



Appendix A: Transmitter Output Power



1 Result Table

1.1 EIRP Power

NOTE: In this Appendix, $EIRP [dBm] = Con. Pwr [dBm] + Ant. Gain [dBi] + Combine Gain [dB] - Cable loss [dB]$

. Where, Con. Pwr = conducted Power per antenna (as same as SISO or MIMO mode), Ant. Gain = Antenna Gain, Combine Gain= antenna channel number is 4T4R, so that is equal $10 \cdot \log(4) = 6dB$. Cable loss= feeder antenna Cable loss.

Test Mode	RF Ch.	Con. Pwr [dBm]	Ant. Gain [dBi]	Combine Gain[dB]	Cable loss [dB]	EIRP [dBm]	EIRP [w]	Limit [W]	Verdict
20M	B	19.75	16	6	0.5	41.25	13.34	$\leq 20W$	Pass
	T	19.63	16	6	0.5	41.13	12.97	$\leq 20W$	Pass

1.2 PK EIRP PD

NOTE: In this Appendix, $EIRP [dBm] = Con. PD [dBm/MHz] + Ant. Gain [dBi] + Combine Gain [dB] - Cable loss [dB]$

. Where, Con. PD = conducted Spectral Power Density per antenna (as same as SISO or MIMO mode), Ant. Gain = Antenna Gain, Combine Gain= antenna channel number is 4T4R, so that is equal $10 \cdot \log(4) = 6dB$. Cable loss= feeder Antenna cable loss.

Test Mode	RF Ch.	Con. PD [dBm]	Ant. Gain [dBi]	Combine Gian[dB]	Cable loss [dB]	EIRP [dBm/MHz]	EIRP [w/MHz]	Limit [W/MHz]	Verdict
20M	B	8.17	16	6	0.5	29.67	0.927	≤ 1	Pass
	T	8.44	16	6	0.5	29.94	0.986	≤ 1	Pass

