

ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR PCS LICENSED TRANSMITTER

Test Report No. : E093R-029

AGR No. : A092A-147

Applicant : SOLiD Technologies, Inc.

Address : 18th Floor, KINS Tower, 25-1 Jeongja-Dong, Bundang-Gu, Seongnam-Si,
Gyeonggi-Do 463-811, Korea

Manufacturer : SOLiD Technologies, Inc.

Address : 18th Floor, KINS Tower, 25-1 Jeongja-Dong, Bundang-Gu, Seongnam-Si,
Gyeonggi-Do 463-811, Korea

Type of Equipment : RDU MODULE(1900P/AWS-1)

FCC ID. : W6U1900PAWS1

Model Name : RDU 1900P+AWS-1

Serial number : N/A

Total page of Report : 227 pages (including this page)

Date of Incoming : February 25, 2009

Date of issue : March 12, 2009

SUMMARY

The equipment complies with the regulation; **FCC Part 24 Subpart E and Part 27 Subpart C.**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Prepared by: 
Young-Min, Choi / Asst. Chief Engineer
EMC/RF Center
ONETECH Corp.

Reviewed by: 
Y. K. Kwon / Managing Director
EMC/RF Center
ONETECH Corp.

CONTENTS

PAGE

1. VERIFICATION OF COMPLIANCE	5
2. TEST SUMMARY	6
2.1 TEST ITEMS AND RESULTS	6
2.2 ADDITIONS, DEVIATIONS, EXCLUSIONS FROM STANDARDS	6
2.3 RELATED SUBMITTAL(S) / GRANT(S)	6
2.4 PURPOSE OF THE TEST	6
2.5 TEST METHODOLOGY	6
2.6 TEST FACILITY	6
3. GENERAL INFORMATION	7
3.1 PRODUCT DESCRIPTION	7
3.2 ALTERNATIVE TYPE(S)/MODEL(S); ALSO COVERED BY THIS TEST REPORT.	8
3.3 PERIPHERAL EQUIPMENT	8
3.4 MODE OF OPERATION DURING THE TEST	8
4. EUT MODIFICATIONS	8
5. RF POWER OUTPUT AT ANTENNA TERMINAL	9
5.1 OPERATING ENVIRONMENT	9
5.2 TEST SET-UP	9
5.3 TEST EQUIPMENT USED	9
5.4 TEST DATA	10
5.4.1 Test Result for Part 24 E	10
5.4.2 Test Result for Part 27	11
6. OCCUPIED BANDWIDTH	12
6.1 OPERATING ENVIRONMENT	12
6.2 TEST SET-UP	12
6.3 TEST EQUIPMENT USED	12
6.4 TEST DATA	13
6.4.1 Test Result for Part 24 E	13
6.4.2 Test Result for Part 27	50
7. SPURIOUS EMISSION AT ANTENNA TERMINAL	87
7.1 OPERATING ENVIRONMENT	87
7.2 TEST SET-UP FOR CONDUCTED MEASUREMENT	87

7.3 TEST EQUIPMENT USED	87
7.4 TEST DATA.....	88
7.4.1 Test Result for Part 24E	88
7.4.2 Test Result for Part 27	108
8. SPURIOUS EMISSION AT ANTENNA TERMINAL AT BLOCK EDGES \pm 1 MHZ.....	128
8.1 OPERATING ENVIRONMENT	128
8.2 TEST SET-UP FOR CONDUCTED MEASUREMENT	128
8.3 TEST EQUIPMENT USED	128
8.4 TEST DATA.....	129
8.4.1 Test Result for Part 24E	129
8.4.2 Test Result for Part 27.....	136
9. INTERMODULATION TEST	143
9.1 OPERATING ENVIRONMENT	143
9.2 TEST SET-UP	143
9.3 TEST EQUIPMENT USED	143
9.4 TEST DATA FOR PART 24E AND PART 27.....	144
10. FIELD STRENGTH OF SPURIOUS RADIATION.....	193
10.1 OPERATING ENVIRONMENT	193
10.2 TEST SET-UP	193
10.3 TEST EQUIPMENT USED	193
10.4 TEST DATA FOR RADIATED EMISSION	194
10.4.1 Test result for Part 24E with AC 120V Power Supply	194
10.4.2 Test Result for Part 24E with DC - 48 V Power Supply	200
10.4.3 Test Result for Part 27 with AC 120 V Power Supply	206
10.4.4 Test Result for Part 27 with DC - 48 V Power Supply.....	212
11. FREQUENCY STABILITY WITH TEMPERATURE VARIATION.....	218
11.1 OPERATING ENVIRONMENT	218
11.2 TEST SET-UP	218
11.3 TEST EQUIPMENT USED	218
11.4 TEST DATA.....	219
11.4.1 Test Result for Part 24E with AC 120 V Power Supply.....	219
11.4.2 Test Result for Part 24E with DC - 48 V Power Supply	220
11.4.3 Test Result for Part 27 with AC 120 V Power Supply	221
11.4.4 Test Result for Part 27 with DC - 48 V Power Supply.....	222
12. FREQUENCY STABILITY WITH VOLTAGE VARIATION.....	223

It should not be reproduced except in full, without the written approval of ONETECH.

EMC-003 (Rev.1)

HEAD OFFICE : #505 SK Apt. Factory 223-28, Sangdaewon1-dong, Jungwon-gu, Seongnam-si, Gyeonggi-do 462-705 Korea
(TEL: +82-31-746-8500, FAX: +82-31-746-8700)

EMC Testing Dept : 307-51 Daessangnyeong-ri, Chowol-eup, Gwangju-si, Gyeonggi-do 464-862 Korea.(TEL: +82-31-765-8289, FAX: +82-31-766-2904)

12.1 OPERATING ENVIRONMENT	223
12.2 TEST SET-UP	223
12.3 TEST EQUIPMENT USED	223
12.4 TEST DATA	224
<i>12.4.1 Test Result for Part 24E with AC 120 V Power Supply</i>	<i>224</i>
<i>12.4.2 Test Result for Part 24E with DC - 48 V Power Supply</i>	<i>225</i>
<i>12.4.3 Test Result for Part 27 with AC 120 V Power Supply</i>	<i>226</i>
<i>12.4.4 Test Result for Part 27 with DC - 48 V Power Supply</i>	<i>227</i>

1. VERIFICATION OF COMPLIANCE

APPLICANT : SOLiD Technologies, Inc.
ADDRESS : 18th Floor, KINS Tower, 25-1 Jeongja-Dong, Bundang-Gu, Seongnam-Si,
Gyeonggi-Do 463-811, Korea
CONTACT PERSON : Mr. Kangyeob, Bae / Director
TELEPHONE NO : +82-31-784-8585
FCC ID : W6U1900PAWS1
MODEL NAME : RDU 1900P+AWS-1
SERIAL NUMBER : N/A
DATE : March 12, 2009

EQUIPMENT CLASS	PCB - PCS Licensed Transmitter
EQUIPMENT DESCRIPTION	RDU MODULE(1900P/AWS-1)
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.4: 2003, EIA/TAI-603B
TYPE OF EQUIPMENT TESTED	PRE-PRODUCTION
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	CERTIFICATION
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	PART 24 Subpart E and PART 27 Subpart C
MODIFICATIONS ON THE EQUIPMENT TO ACHIEVE COMPLIANCE	No
FINAL TEST WAS CONDUCTED ON	3 METER(S) OPEN AREA TEST SITE

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. TEST SUMMARY

2.1 Test items and results

SECTION	TEST ITEMS	RESULTS
2.1046(a), 24.232, 27.50(d)	RF Power Output at Antenna Terminals	Met the Limit / PASS
2.1047	Modulation Characteristics	PASS (See Note 1)
2.1049, 24.238	Occupied Bandwidth, Bandwidth Limitation	Met the Limit / PASS
2.1049	Band Edge	Met the Limit / PASS
2.1051, 24.238(a), 27.53(g)	Spurious Emissions at Antenna Terminals	Met the Limit / PASS
2.1053, 24.238(a), 27.53(g)	Field strength of Spurious Radiation	Met the Limit / PASS
24.235, 24.235, 27.54	Frequency Stability with Temperature variation	Met the requirement / PASS
24.235, 24.235, 27.54	Frequency stability with primary voltage variation	Met the requirement / PASS
2.1093	RF Exposure	See Note 2

Note1: The Equipment under Test (EUT) is a repeater which reproduces the modulated input signal, so the EUT meets the requirement.

Note2: End Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance, because the applicant does not provide an antenna for sale with the EUT.

2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

2.3 Related Submittal(s) / Grant(s)

Original Grant

2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in section 2.1.

2.5 Test Methodology

Radiated testing was performed according to the procedures in ANSI C63.4: 2003. Radiated testing was performed at a distance of 3 meters from EUT to the antenna.

2.6 Test Facility

The open area test site and conducted measurement facilities are located on at 307-51 Daessangryung-ri, Chowol-eup, Gwangju-si, Gyeonggi-do, 464-862, Korea. Description details of test facilities were submitted to the Commission on August 21, 2008. (Registration Number: 340658)

3. GENERAL INFORMATION

3.1 Product Description

The SOLiD Technologies, Inc., Model RDU 1900P+AWS-1 (referred to as the EUT in this report) is a RDU MODULE(1900P/AWS-1) that shall be plugged in ROU (Remote Optic Unit). The ROU can be equipped with up to 3 RDUs (Remote Drive Unit), a RPSU (Remote Power Supply Unit), a RCPU (Remote Central Processor Unit), a R-Optic (Remote Optic), a SIU (System Interface Unit) and a Multiplexer. The System, Model No: SMDR-NH124 consists of ROU, BIU (BTS Interface Unit), ODU (Optic Distribution Unit), and OEU (Optic Expansion Unit). Except for ROU, the RF output ports of other units are connected to coaxial cable each other. ROU receives TX optical signals from ODU or OEU and converts them into RF signals. The converted RF signals are amplified through High Power Amp in a corresponding RDU, combined with multiplexer module and then radiated to the antenna port.

When receiving RX signals through the antenna port, this unit filters out-of-band signals in a corresponding RDU and sends the results to Remote Optic Module to make electronic-optical conversion of them. After converted, the signals are sent to an upper device of ODU or OEU. ROU can be equipped with up to three RDUs (Remote Drive Unit) and the module is composed of maximal Dual Band, but this report only covers RDU 1900P+AWS-1, FCC ID: W6U1900PAWS1 and other modules shall be issued with other test report number. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE		RDU MODULE(1900P/AWS-1)
LIST OF EACH OSC. or CRY. FREQ.(FREQ.>=1 MHz)		14.74 MHz
TYPE OF EMISSION CLASS		F9W(CDMA, EVDO, WCDMA), DXW(TDMA), G7W(GSM, EDGE)
EMISSION DESIGNATOR		CDMA: EVDO: WCDMA:, TDMA: GSM: EDGE:
OPERATING FREQUENCY	1900P	1 930 MHz ~ 1 995 MHz
	AWS-1	2 110 MHz ~ 2 155 MHz
RF OUTPUT POWER		26 dBm
CHANNEL SEPARATION		TDMA(30 kHz), GSM(200 kHz), EDGE(200 kHz), CDMA(1.25 MHz) EVDO(1.25 MHz), WCDMA(5 MHz)
DC VOLTAGE & CURRENT INTO FINAL AMPLIFIER		DC 27 V, Max 1 A
ELECTRICAL RATING		AC 120 V, 0.97 A, – 48V dc
OPERATING TEMPERATURE		-10 °C ~ 50 °C

3.2 Alternative type(s)/model(s); also covered by this test report.

-. None

3.3 Peripheral equipment

Defined as equipment needed for correct operation of the EUT, but not considered as tested:

Model	Manufacturer	FCC ID	Description	Connected to
RDU 1900P+AWS-1	SOLiD Technologies, Inc.	W6U1900PAWS1	RDU MODULE (1900P/AWS-1) (EUT)	-
SMJ100A	Rohde & Schwarz	N/A	Vector Signal Generator	EUT
SMDR-NH124	SOLiD Technologies, Inc.	N/A	ODU (Optic Distribution Unit)	EUT
SMDR-NH124	SOLiD Technologies, Inc.	N/A	BIU (BTS Interface Unit)	EUT
105-10ST	Dong Yang	N/A	DC Power Supply	EUT

3.4 Mode of operation during the test

The EUT was received signal form signal generator and then each modulation, TDMA, CDMA, GSM, EDGE, EVDO and WCDMA was configured for maximum signal gain and bandwidth. Also the EUT supports dual band, PCS and AWS band, so the EUT was tested at each band. The EUT was operated in a manner representative of the typical usage of the equipment. During all testing, system components were manipulated within the confines of typical usage to maximize each emission. The applicant does not supply antenna(s) with the system, so the dummy loads were connected to the RF output ports on the EUT for radiated spurious emission testing.

4. EUT MODIFICATIONS

-. None

5. RF POWER OUTPUT at ANTENNA TERMINAL

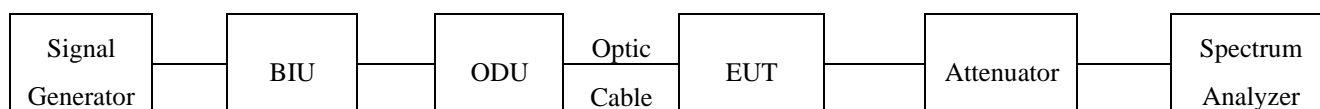
5.1 Operating environment

Temperature : 21.8 °C
Relative humidity : 47 %R.H.

5.2 Test set-up

The RF signal from the signal generator(s) was injected to BIU (BTS Interface Unit) and then output signal from the BIU was injected to the input of ODU (Optic Distribution Unit) by coaxial cable and then the output port of the ODU was connected to the input of the EUT by optic cable. The amplified RF signal at the output of the EUT was connected to the power meter or spectrum analyzer. The test was performed at three frequencies (low, middle, and high channels) at each band using all applicable modulation.

RF output power was measured by channel power measurement function of the spectrum analyzer.



5.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ -	E4432B	HP	Signal Generator	US38440950	June 16, 2008
■ -	SMJ100A	R/S	Vector Signal Generator	100698	June 16, 2008
■ -	FSP	R/S	Spectrum Analyzer	100017	Mar. 11, 2008
□ -	8564E	HP	Spectrum Analyzer	3650A00756	June 16, 2008

All test equipment used is calibrated on a regular basis.

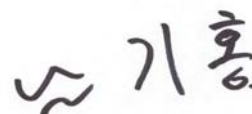
5.4 Test data

5.4.1 Test Result for Part 24 E

-. Test Date : February 25 & 26, 2009

-. Test Result : Pass

Modulation	Channel	Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Output Power (W)	Limit (W)
TDMA	Low	1 930.03	-18.30	26.00	0.398 107	100.00
	Middle	1 962.50	-18.10	26.00		
	High	1 994.97	-18.40	26.00		
GSM	Low	1 930.20	-18.50	26.00	0.398 107	
	Middle	1 962.60	-18.20	26.00		
	High	1 994.80	-18.40	26.00		
EDGE	Low	1 930.20	-18.10	26.00	0.398 107	100.00
	Middle	1 962.60	-17.90	26.00		
	High	1 994.80	-18.30	26.00		
CDMA	Low	1 931.25	-18.30	26.00	0.398 107	
	Middle	1 967.50	-18.00	26.00		
	High	1 993.75	-18.10	26.00		
1xEVDO	Low	1 931.25	-18.00	26.00	0.398 107	100.00
	Middle	1 967.50	-18.10	26.00		
	High	1 993.75	-18.30	26.00		
WCDMA	Low	1 932.40	-18.00	26.00	0.398 107	
	Middle	1 962.40	-18.00	26.00		
	High	1 992.60	-18.10	26.00		



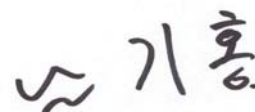
Tested by: Ki-Hong, Nam / Project Engineer

5.4.2 Test Result for Part 27

-. Test Date : February 25 & 26, 2009

-. Test Result : Pass

Modulation	Channel	Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Output Power (W)	Limit (W)
TDMA	Low	2110.03	-18.40	26.00	0.398 107	100.00
	Middle	2132.50	-18.20	26.00		
	High	2154.97	-18.30	26.00		
GSM	Low	2110.20	-18.40	26.00	0.398 107	
	Middle	2132.60	-18.30	26.00		
	High	2154.80	-18.20	26.00		
EDGE	Low	2110.20	-18.20	26.00	0.398 107	100.00
	Middle	2132.60	-18.00	26.00		
	High	2154.80	-18.20	26.00		
CDMA	Low	2111.25	-18.10	26.00	0.398 107	
	Middle	2132.50	-18.20	26.00		
	High	2153.75	-18.10	26.00		
1xEVDO	Low	2111.25	-18.00	26.00	0.398 107	100.00
	Middle	2132.50	-18.20	26.00		
	High	2153.75	-18.10	26.00		
WCDMA	Low	2112.40	-18.10	26.00	0.398 107	
	Middle	2136.90	-18.20	26.00		
	High	2152.60	-18.00	26.00		



Tested by: Ki-Hong, Nam / Project Engineer

6. OCCUPIED BANDWIDTH

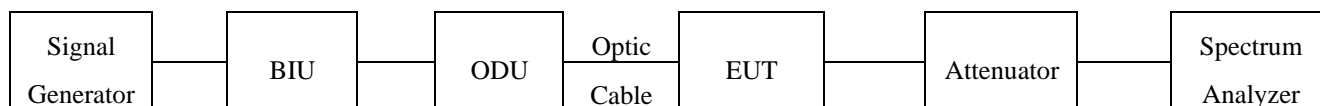
6.1 Operating environment

Temperature : 21.8 °C
Relative humidity : 47 %R.H.

6.2 Test set-up

The RF signal from the signal generator(s) was injected to BIU (BTS Interface Unit) and then output signal from the BIU was injected to the input of ODU (Optic Distribution Unit) by coaxial cable and then the output port of the ODU was connected to the input of the EUT by optic cable. The amplified RF signal at the output of the EUT was connected to the power meter or spectrum analyzer. The test was performed at three frequencies (low, middle, and high channels) at each band using all applicable modulation.

For the testing, the RBW was set to 1 % to 3 % of the -26 dB bandwidth. The VBW is set to 3 times the RBW and sweep time is coupled.



6.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ -	8564E	HP	Spectrum Analyzer	3650A00756	June 16, 2008
■ -	E4432B	HP	Signal Generator	US38440950	June 16, 2008
■ -	SMJ100A	R/S	Vecter Signal Generator	100698	June 16, 2008
□ -	FSP	R/S	Spectrum Analyzer	100017	Mar. 11, 2008

All test equipment used is calibrated on a regular basis.

6.4 Test data

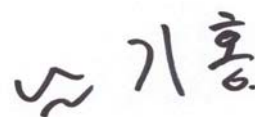
6.4.1 Test Result for Part 24 E

-. Test Date : February 25 & 26, 2009

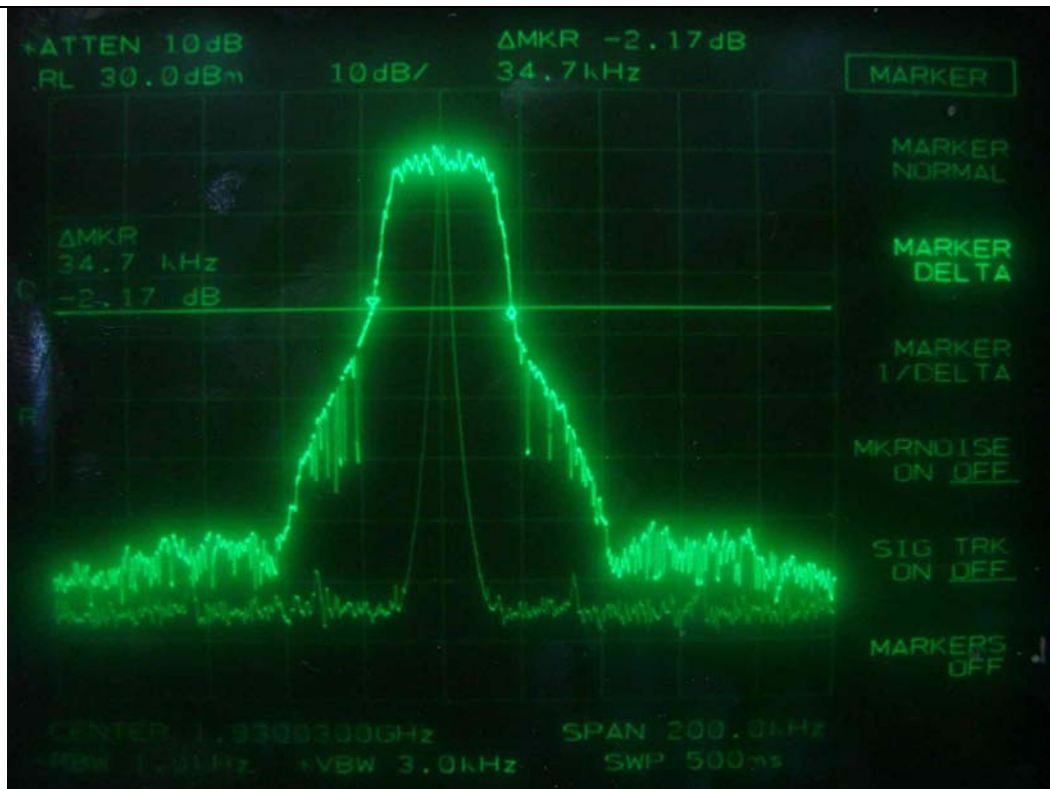
-. Test Result : Pass

Modulation	Channel	26 dB Bandwidth (kHz)	99 % Occupied Bandwidth (kHz)
TDMA	Low	34.7	29
	Middle	35.3	29
	High	35.3	29
GSM	Low	348	255
	Middle	347	253.3
	High	347	253.3
EDGE	Low	335	253.3
	Middle	332	253.3
	High	332	255
CDMA	Low	1 592	1 342
	Middle	1 592	1 333
	High	1 592	1 342
1xEVDO	Low	1 583	1 325
	Middle	1 583	1 325
	High	1 575	1 325
WCDMA	Low	4 680	4 167
	Middle	4 680	4 200
	High	4 700	4 183

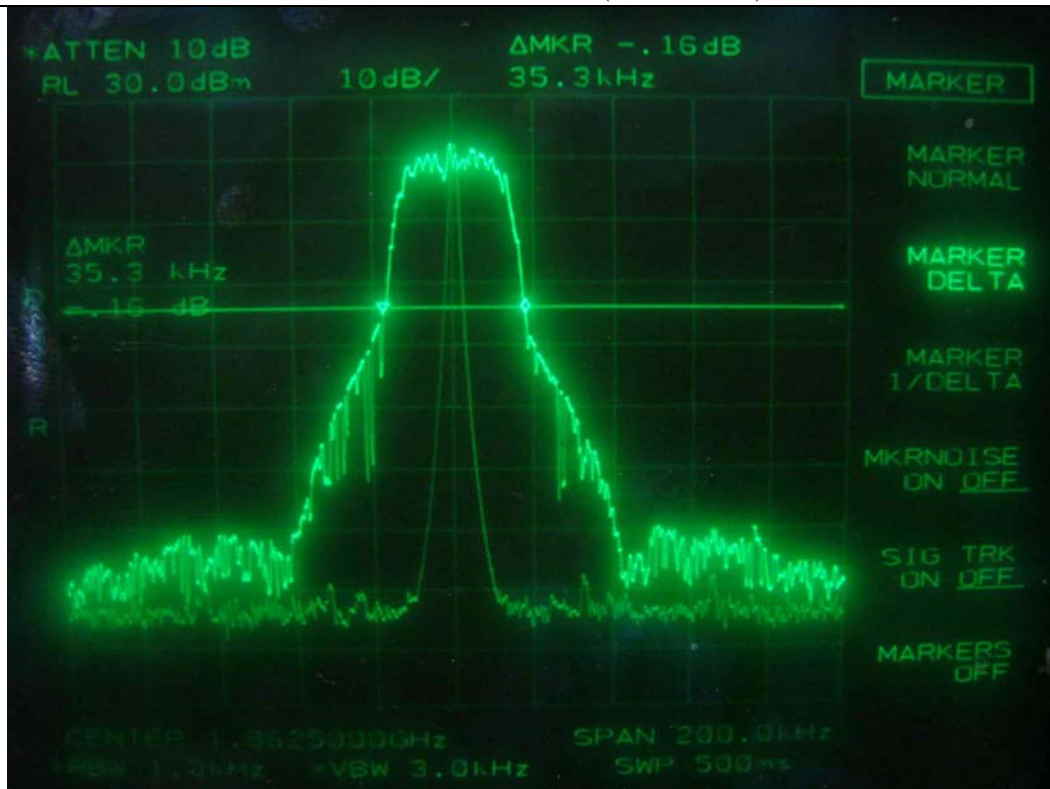
Remark: According to above result, the carrier frequency shall be within the frequency block edges.



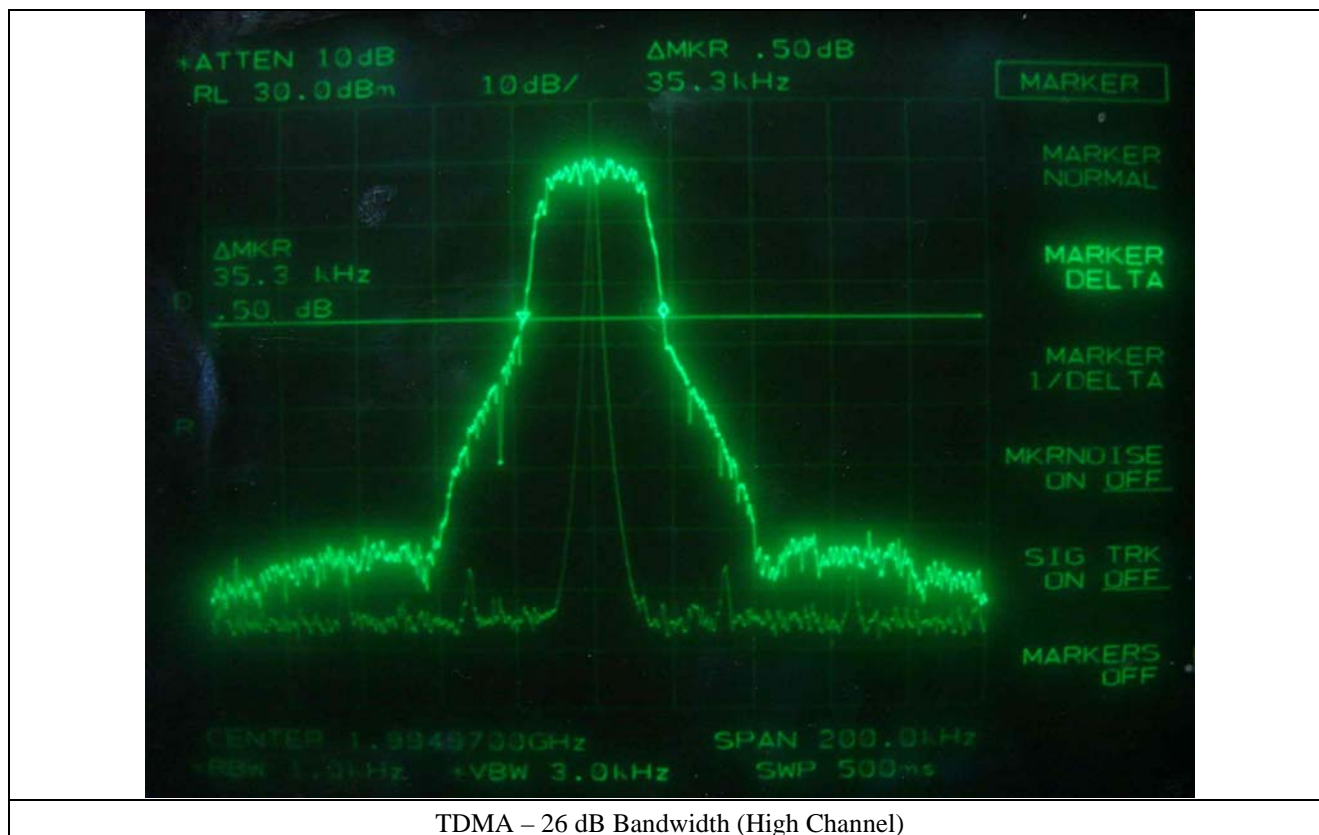
Tested by: Ki-Hong, Nam / Project Engineer



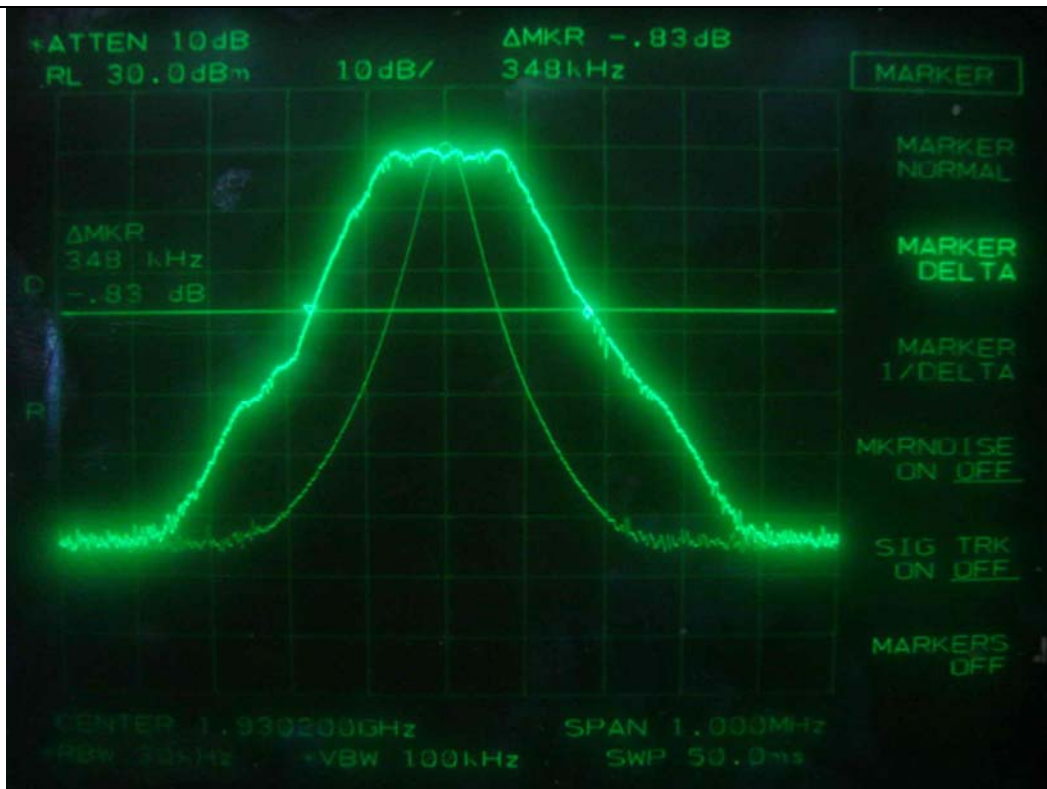
TDMA – 26 dB Bandwidth (Low Channel)



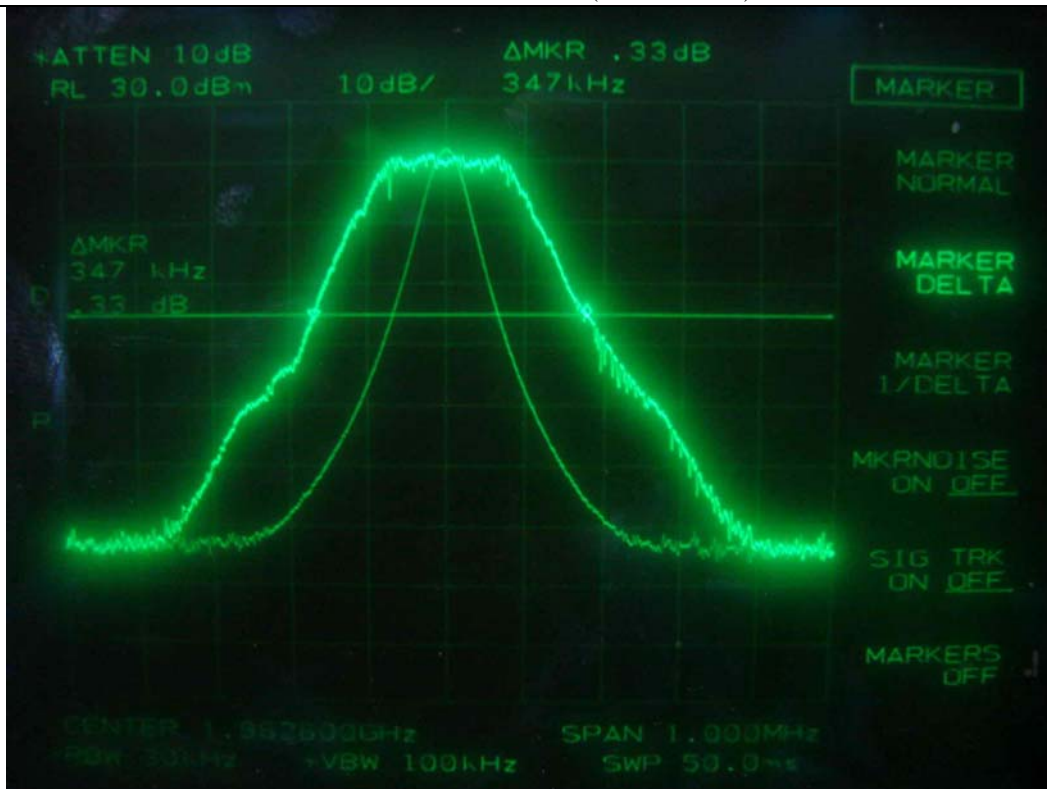
TDMA – 26 dB Bandwidth (Middle Channel)



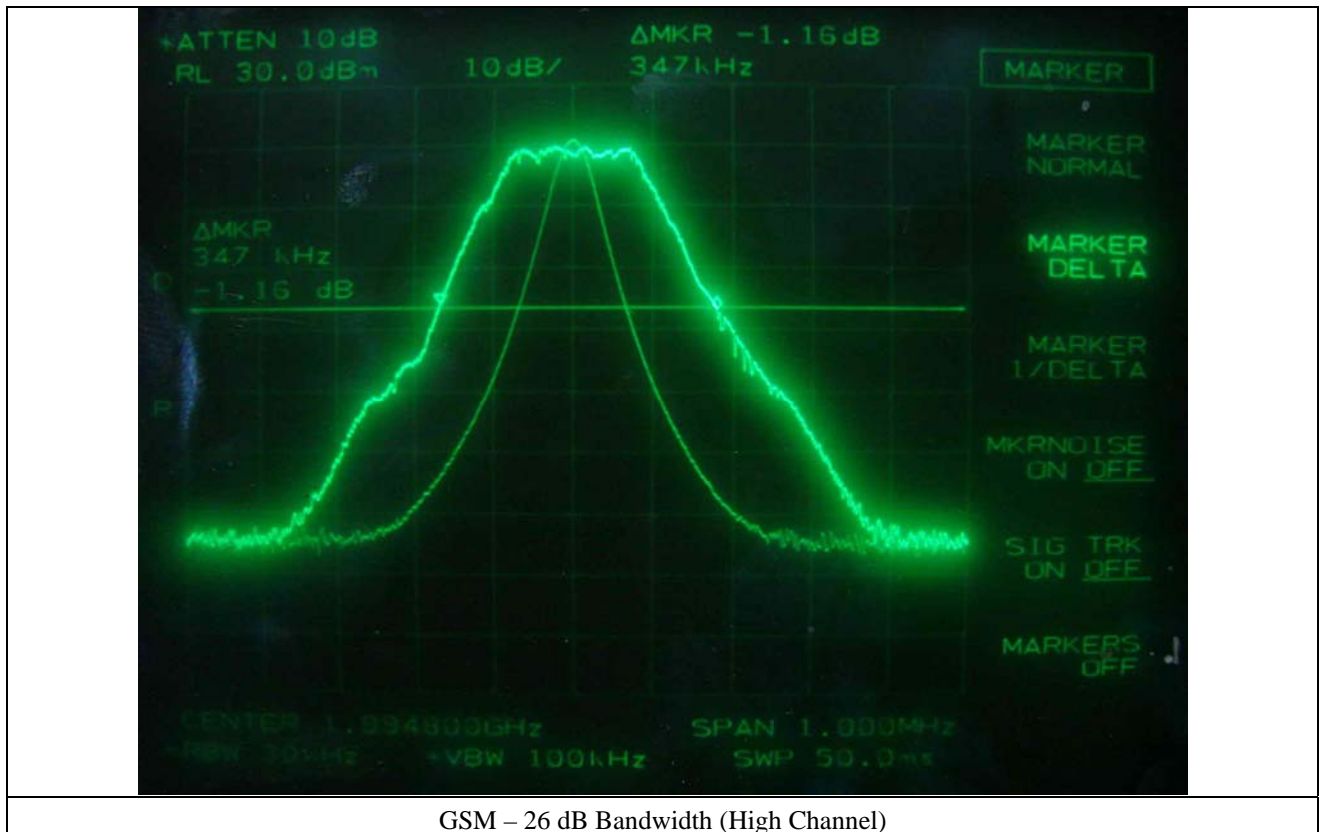
TDMA – 26 dB Bandwidth (High Channel)



