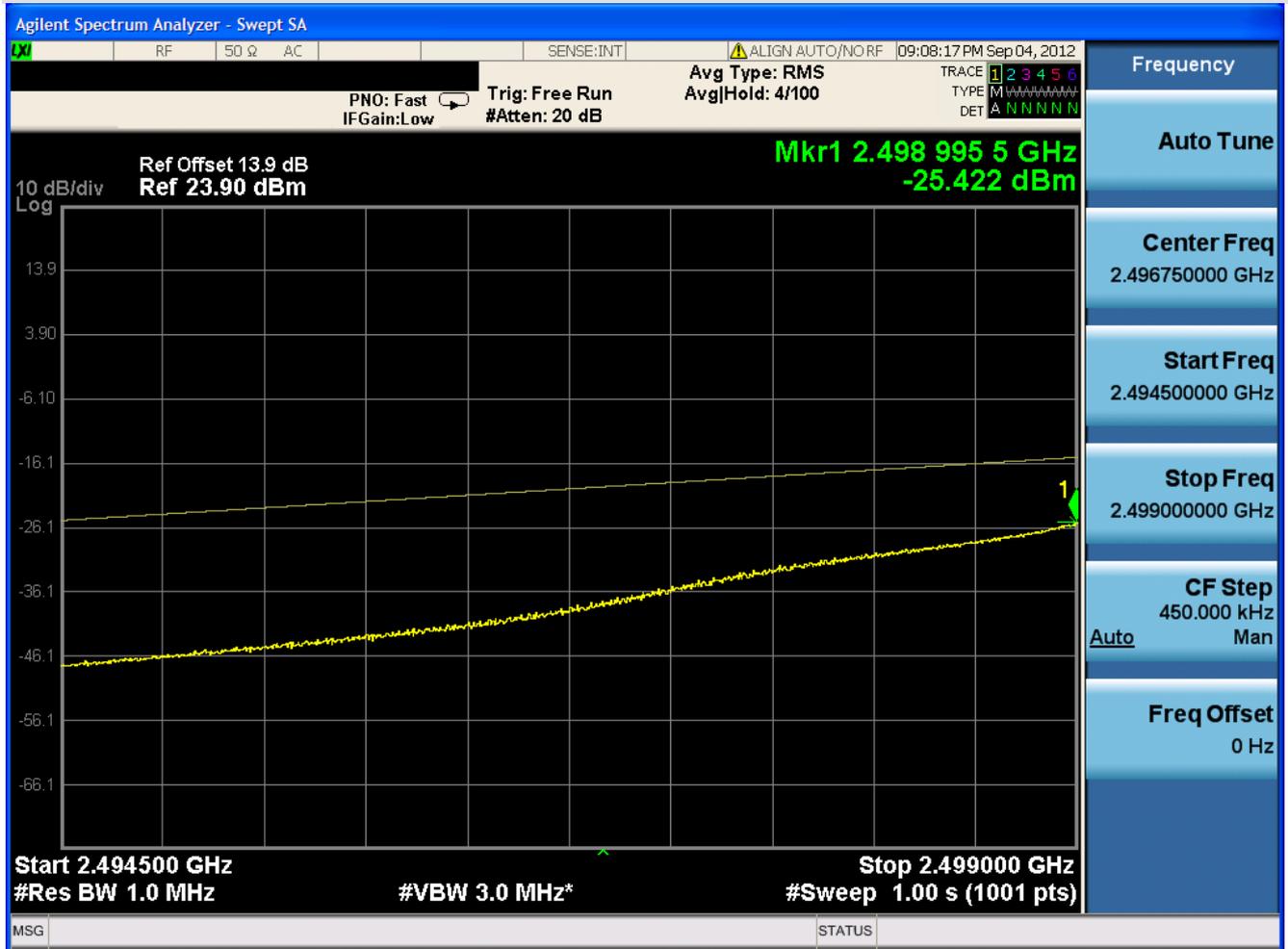
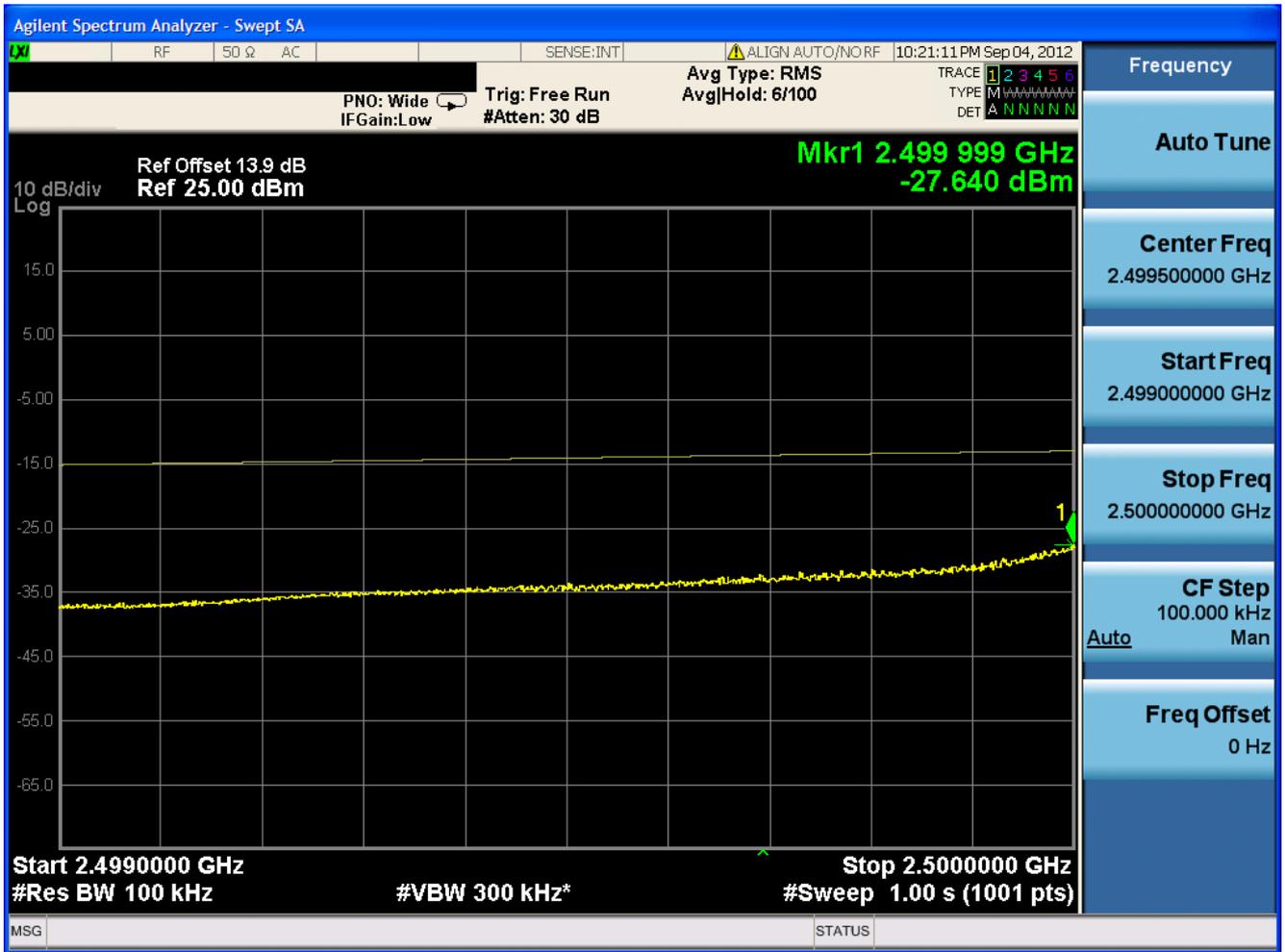


