



Appendix E: Spurious Emission at Antenna Terminals



1 Result Table

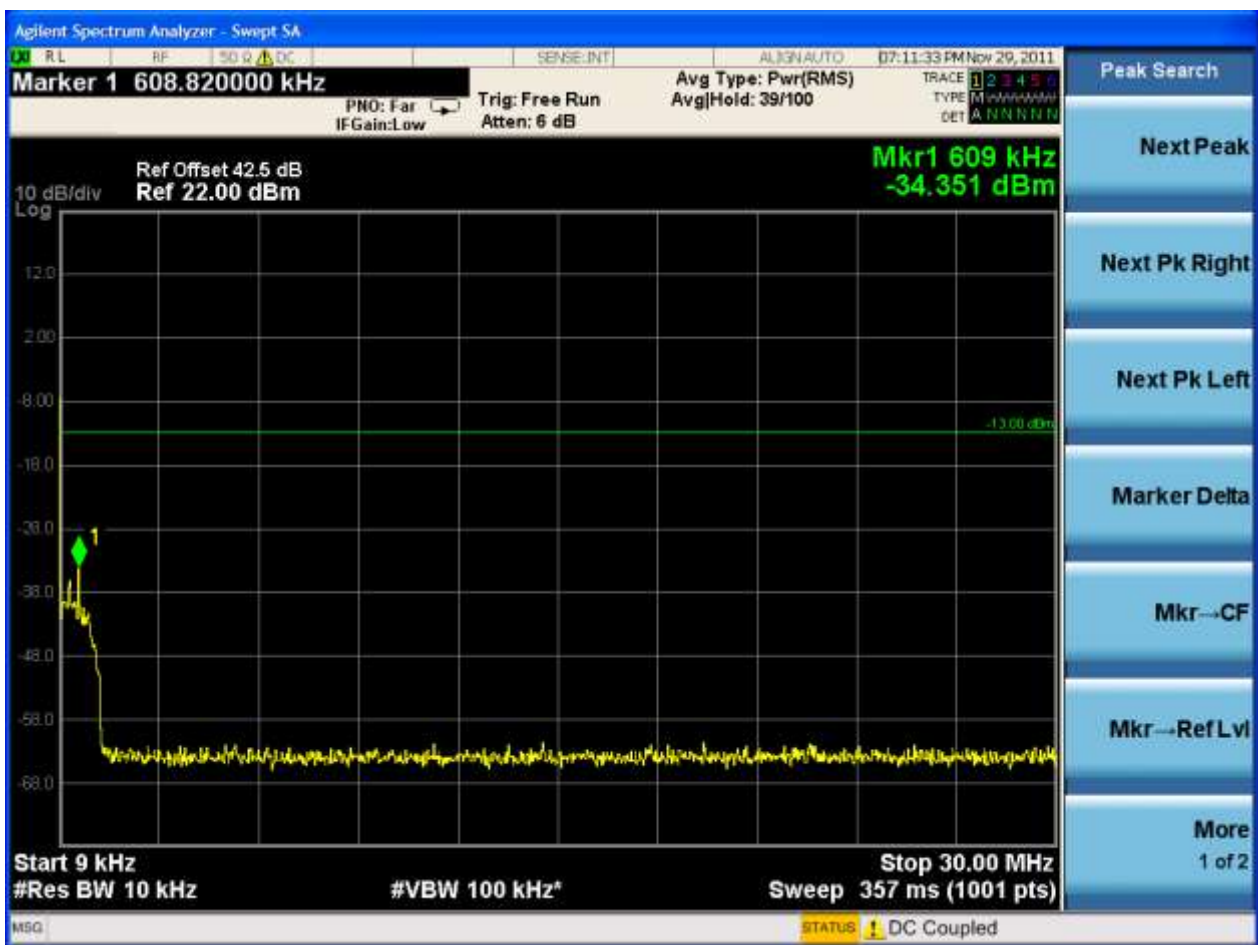
Test Mode	Carrier Conf.	RF Ch.	Spurious Emission at Antenna Terminals [dBm]	Verdict
CDMA2000 1X	1(60W)	B	Below -13dBm	Pass
		M	Below -13dBm	Pass
		T	Below -13dBm	Pass
	6(6*10)W	B	Below -13dBm	Pass
		M	Below -13dBm	Pass
		T	Below -13dBm	Pass
CDMA2000 EVDO	1(60W)	B	Below -13dBm	Pass
		M	Below -13dBm	Pass
		T	Below -13dBm	Pass
	6(6*10)W	B	Below -13dBm	Pass
		M	Below -13dBm	Pass
		T	Below -13dBm	Pass
LTE-20M	1(60W)	B	Below -13dBm	Pass
		T	Below -13dBm	Pass
LTE-5M+20M	2(12W+48W)	B	Below -13dBm	Pass
		T	Below -13dBm	Pass
LTE-20M+20M	2(30W+30W)	B	Below -13dBm	Pass
		T	Below -13dBm	Pass
1C+1L(20M)	2(30W+30W)	B	Below -13dBm	Pass
		T	Below -13dBm	Pass
4C+1L(20M)	5(4*10W+20W)	B	Below -13dBm	Pass
		T	Below -13dBm	Pass