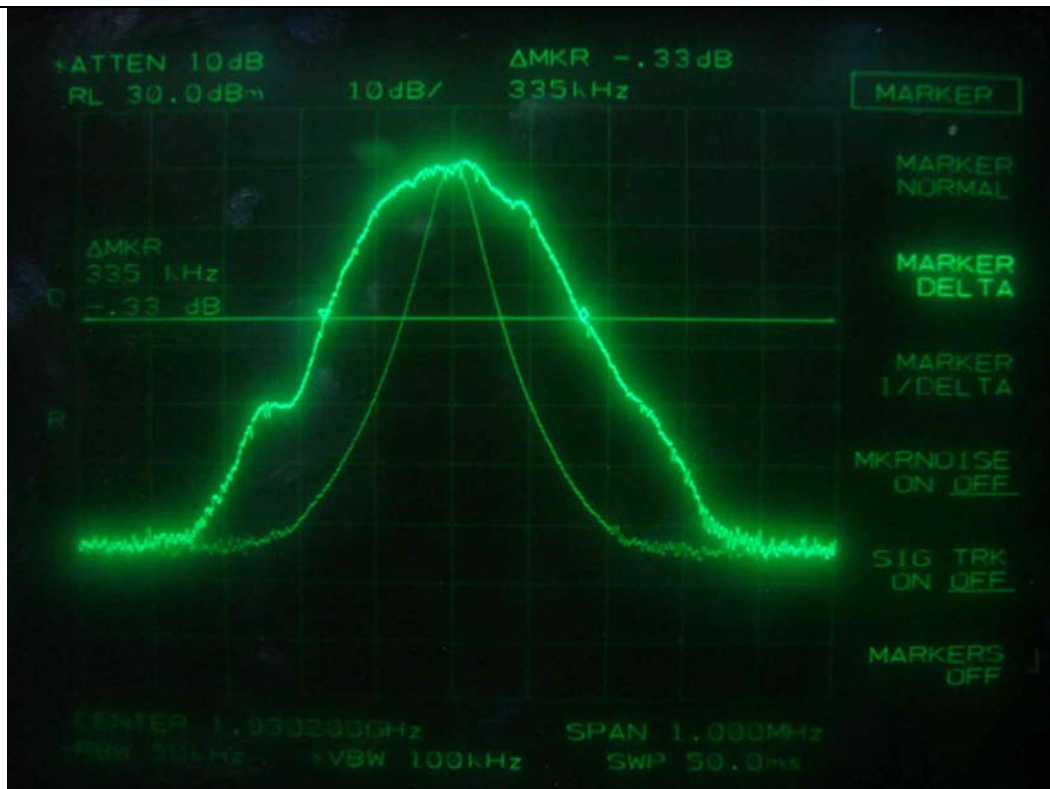
GSM – 26 dB Bandwidth (Low Channel)



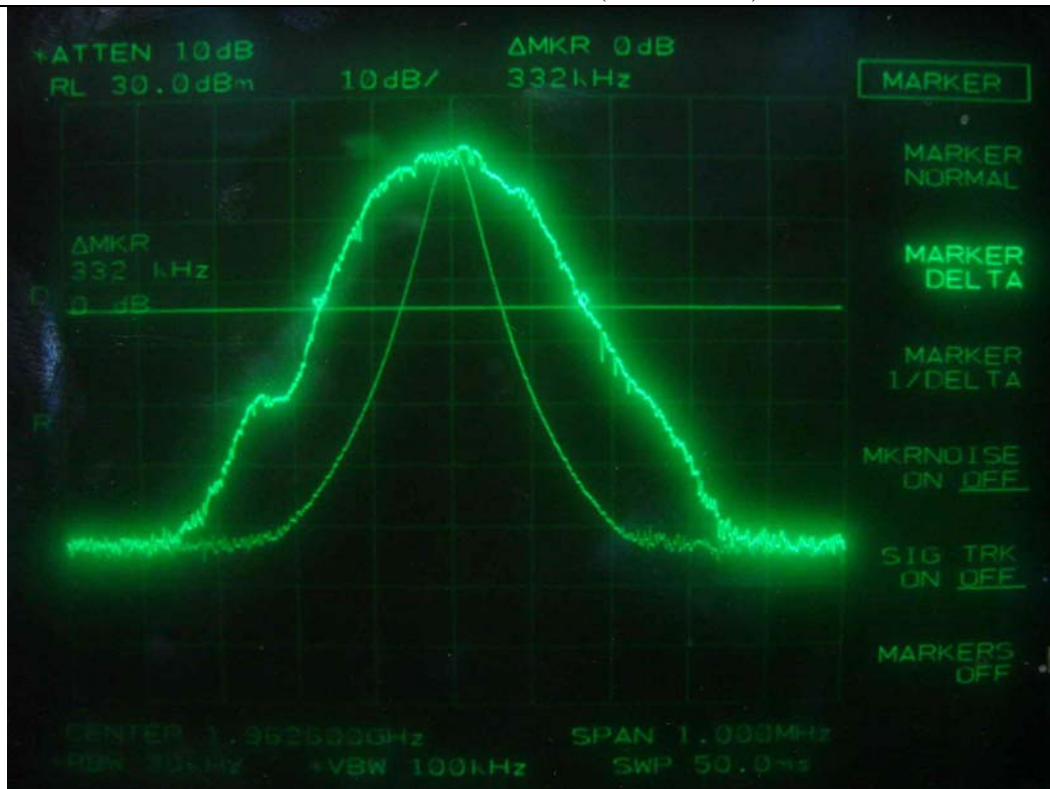
GSM – 26 dB Bandwidth (Middle Channel)



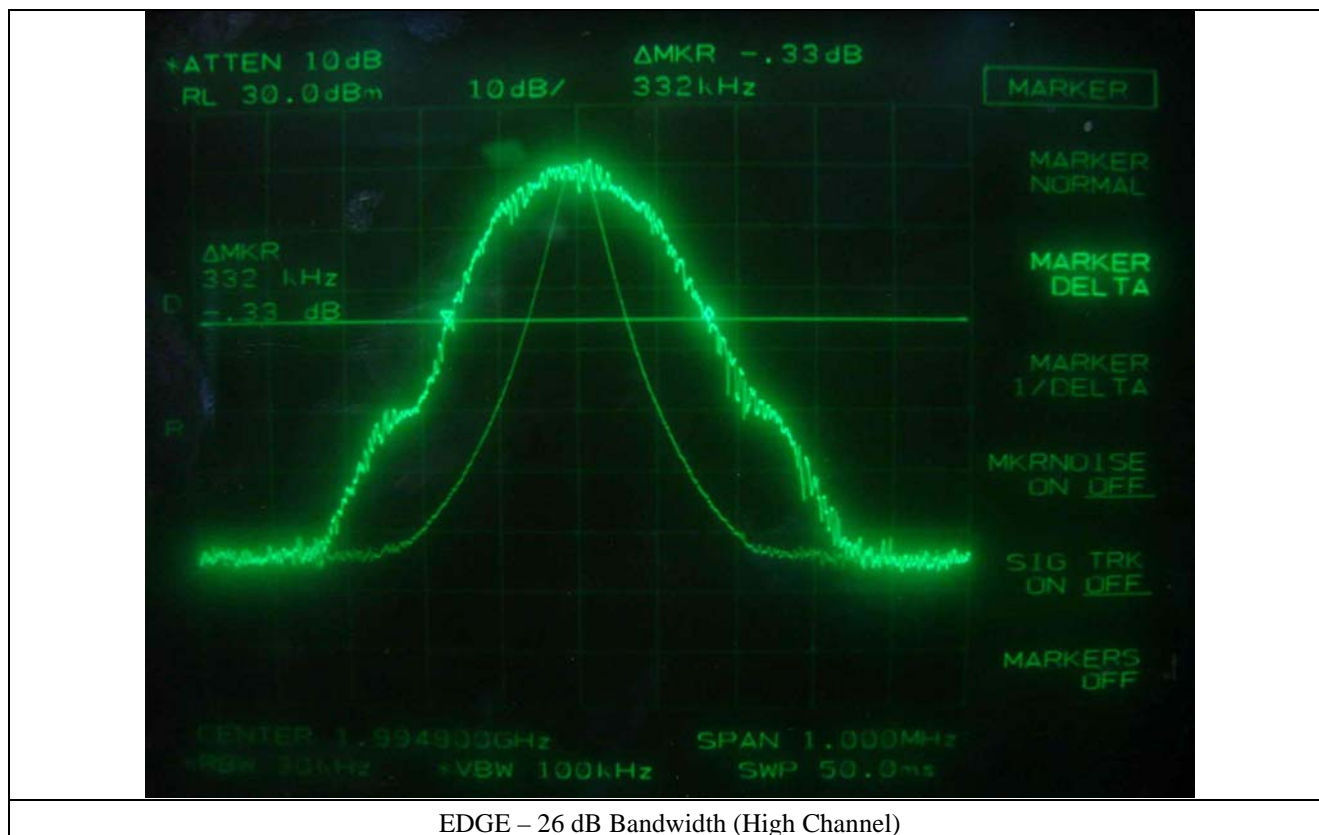
GSM – 26 dB Bandwidth (High Channel)

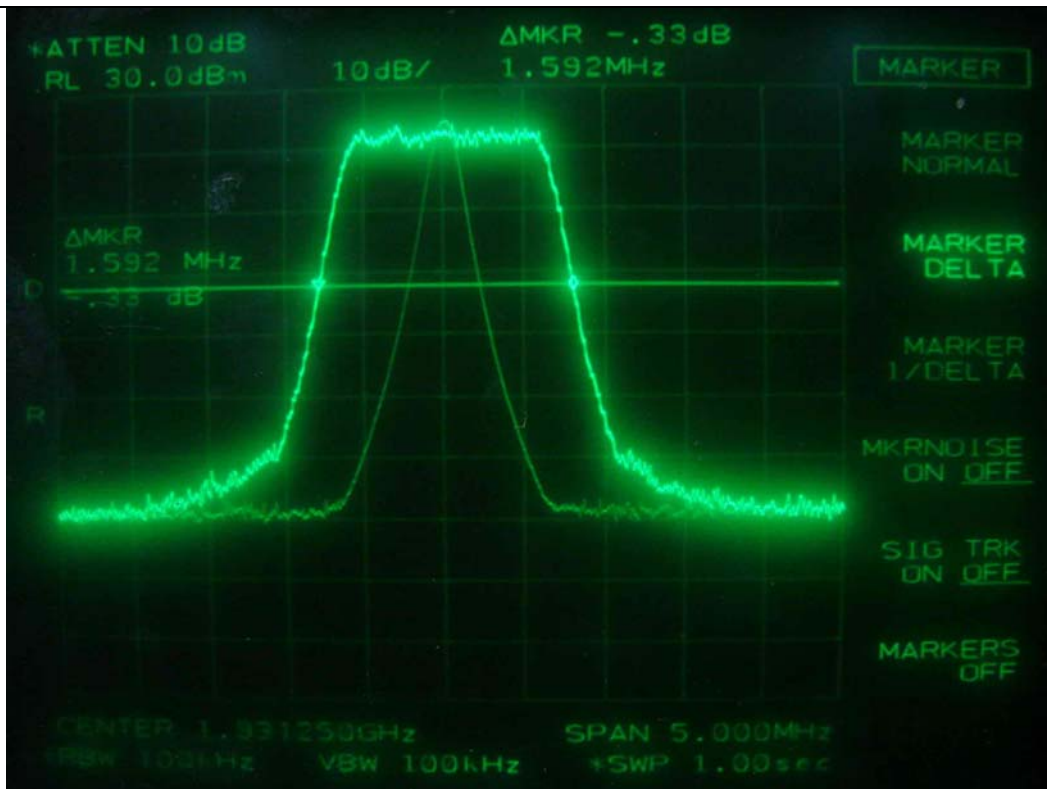


EDGE - 26 dB Bandwidth (Low Channel)

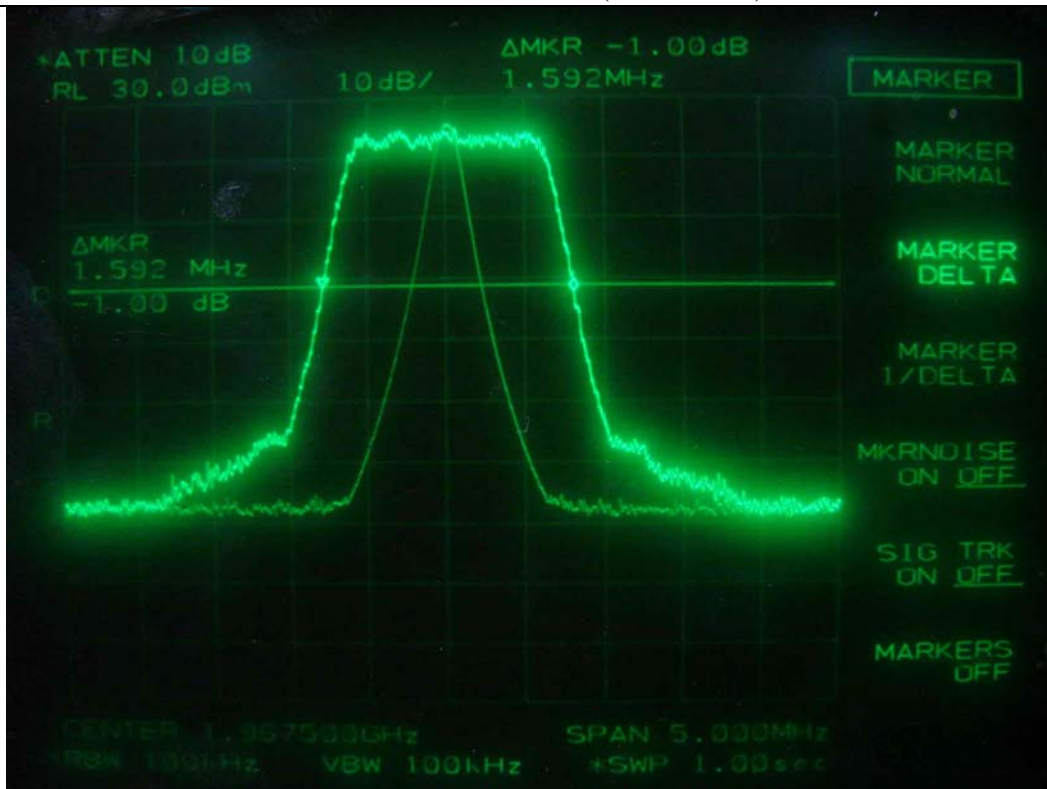


EDGE - 26 dB Bandwidth (Middle Channel)

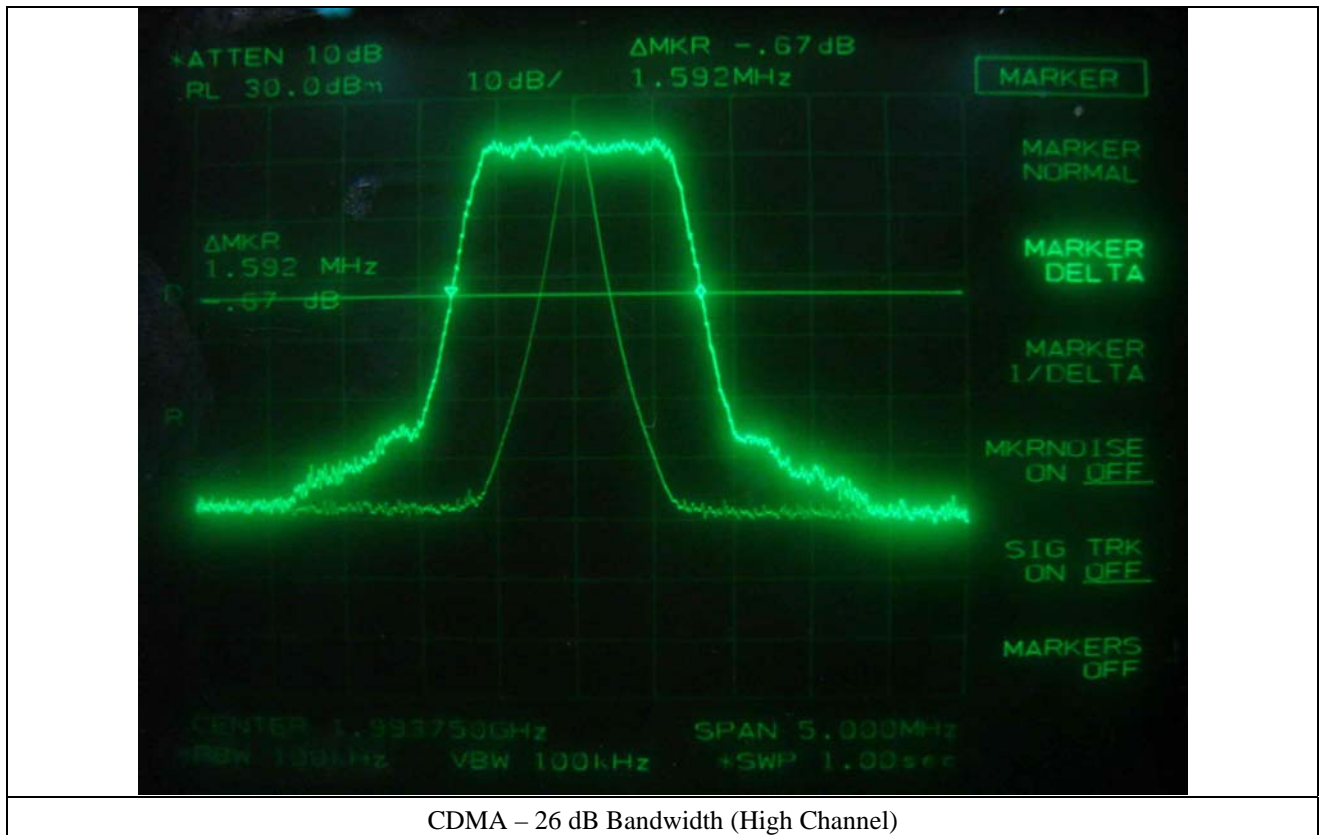


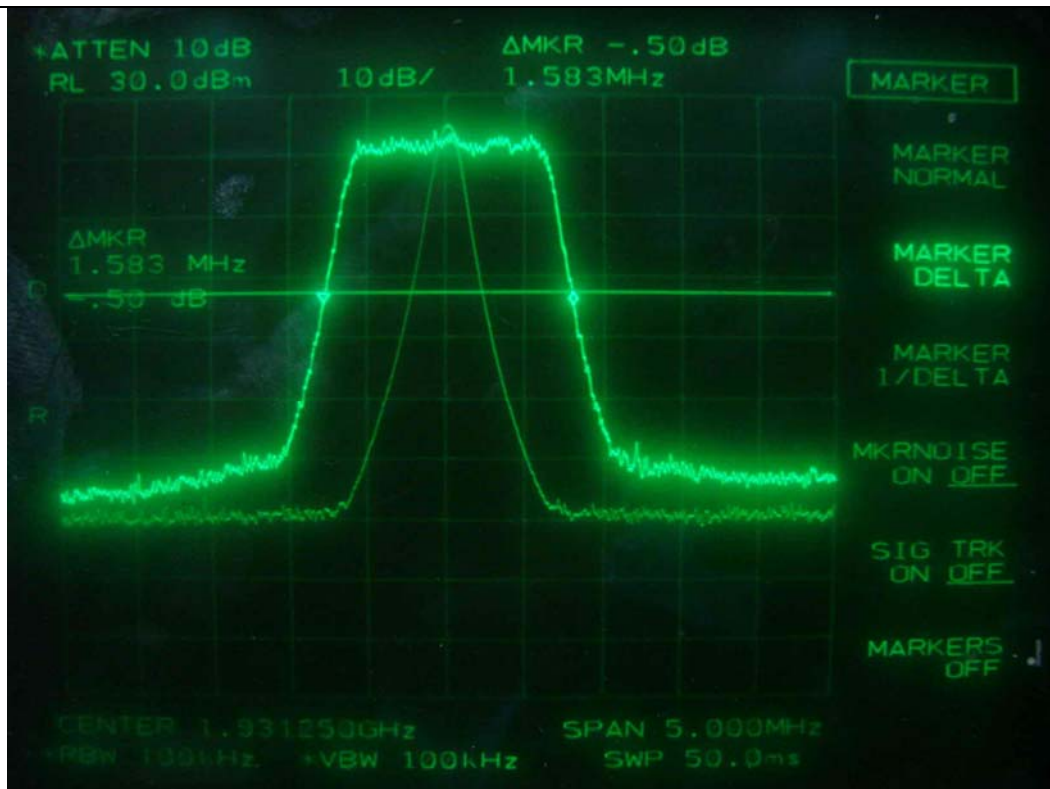


CDMA – 26 dB Bandwidth (Low Channel)

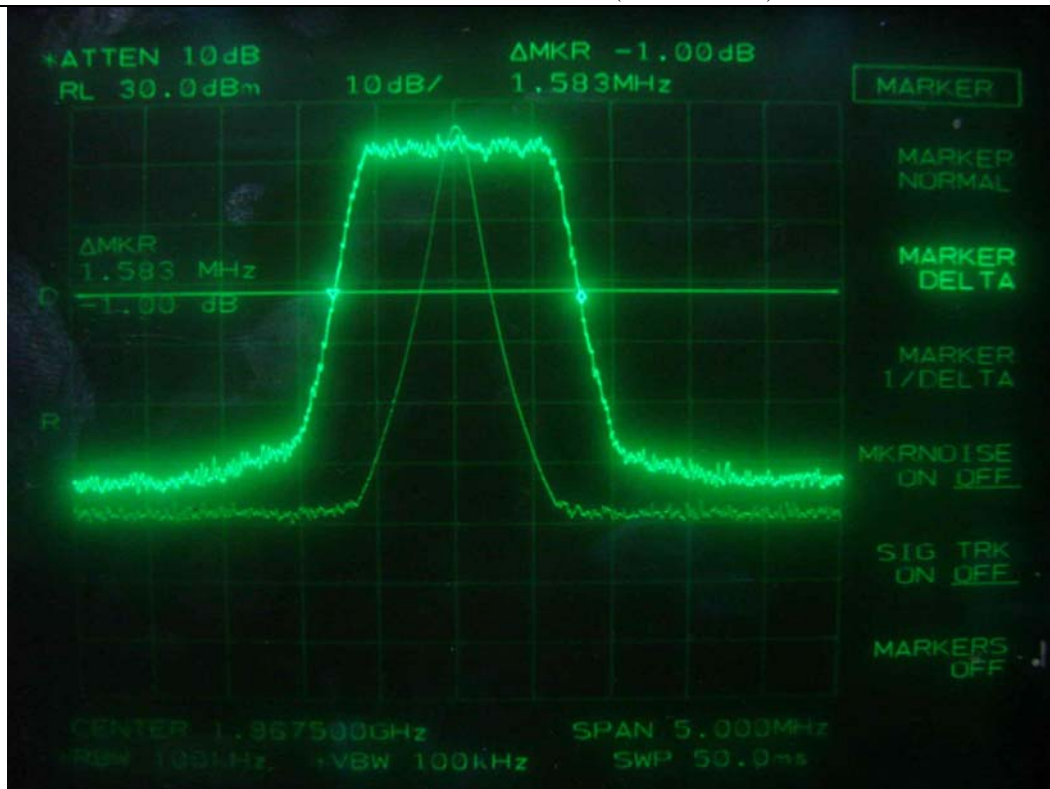


CDMA – 26 dB Bandwidth (Middle Channel)

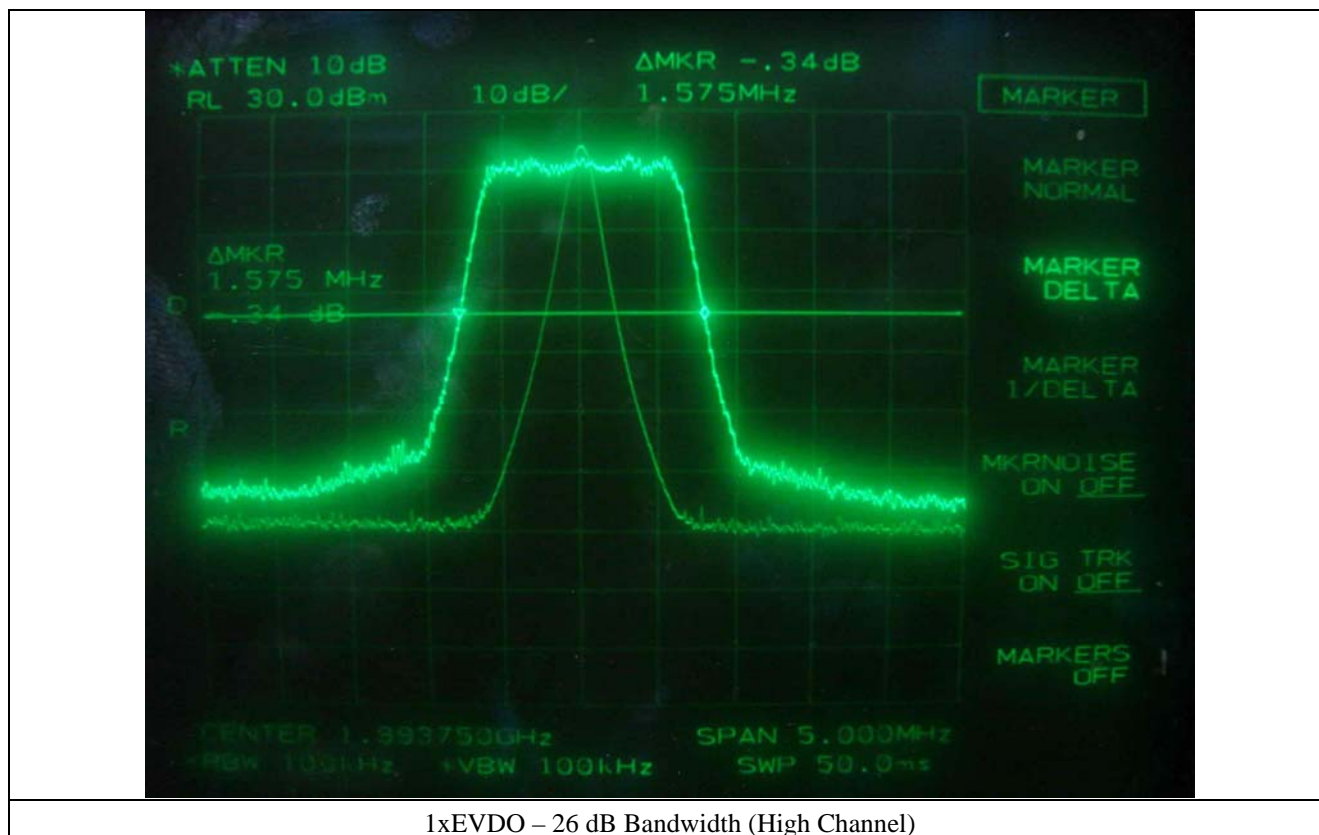


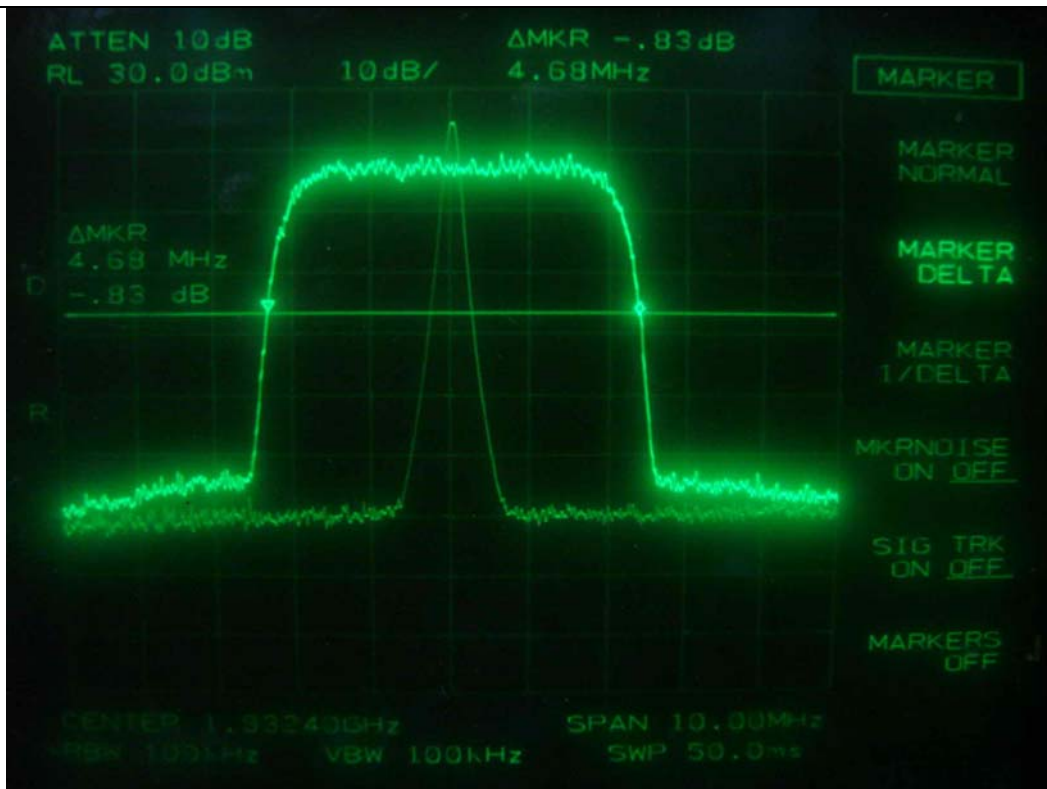


1xEVDO – 26 dB Bandwidth (Low Channel)

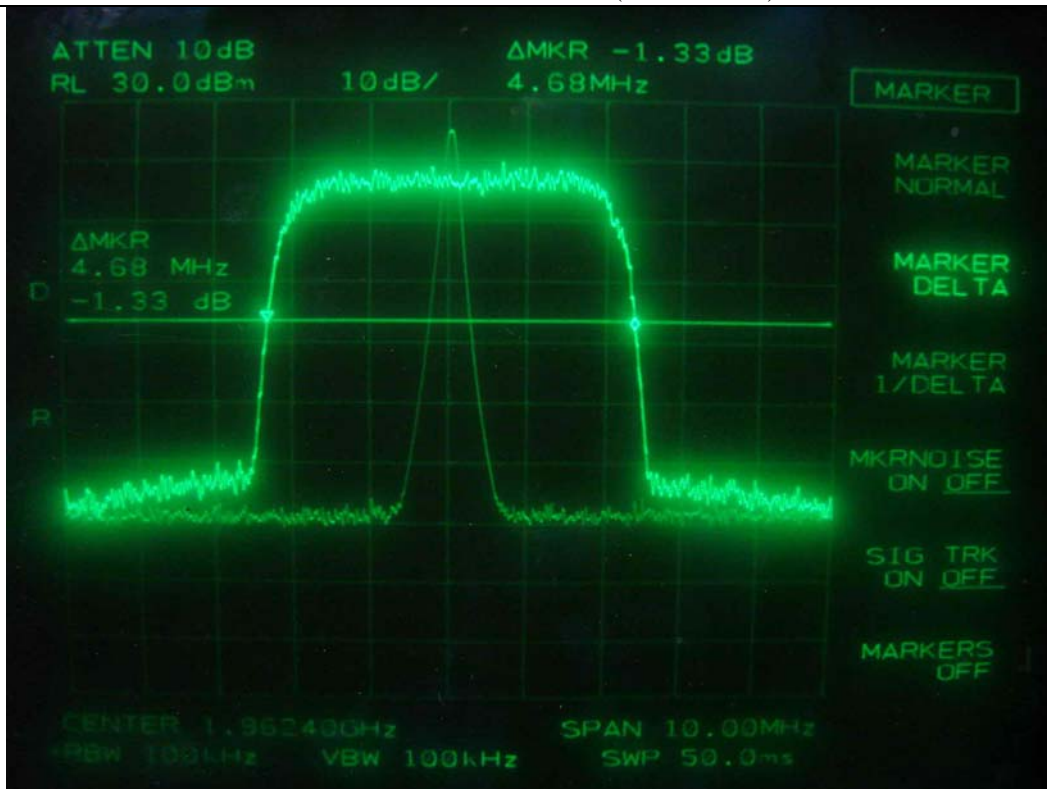


1xEVDO – 26 dB Bandwidth (Middle Channel)

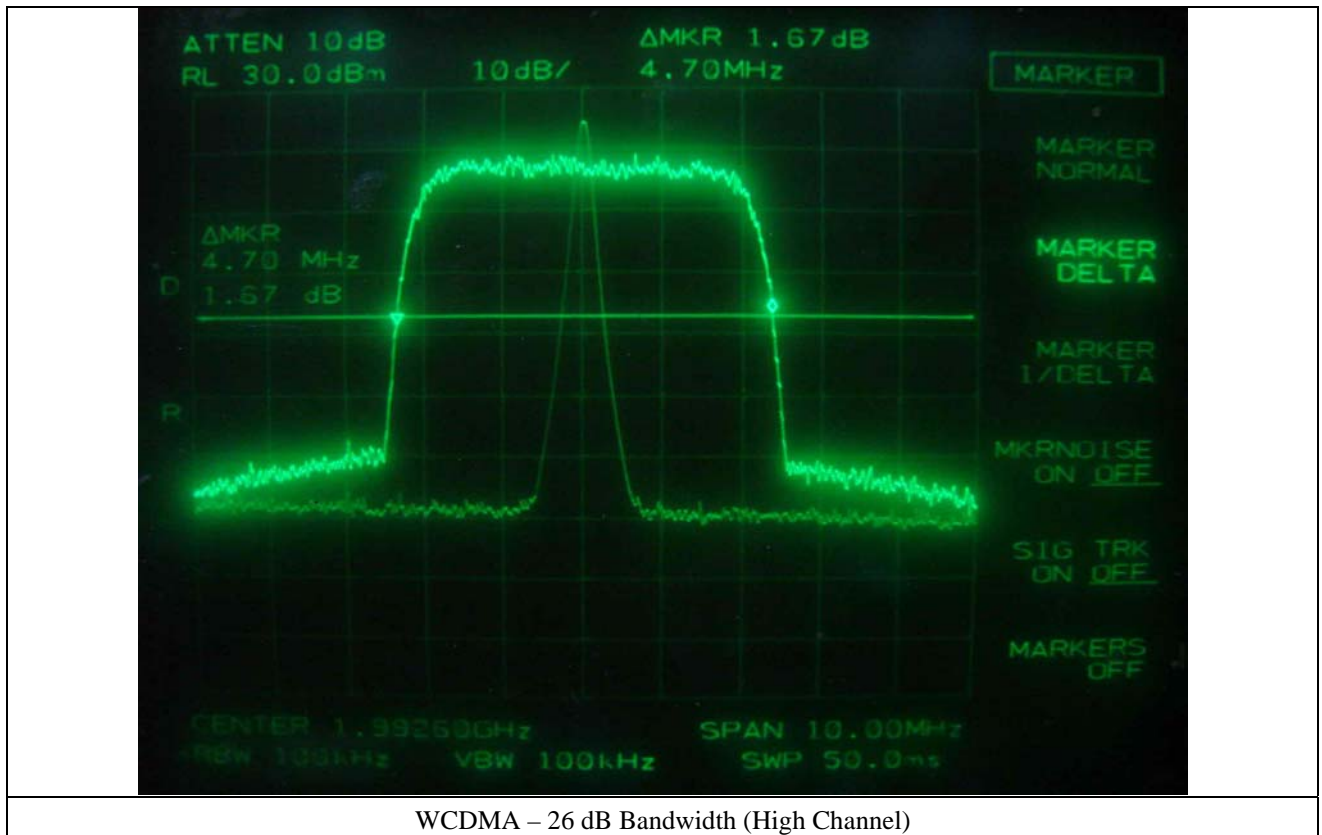




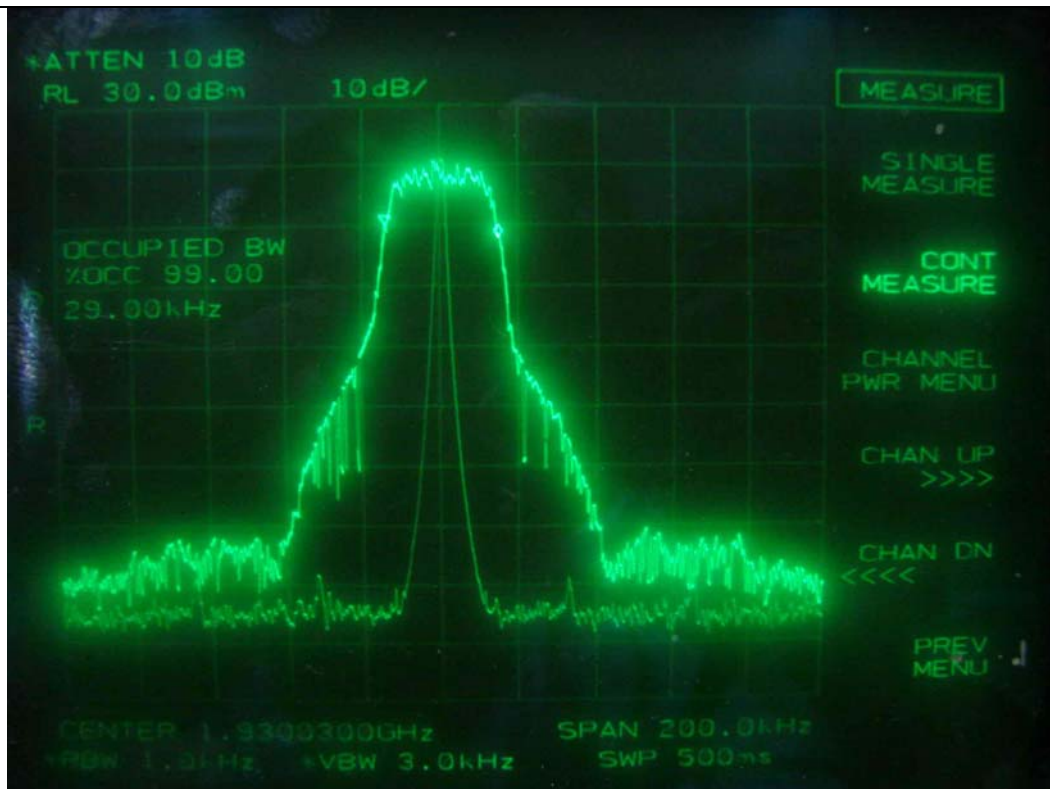
WCDMA – 26 dB Bandwidth (Low Channel)



