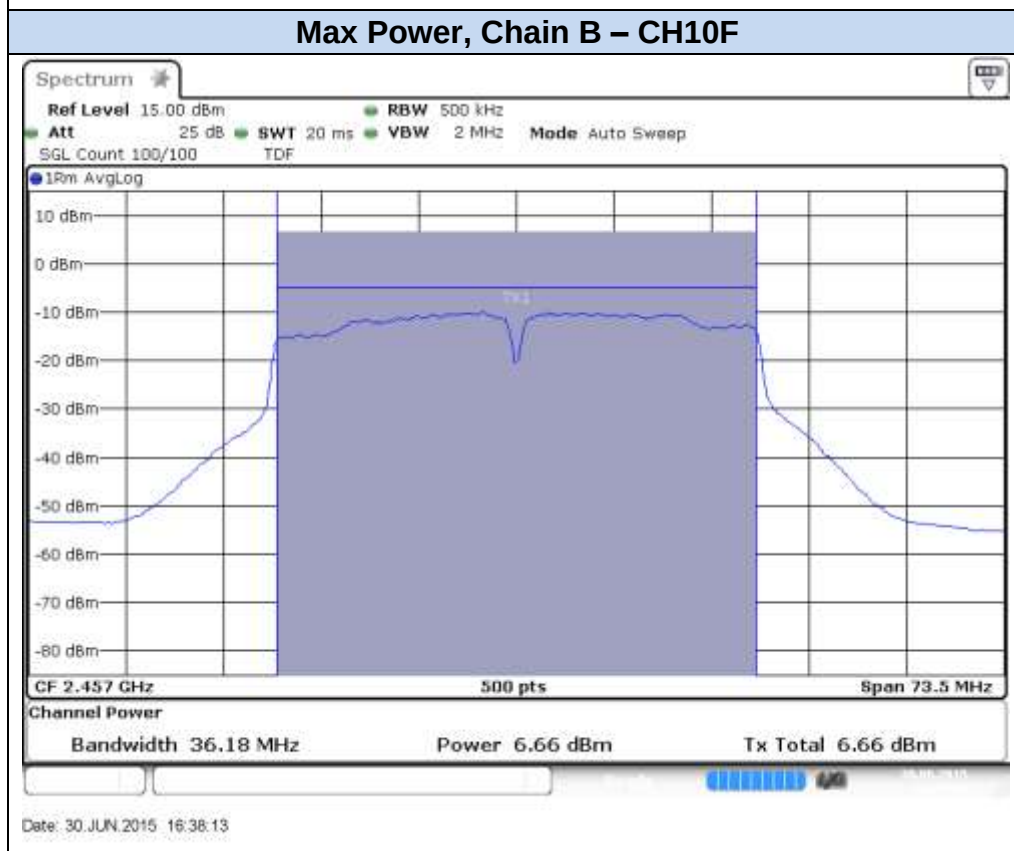
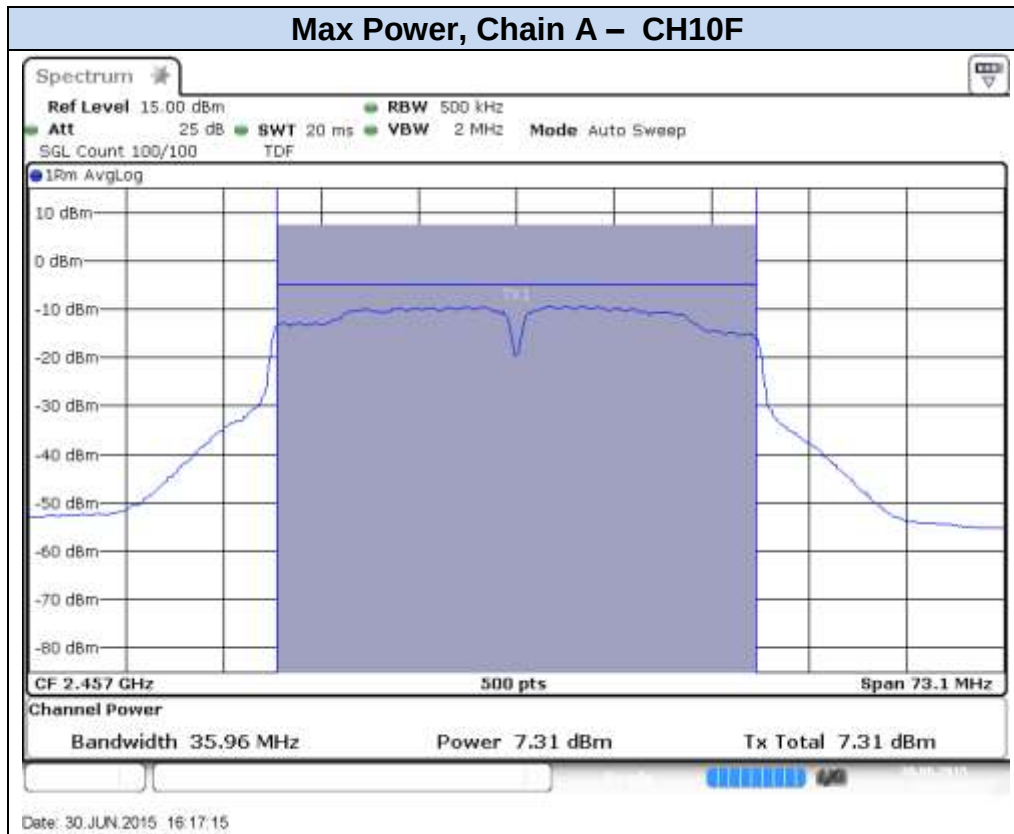
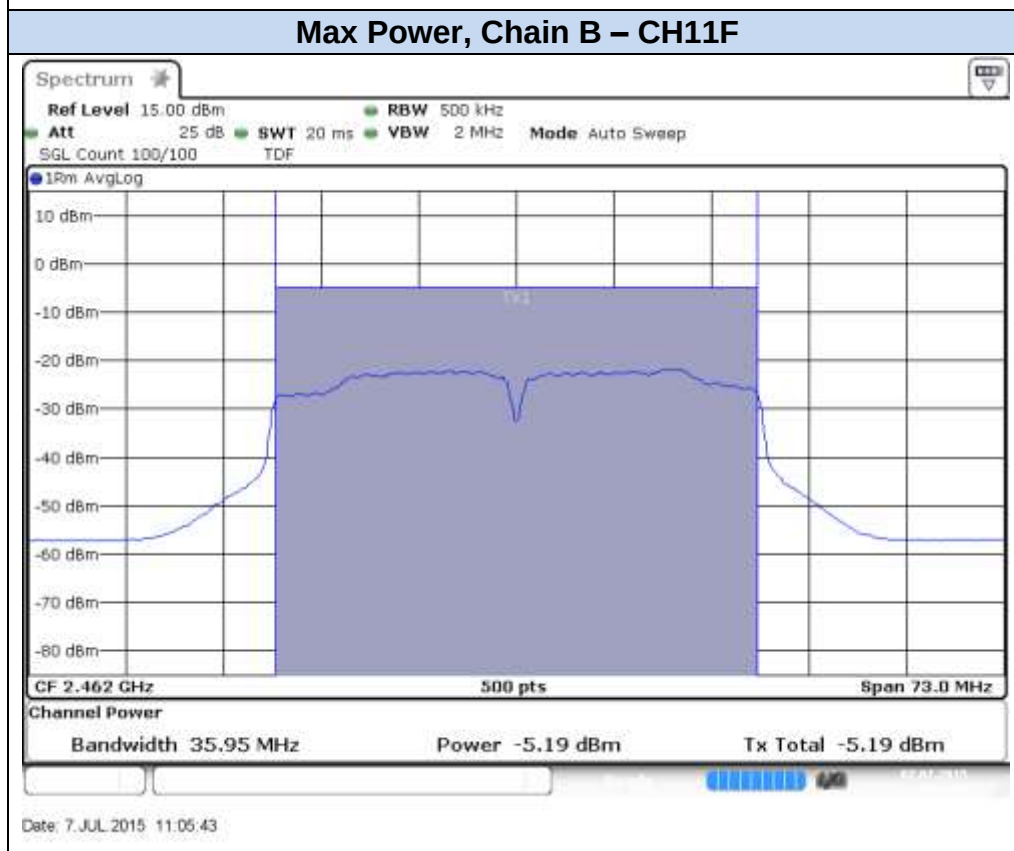
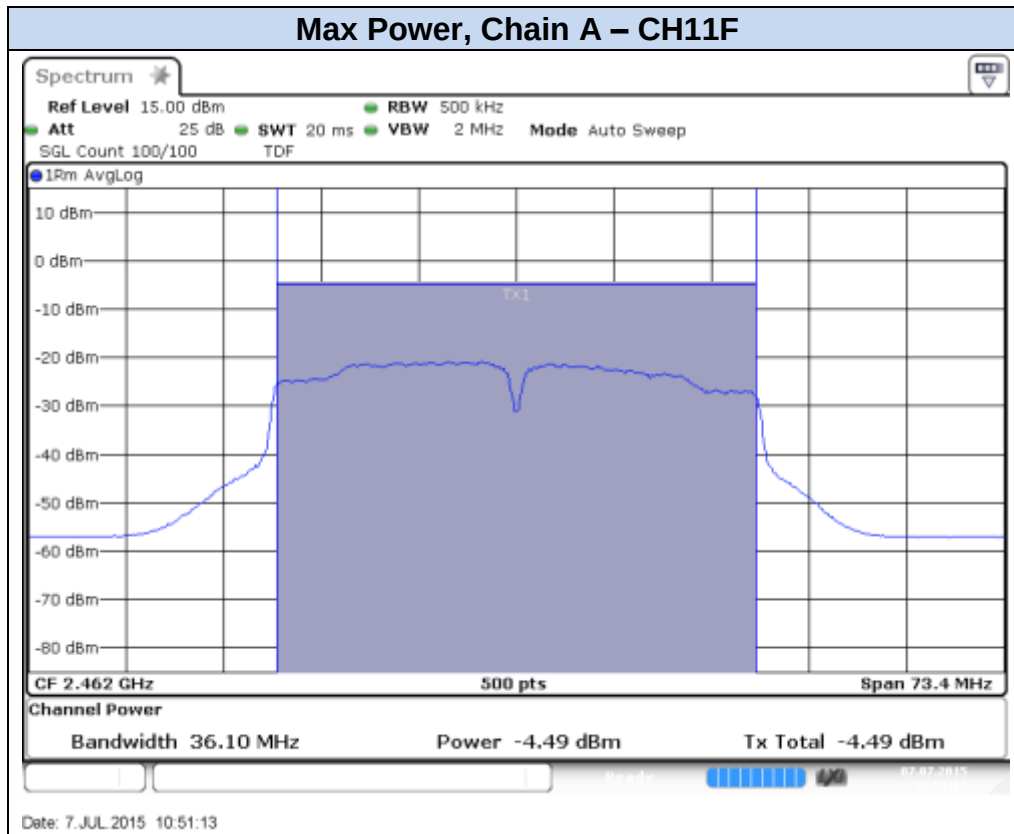






B.3 Out-of-band emissions (conducted)

Test limits:

FCC part	RSS part	Limits																																
15.247 (d)	RSS-247 Clause 5.5	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.																																
15.209	RSS-247 Clause 6.2.2 (2)	Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a): <table><tr><th>Freq Range (MHz)</th><th>Field Streghth (μV/m)</th><th>Field Streghth (dBμV/m)</th><th>Meas. Distance (m)</th></tr><tr><td>0.009-0.490</td><td>2400/f(kHz)</td><td>-</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/f(kHz)</td><td>-</td><td>300</td></tr><tr><td>1.705-30.0</td><td>30</td><td>-</td><td>30</td></tr><tr><td>30-88</td><td>100</td><td>40</td><td>3</td></tr><tr><td>88-216</td><td>150</td><td>43.5</td><td>3</td></tr><tr><td>216-960</td><td>200</td><td>46</td><td>3</td></tr><tr><td>960-25000</td><td>500</td><td>54</td><td>3</td></tr></table> The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. For average radiated emission measurements above 1000 MHz, there is also a limit specified when measuring with peak detector function, corresponding to 20 dB above the indicated values in the table.	Freq Range (MHz)	Field Streghth (μV/m)	Field Streghth (dBμV/m)	Meas. Distance (m)	0.009-0.490	2400/f(kHz)	-	300	0.490-1.705	24000/f(kHz)	-	300	1.705-30.0	30	-	30	30-88	100	40	3	88-216	150	43.5	3	216-960	200	46	3	960-25000	500	54	3
Freq Range (MHz)	Field Streghth (μV/m)	Field Streghth (dBμV/m)	Meas. Distance (m)																															
0.009-0.490	2400/f(kHz)	-	300																															
0.490-1.705	24000/f(kHz)	-	300																															
1.705-30.0	30	-	30																															
30-88	100	40	3																															
88-216	150	43.5	3																															
216-960	200	46	3																															
960-25000	500	54	3																															

Test procedure:

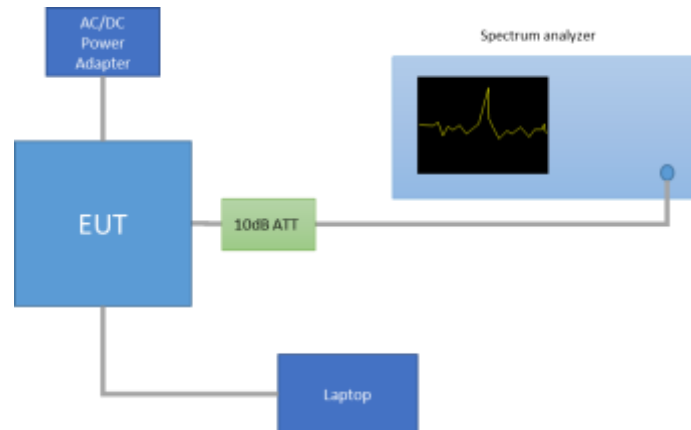
The PSD reference values to determine the -20dB compliance are taken from *B.4 Power Spectral Density*.

For Band Edge measurements falling in restricted bands, the following limits in dBm were applied for the average detector after the conversion from the limits detailed above in dBμV/m, according to FCC 47 CFR part 15 - Subpart C – §15.209(a). The limits in dBm for peak detector are 20dB above the indicated values in the table.

§15.209(a)			Converted values	
Freq Range (MHz)	Distance (m)	Field strength (microvolts/meter)	Field strength (dB microvolts/meter)	Power (dBm)
960-25000	3	100	40.00	-55.2

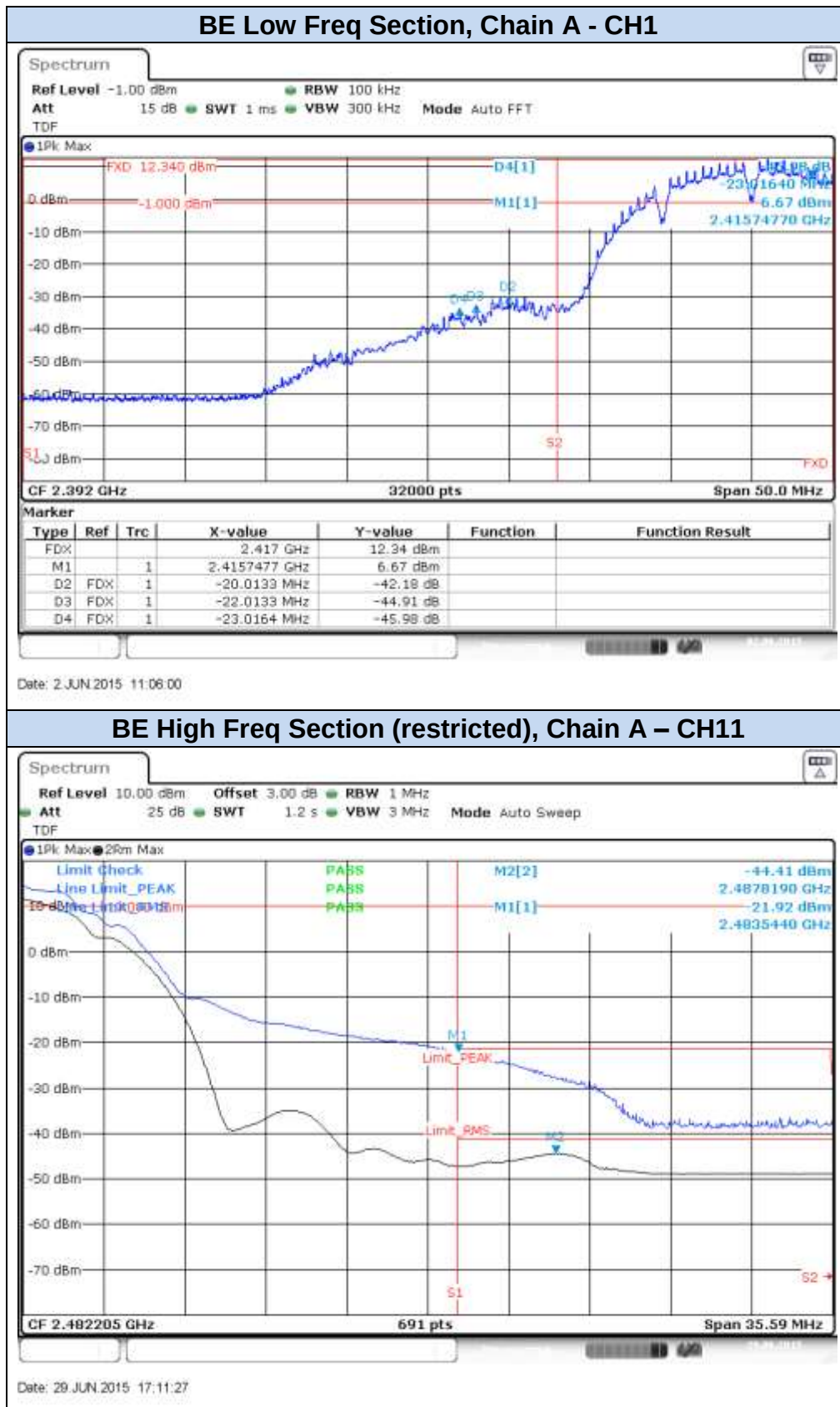
In case of Band Edge measurements falling in restricted bands, the declared Antenna Gain is also compensated in the graph. The declared maximum antenna gain is 3dBi.

The setup below was used to measure the out-of-band emissions. The antenna terminal of the EUT is connected to the spectrum through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.



Band Edge results Screenshot:

802.11b, 1Mbps

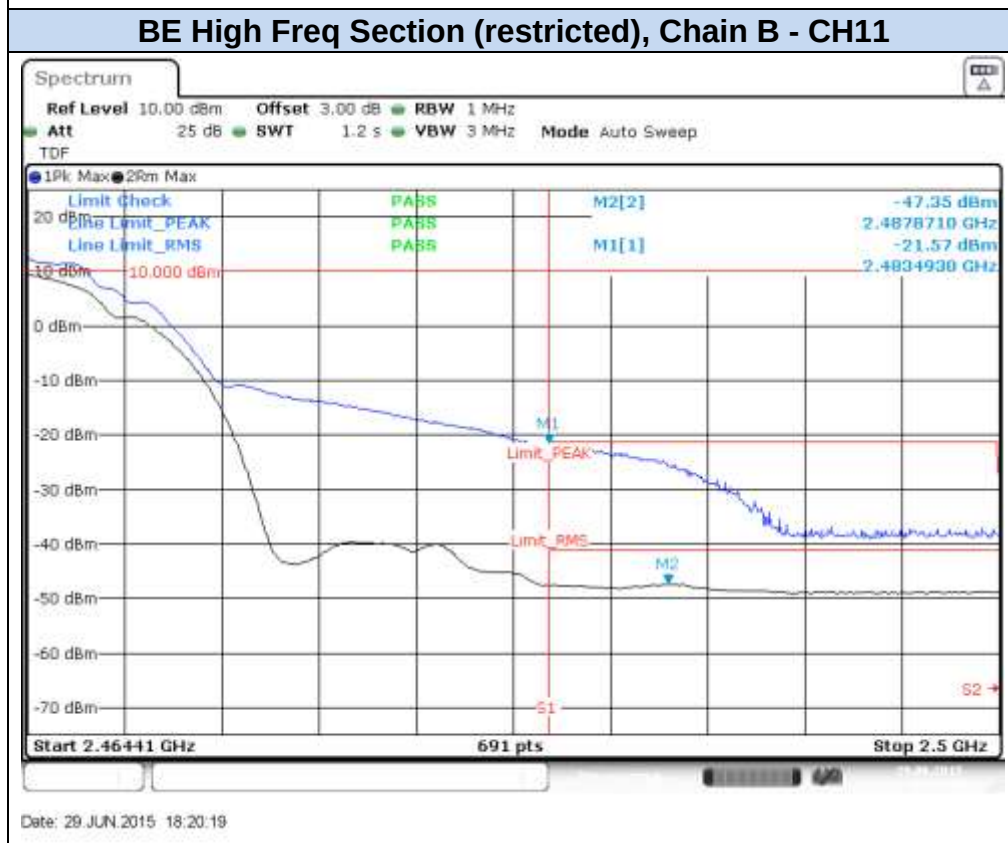
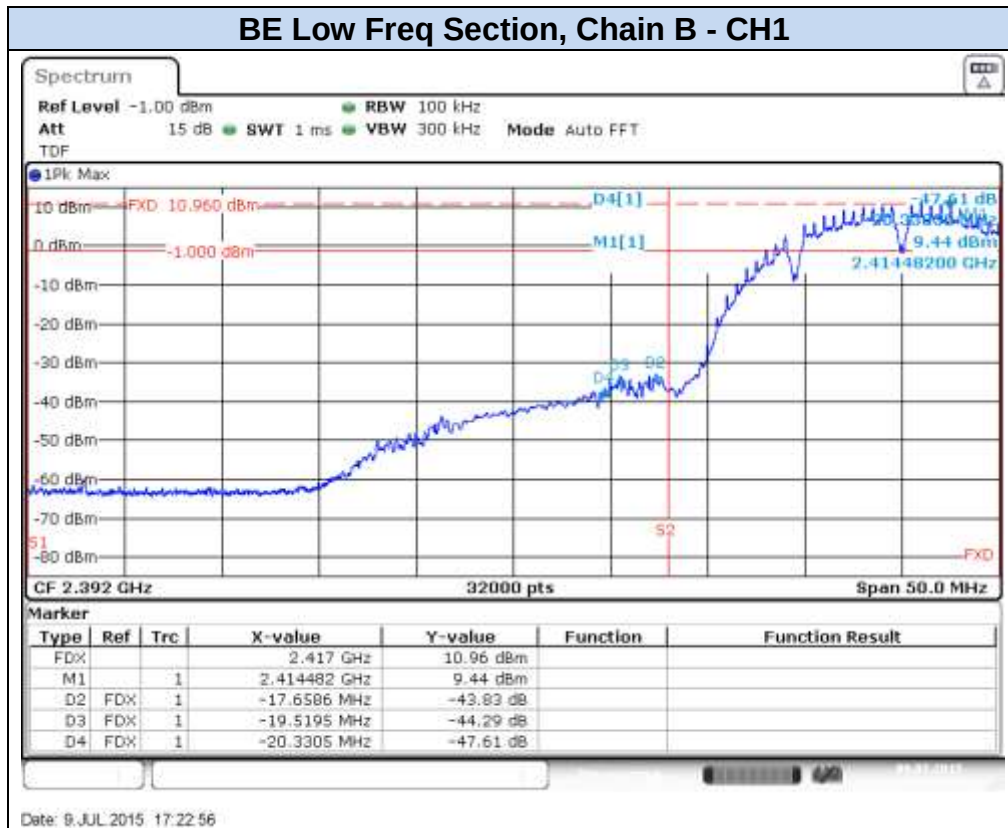


BE High Freq Section (restricted), Chain A – CH12



BE High Freq Section (restricted), Chain A – CH13





BE High Freq Section (restricted), Chain B – CH12

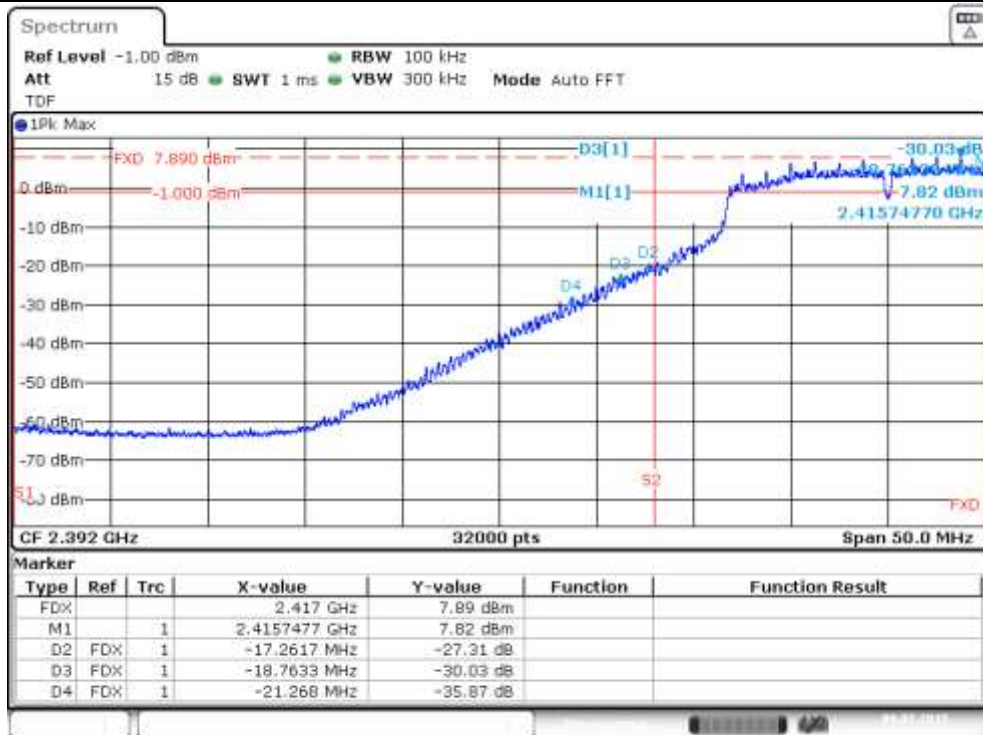


BE High Freq Section (restricted), Chain B – CH13



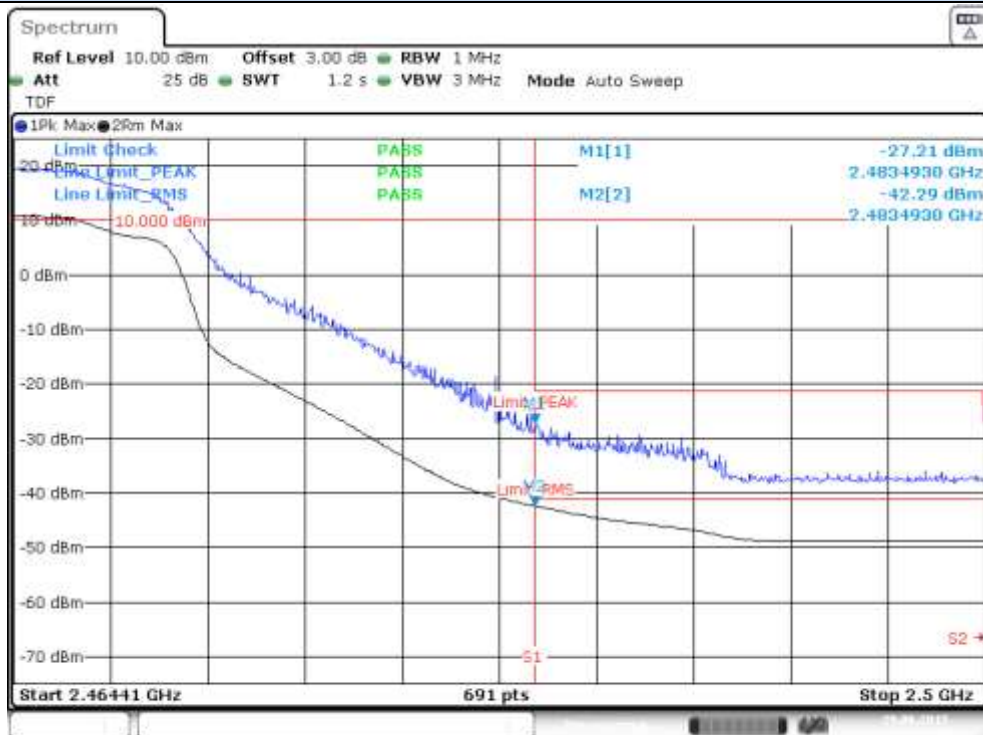
802.11g, 6Mbps

BE Low Freq Section, Chain A - CH1



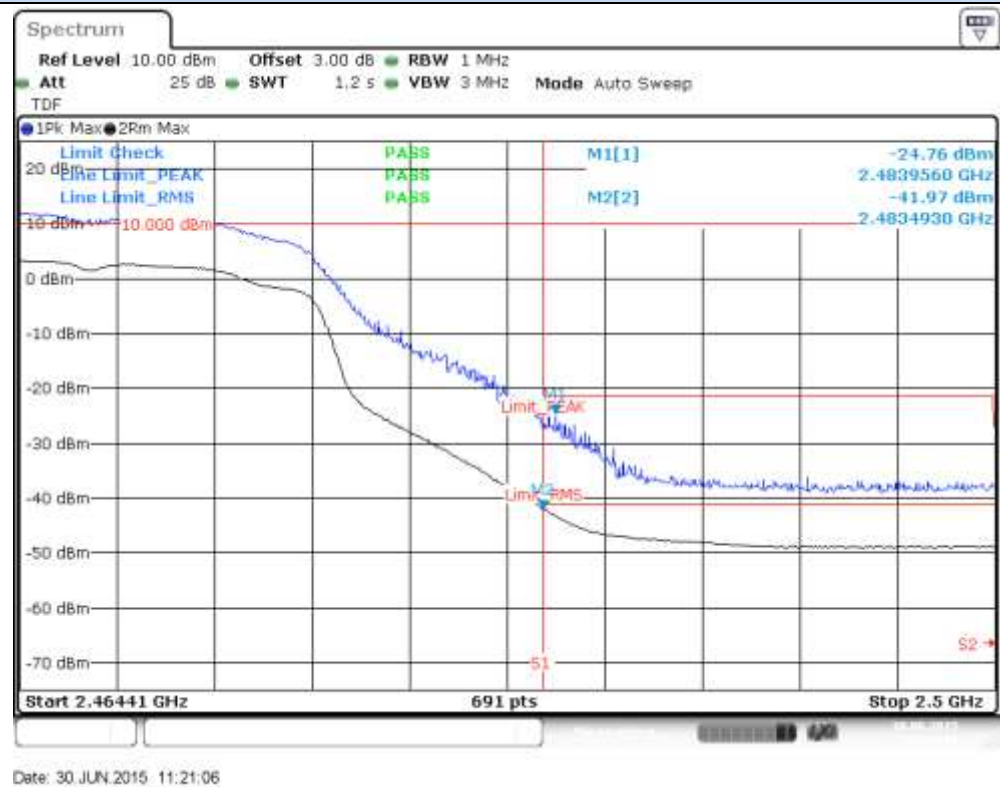
Date: 9 JUL 2015 17:13:20

BE High Freq Section (restricted), Chain A - CH11



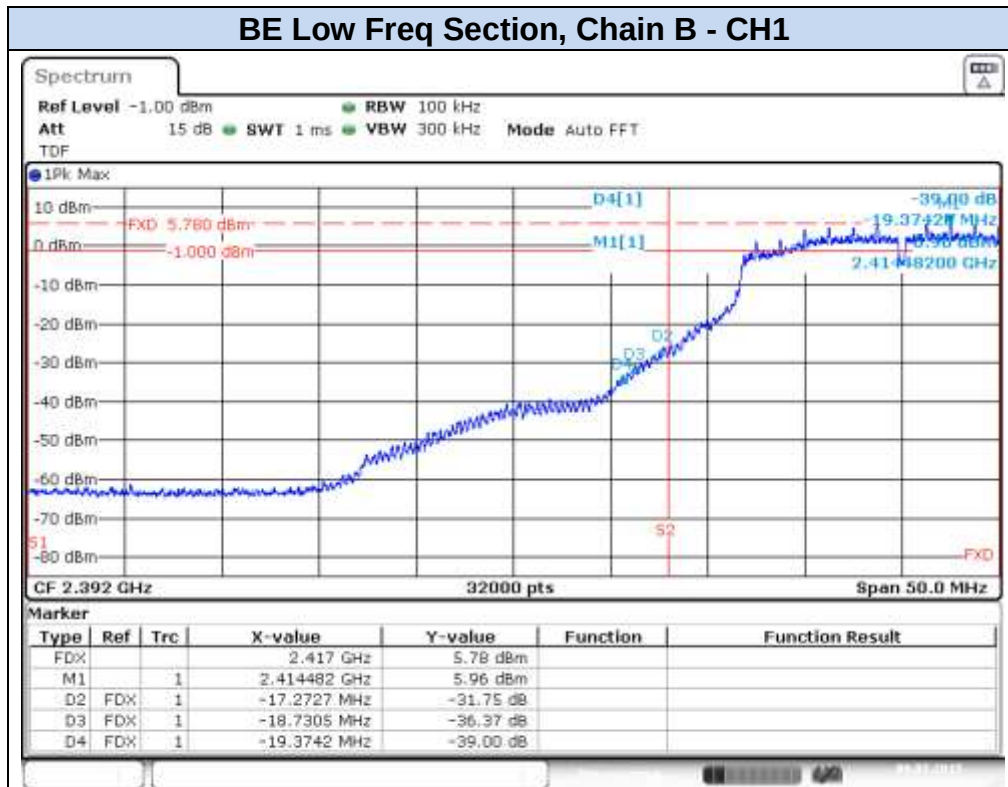
Date: 29 JUN 2015 17:33:30

BE High Freq Section (restricted), Chain A – CH12

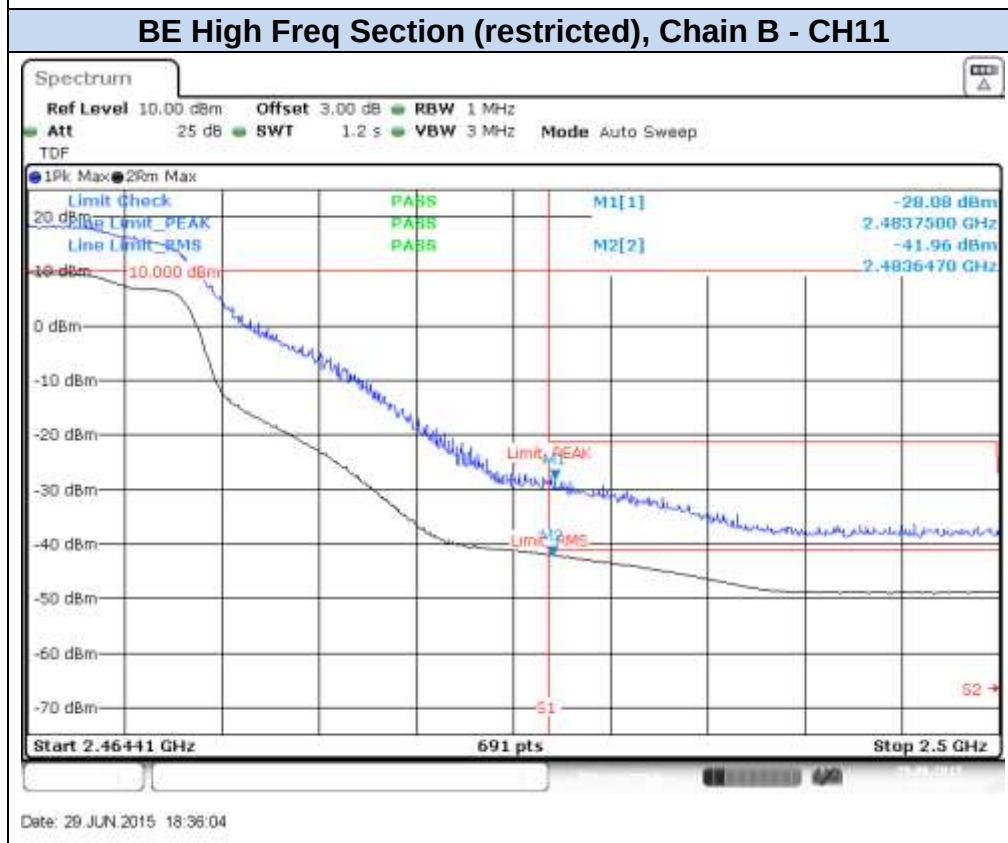


BE High Freq Section (restricted), Chain A – CH13





Date: 9 JUL 2015 17:24:39



Date: 29 JUN 2015 18:36:04

BE High Freq Section (restricted), Chain B – CH12

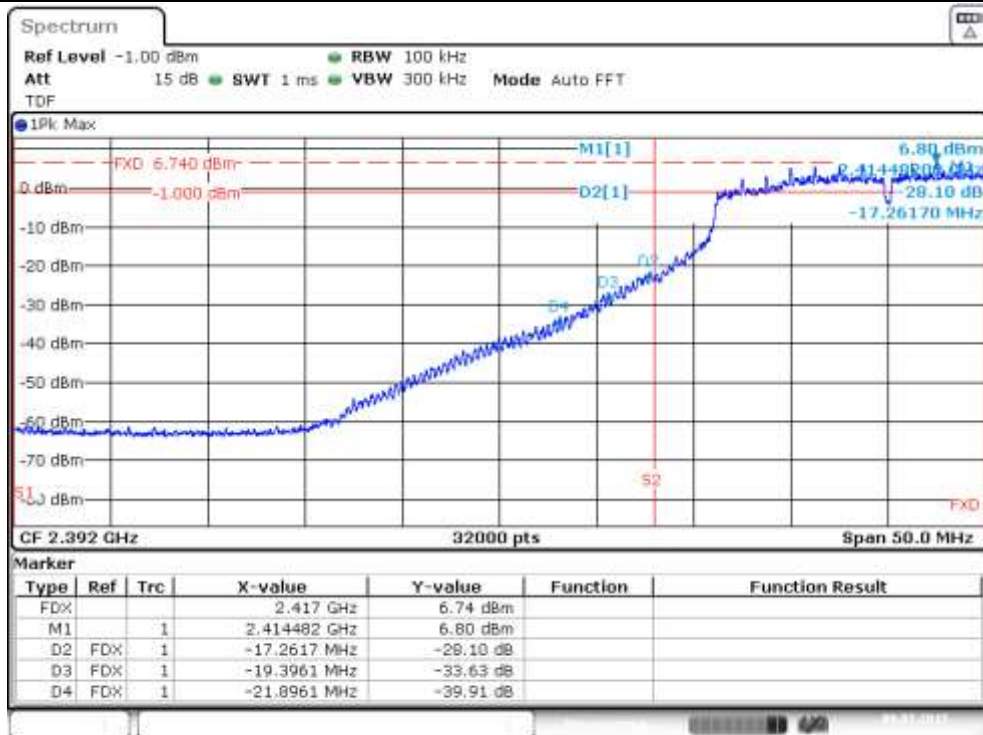


BE High Freq Section (restricted), Chain B – CH13



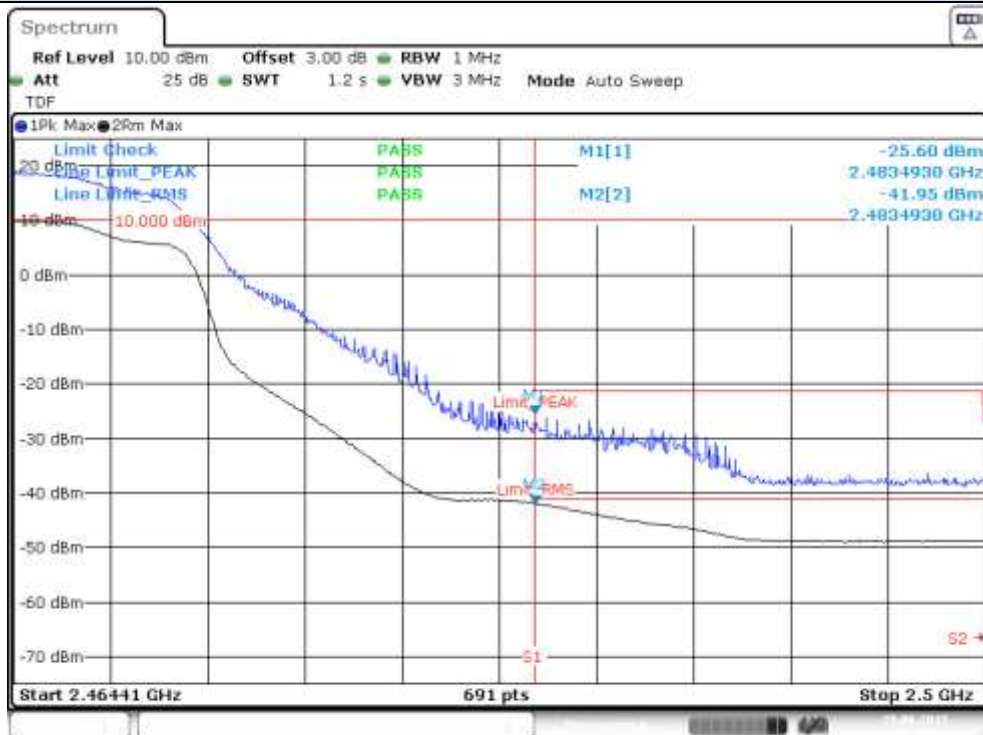
802.11n20, HT0 (SISO)