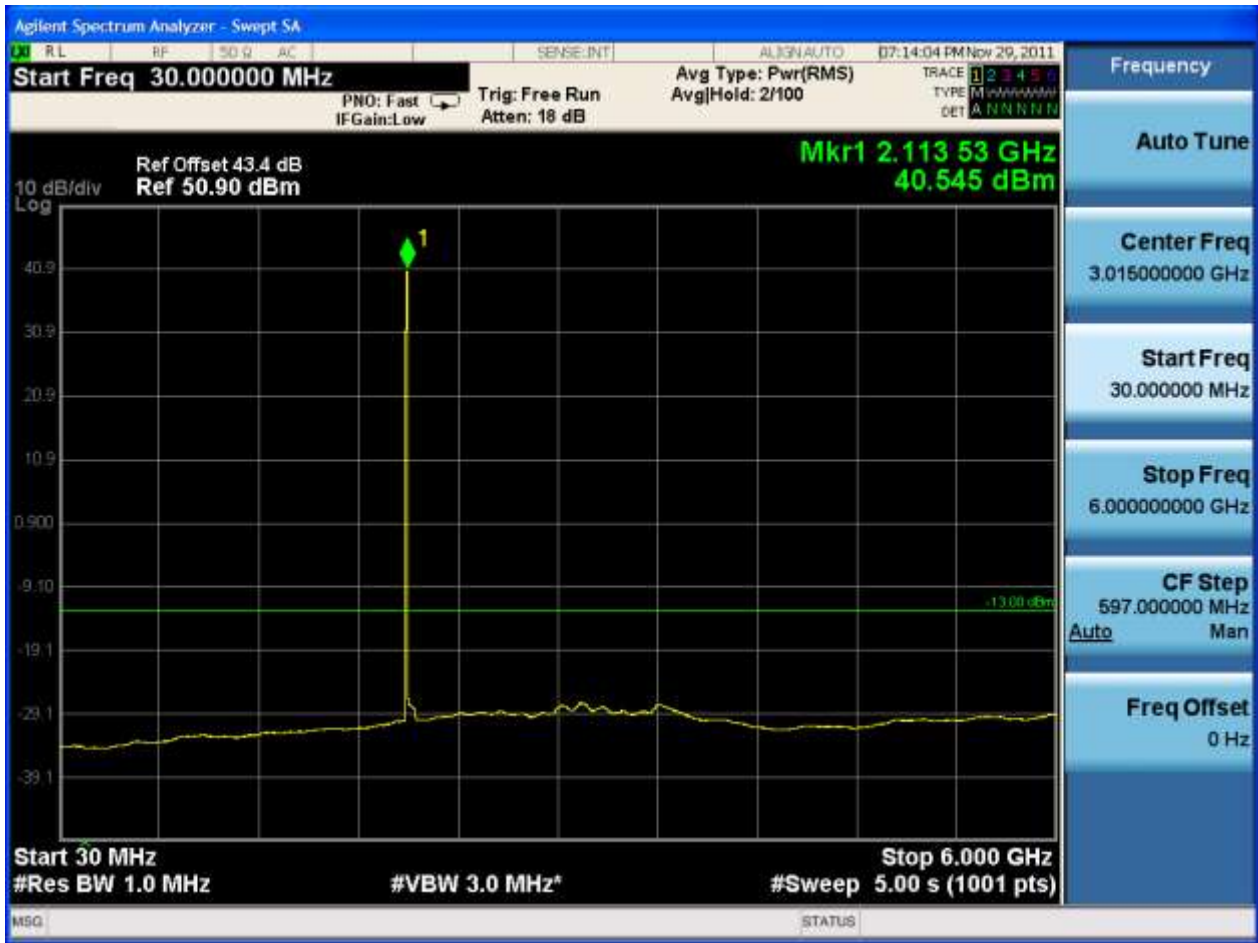
2 Test Plot

2.1 Test Mode = CDMA2000 1X

2.1.1 Carrier Conf. = 1(60W)

2.1.1.1 Ch. B

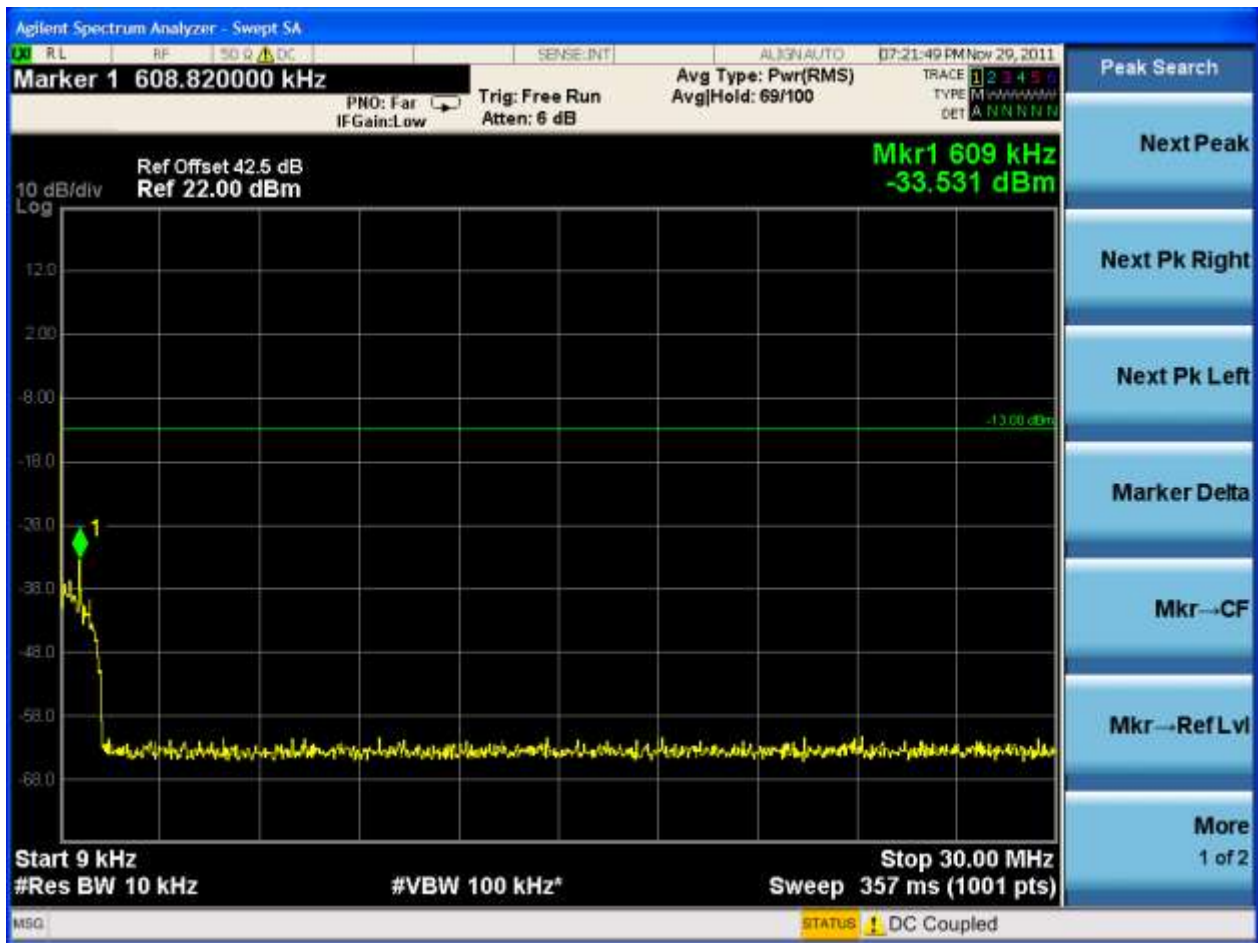








2.1.1.2 Ch. M

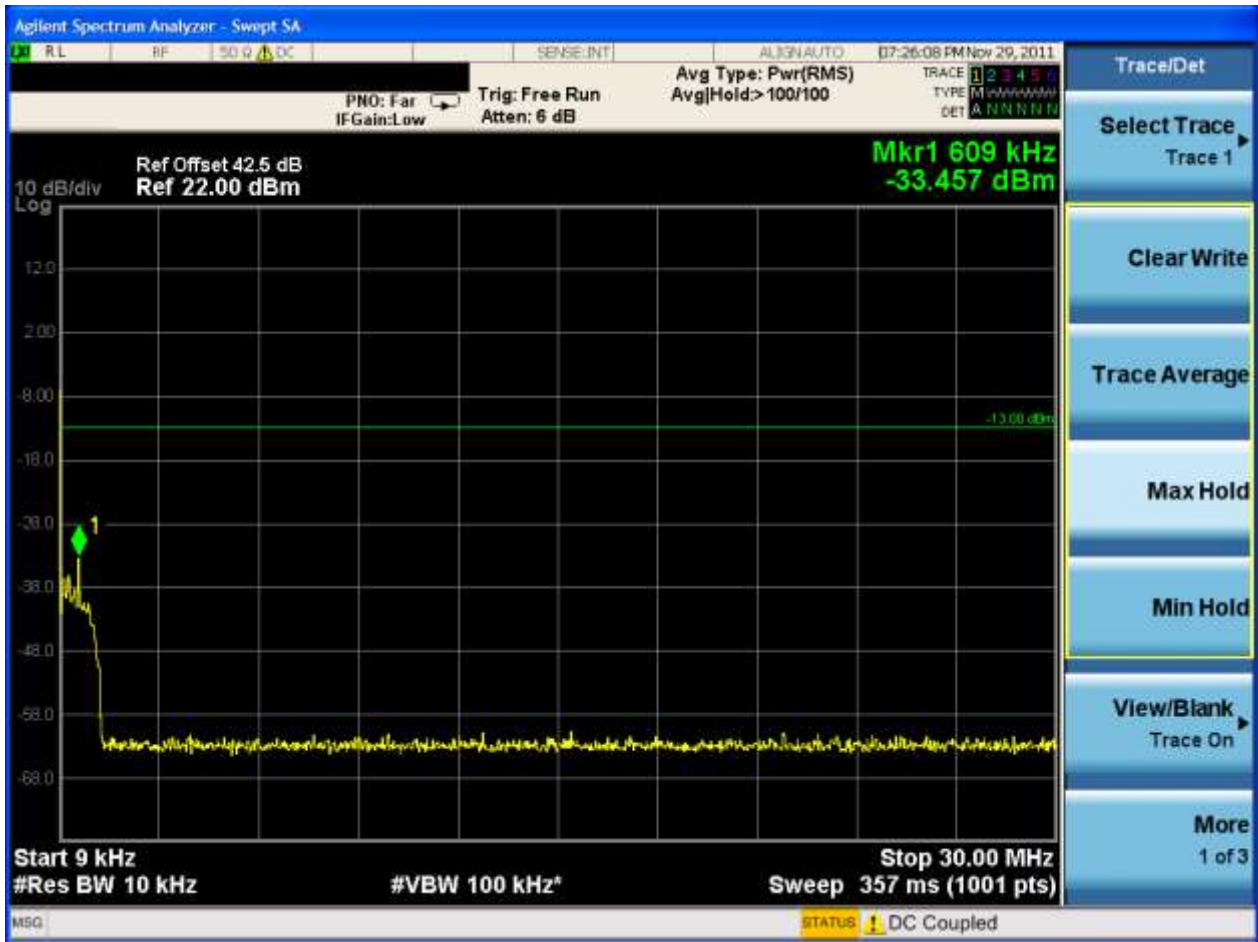








2.1.1.3 Ch. T

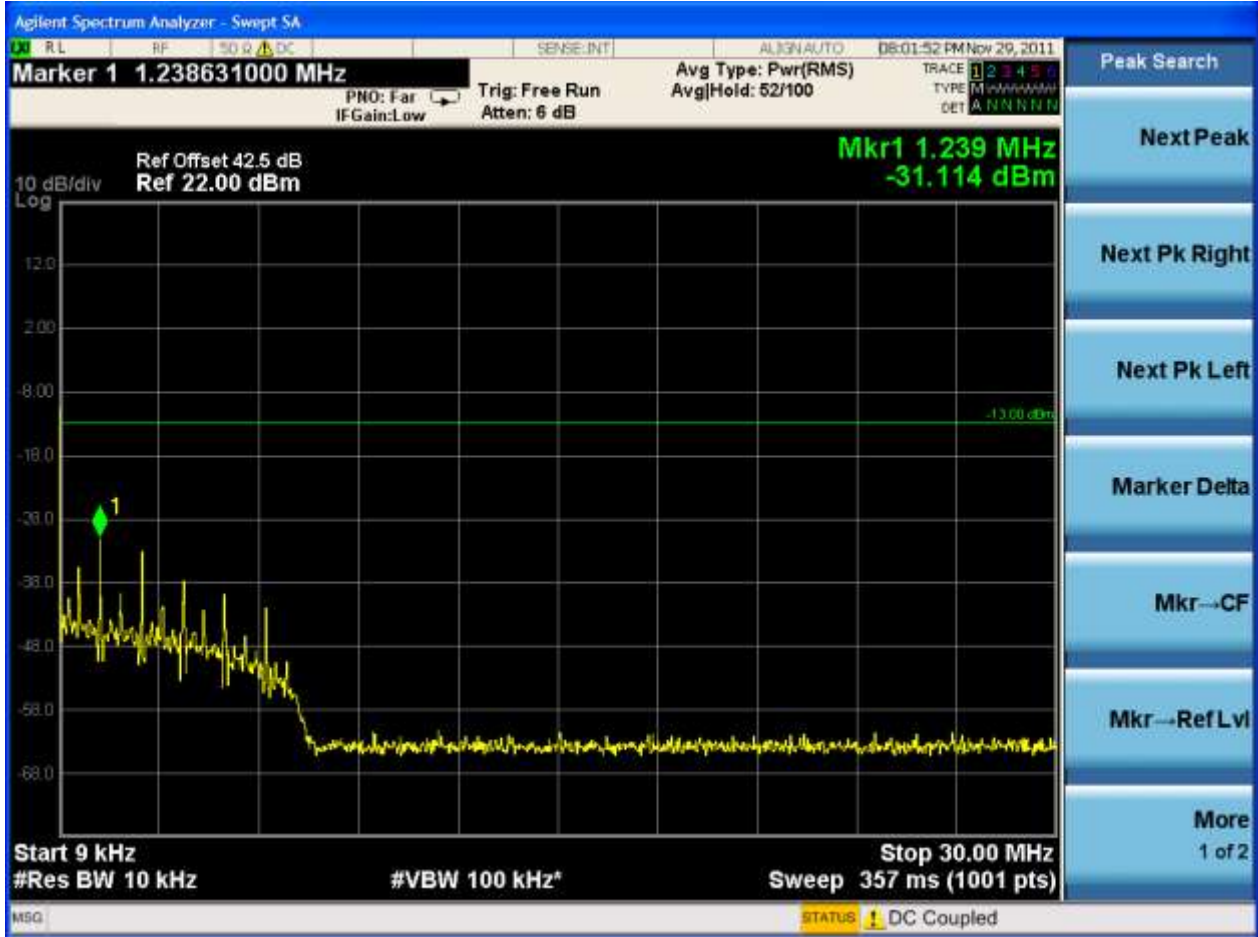


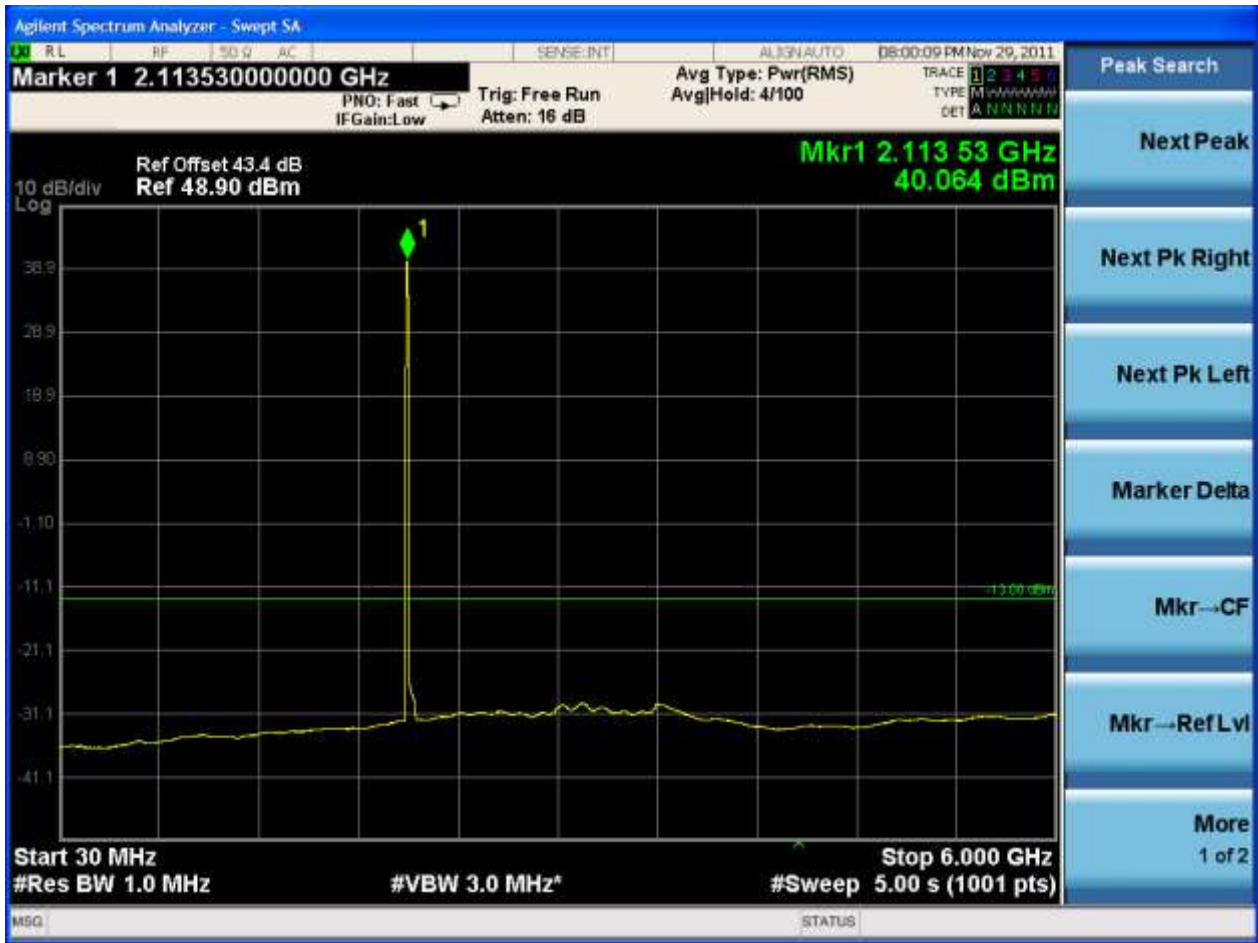