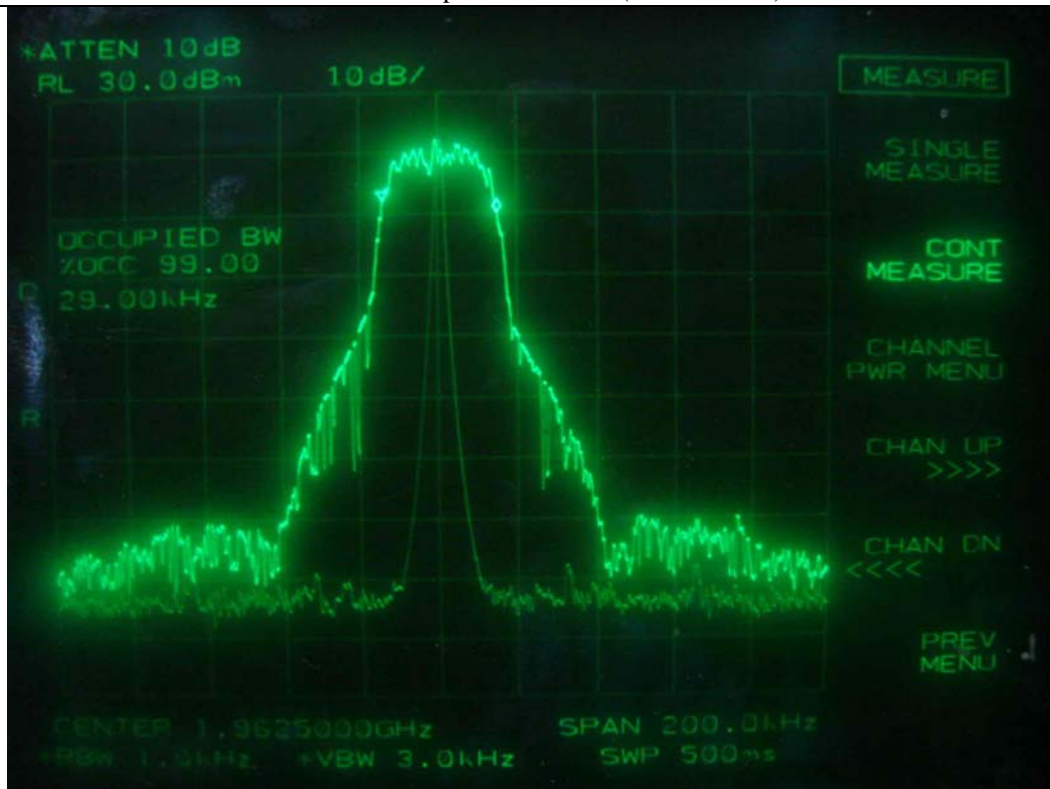
WCDMA – 26 dB Bandwidth (Middle Channel)



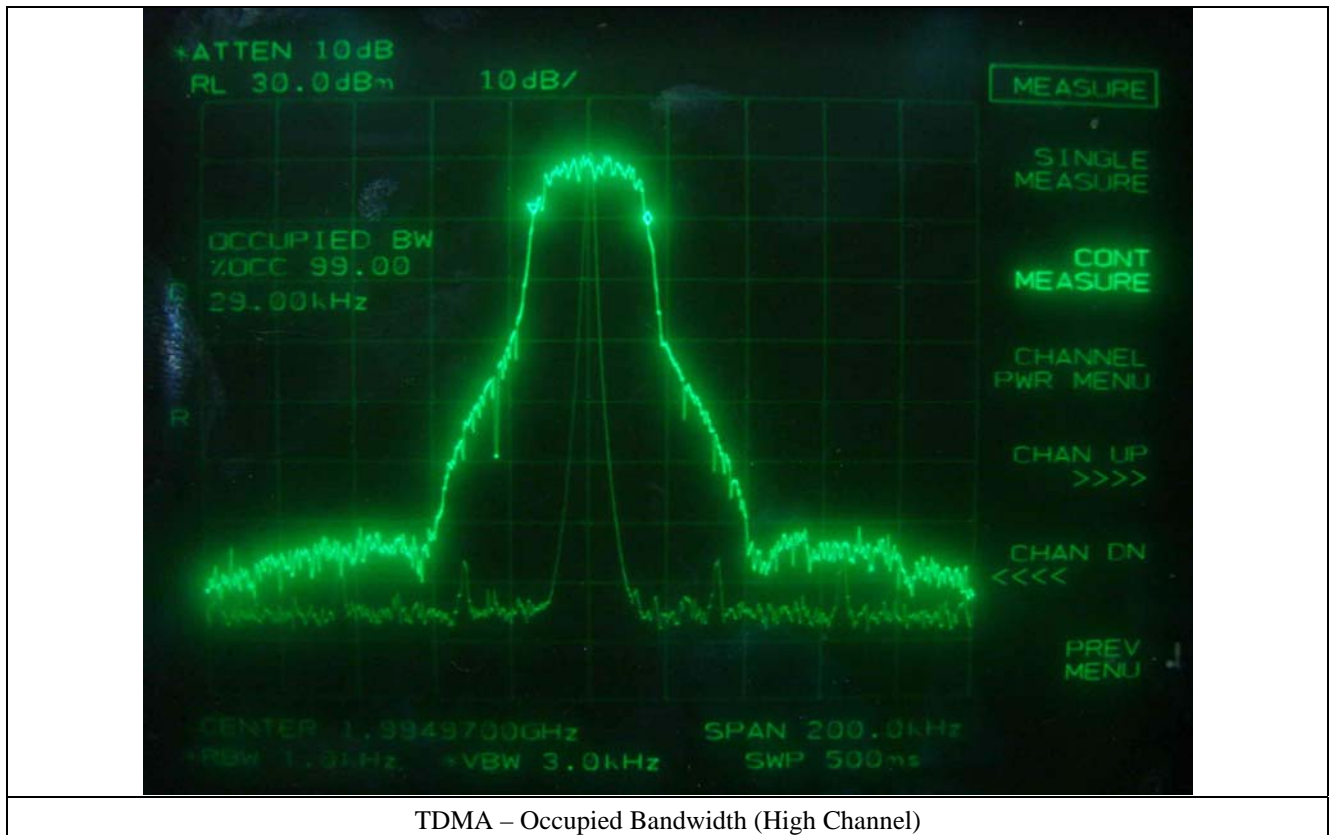
WCDMA – 26 dB Bandwidth (High Channel)

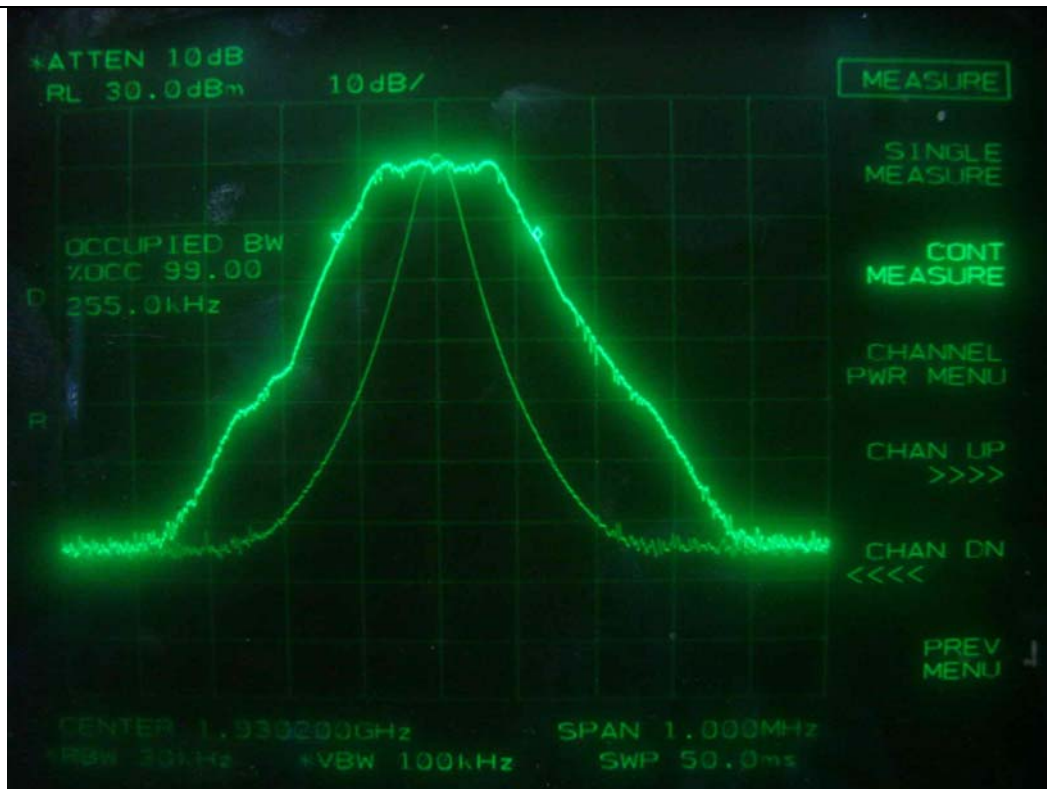


TDMA – Occupied Bandwidth (Low Channel)

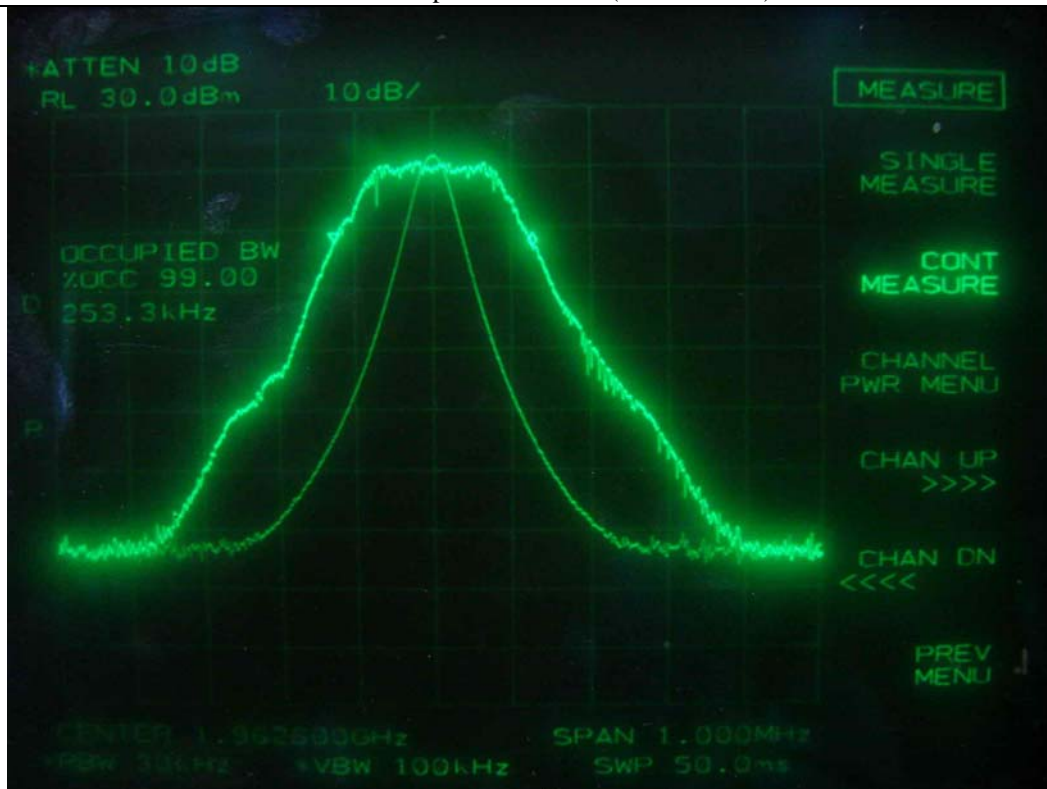


TDMA – Occupied Bandwidth (Middle Channel)

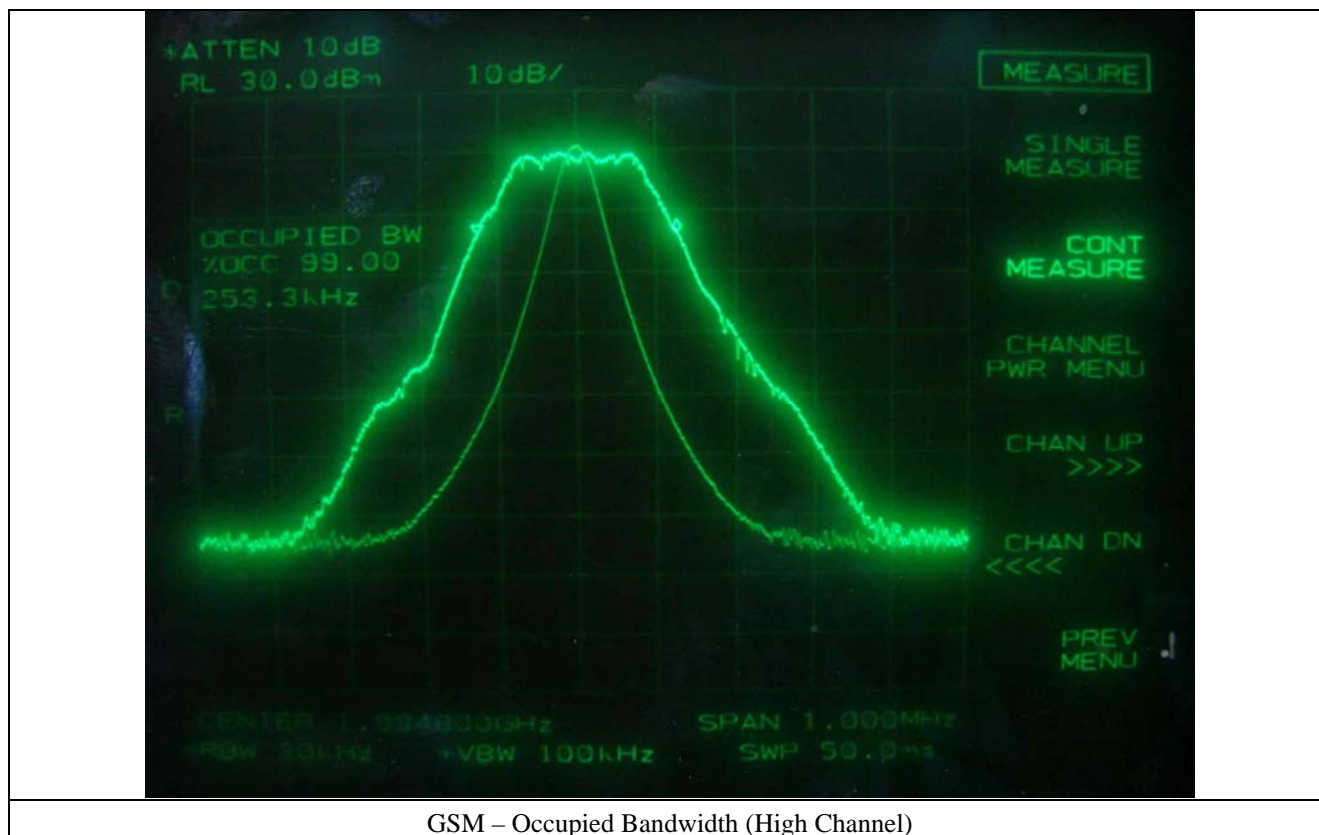




GSM – Occupied Bandwidth (Low Channel)



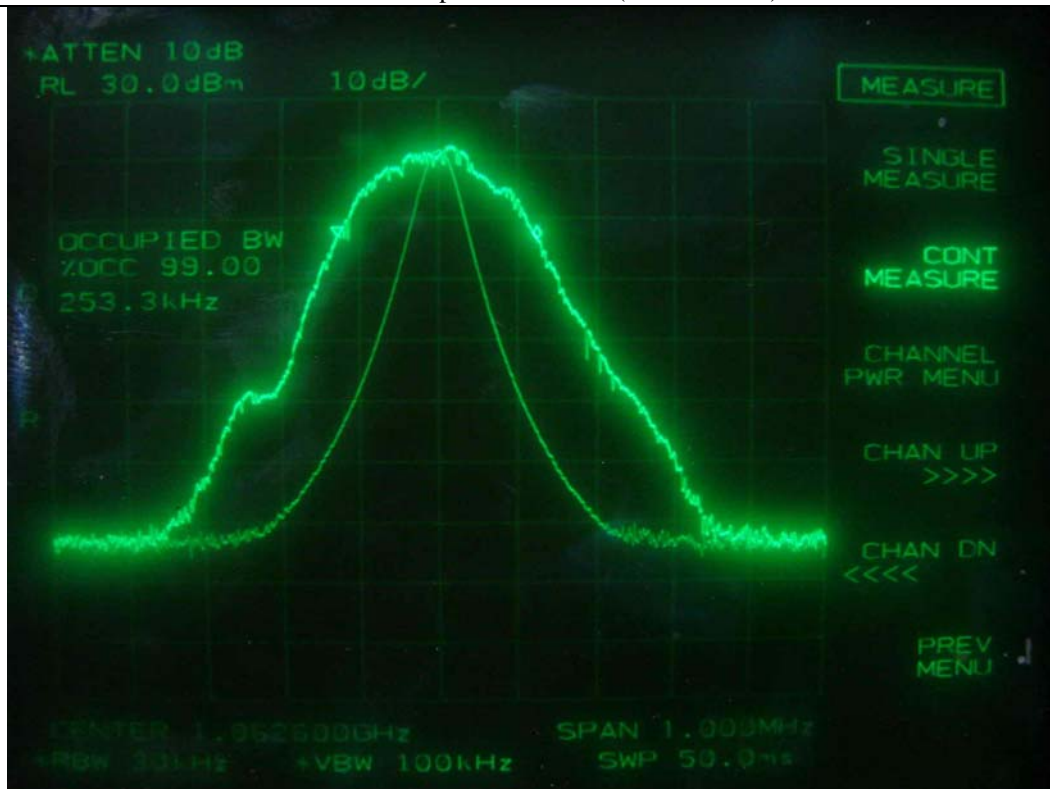
GSM – Occupied Bandwidth (Middle Channel)



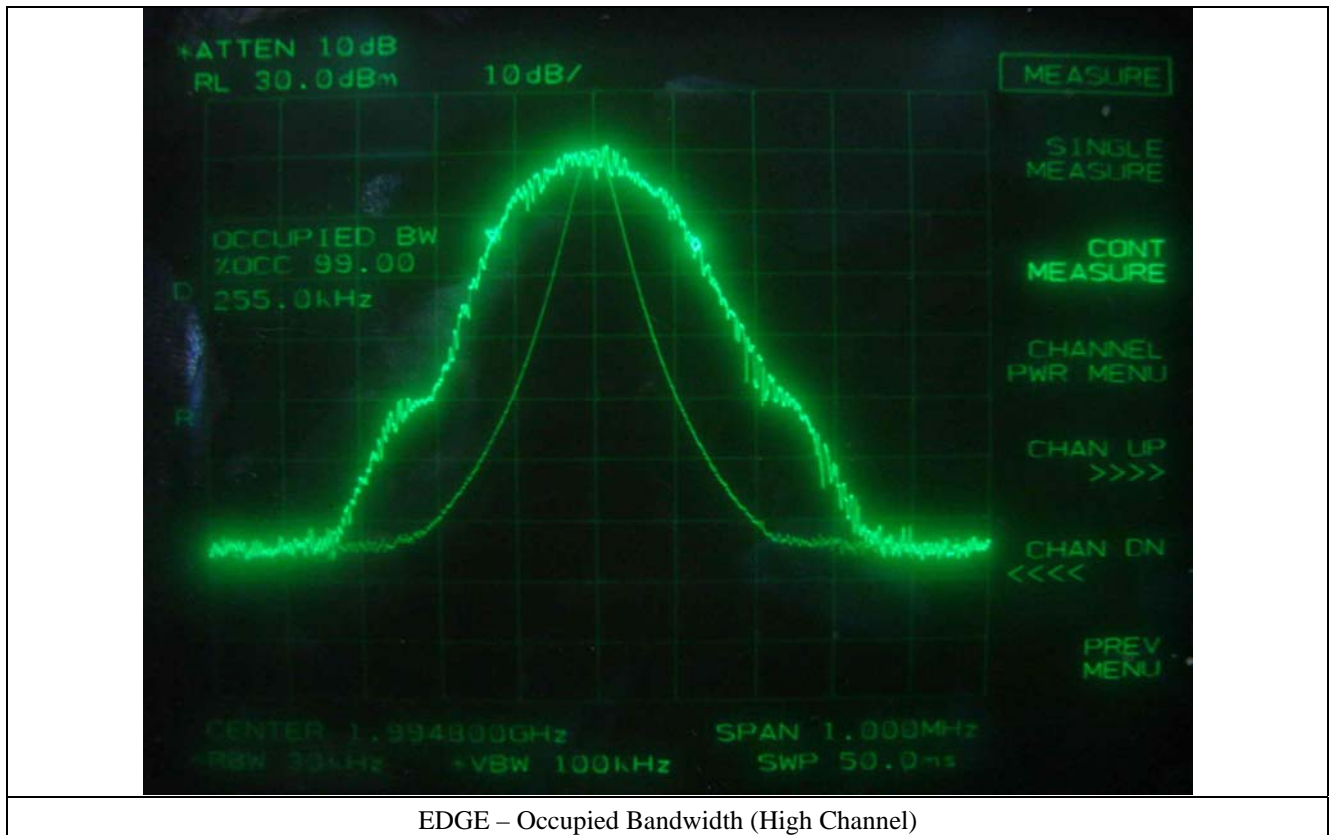
GSM – Occupied Bandwidth (High Channel)

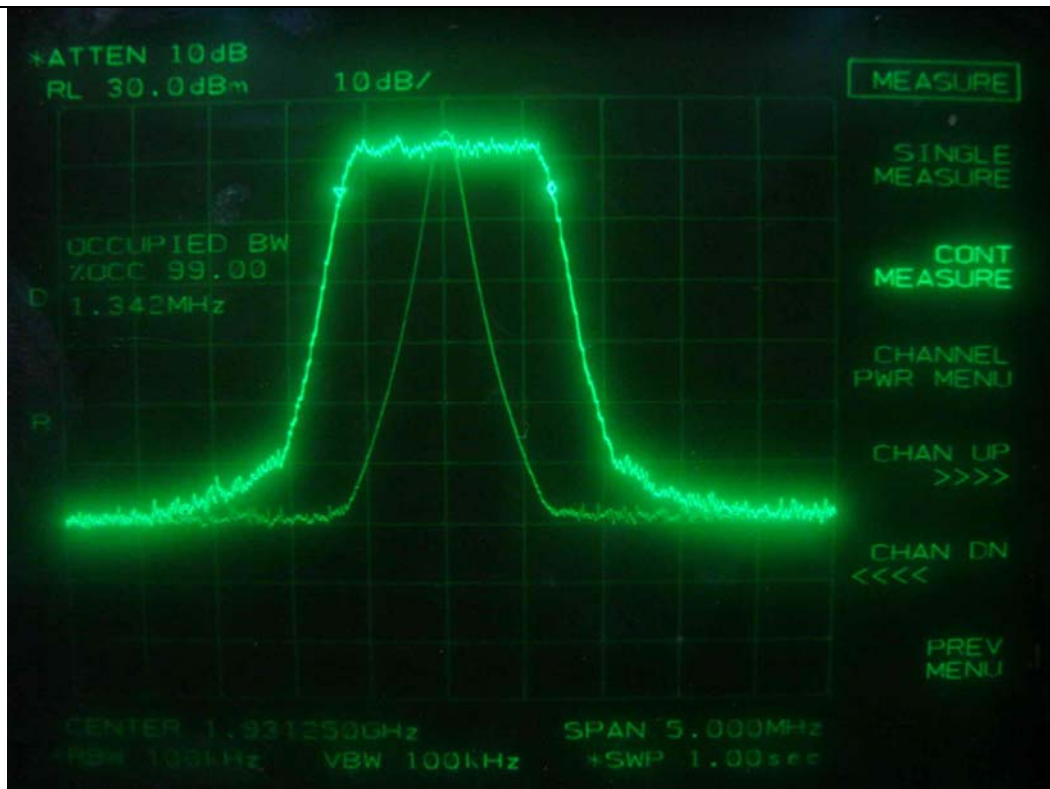


EDGE – Occupied Bandwidth (Low Channel)

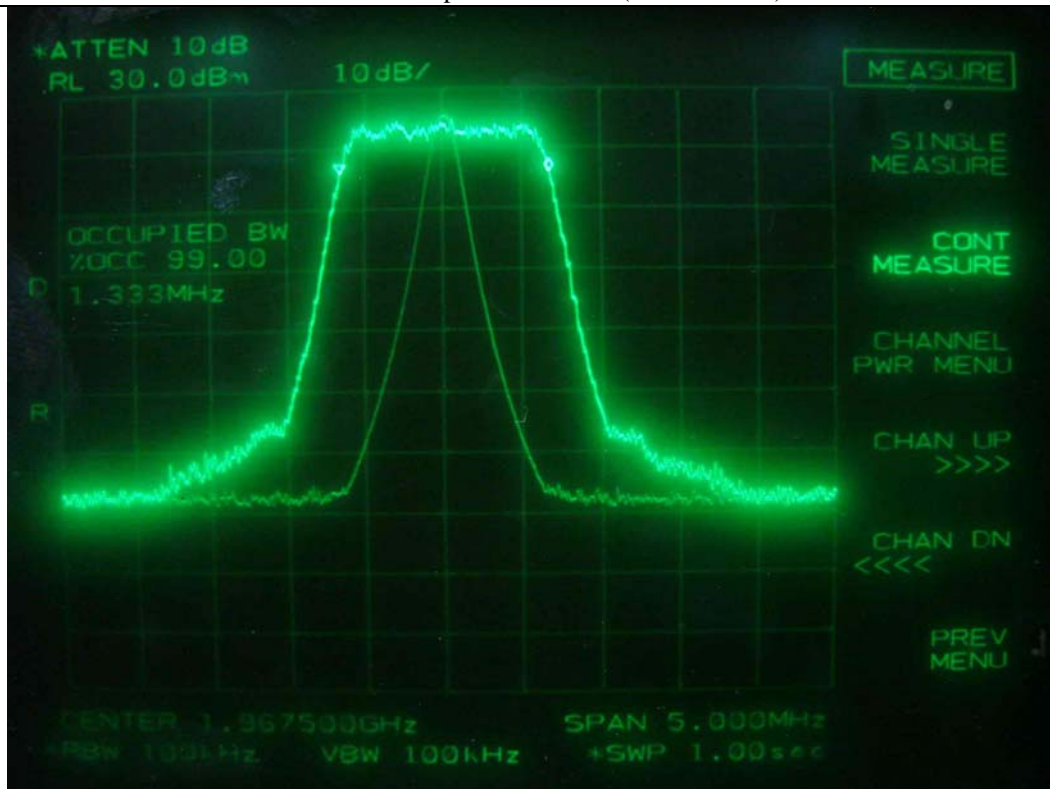


EDGE – Occupied Bandwidth (Middle Channel)

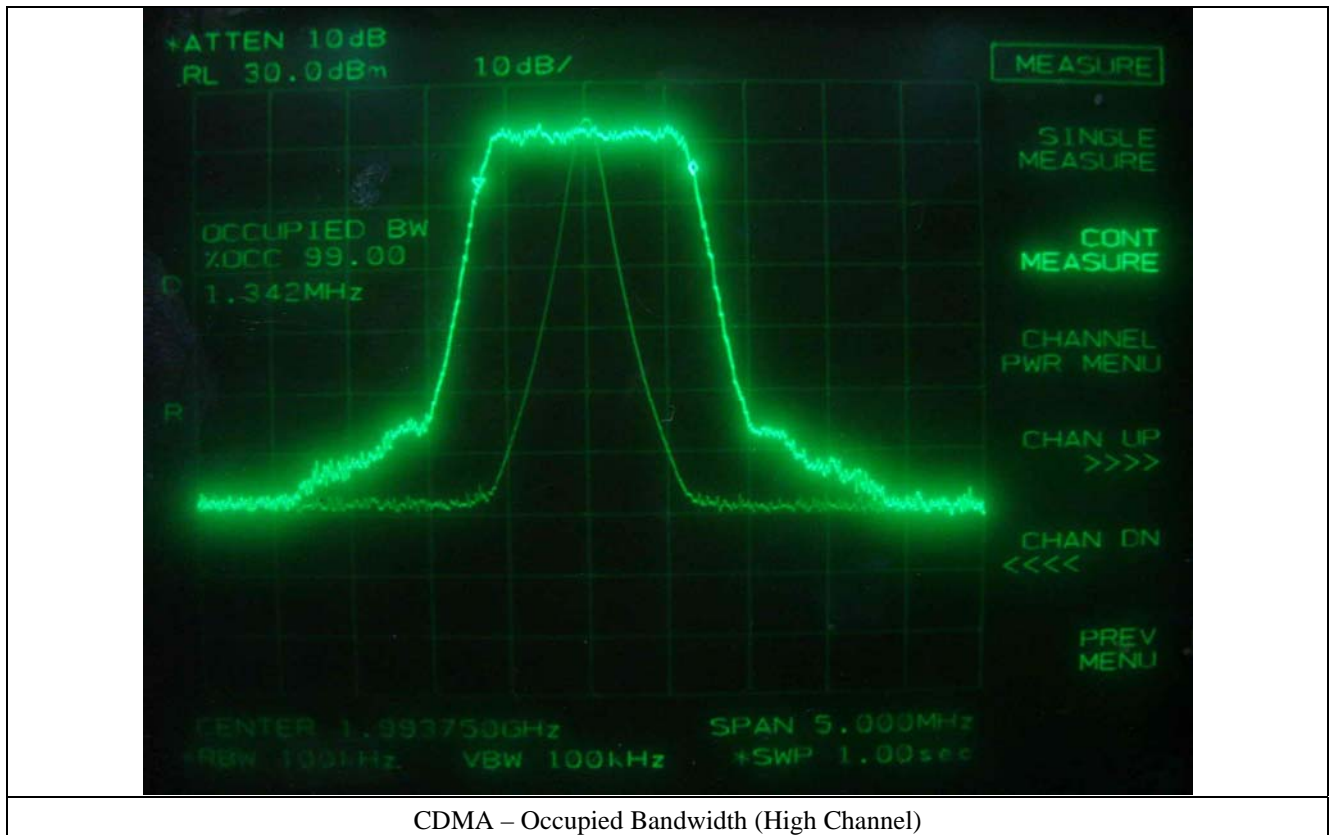


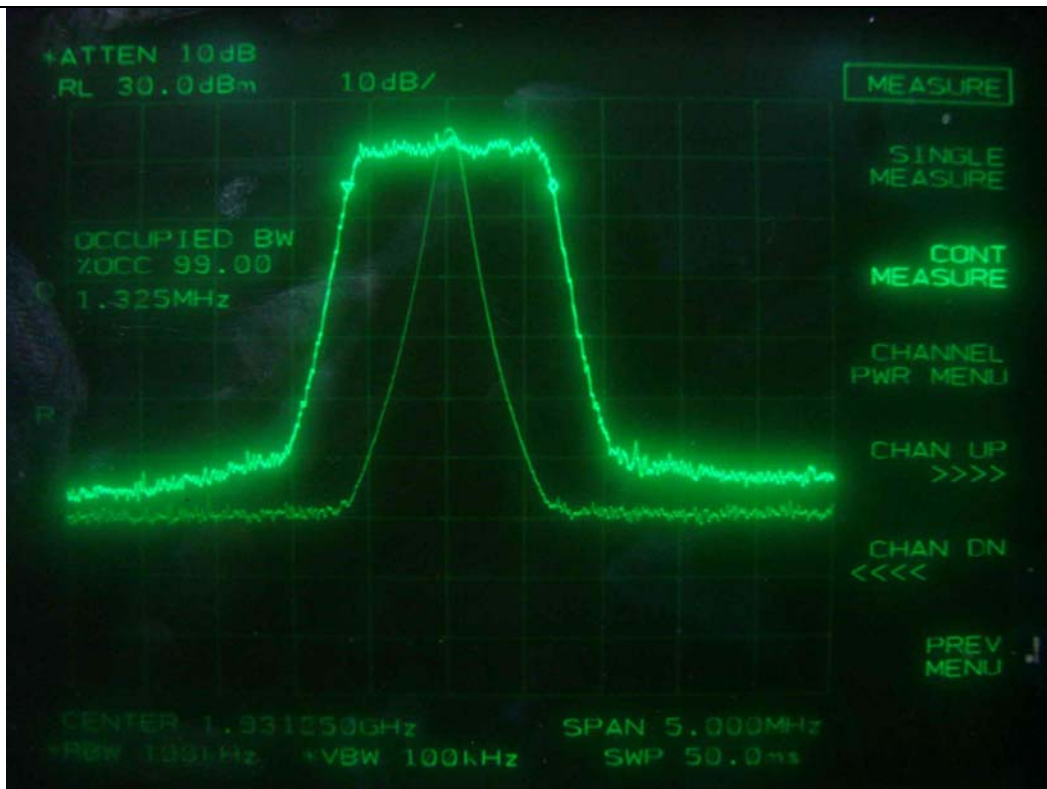


CDMA – Occupied Bandwidth (Low Channel)

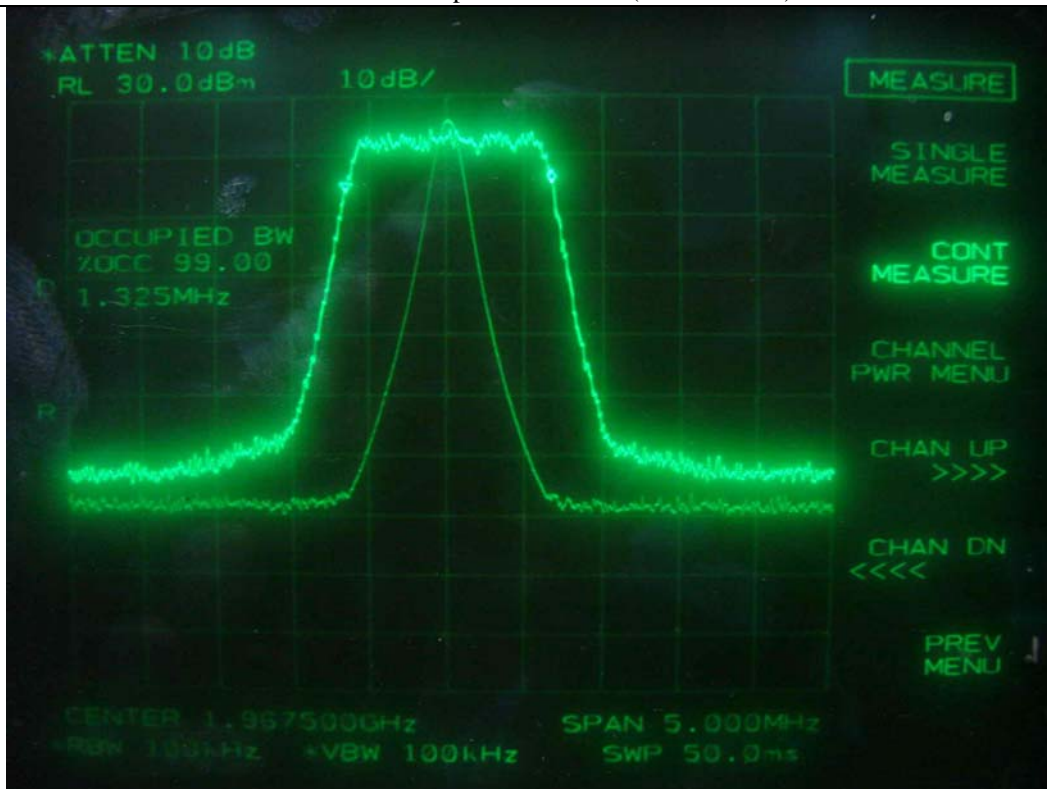


CDMA – Occupied Bandwidth (Middle Channel)

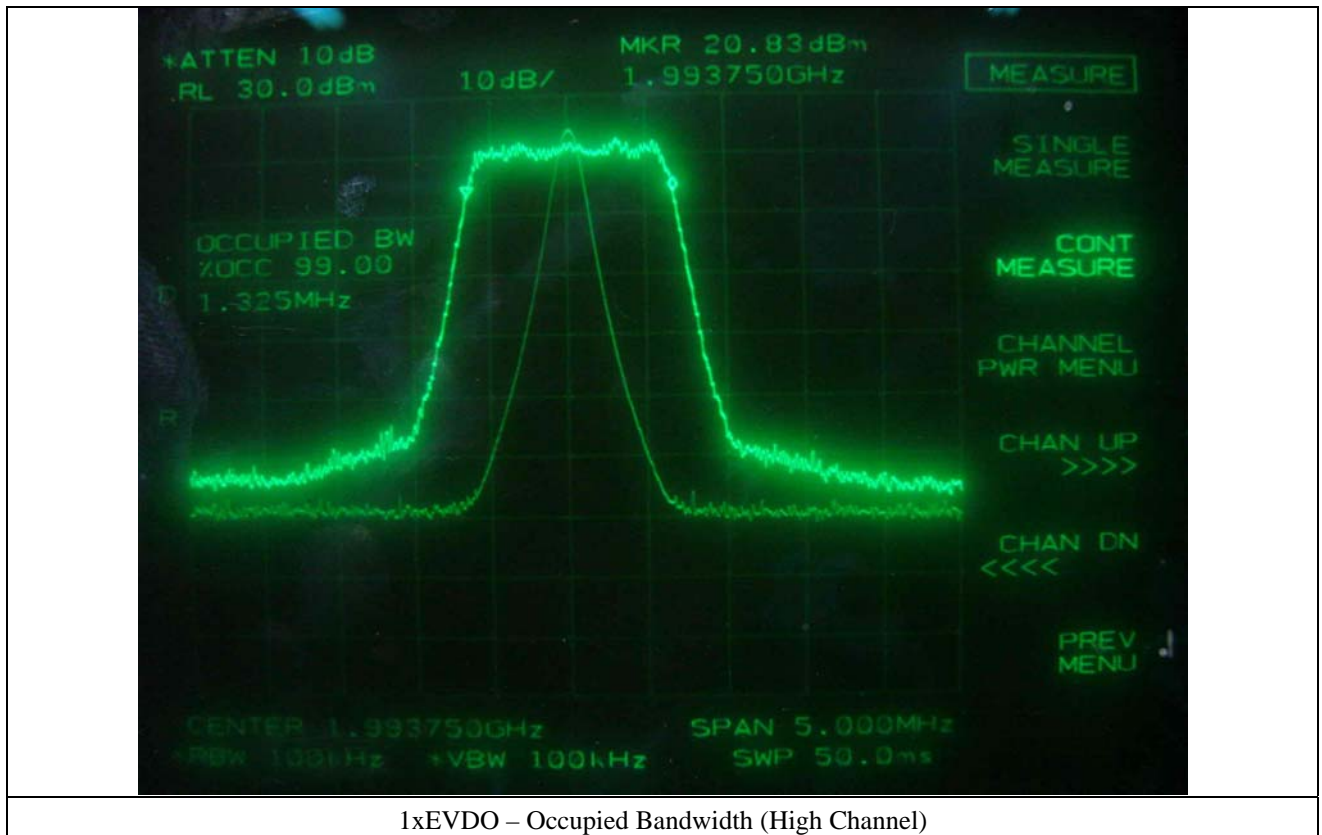


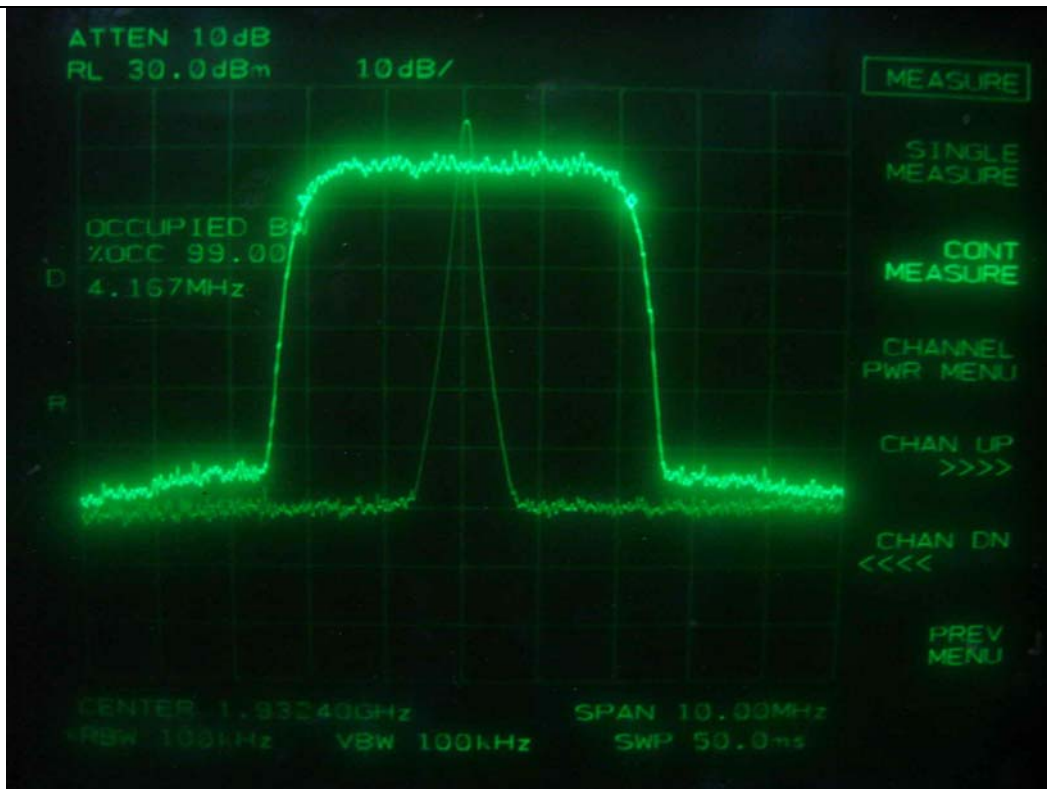


1xEVDO – Occupied Bandwidth (Low Channel)

