



FCC RF Test Report

Product Name: Mobile WiFi

Model Number: E589u-512

Report No: SYBH(Z-RF)011072012-2002

FCC ID: QISE589u-512

Reliability Laboratory of Huawei Technologies Co., Ltd.

Huawei Base, Bantian, Longgang District, Shenzhen 518129, P.R. China
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Notice

1. The laboratory has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS), and accreditation number: L0310.
2. The laboratory has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements. The site recognition number is 97456.
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Applicant:	Huawei Technologies Co., Ltd.
Address:	Huawei Base, Bantian, Longgang District, Shenzhen 518129, P.R. China
Date of Receipt Test Item:	Jul., 04, 2012
Start Date of Test:	Jul., 05, 2012
End Date of Test:	Jul., 16, 2012
Test Result:	Pass

Approved By Senior Engineer Jul., 18, 2012 Dai Linjun Dai Linjun
Date Name Signature

Reviewed By Jul., 18, 2012 Cousy Xu Cousy XU
Date Name Signature

Operated By Jul., 18, 2012 Huang Qiuliang Huang Qiuliang
Date Name Signature



Modification Record

Last Report No.	Date	Modification Description
SYBH(Z-RF) 011072012-2002	2012-7-18	First report.
SYBH(Z-RF) 011072012-2002	2012-9-10	1. Justification that HSPA+ and DC-HSPA were not tested shall be in the test report at page 11. 2. CCDF plots have been removed from Annex A 3. PAR for GSM operation has been corrected at page 3 of Annex A

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General Information

1.1 Applied Standard	
Applied Rules:	47 CFR FCC Part 2:2011, Subpart J 47 CFR FCC Part 24:2011, Subpart E ANSI/TIA 603C:2004 KDB 971168 D01 Power Meas License Digital Systems v01
1.2 Test Location	
Test Location 1:	Reliability Laboratory of Huawei Technologies Co., Ltd.
Address:	Huawei Base, Bantian, Longgang District, Shenzhen 518129, P.R. China
1.3 Test Environmental Condition	
Ambient Temperature:	20 – 25 °C
Ambient Relative Humidity:	45 – 55 %
Atmospheric Pressure:	101 kPa

1 Summary

Table 1 Summary of results

Test Case	FCC Part No.	Requirements	Result
PCS Band			
Transmitter Output Power	2.1046 & 24.232	Peak EIRP not exceed 2 W Peak-to-average ratio not exceed 13 dB	Pass
Modulation Characteristics	2.104	Digital modulation	Pass
Occupied Bandwidth	2.104	(Not specified)	Pass
Band Edges Compliance	2.1051 & 24.238	Below -13 dBm/1%*EBW, in 1 MHz range	Pass
Spurious Emission at Antenna Terminals	2.1051 & 24.238	Below -13 dBm/1 kHz, 9 kHz to 150 kHz Below -13 dBm/10 kHz, 150 kHz to 30 MHz Below -13 dBm/1 MHz, 30 MHz to 10 th harmonics	Pass
Field Strength of Spurious Radiation	2.1053 & 24.238	Below -13 dBm/1 MHz	Pass
Frequency Stability	2.1055 & 24.235	Stay within the authorized frequency block	Pass

2 Product Description

2.1 Product Information

2.1.1 General Description

E589u-512 is a LTE/UMTS/GSM triple mode and WiFi Wireless mobile Router; it can be used as a WiFi Access Point based on standard of IEEE802.11b/g/n. It supports 3G WCDMA and 4G LTE wireless internet accessing function. About 3G WCDMA wireless mode, it supports WCDMA and HSDPA/HSUPA/HSPA+/DC-HSPA+, operating in Band2 and Band 5, and the 4G LTE, operating in Band2, Band4 and Band7. The WiFi frequency is 2.4GHz.
E589u-512 supports 1Tx2Rx for 3G WCDMA and 4G LTE, WiFi only supports 1Tx1Rx.

2.1.2 Board Information

Table 2 Board Information

Mobile WiFi		
E589u-512		
Board		
Hardware Version	Hardware Version	Hardware Version
CL1E589M22	CL1E589M22	CL1E589M22

2.1.3 Adapter Technical Data

AC/DCAdapter Model	HW-050200U3W
Manufacturer	HUAWEI
Input Voltage	100-240V1 ~50/60Hz, 0.5A MAX
Output Voltage	 5.0V 2.0A

2.1.4 Battery Technical Data

Name	Qty.	Manufacture	Description
Li-ion Battery	1	HUAWEI	Battery Model: HB5P1H Rated capacity: 3000mAh Nominal Voltage:  +3.7V Charging Voltage:  +4.2V

3 Test Description

3.1 Supported Frequency Range

Characteristics	Description
Downlink	1930 to 1990 MHz
Uplink	1850 to 1910 MHz

3.2 Transmitter / Receiver Characteristics

Characteristics	Description
System Type	GSM UMTS LTE
TX Output Power (per Antenna Port)	GSM system: 29dBm; UMTS system: 22dBm LTE system: 22dBm
Channel Spacing(s) / Bandwidth(s)	GSM system: 200 kHz UMTS system: 5 MHz LTE system: 5 MHz, 10 MHz, 15 MHz, 20 MHz
Designation of Emissions	GSM system: 250KGXW (GMSK modulation), 242KG7W (8PSK modulation) UMTS system: 4M17F9W LTE system: 4M53G7D (5MHz ,QPSK modulation), 4M53W7D (5 MHz ,16QAM modulation), 8M97G7D (10 MHz QPSK modulation), 8M97W7D (10 MHz 16QAM modulation), 13M4G7D (15MHz QPSK modulation), 13M4W7D (15MHz 16QAM modulation), 17M9G7D (20 MHz QPSK modulation), 17M9W7D (20 MHz 16QAM modulation)

3.3 Antenna Gain

Rated Antenna Gain(dBi)	3.15
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4 General Test Conditions / Configurations

4.1 RF Channels under Test

Test Mode	TX / RX	RF Channel		
		Low (L)	Middle (M)	High (H)
TM1/TM2	TX	Channel 512	Channel 661	Channel 810
		1850.2MHz	1880.0MHz	1909.8MHz
	RX	Channel 512	Channel 661	Channel 810
		1930.2 MHz	1960.0 MHz	1989.8 MHz
TM3/TM4/TM5	TX	Channel 9262	Channel9400	Channel9538
		1852.4MHz	1880.0MHz	1907.6MHz
	RX	Channel 9662	Channel 9800	Channel 9938
		1932.4 MHz	1960.0 MHz	1987.6 MHz
TM6/TM7	TX(5M)	Channel 18625	Channel 18900	Channel 19175
		1852.5	1880 MHz	1907.5MHz
	RX(5M)	Channel 625	Channel 900	Channel 1175
		1932.5MHz	1960 MHz	1987.5MHz
	TX(10M)	Channel 18650	Channel 18900	Channel 19150
		1855MHz	1880 MHz	1905MHz
	RX(10M)	Channel 650	Channel 900	Channel 1150
		1935MHz	1960 MHz	1985MHz
	TX(15M)	Channel 18675	Channel 18900	Channel 19125
		1857.5MHz	1880 MHz	1902.5MHz
	RX(15M)	Channel 675	Channel 900	Channel 1125
		1937.5MHz	1960 MHz	1982.5MHz
	TX(20M)	Channel 18700	Channel 18900	Channel 19100
		1860MHz	1880 MHz	1900MHz
	RX(20M)	Channel 700	Channel 900	Channel 1100
		1940MHz	1960 MHz	1980MHz

4.2 Test Modes

Test Mode	Test Modes Description
TM1	GSM/GPRS, GMSK modulation
TM2	EDGE, 8PSK modulation
TM3	WCDMA, QPSK modulation
TM4	HSDPA, QPSK modulation
TM5	HSUPA, QPSK modulation
TM6	LTE, QPSK modulation
TM7	LTE, 16QAM modulation

Note:

HSPA+ implementation of this device, 16QAM is not used for uplink. The uplink Category and release number is same as HSUPA, RF test is evaluation is not required.

DC-HSDPA implementation of this device, the uplink parameters are the same as HSDPA. No additional channels and modulations (16 QAM, and 64 QAM) are supported in uplink. The difference is only in the downlink parameters. HSDPA settings were used on uplink.

4.3 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	Ambient	
Temperature	TN	Ambient
Voltage	VL	3.6V
	VN	3.7V
	VH	4.2V

NOTE: VL= lower extreme test voltage

VN= nominal voltage

VH= upper extreme test voltage

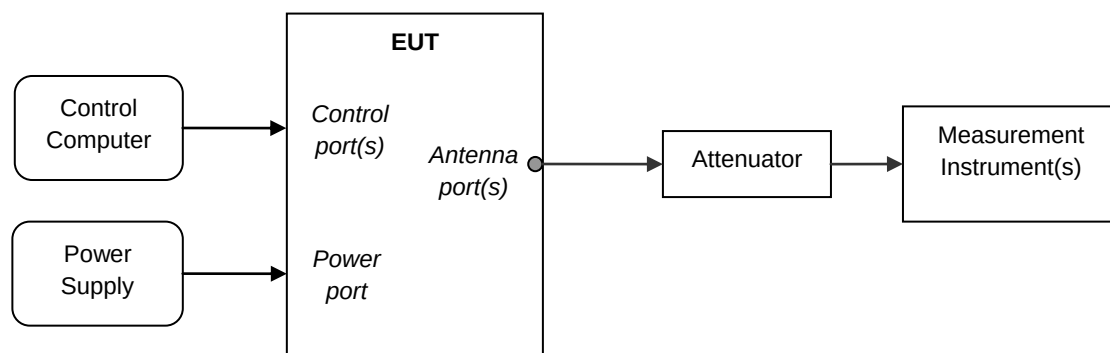
TN= normal temperature

4.4 Test Setup

4.4.1 General Test Setup Configurations

Configuration	Description
Test Antenna Ports	Until otherwise declared, all TX tests are ONLY performed at the main Transmitter antenna port (e.g. TRXA, TXA and so on) of the EUT, and all RX tests are ONLY performed at the main Receiver antenna port (e.g. TRXA, RXA and so on) of the EUT.
Multiple RF Sources	Other than the tested RF source of the EUT, other RF source(s) are disabled or shutdown during measurements.

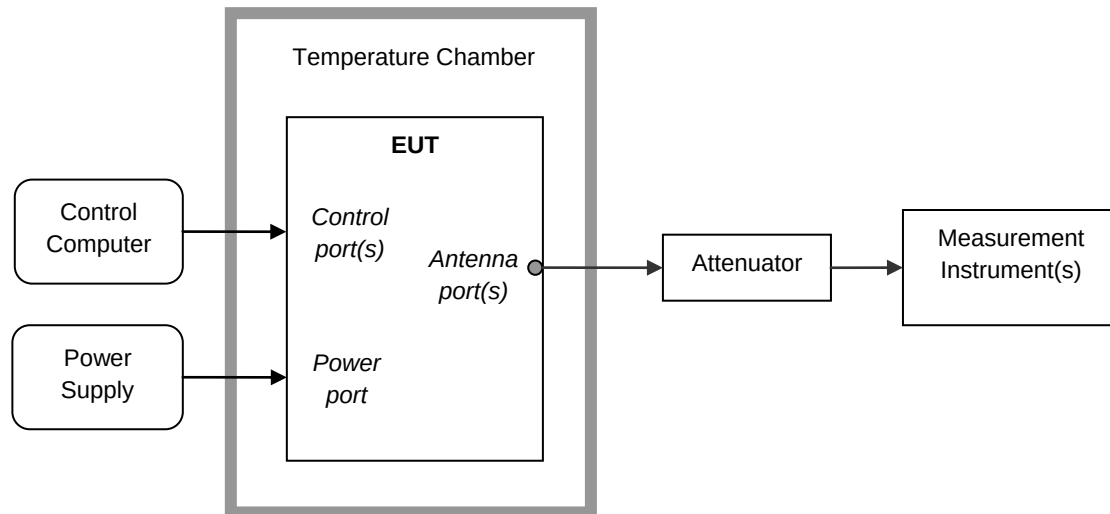
4.4.2 Test Setup 1



Note

A peak to average ratio measurement is performed at the conducted port of the EUT. For WCDMA and LTE signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level. For GSM signals, an average and a peak trace are used on a spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth. The traces are generated with the spectrum analyzer set to zero span mode.

4.4.3 Test Setup 2



4.4.4 Test Setup 3

NOTE1: Effective radiated power (ERP) or Effective Isotropic radiated power (EIRP) refers to the EUT radiation power output, assuming all emissions are radiated from half-wave dipole antennas or horn antennas.

NOTE2: The EUT was set on insulator 80cm above the Ground Plane. The setup and test methods were according to ANSI-TIA-603C 2004. The measurements were carried through with a Rohde and Schwarz Test Receiver and control software.

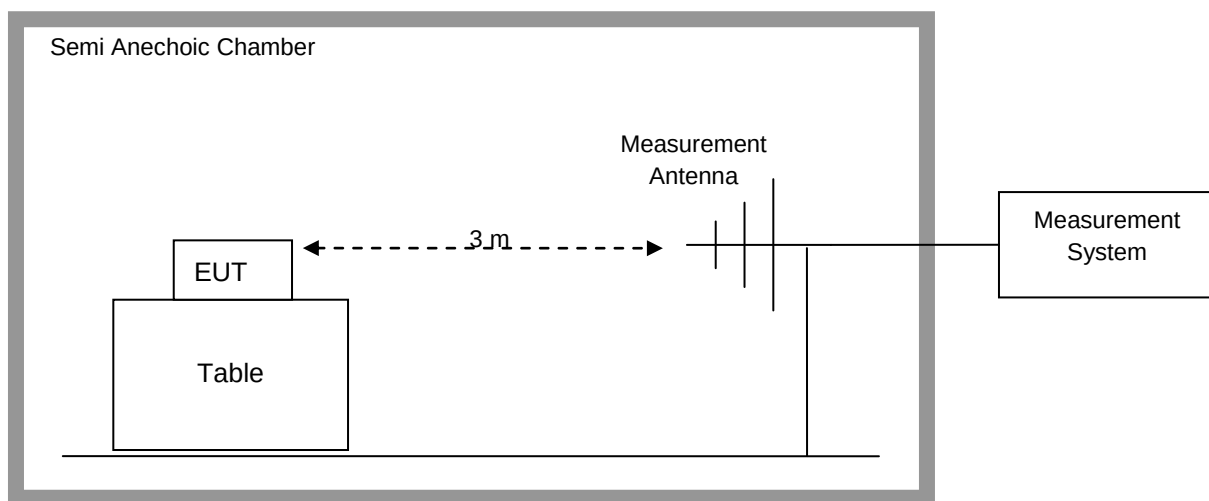
Step 1: Pre-test to find the Maximum ERP or EIRP

1. Connect the test system according to the following figure. EUT is running for 30 minutes before test, and measurement instruments are warming-up for 30 minutes.
2. Set up communication link between Universal radio communication tester and EUT, set EUT working frequency, and control EUT to transmit at maximum power.
3. Set the center frequency of the signal analyzer or receiver to the EUT's operating frequency, the RBW is equal to the emission bandwidth of the signal. Set RMS detector for the test, and the span is

equal to 2 times of emission bandwidth, the other settings should remain automatic. Normally, the height range of antenna was 1m to 4m, the azimuth range of turntable was 0° to 360°. The receiver antenna has two polarizations V and H. A portable or small unlicensed wireless device shall be placed on a non-metallic test fixture or other non-metallic support during testing. The supporting fixture shall permit orientation of the EUT in each of three orthogonal (x, y, z) axis positions such that emissions from the EUT are maximized. Measure the EUT maximum RF power and record the result.

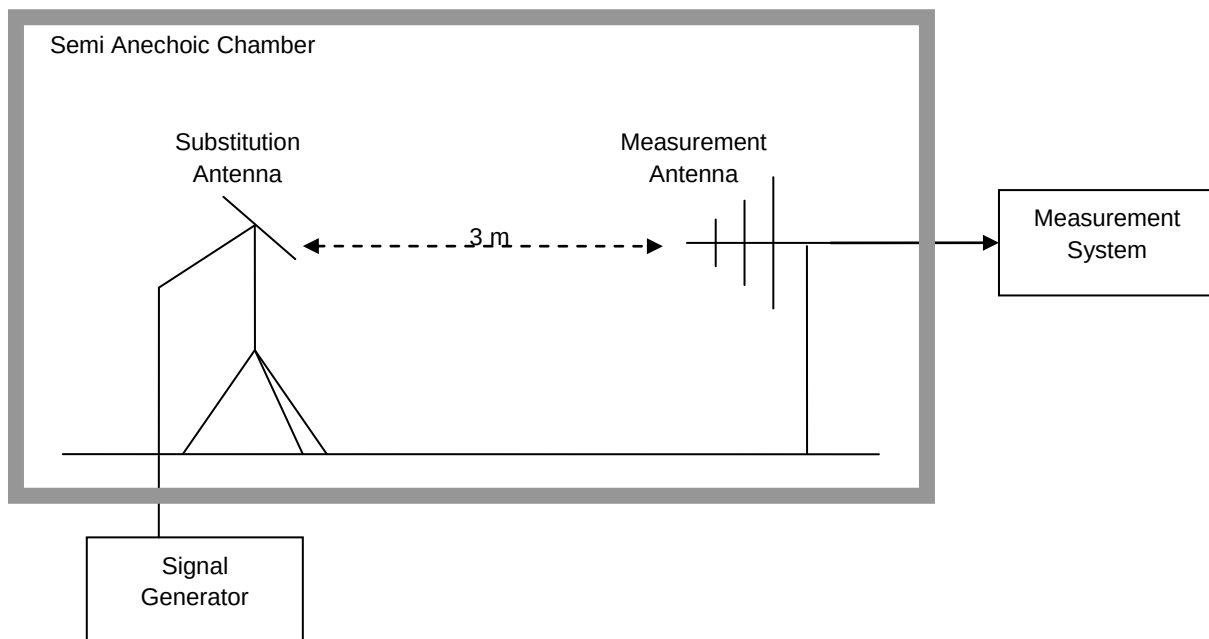
4. Changing EUT working frequency and measuring the RF power at channel L, M, H respectively.

Complete the test data.



Step 2: Substitution method to verify the maximum ERP or EIRP

1. Measurement setup is according to the following figure. EUT was substituted by antenna, and the polarization is identical with the test antenna; the signal generator was connected to the substitution antenna.
2. The radiated output power, measured by signal analyzer set, is the same as recorded in above. Then this power level is matched by a signal from a calibrated signal generator which is substituted for EUT. The power supplied by the generator is then equal to the ERP or EIRP after corrected by the antenna gain and cable loss.



4.5 Test Conditions

Test Case	Test Conditions	
Transmitter Output Power	Test Configuration	Ambient Temperature & Rated Voltage
	Test Setup	Test Setup 1 & Test Setup 3
	Detector	RMS
	RF Channels (TX)	L, M, H
	Test Mode	TM1/TM2/TM3/TM4/TM5/TM6/TM7
Modulation Characteristics	Test Configuration	Ambient Temperature & Rated Voltage
	Test Setup	Test Setup 1
	RF Channels (TX)	M
	Test Mode	TM1/TM2/TM3/TM6/TM7
Occupied Bandwidth	Test Configuration	Ambient Temperature & Rated Voltage
	Test Setup	Test Setup 1
	Detector	PK
	RF Channels (TX)	L, M, H
	Test Mode	TM1/TM2/TM3/TM6/TM7
Band Edges Compliance	Test Configuration	Ambient Temperature & Rated Voltage
	Test Setup	Test Setup 1
	Detector	RMS
	RF Channels (TX)	L, H
	Test Mode	TM1/TM2/TM3/TM6/TM7
Spurious Emission at Antenna Terminals	Test Configuration	Ambient Temperature & Rated Voltage
	Test Setup	Test Setup 1
	Detector	PK
	RF Channels (TX)	L, M, H
	Test Mode	TM1/TM2/TM3/TM6
Field Strength of Spurious Radiation	Test Configuration	Ambient Temperature & Rated Voltage
	Test Setup	Test Setup 3
	Detector	PK
	RF Channels (TX)	M
	Test Mode	TM1/TM2/TM3/TM4/TM5/TM6
Frequency Stability	Test Configuration	(1) -30 °C to +50 °C with step 10 °C at Rated Voltage; (2) VL, VH and VN Voltage at Ambient Temperature.
	Test Setup	Test Setup 2
	RF Channels (TX)	M
	Test Mode	TM1/TM2/TM3/TM6

5 Main Test Instruments

Table 3 Main Test Equipments

Equipment Description	Manufacturer	Model	Serial Number	Calibrated until
Power supply	KEITHLEY	2303	1288003	Sep.27,2012
Universal Radio Communication Tester	R&S	CMU200	117341	Jan.12.2013
Universal Radio Communication Tester	Agilent	E5515C	MY50260239	Aug.31,2012
Spectrum Analyzer	Agilent	E4440A	MY49420179	Jul.17,2012
Signal Analyzer	R&S	FSQ31	200021	Sep.27,2012
Temperature Chamber	WEISS	WKL64	24600294	Feb.13,2013
Signal generator	Agilent	E8257D	MY49281095	Jul.08.2013
Spectrum analyzer	R&S	FSU3	200474	Mar., 05, 2013
Spectrum analyzer	R&S	FSU43	100144	Mar., 05, 2013
Double-Ridged Waveguide Horn Antenna (1G~18GHz)	R&S	HF907	100304	Apr., 05, 2013
Double-Ridged Waveguide Horn Antenna (1G~18GHz)	R&S	HF907	100391	Apr., 05, 2013
Trilog Broadband Antenna (30M~3GHz)	SCHWARZBECK	VULB 9163	9163-521	Jul., 07, 2013
Pyramidal Horn Antenna(26GHz-40GHz)	ETS-Lindgren	3160-10	00123940	Feb., 27, 2013
Pyramidal Horn Antenna(18GHz-26.5GHz)	ETS-Lindgren	3160-09	00125912	Feb.,27, 2013
Universal Radio Communication Tester	R & S	CMW500	20347676	Sept., 07, 2012
Universal Radio Communication Tester	Anritsu	MT8820C	6200971028	May., 04, 2013

6 Test Results

No.	Test Item	Test Result
1	Transmitter Output Power	Appendix A
2	Modulation Characteristics	Appendix B
3	Occupied Bandwidth	Appendix C
4	Band Edges Compliance	Appendix D
5	Spurious Emission at Antenna Terminals	Appendix E
6	Field Strength of Spurious Radiation	Appendix F
7	Frequency Stability	Appendix G
8	Photos of Test Setup	Appendix H

NOTE: There is no test data in Appendix H, only Photos of Test Setup for Field Strength of Spurious Radiation.

7 Measurement Uncertainty

For a 95% confidence level (k=2), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

Test Item		Extended Uncertainty
Transmitter Output Power	Power (dBm)	U =0.39 dB
Occupied Bandwidth	Magnitude (%)	U=0.2%
Band Edge Compliance	Disturbance Power (dBm)	U=2.0 dB
Conducted Spurious Emissions	Disturbance Power (dBm)	U=2.0 dB
Field Strength of Spurious Radiation	ERP (dBm)	U=4.6 dB (30 MHz – 1GHz) U=3.0 dB (above 1 GHz)
Frequency Stability	Frequency Accuracy (ppm)	U=0.21 ppm

-----The END-----



Appendix A

Transmitter Output Power

According to FCC Part 2.1046 & Part24.232

Conducted Power of Transmitter

Table 1 Measurement Results BAND 2

		RF Output Power (Conducted)		
TEST CONDITIONS		Channel512(L)	Channel661(M)	Channel810(H)
		1850.2MHz	1880.0MHz	1909.8MHz
		dBm	dBm	dBm
T_{nom} / V_{nom}		Measured	Measured	Measured
TM1		29.81	29.57	29.63
TM2		26.12	26.05	26.02
TEST CONDITIONS		Channel9262(L)	Channel9400(M)	Channel9538(H)
		1852.4MHz	1880.0MHz	1907.6MHz
		dBm	dBm	dBm
T_{nom} / V_{nom}		Measured	Measured	Measured
TM3		22.14	22.21	22.18
TM4	Case1	22.18	22.23	22.04
	Case2	21.96	22.05	21.19
	Case3	21.49	21.66	19.91
	Case4	21.22	21.23	19.86
TM5	Case1	21.08	21.22	21.27
	Case2	19.94	20.2	19.76
	Case3	20.7	20.77	20.51
	Case4	20.77	20.66	20.26
	Case5	21.72	21.65	21.41

Table 2 Measurement Results (LTE) BAND 2

TM4 & TM5 RF Output Power(Conducted) BAND 2			
Test Mode	TN/VN		
	Modulation	RB	Measured (dBm)
Channel (L) 5MHz(BW)	QPSK	1RB#0	21.85
		1RB#max	21.79
		12RB#6	20.65
		Full	20.57
	16QAM	1RB#0	21.03
		1RB#max	20.97
		12RB#6	19.53
		Full	19.60
Channel (L) 10MHz(BW)	QPSK	1RB#0	21.61
		1RB#max	21.54
		25RB#13	20.68
		Full	20.72
	16QAM	1RB#0	20.29
		1RB#max	20.28
		25RB#13	19.68
		Full	19.60
Channel (L) 15MHz(BW)	QPSK	1RB#0	21.89
		1RB#max	21.64
		36RB#18	20.70
		Full	20.65
	16QAM	1RB#0	21.05
		1RB#max	20.62
		36RB#18	19.66
		Full	19.63
Channel (L) 20MHz(BW)	QPSK	1RB#0	21.85
		1RB#max	21.56
		50RB#25	20.56
		Full	20.59
		1RB#0	21.03



	16QAM	1RB#max	20.67
		50RB#25	19.48
		Full	19.61
Channel (M) 5MHz(BW)	QPSK	1RB#0	21.96
		1RB#max	21.95
		12RB#6	20.88
		Full	20.78
	16QAM	1RB#0	21.04
		1RB#max	21.12
		12RB#6	19.55
		Full	19.94
Channel (M) 10MHz(BW)	QPSK	1RB#0	21.64
		1RB#max	21.66
		25RB#13	20.70
		Full	20.64
	16QAM	1RB#0	20.87
		1RB#max	20.94
		25RB#13	19.77
		Full	19.69
Channel (M) 15MHz(BW)	QPSK	1RB#0	21.73
		1RB#max	21.91
		36RB#18	20.79
		Full	20.74
	16QAM	1RB#0	20.33
		1RB#max	20.46
		36RB#18	19.68
		Full	19.75
Channel (M) 20MHz(BW)	QPSK	1RB#0	21.58
		1RB#max	21.97
		50RB#25	20.74
		Full	20.85
	16QAM	1RB#0	21.05
		1RB#max	21.23
		50RB#25	19.85
		Full	19.81

Channel (H) 5MHz(BW)	QPSK	1RB#0	21.85
		1RB#max	21.07
		12RB#6	20.50
		Full	20.43
	16QAM	1RB#0	21.01
		1RB#max	20.19
		12RB#6	19.31
		Full	19.37
Channel (H) 10MHz(BW)	QPSK	1RB#0	21.97
		1RB#max	21.25
		25RB#13	20.76
		Full	20.75
	16QAM	1RB#0	20.58
		1RB#max	19.92
		25RB#13	19.72
		Full	19.48
Channel (H) 15MHz(BW)	QPSK	1RB#0	21.98
		1RB#max	21.01
		36RB#18	20.82
		Full	20.75
	16QAM	1RB#0	21.04
		1RB#max	20.12
		36RB#18	19.91
		Full	19.71
Channel (H) 20MHz(BW)	QPSK	1RB#0	21.89
		1RB#max	21.03
		50RB#25	20.75
		Full	20.68
	16QAM	1RB#0	21.08
		1RB#max	19.99
		50RB#25	19.70
		Full	19.72



Peak-to-Average Ratio

Table 1 Measurement Results (LTE) BAND 2

		Peak-to-Average Ratio					
TEST CONDITIONS		Channel512(L)		Channel661(M)		Channel810(H)	
		1850.2MHz		1880.0MHz		1909.8MHz	
		dB		dB		dB	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
TM1		0.86	13	0.78	13	0.59	13
TM2		3.64	13	3.59	13	3.52	13
TEST CONDITIONS		Channel9262(L)		Channel9400(M)		Channel9538(H)	
		1852.4MHz		1880.0MHz		1907.6MHz	
		dB		dB		dB	
T_{nom} / V_{nom}		Measured	Limit	Measured	Limit	Measured	Limit
TM3		3.21	13	3.30	13	3.26	13
TM4	Case1	3.22	13	3.18	13	3.24	13
	Case2	3.23	13	3.21	13	3.22	13
	Case3	3.16	13	3.29	13	3.19	13
	Case4	3.23	13	3.25	13	3.20	13
TM5	Case1	3.27	13	3.28	13	3.24	13
	Case2	3.17	13	3.26	13	3.22	13
	Case3	3.28	13	3.13	13	3.18	13
	Case4	3.16	13	3.17	13	3.21	13
	Case5	3.22	13	3.17	13	3.14	13

Table 2 Measurement Results (LTE) BAND 2

Peak-to-Average Ratio	
	TN/VN

Test Mode	Modulation	RB	Measured (dB)	Limit (dB)
Channel (L) 5MHz(BW)	QPSK	1RB#0	5.71	13
		1RB#max	5.71	13
		12RB#6	5.66	13
		Full	5.77	13
	16QAM	1RB#0	6.60	13
		1RB#max	6.54	13
		12RB#6	6.51	13
		Full	6.61	13
Channel (L) 10MHz(BW)	QPSK	1RB#0	5.53	13
		1RB#max	5.57	13
		25RB#13	5.60	13
		Full	5.62	13
	16QAM	1RB#0	6.31	13
		1RB#max	6.30	13
		25RB#13	6.34	13
		Full	6.43	13
Channel (L) 15MHz(BW)	QPSK	1RB#0	5.86	13
		1RB#max	5.90	13
		36RB#18	5.91	13
		Full	5.92	13
	16QAM	1RB#0	6.55	13
		1RB#max	6.52	13
		36RB#18	6.53	13
		Full	6.57	13
Channel (L) 20MHz(BW)	QPSK	1RB#0	5.58	13
		1RB#max	5.61	13
		50RB#25	5.51	13
		Full	5.62	13
	16QAM	1RB#0	6.36	13
		1RB#max	6.35	13
		50RB#25	6.34	13
		Full	6.39	13
Channel (M) 5MHz(BW)	QPSK	1RB#0	5.77	13
		1RB#max	5.73	13
		12RB#6	5.69	13
		Full	5.80	13



	16QAM	1RB#0	6.58	13
		1RB#max	6.54	13
		12RB#6	6.55	13
		Full	6.63	13
Channel (M) 10MHz(BW)	QPSK	1RB#0	5.63	13
		1RB#max	5.59	13
		25RB#13	5.61	13
		Full	5.64	13
	16QAM	1RB#0	6.33	13
		1RB#max	6.31	13
		25RB#13	6.38	13
		Full	6.44	13
Channel (M) 15MHz(BW)	QPSK	1RB#0	5.89	13
		1RB#max	5.95	13
		36RB#18	5.96	13
		Full	5.99	13
	16QAM	1RB#0	6.59	13
		1RB#max	6.54	13
		36RB#18	6.56	13
		Full	6.60	13
Channel (M) 20MHz(BW)	QPSK	1RB#0	5.65	13
		1RB#max	5.61	13
		50RB#25	5.55	13
		Full	5.67	13
	16QAM	1RB#0	6.38	13
		1RB#max	6.33	13
		50RB#25	6.40	13
		Full	6.41	13
Channel (H) 5MHz(BW)	QPSK	1RB#0	5.74	13
		1RB#max	5.71	13
		12RB#6	5.66	13
		Full	5.78	13
	16QAM	1RB#0	6.55	13
		1RB#max	6.51	13
		12RB#6	6.53	13
		Full	6.61	13
Channel (H) 10MHz(BW)	QPSK	1RB#0	5.56	13
		1RB#max	5.59	13



		25RB#13	5.60	13
		Full	5.61	13
	16QAM	1RB#0	6.37	13
		1RB#max	6.35	13
		25RB#13	6.38	13
		Full	6.42	13
Channel (H) 15MHz(BW)	QPSK	1RB#0	5.84	13
		1RB#max	5.88	13
		36RB#18	5.90	13
		Full	5.94	13
	16QAM	1RB#0	6.49	13
		1RB#max	6.51	13
		36RB#18	6.53	13
		Full	6.55	13
Channel (H) 20MHz(BW)	QPSK	1RB#0	5.61	13
		1RB#max	5.62	13
		50RB#25	5.59	13
		Full	5.64	13
	16QAM	1RB#0	6.35	13
		1RB#max	6.31	13
		50RB#25	6.34	13
		Full	6.39	13

Effective Isotropic Radiated Power of Transmitter (EIRP)

Test Mode	Freq. [MHz]	Meas. Level [dBm]	Substitution Antenna Type	SGP [dBm]	Substitution Gain [dBi]	Cable Loss [dB]	Substitution Level (EIRP)	FCC limit [dBm]	Result
							[dBm]		
TM1	1850.2	32.96	Horn Ant.	29.65	4.5	1	32.76	33	Pass
TM1	1880.0	32.72	Horn Ant.	29.02	4.5	1	32.52	33	Pass
TM1	1909.8	32.78	Horn Ant.	28.78	4.8	1	32.58	33	Pass
TM2	1850.2	29.27	Horn Ant.	25.57	4.5	1	29.07	33	Pass
TM2	1880.0	29.2	Horn Ant.	25.5	4.5	1	29	33	Pass
TM2	1909.8	29.17	Horn Ant.	25.53	4.8	1	29.33	33	Pass
TM3	1852.4	25.29	Horn Ant.	21.85	4.5	1	25.35	33	Pass
TM3	1880.0	25.36	Horn Ant.	21.66	4.5	1	25.16	33	Pass
TM3	1907.6	25.33	Horn Ant.	21.33	4.8	1	25.13	33	Pass

Test Mode			Meas. Level [dBm]	Substitution Antenna Type	SGP [dBm]	Substitution Gain [dBi]	Cable Loss [dB]	Substitution Level (EIRP) [dBm]	FCC limit [dBm]	Result
Channel	Modulation	RB								
Channel (L) 5MHz(BW)	QPSK	1 RB/#0	25.00	Horn Ant.	18.33	4.5	1	24.98	33	Pass
		1 RB/#max	24.94	Horn Ant.	18.25	4.5	1	24.90	33	Pass
		12 RB/#6	23.80	Horn Ant.	17.11	4.5	1	23.76	33	Pass
		Full	23.72	Horn Ant.	17.02	4.5	1	23.67	33	Pass
	16QAM	1 RB/#0	24.18	Horn Ant.	17.49	4.5	1	24.14	33	Pass
		1 RB/#max	24.12	Horn	17.41	4.5	1	24.06	33	Pass

				Ant.						
		12 RB/#6	22.68	Horn Ant.	16.05	4.5	1	22.70	33	Pass
		Full	22.75	Horn Ant.	16.09	4.5	1	22.74	33	Pass
Channel (L) 10MHz(BW)	QPSK	1 RB/#0	24.76	Horn Ant.	18.1	4.5	1	24.75	33	Pass
		1 RB/#max	24.69	Horn Ant.	18.01	4.5	1	24.66	33	Pass
		25 RB/#13	23.83	Horn Ant.	17.15	4.5	1	23.80	33	Pass
		Full	23.87	Horn Ant.	17.17	4.5	1	23.82	33	Pass
	16QAM	1 RB/#0	23.44	Horn Ant.	16.72	4.5	1	23.37	33	Pass
		1 RB/#max	23.43	Horn Ant.	16.73	4.5	1	23.38	33	Pass
		25 RB/#13	22.83	Horn Ant.	16.11	4.5	1	22.76	33	Pass
		Full	22.75	Horn Ant.	16.07	4.5	1	22.72	33	Pass
Channel (L) 15MHz(BW)	QPSK	1 RB/#0	25.04	Horn Ant.	18.31	4.5	1	24.96	33	Pass
		1 RB/#max	24.79	Horn Ant.	18.11	4.5	1	24.76	33	Pass
		36 RB/#18	23.85	Horn Ant.	17.09	4.5	1	23.74	33	Pass
		Full	23.80	Horn Ant.	17.08	4.5	1	23.73	33	Pass
	16QAM	1 RB/#0	24.20	Horn Ant.	17.52	4.5	1	24.17	33	Pass
		1 RB/#max	23.77	Horn Ant.	17.11	4.5	1	23.76	33	Pass
		36 RB/#18	22.81	Horn Ant.	16.11	4.5	1	22.76	33	Pass
		Full	22.78	Horn Ant.	16.06	4.5	1	22.71	33	Pass



Channel (L) 20MHz(BW)	QPSK	1 RB/#0	25.00	Horn Ant.	18.29	4.5	1	24.94	33	Pass
		1 RB/#max	24.71	Horn Ant.	17.95	4.5	1	24.60	33	Pass
		50 RB/#25	23.71	Horn Ant.	17.02	4.5	1	23.67	33	Pass
		Full	23.74	Horn Ant.	17.01	4.5	1	23.66	33	Pass
	16QAM	1 RB/#0	24.18	Horn Ant.	17.5	4.5	1	24.15	33	Pass
		1 RB/#max	23.82	Horn Ant.	17.12	4.5	1	23.77	33	Pass
		50 RB/#25	22.63	Horn Ant.	15.96	4.5	1	22.61	33	Pass
		Full	22.76	Horn Ant.	16.12	4.5	1	22.77	33	Pass
Channel (M) 5MHz(BW)	QPSK	1 RB/#0	25.11	Horn Ant.	18.44	4.5	1	25.09	33	Pass
		1 RB/#max	25.10	Horn Ant.	18.43	4.5	1	25.08	33	Pass
		12 RB/#6	24.03	Horn Ant.	17.28	4.5	1	23.93	33	Pass
		Full	23.93	Horn Ant.	17.19	4.5	1	23.84	33	Pass
	16QAM	1 RB/#0	24.19	Horn Ant.	17.51	4.5	1	24.16	33	Pass
		1 RB/#max	24.27	Horn Ant.	17.59	4.5	1	24.24	33	Pass
		12 RB/#6	22.70	Horn Ant.	16.02	4.5	1	22.67	33	Pass
		Full	23.09	Horn Ant.	16.42	4.5	1	23.07	33	Pass
Channel (M) 10MHz(BW)	QPSK	1 RB/#0	24.79	Horn Ant.	18.1	4.5	1	24.75	33	Pass
		1 RB/#max	24.81	Horn Ant.	18.05	4.5	1	24.70	33	Pass
		25 RB/#13	23.85	Horn Ant.	17.08	4.5	1	23.73	33	Pass

		Full	23.79	Horn Ant.	17.02	4.5	1	23.67	33	Pass
	16QAM	1 RB/#0	24.02	Horn Ant.	17.27	4.5	1	23.92	33	Pass
		1 RB/#max	24.09	Horn Ant.	17.31	4.5	1	23.96	33	Pass
		25 RB/#13	22.92	Horn Ant.	16.19	4.5	1	22.84	33	Pass
		Full	22.84	Horn Ant.	16.16	4.5	1	22.81	33	Pass
Channel (M) 15MHz(BW)	QPSK	1 RB/#0	24.88	Horn Ant.	18.22	4.5	1	24.87	33	Pass
		1 RB/#max	25.06	Horn Ant.	18.42	4.5	1	25.07	33	Pass
		36 RB/#18	23.94	Horn Ant.	17.23	4.5	1	23.88	33	Pass
		Full	23.89	Horn Ant.	17.21	4.5	1	23.86	33	Pass
	16QAM	1 RB/#0	23.48	Horn Ant.	16.84	4.5	1	23.49	33	Pass
		1 RB/#max	23.61	Horn Ant.	16.99	4.5	1	23.64	33	Pass
		36 RB/#18	22.83	Horn Ant.	16.08	4.5	1	22.73	33	Pass
		Full	22.90	Horn Ant.	16.26	4.5	1	22.91	33	Pass
Channel (M) 20MHz(BW)	QPSK	1 RB/#0	24.73	Horn Ant.	18.03	4.5	1	24.68	33	Pass
		1 RB/#max	25.12	Horn Ant.	18.38	4.5	1	25.03	33	Pass
		50 RB/#25	23.89	Horn Ant.	17.21	4.5	1	23.86	33	Pass
		Full	24.00	Horn Ant.	17.27	4.5	1	23.92	33	Pass
	16QAM	1 RB/#0	24.20	Horn Ant.	17.53	4.5	1	24.18	33	Pass
		1 RB/#max	24.38	Horn Ant.	17.61	4.5	1	24.26	33	Pass

