6.5.4 Test Results

6.5.4.1 700MHz Band

Voltage	Intput carrier frequency(MHz)	Output carrier frequency(MHz)	Limit(ppm)	Frequency stability(ppm)	Result
1). Downlink Frequency range: 758MHz~768MHz					
AC 102V(120*85%)	763.0	763.0	±2.5	0	pass
AC 120V	763.0	763.0	±2.5	0	pass
AC 138V(120*115%)	763.0	763.0	±2.5	0	pass
Frequency range: 769MHz~775MHz					
AC 102V(120*85%)	772.0125	772.012499	±1.5	-0.0013	pass
AC 120V	772.0125	772.012499	±1.5	-0.0013	pass
AC 138V(120*115%)	772.0125	772.012499	±1.5	-0.0013	pass
2). Uplink Frequency range: 788MHz~798MHz					
AC 102V(120*85%)	793.0	792.999999	±2.5	-0.0013	pass
AC 120V	793.0	792.999999	±2.5	-0.0013	pass
AC 138V(120*115%)	793.0	792.999999	±2.5	-0.0013	pass
Frequency range: 799MHz~805MHz					
AC 102V(120*85%)	802.0125	802.012501	±1.5	-0.0012	pass
AC 120V	802.0125	802.012501	±1.5	-0.0012	pass
AC 138V(120*115%)	802.0125	802.012501	±1.5	-0.0012	pass

6.5.4.2 800MHz Band

Voltage	**Intput carrier frequency(MHz)**	**Output carrier frequency(MHz)**	**Limit(ppm)**	**Frequency stability(ppm)**	**Result**
1). Downlink Frequency range: 851MHz~862MHz					
AC 102V(120*85%)	856.5125	856.512502	±1.0	+0.0023	pass
AC 120V	856.5125	856.512502	±1.0	+0.0023	pass
AC 138V(120*115%)	856.5125	856.512502	±1.0	+0.0023	pass
2). Uplink Frequency range: 806MHz~817MHz					
AC 102V(120*85%)	811.5125	811.512499	±1.0	-0.0012	pass
AC 120V	811.5125	811.512499	±1.0	-0.0012	pass
AC 138V(120*115%)	811.5125	811.512499	±1.0	-0.0012	pass

6.5.5 Test screenshot

6.5.5.1 700MHz Band

Mid Frequency: 763.0MHz

Mid Frequency: 772.0125MHz

Mid Frequency: 793.0MHz

Mid Frequency: 802.0125MHz

6.5.5.2 800MHz Band

Downlink Frequency: 856.5125MHz

Uplink Frequency: 811.5125MHz

6.6 Noise figure

Test Date (yy-mm-dd): 2017-05-16 to 2017-05-19

Test environment: Normal

Ambient Temp 24.1℃~26.1℃, Humid 46%~51%, Atmospheric Pressure 101kpa

Power supply: AC 120V 50/60Hz

Test Method: KDB 935210 D05 Indus Booster Basic Meas v01r01

Test Requirement: FCC part 90.219(e2)

6.6.1 Limit

The noise figure limit of a signal booster must are given in table 10.

Table 10 Noise figure limits

frequency range(MHz)	Max. Noise figure limit(dB)
758-768/788~798	9
769-775/799-805	9
851-862/806-817	9

6.6.2 Test configuration

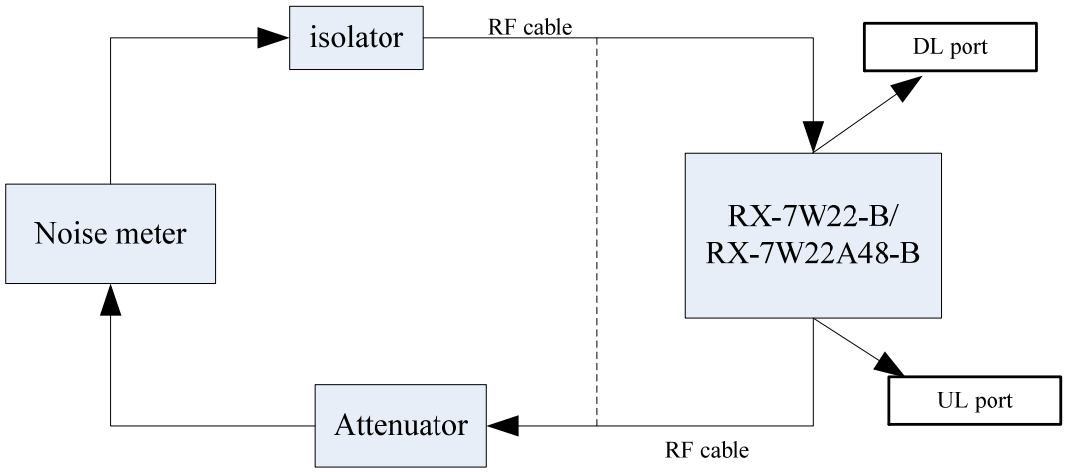


Figure 11: Noise figure arrangement for Downlink

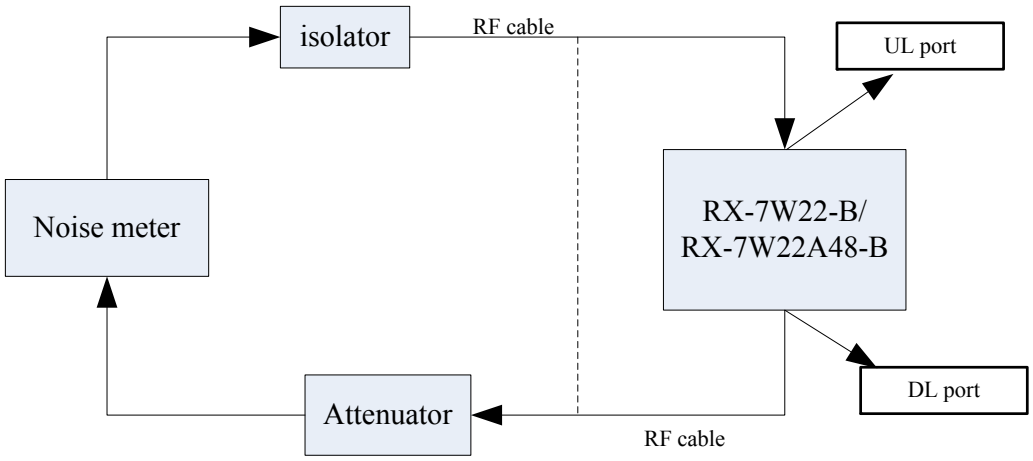


Figure 12: Noise figure arrangement for Uplink

6.6.3 Test procedures

(1) Connect the device as illustrated Figure 11 and Figure 12, when the output power is over the maximum value of the Noise meter, add the attenuator to avoid destroying;

(2) Set the signal generator frequency to the center frequency of the EUT operating band and maximum gain;

(3) Set the relevant parameters for 700MHz of device and connect the dotted line to calibrate;

(4) After calibrating , According to the solid line connecting and testing Noise figure and record data;

(5) Repeat RF channels to be tested for 800MHz of device and Repeat steps (2) to (4);

6.6.4 Test Results

6.6.4.1 700MHz Band

Frequency(MHz)	Max.Limit(dB)	Noise figure data (dB)	Margin(dB)	Result
Downlink: 758~775	9	4.316	-4.684	pass
Uplink: 788~805	9	4.357	-4.643	pass

6.6.4.2 800MHz Band

Frequency(MHz)	Max.Limit(dB)	Noise figure data (dB)	Margin(dB)	Result
Downlink: 851~869	9	4.462	-4.538	pass
Uplink: 806~824	9	4.046	-4.954	pass

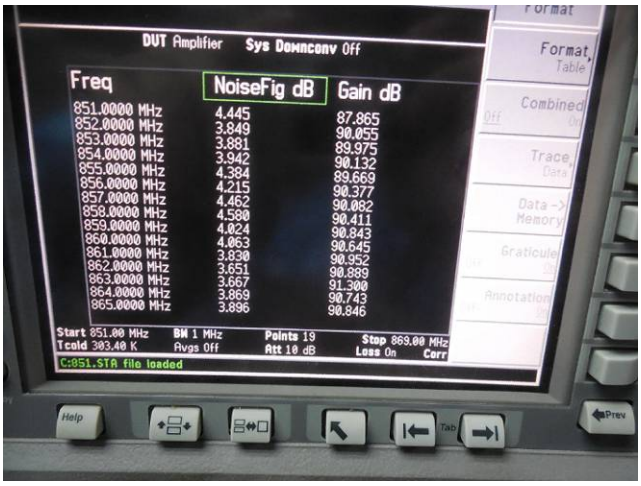
6.6.5 Test screenshot

6.6.5.1 700MHz Band


Downlink: 758MHz~776MHz


Uplink: 788MHz~806MHz

6.6.5.2 800MHz Band



Downlink: 851MHz~862MHz

Uplink: 806MHz~817MHz

6.7 Intermodulation product

Test Date (yy-mm-dd): 2017-05-16 to 2017-07-11

Test environment: Normal

Ambient Temp 24.1℃~26.1℃, Humid 46%~51%, Atmospheric Pressure 101kpa

Power supply: AC 120V 50/60Hz

Test Method: KDB 935210 D05 Indus Booster Basic Meas v01r01

Test Requirement: Part 90.219(e)(3)

6.7.1 Limit

Specification test limits of intermodulation products are given in table 11

Table 11 Intermodulation product limits

frequency range(MHz)	Max. intermodulation product limit(dBm)
758-768/788-798	-13.0
769-775/799-805	-13.0
806-817/851-862	-13.0

NOTE: RF channels to be tested for single-carrier: Low frequency, Mid frequency and High frequency;

