



## **AirCard 763S Mobile Hotspot**

Test Report

FOR

FCC and IC Certifications

**IC: 2417C-AC763S**  
**FCC ID: N7NAC763S**

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## 1 Introduction and Purpose

This document provides test data for the AC763S modem output power intended for FCC and Industry Canada certifications.

## 2 Test Summary

FCC Rule	IC Standards	DESCRIPTION OF TEST	RESULT	PAGE
2.1046 22.913, 24.232, 27.50		RF Power Output	Complies	5
2.1049	RSS-Gen, 4.6	Occupied Bandwidth	Complies	17
2.1051, 22.917, 24.238, 27.53	RSS-132, 4.5 RSS-133, 6.5 RSS-139, 6.5 RSS-199, 4.5	Out of Band Emissions at Antenna Terminals	Complies	45
2.1051, 22.917, 24.238, 27.53	RSS-Gen, 4.6	Block Edge Compliance	Complies	107
2.1055, 22.355, 24.235, 27.54	RSS-132, 4.3 RSS-133, 6.3 RSS-139, 6.3 RSS-199, 4.3	Frequency Stability versus Temperature	Complies	125
2.1055, 22.355, 24.235, 27.54	RSS-132, 4.3 RSS-133, 6.3 RSS-139, 6.3 RSS-199, 4.3	Frequency Stability versus Voltage	Complies	128
24.232(d), 27.50(d)		Peak to Average Ratio	Complies	130

## 3 Description of Equipment under Test

The AC763S mobile hotspot, referred to as “EUT” hereafter, is a multi-band wireless device operating on the GSM/GPRS/EDGE/UMTS/LTE networks providing WiFi connectivity. In the US and Canada, Cellular and PCS bands are used for GSM/GPRS/UMTS operation, and LTE Band 7 and Band 4 are used. This test report only contains data for these four bands (850MHz, 1900MHz, 2600MHz Band 7, and 1700MHz Band 4).

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## 4 RF Power Output

FCC 2.1046, 22.913, 24.232, 27.50

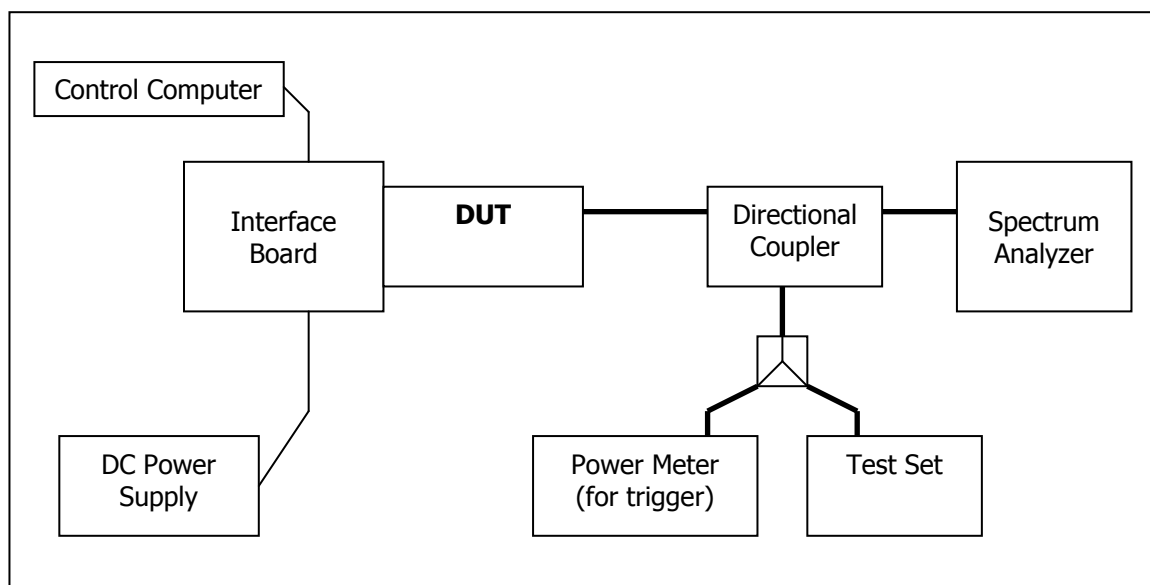
### 4.1 Test Equipment

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Control Computer	TC	Generic PC	100488	N/A
Wireless Test Set	Rohde & Schwarz	CMU200	117255	October 29, 2012
Wireless Test Set	Rohde & Schwarz	CMW500	101060	September 21, 2013
Spectrum Analyzer	Rohde & Schwarz	FSP	100060	October 31, 2012
DC Power Supply	HP	E3631A	KR94623948	N/A
Interface Board	Shop built	ATEMux	N/A	N/A
Directional Coupler	Pasternack	PE2209-10	N/A	N/A

### 4.2 Test Procedure

The transmitter output was connected to a Rohde & Schwarz CMU200 Test Set (for GSM and WCDMA) or a CMW500 (for LTE) and configured to operate at maximum power in a call. The power was measured using the spectrum analyzer at three equally spaced operating frequencies for each band. The analyzer settings for span, RBW, etc. were set to follow KDB 971168 D01 to measure output power using the band power markers. The cable and coupler losses accounted for.

### Test Setup



**4.2.1 WCDMA/HSDPA/HSUPA Max Power setup**

Configure the call box to support all WCDMA tests in respect to the 3GPP 34.121 (listed in Table 4.2). Measure the power at Ch4132, 4182 and 4233 for US cell; Ch9262, 9400 and 9538 for US PCS band.

**For Rel99 per 3GPP 35.121 5.2**

- Set a Test Mode 1 loop back with a 12.2kbps Reference Measurement Channel (RMC)
- Set and send continuously Up power control commands to the AC763S module.
- Measure the power at the AC763S module antenna connector using the power meter with average detector

**For HSDPA Rel 7 3 per GPP 35.121 5.2AA**

- Establish a Test Mode 1 loop back with both 1 12.2kbps RMC channel and an H-Set1 Fixed Reference Channel (FRC). With the CMU200 this is accomplished by setting the signal Channel Coding to “Fixed Reference Channel” and configuring for HSET-1 QKSP.
- Set beta values and HSDPA settings for HSDPA Subtest1 according to Table 4.2
- Send continuously Up power control commands to the AC763S module
- Measure the power at the AC763S module antenna connector using the power meter with modulated average detector
- Repeat the measurement for the HSDPA Subtest2, 3 and 4 as given in Table 4.2

**For HSUPA Rel 6 per 3GPP 35.121 5.2B**

- Use UL RMC 12.2kbps and FRC H-Set1 QPSK, Test Mode 1 loop back. With the CMU200 this is accomplished by setting the signal Channel Coding to “E-DCH Test Channel” and configuring the equipment category to Cat5\_10ms.
- Set the Absolute Grant for HSUPA Subtest1 according to Table 4.2
- Set the AC763S module power to be at least 5dB lower than the Maximum output power
- Send power control bits to give one TPC\_cmd = +1 command to the UNDP. If UNDP doesn’t send any E-DPCH data with decreased E-TFCI within 500ms, then repeat this process until the decreased E-TFCI is reported.
- Confirm that the E-TFCI transmitted by the AC763S module is equal to the target E-TFCI in Table 4.2. If the E-TFCI transmitted by the AC763S module is not equal to the target E-TFCI, then send power control bits to give one TPC\_cmd = -1 command to the UE. If UE sends any E-DPCH data with decreased E-TFCI within 500 ms, send new power control bits to give one TPC\_cmd = -1 command to the UE. Then confirm that the E-TFCI transmitted by the UE is equal to the target E-TFCI in Table 4.2. If the E-TFCI transmitted by the UE is not equal to the target E-TFCI, then fail the UE
- Measure the power using the power meter with an average detector

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- Repeat the measurement for the HSUPA Subtest2, 3 and 4 as given in Table 4.2
- Test case 5 is tested using all up bits for maximum output power per 3GPP 34.521.

**Table 4.2 3GPP Rel99/HSPA Subtest Settings**

Subtest	Mode	Loopback Mode	Rel99 RMC	HSPA FRC	HSUPA Test	Common Settings		C M	M PR	Power Class 3 limit (dBm)	HSDPA Specific Settings						HSUPA Specific Settings			HSUPA Additional Info		
						$\beta_c$	$\beta_d$				$\Delta ACK$	$\Delta NAK$	$\Delta CQI$	ACK-NAK repetition factor	CQI Feedback (Table 5.2B.4)	CQI Repetition Factor (Table 5.2B.4)	Ahs = $\beta_{hs}/\beta_c$	$\Delta E-DPCH$	$\Delta HARQ$	AG Index	ERFCI (from Table C.11.1.3)	Associated Max UL Data Rate kbps
1	Rel99	Testmode 1	12.2k bps	-	-			-		24 (+1.7/-3.7 dB)												
1	Rel6 HSDPA	Testmode 1	12.2k bps	H-Set 1	-	2/15	15/15	0	0	24 (+1.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15					
2	Rel6 HSDPA	Testmode 1	12.2k bps	H-Set 1	-	12/15	15/15	1	0	24 (+1.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15					
3	Rel6 HSDPA	Testmode 1	12.2k bps	H-Set 1	-	15/15	8/15	1.5	0.5	23.5 (+2.2/-3.7 dB)	8	8	8	3	4 ms	2	30/15					
4	Rel6 HSDPA	Testmode 1	12.2k bps	H-Set 1	-	15/15	4/15	1.5	0.5	23.5 (+2.2/-3.7 dB)	8	8	8	3	4 ms	2	30/15					
1	Rel6 HSUPA	Testmode 1	12.2k bps	H-Set 1	HSUPA Loopback	11/15	15/15	1	0	24 (+1.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15	6	0	20	75	242.1
2	Rel6 HSUPA	Testmode 1	12.2k bps	H-Set 1	HSUPA Loopback	6/15	15/15	3	2	22 (+3.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15	8	0	12	67	174.9
3	Rel6 HSUPA	Testmode 1	12.2k bps	H-Set 1	HSUPA Loopback	15/15	9/15	2	1	23 (+2.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15	8	0	15	92	482.8
4	Rel6 HSUPA	Testmode 1	12.2k bps	H-Set 1	HSUPA Loopback	2/15	15/15	3	2	22 (+3.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15	5	0	17	71	205.8
5	Rel6 HSUPA	Testmode 1	12.2k bps	H-Set 1	HSUPA Loopback	15/15	15/15	1	0	24 (+1.7/-3.7 dB)	8	8	8	3	4 ms	2	30/15	7	0	81	81	308.9

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#### 4.2.2 GSM/GPRS/EDGE Max Power Setup

Configure the CMU200 Communication Tester to support GMSK and 8PSK call respectively, and set one timeslot transmission for GMSK GSM/GPRS and 8PSK EDGE. Measure and record power outputs for both modulations.

#### 4.2.3 LTE Max Power Setup

Configure the CMW500 call box to support all LTE tests in respect to the 3GPP 36.521.

- UE term. Conn: User defined Channels
- Exp. Nominal Power Mode: According to UL Power Control Settings
- RS EPRE: -75.0 dBm/15kHz Full Cell BW Power: -50.2 dBm
- PSS Power Offset = SSS Power Offset = PBCH Power Offset = PCFICH Power Offset = PDCCH Power Offset = 0.0 dB
- PHICH Power Offset = -12 dB
- OCNG ON
- PDSCH Power Offset PA: 0 dB, Power Ratio Index PB: 0 (rhoB/rhoA: 1)
- Active TPC Setup: Max Power
- Security Settings: Authentication OFF, NAS Security OFF, AS Security OFF
- Integrity Algorithm: NULL
- Milenage OFF
- Configure the desired channel, BW, resource block allocation and modulation.
- Connect to test set.
- Set CMW500 TPC Setup to Max Power (Up power control command).
- Measure the power at the AC763S module antenna connector using the CMW multi evaluation LTE measurement.

### 4.3 Maximum Transmit Power Test Results

#### 4.3.1 Test Results GSM/EDGE Output Power

Band	Frequency (MHz)	Channel	GMSK Mode (MCS4)					
			1 Time Slot		2 Time Slots		3 Time Slots	4 Time Slots
			RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)	Peak Power (dBm)	Peak Power (dBm)
GSM850	824.2	128	32.30	32.40	29.70	29.90	AC763S is Class 10 for GMSK Mode.	
	836.6	190	32.40	32.50	29.60	29.80		
	848.8	251	32.40	32.50	29.90	30.00		
GSM1900	1850.2	512	29.30	29.40	29.10	29.20		
	1880	661	29.40	29.50	29.10	29.30		
	1909.8	810	29.30	29.40	29.20	29.40		

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Band	Frequency (MHz)	Channel	8PSK Mode (MCS9)							
			1 Time Slot		2Time Slots		3Time Slots		4Time Slots	
			RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)	RMS Power (dBm)	Peak Power (dBm)
GSM850	824.2	128	26.50	29.60	26.40	29.60	26.30	29.50	26.10	29.20
	836.6	190	26.80	29.90	26.70	29.80	26.30	29.50	26.10	29.20
	848.8	251	26.80	29.90	26.70	29.90	26.60	29.80	26.20	29.30
GSM1900	1850.2	512	26.10	29.20	26.00	29.10	25.90	29.00	24.40	27.60
	1880	661	26.10	29.20	26.00	29.10	25.90	29.00	24.40	27.650
	1909.8	810	25.90	29.00	26.00	29.00	25.90	29.00	24.50	27.60

### 4.3.2 Test Results for WCDMA/HSDPA/HSUPA Output Power

Mode	3GPP Subtest	Band V (800 MHz) Channel Power (dBm)			Band II (1900 MHz) Channel Power (dBm)			MPR
		4132	4182	4233	9262	9400	9538	
Rel99	1	23.59	23.28	23.26	22.84	22.89	23.25	N/A
Rel6 HSDPA	1	23.04	22.23	22.53	22.07	21.62	21.92	0
	2	23.12	22.79	22.80	22.34	22.18	22.56	0
	3	22.72	22.28	22.29	21.90	21.71	22.12	0.5
	4	22.70	22.38	22.28	21.88	21.80	22.08	0.5
Rel6 HSUPA	1	22.71	21.90	21.90	22.37	22.45	22.61	0
	2	20.16	20.17	20.30	20.42	20.34	20.91	2
	3	21.62	21.74	21.66	21.34	21.35	21.62	1
	4	20.17	20.83	20.54	20.15	20.08	20.17	2
	5	22.14	22.30	22.38	22.12	21.90	22.40	0

Note: All measurements are based on an average detector.

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## 4.3.3 Test Results for LTE Output Power

According to 3GPP 36.521, V9.1.0., the output power level for Power Class 3 LTE is to be 23.0dBm  $\pm$  2.7dB. The lower limit is shifted down by the MPR amount allowed for certain configurations.

Maximum Power Reduction (MPR) is allowed due to higher order modulation and transmit bandwidth configurations. These MPR levels reduce the lower limit of each output power by the either 1 or 2dB. The limits for these power levels can be found in Table 6.2.3.5-1 (UE Power Class Test Requirements) of 3GPP 36.521.

### 4.3.3.1 Output Power Results for LTE Band 4, 10 MHz Bandwidth

FREQUENCY (MHz)	UL CHANNEL	MODULATION	UL NO RB	RB START	MAX POWER (RMS)	MAX POWER (PK)	MPR (dB)
1715.0	20000	QPSK	1	0	21.86	27.22	0
			1	25	21.77	27.04	0
			1	49	21.90	27.09	0
			12	0	21.75	27.48	0
			12	19	21.56	27.30	0
			12	38	21.72	27.32	0
			25	0	20.72	26.54	1
			25	12	20.65	26.36	1
			25	25	20.69	26.44	1
		50	0	20.68	26.82	1	
		16QAM	1	0	20.73	26.56	1
			1	25	20.68	26.28	1
			1	49	20.73	26.42	1
			12	0	20.96	27.53	1
			12	19	20.98	27.44	1
			12	38	20.95	27.43	1
			25	0	19.73	26.72	2
			25	12	19.75	26.42	2
25	25		19.70	26.49	2		
1732.5	20175	QPSK	1	0	22.02	27.42	0
			1	25	22.17	27.28	0
			1	49	22.05	26.94	0
			12	0	21.88	27.55	0
			12	19	22.03	27.49	0
			12	38	21.87	27.24	0
			25	0	21.02	27.08	1

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			25	12	20.98	26.77	1
			25	25	20.94	26.70	1
			50	0	21.09	27.58	1
		16QAM	1	0	20.88	26.73	1
			1	25	21.00	26.72	1
			1	49	20.83	26.54	1
			12	0	21.20	27.84	1
			12	19	21.35	27.55	1
			12	38	21.31	27.25	1
			25	0	19.99	27.01	2
			25	12	19.92	26.84	2
			25	25	19.93	26.78	2
			50	0	20.33	27.33	2
			1750.0	20350	QPSK	1	0
1	25	22.02				26.38	0
1	49	22.12				27.11	0
12	0	21.94				26.53	0
12	19	21.94				26.61	0
12	38	22.01				27.20	0
25	0	20.92				25.85	1
25	12	20.94				25.87	1
25	25	20.96				26.24	1
50	0	20.98				26.74	1
16QAM	1	0			21.05	26.08	1
	1	25			20.89	25.94	1
	1	49			21.00	26.51	1
	12	0			21.26	26.58	1
	12	19			21.13	26.65	1
	12	38			21.32	27.31	1
	25	0			19.78	25.71	2
	25	12			19.94	25.87	2
	25	25			19.92	26.28	2
50	0	20.29	26.80	2			

### 4.3.3.2 Output Power Results for LTE Band 4, 20 MHz Bandwidth

FREQUENCY (MHz)	UL CHANNEL	MODULATION	UL NO RB	RB START	MAX POWER (RMS)	MAX POWER (PK)	MPR (dB)
1720.0	20050	QPSK	1	0	21.87	26.8	0
			1	50	21.85	26.62	0
			1	99	22.16	27.12	0
			18	0	21.72	27.51	0
			18	41	21.71	27.54	0

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			18	82	22.07	28.03	0
			50	0	20.74	26.72	1
			50	25	20.95	27.03	1
			50	50	20.93	27.19	1
			100	0	20.84	27.17	1
		16QAM	1	0	21.18	25.73	1
			1	50	21.14	26.51	1
			1	99	21.01	27.01	1
			18	0	20.97	26.12	1
			18	41	21.18	26.69	1
			18	82	21.17	27.31	1
			50	0	20.16	25.91	2
			50	25	20.29	26.19	2
			50	50	20.28	26.60	2
100	0	20.16	26.62	2			
1732.5	20175	QPSK	1	0	21.90	26.77	0
			1	50	22.19	26.95	0
			1	99	22.21	26.48	0
			18	0	21.83	27.76	0
			18	41	22.04	27.51	0
			18	82	22.02	26.83	0
			50	0	20.98	27.46	1
			50	25	21.16	27.52	1
			50	50	21.10	27.08	1
			100	0	21.19	27.45	1
		16QAM	1	0	21.09	26.76	1
			1	50	21.00	26.93	1
			1	99	21.05	26.96	1
			18	0	21.28	27.30	1
18	41	21.06	27.13	1			
18	82	20.96	26.99	1			
50	0	20.35	26.73	2			
50	25	20.26	26.70	2			
50	50	20.16	26.51	2			
100	0	20.11	26.85	2			
1745.0	20300	QPSK	1	0	21.92	26.70	0
			1	50	22.05	26.06	0
			1	99	22.13	26.68	0
			18	0	21.93	26.81	0
			18	41	21.90	26.42	0
			18	82	21.93	27.01	0
			50	0	21.16	26.80	1
			50	25	21.18	26.36	1

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			50	50	21.00	26.58	1
			100	0	21.16	26.95	1
		16QAM	1	0	21.00	27.02	1
			1	50	20.86	26.82	1
			1	99	21.01	26.55	1
			18	0	21.15	27.32	1
			18	41	20.93	26.98	1
			18	82	20.93	26.79	1
			50	0	20.17	26.68	2
			50	25	20.15	26.46	2
			50	50	20.03	26.23	2
			100	0	20.06	26.57	2

### 4.3.3.3 Output Power Results for LTE Band 7, 10 MHz Bandwidth

FREQUENCY (MHz)	UL CHANNEL	MODULATION	UL NO RB	RB START	MAX POWER (RMS)	MAX POWER (PK)	MPR (dB)
2505	20800	QPSK	1	0	22.37	27.38	0
			1	25	22.34	27.22	0
			1	49	22.17	27.39	0
			12	0	22.21	27.61	0
			12	19	22.16	27.20	0
			12	38	22.17	27.72	0
			25	0	21.23	26.95	1
			25	12	21.15	26.77	1
			25	25	21.17	27.00	1
		50	0	21.23	27.39	1	
		16QAM	1	0	21.26	26.56	1
			1	25	21.16	26.55	1
			1	49	21.05	26.56	1
			12	0	21.53	27.23	1
			12	19	21.41	27.24	1
			12	38	21.45	27.37	1
			25	0	20.25	26.45	2
			25	12	20.18	26.38	2
25	25		20.18	26.38	2		
50	0	20.32	26.96	2			
2535	21100	QPSK	1	0	22.34	26.11	0
			1	25	22.50	25.89	0
			1	49	22.48	26.02	0
			12	0	22.11	25.90	0
			12	19	22.38	25.90	0
			12	38	22.44	26.09	0

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			25	0	21.32	25.66	1
			25	12	21.34	25.23	1
			25	25	21.30	25.43	1
			50	0	21.45	26.70	1
		16QAM	1	0	21.22	25.68	1
			1	25	21.27	25.48	1
			1	49	21.34	25.89	1
			12	0	21.56	25.93	1
			12	19	21.66	25.91	1
			12	38	21.63	26.05	1
			25	0	20.30	25.25	2
			25	12	20.45	25.12	2
			25	25	20.42	25.44	2
			50	0	20.58	26.18	2
2565	21400	QPSK	1	0	22.33	26.92	0
			1	25	22.24	26.31	0
			1	49	22.25	26.90	0
			12	0	22.20	27.06	0
			12	19	22.15	26.38	0
			12	38	22.15	27.07	0
			25	0	21.17	26.48	1
			25	12	21.22	26.28	1
			25	25	21.06	26.40	1
		50	0	21.16	27.02	1	
		16QAM	1	0	21.18	26.15	1
			1	25	21.06	26.01	1
			1	49	21.05	26.14	1
			12	0	21.33	26.56	1
12	19		21.38	26.40	1		
12	38	21.29	26.50	1			
25	0	20.19	25.84	2			
25	12	20.22	25.61	2			
25	25	20.03	25.77	2			
50	0	20.34	26.35	2			

### 4.3.3.4 Output Power Results for LTE Band 7, 20 MHz Bandwidth

FREQUENCY (MHz)	UL CHANNEL	MODULATION	UL NO RB	RB START	MAX POWER (RMS)	MAX POWER (PK)	MPR (dB)
2510	20850	QPSK	1	0	22.24	26.84	0
			1	50	22.11	26.57	0
			1	99	22.21	26.65	0

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			18	0	22.10	27.52	0
			18	41	21.98	27.08	0
			18	82	22.14	27.15	0
			50	0	21.17	27.15	1
			50	25	21.16	27.08	1
			50	50	21.08	26.95	1
			100	0	21.08	27.26	1
		16QAM	1	0	21.29	26.30	1
			1	50	21.28	26.28	1
			1	99	21.17	26.04	1
			18	0	21.22	27.03	1
			18	41	21.30	27.21	1
			18	82	21.13	26.63	1
			50	0	20.37	26.49	2
			50	25	20.19	26.34	2
			50	50	20.30	26.20	2
			100	0	20.18	26.65	2
			QPSK	1	0	22.11	26.19
1	50	22.46		25.81	0		
1	99	22.58		26.69	0		
18	0	22.20		26.27	0		
18	41	22.41		25.90	0		
18	82	22.55		26.88	0		
50	0	21.37		26.12	1		
50	25	21.47		25.67	1		
50	50	21.54		26.23	1		
100	0	21.46		26.90	1		
16QAM	1	0	21.10	25.57	1		
	1	50	21.42	25.20	1		
	1	99	21.59	26.05	1		
	18	0	21.24	25.88	1		
	18	41	21.46	25.45	1		
	18	82	21.52	26.33	1		
	50	0	20.44	25.27	2		
	50	25	20.50	25.13	2		
	50	50	20.69	25.60	2		
	100	0	20.51	26.11	2		
2535	21100	QPSK	1	0	22.26	26.56	0
			1	50	22.18	26.17	0
			1	99	22.30	26.68	0
			18	0	22.41	27.03	0
			18	41	22.18	26.46	0
			18	82	22.10	26.99	0
2560	21350	QPSK	1	0	22.26	26.56	0
			1	50	22.18	26.17	0
			1	99	22.30	26.68	0
			18	0	22.41	27.03	0
			18	41	22.18	26.46	0
			18	82	22.10	26.99	0



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			50	0	21.37	26.69	1
			50	25	21.31	26.69	1
			50	50	21.21	26.64	1
			100	0	21.27	26.89	1
		16QAM	1	0	21.29	25.98	1
			1	50	21.31	25.92	1
			1	99	21.10	26.00	1
			18	0	21.39	26.49	1
			18	41	21.24	26.62	1
			18	82	21.15	26.43	1
			50	0	20.51	25.99	2
			50	25	20.37	25.75	2
			50	50	20.35	25.81	2
			100	0	20.35	26.45	2

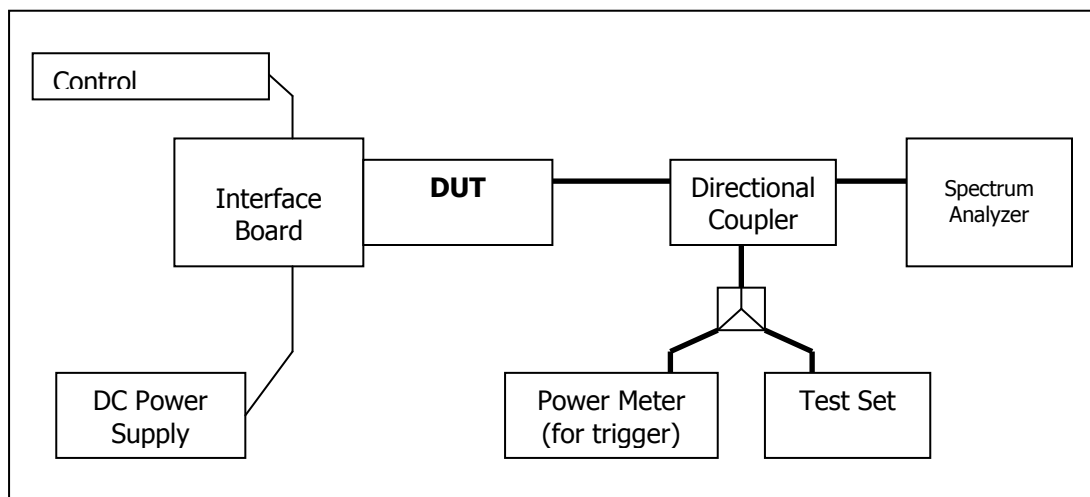
## 5 Occupied Bandwidth

FCC 2.1049, 24.238(a)(b), 27.53(h)

### 5.1 Test Procedure

The transmitter output was connected to a spectrum analyzer through a calibrated coaxial cable and a directional coupler. The occupied bandwidth (defined as the 99% Power Bandwidth) was measured with the spectrum analyzer at low, middle, and high frequencies in each band. The -26dB bandwidth was also measured and recorded.

### Test Setup



### 5.2 Test Equipment

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
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The contents of this page are subject to the confidentiality information on page one.

## SIERRA WIRELESS, INC.

FCC Part 22/24/27, RSS-132/133/139/199	AC763S	Mar 2, 2012	Page 18 of 265
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Control Computer	TC	Generic PC	100488	N/A
Wireless Test Set	Rohde & Schwarz	CMU200	117255	October 29, 2012
Wireless Test Set	Rohde & Schwarz	CMW500	101060	September 21, 2013
Spectrum Analyzer	Rohde & Schwarz	FSP	100060	October 31, 2012
DC Power Supply	HP	E3631A	KR94623948	N/A
Interface Board	Shop built	ATEMux	N/A	N/A
Directional Coupler	Pasternack	PE2209-10	N/A	N/A

### 5.3 Test Results

The performance of the GSM 850 MHz Cellular band is shown in plots 5.3.1 to 5.3.6.

Performance of the GSM 1900 MHz PCS band is shown in plots 5.3.7 to 5.3.12.

Performance of the UMTS 850 Cellular band is shown in plots 5.3.13 to 5.3.15.

Performance of the UMTS 1900 PCS band is shown in plots 5.3.16 to 5.3.18.

The following GSM test results are based on single slot, and use CS1 for GMSK and MCS9 for 8PSK mode. For WCDMA testing, RMC 12.2kps has been used.

#### 5.3.1 GSM Summary Results

Mode	Frequency (MHz)	Channel	99% Occupied Bandwidth (kHz)	Corresponding Plot	
GSM GPRS EDGE	GMSK	824.2	128 (low)	242.00	Plot 5.3.4.1
		836.4	189 (mid)	246.00	Plot 5.3.4.2
		848.8	251 (high)	246.00	Plot 5.3.4.3
		1850.2	512 (low)	244.00	Plot 5.3.4.7
		1880	661 (mid)	249.00	Plot 5.3.4.8
		1909.8	810 (high)	244.00	Plot 5.3.4.9
	8PSK	824.2	128 (low)	250.00	Plot 5.3.4.4
		836.4	189 (mid)	244.00	Plot 5.3.4.5
		848.8	251 (high)	240.00	Plot 5.3.4.6
		1850.2	512 (low)	247.00	Plot 5.3.4.10
		1880	661 (mid)	248.00	Plot 5.3.4.11
		1909.8	810 (high)	242.00	Plot 5.3.4.12

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## 5.3.2 WCDMA Summary Results

Mode	Frequency (MHz)	Channel	99% Occupied Bandwidth (MHz)	-26dBc Occupied Bandwidth (MHz)	Corresponding Plot number
WCDMA	826.4	4132	4.140	4.680	Plot 5.3.5.1
	836.4	4182	4.140	4.660	Plot 5.3.5.2
	846.6	4233	4.160	4.660	Plot 5.3.5.3
	1852.4	9262	4.150	4.680	Plot 5.3.5.4
	1880	9400	4.180	4.680	Plot 5.3.5.5
	1907.5	9538	4.180	4.700	Plot 5.3.5.6

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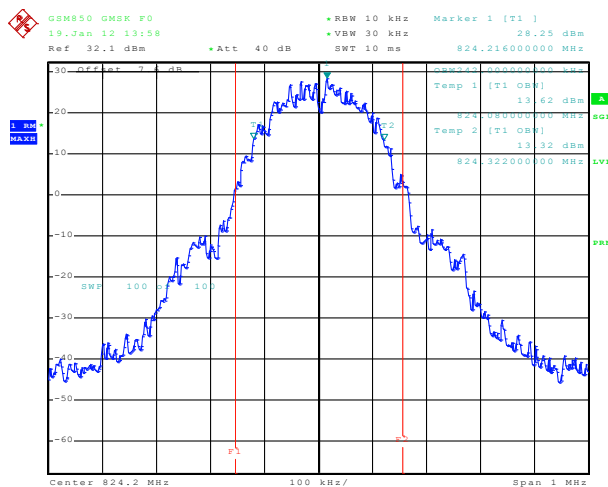
## 5.3.3 LTE Summary Results

Mode	Band	BW (MHz)	No. RB	RB Offset	Frequency (MHz)	Channel	99% Occupied Bandwidth (MHz)	-26dBc Occupied Bandwidth (MHz)	Corresponding Plot number		
LTE	QPSK	B4	10	50	0	1715.0	20000	9.04	9.92	Plot 5.3.6.1	
						1732.5	20175	9.04	9.96	Plot 5.3.6.2	
						1750.0	20350	9.00	9.96	Plot 5.3.6.3	
		B4	20	100	0	1720.0	20050	17.84	19.04	Plot 5.3.6.4	
						1732.5	20175	17.92	18.96	Plot 5.3.6.5	
						1745.0	20300	17.84	18.96	Plot 5.3.6.6	
		B7	10	50	0	2505.0	20800	9.04	9.96	Plot 5.3.6.7	
						2535.0	21100	9.04	9.96	Plot 5.3.6.8	
						2565.0	21400	9.04	9.96	Plot 5.3.6.9	
		B7	20	100	0	2510.0	20850	17.84	19.04	Plot 5.3.6.10	
						2535.0	21100	17.84	18.96	Plot 5.3.6.11	
						2560.0	21350	17.74	18.96	Plot 5.3.6.12	
	16QAM	B4	10	50	0	1715.0	20000	9.04	9.96	Plot 5.3.6.13	
						1732.5	20175	9.08	10.00	Plot 5.3.6.14	
						1750.0	20350	9.08	10.00	Plot 5.3.6.15	
			B4	20	100	0	1720.0	20050	17.84	18.96	Plot 5.3.6.16
							1732.5	20175	17.84	19.04	Plot 5.3.6.17
							1745.0	20300	17.74	18.96	Plot 5.3.6.18
		B7	10	50	0	2505.0	20800	9.04	10.00	Plot 5.3.6.19	
						2535.0	21100	9.08	9.96	Plot 5.3.6.20	
						2565.0	21400	9.04	10.00	Plot 5.3.6.21	
			B7	20	100	0	2510.0	20850	17.92	19.04	Plot 5.3.6.22
							2535.0	21100	17.84	18.96	Plot 5.3.6.23
							2560.0	21350	17.84	18.96	Plot 5.3.6.24

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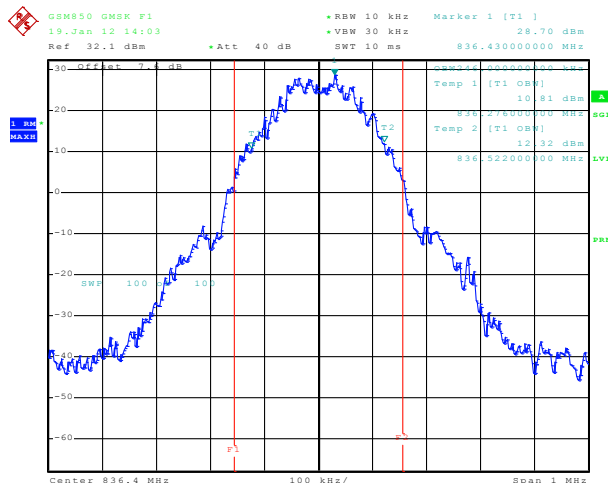
## 5.3.4 GSM Test Plots