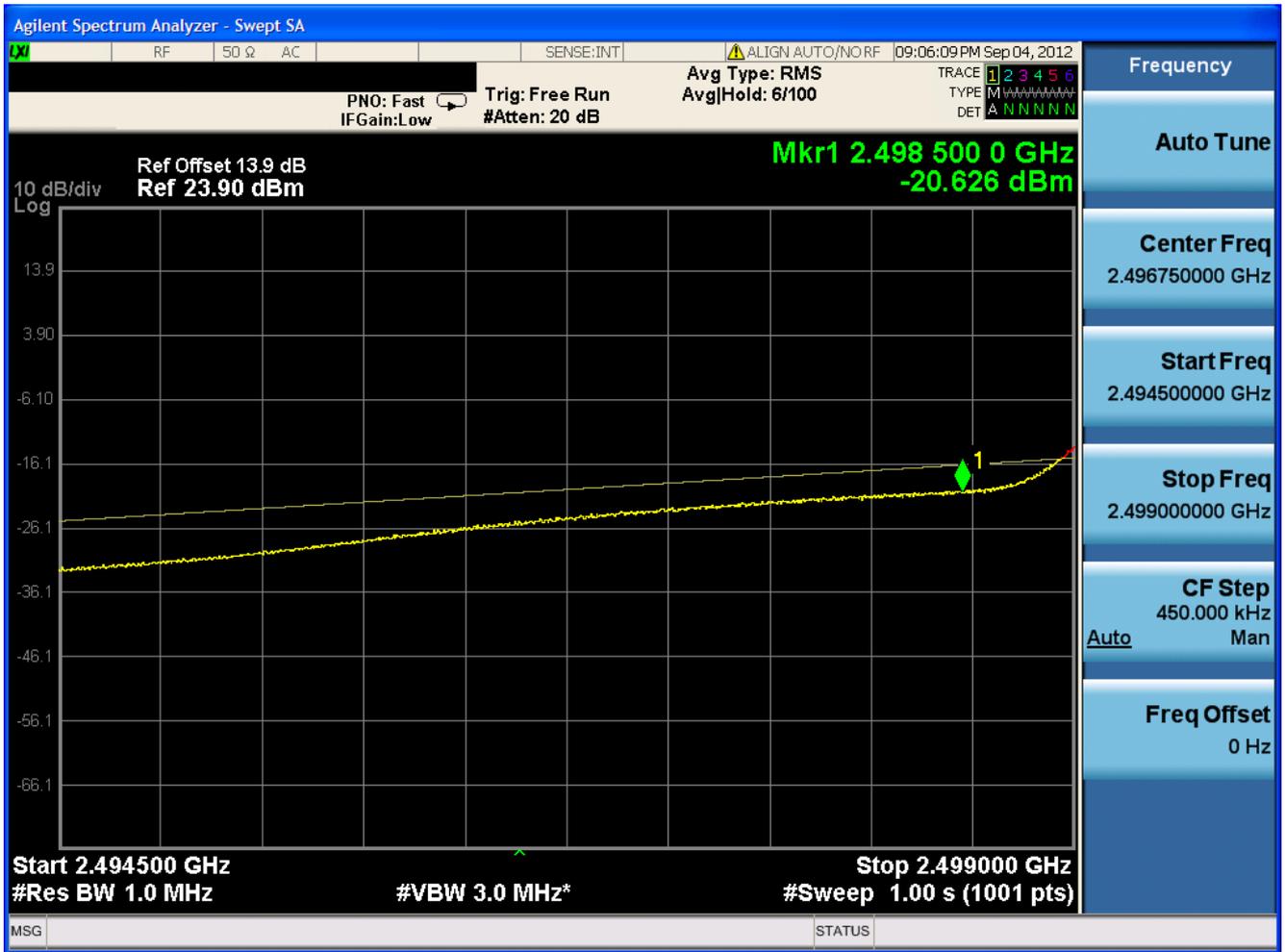


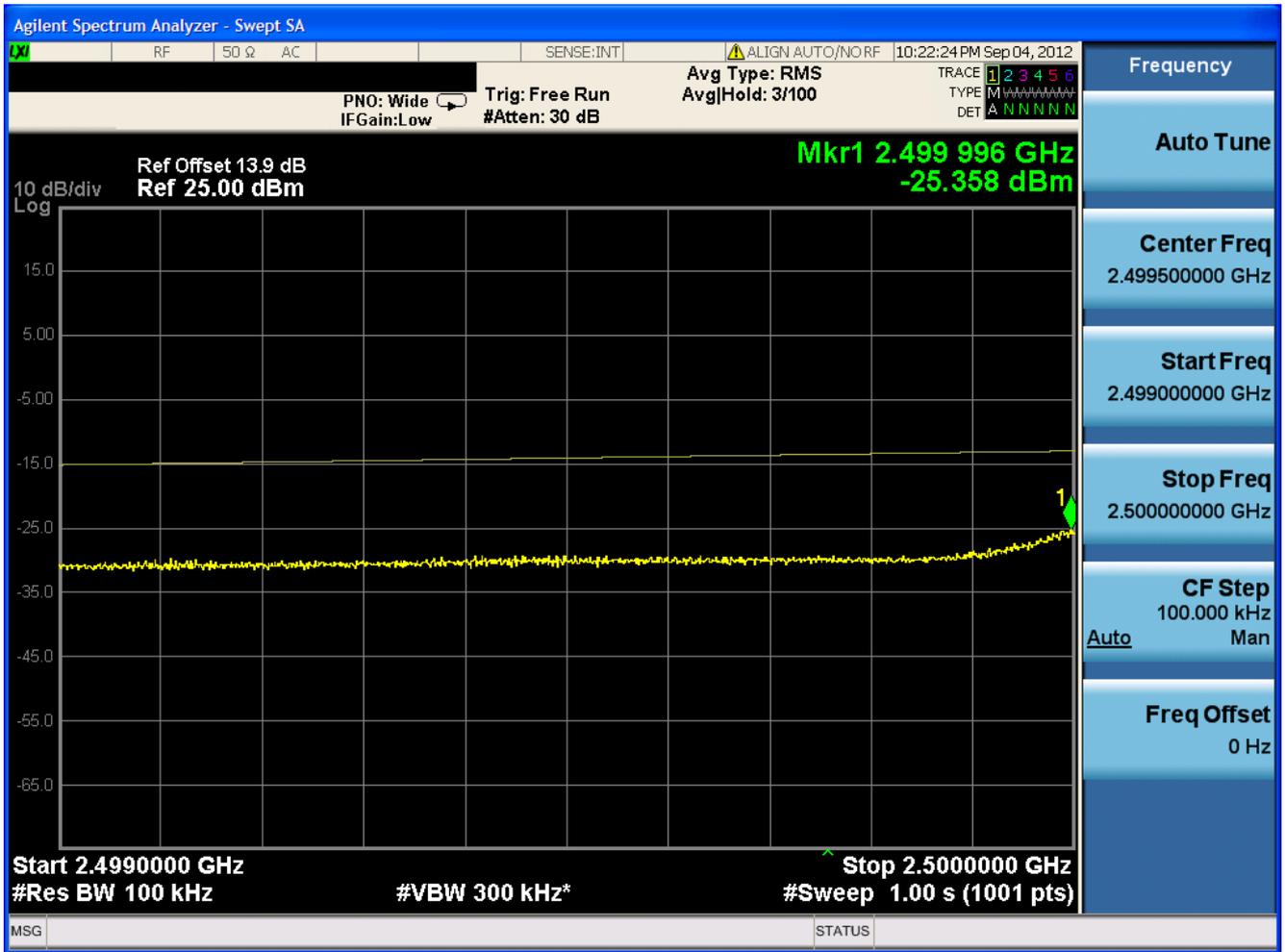
1.2.1.1.3 16QAM /Partial RBs /RB #6





1.2.1.1.4 16QAM /full RBs

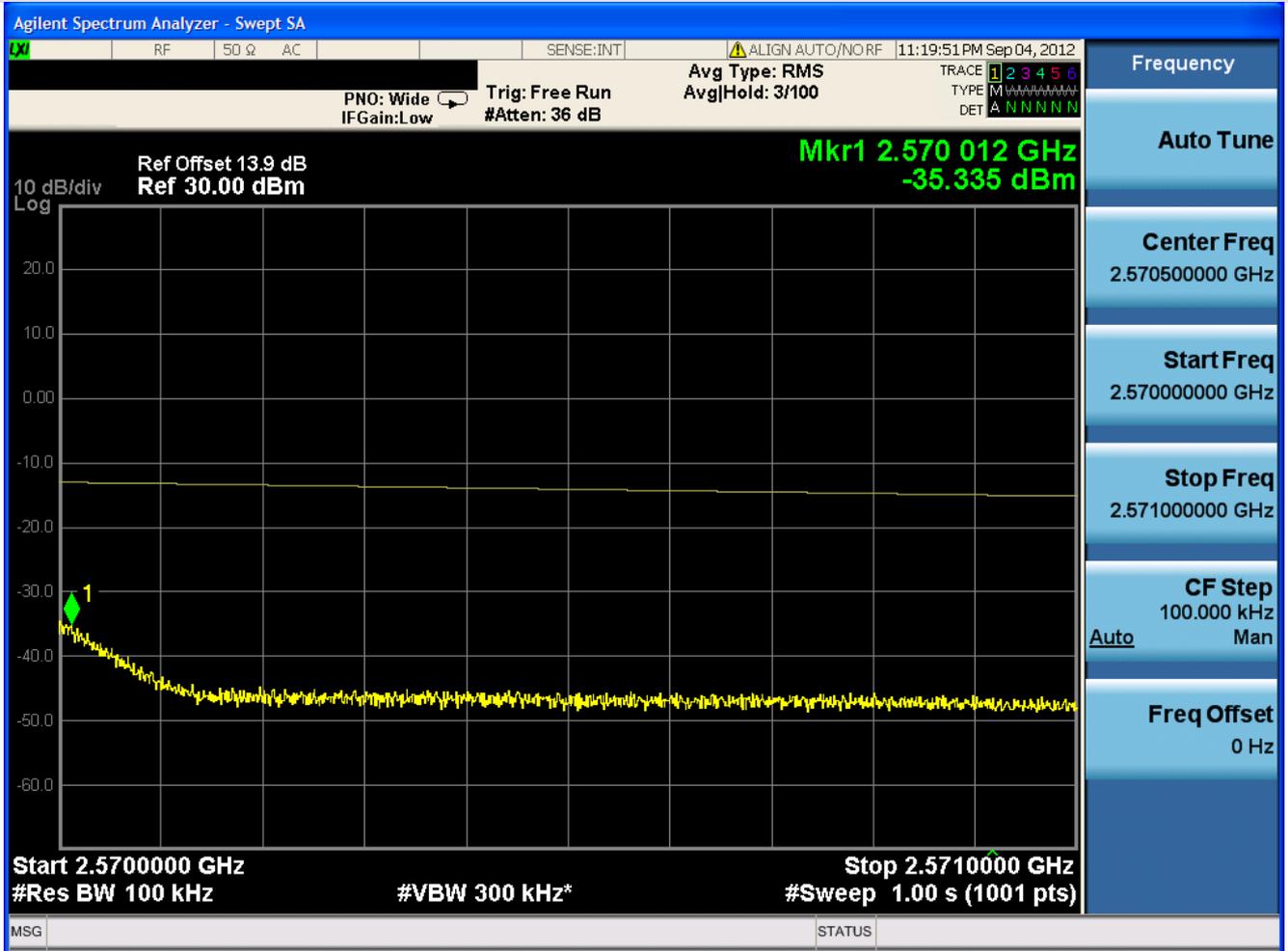






1.2.1.2 Channel= T

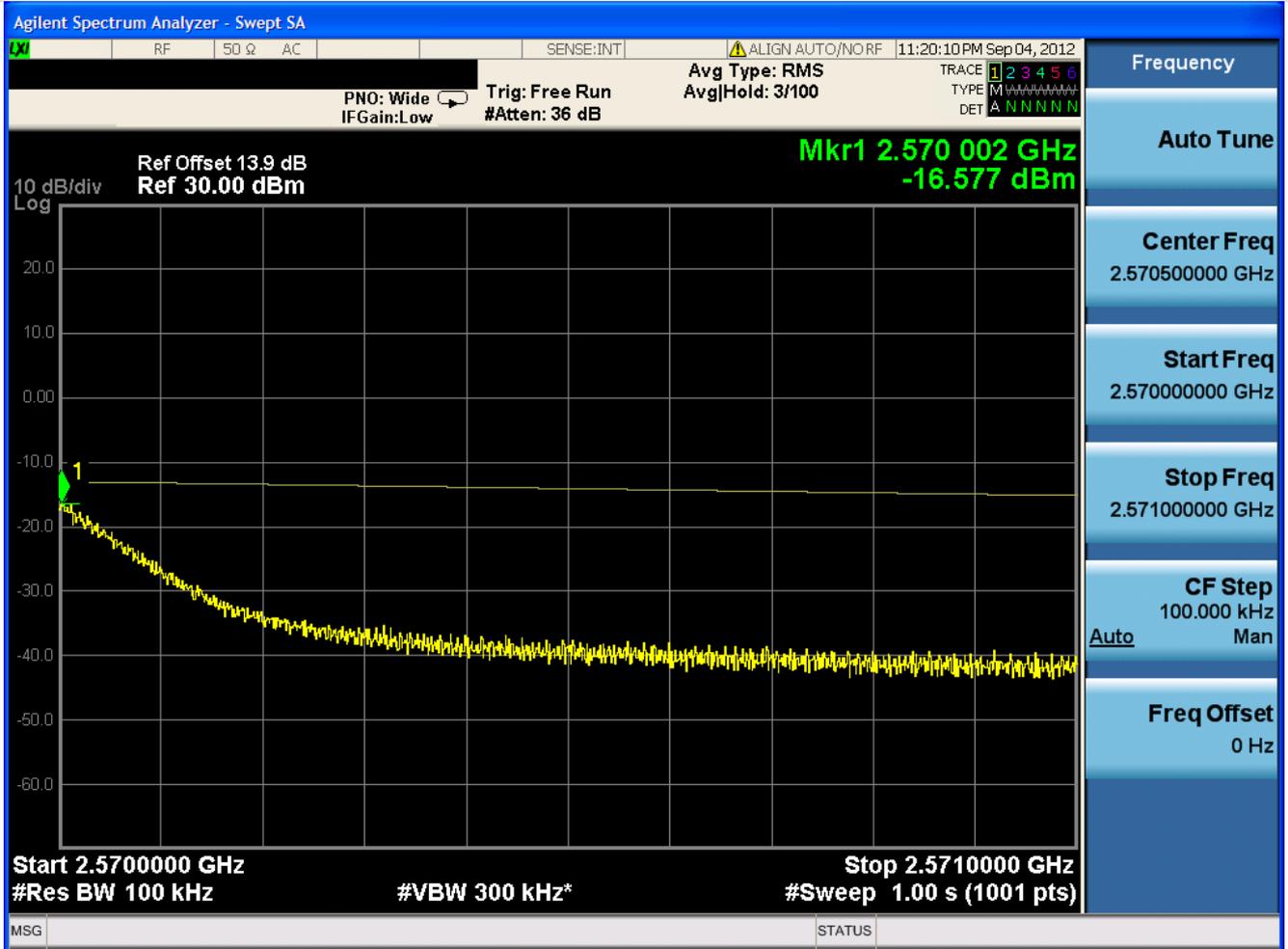
1.2.1.2.1 16QAM/1RB #0

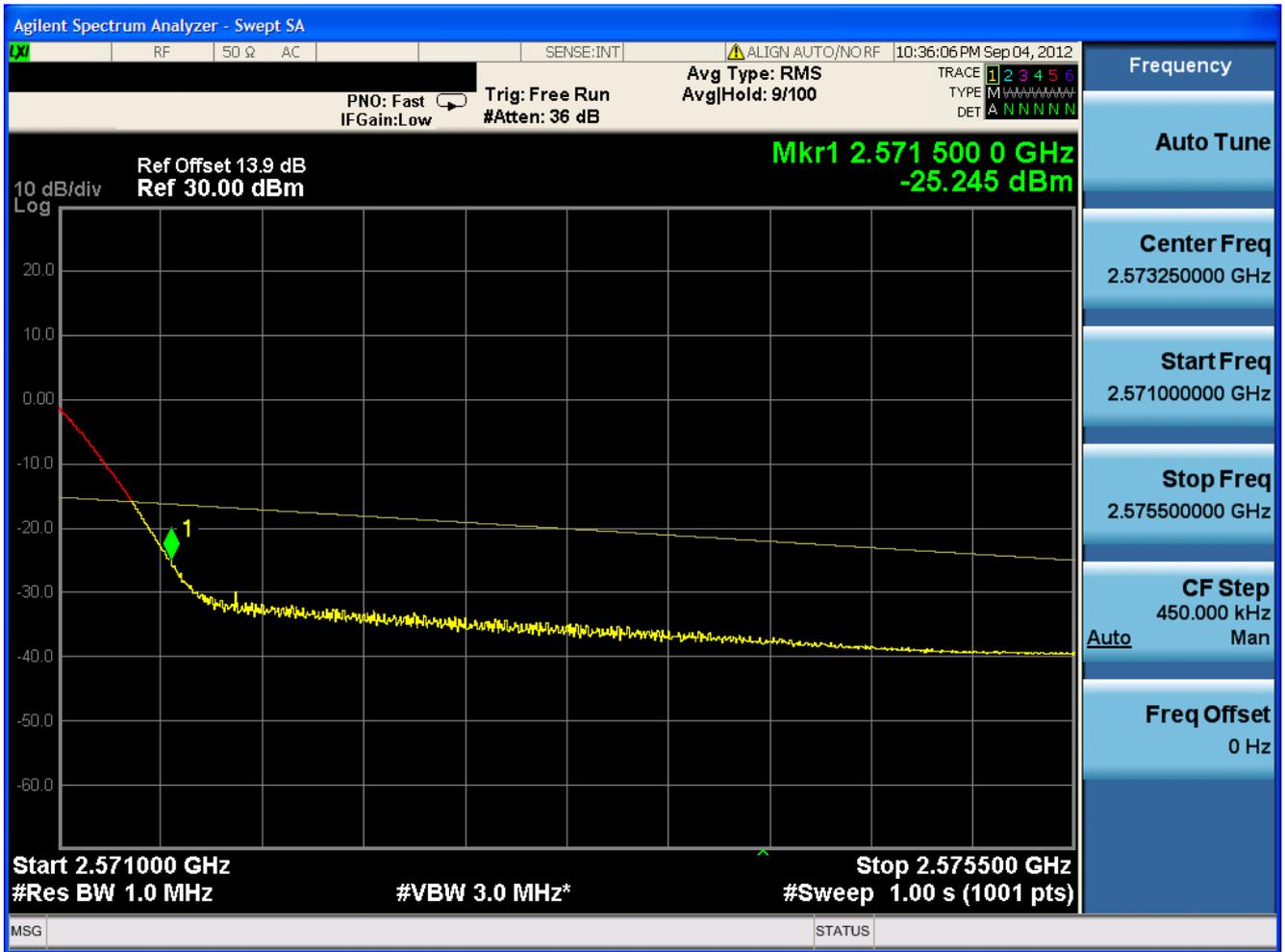






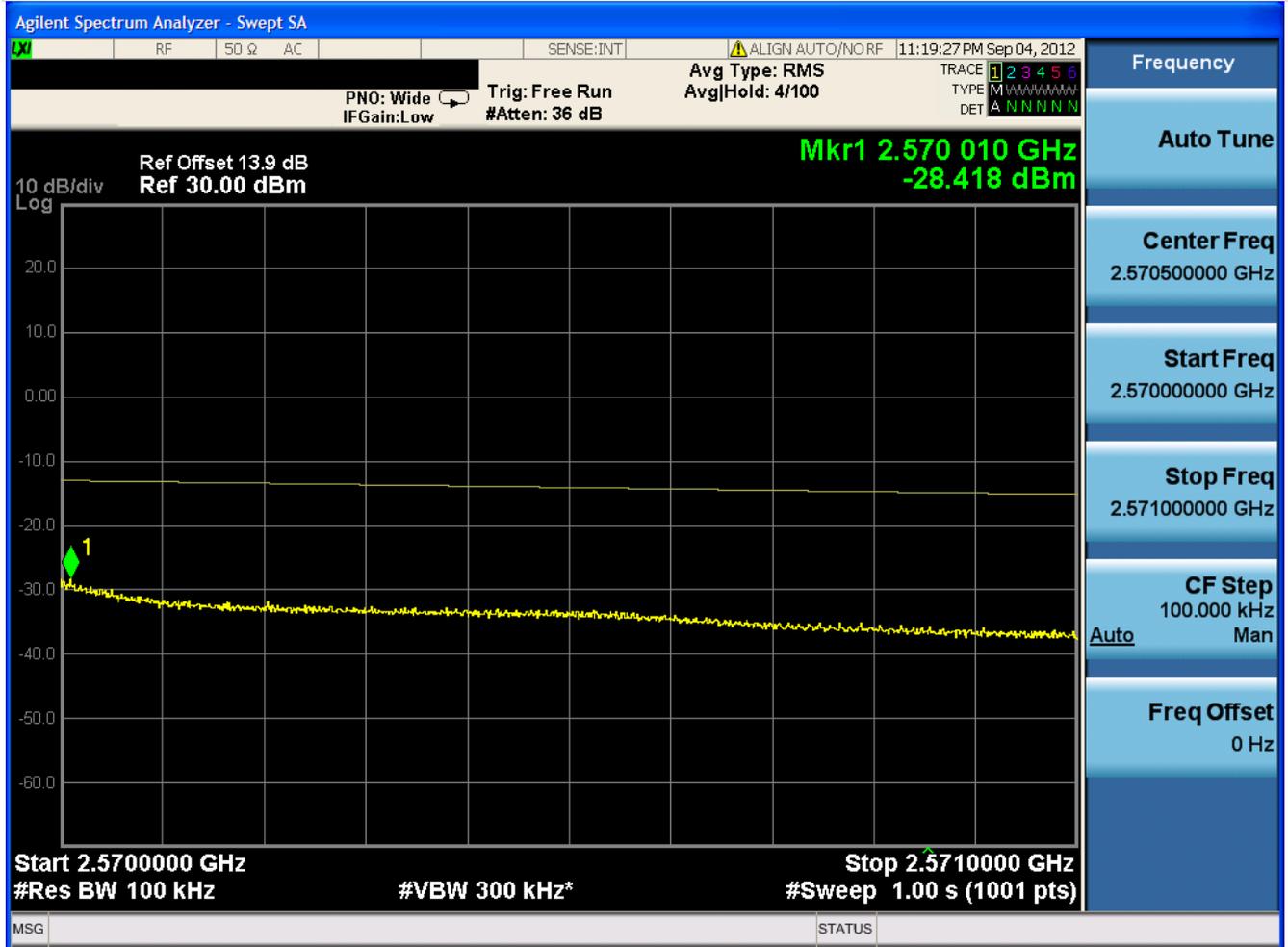
1.2.1.2.2 16QAM/1RB #max





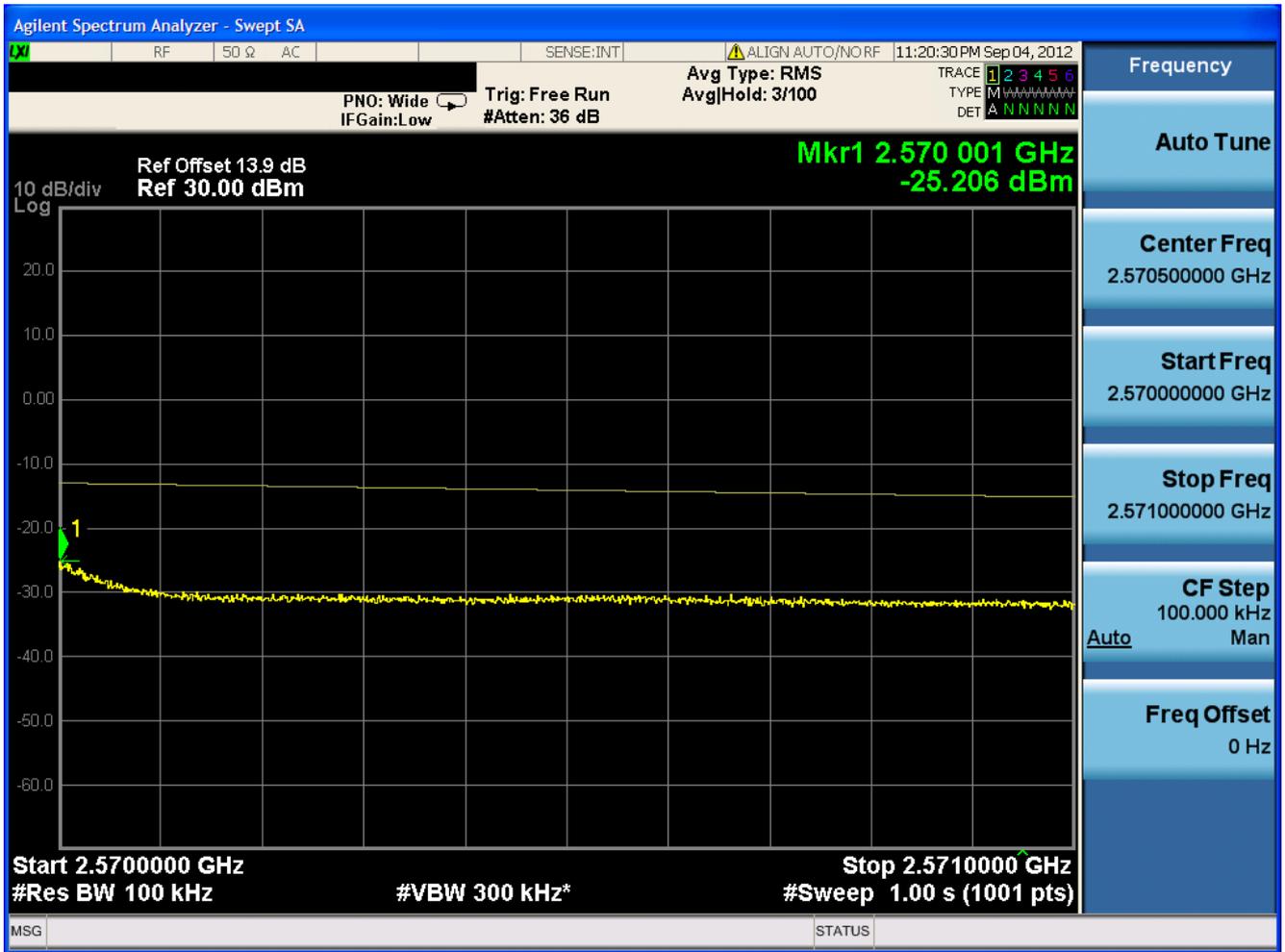


1.2.1.2.3 16QAM /Partial RBs /RB #6

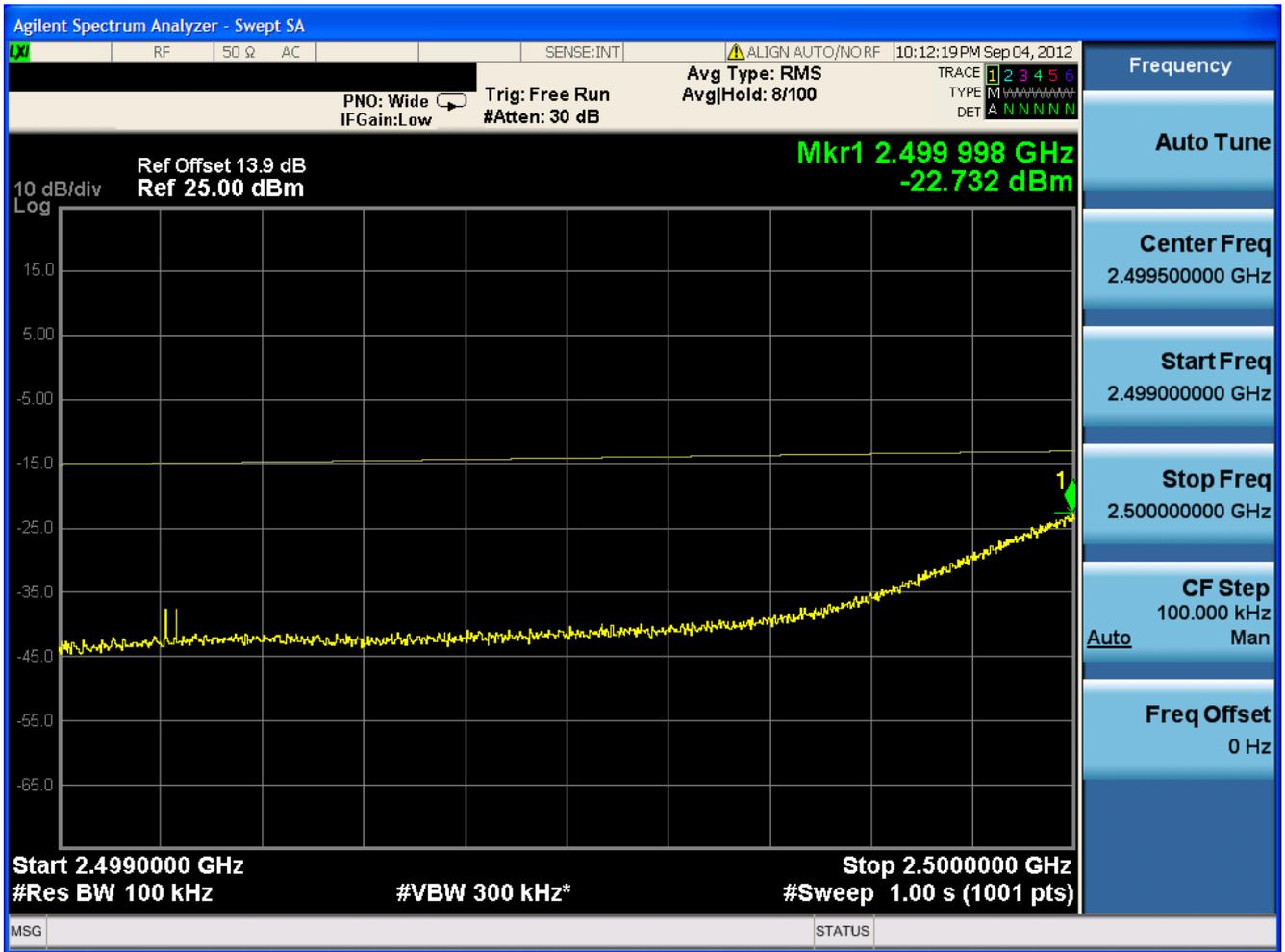




1.2.1.2.4 16QAM /full RBs

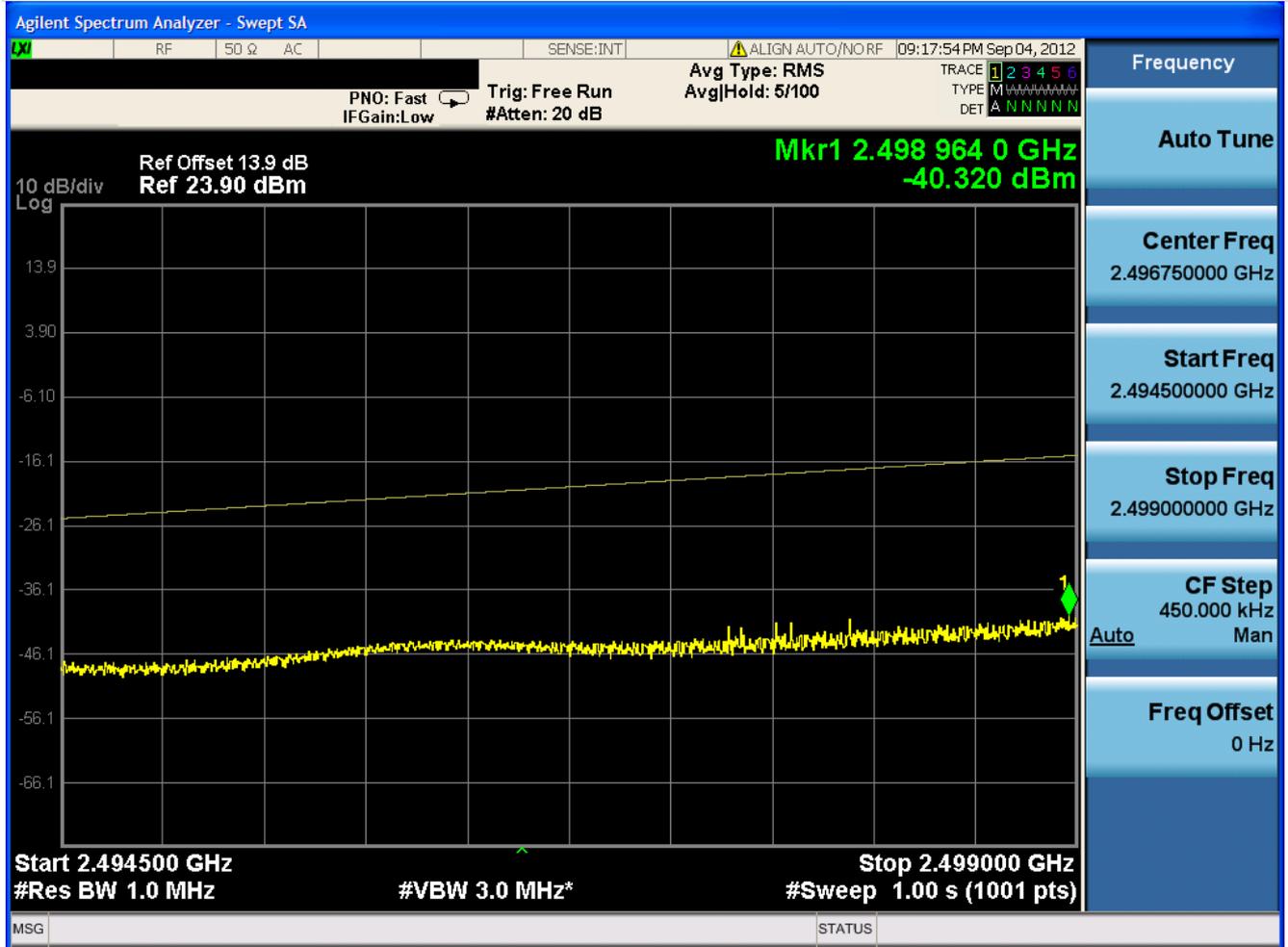


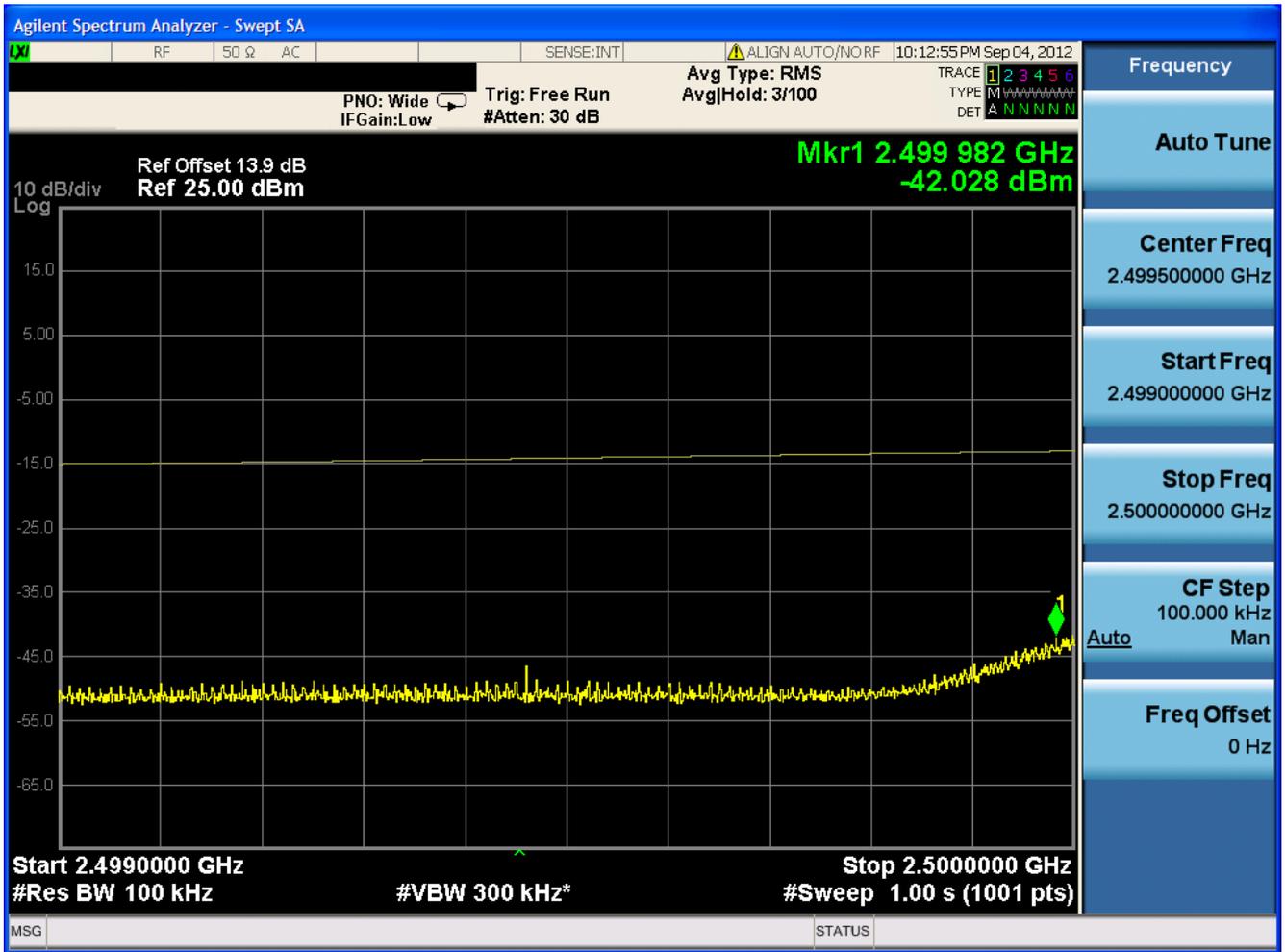






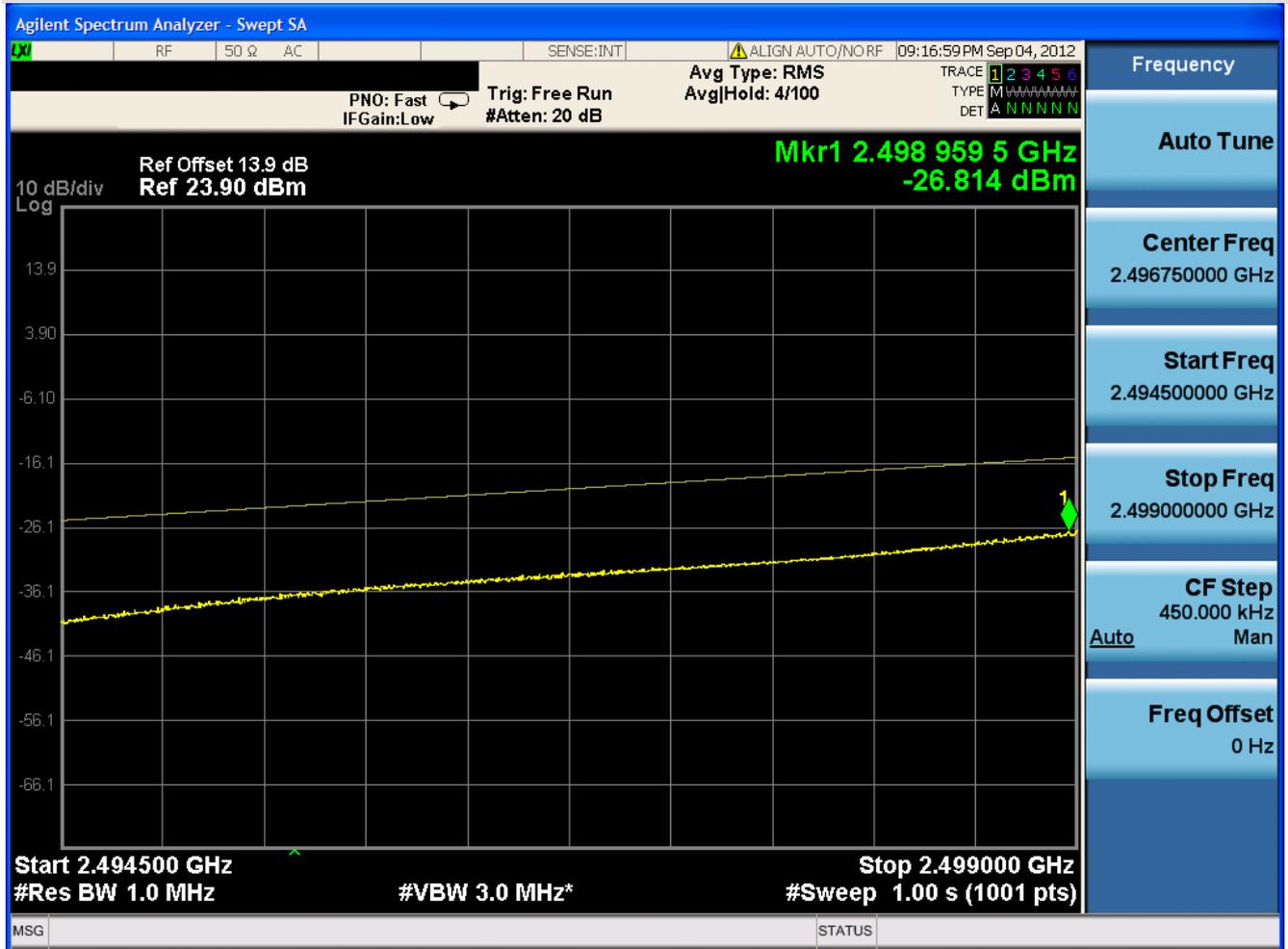
1.2.2.1.2 16QAM/1RB #max

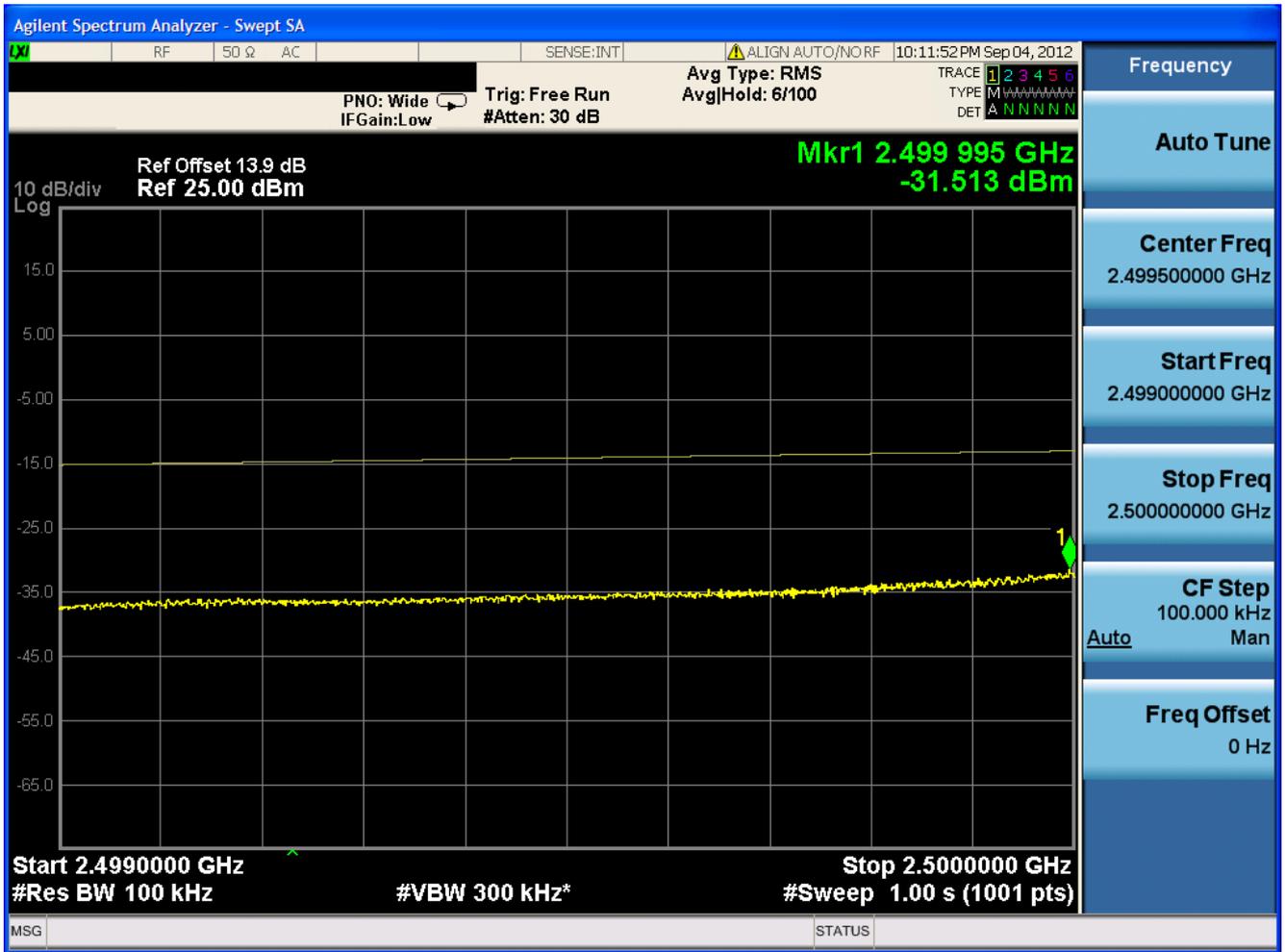






1.2.2.1.3 16QAM /Partial RBs /RB #13

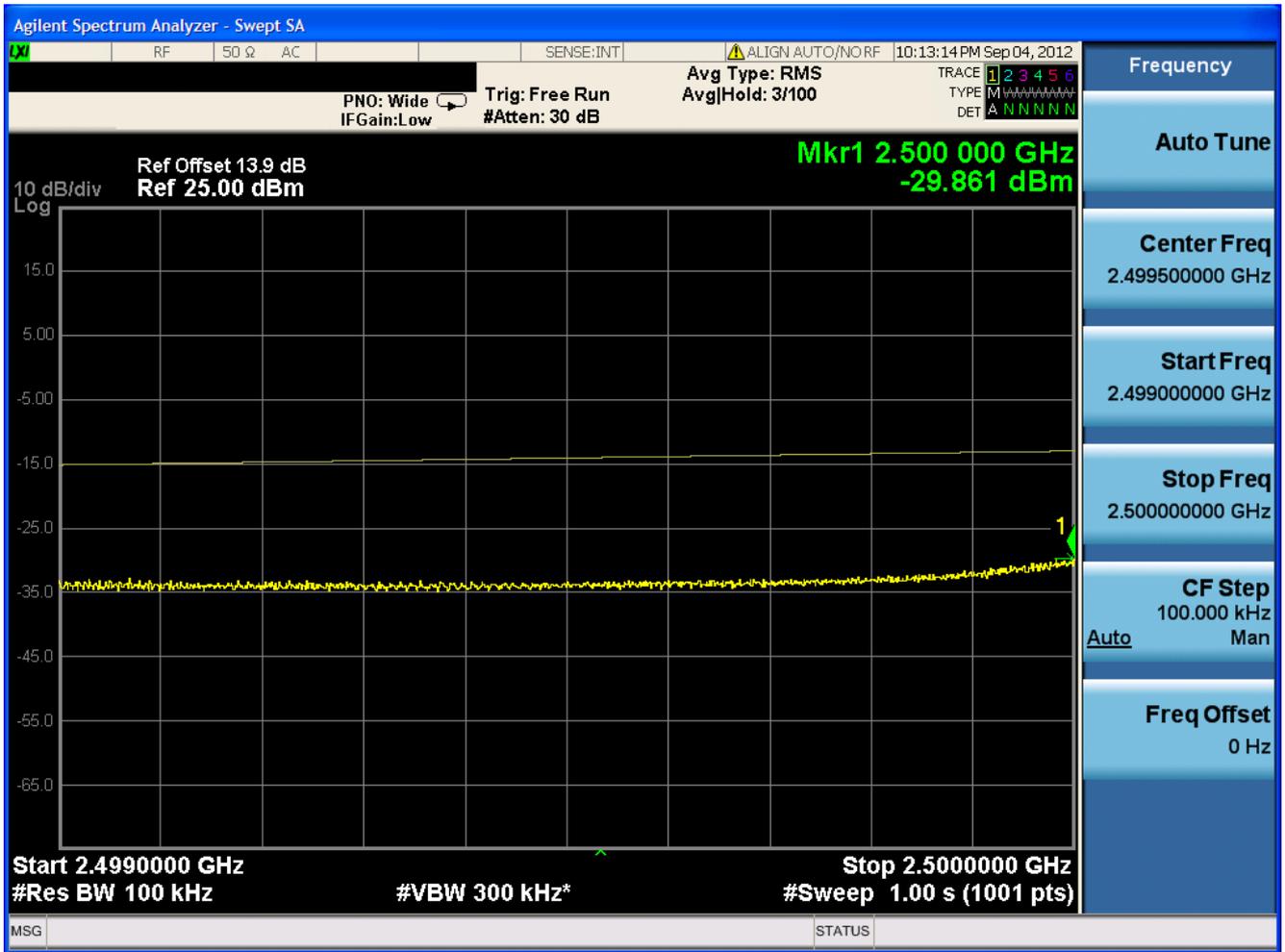






1.2.2.1.4 16QAM /full RBs

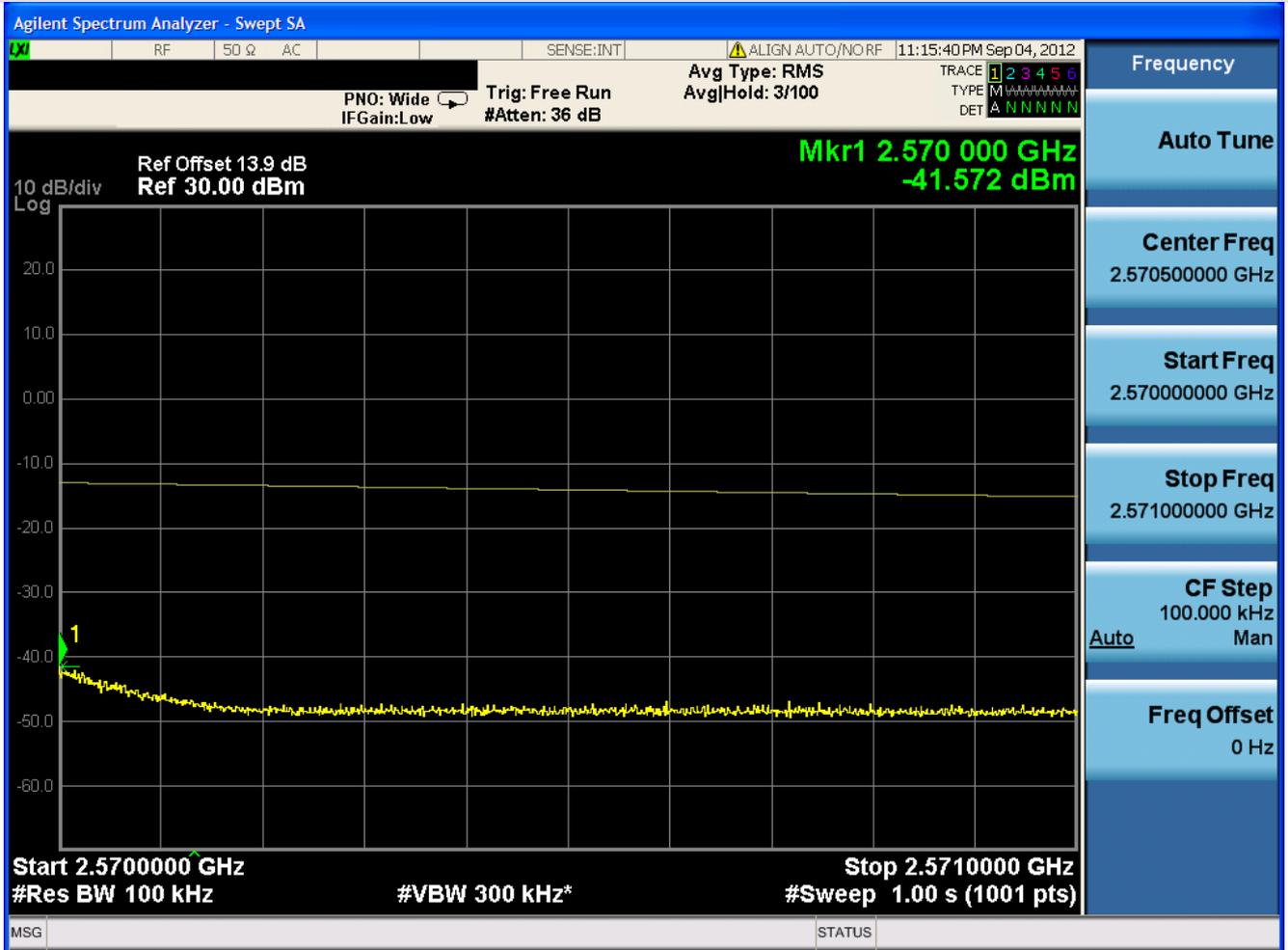






1.2.2.2 Channel= T

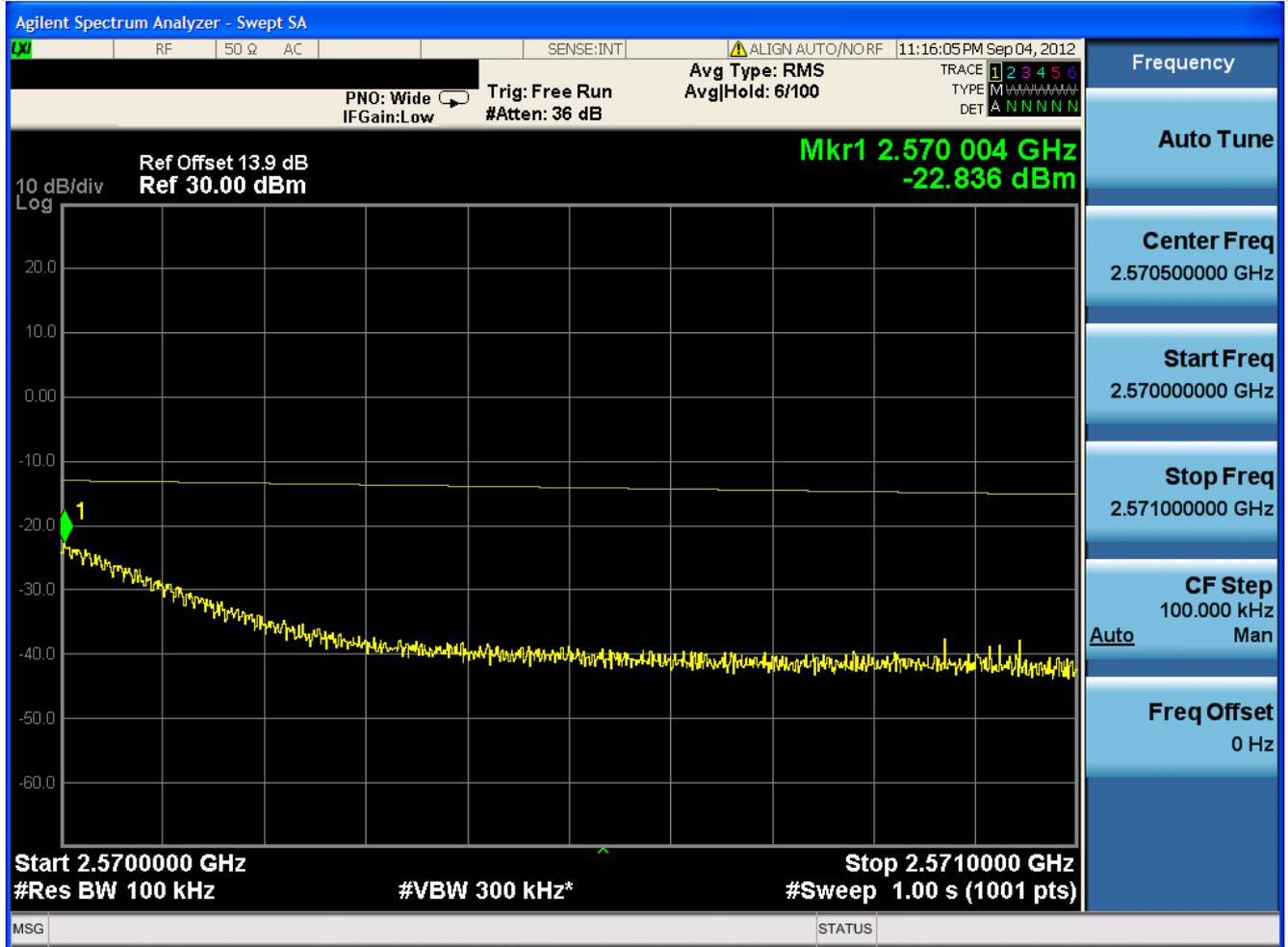
1.2.2.2.1 16QAM/1RB #0







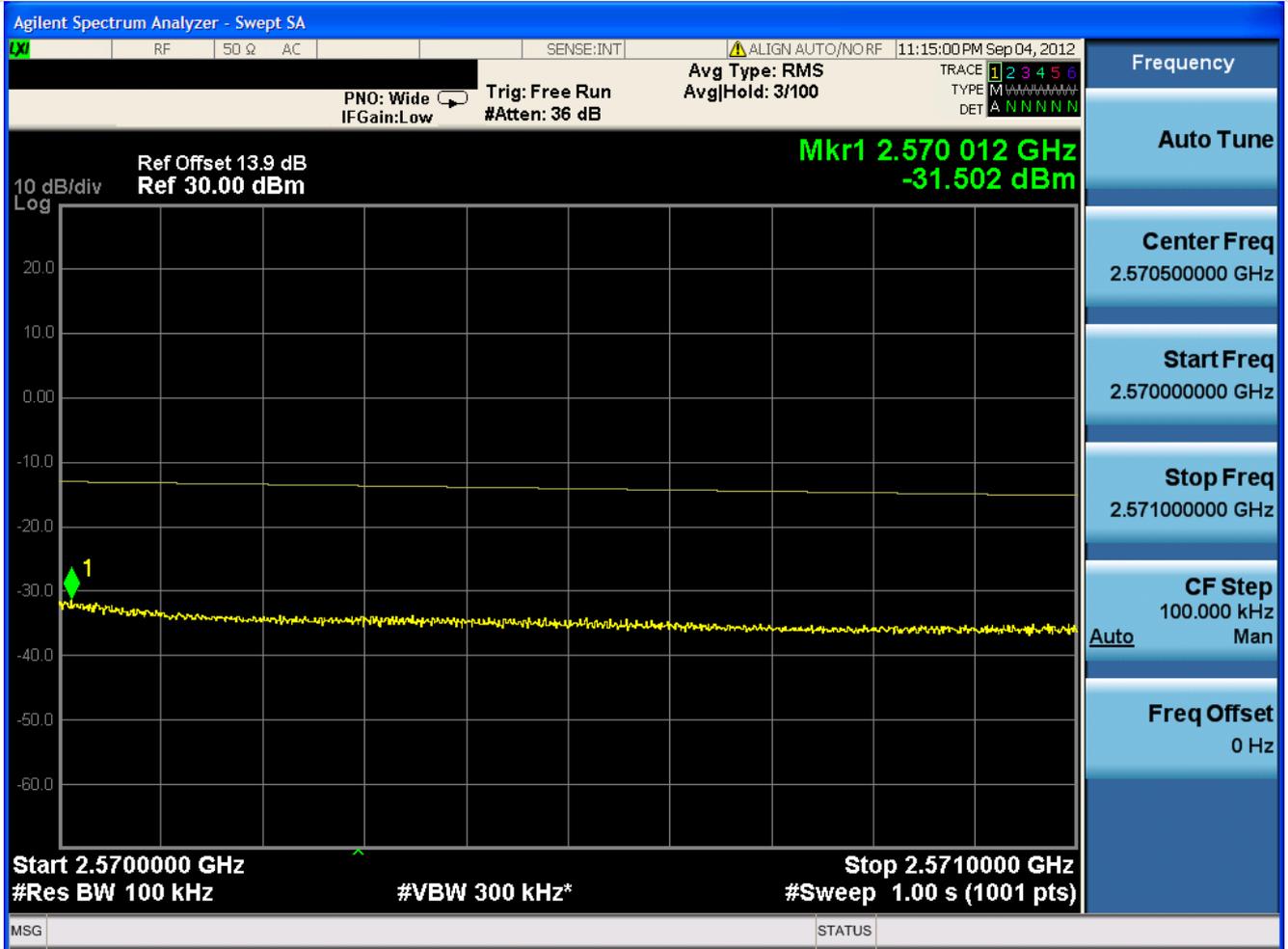
1.2.2.2.2 16QAM/1RB #max







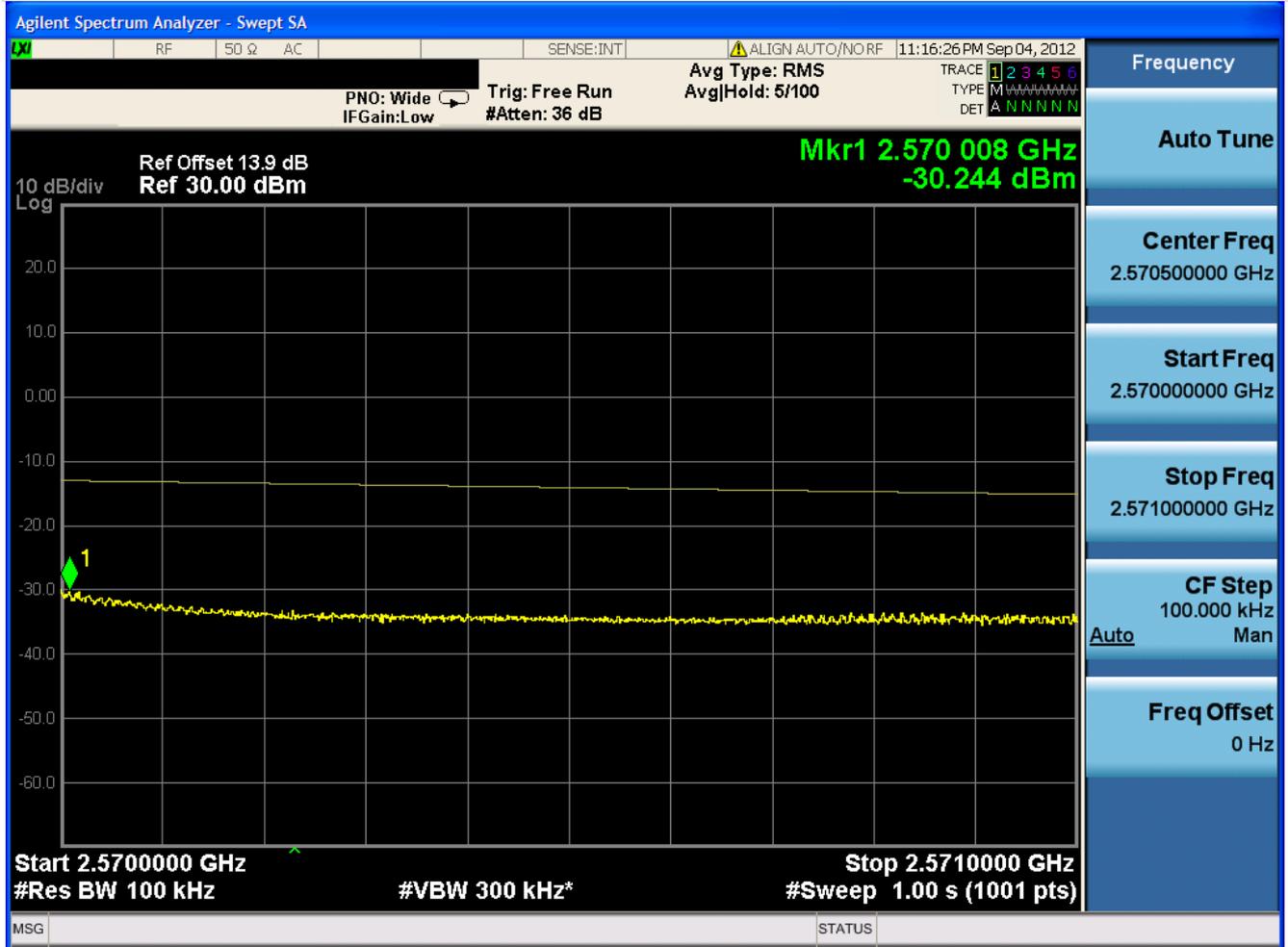
1.2.2.2.3 16QAM /Partial RBs /RB #13







1.2.2.2.4 16QAM /full RBs



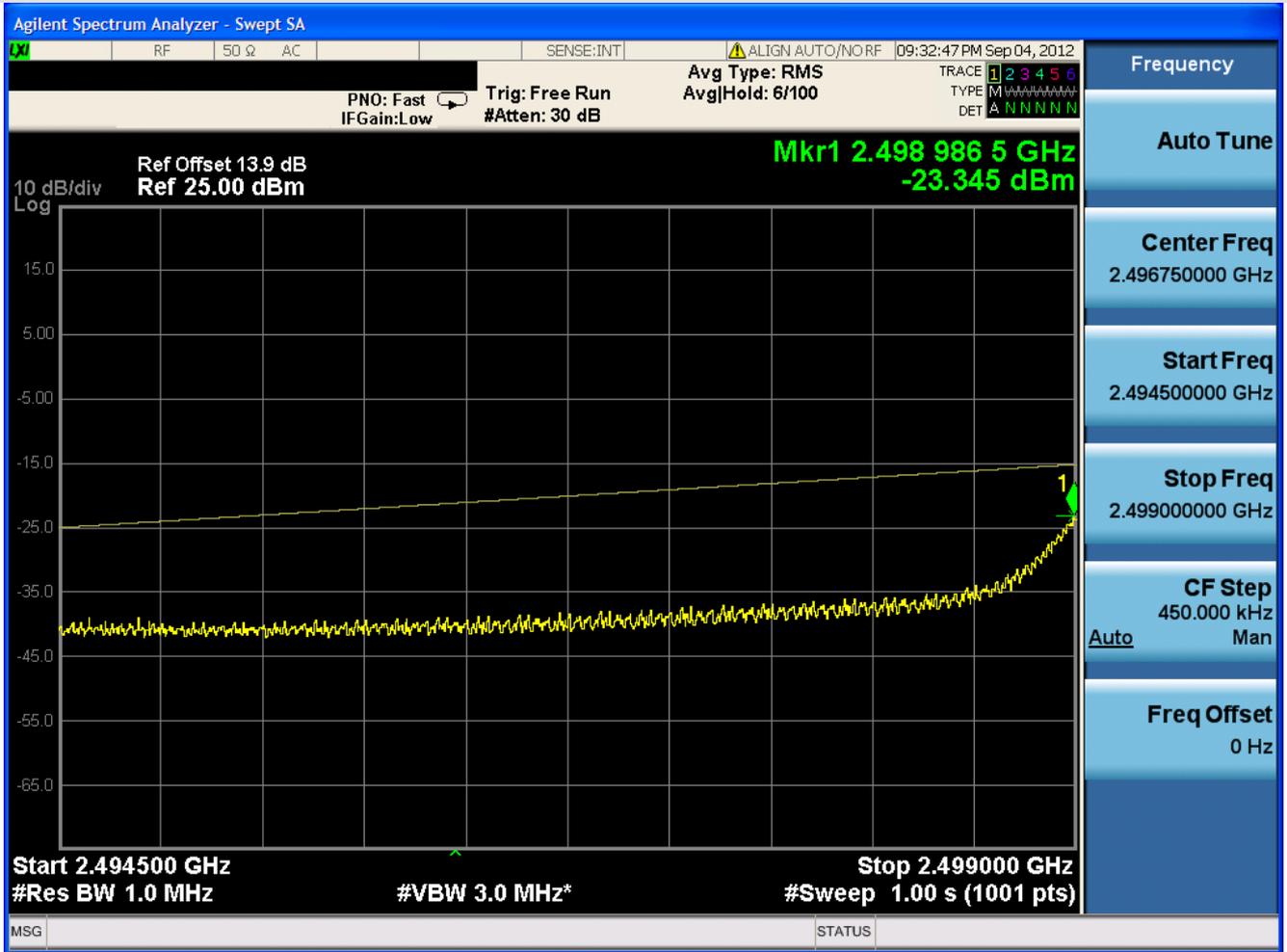




1.2.3 Channel Bandwidth = 15 MHz

1.2.3.1 Channel= B

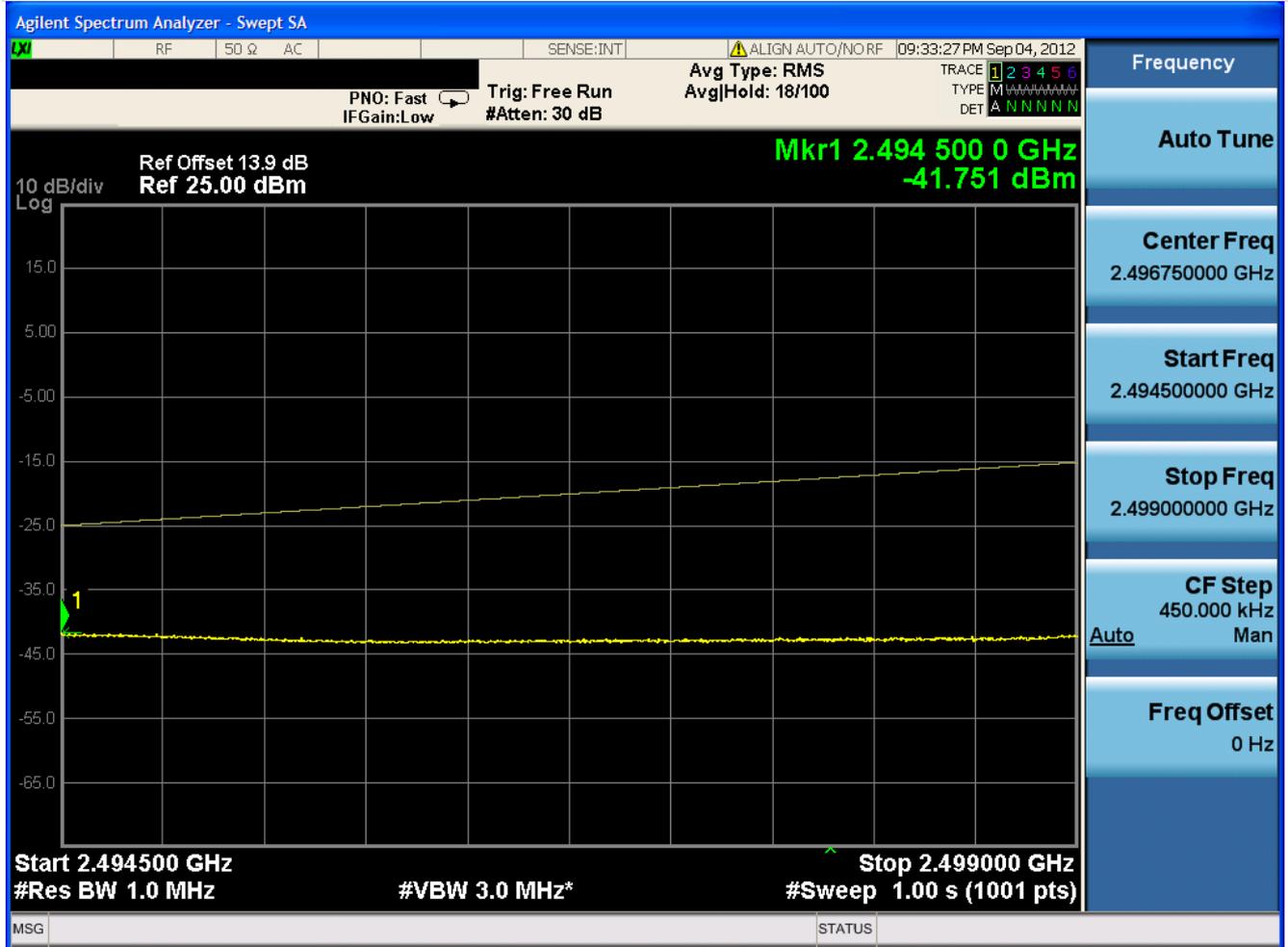
1.2.3.1.1 16QAM/1RB #0







1.2.3.1.2 16QAM/1RB #max

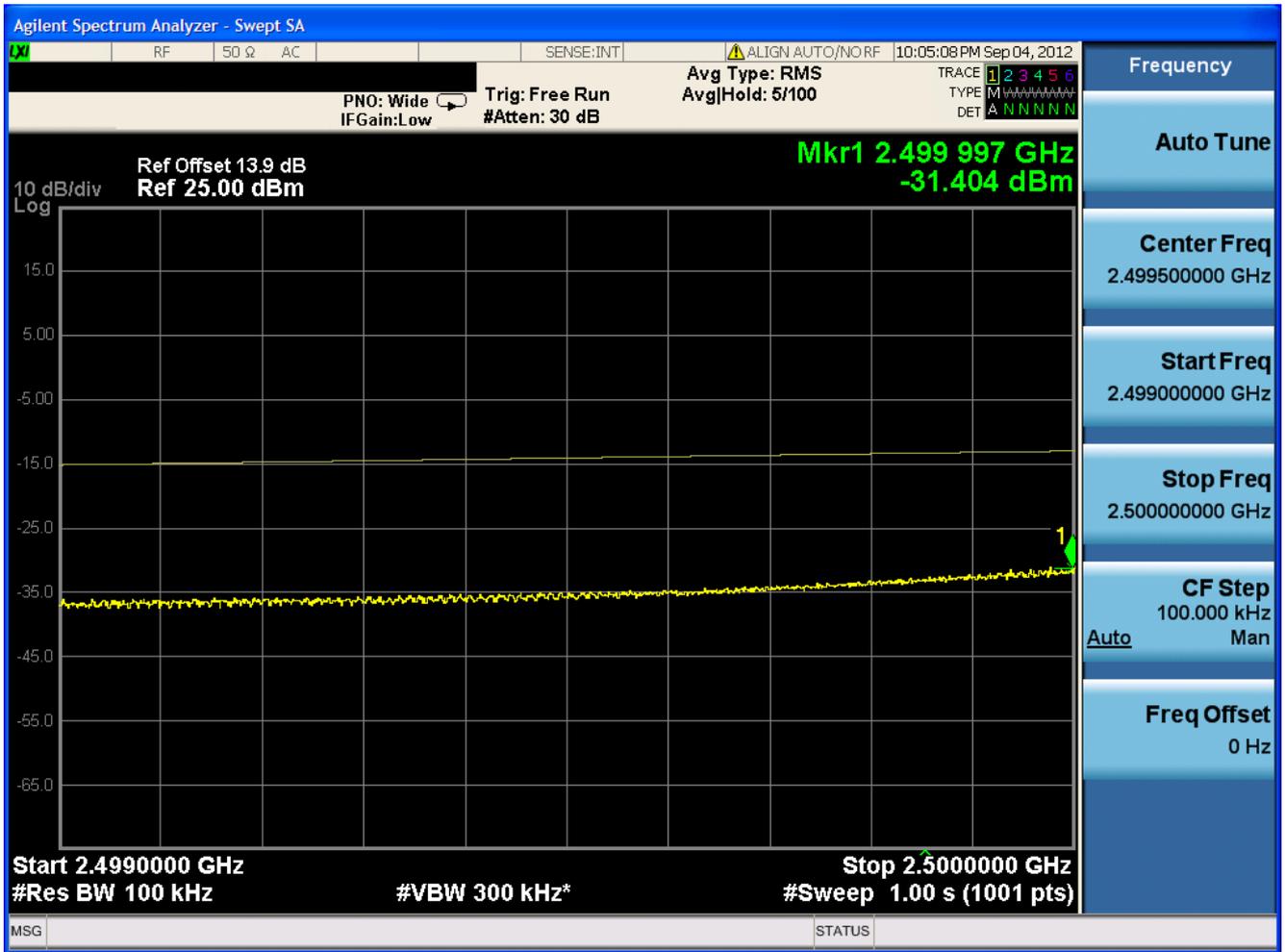




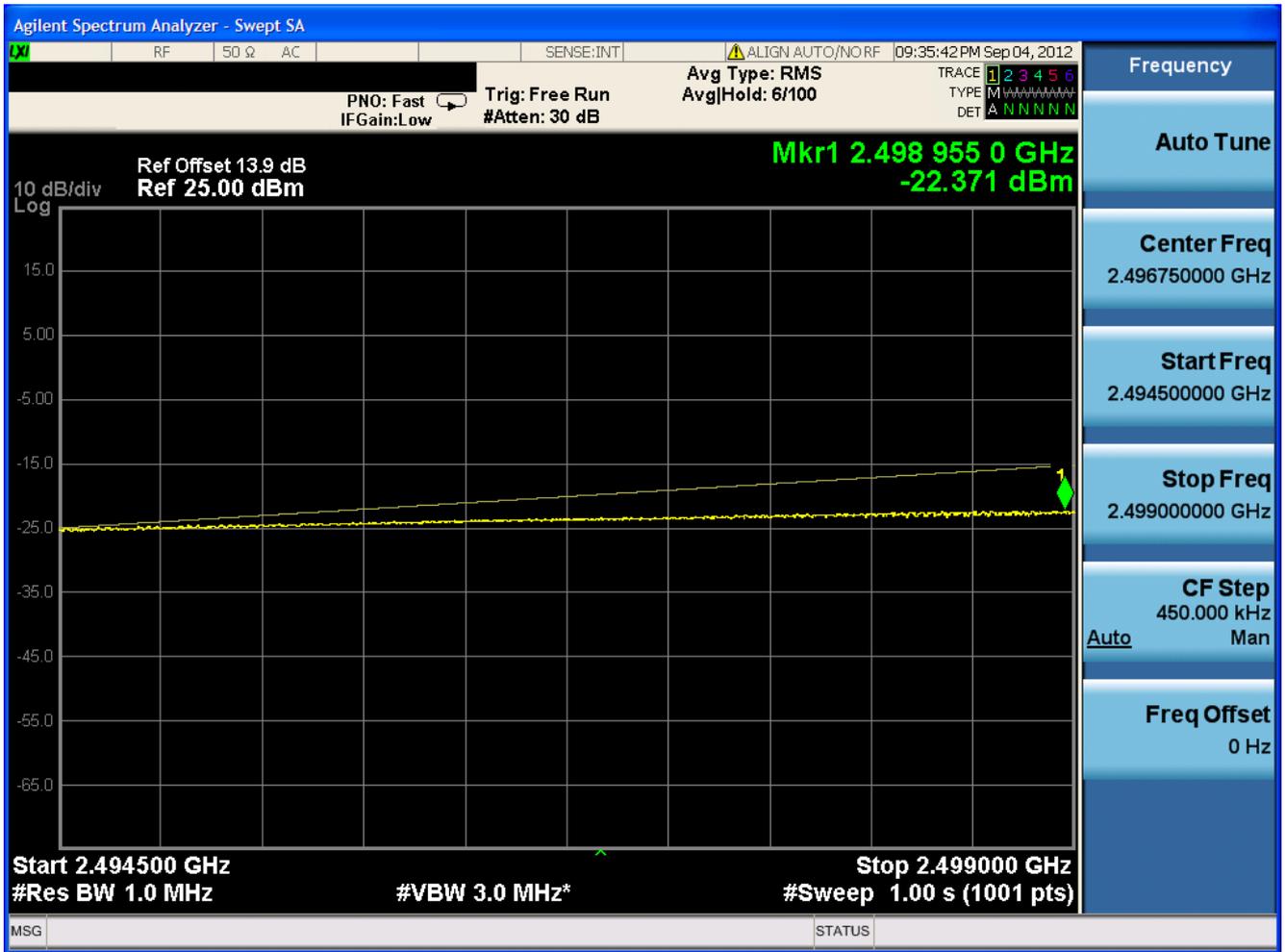


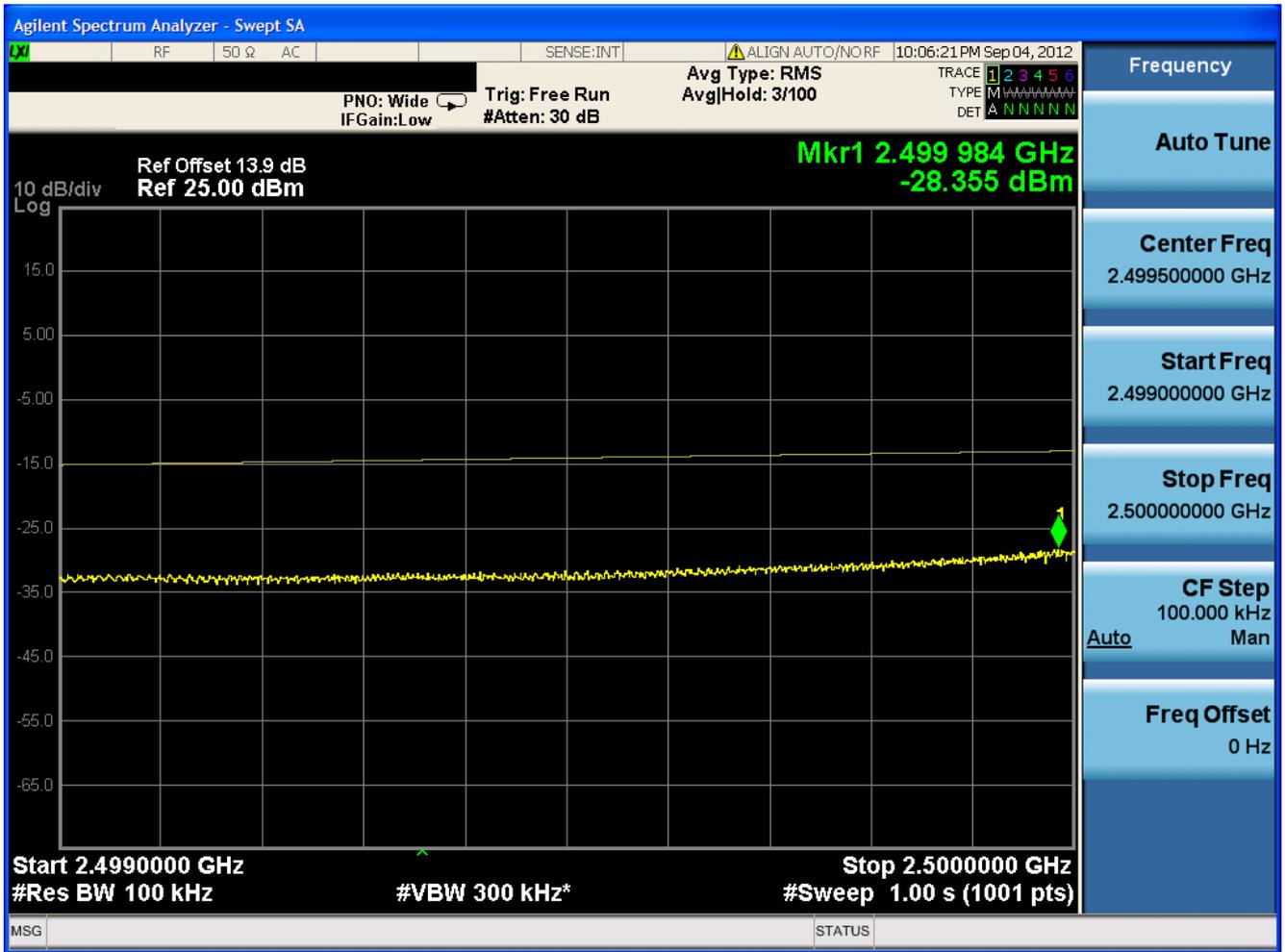
1.2.3.1.3 16QAM /Partial RBs /RB #18





1.2.3.1.4 16QAM /full RBs

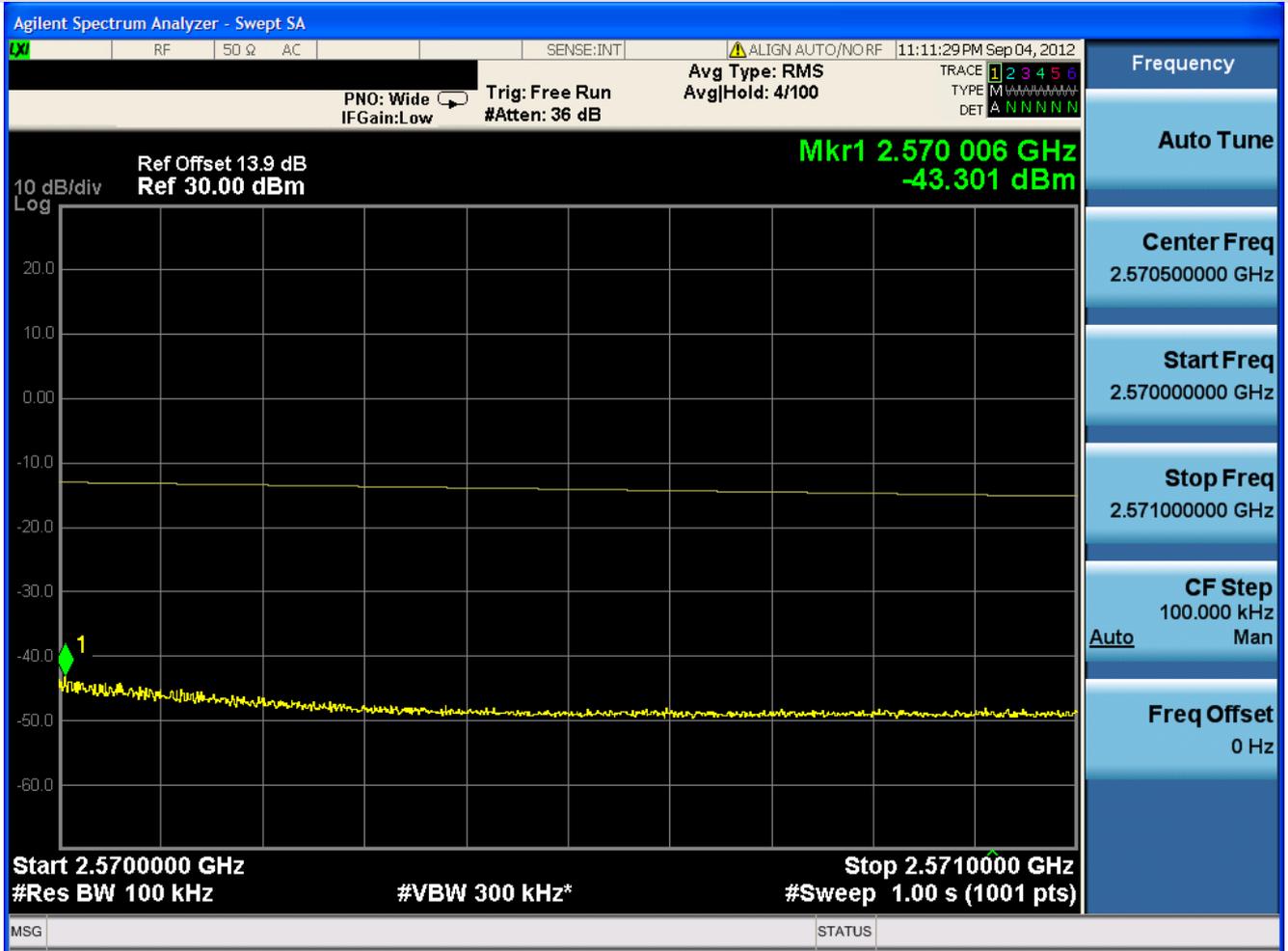






