Annex 1: Measurement diagrams to
T E S T R E P O R T
No.: 6-0776-15-1-2a-C1

According to:
FCC Regulations
Part 15.225

for
Océ-Technologies B.V

PBA,RFID_READER
Océ 01085

FCC-ID: 2AGNMOCE1085

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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1. Radiated Measurements

1.1. Radiated Field Strength Emissions below 30 MHz

1.1.1 Radiated Field Strength with Transmitter Spectrum Mask:

Diagram No. 2.03

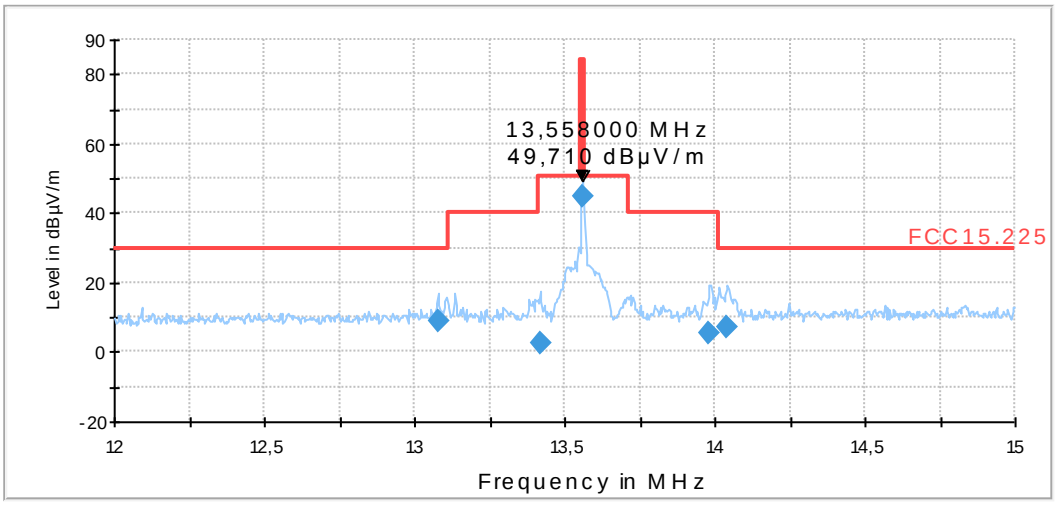
Common Information

Test description:	Fundamental Field Strength with TX Spectrum Mask
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
Test specification.:	FCC 15.225
Operator:	APh
Operating conditions:	TX Maximum Full Power Mode (200 mW)
Power during tests:	5 VDC
Comment 1:	EUT Elevation 90 (Worst Case)

EUT Information

Manufacturer:	OCe Technologies B.V.
EuT:	PBA, RFID_READER
EuT Model Number:	Oce 01085
HW Version:	1070053896
SW Version:	1070066805
Serial Number:	3515380013
Connected Interfaces:	RI-I03-112A RFID TAG
Power Supply:	5 V DC
Comments:	

02_FCC15.225_magn_hor_ver_Spectrum_Mask__13_56MHz_ANSI63_10_201



Final Result 1

Frequency (MHz)	RMS (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
13.078000	9.2	1000.0	10.000	100.0	V	302.0	-1.8	20.30	29.50	
13.418000	2.5	1000.0	10.000	100.0	V	302.0	-1.6	48.00	50.50	
13.558000	44.9	1000.0	10.000	100.0	V	302.0	-1.5	39.10	84.00	
13.982000	5.2	1000.0	10.000	100.0	V	134.0	-1.2	35.30	40.50	
14.042000	7.4	1000.0	10.000	100.0	V	126.0	-1.1	22.20	29.50	

1.1.2 Radiated Spurious Emissions 9kHz -30 MHz:

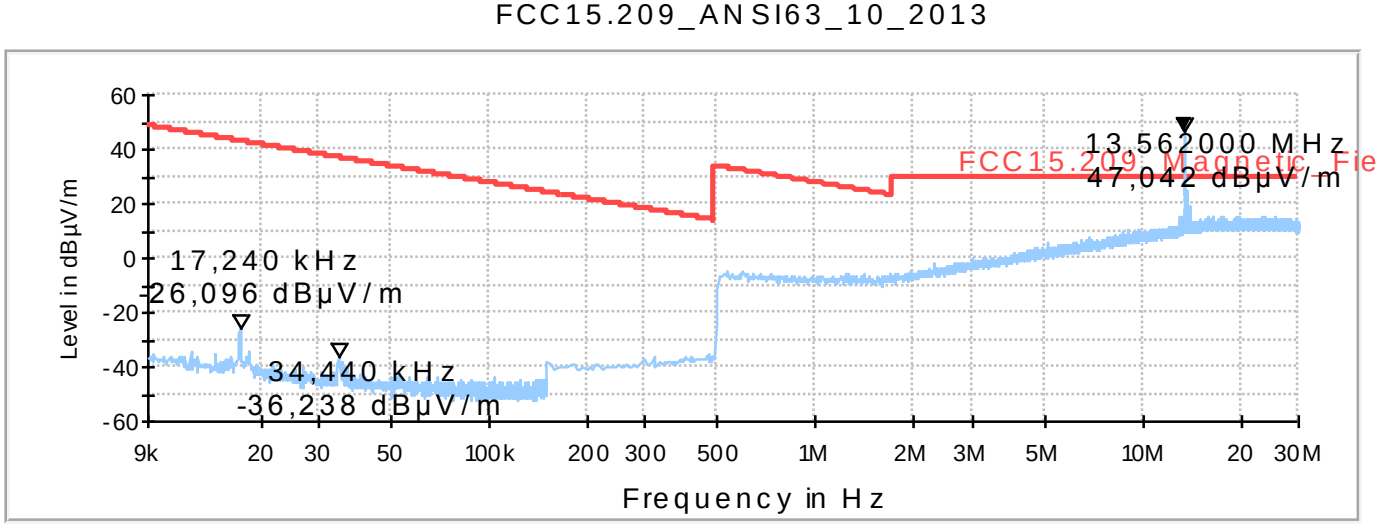
Diagram No. 2.05

Common Information

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
Test specification.:	FCC 15.209; RSS-Gen: Issue 4
Operator:	APh
Operating conditions:	TX Maximum Full Power Mode (200 mW)
Power during tests:	5 VDC
Comment 1:	

EUT Information

Manufacturer:	OCe Technologies B.V.
EuT:	PBA, RFID_READER
EuT Model Number:	Oce 01085
HW Version:	1070053896
SW Version:	1070066805
Serial Number:	3515380013
Connected Interfaces:	RI-I03-112A RFID TAG
Power Supply:	5 V DC
Comments:	



