FCC - TEST REPORT

Report Number	: **68.950.15.291.01**	Date of Issue:	October 30, 2015

Model	: **Le Max**
Product Type	: TD LTE digital mobile phone
Applicant	: Lemobile Information Technology (Beijing) Co., Ltd
Address	: WENHUAYING NORTH (No.1, LINKONG 2nd St), GAOLIYING, SHUNYI DISTRICT, BEIJING, China
Production Facility	: MAINTEK COMPUTER (SUZHOU) CO LTD
Address	: NO. 233, JIN FENG ROAD, NEW DISTRICT, SUZHOU, CHINA
Test Result	: ■ **Positive** ☐ **Negative**
Total pages including Appendices	: 188

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name:	TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China
FCC Registration Number:	502708
Telephone:	86 755 8828 6998
Fax:	86 755 8828 5299

Test Site 2

Company name:	Shenzhen Academy of Metrology and Quality Inspection National Digital Electronic Product Testing Center NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China
FCC Registration Number:	97379(open area test site) and 274801(semi anechoic chamber).
Telephone:	+86 755 8692 8965
Fax:	+86 755 8600 9898-31396

Remark: All test items were performed at Site 2.

3 Description of the Equipment Under Test

Product:	TD LTE digital mobile phone
Model no.:	Le Max
FCC ID:	2AFWMLEMAX
Brand Name:	Letv
Rating:	DC 3.8V by Li-ion Battery or DC 5.0V/2A by adapter Powered by external power supply: Adaptor Input: 100-240VAC, 50/60Hz; 500mA Adaptor Output: 5.0V, 2A
RF Transmission Frequency:	GSM850: TX 824MHz~849MHz RX 869MHz~894MHz PCS1900: TX 1850MHZ~1910MHz RX 1930MHz~1990MHz WCDMA 850: TX 824MHz~849MHz RX 869MHz~894MHz WCDMA 1900: TX 1850MHZ~1910MHz RX 1930MHz~1990MHz LTE Band 41: TX 2496MHz~2690MHz RX 2496MHz~2690MHz 5MHz: Supported 10MHz: Supported 15MHz: Supported 20MHz: Supported
Modulation:	GSM850/PCS1900 :GMSK 8PSK WCDMA850//WCDMA1900:QPSK LTE Band 41LTE Band 7:QPSK 16QAM
Antenna Type:	PIFA Antenna
Antenna Gain:	1.4dBi
Description of the EUT:	The Equipment Under Test (EUT) is a Mobile Phone with 2G/3G/4G function.

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4 Summary of Test Standards

Test Standards	
FCC Part 22 Subpart H 10-1-2014 Edition	CELLULAR RADIOTELEPHONE SERVICE
FCC Part 22 Subpart H 10-1-2014 Edition	BROADBAND PCS
FCC Part 27 Subpart C 10-1-2014 Edition	TECHNICAL STANDARDS

The tests documented in this report were performed in accordance with ANSI/TIA-603-D (2010) & KDB971168, FCC CFR 47 Part 2, Part 22, Part 24 and Part 27.

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5 Summary of Test Results

Technical Requirements					
FCC Part 22H & 24E & 27					
FCC Measurement Specification	FCC Limits Part(s)	Description	Pages	Test Site	Test Result
§15.207		Conducted emission AC power port	11	Site 2	Pass
§2.1046	§22.913 §24.232(b) §27.50(d) §27.50(h)	Conducted Power of Transmitter	15	Site 2	Pass
§2.1046	§22.913 §24.232 §27.50(d) §27.50(h)	Effective Radiated Power of Transmitter	21	Site 2	Pass
§2.1046	§24.232(d) §27.50(d) §27.50(h)	Peak to Average Radio	25	Site 2	Pass
§2.1049	§22.917(b) §24.238(b) §27.53	Occupied Bandwidth	26	Site 2	Pass
§2.1051	§22.917 §24.238 §27.53	Spurious Emission at Antenna Terminal	47	Site 2	Pass
§2.1053	§22.917 §24.238 §27.53	Radiated Spurious Emissions	163	Site 2	Pass
§2.1055	§22.355 §24.235 §27.54	Frequency Stability	177	Site 2	Pass

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6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: 2AFWMLEMAX complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C Rules.

SUMMARY:

All tests according to the regulations cited on page 5 were.

■ - Performed

☐ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

☐ - **Does not** fulfill the general approval requirements.

Sample Received Date: September 6, 2015

Testing Start Date: September 7, 2015

Testing End Date: October 27, 2015

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Reviewed by:	Prepared by:
John Zhi	Alan Xiong
EMC Project Manager	EMC Project Engineer

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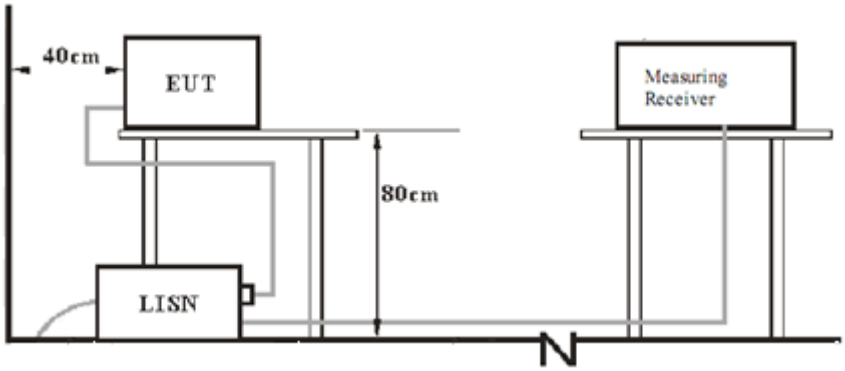
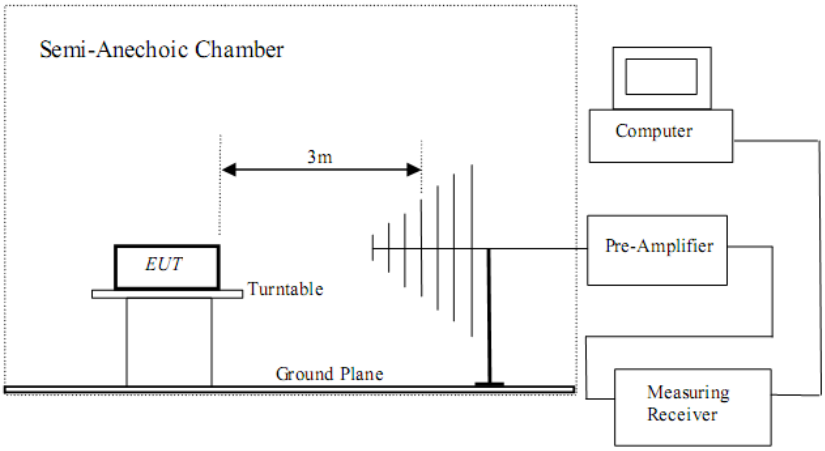
7 Test Setups

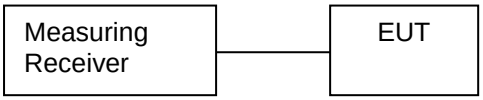
7.1 AC Power Line Conducted Emission test setups



7.2 Radiated test setups



7.3 Conducted RF test setups



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8 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
---	---	---	---

9 Operating Condition of EUT

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (X plane).

TM1: GSM Mode with GMSK Modulation
TM2: EDGE Mode with 8PSK Modulation
TM3: WCDMA Mode with QPSK Modulation
TM4: LTE Mode with QPSK Modulation
TM5: LTE Mode with 16QAM Modulation

The maximum power levels are GSM mode for GMSK link, Edge mode for 8PSK link, WCDMA mode for QPSK link, LTE Mode for QPSK link, LTE mode for 16QAM link. Only these modes were used for all tests

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10 Technical Requirement

10.1 Conducted Emission

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

According to §15.207, conducted emissions limit as below:

Frequency MHz	QP Limit dBµV	AV Limit dBµV
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

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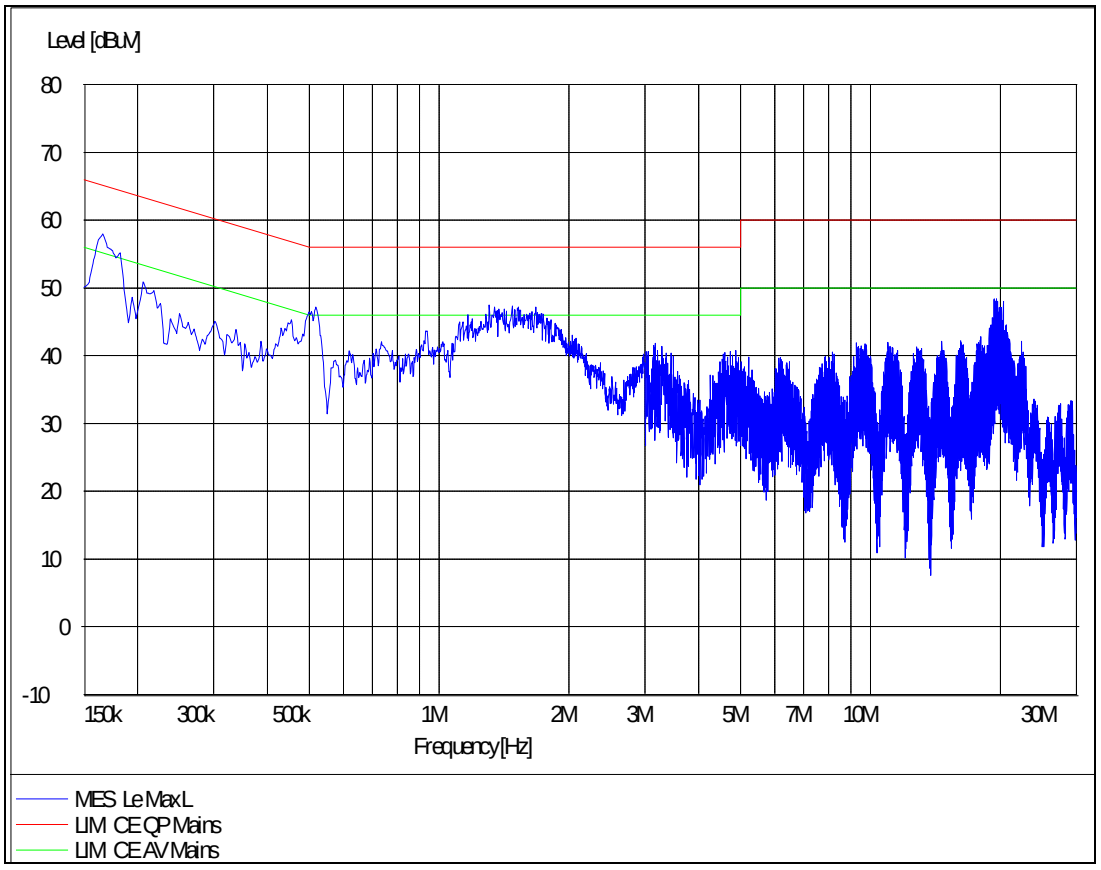
Conducted Emission

Product Type	:	TD LTE digital mobile phone
M/N	:	Le Max
Operating Condition	:	Charging and Transmitting
Test Specification	:	Line
Comment	:	AC 120V/60Hz



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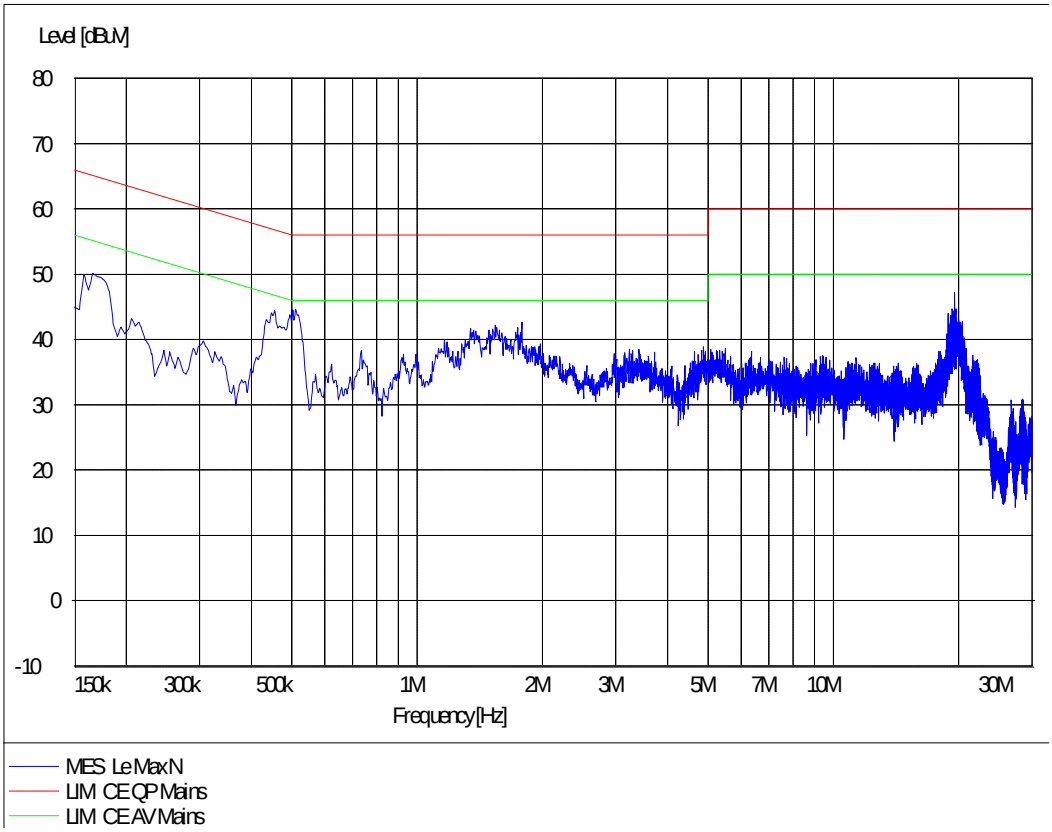
Conducted Emission

Product Type	:	TD LTE digital mobile phone
M/N	:	Le Max
Operating Condition	:	Charging and Transmitting
Test Specification	:	Neutral
Comment	:	AC 120V/60Hz



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Conducted Emission

Model No.: Le Max

Test mode: Charging and transmitter

	Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
			Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)
Line	0.166	9.7	38.5	48.2	65.2	22.3	32.0	55.2
	0.518	9.8	32.4	42.2	56.0	22.9	32.7	46.0
	1.342	9.8	31.6	41.4	56.0	21.0	30.8	46.0
	1.498	9.8	31.7	41.5	56.0	21.4	31.2	46.0
	1.670	9.8	30.9	40.7	56.0	20.6	30.4	46.0
	19.384	9.9	32.4	42.3	60.0	22.8	32.7	50.0
Neutral	0.446	9.7	29.7	39.4	56.9	22.9	32.6	46.9
	0.510	9.8	29.7	39.5	56.0	22.2	32.0	46.0
	1.538	9.8	26.8	36.6	56.0	19.4	29.2	46.0
	19.512	9.9	27.6	37.5	60.0	21.7	31.6	50.0
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)
3. The other emission levels were very low against the limit.

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10.2 Conducted Output Power

10.2.1 Test Procedure

The transmitter output port was connected to base station.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Measure the maximum burst average power and average power for other modulation signal.

The EUT was setup for the max output power with pseudo random data modulation. Power was measured with Spectrum Analyzer. The measurements were performed on all modes (GSM/GPRS850, GSM/GPRS1900, WCDMA/HSPA band V, LTE Band 41) at 3 typical channels (the Top Channel, the Middle Channel and the Bottom Channel) for each band.

10.2.2 Test Data

The conducted power tables are as follows:

Band: GSM850	Average Power [dBm]		
Channel	128	190	251
Frequency (MHz)	824.2	836.6	848.8
GSM (GMSK, 1 Tx slot)	33.69	33.47	33.37
GPRS (GMSK, 1 Tx slot)	33.61	33.44	33.33
GPRS (GMSK, 2 Tx slots)	31.98	32.27	31.96
GPRS (GMSK, 3 Tx slots)	31.10	30.98	30.57
GPRS (GMSK, 4 Tx slots)	29.36	29.82	29.47
EDGE (8PSK, 1 Tx slot)	27.91	27.69	27.37
EDGE (8PSK, 2 Tx slot)	25.72	25.57	25.21
EDGE (8PSK, 3 Tx slot)	24.01	23.91	23.59
EDGE (8PSK, 4 Tx slot)	23.34	23.25	22.95

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Band: GSM1900	Average Power [dBm]		
Channel	512	661	810
Frequency (MHz)	1850.2	1880	1909.8
GSM (GMSK, 1 Tx slot)	30.63	30.93	30.85
GPRS (GMSK, 1 Tx slot)	30.60	30.84	30.82
GPRS (GMSK, 2 Tx slots)	29.48	29.53	29.44
GPRS (GMSK, 3 Tx slots)	27.15	27.38	27.78
GPRS (GMSK, 4 Tx slots)	25.90	26.12	25.96
EDGE (8PSK, 1 Tx slot)	25.67	26.07	26.22
EDGE (8PSK, 2 Tx slot)	24.25	24.73	24.94
EDGE (8PSK, 3 Tx slot)	22.86	23.37	23.58
EDGE (8PSK, 4 Tx slot)	20.83	20.1.43	21.57

Band :WCDMA Band V	Average Power [dBm]		
Channel	4,132	4,182	4,233
Frequency (MHz)	826.4	836.4	846.6
RMC 12.2K	24.15	24.95	24.69
HSDPA Subtest-1	23.12	23.92	23.62
HSDPA Subtest-2	22.36	23.06	22.84
HSDPA Subtest-3	22.31	23.03	22.80
HSDPA Subtest-4	22.22	23.01	22.79
HSUPA Subtest-1	22.70	23.70	23.27
HSUPA Subtest-2	21.69	22.15	21.87
HSUPA Subtest-3	21.68	21.82	21.60
HSUPA Subtest-4	22.23	23.16	22.95
HSUPA Subtest-5	22.36	22.45	22.26

Band: WCDMA Band II	Average Power [dBm]		
Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880.0	1907.6
RMC 12.2K	23.44	23.60	23.23
HSDPA Subtest-1	22.62	23.19	22.67
HSDPA Subtest-2	21.89	22.45	21.89
HSDPA Subtest-3	22.18	22.39	21.84
HSDPA Subtest-4	22.17	22.36	21.82
HSUPA Subtest-1	22.63	22.83	22.35
HSUPA Subtest-2	21.70	21.95	20.91
HSUPA Subtest-3	21.68	21.93	20.97
HSUPA Subtest-4	21.86	22.12	21.63
HSUPA Subtest-5	21.84	21.86	21.62

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LTE Band 41 (5MHz)

	Channel Bandwidth: 3 MHz				
Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power [dBm]
			Size	Offset	
QPSK	39675	2498.5	1	0	21.57
			1	12	21.64
			1	24	21.65
			12	0	20.52
			12	6	20.57
			12	13	20.57
			25	0	20.54
	40620	2593	1	0	23.95
			1	12	23.73
			1	24	24.04
			12	0	22.97
			12	6	23.06
			12	13	23.01
			25	0	23.00
	41565	2687.5	1	0	23.04
			1	12	22.83
			1	24	22.59
			12	0	22.15
			12	6	22.09
			12	13	21.93
			25	0	22.04
16QAM	39675	2498.5	1	0	20.81
			1	12	20.90
			1	24	20.92
			12	0	19.61
			12	6	19.67
			12	13	19.65
			25	0	19.52
	40620	2593	1	0	23.20
			1	12	23.51
			1	24	23.47
			12	0	22.04
			12	6	22.13
			12	13	22.09
			25	0	22.05
	41565	2687.5	1	0	22.05
			1	12	21.84
			1	24	21.59
			12	0	21.18
			12	6	21.13
			12	13	20.96
			25	0	21.09

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LTE Band 41 (10MHz)

	Channel Bandwidth: 3 MHz				
Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power [dBm]
			Size	Offset	
QPSK	39700	2501	1	0	21.67
			1	24	21.95
			1	49	21.91
			25	0	20.88
			25	12	21.02
			25	25	20.91
			50	0	20.94
	40620	2593	1	0	24.03
			1	24	24.21
			1	49	24.00
			25	0	22.95
			25	12	22.94
			25	25	22.89
			50	0	23.00
	41540	2685	1	0	23.05
			1	24	22.99
			1	49	22.43
			25	0	22.45
			25	12	22.38
			25	25	22.03
			50	0	22.20
16QAM	39700	2501	1	0	20.85
			1	24	21.15
			1	49	21.10
			25	0	19.84
			25	12	20.00
			25	25	19.88
			50	0	19.89
	40620	2593	1	0	23.40
			1	24	23.54
			1	49	23.40
			25	0	21.94
			25	12	22.03
			25	25	21.88
			50	0	21.92
	41540	2685	1	0	22.36
			1	24	22.33
			1	49	21.74
			25	0	21.46
			25	12	21.41
			25	25	21.06
			50	0	21.21

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LTE Band 41 (15MHz)

	Channel Bandwidth: 3 MHz				
Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power [dBm]
			Size	Offset	
QPSK	39725	2503.5	1	0	22.02
			1	37	21.99
			1	74	22.36
			37	0	21.13
			37	18	21.06
			37	38	21.26
			75	0	21.22
	40620	2593	1	0	23.84
			1	37	23.88
			1	74	24.09
			37	0	23.02
			37	18	23.01
			37	38	22.88
			75	0	23.02
	41515	2682.5	1	0	23.50
			1	37	23.06
			1	74	22.69
			37	0	22.53
			37	18	22.50
			37	38	22.27
			75	0	22.48
16QAM	39725	2503.5	1	0	21.26
			1	37	21.18
			1	74	21.58
			37	0	20.12
			37	18	20.02
			37	38	20.23
			75	0	20.20
	40620	2593	1	0	23.23
			1	37	23.39
			1	74	23.37
			37	0	21.99
			37	18	22.03
			37	38	21.88
			75	0	22.00
	41515	2682.5	1	0	22.91
			1	37	22.46
			1	74	22.05
			37	0	21.46
			37	18	21.49
			37	38	21.32
			75	0	21.55

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LTE Band 41 (20MHz)

	Channel Bandwidth: 3 MHz				
Modulation	Channel	Frequency (MHz)	RB Configuration		Average Power [dBm]
			Size	Offset	
QPSK	39750	2506	1	0	22.12
			1	49	22.35
			1	99	22.57
			50	0	21.28
			50	25	21.36
			50	50	21.37
			100	0	21.29
	40620	2593	1	0	23.85
			1	49	24.11
			1	99	23.79
			50	0	22.98
			50	25	23.23
			50	50	23.01
			100	0	22.99
	41490	2680	1	0	23.38
			1	49	23.31
			1	99	22.87
			50	0	22.68
			50	25	22.64
			50	50	22.34
			100	0	22.51
16QAM	39750	2506	1	0	21.34
			1	49	21.58
			1	99	21.80
			50	0	20.35
			50	25	20.31
			50	50	20.33
			100	0	20.37
	40620	2593	1	0	23.57
			1	49	23.64
			1	99	23.71
			50	0	22.02
			50	25	22.18
			50	50	21.97
			100	0	22.01
	41490	2680	1	0	22.91
			1	49	22.78
			1	99	22.29
			50	0	21.73
			50	25	21.64
			50	50	21.33
			100	0	21.54

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10.3 Radiated Output Power

10.3.1 Test Standard

FCC: CFR Part 2.1046, CFR Part 22.913, CFR Part 24.232 CFR Part 27

10.3.2 Test Limit

FCC 22.913 (a) Effective radiated power limits.
The effective radiated power (ERP) of mobile transmitters must not exceed 7 Watts.
FCC 24.232 (b)(c) Power limits.
(b) Mobile/portable stations are limited to 2 Watts effective isotropic radiated power (EIRP). (c) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms equivalent voltage. The measurement results shall be properly adjusted for any limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement over the full bandwidth of the channel.
27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.
27.50 (h) (2) Mobile and other user stations. Mobile stations are limited to 2.0 watts
EIRP. All user stations are limited to2.0 watts transmitter output power.

10.3.3 Test Procedure

Radiated Output Power Measurement procedure
Ref: ANSI/TIA-603-D (2010) & KDB971168-2.2.17.2 Effective Radiated Power (ERP) or Effective Isotropic
1. Connect the equipment as shown in the above diagram with the EUT's antenna in a vertical orientation.
2. Adjust the settings of the Universal Radio Communication Tester (CMU) to set the EUT to its maximum power at the required channel.
3. Set the spectrum analyzer to the channel frequency. Set the analyzer to measure peak hold with the required settings.
4. Rotate the EUT 360. Record the peak level in dBm (LVL).
5. Replace the EUT with a vertically polarized half wave dipole or known gain antenna. The center of the antenna should be at the same location as the center of the EUT's antenna.

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6. Connect the antenna to a signal generator with known output power and record the path loss in dB (LOSS). LOSS = Generator Output Power (dBm) – Analyzer reading (dBm).

7. Determine the ERP using the following equation: ERP (dBm) = LVL (dBm) + LOSS (dB)

8. Determine the EIRP using the following equation: EIRP (dBm) = ERP (dBm) + 2.15 (dB)

9. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

10.2.4 Test Data

Substitution Results

Test Mode	Freq. [MHz]	Substitution Level (ERP) [dBm]	H/V	Limit [dBm]	Result
TM1	824.2	23.51	V	38.5	Pass
	836.6	23.57	V	38.5	Pass
	848.8	24.02	V	38.5	Pass
TM2	824.2	19.37	V	38.5	Pass
	836.6	19.63	V	38.5	Pass
	848.8	19.06	V	38.5	Pass
TM3	826.4	15.58	V	38.5	Pass
	836.4	18.41	V	38.5	Pass
	846.6	17.45	V	38.5	Pass

Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

Substitution Results

Test Mode	Freq. [MHz]	Substitution Level (EIRP) [dBm]	H/V	Limit [dBm]	Result
TM1	1850.2	22.24	V	33	Pass
	1880	22.21	V	33	Pass
	1909.8	22.57	V	33	Pass
TM2	1850.2	17.67	V	33	Pass
	1880	17.08	V	33	Pass
	1909.8	17.54	V	33	Pass
TM3	1852.4	18.11	V	33	Pass
	1880	17.62	V	33	Pass
	1907.6	17.20	V	33	Pass

Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

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Table 1 Substitution Results (LTE Band 41)

Test Mode	Bandwidth (MHz)	RB Size	Freq. [MHz]	Substitution Level (EIRP) [dBm]	H/V	Limit [dBm]	Result
TM4	5	1RB	2498.5	22.11	V	33	Pass
	5		2593	23.17	V	33	Pass
	5		2687.5	21.04	V	33	Pass
	10		2501	21.91	V	33	Pass
	10		2593	21.57	V	33	Pass
	10		2685	18.88	V	33	Pass
	15		2503.5	21.66	V	33	Pass
	15		2593	21.90	V	33	Pass
	15		2682.5	19.22	V	33	Pass
	20		2506	20.26	V	33	Pass
	20		2593	20.76	V	33	Pass
	20		2680	17.95	V	33	Pass

Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

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Substitution Results (LTE Band 41)

Test Mode	Bandwidth (MHz)	RB Size	Freq. [MHz]	Substitution Level (EIRP) [dBm]	H/V	Limit [dBm]	Result
TM5	5	1RB	2498.5	20.63	V	33	Pass
	5		2593	21.09	V	33	Pass
	5		2687.5	19.26	V	33	Pass
	10		2501	19.96	V	33	Pass
	10		2593	19.67	V	33	Pass
	10		2685	18.45	V	33	Pass
	15		2503.5	19.31	V	33	Pass
	15		2593	18.86	V	33	Pass
	15		2682.5	18.05	V	33	Pass
	20		2506	19.26	V	33	Pass
	20		2593	19.72	V	33	Pass
	20		2680	17.66	V	33	Pass

Note: both of Vertical and Horizontal polarization are evaluated, and only the worst case is recorded in this report

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10.4 Peak to Average Ratio

10.4.1 Test Standard

CFR 47 (FCC) part 24 subpart E, part 27

10.4.2 Test Limit

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

10.4.3 Test Procedure

A peak to average ratio measurement is performed at the conducted port of the EUT. For WCDMA signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level. For GSM signals, an average and a peak trace are used on a spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth. The traces are generated with the spectrum analyzer set to zero span mode. For LTE operating mode: a. The EUT was connected to spectrum and system simulator via a power divider. b. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer. c. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1%. d. Record the deviation as Peak to Average Ratio.

10.4.4 Test Data

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
GSM1900	GSM/TM1	1850.2	0.18	<13	PASS
		1880	0.15	<13	PASS
		1909.8	0.17	<13	PASS
GSM1900	EDGE/TM2	1850.2	2.91	<13	PASS
		1880	2.73	<13	PASS
		1909.8	2.77	<13	PASS

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA1900	UMTS/TM3	1852.4	3.42	<13	PASS
		1880	3.44	<13	PASS
		1907.6	3.42	<13	PASS

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LTE Band 41:

Channel Bandwidth: 5MHz						
Modulation	Test Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	2498.5	1	0	7.31	<13	PASS
	2593	1	0	8.6	<13	PASS
	2687.5	1	0	7.27	<13	PASS
16QAM	2498.5	1	0	7.4	<13	PASS
	2593	1	0	7.96	<13	PASS
	2687.5	1	0	7.83	<13	PASS

Channel Bandwidth: 10MHz						
Modulation	Test Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	2501	1	0	7.33	<13	PASS
	2593	1	0	6.94	<13	PASS
	2685	1	0	5.81	<13	PASS
16QAM	2501	1	0	7.14	<13	PASS
	2593	1	0	8.05	<13	PASS
	2685	1	0	6.84	<13	PASS

Channel Bandwidth: 15MHz						
Modulation	Test Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	2503.5	1	0	6.01	<13	PASS
	2593	1	0	5.98	<13	PASS
	2682.5	1	0	6.8	<13	PASS
16QAM	2503.5	1	0	7.17	<13	PASS
	2593	1	0	7.95	<13	PASS
	2682.5	1	0	7.78	<13	PASS

Channel Bandwidth: 20MHz						
Modulation	Test Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	2506	1	0	7.9	<13	PASS
	2593	1	0	8.22	<13	PASS
	2680	1	0	7.75	<13	PASS
16QAM	2506	1	0	7.32	<13	PASS
	2593	1	0	8.53	<13	PASS
	2680	1	0	8.46	<13	PASS

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10.5 Occupied Bandwidth/Emission Bandwidth

10.5.1 Test Standard

FCC: CFR Part 2.1049, CFR Part 22.917, CFR Part 24.238, CRF Part 27

10.5.2 Test Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable.

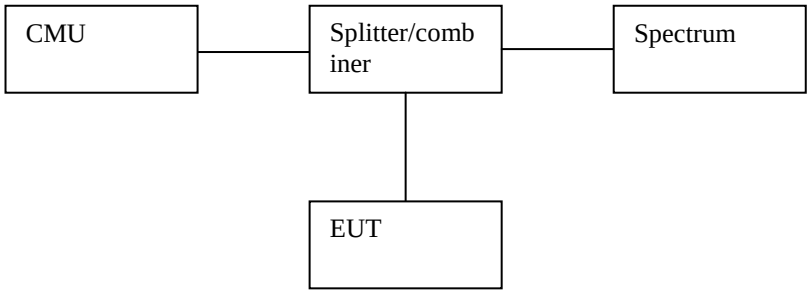
(h) Transmitters employing digital modulation techniques-when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated.

10.5.3 Test Procedure

1. Connect the equipment as shown in the above diagram.
2. Adjust the settings of the Universal Radio Communication Tester (CMU) to set the EUT to its maximum power at the required channel.
3. Set the spectrum analyzer to measure the 99% occupied bandwidth. Record the value.
4. Set the spectrum analyzer to measure the -26 dB emission bandwidth. Record the value.
5. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.

Spectrum analyzer settings: Measurement bandwidth of at least 1% of the occupied bandwidth.

10.5.4 Test Setup



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10.5.5 Test Data

Occupied Bandwidth Test Data

Test Band	Test Mode	Test Channel	99% OBW (kHz)	26dBc BANDWIDTH (kHz)	Verdict
GSM850	GSM/TM1	LCH	245.19	307.69	PASS
		MCH	246.79	315.71	PASS
		HCH	248.40	302.88	PASS
	EDGE/TM2	LCH	248.40	302.88	PASS
		MCH	248.40	298.08	PASS
		HCH	248.40	304.49	PASS
GSM1900	GSM/TM1	LCH	245.19	307.69	PASS
		MCH	246.79	309.29	PASS
		HCH	245.19	301.28	PASS
	EDGE/TM2	LCH	250.00	310.90	PASS
		MCH	248.40	314.10	PASS
		HCH	250.00	302.88	PASS

Occupied Bandwidth Test Data

Test Band	Test Mode	Test Channel	99% OBW (kHz)	26dBc BANDWIDTH (kHz)	Verdict
WCDMA850	UMTS/TM3	LCH	4182.7	4712	PASS
		MCH	4150.6	4712	PASS
		HCH	4166.7	4728	PASS
WCDMA1900	UMTS/TM3	LCH	4166.7	4712	PASS
		MCH	4150.6	4744	PASS
		HCH	4150.6	4712	PASS

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LTE Band 41:

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	25	0	4.487	4.728	PASS
	MCH	25	0	4.471	4.679	PASS
	HCH	25	0	4.487	4.696	PASS
16QAM	LCH	25	0	4.471	4.728	PASS
	MCH	25	0	4.471	4.679	PASS
	HCH	25	0	4.503	4.728	PASS

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	50	0	8.942	9.359	PASS
	MCH	50	0	8.910	9.295	PASS
	HCH	50	0	8.974	9.359	PASS
16QAM	LCH	50	0	8.942	9.359	PASS
	MCH	50	0	8.910	9.295	PASS
	HCH	50	0	8.974	9.295	PASS

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	75	0	13.462	14.279	PASS
	MCH	75	0	13.462	14.231	PASS
	HCH	75	0	13.462	14.327	PASS
16QAM	LCH	75	0	13.462	14.231	PASS
	MCH	75	0	13.462	14.183	PASS
	HCH	75	0	13.413	14.279	PASS

Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
		Size	Offset			
QPSK	LCH	100	0	17.949	18.846	PASS
	MCH	100	0	17.885	18.782	PASS
	HCH	100	0	17.885	18.846	PASS
16QAM	LCH	100	0	17.885	18.782	PASS
	MCH	100	0	17.821	18.718	PASS
	HCH	100	0	17.885	18.782	PASS

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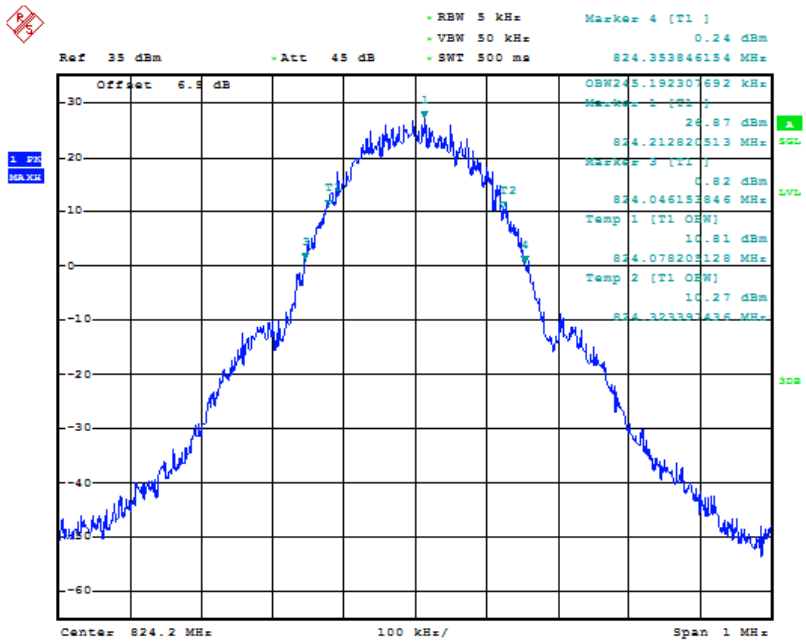
Test Band = GSM850
Test Mode = GSM/TM1
Test Channel = LCH



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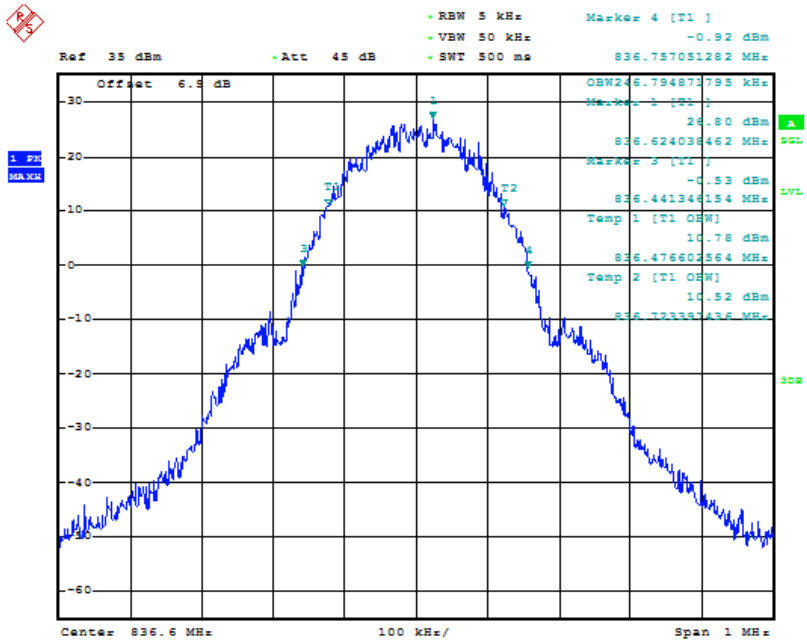
Test Mode = GSM/TM1
Test Channel = MCH



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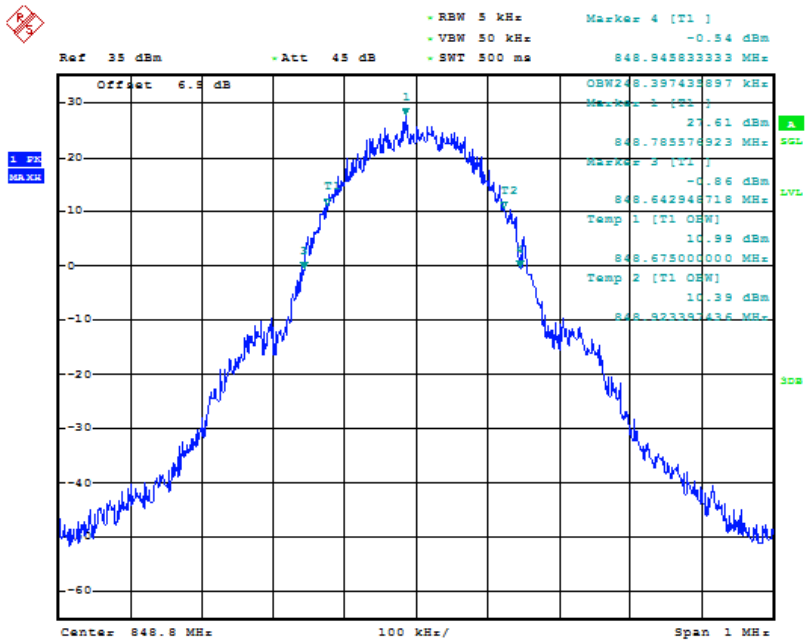
Test Band = GSM850
Test Mode = GSM/TM1
Test Channel = HCH



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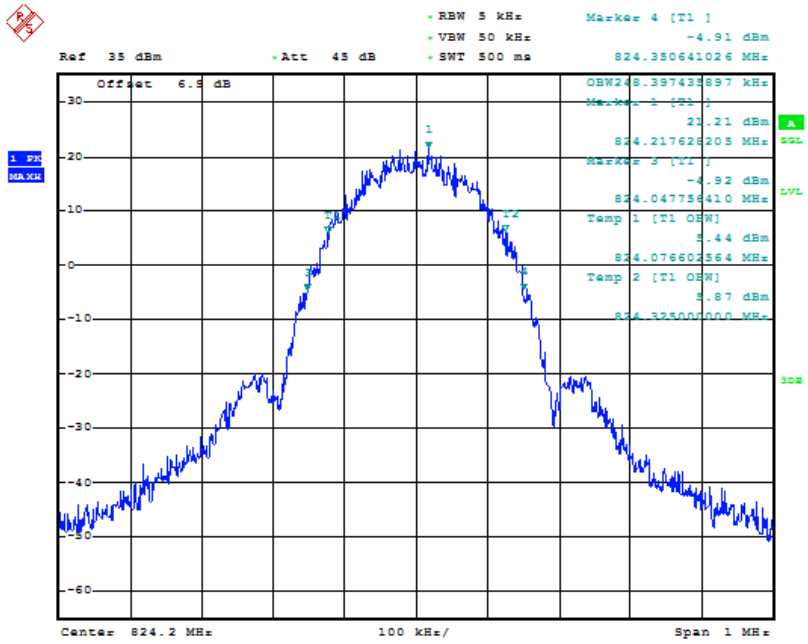
Test Band = GSM850
Test Mode = EDGE/TM2
Test Channel = LCH