BE Low Freq Section, Chain A - CH1



Date: 9 JUL 2015 17:17:23

BE High Freq Section (restricted), Chain A - CH11



Date: 29 JUN 2015 17:43:13

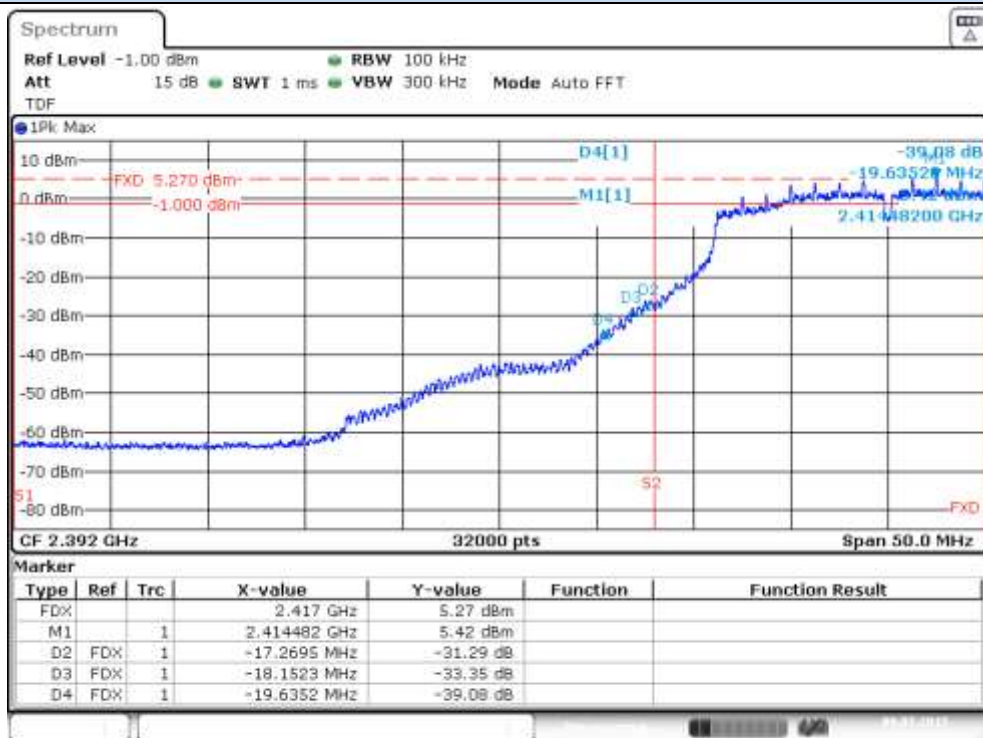
BE High Freq Section (restricted), Chain A – CH12



BE High Freq Section (restricted), Chain A – CH13

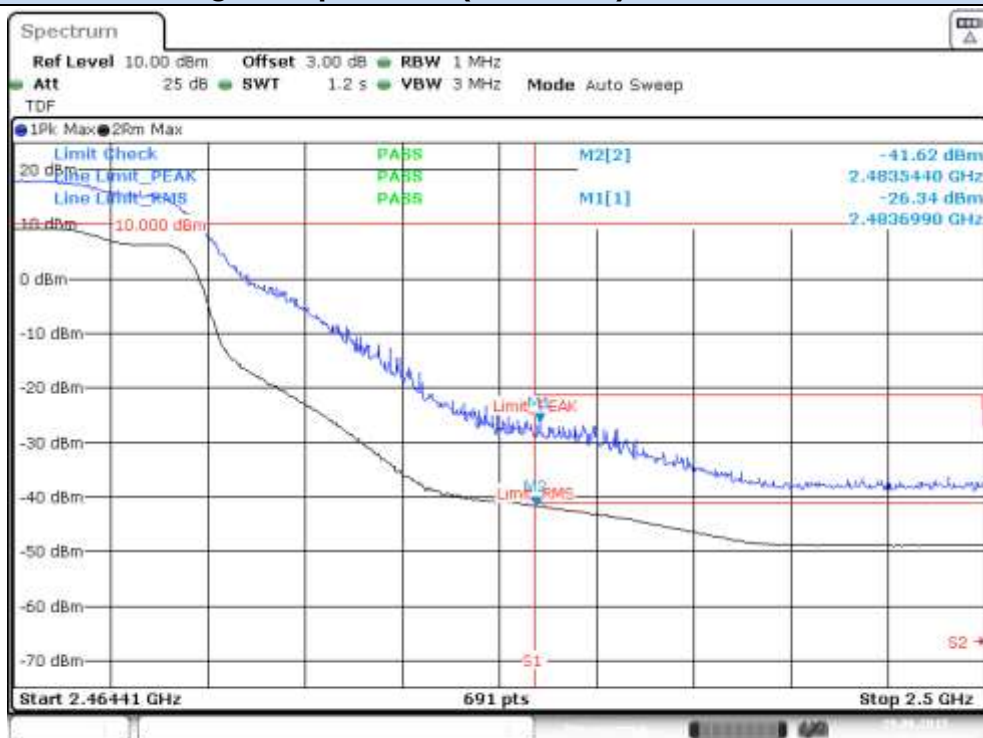


BE Low Freq Section, Chain B - CH1



Date: 9 JUL 2015 17:26:35

BE High Freq Section (restricted), Chain B - CH11



Date: 29 JUN 2015 18:42:24

BE High Freq Section (restricted), Chain B – CH12

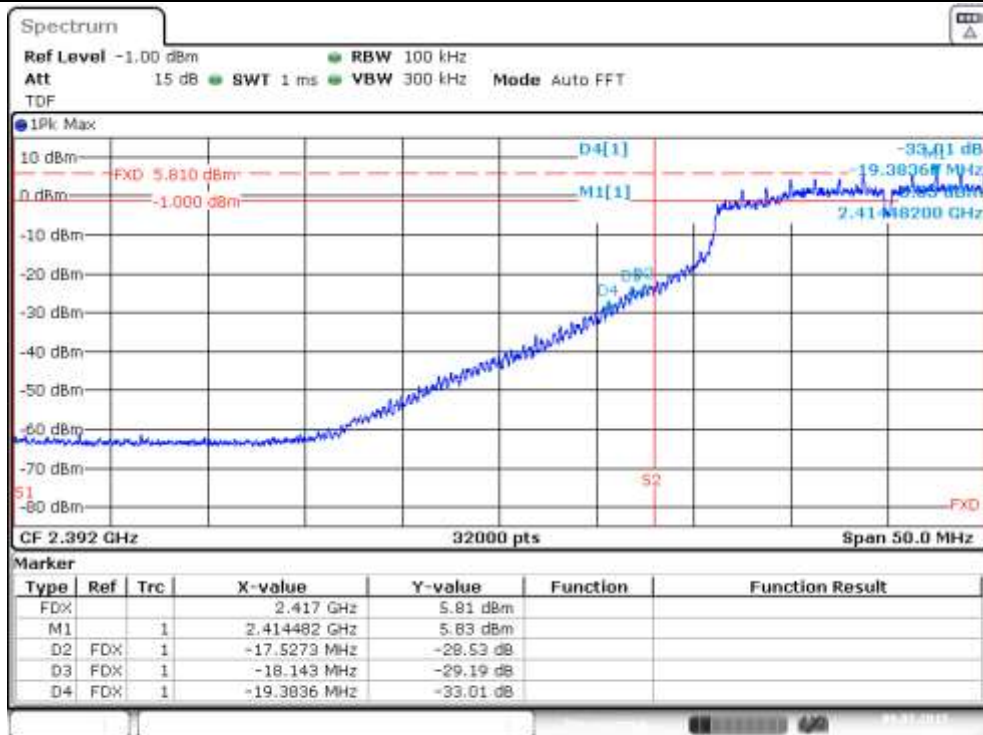


BE High Freq Section (restricted), Chain B – CH13



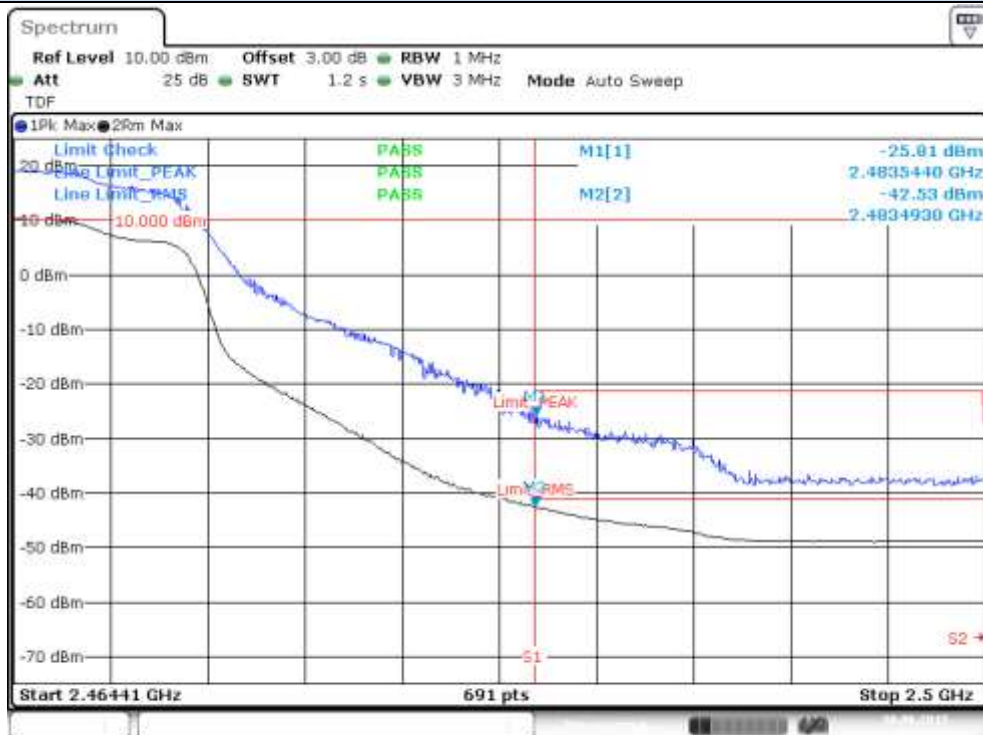
802.11n20, HT8 (MIMO)

BE Low Freq Section, Chain A - CH1



Date: 9 JUL 2015 17:36:00

BE High Freq Section (restricted), Chain A - CH1



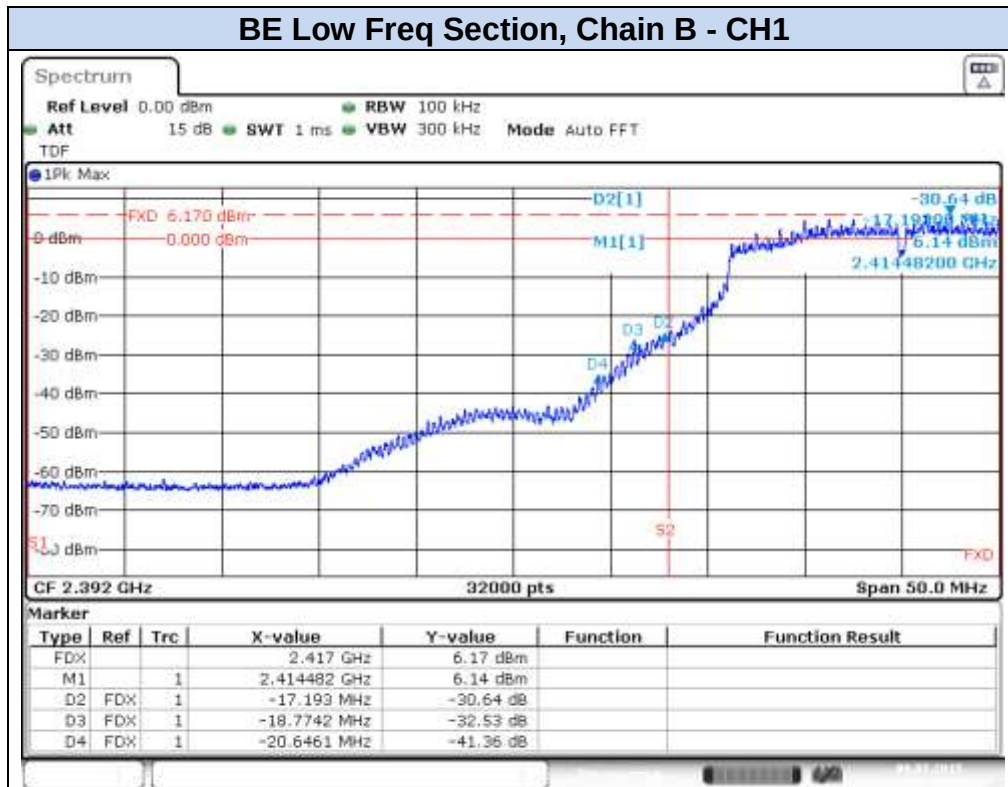
Date: 30 JUN 2015 10:13:11

BE High Freq Section (restricted), Chain A – CH12

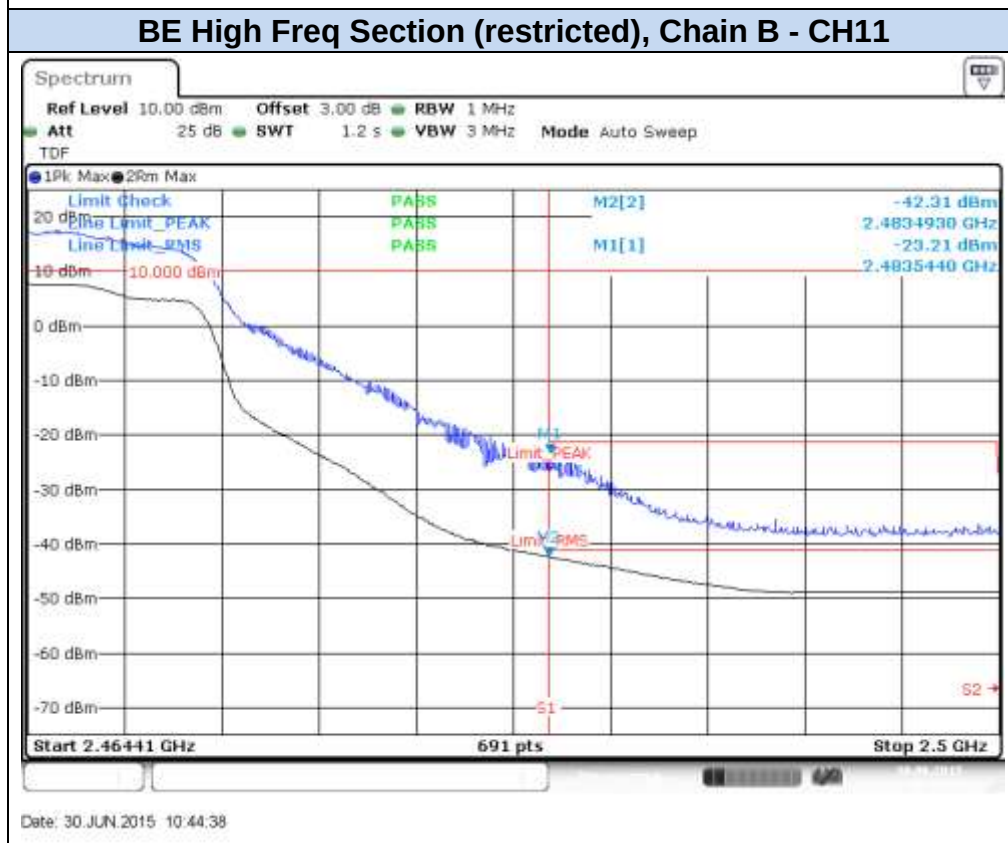


BE High Freq Section (restricted), Chain A – CH13



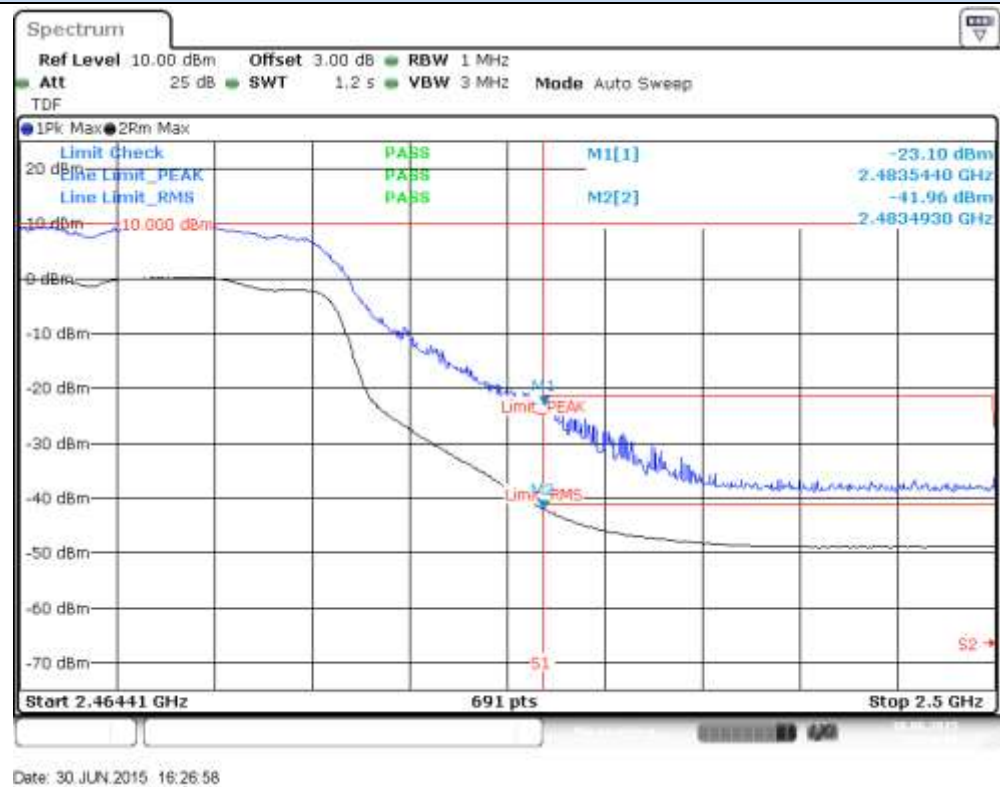


Date: 9 JUL 2015 17:43:55



Date: 30 JUN 2015 10:44:38

BE High Freq Section (restricted), Chain B – CH12

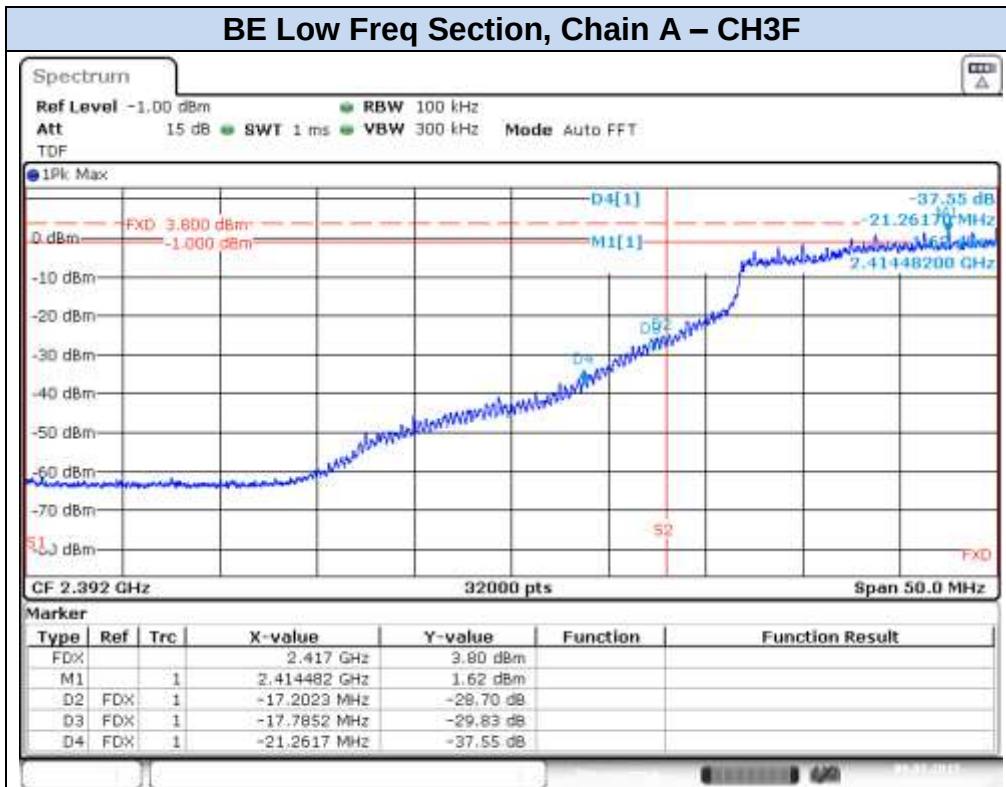


BE High Freq Section (restricted), Chain B – CH13



802.11n40, HT0 (SISO)

BE Low Freq Section, Chain A – CH3F

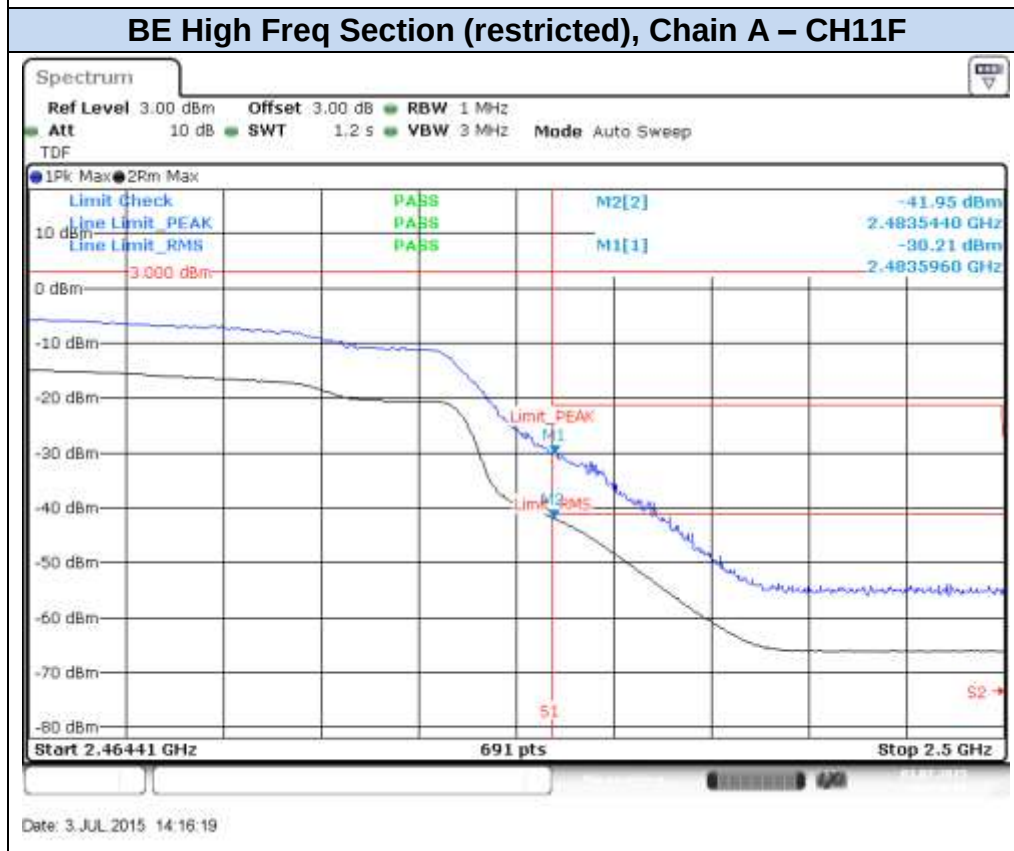
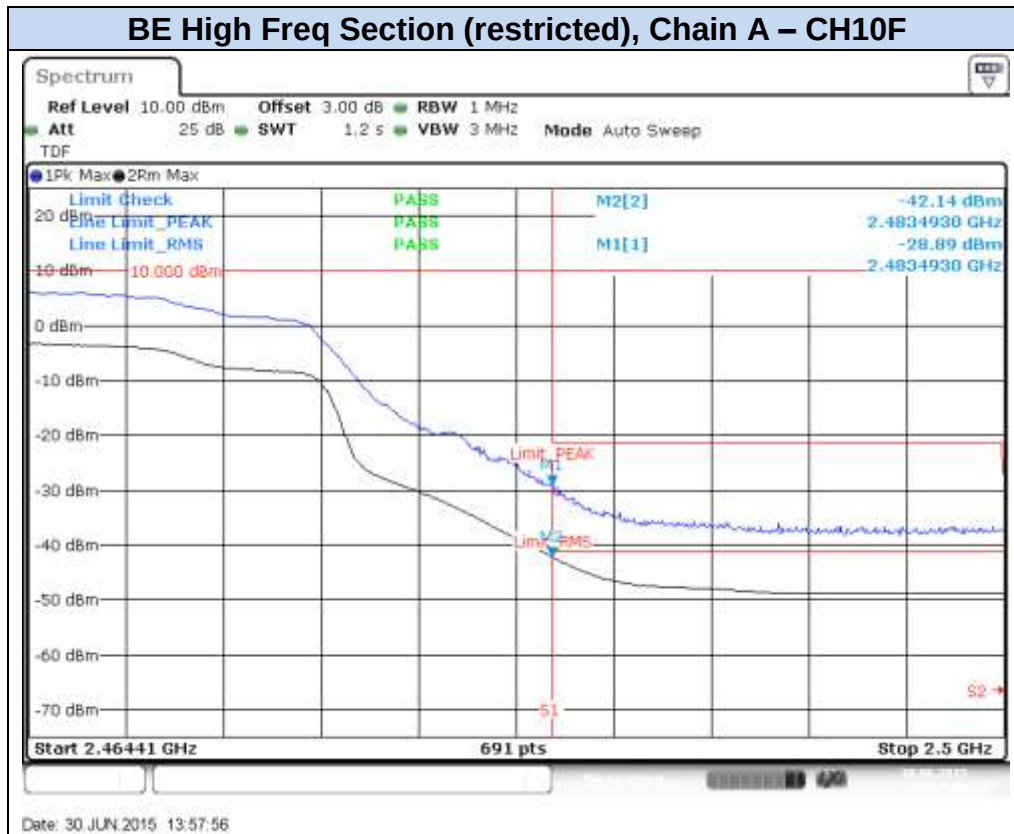


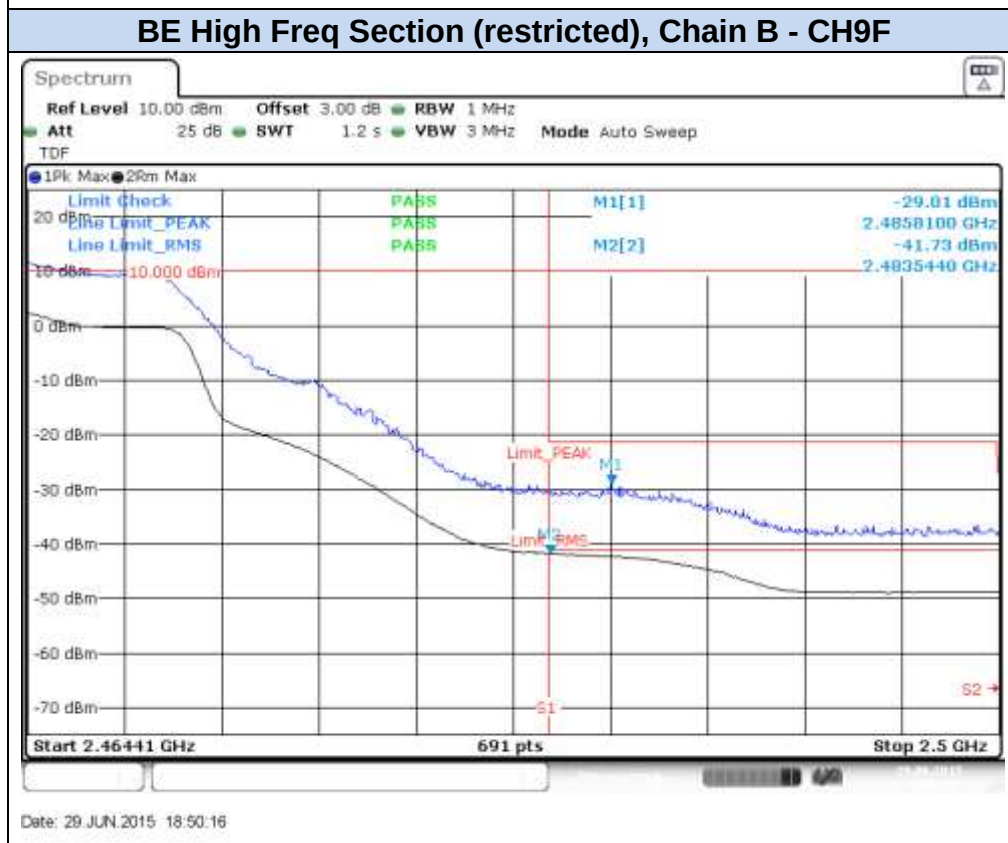
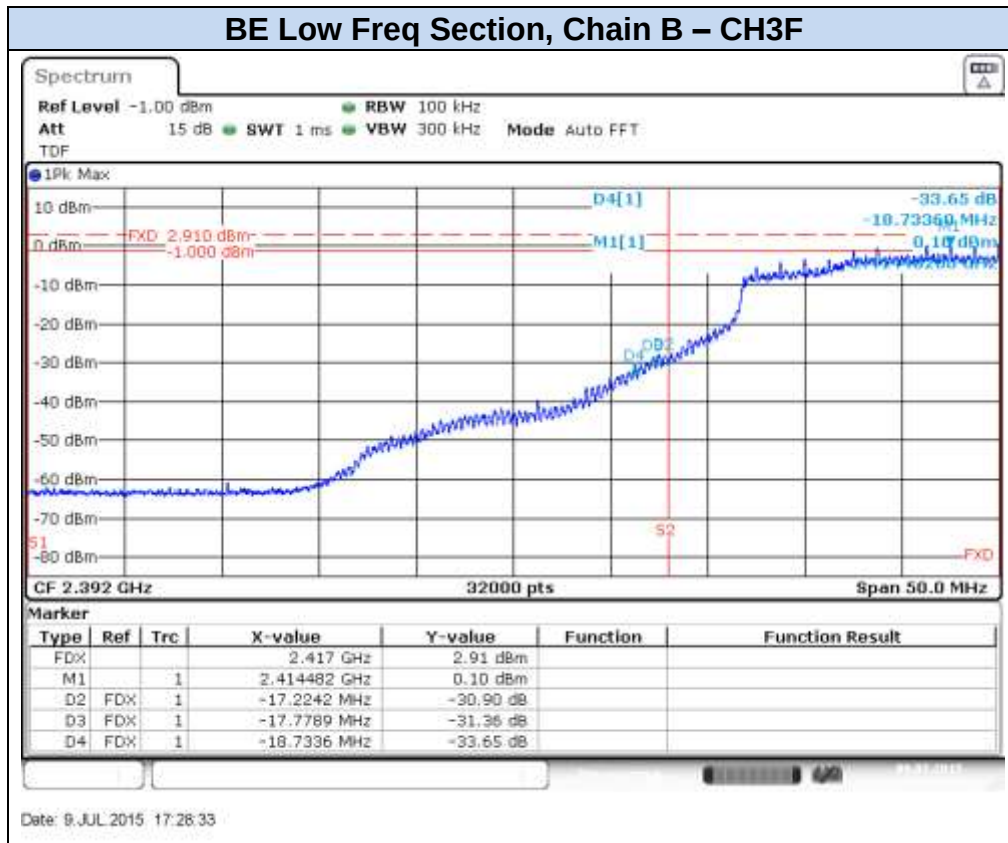
Date: 9 JUL 2015 17:19:15

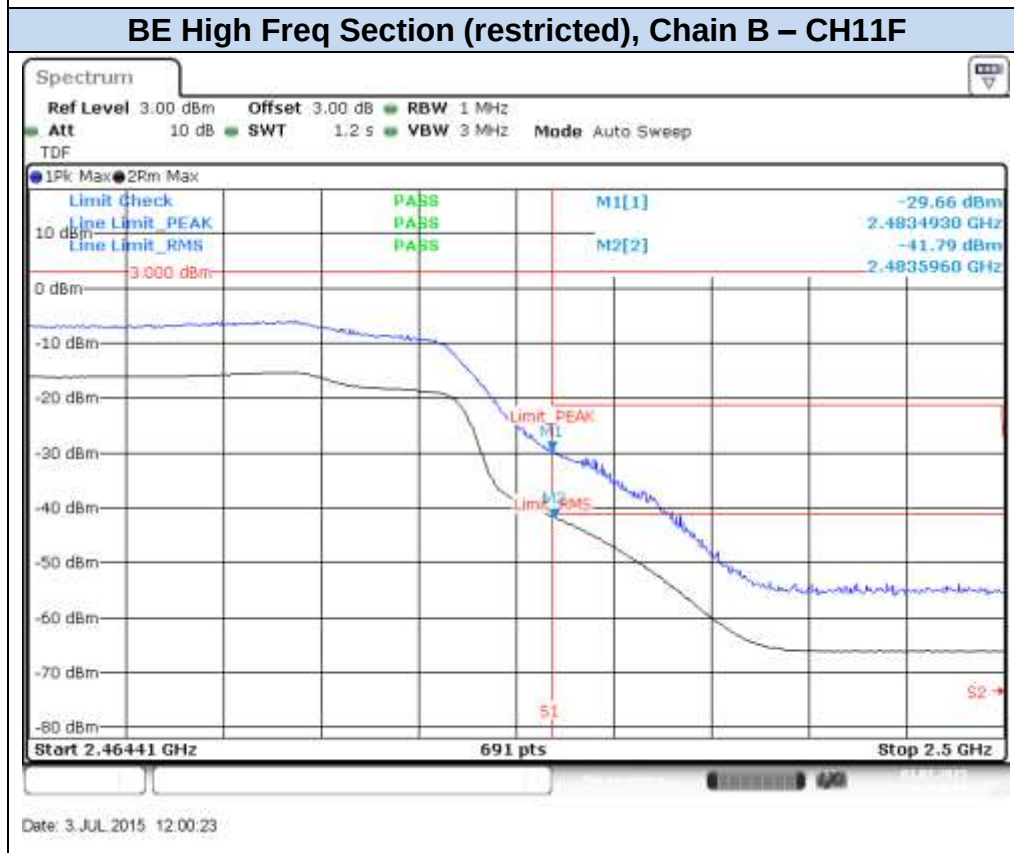
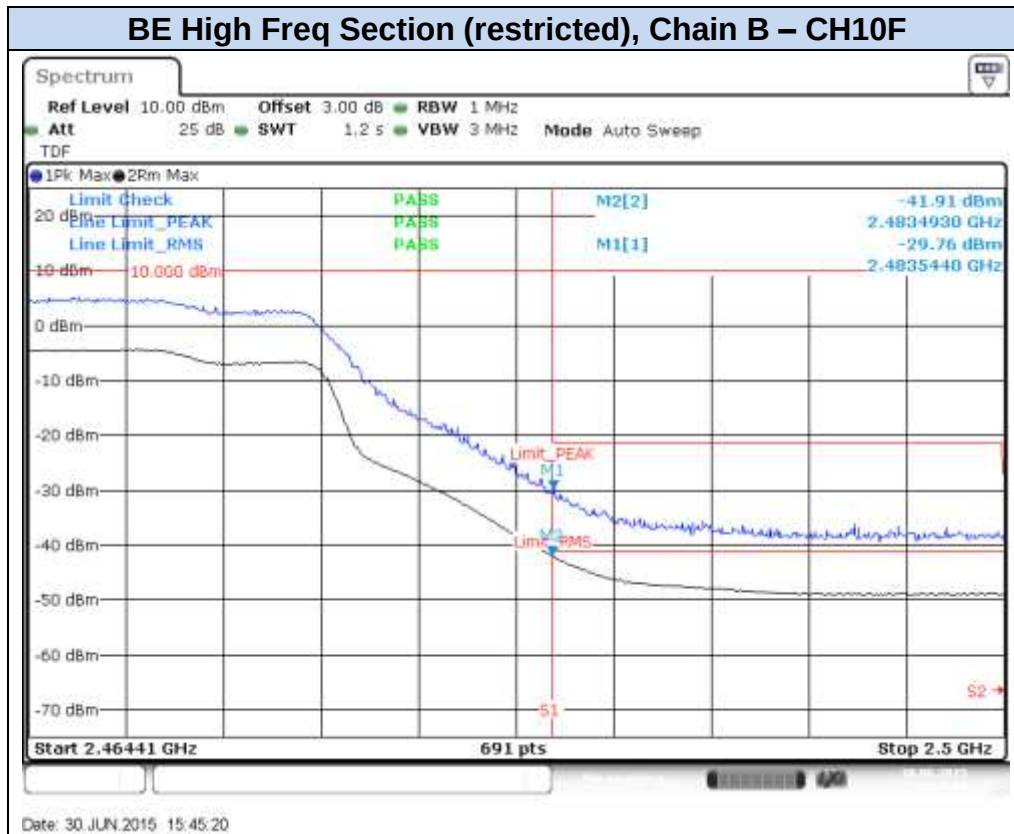
BE High Freq Section (restricted), Chain A - CH9F