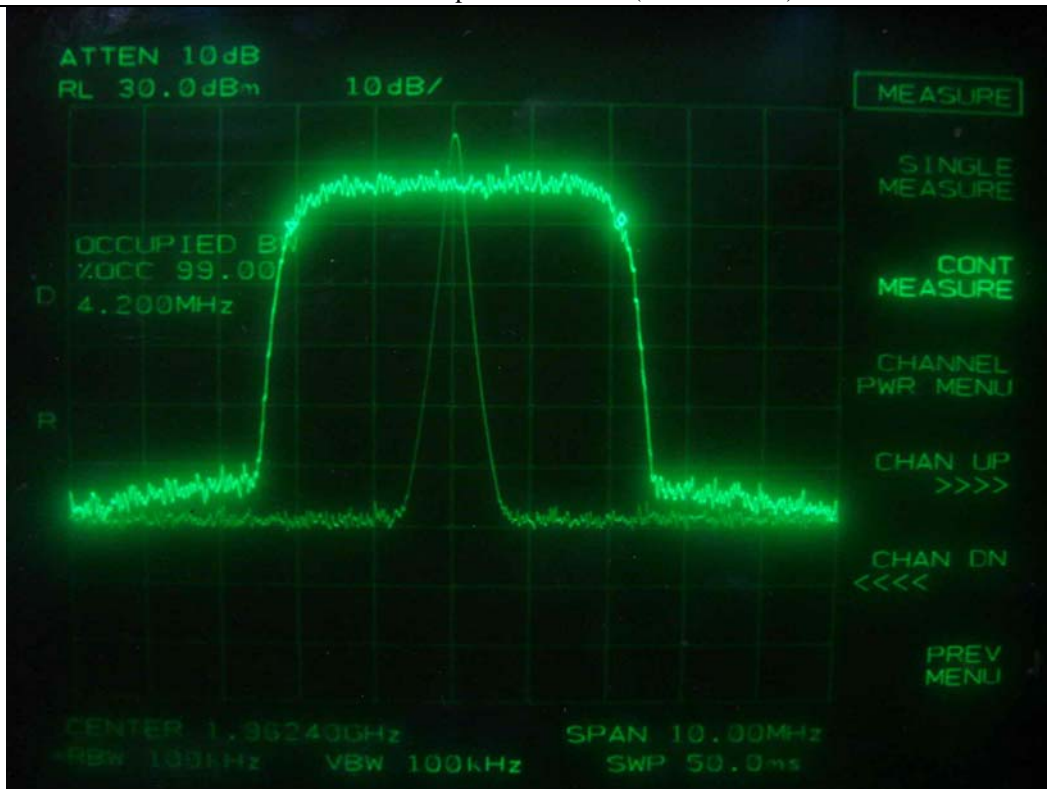


1xEVDO – Occupied Bandwidth (Middle Channel)

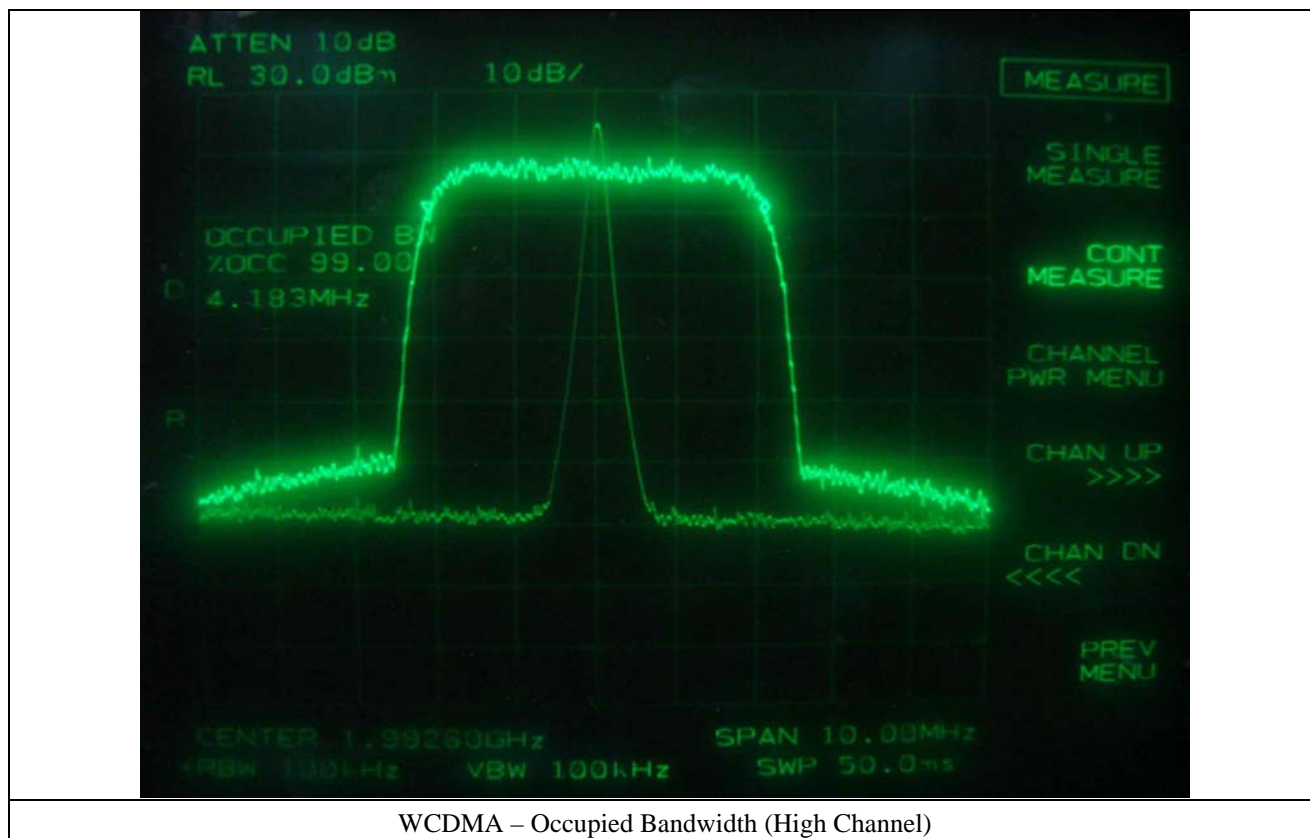


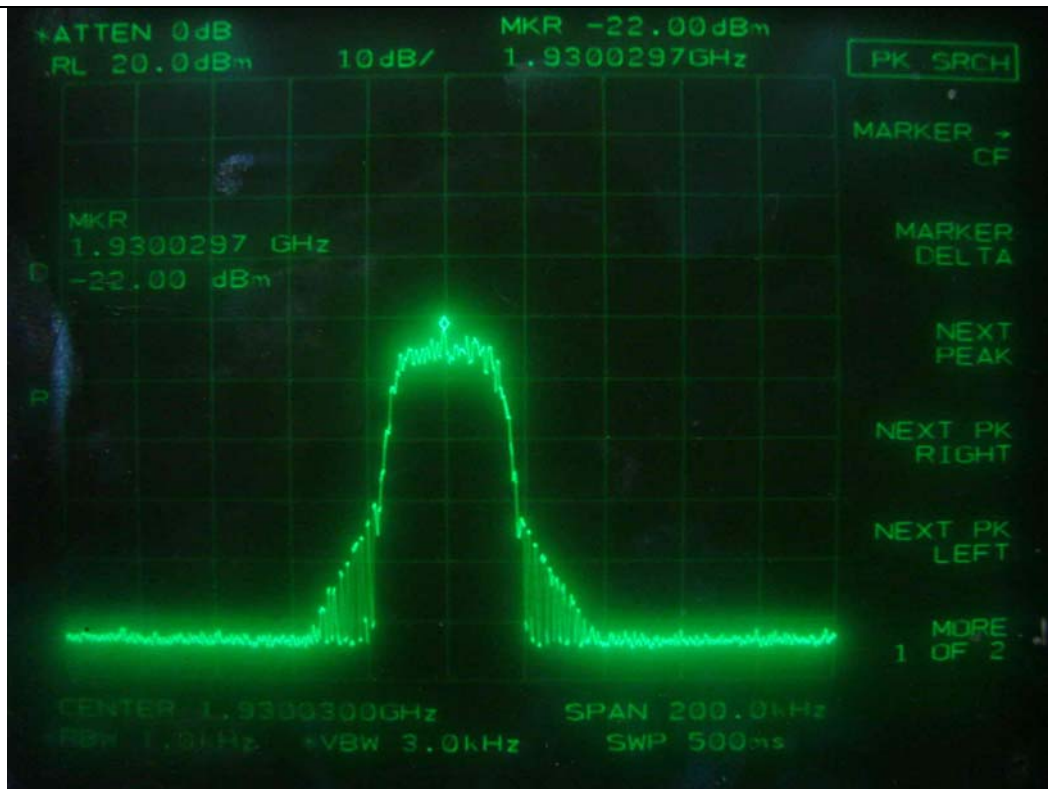


WCDMA – Occupied Bandwidth (Low Channel)

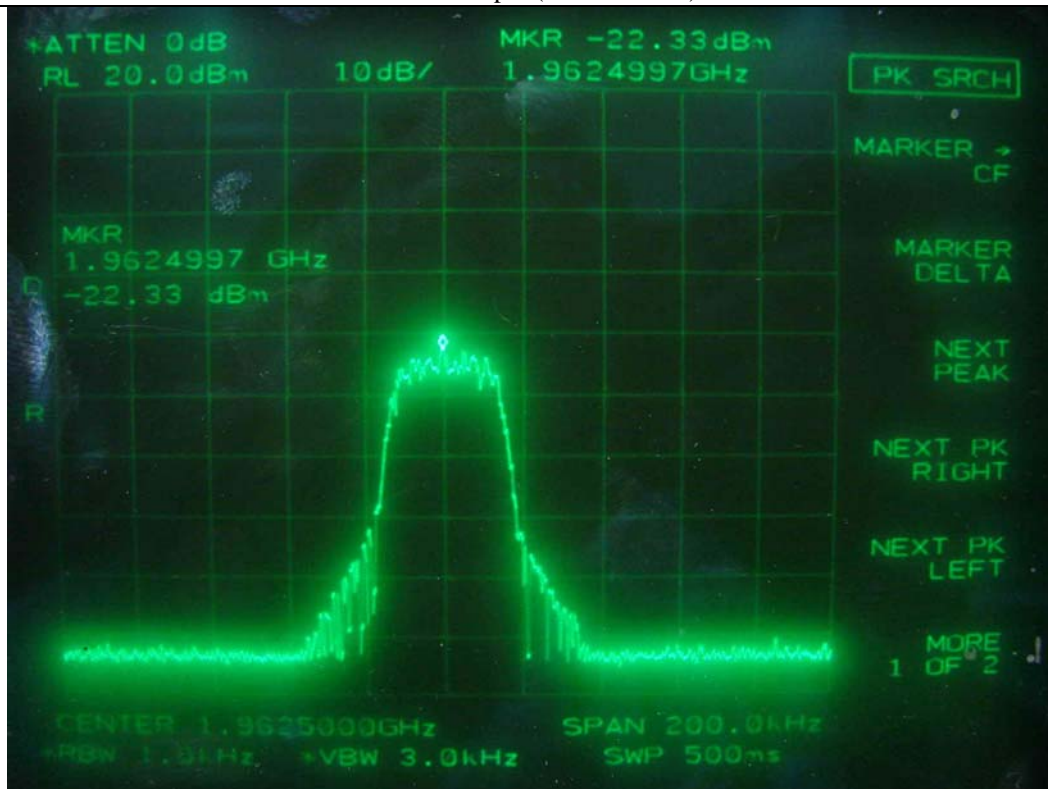


WCDMA – Occupied Bandwidth (Middle Channel)

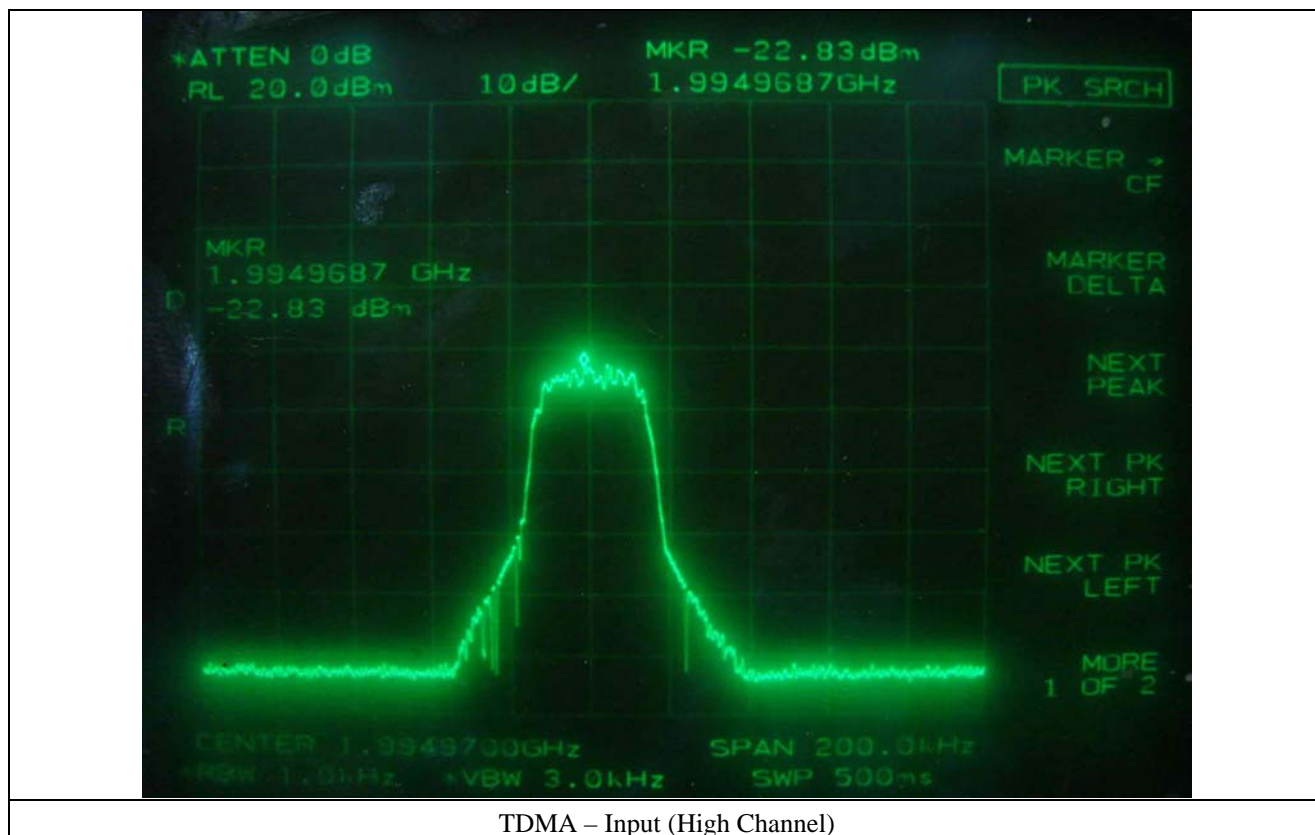


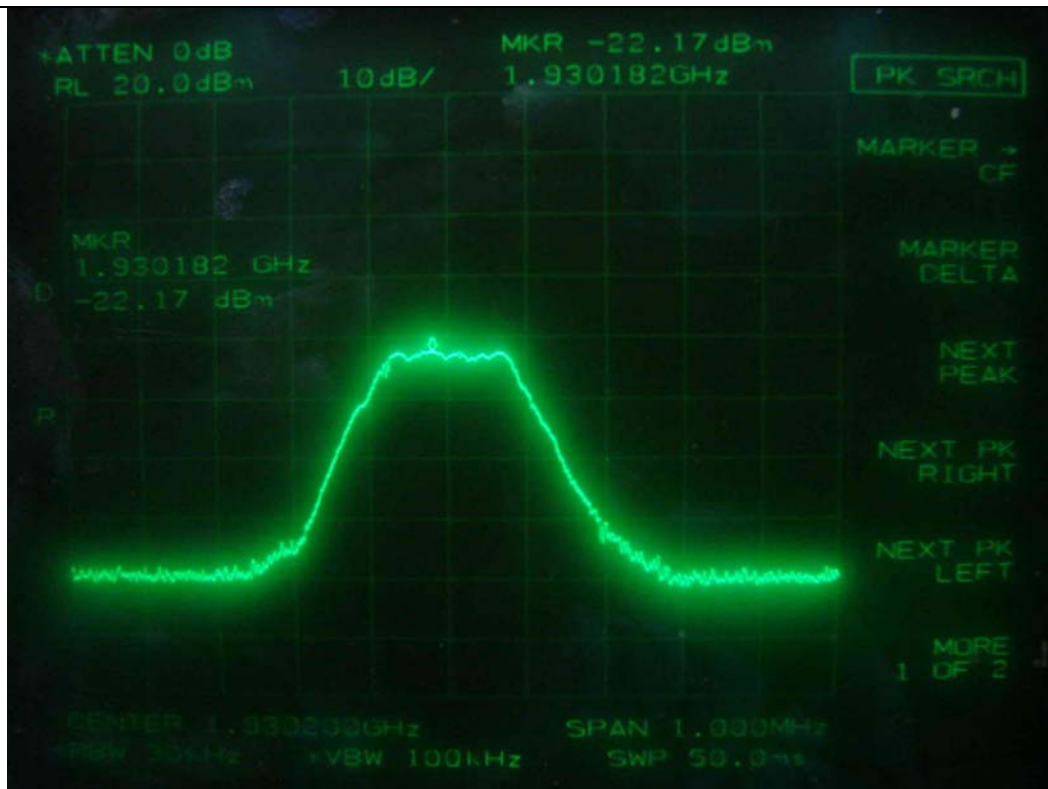


TDMA – Input (Low Channel)

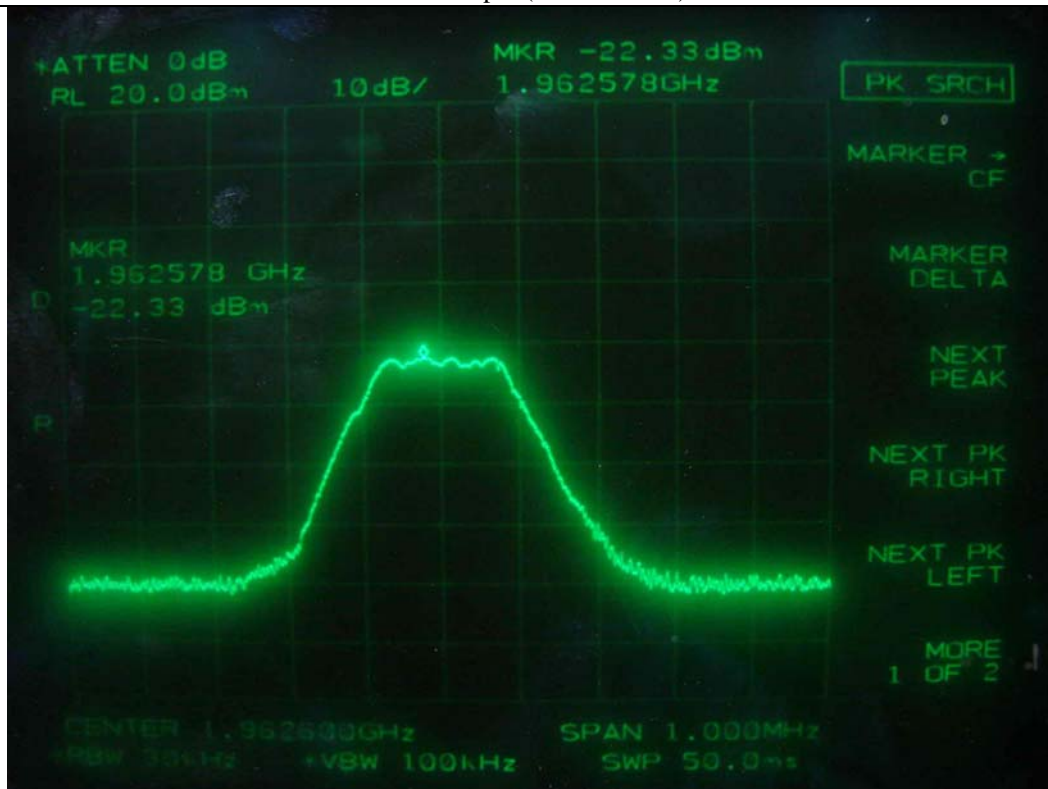


TDMA – Input (Middle Channel)

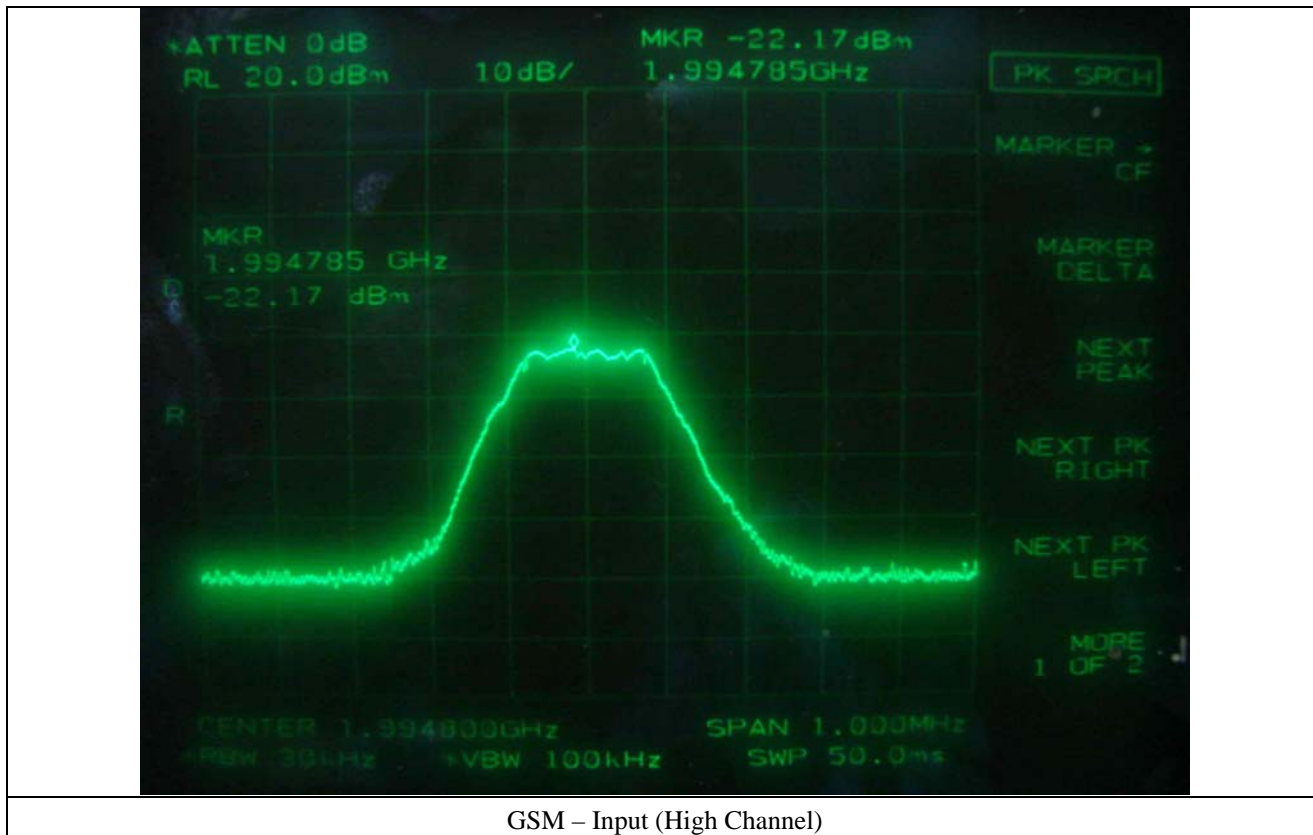


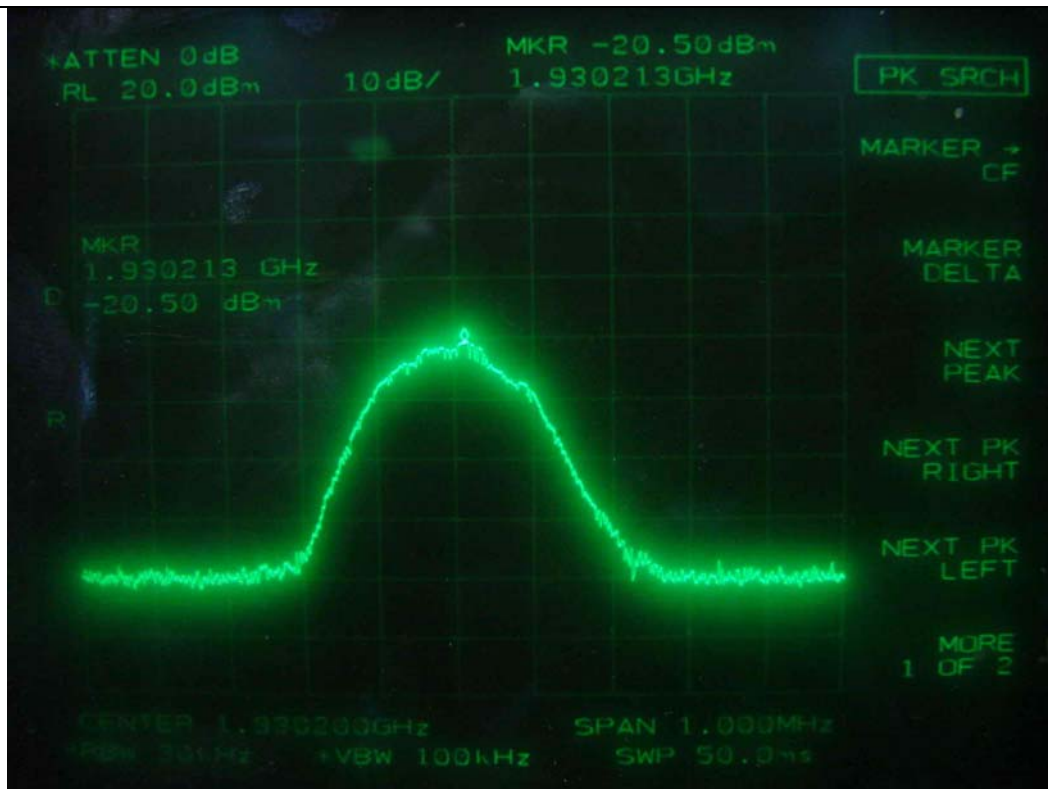


GSM – Input (Low Channel)

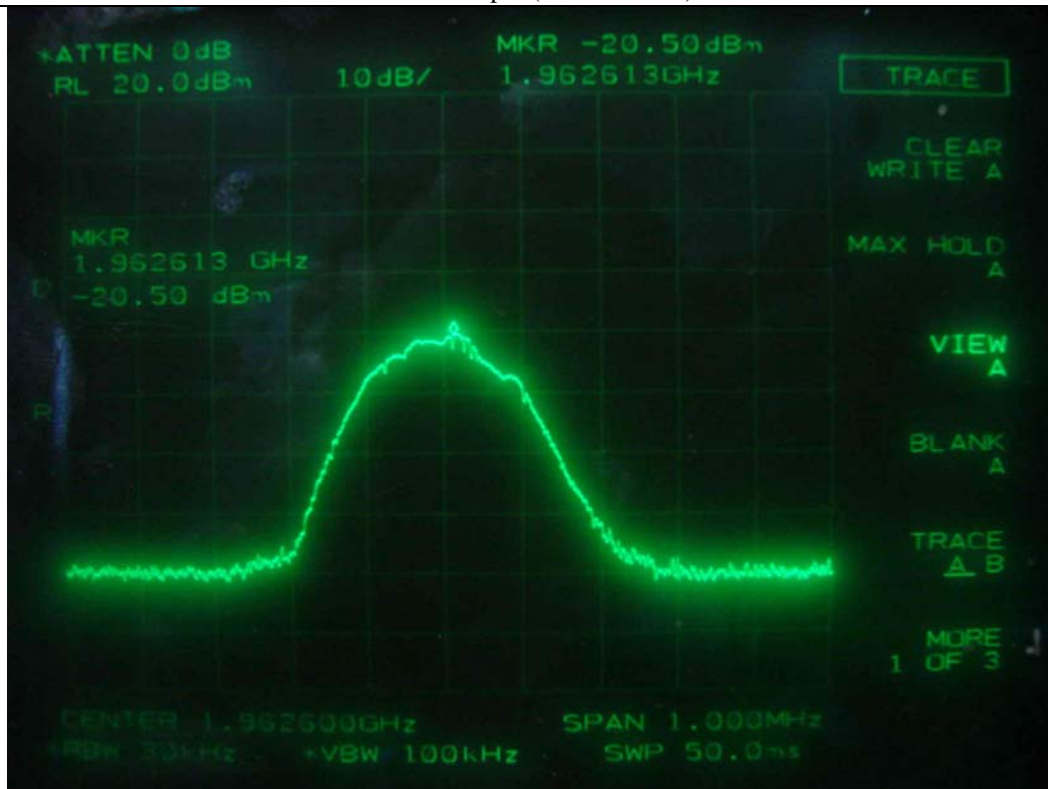


GSM – Input (Middle Channel)

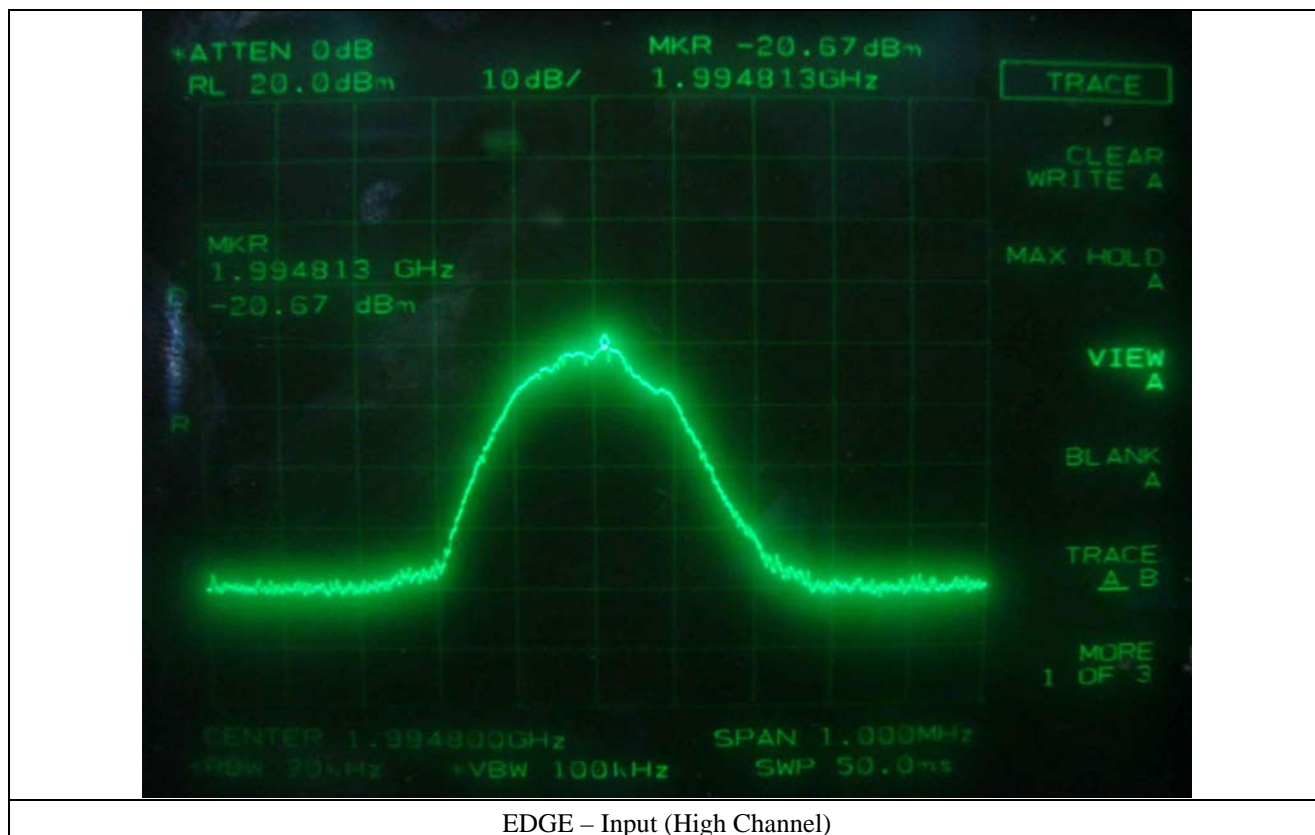


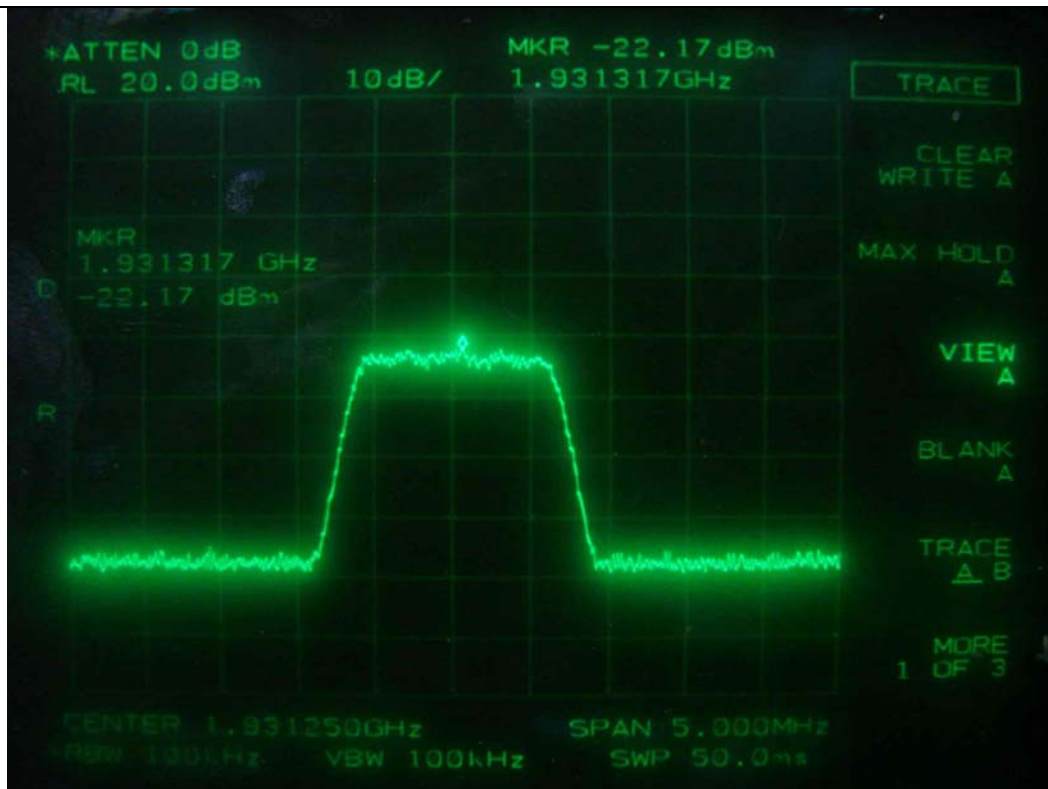


EDGE – Input (Low Channel)