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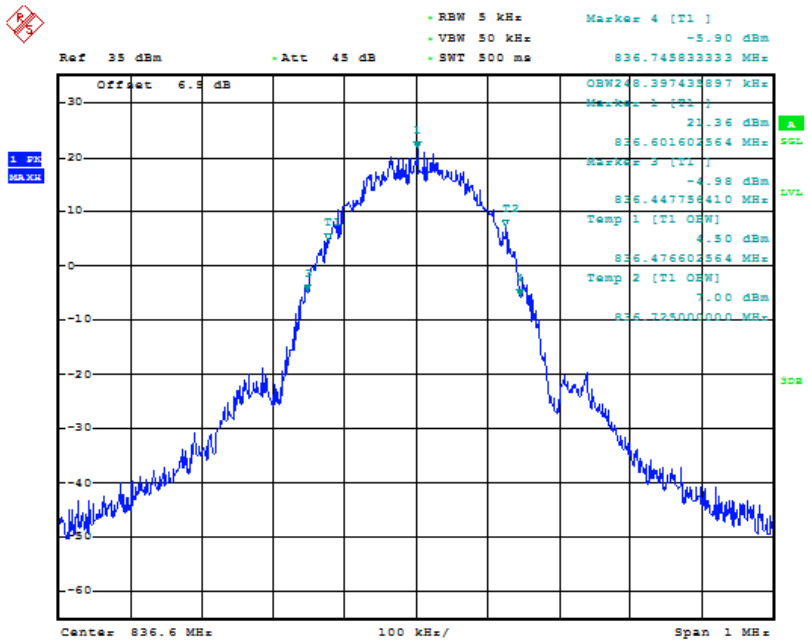
Test Band = GSM850
Test Mode = EDGE/TM2
Test Channel = MCH



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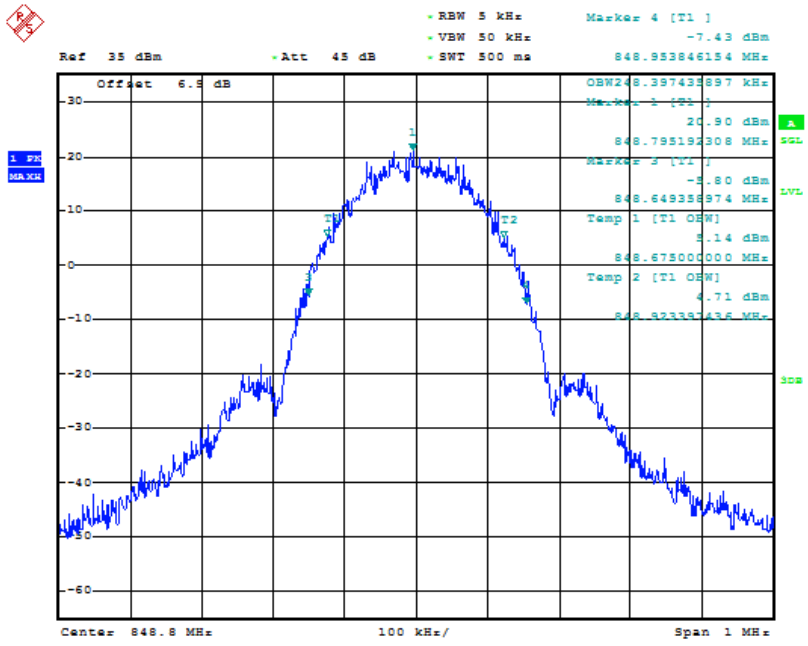
Test Mode = EDGE/TM2
Test Channel = HCH



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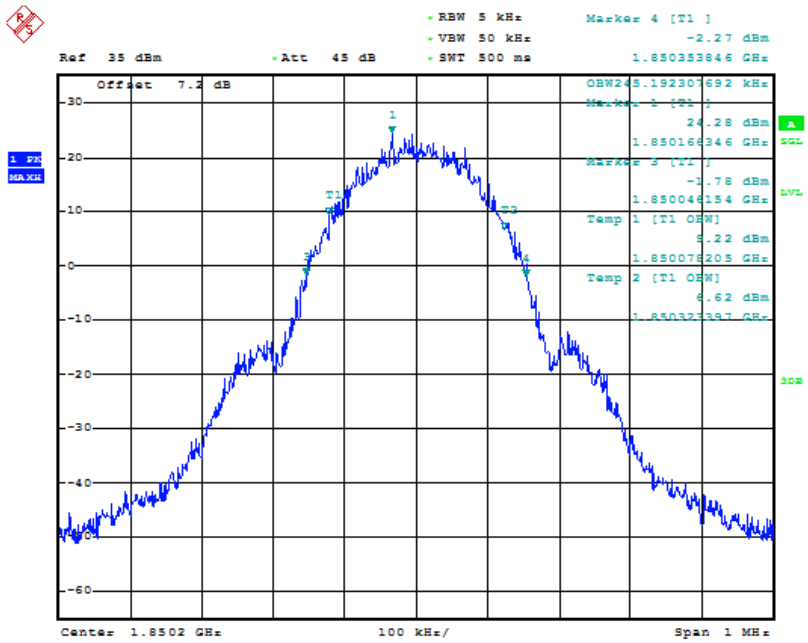
Test Band = GSM1900
Test Mode = GSM/TM1
Test Channel = LCH



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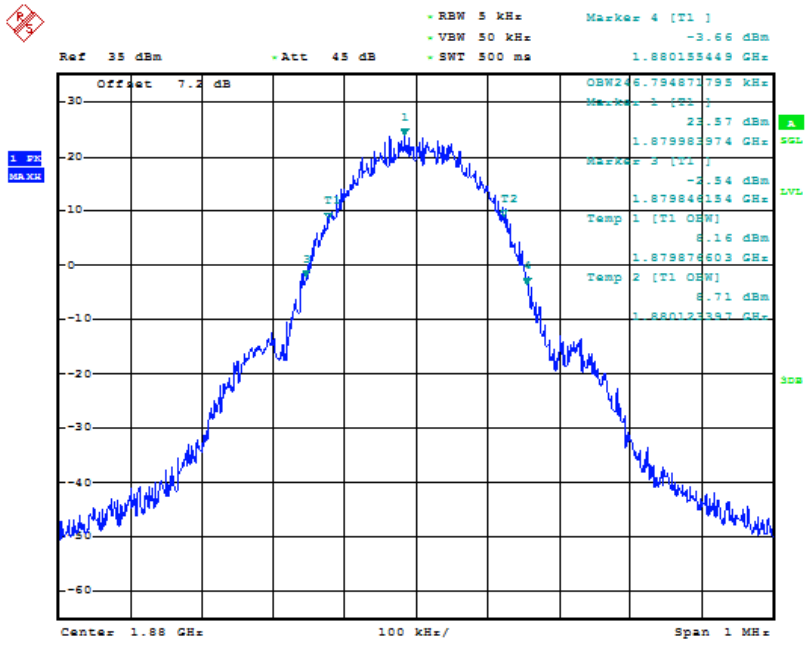

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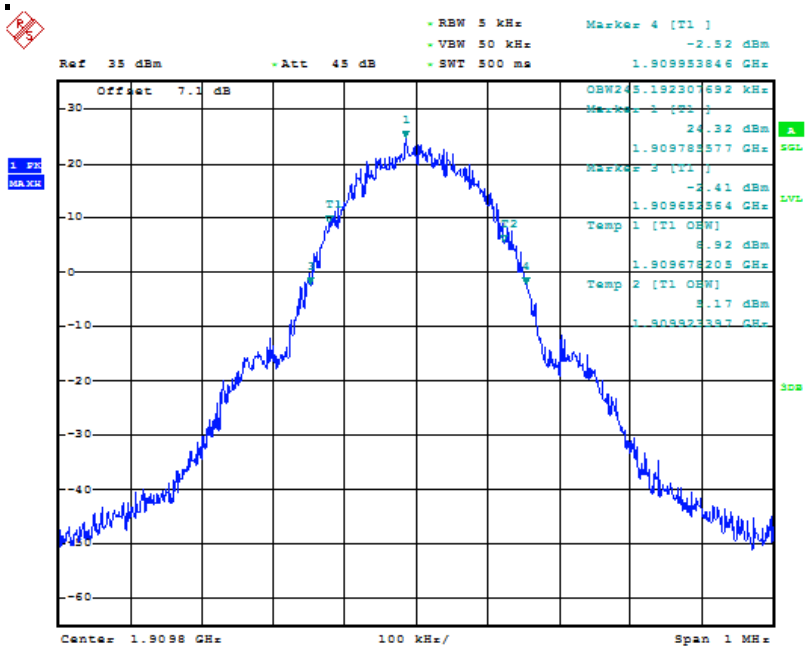
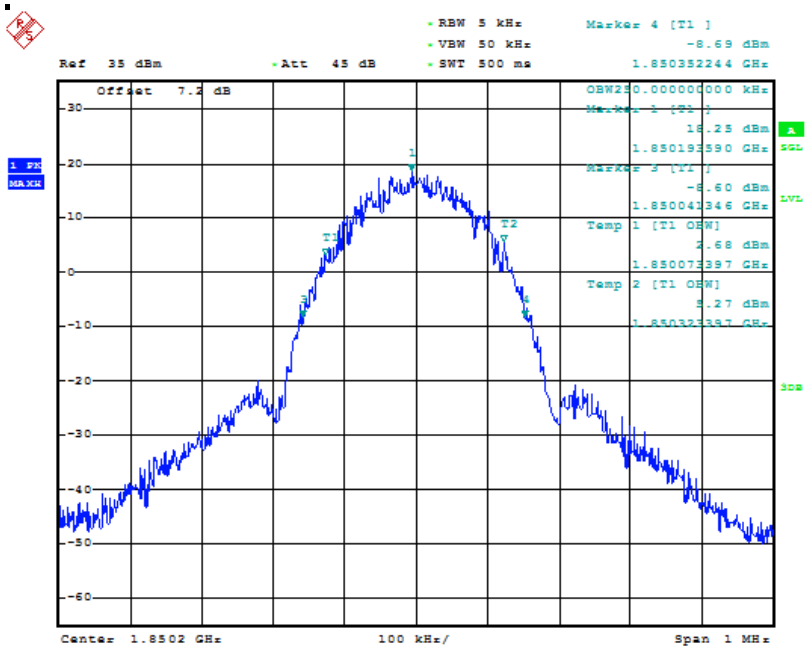
Test Band = GSM1900
Test Mode = GSM /TM1
Test Channel = HCH



Date: 30.SEP.2015 04:48:32

Test Band = GSM1900
Test Mode = EDGE /TM2
Test Channel = LCH



Date: 30.SEP.2015 04:49:28

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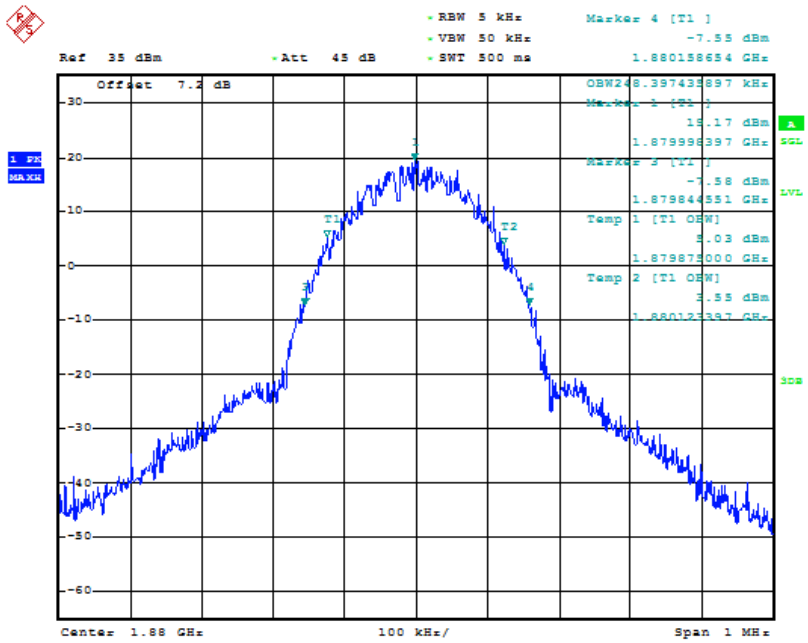
Test Band = GSM1900
Test Mode = EDGE /TM2
Test Channel = MCH



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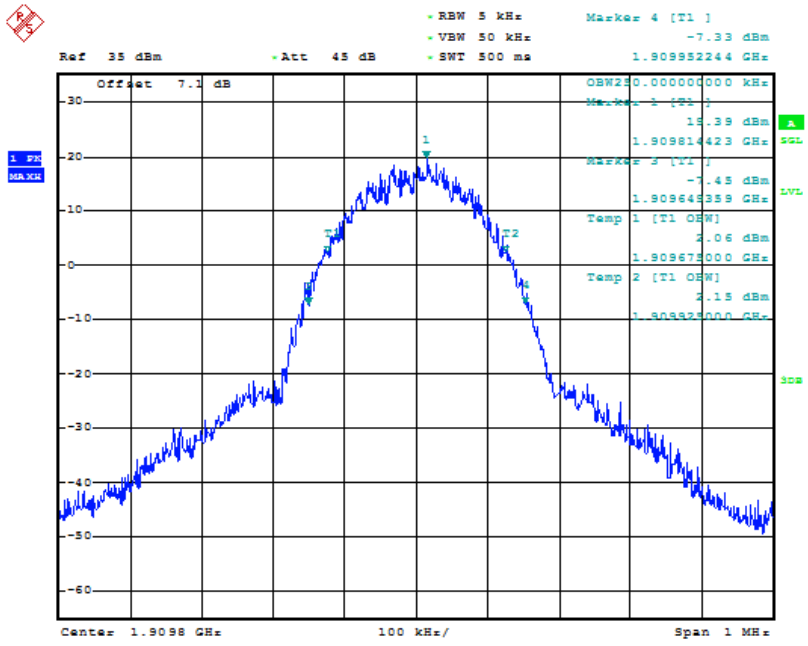
Test Channel = HCH



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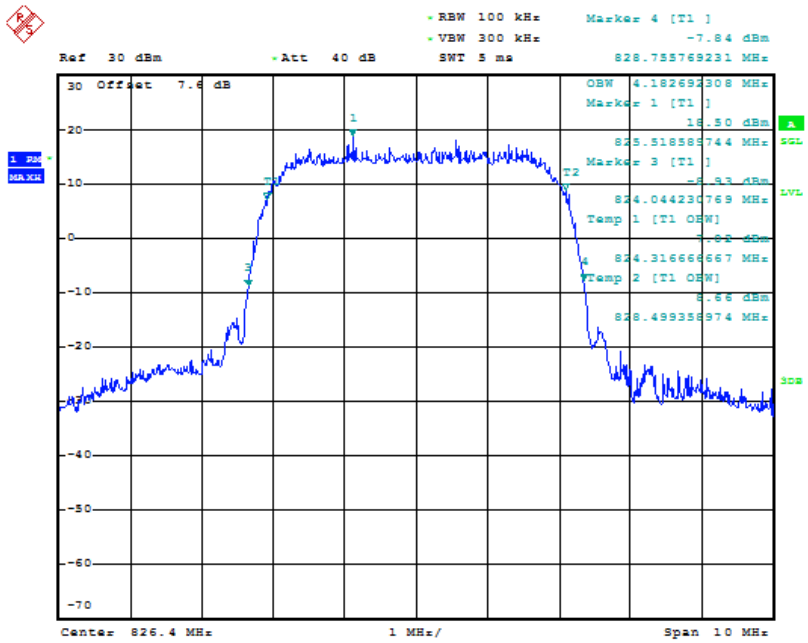
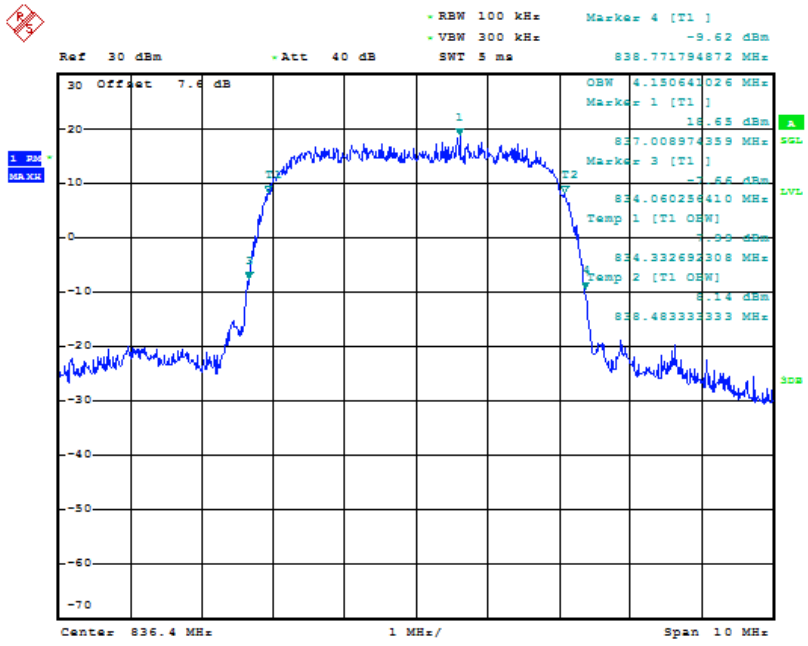
Test Band=WCDMA850
Test Mode=UMTS/TM3
Test Channel=LCH



Date: 9.OCT.2015 05:45:27

Test Band=WCDMA850
Test Mode=UMTS/TM3
Test Channel=MCH



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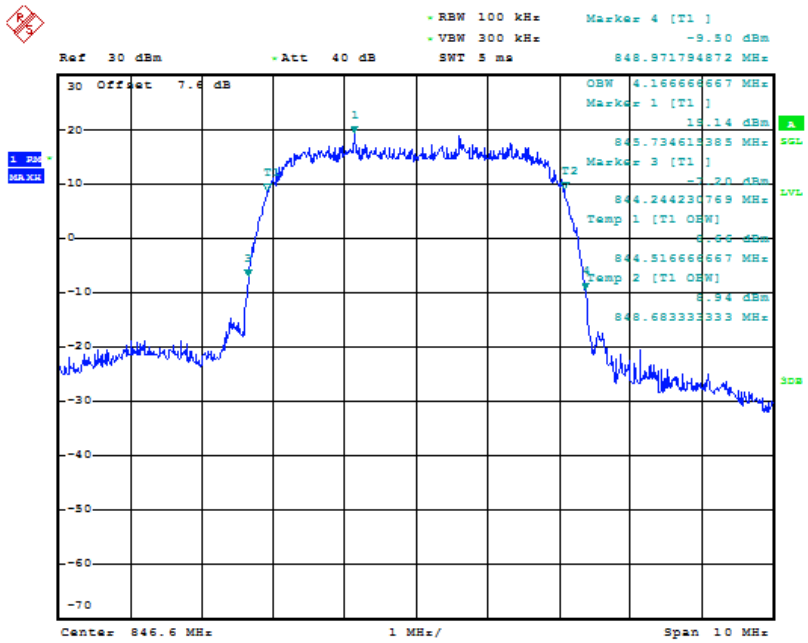
Test Band=WCDMA850
Test Mode=UMTS/TM3
Test Channel=HCH



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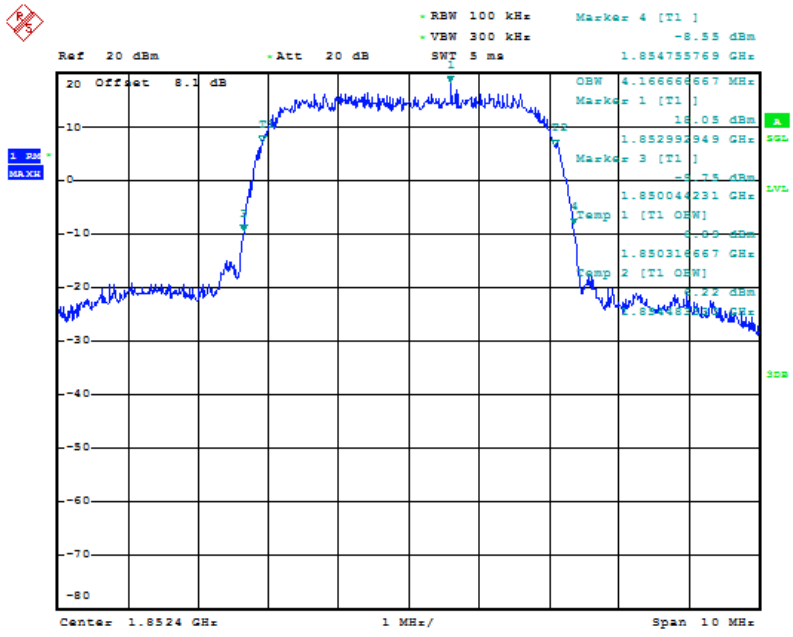
Test Channel=LCH



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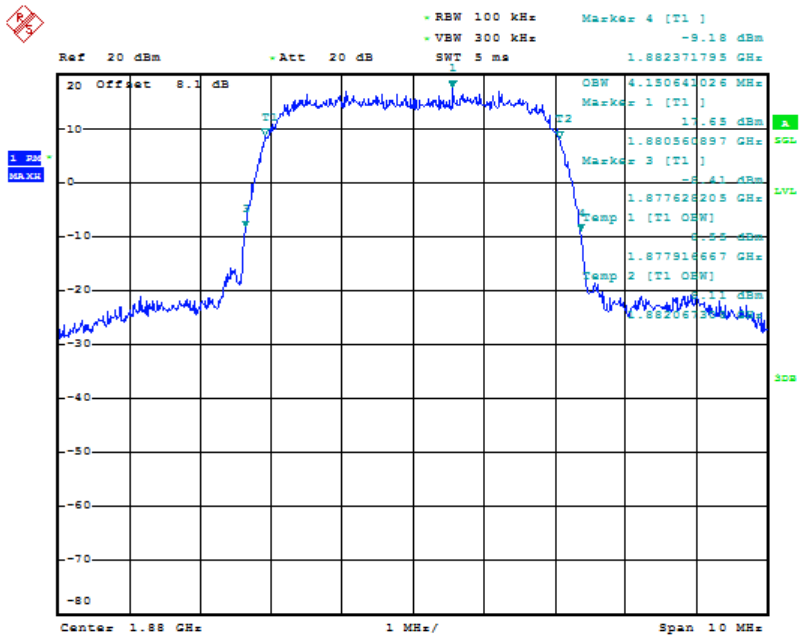
Test Band=WCDMA1900
Test Mode=UMTS/TM3
Test Channel=MCH



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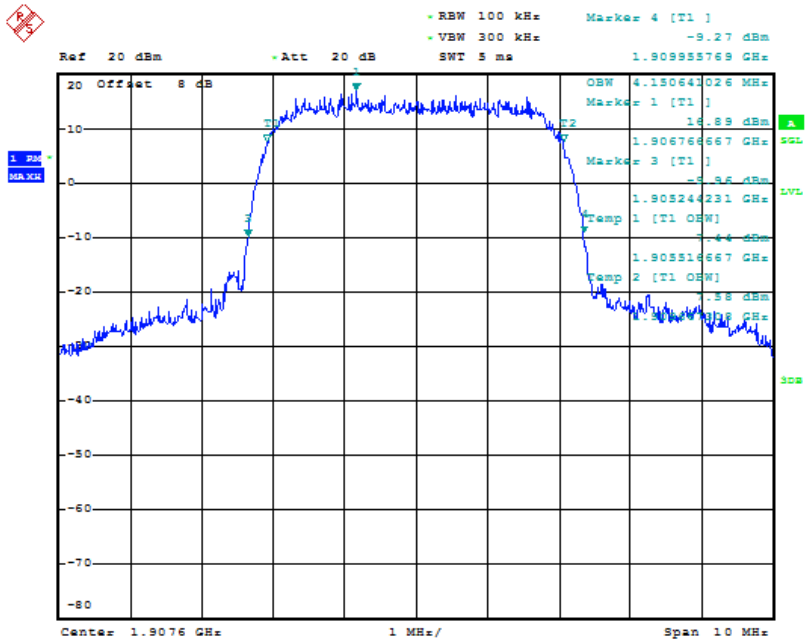
Test Mode=UMTS/TM3
Test Channel=HCH



Date: 9.OCT.2015 06:13:59

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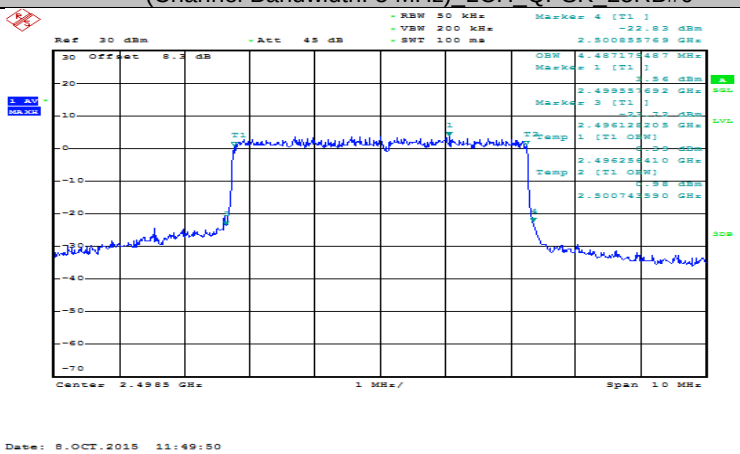
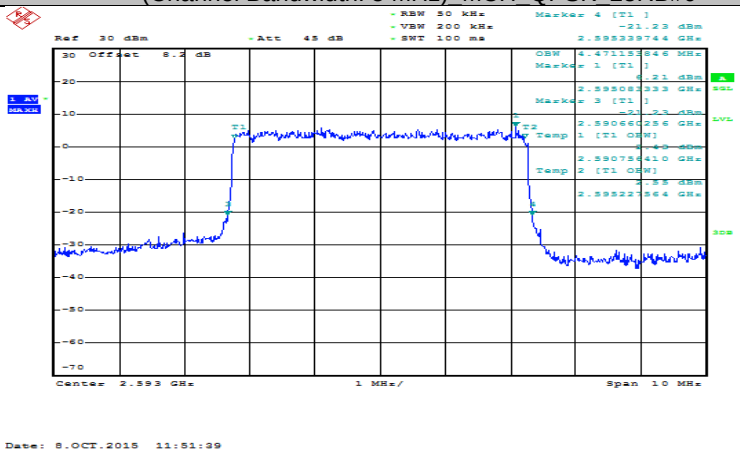
LTE Band 41
Channel Bandwidth: 5 MHz
Test Mode=QPSK/TM4

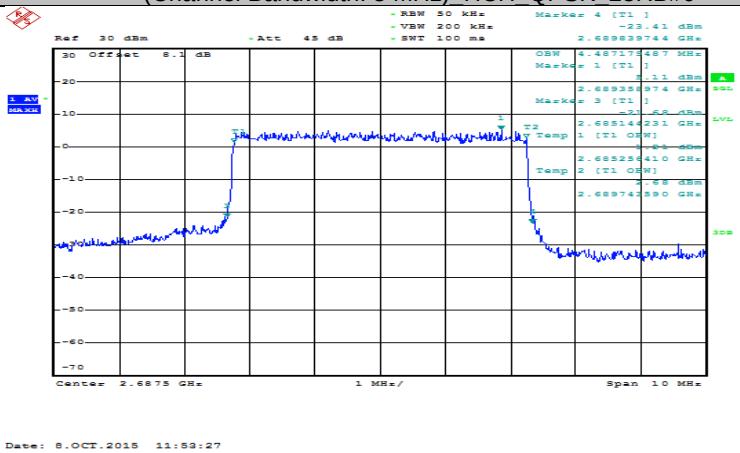
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



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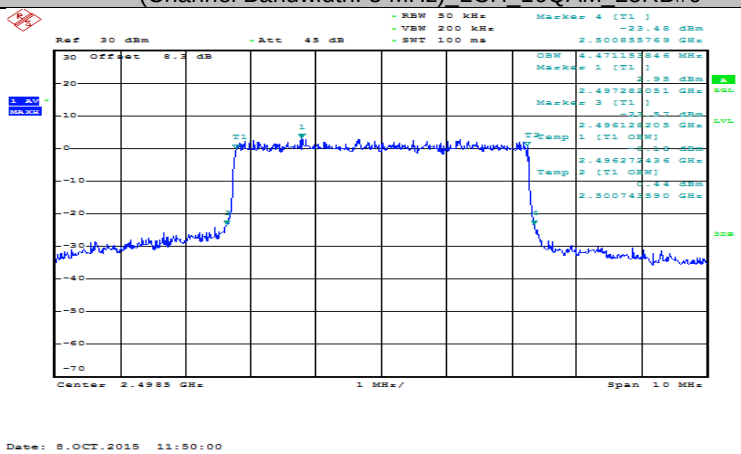
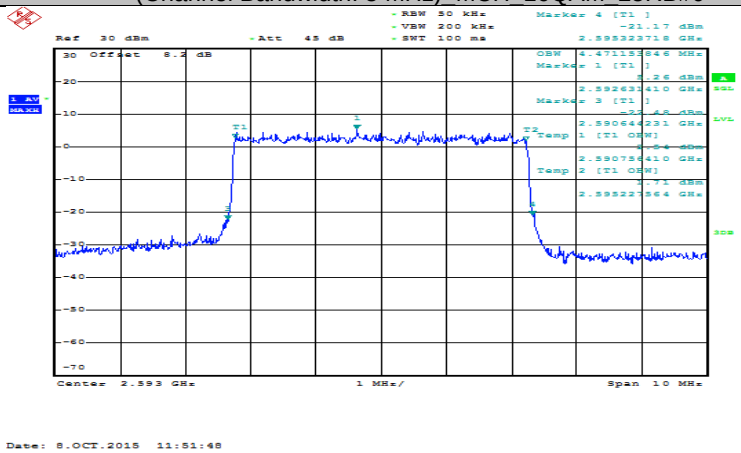
LTE Band 41
Channel Bandwidth: 5 MHz
Test Mode=16QAM/TM5

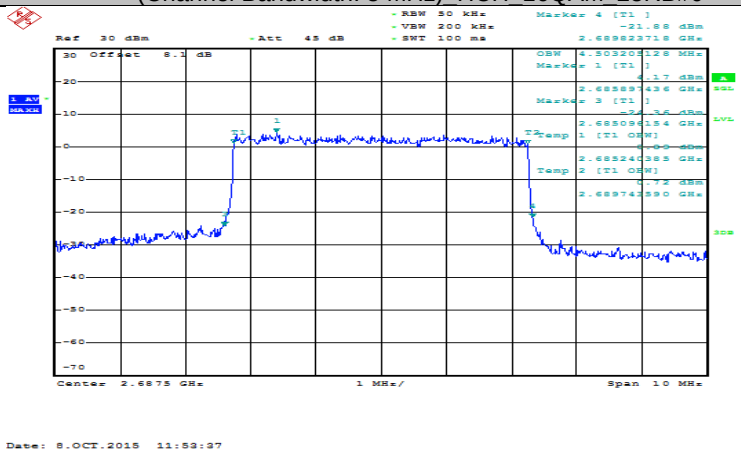
(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



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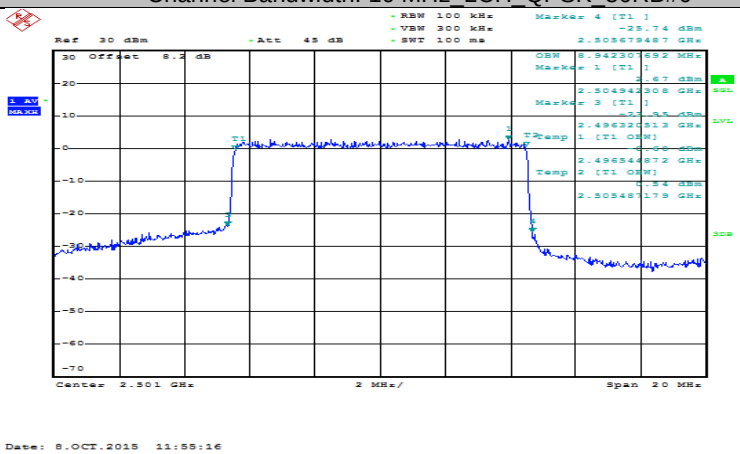
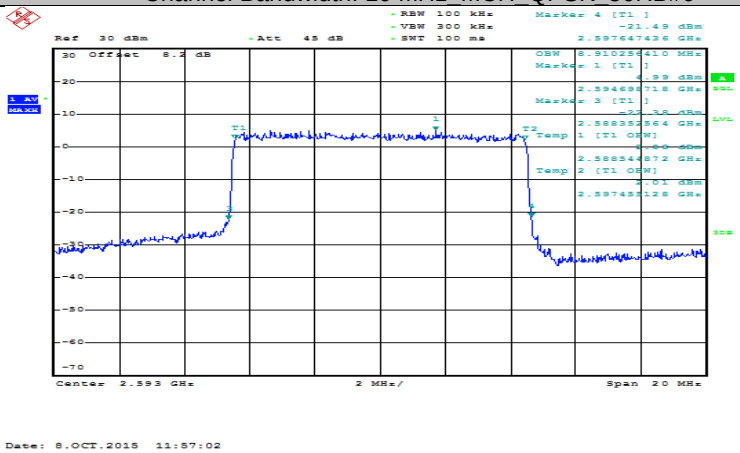
LTE Band 41
Channel Bandwidth: 10 MHz
Test Mode=QPSK/TM4

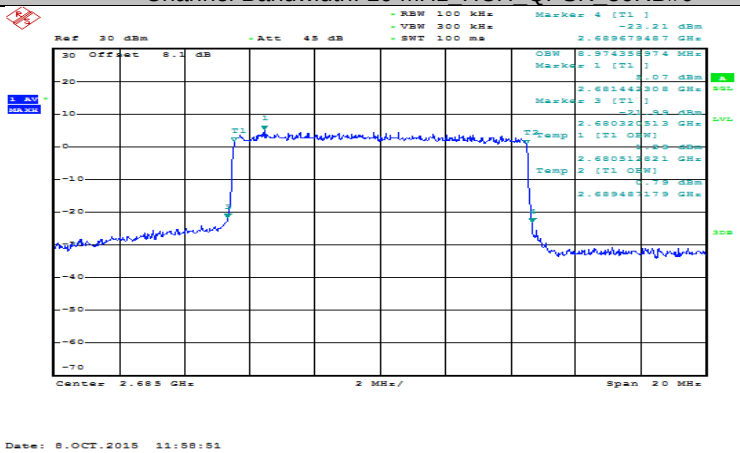
Channel Bandwidth: 10 MHz_LCH_QPSK_50RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_50RB#0



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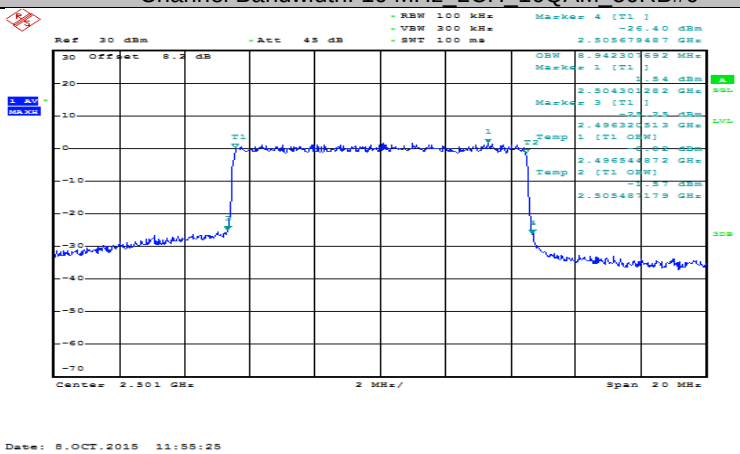
LTE Band 41
Channel Bandwidth: 10MHz
Test Mode=16QAM/TM5

Channel Bandwidth: 10 MHz_LCH_16QAM_50RB#0



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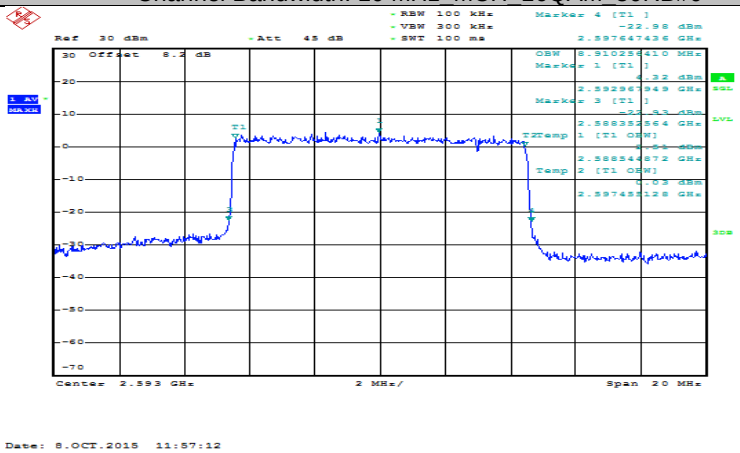
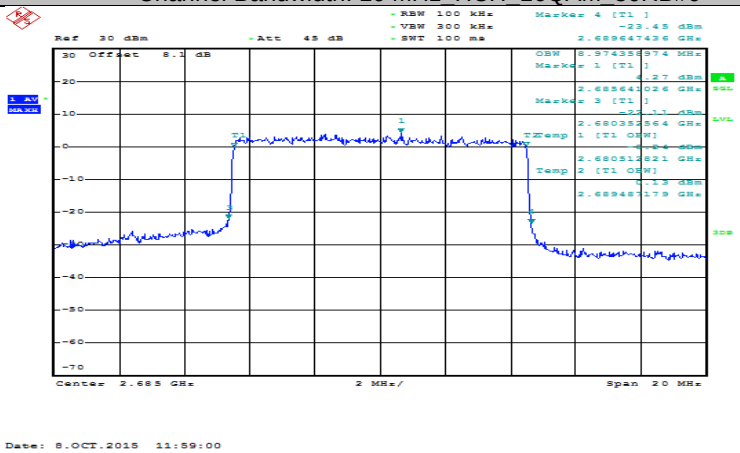


Channel Bandwidth: 10 MHz_HCH_16QAM_50RB#0



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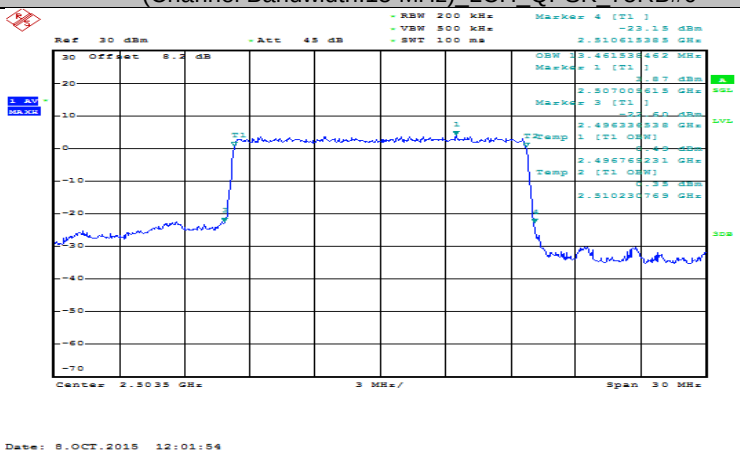
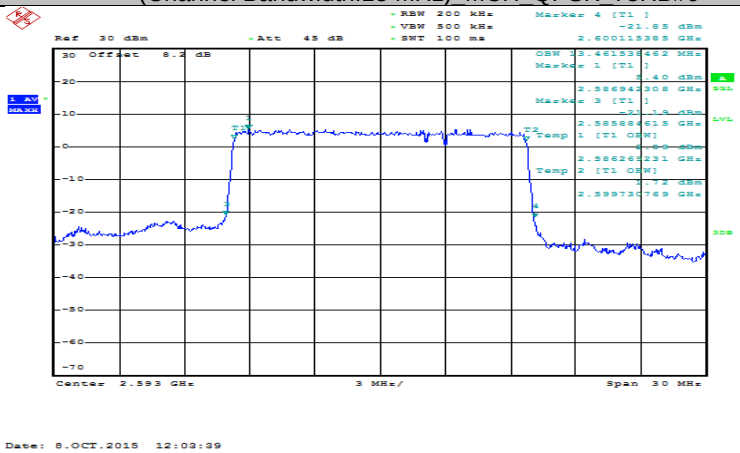
LTE Band 41
Channel Bandwidth: 15 MHz
Test Mode=QPSK/TM4

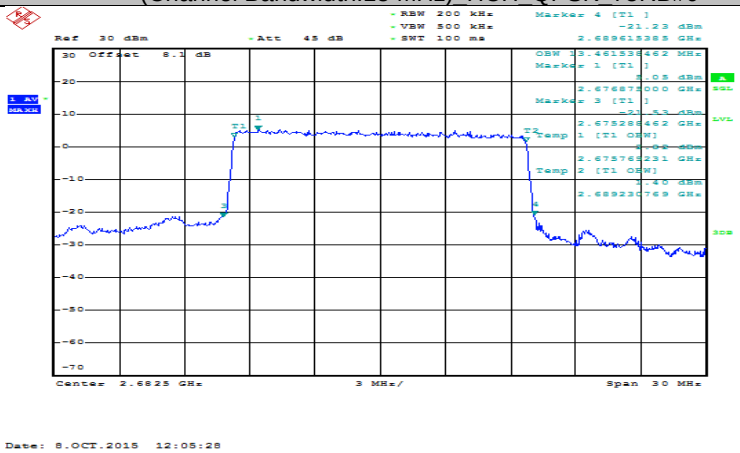
(Channel Bandwidth:15 MHz)_LCH_QPSK_75RB#0