1.2 Radiated Spurious Emissions above 30 MHz
1.2.1 Radiated Spurious Emissions 30 MHz – 1 GHz

Diagram No 3.01

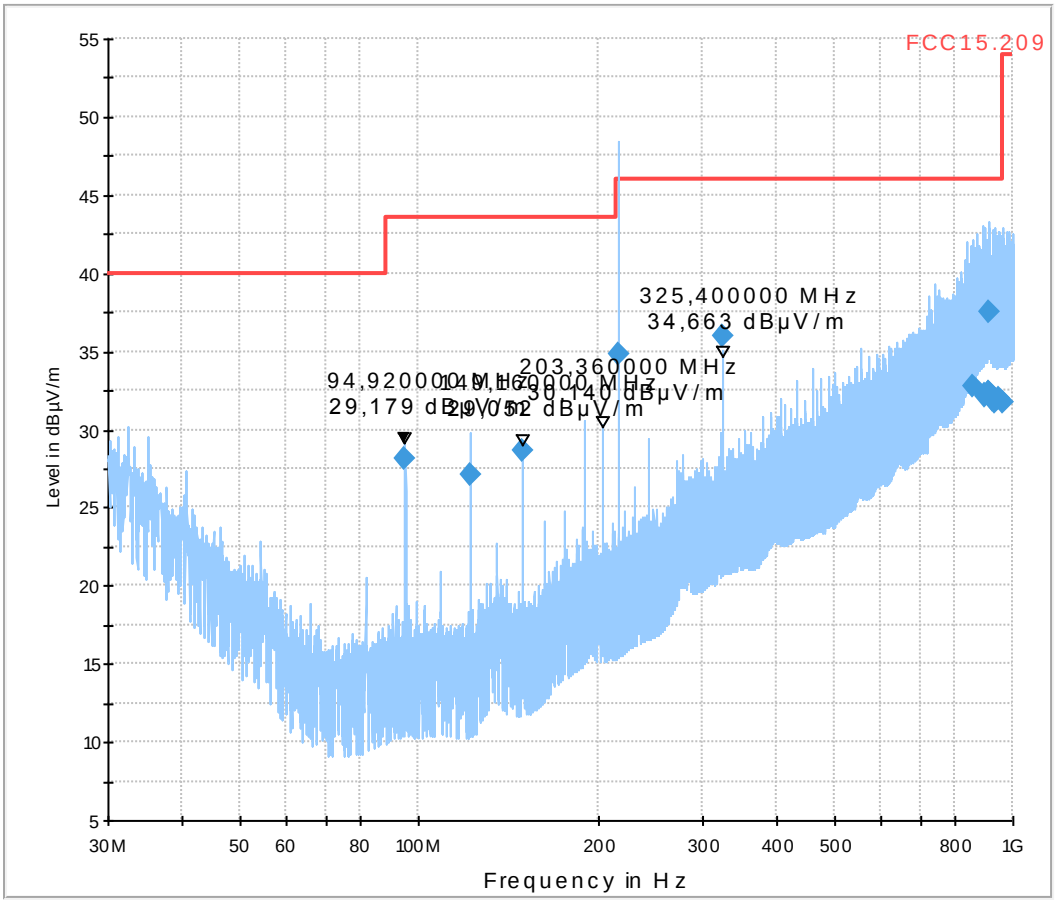
Common Information

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 3
Operator:	APh
Operating conditions:	TX Maximum Full Power Mode (200 mW)
Power during tests:	5 VDC
Comment 1:	

EUT Information

Manufacturer:	OCe Technologies B.V.
EuT:	PBA, RFID_READER
EuT Model Number:	Oce 01085
HW Version:	1070053896
SW Version:	1070066805
Serial Number:	3515380013
Connected Interfaces:	RI-I03-112A RFID TAG
Power Supply:	5 V DC
Comments:	

01_FCC15.209_hor+vert_kipp



Final Result 1

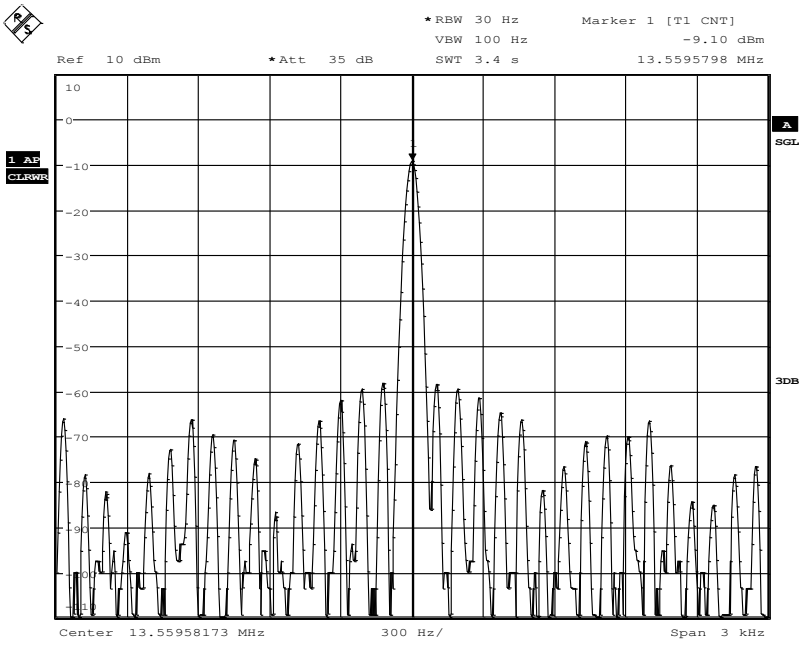
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
94.920000	28.2	1000.0	120.000	105.0	V	180.0	90.0	8.8	15.30
122.040000	27.1	1000.0	120.000	105.0	V	2.0	0.0	8.1	16.40
149.160000	28.6	1000.0	120.000	133.0	H	25.0	90.0	8.8	14.90
216.950000	34.8	1000.0	120.000	142.0	H	92.0	0.0	12.2	11.20
325.420000	36.0	1000.0	120.000	105.0	H	270.0	90.0	16.2	10.00
857.330000	32.7	1000.0	120.000	225.0	V	315.0	90.0	26.2	13.30
894.020000	32.1	1000.0	120.000	360.0	V	287.0	90.0	27.0	13.90
896.170000	32.2	1000.0	120.000	335.0	V	276.0	90.0	27.1	13.80
908.510000	37.5	1000.0	120.000	105.0	V	318.0	0.0	27.4	8.50
912.700000	32.4	1000.0	120.000	368.0	H	173.0	90.0	27.4	13.60
913.950000	32.4	1000.0	120.000	105.0	V	138.0	90.0	27.3	13.60
926.110000	31.9	1000.0	120.000	226.0	H	280.0	0.0	27.0	14.10
932.850000	31.7	1000.0	120.000	177.0	V	0.0	90.0	27.0	14.30
946.590000	32.0	1000.0	120.000	119.0	H	72.0	90.0	27.4	14.00
959.790000	31.8	1000.0	120.000	199.0	V	246.0	0.0	27.5	14.20

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

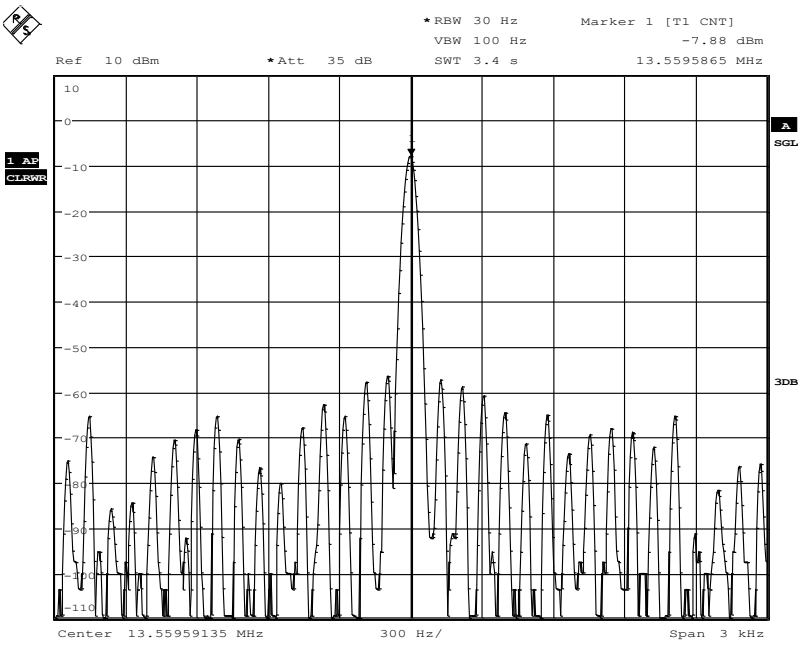
Frequency (MHz)	Limit (dBµV/m
94.920000	43.50
122.040000	43.50
149.160000	43.50
216.950000	46.00
325.420000	46.00
857.330000	46.00
894.020000	46.00
896.170000	46.00
908.510000	46.00
912.700000	46.00
913.950000	46.00
926.110000	46.00
932.850000	46.00
946.590000	46.00
959.790000	46.00

2. Frequency Error

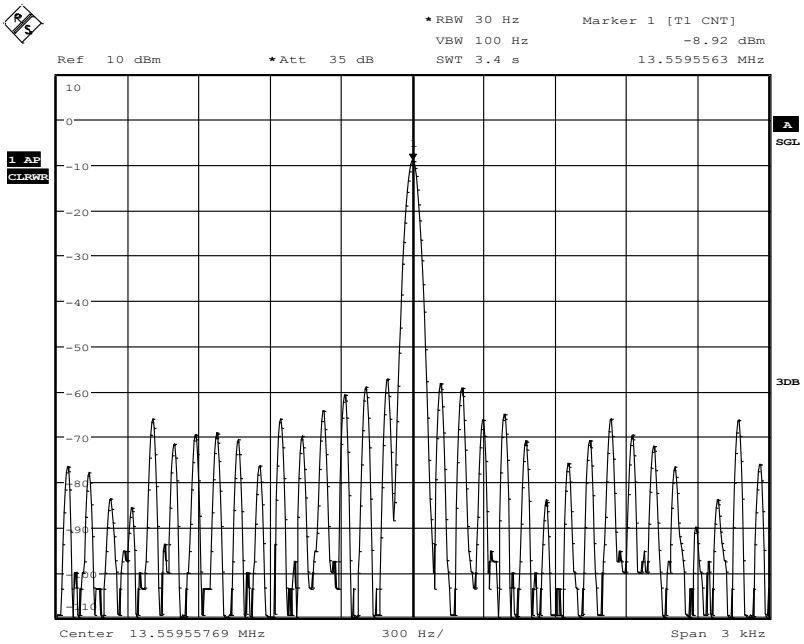
Frequency Error for Tnom=21°C | Vmin= 4.25 V DC (Reference) | TX Full Power Mode (200 mW)