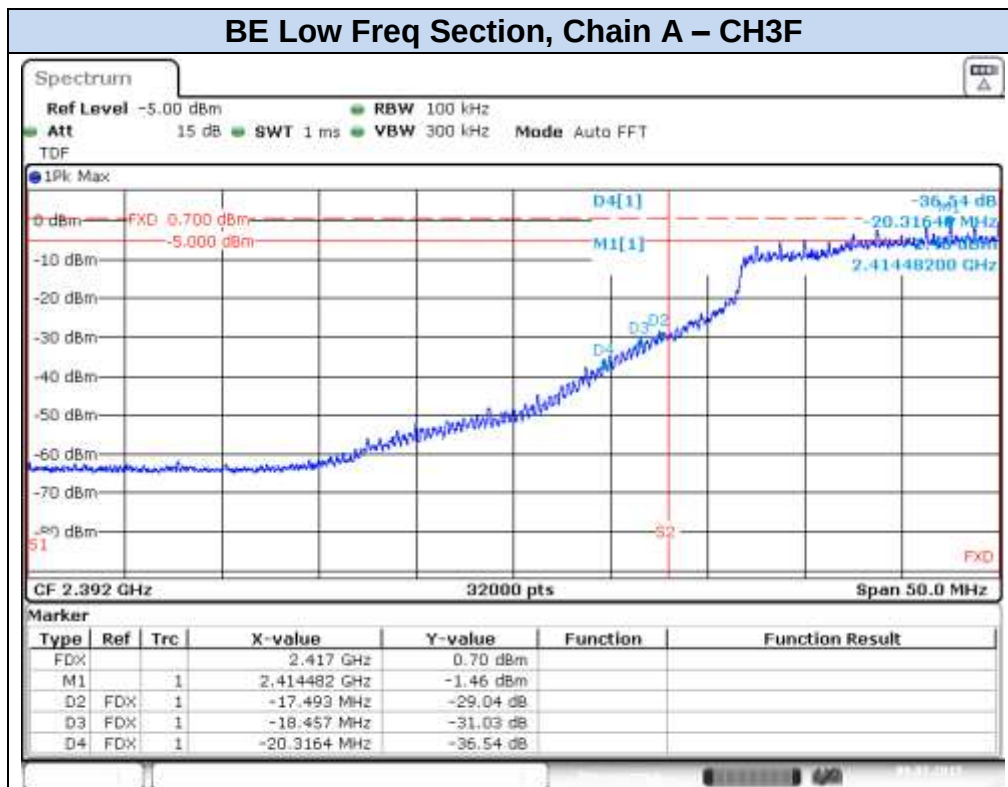
Date: 29 JUN 2015 18:10:33







802.11n40, HT8 (MIMO)



Date: 9 JUL 2015 17:46:58

BE High Freq Section (restricted), Chain A - CH9F



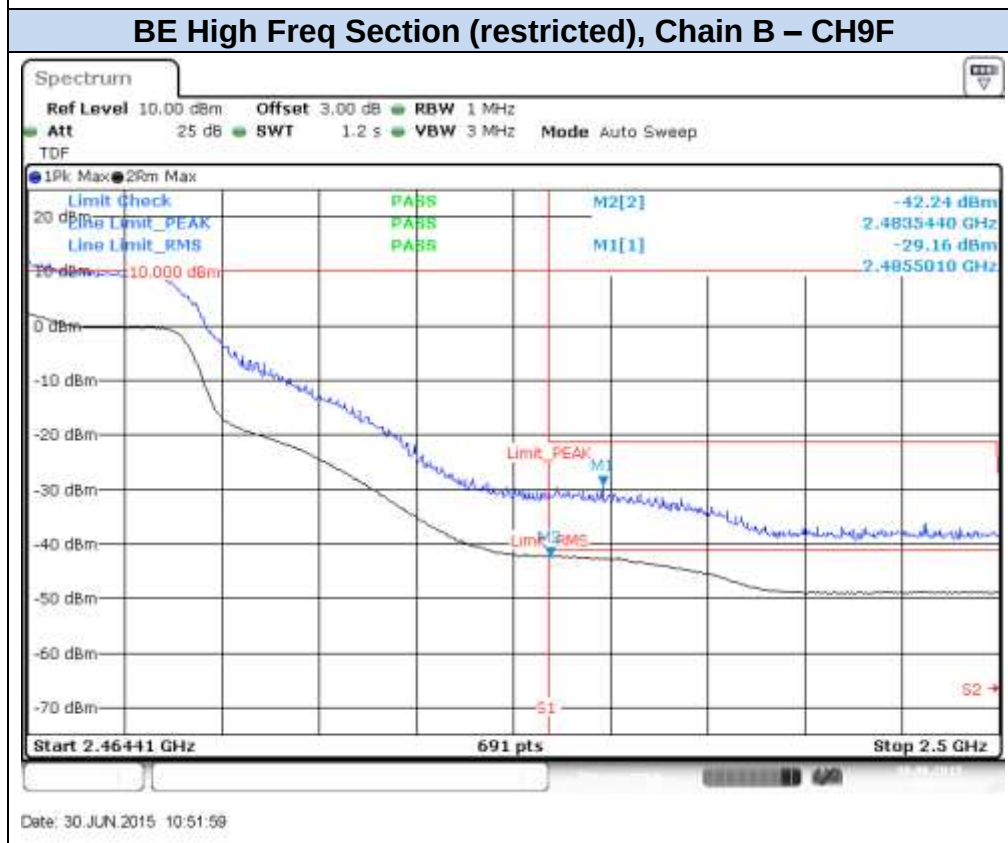
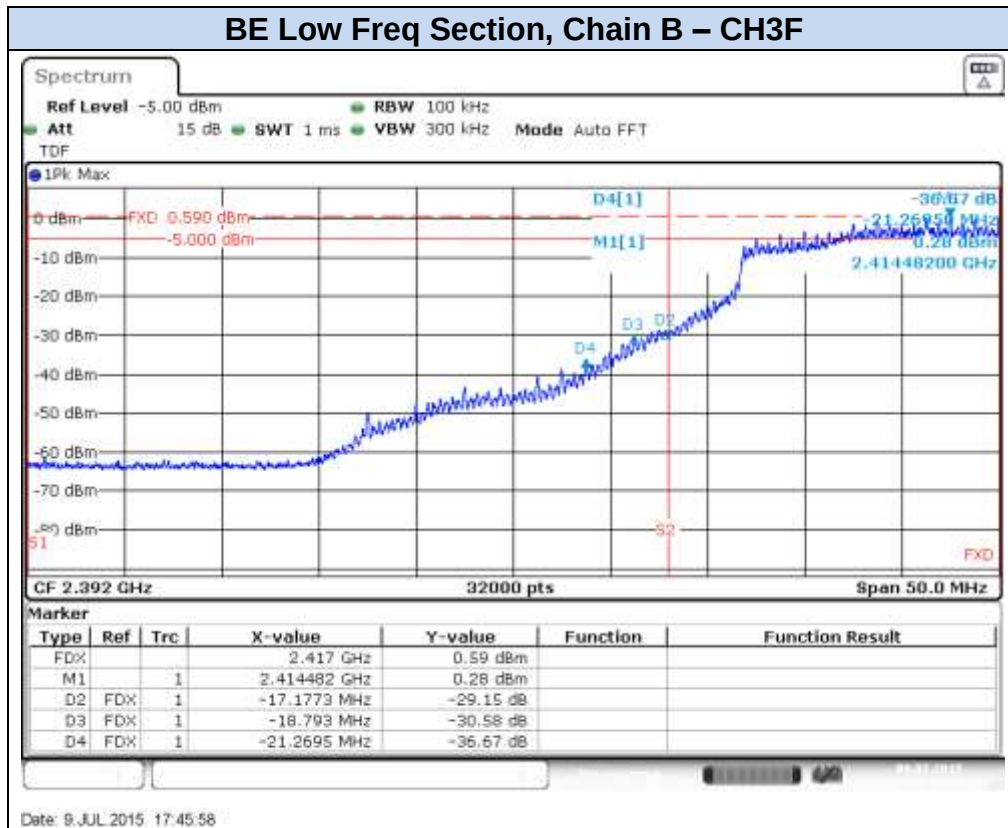
Date: 30 JUN 2015 10:36:22

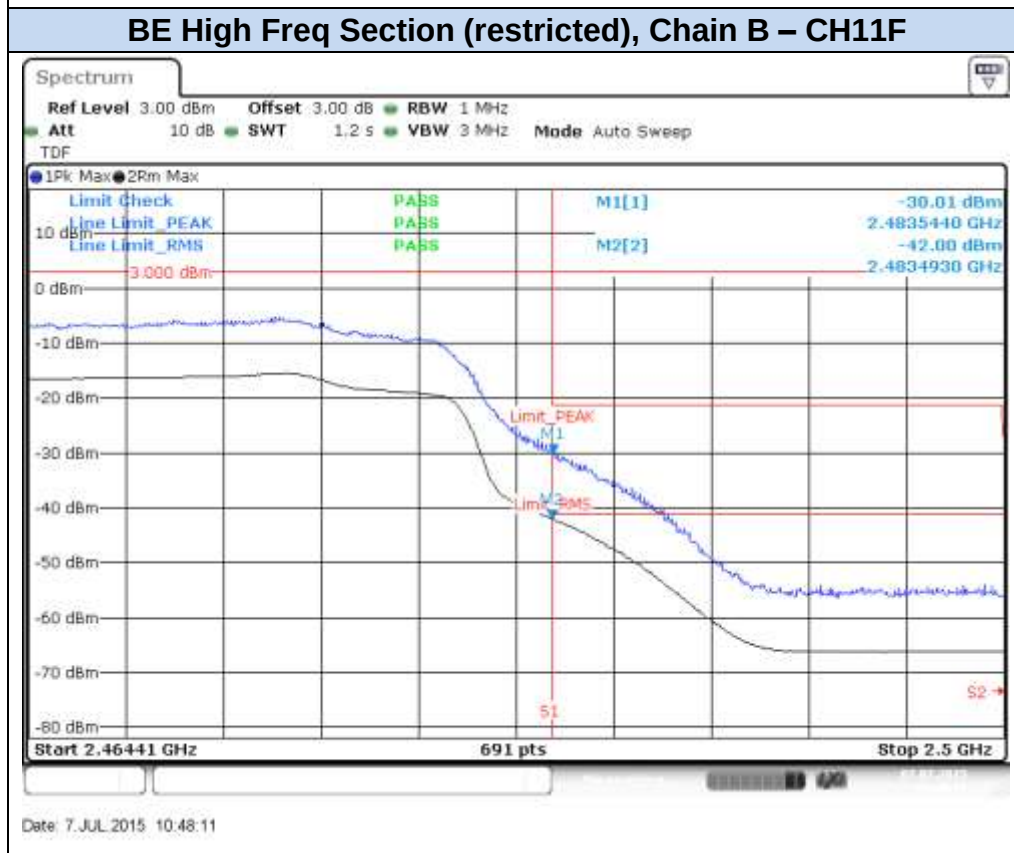
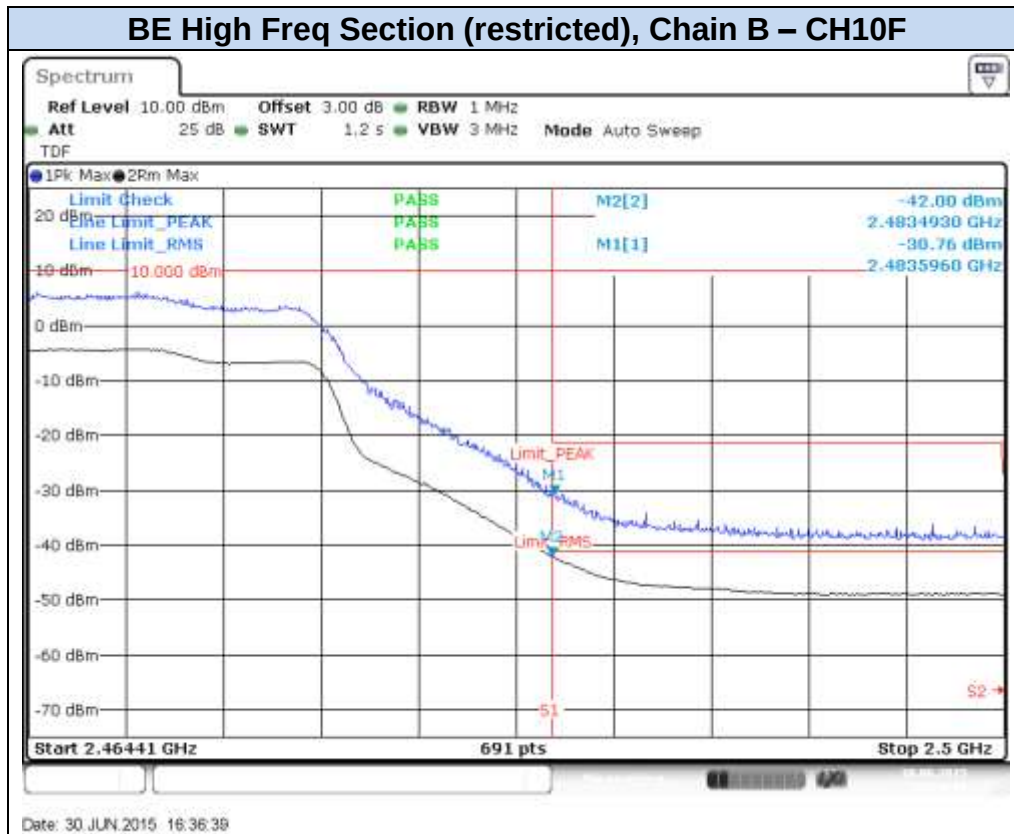
BE High Freq Section (restricted), Chain A – CH10F



BE High Freq Section (restricted), Chain A – CH11F

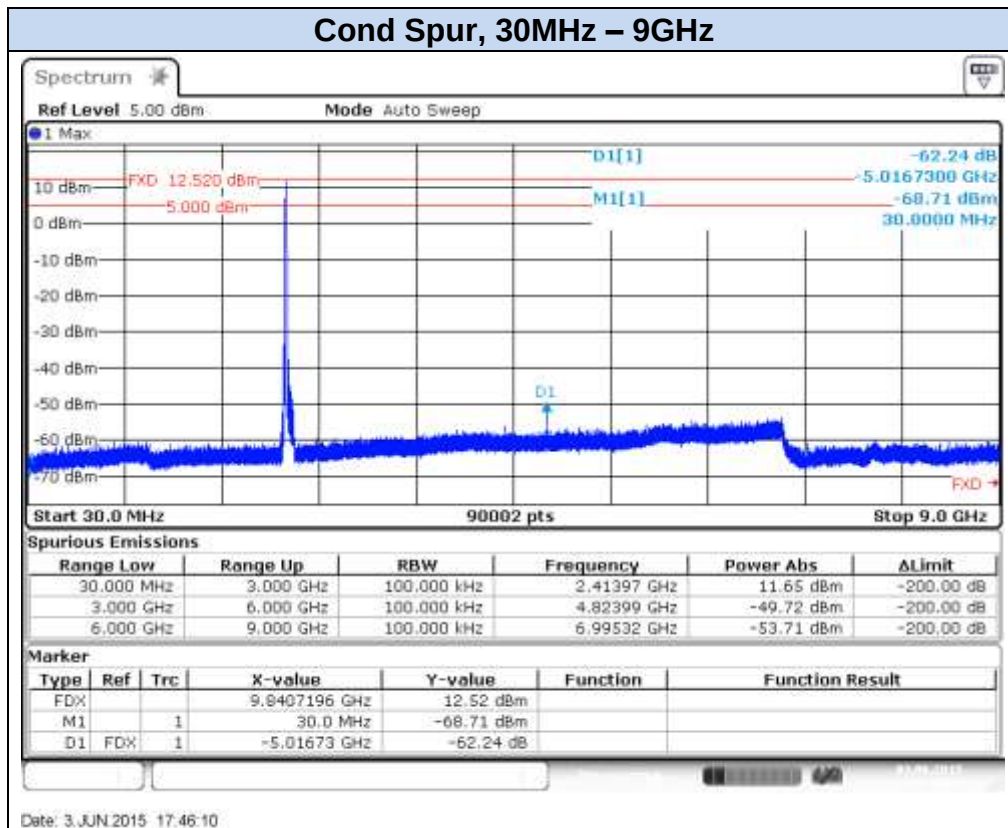




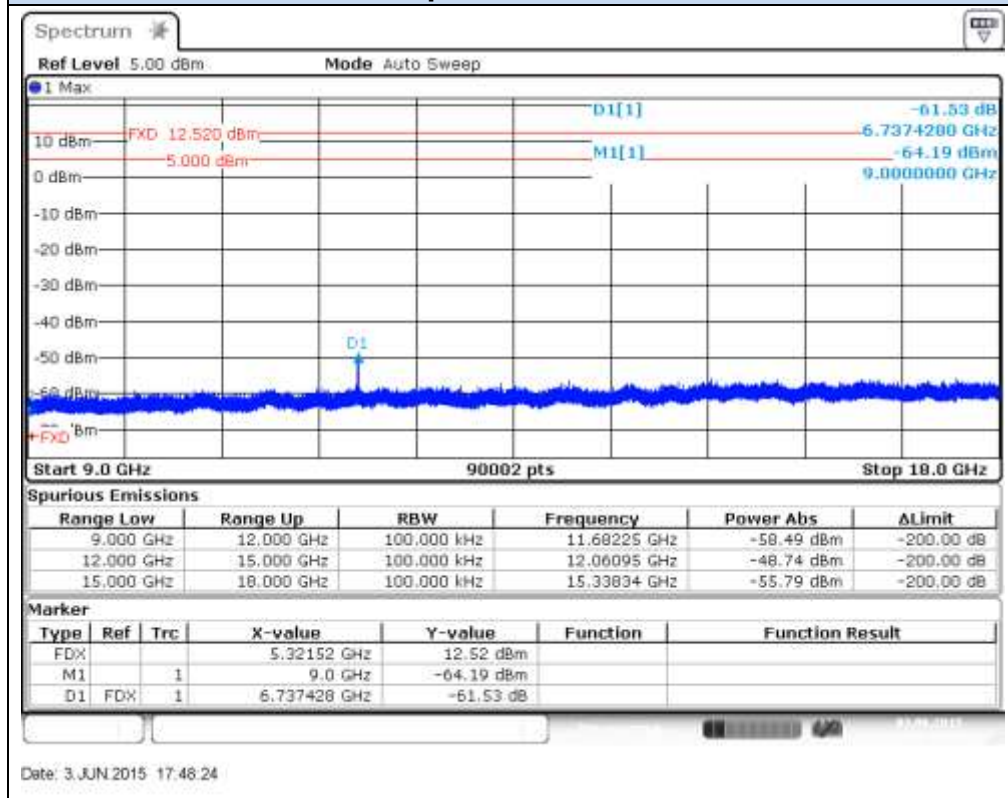


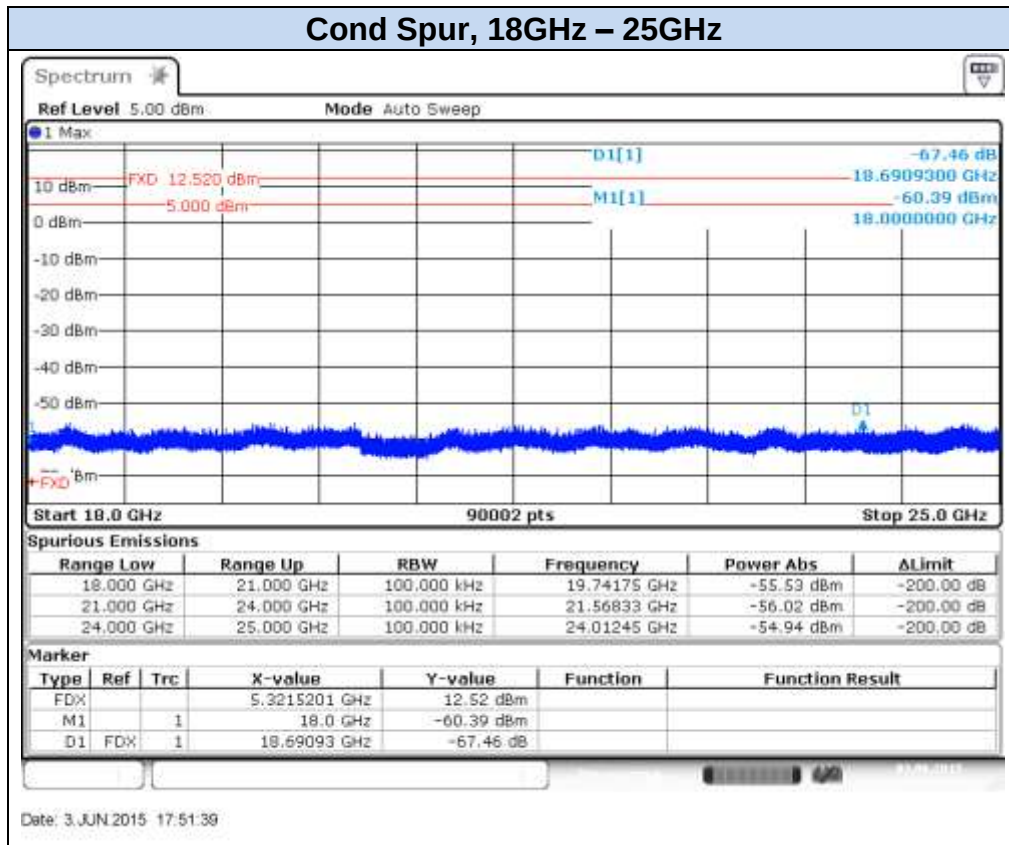
Conducted Spurious results Screenshot:

