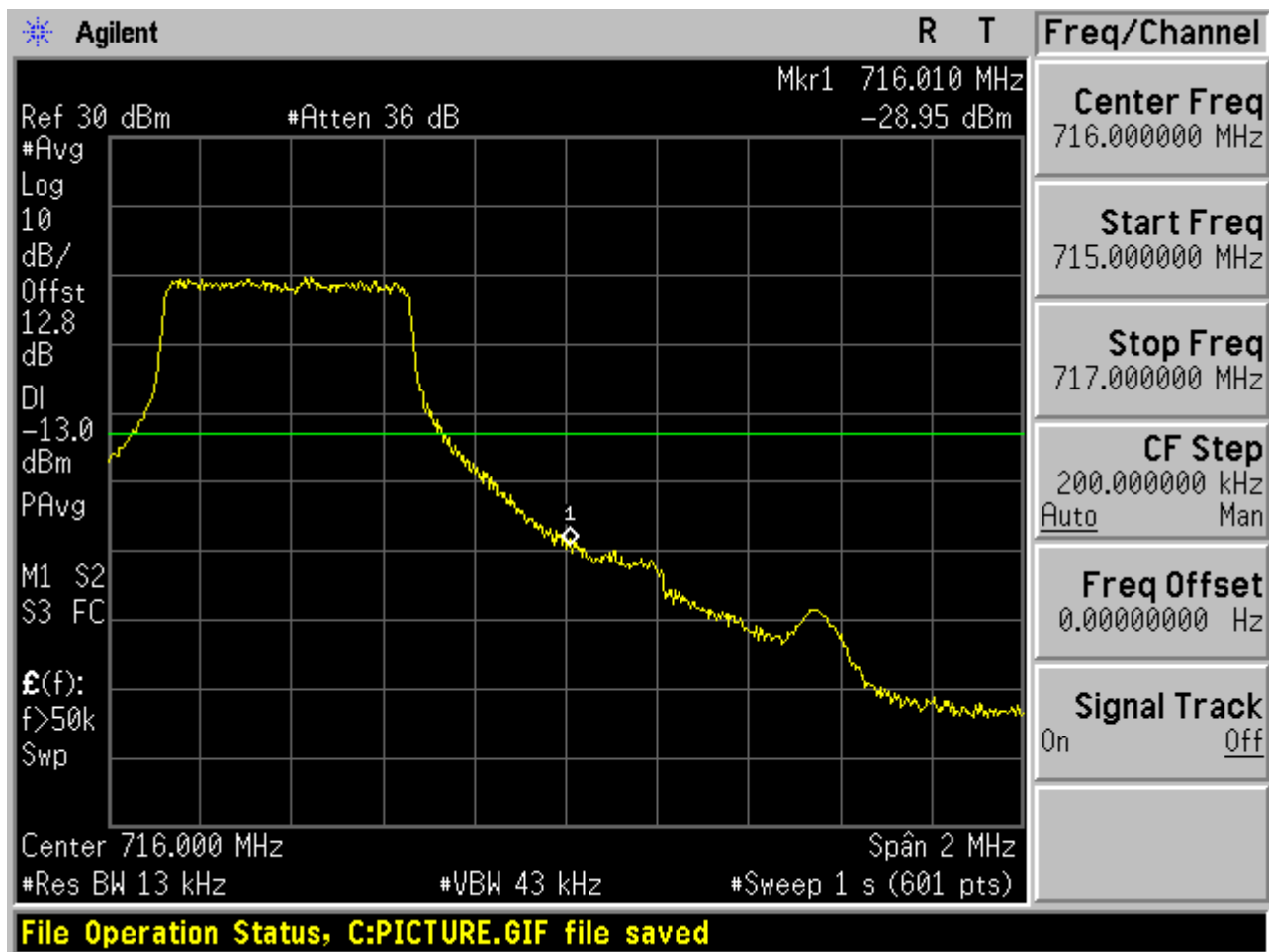


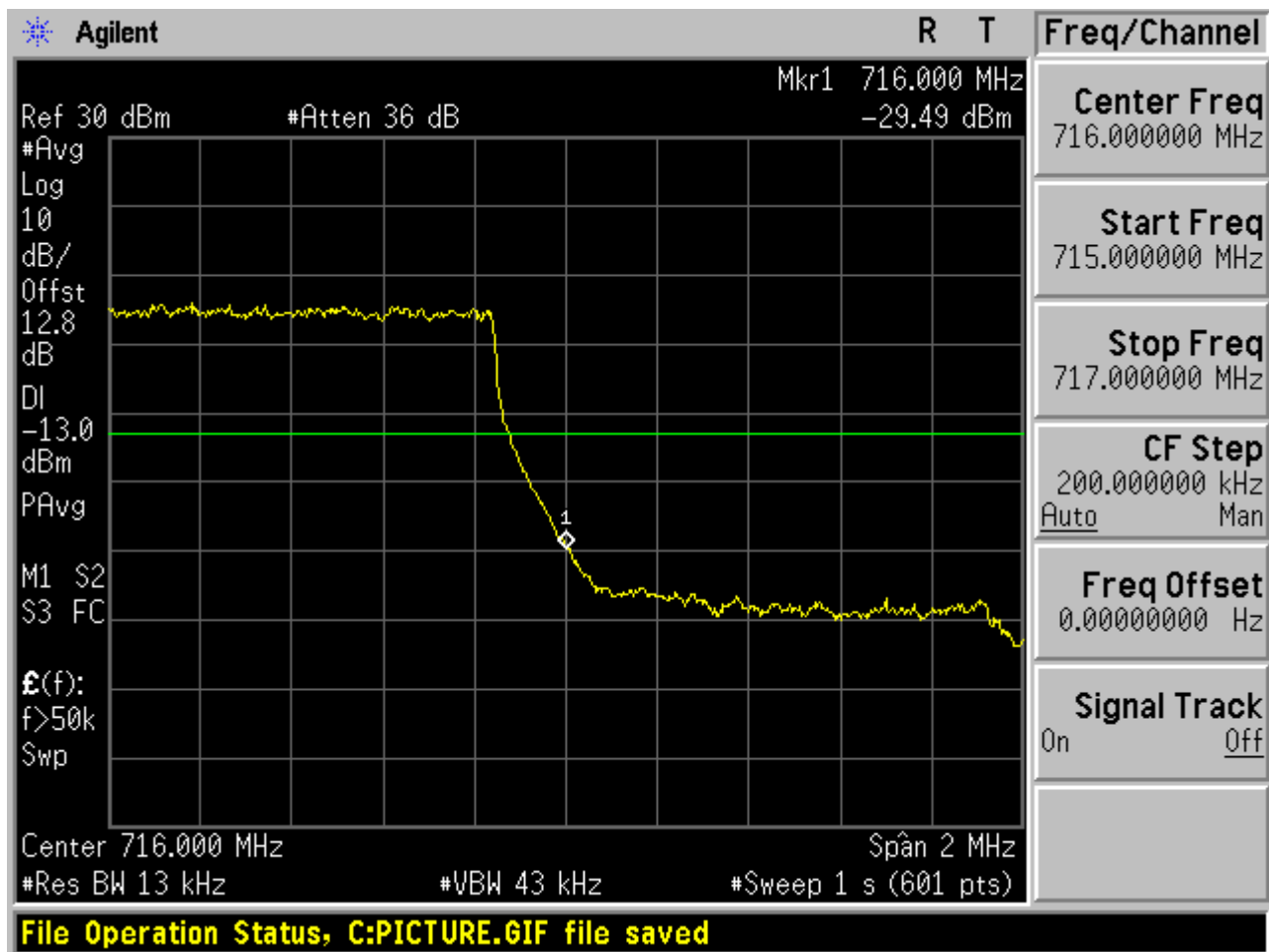


1.1.1.2.3 QPSK/non-1RB #mid/2





1.1.1.2.4 QPSK/full RBs

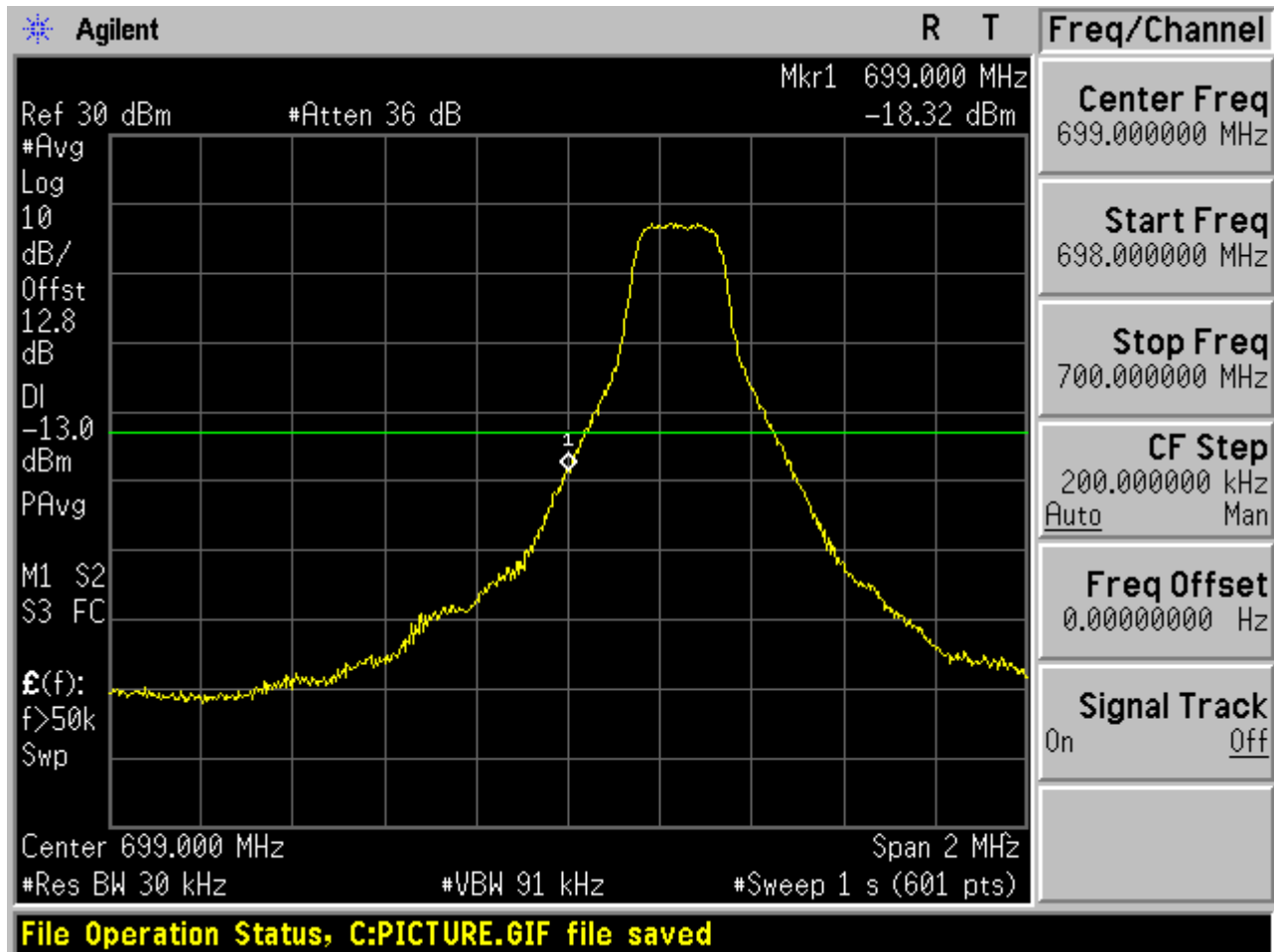




1.1.2 Channel Bandwidth = 3 MHz

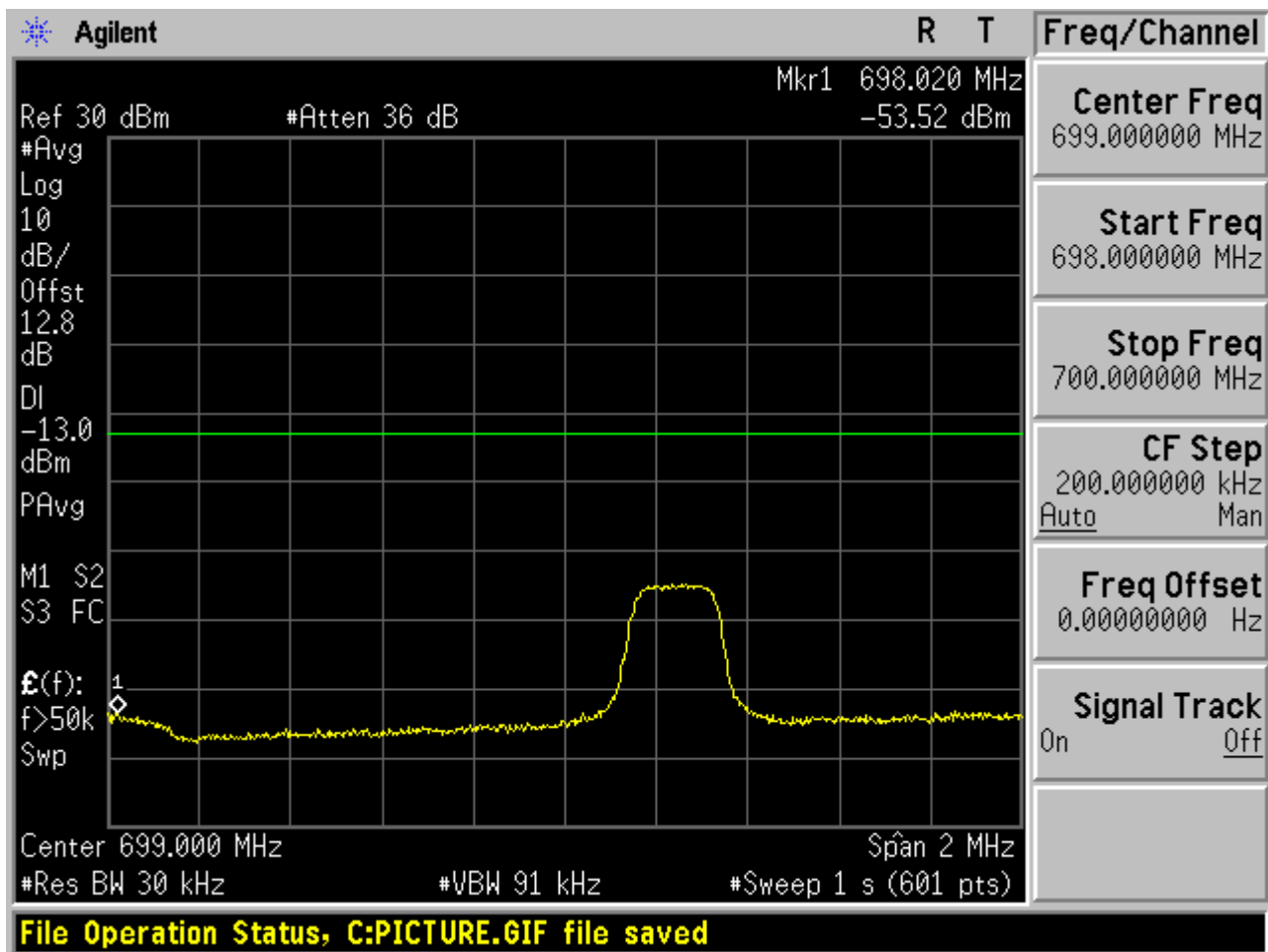
1.1.2.1 Channel = B

1.1.2.1.1 QPSK/1RB # 0



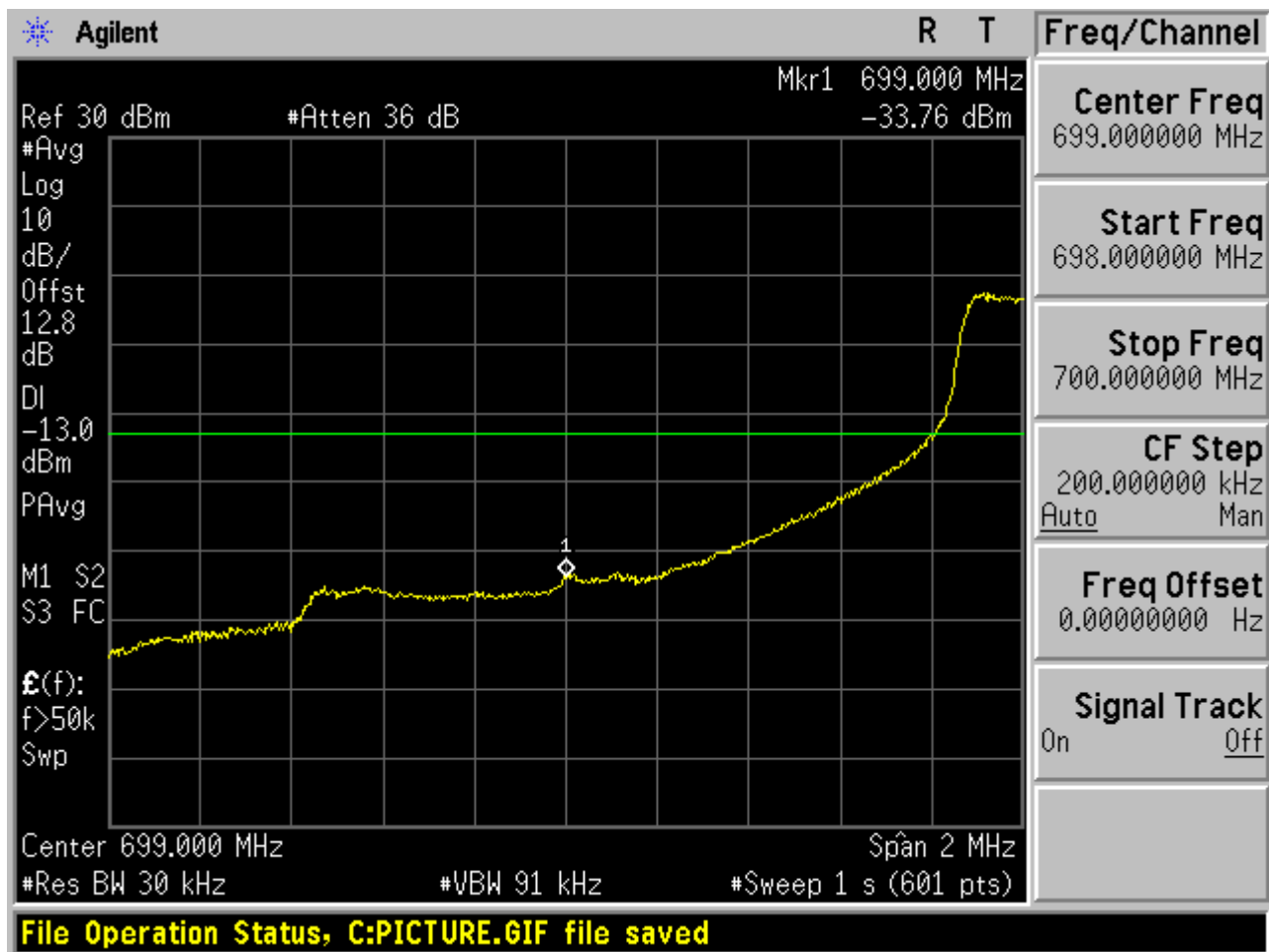


1.1.2.1.2 QPSK/1RB # max



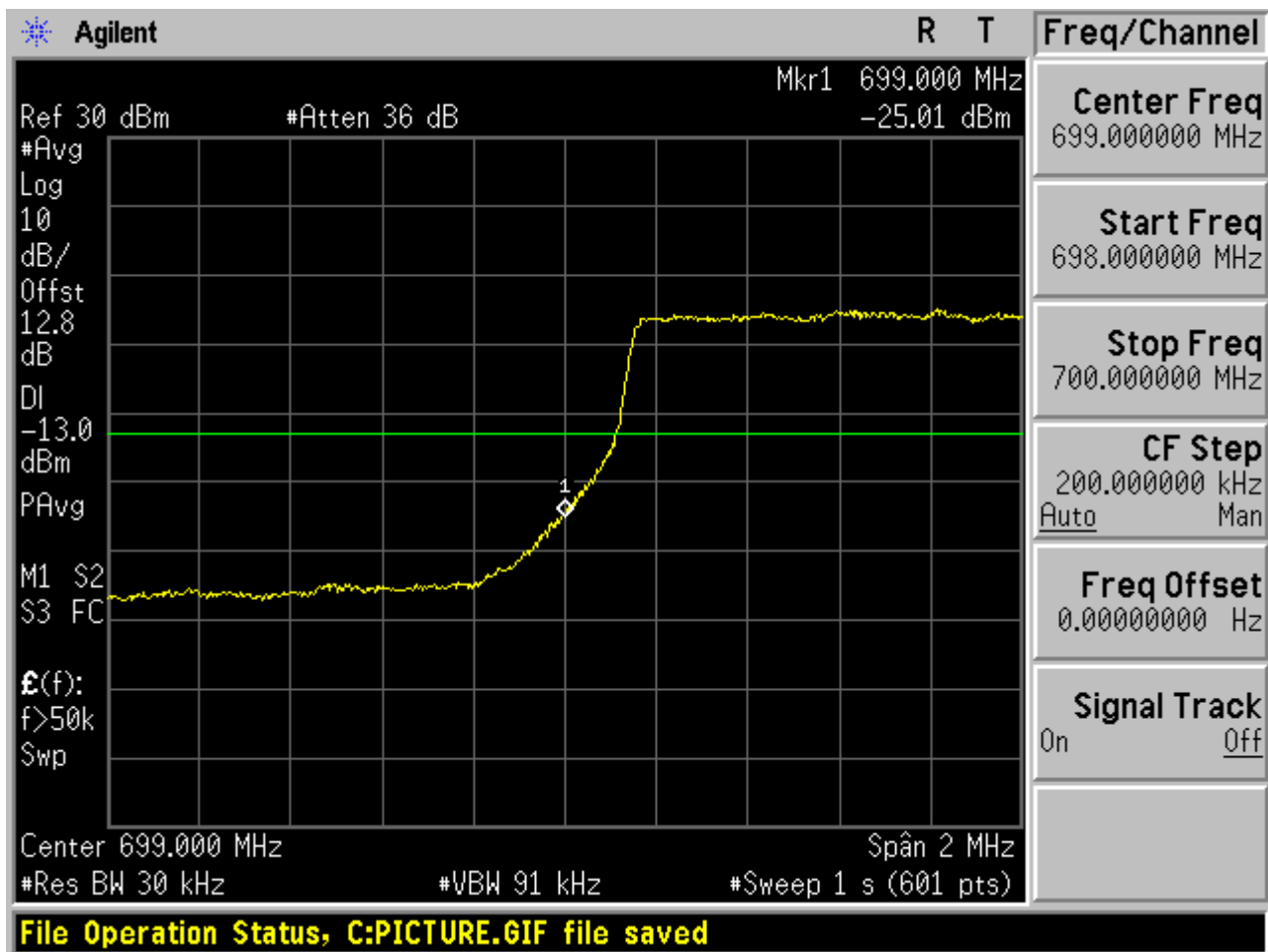


1.1.2.1.3 QPSK/non-1RB #mid/2





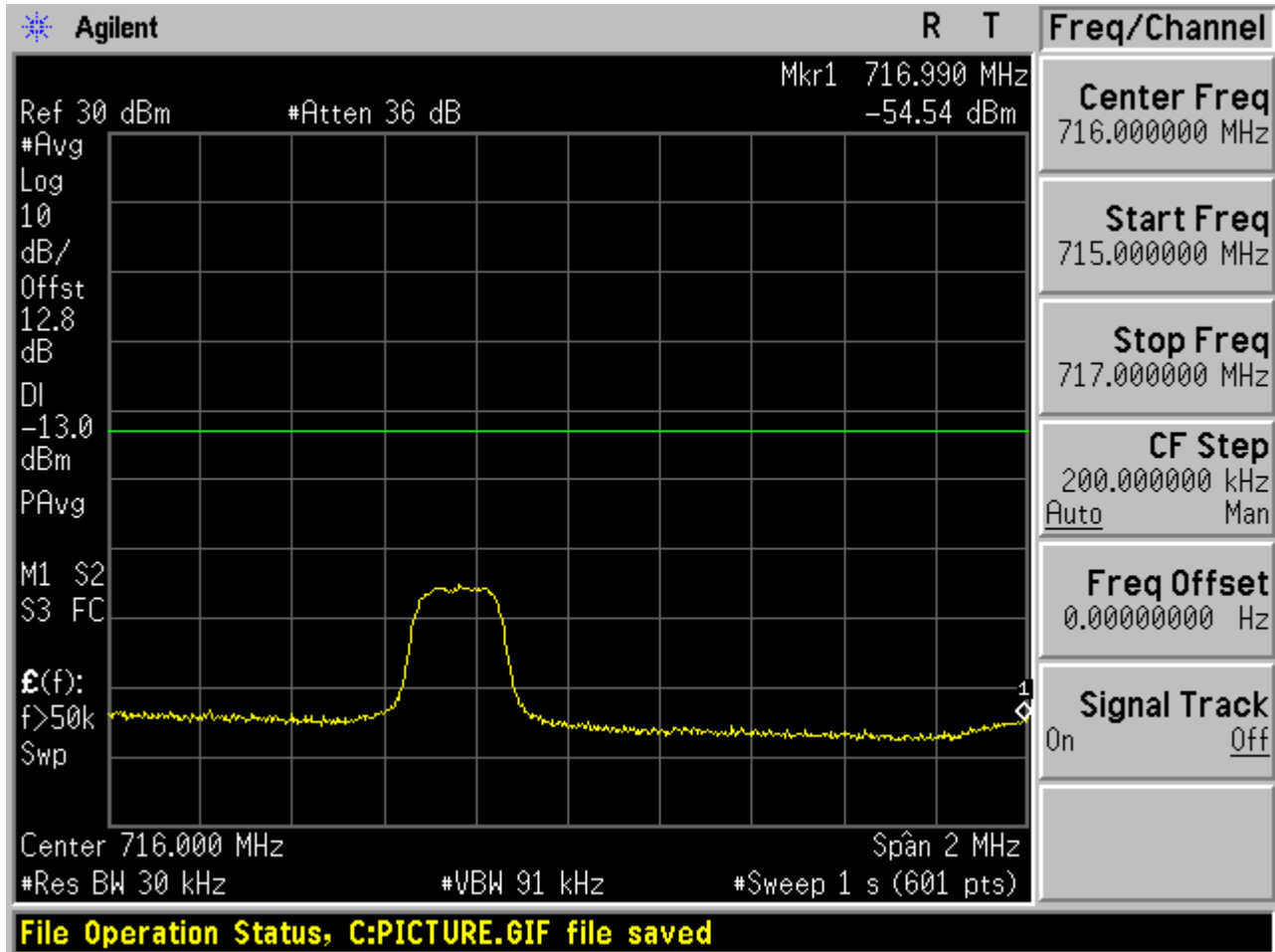
1.1.2.1.4 QPSK/full RBs





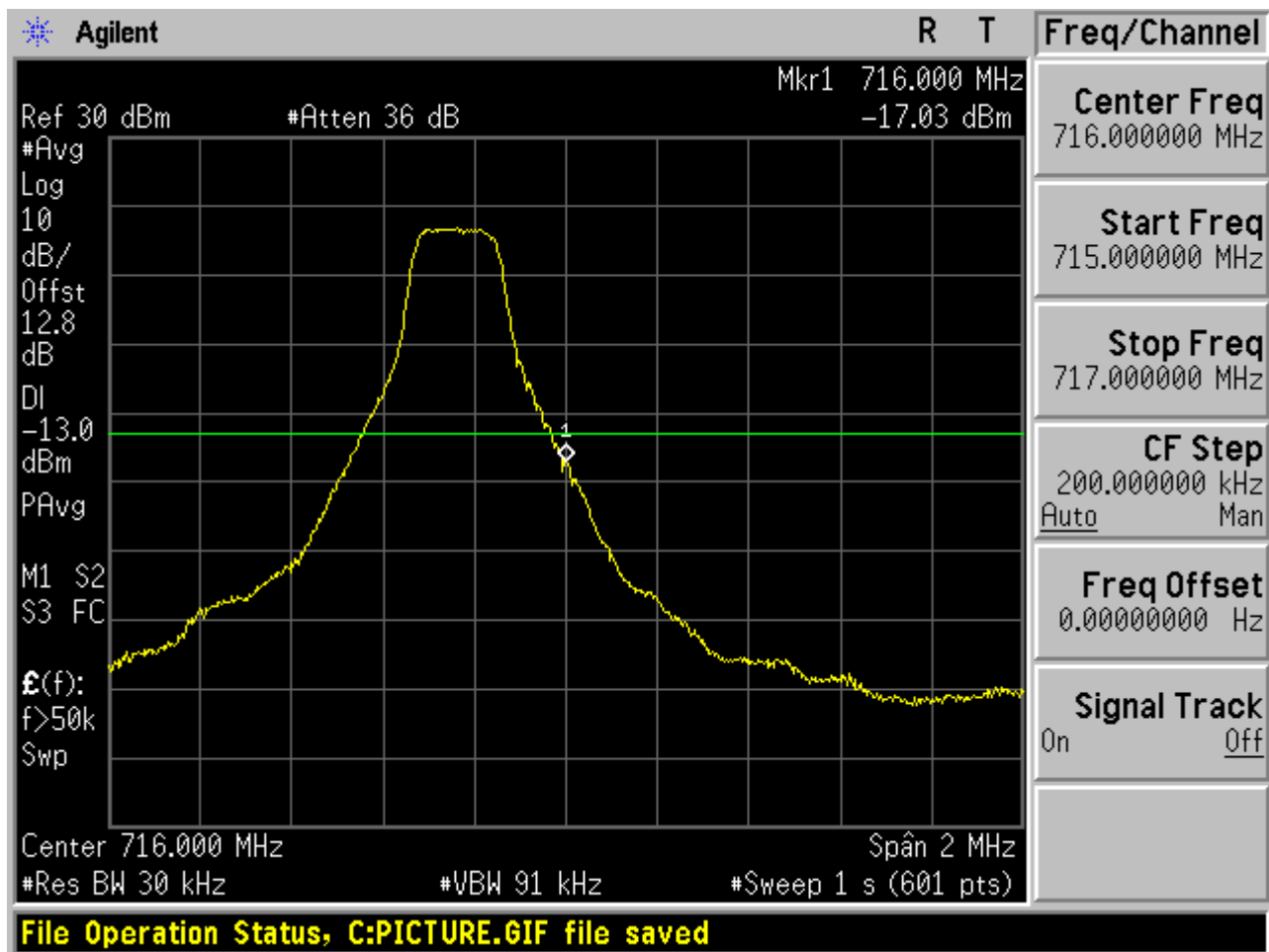
1.1.2.2 Channel = T

1.1.2.2.1 QPSK/1RB # 0



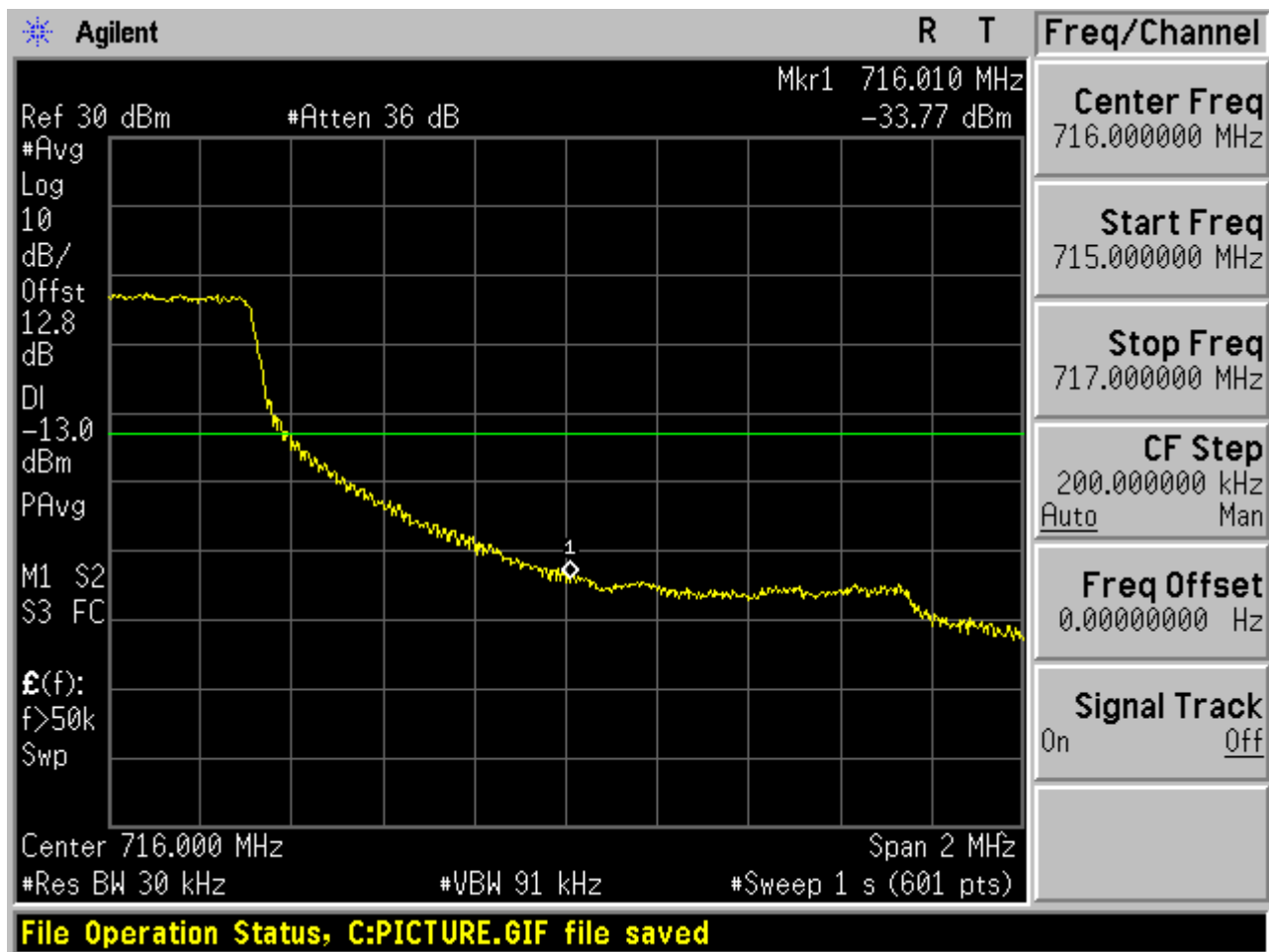


1.1.2.2.2 QPSK/1RB # max



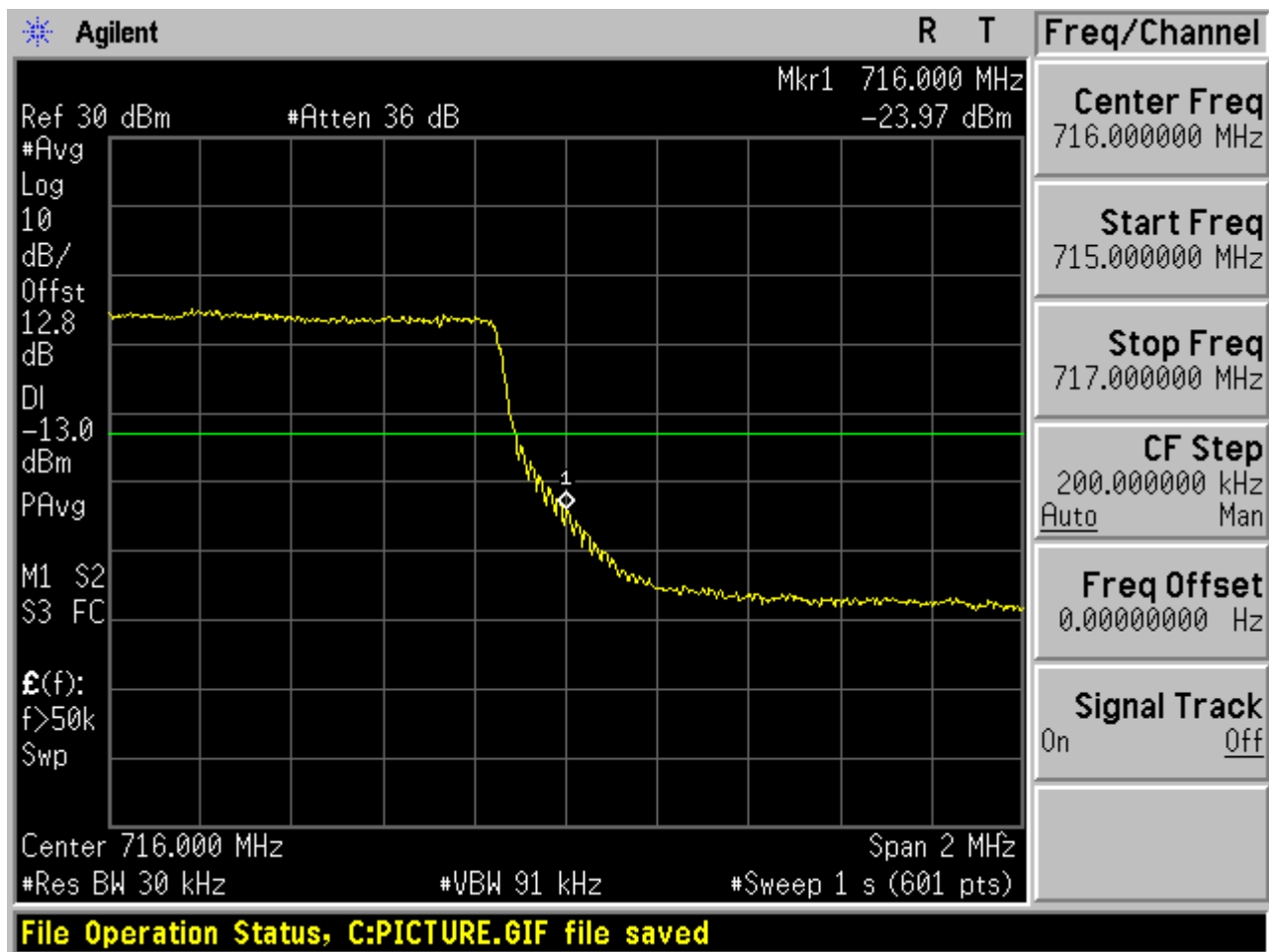


1.1.2.2.3 QPSK/non-1RB #mid/2





1.1.2.2.4 QPSK/full RBs

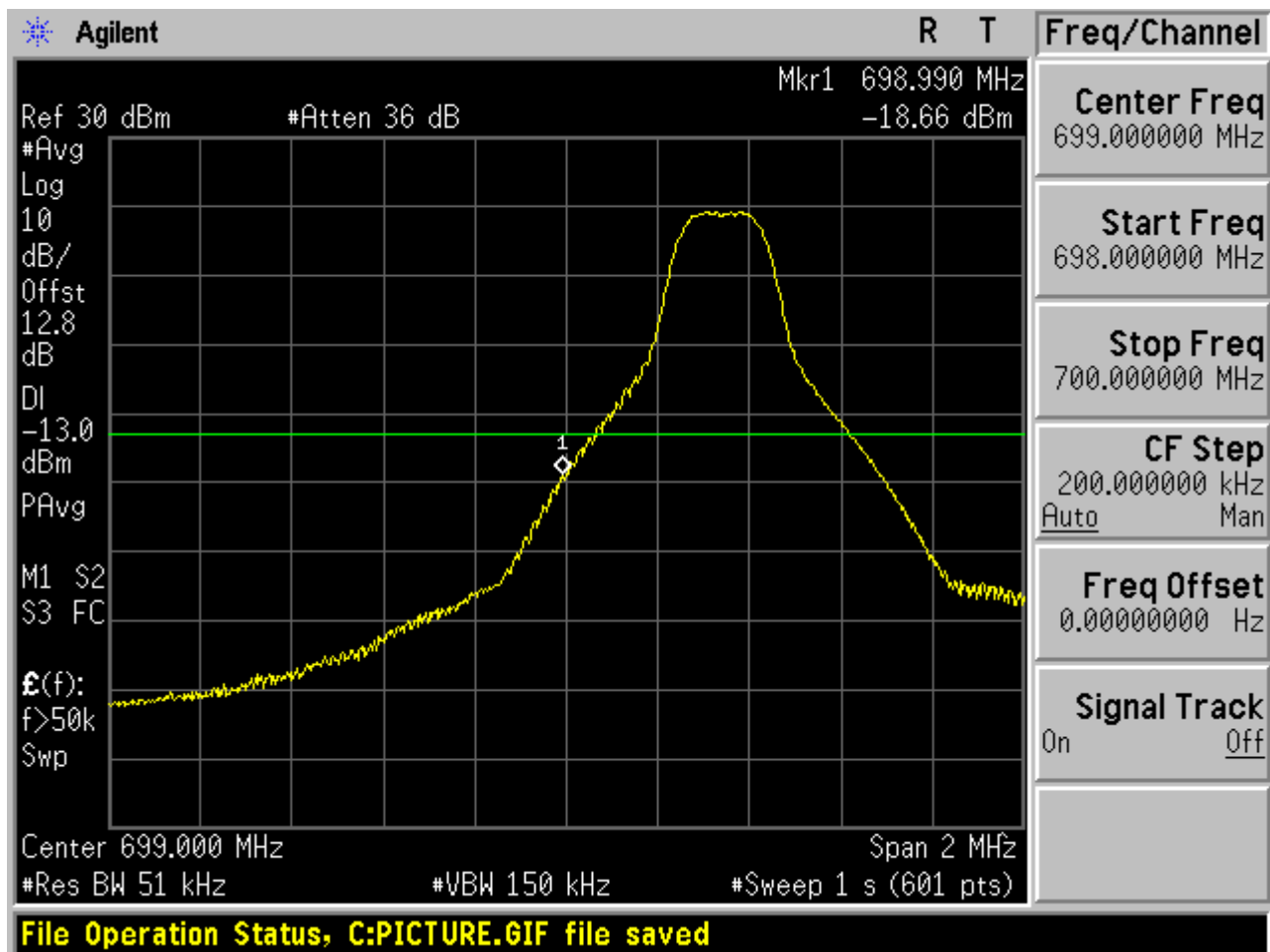




1.1.3 Channel Bandwidth = 5 MHz

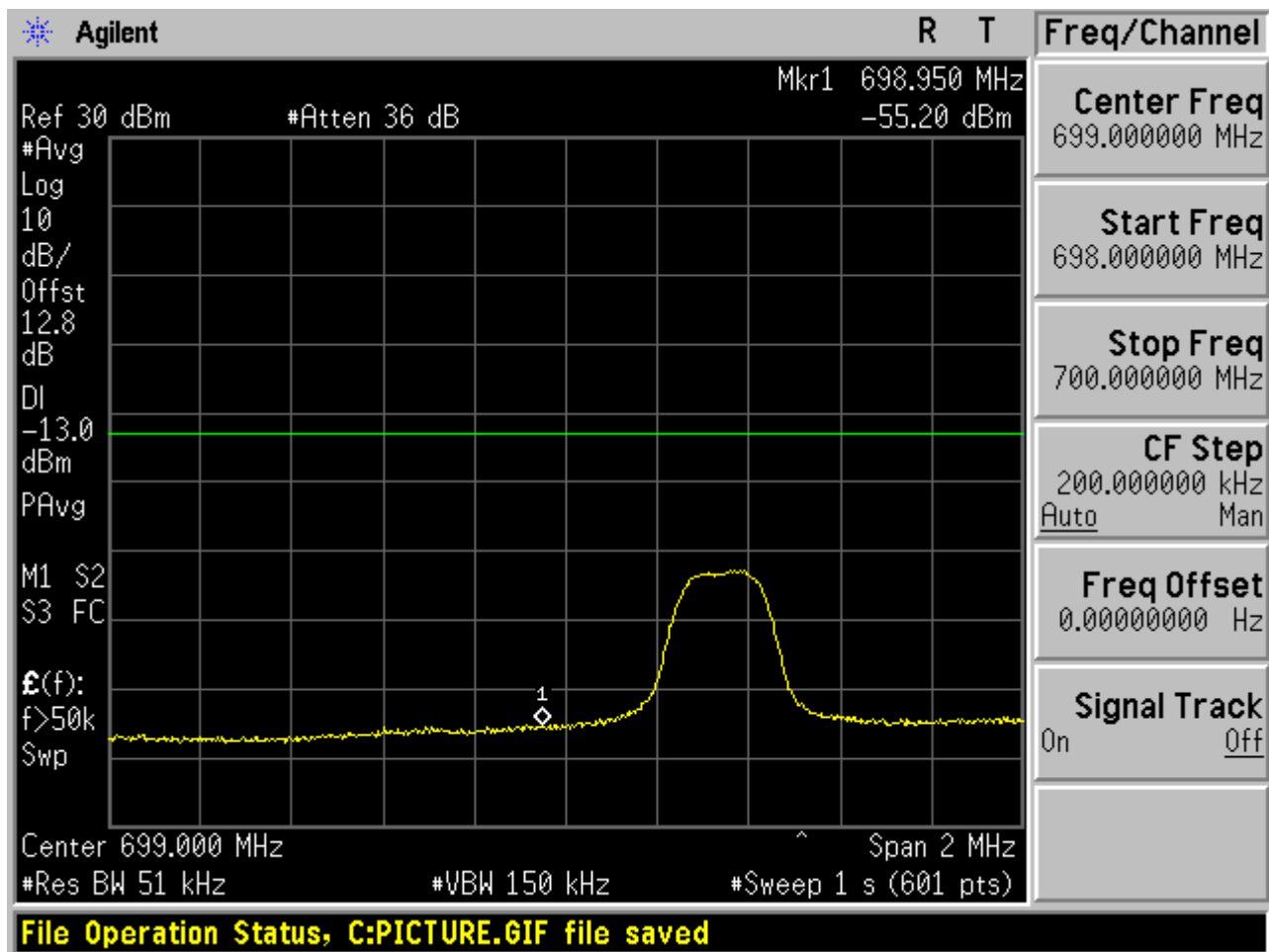
1.1.3.1 Channel = B

1.1.3.1.1 QPSK/1RB # 0



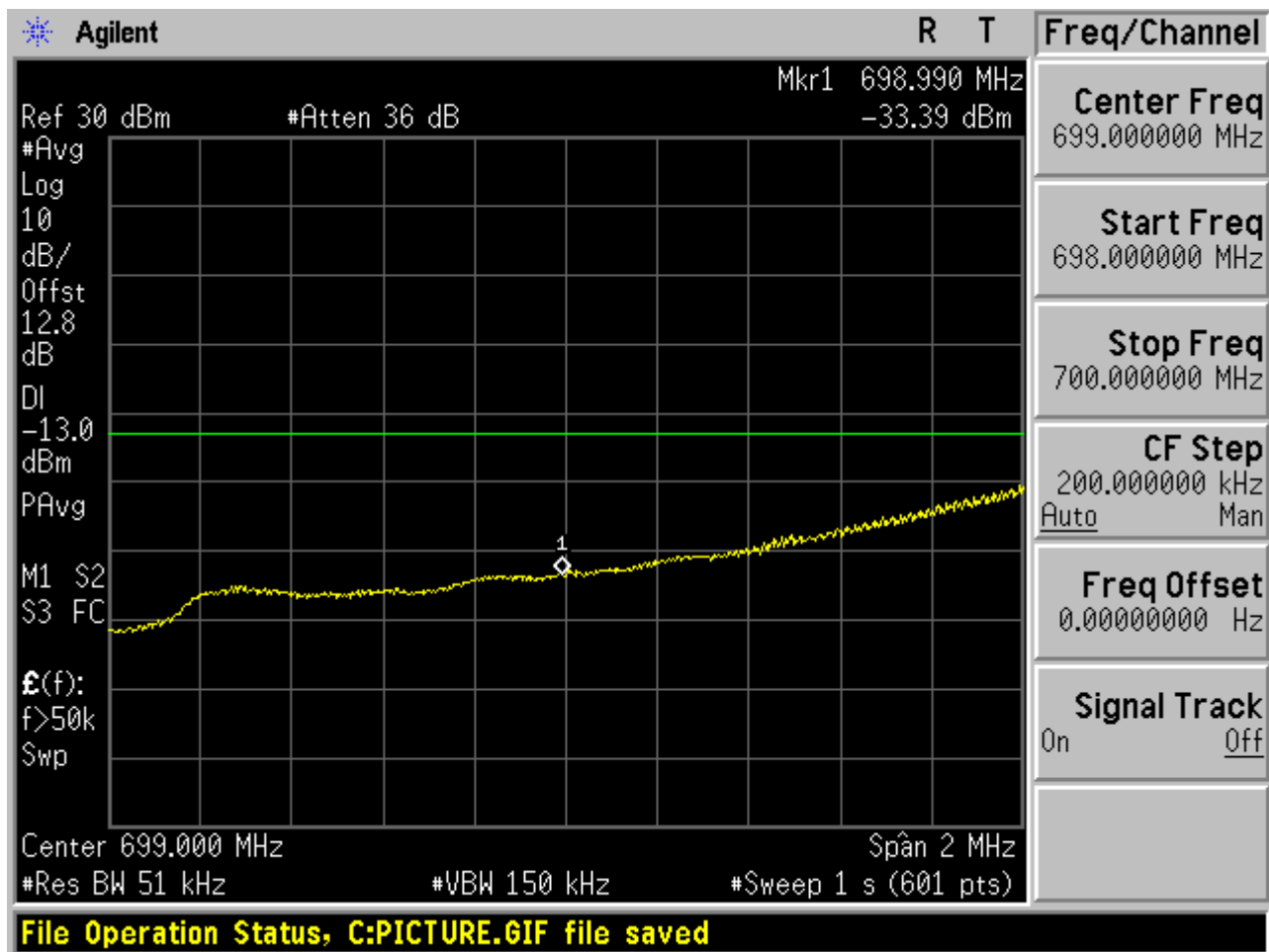


1.1.3.1.2 QPSK/1RB # max



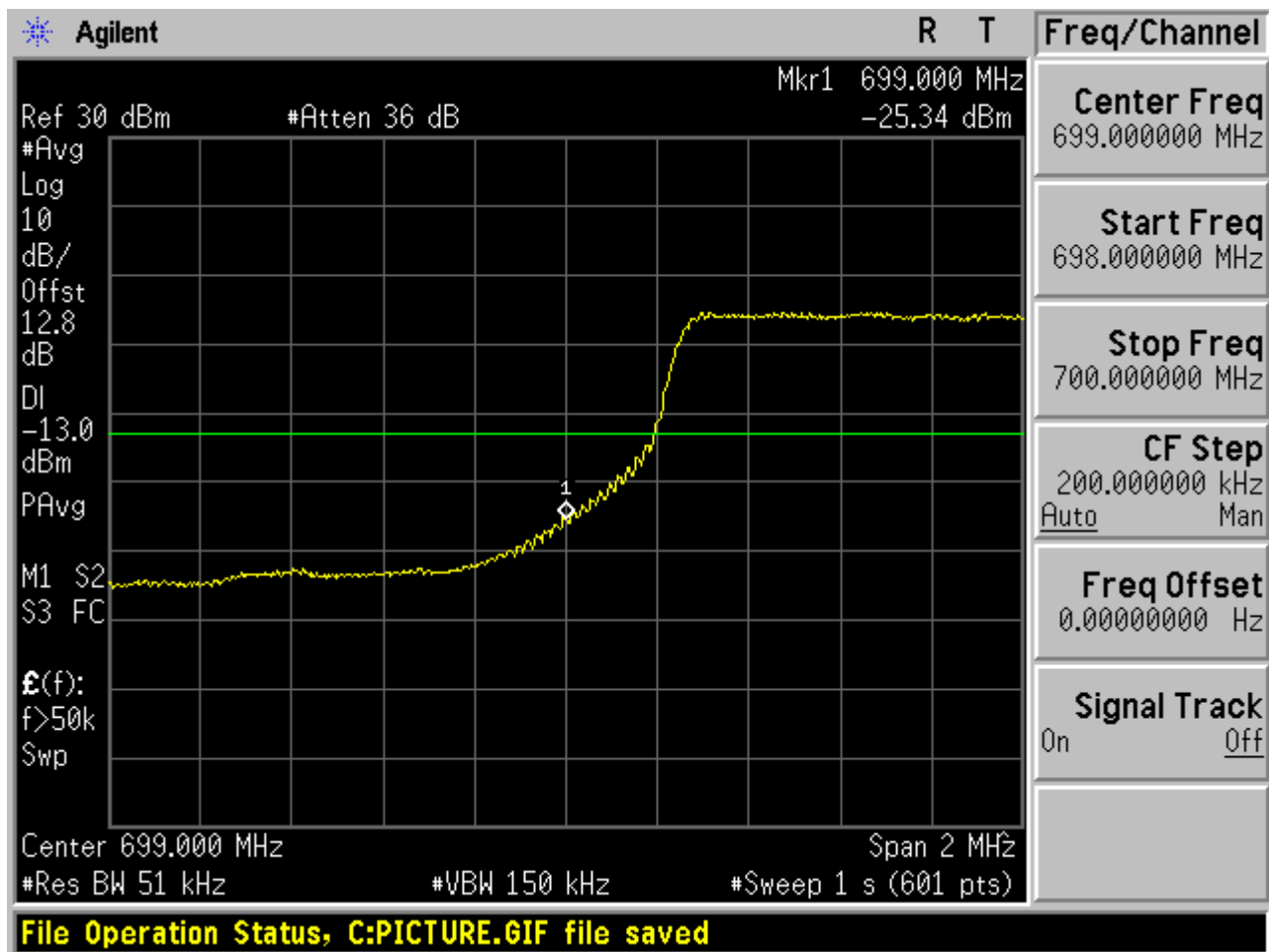


1.1.3.1.3 QPSK/non-1RB #mid/2





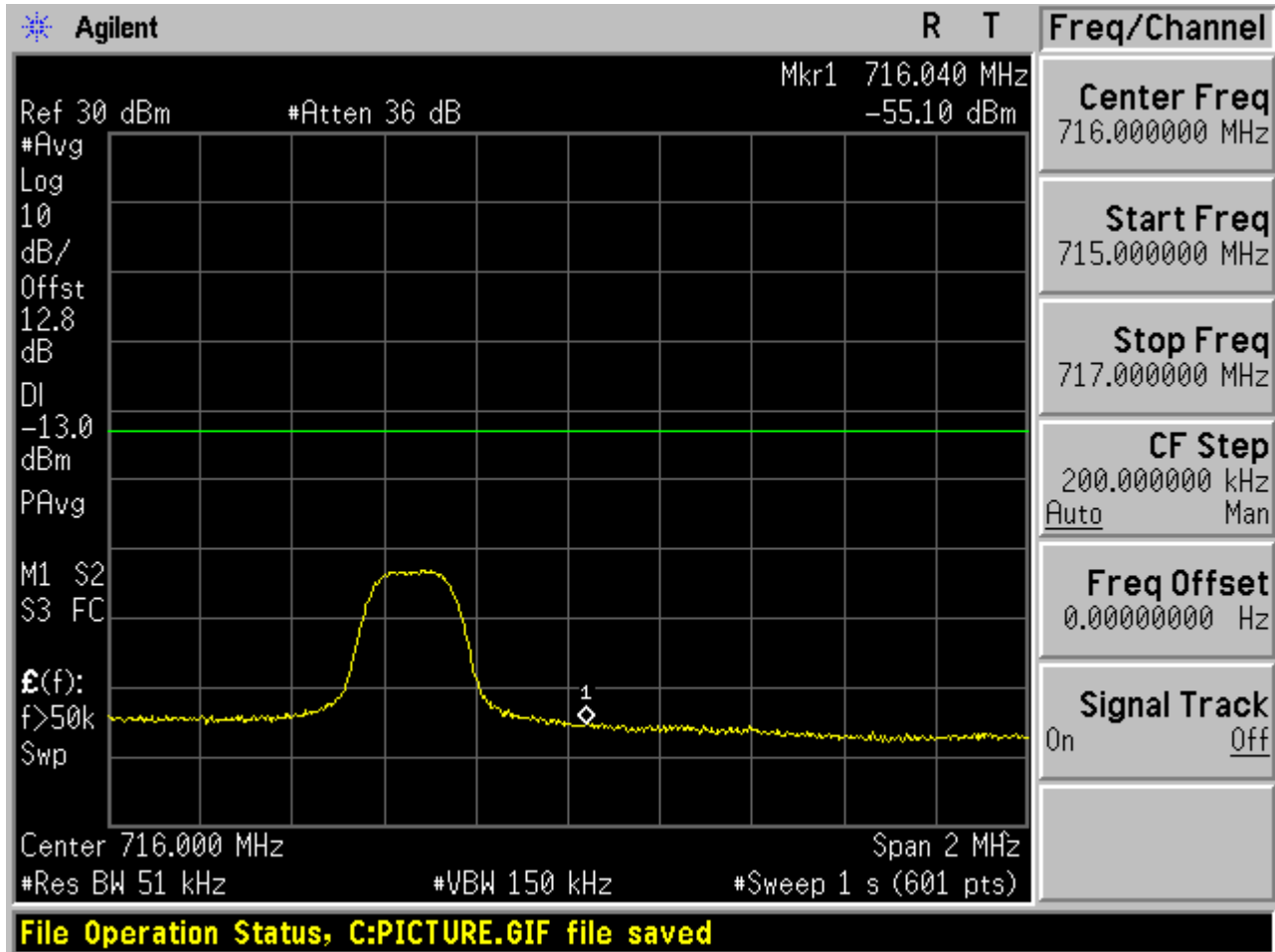
1.1.3.1.4 QPSK/full RBs





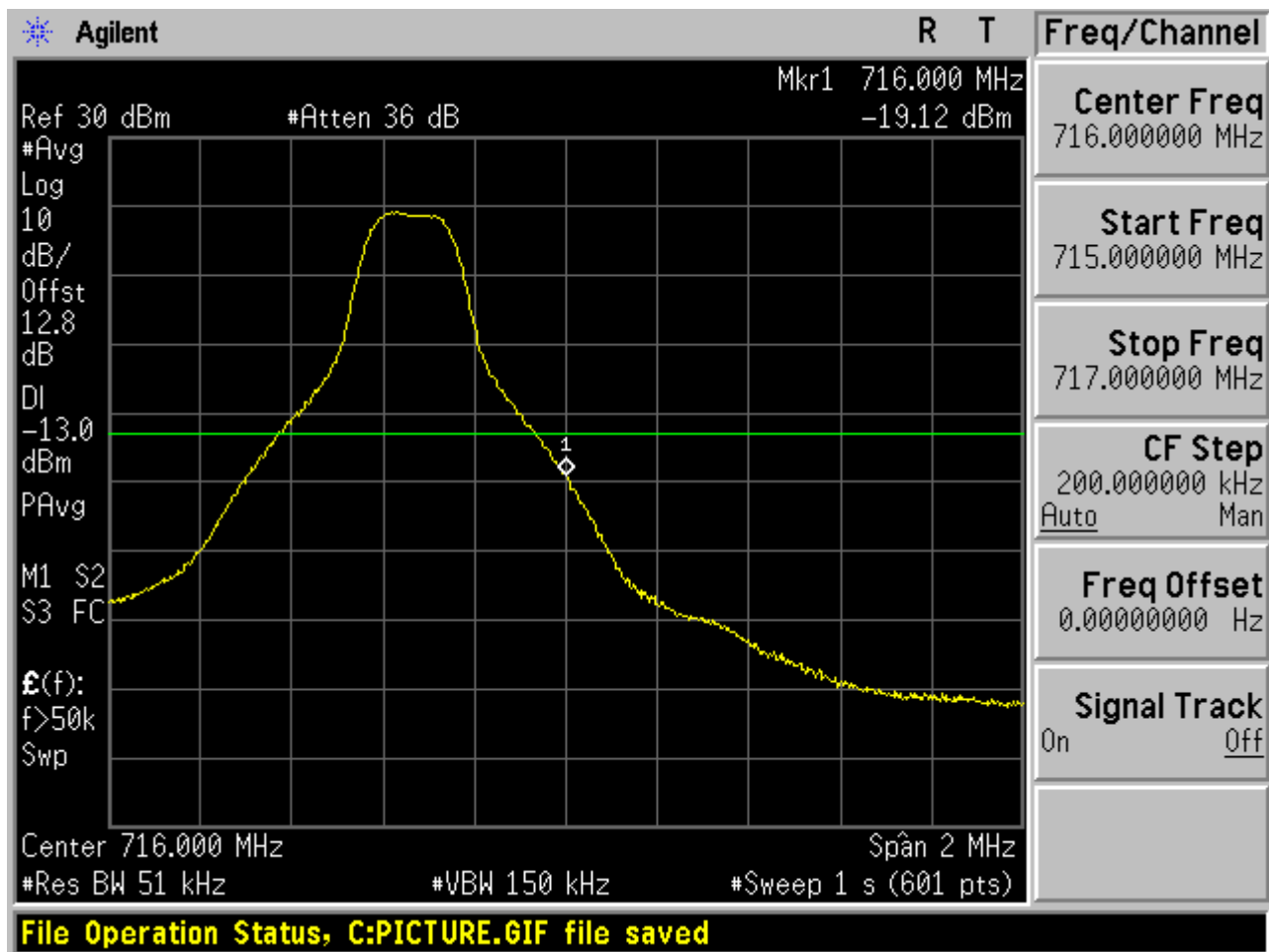
1.1.3.2 Channel = T

1.1.3.2.1 QPSK/1RB # 0



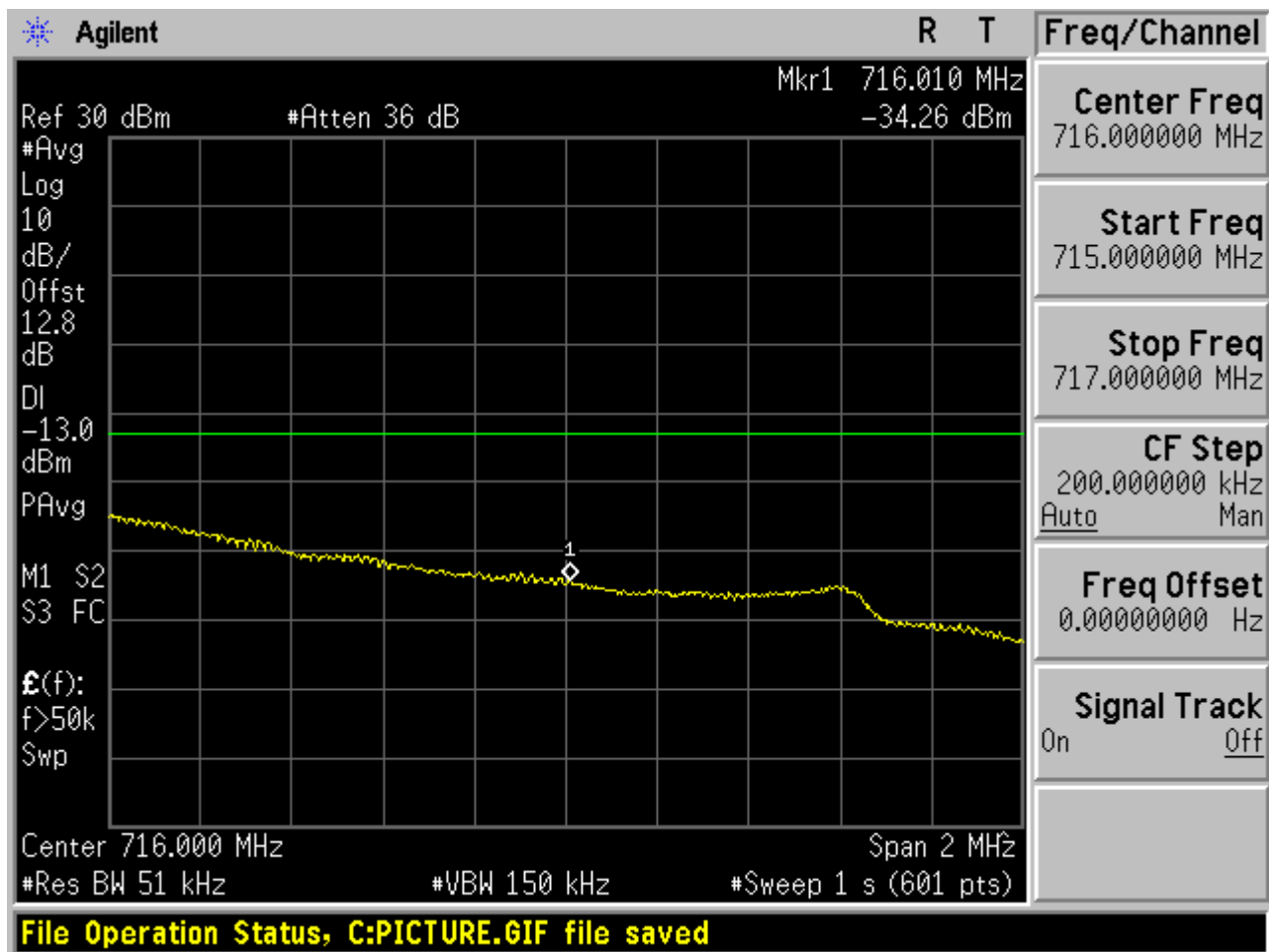


1.1.3.2.2 QPSK/1RB # max



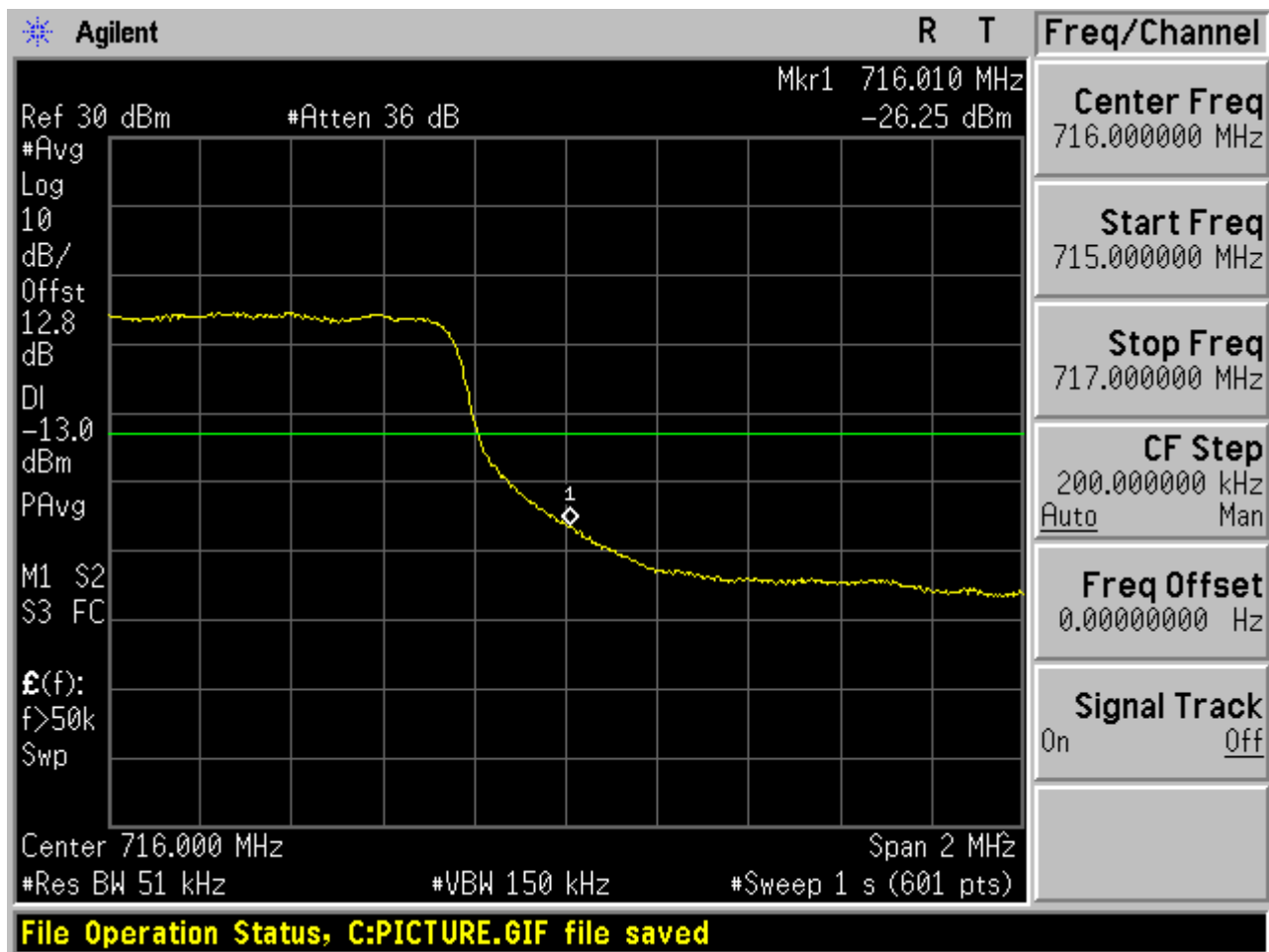


1.1.3.2.3 QPSK/non-1RB #mid/2





1.1.3.2.4 QPSK/full RBs

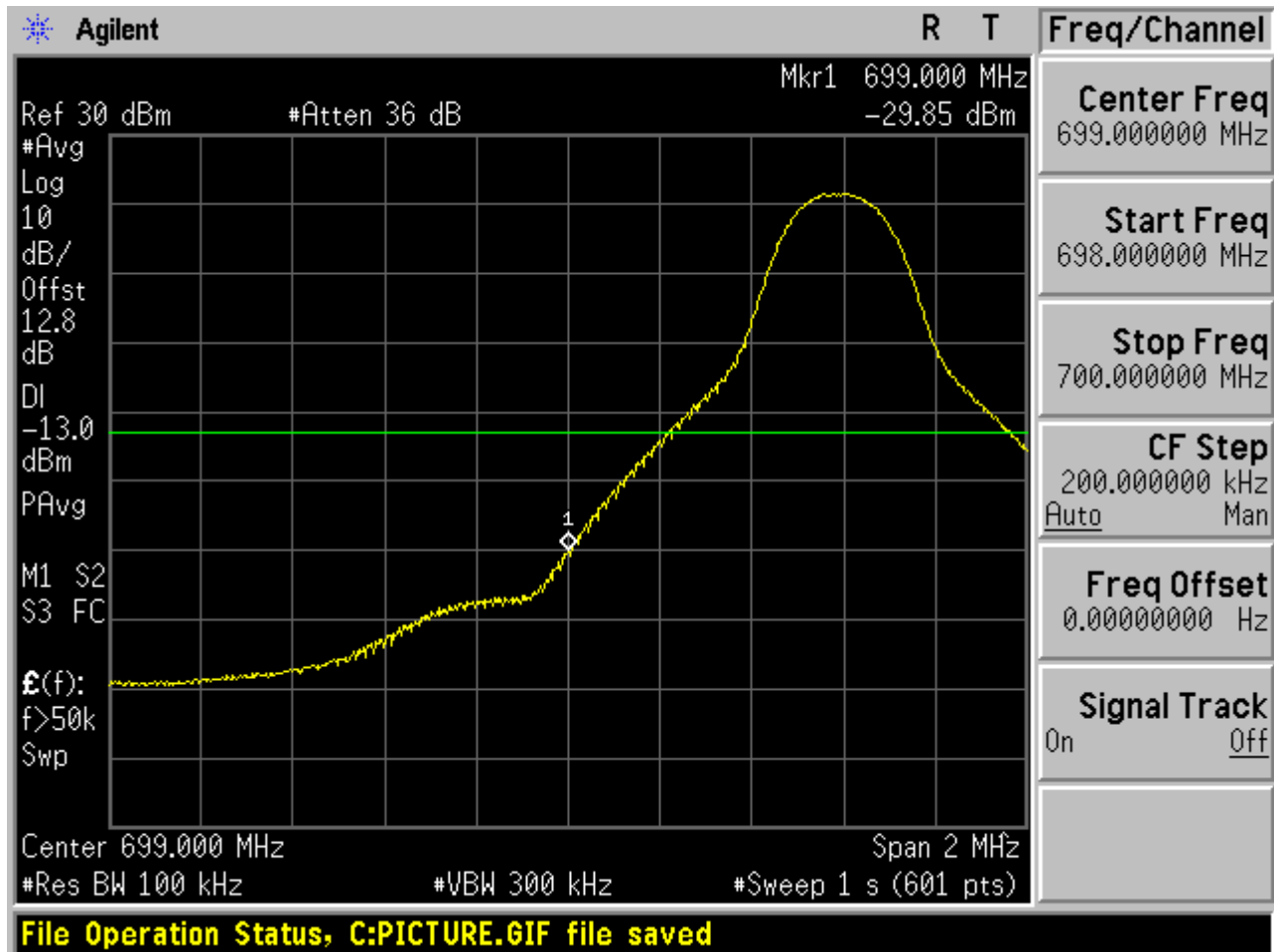




1.1.4 Channel Bandwidth = 10 MHz

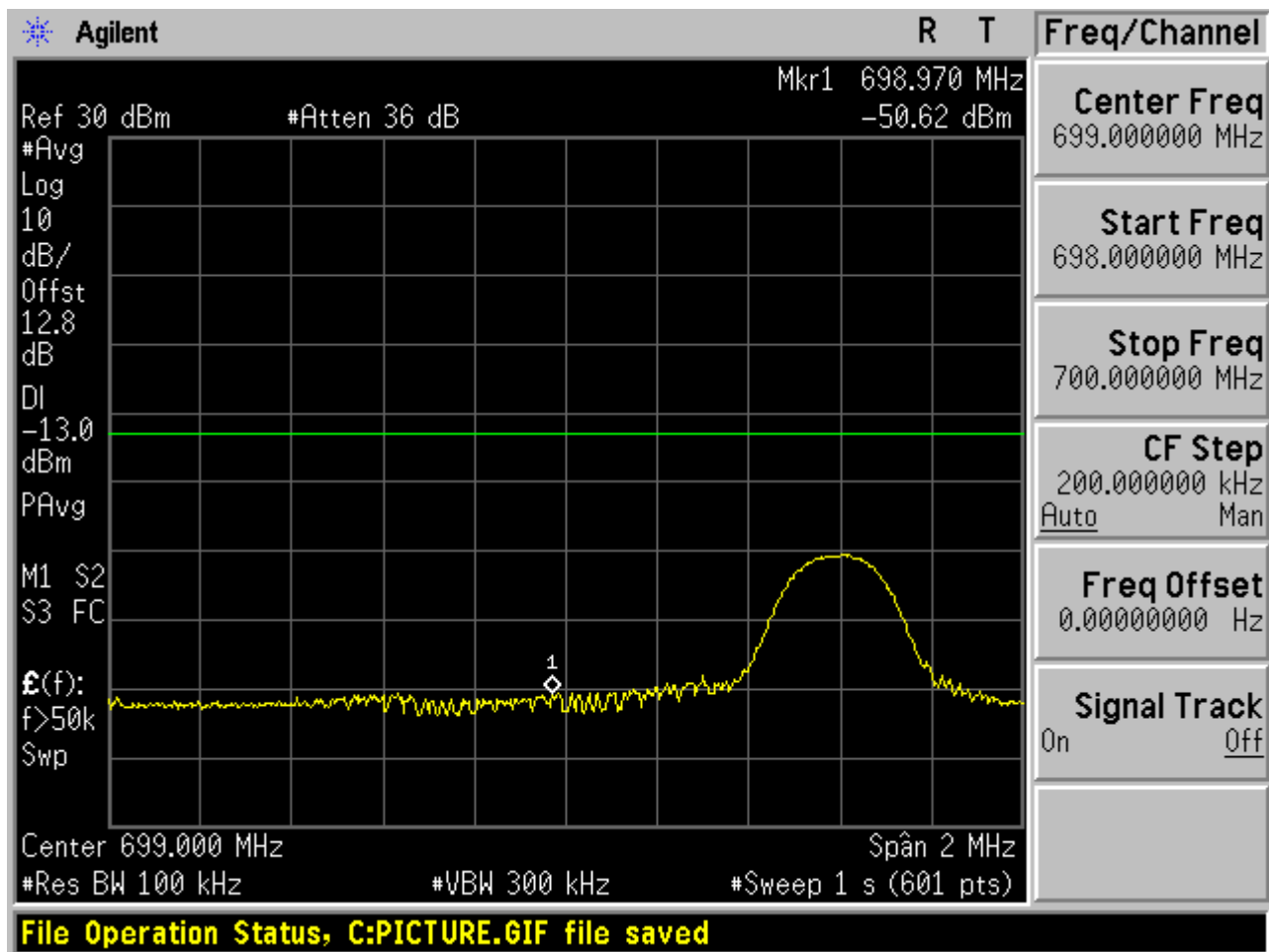
1.1.4.1 Channel = B

1.1.4.1.1 QPSK/1RB # 0



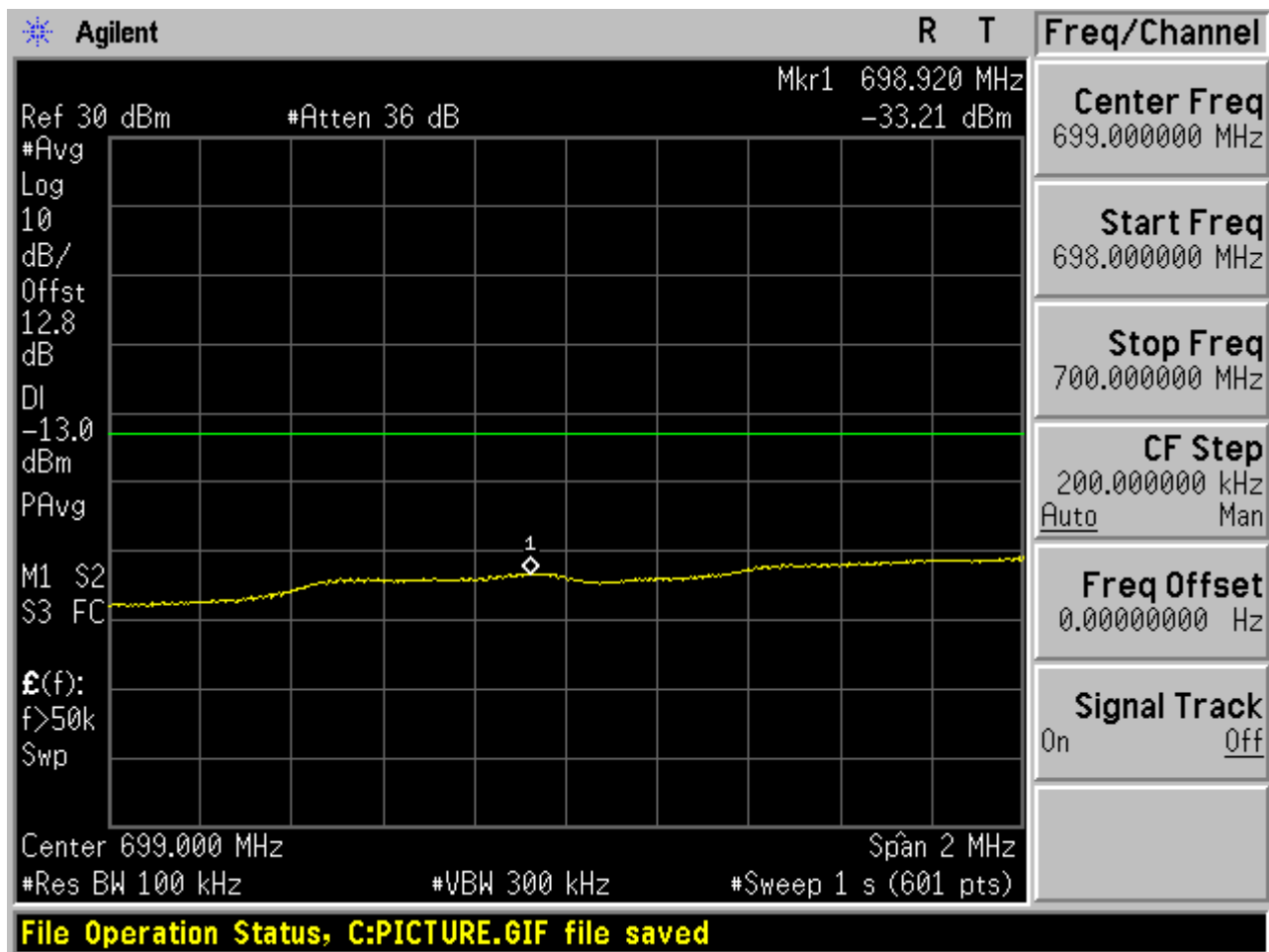


1.1.4.1.2 QPSK/1RB # max

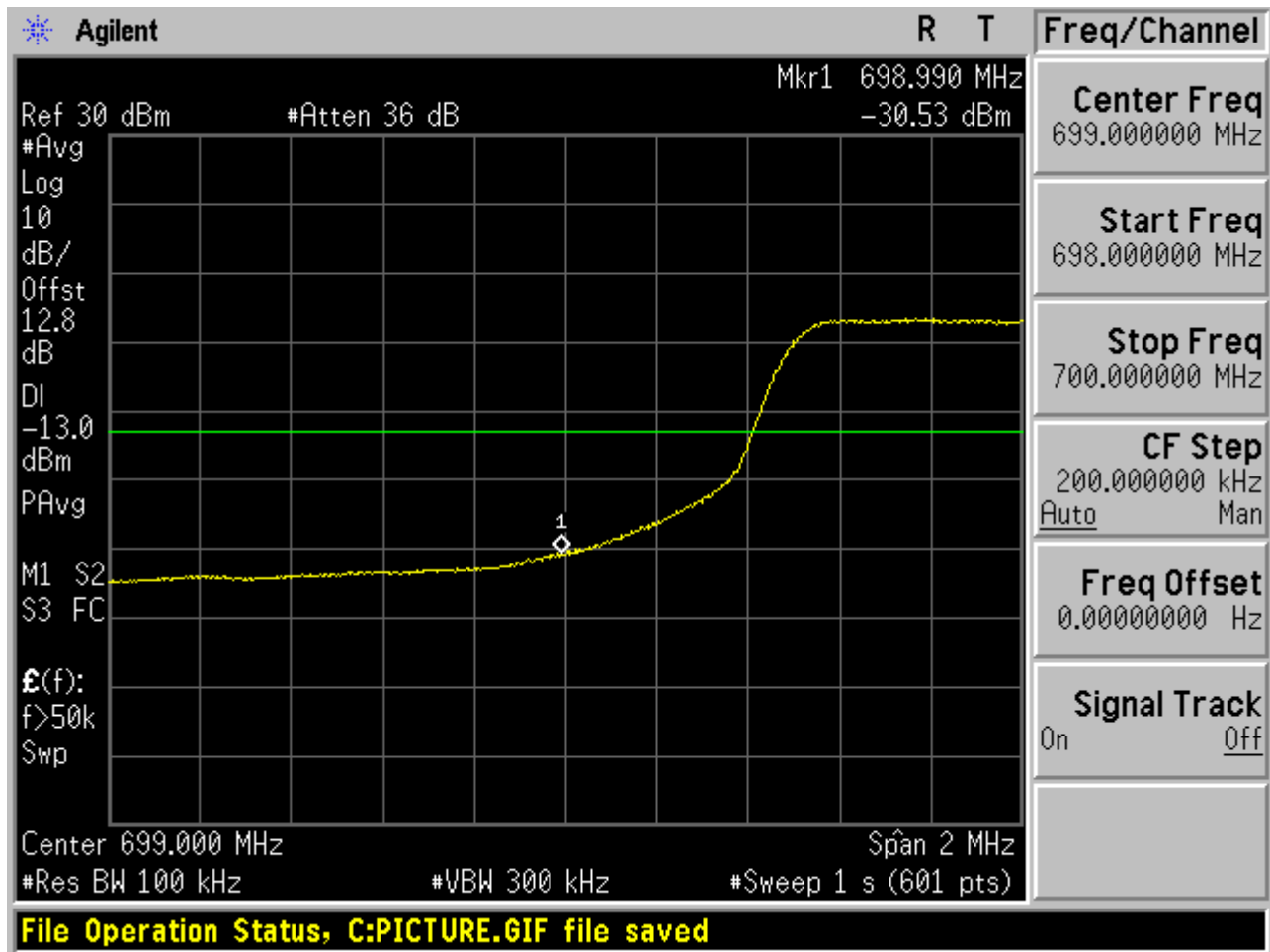