(Channel Bandwidth:15 MHz)_MCH_QPSK_75RB#0



(Channel Bandwidth:15 MHz)_HCH_QPSK_75RB#0



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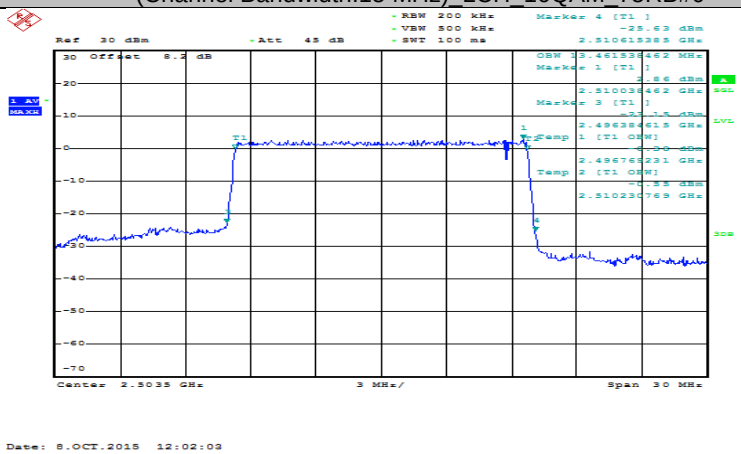
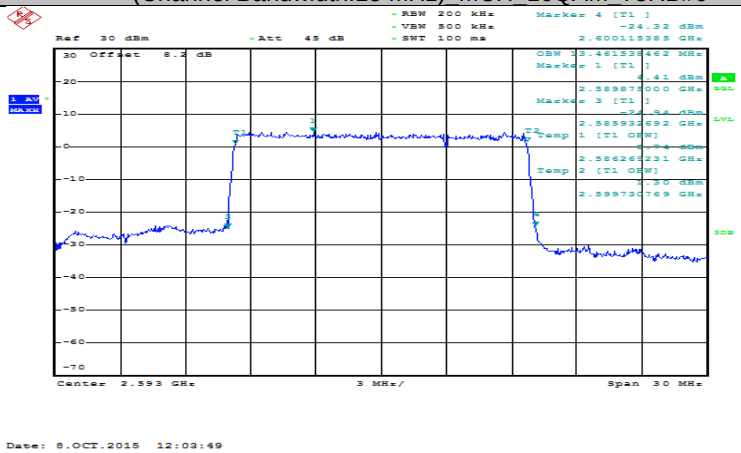
LTE Band 41
Channel Bandwidth: 15 MHz
Test Mode=16QAM/TM5

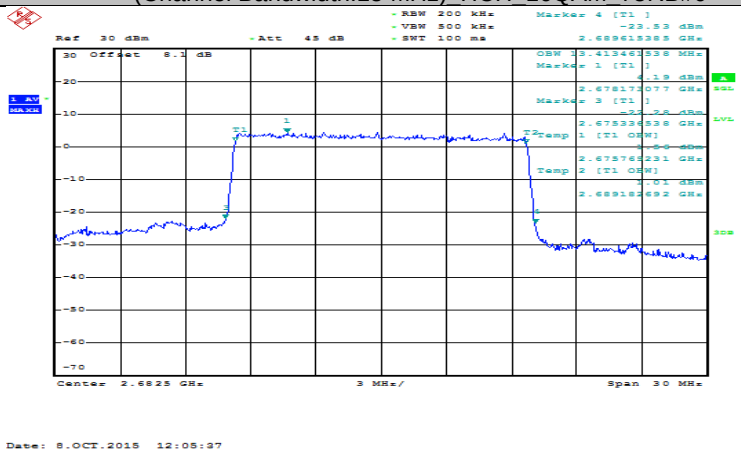
(Channel Bandwidth:15 MHz)_LCH_16QAM_75RB#0



(Channel Bandwidth:15 MHz)_MCH_16QAM_75RB#0



(Channel Bandwidth:15 MHz)_HCH_16QAM_75RB#0



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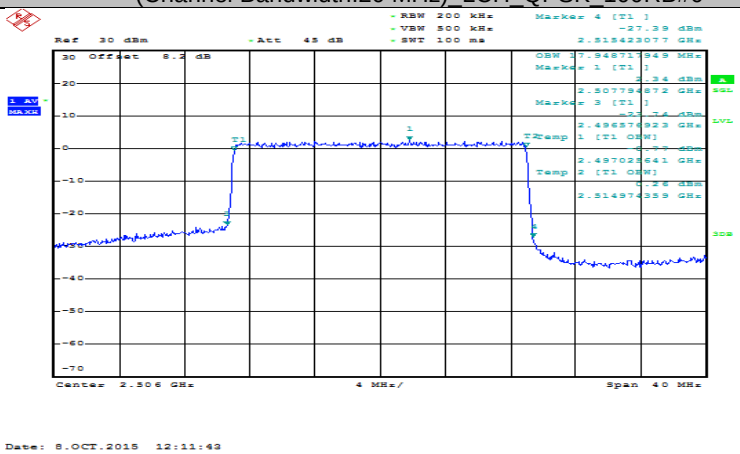
LTE Band 41
Channel Bandwidth: 20 MHz
Test Mode=QPSK/TM4

(Channel Bandwidth:20 MHz)_LCH_QPSK_100RB#0



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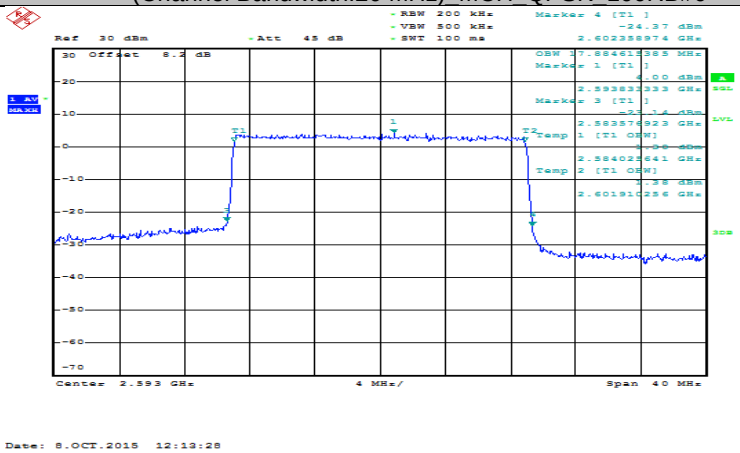

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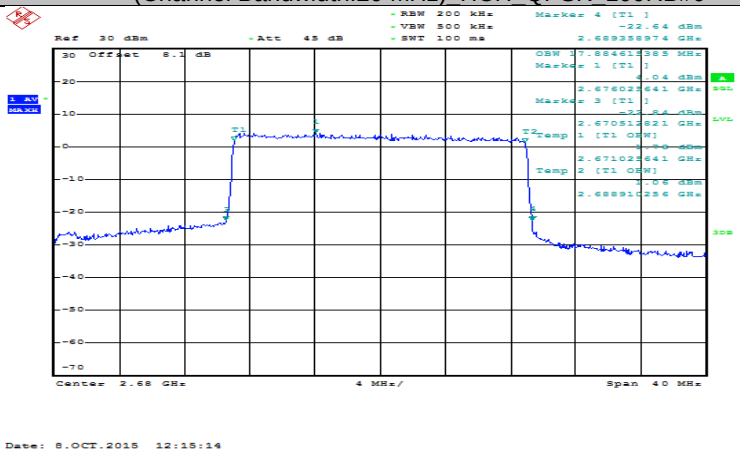

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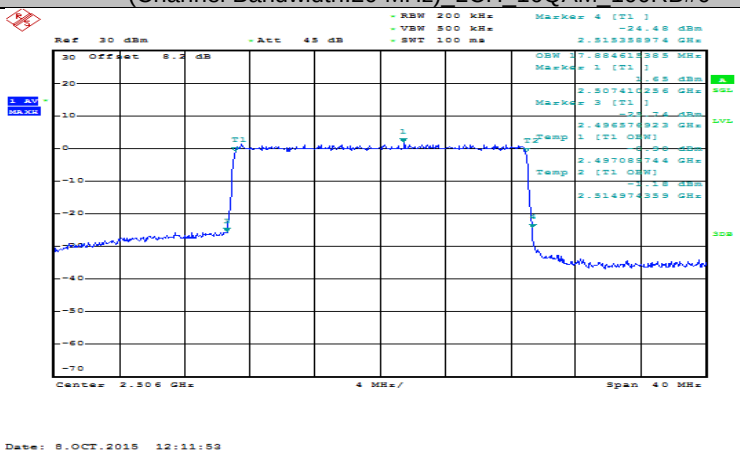
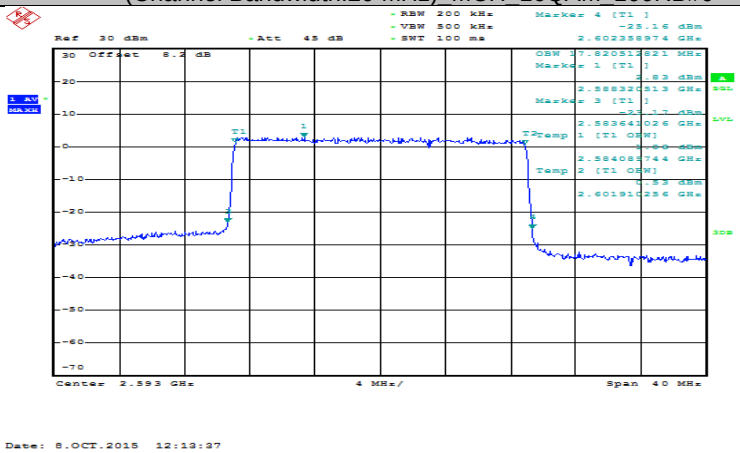
LTE Band 41
Channel Bandwidth: 20 MHz
Test Mode=16QAM/TM5

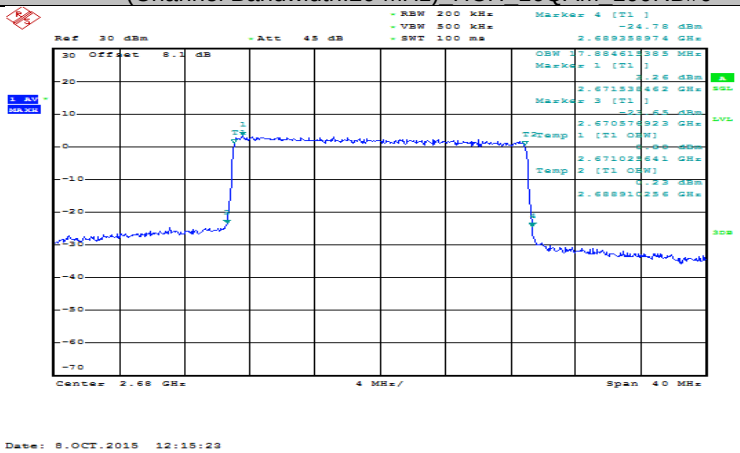
(Channel Bandwidth:20 MHz)_LCH_16QAM_100RB#0



(Channel Bandwidth:20 MHz)_MCH_16QAM_100RB#0



(Channel Bandwidth:20 MHz)_HCH_16QAM_100RB#0



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10.6 Spurious Emission at Antenna Terminal

10.6.1 Test Standard

FCC: CFR Part 2.1051, CFR Part 22.917, CFR Part 24.238, CFR Part 27.53

10.6.2 Test Limit

The radio frequency voltage or power generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in FCC 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. For all power levels +30dBm to 0dBm, this becomes a constant specification of -13dBm.

FCC 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(b) Measurement procedure. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz of 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC 24.238 Emission limitations for Broadband PCS equipment.

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(b) Measurement procedure. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured

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power is integrated over the full required measurement bandwidth (i.e. 100 kHz of 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC: §27.53

(m)(4) For mobile digital stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge and 55 + 10 log (P) dB at 5.5 megahertz from the channel edges.(Channel edges are defined under §27.5 (i) Frequency assignment for the BRS/EBS band)

(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However,in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz of 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

10.6.3 Test Procedure

1. Connect the equipment as shown in the above diagram.
2. Set the spectrum analyzer to measure peak hold with the required settings.
3. Set the signal generator to a known output power and record the path loss in dB (LOSS) for frequencies up to the tenth harmonic of the EUT's carrier frequency.

LOSS = Generator Output Power (dBm) – Analyzer reading (dBm).

4. Replace the signal generator with the EUT.
5. djust the settings of the Universal Radio Communication Tester (CMU) to set the EUT to its maximum power at the required channel.
6. Set the spectrum analyzer to measure peak hold with the required settings. Offset the spectrum analyzer reference level by the path loss measured above.
7. Measure and record all spurious emissions up to the tenth harmonic of the carrier frequency.
8. Measurements are to be performed with the EUT set to the low, middle and high channel of each frequency band.
9. If necessary steps 6 and 7 may be performed with the spectrum analyzer set to average detector.

(Note: Step 3 above is performed prior to testing and LOSS is recorded by test software. Steps 2, 6, and 7 above are performed with test software.)

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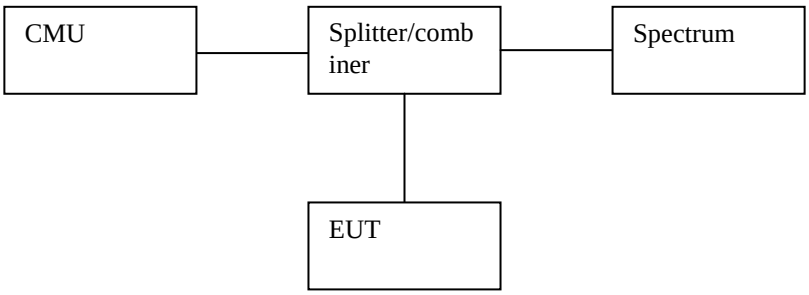
10.6.4 Test Setup



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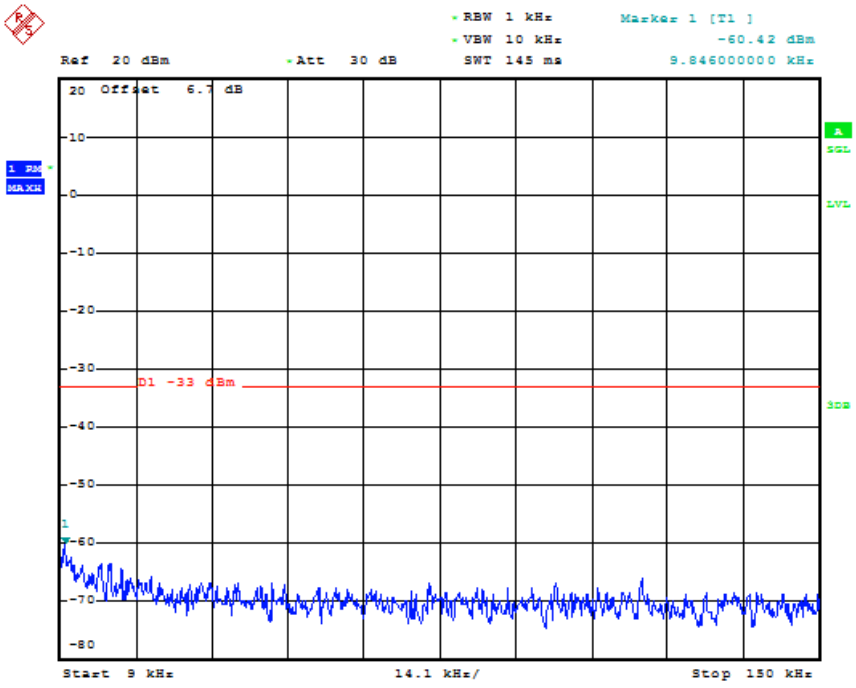
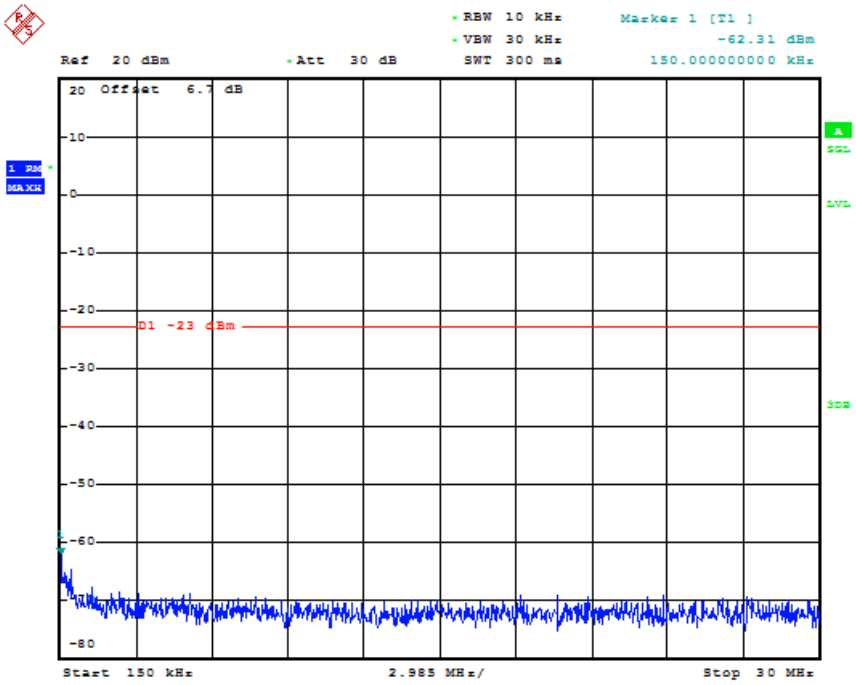
10.6.5 Test Data

Out of band measurement
Test Band = GSM850
Test Mode = GSM /TM1
Test Channel = LCH



Date: 25.SEP.2015 17:48:37



Date: 25.SEP.2015 17:48:46

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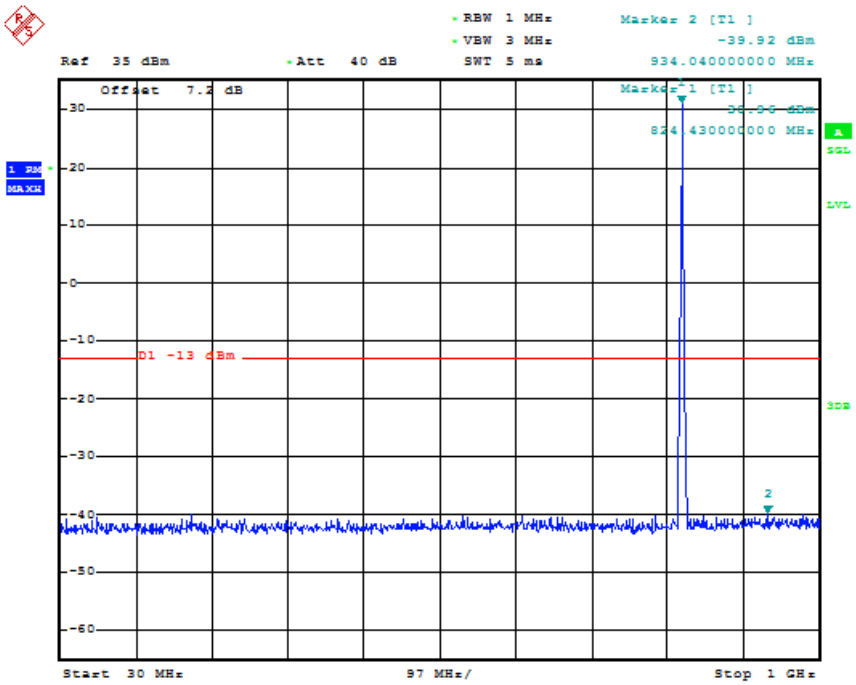

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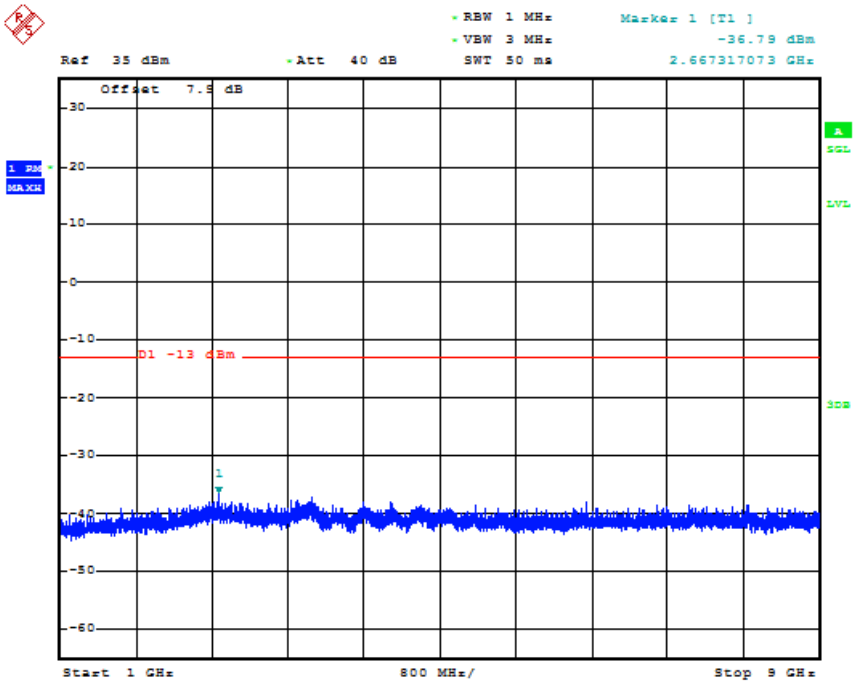

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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Out of band measurement
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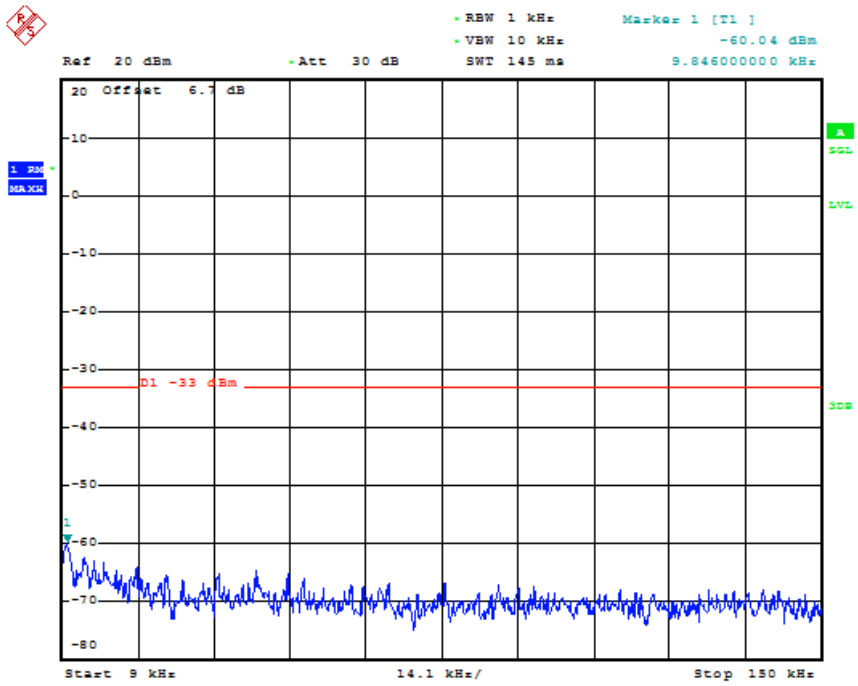
Test Mode = GSM /TM1
Test Channel = MCH



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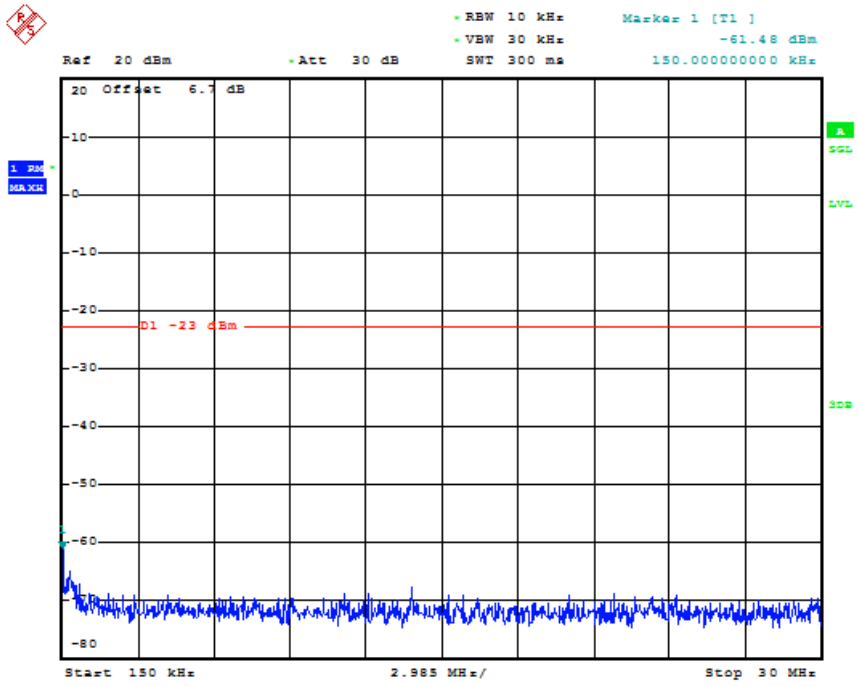

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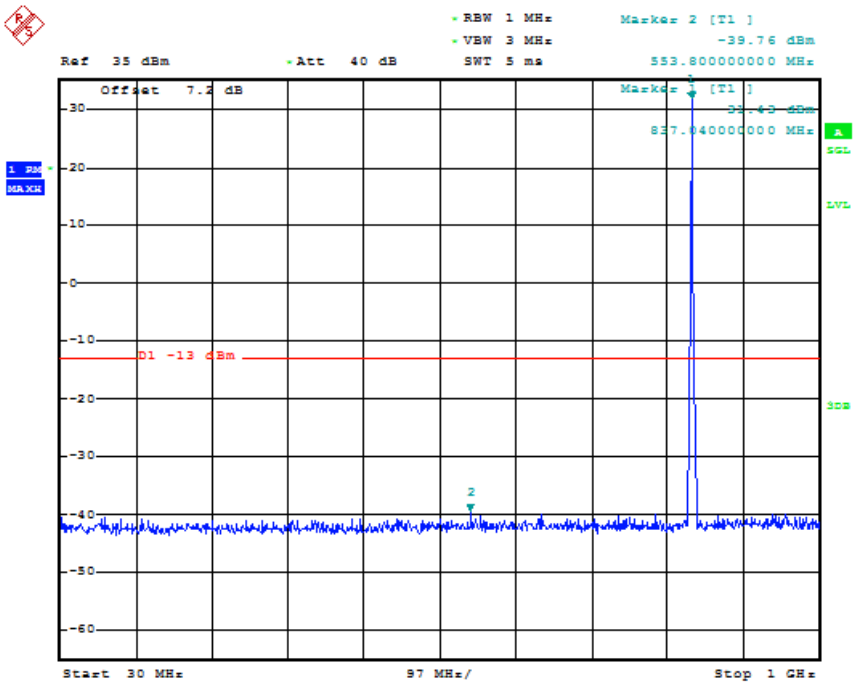
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299



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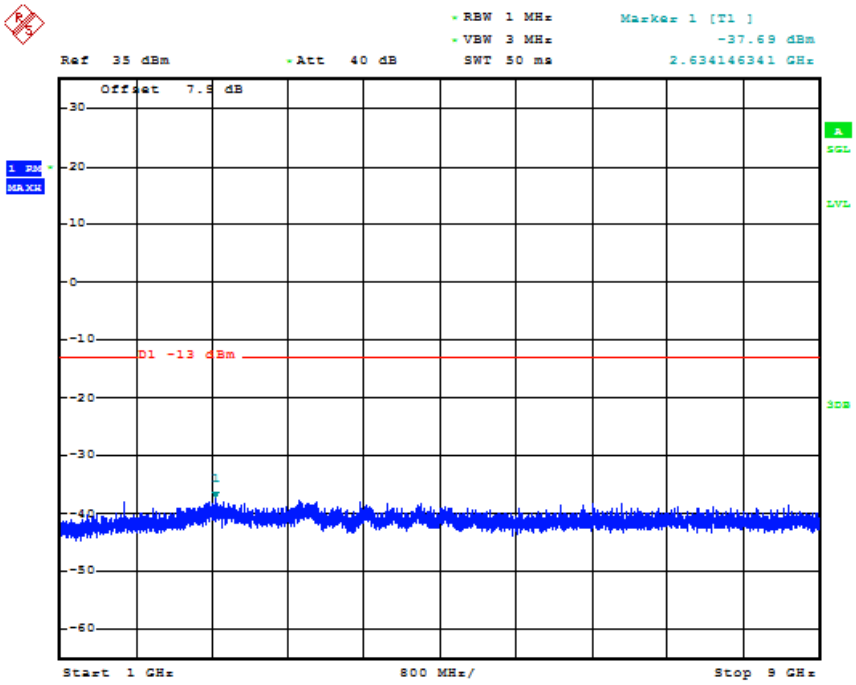

Date: 25.SEP.2015 17:49:53

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Out of band measurement
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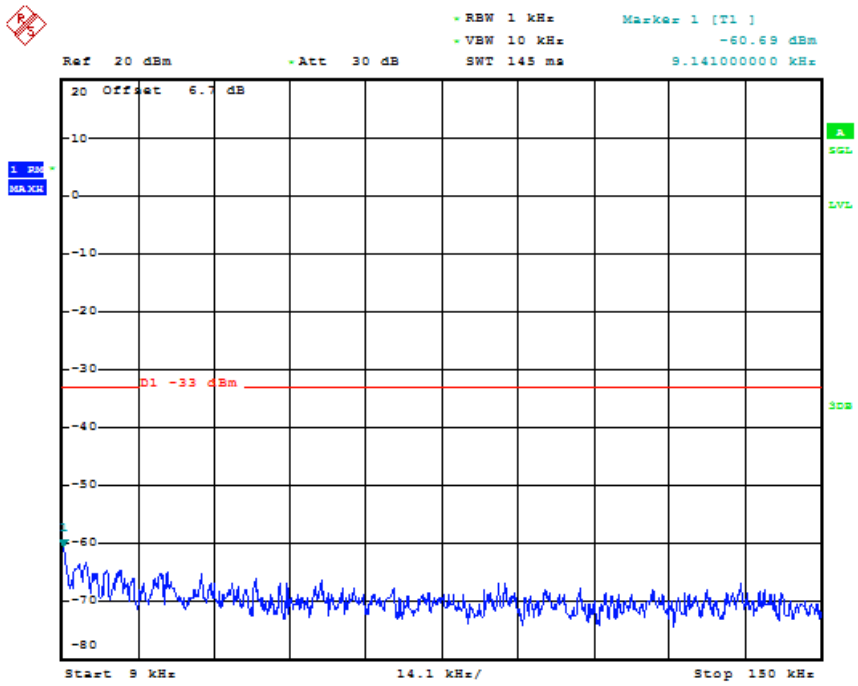
Test Mode = GSM /TM1
Test Channel = HCH



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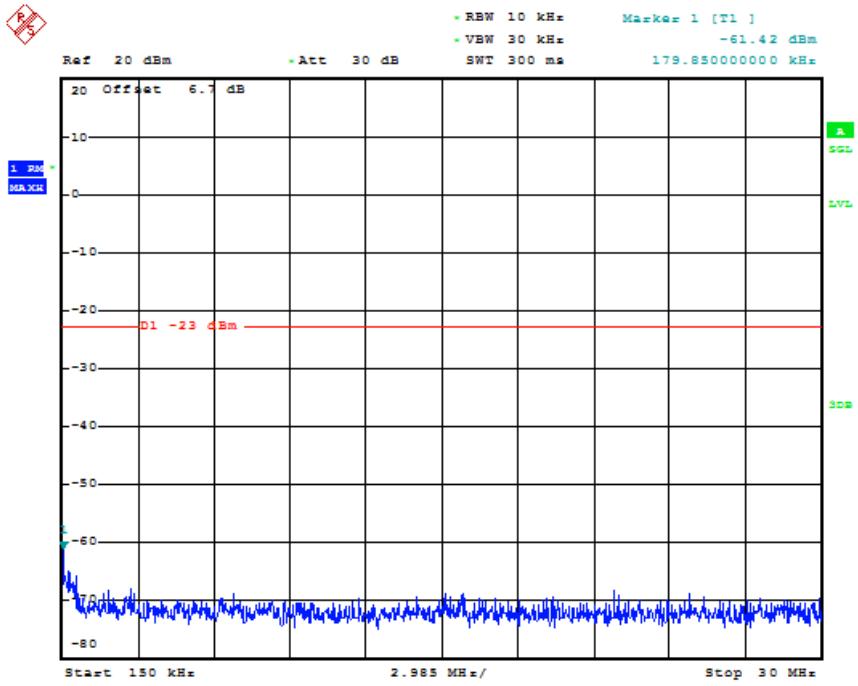

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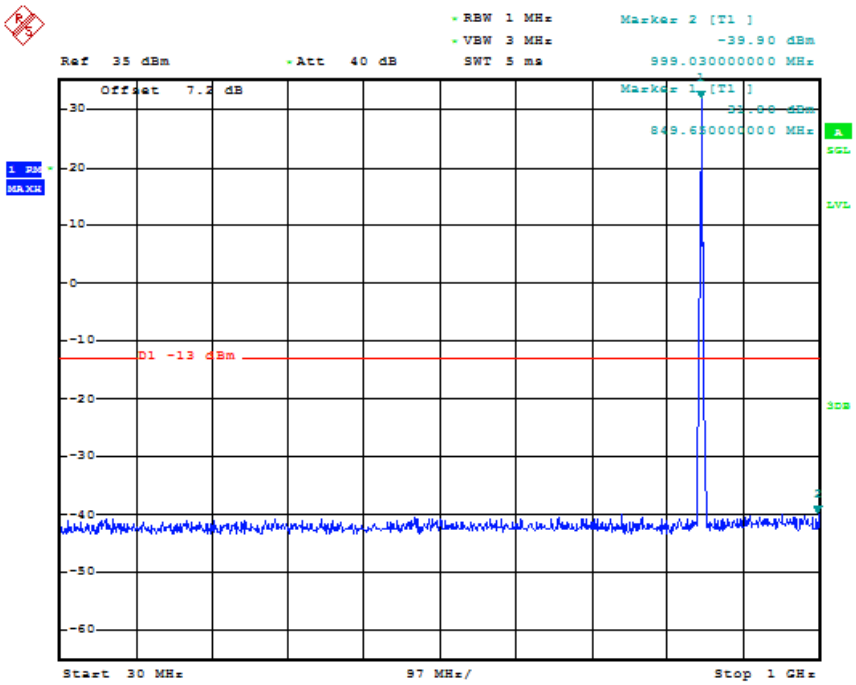
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299



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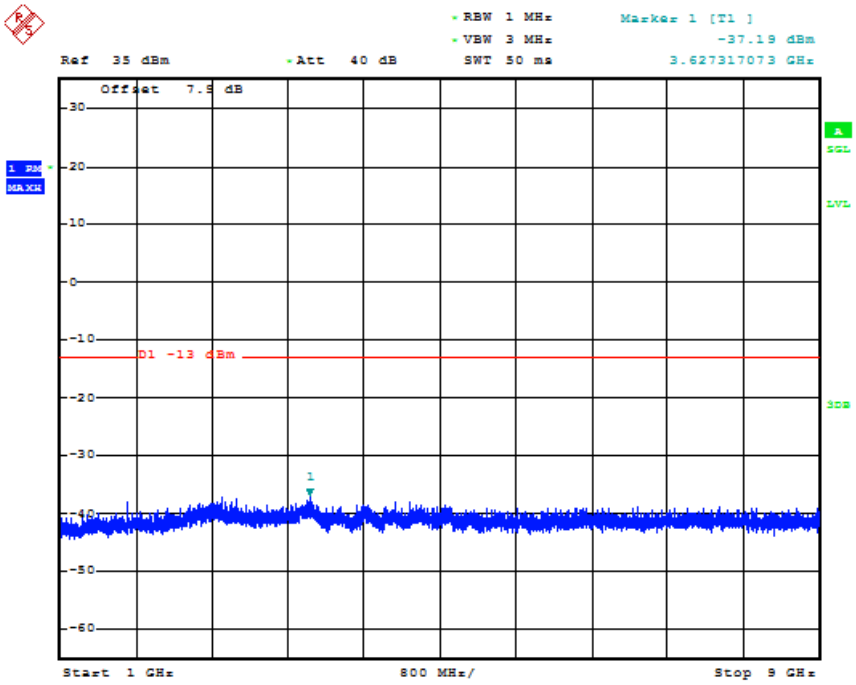

Date: 25.SEP.2015 17:50:40

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Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Out of band measurement
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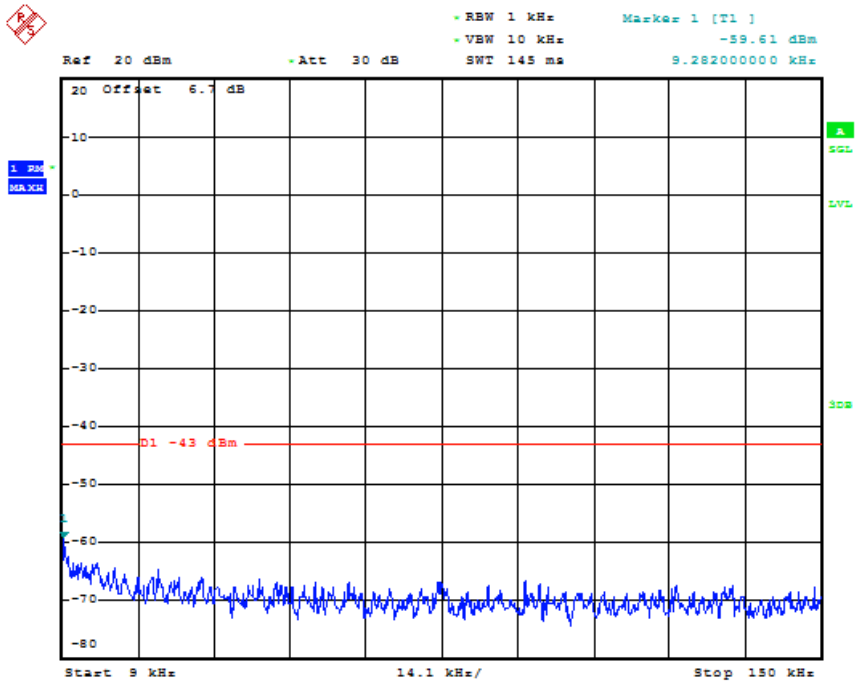
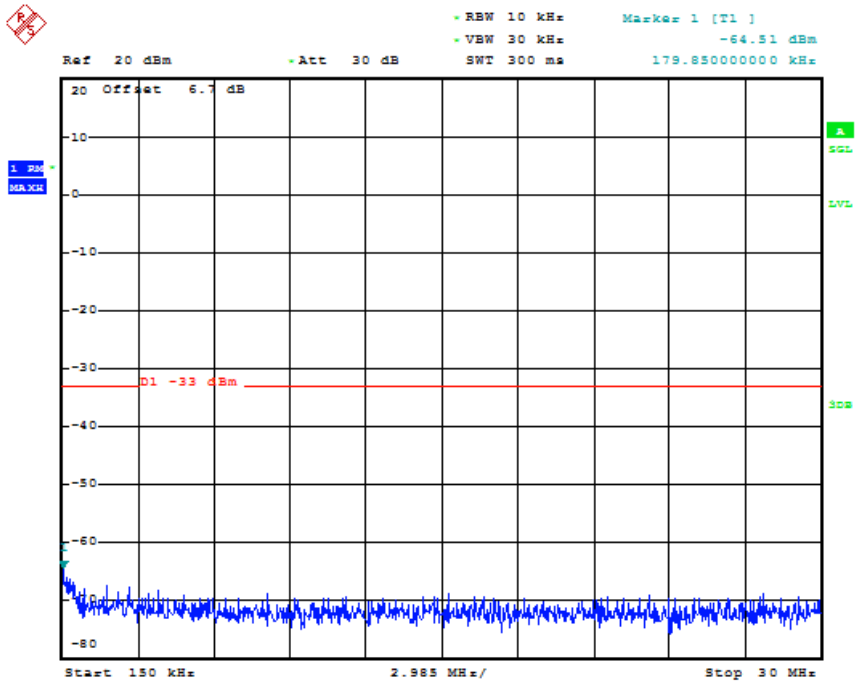
Test Mode = EDGE /TM2
Test Channel = LCH