### 5.3.4.1 GMSK Occupied Bandwidth, Cellular Low channel, 824.2 MHz, 99% BW



Date: 19.JAN.2012 13:58:25

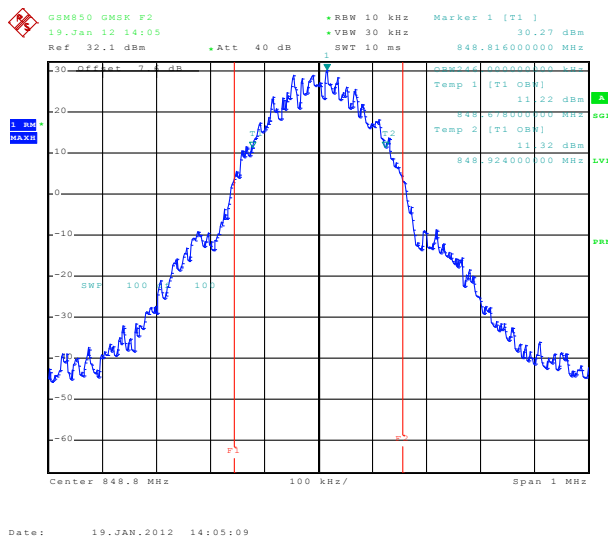
### 5.3.4.2 GMSK Occupied Bandwidth, Middle channel, 836.4 MHz, 99% bandwidth



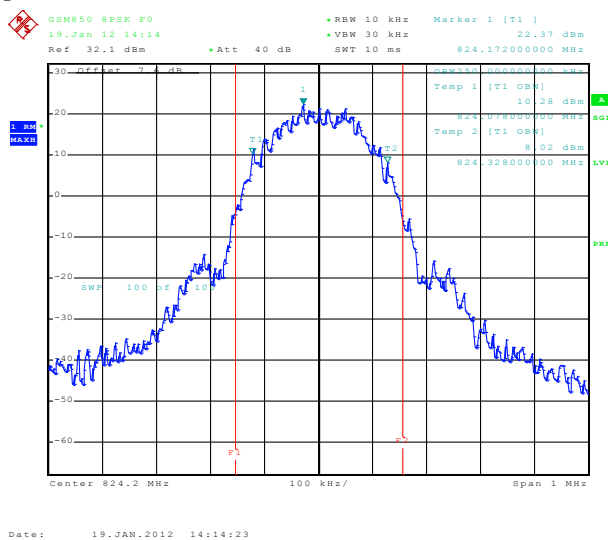
Date: 19.JAN.2012 14:03:11

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## 5.3.4.3 GMSK Occupied Bandwidth, High channel, 848.8 MHz, 99% bandwidth

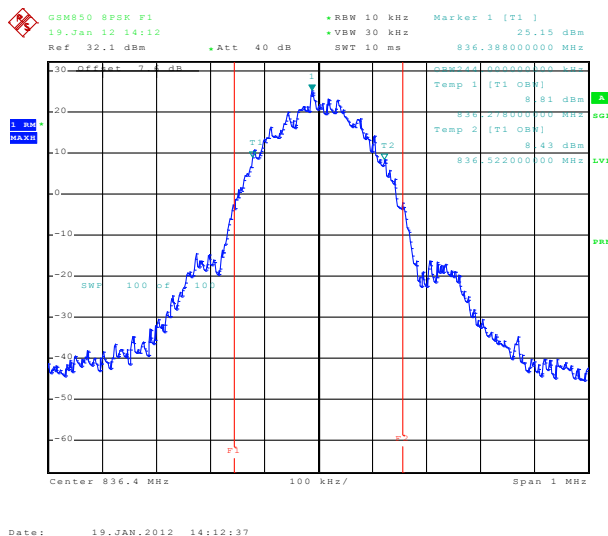


## 5.3.4.4 8-PSK Occupied Bandwidth, Cellular Low channel, 824.2 MHz, 99% BW

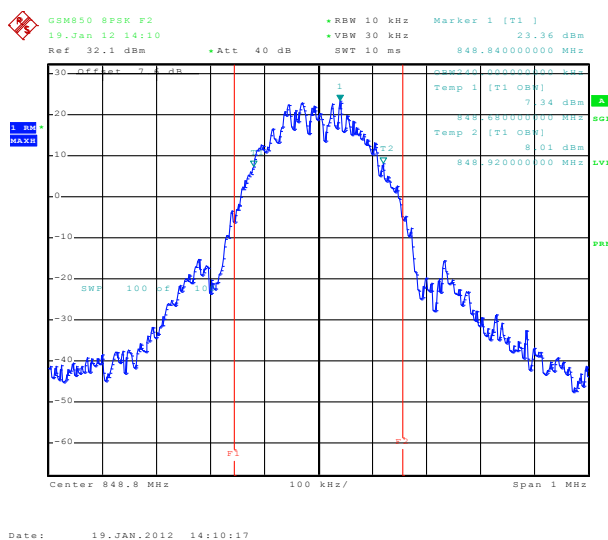


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## 5.3.4.5 8-PSK Occupied Bandwidth, Middle channel, 836.4 MHz, 99% bandwidth

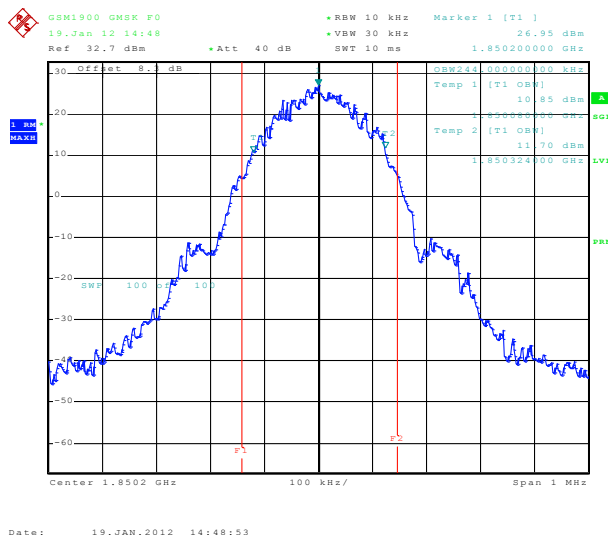


## 5.3.4.6 8-PSK Occupied Bandwidth, High channel, 848.8 MHz, 99% bandwidth

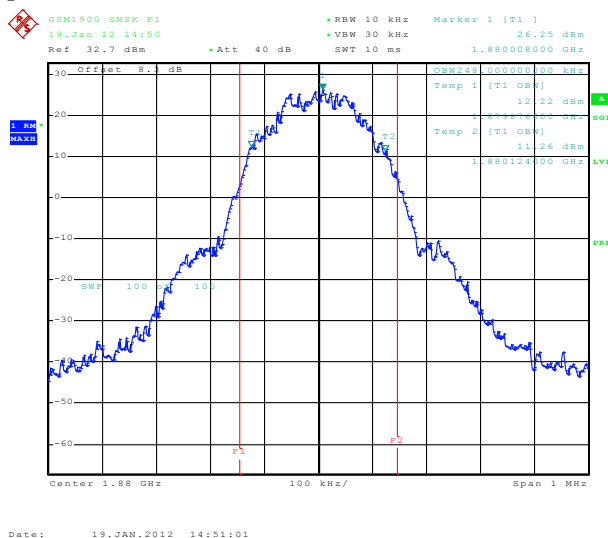


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## 5.3.4.7 GMSK Occupied Bandwidth, PCS Low channel, 1850.2 MHz, 99% BW



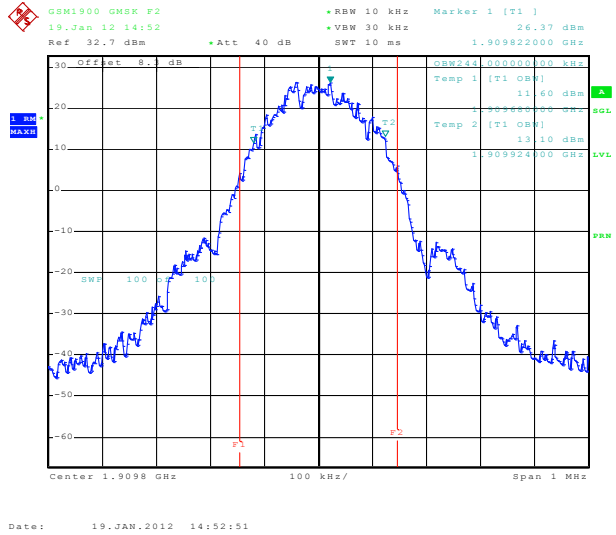
## 5.3.4.8 GMSK Occupied Bandwidth, PCS Middle channel, 1880.0 MHz, 99% BW



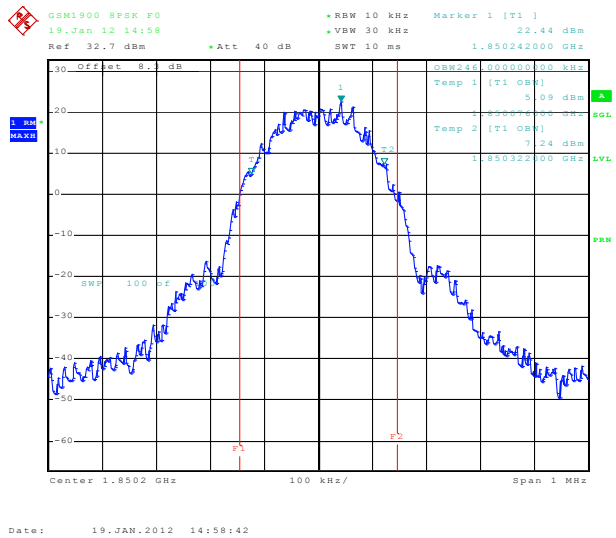


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## 5.3.4.9 GMSK Occupied Bandwidth, PCS High channel, 1909.8 MHz, 99% BW

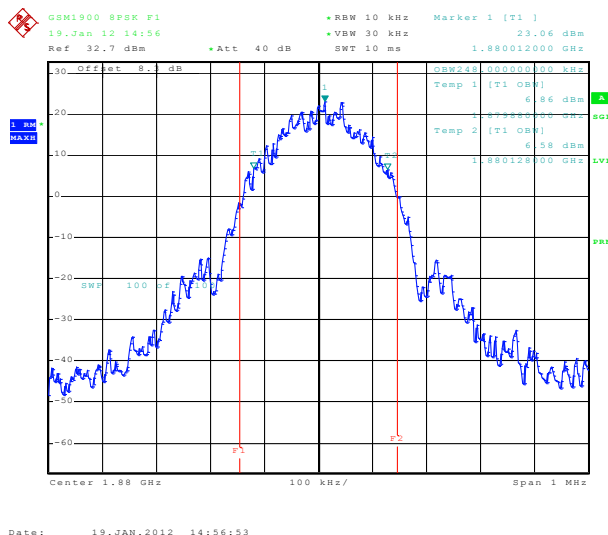


## 5.3.4.10 8-PSK Occupied Bandwidth, PCS Low channel, 1850.2 MHz, 99% BW

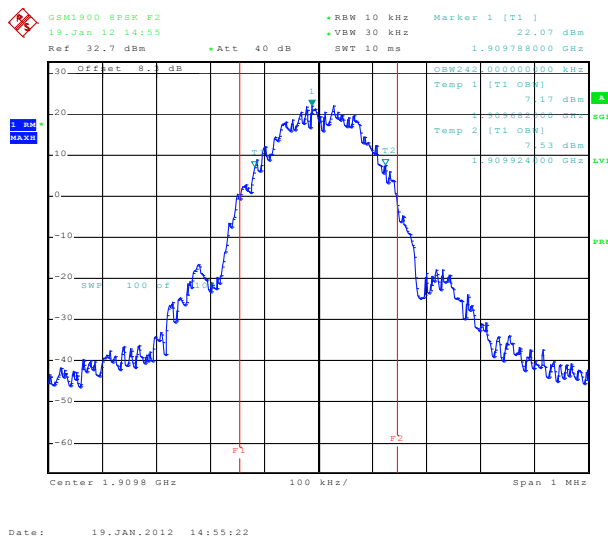


# SIERRA WIRELESS, INC.

## 5.3.4.11 8-PSK Occupied Bandwidth, PCS Middle channel, 1880.0 MHz, 99% BW



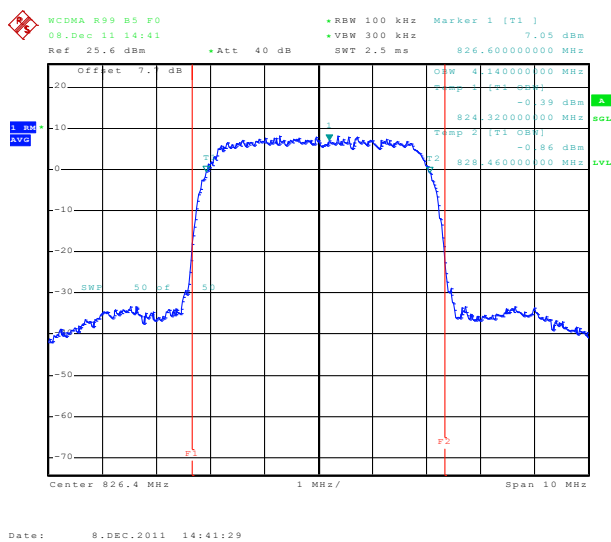
## 5.3.4.12 8-PSK Occupied Bandwidth, PCS High channel, 1909.8 MHz, 99% BW



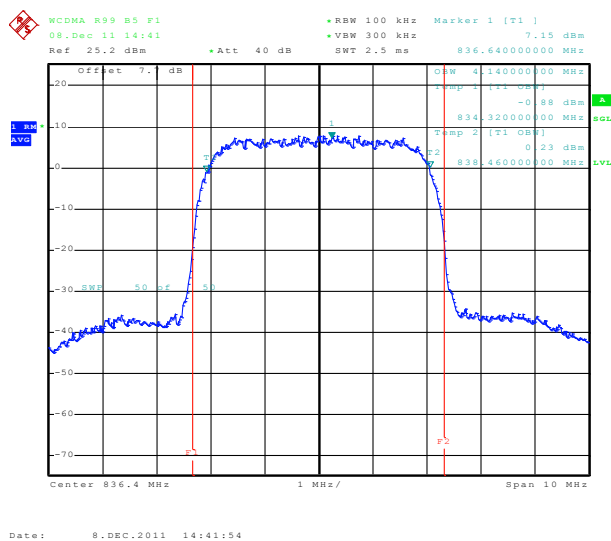
## 5.3.5 WCDMA Test Plots

### 5.3.5.1 WCDMA Occupied Bandwidth, Cellular Low channel, 826.4 MHz, 99% BW

# SIERRA WIRELESS, INC.

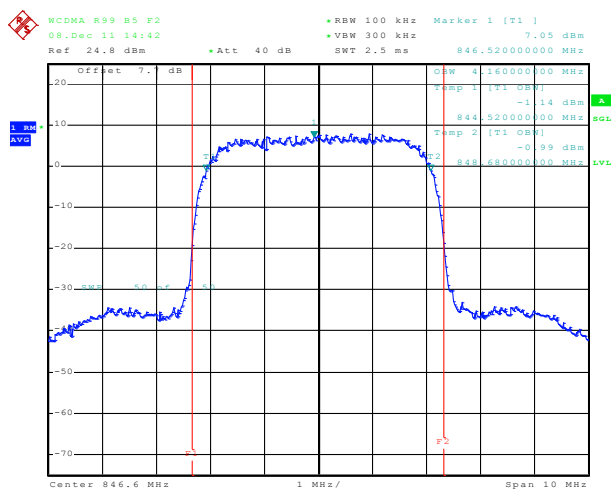


### 5.3.5.2 WCDMA Occupied Bandwidth, Cellular Middle channel, 836.4 MHz, 99% BW



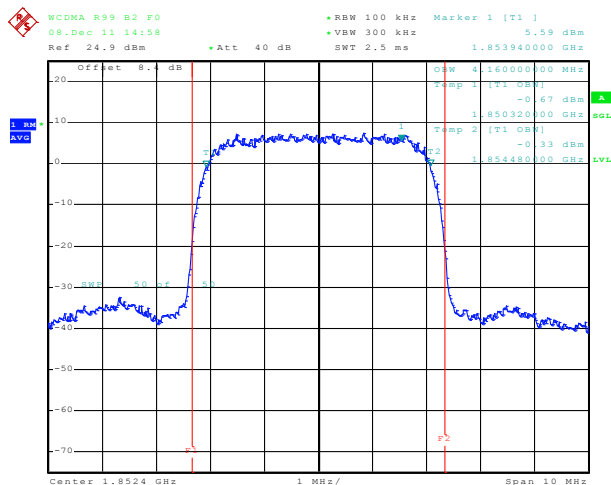
### 5.3.5.3 WCDMA Occupied Bandwidth, Cellular High channel, 846.6 MHz, 99% BW

# SIERRA WIRELESS, INC.



Date: 8.DEC.2011 14:42:18

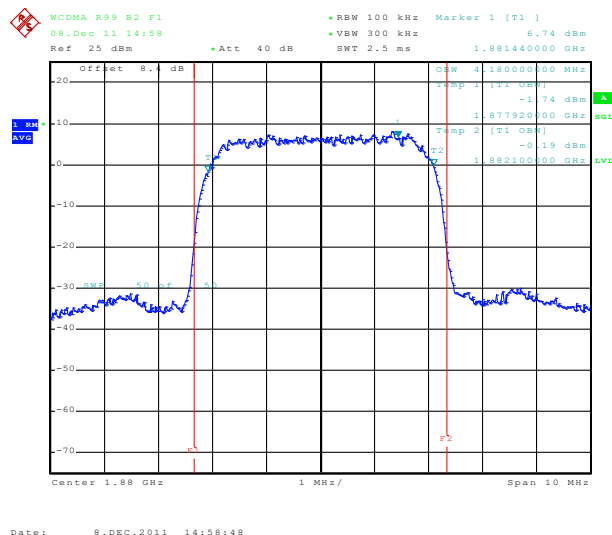
## 5.3.5.4 WCDMA Occupied Bandwidth, PCS Low channel, 1852.4 MHz, 99% BW



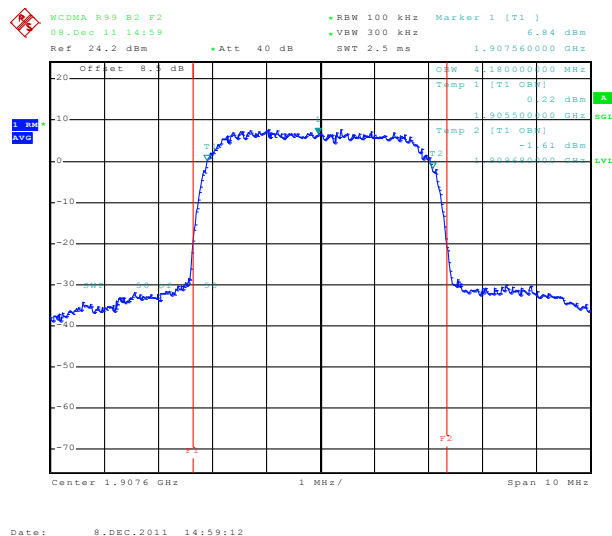
Date: 8.DEC.2011 14:58:24

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## 5.3.5.5 WCDMA Occupied Bandwidth, PCS Middle channel, 1880 MHz, 99% BW

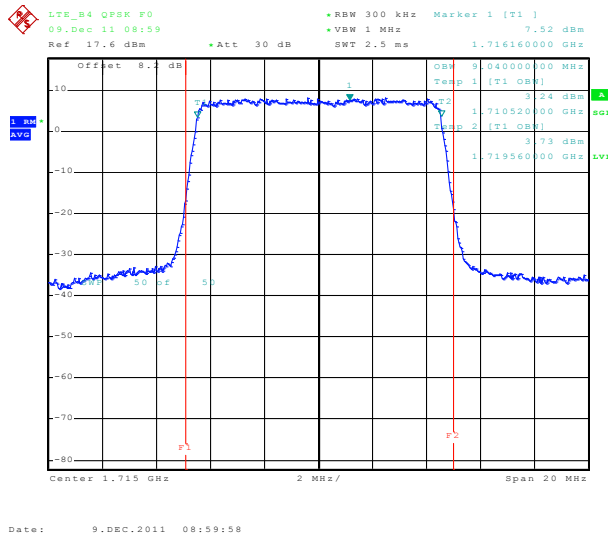


## 5.3.5.6 WCDMA Occupied Bandwidth, PCS High channel, 1907.6 MHz, 99% BW

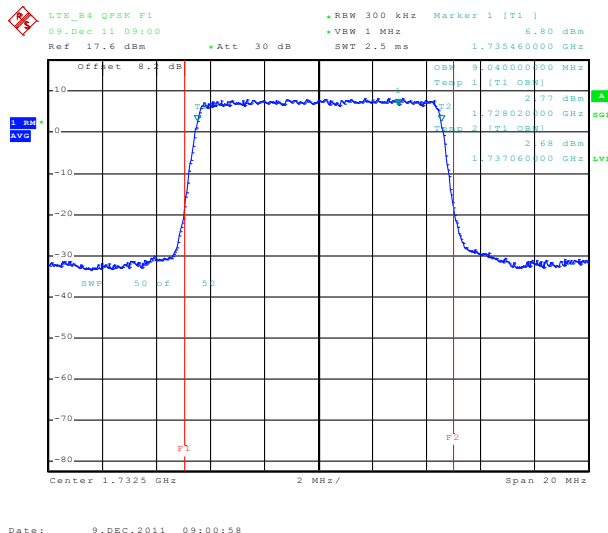


5.3.6 LTE Test Plots

5.3.6.1 LTE Occupied Bandwidth, Band4 low channel (20000) BW=10MHz RB=50 RB Offset=0 QPSK 99% BW

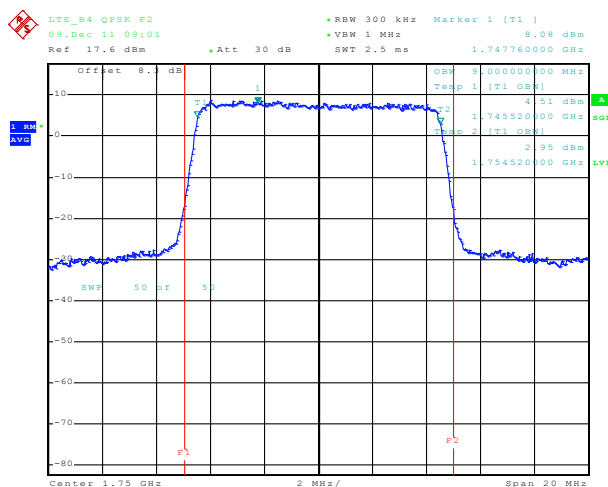


5.3.6.2 LTE Occupied Bandwidth, Band4 mid channel (20175) BW=10MHz RB=50 RB Offset=0 QPSK 99% BW



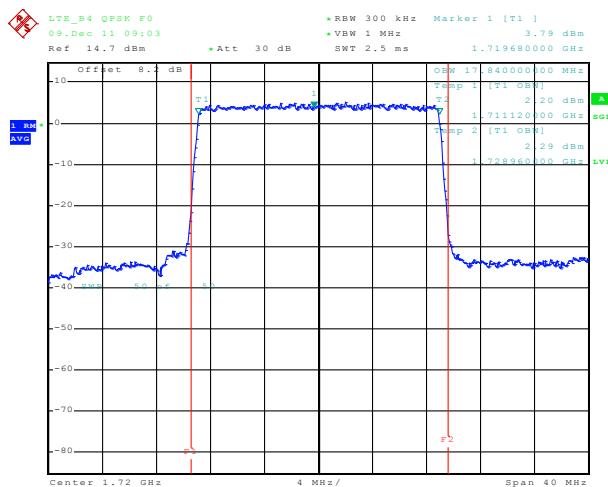
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### 5.3.6.3 LTE Occupied Bandwidth, Band4 high channel (20350) BW=10MHz RB=50 RB Offset=0 QPSK 99% BW



Date: 9.DEC.2011 09:02:00

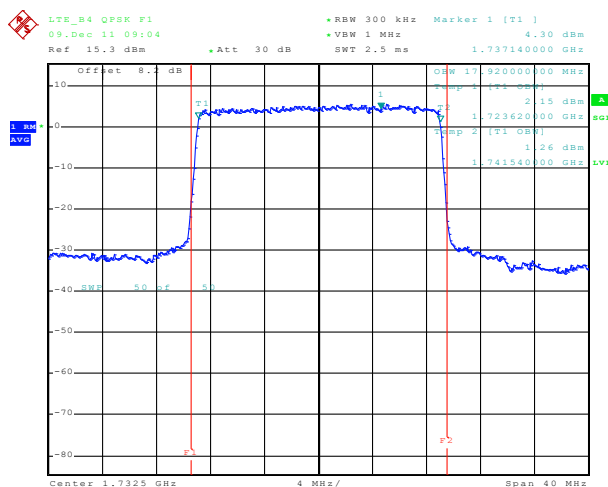
### 5.3.6.4 LTE Occupied Bandwidth, Band4 low channel (20500) BW=20MHz RB=100 RB Offset=0 QPSK 99% BW



Date: 9.DEC.2011 09:03:18

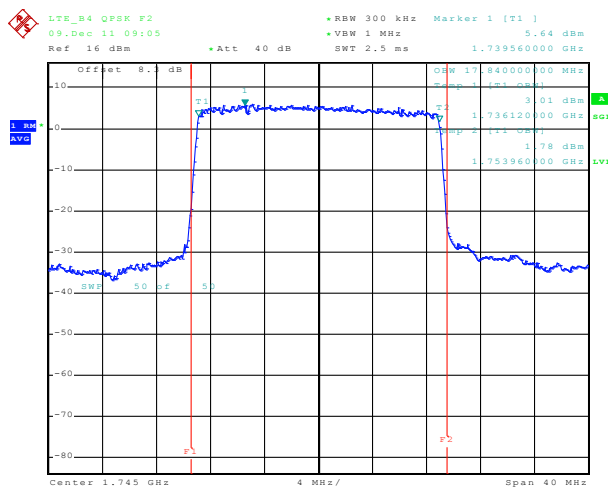
# SIERRA WIRELESS, INC.

## 5.3.6.5 LTE Occupied Bandwidth, Band4 mid channel (20175) BW=20MHz RB=100 RB Offset=0 QPSK 99% BW



Date: 9.DEC.2011 09:04:21

## 5.3.6.6 LTE Occupied Bandwidth, Band4 high channel (20300) BW=20MHz RB=100 RB Offset=0 QPSK 99% BW

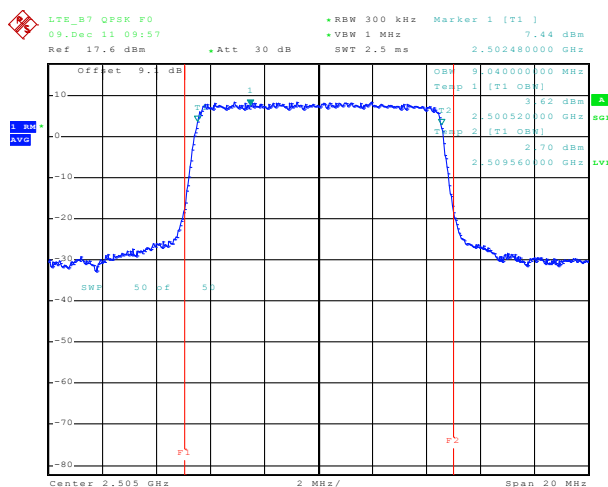


Date: 9.DEC.2011 09:05:26



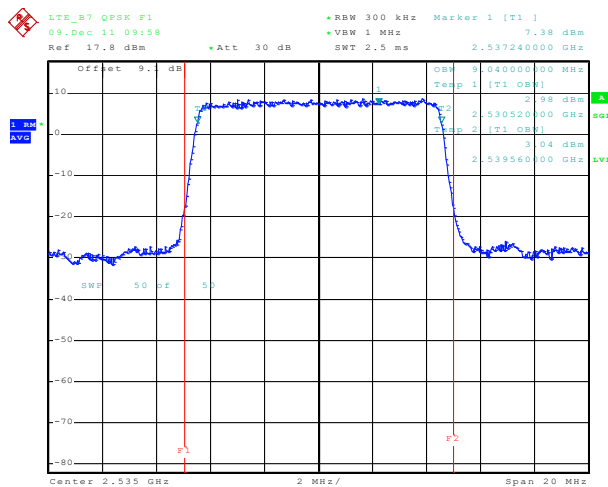
# SIERRA WIRELESS, INC.

## 5.3.6.7 LTE Occupied Bandwidth, Band7 low channel (20800) BW=10MHz RB=50 RB Offset=0 QPSK 99% BW



Date: 9.DEC.2011 09:57:47

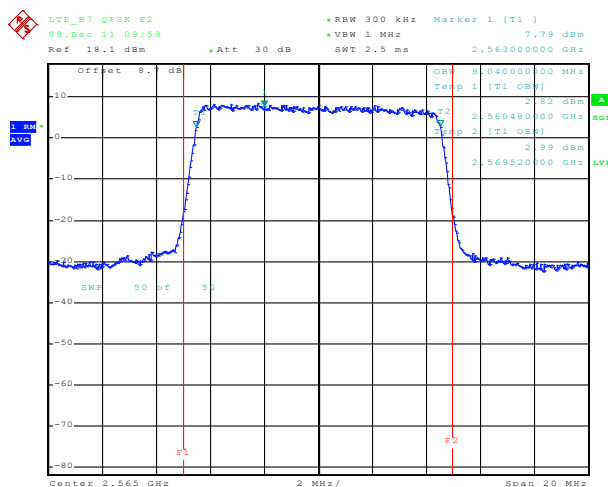
## 5.3.6.8 LTE Occupied Bandwidth, Band7 mid channel (21100) BW=10MHz RB=50 RB Offset=0 QPSK 99% BW



Date: 9.DEC.2011 09:58:53

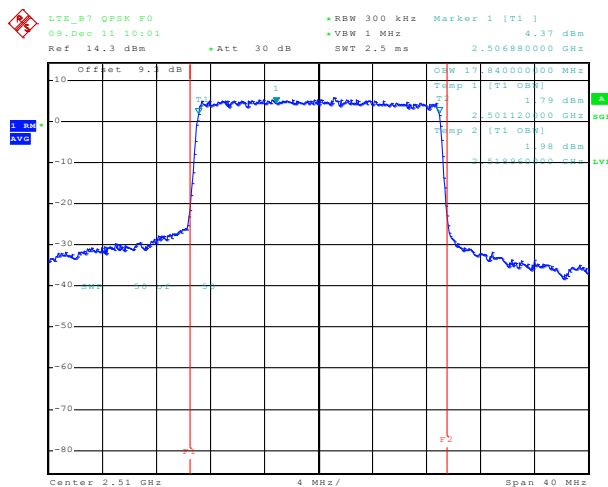
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## 5.3.6.9 LTE Occupied Bandwidth, Band7high channel (21400) BW=10MHz RB=50 RB Offset QPSK 99% BW



Date: 9.DEC.2011 09:59:55

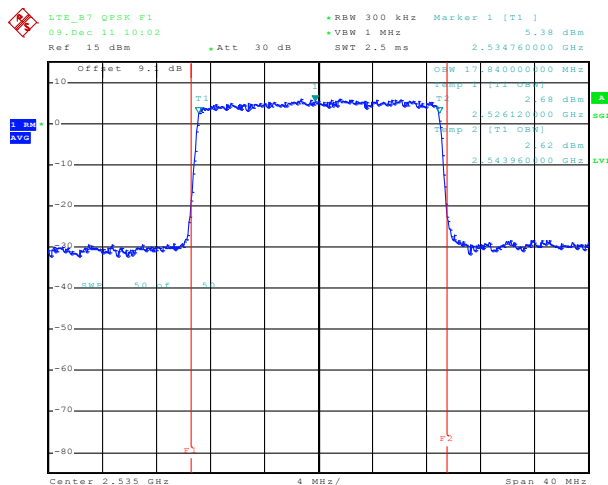
## 5.3.6.10 LTE Occupied Bandwidth, Band7 low channel (20850) BW=20MHz RB=100 RB Offset=0 QPSK 99% BW



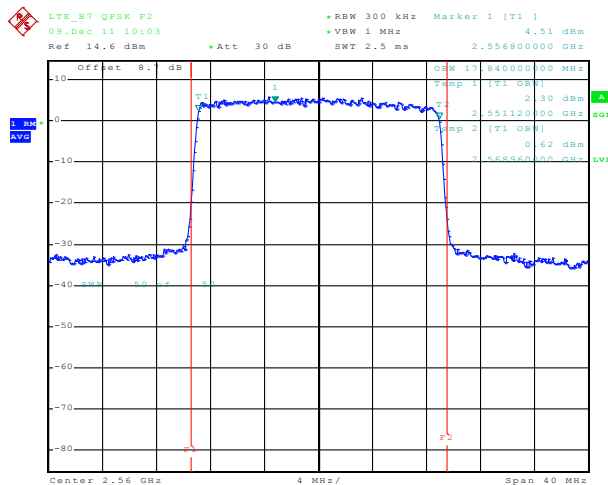
Date: 9.DEC.2011 10:01:13

# SIERRA WIRELESS, INC.

## 5.3.6.11 LTE Occupied Bandwidth, Band7 mid channel (21100) BW=20MHz RB=100 RB Offset=0 QPSK 99% BW

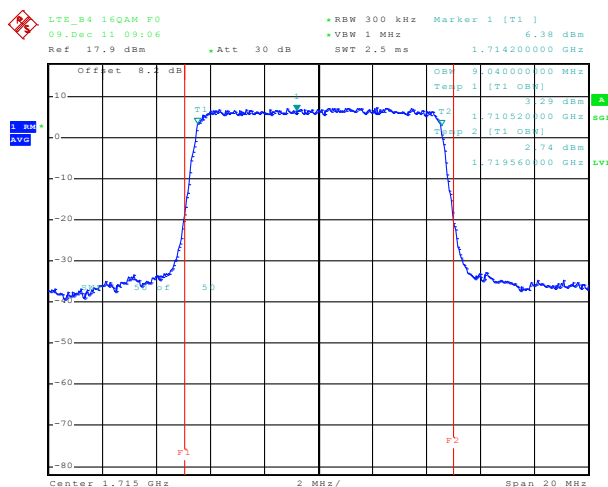


## 5.3.6.12 LTE Occupied Bandwidth, Band7 high channel (21350) BW=20MHz RB=100 RB Offset=0 QPSK 99% BW



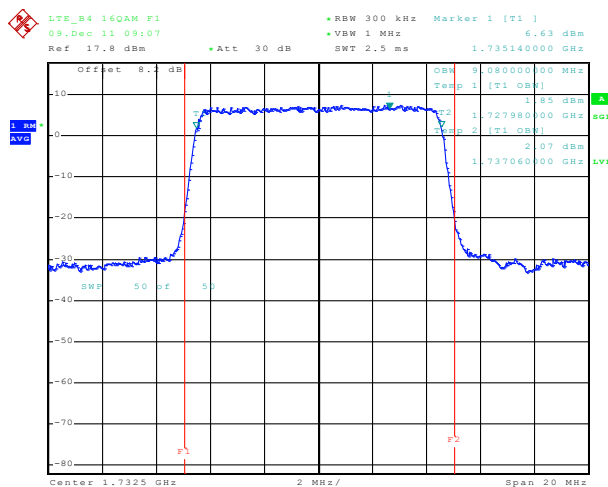
# SIERRA WIRELESS, INC.