6.7.2 Test configuration

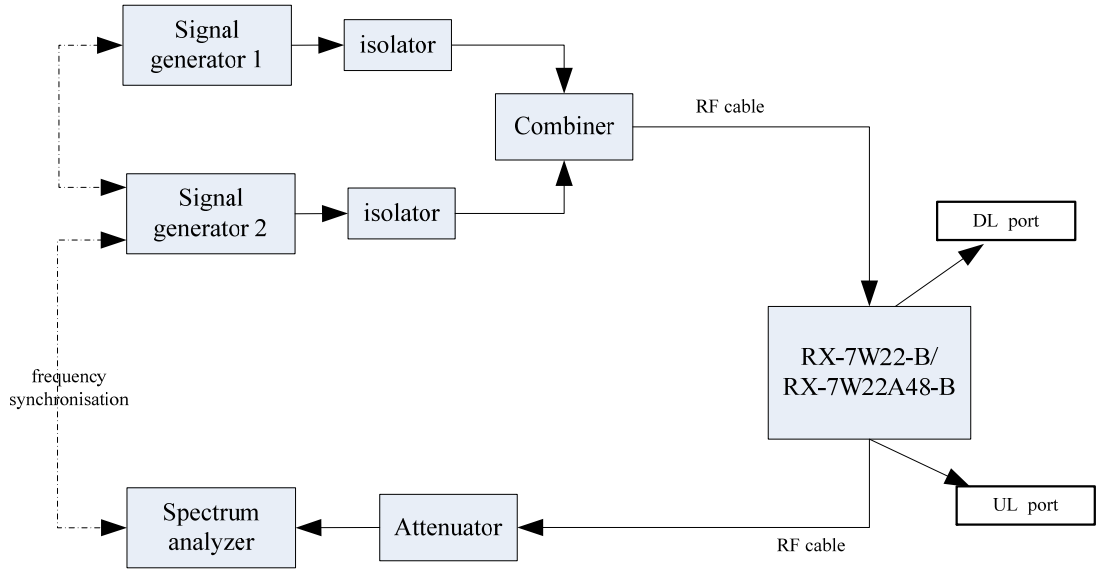


Figure 13: Conducted spurious emissions arrangement for Downlink

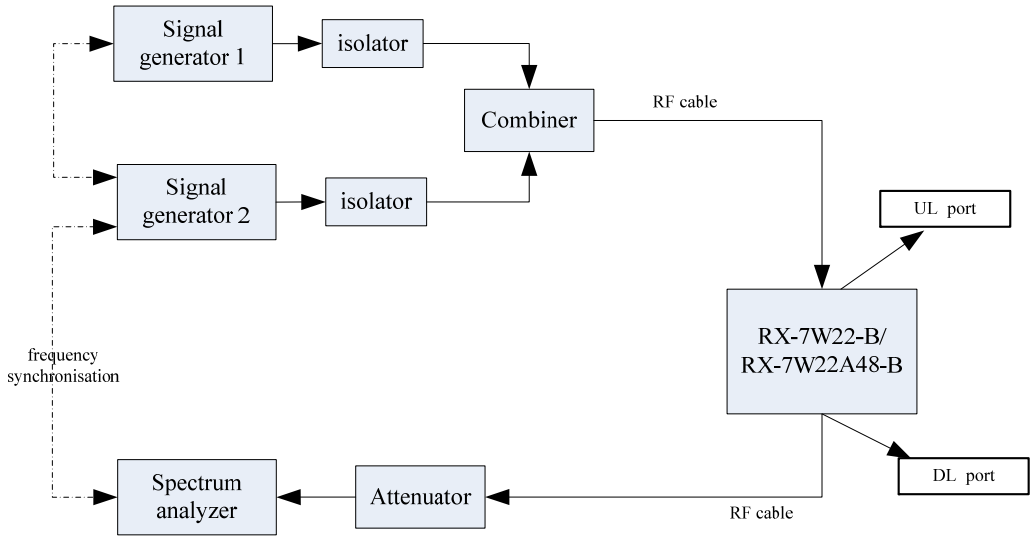


Figure 14: Conducted spurious emissions arrangement for Uplink

6.7.3 Test procedures

(1) Connect the device as illustrated Figure 13 and Figure 14, when the output power is over the maximum value of the Spectrum Analyzer, add the attenuator to avoid destroying;

(2) If the signal generator is not capable of producing two independent modulated carriers simultaneously, then two discrete signal generators can be connected, with an appropriate combining network to support the two-signal test;

(3) Set the signal generator frequency to the center frequency of the EUT operating band;

(4) Configure the two signal generator to produce CW on frequencies space consistent with 12.5kHz, 25kHz and 600kHz, with amplitude levels set to just below the ALC threshold and maximum gain;

(5) Connect a spectrum analyzer to the EUT output;

(6) Set the RBW = 1 kHz ;

(7) Set the VBW = 3 × RBW;

(8) Set the detector to power averaging (rms);

(9) Place a marker on highest intermodulation product amplitude;

(10) Capture the plot for inclusion in the test report;

(11) Repeat step (3) to (10) with the composite input power level set to 3 dB above the ALC threshold;

(12) Repeat steps (2) to (11) for all operational bands;

6.7.4 Test Results

6.7.4.1 700MHz Band

(1) Downlink transmit mode

Frequency range		Intermodulaiton product Limit (dBm)	Max. intermodulation product(dBm)	Margin(dB)	Result
1). Frequency range: 758MHz~768MHz					
1.1). With the ALC threshold level					
Low frequency: f1: 758.7MHz f2:759.3MHz		-13	-14.63	-1.63	pass
Mid frequency: f1: 762.7MHz f2: 763.3MHz		-13	-16.60	-3.60	pass
High frequency: f1: 766.7MHz f2:767.3MHz		-13	-15.14	-2.14	pass
1.2). With the input signal amplitude set 3 dB above the ALC threshold					
Low frequency: f1: 758.7MHz f2:759.3MHz		-13	-15.00	-2.00	pass
Mid frequency: f1: 763.7MHz f2: 763.3MHz		-13	-17.33	-4.33	pass
High frequency: f1: 766.7MHz f2:767.3MHz		-13	-14.76	-1.76	pass
2). Frequency range: 769MHz~775MHz					
2.1). With the ALC threshold level					
Channel Bandwidth: 12.5kHz	Low frequency: f1:769.00625MHz f2:769.01875MHz	-13	-17.52	-4.52	pass
	Mid frequency: f1:772.0MHz f2:772.0125MHz	-13	-17.36	-4.36	pass
	High frequency: f1:774.98125MHz f2:774.99375MHz	-13	-16.29	-3.29	pass
Channel Bandwidth: 25kHz	Low frequency: f1:769.0125MHz f2:769.0375MHz	-13	-16.63	-3.63	pass
	Mid frequency: f1:772.0MHz f2:772.025MHz	-13	-15.06	-2.06	pass
	High frequency: f1:774.9625MHz f2:774.9875MHz	-13	-14.95	-1.95	pass
2.2). With the input signal amplitude set 3 dB above the ALC threshold					
Channel Bandwidth: 12.5kHz	Low frequency: f1:769.00625MHz f2:769.01875MHz	-13	-18.18	-5.18	pass
	Mid frequency: f1:772.0MHz f2:772.0125MHz	-13	-18.04	-5.04	pass
	High frequency: f1:769.00625MHz f2:774.99375MHz	-13	-16.12	-3.12	pass

Channel Bandwidth: 25kHz	Low frequency: f1:769.0125MHz f2:769.0375MHz	-13	-14.18	-1.18	pass
	Mid frequency: f1:772.0MHz f2:772.025MHz	-13	-14.62	-1.62	pass
	High frequency: f1:774.9625MHz f2:774.9875MHz	-13	-14.71	-1.71	pass
Note: 1*--Margin= Maximum mark level- specification limit.					

(2) Uplink transmit mode

Frequency range		Intermodulaiton product Limit (dBm)	Max. intermodulation product(dBm)	Margin(dB)	Result
1). Frequency range: 788MHz~798MHz					
1.1). With the ALC threshold level					
Low frequency: f1: 788.7MHz f2:789.3MHz		-13	-32.03	-19.03	pass
Mid frequency: f1: 792.7MHz f2: 793.3MHz		-13	-32.03	-19.03	pass
High frequency: f1: 796.7MHz f2:797.3MHz		-13	-33.35	-20.35	pass
1.2). With the input signal amplitude set 3 dB above the ALC threshold					
Low frequency: f1: 788.7MHz f2:789.3MHz		-13	-32.43	-19.43	pass
Mid frequency: f1: 792.7MHz f2: 793.3MHz		-13	-32.98	-19.98	pass
High frequency: f1: 796.7MHz f2:797.3MHz		-13	-31.52	-18.52	pass
2). Frequency range: 799MHz~805MHz					
2.1). With the ALC threshold level					
Channel Bandwidth: 12.5kHz	Low frequency: f1:799.00625MHz f2:799.01875MHz	-13	-32.55	-19.55	pass
	Mid frequency: f1:802.0MHz f2:802.0125MHz	-13	-29.23	-16.23	pass
	High frequency: f1:804.98125MHz f2:804.99375MHz	-13	-26.98	-13.98	pass
Channel Bandwidth: 25kHz	Low frequency: f1:799.0125MHz f2:799.0375MHz	-13	-33.93	-20.93	pass
	Mid frequency: f1:802.0MHz f2:802.025MHz	-13	-30.05	-17.05	pass
	High frequency: f1:804.9625MHz f2:804.9875MHz	-13	-28.01	-15.01	pass

2.2). With the input signal amplitude set 3 dB above the ALC threshold					
Channel Bandwidth: 12.5kHz	Low frequency: f1:799.00625MHz f2:799.01875MHz	-13	-29.85	-16.85	pass
	Mid frequency: f1:802.0MHz f2:802.0125MHz	-13	-27.56	-14.56	pass
	High frequency: f1:804.98125MHz f2:804.99375MHz	-13	-25.93	-12.93	pass
Channel Bandwidth: 25kHz	Low frequency: f1:799.0125MHz f2:799.0375MHz	-13	-30.35	-17.35	pass
	Mid frequency: f1:802.0MHz f2:802.025MHz	-13	-28.46	-15.46	pass
	High frequency: f1:804.9625MHz f2:804.9875MHz	-13	-26.60	-13.60	pass
Note: 1*--Margin= Maximum mark level- specification limit.					

6.7.4.2 800MHz Band

(1) Downlink transmit mode

Frequency range		Intermodulaiton product Limit (dBm)	Max. intermodulation product(dBm)	Margin(dB)	Result
1). With the ALC threshold level					
Channel Bandwidth: 12.5kHz	Low frequency: f1:851.00625MHz f2:851.01875MHz	-13	-14.01	-1.01	pass
	Mid frequency: f1:856.50625MHz f2:856.51875MHz	-13	-15.00	-2.00	pass
	High frequency: f1:861.98125MHz f2:861.99375MHz	-13	-15.37	-2.37	pass
Channel Bandwidth: 25kHz	Low frequency: f1:851.0125MHz f2:851.0375MHz	-13	-16.11	-3.11	pass
	Mid frequency: f1:856.5125MHz f2:856.5375MHz	-13	-18.69	-5.69	pass
	High frequency: f1:861.9625MHz f2:861.9875MHz	-13	-17.64	-4.64	pass
2). With the input signal amplitude set 3 dB above the ALC threshold					
Channel Bandwidth: 12.5kHz	Low frequency: f1:851.00625MHz f2:851.01875MHz	-13	-14.37	-1.37	pass

	Mid frequency: f1:856.50625MHz f2:856.51875MHz	-13	-14.79	-1.79	pass
	High frequency: f1:861.98125MHz f2:861.99375MHz	-13	-15.89	-2.89	pass
Channel Bandwidth: 25kHz	Low frequency: f1:851.0125MHz f2:851.0375MHz	-13	-16.72	-3.72	pass
	Mid frequency: f1:856.5125MHz f2:856.5375MHz	-13	-16.93	-3.93	pass
	High frequency: f1:861.9625MHz f2:861.9875MHz	-13	-17.24	-4.24	pass
Note: 1*--Margin= Maximum mark level- specification limit.					