1.2.3.2 Channel= T

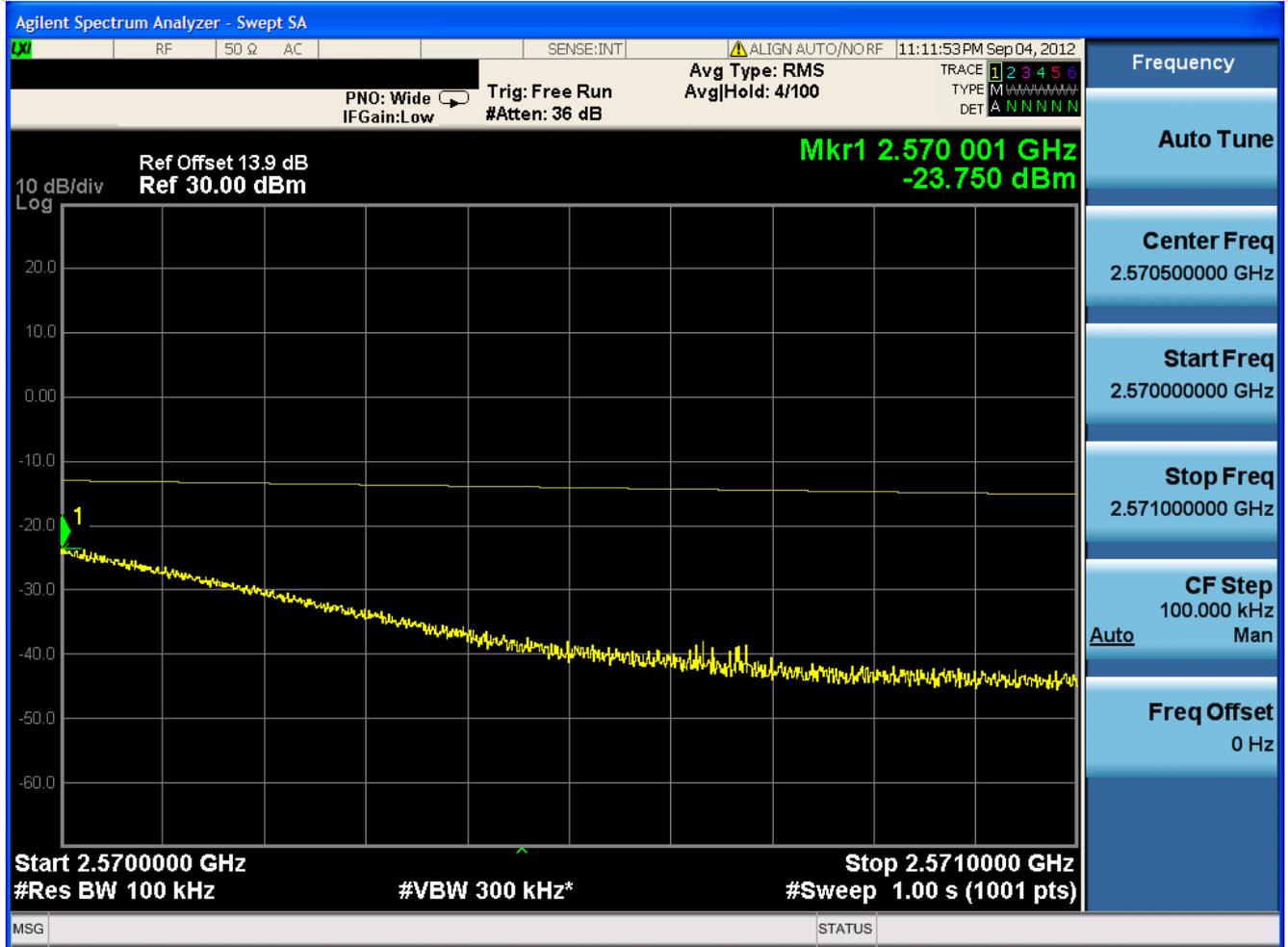
1.2.3.2.1 16QAM/1RB #0

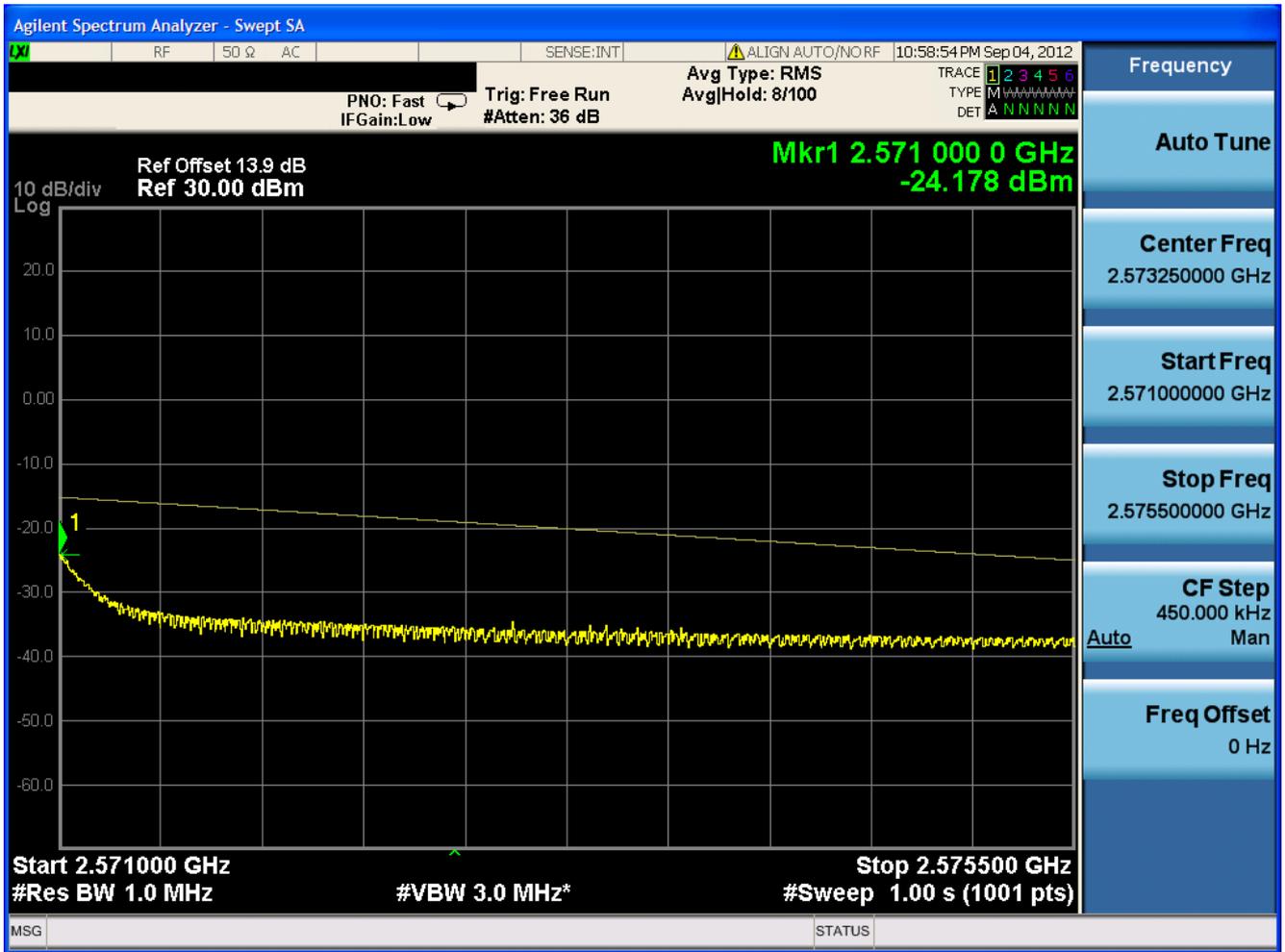






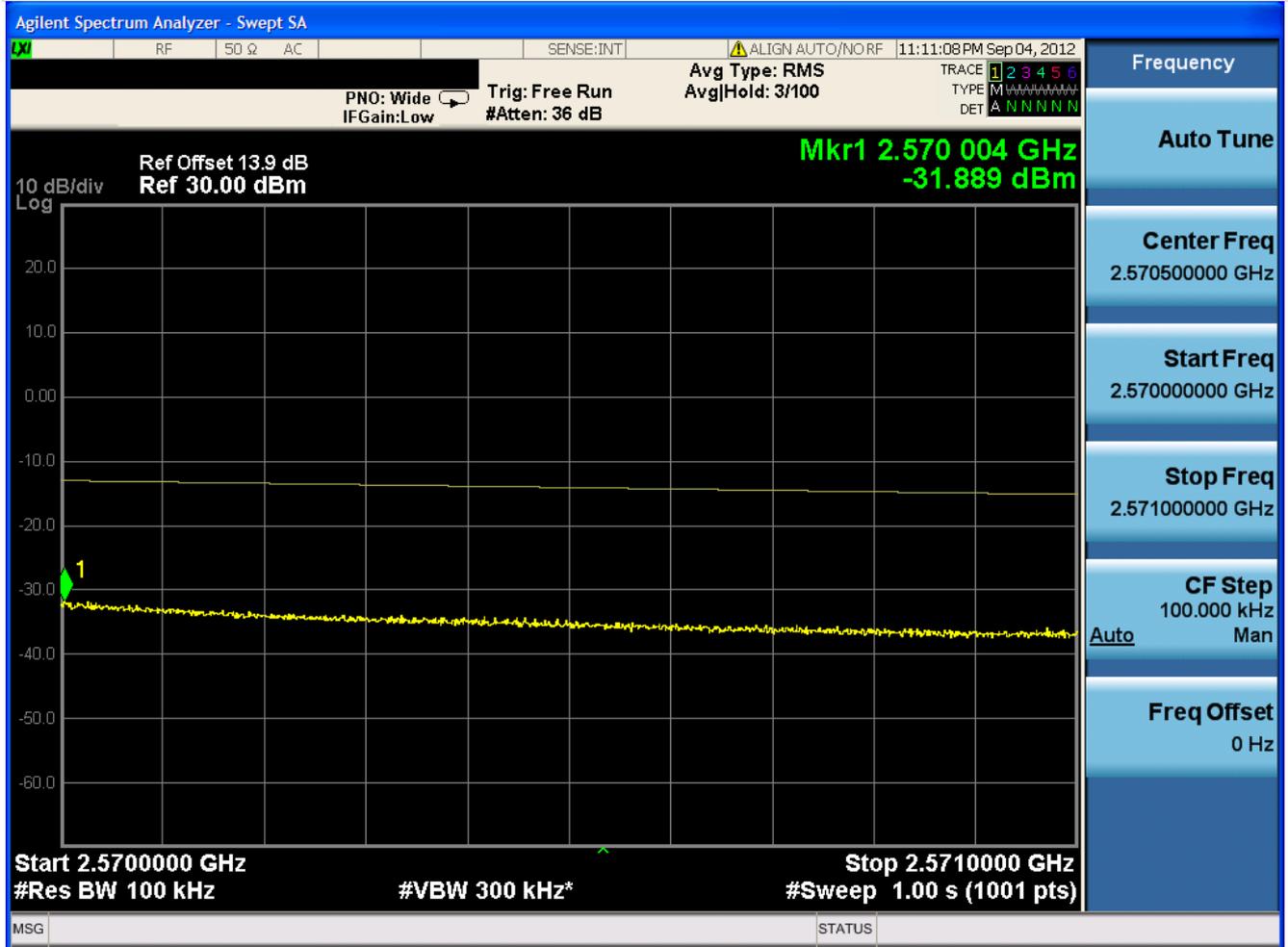
1.2.3.2.2 16QAM/1RB #max

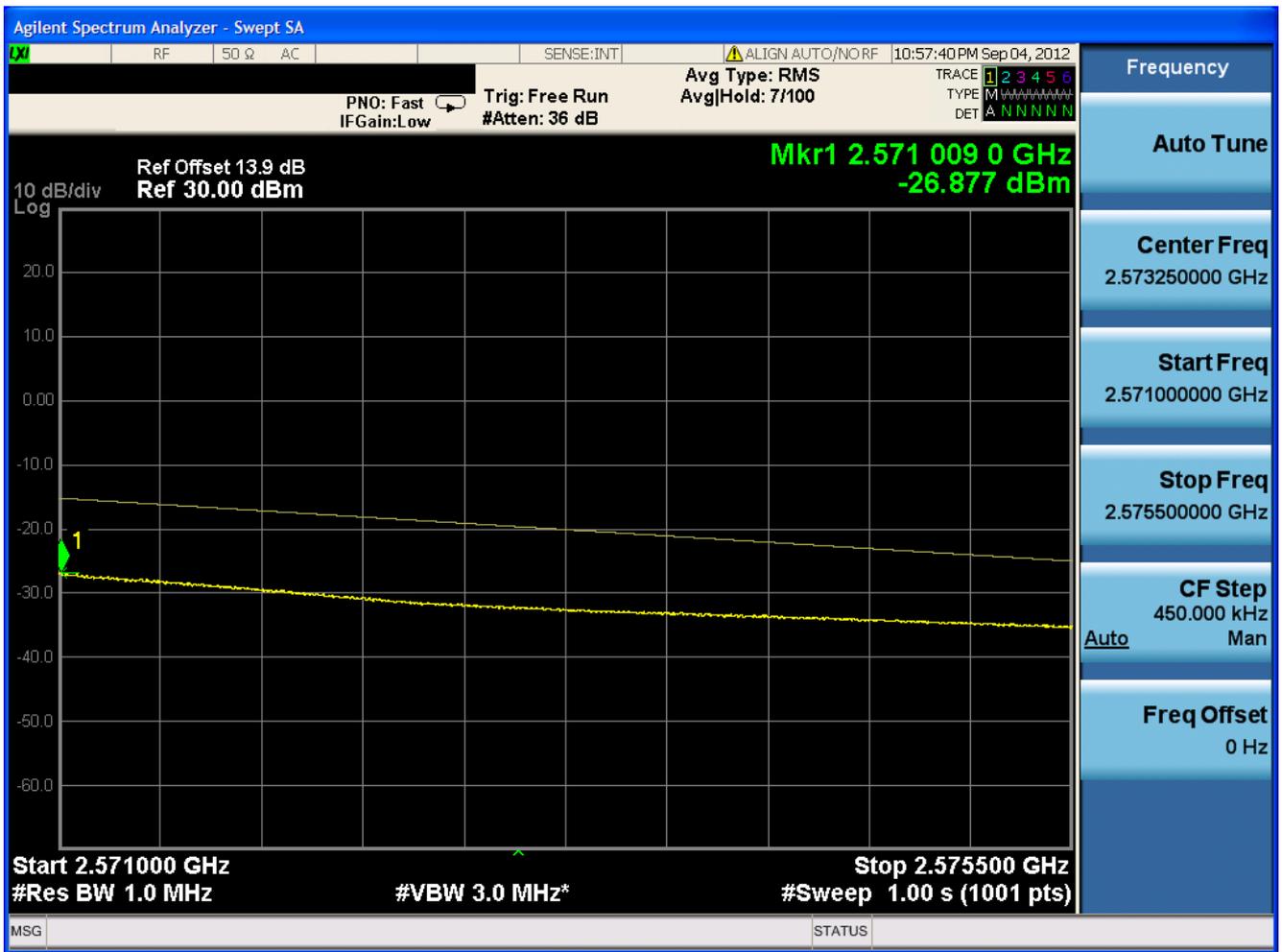




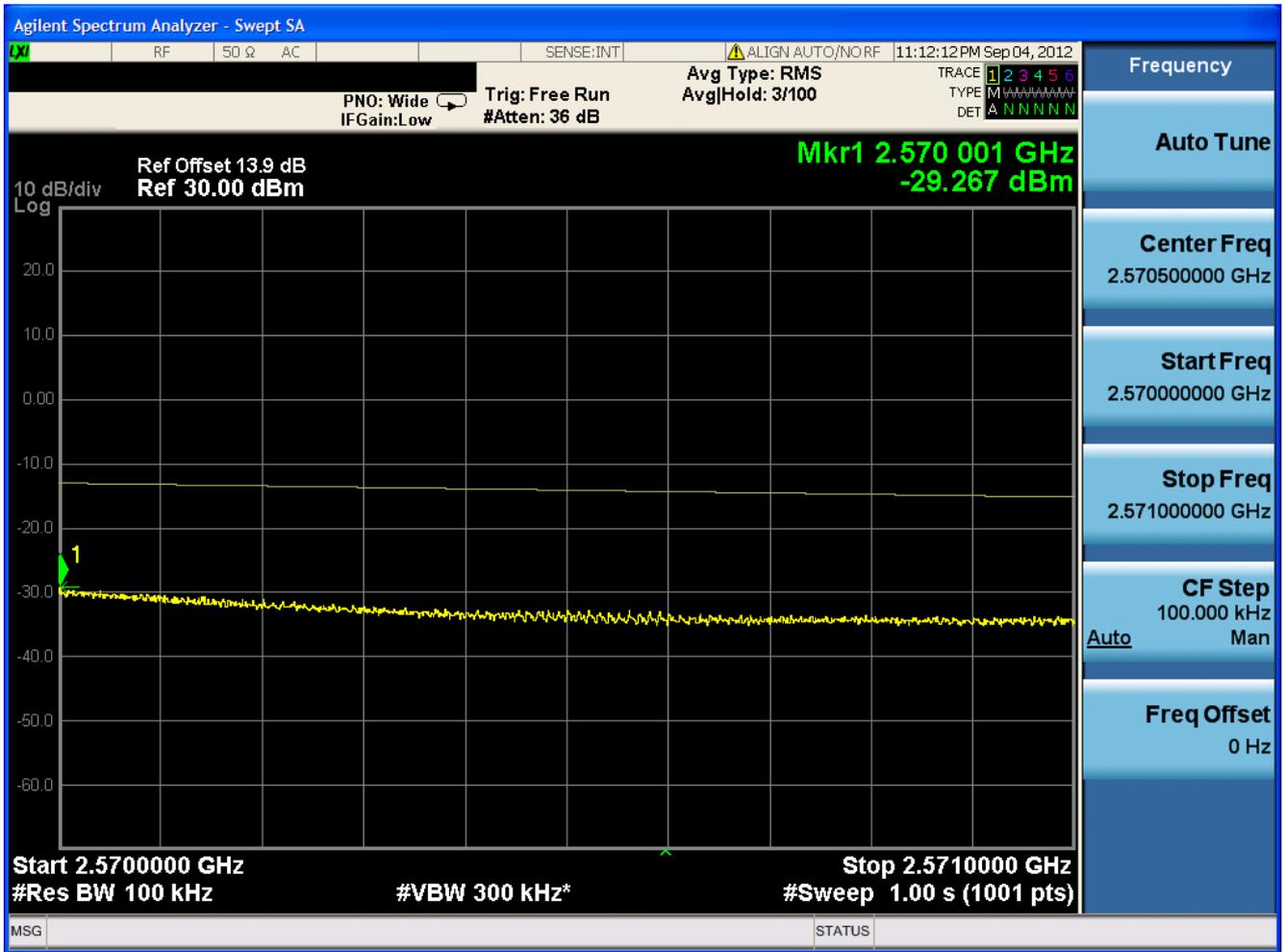


1.2.3.2.3 16QAM /Partial RBs /RB #18





1.2.3.2.4 16QAM /full RBs



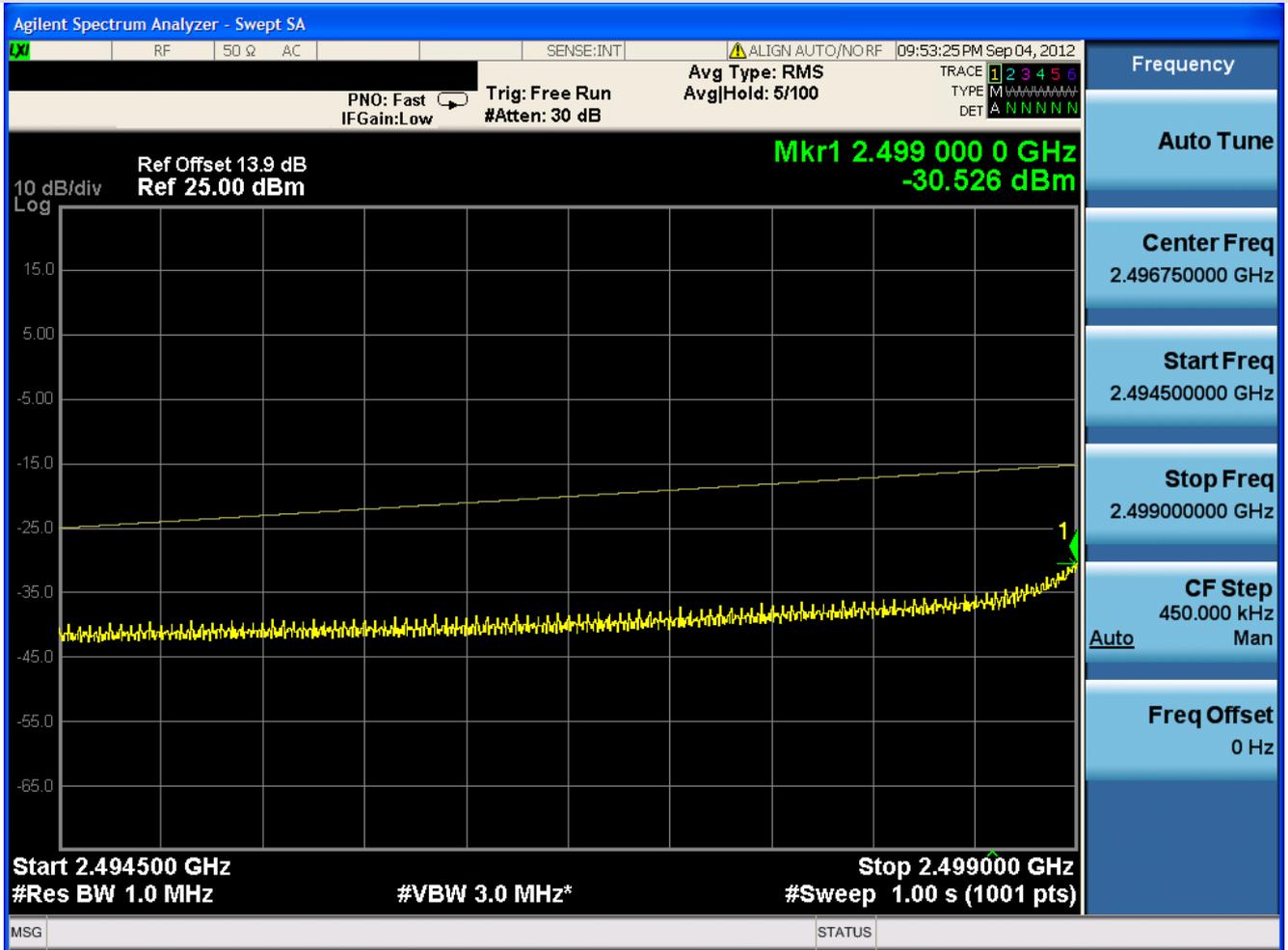


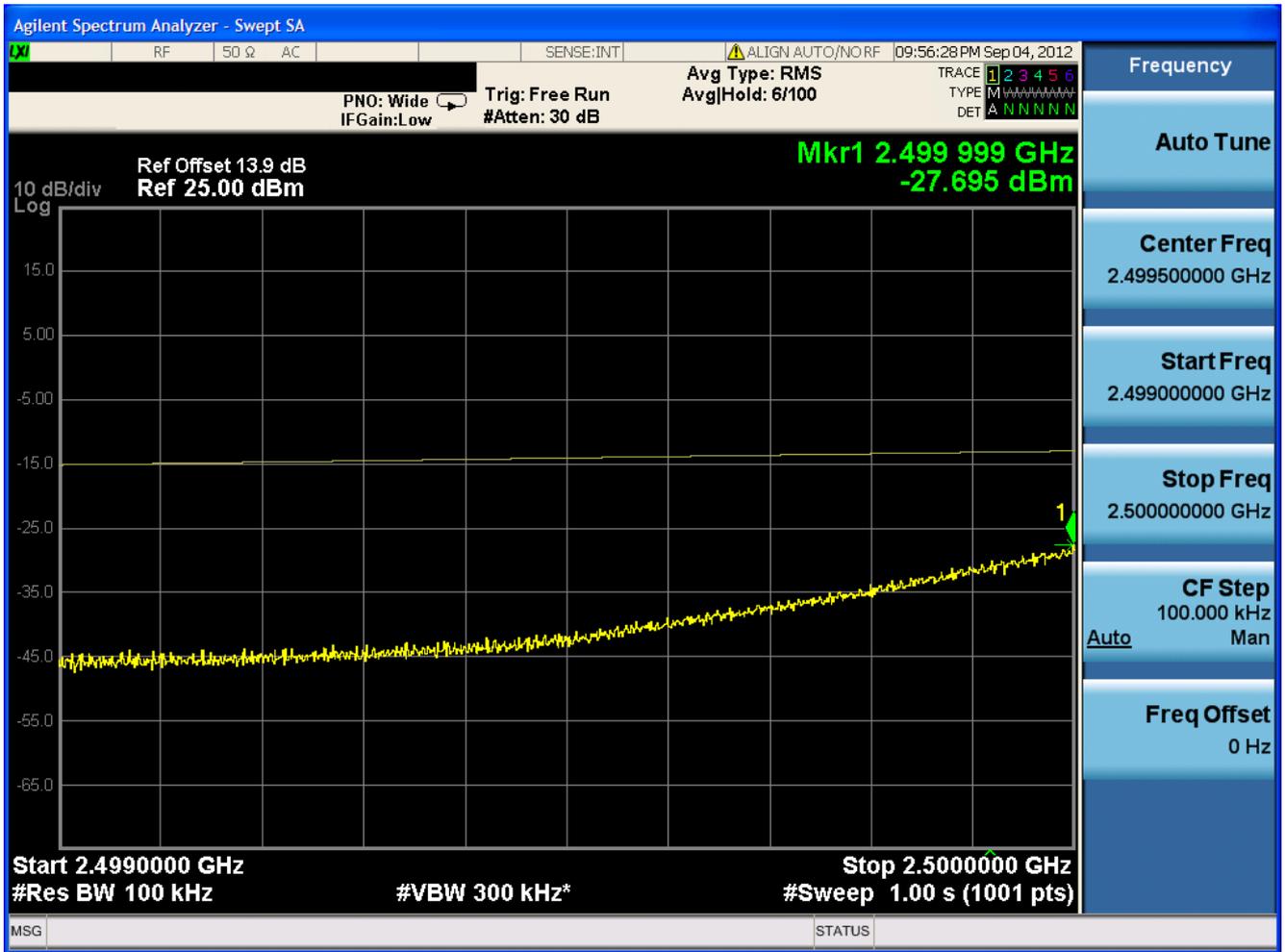


1.2.4 Channel Bandwidth = Highest (20 MHz)

1.2.4.1 Channel= B

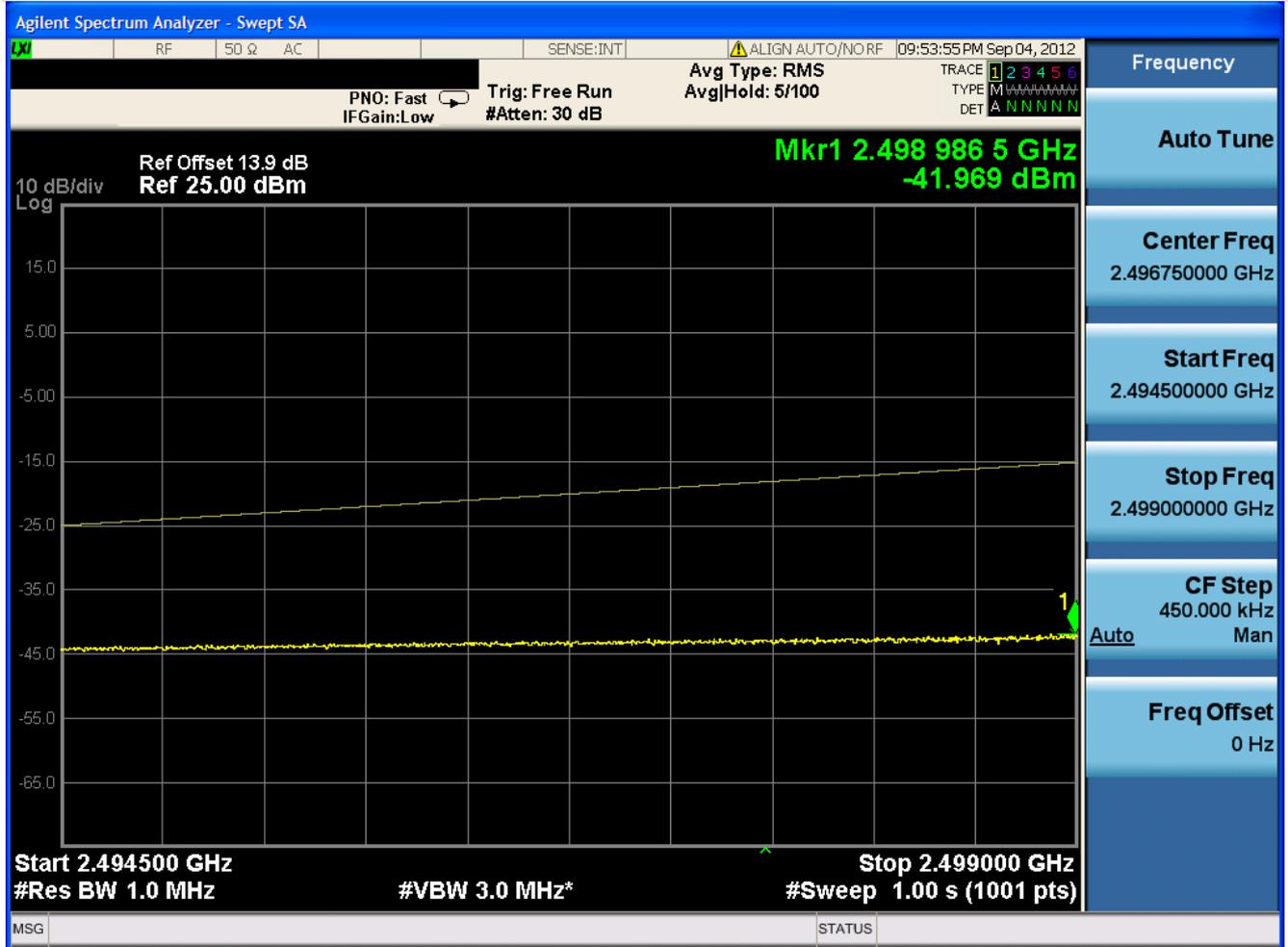
1.2.4.1.1 16QAM/1RB #0







1.2.4.1.2 16QAM/1RB #max

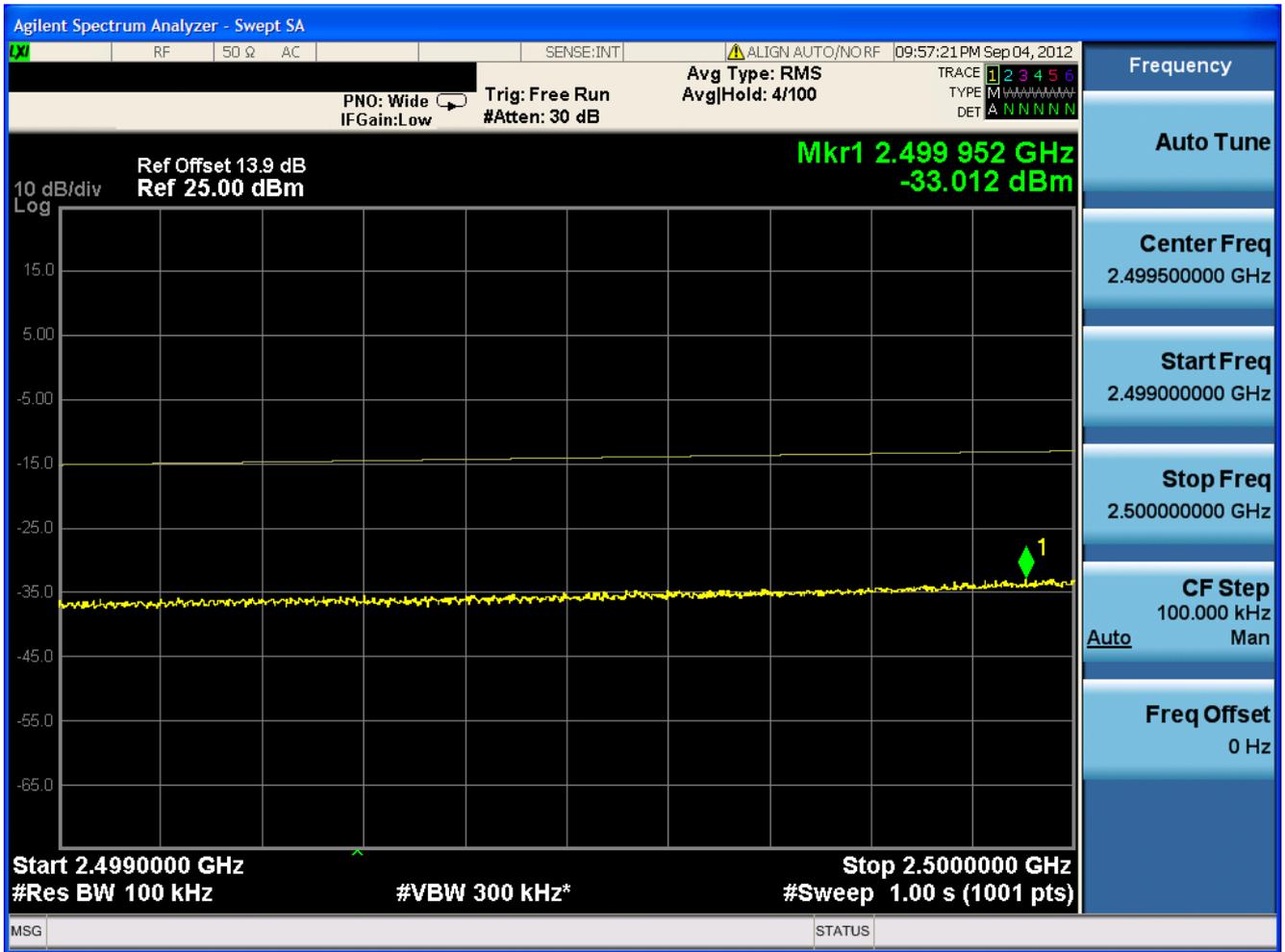






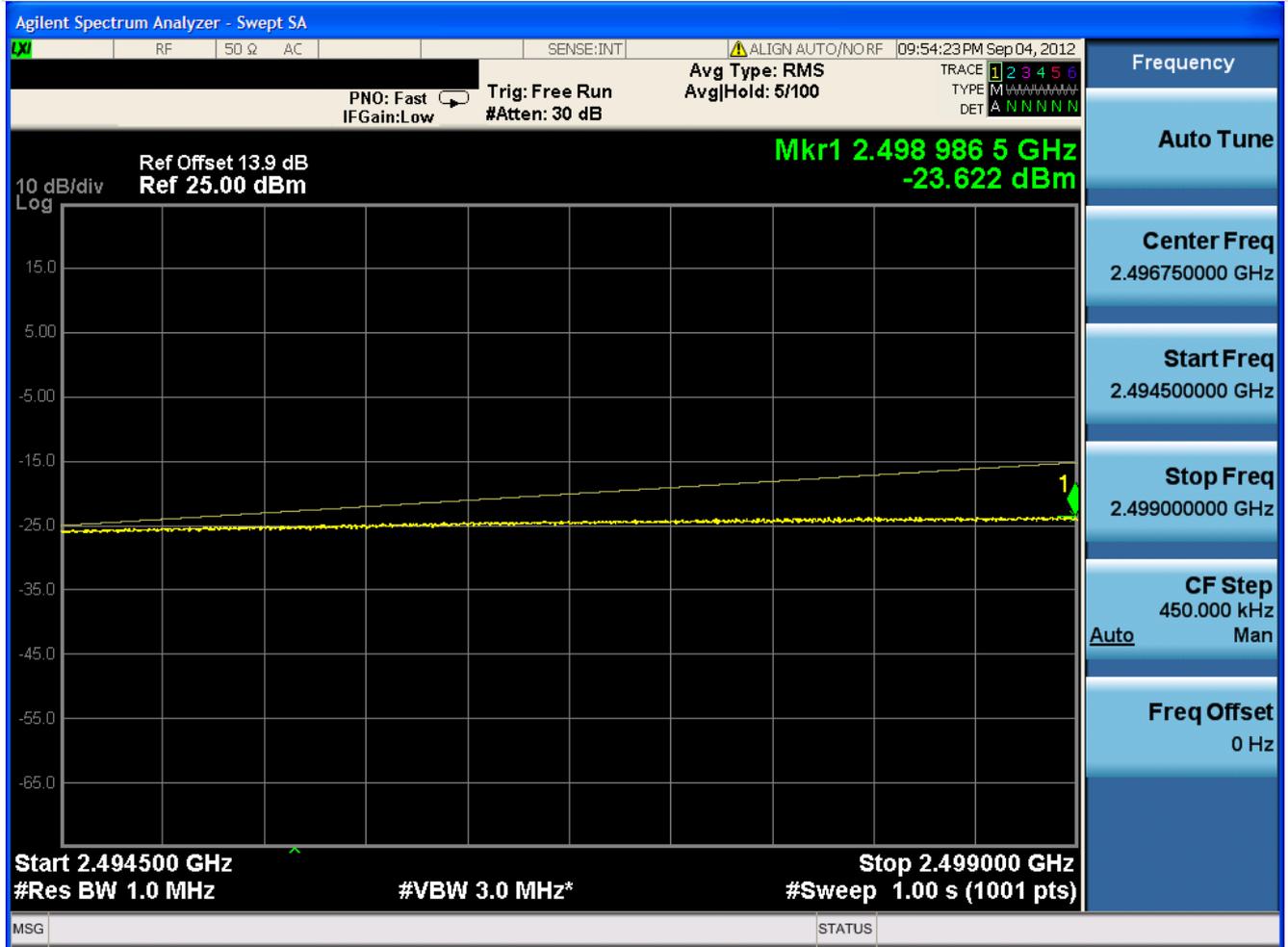
1.2.4.1.3 16QAM /Partial RBs /RB #25

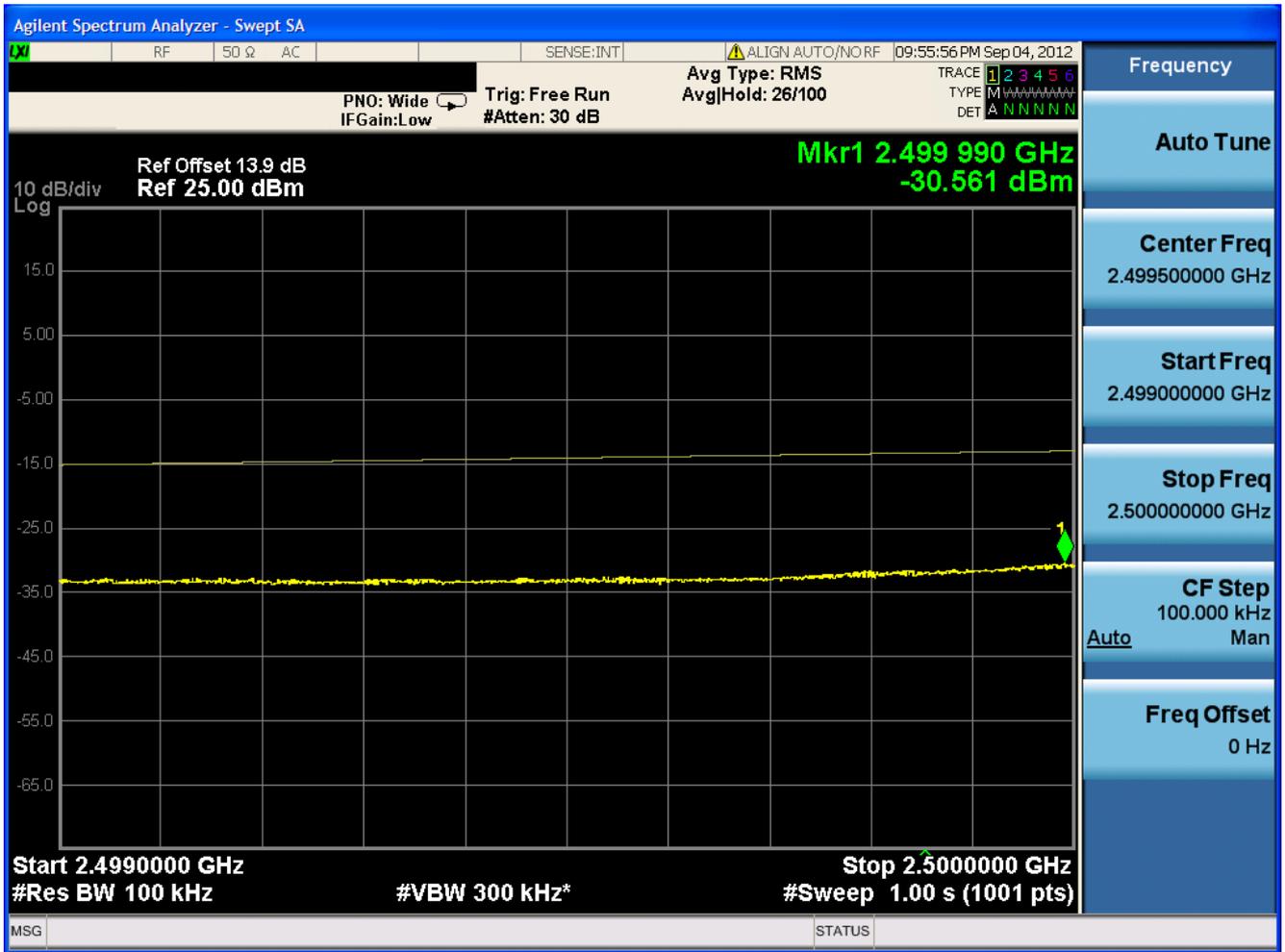






1.2.4.1.4 16QAM /full RBs



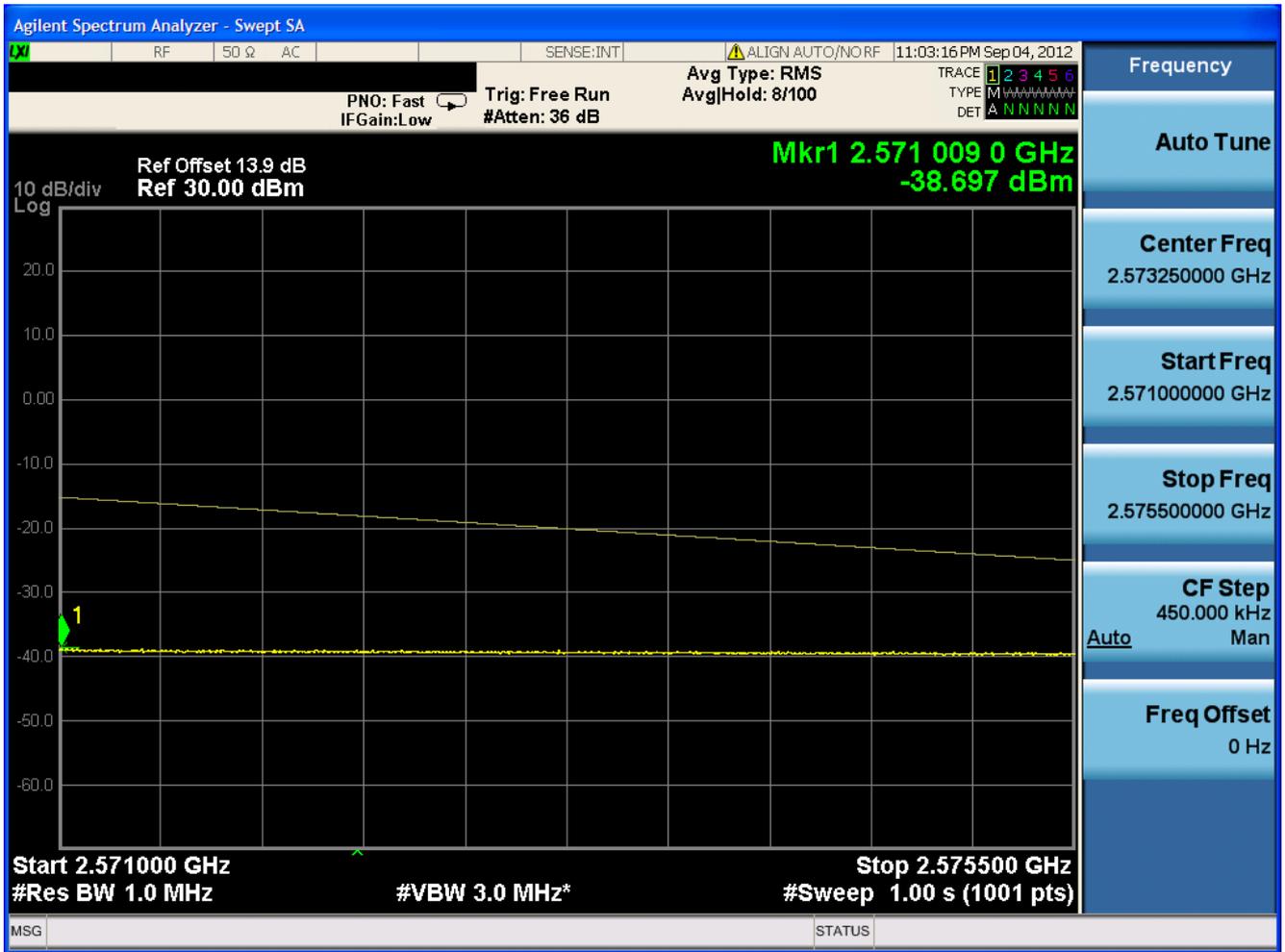




1.2.4.2 Channel= T

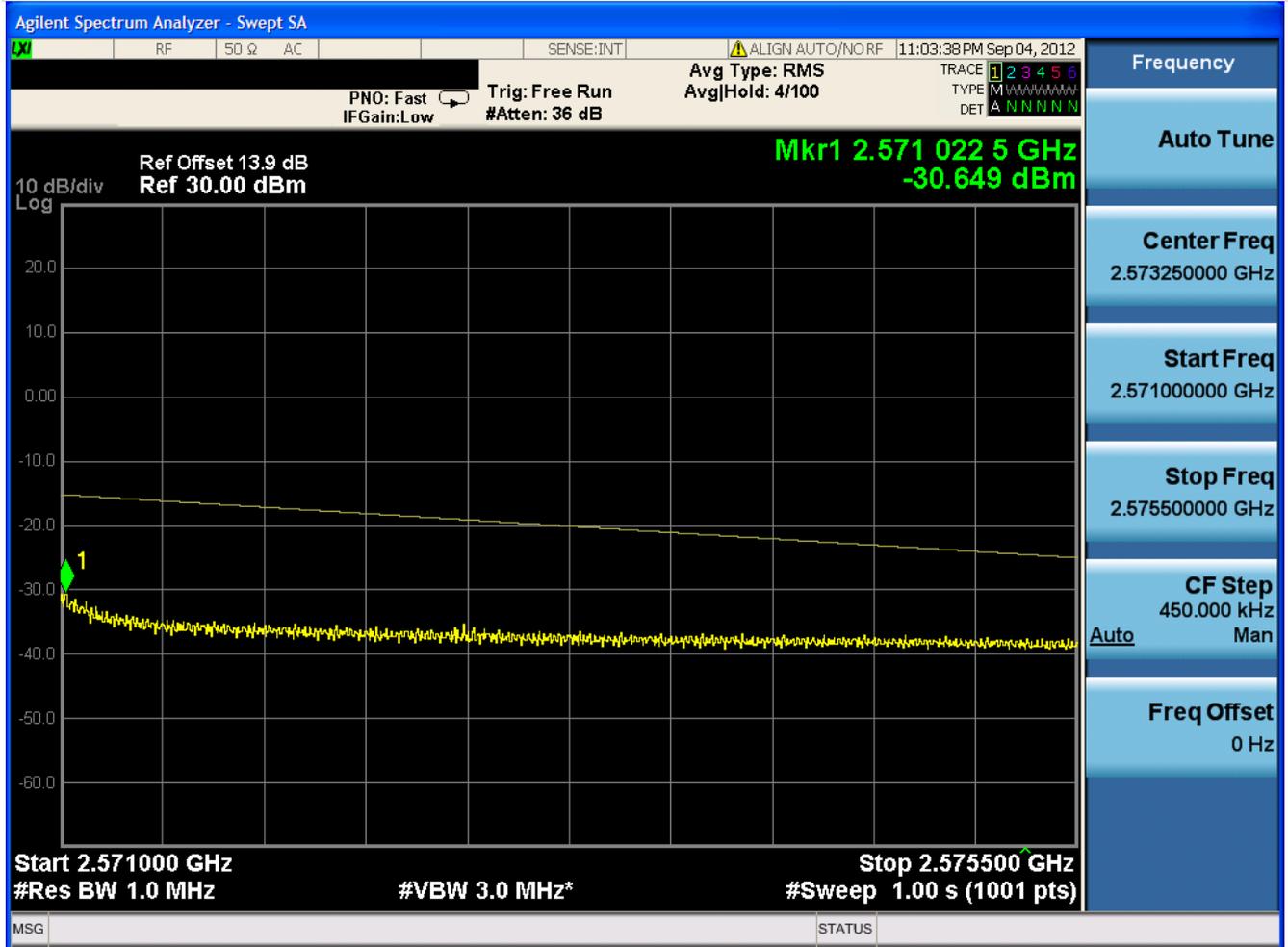
1.2.4.2.1 16QAM/1RB #0







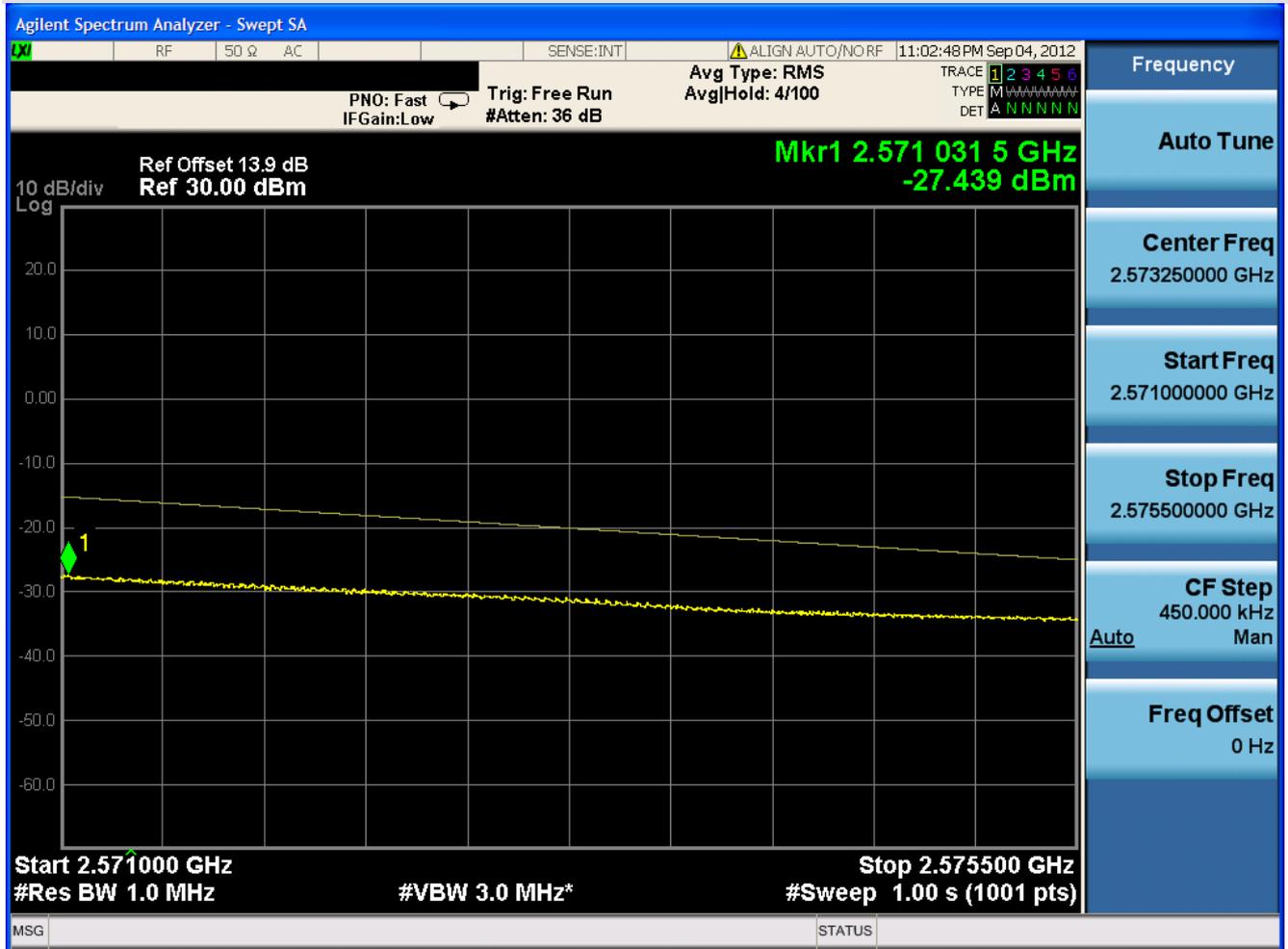
1.2.4.2.2 16QAM/1RB #max







1.2.4.2.3 16QAM /Partial RBs /RB #25

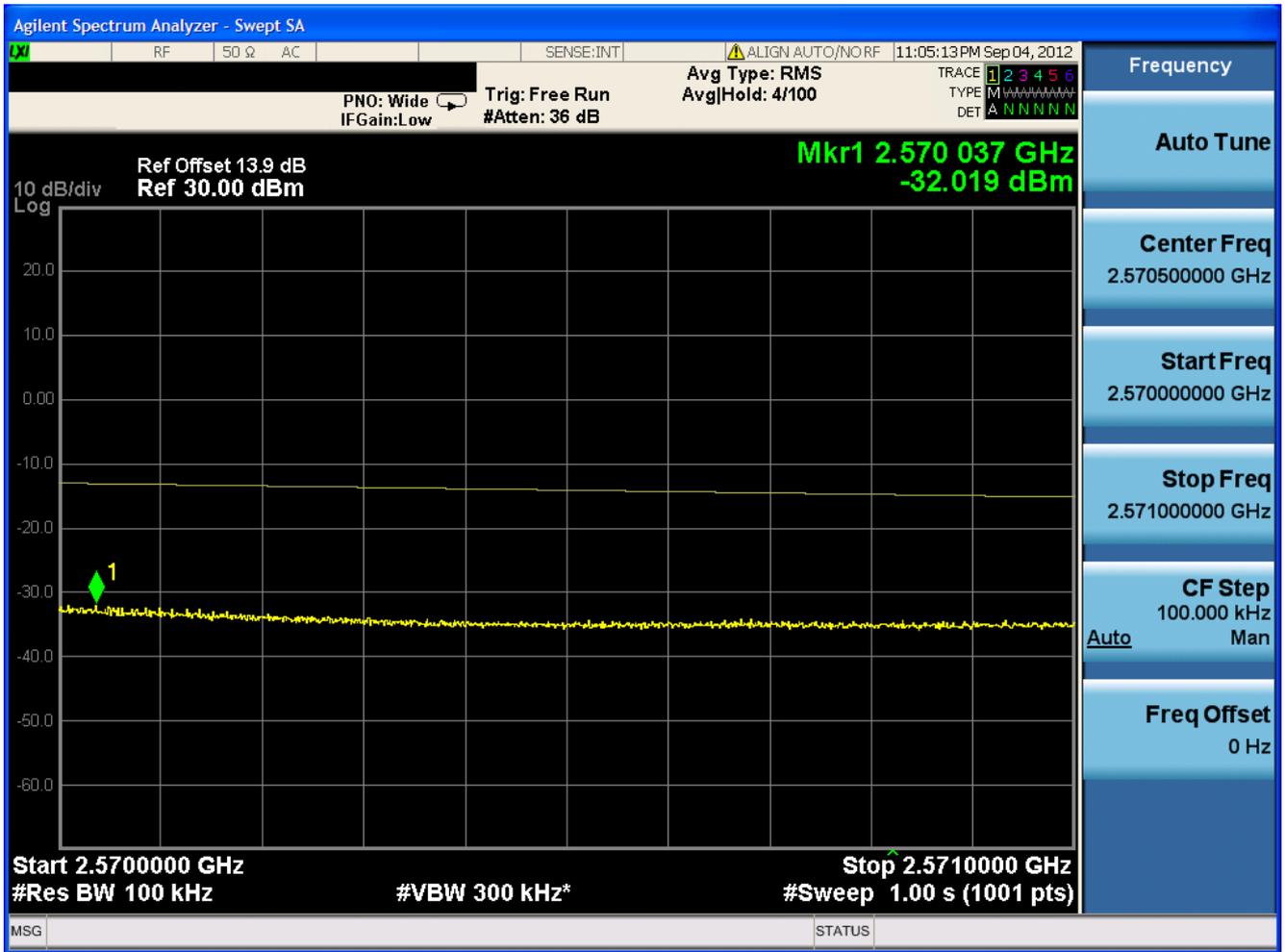






1.2.4.2.4 16QAM /full RBs





-----END-----



Appendix E

Spurious Emission at Antenna Terminal

According to FCC Part 2.1051 & FCC Part 27C & 27M



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1 For Band 7

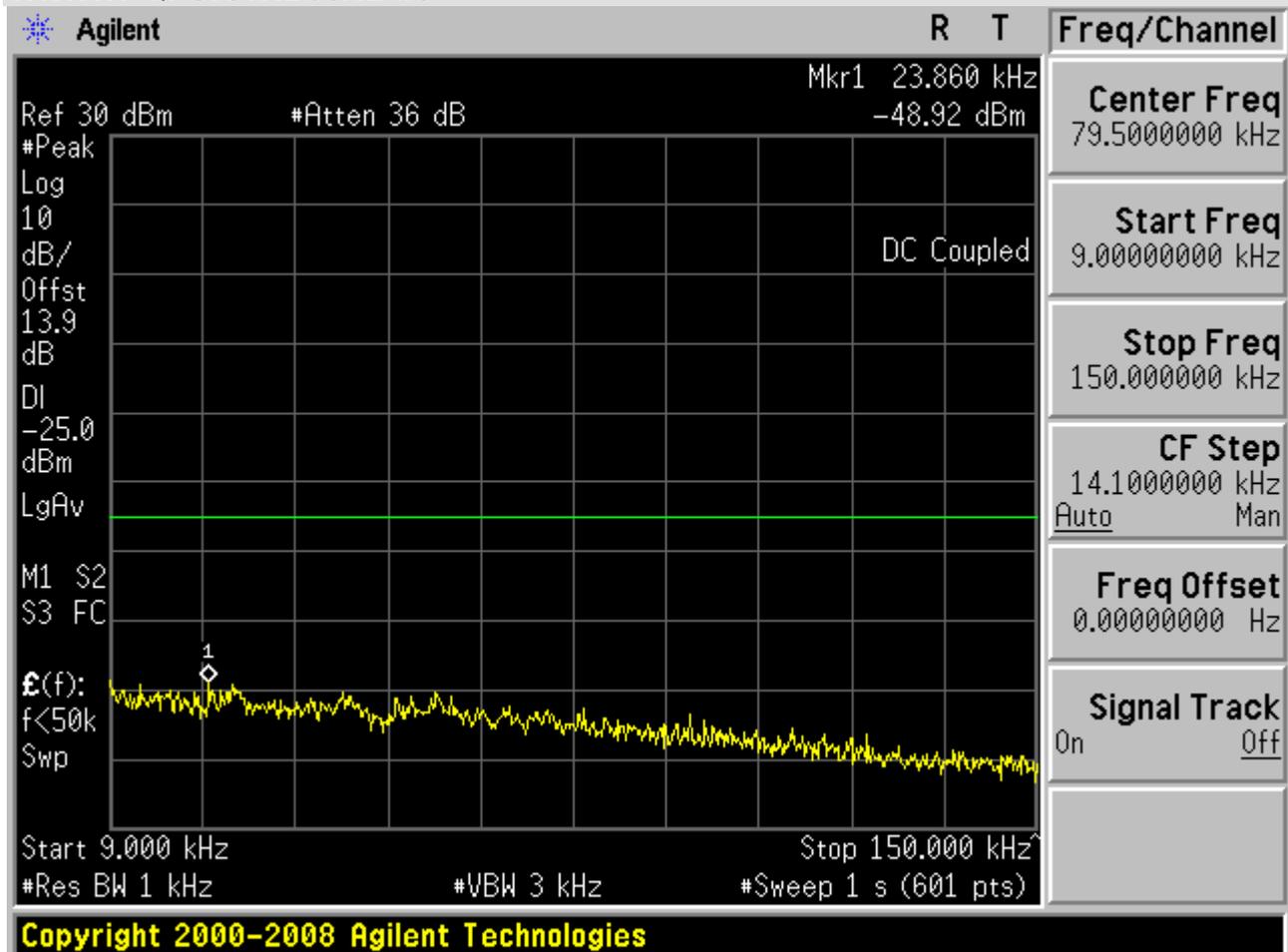
NOTE1: All relevant operation modes have been tested, and the 1RB case data is included in this report.

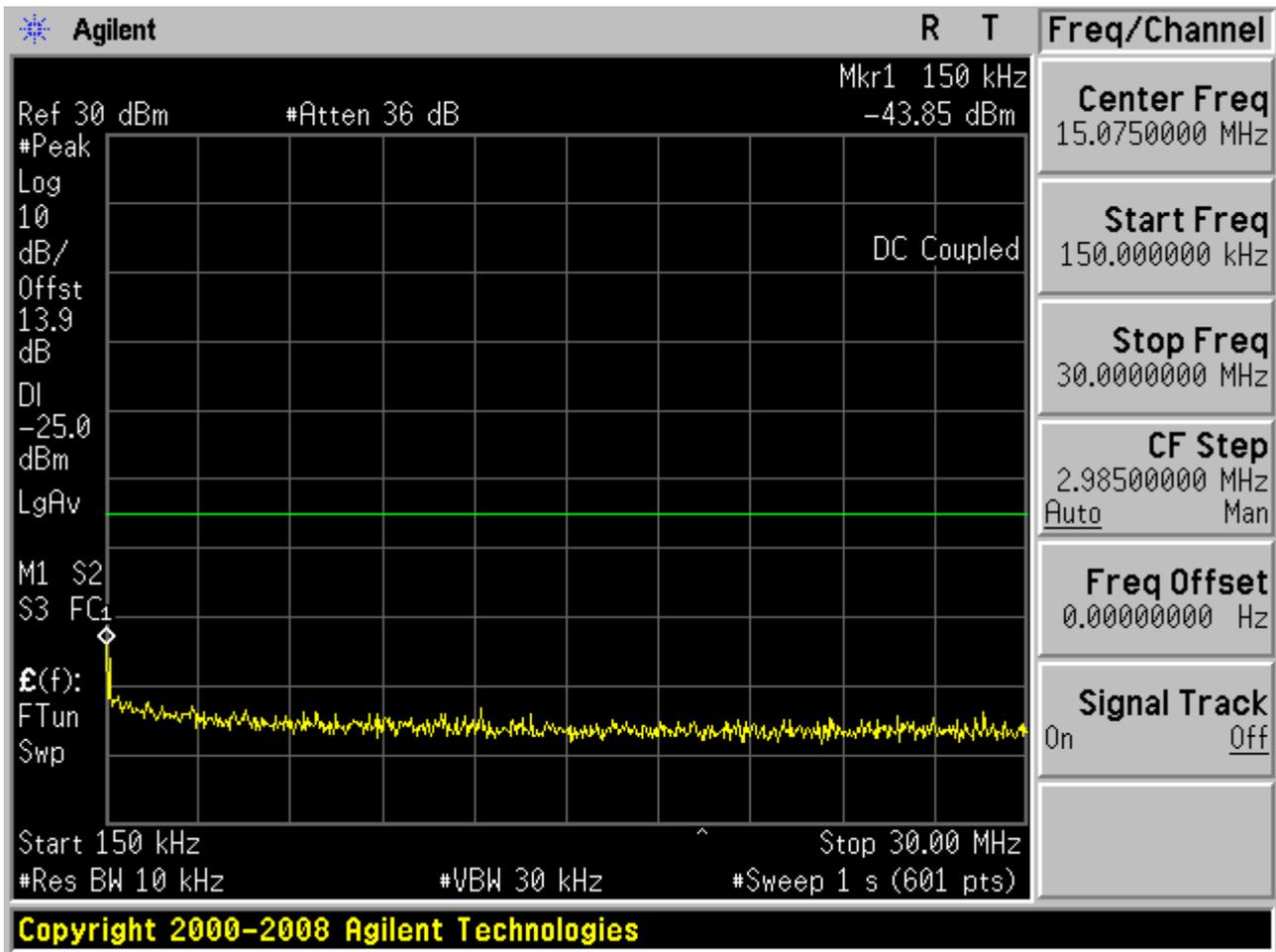
1.1 Test Mode=TM1

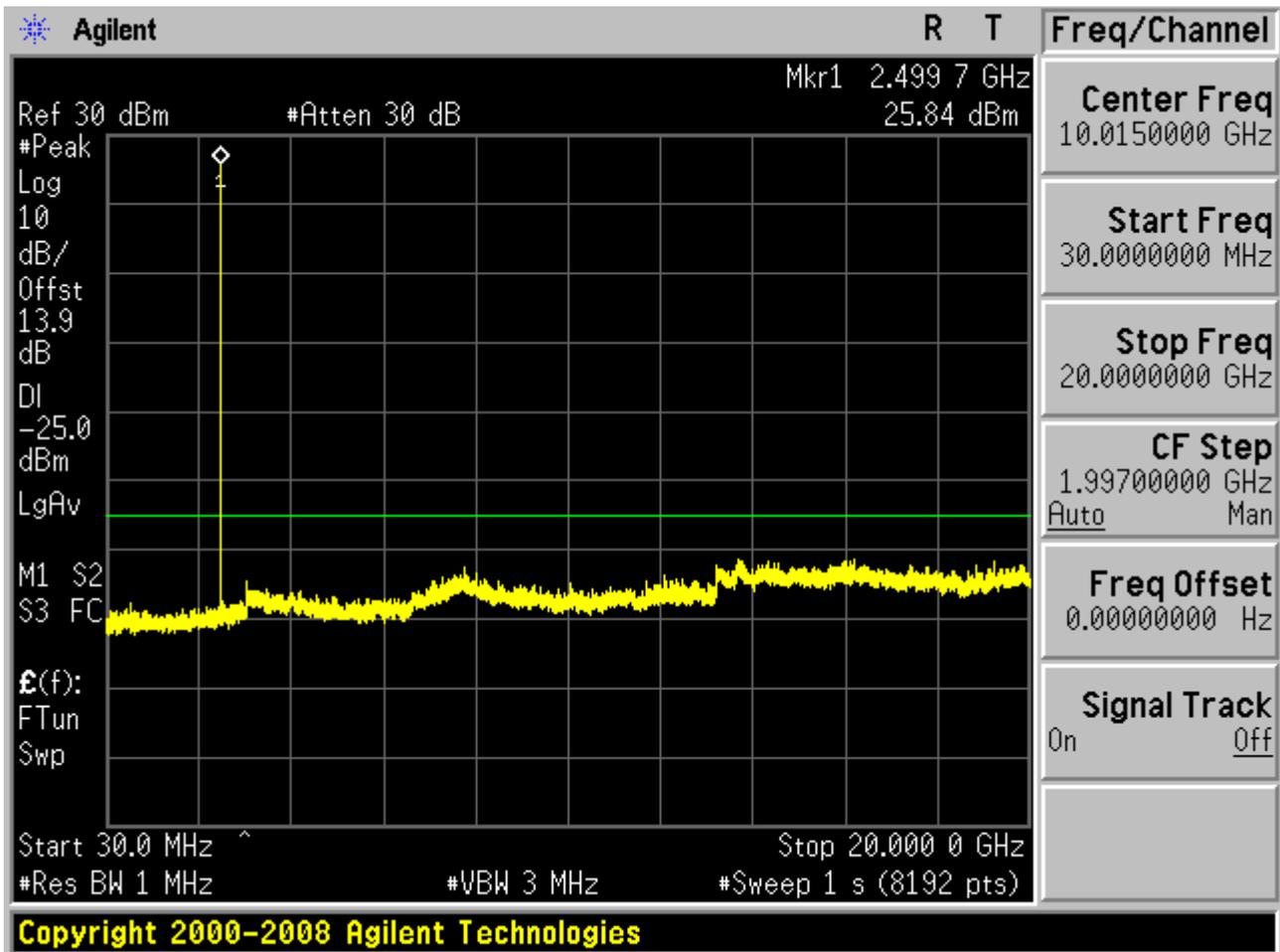
1.1.1 Channel Bandwidth = Lowest (5 MHz)