1.1.4.1.3 QPSK/non-1RB #mid/2



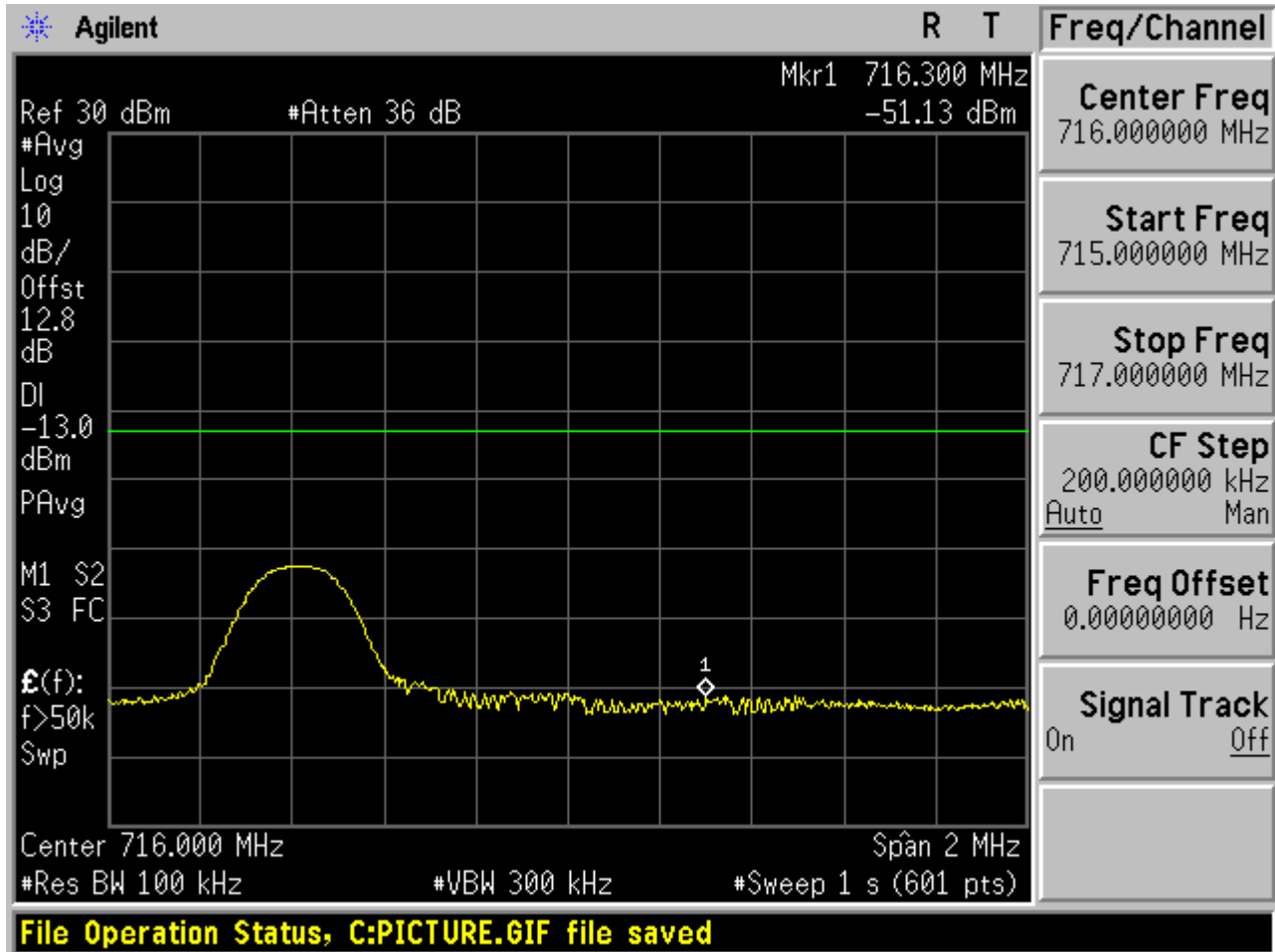
1.1.4.1.4 QPSK/full RBs





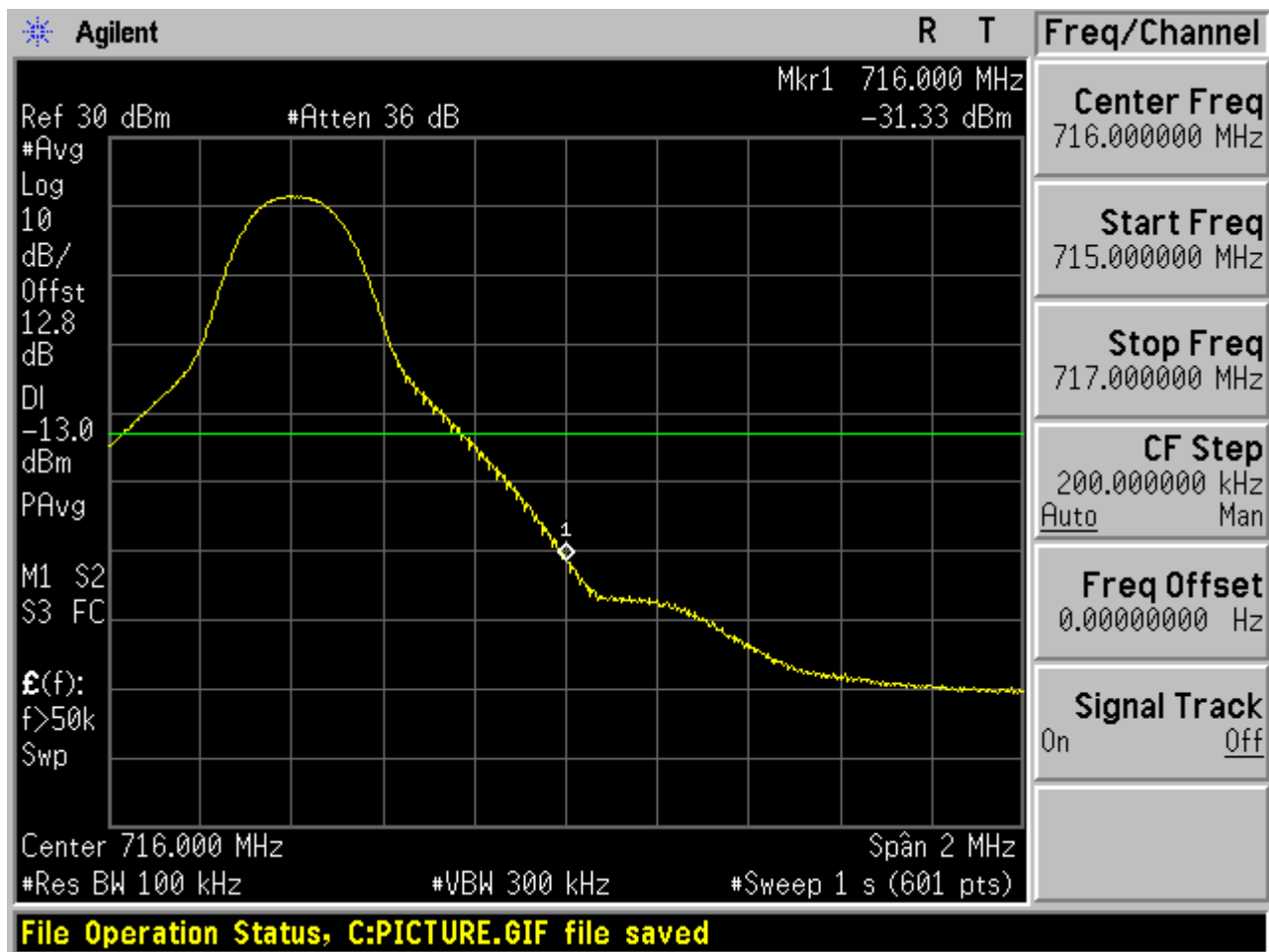
1.1.4.2 Channel = T

1.1.4.2.1 QPSK/1RB # 0



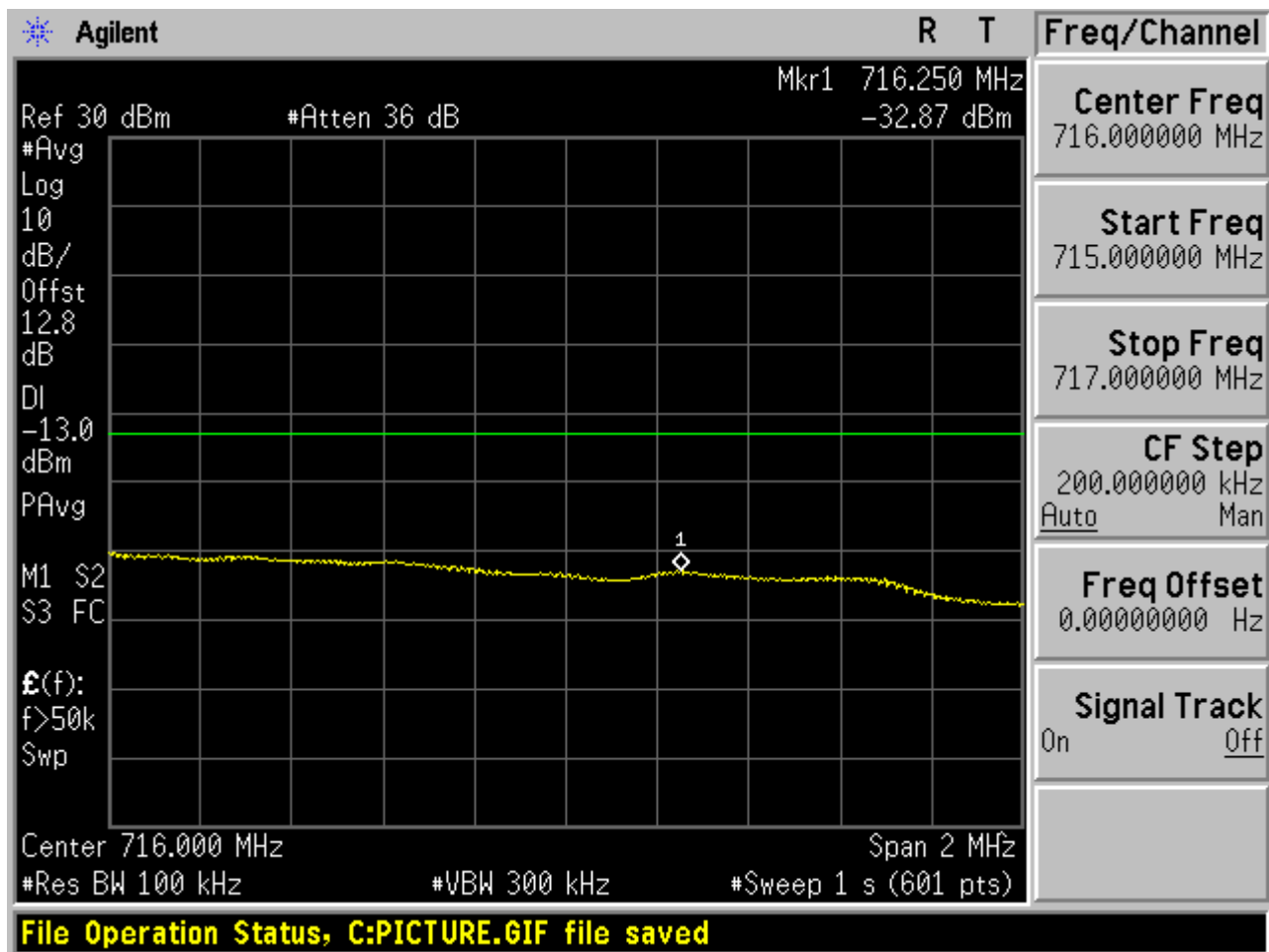


1.1.4.2.2 QPSK/1RB # max



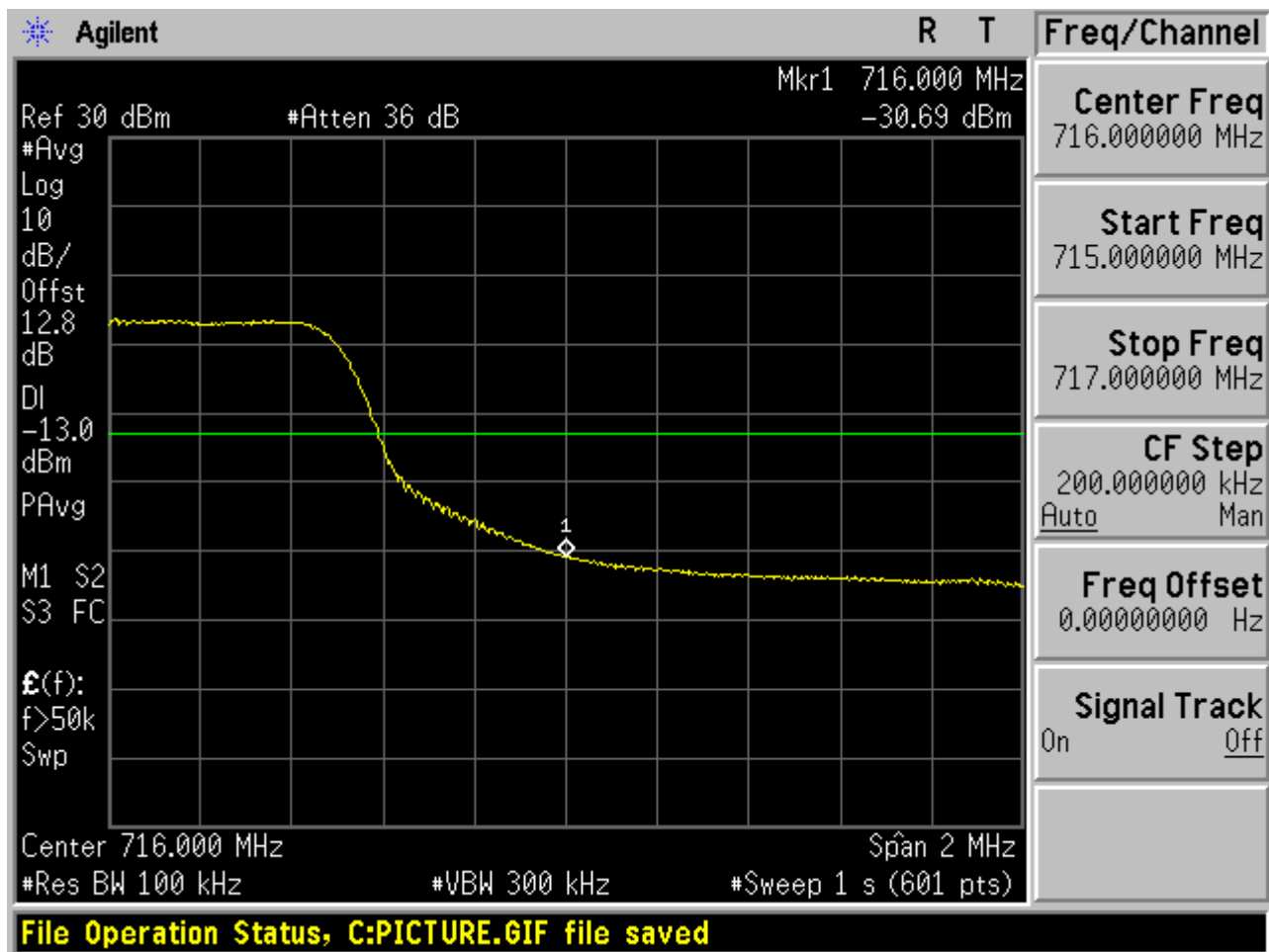


1.1.4.2.3 QPSK/non-1RB #mid/2





1.1.4.2.4 QPSK/full RBs



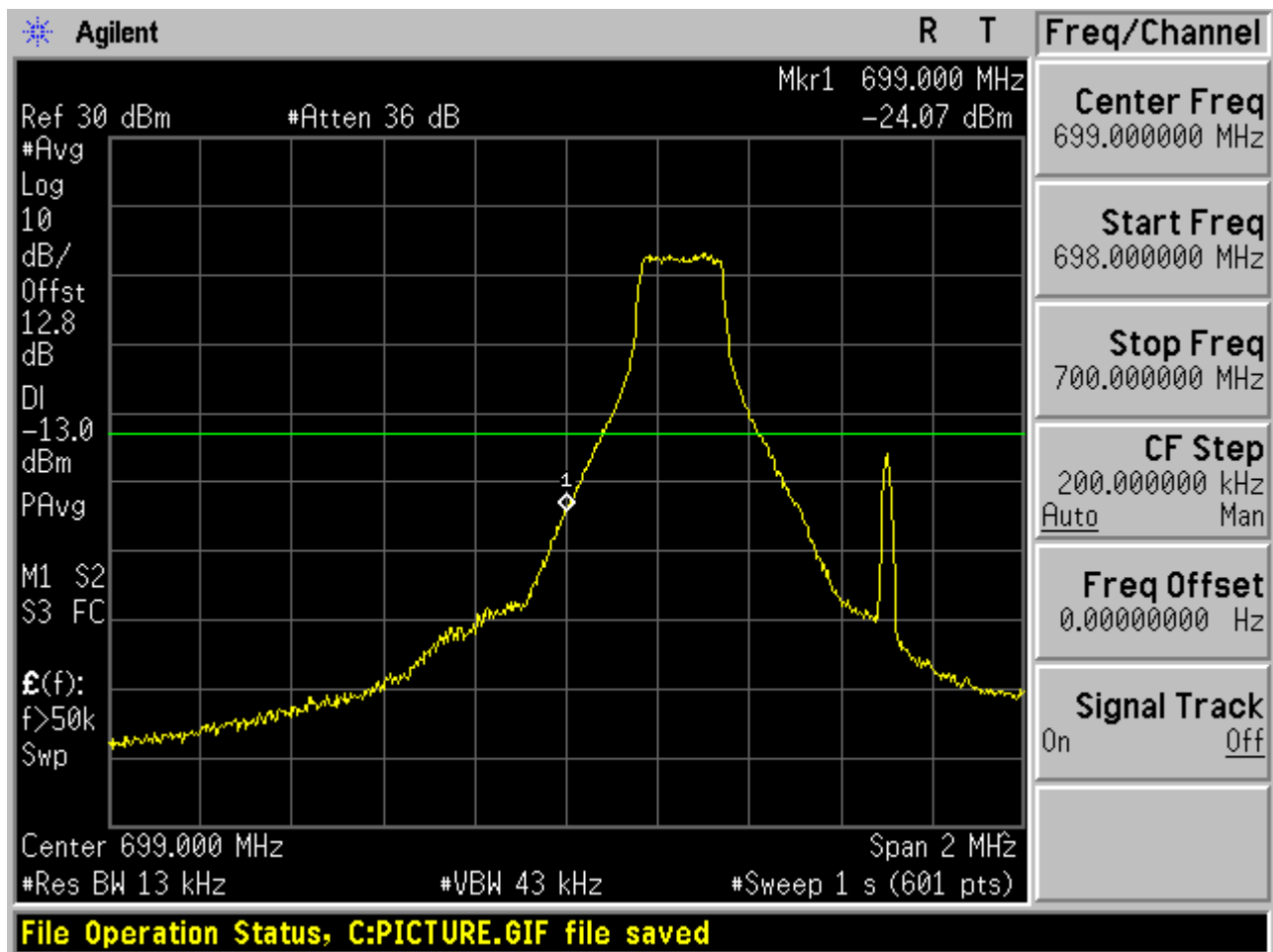


1.2 Test Mode=TM2

1.2.1 Channel Bandwidth = 1.4 MHz

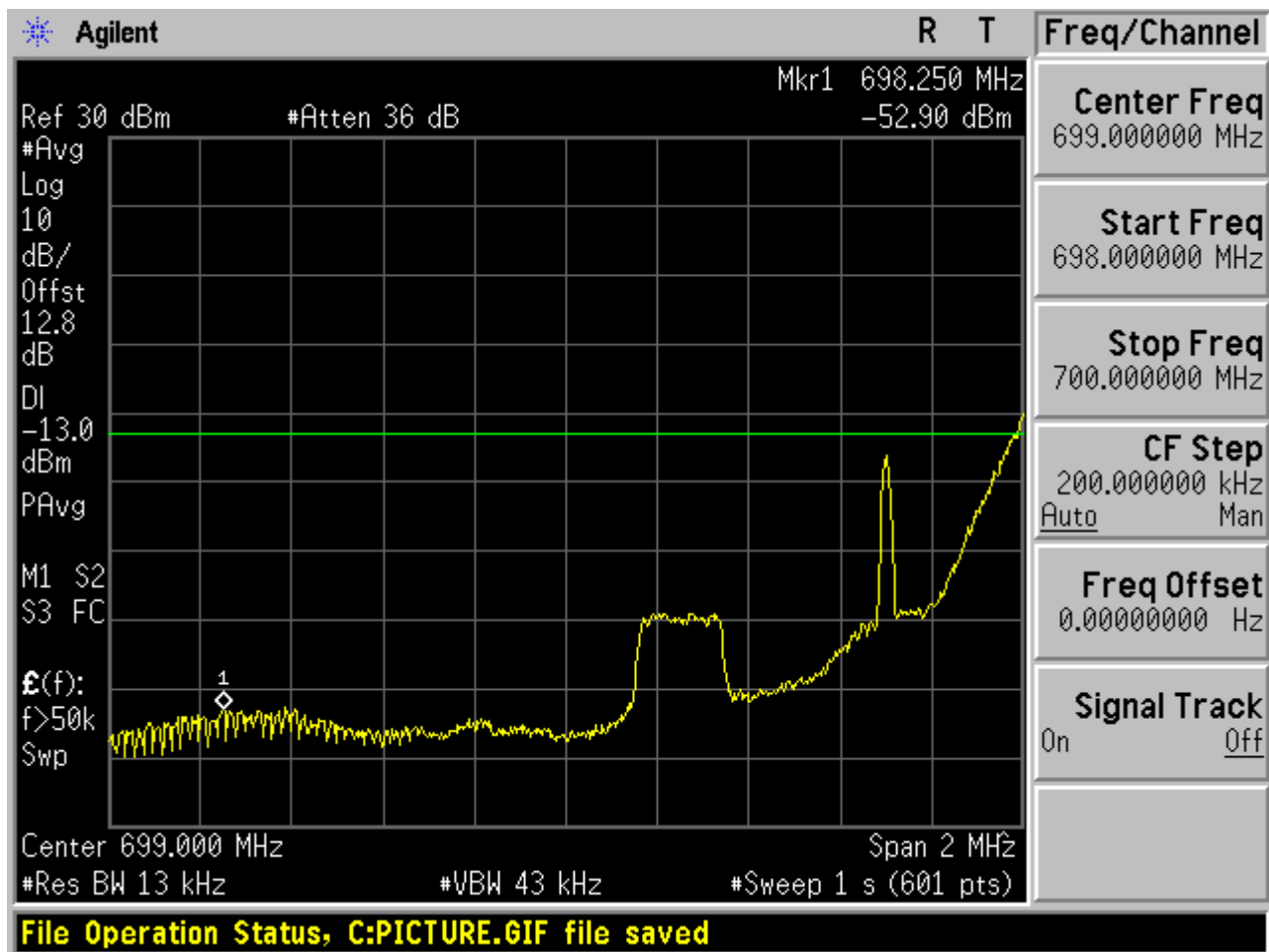
1.2.1.1 Channel = B

1.2.1.1.1 16QAM/1RB #0



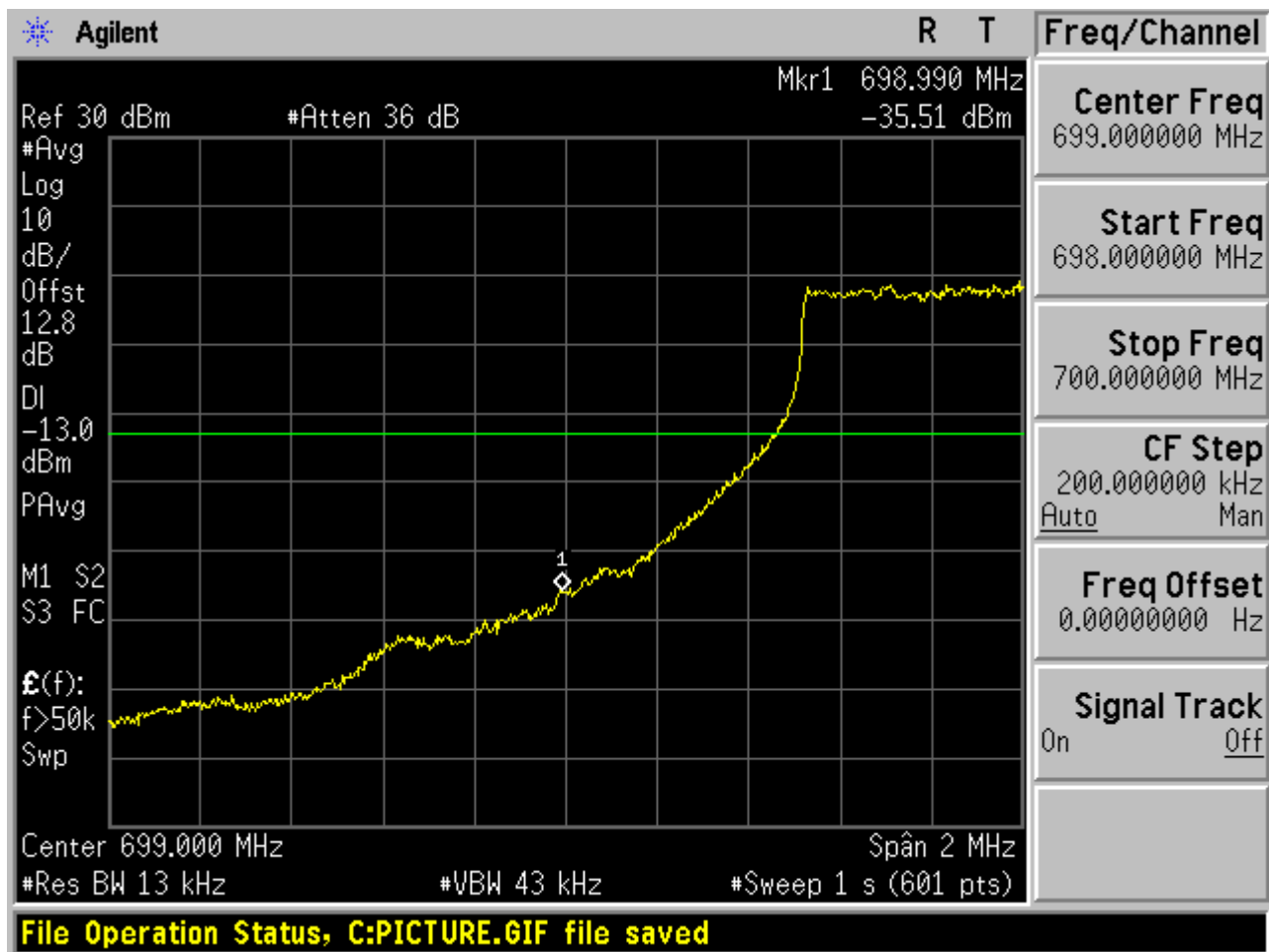


1.2.1.1.2 16QAM/1RB #max



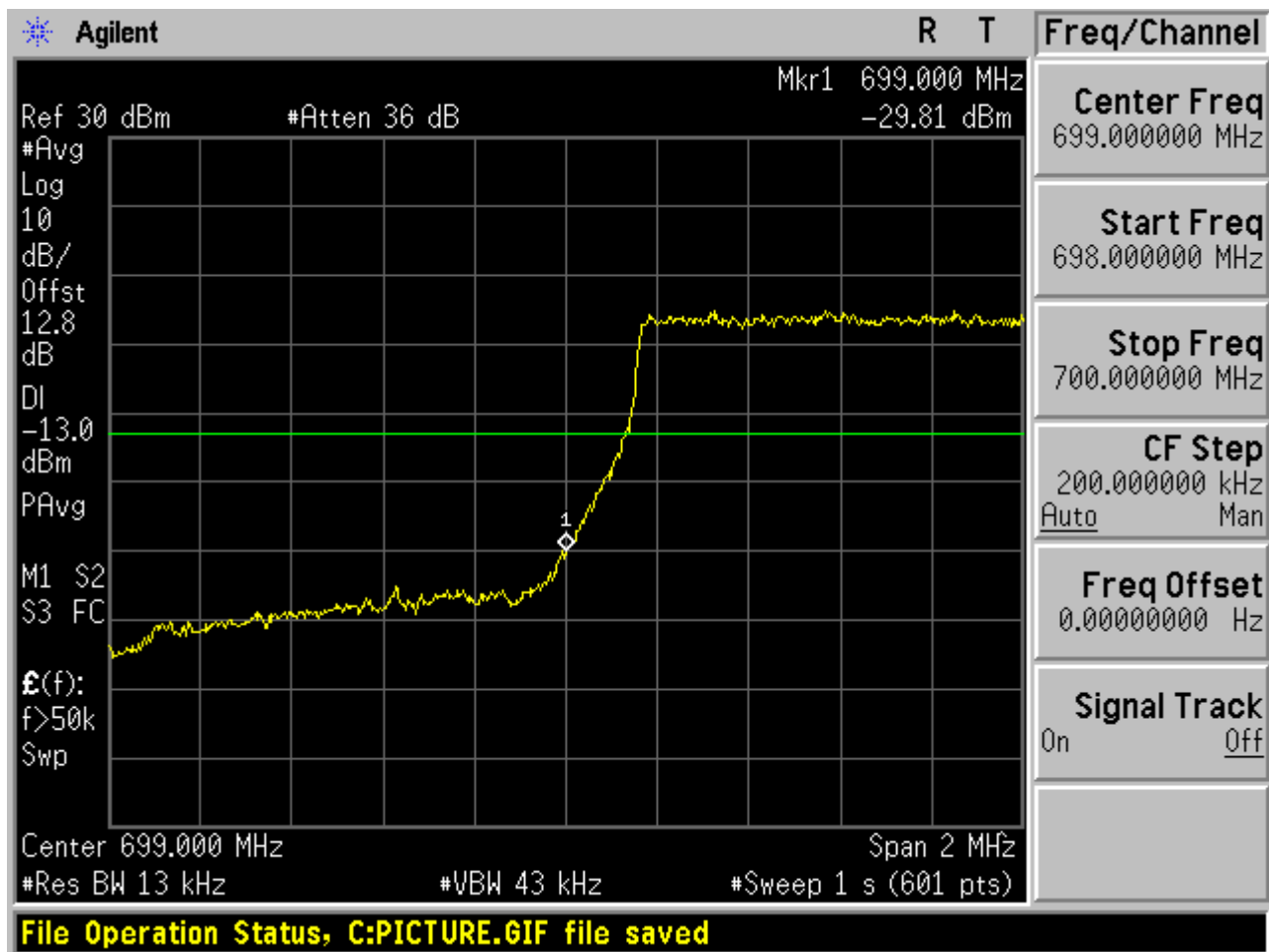


1.2.1.1.3 16QAM / non-1RB #mid/2





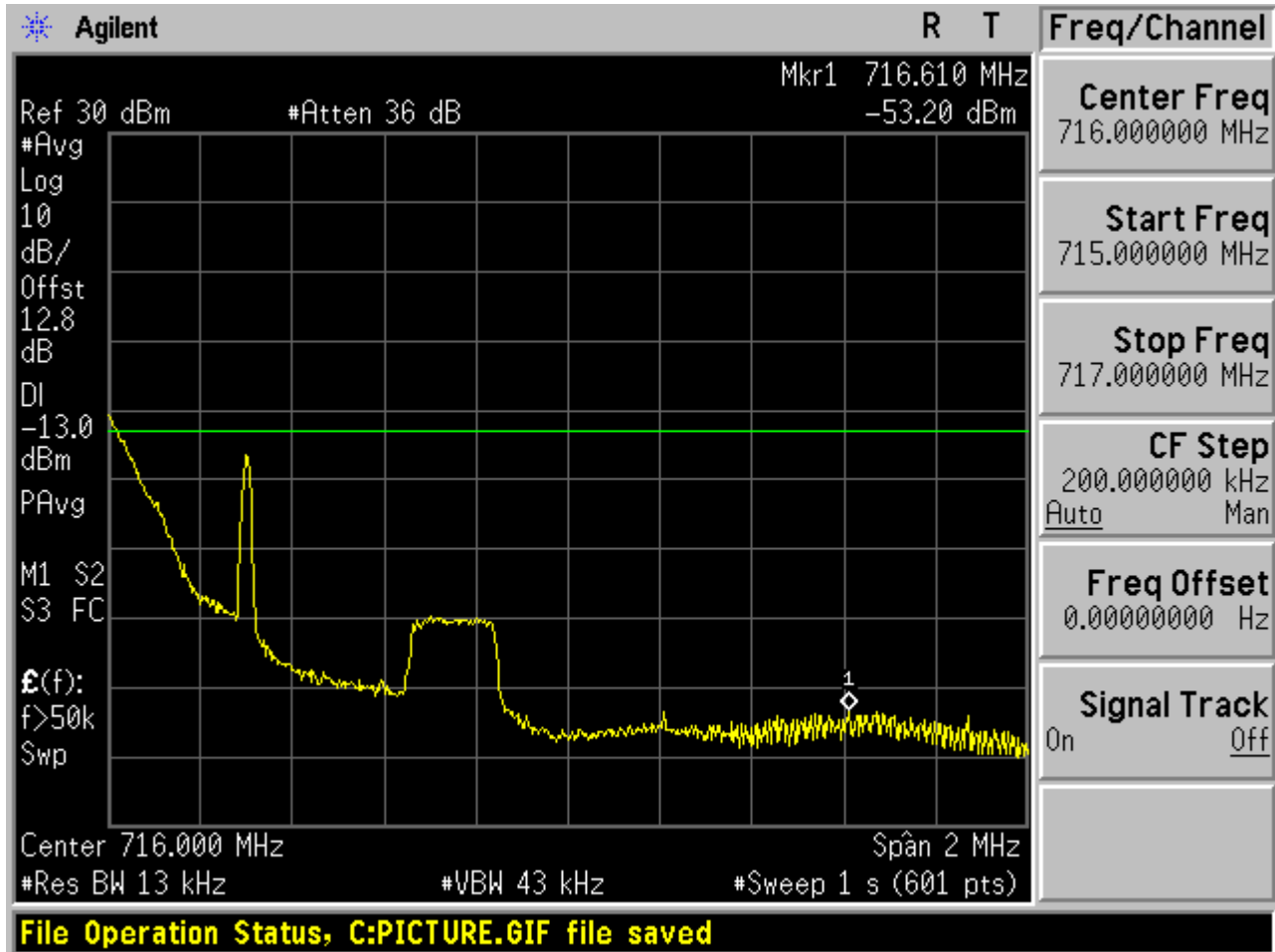
1.2.1.1.4 16QAM /full RBs





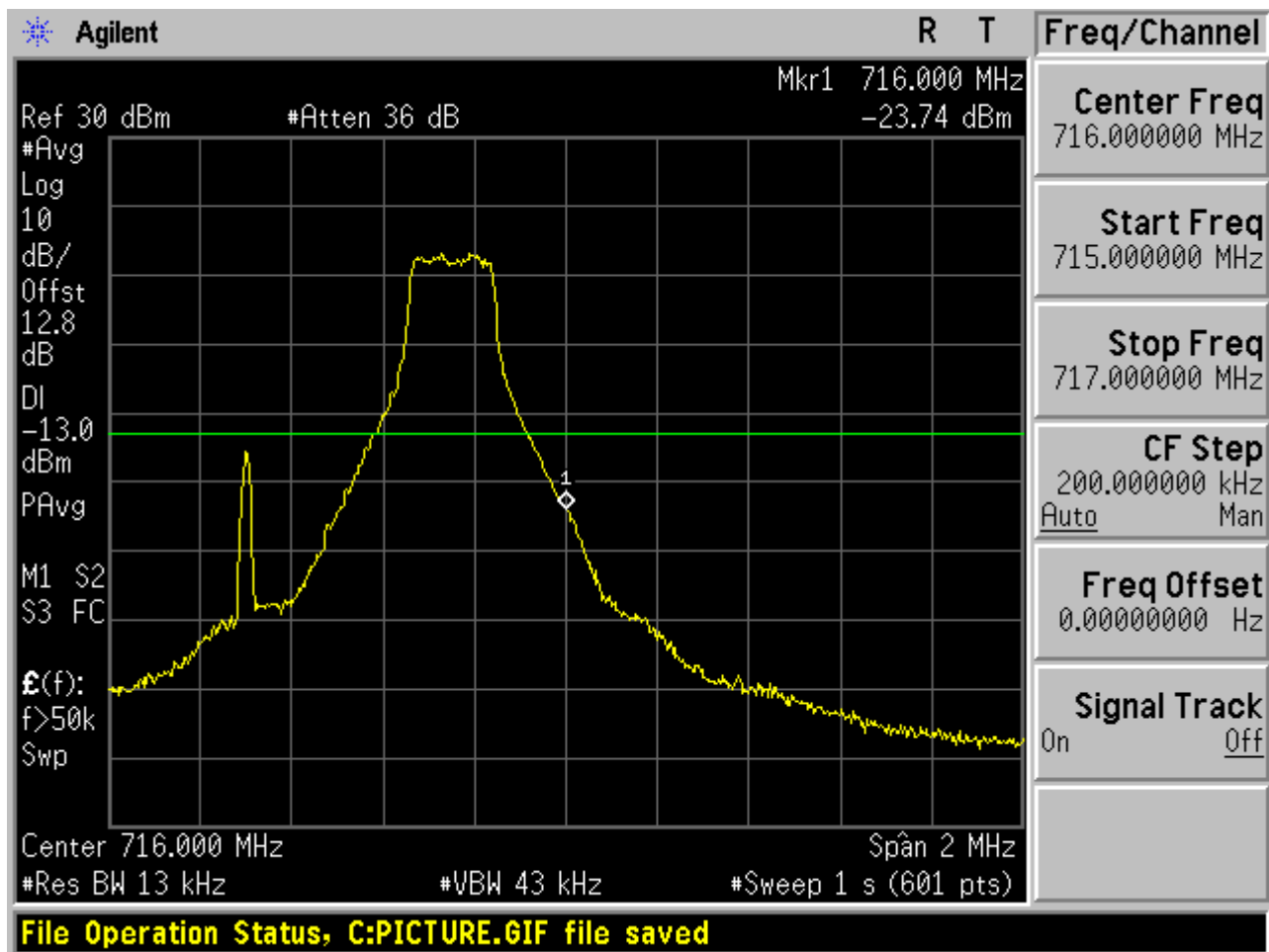
1.2.1.2 Channel = T

1.2.1.2.1 16QAM /1RB #0



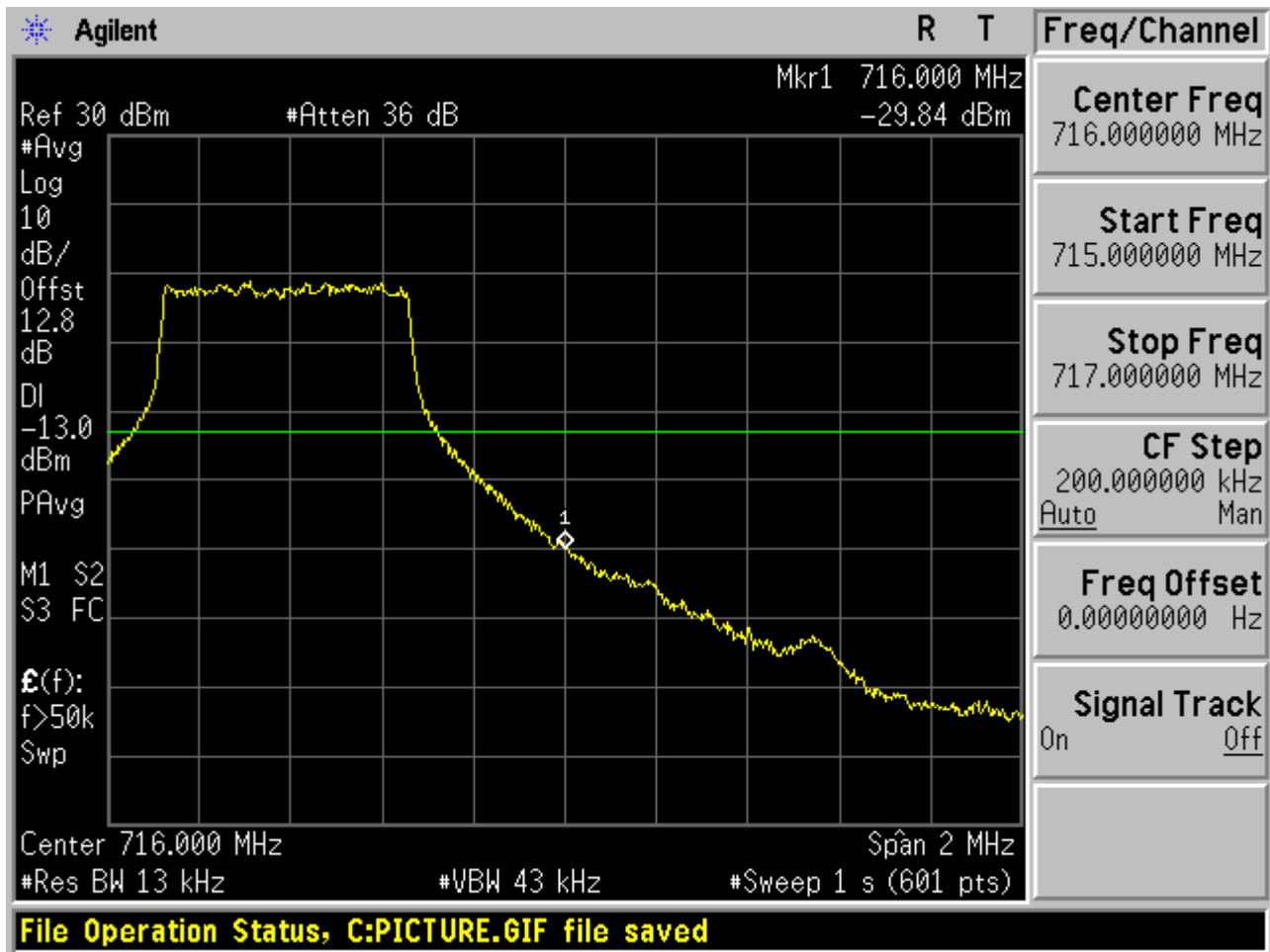


1.2.1.2.2 16QAM /1RB #max



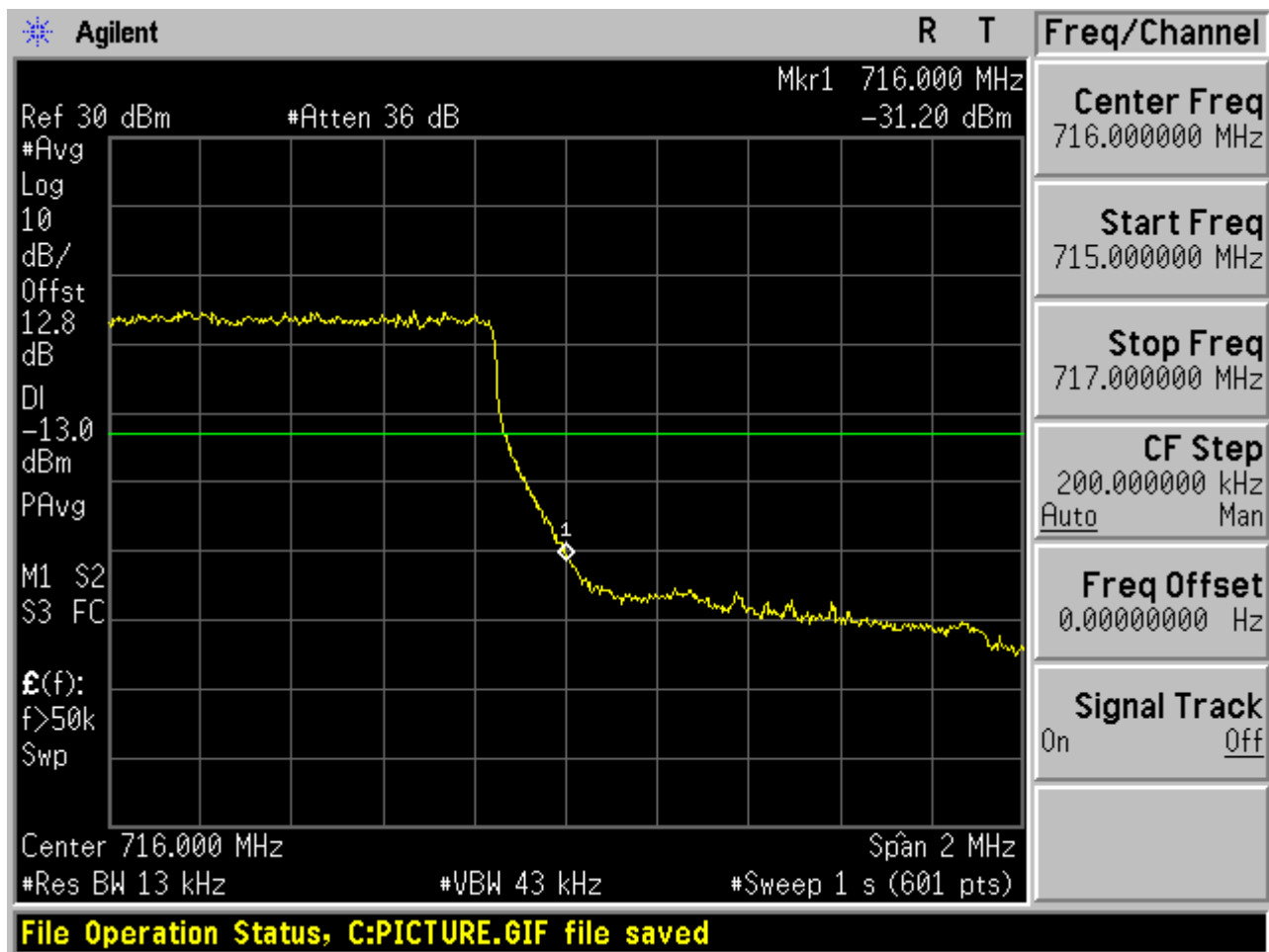


1.2.1.2.3 16QAM / non-1RB #mid/2





1.2.1.2.4 16QAM /full RBs

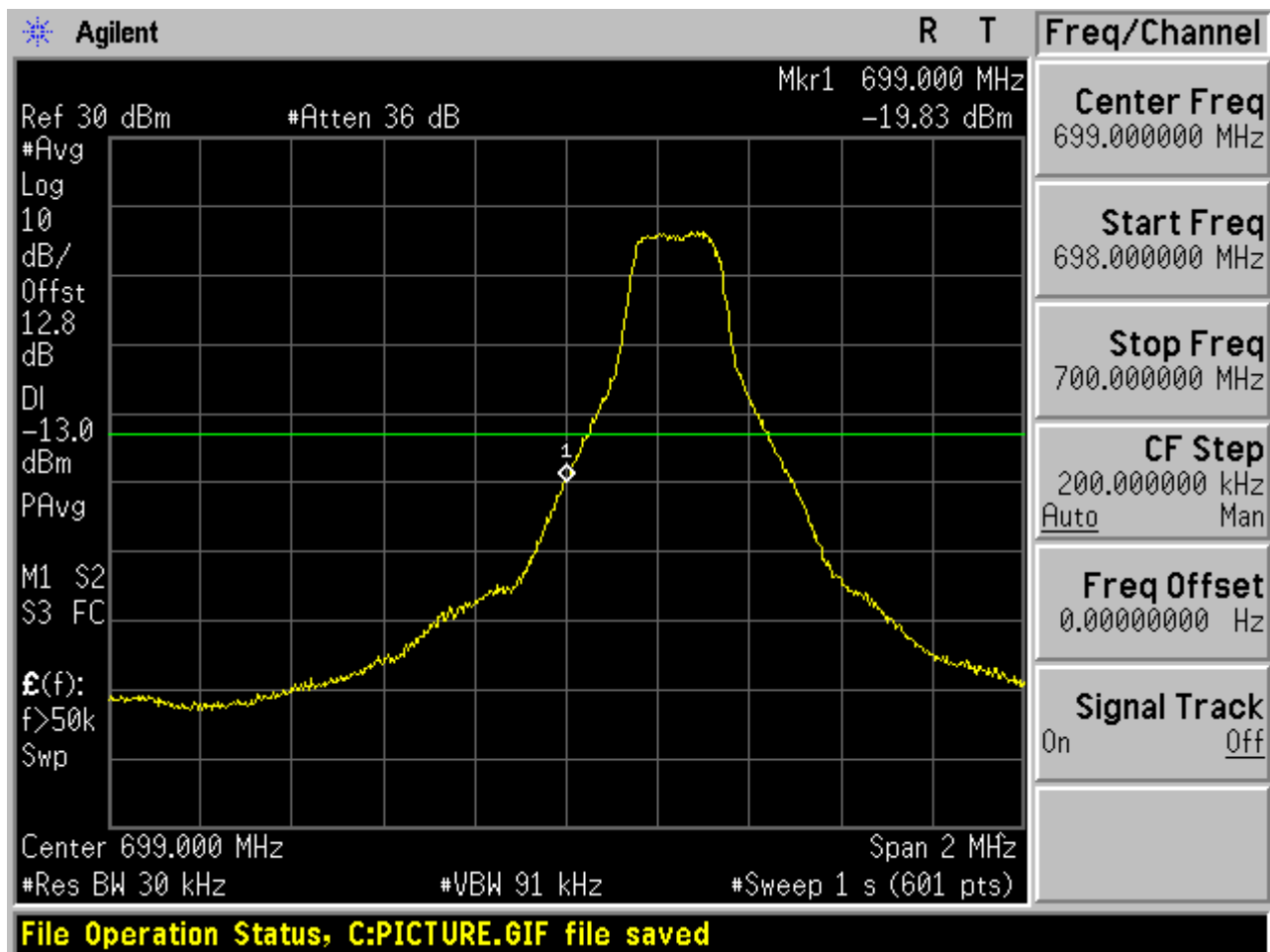




1.2.2 Channel Bandwidth = 3 MHz

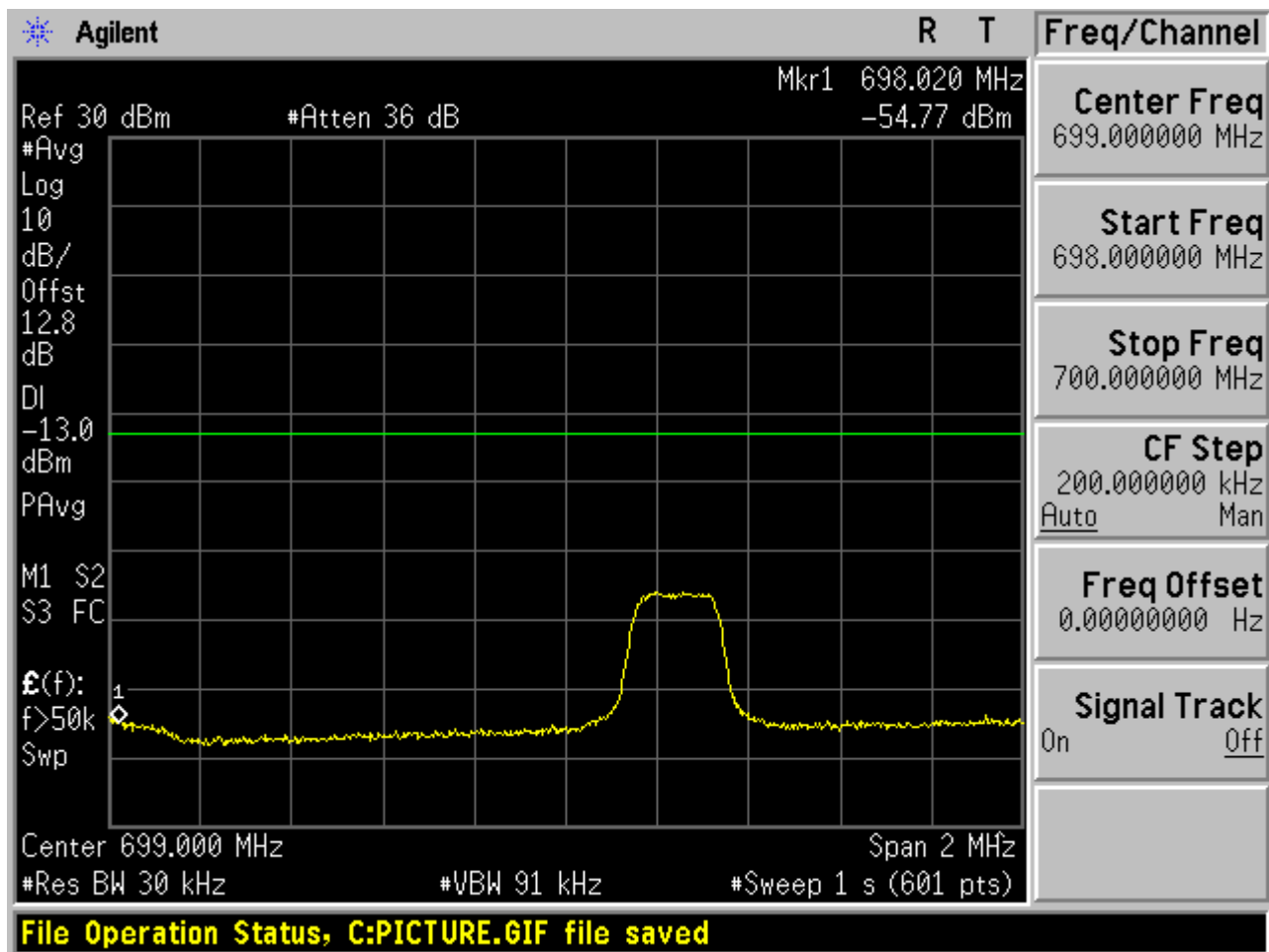
1.2.2.1 Channel = B

1.2.2.1.1 16QAM/1RB #0



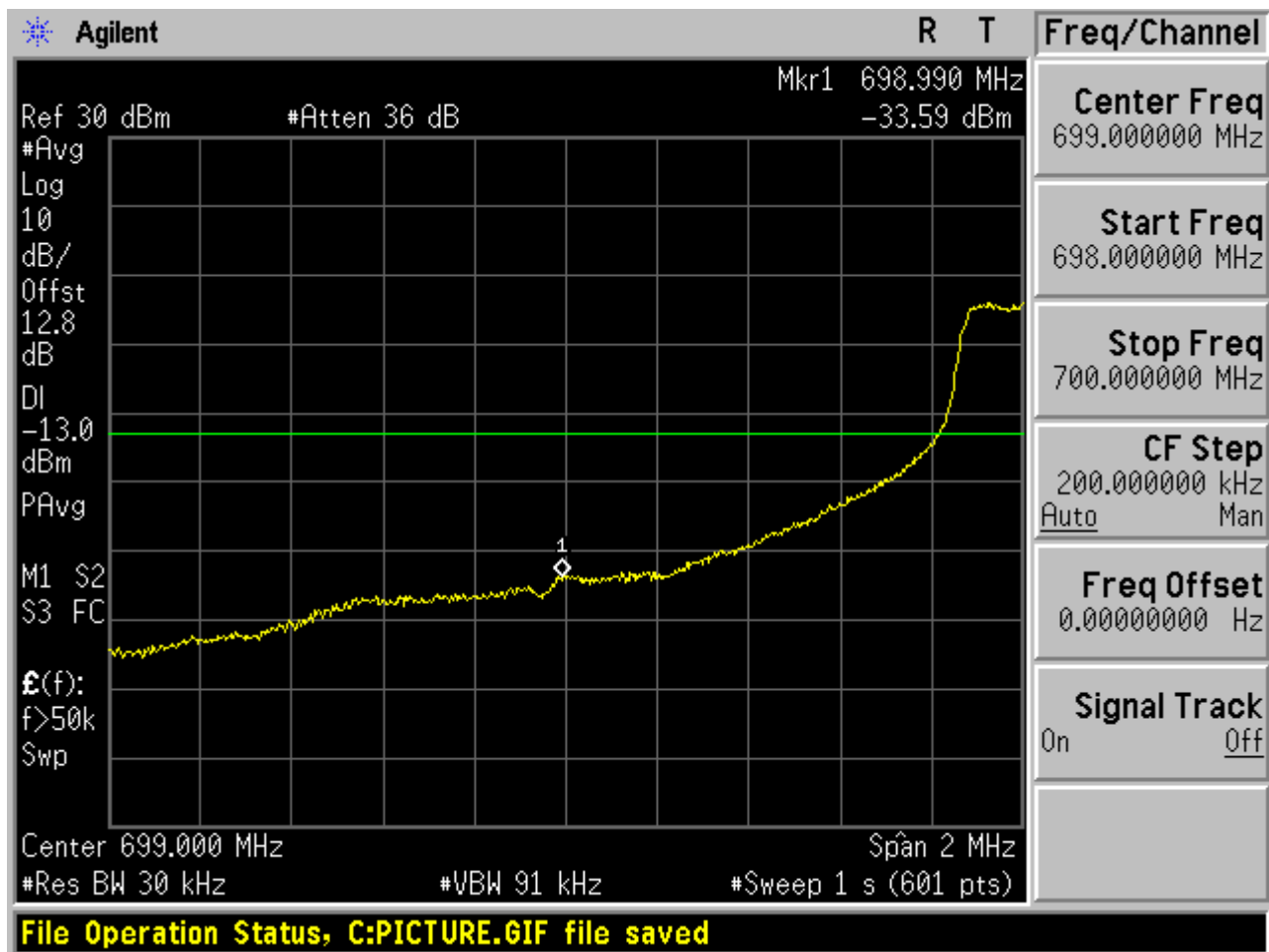


1.2.2.1.2 16QAM/1RB #max



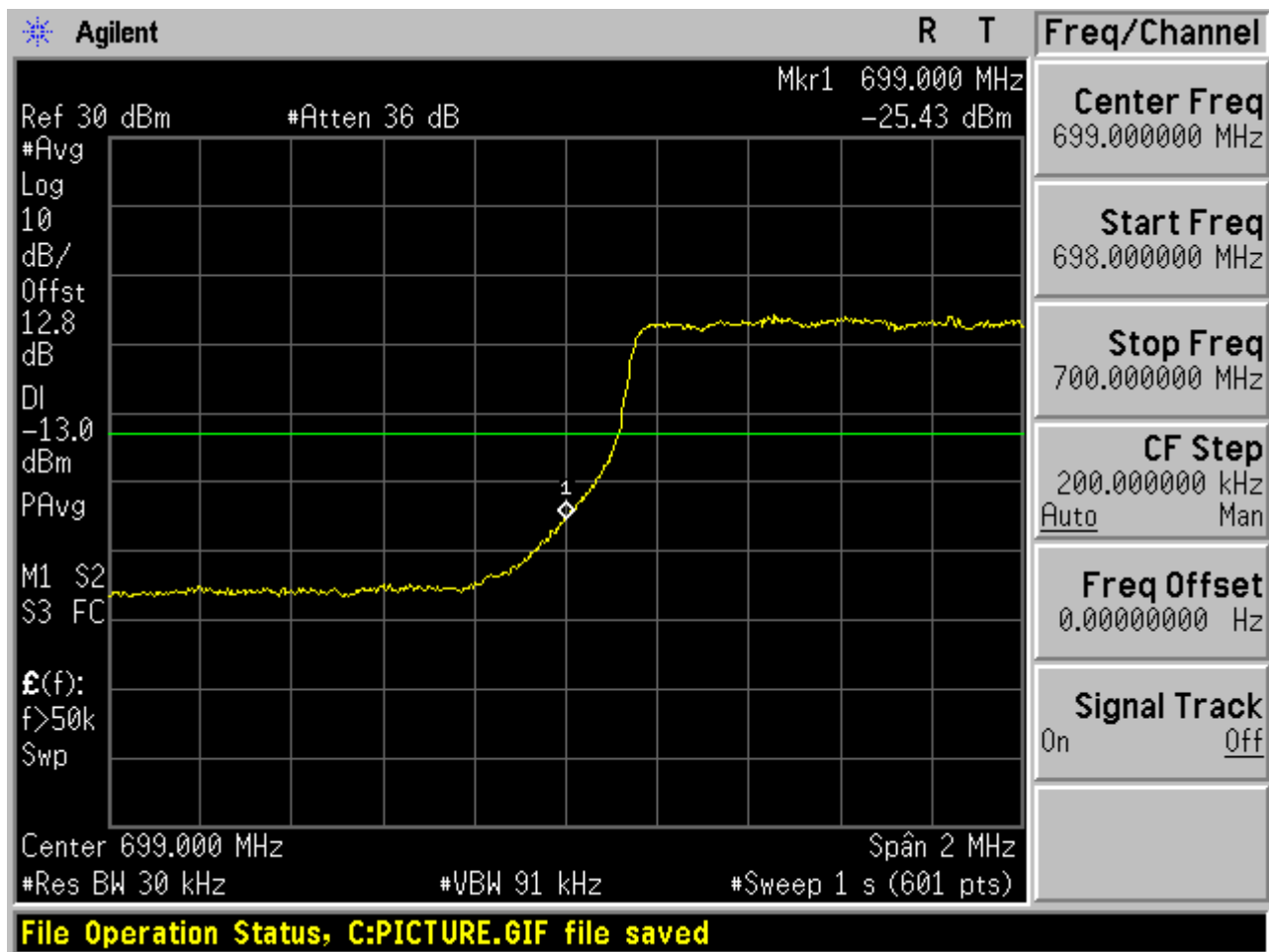


1.2.2.1.3 16QAM / non-1RB #mid/2





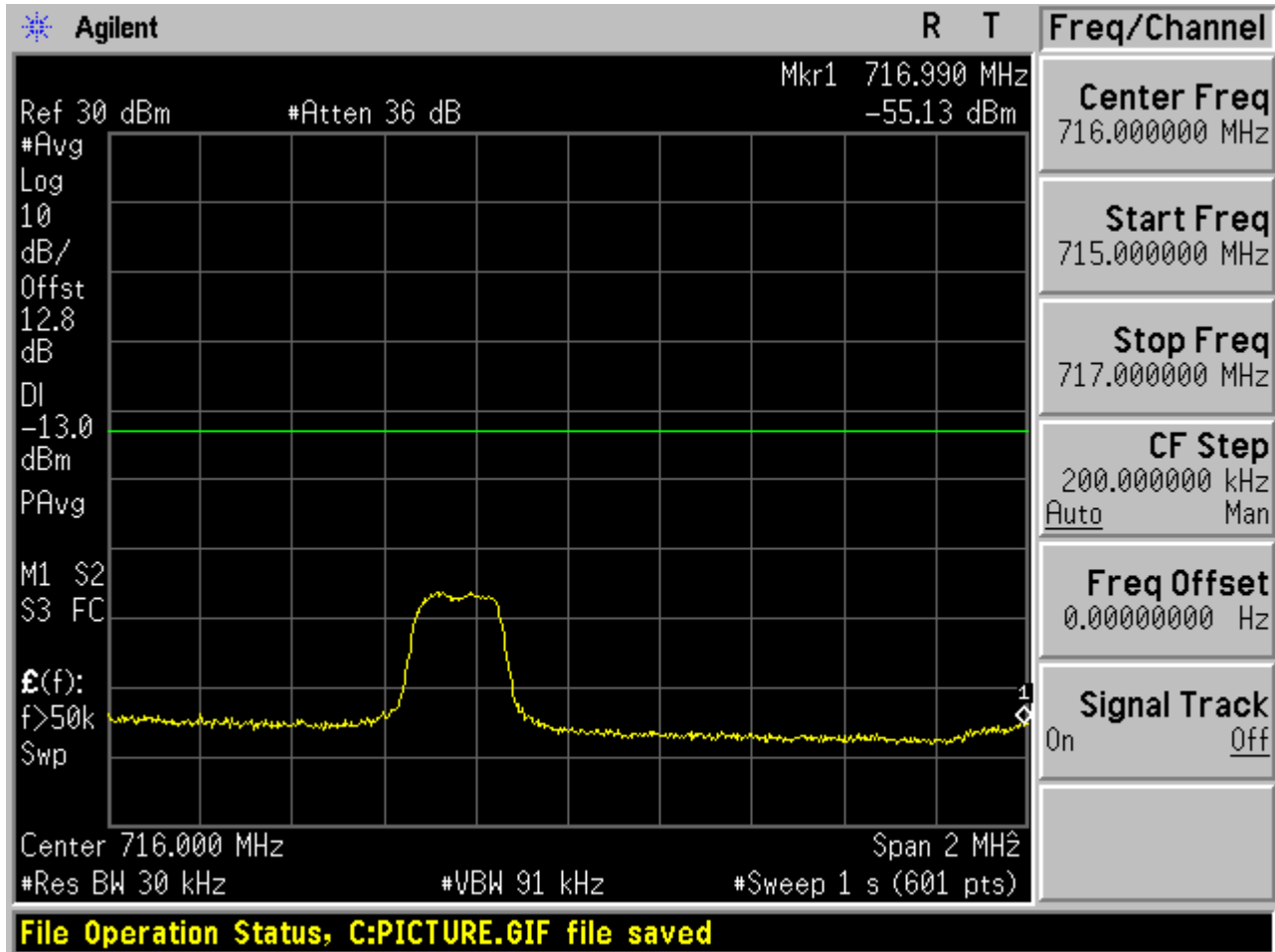
1.2.2.1.4 16QAM /full RBs





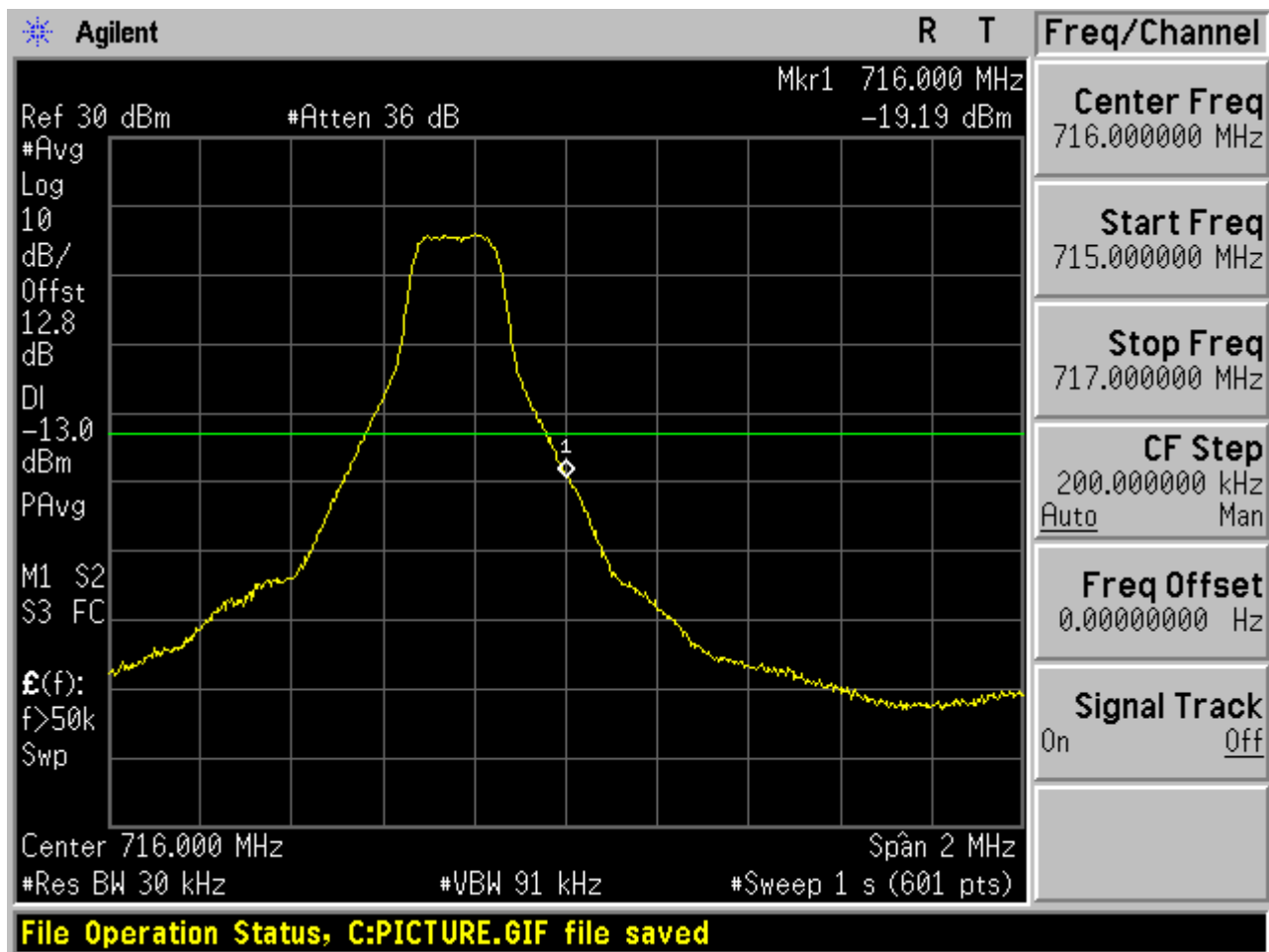
1.2.2.2 Channel = T

1.2.2.2.1 16QAM /1RB #0



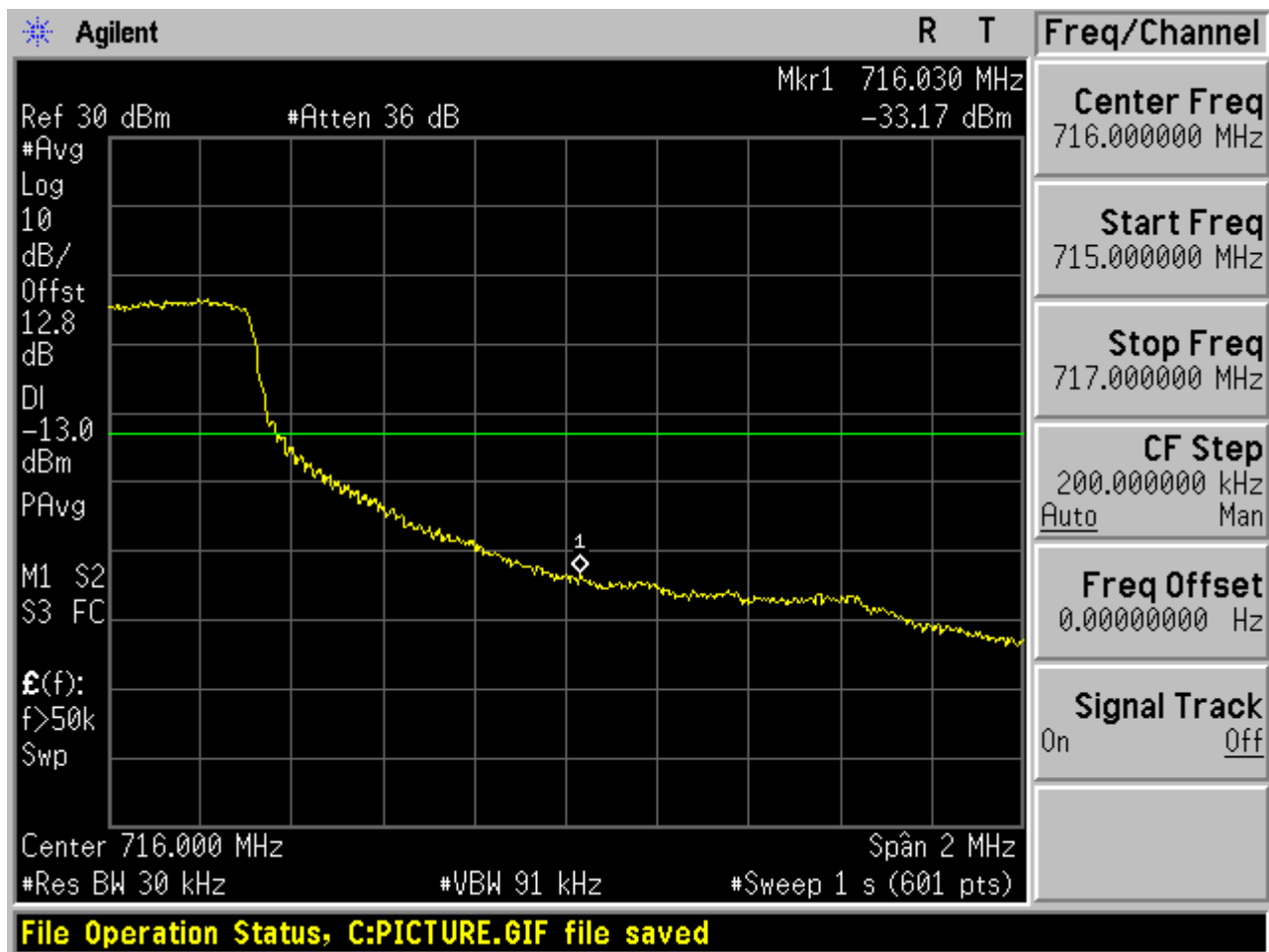


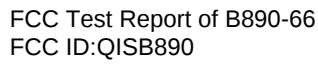
1.2.2.2.2 16QAM /1RB #max



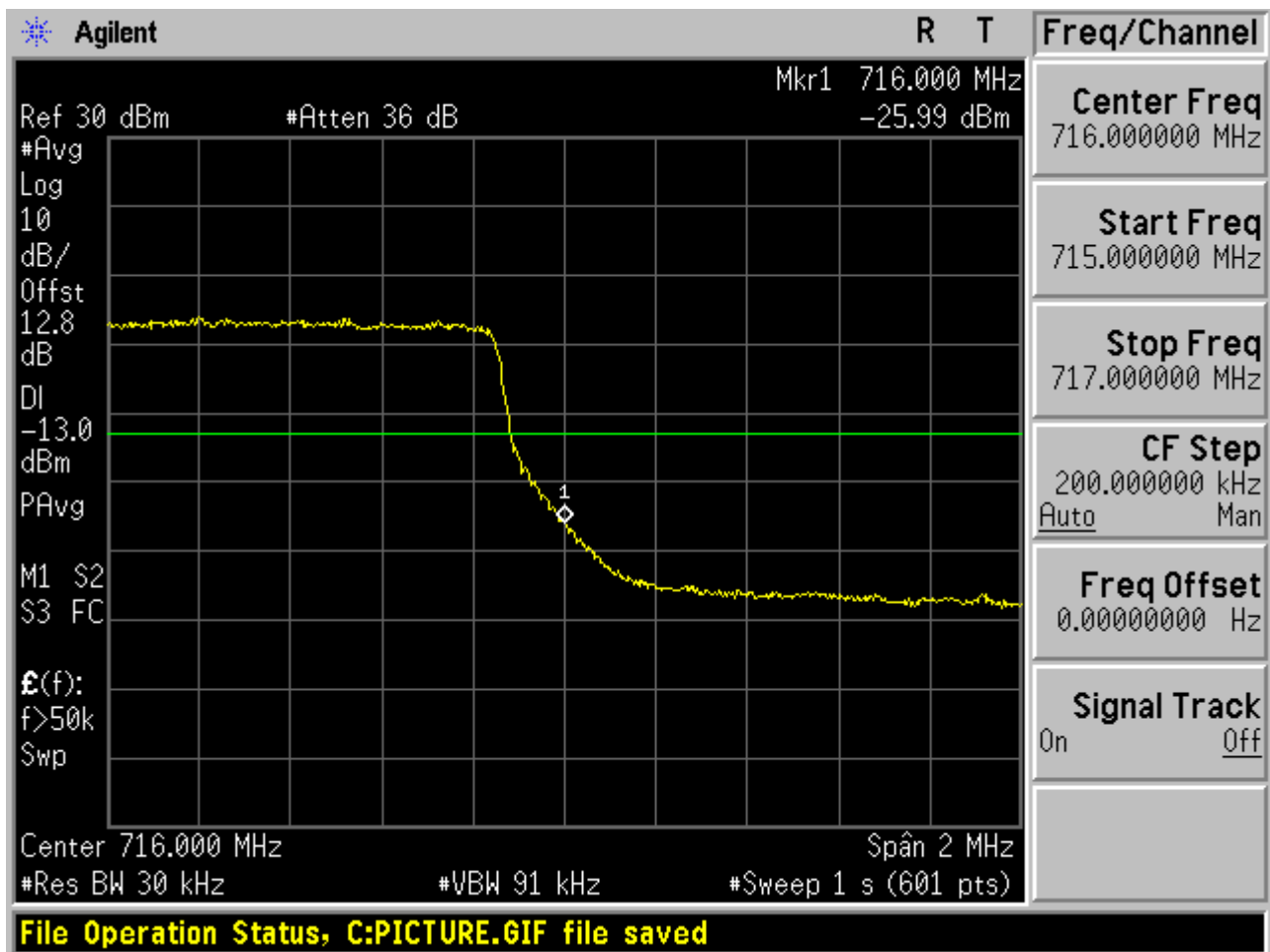