		50 RB/#25	23.00	Horn Ant.	16.26	4.5	1	22.91	33	Pass
		Full	22.96	Horn Ant.	16.26	4.5	1	22.91	33	Pass
Channel (H) 5MHz(BW)	QPSK	1 RB/#0	25.00	Horn Ant.	18.02	4.8	1	24.97	33	Pass
		1 RB/#max	24.22	Horn Ant.	17.25	4.8	1	24.20	33	Pass
		12 RB/#6	23.65	Horn Ant.	16.68	4.8	1	23.63	33	Pass
		Full	23.58	Horn Ant.	16.61	4.8	1	23.56	33	Pass
	16QAM	1 RB/#0	24.16	Horn Ant.	17.19	4.8	1	24.14	33	Pass
		1 RB/#max	23.34	Horn Ant.	16.38	4.8	1	23.33	33	Pass
		12 RB/#6	22.46	Horn Ant.	15.48	4.8	1	22.43	33	Pass
		Full	22.52	Horn Ant.	15.51	4.8	1	22.46	33	Pass
Channel (H) 10MHz(BW)	QPSK	1 RB/#0	25.12	Horn Ant.	18.09	4.8	1	25.04	33	Pass
		1 RB/#max	24.40	Horn Ant.	17.38	4.8	1	24.33	33	Pass
		25 RB/#13	23.91	Horn Ant.	16.93	4.8	1	23.88	33	Pass
		Full	23.90	Horn Ant.	16.89	4.8	1	23.84	33	Pass
	16QAM	1 RB/#0	23.73	Horn Ant.	16.75	4.8	1	23.70	33	Pass
		1 RB/#max	23.07	Horn Ant.	16.07	4.8	1	23.02	33	Pass
		25 RB/#13	22.87	Horn Ant.	15.83	4.8	1	22.78	33	Pass
		Full	22.63	Horn Ant.	15.57	4.8	1	22.52	33	Pass
Channel (H) 15MHz(BW)	QPSK	1 RB/#0	25.13	Horn Ant.	17.96	4.8	1	24.91	33	Pass

Channel (H) 20MHz(BW)		1 RB/#max	24.16	Horn Ant.	17.2	4.8	1	24.15	33	Pass
		36 RB/#18	23.97	Horn Ant.	16.96	4.8	1	23.91	33	Pass
		Full	23.90	Horn Ant.	16.88	4.8	1	23.83	33	Pass
	16QAM	1 RB/#0	24.19	Horn Ant.	17.24	4.8	1	24.19	33	Pass
		1 RB/#max	23.27	Horn Ant.	16.36	4.8	1	23.31	33	Pass
		36 RB/#18	23.06	Horn Ant.	16.12	4.8	1	23.07	33	Pass
		Full	22.86	Horn Ant.	15.89	4.8	1	22.84	33	Pass
	QPSK	1 RB/#0	25.04	Horn Ant.	17.97	4.8	1	24.92	33	Pass
		1 RB/#max	24.18	Horn Ant.	17.21	4.8	1	24.16	33	Pass
		50 RB/#25	23.90	Horn Ant.	16.91	4.8	1	23.86	33	Pass
		Full	23.83	Horn Ant.	16.86	4.8	1	23.81	33	Pass
	16QAM	1 RB/#0	24.23	Horn Ant.	17.25	4.8	1	24.20	33	Pass
		1 RB/#max	23.14	Horn Ant.	16.17	4.8	1	23.12	33	Pass
		50 RB/#25	22.85	Horn Ant.	15.85	4.8	1	22.80	33	Pass
		Full	22.87	Horn Ant.	15.91	4.8	1	22.86	33	Pass

Note: a, For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level



-----END-----



Appendix B

Modulation Characteristics

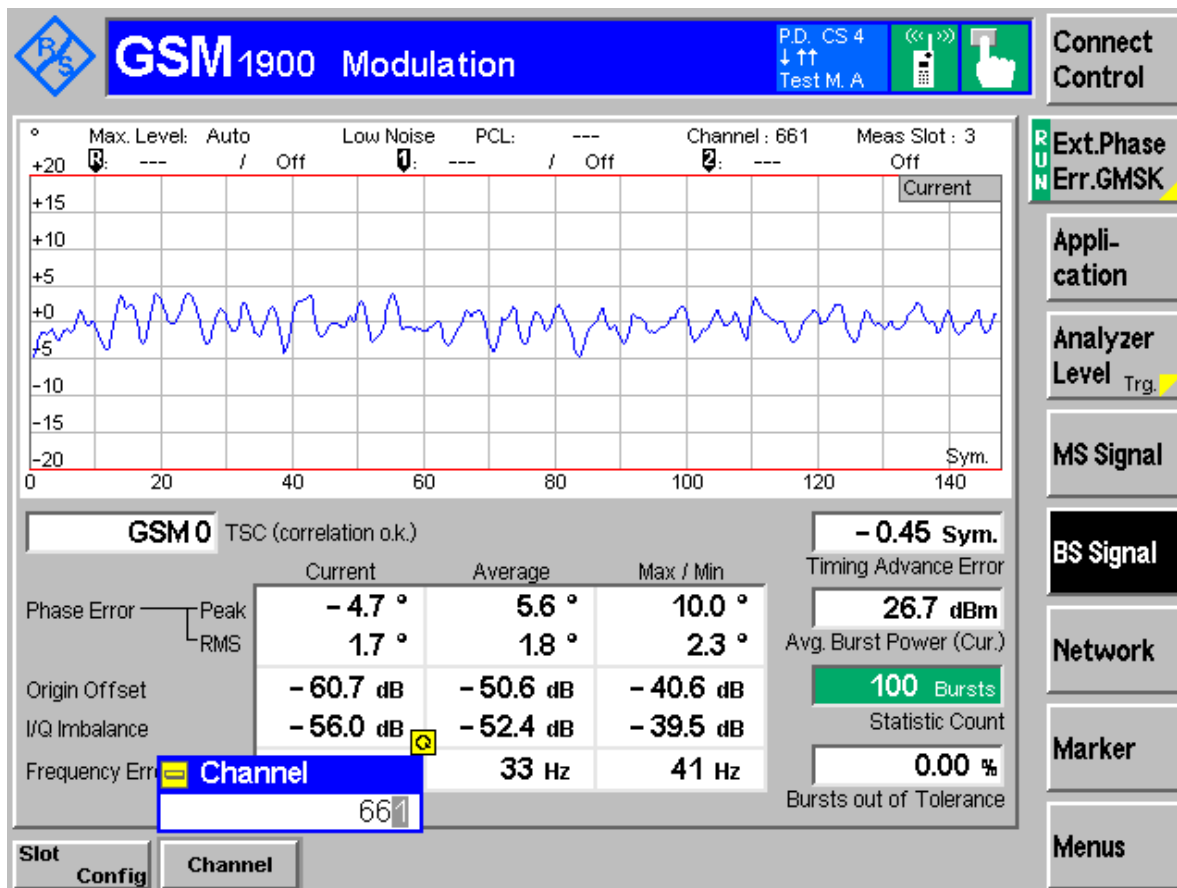
According to FCC Part 2.1047& Part 24 Subpart E



For 1900M

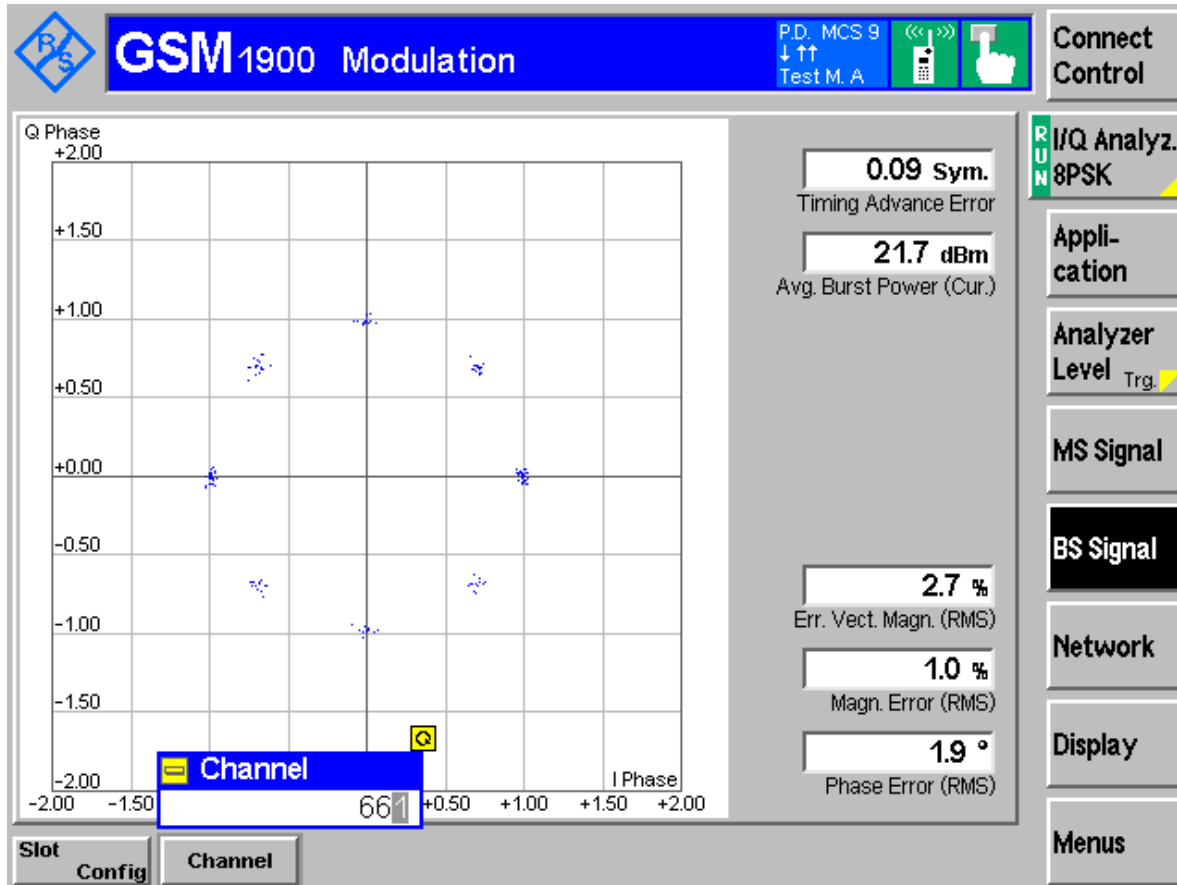
Test Mode = TM1

Channel = M



Test Mode = TM2

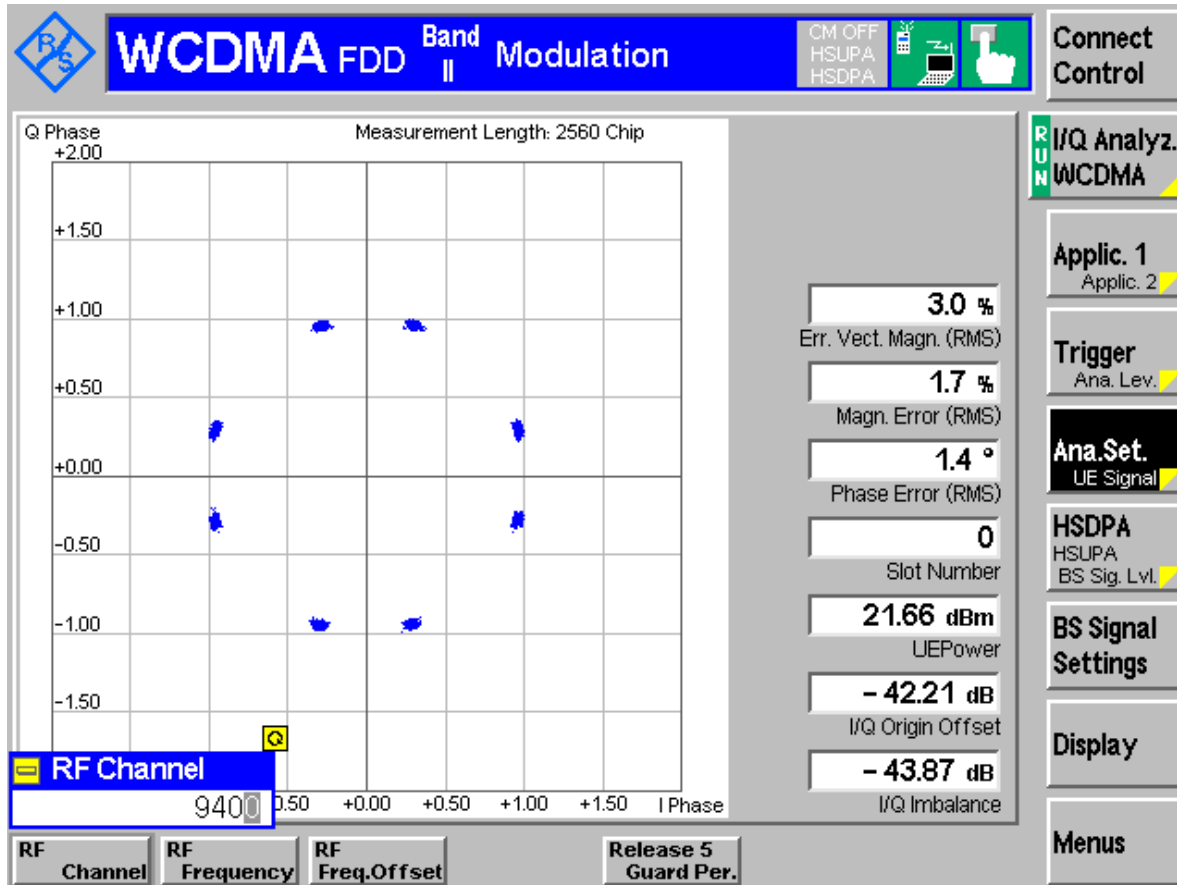
Channel = M





Test Mode = TM3

Channel = M

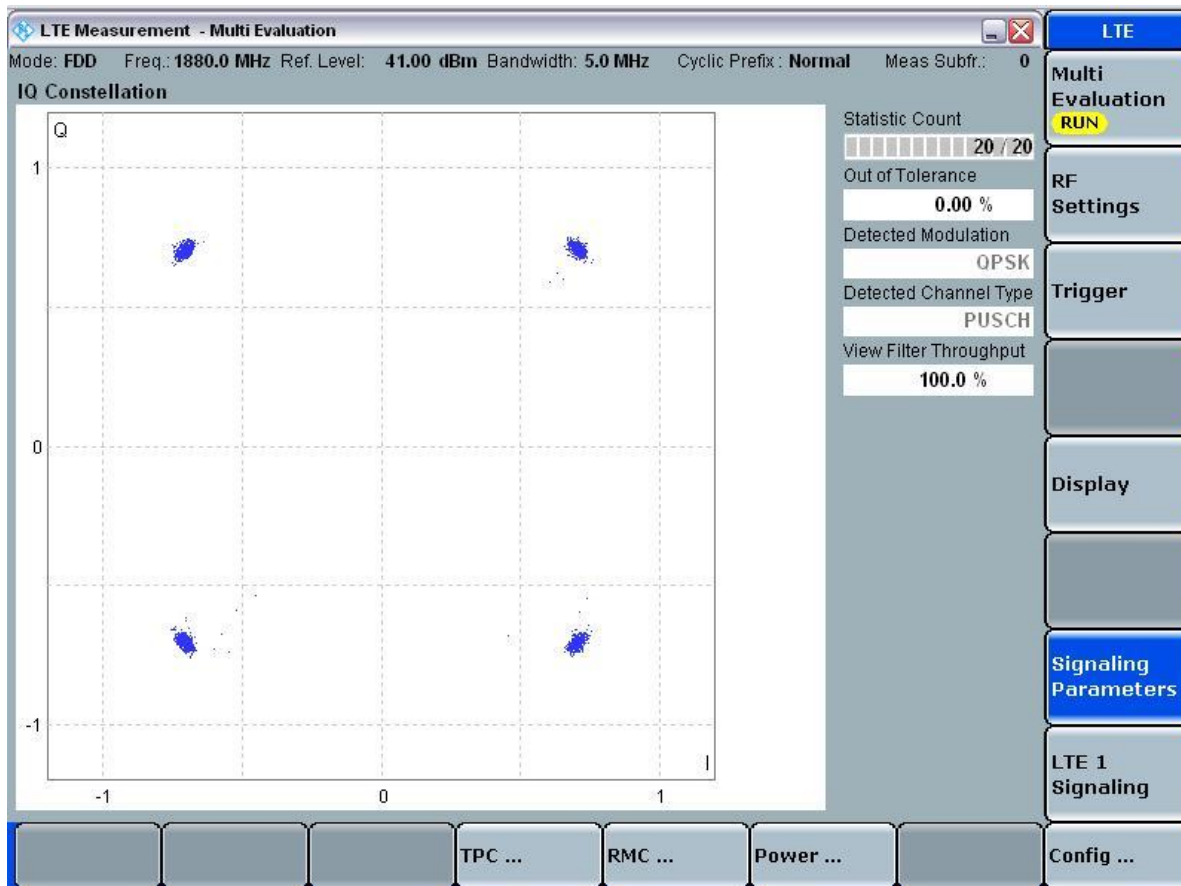


Test Mode = TM6

Channel Bandwidth = Lowest (5 MHz)

Channel = M

QPSK/full RBs

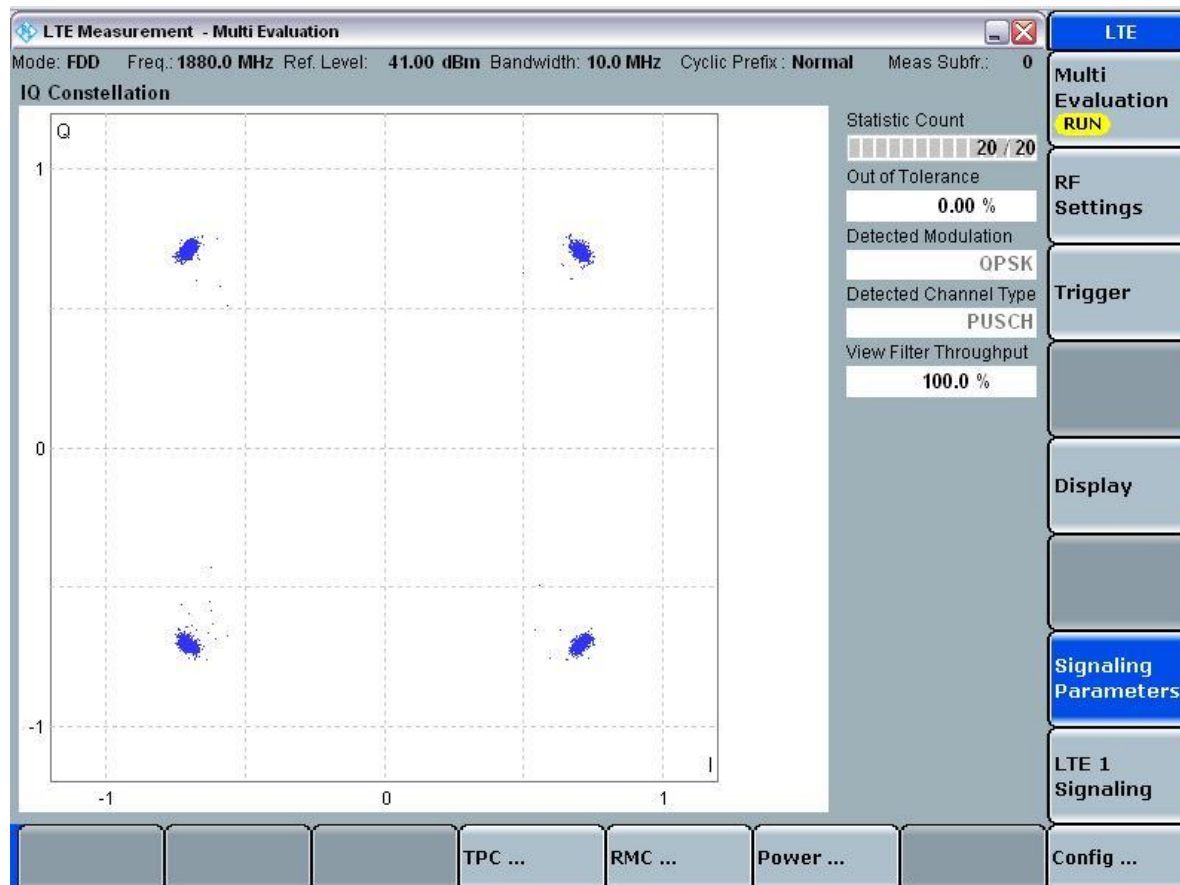




Channel Bandwidth =10 MHz

Channel = M

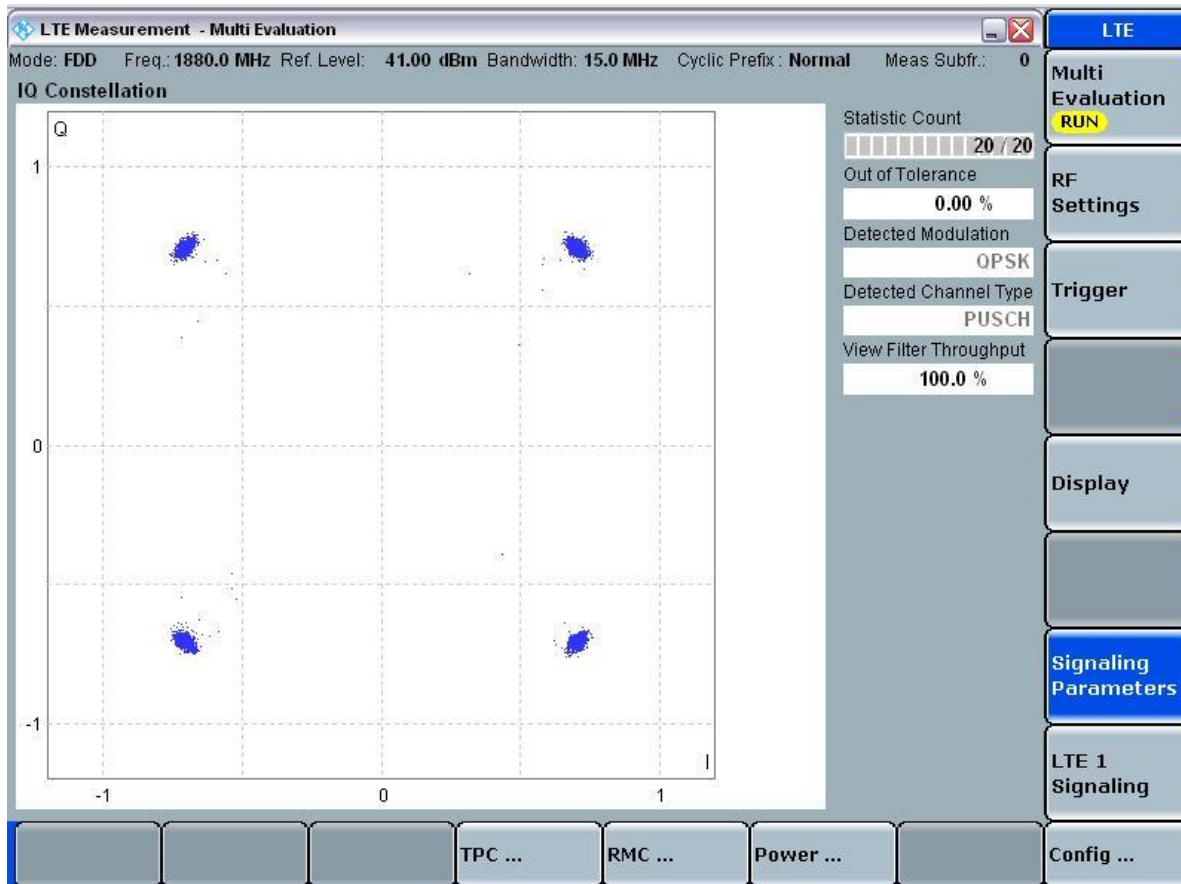
QPSK/full RBs



Channel Bandwidth =15 MHz

Channel = M

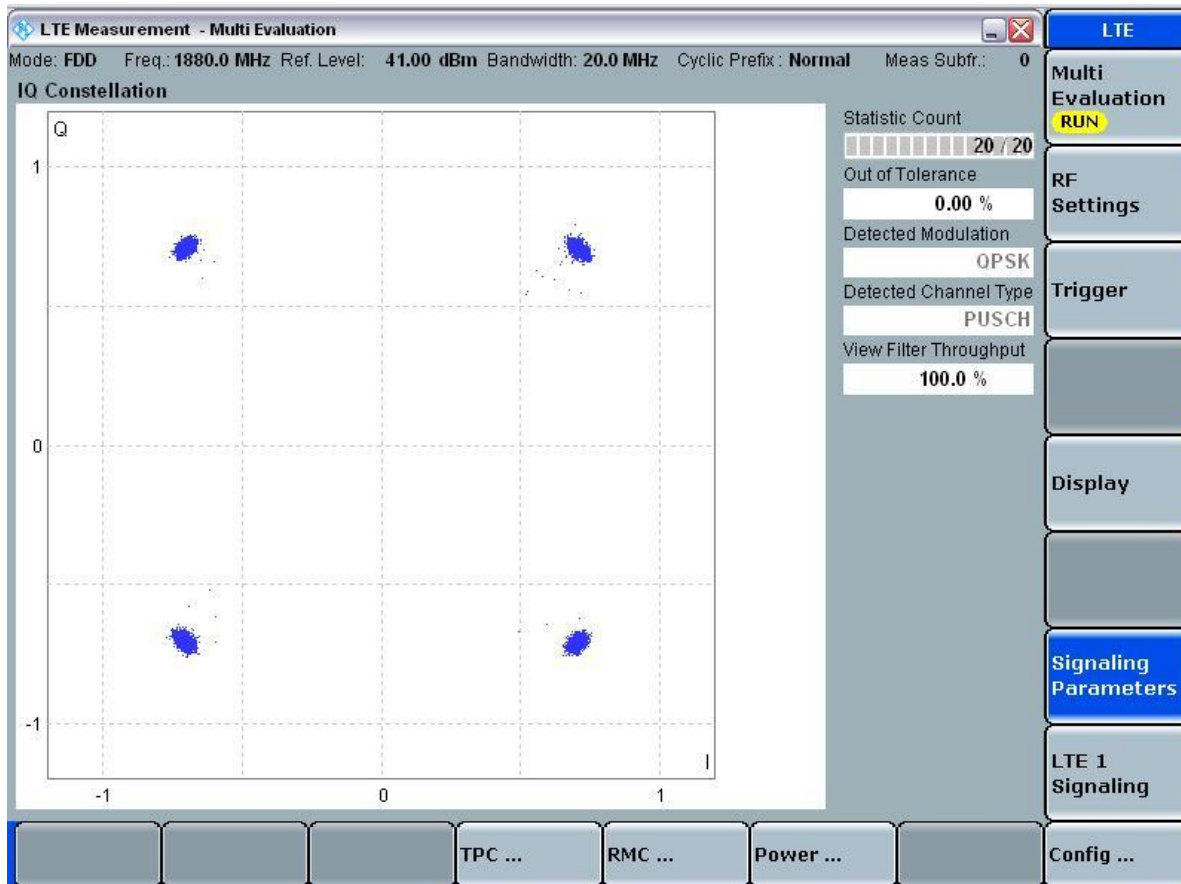
QPSK/full RBs



Channel Bandwidth = Highest (20 MHz)

Channel = M

QPSK/full RBs

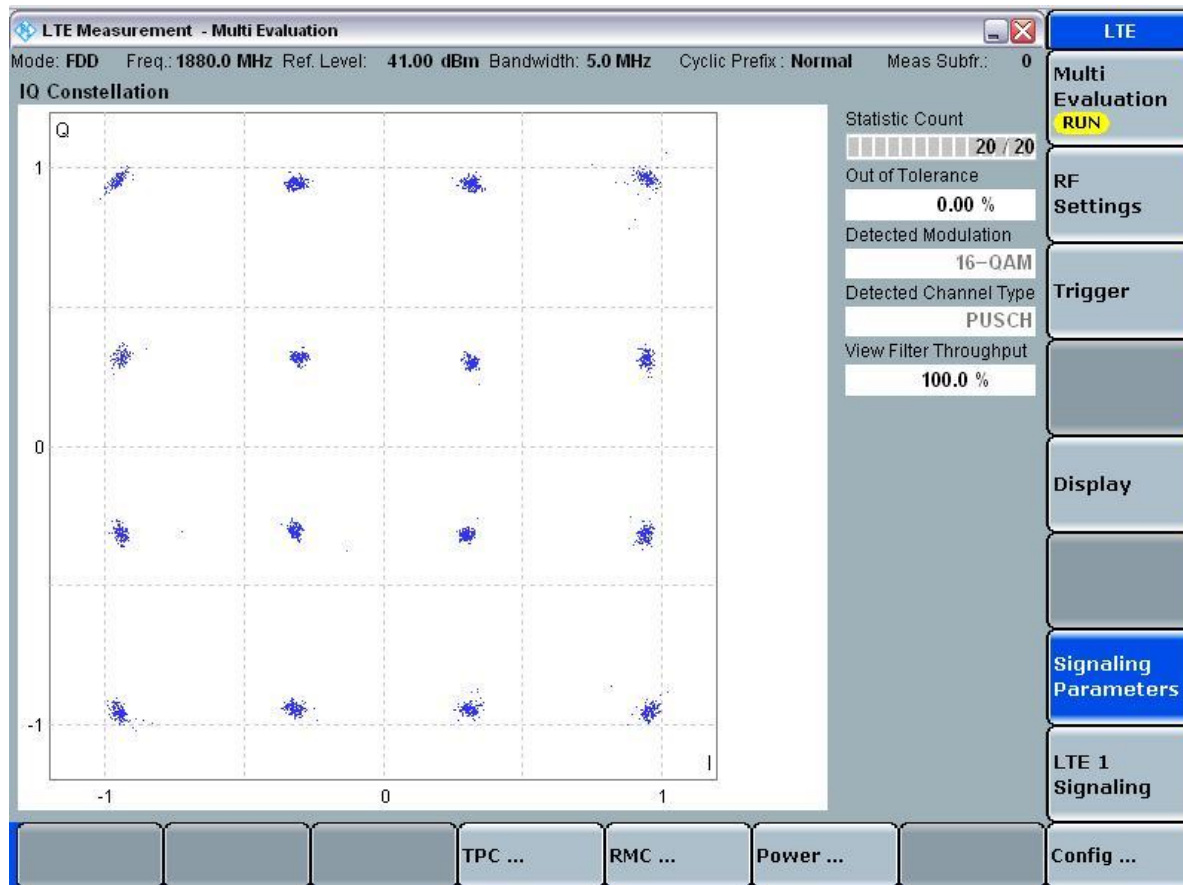


Test Mode = TM7

Channel Bandwidth = Lowest (5 MHz)

Channel = M

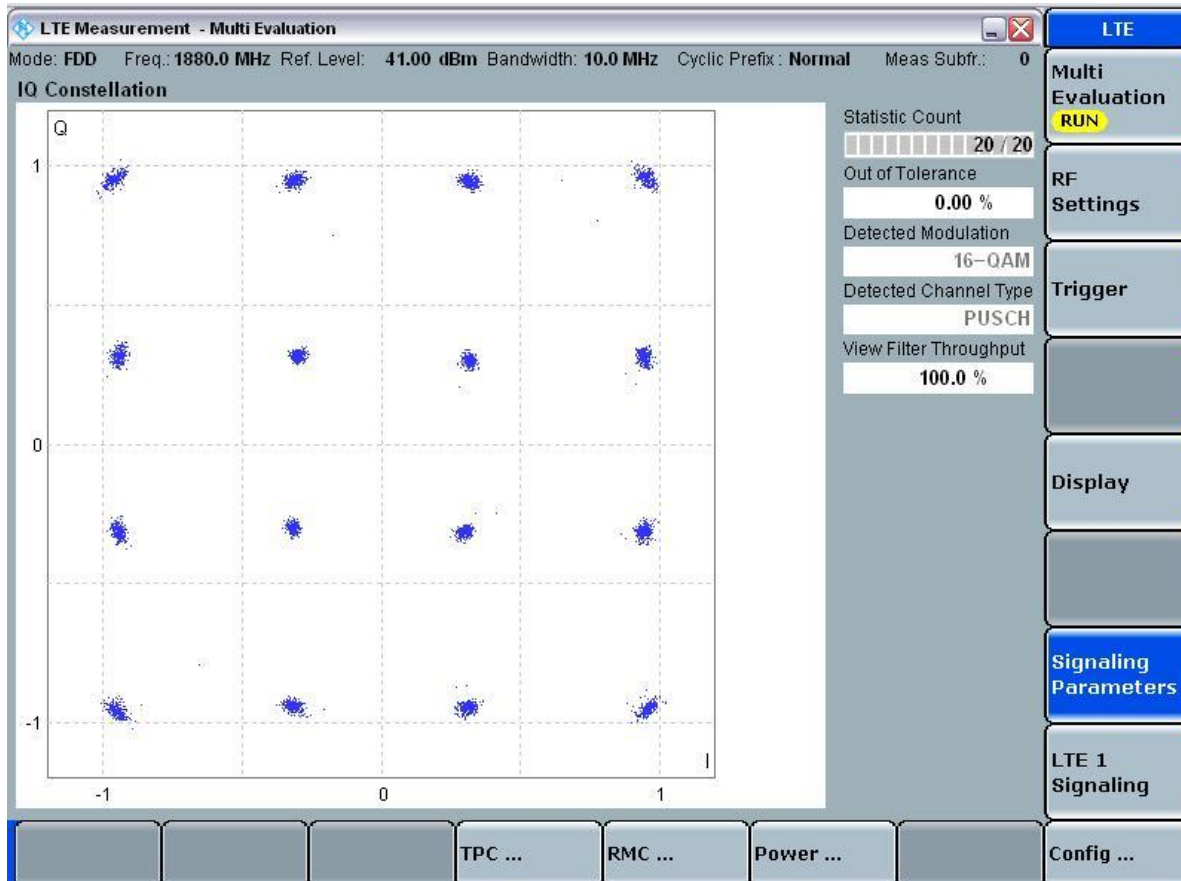
16QAM/full RBs



Channel Bandwidth =10 MHz

Channel = M

16QAM/full RBs

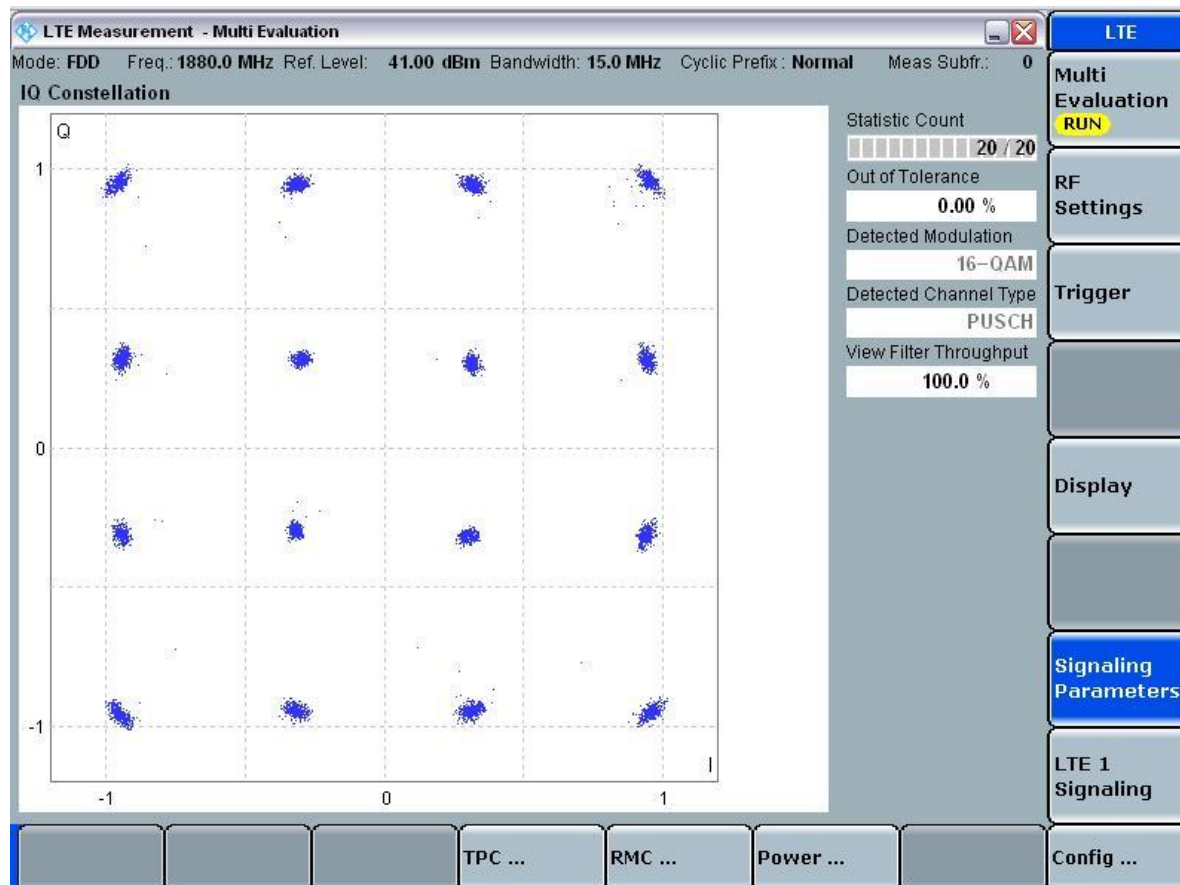




Channel Bandwidth =15 MHz

Channel = M

16QAM/full RBs

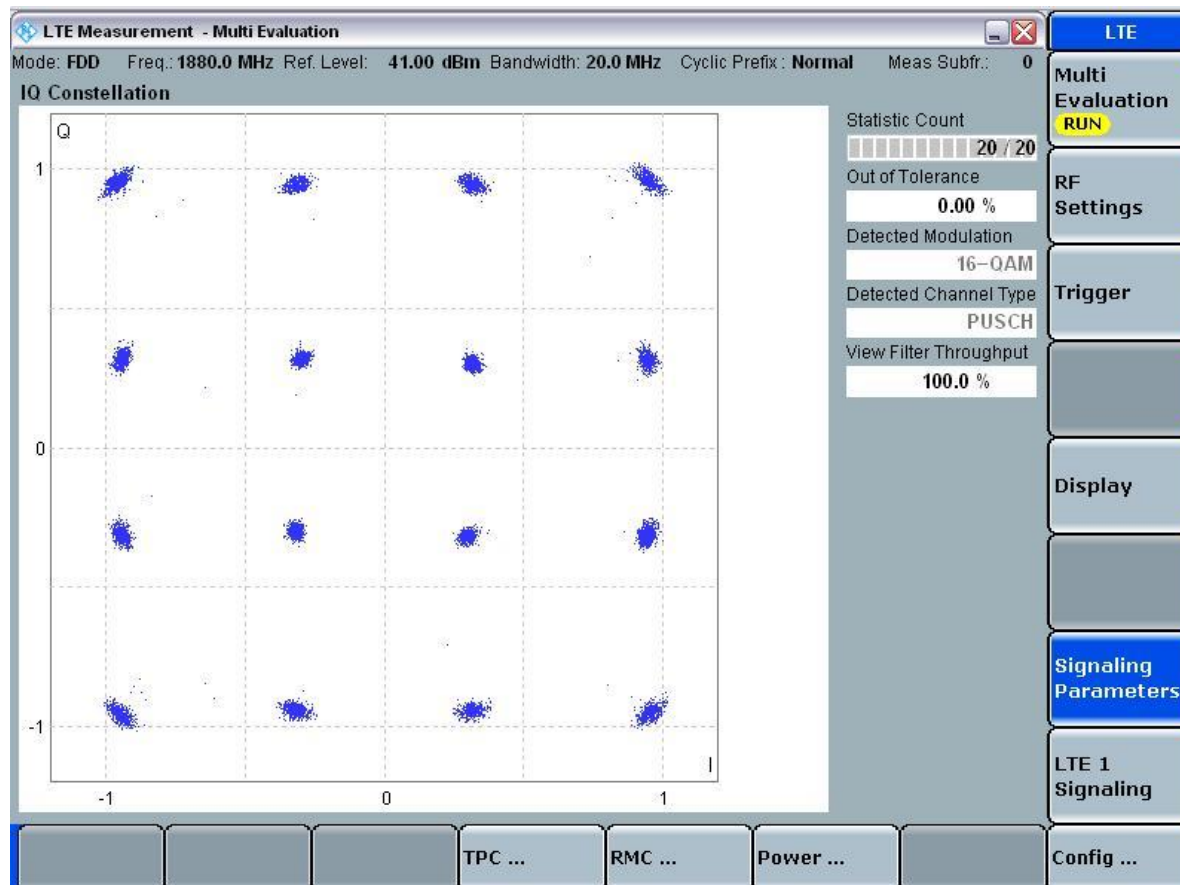




Channel Bandwidth = Highest (20 MHz)

Channel = M

16QAM/full RBs



-----END-----



Appendix C

Occupied Bandwidth

According to FCC part 2.1049 & Part 24 Subpart E



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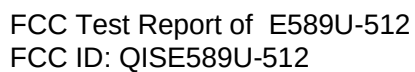
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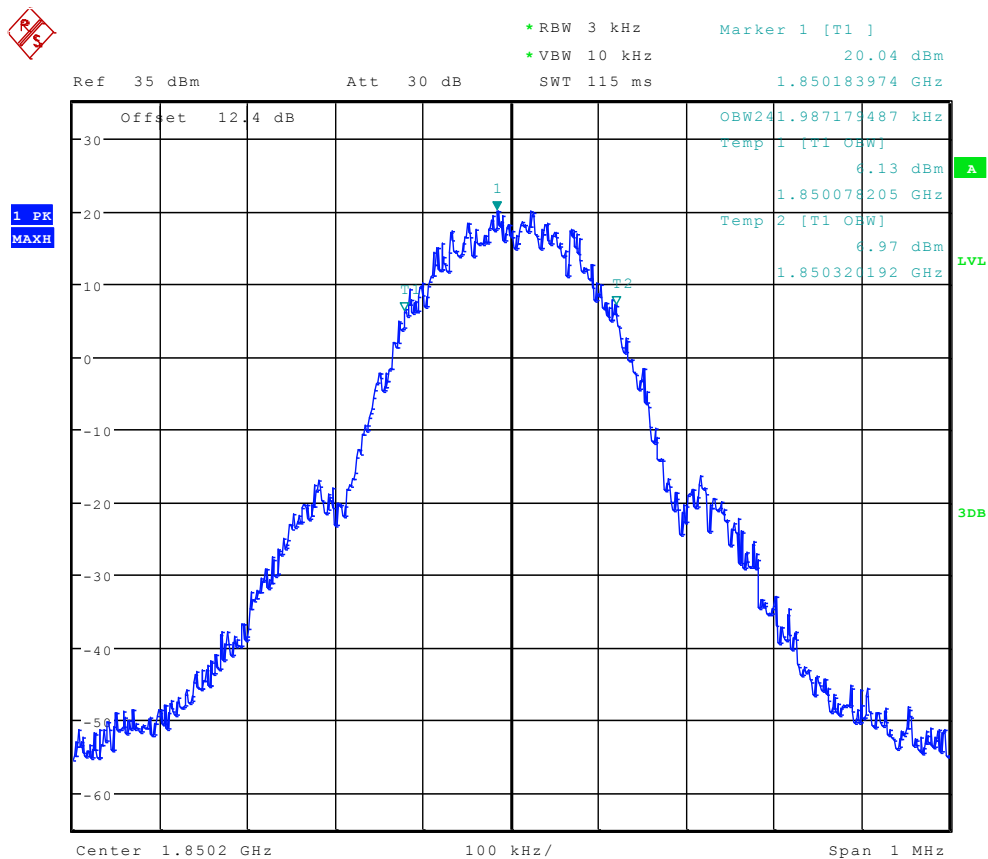
Result Table

NOTE: All relevant operation modes have been tested, and the full RB data is included in this report.