Date: 25.SEP.2015 18:10:37



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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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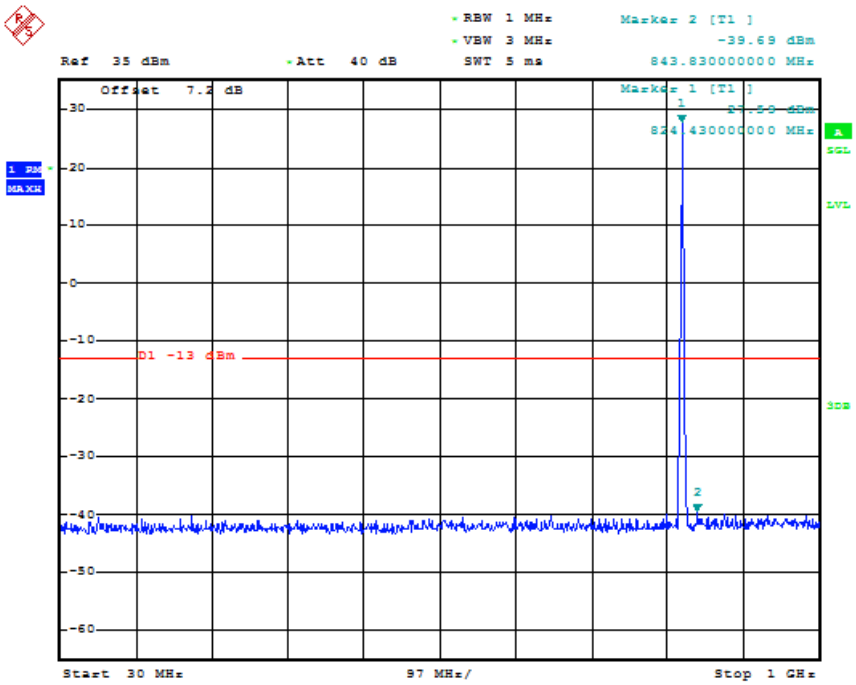

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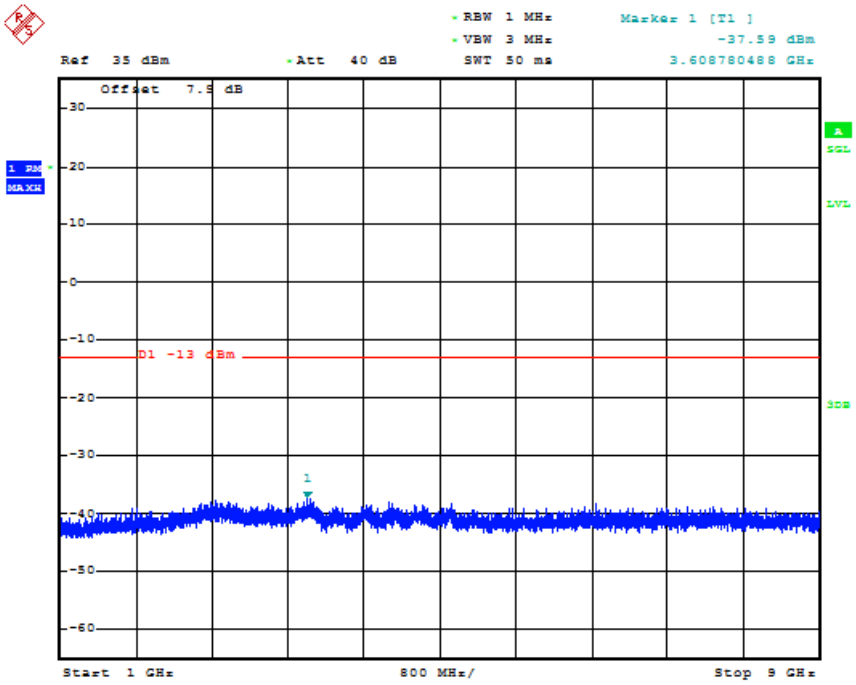

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Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Out of band measurement
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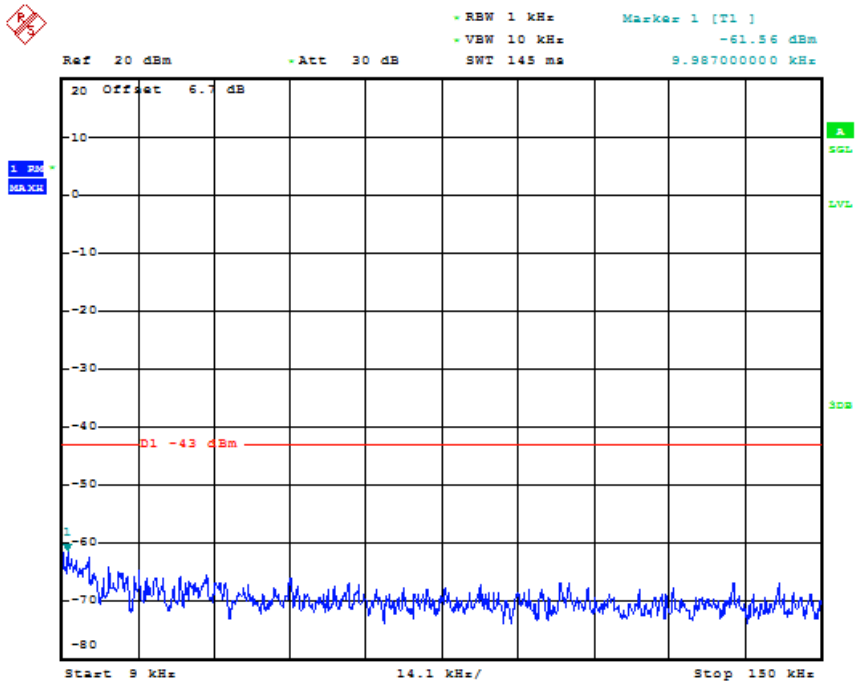
Test Mode = EDGE /TM2
Test Channel = MCH



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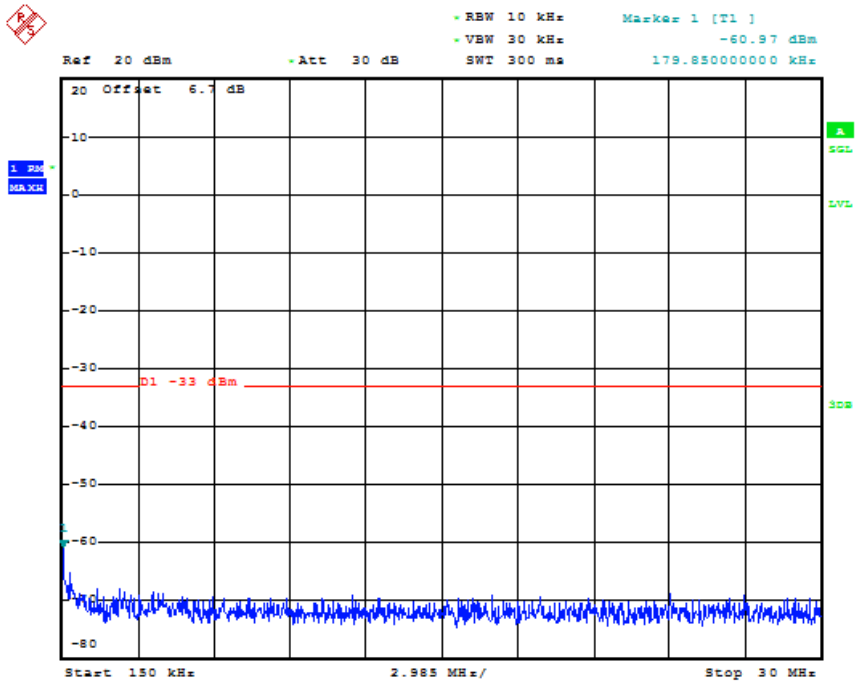

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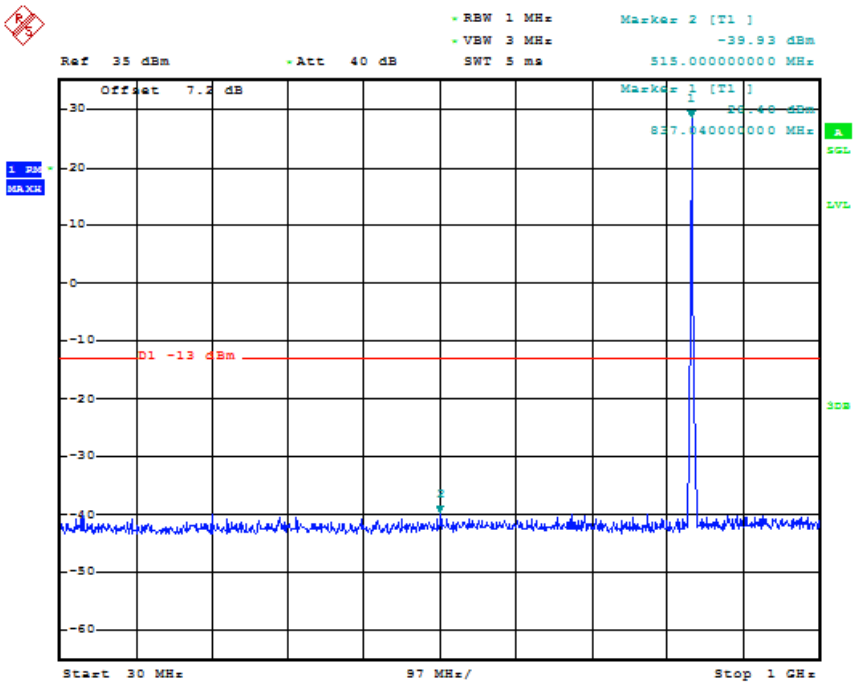

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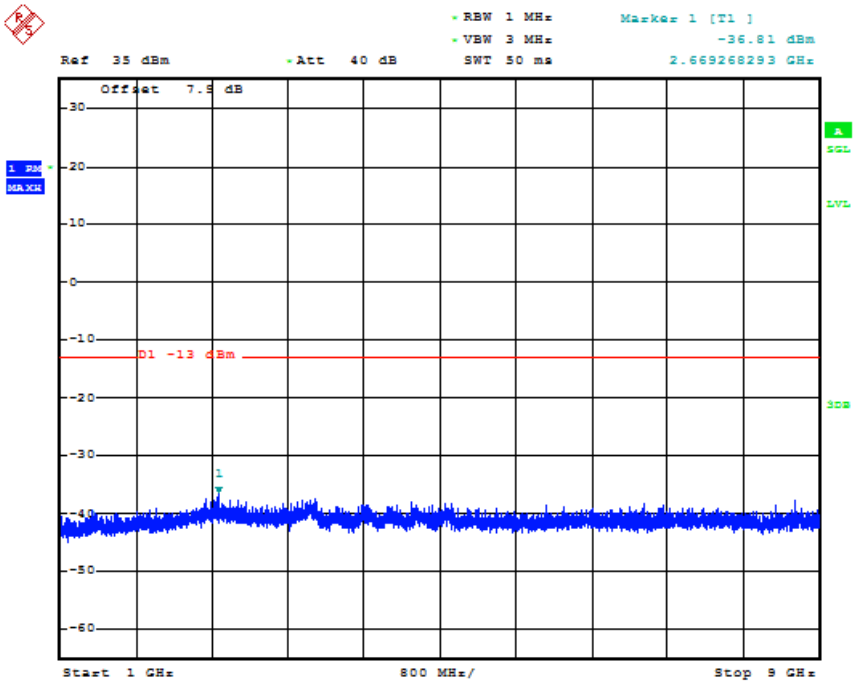

Date: 25.SEP.2015 18:11:50

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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Out of band measurement
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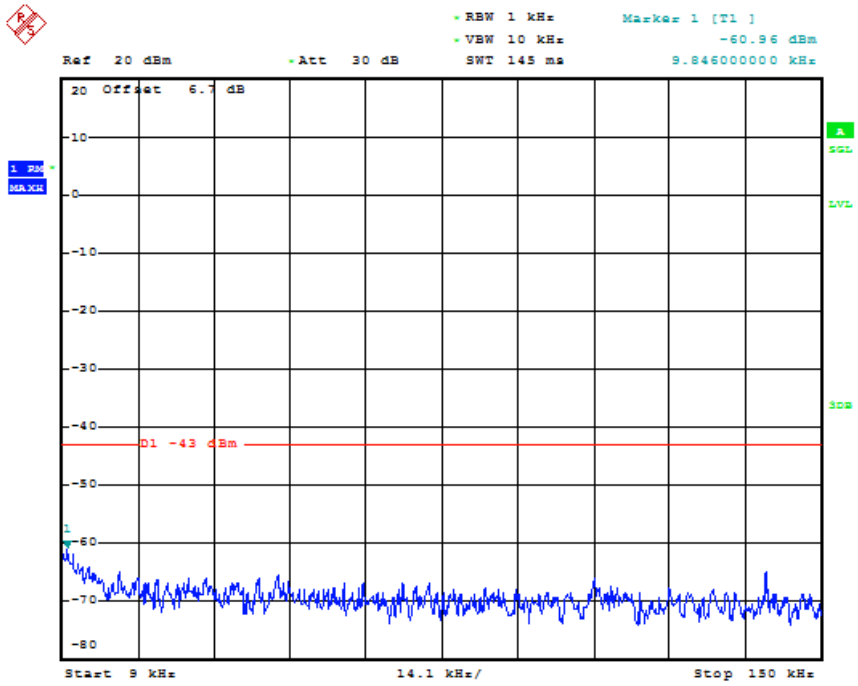
Test Mode = EDGE /TM2
Test Channel = HCH



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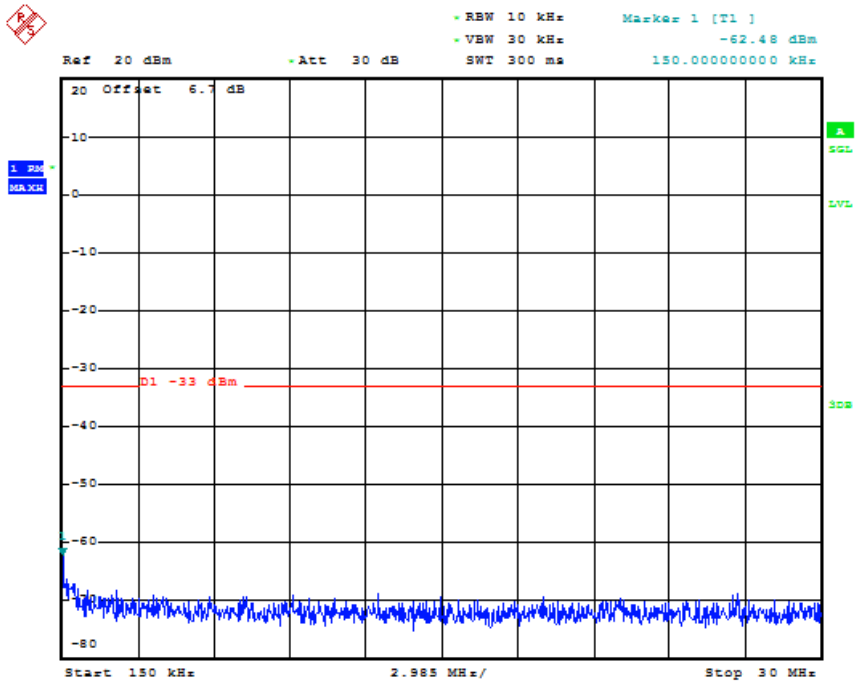

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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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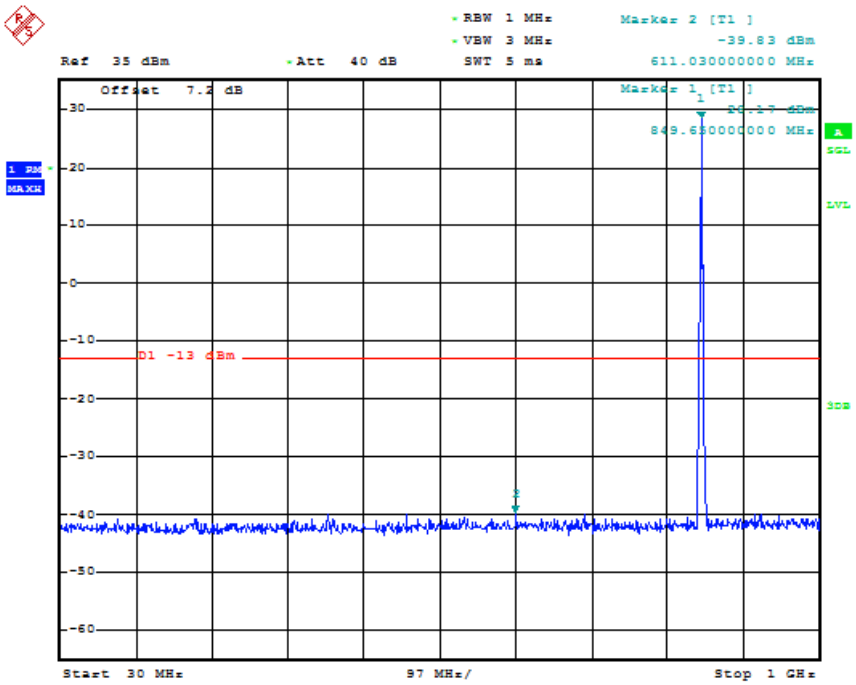

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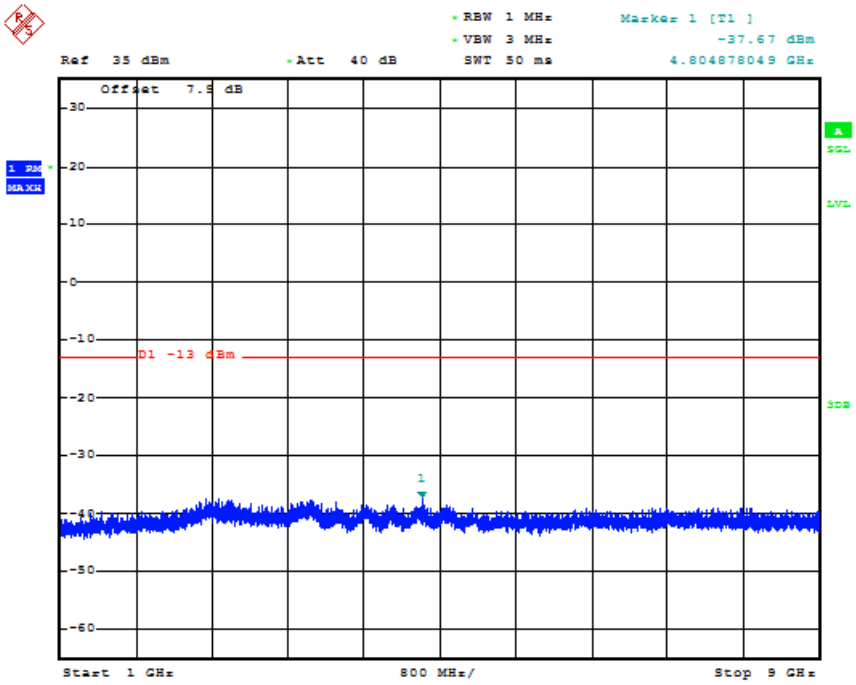

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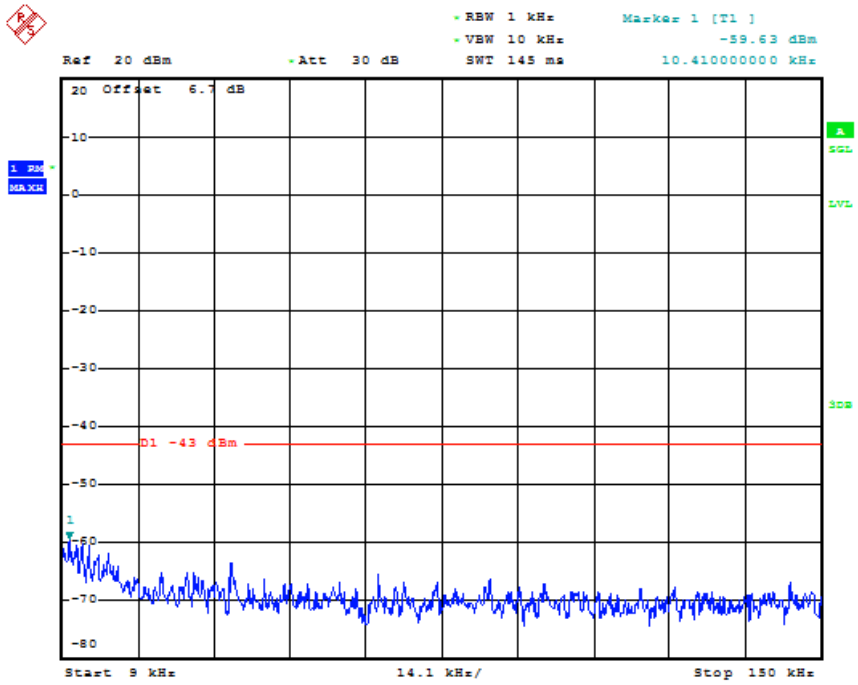
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Out of band measurement
Test Band = GSM1900
Test Mode = GSM /TM1
Test Channel = LCH



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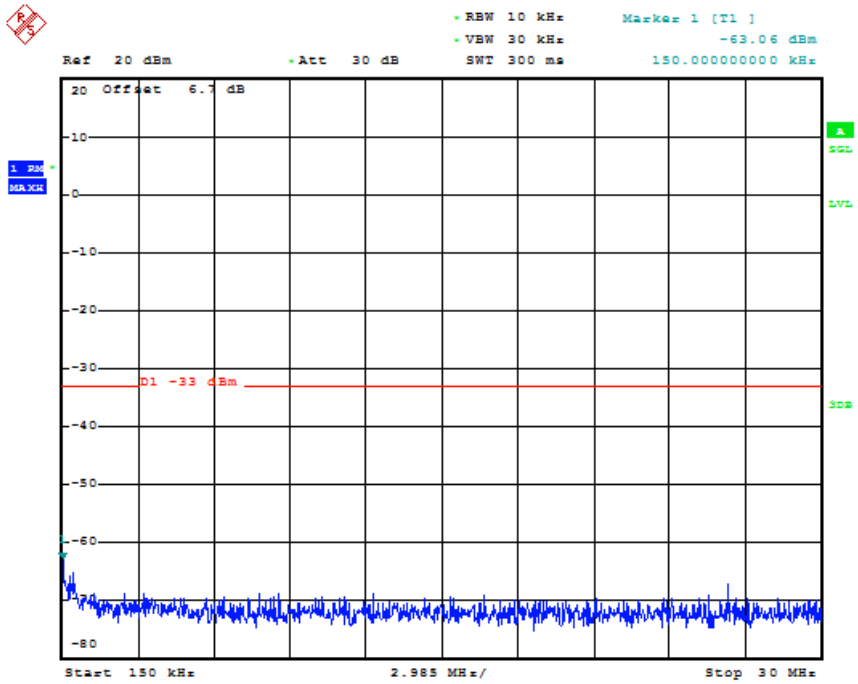

Date: 25.SEP.2015 17:13:07

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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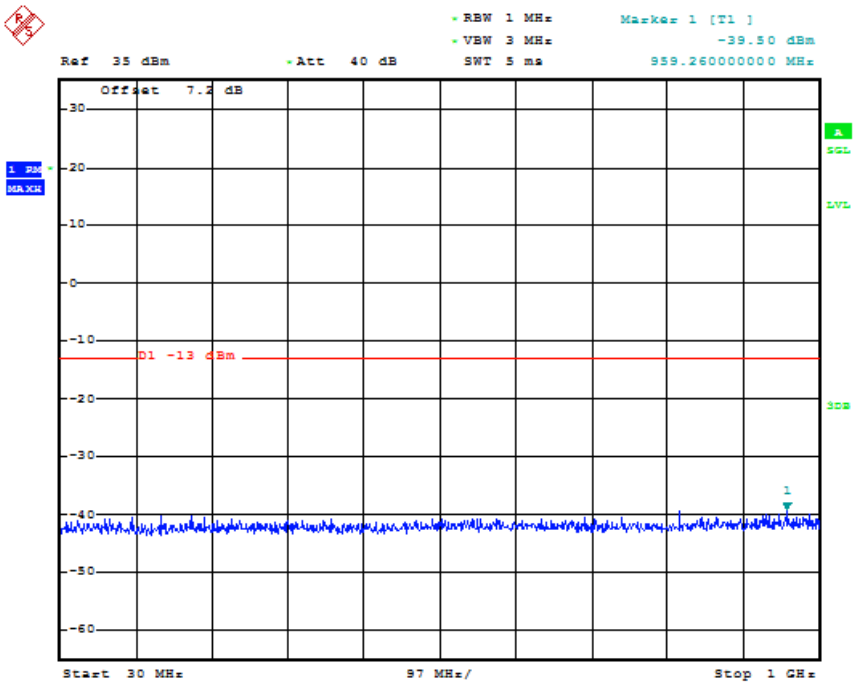

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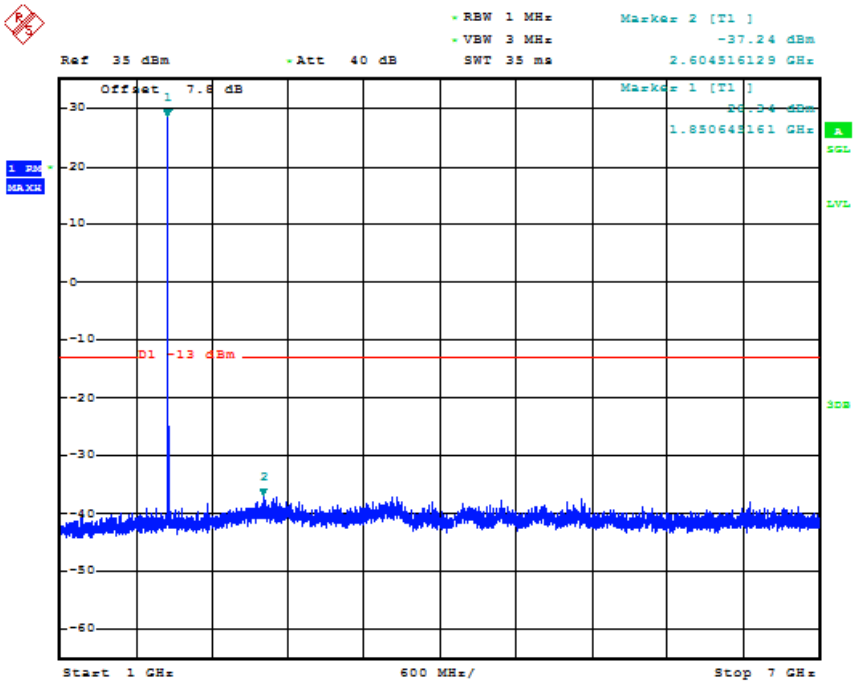

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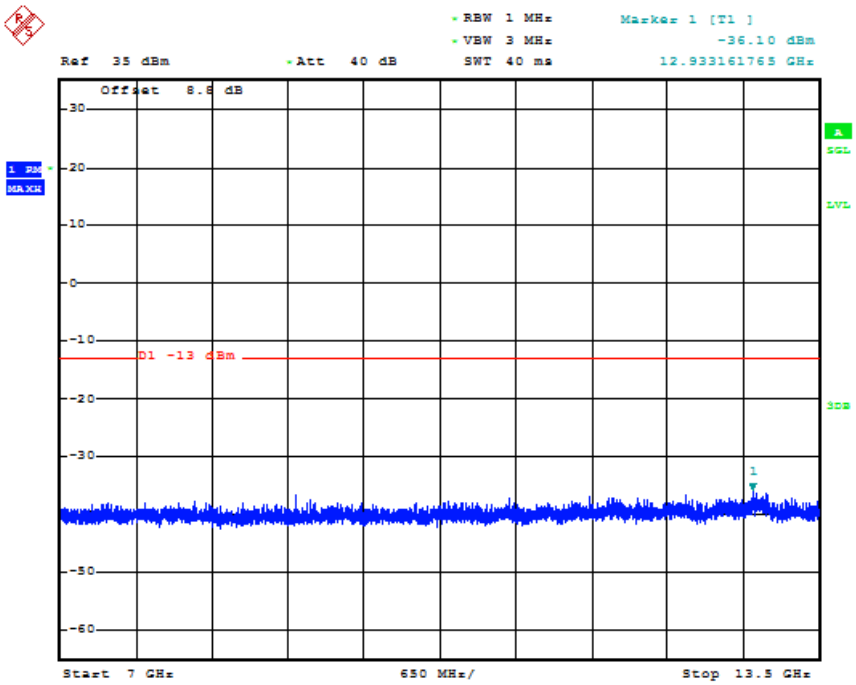

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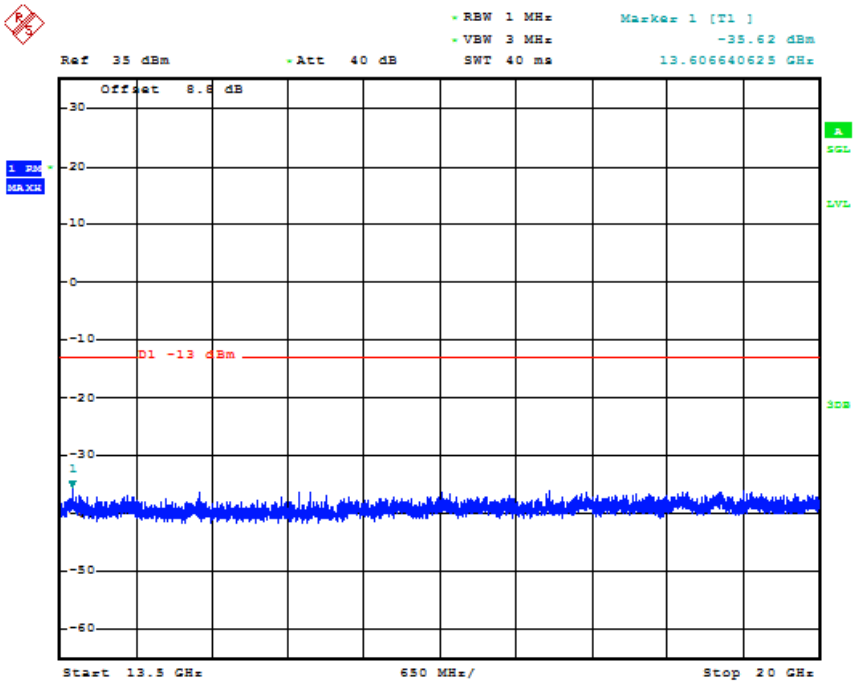

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Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Out of band measurement
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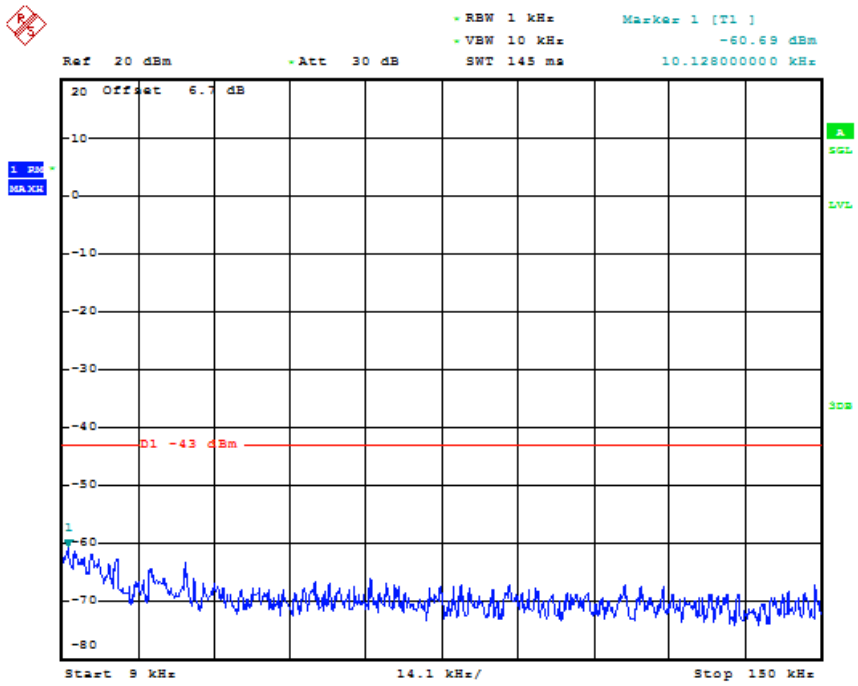
Test Mode = GSM /TM1
Test Channel = MCH



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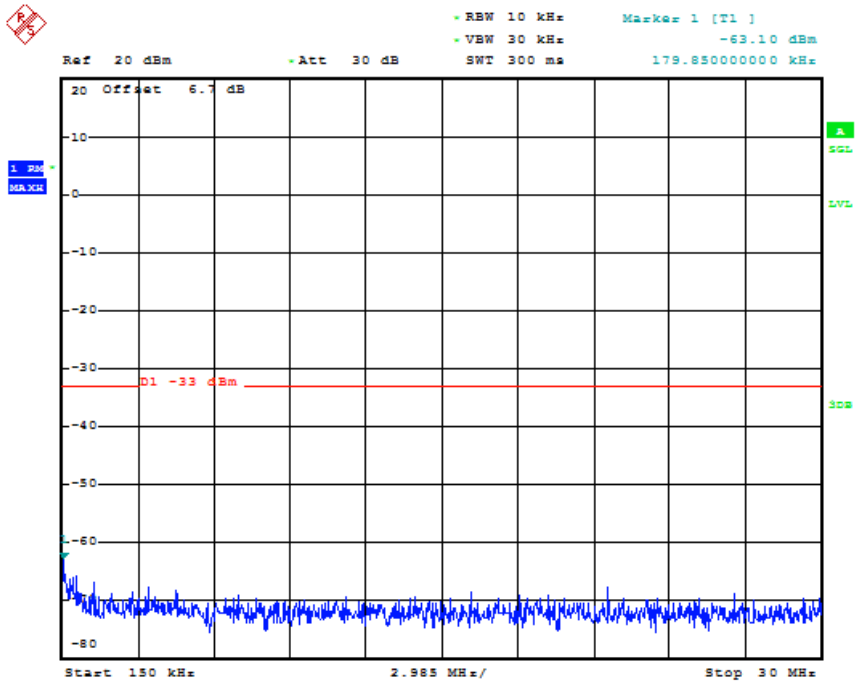

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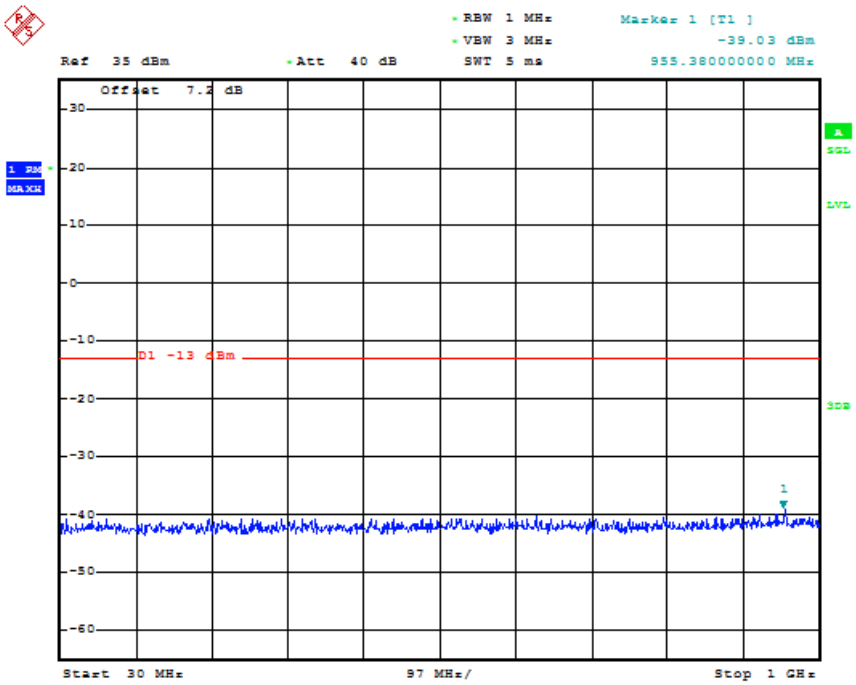

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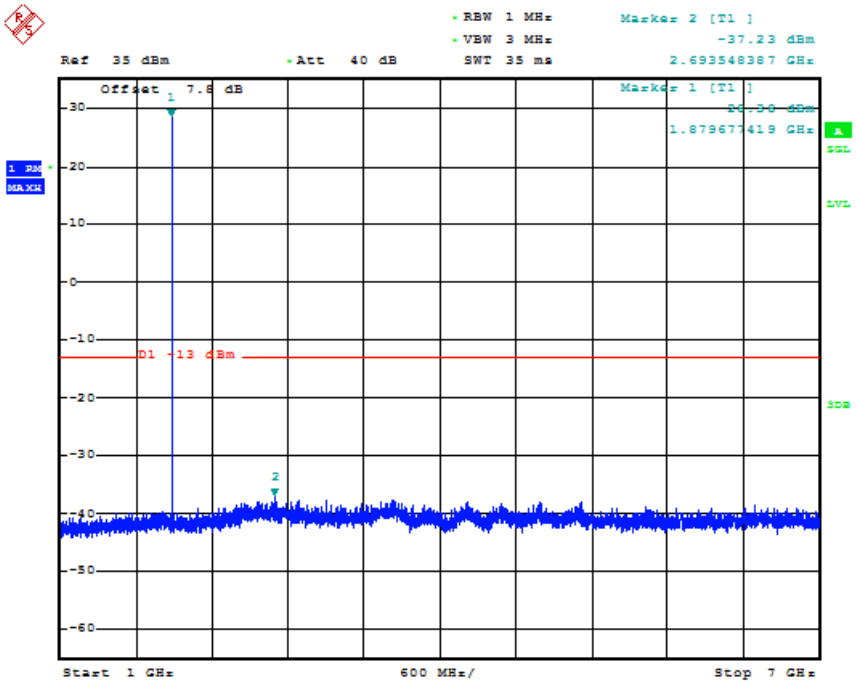

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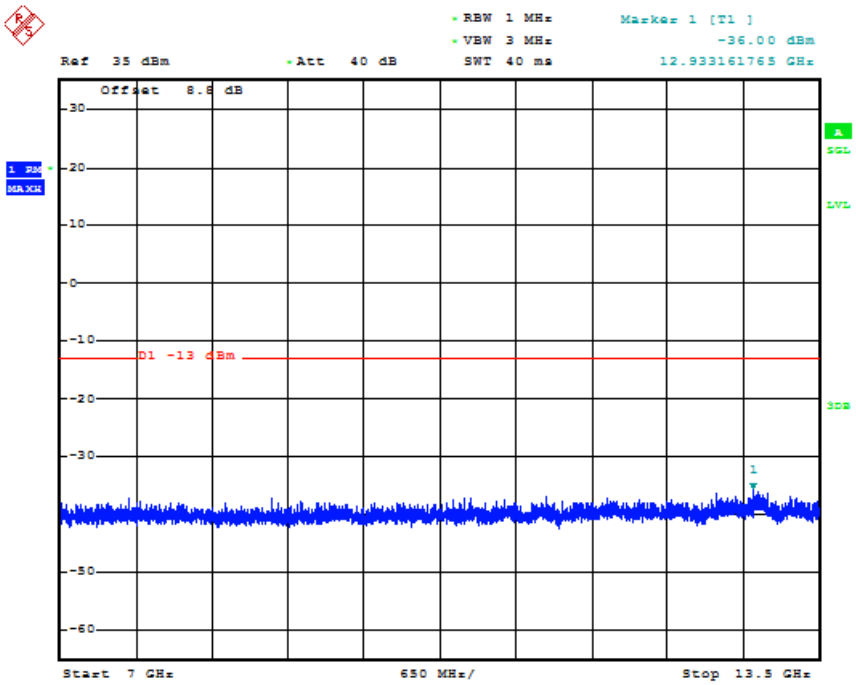

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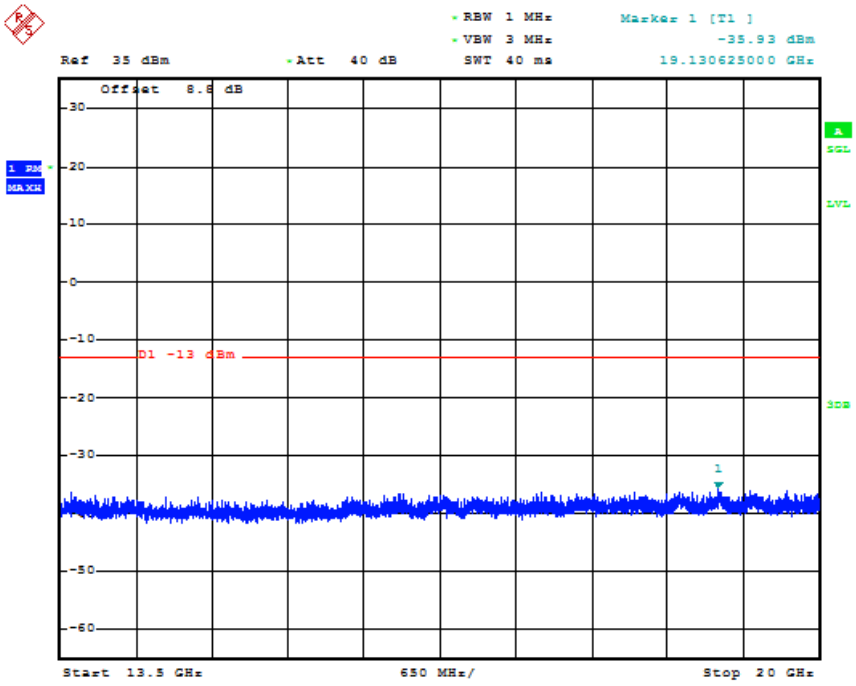