Frequency Error for Tnom=21°C | Vmax= 5.75 V DC (Reference) | TX Full Power Mode (200 mW)

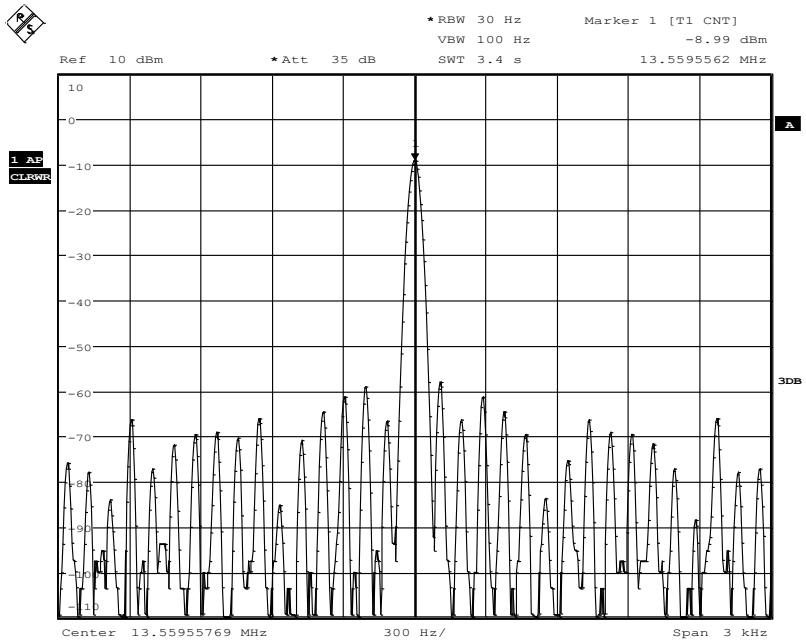


Frequency Error for T=+50°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)



Date: 19.OCT.2015 13:46:41

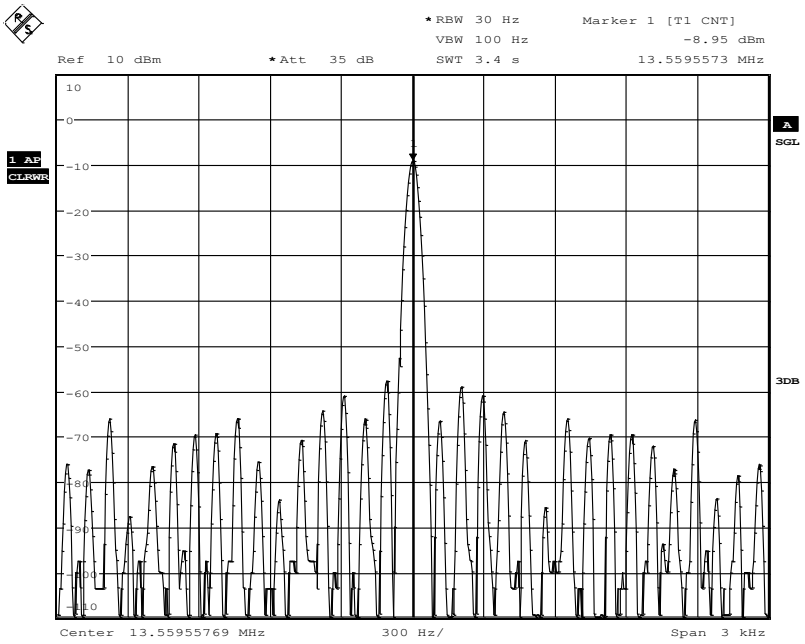
On TX-Start Up



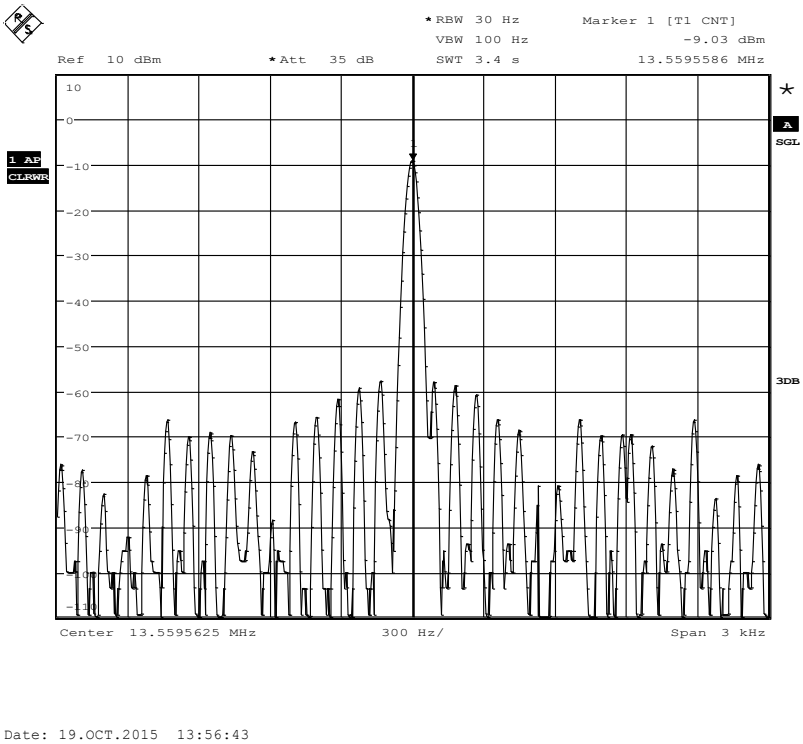
Date: 19.OCT.2015 13:48:44

On 2Minutes after TX-Start Up

Frequency Error for T=+50°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

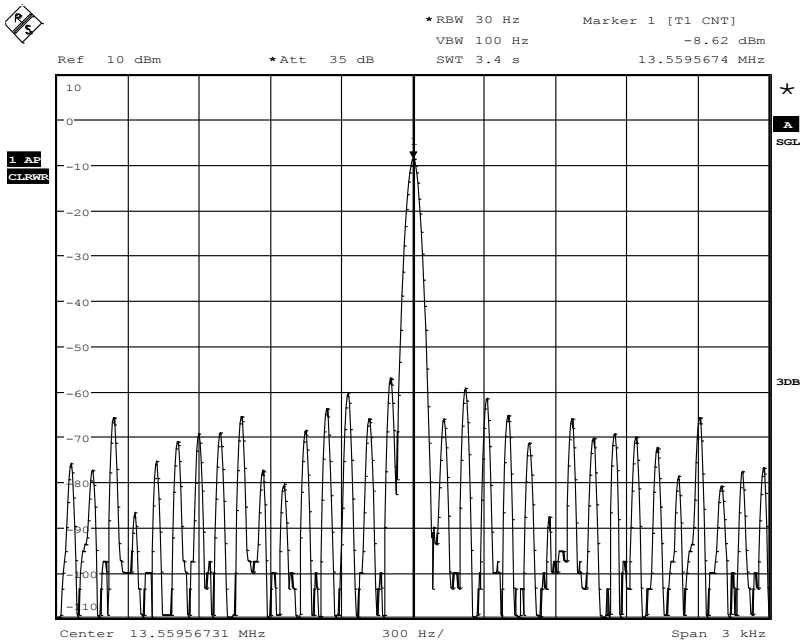


On 5Minutes after TX-Start Up



On 10Minutes after TX-Start Up

Frequency Error for T=+40°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)



