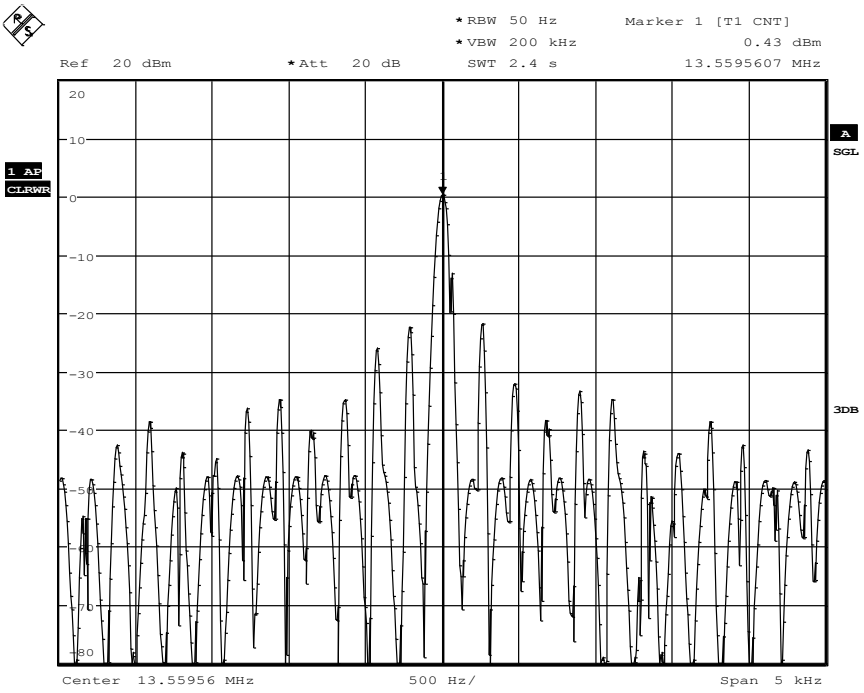

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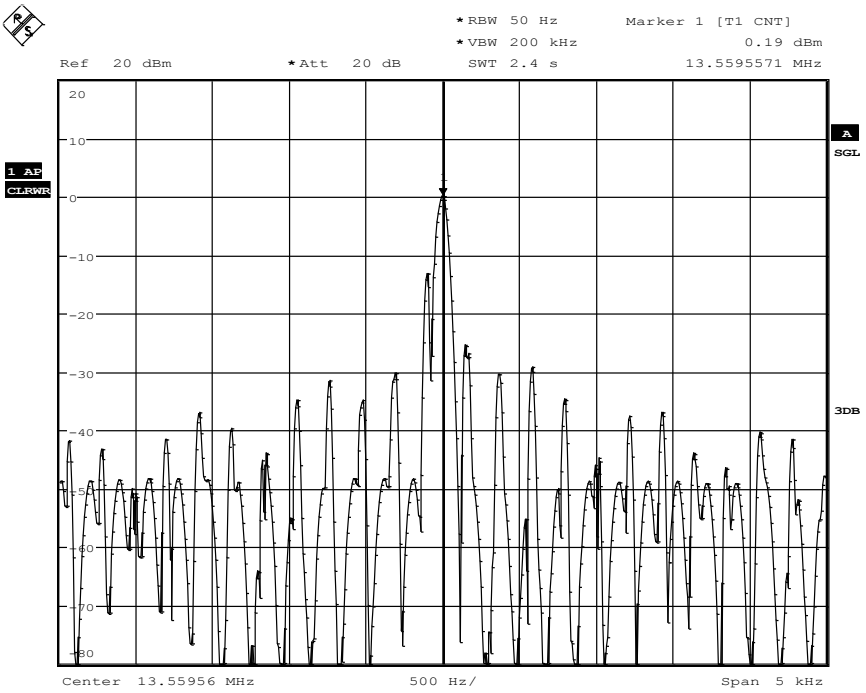
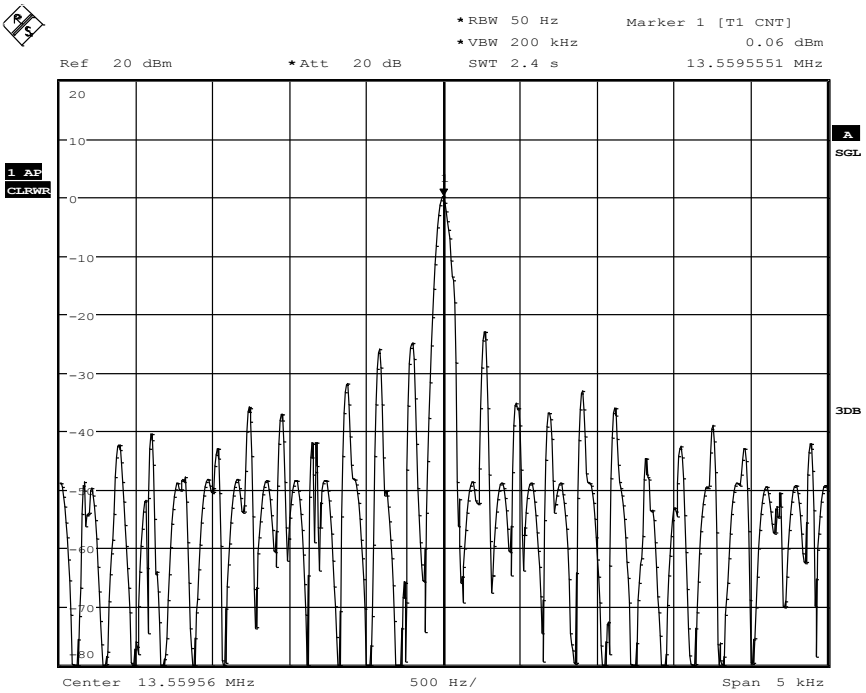
Frequency Error for T=30°C and Vnom=7.5V