## 5.3.6.13 LTE Occupied Bandwidth, Band4 low channel (20000) BW=10MHz RB=50 Offset=0 16QAM 99% BW



Date: 9.DEC.2011 09:06:43

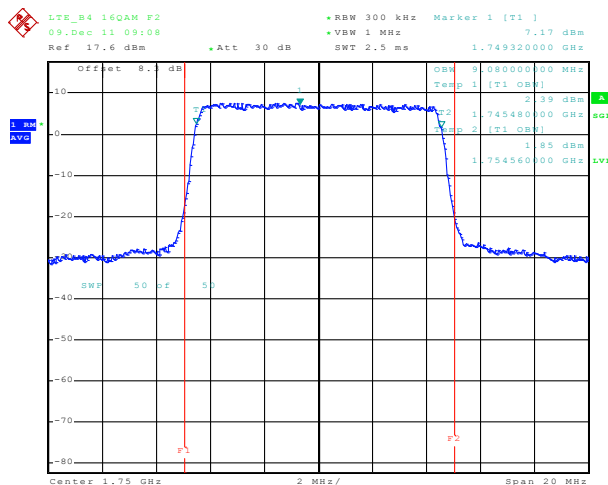
## 5.3.6.14 LTE Occupied Bandwidth, Band4 mid channel (20175) BW=10MHz RB=50 Offset=0 16QAM 99% BW



Date: 9.DEC.2011 09:07:48

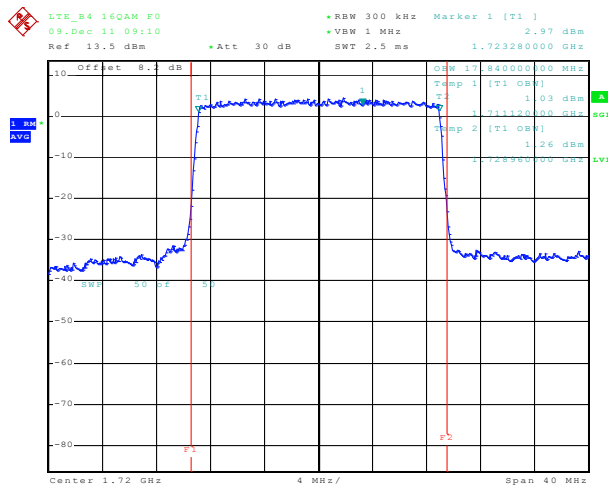
# SIERRA WIRELESS, INC.

## 5.3.6.15 LTE Occupied Bandwidth, Band4 high channel (20350) BW=10MHz RB=50 Offset=0 16QAM 99% BW



Date: 9.DEC.2011 09:08:53

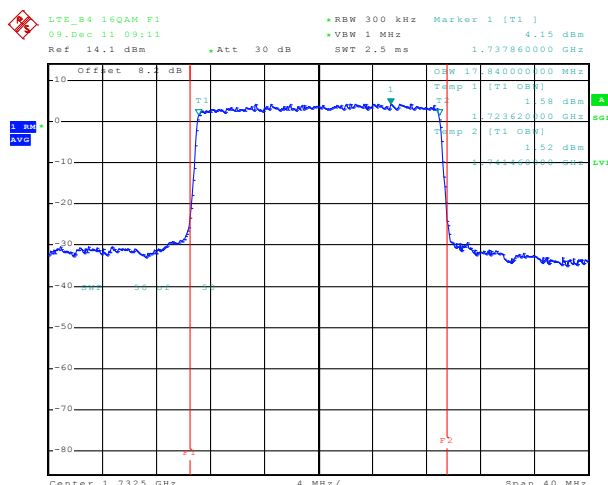
## 5.3.6.16 LTE Occupied Bandwidth, Band4 low channel (20050) BW=20MHz RB=100 Offset=0 16QAM 99% BW



Date: 9.DEC.2011 09:10:13

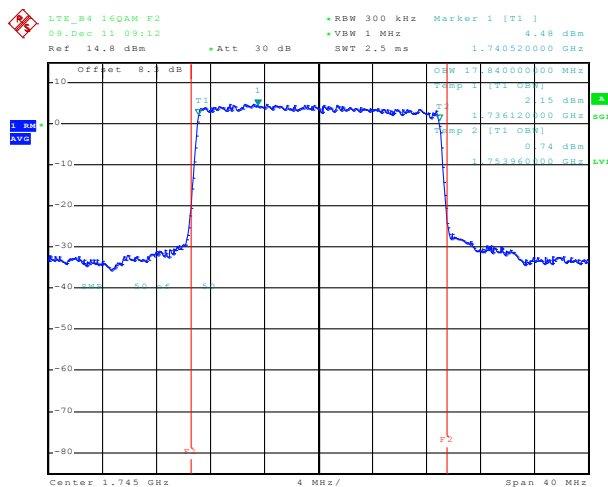
# SIERRA WIRELESS, INC.

## 5.3.6.17 LTE Occupied Bandwidth, Band4 mid channel (20175) BW=20MHz RB=100 Offset=24 16QAM 99% BW



Date: 9.DEC.2011 09:11:20

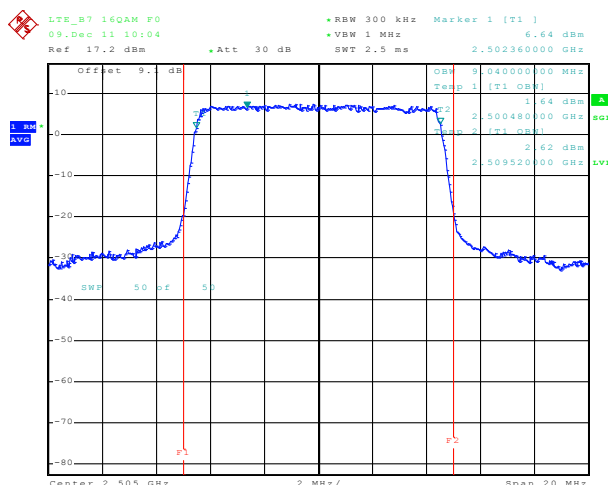
## 5.3.6.18 LTE Occupied Bandwidth, Band4 high channel (20300) BW=20MHz RB=100 Offset=0 16QAM 99% BW



Date: 9.DEC.2011 09:12:28

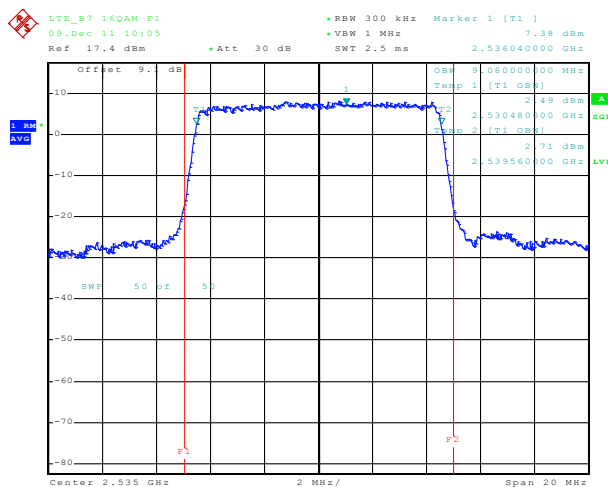
# SIERRA WIRELESS, INC.

## 5.3.6.19 LTE Occupied Bandwidth, Band7 low channel (20800) BW=10MHz, RB=50 RB Offset=0 16QAM 99% BW



Date: 9.DEC.2011 10:04:43

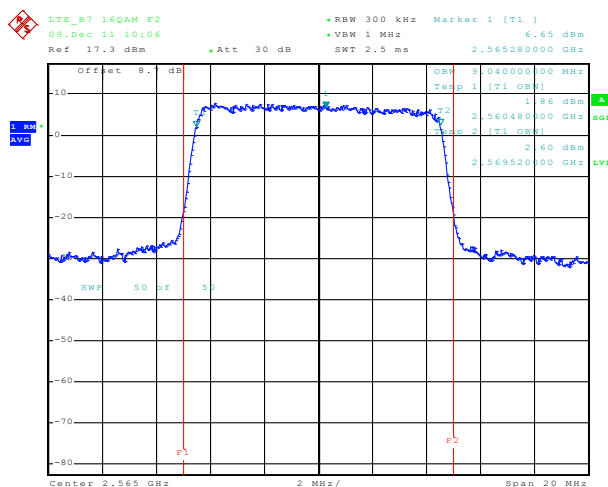
## 5.3.6.20 LTE Occupied Bandwidth, Band7 mid channel (21100) BW=10MHz, RB=50 RB Offset=0 16QAM 99% BW



Date: 9.DEC.2011 10:05:52

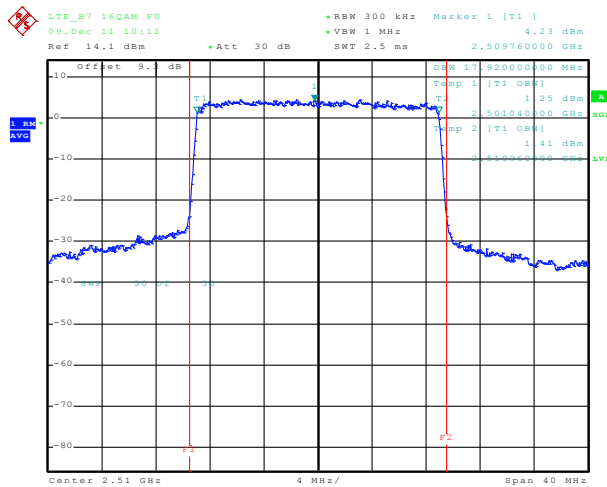
# SIERRA WIRELESS, INC.

## 5.3.6.21 LTE Occupied Bandwidth, Band7 high channel (21400) BW=10MHz RB=50 RB Offset 16QAM 99% BW



Date: 9.DEC.2011 10:06:58

## 5.3.6.22 LTE Occupied Bandwidth, Band7 low channel (20850) BW=20MHz RB=100 RB Offset=0 16QAM 99% BW



Date: 9.DEC.2011 10:11:05





## 6 Out of Band Emissions at Antenna Terminals

FCC 22.901(d), 22.917, 24.238(a), 27.53(h)(m)

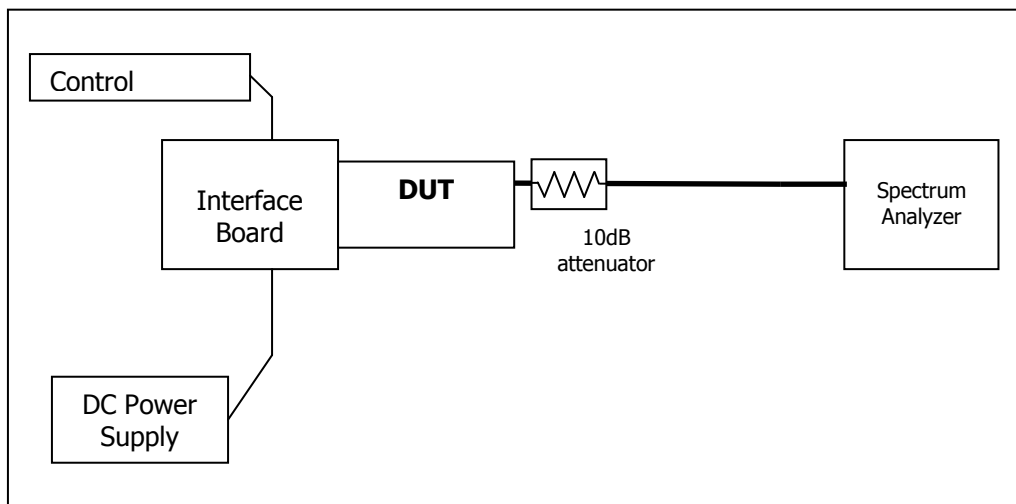
### Out of Band Emissions:

The mean power of emissions must be attenuated below the mean power of the unmodulated carrier (P) on any frequency outside the frequency band by at least  $(43 + 10 \log P)$  dB. The out of band emission limit translates to a worst case absolute limit of -13dBm in this case. For LTE Band 7 the applicable limit 5.5MHz above the band edge is -25 dBm (as per 27.53(m)).

### 6.1 Test Procedure

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band emissions, if any, up to 10<sup>th</sup> harmonic. The EUT was scanned for spurious emissions from 1MHz to 20GHz with sufficient bandwidth and video resolution. Data plots are included. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were captured.

### Test Setup



### 6.2 Test Equipment

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Control Computer	TC	Generic PC	100488	N/A
Wireless Test Set	Rohde & Schwarz	CMU200	117255	October 29, 2012
Wireless Test Set	Rohde & Schwarz	CMW500	101060	September 21, 2013
Spectrum Analyzer	Rohde & Schwarz	FSP	100060	October 31, 2012
DC Power Supply	HP	E3631A	KR94623948	N/A
Interface Board	Shop built	ATEMux	N/A	N/A
Directional	Pasternack	PE2209-10	N/A	N/A

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Coupler

### 6.3 Test Results

Refer to the following plots.

Mode			Frequency (MHz)	Channel	Corresponding Plot
GSM GPRS EDGE	GMSK	GSM850	824.2	128 (low)	Plot 6.3.1.1, Plot 6.3.1.2
			836.6	190 (mid)	Plot 6.3.1.3, Plot 6.3.1.4
			848.8	251 (high)	Plot 6.3.1.5, Plot 6.3.1.6
		GSM1900	1850.2	512 (low)	Plot 6.3.1.13, Plot 6.3.1.14
			1880	661 (mid)	Plot 6.3.1.15, Plot 6.3.1.16
			1909.8	810 (high)	Plot 6.3.1.17, Plot 6.3.1.18
	8PSK	GSM850	824.2	128 (low)	Plot 6.3.1.7, Plot 6.3.1.8
			836.6	190 (mid)	Plot 6.3.1.9, Plot 6.3.1.10
			848.8	251 (high)	Plot 6.3.1.11, Plot 6.3.1.12
		GSM1900	1850.2	512 (low)	Plot 6.3.1.19, Plot 6.3.1.20
			1880	661 (mid)	Plot 6.3.1.21, Plot 6.3.1.22
			1909.8	810 (high)	Plot 6.3.1.23, Plot 6.3.1.24

Mode		Frequency (MHz)	Channel	Corresponding Plot number
WCDMA Rel99	B5	826.4	4132	Plot 6.3.2.1, Plot 6.3.2.2
		836.4	4182	Plot 6.3.2.3, Plot 6.3.2.4
		846.6	4233	Plot 6.3.2.5, Plot 6.3.2.6
	B2	1852.4	9262	Plot 6.3.2.7, Plot 6.3.2.9
		1880.0	9400	Plot 6.3.2.10, Plot 6.3.2.12
		1907.5	9538	Plot 6.3.2.13, Plot 6.3.2.15

Note: No HSDPA or HSUPA measurements were performed because the modulation is the same as WCDMA (i.e. QPSK) and HSDPA/HSUPA maximum power is lower than WCDMA maximum power.

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Mode	Band	BW (MHz)	No. RB	RB Offset	Frequency (MHz)	Channel	Corresponding Plot number	
LTE	QPSK	B4	10	0	1715	20000	6.3.3.1 – 6.3.3.3	
					1732.5	20175	6.3.3.10 – 6.3.3.12	
					1750	20350	6.3.3.19 – 6.3.3.21	
				25	1715	20000	6.3.3.4 – 6.3.3.6	
					1732.5	20175	6.3.3.13 – 6.3.3.15	
					1750	20350	6.3.3.22 – 6.3.3.24	
				49	1715	20000	6.3.3.7 – 6.3.3.9	
					1732.5	20175	6.3.3.16 – 6.3.3.18	
					1750	20350	6.3.3.25 – 6.3.3.27	
			50	0	1715	20000	6.3.3.55 – 6.3.3.57	
					1732.5	20175	6.3.3.58 – 6.3.3.60	
					1750	20350	6.3.3.61 – 6.3.3.63	
			20	1	0	1720	20050	6.3.3.73 – 6.3.3.75
						1732.5	20175	6.3.3.82 – 6.3.3.84
						1745	20300	6.3.3.91 – 6.3.3.93
					50	1720	20050	6.3.3.76 – 6.3.3.78
						1732.5	20175	6.3.3.85 – 6.3.3.87
						1745	20300	6.3.3.94 – 6.3.3.96
		99		1720	20050	6.3.3.79 – 6.3.3.81		
				1732.5	20175	6.3.3.88 – 6.3.3.90		
				1745	20300	6.3.3.97 – 6.3.3.99		
		100		0	1720	20050	6.3.3.127 – 6.3.3.129	
					1732.5	20175	6.3.3.130 – 6.3.3.132	
					1745	20300	6.3.3.133 – 6.3.3.135	
		B7		10	0	2510	20800	6.3.3.145 – 6.3.3.148
						2535	21100	6.3.3.157 – 6.3.3.160
						2560	21400	6.3.3.169 – 6.3.3.172
			25		2510	20800	6.3.3.149 – 6.3.3.152	
					2535	21100	6.3.3.161 – 6.3.3.164	
					2560	21400	6.3.3.173 – 6.3.3.176	
			49		2510	20800	6.3.3.153 – 6.3.3.156	
					2535	21100	6.3.3.165 – 6.3.3.168	
					2560	21400	6.3.3.177 – 6.3.3.180	
			50	0	2510	20800	6.3.3.217 – 6.3.3.220	
					2535	21100	6.3.3.221 – 6.3.3.224	
					2560	21400	6.3.3.225 – 6.3.3.228	
20	1		0	2515	20850	6.3.3.241 – 6.3.3.244		
				2535	21100	6.3.3.245 – 6.3.3.248		
				2555	21350	6.3.3.249 – 6.3.3.252		
	50		2515	20850	6.3.3.253 – 6.3.3.256			
			2535	21100	6.3.3.257 – 6.3.3.260			

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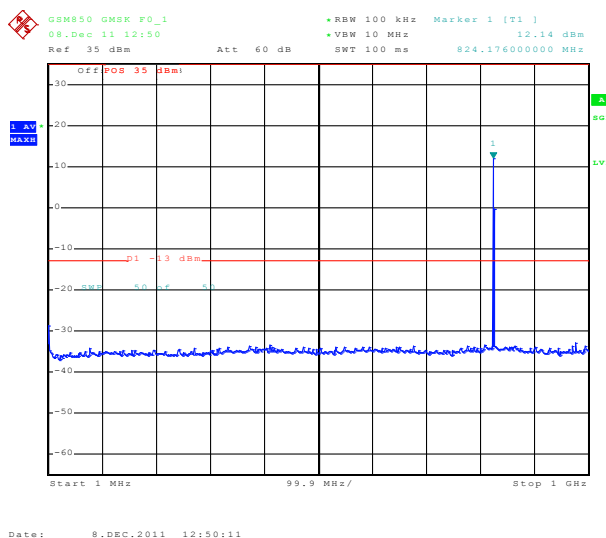
16-QAM	B4	10	99		2555	21350	6.3.3.261 – 6.3.3.264		
					2515	20850	6.3.3.265 – 6.3.3.268		
					2535	21100	6.3.3.269 – 6.3.3.272		
				2555	21350	6.3.3.273 – 6.3.3.276			
			100	0		2515	20850	6.3.3.309 – 6.3.3.312	
						2535	21100	6.3.3.313 – 6.3.3.316	
						2555	21350	6.3.3.317 – 6.3.3.320	
			20	1	0		1715	20000	6.3.3.28 – 6.3.3.30
							1732.5	20175	6.3.3.37 – 6.3.3.39
						1750	20350	6.3.3.46 – 6.3.3.48	
		25				1715	20000	6.3.3.31 – 6.3.3.33	
						1732.5	20175	6.3.3.40 – 6.3.3.42	
						1750	20350	6.3.3.49 – 6.3.3.51	
		49				1715	20000	6.3.3.34 – 6.3.3.36	
						1732.5	20175	6.3.3.43 – 6.3.3.45	
					1750	20350	6.3.3.52 – 6.3.3.54		
	50	0			1715	20000	6.3.3.64 – 6.3.3.66		
					1732.5	20175	6.3.3.67 – 6.3.3.69		
					1750	20350	6.3.3.70 – 6.3.3.72		
	1	0			1720	20050	6.3.3.100 – 6.3.3.102		
					1732.5	20175	6.3.3.109 – 6.3.3.111		
					1745	20300	6.3.3.118 – 6.3.3.120		
		50		1720	20050	6.3.3.103 – 6.3.3.105			
				1732.5	20175	6.3.3.112 – 6.3.3.114			
				1745	20300	6.3.3.121 – 6.3.3.123			
		99		1720	20050	6.3.3.106 – 6.3.3.108			
				1732.5	20175	6.3.3.115 – 6.3.3.117			
				1745	20300	6.3.3.124 – 6.3.3.126			
	100	0		1720	20050	6.3.3.136 – 6.3.3.138			
				1732.5	20175	6.3.3.139 – 6.3.3.141			
				1745	20300	6.3.3.142 – 6.3.3.144			
	B7	10	1	0		2510	20800	6.3.3.181 – 6.3.3.184	
						2535	21100	6.3.3.193 – 6.3.3.196	
					2560	21400	6.3.3.205 – 6.3.3.208		
25					2510	20800	6.3.3.185 – 6.3.3.188		
					2535	21100	6.3.3.197 – 6.3.3.200		
					2560	21400	6.3.3.209 – 6.3.3.212		
49				2510	20800	6.3.3.189 – 6.3.3.192			
				2535	21100	6.3.3.201 – 6.3.3.204			
				2560	21400	6.3.3.213 – 6.3.3.216			
50			0		2510	20800	6.3.3.229 – 6.3.3.232		
					2535	21100	6.3.3.233 – 6.3.3.236		
					2560	21400	6.3.3.237 – 6.3.3.240		
				20	1	0	2515	20850	6.3.3.277 – 6.3.3.280

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						2535	21100	6.3.3.281 – 6.3.3.284
						2555	21350	6.3.3.285 – 6.3.3.288
						2515	20850	6.3.3.289 – 6.3.3.292
					50	2535	21100	6.3.3.293 – 6.3.3.296
						2555	21350	6.3.3.297 – 6.3.3.300
						2515	20850	6.3.3.301 – 6.3.3.304
				99	2535	21100	6.3.3.305 – 6.3.3.308	
					2555	21350	6.3.3.309 – 6.3.3.312	
					2515	20850	6.3.3.321 – 6.3.3.324	
				100	0	2535	21100	6.3.3.325 – 6.3.3.328
						2555	21350	6.3.3.329 – 6.3.3.332
						2515	20850	6.3.3.321 – 6.3.3.324

## 6.3.1 GSM Test Plots

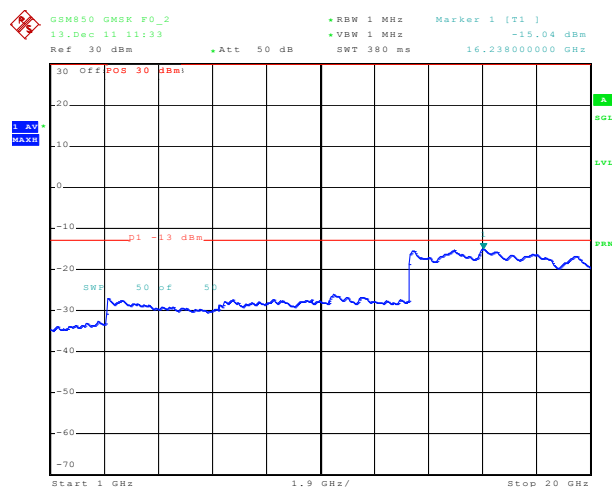
### 6.3.1.1 Out of Band Emissions at Antenna Terminals GMSK, Low channel, 824.200 MHz, 1 MHz to 1 GHz



Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

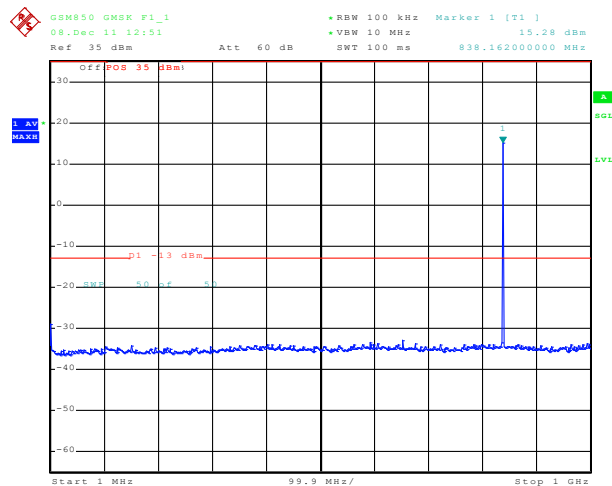
## 6.3.1.2 Out of Band Emissions at Antenna Terminals GMSK, Low channel, 824.200 MHz, 1 GHz to 20 GHz



Date: 13.DEC.2011 11:33:25

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

## 6.3.1.3 Out of Band Emissions at Antenna Terminals GMSK, Mid Channel, 836.6 MHz, 1 MHz to 1 GHz

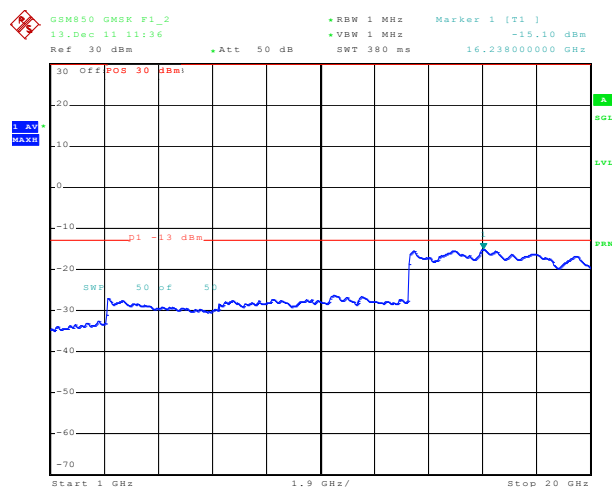


Date: 8.DEC.2011 12:51:59

Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

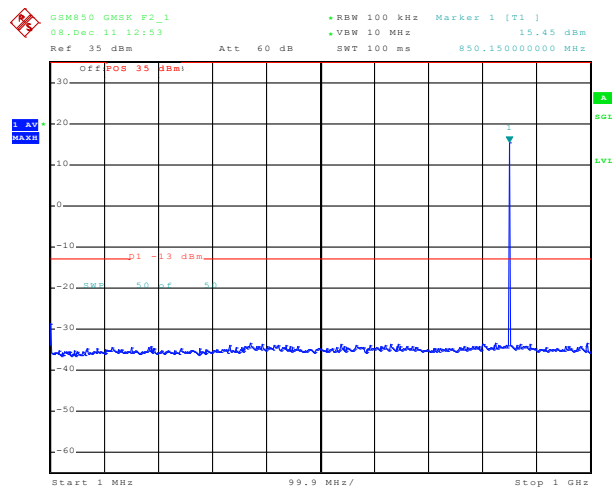
## 6.3.1.4 Out of Band Emissions at Antenna Terminals GMSK, Mid Channel, 836.6 MHz, 1 GHz to 20 GHz



Date: 13.DEC.2011 11:36:09

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

## 6.3.1.5 Out of Band Emissions at Antenna Terminals GMSK, High Channel, 848.8 MHz, 1 MHz to 1 GHz



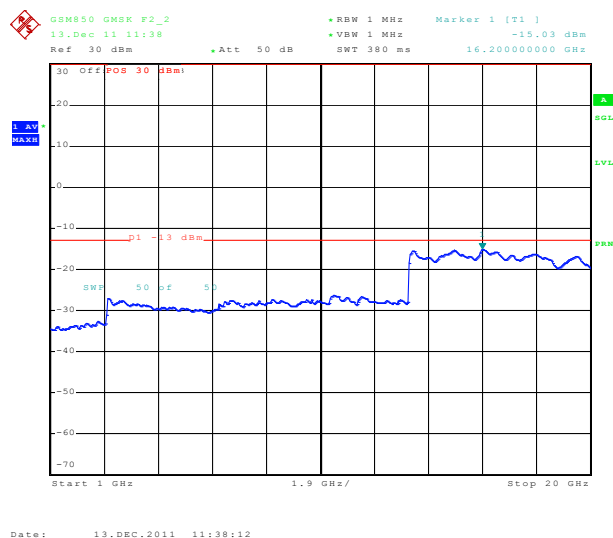
Date: 8.DEC.2011 12:53:45

Note: The strong emission shown in each case is the carrier signal.

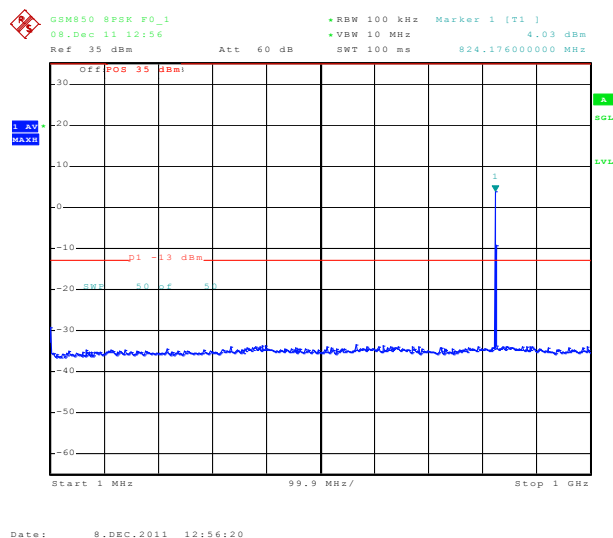


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## 6.3.1.6 Out of Band Emissions at Antenna Terminals GMSK, High Channel, 848.8 MHz, 1 GHz to 20 GHz



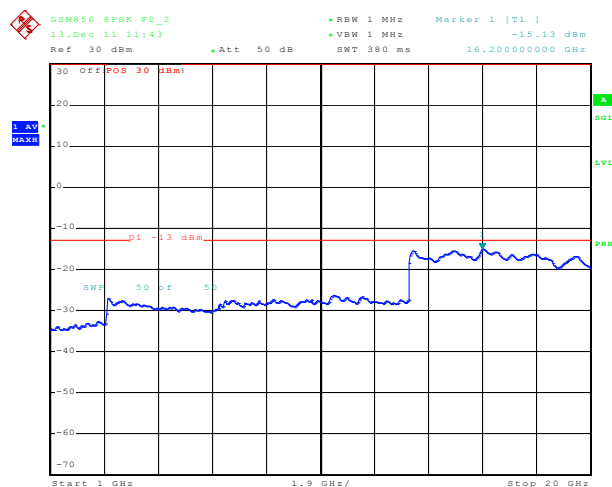
## 6.3.1.7 Out of Band Emissions at Antenna Terminals 8-PSK, Low channel, 824.200 MHz, 1 MHz to 1 GHz



Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

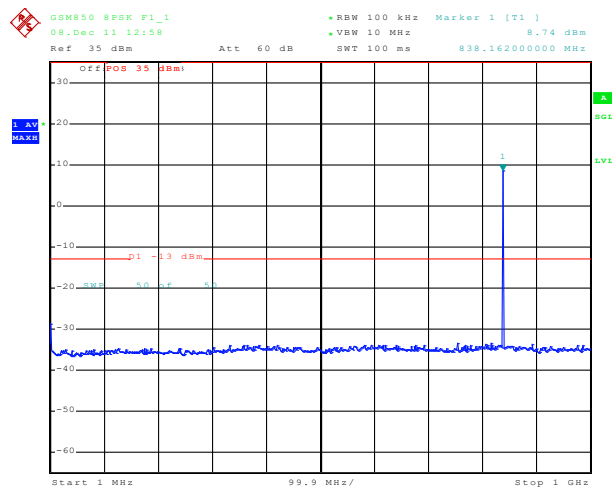
## 6.3.1.8 Out of Band Emissions at Antenna Terminals 8-PSK, Low channel, 824.200 MHz, 1 GHz to 20 GHz



Date: 13.DEC.2011 11:43:58

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

## 6.3.1.9 Out of Band Emissions at Antenna Terminals 8-PSK, Mid Channel, 836.6 MHz, 1 MHz to 1 GHz

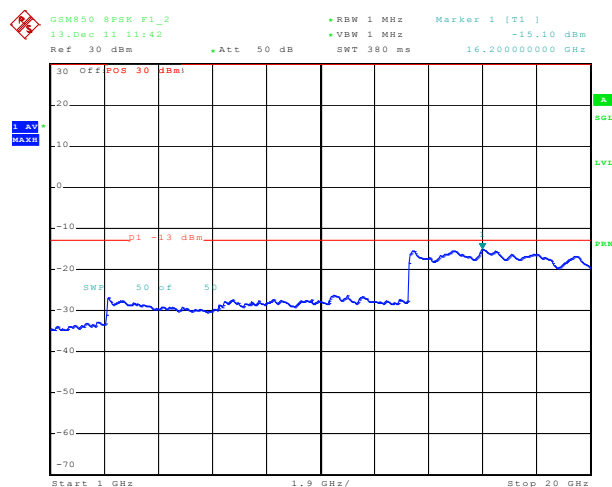


Date: 8.DEC.2011 12:58:08

Note: The strong emission shown in each case is the carrier signal.