2.1.2 Carrier Conf. = 6(6*10W)

2.1.2.1 Ch. B









2.1.2.2 Ch. M









2.1.2.3 Ch. T







2.2 Test Mode = CDMA2000 EVDO

2.2.1 Carrier Conf. = 1(60W)

2.2.1.1 Ch. B



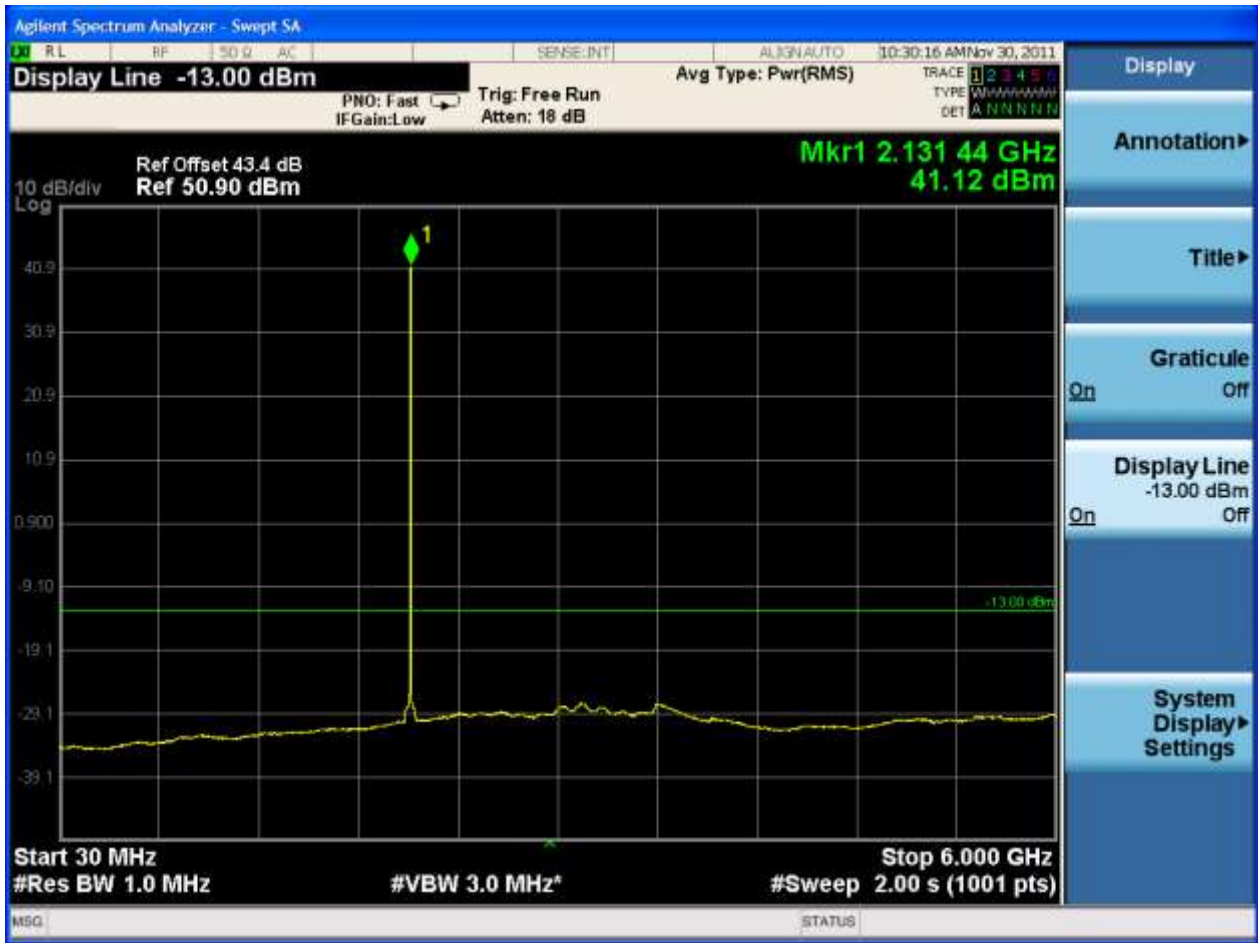






2.2.1.2 Ch. M

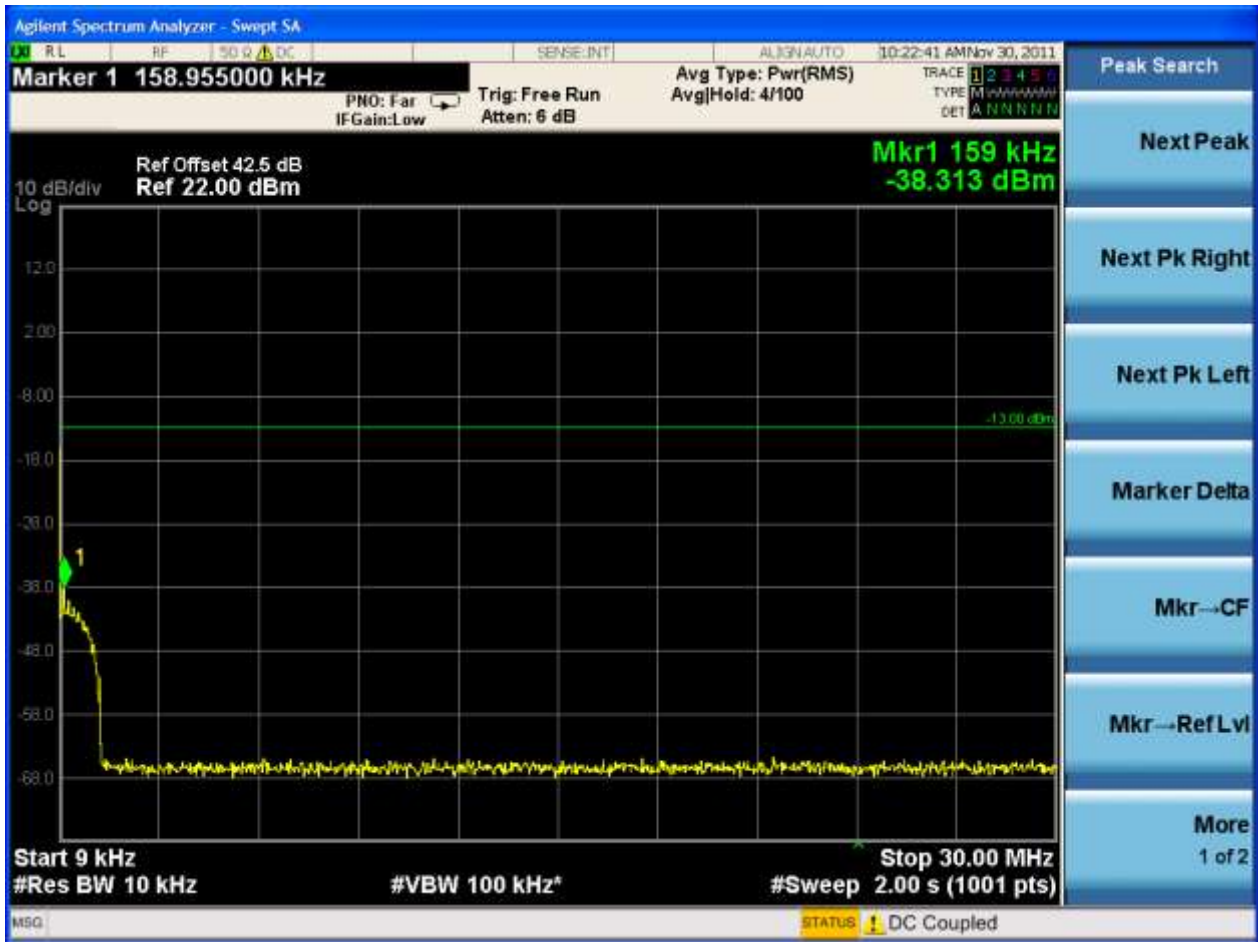








2.2.1.3 Ch. T









2.2.2 Carrier Conf. = $6(6*10W)$