1.2.2.2.3 16QAM / non-1RB #mid/2





1.2.2.2.4 16QAM /full RBs

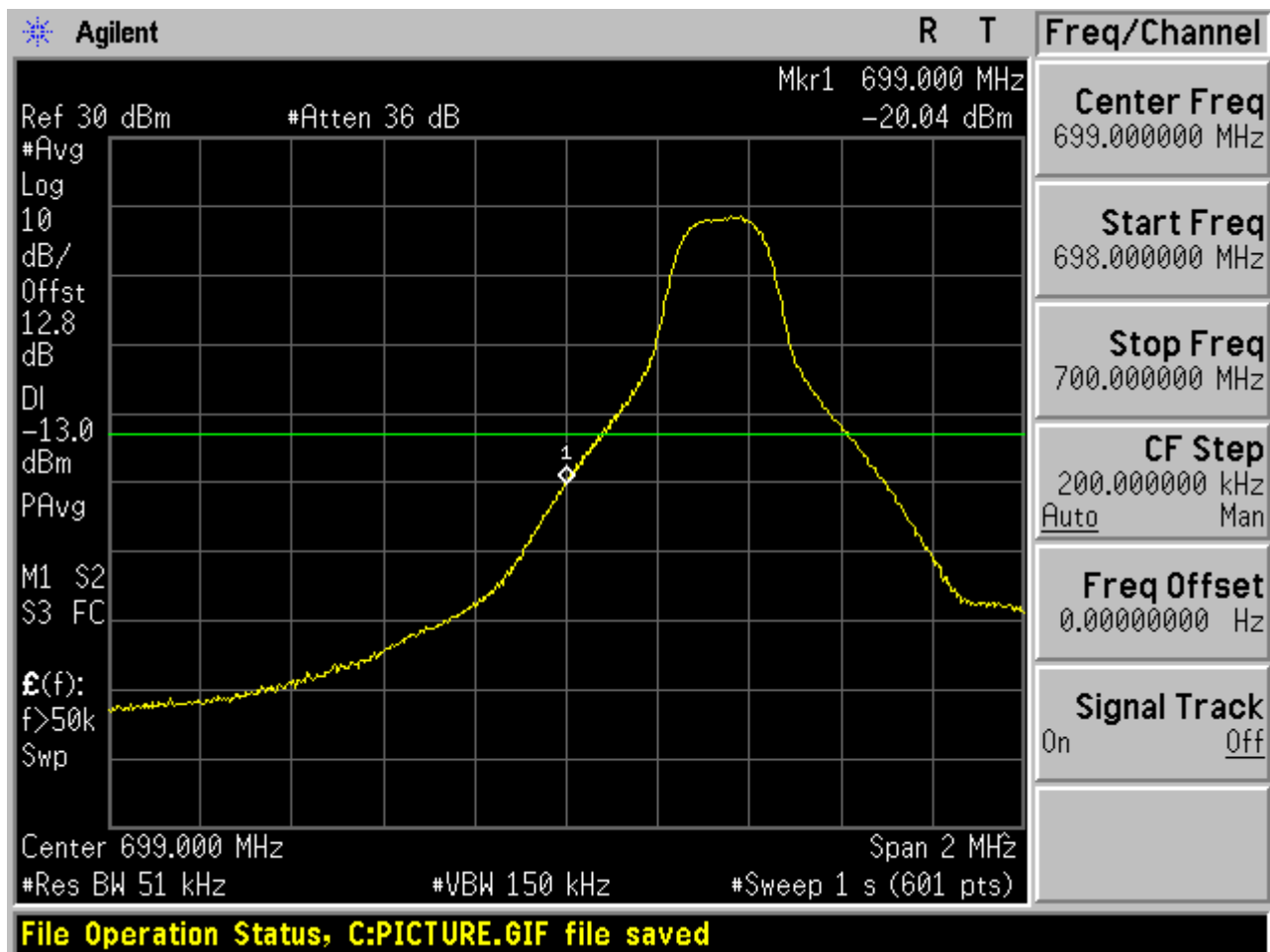




1.2.3 Channel Bandwidth = 5 MHz

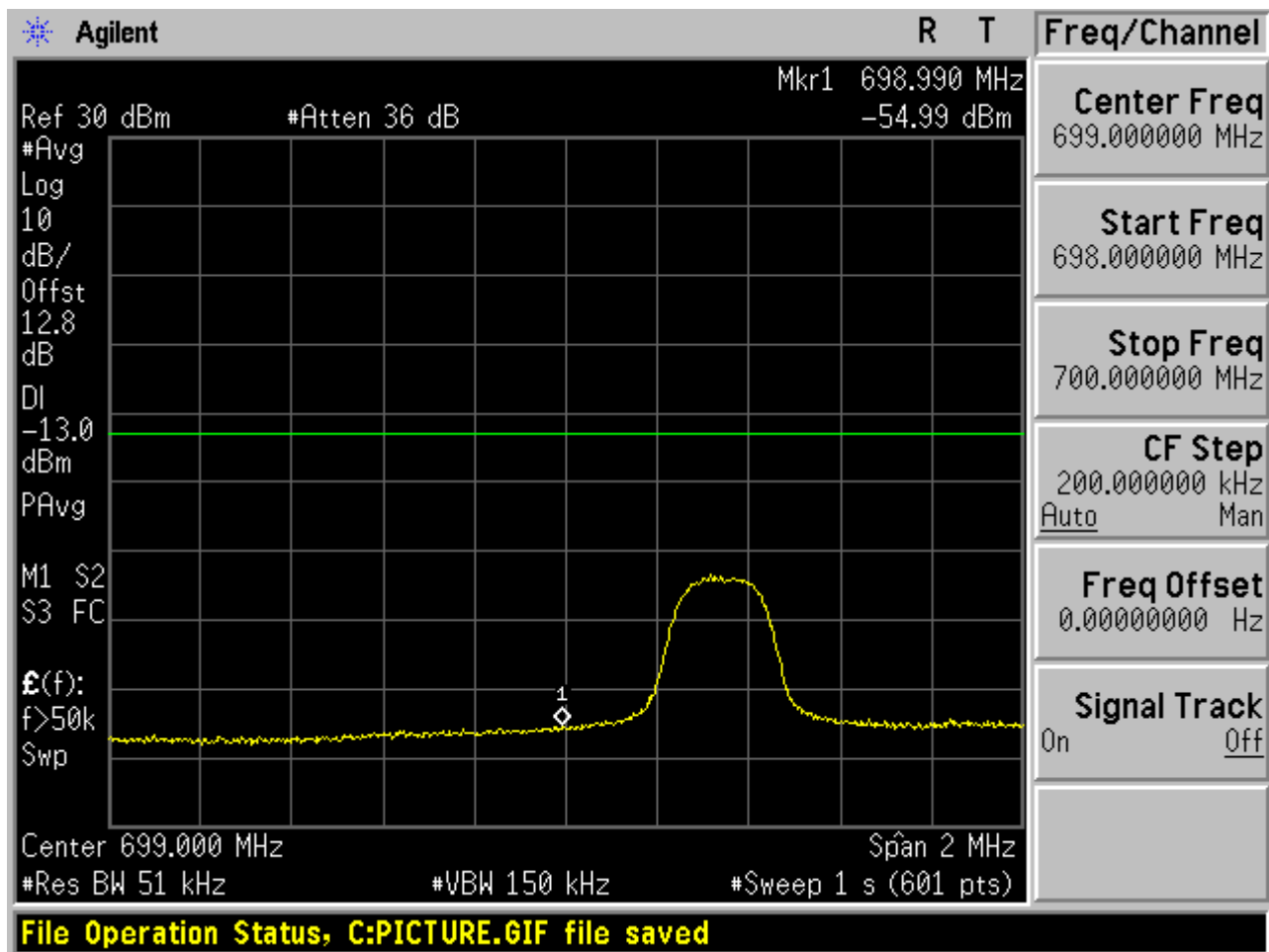
1.2.3.1 Channel = B

1.2.3.1.1 16QAM/1RB #0



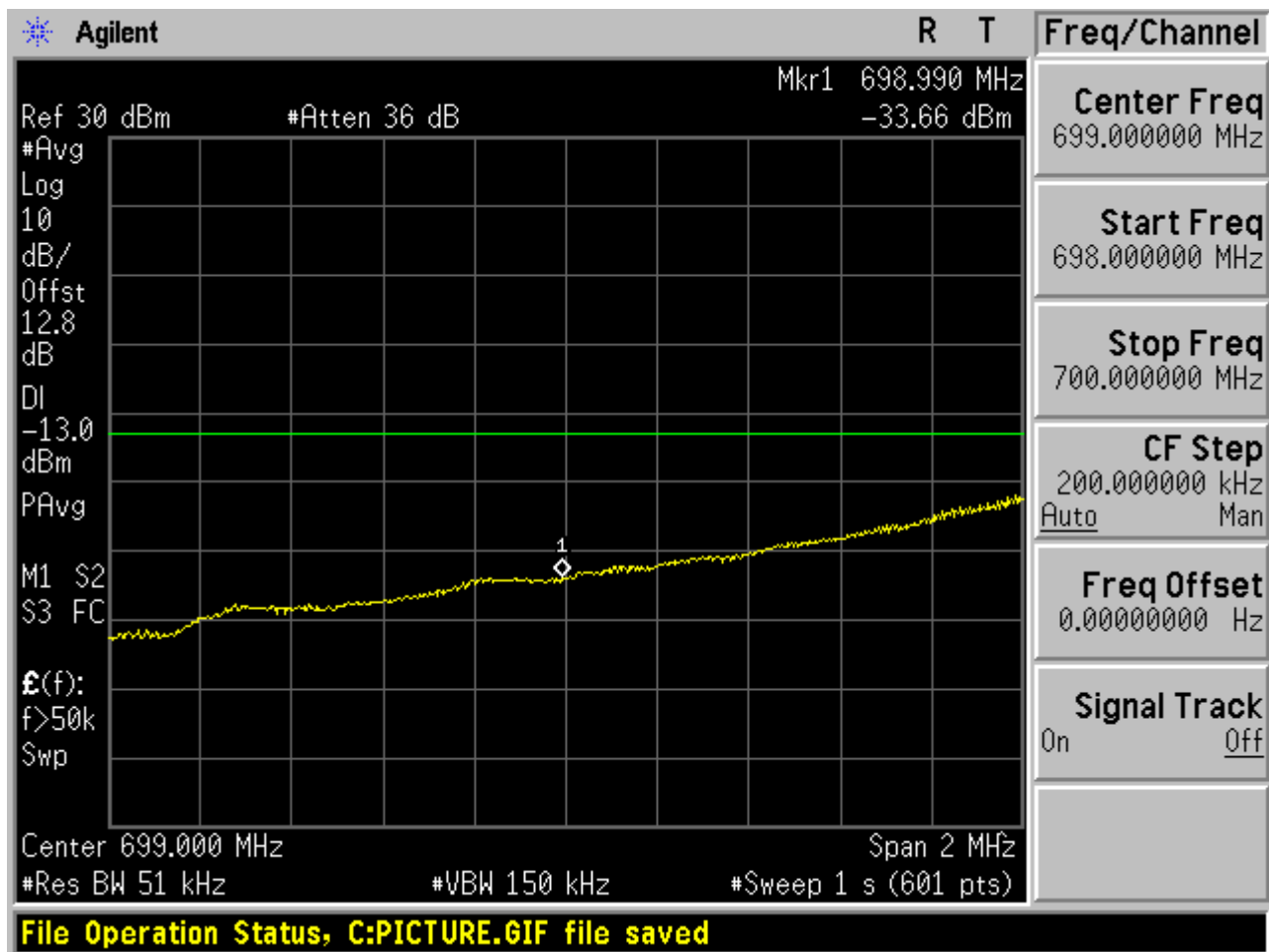


1.2.3.1.2 16QAM/1RB #max



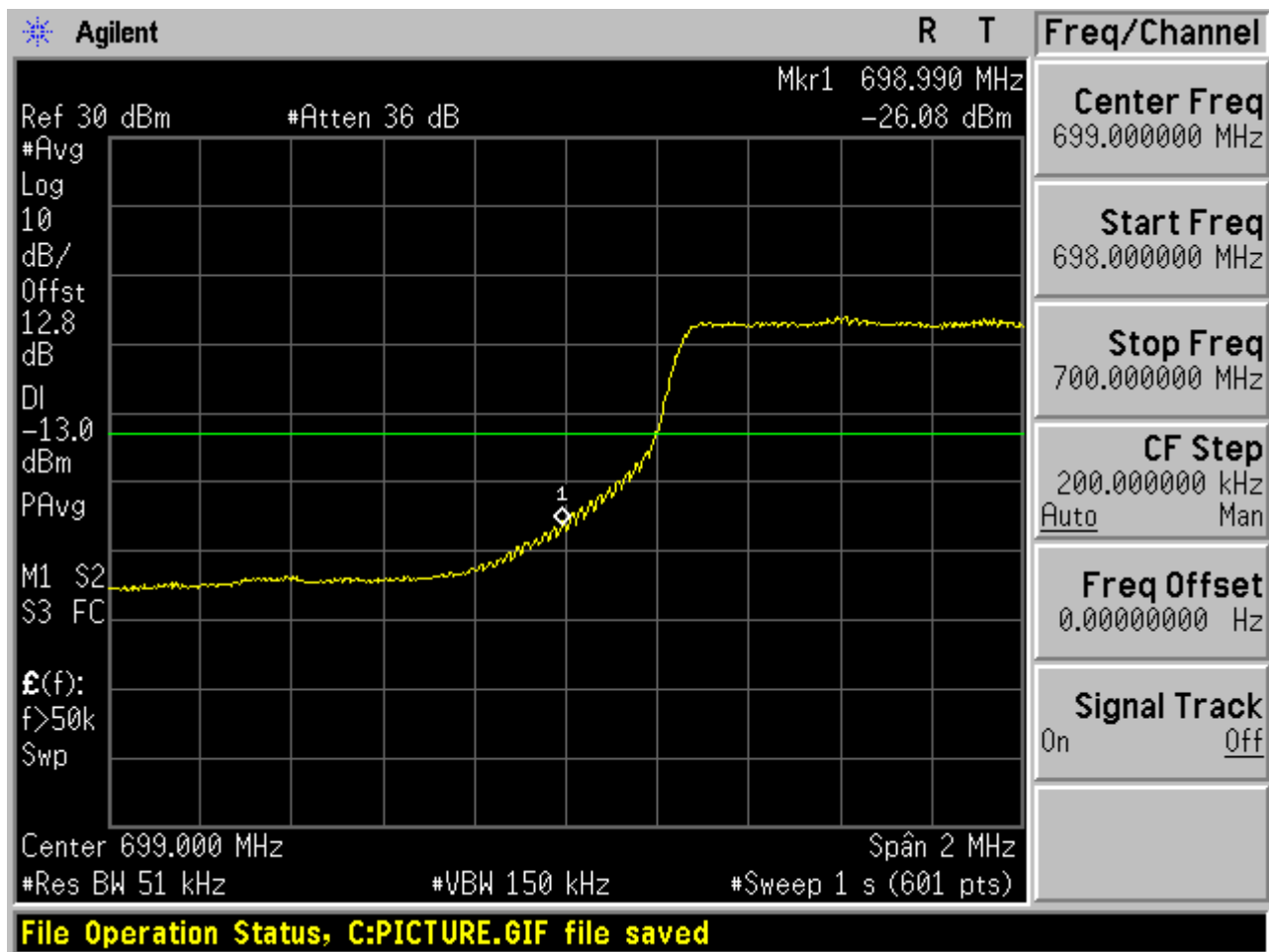


1.2.3.1.3 16QAM / non-1RB #mid/2





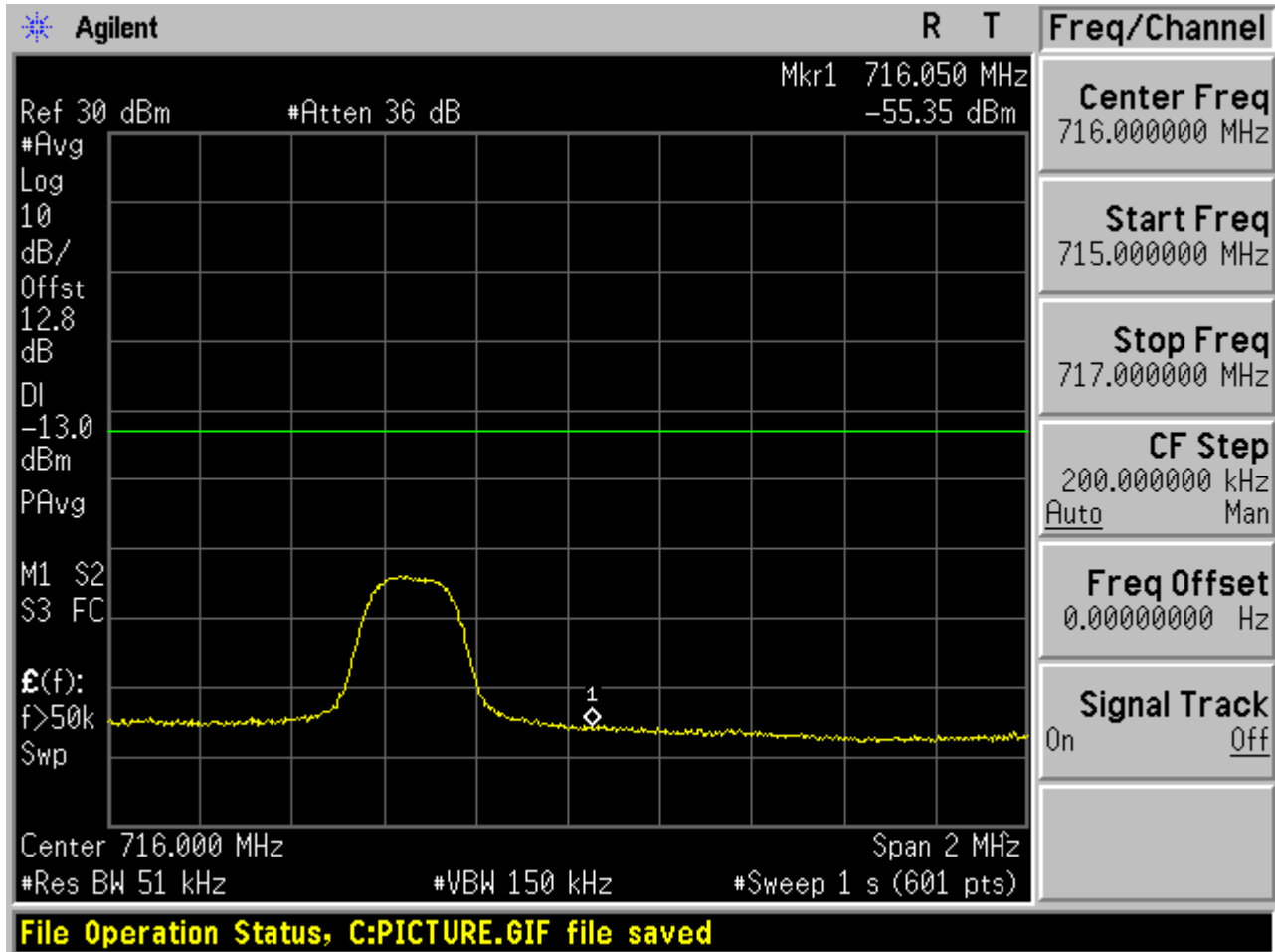
1.2.3.1.4 16QAM /full RBs





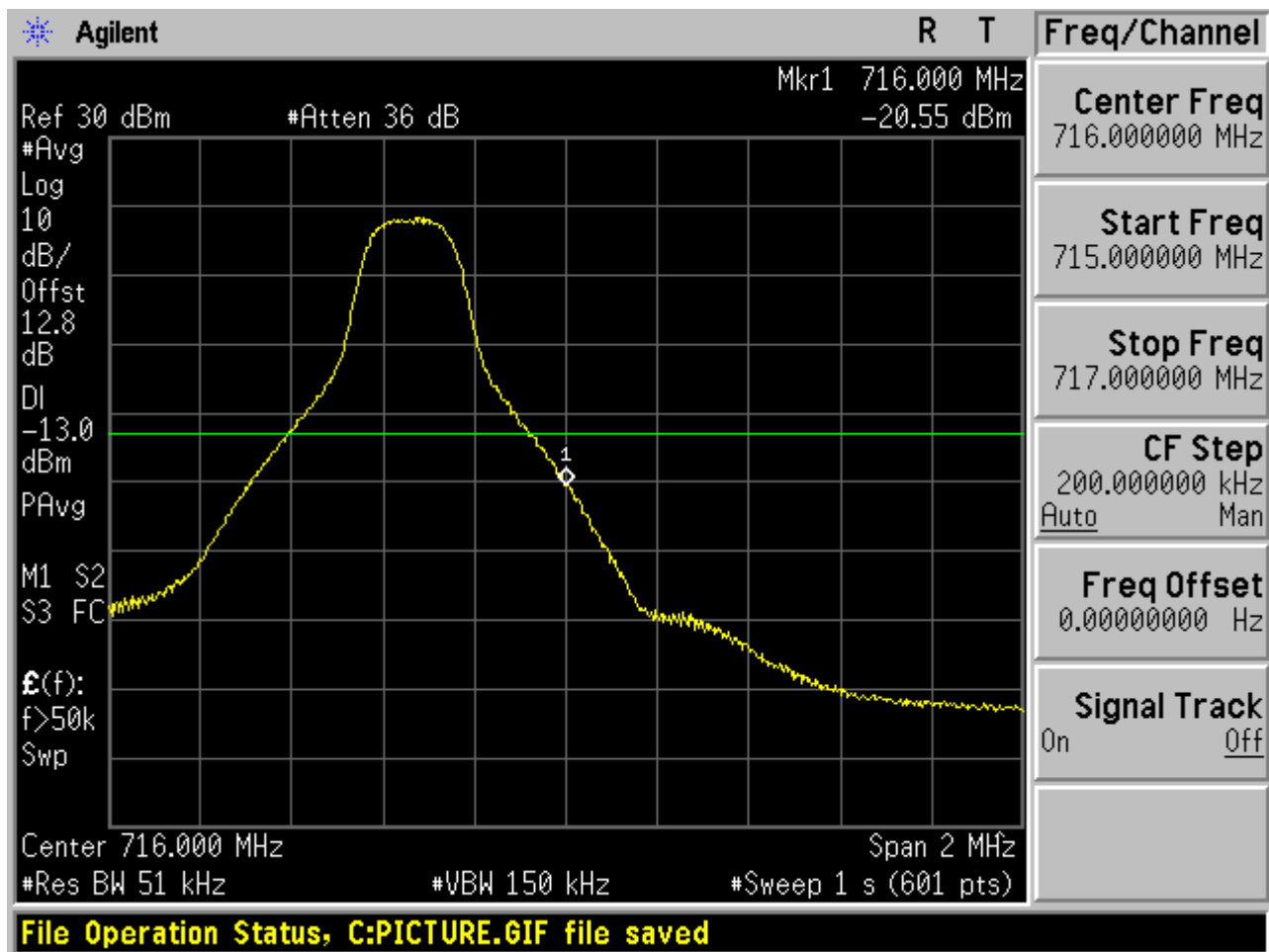
1.2.3.2 Channel = T

1.2.3.2.1 16QAM /1RB #0



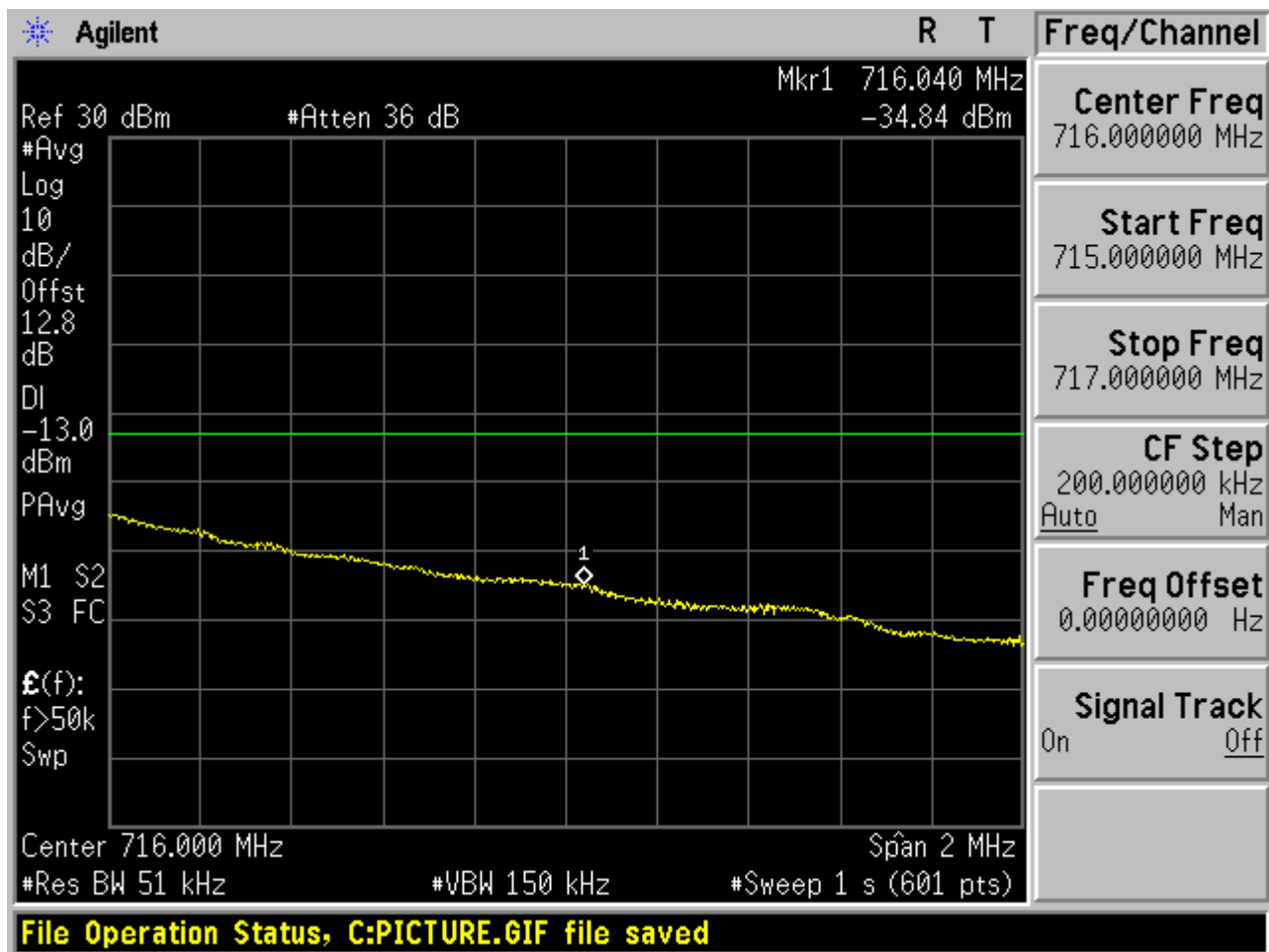


1.2.3.2.2 16QAM /1RB #max



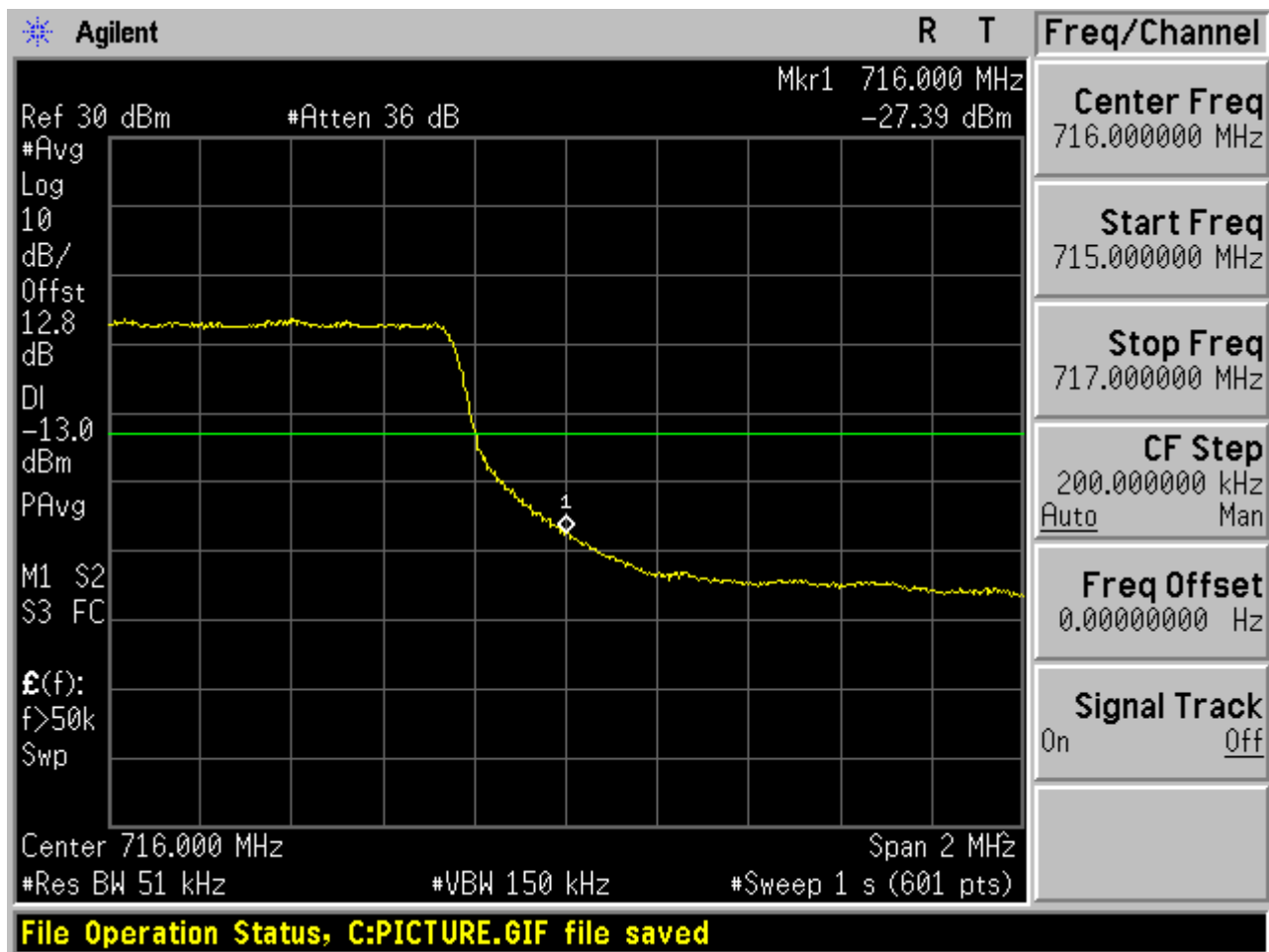


1.2.3.2.3 16QAM / non-1RB #mid/2





1.2.3.2.4 16QAM /full RBs

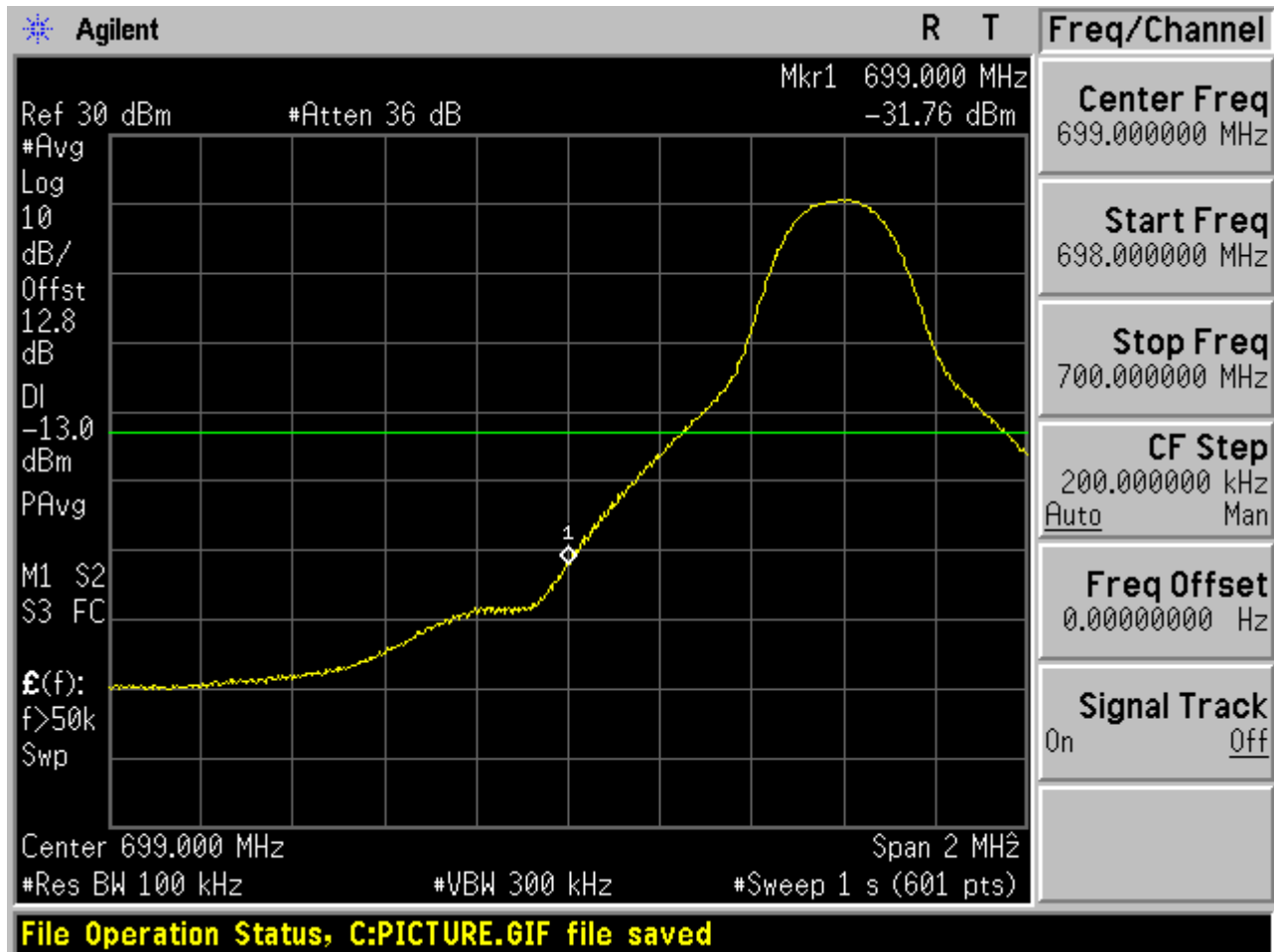




1.2.4 Channel Bandwidth = 10 MHz

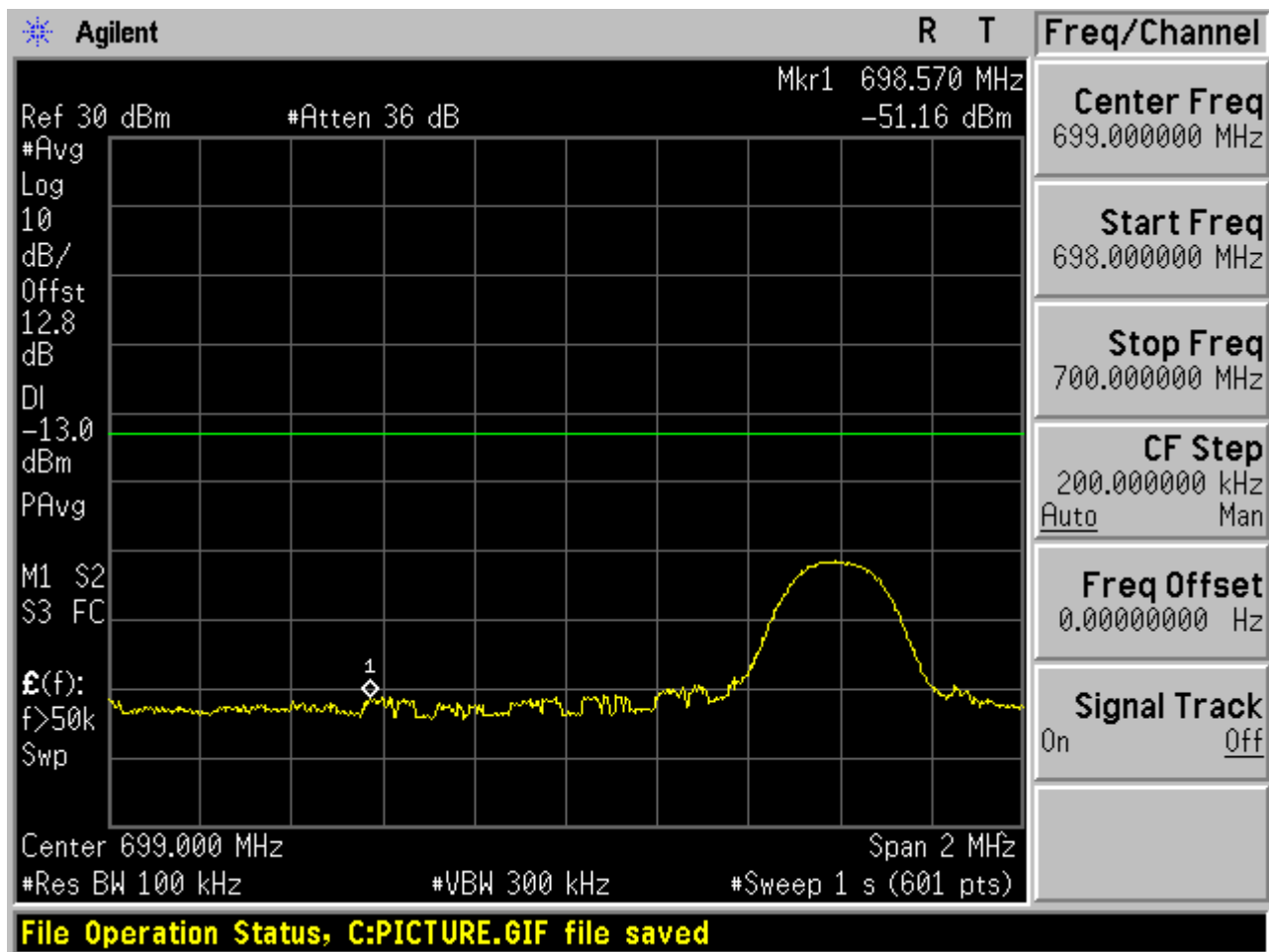
1.2.4.1 Channel = B

1.2.4.1.1 16QAM/1RB #0



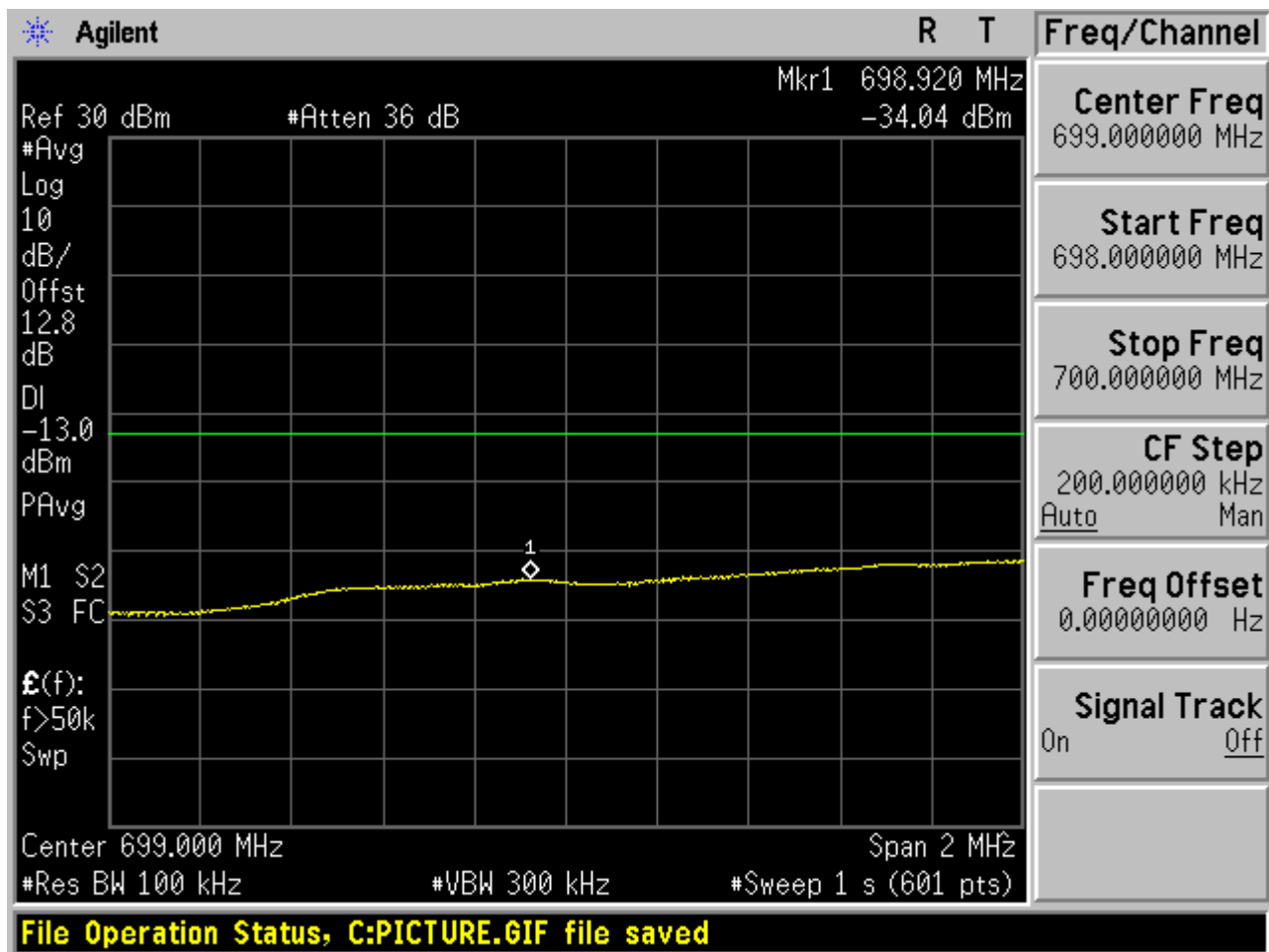


1.2.4.1.2 16QAM/1RB #max



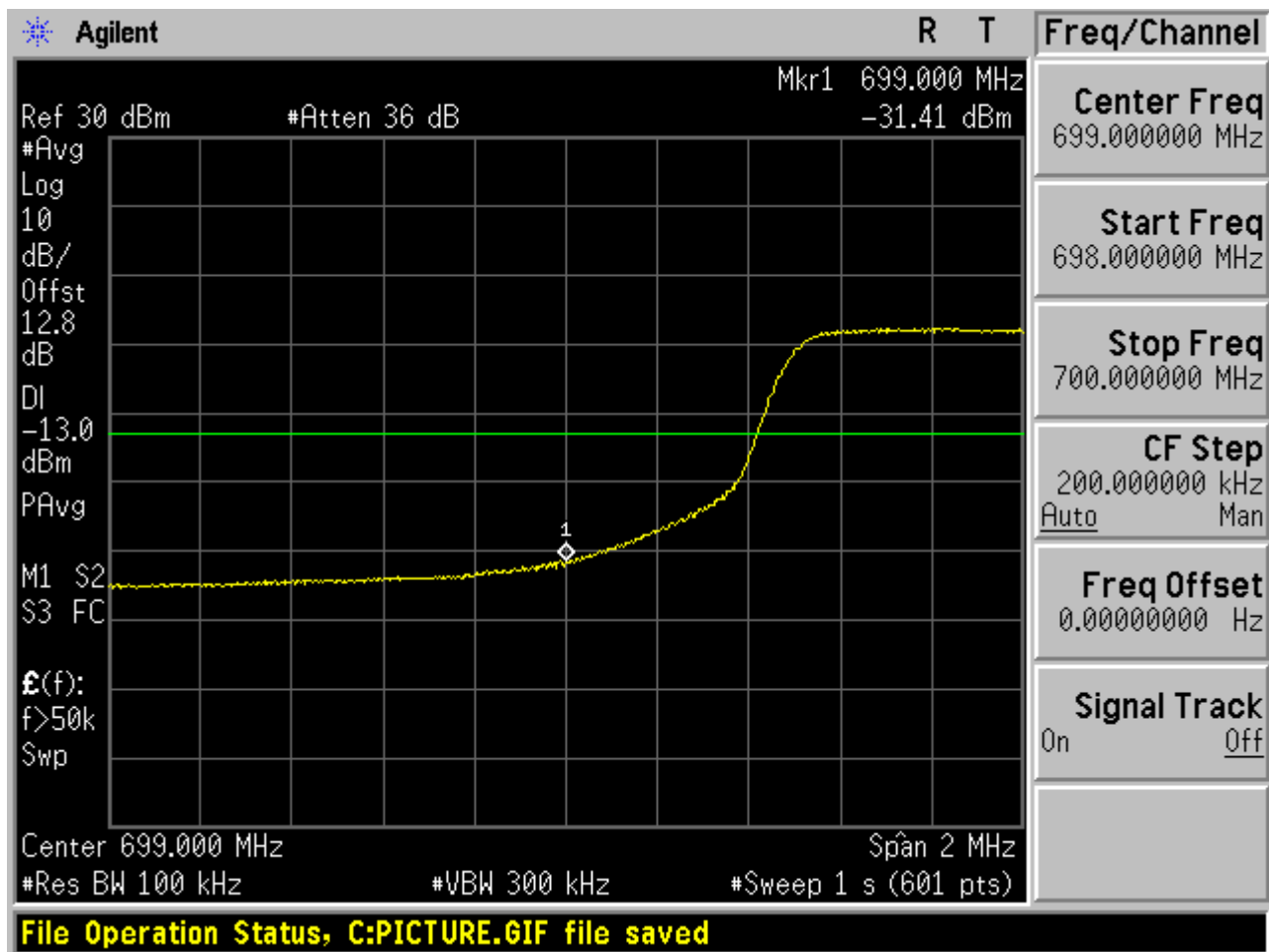


1.2.4.1.3 16QAM / non-1RB #mid/2





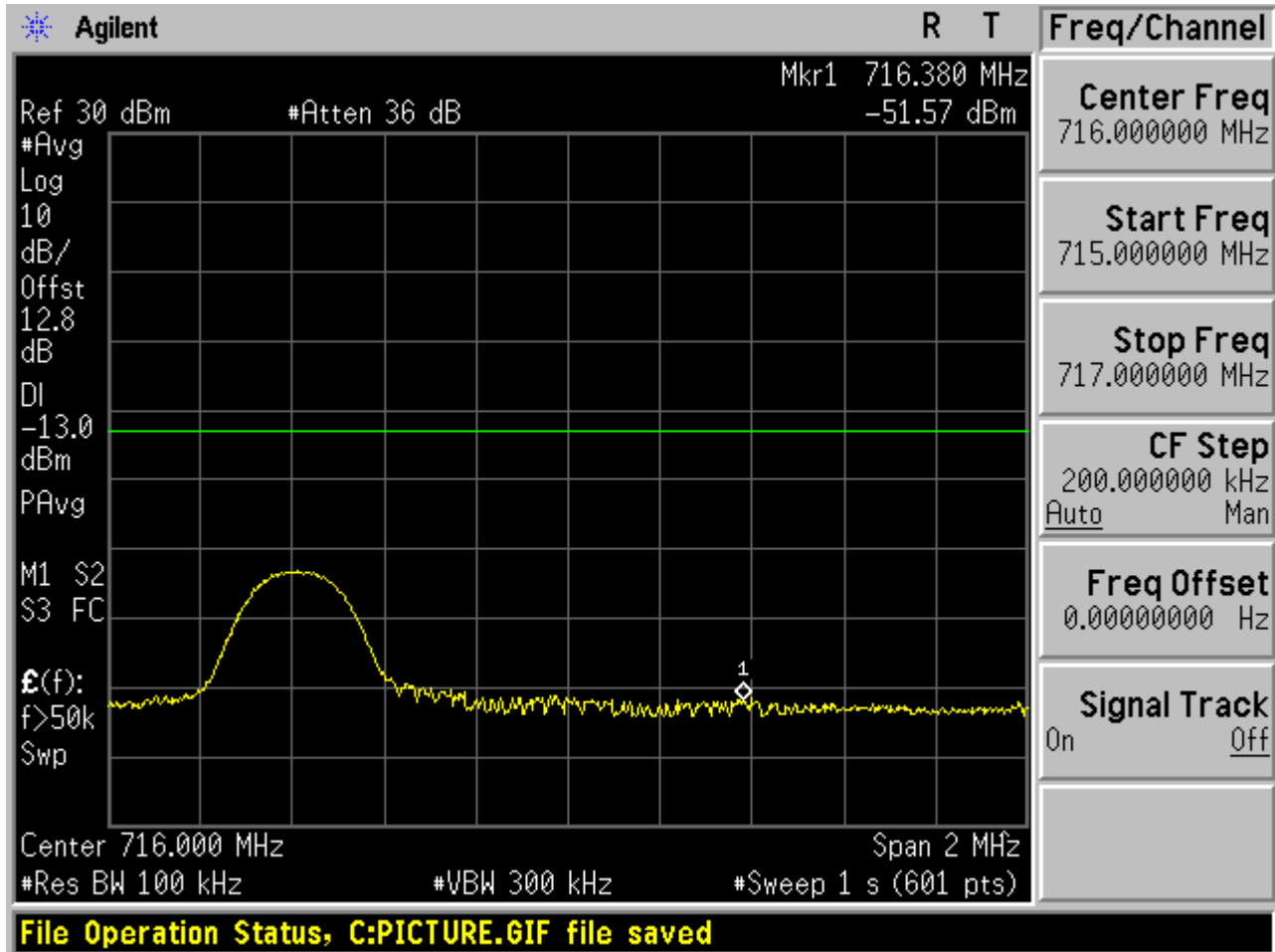
1.2.4.1.4 16QAM /full RBs





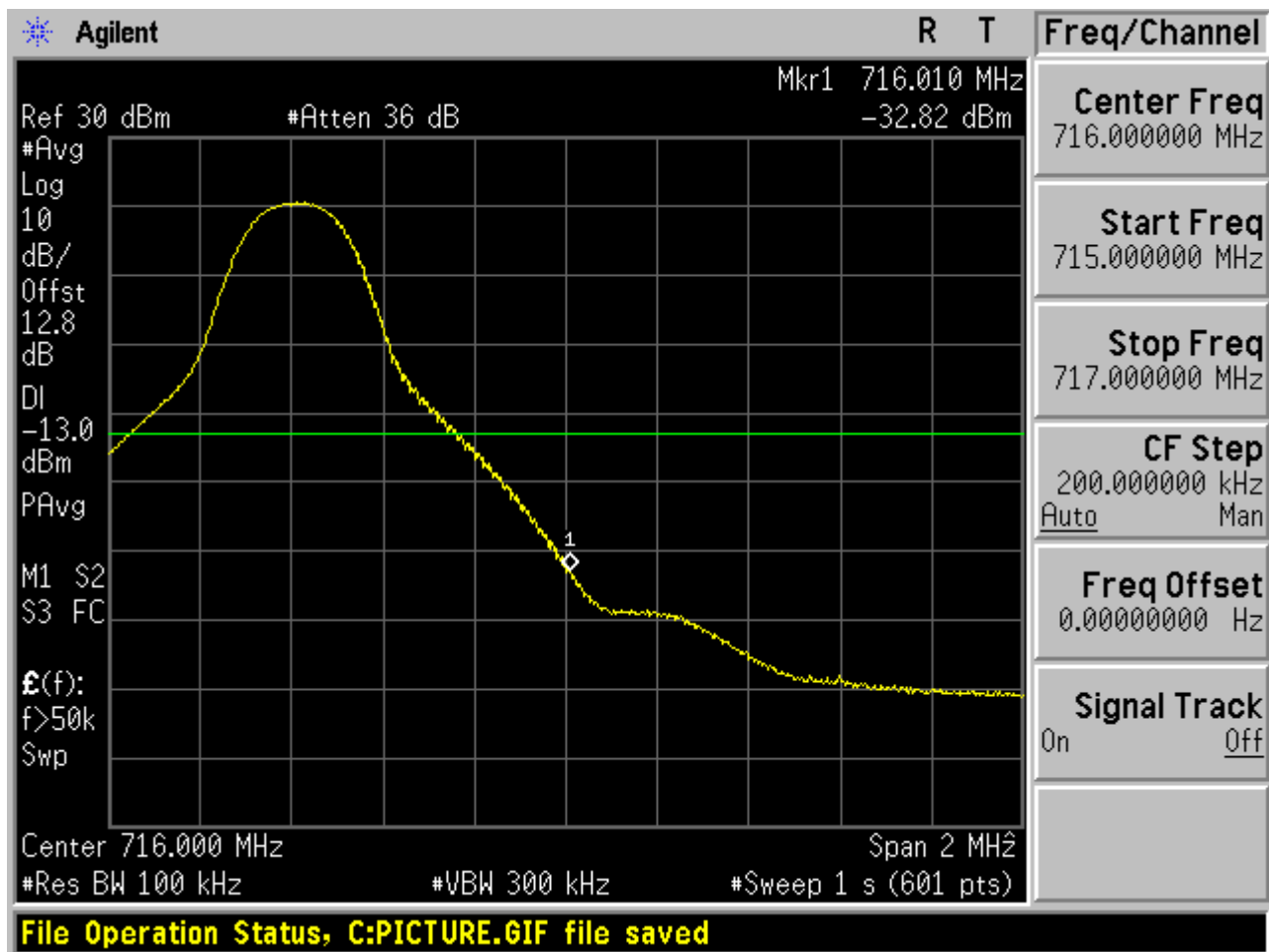
1.2.4.2 Channel = T

1.2.4.2.1 16QAM /1RB #0



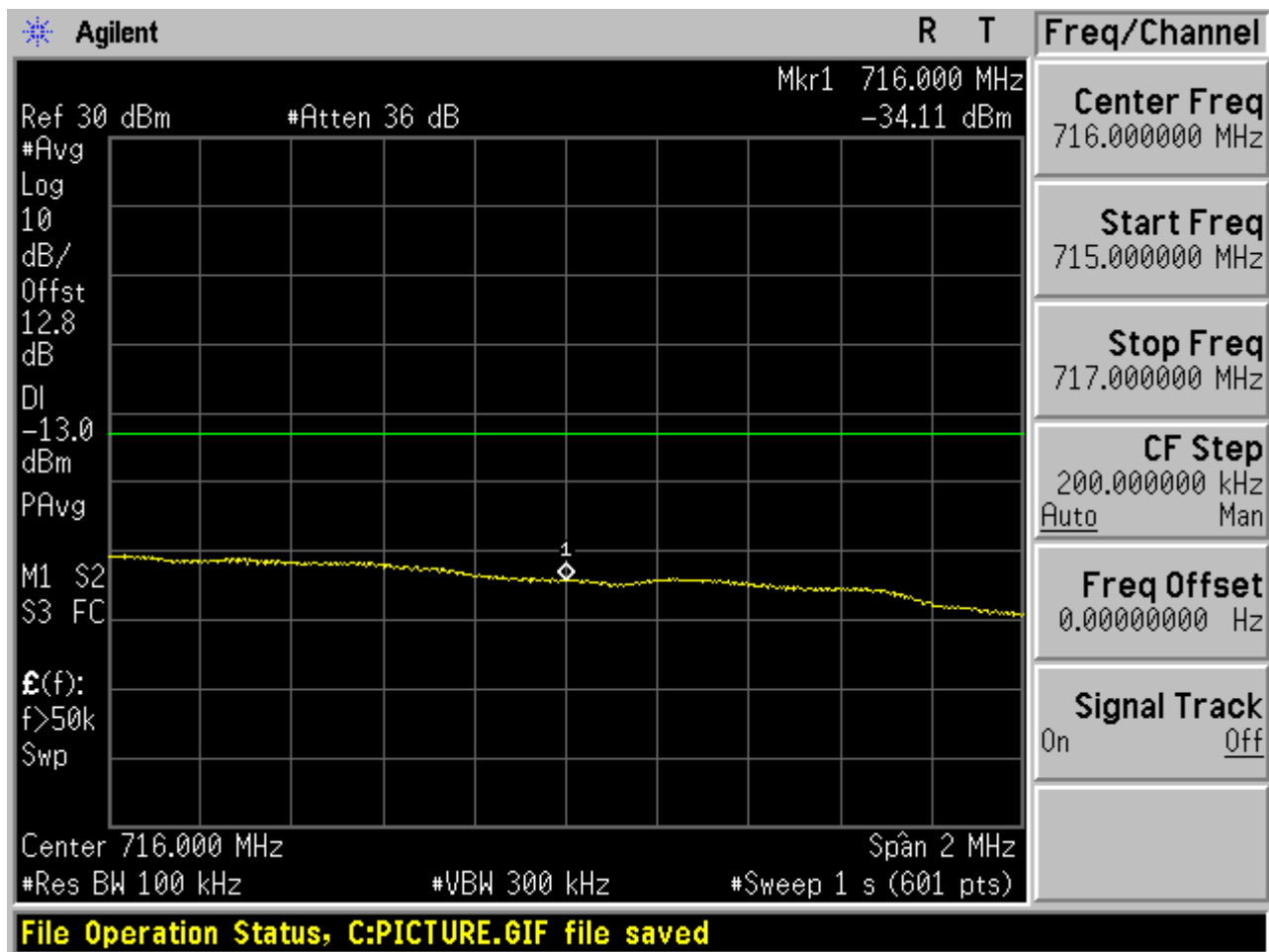


1.2.4.2.2 16QAM /1RB #max



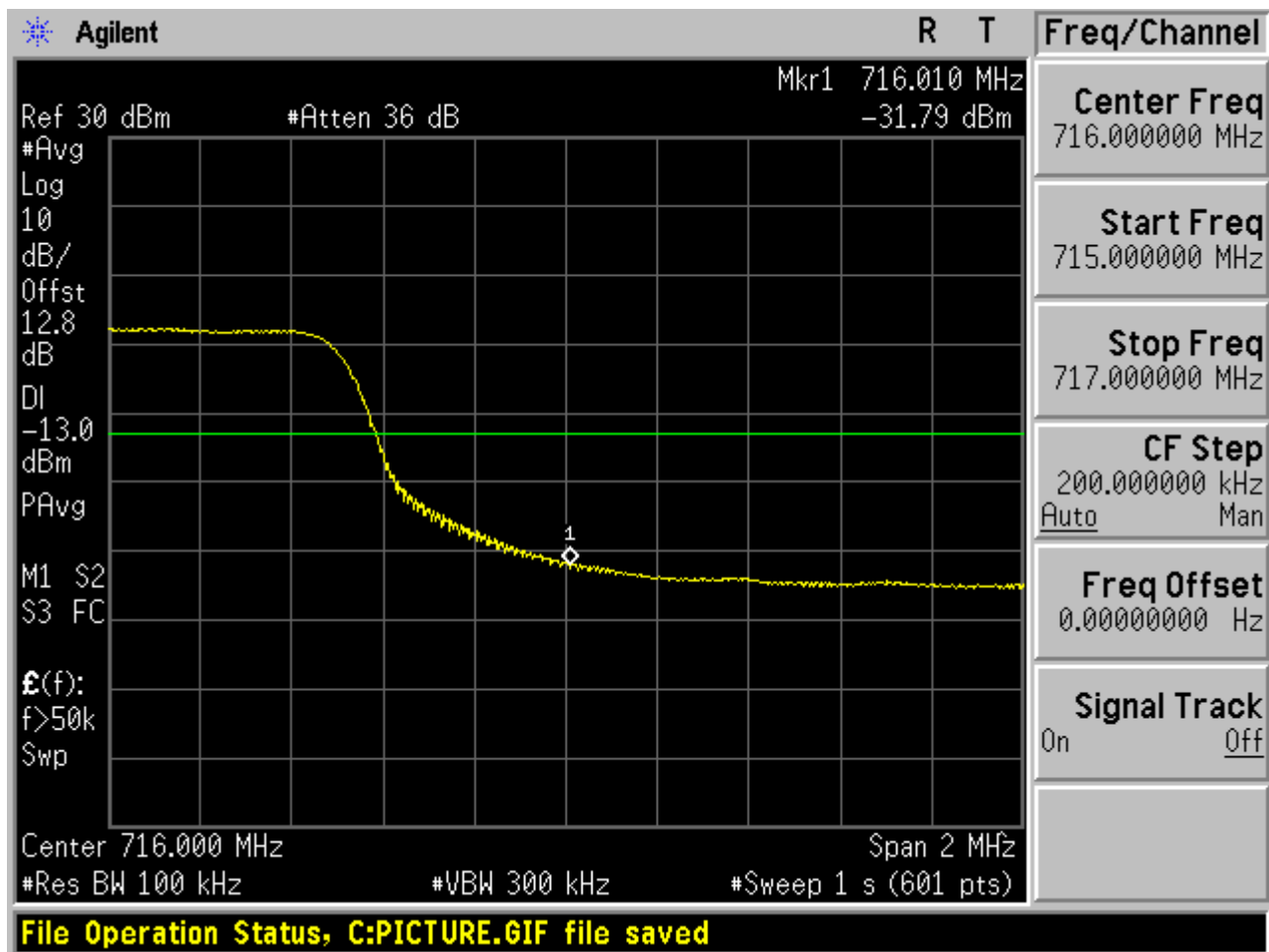


1.2.4.2.3 16QAM / non-1RB #mid/2





1.2.4.2.4 16QAM /full RBs



-----END-----



Appendix E

Spurious Emission at Antenna Terminal

According to FCC Part 2.1051 & Part 27.53(g)



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1 For Band 12

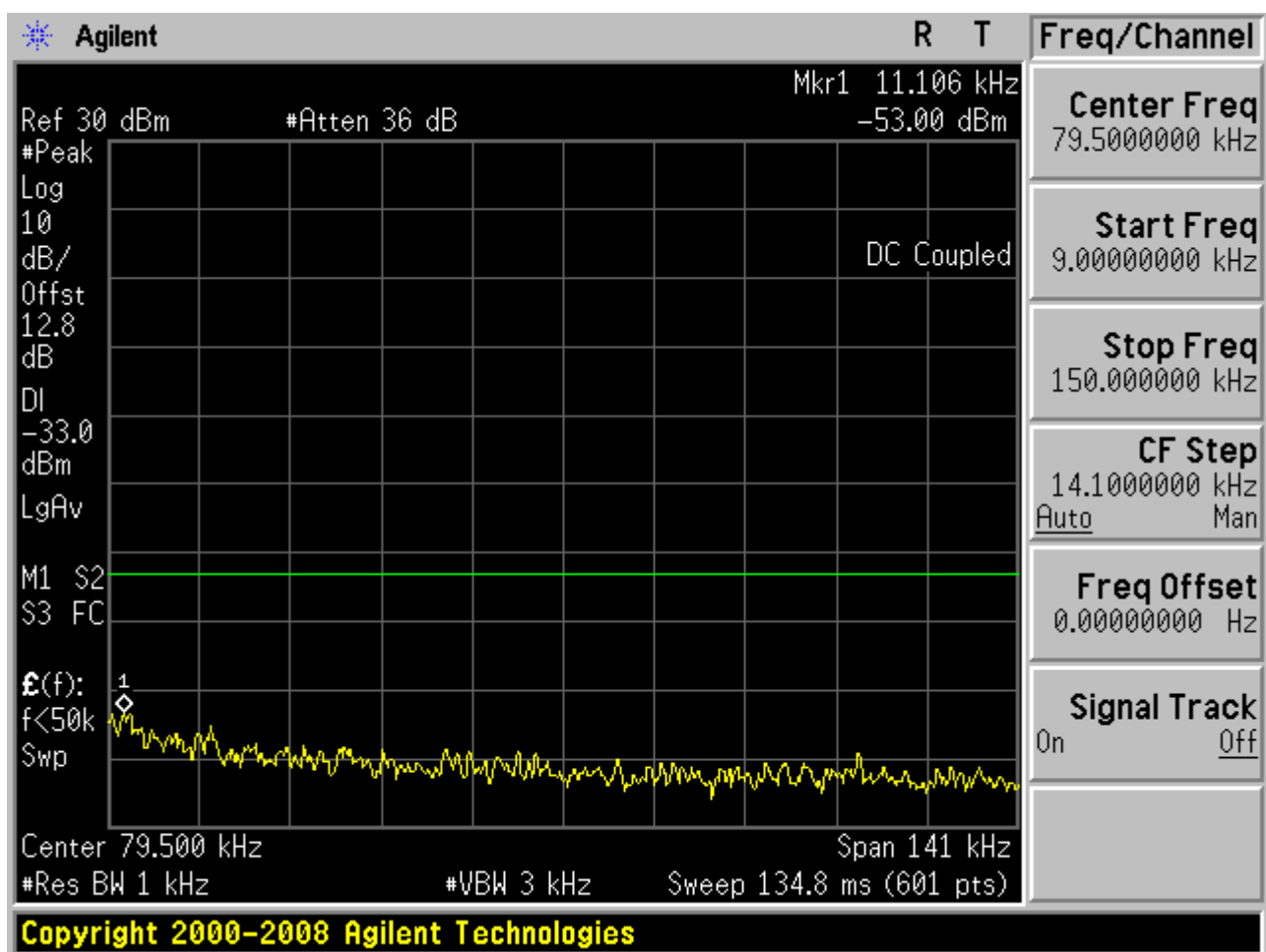
NOTE1: All relevant operation modes have been tested, and the 1RBs /RB#0 case data is included in this report.