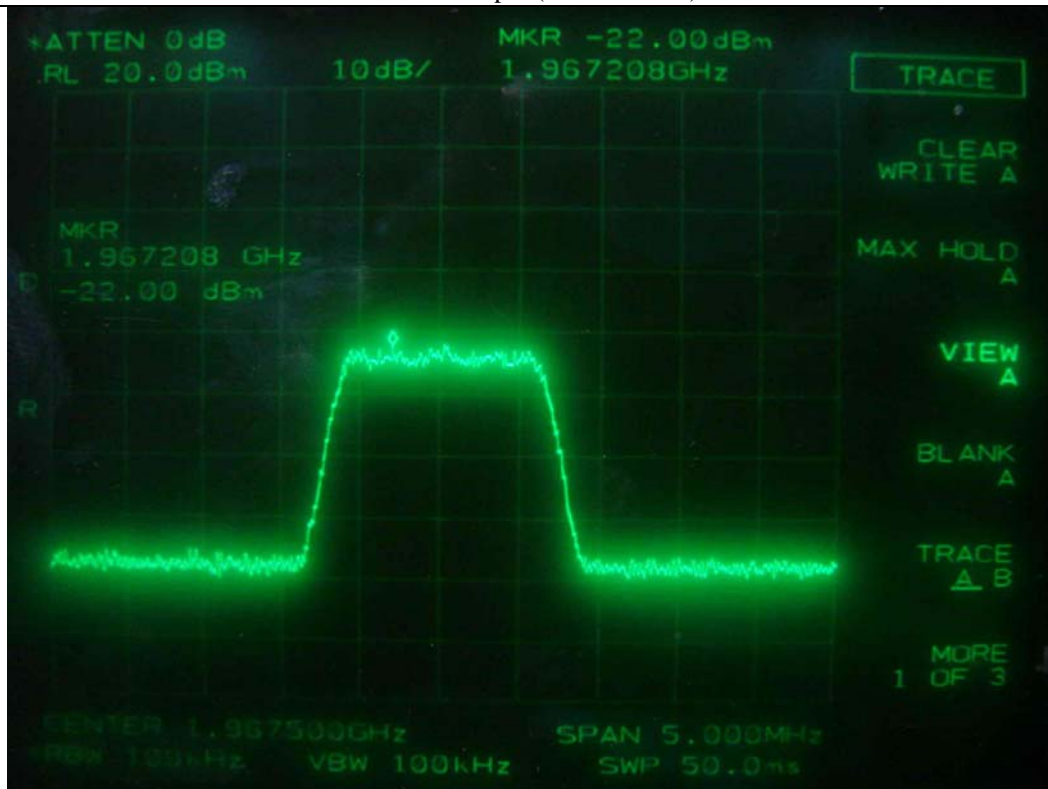


EDGE – Input (Middle Channel)

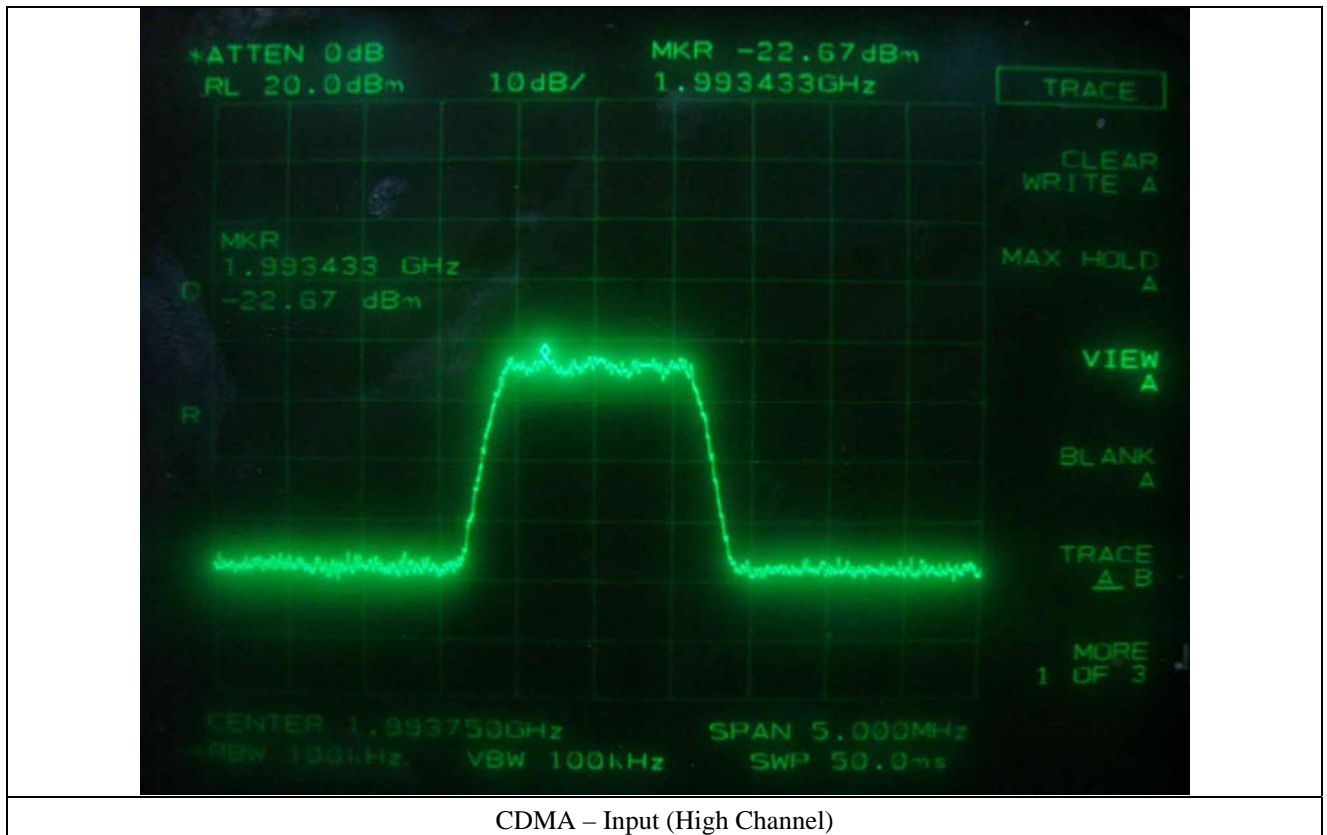


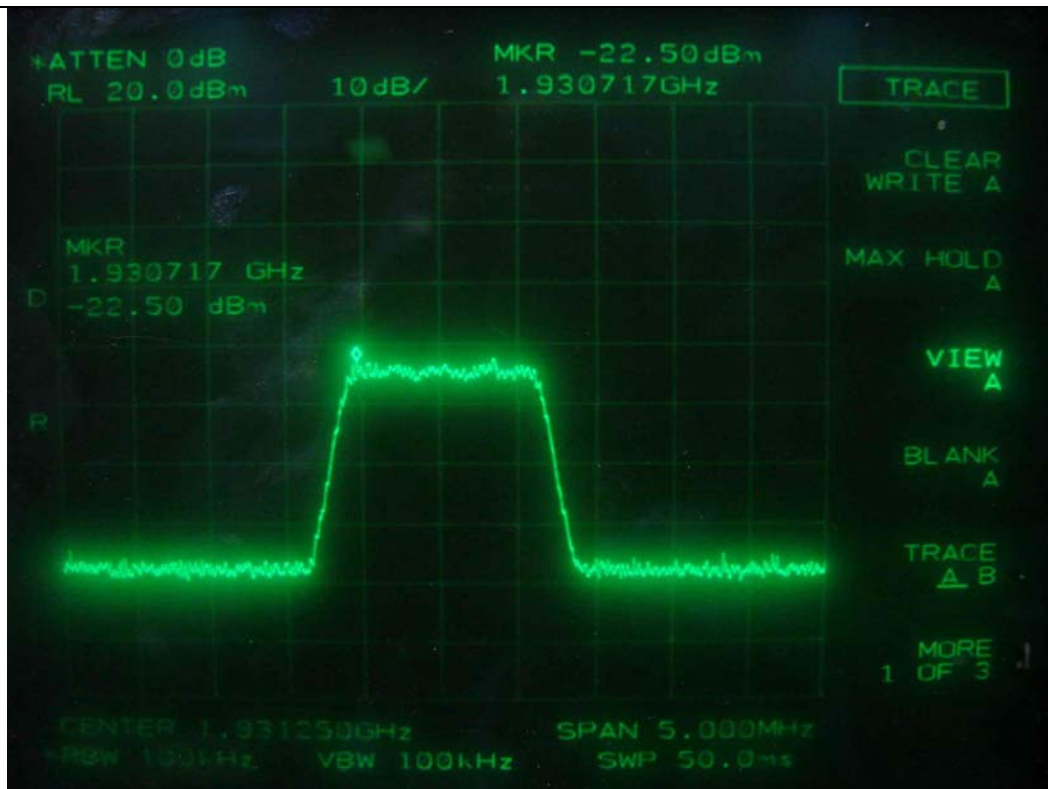


CDMA – Input (Low Channel)

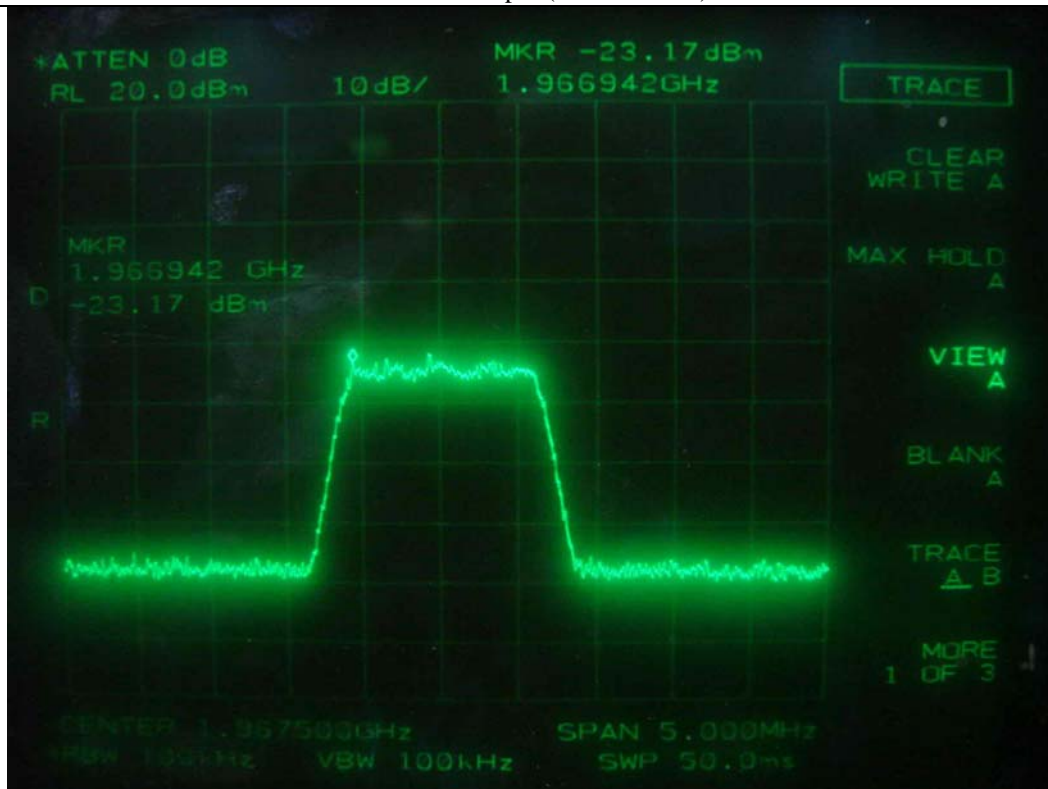


CDMA – Input (Middle Channel)

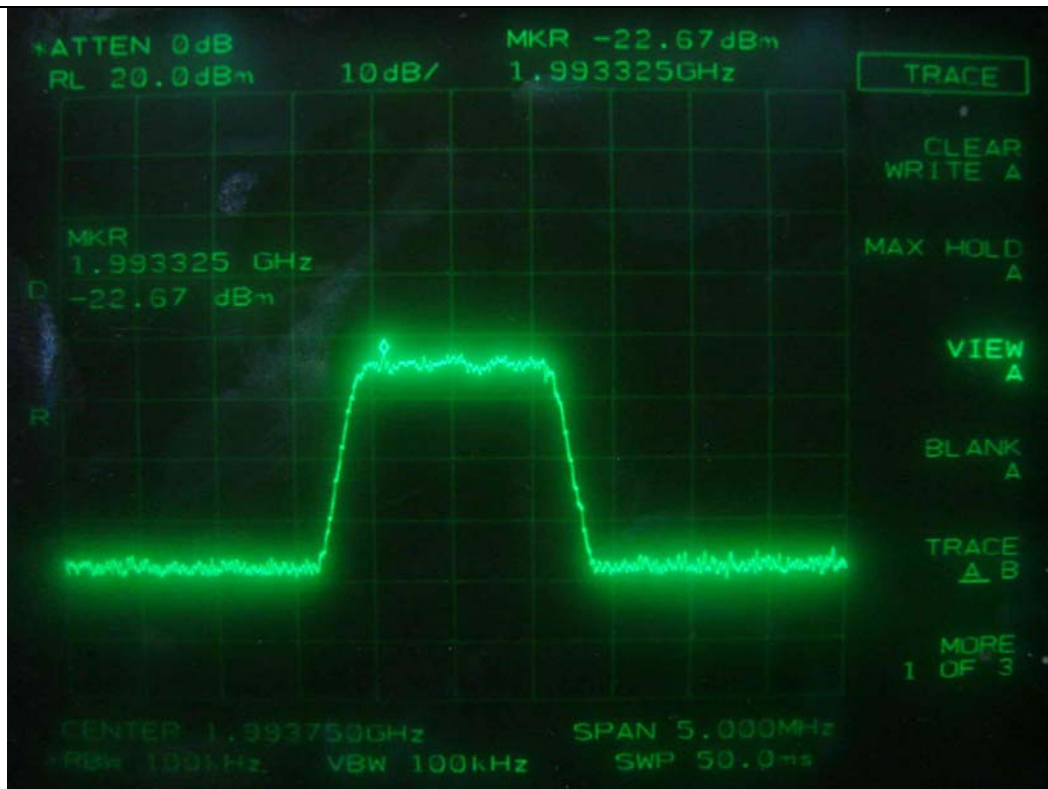




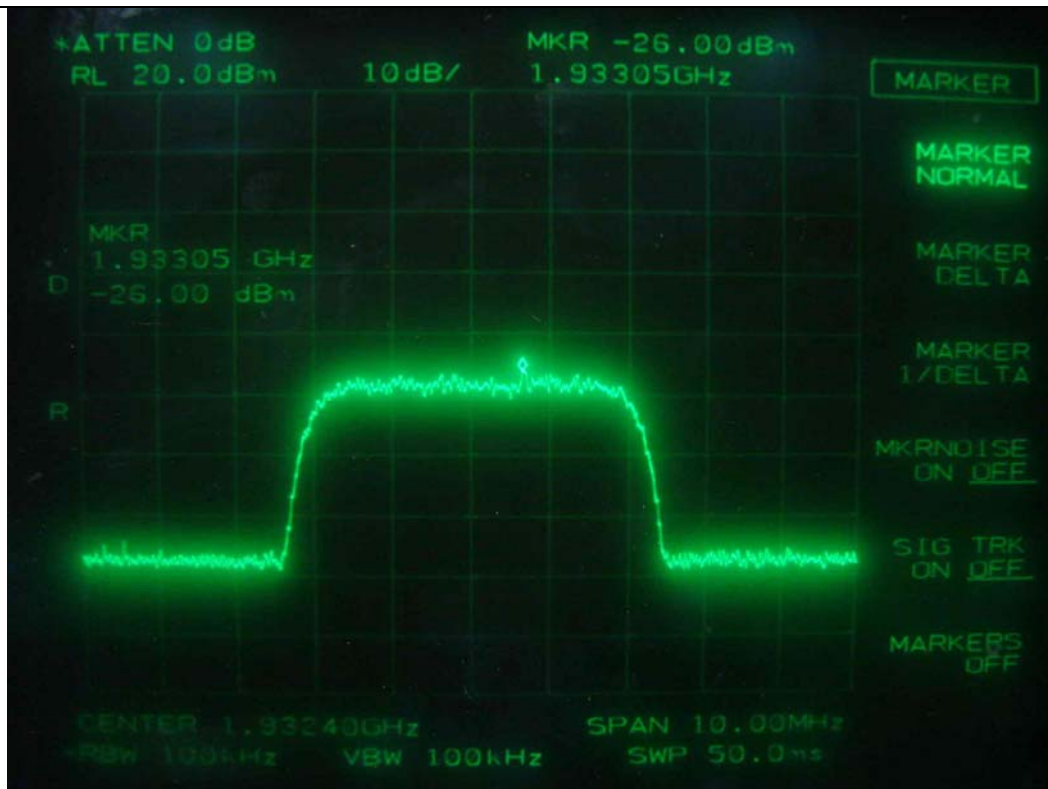
1xEVDO – Input (Low Channel)



1xEVDO – Input (Middle Channel)



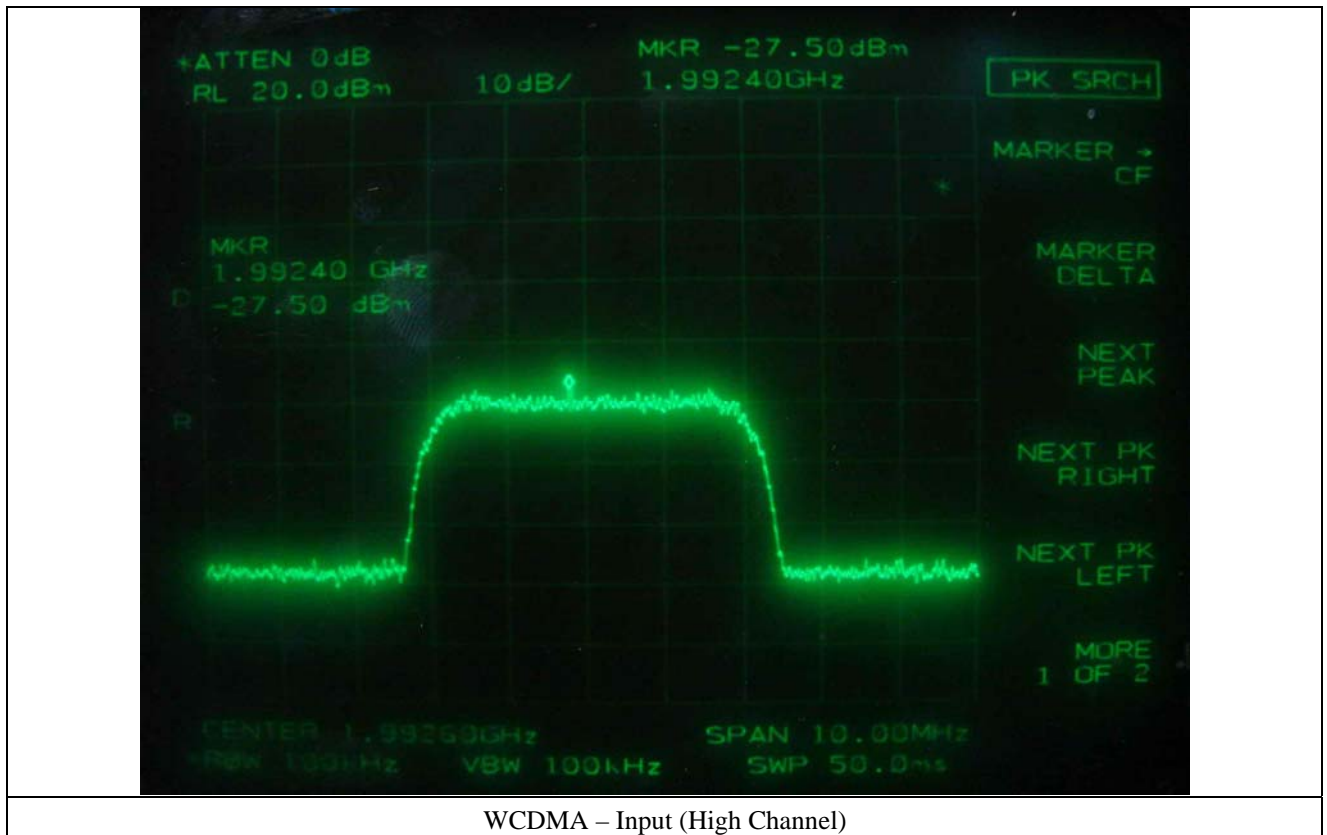
1xEVDO – Input (High Channel)



WCDMA – Input (Low Channel)



WCDMA – Input (Middle Channel)



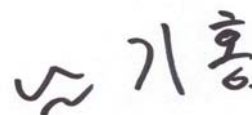
6.4.2 Test Result for Part 27

-. Test Date : February 25~26, 2008

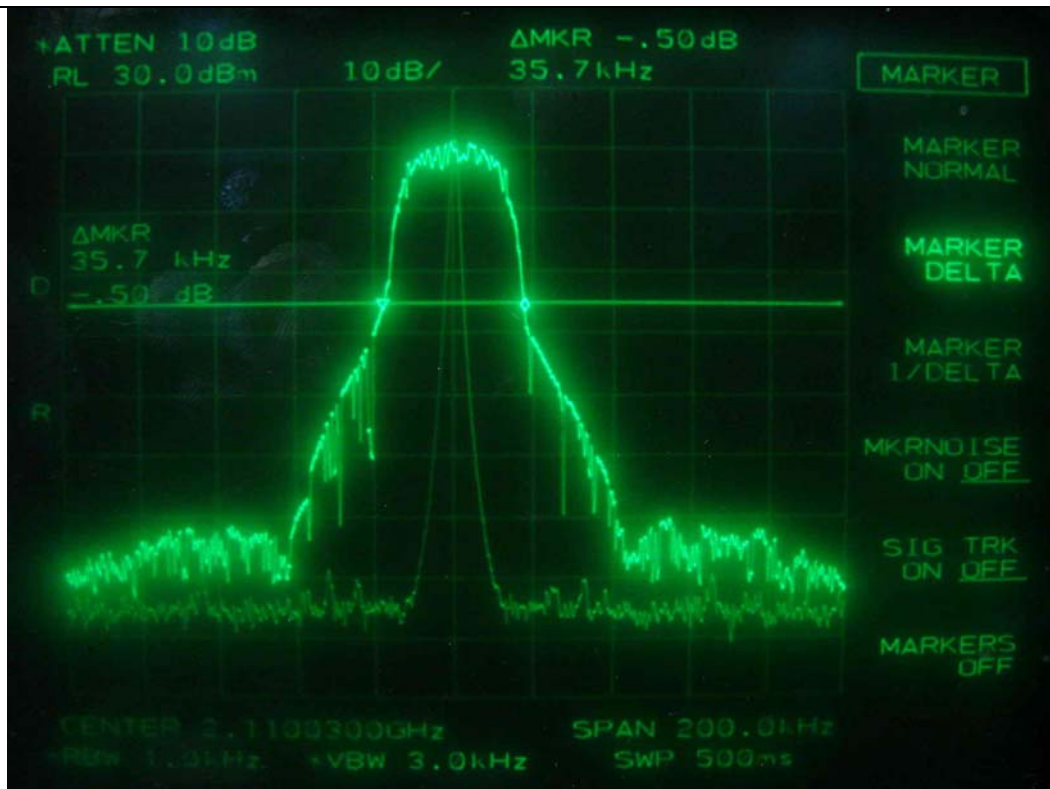
-. Test Result : Pass

Modulation	Channel	26 dB Bandwidth (kHz)	99 % Occupied Bandwidth (kHz)
TDMA	Low	35.7	29.33
	Middle	35.3	29.33
	High	35.3	29.33
GSM	Low	347	253.3
	Middle	348	253.3
	High	347	253.3
EDGE	Low	332	255
	Middle	332	253.3
	High	332	253.3
CDMA	Low	1 592	1 358
	Middle	1 592	1 342
	High	1 592	1 350
1xEVDO	Low	1 567	1 317
	Middle	1 575	1 333
	High	1 575	1 333
WCDMA	Low	4 730	4 200
	Middle	4 720	4 200
	High	4 720	4 183

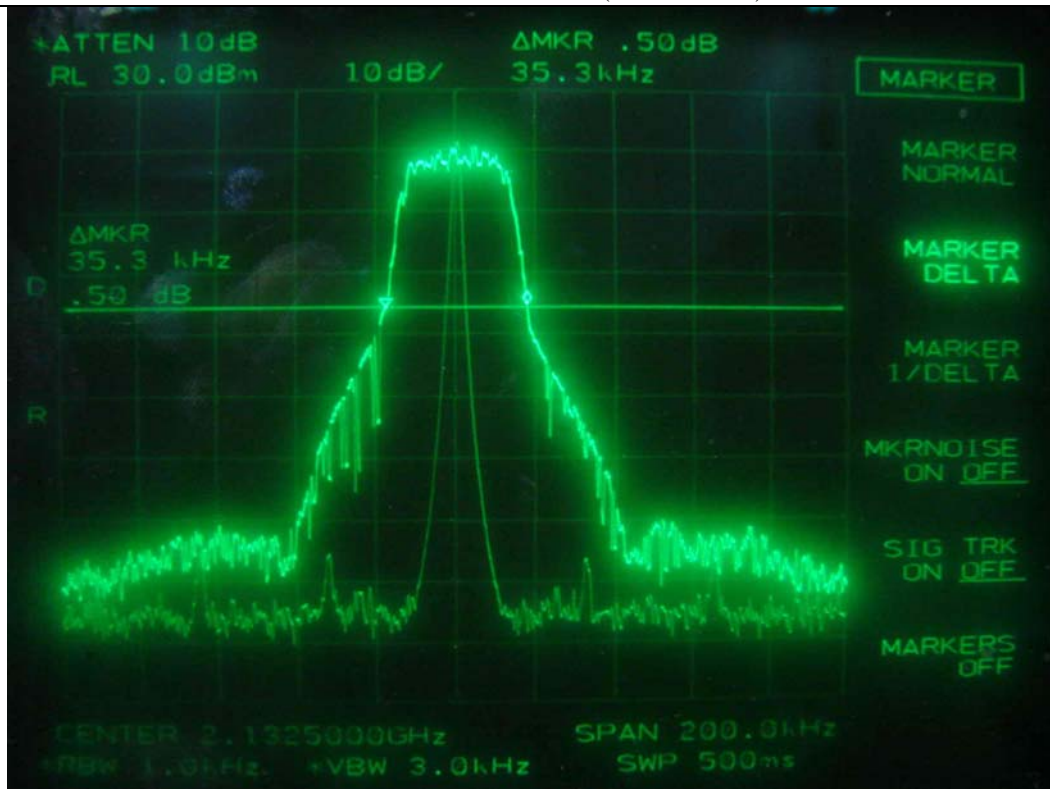
Remark: According to above result, the carrier frequency shall be within the frequency block edges.



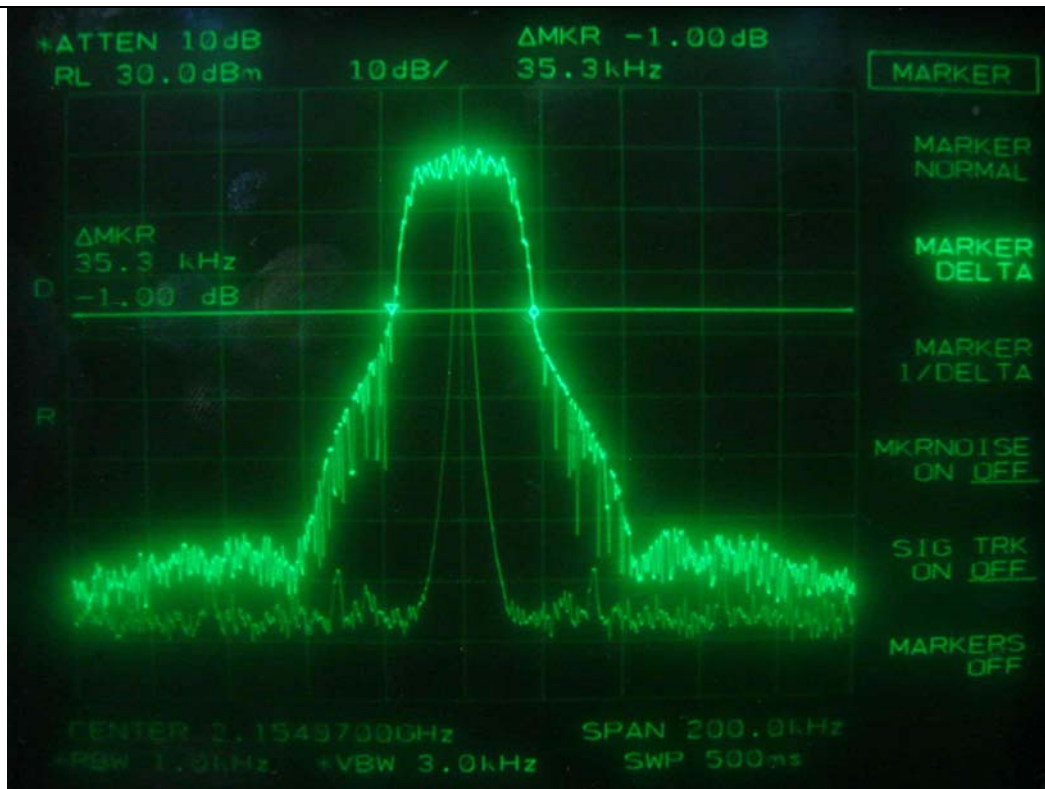
Tested by: Ki-Hong, Nam / Project Engineer



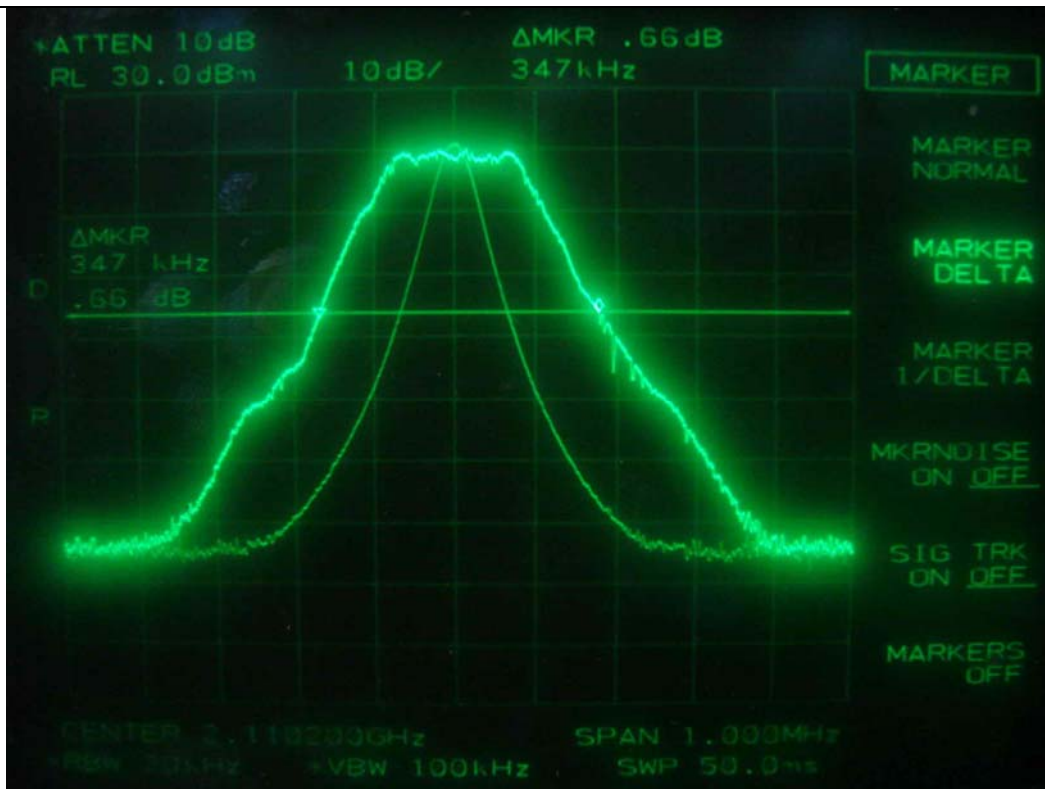
TDMA – 26 dB Bandwidth (Low Channel)



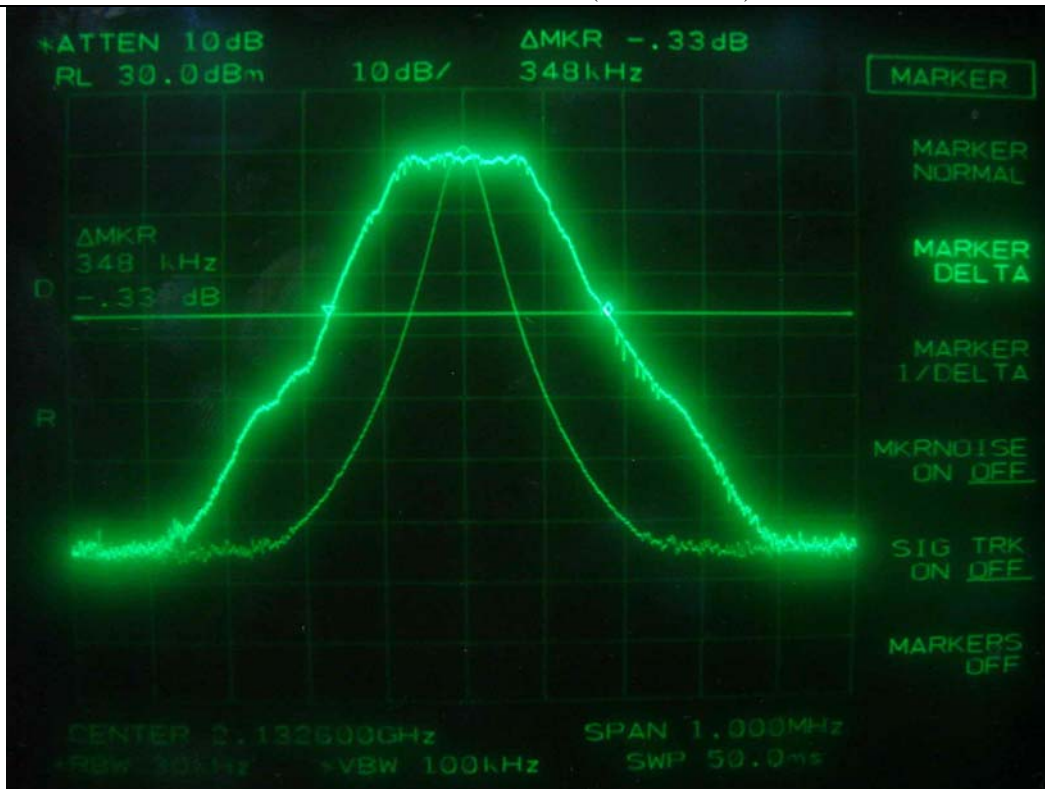
TDMA – 26 dB Bandwidth (Middle Channel)



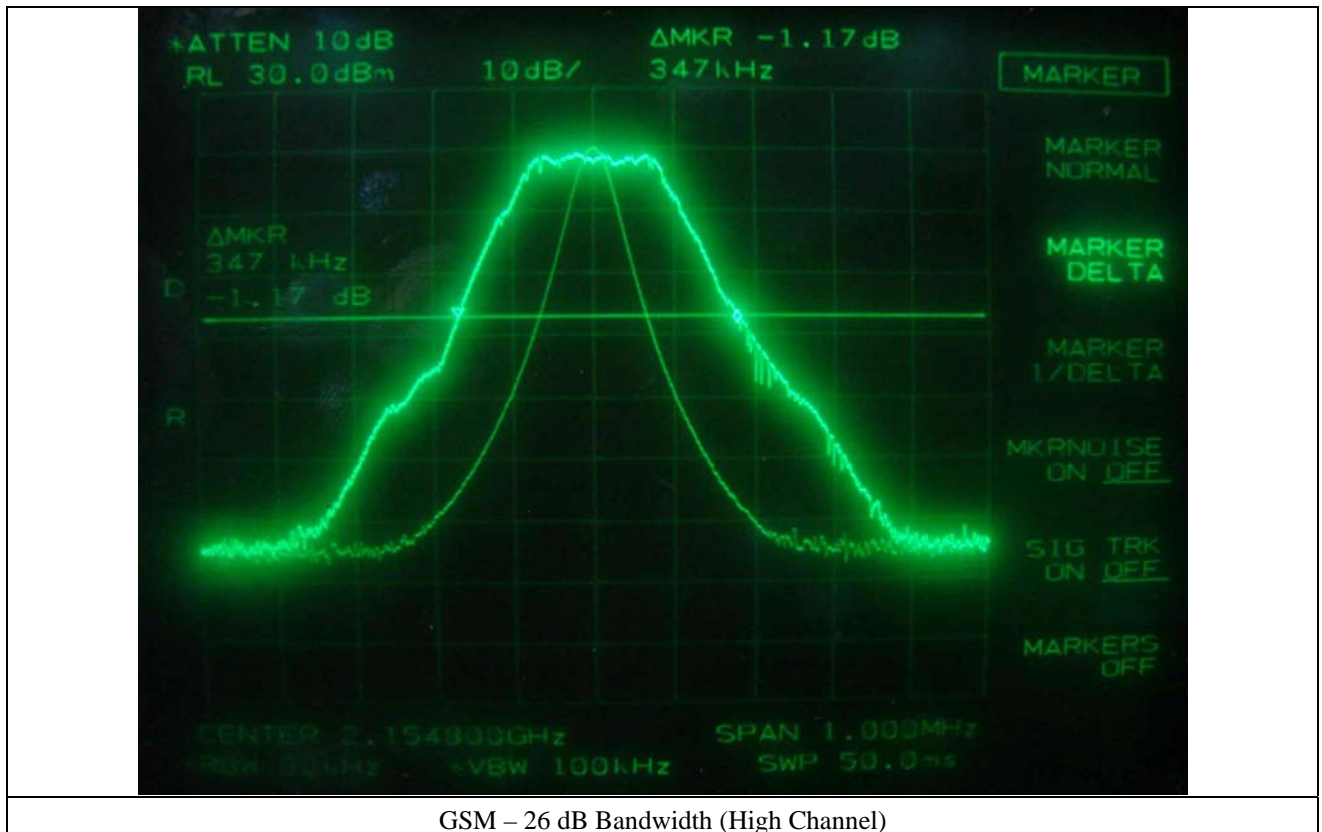
TDMA – 26 dB Bandwidth (High Channel)