802.11b, 1Mbps – Chain A, CH1



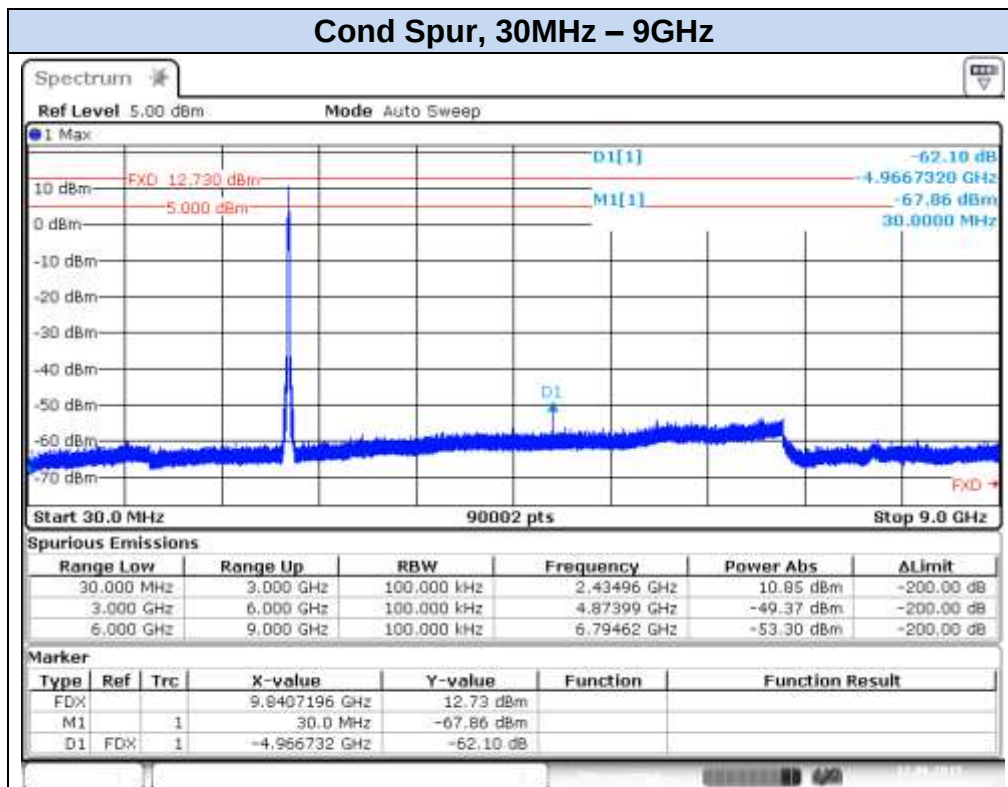
Cond Spur, 9GHz – 18GHz



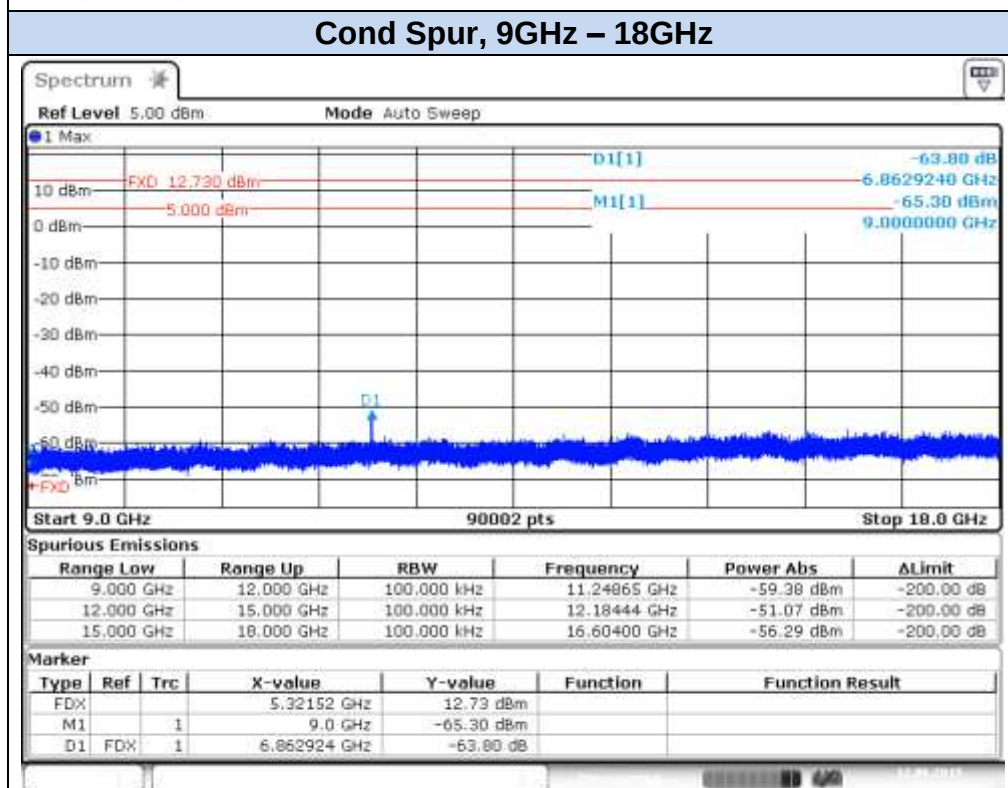


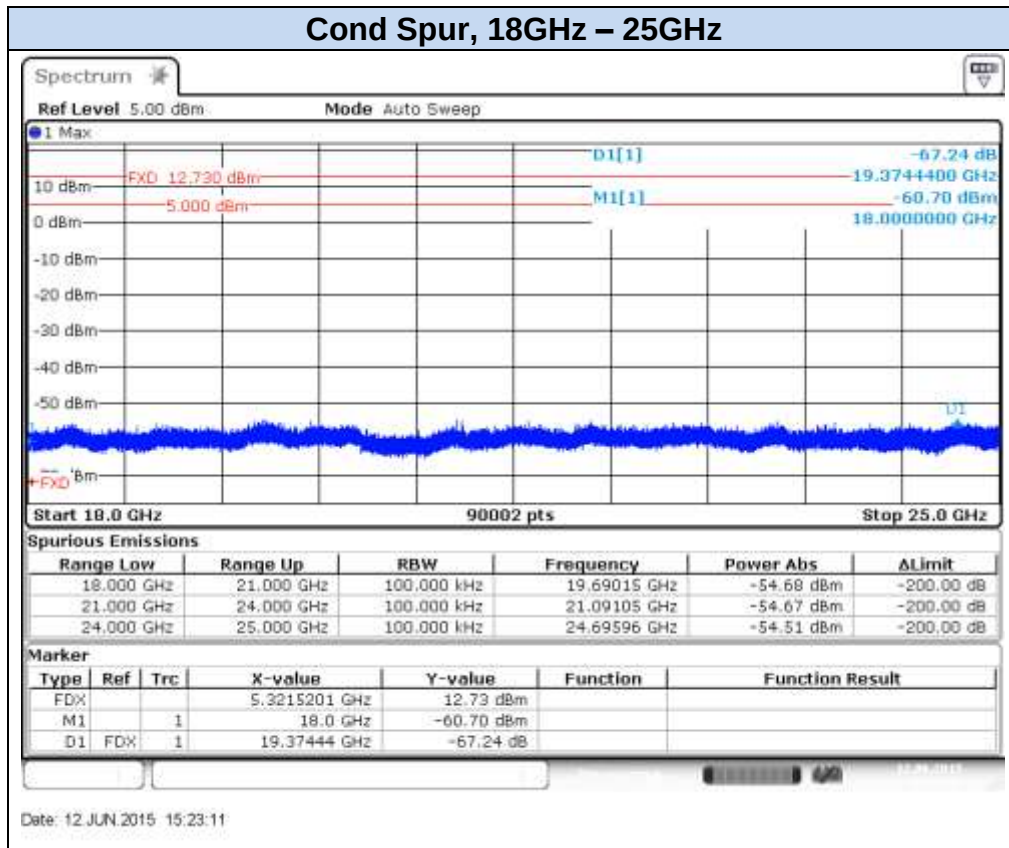
802.11b, 1Mbps – Chain A, CH6

Cond Spur, 30MHz – 9GHz

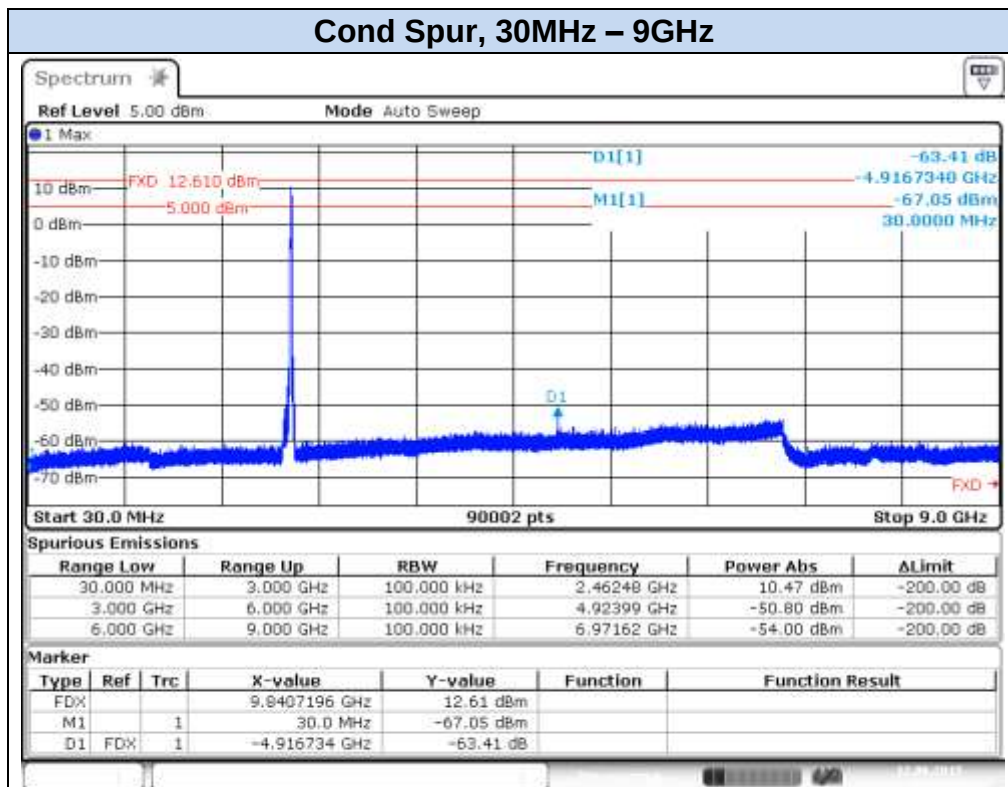


Cond Spur, 9GHz – 18GHz

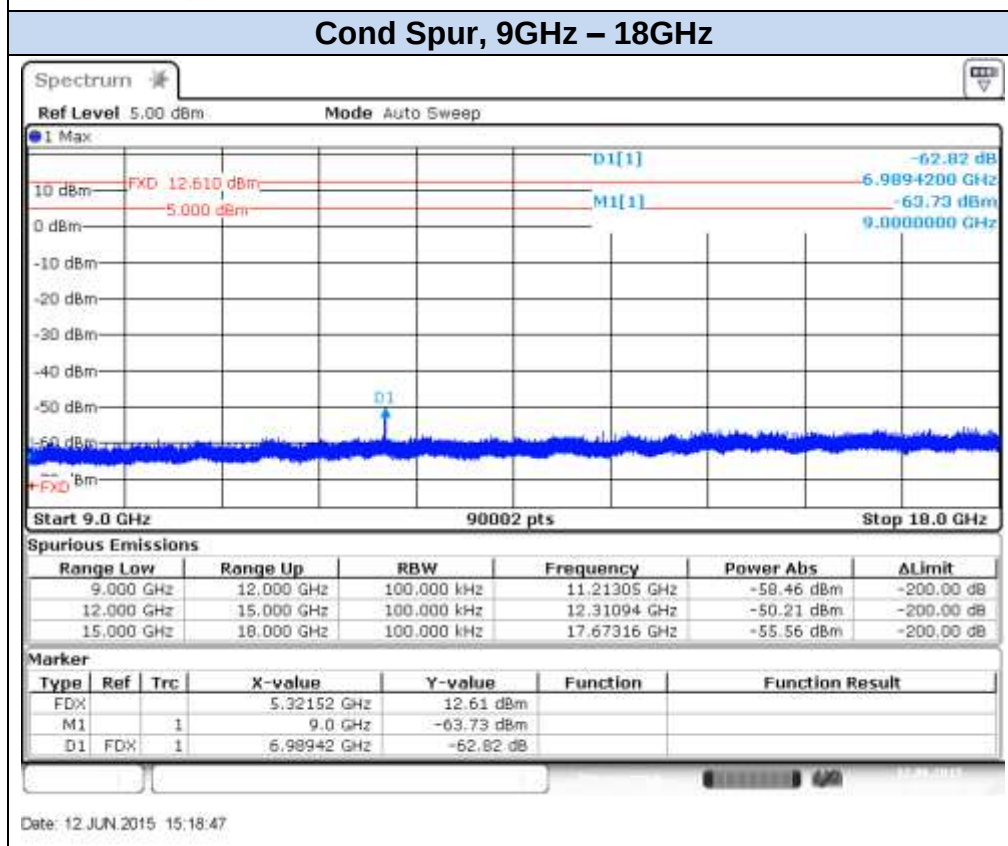




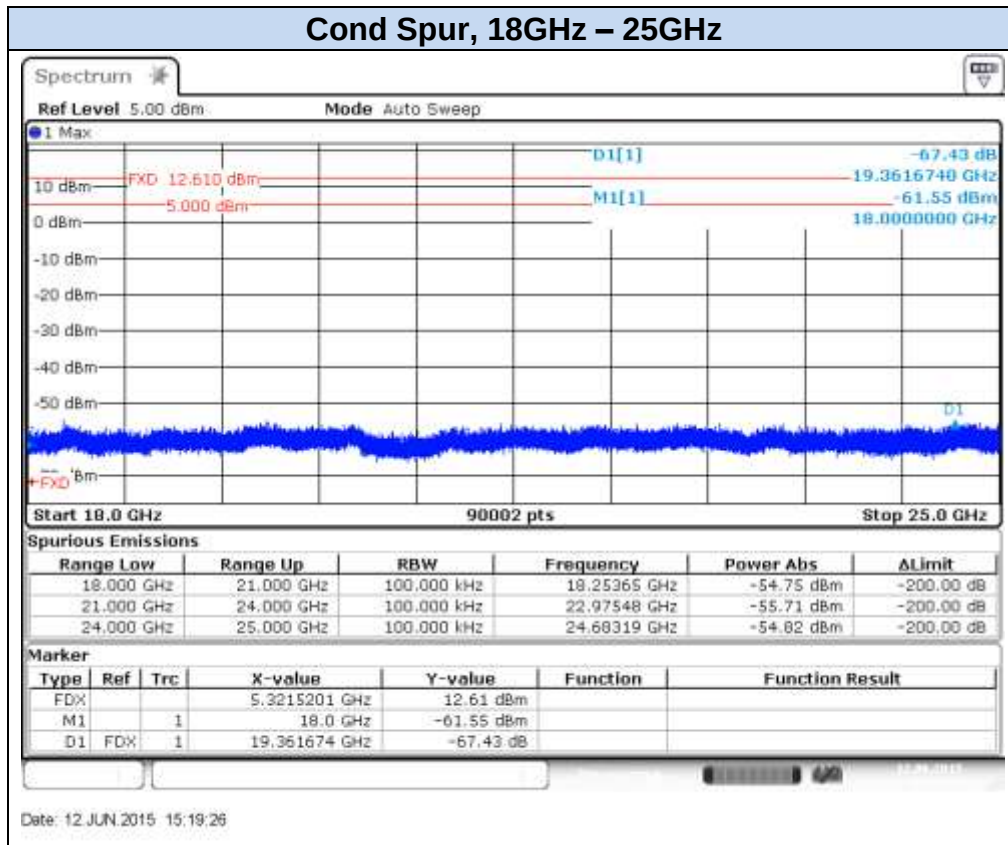
802.11b, 1Mbps – Chain A, CH11



Date: 12 JUN 2015 15:17:04

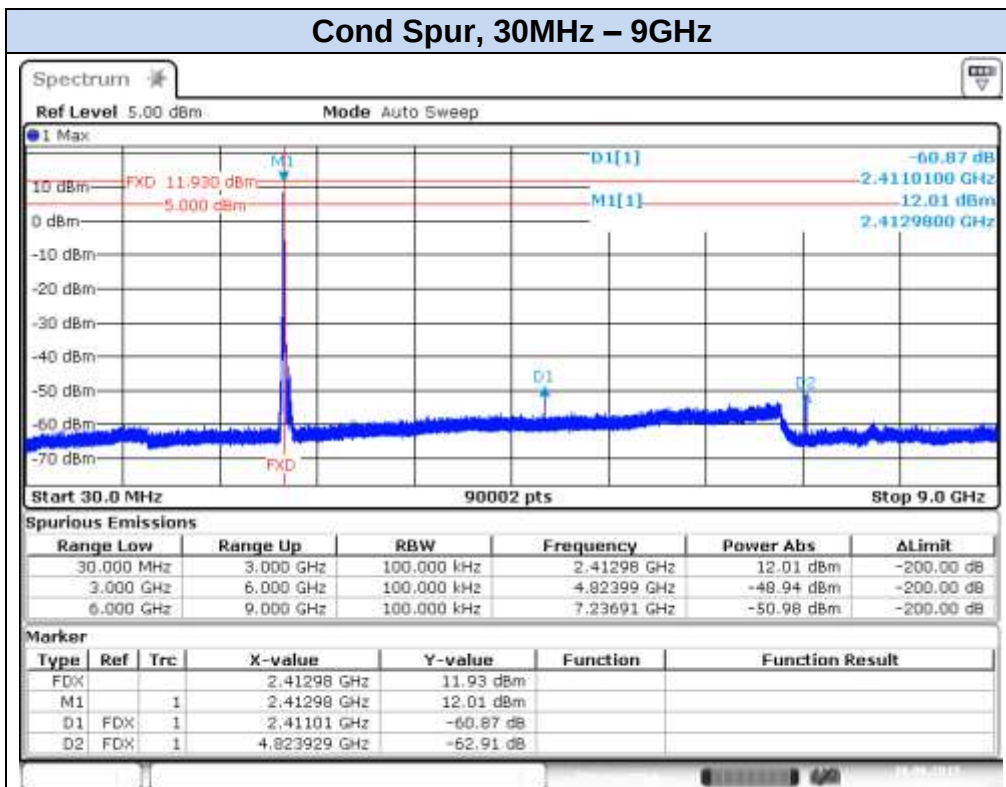


Date: 12 JUN 2015 15:18:47



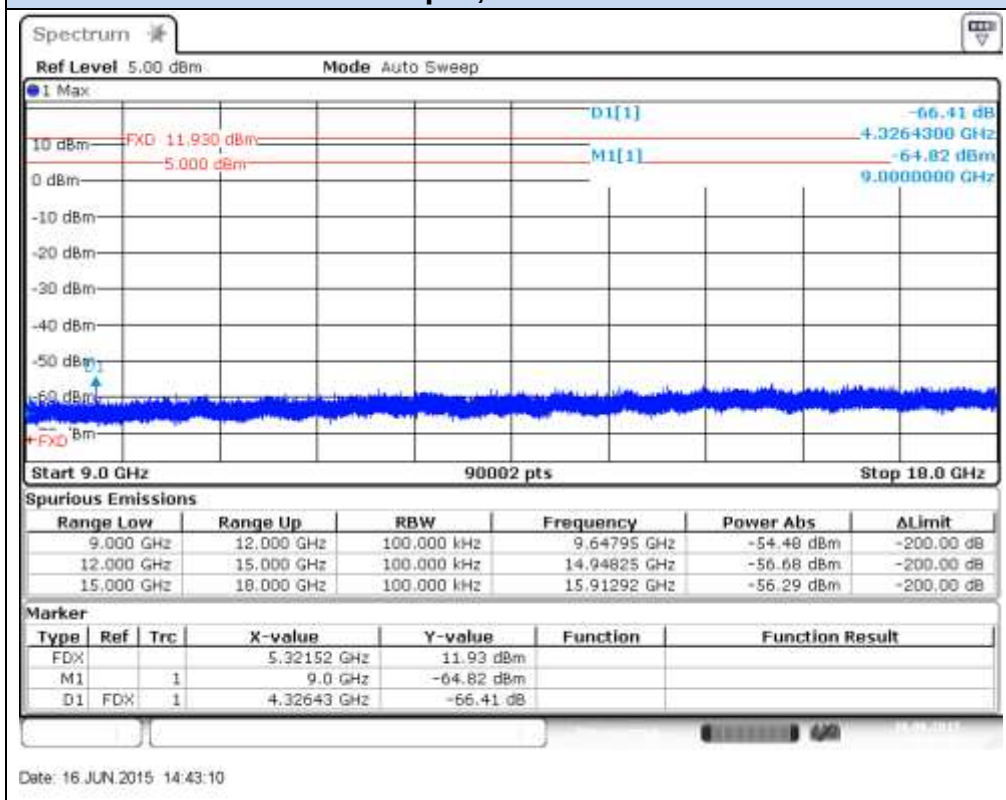
802.11b, 1Mbps – Chain B, CH1

Cond Spur, 30MHz – 9GHz

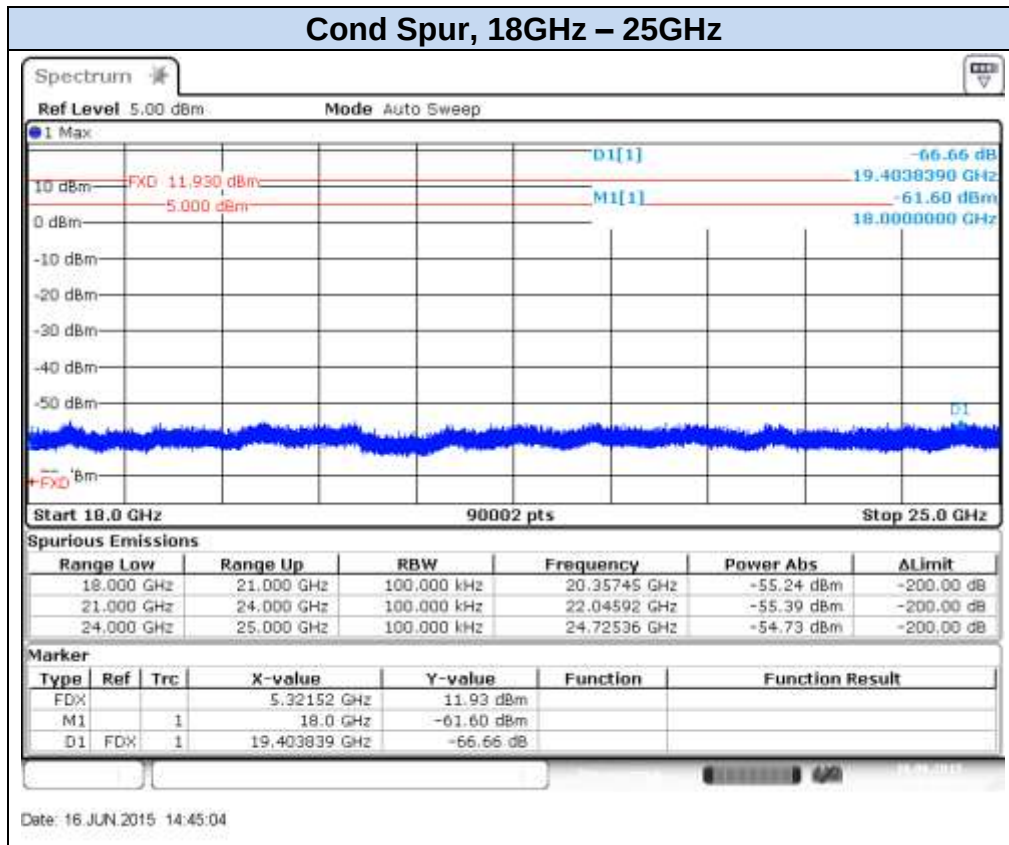


Date: 16 JUN 2015 14:40:54

Cond Spur, 9GHz – 18GHz

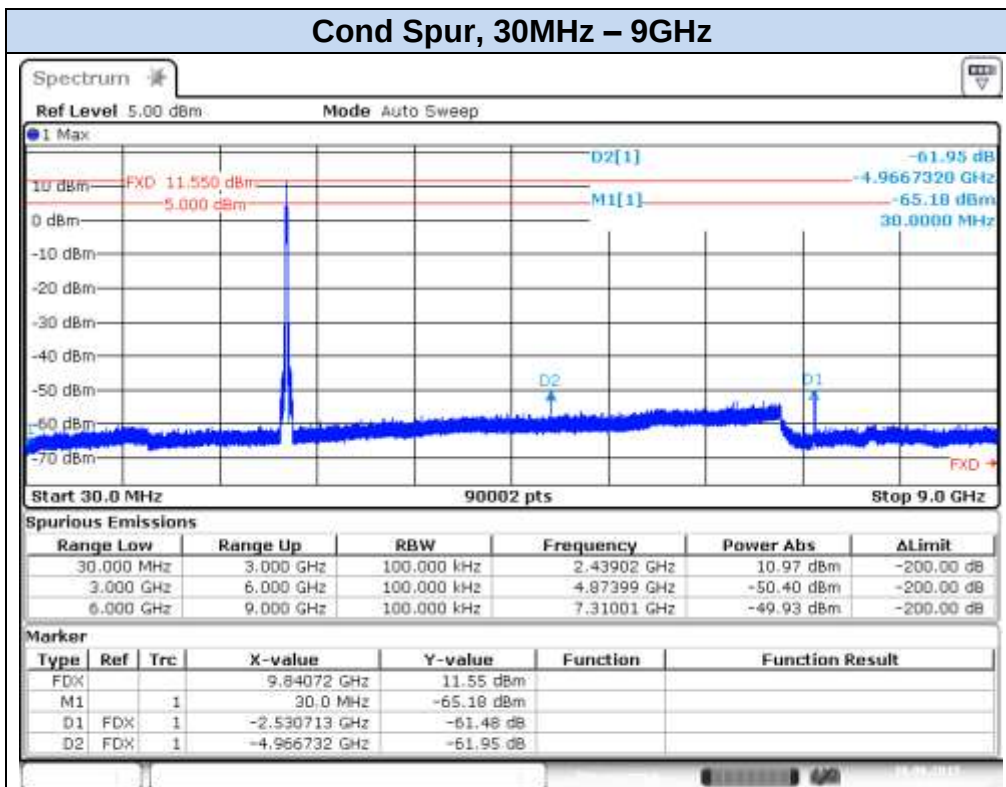


Date: 16 JUN 2015 14:43:10



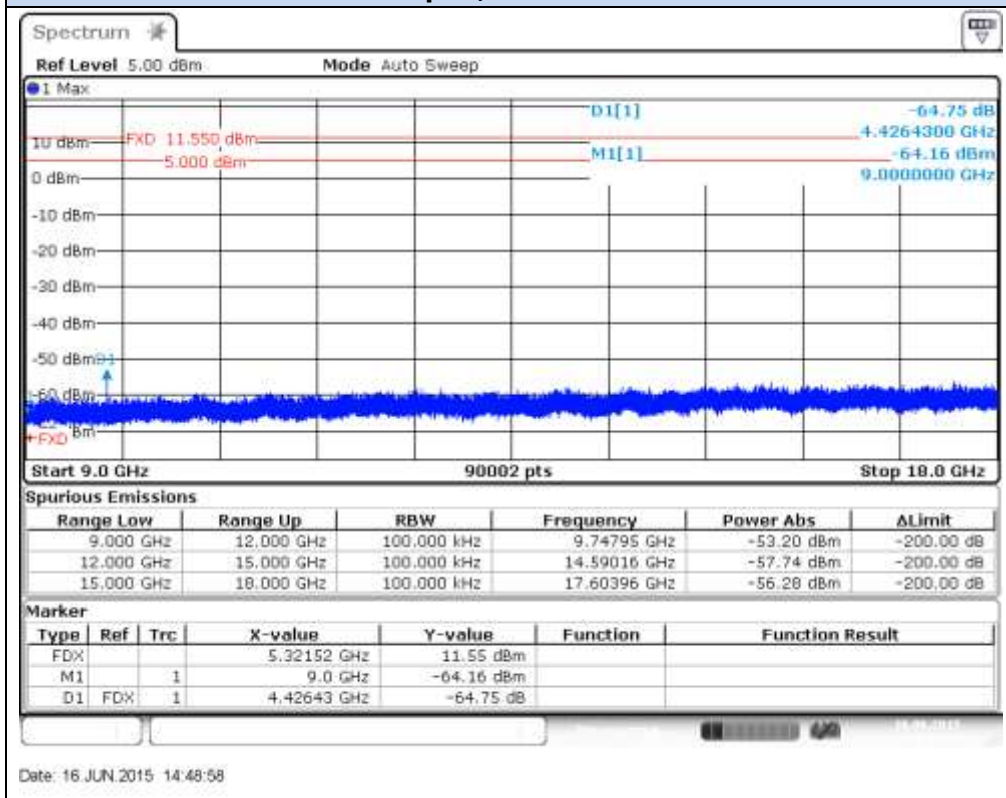
802.11b, 1Mbps – Chain B, CH6

Cond Spur, 30MHz – 9GHz

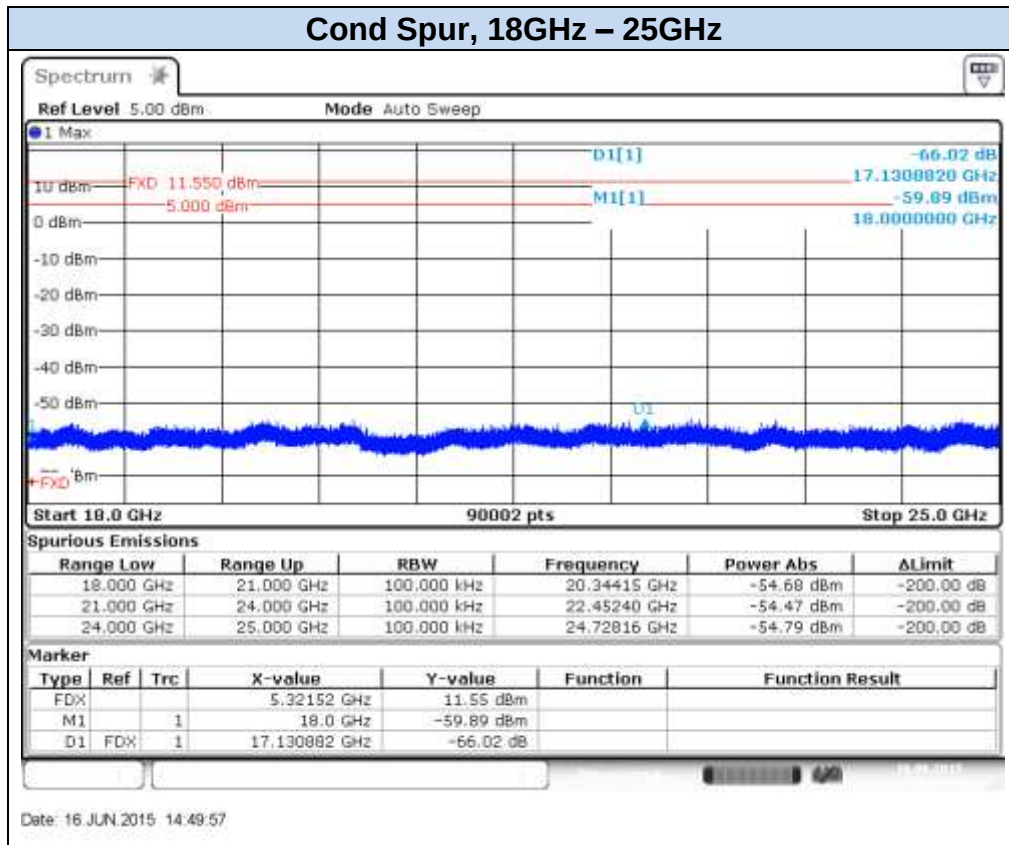


Date: 16 JUN 2015 14:48:08

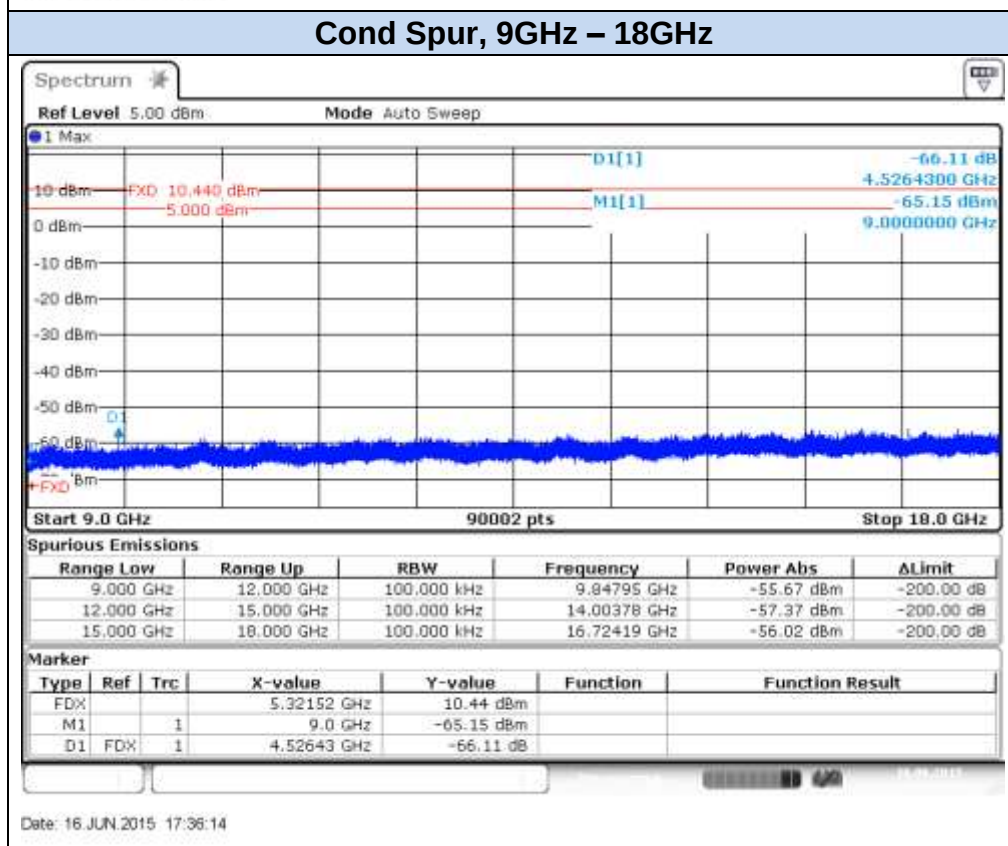
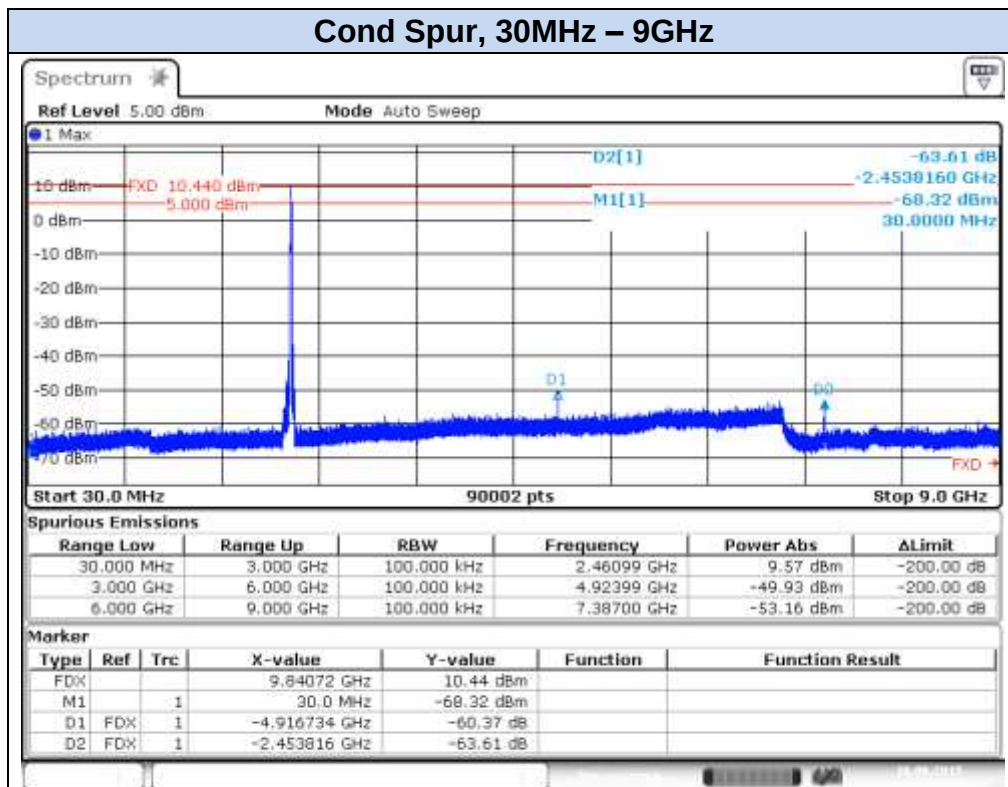
Cond Spur, 9GHz – 18GHz