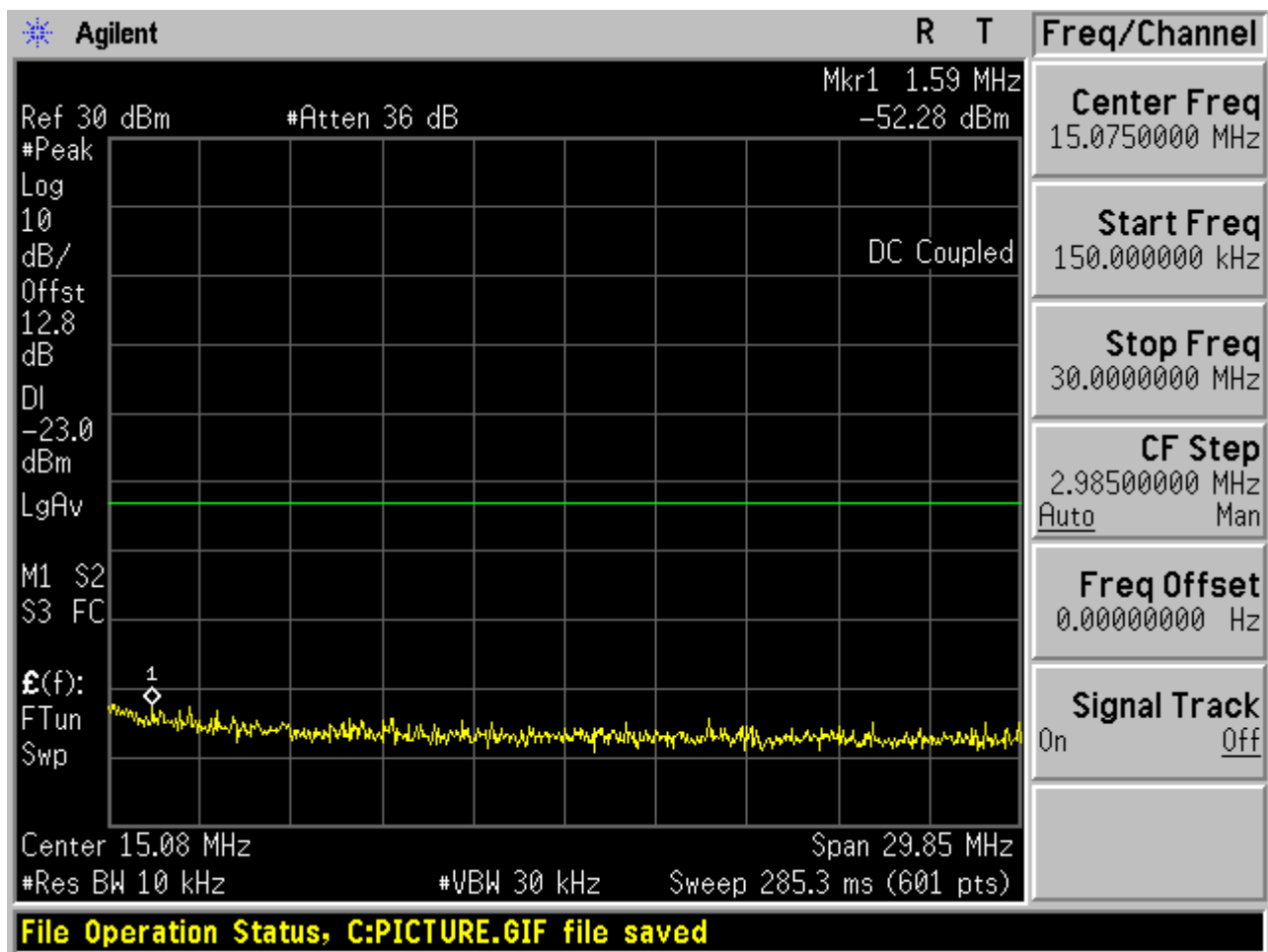
1.1 Test Mode=TM1

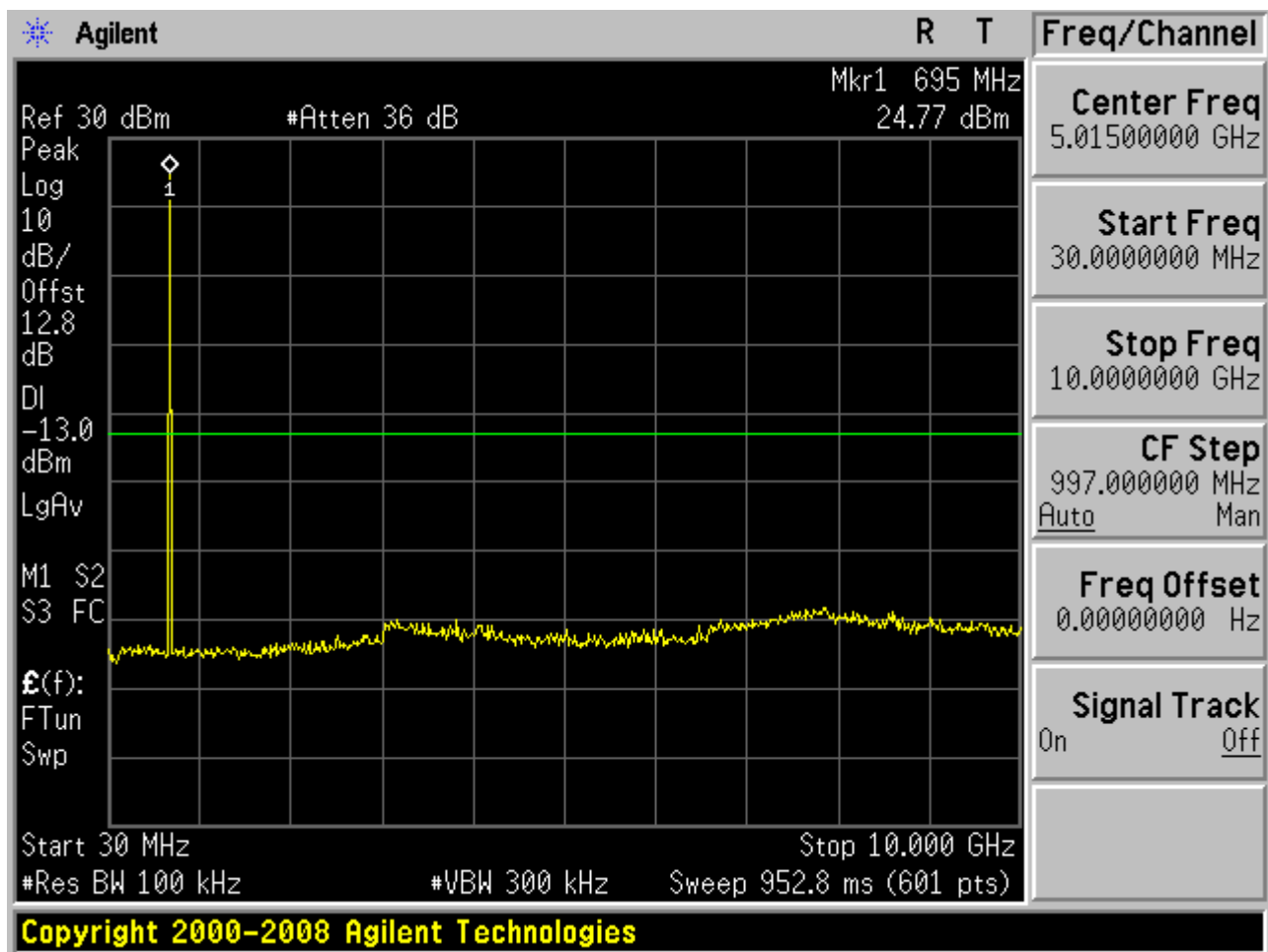
1.1.1 Channel Bandwidth = 1.4 MHz

1.1.1.1 Channel = B

1.1.1.1.1 QPSK/1RBs /RB #0



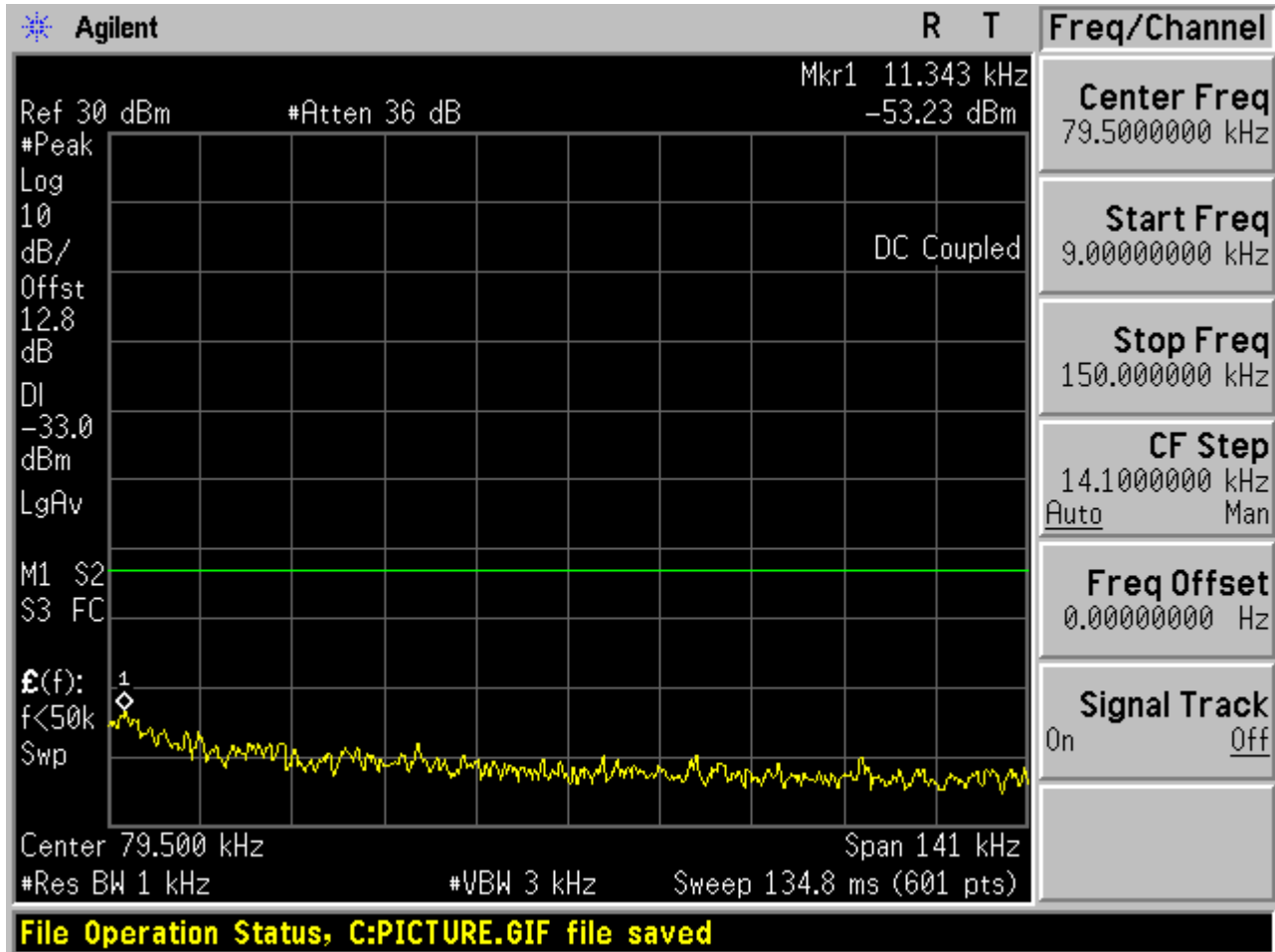


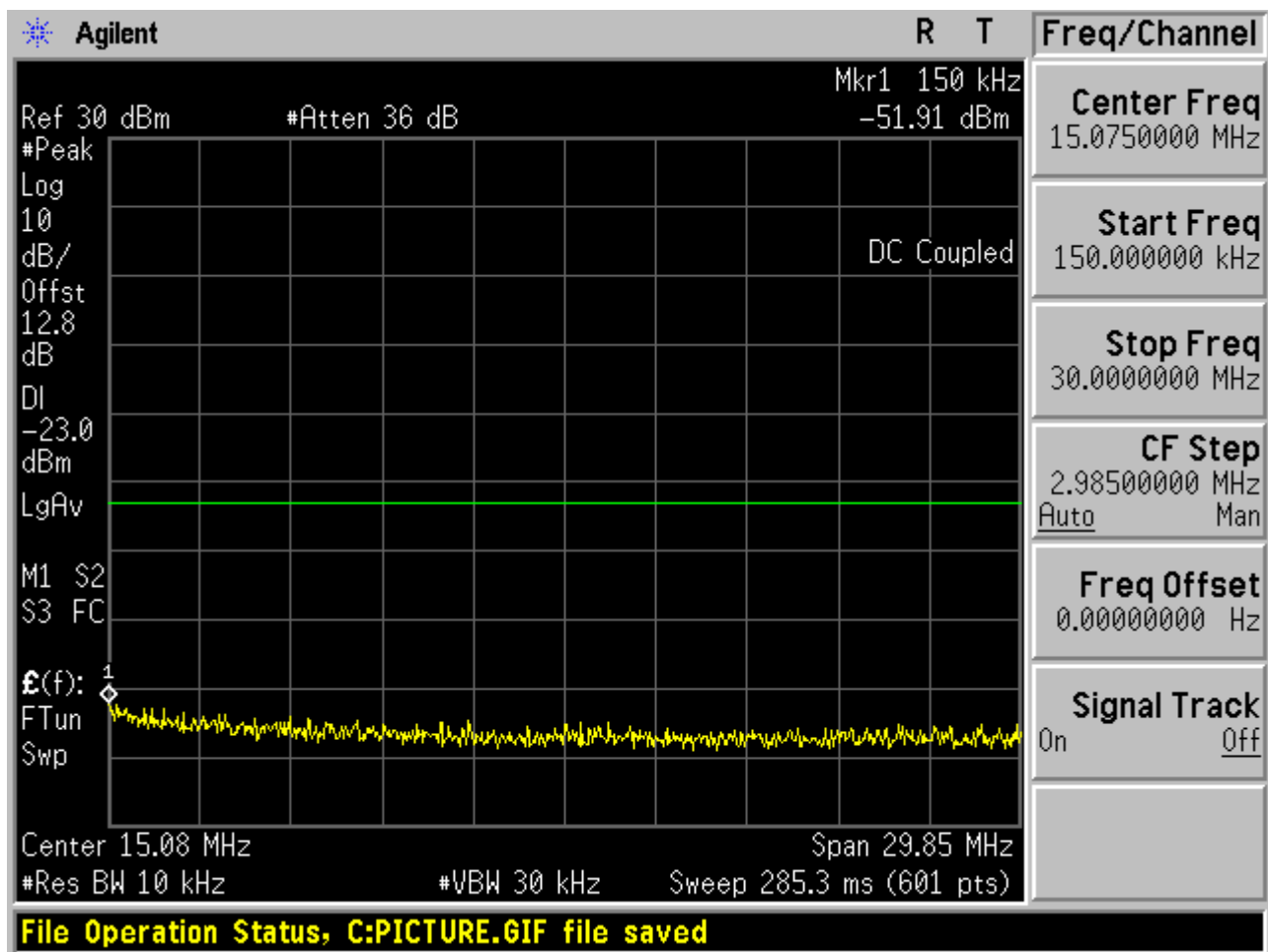


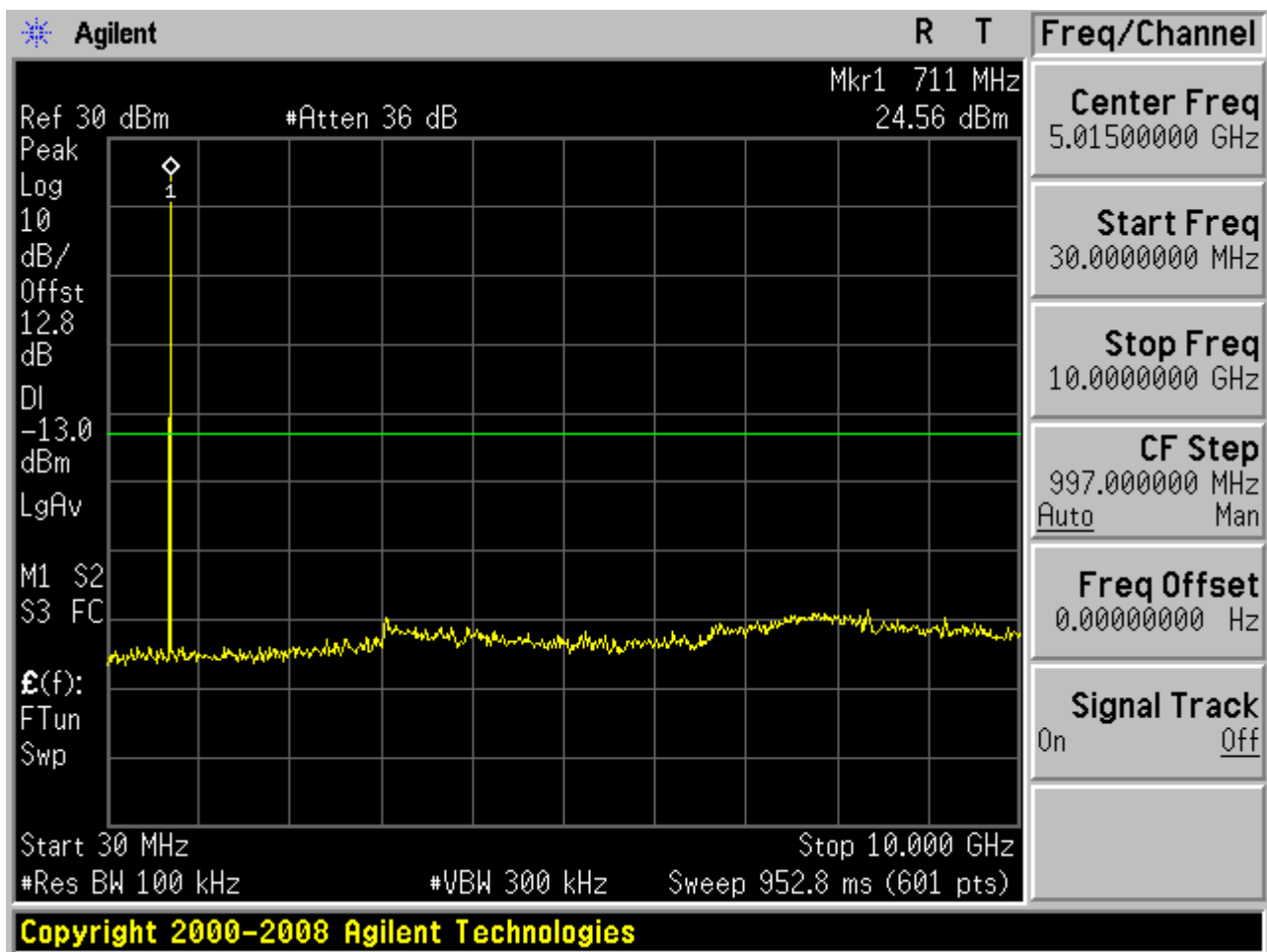


1.1.1.2 Channel = M

1.1.1.2.1 QPSK/1RBs /RB #0



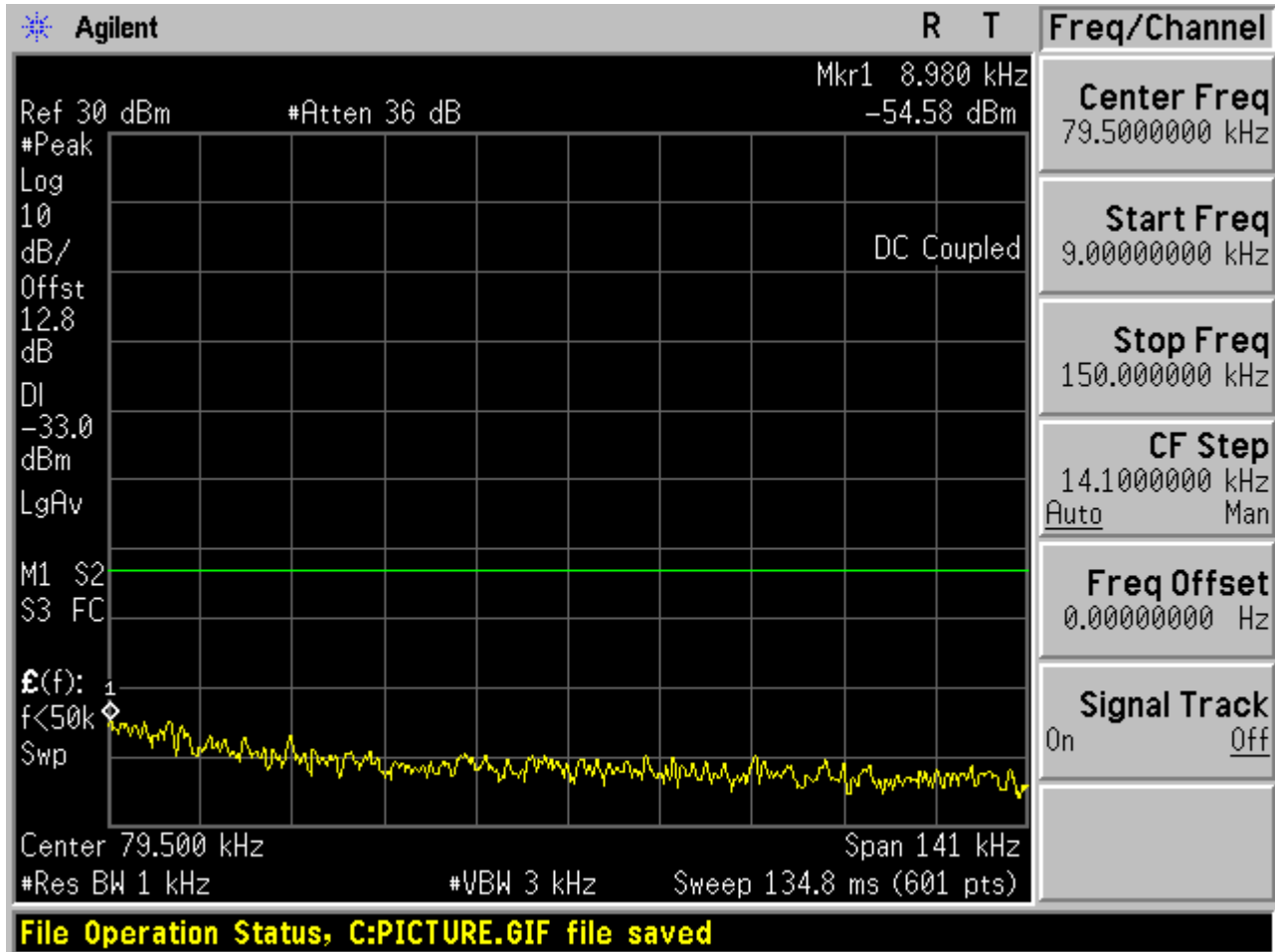


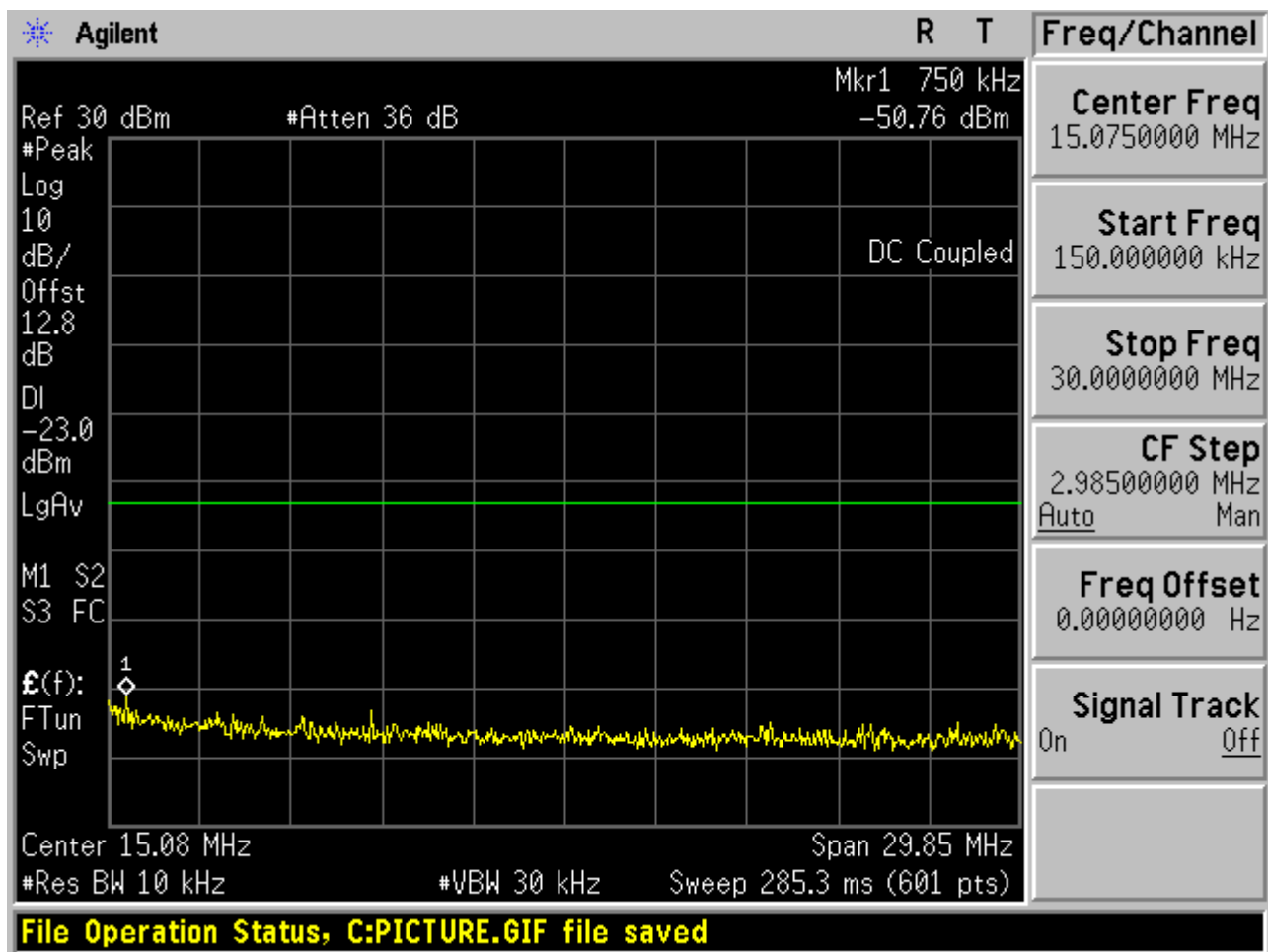


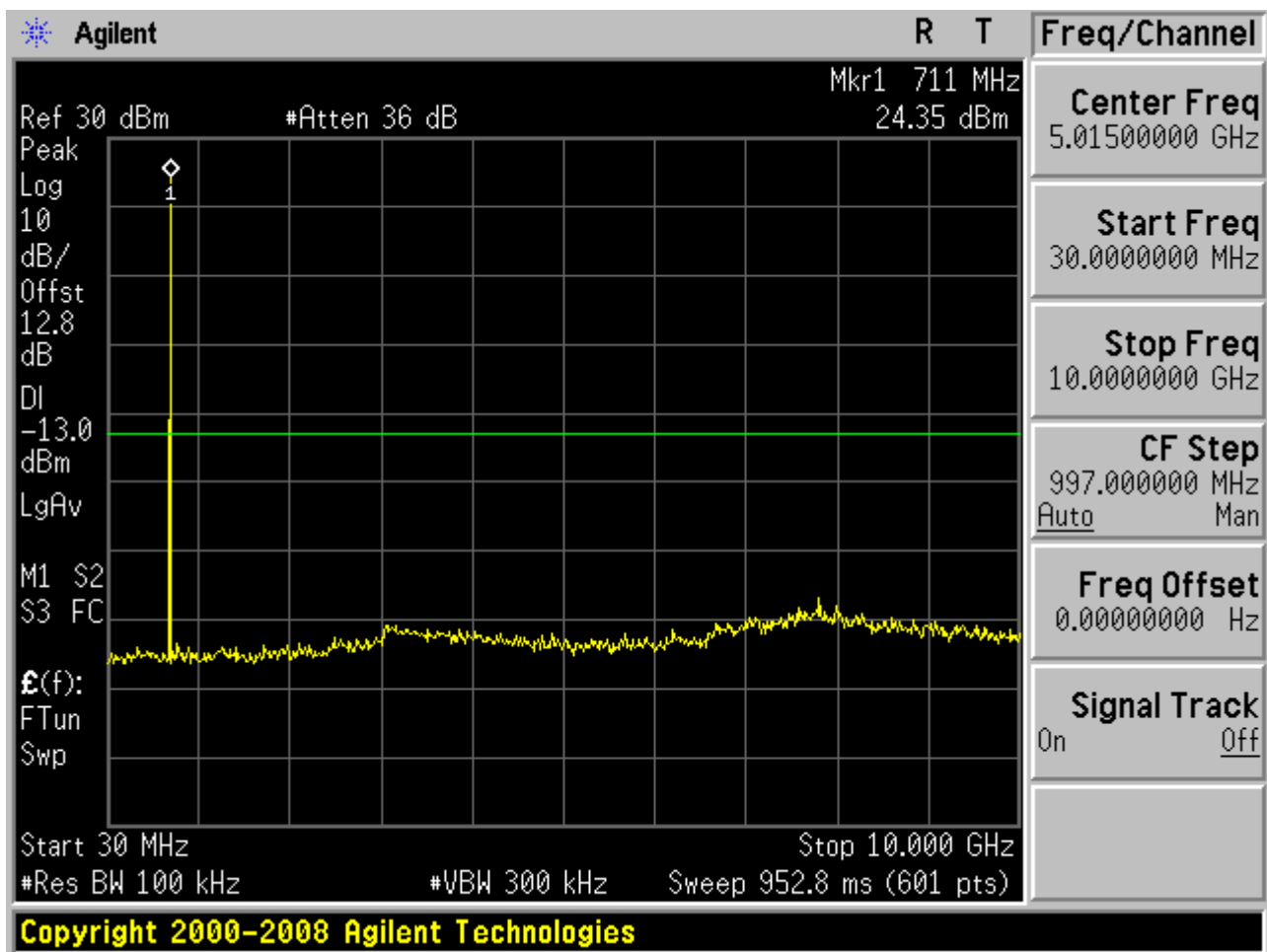


1.1.1.3 Channel = T

1.1.1.3.1 QPSK/1RBs /RB #0





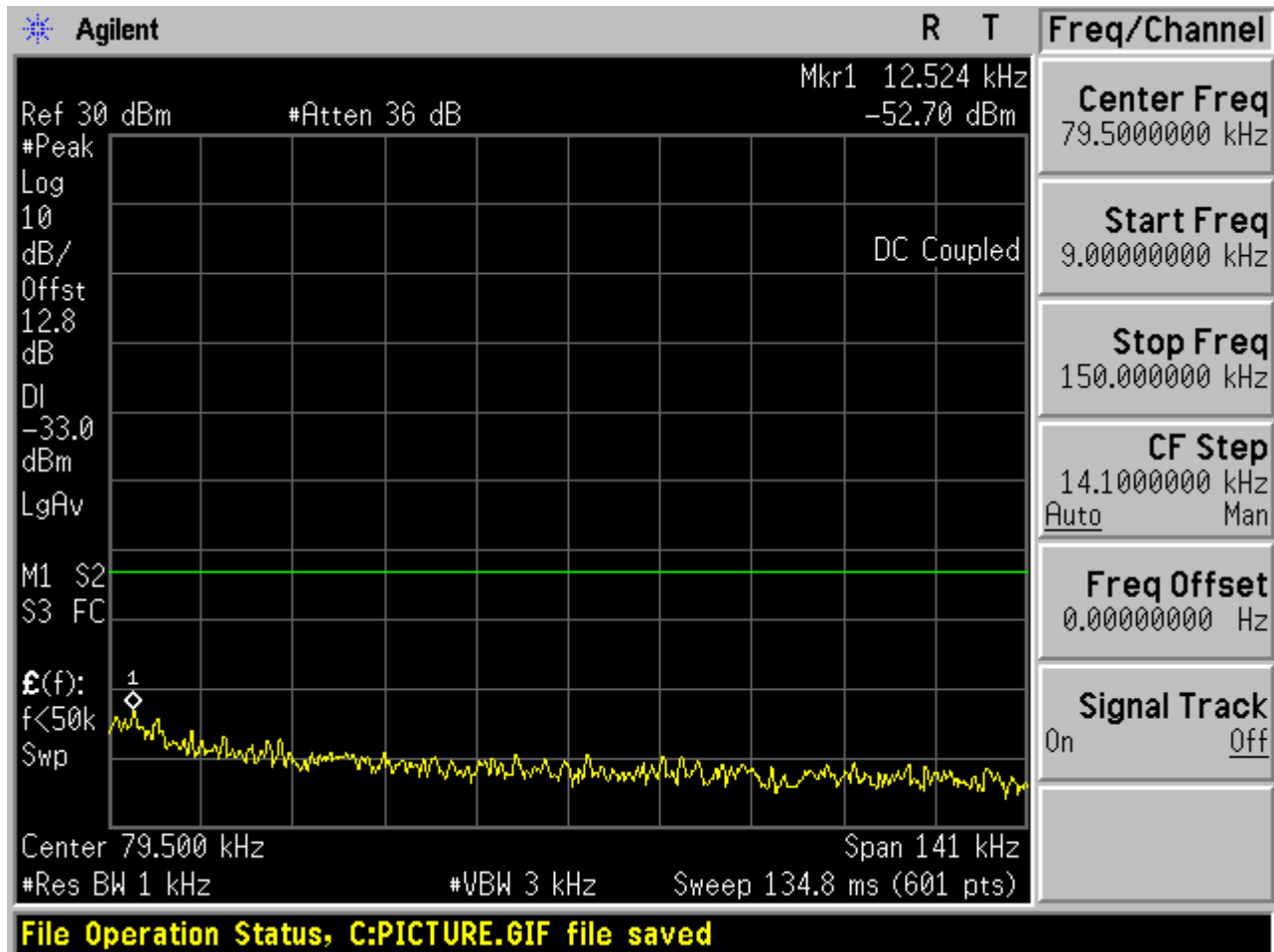


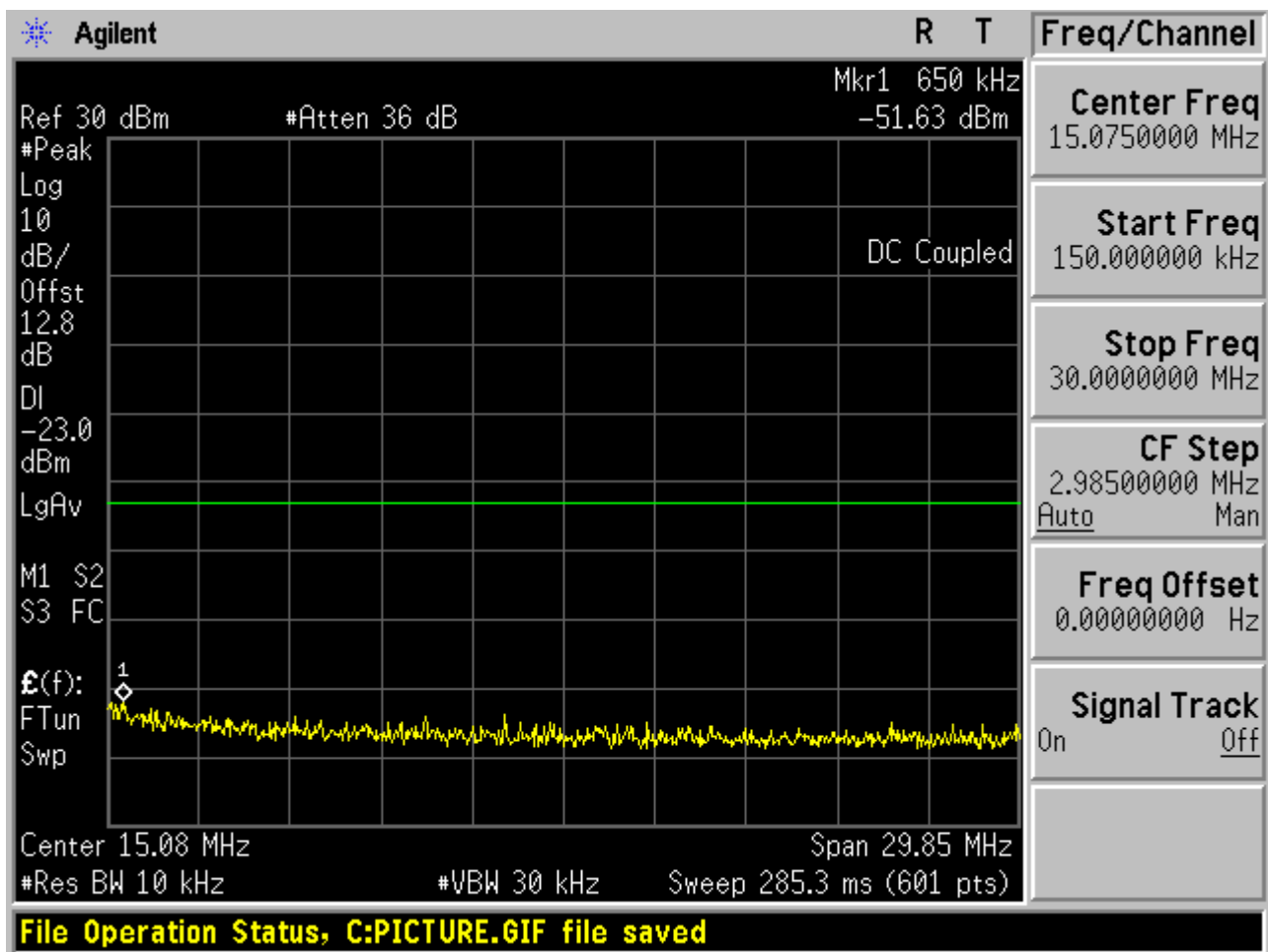


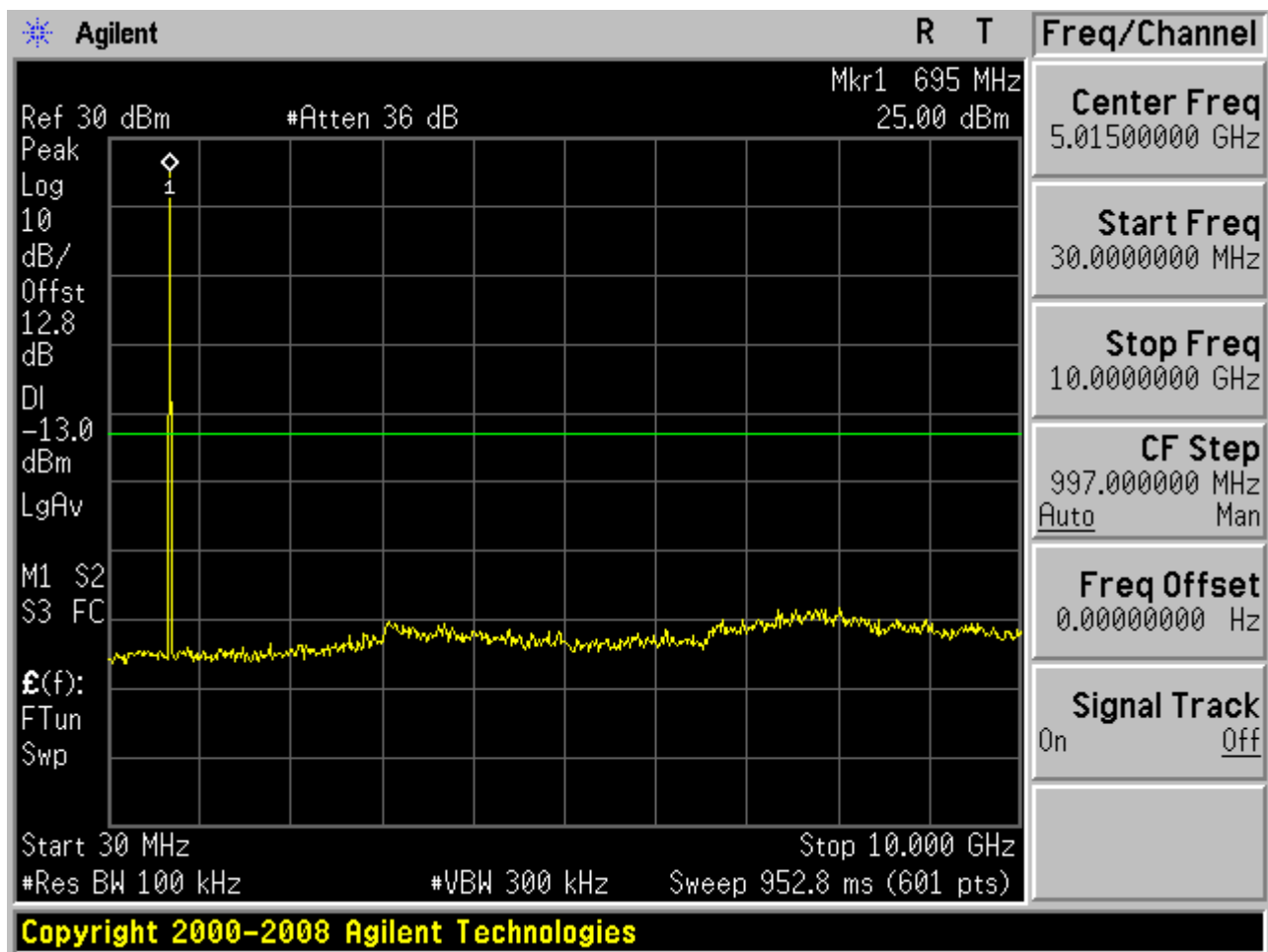
1.1.2 Channel Bandwidth = 3 MHz

1.1.2.1 Channel = B

1.1.2.1.1 QPSK/1RBs /RB #0



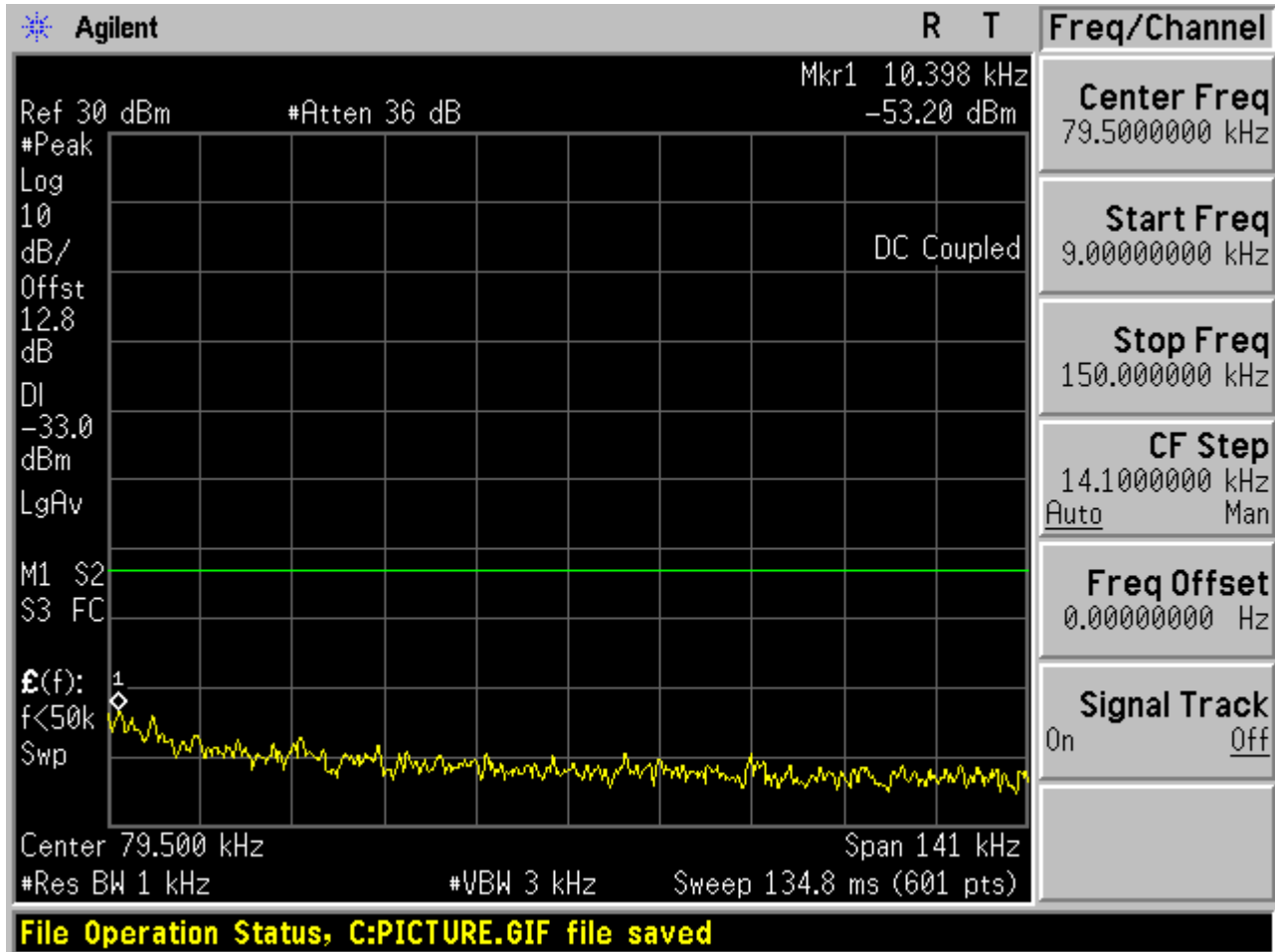


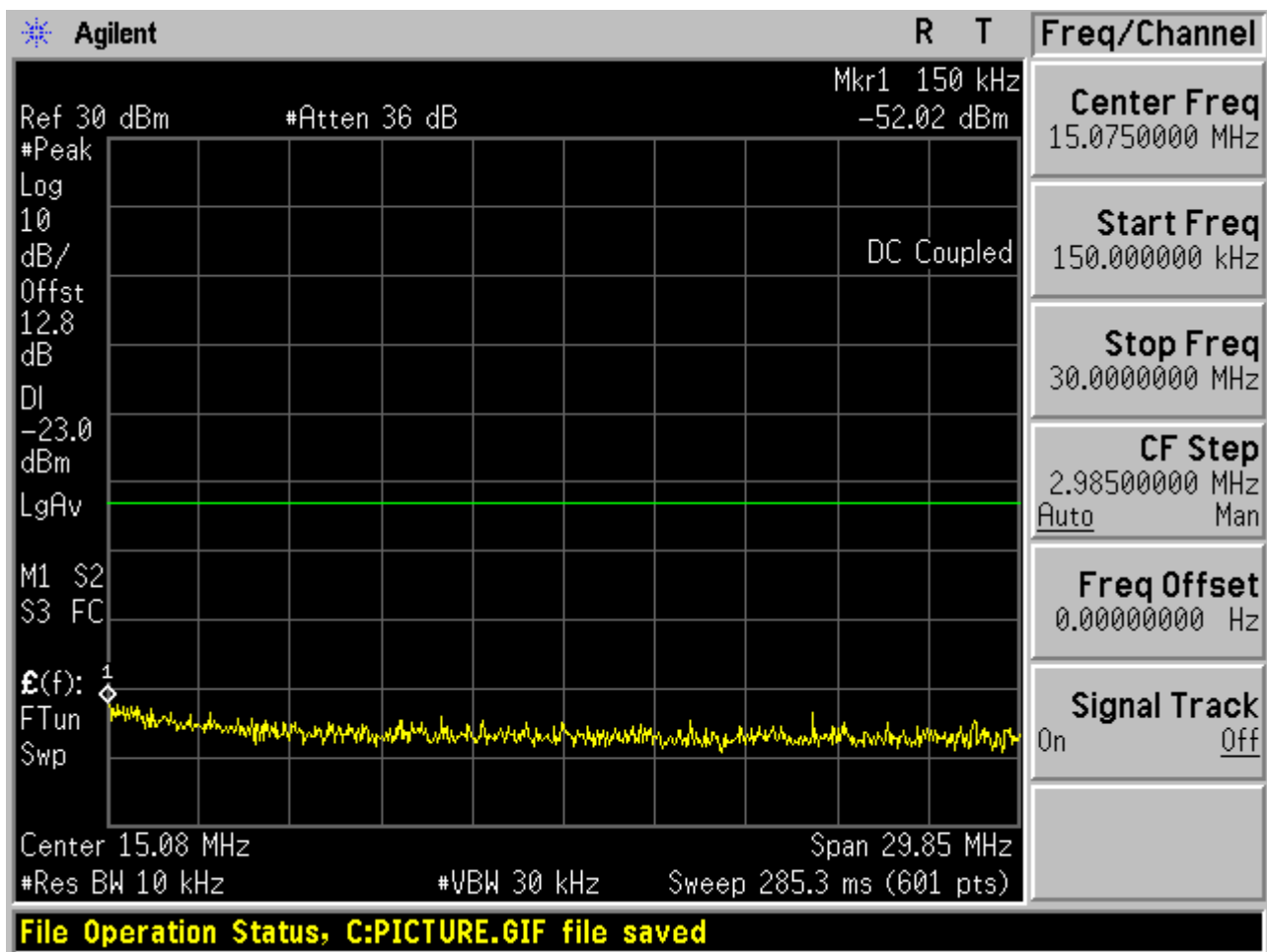


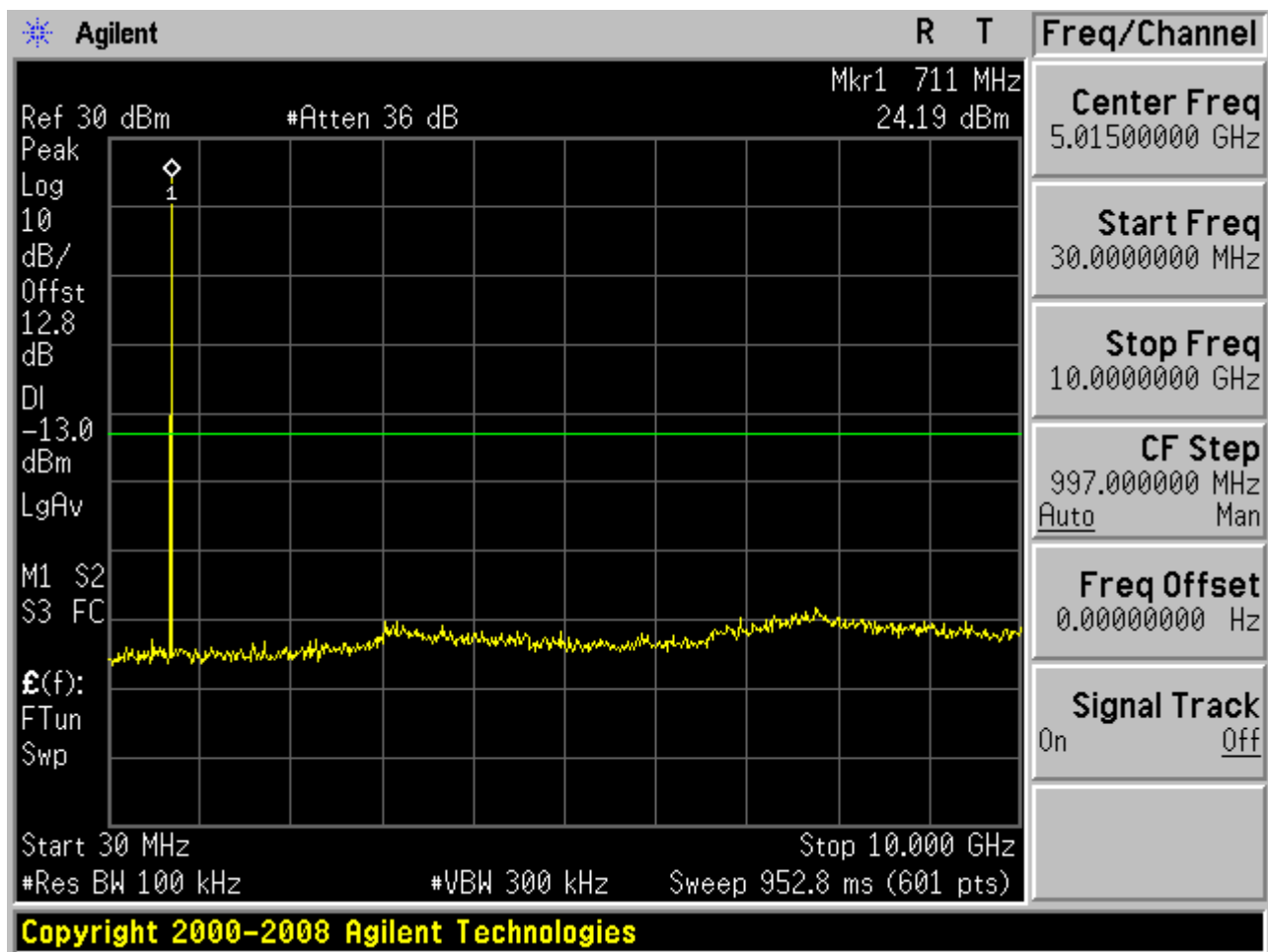


1.1.2.2 Channel = M

1.1.2.2.1 QPSK/1RBs /RB #0



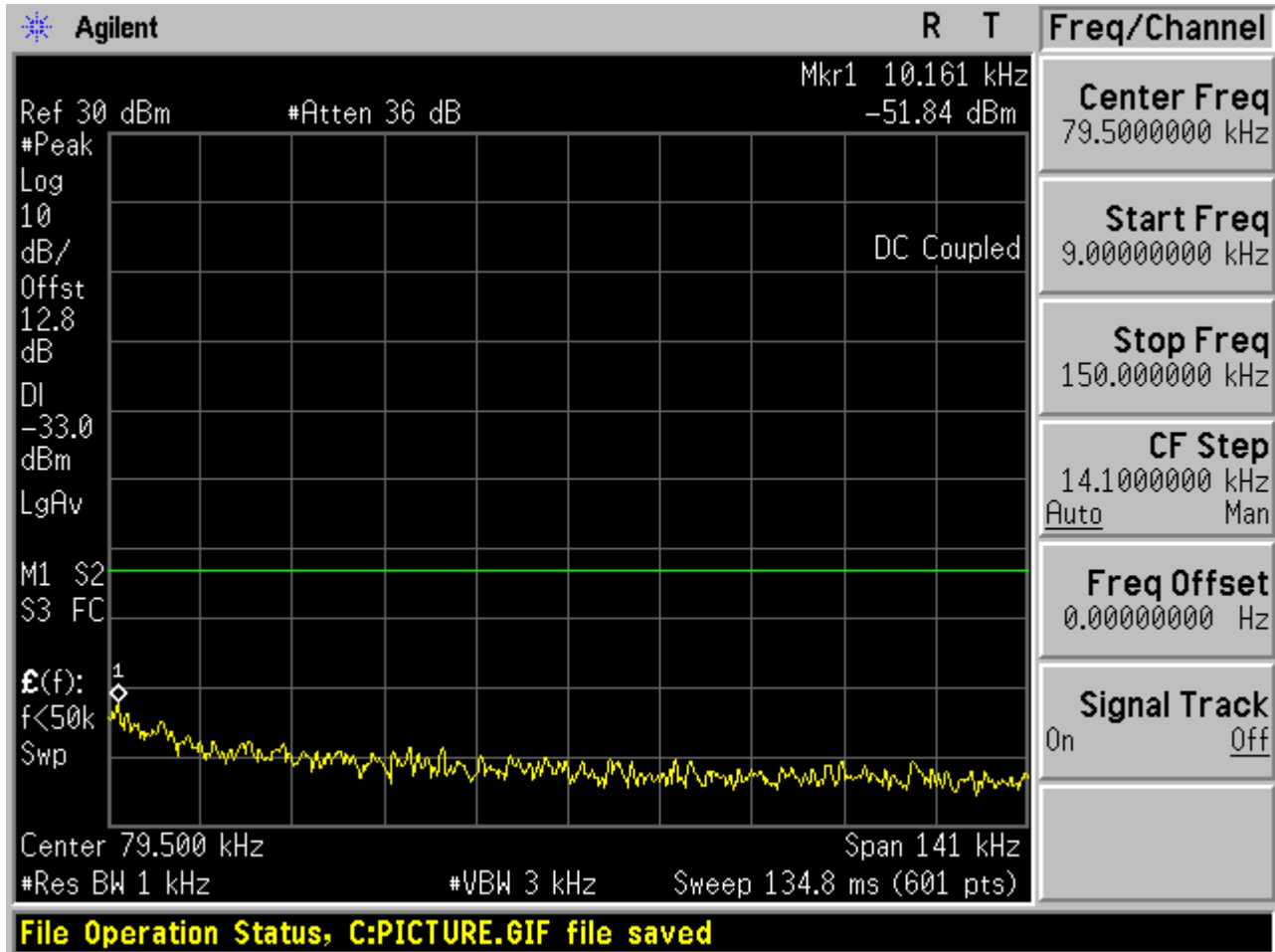


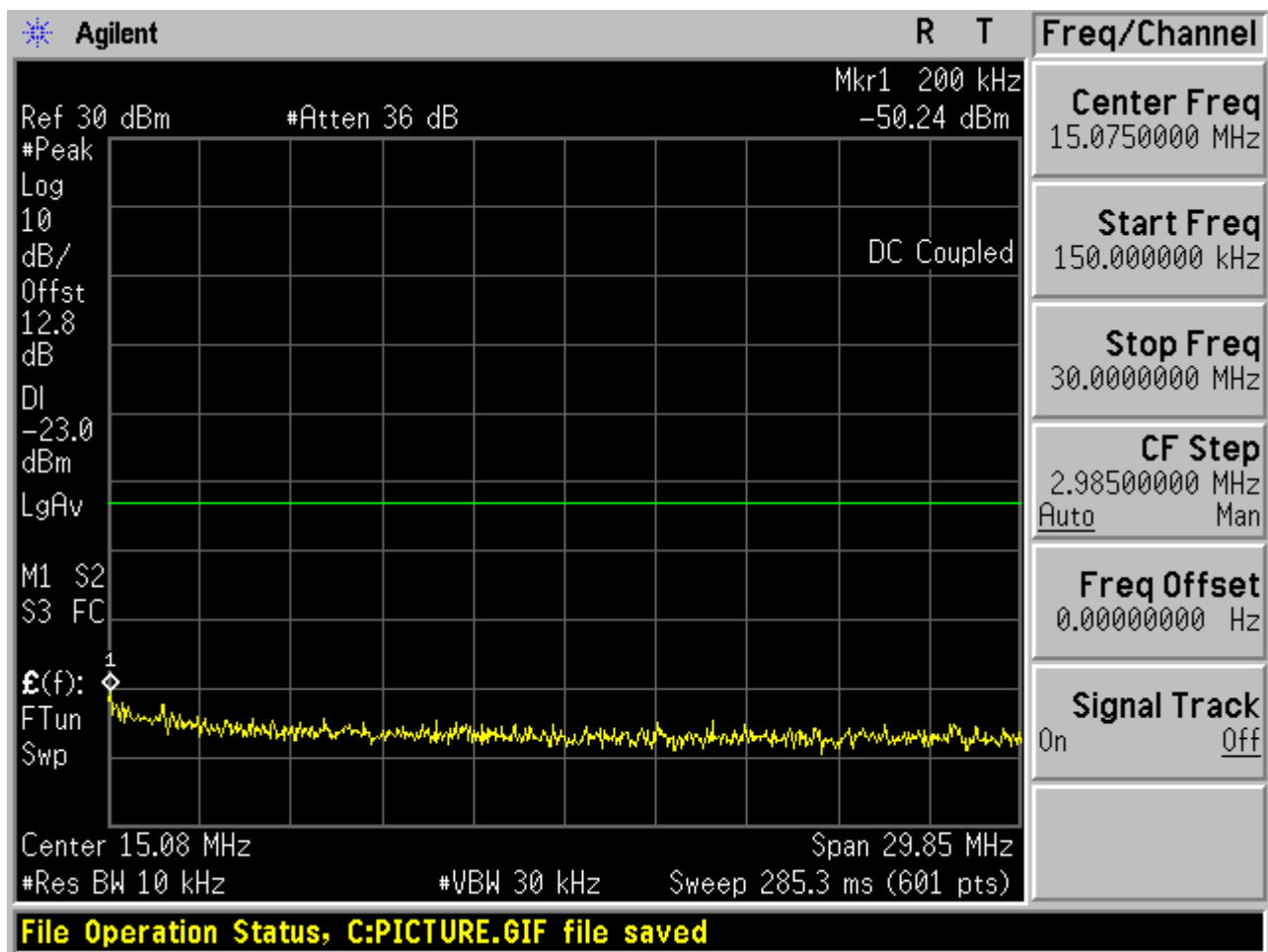


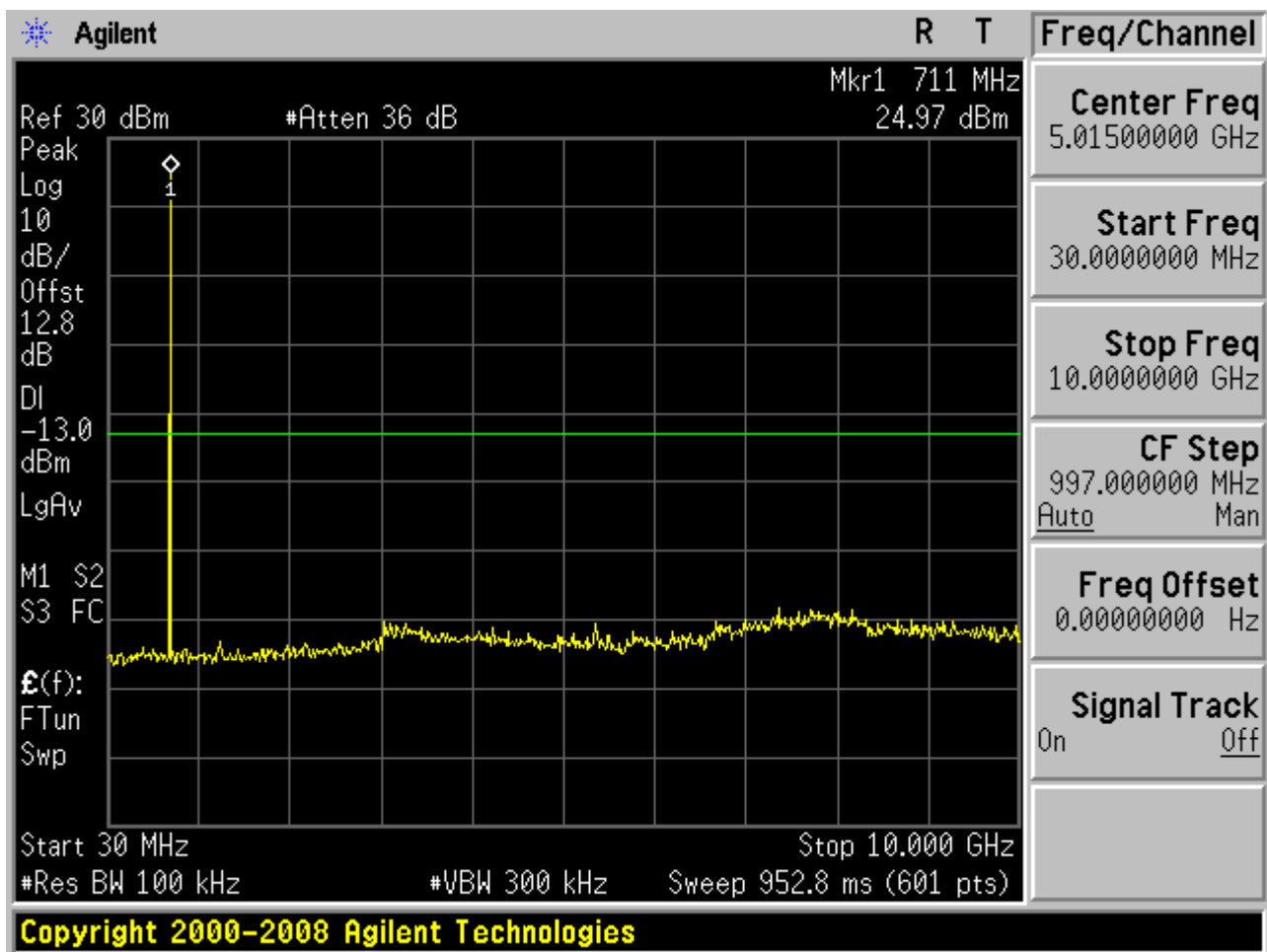


1.1.2.3 Channel = T

1.1.2.3.1 QPSK/1RBs /RB #0





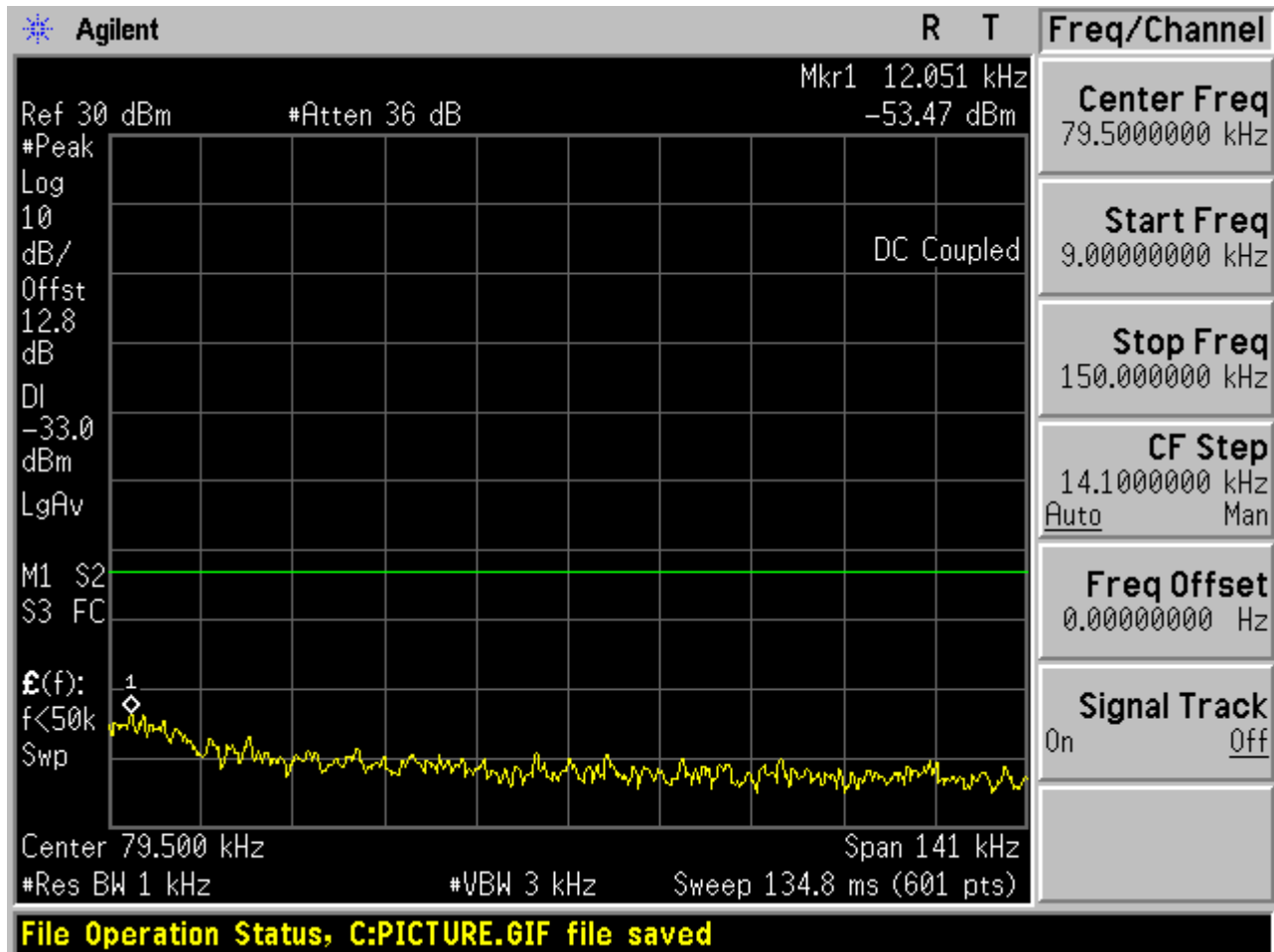


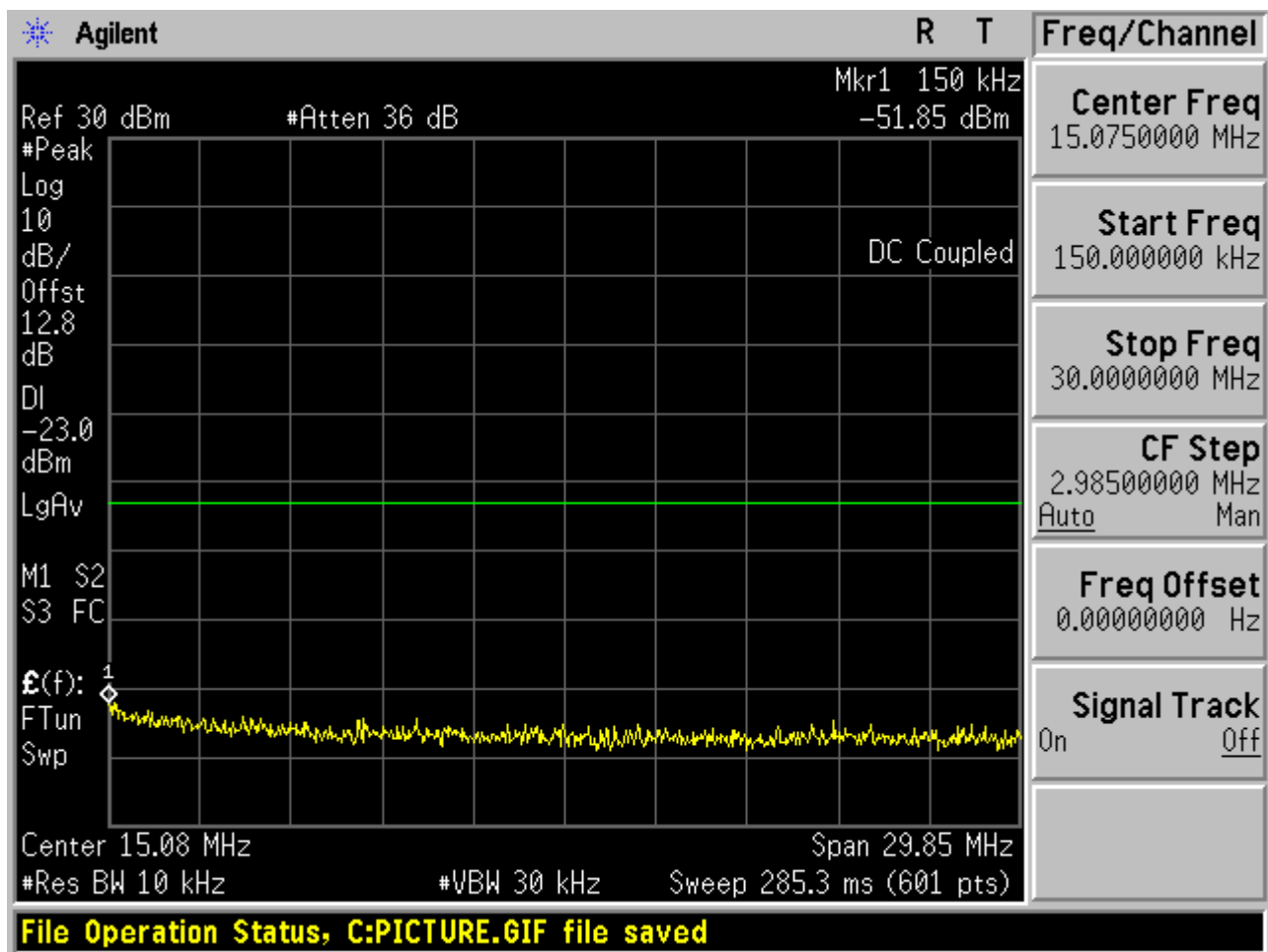


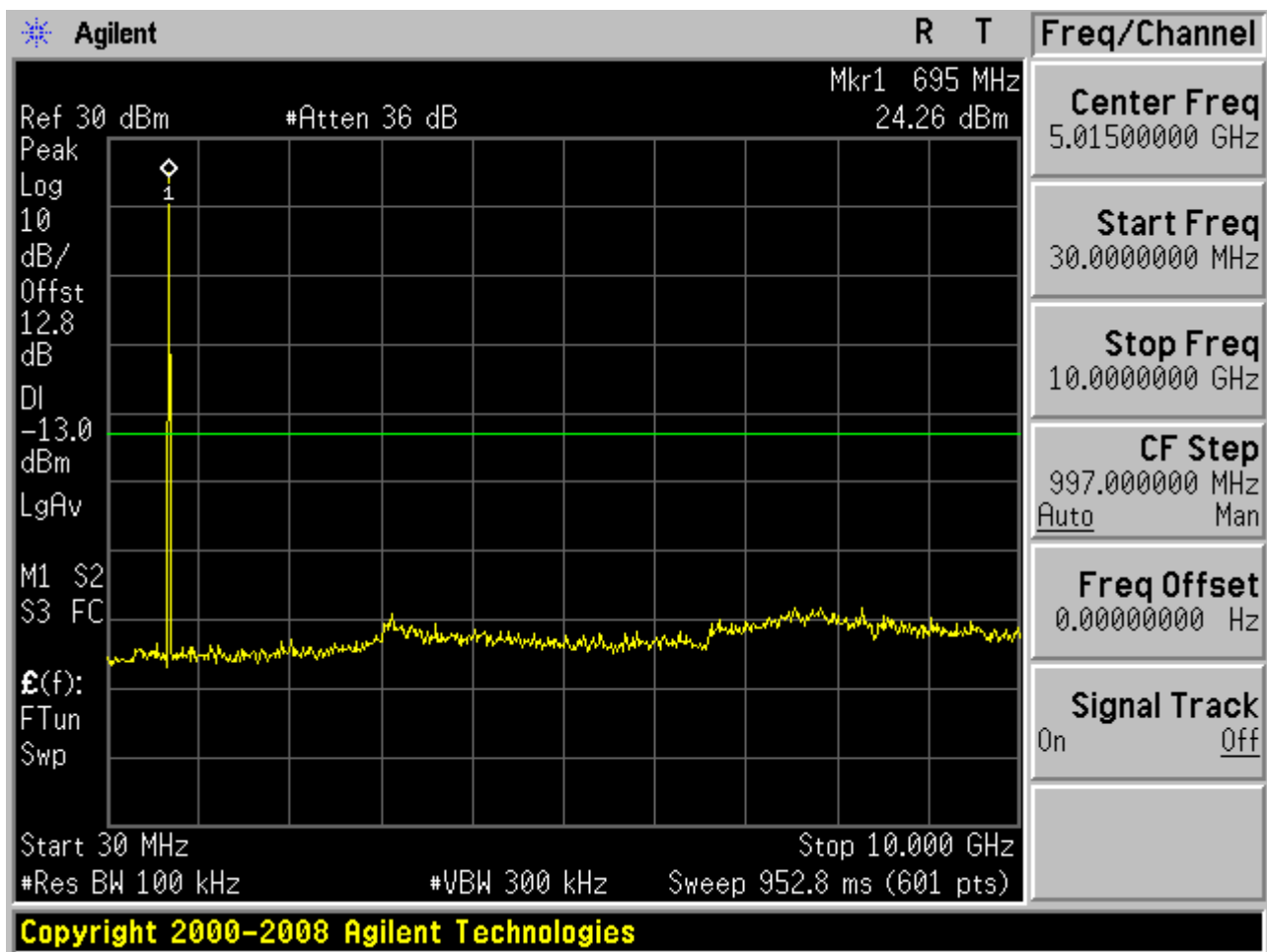
1.1.3 Channel Bandwidth = 5 MHz

1.1.3.1 Channel = B

1.1.3.1.1 QPSK/1RBs /RB #0



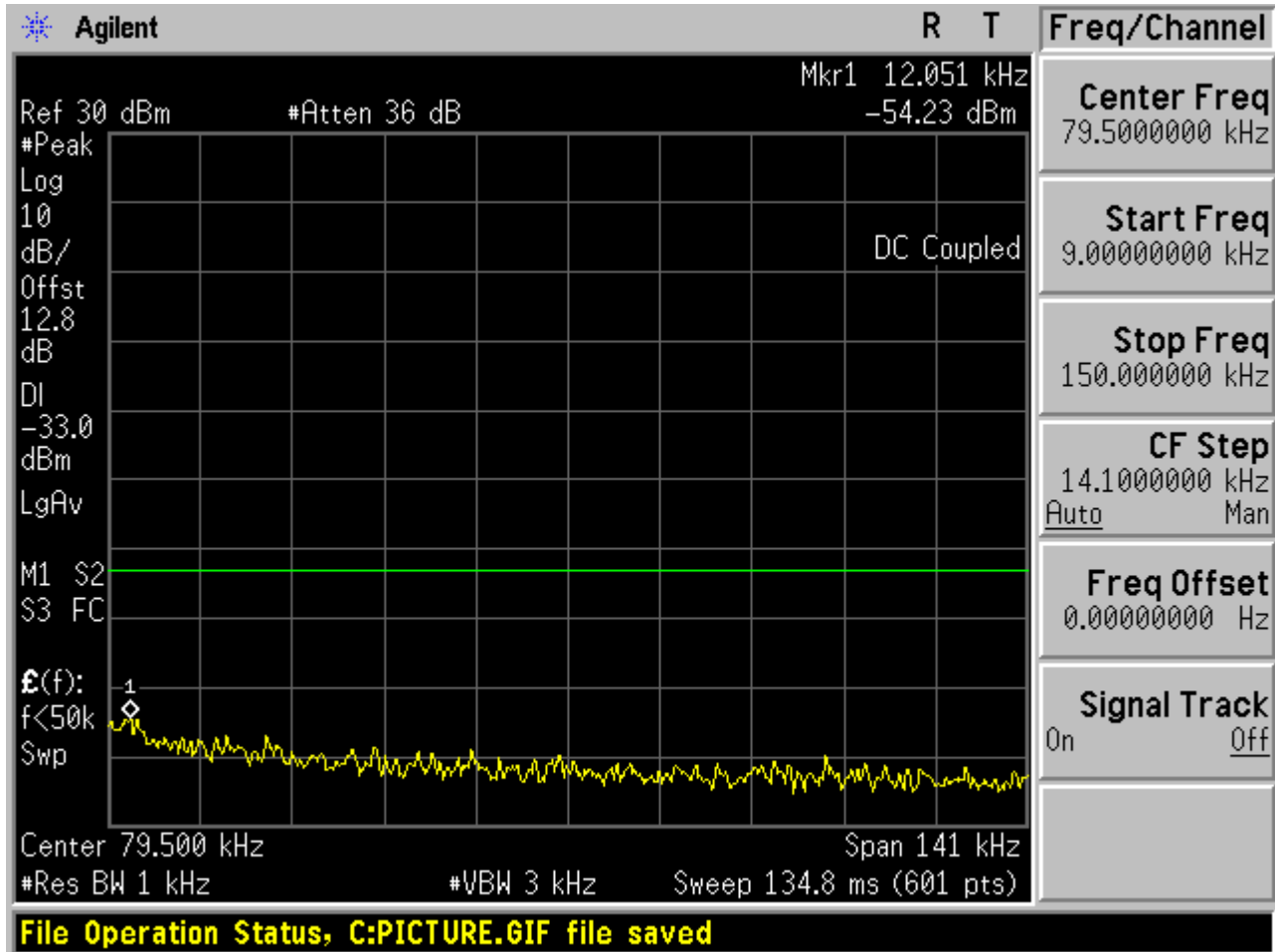


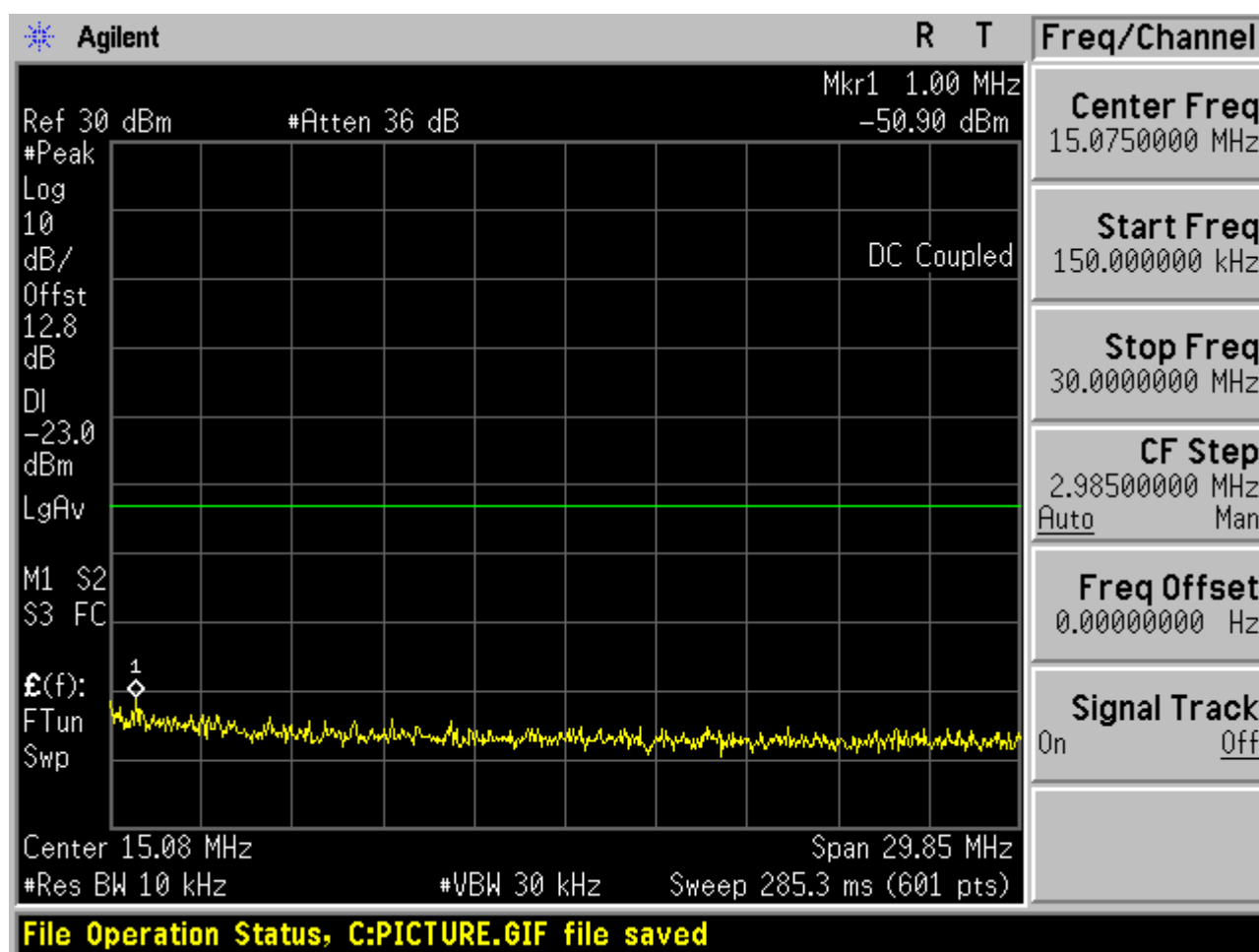


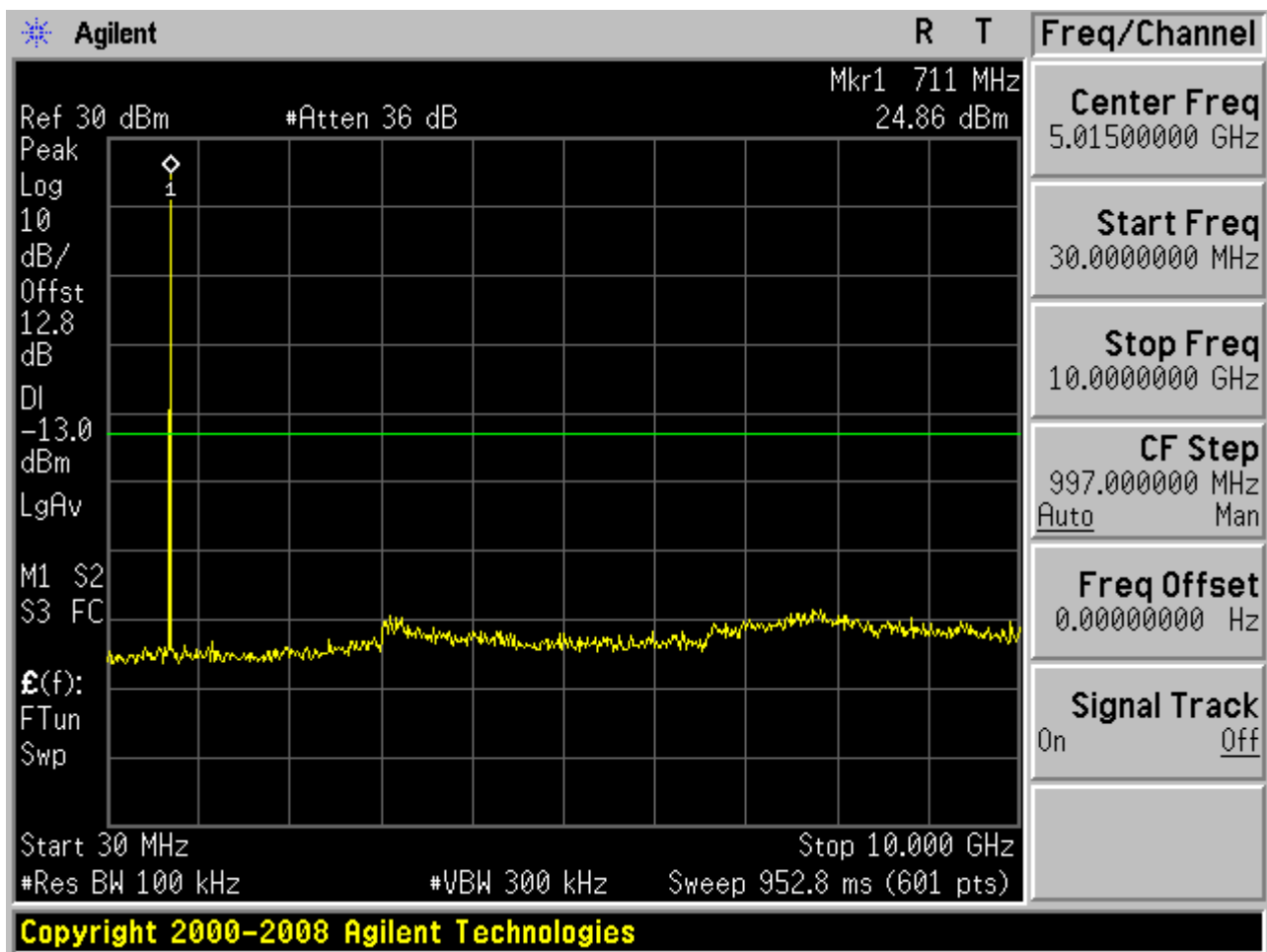


1.1.3.2 Channel = M

1.1.3.2.1 QPSK/1RBs /RB #0



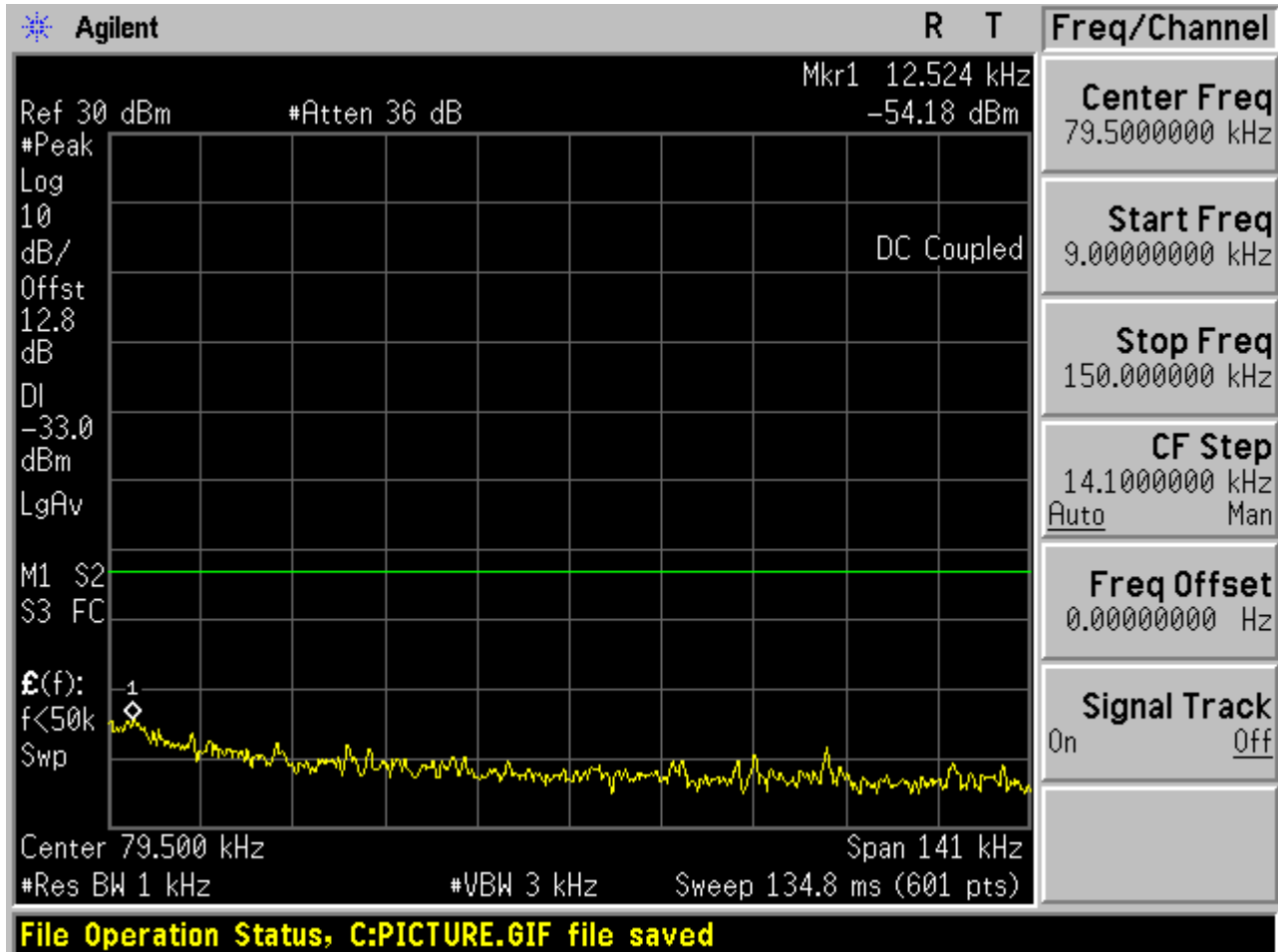


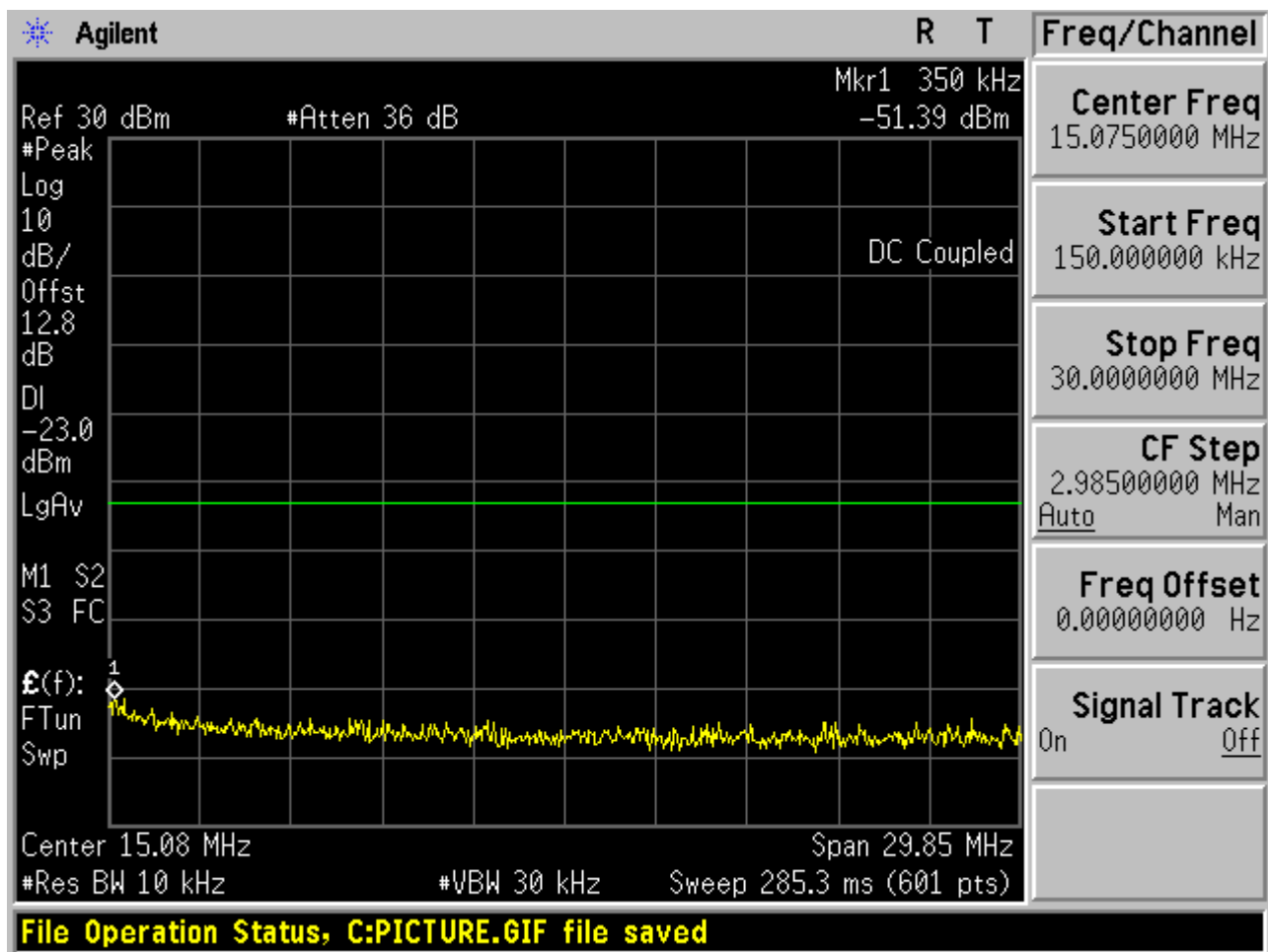


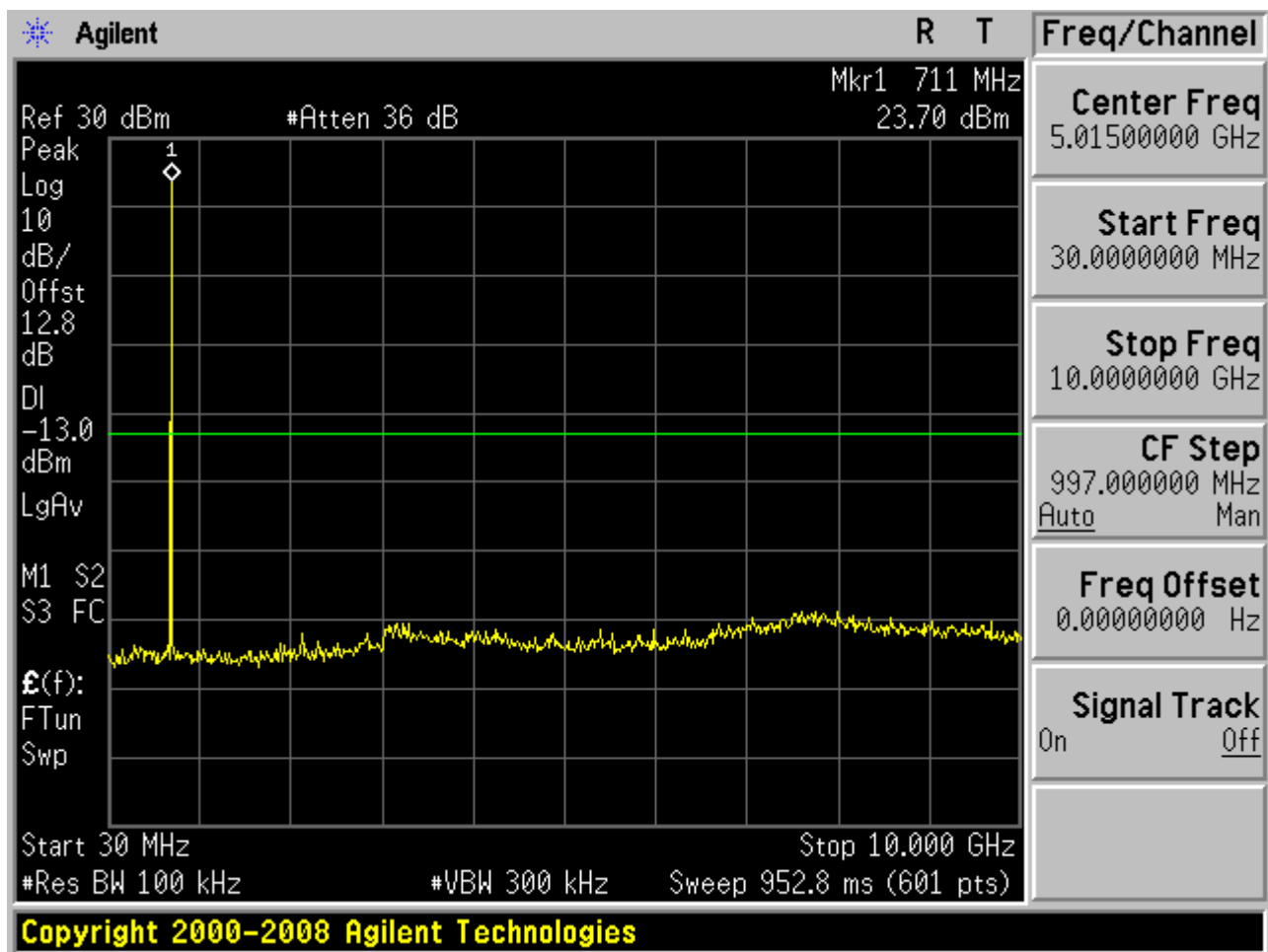


1.1.3.3 Channel = T

1.1.3.3.1 QPSK/1RBs /RB #0





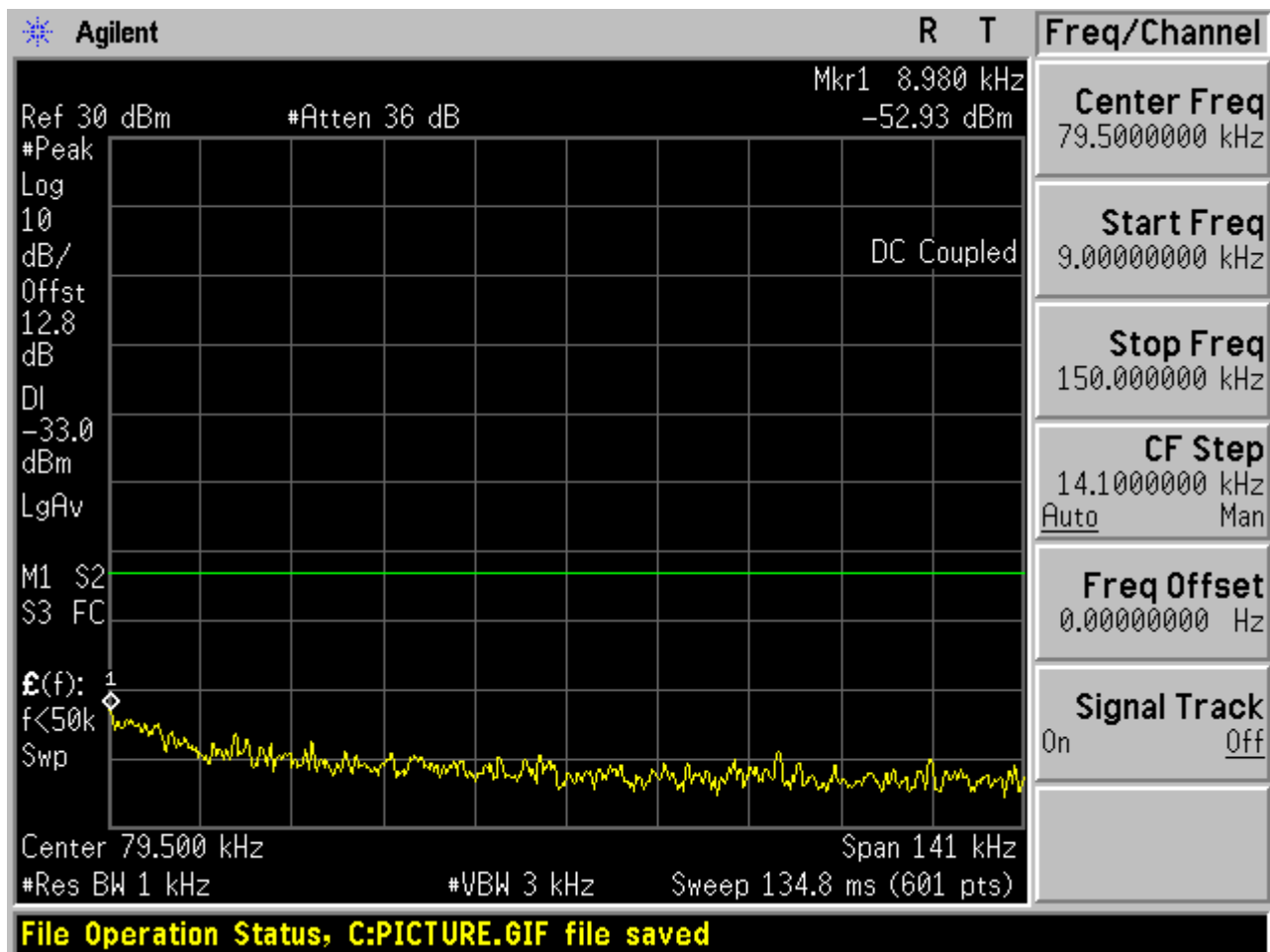


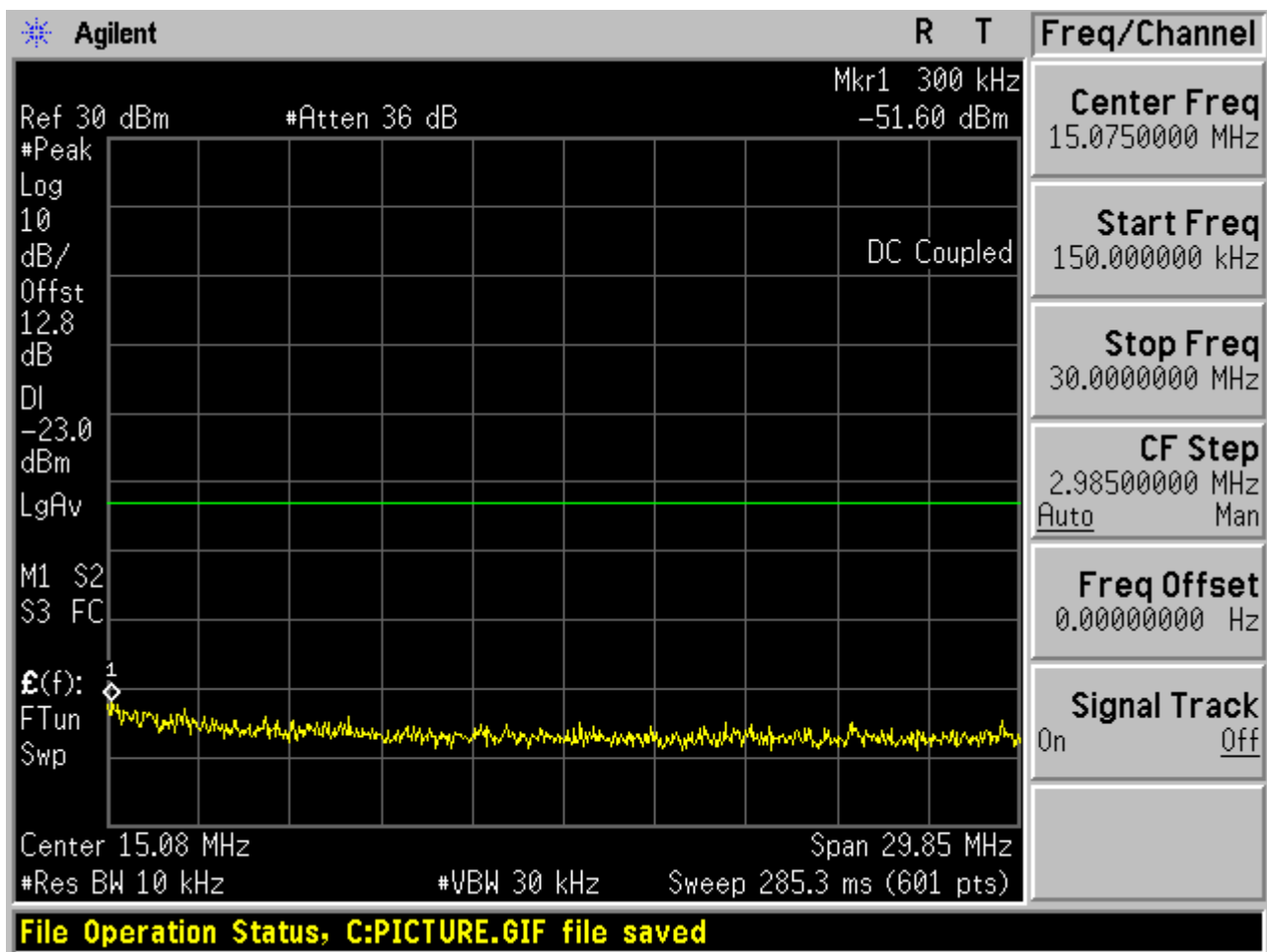


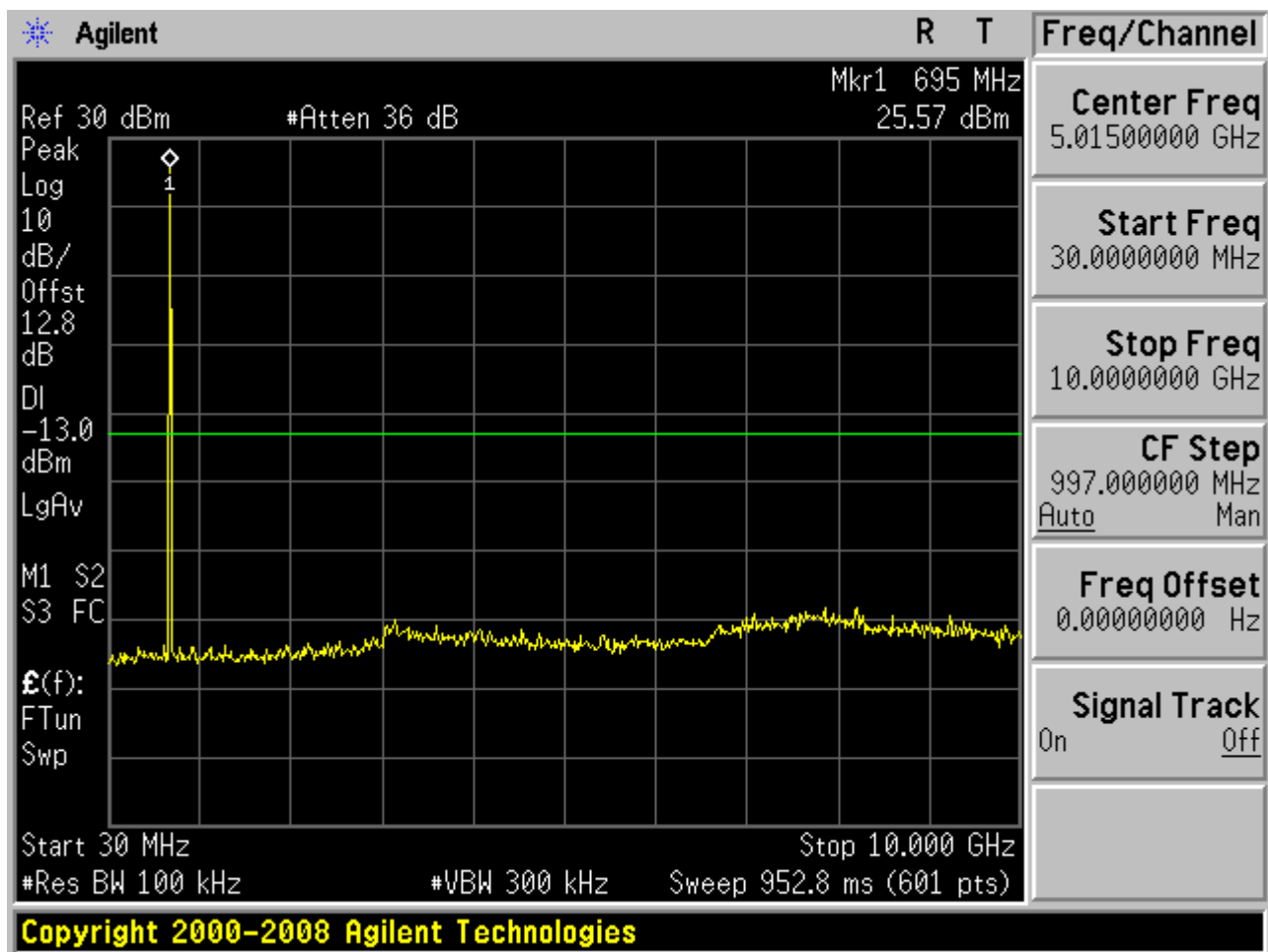
1.1.4 Channel Bandwidth = 10 MHz

1.1.4.1 Channel = B