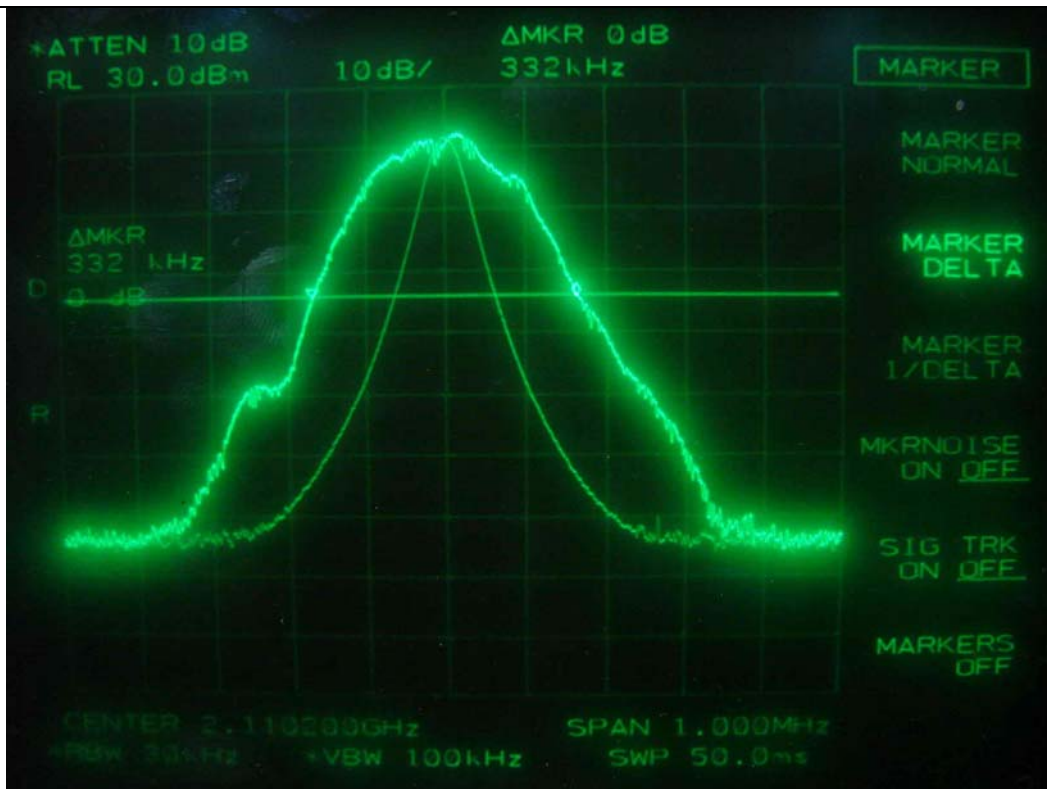


GSM – 26 dB Bandwidth (Low Channel)

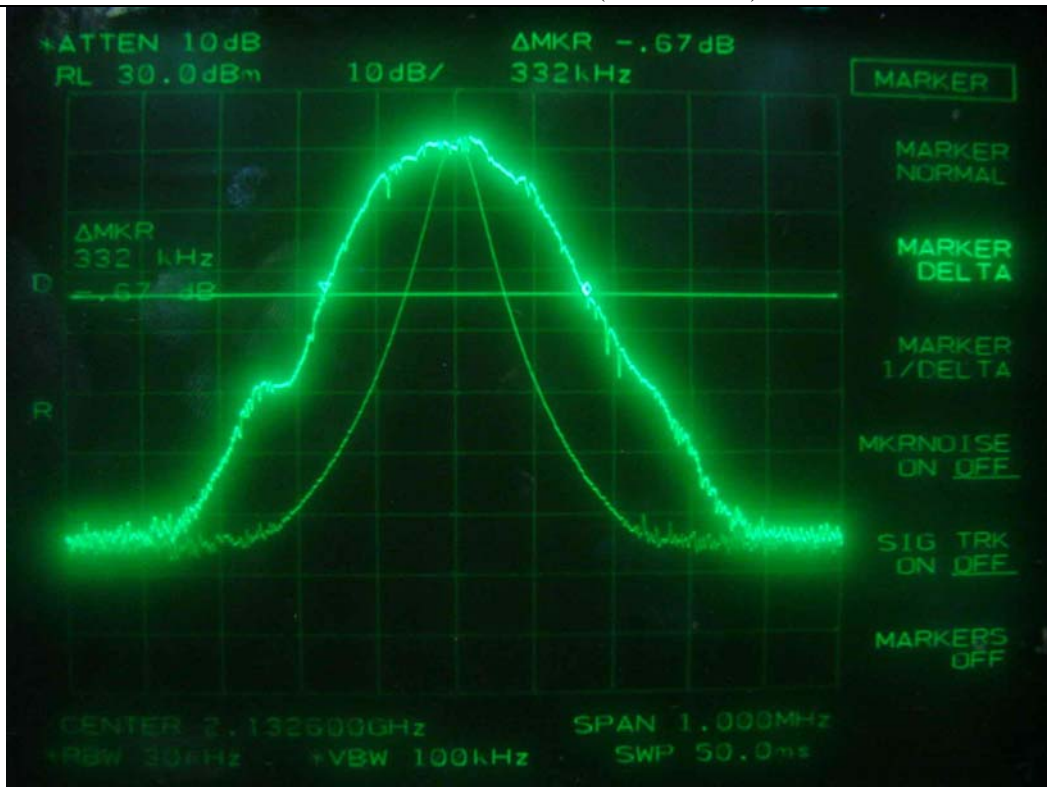


GSM – 26 dB Bandwidth (Middle Channel)

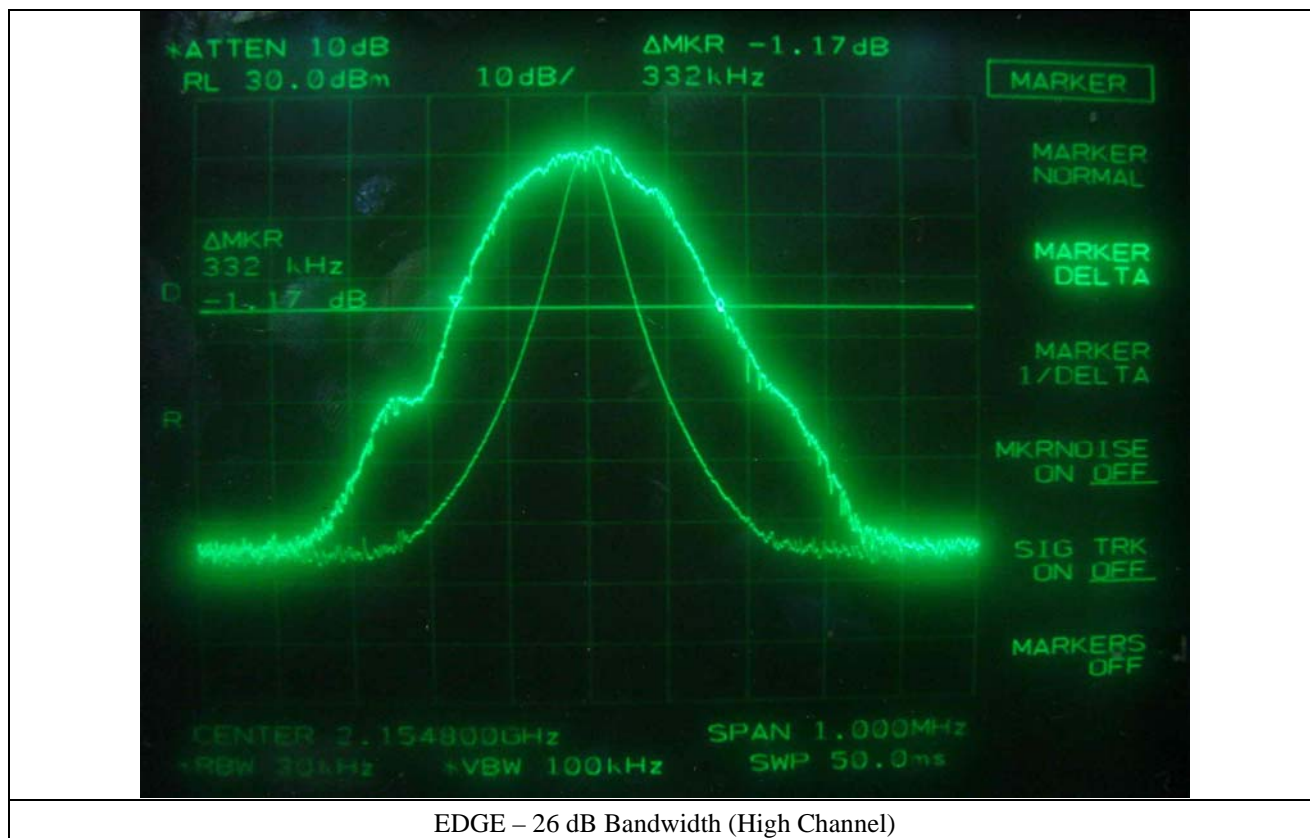


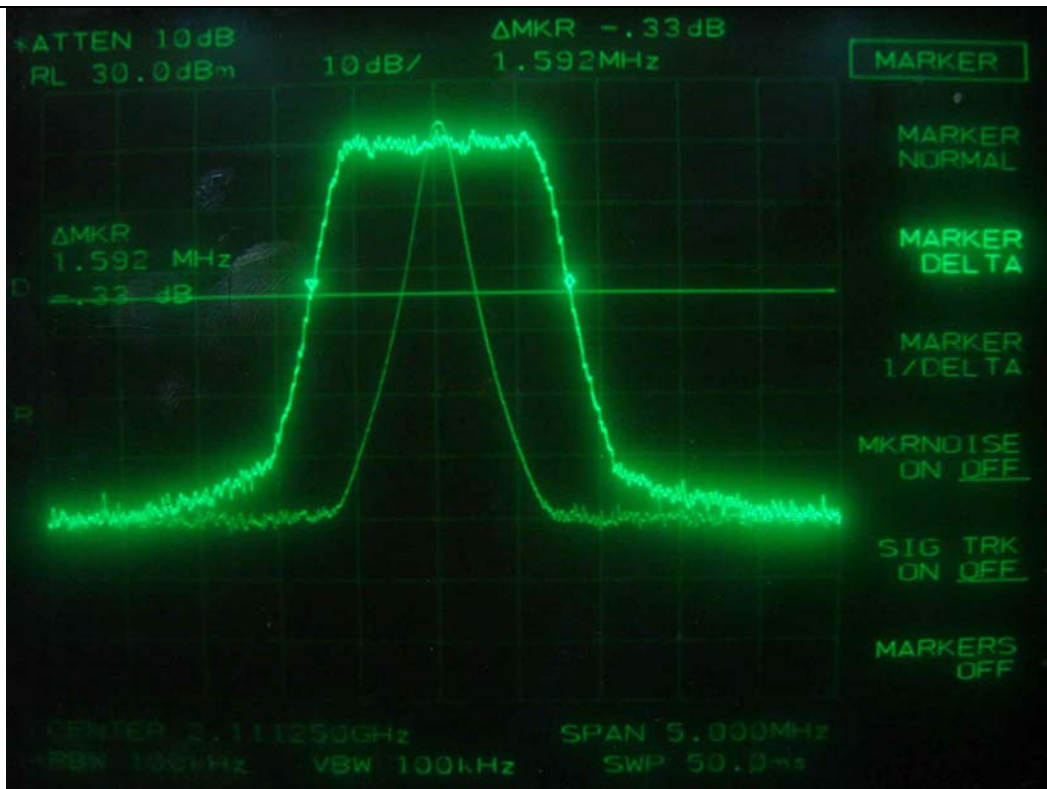


EDGE – 26 dB Bandwidth (Low Channel)

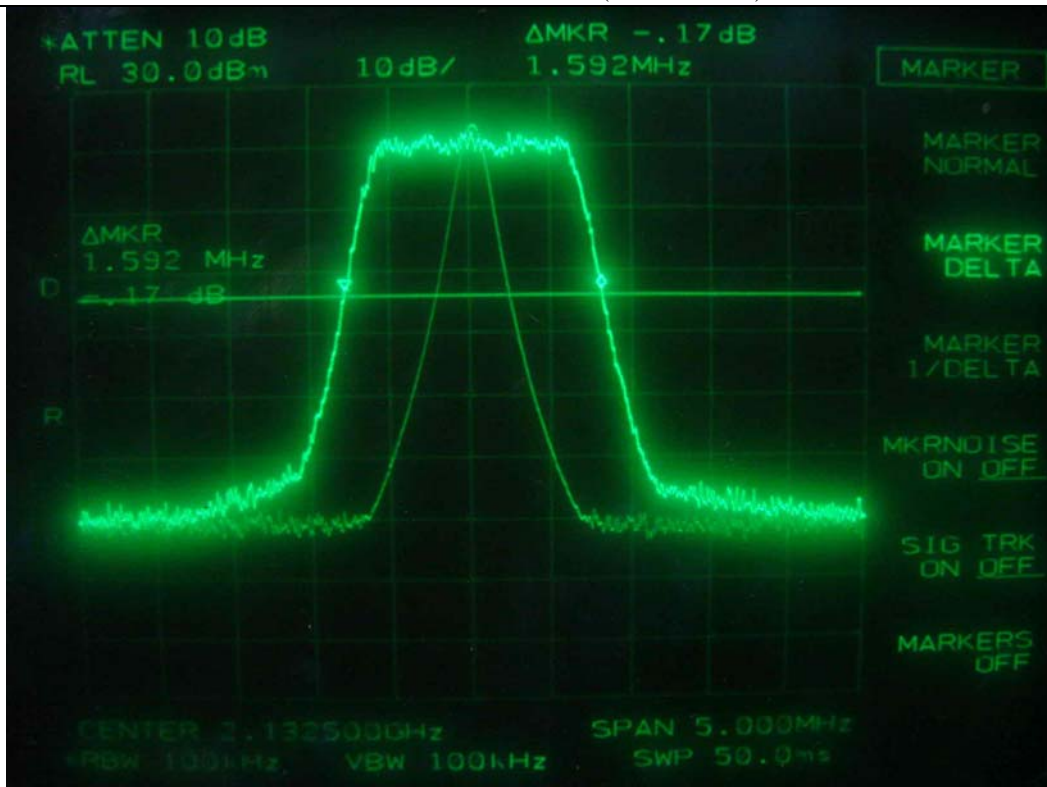


EDGE – 26 dB Bandwidth (Middle Channel)

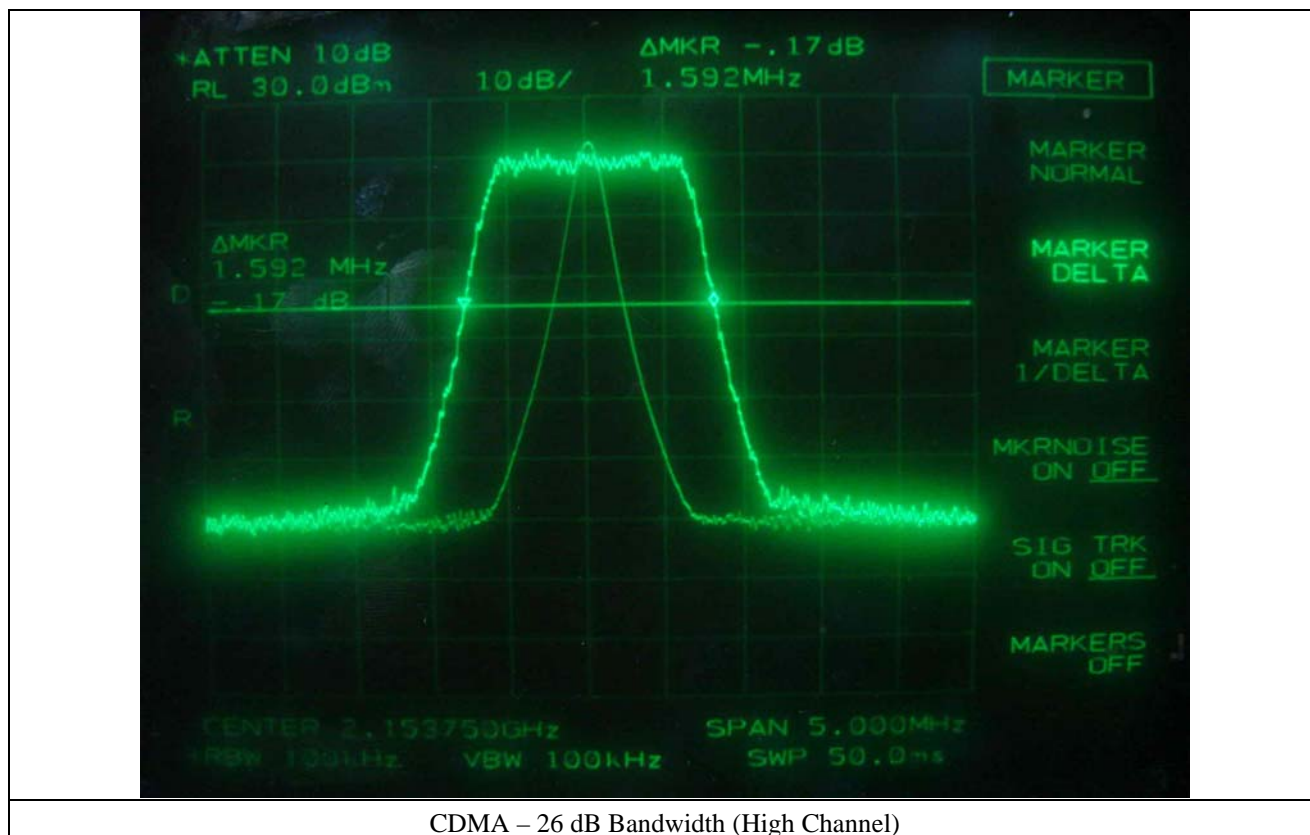


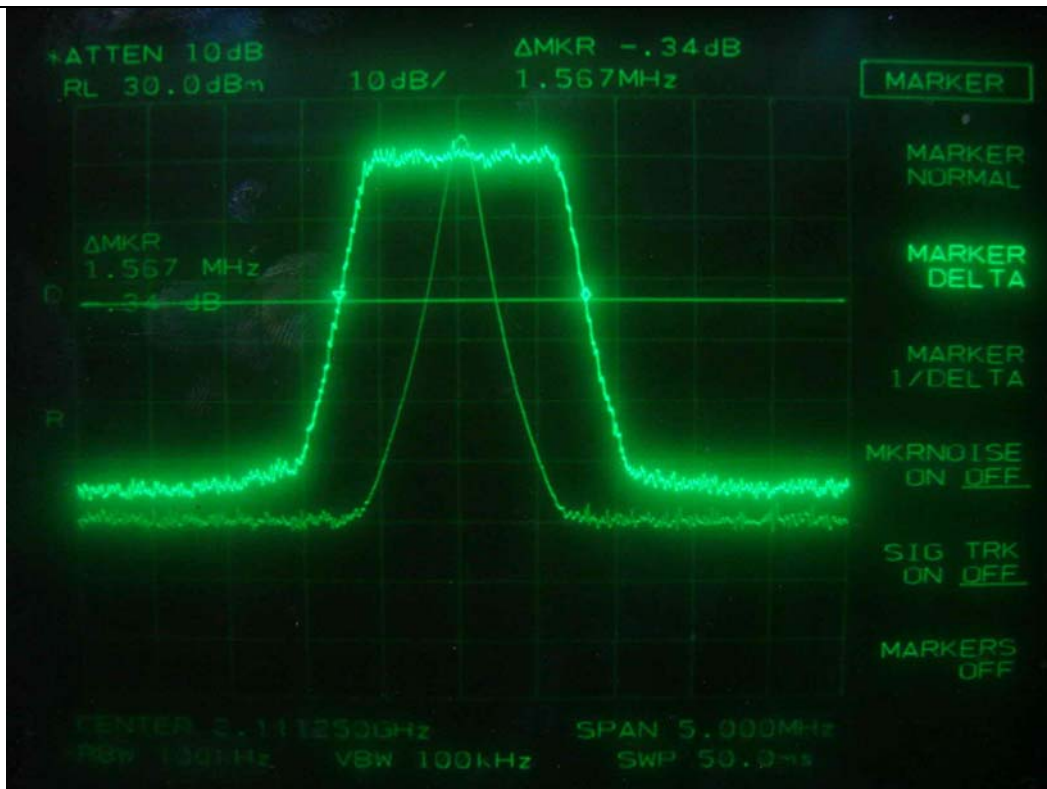


CDMA – 26 dB Bandwidth (Low Channel)

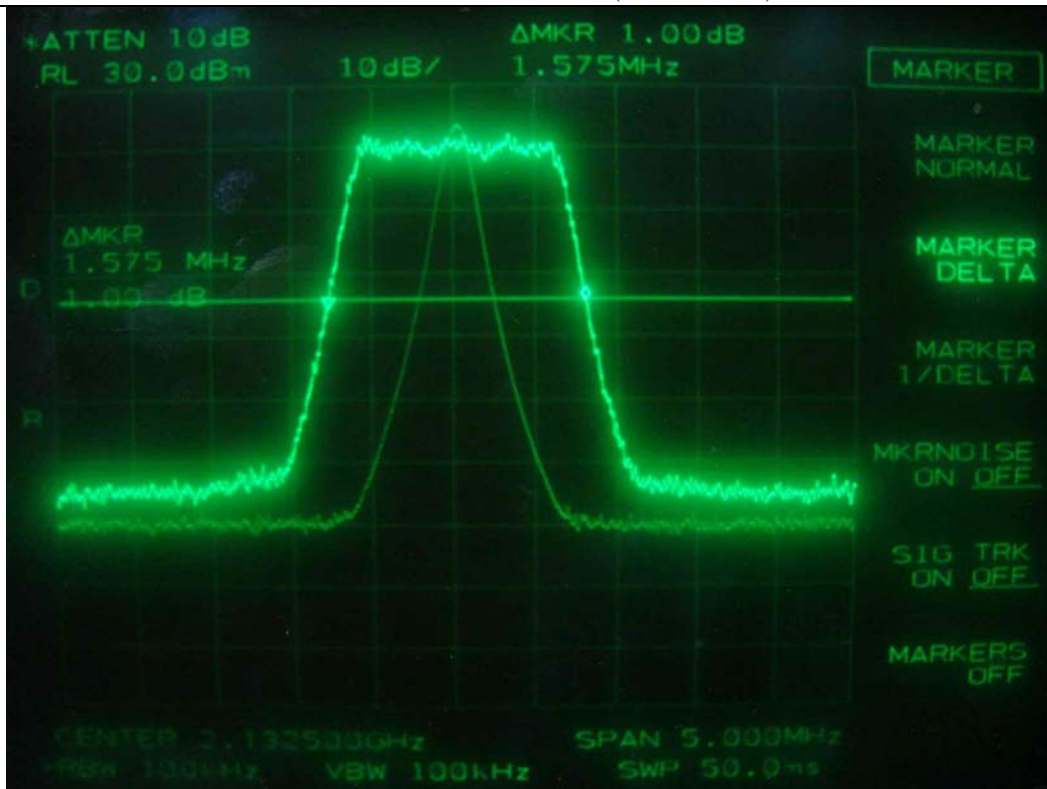


CDMA – 26 dB Bandwidth (Middle Channel)

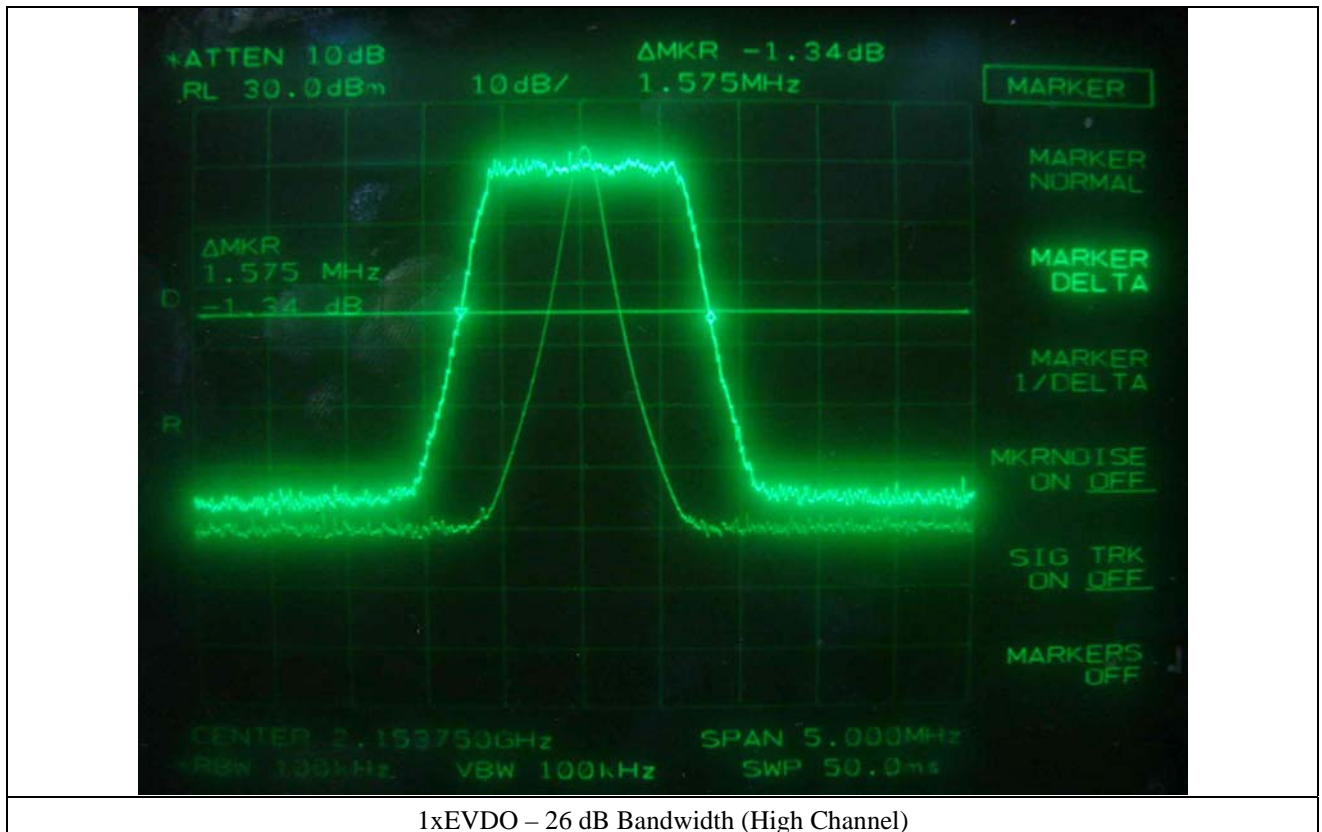


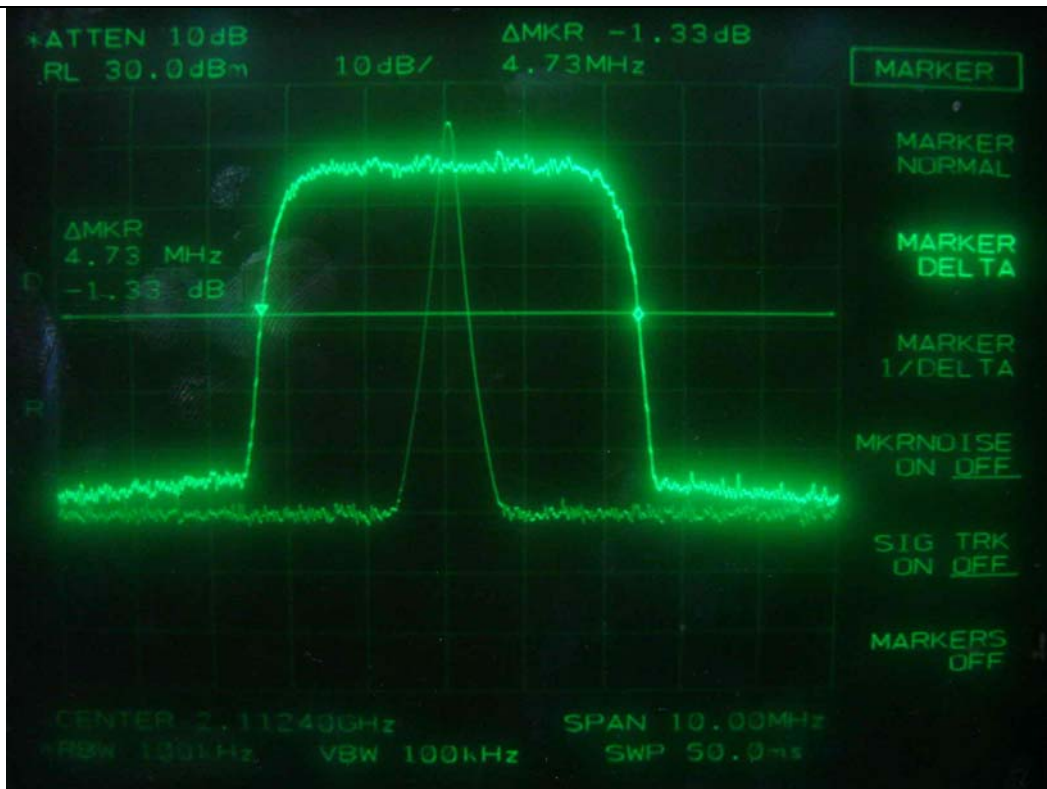


1xEVDO – 26 dB Bandwidth (Low Channel)

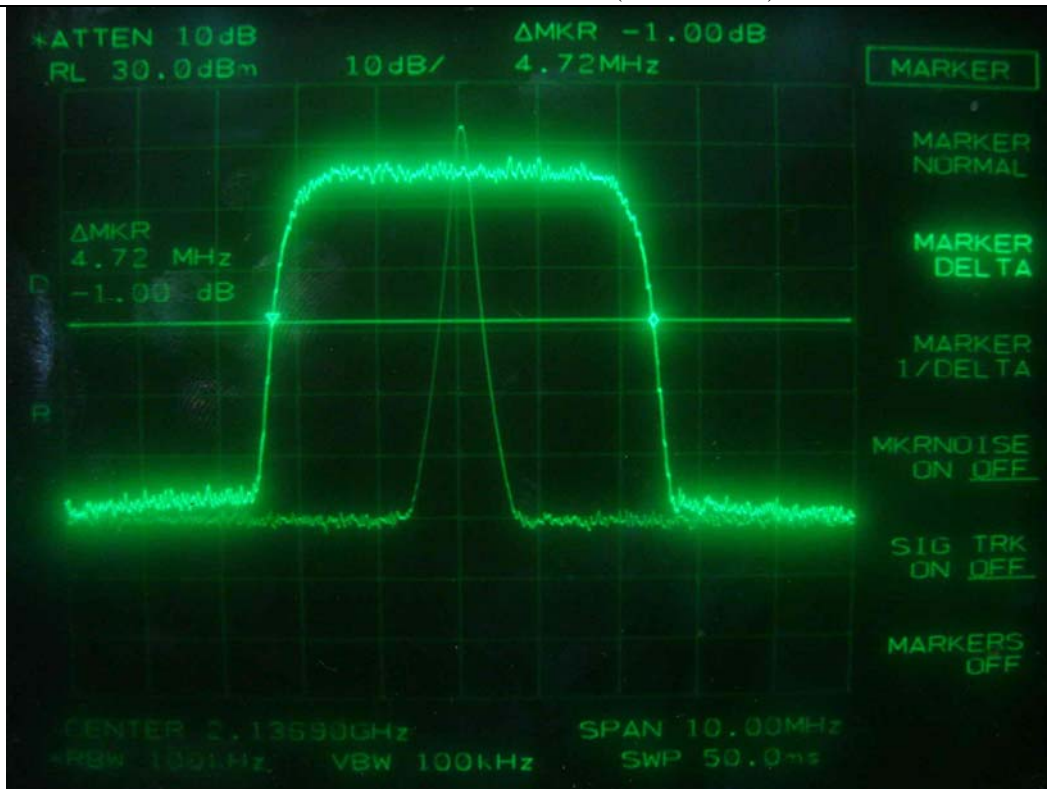


1xEVDO – 26 dB Bandwidth (Middle Channel)

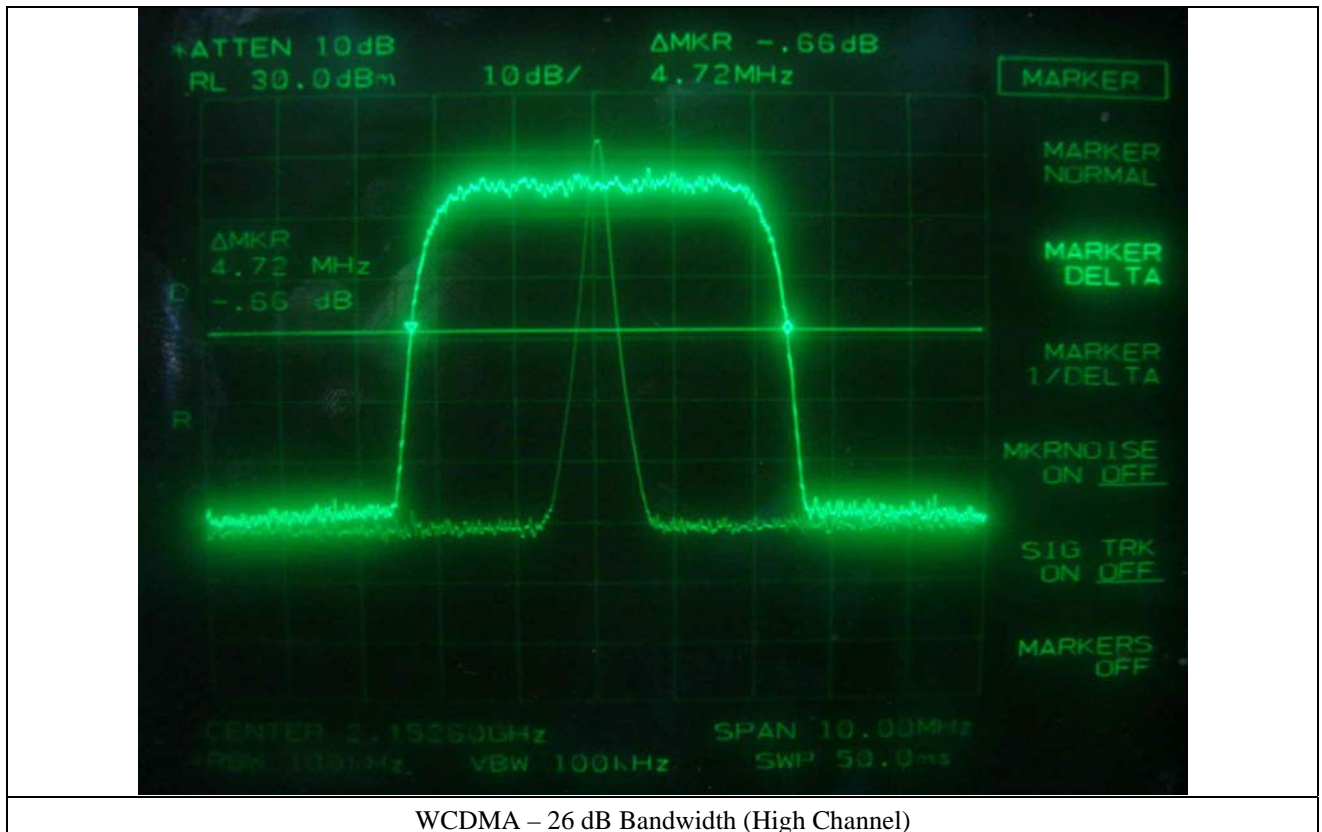


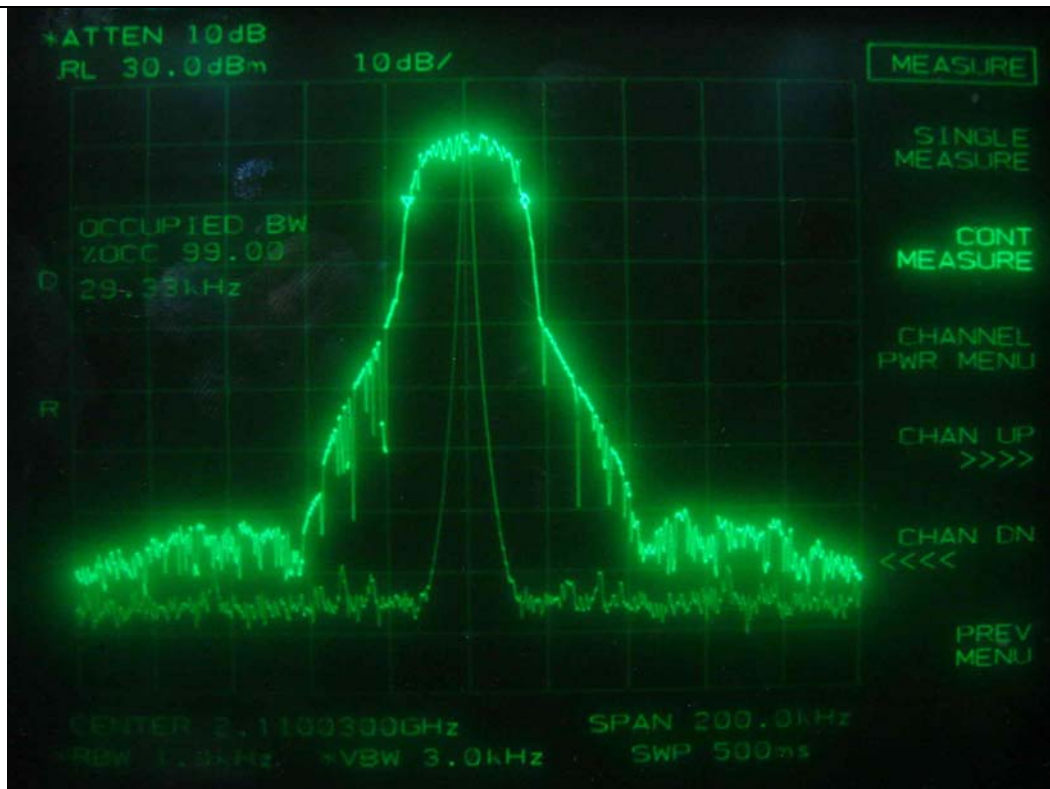


WCDMA – 26 dB Bandwidth (Low Channel)