Date: 30.JAN.2015 09:35:13

On TX-Start Up



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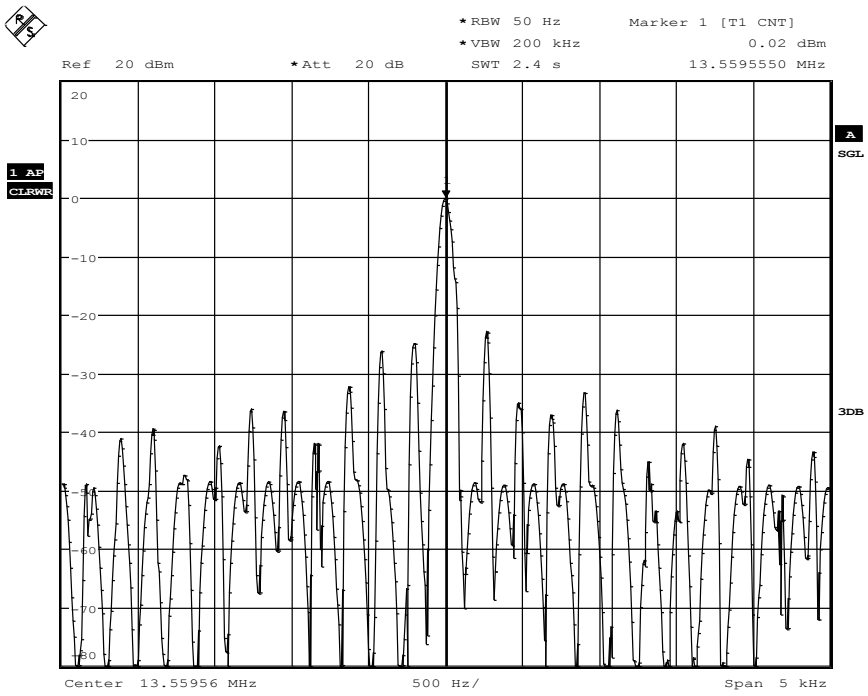

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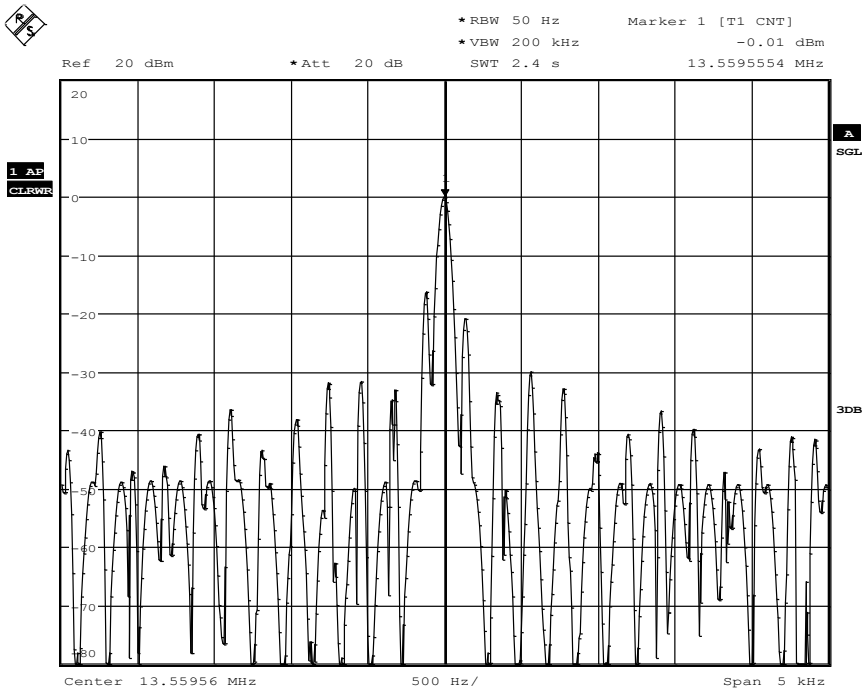
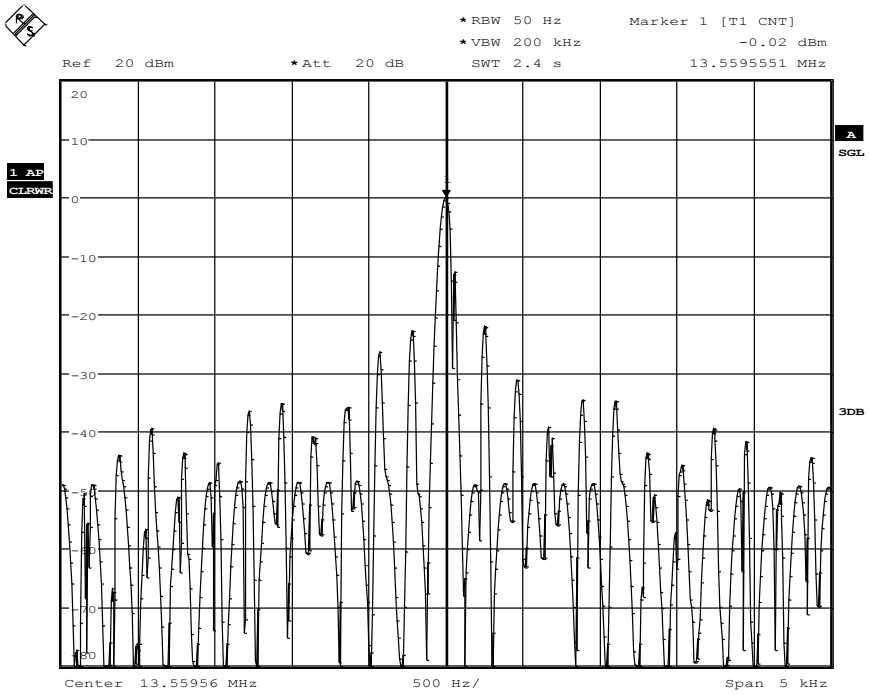
On 5Minutes after TX-Start Up