1.1.1.1 Channel = L

1.1.1.1.1 QPSK/1RBs /RB #0



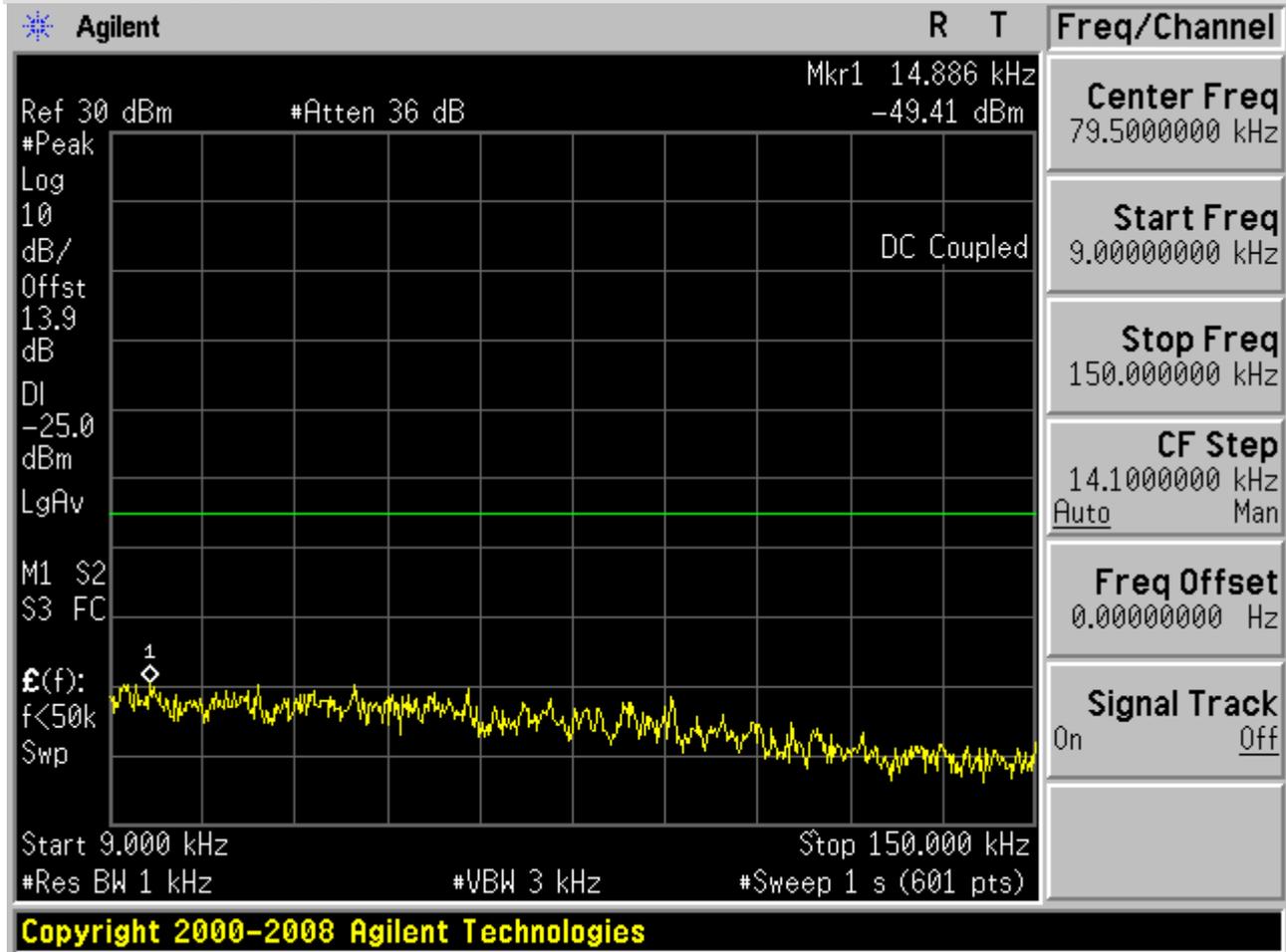


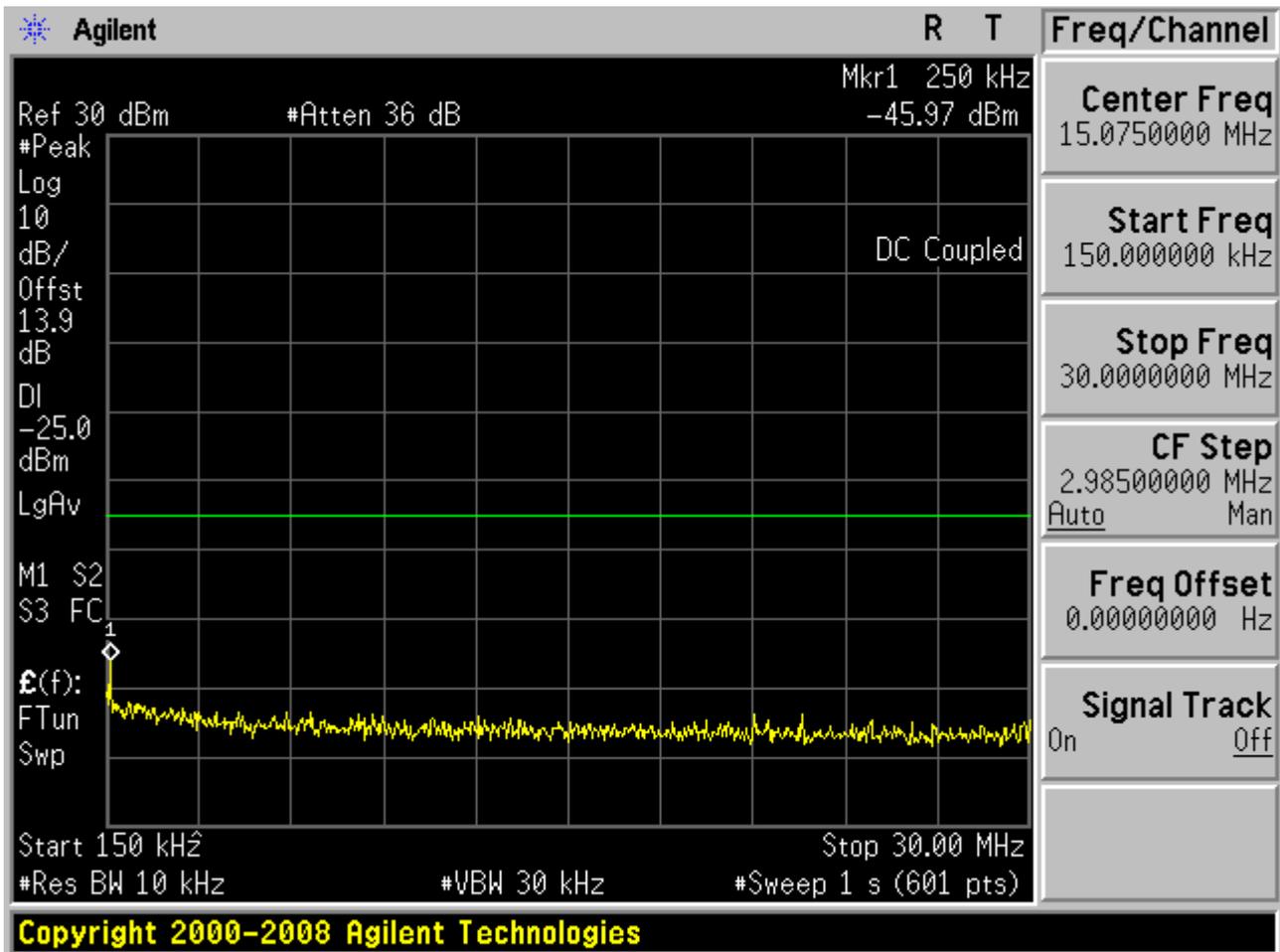


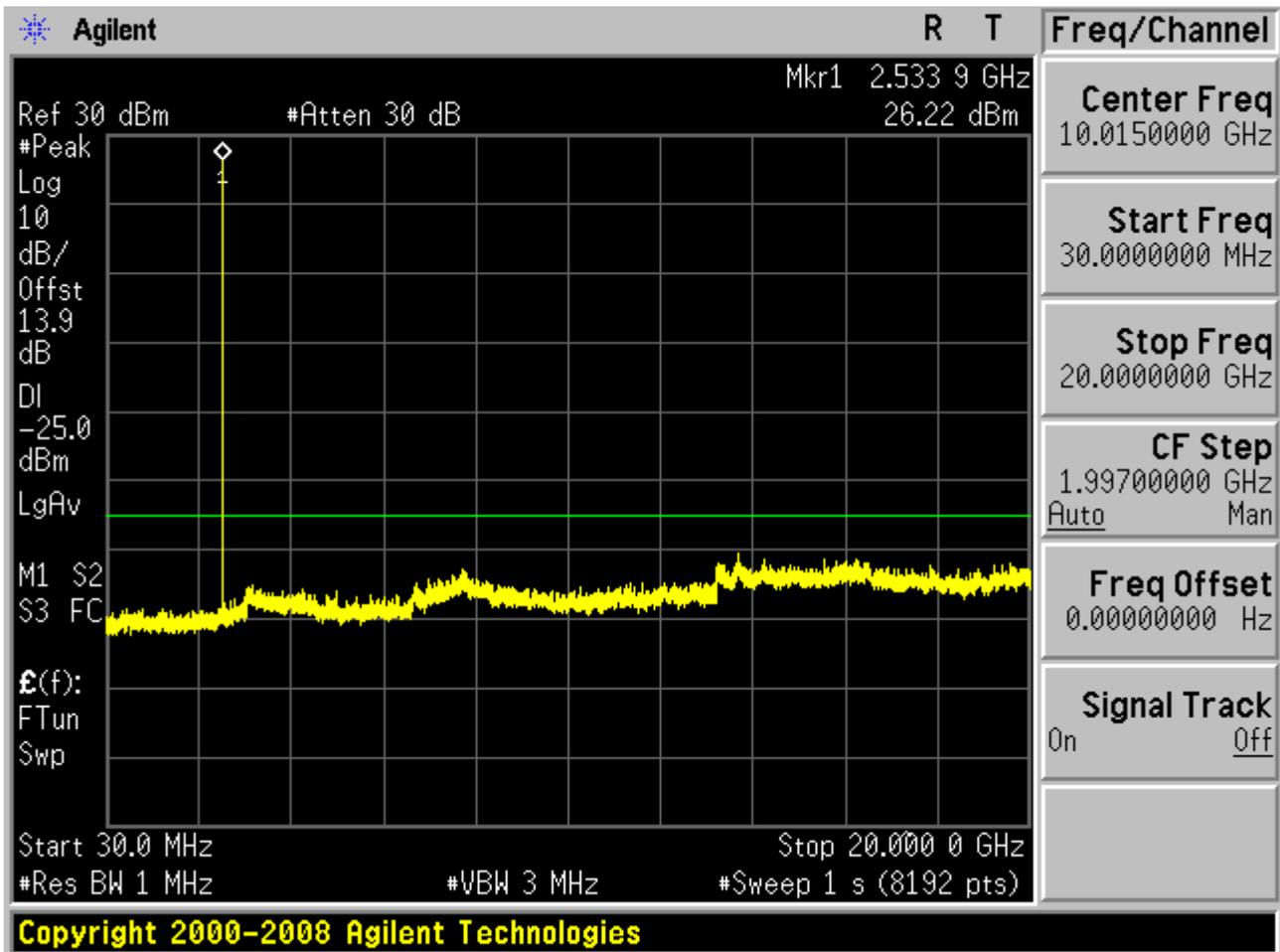
1.1.1.2 Channel = M



1.1.1.2.1 QPSK/1RBs /RB #0



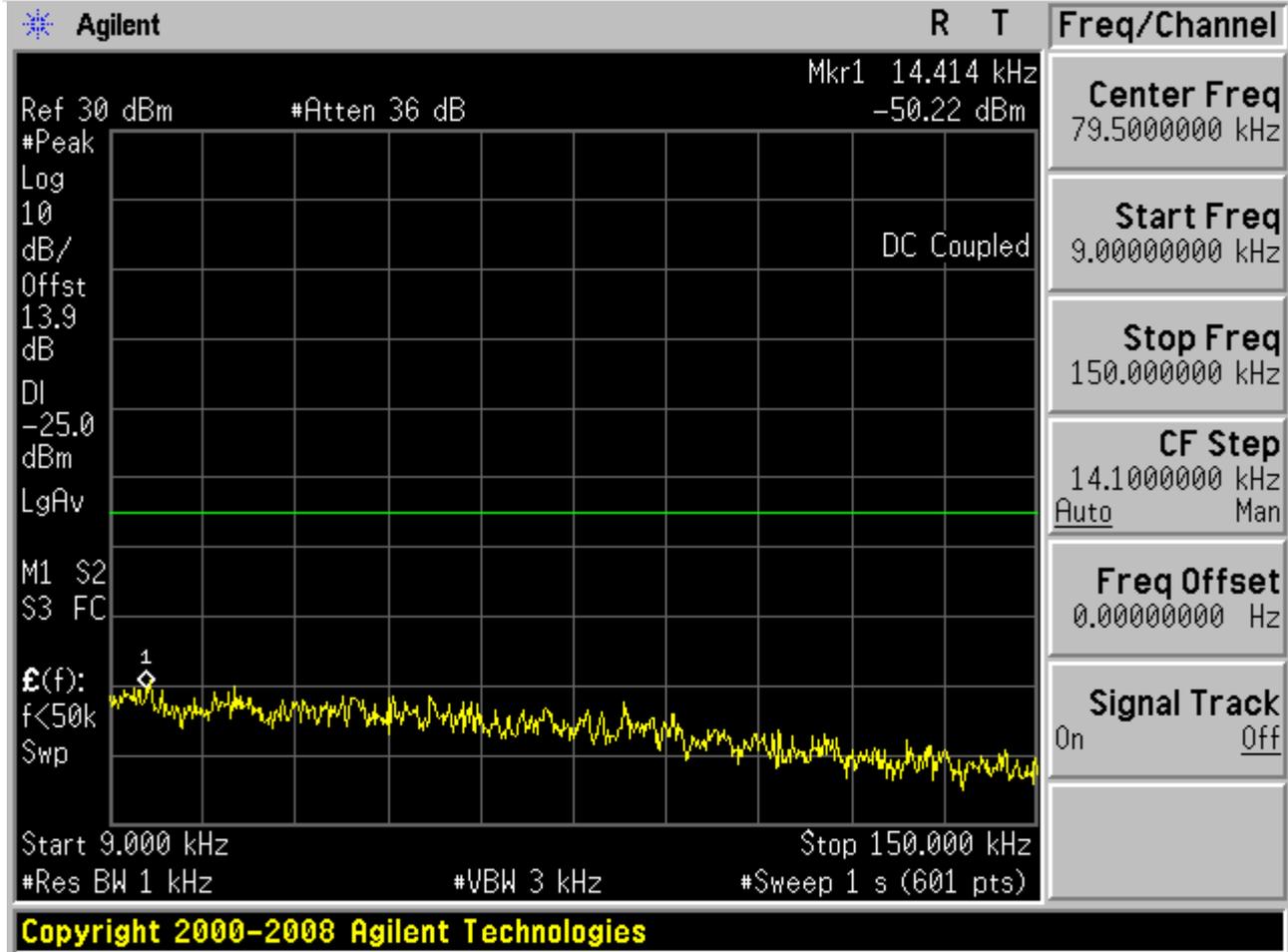


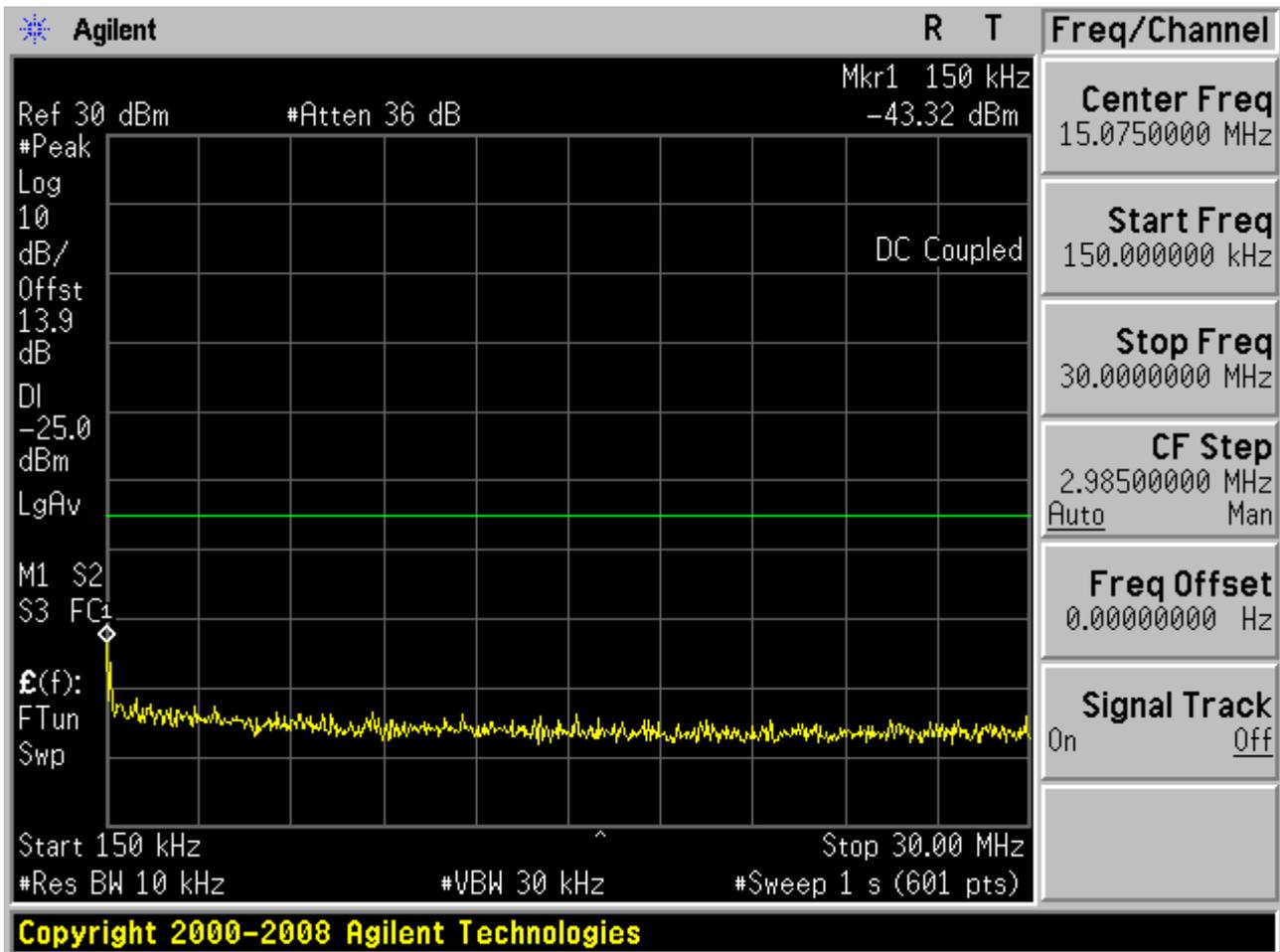


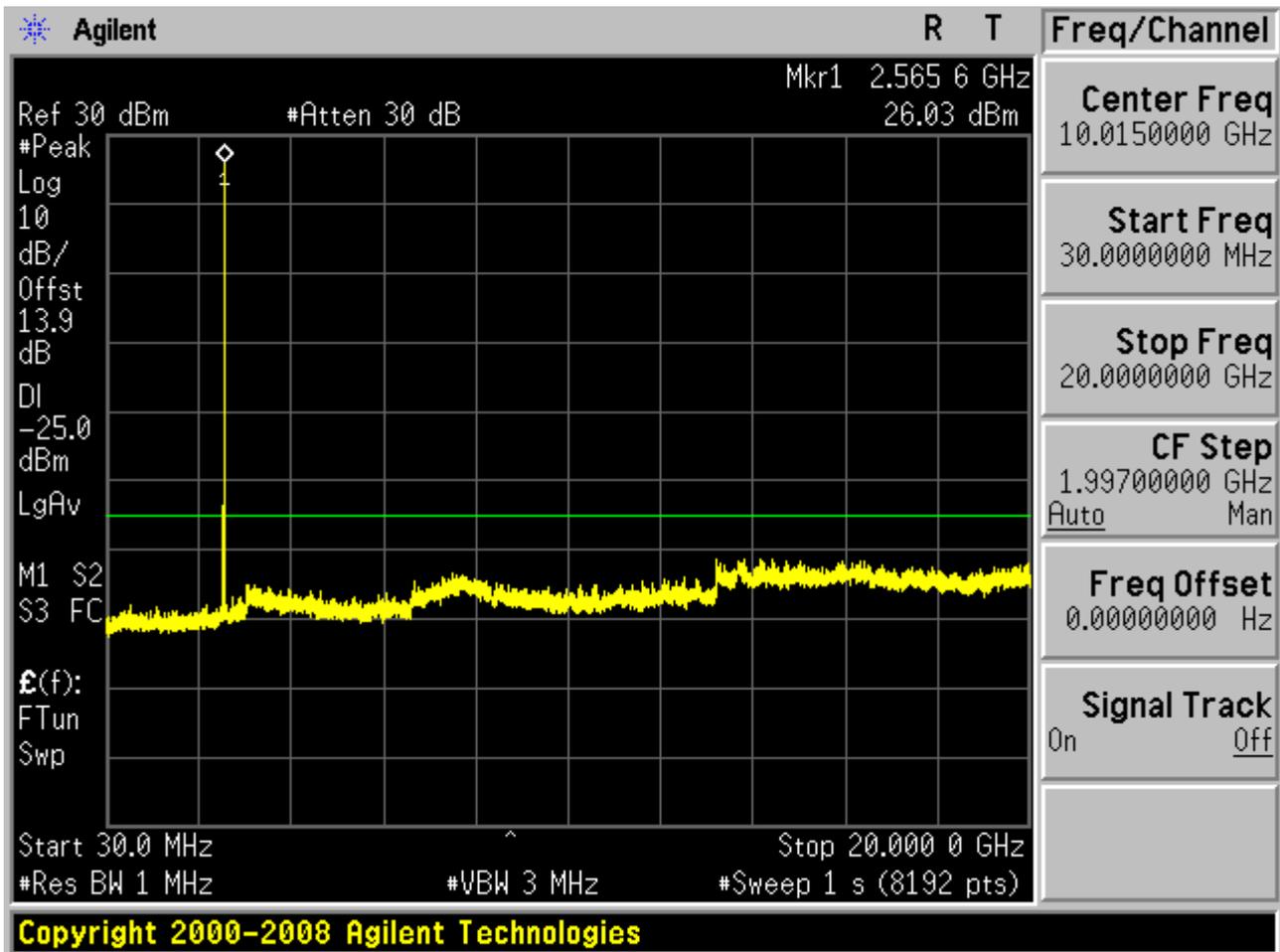
1.1.1.3 Channel = H



1.1.1.3.1 QPSK/1RBs /RB #0





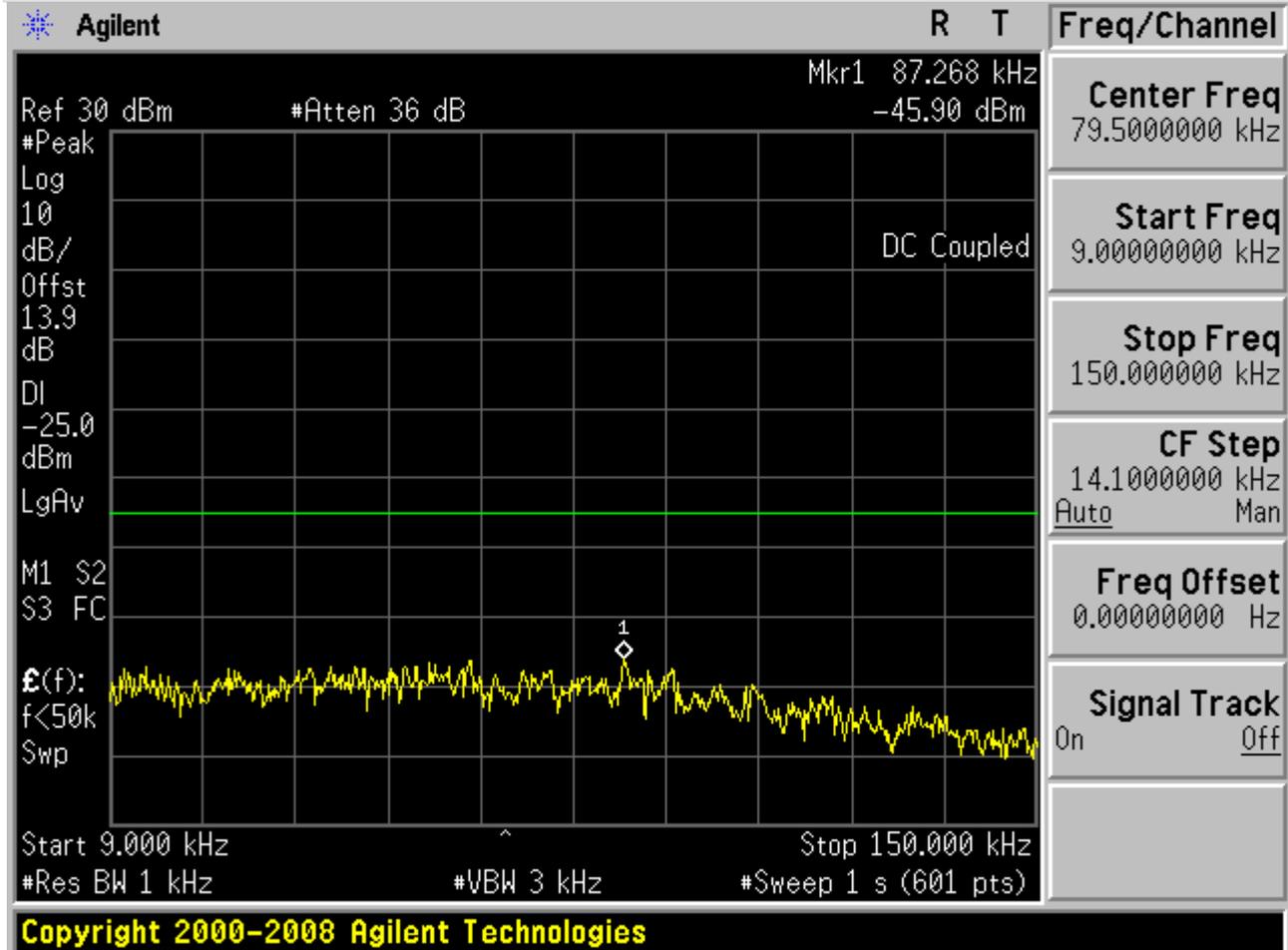


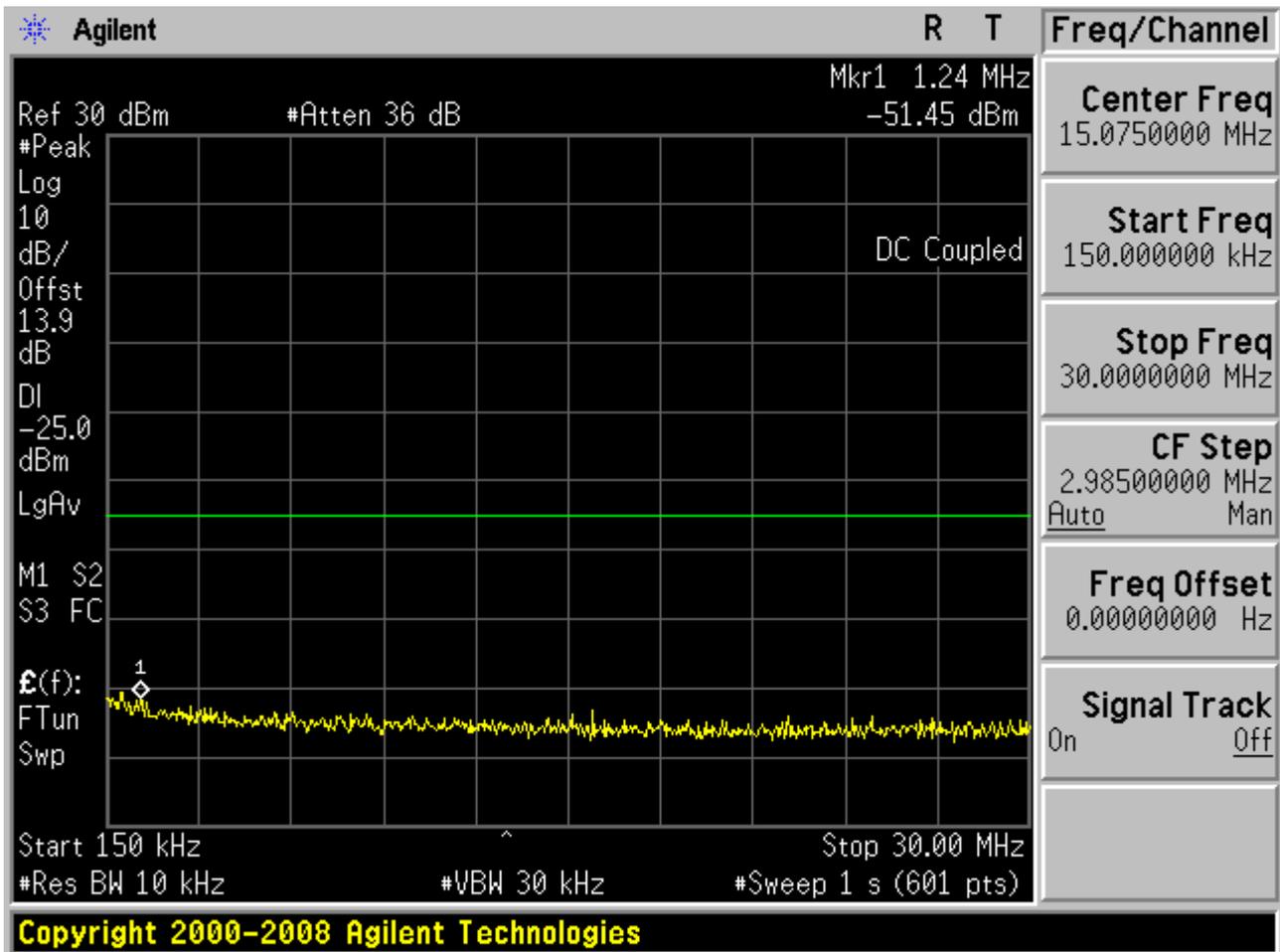


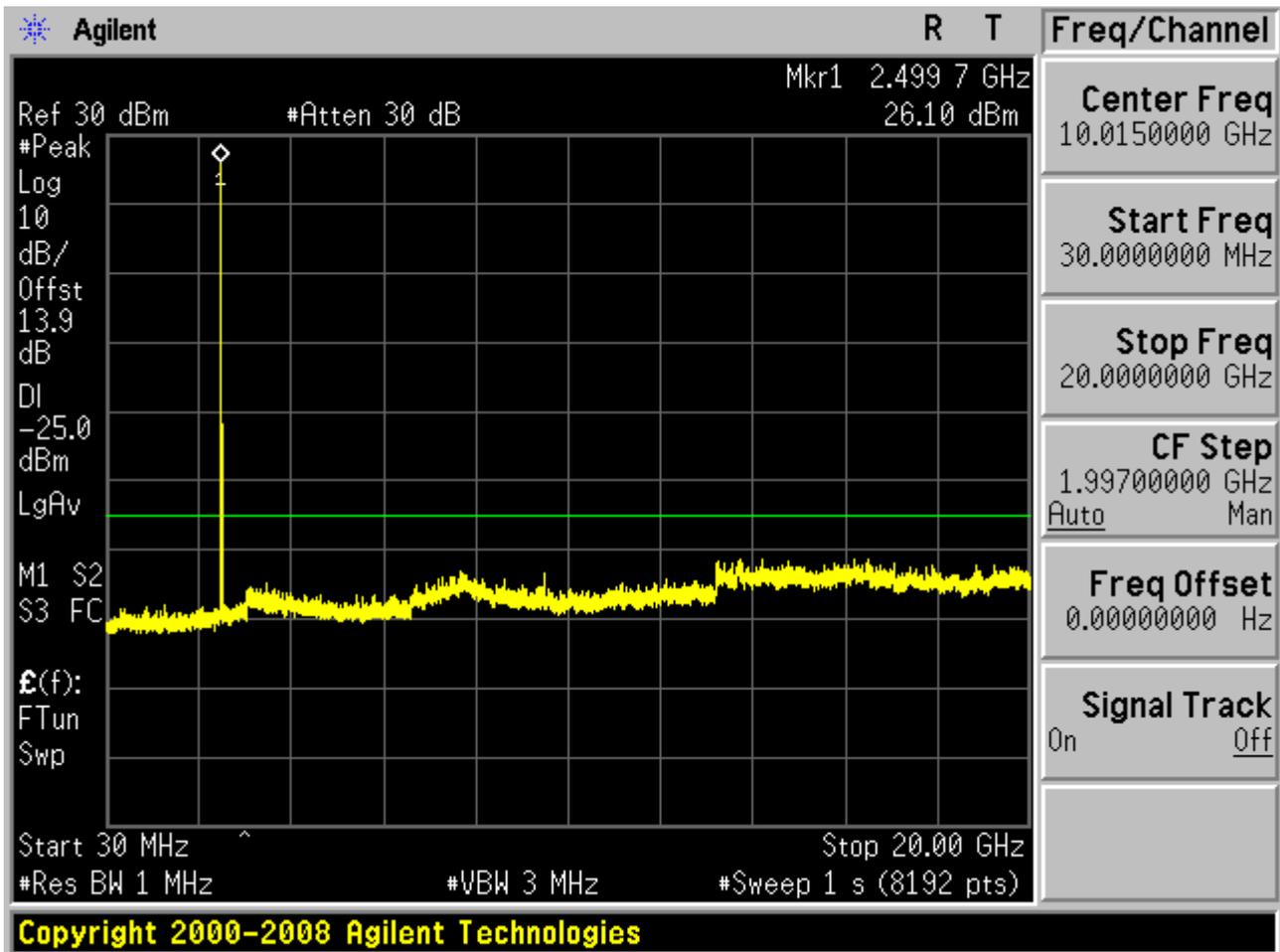
1.1.2 Channel Bandwidth = 10 MHz

1.1.2.1 Channel = L

1.1.2.1.1 QPSK/1RBs /RB #0



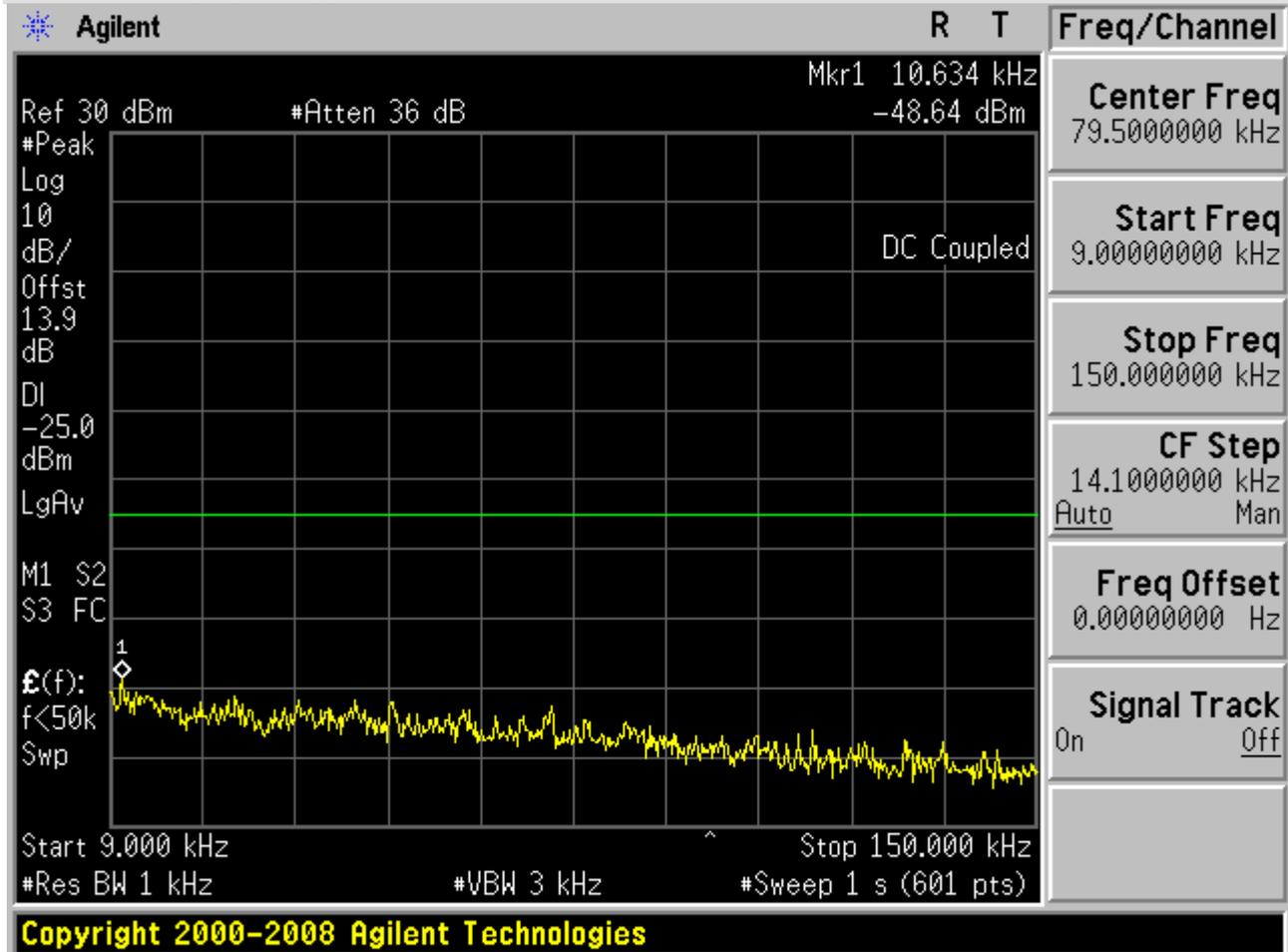


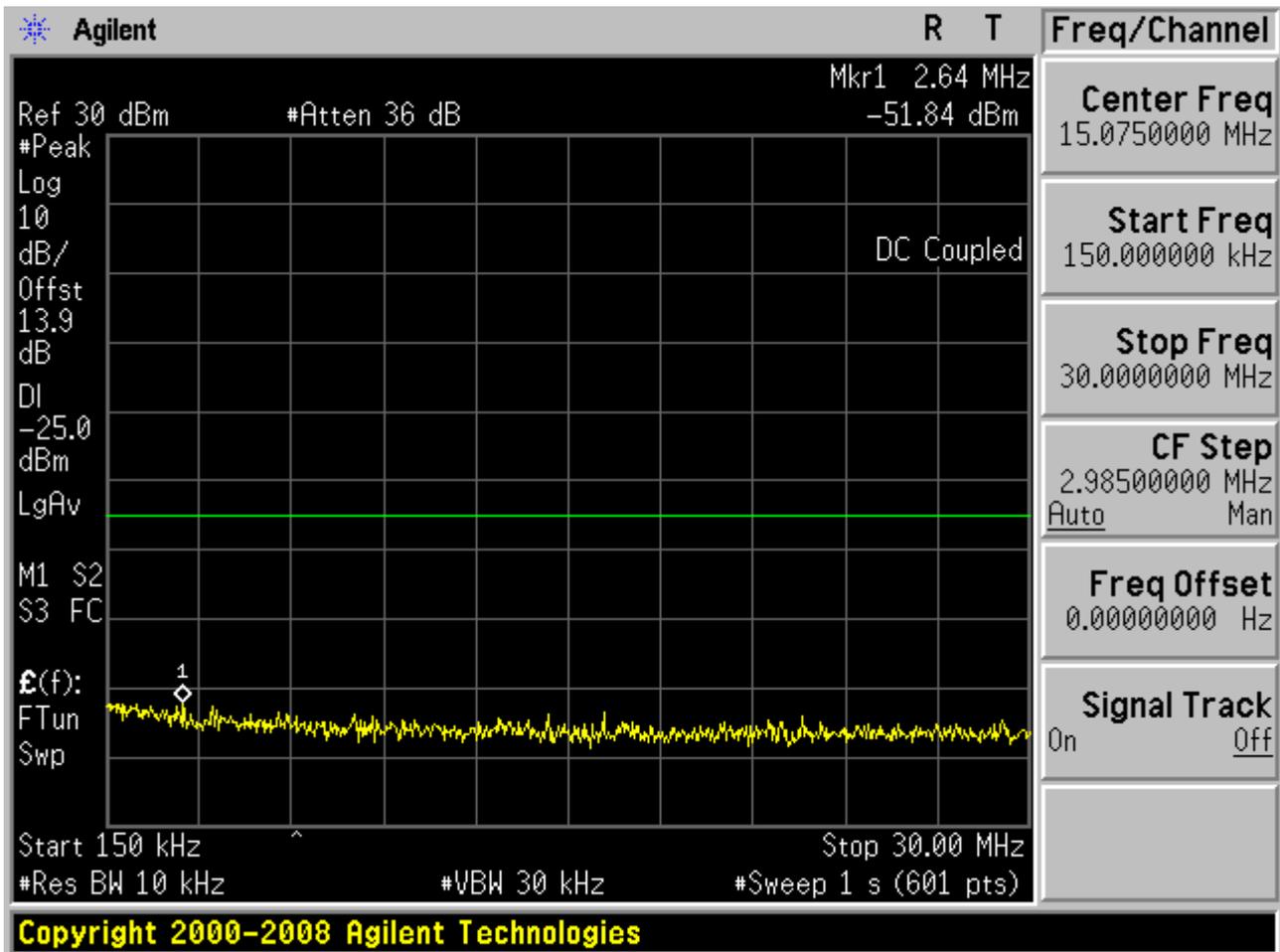


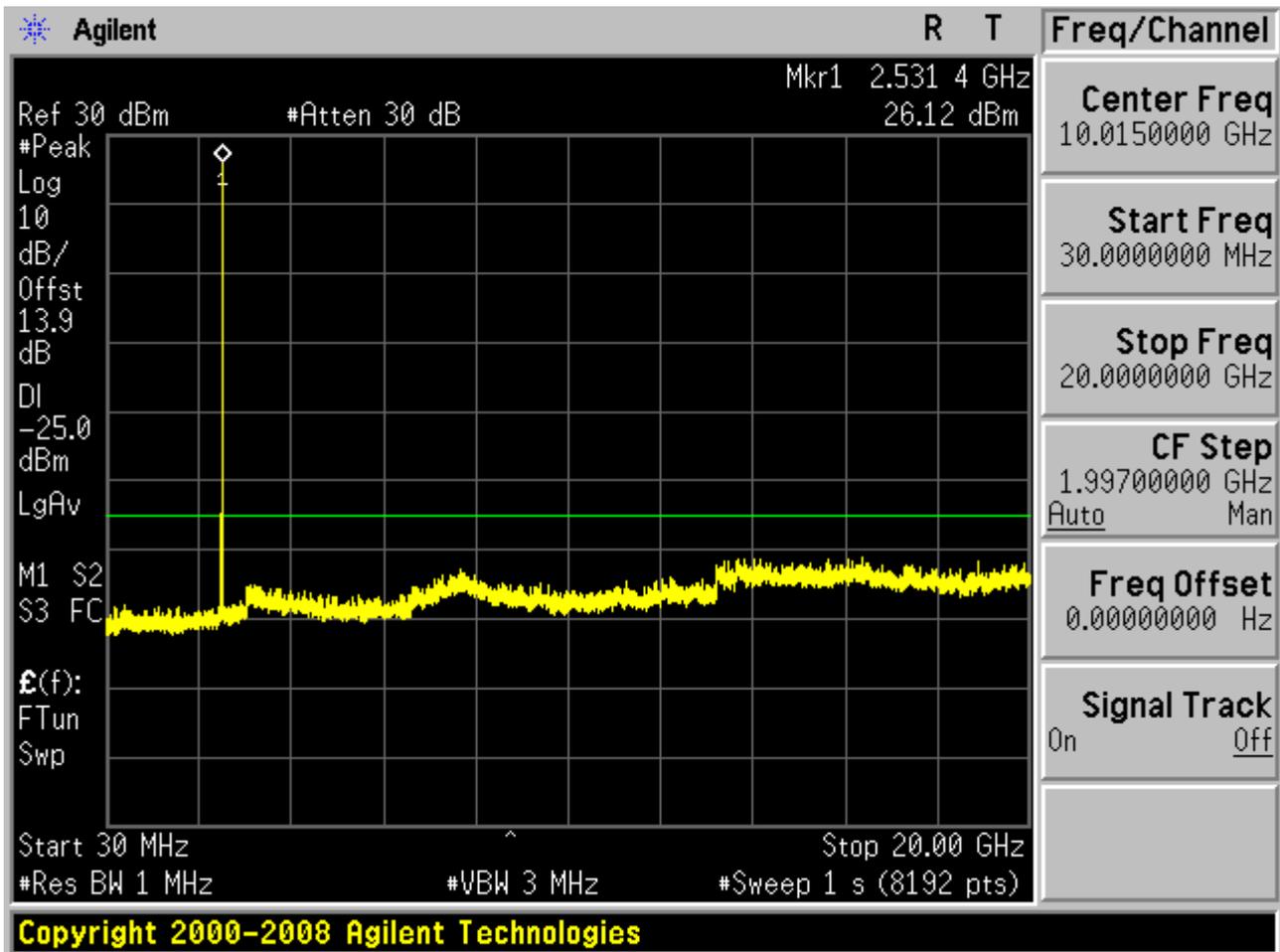
1.1.2.2 Channel = M



1.1.2.2.1 QPSK/1RBs /RB #0



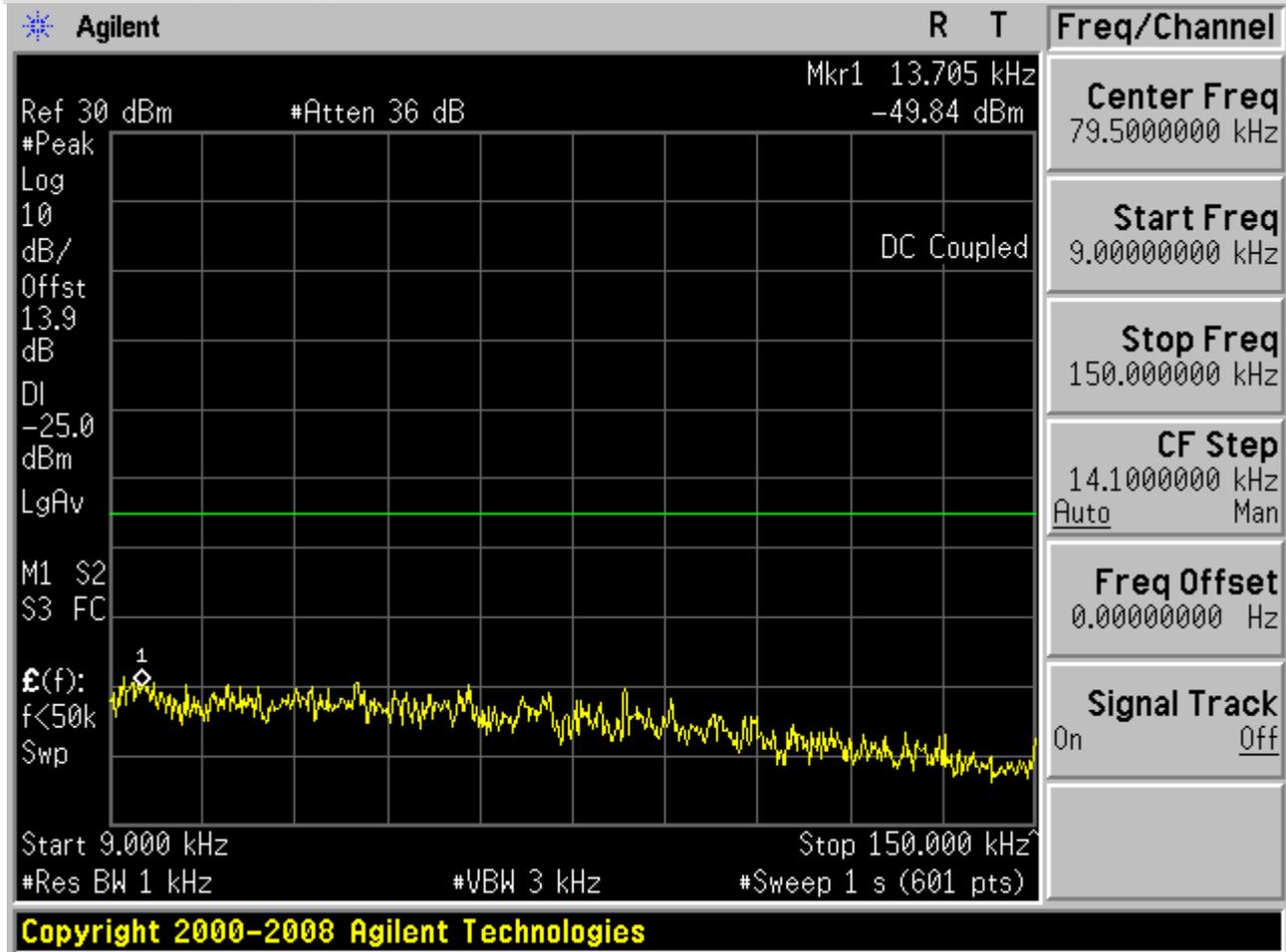


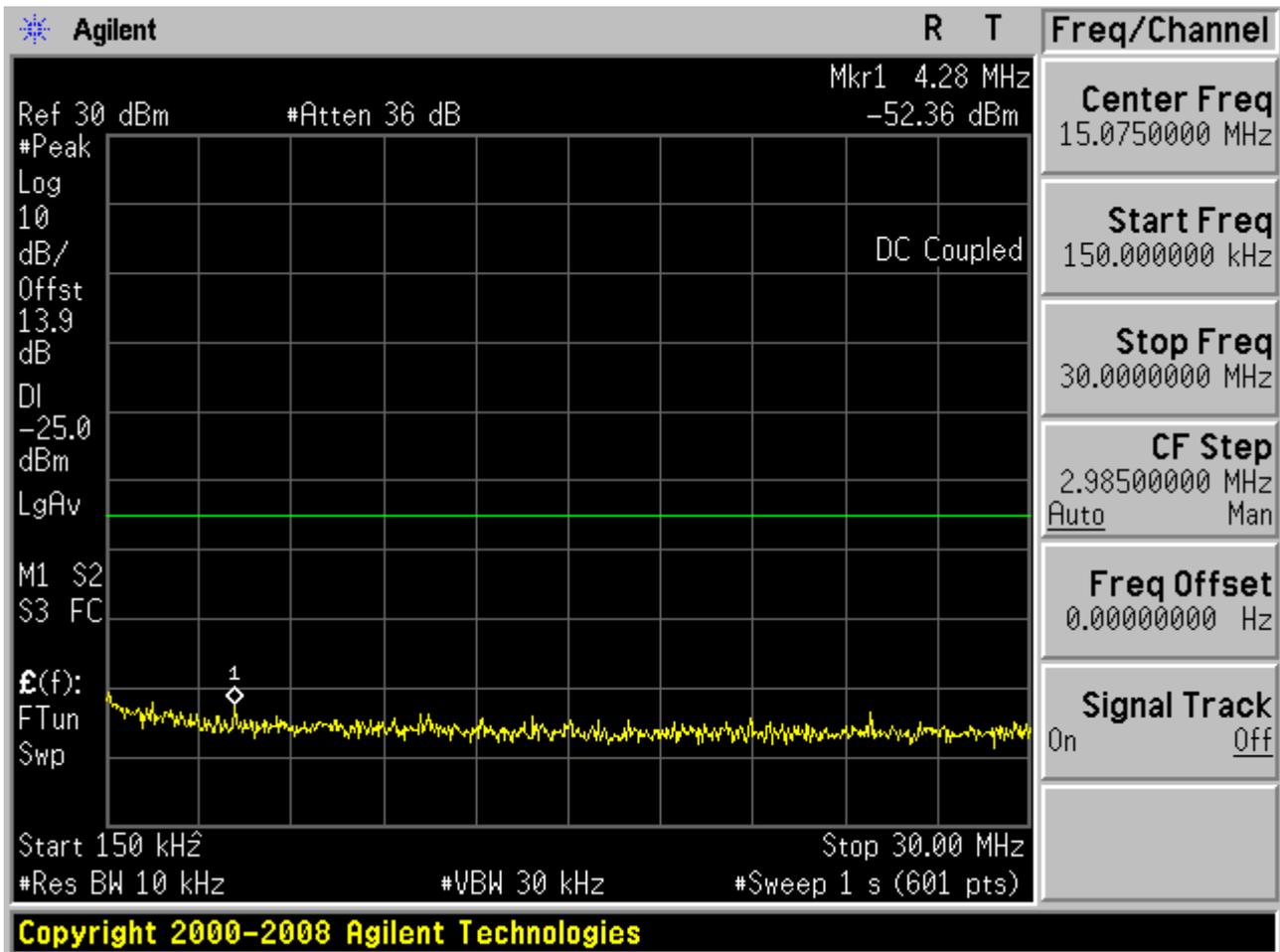


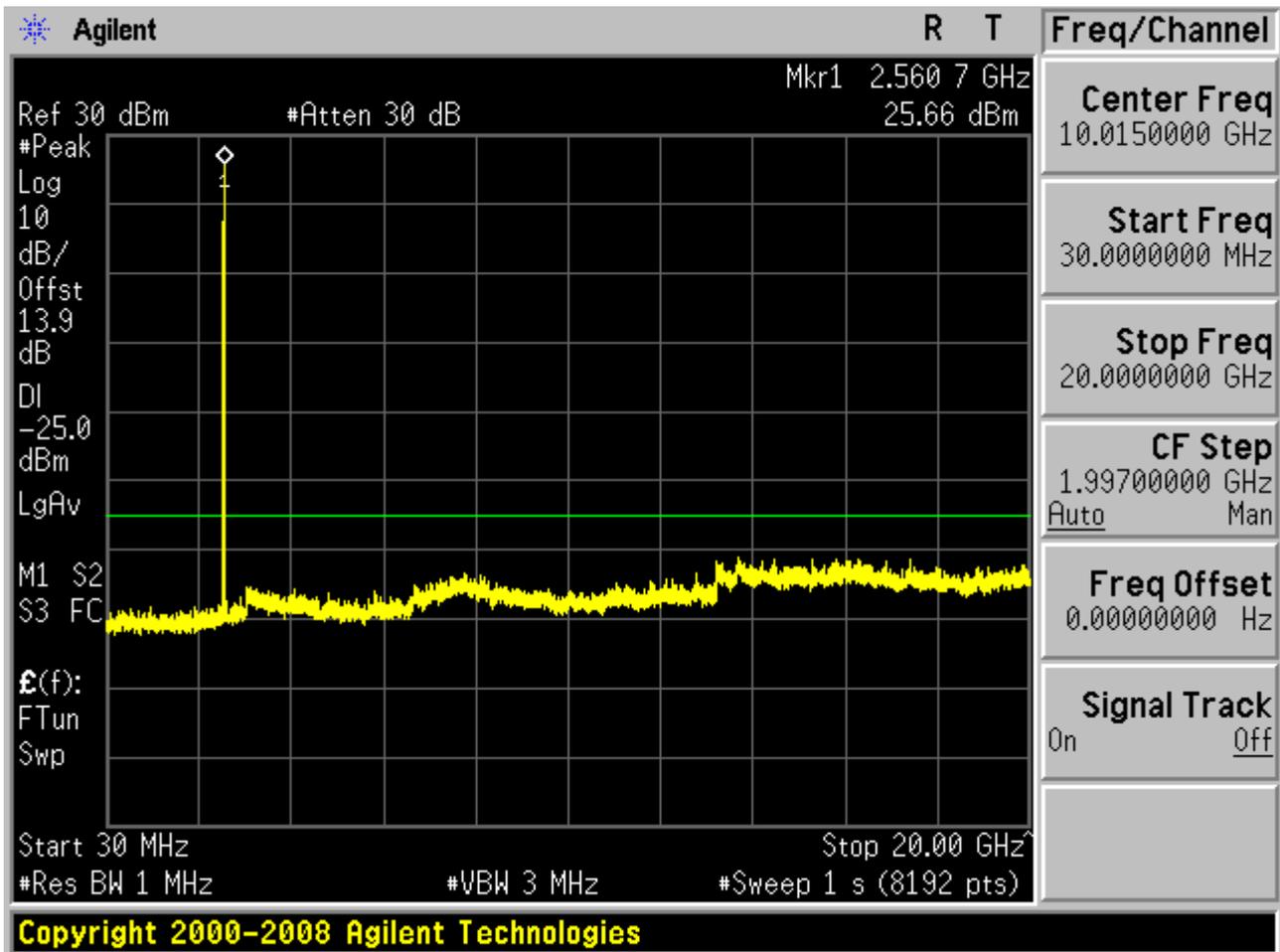
1.1.2.3 Channel = H



1.1.2.3.1 QPSK/1RBs /RB #0





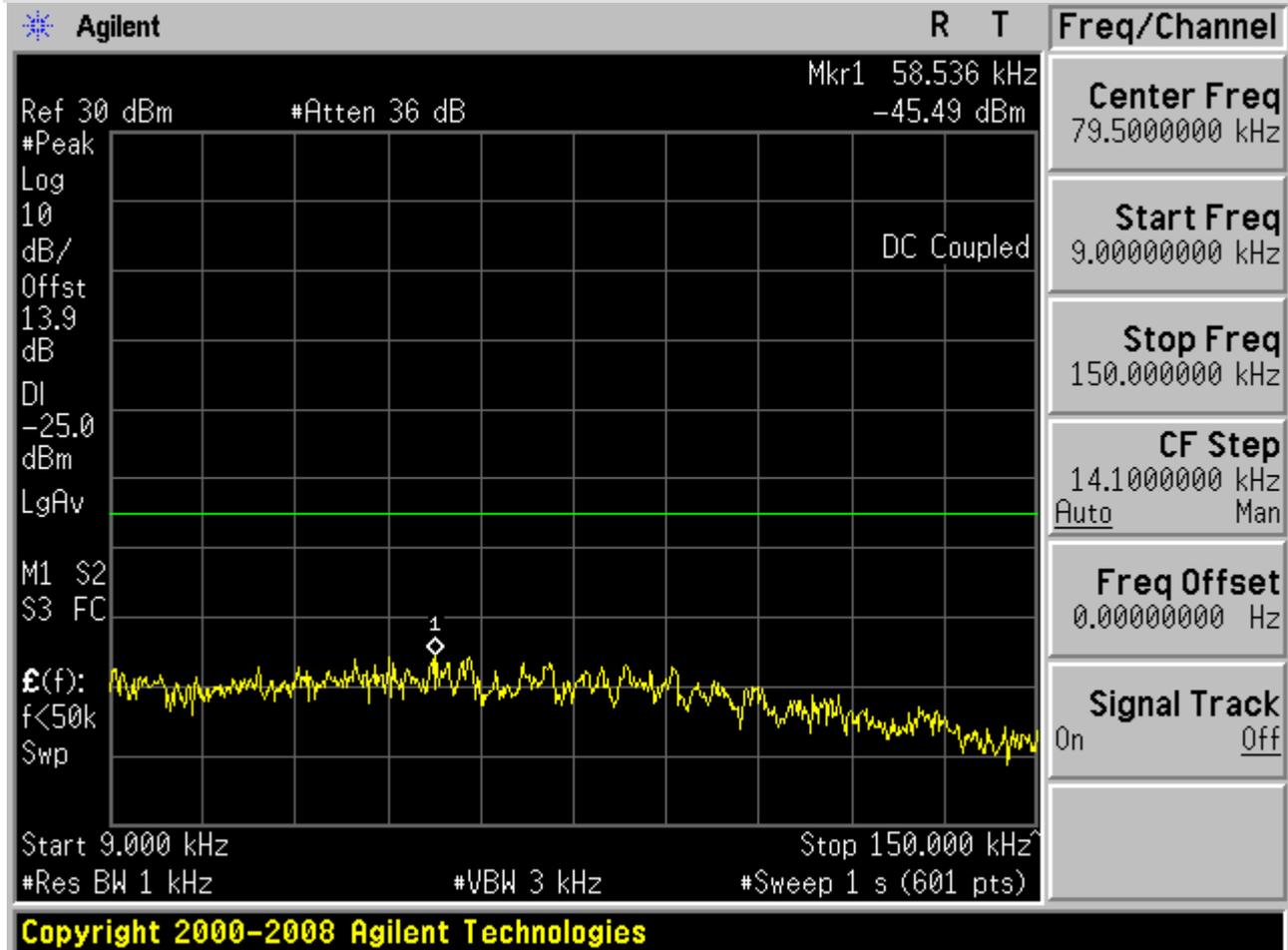


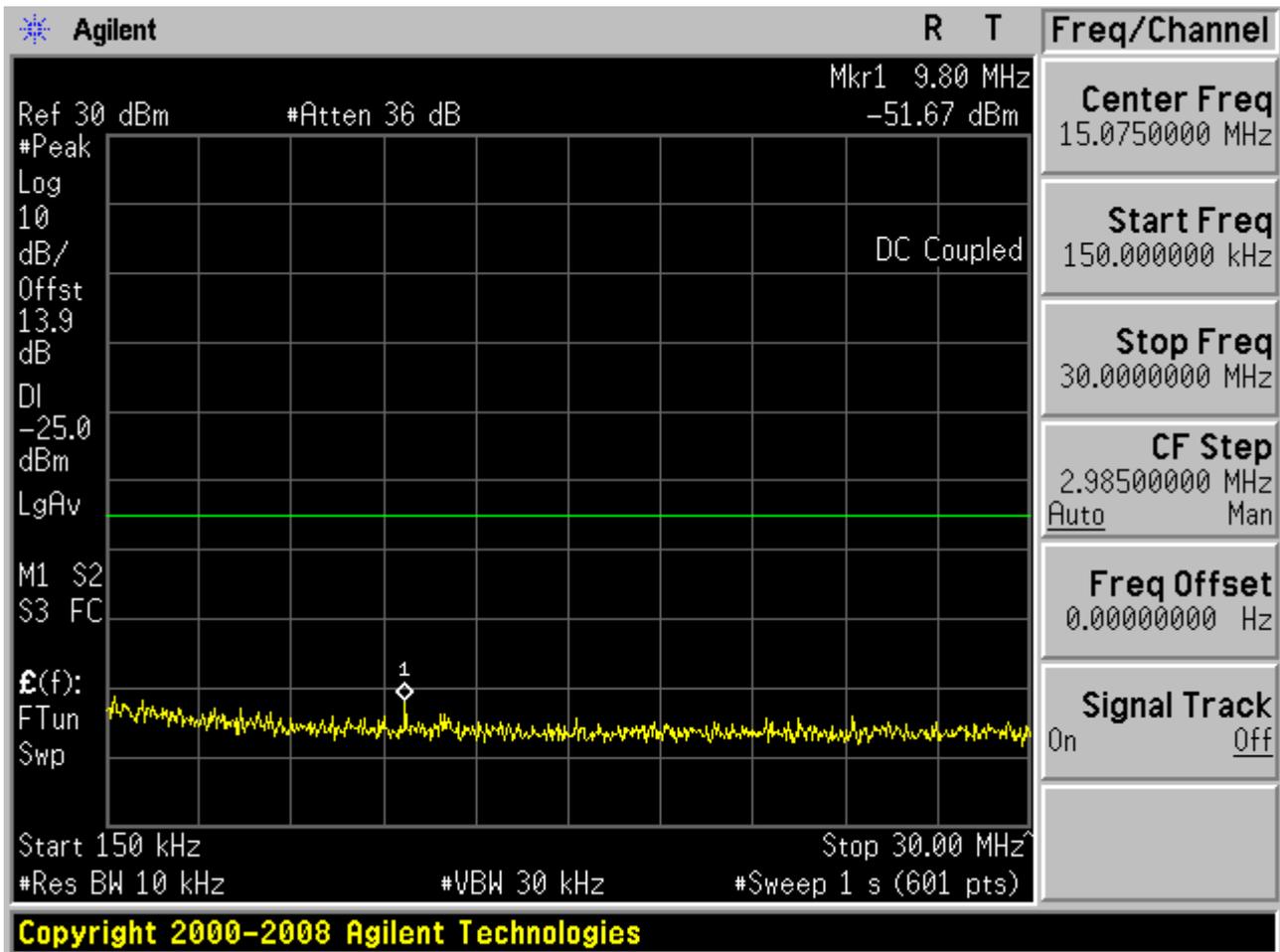


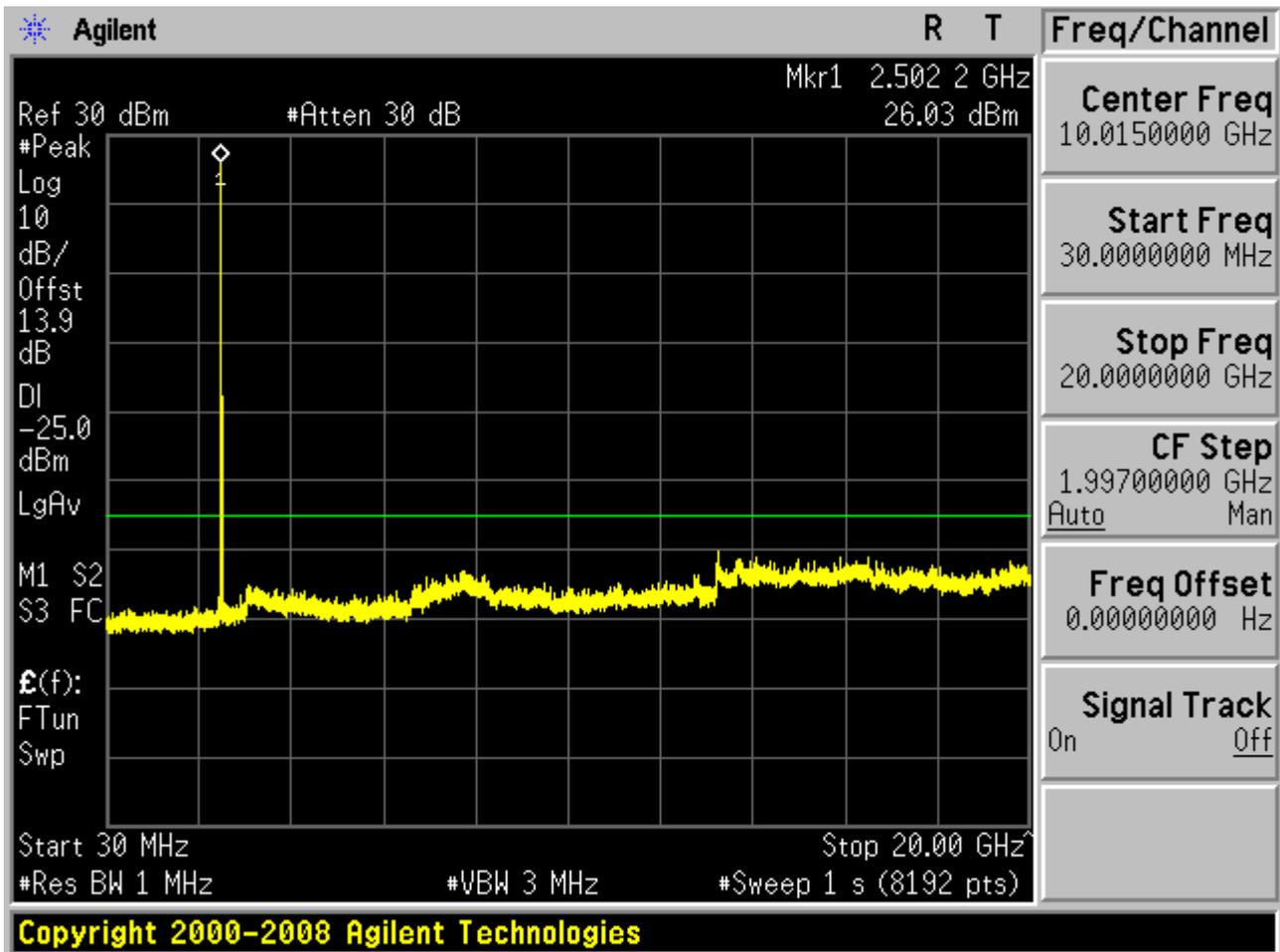
1.1.3 Channel Bandwidth = 15 MHz

1.1.3.1 Channel = L

1.1.3.1.1 QPSK/1RBs /RB #0



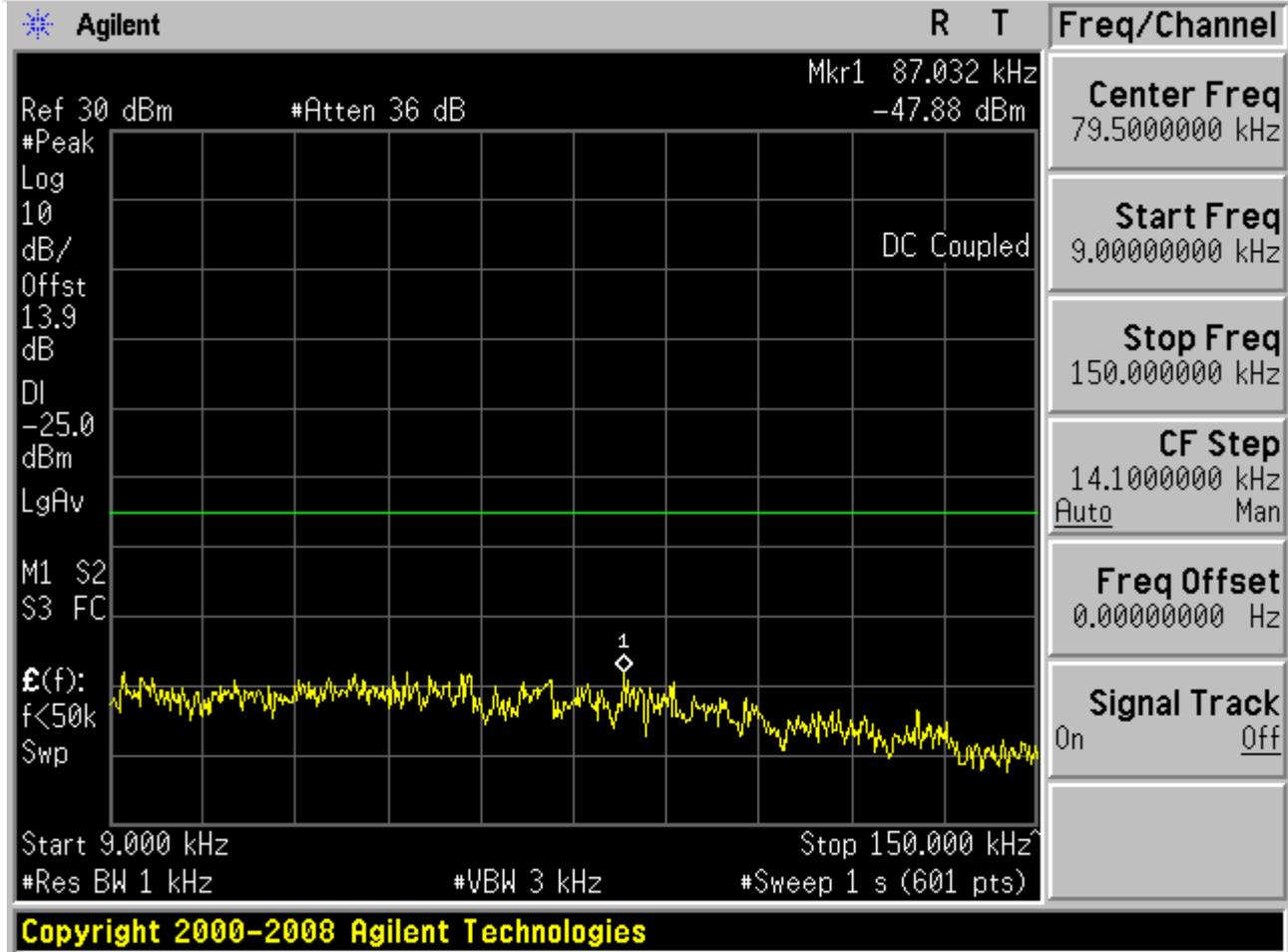


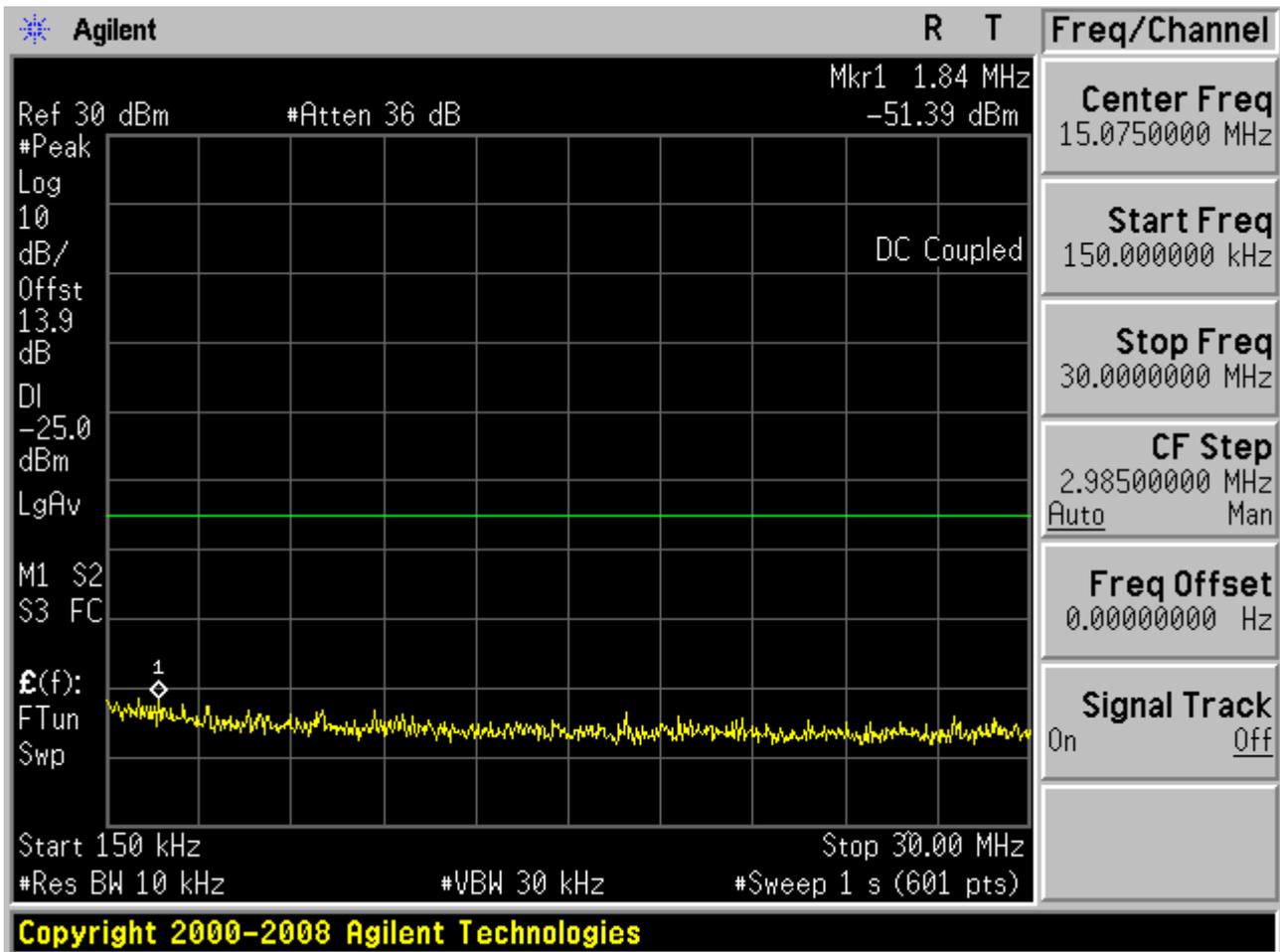


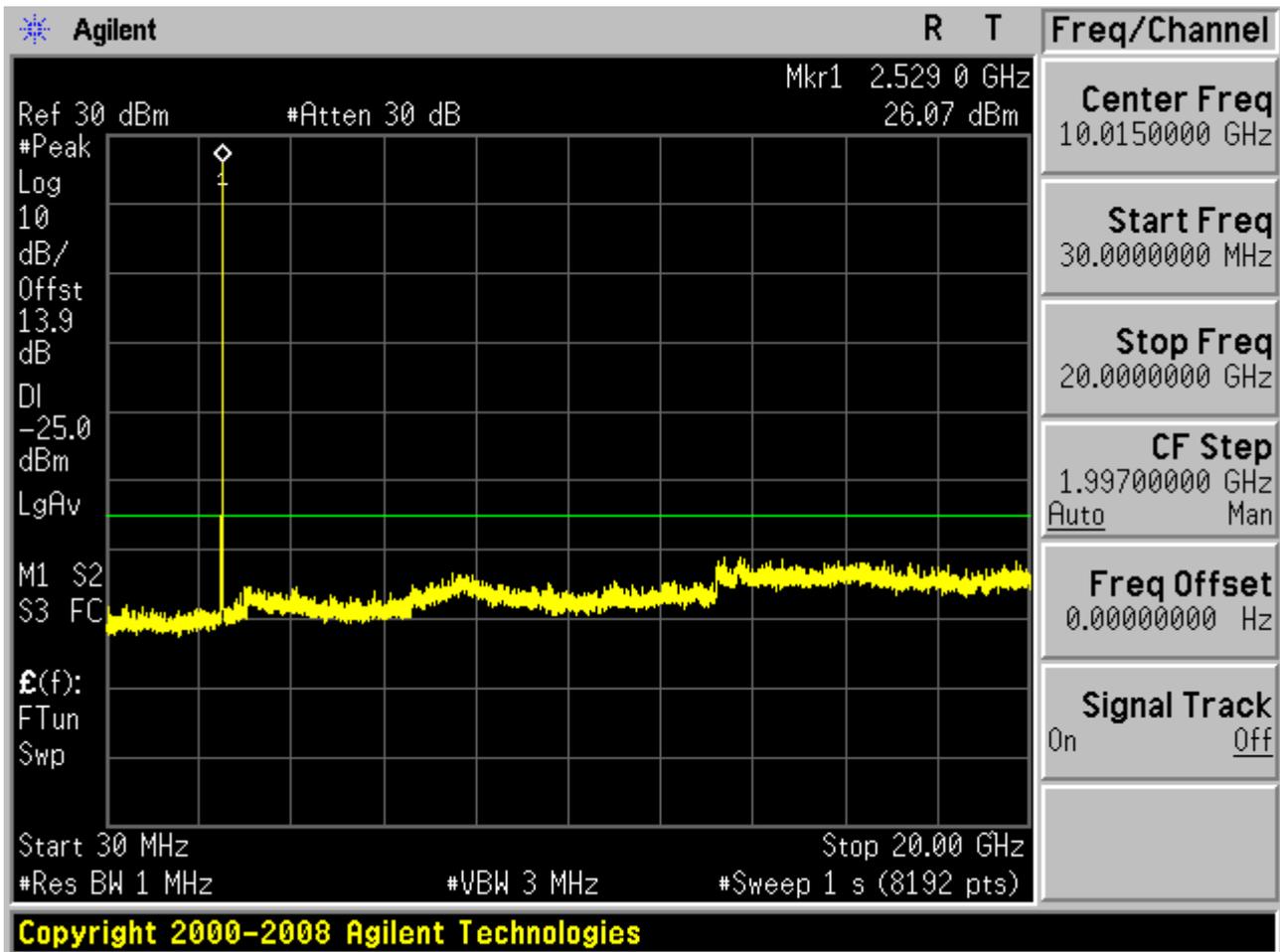
1.1.3.2 Channel = M



1.1.3.2.1 QPSK/1RBs /RB #0



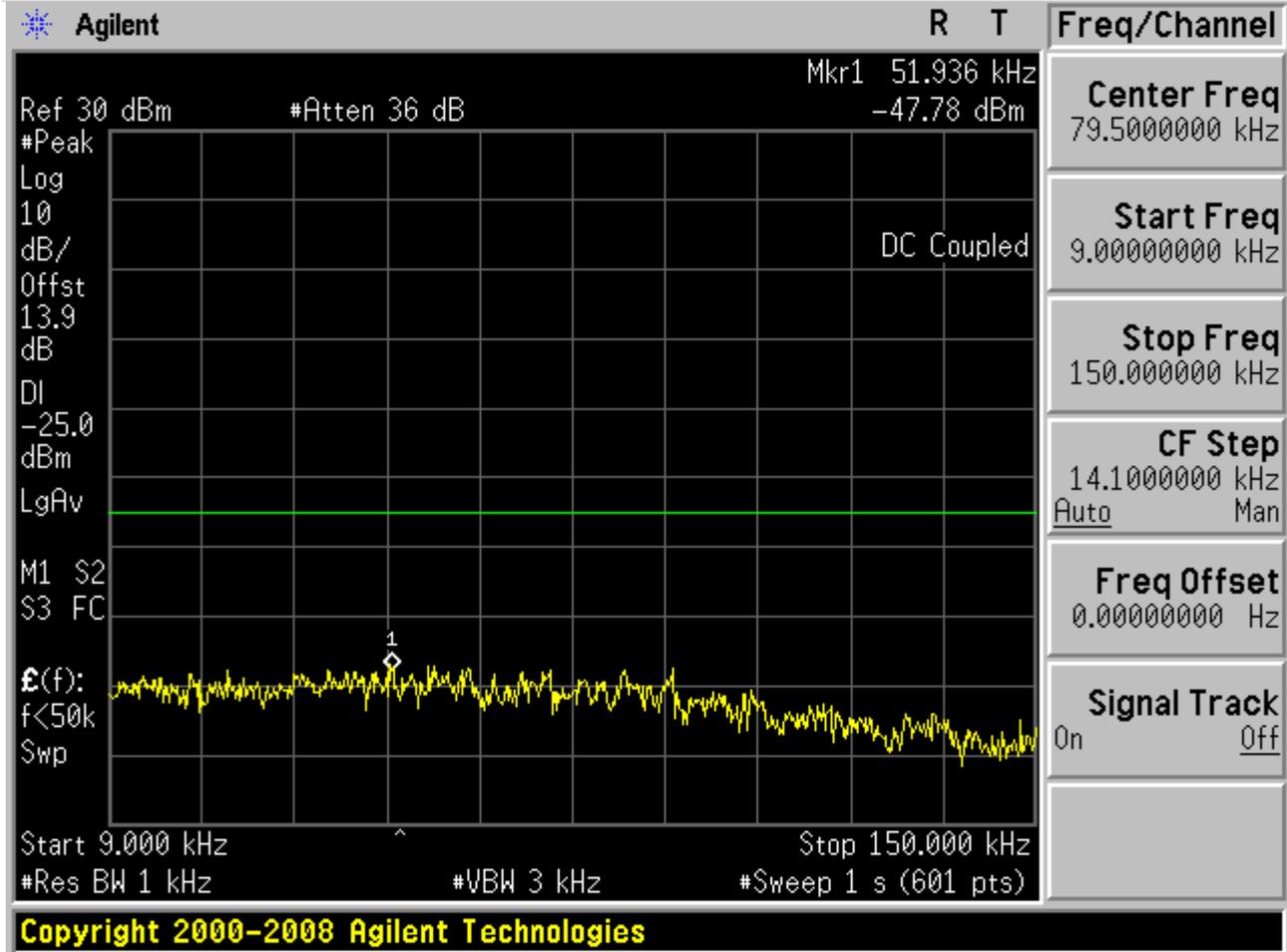


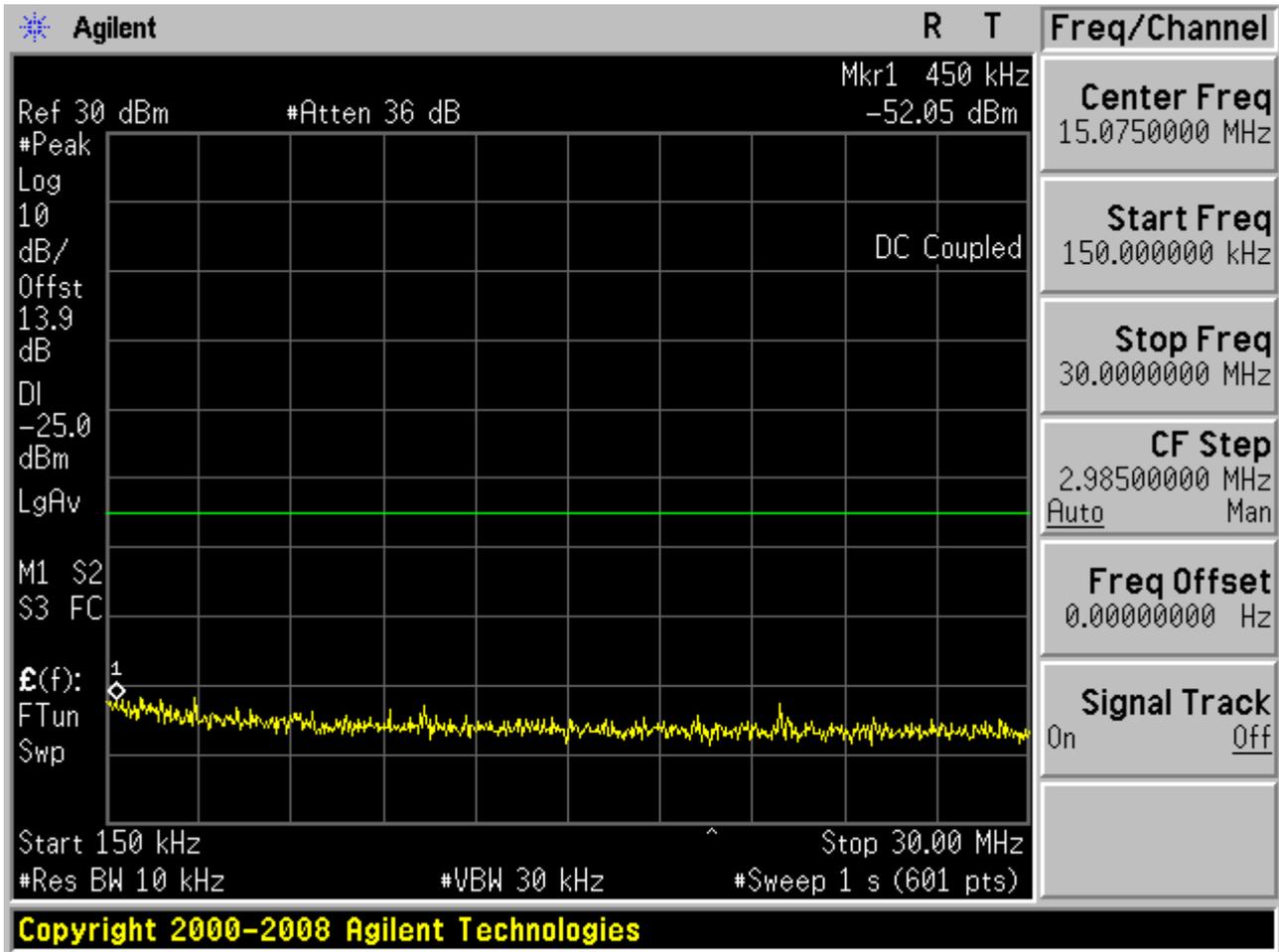


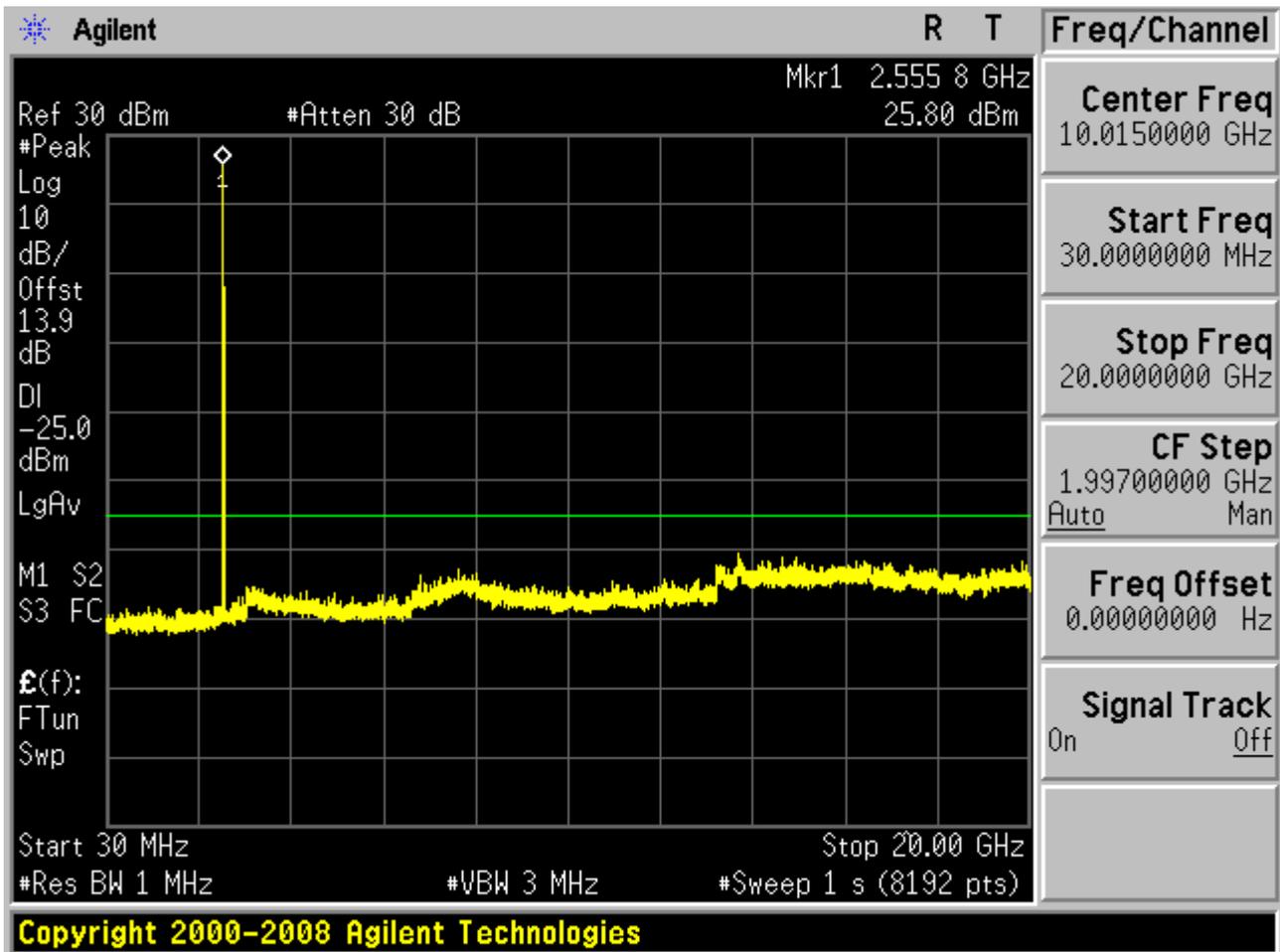
1.1.3.3 Channel = H



1.1.3.3.1 QPSK/1RBs /RB #0





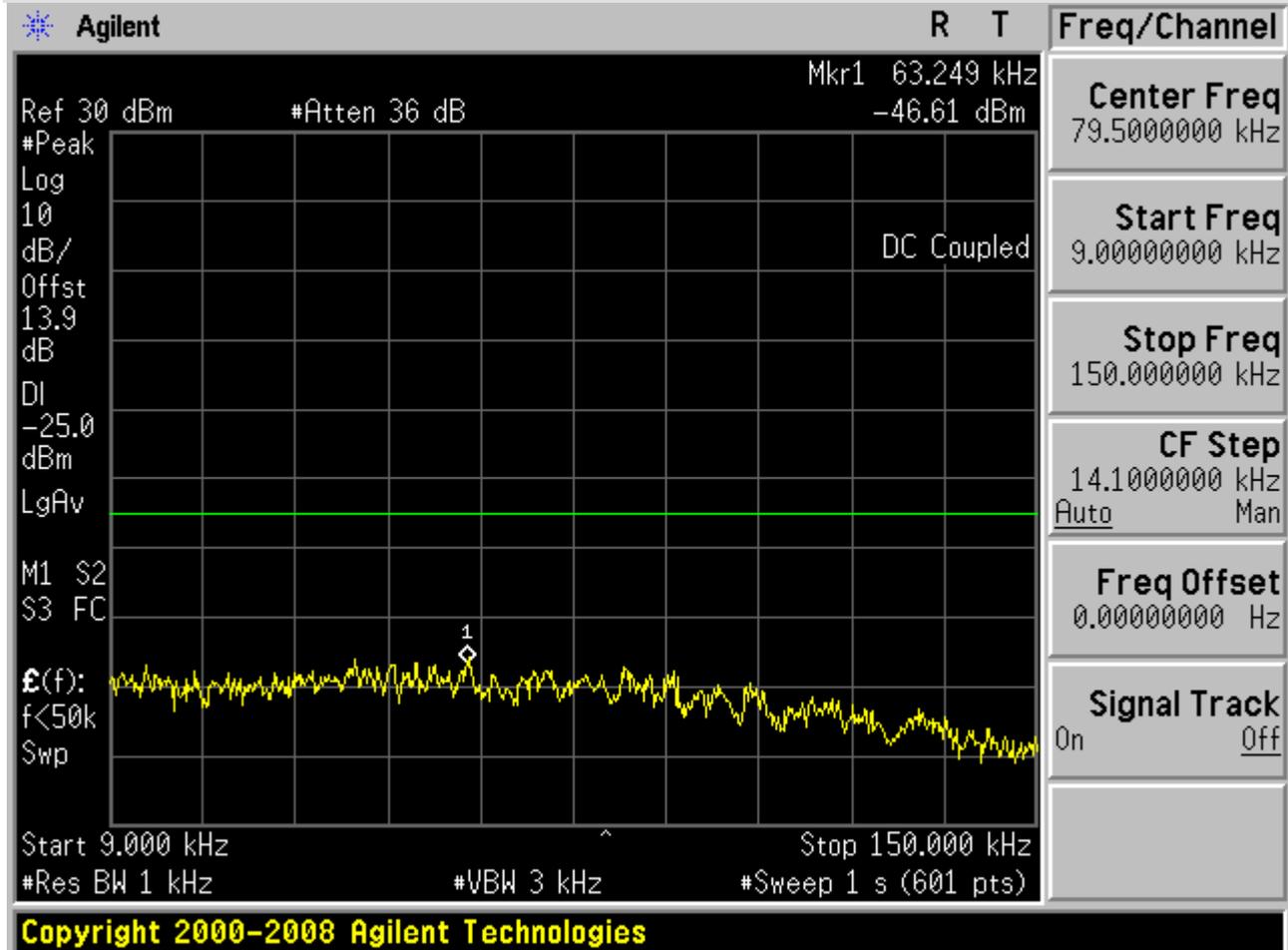


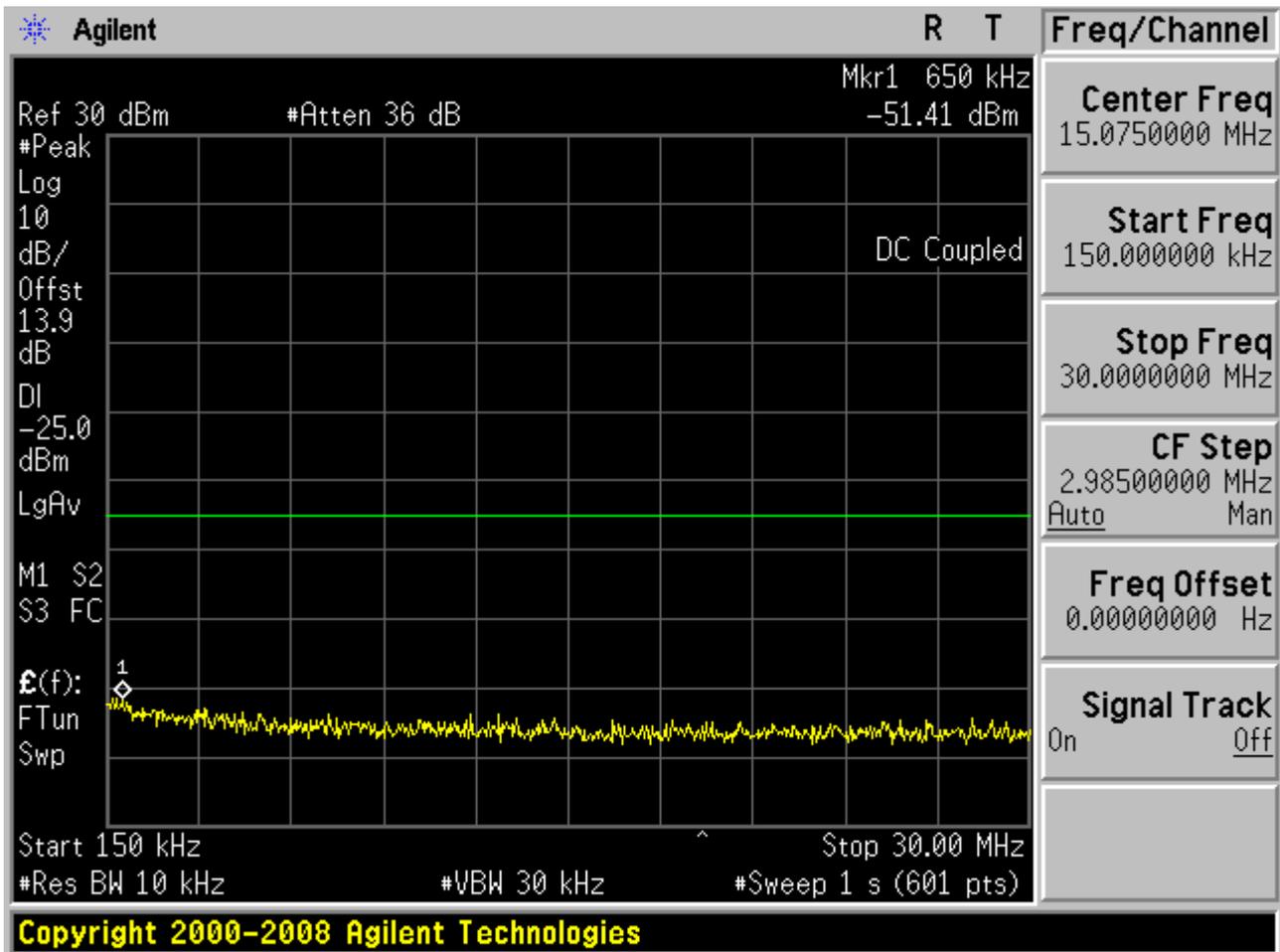


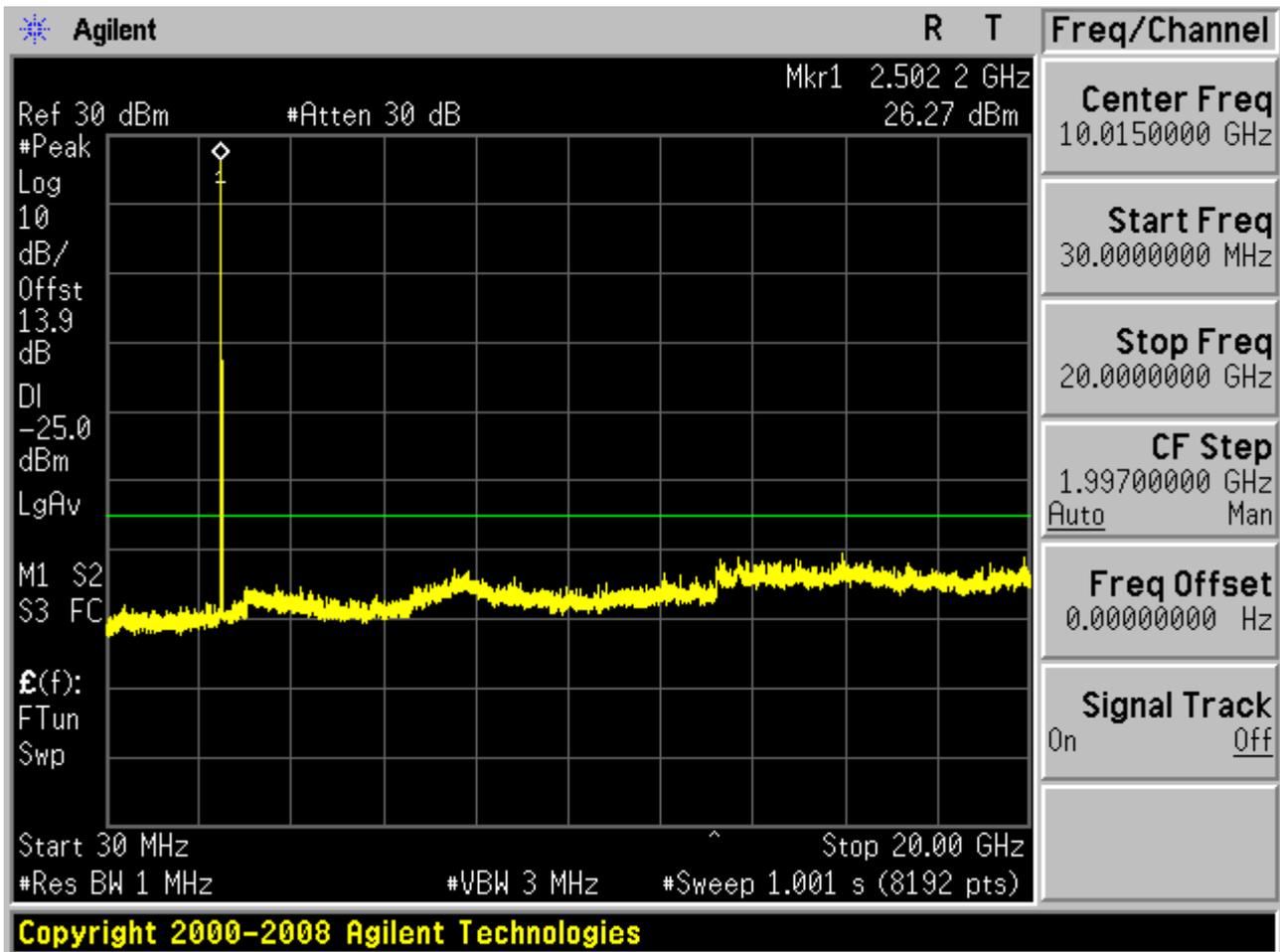
1.1.4 Channel Bandwidth = Highest (20 MHz)