(2) Uplink transmit mode

Frequency range		Intermodulaiton product Limit (dBm)	Max. intermodulation product(dBm)	Margin(dB)	Result
1). With the ALC threshold level					
Channel Bandwidth: 12.5kHz	Low frequency: f1:806.00625MHz f2:806.01875MHz	-13	-16.79	-3.79	pass
	Mid frequency: f1:811.50625MHz f2:811.51875MHz	-13	-16.70	-3.70	pass
	High frequency: f1:816.98125MHz f2:816.99375MHz	-13	-16.38	-3.38	pass
Channel Bandwidth: 25kHz	Low frequency: f1:806.0125MHz f2:806.0375MHz	-13	-16.09	-3.09	pass
	Mid frequency: f1:811.5125MHz f2:811.5375MHz	-13	-16.46	-3.46	pass
	High frequency: f1:816.9625MHz f2:816.9875MHz	-13	-16.52	-3.52	pass
2). With the input signal amplitude set 3 dB above the ALC threshold					
Channel Bandwidth: 12.5kHz	Low frequency: f1:806.00625MHz f2:806.01875MHz	-13	-16.75	-3.75	pass
	Mid frequency: f1:811.50625MHz f2:811.51875MHz	-13	-16.34	-3.34	pass

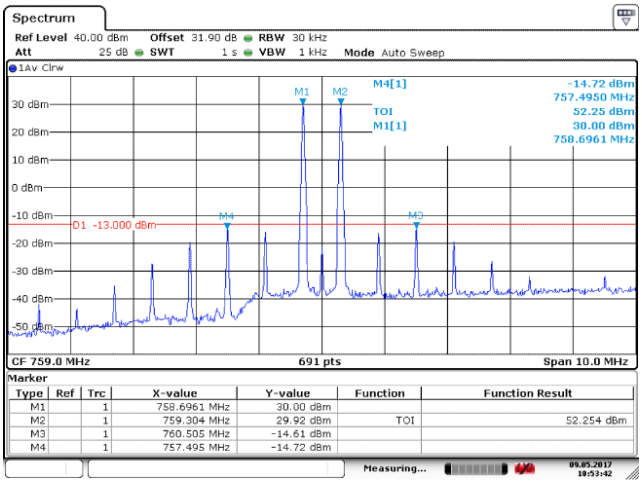
	High frequency: f1:816.98125MHz f2:816.99375MHz	-13	-16.25	-3.25	pass
Channel Bandwidth: 25kHz	Low frequency: f1:806.0125MHz f2:806.0375MHz	-13	-16.49	-3.49	pass
	Mid frequency: f1:811.5125MHz f2:811.5375MHz	-13	-16.15	-3.15	pass
	High frequency: f1:816.9625MHz f2:816.9875MHz	-13	-16.92	-3.92	pass
Note: 1*--Margin= Maximum mark level- specification limit.					

6.7.5 Test screenshot

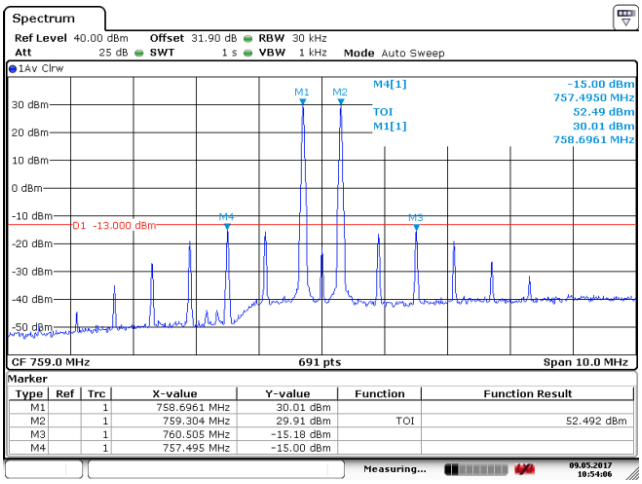
6.7.5.1 700MHz Band

6.7.5.1.1 Frequency rang: 758MHz~768MHz/788MHz~798MHz

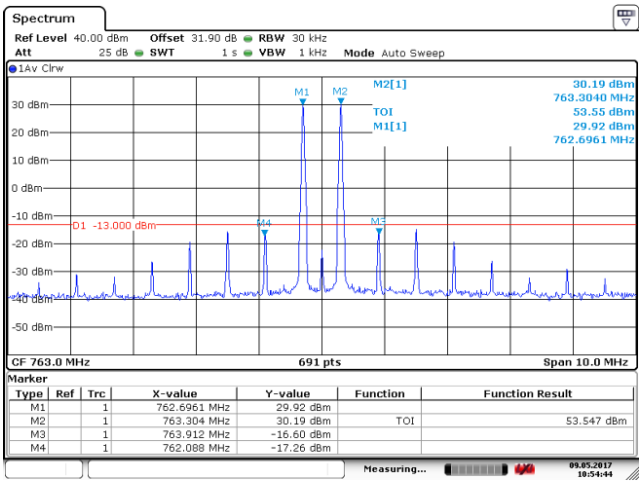
(1). Downlink



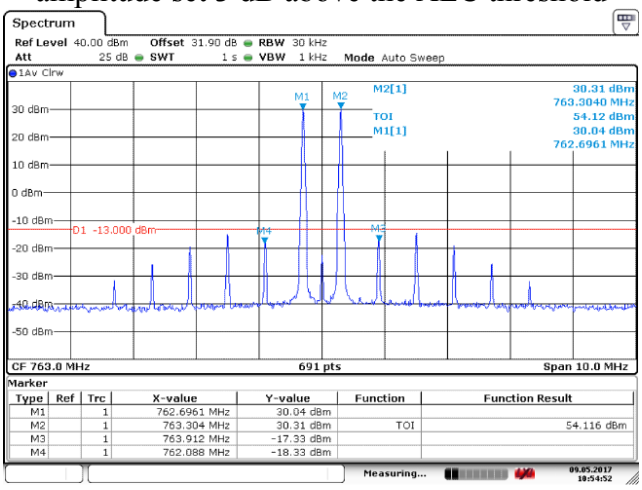
Low Frequency and With the ALC threshold level



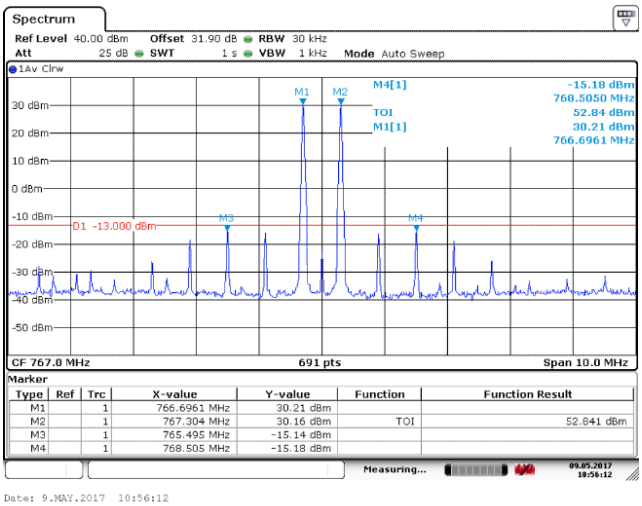
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



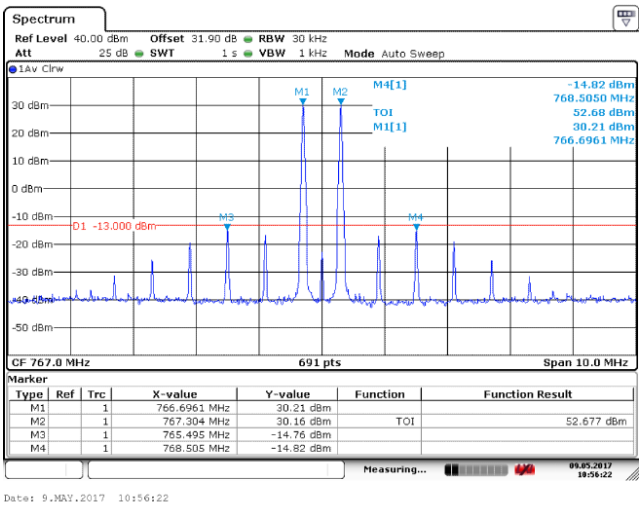
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold

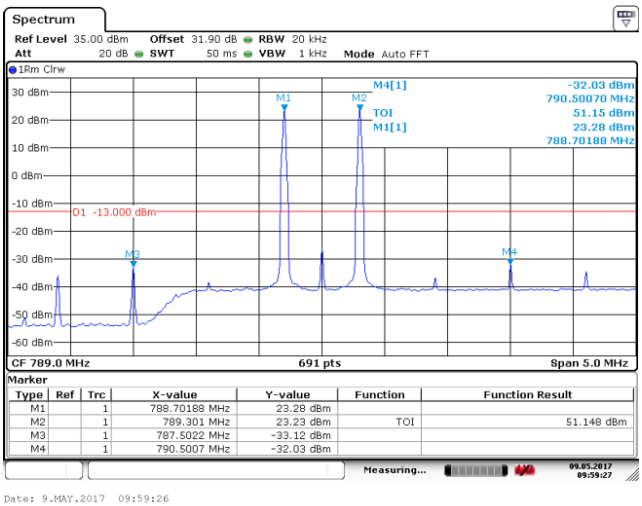


High Frequency and With the ALC threshold level

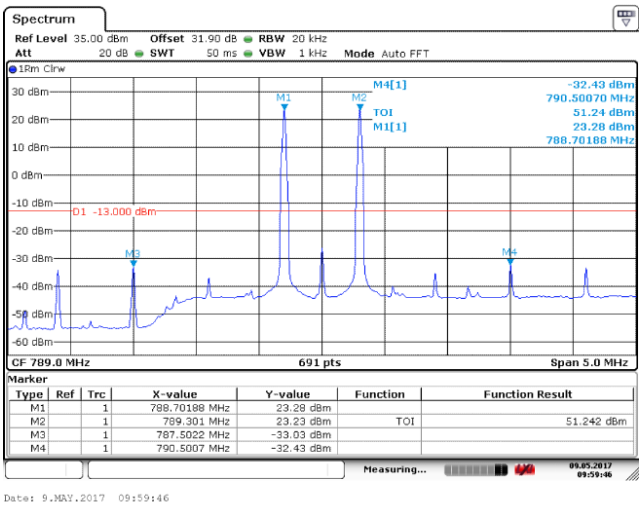


High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

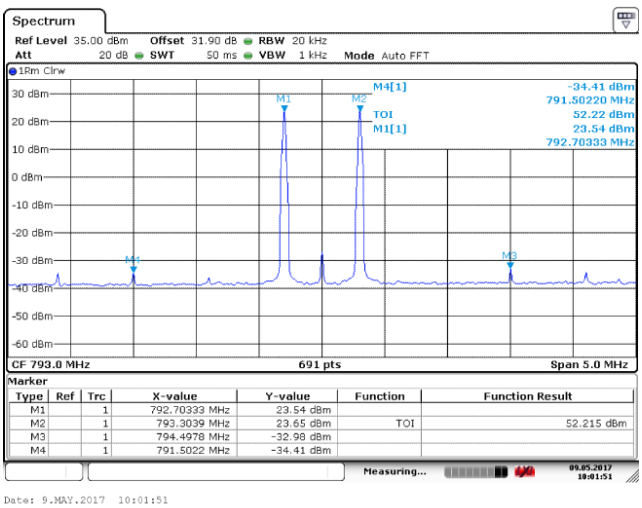
(2). Uplink



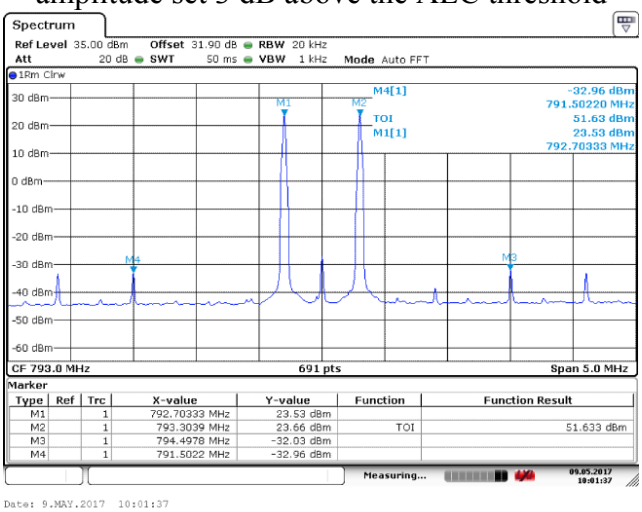
Low Frequency and With the ALC threshold level