1.1.4.1.1 QPSK/1RBs /RB #0



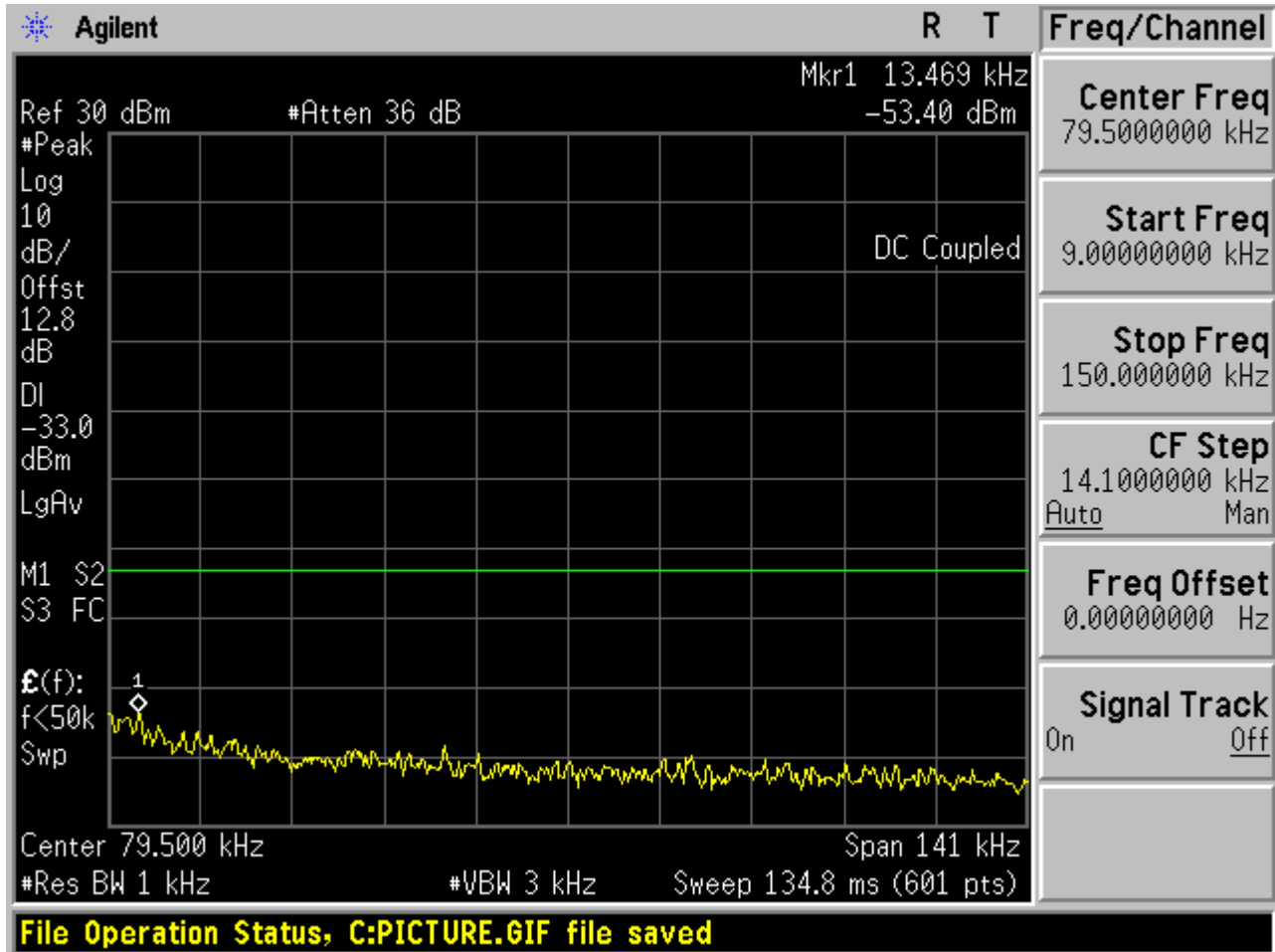


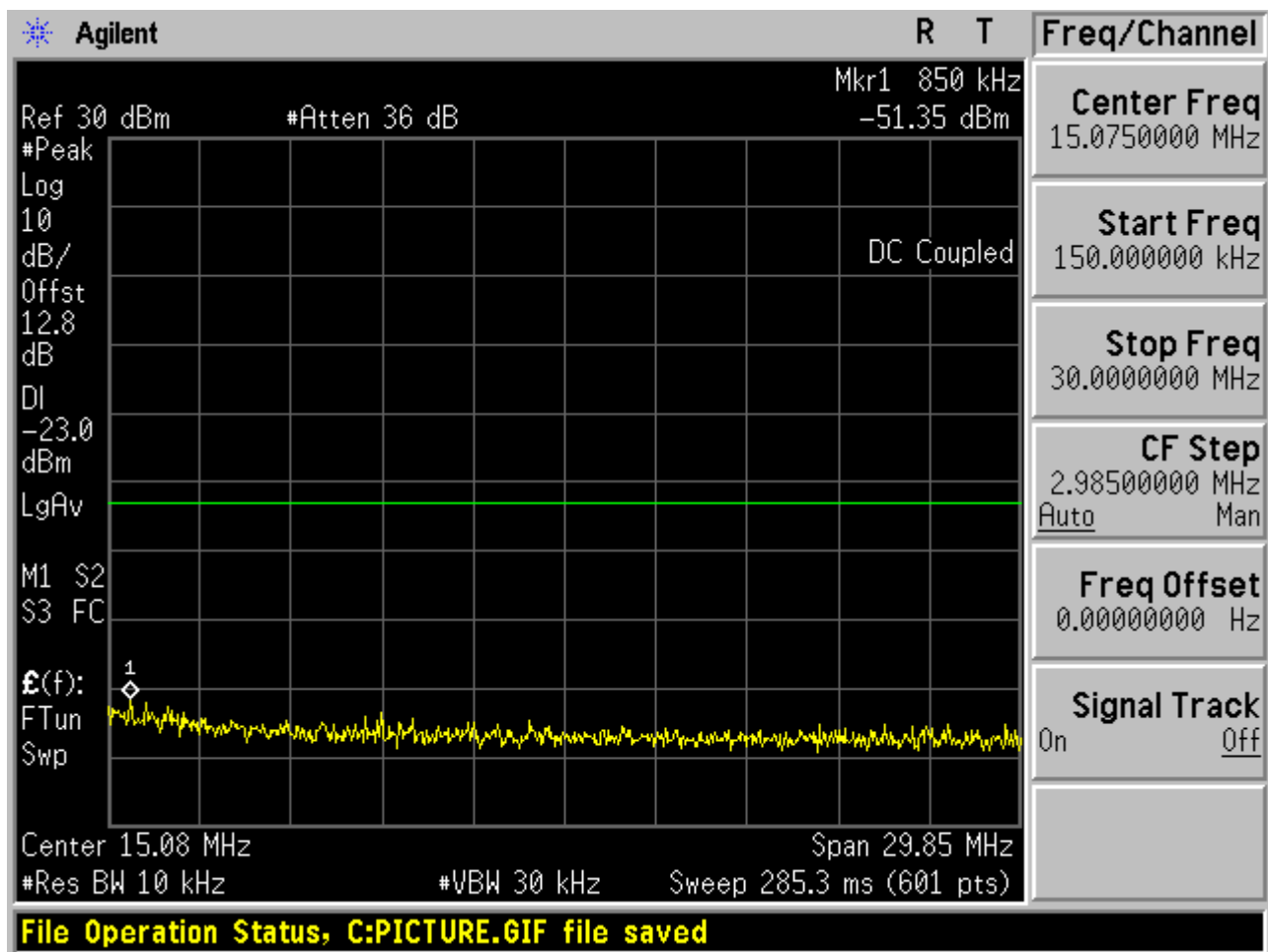


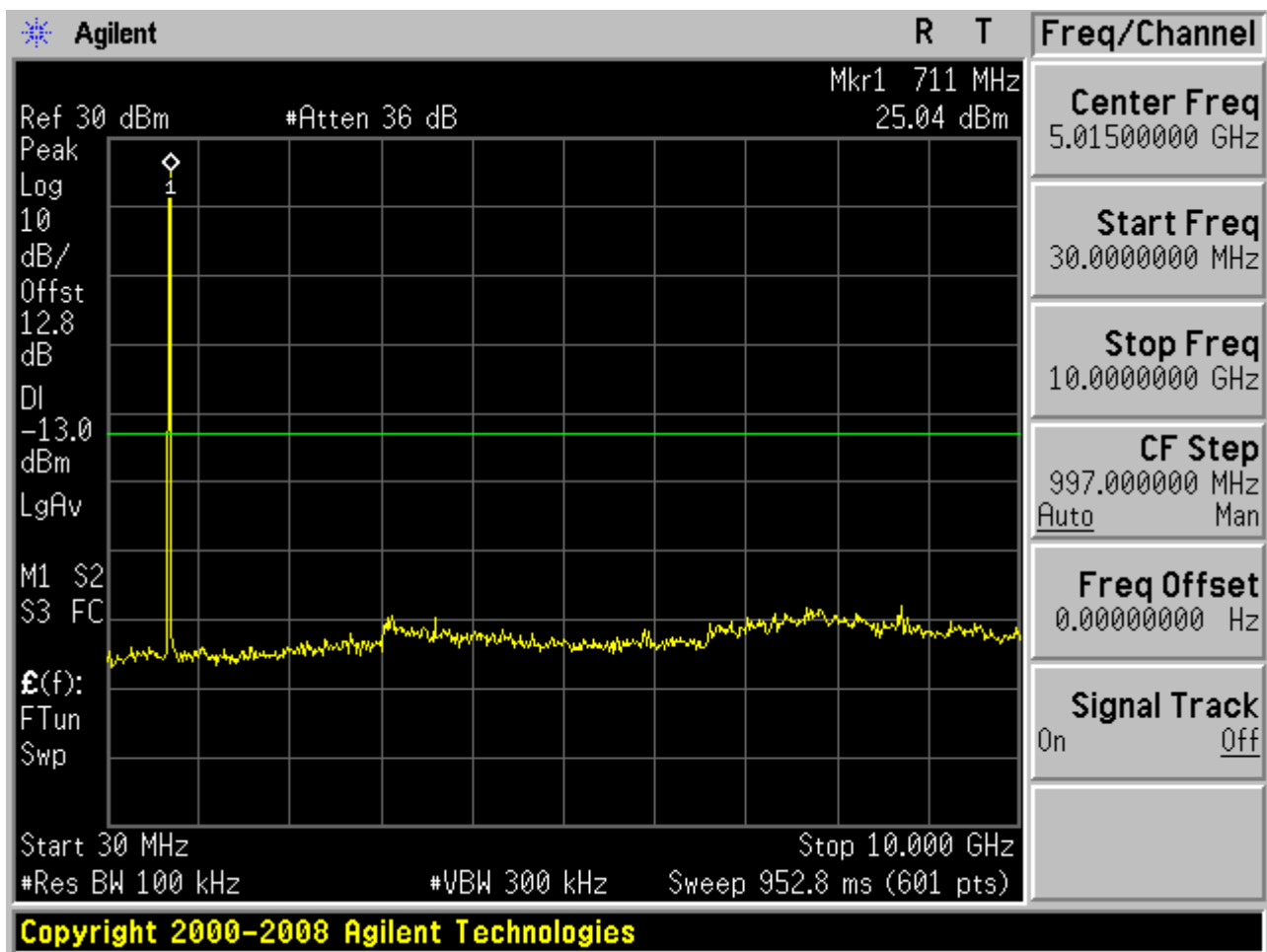


1.1.4.2 Channel = M

1.1.4.2.1 QPSK/1RBs /RB #0



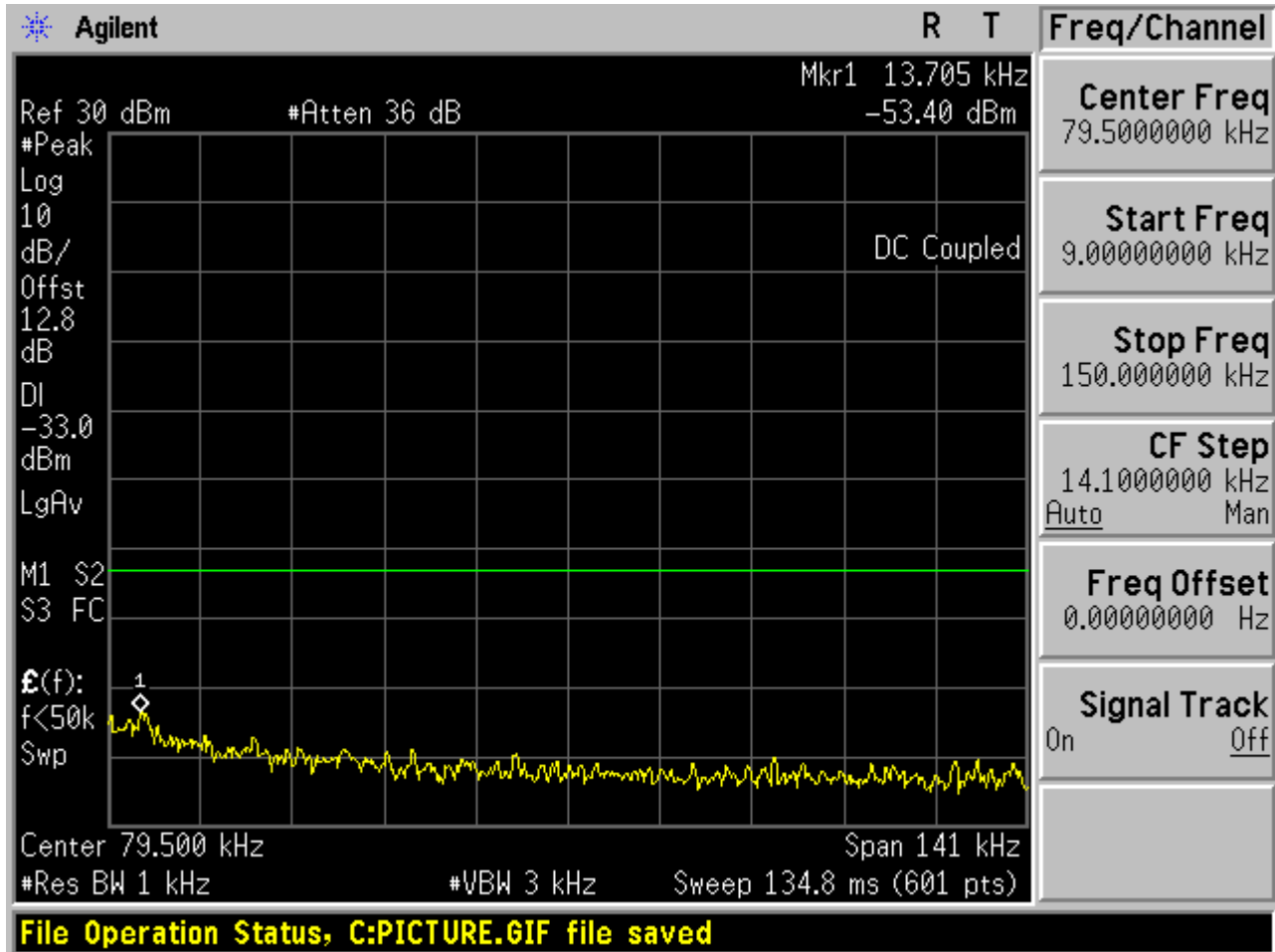


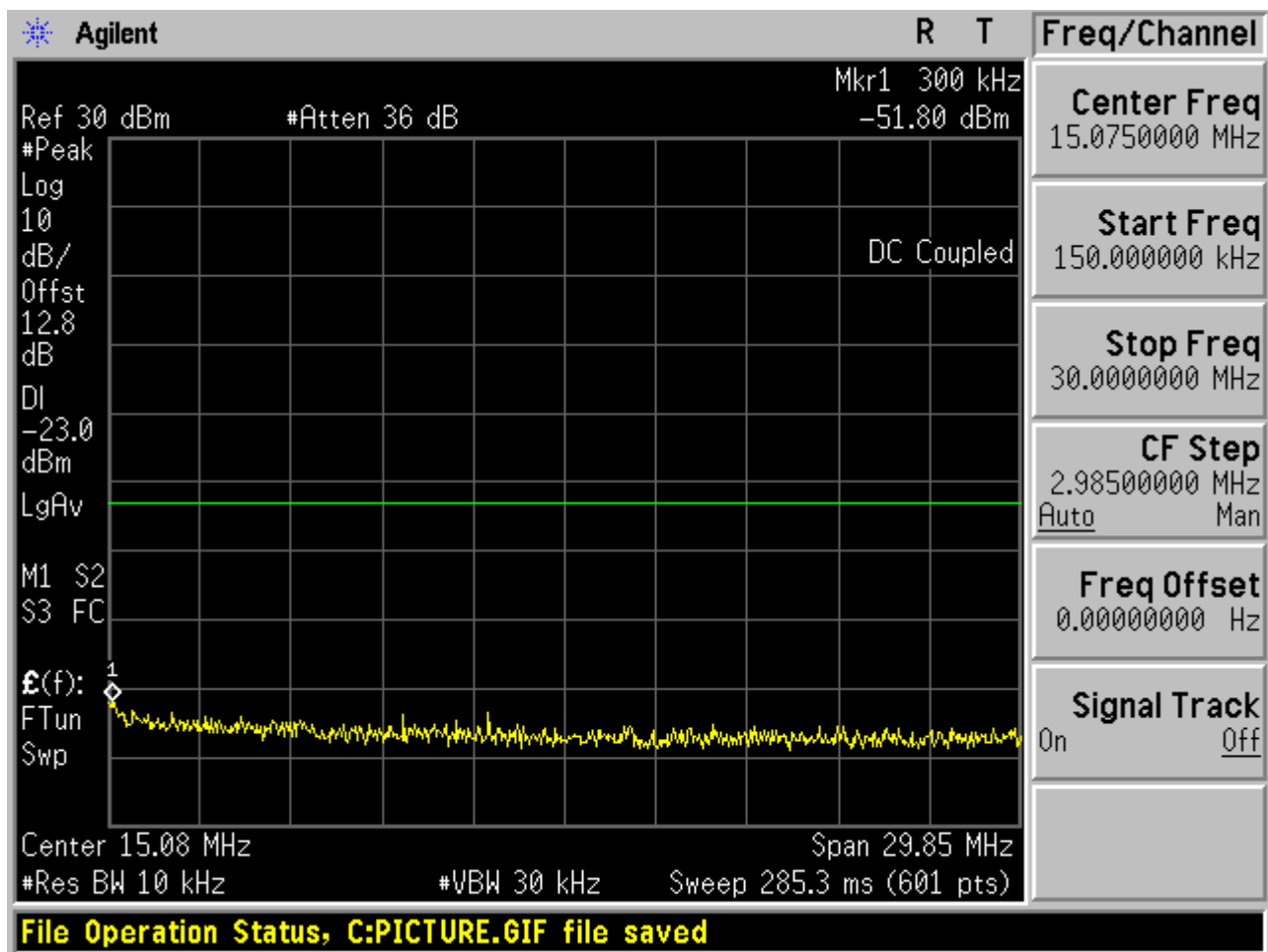


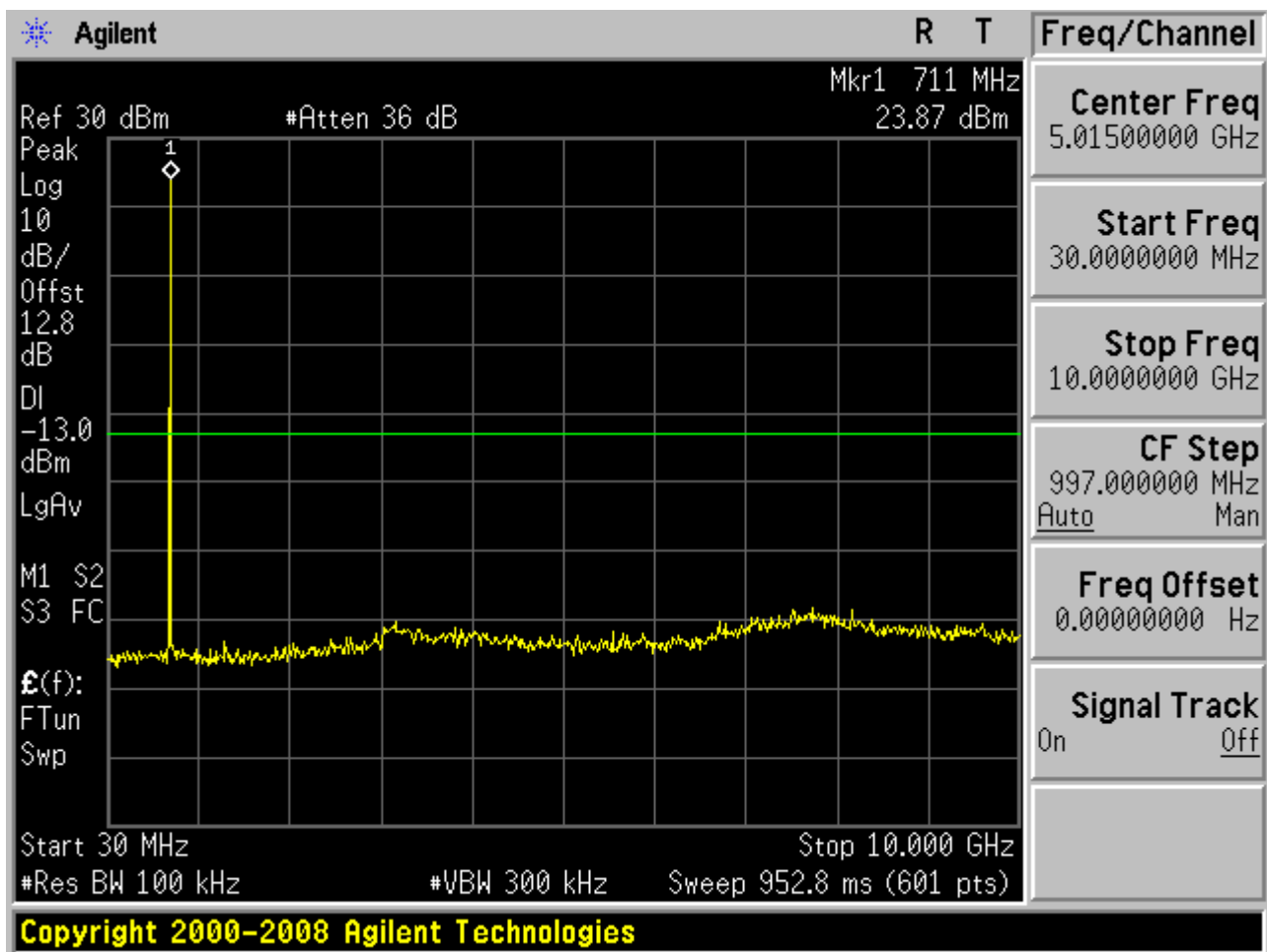


1.1.4.3 Channel = T

1.1.4.3.1 QPSK/1RBs /RB #0







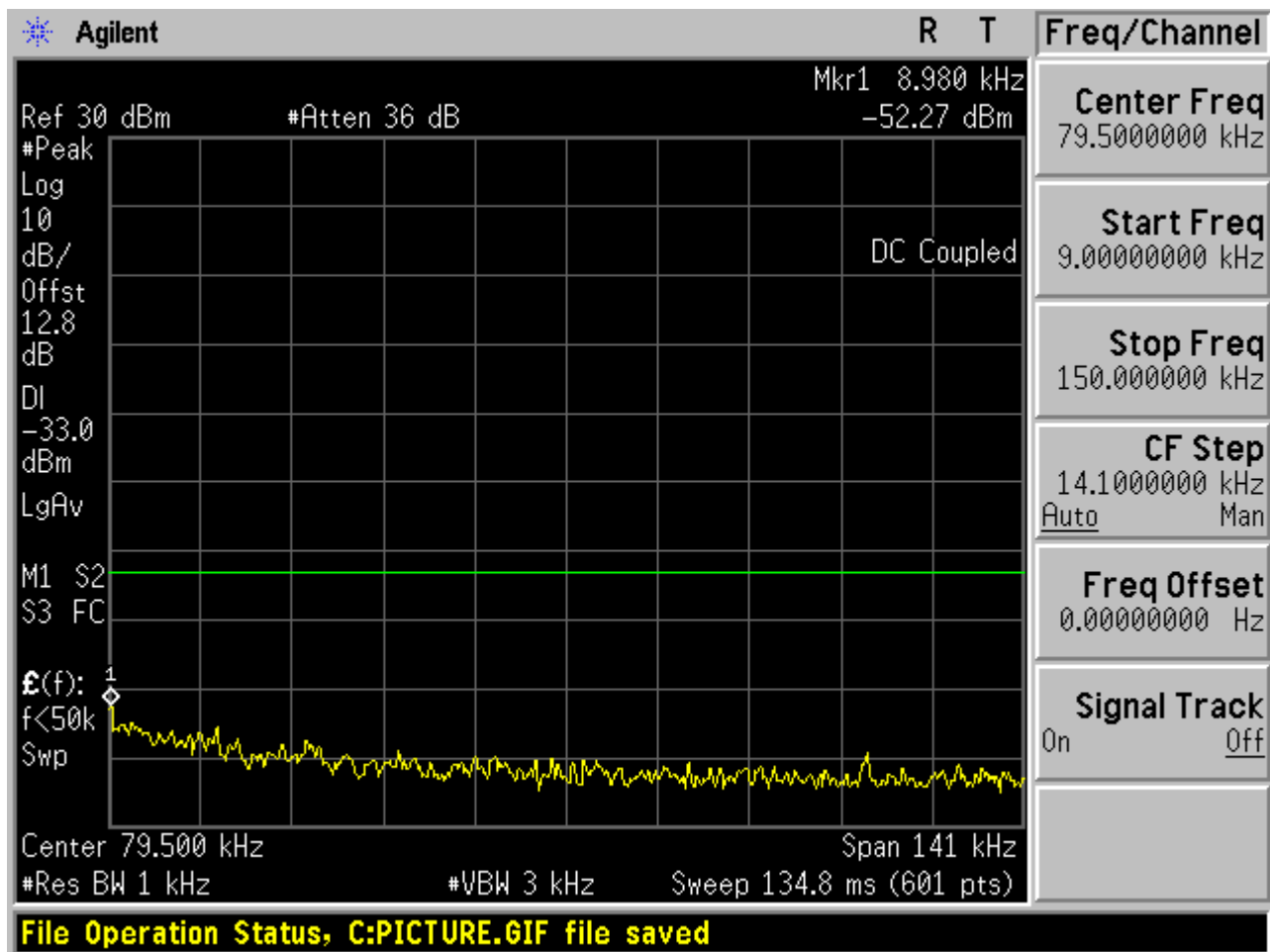


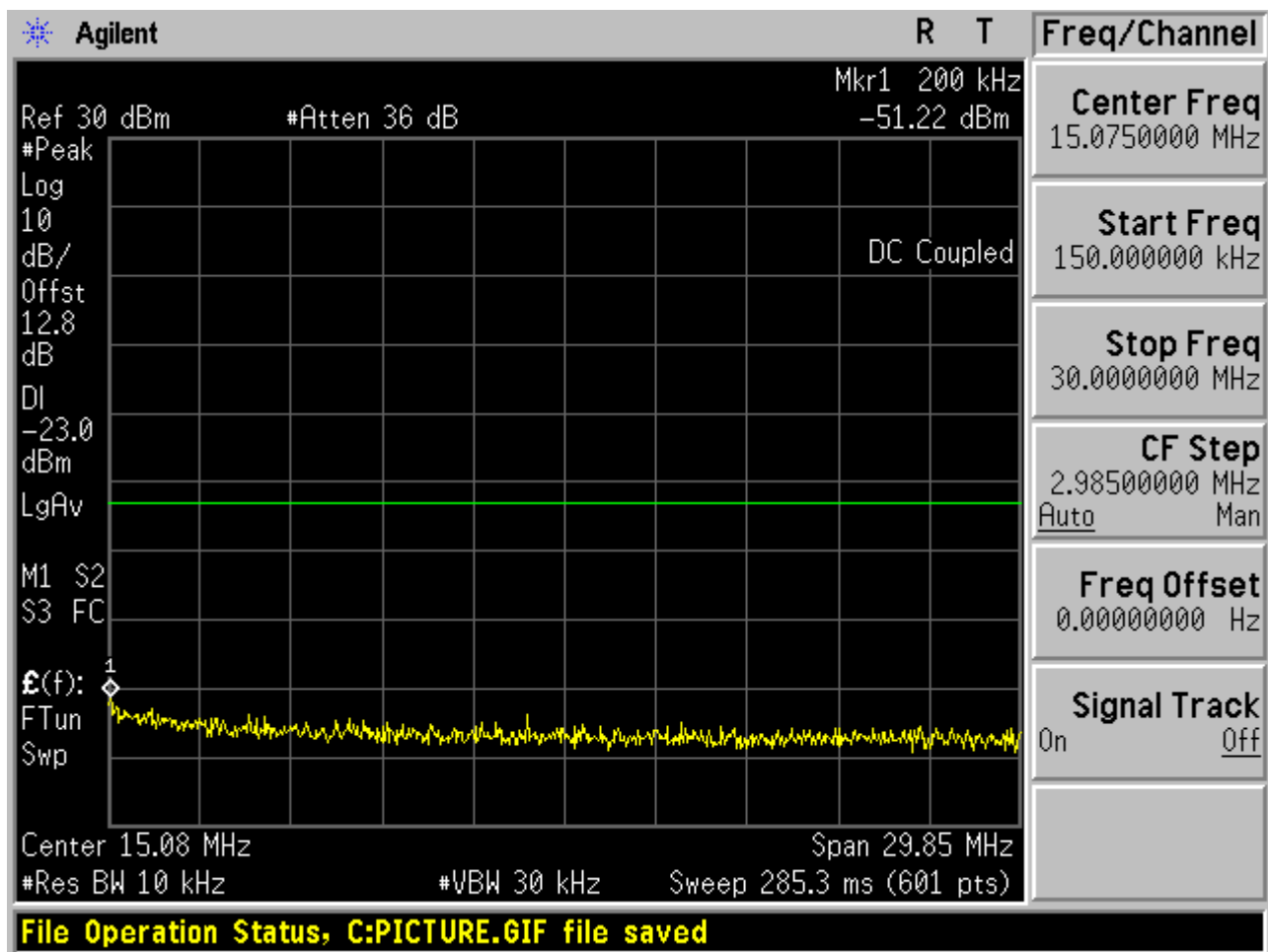
1.2 Test Mode=TM2

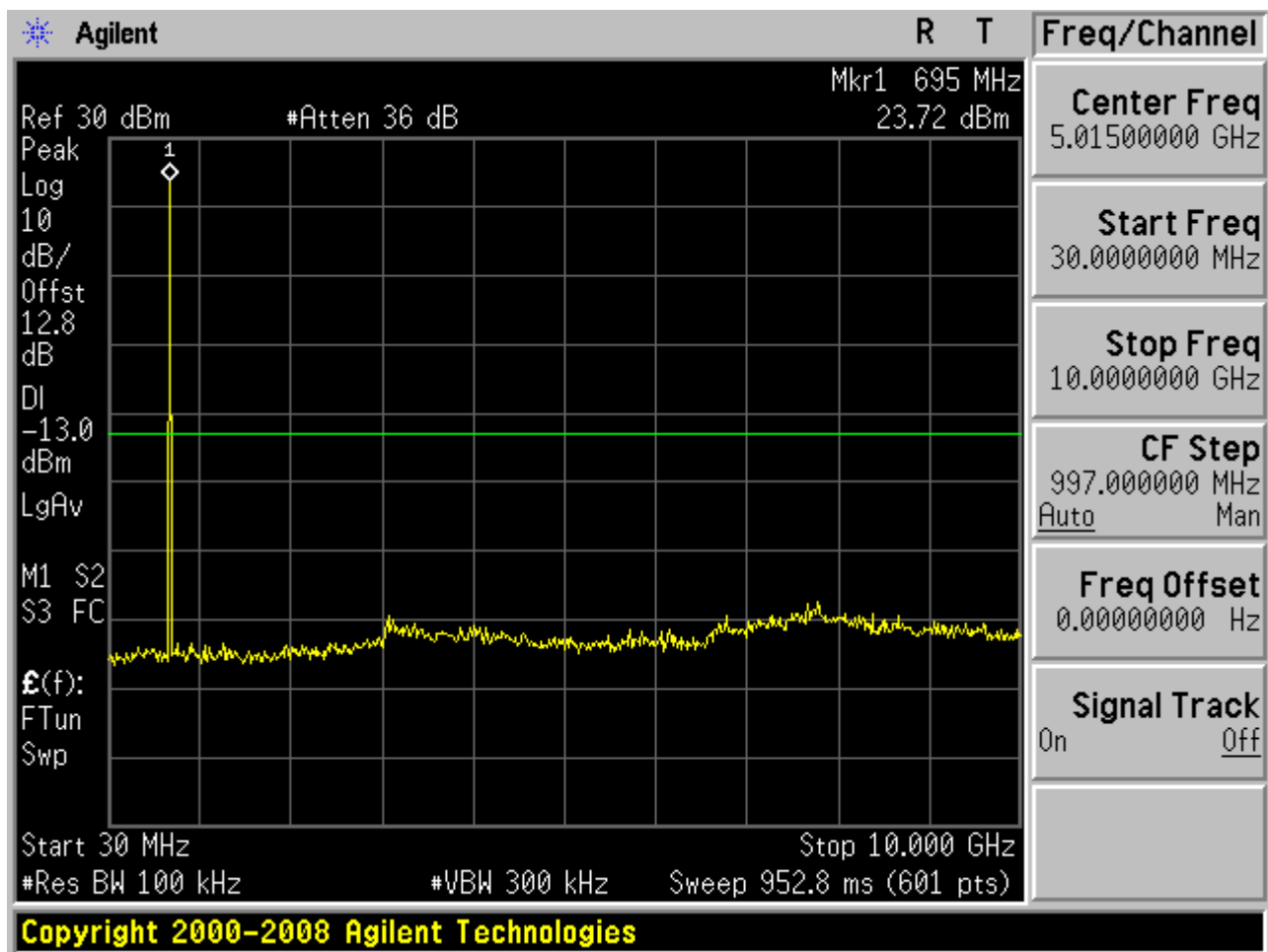
1.2.1 Channel Bandwidth = 1.4 MHz

1.2.1.1 Channel = B

1.2.1.1.1 16QAM/1RBs /RB #0



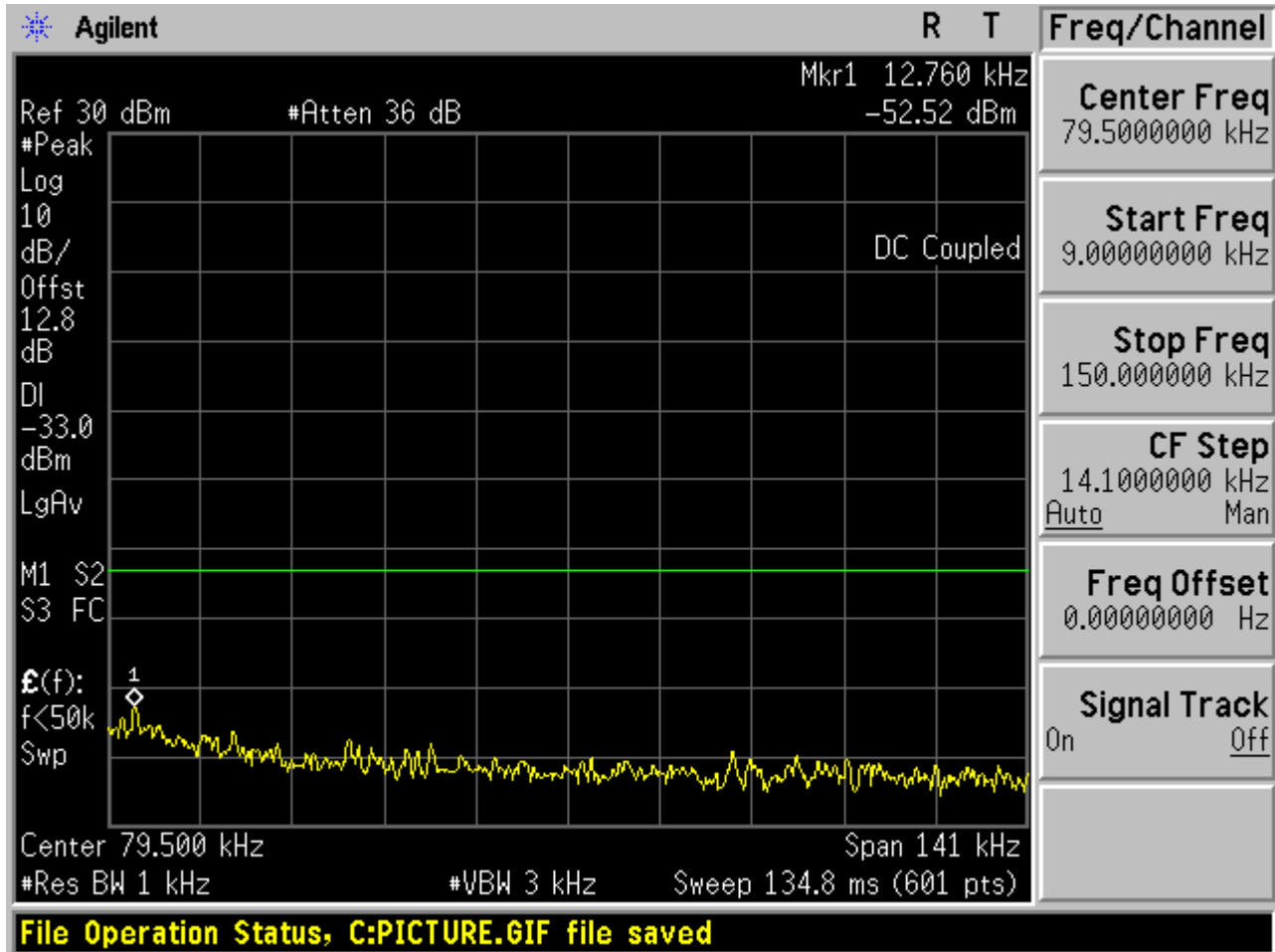


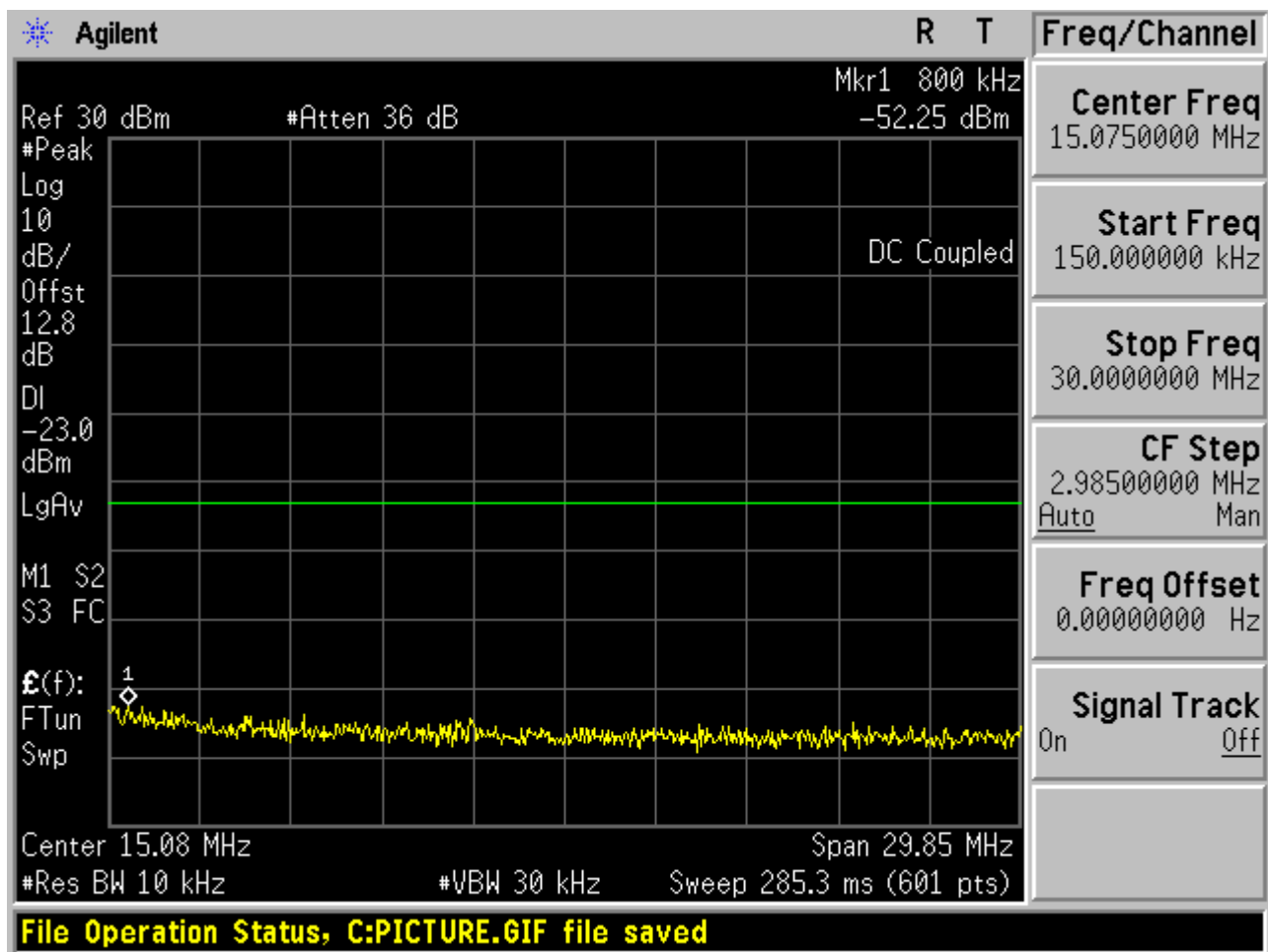


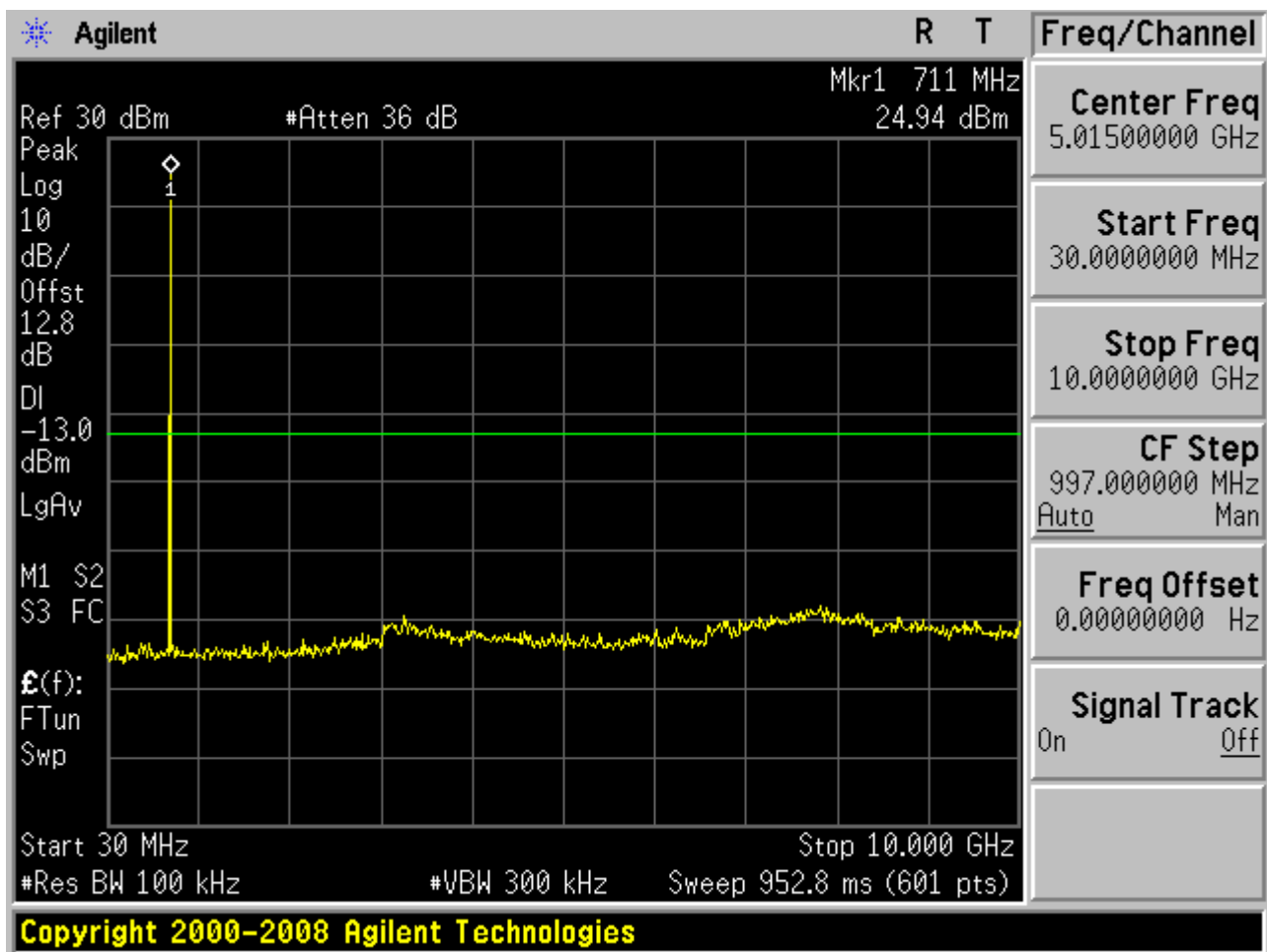


1.2.1.2 Channel = M

1.2.1.2.1 16QAM/1RBs /RB #0



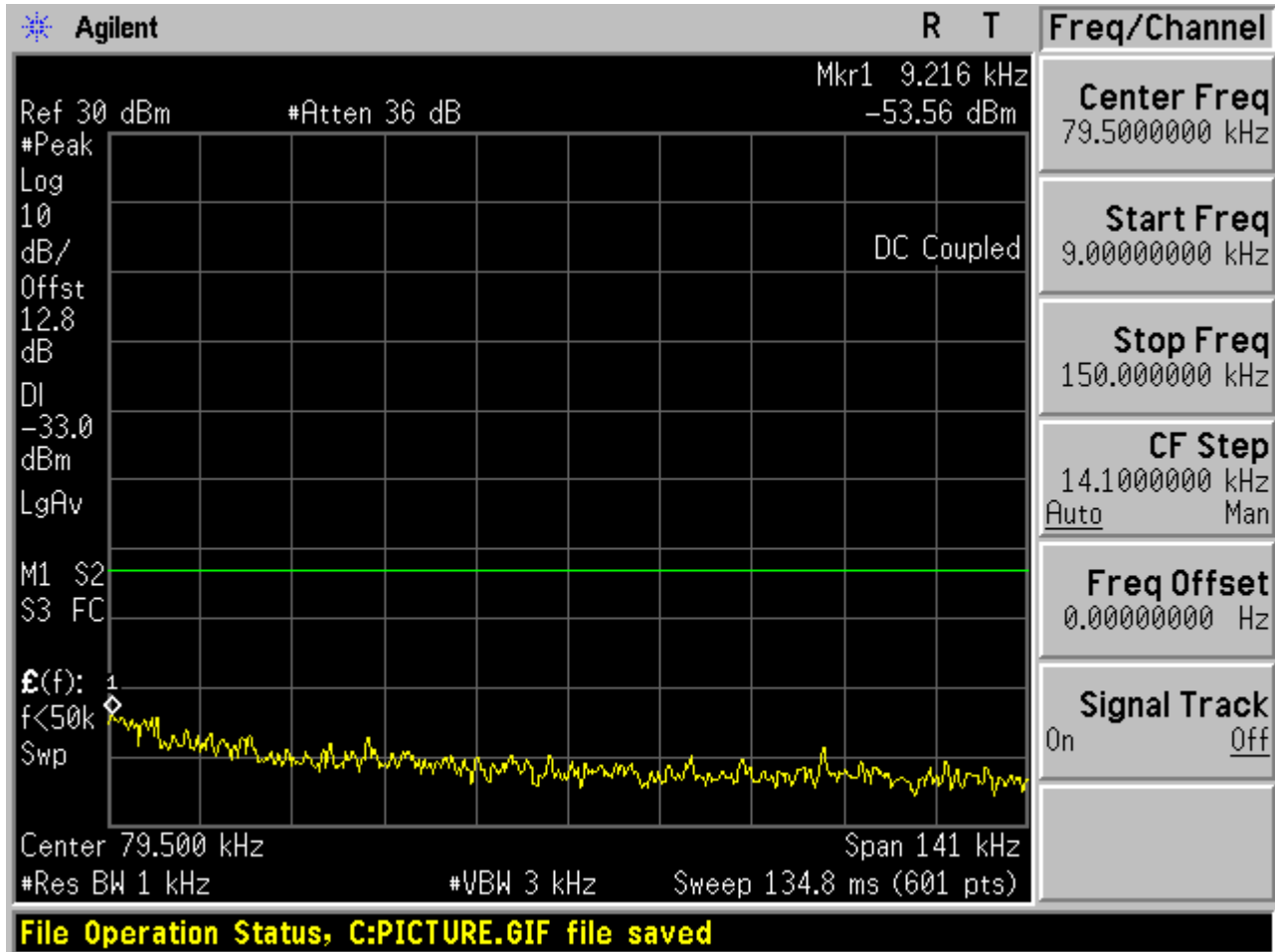


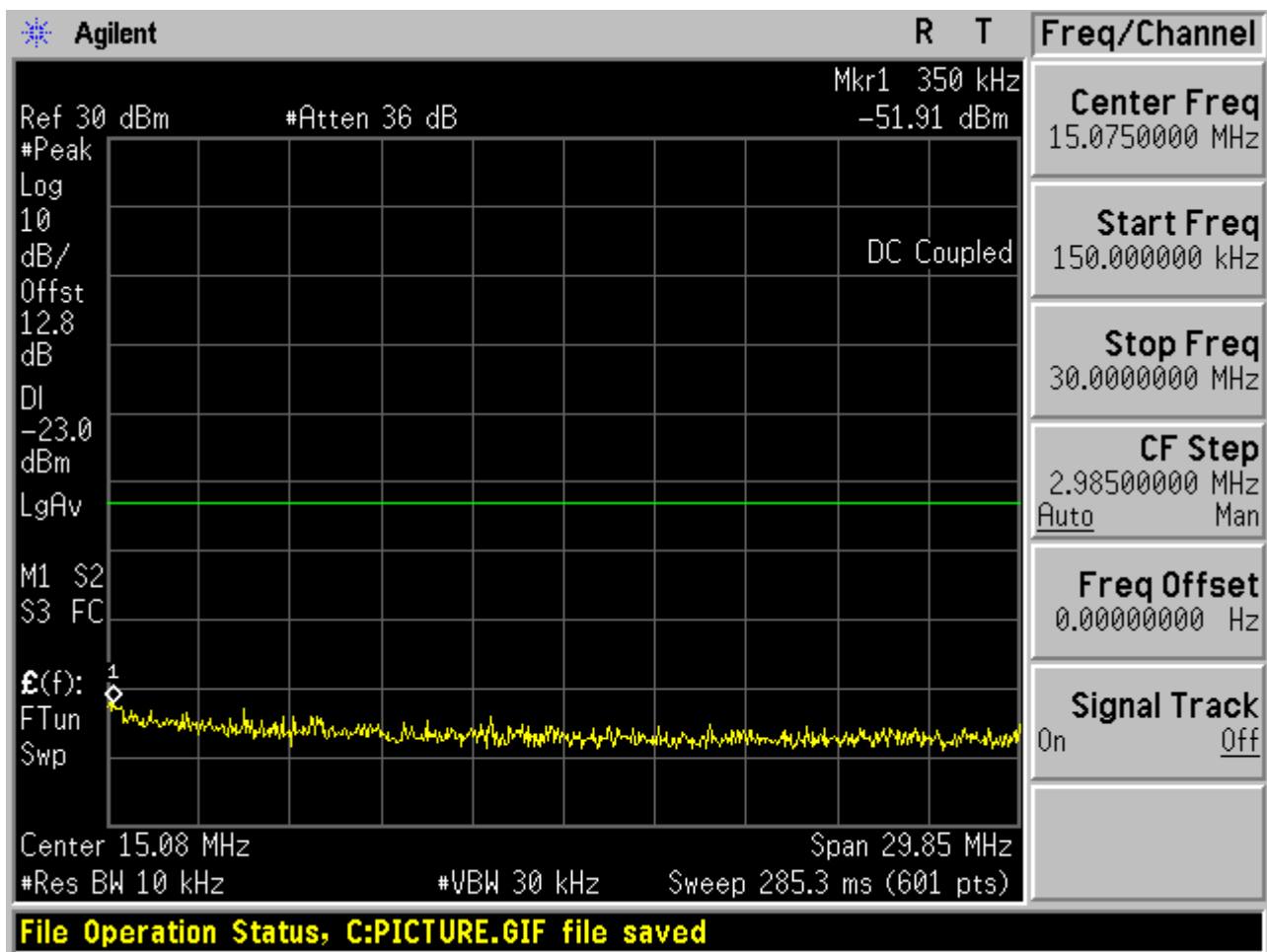


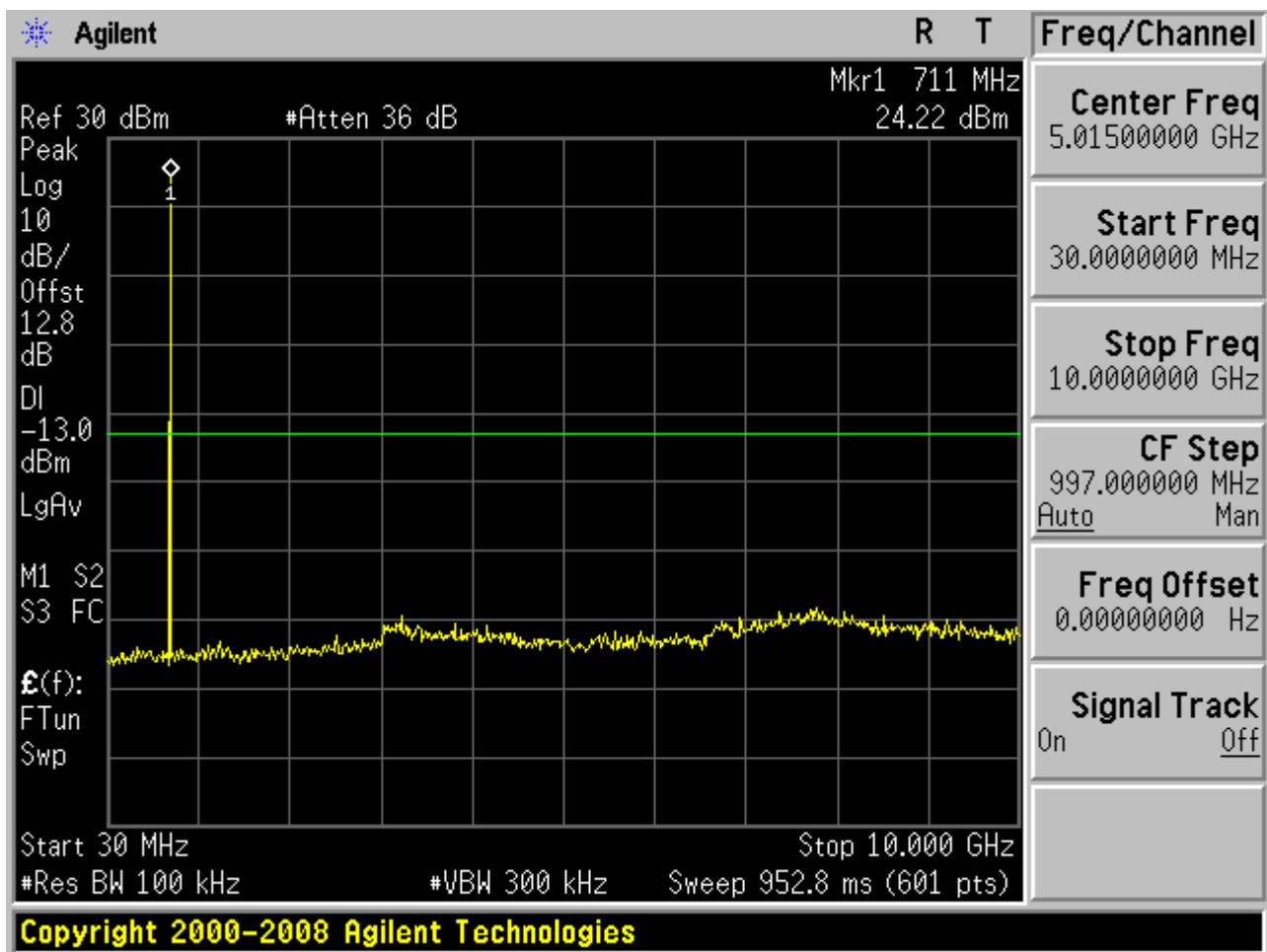


1.2.1.3 Channel = T

1.2.1.3.1 16QAM/1RBs /RB #0





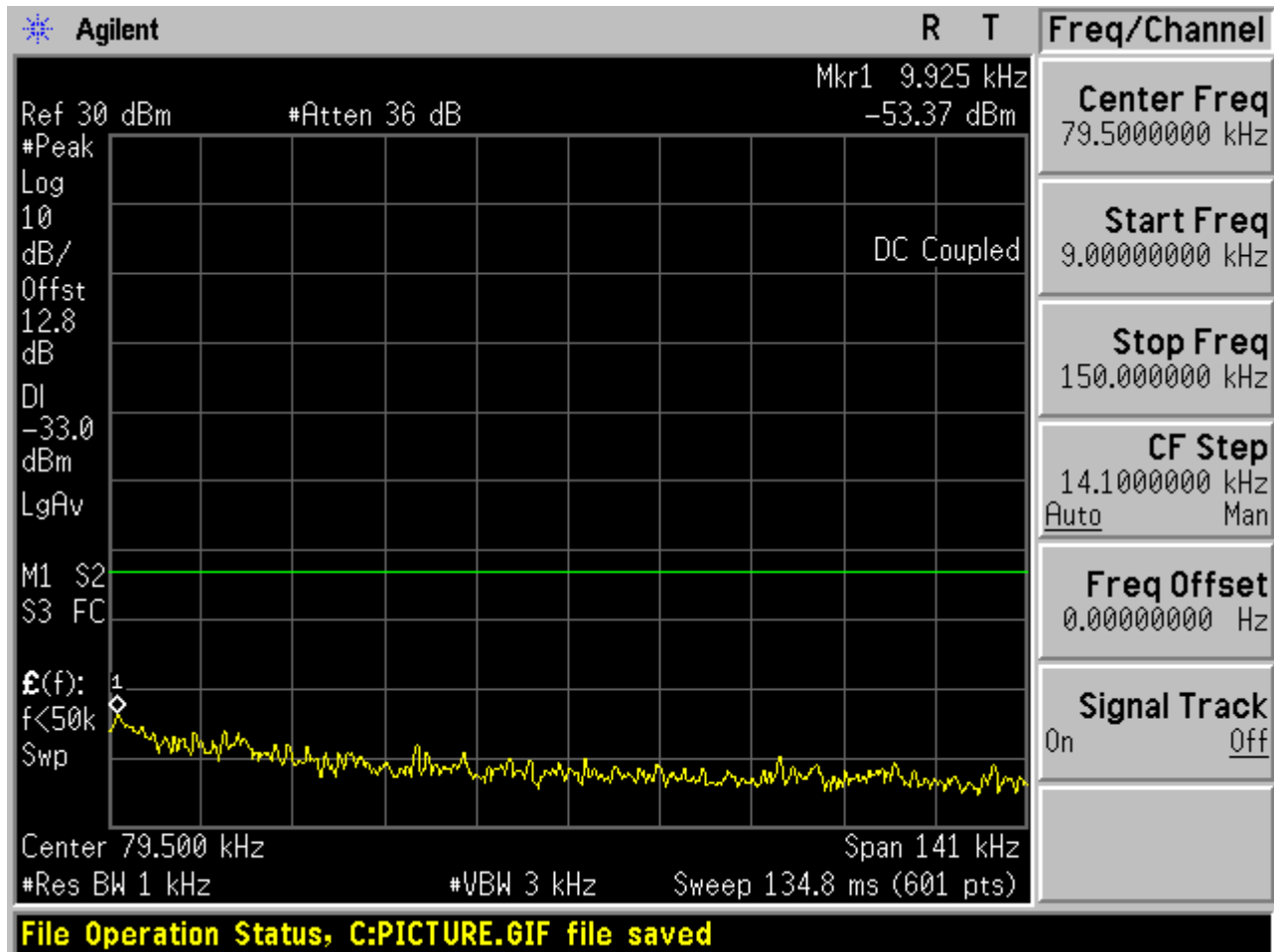


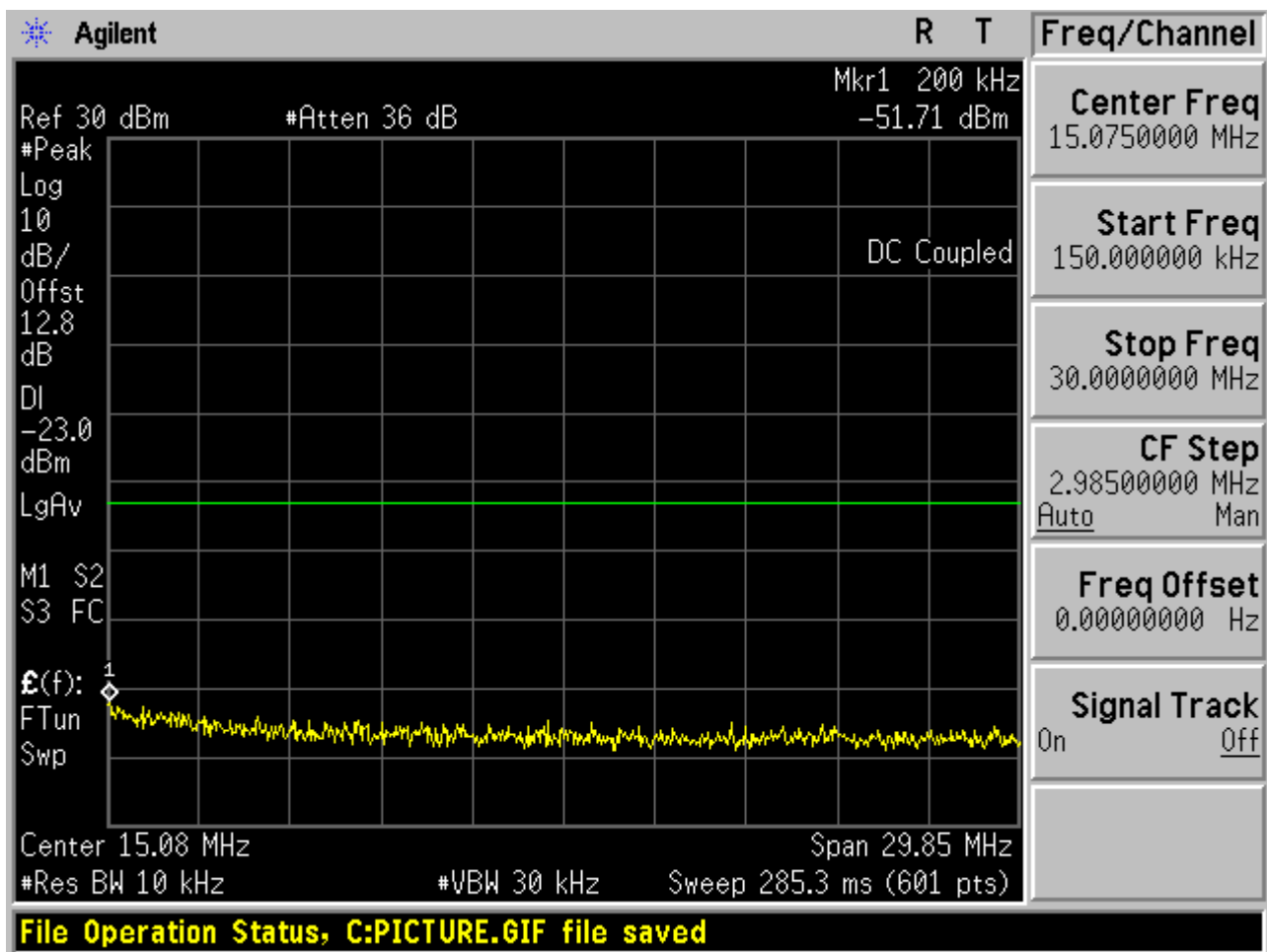


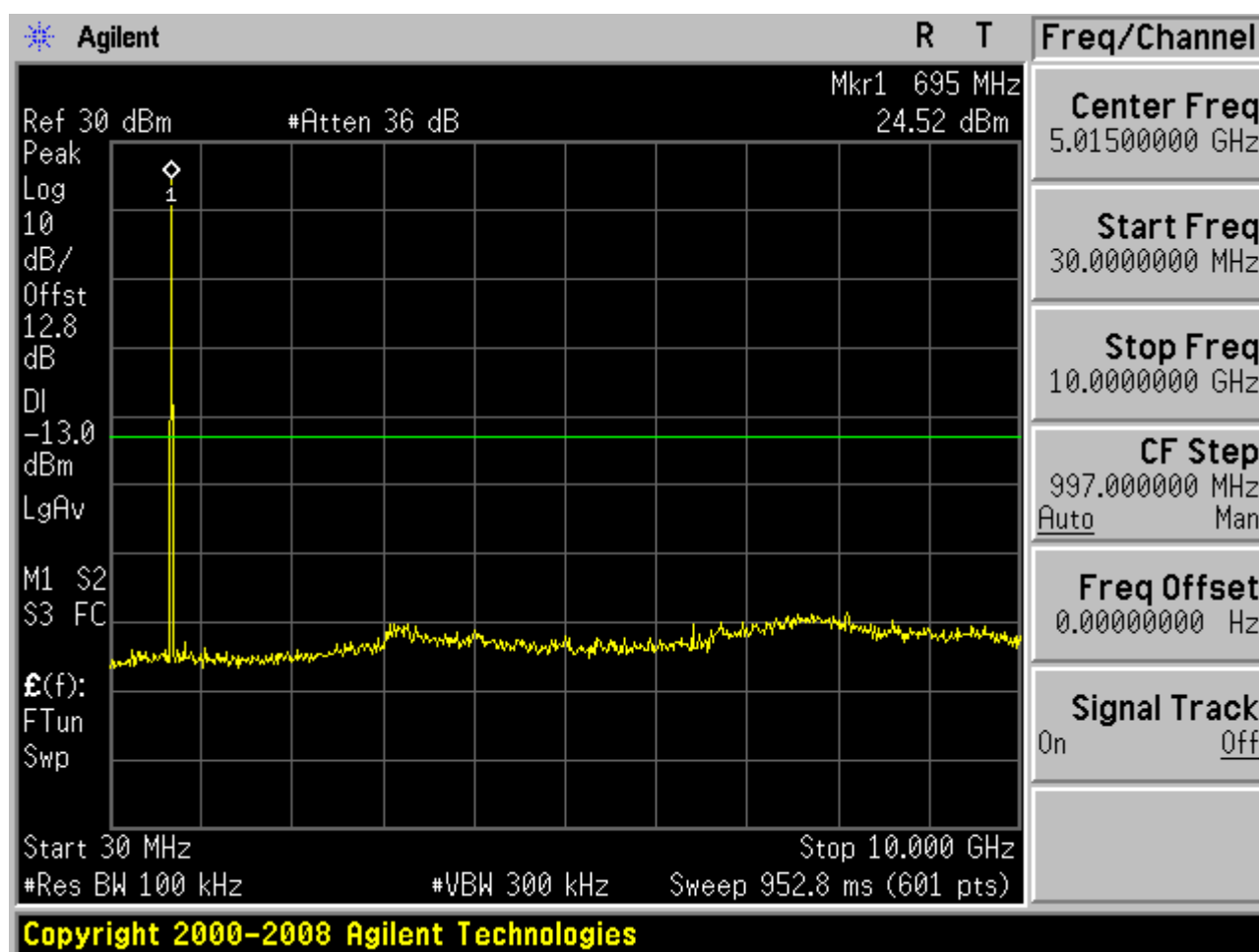
1.2.2 Channel Bandwidth = 3 MHz

1.2.2.1 Channel = B

1.2.2.1.1 16QAM/1RBs /RB #0



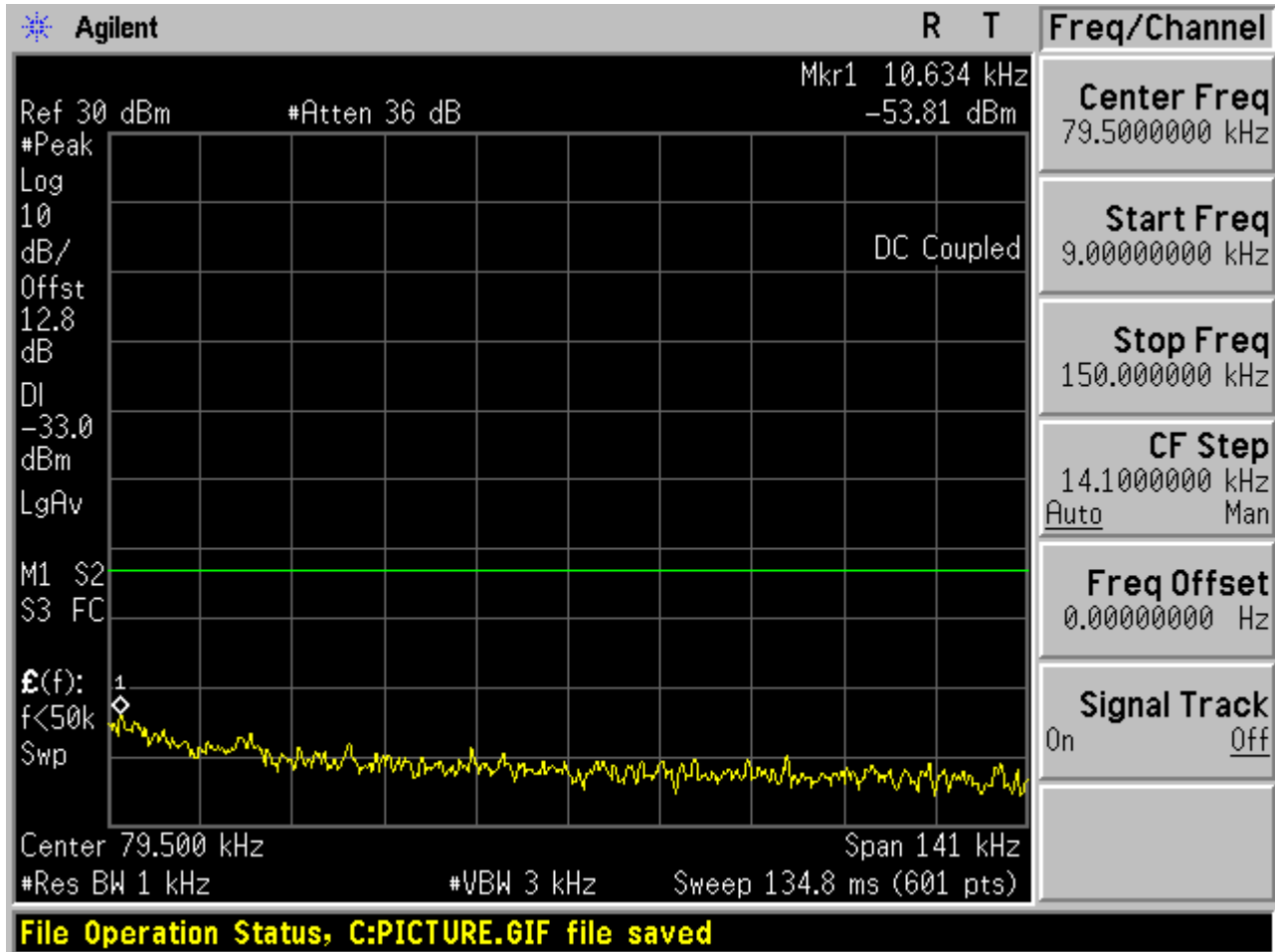


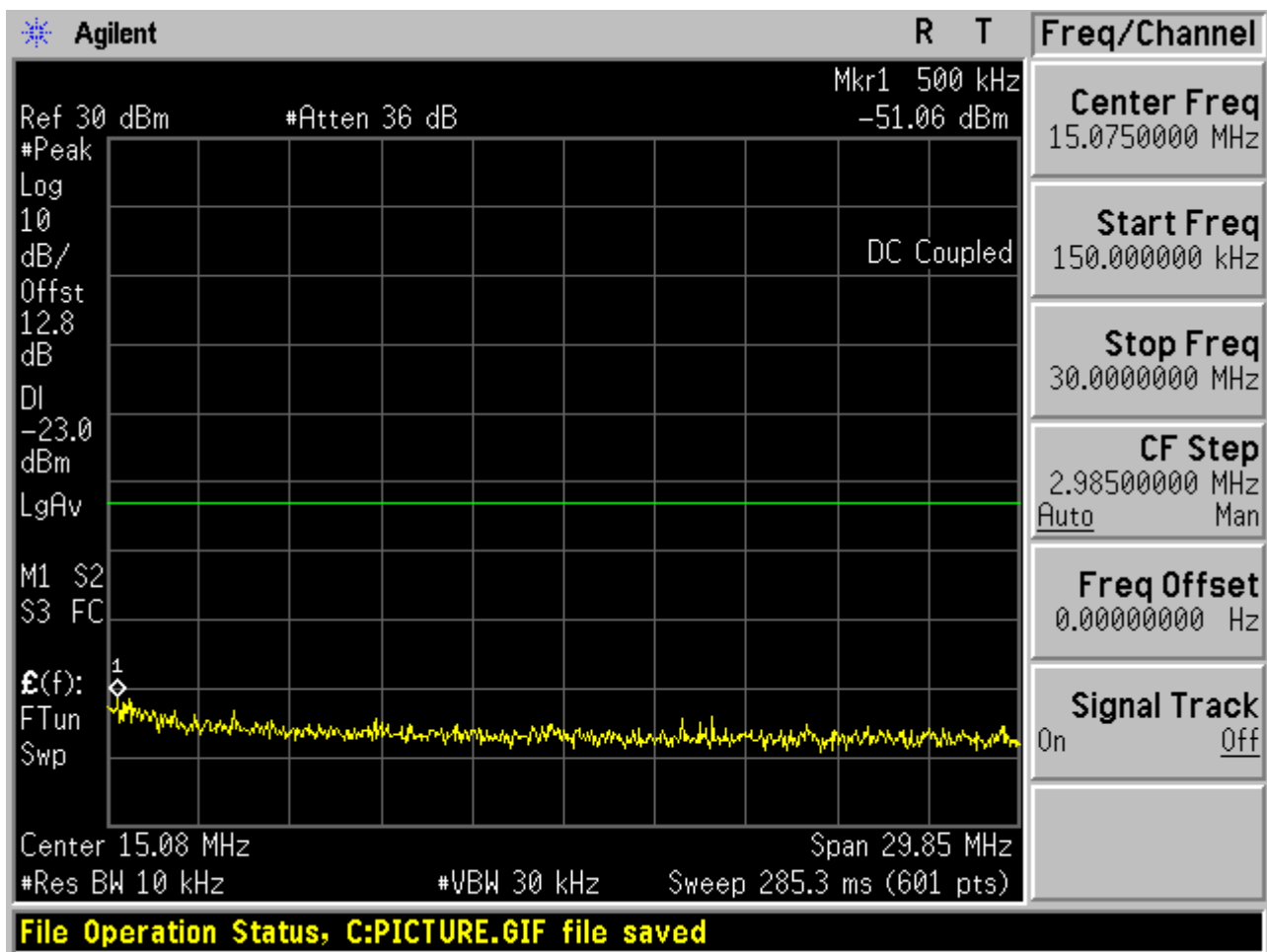


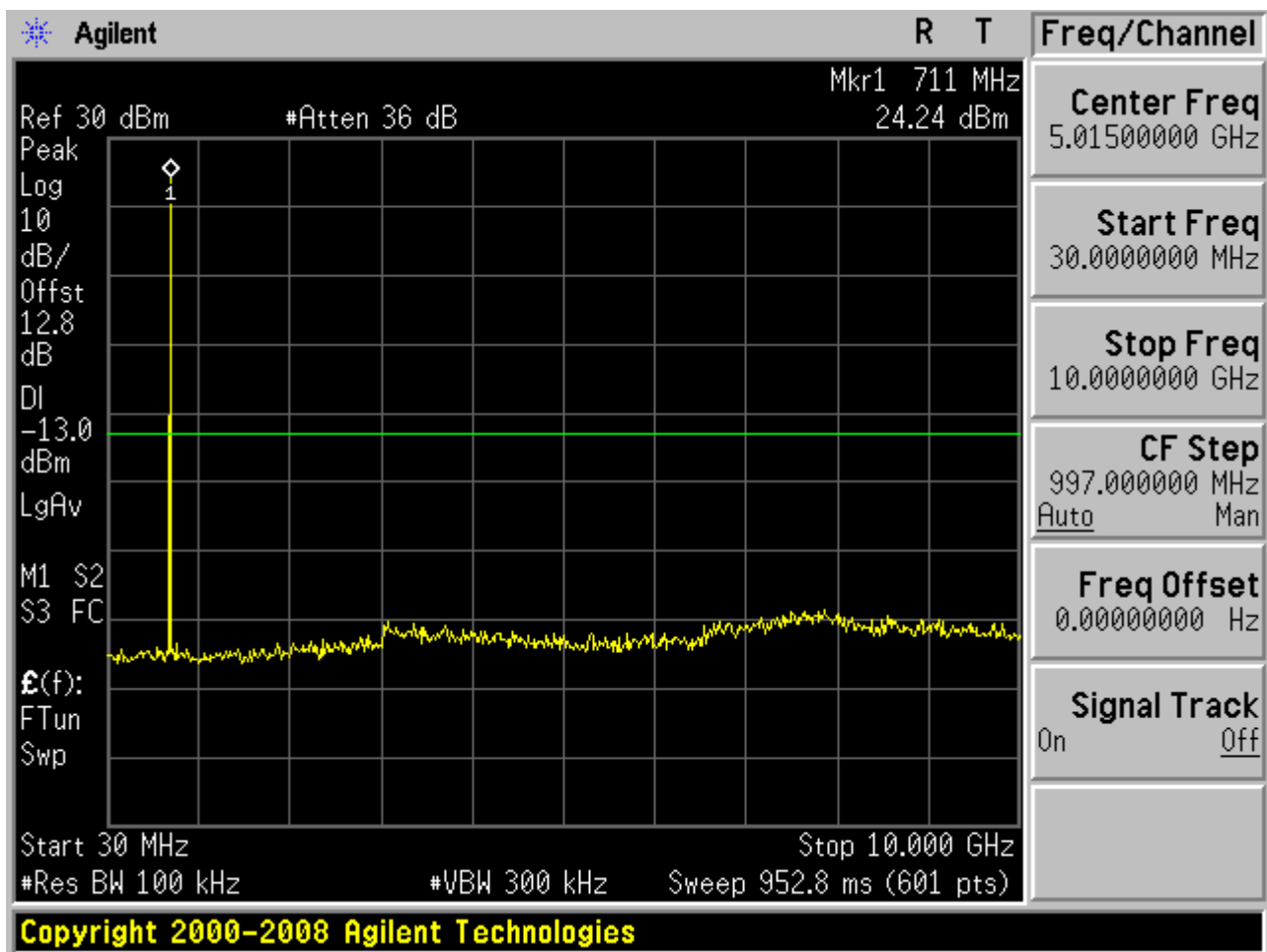


1.2.2.2 Channel = M

1.2.2.2.1 16QAM/1RBs /RB #0



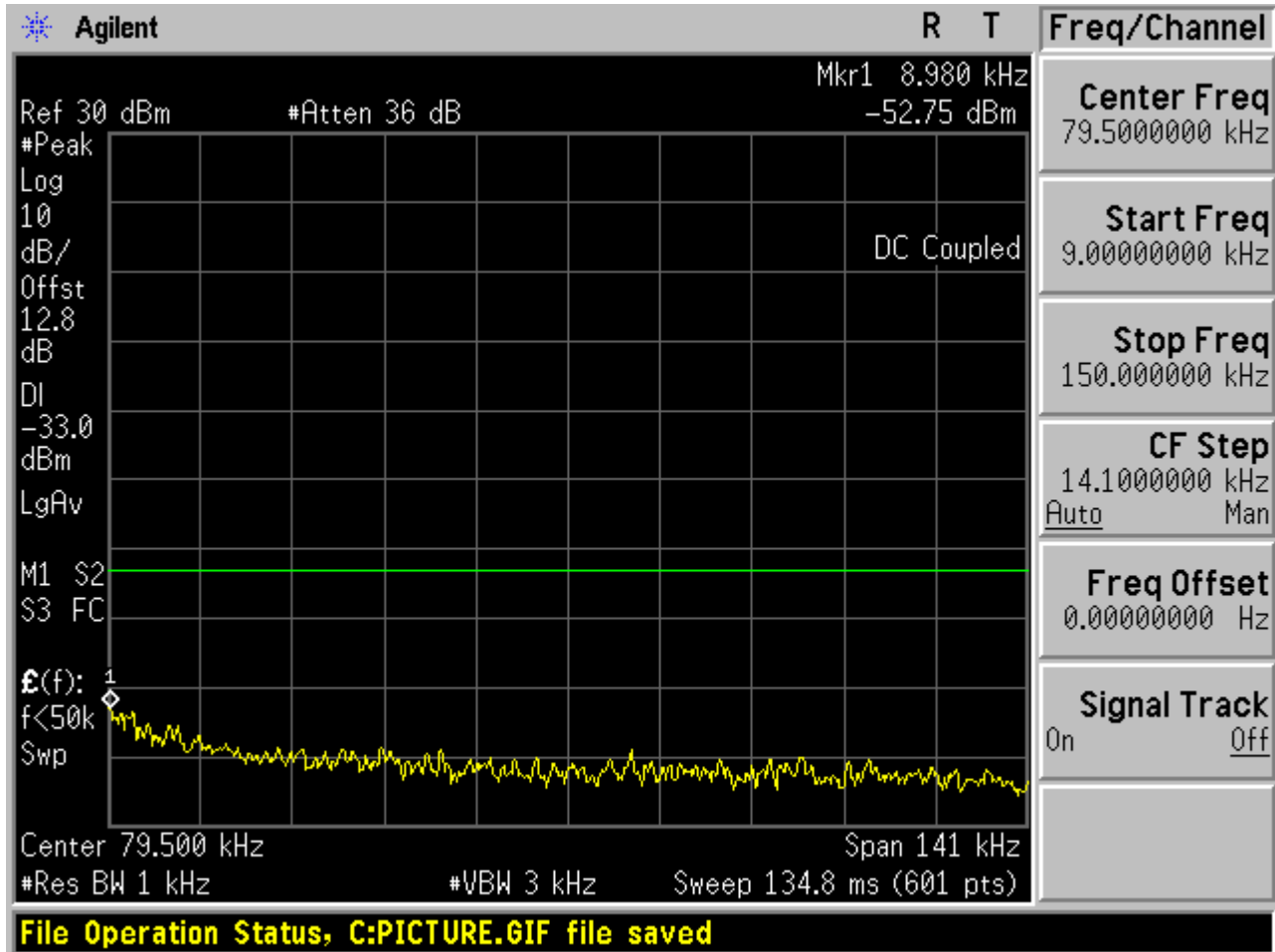


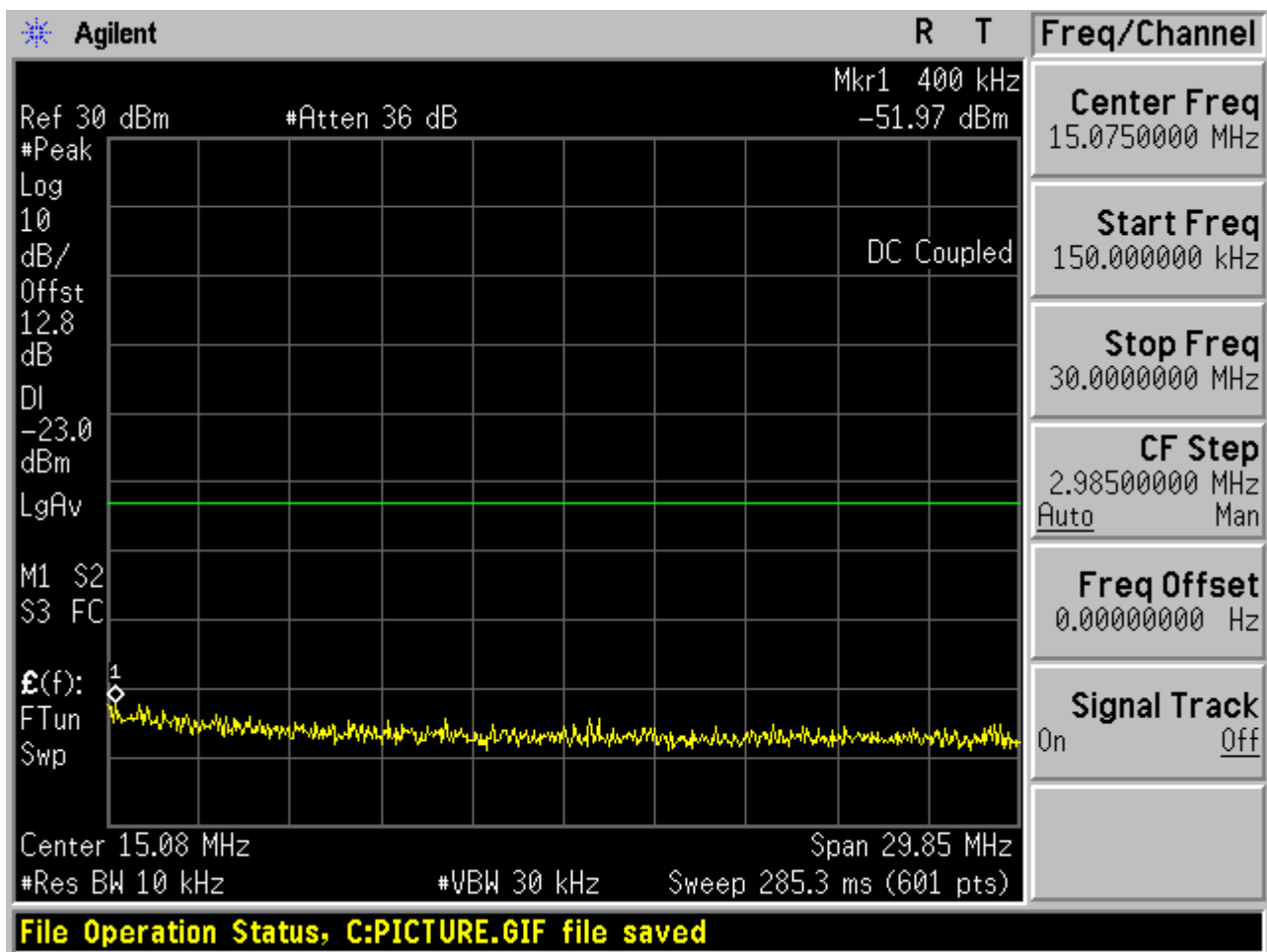


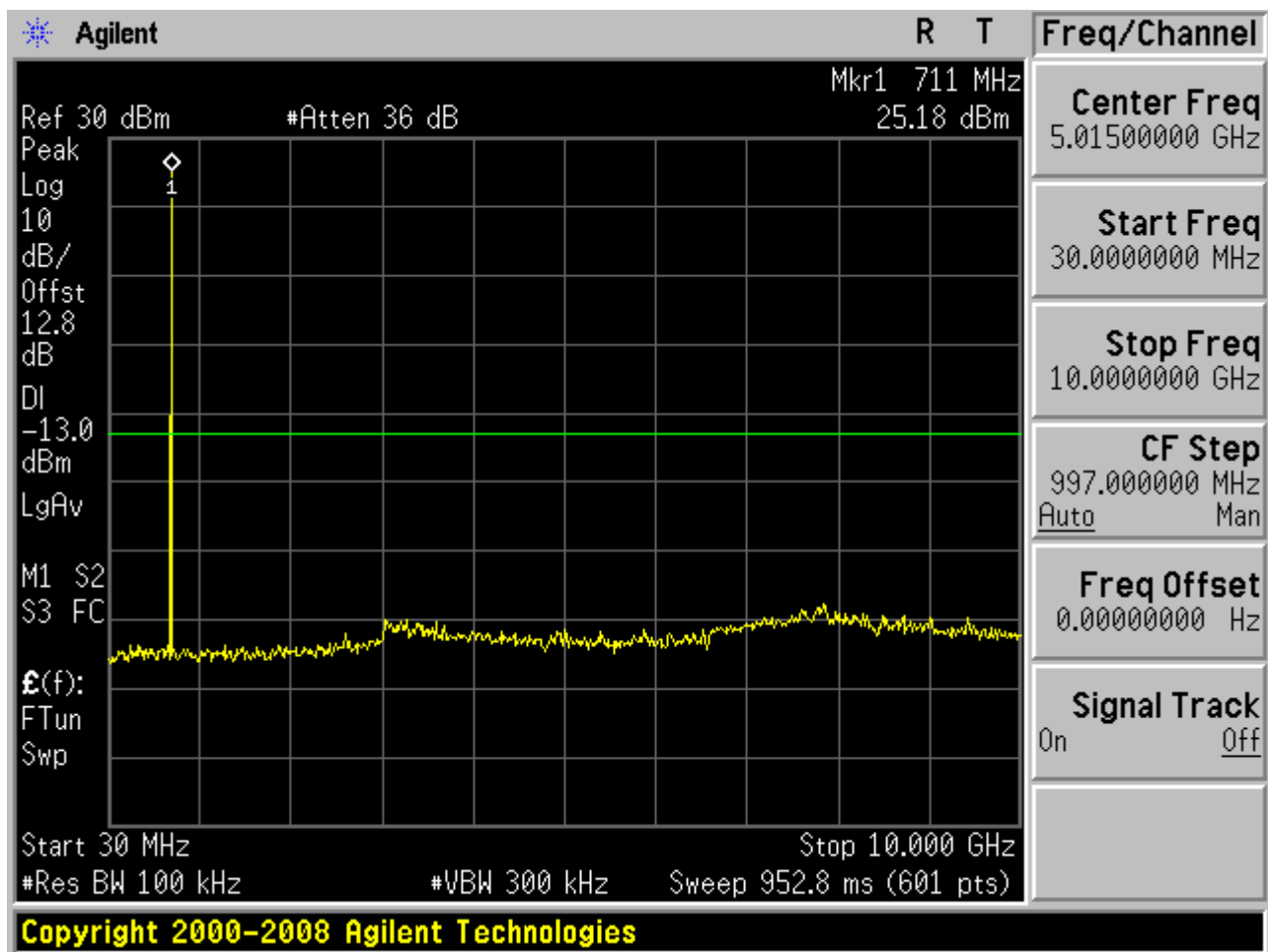


1.2.2.3 Channel = T

1.2.2.3.1 16QAM/1RBs /RB #0





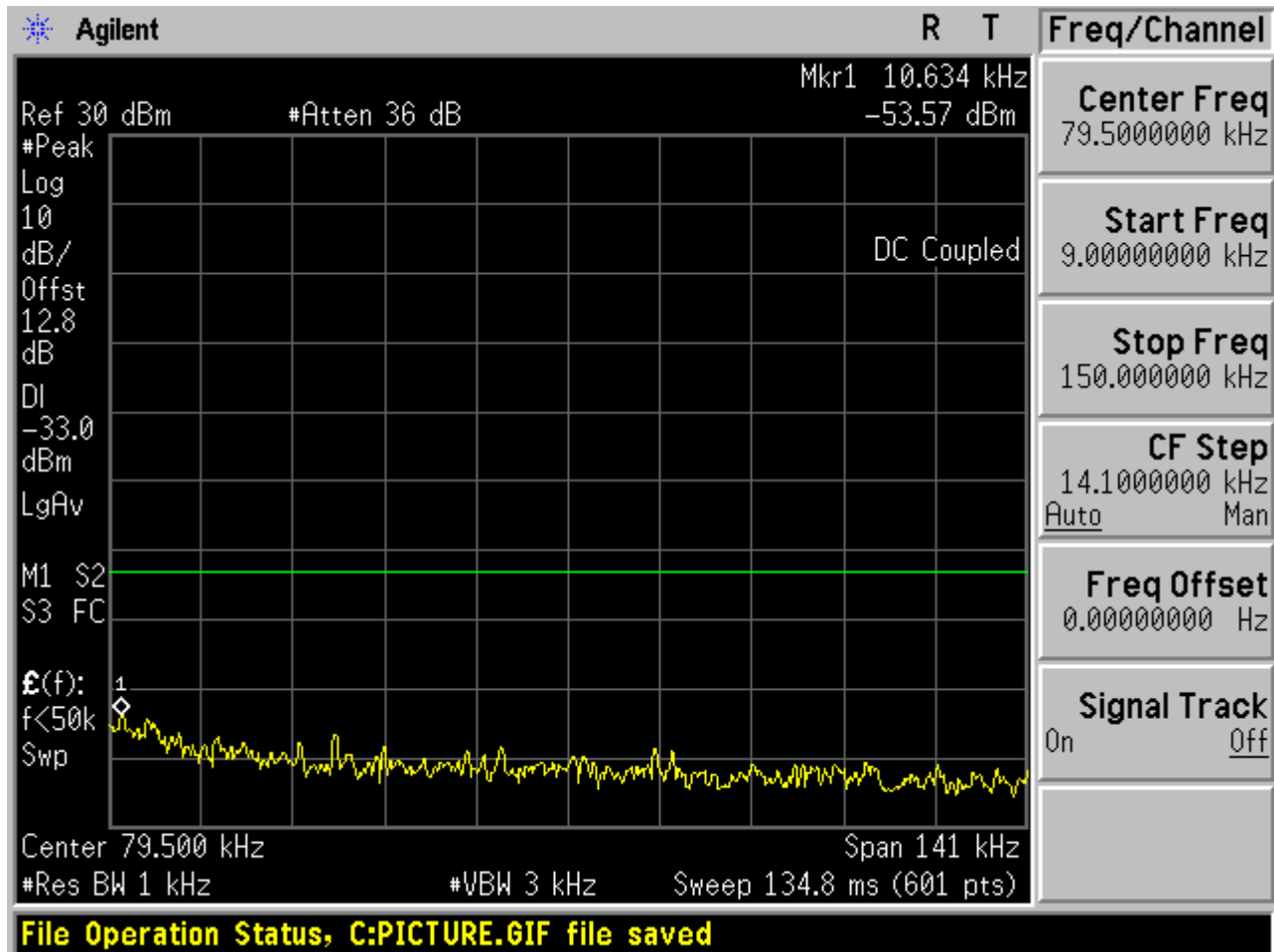


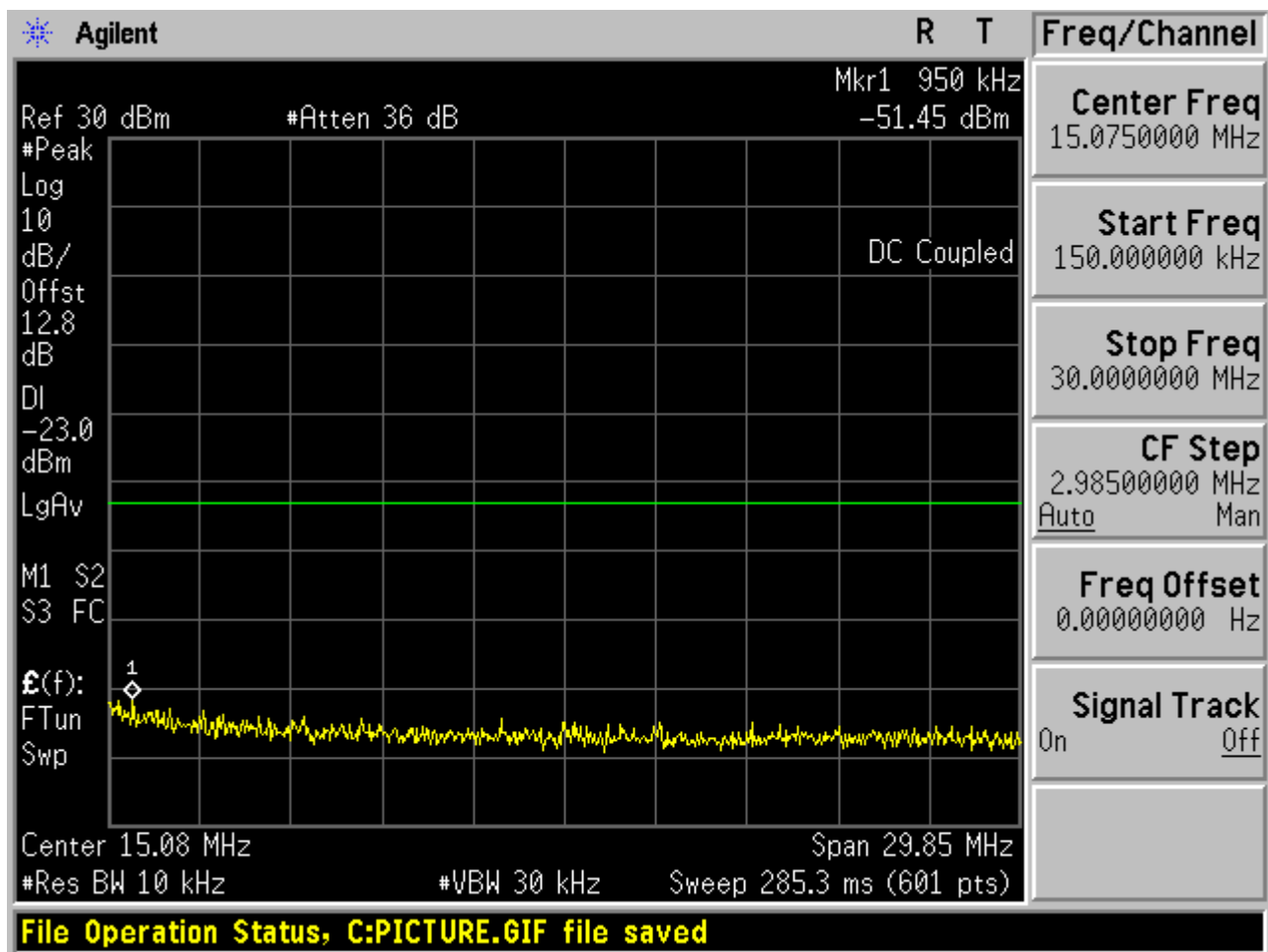


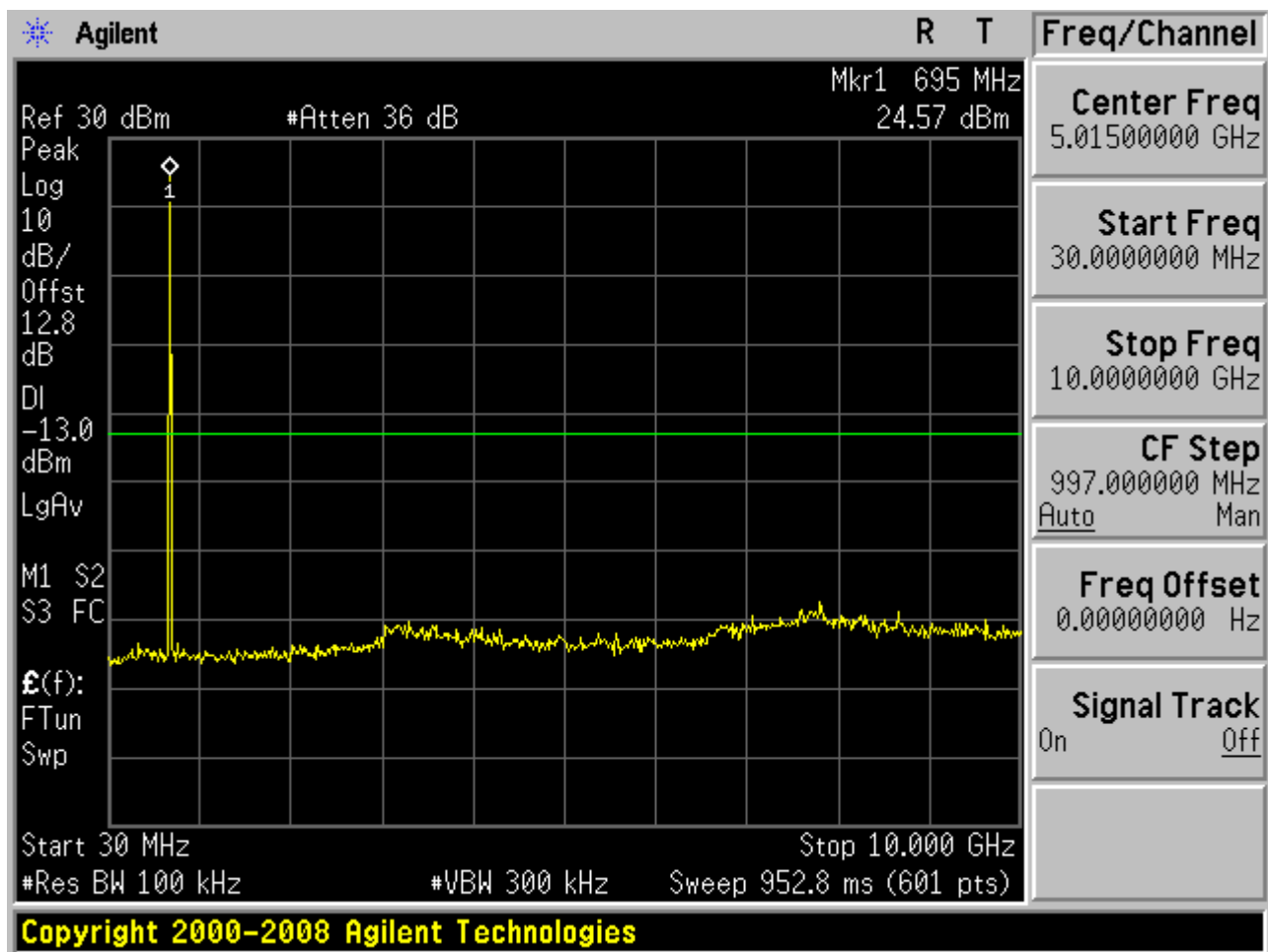
1.2.3 Channel Bandwidth = 5 MHz

1.2.3.1 Channel = B

1.2.3.1.1 16QAM/1RBs /RB #0



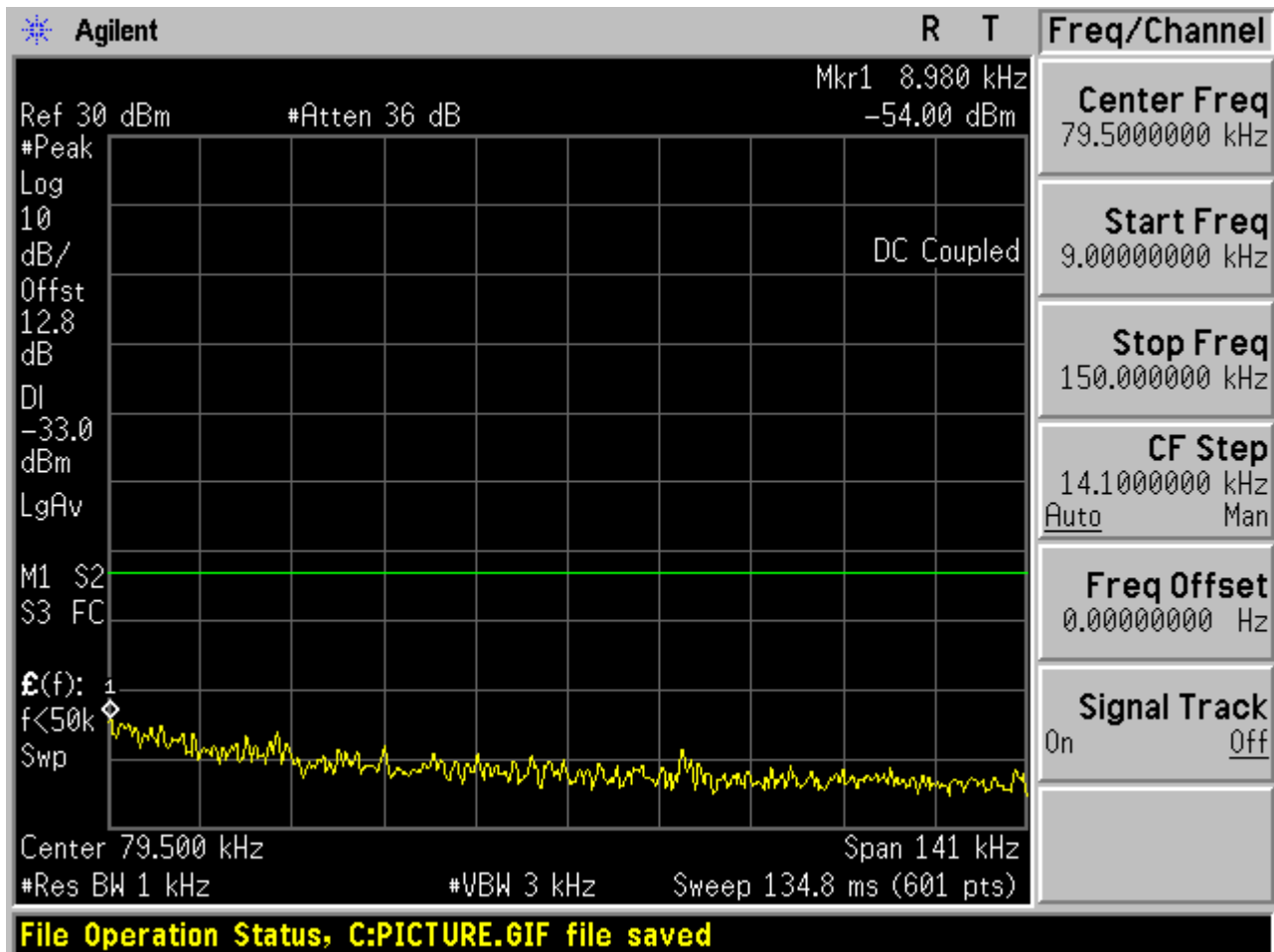


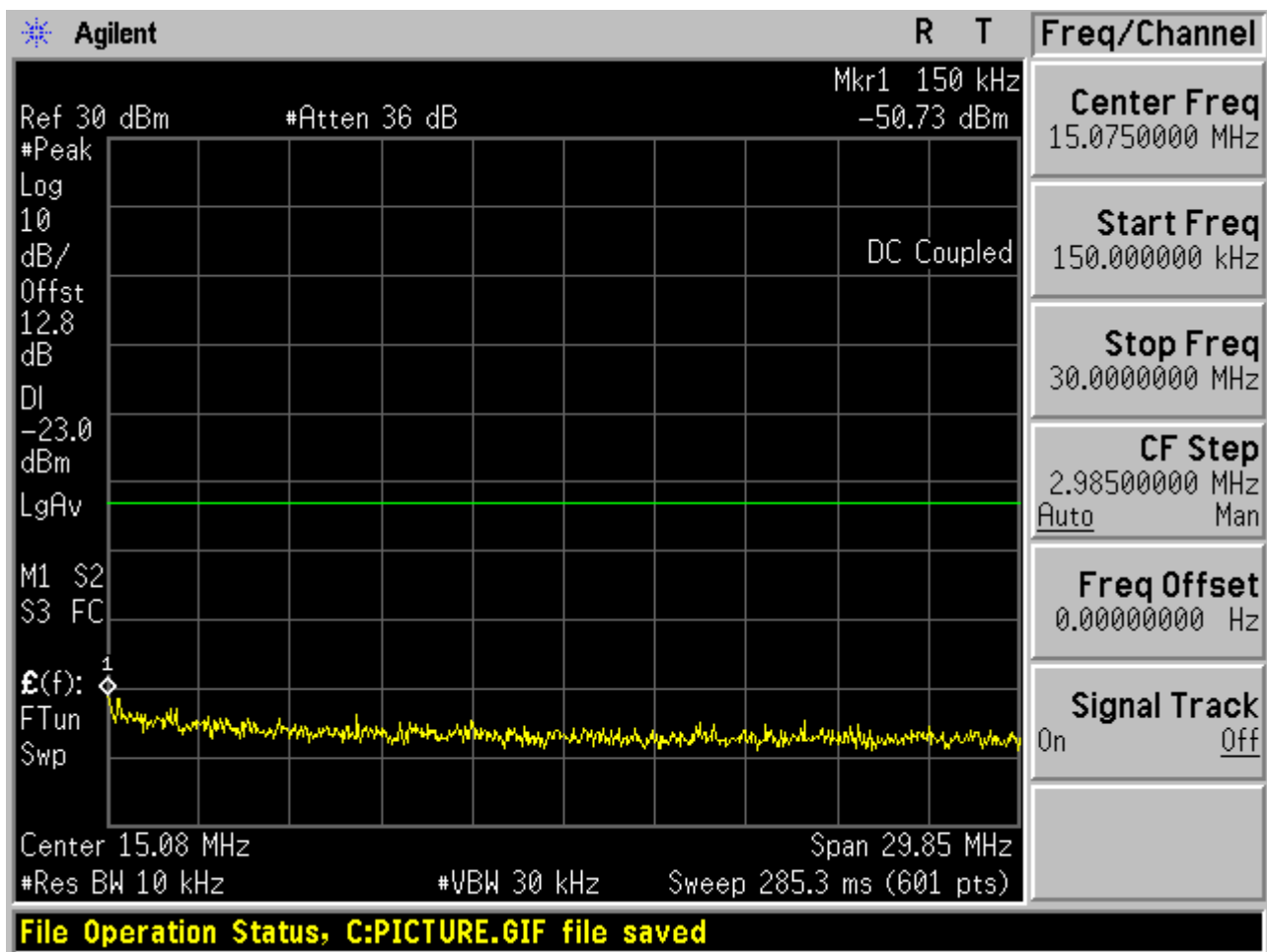