1.1.4.1 Channel = L

1.1.4.1.1 QPSK/1RBs /RB #0



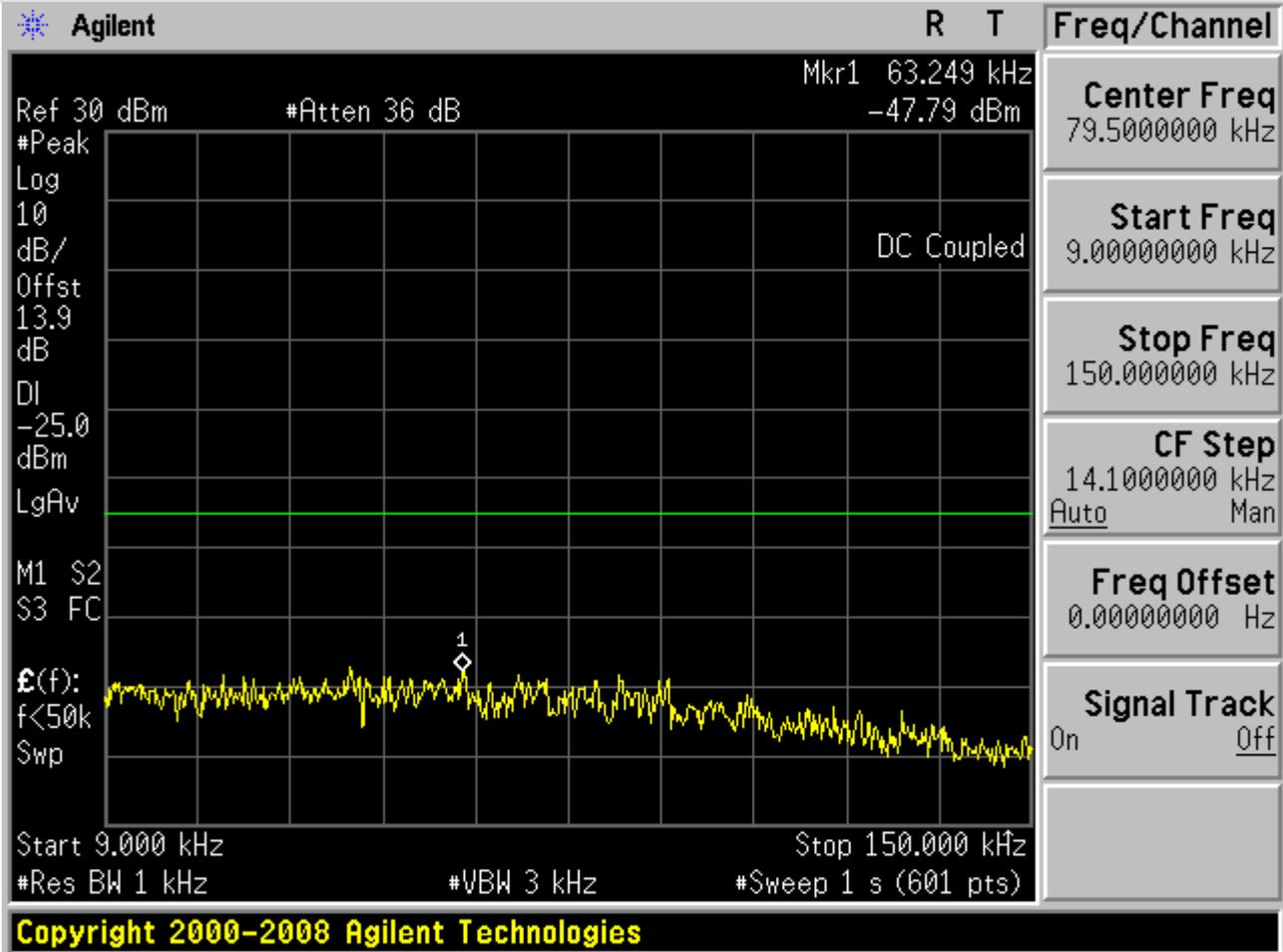


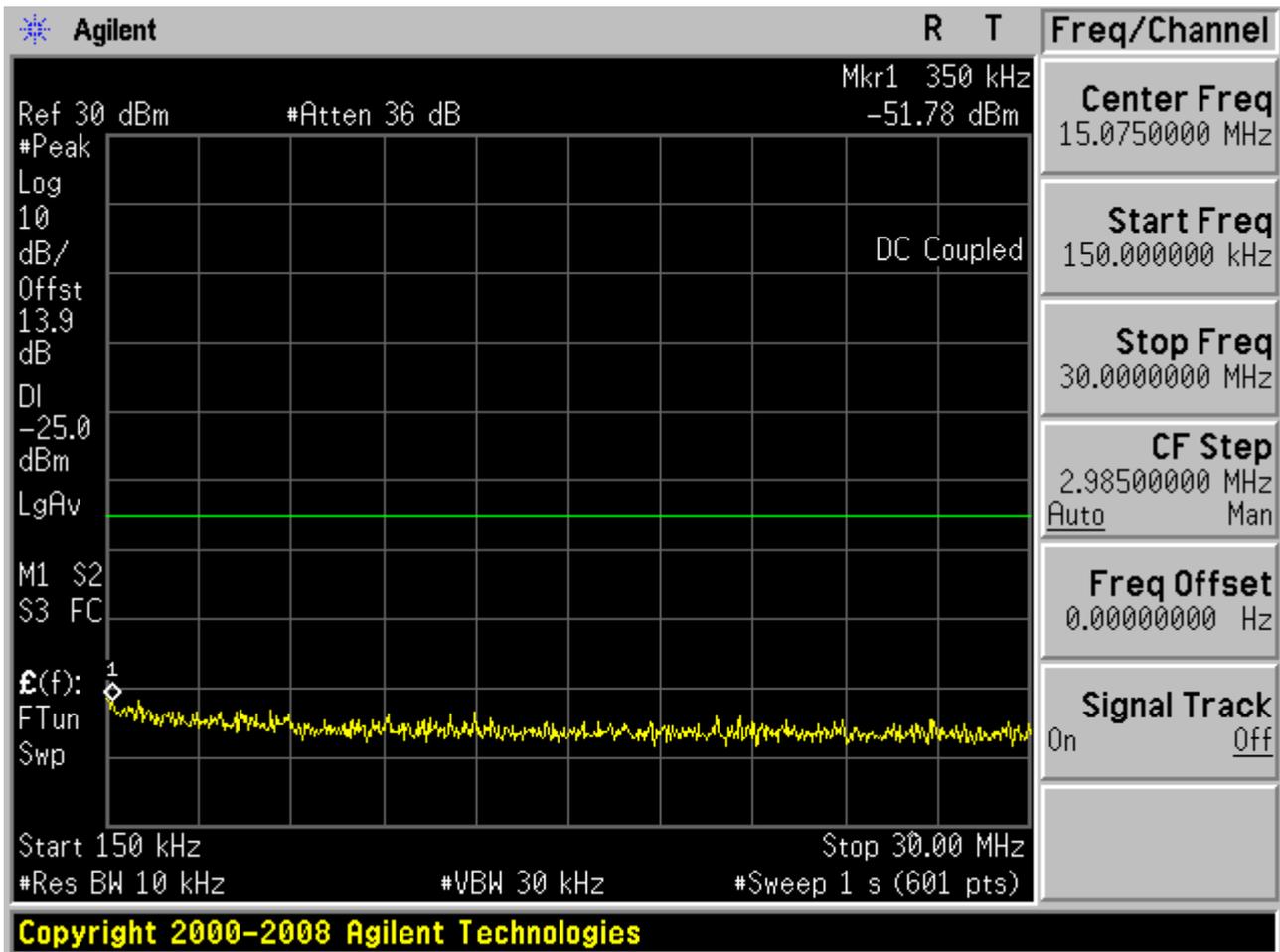


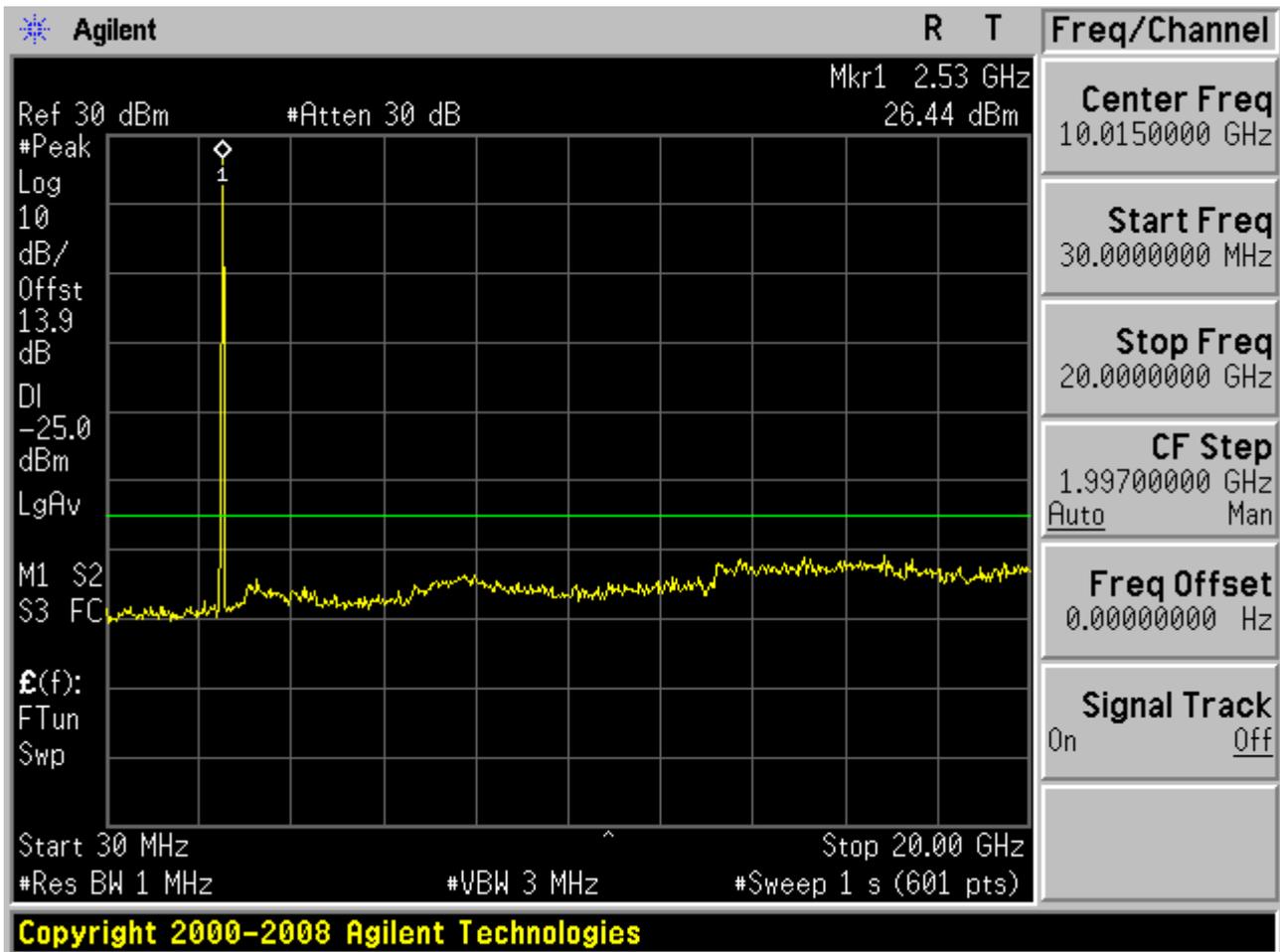


1.1.4.2 Channel = M

1.1.4.2.1 QPSK/1RBs /RB #0



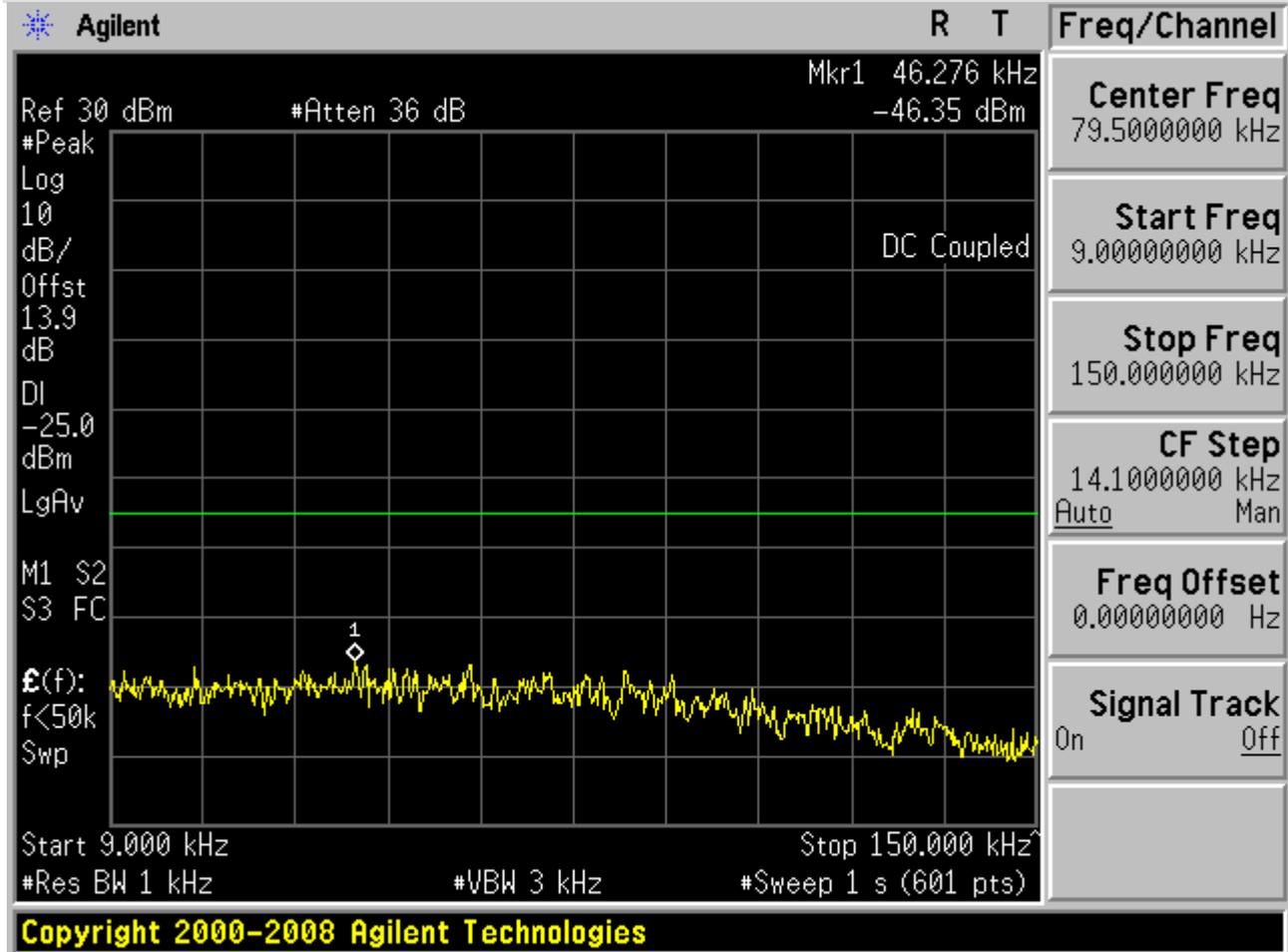


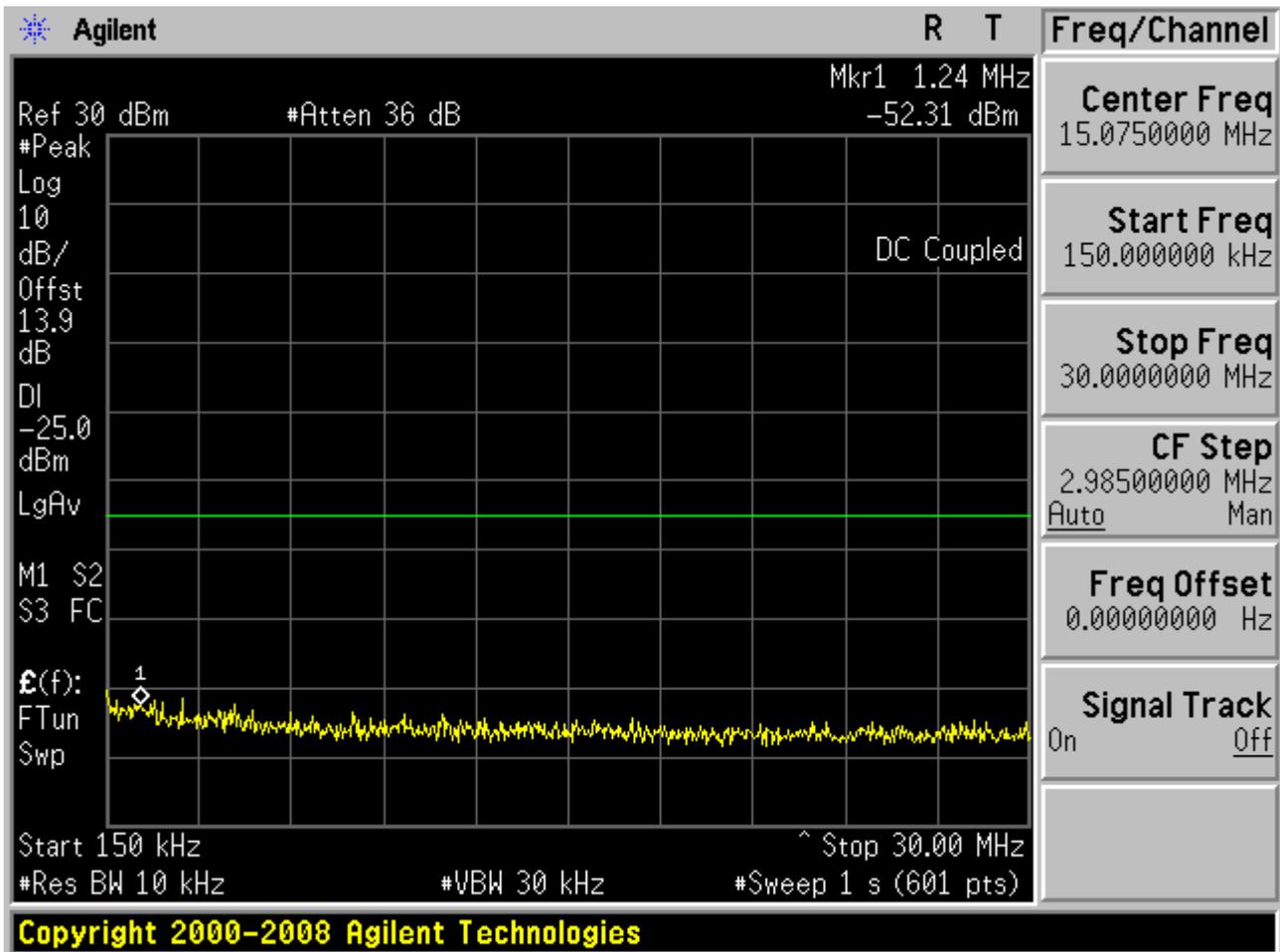


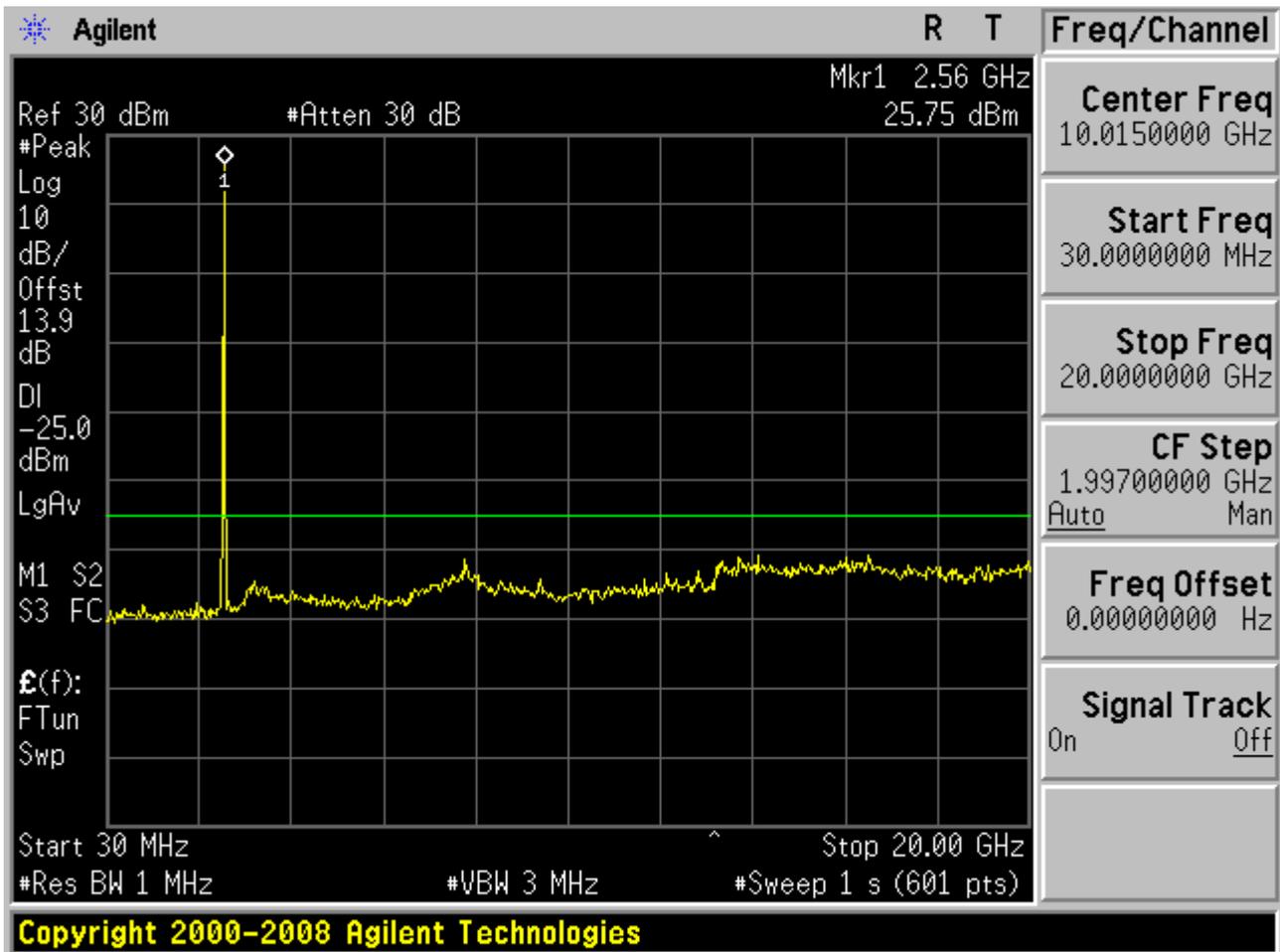


1.1.4.3 Channel = H

1.1.4.3.1 QPSK/1RBs /RB #0







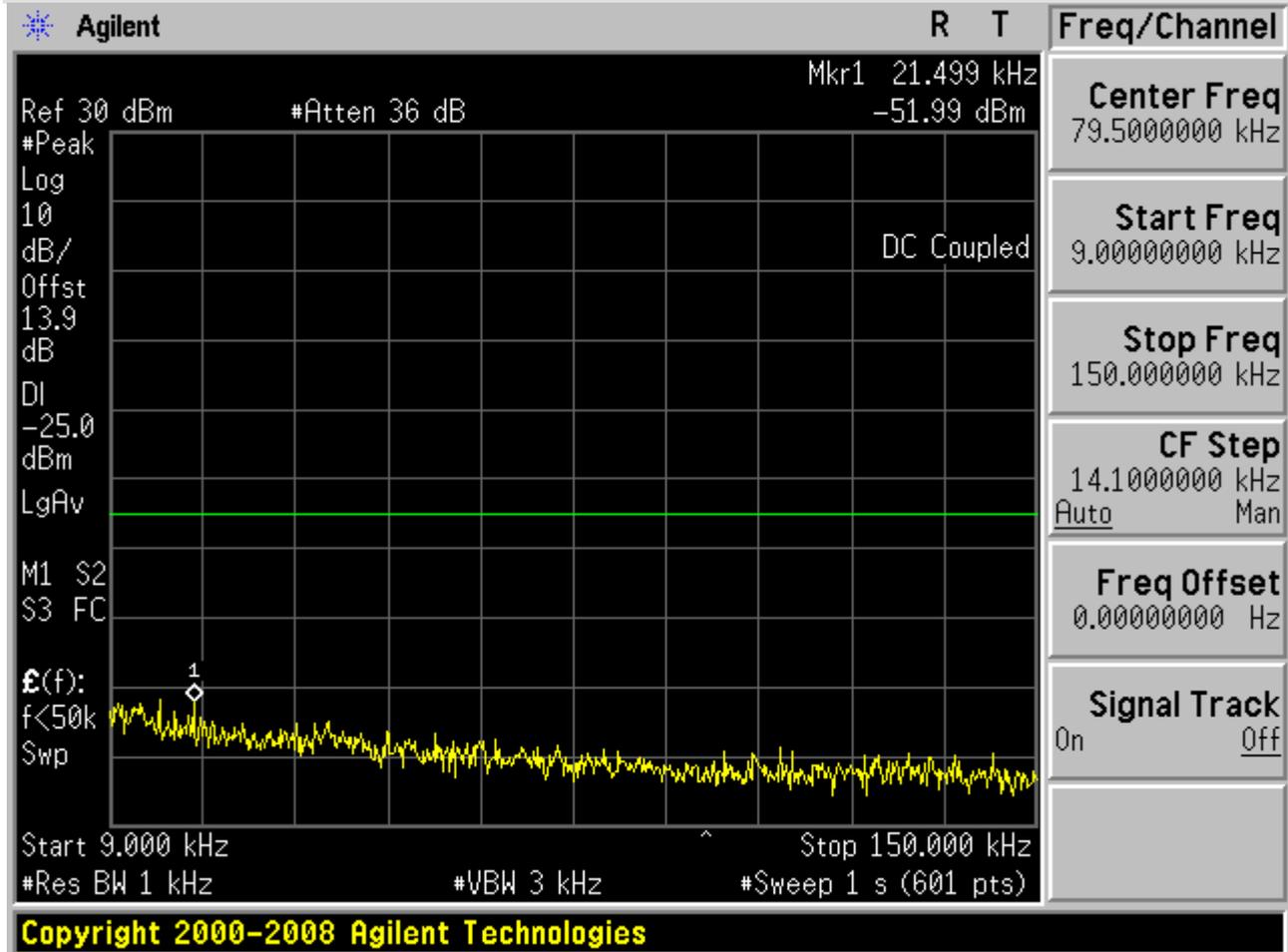


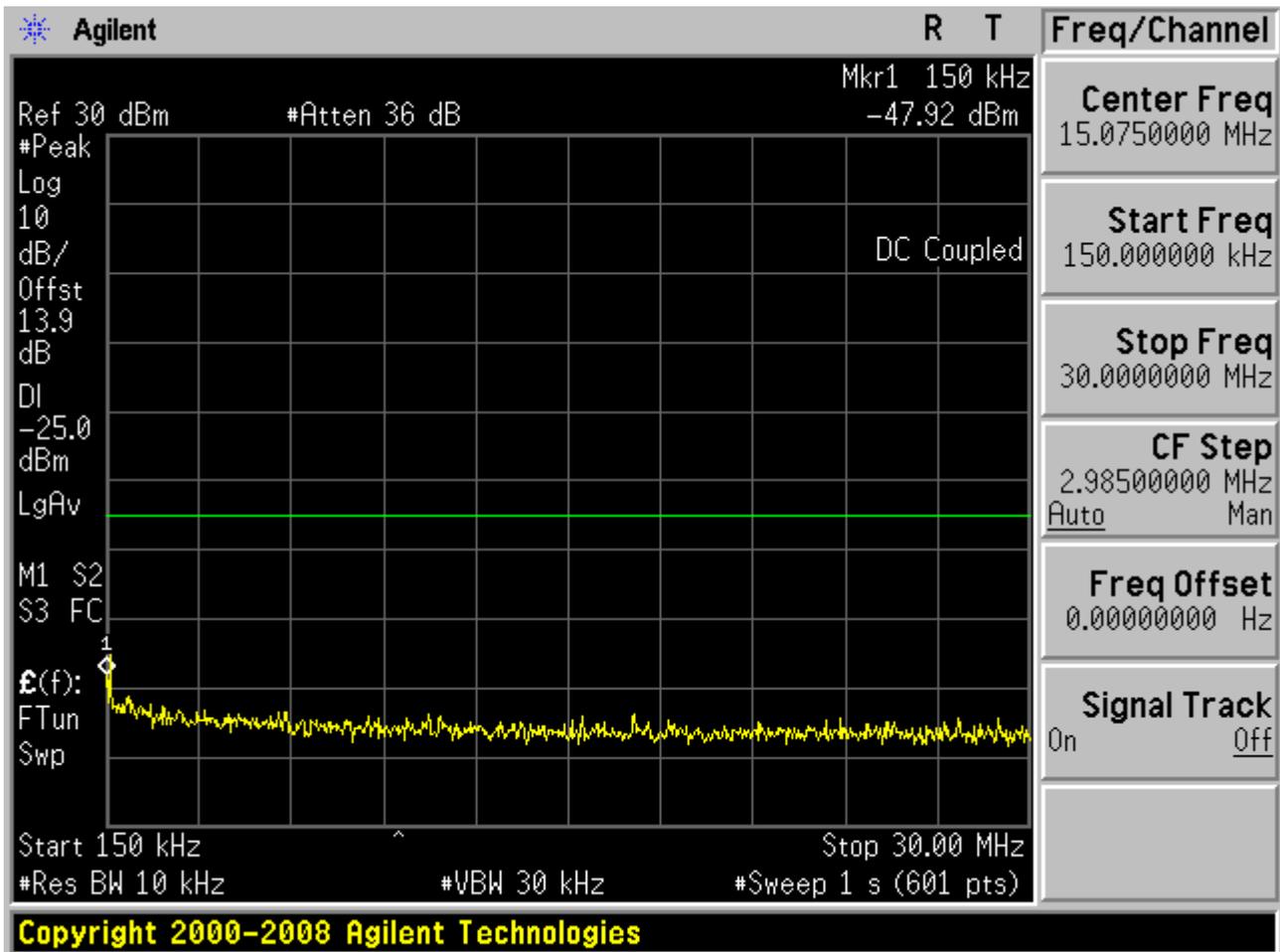
1.2 Test Mode=TM2

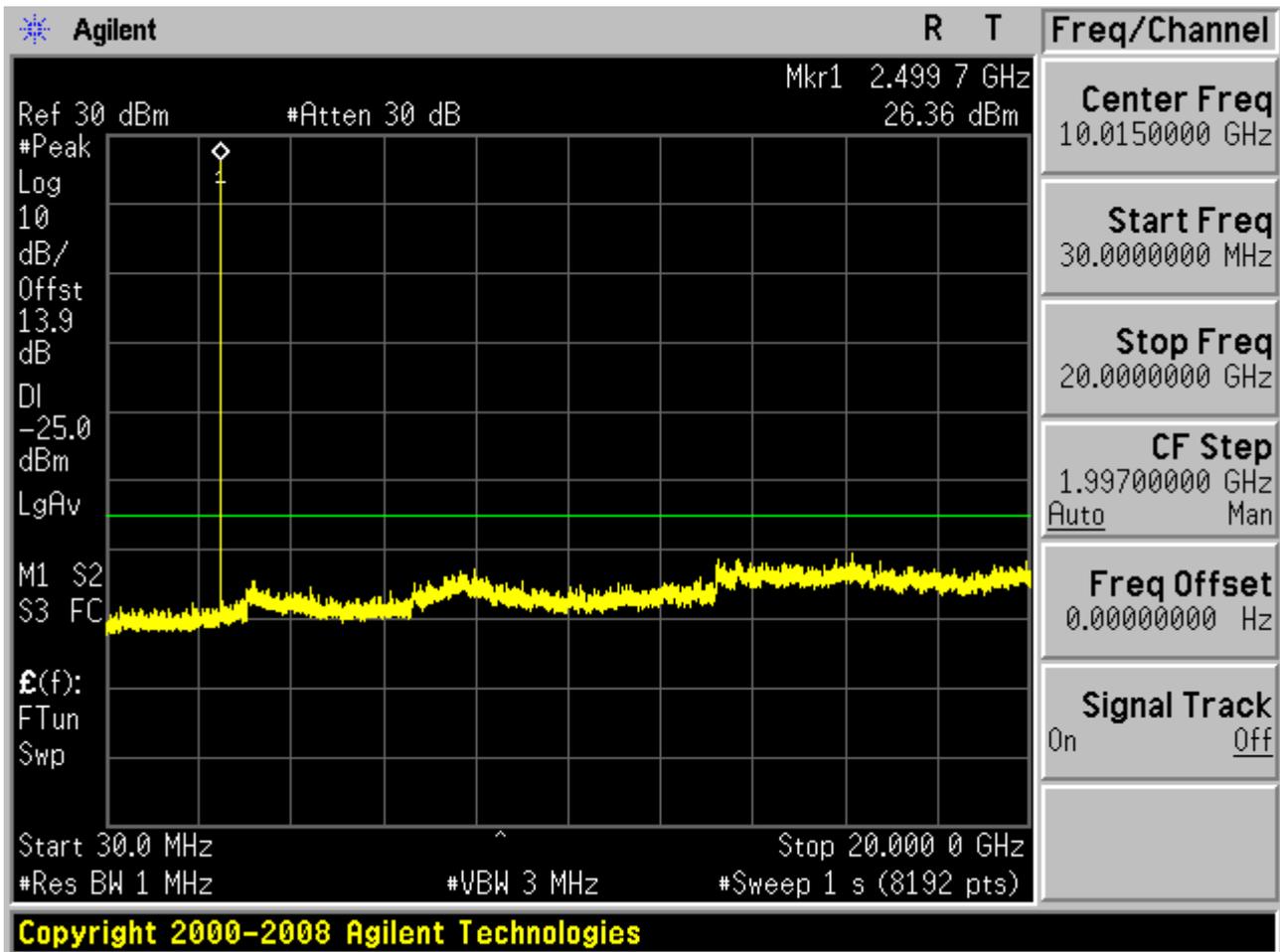
1.2.1 Channel Bandwidth = Lowest (5 MHz)