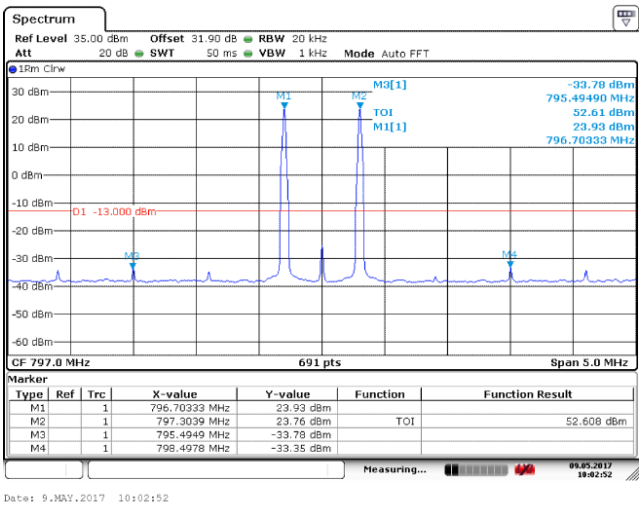
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



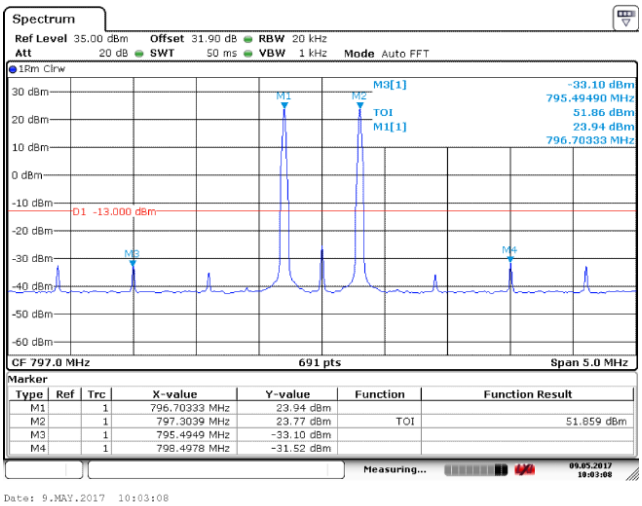
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold



High Frequency and With the ALC threshold level

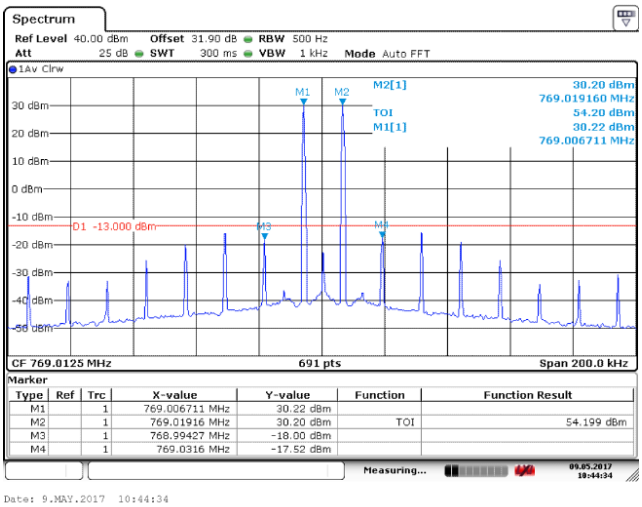


High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

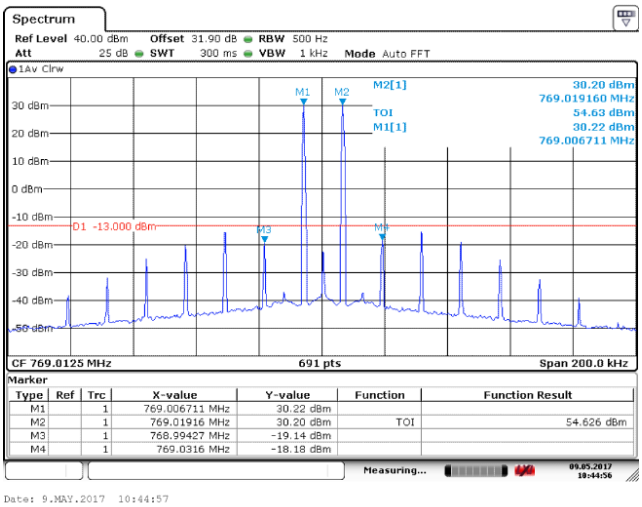
6.7.5.1.2Frequency rang: 769MHz~775MHz/799MHz~805MHz

(1) Channel bandwidth 12.5kHz

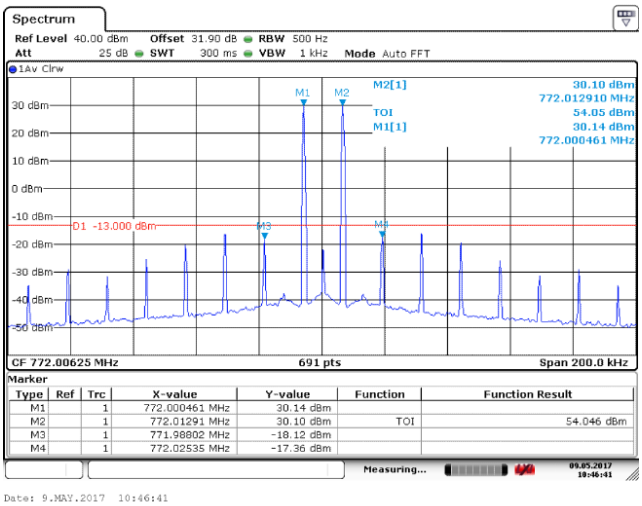
(1.1) Downlink



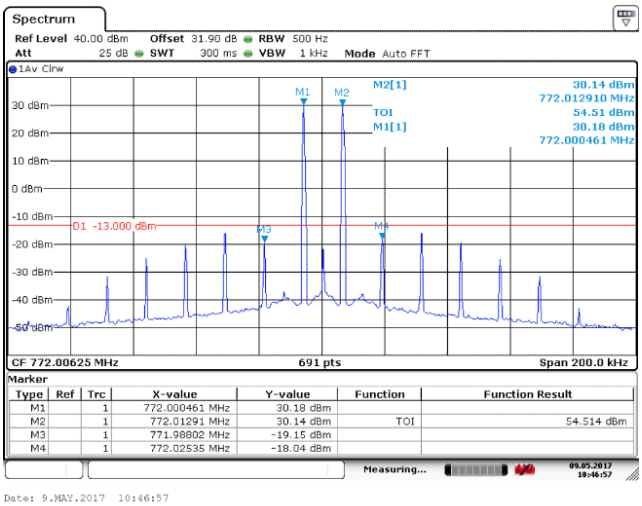
Low Frequency and With the ALC threshold level



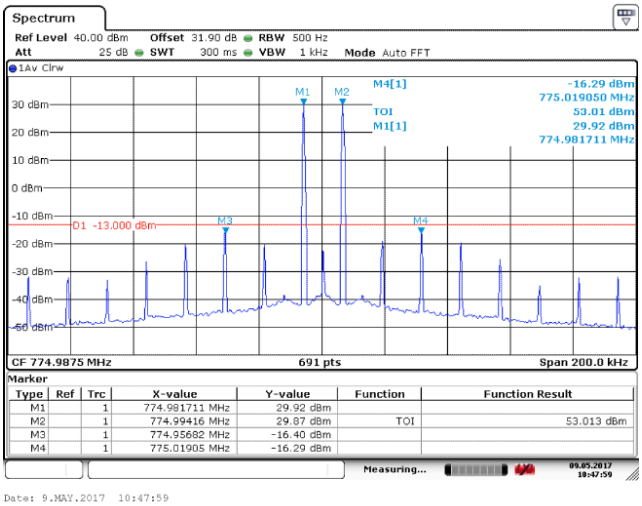
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



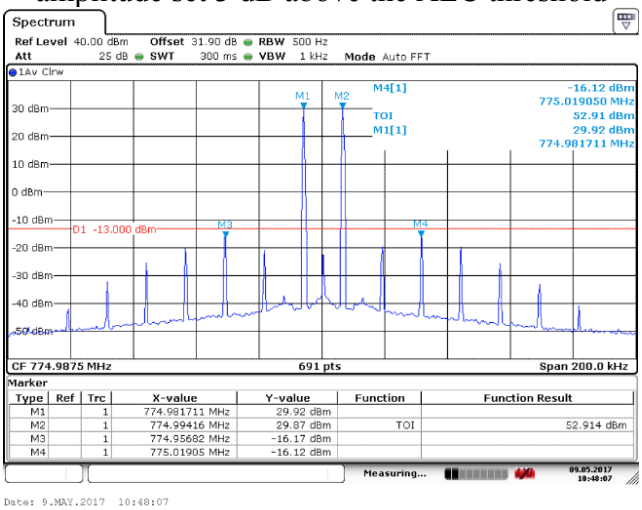
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold

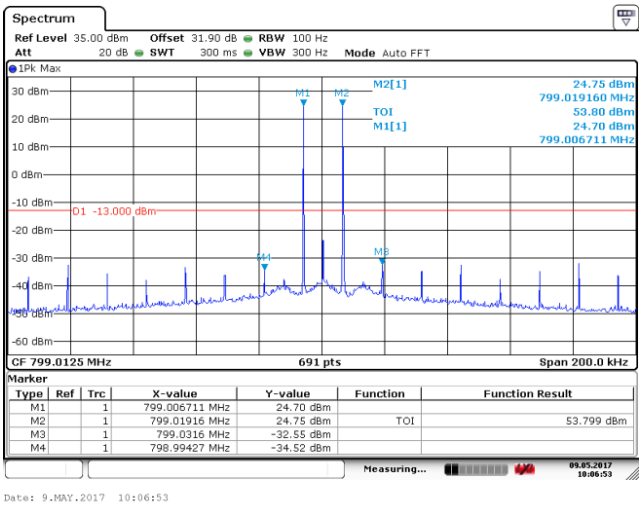


High Frequency and With the ALC threshold level

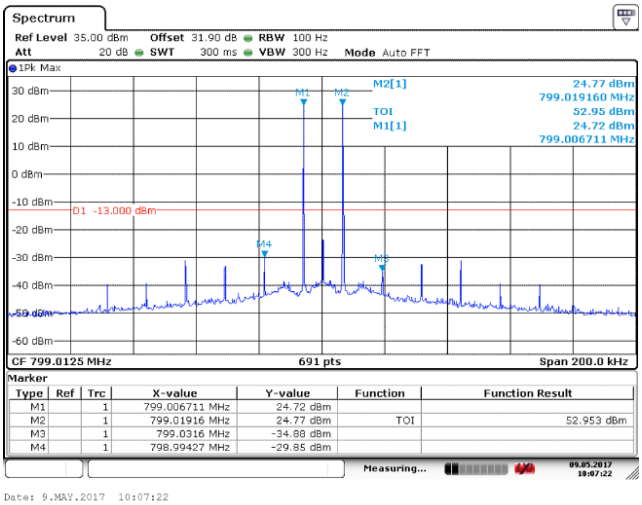


High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

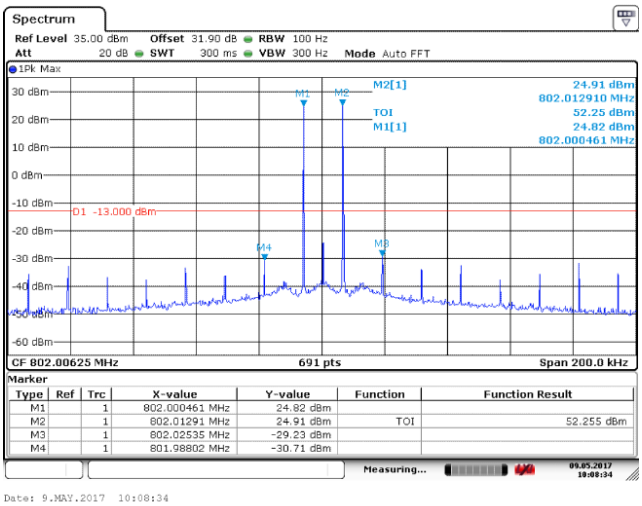
(1.2) Uplink



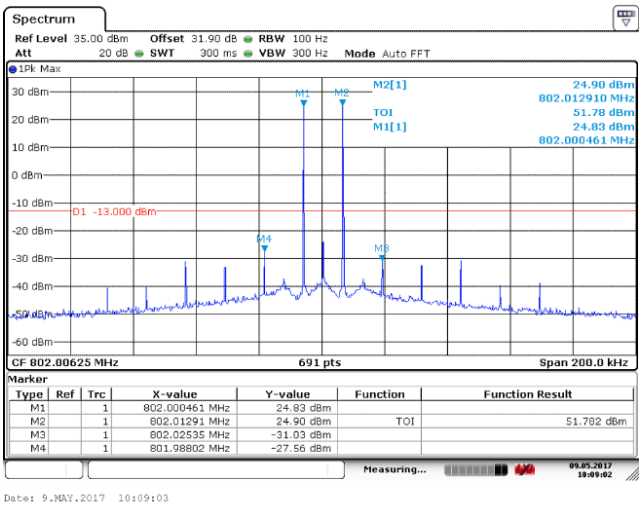
Low Frequency and With the ALC threshold level



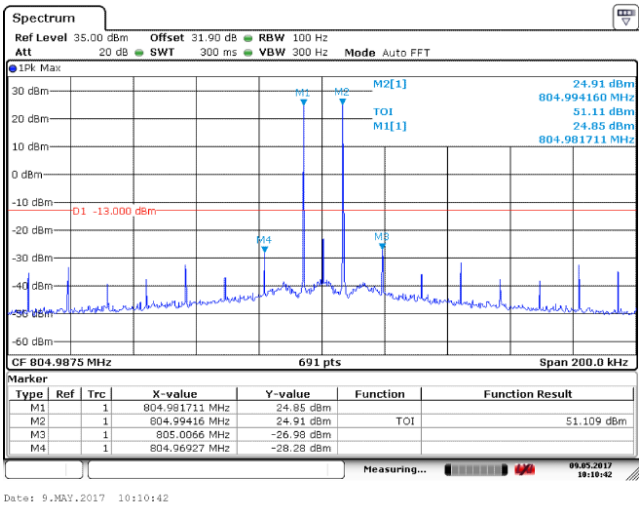
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



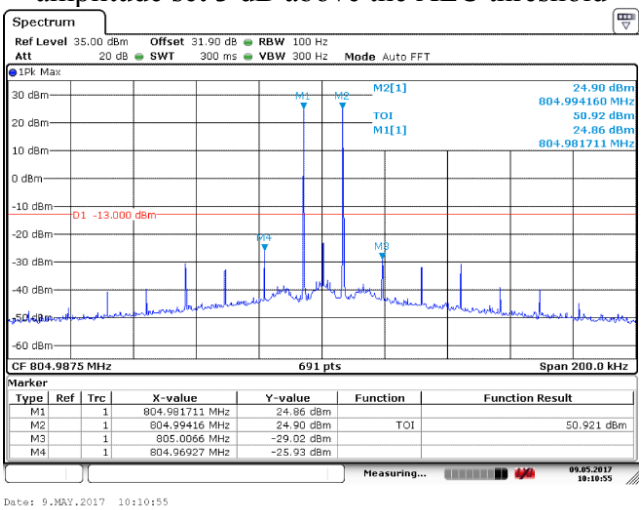
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold



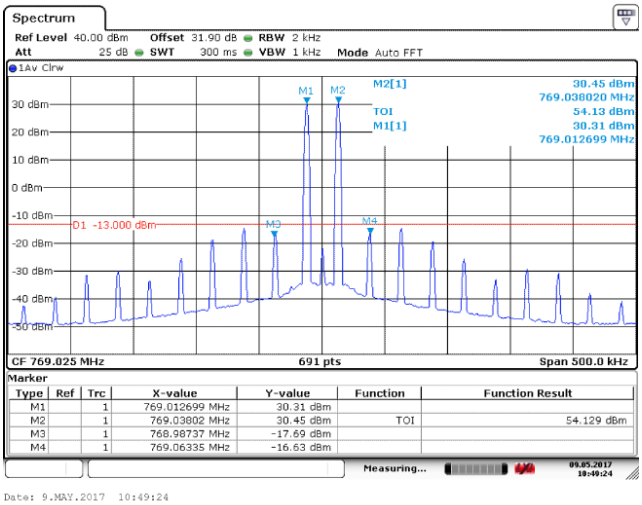
High Frequency and With the ALC threshold level



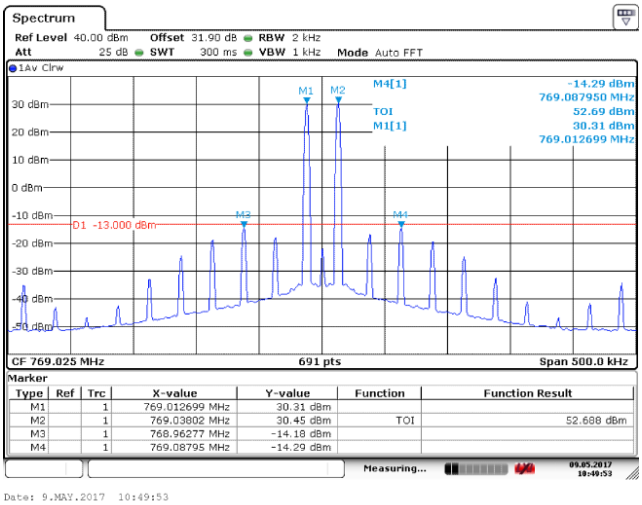
High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

(2) Channel bandwidth 25kHz

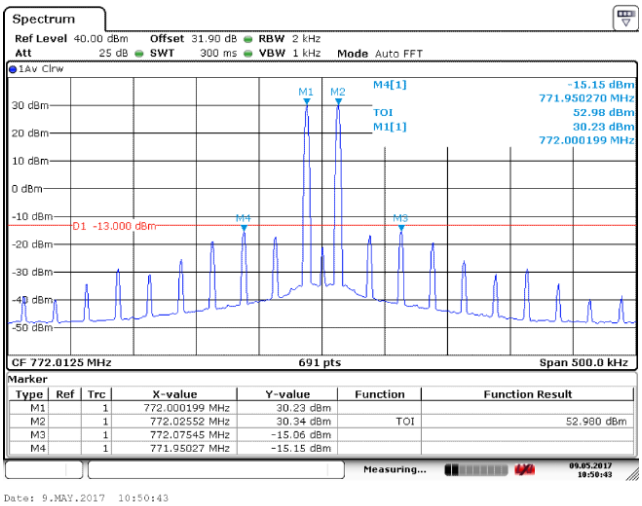
(2.1) Downlink



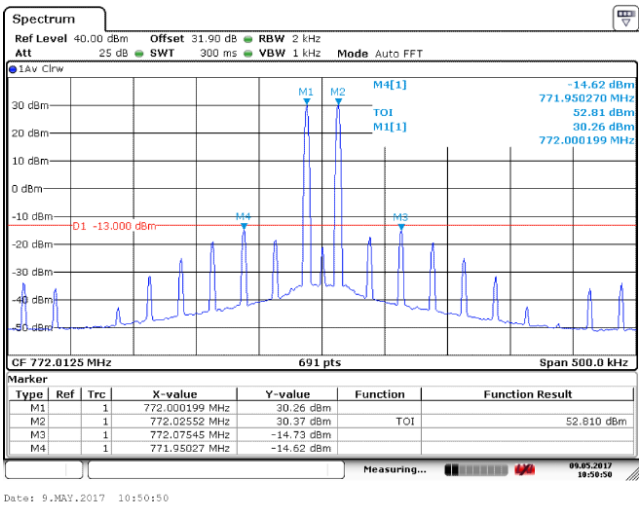
Low Frequency and With the ALC threshold level



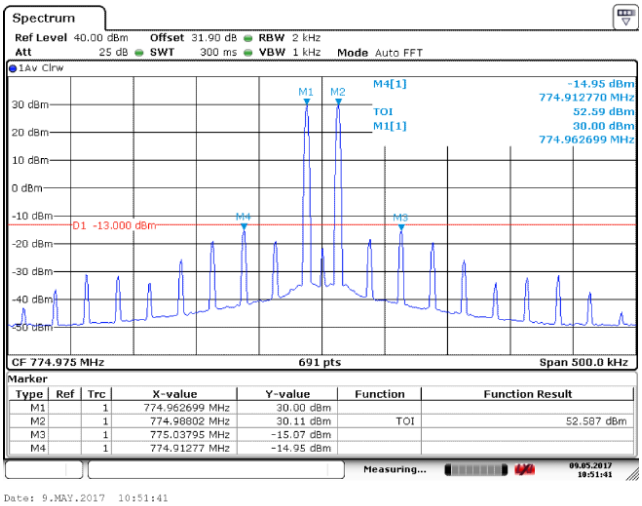
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



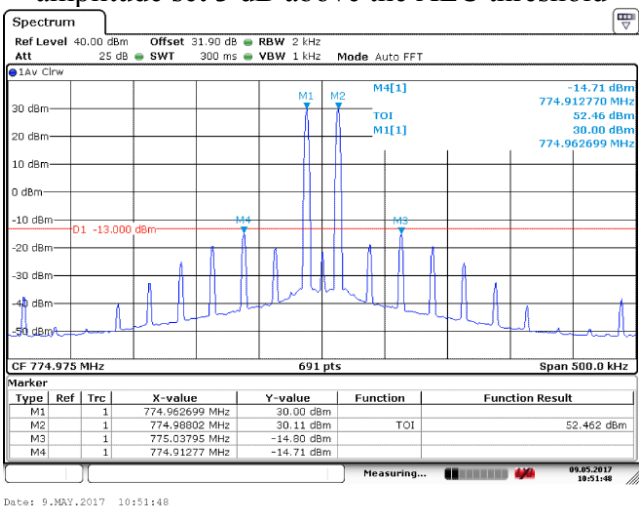
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold

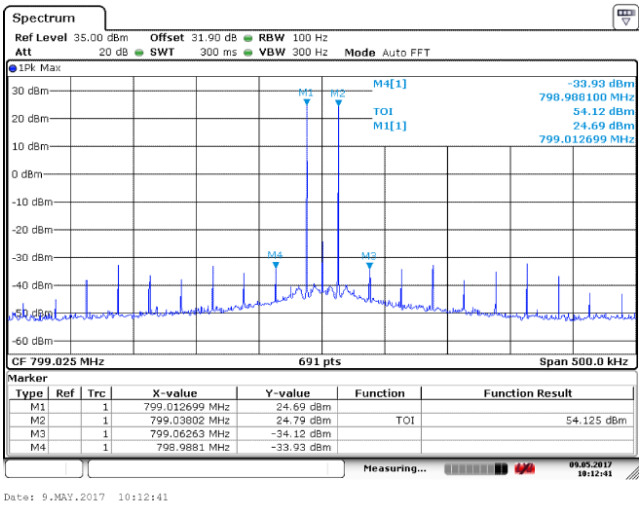


High Frequency and With the ALC threshold level

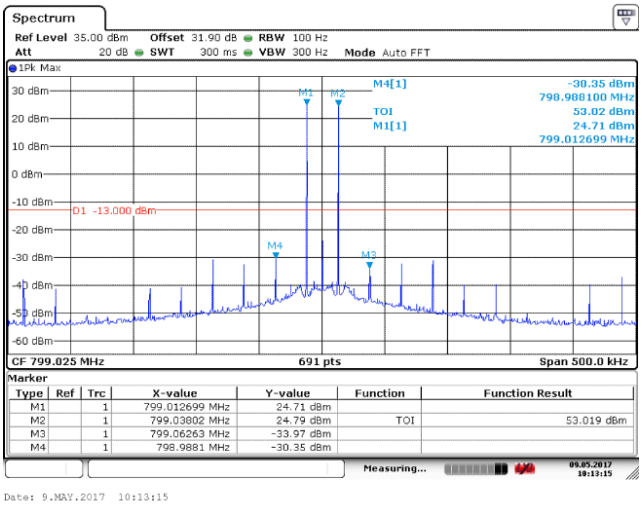


High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

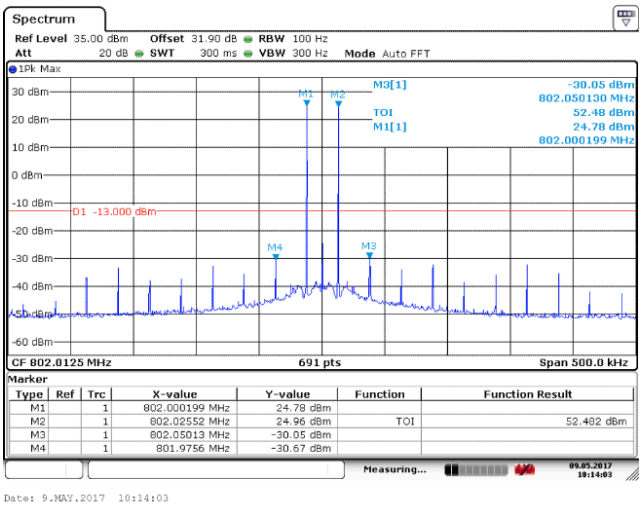
(2.2) Uplink



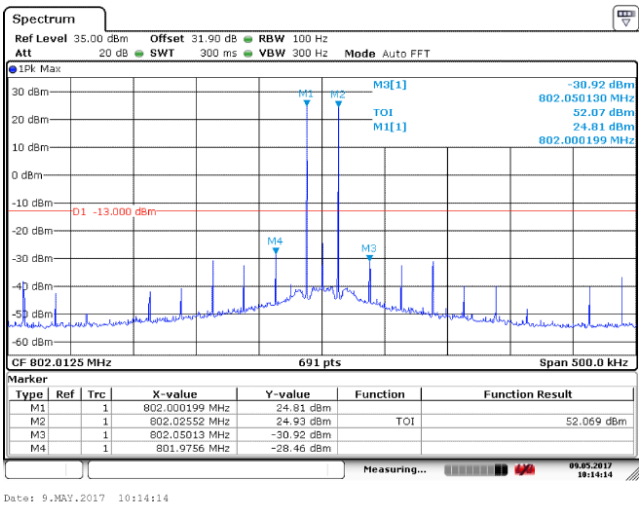
Low Frequency and With the ALC threshold level



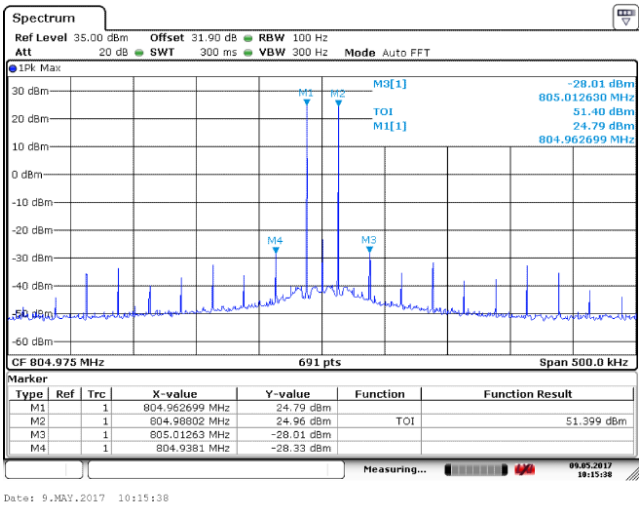
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



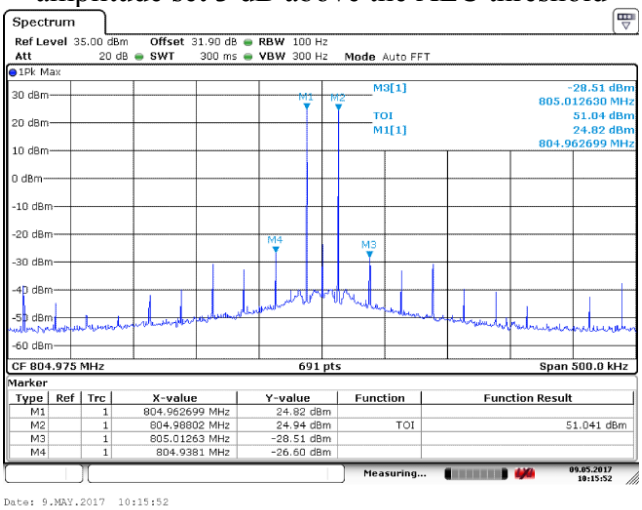
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold



High Frequency and With the ALC threshold level

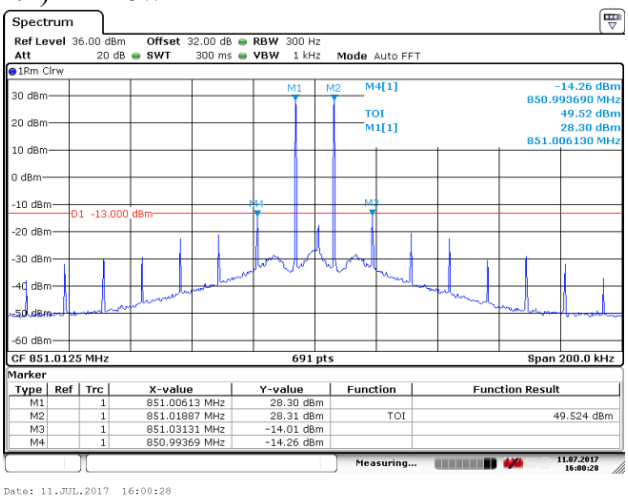


High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

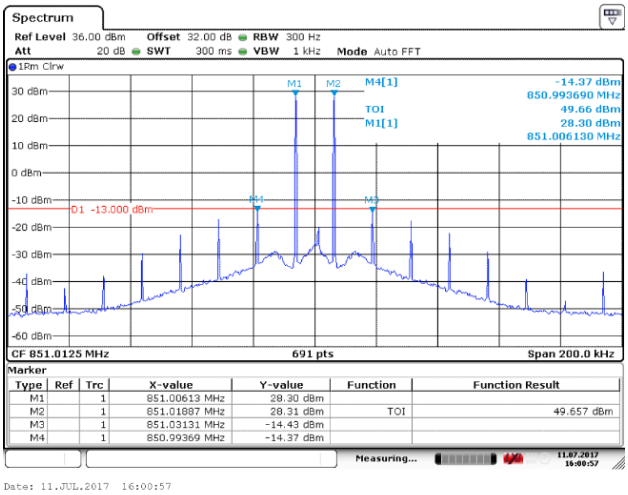
6.7.5.2 800MHz Band

(1). Channel bandwidth 12.5kHz

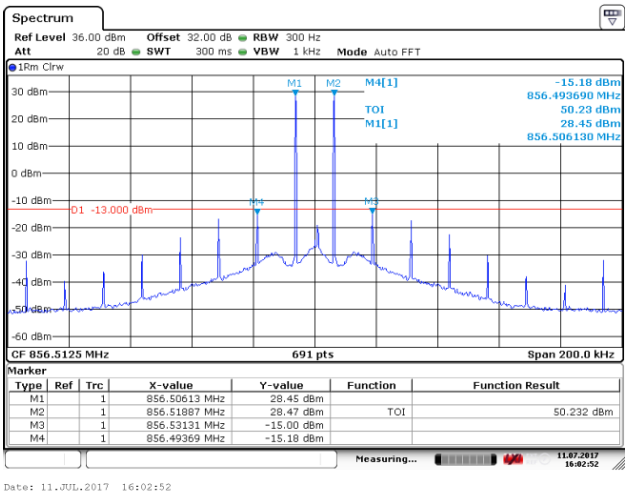
(1.1) Downlink



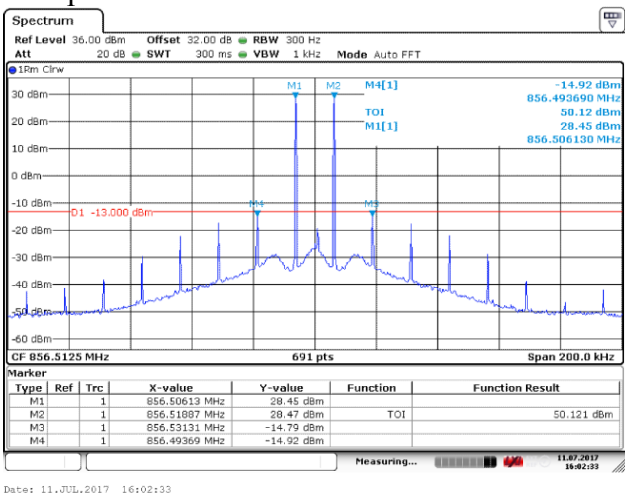
Low Frequency 12and With the ALC threshold level