2.2.2.1 Ch. B









2.2.2.2 Ch. M









2.2.2.3 Ch. T









2.3 Test Mode = LTE

2.3.1 Carrier Conf. = 20M(60W)

2.3.1.1 Ch. B

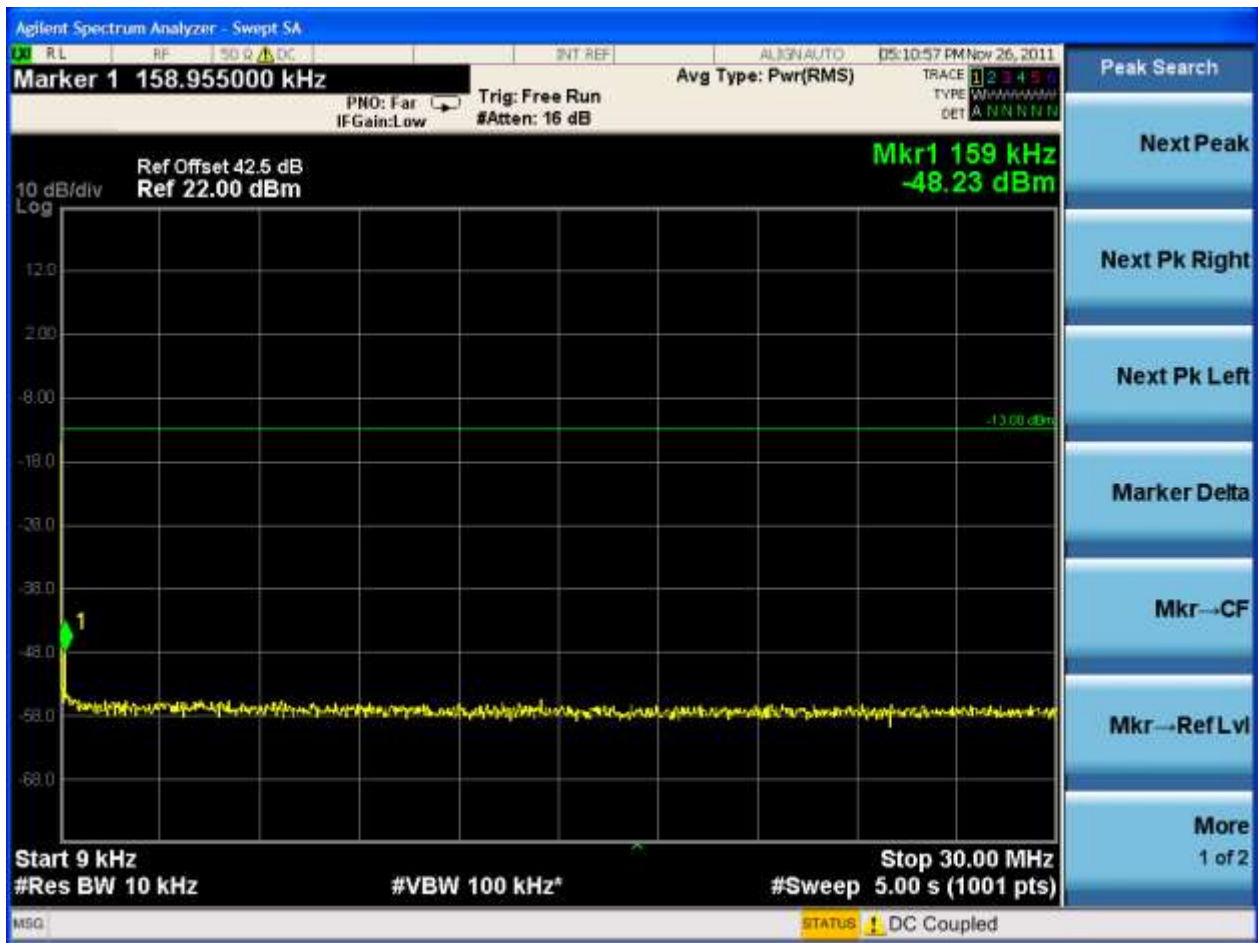








2.3.1.2 Ch. T







2.3.2 Carrier Conf. = 5+20M (12W+48W)

2.3.2.1 Ch. B









2.3.2.2 Ch. T



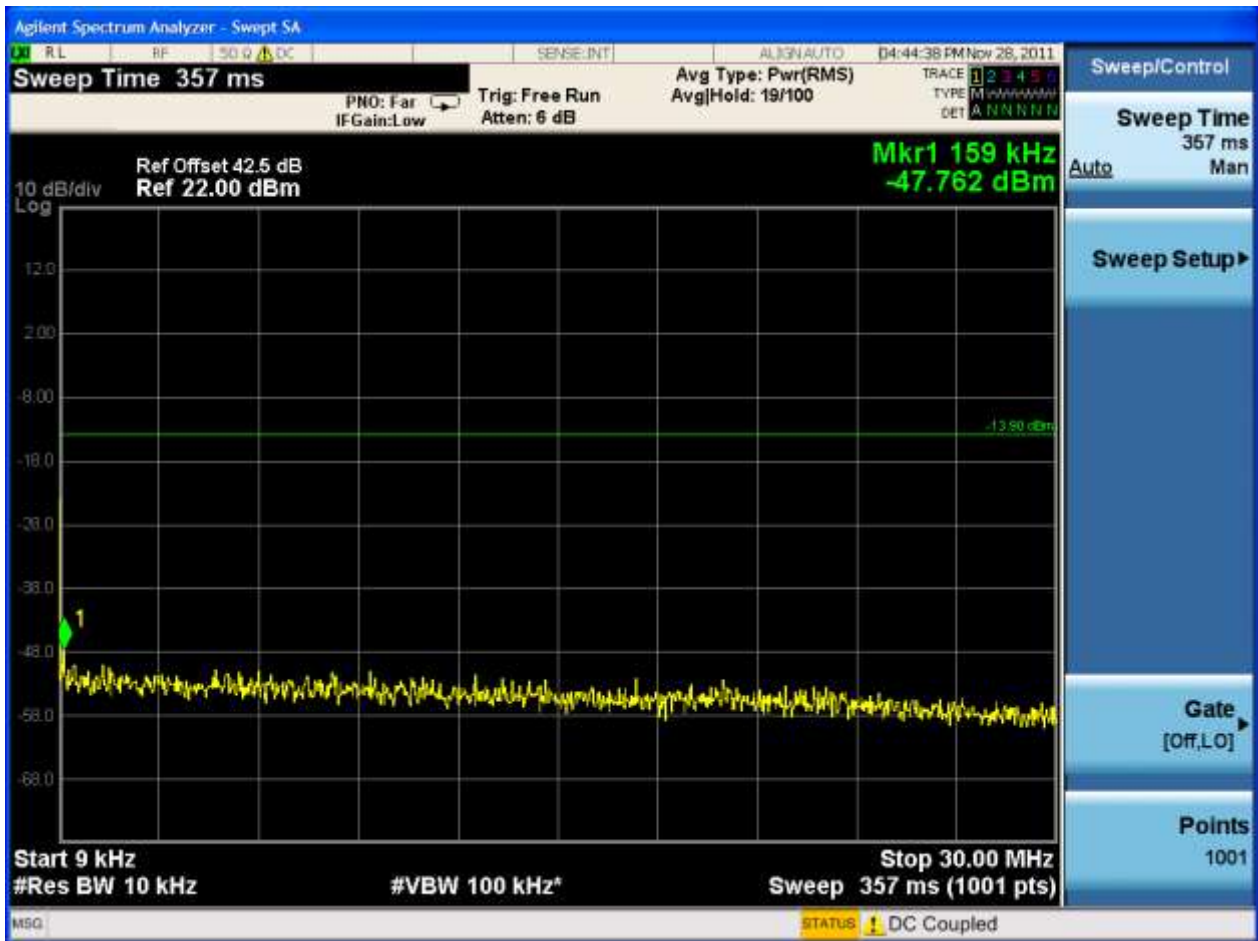