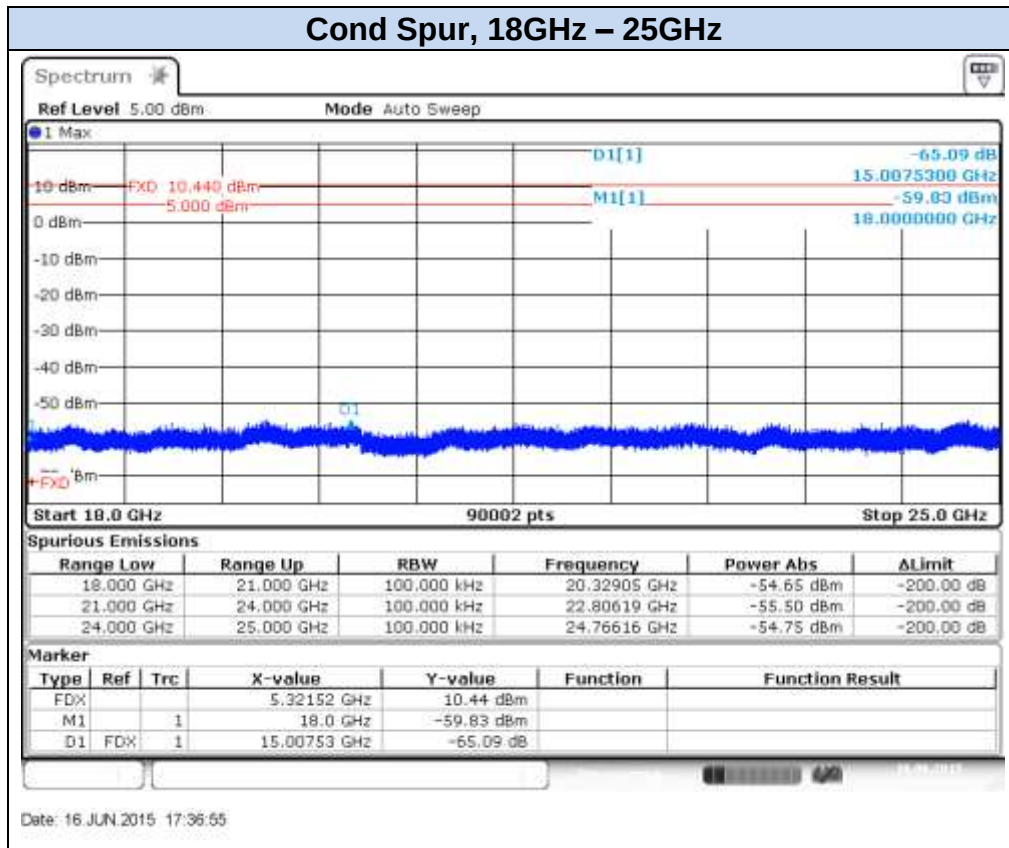


Date: 16 JUN 2015 14:48:58

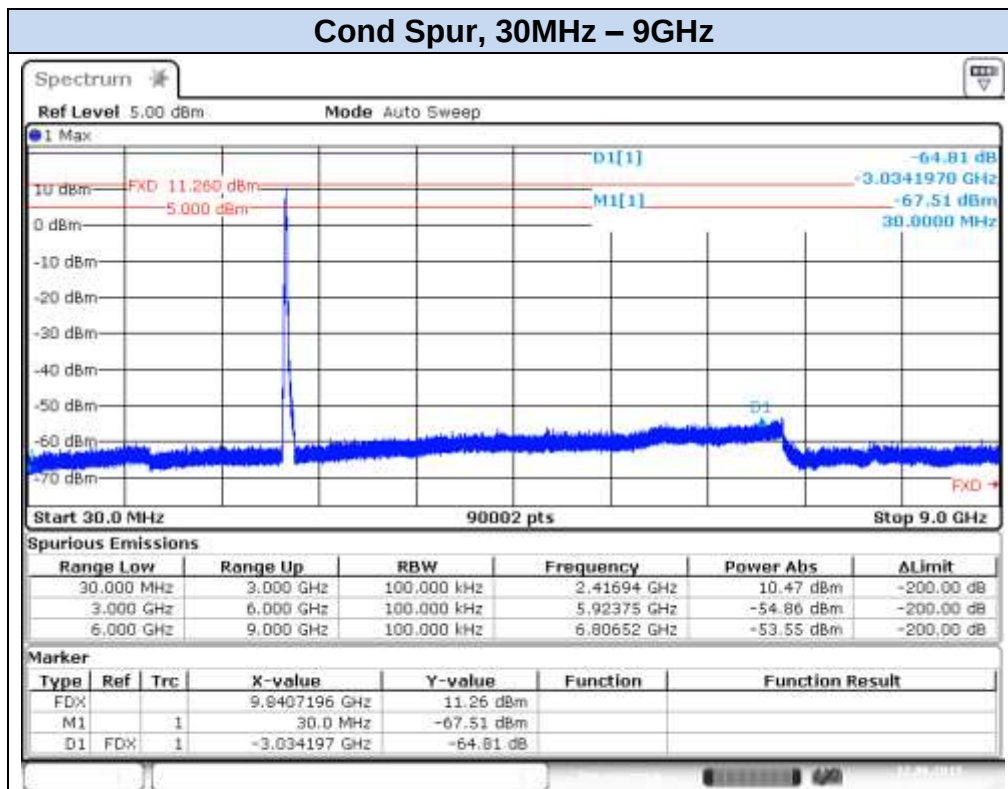


802.11b, 1Mbps – Chain B, CH11



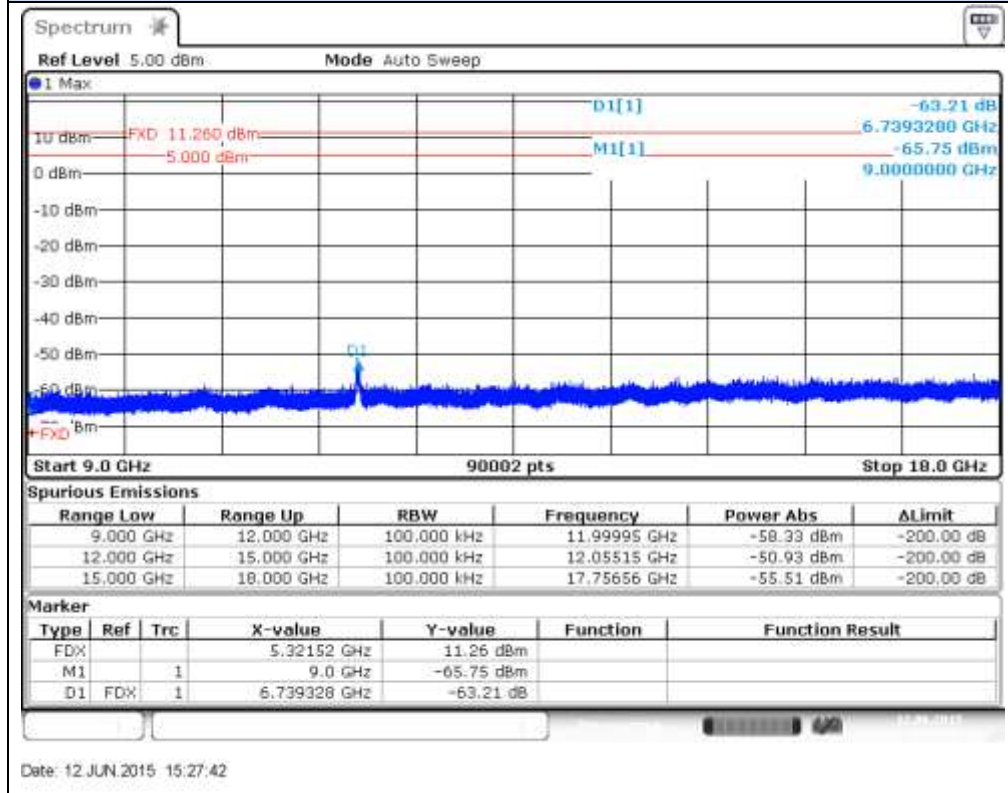


802.11g, 6Mbps – Chain A, CH1

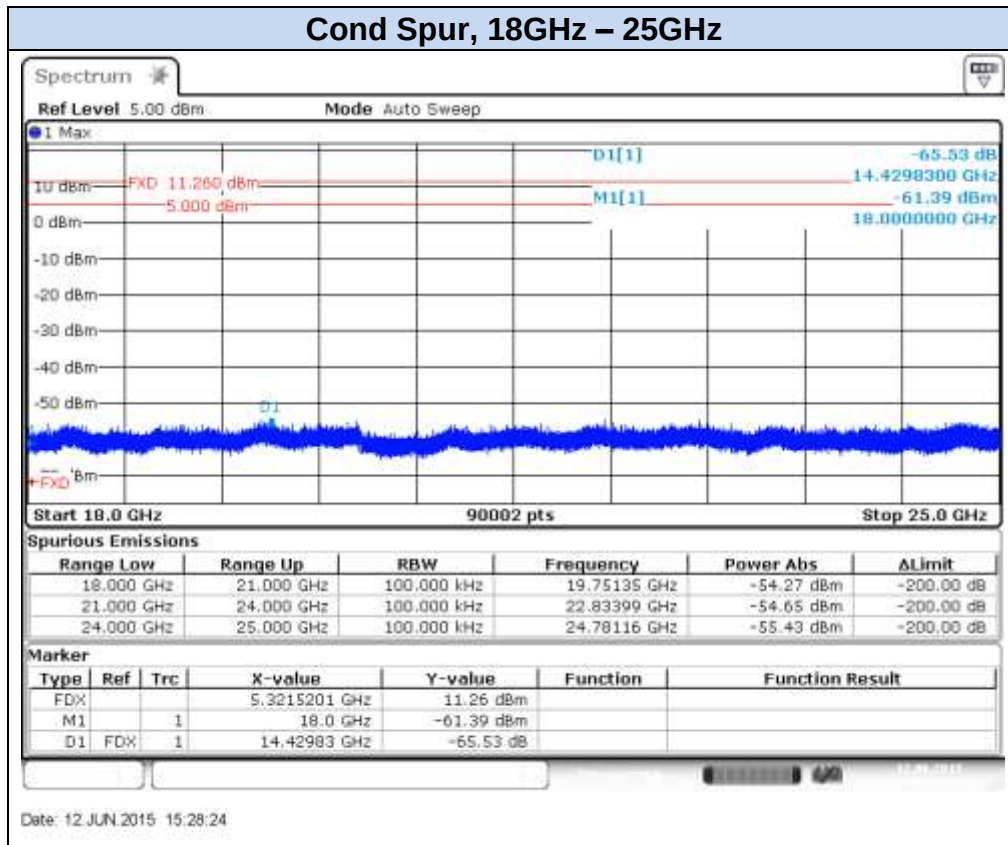


Date: 12 JUN.2015 15:26:27

Cond Spur, 9GHz – 18GHz

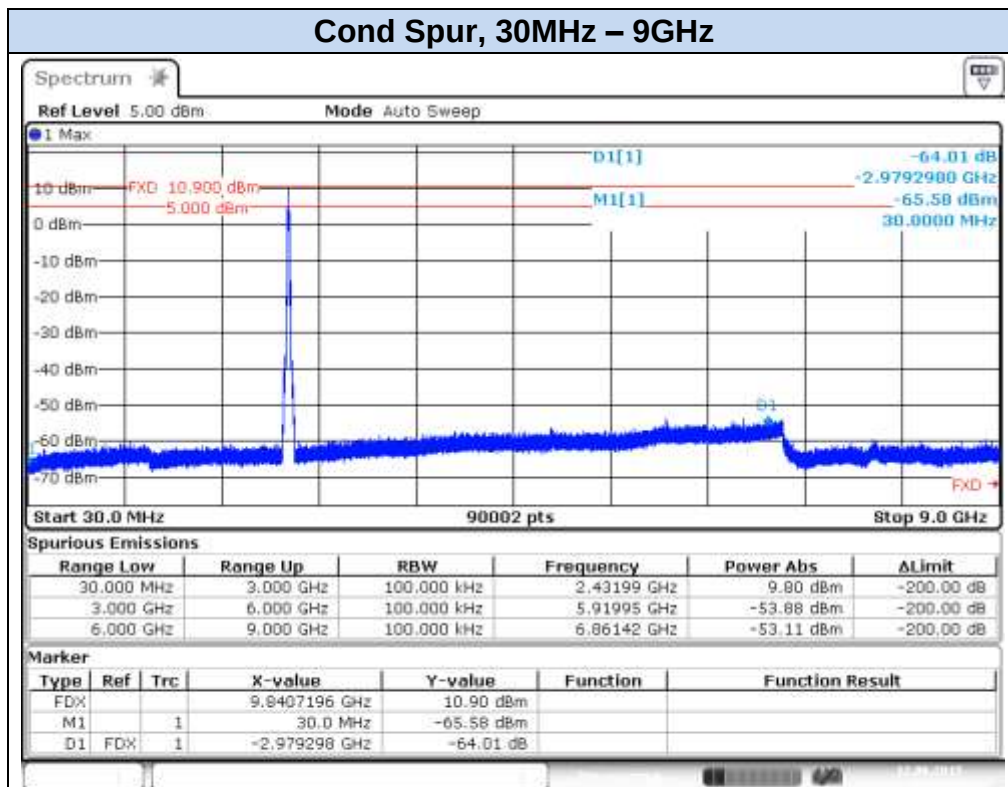


Date: 12 JUN 2015 15:27:42

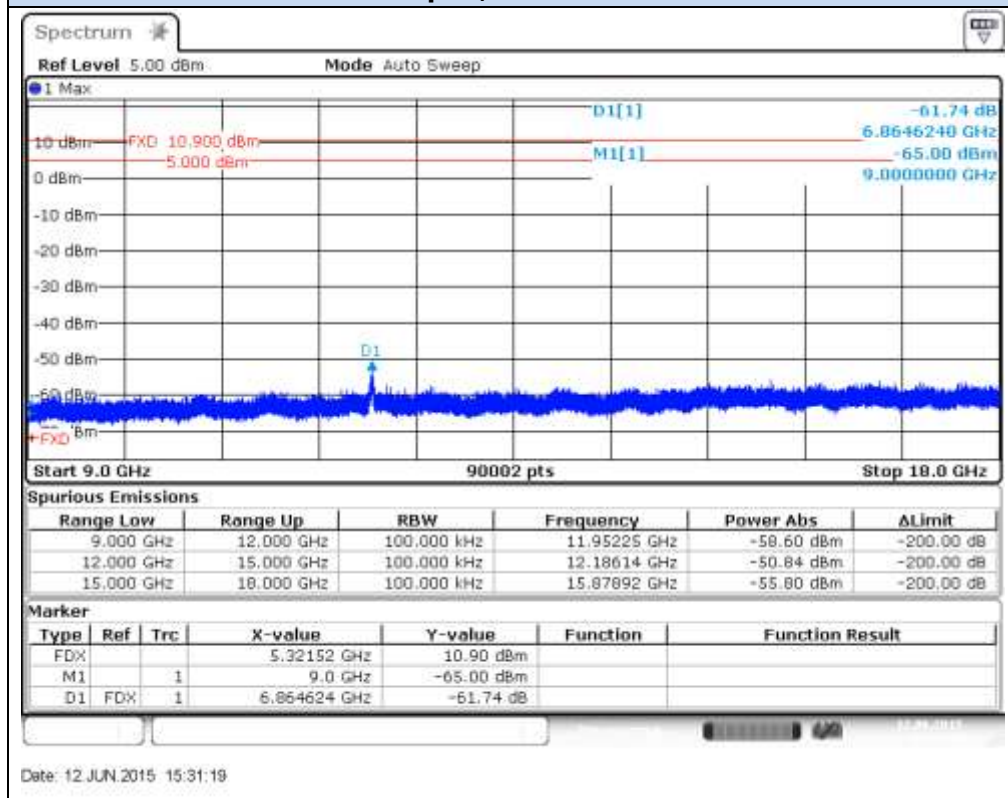


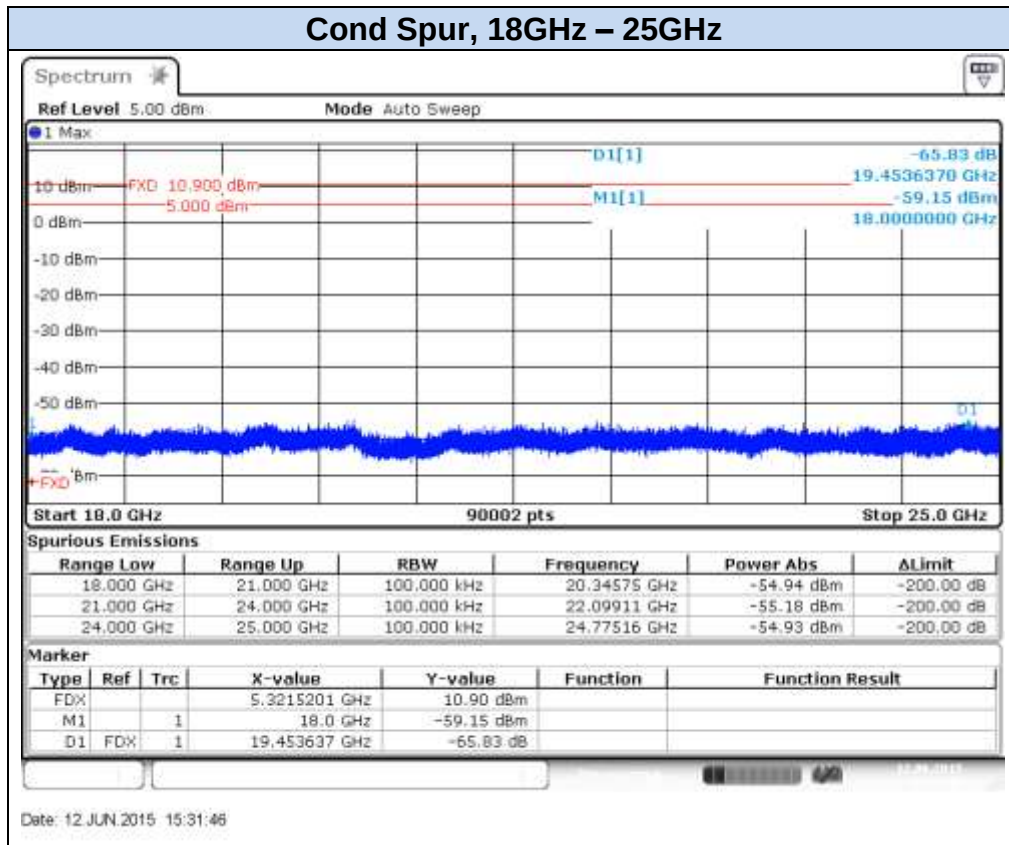
802.11g, 6Mbps – Chain A, CH6

Cond Spur, 30MHz – 9GHz



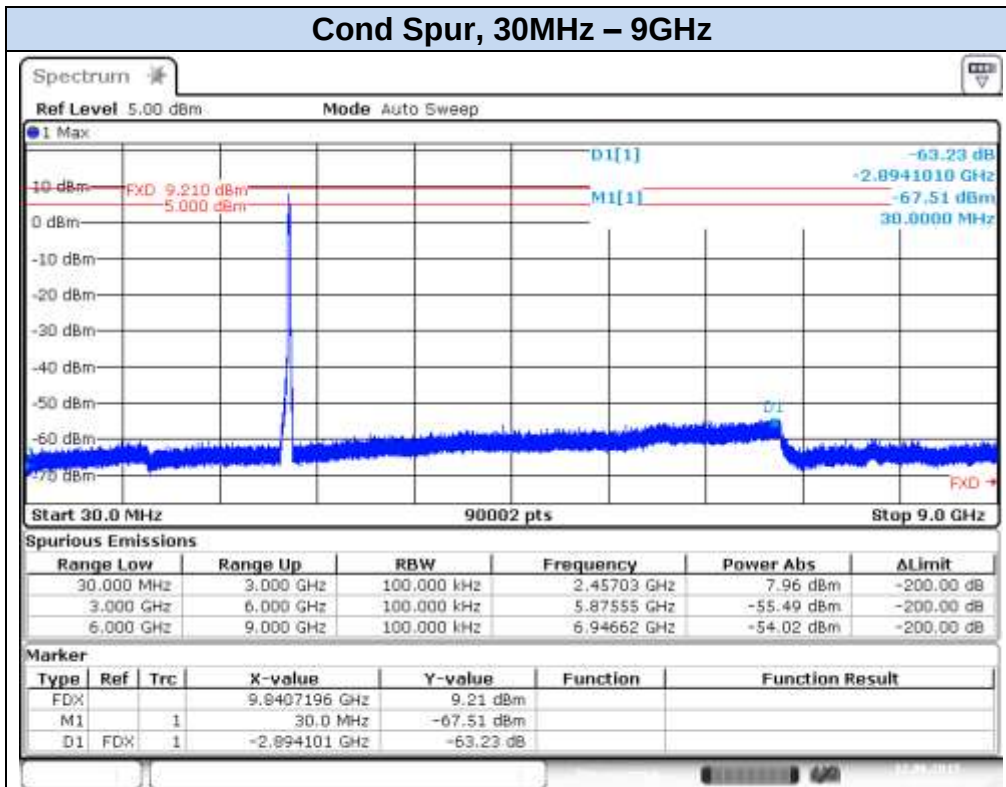
Cond Spur, 9GHz – 18GHz



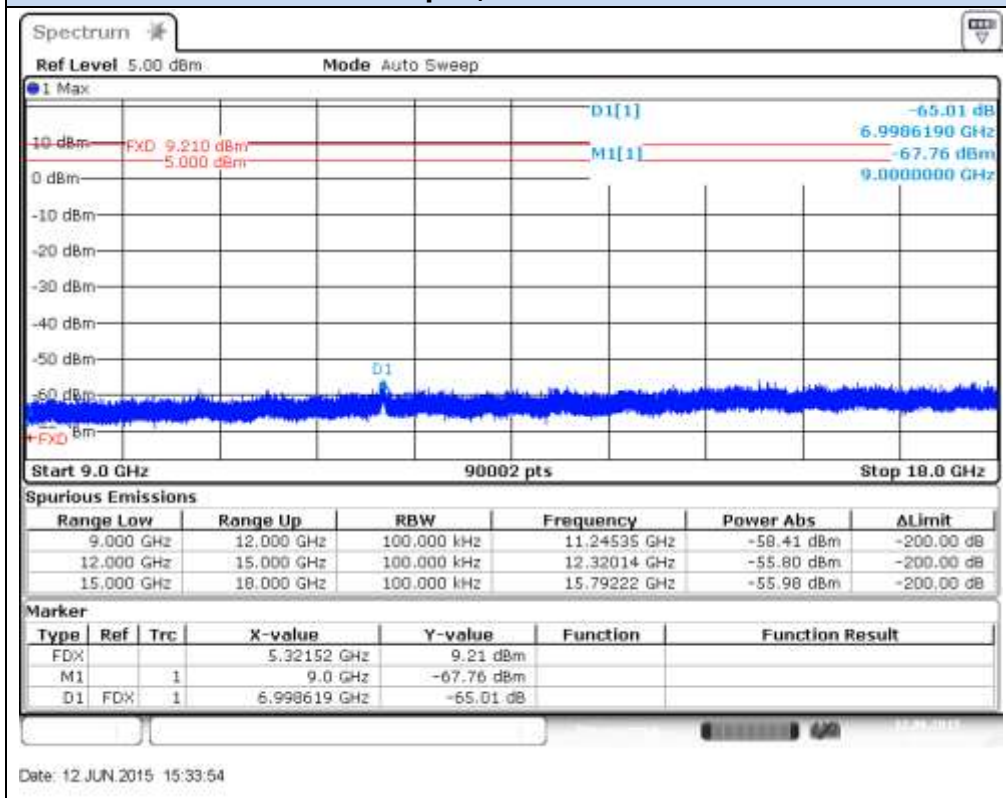


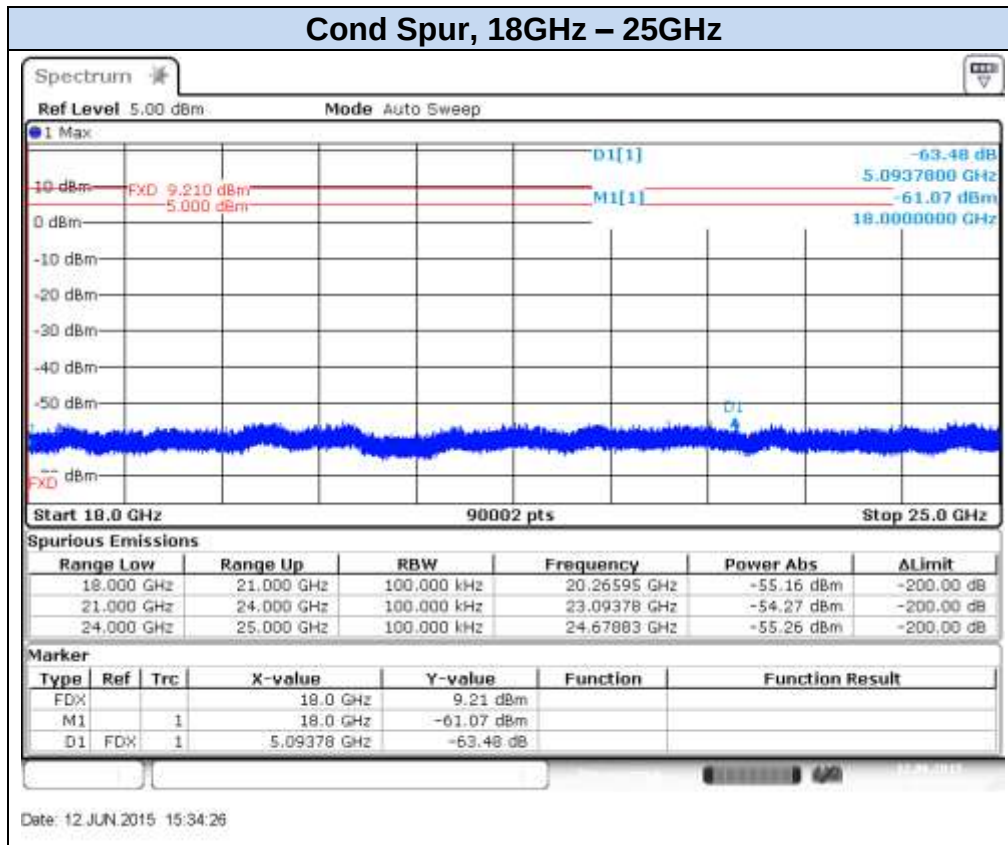
802.11g, 6Mbps – Chain A, CH11

Cond Spur, 30MHz – 9GHz



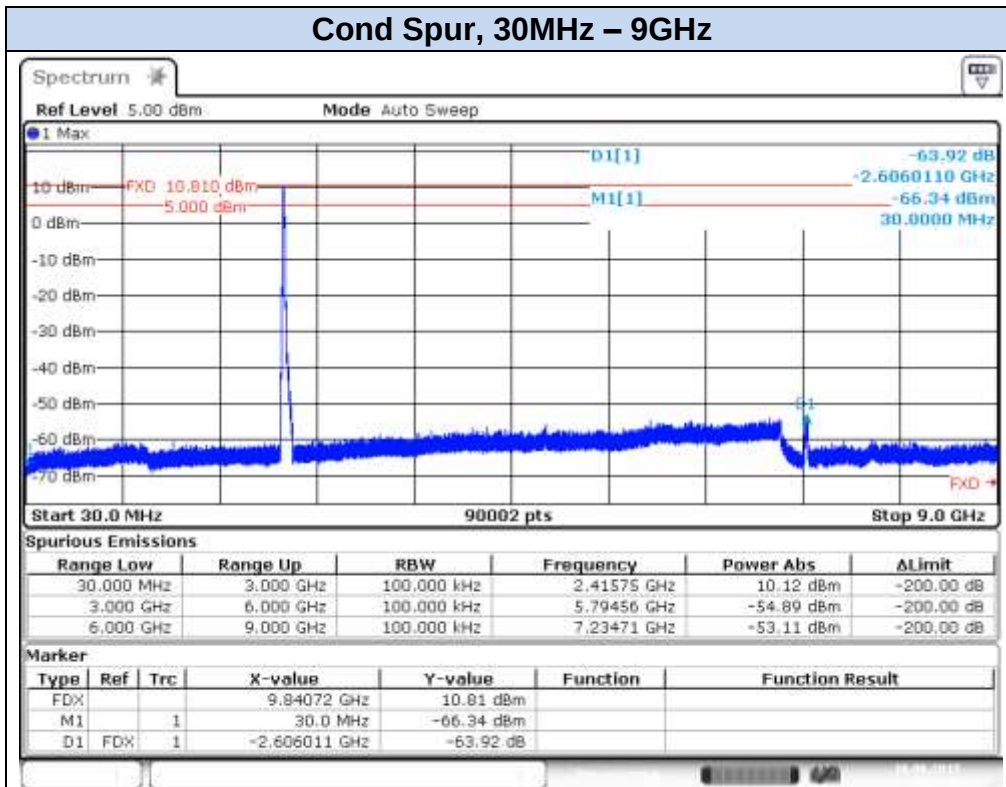
Cond Spur, 9GHz – 18GHz



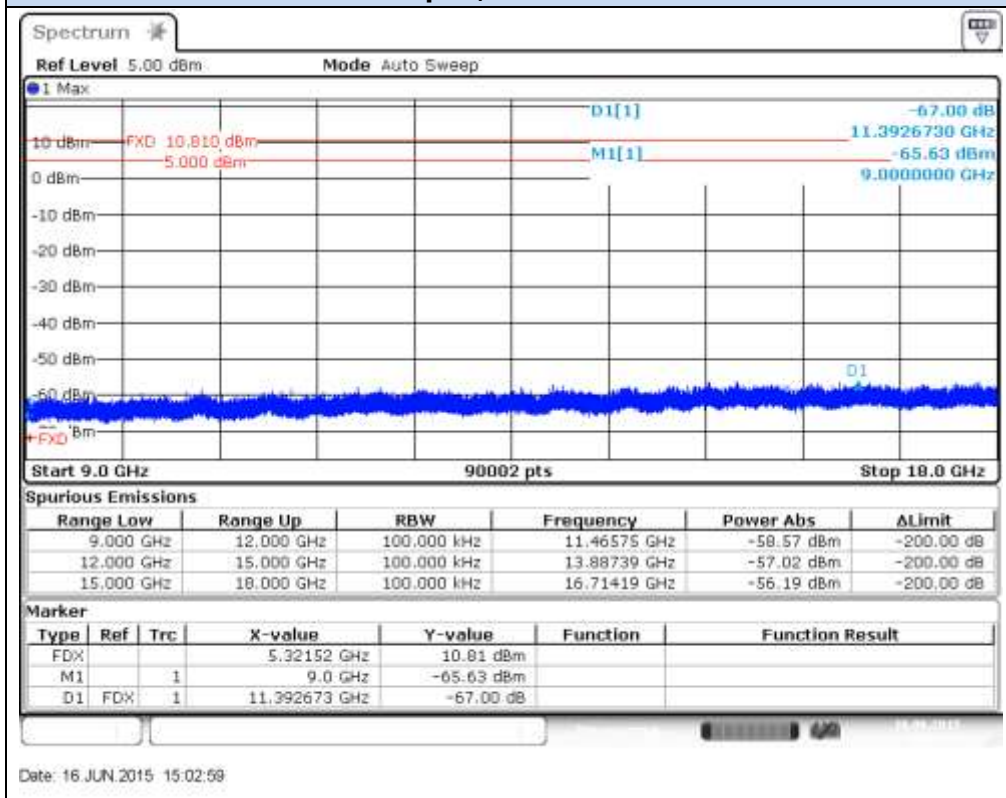


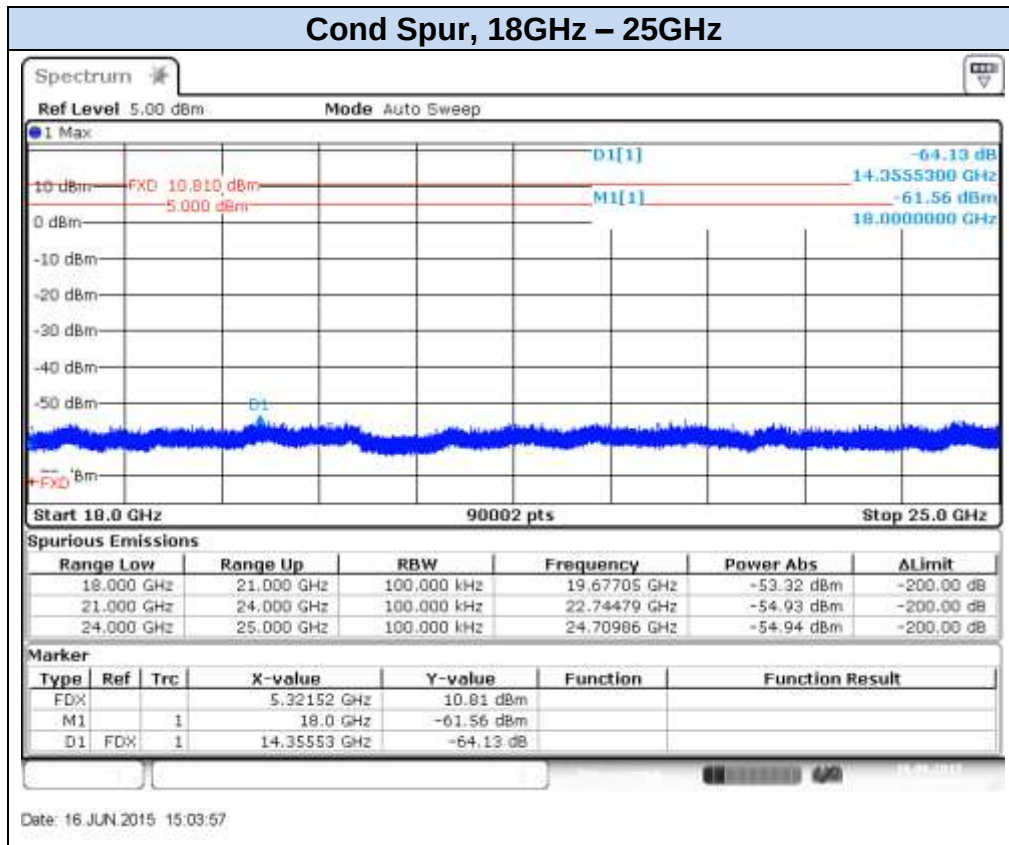
802.11g, 6Mbps – Chain B, CH1

Cond Spur, 30MHz – 9GHz



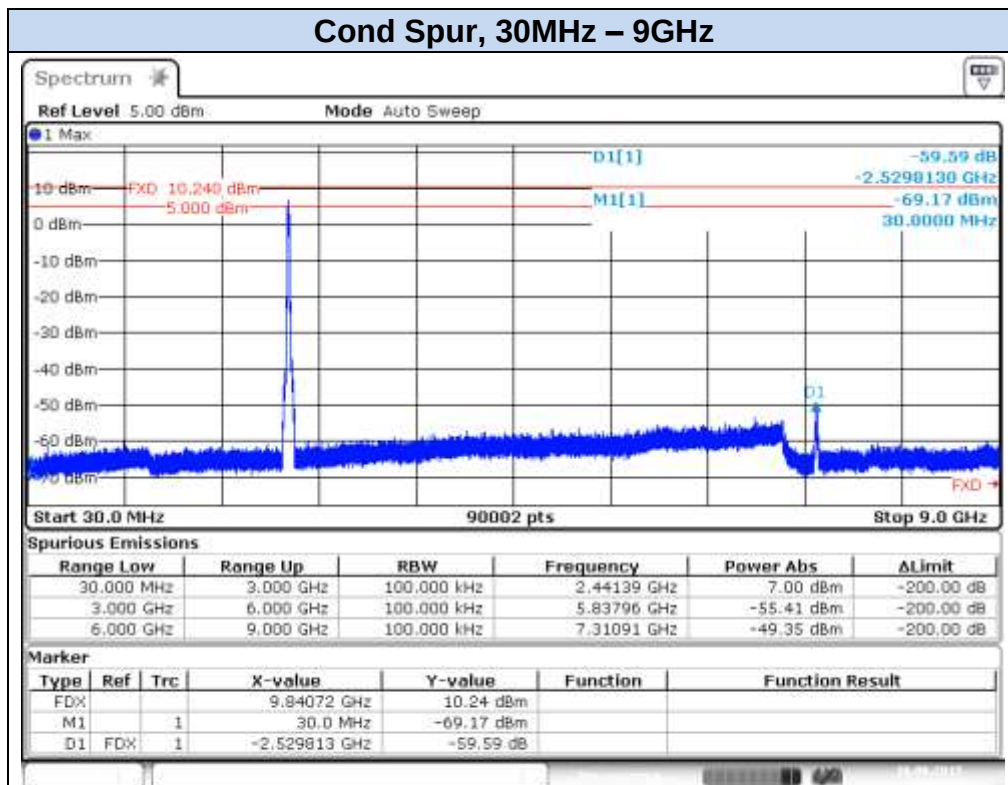
Cond Spur, 9GHz – 18GHz



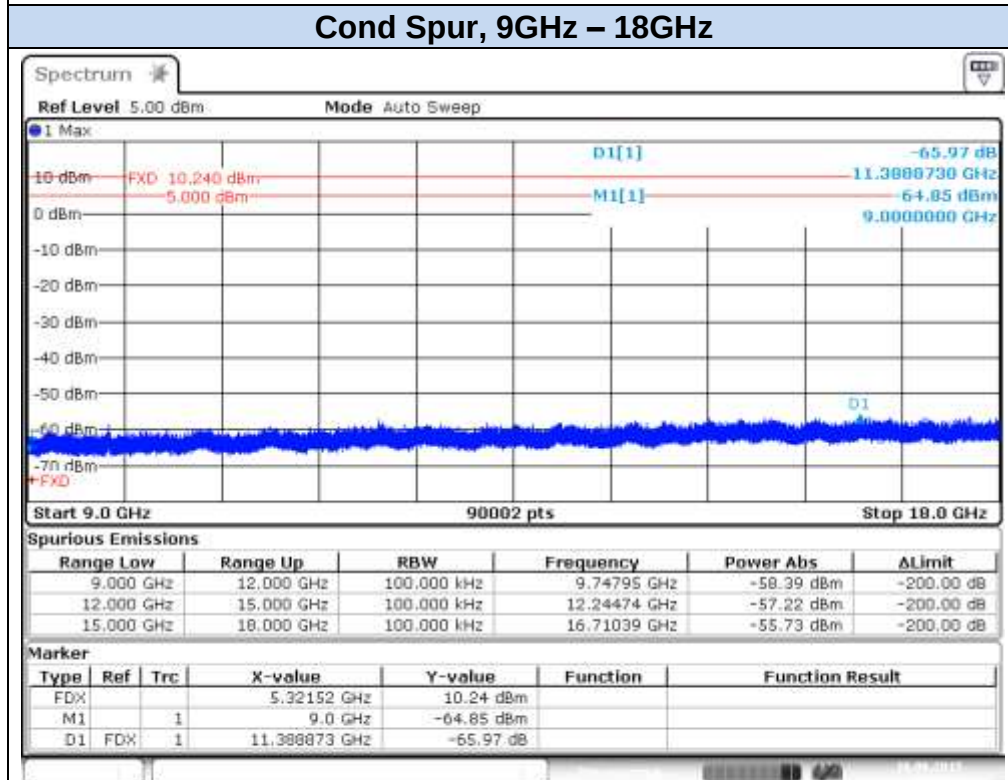


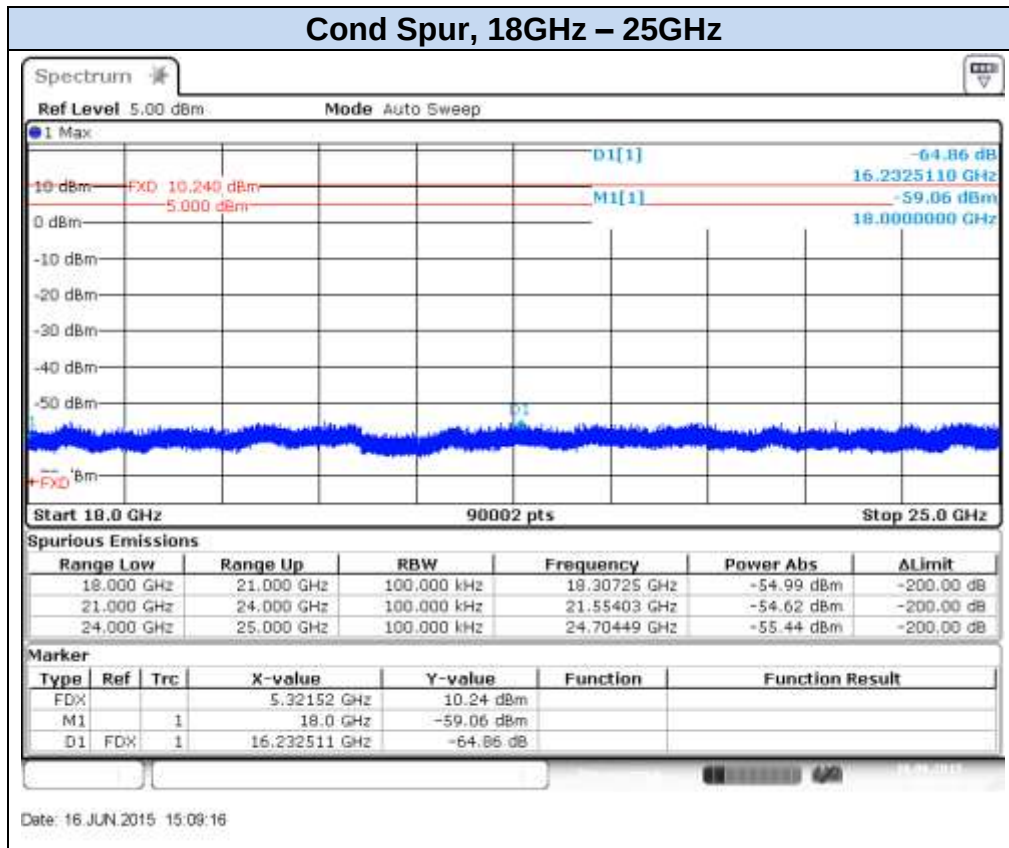
802.11g, 6Mbps – Chain B, CH6

Cond Spur, 30MHz – 9GHz



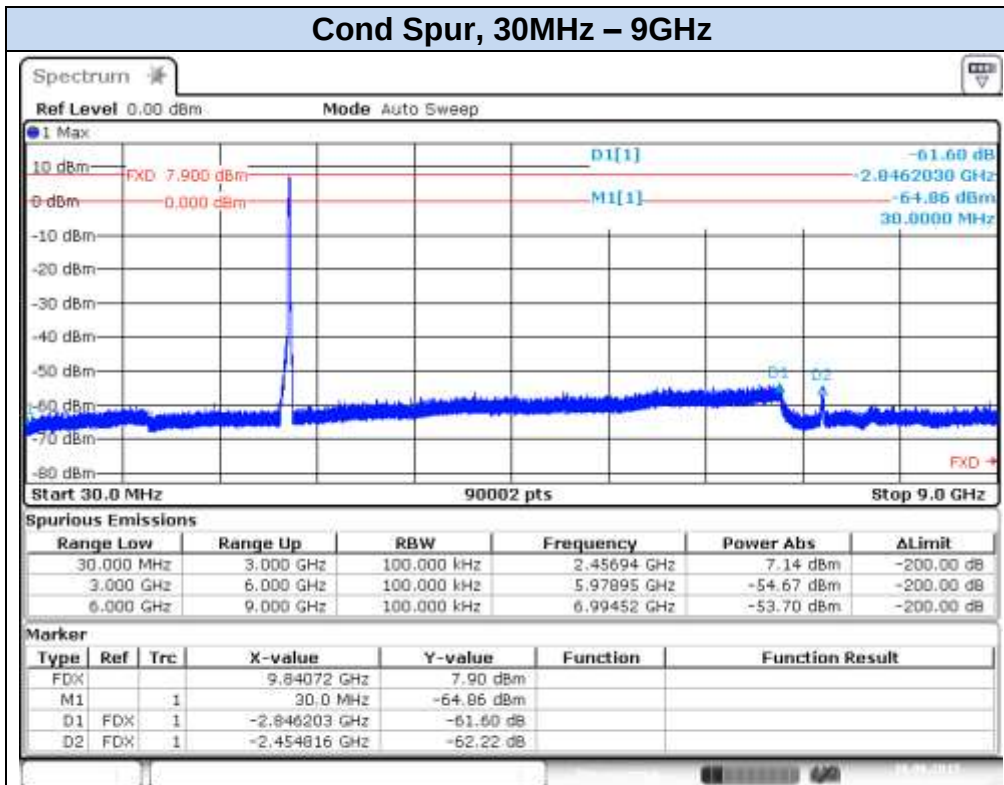
Cond Spur, 9GHz – 18GHz



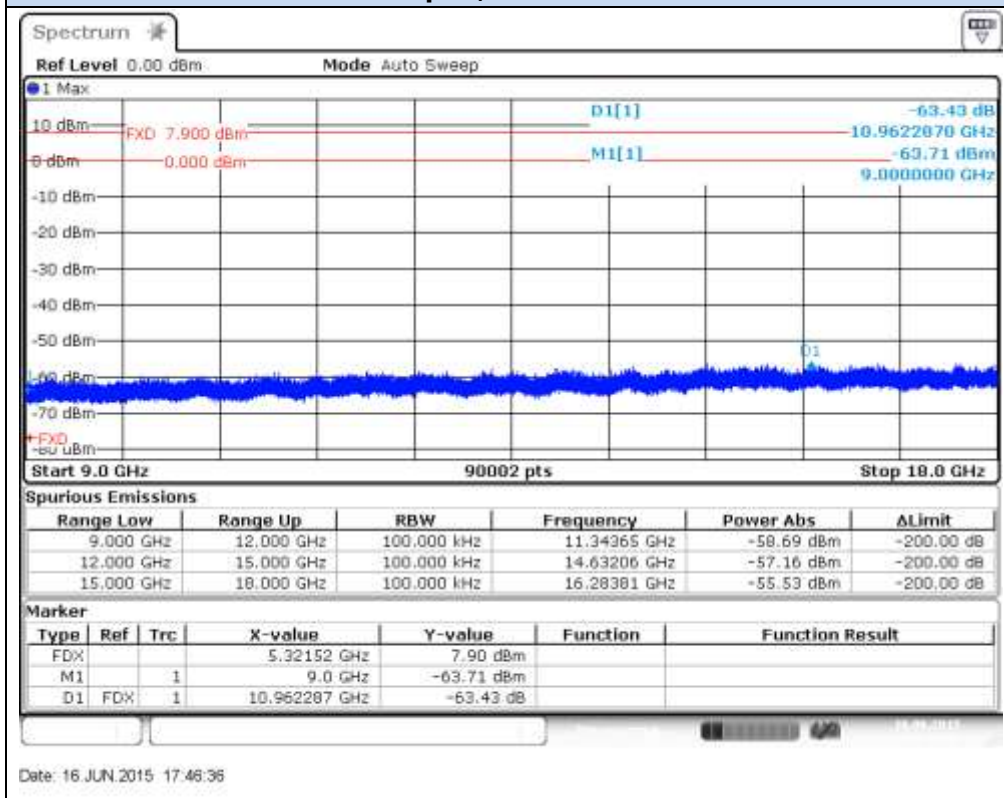