Test Mode	RF Channel		Occupied Bandwidth [kHz]	Verdict
TM1	512		241.99	Pass
	661		243.59	Pass
	810		250.00	Pass
TM2	512		241.99	Pass
	661		237.18	Pass
	810		240.39	Pass
Test Mode	RF Channel		Occupied Bandwidth [MHz]	Verdict
TM3	9262		4.15	Pass
	9400		4.14	Pass
	9538		4.17	Pass
Test Mode	Carrier Conf.	RF Ch.	Occupied Bandwidth [MHz]	Verdict
TM6	5 MHz	L	4.4343	Pass
		M	4.3861	Pass
		H	4.3837	Pass
	10 MHz	L	8.9873	Pass
		M	8.8197	Pass
		H	8.7919	Pass
	15 MHz	L	13.4024	Pass
		M	13.3563	Pass
		H	13.3904	Pass
	20 MHz	L	17.6637	Pass
		M	17.8379	Pass
		H	17.6629	Pass
TM7	5 MHz	L	4.4156	Pass
		M	4.4553	Pass
		H	4.4508	Pass
	10 MHz	L	8.9078	Pass
		M	8.8639	Pass
		H	8.8810	Pass
	15 MHz	L	13.3475	Pass
		M	13.3619	Pass
		H	13.2243	Pass
	20 MHz	L	17.7053	Pass
		M	17.8786	Pass
		H	17.8111	Pass