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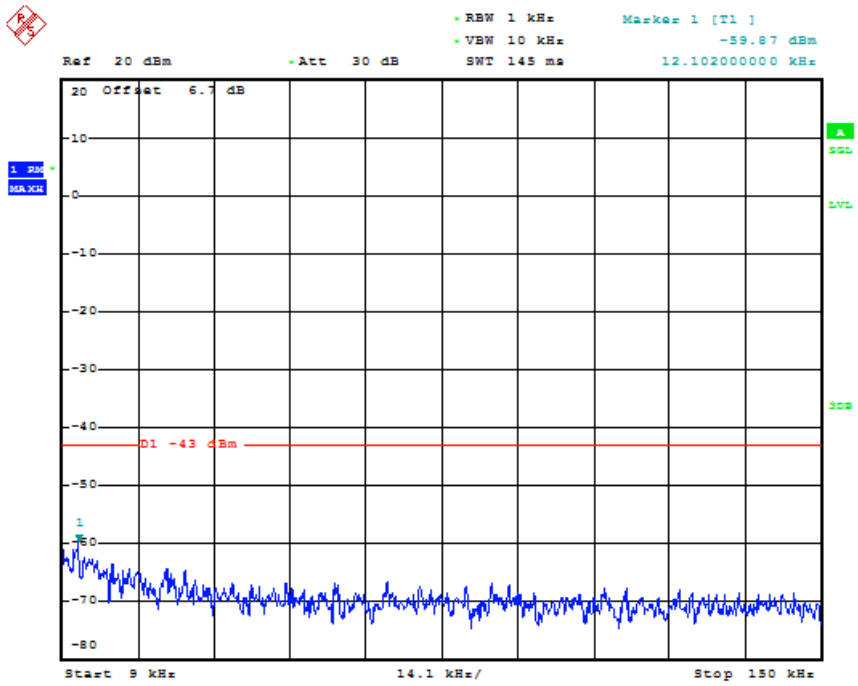
Out of band measurement
Test Band = GSM1900
Test Mode = GSM /TM1
Test Channel = HCH



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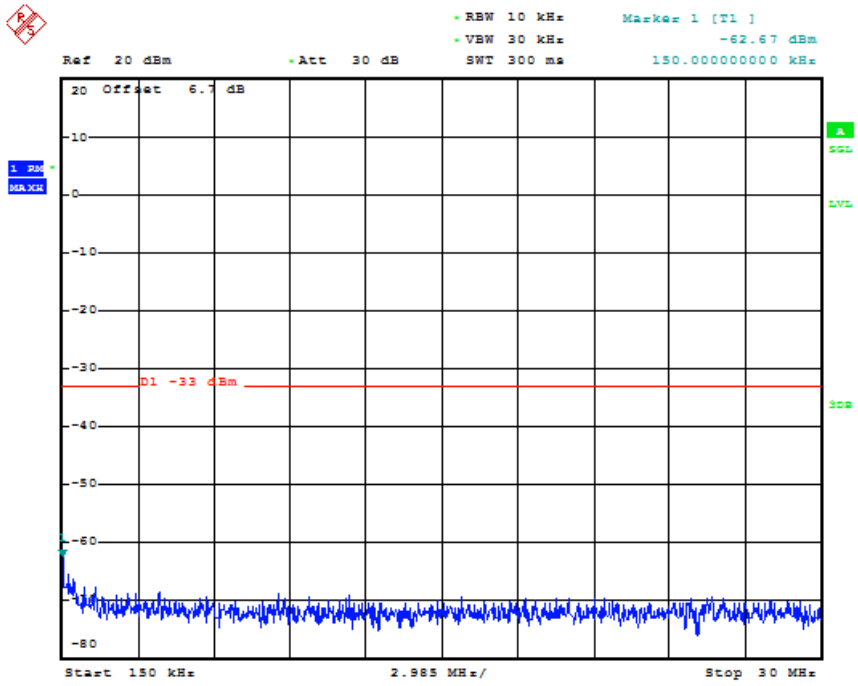

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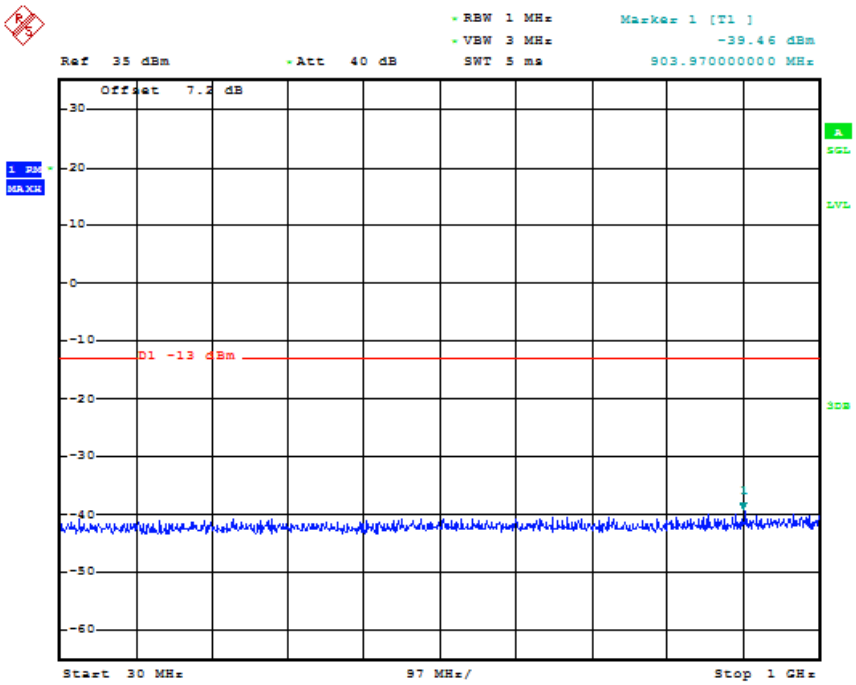

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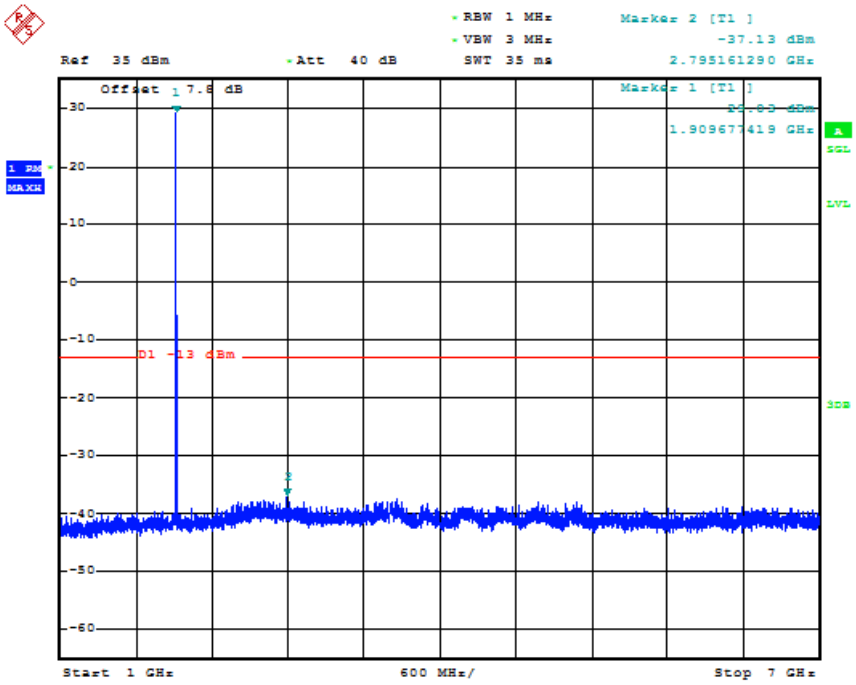

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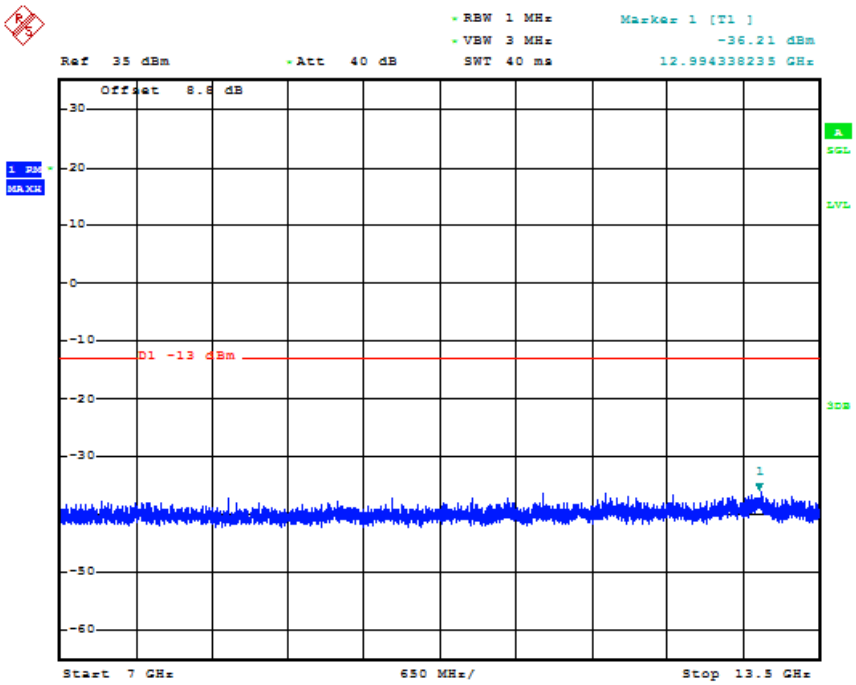

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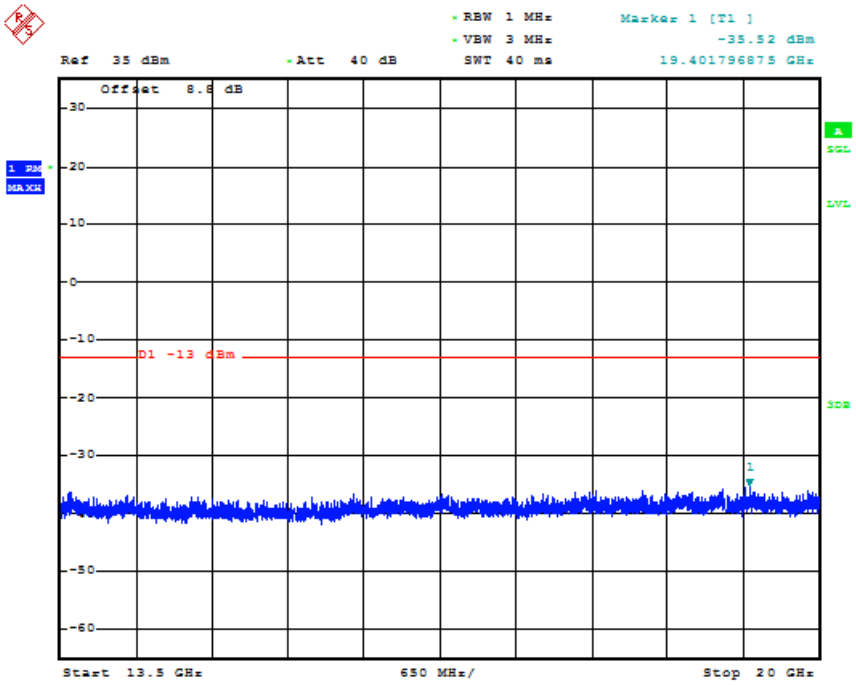

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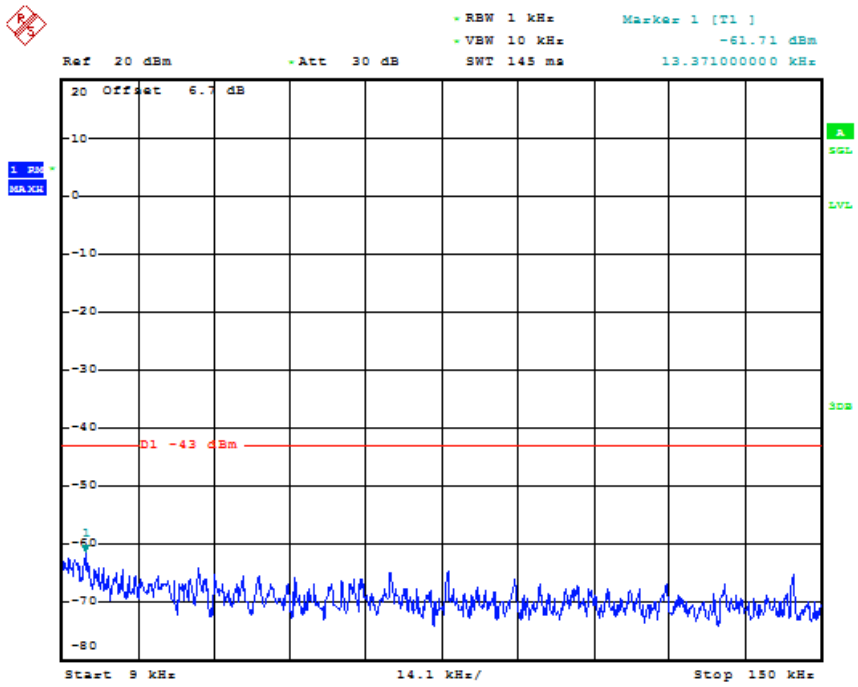
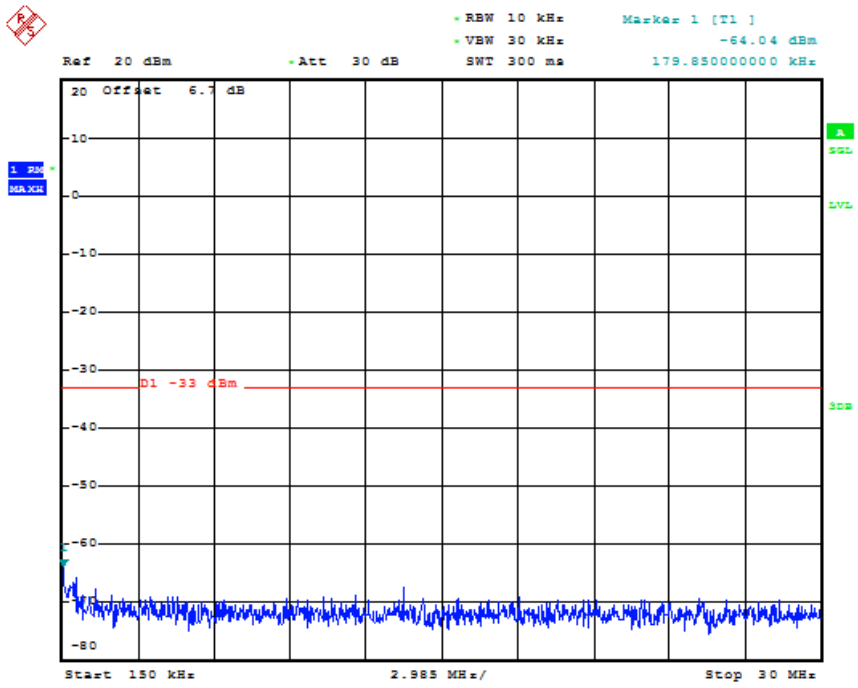
Out of band measurement
Test Band = GSM1900
Test Mode = EDGE /TM2
Test Channel = LCH



Date: 25.SEP.2015 17:30:41



Date: 25.SEP.2015 17:30:49

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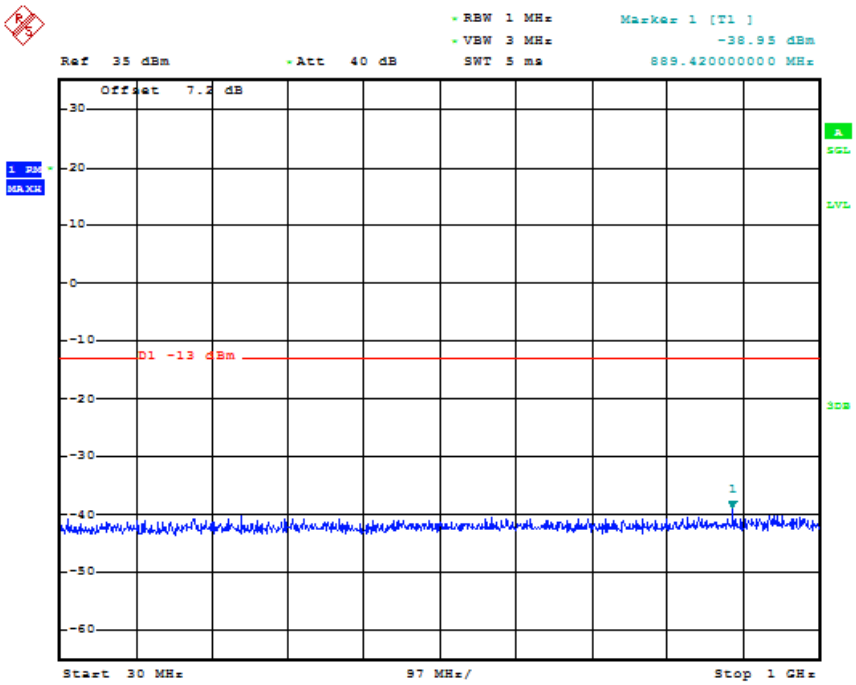

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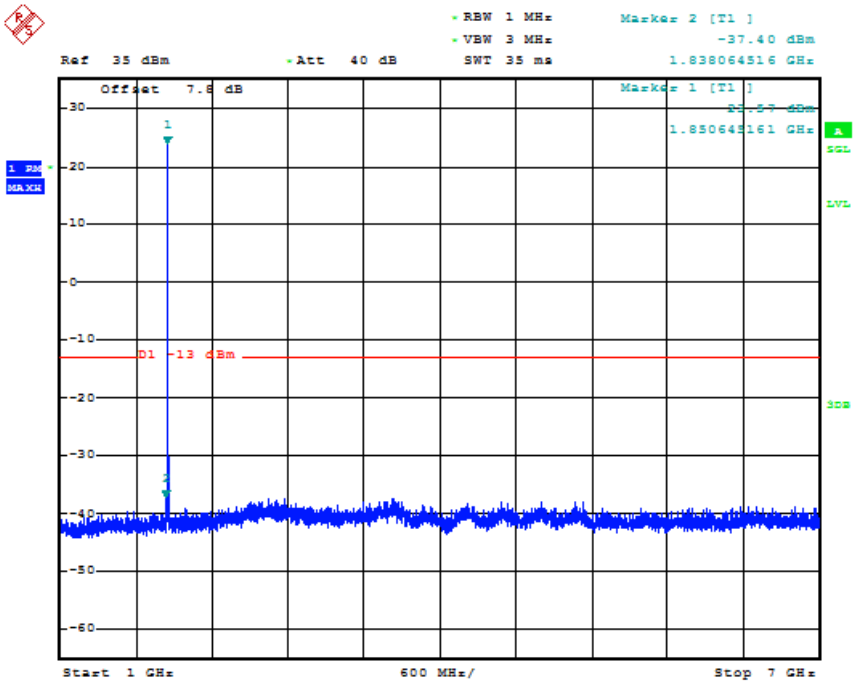
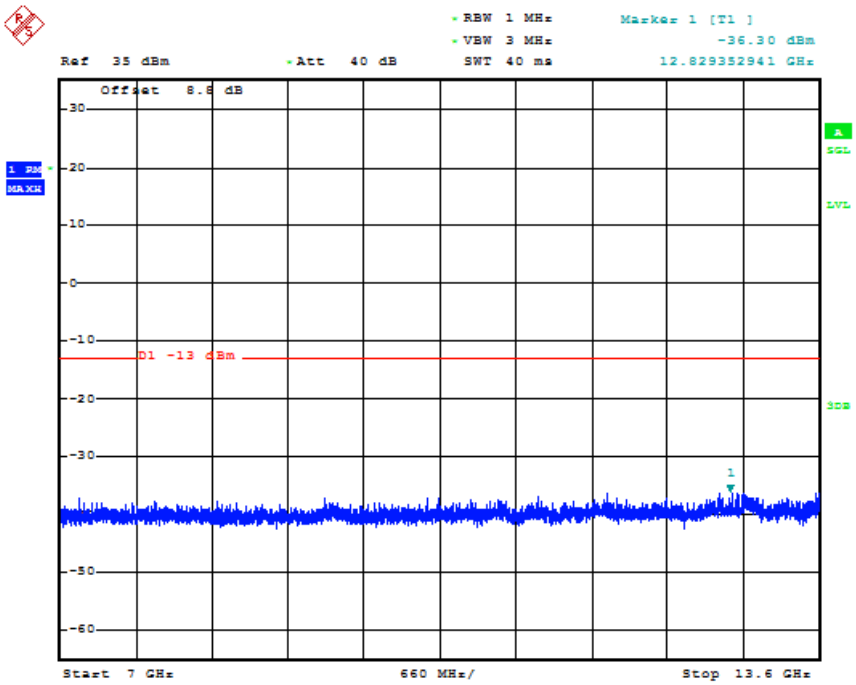


Date: 25.SEP.2015 17:31:08

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299



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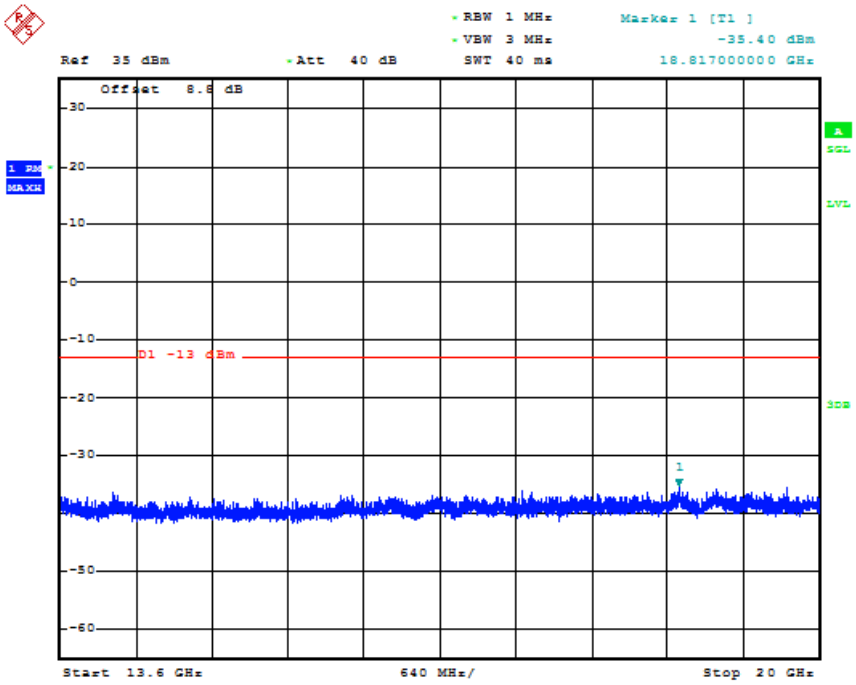

Date: 25.SEP.2015 17:31:26

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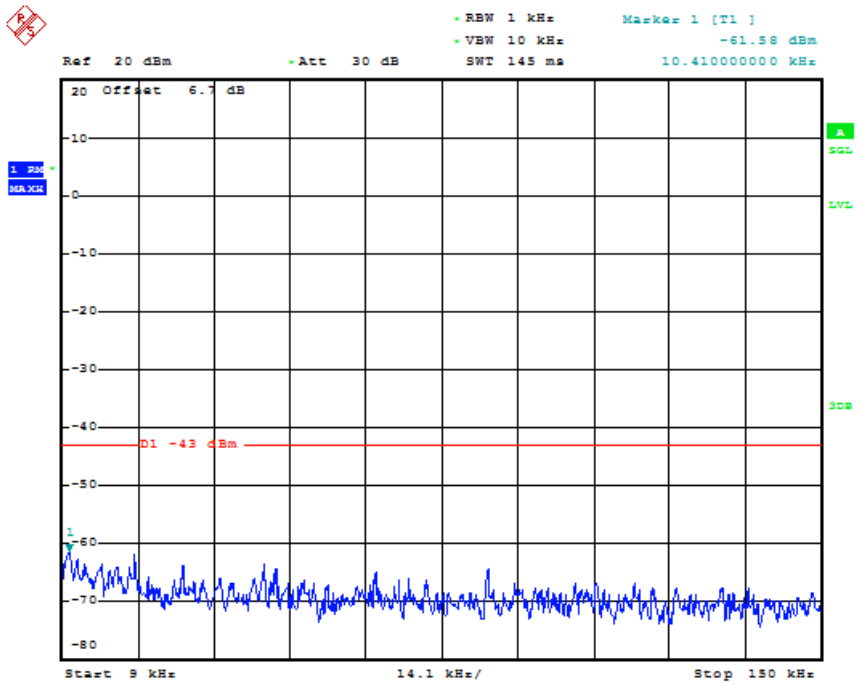
Out of band measurement
Test Band = GSM1900
Test Mode = EDGE /TM2
Test Channel = MCH



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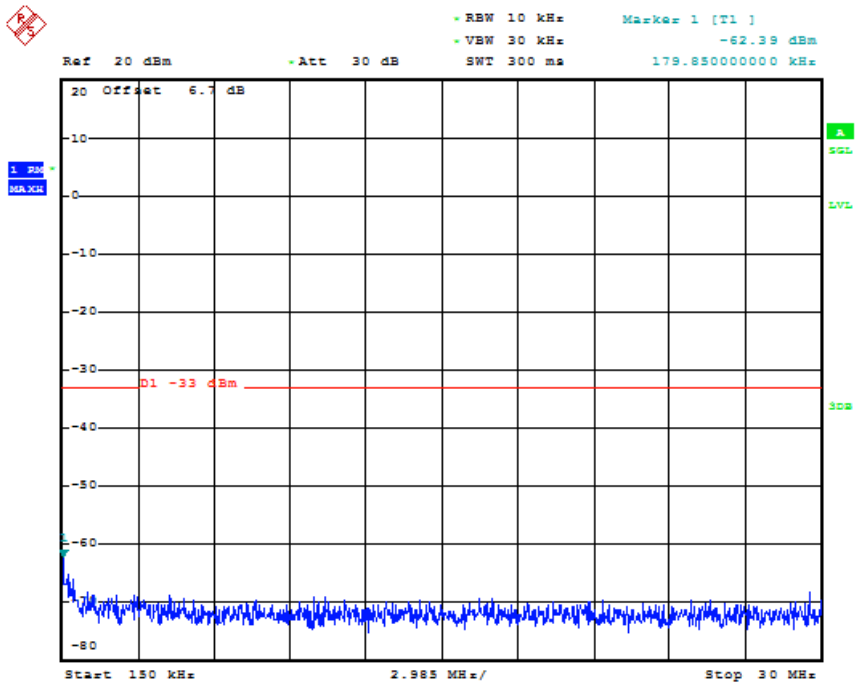

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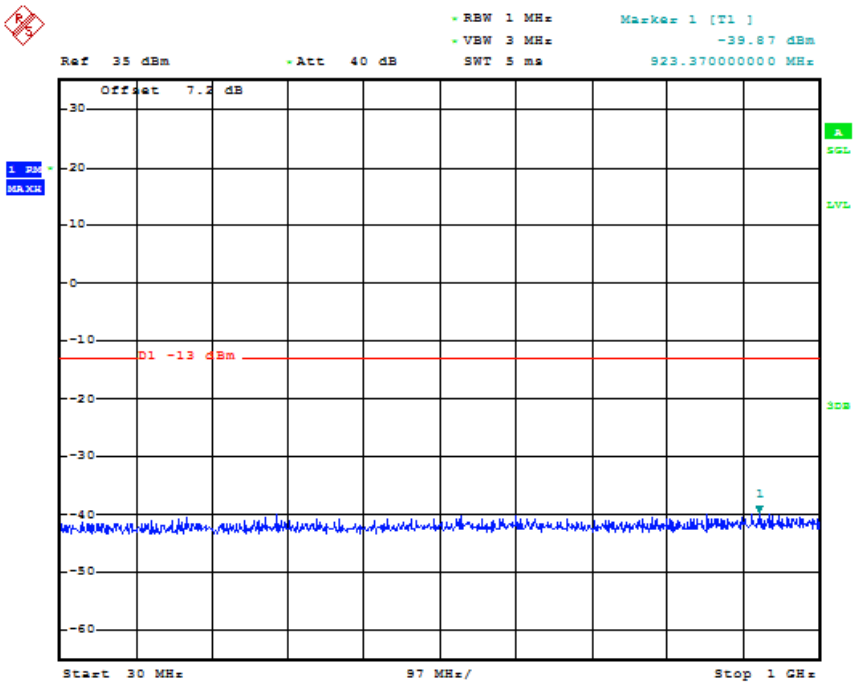
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299



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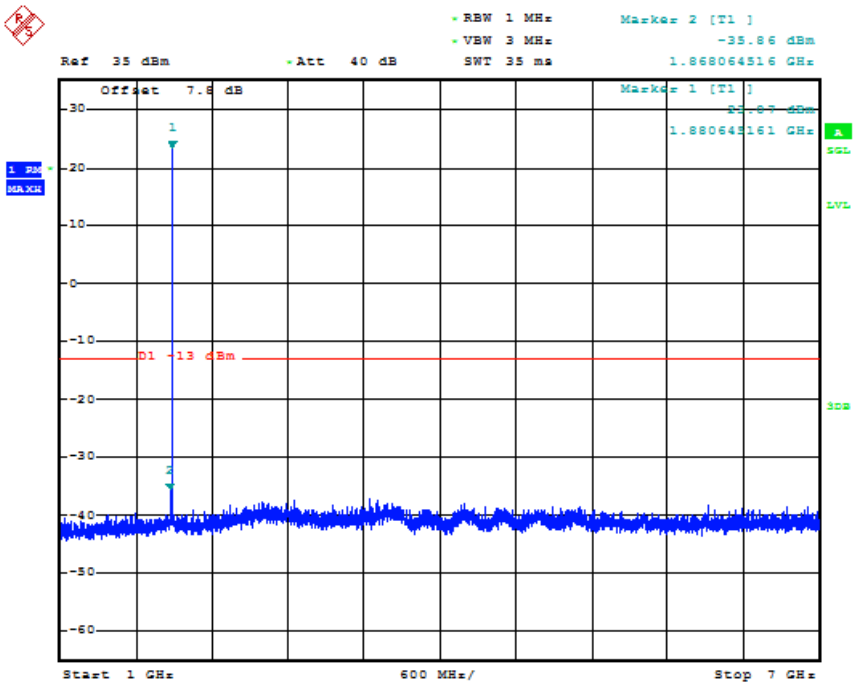

Date: 25.SEP.2015 17:32:12

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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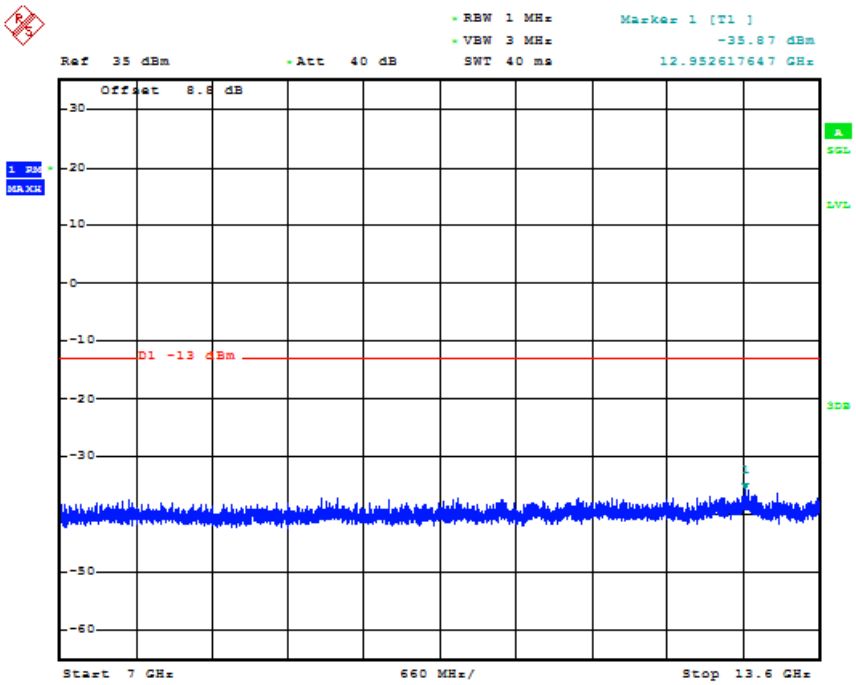

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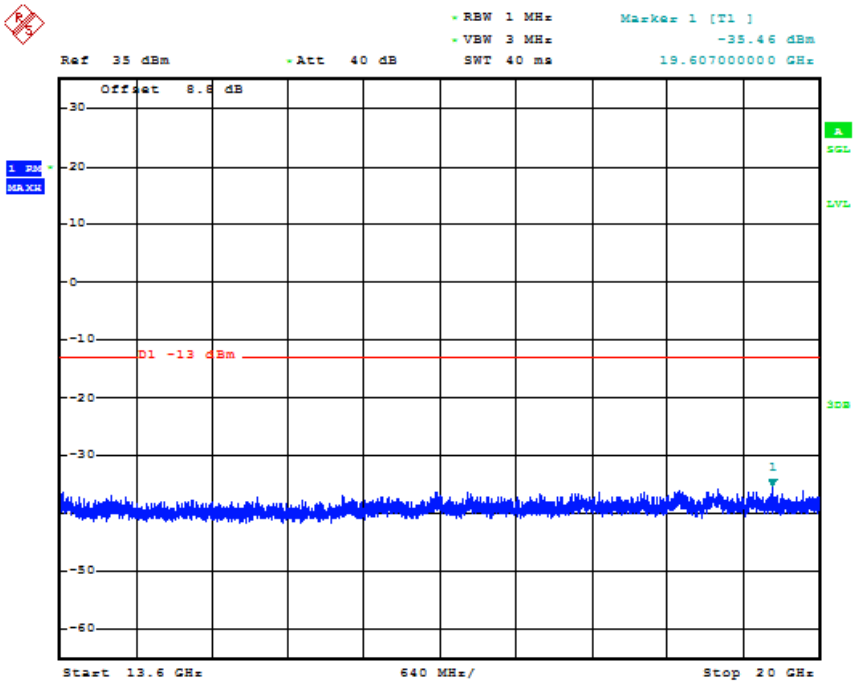

Date: 25.SEP.2015 17:32:30

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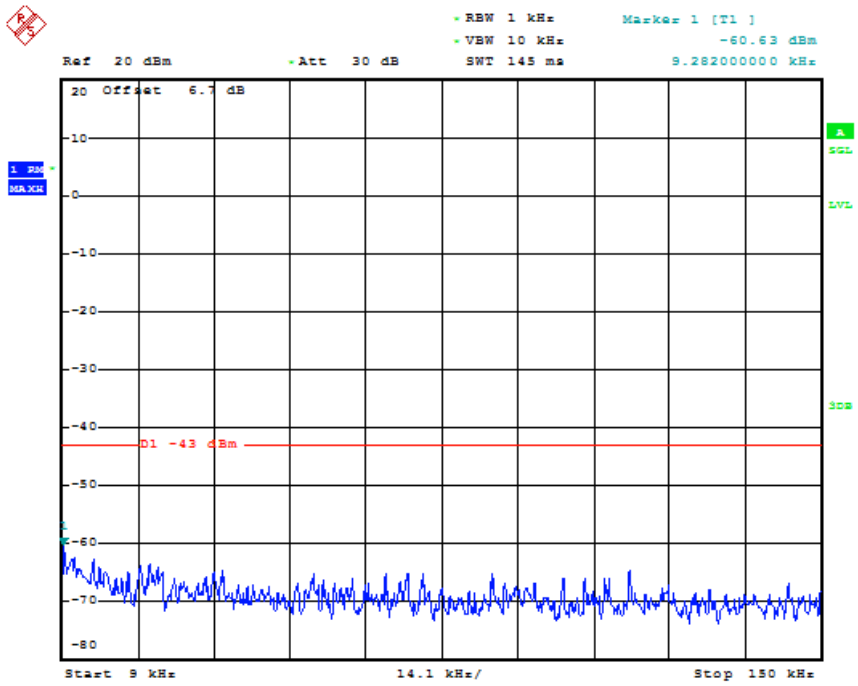
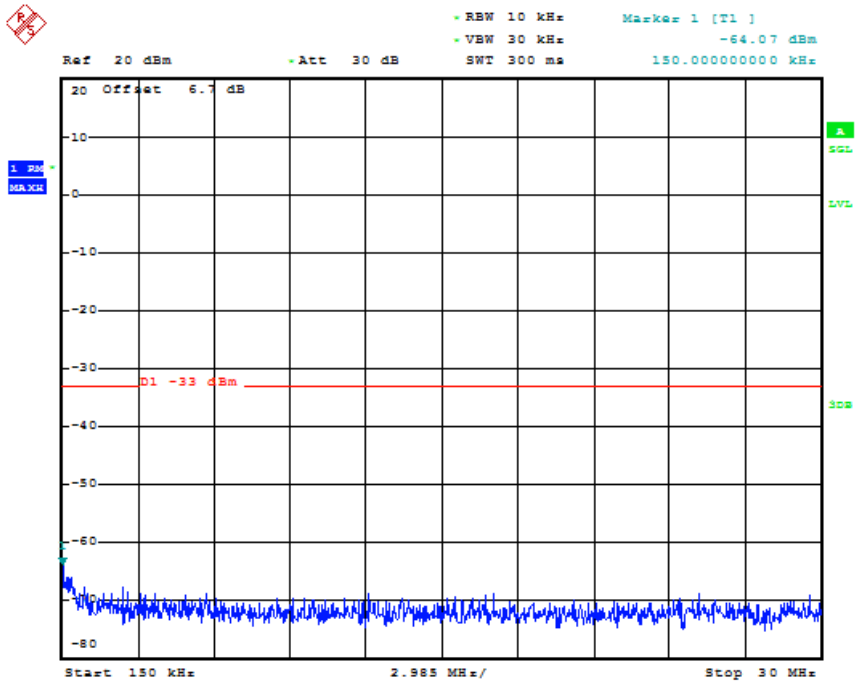
Out of band measurement
Test Band = GSM1900
Test Mode = EDGE /TM2
Test Channel = HCH



Date: 25.SEP.2015 17:32:48



Date: 25.SEP.2015 17:32:56

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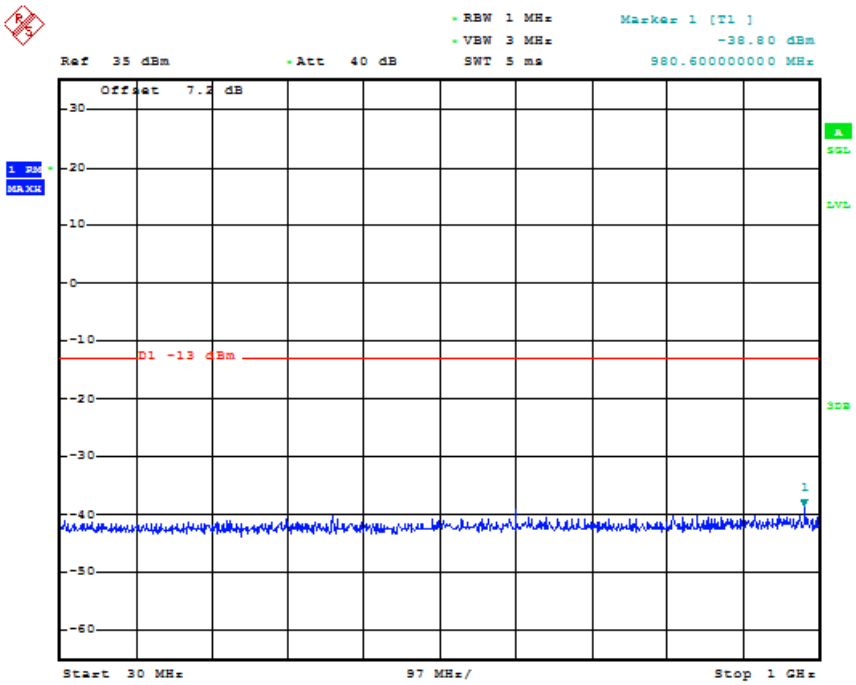
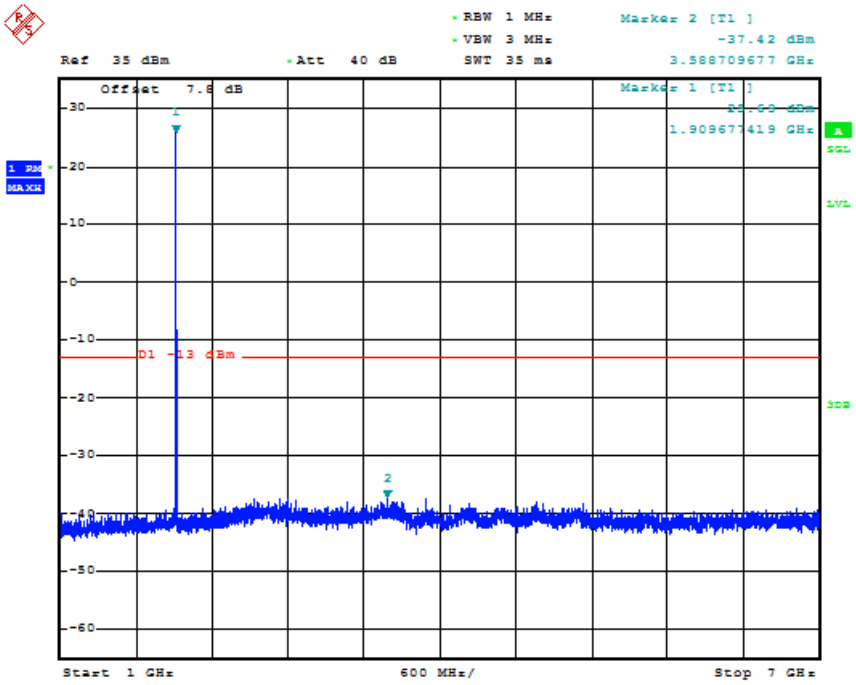