Date: 30.JAN.2015 09:45:33

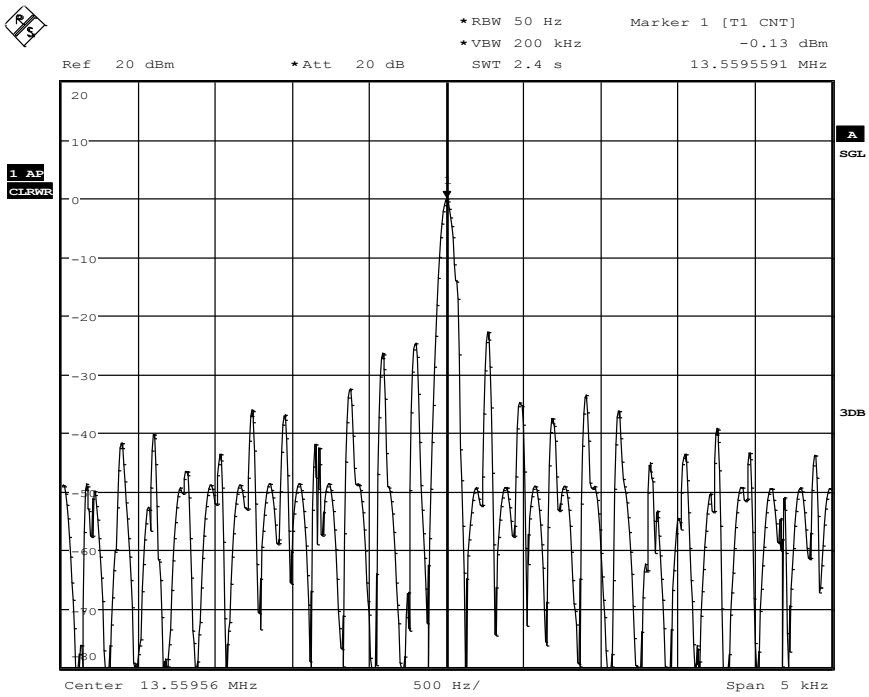
On 10Minutes after TX-Start Up

Frequency Error for T=40°C and Vnom=7.5V



Date: 30.JAN.2015 11:45:15

On TX-Start Up



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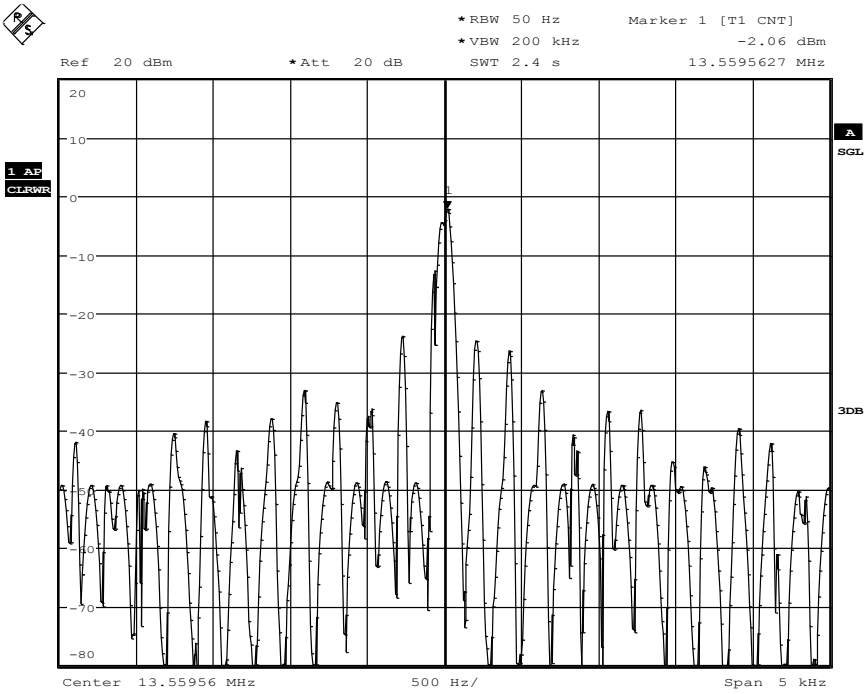