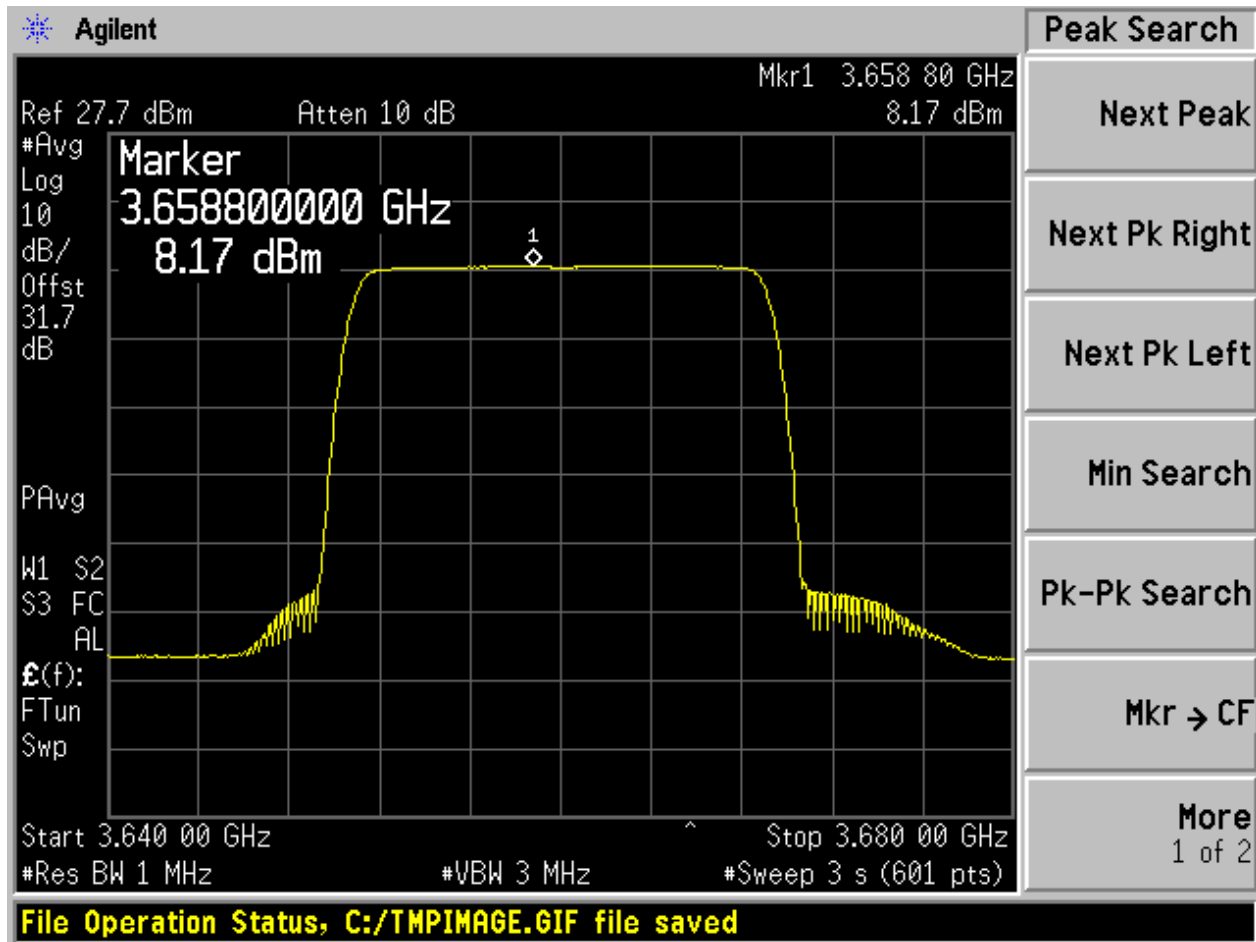


2 Test Plot

2.1 Test Mode = TM 1.1

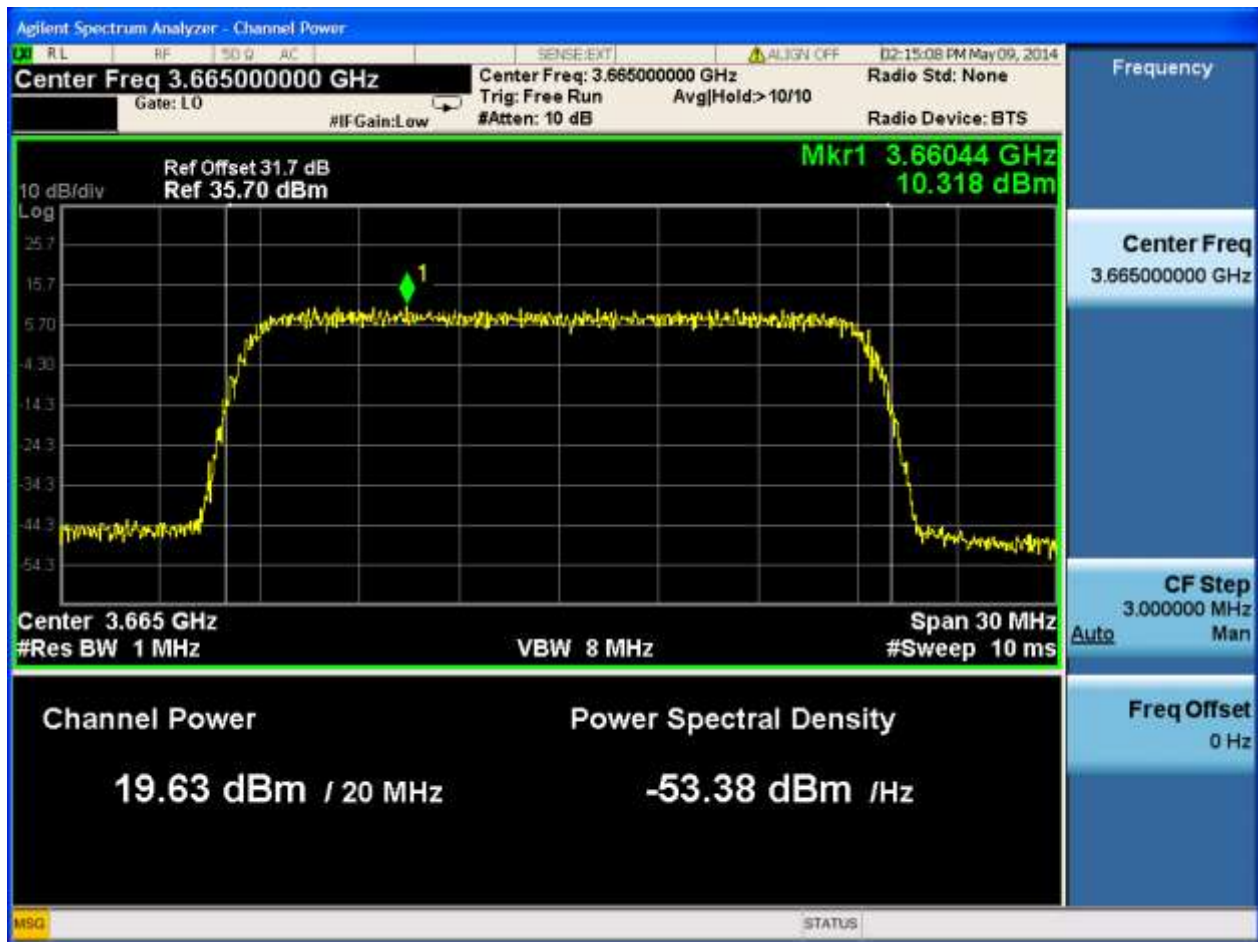
2.1.1 Ch .B

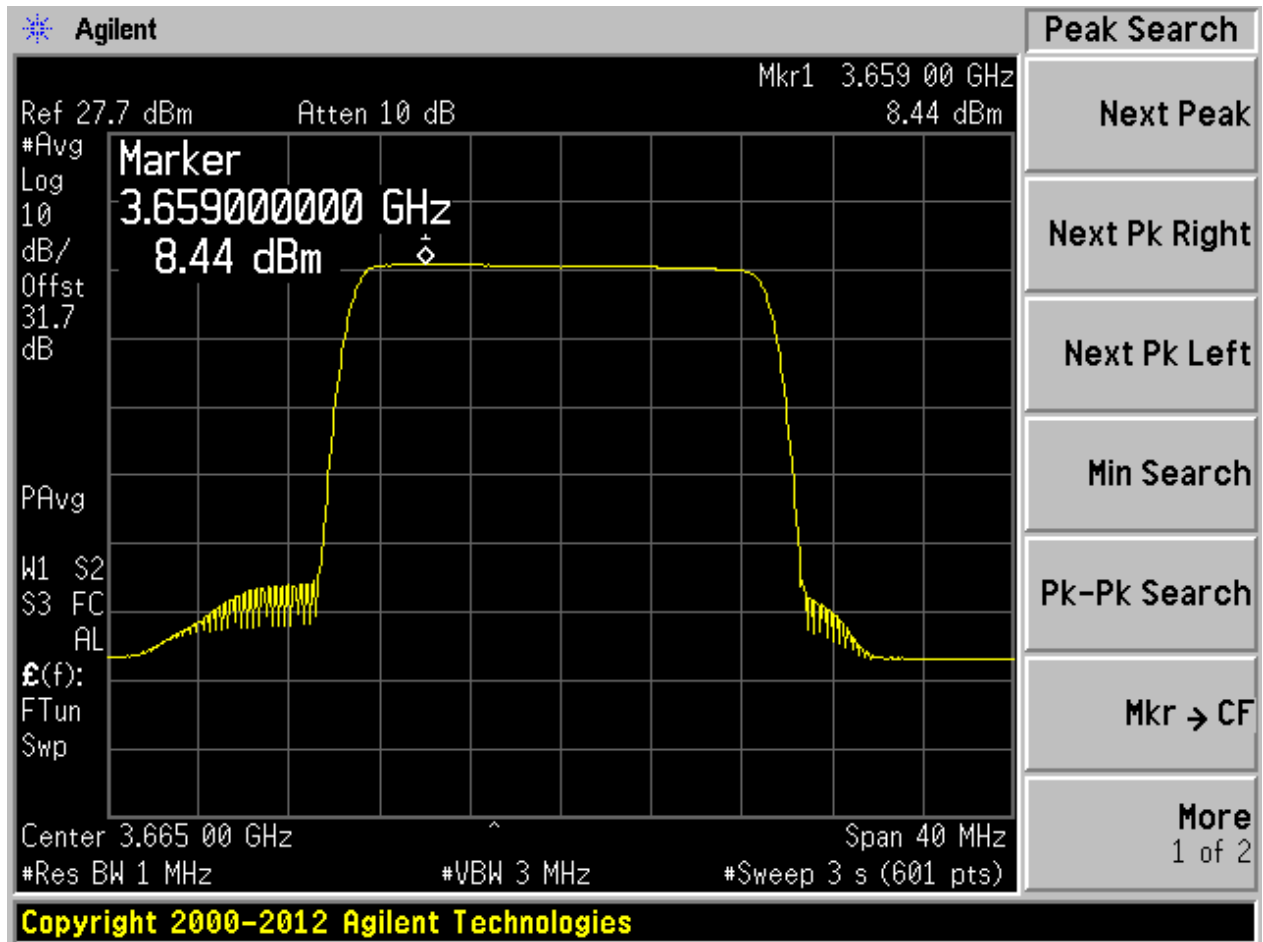






2.1.2 Ch .T







Appendix B: Modulation Characteristics



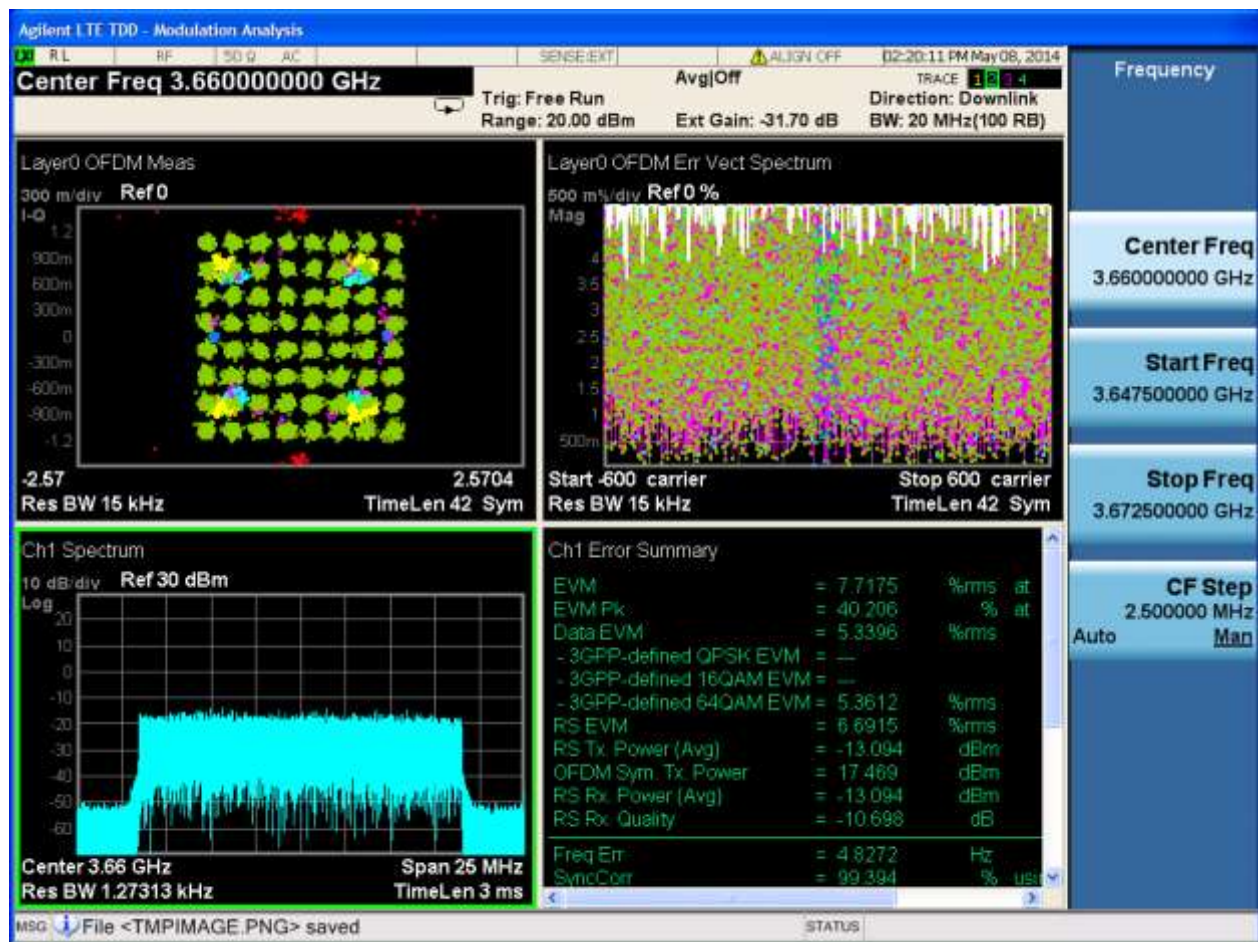
1 Result Table

Test Mode	Digital modulation?	Verdict
