

Modulation Type: 802.11n (HT20)

Low channel: 2412 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4824	H	49.07	---	0.75	49.82	---	74	54	-4.18
7236	H	40.60	---	9.87	50.47	---	74	54	-3.53
---	H	---	---	---	---	---	---	---	---
4824	V	47.59	---	0.75	48.34	---	74	54	-5.66
7236	V	40.24	---	9.87	50.11	---	74	54	-3.89
---	V	---	---	---	---	---	---	---	---

Middle channel: 2437MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4874	H	47.29	---	0.97	48.26	---	74	54	-5.74
7311	H	40.47	---	9.83	50.3	---	74	54	-3.70
---	H	---	---	---	---	---	---	---	---
4874	V	47.42	---	0.97	48.39	---	74	54	-5.61
7311	V	40.03	---	9.83	49.86	---	74	54	-4.14
---	V	---	---	---	---	---	---	---	---

High channel: 2462 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4924	H	48.16	---	1.18	49.34	---	74	54	-4.66
7386	H	40.64	---	10.07	50.71	---	74	54	-3.29
---	H	---	---	---	---	---	---	---	---
4924	V	47.00	---	1.18	48.18	---	74	54	-5.82
7386	V	40.28	---	10.07	50.35	---	74	54	-3.65
---	V	---	---	---	---	---	---	---	---

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
2. Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 25GHz.
5. Data of measurement shown "---" in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

Modulation Type: 802.11n (HT40)

Low channel: 2422 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4844.00	H	50.06	---	-3.94	46.12	---	74.00	54.00	-7.88
7266.00	H	45.37	---	0.52	45.89	---	74.00	54.00	-8.11
---	H	---	---	---	---	---	---	---	---
4844.00	V	50.34	---	-3.94	46.40	---	74.00	54.00	-7.60
7266.00	V	45.65	---	0.52	46.17	---	74.00	54.00	-7.83
---	V	---	---	---	---	---	---	---	---

Middle channel: 2437MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4874.00	H	50.29	---	-3.98	46.31	---	74.00	54.00	-7.69
7311.00	H	45.97	---	0.57	46.54	---	74.00	54.00	-7.46
---	H	---	---	---	---	---	---	---	---
4874.00	V	49.09	---	-3.98	45.11	---	74.00	54.00	-8.89
7311.00	V	44.01	---	0.57	44.58	---	74.00	54.00	-9.42
---	V	---	---	---	---	---	---	---	---

High channel: 2452 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
4904.00	H	50.22	---	-3.98	46.24	---	74.00	54.00	-7.76
7356.00	H	45.19	---	0.57	45.76	---	74.00	54.00	-8.24
---	H	---	---	---	---	---	---	---	---
4904.00	V	49.92	---	-3.98	45.94	---	74.00	54.00	-8.06
7356.00	V	44.68	---	0.57	45.25	---	74.00	54.00	-8.75
---	V	---	---	---	---	---	---	---	---

Note:

- Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
- Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)
- The emission levels of other frequencies are very lower than the limit and not show in test report.
- Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency. The highest test frequency is 25GHz.
- Data of measurement shown "---" in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

*******END OF REPORT*******

Appendix A: Test Result of Conducted Test

Conducted Average Output Power

Result Table

Mode	Channel	Meas.Level [dBm]	Av.Power [dBm]	Verdict
11B	LCH	17.04	17.06	PASS
11B	MCH	15.88	15.9	PASS
11B	HCH	15.17	15.19	PASS
11G	LCH	12.97	13.1	PASS
11G	MCH	13.94	14.07	PASS
11G	HCH	11.47	11.6	PASS
11N20SISO	LCH	13.02	13.15	PASS
11N20SISO	MCH	13.94	14.07	PASS
11N20SISO	HCH	11.47	11.6	PASS
11N40SISO	LCH	11.11	11.36	PASS
11N40SISO	MCH	13.71	13.98	PASS
11N40SISO	HCH	10.28	10.53	PASS

Test Graph



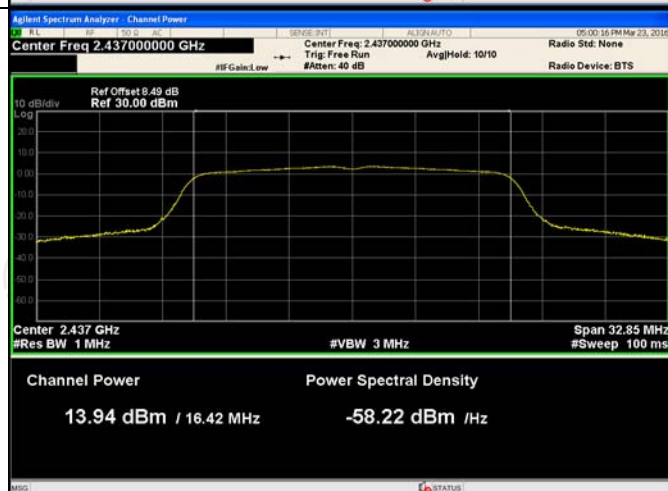
11B/HCH



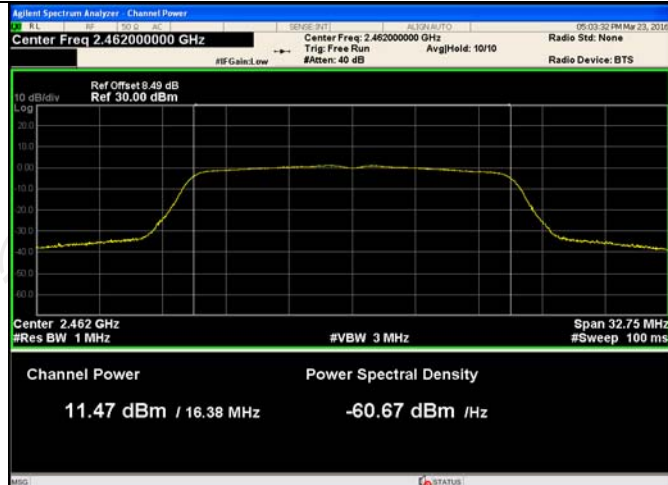
11G/LCH



11G/MCH



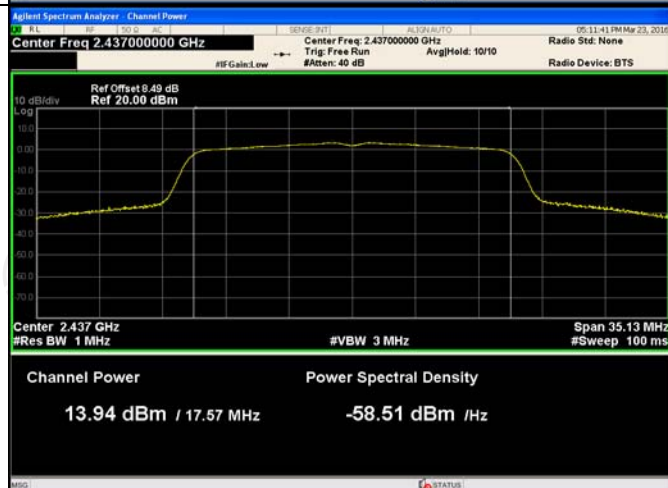
11G/HCH

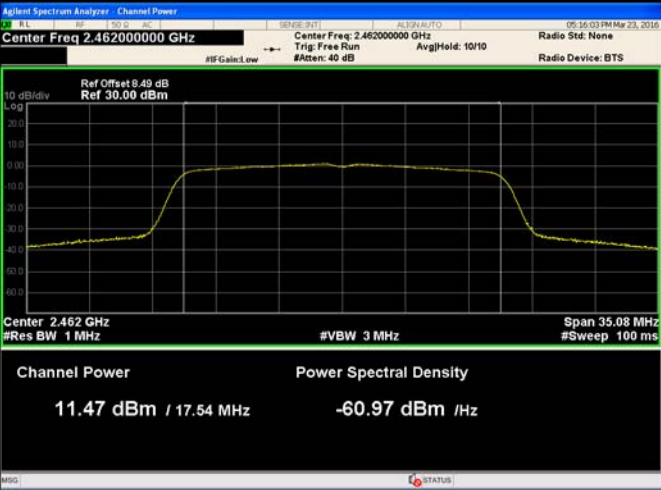
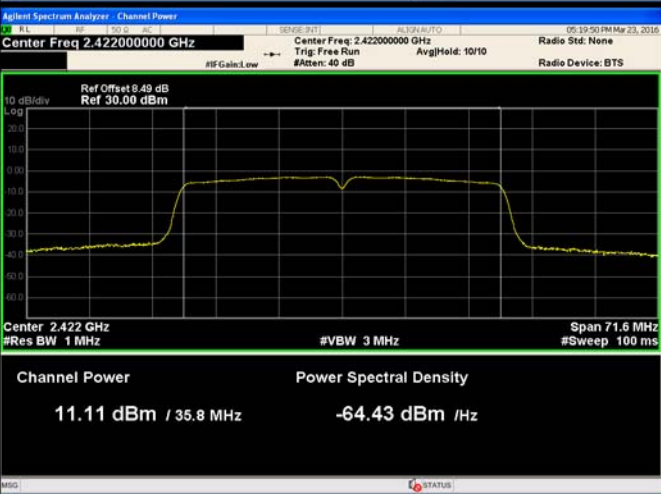


11N20SISO/LCH

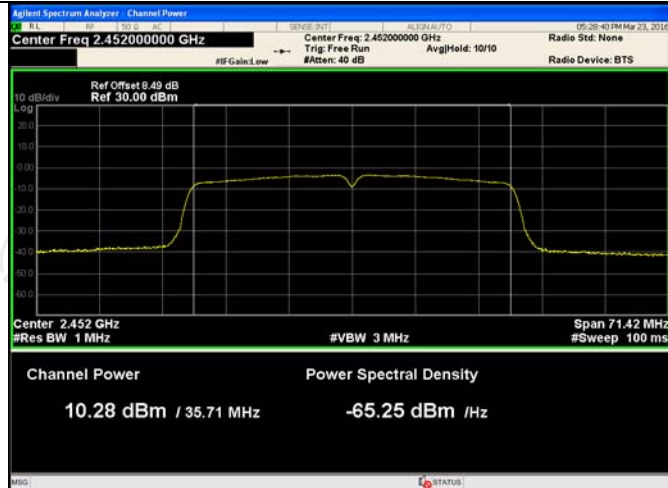


11N20SISO/MCH



11N20SISO/HCH	 Agilent Spectrum Analyzer - Channel Power Center Freq 2.462000000 GHz Ref Offset 8.49 dB Ref 30.00 dBm Center 2.462 GHz #Res BW 1 MHz #VBW 3 MHz Span 35.08 MHz #Sweep 100 ms Channel Power 11.47 dBm / 17.54 MHz Power Spectral Density -60.97 dBm /Hz
11N40SISO/LCH	 Agilent Spectrum Analyzer - Channel Power Center Freq 2.422000000 GHz Ref Offset 8.49 dB Ref 30.00 dBm Center 2.422 GHz #Res BW 1 MHz #VBW 3 MHz Span 71.6 MHz #Sweep 100 ms Channel Power 11.11 dBm / 35.8 MHz Power Spectral Density -64.43 dBm /Hz
11N40SISO/MCH	 Agilent Spectrum Analyzer - Channel Power Center Freq 2.437000000 GHz Ref Offset 8.49 dB Ref 30.00 dBm Center 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 71.79 MHz #Sweep 100 ms Channel Power 13.71 dBm / 35.89 MHz Power Spectral Density -61.84 dBm /Hz

11N40SISO/HCH



6dB Occupied Bandwidth

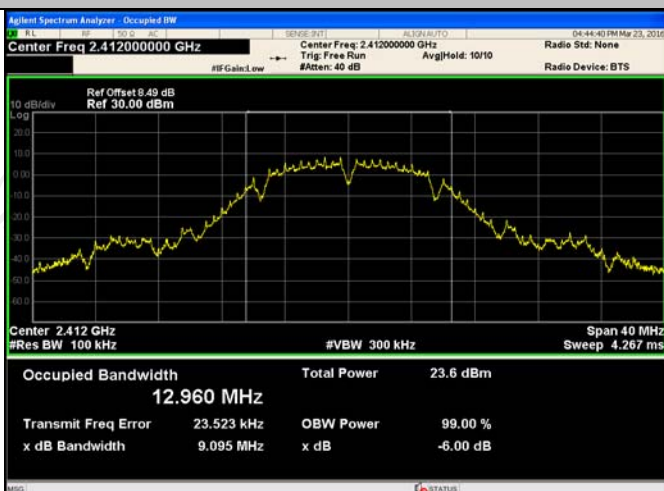
Result Table

Mode	Channel	6dB Bandwidth [MHz]	99% OBW [MHz]	Verdict
11B	LCH	9.095	12.960	PASS
11B	MCH	9.091	12.667	PASS
11B	HCH	9.048	12.541	PASS
11G	LCH	15.39	16.412	PASS
11G	MCH	14.29	16.423	PASS
11G	HCH	15.54	16.377	PASS
11N20SISO	LCH	16.91	17.564	PASS
11N20SISO	MCH	15.08	17.566	PASS
11N20SISO	HCH	15.27	17.541	PASS
11N40SISO	LCH	35.14	35.802	PASS
11N40SISO	MCH	35.07	35.893	PASS
11N40SISO	HCH	35.08	35.711	PASS