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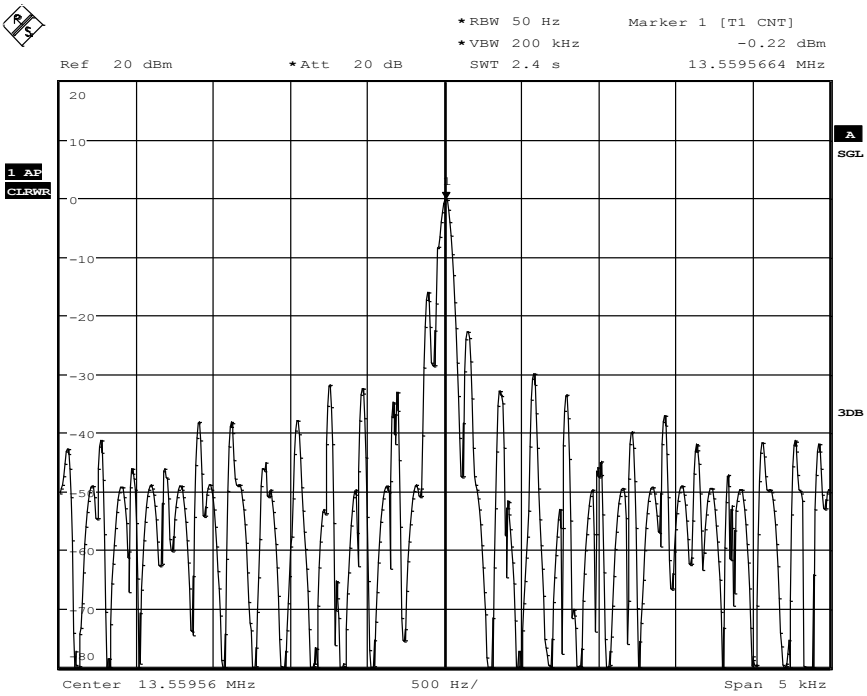

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On 10Minutes after TX-Start Up

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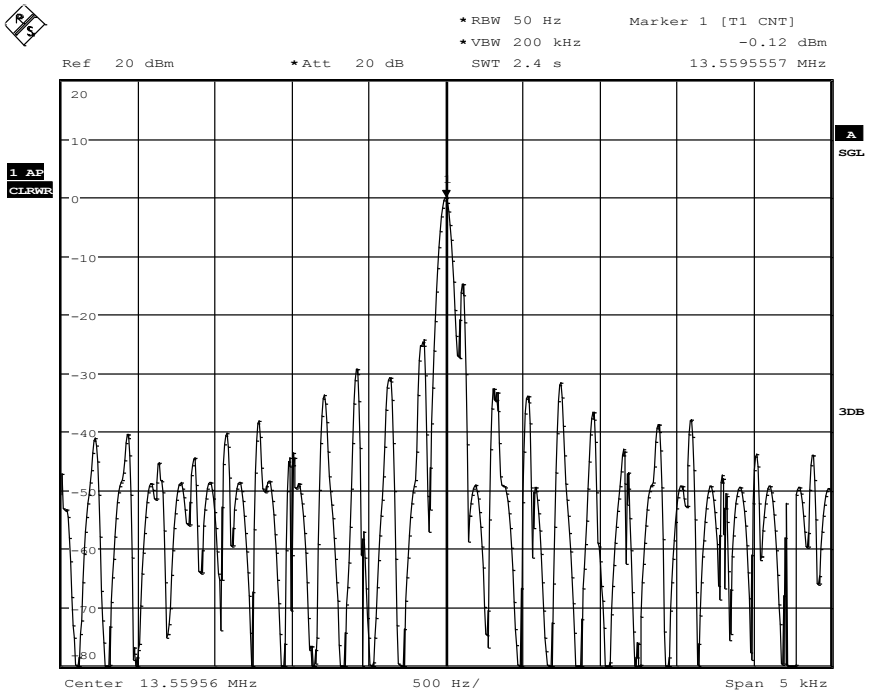