TM 3.1	Yes	Pass
	Yes	Pass

2 Test Plot

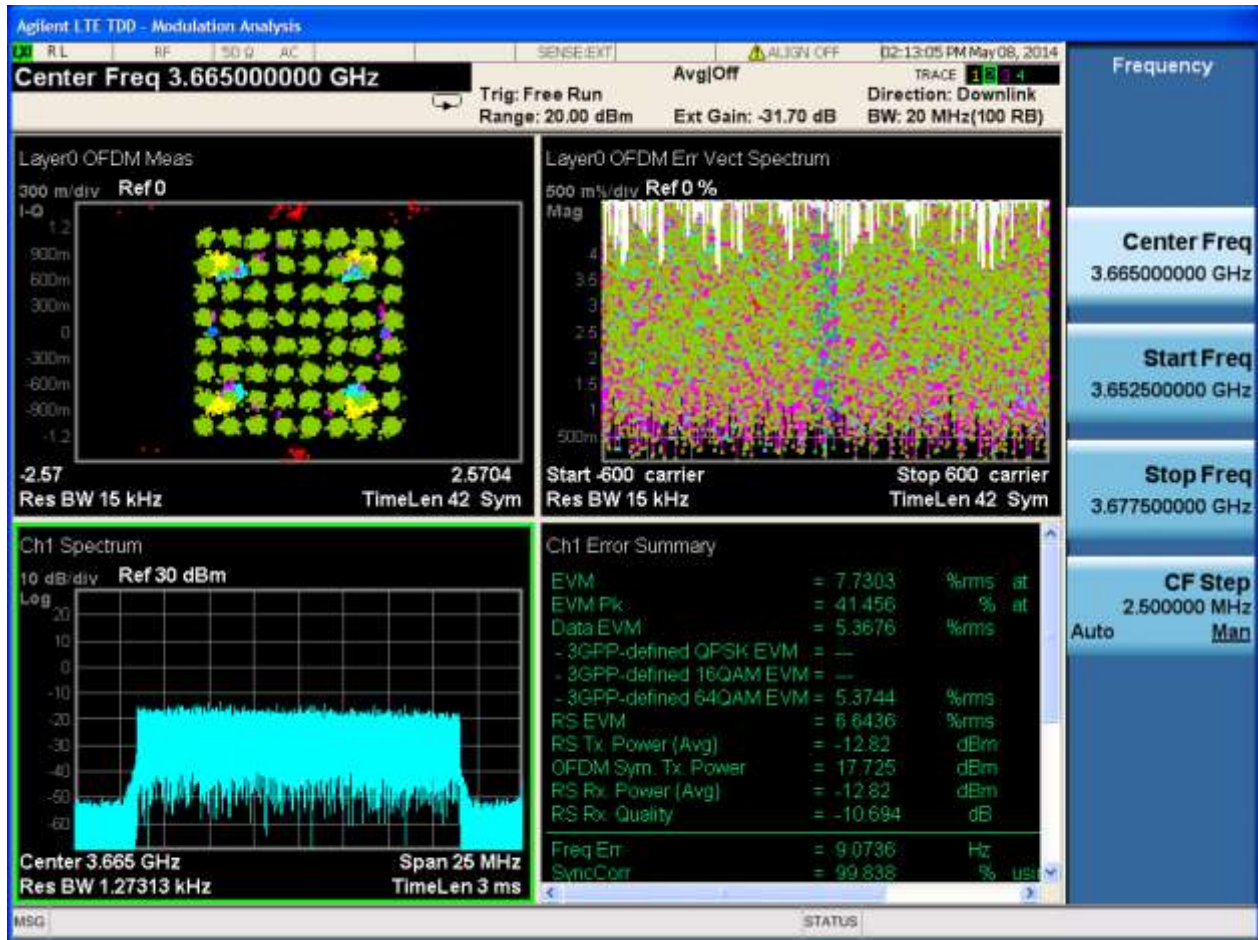
2.1 Test Mode = TM 3.1

2.1.1.1 Ch. B





2.1.1.2 Ch. T





Appendix C: Occupied Bandwidth



1 Result Table

Test Mode	Carrier Conf.	RF Ch.	Occupied Bandwidth [MHz]	Verdict
TM 1.1	20M	B	18.0391MHz	Pass
		T	18.0283MHz	Pass