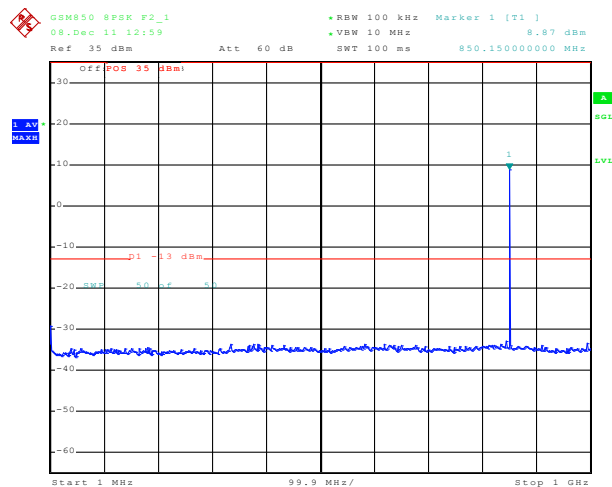
# SIERRA WIRELESS, INC.

## 6.3.1.10 Out of Band Emissions at Antenna Terminals 8-PSK, Mid Channel, 836.6 MHz, 1 GHz to 20 GHz



Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

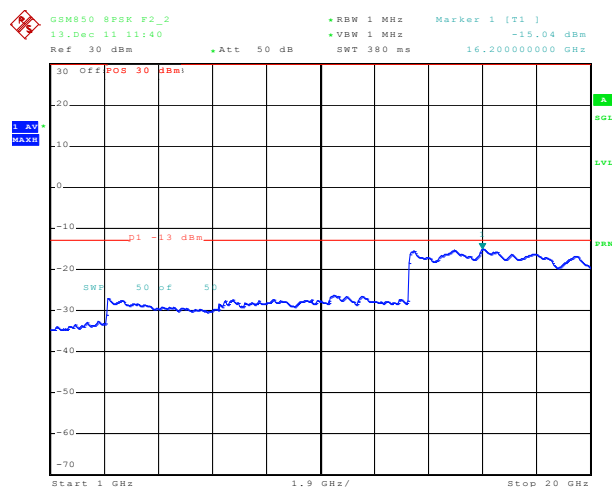
## 6.3.1.11 Out of Band Emissions at Antenna Terminals 8-PSK, High Channel, 848.8 MHz, 1 MHz to 1 GHz



Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

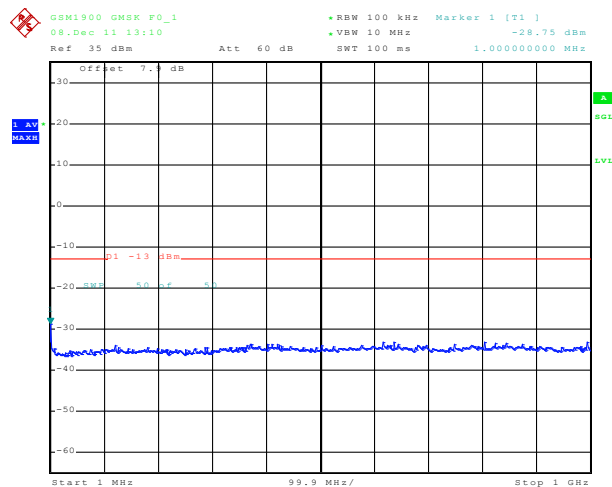
## 6.3.1.12 Out of Band Emissions at Antenna Terminals 8-PSK, High Channel, 848.8 MHz, 1 GHz to 20 GHz



Date: 13.DEC.2011 11:40:08

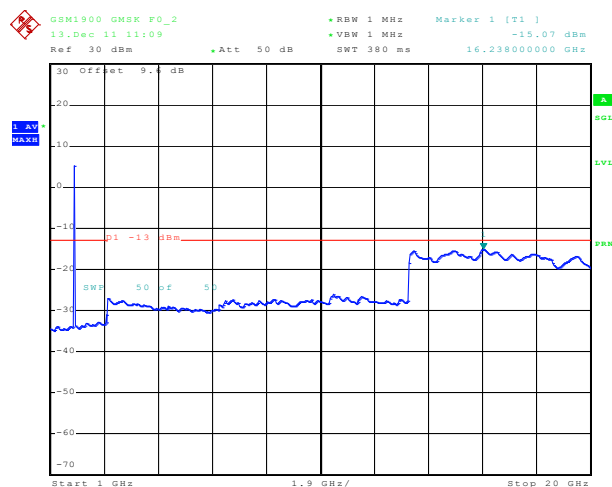
Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

## 6.3.1.13 Out of Band Emissions at Antenna Terminals GMSK, Low channel, 1850.2 MHz, 1 MHz to 1 GHz



Date: 8.DEC.2011 13:10:27

6.3.1.14 Out of Band Emissions at Antenna Terminals GMSK, Low channel, 1850.2 MHz, 1 GHz to 20 GHz

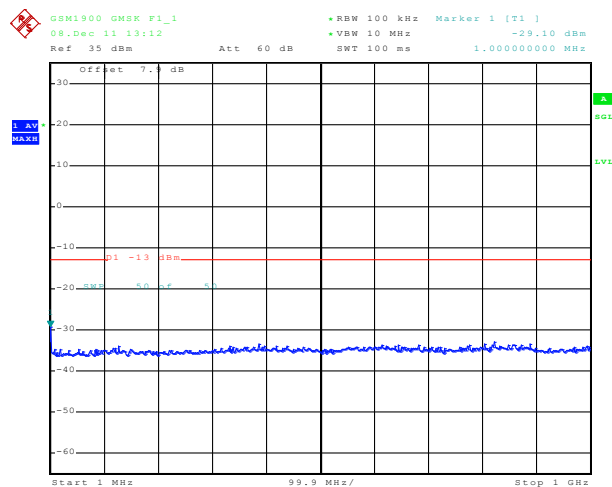


Date: 13.DEC.2011 11:09:55

Note: The strong emission shown is the carrier signal.

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

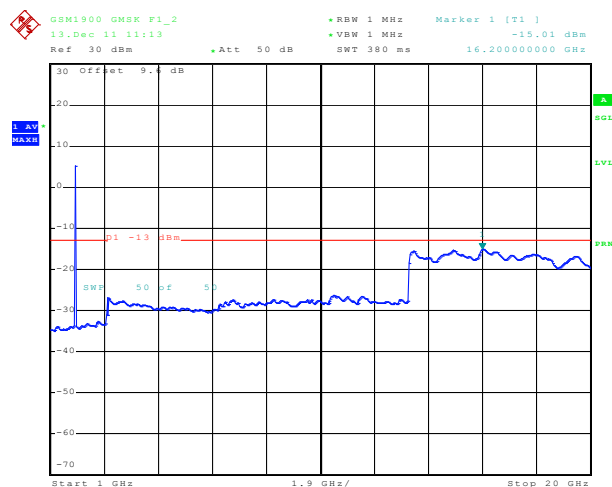
6.3.1.15 Out of Band Emissions at Antenna Terminals GMSK, Middle channel, 1880.0 MHz, 1 MHz to 1 GHz



Date: 8.DEC.2011 13:12:14

# SIERRA WIRELESS, INC.

## 6.3.1.16 Out of Band Emissions at Antenna Terminals GMSK, Middle channel, 1880.0 MHz, 1 GHz to 20 GHz

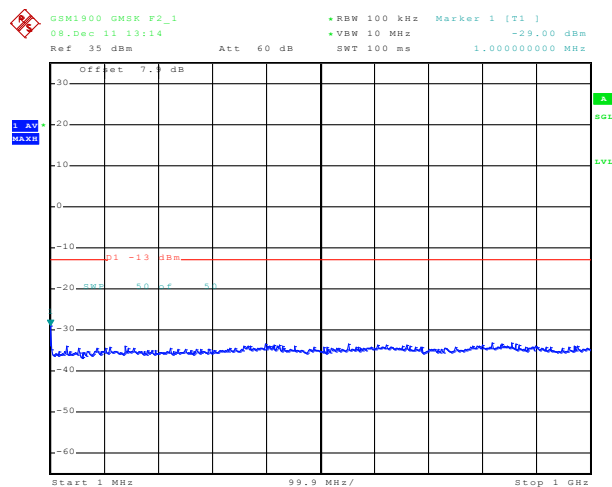


Date: 13.DEC.2011 11:13:10

Note: The strong emission shown is the carrier signal.

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

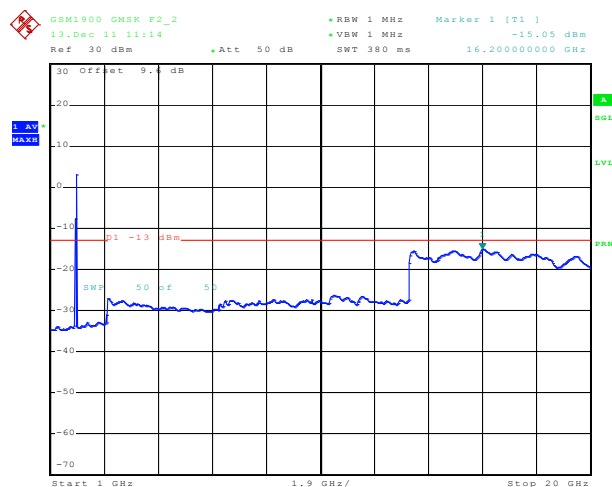
## 6.3.1.17 Out of Band Emissions at Antenna Terminals GMSK, High channel, 1909.8 MHz, 1 MHz to 1 GHz



Date: 8.DEC.2011 13:14:01

# SIERRA WIRELESS, INC.

## 6.3.1.18 Out of Band Emissions at Antenna Terminals GMSK, High channel, 1909.8 MHz, 1 GHz to 20 GHz

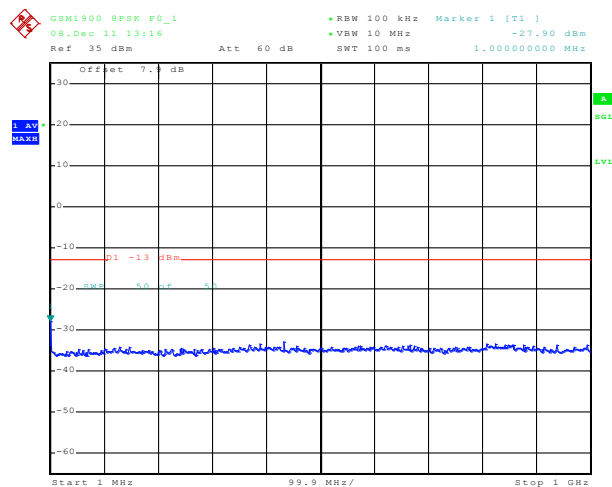


Date: 13.DEC.2011 11:14:36

Note: The strong emission shown is the carrier signal.

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

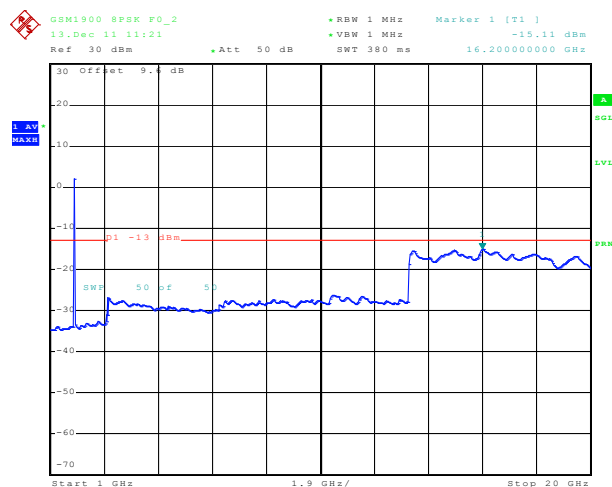
## 6.3.1.19 Out of Band Emissions at Antenna Terminals 8-PSK, Low channel, 1850.2 MHz, 1 MHz to 1 GHz



Date: 8.DEC.2011 13:16:37

# SIERRA WIRELESS, INC.

## 6.3.1.20 Out of Band Emissions at Antenna Terminals 8-PSK, Low channel, 1850.2 MHz, 1 GHz to 20 GHz

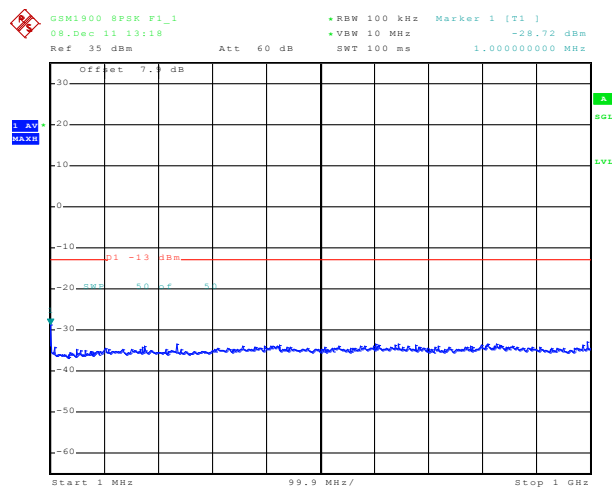


Date: 13.DEC.2011 11:21:04

Note: The strong emission shown is the carrier signal.

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

## 6.3.1.21 Out of Band Emissions at Antenna Terminals 8-PSK, Middle channel, 1880.0 MHz, 1 MHz to 1 GHz



Date: 8.DEC.2011 13:18:24

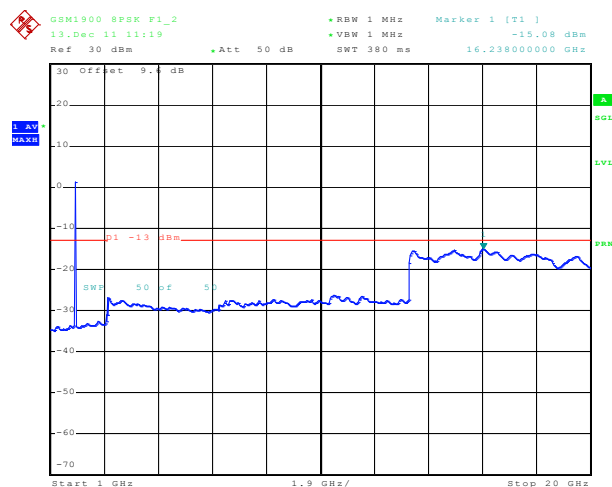
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# SIERRA WIRELESS, INC.

## 6.3.1.22 Out of Band Emissions at Antenna Terminals 8-PSK, Middle channel, 1880.0 MHz, 1 GHz to 20 GHz

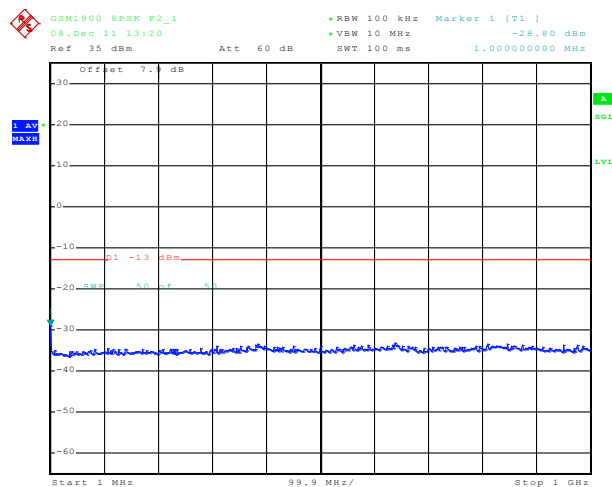


Date: 13.DEC.2011 11:19:30

Note: The strong emission shown is the carrier signal.

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

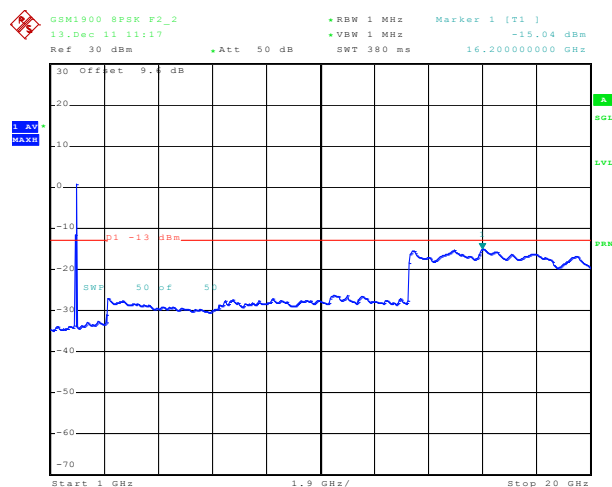
## 6.3.1.23 Out of Band Emissions at Antenna Terminals 8-PSK, High channel, 1909.8 MHz, 1 MHz to 1 GHz



Date: 8.DEC.2011 13:20:12

# SIERRA WIRELESS, INC.

## 6.3.1.24 Out of Band Emissions at Antenna Terminals 8-PSK, High channel, 1909.8 MHz, 1 GHz to 20 GHz



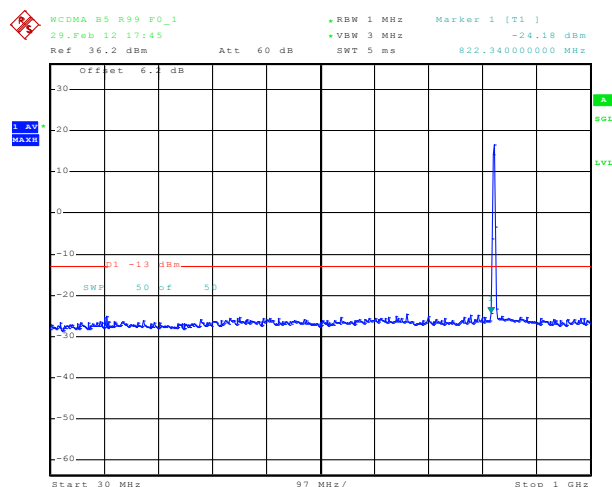
Date: 13.DEC.2011 11:17:29

Note: The strong emission shown is the carrier signal.

Note: The range of 13 to 20GHz was scanned manually and no emission was found higher than -30dBm (noise floor).

## 6.3.2 WCDMA Test Plots

### 6.3.2.1 Out of Band Emissions at Antenna Terminals WCDMA, Low channel, 826.4 MHz, 30 MHz to 1 GHz



Date: 29.FEB.2012 17:45:00

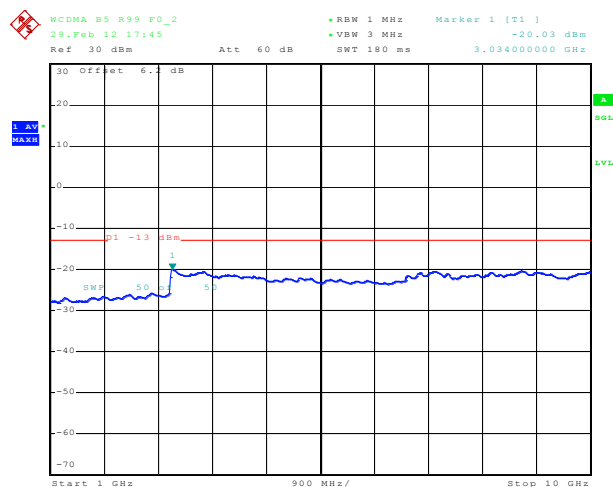
Note: The strong emission shown in each case is the carrier signal.

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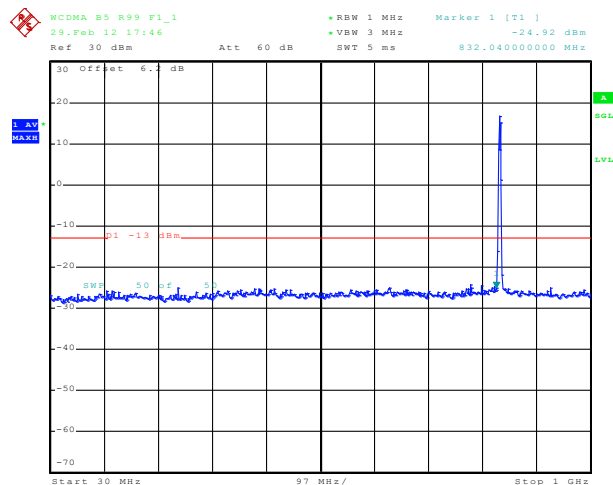
# SIERRA WIRELESS, INC.

## 6.3.2.2 Out of Band Emissions at Antenna Terminals WCDMA, Low channel, 826.4 MHz, 1 GHz to 10 GHz



Date: 29.FEB.2012 17:45:49

## 6.3.2.3 Out of Band Emissions at Antenna Terminals WCDMA, Middle channel, 836.4 MHz, 30 MHz to 1 GHz

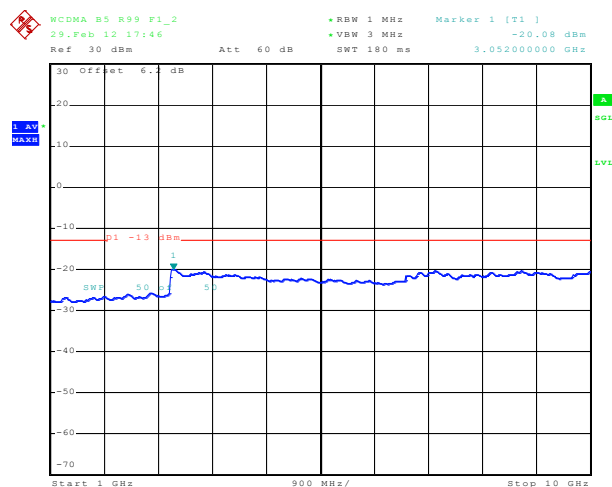


Date: 29.FEB.2012 17:46:04

Note: The strong emission shown in each case is the carrier signal.

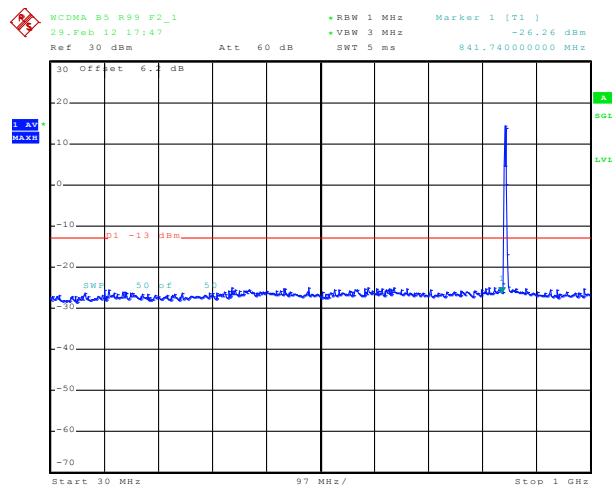
# SIERRA WIRELESS, INC.

## 6.3.2.4 Out of Band Emissions at Antenna Terminals WCDMA, Middle channel, 836.4 MHz, 1 GHz to 10 GHz



Date: 29.FEB.2012 17:46:53

## 6.3.2.5 Out of Band Emissions at Antenna Terminals WCDMA, High Channel, 846.6 MHz, 30 MHz to 1 GHz

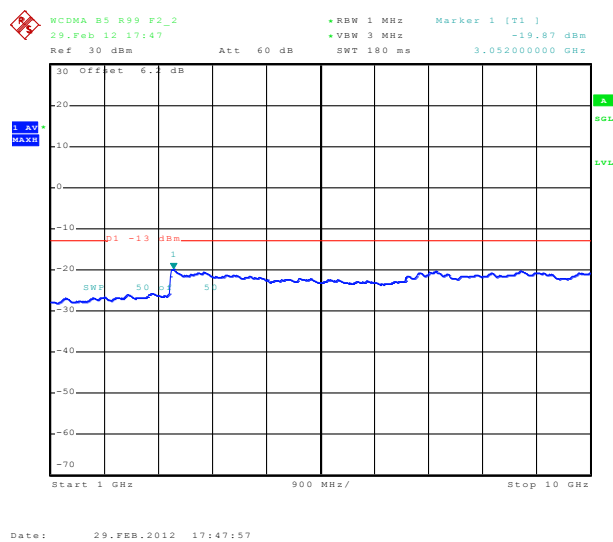


Date: 29.FEB.2012 17:47:09

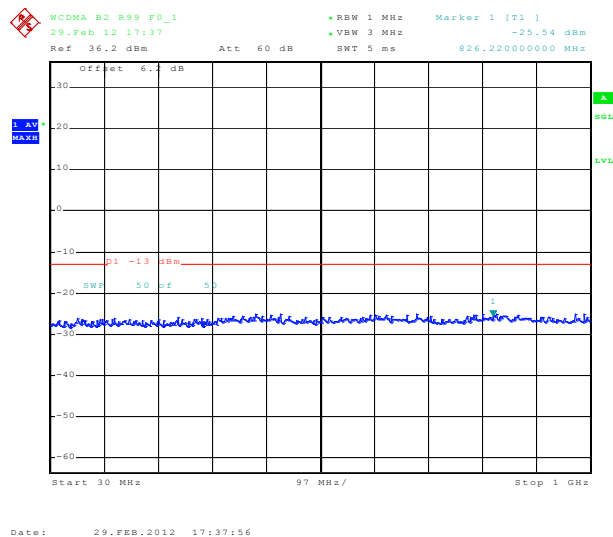
Note: The strong emission shown in each case is the carrier signal.

## 6.3.2.6 Out of Band Emissions at Antenna Terminals WCDMA, High Channel, 846.6 MHz, 1 GHz to 10 GHz

# SIERRA WIRELESS, INC.

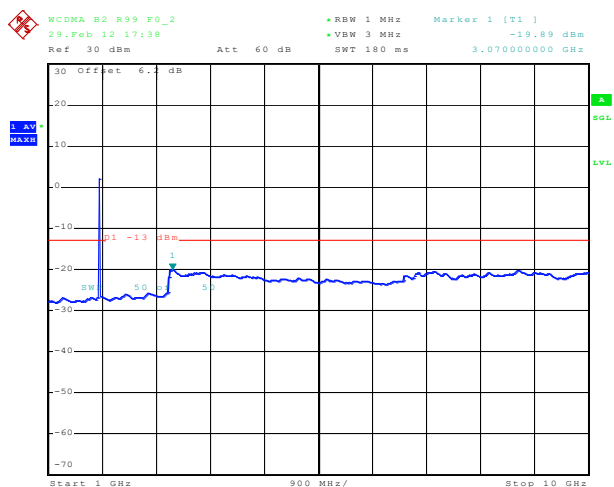


## 6.3.2.7 Out of Band Emissions at Antenna Terminals WCDMA, Low channel, 1852.4 MHz, 30 MHz to 1 GHz



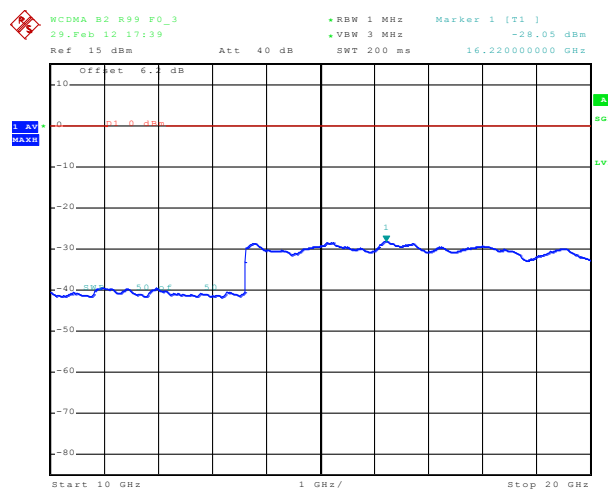
# SIERRA WIRELESS, INC.

## 6.3.2.8 Out of Band Emissions at Antenna Terminals WCDMA, Low channel, 1852.4 MHz, 1 GHz to 10 GHz



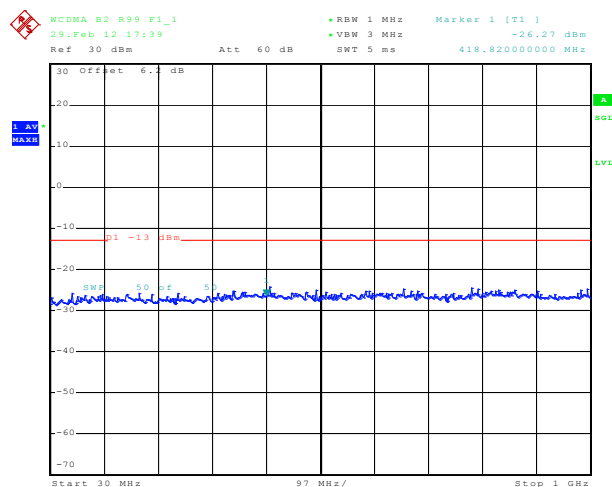
Note: The strong emission shown is the carrier signal.

## 6.3.2.9 Out of Band Emissions at Antenna Terminals WCDMA, Low channel, 1852.4 MHz, 10 GHz to 20 GHz



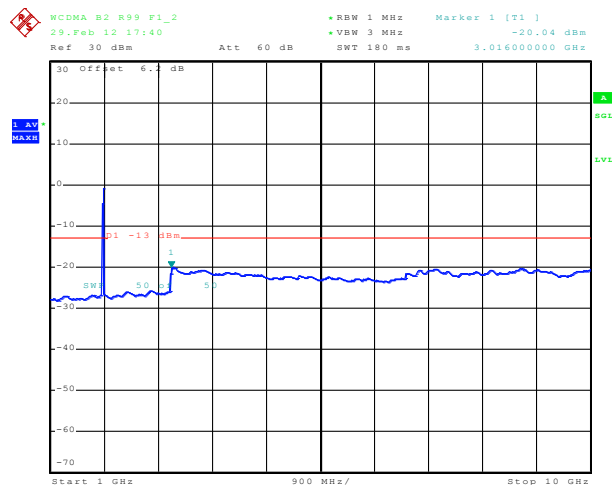
# SIERRA WIRELESS, INC.

## 6.3.2.10 Out of Band Emissions at Antenna Terminals WCDMA, Middle channel, 1880 MHz, 30 MHz to 1 GHz



Date: 29.FEB.2012 17:39:34

## 6.3.2.11 Out of Band Emissions at Antenna Terminals WCDMA, Middle channel, 1880 MHz, 1 GHz to 10 GHz

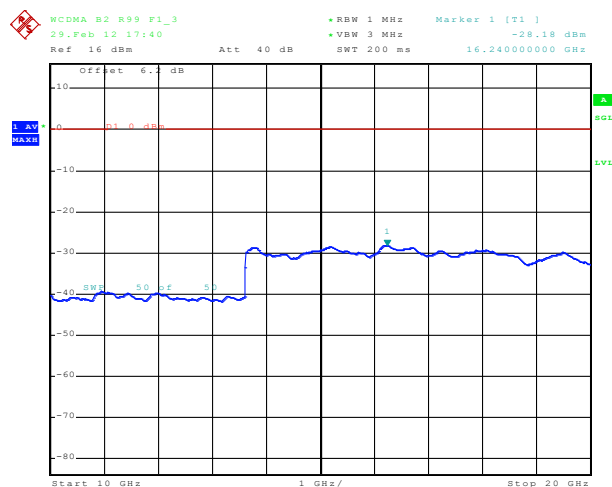


Date: 29.FEB.2012 17:40:23

Note: The strong emission shown is the carrier signal.

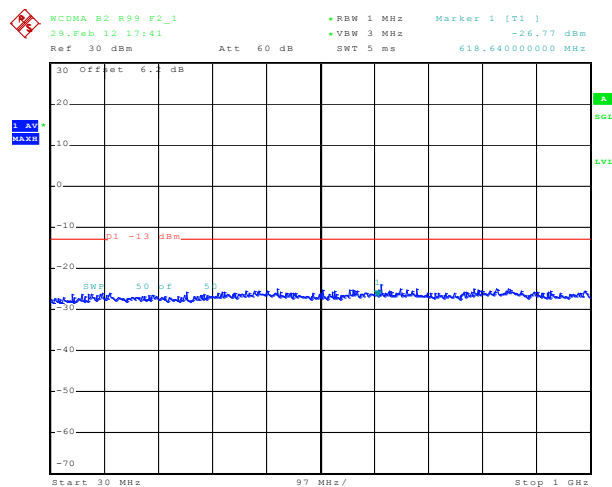
# SIERRA WIRELESS, INC.

## 6.3.2.12 Out of Band Emissions at Antenna Terminals WCDMA, Middle channel, 1880 MHz, 10 GHz to 20 GHz



Date: 29.FEB.2012 17:40:57

## 6.3.2.13 Out of Band Emissions at Antenna Terminals WCDMA, High channel, 1907.6 MHz, 30 MHz to 1 GHz

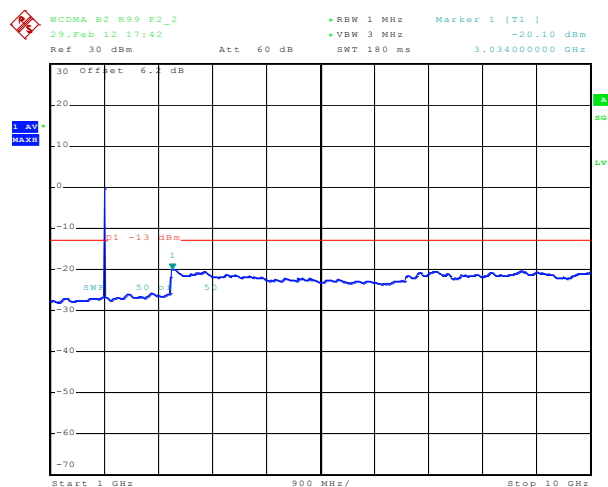


Date: 29.FEB.2012 17:41:13



# SIERRA WIRELESS, INC.

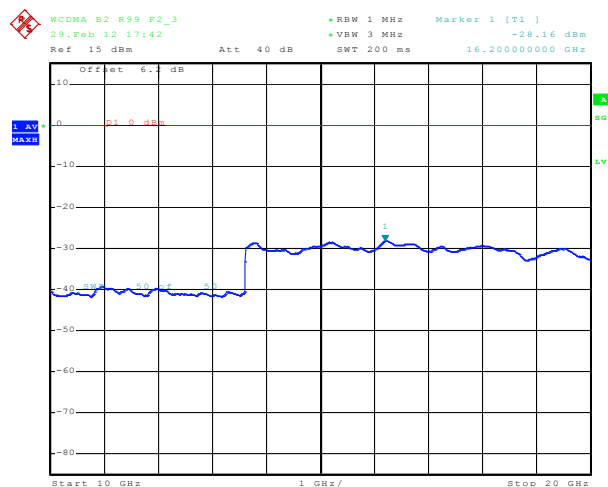
## 6.3.2.14 Out of Band Emissions at Antenna Terminals WCDMA, High channel, 1907.6 MHz, 1 GHz to 10 GHz



Date: 29.FEB.2012 17:42:01

Note: The strong emission shown is the carrier signal.