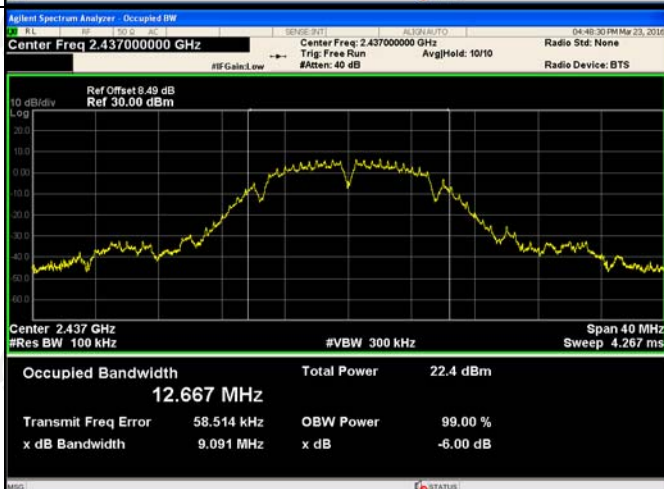
Test Graph

Graphs

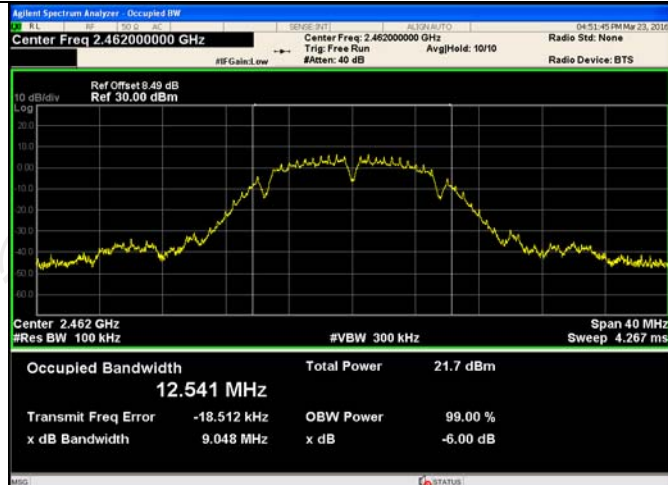
11B/LCH



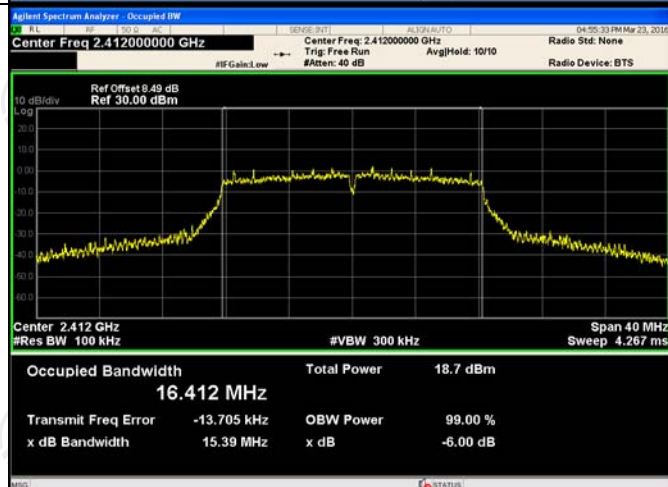
11B/MCH



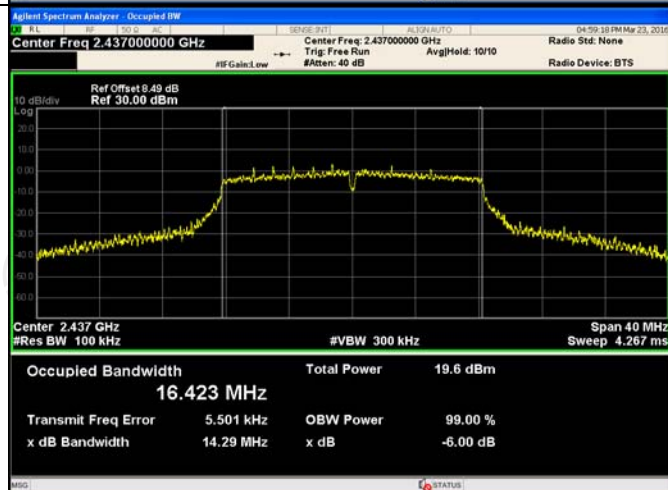
11B/HCH



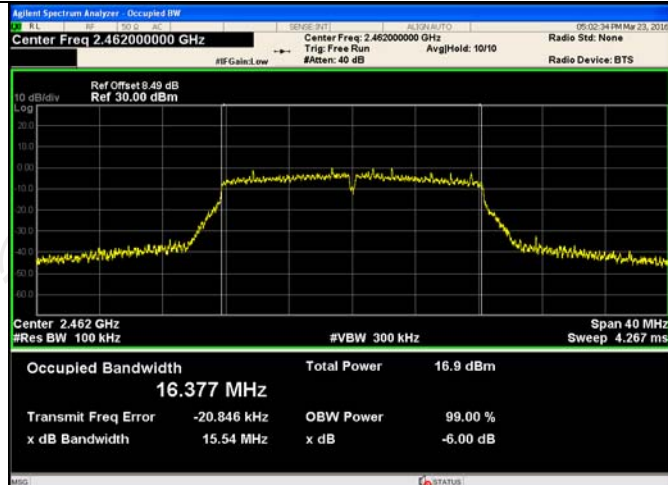
11G/LCH



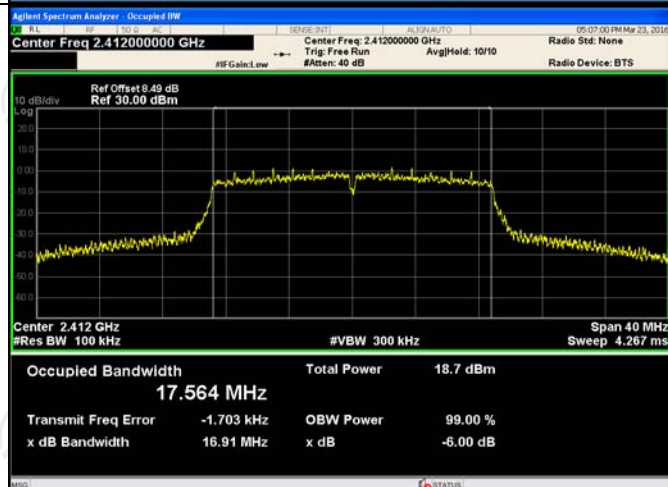
11G/MCH



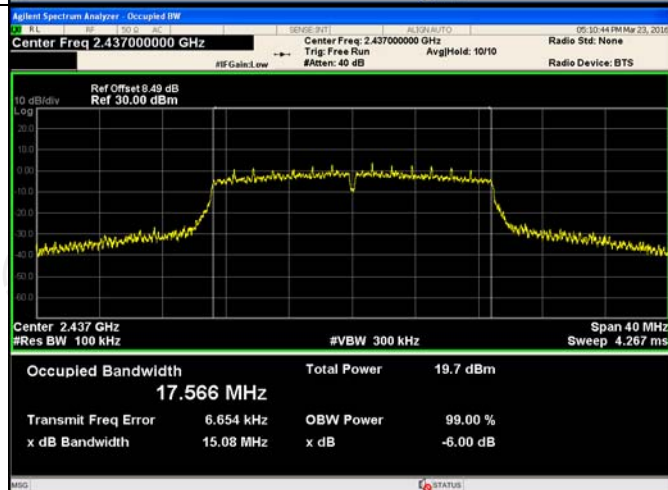
11G/HCH

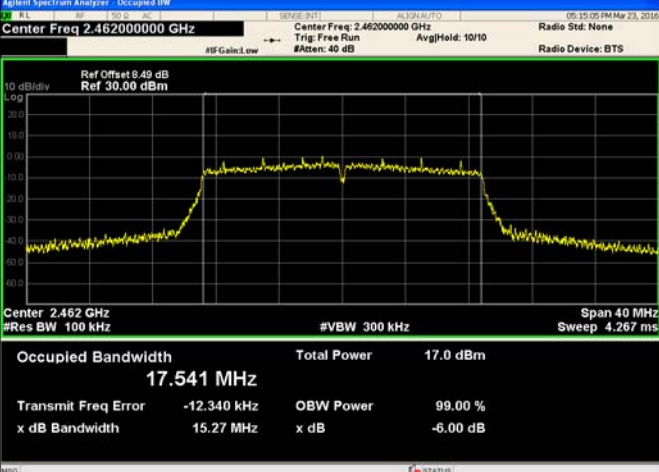
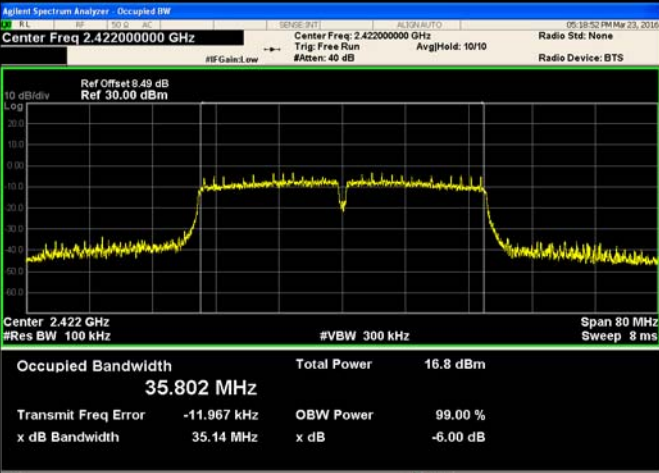
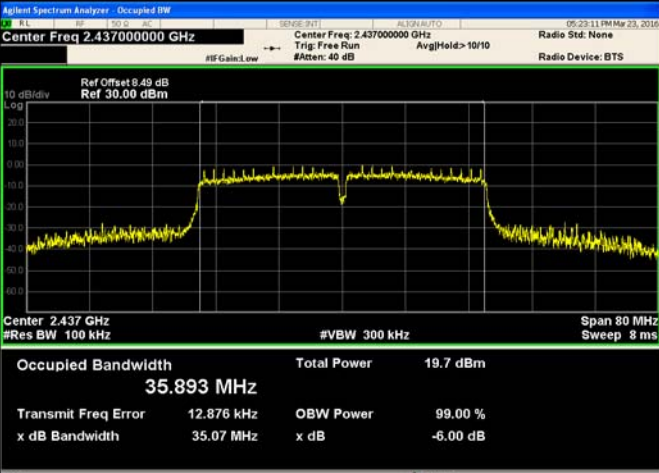


11N20SISO/LCH

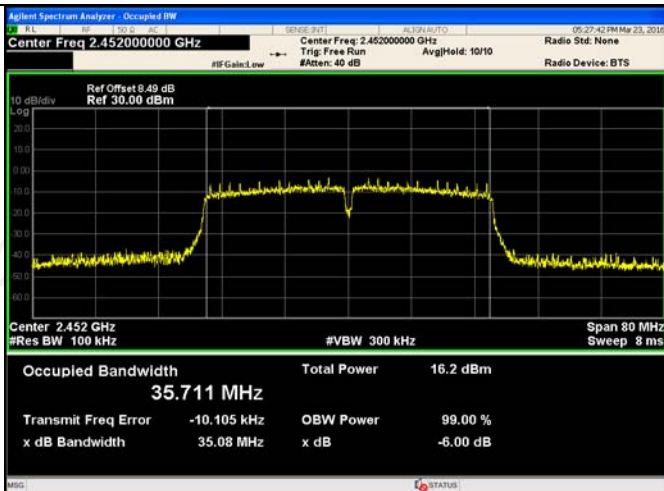


11N20SISO/MCH



11N20SISO/HCH	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.462000000 GHz Ref Offset 8.49 dB Ref 30.00 dBm Center 2.462 GHz #Res BW 100 kHz Span 40 MHz Sweep 4.267 ms Occupied Bandwidth 17.541 MHz Total Power 17.0 dBm Transmit Freq Error -12.340 kHz OBW Power 99.00 % x dB Bandwidth 15.27 MHz x dB -6.00 dB
11N40SISO/LCH	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.422000000 GHz Ref Offset 8.49 dB Ref 30.00 dBm Center 2.422 GHz #Res BW 100 kHz Span 80 MHz Sweep 8 ms Occupied Bandwidth 35.802 MHz Total Power 16.8 dBm Transmit Freq Error -11.967 kHz OBW Power 99.00 % x dB Bandwidth 35.14 MHz x dB -6.00 dB
11N40SISO/MCH	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Ref Offset 8.49 dB Ref 30.00 dBm Center 2.437 GHz #Res BW 100 kHz Span 80 MHz Sweep 8 ms Occupied Bandwidth 35.893 MHz Total Power 19.7 dBm Transmit Freq Error 12.876 kHz OBW Power 99.00 % x dB Bandwidth 35.07 MHz x dB -6.00 dB

11N40SISO/HCH

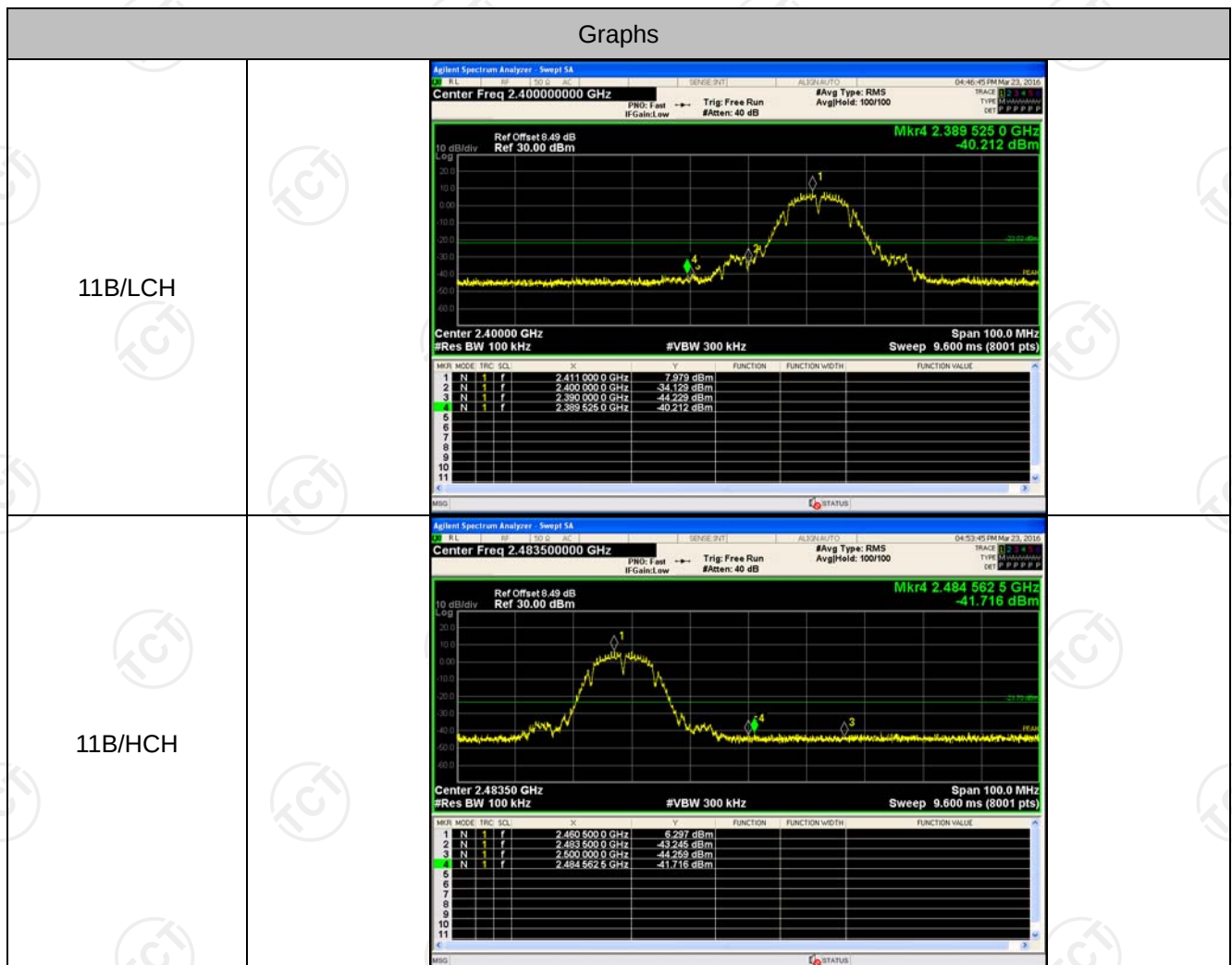


Band-edge for RF Conducted Emissions

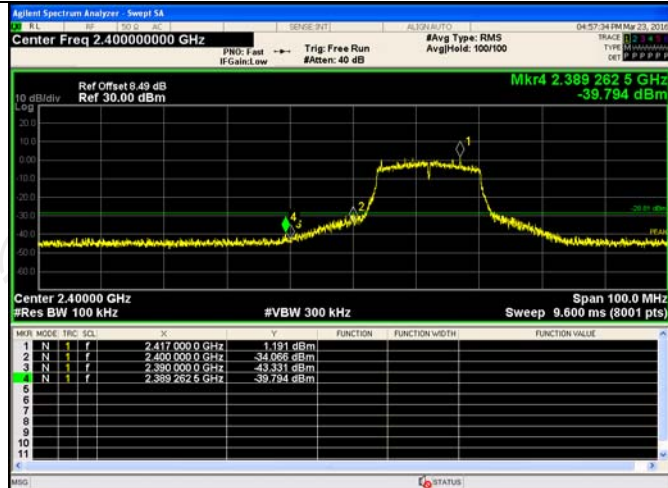
Result Table

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	7.979	-40.212	-22.02	PASS
11B	HCH	6.297	-41.716	-23.7	PASS
11G	LCH	1.191	-39.794	-28.81	PASS
11G	HCH	0.706	-40.776	-29.29	PASS
11N20SISO	LCH	2.309	-38.777	-27.69	PASS
11N20SISO	HCH	0.860	-40.977	-29.14	PASS
11N40SISO	LCH	-3.018	-36.024	-33.02	PASS
11N40SISO	HCH	-3.037	-38.968	-33.04	PASS