1.2.1.1 Channel = L

1.2.1.1.1 16QAM/1RBs /RB #0



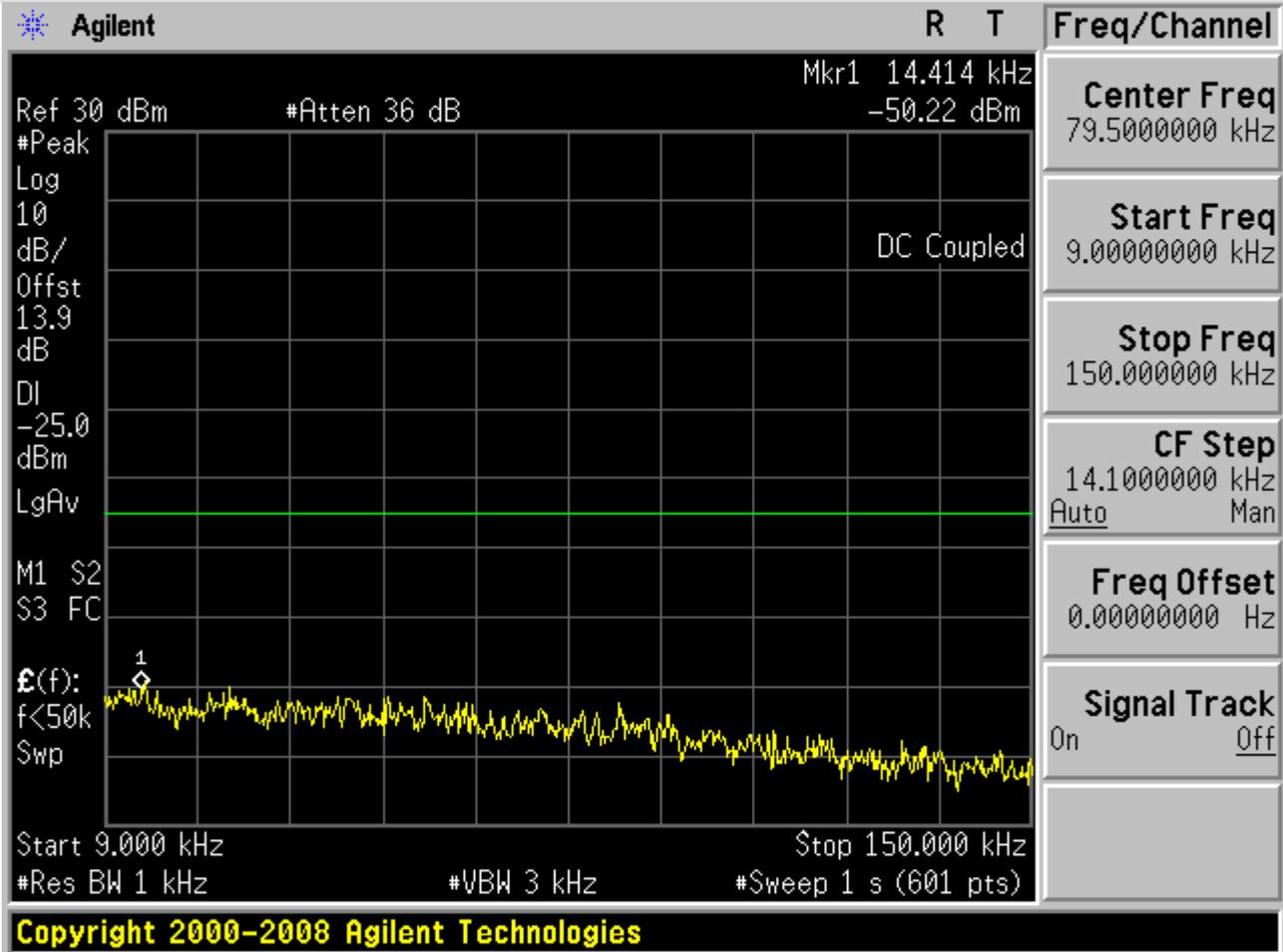


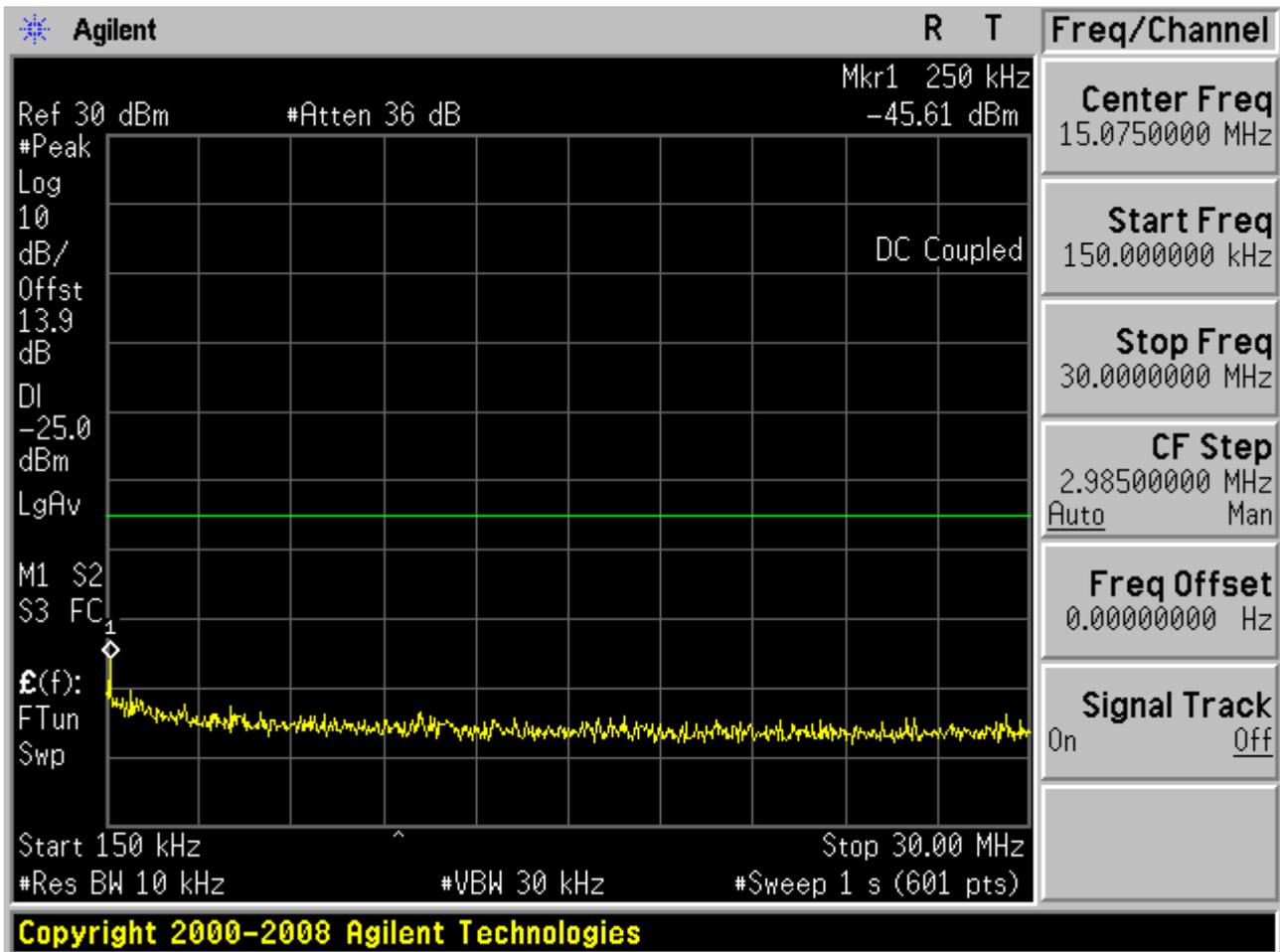


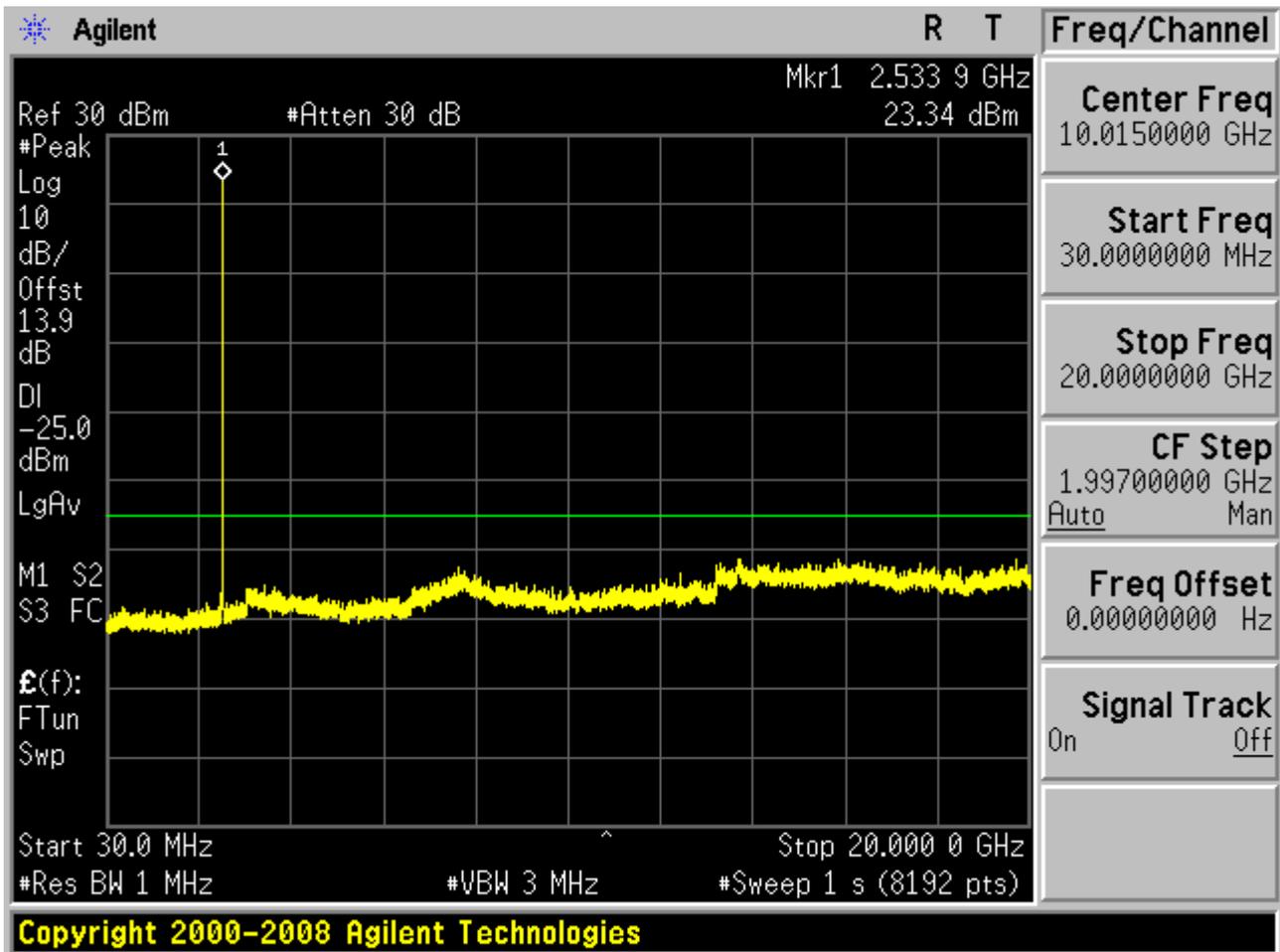


1.2.1.2 Channel = M

1.2.1.2.1 16QAM /1RBs /RB #0



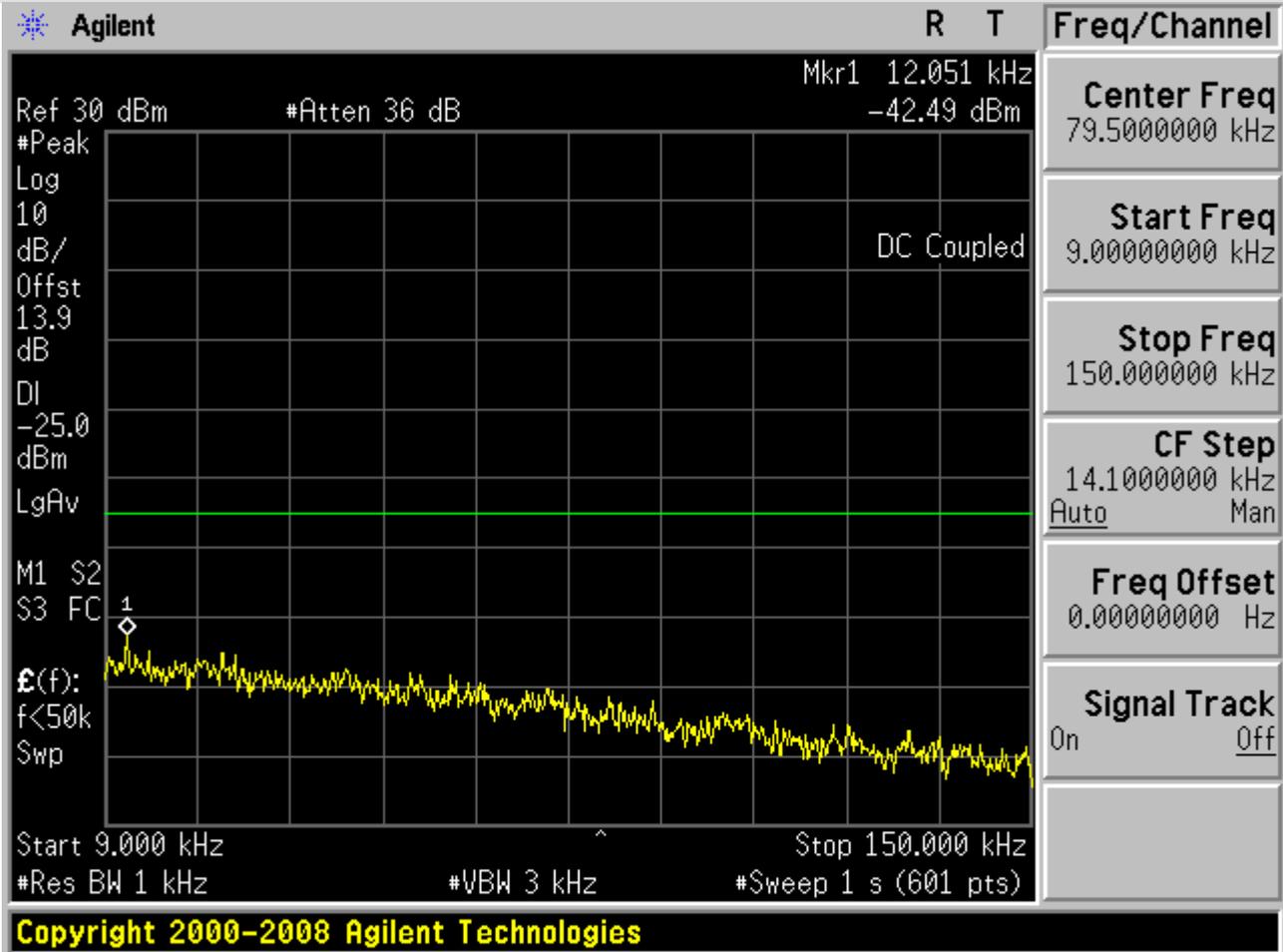


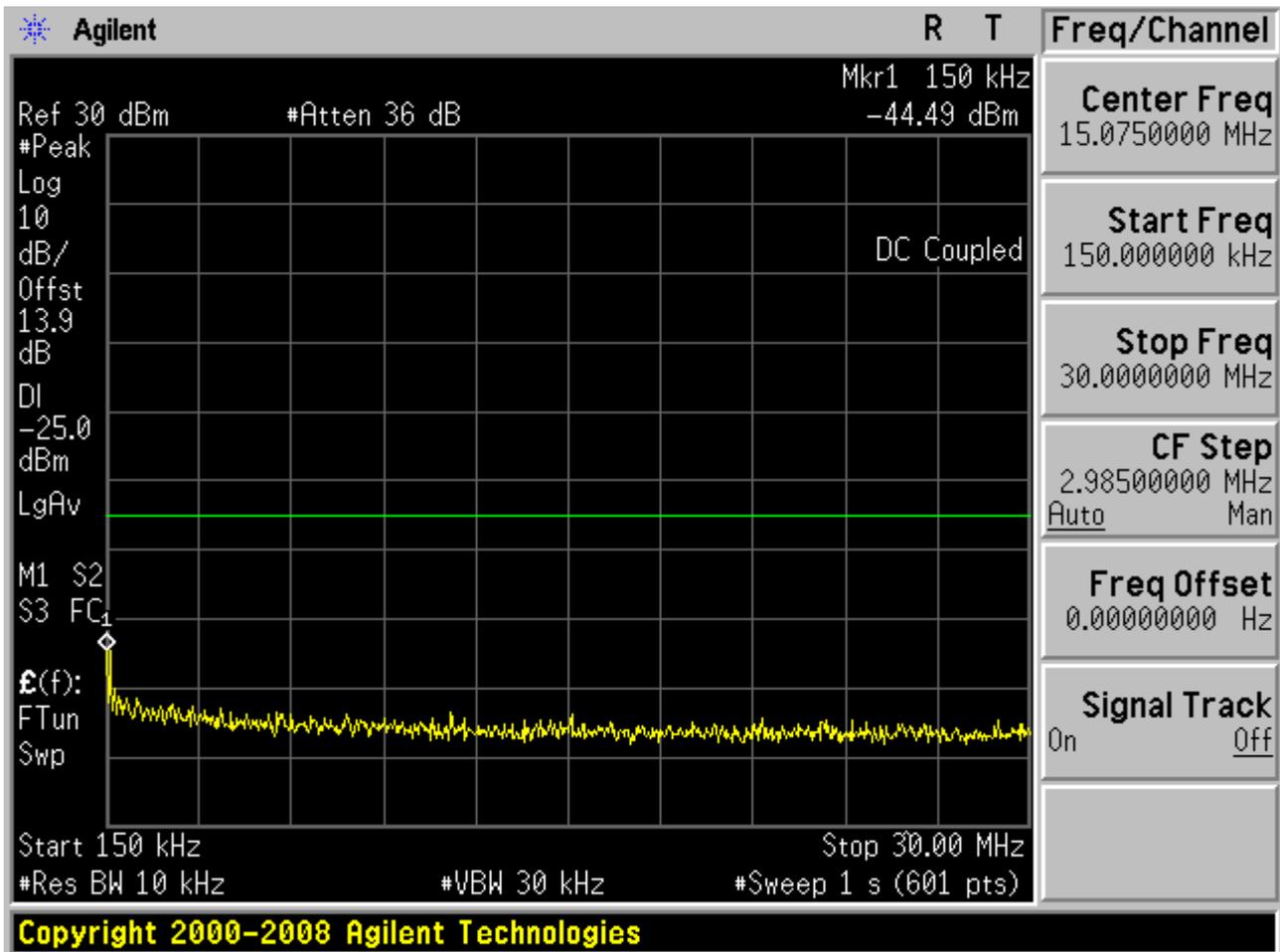


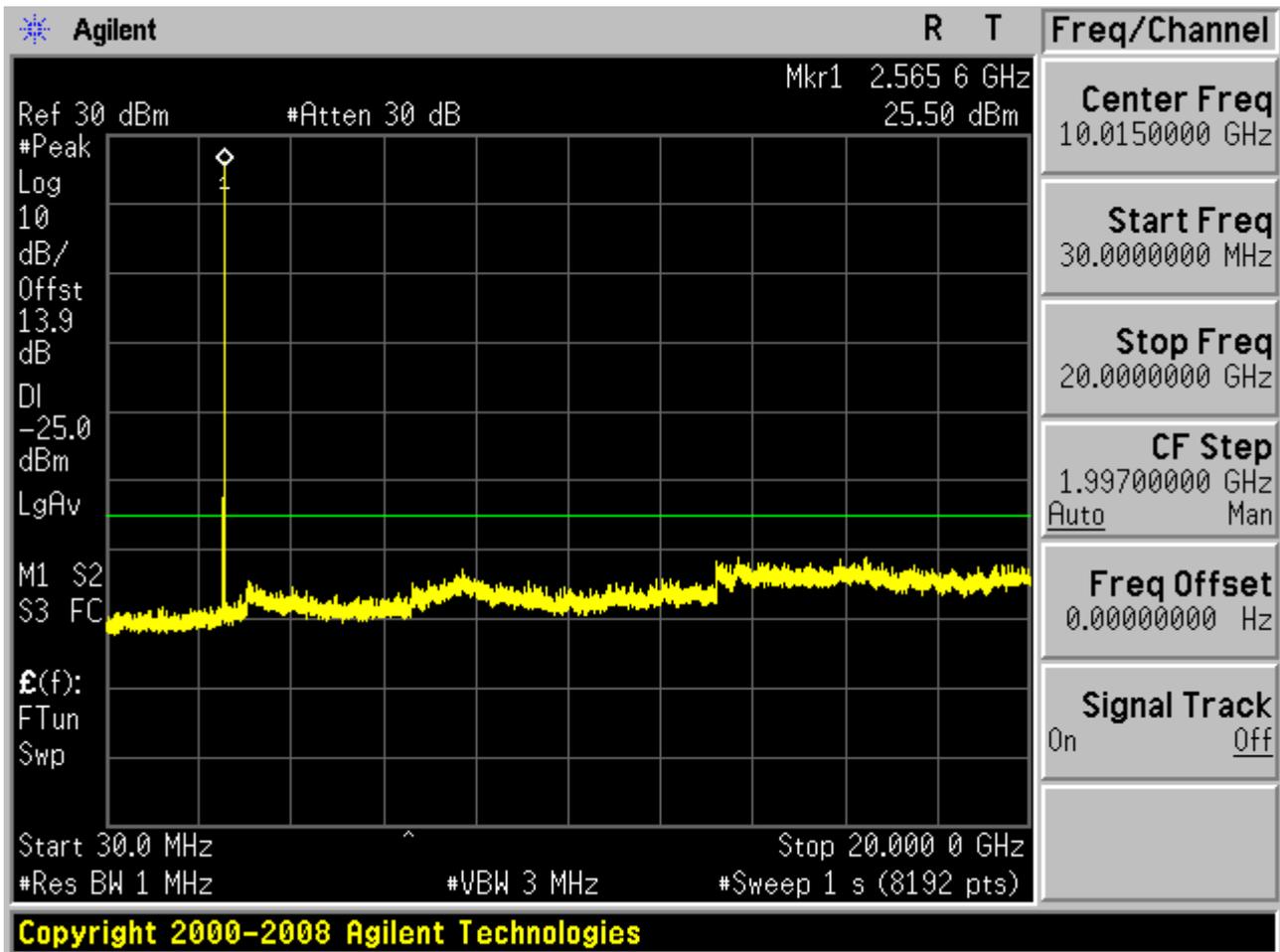


1.2.1.3 Channel = H

1.2.1.3.1 16QAM /1RBs /RB #0





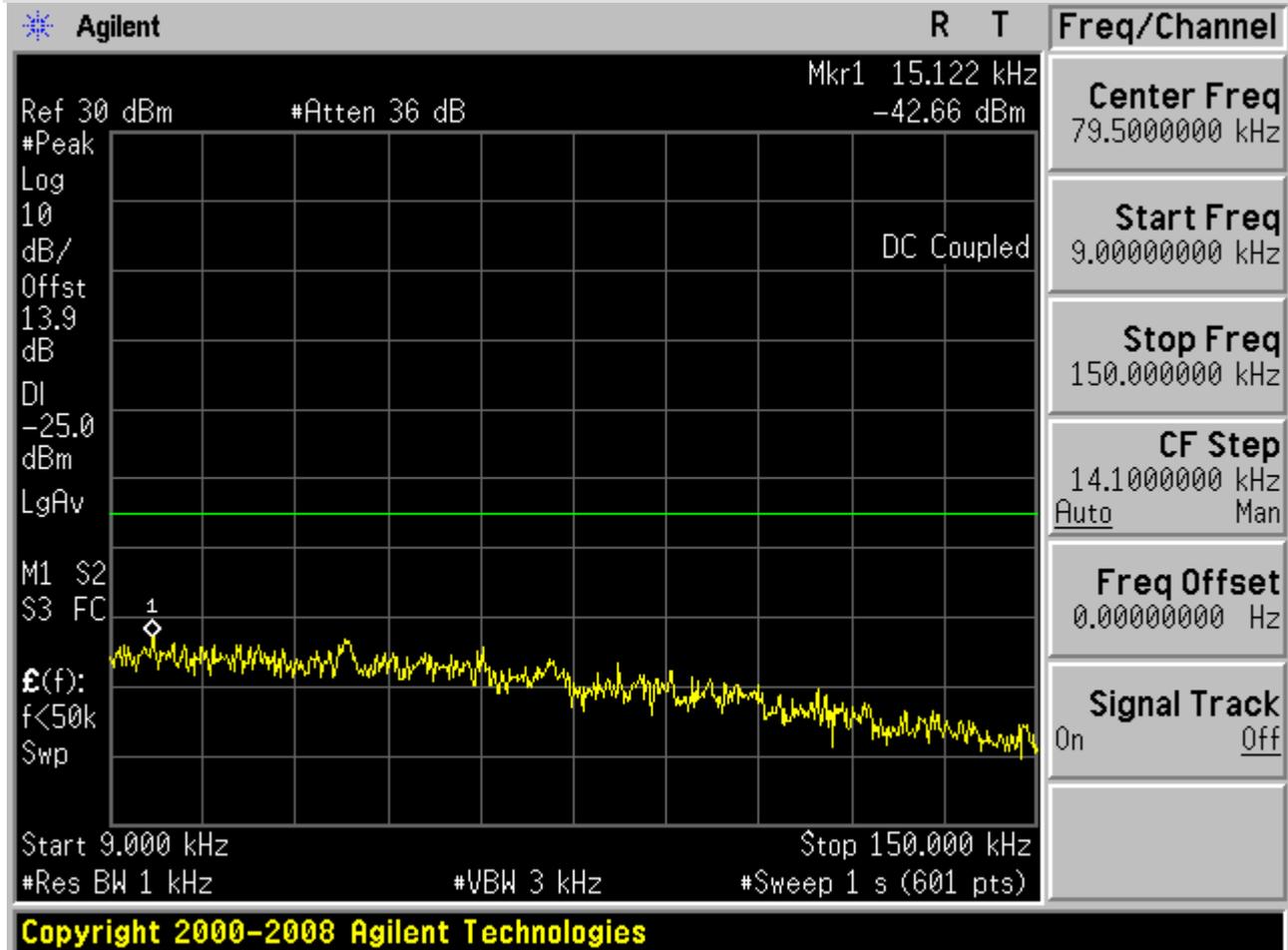


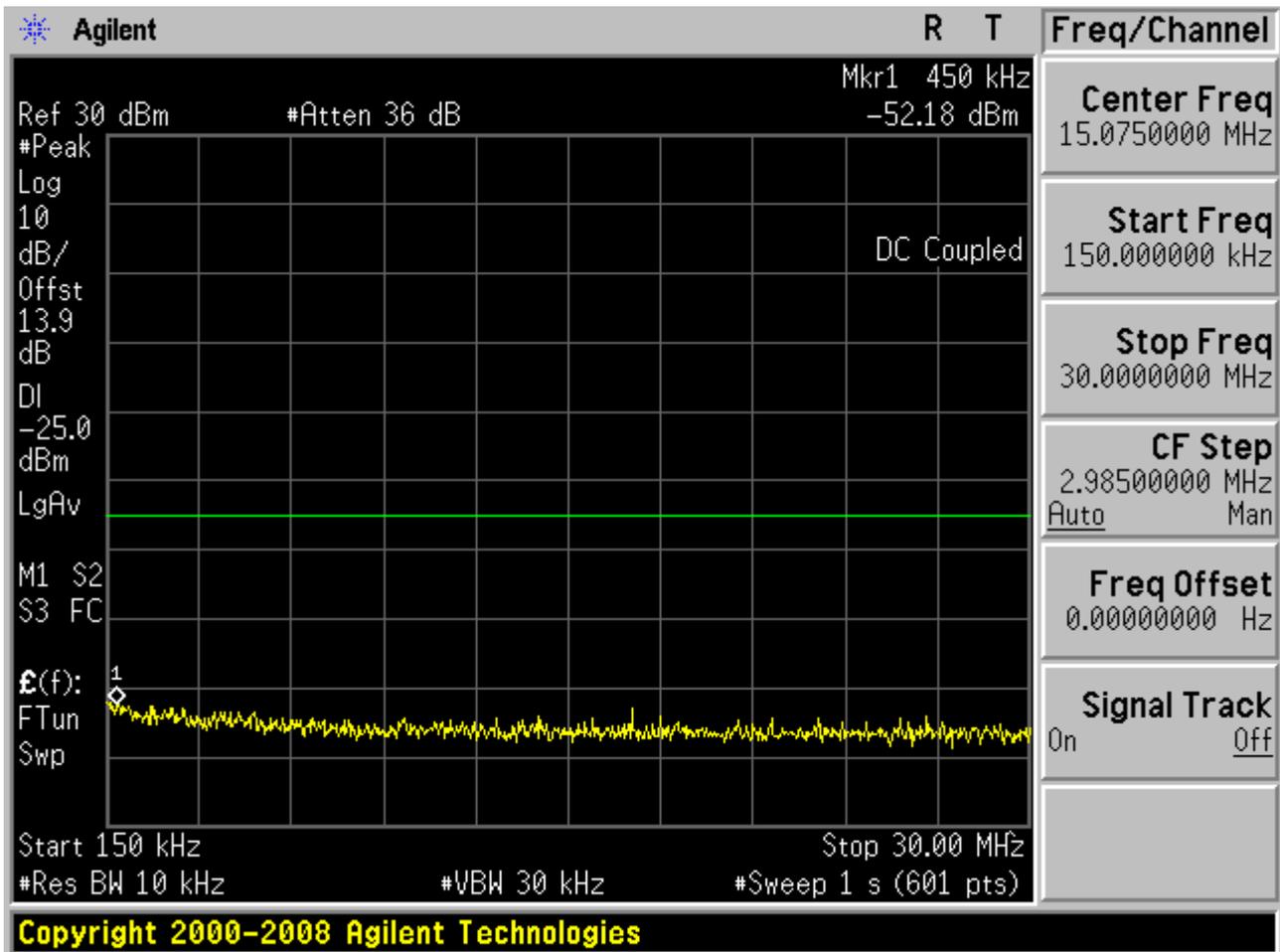


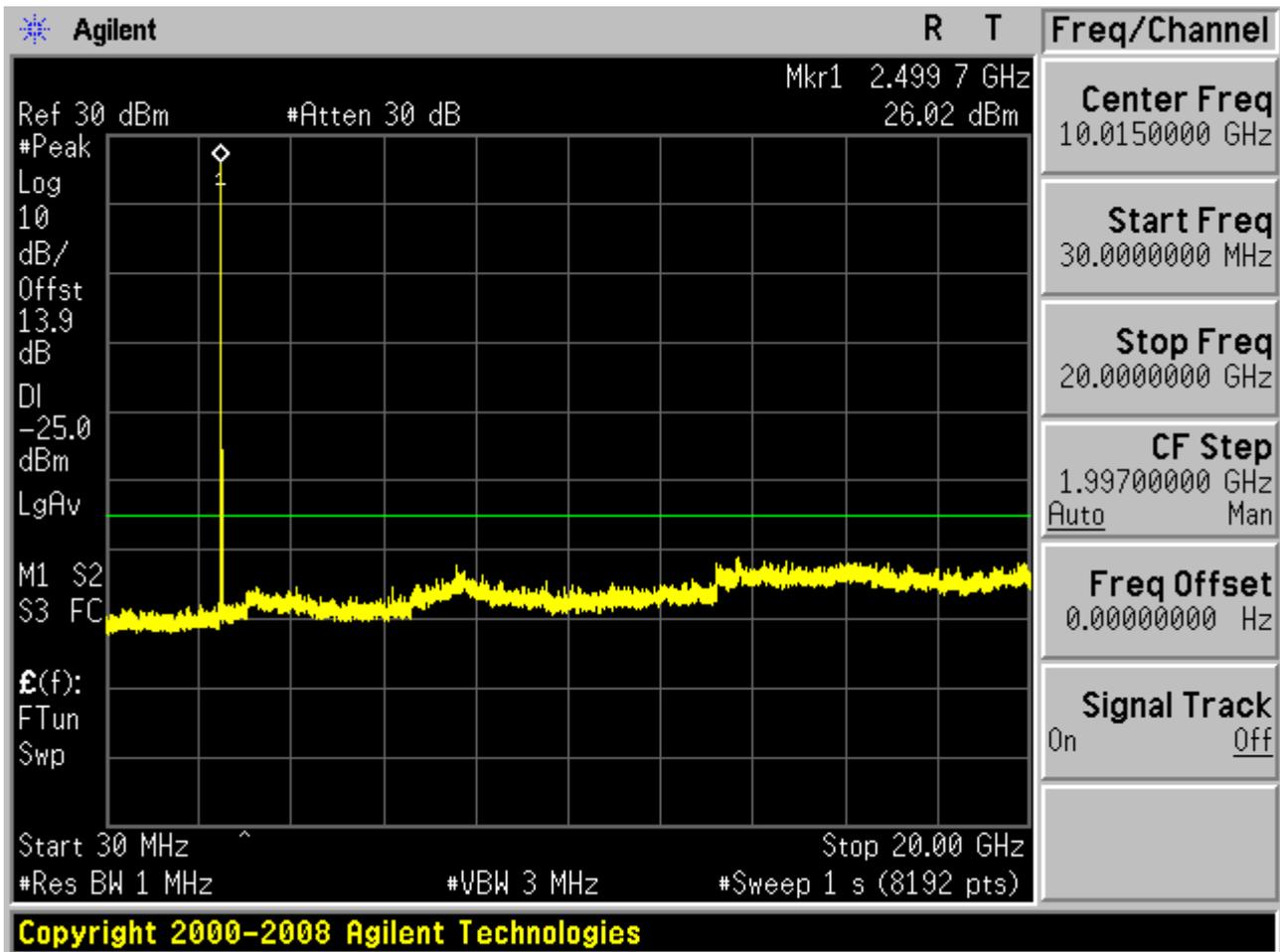
1.2.2 Channel Bandwidth = 10 MHz

1.2.2.1 Channel = L

1.2.2.1.1 16QAM /1RBs /RB #0



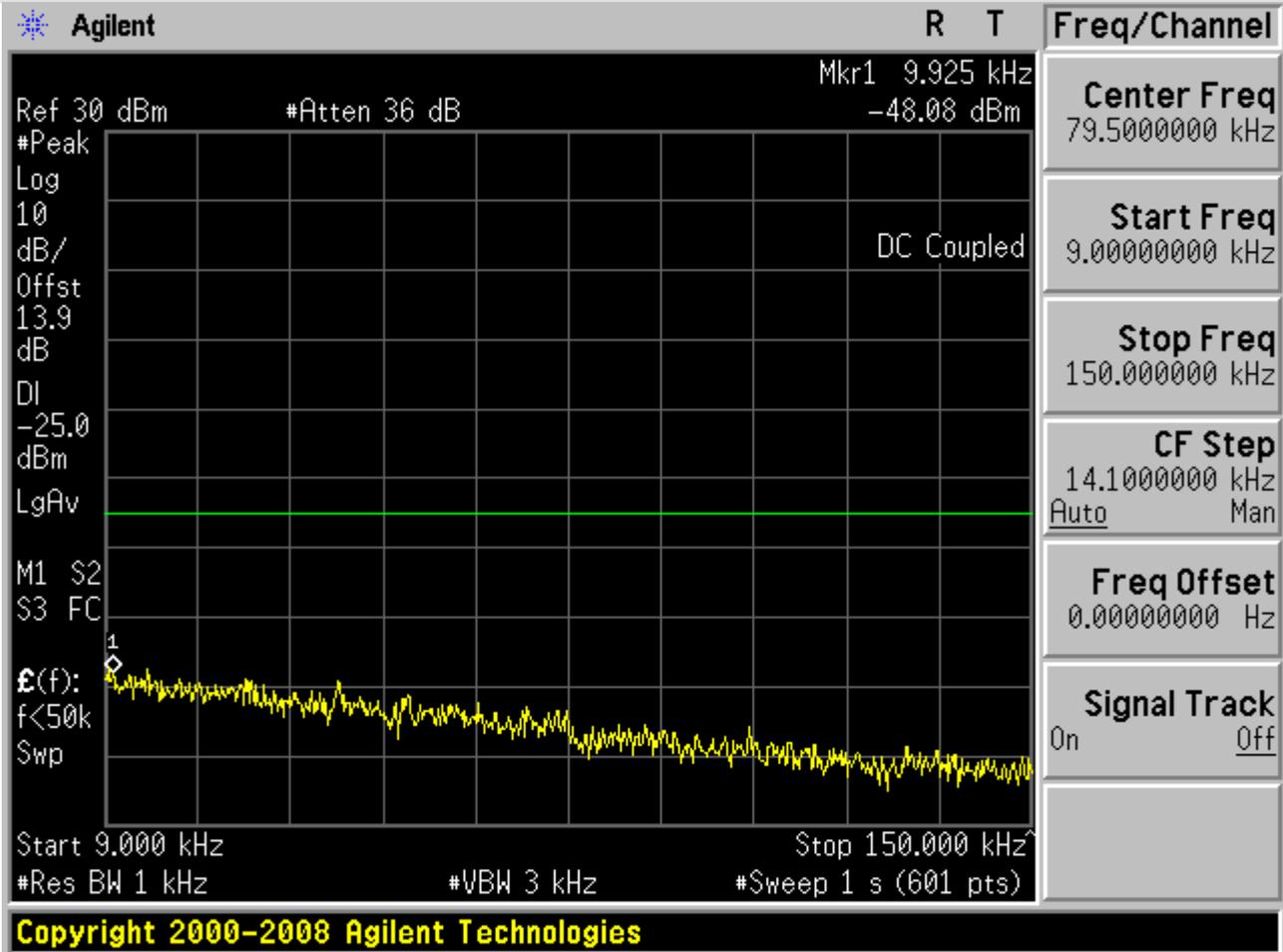


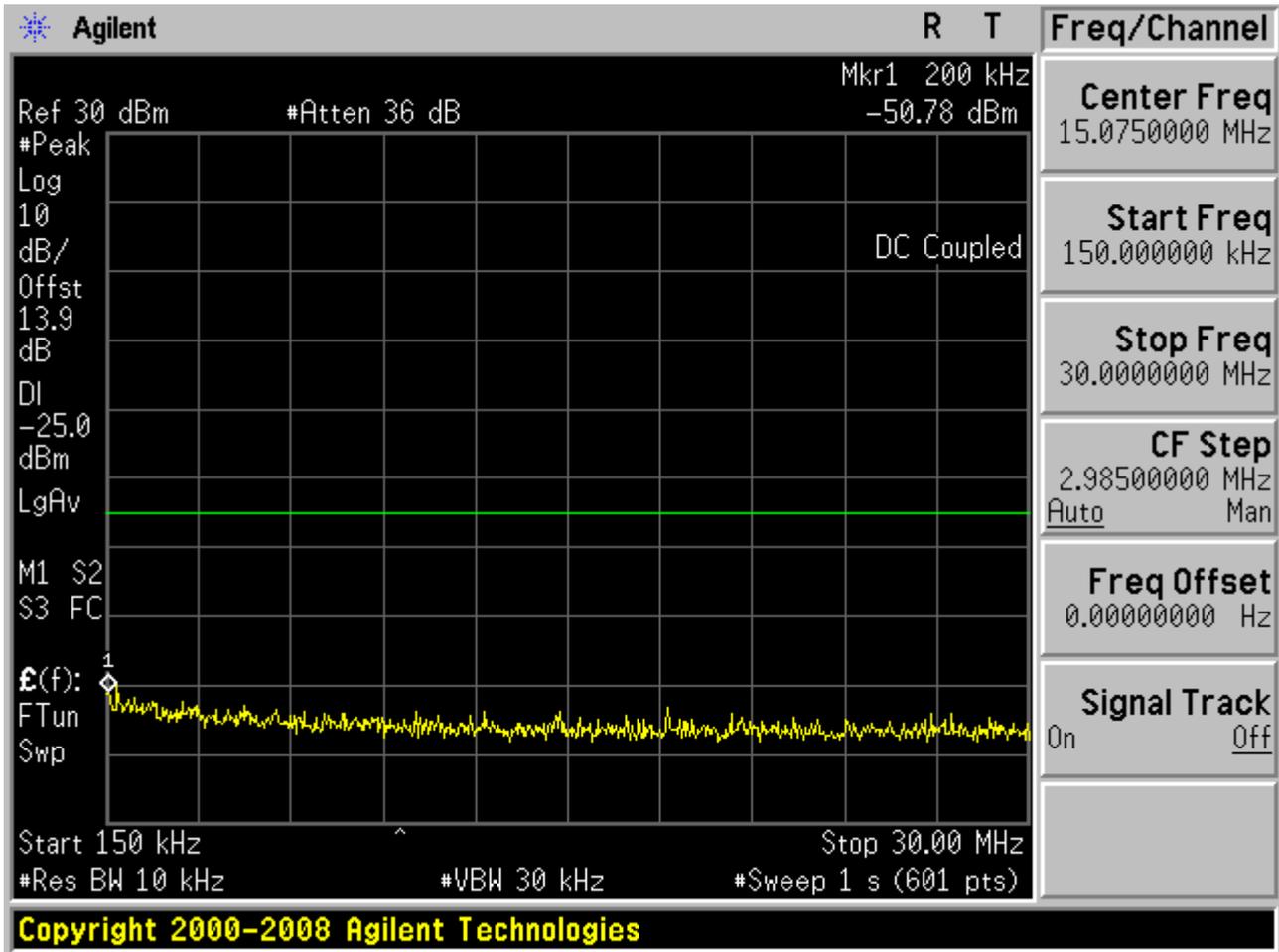


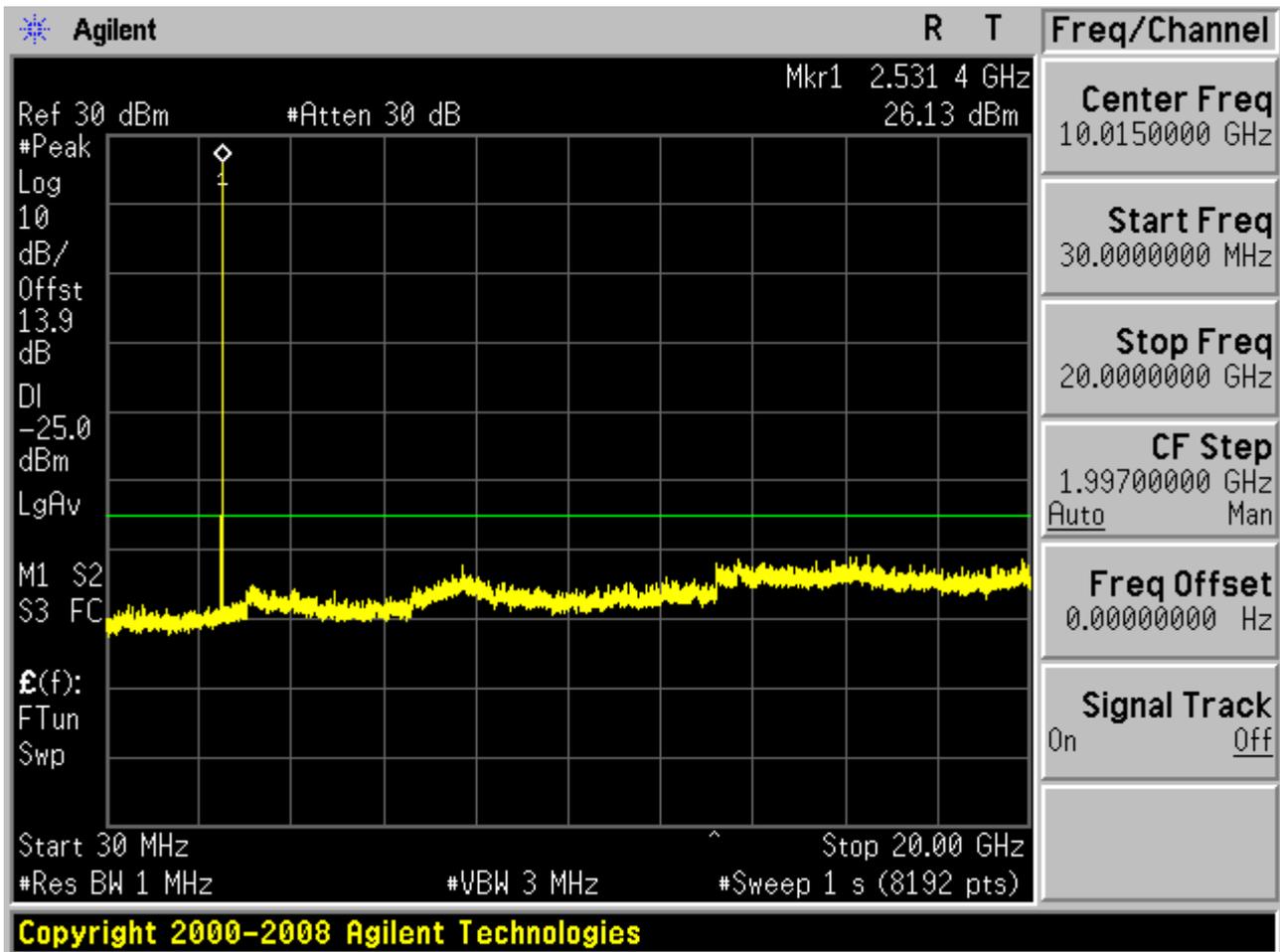


1.2.2.2 Channel = M

1.2.2.2.1 16QAM /1RBs /RB #0



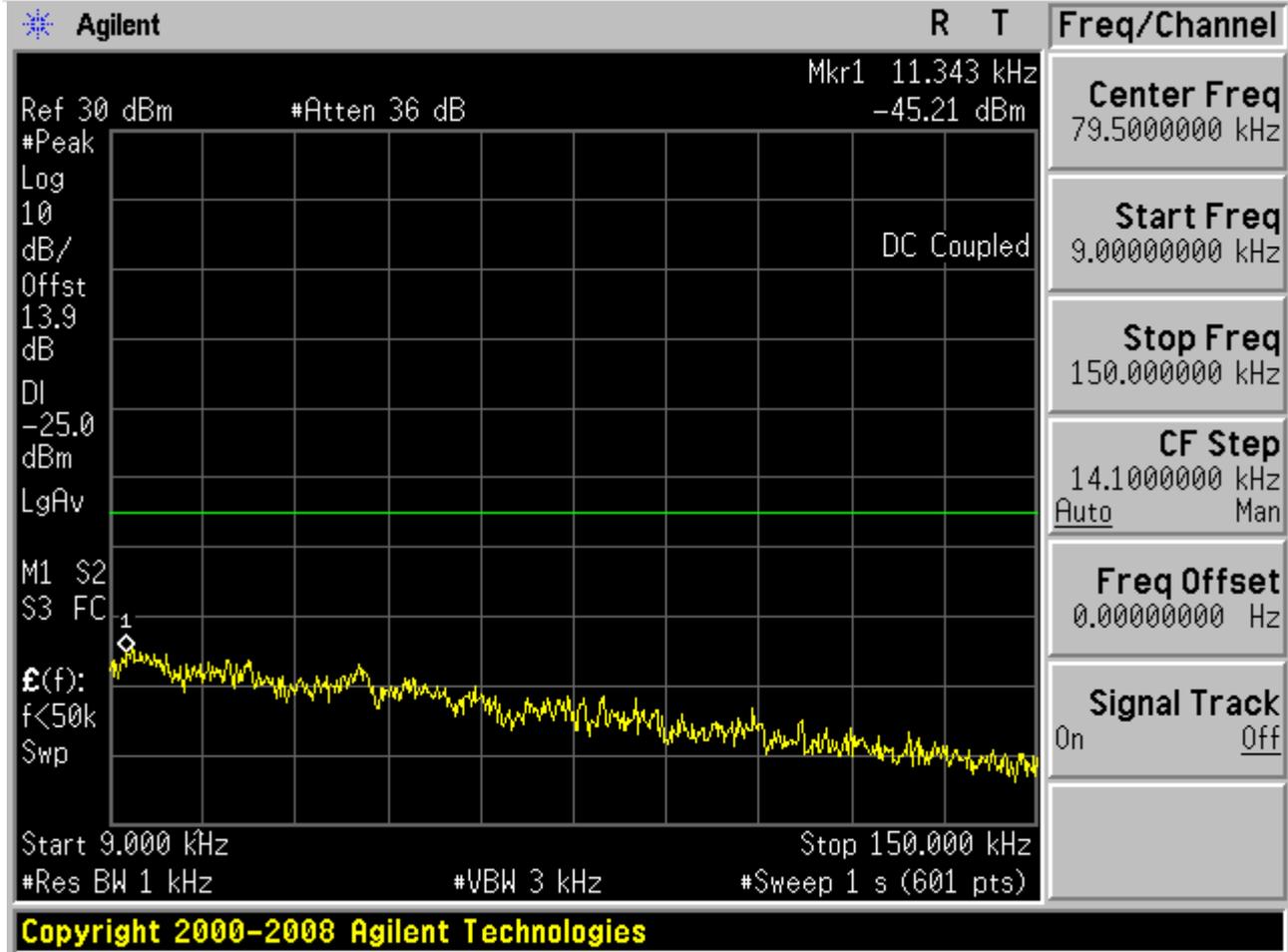