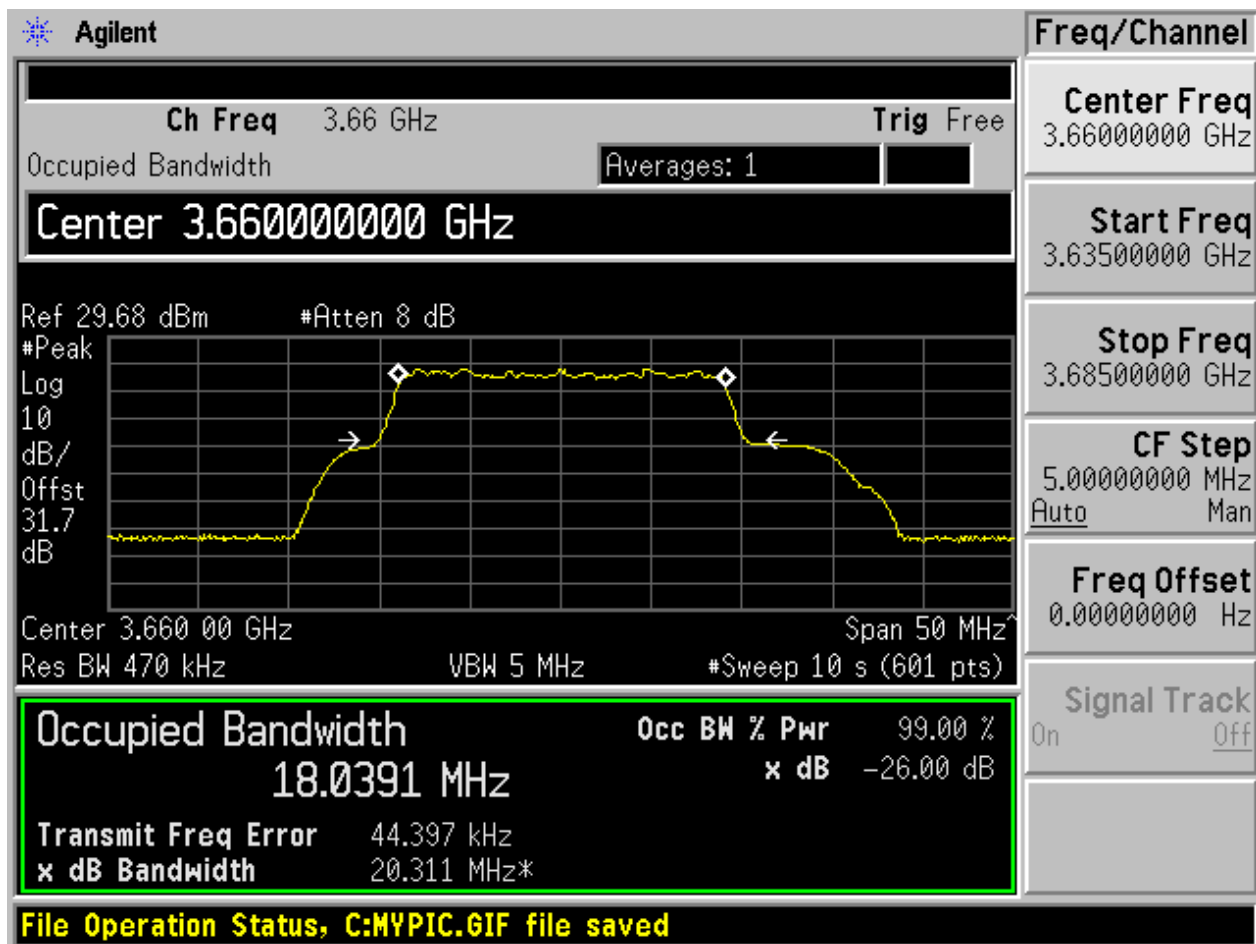


2 Test Plot

2.2 Test Mode = TM 1.1

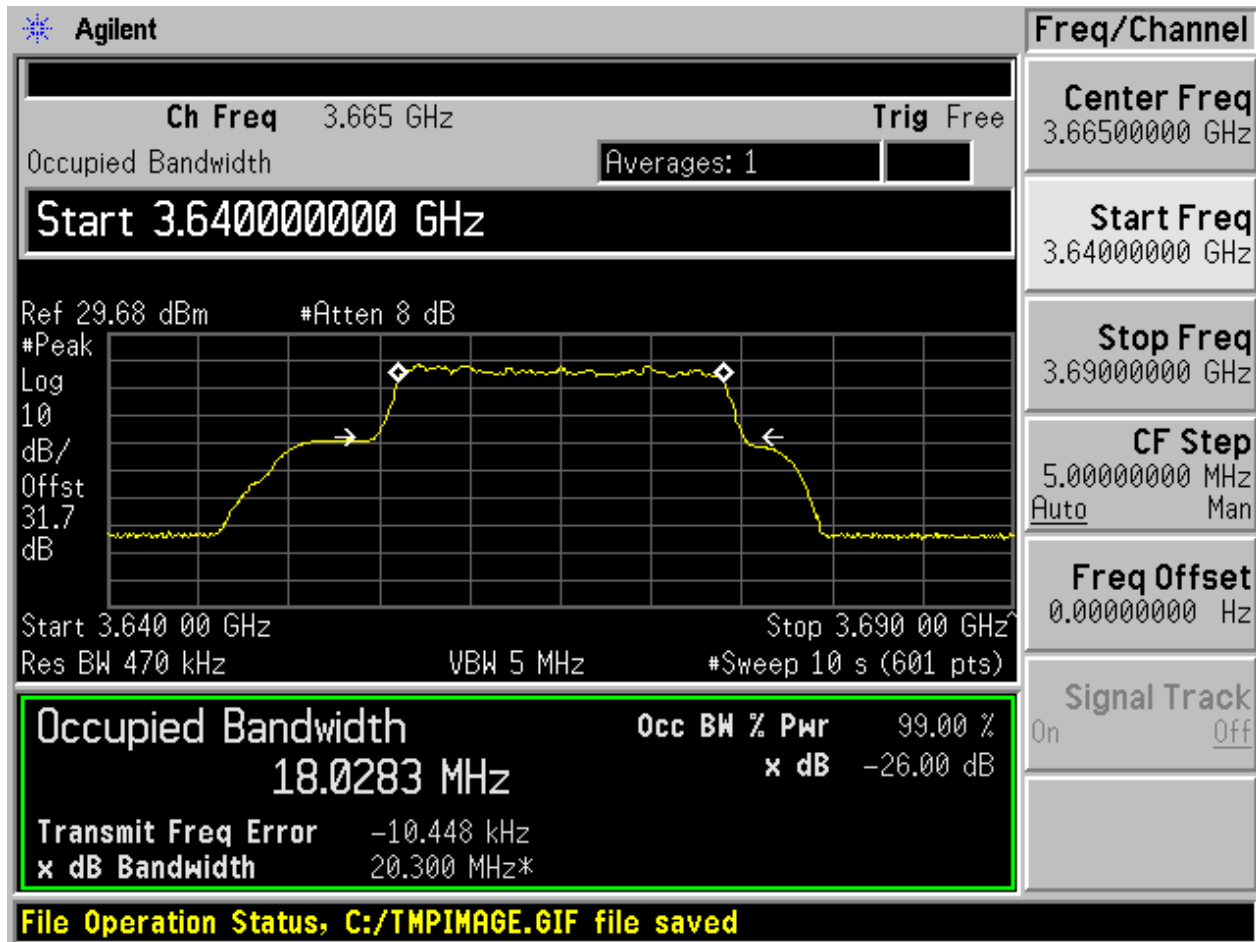
2.2.1 Carrier Conf. = 20M

2.2.1.1 Ch. B





2.2.1.2 Ch. T





Appendix D: Emissions Mask



1 Result Table

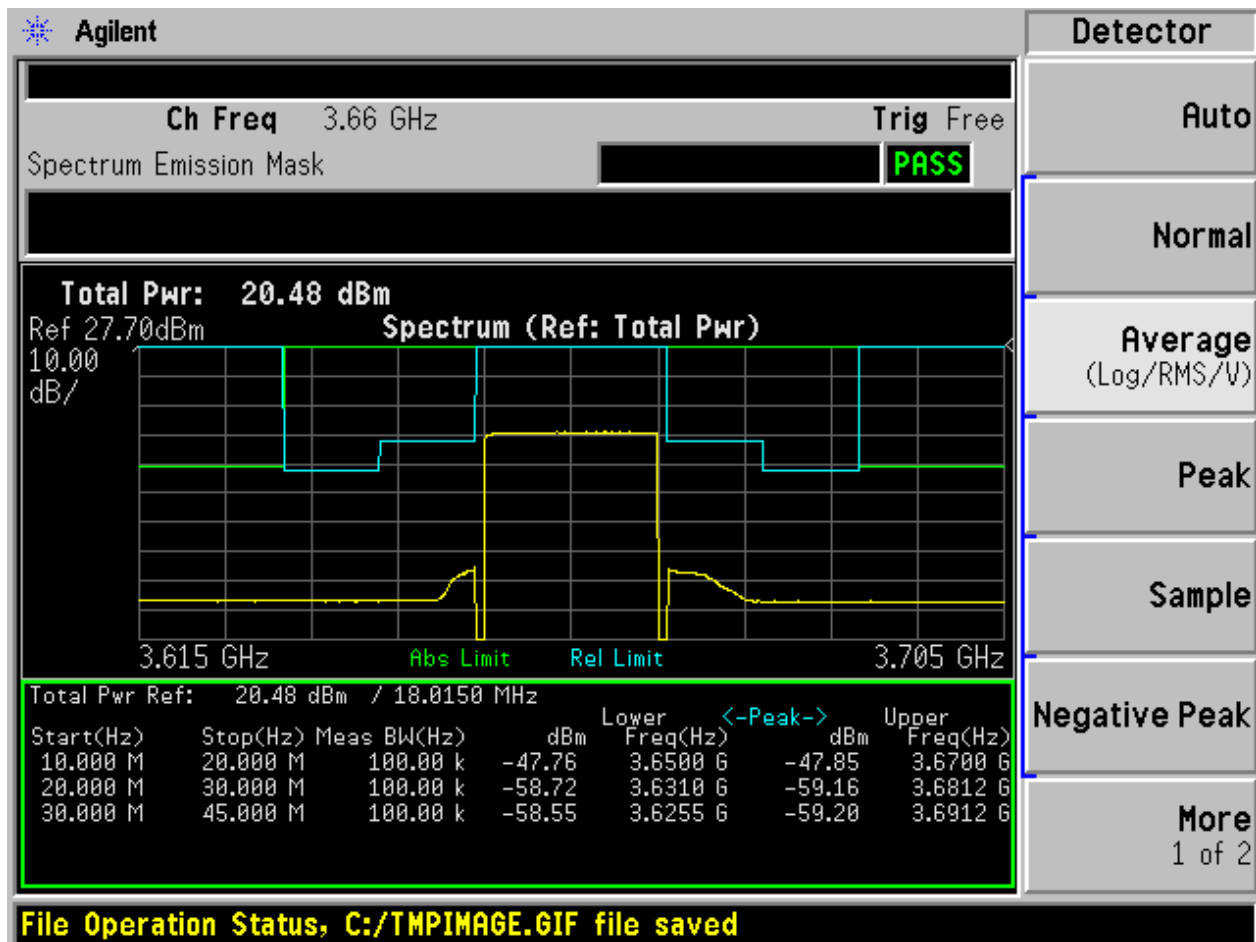
Test Mode	Carrier Conf.	RF Ch.	Verdict
TM 1.1	20M	B	Pass
		T	Pass