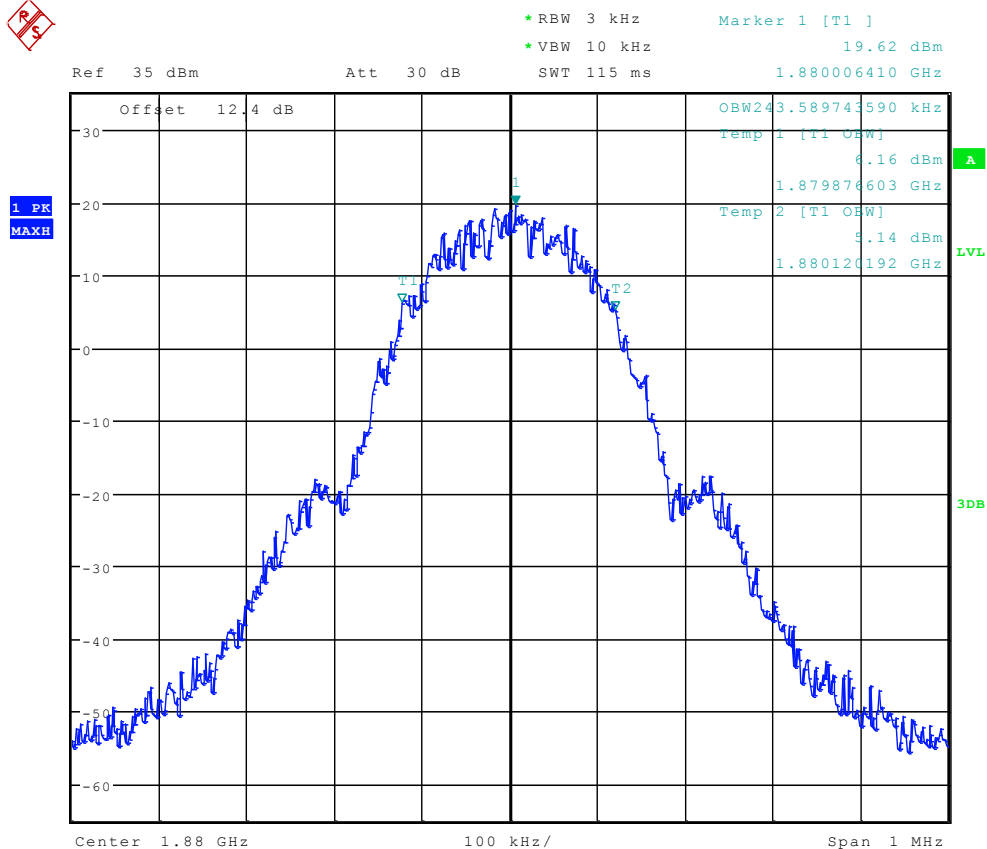
1.1.1 Channel = L



Date: 4.JUL.2012 01:05:00



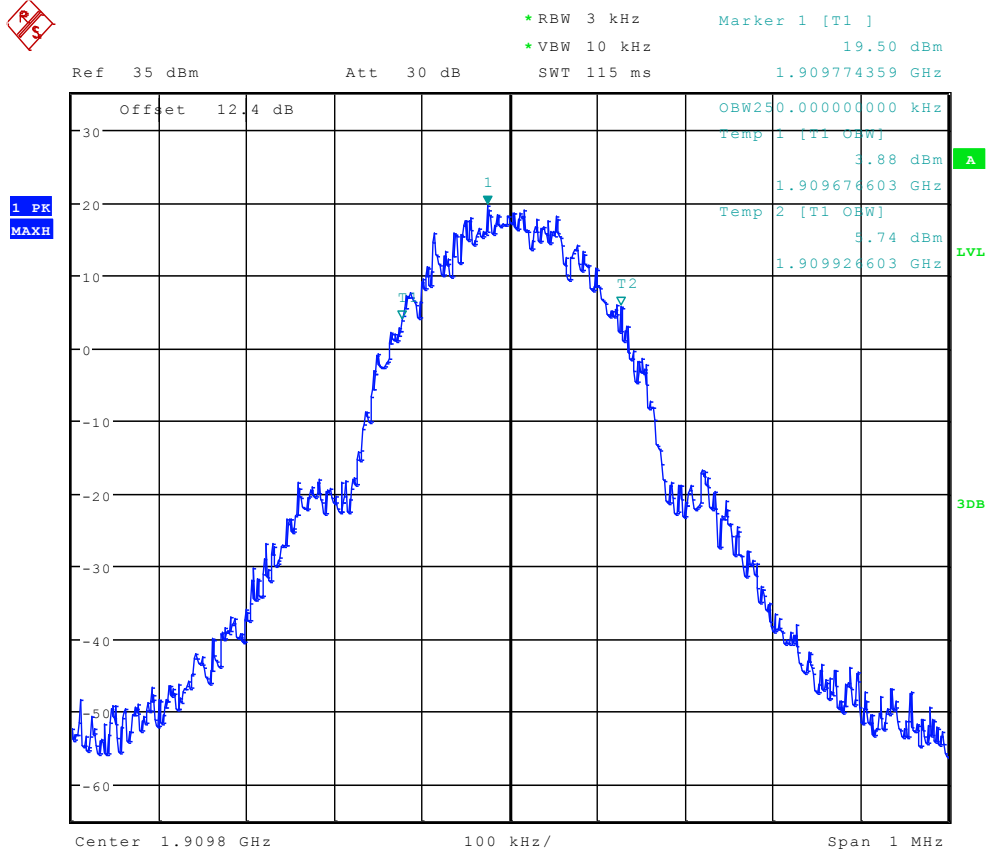
1.1.2 Channel = M



Date: 4.JUL.2012 01:05:14



1.1.3 Channel = H

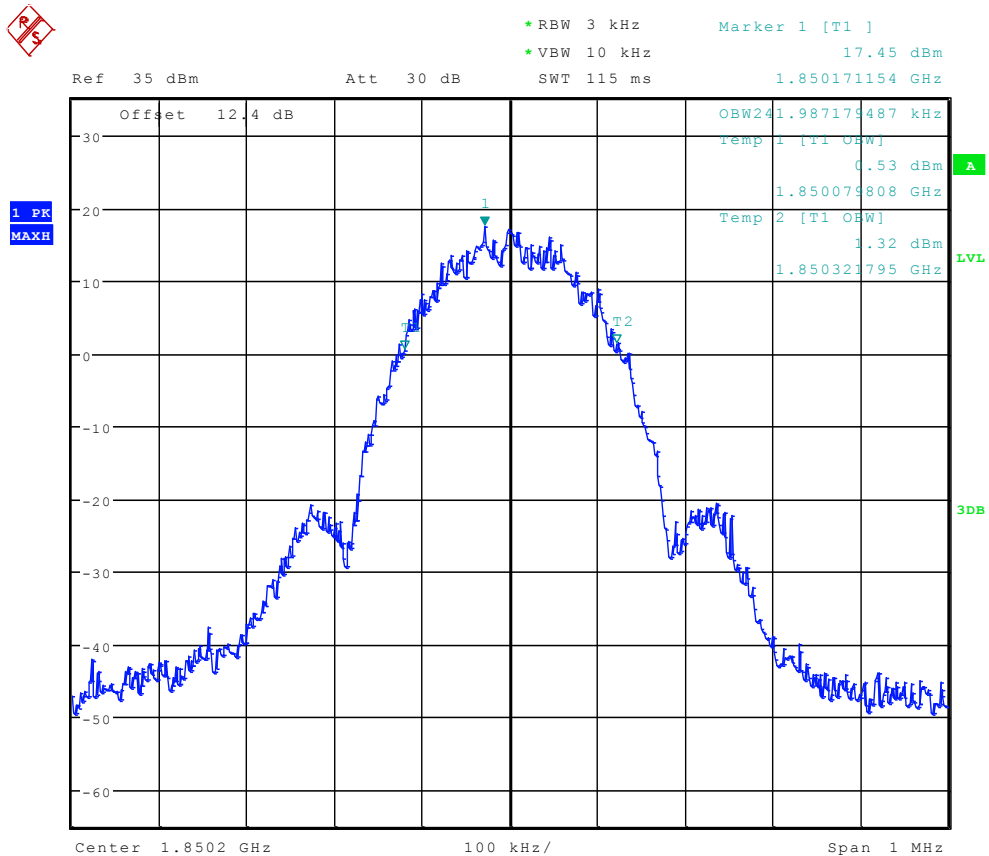


Date: 4.JUL.2012 01:05:27



1.2 Test Mode=TM2

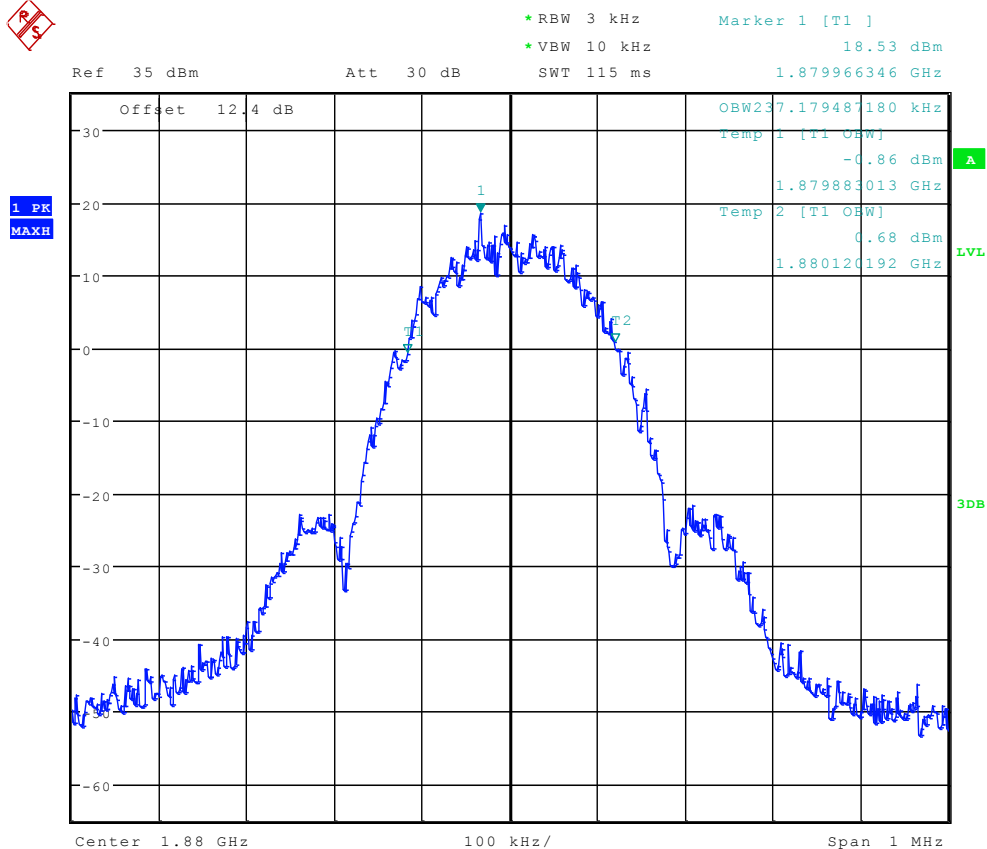
1.2.1 Channel = L



Date: 4.JUL.2012 01:11:24



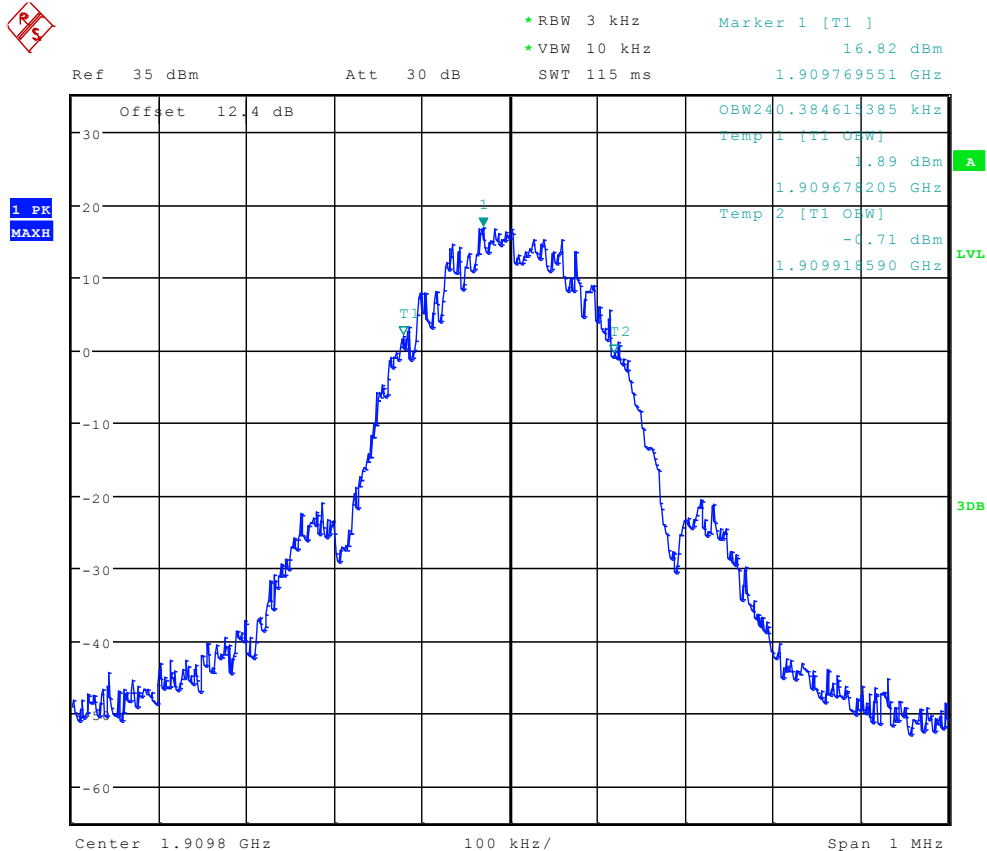
1.2.2 Channel = M



Date: 4.JUL.2012 01:11:38



1.2.3 Channel = H

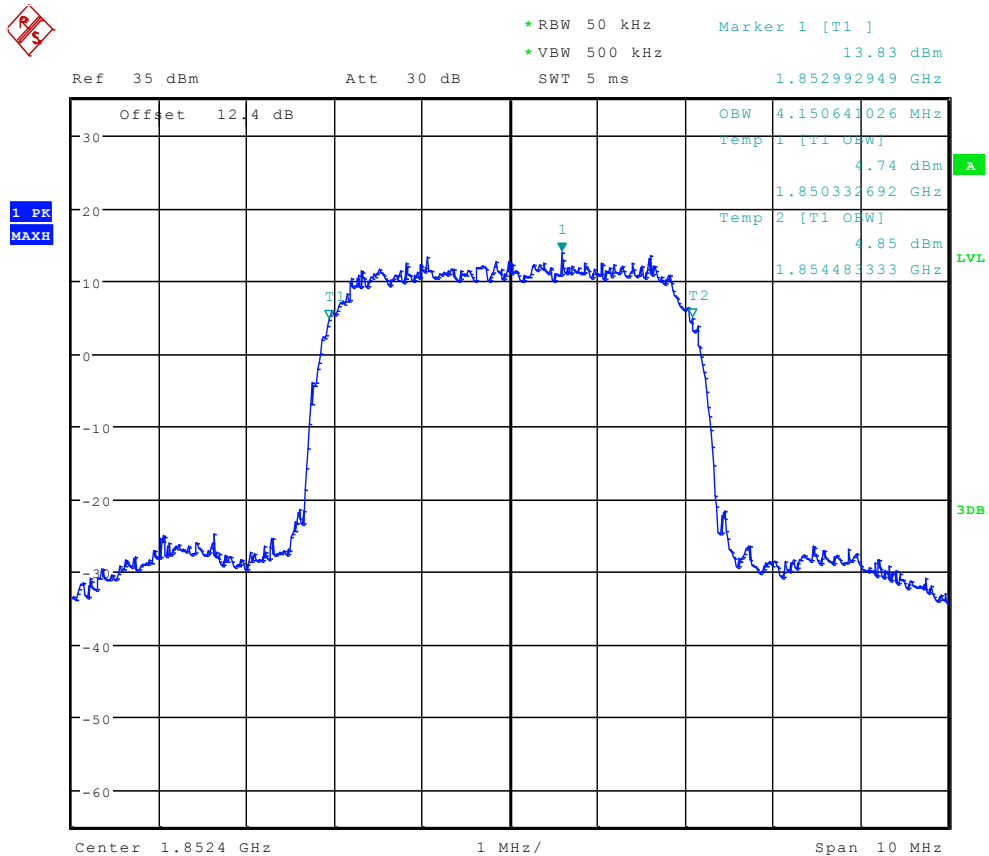


Date: 4.JUL.2012 01:11:52



1.3 Test Mode=TM3

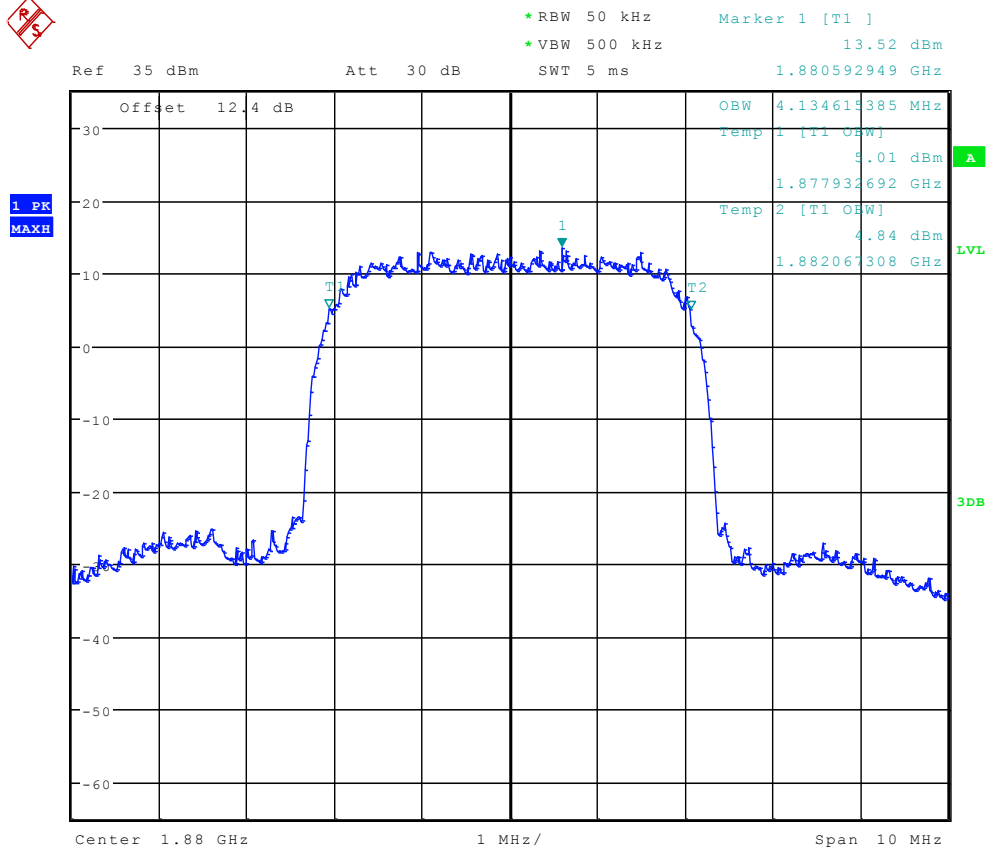
1.3.1 Channel = L



Date: 4.JUL.2012 01:17:04



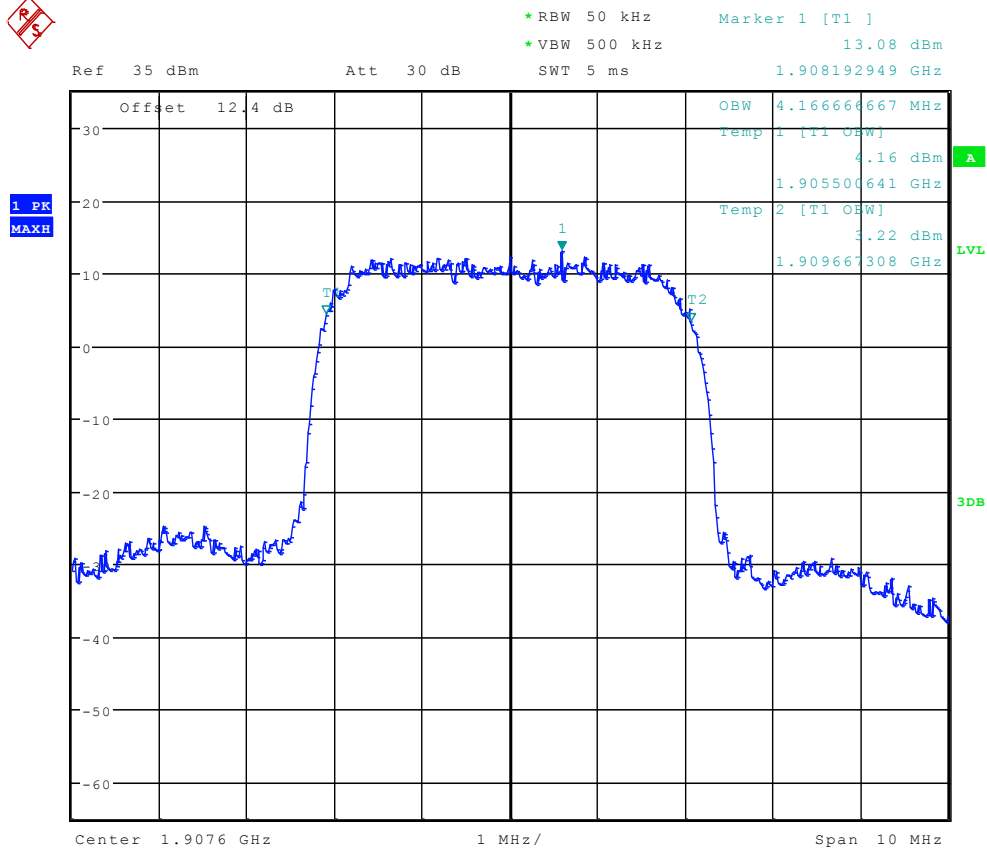
1.3.2 Channel = M



Date: 4.JUL.2012 01:17:17



1.3.3 Channel = H



Date: 4.JUL.2012 01:17:31

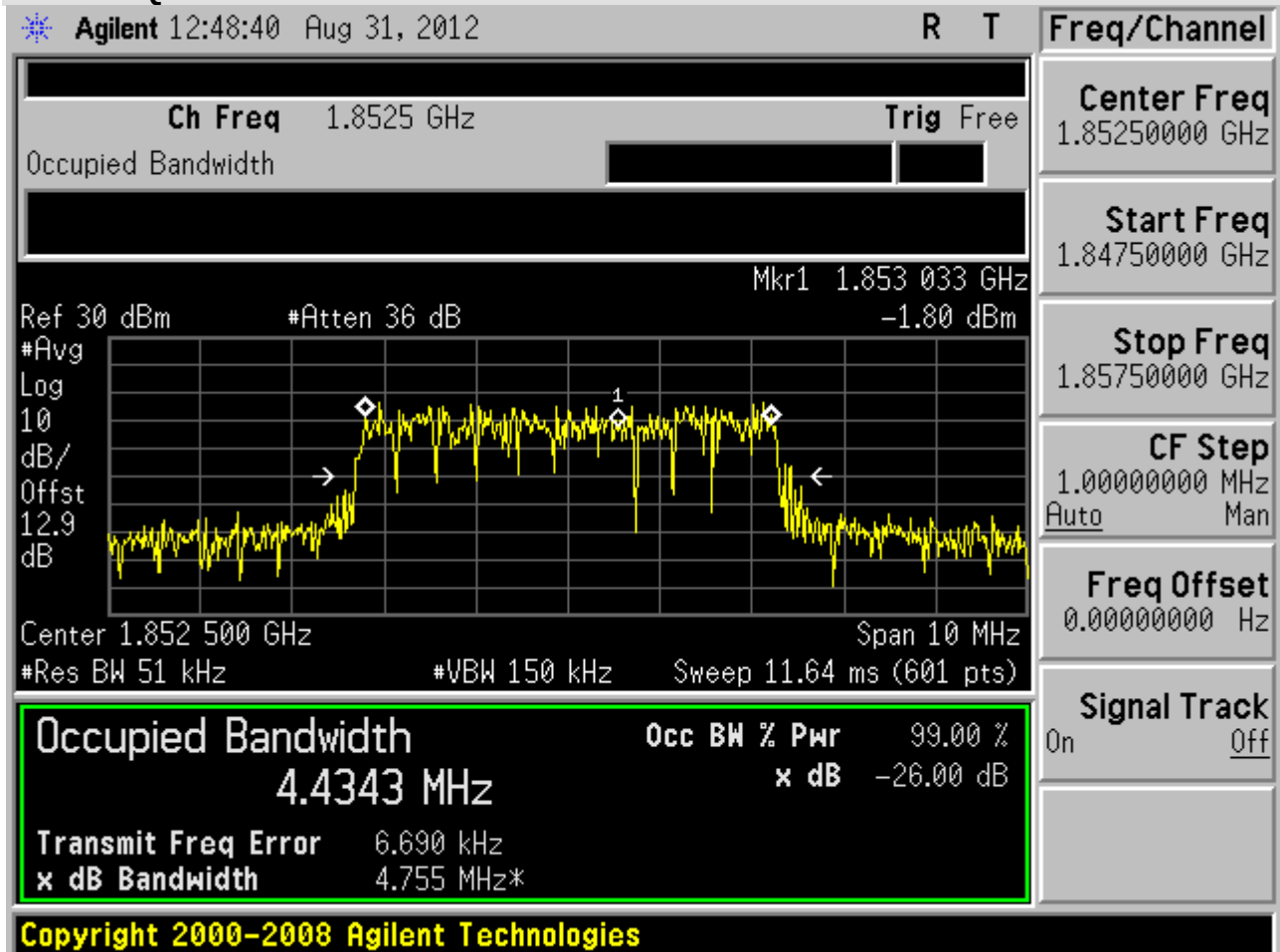


1.4 Test Mode=TM6

1.4.1 Channel Bandwidth = Lowest (5 MHz)

1.4.1.1 Channel = L

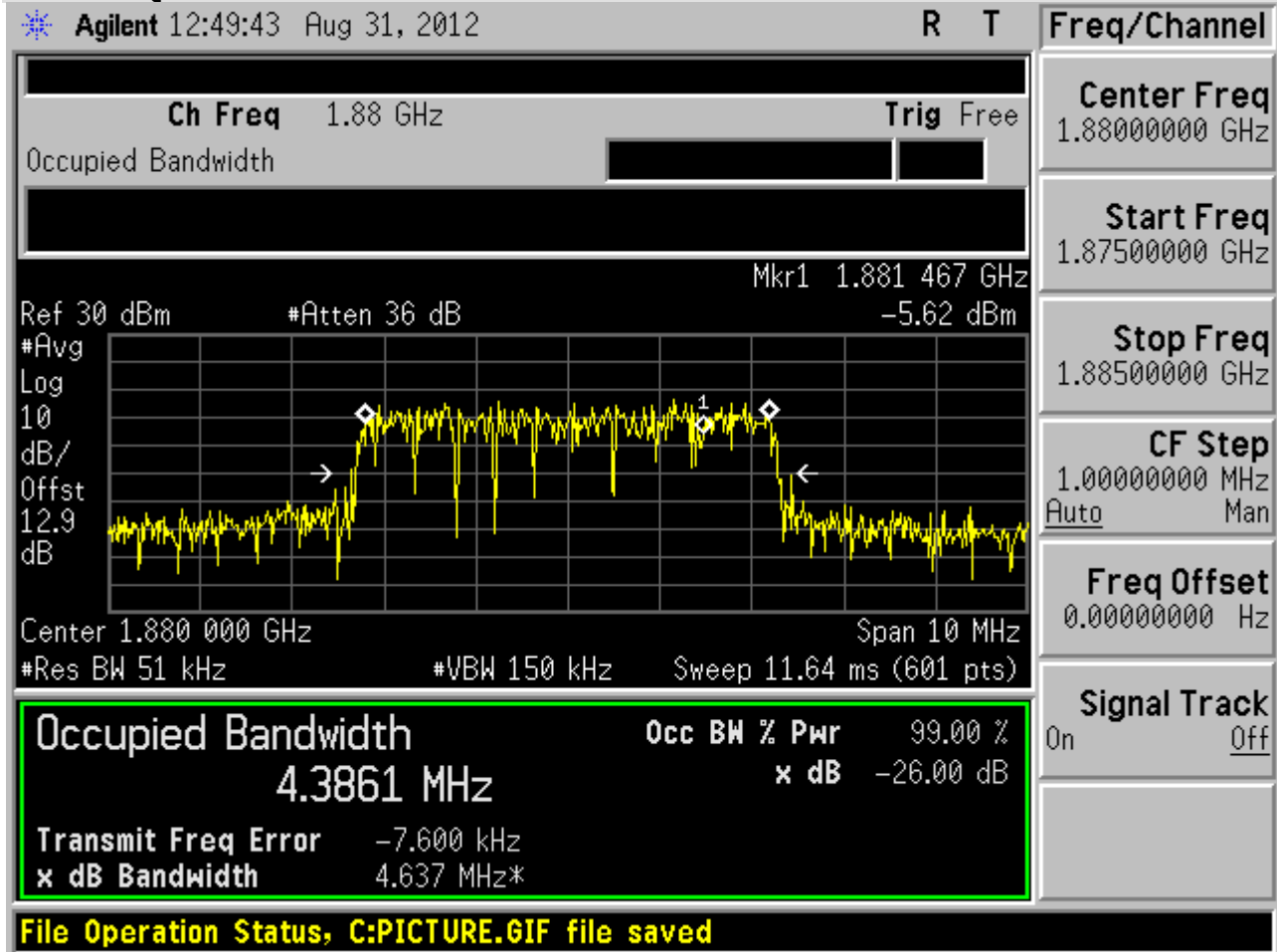
1.4.1.1.1 QPSK/full RBs





1.4.1.2 Channel = M

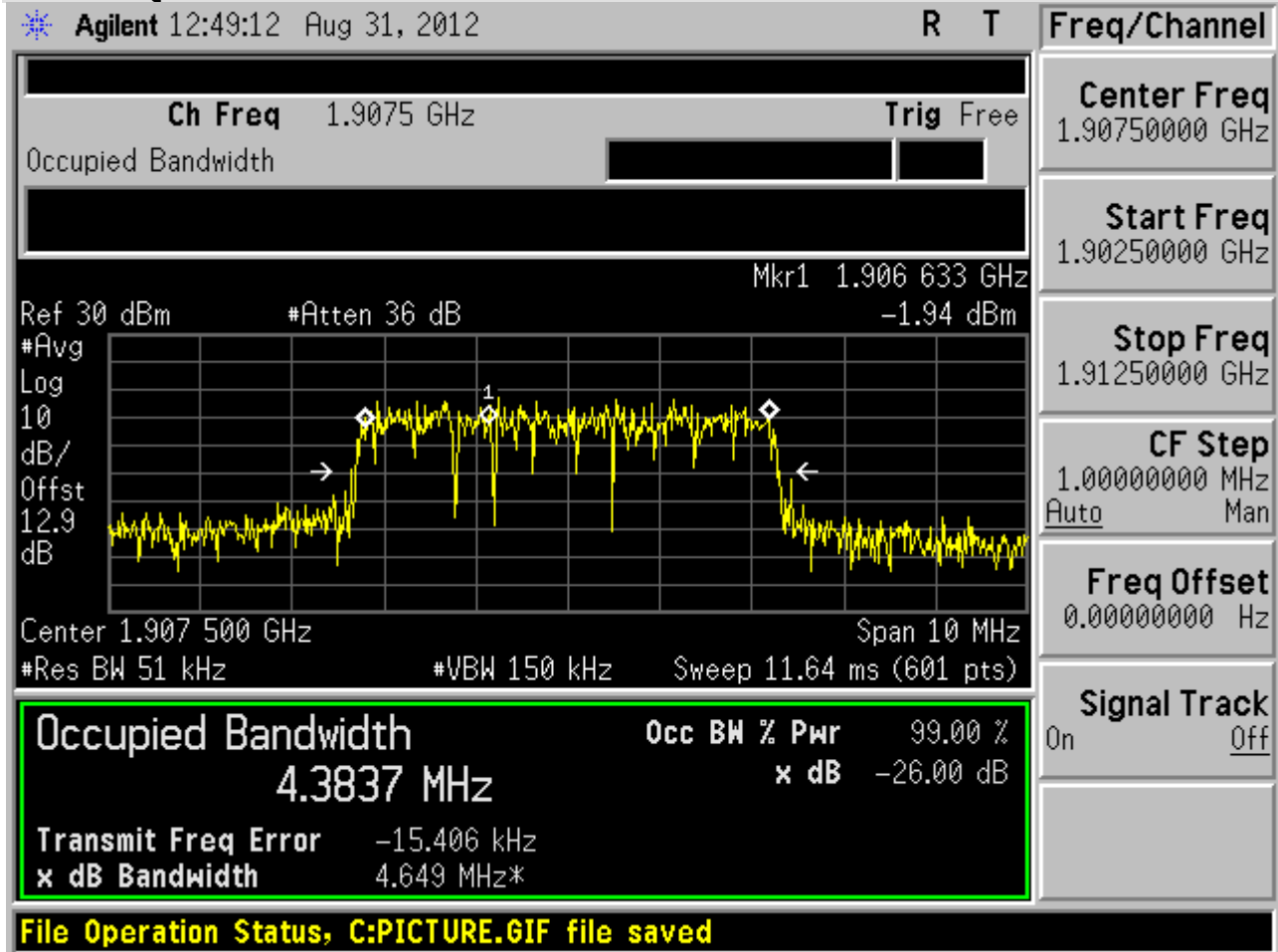
1.4.1.2.1 QPSK/full RBs





1.4.1.3 Channel = H

1.4.1.3.1 QPSK/full RBs

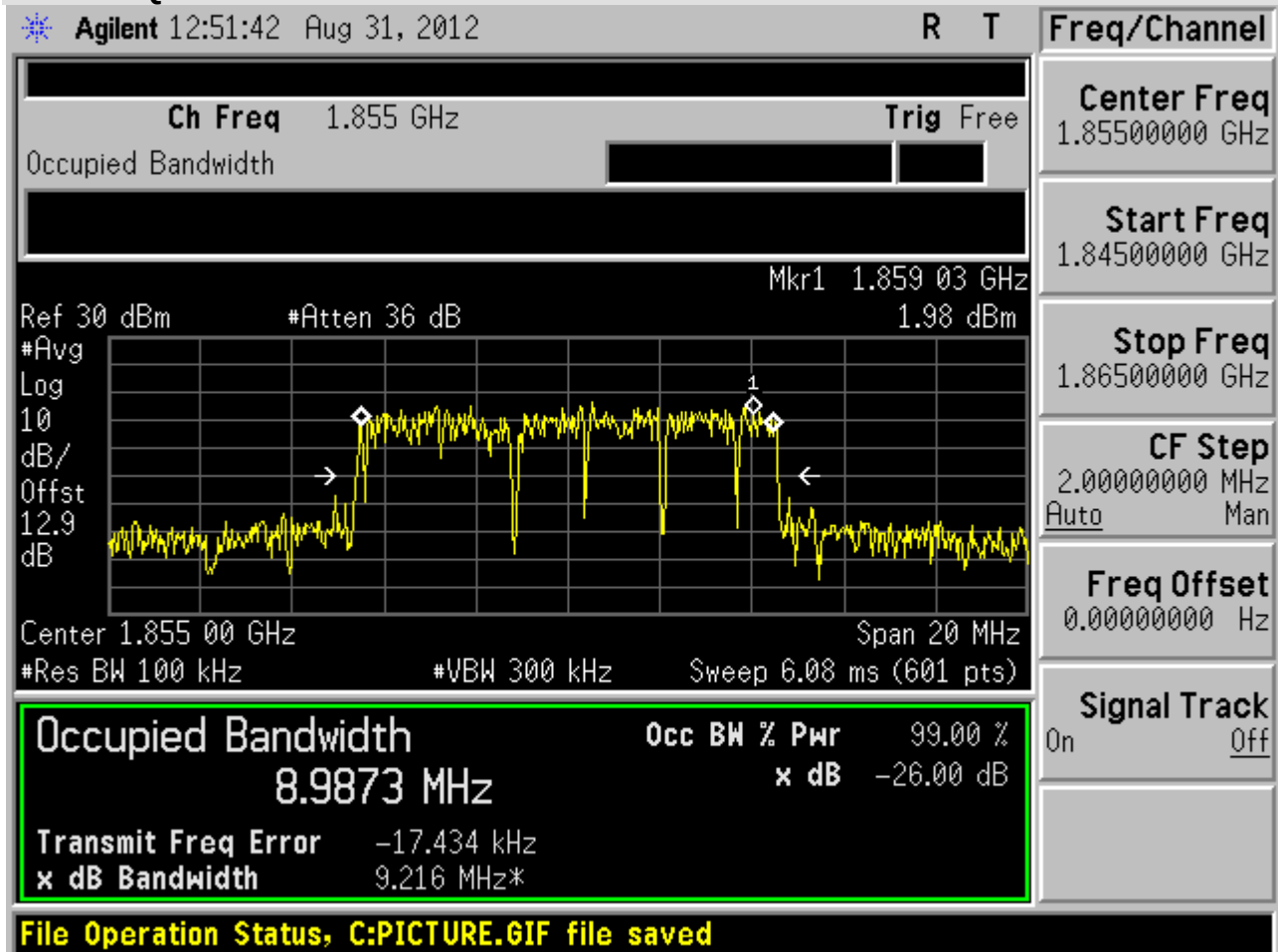




1.4.2 Channel Bandwidth = 10 MHz

1.4.2.1 Channel = L

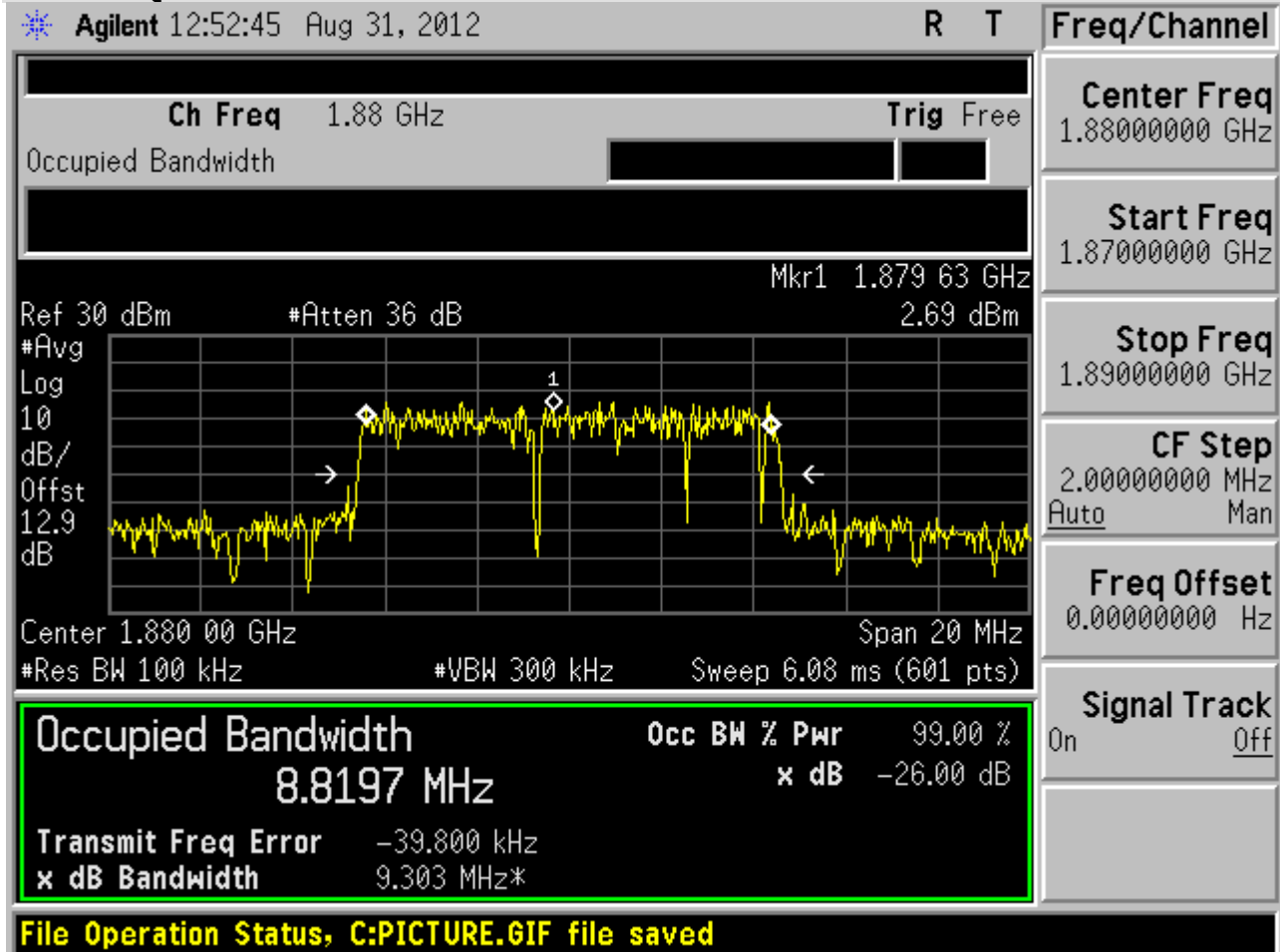
1.4.2.1.1 QPSK/full RBs





1.4.2.2 Channel = M

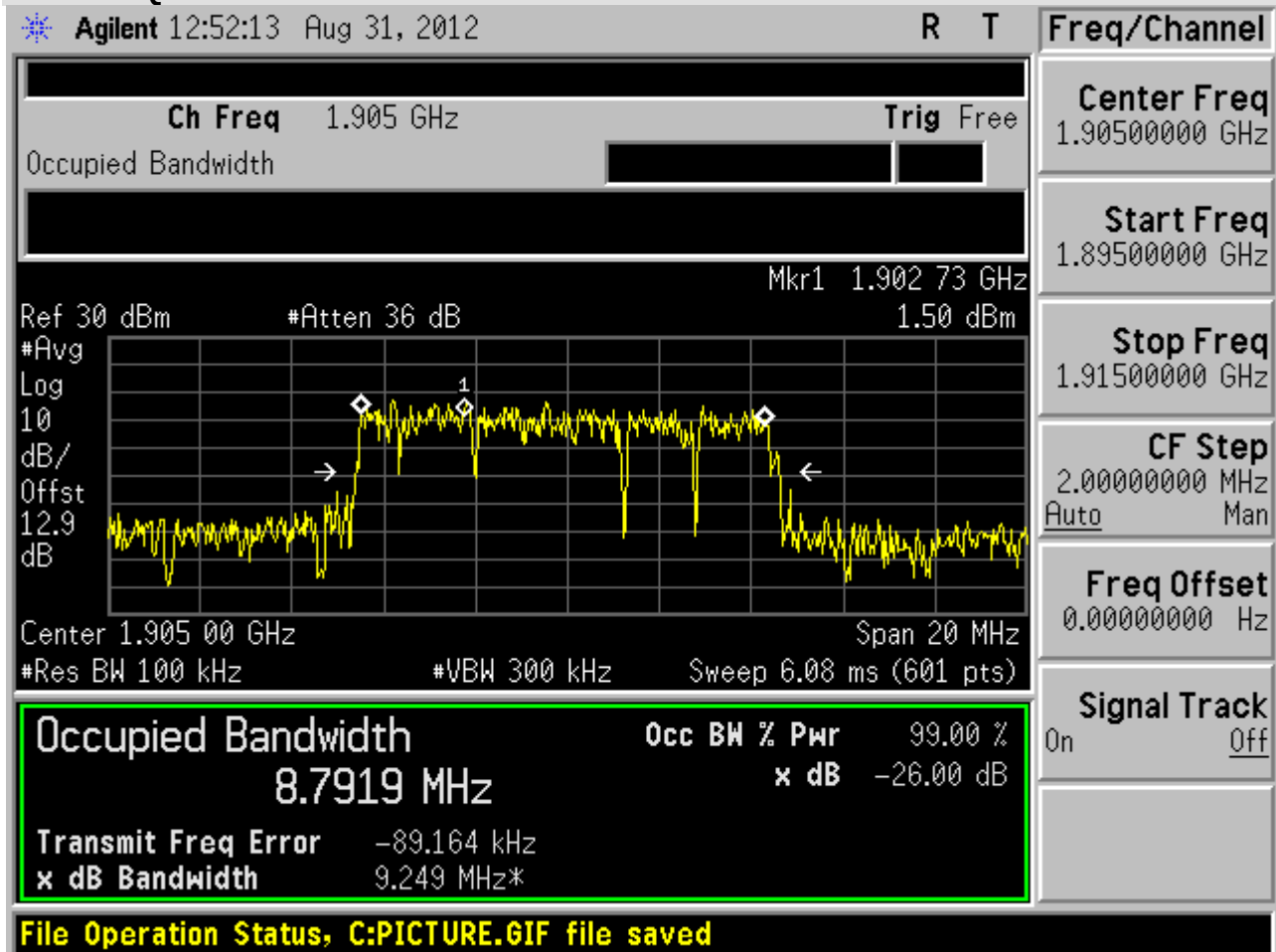
1.4.2.2.1 QPSK/full RBs





1.4.2.3 Channel = H

1.4.2.3.1 QPSK/full RBs

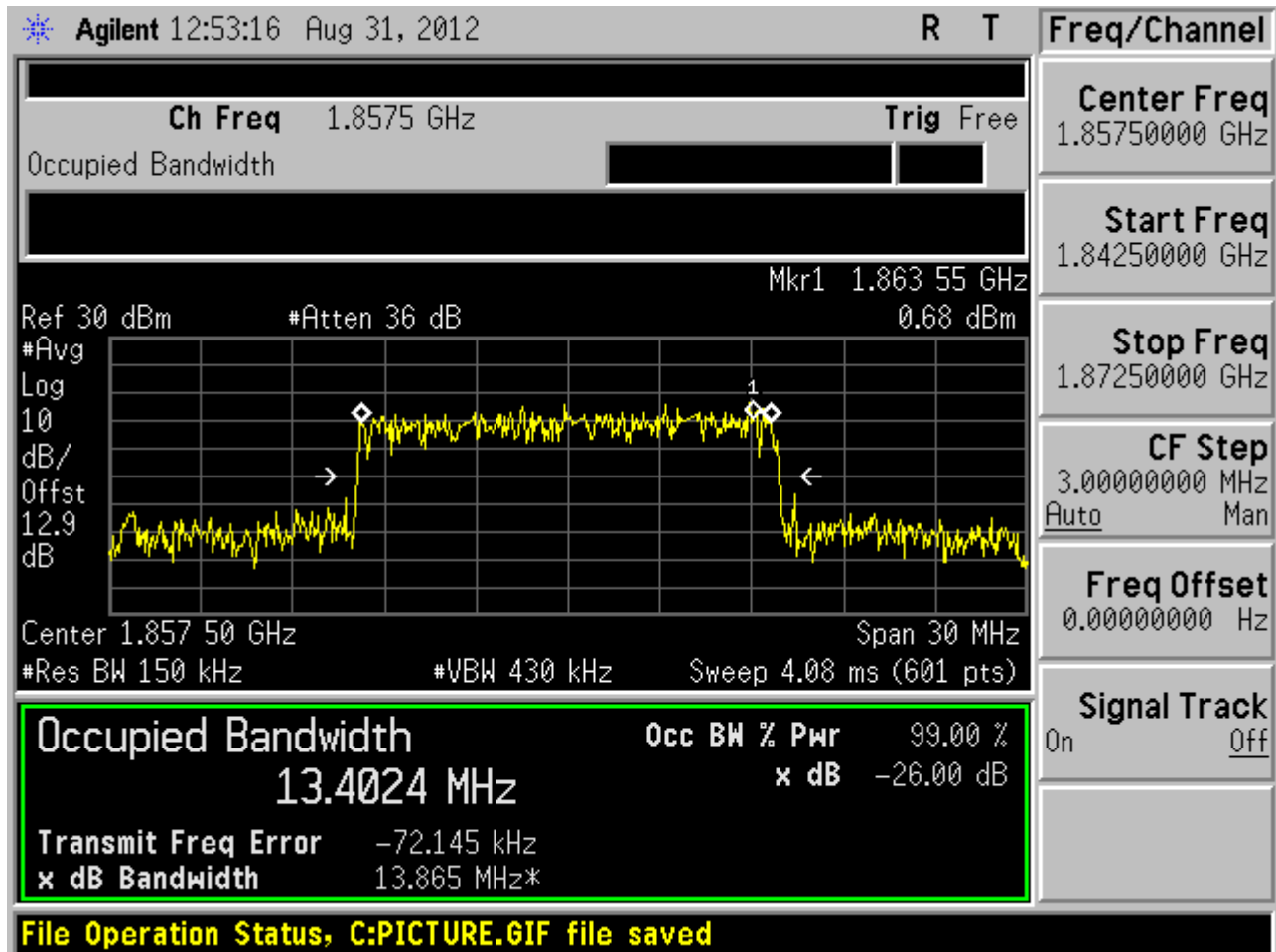




1.4.3 Channel Bandwidth = 15 MHz

1.4.3.1 Channel = L

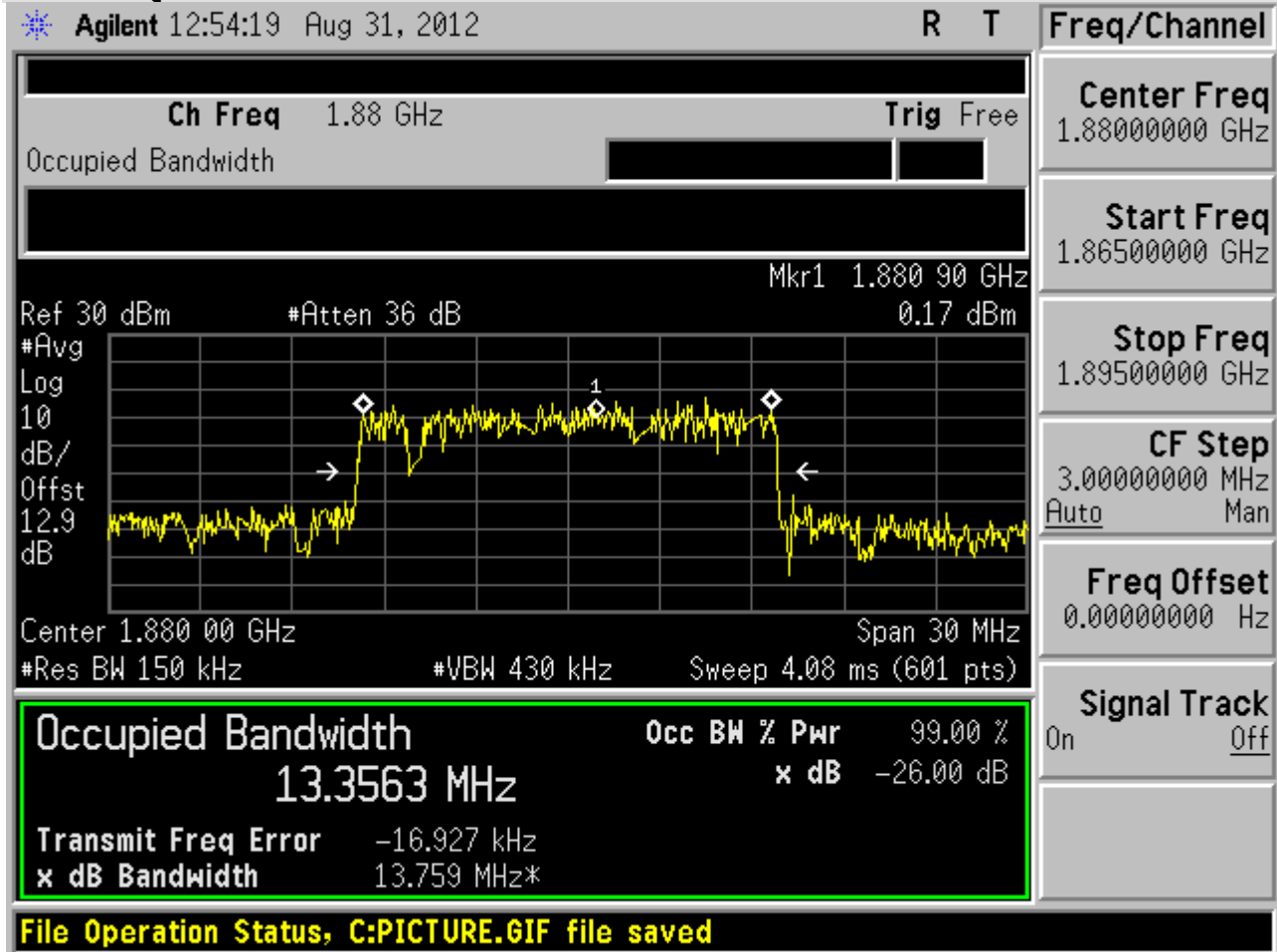
1.4.3.1.1 QPSK/full RBs





1.4.3.2 Channel = M

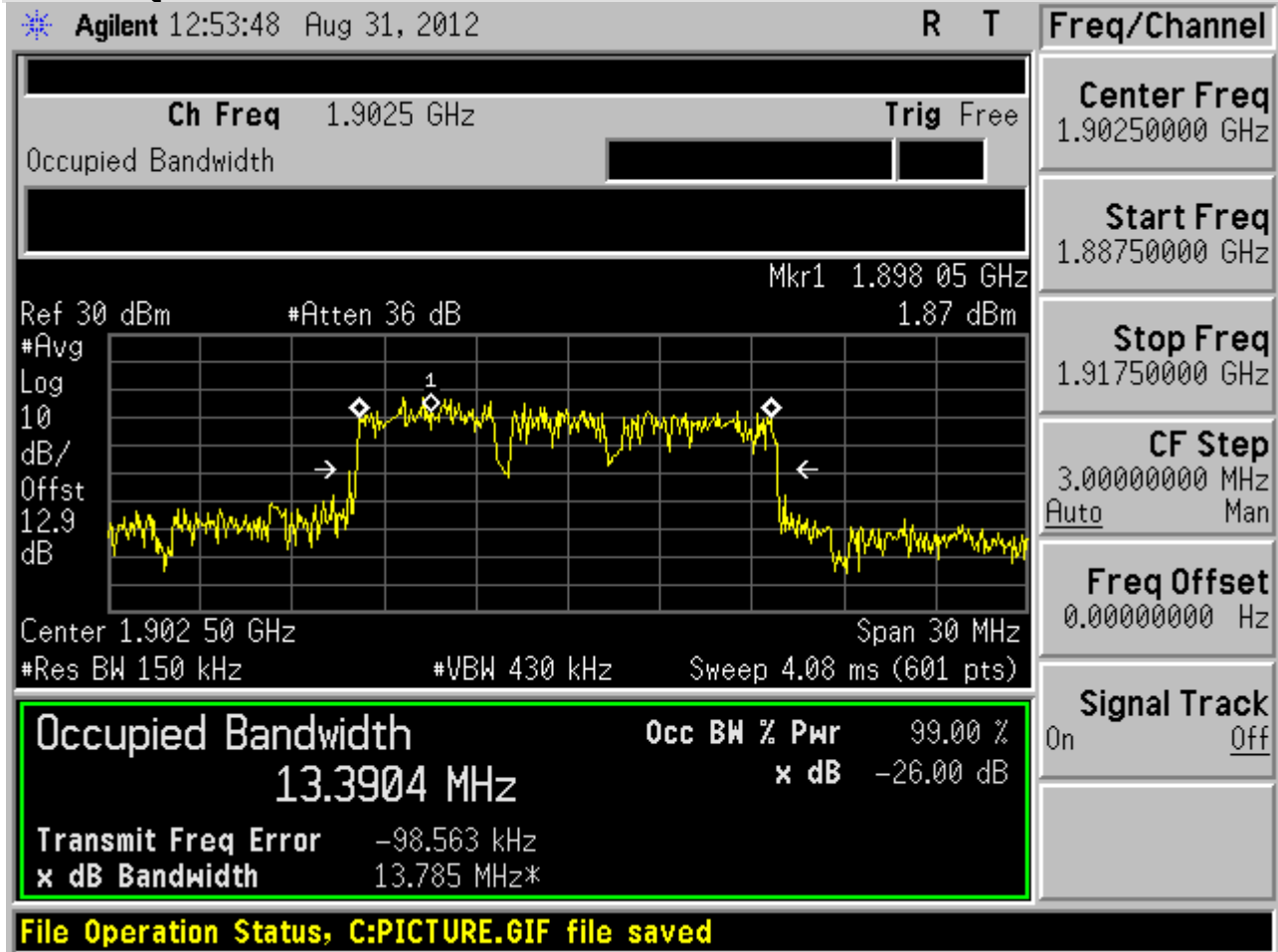
1.4.3.2.1 QPSK/full RBs





1.4.3.3 Channel = H

1.4.3.3.1 QPSK/full RBs