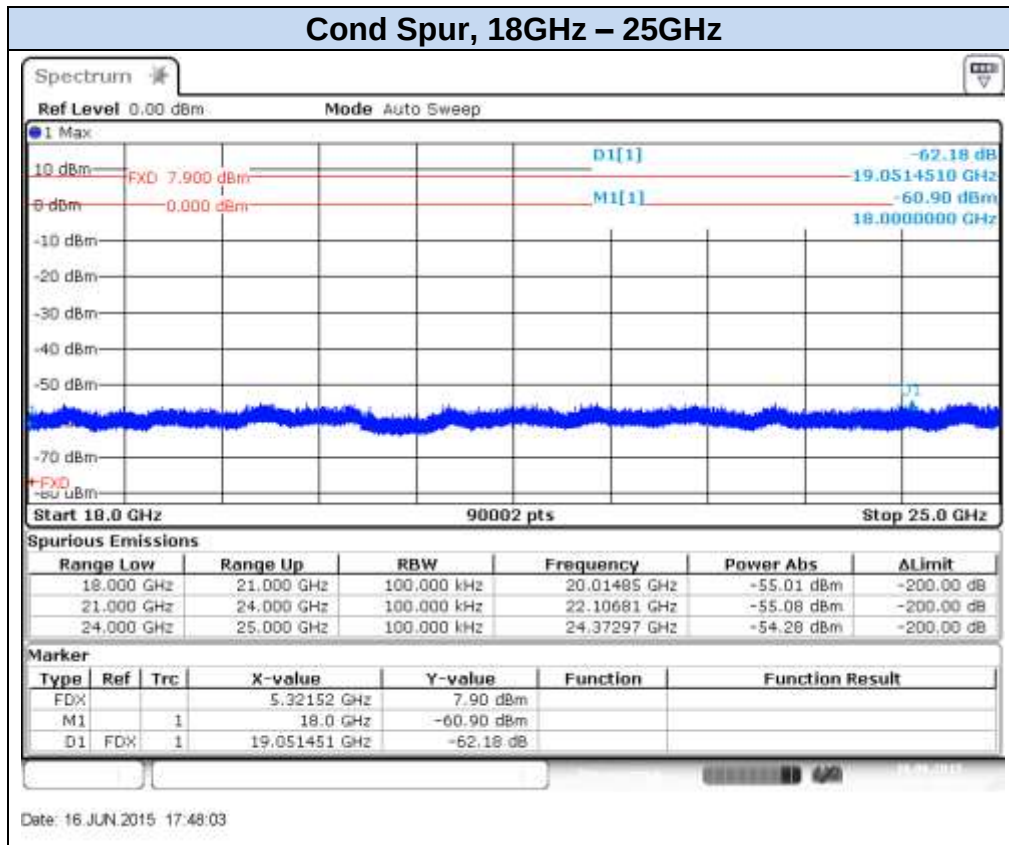
802.11g, 6Mbps – Chain B, CH11

Cond Spur, 30MHz – 9GHz



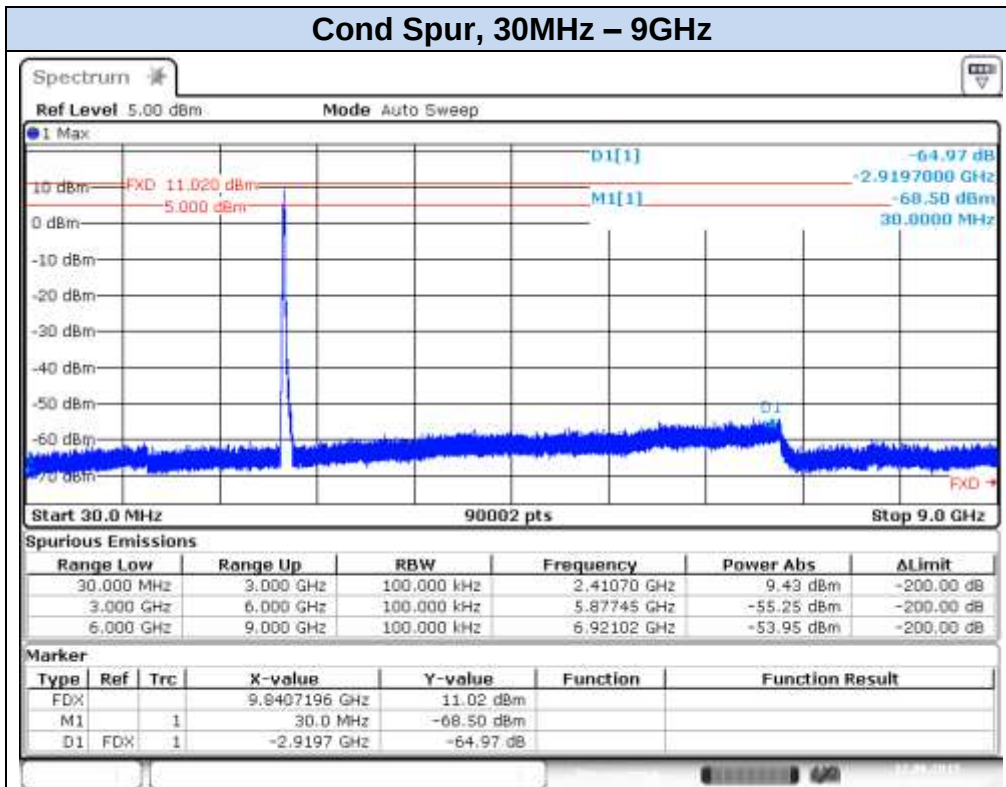
Cond Spur, 9GHz – 18GHz



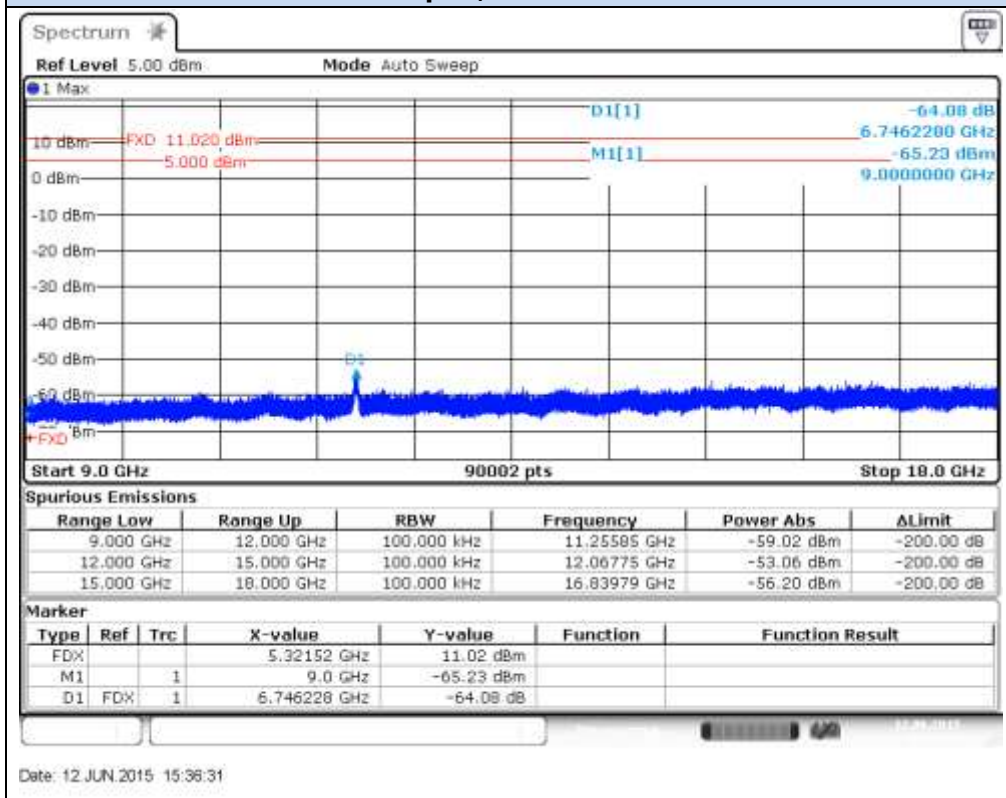


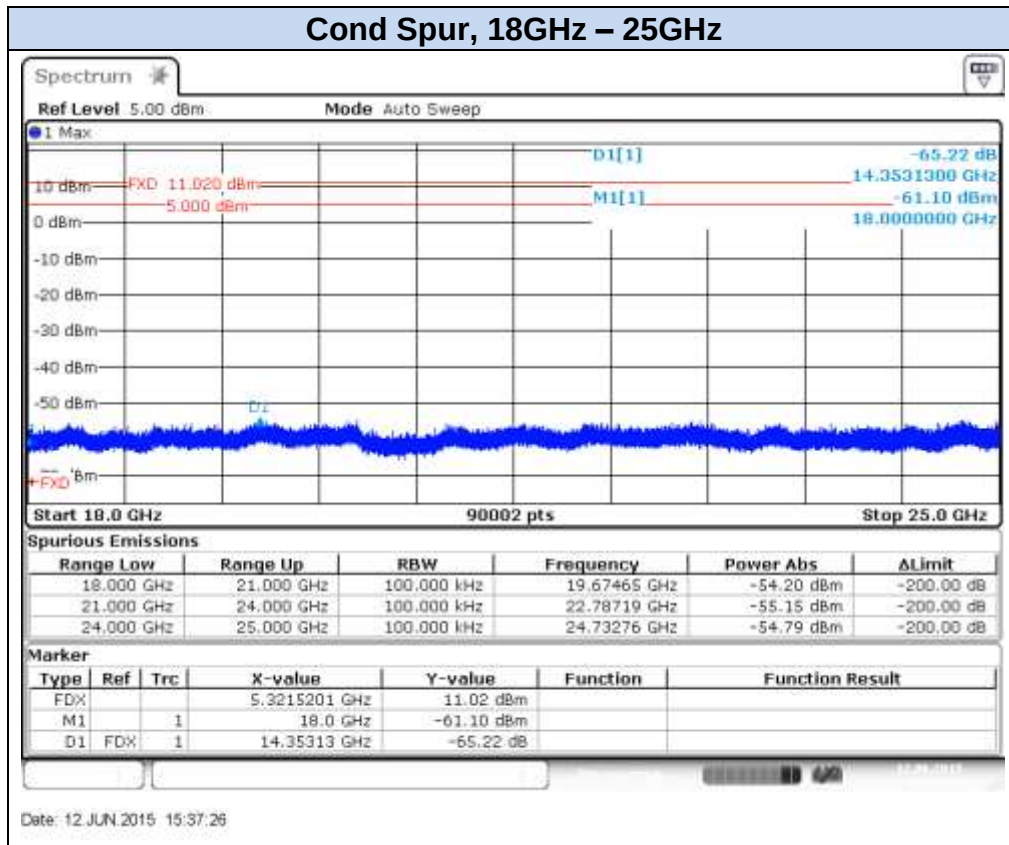
802.11n20, HT0 (SISO) – Chain A, CH1

Cond Spur, 30MHz – 9GHz



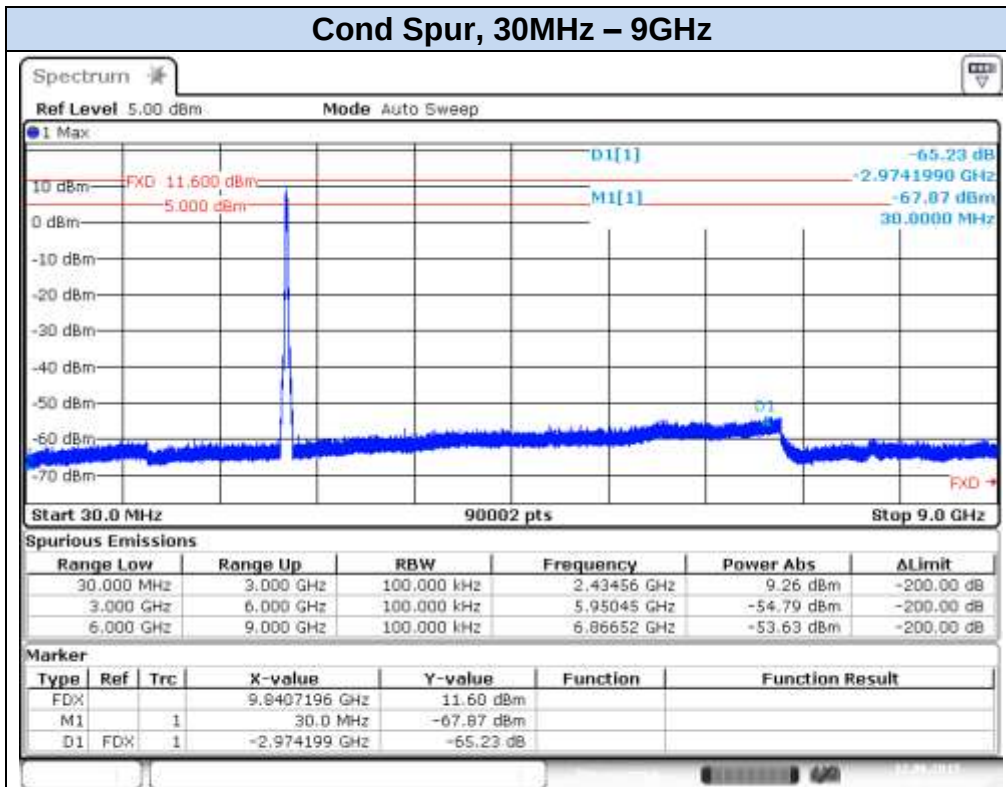
Cond Spur, 9GHz – 18GHz



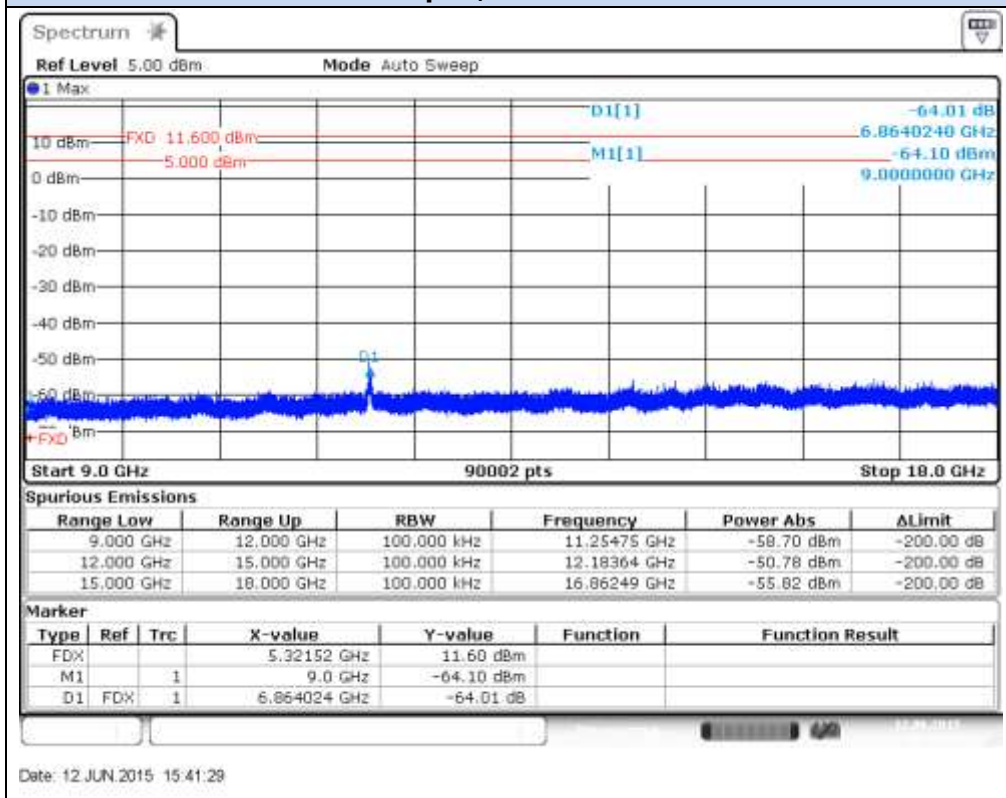


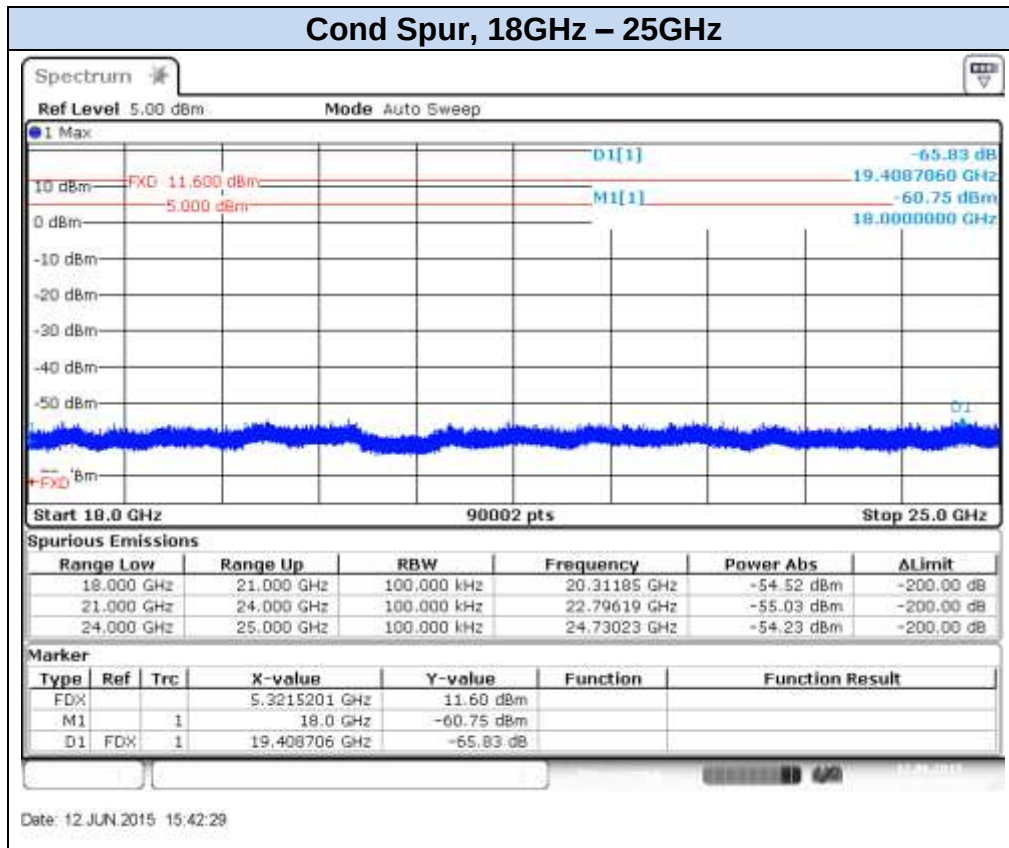
802.11n20, HT0 (SISO) – Chain A, CH6

Cond Spur, 30MHz – 9GHz



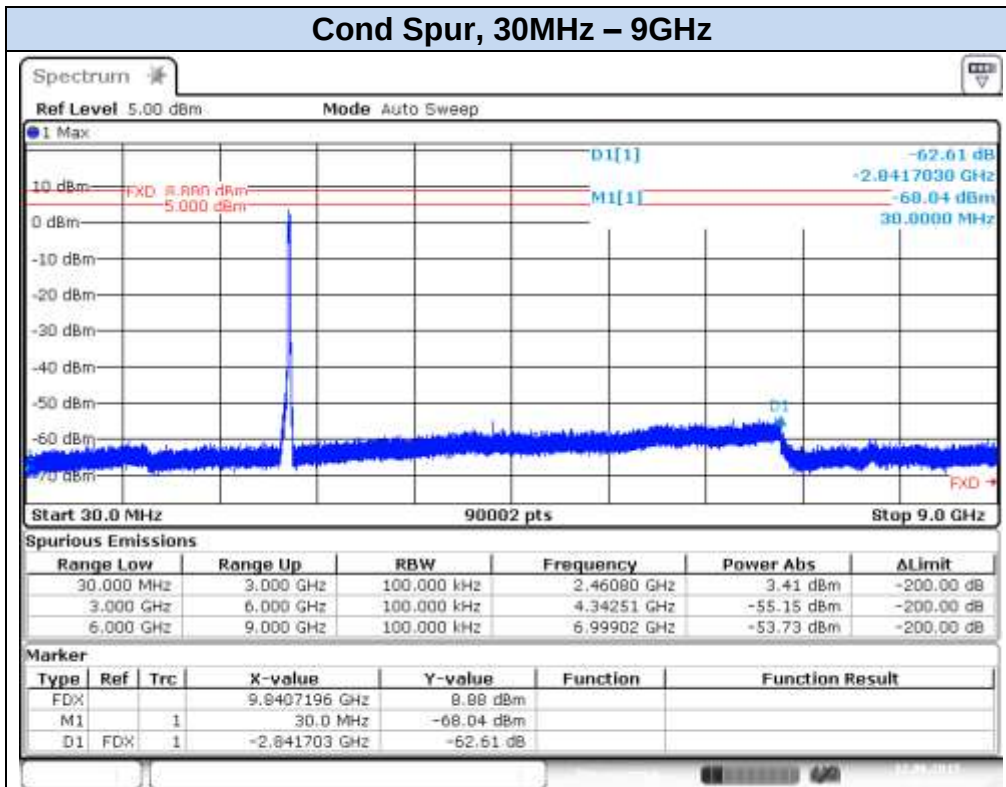
Cond Spur, 9GHz – 18GHz



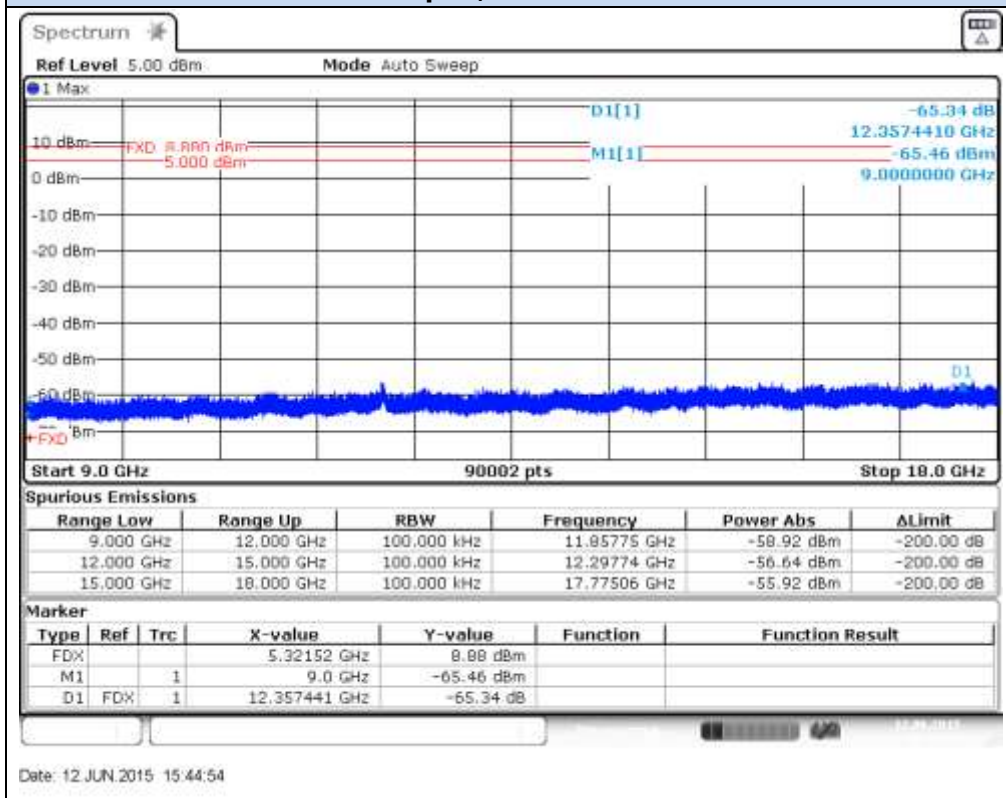


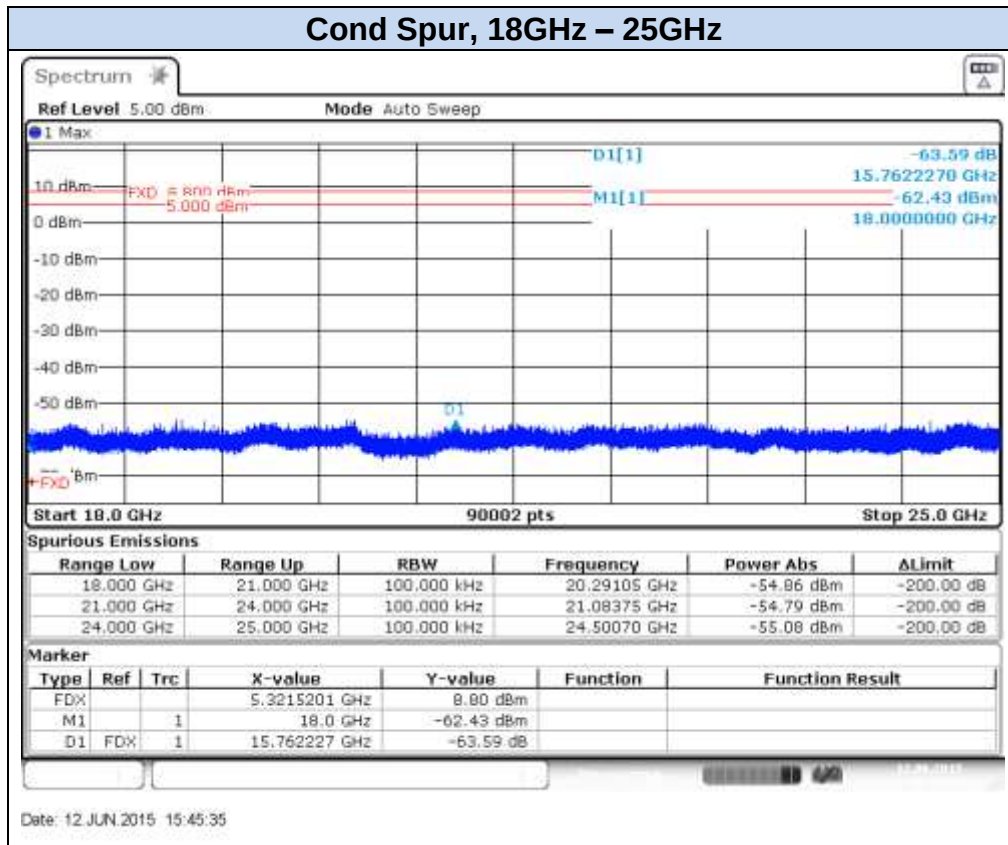
802.11n20, HT0 (SISO) – Chain A, CH11

Cond Spur, 30MHz – 9GHz



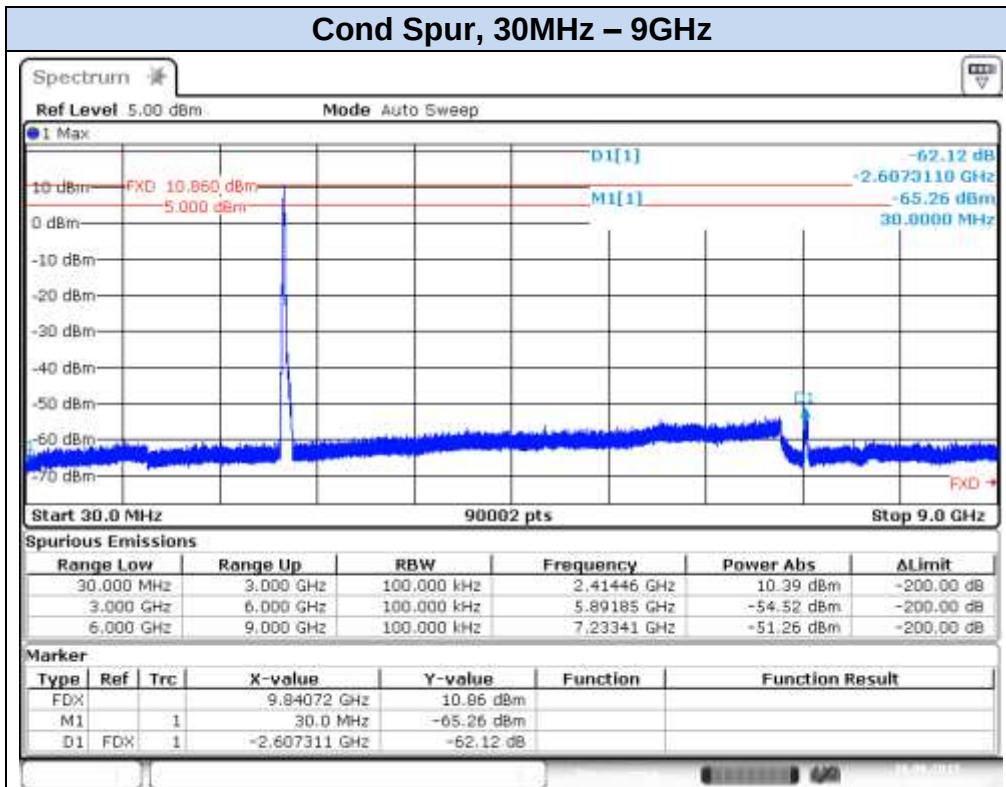
Cond Spur, 9GHz – 18GHz





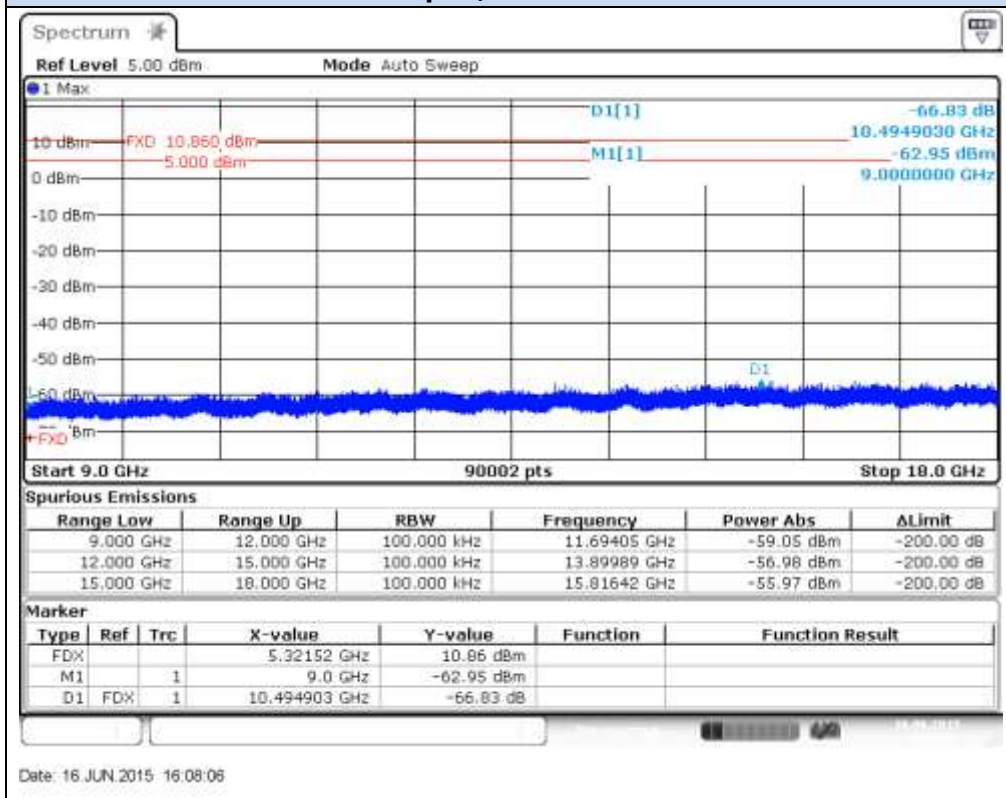
802.11n20, HT0 (SISO) – Chain B, CH1

Cond Spur, 30MHz – 9GHz

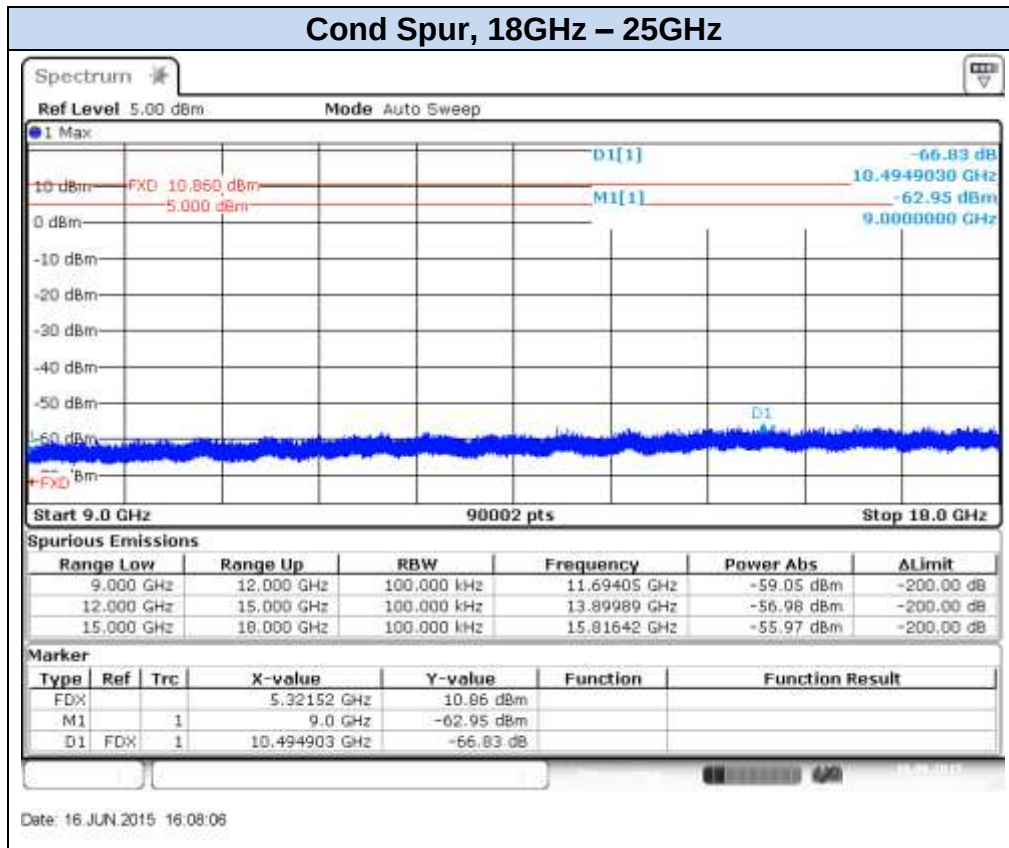


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Cond Spur, 9GHz – 18GHz

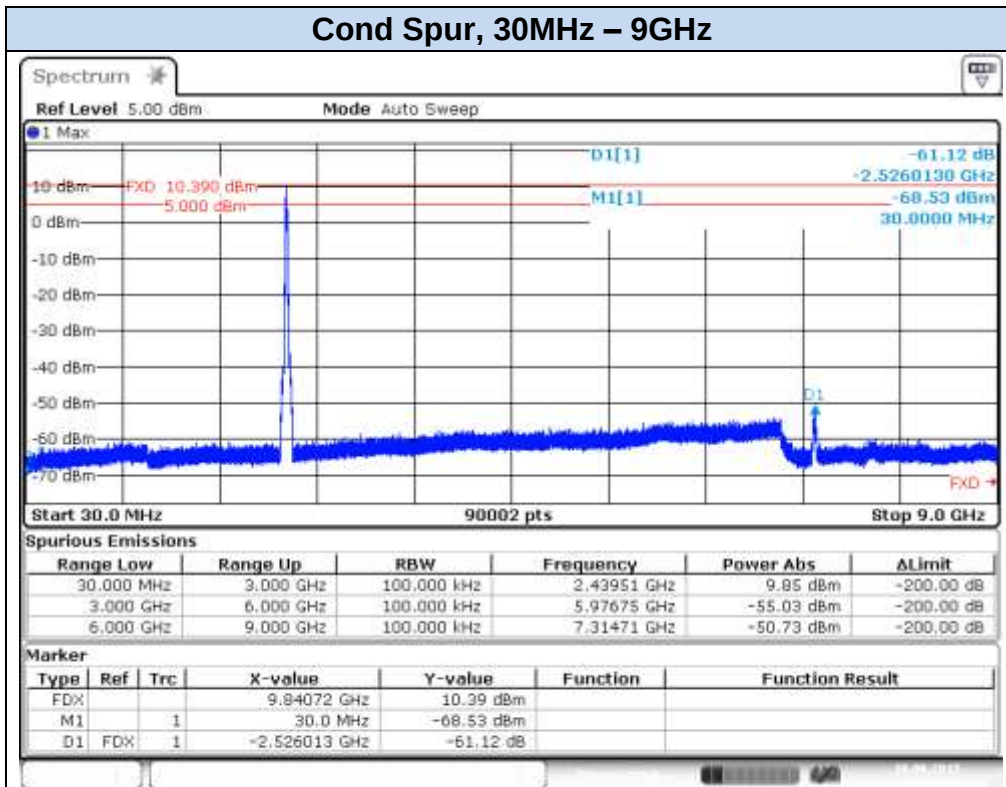


Date: 16 JUN 2015 16:08:06

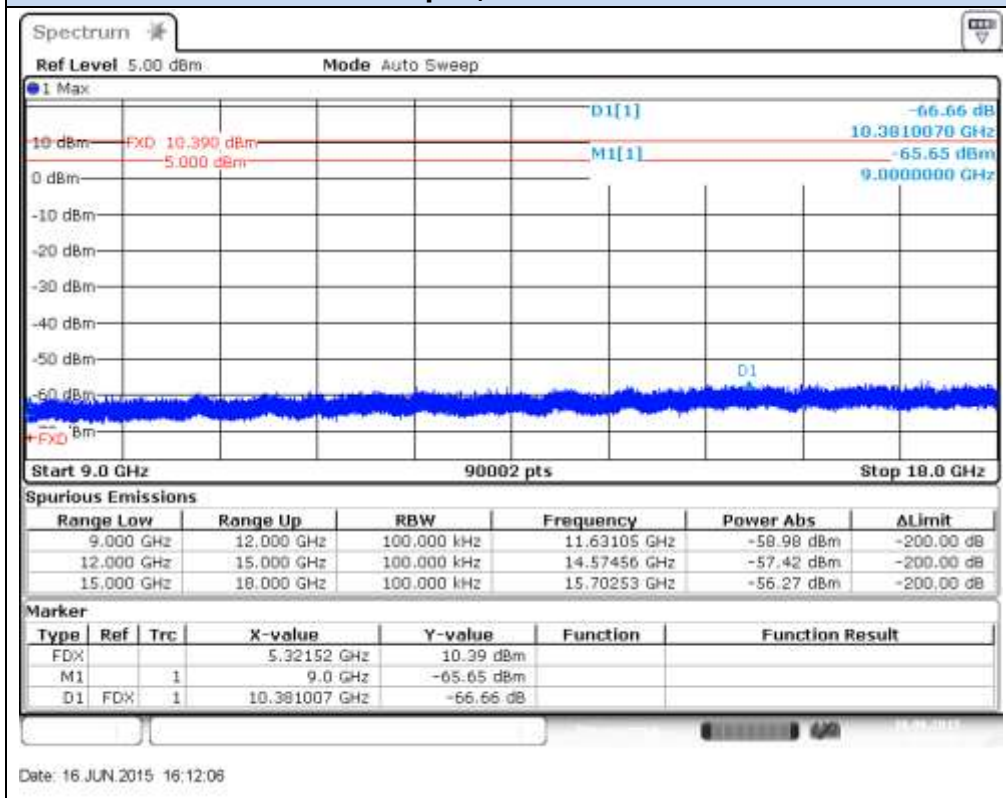


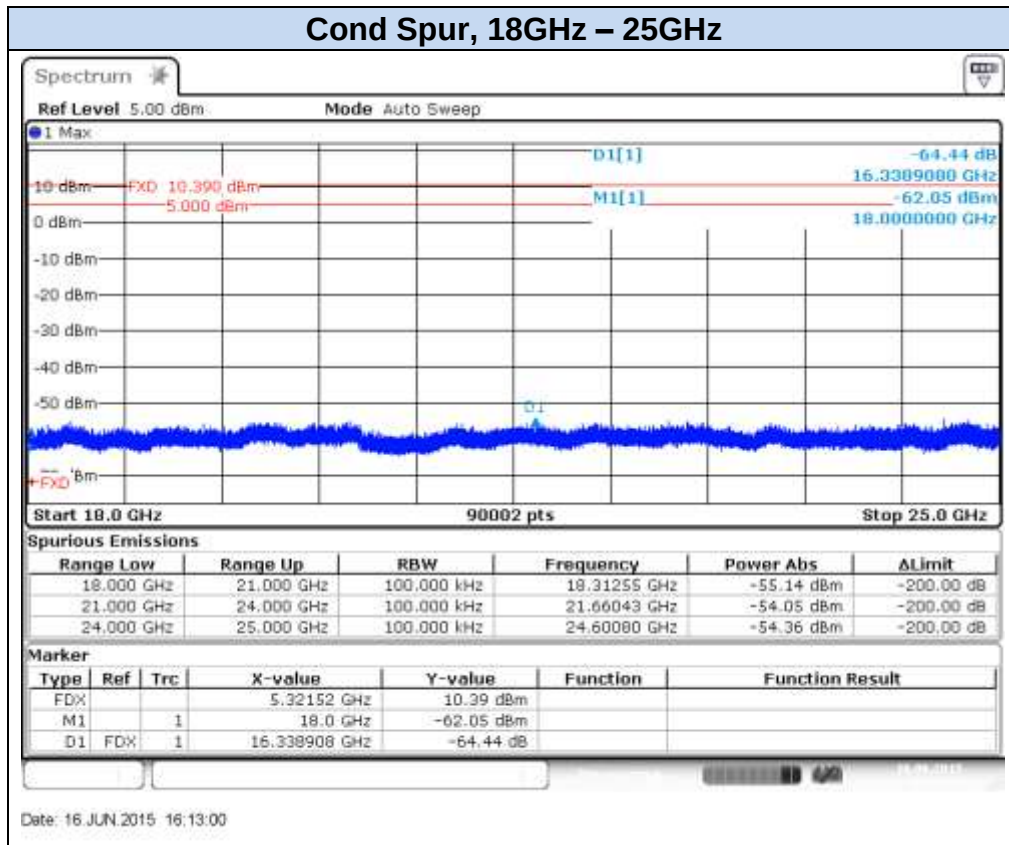
802.11n20, HT0 (SISO) – Chain B, CH6

Cond Spur, 30MHz – 9GHz



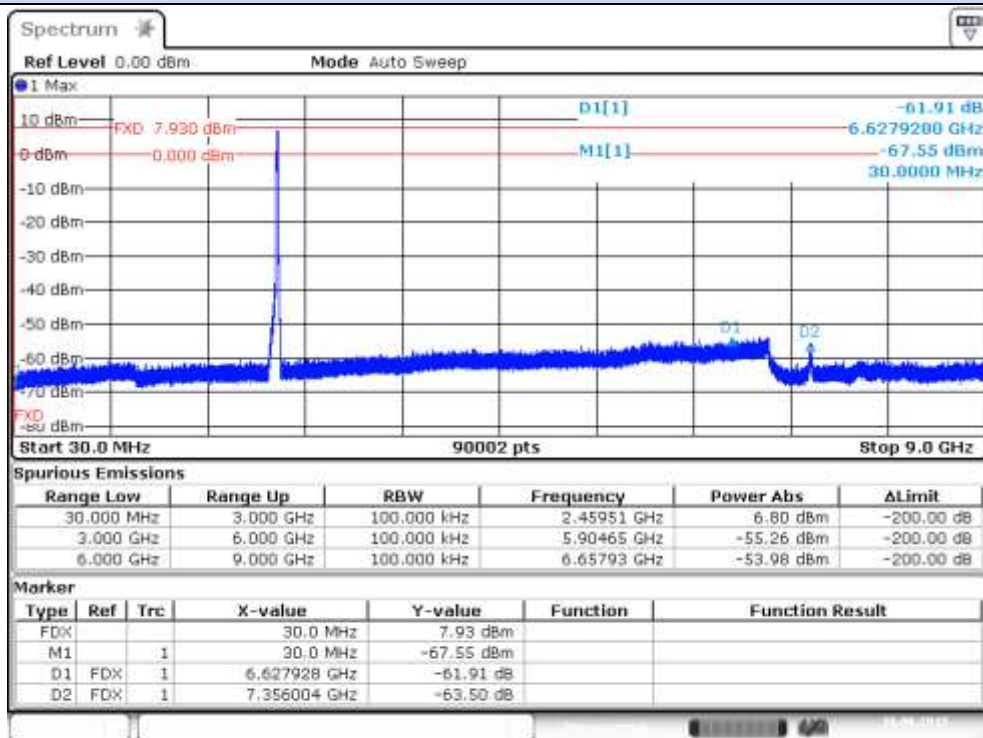