## 6.3.2.15 Out of Band Emissions at Antenna Terminals WCDMA, High channel, 1907.6 MHz, 10 GHz to 20 GHz



Date: 29.FEB.2012 17:42:35

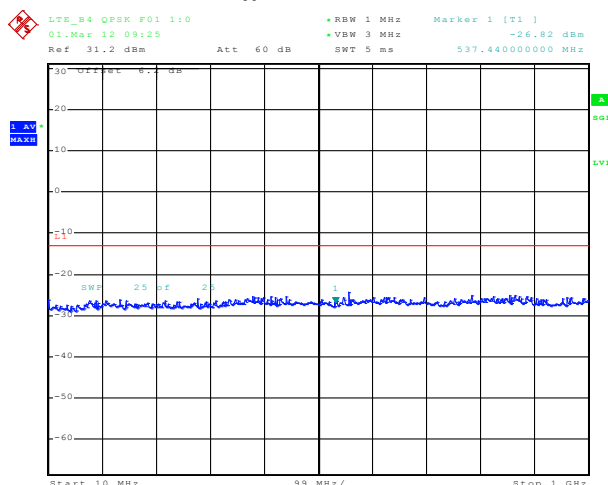
## 6.3.3 LTE Test Plots

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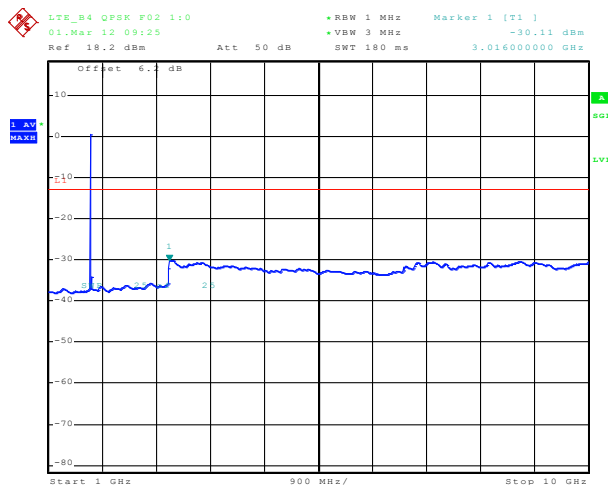
# SIERRA WIRELESS, INC.

## 6.3.3.1 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 30MHz to 1 GHz



Date: 1.MAR.2012 09:25:29

## 6.3.3.2 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 1GHz to 10 GHz

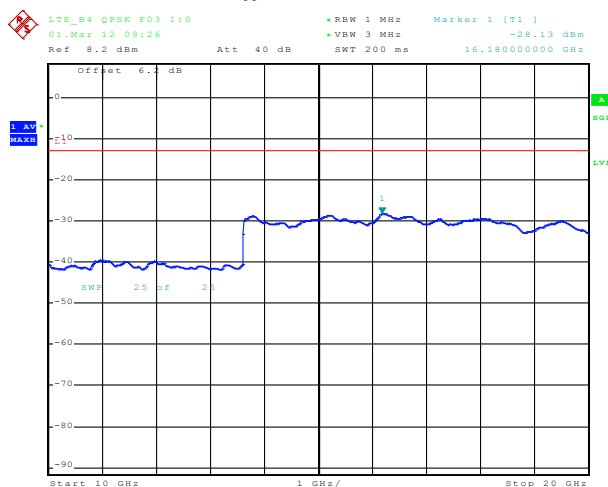


Date: 1.MAR.2012 09:25:58

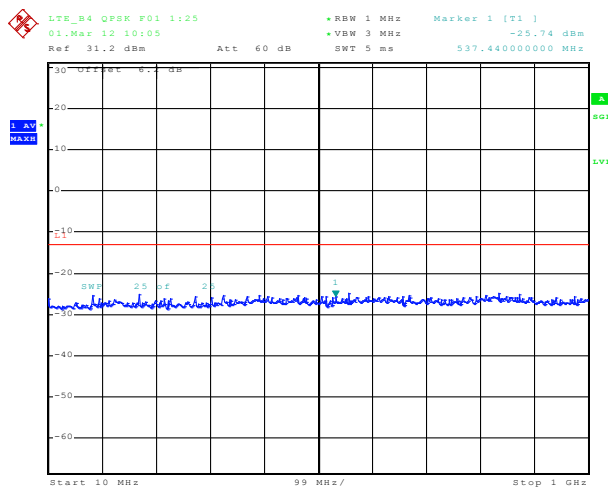
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

### 6.3.3.3 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 10 GHz to 20 GHz

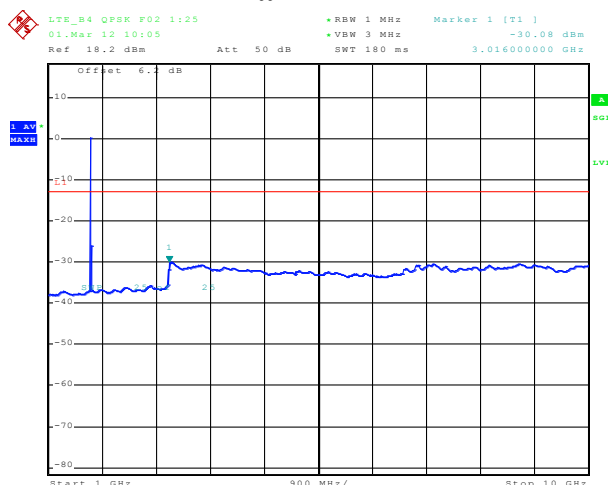


### 6.3.3.4 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 30MHz to 1 GHz



# SIERRA WIRELESS, INC.

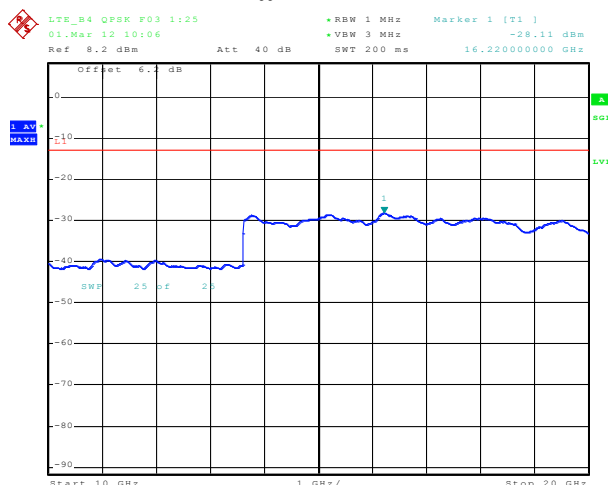
## 6.3.3.5 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 1GHz to 10 GHz



Date: 1.MAR.2012 10:05:51

Note: The strong emission shown in each case is the carrier signal.

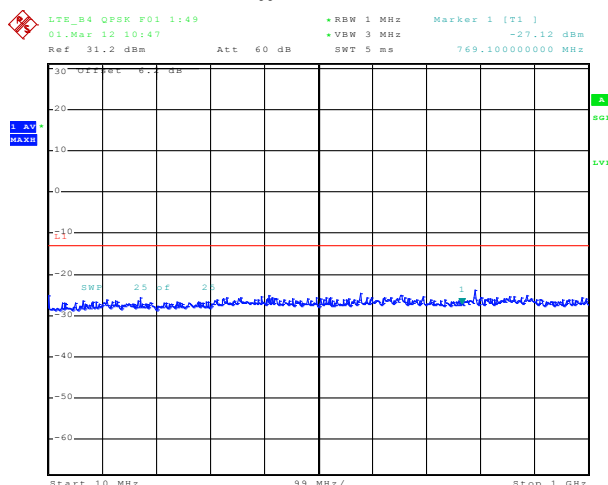
## 6.3.3.6 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 10:06:13

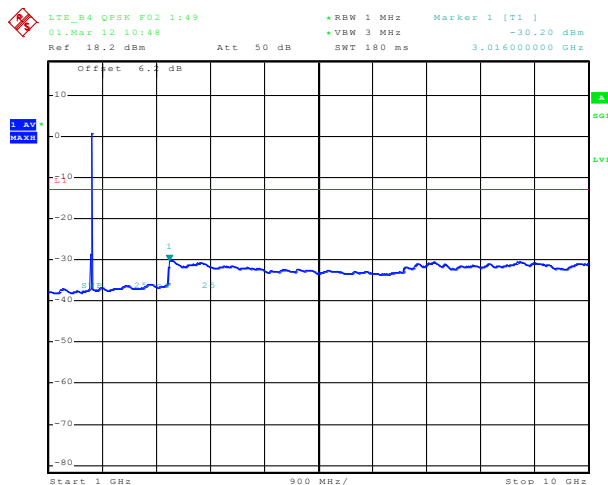
# SIERRA WIRELESS, INC.

## 6.3.3.7 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 30MHz to 1 GHz



Date: 1.MAR.2012 10:47:36

## 6.3.3.8 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 1GHz to 10 GHz

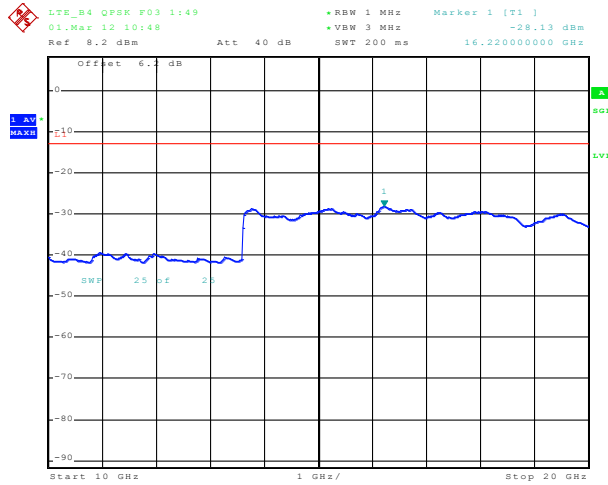


Date: 1.MAR.2012 10:48:05

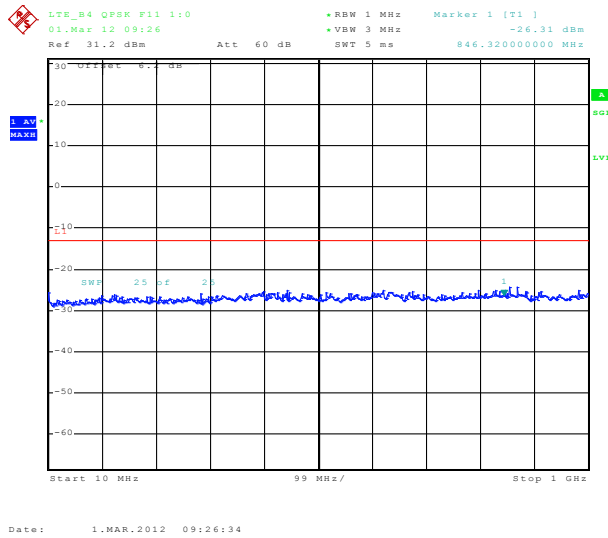
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.9 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 10 GHz to 20 GHz

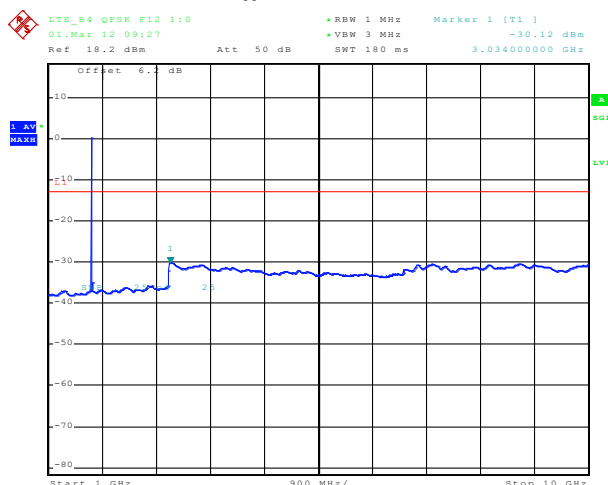


## 6.3.3.10 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 30MHz to 1 GHz



# SIERRA WIRELESS, INC.

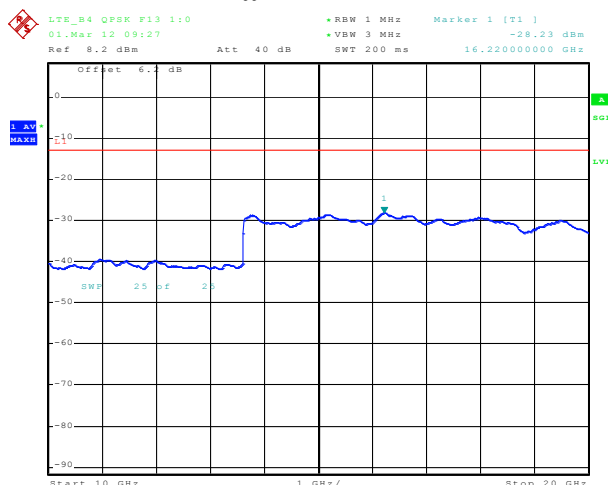
## 6.3.3.11 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 1GHz to 10 GHz



Date: 1.MAR.2012 09:27:04

Note: The strong emission shown in each case is the carrier signal.

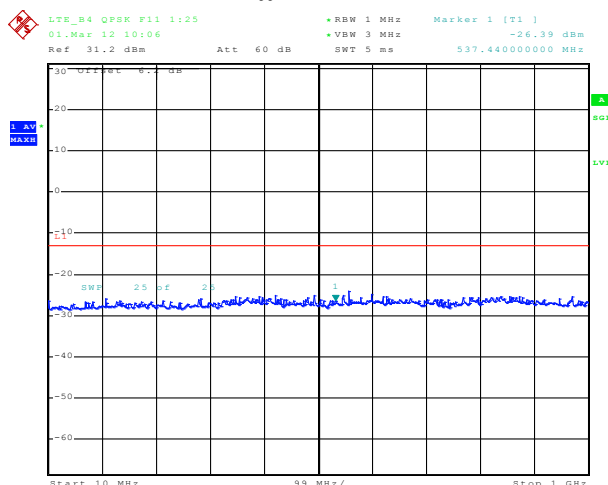
## 6.3.3.12 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 09:27:26

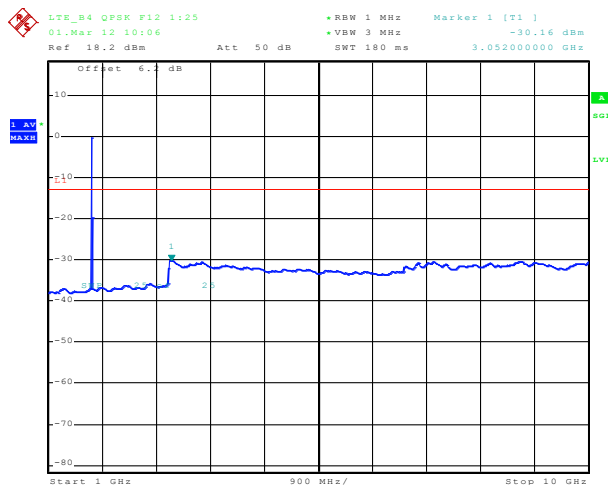
# SIERRA WIRELESS, INC.

### 6.3.3.13 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 30MHz to 1 GHz



Date: 1.MAR.2012 10:06:27

### 6.3.3.14 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 1GHz to 10 GHz



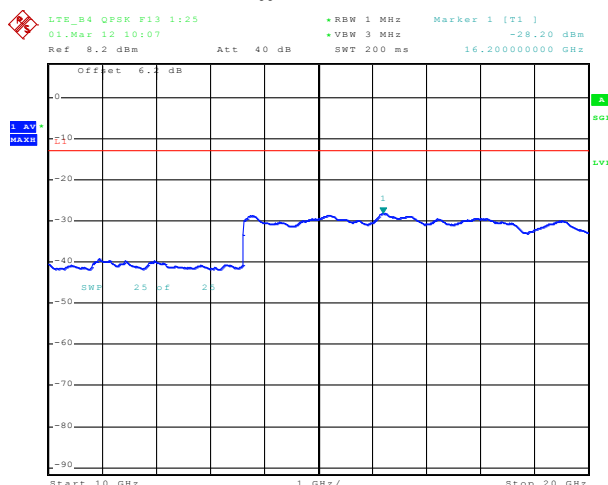
Date: 1.MAR.2012 10:06:56

Note: The strong emission shown in each case is the carrier signal.

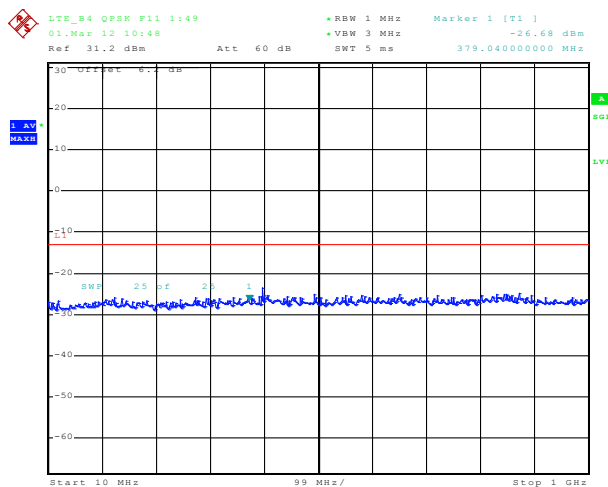


# SIERRA WIRELESS, INC.

## 6.3.3.15 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 10 GHz to 20 GHz

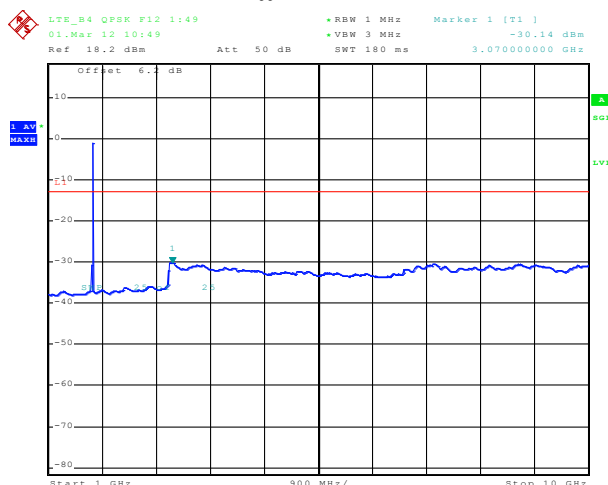


## 6.3.3.16 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 30MHz to 1 GHz



# SIERRA WIRELESS, INC.

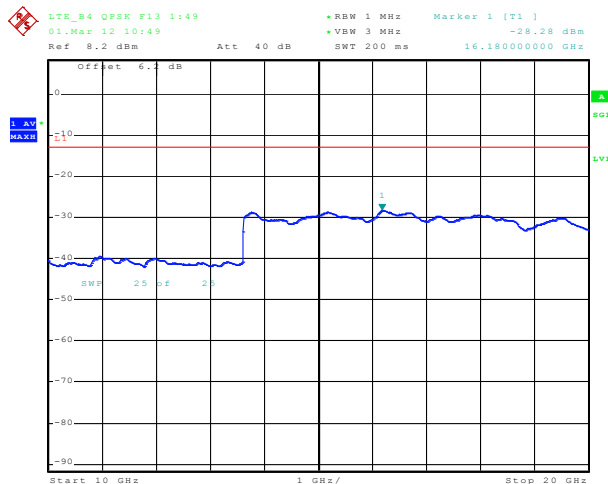
## 6.3.3.17 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 1GHz to 10 GHz



Date: 1.MAR.2012 10:49:09

Note: The strong emission shown in each case is the carrier signal.

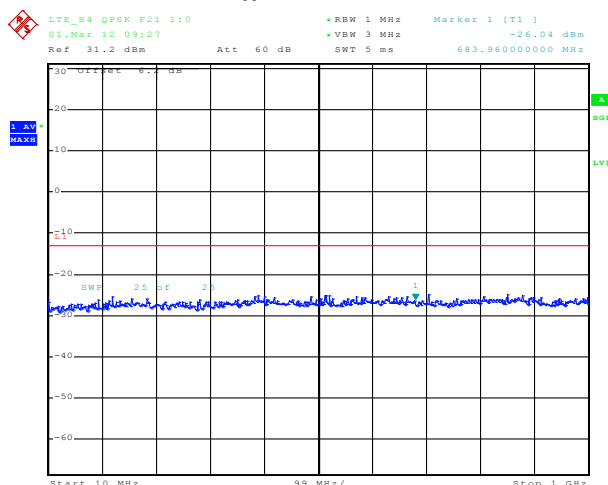
## 6.3.3.18 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 10:49:31

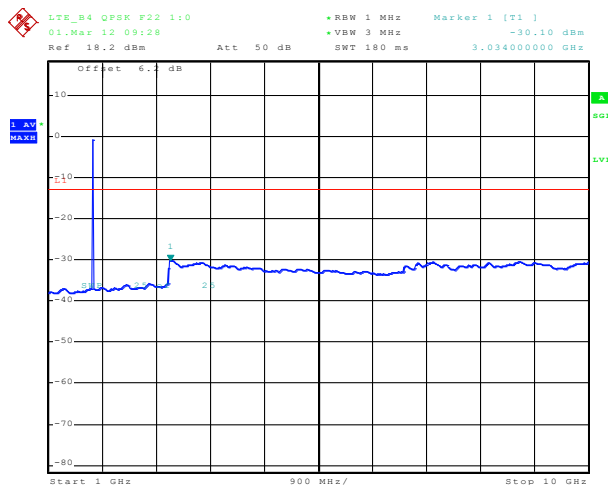
# SIERRA WIRELESS, INC.

## 6.3.3.19 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 30MHz to 1 GHz



Date: 1.MAR.2012 09:27:40

## 6.3.3.20 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 1GHz to 10 GHz

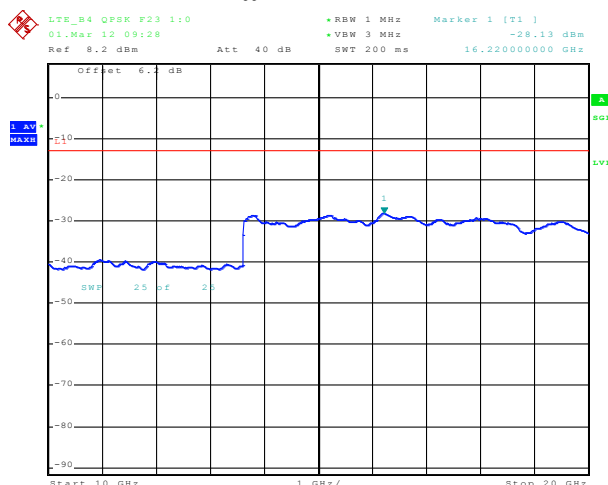


Date: 1.MAR.2012 09:28:09

Note: The strong emission shown in each case is the carrier signal.

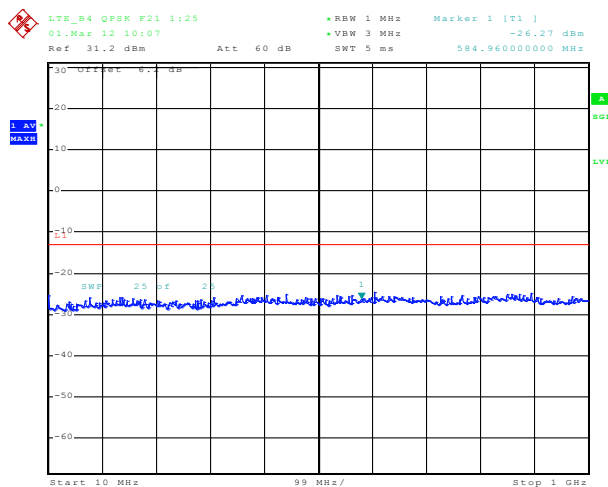
# SIERRA WIRELESS, INC.

## 6.3.3.21 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 0RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 09:28:30

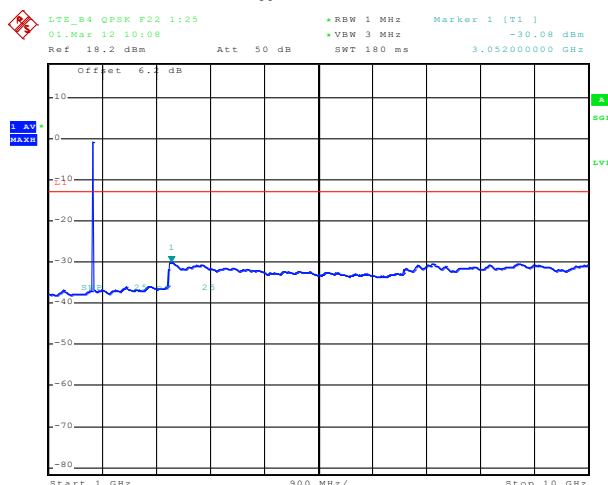
## 6.3.3.22 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 30MHz to 1 GHz



Date: 1.MAR.2012 10:07:31

# SIERRA WIRELESS, INC.

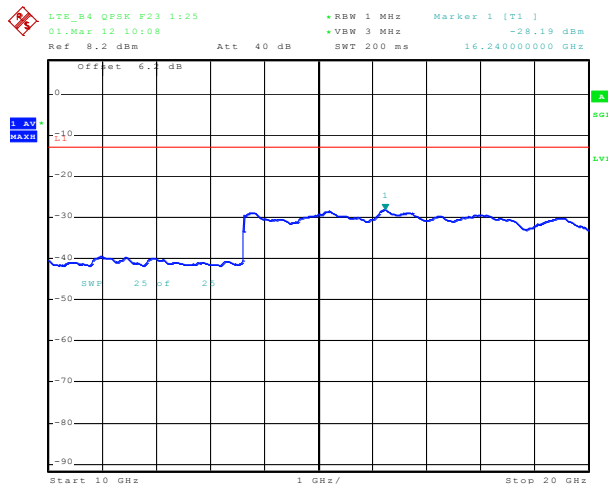
## 6.3.3.23 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 1GHz to 10 GHz



Date: 1.MAR.2012 10:08:00

Note: The strong emission shown in each case is the carrier signal.

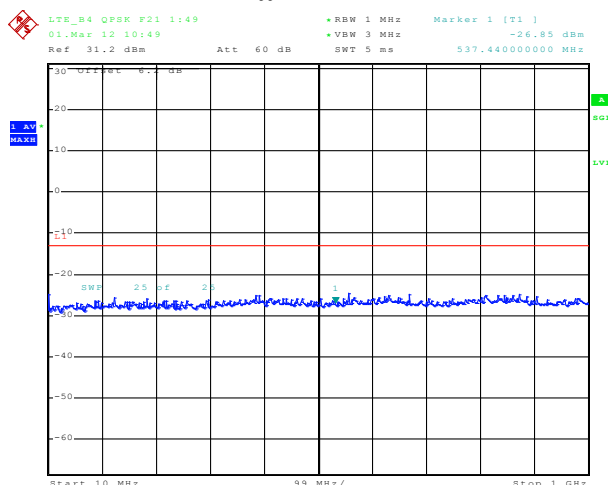
## 6.3.3.24 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 25RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 10:08:22

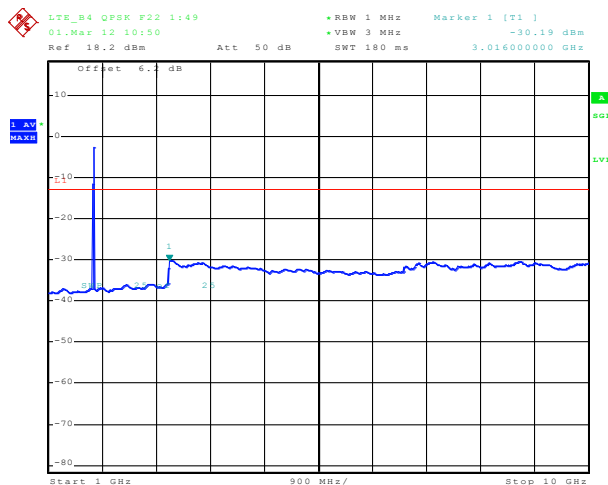
# SIERRA WIRELESS, INC.

## 6.3.3.25 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 30MHz to 1 GHz



Date: 1.MAR.2012 10:49:45

## 6.3.3.26 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 1GHz to 10 GHz

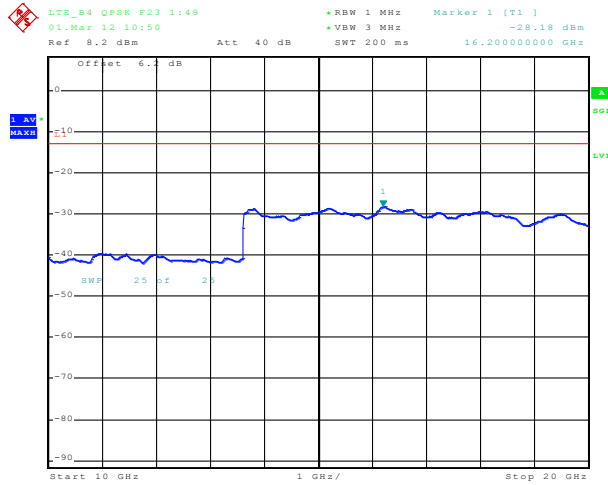


Date: 1.MAR.2012 10:50:14

Note: The strong emission shown in each case is the carrier signal.

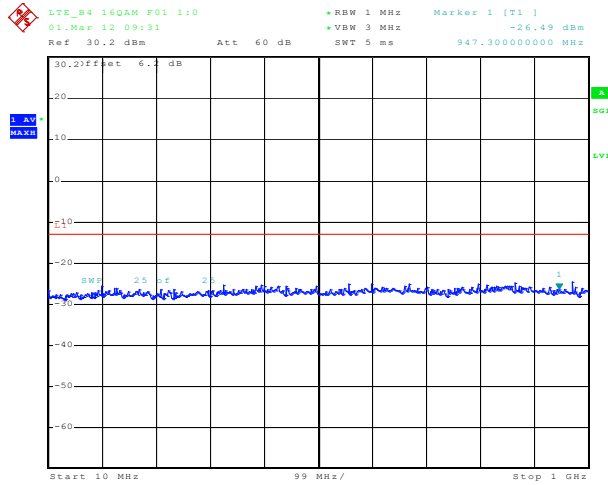
# SIERRA WIRELESS, INC.

## 6.3.3.27 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 49RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 10:50:35

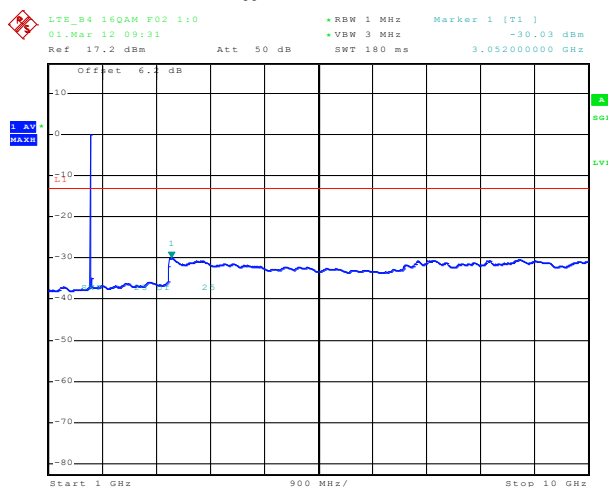
## 6.3.3.28 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 30MHz to 1 GHz



Date: 1.MAR.2012 09:31:01

# SIERRA WIRELESS, INC.

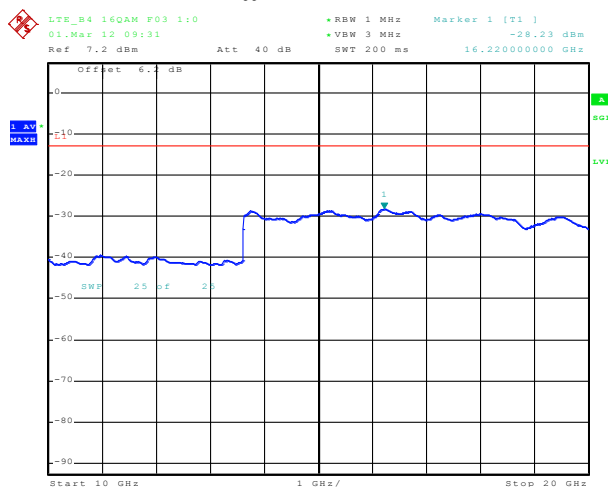
## 6.3.3.29 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 1GHz to 10 GHz



Date: 1.MAR.2012 09:31:30

Note: The strong emission shown in each case is the carrier signal.