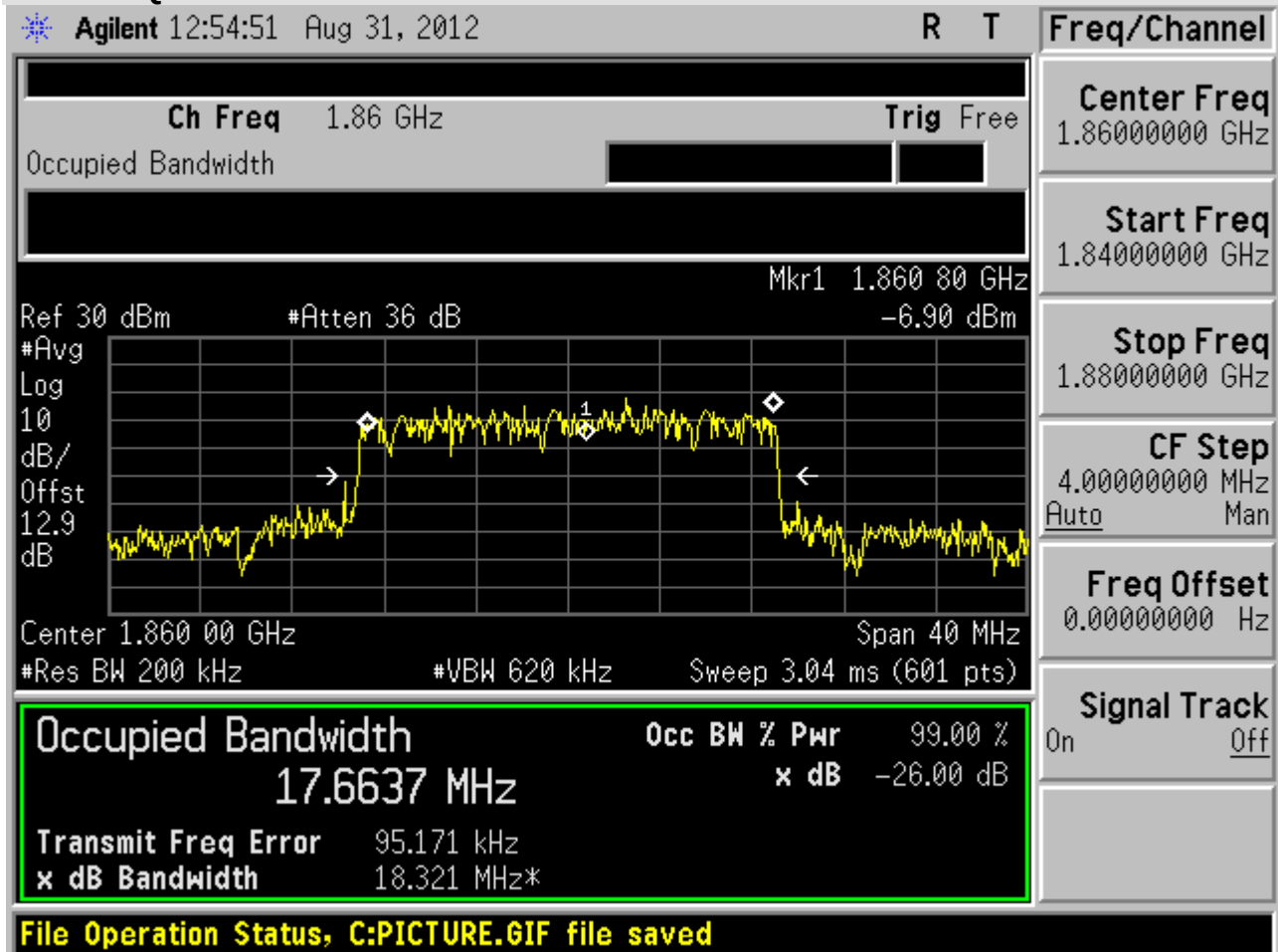




1.4.4 Channel Bandwidth = Highest(20 MHz)

1.4.4.1 Channel = L

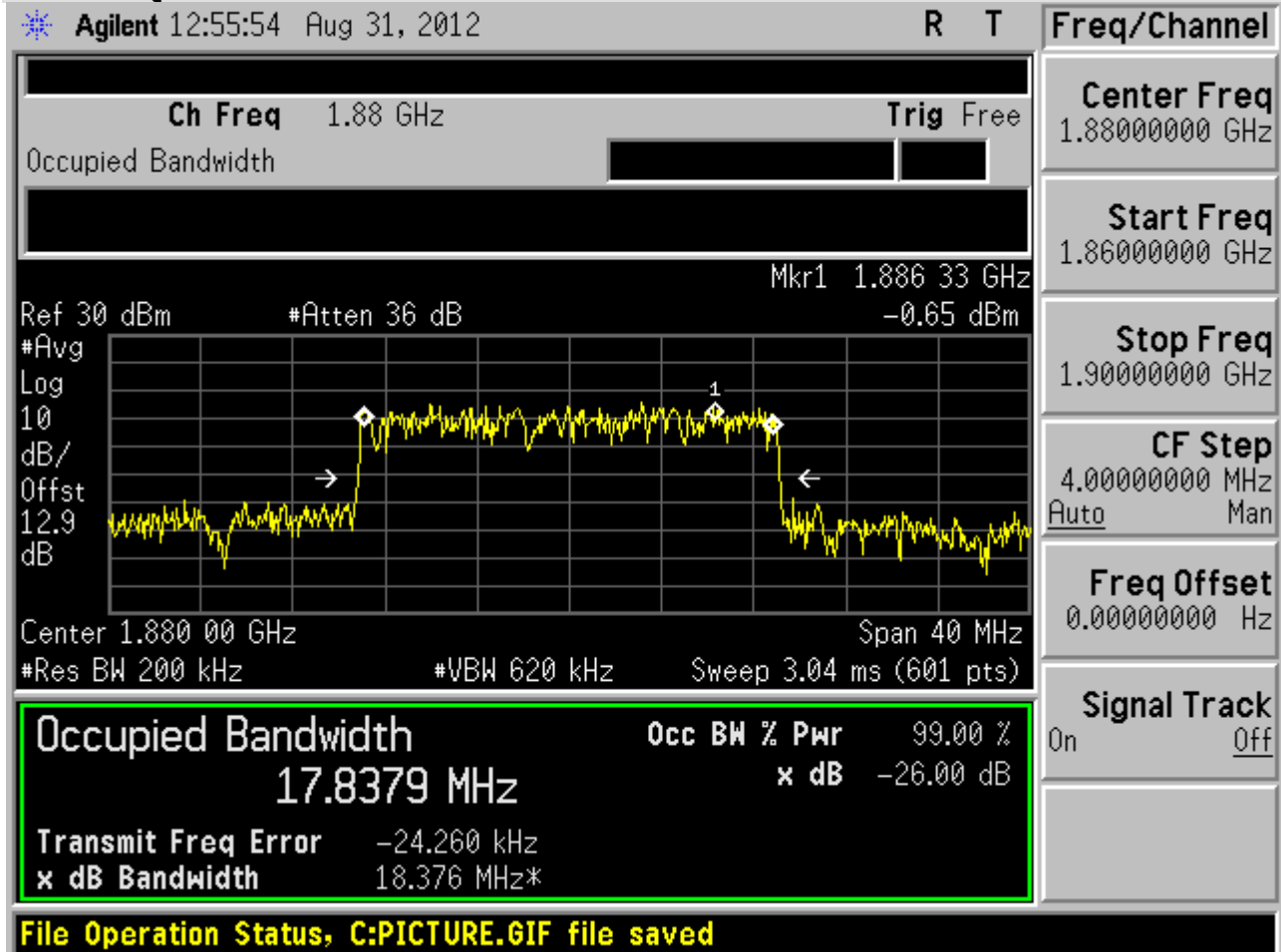
1.4.4.1.1 QPSK/full RBs





1.4.4.2 Channel = M

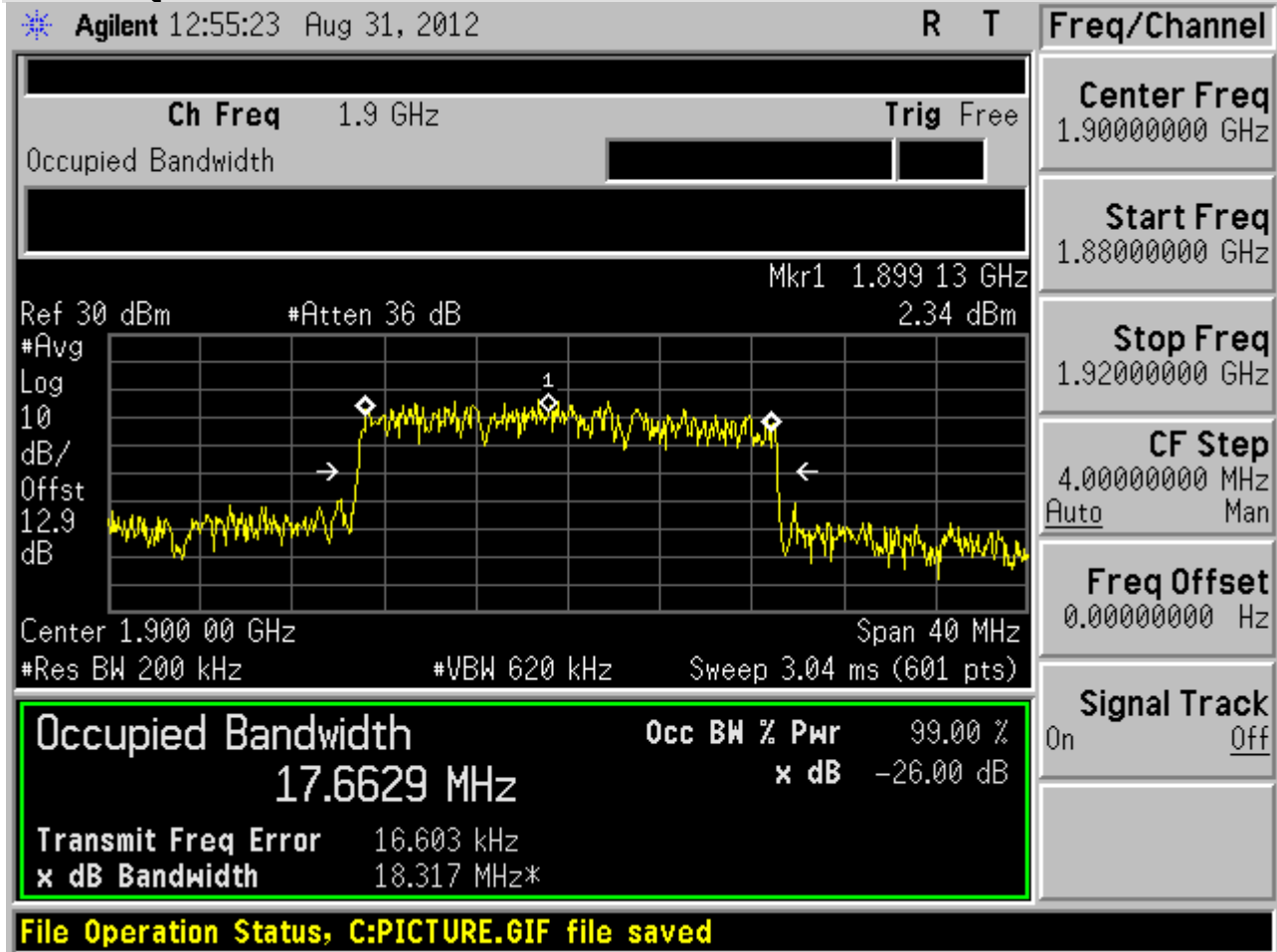
1.4.4.2.1 QPSK/full RBs





1.4.4.3 Channel = H

1.4.4.3.1 QPSK/full RBs



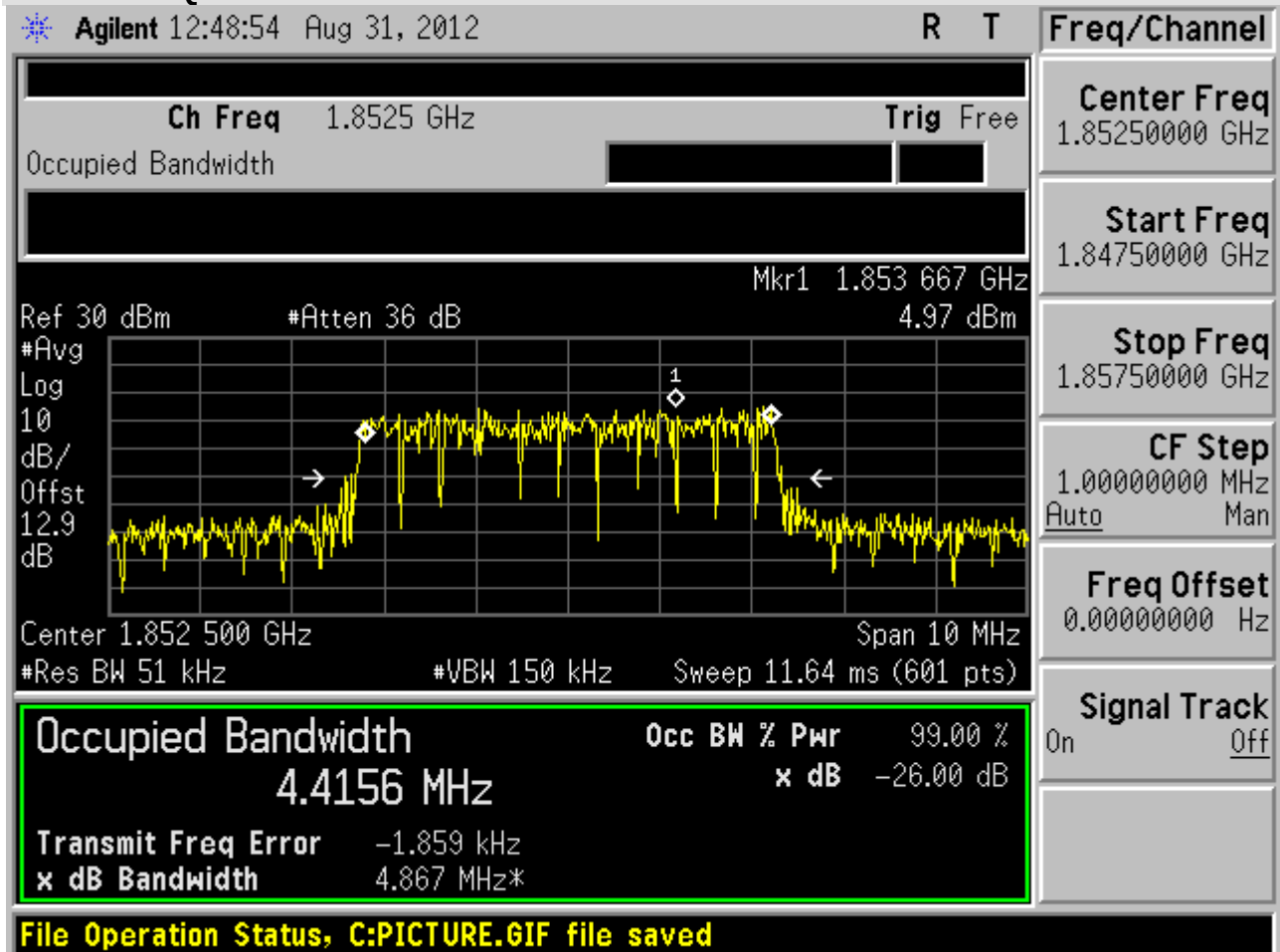


1.5 Test Mode=TM7

1.5.1 Channel Bandwidth = Lowest (5 MHz)

1.5.1.1 Channel = L

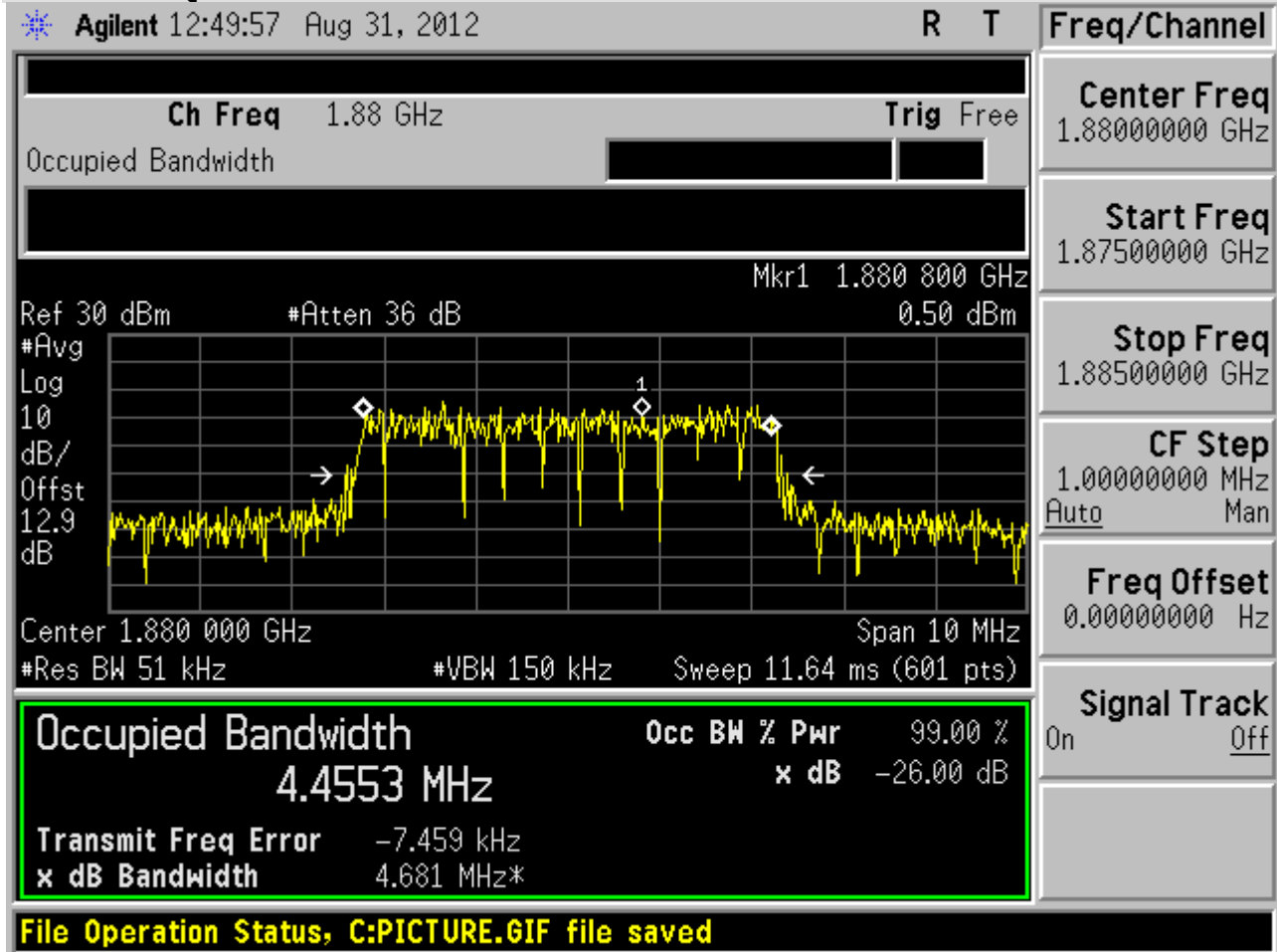
1.5.1.1.1 16QAM/full RBs





1.5.1.2 Channel = M

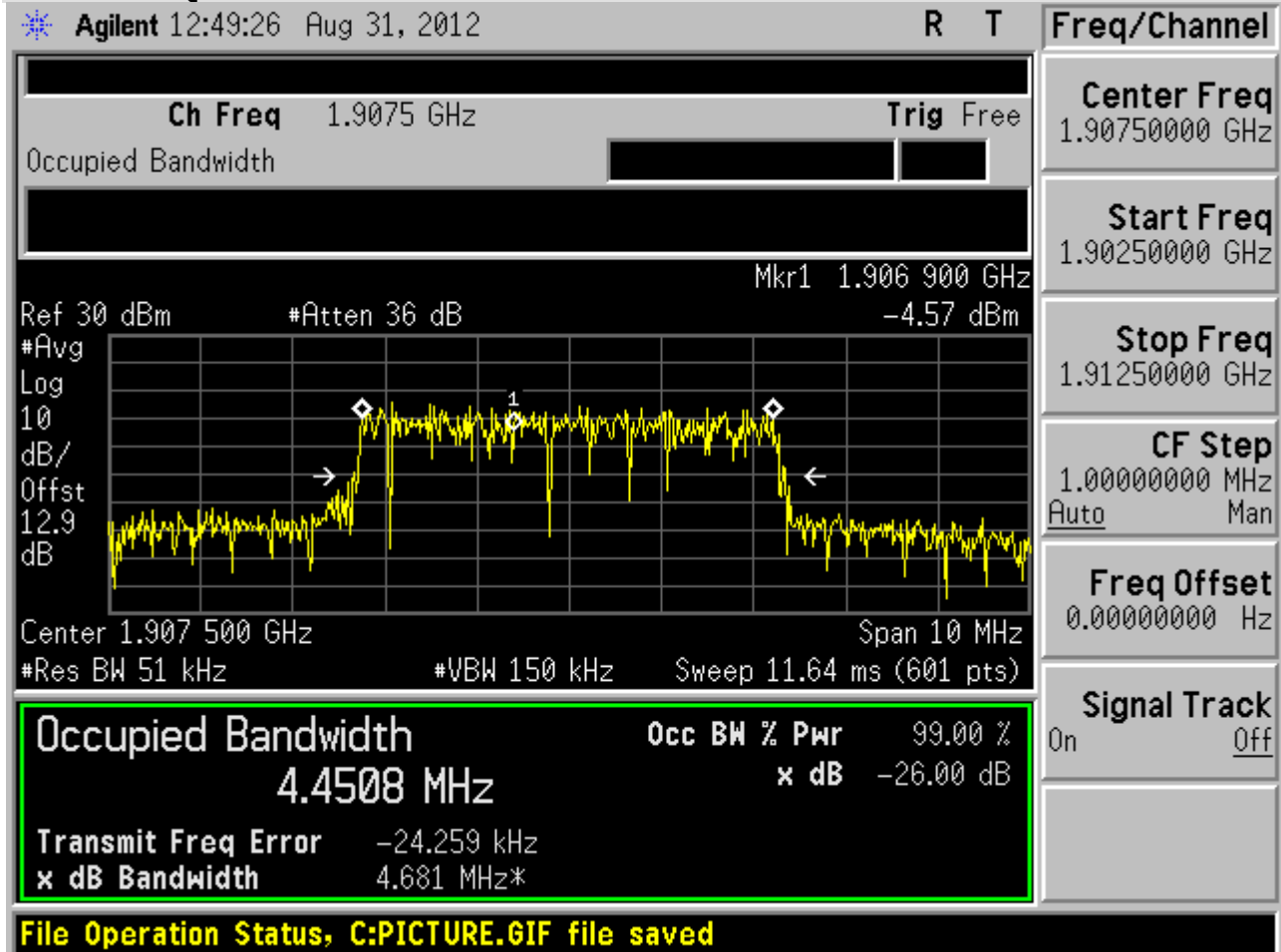
1.5.1.2.1 16QAM /full RBs





1.5.1.3 Channel = H

1.5.1.3.1 16QAM /full RBs

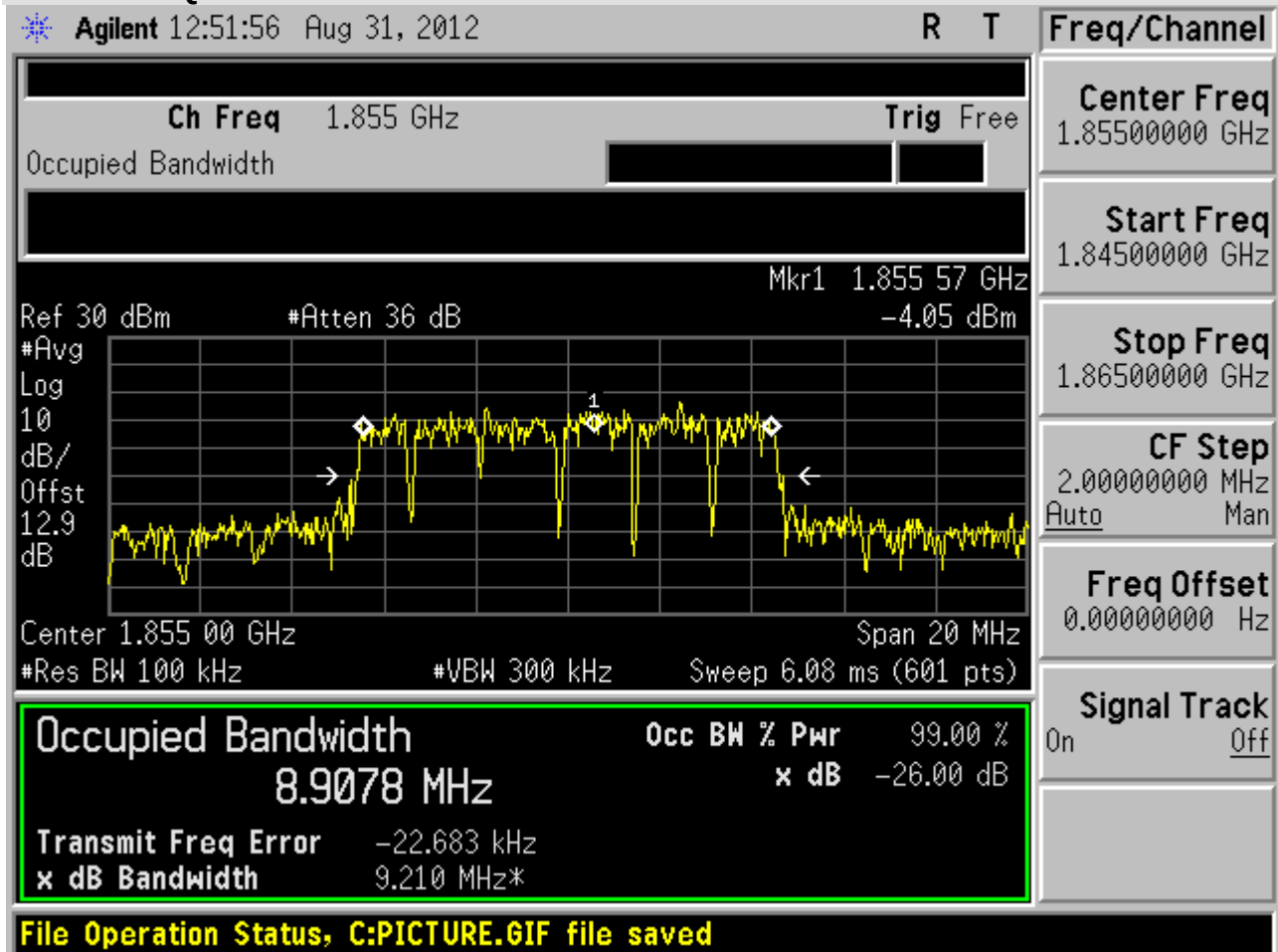




1.5.2 Channel Bandwidth = 10 MHz

1.5.2.1 Channel = L

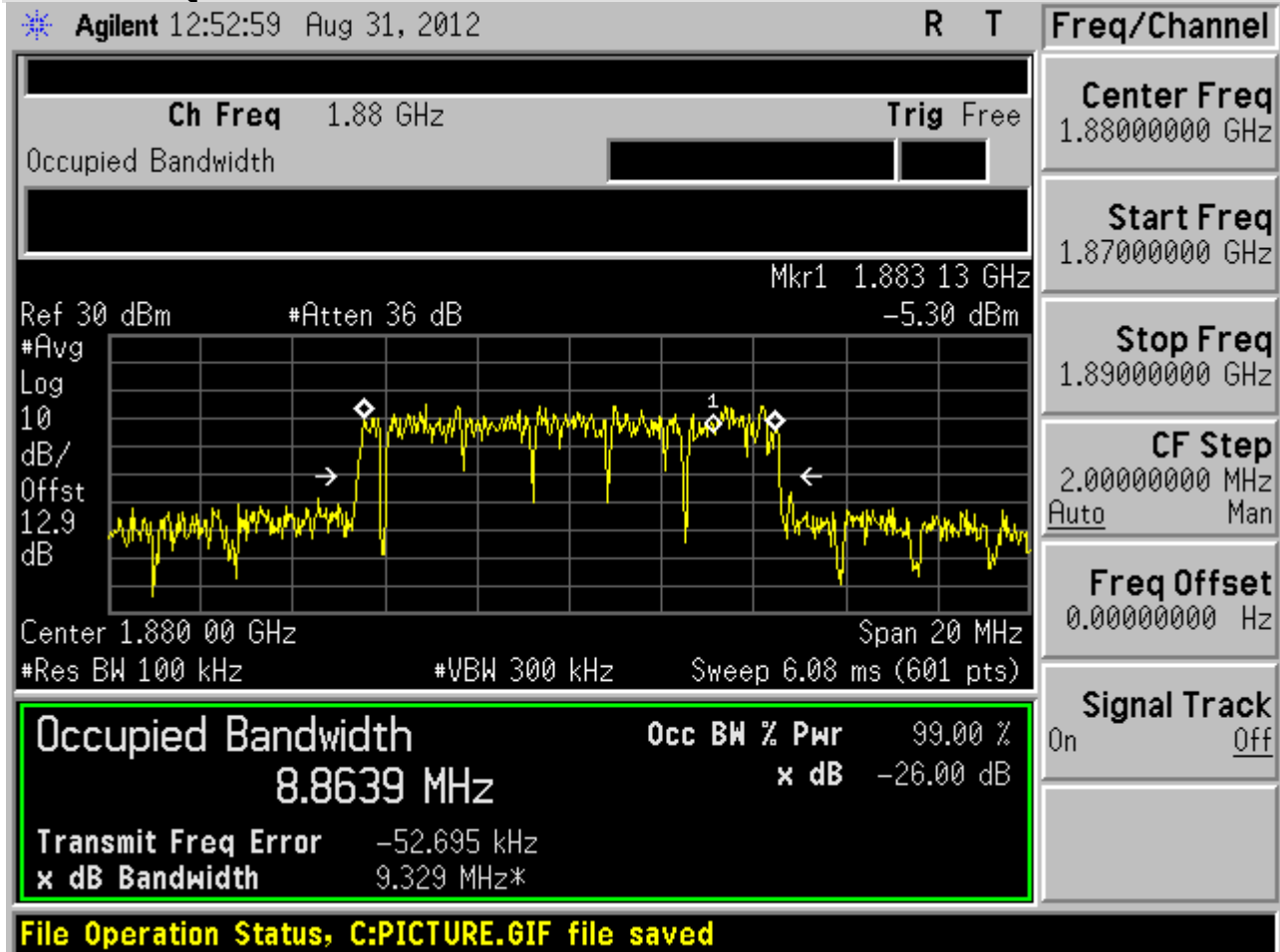
1.5.2.1.1 16QAM /full RBs





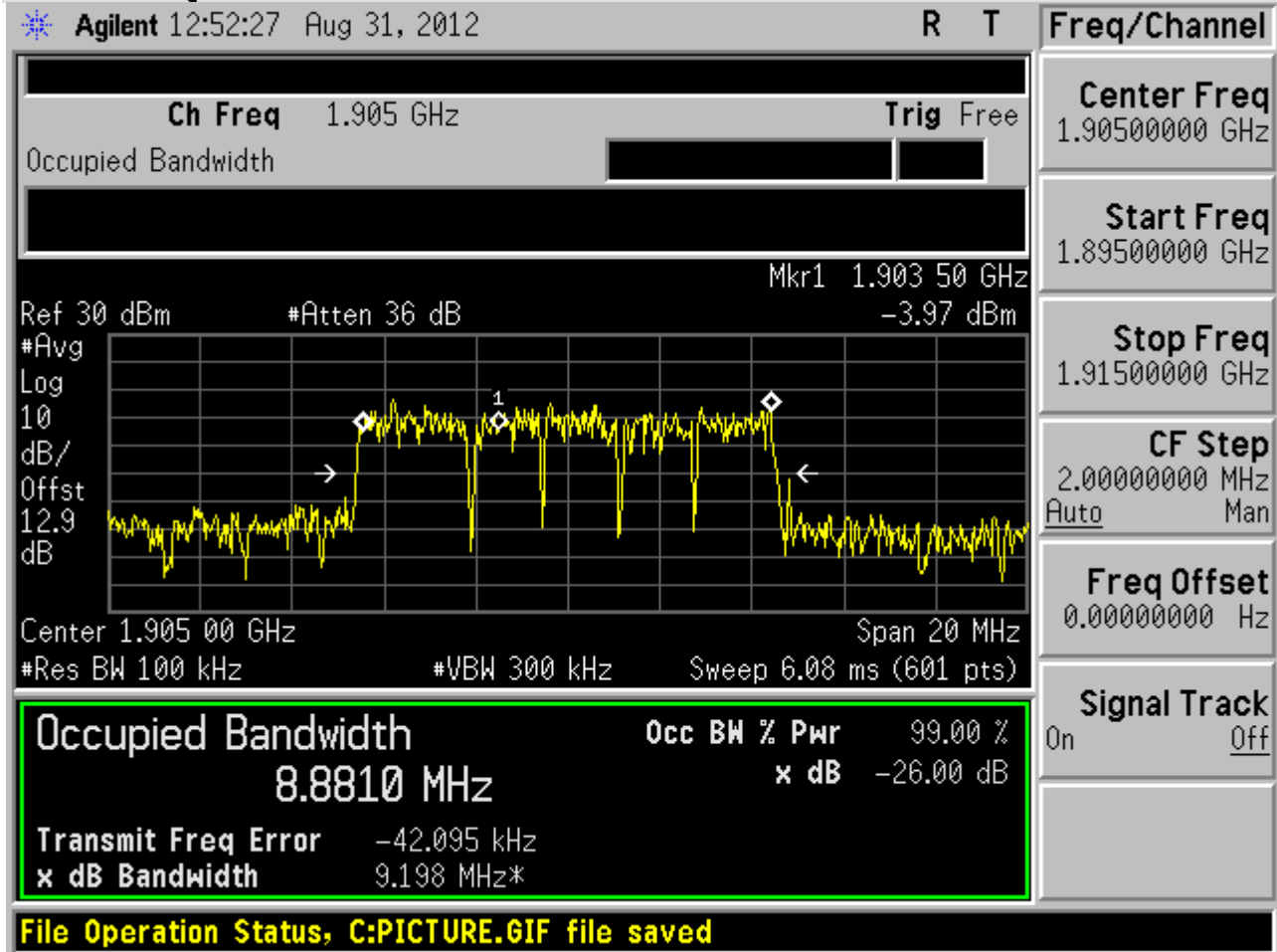
1.5.2.2 Channel = M

1.5.2.2.1 16QAM /full RBs



1.5.2.3 Channel = H

1.5.2.3.1 16QAM /full RBs

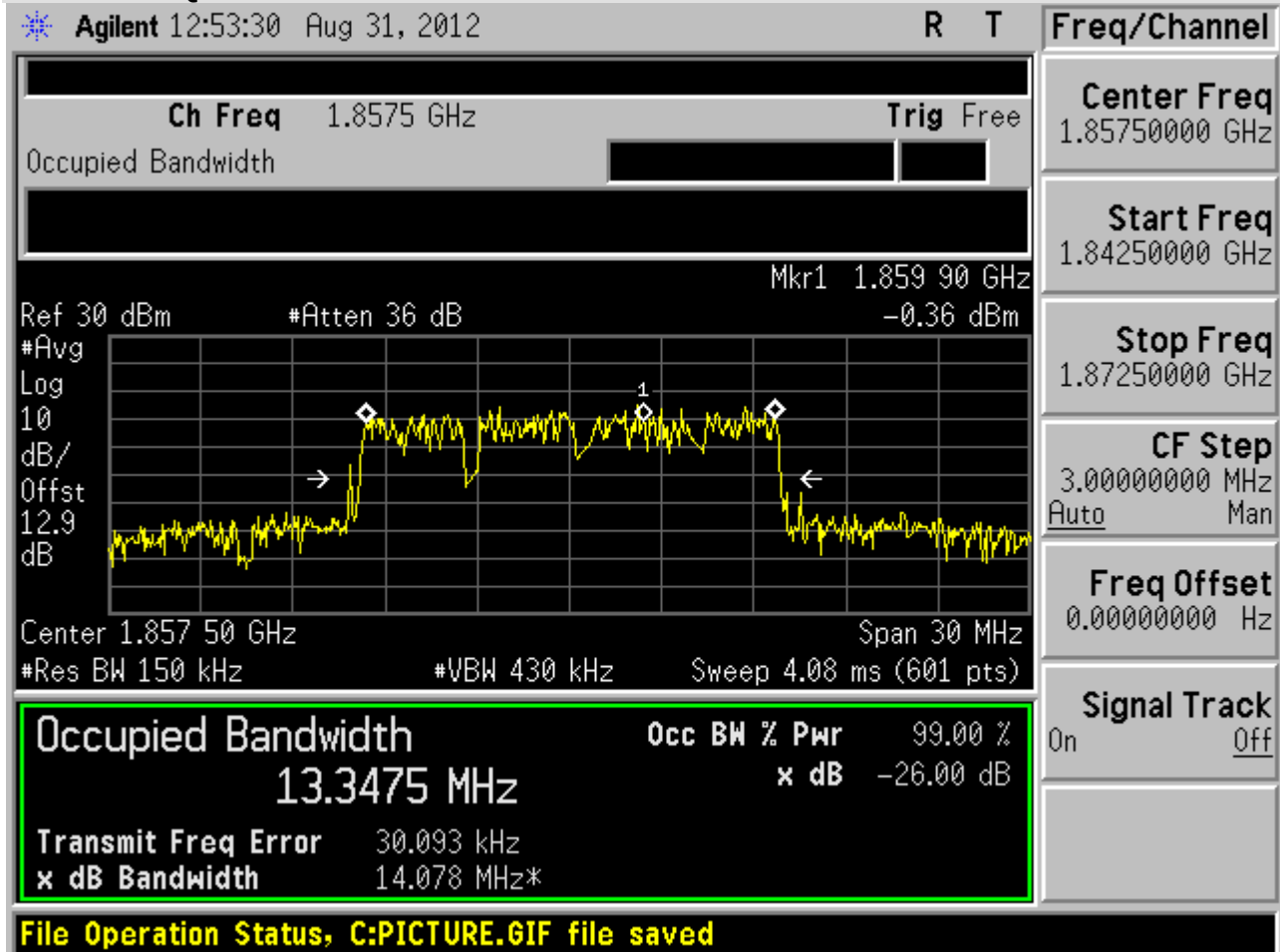




1.5.3 Channel Bandwidth = 15 MHz

1.5.3.1 Channel = L

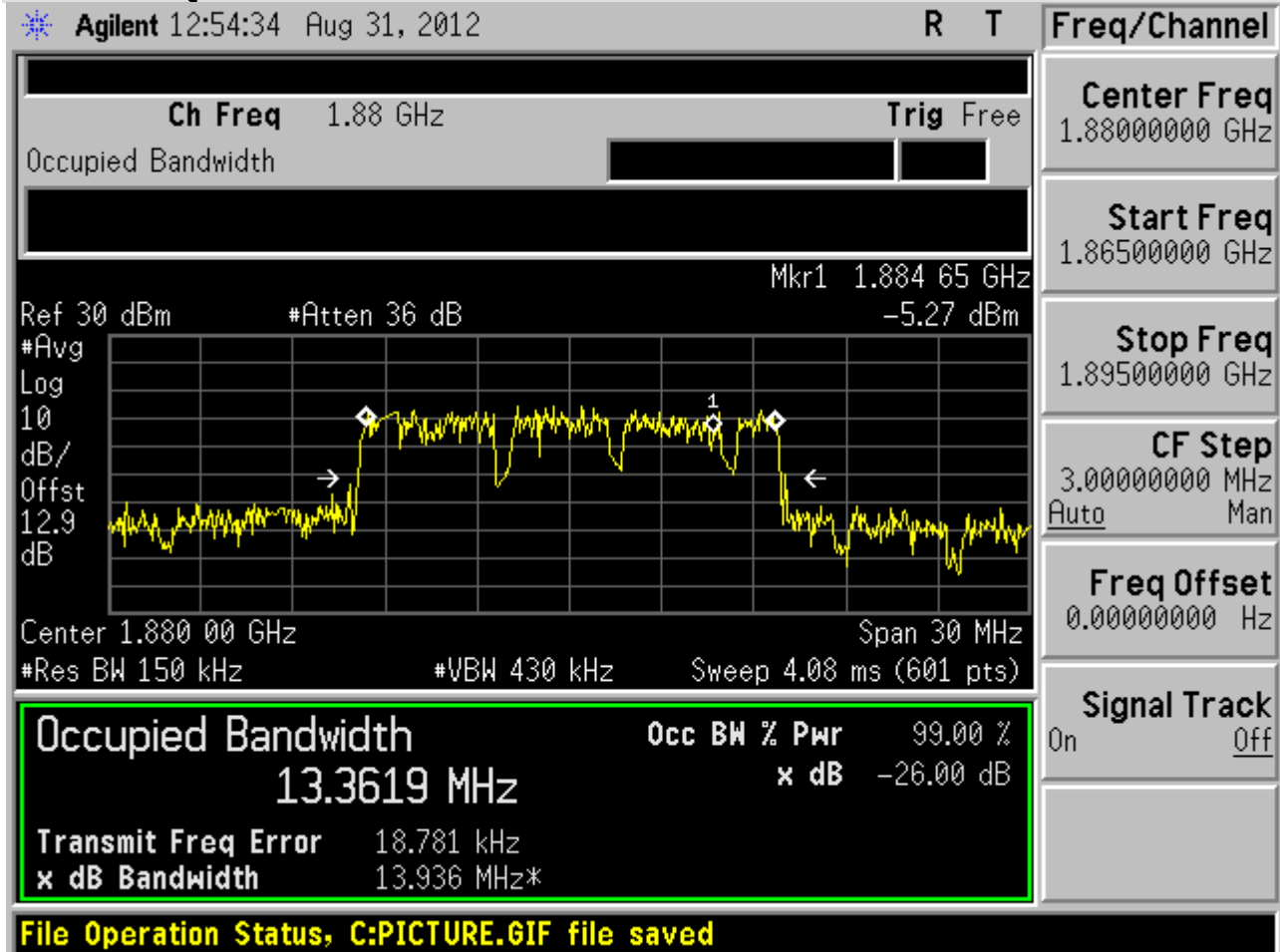
1.5.3.1.1 16QAM /full RBs





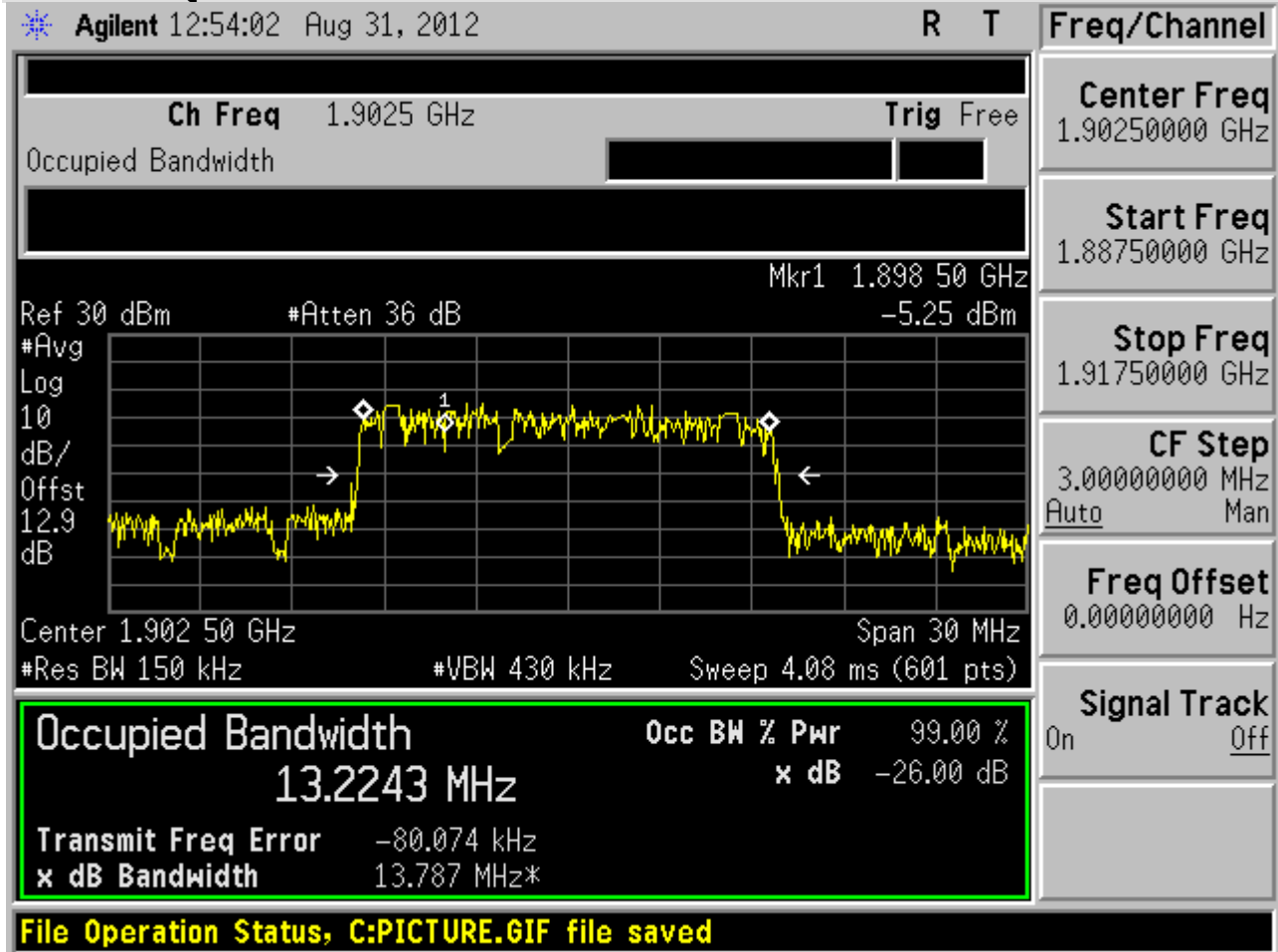
1.5.3.2 Channel =M

1.5.3.2.1 16QAM /full RBs



1.5.3.3 Channel = H

1.5.3.3.1 16QAM /full RBs

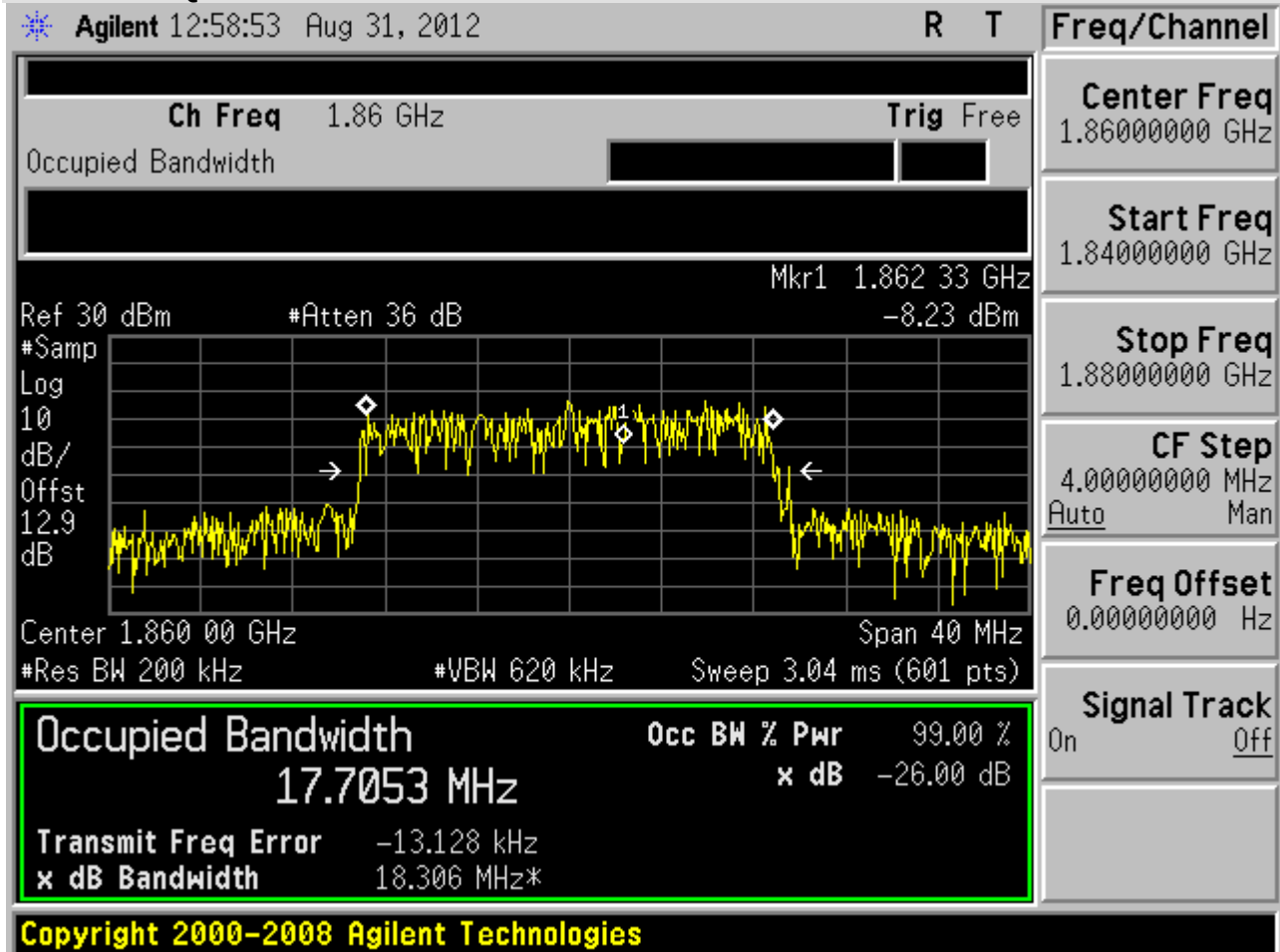




1.5.4 Channel Bandwidth = Highest(20 MHz)

1.5.4.1 Channel = L

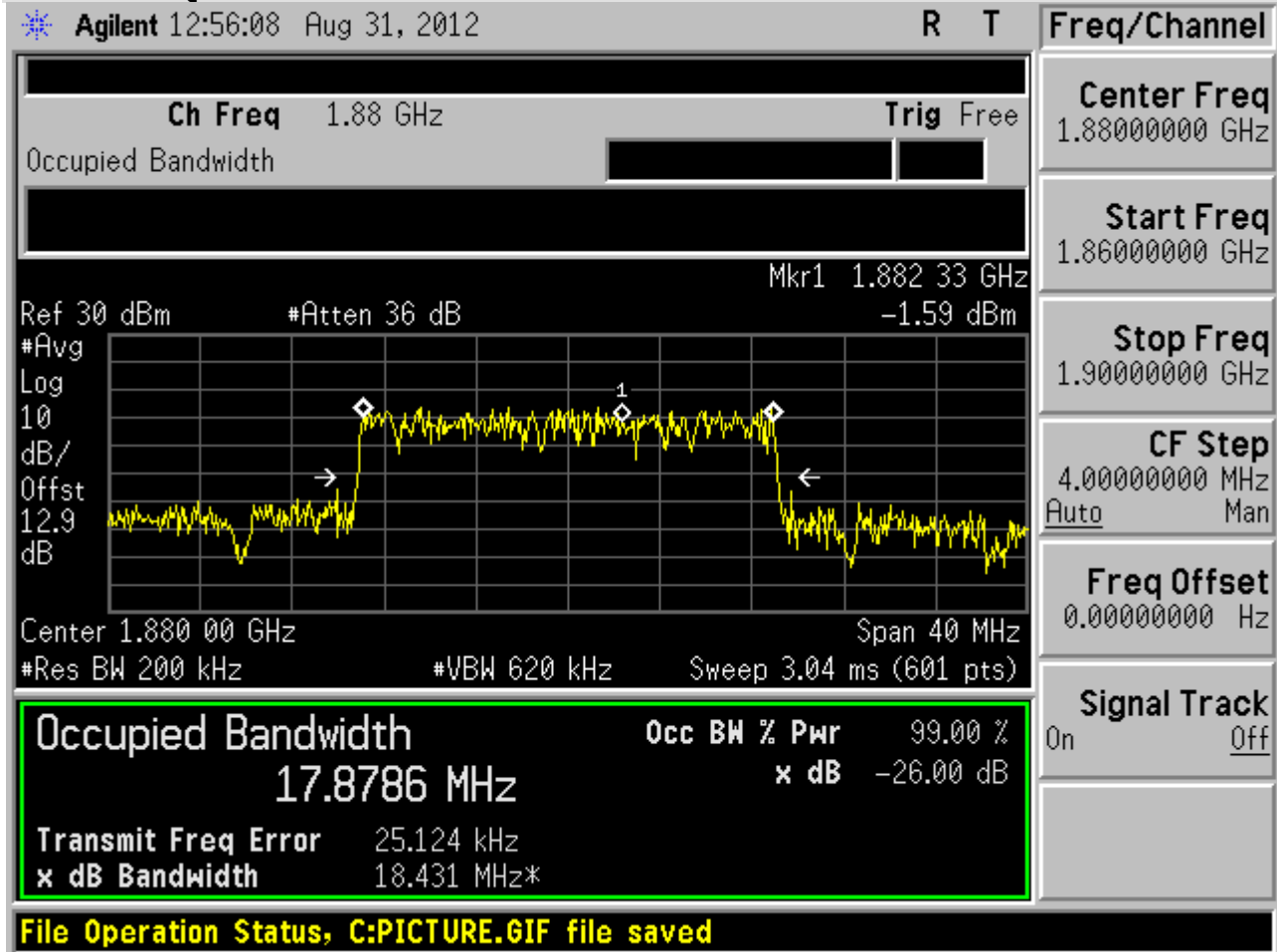
1.5.4.1.1 16QAM /full RBs





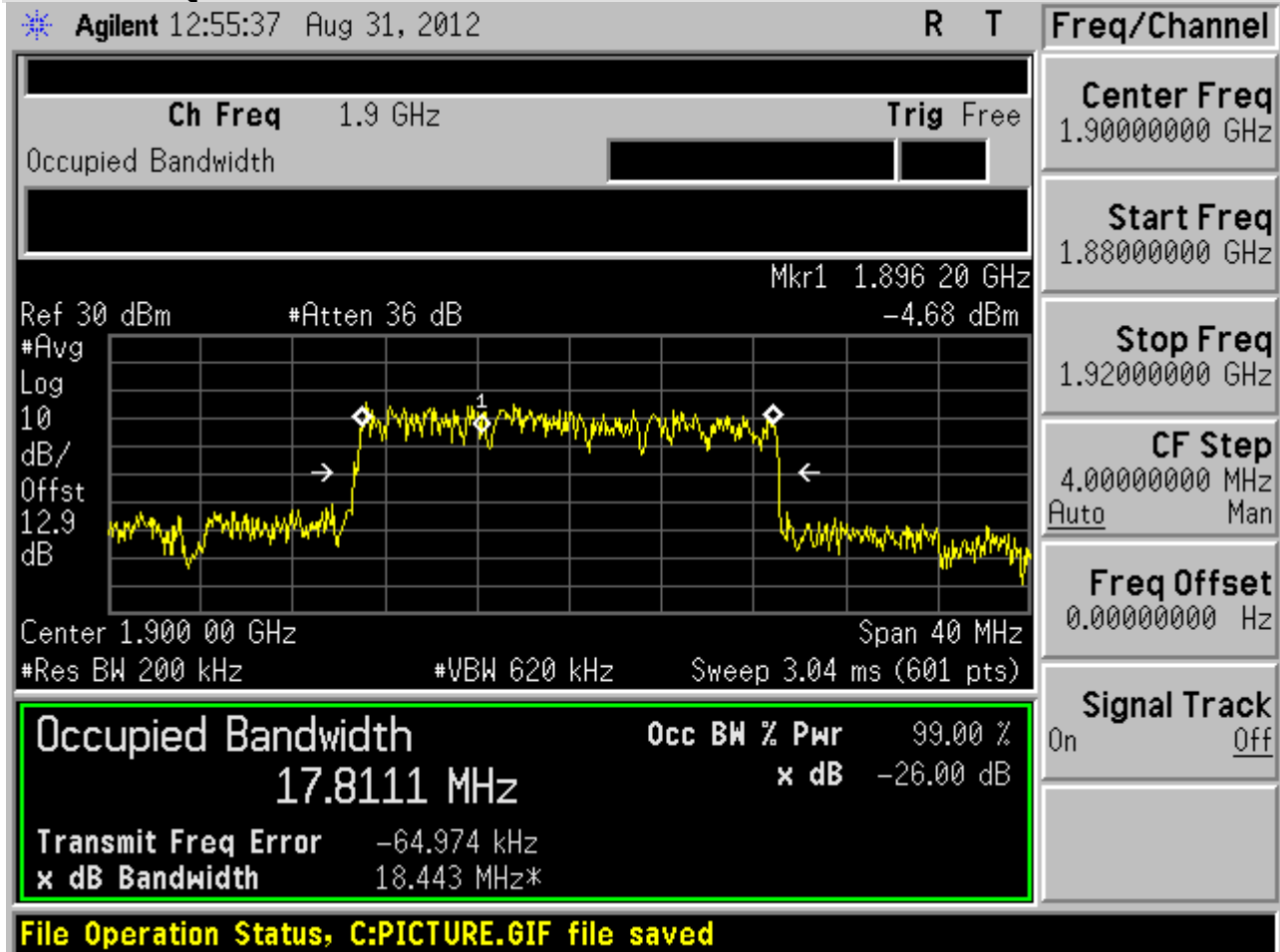
1.5.4.2 Channel =M

1.5.4.2.1 16QAM /full RBs



1.5.4.3 Channel = H

1.5.4.3.1 16QAM /full RBs



END



Appendix D

Band Edges Compliance According to FCC Part 2.1051 & 24.238



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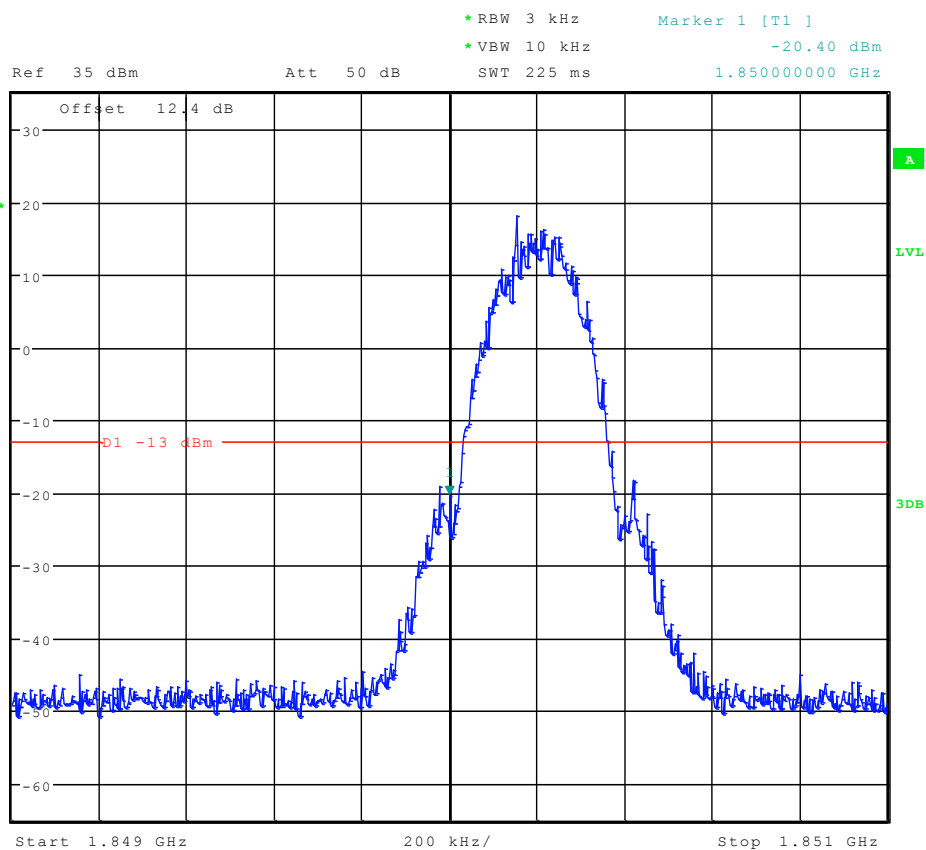