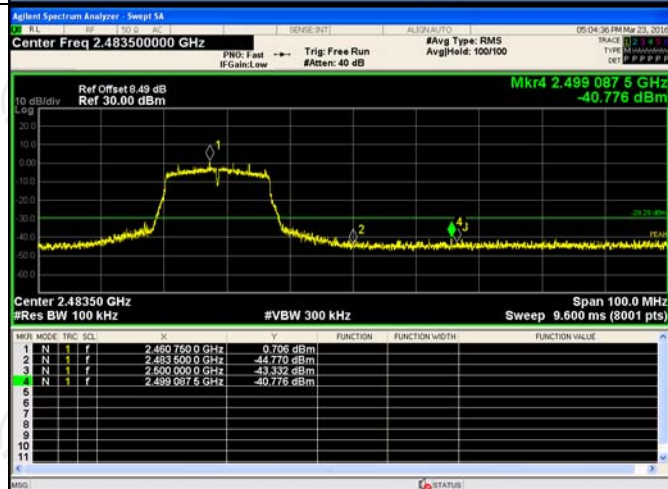
Test Graph



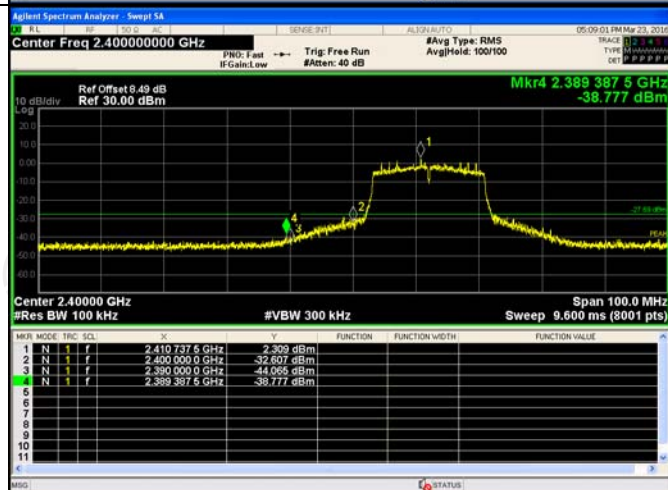
11G/LCH



11G/HCH



11N20SISO/LCH



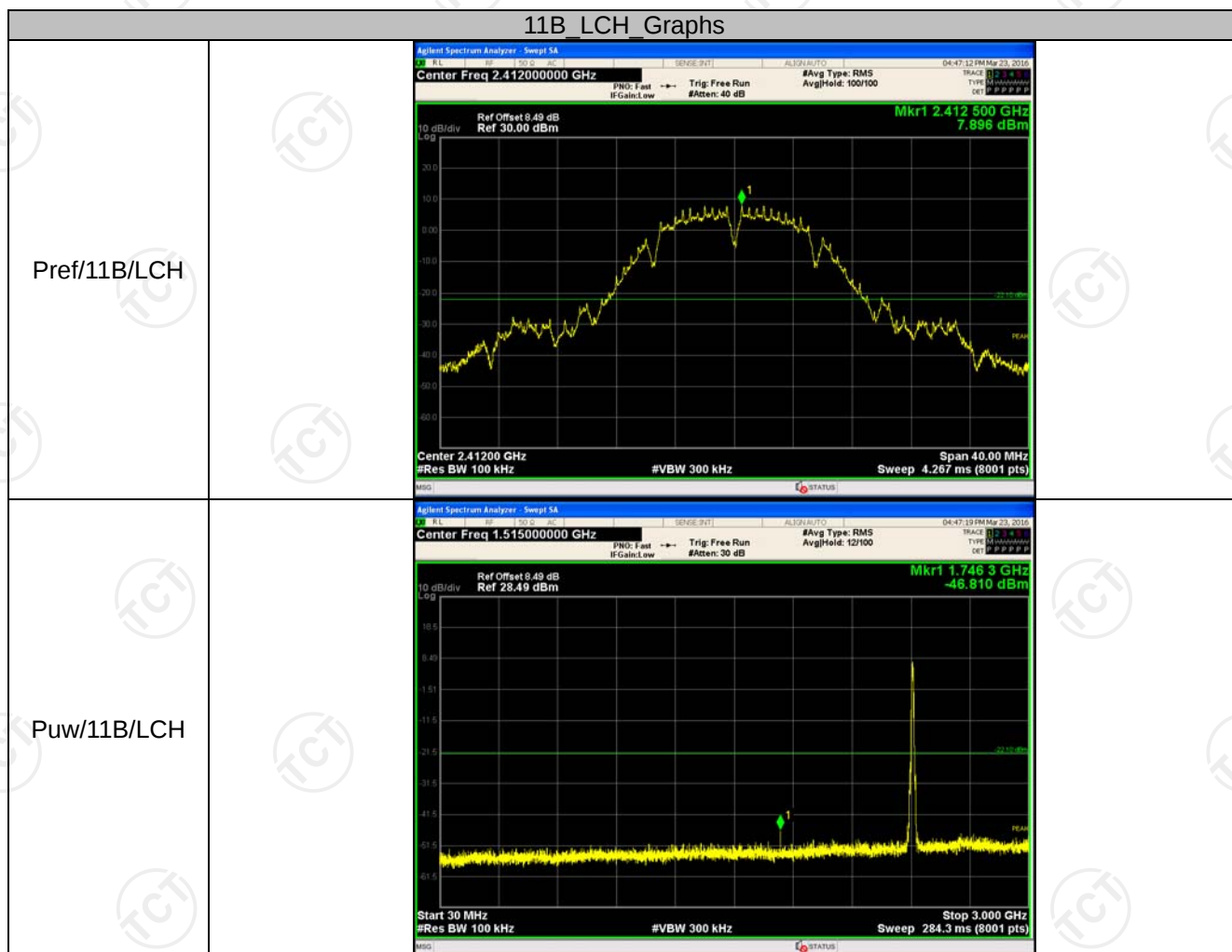
11N20SISO/HCH	Agilent Spectrum Analyzer - Sweep SA Center Freq 2.483500000 GHz Ref Offset 6.49 dB Ref 30.00 dBm Mkr4 2.487 387 5 GHz -40.977 dBm Center 2.48350 GHz #Res BW 100 kHz #VBW 300 kHz Span 100.0 MHz Sweep 9.600 ms (8001 pts) <table><thead><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.463 237 5 GHz</td><td>-0.860 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.483 500 0 GHz</td><td>-44.056 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.490 000 0 GHz</td><td>-44.826 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.487 387 5 GHz</td><td>-40.977 dBm</td><td></td><td></td><td></td></tr></tbody></table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.463 237 5 GHz	-0.860 dBm				2	N	1	f	2.483 500 0 GHz	-44.056 dBm				3	N	1	f	2.490 000 0 GHz	-44.826 dBm				4	N	1	f	2.487 387 5 GHz	-40.977 dBm			
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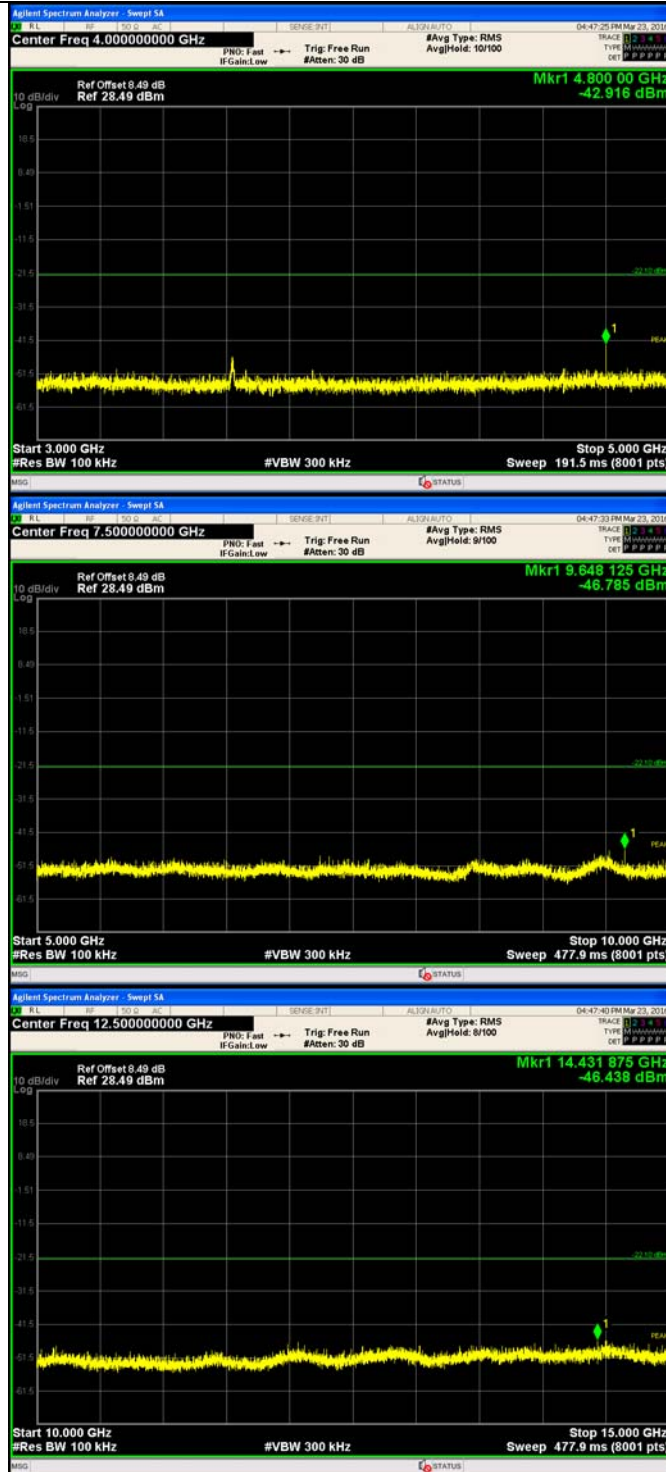
RF Conducted Spurious Emissions

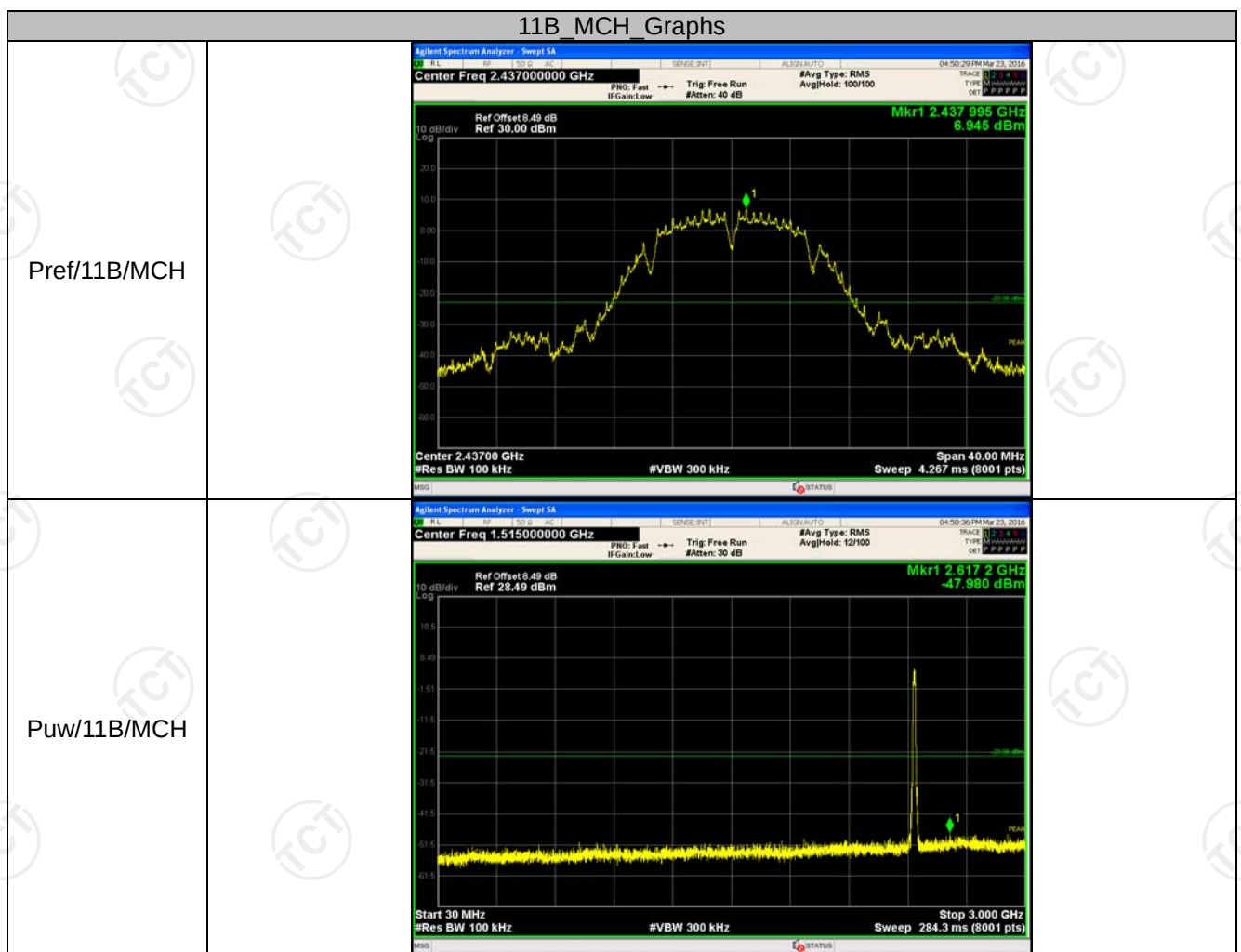
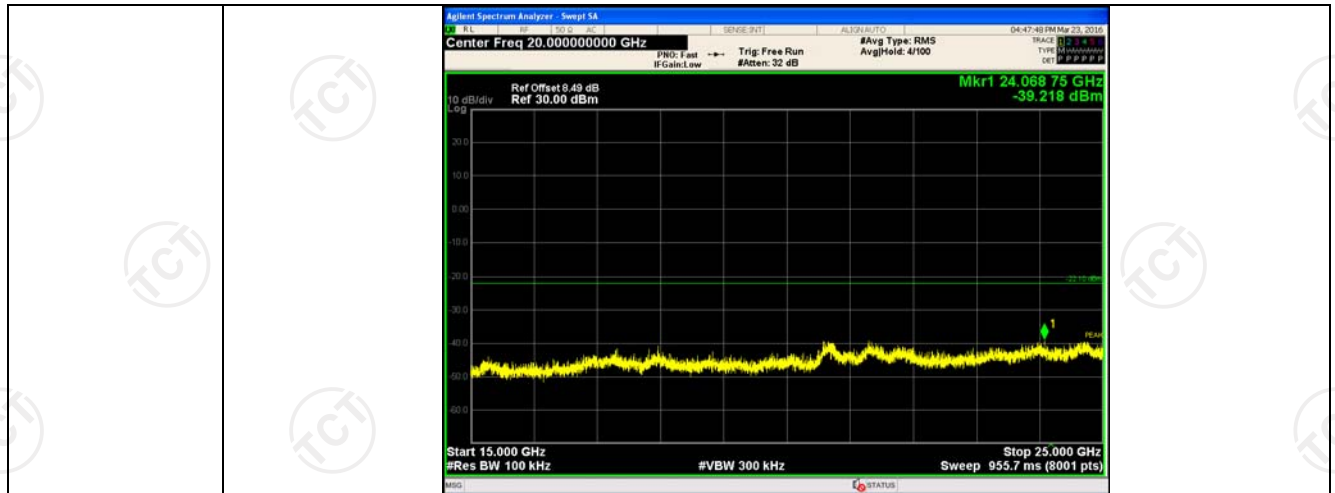
Result Table

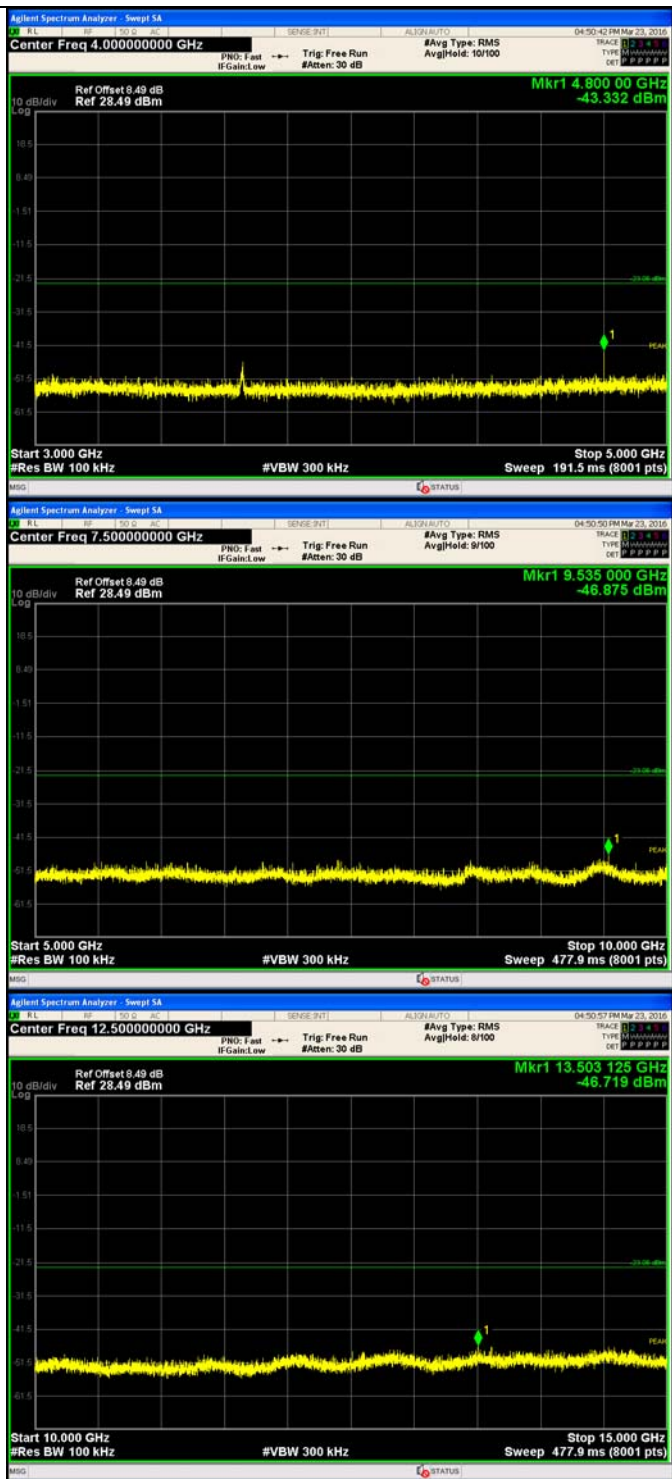
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
11B	LCH	7.896	<Limit	PASS
11B	MCH	6.945	<Limit	PASS
11B	HCH	5.768	<Limit	PASS
11G	LCH	1.954	<Limit	PASS
11G	MCH	3.07	<Limit	PASS
11G	HCH	0.433	<Limit	PASS
11N20SISO	LCH	2.129	<Limit	PASS
11N20SISO	MCH	3.755	<Limit	PASS
11N20SISO	HCH	-0.505	<Limit	PASS
11N40SISO	LCH	-2.9	<Limit	PASS
11N40SISO	MCH	-0.129	<Limit	PASS
11N40SISO	HCH	-3.065	<Limit	PASS