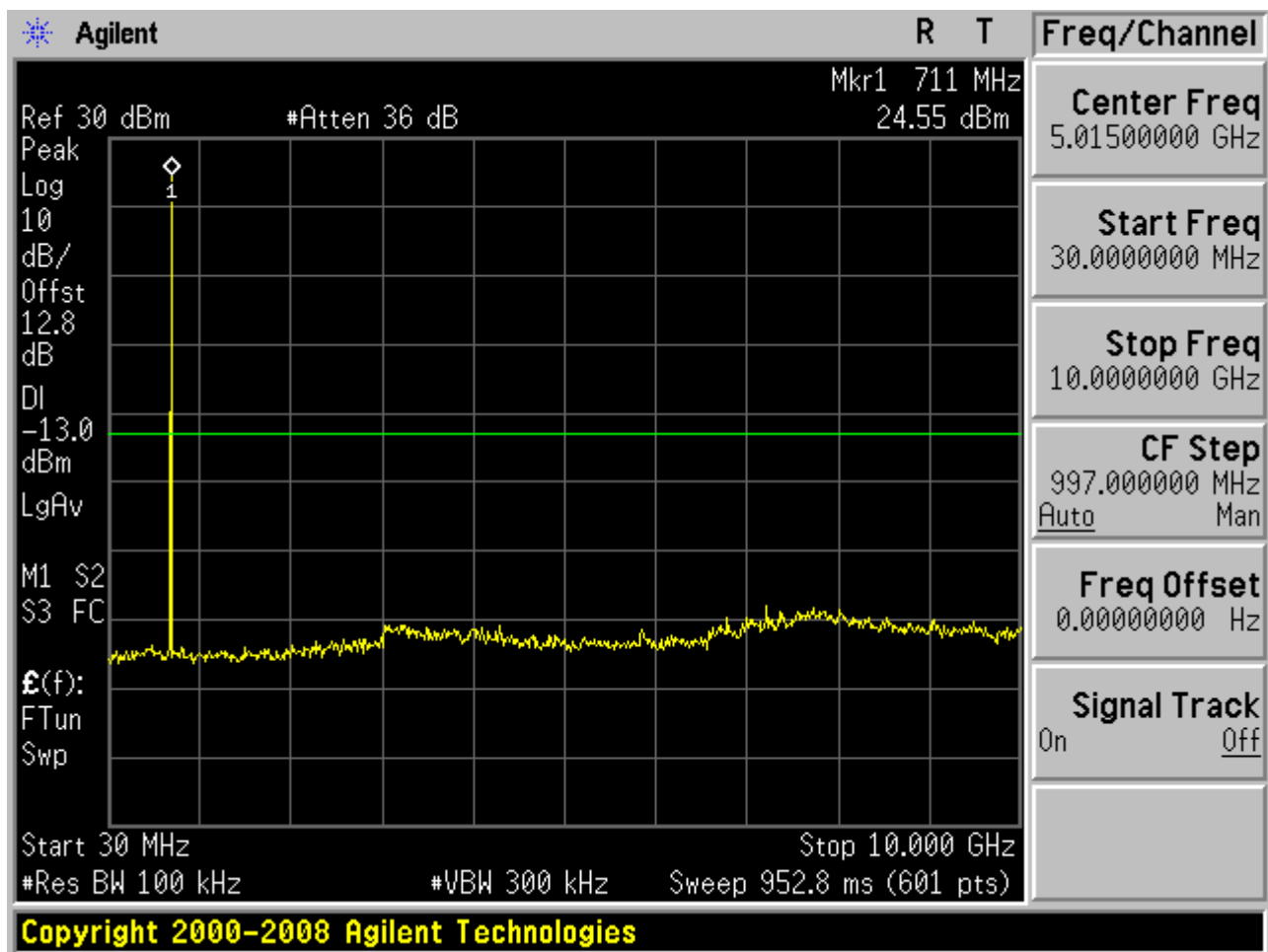


1.2.3.2 Channel = M

1.2.3.2.1 16QAM/1RBs /RB #0



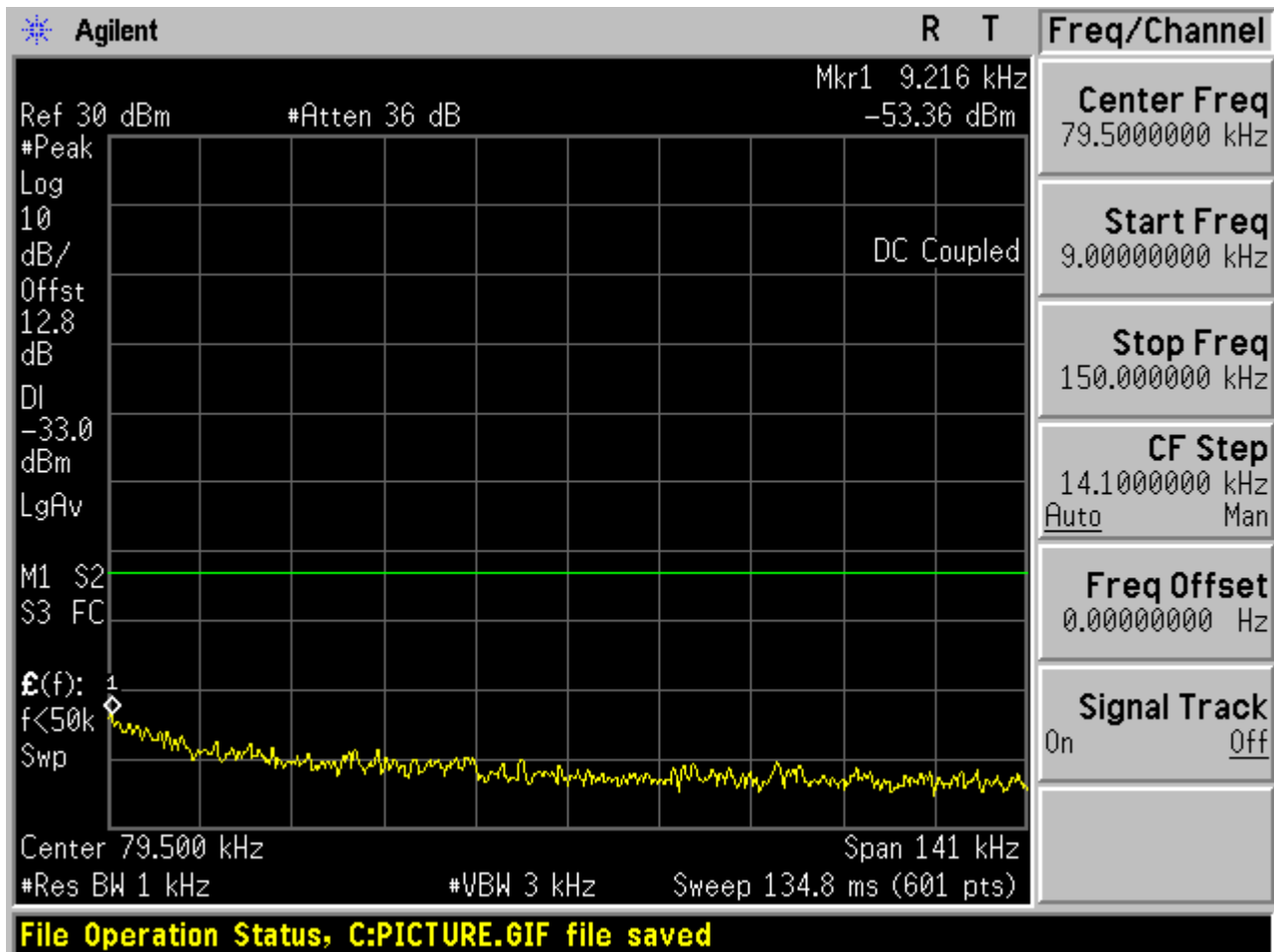


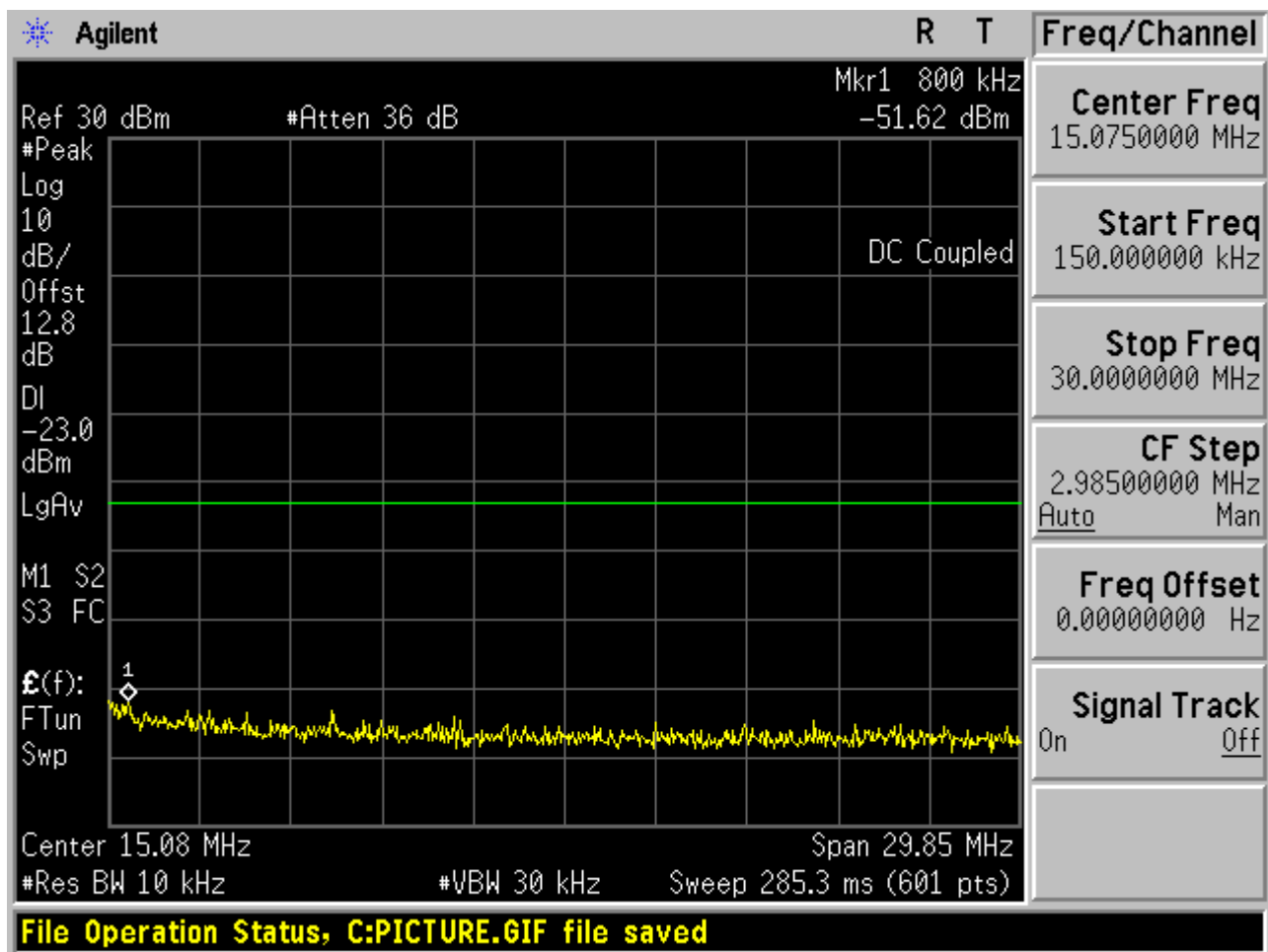


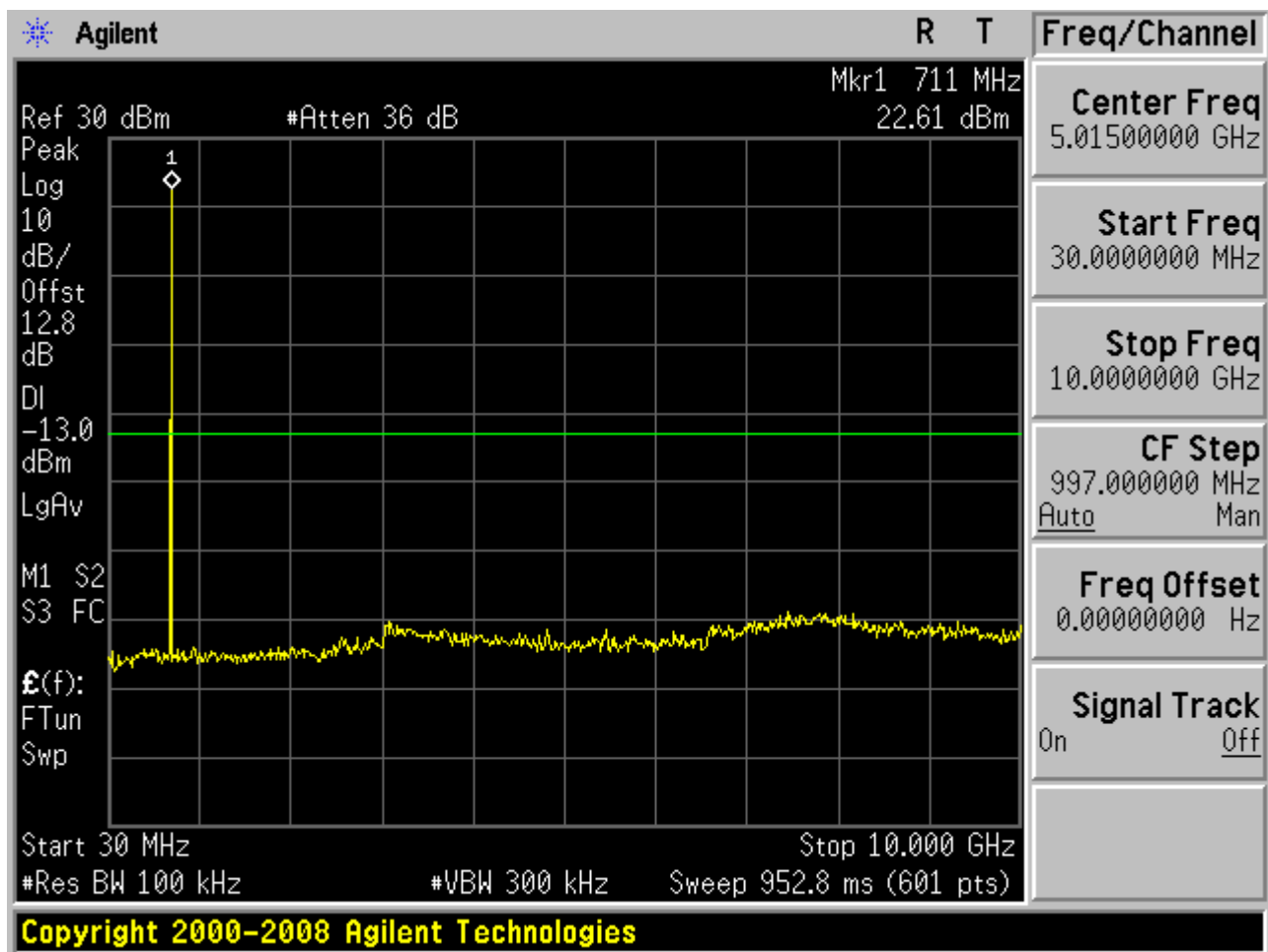


1.2.3.3 Channel = T

1.2.3.3.1 16QAM/1RBs /RB #0





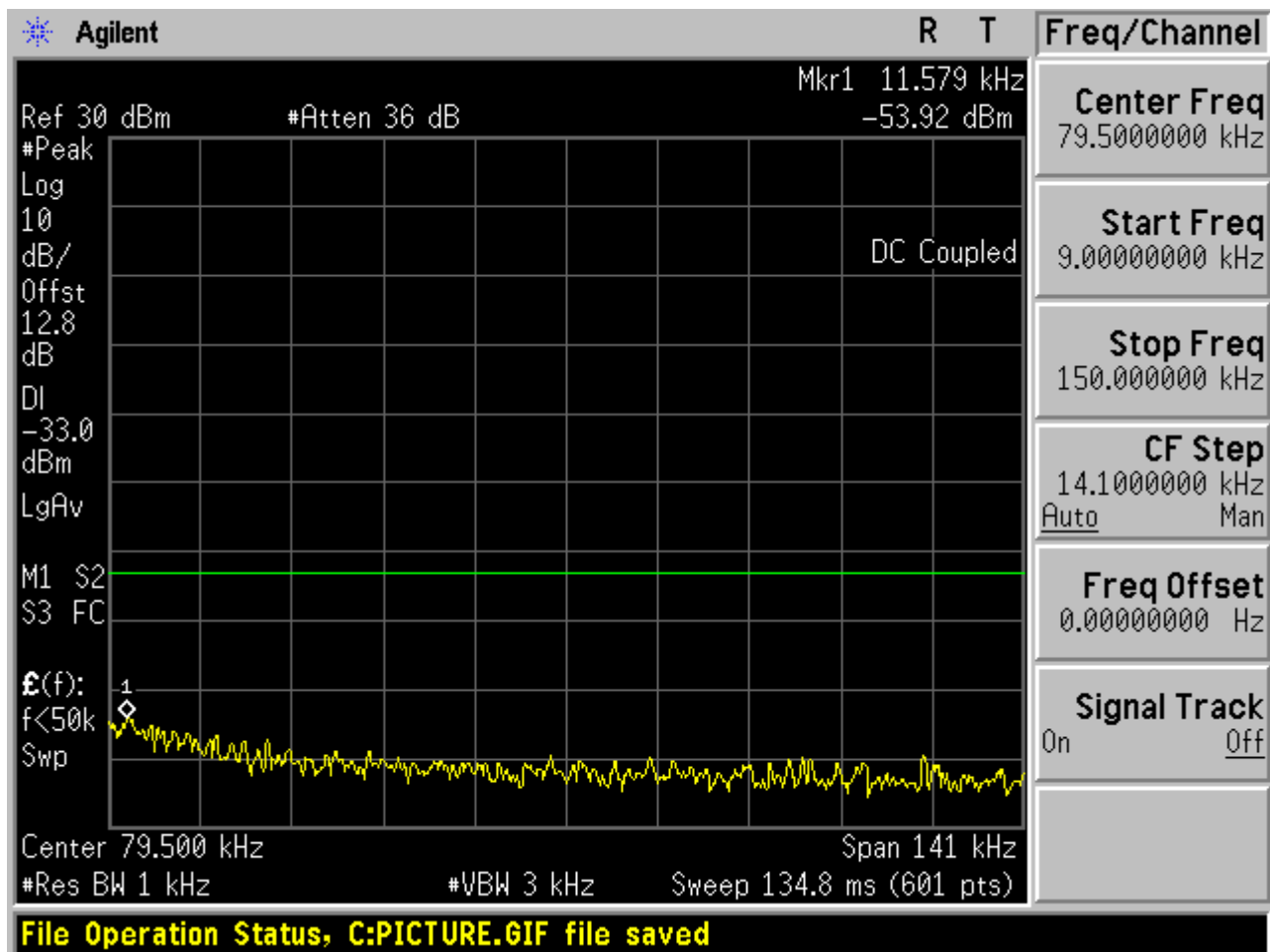


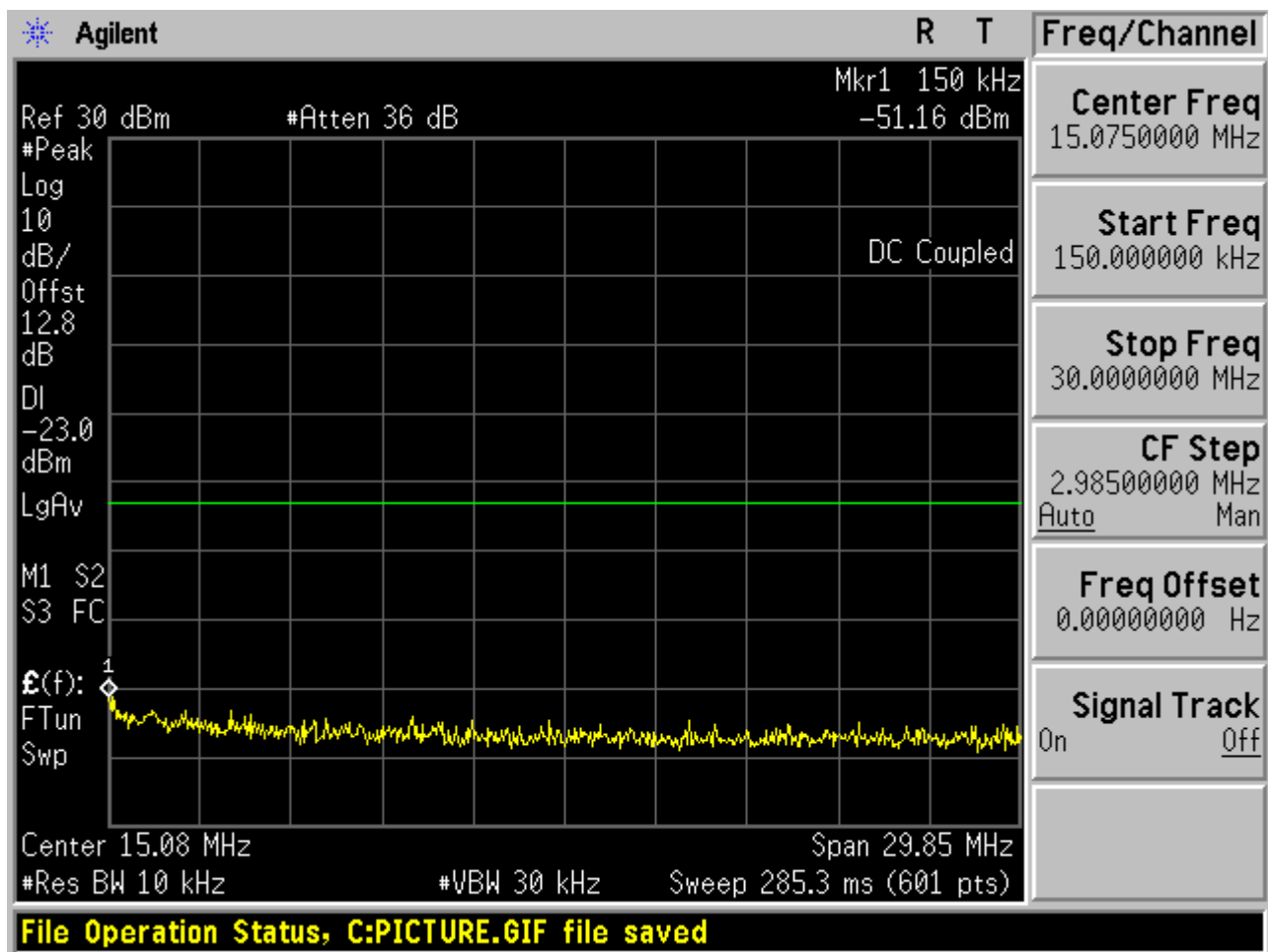


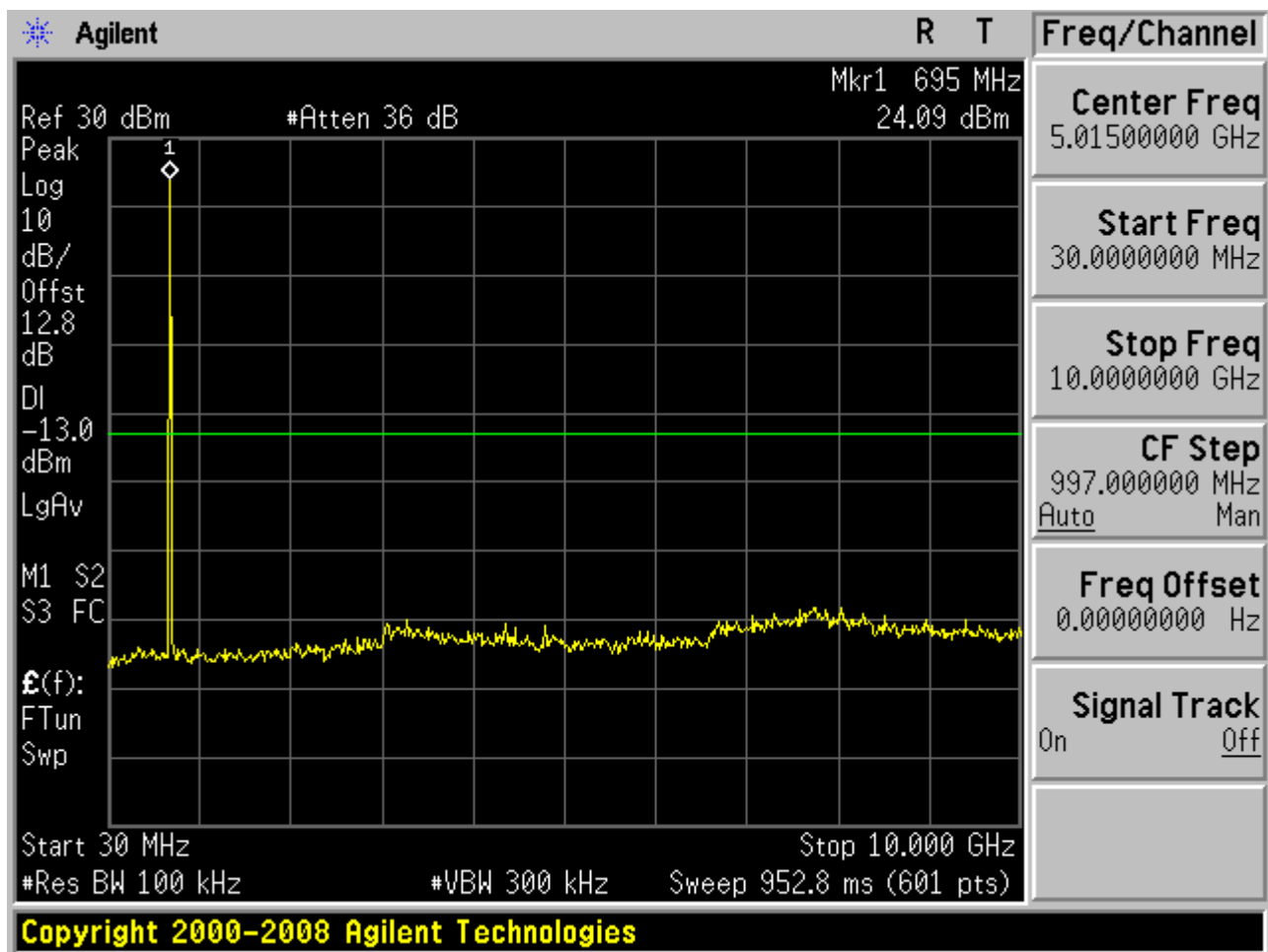
1.2.4 Channel Bandwidth = 10 MHz

1.2.4.1 Channel = B

1.2.4.1.1 16QAM/1RBs /RB #0



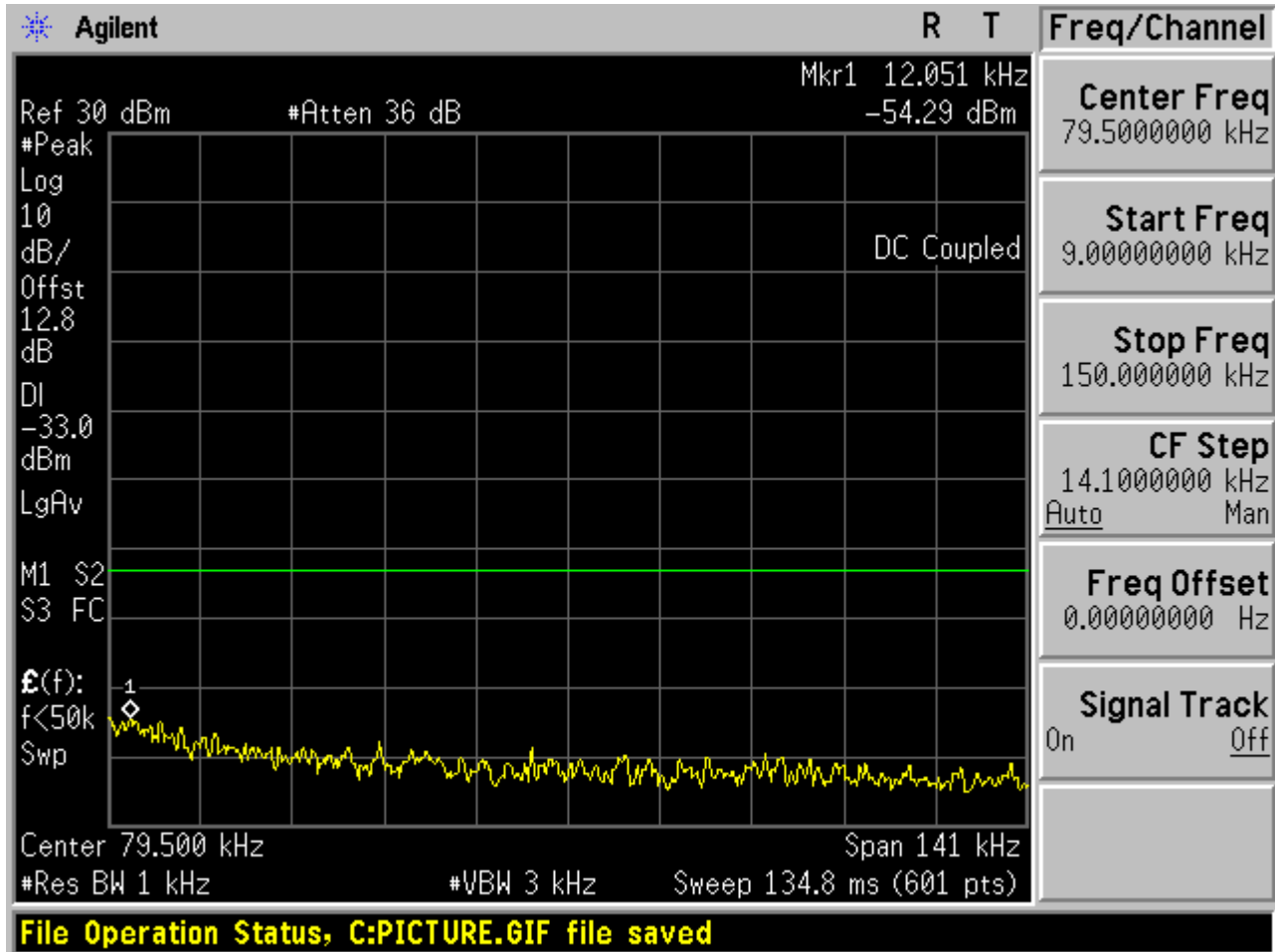


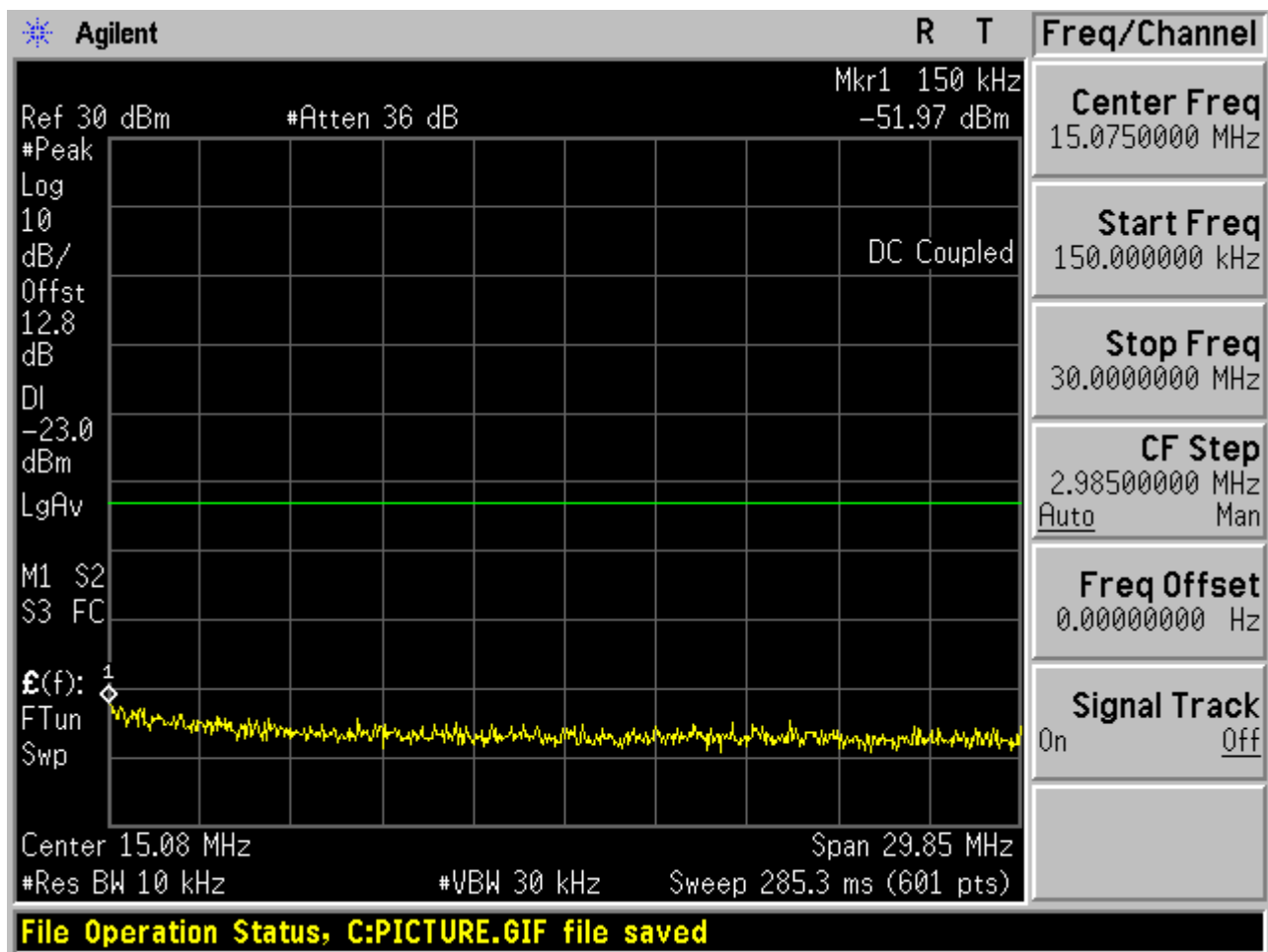


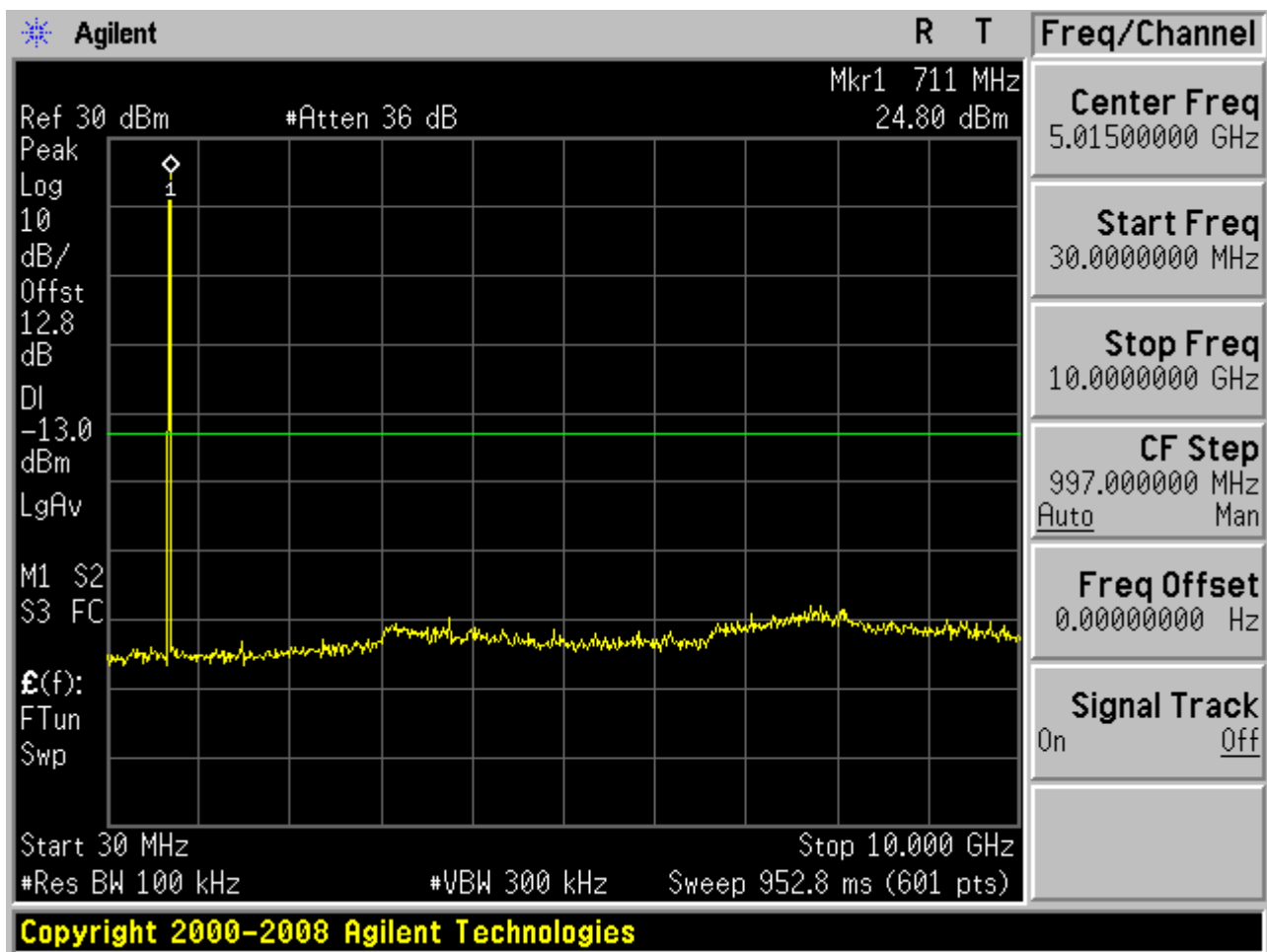


1.2.4.2 Channel = M

1.2.4.2.1 16QAM/1RBs /RB #0



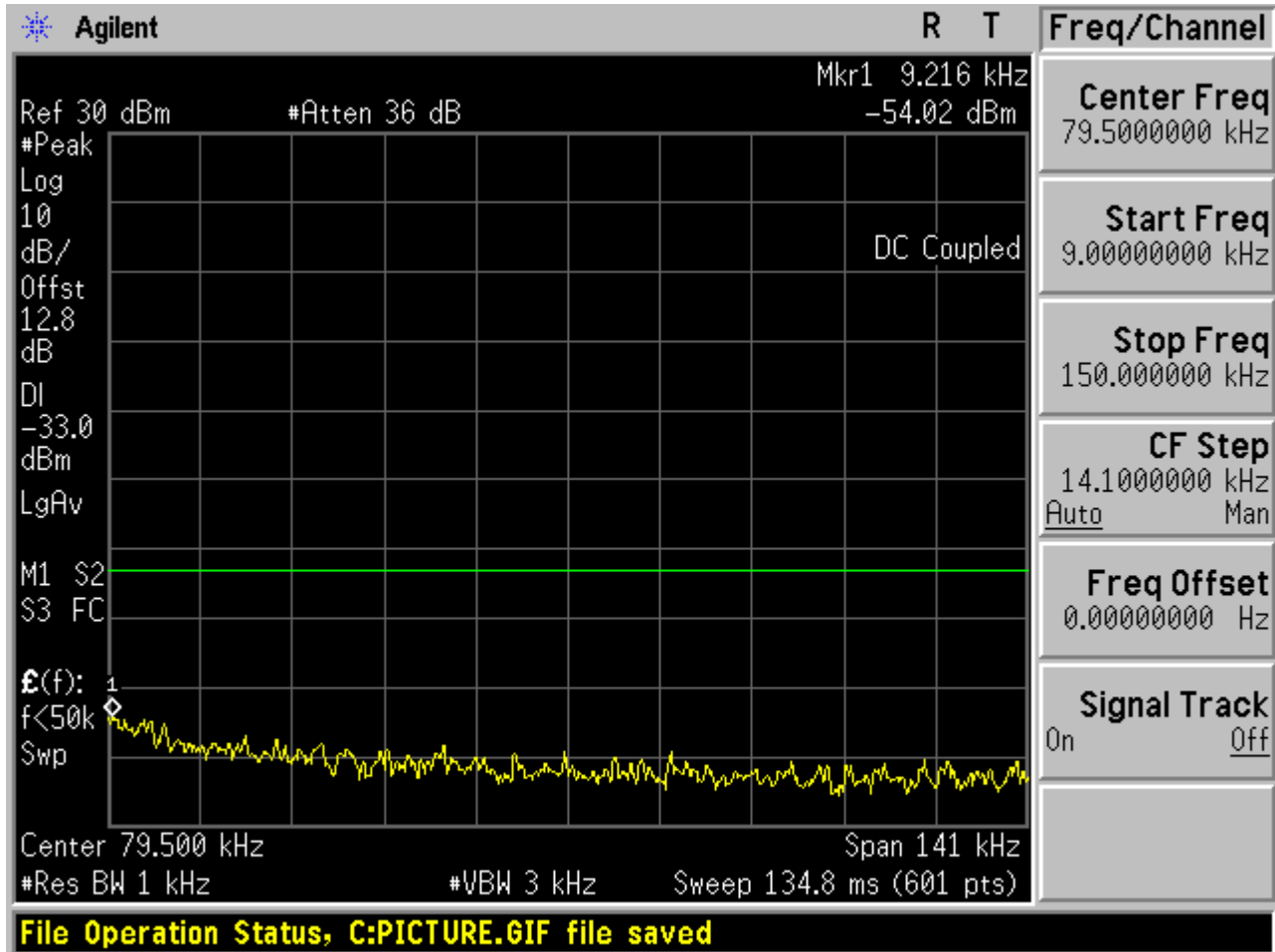


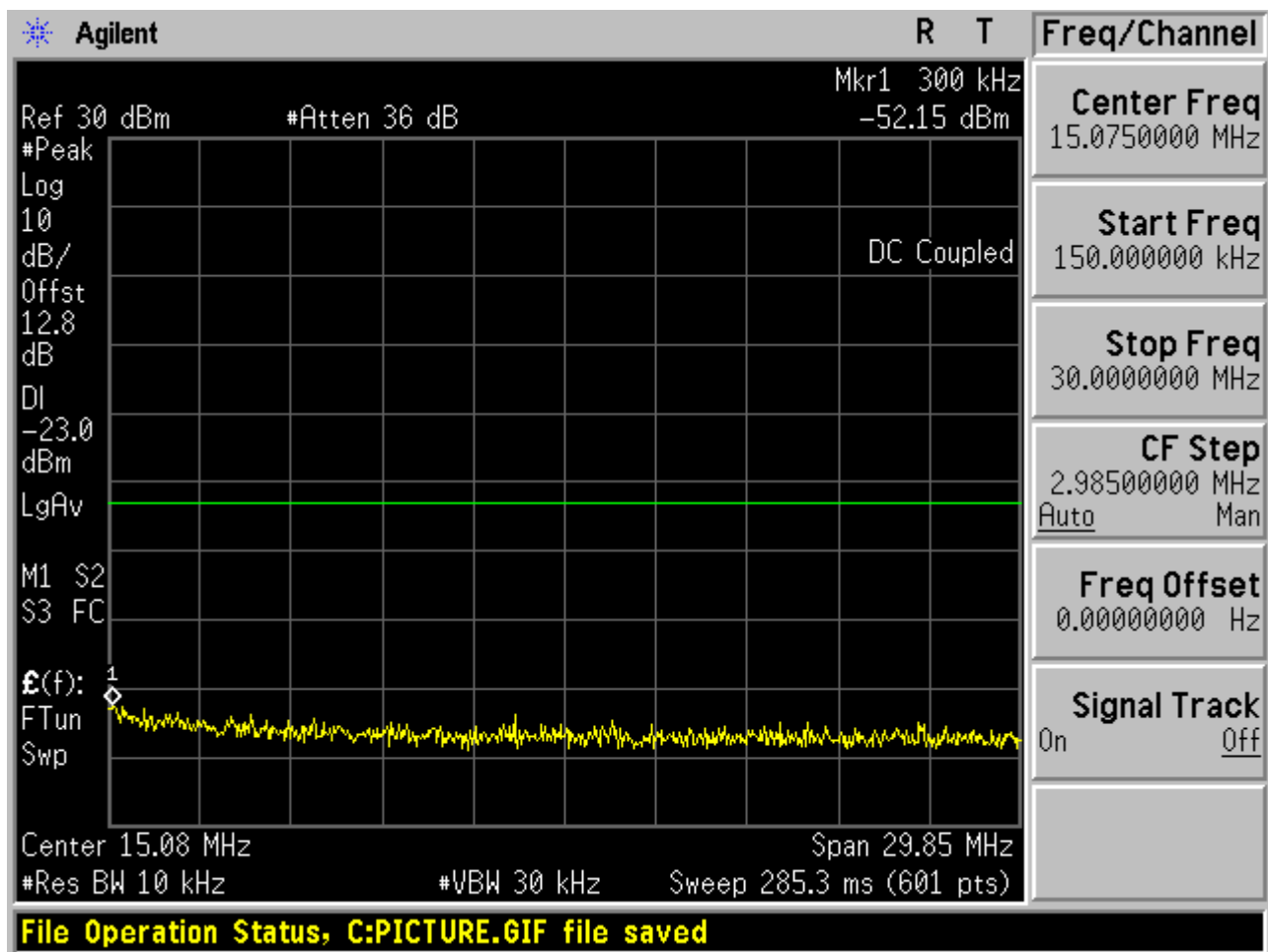


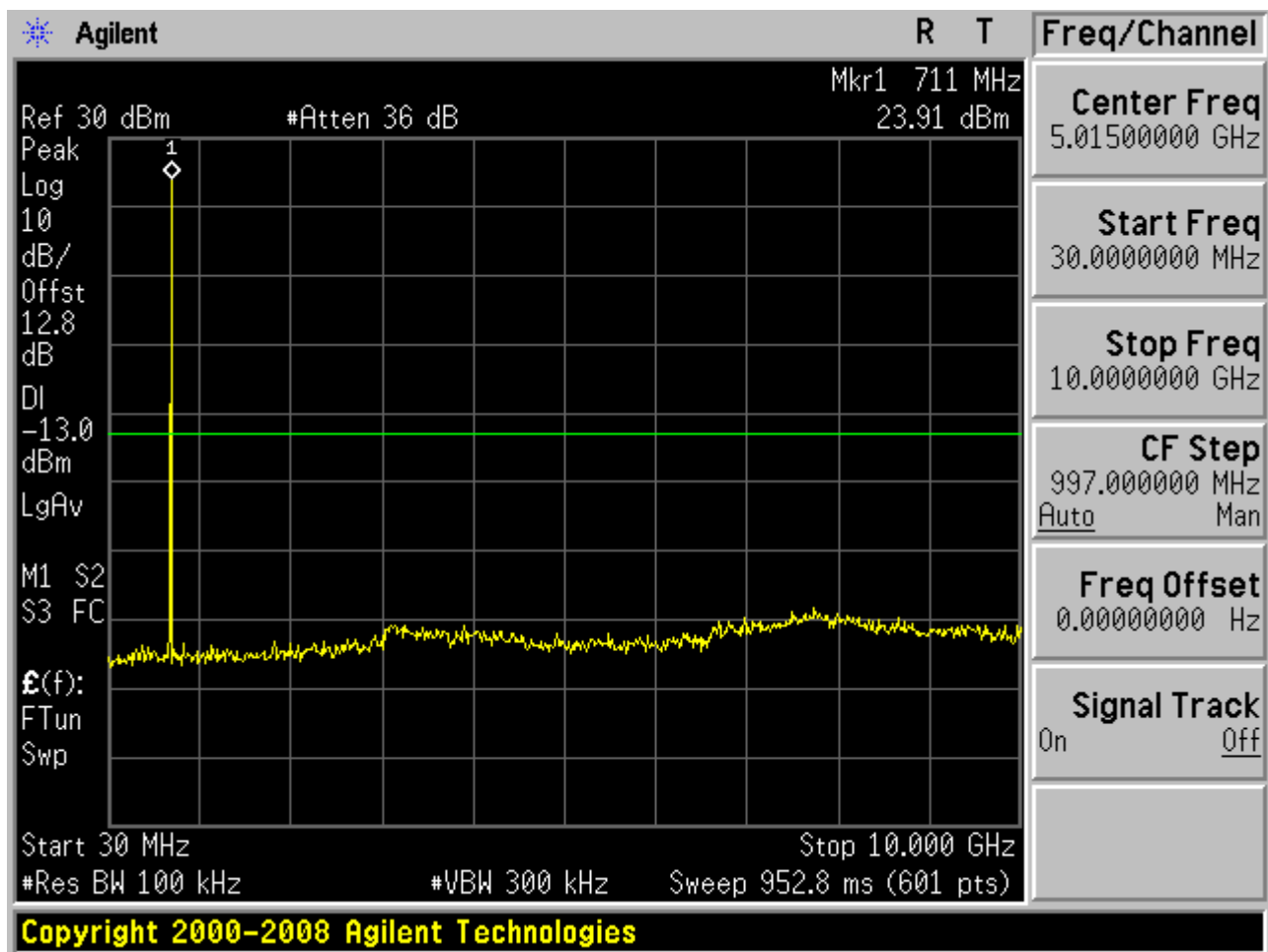


1.2.4.3 Channel = T

1.2.4.3.1 16QAM/1RBs /RB #0







END



Appendix F

Radiated spurious emission

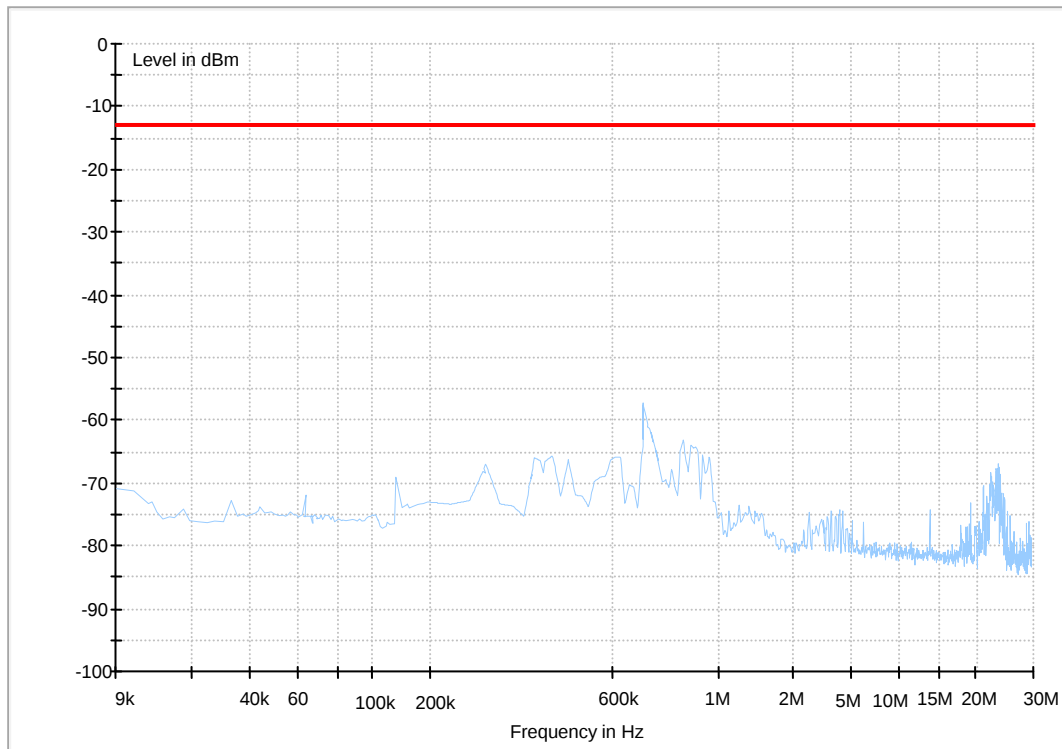
According to FCC Part 2.1053& Part 27.53(g)



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

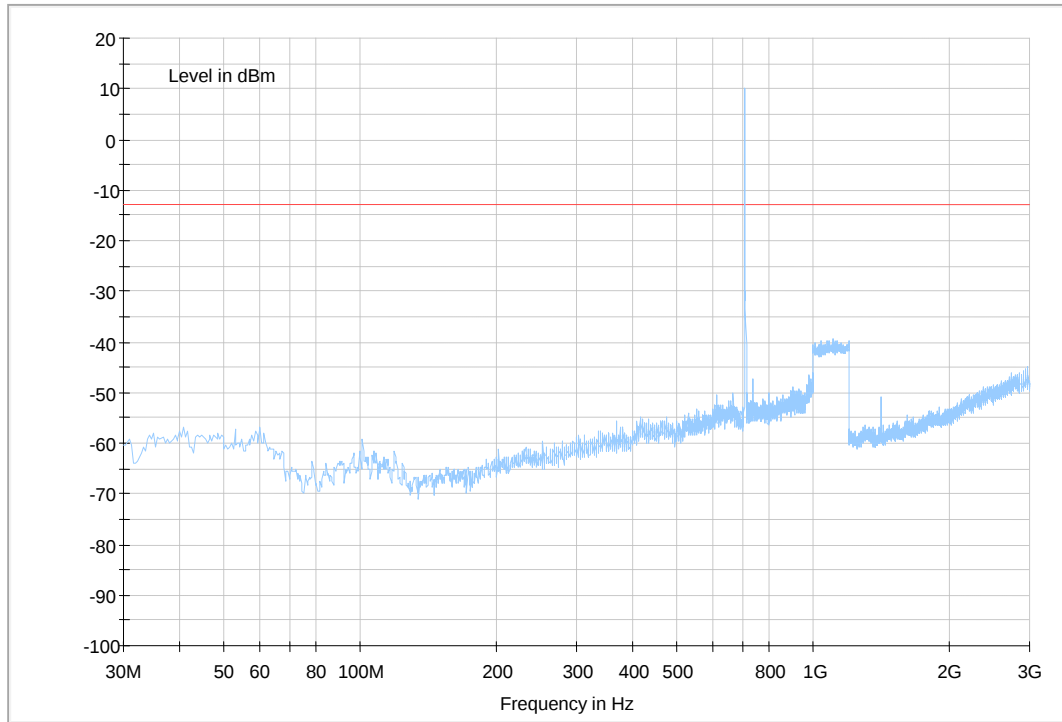
LTE-Band12-1.4MHz

(9kHz~30MHz)



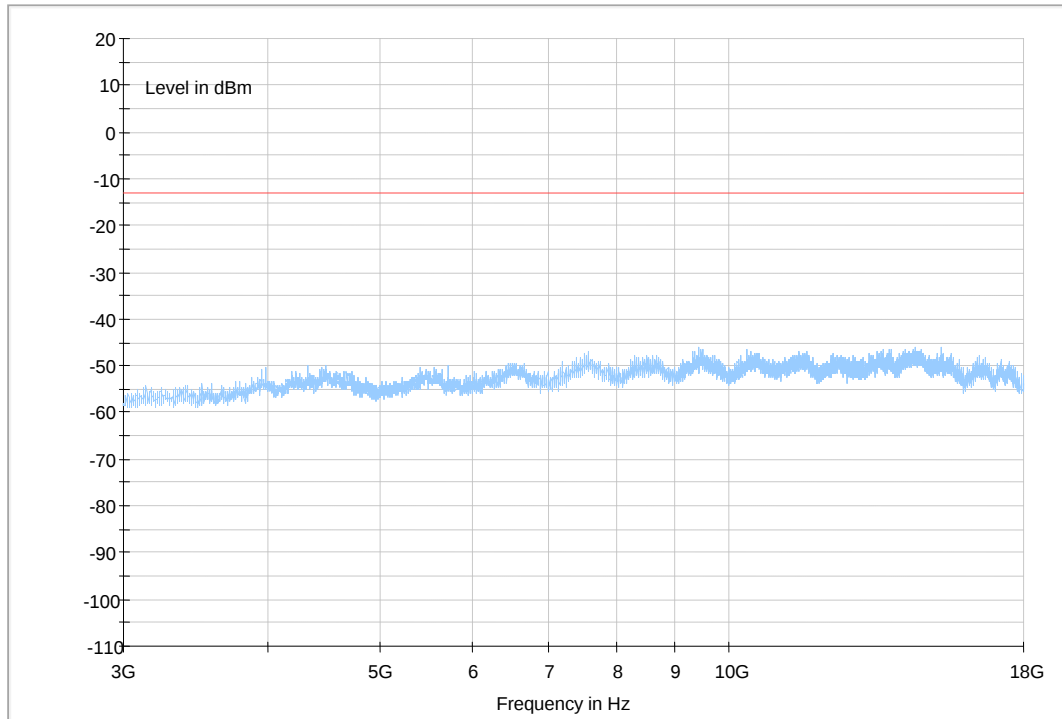


(30MHz~3GHz)



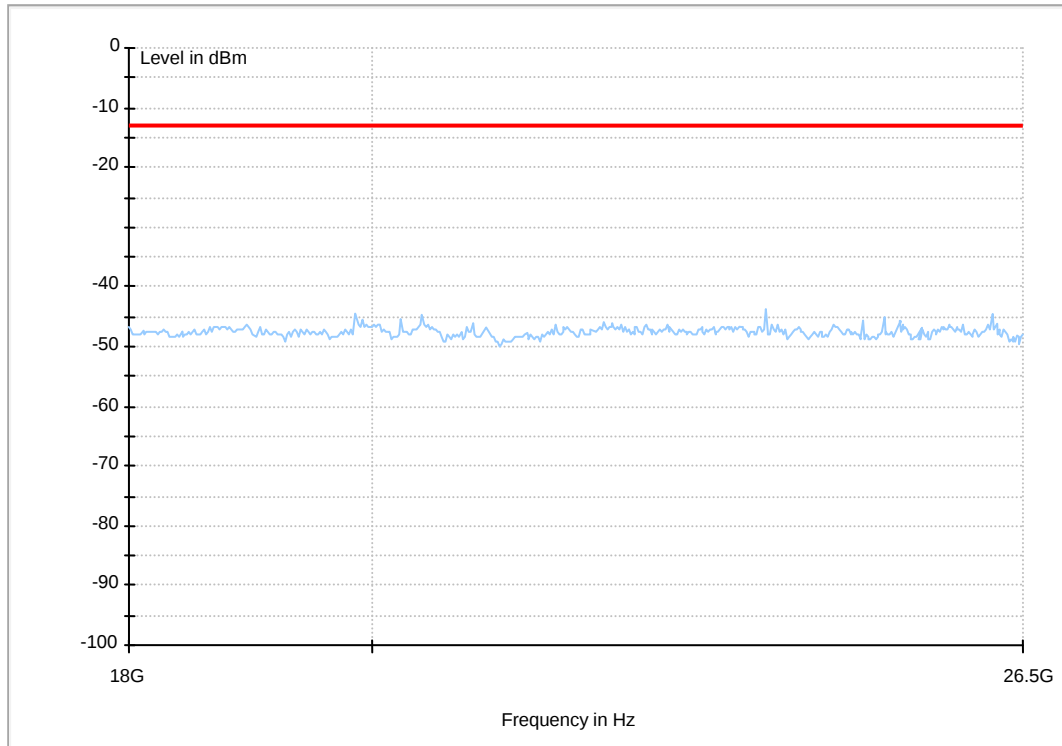


(3GHz~18GHz)





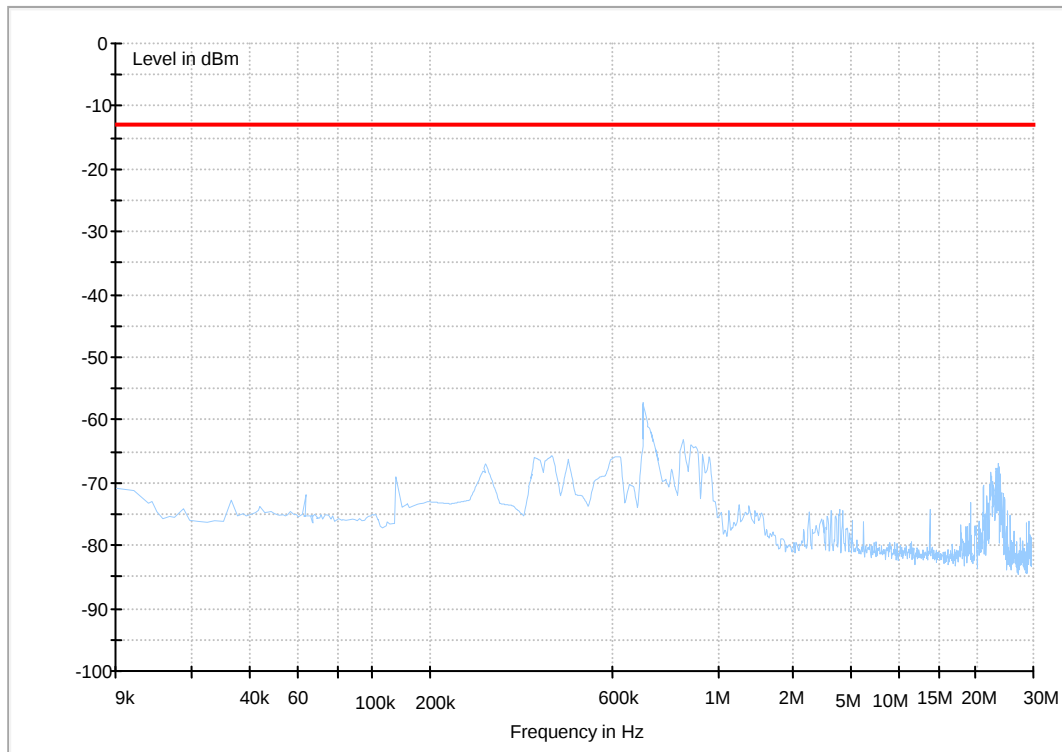
(18GHz~26.5GHz)





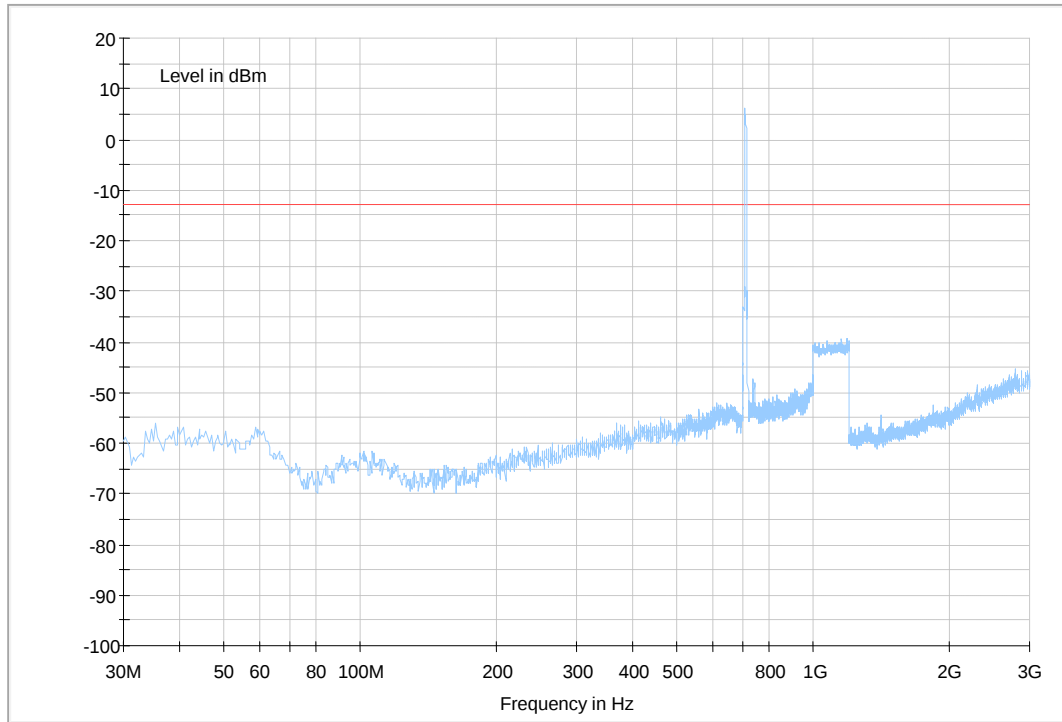
LTE-Band12-5MHz

(9kHz~30MHz)



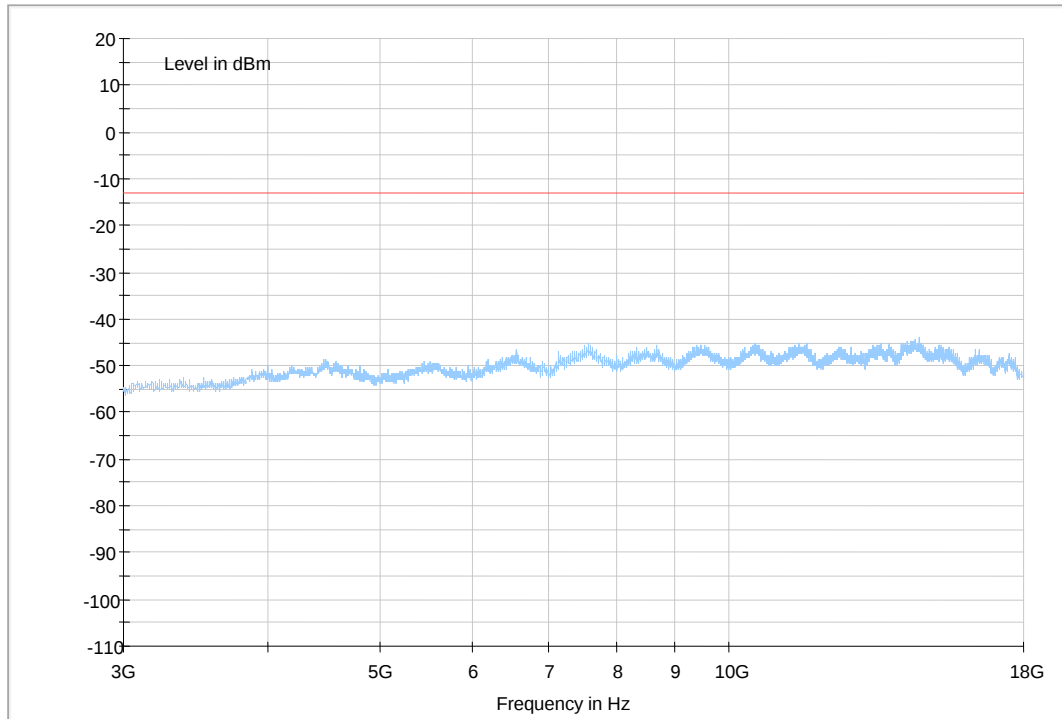


(30MHz~3GHz)



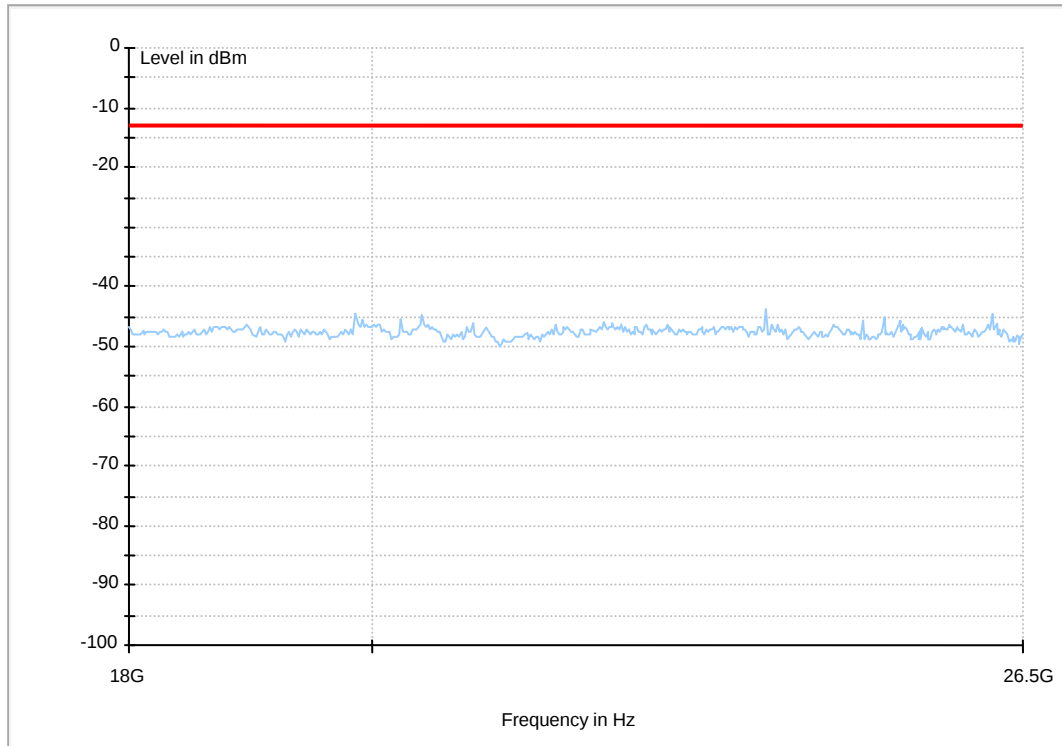


(3GHz~18GHz)





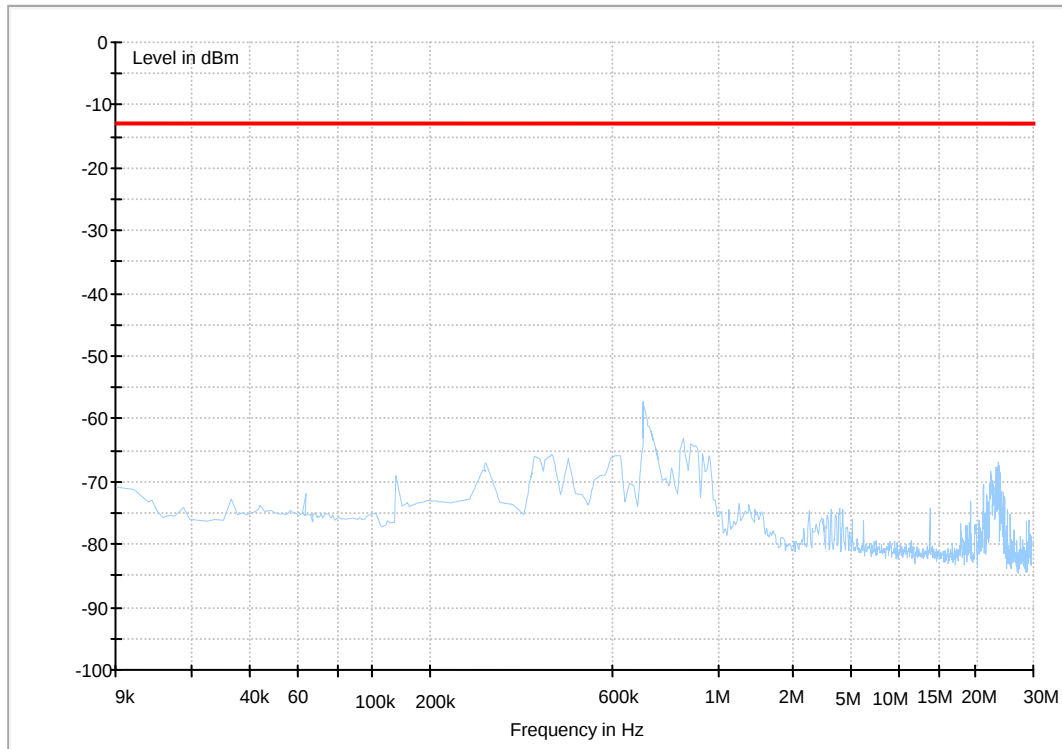
(18GHz~26.5GHz)





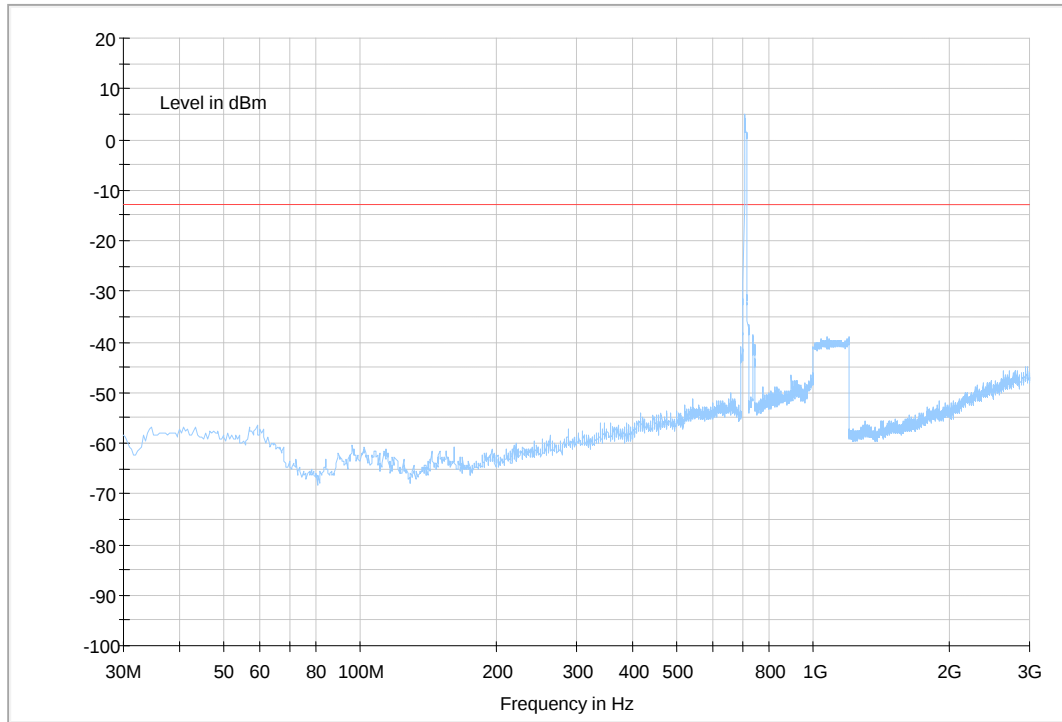
LTE-Band12-10MHz

(9kHz~30MHz)



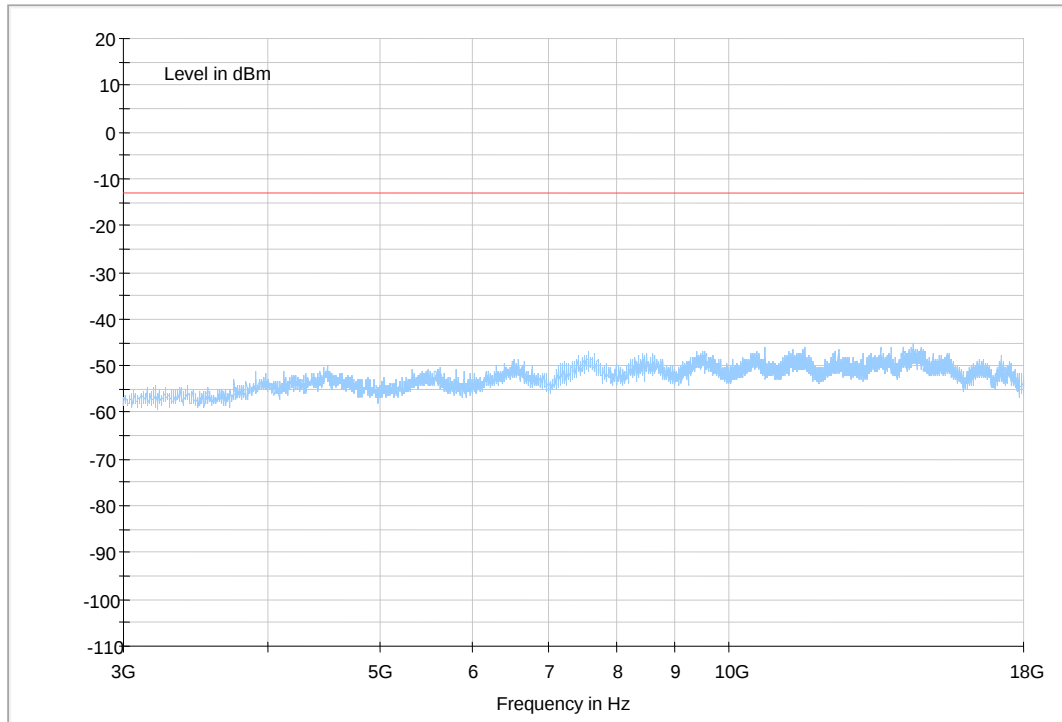


(30MHz~3GHz)



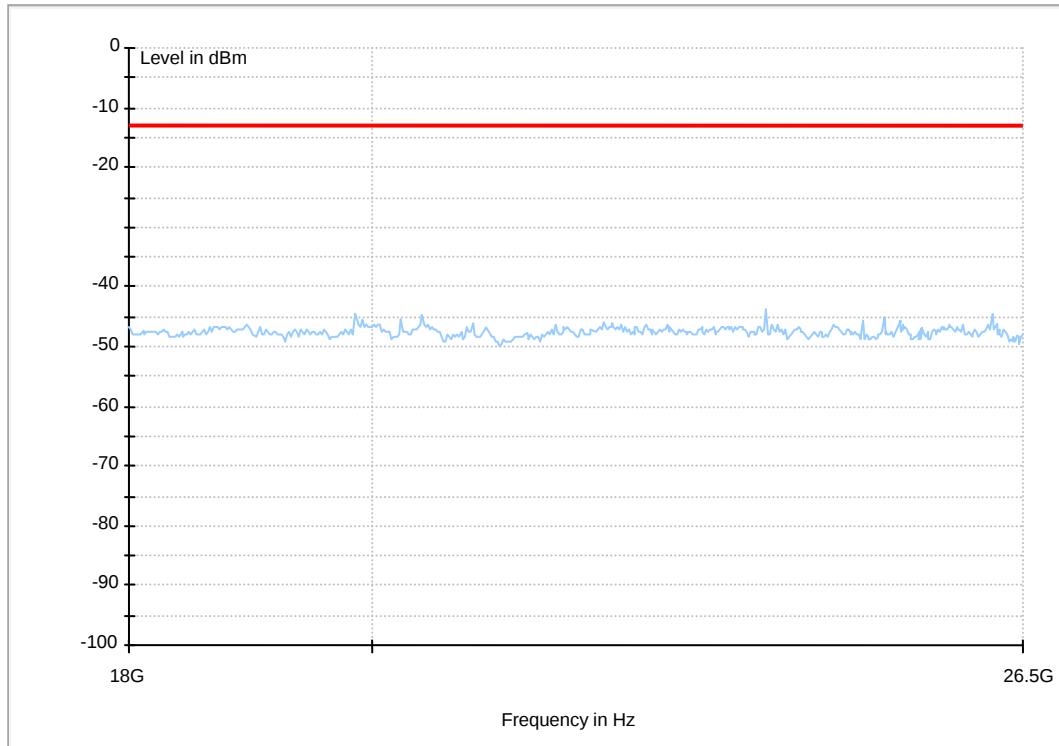


(3GHz~18GHz)





(18GHz~26.5GHz)



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



Appendix G

Frequency Stability

According to FCC Part 2.1055 & Part 27.54