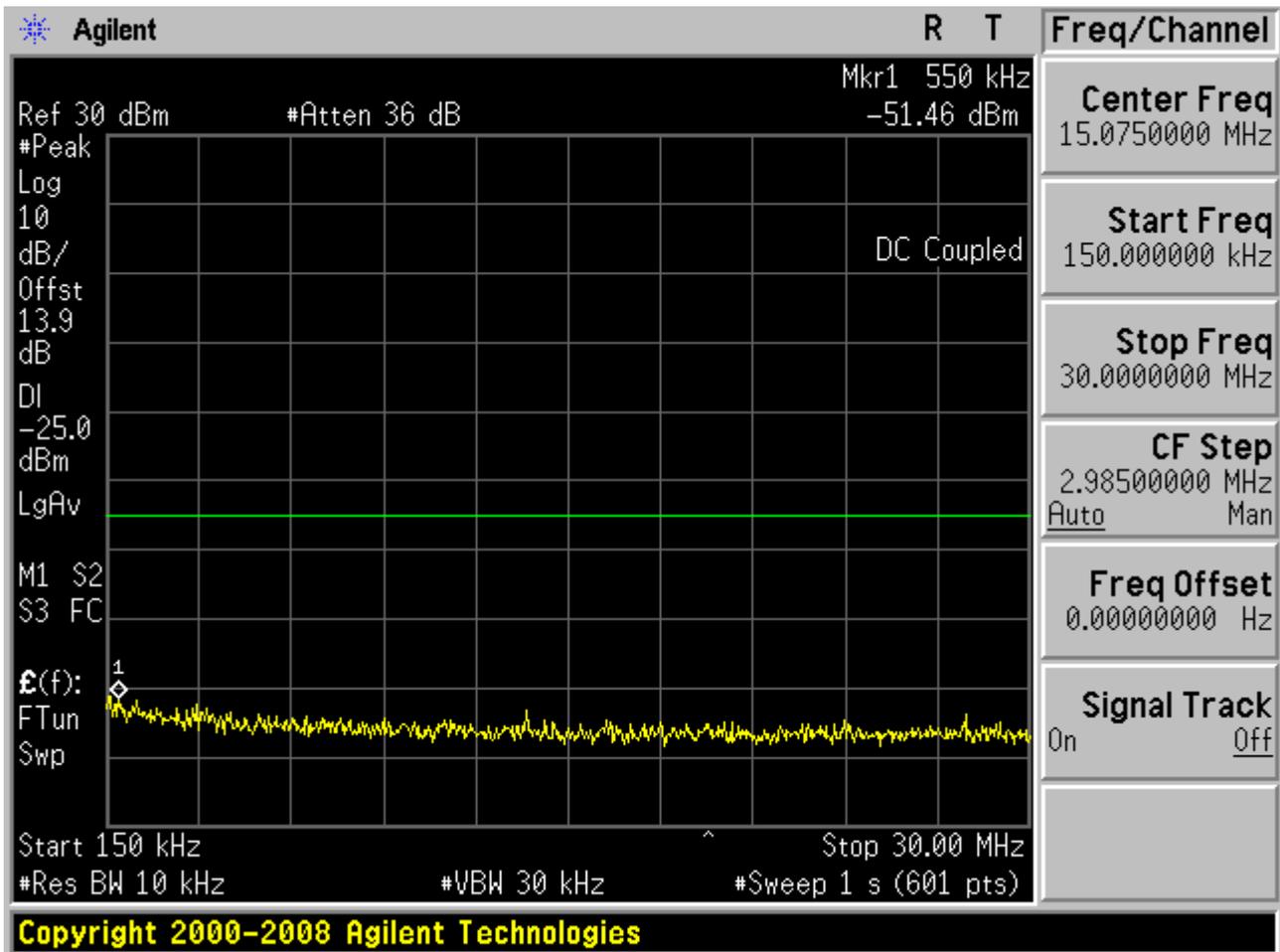


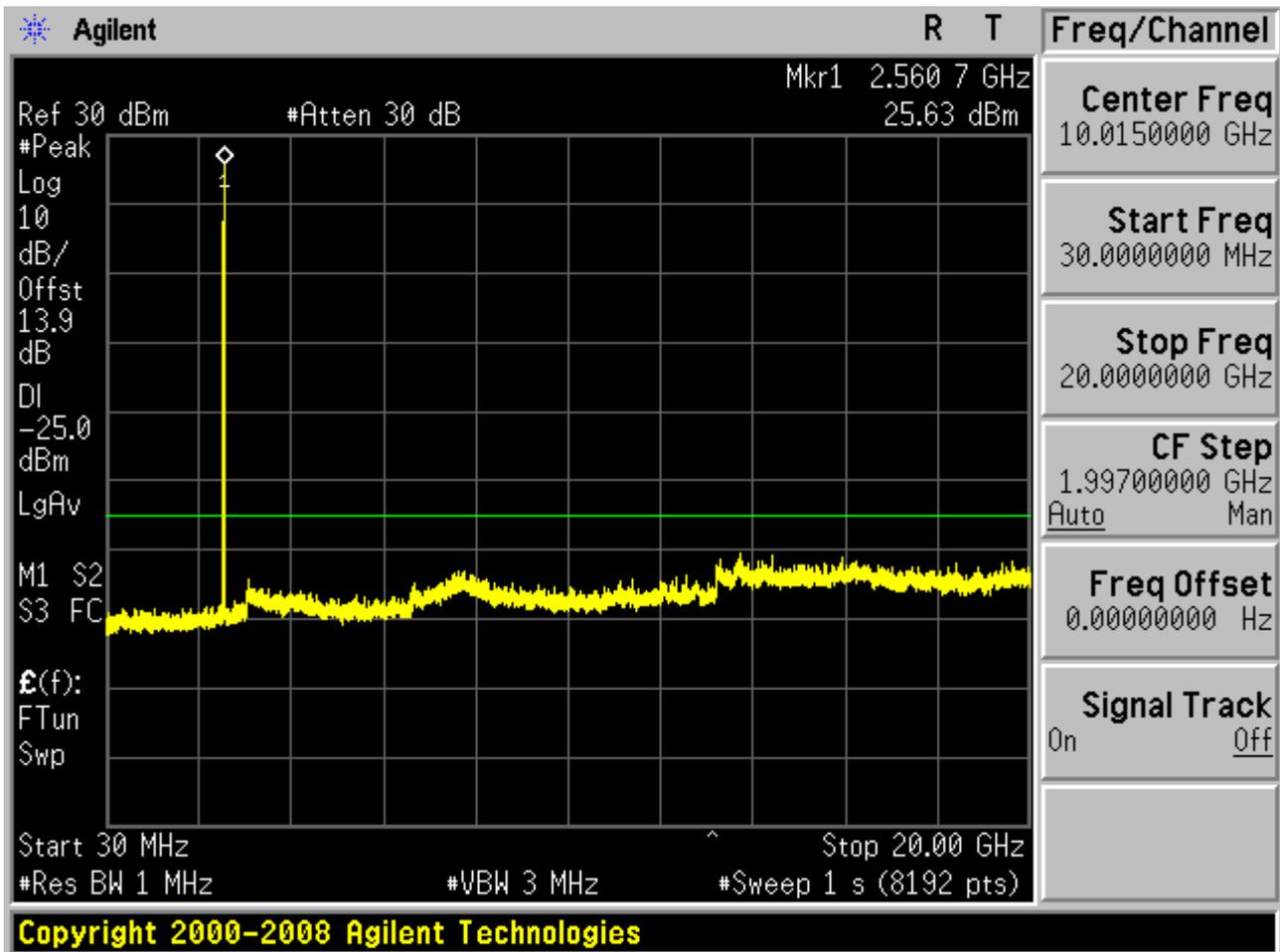
1.2.2.3 Channel = H



1.2.2.3.1 16QAM /1RBs /RB #0





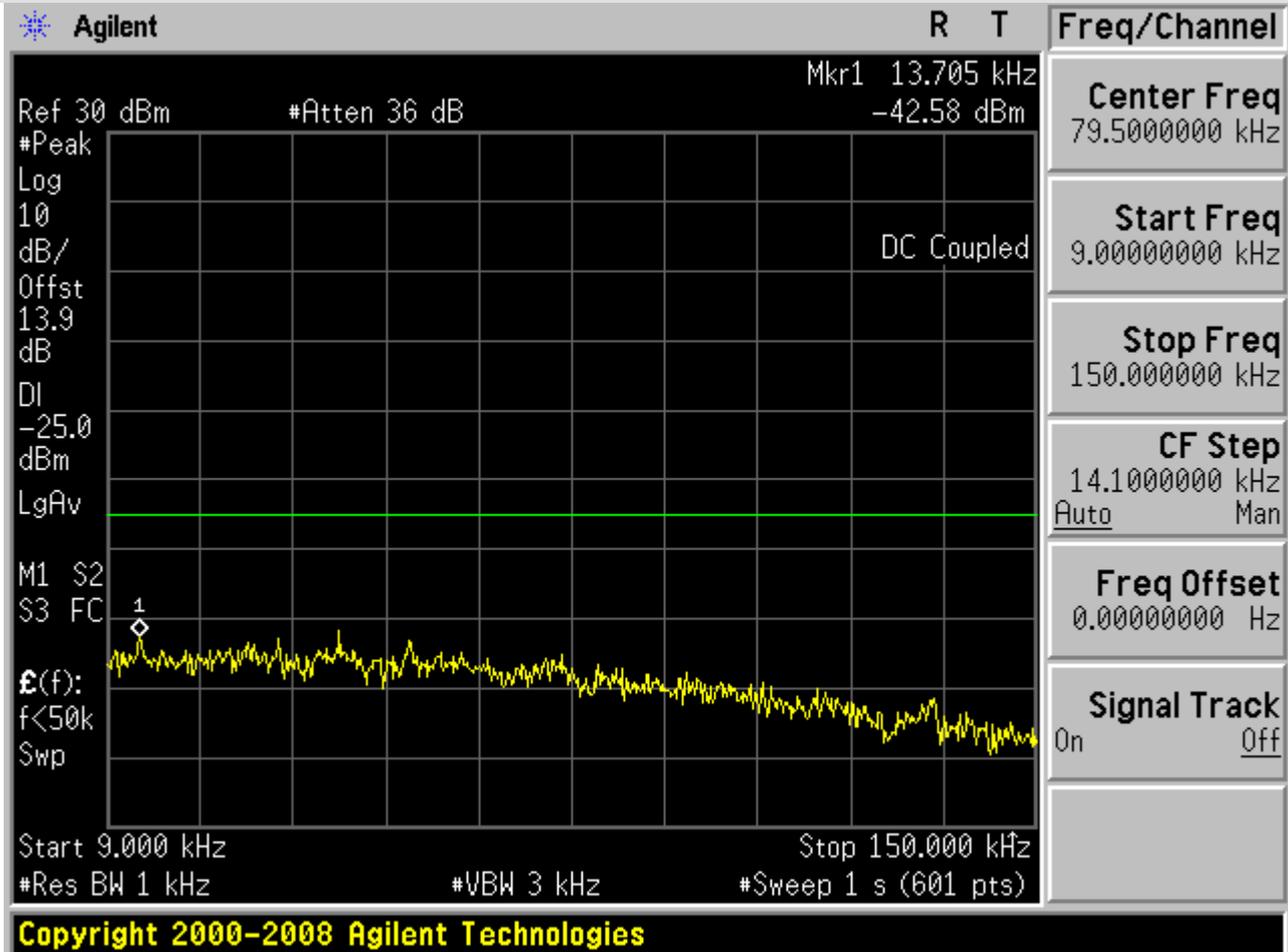


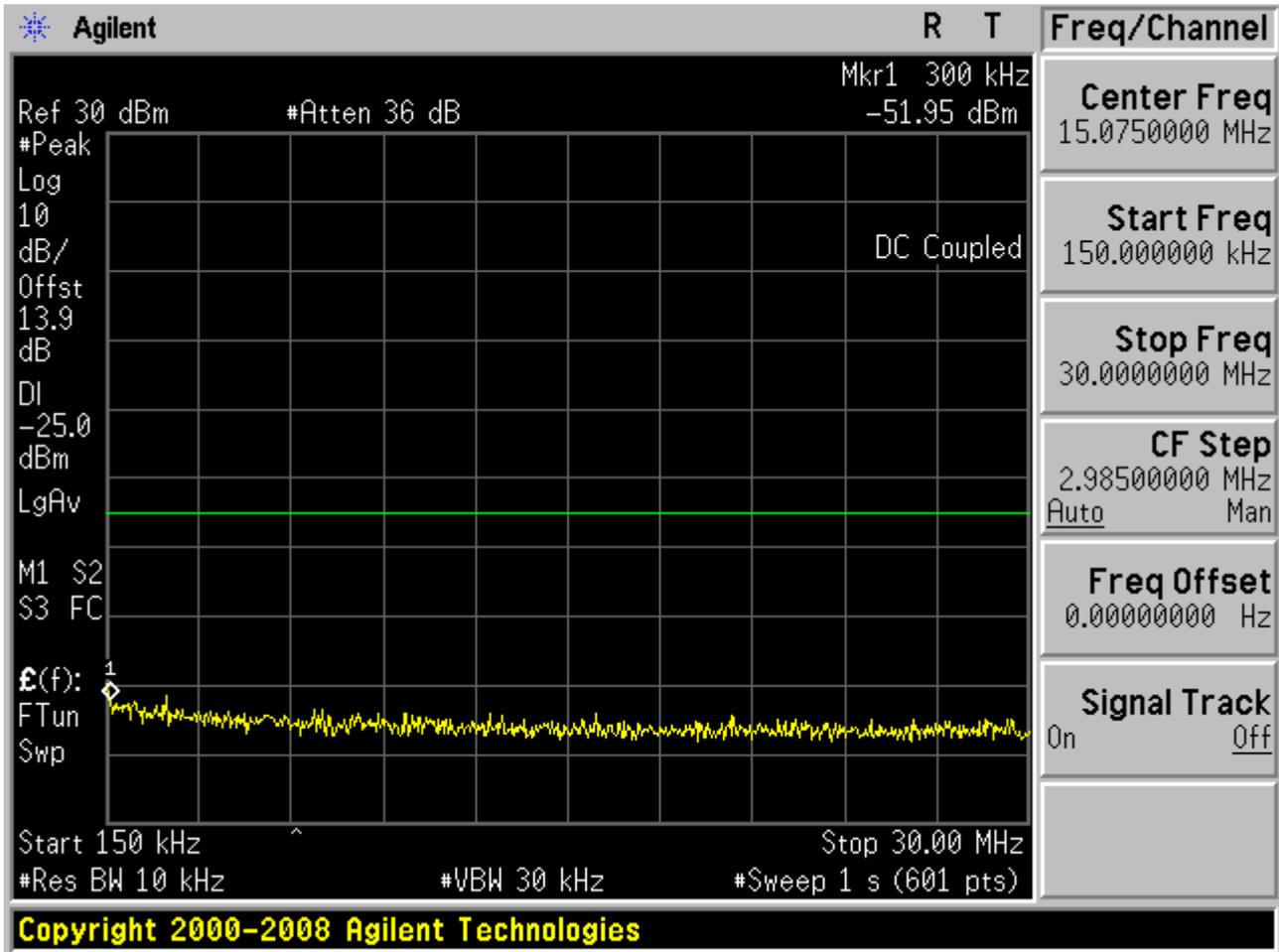


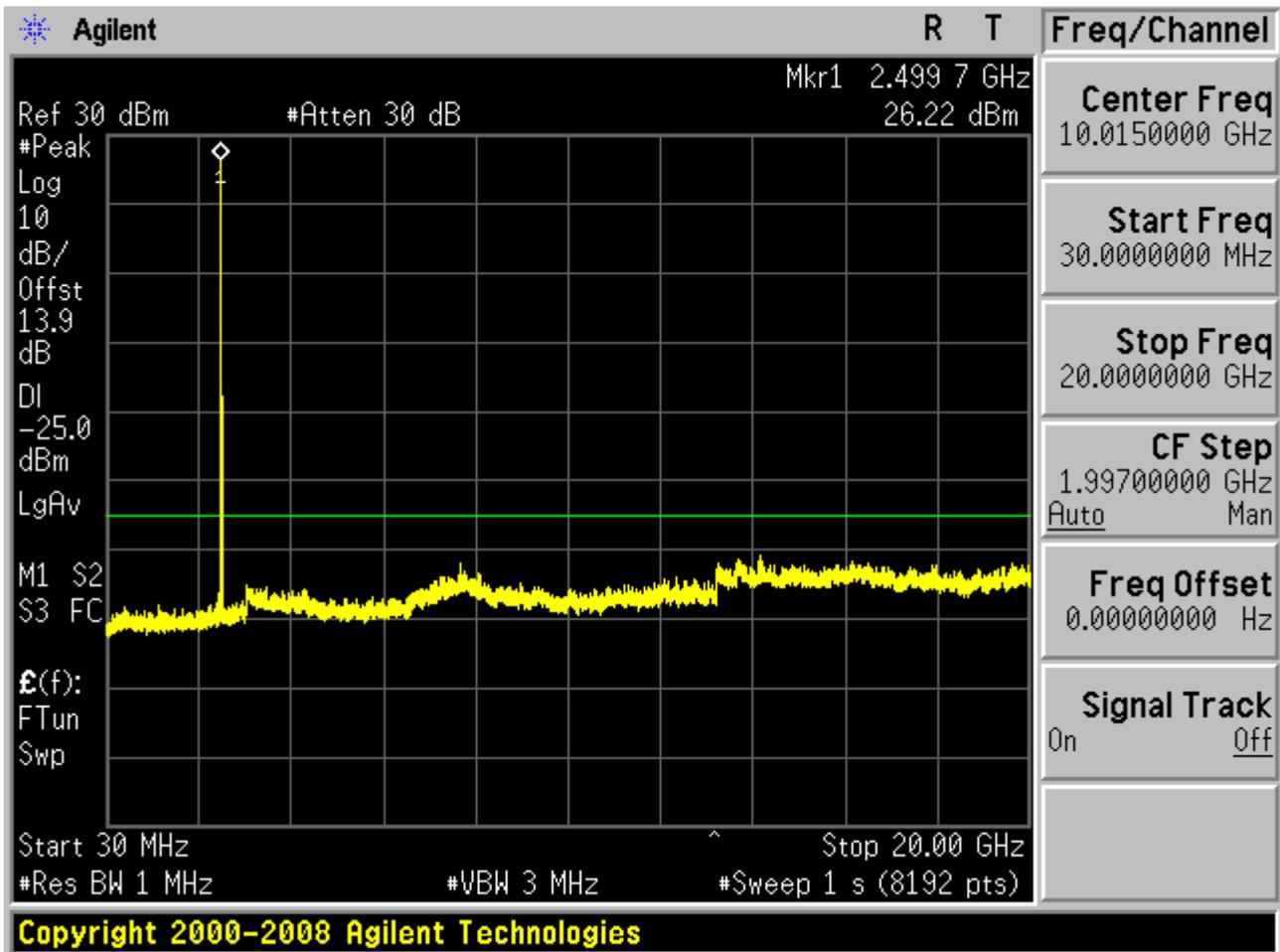
1.2.3 Channel Bandwidth = 15 MHz

1.2.3.1 Channel = L

1.2.3.1.1 16QAM /1RBs /RB #0



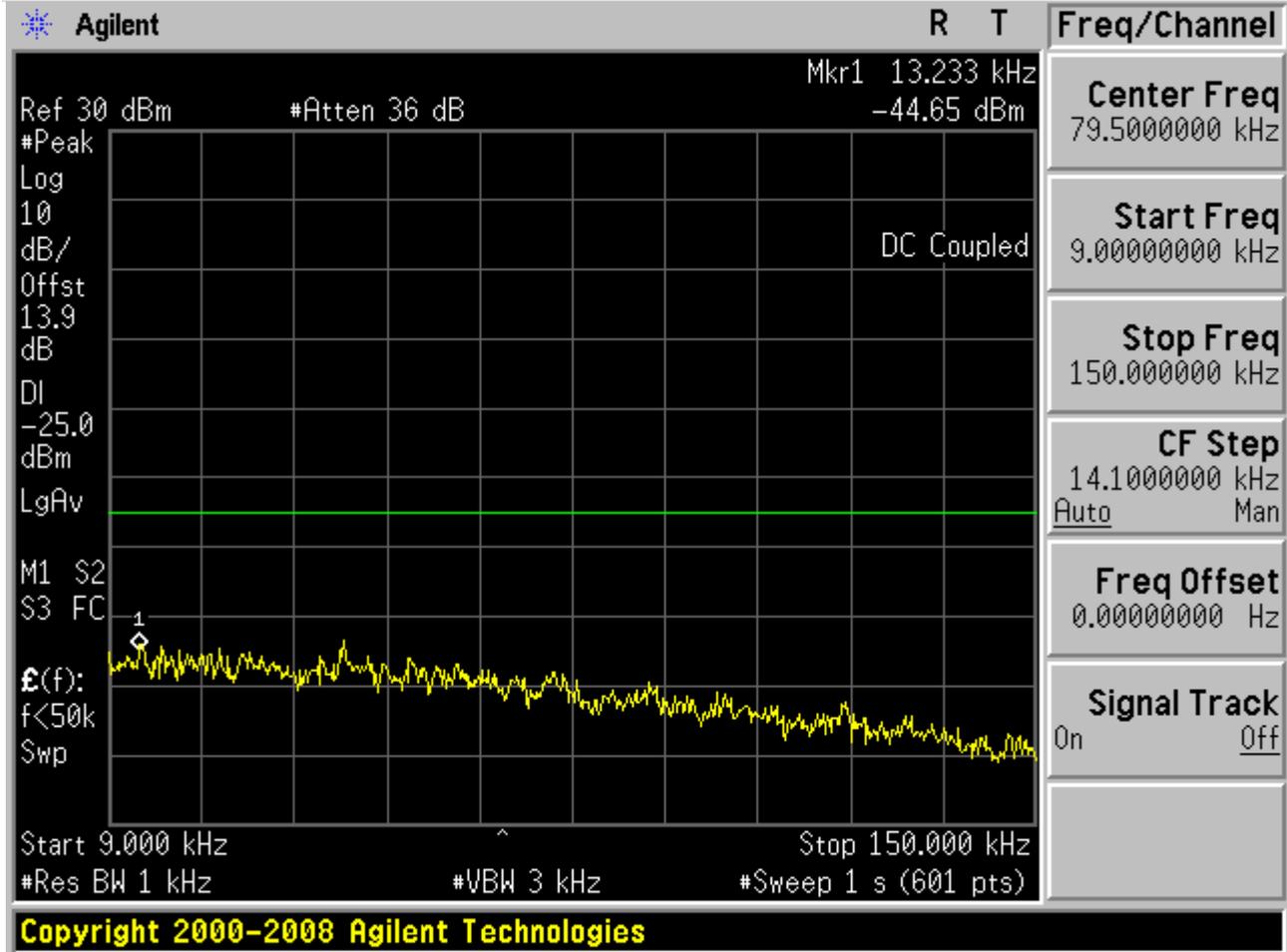


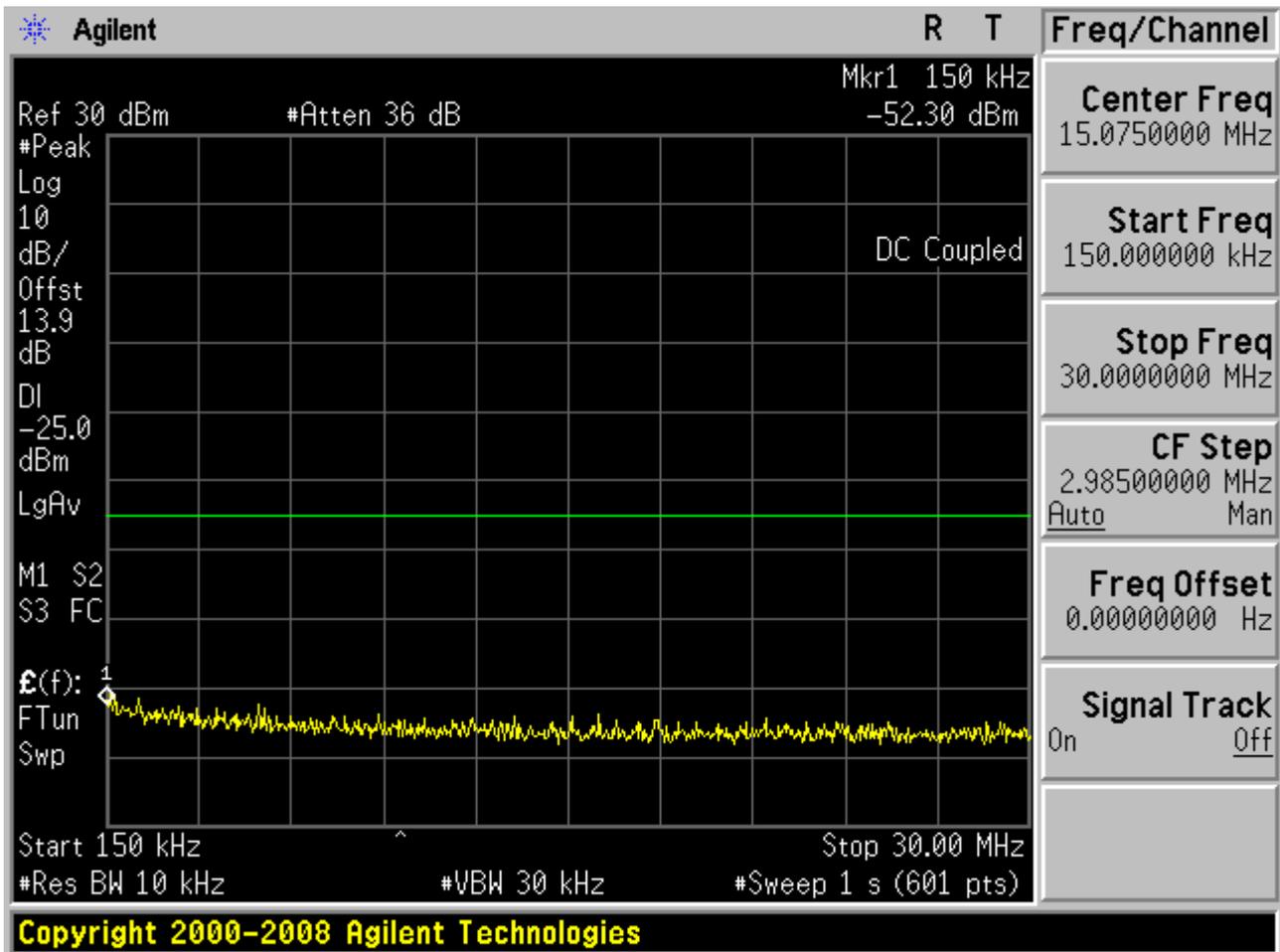


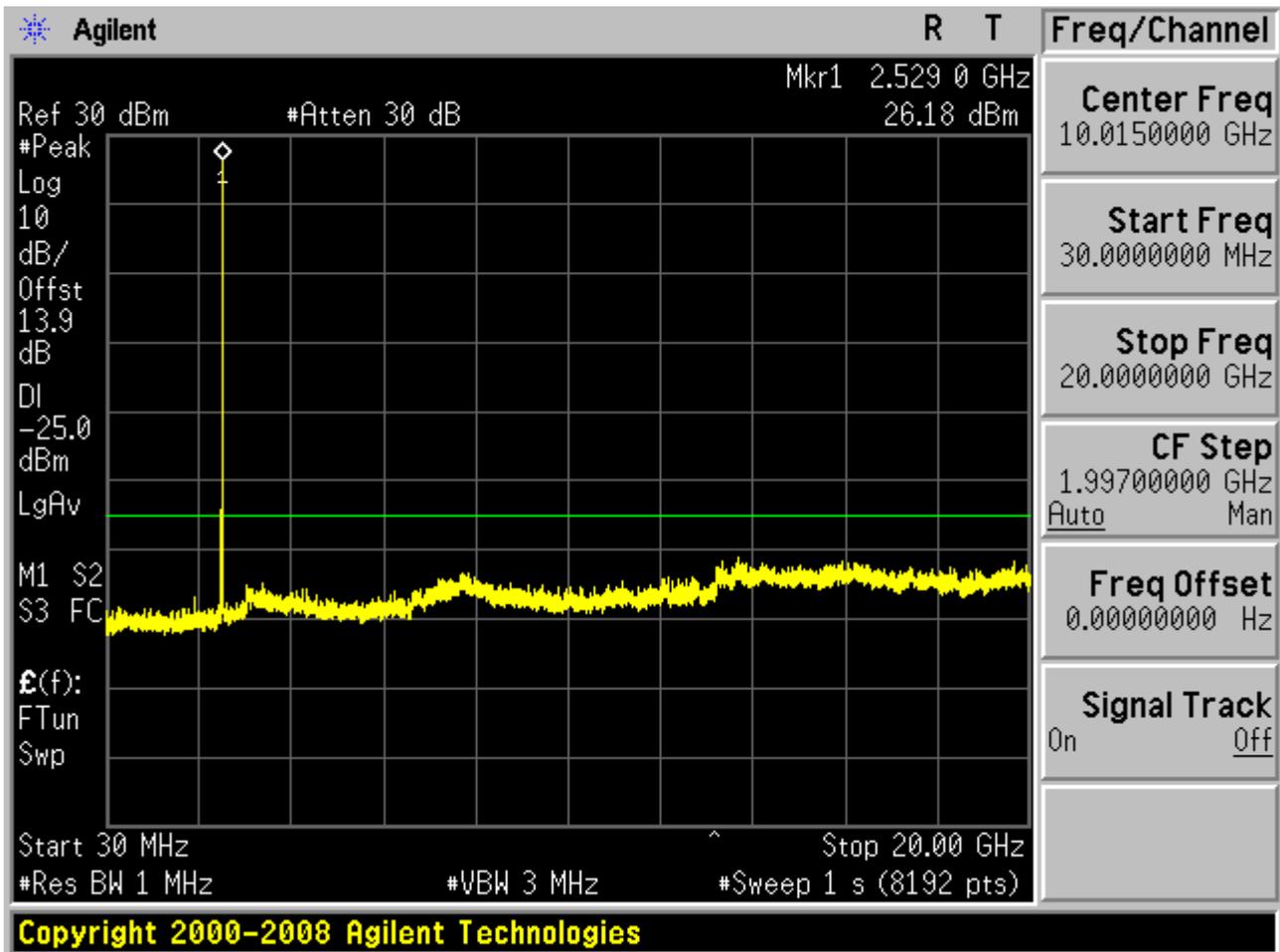
1.2.3.2 Channel = M



1.2.3.2.1 16QAM /1RBs /RB #0



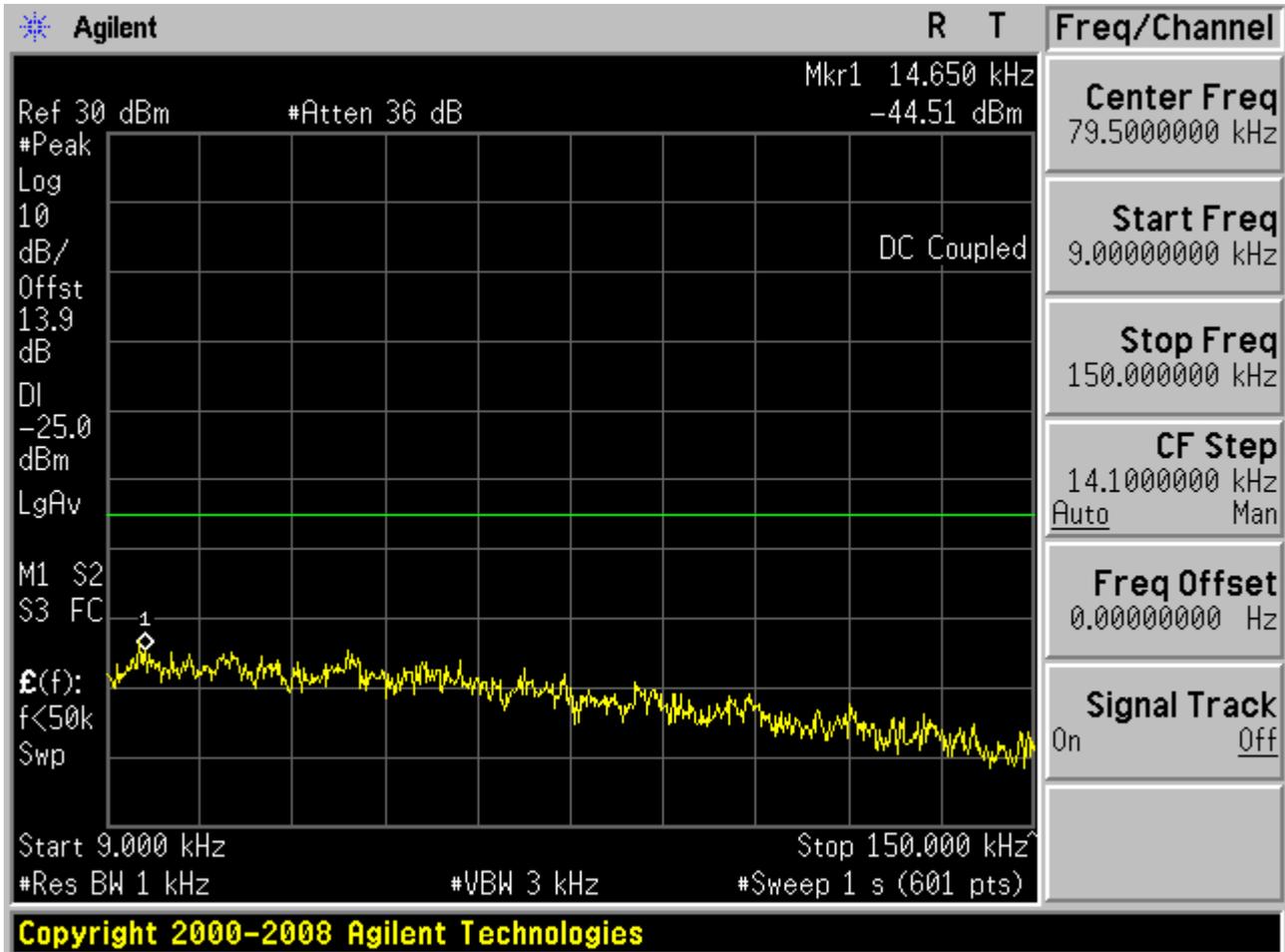


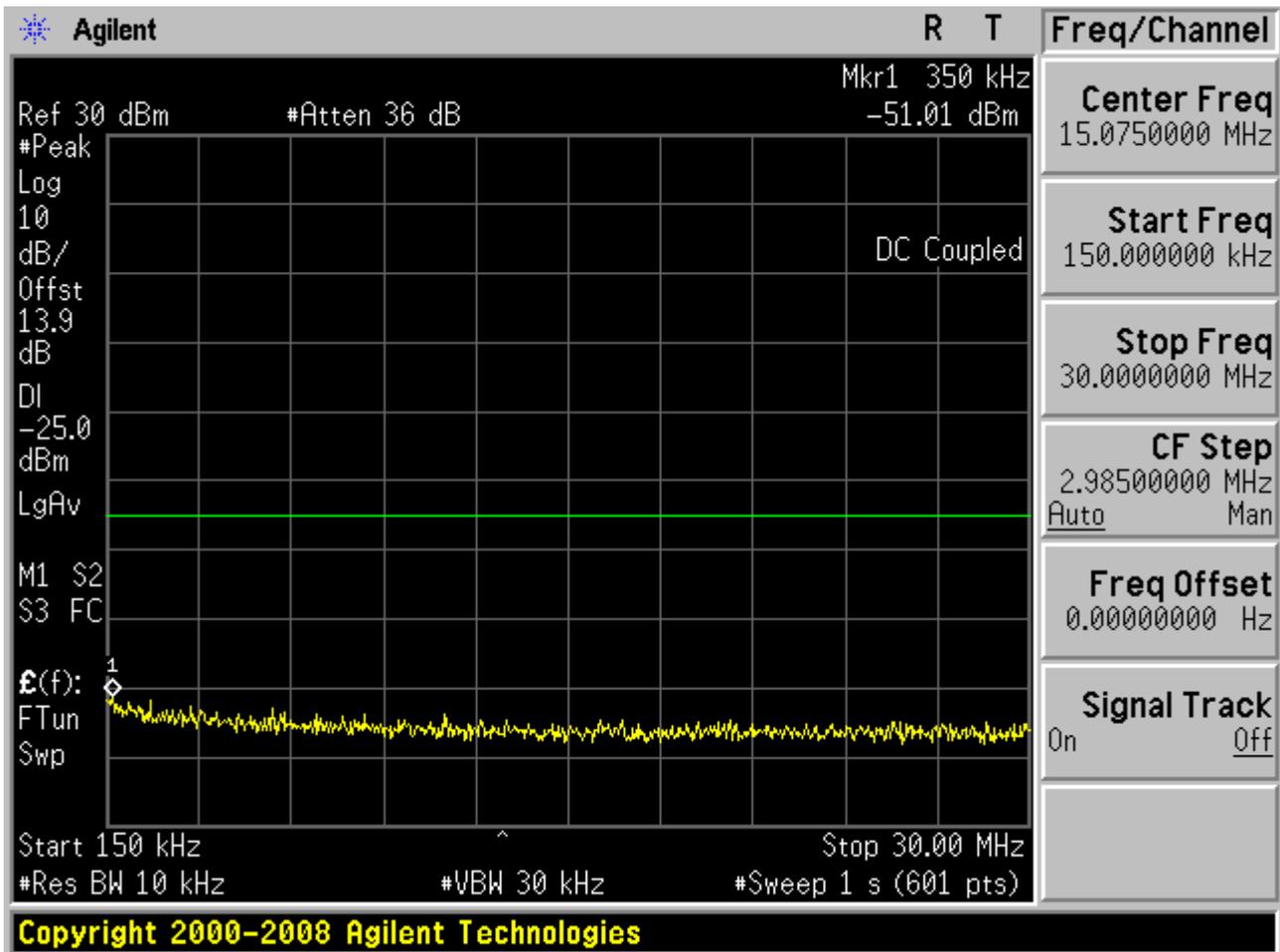


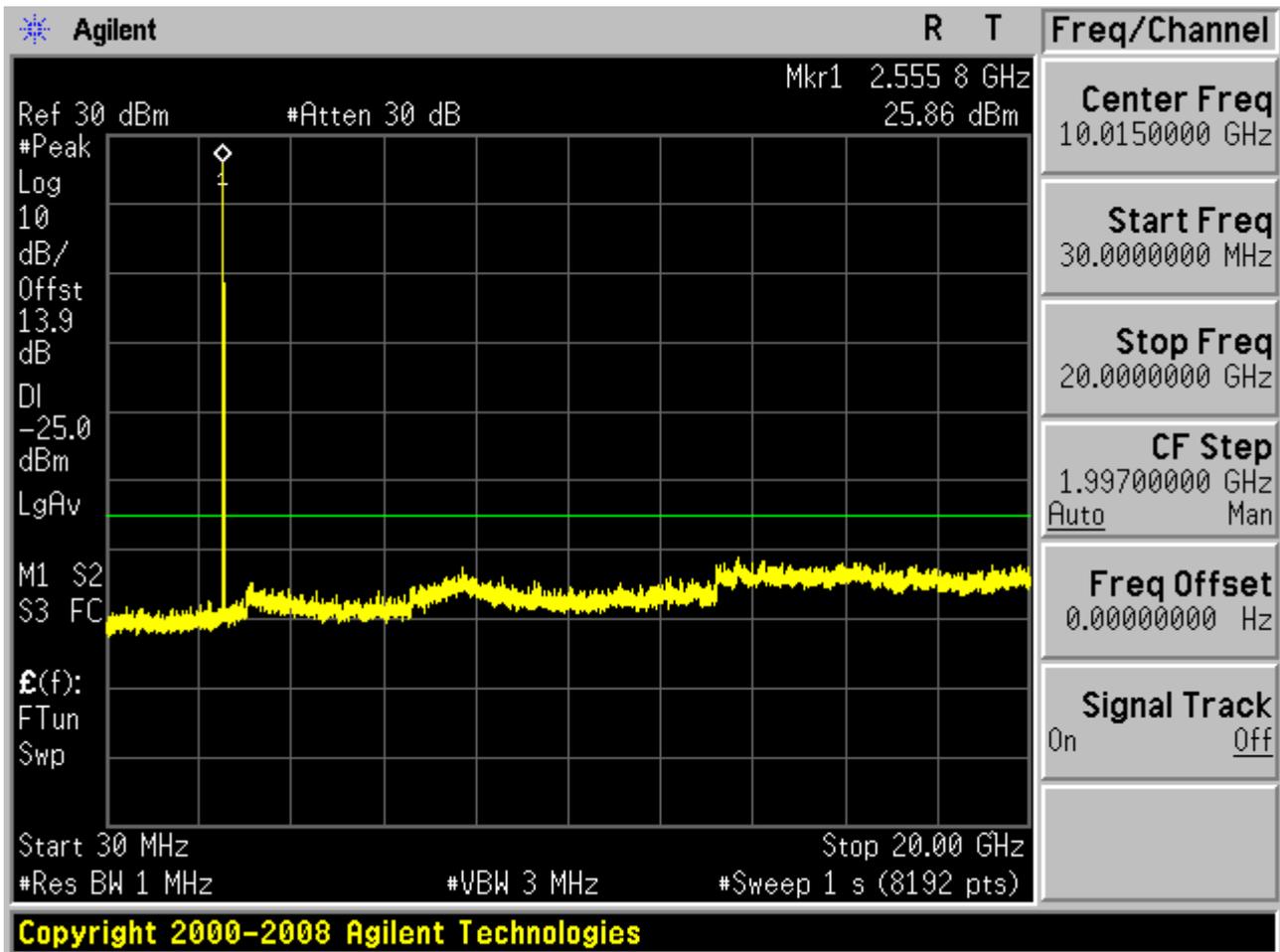


1.2.3.3 Channel = H

1.2.3.3.1 16QAM /1RBs /RB #0





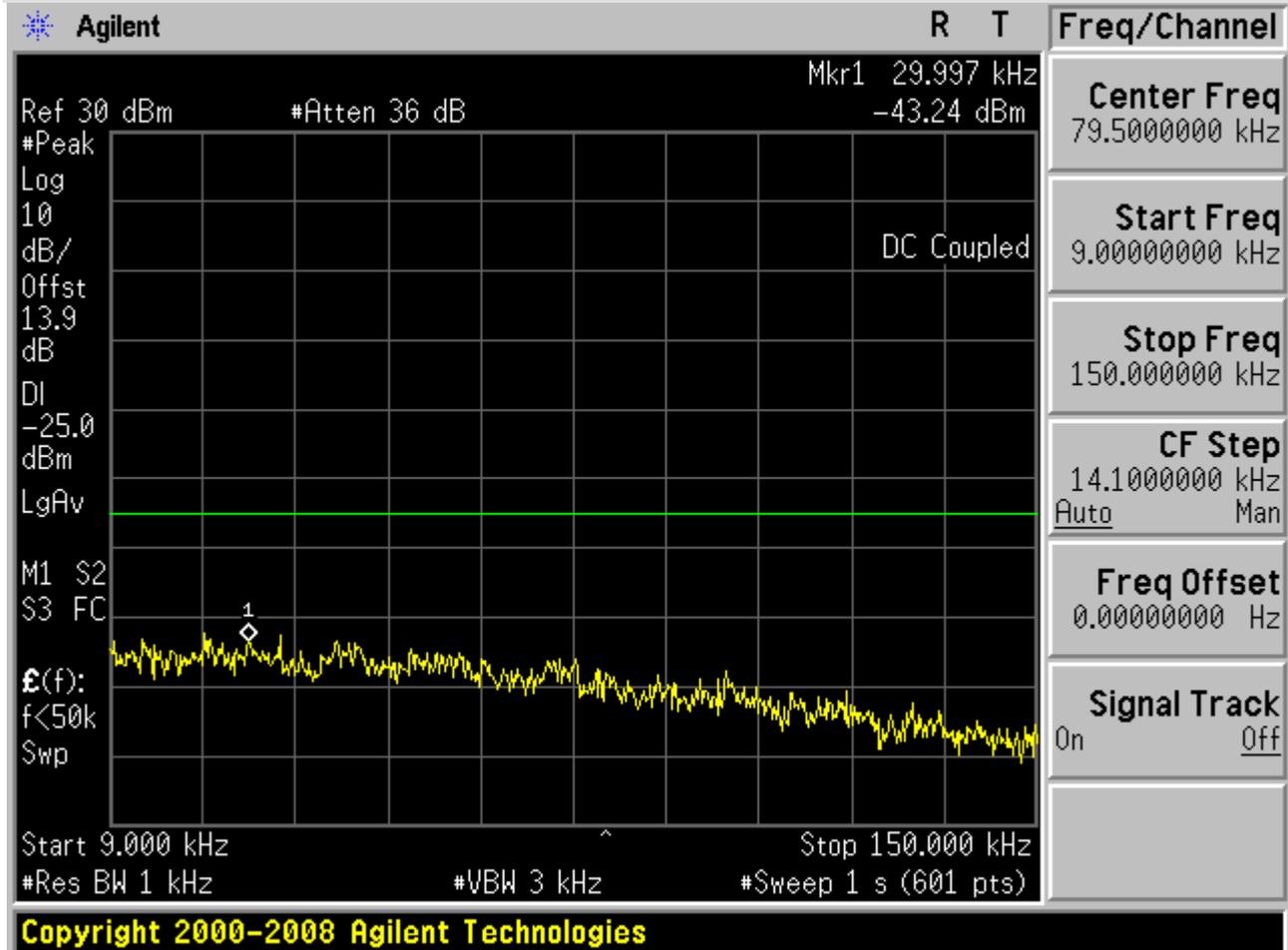


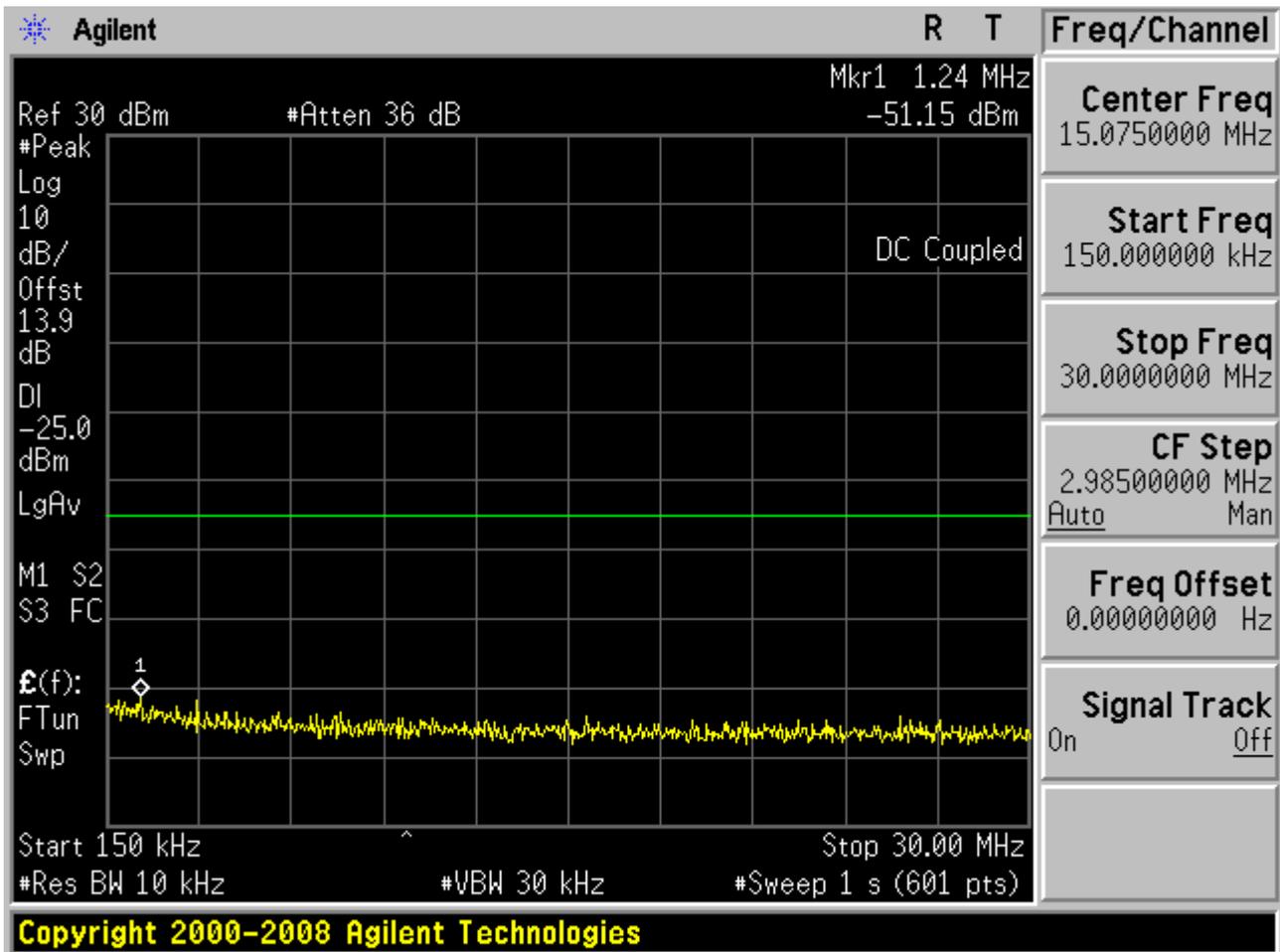


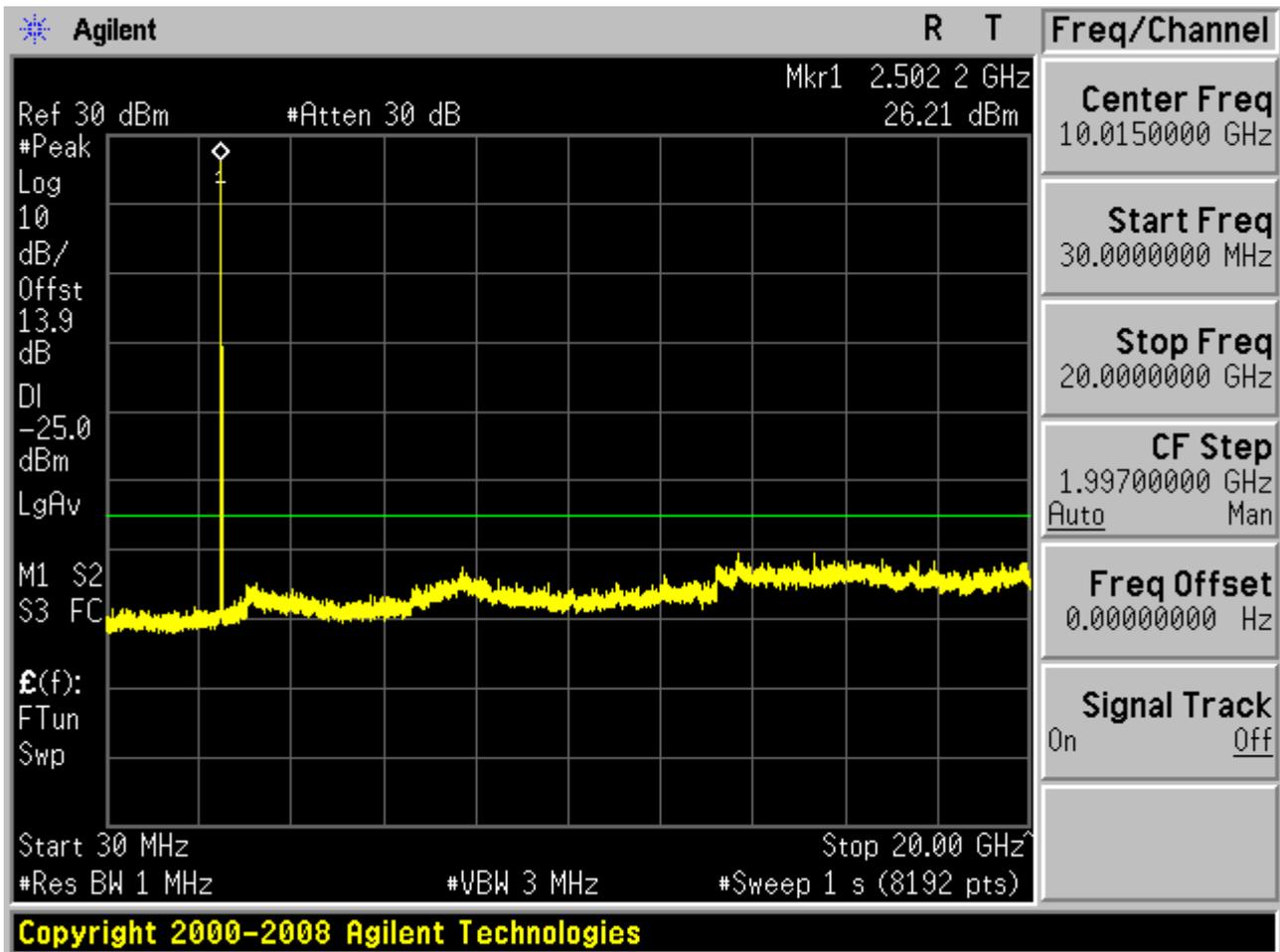
1.2.4 Channel Bandwidth = Highest (20 MHz)