## 6.3.3.30 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 10 GHz to 20 GHz

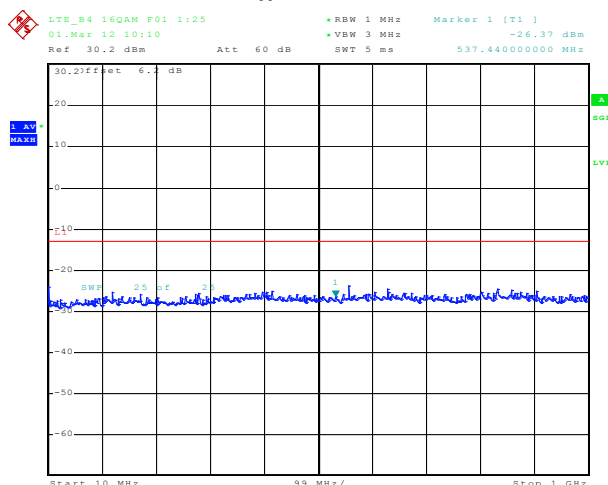


Date: 1.MAR.2012 09:31:51



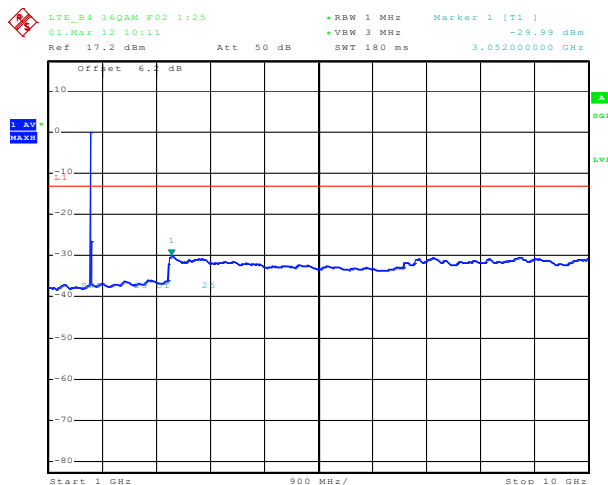
# SIERRA WIRELESS, INC.

## 6.3.3.31 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 30MHz to 1 GHz



Date: 1.MAR.2012 10:10:39

## 6.3.3.32 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 1GHz to 10 GHz

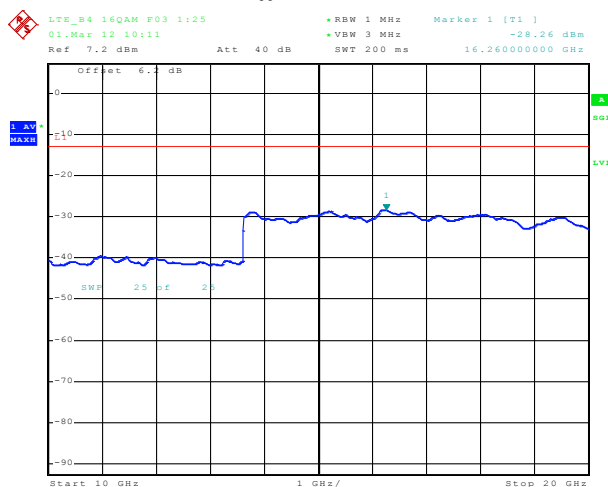


Date: 1.MAR.2012 10:11:08

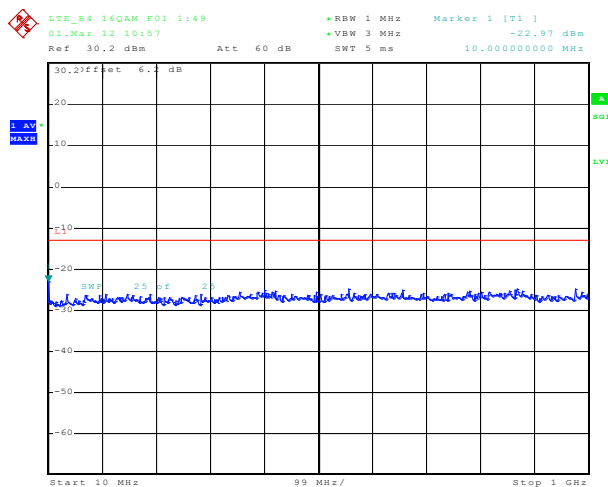
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.33 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 10 GHz to 20 GHz

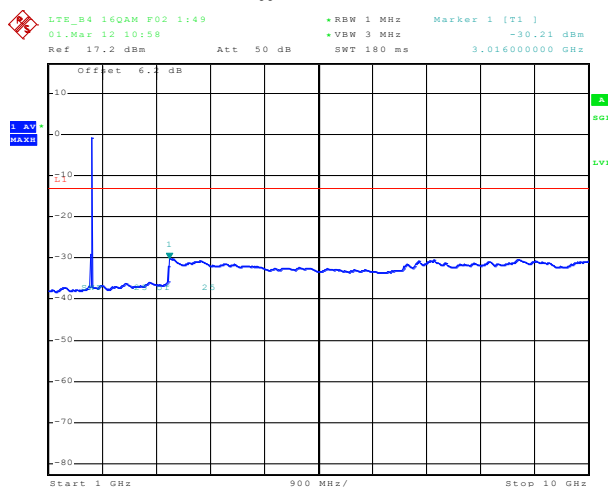


## 6.3.3.34 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 30MHz to 1 GHz



# SIERRA WIRELESS, INC.

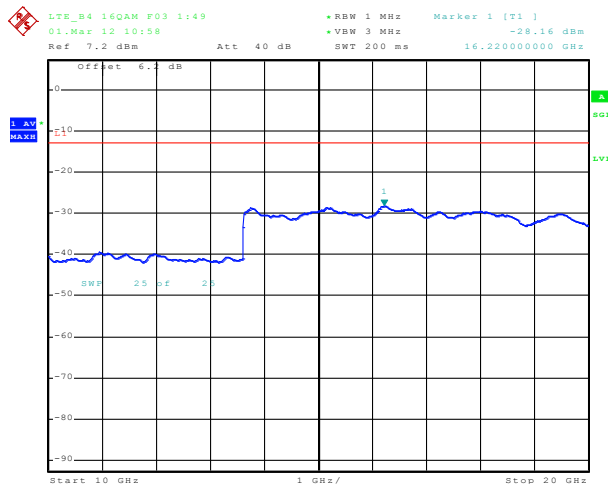
## 6.3.3.35 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 1GHz to 10 GHz



Date: 1.MAR.2012 10:58:16

Note: The strong emission shown in each case is the carrier signal.

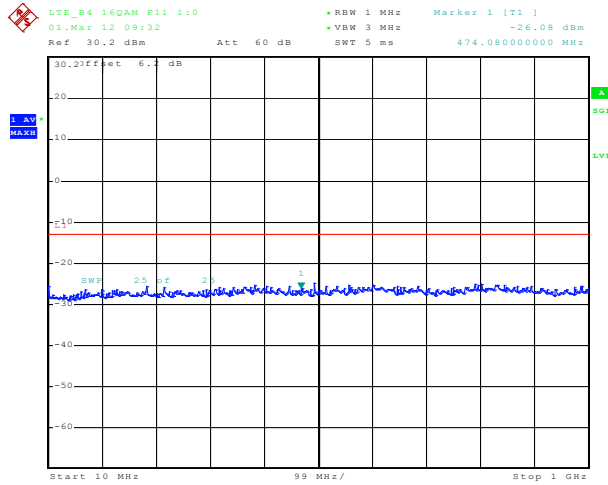
## 6.3.3.36 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 10:58:37

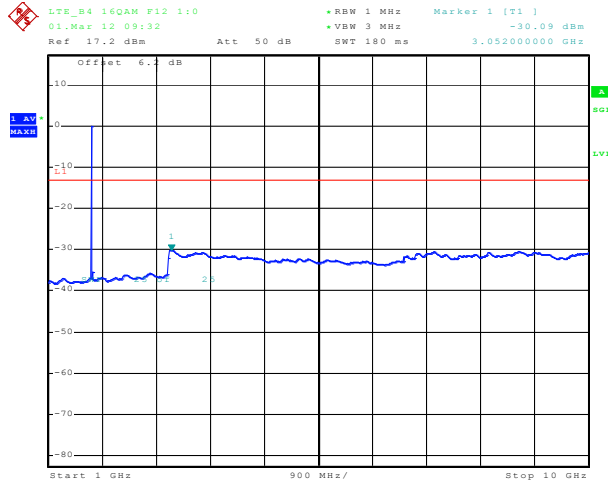
# SIERRA WIRELESS, INC.

## 6.3.3.37 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 30MHz to 1 GHz



Date: 1.MAR.2012 09:32:05

## 6.3.3.38 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 1GHz to 10 GHz

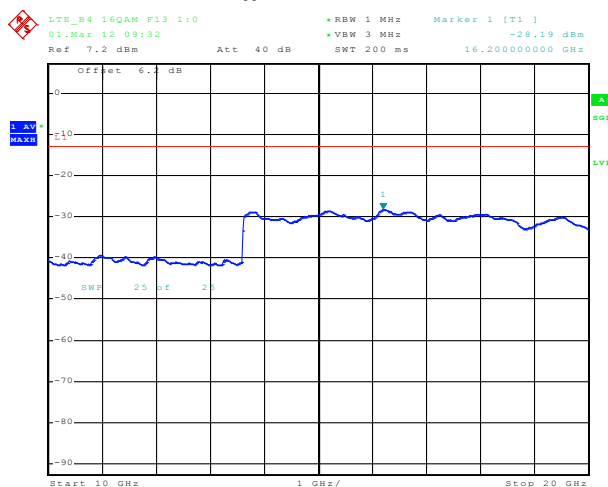


Date: 1.MAR.2012 09:32:34

Note: The strong emission shown in each case is the carrier signal.

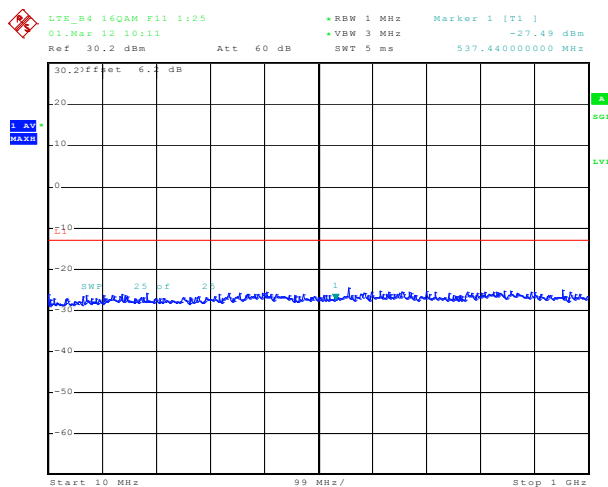
# SIERRA WIRELESS, INC.

## 6.3.3.39 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 09:32:56

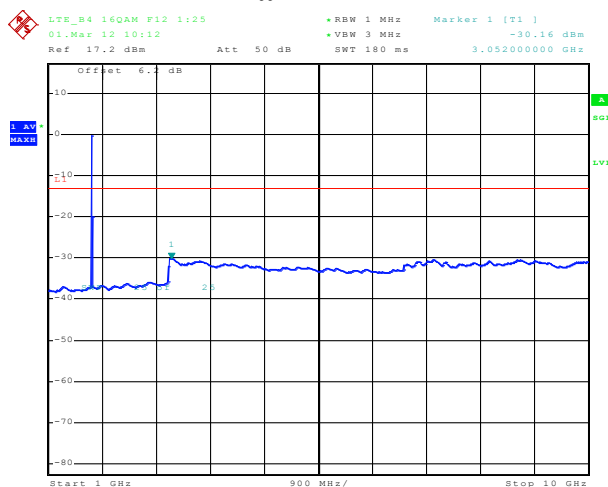
## 6.3.3.40 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 30MHz to 1 GHz



Date: 1.MAR.2012 10:11:44

# SIERRA WIRELESS, INC.

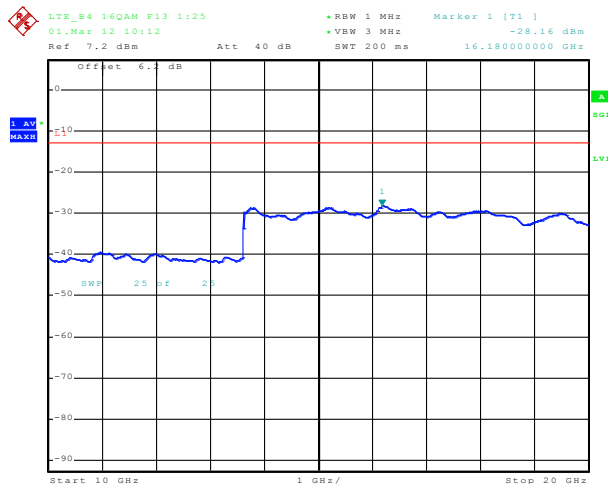
## 6.3.3.41 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 1GHz to 10 GHz



Date: 1.MAR.2012 10:12:12

Note: The strong emission shown in each case is the carrier signal.

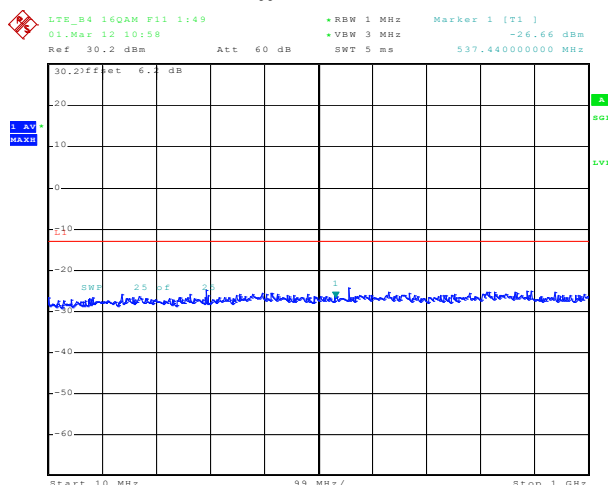
## 6.3.3.42 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 10:12:34

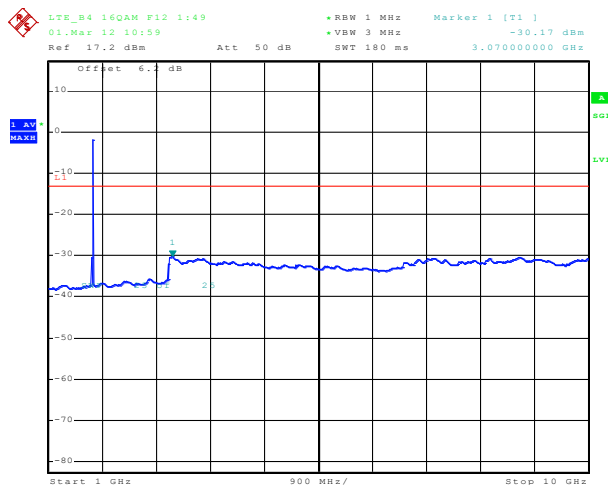
# SIERRA WIRELESS, INC.

## 6.3.3.43 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 30MHz to 1 GHz



Date: 1.MAR.2012 10:58:51

## 6.3.3.44 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 1GHz to 10 GHz



Date: 1.MAR.2012 10:59:20

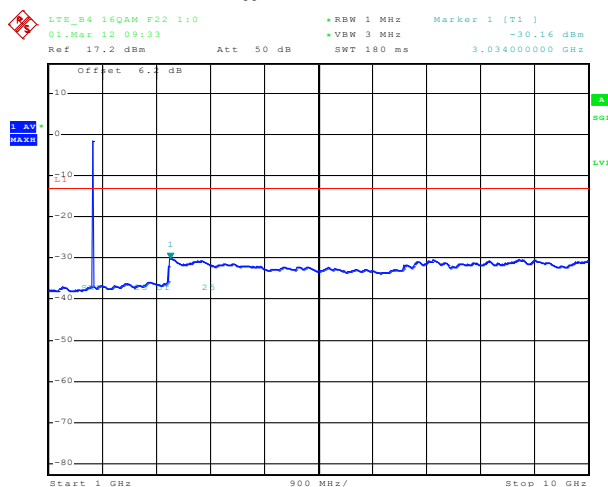
Note: The strong emission shown in each case is the carrier signal.





# SIERRA WIRELESS, INC.

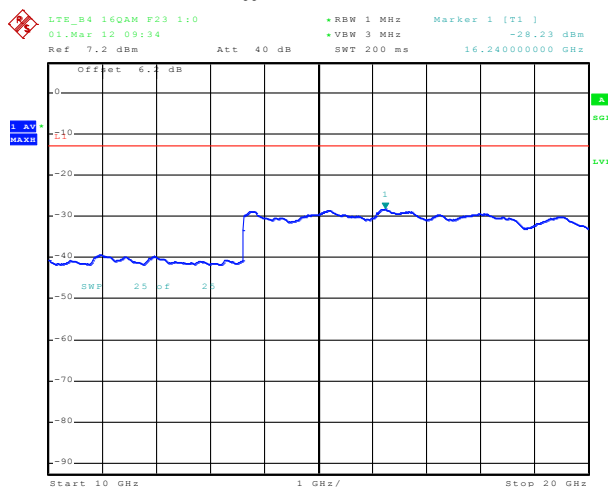
## 6.3.3.47 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 1GHz to 10 GHz



Date: 1.MAR.2012 09:33:39

Note: The strong emission shown in each case is the carrier signal.

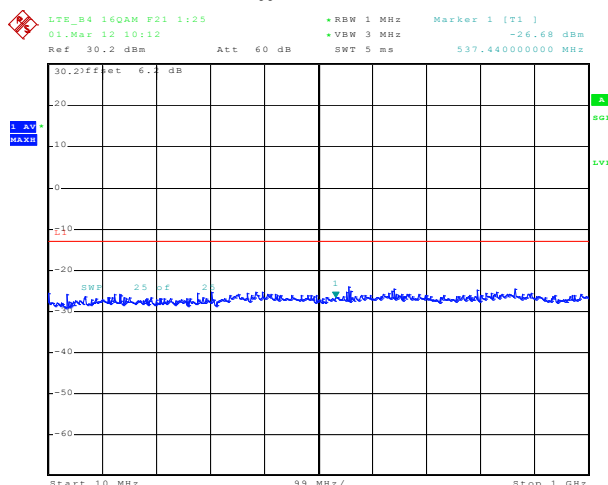
## 6.3.3.48 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 0RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 09:34:01

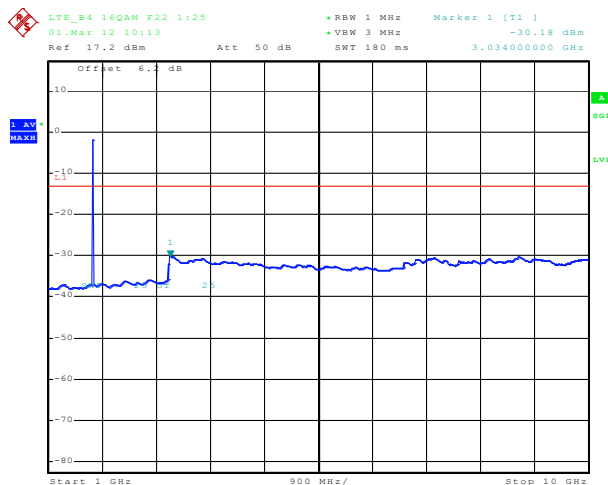
# SIERRA WIRELESS, INC.

## 6.3.3.49 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 30MHz to 1 GHz



Date: 1.MAR.2012 10:12:48

## 6.3.3.50 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 25RB Offset, 16QAM, 1GHz to 10 GHz



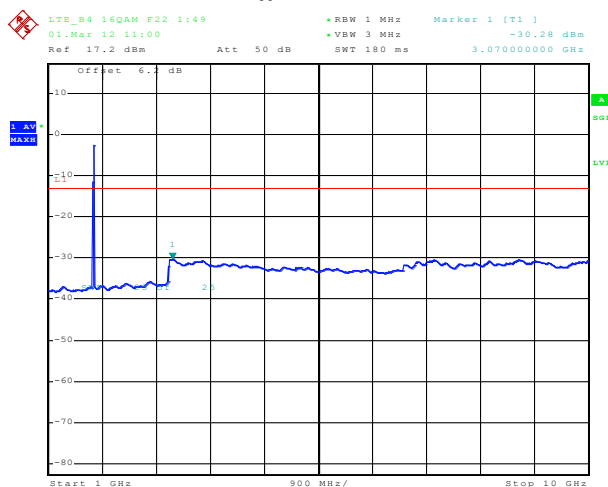
Date: 1.MAR.2012 10:13:17

Note: The strong emission shown in each case is the carrier signal.



# SIERRA WIRELESS, INC.

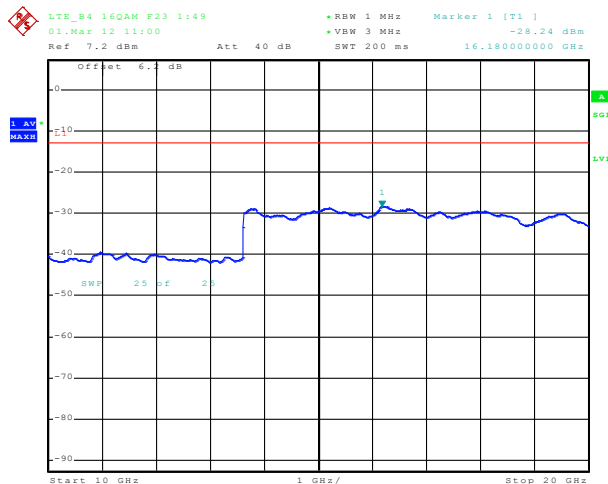
## 6.3.3.53 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 1GHz to 10 GHz



Date: 1.MAR.2012 11:00:25

Note: The strong emission shown in each case is the carrier signal.

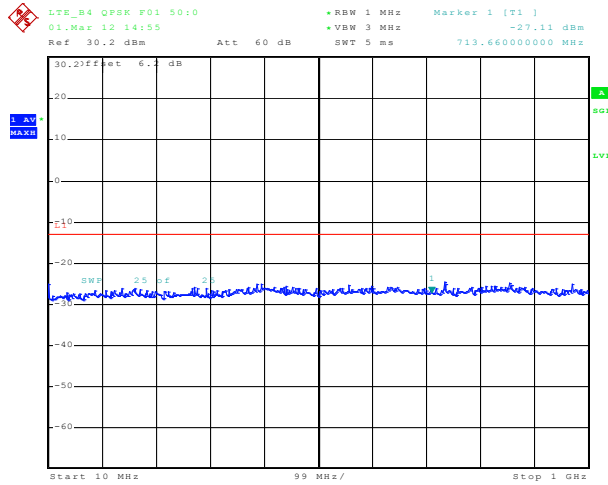
## 6.3.3.54 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 1RB, 49RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 11:00:46

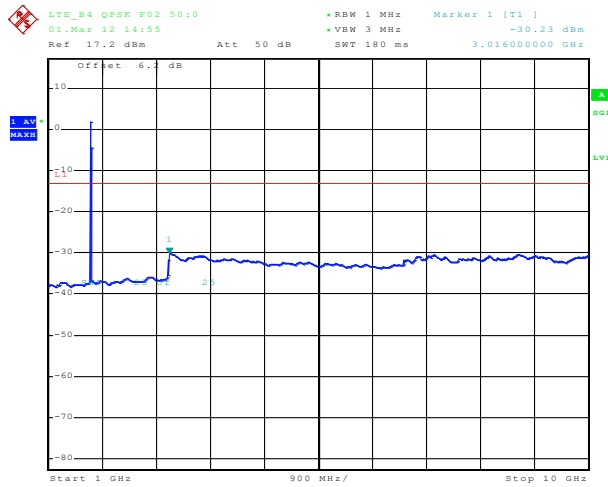
# SIERRA WIRELESS, INC.

## 6.3.3.55 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 50RB, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 14:55:27

## 6.3.3.56 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 50RB, QPSK, 1GHz to 10 GHz

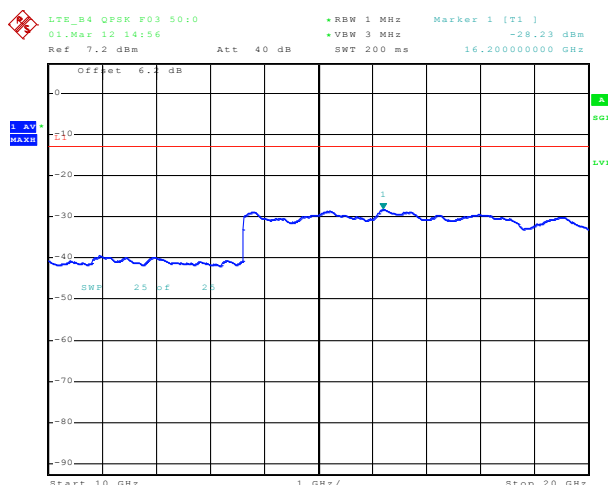


Date: 1.MAR.2012 14:55:56

Note: The strong emission shown in each case is the carrier signal.

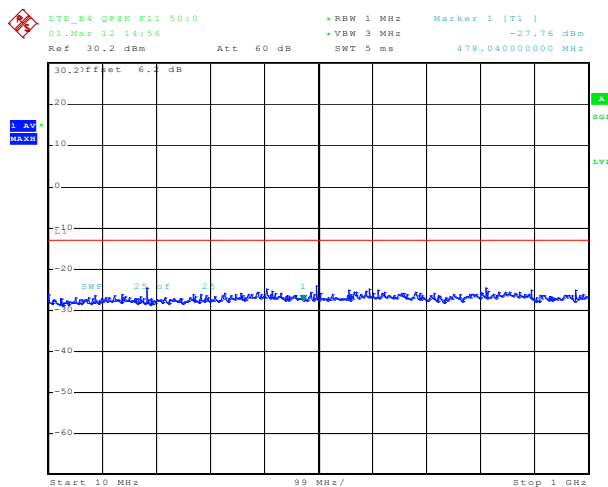
# SIERRA WIRELESS, INC.

## 6.3.3.57 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 50RB, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 14:56:18

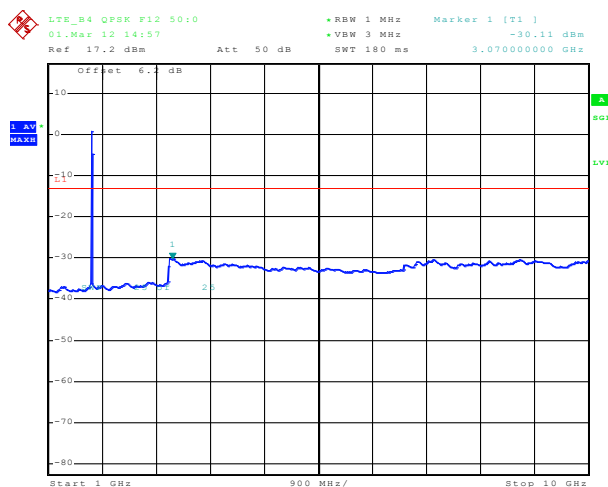
## 6.3.3.58 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 50RB, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 14:56:32

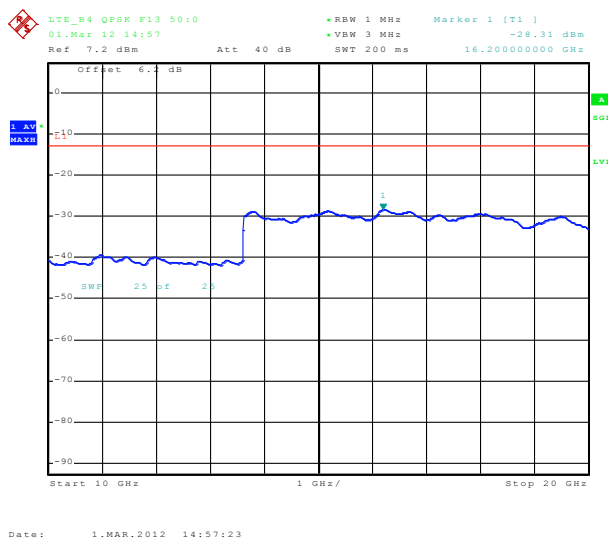
# SIERRA WIRELESS, INC.

## 6.3.3.59 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 50RB, QPSK, 1 GHz to 10 GHz



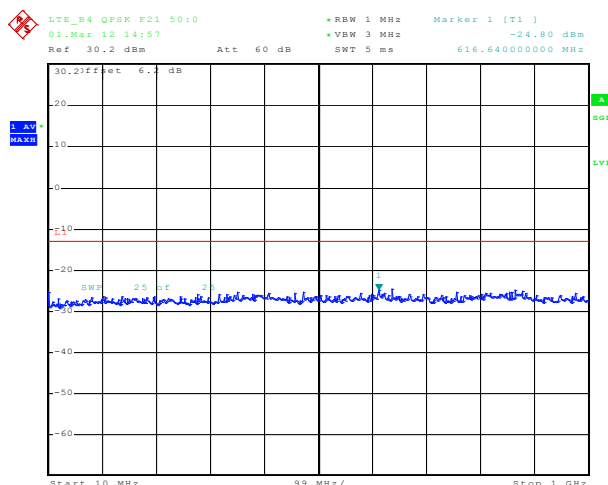
Note: The strong emission shown in each case is the carrier signal.

## 6.3.3.60 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 50RB, QPSK, 1 GHz to 20 GHz



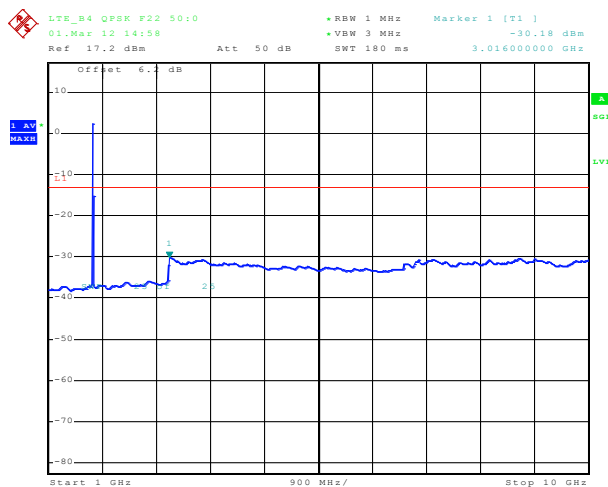
# SIERRA WIRELESS, INC.

## 6.3.3.61 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 50RB, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 14:57:37

## 6.3.3.62 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 50RB, QPSK, 1 GHz to 10 GHz



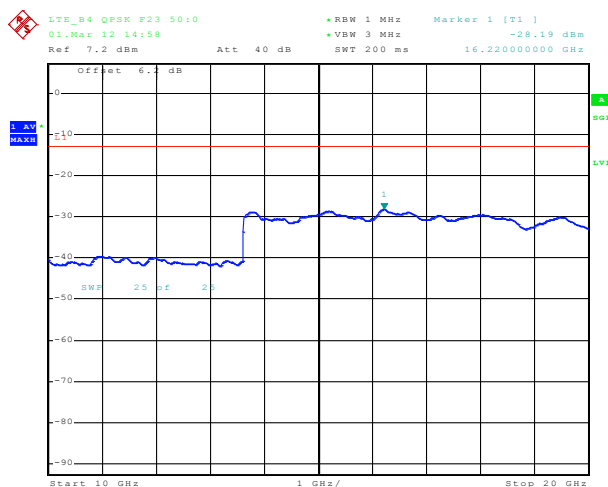
Date: 1.MAR.2012 14:58:06

Note: The strong emission shown in each case is the carrier signal.



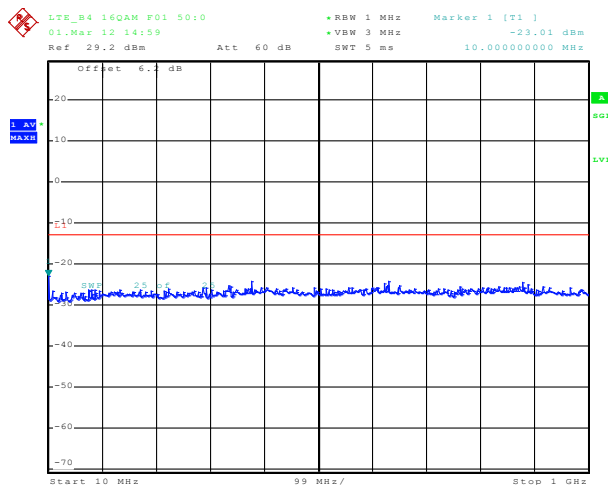
# SIERRA WIRELESS, INC.

## 6.3.3.63 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 50RB, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 14:58:27

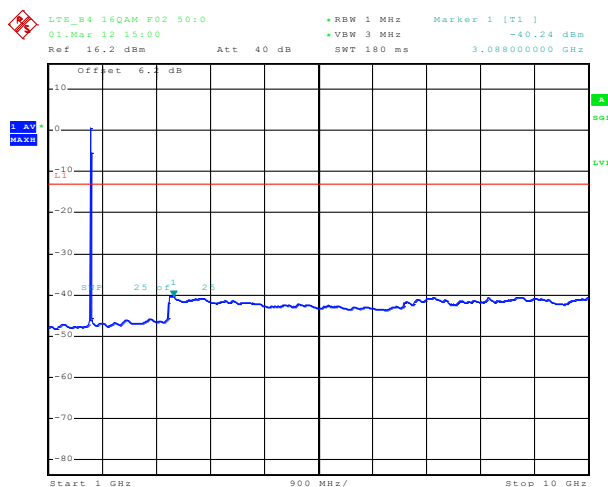
## 6.3.3.64 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 50RB, 16-QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 14:59:44

# SIERRA WIRELESS, INC.

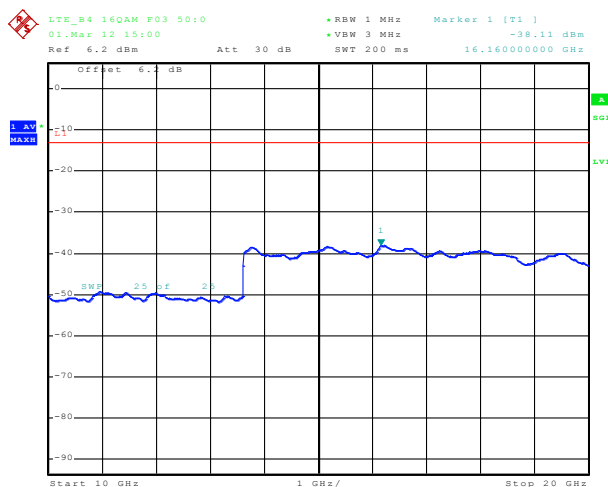
## 6.3.3.65 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 50RB, 16-QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 15:00:13

Note: The strong emission shown in each case is the carrier signal.

