



# Appendix A

## Modulation Characteristic Measurement

# TM1 (QPSK):

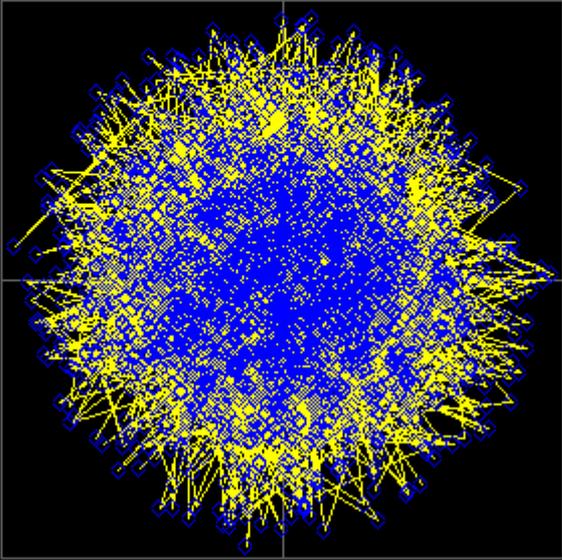
## Channel M

Agilent		W-CDMA W/HSDPA		<b>Measure</b>	
BTS Ch Freq 881.400 MHz		Completed Src:Input		Channel Power	
Mod Accuracy 3GPP		Averages: 1 <b>PASS</b>		ACPR (ACLR)	
<b>Rho:</b> 0.99271		<div style="text-align: center;"> <b>I/Q Measured Polar Vector</b> </div>		Intermod	
<b>EVM:</b> 8.57 % rms 128.40 % pk				Multi Carrier Power	
<b>Pk CDE:</b> -39.65 dB at C8(8)				Spectrum Emission Mask	
Pk Active CDE: -37.56 dB at C7(4)				Occupied BW	
Magnitude Error: 8.35 % rms				More 1 of 3	
Phase Error: 2.07 ° rms					
Freq Error: -0.32 Hz					
I/Q Origin Offset: -59.93 dB					
Time Offset: 16193.81 chip					
				Active Channels: 68 Slot # 9	

# TM5 (16QAM):

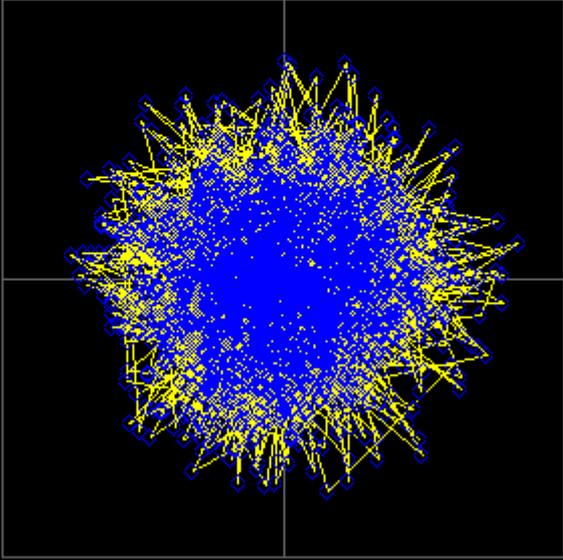
Channel M

W-CDMA W/HSDPA

		<b>Measure</b>
Ext Ref		Channel Power
BTS Ch Freq 881.400 MHz	Completed Src:Input	
Mod Accuracy 3GPP	Averages: 1 <span style="color: green; font-weight: bold;">PASS</span>	ACPR (ACLR)
<p><b>Rho:</b> 0.99492</p> <p><b>EVM:</b> 7.15 % rms 110.52 % pk</p> <p><b>Pk CDE:</b> -43.07 dB at C8(229)</p> <p>Pk Active CDE: -34.32 dB at C4(6)</p> <p>Magnitude Error: 6.98 % rms</p> <p>Phase Error: 3.28 ° rms</p> <p>Freq Error: 0.16 Hz</p> <p>I/Q Origin Offset: -61.11 dB</p> <p>Time Offset: 16193.80 chip</p>	<p><b>I/Q Measured Polar Vector</b></p>  <p>Active Channels: 44 Slot # 9</p>	Intermod
		Multi Carrier Power
		Spectrum Emission Mask
		Occupied BW
		More 1 of 3

# TM6 (64QAM):

Channel M

 Agilent	<b>W-CDMA with HSDPA/HSUPA</b>	<b>Measure</b>
Ext Ref		
BTS Ch Freq 881.400 MHz Mod Accuracy 3GPP	Running Src:Input Averages: 3 <span style="color: green; font-weight: bold;">PASS</span>	<b>Code Domain</b>
<div style="border: 2px solid green; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>I/Q Measured Polar Vector</b></p>  <p style="text-align: center; margin: 0;">Active Channels: 44 Slot# 5</p> </div>		<b>Mod Accuracy</b> <small>(Composite EVM)</small>
		<b>QPSK EVM</b>
		<b>Power Stat</b> <small>CCDF</small>
		<b>Spectrum</b> <small>(Freq Domain)</small>
		<b>Waveform</b> <small>(Time Domain)</small>
		<b>More</b> 2 of 3
<b>File Operation Status, C:\SCREN930.GIF file saved</b>		



## **Appendix B**

# Occupied Bandwidth Measurement



# TM1 (QPSK):

## Channel B

Agilent		W-CDMA w/HSDPA		Measure	
BTS Ch Freq 871.400 MHz		Ext Ref		Channel Power	
Occupied BW		Src:Input		ACPR (ACLR)	
		Averages: 200		PASS	
Intermod		Occupied BW		Multi Carrier Power	
Spectrum Emission Mask		Total Power		Occupied BW	
4.1556 MHz		45.59 dBm		More	
				1 of 3	



# Channel M

<b>Agilent</b> <span style="float: right;">W-CDMA w/HSDPA</span>		<b>Measure</b>
BTS Ch Freq 881.400 MHz <span style="float: right;">Ext Ref</span> Occupied BW <span style="float: right;">Src:Input</span> Averages: 200 <span style="float: right; color: green; font-weight: bold;">PASS</span>		<b>Channel Power</b>
<div style="border: 2px solid green; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Occupied BW</b></p> </div>		<b>ACPR (ACLR)</b>
		<b>Intermod</b>
		<b>Multi Carrier Power</b>
		<b>Spectrum Emission Mask</b>
		<b>Occupied BW</b>
<b>Occupied BW</b> <span style="float: right;"><b>Total Power</b></span> <span style="font-size: 1.2em;">4.1503 MHz</span> <span style="float: right;"><span style="font-size: 1.2em;">45.70 dBm</span></span>		<b>More</b> 1 of 3



# Channel T

Agilent		W-CDMA w/HSDPA		Measure	
		Ext Ref		Channel Power	
BTS	Ch Freq 891.600 MHz	Src:Input		ACPR (ACLR)	
Occupied BW		Averages: 200		Intermod	
		PASS		Multi Carrier Power	
<div style="border: 2px solid green; padding: 5px;"> <p>Ref 50.00 dBm</p> <p style="text-align: center;"><b>Occupied BW</b></p> <p>10.00 dB/</p> <p>MaxP 48.0</p> <p>ExtAt 34.0</p> <p>Trig Free</p> <p>CF 891.600 MHz Span 10.0049 MHz</p> <p>Res Bw 29.9997 kHz Points 1367</p> </div>					
<b>Occupied BW</b>		<b>Total Power</b>		<b>Occupied BW</b>	
4.1464 MHz		45.60 dBm		More	
				1 of 3	