Date: 25.SEP.2015 17:33:05



Date: 25.SEP.2015 17:33:15

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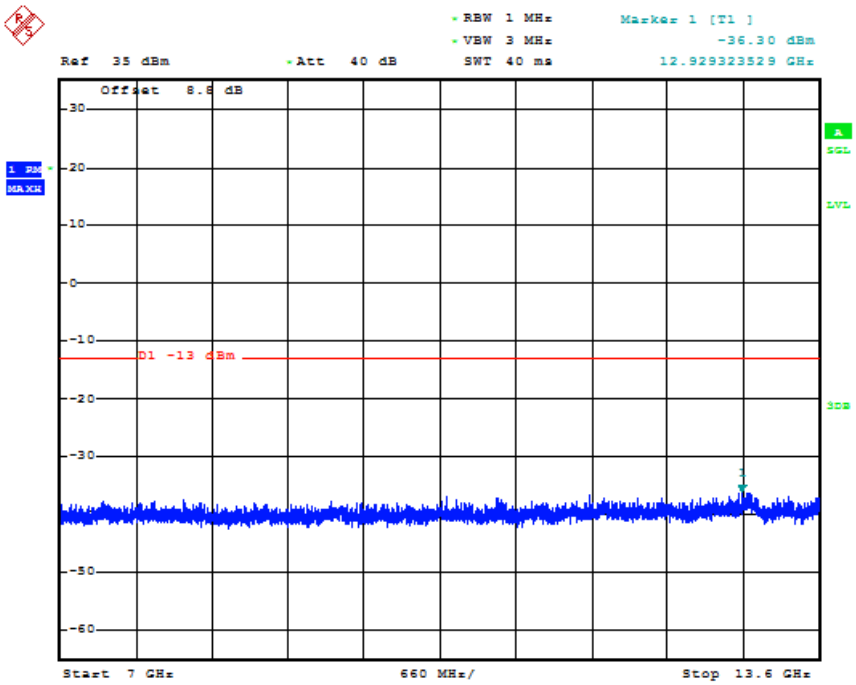

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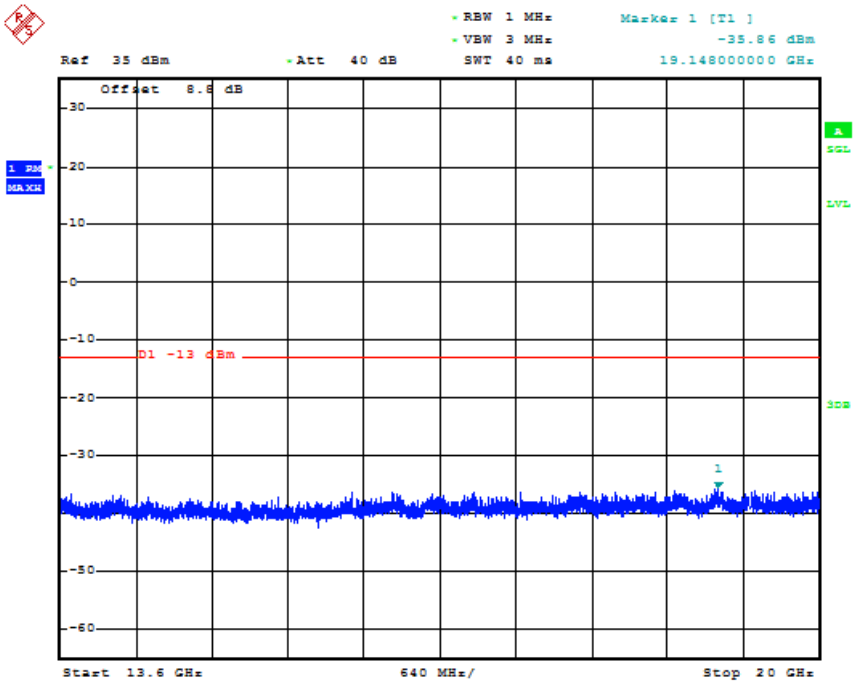
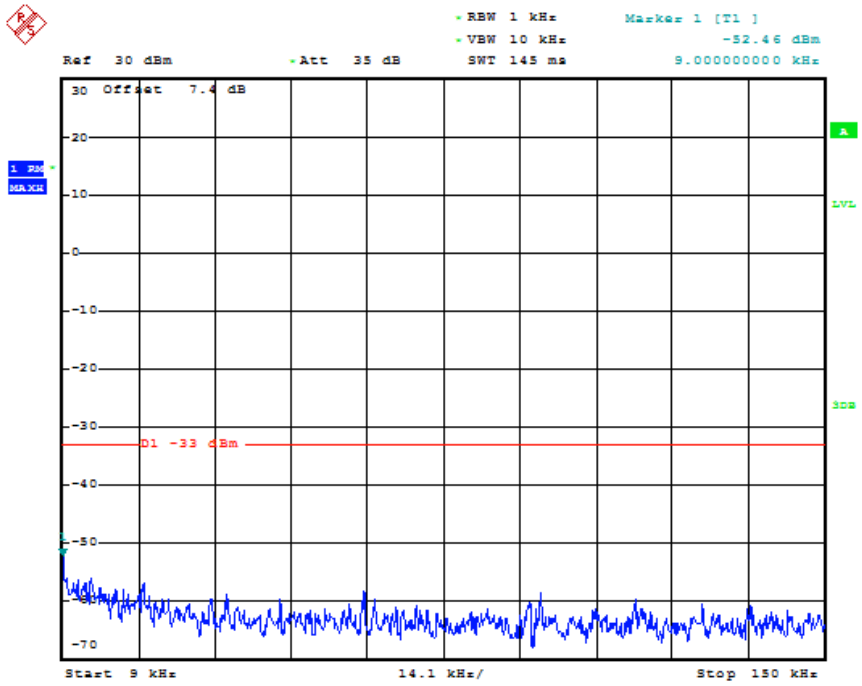


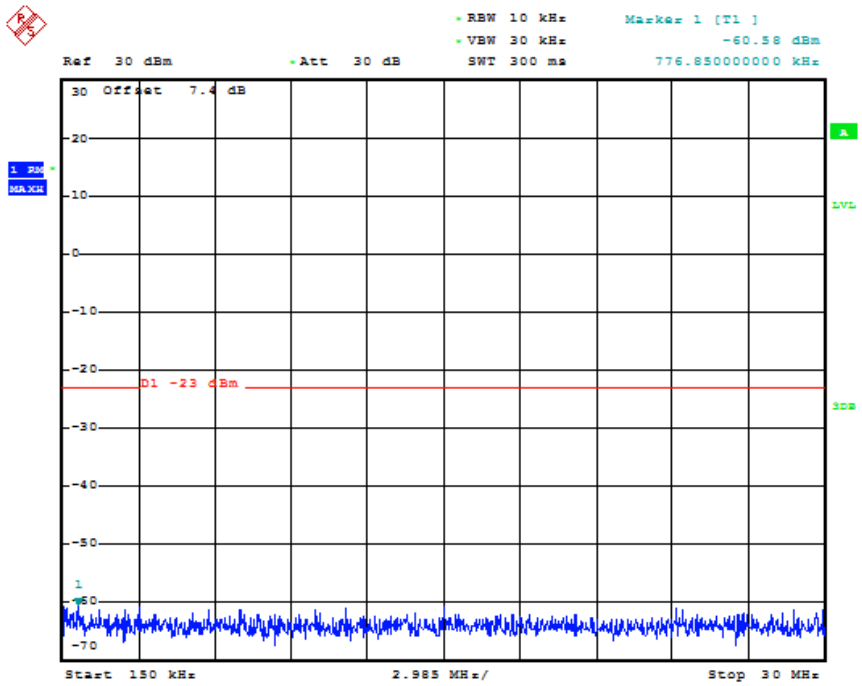
Date: 25.SEP.2015 17:33:34

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299

Out of band measurement
Test Band = WCDMA850
Test Mode = UMTS/TM3
Test Channel = LCH



Date: 9.OCT.2015 05:47:26



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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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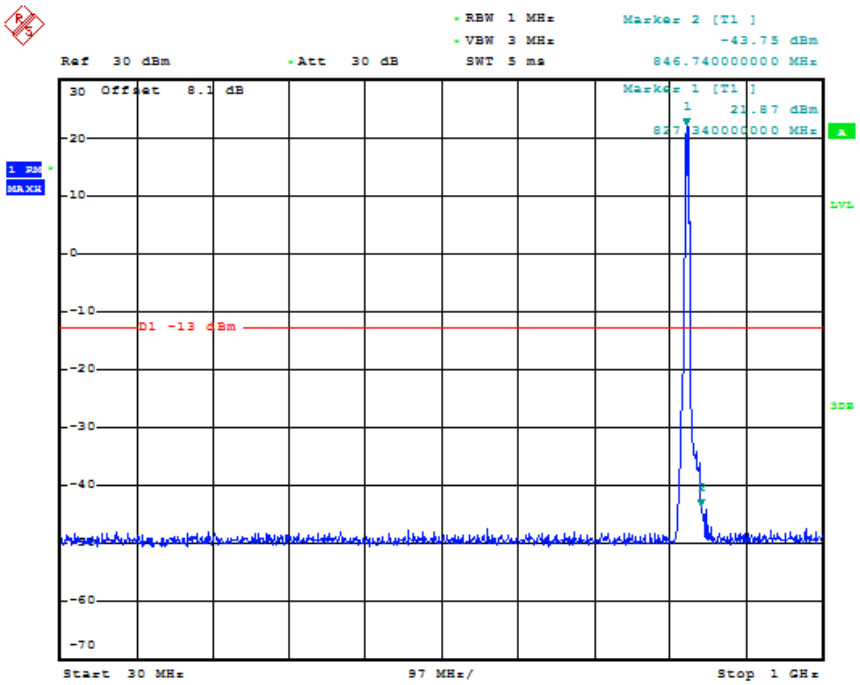

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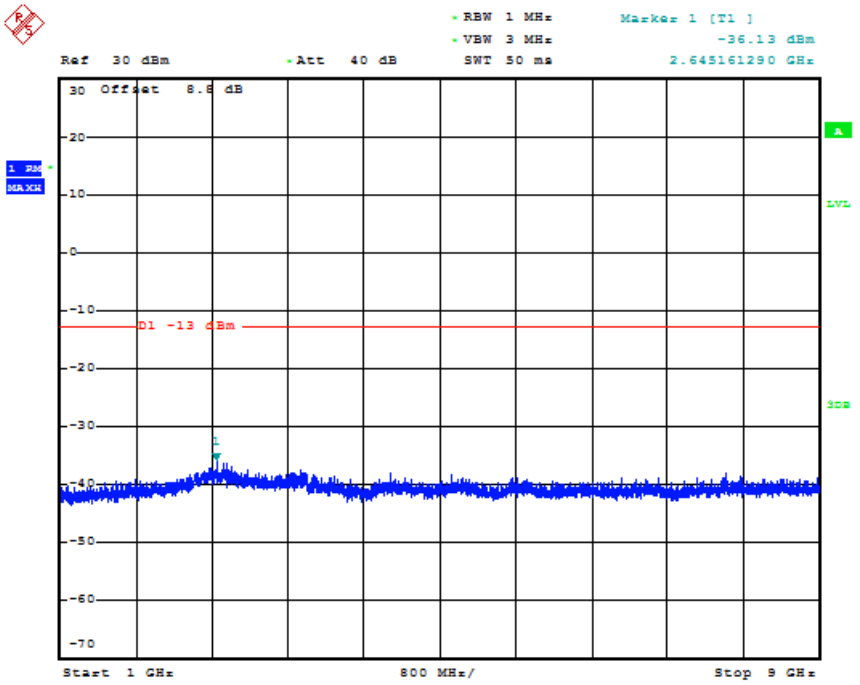

Date: 9.OCT.2015 05:49:17

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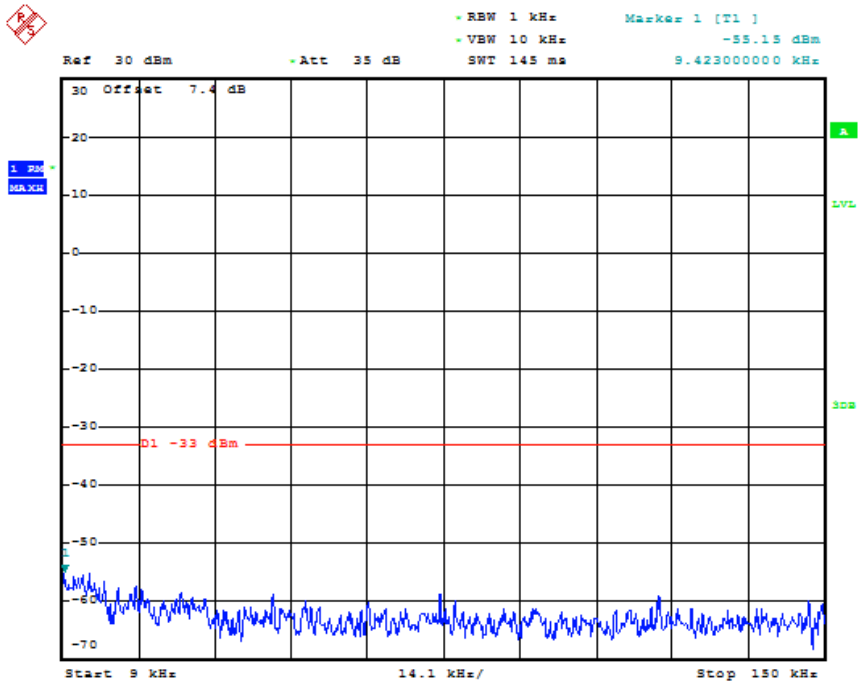
Out of band measurement
Test Band = WCDMA850
Test Mode = UMTS/TM3
Test Channel = MCH



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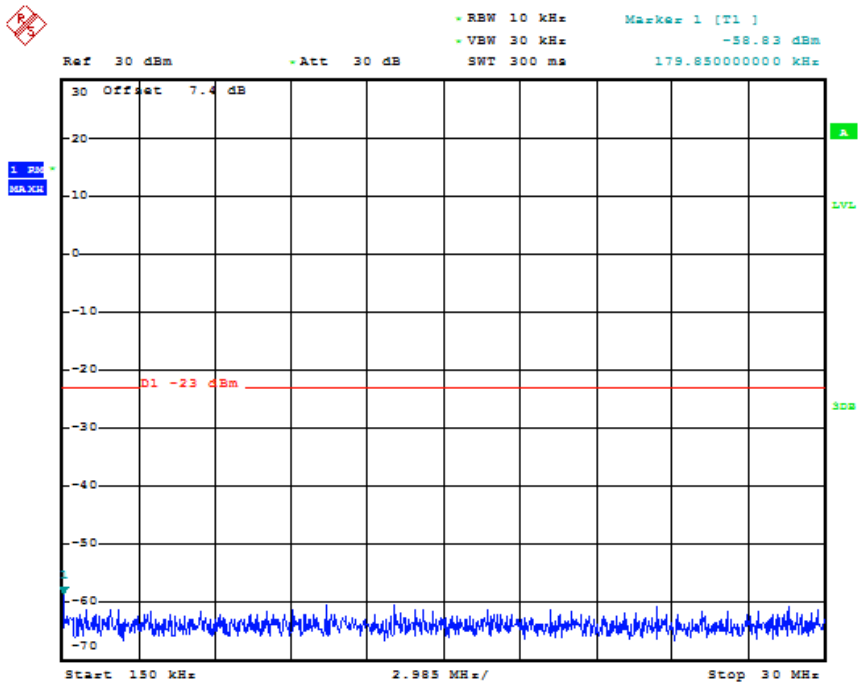

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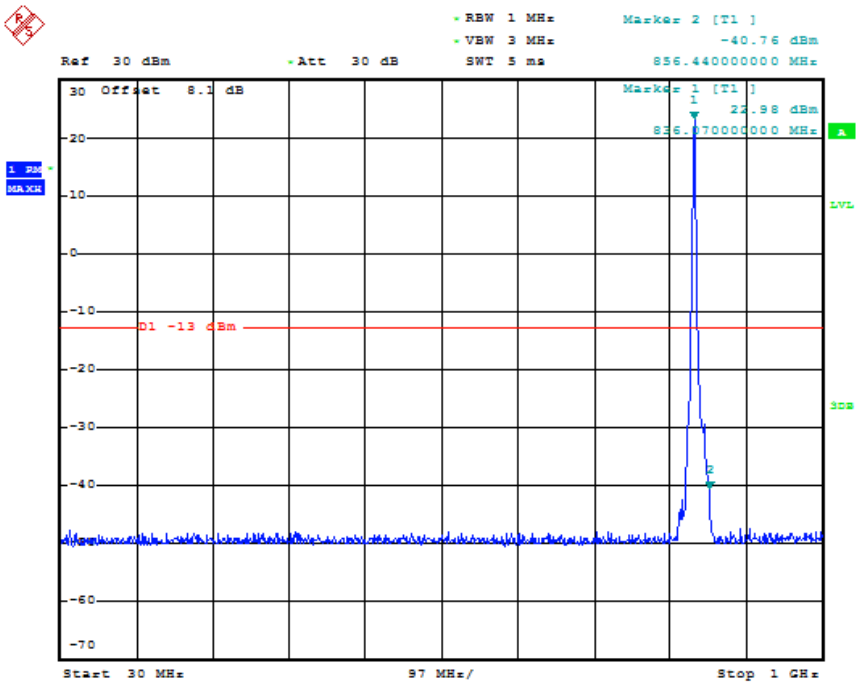
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12&13, Zhiheng Wisdomland Business Park, Nantou Checkpoint Road 2, Nanshan District, Shenzhen City, 518052, P. R. China Tel. +86 755 8828 6998, Fax: +86 755 8828 5299



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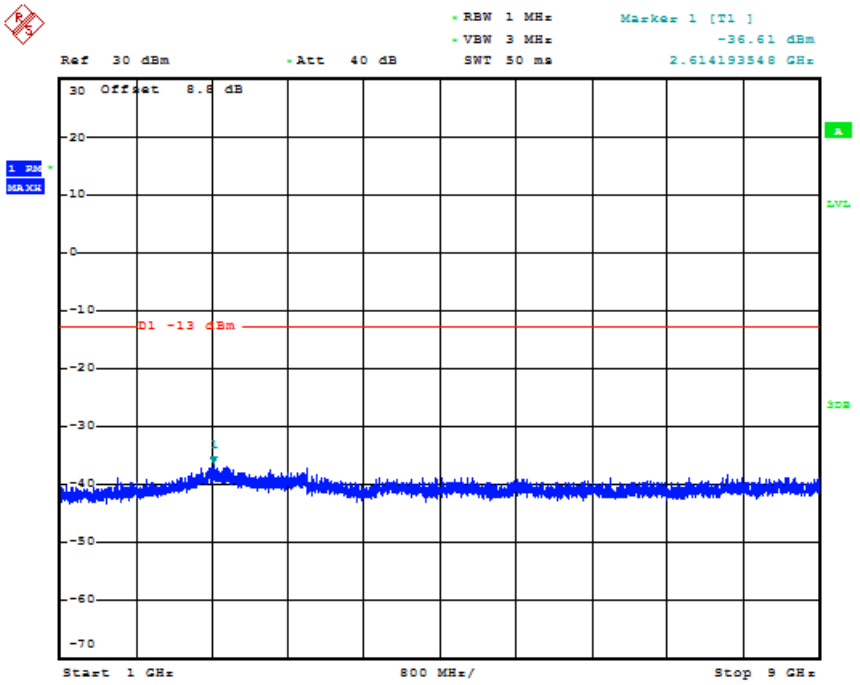

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TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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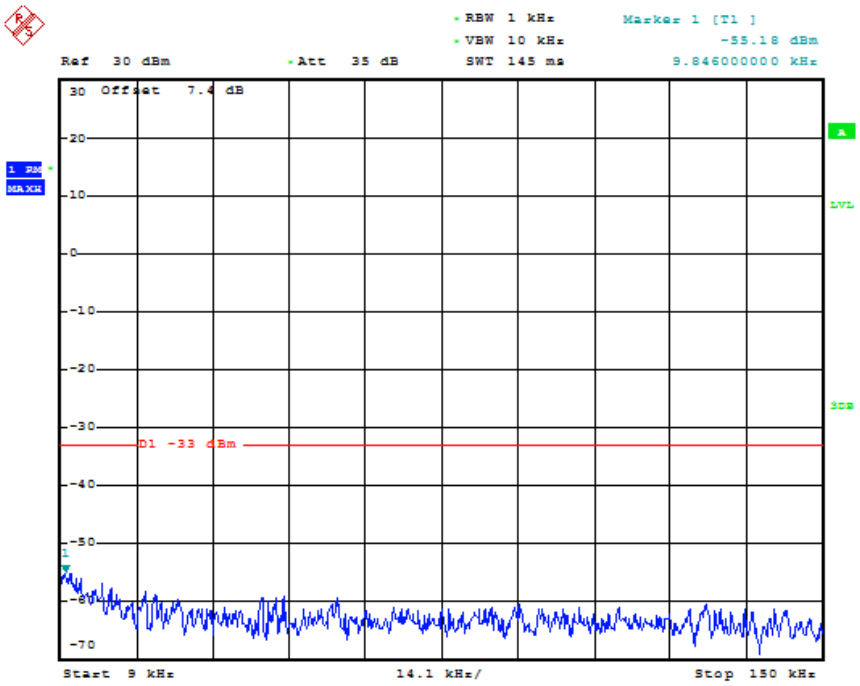
Out of band measurement
Test Band = WCDMA850
Test Mode = UMTS/TM3
Test Channel = HCH



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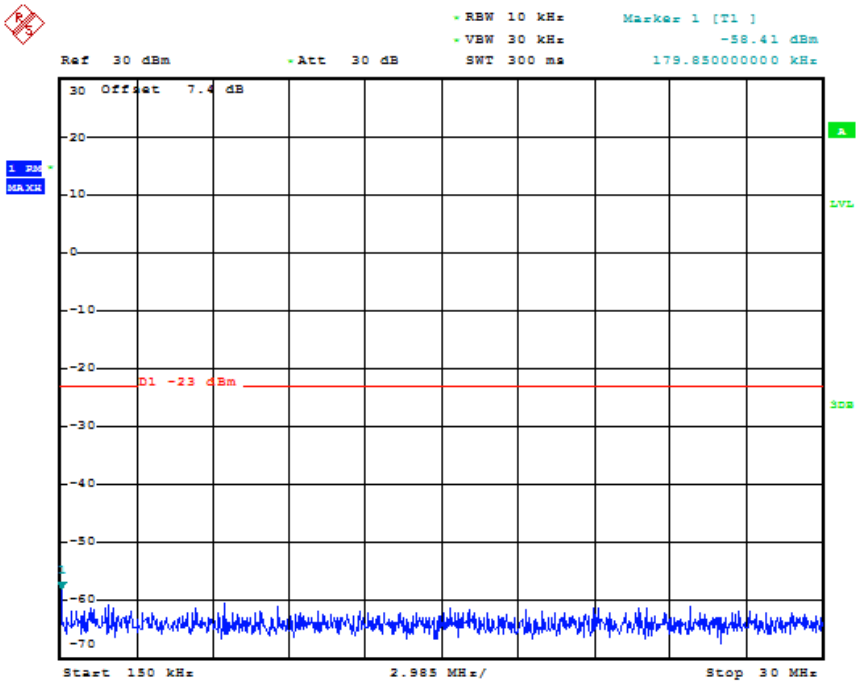

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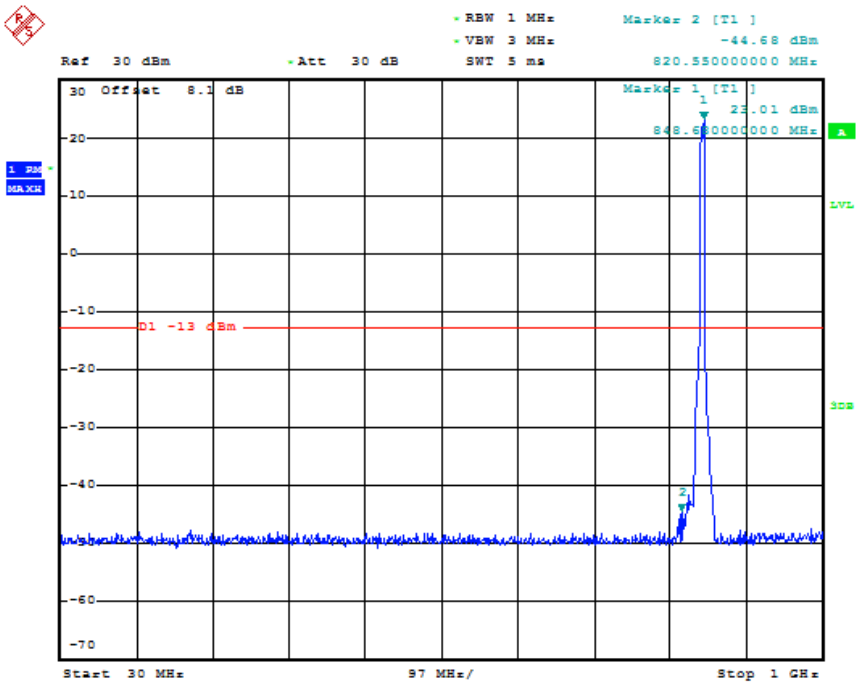

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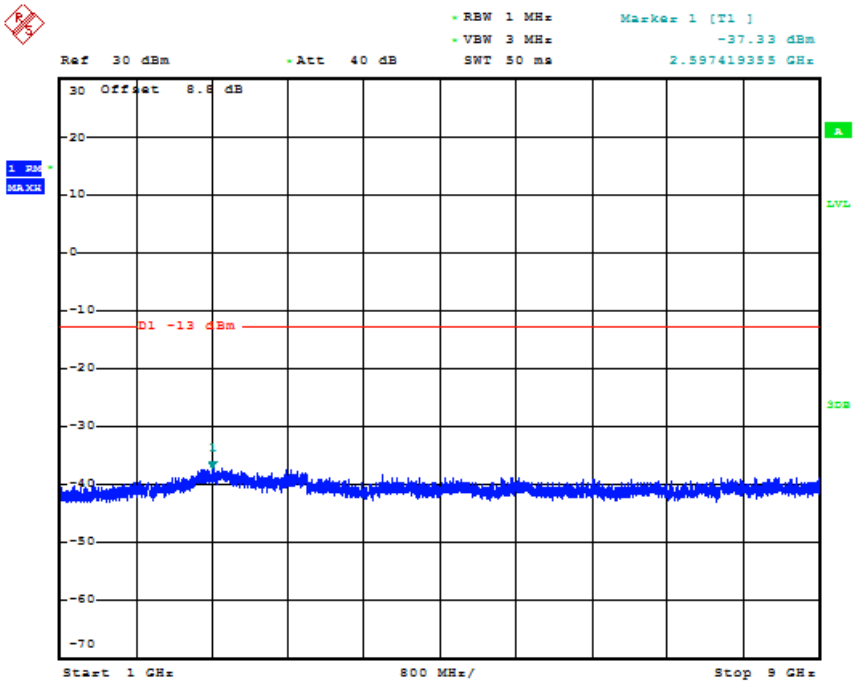

Date: 9.OCT.2015 05:48:34

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Test Band=WCDMA1900
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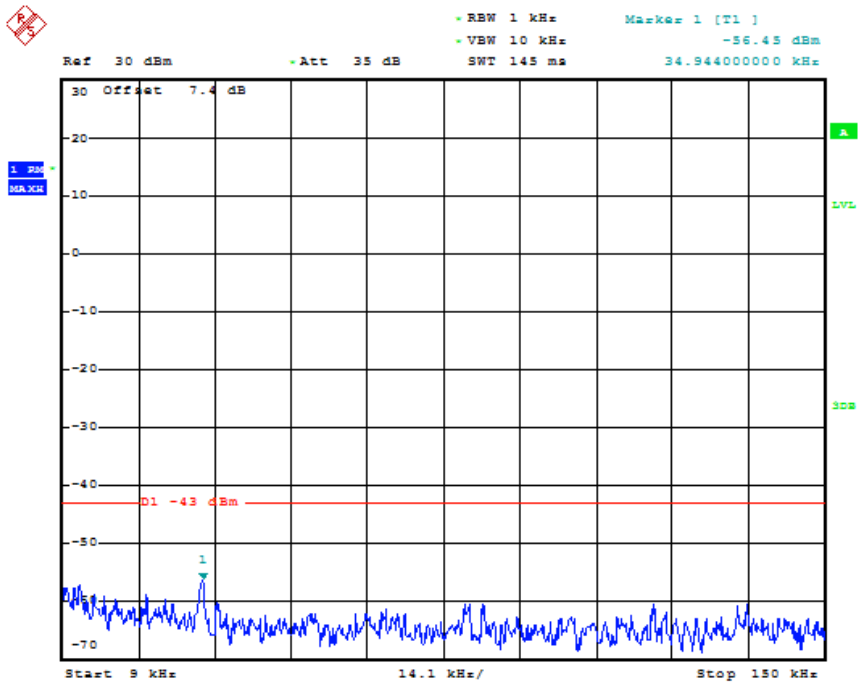
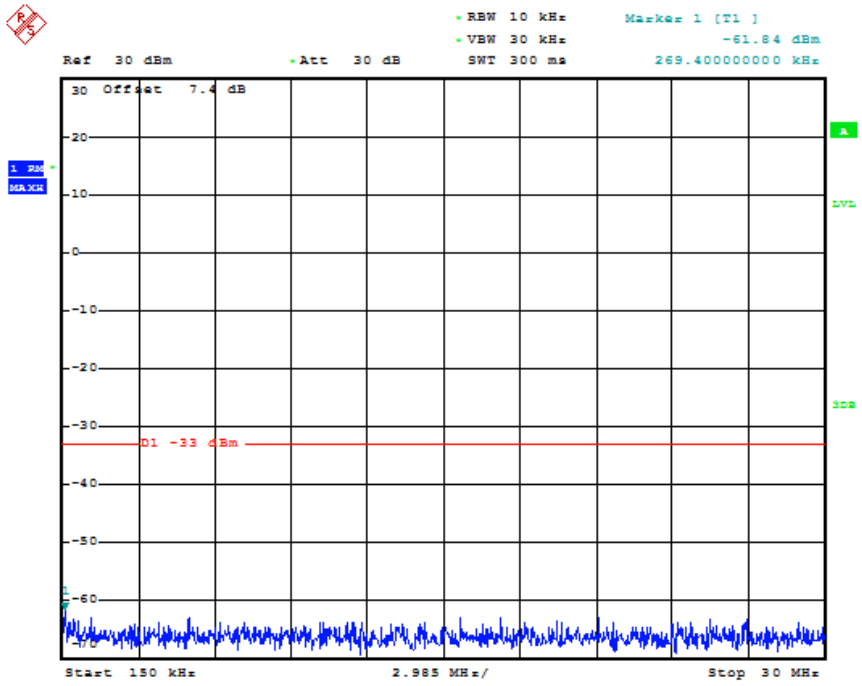
Test Channel=LCH



Date: 29.SEP.2015 10:31:40



Date: 29.SEP.2015 10:31:48

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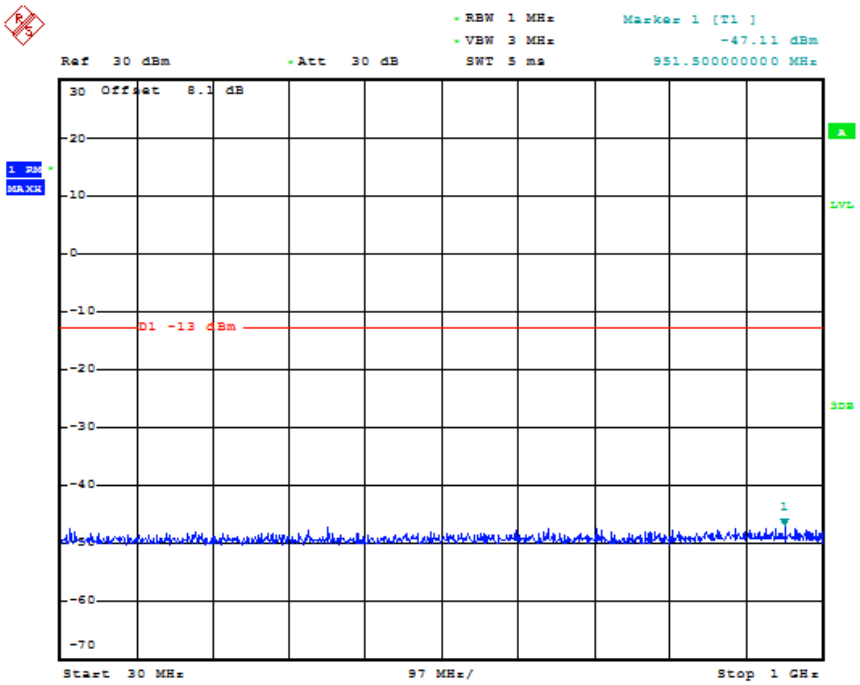

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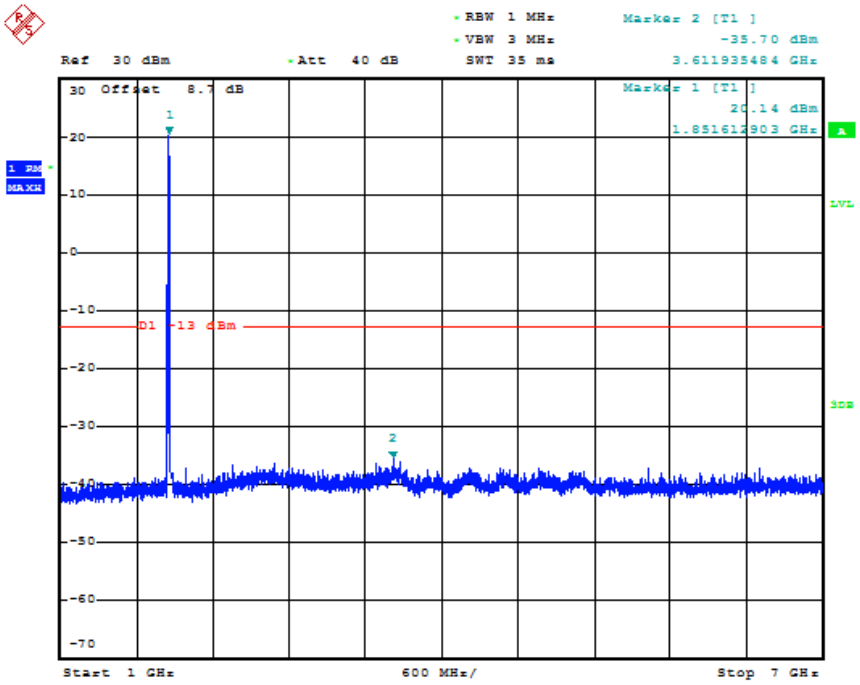

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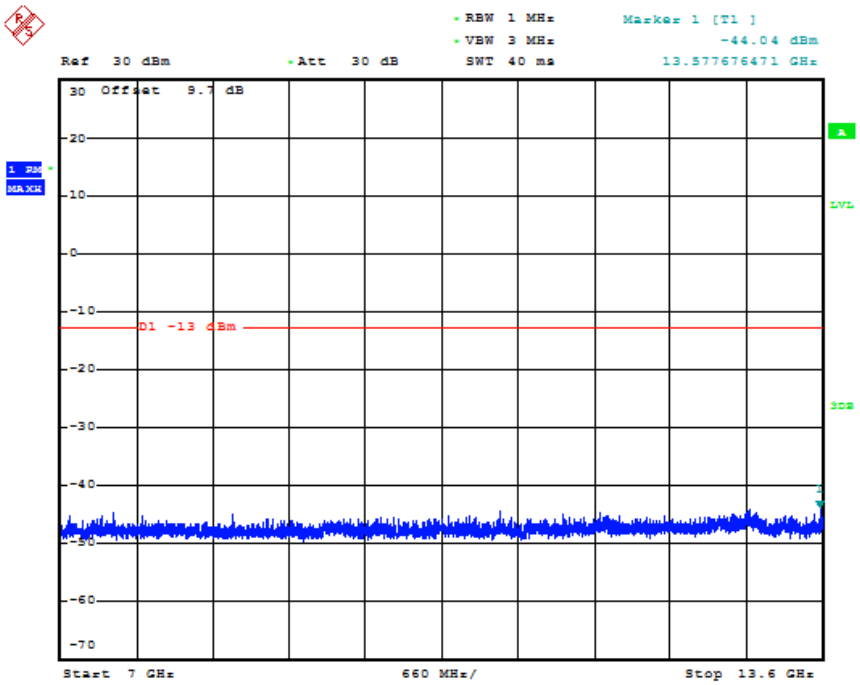

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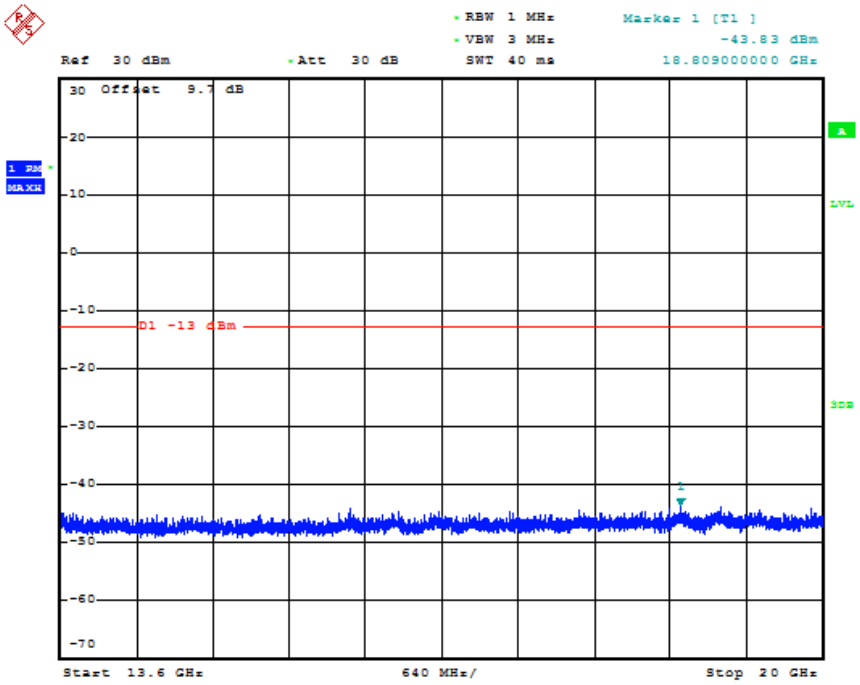

Date: 29.SEP.2015 10:32:22

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Test Band=WCDMA1900
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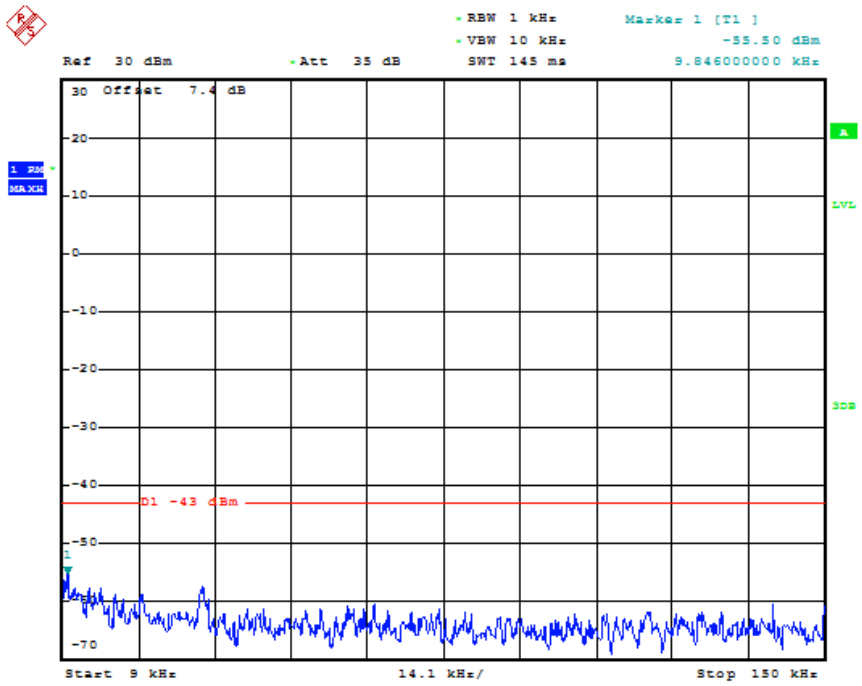
Test Channel=MCH