2 Test Plot

2.1 Test Mode = TM 1.1

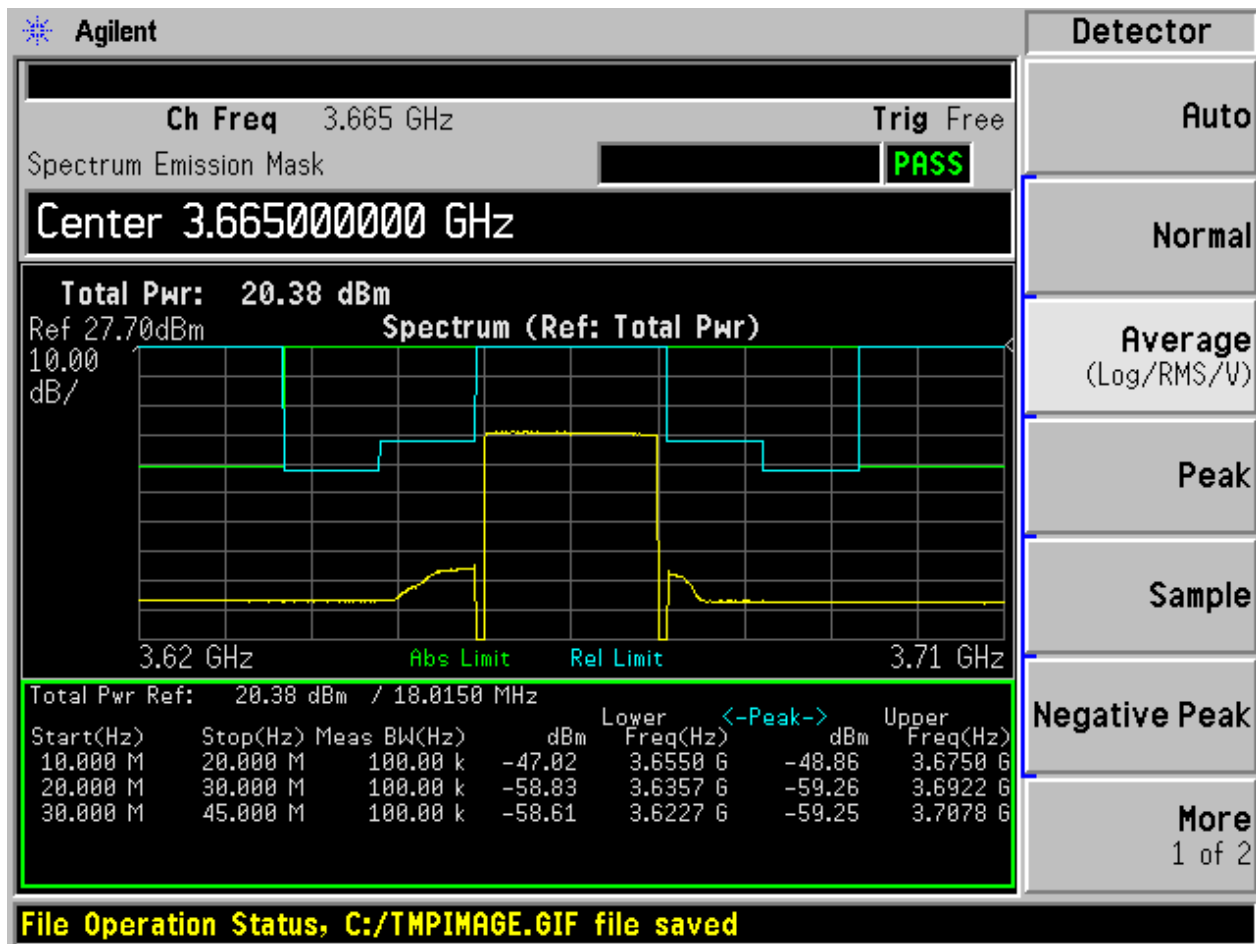
2.1.1 Carrier Conf. = 20M

2.1.1.1 Ch. B





2.1.1.2 Ch. T





Appendix E: Band Edges Compliance



1 Result Table

NOTE: The offset of measurement filter -3dB point may be considered when identifying the maximum emission for e.g. the CDMA, WCDMA, WiMAX, LTE systems.

Test Mode	Carrier Conf.	RF Ch.	Band Edges Emissions [dBm]	Verdict
	20M	B	-43.218dBm	Pass
		T	-51.213dBm	Pass