Cond Spur, 9GHz – 18GHz





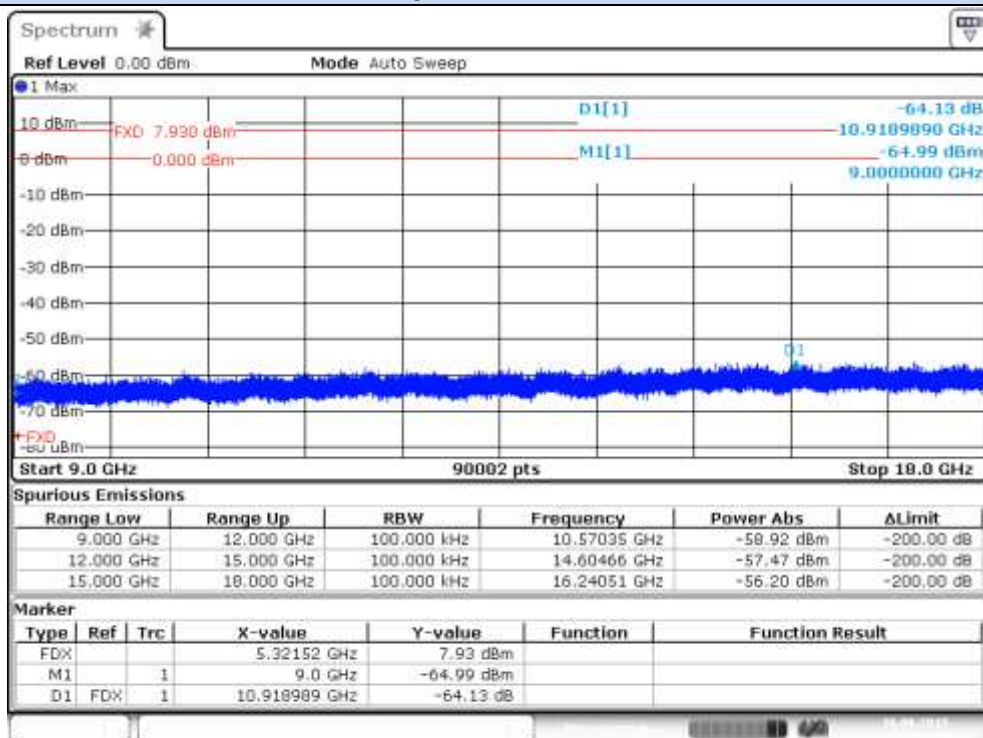
802.11n20, HT0 (SISO) – Chain B, CH11

Cond Spur, 30MHz – 9GHz

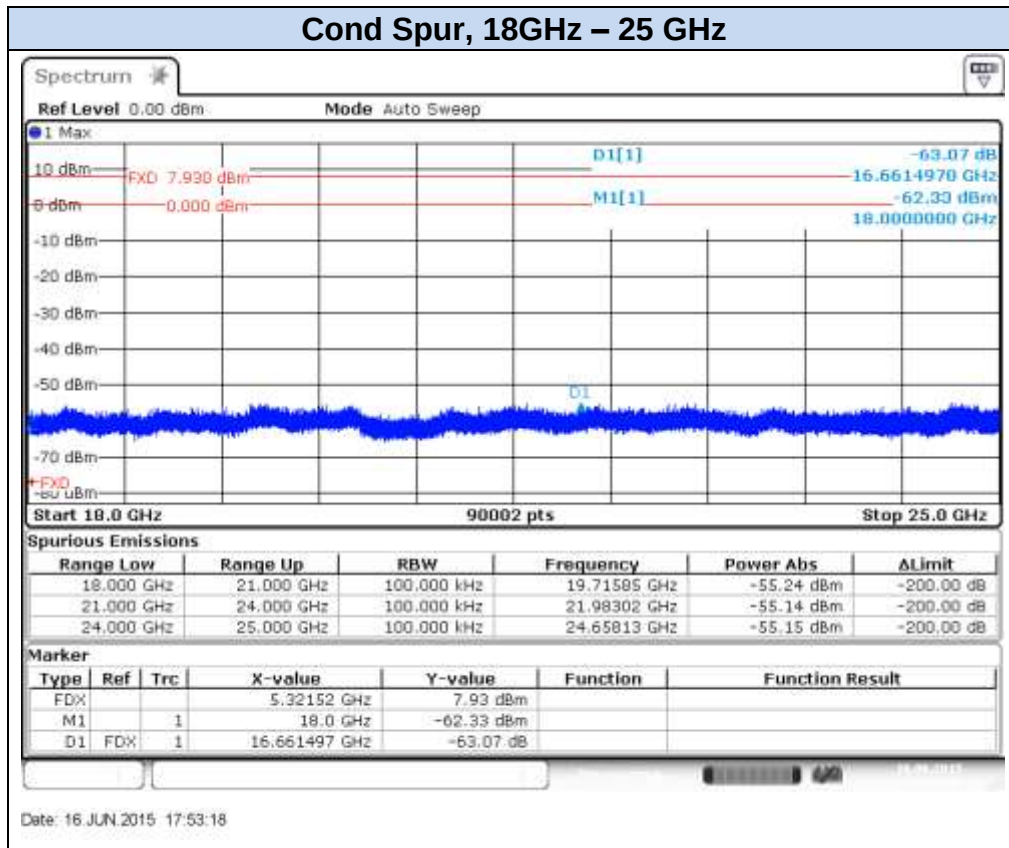


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Cond Spur, 9GHz – 18GHz

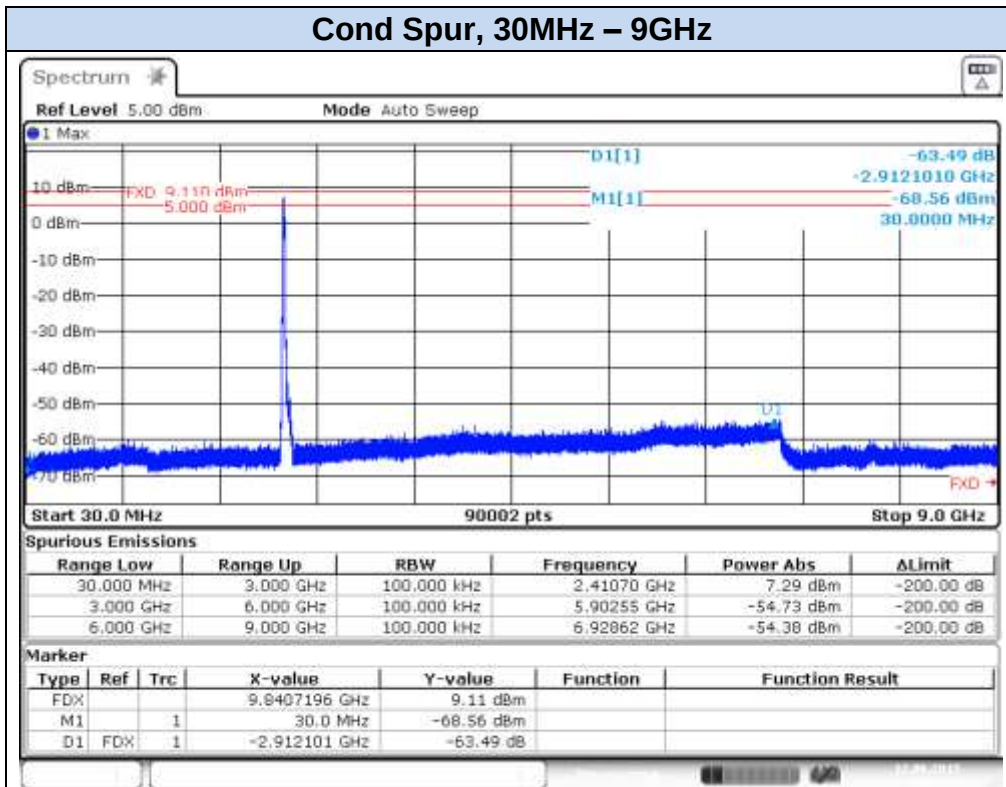


Date: 16 JUN 2015 17:52:18

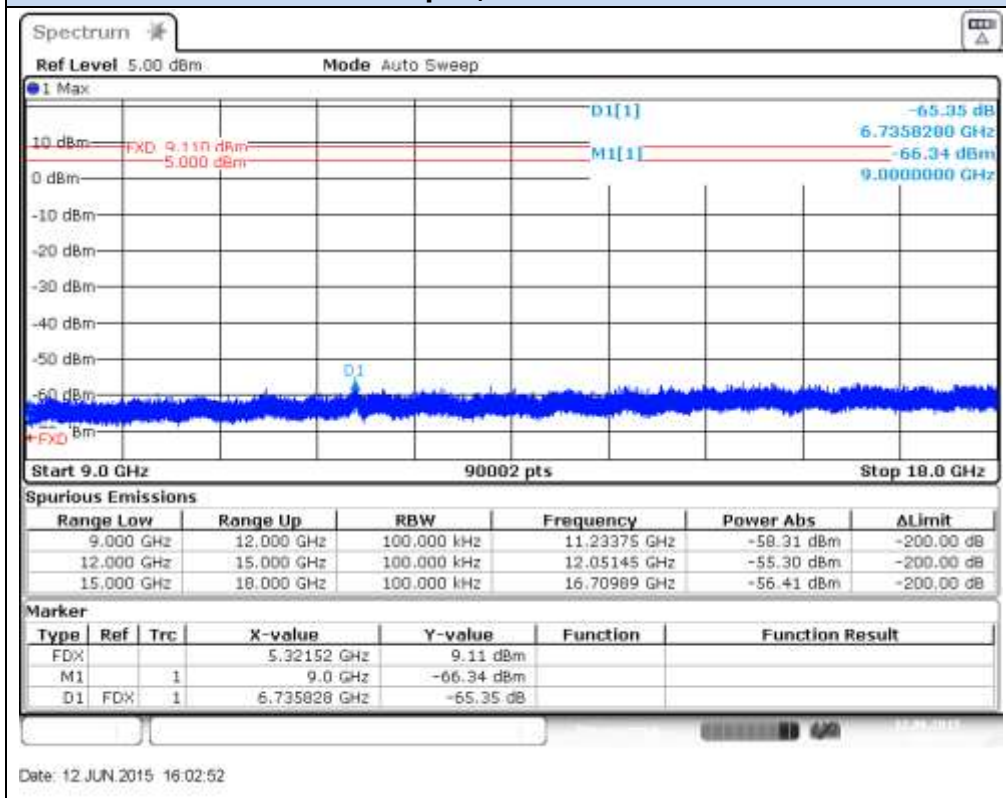


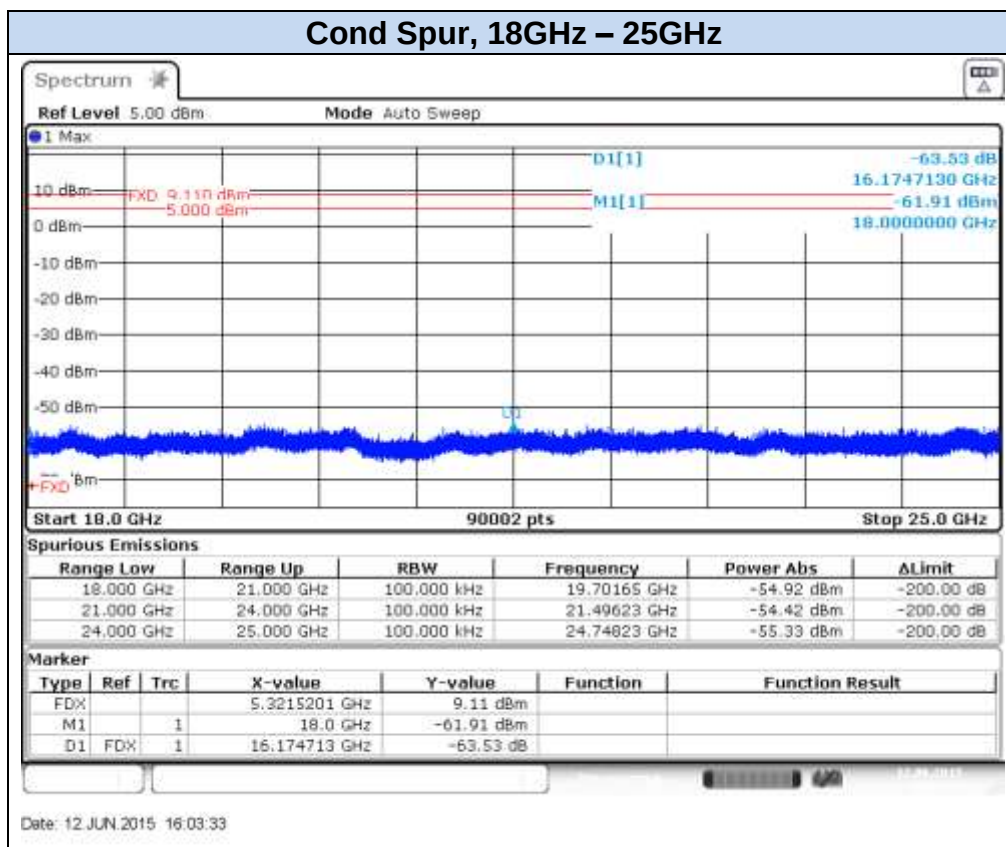
802.11n20, HT8 (MIMO) – Chain A, CH1

Cond Spur, 30MHz – 9GHz



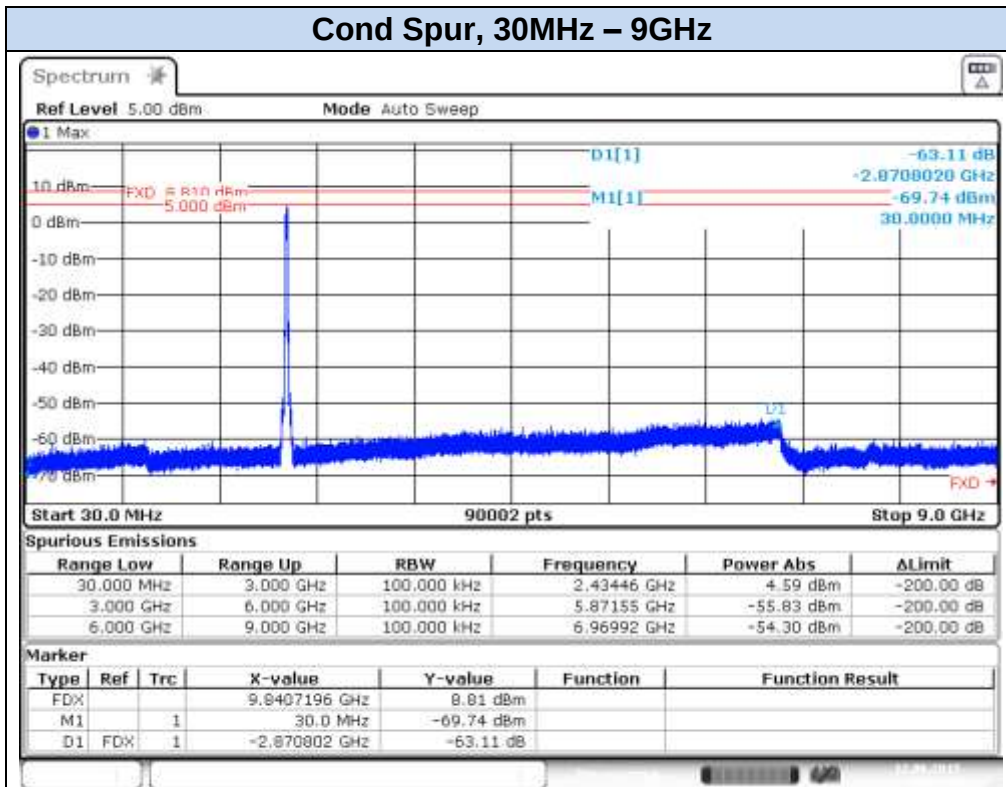
Cond Spur, 9GHz – 18GHz





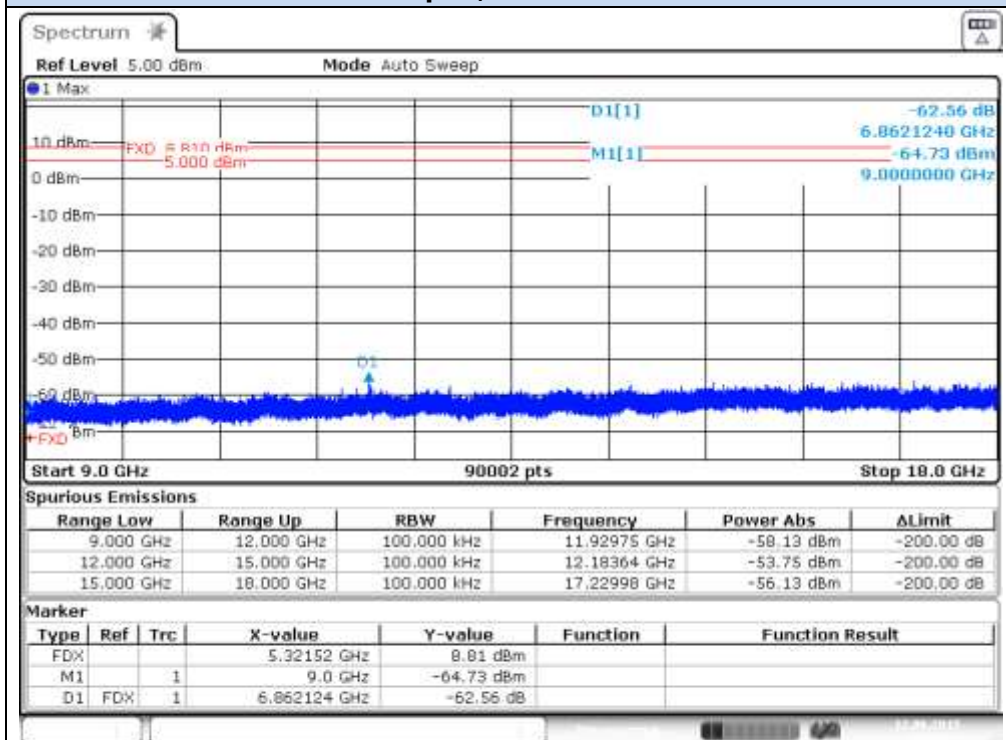
802.11n20, HT8 (MIMO) – Chain A, CH6

Cond Spur, 30MHz – 9GHz

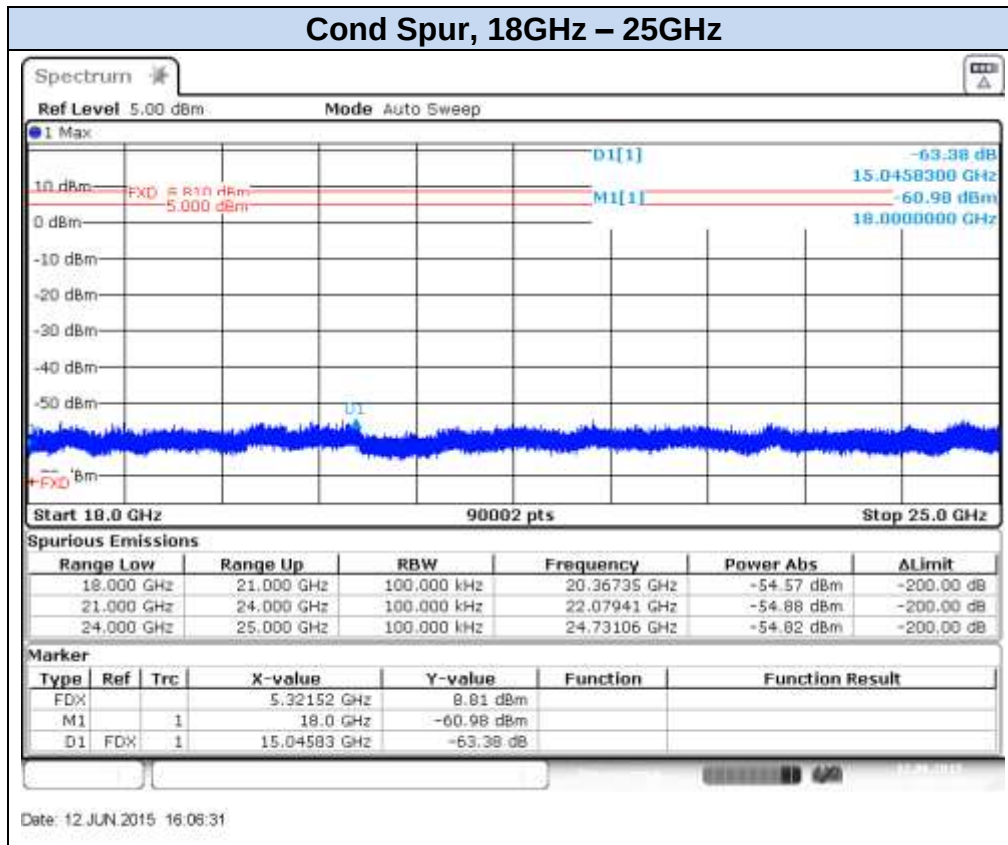


Date: 12 JUN 2015 16:04:50

Cond Spur, 9GHz – 18GHz

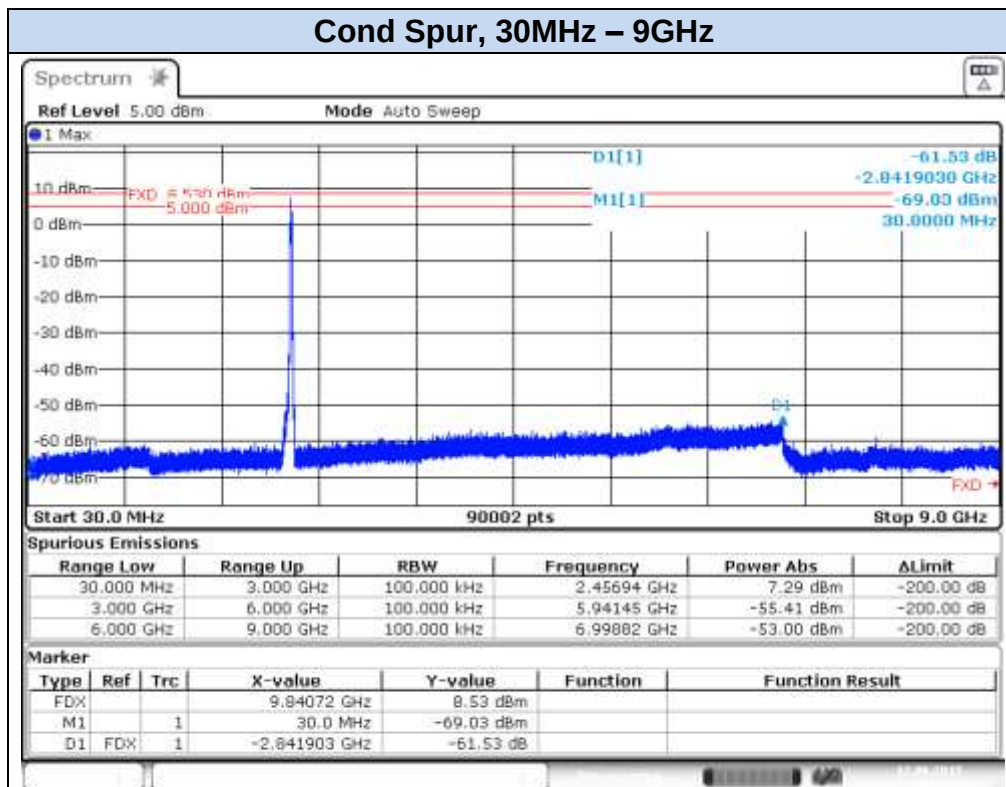


Date: 12 JUN 2015 16:06:01



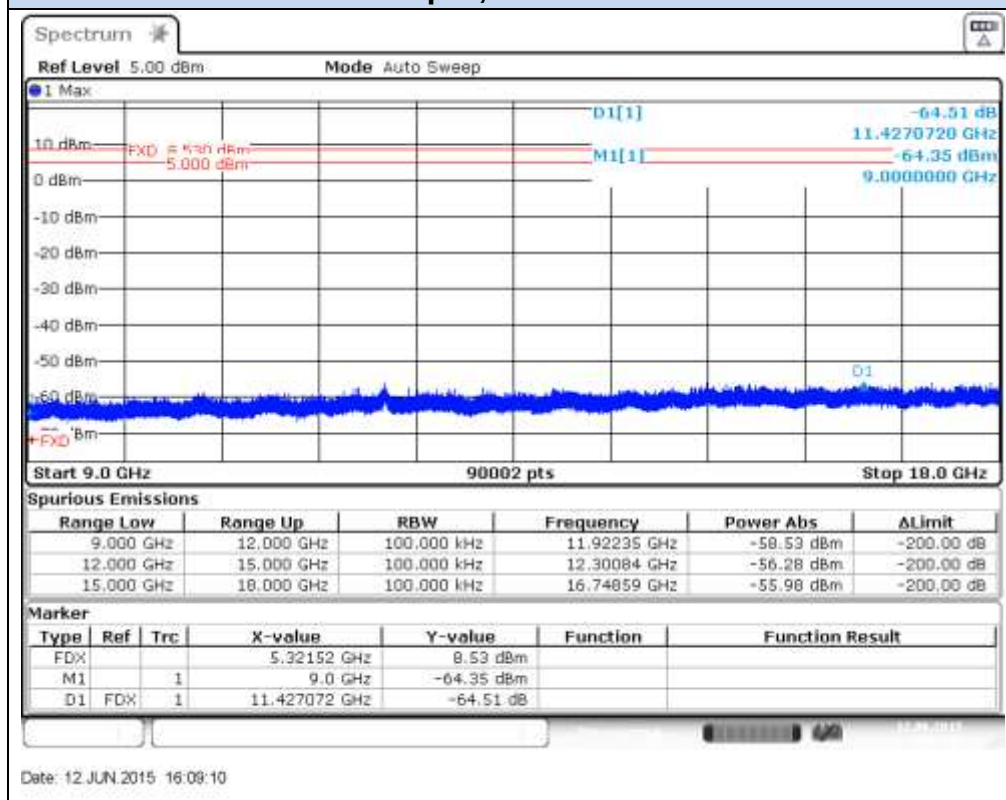
802.11n20, HT8 (MIMO) – Chain A, CH11

Cond Spur, 30MHz – 9GHz

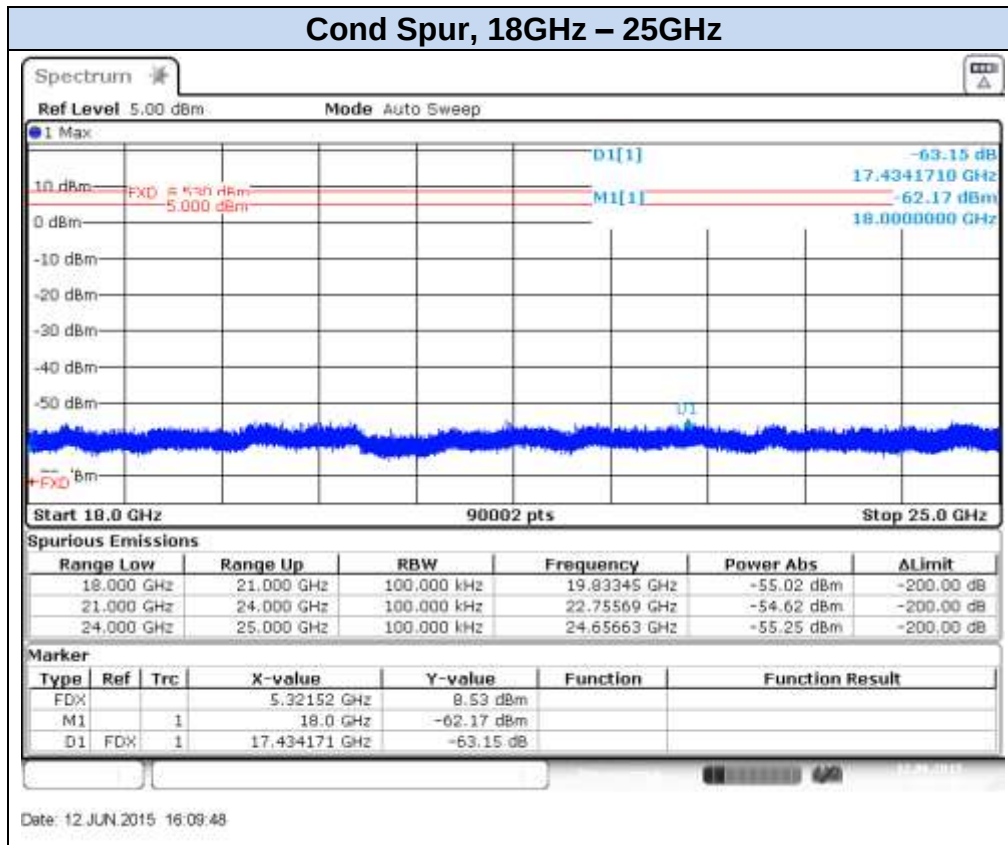


Date: 12 JUN 2015 16:07:52

Cond Spur, 9GHz – 18GHz

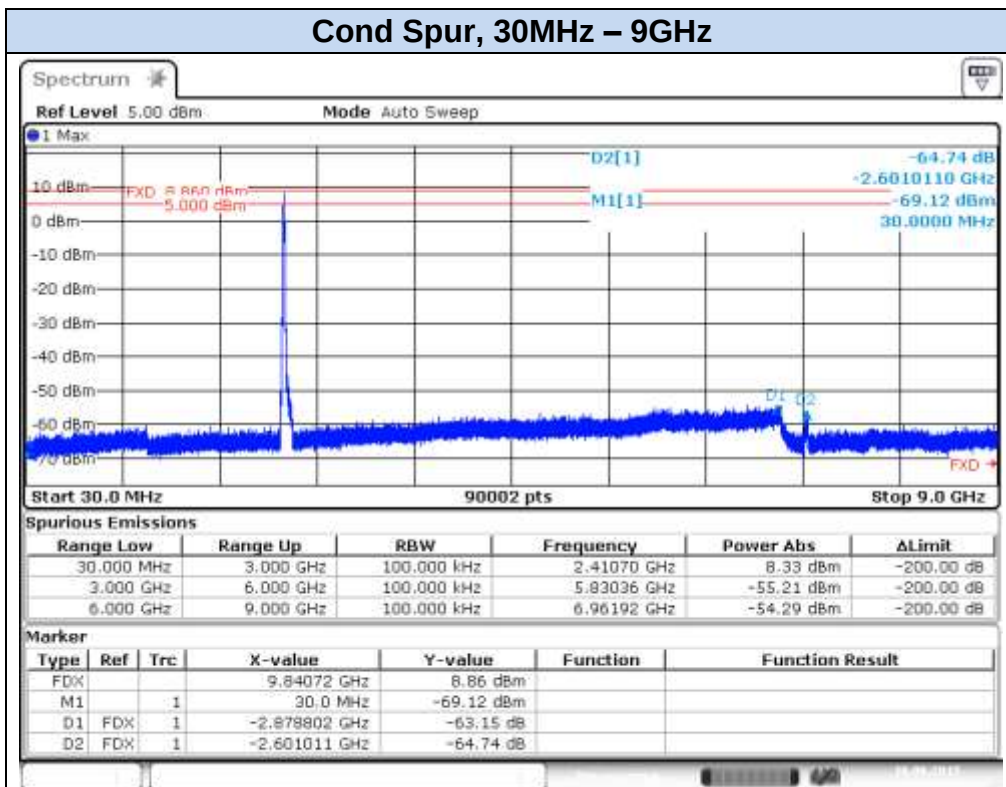


Date: 12 JUN 2015 16:09:10



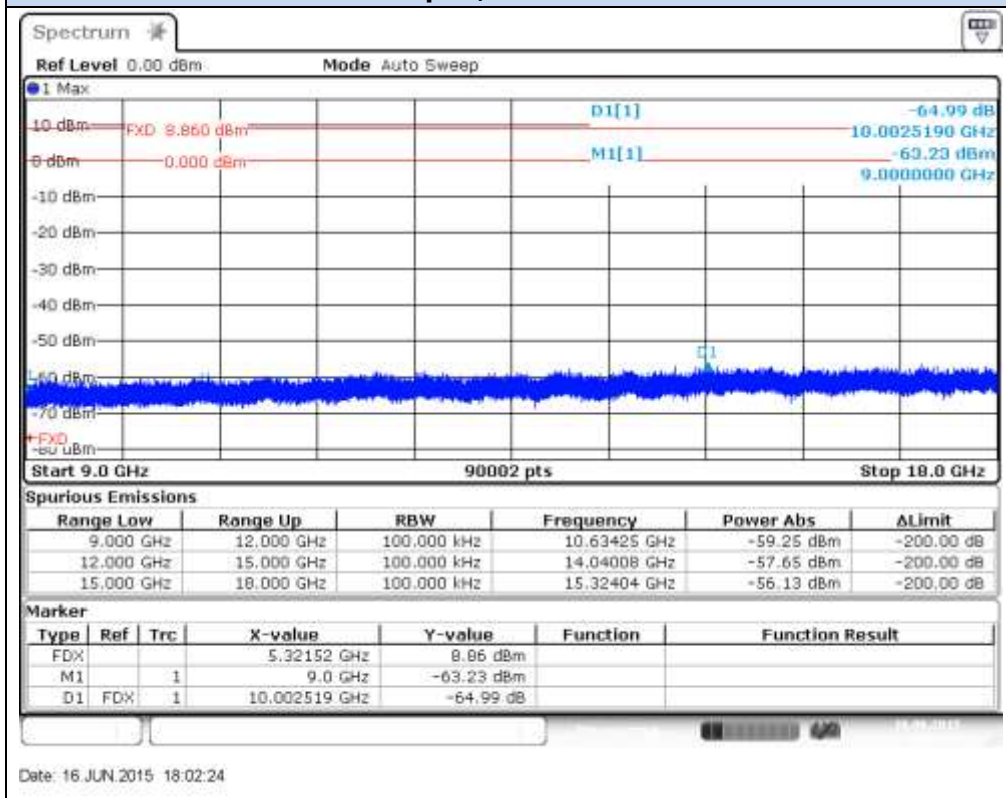
802.11n20, HT8 (MIMO) – Chain B, CH1

Cond Spur, 30MHz – 9GHz

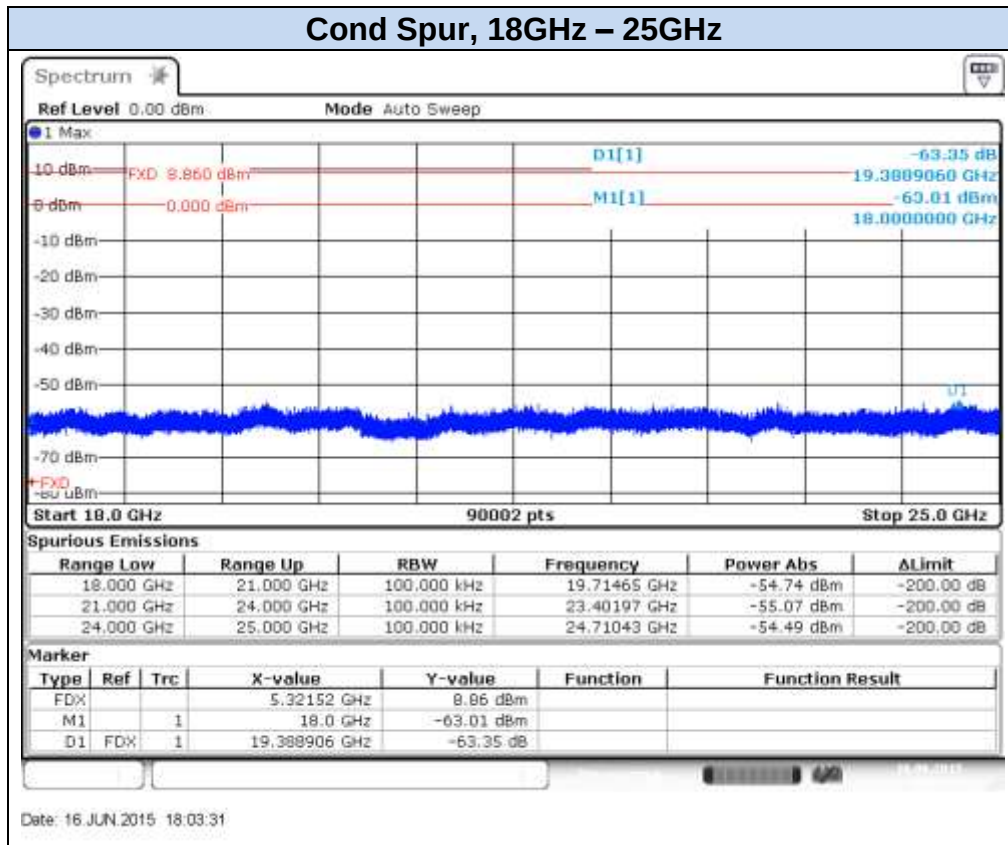


Date: 16 JUN 2015 17:22:44