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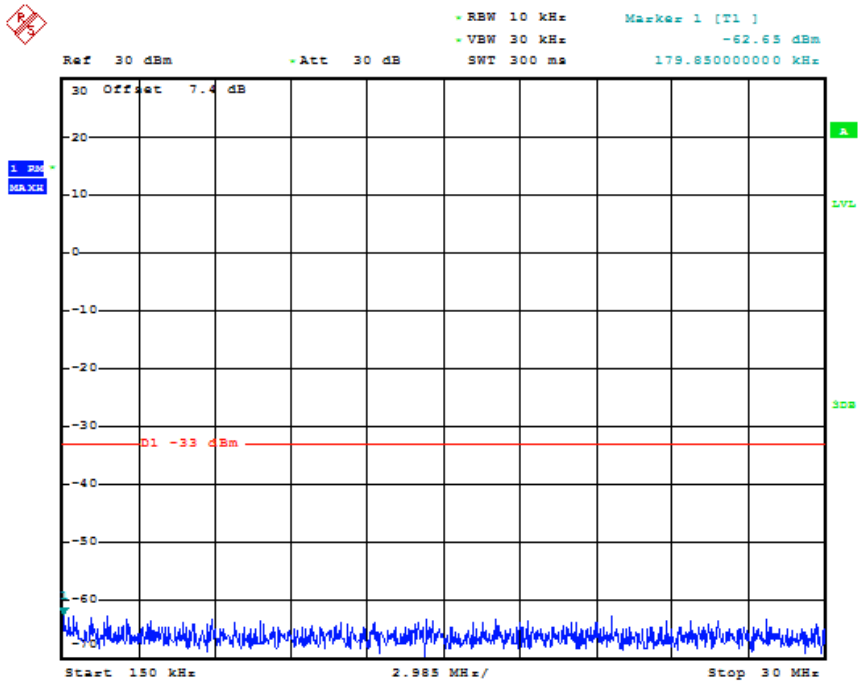

Date: 29.SEP.2015 10:32:48

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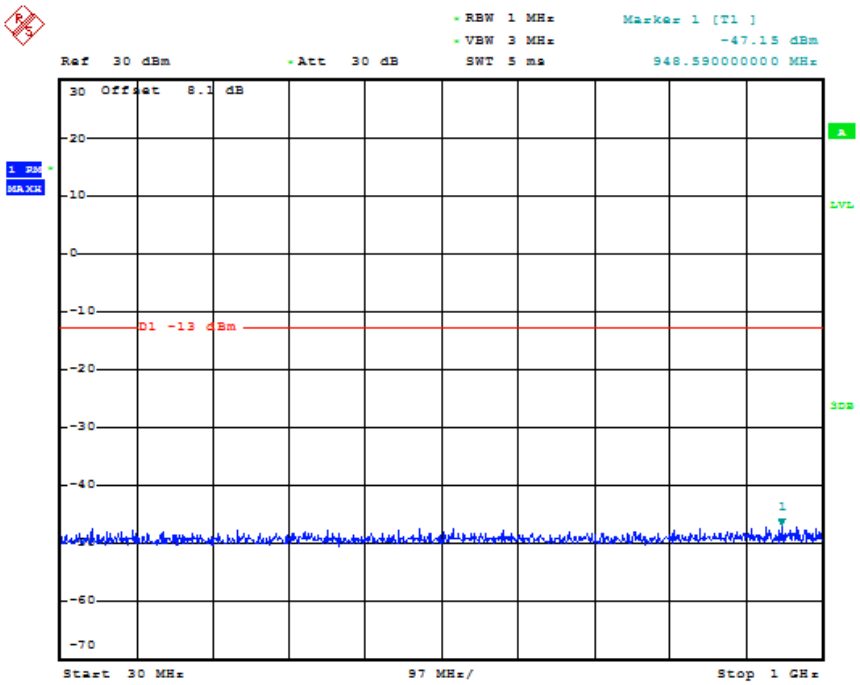

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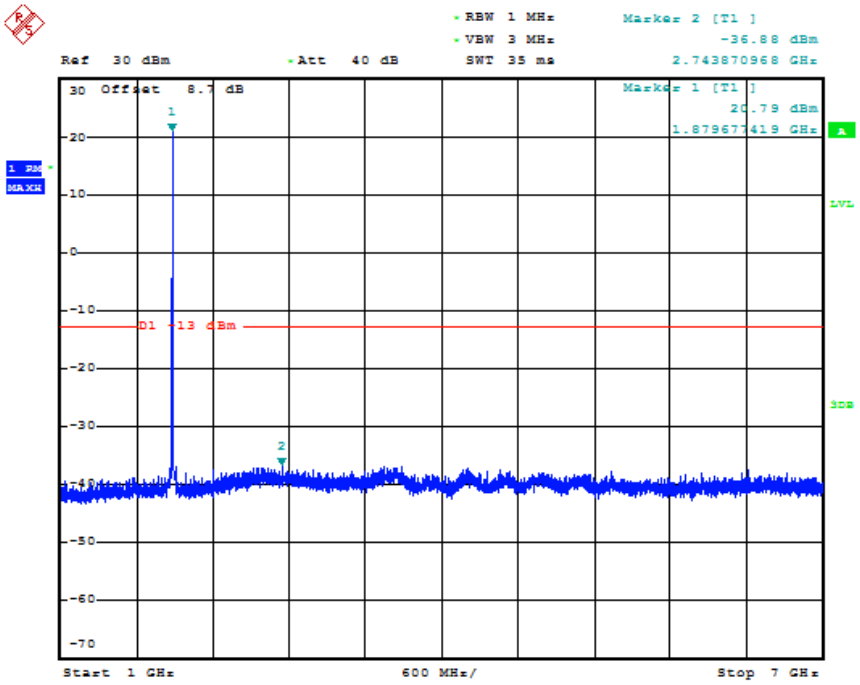

Date: 29.SEP.2015 10:33:06

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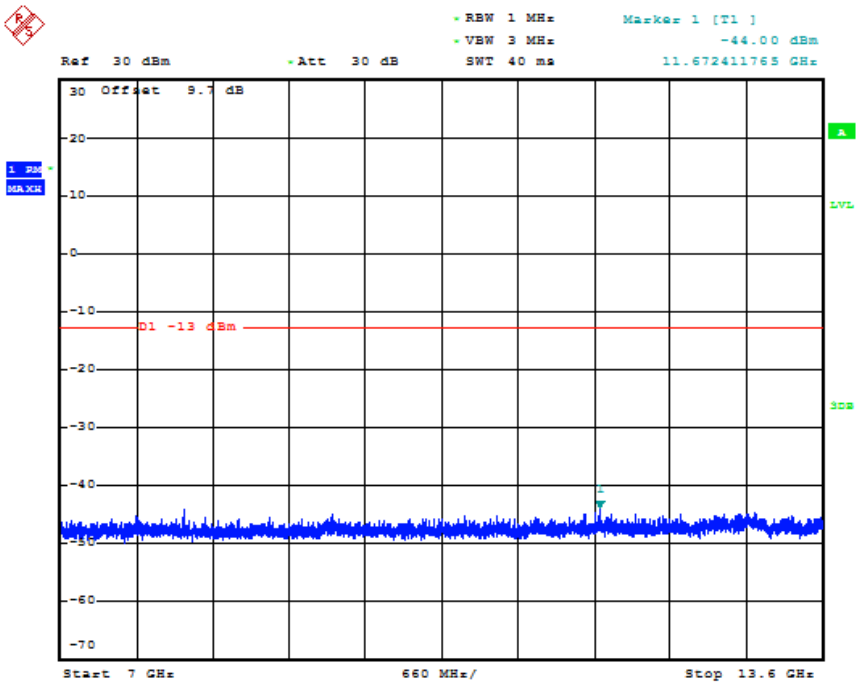

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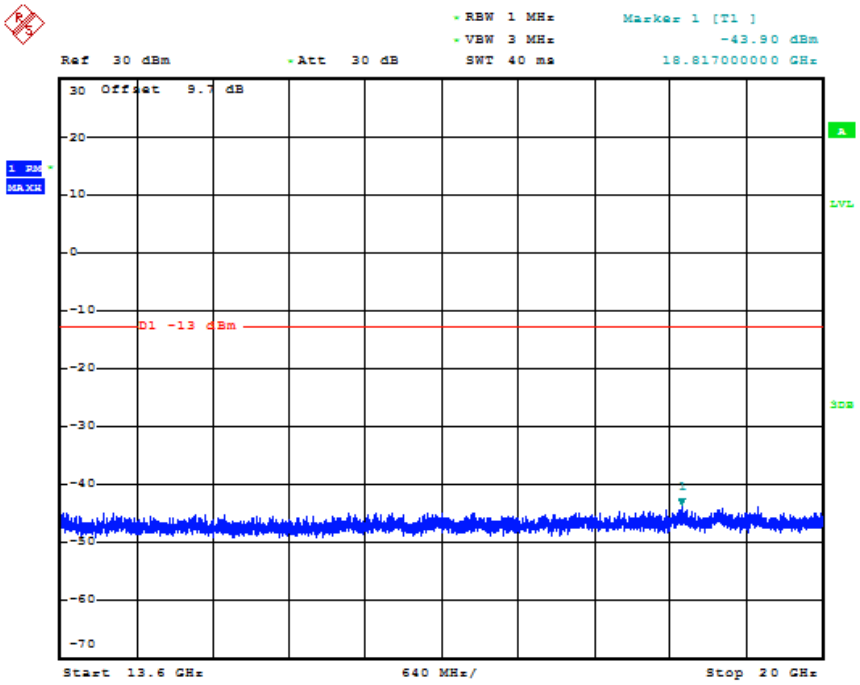

Date: 29.SEP.2015 10:33:23

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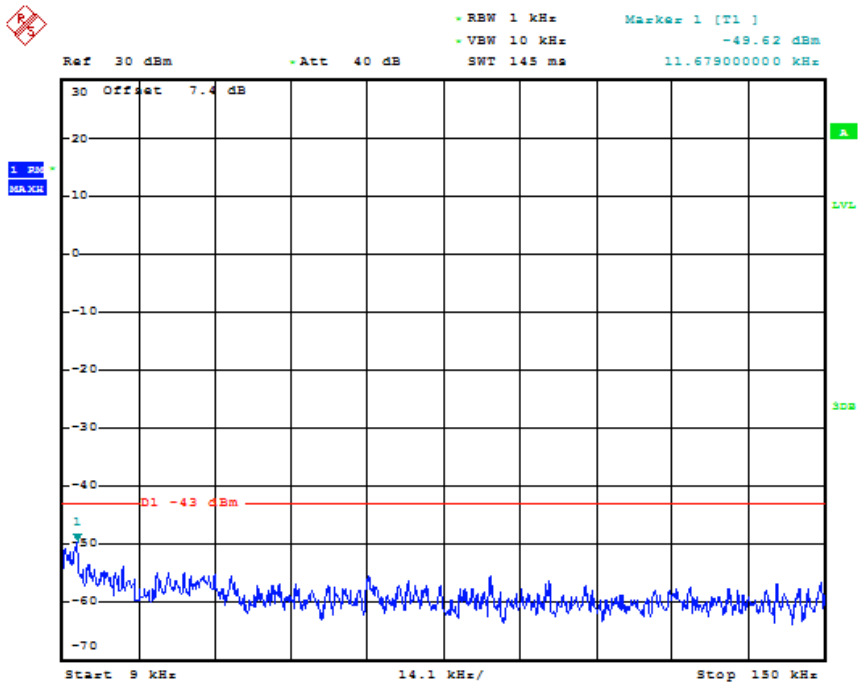
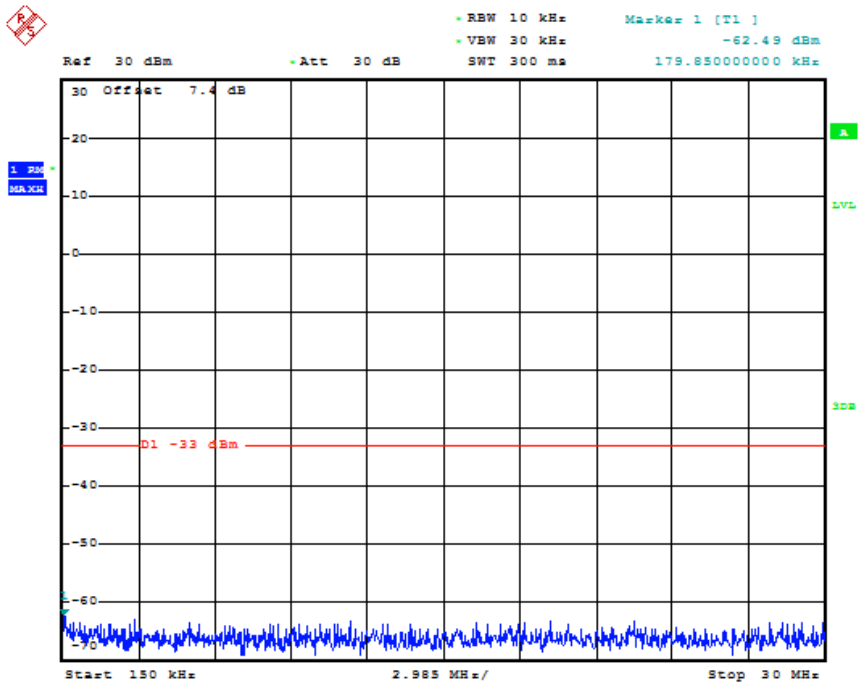
Test Band=WCDMA1900
Test Mode=UMTS/TM3
Test Channel=HCH



Date: 29.SEP.2015 10:33:48



Date: 29.SEP.2015 10:33:55

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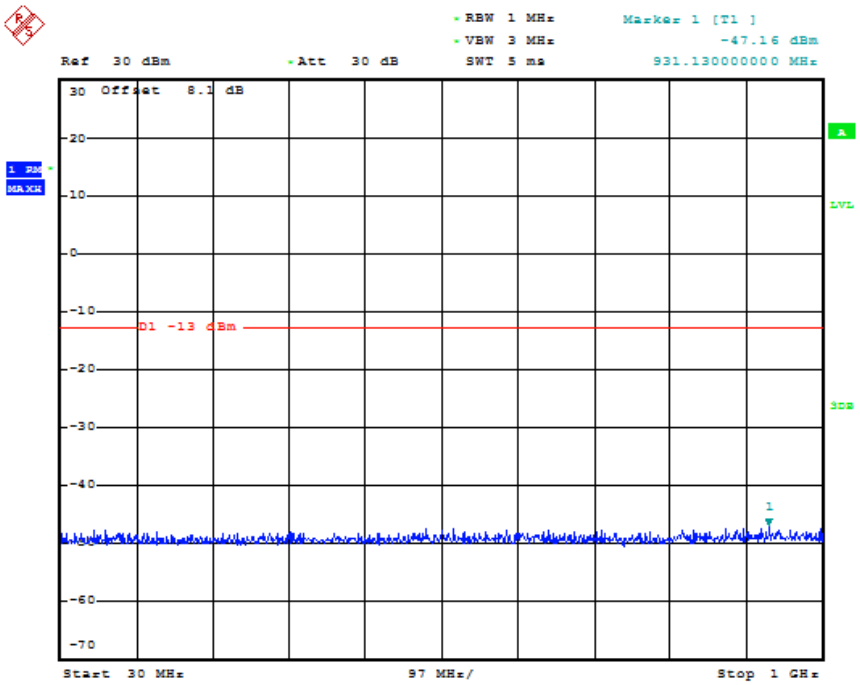
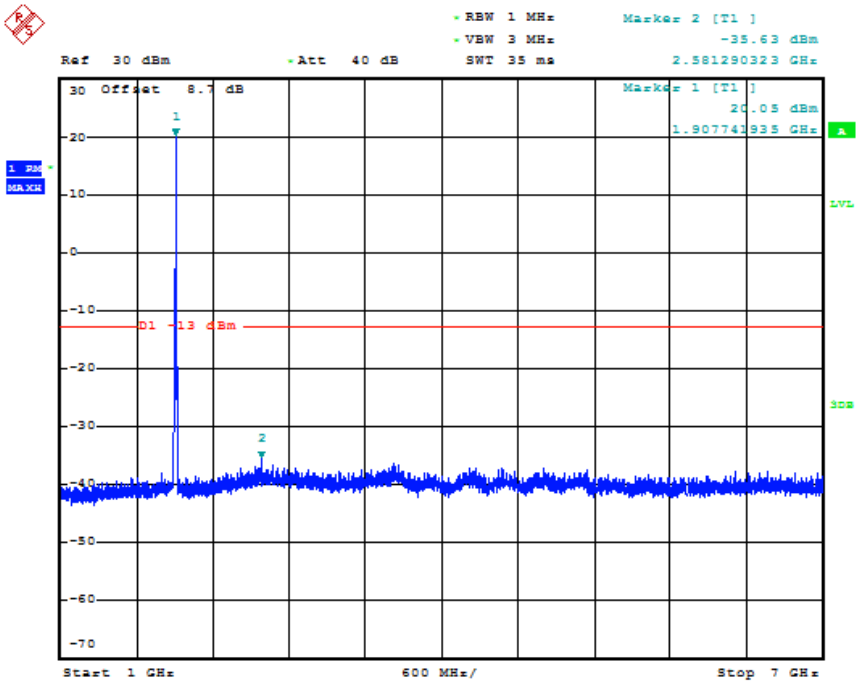


Date: 29.SEP.2015 10:34:03



Date: 29.SEP.2015 10:34:13

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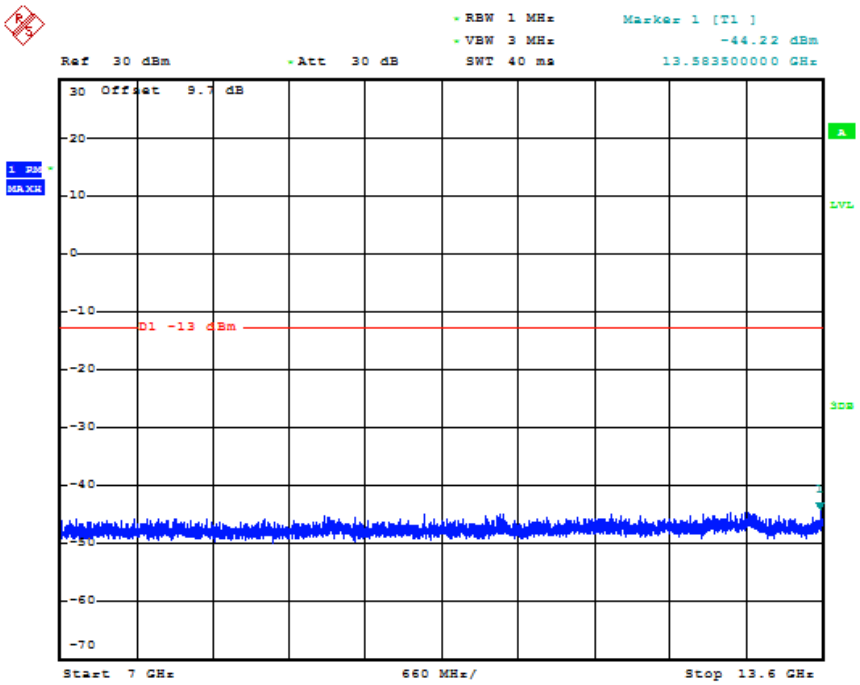
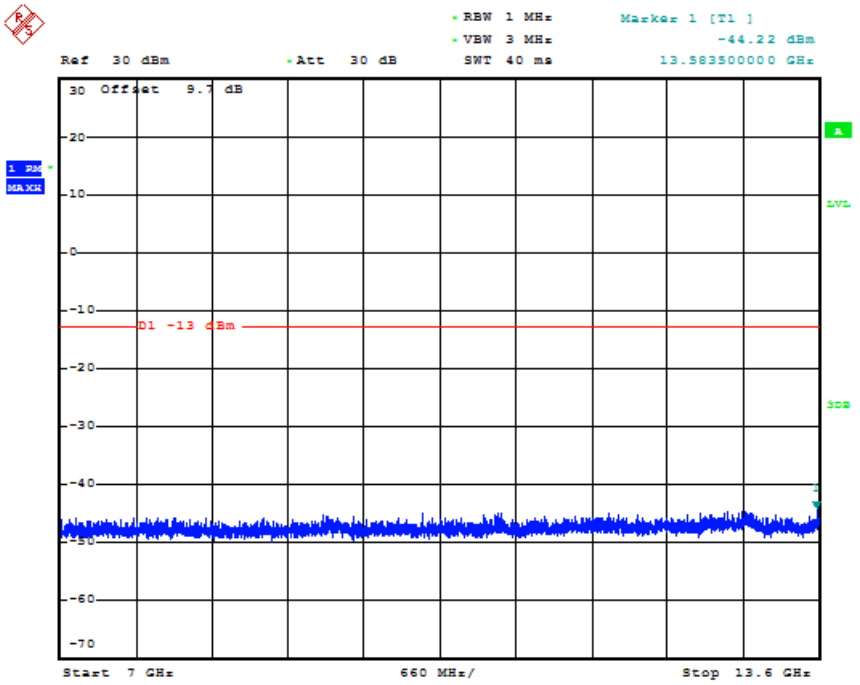


Date: 29.SEP.2015 10:34:21



Date: 29.SEP.2015 10:34:21

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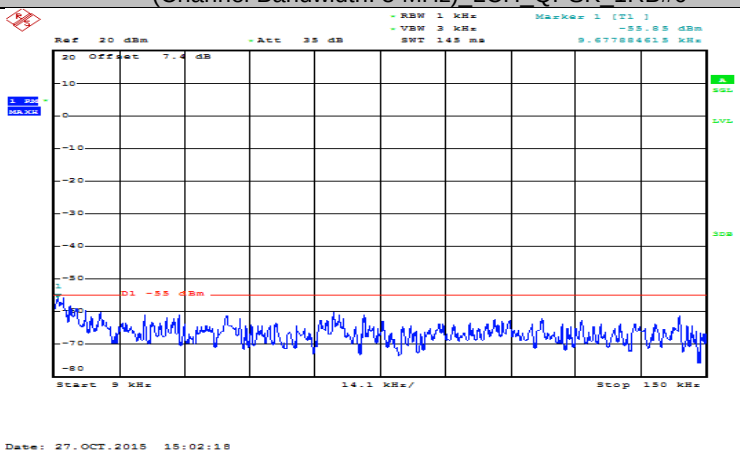
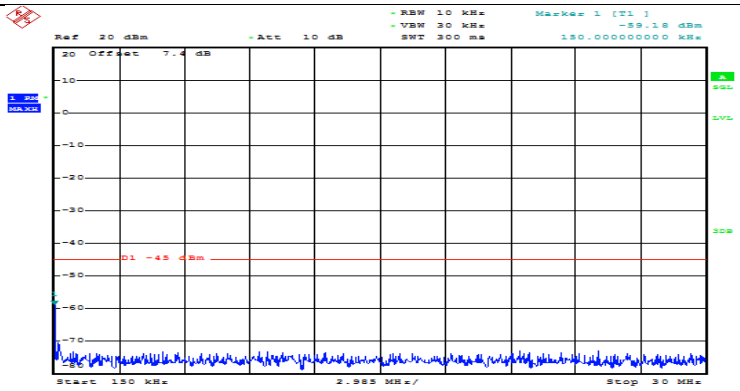
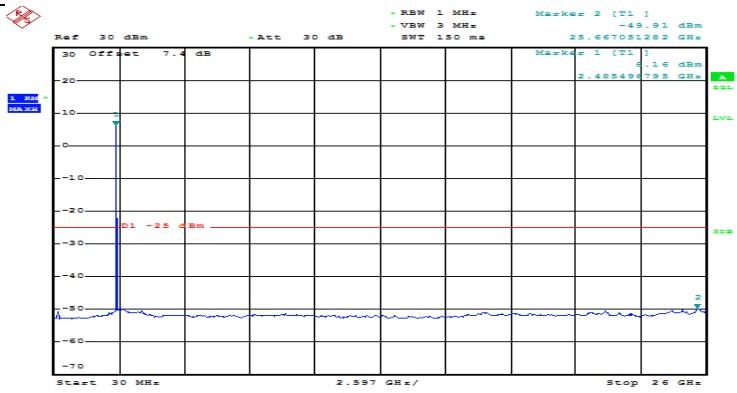
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=5MHz
Test Channel=LCH

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0
 Date: 27.OCT.2015 15:02:18
 Date: 27.OCT.2015 15:02:24
 Date: 27.OCT.2015 15:02:35

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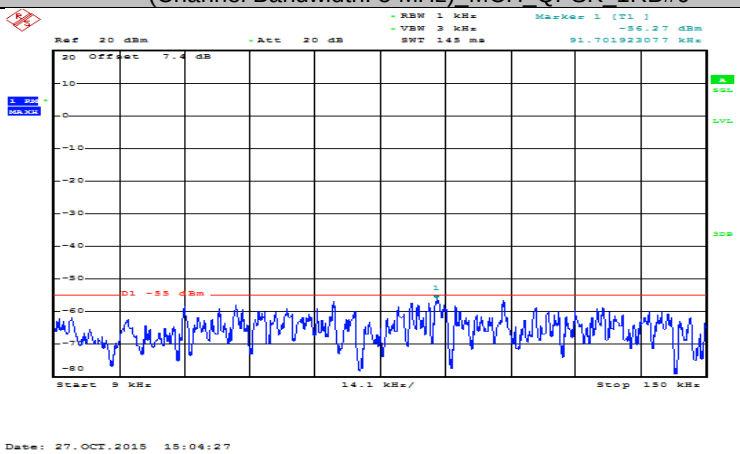
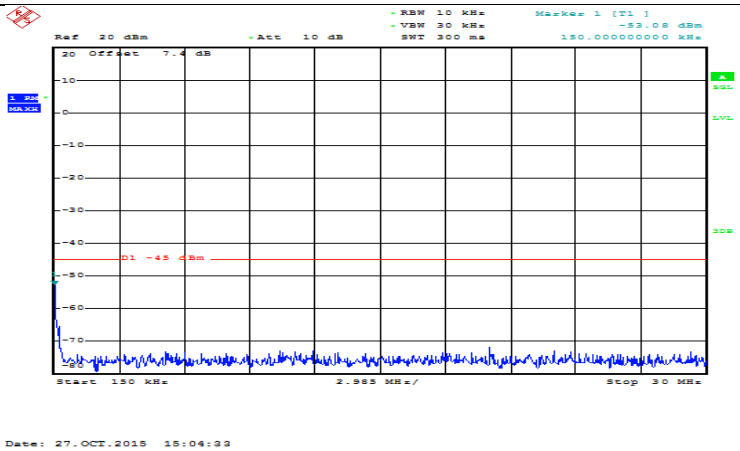
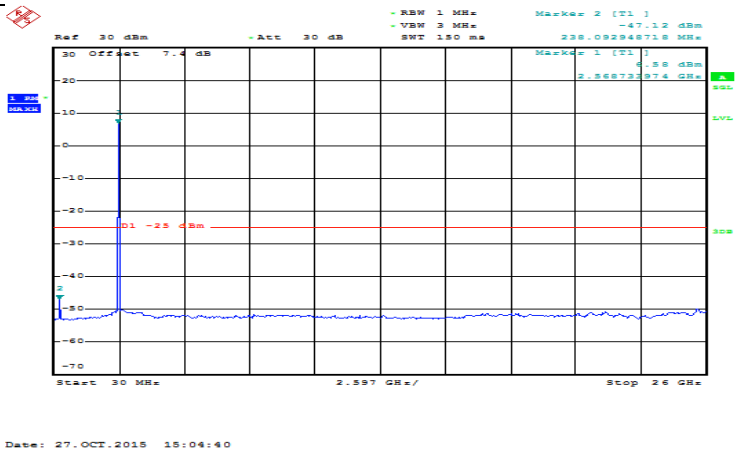
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=5MHz
Test Channel=MCH

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0




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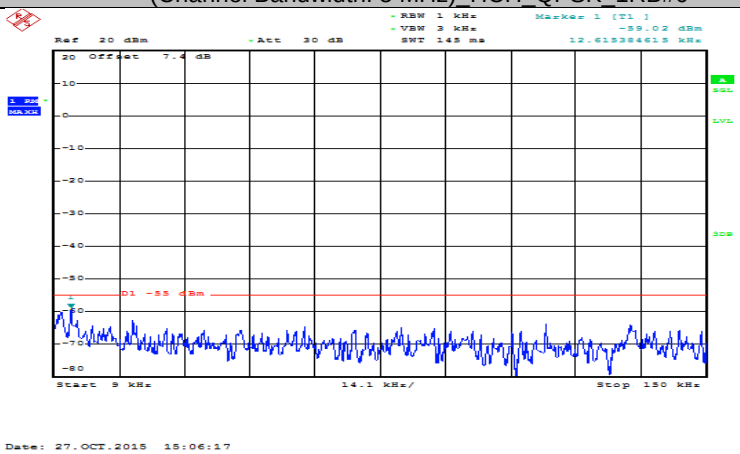
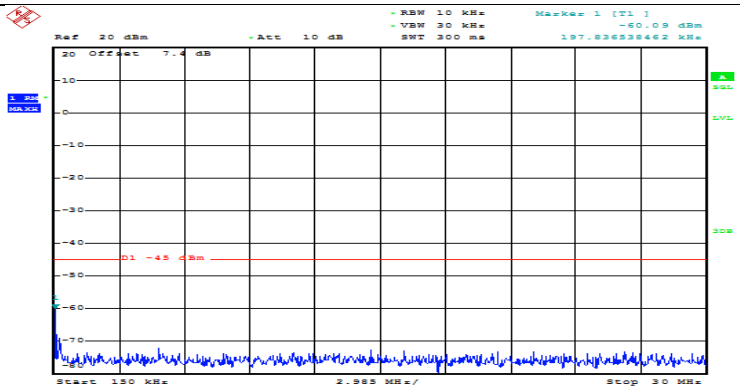
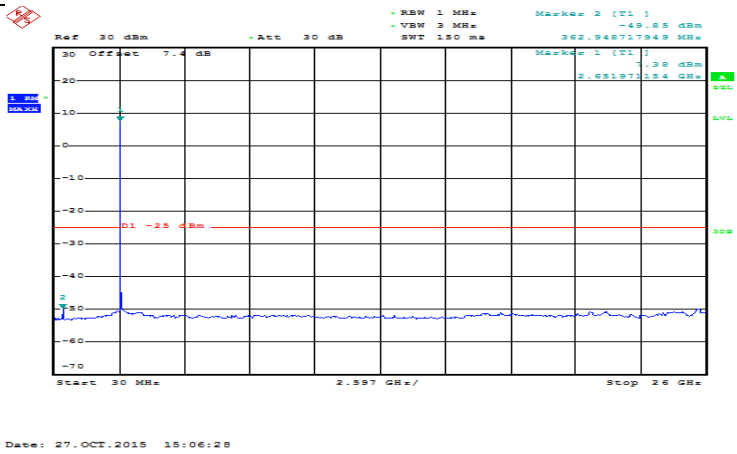
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=5MHz
Test Channel=HCH

(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0




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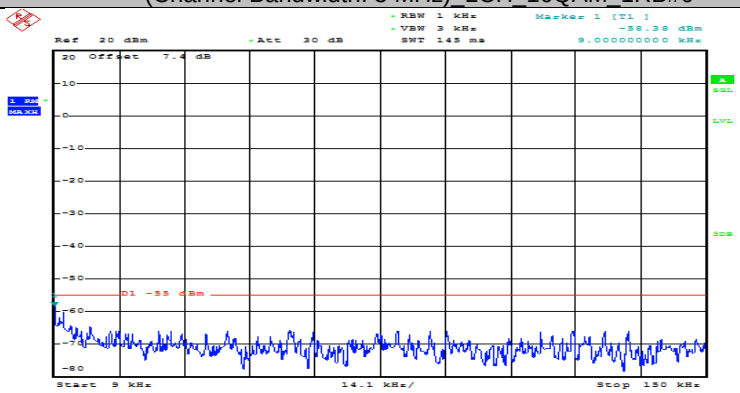
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=5MHz
Test Channel=LCH

(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



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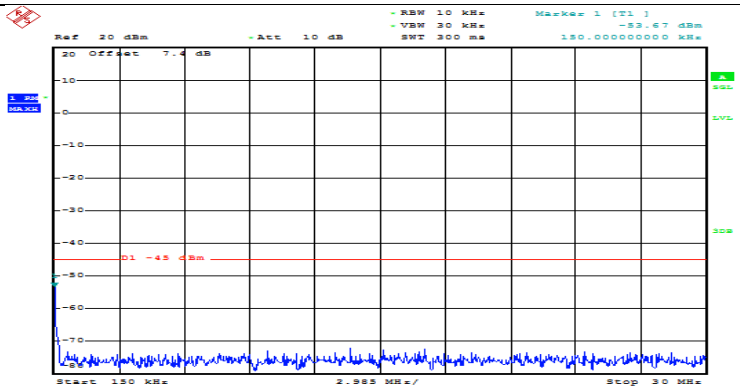

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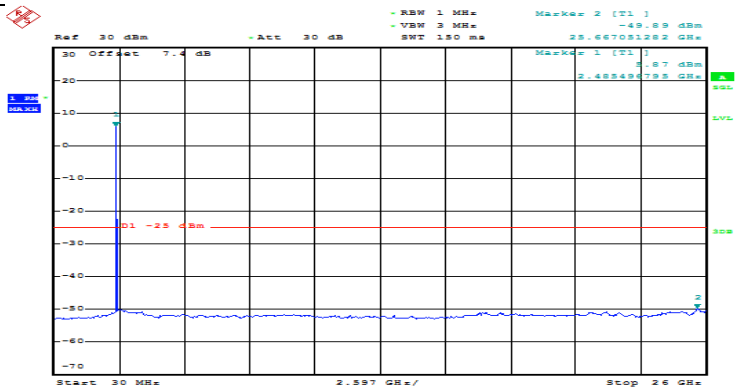

Date: 27.OCT.2015 15:03:40

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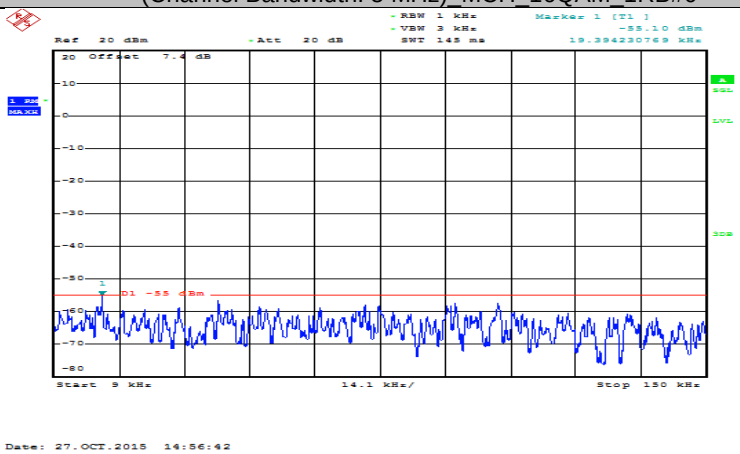
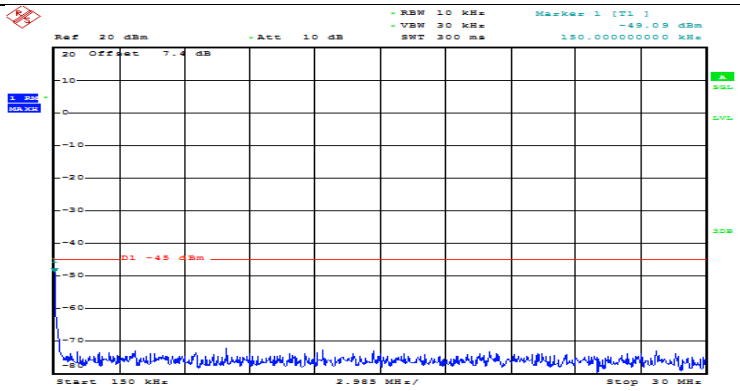
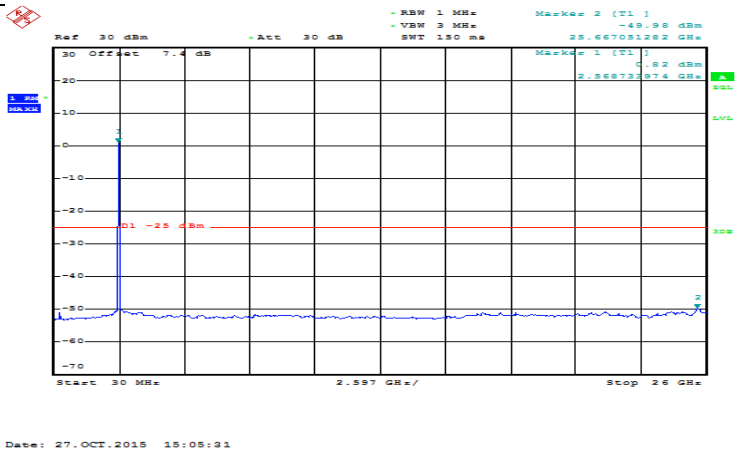
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=5MHz
Test Channel=MCH

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0




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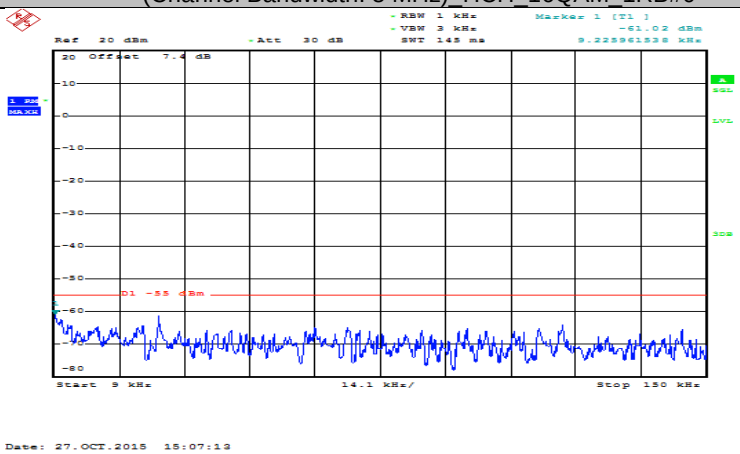
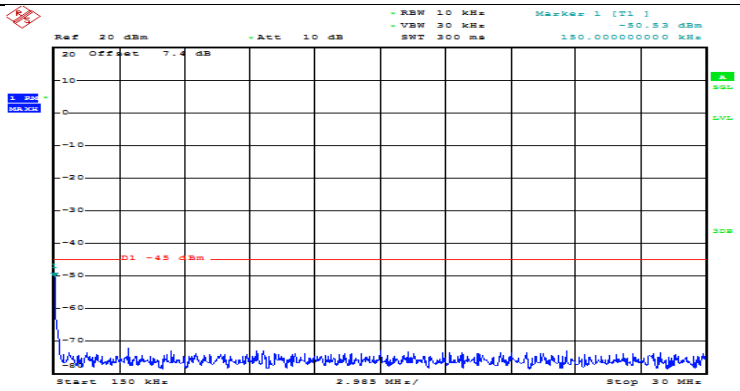
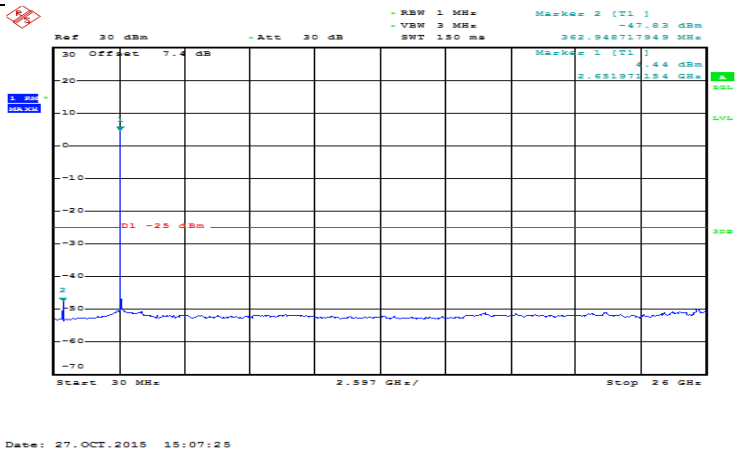
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=5MHz
Test Channel=HCH

(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0




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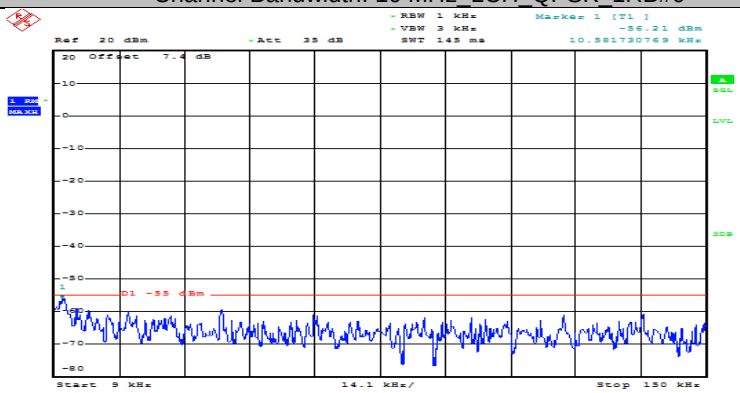
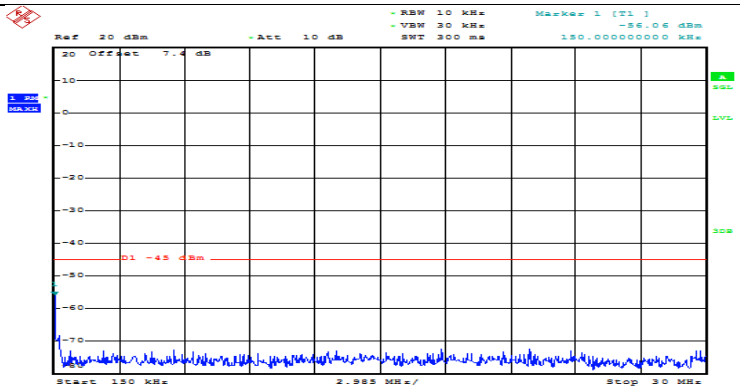
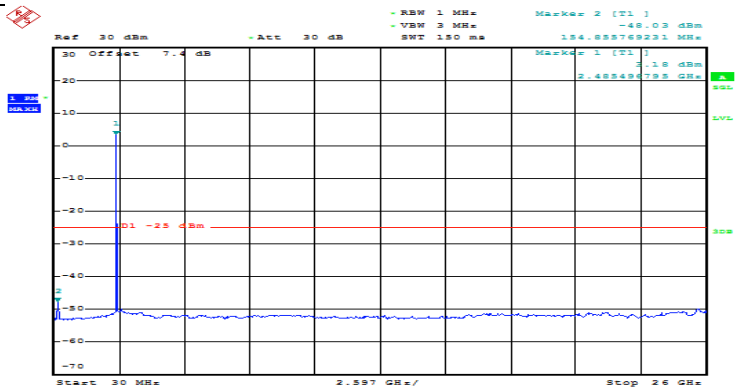
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=10MHz
Test Channel=LCH