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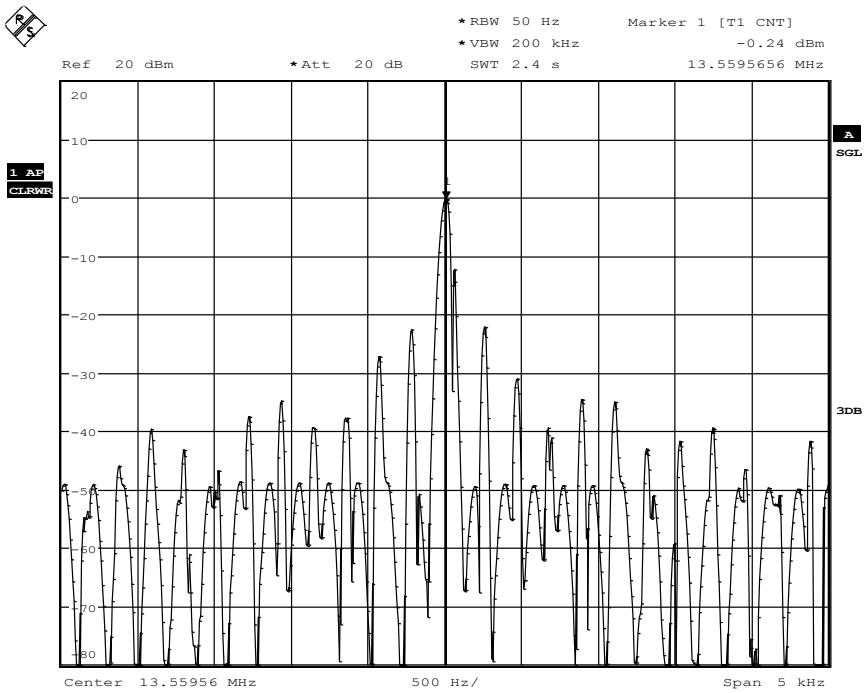

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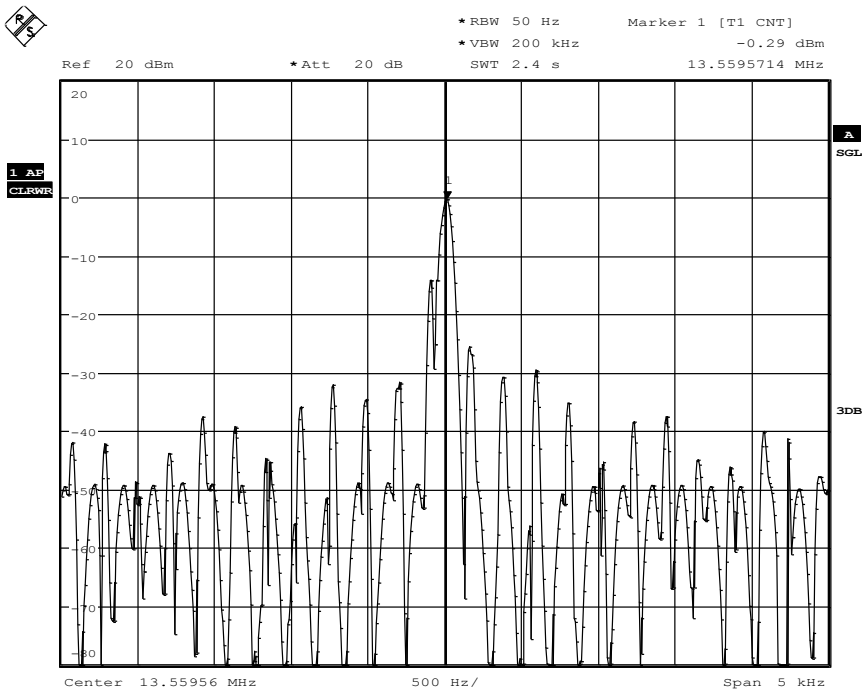

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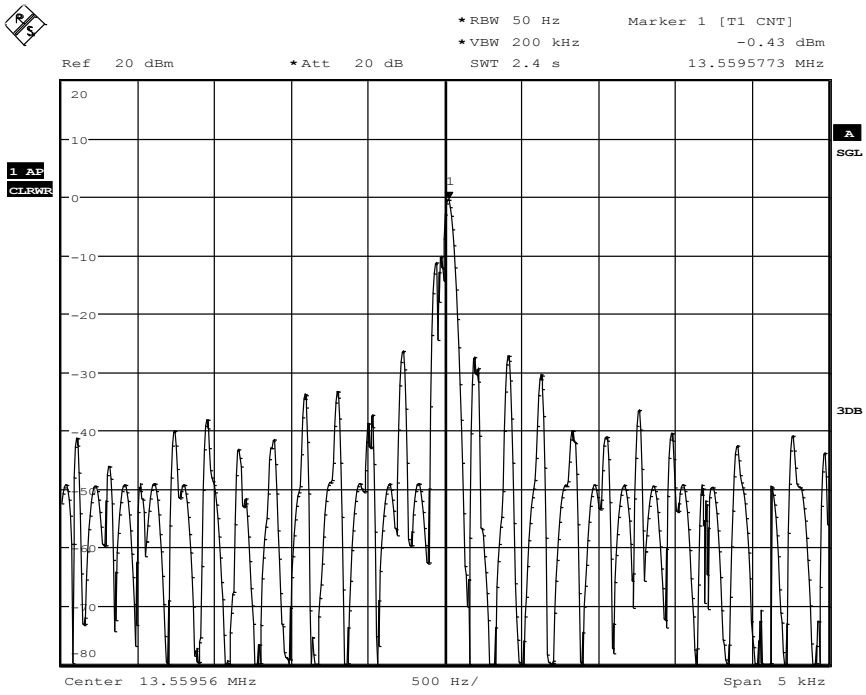
On 5Minutes after TX-Start Up