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1.1 Test Mode=TM1

1.1.1 Channel= L



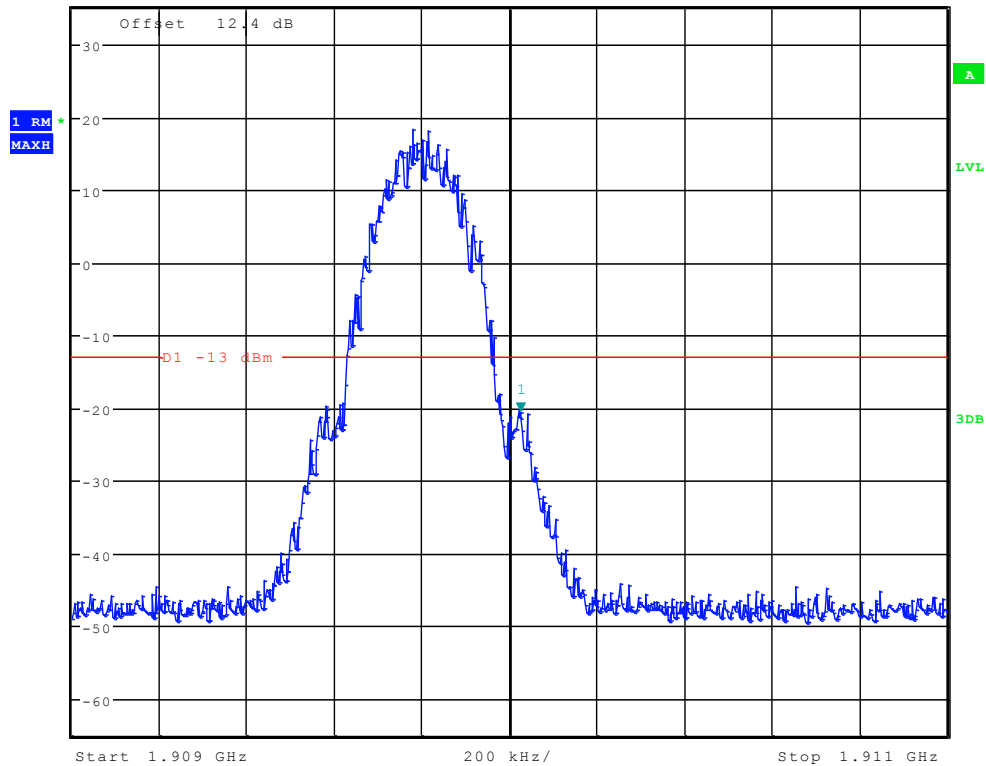
Date: 4.JUL.2012 01:07:59



1.1.2 Channel= H

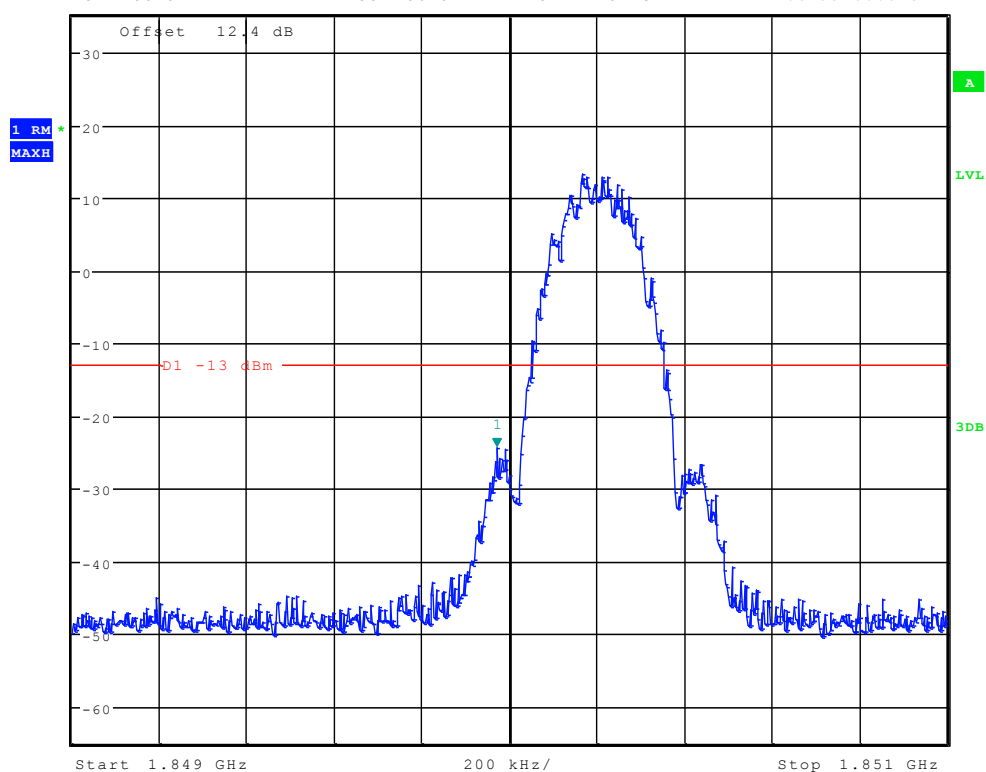
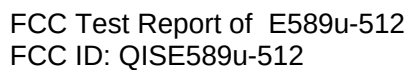


*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -20.61 dBm
Ref 35 dBm Att 50 dB SWT 225 ms 1.910025000 GHz



Date: 4.JUL.2012 01:08:24

1.2 Test Mode=TM2

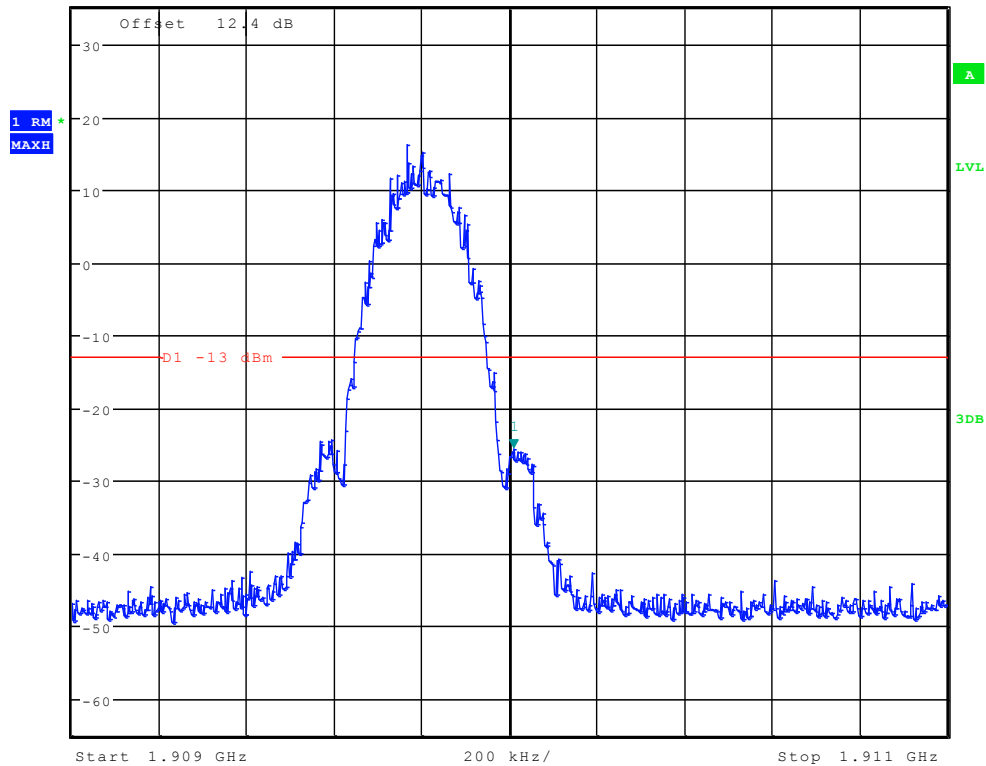


Date: 4.JUL.2012 01:14:20

1.2.2 Channel= H



*RBW 3 kHz Marker 1 [T1]
*VBW 10 kHz -25.51 dBm
Ref 35 dBm Att 50 dB SWT 225 ms 1.910010000 GHz

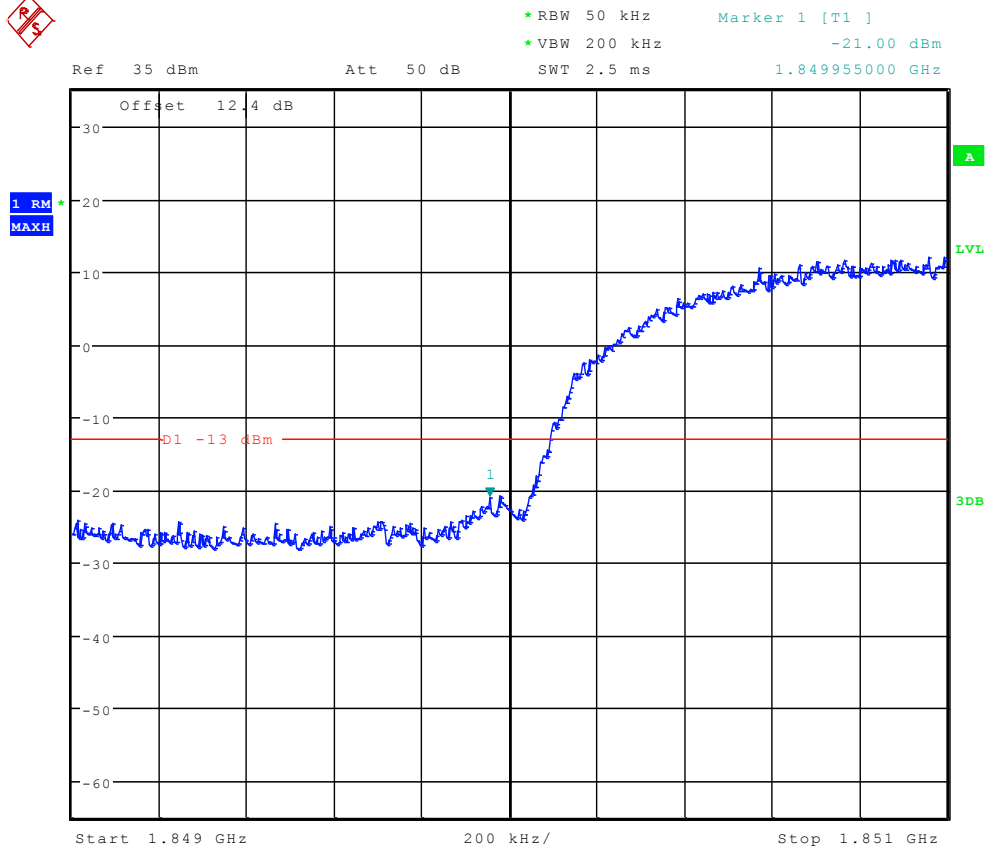


Date: 4.JUL.2012 01:14:55

1.3 Test Mode=TM3



1.3.1 Channel= L



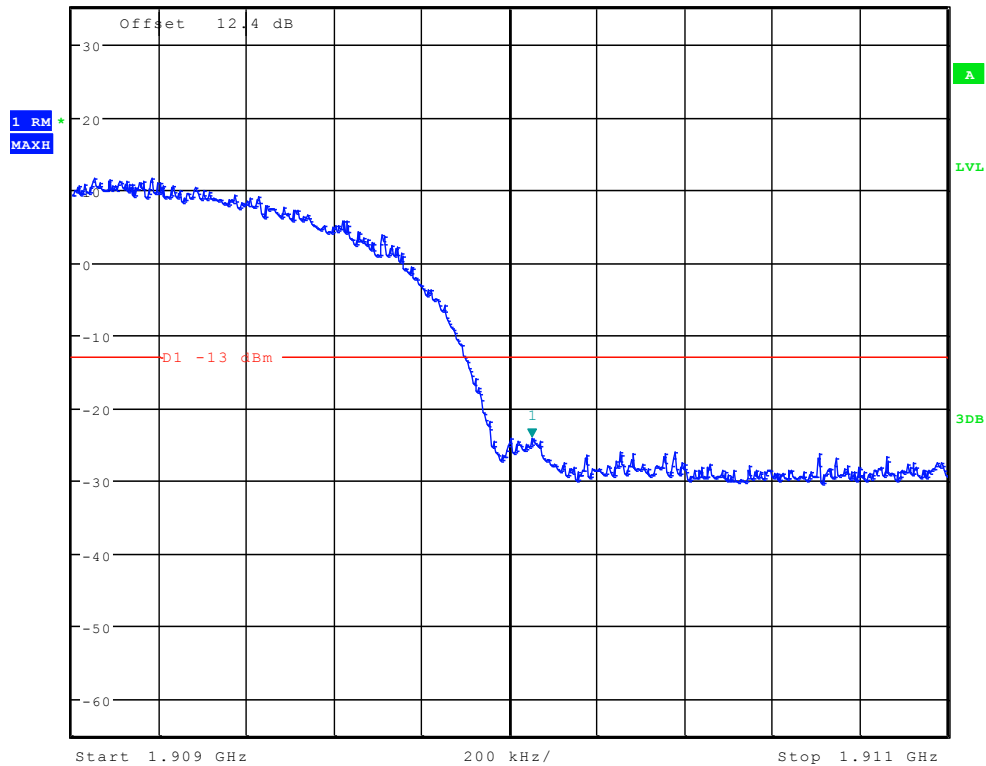
Date: 4.JUL.2012 01:19:56



1.3.2 Channel= H



*RBW 50 kHz Marker 1 [T1]
*VBW 200 kHz -24.07 dBm
Ref 35 dBm Att 50 dB SWT 2.5 ms 1.910050000 GHz