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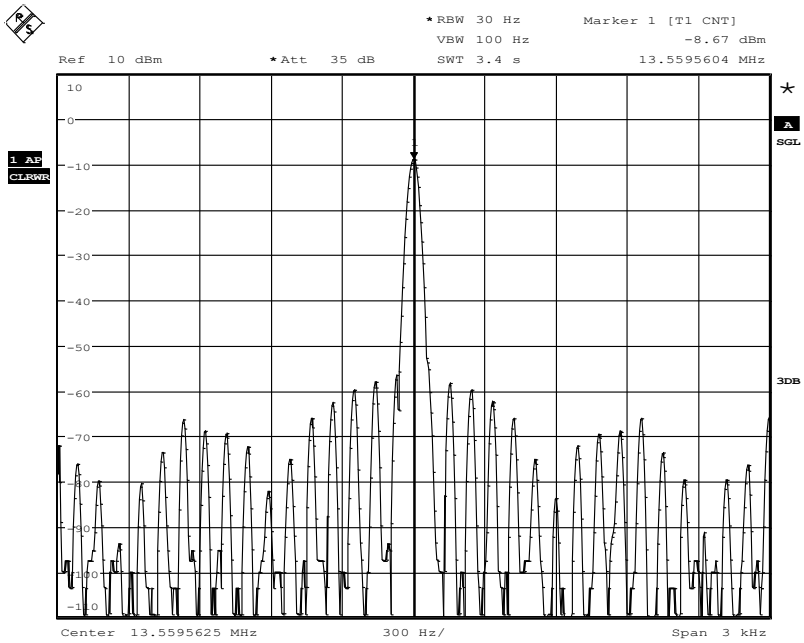
On TX-Start Up



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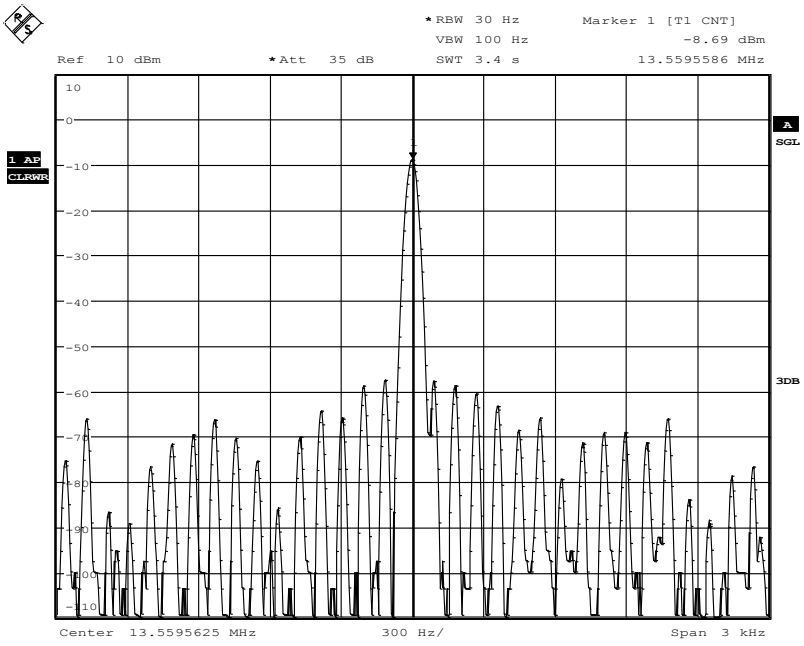
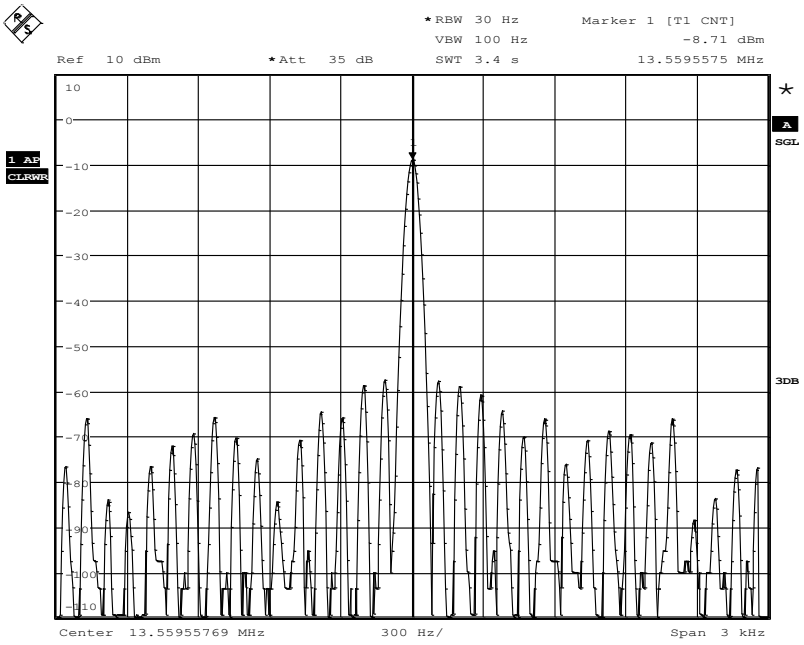
On 2Minutes after TX-Start Up