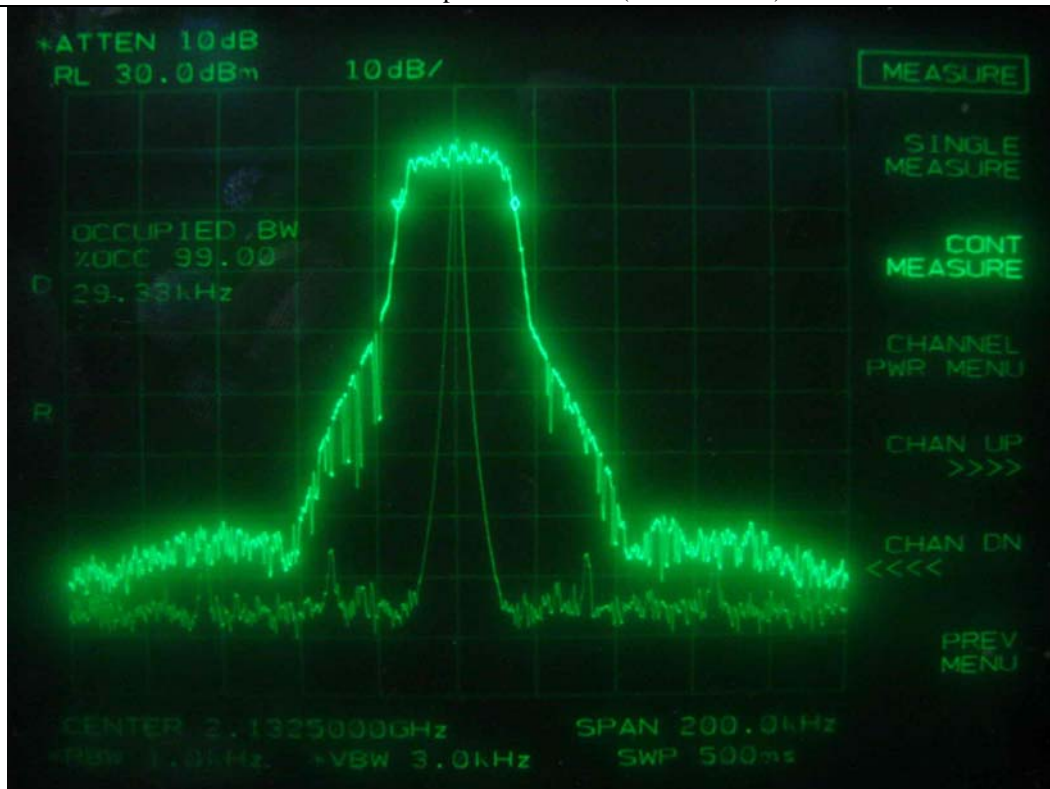


WCDMA – 26 dB Bandwidth (Middle Channel)

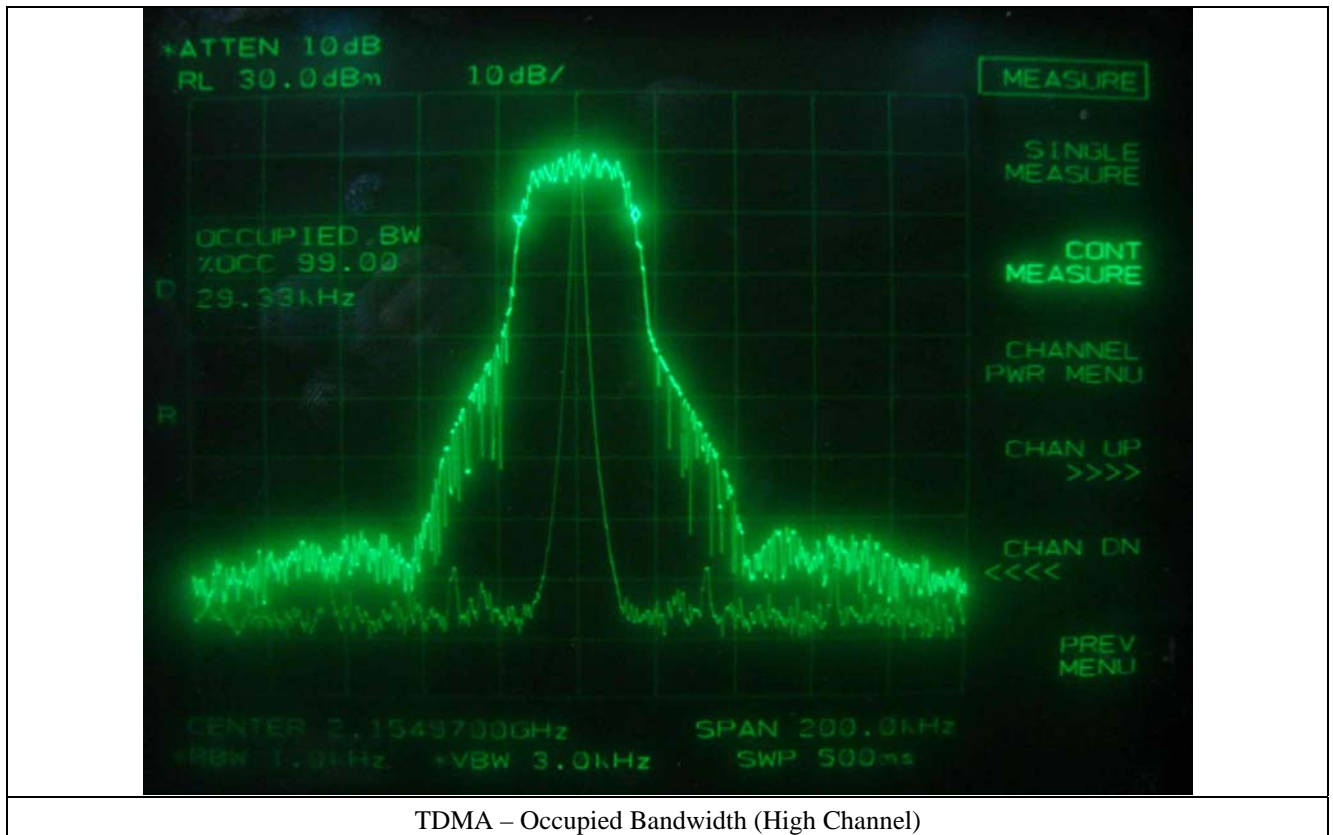


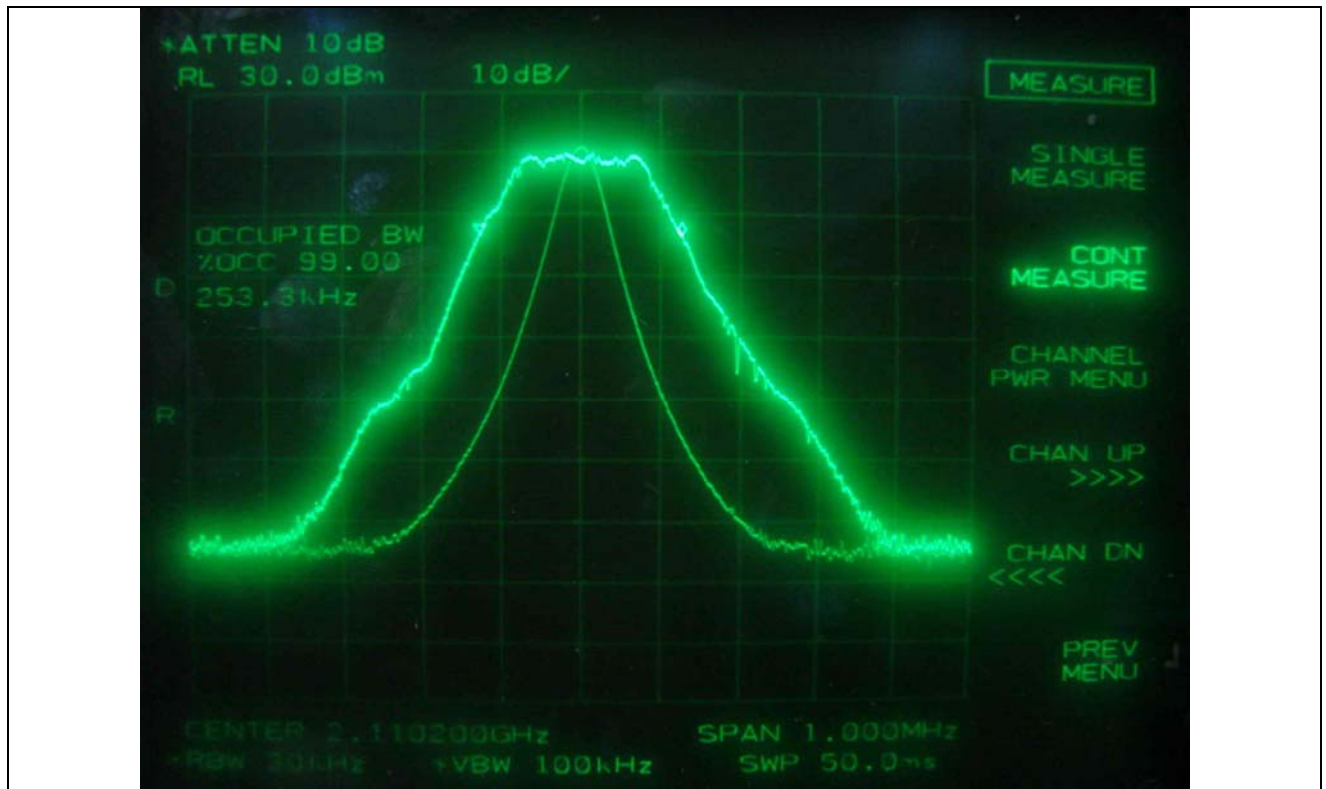


TDMA – Occupied Bandwidth (Low Channel)

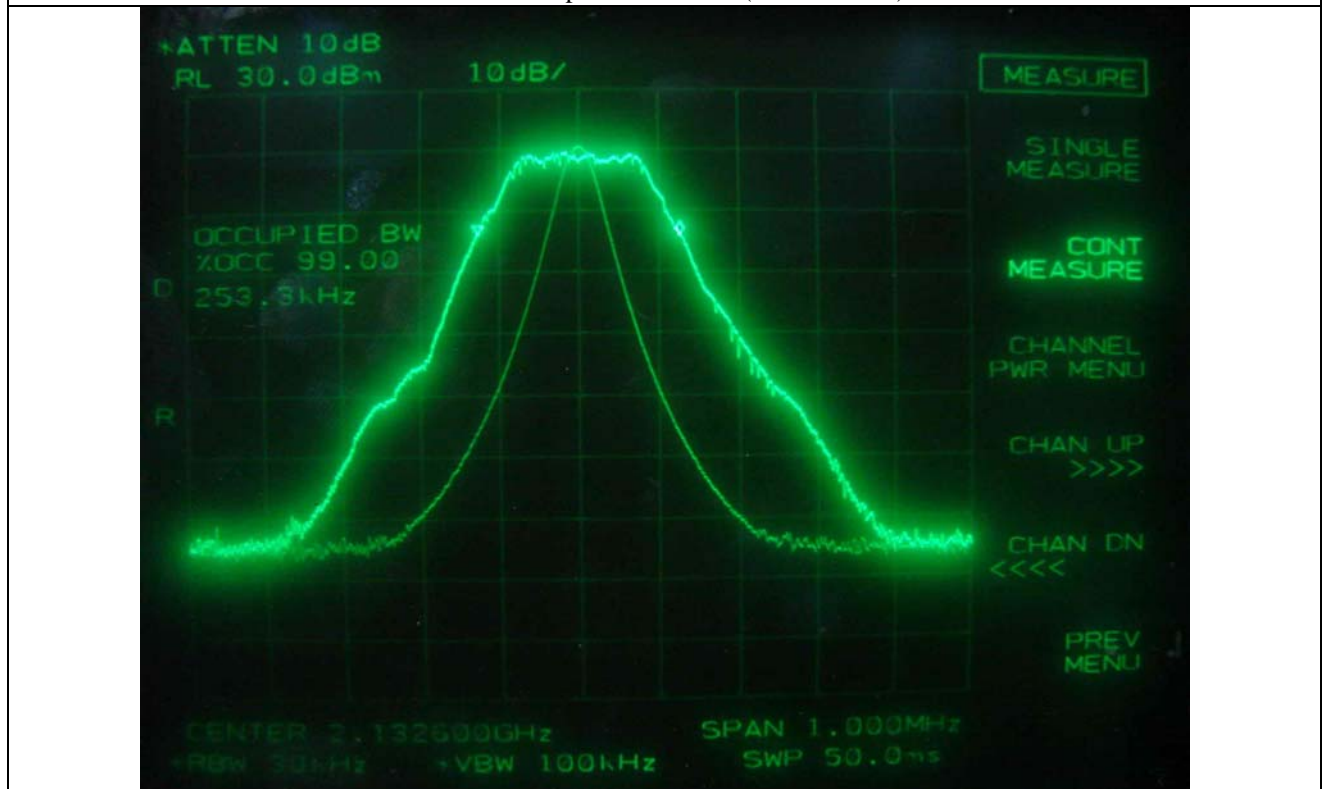


TDMA – Occupied Bandwidth (Middle Channel)

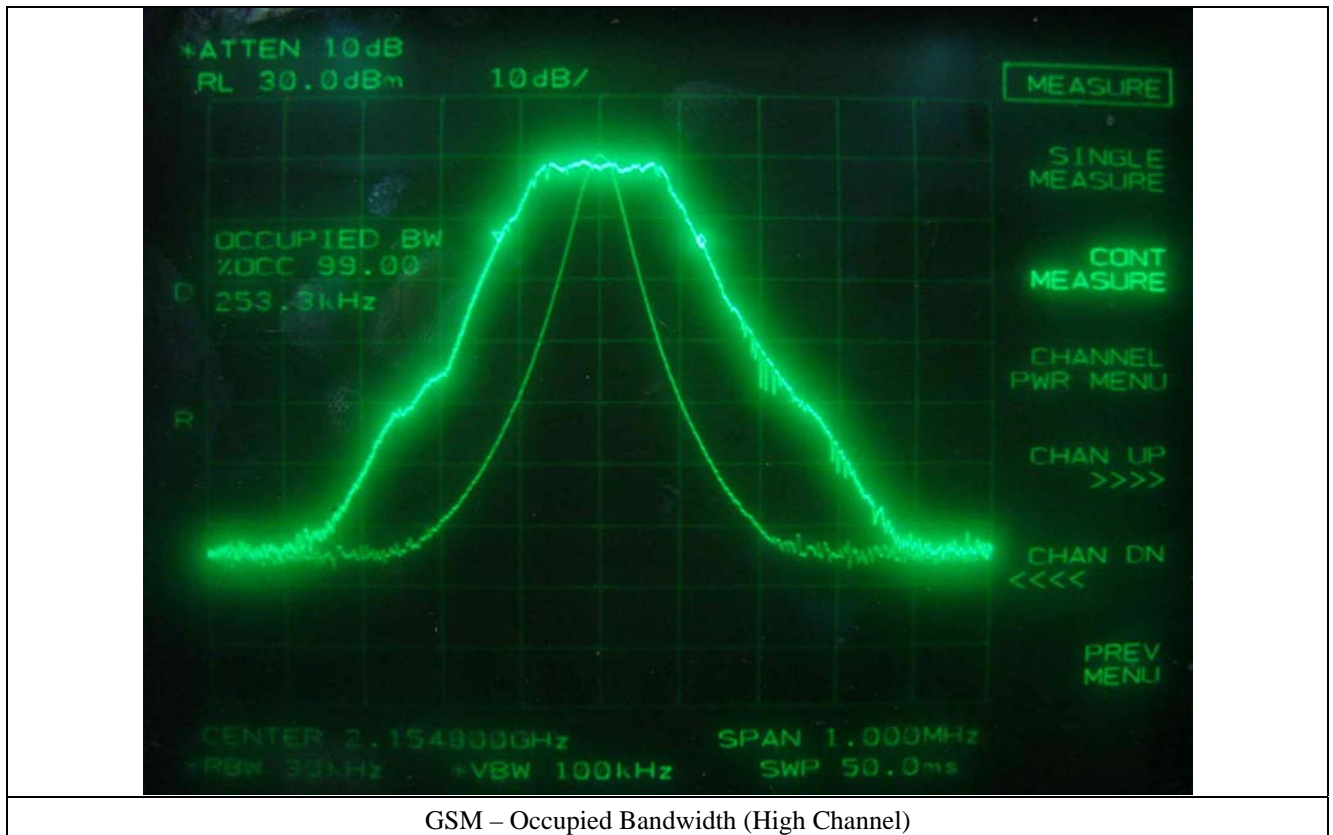


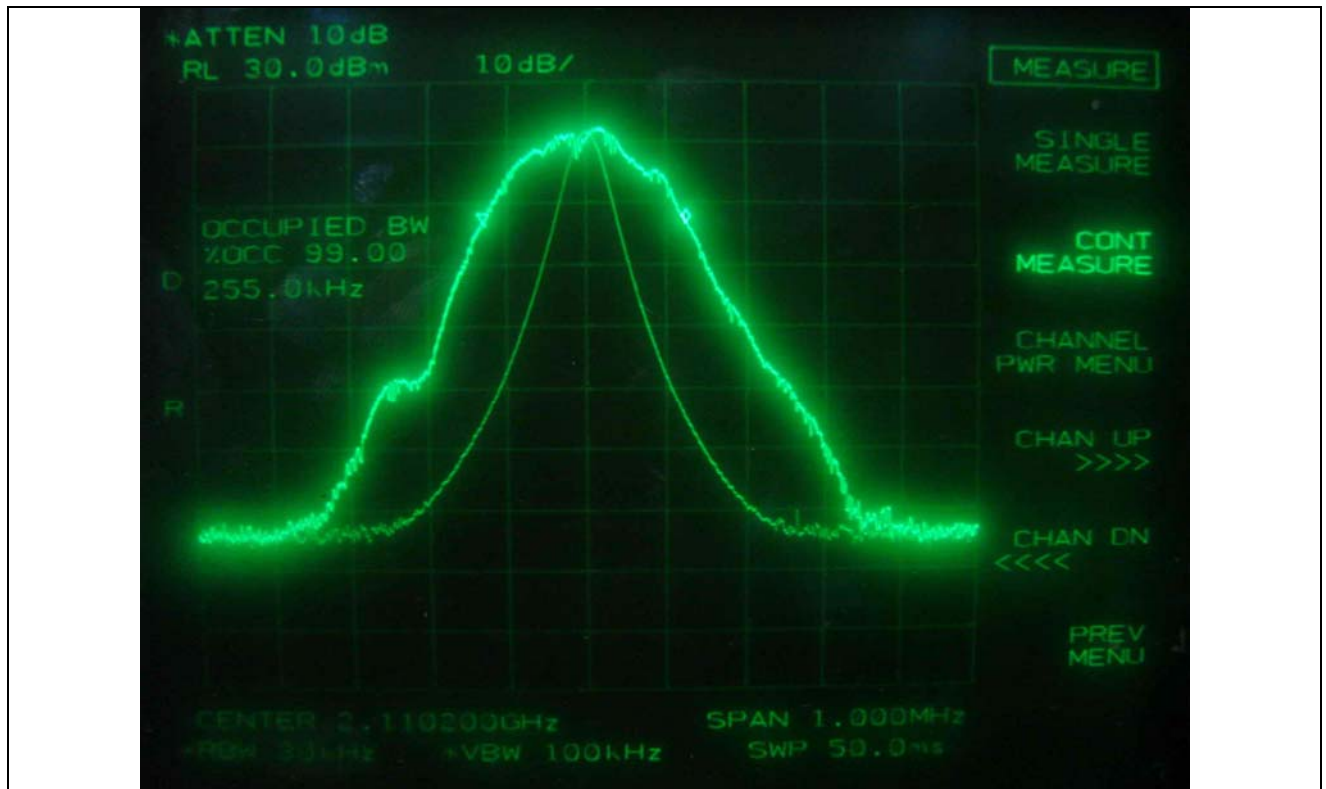


GSM – Occupied Bandwidth (Low Channel)

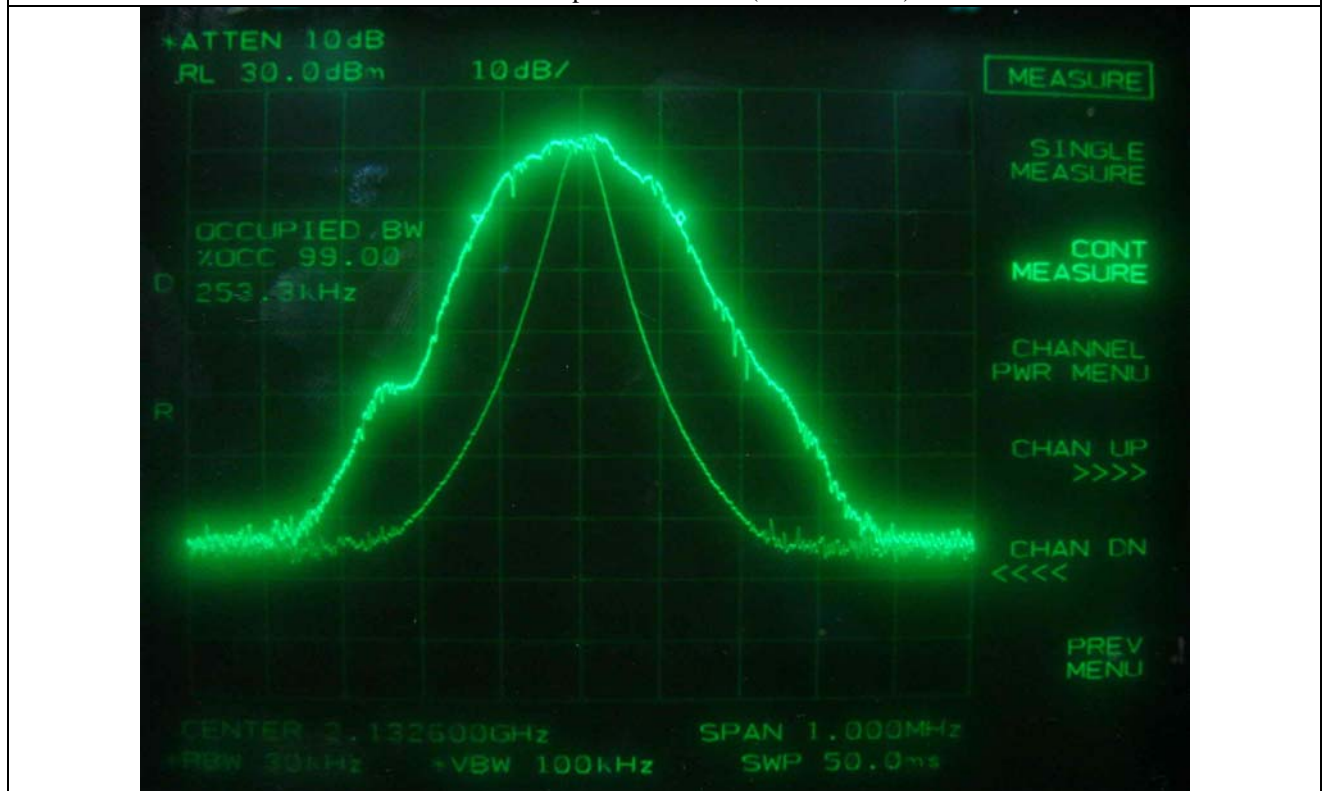


GSM – Occupied Bandwidth (Middle Channel)

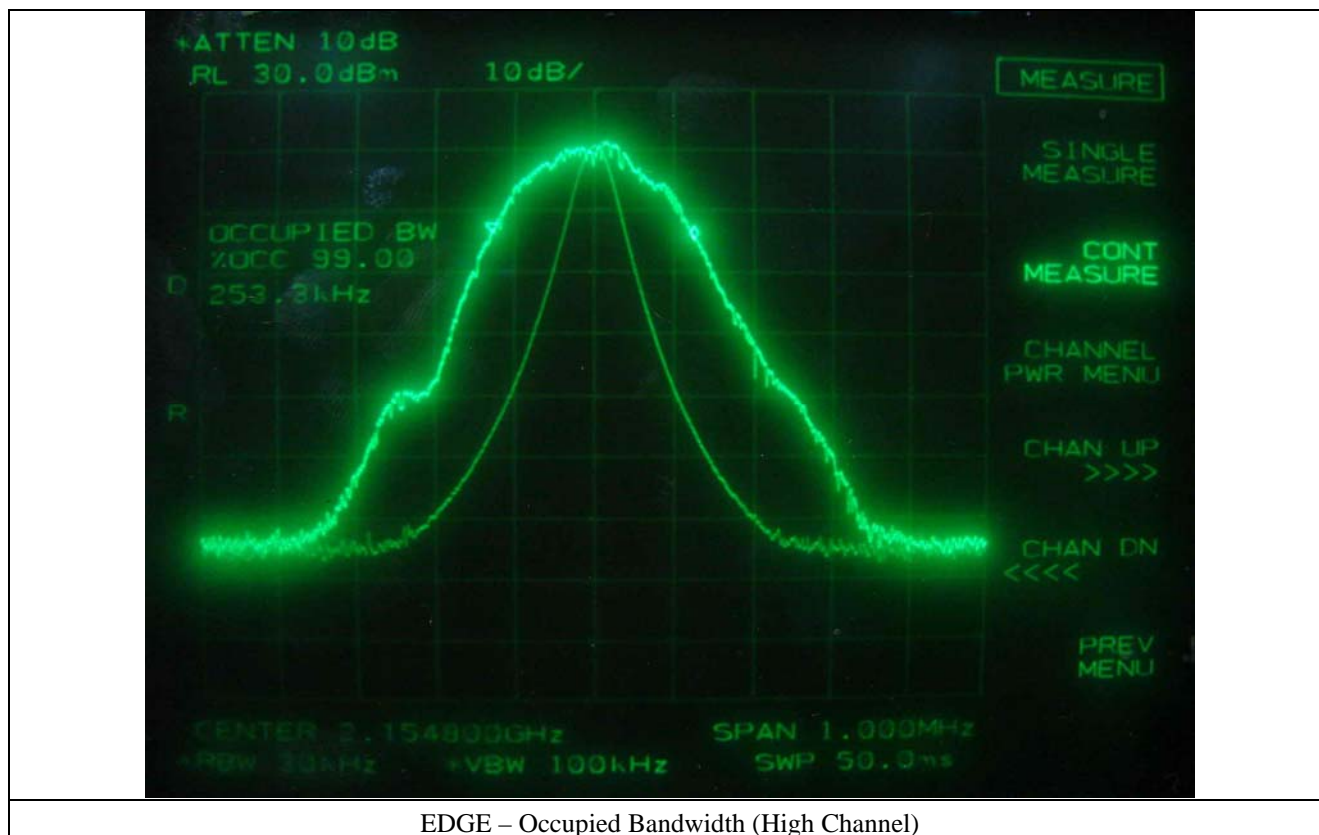


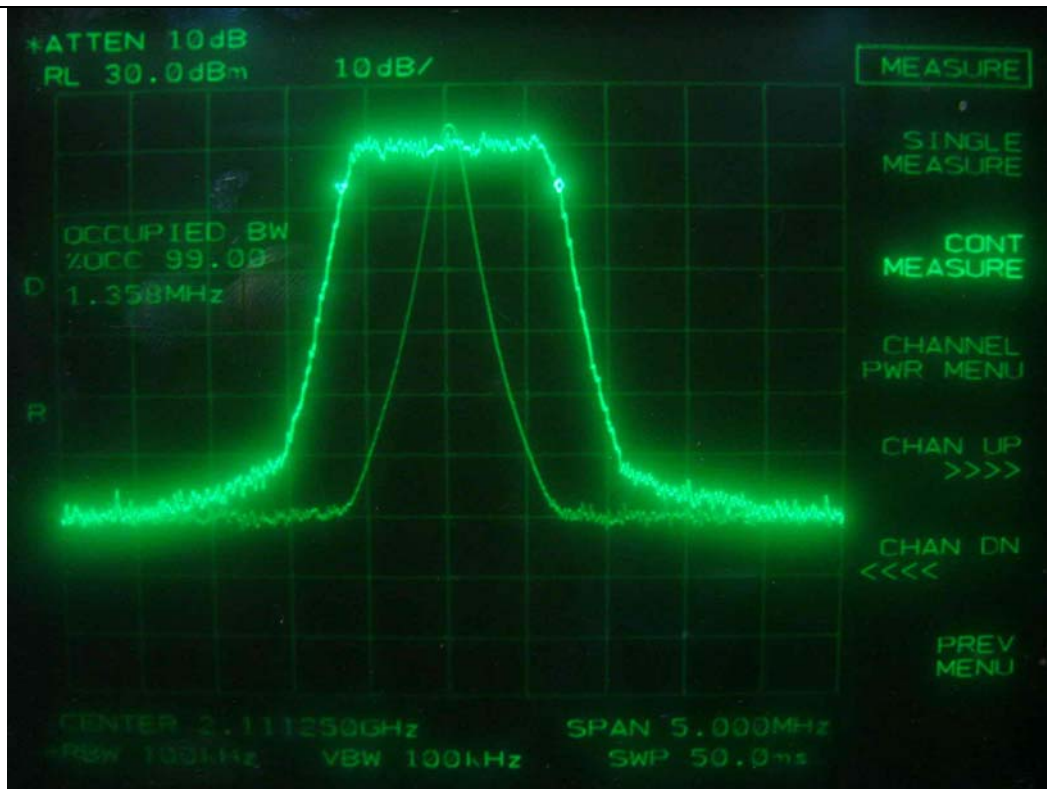


EDGE – Occupied Bandwidth (Low Channel)

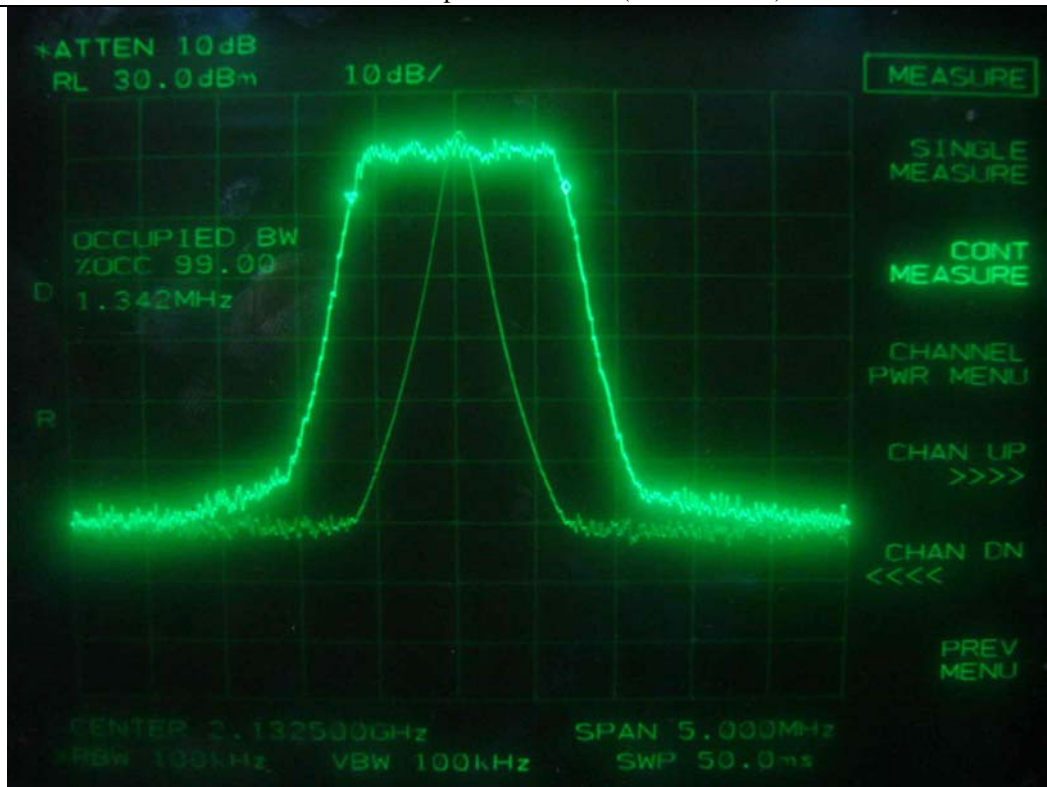


EDGE – Occupied Bandwidth (Middle Channel)

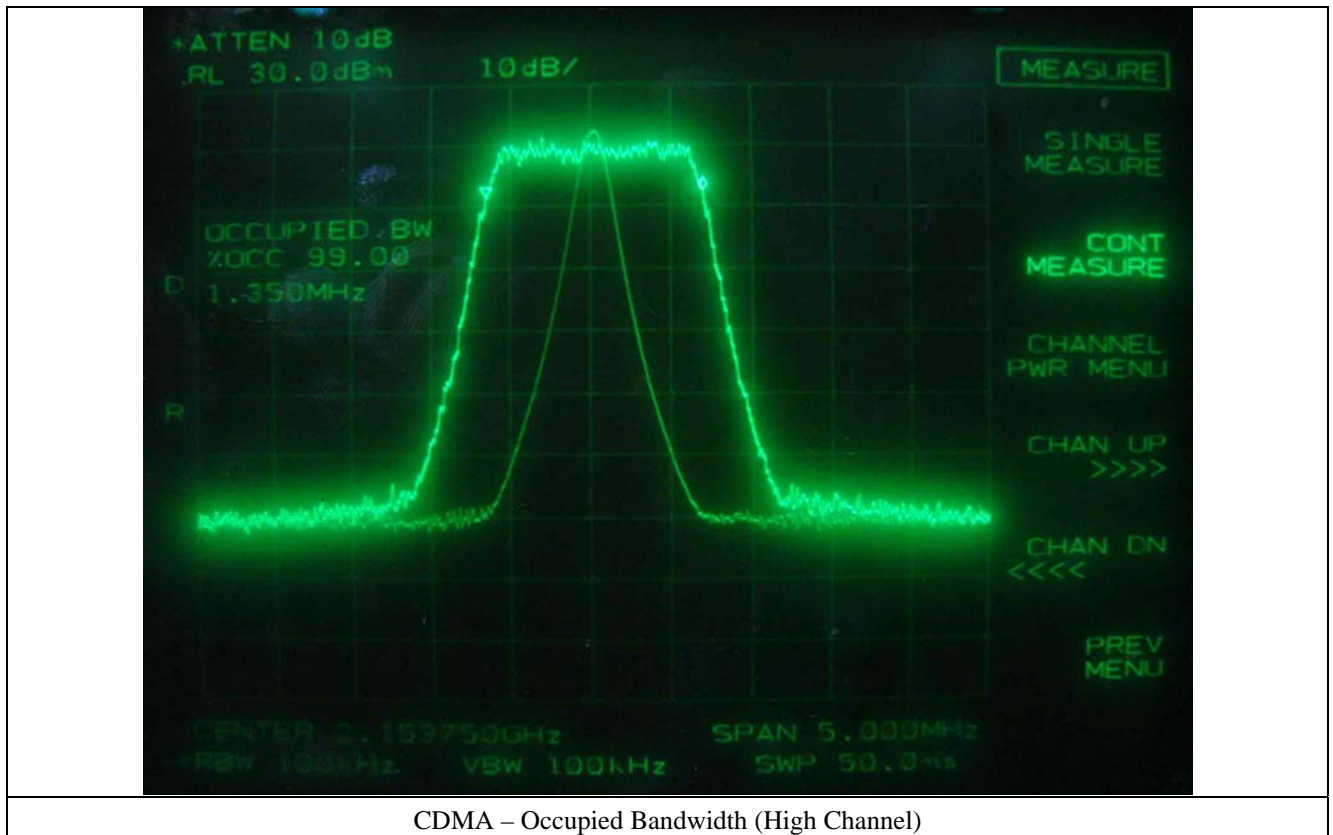




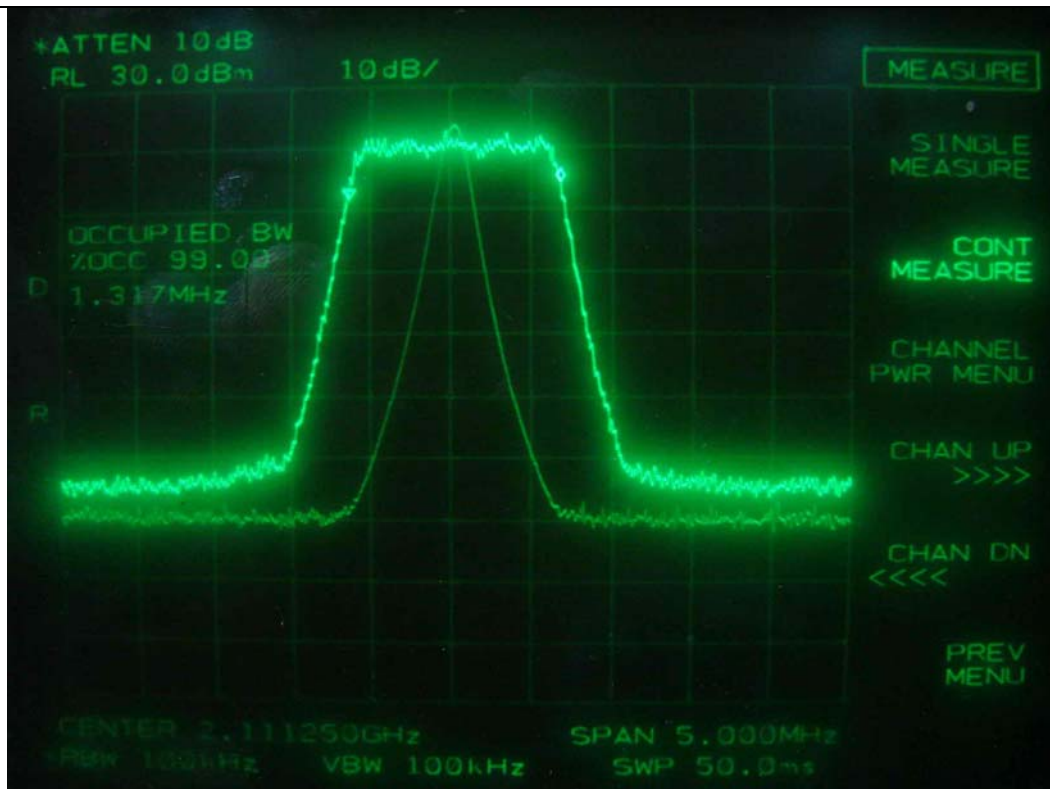
CDMA – Occupied Bandwidth (Low Channel)