Frequency Error vs. Temperature:

Test Mode	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
TM1(1.4 M)	M	VN	-30 °C	-23	-0.03251	---	±2.5	Pass
			-20 °C	25	0.03534	---	±2.5	Pass
			-10 °C	-22	-0.03110	---	±2.5	Pass
			0 °C	24	0.03392	---	±2.5	Pass
			10 °C	25	0.03534	---	±2.5	Pass
			20 °C	26	0.03675	---	±2.5	Pass
			30 °C	-16	-0.02261	---	±2.5	Pass
			40 °C	-7	-0.00989	---	±2.5	Pass
TM1(3M)	M	VN	50 °C	13	0.01837	---	±2.5	Pass
			-30 °C	27	0.03816	---	±2.5	Pass
			-20 °C	19	0.02686	---	±2.5	Pass
			-10 °C	-25	-0.03534	---	±2.5	Pass
			0 °C	10	0.01413	---	±2.5	Pass
			10 °C	-24	-0.03392	---	±2.5	Pass
			20 °C	12	0.01696	---	±2.5	Pass
			30 °C	-20	-0.02827	---	±2.5	Pass
TM1(5M)	M	VN	40 °C	27	0.03816	---	±2.5	Pass
			50 °C	12	0.01696	---	±2.5	Pass
			-30 °C	22	0.03110	---	±2.5	Pass
			-20 °C	9	0.01272	---	±2.5	Pass
			-10 °C	23	0.03251	---	±2.5	Pass
			0 °C	-15	-0.02120	---	±2.5	Pass
			10 °C	11	0.01555	---	±2.5	Pass
			20 °C	17	0.02403	---	±2.5	Pass
TM1(10 M)	M	VN	30 °C	15	0.02120	---	±2.5	Pass
			40 °C	17	0.02403	---	±2.5	Pass
			50 °C	-22	-0.00868	---	±2.5	Pass
			-30 °C	9	0.01272	---	±2.5	Pass
			-20 °C	-6	-0.00848	---	±2.5	Pass
			-10 °C	27	0.03816	---	±2.5	Pass
			0 °C	-17	-0.02403	---	±2.5	Pass
			10 °C	8	0.01131	---	±2.5	Pass
			20 °C	-16	-0.02261	---	±2.5	Pass
			30 °C	17	0.02403	---	±2.5	Pass
			40 °C	-9	-0.01272	---	±2.5	Pass
			50 °C	-9	-0.00355	---	±2.5	Pass



TM2(1.4 M)	M	VN	-30 °C	9	0.00479	---	±2.5	Pass
			-20 °C	12	0.00638	---	±2.5	Pass
			-10 °C	-7	-0.00372	---	±2.5	Pass
			0 °C	-12	-0.00638	---	±2.5	Pass
			10 °C	15	0.00798	---	±2.5	Pass
			20 °C	10	0.00532	---	±2.5	Pass
			30 °C	-6	-0.00319	---	±2.5	Pass
			40 °C	-5	-0.00266	---	±2.5	Pass
			50 °C	12	0.00638	---	±2.5	Pass
TM2(3M)	M	VN	-30 °C	12	0.00638	---	±2.5	Pass
			-20 °C	-11	-0.00585	---	±2.5	Pass
			-10 °C	14	0.00745	---	±2.5	Pass
			0 °C	-5	-0.00266	---	±2.5	Pass
			10 °C	13	0.00691	---	±2.5	Pass
			20 °C	6	0.00319	---	±2.5	Pass
			30 °C	12	0.00638	---	±2.5	Pass
			40 °C	-6	-0.00319	---	±2.5	Pass
			50 °C	12	0.00638	---	±2.5	Pass
TM2(5M)	M	VN	-30 °C	15	0.00798	---	±2.5	Pass
			-20 °C	20	0.01064	---	±2.5	Pass
			-10 °C	13	0.00691	---	±2.5	Pass
			0 °C	-21	-0.01117	---	±2.5	Pass
			10 °C	-8	-0.00426	---	±2.5	Pass
			20 °C	-20	-0.01064	---	±2.5	Pass
			30 °C	27	0.01436	---	±2.5	Pass
			40 °C	15	0.00798	---	±2.5	Pass
			50 °C	10	0.00532	---	±2.5	Pass
TM2(10 M)	M	VN	-30 °C	20	0.01064	---	±2.5	Pass
			-20 °C	-12	-0.00638	---	±2.5	Pass
			-10 °C	-23	-0.01223	---	±2.5	Pass
			0 °C	14	0.00745	---	±2.5	Pass
			10 °C	12	0.00638	---	±2.5	Pass
			20 °C	15	0.00798	---	±2.5	Pass
			30 °C	20	0.01064	---	±2.5	Pass
			40 °C	13	0.00691	---	±2.5	Pass
			50 °C	-21	-0.01117	---	±2.5	Pass



Frequency Error vs. Voltage:

Test Mode	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Limit [ppm]	Verdict
TM1(1.4 M)	M	20 °C	VL	14	0.01979	---	±2.5	Pass
			VN	19	0.02686	---	±2.5	Pass
			VH	22	0.03110	---	±2.5	Pass
TM1(3M)	M	20 °C	VL	18	0.02544	---	±2.5	Pass
			VN	19	0.02686	---	±2.5	Pass
			VH	26	0.03675	---	±2.5	Pass
TM1(5M)	M	20 °C	VL	15	0.02120	---	±2.5	Pass
			VN	8	0.01131	---	±2.5	Pass
			VH	26	0.03675	---	±2.5	Pass
TM1(10 M)	M	20 °C	VL	-19	-0.02686	---	±2.5	Pass
			VN	-25	-0.03534	---	±2.5	Pass
			VH	27	0.03816	---	±2.5	Pass
TM2(1.4 M)	M	20 °C	VL	14	0.00745	---	±2.5	Pass
			VN	-7	-0.00372	---	±2.5	Pass
			VH	-16	-0.00851	---	±2.5	Pass
TM2(3M)	M	20 °C	VL	14	0.00745	---	±2.5	Pass
			VN	-11	-0.00585	---	±2.5	Pass
			VH	18	0.00957	---	±2.5	Pass
TM2(5M)	M	20 °C	VL	11	0.00585	---	±2.5	Pass
			VN	19	0.01011	---	±2.5	Pass
			VH	19	0.01011	---	±2.5	Pass
TM2(10 M)	M	20 °C	VL	-16	-0.00851	---	±2.5	Pass
			VN	20	0.01064	---	±2.5	Pass
			VH	-5	-0.00266	---	±2.5	Pass

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