1.2.4.1 Channel = L

1.2.4.1.1 16QAM /1RBs /RB #0



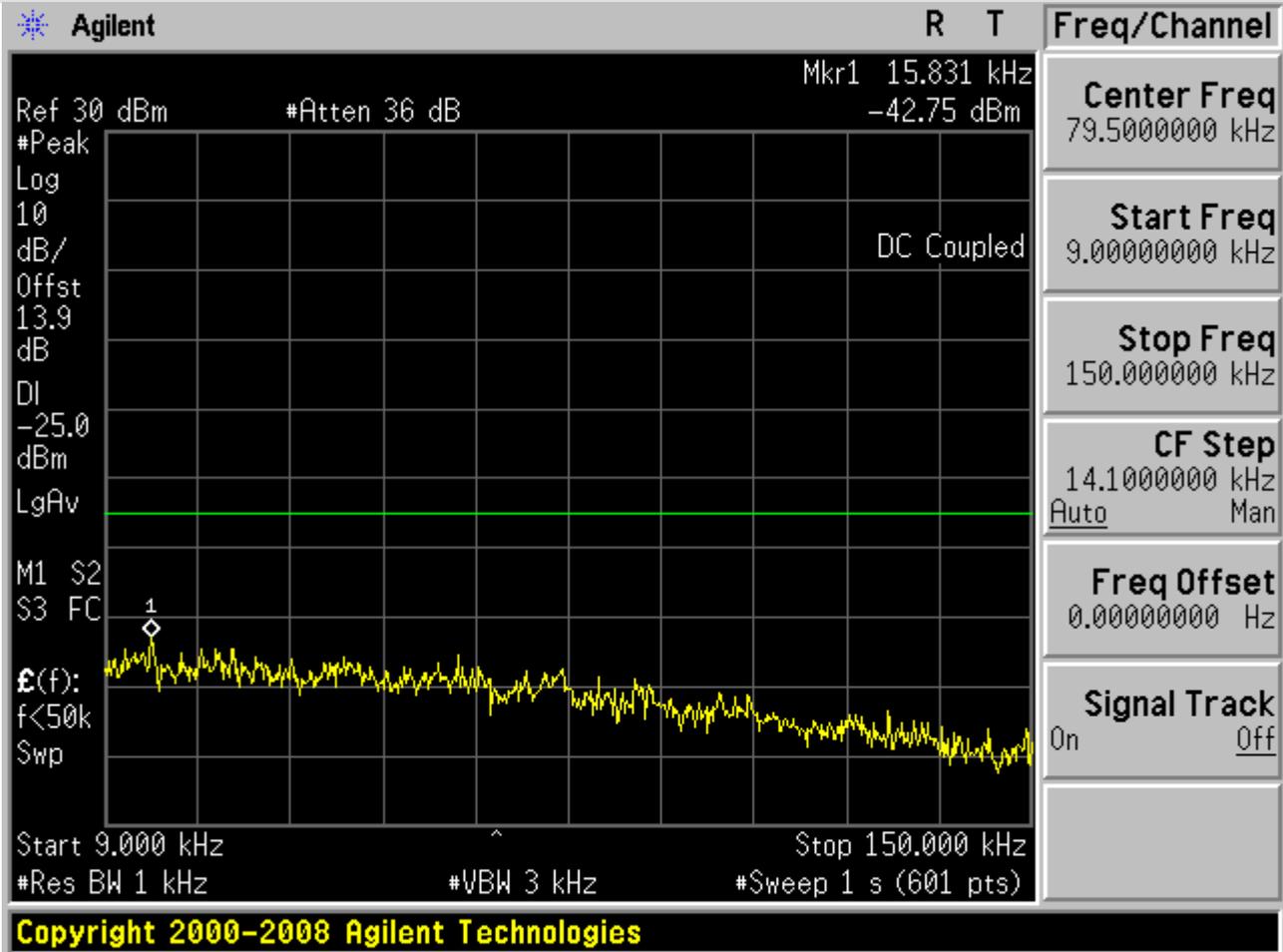


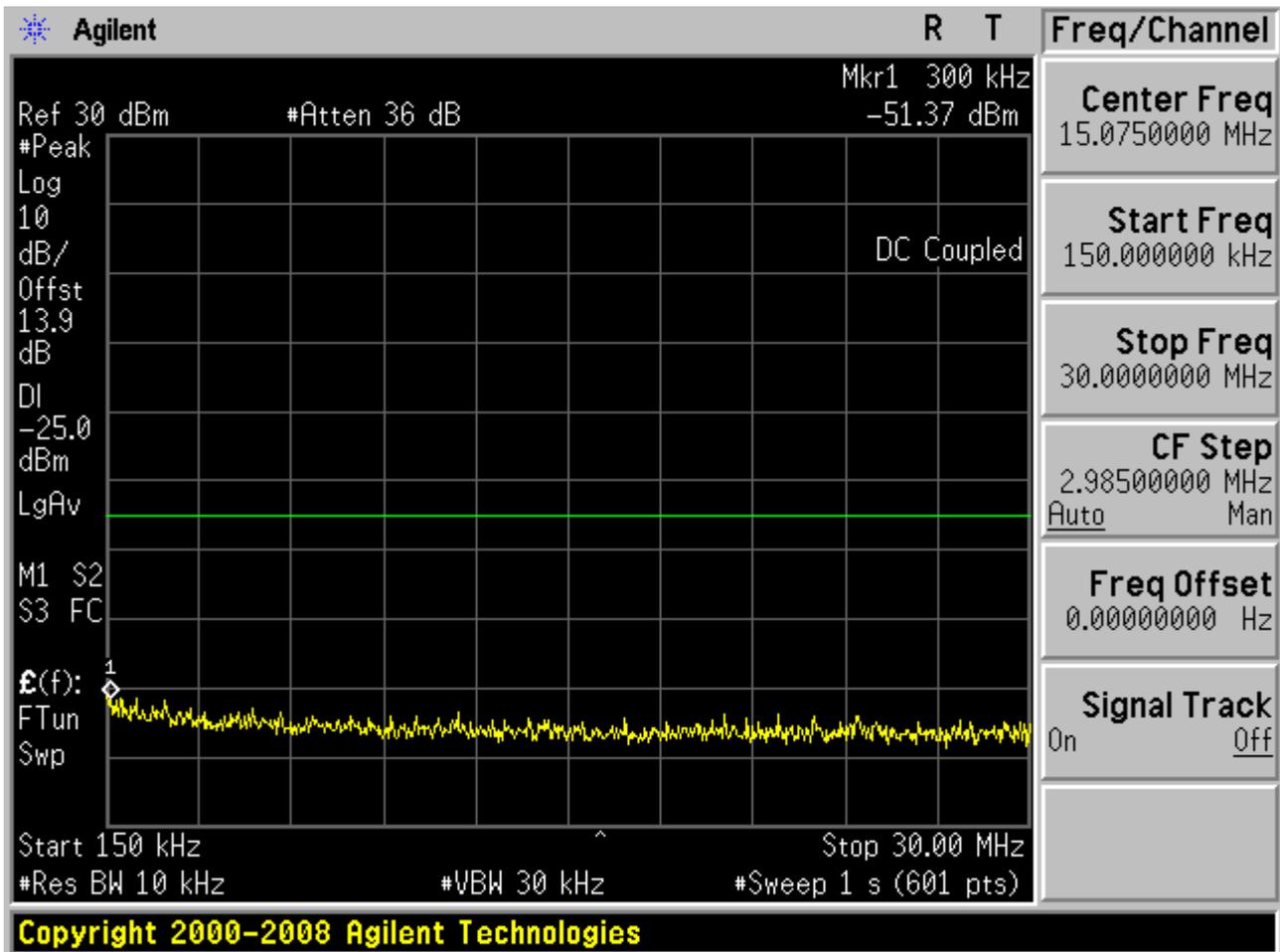


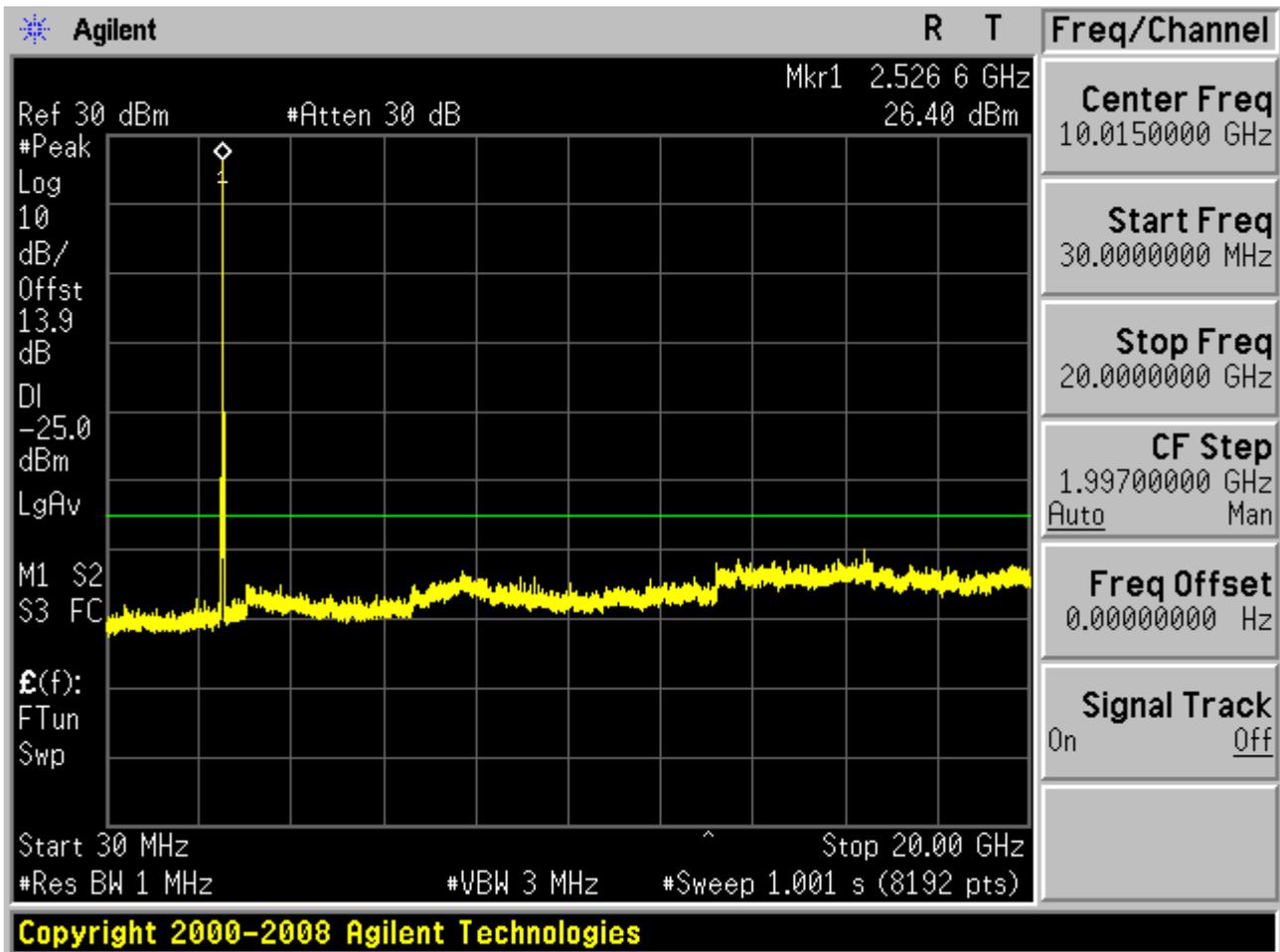


1.2.4.2 Channel = M

1.2.4.2.1 16QAM /1RBs /RB #0



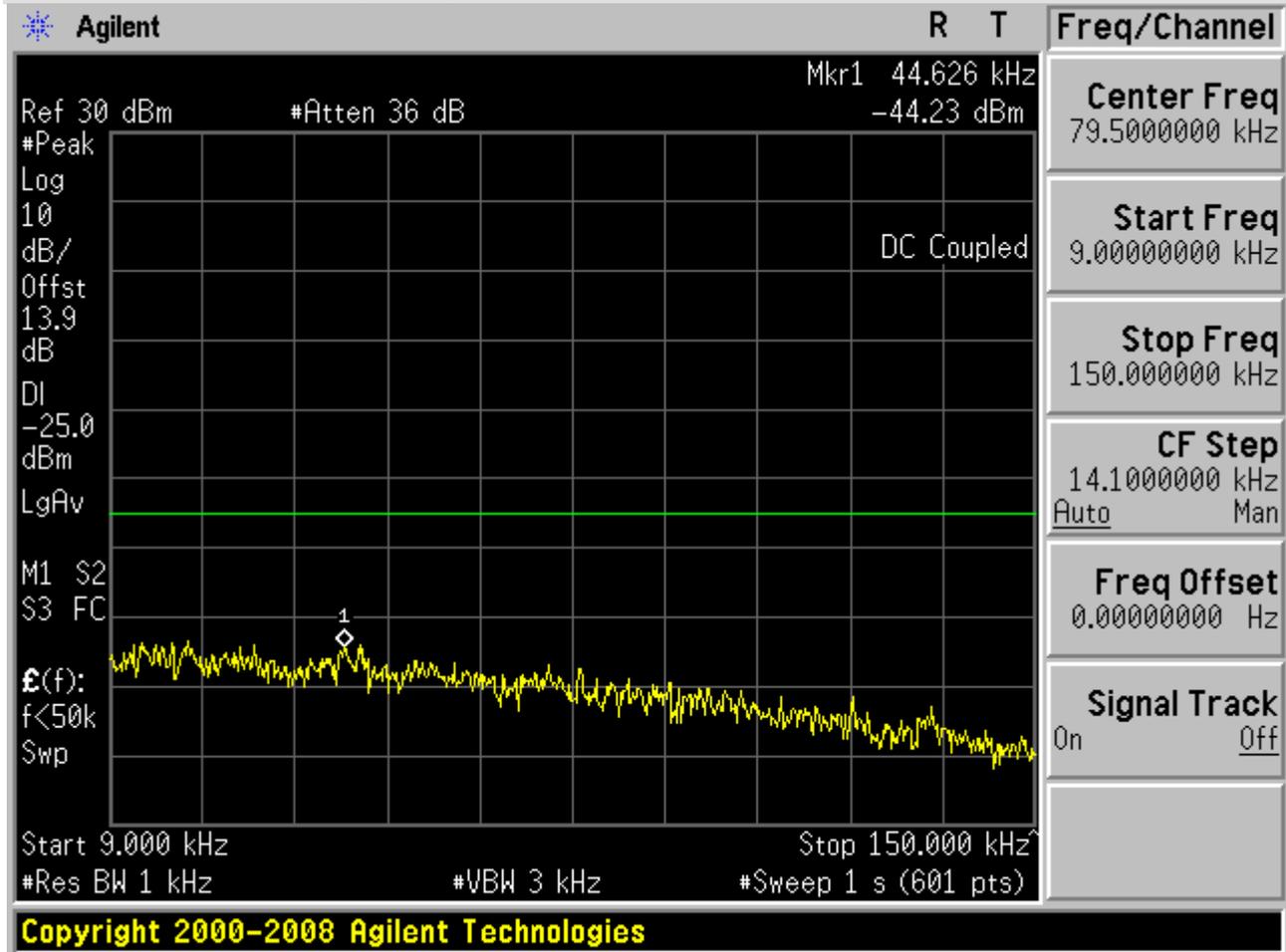


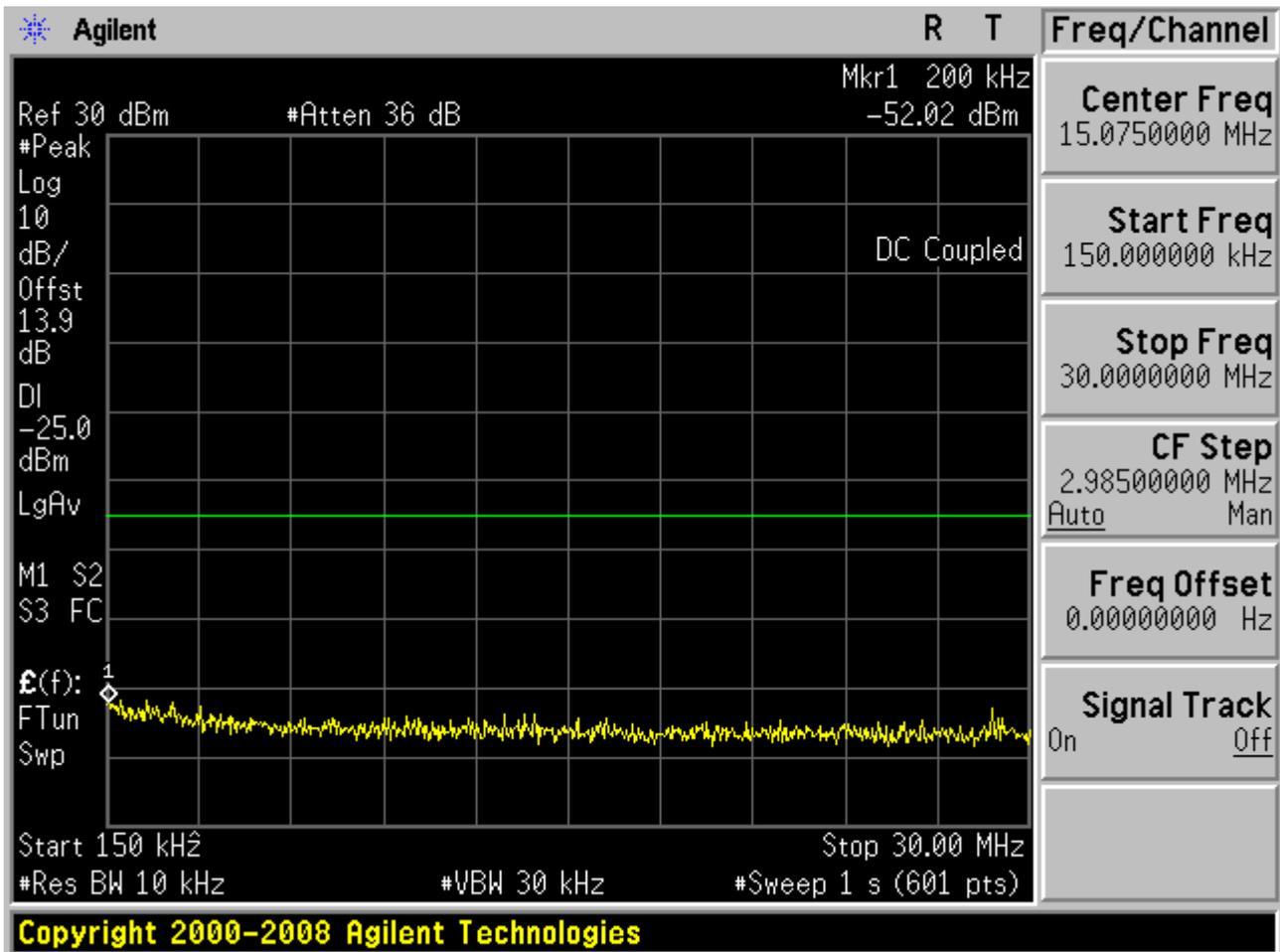


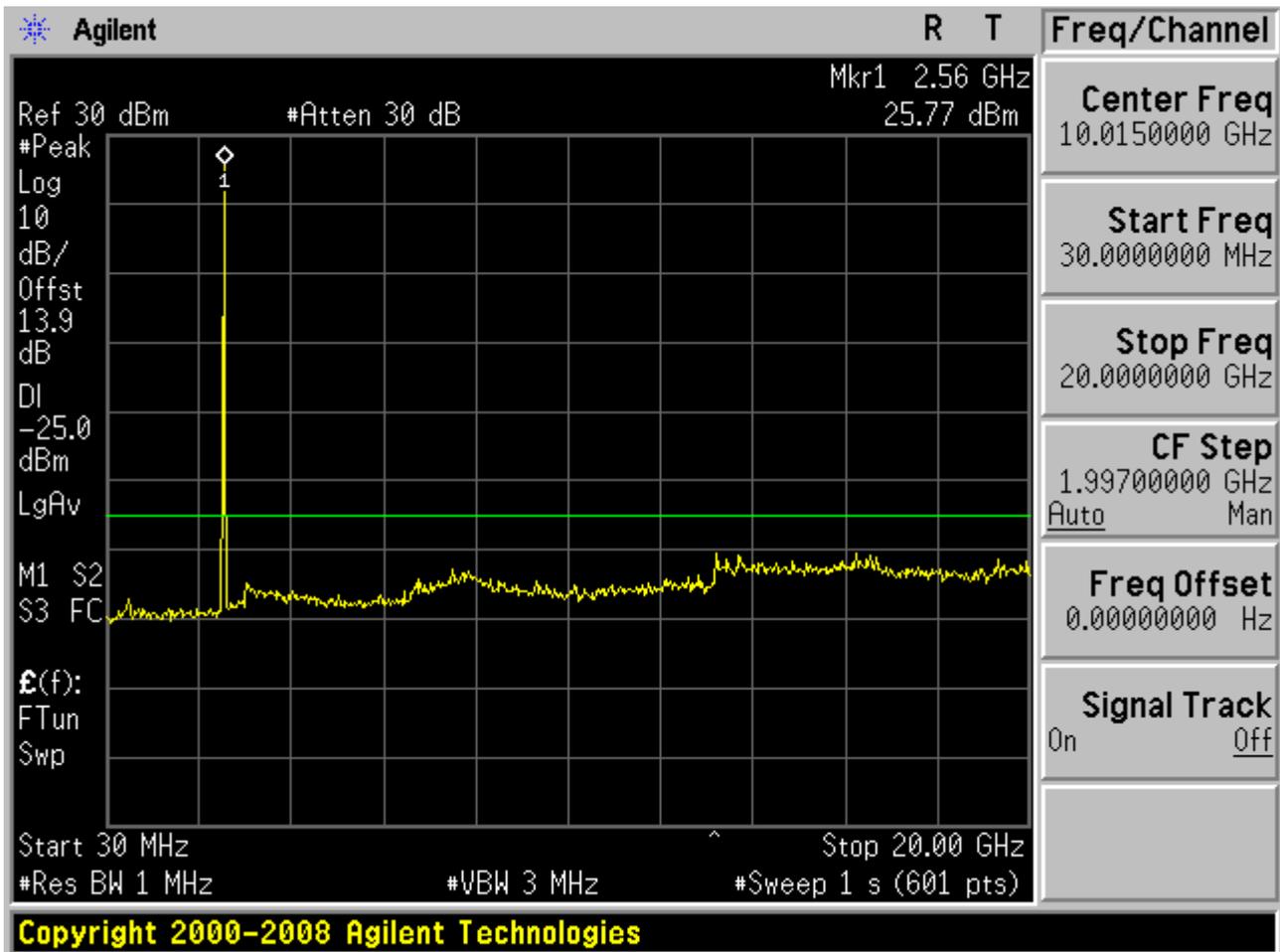
1.2.4.3 Channel = H



1.2.4.3.1 16QAM /1RBs /RB #0







-----END-----



Appendix F

Radiated spurious emission

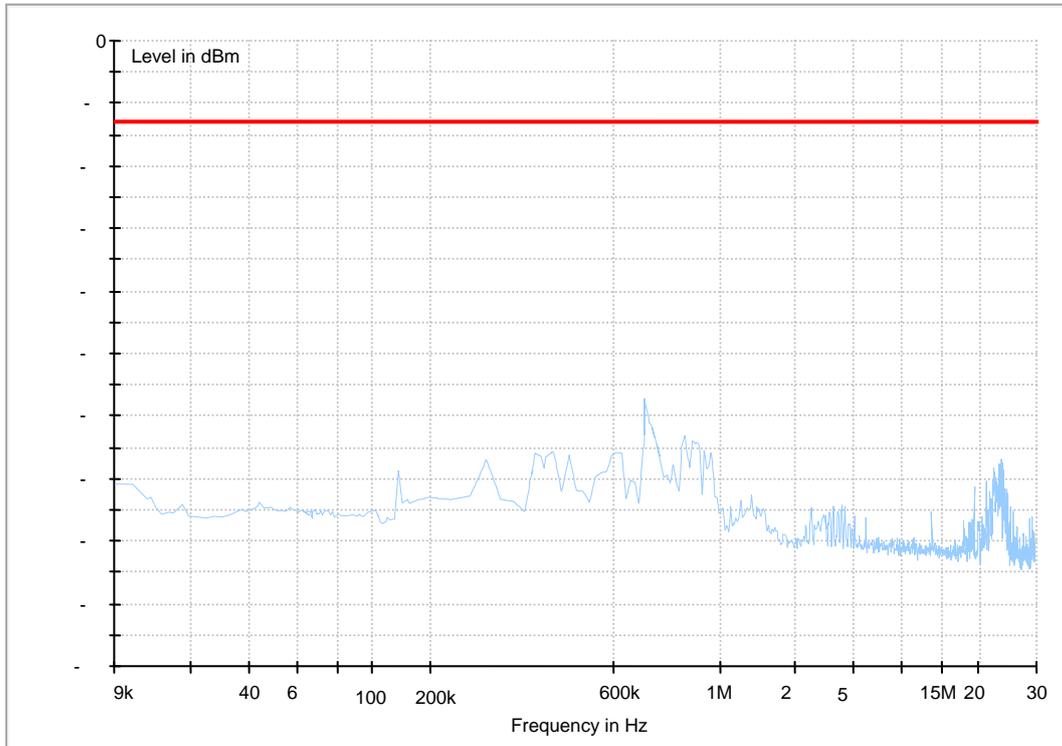
According to FCC Part 2.1053& 27.53(m)(2)&27.53(m)(6)



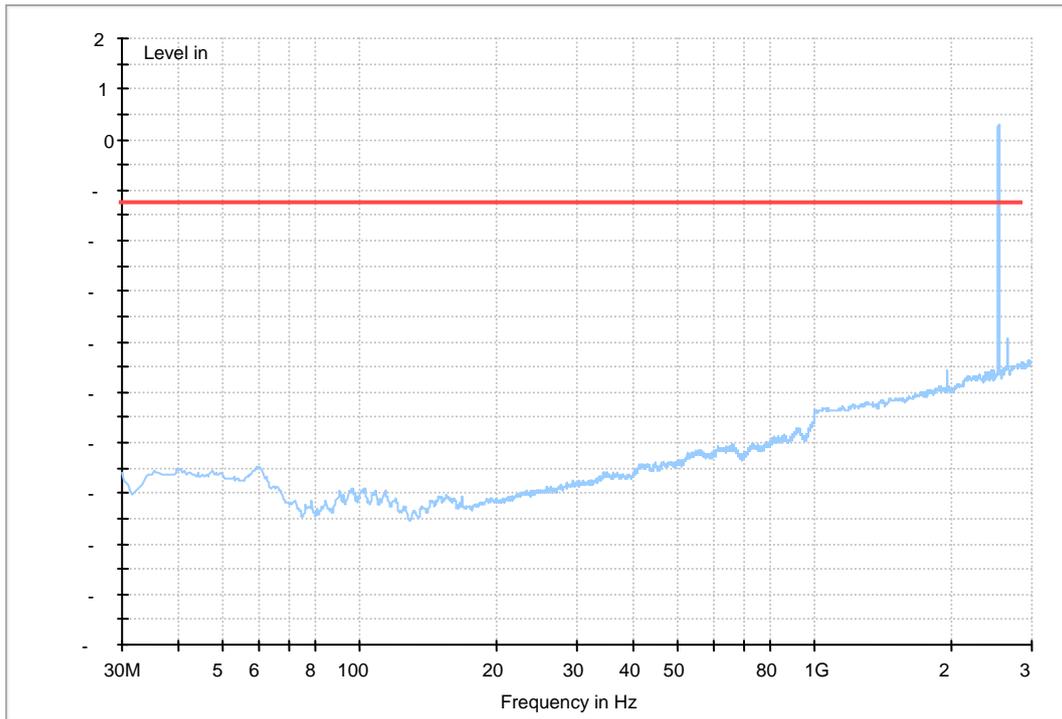
Note: 1. Simultaneous transmission was investigated and no new emissions were found.
2. $RBW \geq 1\text{MHz}$, $VBW > 3 \times RBW$

LTE Band VII 5M

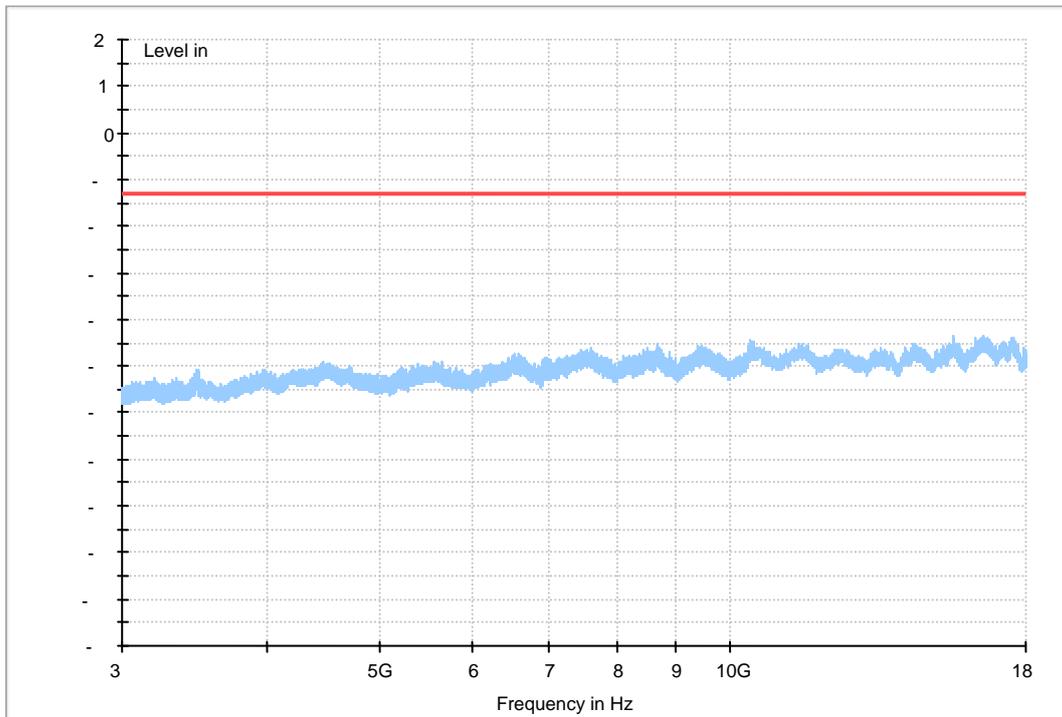
Traffic Mode (9kHz-30MHz)



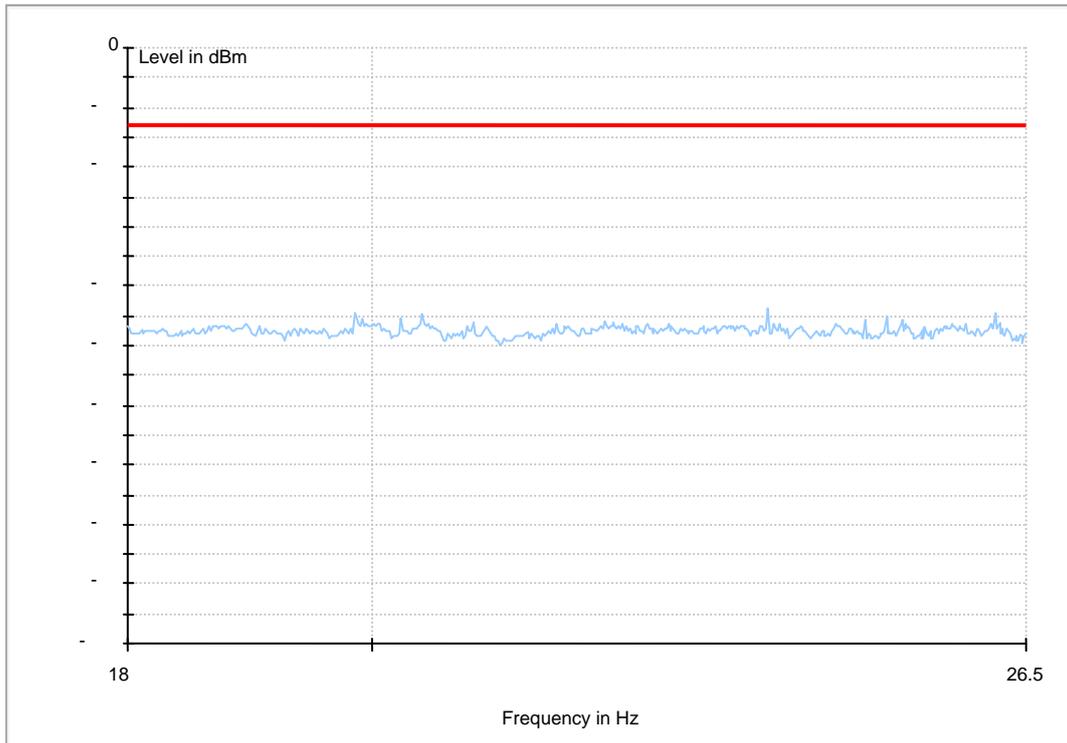
Traffic Mode (30MHz-3GHz)



Traffic Mode (3GHz-18GHz)

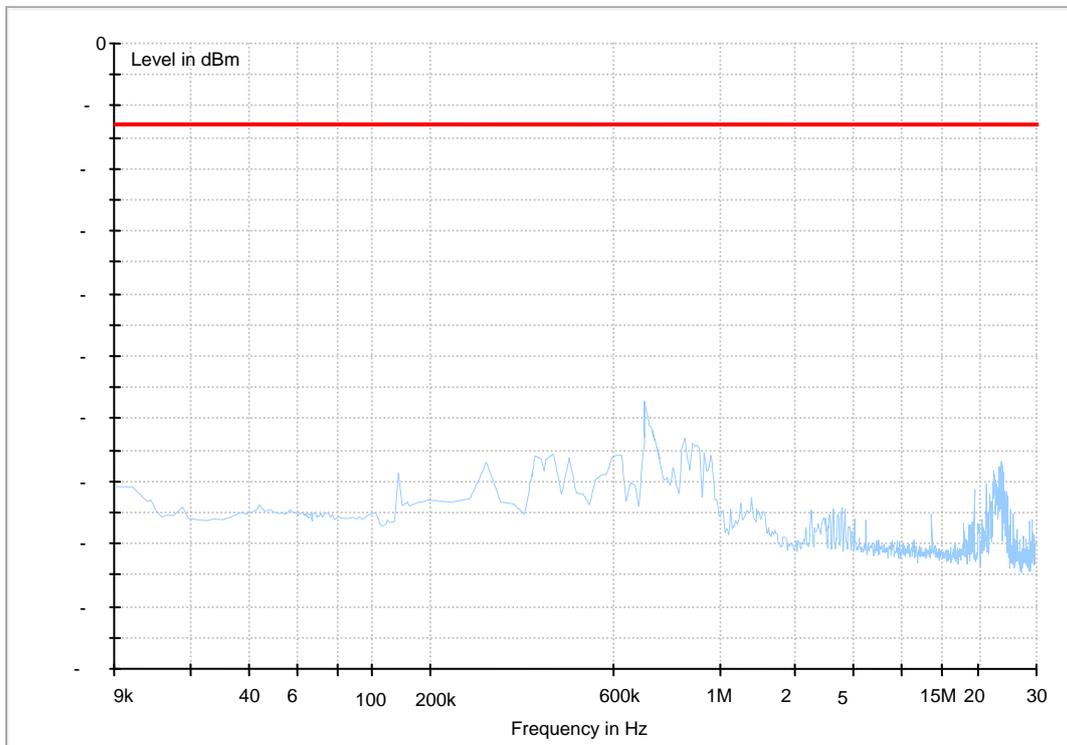


Traffic Mode (18GHz-26.5GHz)

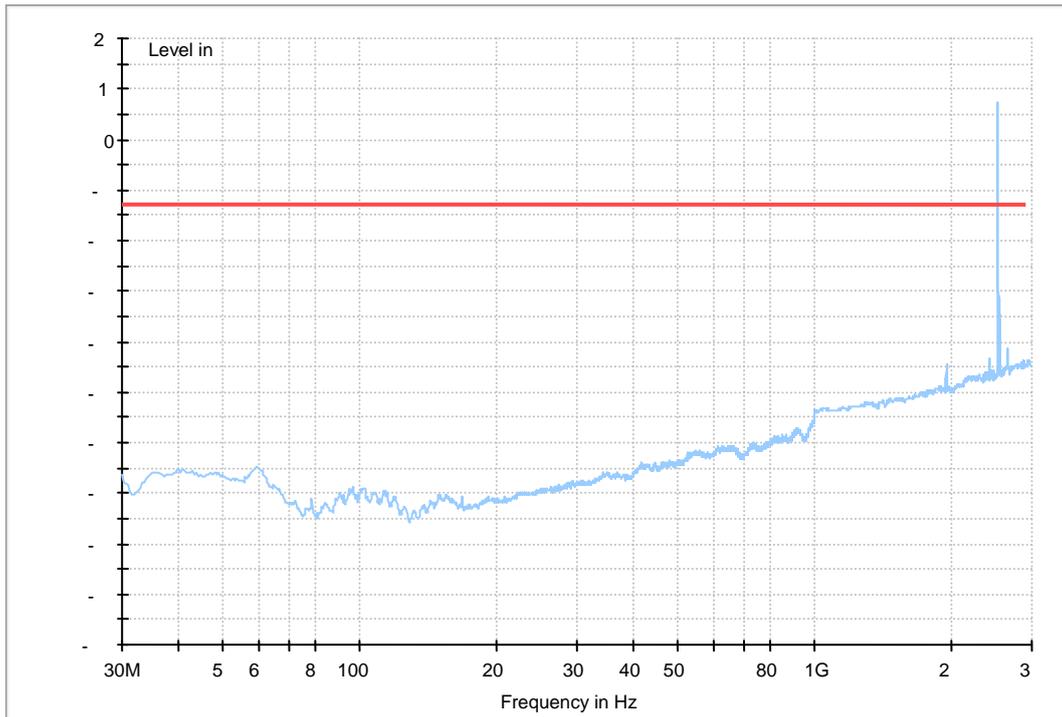


LTE Band VII 20M

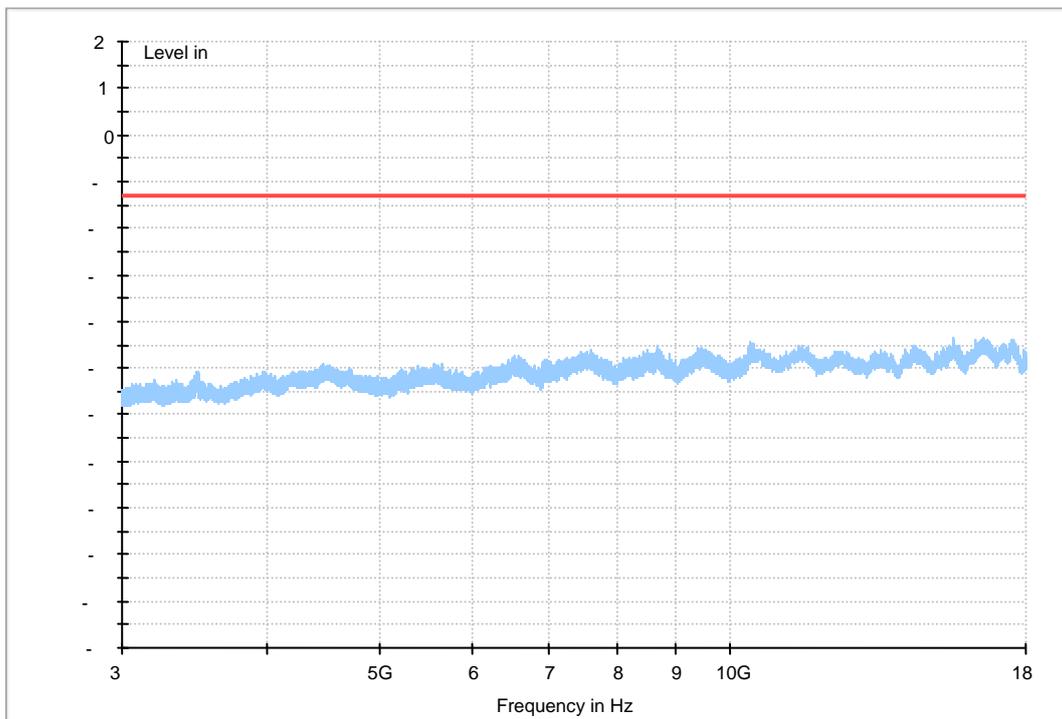
Traffic Mode (9kHz-30MHz)



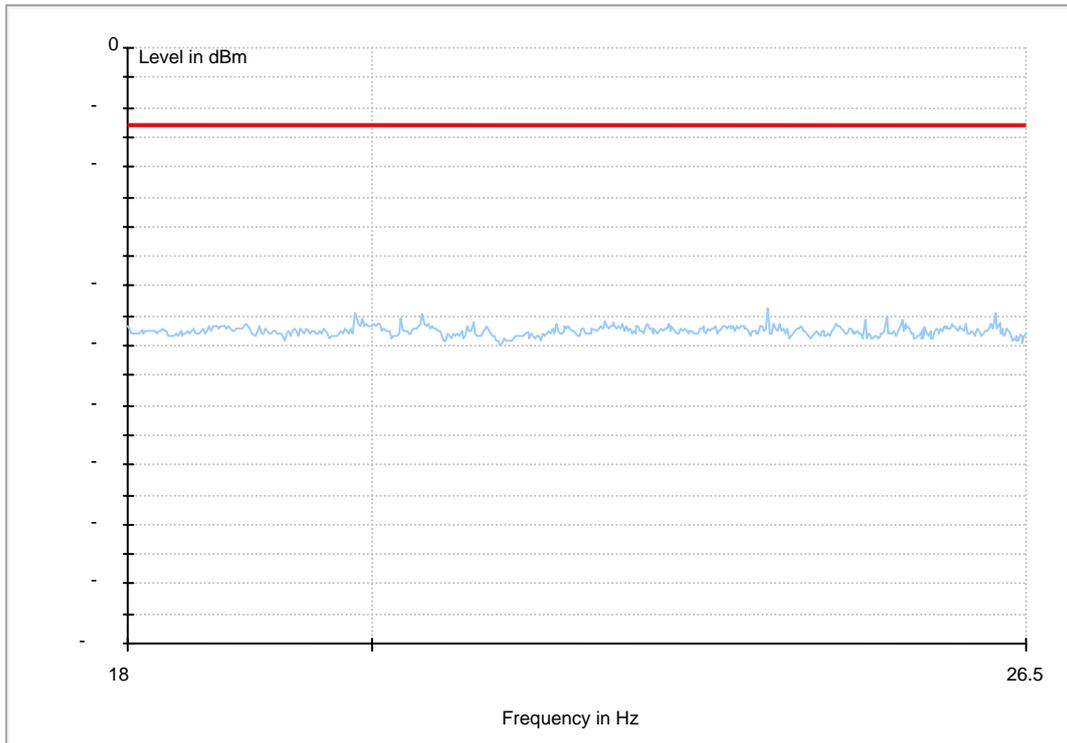
Traffic Mode (30MHz-3GHz)



Traffic Mode (3GHz-18GHz)



Traffic Mode (18GHz-26.5GHz)



The END



Appendix G

Frequency Stability

According to FCC Part 2.1051 & FCC Part 27C & 27M



Frequency Error vs. Temperature:

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

Table 1 Measurement Results (LTE QPSK) BAND 7

Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
TM1(5M)	M	VN	-30 °C	-8	-0.00316	---	±2.5	Pass
			-20 °C	18	0.007101	---	±2.5	Pass
			-10 °C	13	0.005128	---	±2.5	Pass
			0 °C	-7	-0.00276	---	±2.5	Pass
			10 °C	20	0.00789	---	±2.5	Pass
			20 °C	-6	-0.00237	---	±2.5	Pass
			30 °C	26	0.010256	---	±2.5	Pass
			40 °C	14	0.005523	---	±2.5	Pass
			50 °C	-22	-0.00868	---	±2.5	Pass
TM1(10M)	M	VN	-30 °C	-20	-0.00789	---	±2.5	Pass
			-20 °C	-14	-0.00552	---	±2.5	Pass
			-10 °C	10	0.003945	---	±2.5	Pass
			0 °C	-7	-0.00276	---	±2.5	Pass
			10 °C	-15	-0.00592	---	±2.5	Pass
			20 °C	26	0.010256	---	±2.5	Pass
			30 °C	22	0.008679	---	±2.5	Pass
			40 °C	10	0.003945	---	±2.5	Pass
			50 °C	17	0.006706	---	±2.5	Pass
TM1(15M)	M	VN	-30 °C	-16	-0.00631	---	±2.5	Pass
			-20 °C	-9	-0.00355	---	±2.5	Pass
			-10 °C	-13	-0.00513	---	±2.5	Pass
			0 °C	-17	-0.00671	---	±2.5	Pass
			10 °C	15	0.005917	---	±2.5	Pass
			20 °C	19	0.007495	---	±2.5	Pass
			30 °C	-8	-0.00316	---	±2.5	Pass
			40 °C	11	0.004339	---	±2.5	Pass
			50 °C	-12	-0.00473	---	±2.5	Pass
TM1(20M)	M	VN	-30 °C	15	0.005917	---	±2.5	Pass
			-20 °C	21	0.008284	---	±2.5	Pass
			-10 °C	9	0.00355	---	±2.5	Pass
			0 °C	24	0.009467	---	±2.5	Pass
			10 °C	-16	-0.00631	---	±2.5	Pass
			20 °C	12	0.004734	---	±2.5	Pass
			30 °C	-20	-0.00789	---	±2.5	Pass
			40 °C	-12	-0.00473	---	±2.5	Pass
			50 °C	12	0.004734	---	±2.5	Pass



Table 2 Measurement Results (LTE 16QAM) BAND 7

Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
TM1(5M)	M	VN	-30 °C	-14	-0.00552	---	±2.5	Pass
			-20 °C	12	0.004734	---	±2.5	Pass
			-10 °C	7	0.002761	---	±2.5	Pass
			0 °C	-13	-0.00513	---	±2.5	Pass
			10 °C	14	0.005523	---	±2.5	Pass
			20 °C	-12	-0.00473	---	±2.5	Pass
			30 °C	20	0.00789	---	±2.5	Pass
			40 °C	8	0.003156	---	±2.5	Pass
			50 °C	-28	-0.01105	---	±2.5	Pass
TM1(10M)	M	VN	-30 °C	-26	-0.01026	---	±2.5	Pass
			-20 °C	-20	-0.00789	---	±2.5	Pass
			-10 °C	4	0.001578	---	±2.5	Pass
			0 °C	-13	-0.00513	---	±2.5	Pass
			10 °C	-21	-0.00828	---	±2.5	Pass
			20 °C	20	0.00789	---	±2.5	Pass
			30 °C	16	0.006312	---	±2.5	Pass
			40 °C	4	0.001578	---	±2.5	Pass
			50 °C	11	0.004339	---	±2.5	Pass
TM1(15M)	M	VN	-30 °C	-22	-0.00868	---	±2.5	Pass
			-20 °C	-15	-0.00592	---	±2.5	Pass
			-10 °C	-19	-0.0075	---	±2.5	Pass
			0 °C	-23	-0.00907	---	±2.5	Pass
			10 °C	9	0.00355	---	±2.5	Pass
			20 °C	13	0.005128	---	±2.5	Pass
			30 °C	-14	-0.00552	---	±2.5	Pass
			40 °C	5	0.001972	---	±2.5	Pass
			50 °C	-18	-0.0071	---	±2.5	Pass
TM1(20M)	M	VN	-30 °C	9	0.00355	---	±2.5	Pass
			-20 °C	15	0.005917	---	±2.5	Pass
			-10 °C	3	0.001183	---	±2.5	Pass
			0 °C	18	0.007101	---	±2.5	Pass
			10 °C	-22	-0.00868	---	±2.5	Pass
			20 °C	6	0.002367	---	±2.5	Pass
			30 °C	-26	-0.01026	---	±2.5	Pass
			40 °C	-18	-0.0071	---	±2.5	Pass
			50 °C	6	0.002367	---	±2.5	Pass



Frequency Error vs. Voltage:

Table 3 Measurement Results (LTE QPSK) BAND 7

Test Mode	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
TM1(5M)	M	20 °C	VL	24	0.009467	---	±2.5	Pass
			VN	18	0.007101	---	±2.5	Pass
			VH	9	0.00355	---	±2.5	Pass
TM1(10M)	M	20 °C	VL	-19	-0.0075	---	±2.5	Pass
			VN	-22	-0.00868	---	±2.5	Pass
			VH	-6	-0.00237	---	±2.5	Pass
TM1(15M)	M	20 °C	VL	23	0.009073	---	±2.5	Pass
			VN	14	0.005523	---	±2.5	Pass
			VH	16	0.006312	---	±2.5	Pass
TM1(20M)	M	20 °C	VL	-21	-0.00828	---	±2.5	Pass
			VN	26	0.010256	---	±2.5	Pass
			VH	12	0.004734	---	±2.5	Pass

Table 4 Measurement Results (LTE 16QAM) BAND 7

Test Mode	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
TM1(5M)	M	20 °C	VL	18	0.007101	---	±2.5	Pass
			VN	12	0.004734	---	±2.5	Pass
			VH	3	0.001183	---	±2.5	Pass
TM1(10M)	M	20 °C	VL	-25	-0.00986	---	±2.5	Pass
			VN	-28	-0.01105	---	±2.5	Pass
			VH	-12	-0.00473	---	±2.5	Pass
TM1(15M)	M	20 °C	VL	17	0.006706	---	±2.5	Pass
			VN	8	0.003156	---	±2.5	Pass
			VH	10	0.003945	---	±2.5	Pass
TM1(20M)	M	20 °C	VL	-27	-0.01065	---	±2.5	Pass
			VN	20	0.00789	---	±2.5	Pass
			VH	6	0.002367	---	±2.5	Pass

-----END-----



Appendix H

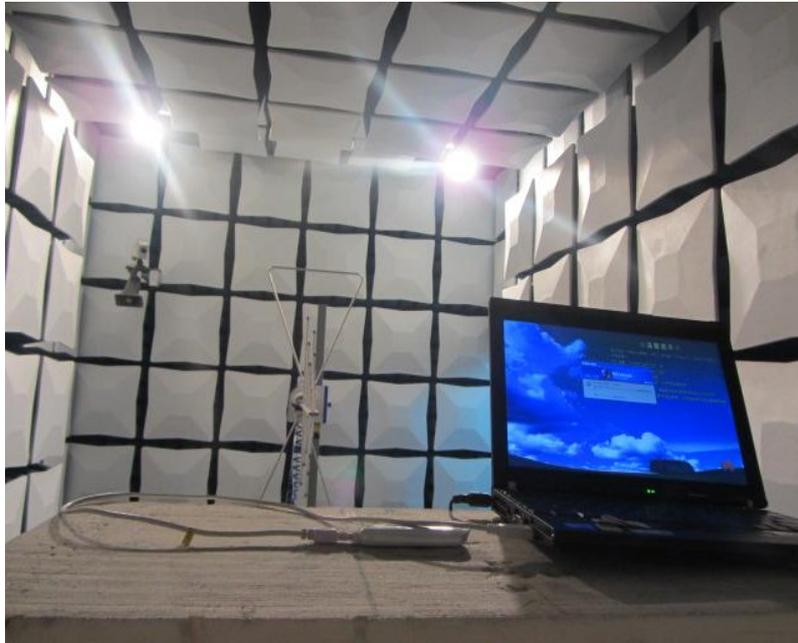
Photos of Radiated Spurious Emissions



Photos of Test Setup



1 Radiated Spurious Emissions



Radiated Spurious Emission (below 3GHz)





Radiated Spurious Emission (3GHz to18GHz)



Radiated Spurious Emission (18GHz to26.5GHz)

The END