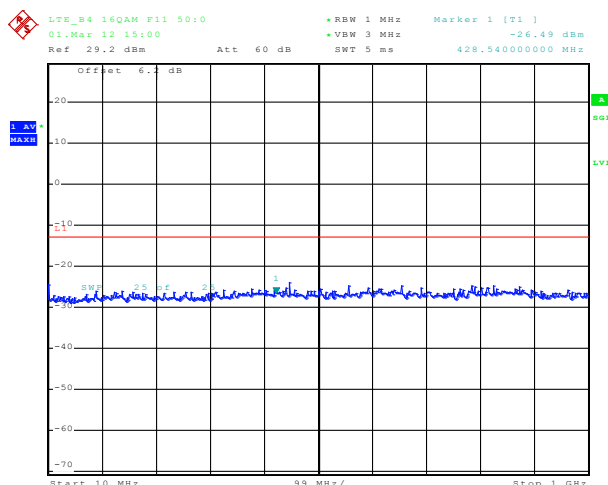
## 6.3.3.66 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1715.0 MHz, 10MHz BW, 50RB, 16-QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 15:00:35

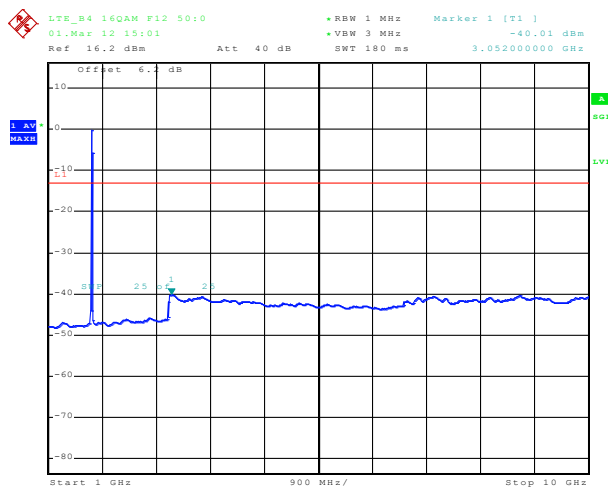
# SIERRA WIRELESS, INC.

## 6.3.3.67 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 50RB, 16-QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 15:00:50

## 6.3.3.68 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 50RB, 16-QAM, 1 GHz to 10 GHz

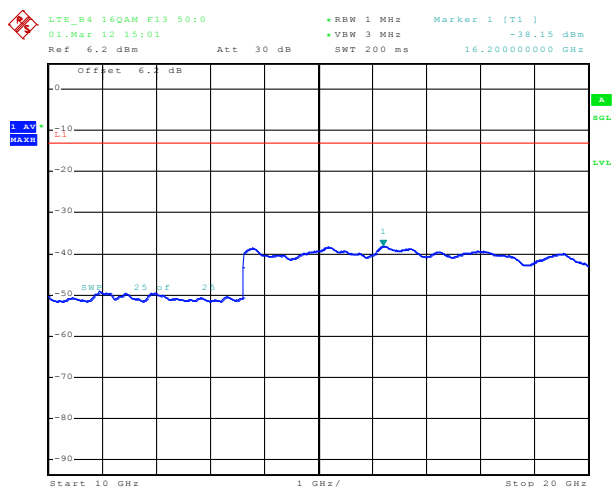


Date: 1.MAR.2012 15:01:19

Note: The strong emission shown in each case is the carrier signal.

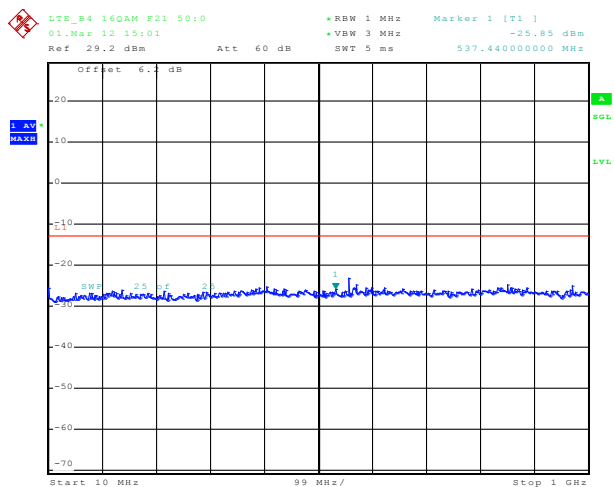
# SIERRA WIRELESS, INC.

## 6.3.3.69 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 10MHz BW, 50RB, 16-QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 15:01:41

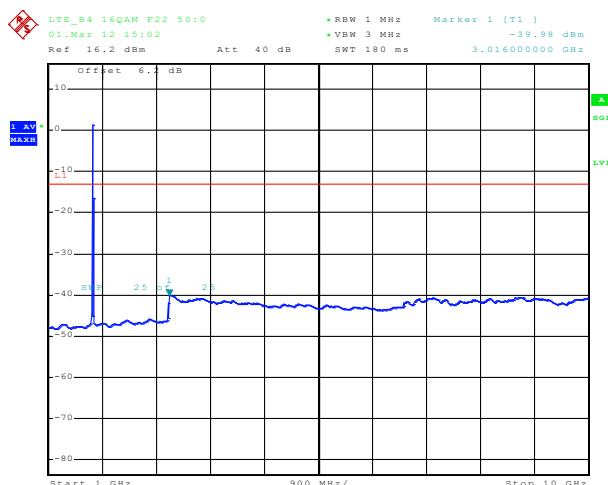
## 6.3.3.70 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 50RB, 16-QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 15:01:56

# SIERRA WIRELESS, INC.

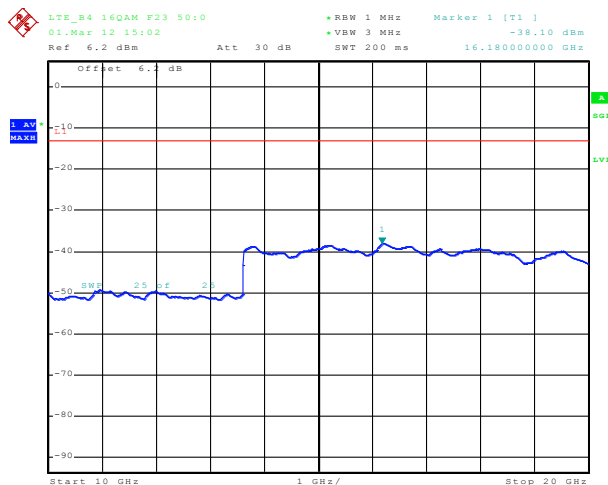
## 6.3.3.71 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 50RB, 16-QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 15:02:25

Note: The strong emission shown in each case is the carrier signal.

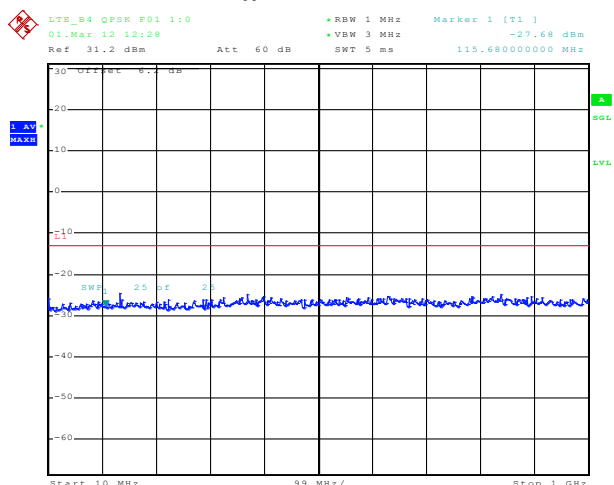
## 6.3.3.72 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1750.0 MHz, 10MHz BW, 50RB, 16-QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 15:02:46

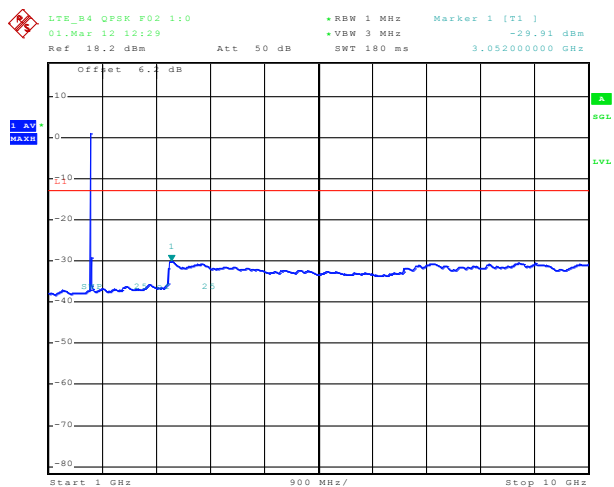
# SIERRA WIRELESS, INC.

## 6.3.3.73 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, ORB Offset, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 12:28:52

## 6.3.3.74 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, ORB Offset, QPSK, 1 GHz to 10 GHz

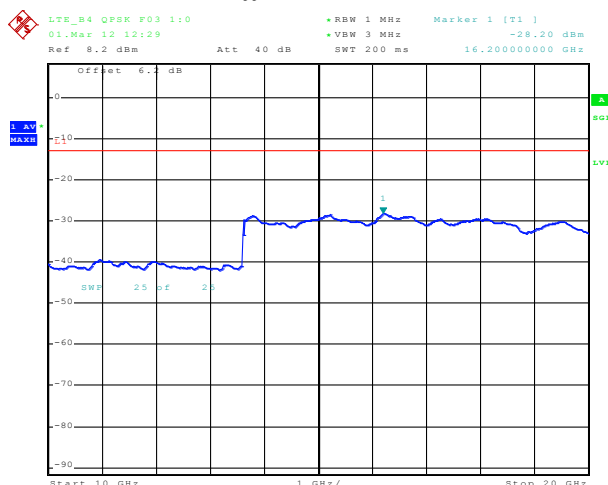


Date: 1.MAR.2012 12:29:21

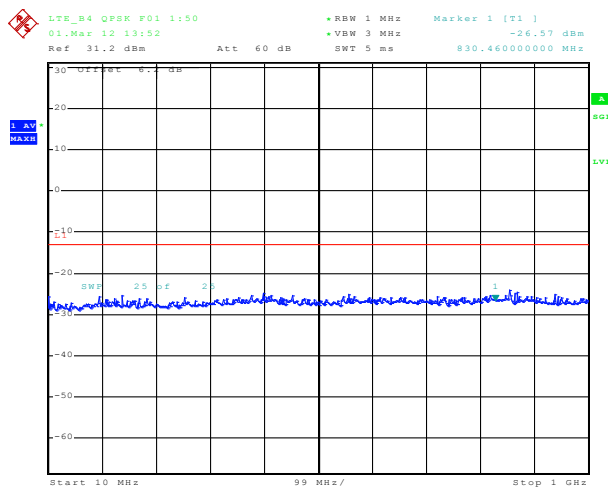
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.75 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 0RB Offset, QPSK, 10 GHz to 20 GHz

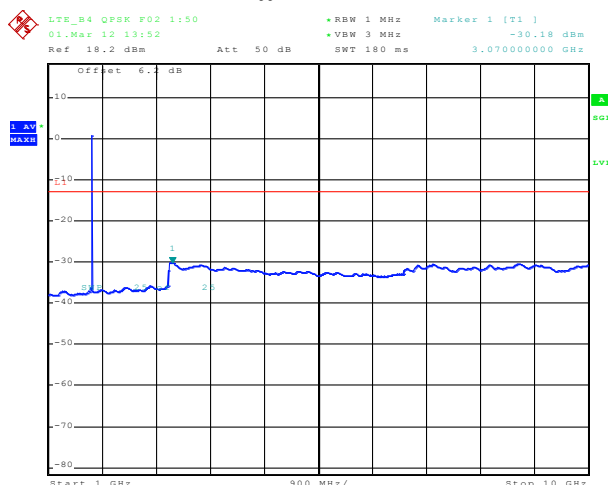


## 6.3.3.76 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 10MHz to 1 GHz



# SIERRA WIRELESS, INC.

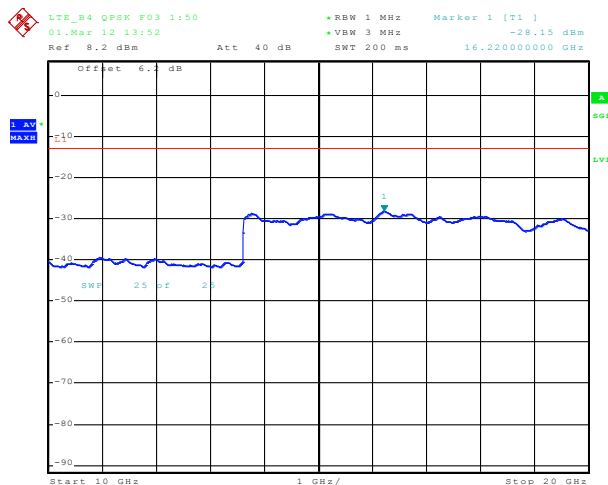
## 6.3.3.77 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 1 GHz to 10 GHz



Date: 1.MAR.2012 13:52:36

Note: The strong emission shown in each case is the carrier signal.

## 6.3.3.78 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 10 GHz to 20 GHz

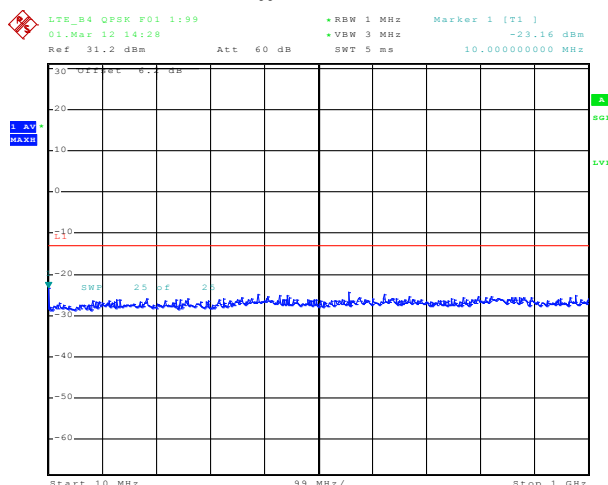


Date: 1.MAR.2012 13:52:58



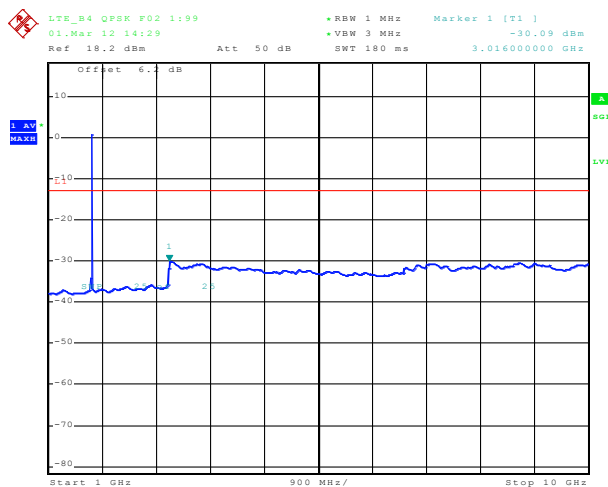
# SIERRA WIRELESS, INC.

## 6.3.3.79 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 14:28:58

## 6.3.3.80 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 1 GHz to 10 GHz

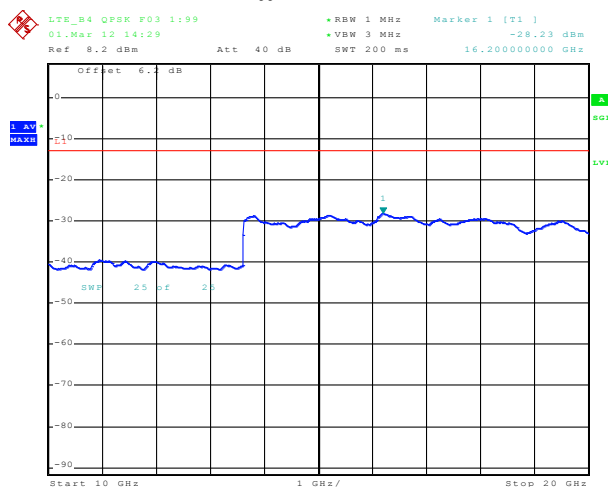


Date: 1.MAR.2012 14:29:27

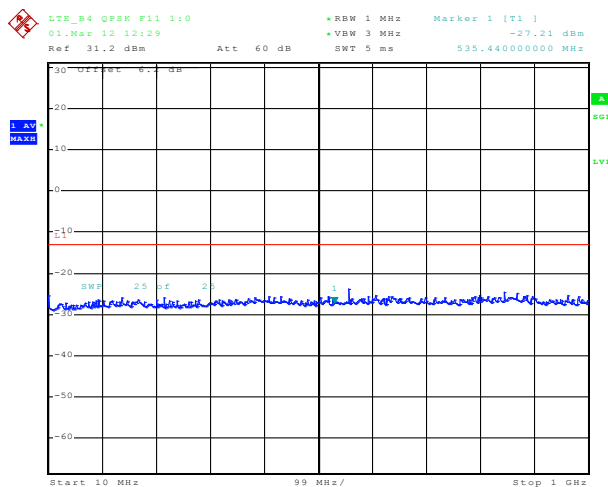
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.81 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 10 GHz to 20 GHz

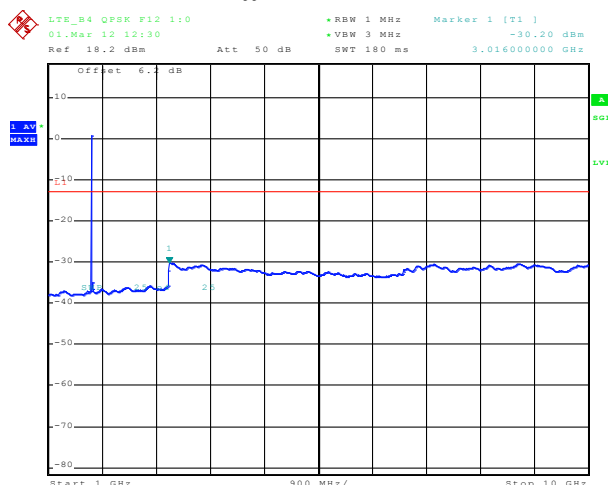


## 6.3.3.82 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 0RB Offset, QPSK, 10MHz to 1 GHz



# SIERRA WIRELESS, INC.

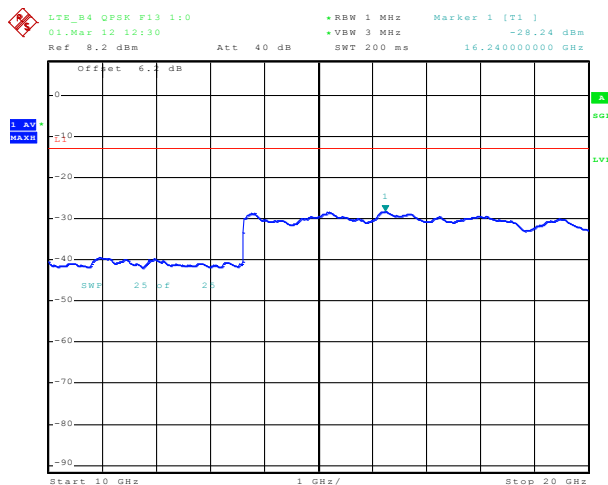
## 6.3.3.83 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 0RB Offset, QPSK, 1 GHz to 10 GHz



Date: 1.MAR.2012 12:30:28

Note: The strong emission shown in each case is the carrier signal.

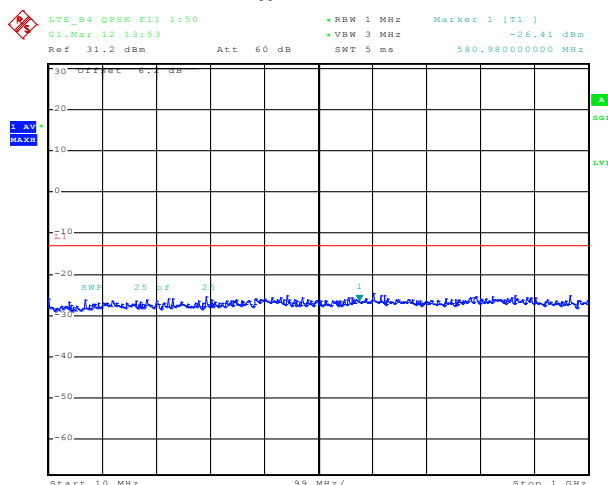
## 6.3.3.84 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 0RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 12:30:50

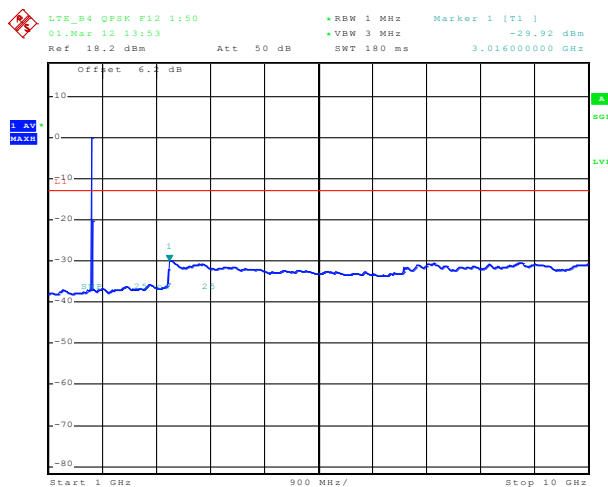
# SIERRA WIRELESS, INC.

## 6.3.3.85 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 13:53:16

## 6.3.3.86 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 1 GHz to 10 GHz

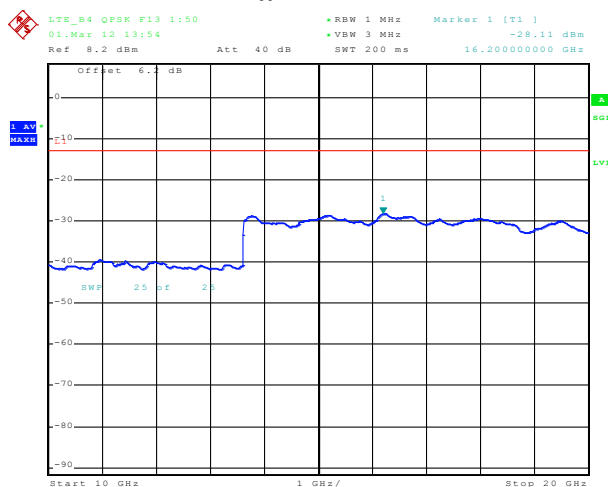


Date: 1.MAR.2012 13:53:45

Note: The strong emission shown in each case is the carrier signal.

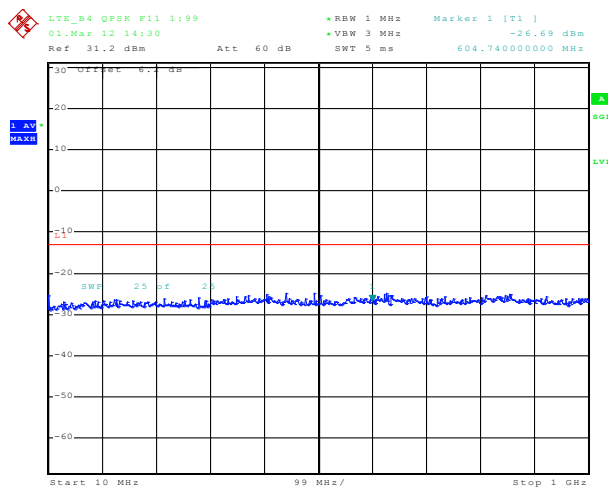
# SIERRA WIRELESS, INC.

## 6.3.3.87 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 13:54:06

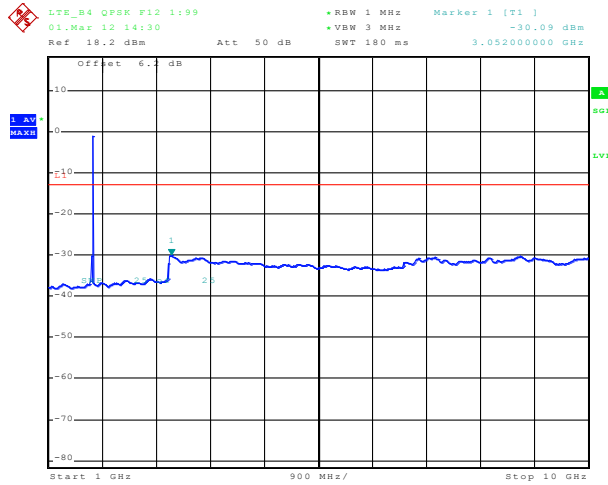
## 6.3.3.88 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 14:30:06

# SIERRA WIRELESS, INC.

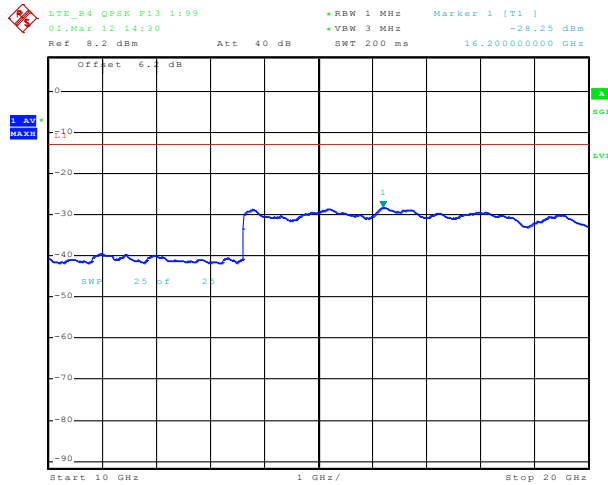
## 6.3.3.89 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 1 GHz to 10 GHz



Date: 1.MAR.2012 14:30:35

Note: The strong emission shown in each case is the carrier signal.

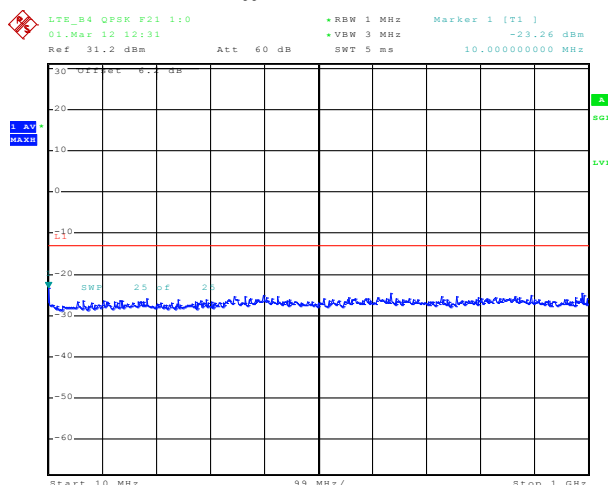
## 6.3.3.90 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 14:30:56

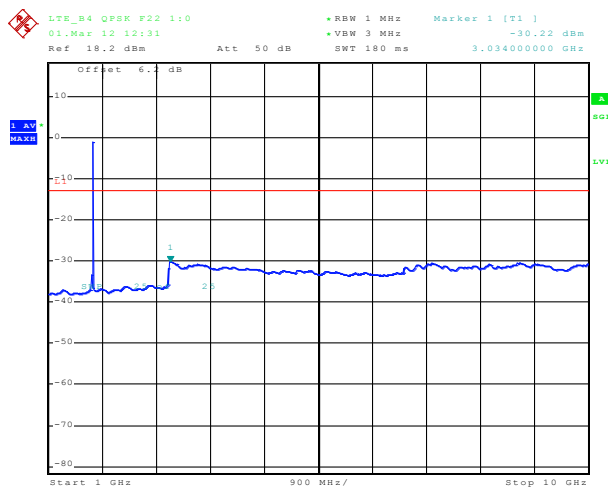
# SIERRA WIRELESS, INC.

## 6.3.3.91 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, ORB Offset, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 12:31:04

## 6.3.3.92 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, ORB Offset, QPSK, 1 GHz to 10 GHz

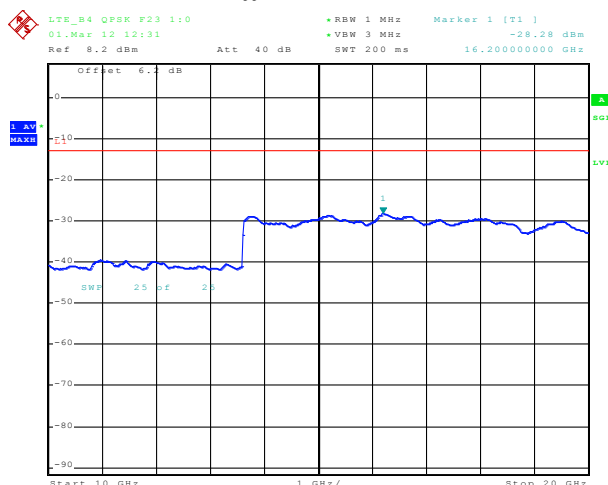


Date: 1.MAR.2012 12:31:33

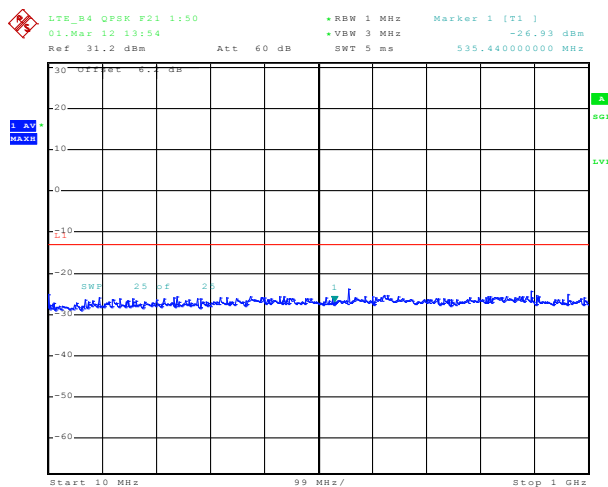
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.93 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 0RB Offset, QPSK, 10 GHz to 20 GHz



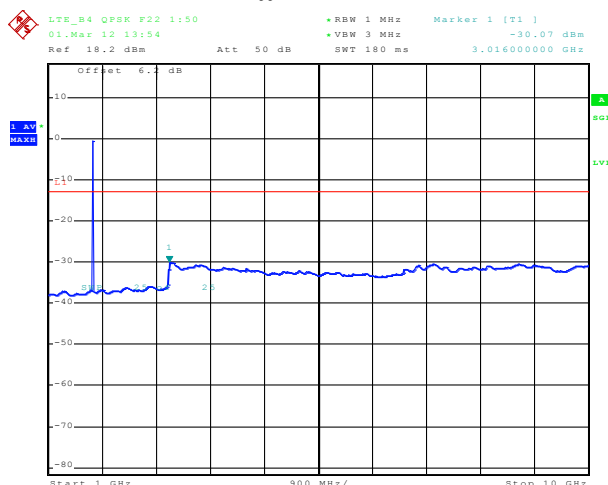
## 6.3.3.94 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 10MHz to 1 GHz





# SIERRA WIRELESS, INC.

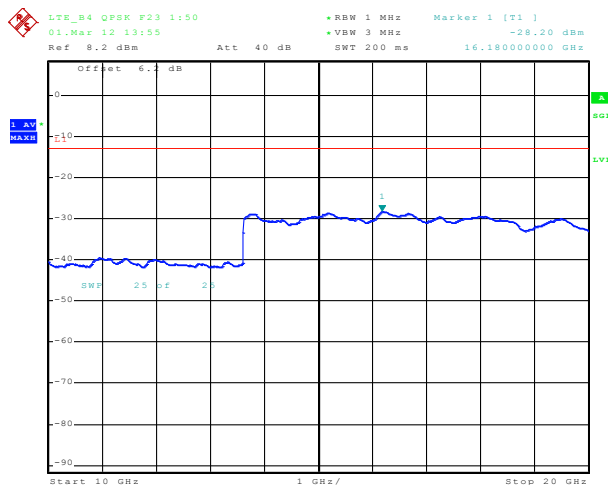
## 6.3.3.95 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 1 GHz to 10 GHz



Date: 1.MAR.2012 13:54:52

Note: The strong emission shown in each case is the carrier signal.

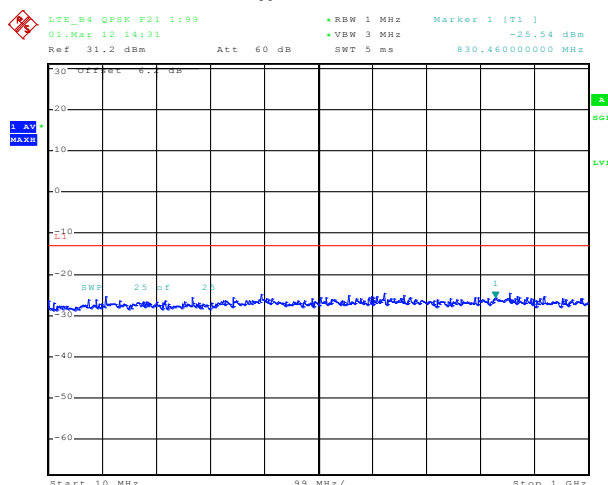
## 6.3.3.96 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 50RB Offset, QPSK, 10 GHz to 20 GHz



Date: 1.MAR.2012 13:55:14

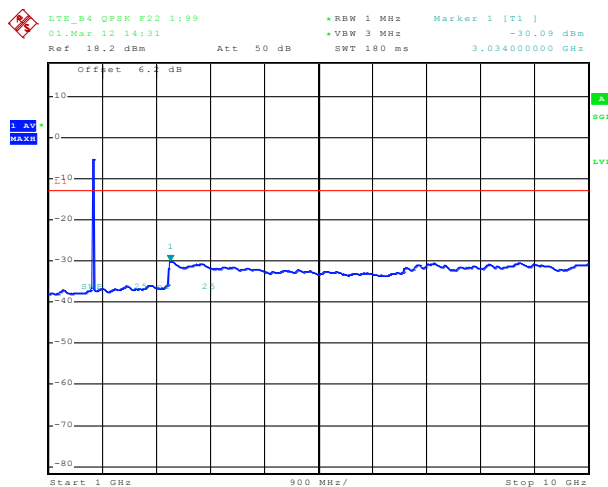
# SIERRA WIRELESS, INC.