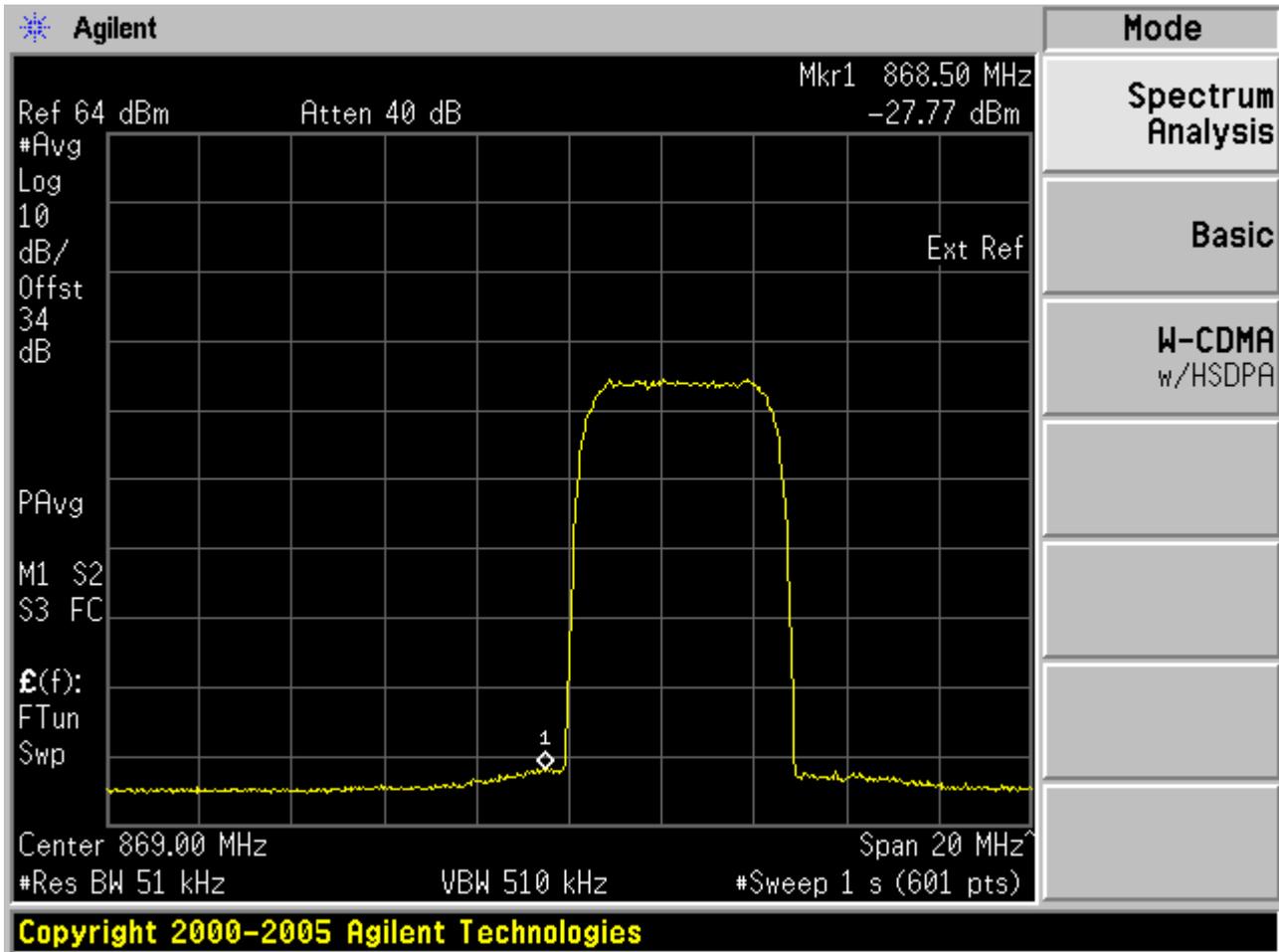
# **Appendix C**

## **Band Edge Measurements**



TM1 (QPSK):  
 A: Single Carrier

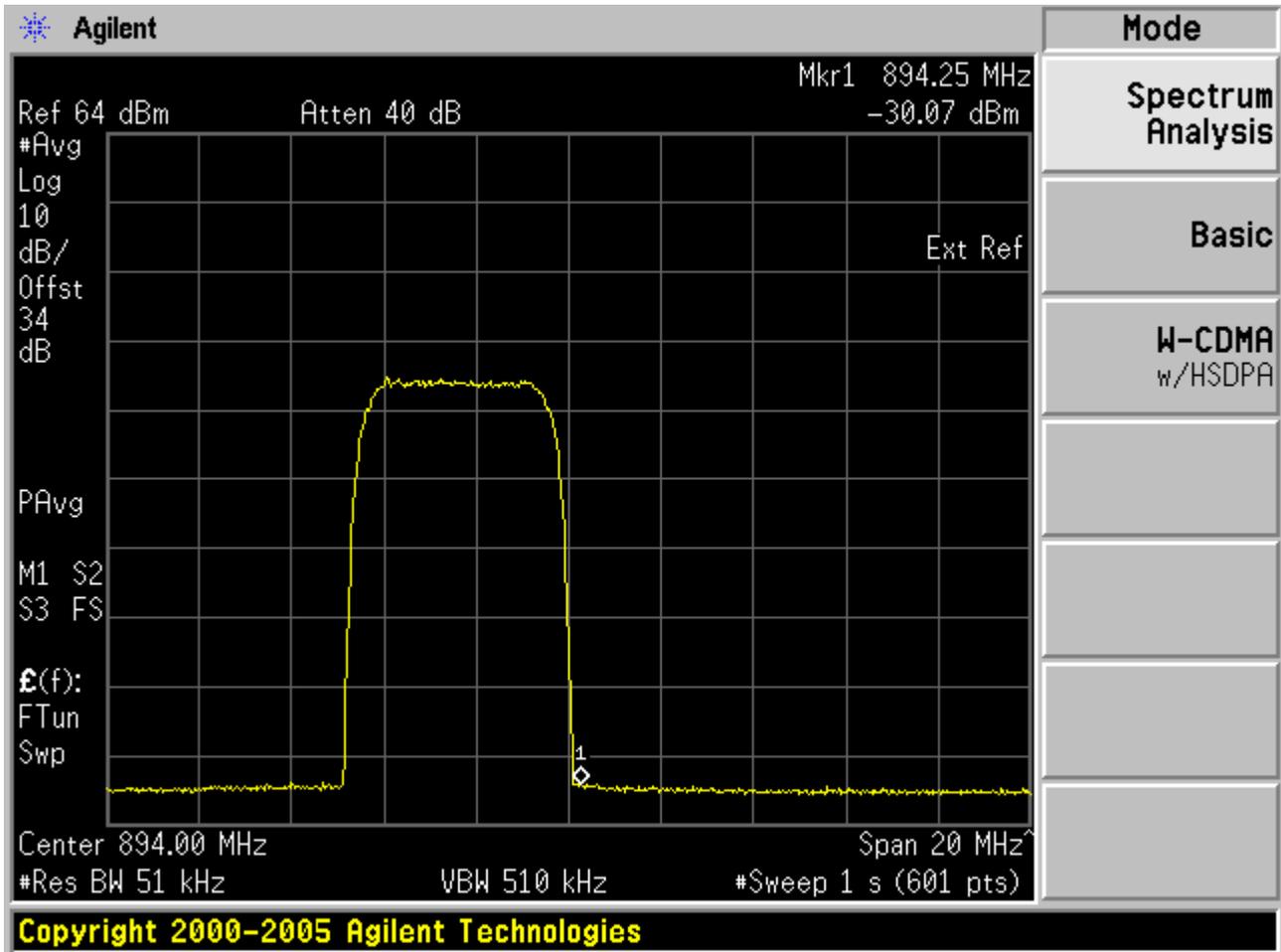
Channel B

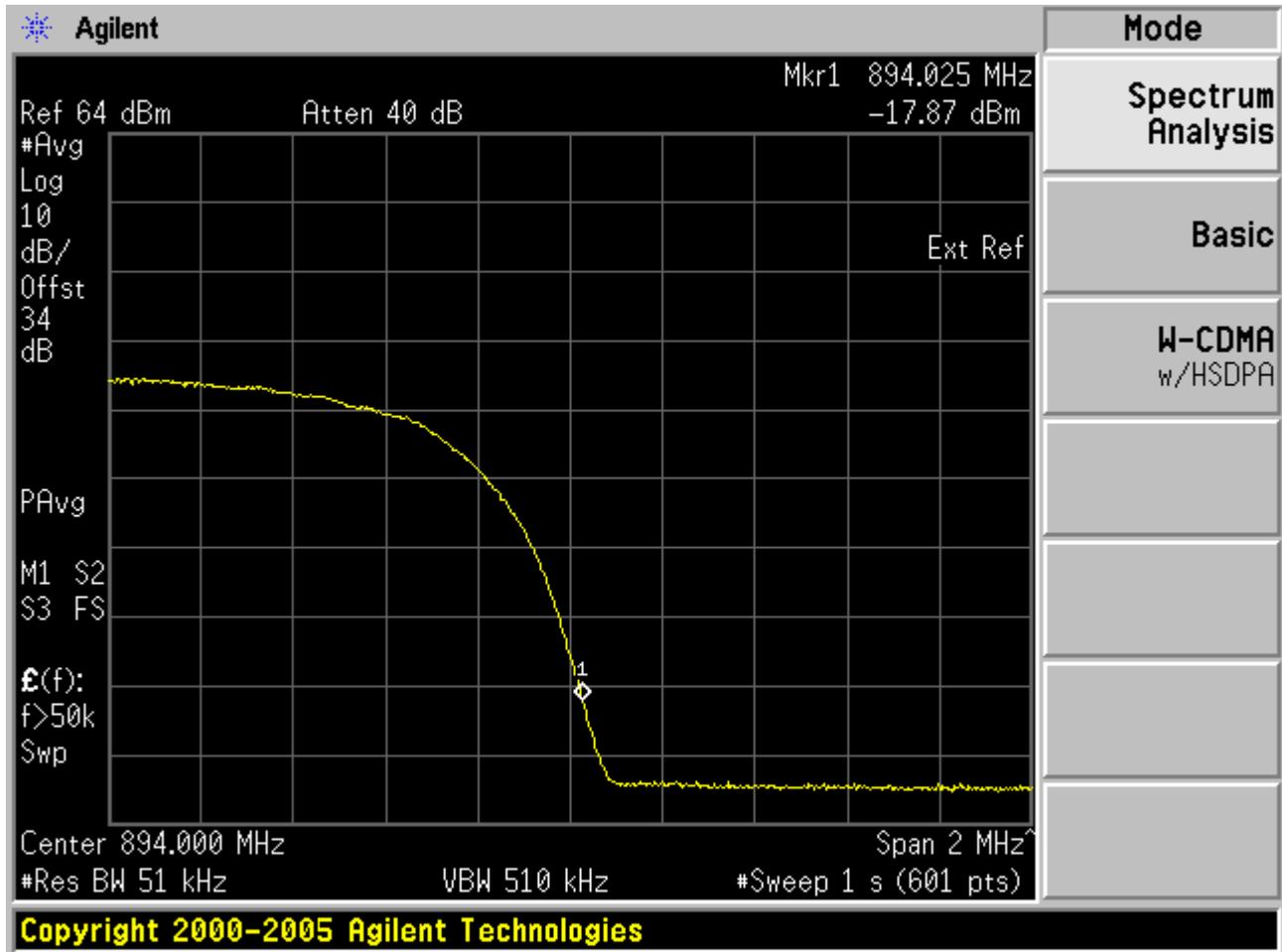