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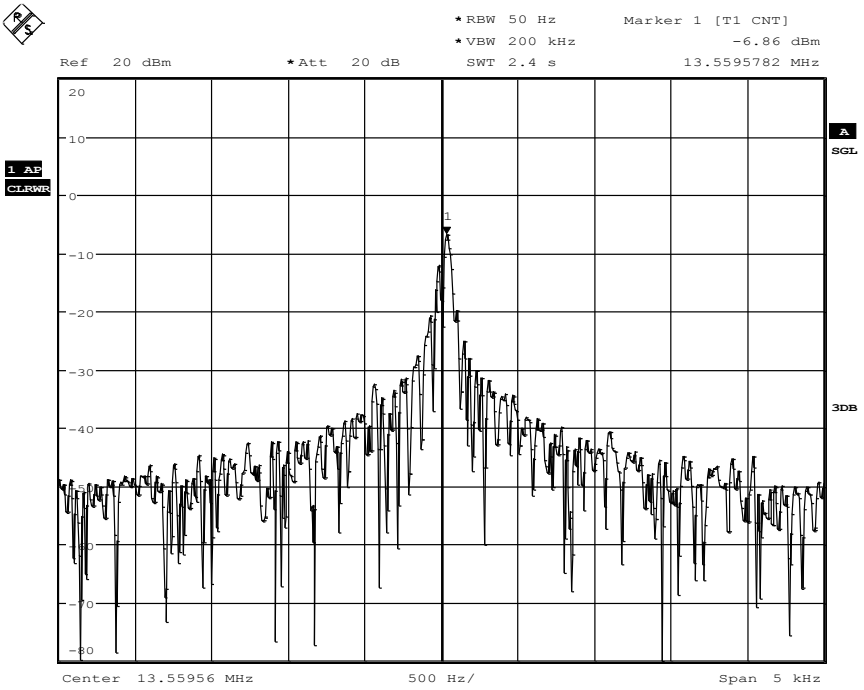
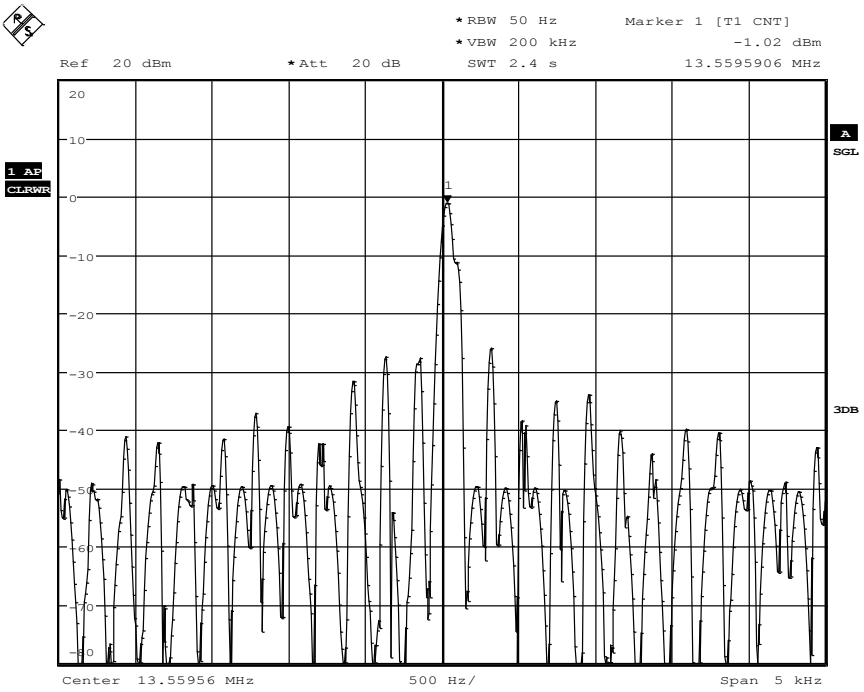
On 10Minutes after TX-Start Up