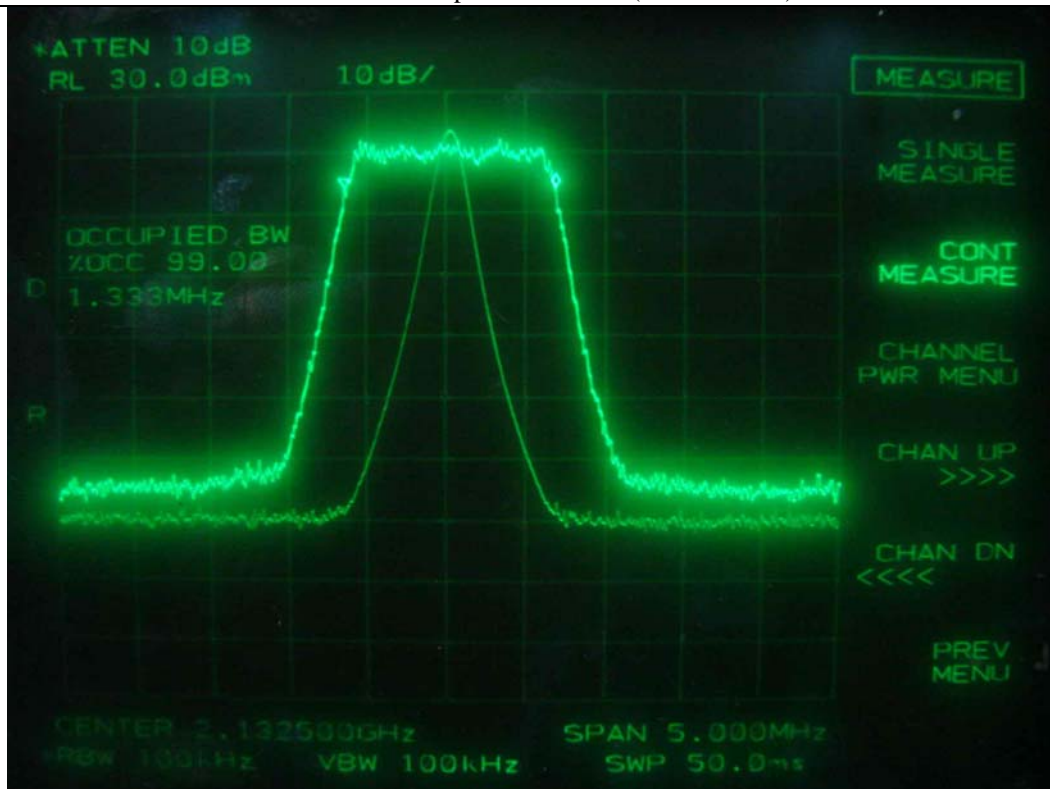
CDMA – Occupied Bandwidth (Middle Channel)



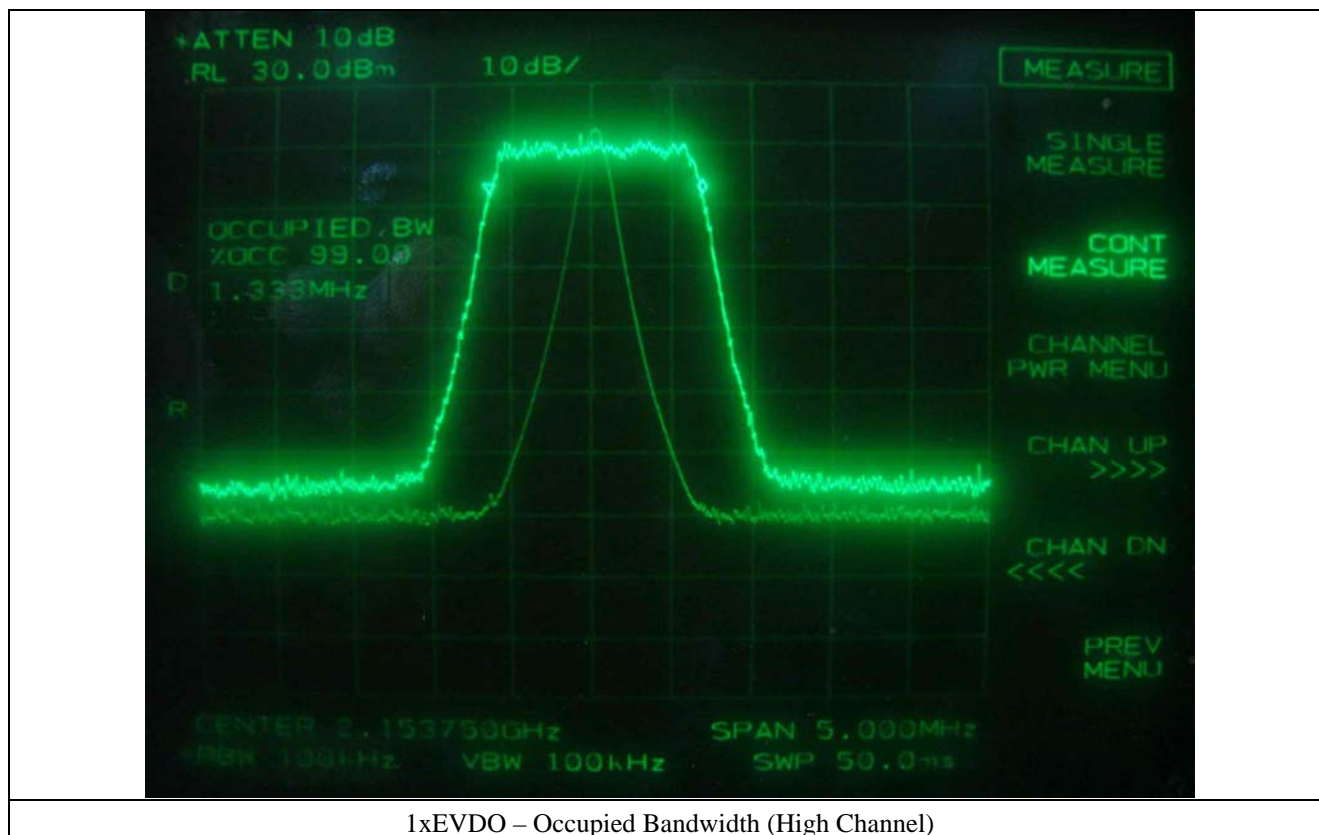
CDMA – Occupied Bandwidth (High Channel)

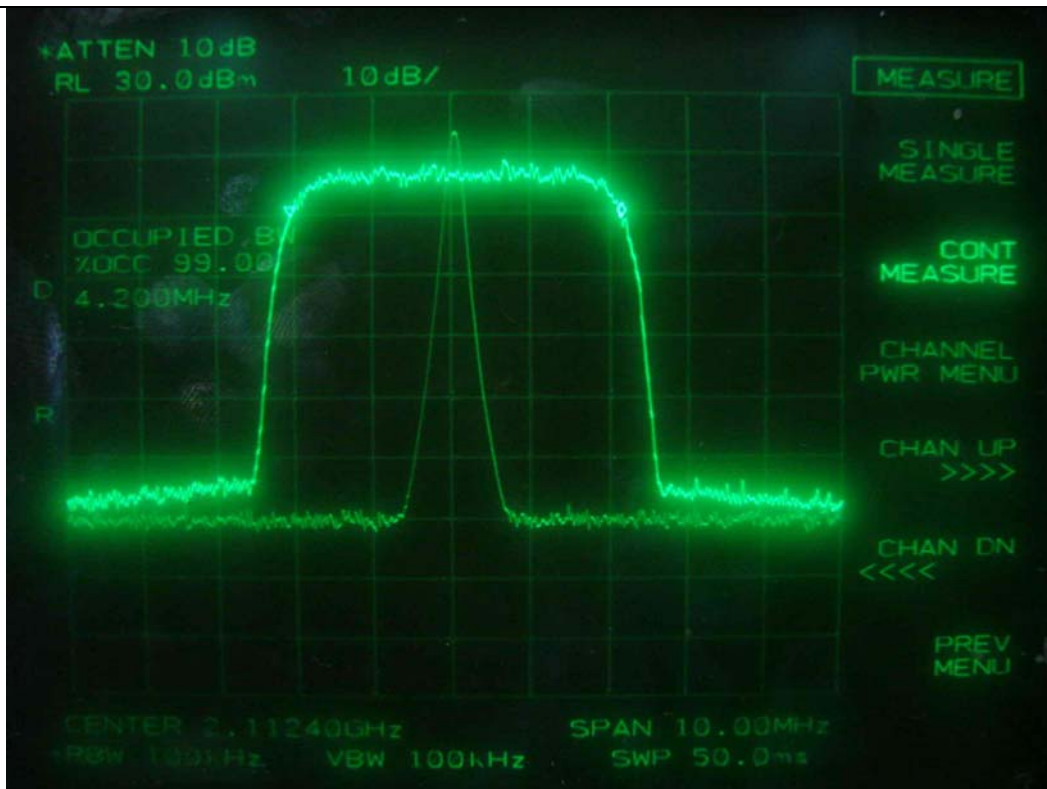


1xEVDO – Occupied Bandwidth (Low Channel)

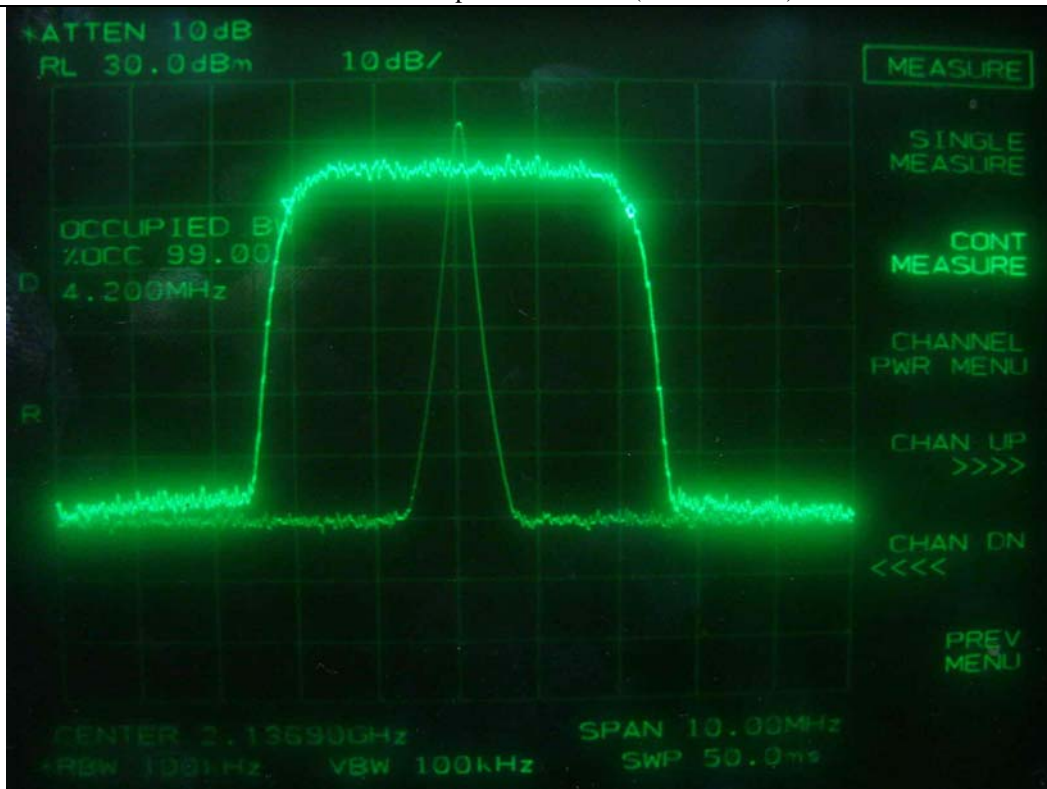


1xEVDO – Occupied Bandwidth (Middle Channel)

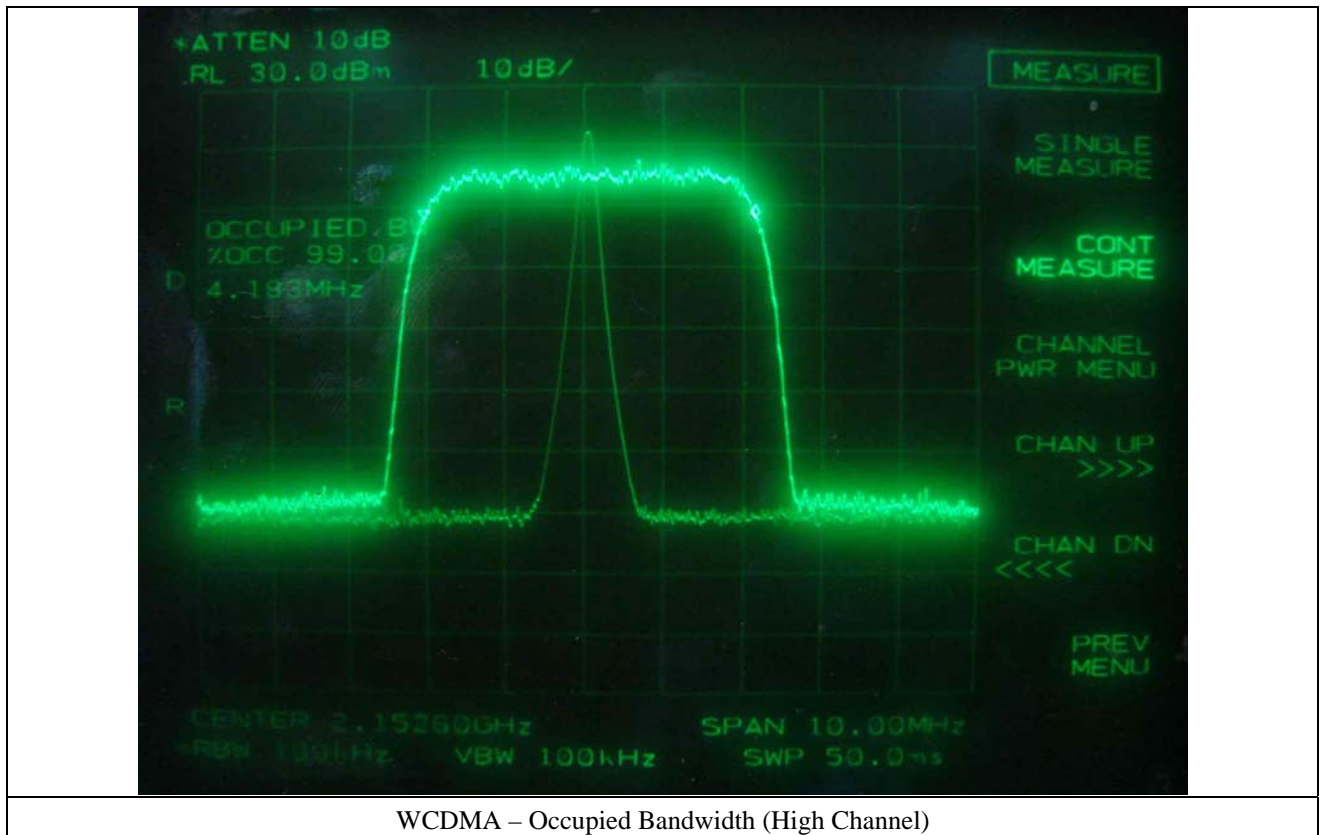


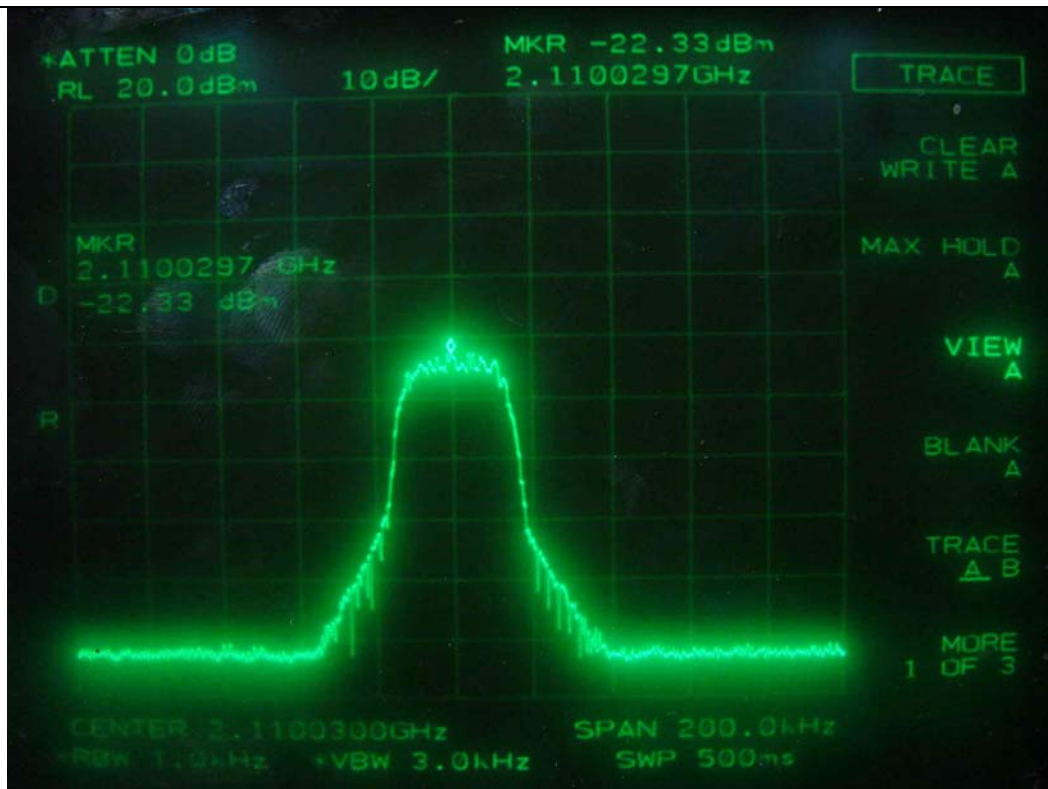


WCDMA – Occupied Bandwidth (Low Channel)

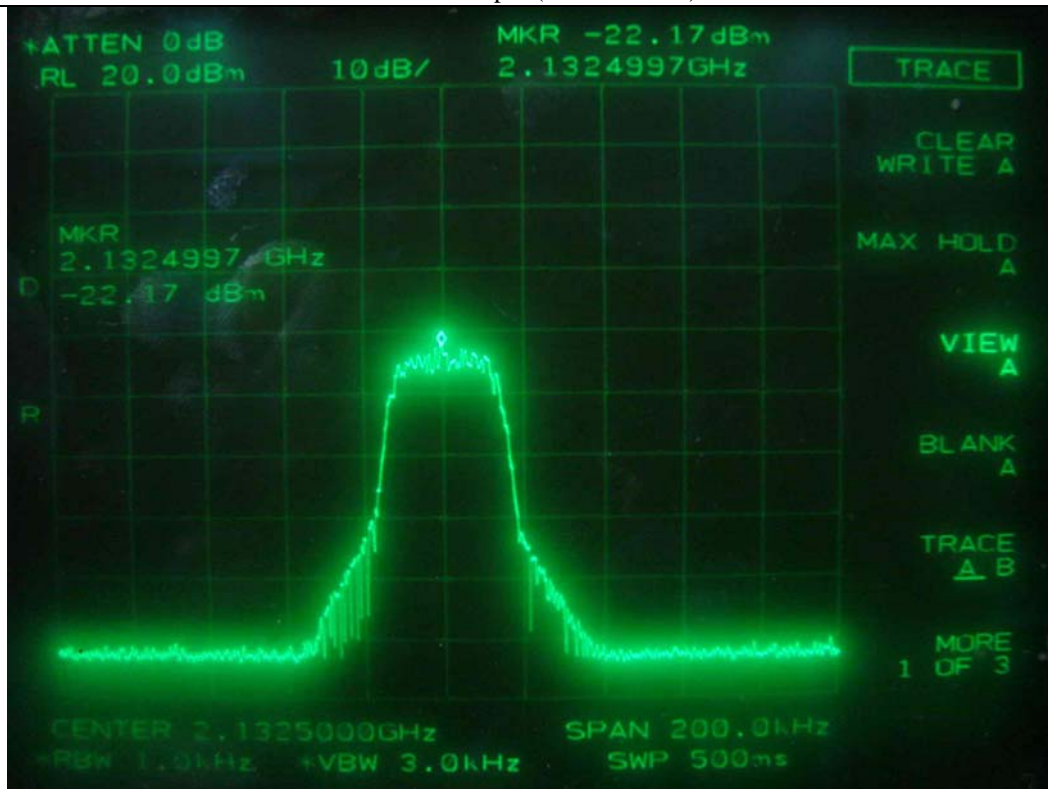


WCDMA – Occupied Bandwidth (Middle Channel)

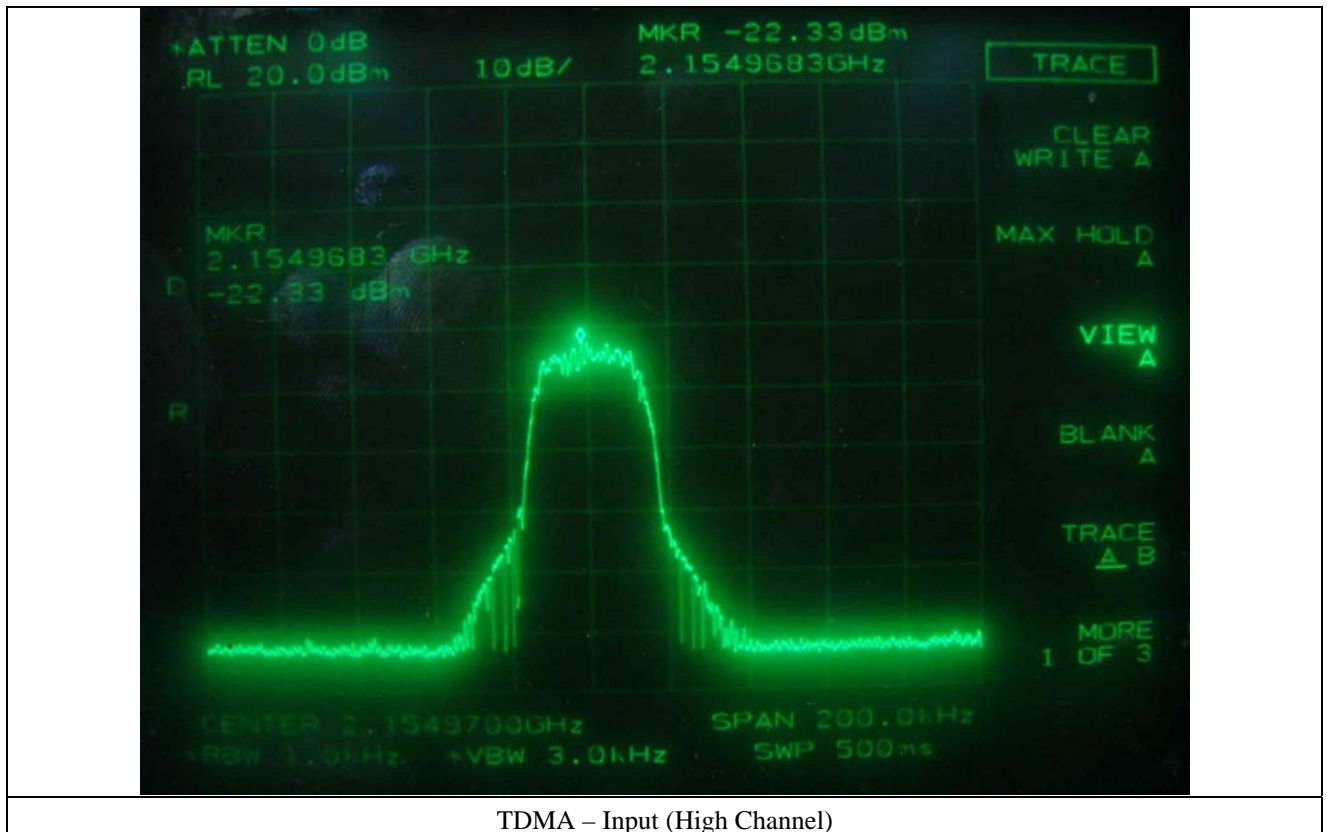


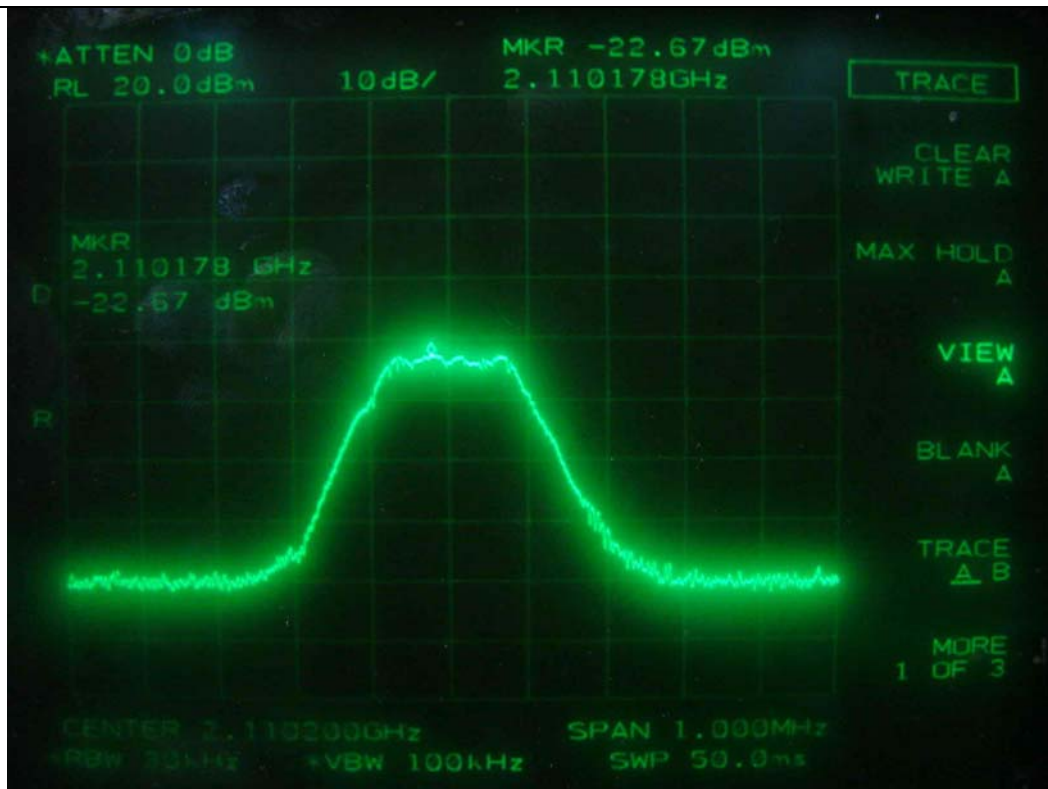


TDMA – Input (Low Channel)

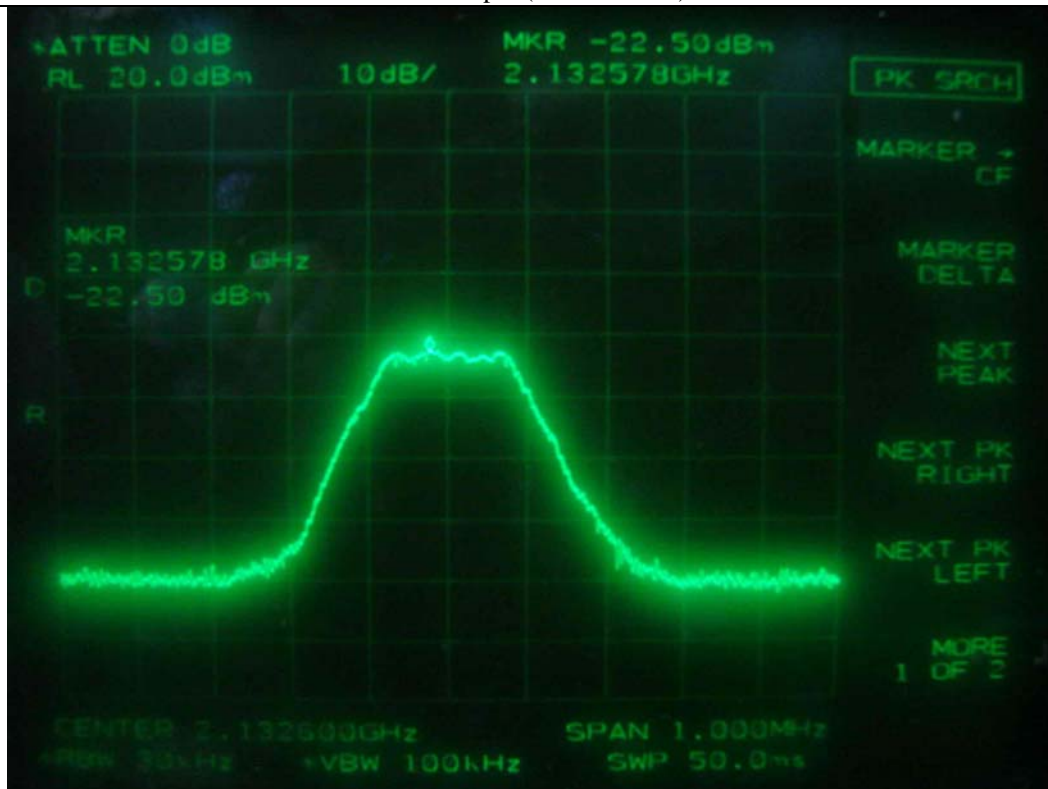


TDMA – Input (Middle Channel)

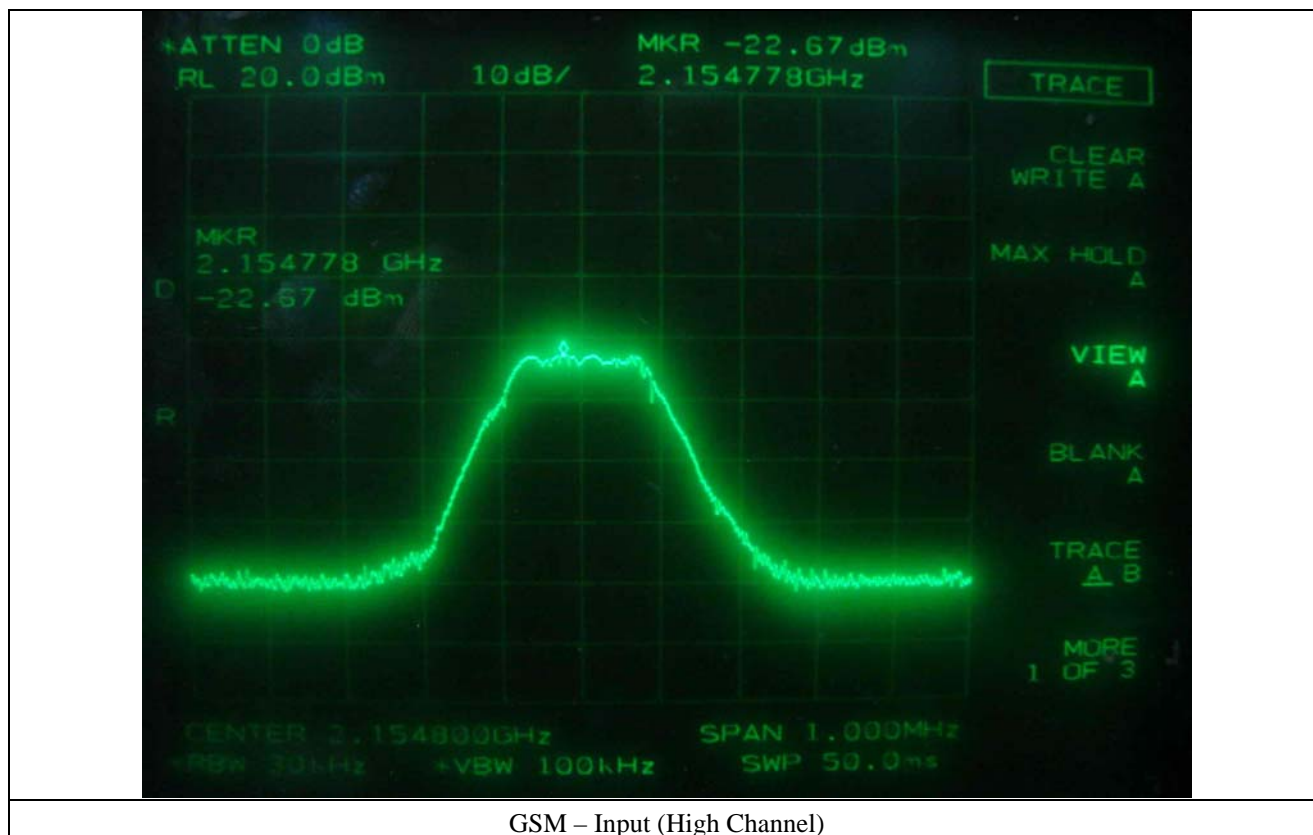


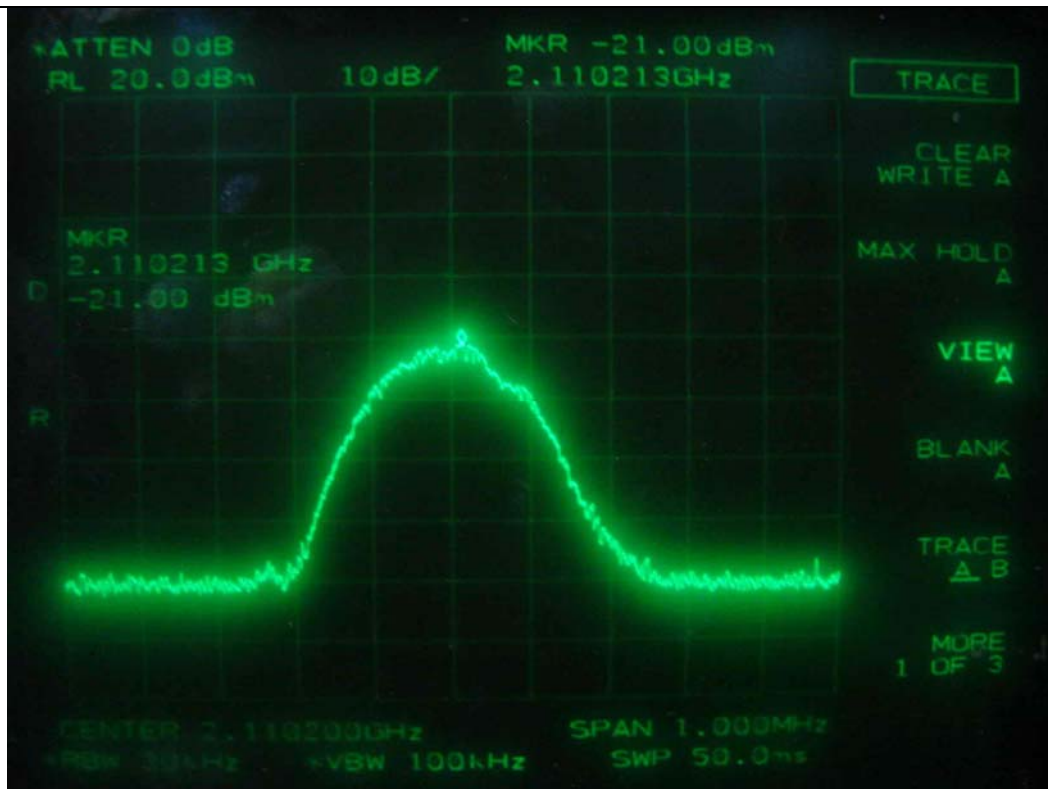


GSM – Input (Low Channel)

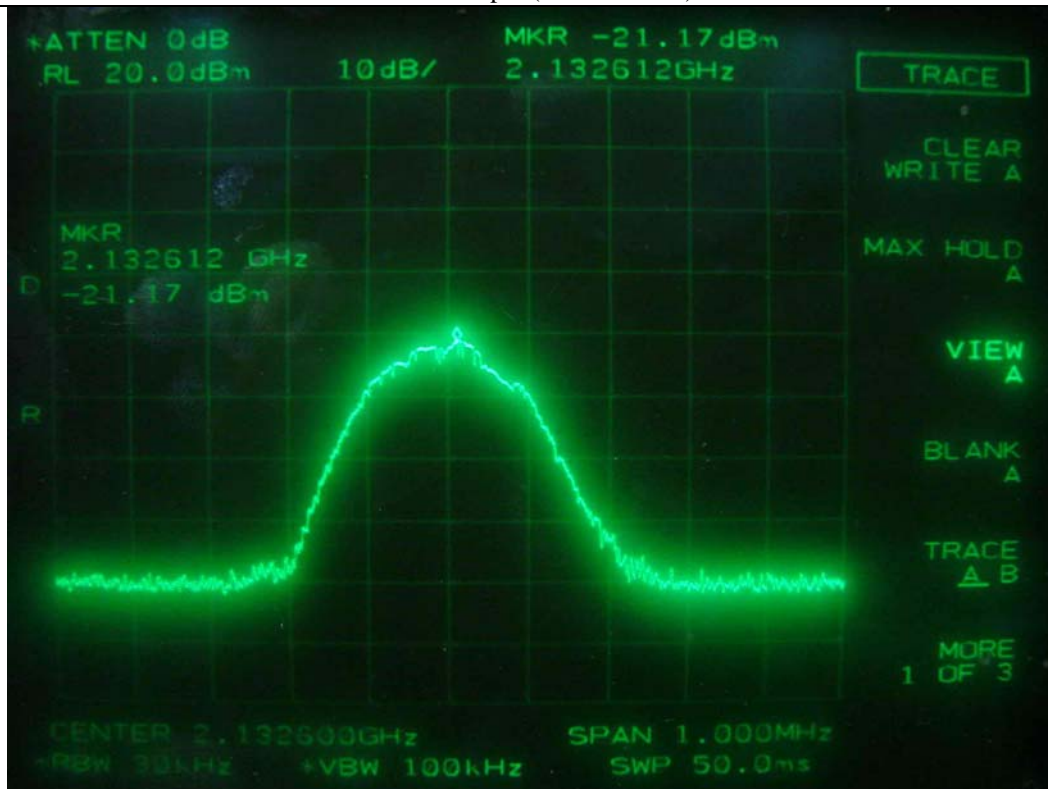


GSM – Input (Middle Channel)





EDGE – Input (Low Channel)



EDGE – Input (Middle Channel)