# Channel T

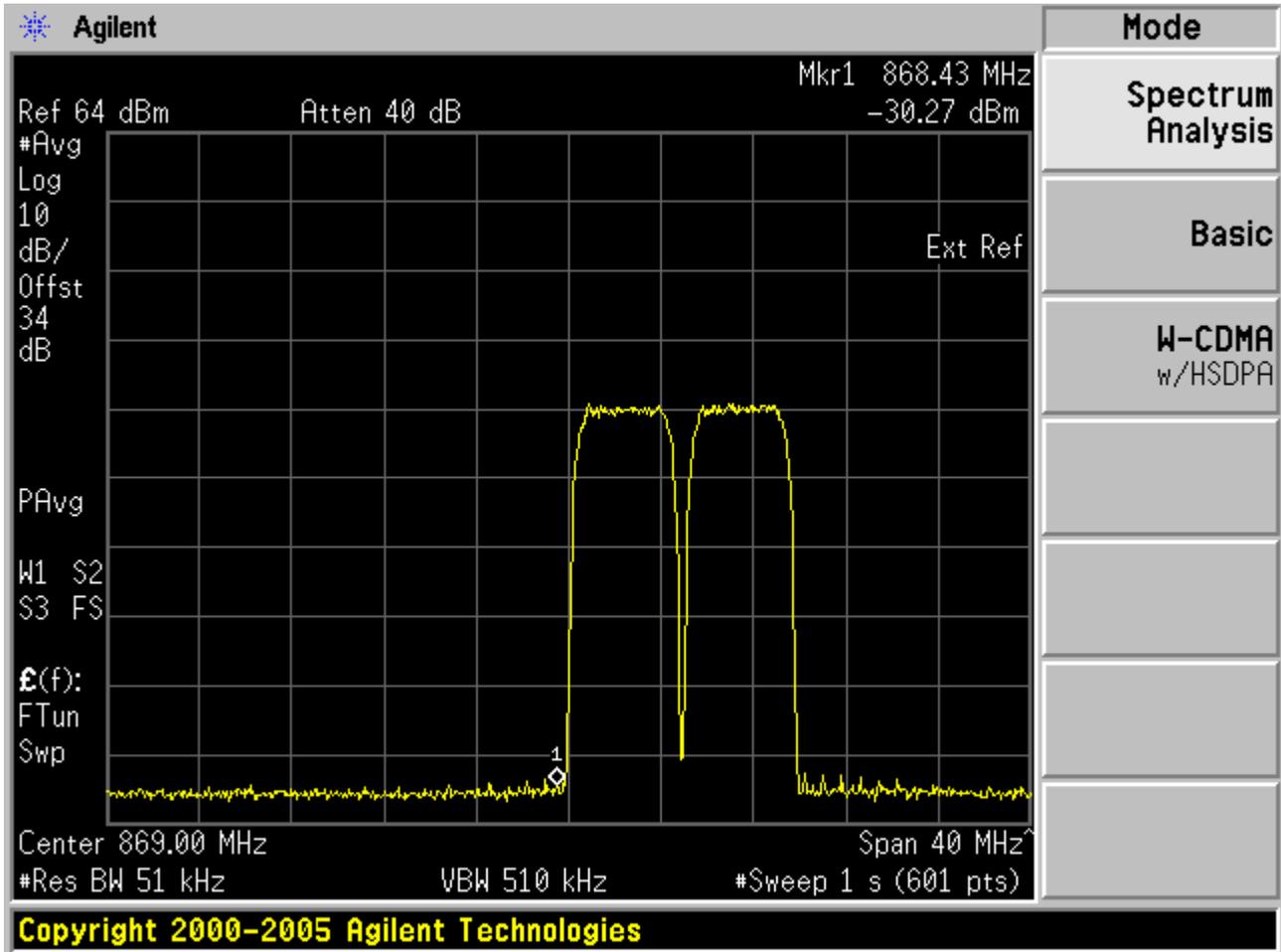


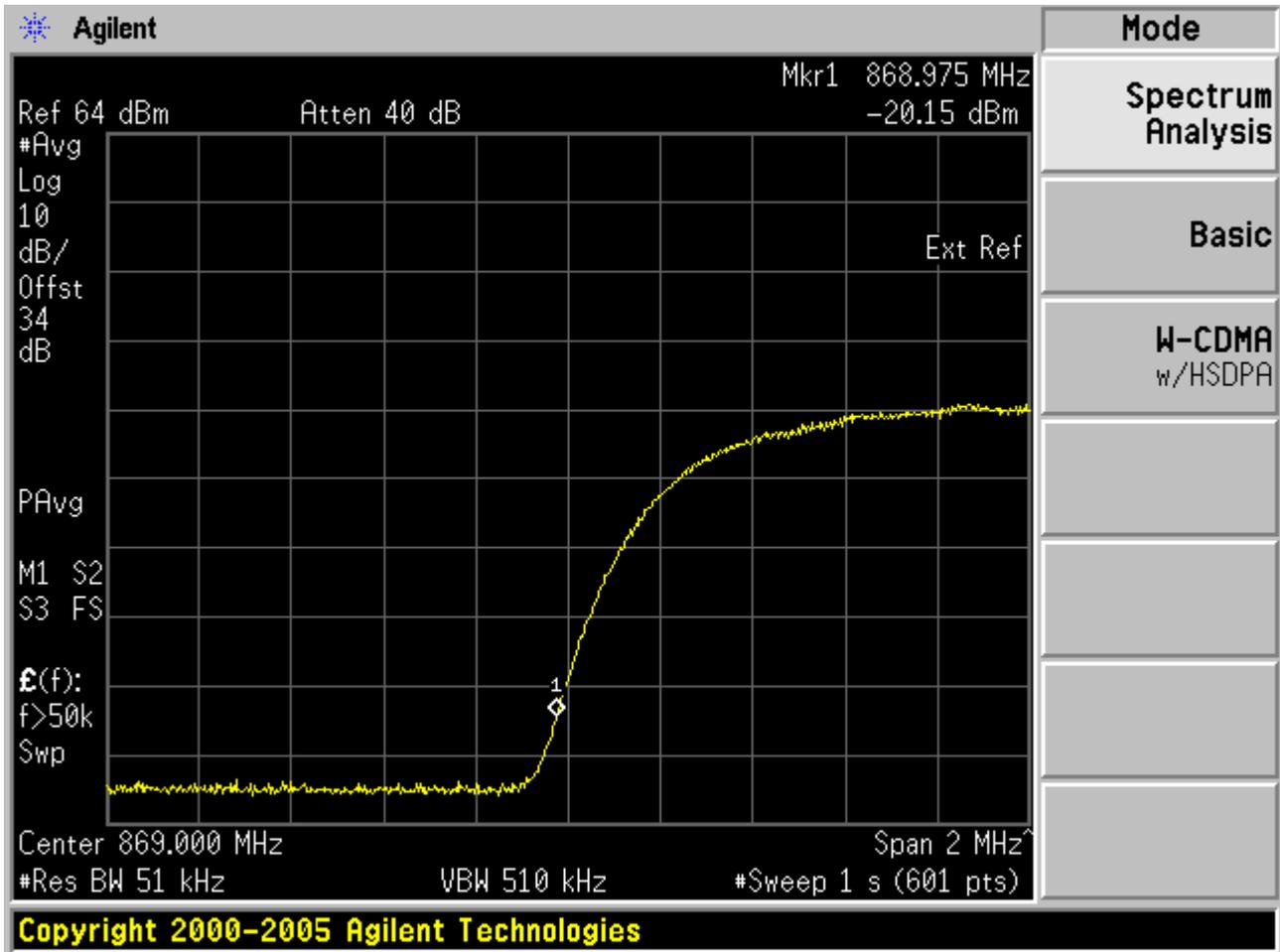




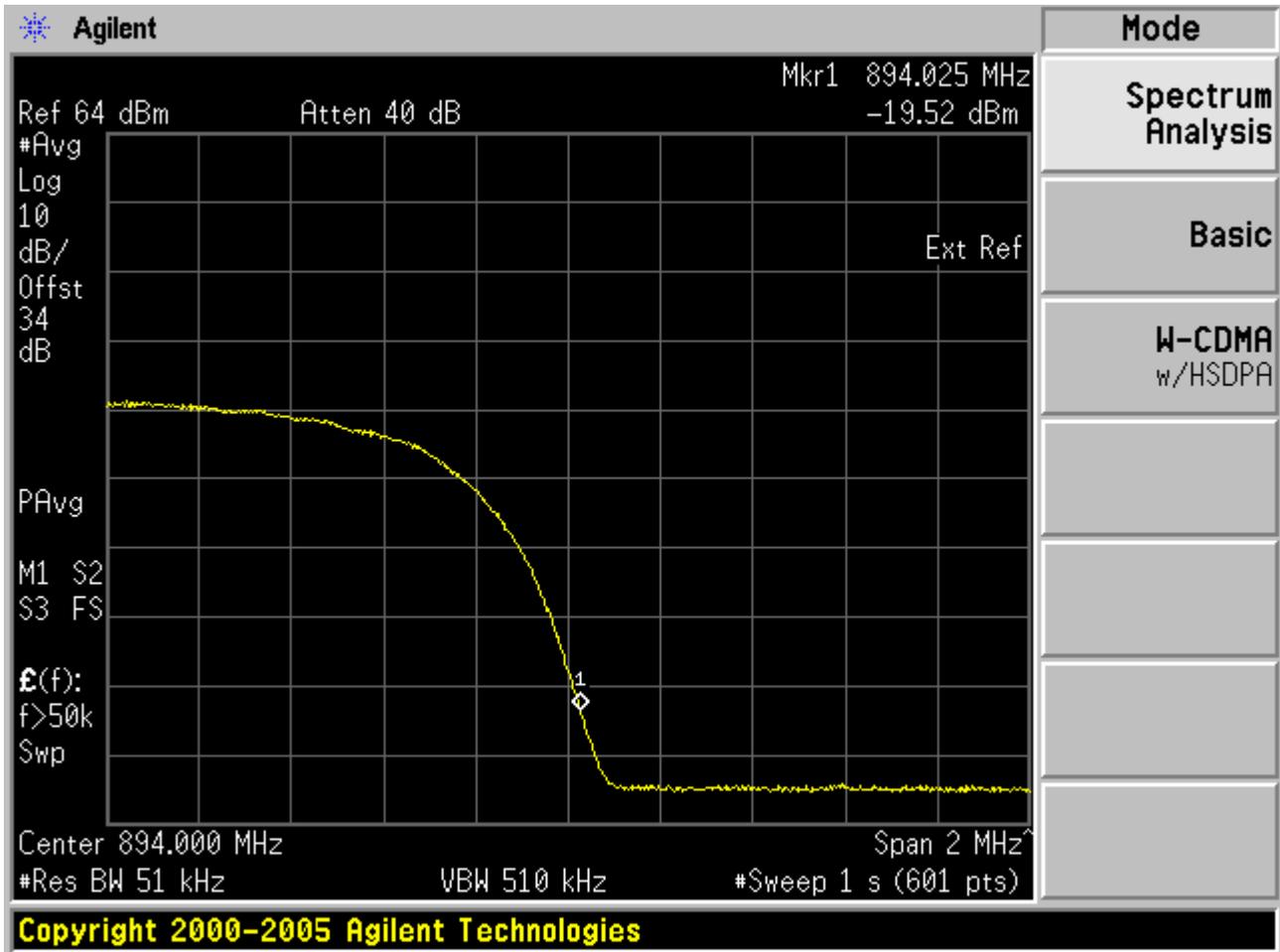
## B: Two Carriers

### Channel Number 4357/4382











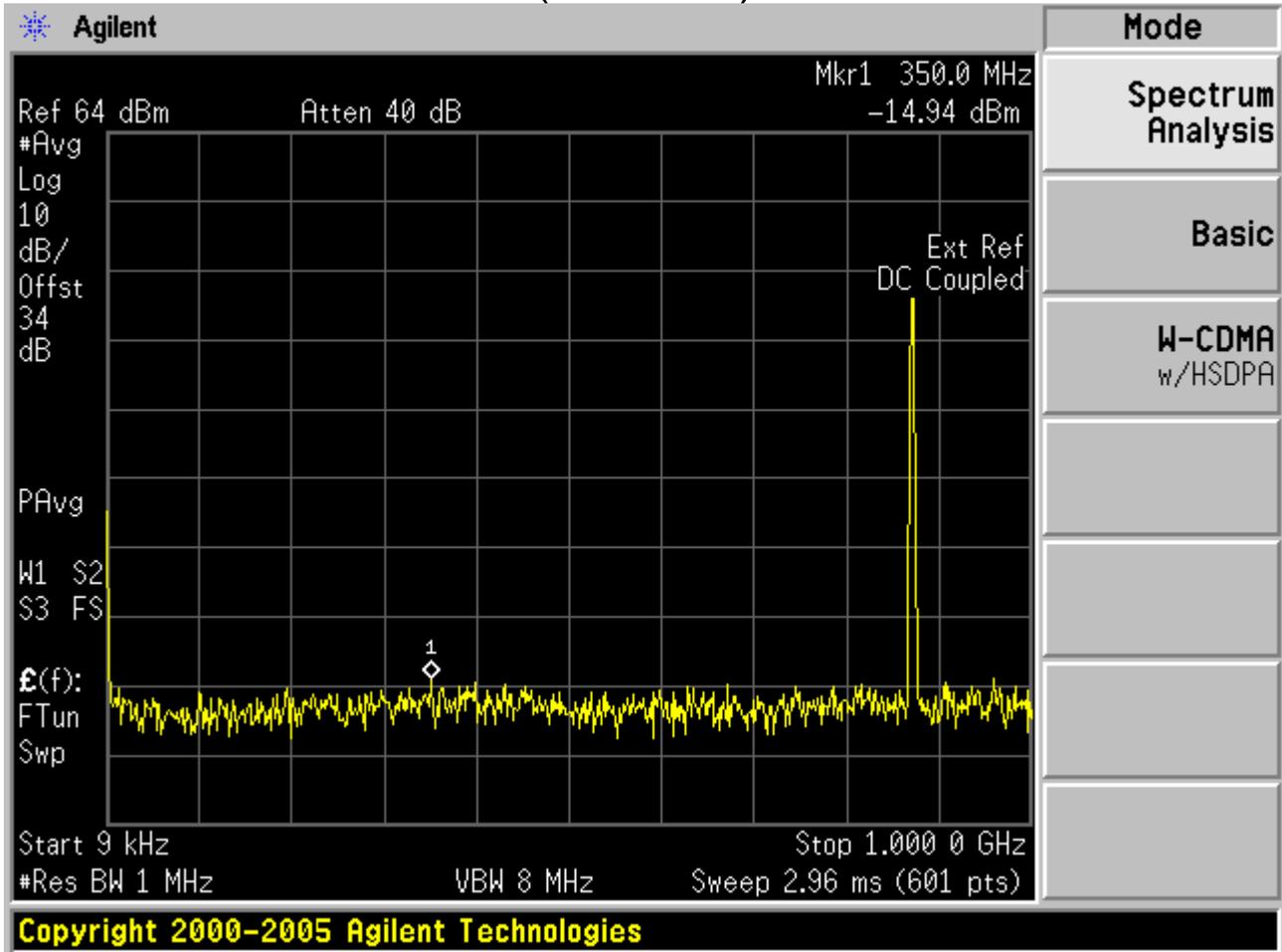