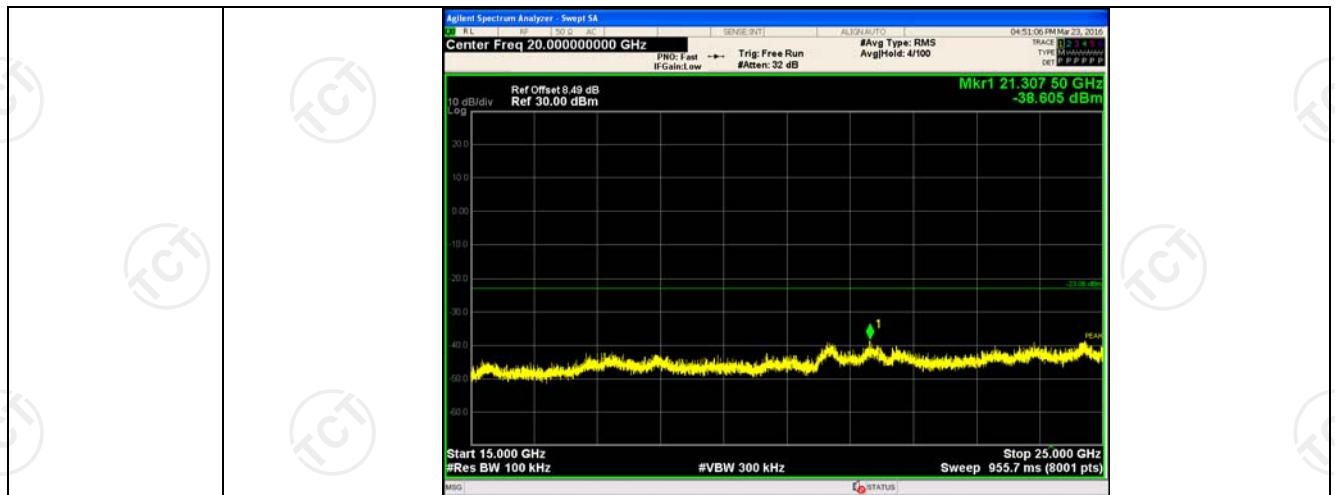
Test Graph



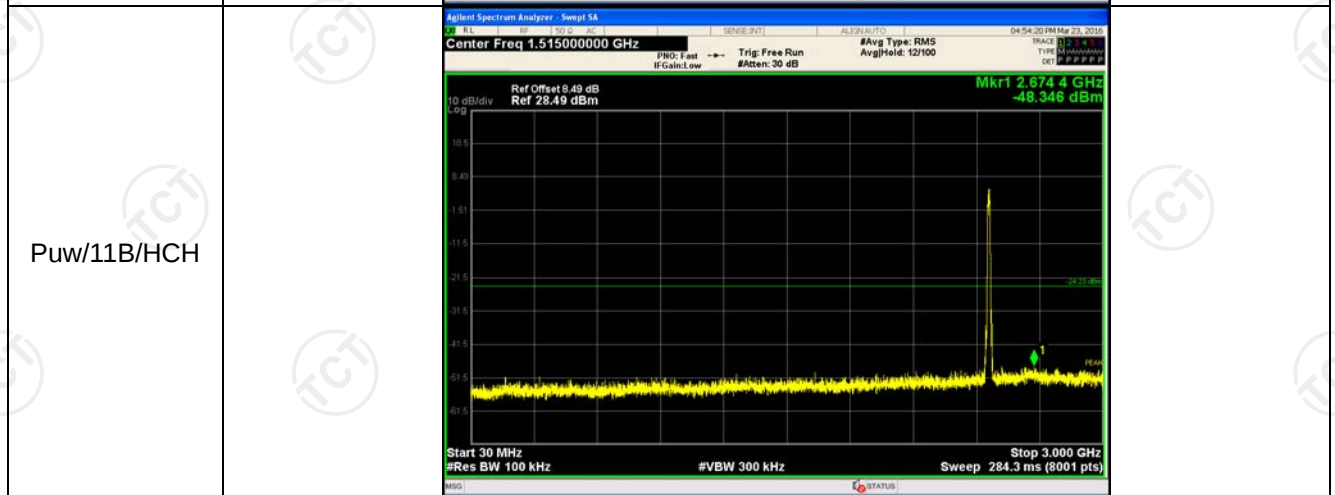


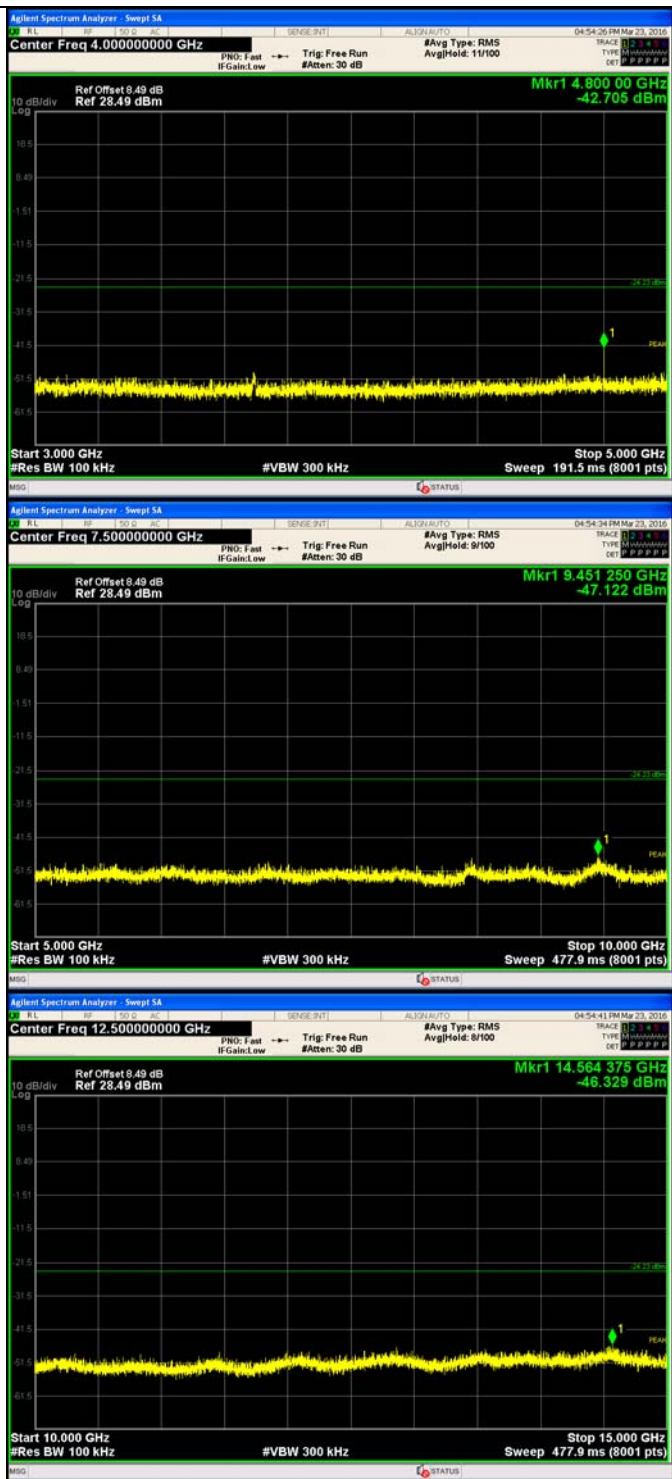


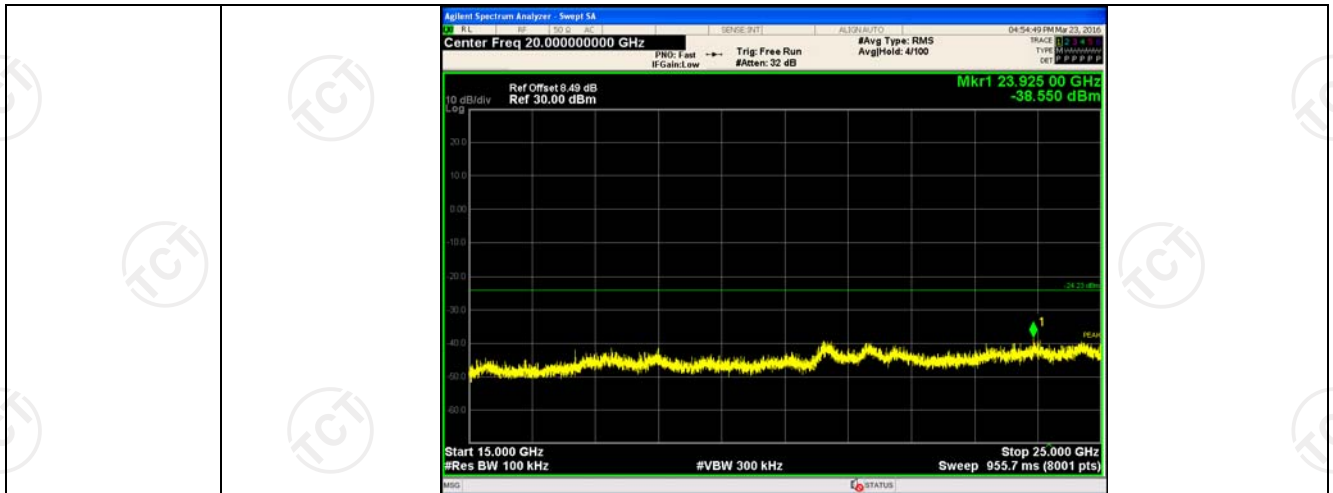




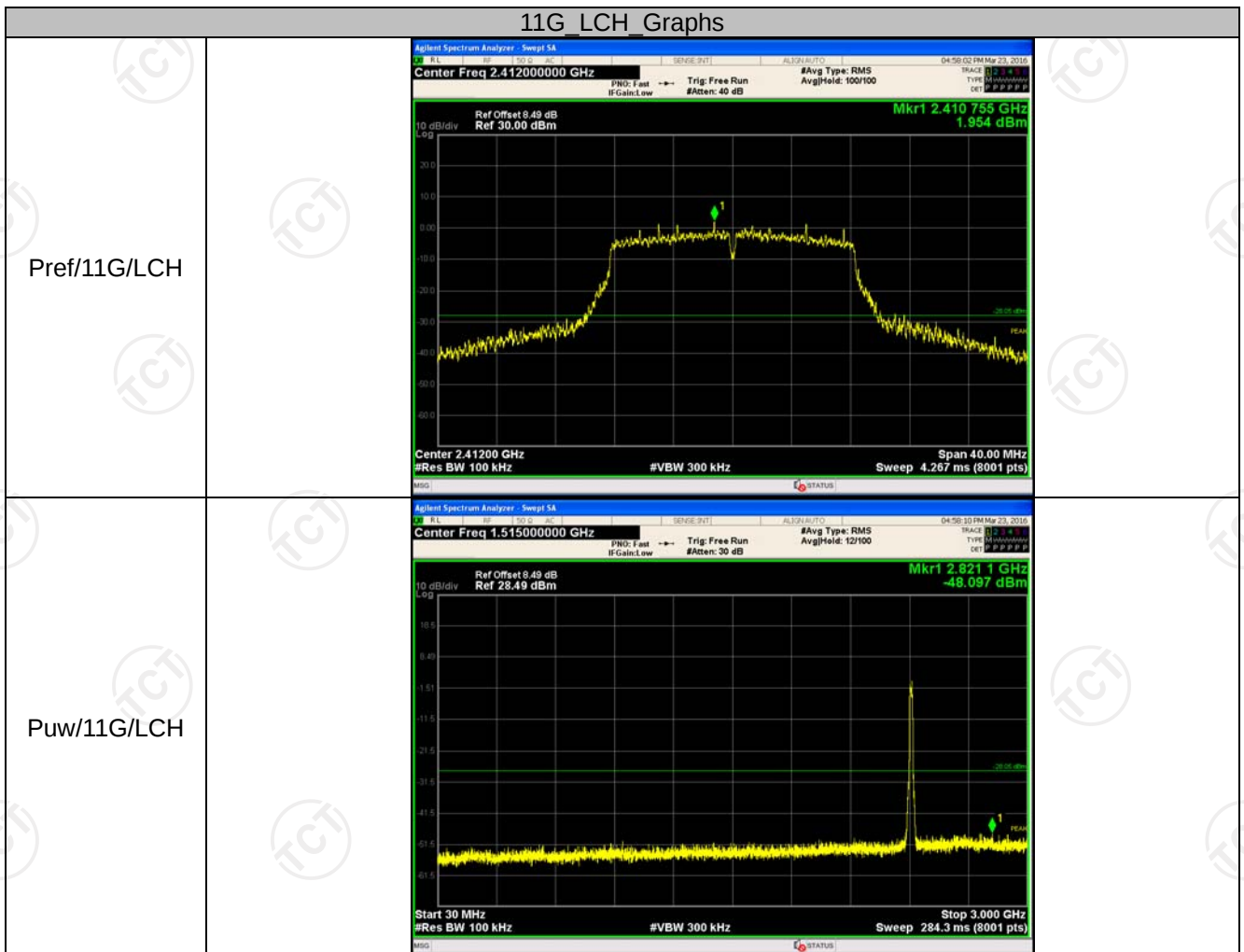
11B_HCH_Graphs

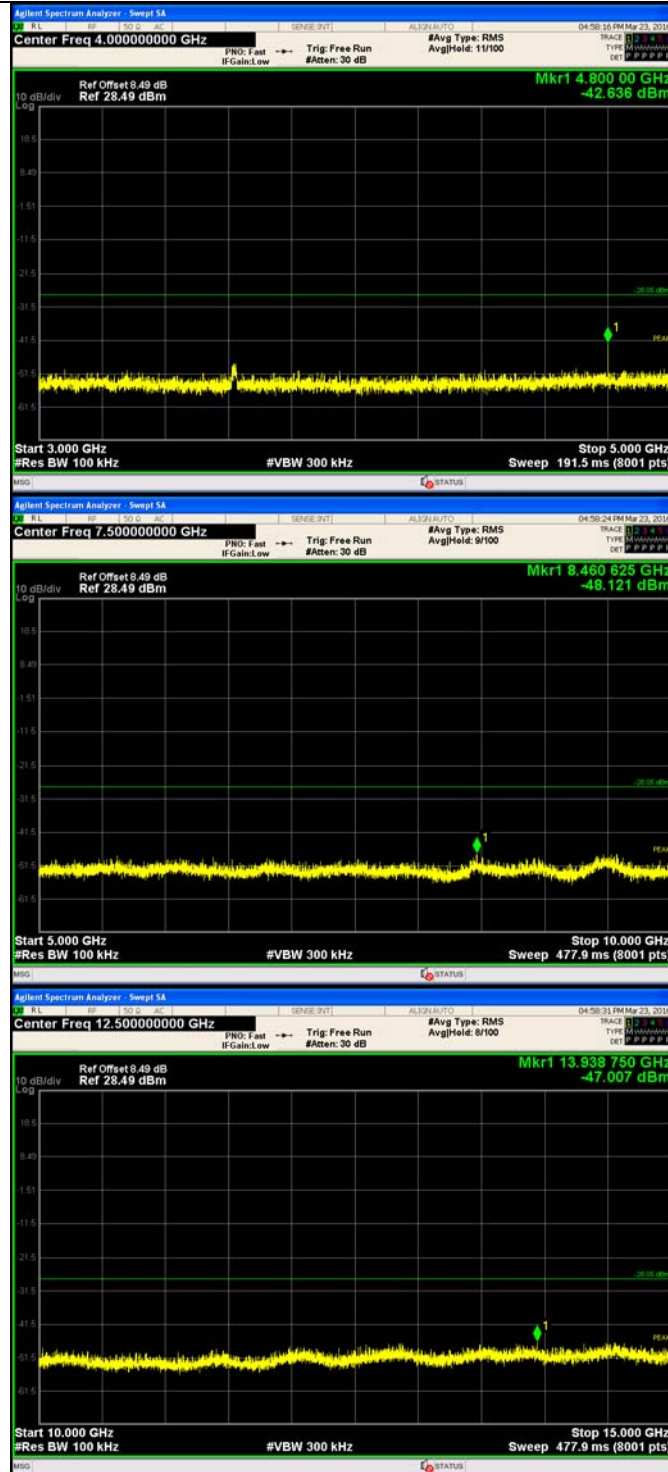


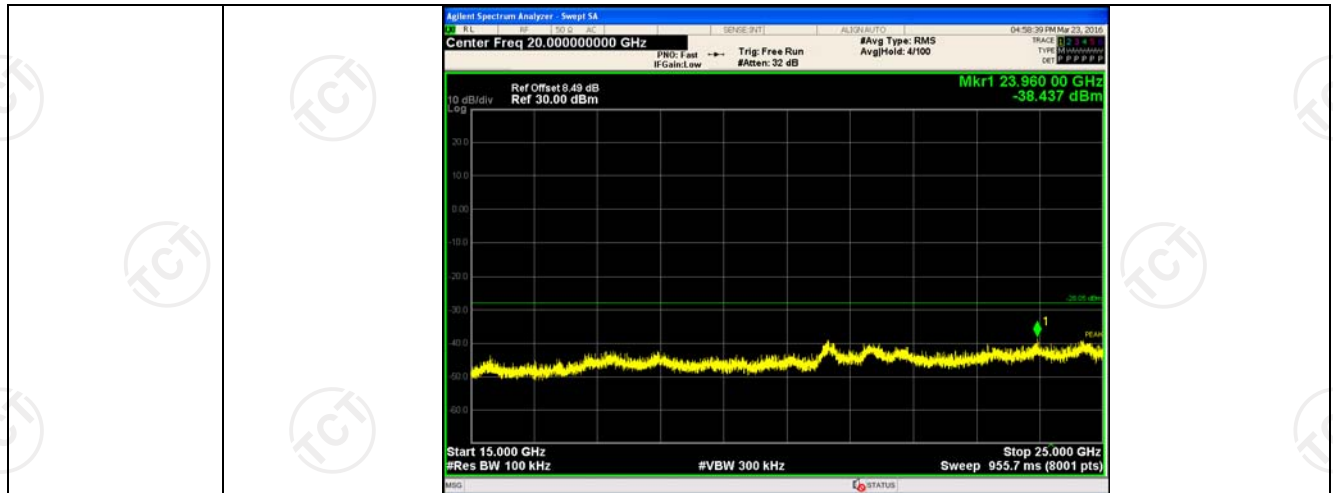




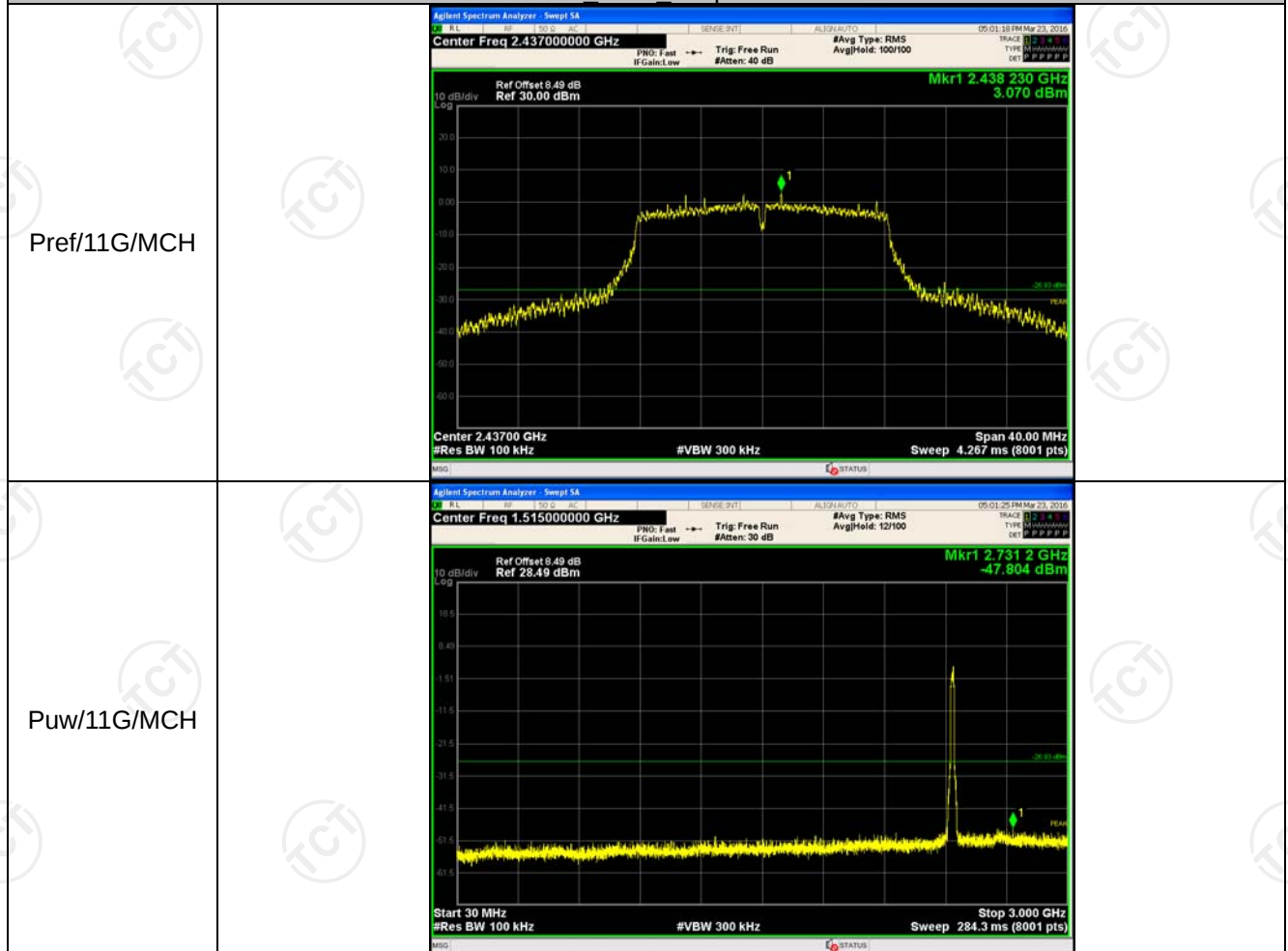
11G_LCH_Graphs

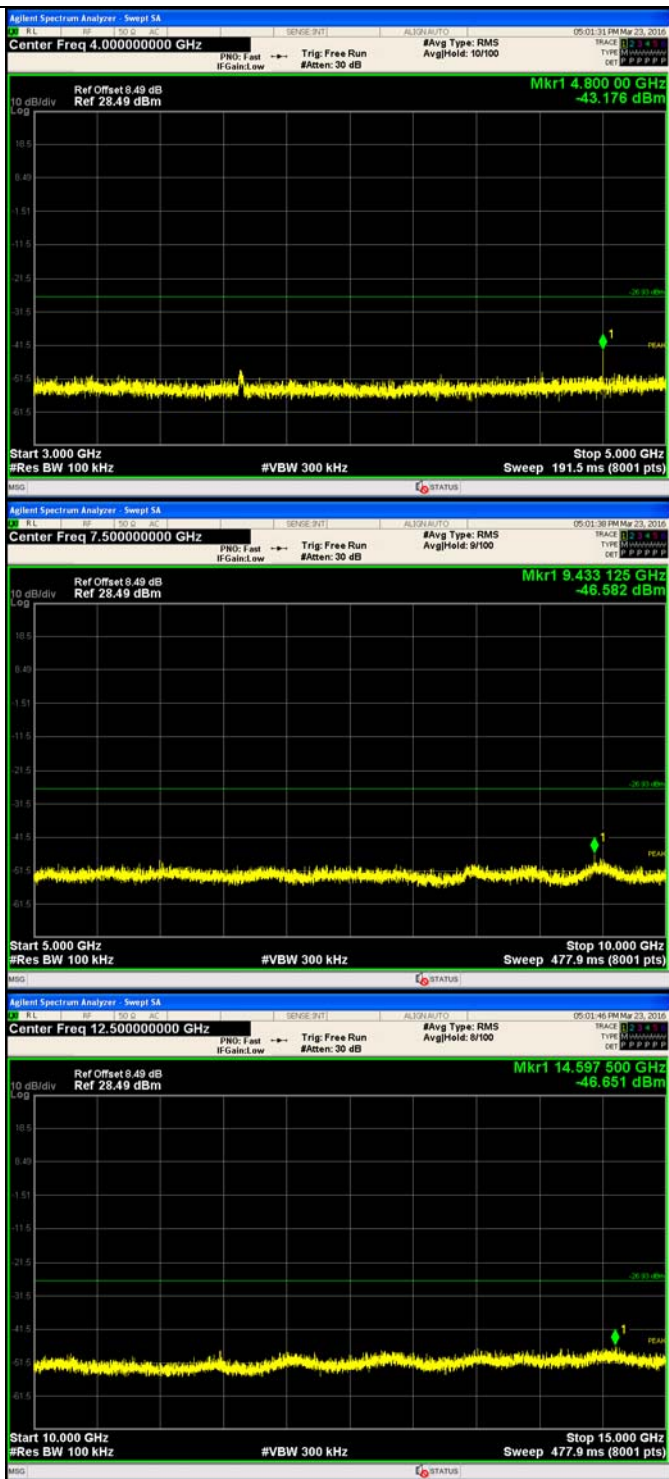


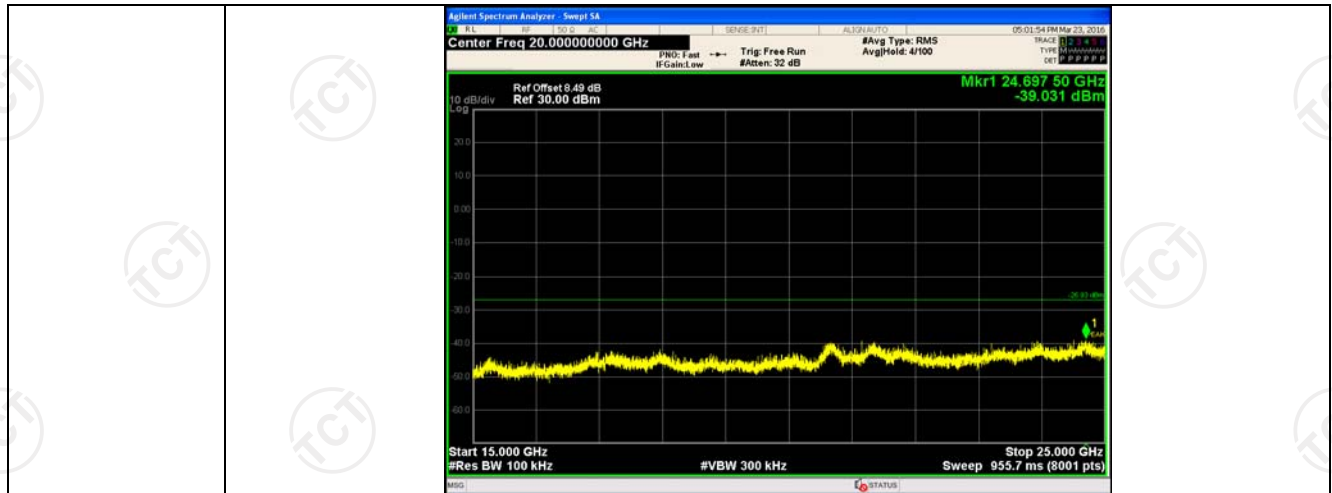




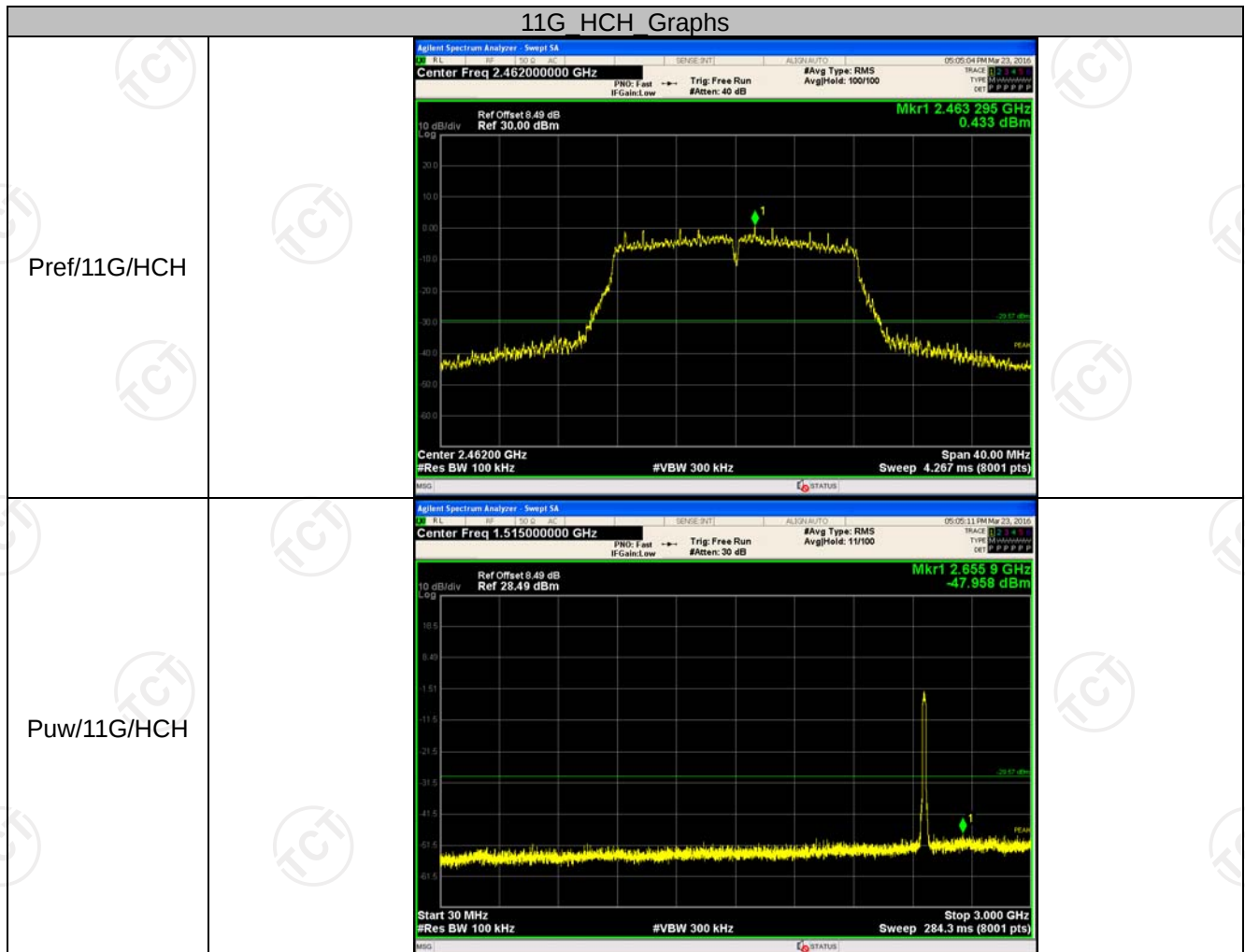
11G MCH Graphs

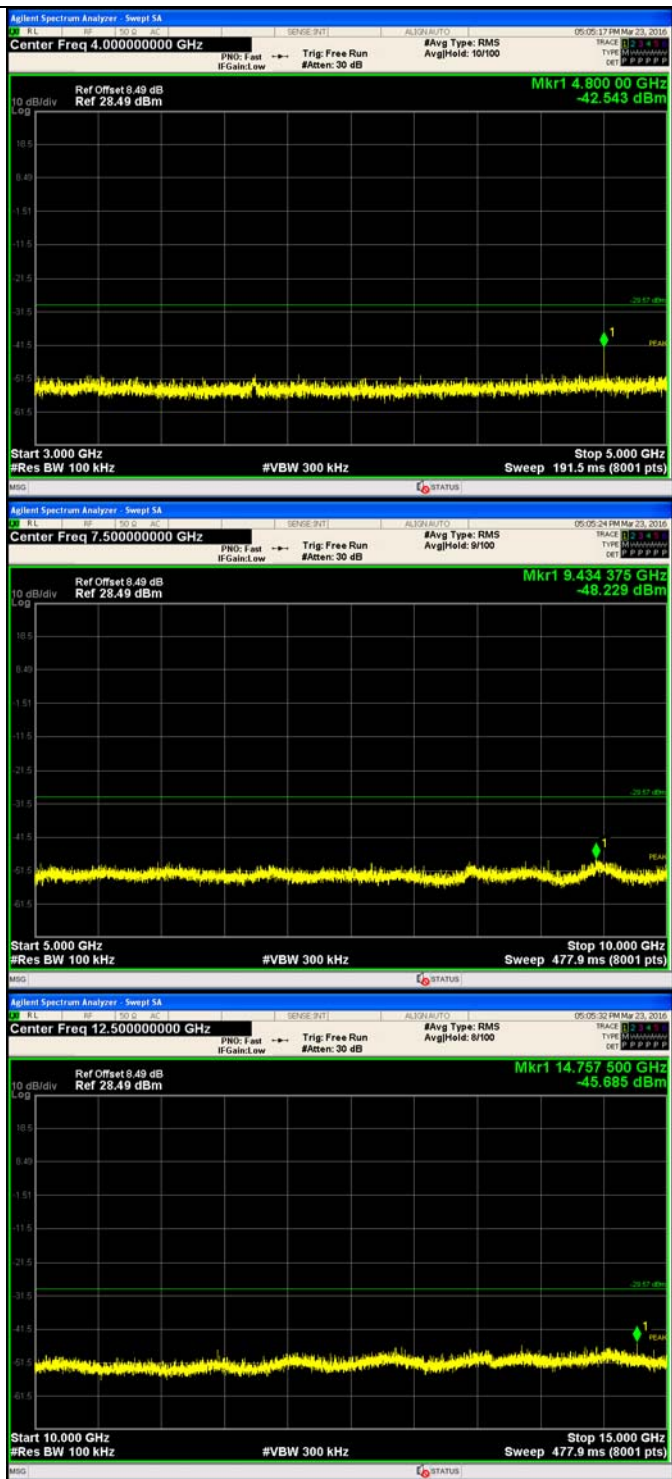


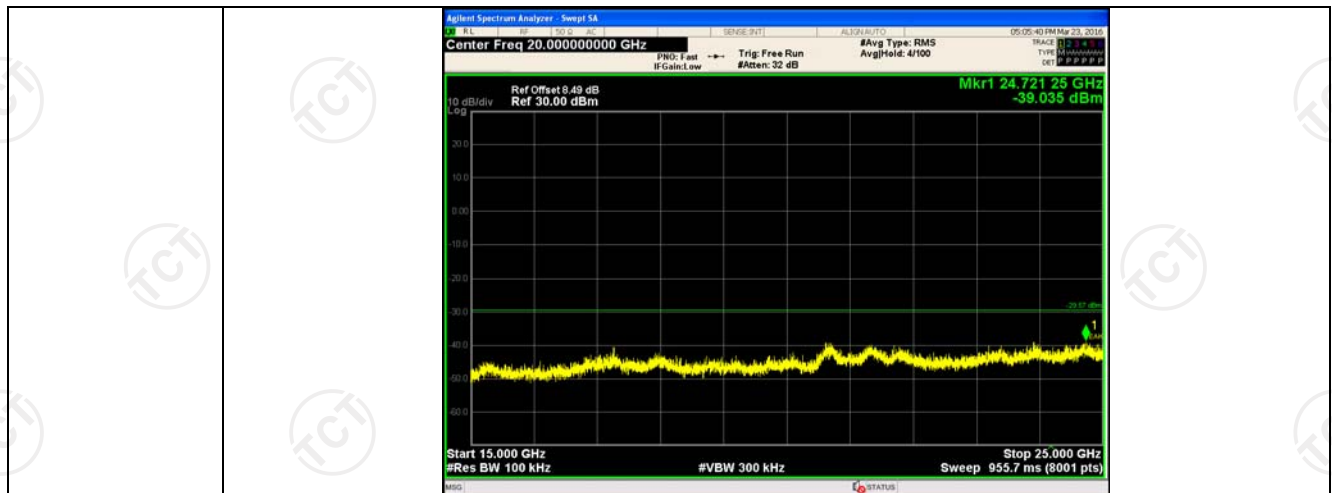




11G HCH Graphs





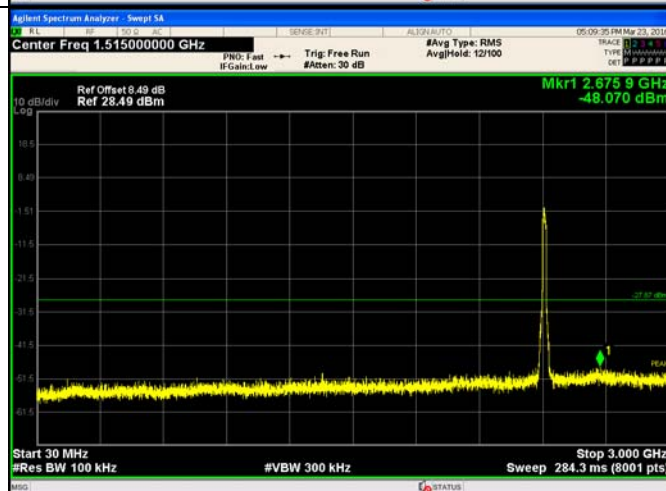


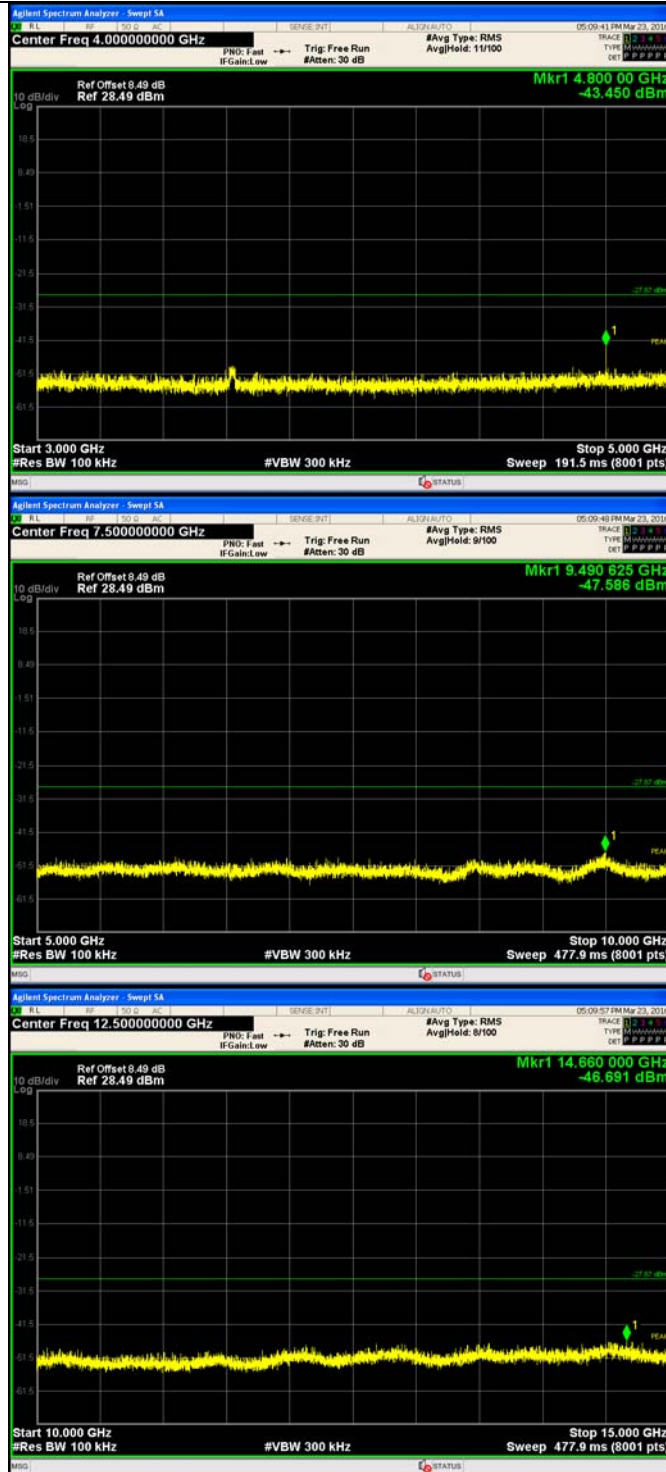
11N20SISO LCH Graphs

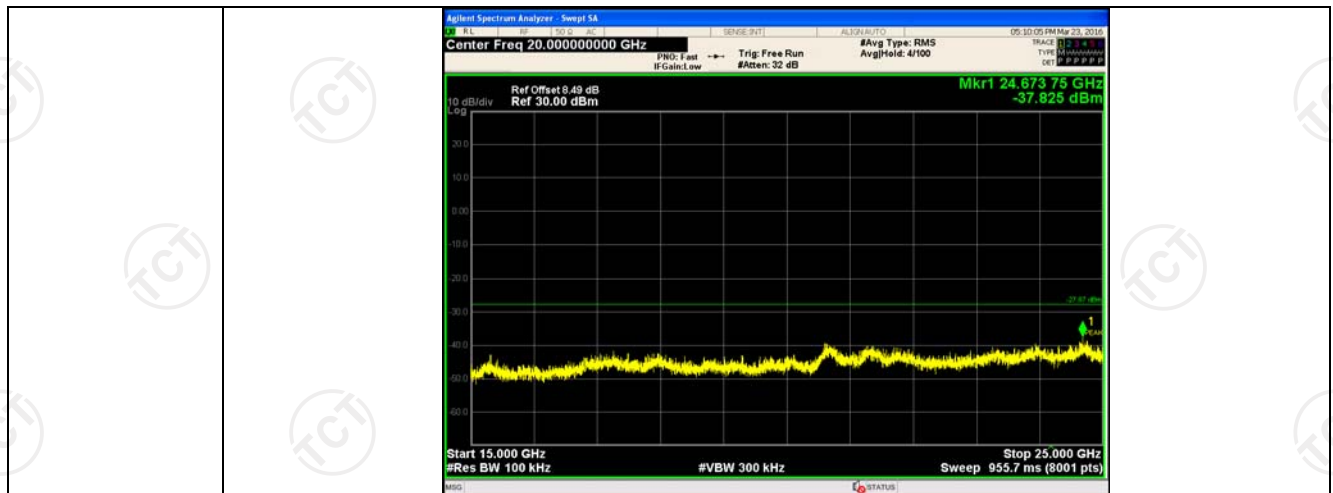