Frequency Error for T= +40°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

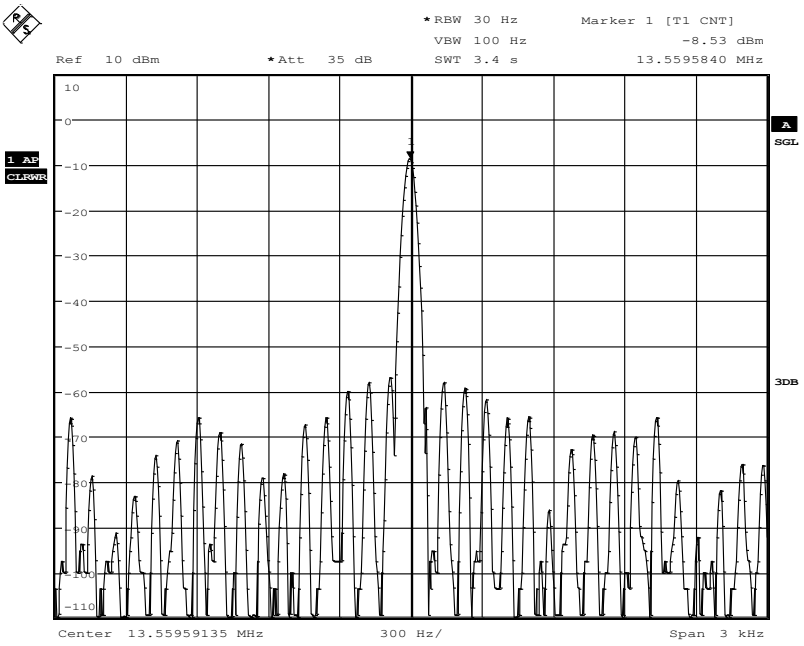


On 5Minutes after TX-Start Up

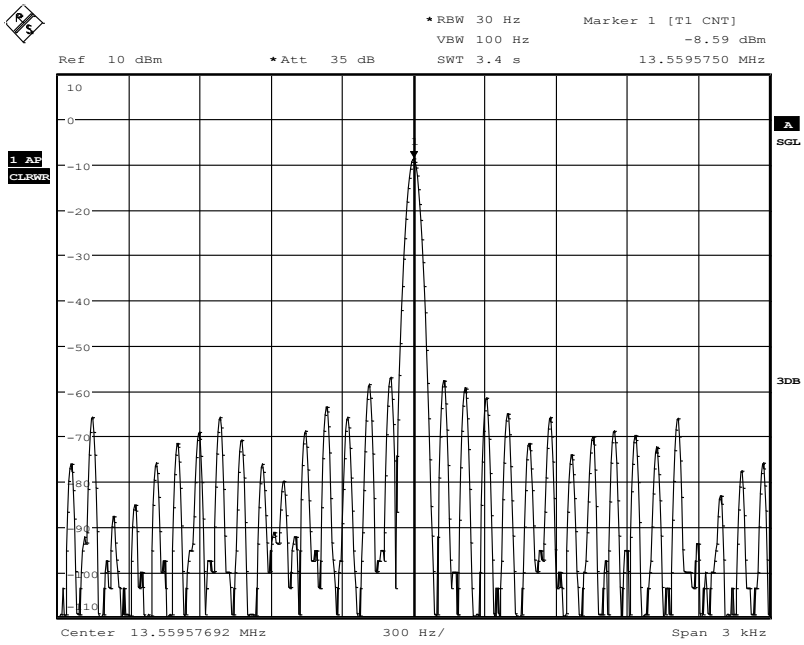


On 10Minutes after TX-Start Up

Frequency Error for T=+30°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

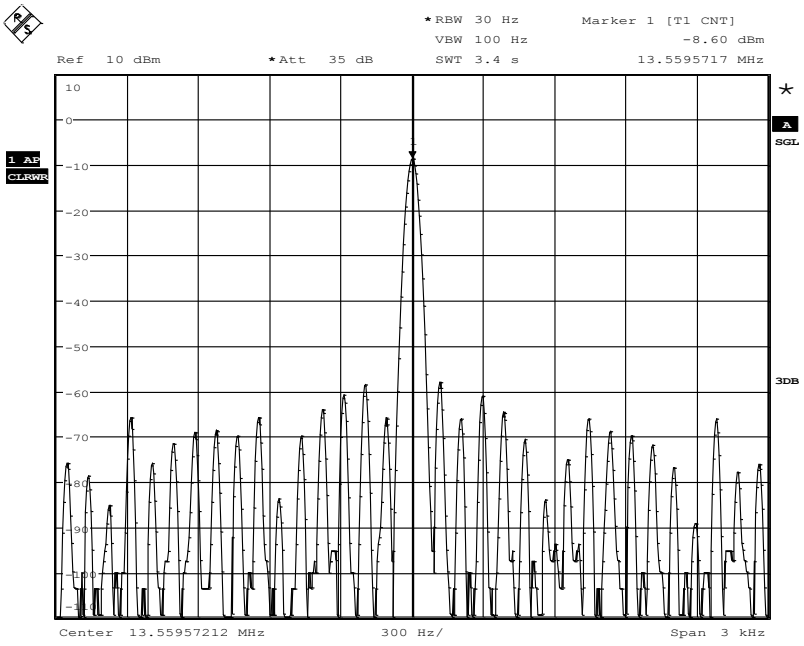


On TX-Start Up

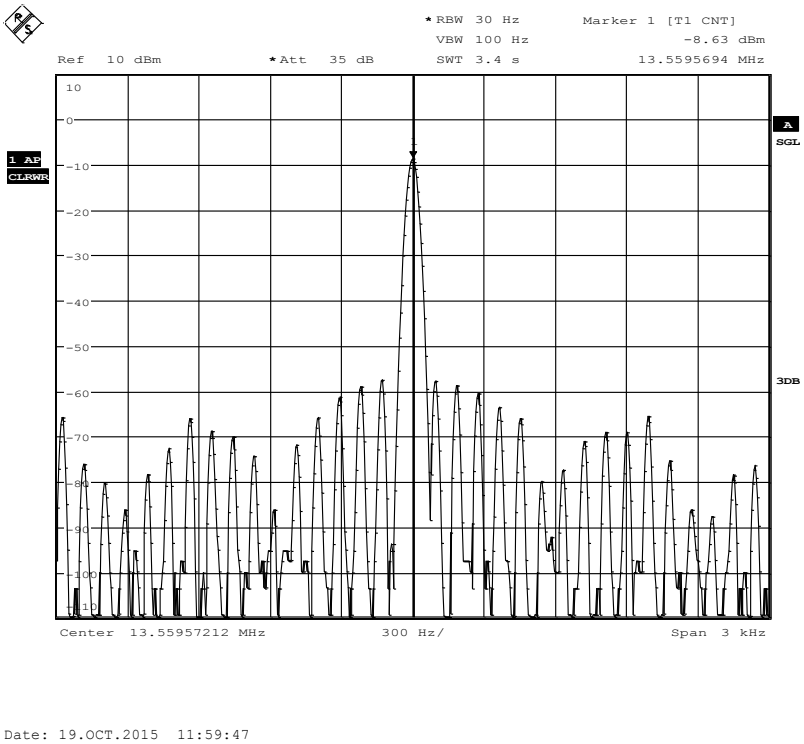


On 2Minutes after TX-Start Up

Frequency Error for T=+30°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

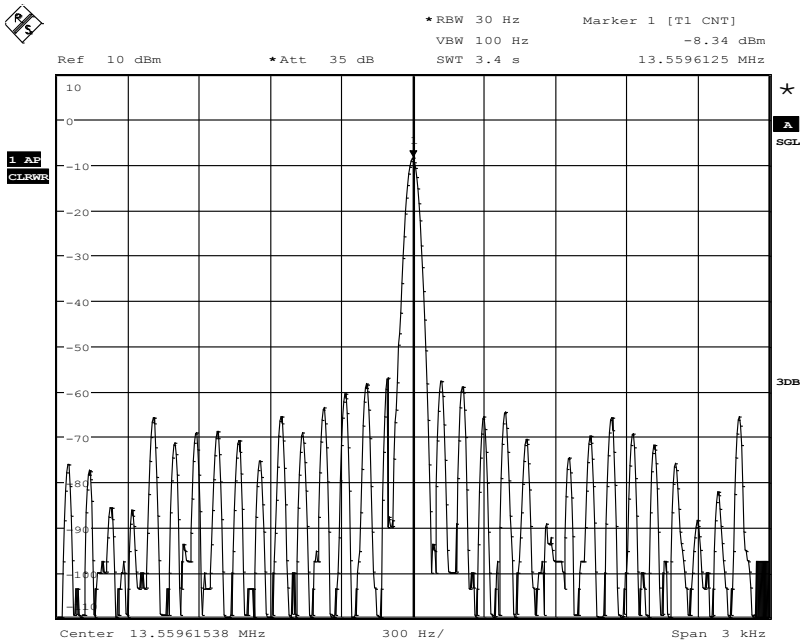


On 5Minutes after TX-Start Up

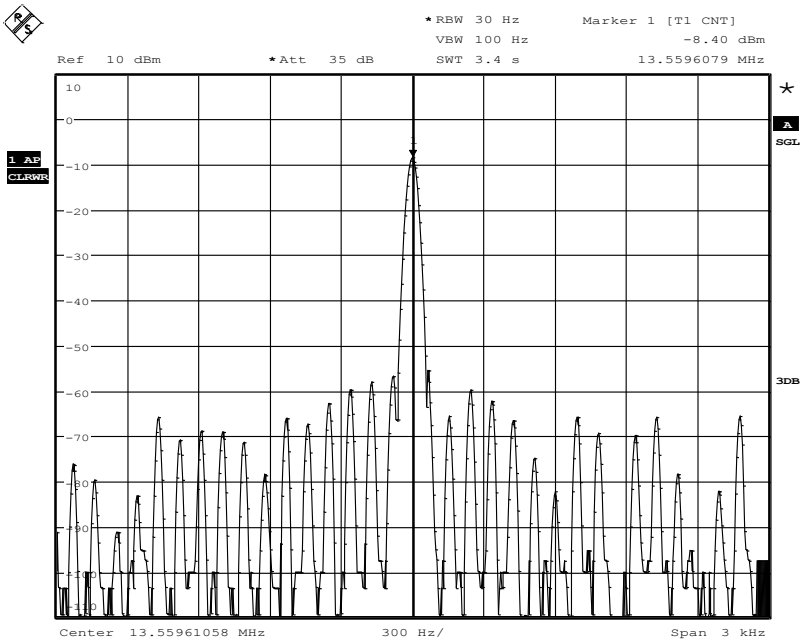


On 10Minutes after TX-Start Up

Frequency Error for T=+10°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

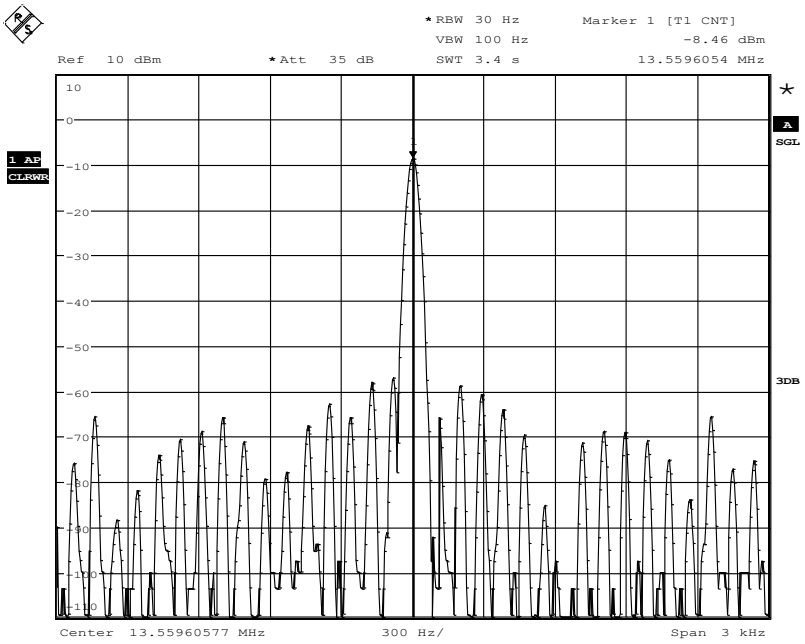


On TX-Start Up



On 2Minutes after TX-Start Up

Frequency Error for T= +10°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)