## 6.3.3.97 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 10MHz to 1 GHz



Date: 1.MAR.2012 14:31:12

## 6.3.3.98 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 1 GHz to 10 GHz

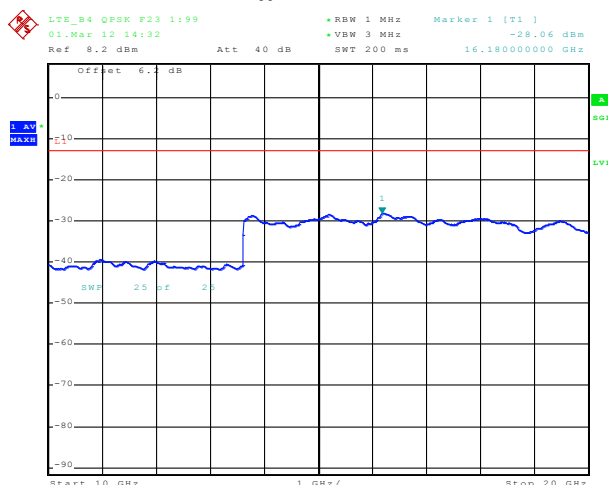


Date: 1.MAR.2012 14:31:41

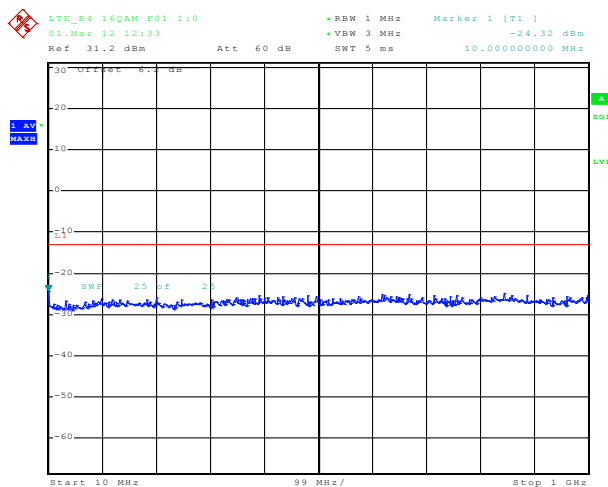
Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.99 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 99RB Offset, QPSK, 10 GHz to 20 GHz

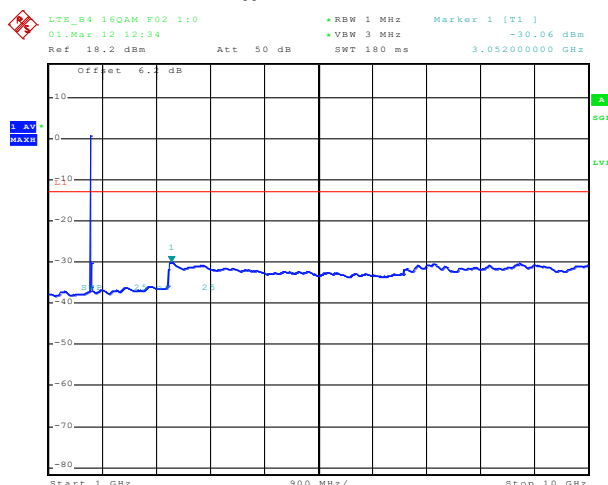


## 6.3.3.100 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 0RB Offset, 16QAM, 10MHz to 1 GHz



# SIERRA WIRELESS, INC.

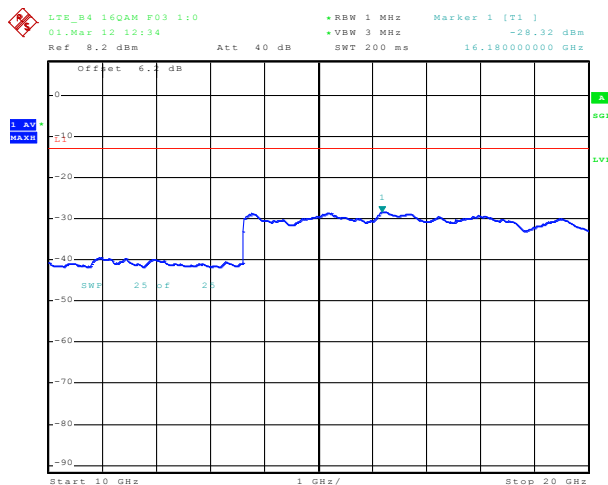
## 6.3.3.101 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, ORB Offset, 16QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 12:34:05

Note: The strong emission shown in each case is the carrier signal.

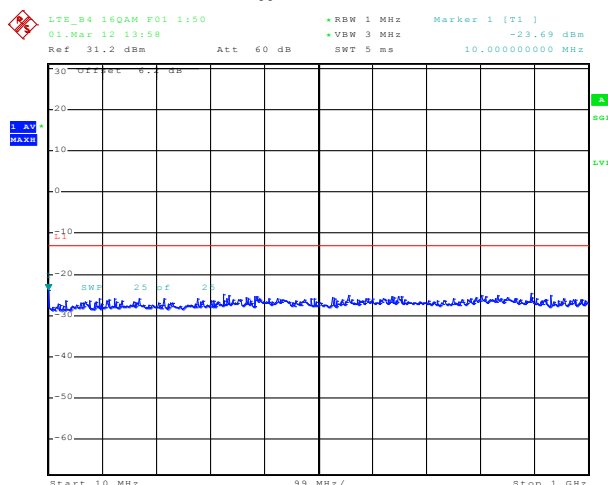
## 6.3.3.102 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, ORB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 12:34:27

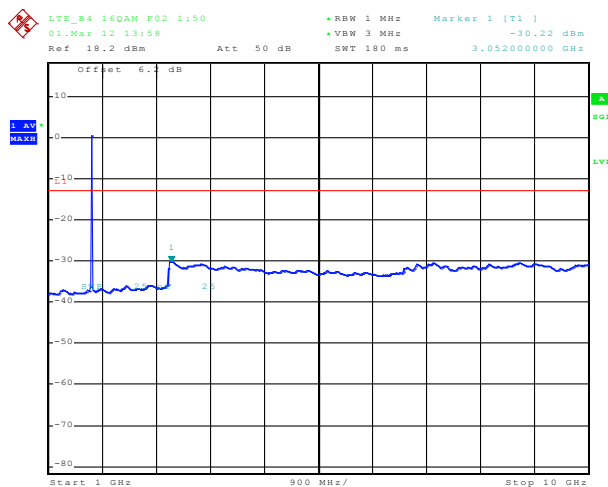
# SIERRA WIRELESS, INC.

### 6.3.3.103 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 13:58:26

### 6.3.3.104 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 1 GHz to 10 GHz

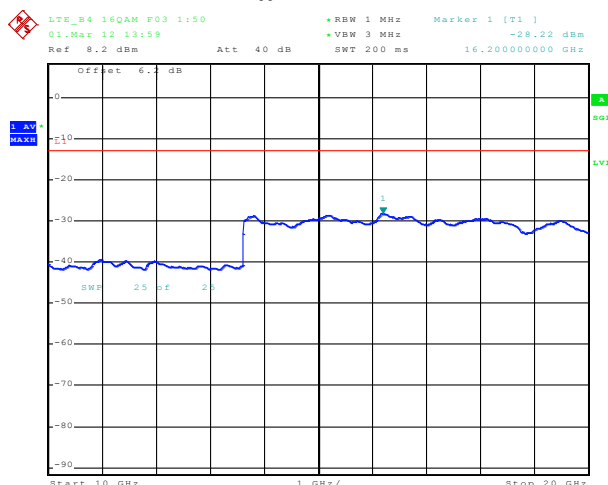


Date: 1.MAR.2012 13:58:54

Note: The strong emission shown in each case is the carrier signal.

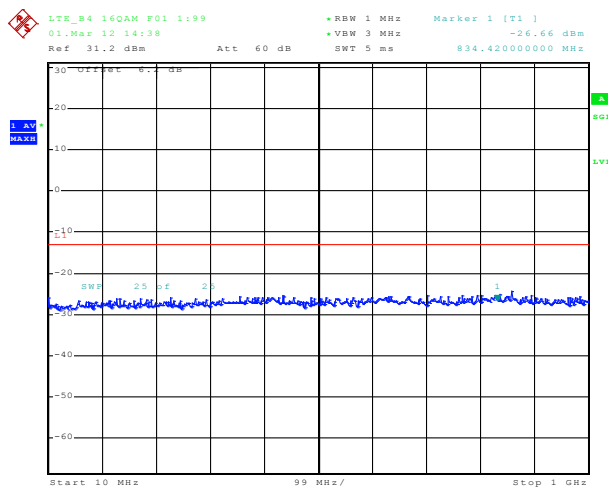
# SIERRA WIRELESS, INC.

## 6.3.3.105 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 13:59:16

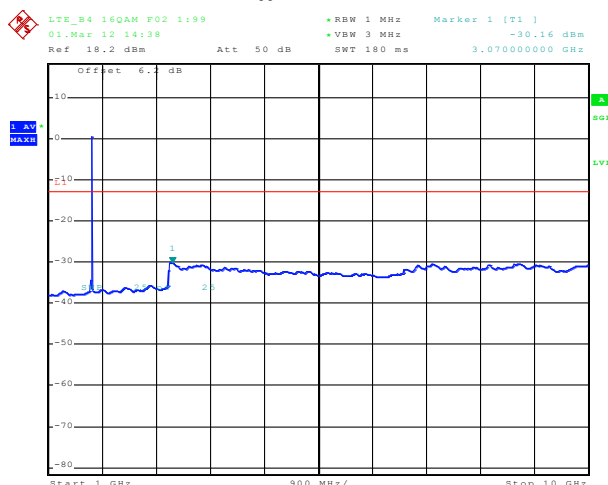
## 6.3.3.106 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 14:38:16

# SIERRA WIRELESS, INC.

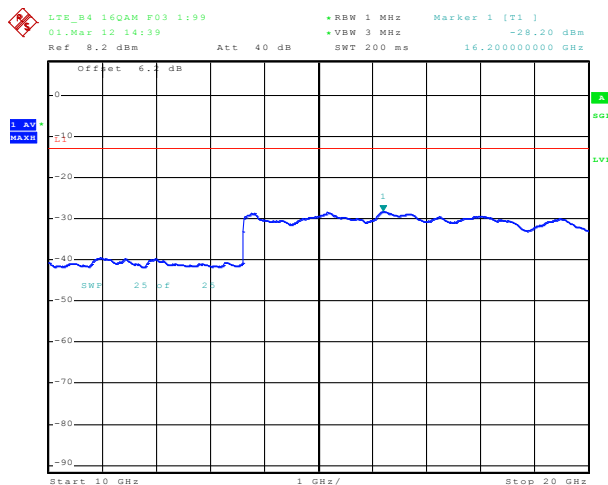
## 6.3.3.107 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 14:38:45

Note: The strong emission shown in each case is the carrier signal.

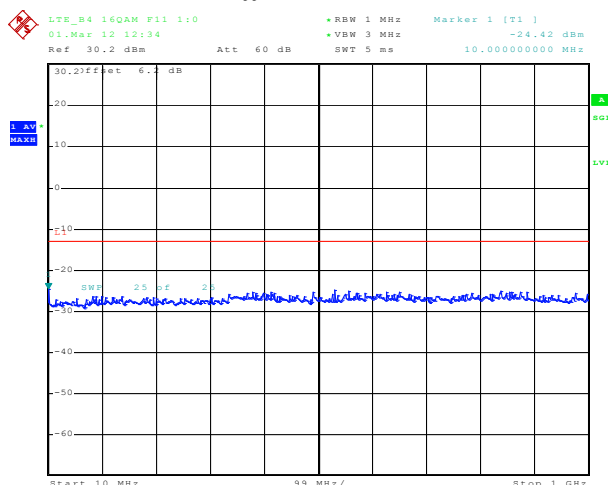
## 6.3.3.108 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 14:39:06

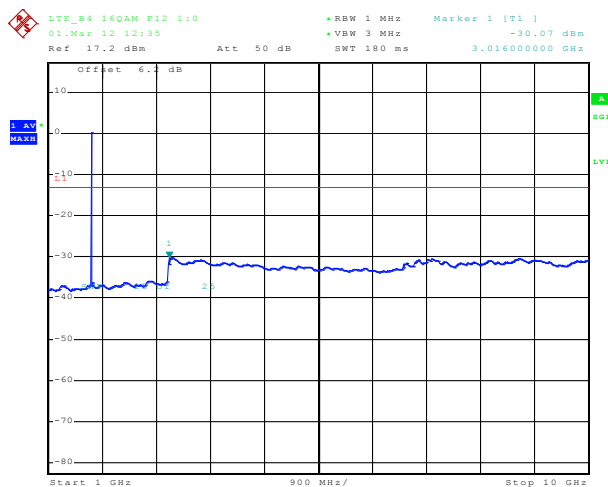
# SIERRA WIRELESS, INC.

## 6.3.3.109 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, ORB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 12:34:43

## 6.3.3.110 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, ORB Offset, 16QAM, 1 GHz to 10 GHz



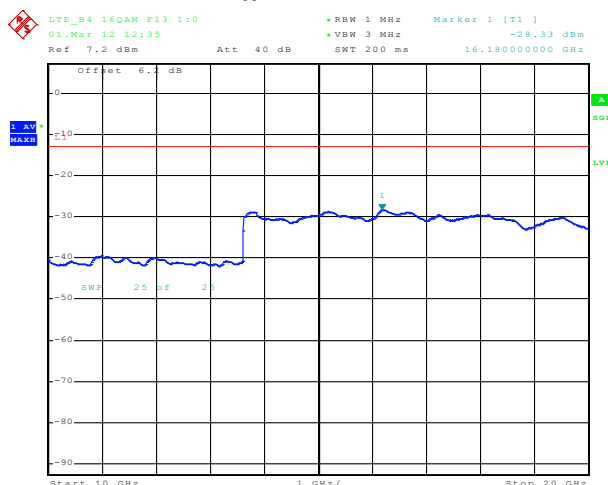
Date: 1.MAR.2012 12:35:12

Note: The strong emission shown in each case is the carrier signal.



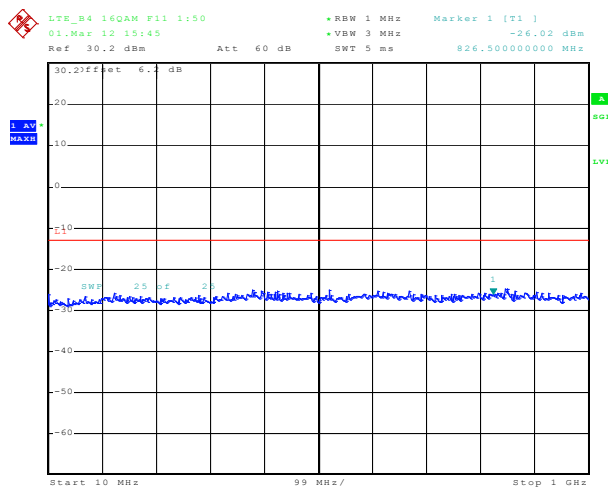
# SIERRA WIRELESS, INC.

## 6.3.3.111 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 0RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 12:35:34

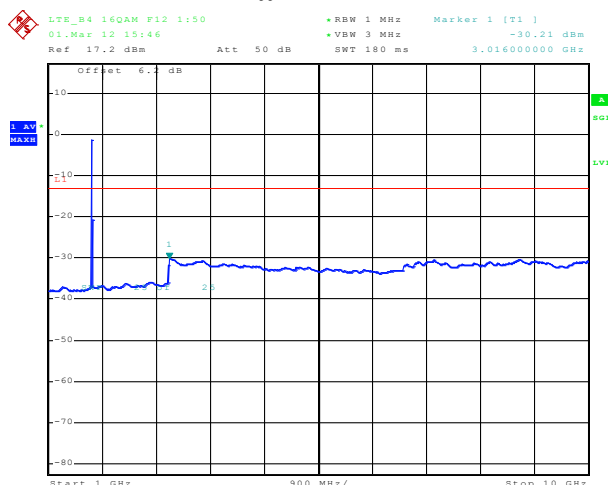
## 6.3.3.112 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 15:45:44

# SIERRA WIRELESS, INC.

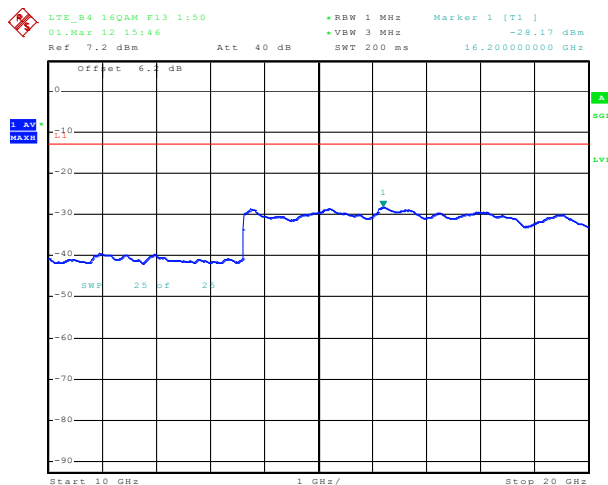
### 6.3.3.113 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 15:46:13

Note: The strong emission shown in each case is the carrier signal.

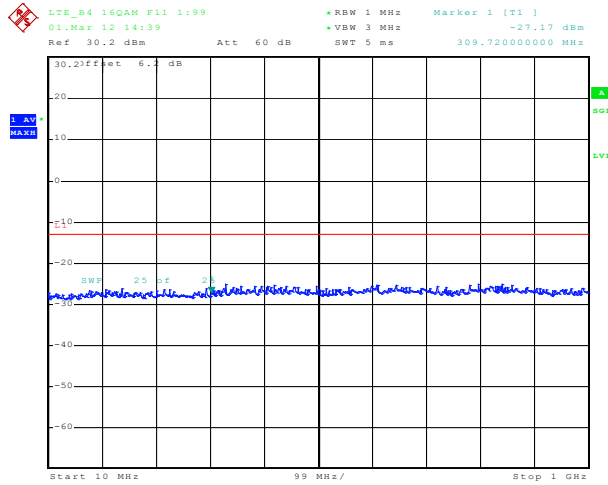
### 6.3.3.114 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 15:46:35

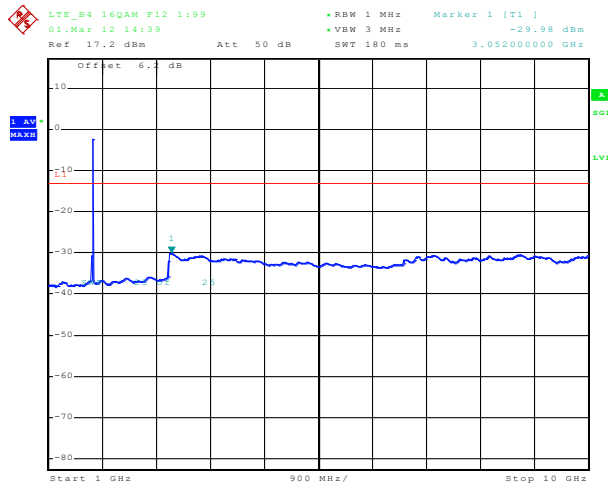
**SIERRA WIRELESS, INC.**

**6.3.3.115**     *Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 10MHz to 1 GHz*



Date: 1.MAR.2012 14:39:23

**6.3.3.116**     *Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 1 GHz to 10 GHz*

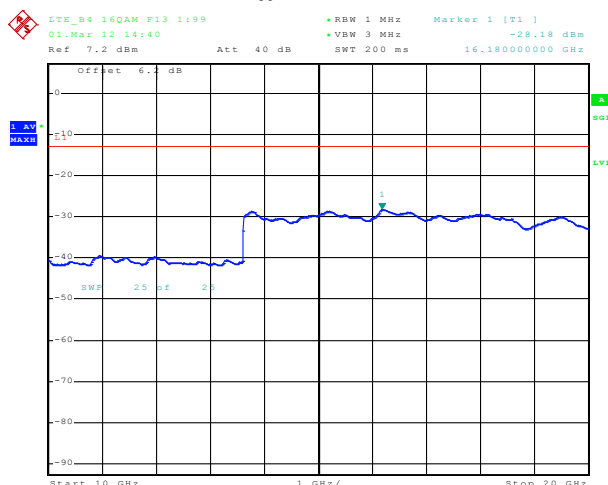


Date: 1.MAR.2012 14:39:51

Note: The strong emission shown in each case is the carrier signal.

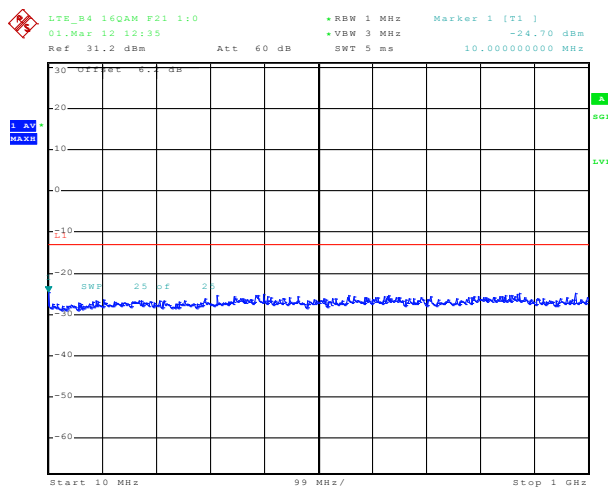
# SIERRA WIRELESS, INC.

## 6.3.3.117 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 14:40:13

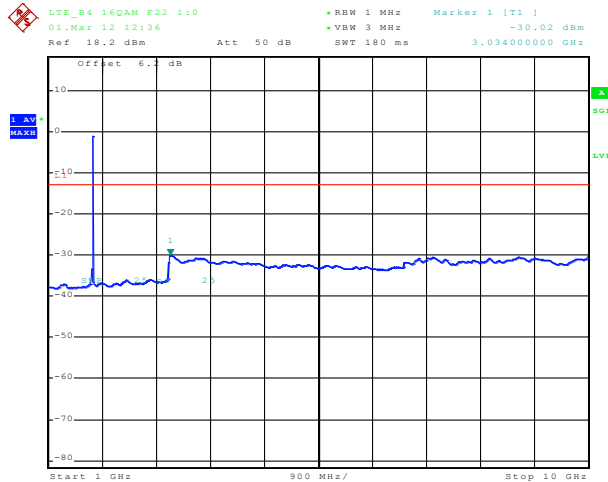
## 6.3.3.118 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 0RB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 12:35:50

# SIERRA WIRELESS, INC.

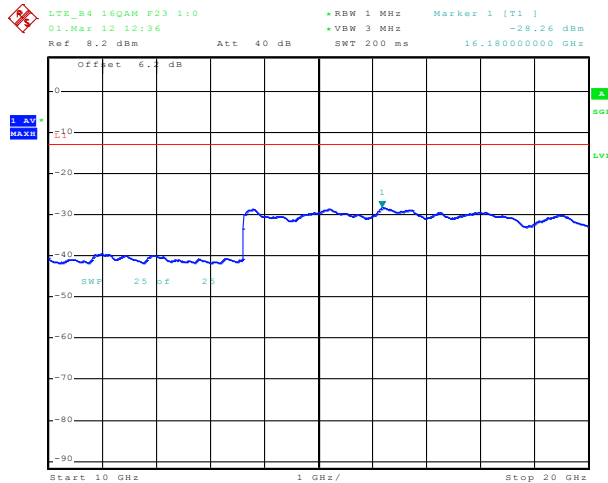
### 6.3.3.119 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, ORB Offset, 16QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 12:36:19

Note: The strong emission shown in each case is the carrier signal.

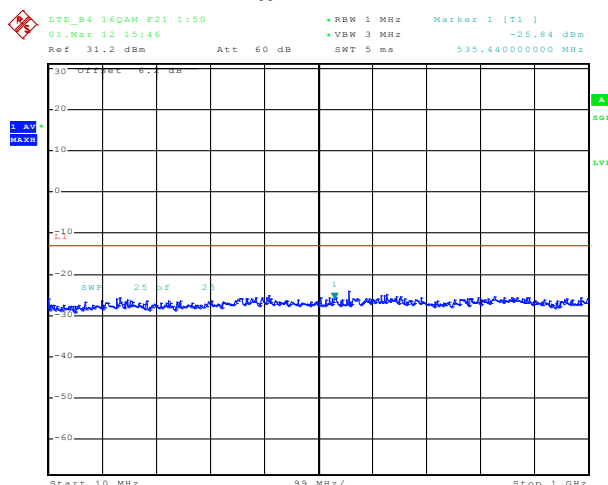
### 6.3.3.120 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, ORB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 12:36:40

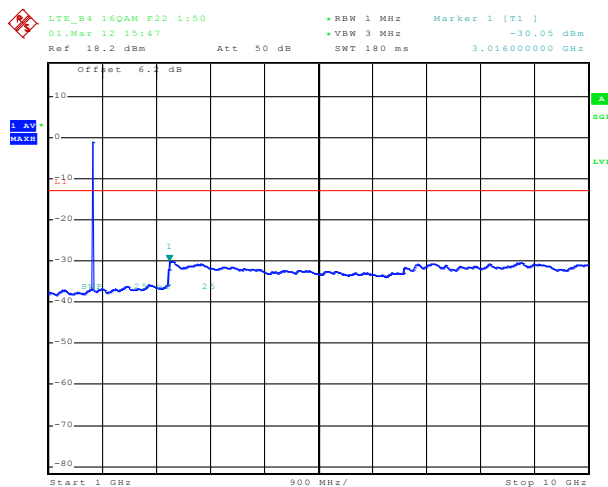
# SIERRA WIRELESS, INC.

### 6.3.3.121 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 15:46:53

### 6.3.3.122 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 1 GHz to 10 GHz

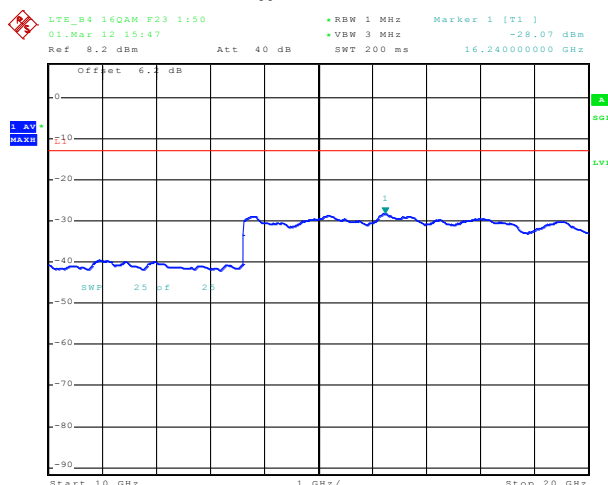


Date: 1.MAR.2012 15:47:22

Note: The strong emission shown in each case is the carrier signal.

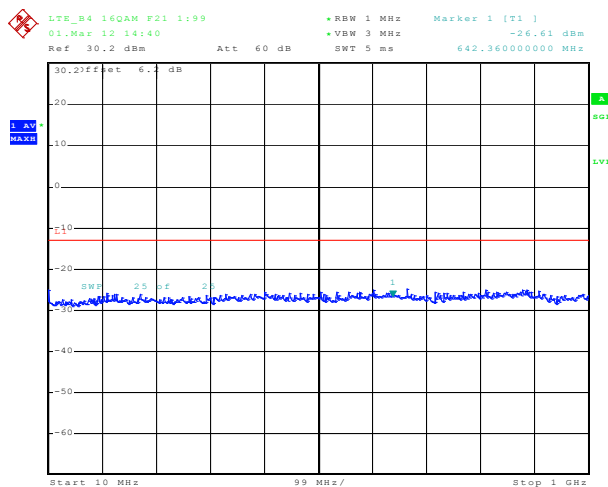
# SIERRA WIRELESS, INC.

### 6.3.3.123 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 50RB Offset, 16QAM, 10 GHz to 20 GHz



Date: 1.MAR.2012 15:47:44

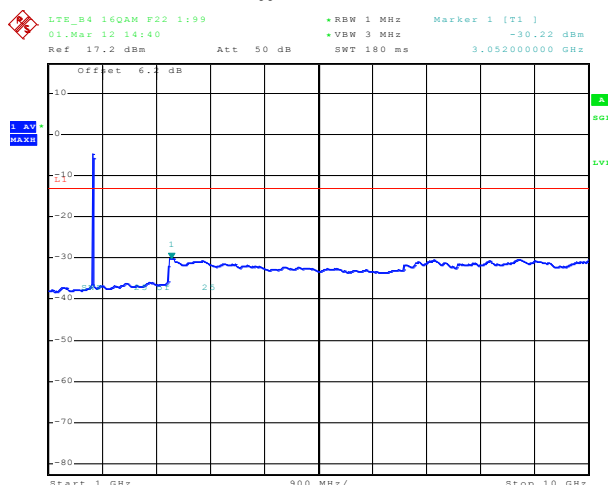
### 6.3.3.124 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 10MHz to 1 GHz



Date: 1.MAR.2012 14:40:30

# SIERRA WIRELESS, INC.

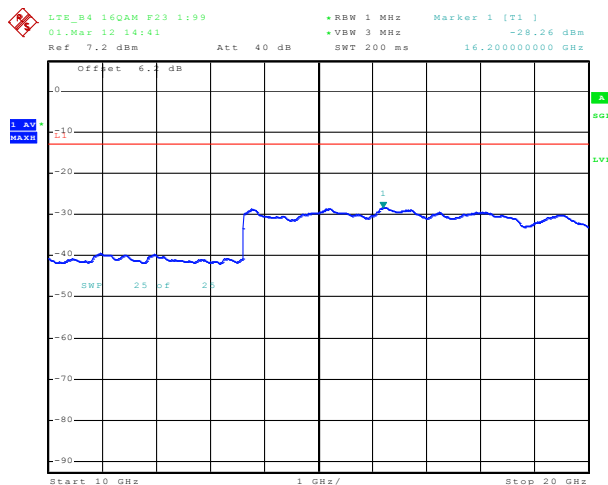
## 6.3.3.125 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 1 GHz to 10 GHz



Date: 1.MAR.2012 14:40:59

Note: The strong emission shown in each case is the carrier signal.

## 6.3.3.126 Out of Band Emissions at Antenna Terminals LTE B4, High channel, 1745.0 MHz, 20MHz BW, 1RB, 99RB Offset, 16QAM, 10 GHz to 20 GHz

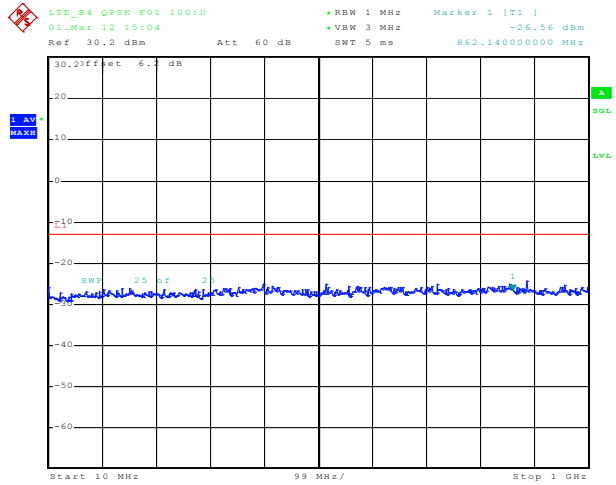


Date: 1.MAR.2012 14:41:21



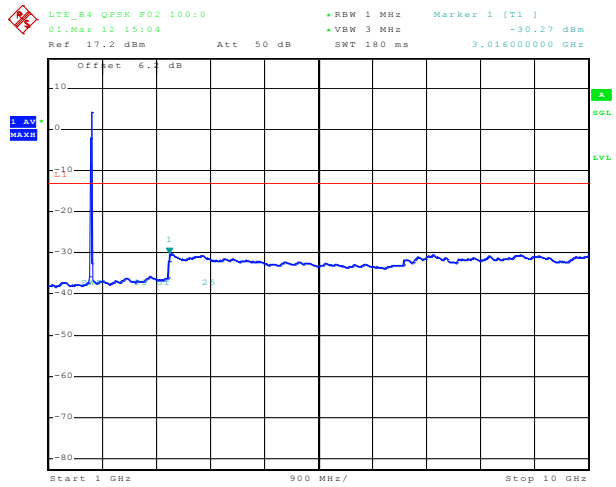
**SIERRA WIRELESS, INC.**

**6.3.3.127**     *Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 100RB, QPSK, 10MHz to 1 GHz*



Date: 1.MAR.2012 15:04:04

**6.3.3.128**     *Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 100RB, QPSK, 1 GHz to 10 GHz*

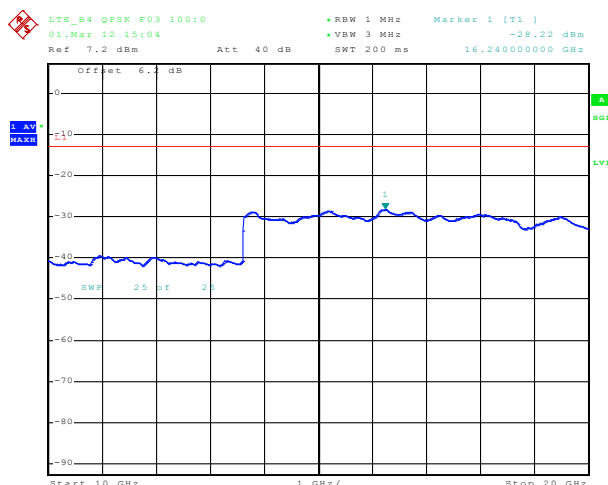


Date: 1.MAR.2012 15:04:32

Note: The strong emission shown in each case is the carrier signal.

# SIERRA WIRELESS, INC.

## 6.3.3.129 Out of Band Emissions at Antenna Terminals LTE B4, Low channel, 1720.0 MHz, 20MHz BW, 100RB, QPSK, 10 GHz to 20 GHz



## 6.3.3.130 Out of Band Emissions at Antenna Terminals LTE B4, Mid channel, 1732.5 MHz, 20MHz BW, 100RB, QPSK, 10MHz to 1 GHz