## **Appendix D**

# Conducted Spurious Emission Measurements



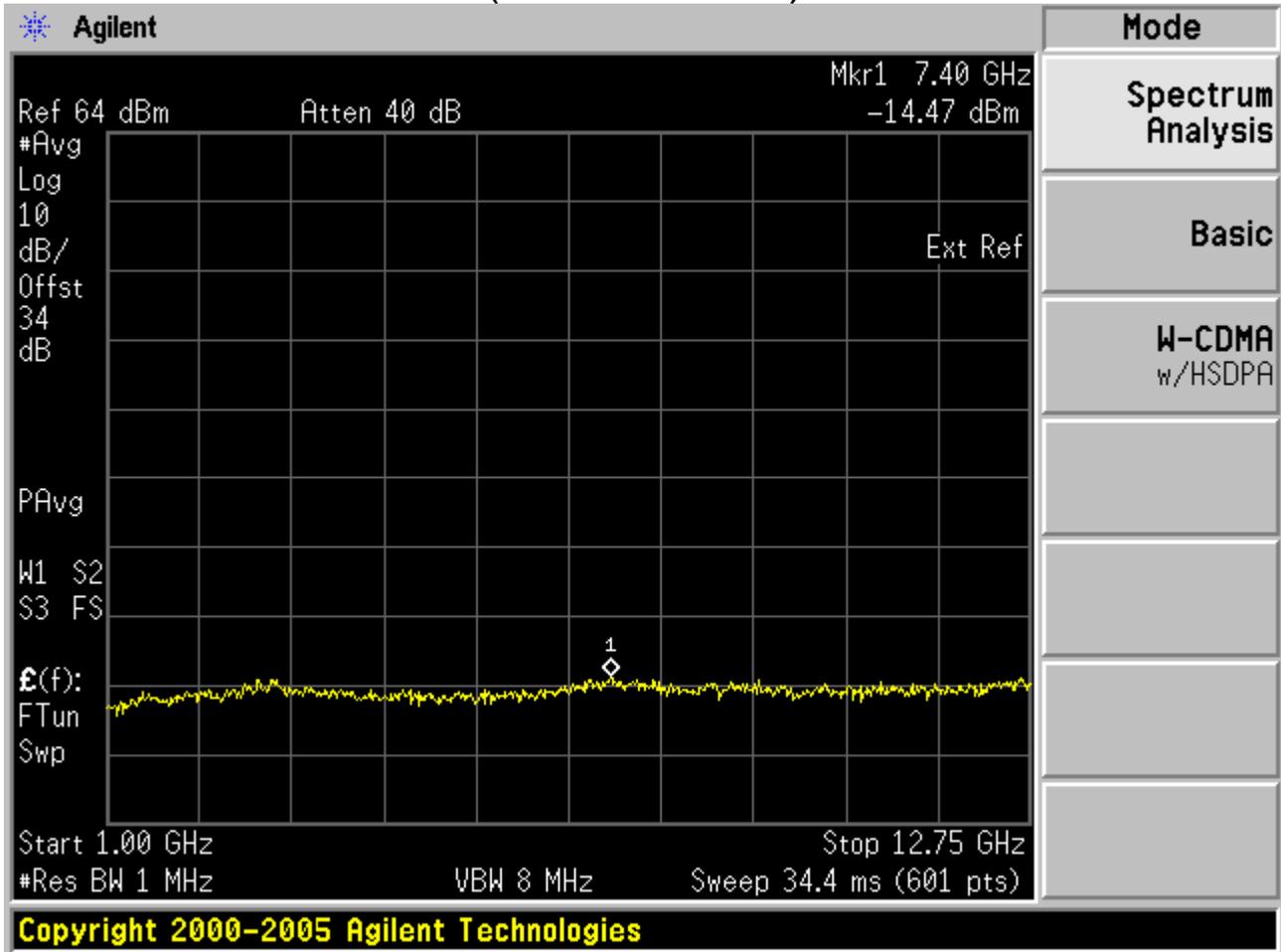
TM1 (QPSK):  
 A: Single Carrier

Channel B  
 (9K to 1G)





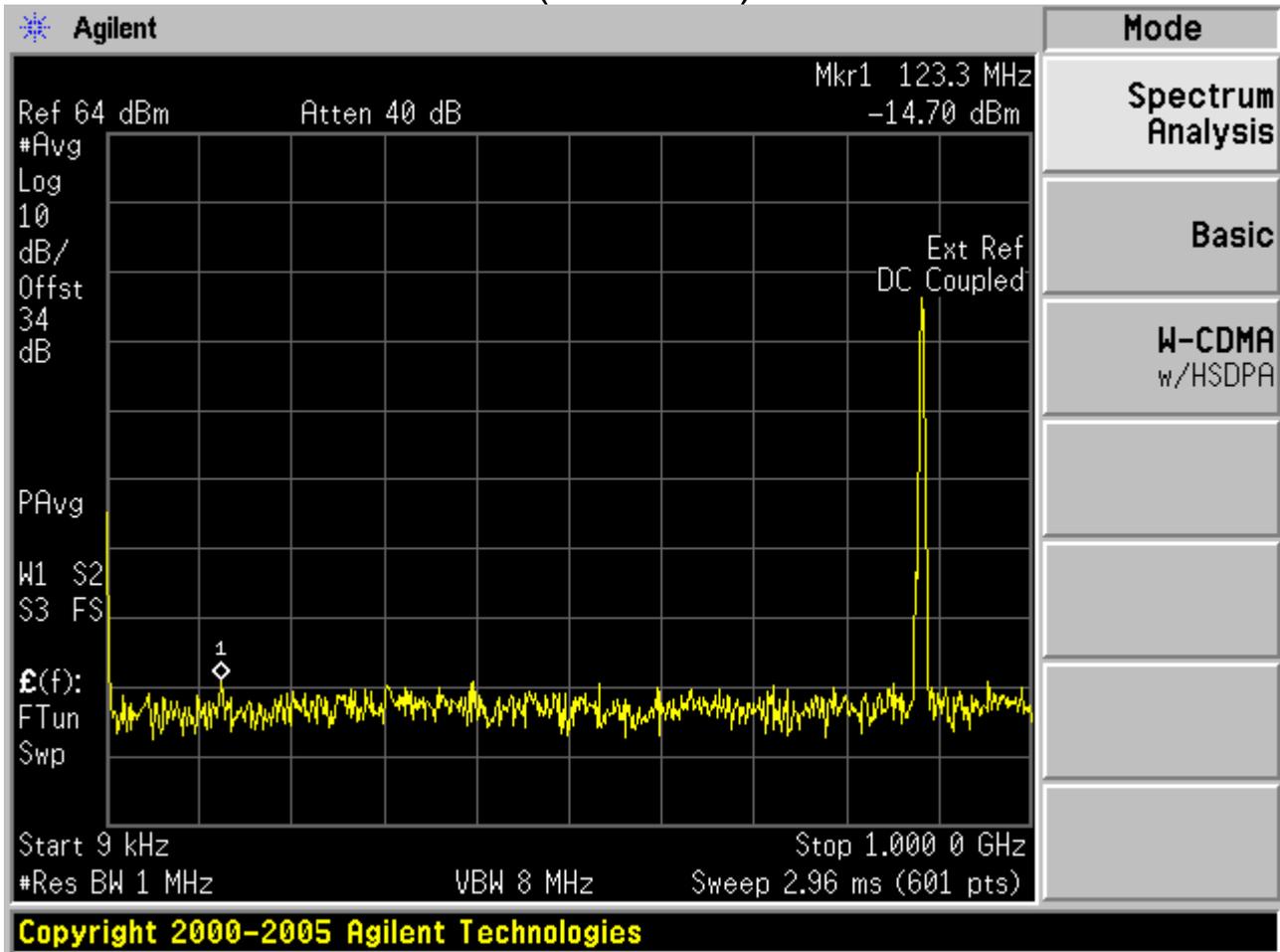
(1G to 12.75G)