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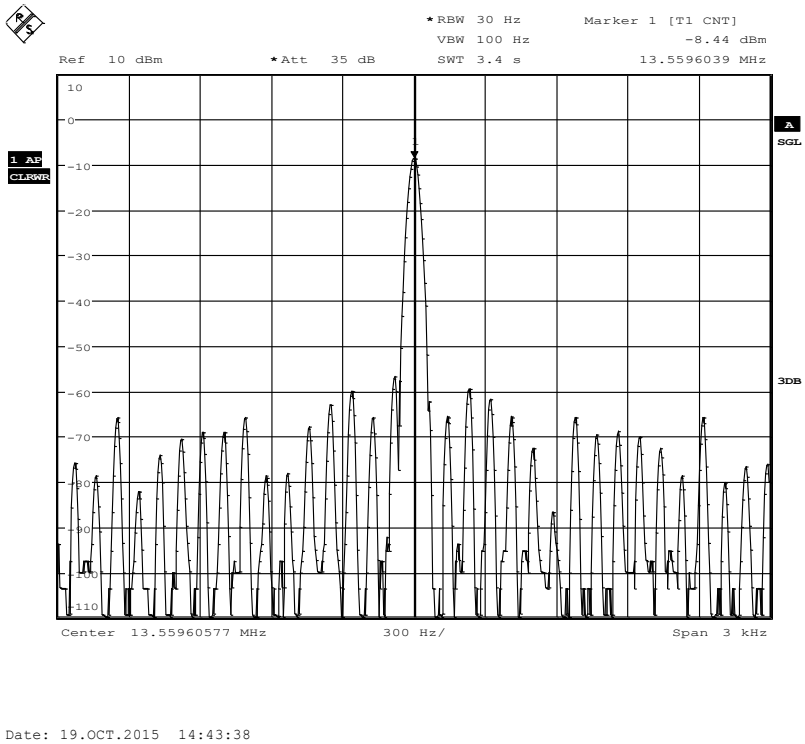
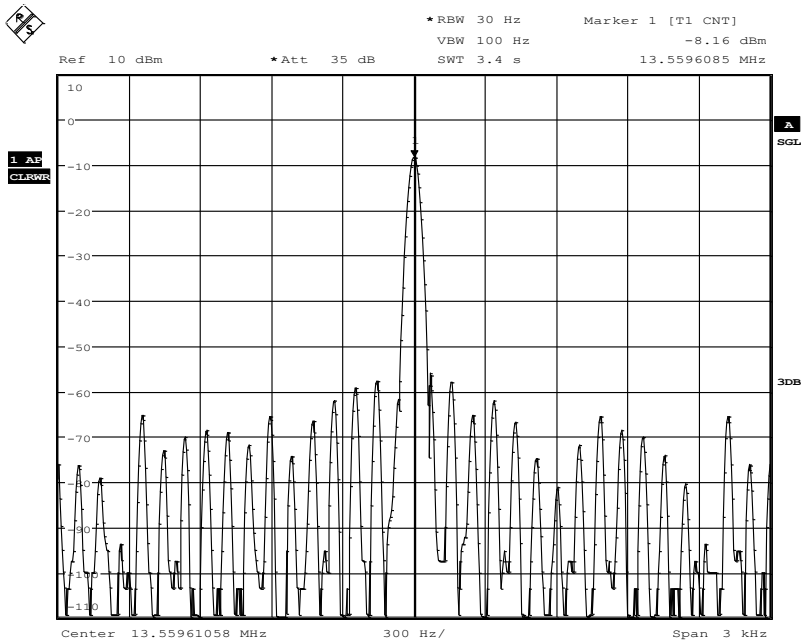
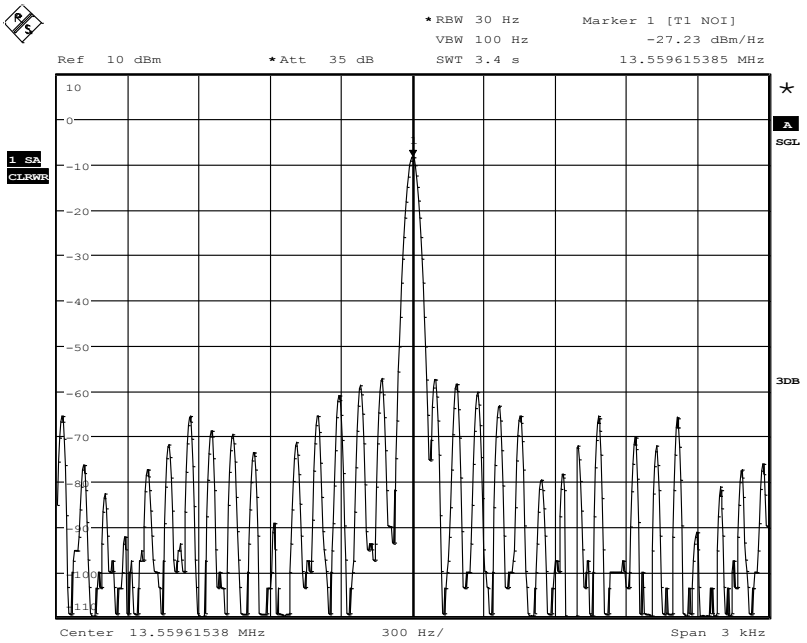


On 10Minutes after TX-Start Up

Frequency Error for T=0°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)



On TX-Start Up



On 2Minutes after TX-Start Up

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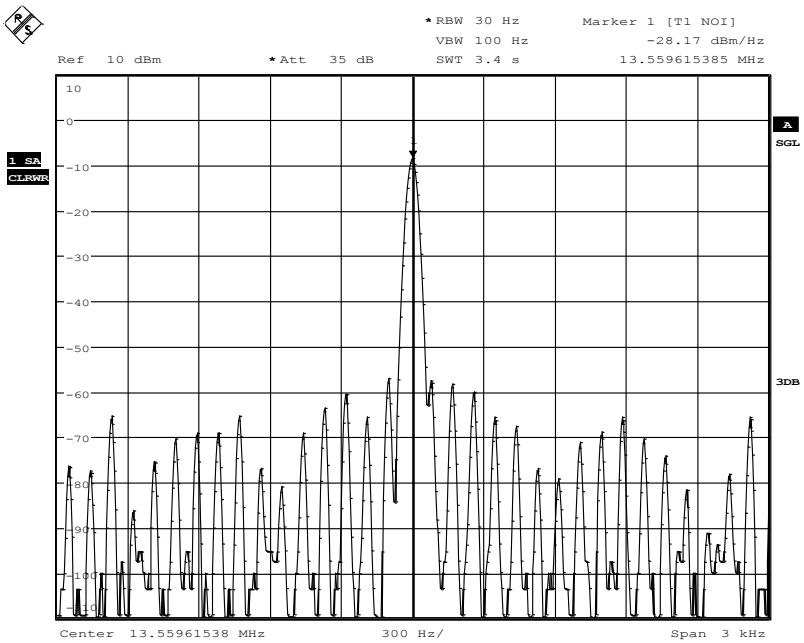
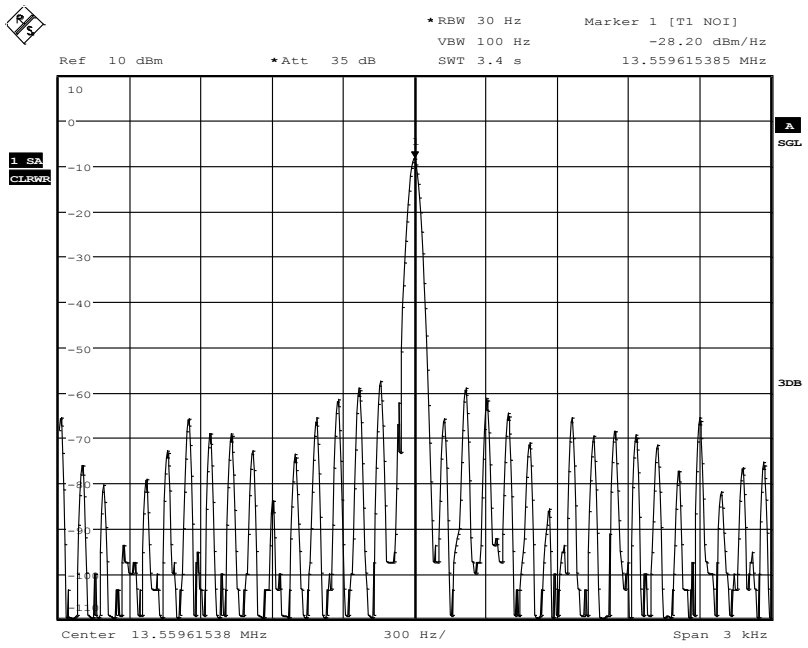
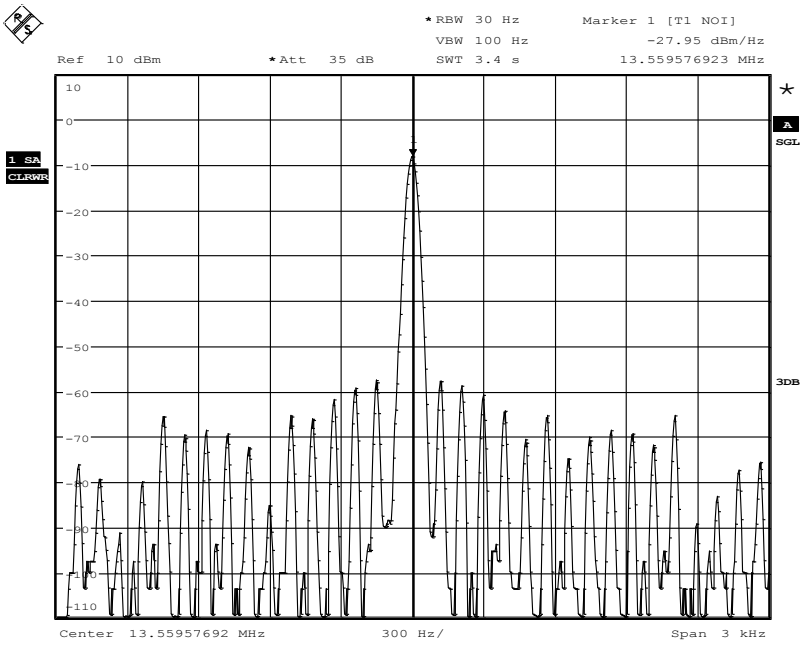