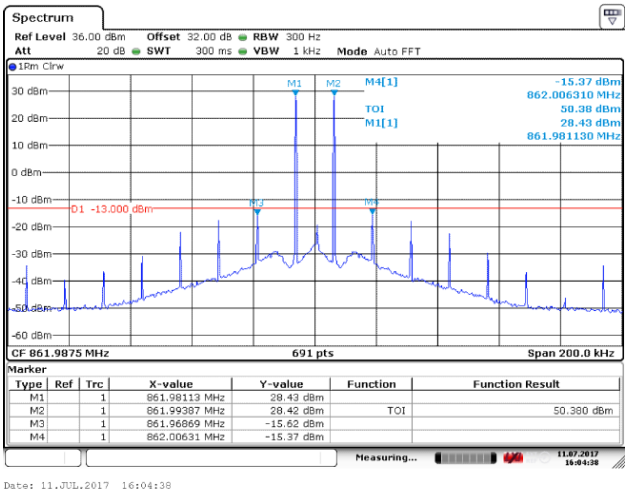
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



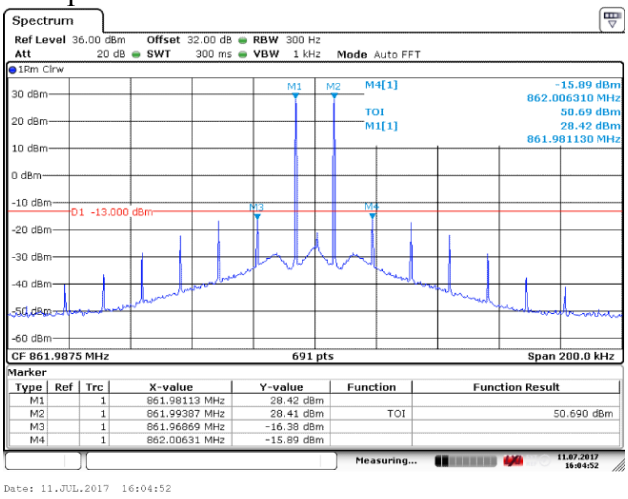
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold

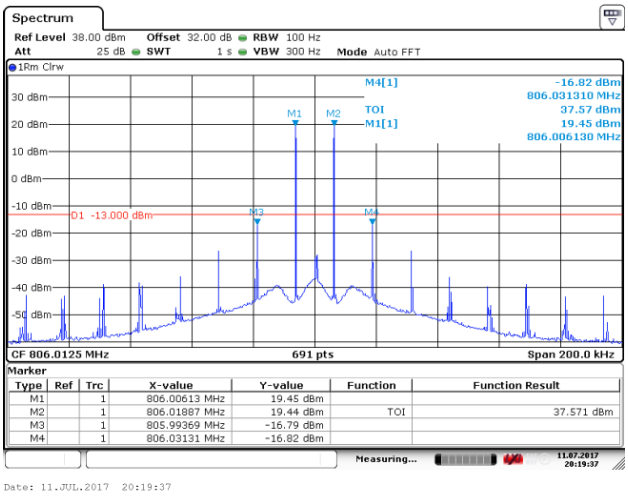


High Frequency and With the ALC threshold level

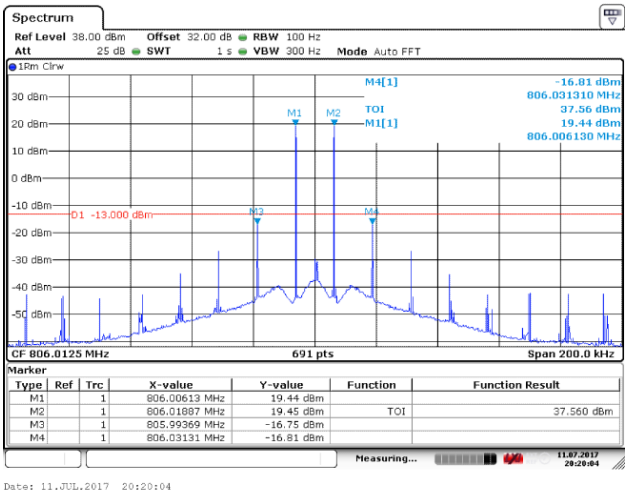


High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

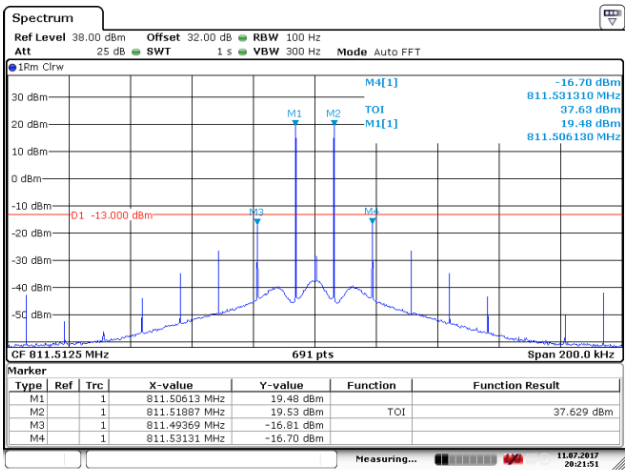
(1.2) Uplink



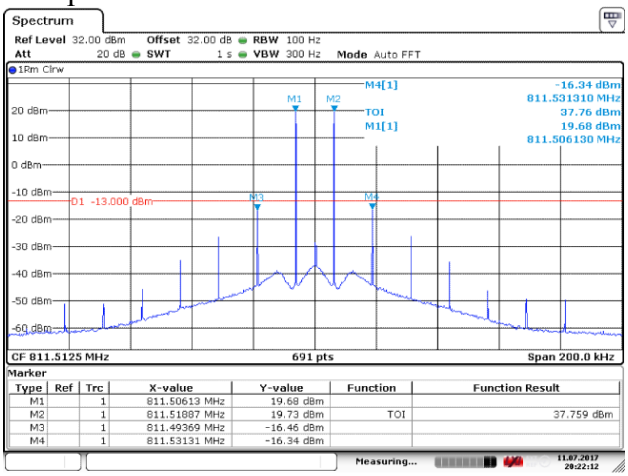
Low Frequency and With the ALC threshold level



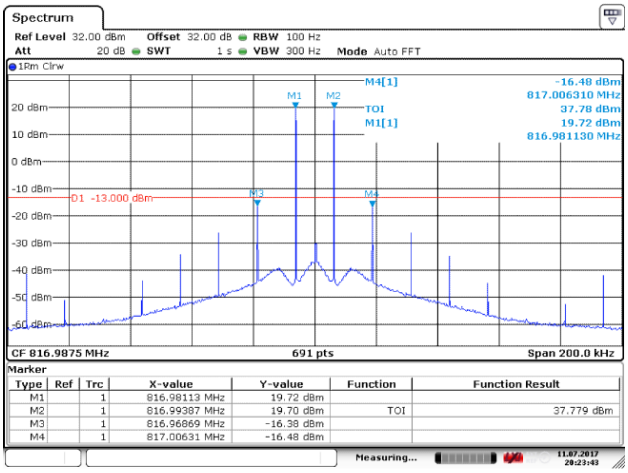
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



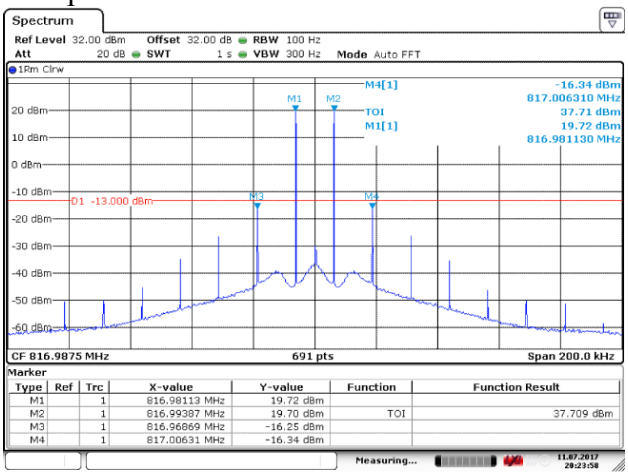
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold



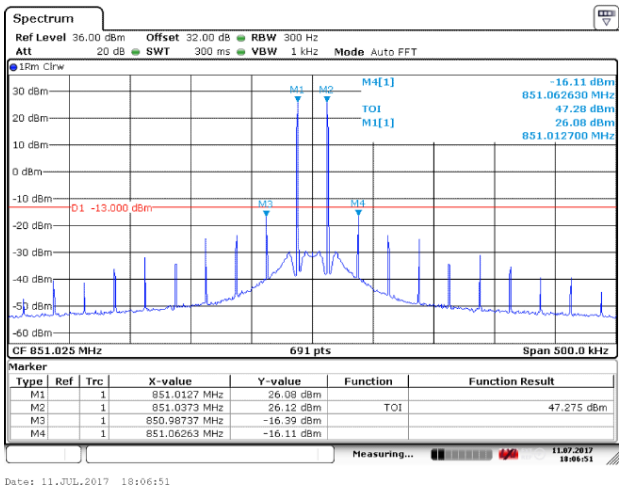
High Frequency and With the ALC threshold level



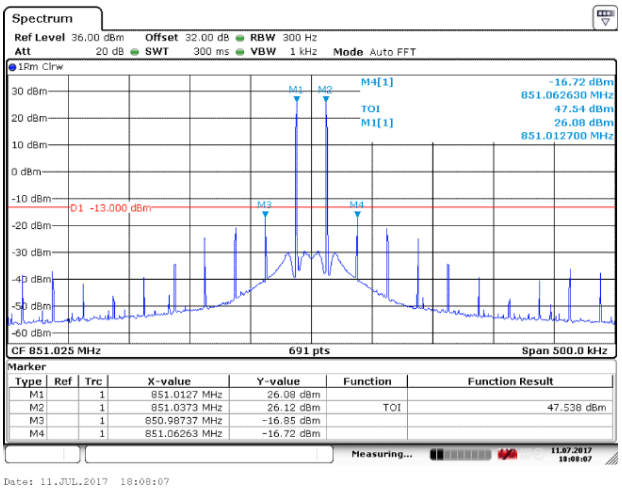
High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

(2). Channel bandwidth 25kHz

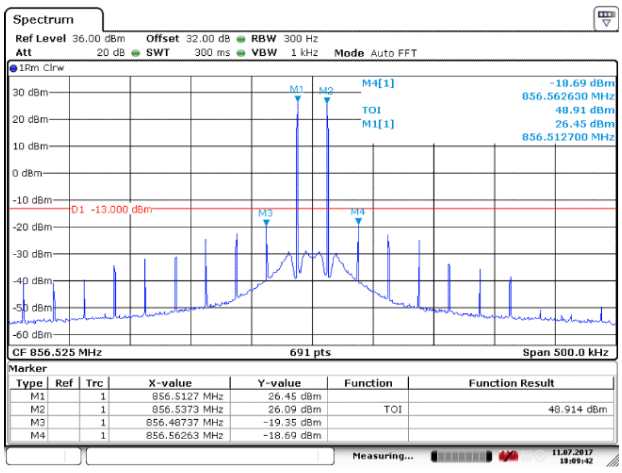
(2.1) Downlink



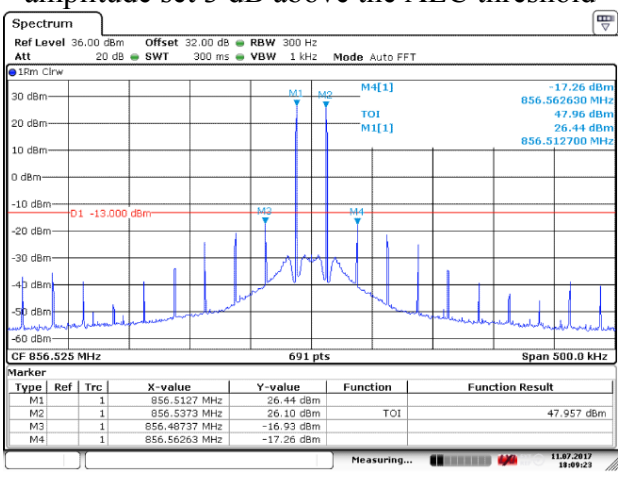
Low Frequency 12and With the ALC threshold level