Pref/11N20SIS
O/LCH



/11N20SISO/L
CH





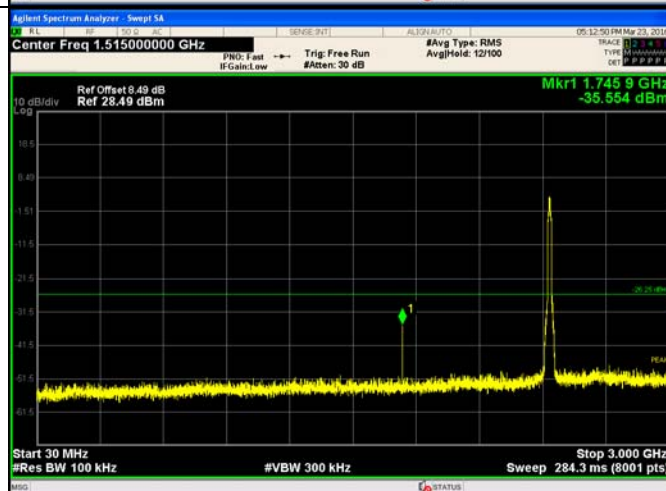


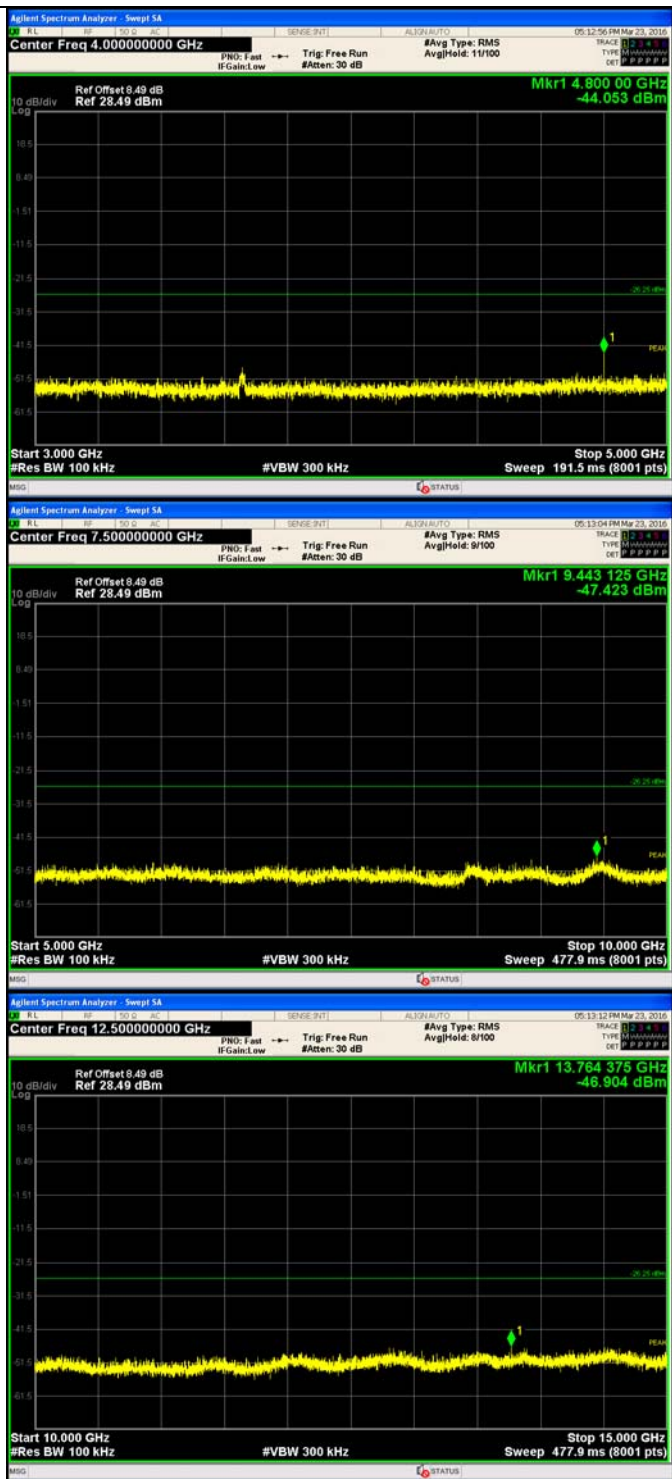
11N20SISO MCH Graphs

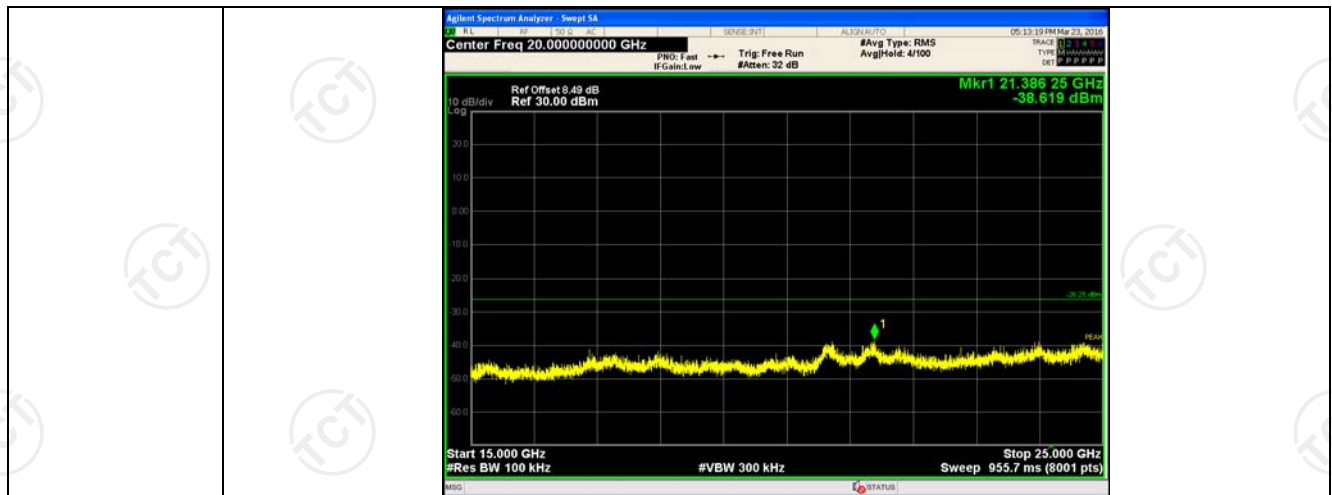
Pref/11N20SIS
O/MCH



Puw/11N20SIS
O/MCH





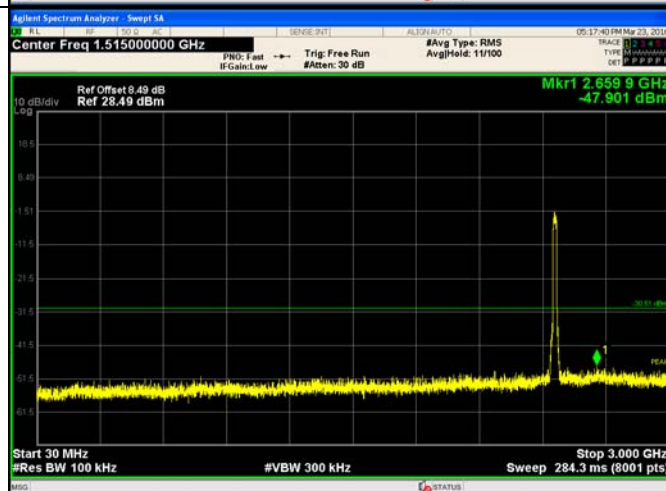


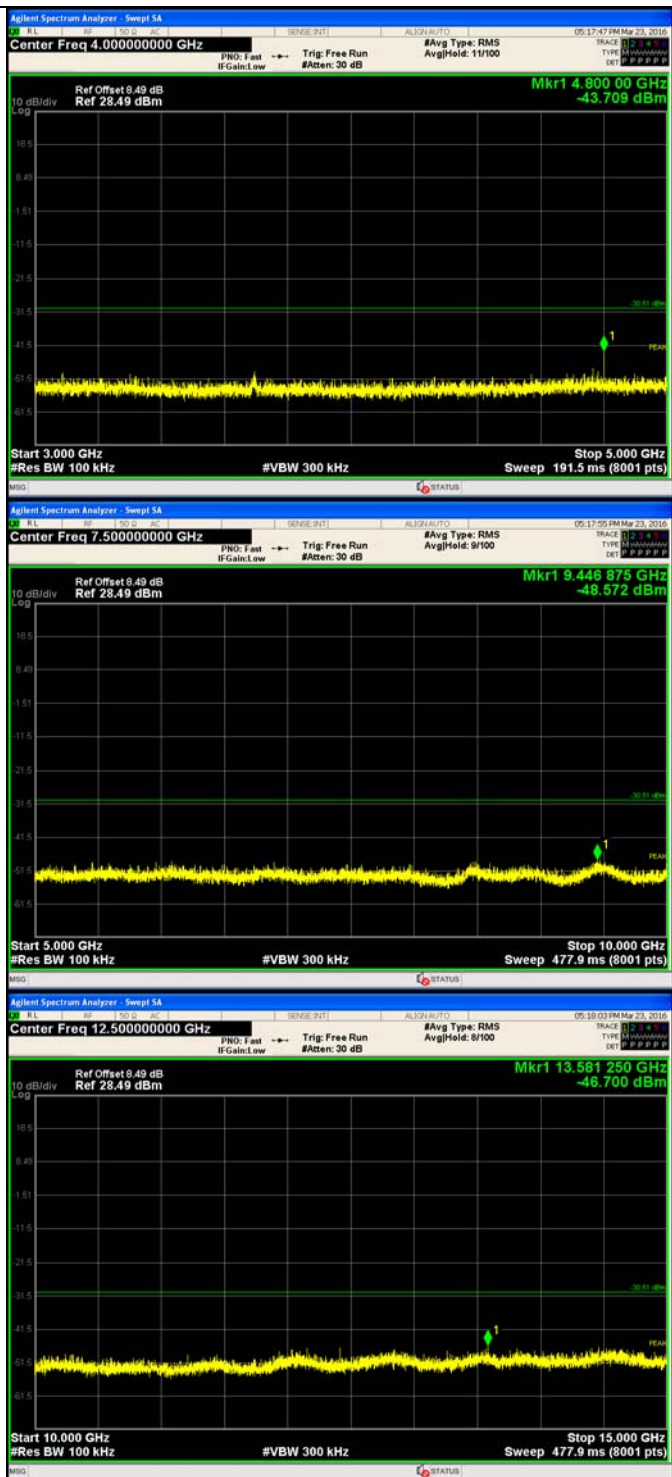
11N20SISO HCH Graphs

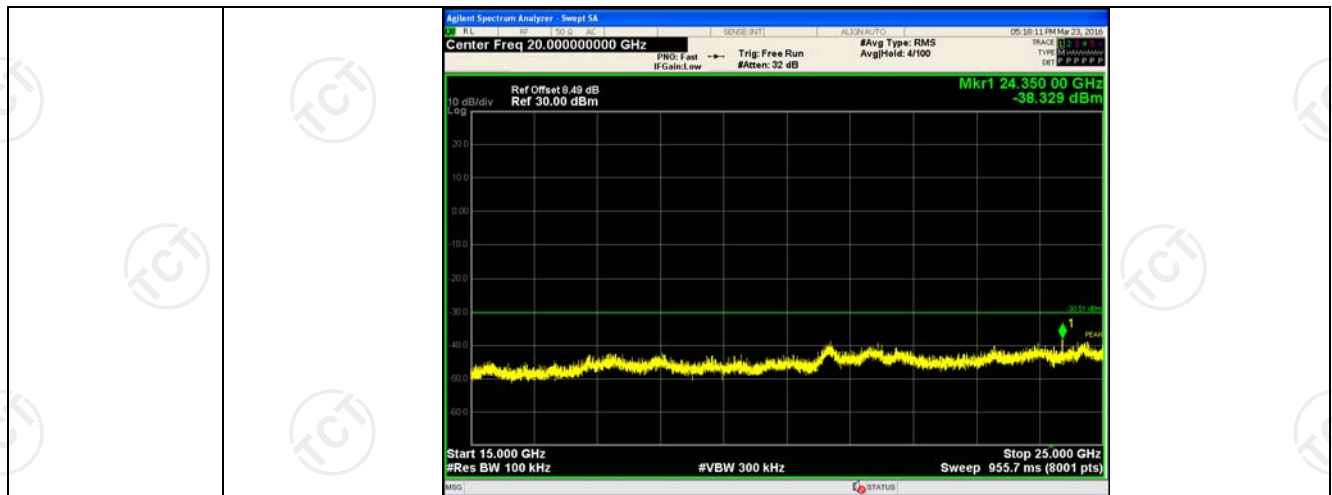
Pref/11N20SIS
O/HCH



Puw/11N20SIS
O/HCH

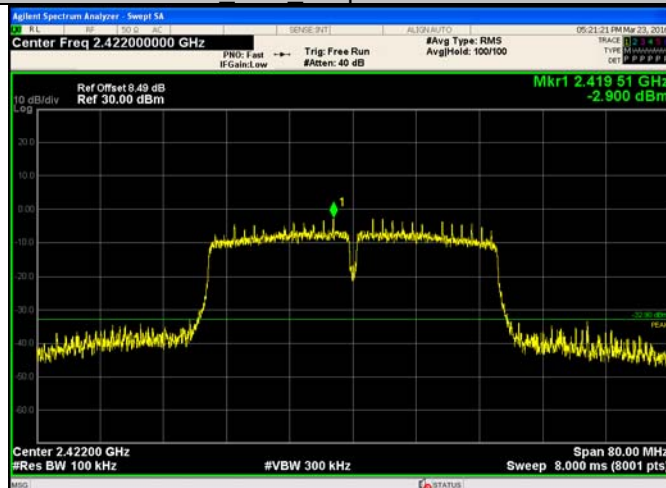




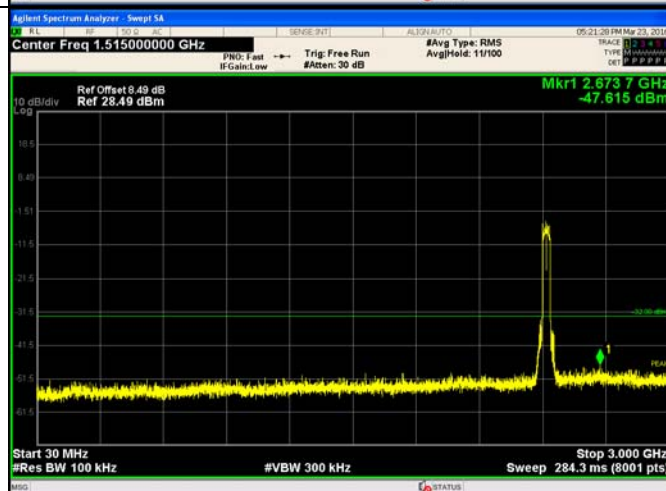


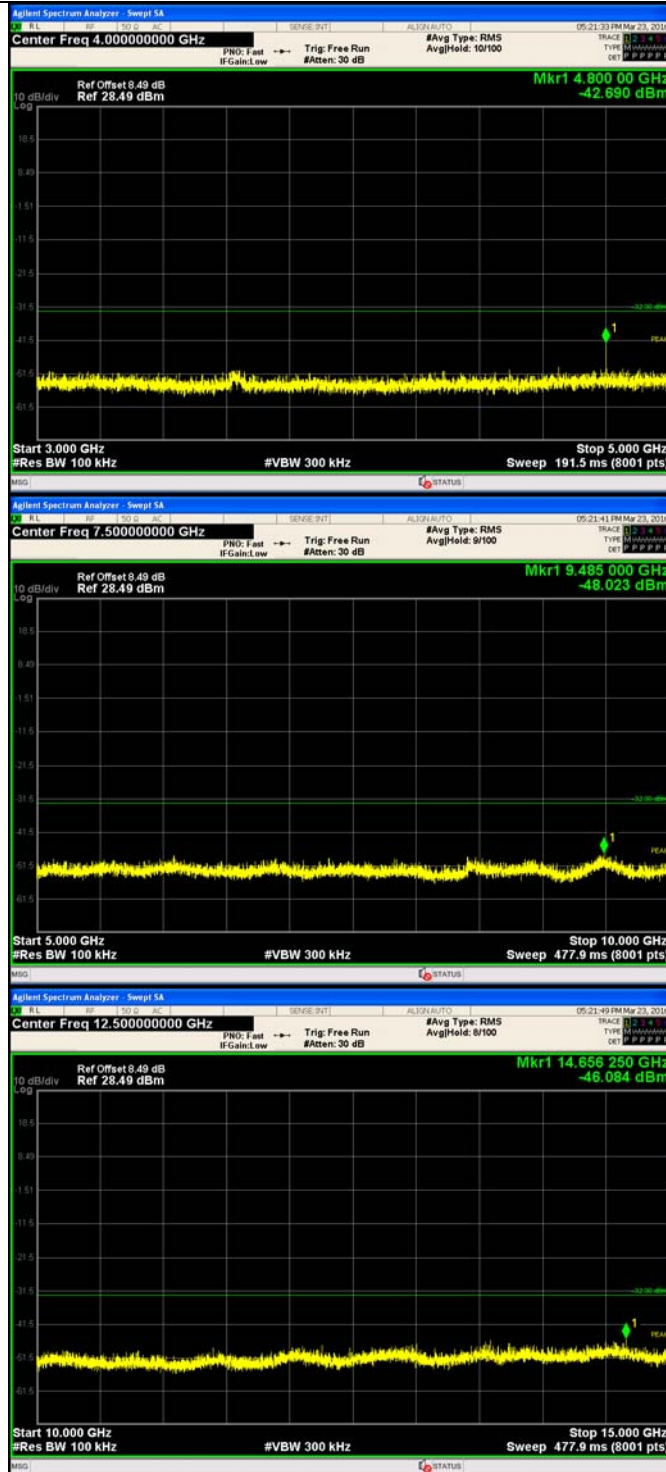
11N40SISO LCH Graphs

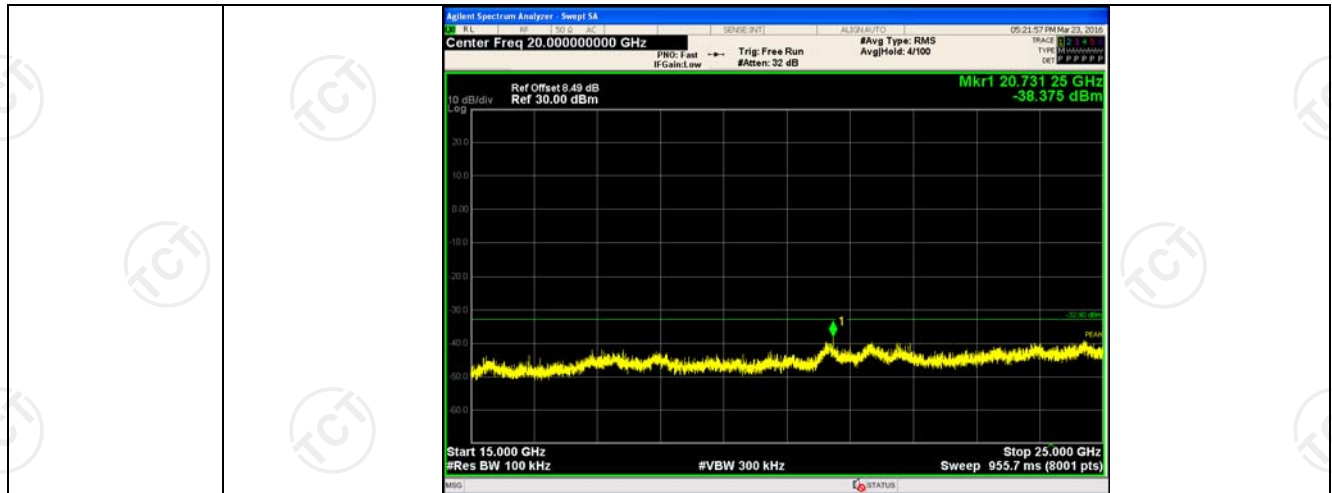
Pref/11N40SIS
O/LCH



Puw/11N40SIS
O/LCH

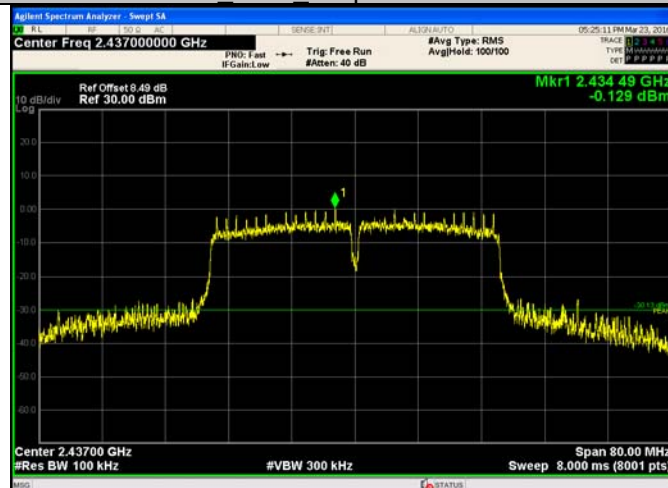




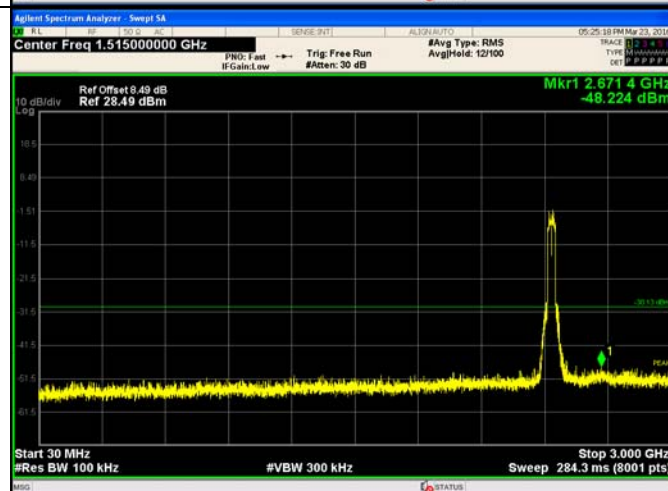