2.3.3 Carrier Conf. = 20+20M (30W+30W)

2.3.3.1 Ch. B



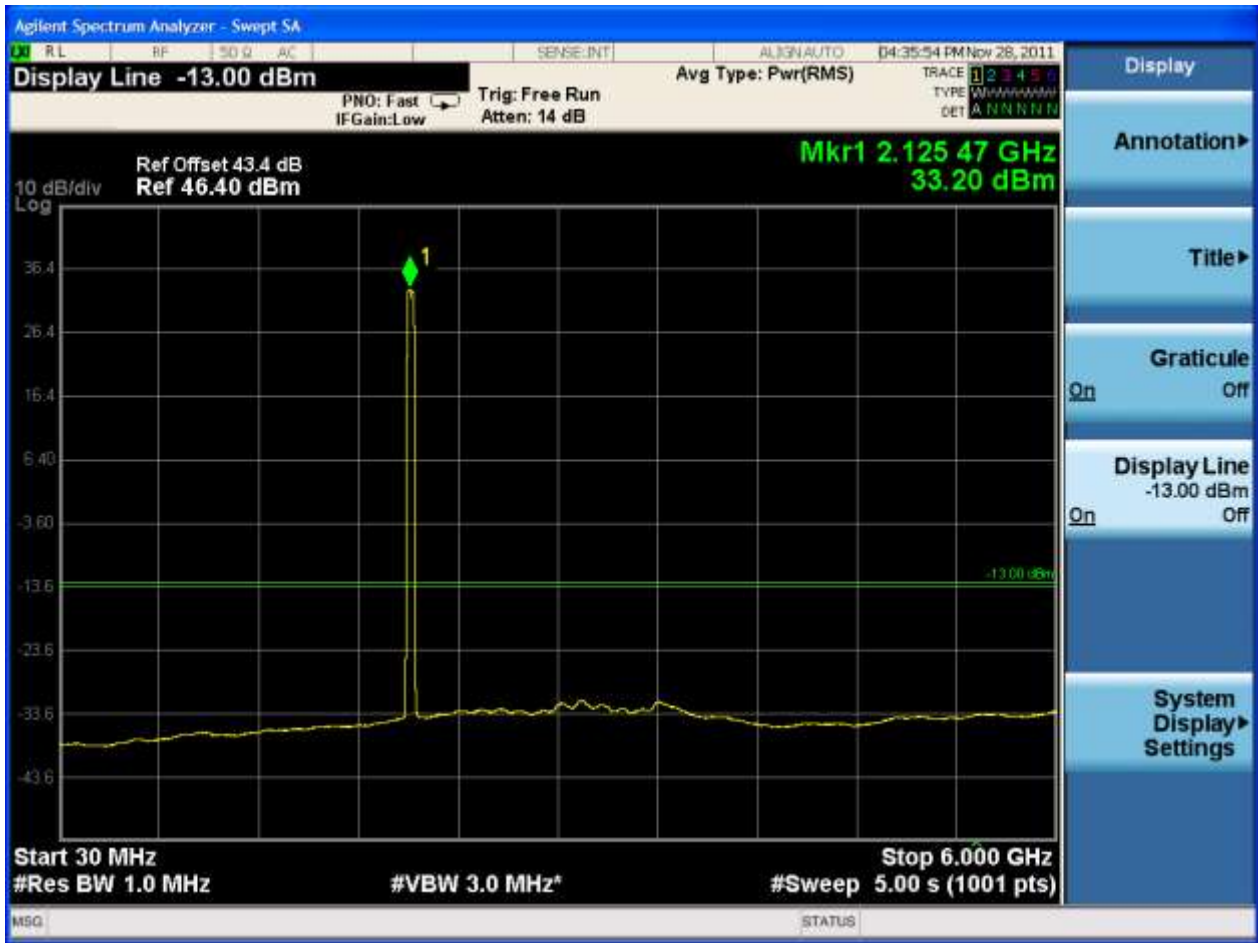






2.3.3.2 Ch. T







2.4 Test Mode = CDMA<E

2.4.1 Carrier Conf. = 1C+1L_20M (30W+30W)

2.4.1.1 Ch. B









2.4.1.2 Ch. T

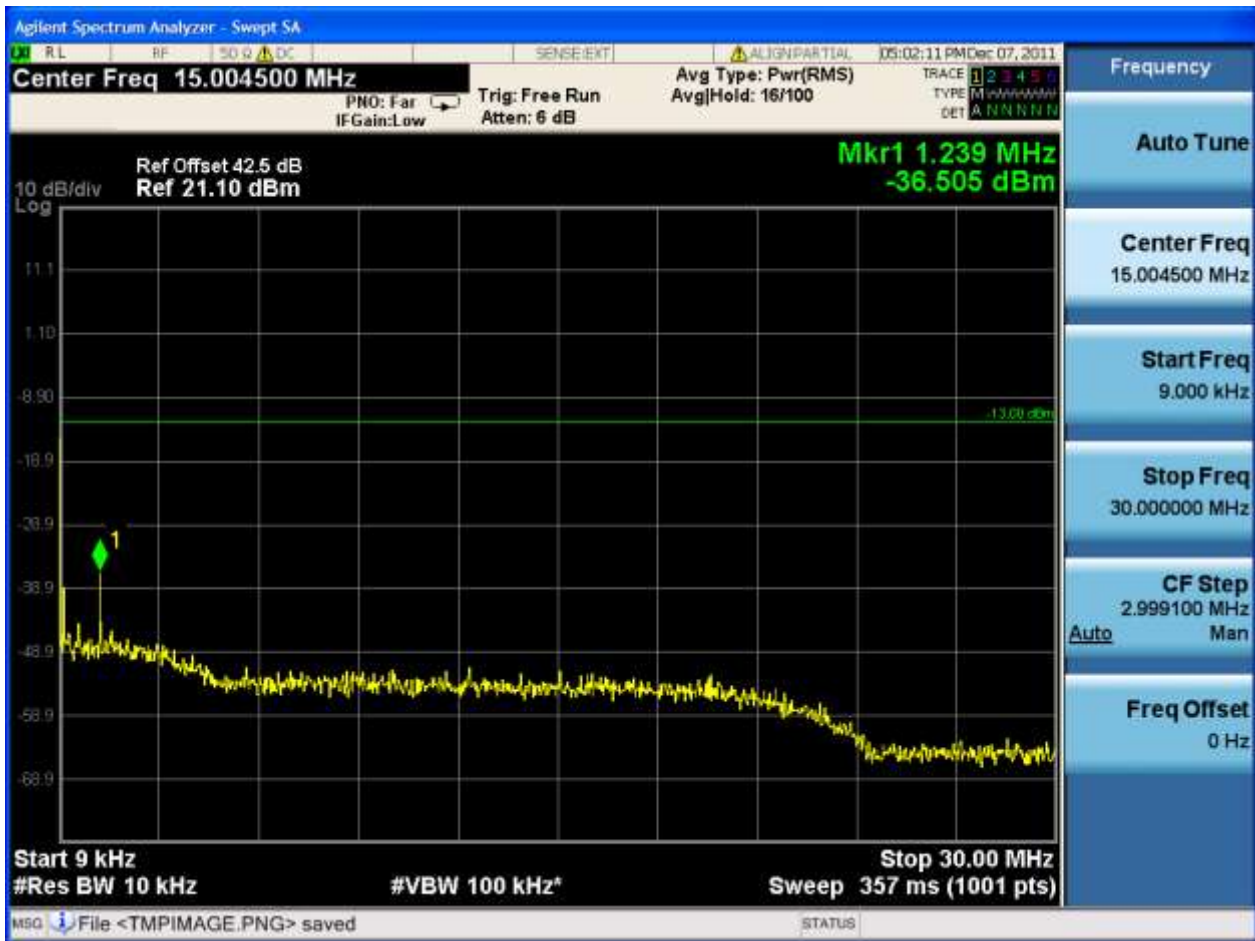






2.4.2 Carrier Conf. = 4C+1L_20M (4*10W+20W)

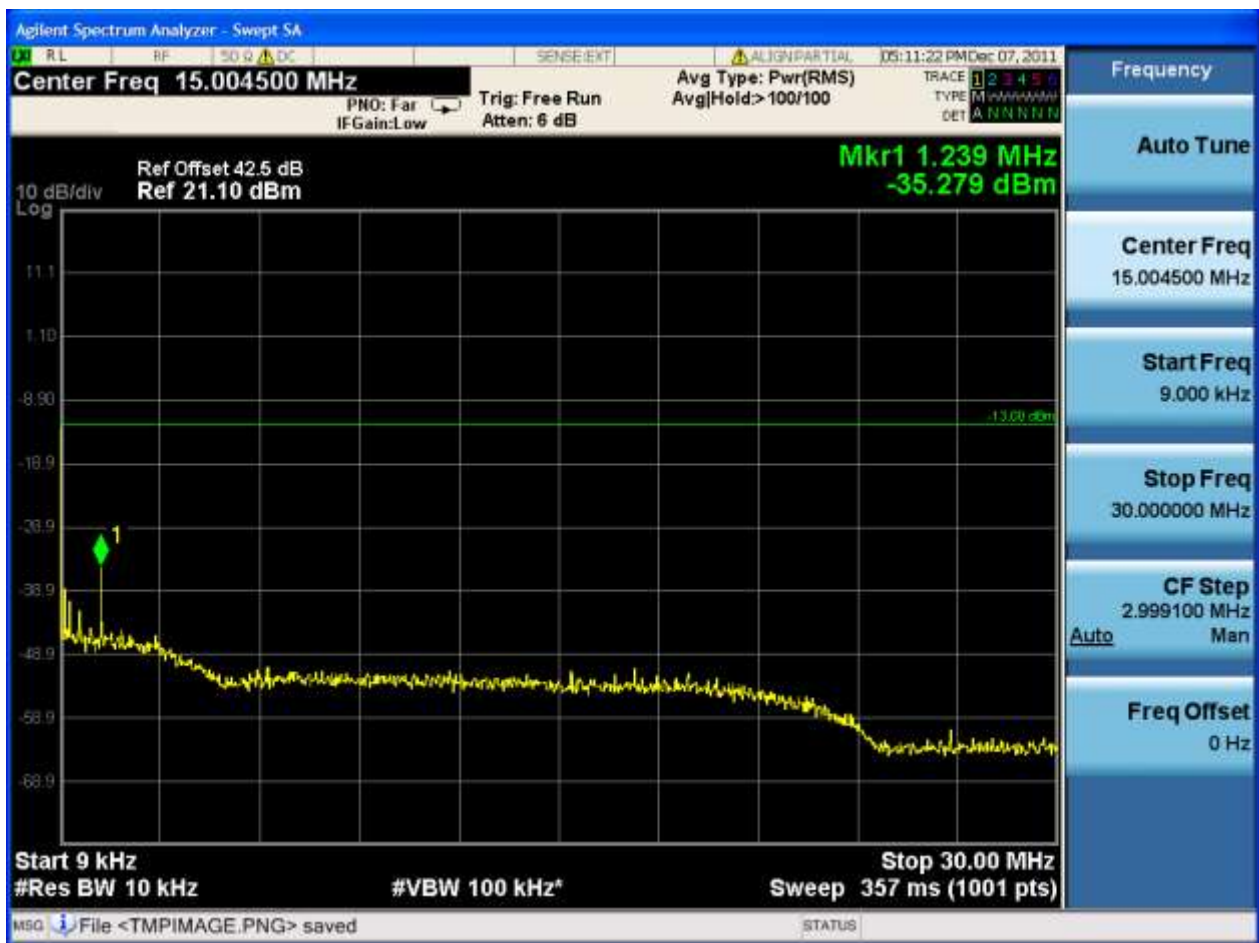
2.4.2.1 Ch. B







2.4.2.2 Ch. T









Appendix F: Field Strength of Spurious Radiation



1 Result Table

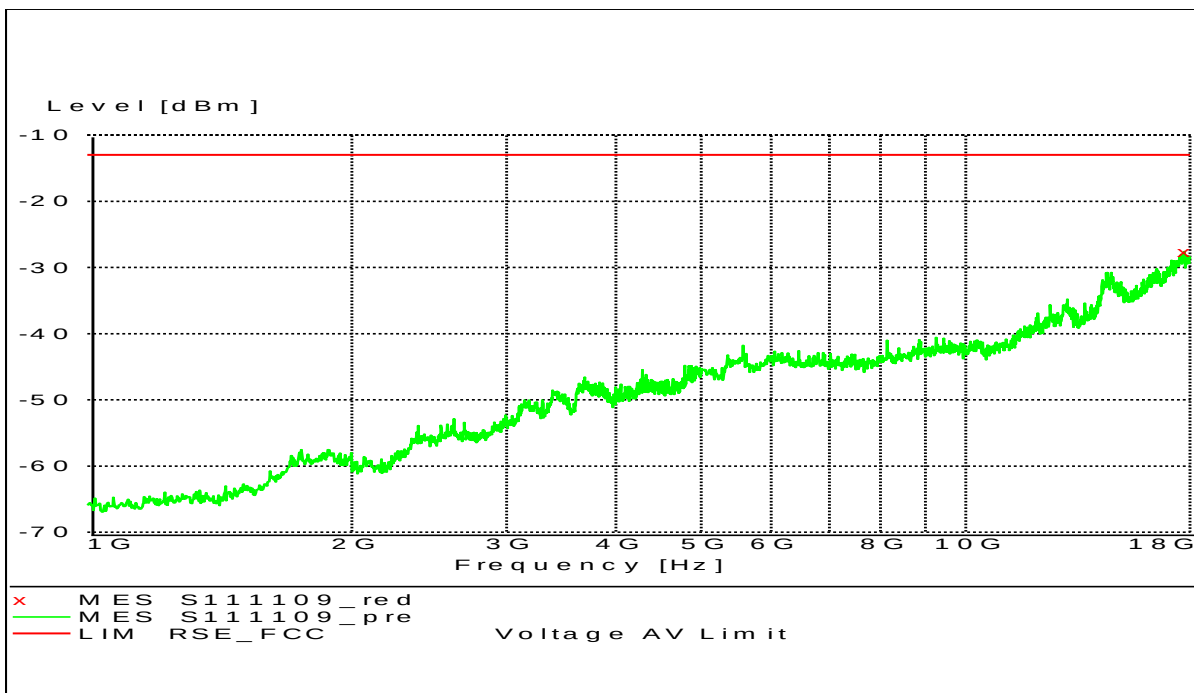
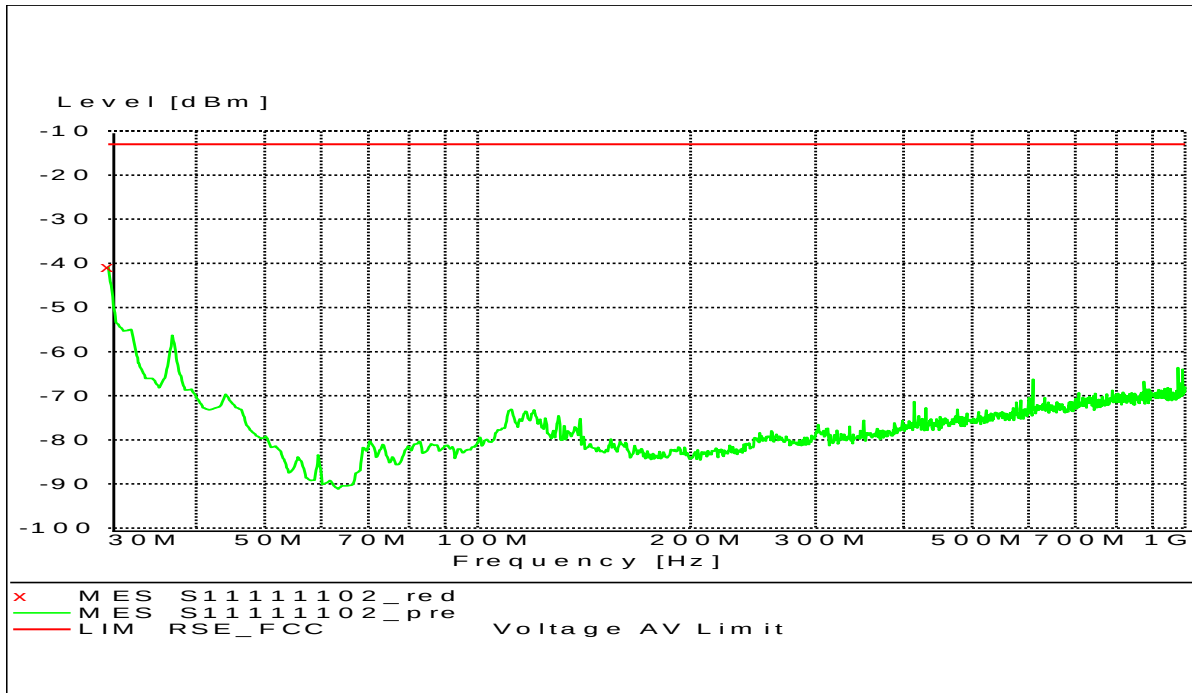
Test Mode	Carrier Conf.	RF Ch.	Field Strength of Spurious Radiation [dBm]	Verdict
CDMA	1(60W)	M	Below -13dBm	Pass
LTE	1(60W)	M	Below -13dBm	Pass
CDMA<E	1C+1L(30W+30W)	M	Below -13dBm	Pass

2 Test Plot

2.1 Test Mode =CDMA

2.1.1 Carrier Conf. = 1(60W)

2.1.1.1 Ch. M

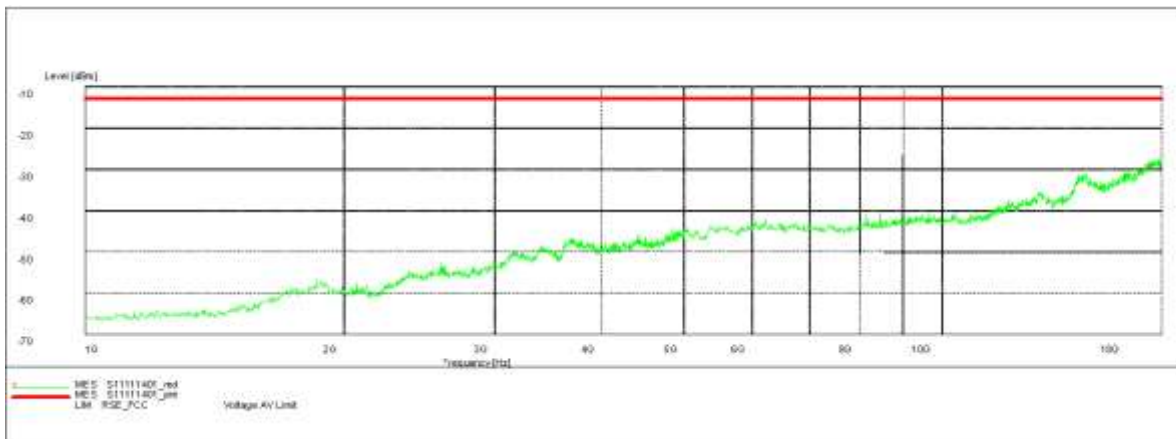
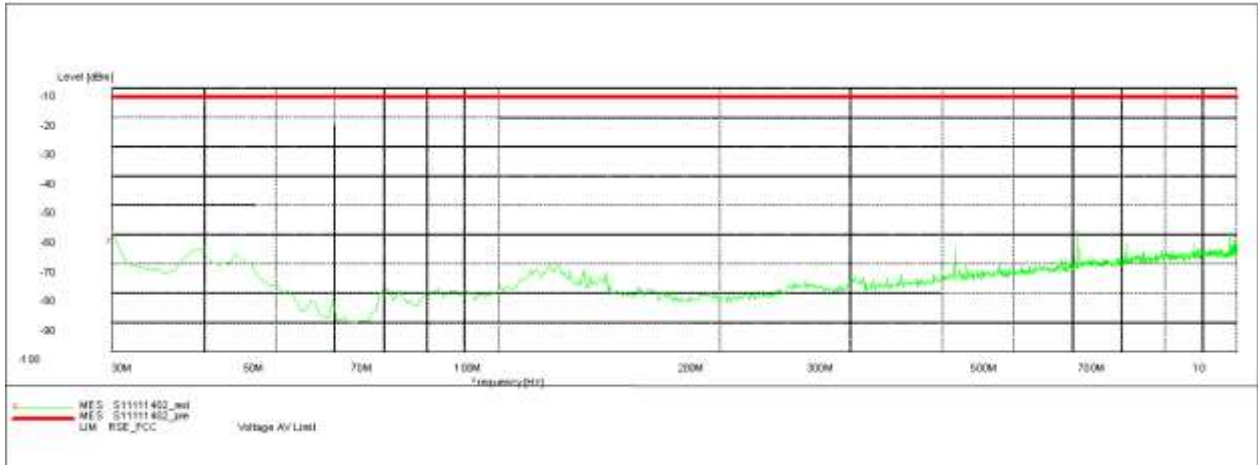




2.2 Test Mode =LTE

2.2.1 Carrier Conf. = 1(60W)

2.2.1.1 Ch. M



MEASUREMENT RESULT: "S11111401_red"

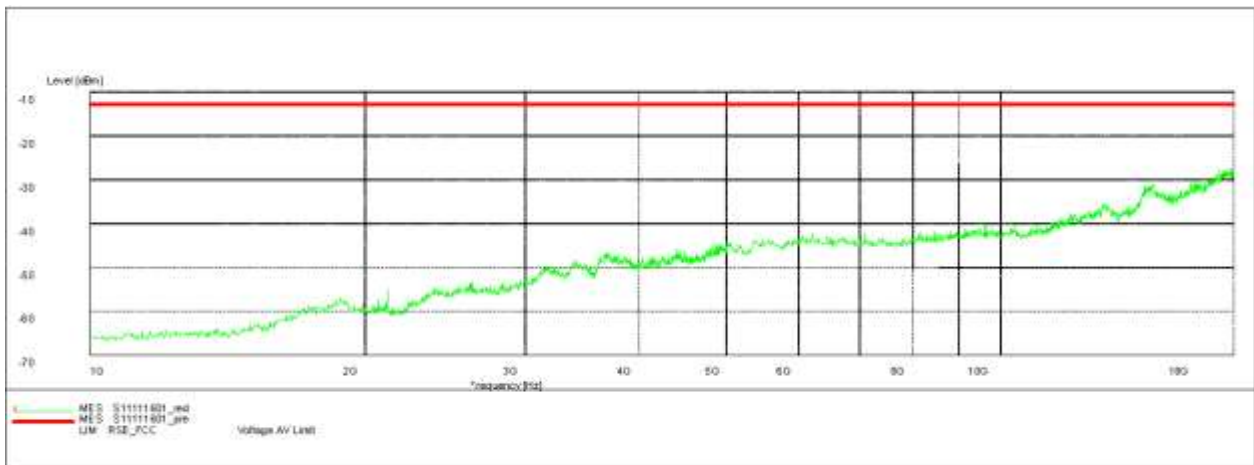
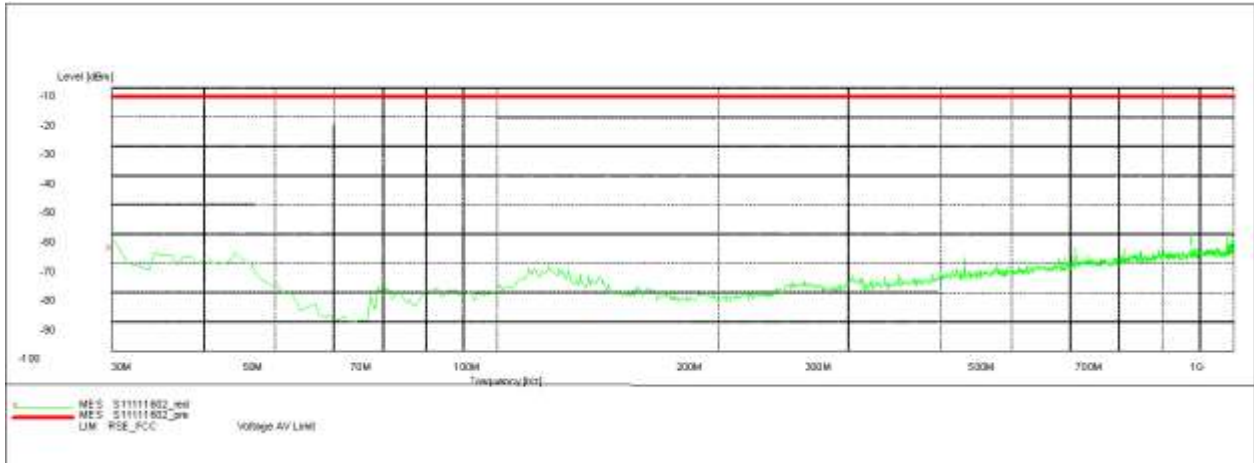
2011-11-14 15:50

Frequency	Level	Transd	Limit	Margin	Det.	Height	Azimuth	Polarization
MHz	dBm	dB	dBm	dB		cm	deg	
17766.000000	-27.70	-73.8	-13	14.7	---	200.0	0.00	VERTICAL

2.3 Test Mode =CDMA<E

2.3.1 Carrier Conf. = 1C+1L (30W+30W)

2.3.1.1 Ch. M





Appendix G: Frequency Stability



1 Frequency Error vs. Temperature:

Test Mode	Carrier Conf.	RF Ch.	Volt.	Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
CDMA	TM2	M	100%	-30 °C	1.15	0.001	--	Pass
				-20 °C	-3.25	-0.002	--	Pass
				-10 °C	-0.84	-0.001	--	Pass
				0 °C	1.93	0.001	--	Pass
				10 °C	0.06	0.000	--	Pass
				20 °C	-2.72	-0.001	--	Pass
				30 °C	2.66	0.001	--	Pass
				40 °C	-3.47	-0.002	--	Pass
				50 °C	-1.86	-0.001	--	Pass
LTE	TM3.1	M	100%	-30 °C	-7.52	-0.003	--	Pass
				-20 °C	-2.94	-0.001	--	Pass
				-10 °C	12.29	0.005	--	Pass
				0 °C	1.86	0.001	--	Pass
				10 °C	-3.44	-0.002	--	Pass
				20 °C	4.59	0.002	--	Pass
				30 °C	-5.71	-0.003	--	Pass
				40 °C	1.29	0.001	--	Pass
				50 °C	9.73	0.004	--	Pass

2 Frequency Error vs. Voltage:

Test Mode	Carrier Conf.	RF Ch.	Temp.	Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
CDMA	TM2	M	20 °C	85 %	-2.04	-0.001	--	Pass
				100 %	1.20	0.001	--	Pass
				115 %	1.35	0.001	--	Pass
LTE	TM3.1	M	20 °C	85 %	1.65	0.001	--	Pass
				100 %	6.66	0.003	--	Pass
				115 %	-5.87	-0.003	--	Pass



Appendix H: Receiver Spurious Emissions (Conducted)



NOTE: The requirements are only applicable to IC requirements.

1 Result Table

Test Mode	Carrier Conf.	RF Ch.	Receiver Spurious Emissions (Conducted) [dBm]	Verdict
CDMA	1(60W)	M	Below -57dBm before 1 GHz Below -53dBm after 1 GHz	Pass
LTE	1(60W)	M	Below -57dBm before 1 GHz Below -53dBm after 1 GHz	Pass
CDMA<E	1C+1L(30+30W)	M	Below -57dBm before 1 GHz Below -53dBm after 1 GHz	Pass

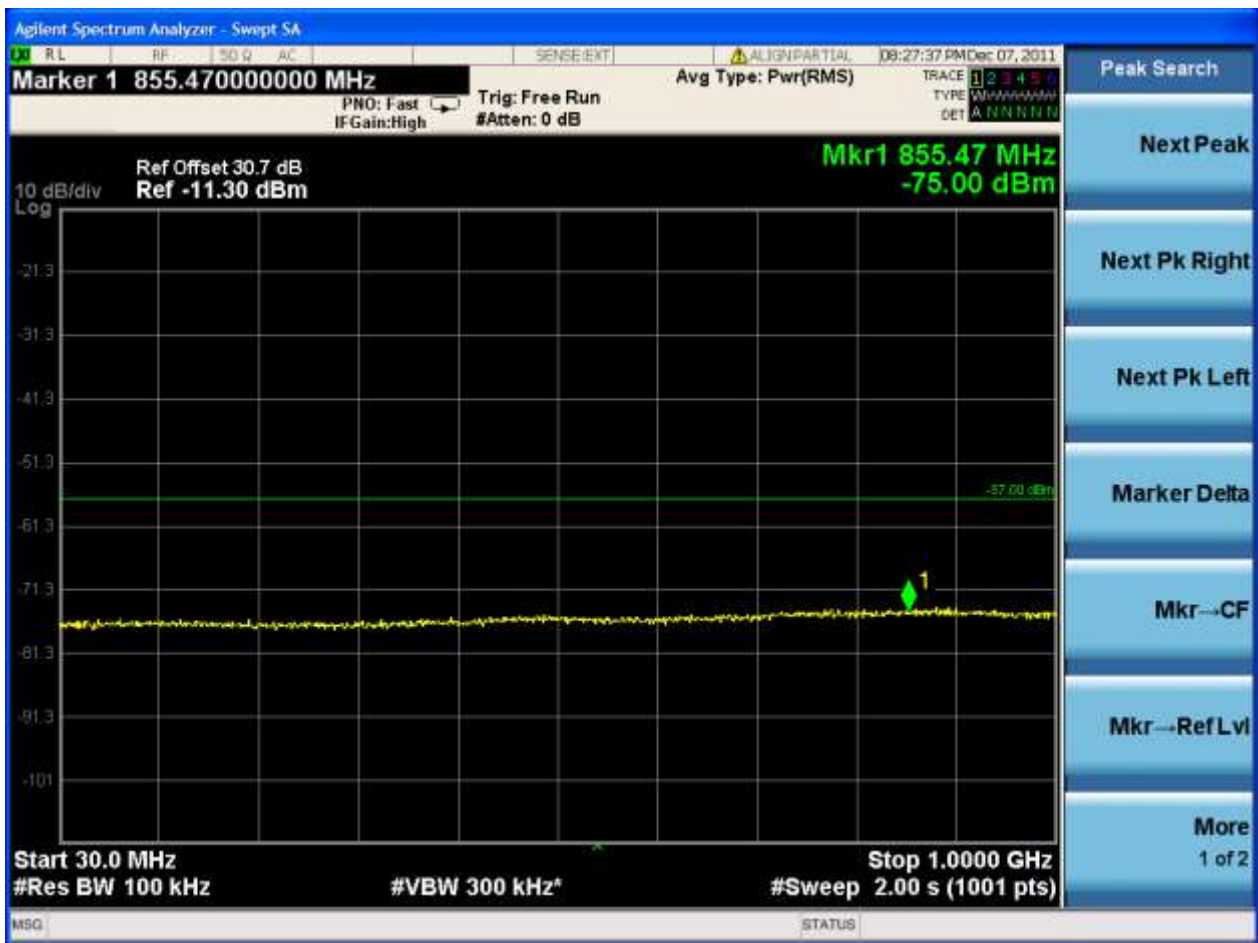


2 Test Plot

2.1 Test Mode = CDMA

2.1.1 Carrier Conf. = 1.25M (60W)

2.1.1.1 Ch. M







2.2 Test Mode = LTE

2.2.1 Carrier Conf. = 5M(60W)

2.2.1.1 Ch. M





2.3 Test Mode =CDMA<E

2.3.1 Carrier Conf. = 1C+1L-5M (30W+30W)

2.3.1.1 Ch. M