Frequency Error for T=50°C and Vnom=7.5V



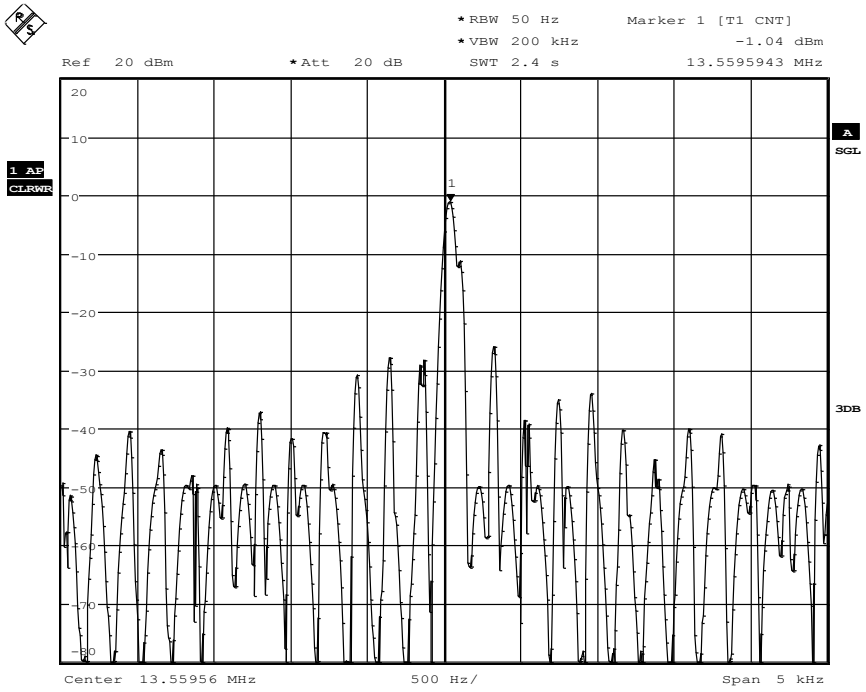
Date: 10.FEB.2015 13:35:35

On TX-Start Up



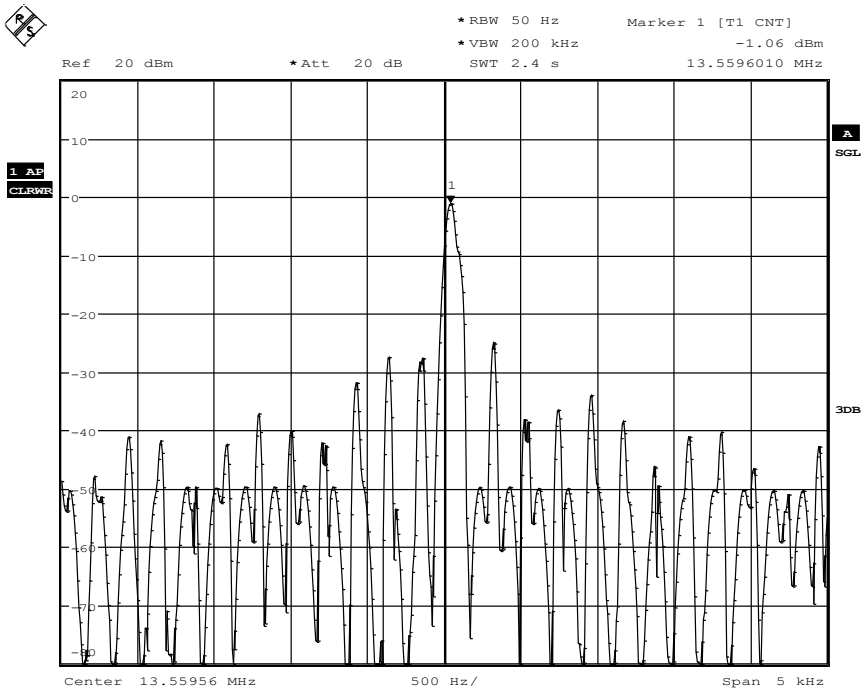
Date: 10.FEB.2015 13:38:47

On 2Minutes after TX-Start Up



Date: 10.FEB.2015 13:40:20