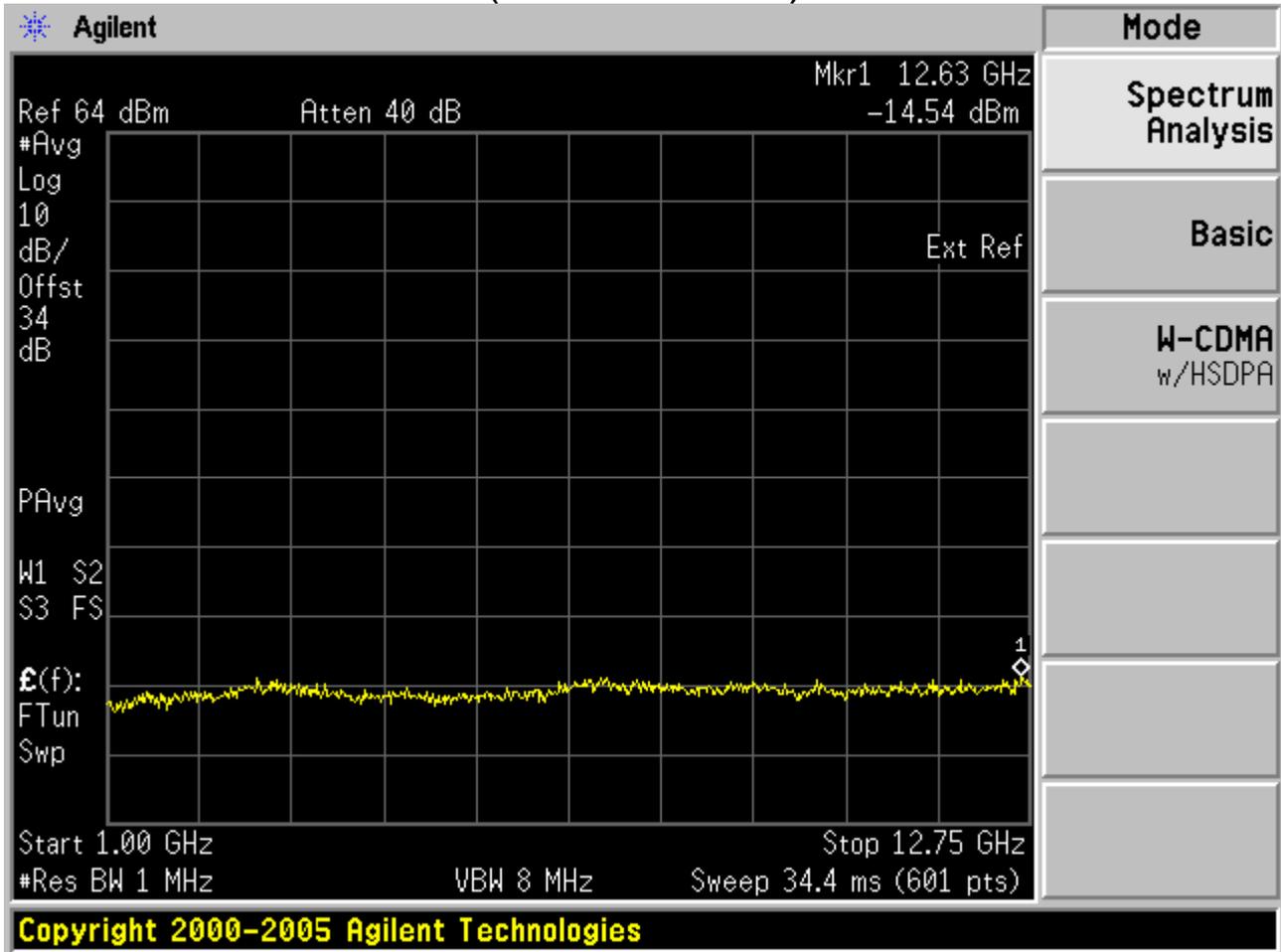
# Channel M

## (9K to 1G)





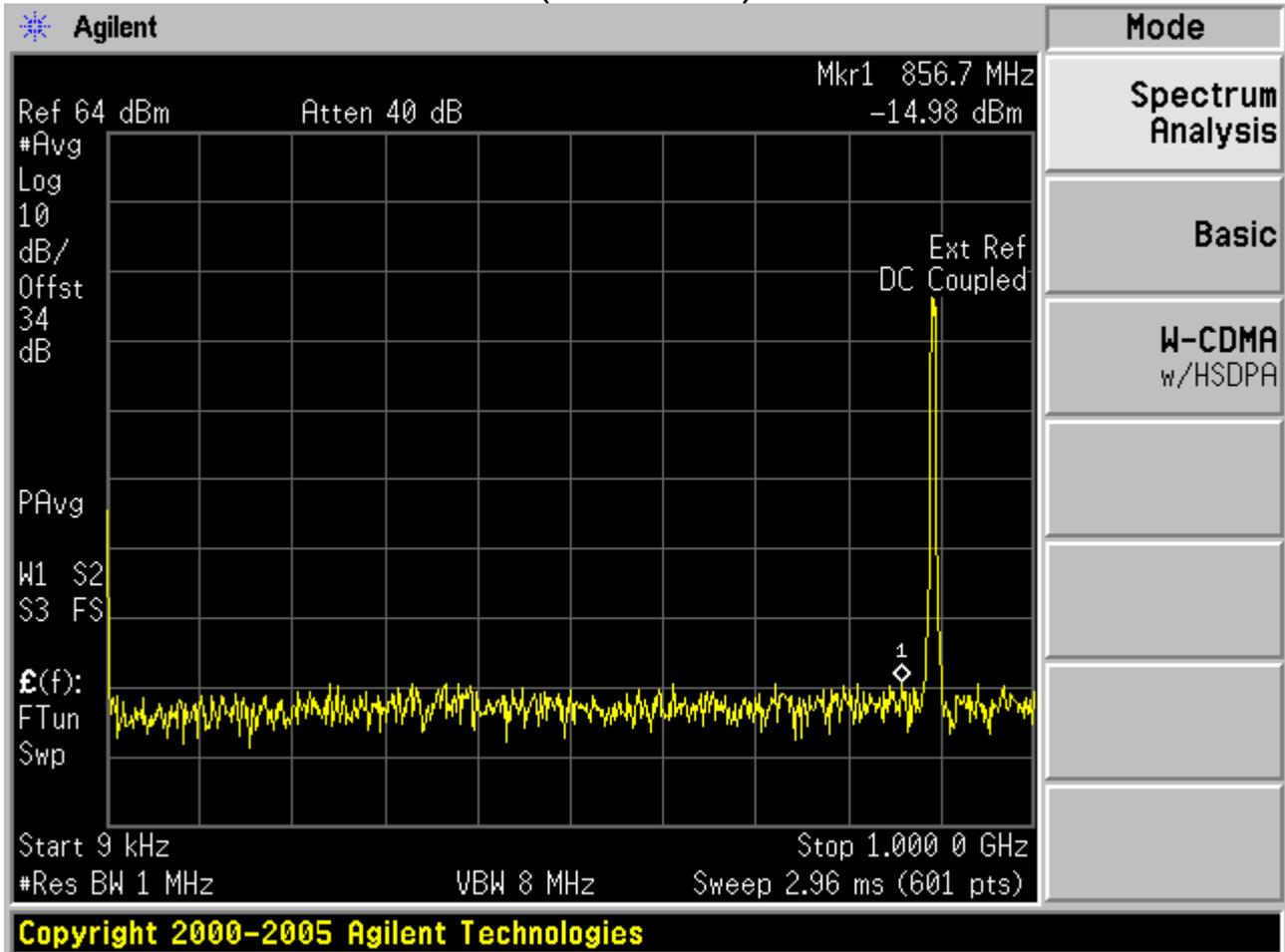
(1G to 12.75G)





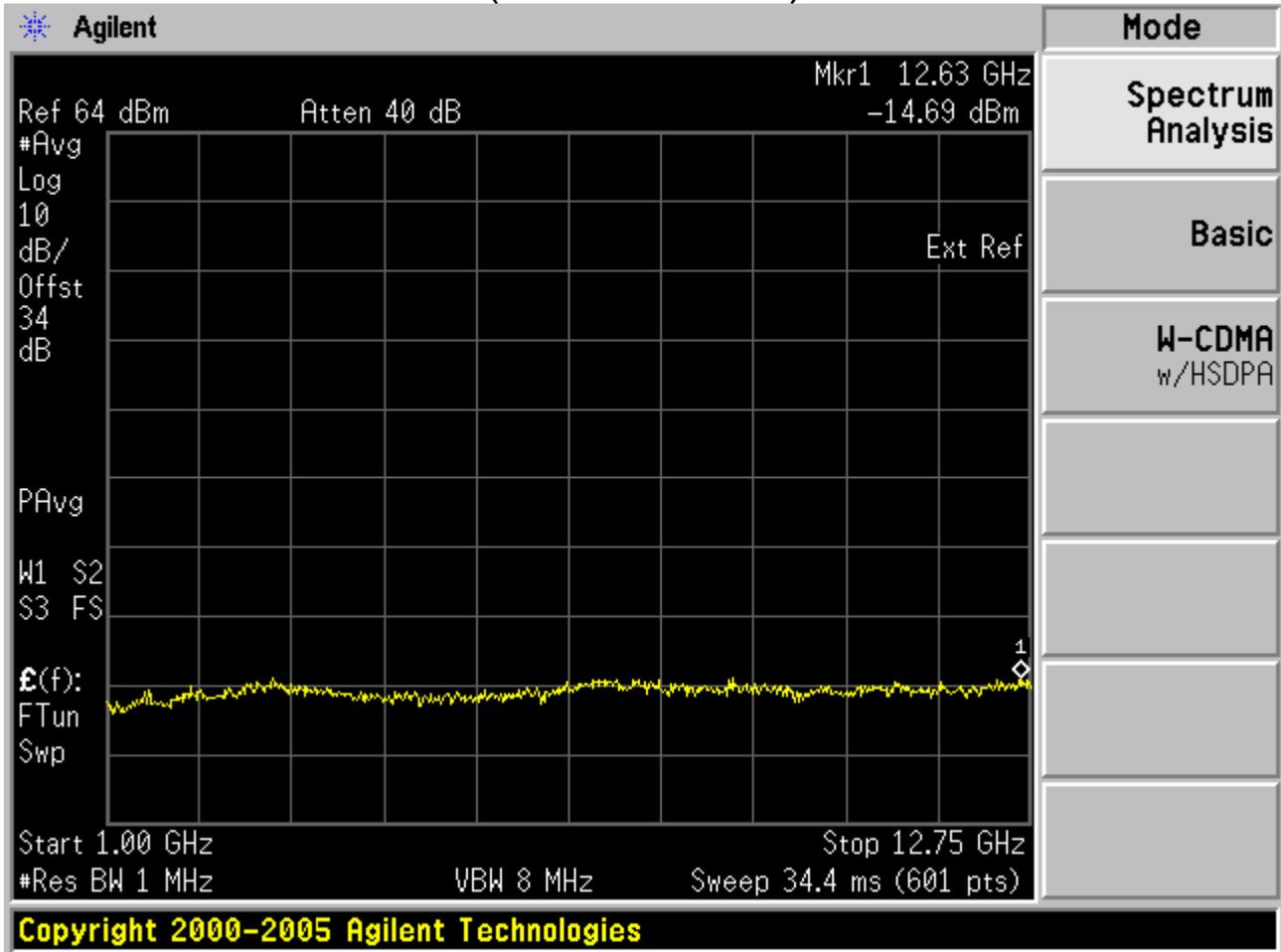
# Channel T

## (9K to 1G)





(1G to 12.75G)