Date: 4.JUL.2012 01:20:10

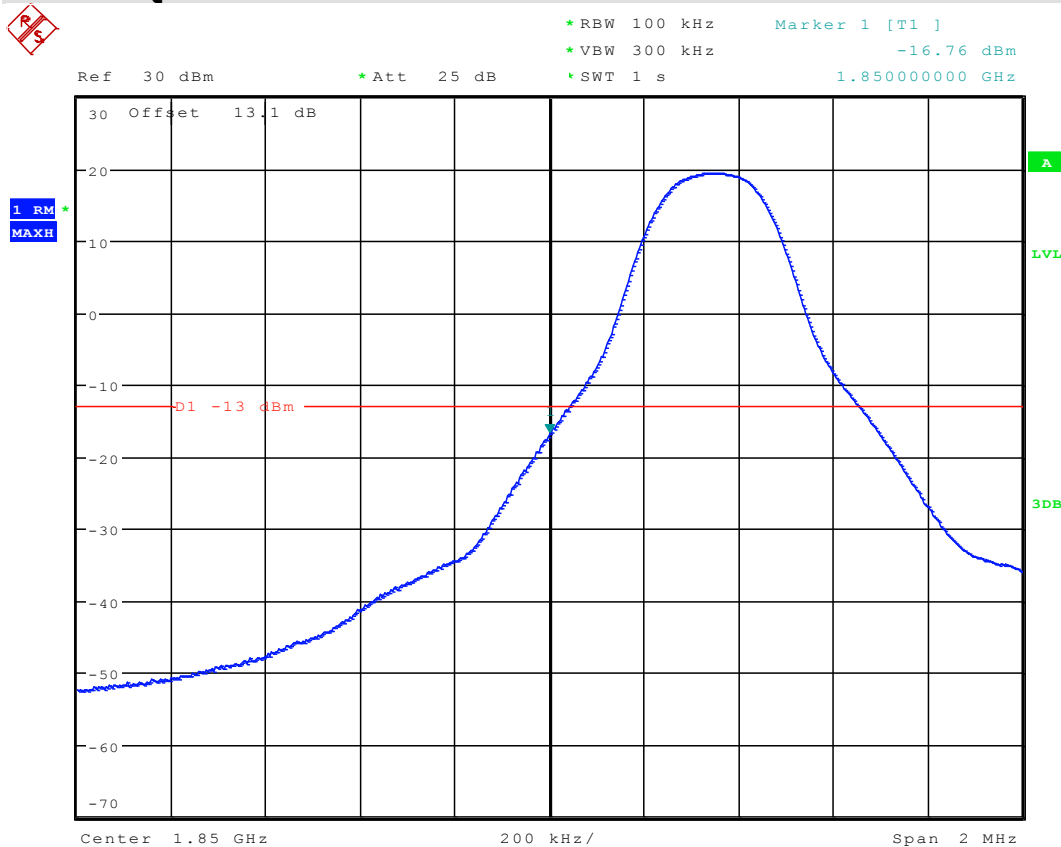


1.4 Test Mode=TM6

1.4.1 Channel Bandwidth = Lowest (5 MHz)

1.4.1.1 Channel= L

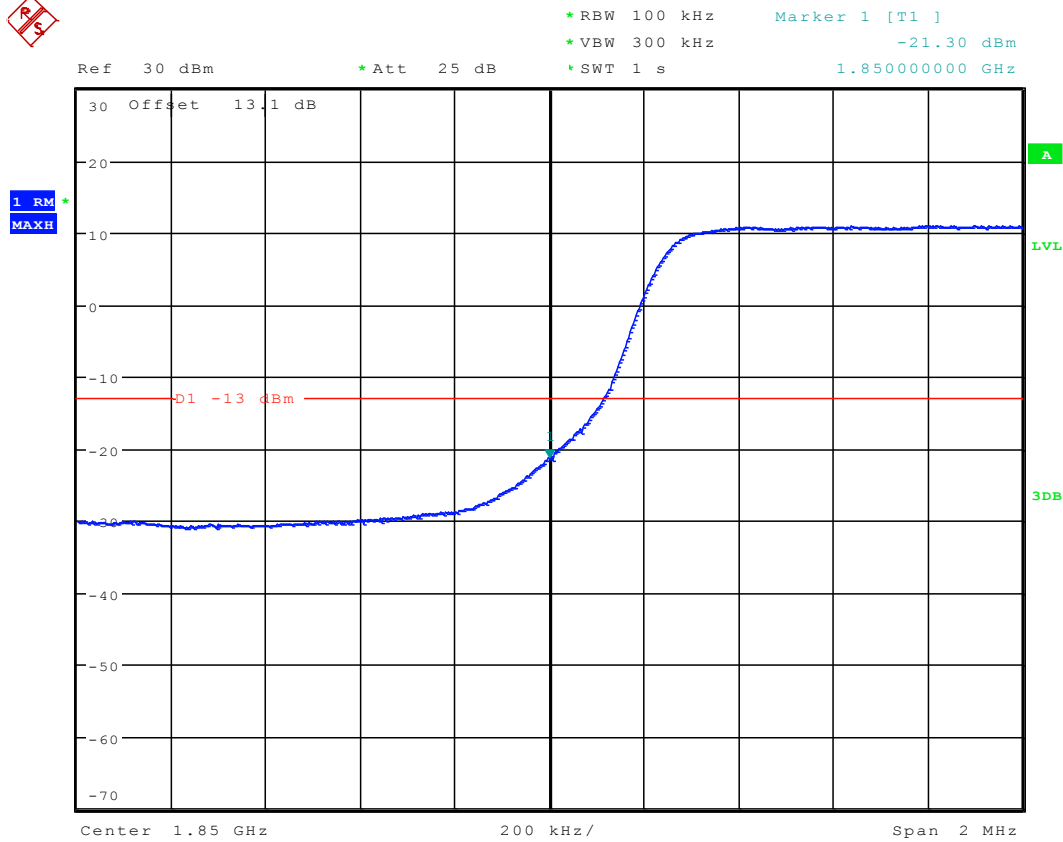
1.4.1.1.1 QPSK/1RB #0



Date: 6.JUL.2012 21:29:00



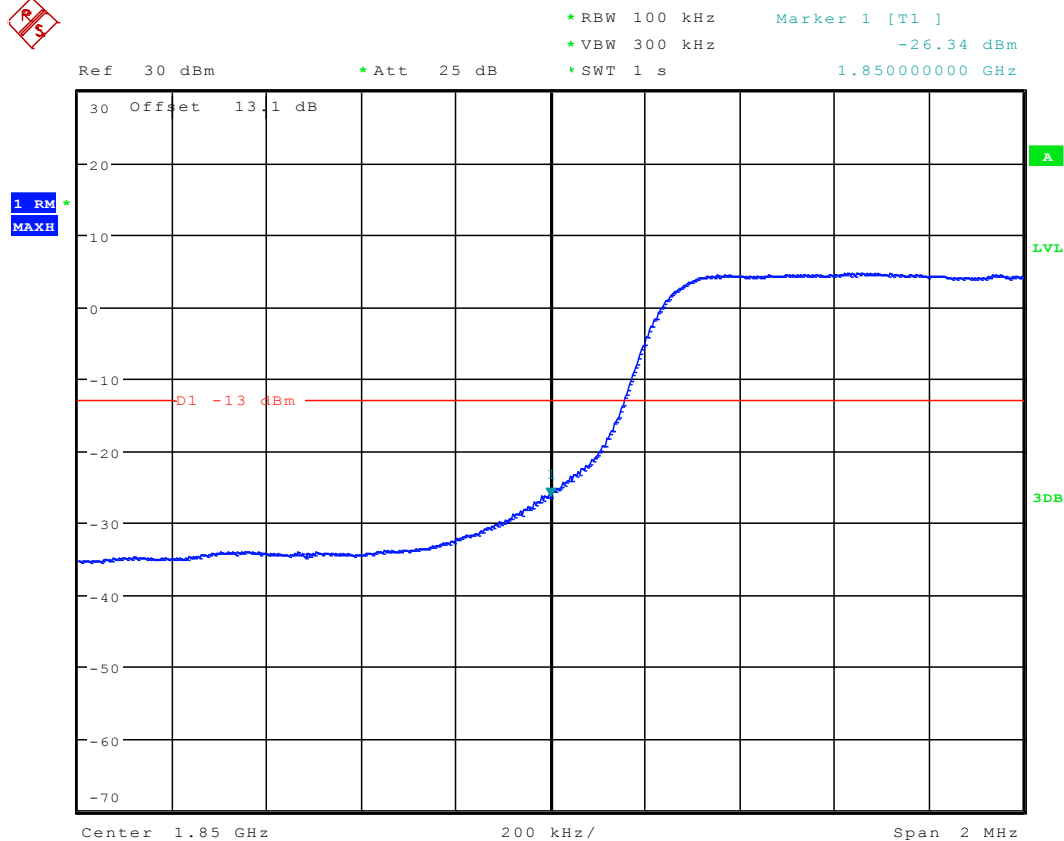
1.4.1.1.2 QPSK/Partial RBs /RB #0



Date: 6.JUL.2012 21:29:29



1.4.1.1.3 QPSK/full RBs

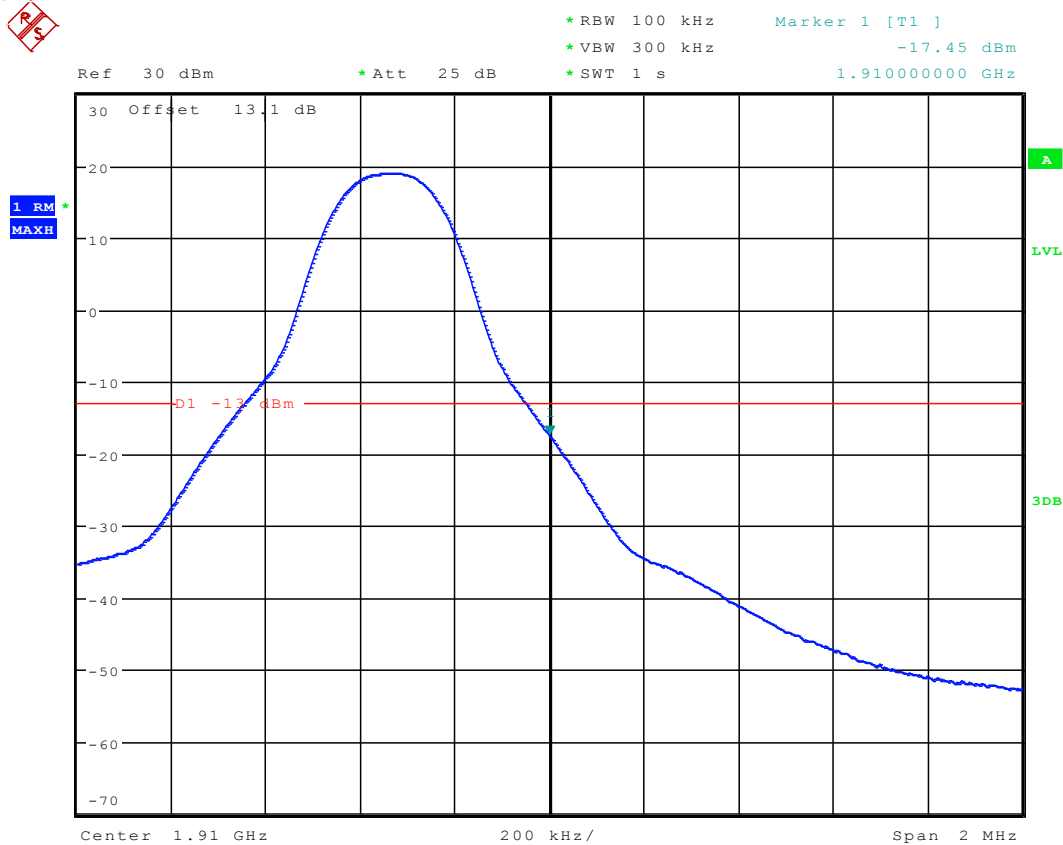


Date: 6.JUL.2012 21:29:53



1.4.1.2 Channel= H

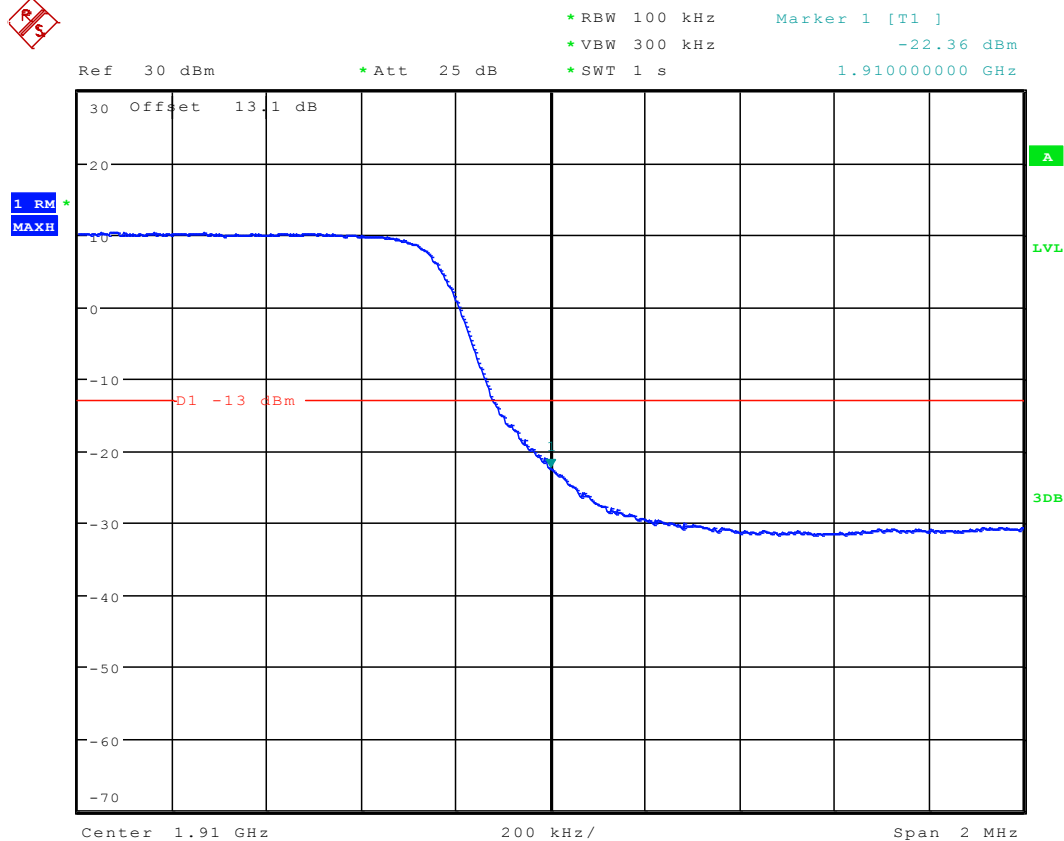
1.4.1.2.1 QPSK/1RB #max



Date: 6.JUL.2012 21:49:59



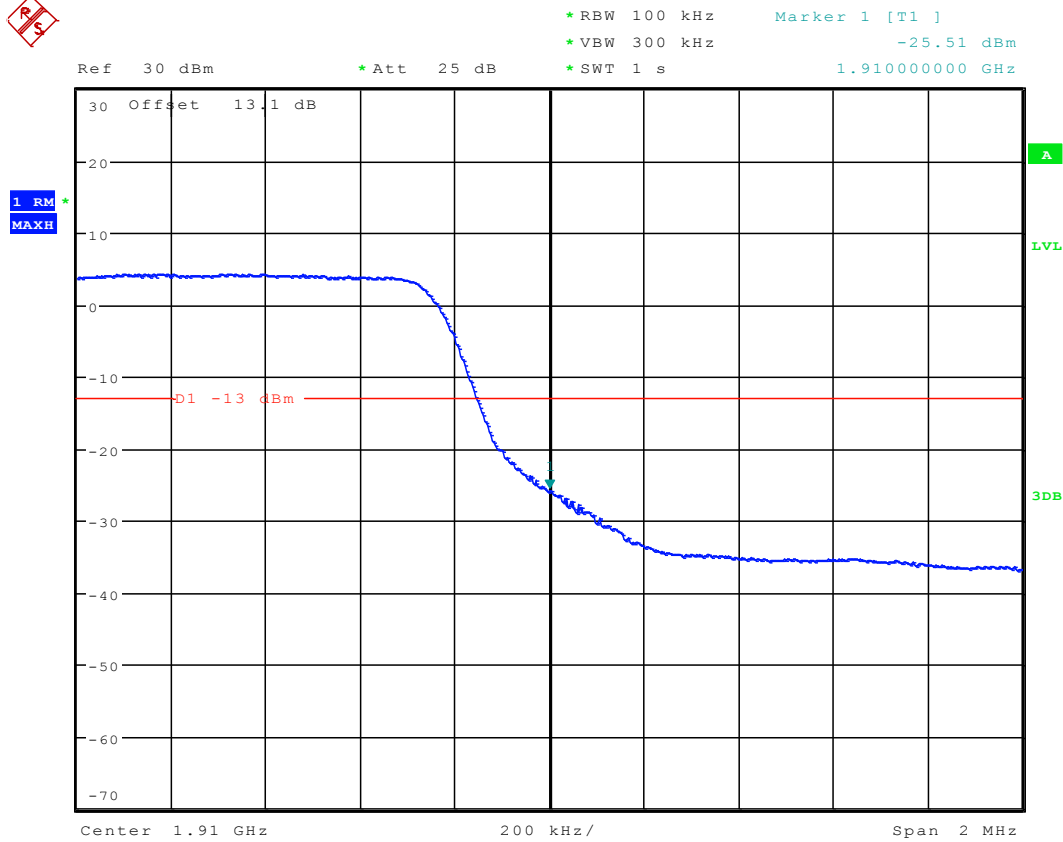
1.4.1.2.2 QPSK/Partial RBs /RB #max



Date: 6.JUL.2012 21:50:21



1.4.1.2.3 QPSK/full RBs



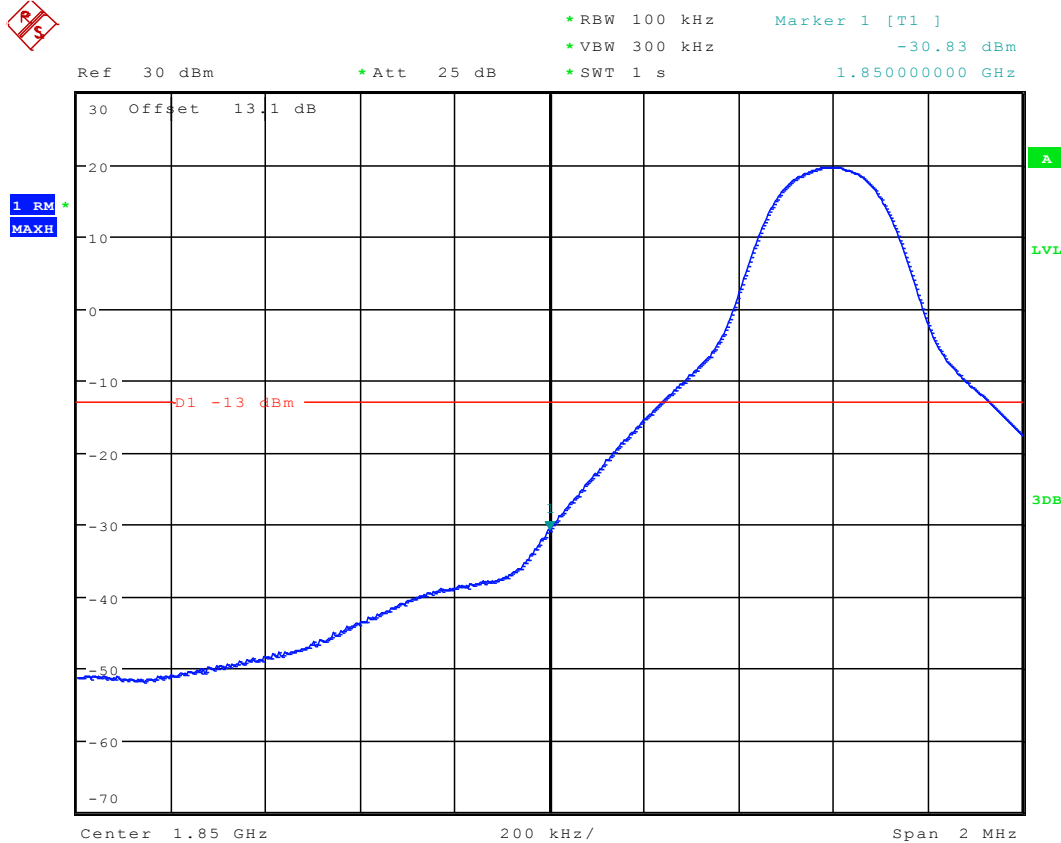
Date: 6.JUL.2012 21:50:44



1.4.2 Channel Bandwidth =10 MHz

1.4.2.1 Channel= L

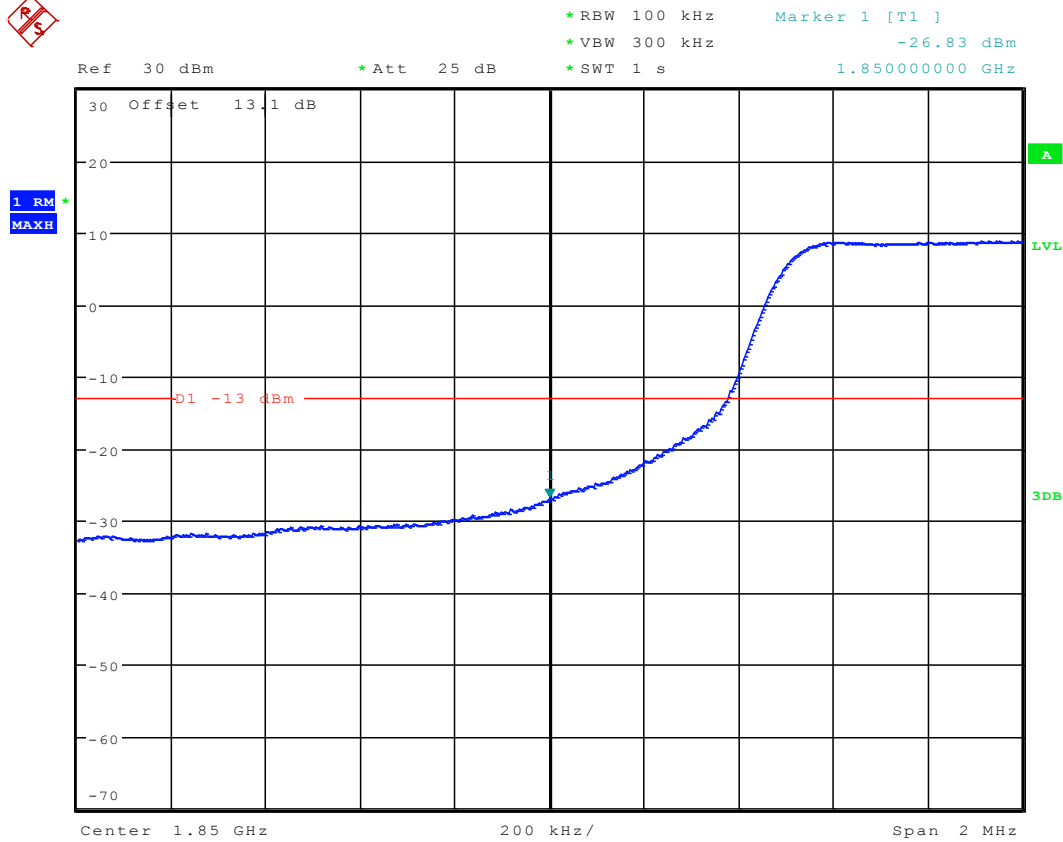
1.4.2.1.1 QPSK/1RB #0



Date: 6.JUL.2012 21:58:08



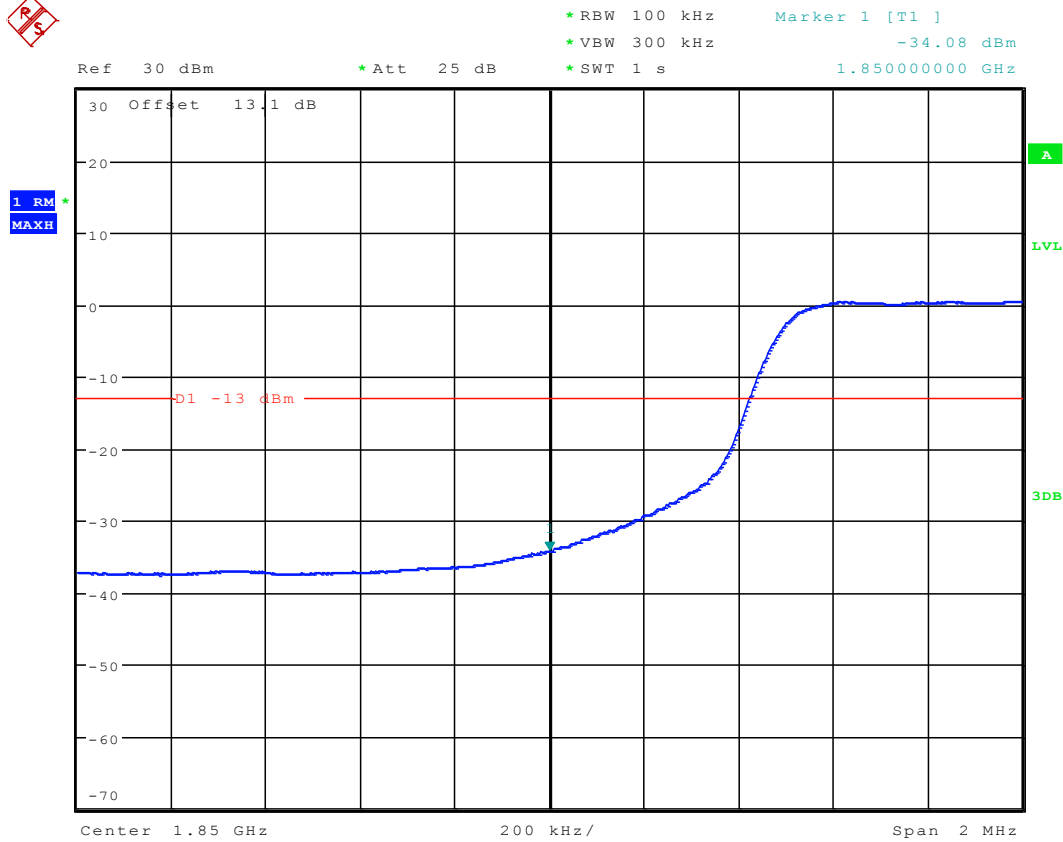
1.4.2.1.2 QPSK/Partial RBs /RB #0



Date: 6.JUL.2012 22:05:40



1.4.2.1.3 QPSK/full RBs

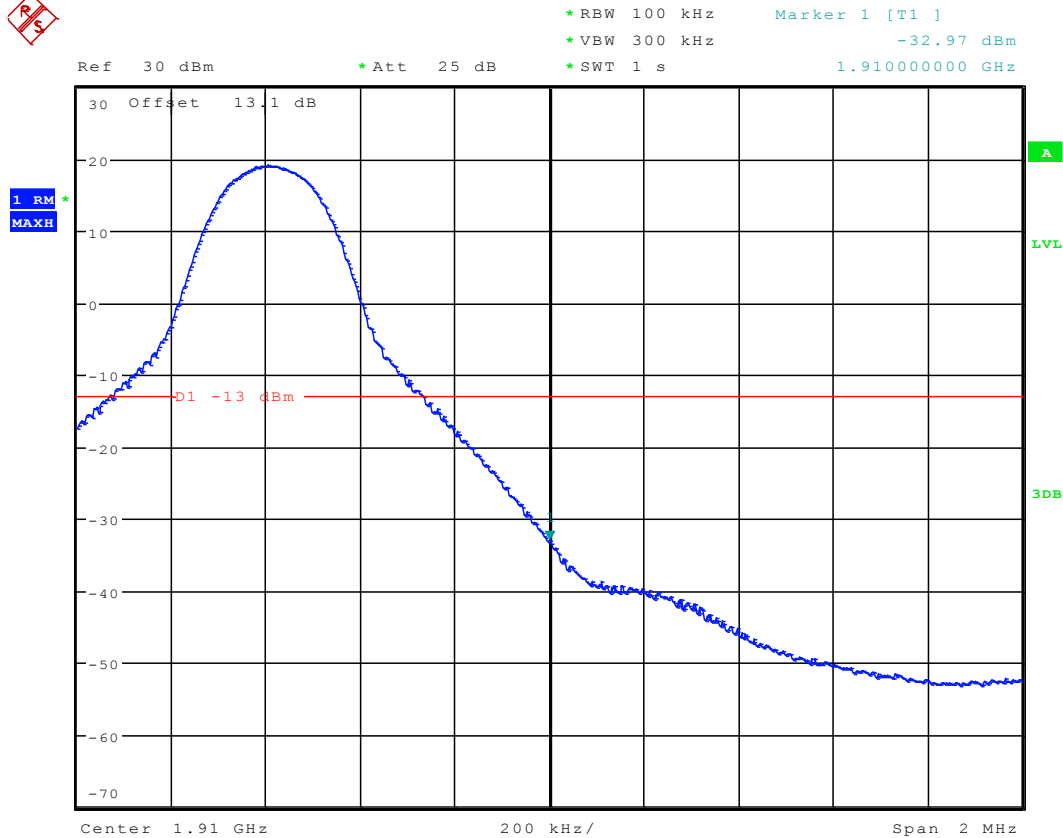


Date: 6.JUL.2012 22:06:49



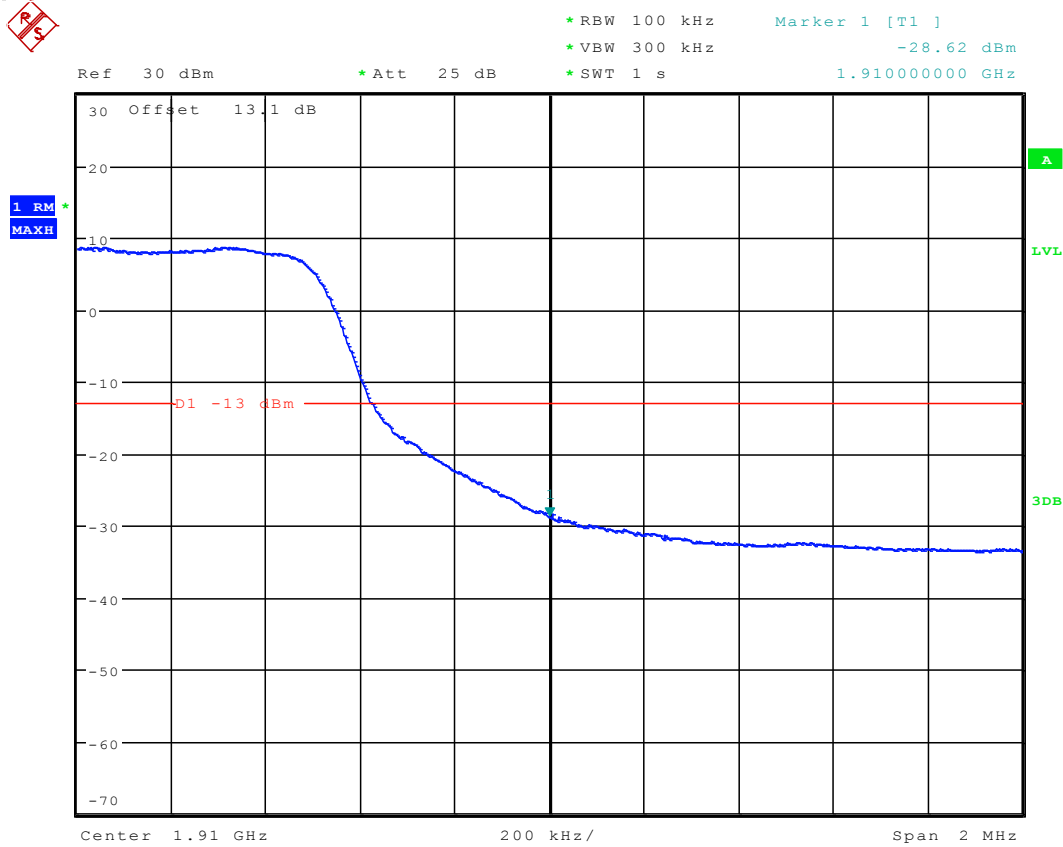
1.4.2.2 Channel= H

1.4.2.2.1 QPSK/1RB #max



Date: 6.JUL.2012 22:10:59

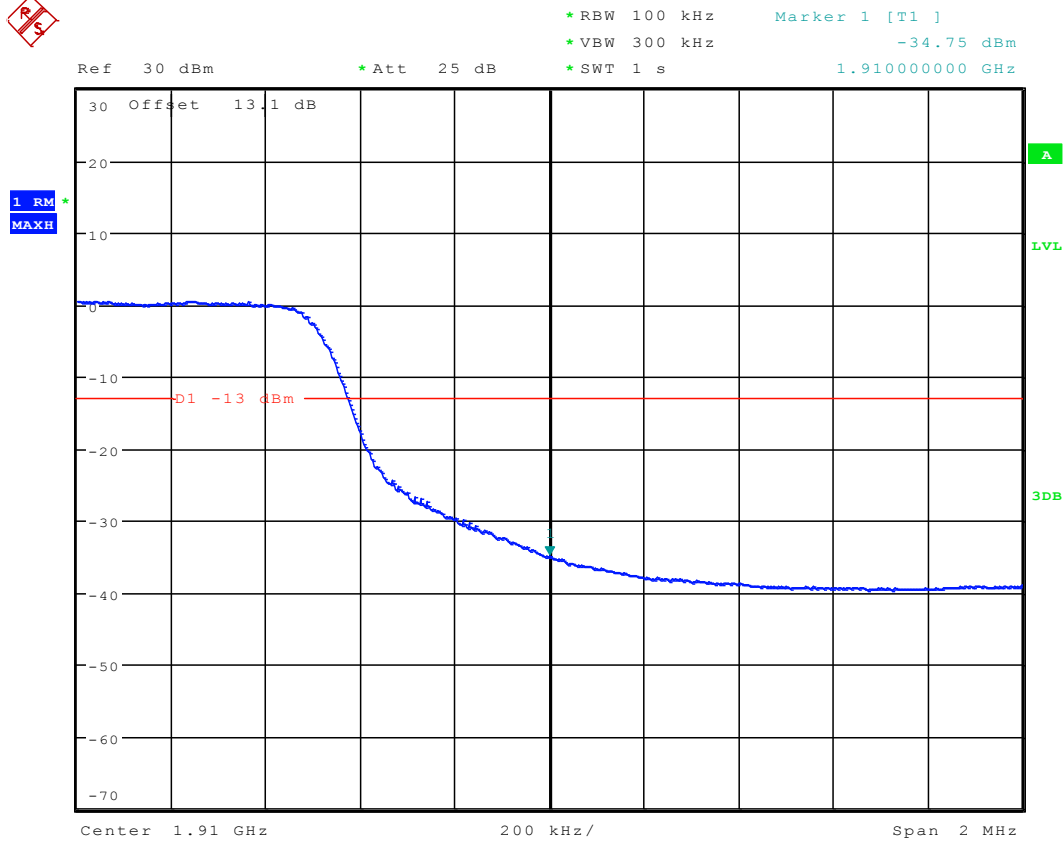
1.4.2.2.2 QPSK/Partial RBs /RB #max



Date: 6.JUL.2012 22:11:36



1.4.2.2.3 QPSK/full RBs



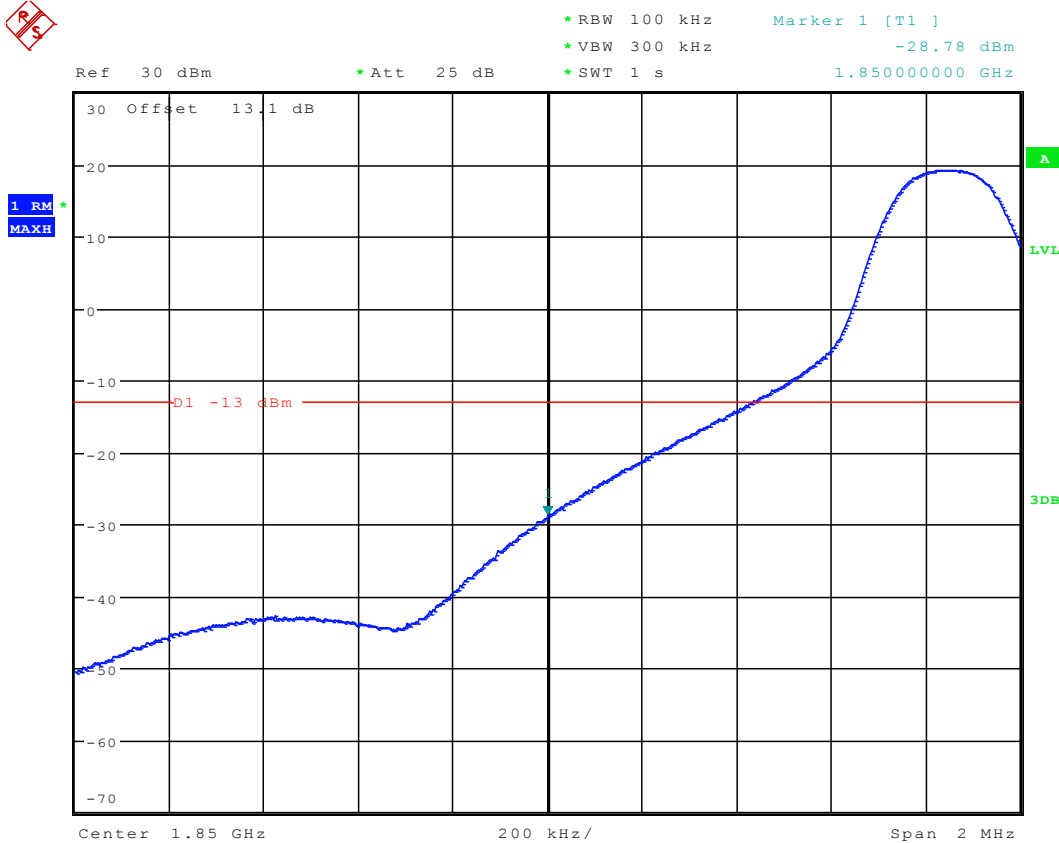
Date: 6.JUL.2012 22:12:02



1.4.3 Channel Bandwidth =15 MHz

1.4.3.1 Channel= L

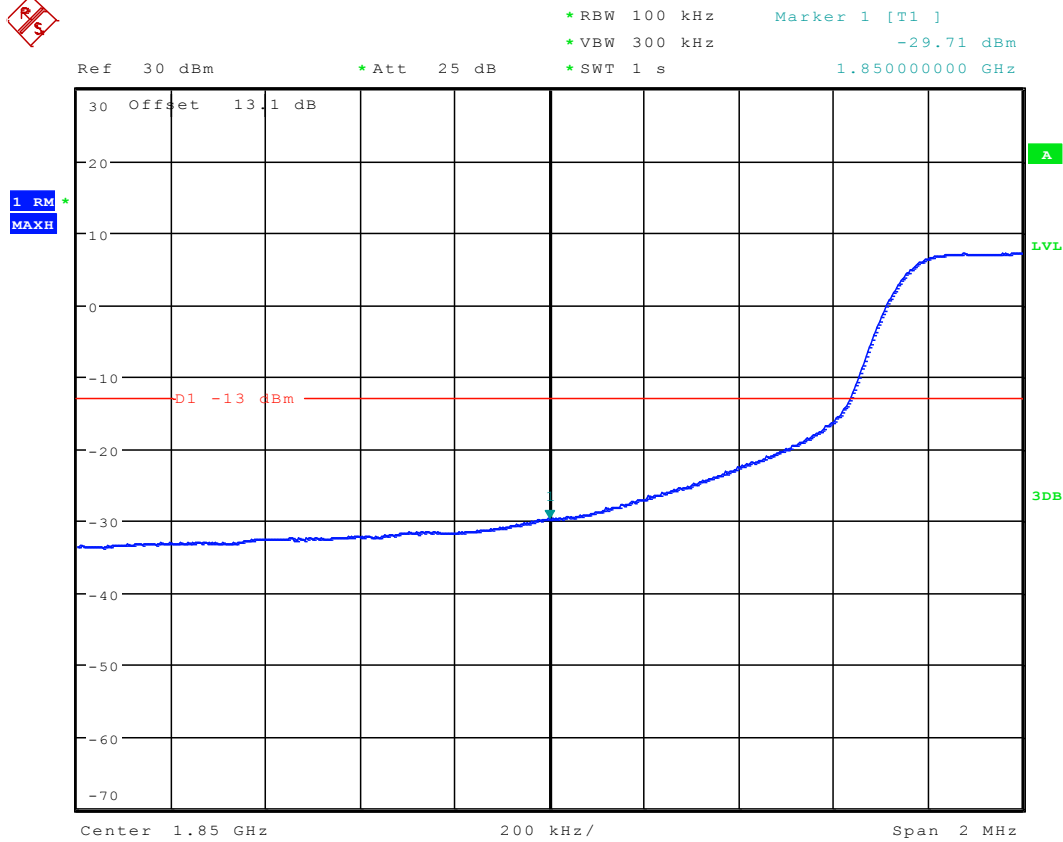
1.4.3.1.1 QPSK/1RB #0



Date: 6.JUL.2012 22:18:21



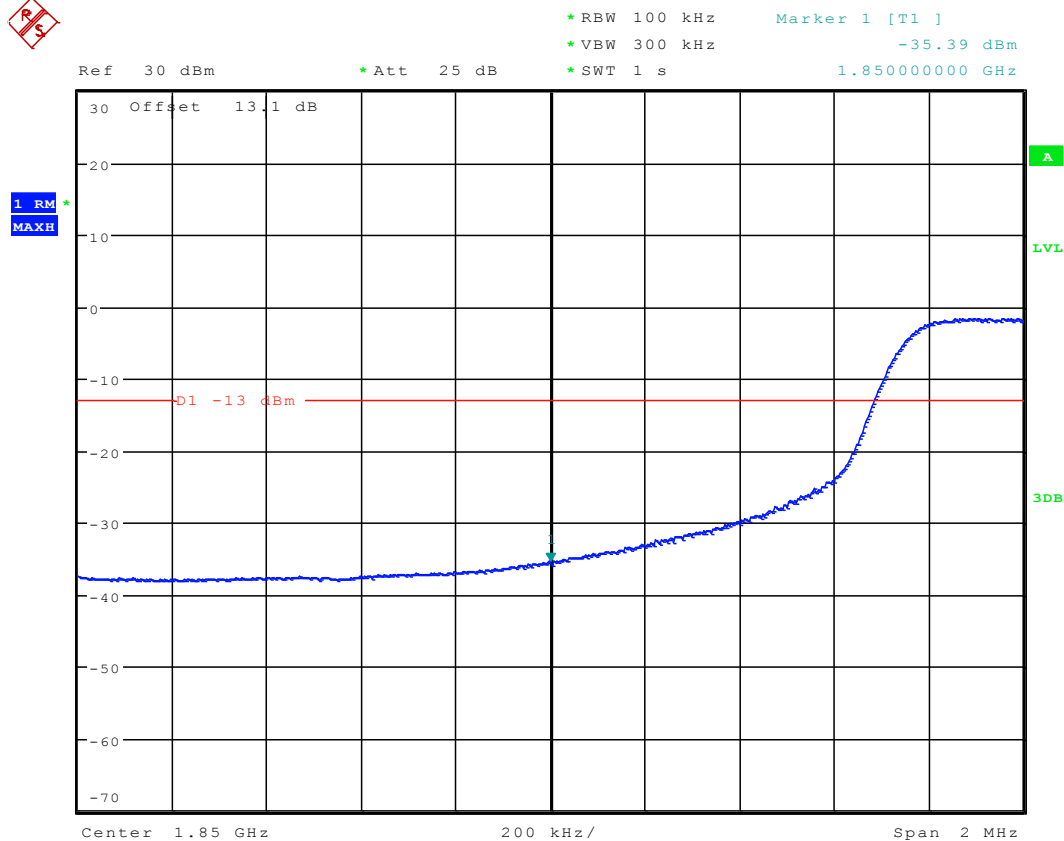
1.4.3.1.2 QPSK/Partial RBs /RB #0



Date: 6.JUL.2012 22:19:39



1.4.3.1.3 QPSK/full RBs

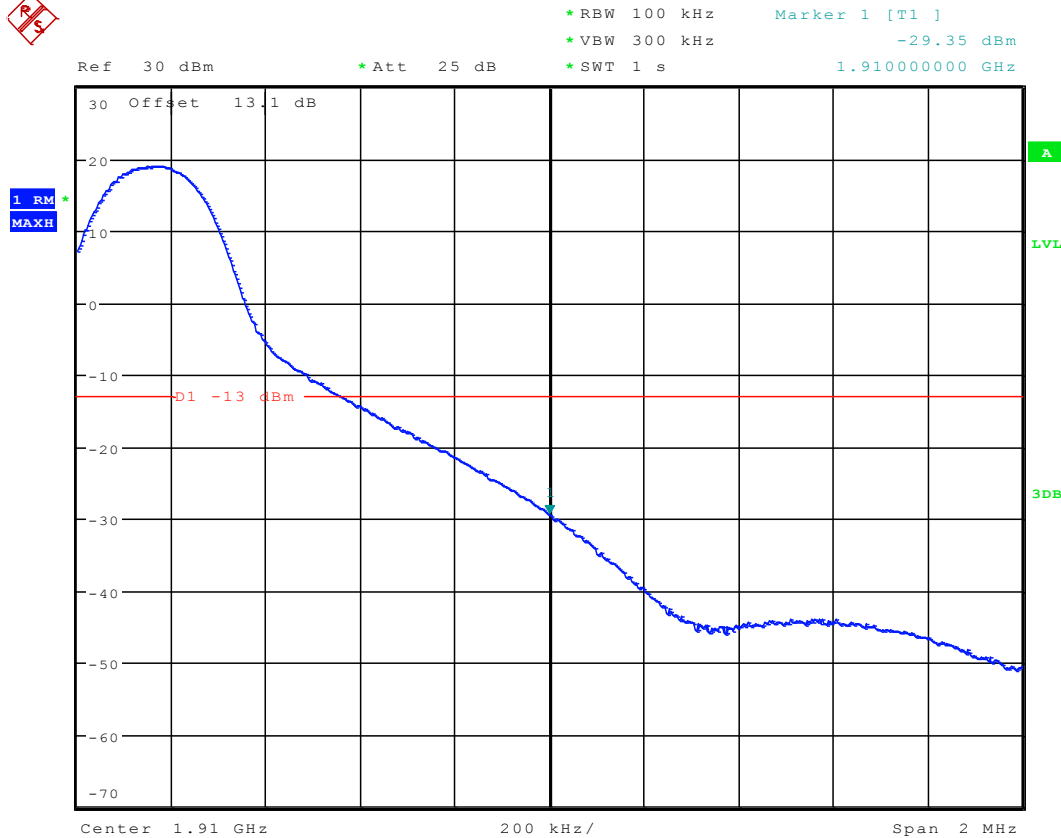


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1.4.3.2 Channel= H

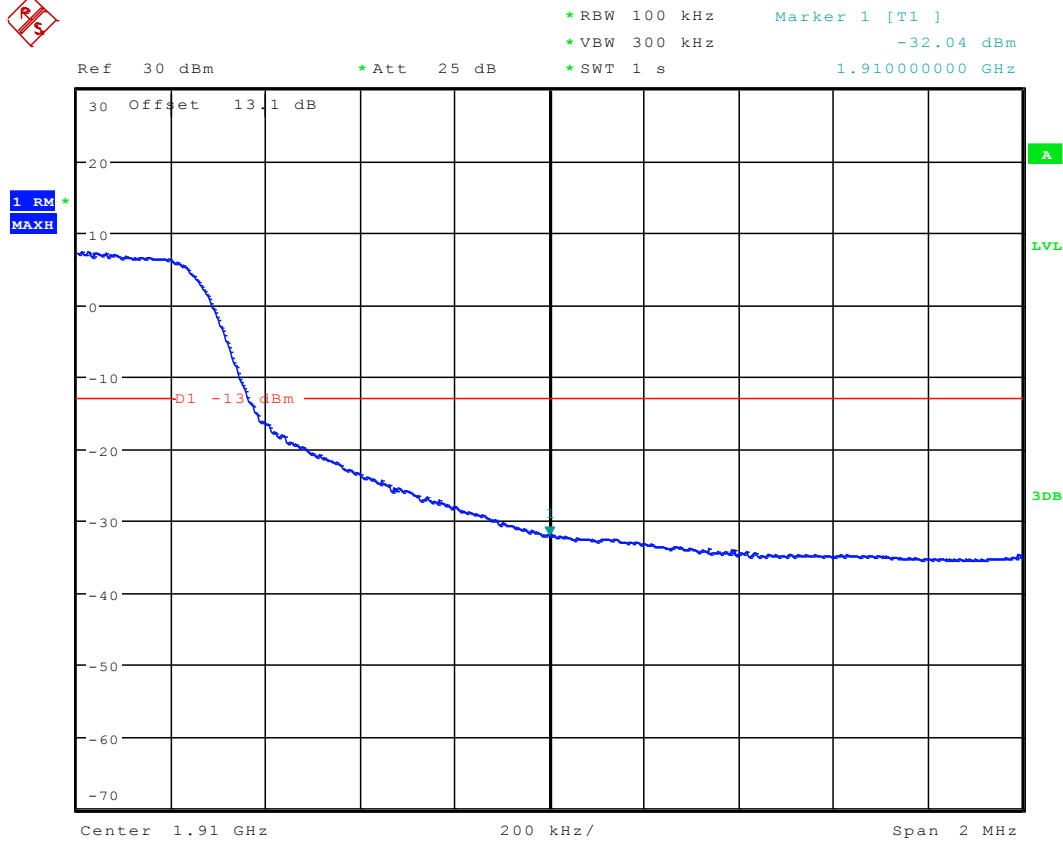
1.4.3.2.1 QPSK/1RB #max



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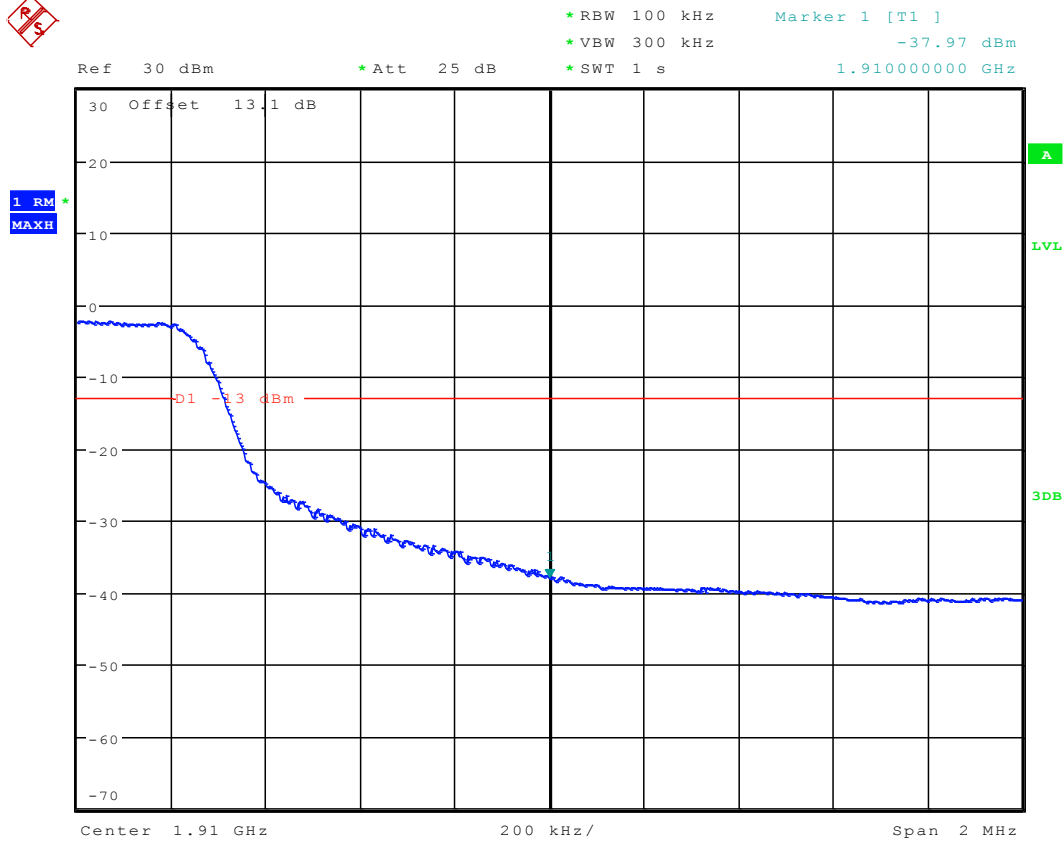
1.4.3.2.2 QPSK/Partial RBs /RB #max