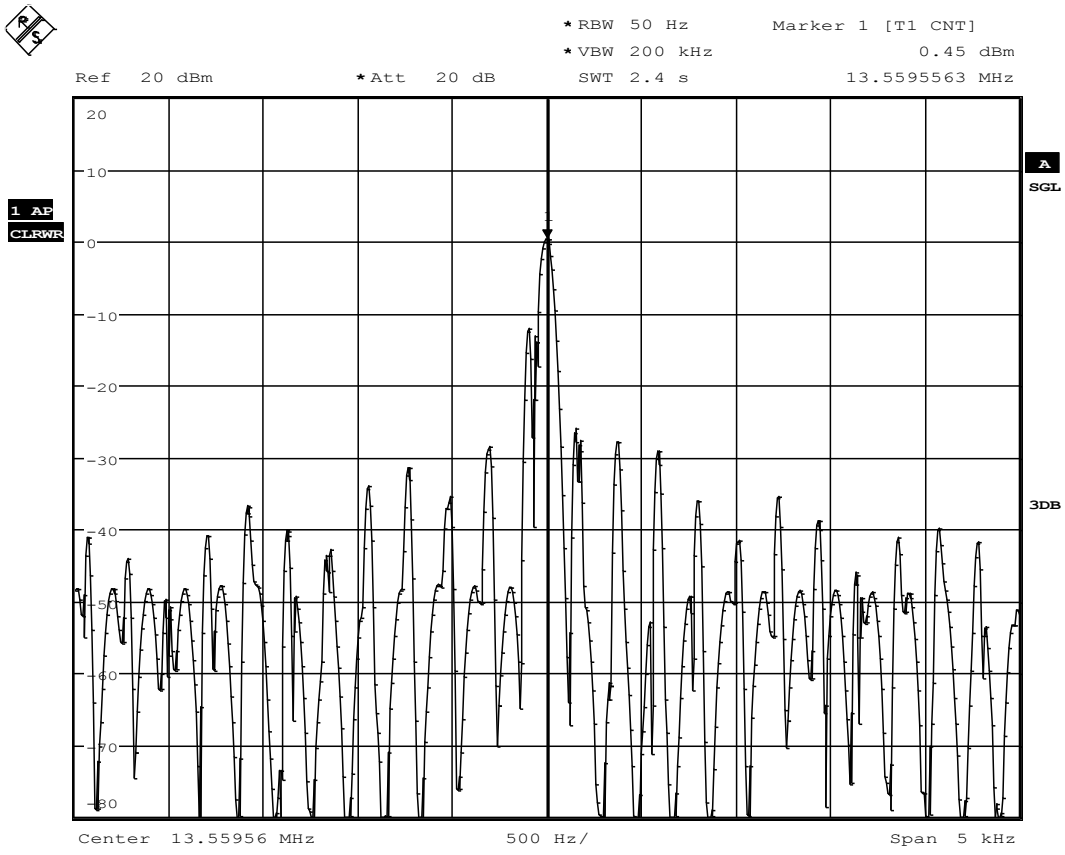
On 5Minutes after TX-Start Up



Date: 10.FEB.2015 13:44:58

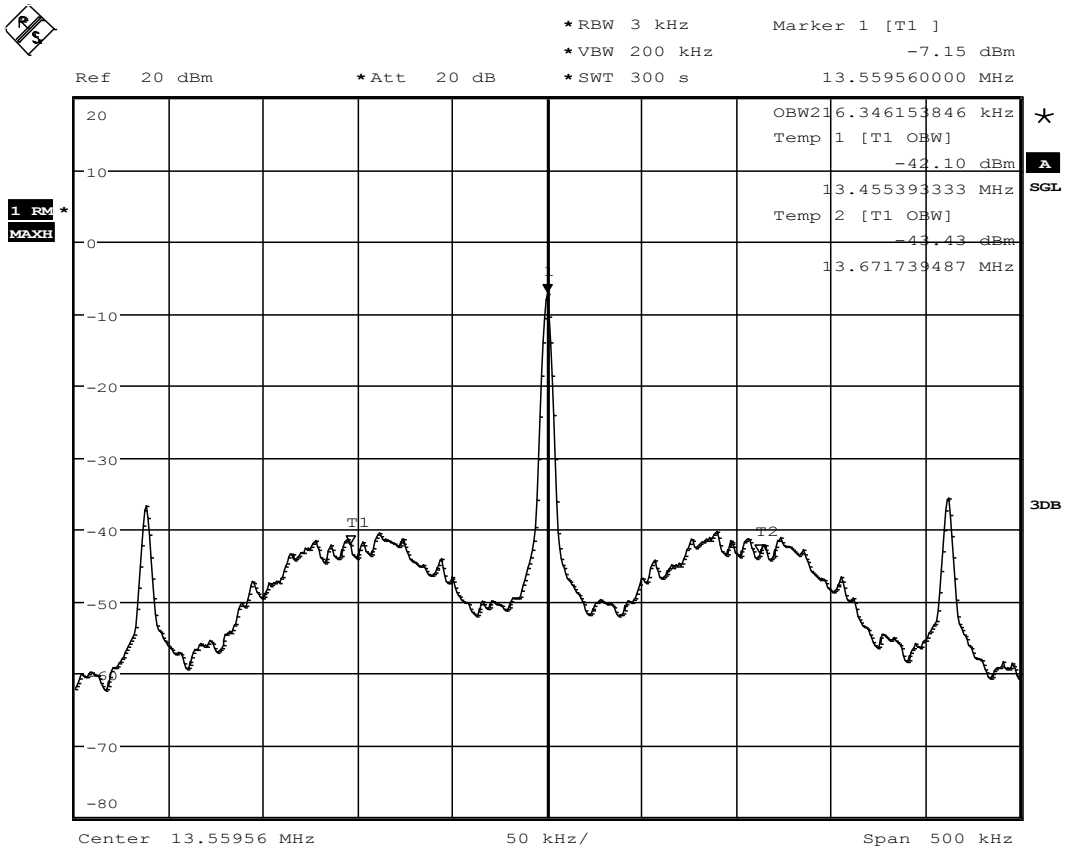
On 10Minutes after TX-Start Up

Frequency Error for T=21°C and VMIN = 6.0



Date: 23.FEB.2015 14:56:21

5. Occupied Bandwidth



Date: 30.JAN.2015 14:48:53