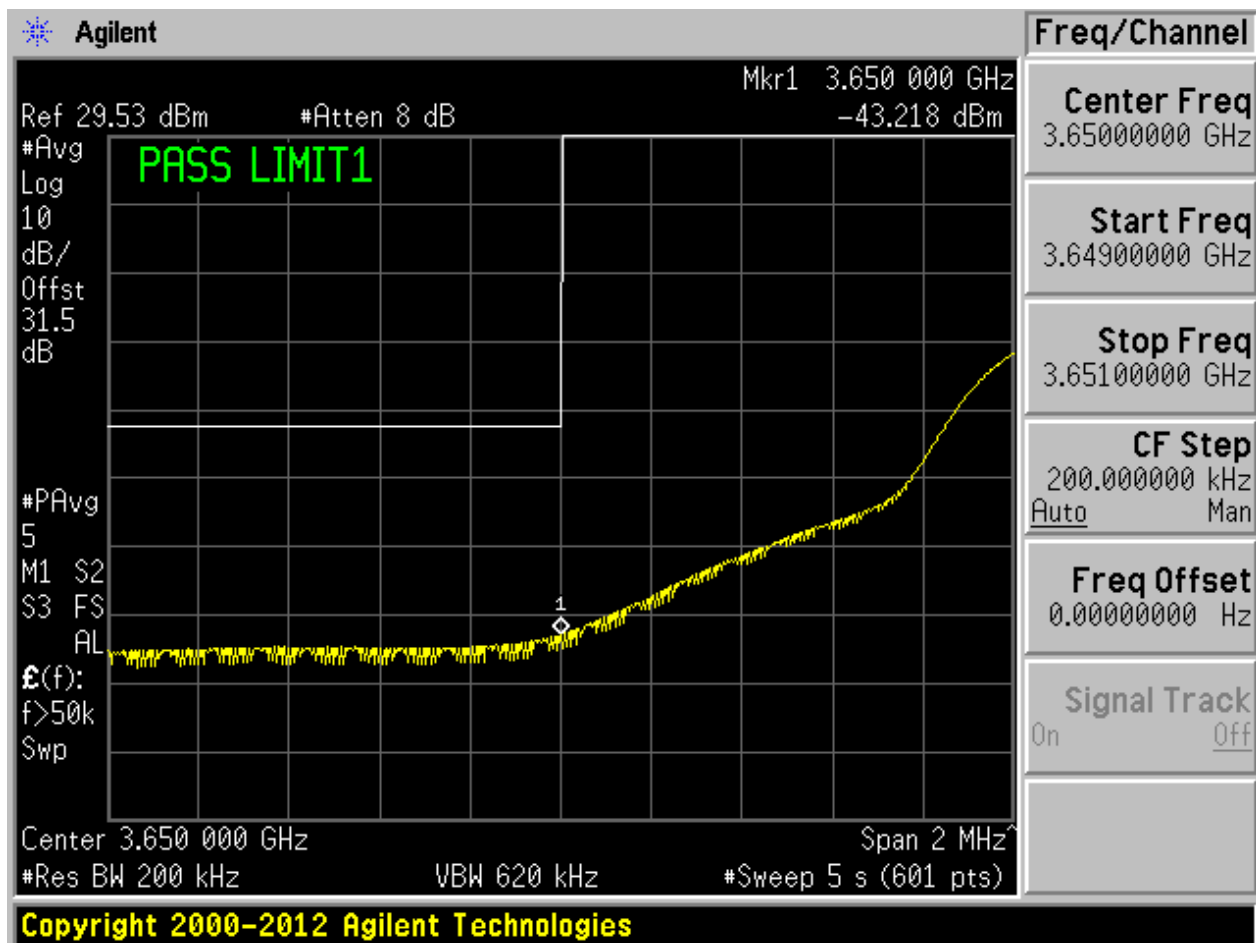


2 Test Plot

2.1 Test Mode = TM 1.1

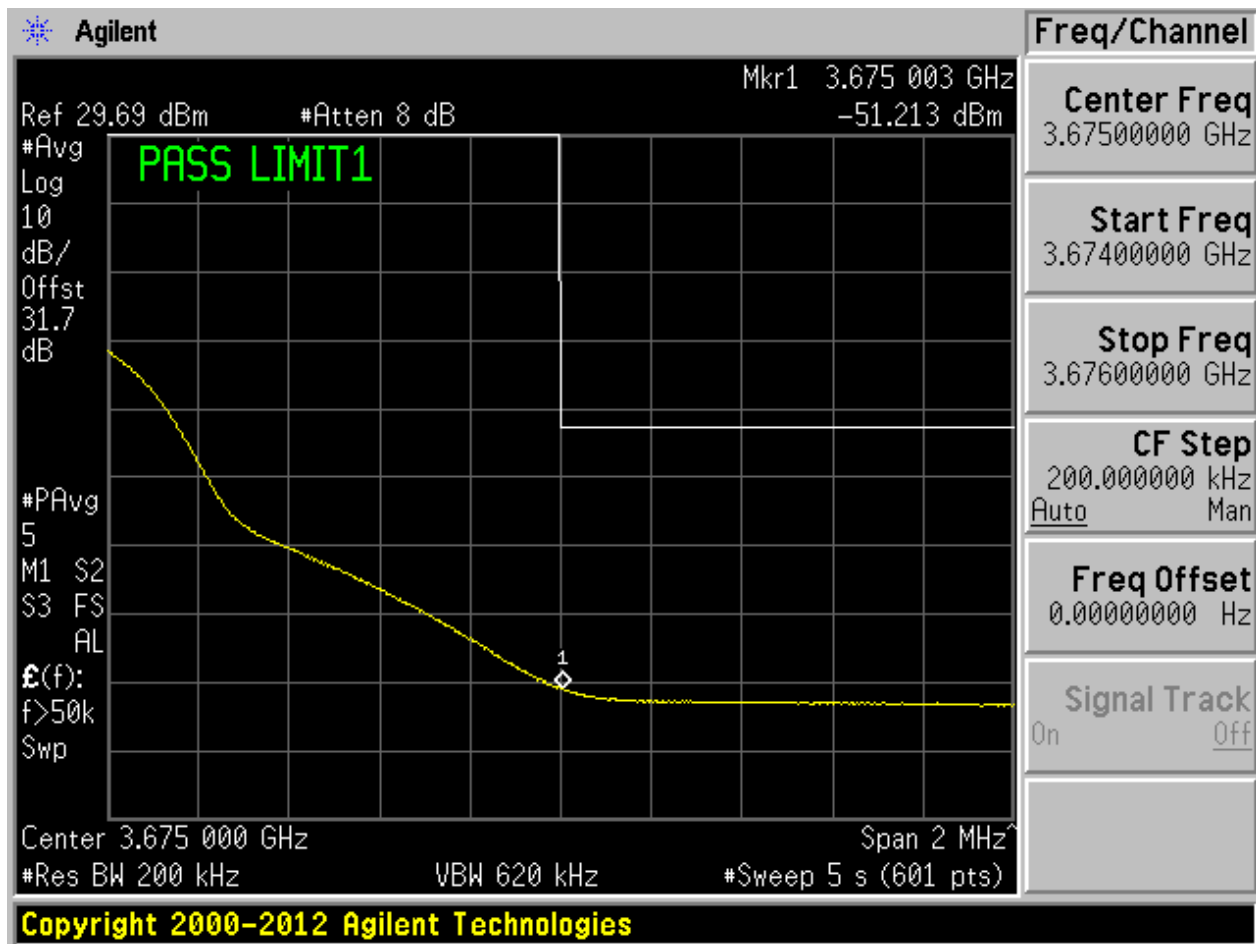
2.1.1 Carrier Conf. = 20M

2.1.1.1 Ch. B





2.1.1.2 Ch. T





Appendix F: Spurious Emission at Antenna Terminals



1 Result Table

Test Mode	Carrier Conf.	RF Ch.	Field Strength of Spurious Radiation [dBm]	Verdict
TM 1.1	20M	B	-33.4742dBm $\leq$ 18GHz -19.61dBm $\leq$ 37GHz	Pass
		T	-33.3468dBm $\leq$ 18GHz -20.71dBm $\leq$ 37GHz	Pass