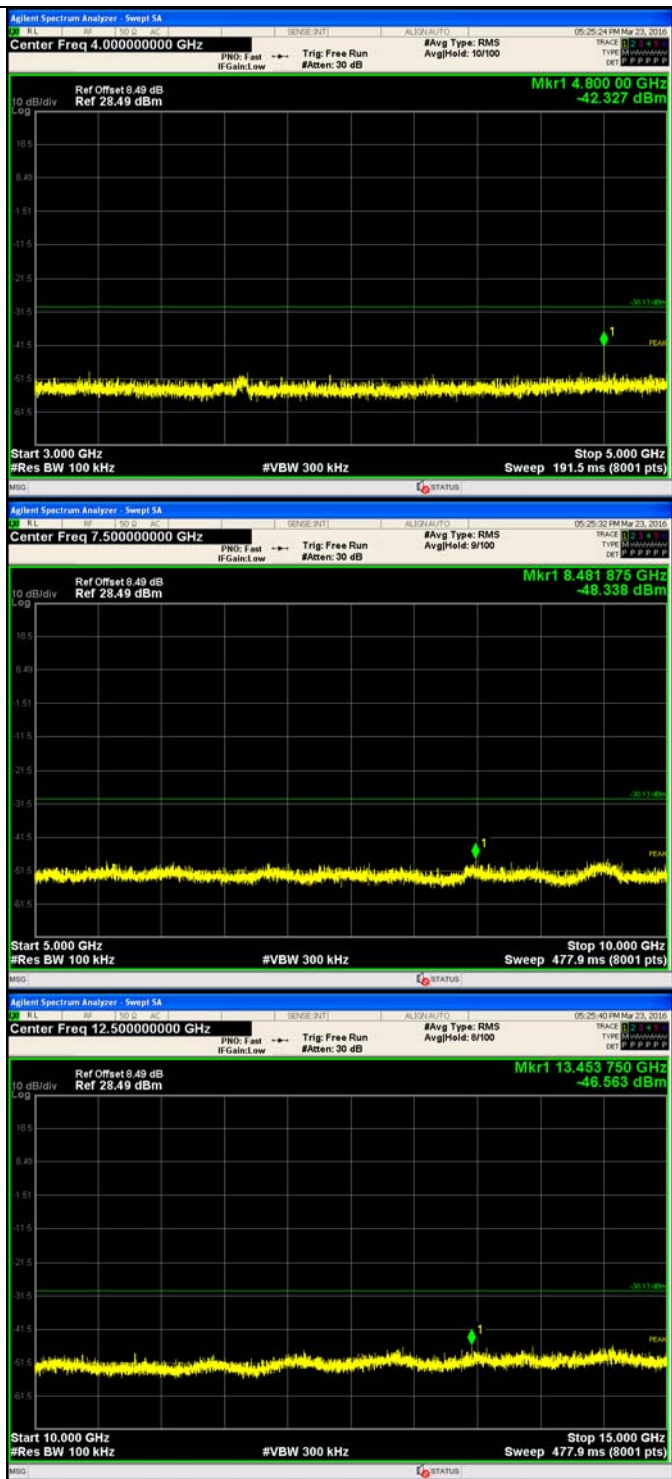
11N40SISO MCH Graphs

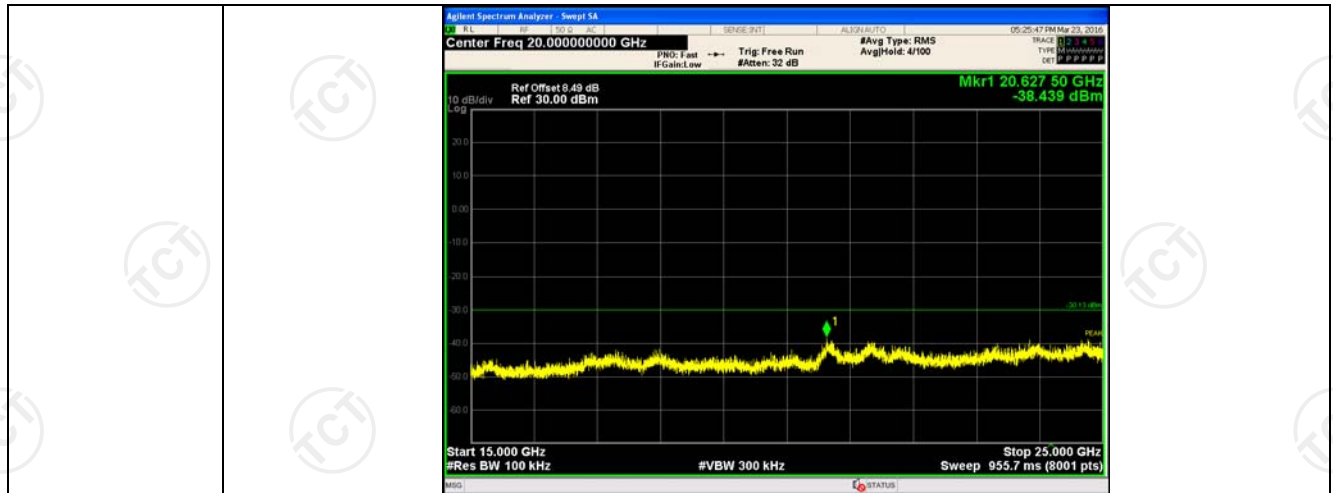
Pref/11N40SIS
O/MCH



Puw/11N40SIS
O/MCH

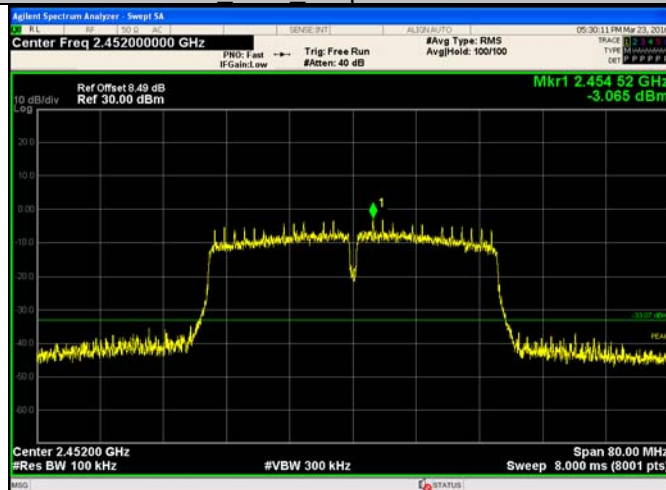




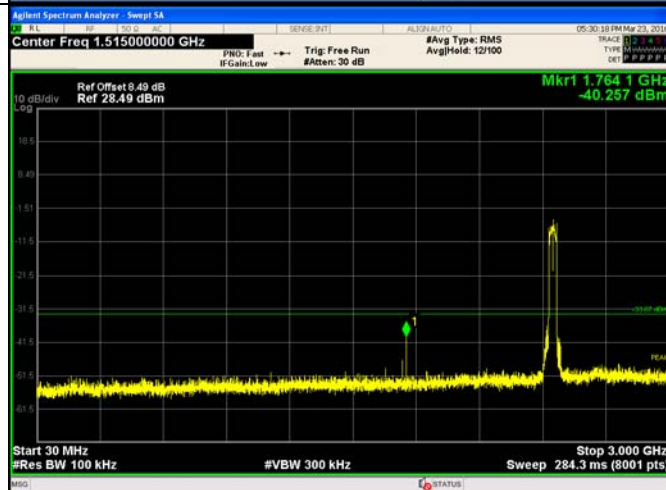


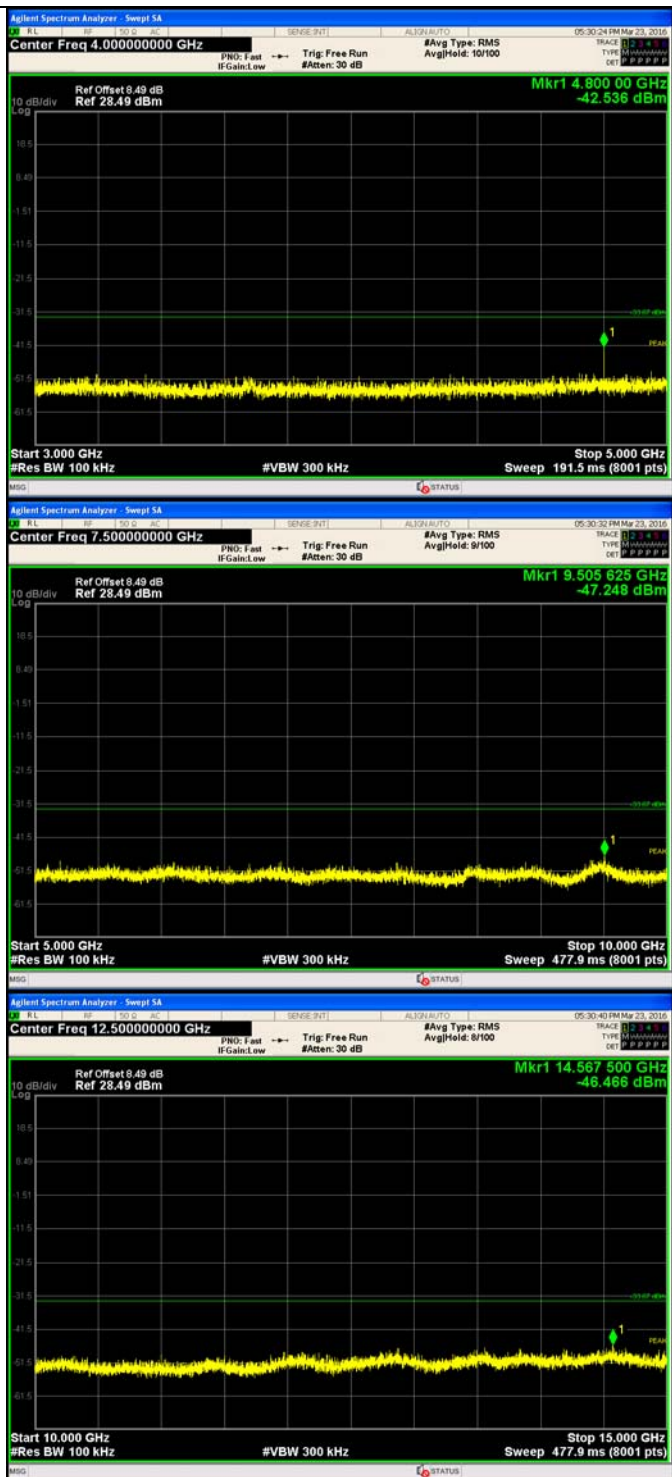
11N40SISO HCH Graphs

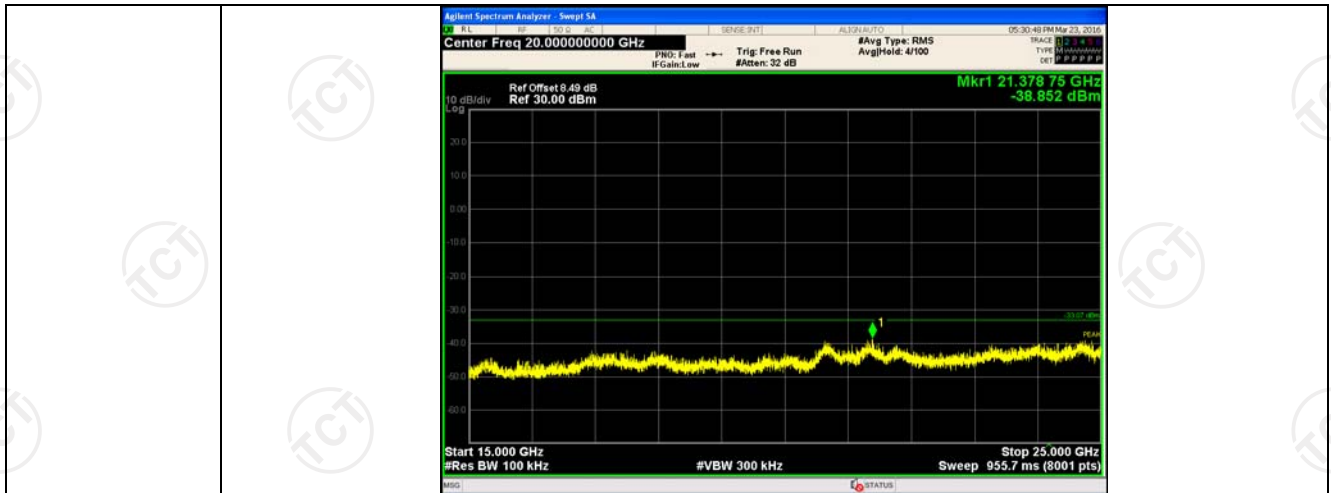
Pref/11N40SIS
O/HCH



Puw/11N40SIS
O/HCH







Power Spectral Density

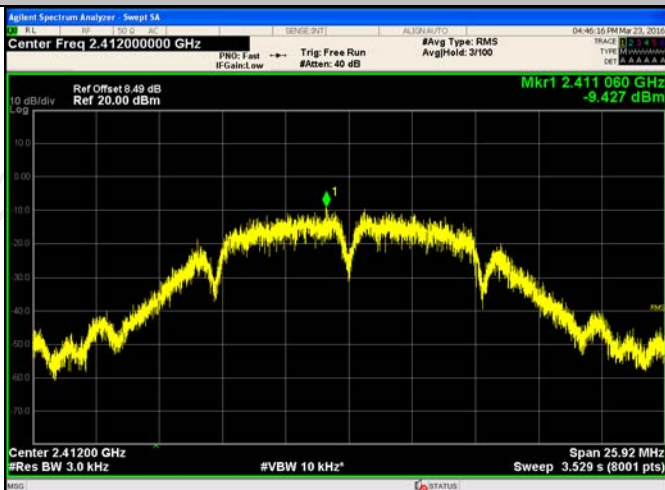
Result Table

Mode	Channel	Meas.Level [dBm]	Av.PSD [dBm]	Verdict
11B	LCH	-9.427	-9.410	PASS
11B	MCH	-10.735	-10.717	PASS
11B	HCH	-11.926	-11.909	PASS
11G	LCH	-15.592	-15.459	PASS
11G	MCH	-14.776	-14.651	PASS
11G	HCH	-14.788	-14.663	PASS
11N20SISO	LCH	-16.795	-16.661	PASS
11N20SISO	MCH	-15.182	-15.048	PASS
11N20SISO	HCH	-16.447	-16.313	PASS