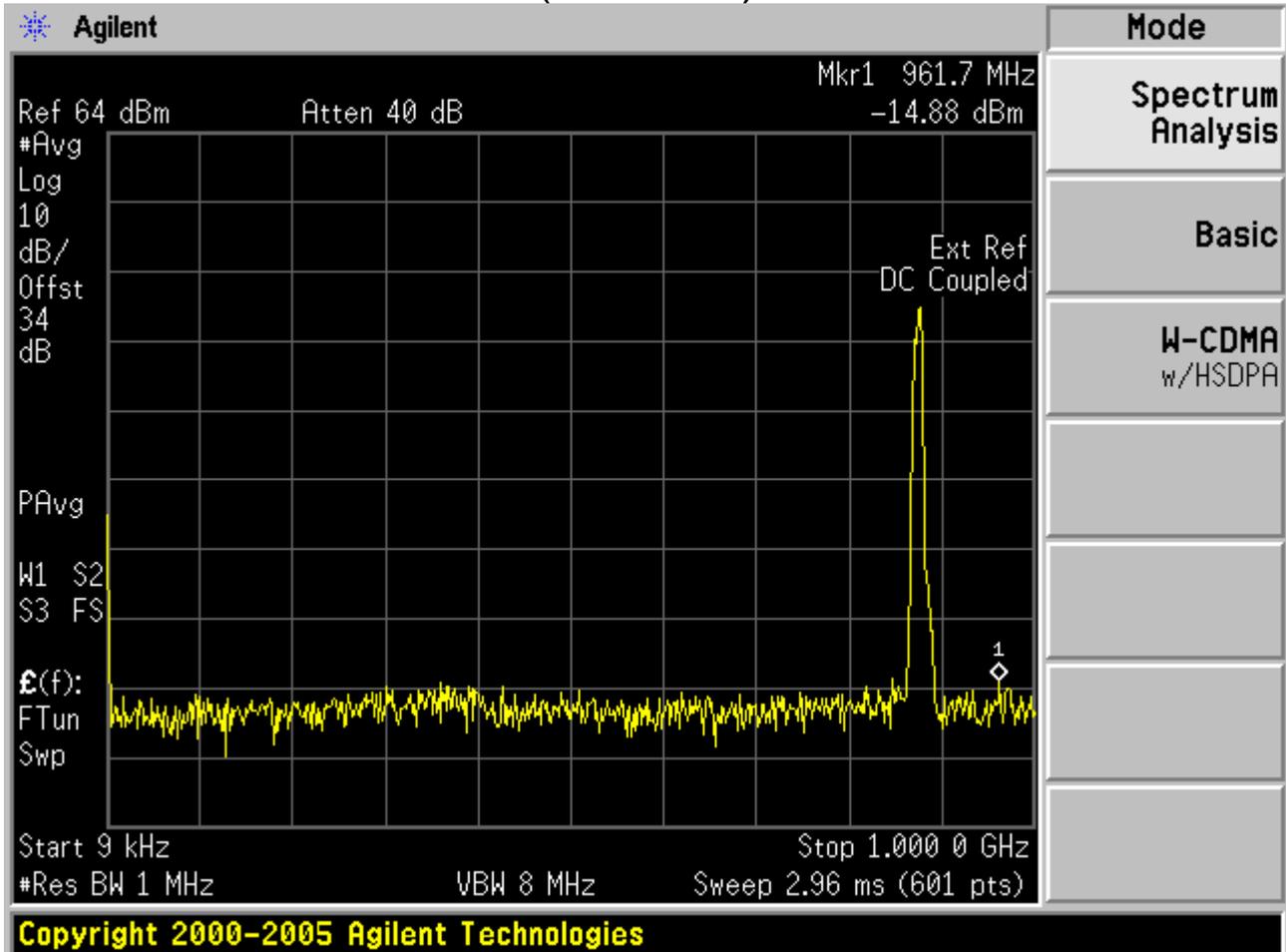




## B: Two Carriers

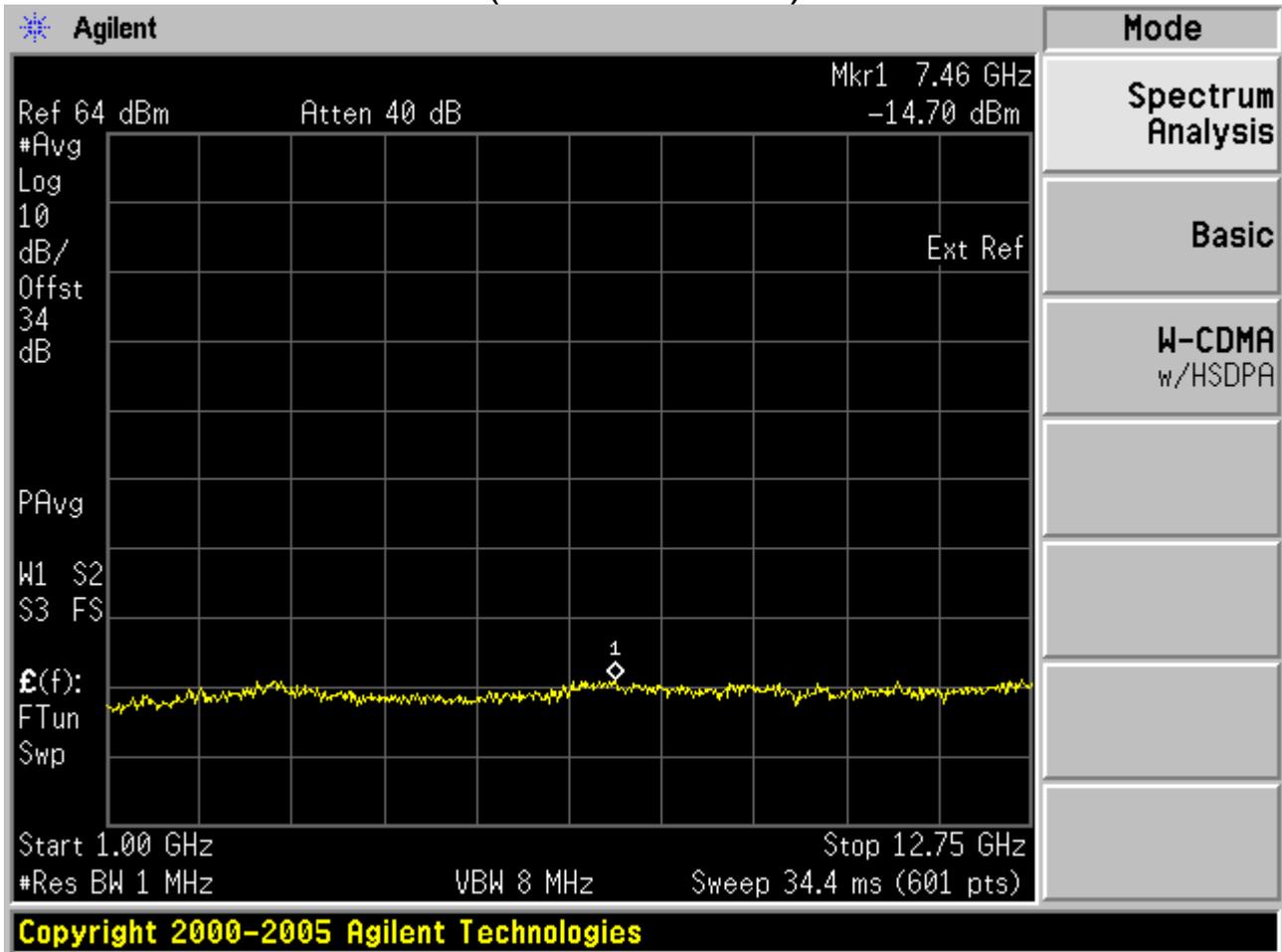
Channel Number 4357/4382

(9K to 1G)





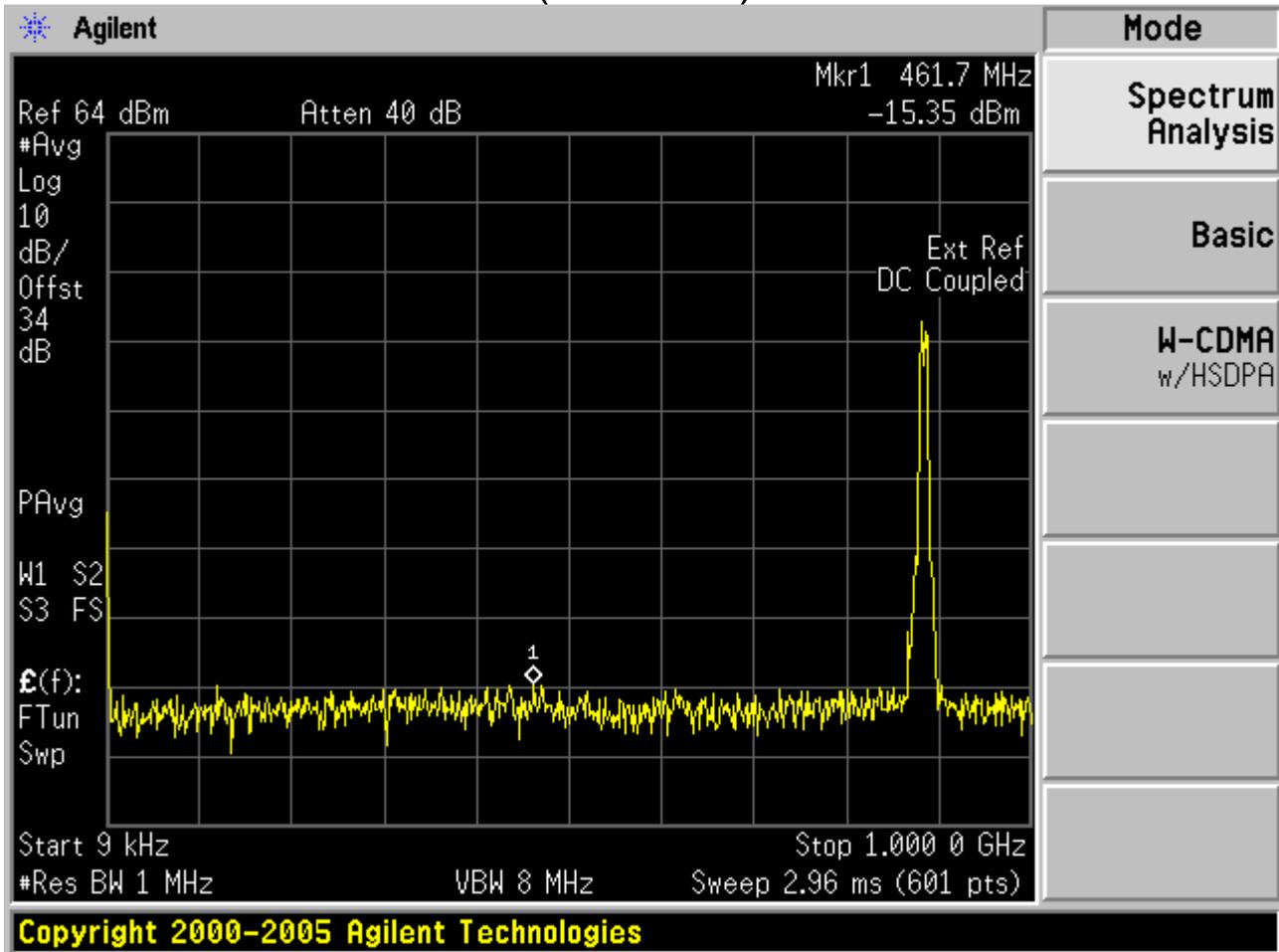
(1G to 12.75G)





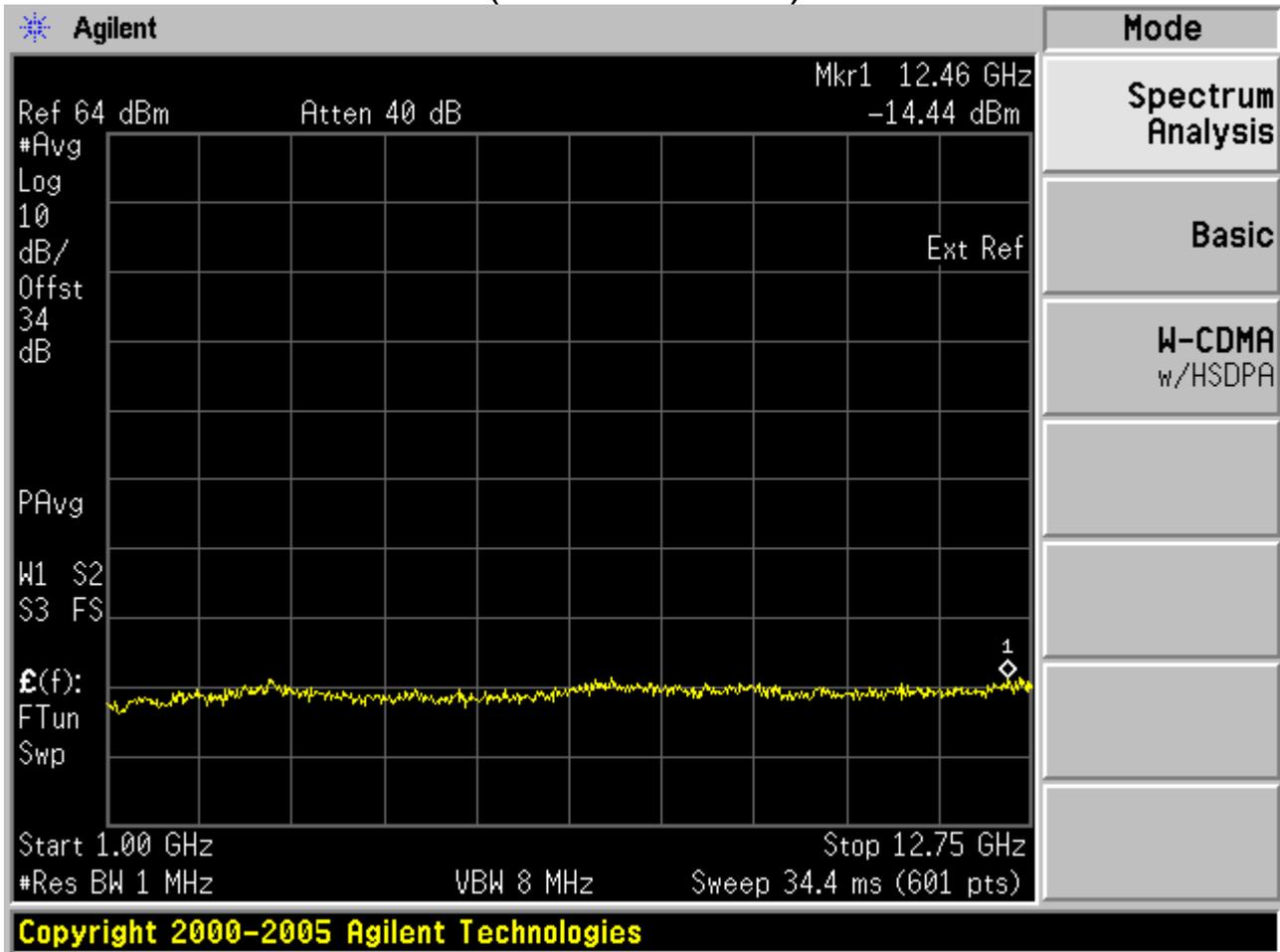
# Channel Number 4407/4432

(9K to 1G)