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1.4.3.2.3 QPSK/full RBs



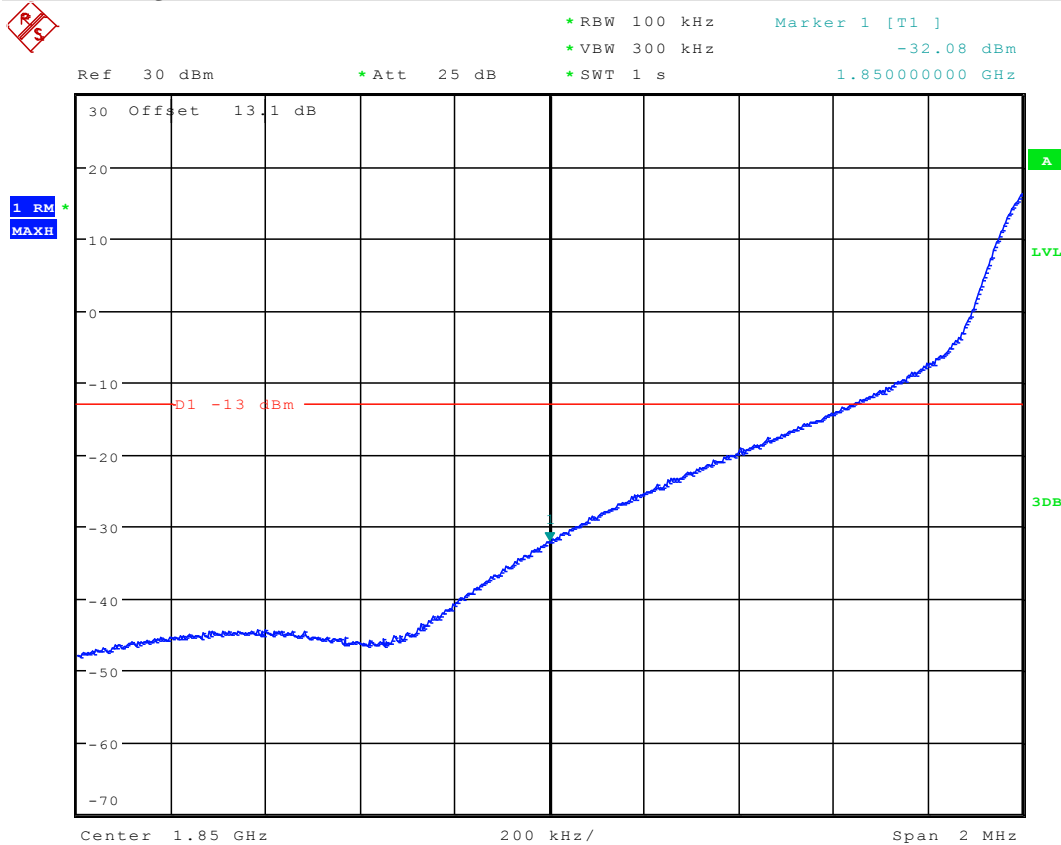
Date: 6.JUL.2012 22:23:02



1.4.4 Channel Bandwidth = Highest (20 MHz)

1.4.4.1 Channel= L

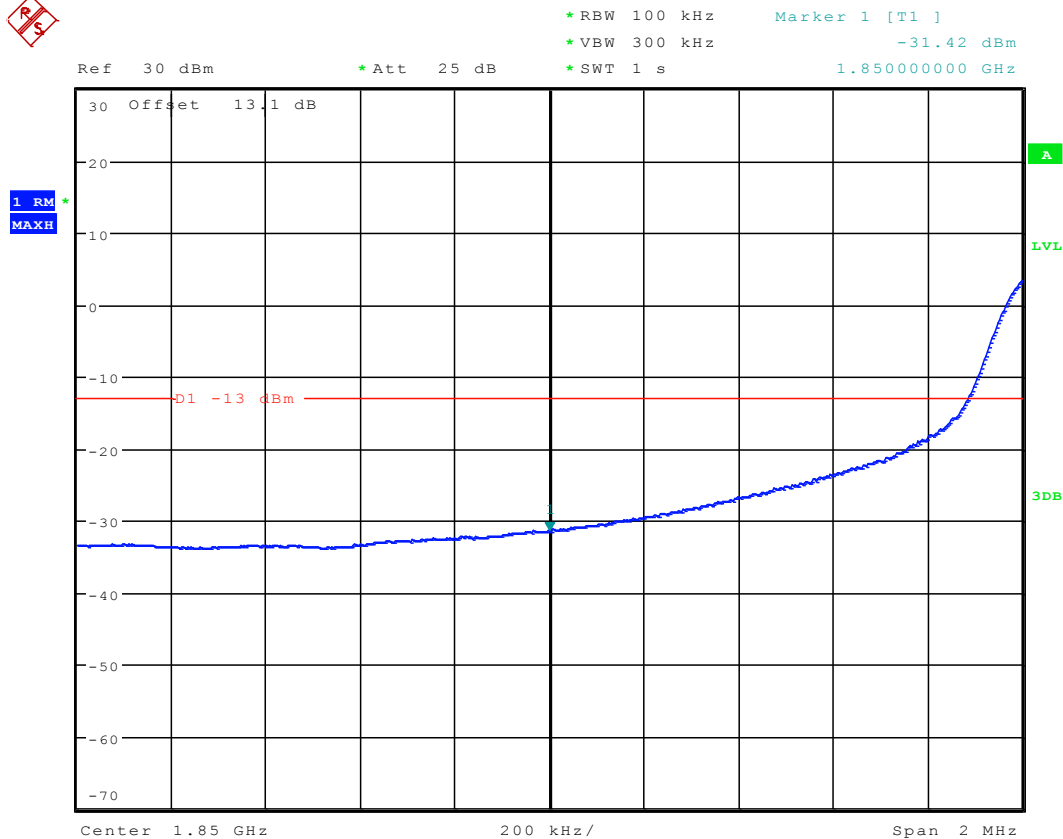
1.4.4.1.1 QPSK/1RB #0



Date: 6.JUL.2012 22:54:25



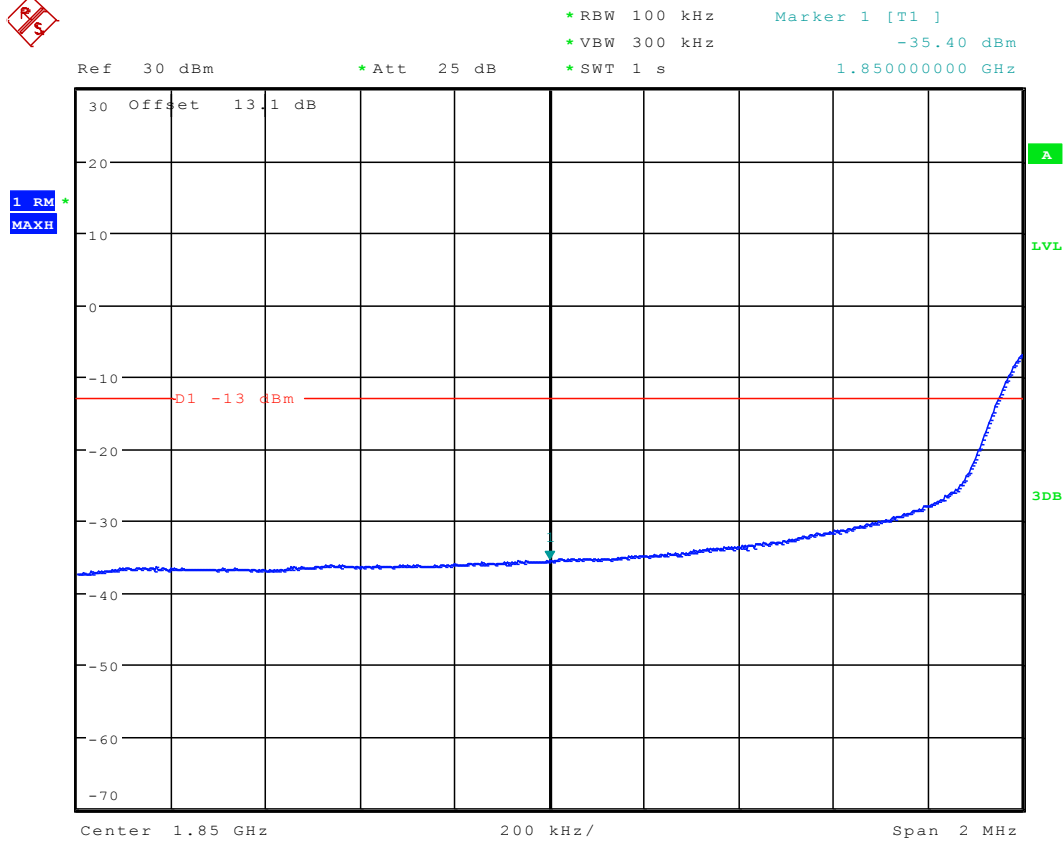
1.4.4.1.2 QPSK/Partial RBs /RB #0



Date: 6.JUL.2012 22:55:40



1.4.4.1.3 QPSK/full RBs

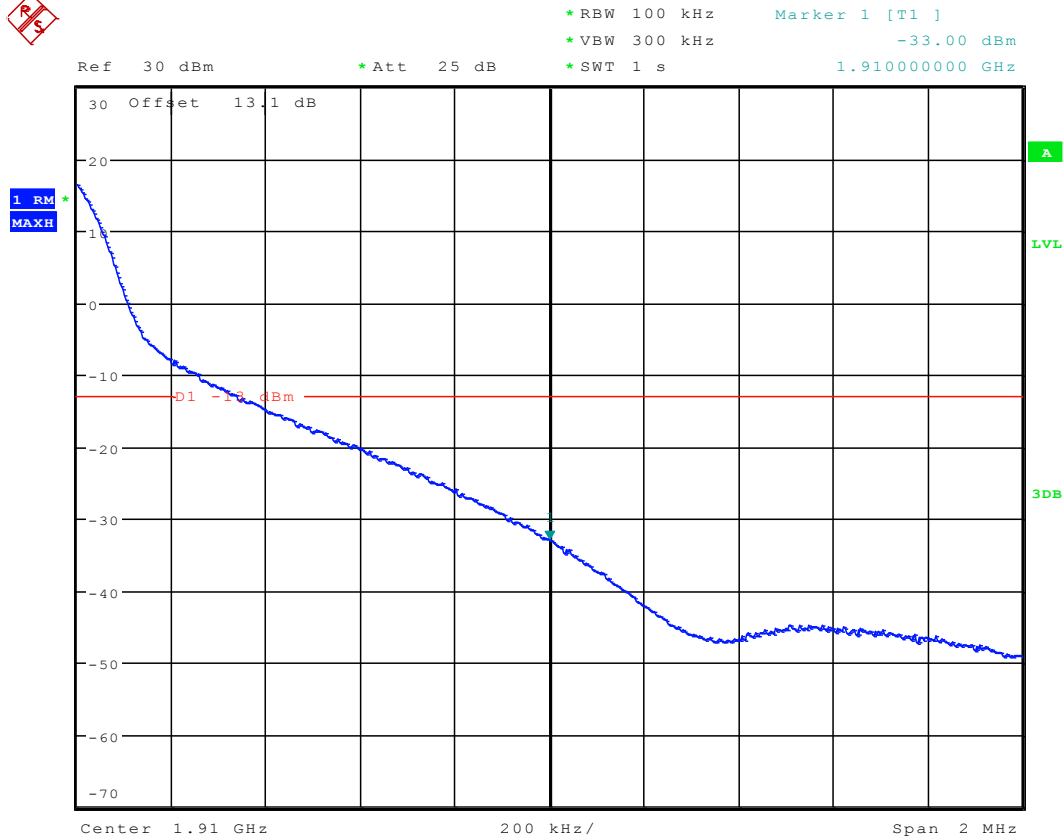


Date: 6.JUL.2012 22:56:13



1.4.4.2 Channel= H

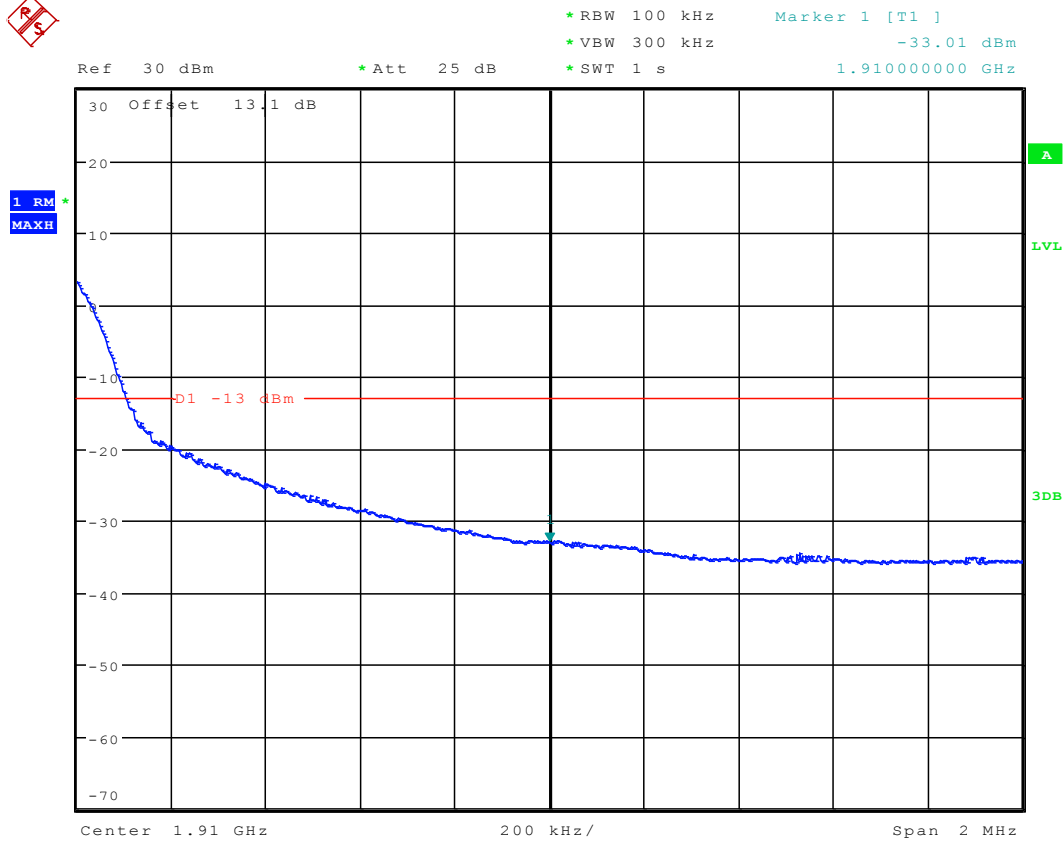
1.4.4.2.1 QPSK/1RB #max



Date: 6.JUL.2012 23:02:39

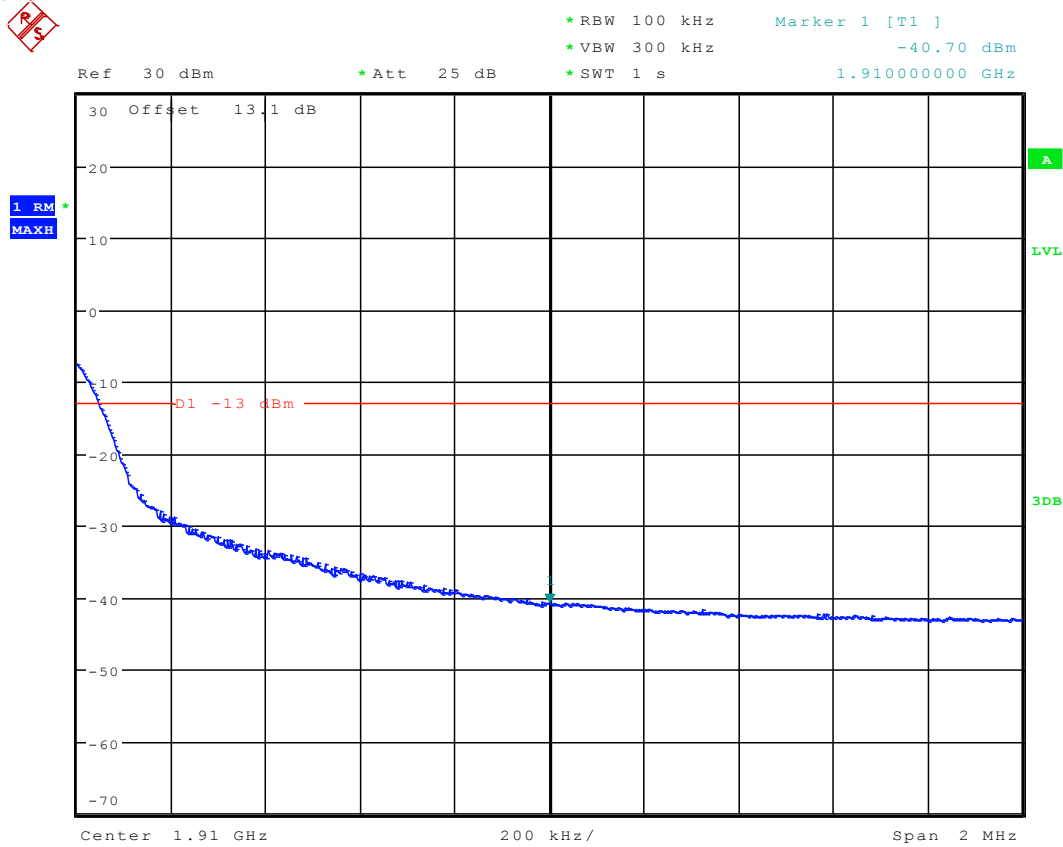


1.4.4.2.2 QPSK/Partial RBs /RB #max

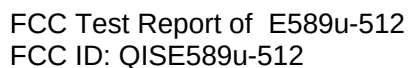


Date: 6.JUL.2012 23:02:15

1.4.4.2.3 QPSK/full RBs

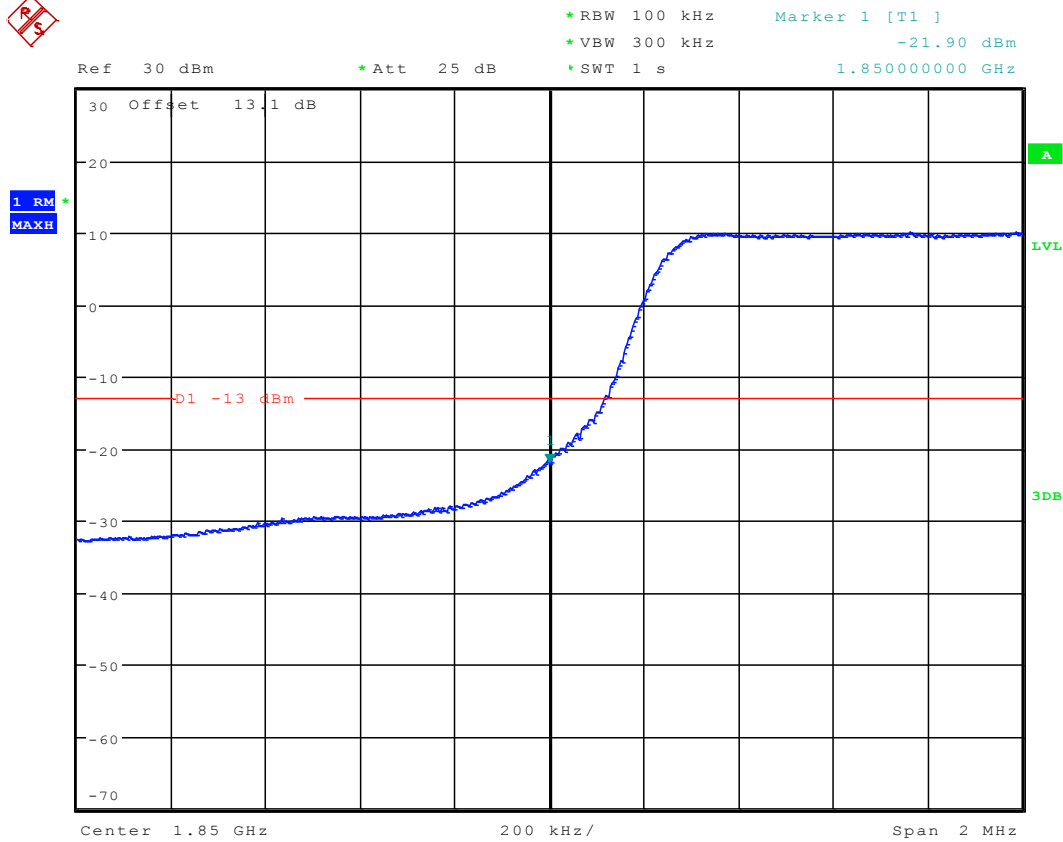


Date: 6.JUL.2012 23:01:57





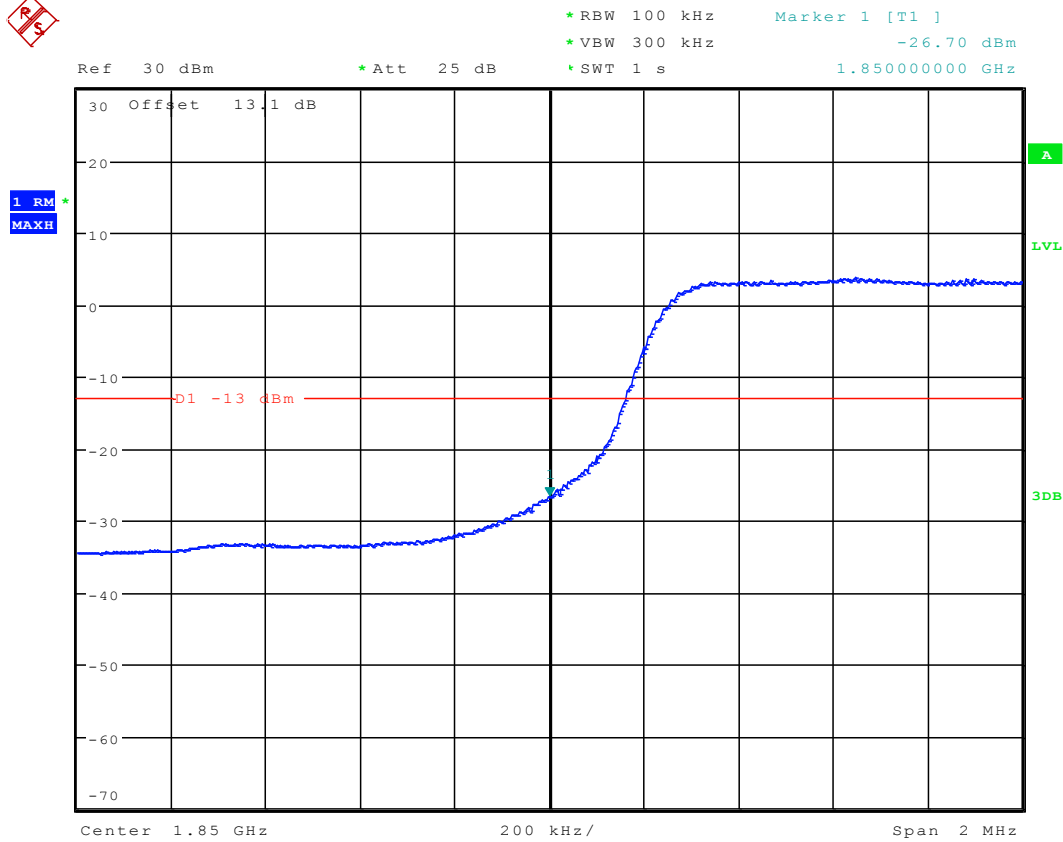
1.5.1.1.2 16QAM /Partial RBs /RB #0



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1.5.1.1.3 16QAM /full RBs

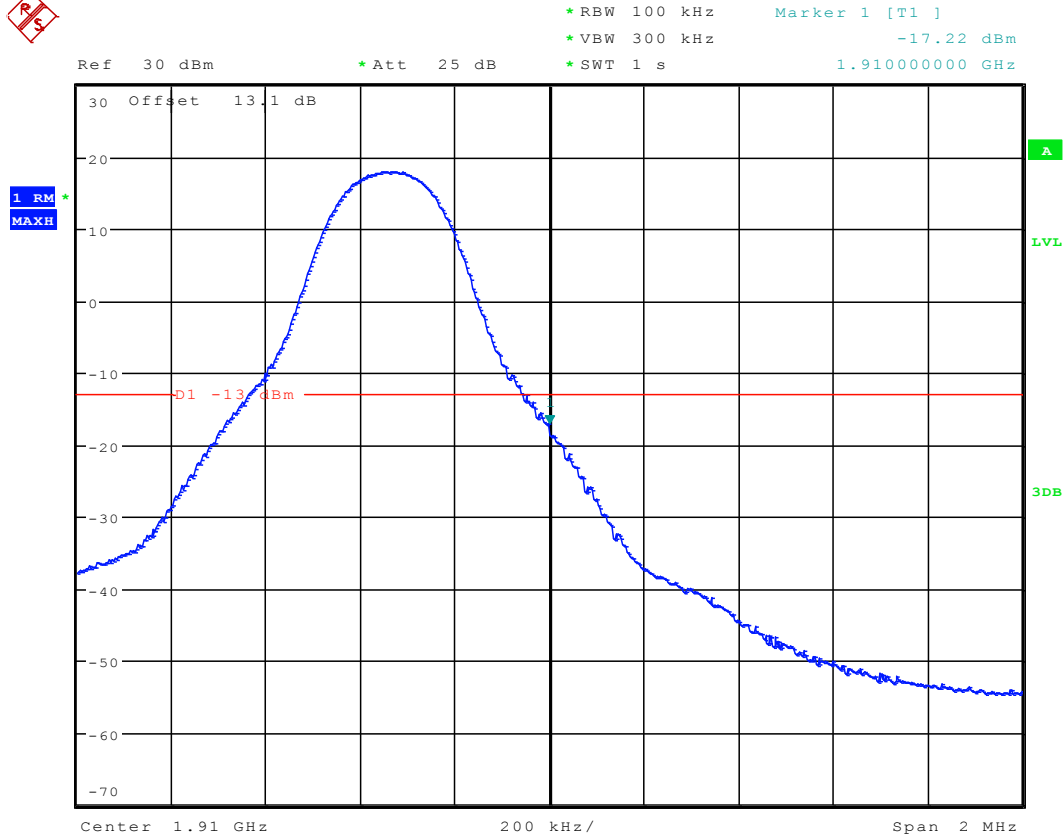


Date: 6.JUL.2012 21:31:00



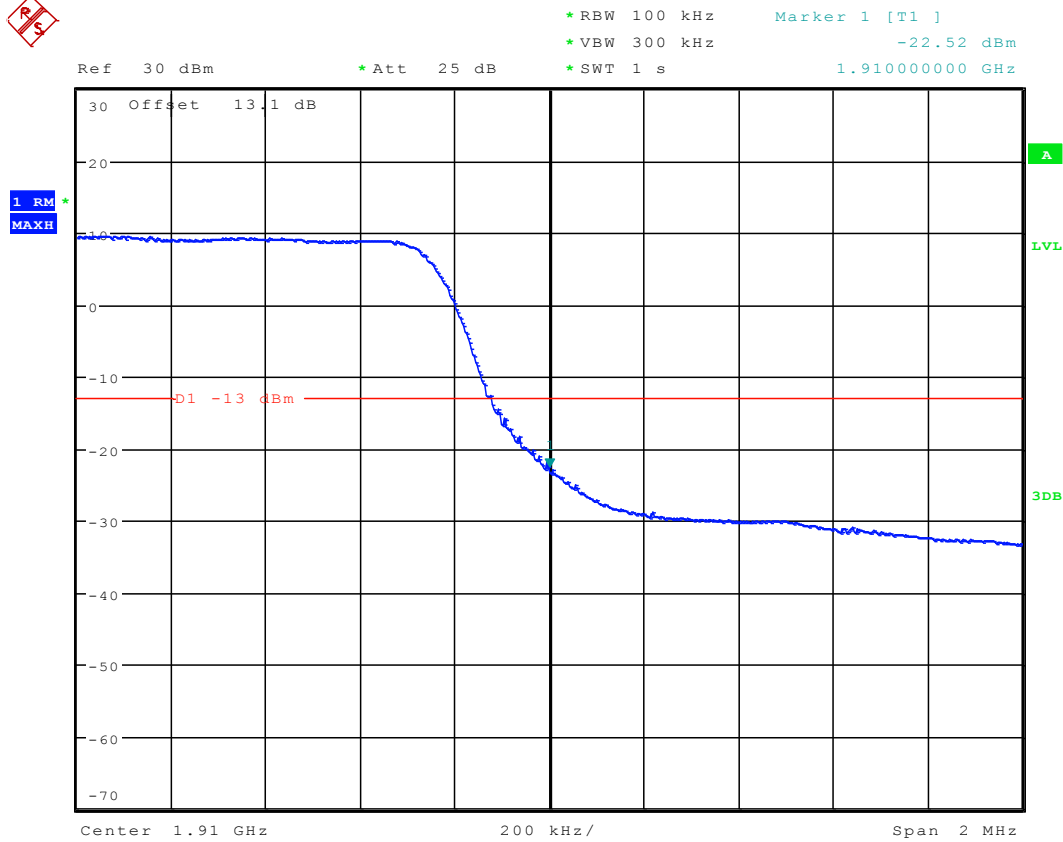
1.5.1.2 Channel= H

1.5.1.2.1 16QAM /1RB #max



Date: 6.JUL.2012 21:51:10

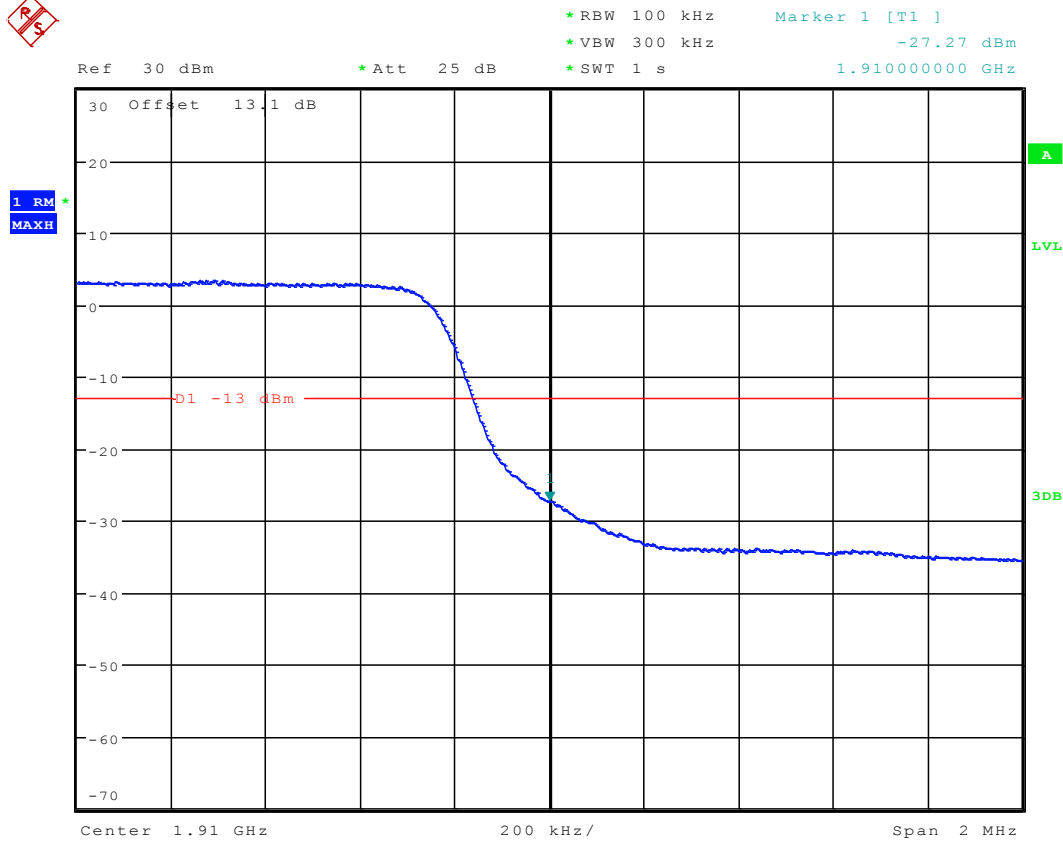
1.5.1.2.2 16QAM /Partial RBs /RB #max



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1.5.1.2.3 16QAM /full RBs



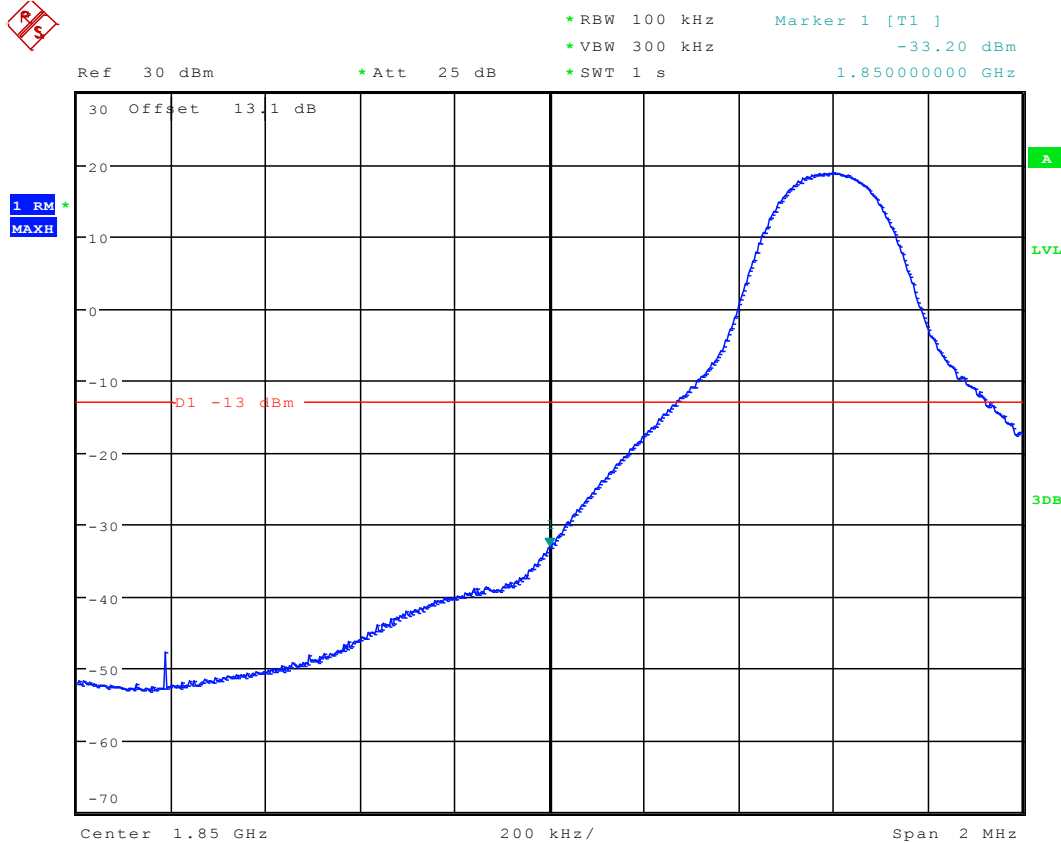
Date: 6.JUL.2012 21:51:54



1.5.2 Channel Bandwidth =10 MHz

1.5.2.1 Channel= L

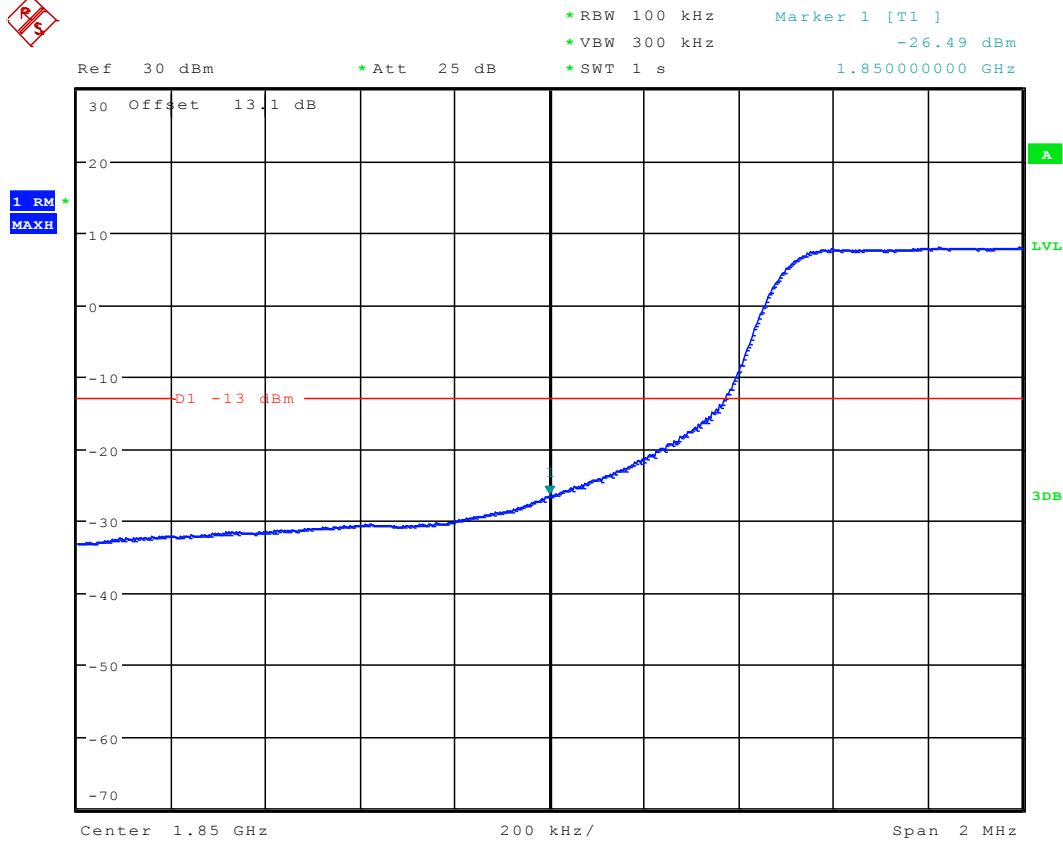
1.5.2.1.1 16QAM /1RB #0



Date: 6.JUL.2012 22:08:03



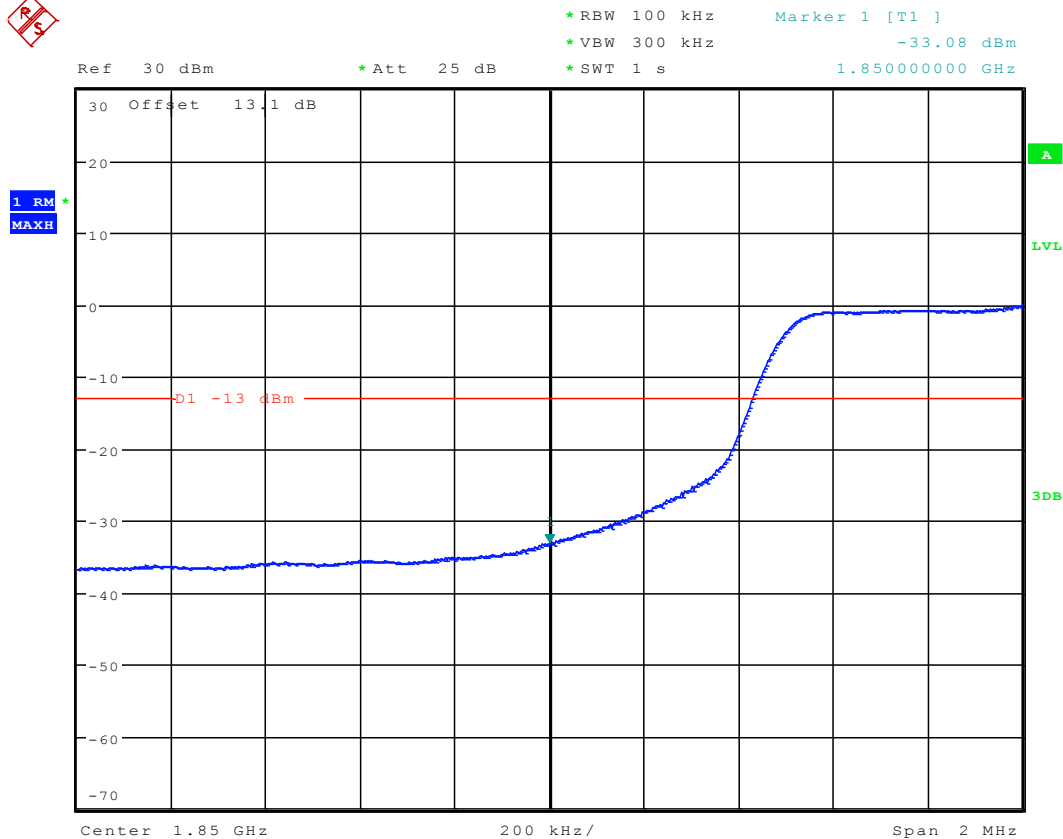
1.5.2.1.2 16QAM /Partial RBs /RB #0



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1.5.2.1.3 16QAM /full RBs

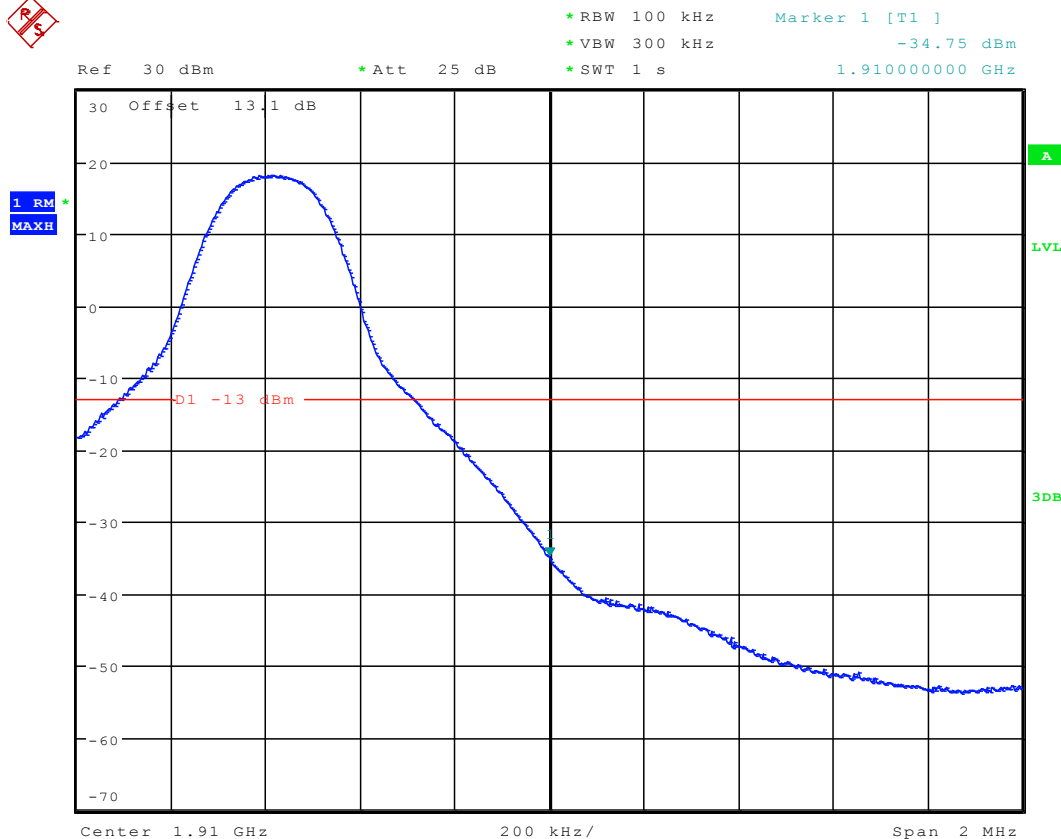


Date: 6.JUL.2012 22:09:05



1.5.2.2 Channel= H

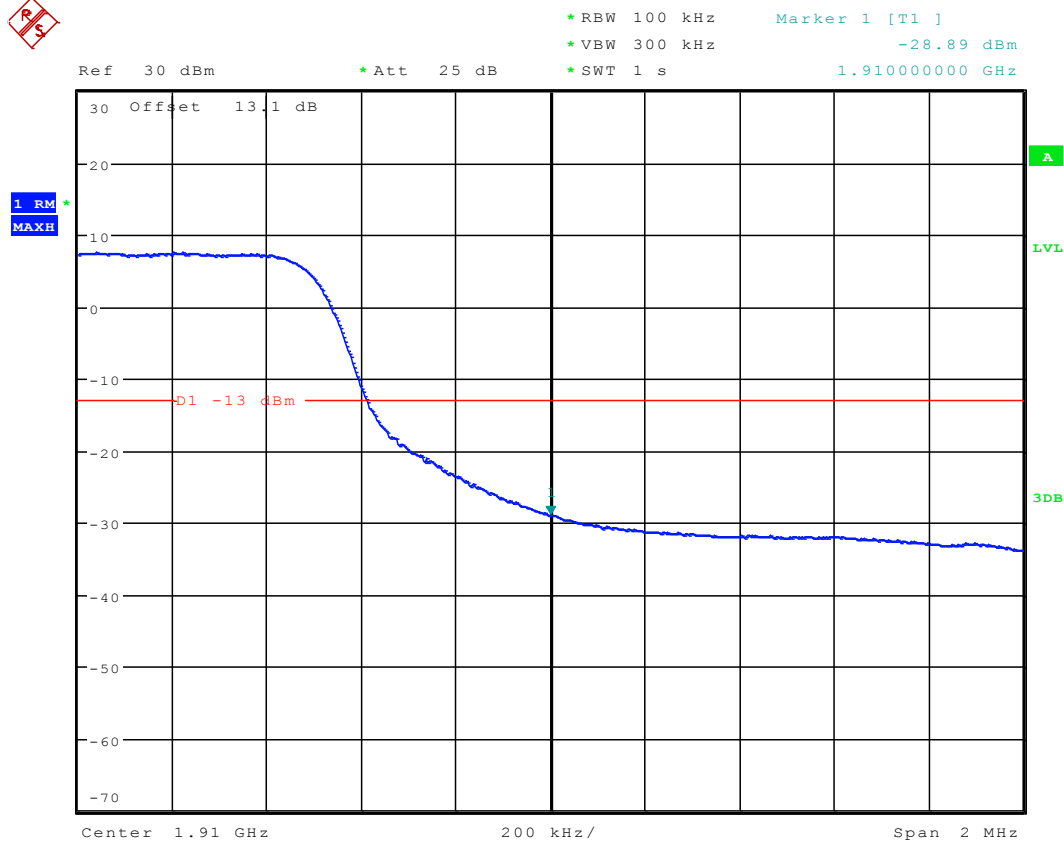
1.5.2.2.1 16QAM /1RB #max



Date: 6.JUL.2012 22:12:35



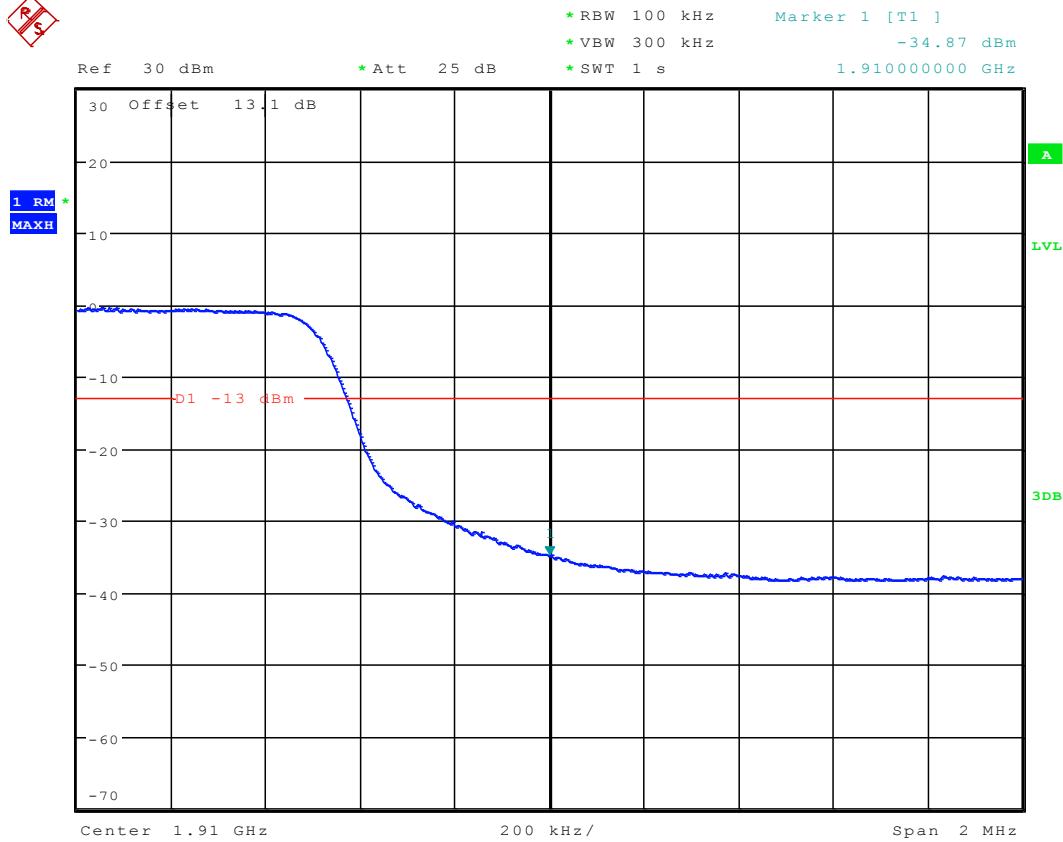
1.5.2.2.2 16QAM /Partial RBs /RB #max



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1.5.2.2.3 16QAM /full RBs



Date: 6.JUL.2012 22:13:36