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0
 Date: 27.OCT.2015 15:12:41
 Date: 27.OCT.2015 15:12:47
 Date: 27.OCT.2015 15:13:28

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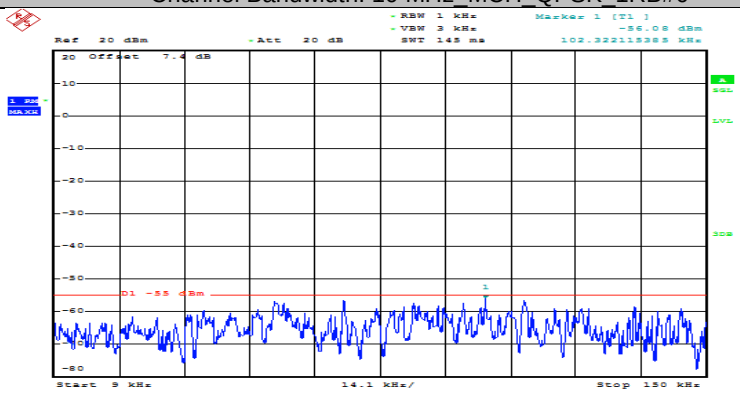
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=10MHz
Test Channel=MCH

Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



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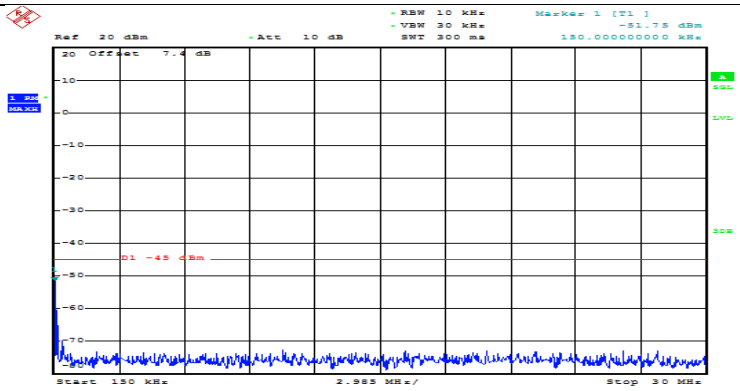
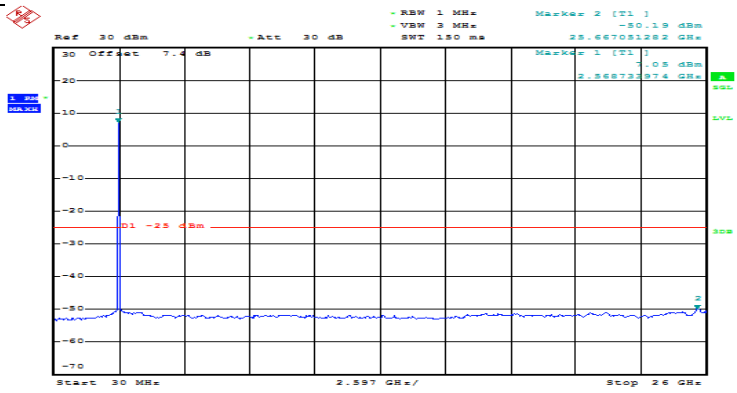


Date: 27.OCT.2015 15:14:42



Date: 27.OCT.2015 15:14:47

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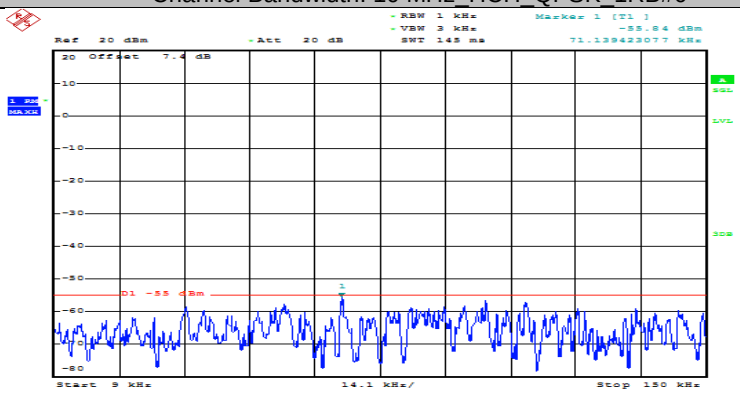
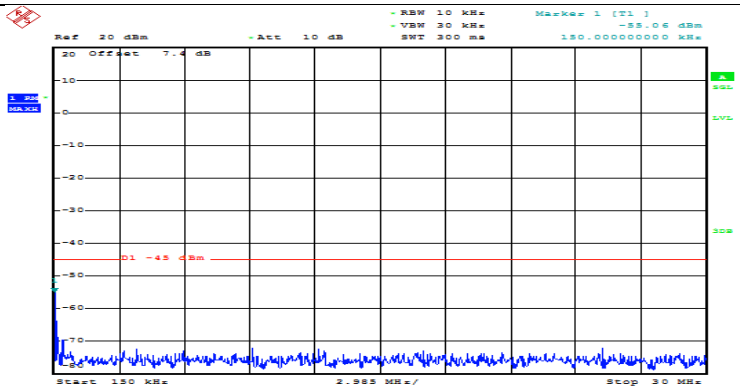
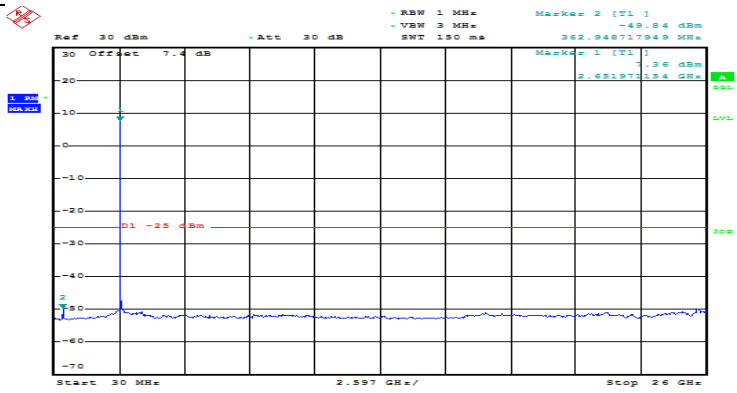
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=10MHz
Test Channel=HCH

Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0




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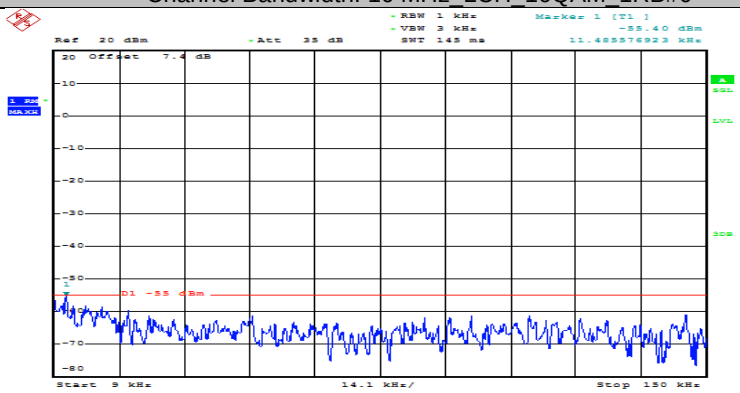
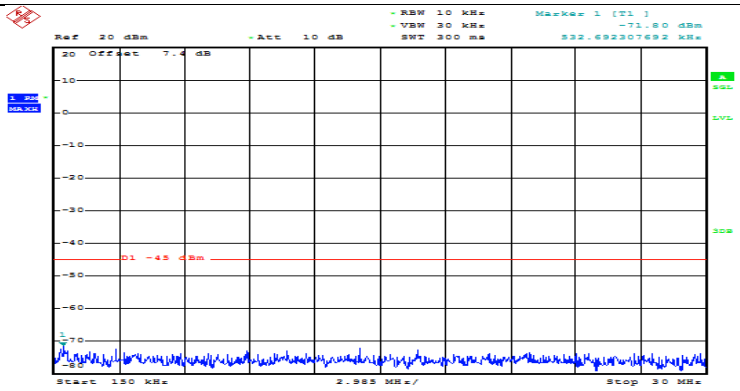
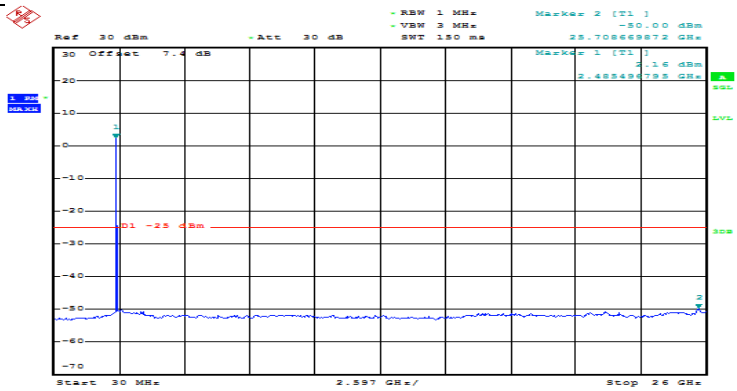
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=10MHz
Test Channel=LCH

Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0
 Date: 27.OCT.2015 15:13:59
 Date: 27.OCT.2015 15:14:05
 Date: 27.OCT.2015 15:14:10

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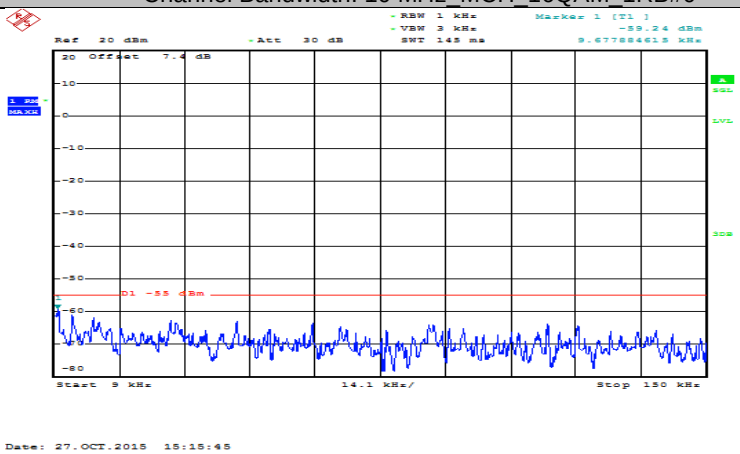
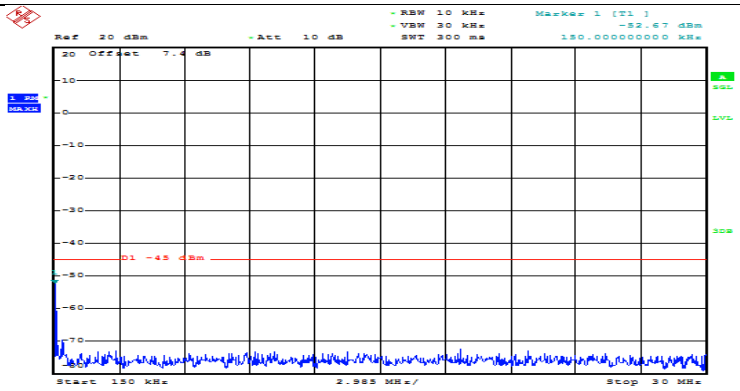
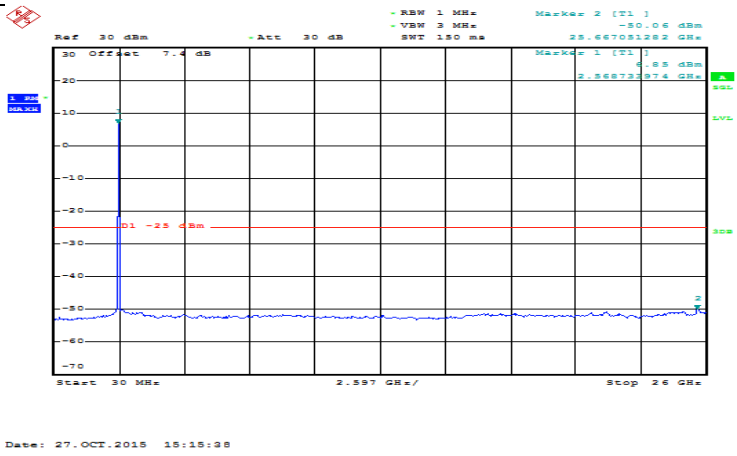
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=10MHz
Test Channel=MCH

Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0




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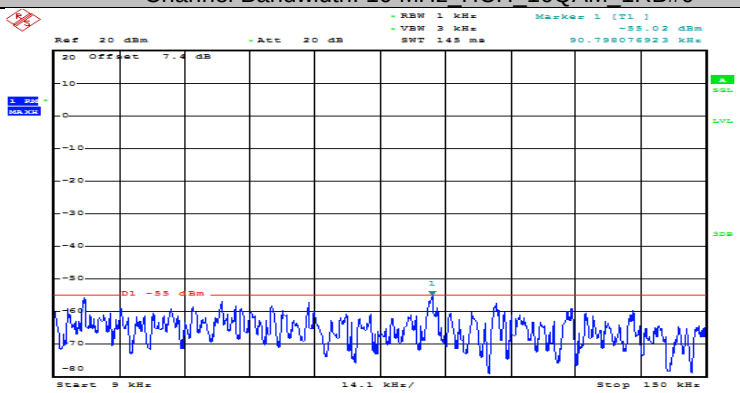
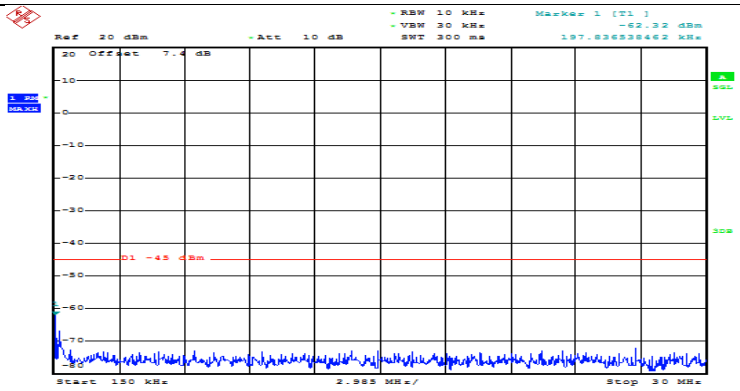
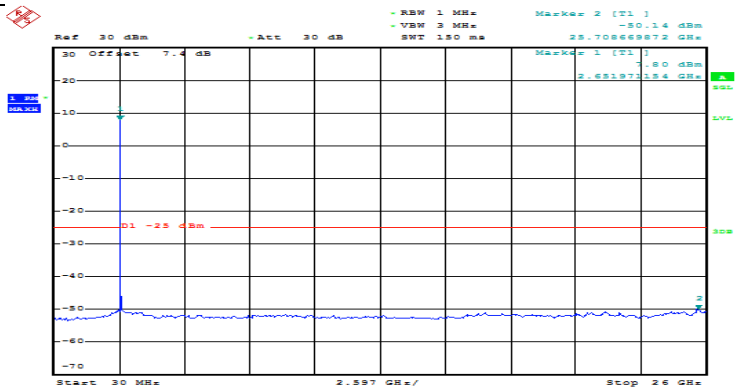
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=10MHz
Test Channel=HCH

Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0
 Date: 27.OCT.2015 15:17:19
 Date: 27.OCT.2015 15:17:25
 Date: 27.OCT.2015 15:17:30

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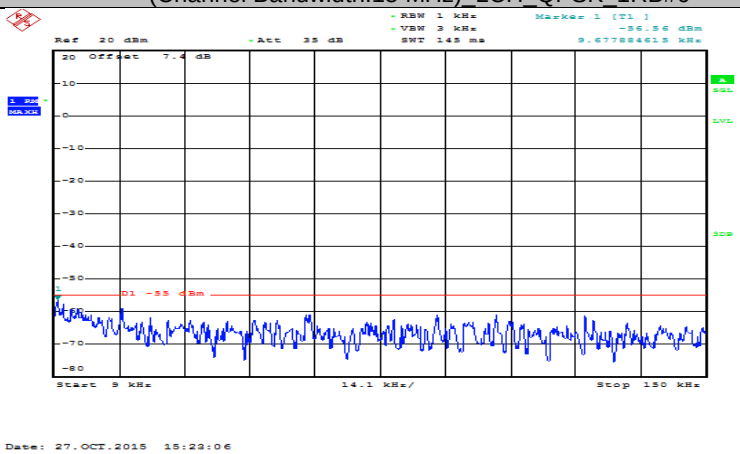
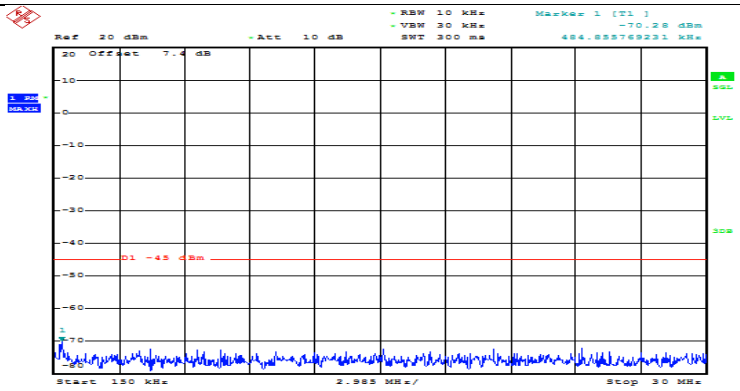
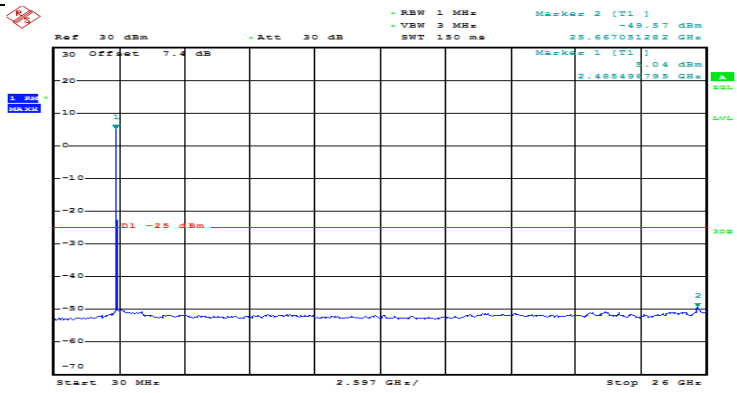
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=15MHz
Test Channel=LCH

(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0




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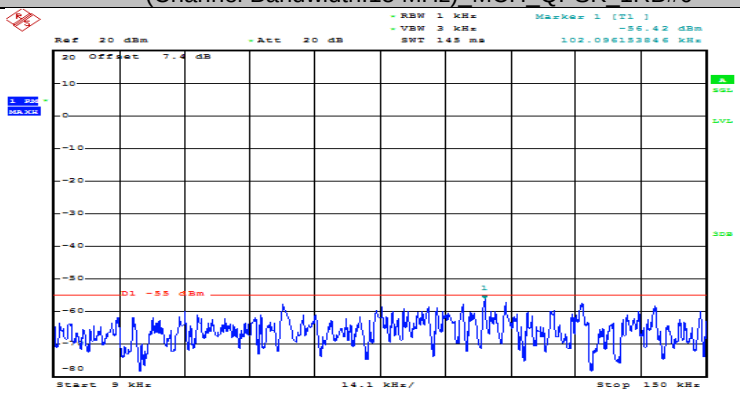
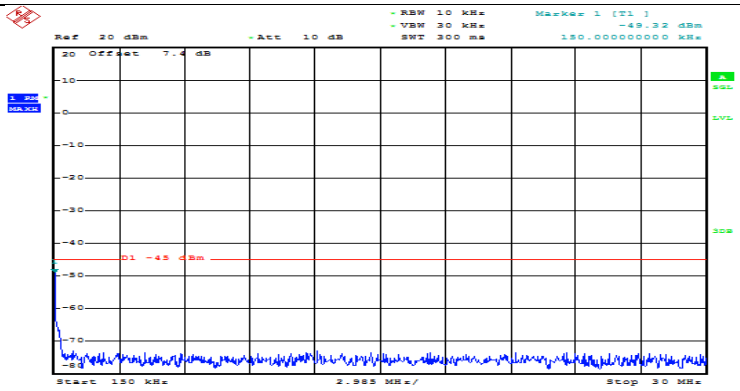
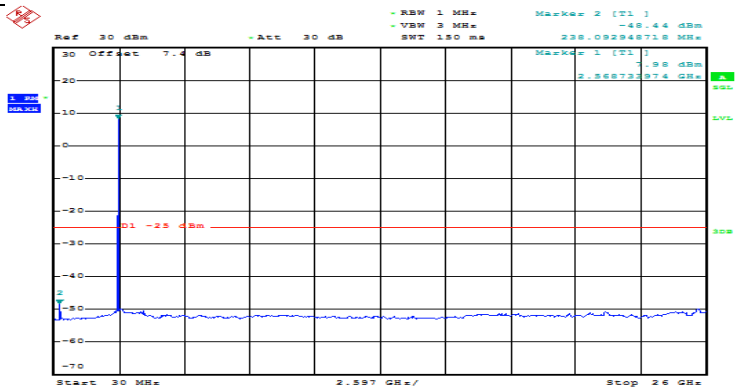
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=15MHz
Test Channel=MCH

(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0




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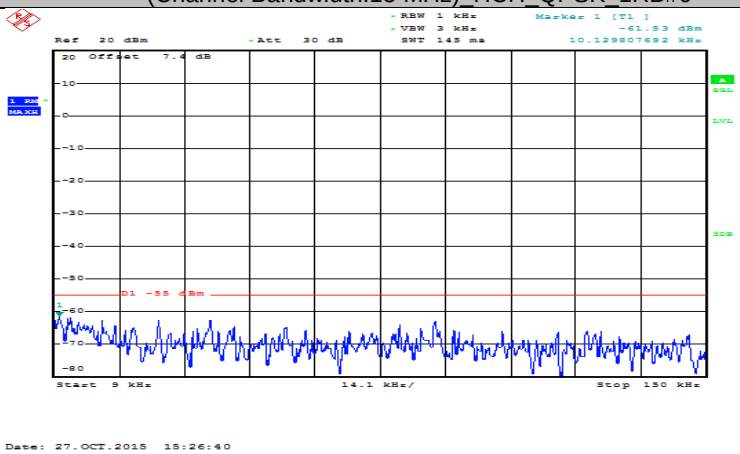
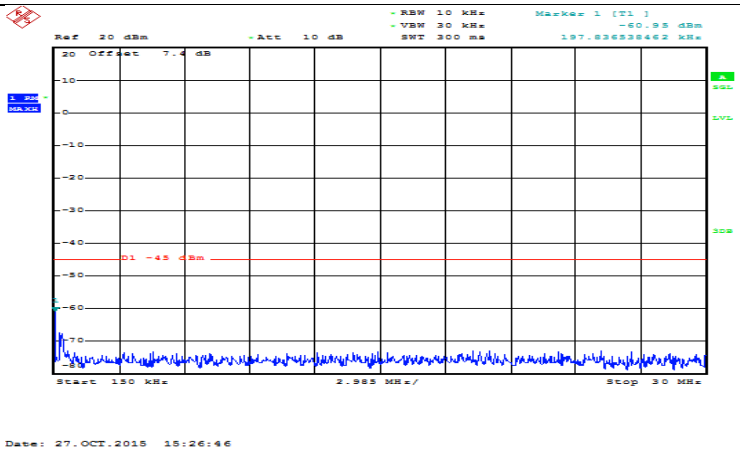
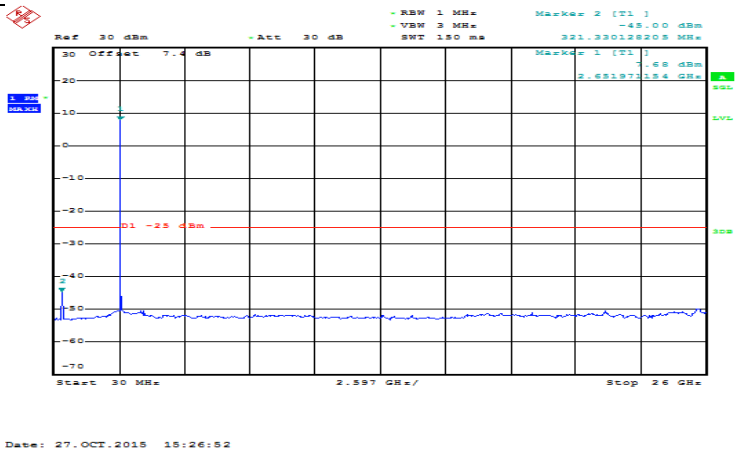
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=15MHz
Test Channel=HCH

(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0




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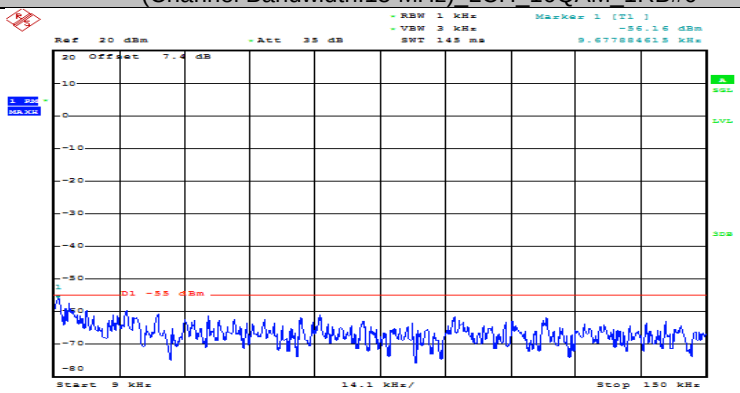
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=15MHz
Test Channel=LCH

(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



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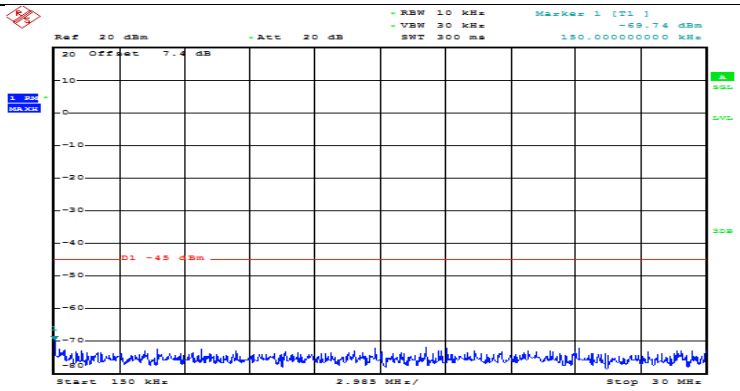

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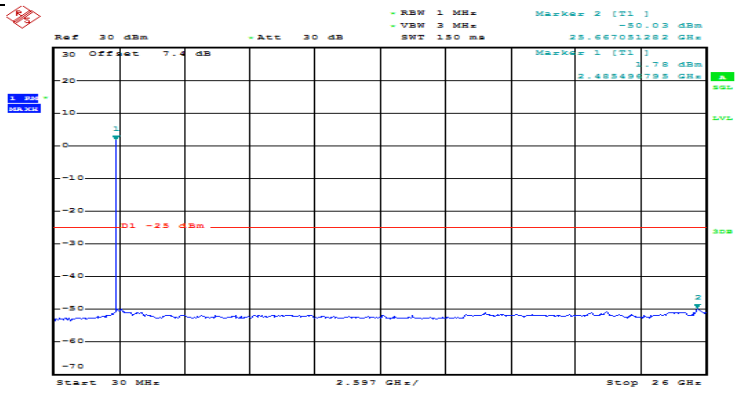

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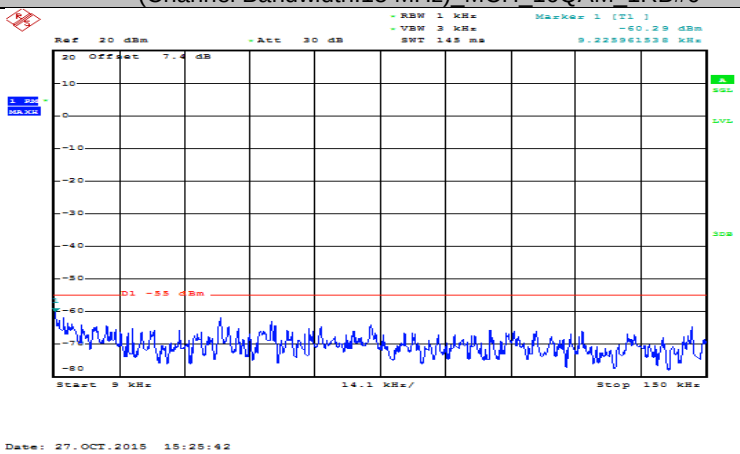
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=15MHz
Test Channel=MCH

(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0



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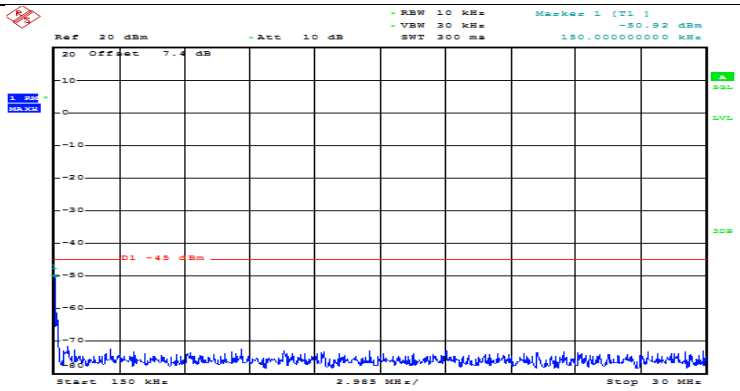

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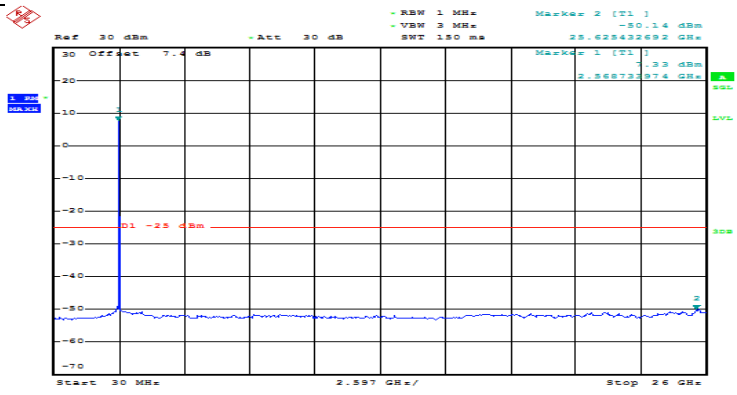

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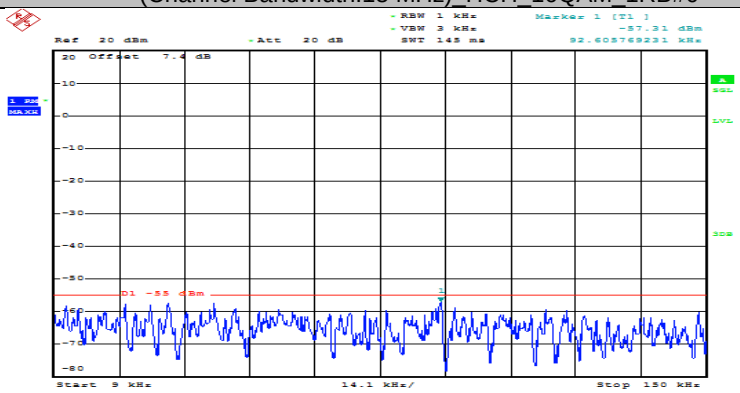
Test Band=LTE Band 41
Test Mode=16QAM/TM5
Chanel Bandwidth=15MHz
Test Channel=HCH

(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0



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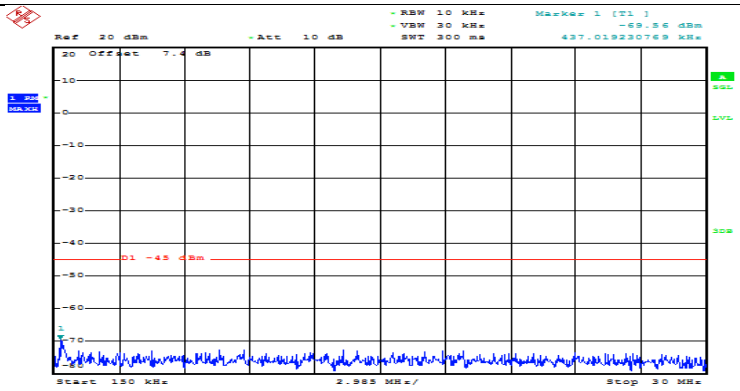

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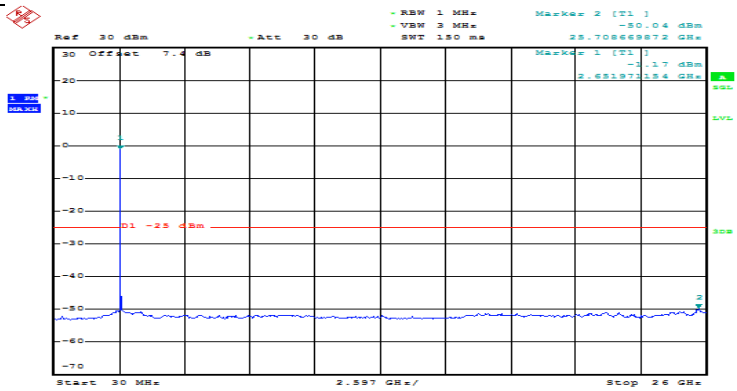

Date: 27.OCT.2015 15:27:48

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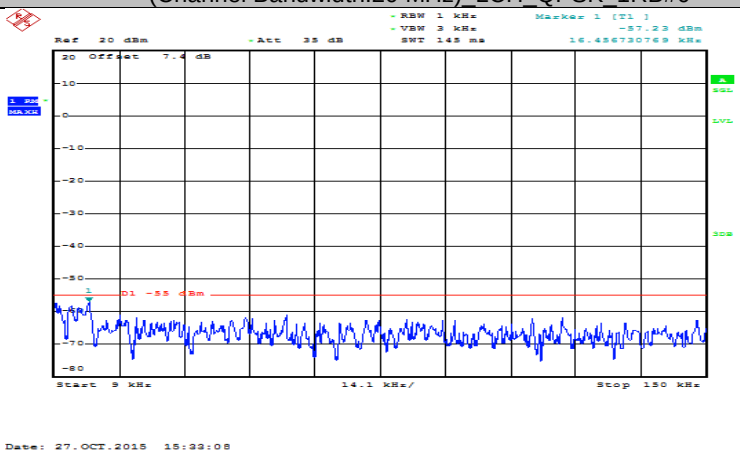
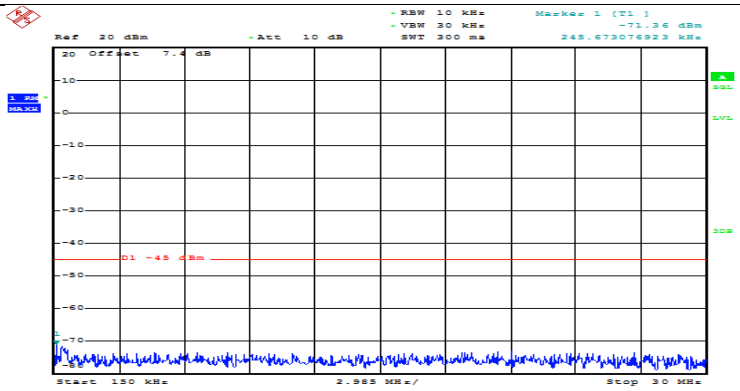
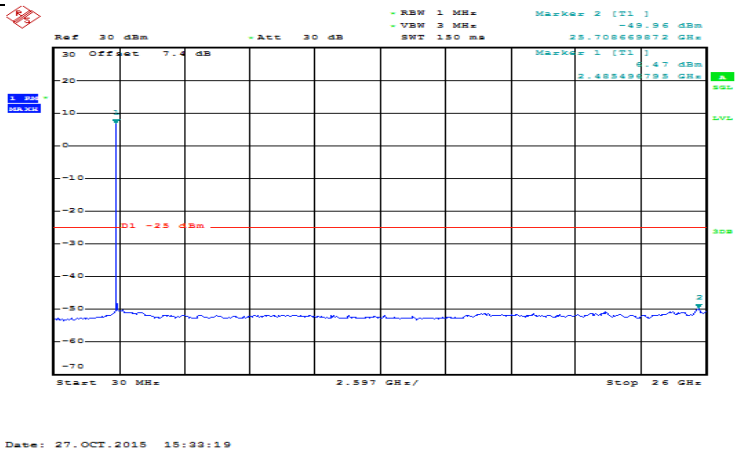
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=20MHz
Test Channel=LCH

(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0




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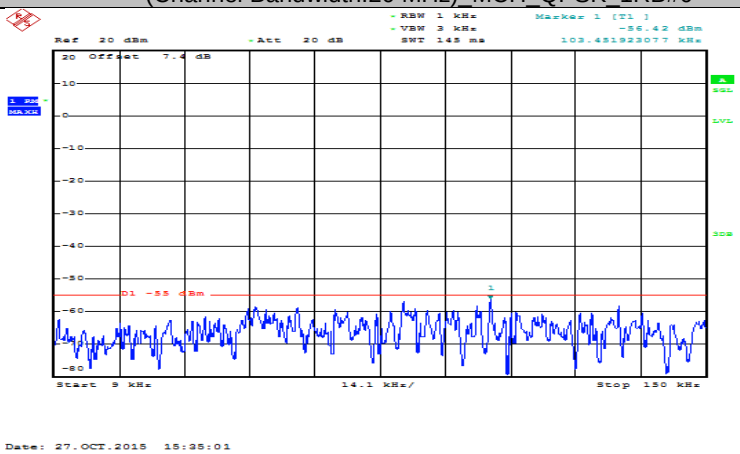
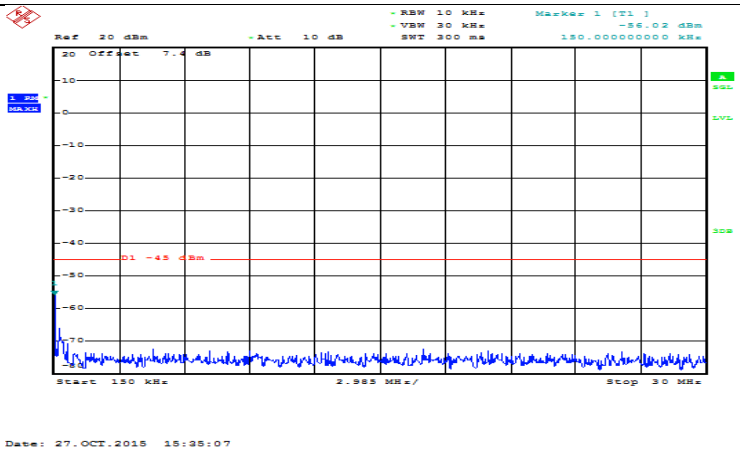
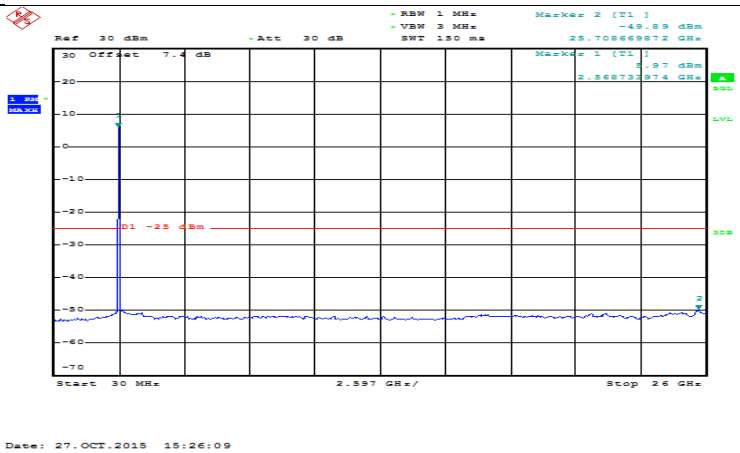
Test Band=LTE Band 41
Test Mode=QPSK/TM4
Chanel Bandwidth=20MHz
Test Channel=MCH

(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0







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