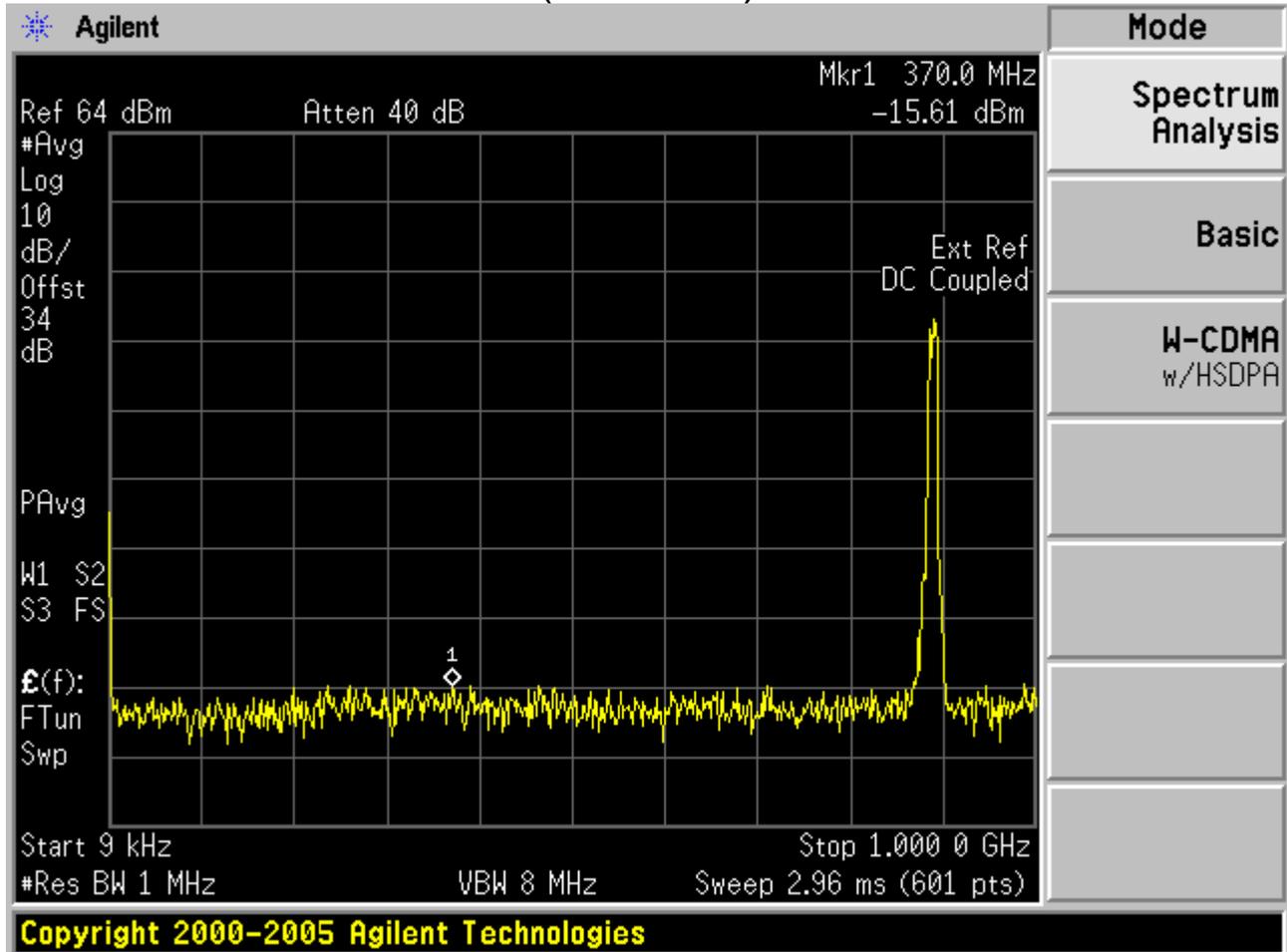
(1G to 12.75G)





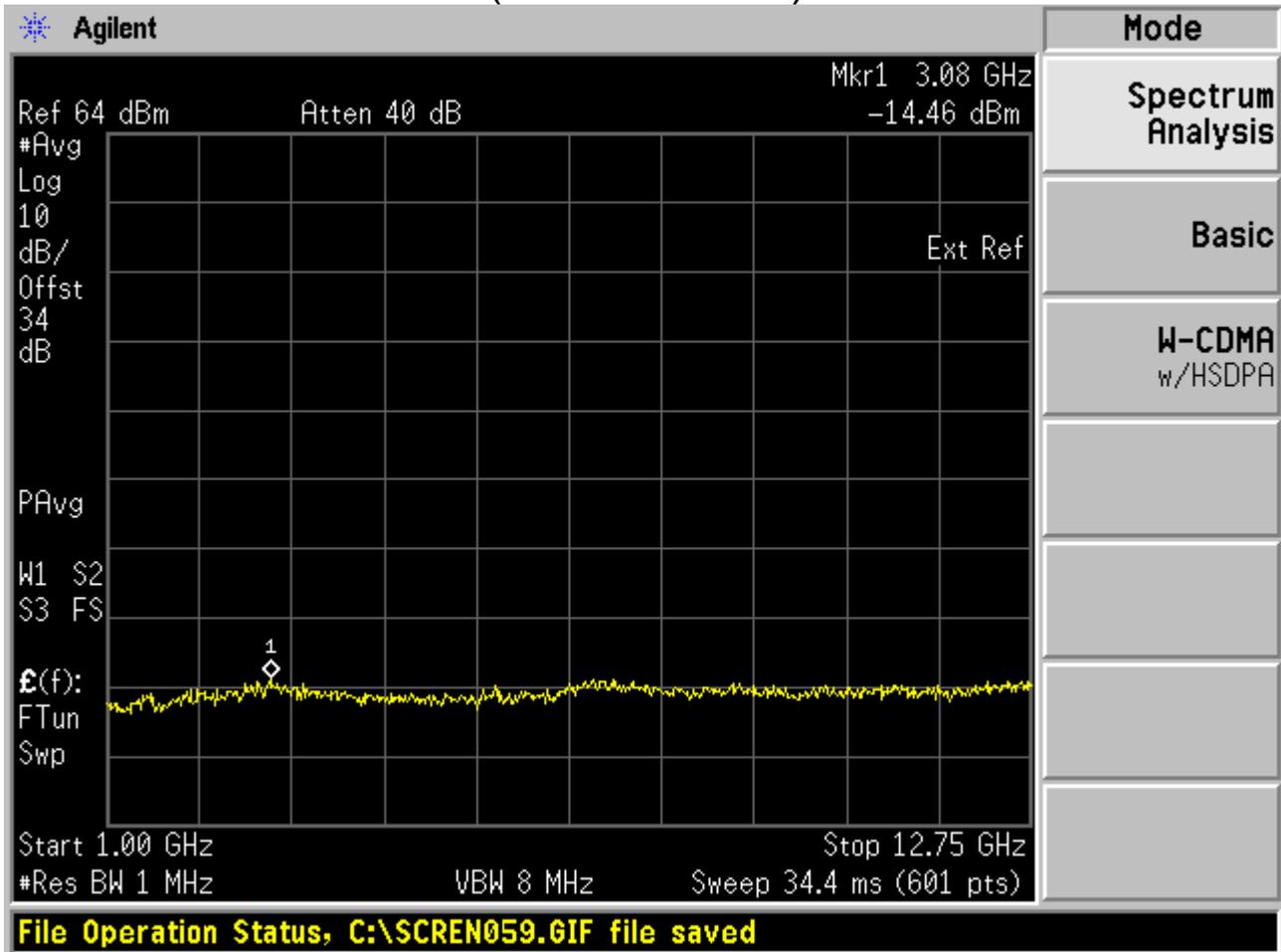
# Channel Number 4433/4458

(9K to 1G)





(1G to 12.75G)