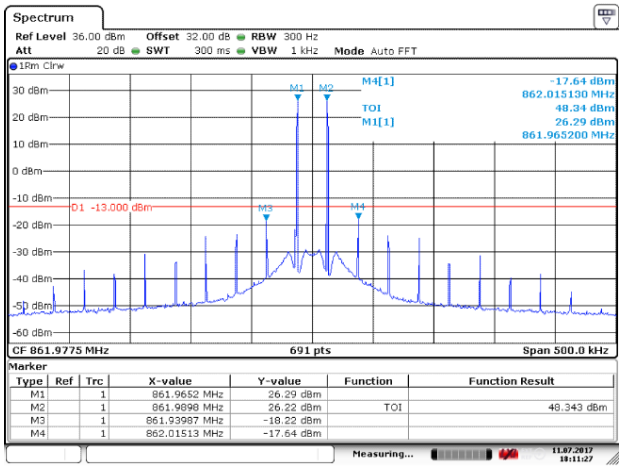
Low Frequency and With the input signal amplitude set 3 dB above the ALC threshold



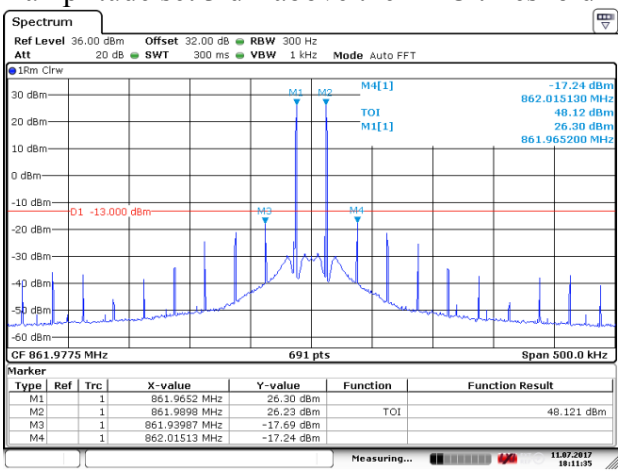
Mid Frequency and With the ALC threshold level



Mid Frequency and With the input signal amplitude set 3 dB above the ALC threshold



High Frequency and With the ALC threshold level



High Frequency and With the input signal amplitude set 3 dB above the ALC threshold

6.8 Radiated spurious emissions

Test Date (yy-mm-dd):	2017-05-28
Test environment:	Normal
	Ambient Temp 22.3℃, Humid 52%, Atmospheric Pressure 101kpa
Power supply:	AC 120V 50/60Hz DC -48V
Test Method:	KDB 935210 D05 Indus Booster Basic Meas v01r01 EIA/TIA 603- D-2010/2.2.12
Test Requirement:	FCC part 90.219(e)(3)

6.8.1 Limit

This test was performed to measure radiated spurious emissions from the EUT. Specification test limits are given in Table 12.

Table 12 Radiated spurious emission test limits

Frequency	Attenuation below carrier(dBc)	ERP of Spurious(dBm)	Equivalent field strength limit @3m dB(uV/m)*
30~10th harmonic**	43+10logP***	-13	84.4

Notes: *-- Equivalent field strength limit was calculated from maximum allowed ERP of spurious as follows:

E=sqrt(30*P*1.64)/r, where P is ERP in Watts, 1.64 is numeric gain of ideal dipole and r is antenna to EUT distance in meters.

**--Excluding the in band emission within ±250% of the authorized bandwidth from the carrier.

***--P is transmitter output power in Watts.

6.8.2 Test configuration

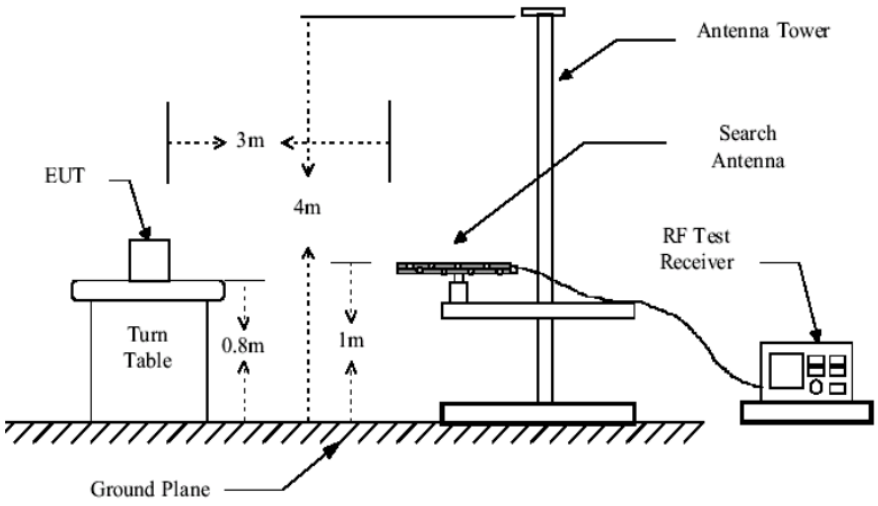


Figure 15: 30 MHz to 1 GHz radiated emissions test configuration

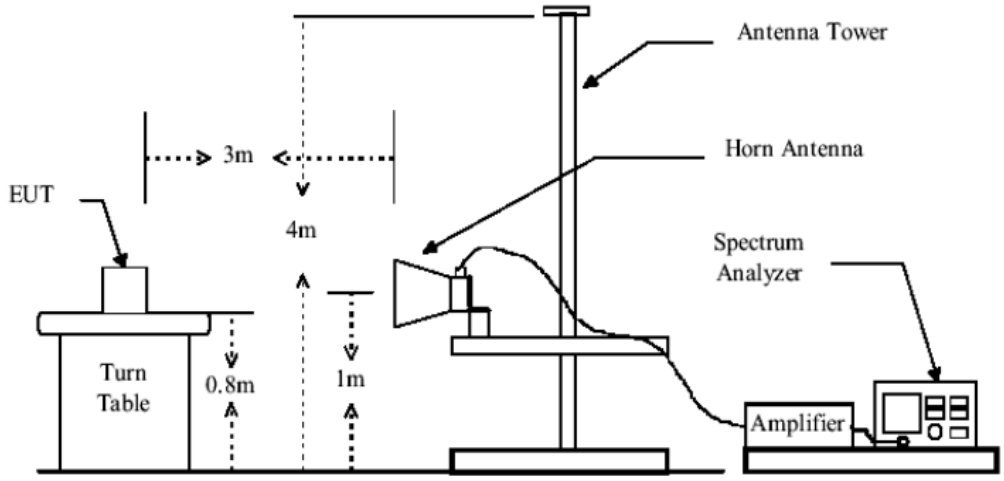


Figure 16: Above 1 GHz radiated emissions test configuration

6.8.3 Test procedures

a) Connect the device as illustrated;

b) Adjust the spectrum analyzer for the following setting;

1) RBW=100kHz for spurious emission below 1 GHz, and 1MHz for spurious emission above 1GHz;

2) VBW=300k for spurious emission below 1GHz, and 3MHz for spurious emission above 1GHz;

3) Sweep speed slow enough to maintain measurement calibration;

4) Detector Mode= Positive Peak;

c) Place the transmitter to be tested on the turntable in the standard test site, or and FCC listed site compliant with ANSI C63.4-2001 clause 5.4.The transmitter is transmitting into a nonradiating load that is placed on the turntable, the RF cable to this load should be of minimum length. For transmitters with integral antennas, the tests are to be run with the unit operating into the integral antenna.

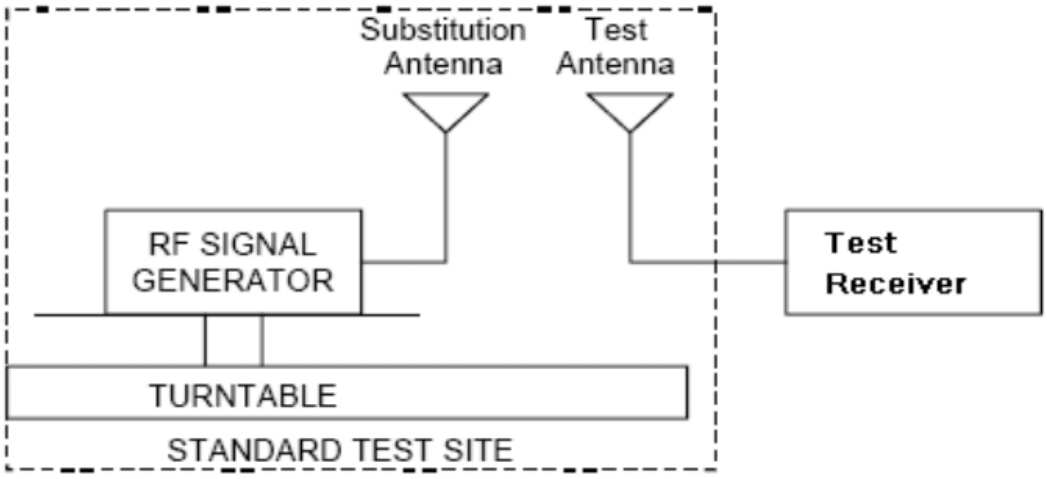
d) For each spurious measurement the test antenna should be adjusted to the correct length for the frequency involved. This length may be determined from a calibration ruler supplied with the device. Measurements shall be made from the lowest radio frequency generated in the device to the tenth harmonic of the carrier, except for the region close to the carrier equal to ±the test bandwidth.

e) Key the transmitter with normal modulation base the standard.

f) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Then

the turntable should be rotated 360° to determine the maximum reading. Repeat this procedure to obtain the highest possible reading. Record this maximum reading.

g) Repeat step f) for each spurious frequency with the test antenna polarized vertically.



h) Reconnect the device as illustrated.

i) Keep the spectrum analyzer adjusted as in step b).

j) Remove the transmitter and replace it with a substitution antenna(the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At the lower frequencies where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically, In such case the lower end of the antenna should be 0.3m above the ground.

k) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at he spectrum analyzer. Adjuest the level of the signal generator output until the previously recorded maximum reading or this set of conditions is obtained, This should be done carefully repeating the adjustment of the test antenna and generator output.

l) Repeat step k) with both antennas vertically polarized for each spurious frequency.

m) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in step k) and i) by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula: