TEST REPORT

KOSTEC Co., Ltd. 28(175-20, Annyeong-dong) 406-gil sejaro, Hwaseong-si, Gyeonggi-do, Korea Tel:031-222-4251, Fax:031-222-4252	Report No.: KST-FCR-180021(1)	KOSTEC Co., Ltd. http://www.kostec.org

1. Applicant
   - Name : SamYoungCeletra. Co.,Ltd.
   - Address : 110, Geomdan-ro, Seo-gu, Incheon, South Korea
2. Test Item
   - Product Name: VHF Transceiver
   - Model Name: CT105
   - Brand: Samyoung Celetra
   - FCC ID: 2AJRJ-CT105
3. Manufacturer
   - Name : SamYoungCeletra. Co.,Ltd.
   - Address : 110, Geomdan-ro, Seo-gu, Incheon, South Korea
4. Date of Test : 2018. 10. 02. ~ 2018. 10. 05.
5. Test Method Used : FCC CFR 47, Part 90
ANSI/TIA-603-E-2016
ANSI C63.26-2015
ANSI C63.4-2014
6. Test Result : Compliance
7. Note: Request for family model name by manufacturer. Family model name: CT105B, CT105F

Supplementary Information

The device bearing the brand name and FCC ID specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with measurement procedures specified in ANSI/TIA-603-E-2016

We attest to the accuracy of data and all measurements reported herein were performed by KOSTEC Co., Ltd. and were made under Chief Engineer's supervision. We assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test report is not related to KOLAS accreditation.

Affirmation	Tested by Name : Lee, Mi-Young (Signature)	Technical Manager Name : Park, Gyeong-Hyeon (Signature)

2019. 01. 10.

KOSTEC Co., Ltd.

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1. GENERAL INFORMATION

1.1 Test Facility

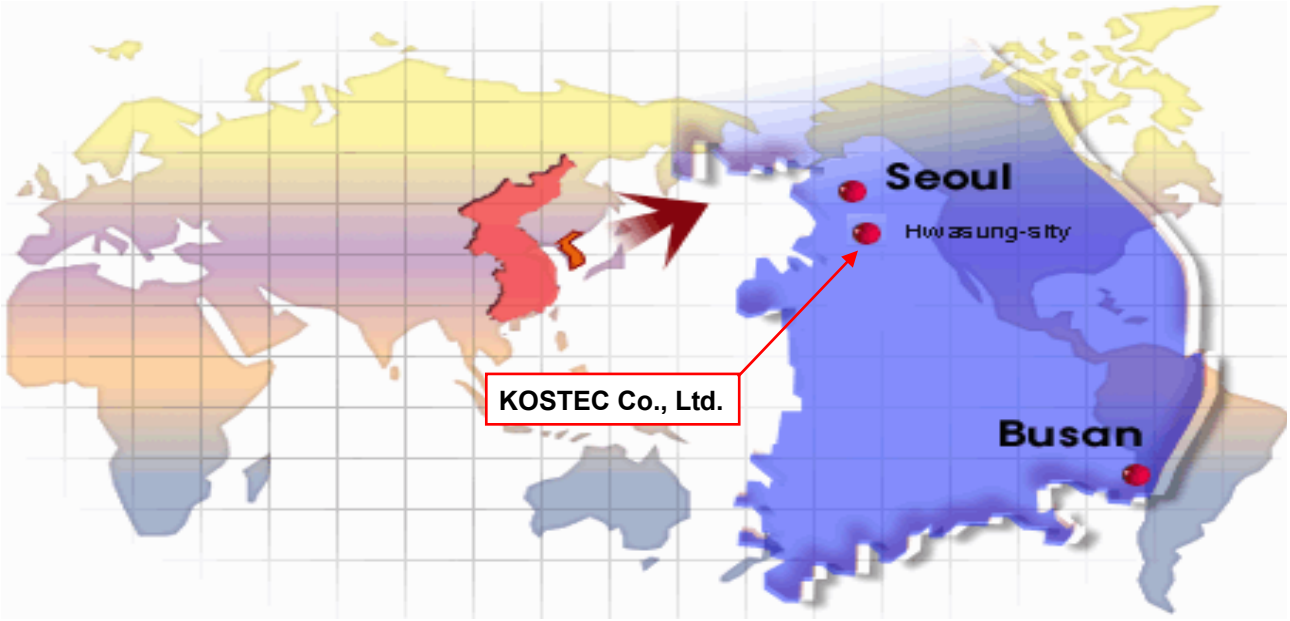
Test laboratory and address

KOSTEC Co., Ltd.
128(175-20,Annyeong-dong)406-gil sejaro, Hwaseong-si Gyeonggi-do, Korea

Registration information

KOLAS No. : 232
FCC Designation No. : KR0041
IC Registration Site No. : 8305A

1.2 Location



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1.3 Revision History of test report

Rev.	Revisions	Effect page	Reviewed	Date
-	Initial issue	All	Park, Gyeong-Hyeon	2018. 10. 31.
1	Add antenna requirement and remove the information related to part 22.	All	Park, Gyeong-Hyeon	2019. 01. 10.

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2. EQUIPMENT DESCRIPTION

The product specification described herein was declared by manufacturer. And refer to user's manual for the details.

Equipment Name	VHF Transceiver
Model No	CT105 (Family model name: CT105B, CT105F)
Type of Equipment	Licensed Non-Broadcast Transmitter Held to Face
Intended Operating Environment	Restricted to Occupational Use only
Serial Number	Prototype
Primary User Functions of EUT	2-Way Wireless Voice & Data Communication
RF Output Power Rating	4.8 Watt (High) / 2 Watt (Low)
Assigned Frequency Range	136 ~ 174 MHz
Operating Frequency Range	138.0125 ~ 173.3875 MHz
RF Output Impedance	50 Ω
Channel Spacing	12.5 kHz
Modulation	FM for analog voice 4FSK for digital Voice and data
Occupied Bandwidth (99%)	5.56 kHz (for 12.5 kHz Channel Spacing / Analog) 8.10 kHz (for 12.5 kHz Channel Spacing / Digital)
Emission Designation	5K56F3E, 8K10F1D, 8K10F1E
Power Source	7.2 Vdc nominal
Antenna Description	HW-146H-NPX100 : Helical antenna, Max -3.933 dBi HW-153H-NPX100 : Helical antenna, Max 2.15 dBi HW-170H-NPX100 : Helical antenna, Max 2.15 dBi
FCC ID	2AJRJ-CT105
Remark	The above DUT's information was declared by manufacturer. Please refer to the specifications or user manual for more detailed description.

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3. SYSTEM CONFIGURATION FOR TEST

3.1 Characteristics of equipment

The Equipment Under Test (EUT) use for VHF TRANSCEIVER.

3.2 Used peripherals list

Description	Model No.	Serial No.	Manufacture	Remark
AC/DC adaptor	S012CDV1200100	None	Tenpao International Korea Co.,Ltd.	Default
AC/DC adaptor	SA-A568E	None	Sunlin Vietnam Electronics Co., Ltd.	Alternate
Desktop Charger	CDC-200	SC1830000073	SamYoung Celetra Co., Ltd.	
Battery	SB2600	None	SamYoung Celetra Co., Ltd.	
Tube.ear/mic	None	None	None	

3.3 Product Modification

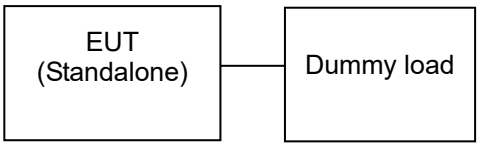
N/A

3.4 Operating Mode

Constantly transmitting with a modulated carrier at maximum power on the low, middle and high channels.
Radiated emissions tests were performed with antenna ports terminated.

3.5 Test Setup of EUT

The measurements were taken in continuous transmit mode.



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3.6 Table for Carrier Frequencies

Modulation Type	Tested Channel	Channel separation (kHz)	Test freq. (MHz)
Analog	Low	12.5	138.0125
	Mid		151.1000
	Mid		158.5500
	High		173.3875
Digital	Low	12.5	138.0125
	Mid		151.1000
	Mid		158.5500
	High		173.3875

3.7 Antenna requirement

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by responsible party shall be used with the device.

The use of a permanently attached antenna or of an antenna that user a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

The manufacturer may design the unit so that broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

The EUT has a unique coupling such as RP-SMA.

Antenna model name	Antenna Type	Gain [dBi]	Results
HW-146H-NPX100	RP-SMA helical antenna	-3.933	Compliance
HW-153H-NPX100	RP-SMA helical antenna	2.15	Compliance
HW-170H-NPX100	RP-SMA helical antenna	2.15	Compliance

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3.8 Used Test Equipment List

No.	Instrument	Model	S/N	Manufacturer	Due to cal date	Cal interval	used
1	T & H Chamber	RCT-V-THC-403-1(H)	20030210	R.C.T	2019.09.03	1 year	☐
2	T & H Chamber	SH-641	92006831	ESPEC CORP	2019.02.14	1 year	☒
3	Spectrum Analyzer	8593E	3710A02859	Agilent Technology	2019.02.01	1 year	☒
4	Spectrum Analyzer	8563EC	3046A00527	Agilent Technology	2019.02.01	1 year	☐
5	Signal Analyzer	FSV13	101247	Rohde & Schwarz	2019.02.01	1 year	☐
6	Spectrum Analyzer	FSV30	20-353063	Rohde& Schwarz	2019.02.01	1 year	☒
7	Signal Analyzer	N9010A	MY56070441	Agilent Technologies	2019.05.25	1 year	☐
8	EMI Test Receiver	ESCI7	100823	Rohde& Schwarz	2019.01.29	1 year	☒
9	EMI Test Receiver	ESI	837514/004	Rohde& Schwarz	2019.09.03	1 year	☒
10	Vector Signal Analyzer	89441A	3416A02620	Agilent Technology	2019.02.01	1 year	☐
11	Network Analyzer	8753ES	US39172348	AGILENT	2019.09.03	1 year	☐
12	EPM Series Power meter	E4418B	GB39512547	Agilent Technology	2019.01.31	1 year	☒
13	RF Power Sensor	E9300A	MY41496631	Agilent Technology	2019.01.31	1 year	☒
14	Microwave Frequency Counter	5352B	2908A00480	Agilent Technology	2019.01.30	1 year	☐
15	Audio Analyzer	8903B	3514A16919	Agilent Technology	2019.01.30	1 year	☒
16	Audio Telephone Analyzer	DD-5601CID	520010281	CREDIX	2019.01.30	1 year	☐
17	Modulation Analyzer	8901A	3041A0576	H.P	2019.01.31	1 year	☒
18	Digital storage Oscilloscope	TDS3052	B015962	Tektronix	2019.09.04	1 year	☒
19	ESG-D Series Signal Generator	E4436B	US39260458	Agilent Technology	2019.01.31	1 year	☒
20	Vector Signal Generator	SMBV100A	257557	Rohde & Schwarz	2019.01.31	1 year	☐
21	GNSS Signal Generator	TC-2800A	2800A000494	TESCOM CO., LTD.	2019.02.01	1 year	☐
22	Signal Generator	SMB100A	179628	Rohde & Schwarz	2019.05.09	1 year	☒
23	Tracking Source	85645A	070521-A1	Agilent Technology	2019.02.01	1 year	☐
24	SLIDAC	None	0207-4	Myoung sung Ele.	2019.01.29	1 year	☐
25	DC Power supply	DRP-5030	9028029	Digital Electronic Co.,Ltd	2019.01.29	1 year	☐
26	DC Power supply	6038A	3440A12674	Agilent Technology	2019.01.29	1 year	☐
27	DC Power supply	E3610A	KR24104505	Agilent Technology	2019.01.29	1 year	☐
28	DC Power supply	UP-3005T	68	Unicon Co.,Ltd	2019.01.29	1 year	☐
29	DC Power Supply	SM 3400-D	114701000117	DELTA ELEKTRONIKA	2019.01.29	1 year	☐
30	DC Power supply	6632B	MY43004005	Agilent Technology	2019.01.31	1 year	☒
31	DC Power Supply	6632B	MY43004137	Agilent Technology	2019.01.31	1 year	☐
32	Termination	1433-3	LM718	WEINSCHEL	2019.07.09	1 year	☐
33	Termination	1432-3	QR946	AEROFLEX/WEINSCHEL	2019.07.09	1 year	☒
34	Attenuator	24-30-34	BX5630	Aeroflex / Weinschel	2018.12.15	1 year	☐
35	Attenuator	8498A	3318A09485	HP	2019.01.31	1 year	☐
36	Step Attenuator	8494B	3308A32809	HP	2019.01.31	1 year	☐
37	Attenuator	18B50W-20F	64671	INMET	2019.01.31	1 year	☐
38	Attenuator	10 dB	1	Rohde & Schwarz	2019.05.04	1 year	☐
39	Attenuator	10 dB	2	Rohde & Schwarz	2019.05.04	1 year	☐
40	Attenuator	10 dB	3	Rohde & Schwarz	2019.05.04	1 year	☐
41	Attenuator	10 dB	4	Rohde & Schwarz	2019.05.04	1 year	☐
42	Attenuator	54A-10	74564	WEINSCHEL	2019.09.04	1 year	☐
43	Attenuator	56-10	66920	WEINSCHEL	2019.05.09	1 year	☐
44	Attenuator	48-20-11	BV2658	Aeroflex/Weinschel	2019.08.06	1 year	☒
45	Attenuator	48-30-33-LIM	BL5350	Weinschel Corp.	2019.07.09	1 year	☒
46	Power divider	11636B	51212	HP	2019.02.01	1 year	☒
47	3Way Power divider	KPDSU3W	00070365	KMW	2019.09.03	1 year	☐
48	4Way Power divider	70052651	173834	KRYTAR	2019.02.01	1 year	☐
49	3Way Power divider	1580	SQ361	WEINSCHEL	2019.05.09	1 year	☐

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No.	Instrument	Model	S/N	Manufacturer	Due to cal date	Cal interval	used
50	OSP	OSP120	101577	Rohde & Schwarz	2019.05.04	1 year	☐
51	White noise audio filter	ST31EQ	101902	SoundTech	2019.09.04	1 year	☐
52	Dual directional coupler	778D	17693	HEWLETT PACKARD	2019.01.31	1 year	☐
53	Dual directional coupler	772D	2839A00924	HEWLETT PACKARD	2019.01.31	1 year	☐
54	Band rejection filter	3TNF-0006	26	DOVER Tech	2019.02.01	1 year	☐
55	Band rejection filter	3TNF-0007	311	DOVER Tech	2019.02.01	1 year	☐
56	Band rejection filter	WTR-BRF2442-84NN	09020001	WAVE TECH Co.,LTD	2019.01.31	1 year	☐
57	Band rejection filter	WRCJV12-5695-5725-5825-5855-50SS	1	Wainwright Instruments GmbH	2019.05.04	1 year	☐
58	Band rejection filter	WRCJV12-5120-5150-5350-5380-40SS	4	Wainwright Instruments GmbH	2019.05.04	1 year	☐
59	Band rejection filter	WRCGV10-2360-2400-2500-2540-50SS	2	Wainwright Instruments GmbH	2019.05.04	1 year	☐
60	Band rejection filter	CTF-155M-S1	001	RF One Electronics	2019.09.06	1 year	☒
61	Band rejection filter	CTF-435M-S1	001	RF One Electronics	2019.09.06	1 year	☐
62	Highpass Filter	WHJS1100-10EF	1	WAINWRIGHT	2019.01.31	1 year	☐
63	Highpass Filter	WHJS3000-10EF	1	WAINWRIGHT	2019.01.31	1 year	☐
64	Highpass Filter	WHNX6-5530-7000-26500-40CC	2	Wainwright Instruments GmbH	2019.05.09	1 year	☐
65	Highpass Filter	WHNX6-2370-3000-26500-40CC	4	Wainwright Instruments GmbH	2019.05.09	1 year	☐
66	WideBand Radio Communication Tester	CMW500	102276	Rohde & Schwarz	2019.02.01	1 year	☐
67	Radio Communication Tester	CMU 200	112026	Rohde & Schwarz	2019.01.31	1 year	☐
68	Bluetooth Tester	TC-3000B	3000B6A0166	TESCOM CO., LTD.	2019.01.31	1 year	☐
69	Loop Antenna	6502	9203-0493	EMCO	2019.05.29	2 year	☒
70	BiconiLog Antenna	3142B	1745	EMCO	2020.05.10	2 year	☒
71	Biconical Antenna	VUBA9117	9117-342	Schwarz beck	2020.03.12	2 year	☐
72	Trilog-Broadband Antenna	VULB 9168	9168-606	SCHWARZBECK	2020.09.14	2 year	☐
73	Horn Antenna	3115	2996	EMCO	2020.02.14	2 year	☒
74	Horn Antenna	3115	9605-4834	EMCO	2020.03.12	2 year	☐
75	Horn Antenna	BBHA9170	743	SCHWARZBECK	2019.04.25	2 year	☐
76	Antenna Master(3)	AT13	None	AUDIX	N/A	N/A	☐
77	Turn Table(3)	None	None	AUDIX	N/A	N/A	☐
78	PREAMPLIFIER(3)	8449B	3008A02577	Agilent	2019.02.02	1 year	☒
79	Antenna Master(10)	MA4000-EP	None	innco systems GmbH	N/A	N/A	☒
80	Turn Table(10)	None	None	innco systems GmbH	N/A	N/A	☒
81	AMPLIFIER(10)	TK-PA6S	120009	TESTEK	2019.01.29	1 year	☒
82	AMPLIFIER	TK-PA18	150003	TESTEK	2019.05.04	1 year	☐
83	AMPLIFIER	TK-PA1840H	160010-L	TESTEK	2019.04.27	1 year	☐
84	AMPLIFIER	8447D	2944A07881	H.P	2019.01.29	1 year	☐
85	Antenna Mast	MA2000-EP	None	innco systems GmbH	N/A	N/A	☐
86	Turn Device	DE3700-RH	None	innco systems GmbH	N/A	N/A	☐

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4. SUMMARY TEST RESULTS

Description of Test	FCC Rule	Reference Clause	Used	Test Result
RF Output Power	2.1046, 90.205	Clause 5.1	☒	Compliance
Modulation Characteristics	2.1047, 90.210	Clause 5.2	☒	Compliance
Occupied Bandwidth & Emission Mask	2.1047, 2.1049, 90.209, 90.210	Clause 5.3	☒	Compliance
Frequency Stability	2.1055, 90.213	Clause 5.4	☒	Compliance
Spurious Emission On Antenna Port	2.1053, 90.210	Clause 5.5	☒	Compliance
Transmitter Radiated Unwanted Emissions	2.1053, 90.210	Clause 5.6	☒	Compliance
Transmitter Frequency Behavior	90.214	Clause 5.7	☒	Compliance
Compliance/pass : The EUT complies with the essential requirements in the standard. Not Compliance : The EUT does not comply with the essential requirements in the standard. N/A : The test was not applicable in the standard.				

Procedure Reference

FCC CFR 47, Part 90

ANSI/TIA-603-E-2016

ANSI C63.26-2015

ANSI C63.4-2014

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5. MEASUREMENT RESULTS

5.1 RF Output Power

5.1.1 Standard Applicable [FCC §90.205 & 2.1046]

Applicants for licenses must request and use no more power than the actual power necessary for satisfactory operation.

The output power shall not exceed by more than 20 percent either the output power shown in the Radio Equipment List for transmitters included in this list or when not so listed, the manufacturer's rated output power for the particular transmitter specifically listed on the authorization.

5.1.2 Test Environment conditions

• Ambient temperature : (20 - 21) °C • Relative Humidity : (48 - 49) % R.H.

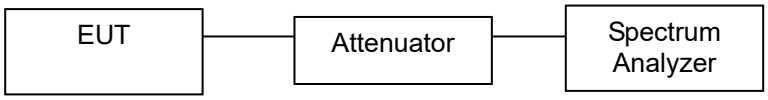
5.1.3 Measurement Procedure

The transmitter output was connected to the spectrum analyzer with an attenuator. The power output shall be monitored and recorded and no adjustment shall be made to the transmitter after the test has begun, except as noted bellow: If the power output is adjustable, measurements shall be made for the highest and lowest power levels.

The spectrum analyzer is set to the as follows :

- RBW : 30 kHz
- VBW : 100 kHz

5.1.4 Test setup



5.1.5 Measurement Result

Modulation	Frequency [MHz]	Power Level	Conducted output Power [dBm]	Conducted output Power [W]	Limit [dBm]	Test Results
Analog	138.0125*	Low	33.41	2.19	1.6 ~ 2.4 W	Compliance
	151.1000	Low	33.00	2.00		Compliance
	158.5500	Low	32.98	1.99		Compliance
	173.3875	Low	32.58	1.81		Compliance
	138.0125*	High	37.47	5.59	3.84 ~ 5.76 W	Compliance
	151.1000	High	37.54	5.68		Compliance
	158.5500	High	37.33	5.41		Compliance
	173.3875	High	36.66	4.64		Compliance
Digital	138.0125*	Low	33.40	2.19	1.6 ~ 2.4 W	Compliance
	151.1000	Low	33.01	2.00		Compliance
	158.5500	Low	33.06	2.02		Compliance
	173.3875	Low	32.68	1.85		Compliance
	138.0125*	High	37.07	5.09	3.84 ~ 5.76 W	Compliance
	151.1000	High	37.02	5.04		Compliance
	158.5500	High	37.06	5.08		Compliance
	173.3875	High	36.52	4.49		Compliance

* Not for FCC Review

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5.2 Modulation Characteristics

5.2.1 Standard Applicable [FCC §Part 2.1047(a) & 90.207]

2.1047(b): Equipment which employs modulation limiting. A curve or family of curves showing the percentage of modulation versus the modulation input voltage shall be supplied. The information submitted shall be sufficient to show modulation limiting capability throughout the range of modulating frequencies and input modulating signal levels employed.

Recommended frequency deviation characteristics are given below:

CH spacing	Frequency deviation
12.5 kHz	2.5 kHz

Part 2.1047(a) A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz shall be submitted. For equipment required to have an audio low-pass filter, a curve showing the frequency response of the filter, or of all circuitry installed between the modulation limiter and the modulated stage shall be submitted.

Audio freq.	Minimum Attenuation Rel. to 1 kHz Attenuation
3 - 20 kHz	60 log10(f/3) dB where f is in kHz
20 - 30 kHz	50 dB

5.2.2 Test Environment conditions

- Ambient temperature : (20 - 21) °C • Relative Humidity : (48 - 49) % R.H.

5.2.3 Measurement Procedure

- Modulation Limit

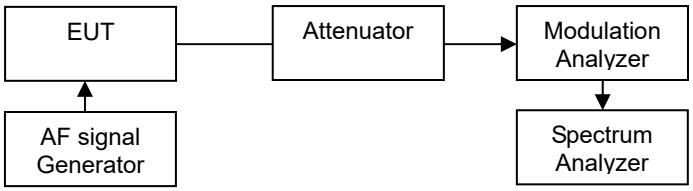
The carrier frequency deviation was measured with the tone adjust the audio input for 60 % of rated system deviation at 1 kHz using this level as a reference (0 dB) and vary the input level from –20 to +20 dB. Record the frequency deviation obtained as a function of the input level at frequencies 0.1, 0.5, 1.0, 3.0 and 5.0 kHz. The maximum deviation was recorded at each test condition.

- Audio frequency response

The audio input level needed for a particular percentage of modulation was measured in accordance with ANSI/TIA-603-E-2016. The audio input curves versus modulation are shown below. Curves are provided for audio input frequencies of 300, 1000, and 3000 Hz.

- Test freq: Mid

5.2.4 Test setup



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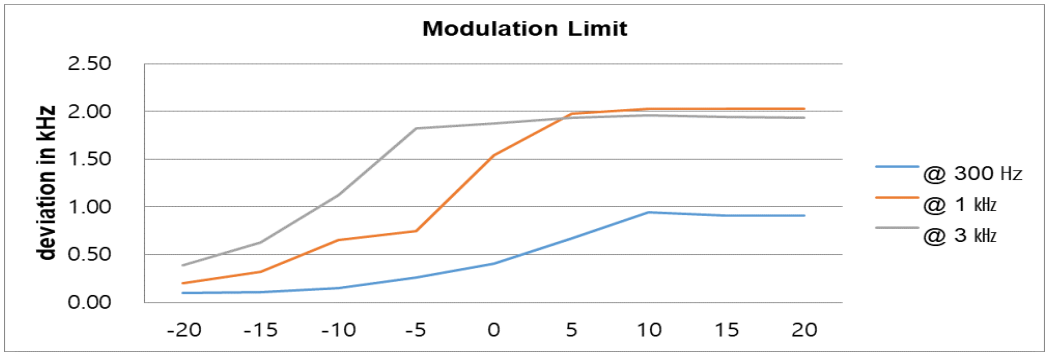
5.2.5 Measurement Result

- Modulation Limit

Audio input Level (dB)	Frequency Deviation (kHz)			Limit (kHz)
	@ 300 Hz	@ 1 kHz	@ 3 kHz	
-20	0.10	0.20	0.39	2.5
-15	0.11	0.32	0.63	2.5
-10	0.15	0.65	1.12	2.5
-5	0.26	0.75	1.82	2.5
0	0.41	1.54	1.87	2.5
5	0.67	1.98	1.93	2.5
10	0.94	2.03	1.96	2.5
15	0.91	2.03	1.94	2.5
20	0.91	2.03	1.93	2.5



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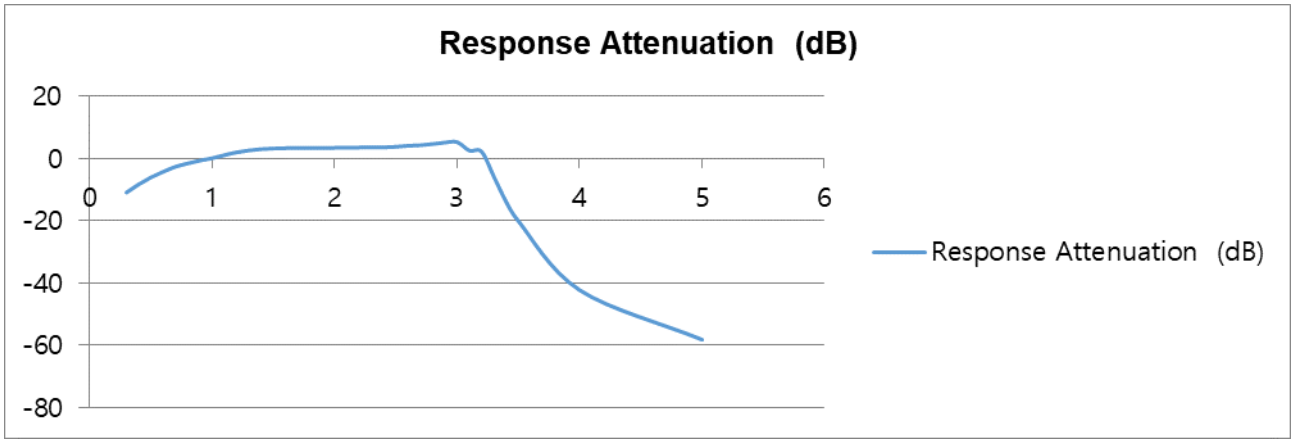
- Audio frequency response

Audio Frequency (Hz)	Response Attenuation (dB)	Audio Frequency (Hz)	Response Attenuation (dB)
300	-11.03	2 800	4.52
400	-8.42	2 900	4.98
500	-6.16	3 000	5.11
600	-4.35	3 100	2.42
700	-2.75	3 200	2.03
800	-1.68	3 300	-5.97
900	-0.76	3 400	-14
1 000	-0.01	3 500	-20.16
1 200	1.86	4 000	-42.25
1 400	2.87	5 000	-58.11
1 600	3.19		
1 800	3.23		
2 000	3.29		
2 100	3.33		
2 200	3.39		
2 300	3.39		
2 400	3.45		
2 500	3.63		
2 600	3.97		
2 700	4.13		



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5.3 Occupied Bandwidth & Emission Mask

5.3.1 Standard Applicable [FCC §90.209 & 90.210 & 2.1047 & 2.1049]

The authorized bandwidth shall be 11.25 kHz for 12.5 kHz channel separation and 6 kHz for 6.25 kHz channel separation.

Emission mask D: For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:

(1) On any frequency from the center of the authorized bandwidth f0 to 5.625 kHz removed from f0: Zero dB.

(2) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 5.625 kHz but no more than 12.5 kHz: At least 7.27(fd−2.88 kHz) dB.

(3) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 12.5 kHz: At least 50 + 10 log (P) dB or 70 dB, whichever is the lesser attenuation.

5.3.2 Test Environment conditions

• Ambient temperature : (20 - 21) °C • Relative Humidity : (48 - 49) % R.H.

5.3.3 Measurement Procedure

• Occupied Bandwidth

The EUT was modulated by 2.5 kHz Sine wave audio signal, The level of the audio signal employed is 16 dB greater than that necessary to produce 50 % of rated system deviation. Rated system deviation is 2.5 kHz (12.5 kHz channel spacing).

The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.

Measure the maximum width of the emission that is 26 dB down from the peak of the emission. The 99 % occupied bandwidth is the frequency bandwidth of the signal power at the 99 % channel power of occupied bandwidth.

The spectrum analyzer is set to the as follows :

- RBW : 300 Hz
- VBW : >3 x RBW
- Detector function : peak
- Trace : max hold

• Emission Mask

• Voice or Digital Modulation Through a Voice Input Port @ 2.1049(c)(i)

The transmitter was modulated by a 2.5 kHz tone signal at an input level 16 dB greater than that required to produce 50 % modulation (e.g.: ±2.5 kHz peak deviation at 1 kHz modulating frequency). The input level was established at the frequency of maximum response of the audio modulating circuit.

• Digital Modulation Through a Data Input Port @ 2.1049(h):

Transmitters employing digital modulation techniques - when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the Emission Masks shall be shown for operation with any devices used for modifying the spectrum when such devices are operational at the discretion of the user.

The following EMI Receiver bandwidth shall be used for measurement of Emission Mask/Out-of-Band Emission Measurements:

The spectrum analyzer is set to the as follows

- For 25 kHz Channel Spacing: RBW = 300 Hz
- For 12.5 kHz or 6.25 kHz Channel Spacings: RBW = 100 Hz
- The all cases are set “VBW: >3xRBW”

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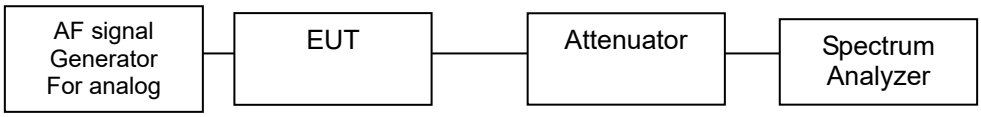
5.3.4 Test setup



5.3.5 Measurement Result

Modulation	Frequency [MHz]	Power Level	99 % Bandwidth [KHz]	26 dB Bandwidth [kHz]	Limit [kHz]	Test Results
Analog	138.0125*	Low	5.53	9.99	≤11.25	Compliance
	151.1000	Low	5.53	10.04		Compliance
	158.5500	Low	5.53	10.04		Compliance
	173.3875	Low	5.53	10.01		Compliance
	138.0125*	High	5.53	9.99	≤11.25	Compliance
	151.1000	High	**5.56**	9.99		Compliance
	158.5500	High	5.53	9.99		Compliance
	173.3875	High	5.53	9.99		Compliance
Digital (Voice and Data)	138.0125*	Low	8.08	10.07	≤11.25	Compliance
	151.1000	Low	7.99	10.16		Compliance
	158.5500	Low	7.99	10.01		Compliance
	173.3875	Low	8.08	9.99		Compliance
	138.0125*	High	8.10	10.25	≤11.25	Compliance
	151.1000	High	7.99	10.13		Compliance
	158.5500	High	8.05	10.10		Compliance
	173.3875	High	**8.10**	10.16		Compliance

* Not for FCC Review

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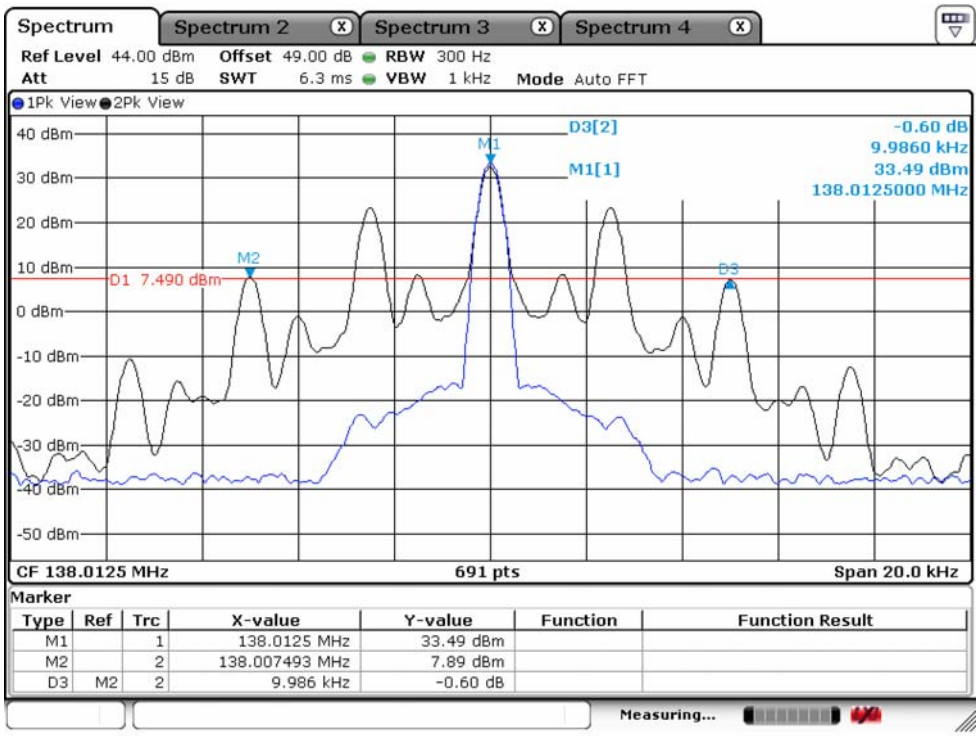
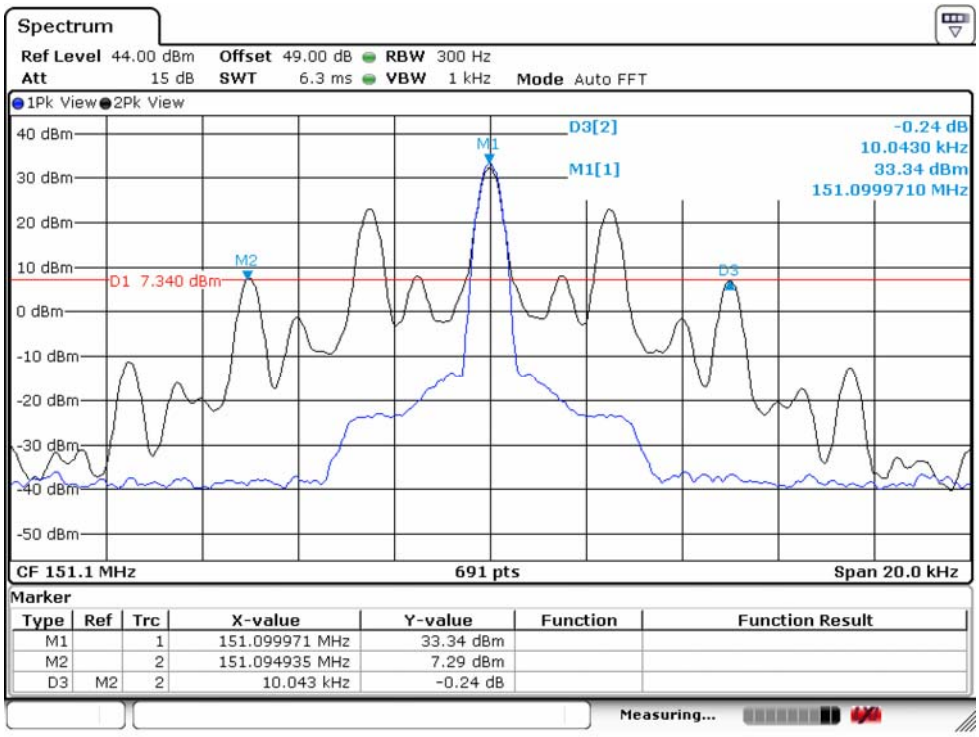
5.3.6 Test Plot

26 dB band width for analog / Power level: Low

CH Low : 138.0125 MHz



CH Middle : 151.1000 MHz



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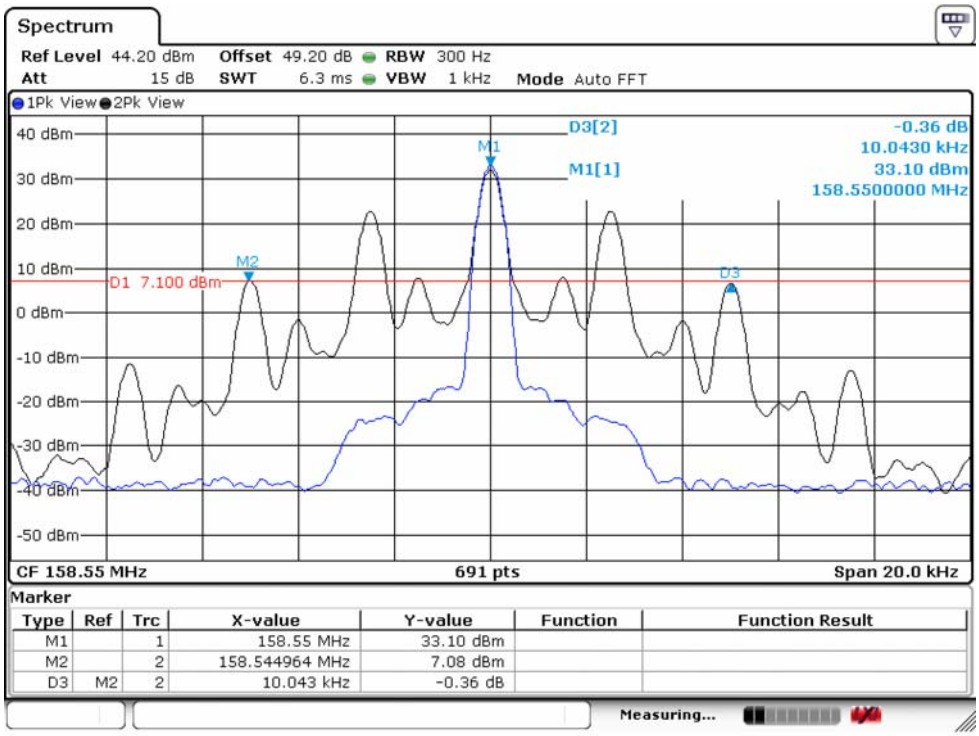
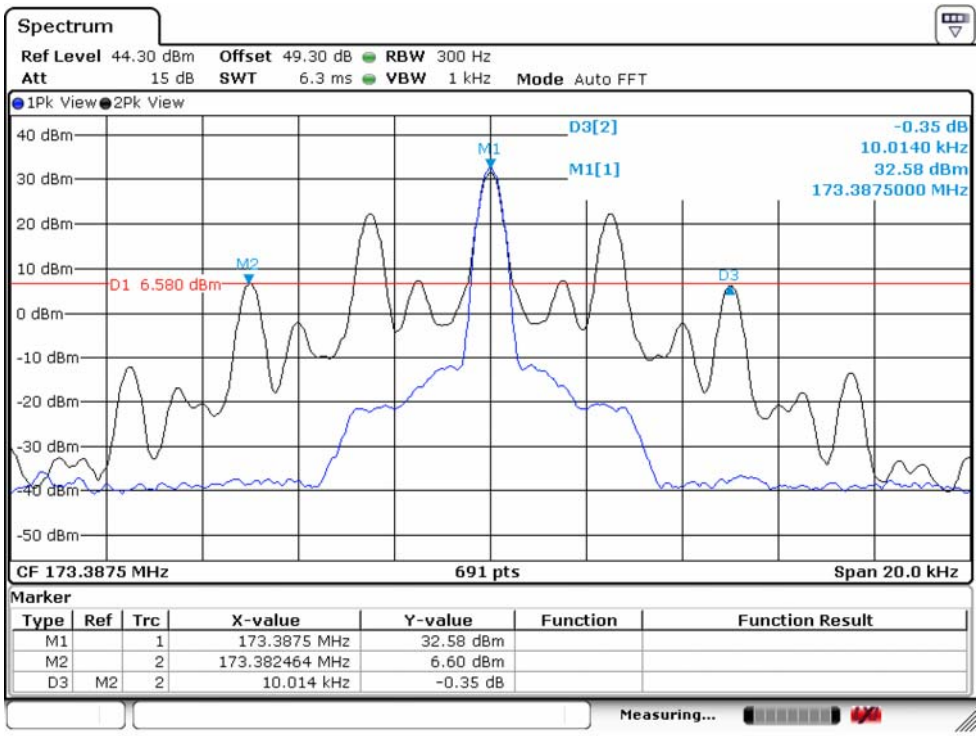
CH Mid : 158.55 MHz



CH High : 173.3875 MHz



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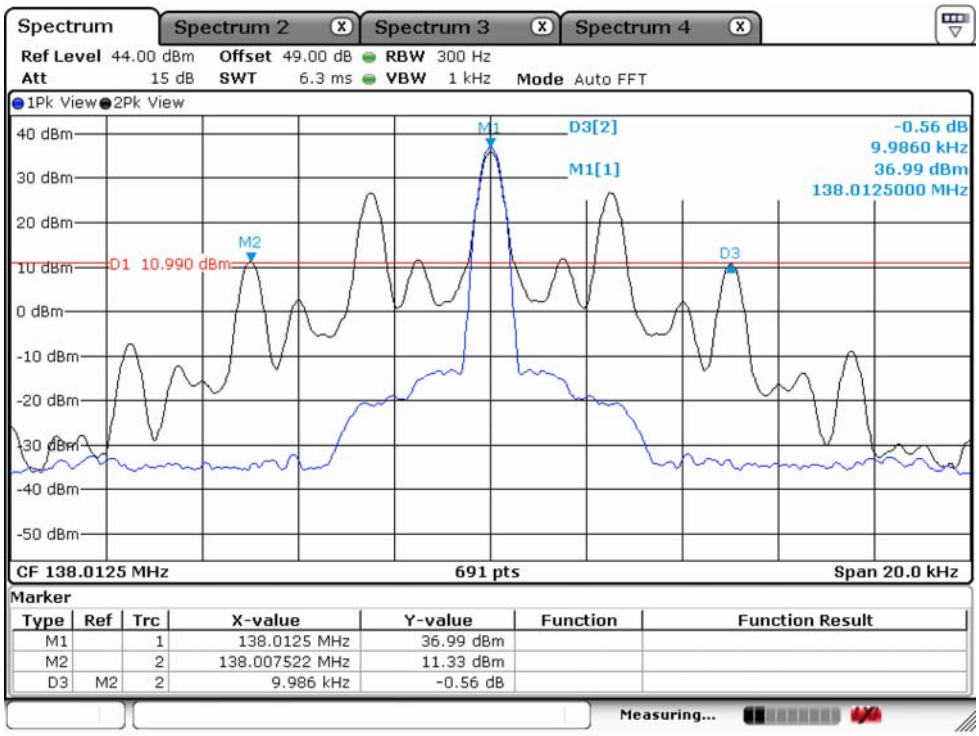
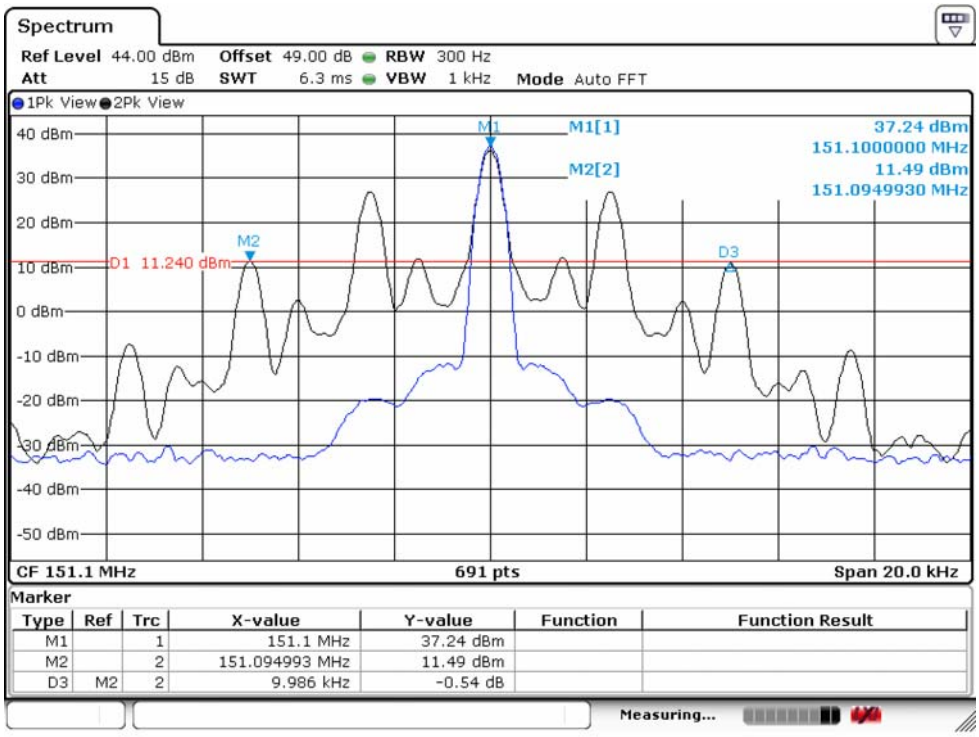
26 dB band width for analog / Power level: High

CH Low : 138.0125 MHz



CH Middle : 151.1000 MHz



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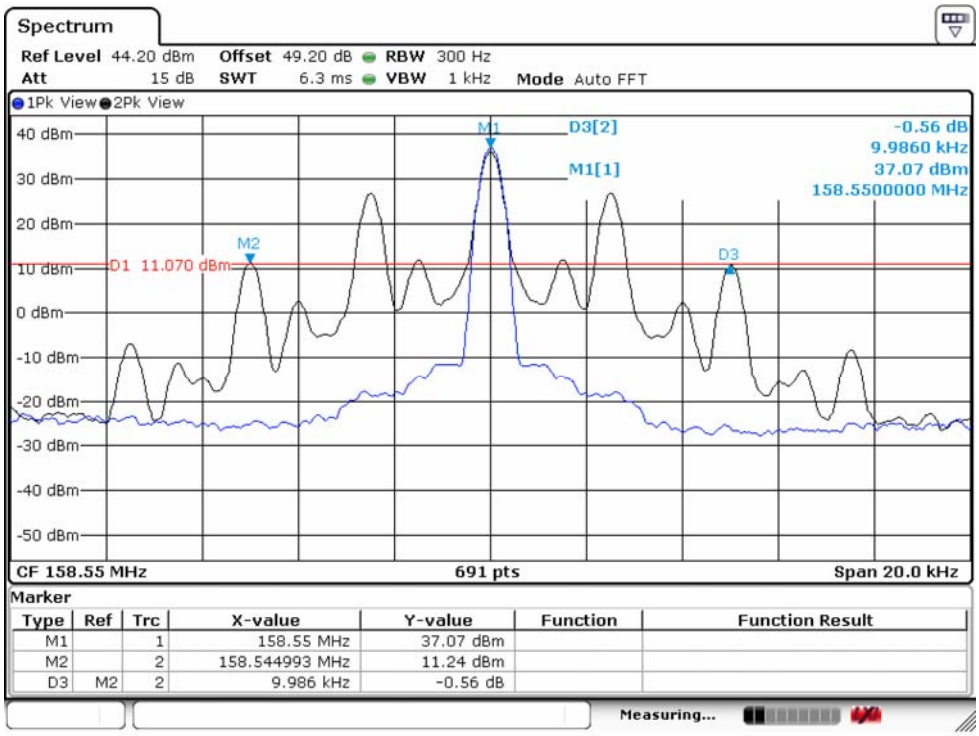
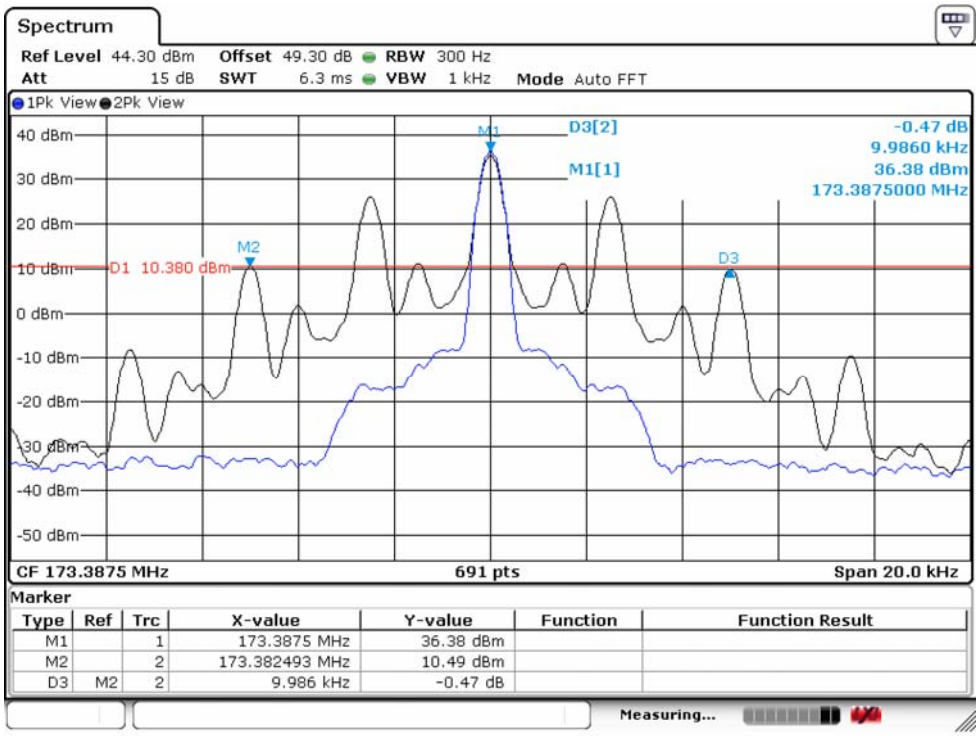
CH Mid : 158.55 MHz



CH High : 173.3875 MHz



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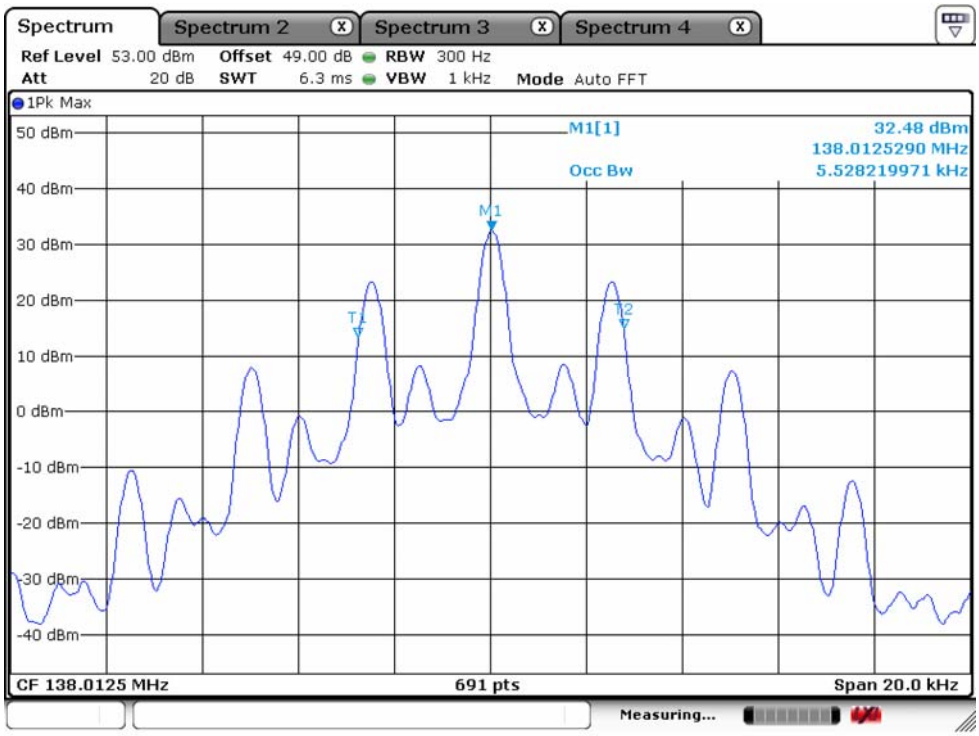
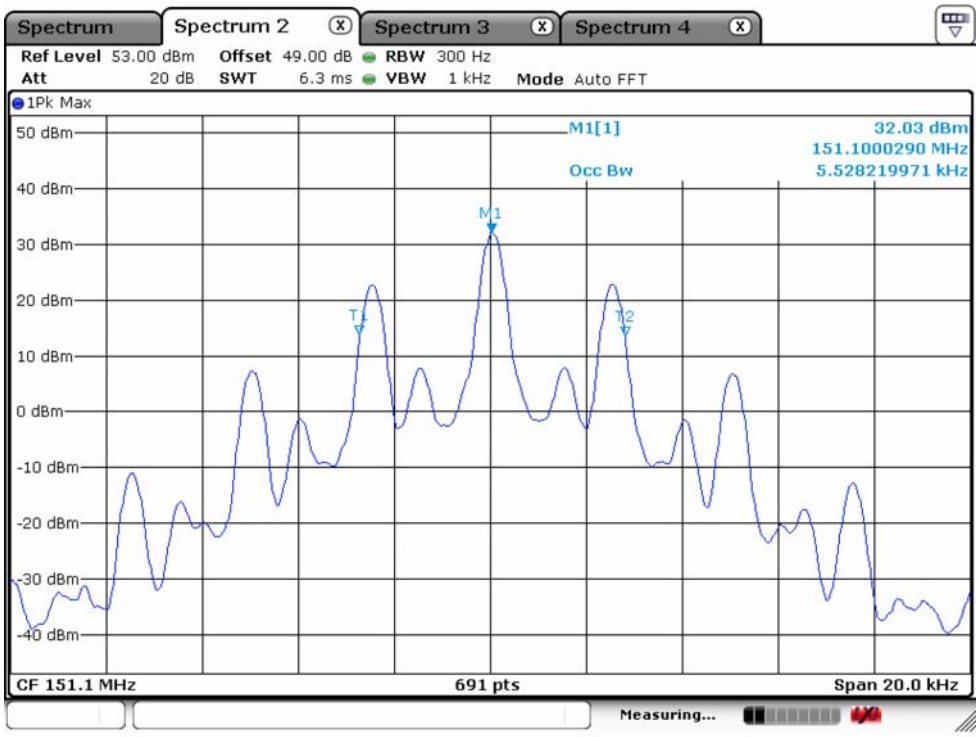
99 % band width for analog / Power level: Low

CH Low : 138.0125 MHz



CH Middle : 151.1000 MHz



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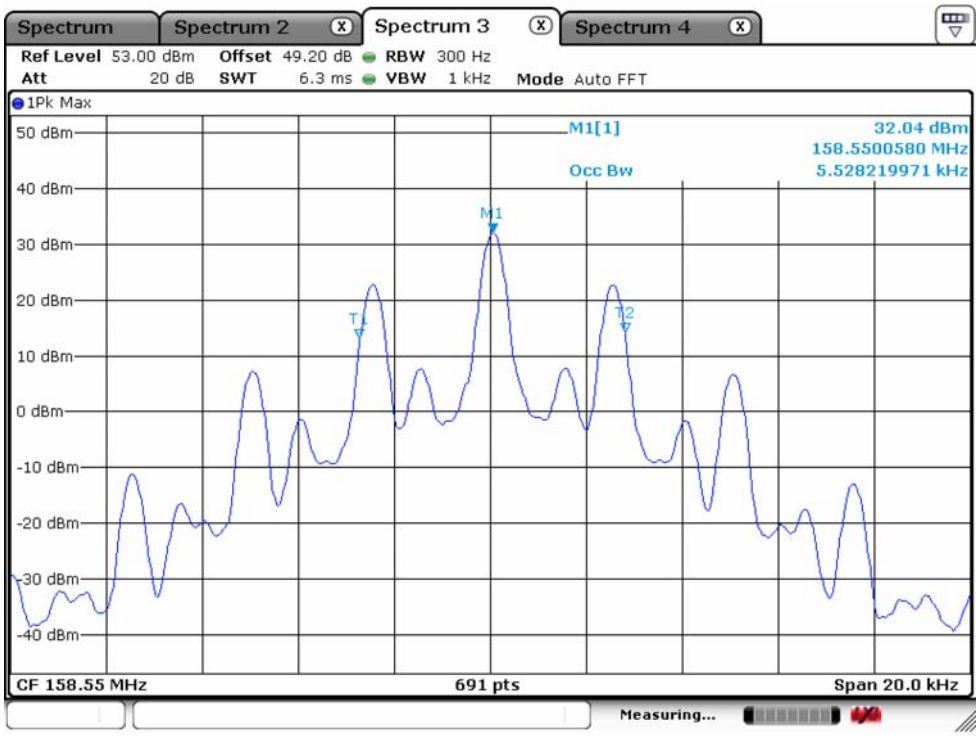
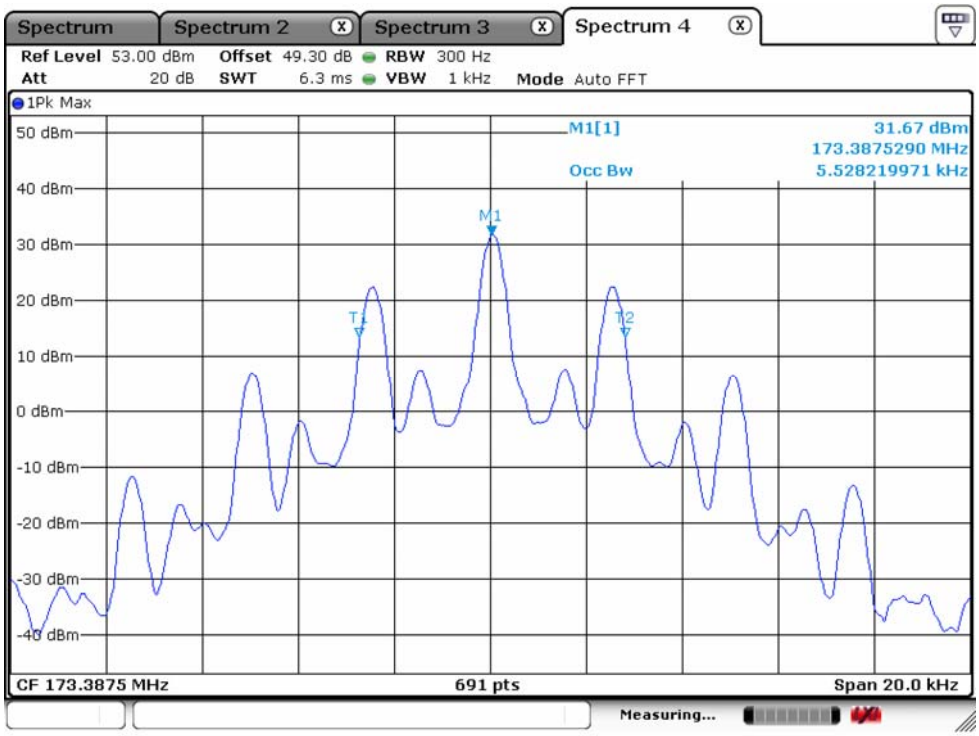
CH Mid : 158.55 MHz



CH High : 173.3875 MHz



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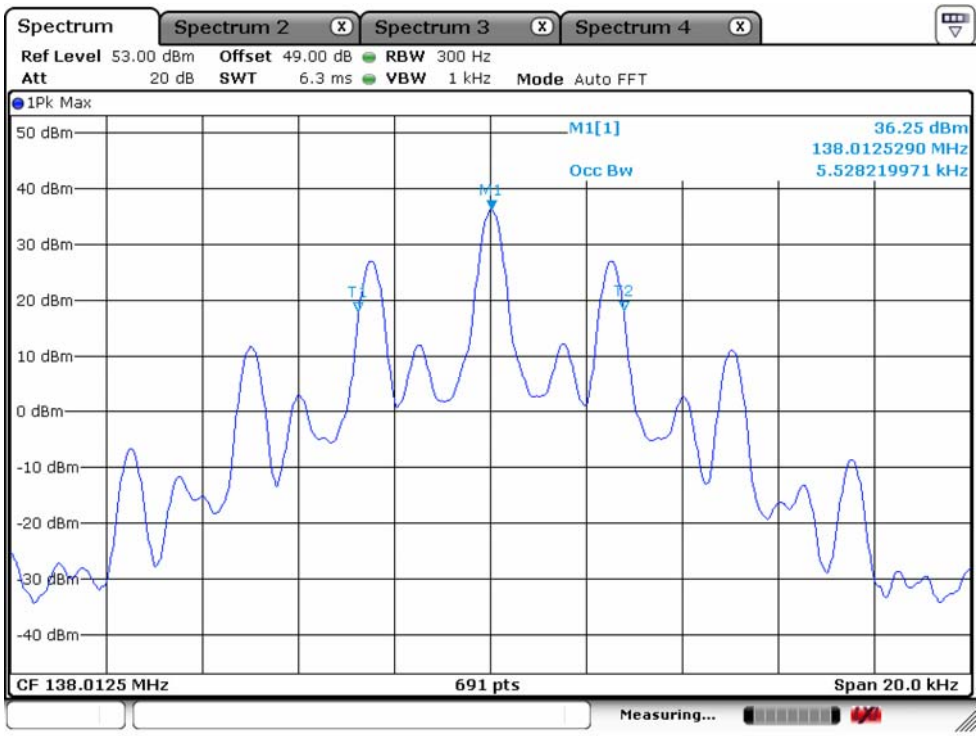
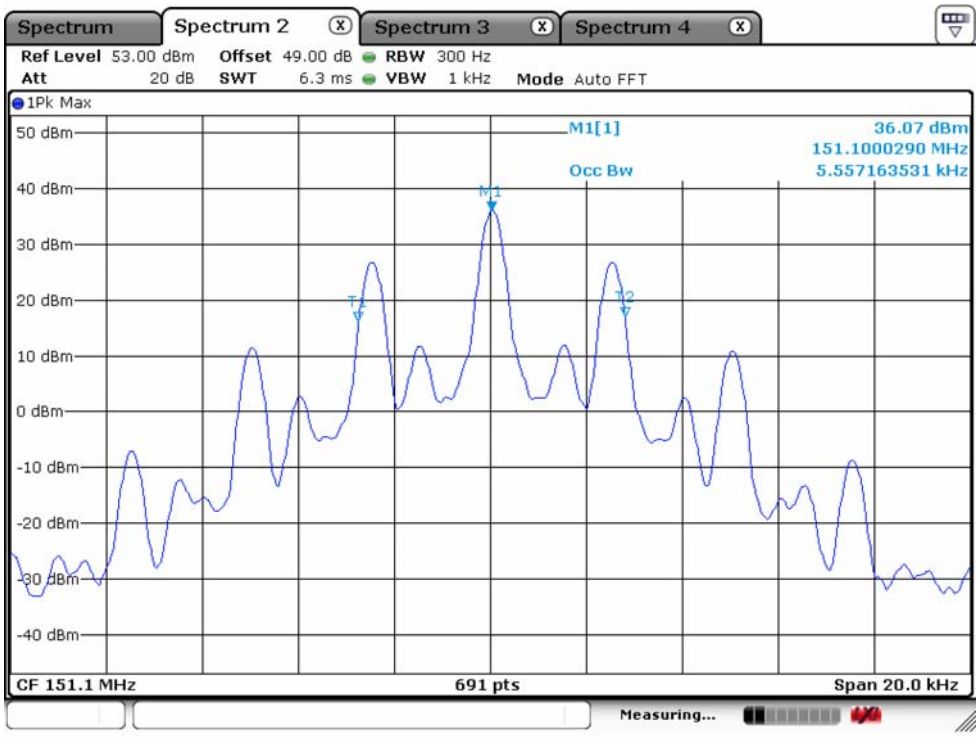
99 % band width for analog / Power level: High

CH Low : 138.0125 MHz



CH Middle : 151.1000 MHz



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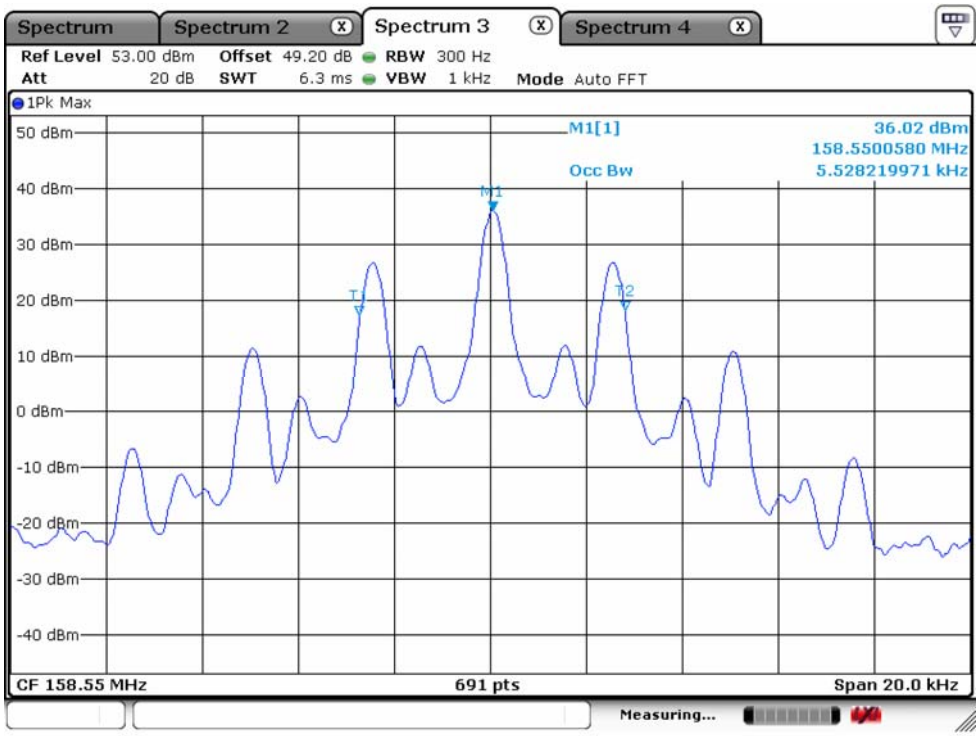
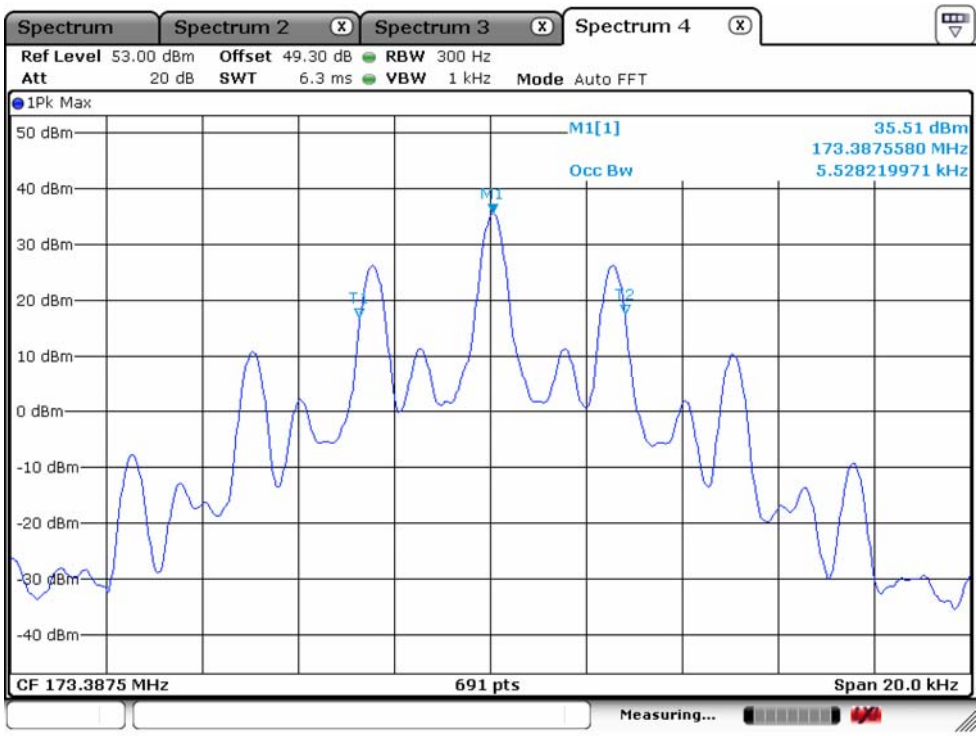
CH Mid : 158.55 MHz



CH High : 173.3875 MHz



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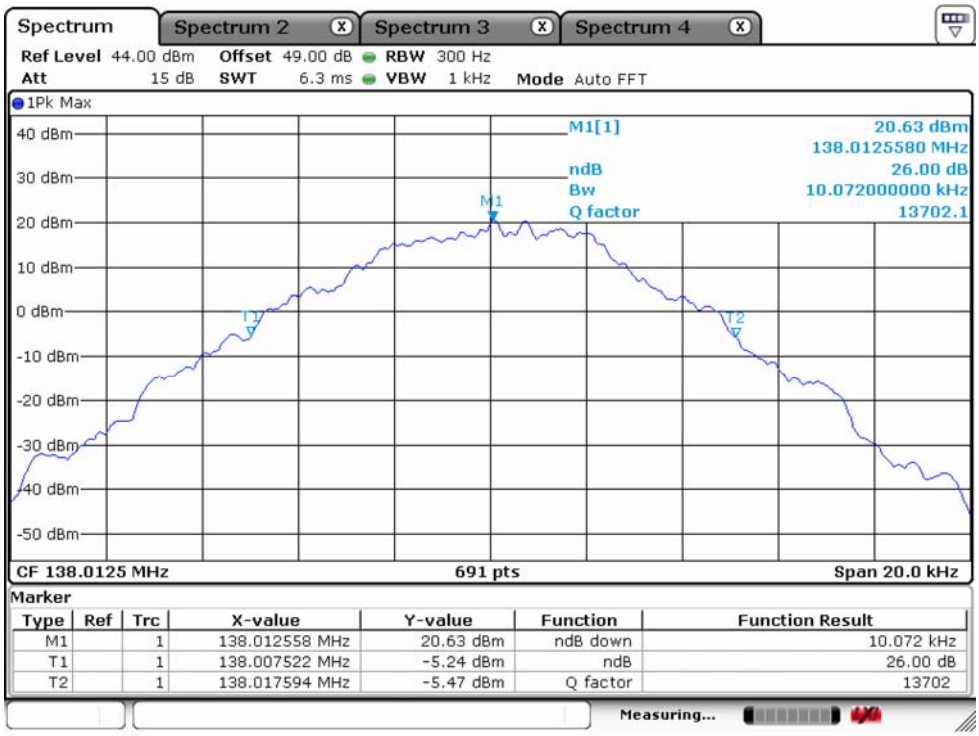
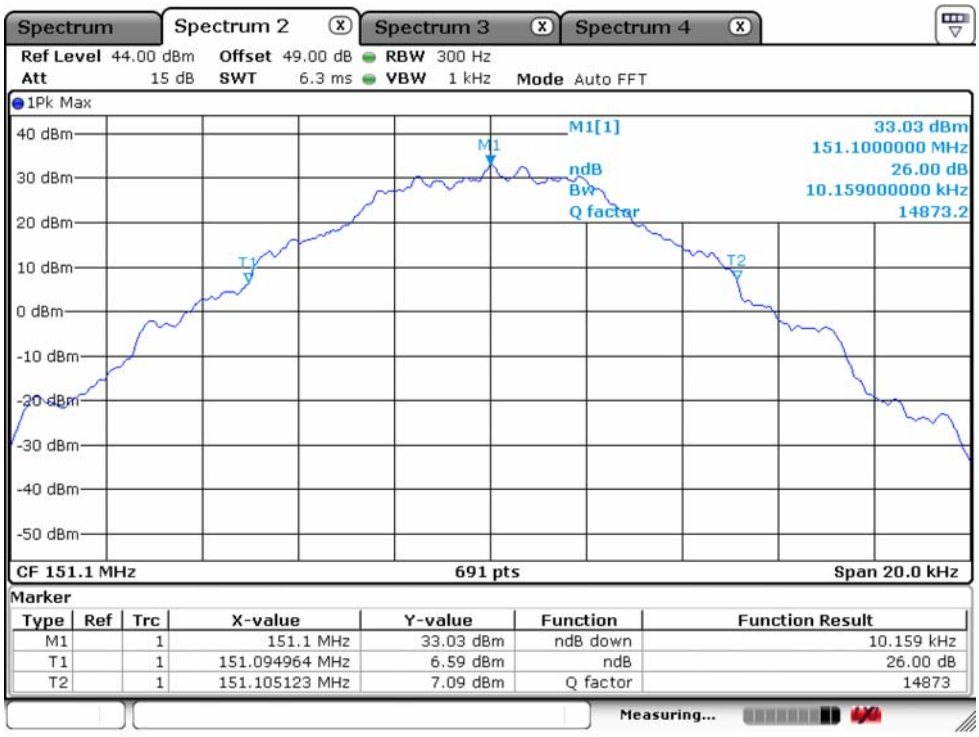
26 dB band width for Digital / Power level: Low

CH Low : 138.0125 MHz



CH Middle : 151.1000 MHz



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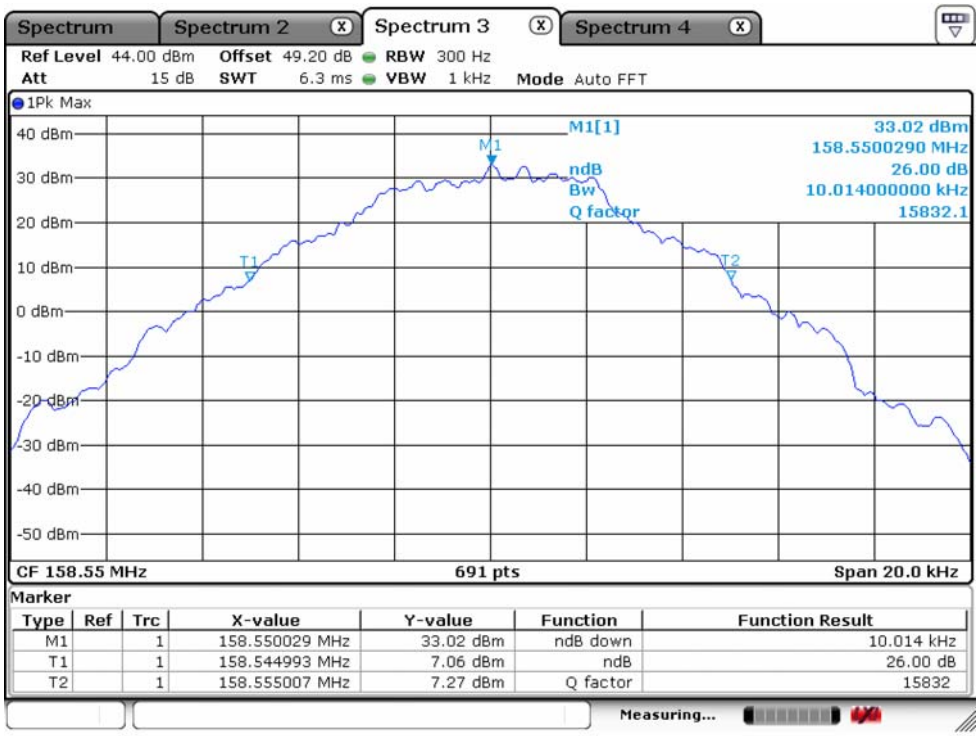
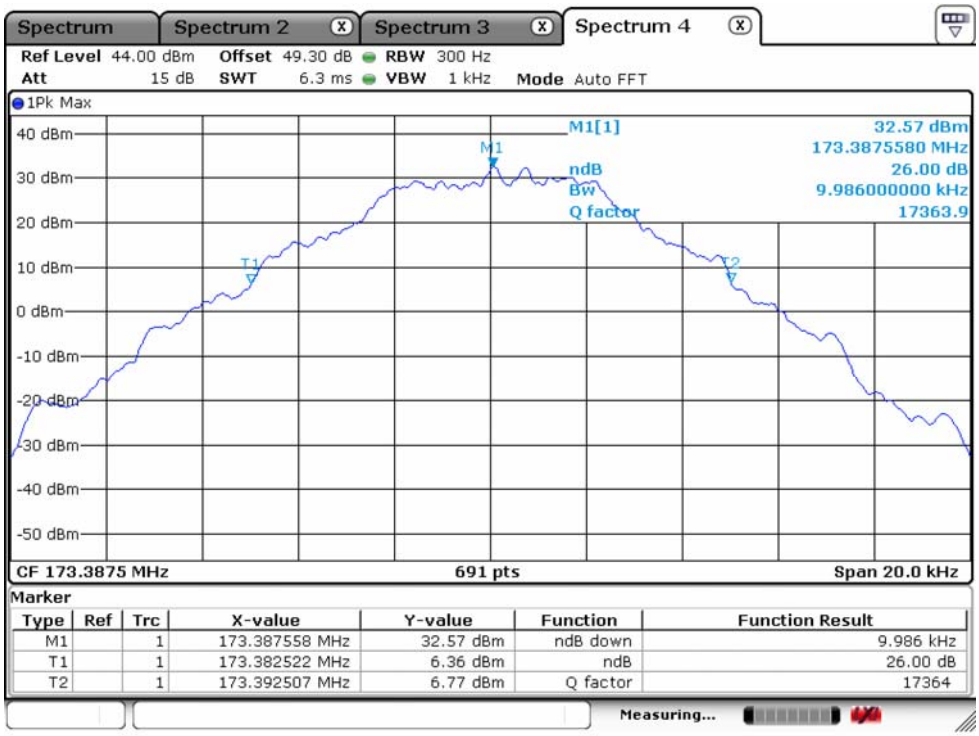
CH Mid : 158.55 MHz



CH High : 173.3875 MHz



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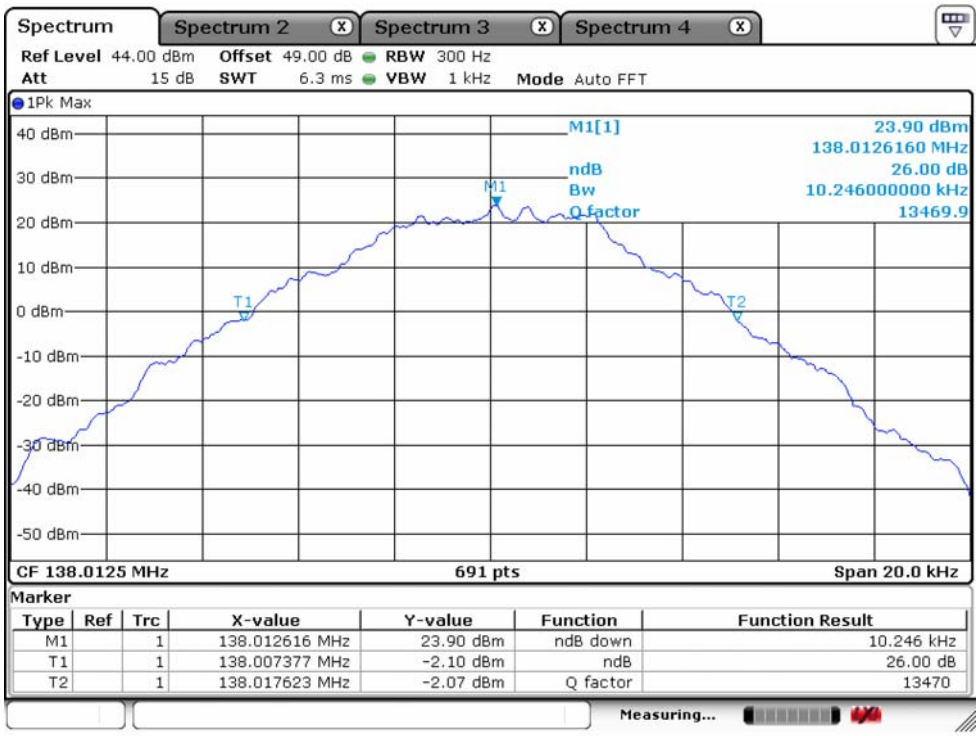
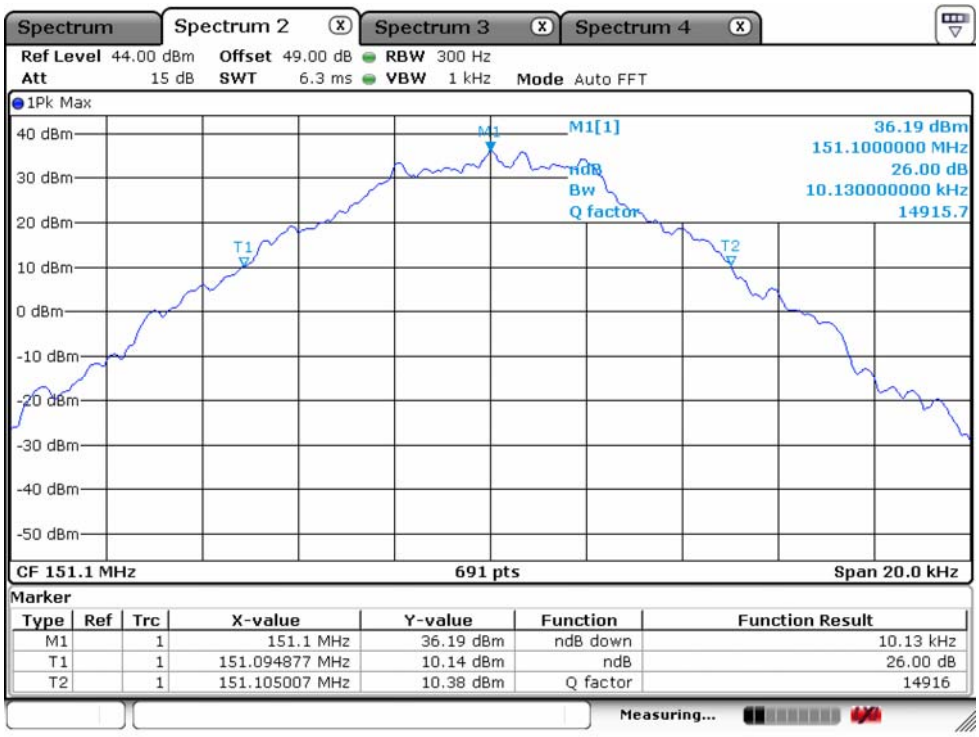
26 dB band width for Digital / Power level: High

CH Low : 138.0125 MHz



CH Middle : 151.1000 MHz



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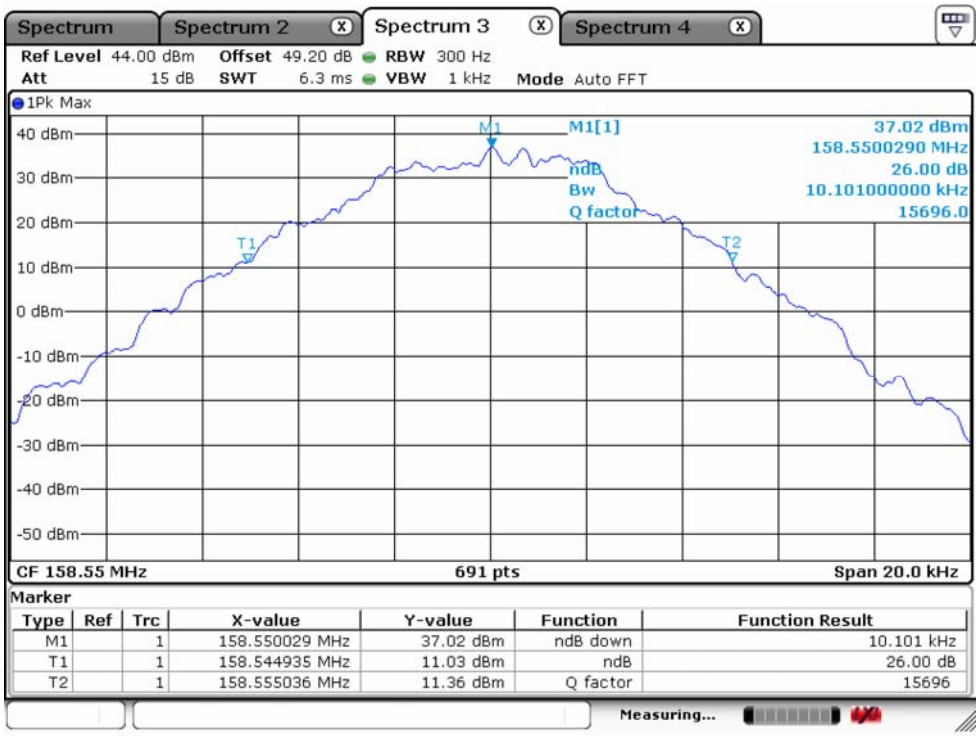
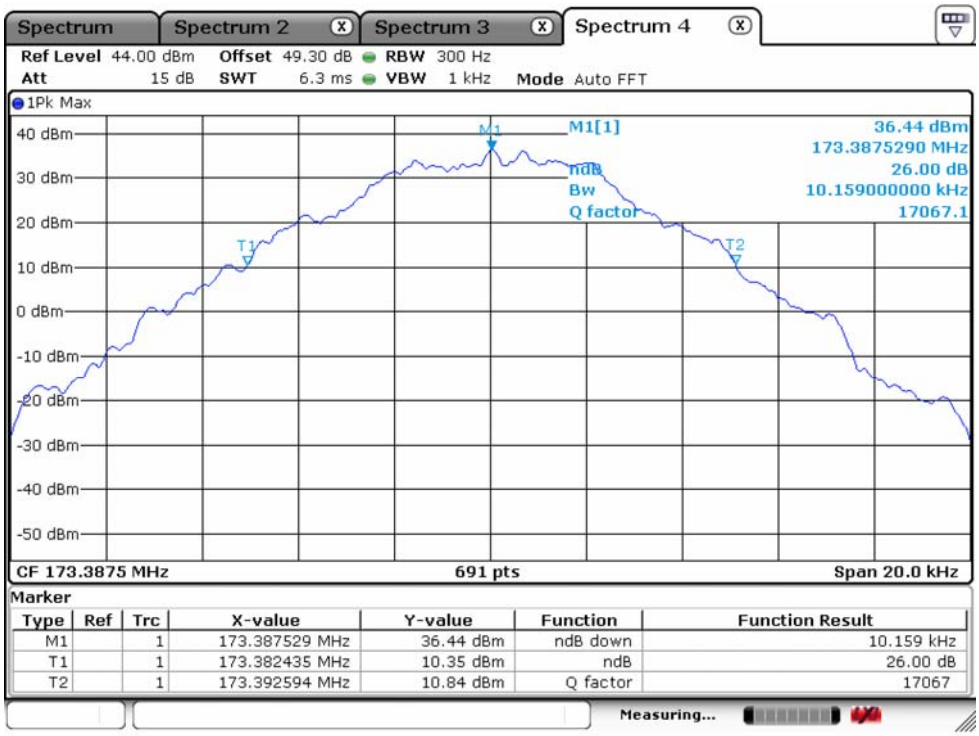
CH Mid : 158.55 MHz



CH High : 173.3875 MHz



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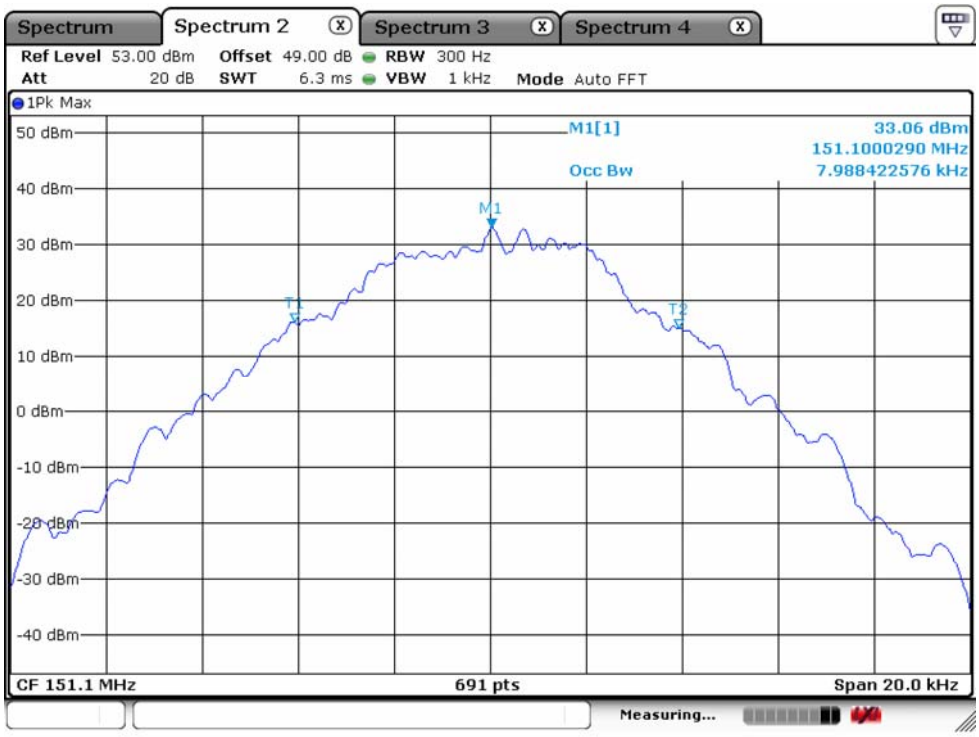
99 % band width for Digital / Power level: Low

CH Low : 138.0125 MHz

CH Middle : 151.1000 MHz



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CH Mid : 158.55 MHz

CH High : 173.3875 MHz

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