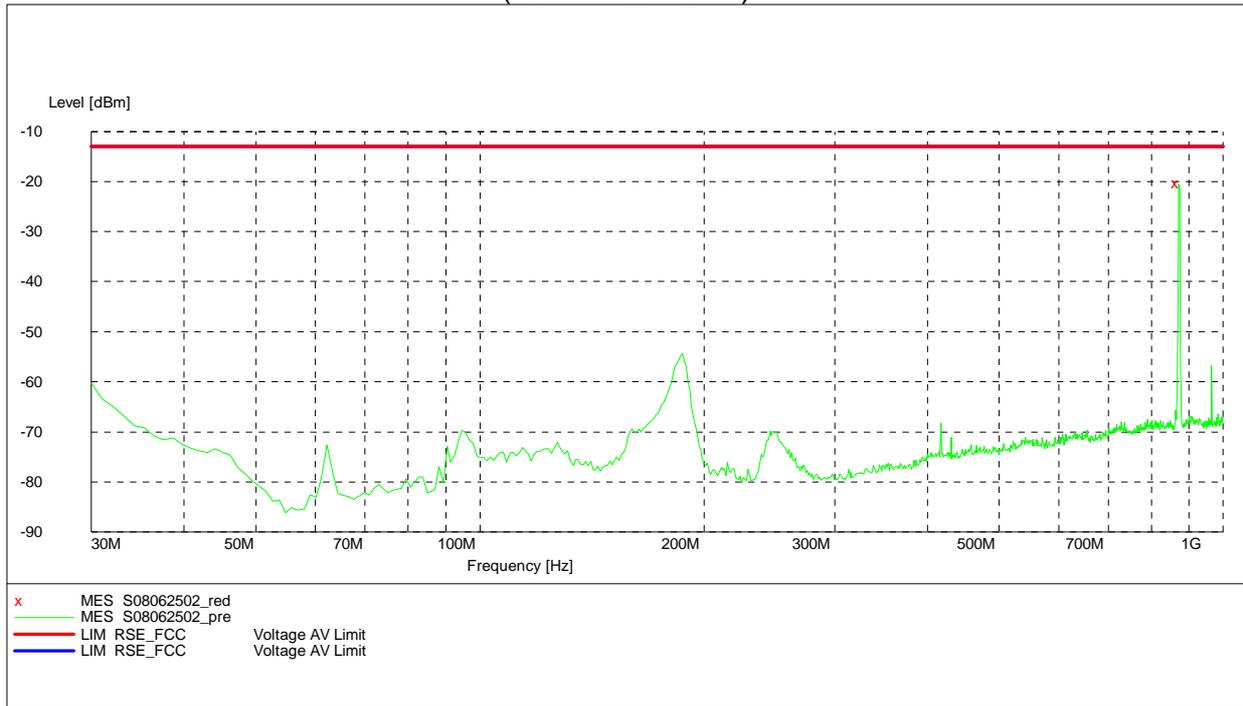


## **Appendix E**

# Radiated Spurious Emission Measurements

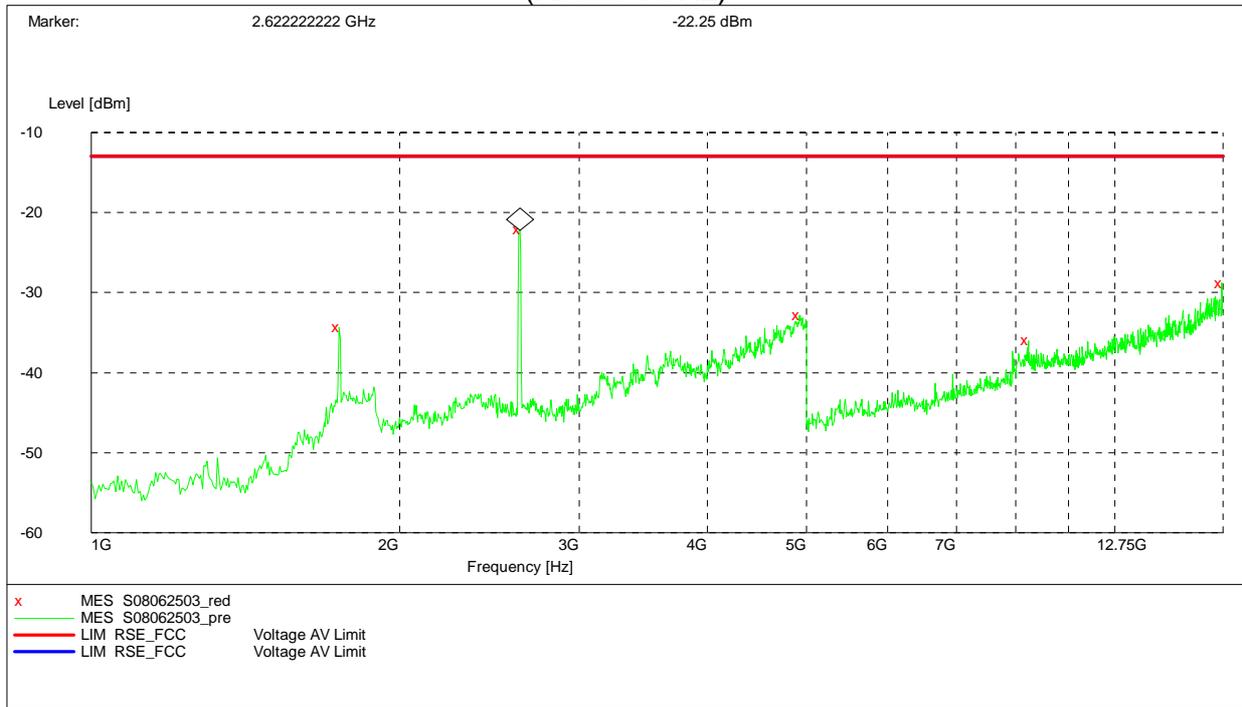


(30MHz to 1GHz)





(Above 1GHz)





## **Appendix F**

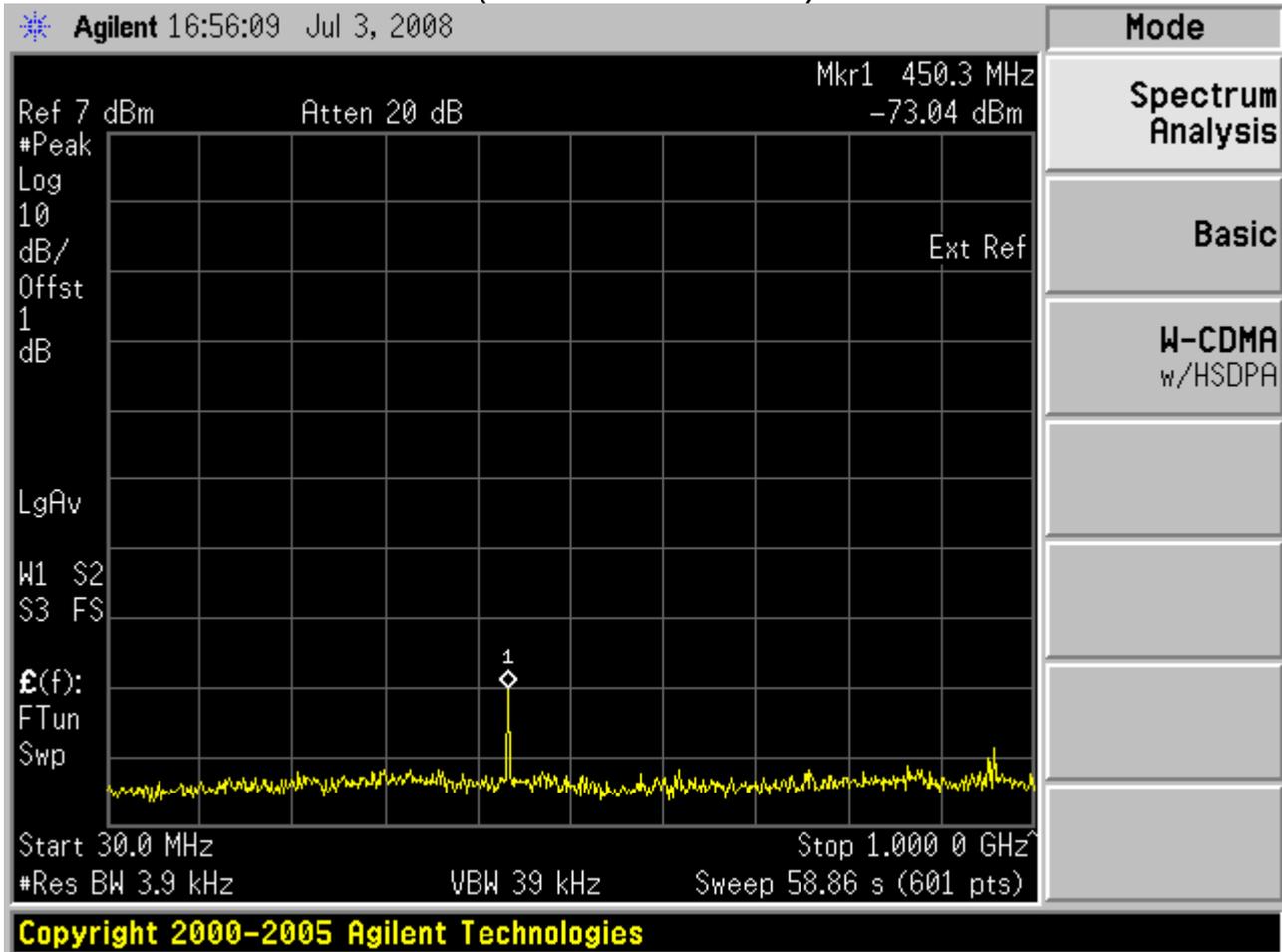
# Receiver Spurious Emission (Conducted) Measurements



TM1:

## Channel Number M

### (30MHz - 1GHz)





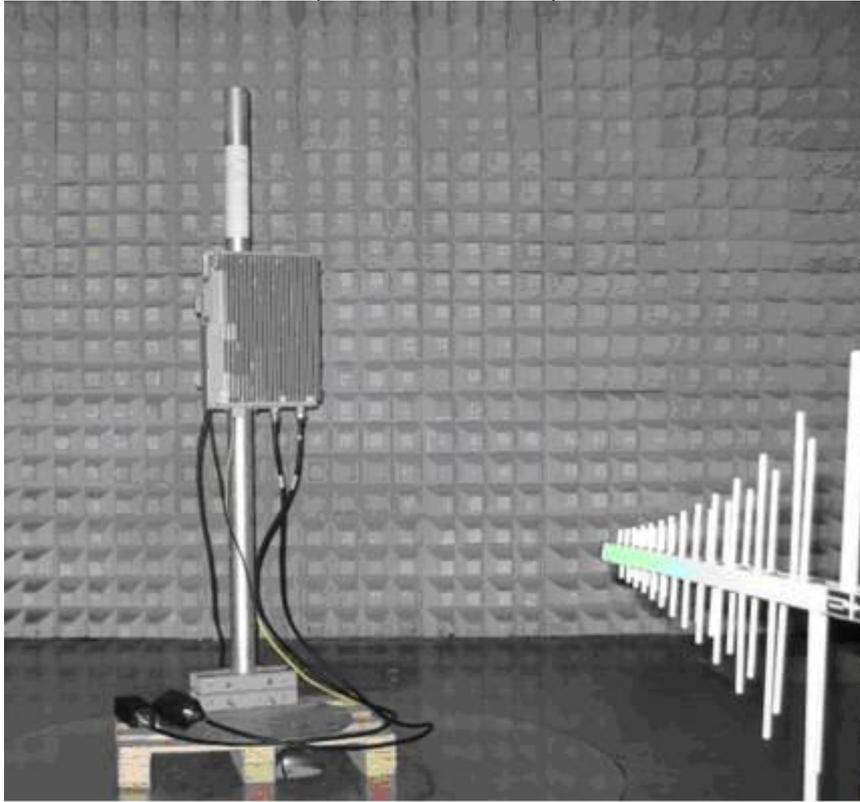


# Appendix G

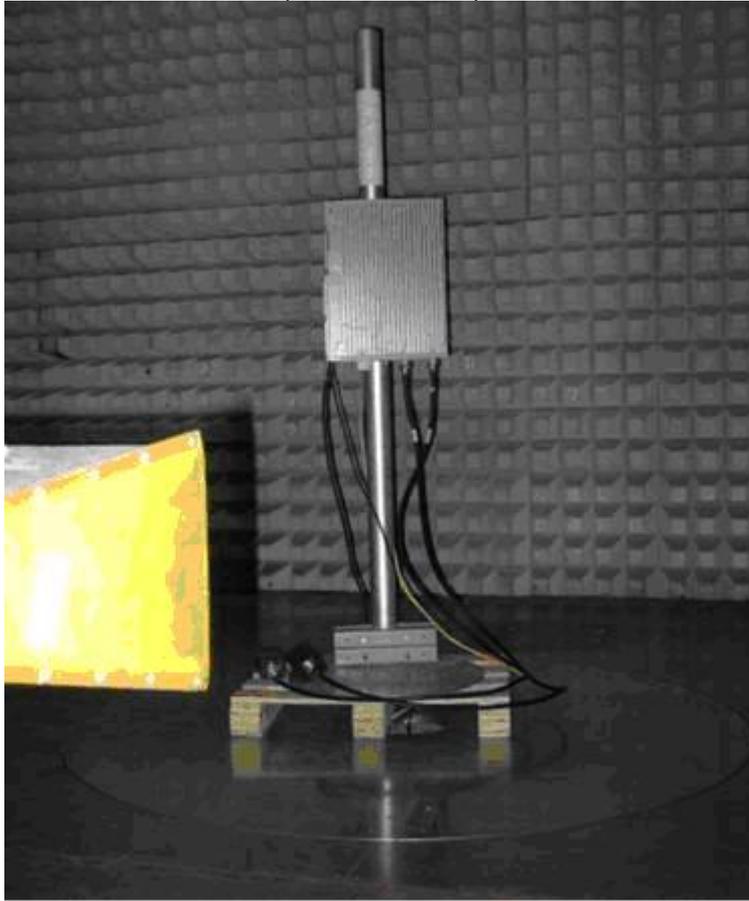
## Photos of Test Setup

# Test Setup for Radiated Spurious Emissions

(30MHz to 1GHz)



(Above 1GHz)



--- END OF APPENDICES ---