11N40SISO	LCH	-23.869	-23.620	PASS
11N40SISO	MCH	-20.960	-20.695	PASS
11N40SISO	HCH	-23.830	-23.581	PASS

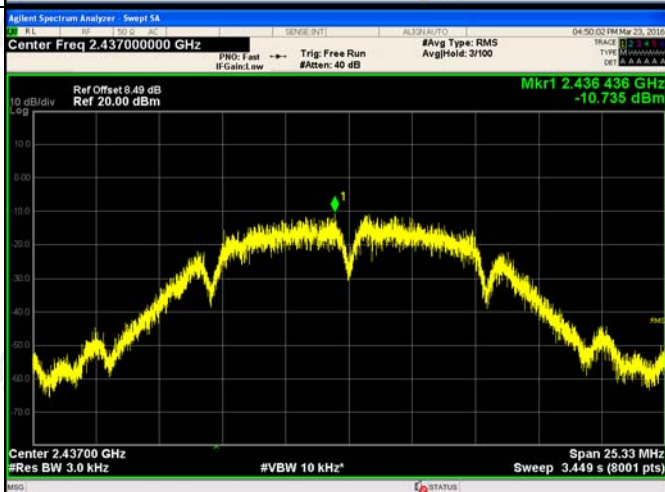
Test Graph

Graphs

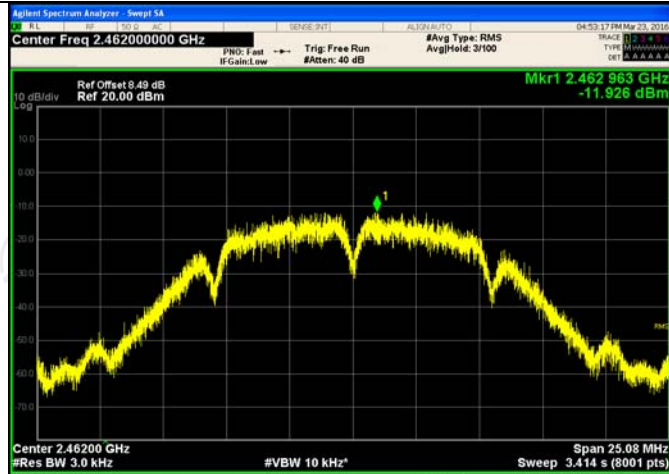
11B/LCH



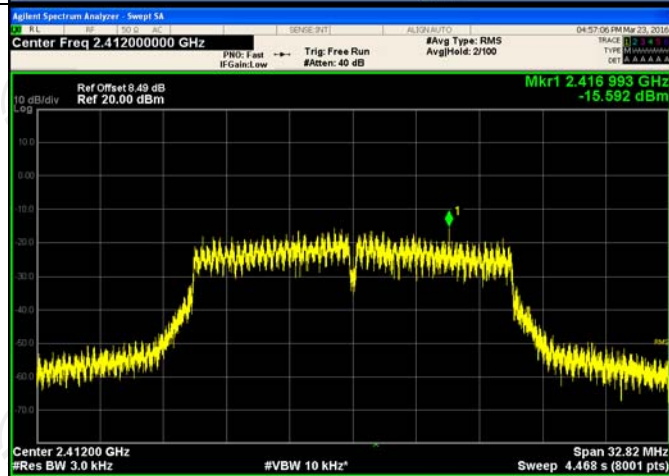
11B/MCH



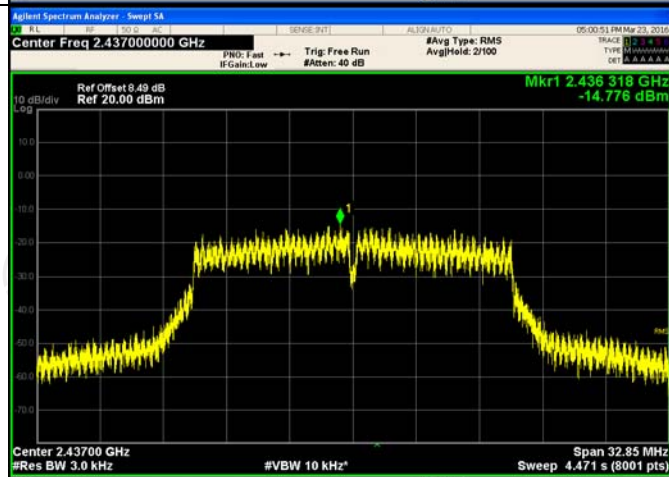
11B/HCH



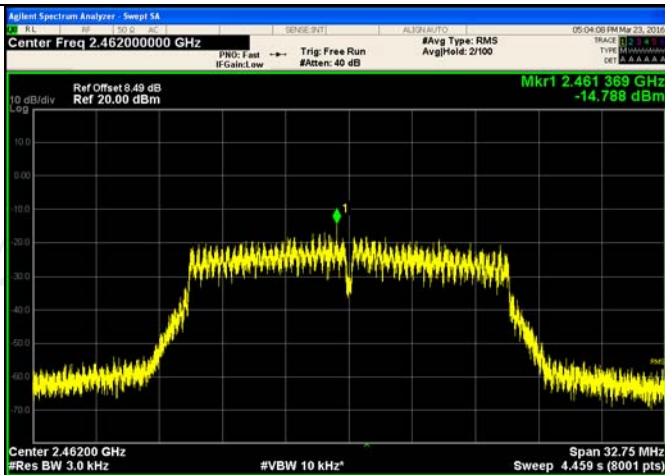
11G/LCH



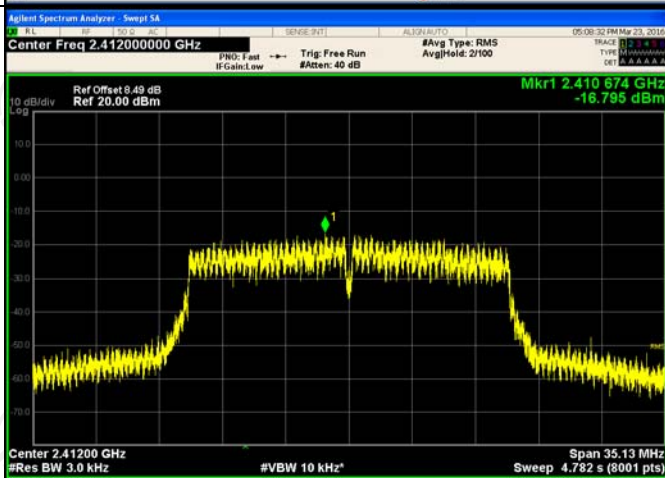
11G/MCH



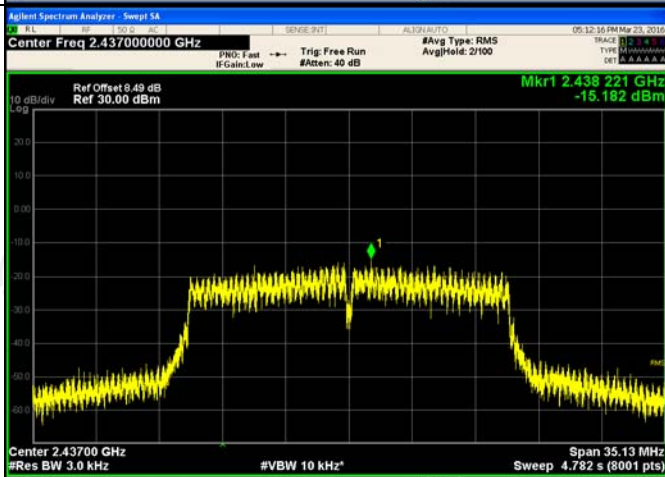
11G/HCH

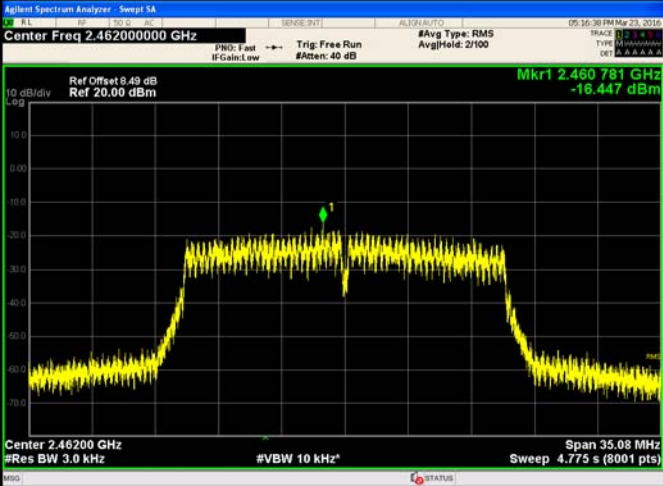
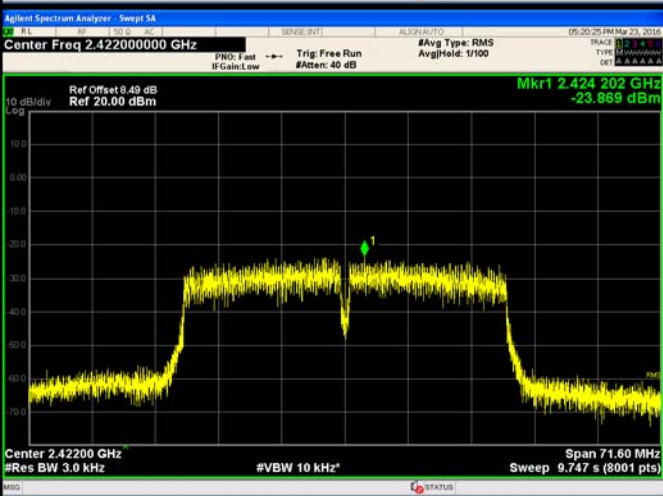
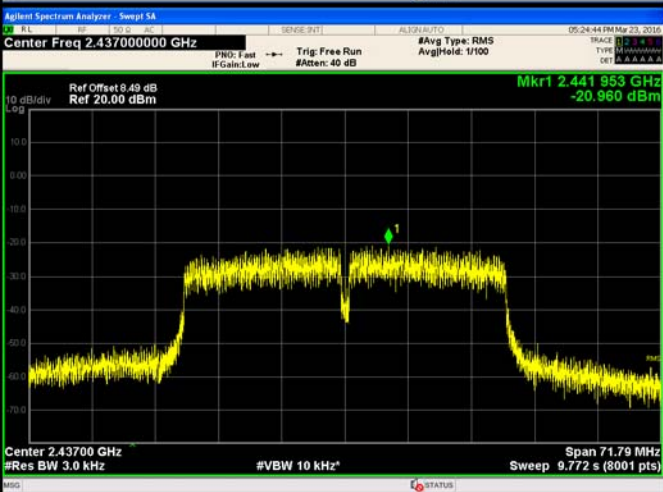


11N20SISO/LCH

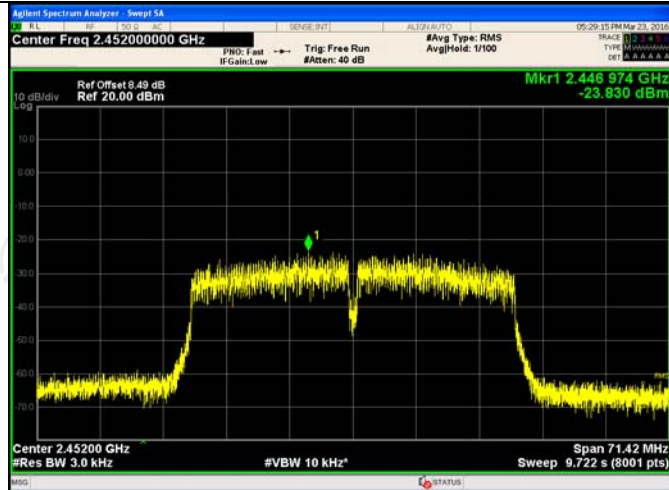


11N20SISO/MCH



11N20SISO/HCH	 Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.462000000 GHz Ref Offset 8.49 dB Ref 20.00 dBm Mkr1 2.460781 GHz -16.447 dBm Center 2.46200 GHz #Res BW 3.0 kHz #VBW 10 kHz* Span 35.08 MHz Sweep 4.775 s (8001 pts)
11N40SISO/LCH	 Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.422000000 GHz Ref Offset 8.49 dB Ref 20.00 dBm Mkr1 2.424202 GHz -23.869 dBm Center 2.42200 GHz #Res BW 3.0 kHz #VBW 10 kHz* Span 71.60 MHz Sweep 9.747 s (8001 pts)
11N40SISO/MCH	 Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.437000000 GHz Ref Offset 8.49 dB Ref 20.00 dBm Mkr1 2.441953 GHz -20.960 dBm Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz* Span 71.79 MHz Sweep 9.772 s (8001 pts)

11N40SISO/HCH



Appendix B: Photographs of Test Setup

Refer to test report TCT160308E005

Appendix C: Photographs of EUT

Refer to test report TCT160308E005