On 5Minutes after TX-Start Up

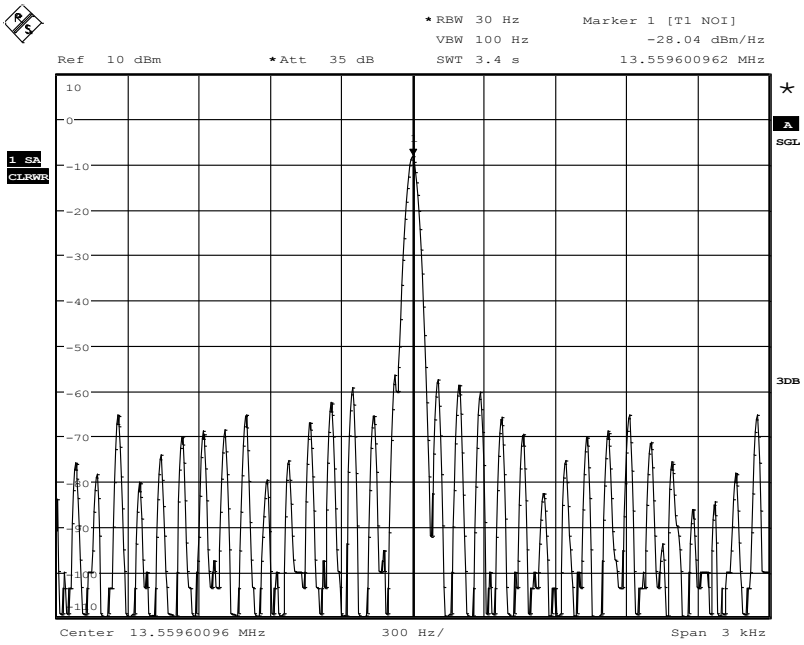


On 10Minutes after TX-Start Up

Frequency Error for T=-10°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

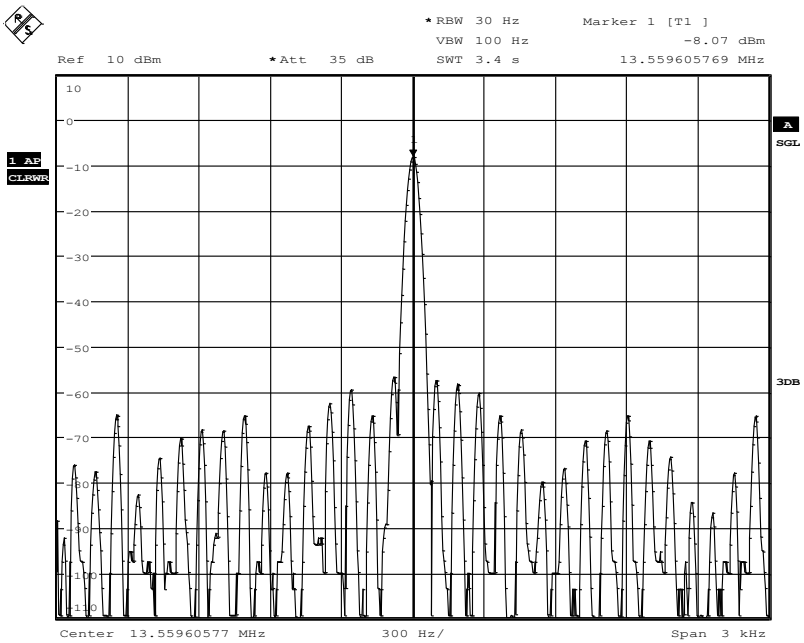


On TX-Start Up

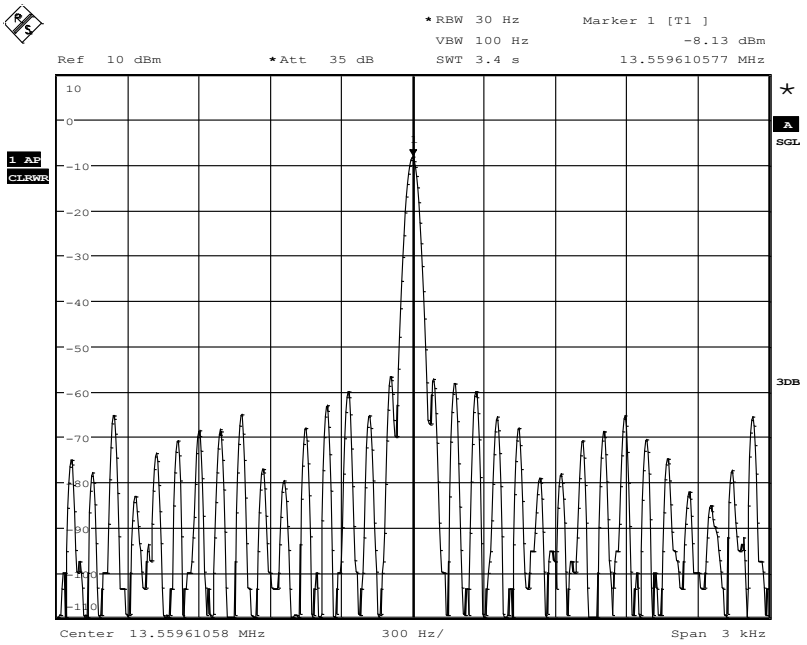


On 2Minutes after TX-Start Up

Frequency Error for T=-10°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

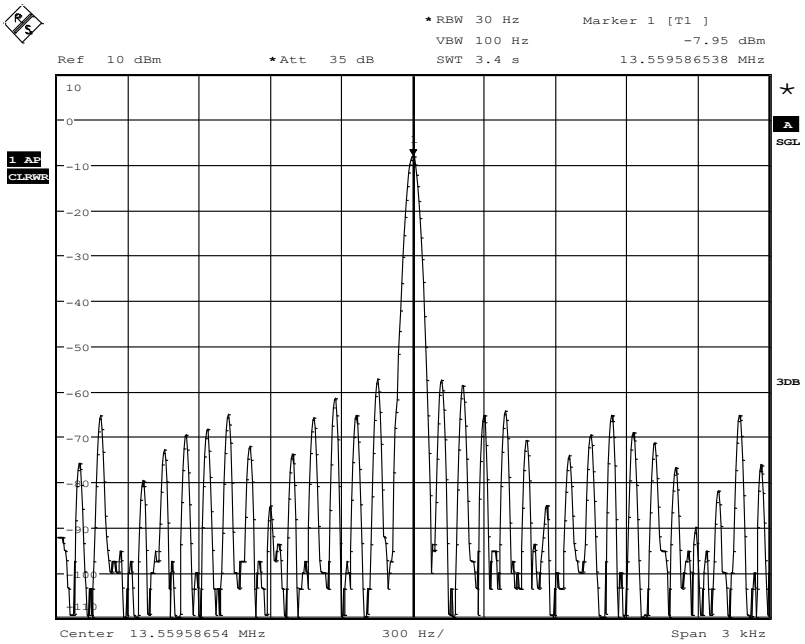


On 5Minutes after TX-Start Up

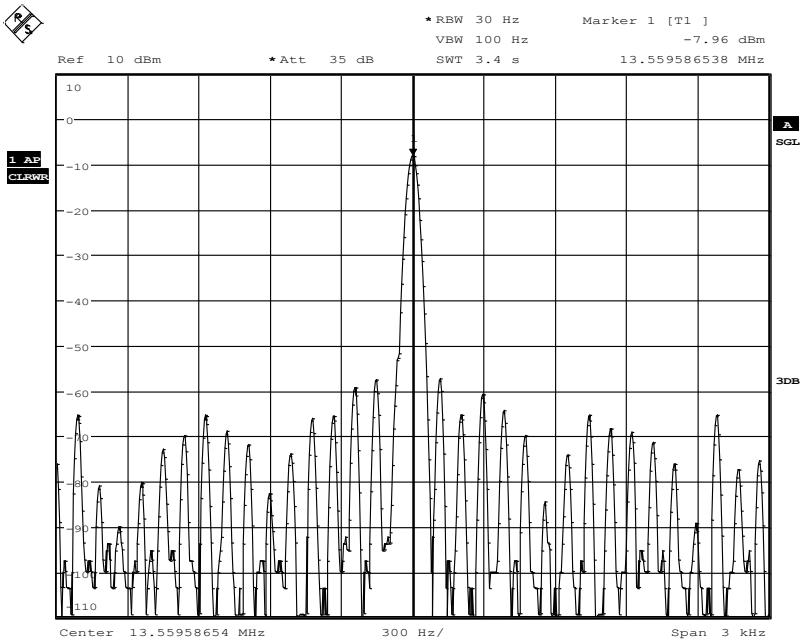


On 10Minutes after TX-Start Up

Frequency Error for T=-20°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

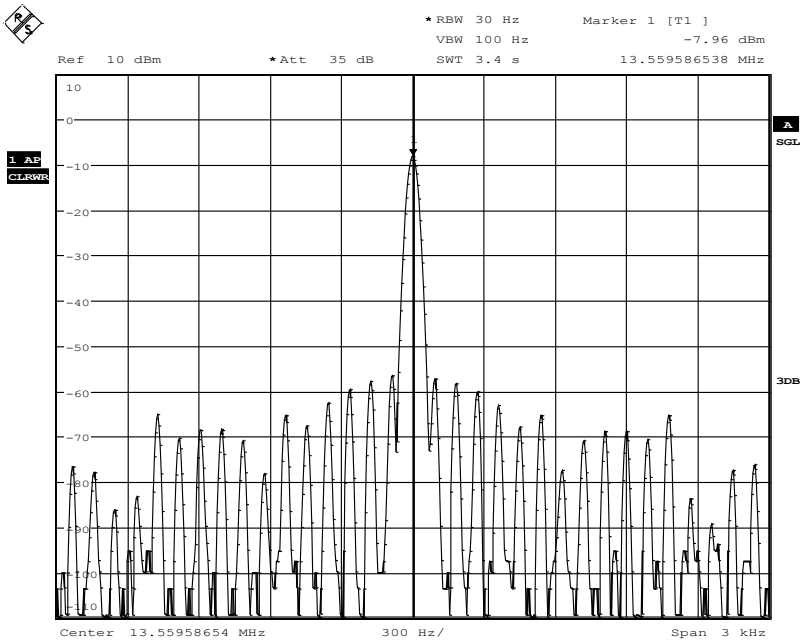


On TX-Start Up

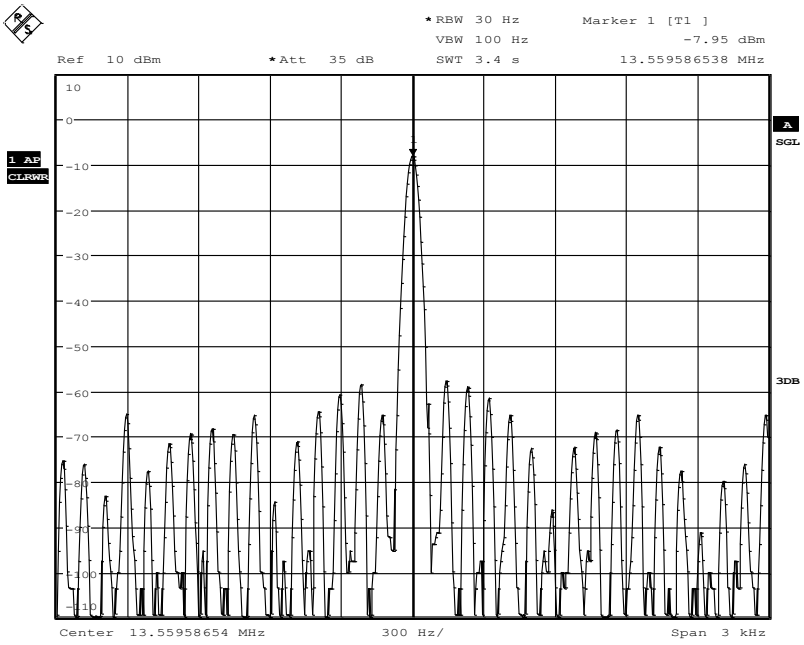


On 2Minutes after TX-Start Up

Frequency Error for T=-20°C | Vnom=5.0 V DC | TX Full Power Mode (200 mW)

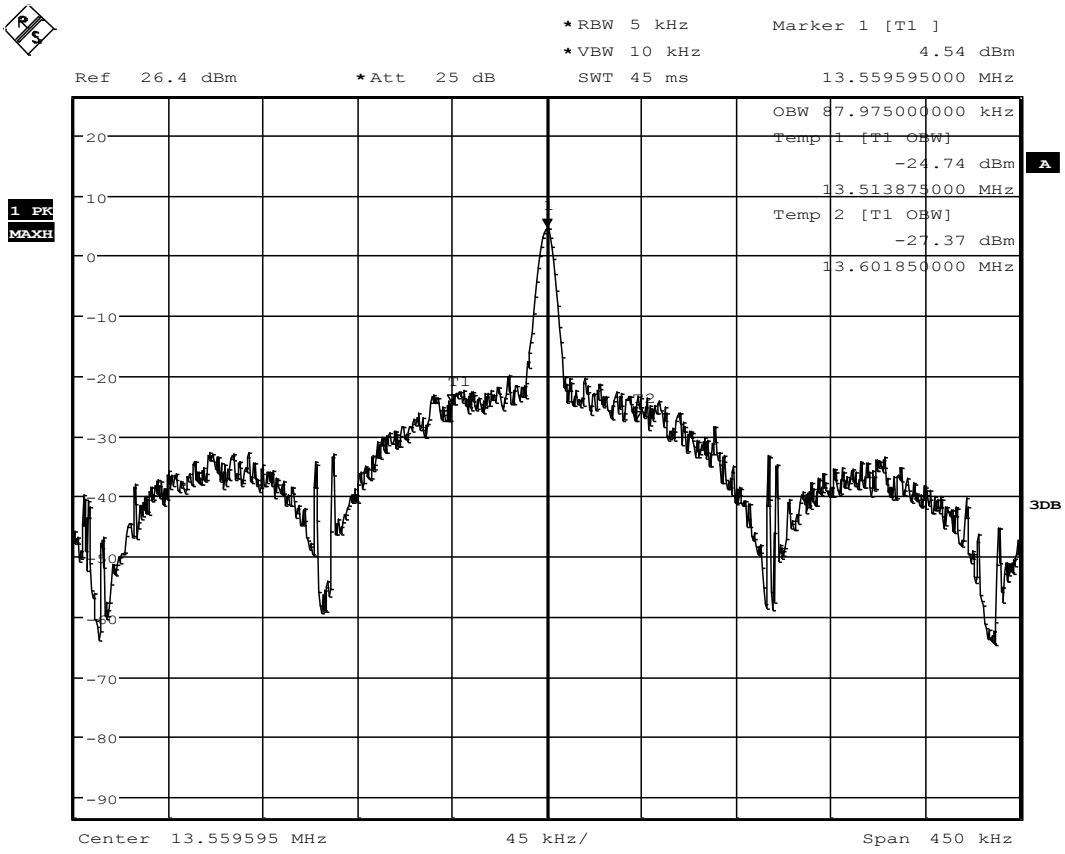


On 5Minutes after TX-Start Up



On 10Minutes after TX-Start Up

3. 99 % Occupied Bandwidth



Date: 20.OCT.2015 15:06:45

99% Occupied Bandwidth
TX Full Power Mode (200 mW) PBA RFID READER (Océ 01085) with TAG (RI-I03-112A)