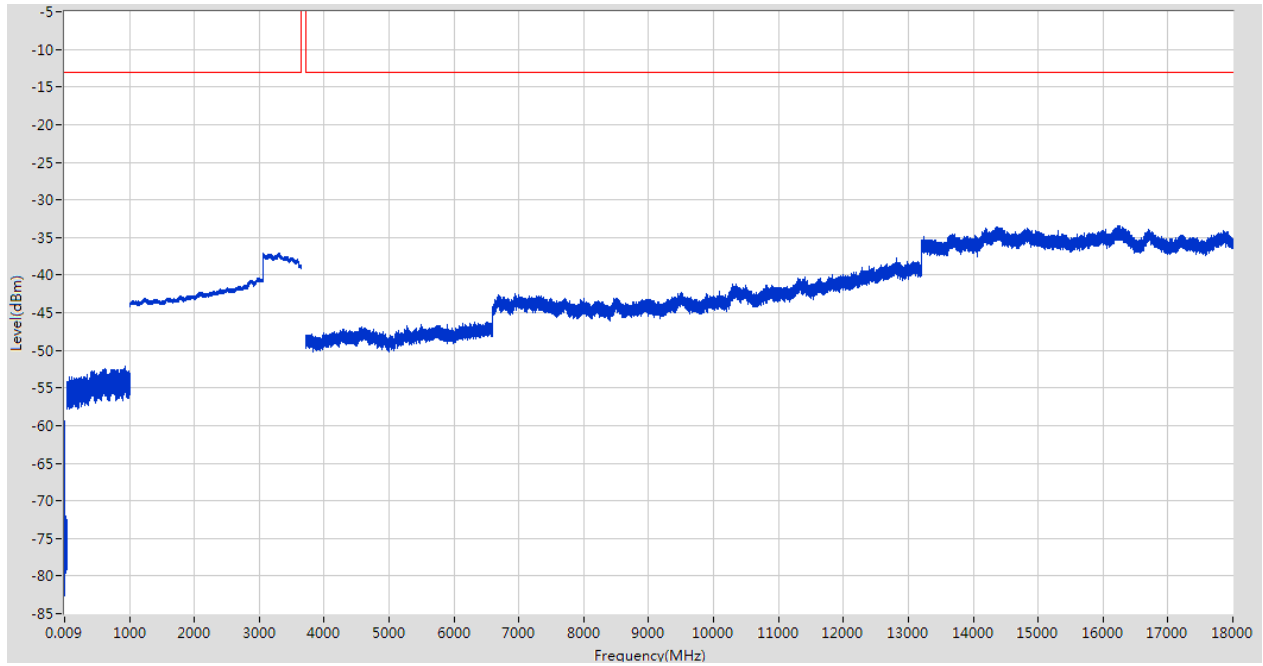


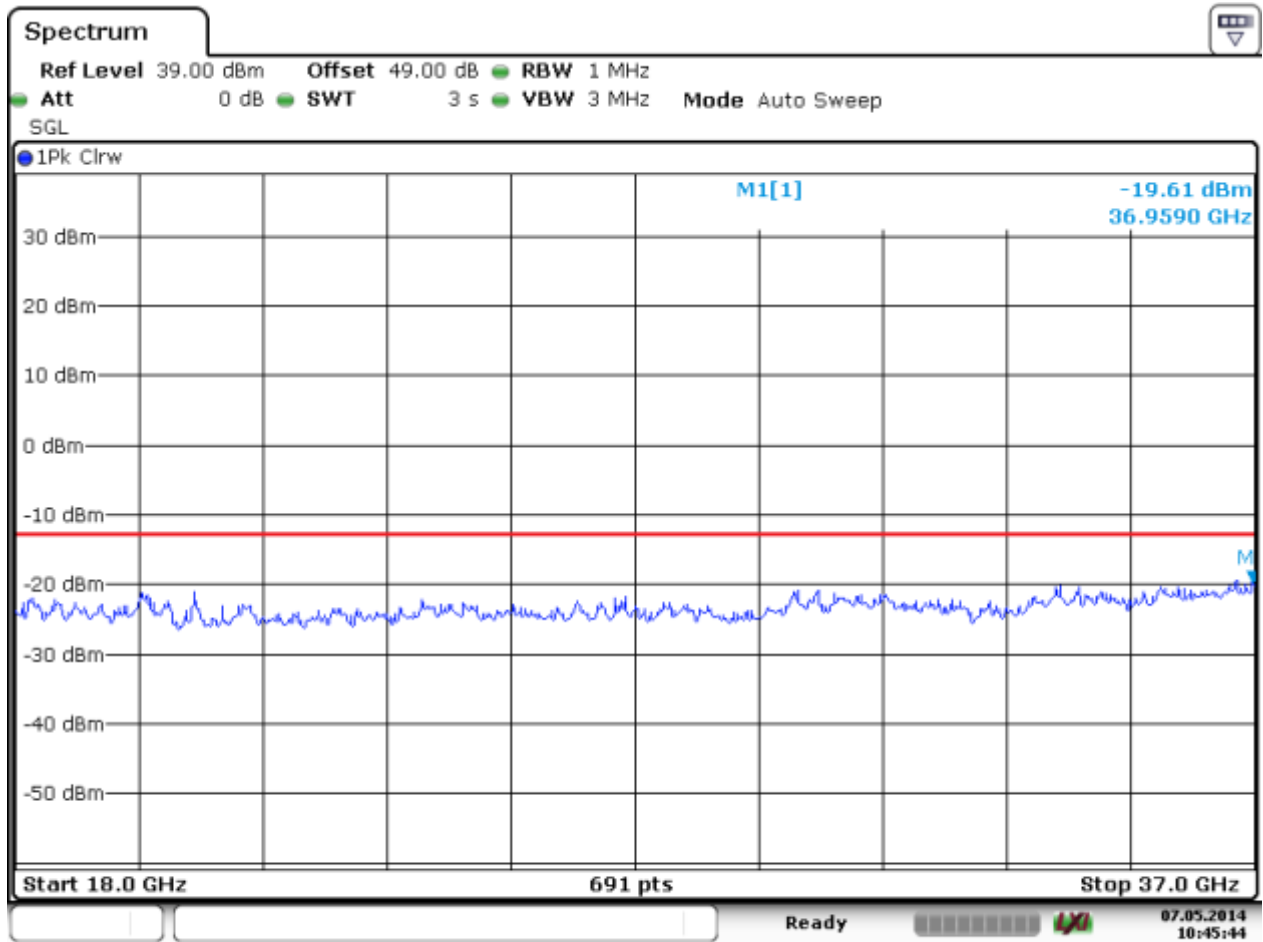
2 Test Plot

2.1 Test Mode = TM 1.1

2.1.1 Carrier Conf. = 20M

2.1.1.1 Ch. B

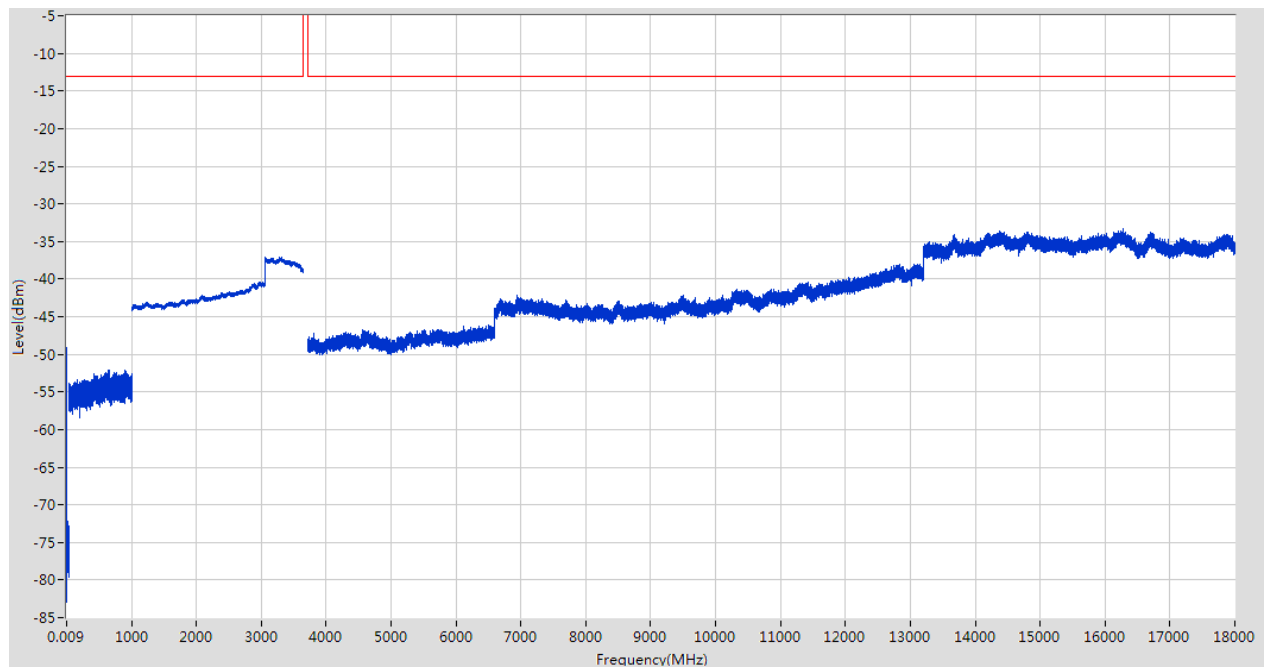


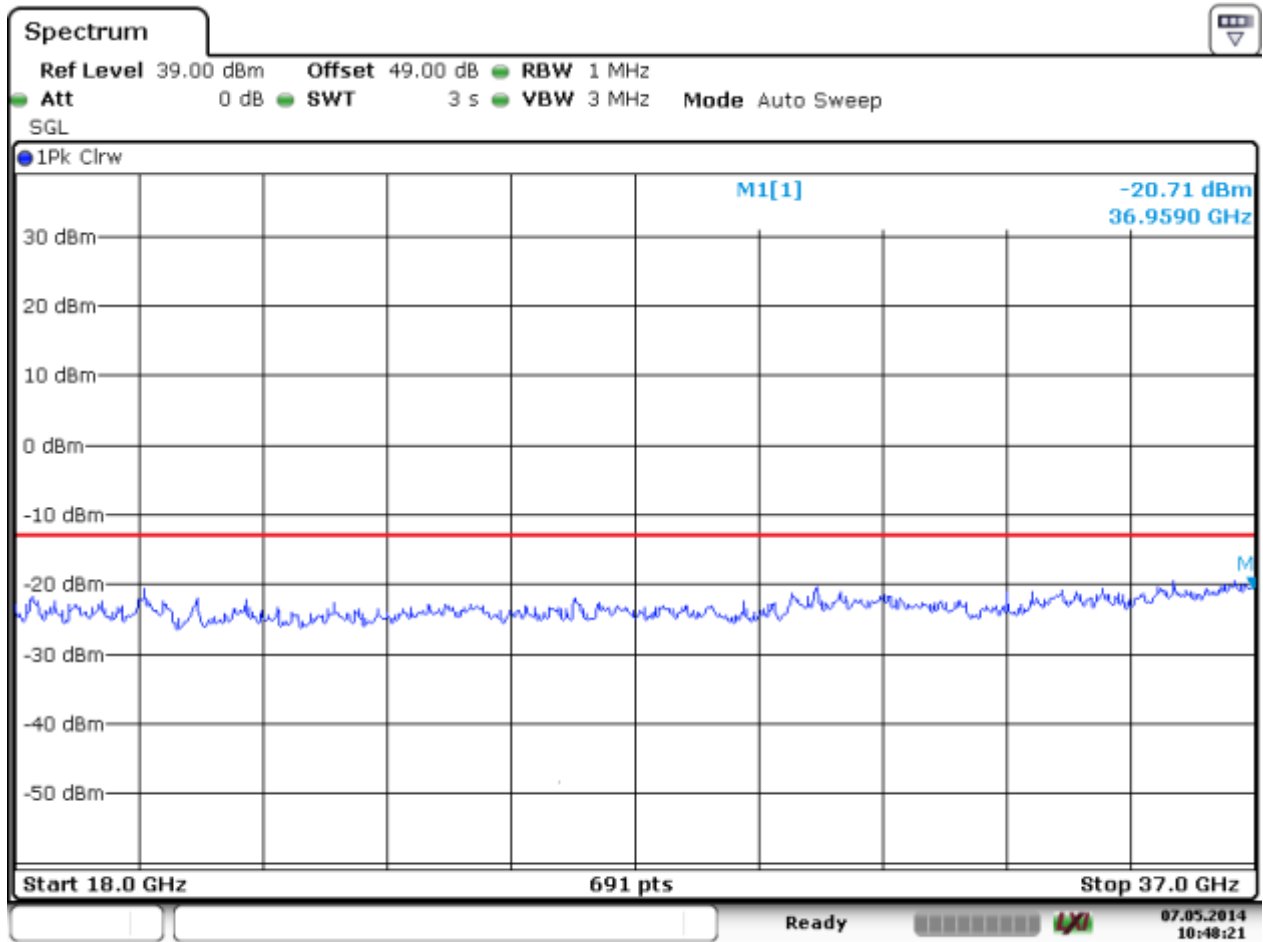


Date: 7.MAY.2014 10:45:44



2.1.1.2 Ch. T





Date: 7.MAY.2014 10:48:21



Appendix G: Field Strength of Spurious Radiation

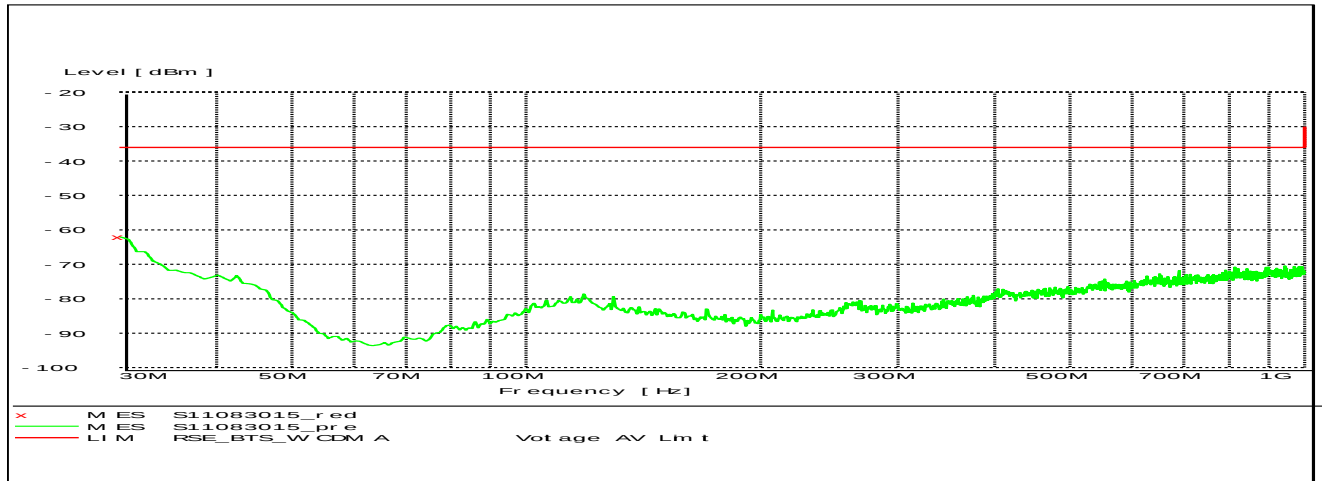


1 Test Plot

1.1 Test Mode = TM 1.1

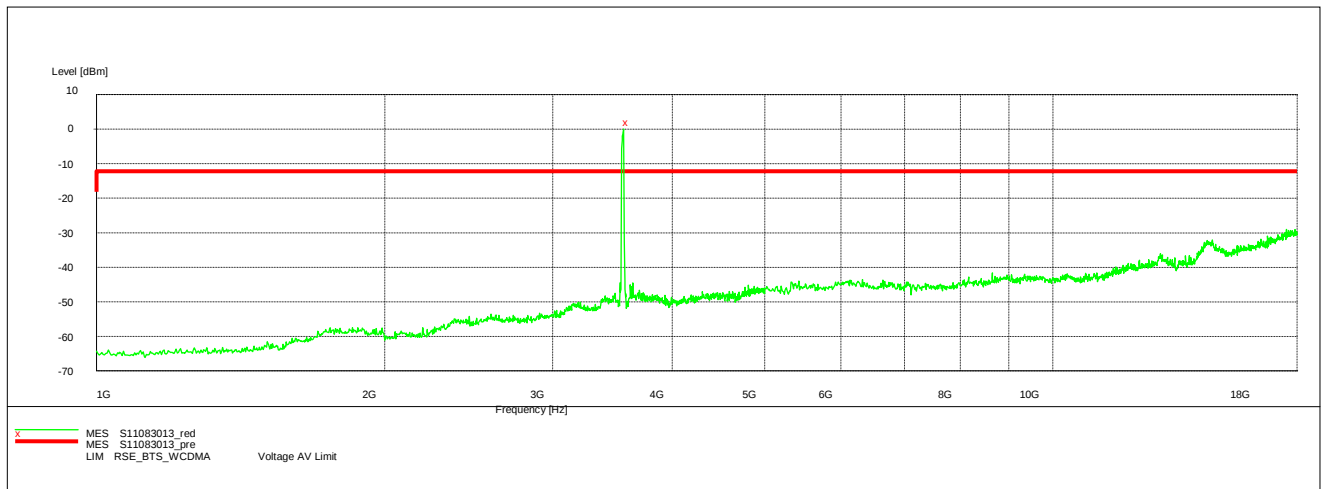
1.1.1 Carrier Conf. = 20M

1.1.1.1 30M-1G





1.1.1.2 1G-18G





Appendix H: 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
TM 3.1	20M	B	100%	-30 °C	4.8272	0.00132	---	Pass
				-20 °C	2.2056	0.00063	---	Pass
				-10 °C	5.6481	0.00153	---	Pass
				0 °C	18.578	0.00506	---	Pass
				10 °C	15.971	0.004364	---	Pass
				20 °C	1.5784Hz	0.000431	---	Pass
				30 °C	2.3993	0.000656	---	Pass
				40 °C	0.49298	0.000135	---	Pass
				50 °C	1.7634	0.000482	---	Pass
	20M	T	100%	-30 °C	9.0736	0.002476	---	Pass
				-20 °C	-3.6002	-0.00098	---	Pass
				-10 °C	-1.3137	-0.00036	---	Pass
				0 °C	2.2498	0.000614	---	Pass
				10 °C	4.7656	0.0013	---	Pass
				20 °C	0.69072	0.000188	---	Pass
				30 °C	12.746	0.003478	---	Pass
				40 °C	5.4381	0.001484	---	Pass
				50 °C	-2.7557	-0.00075	---	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
TM 3.1	20M	B	20 °C	85 %	-3.1723	-0.00087	---	Pass
				100 %	9.7771	0.00267	---	Pass
				115 %	5.1438	0.00141	---	Pass
		T	20 °C	85 %	-0.80325	-0.00022	---	Pass
				100 %	-1.9291	-0.00053	---	Pass
				115 %	0.43365	0.00012	---	Pass

END