Cond Spur, 9GHz – 18GHz

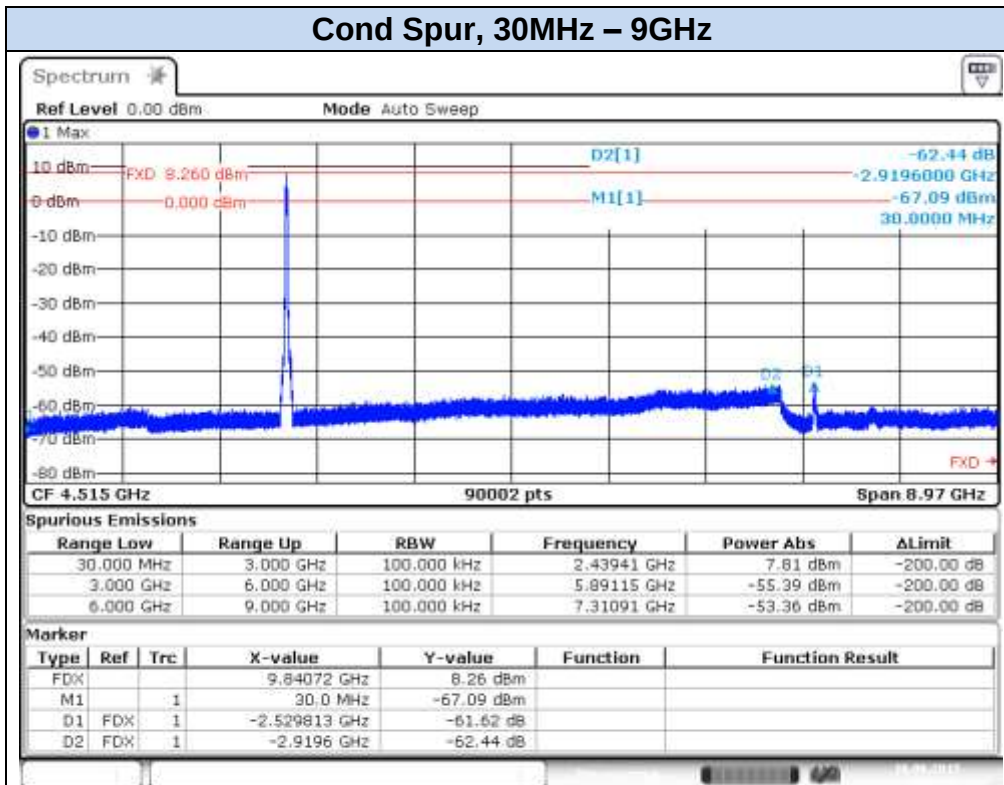


Date: 16 JUN 2015 18:02:24



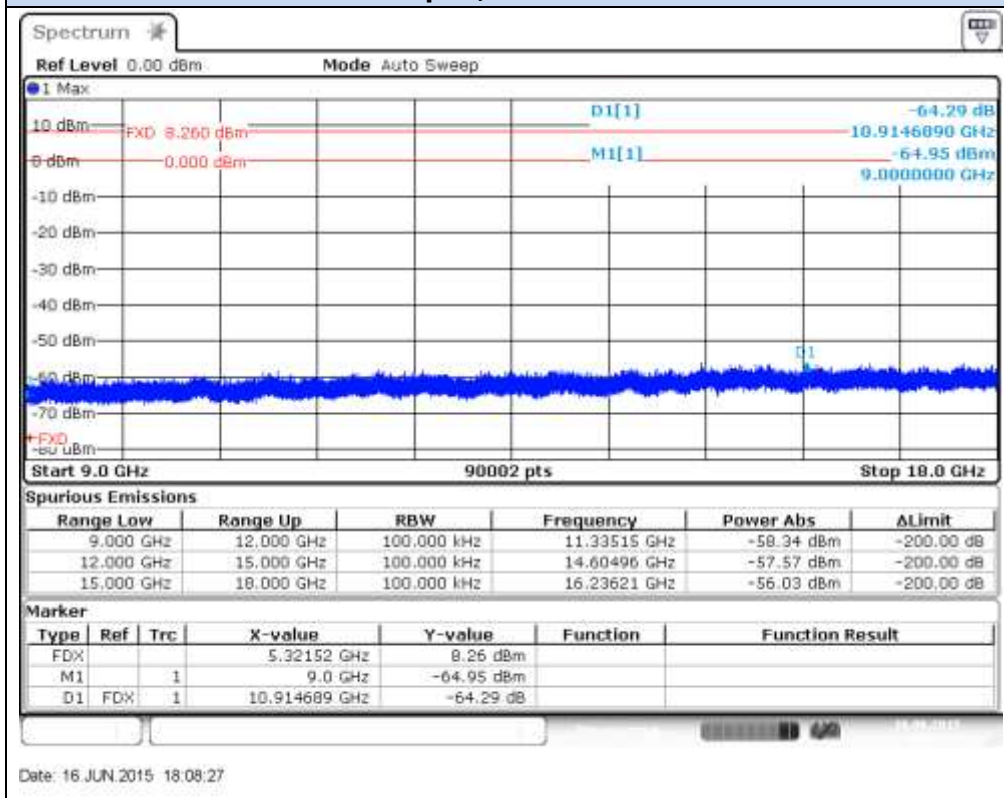
802.11n20, HT8 (MIMO) – Chain B, CH6

Cond Spur, 30MHz – 9GHz

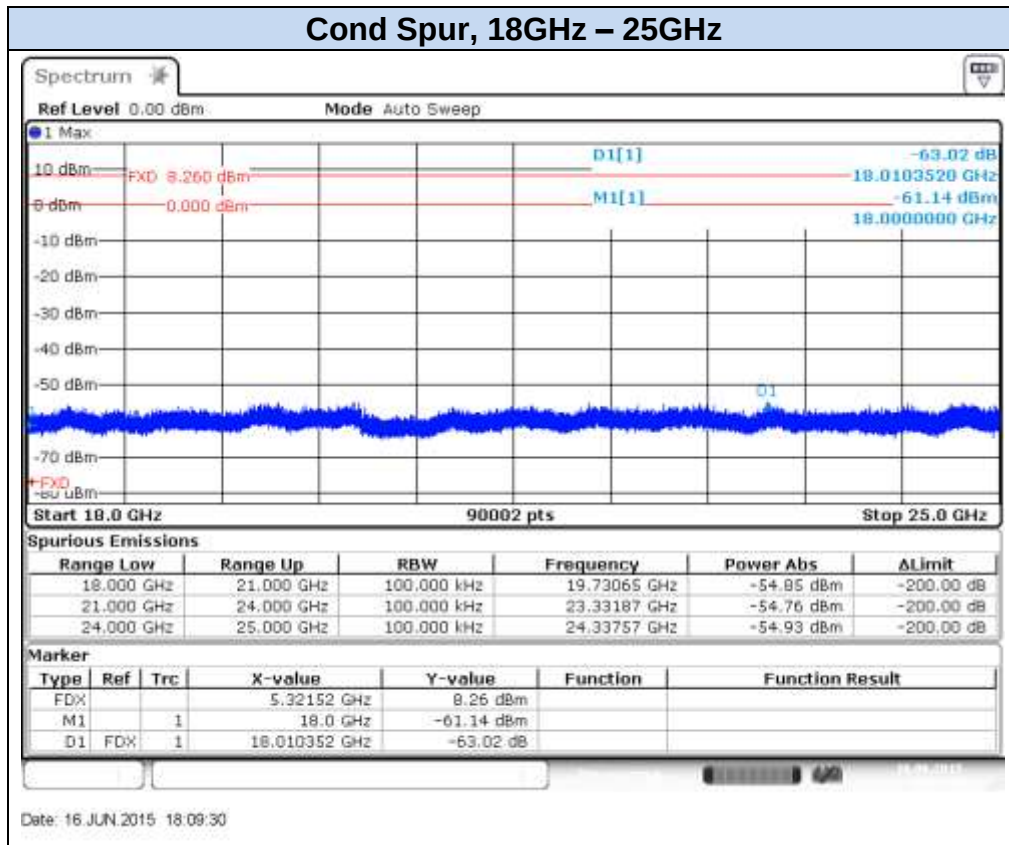


Date: 16 JUN 2015 18:07:15

Cond Spur, 9GHz – 18GHz

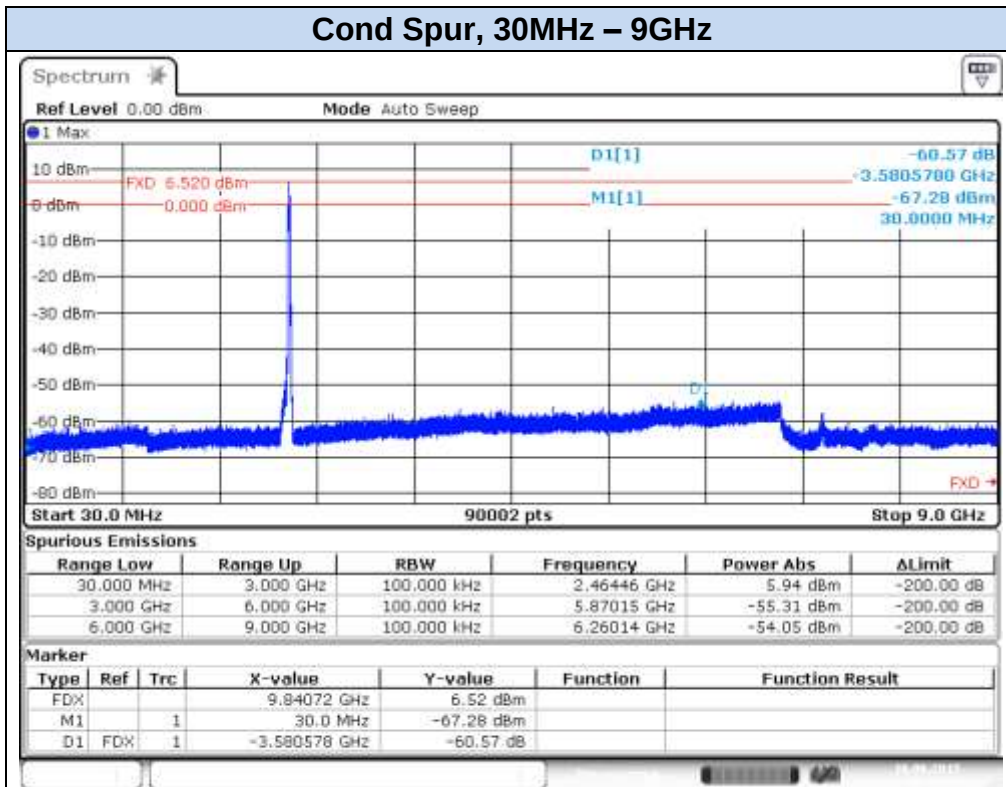


Date: 16 JUN 2015 18:08:27



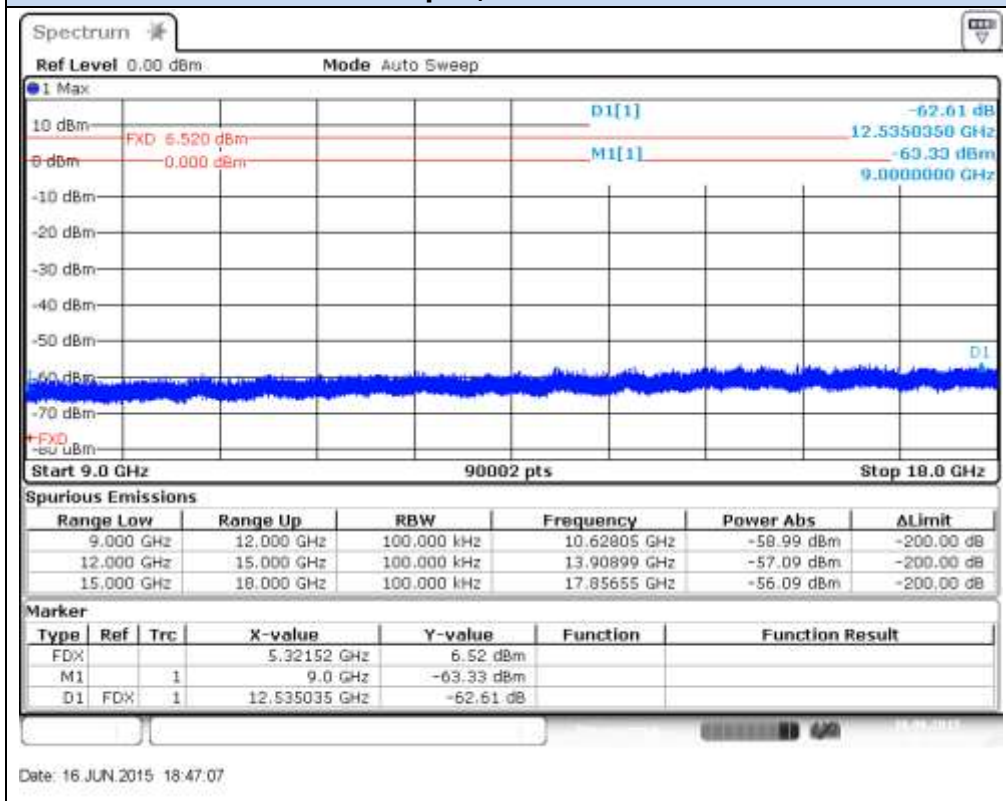
802.11n20, HT8 (MIMO) – Chain B, CH11

Cond Spur, 30MHz – 9GHz

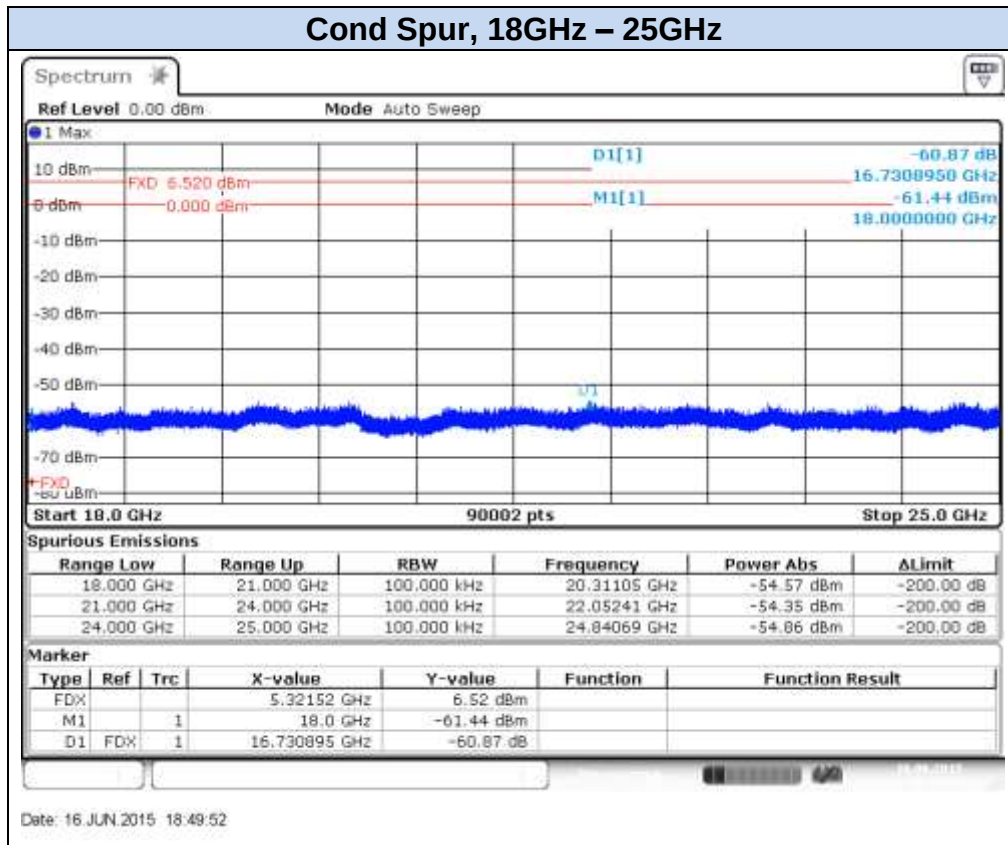


Date: 16 JUN 2015 18:45:37

Cond Spur, 9GHz – 18GHz

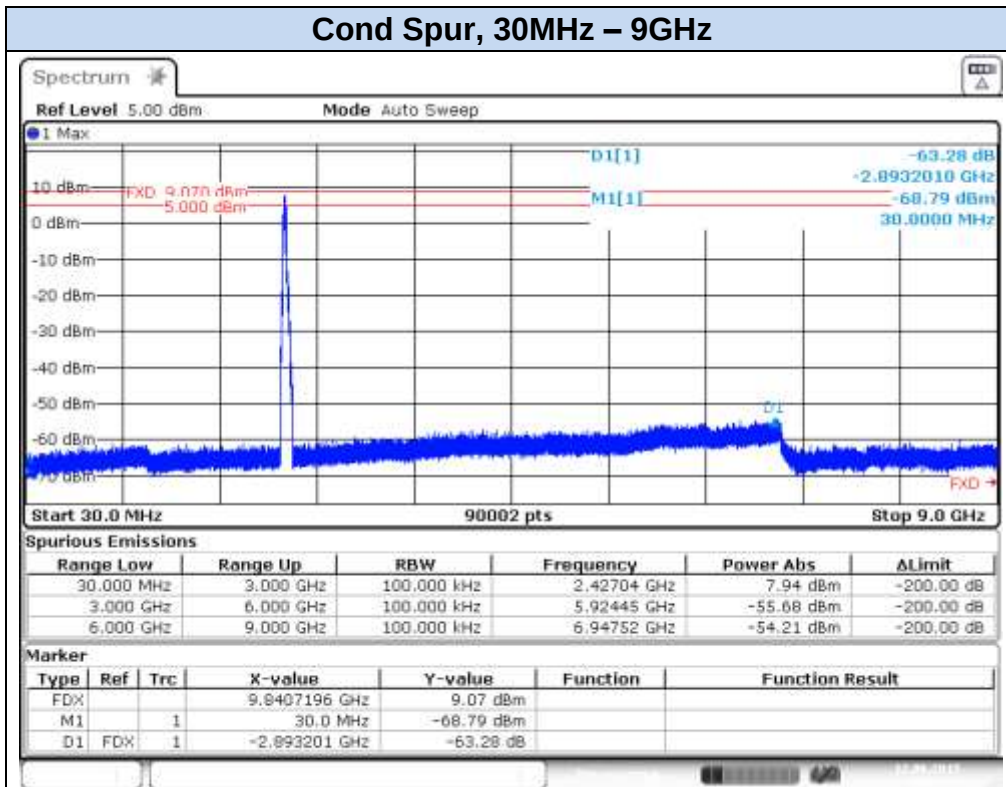


Date: 16 JUN 2015 18:47:07



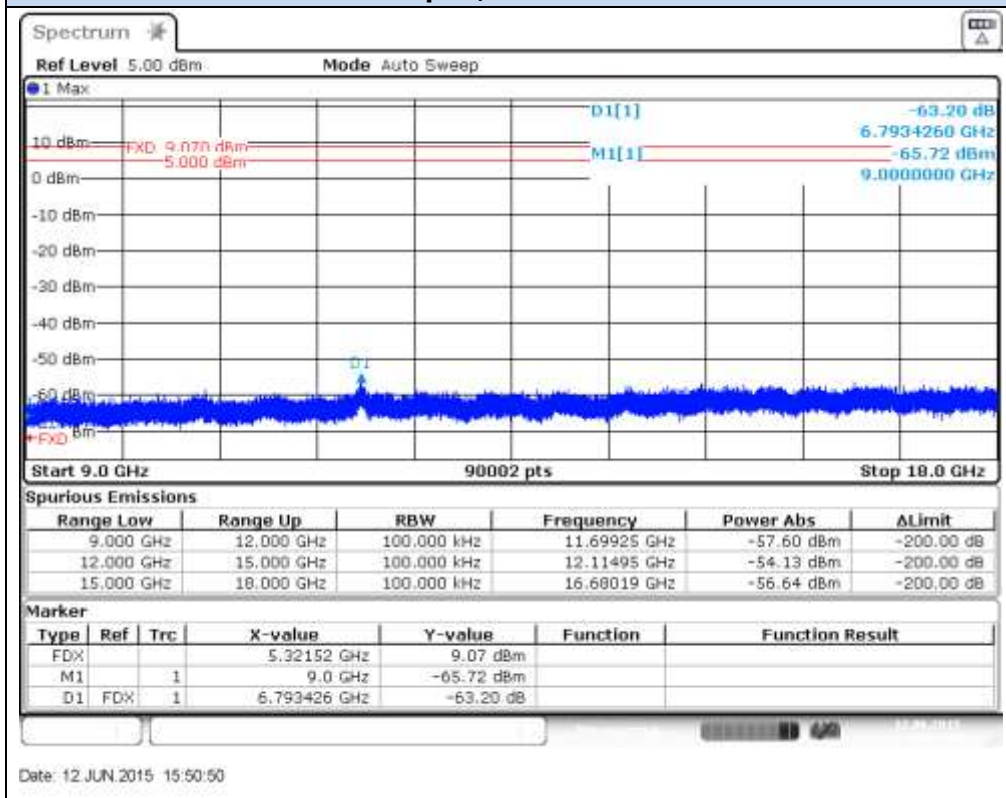
802.11n40, HT0 (SISO) – Chain A, CH3F

Cond Spur, 30MHz – 9GHz

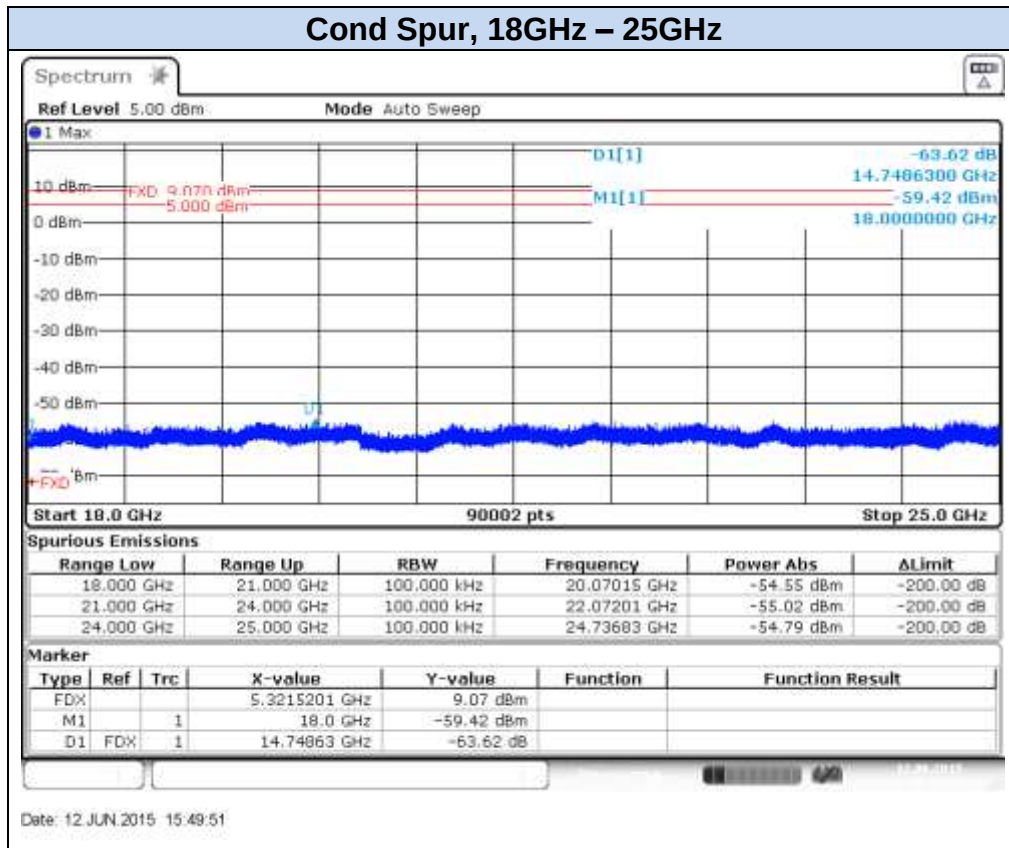


Date: 12 JUN 2015 15:50:25

Cond Spur, 9GHz – 18GHz

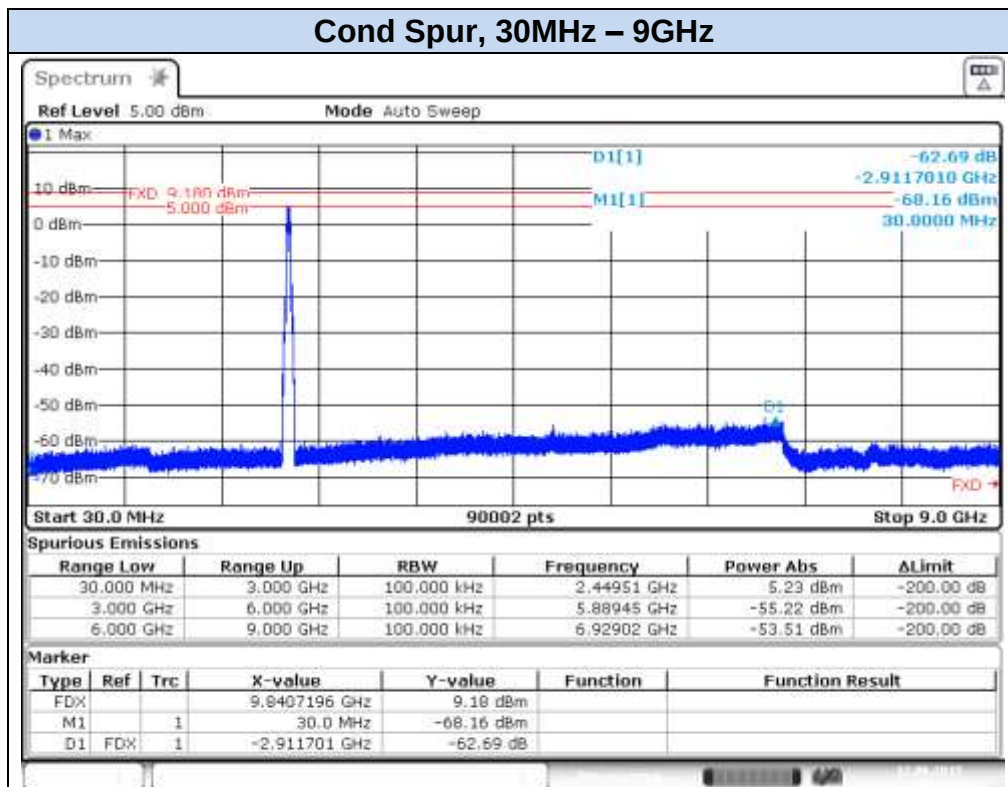


Date: 12 JUN 2015 15:50:50

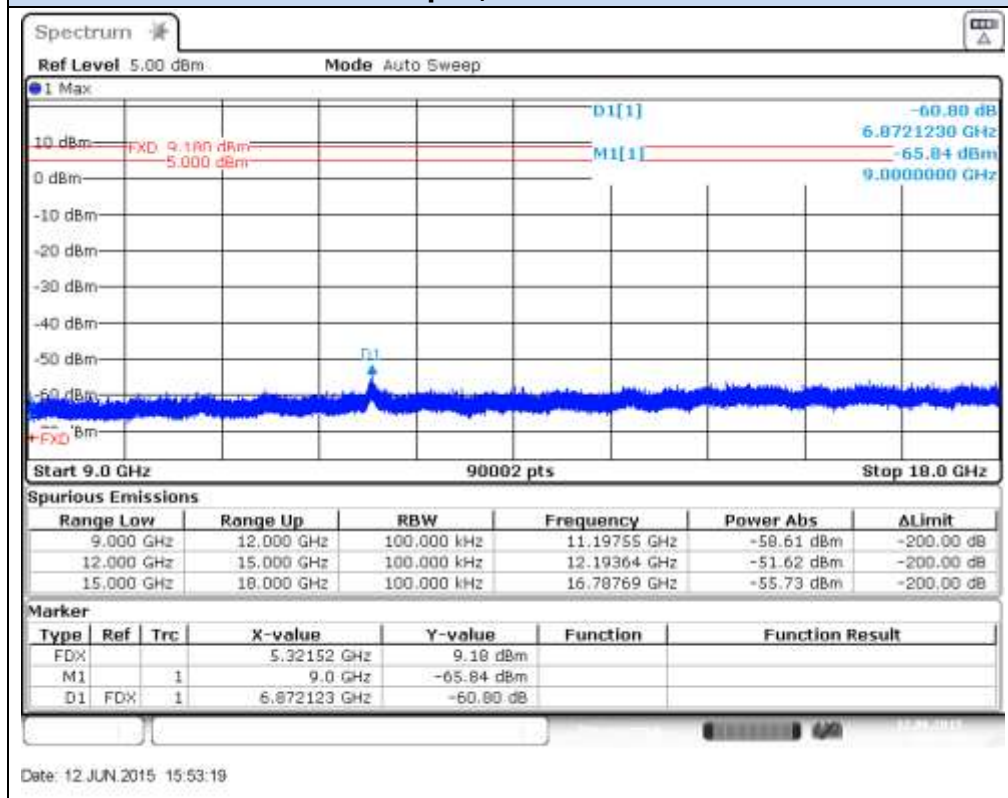


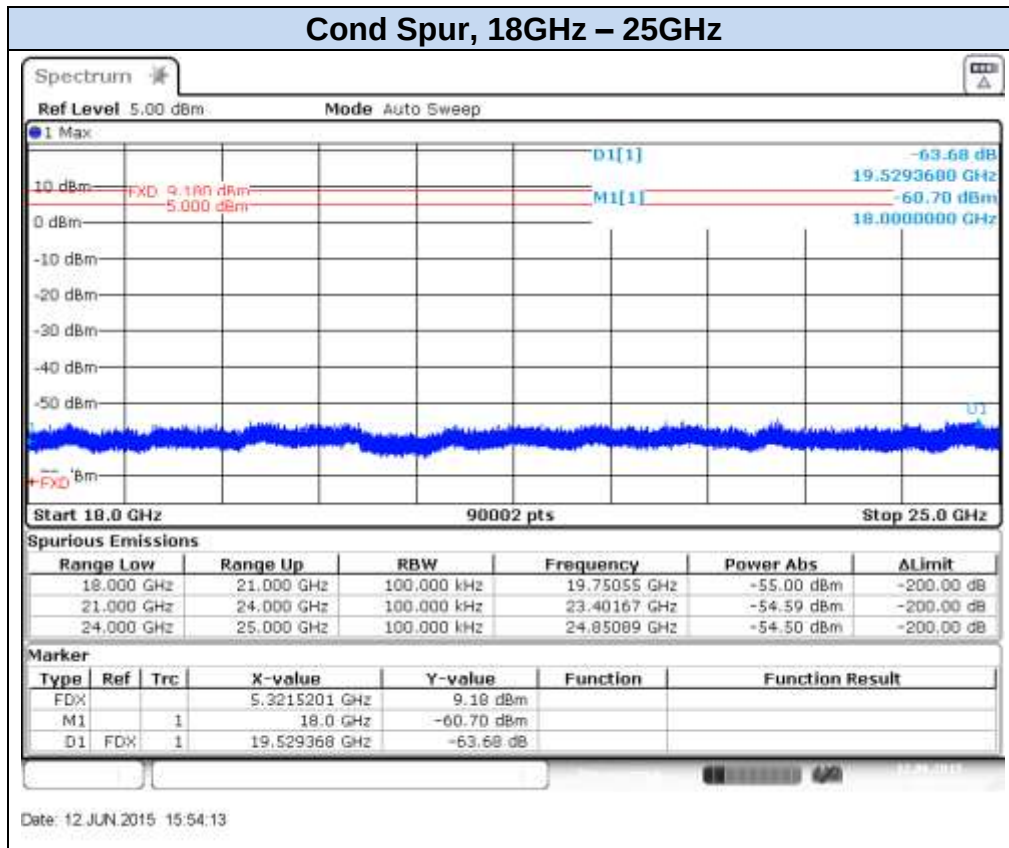
802.11n40, HT0 (SISO) – Chain A, CH6F

Cond Spur, 30MHz – 9GHz

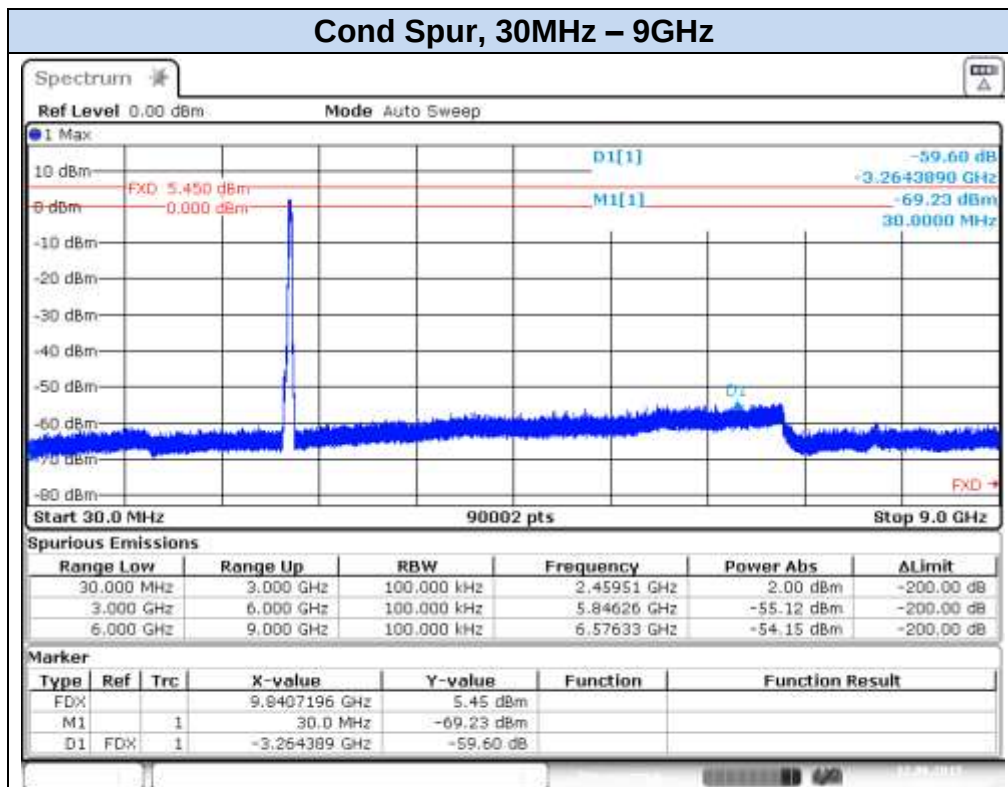


Cond Spur, 9GHz – 18GHz

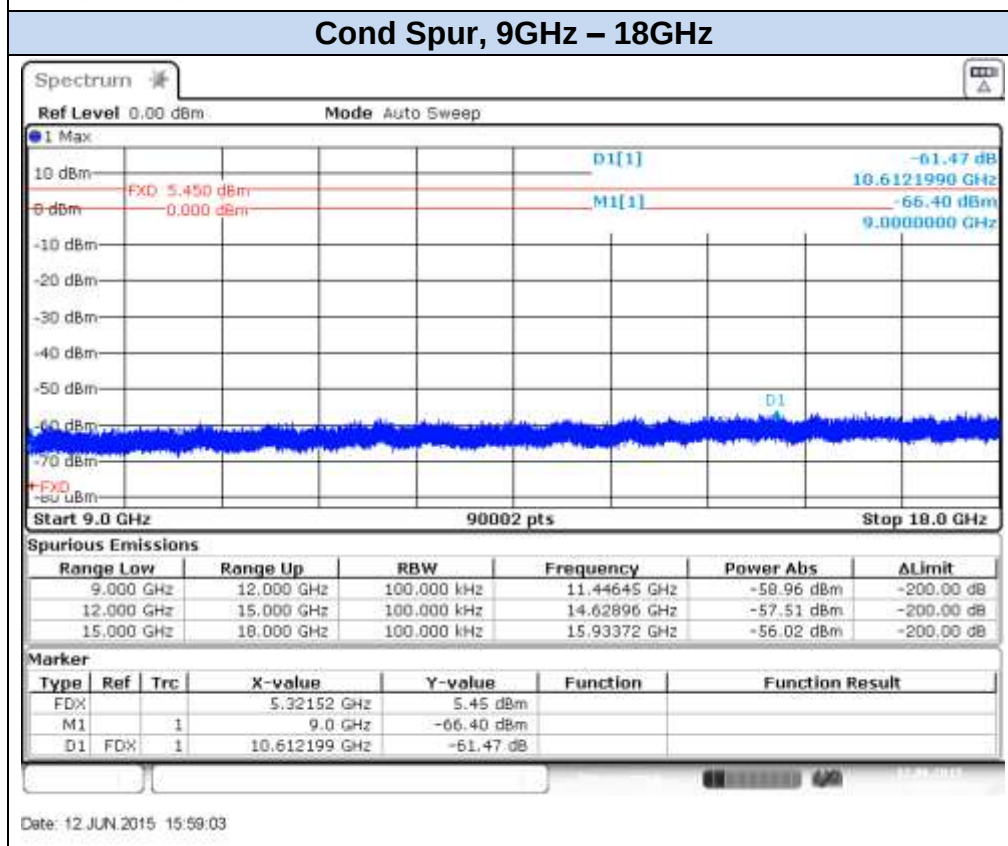




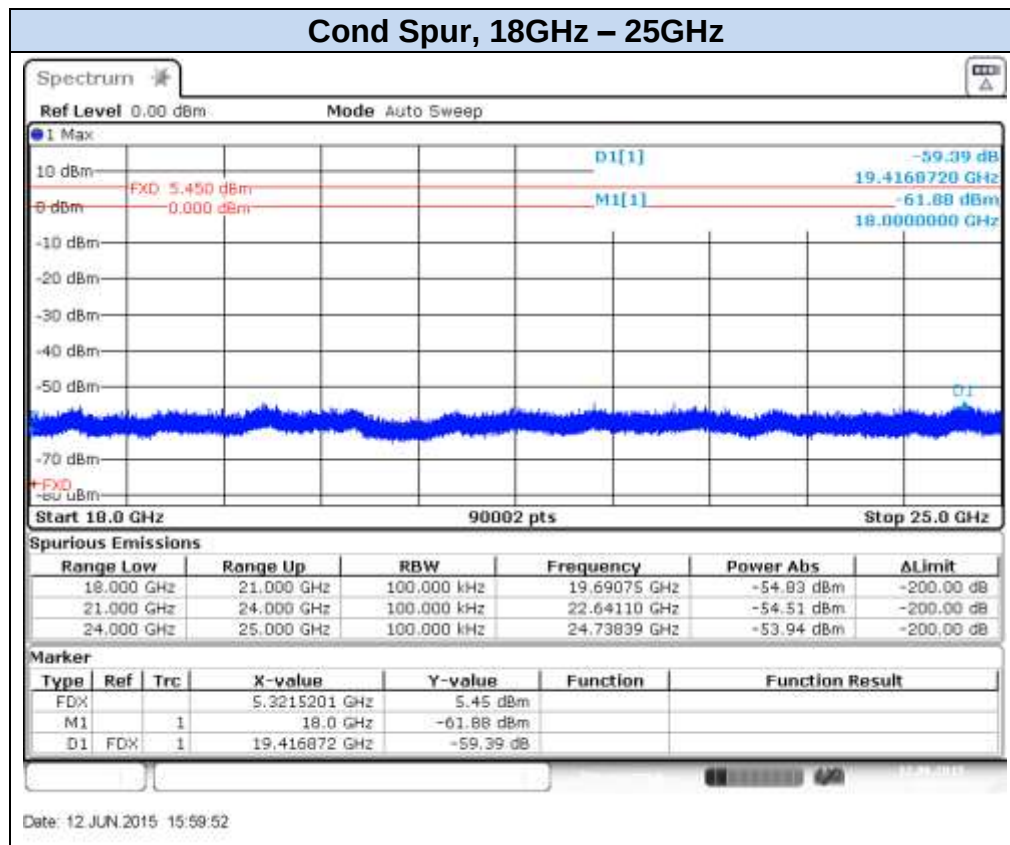
802.11n40, HT0 (SISO) – Chain A, CH9F



Date: 12 JUN 2015 15:58:18

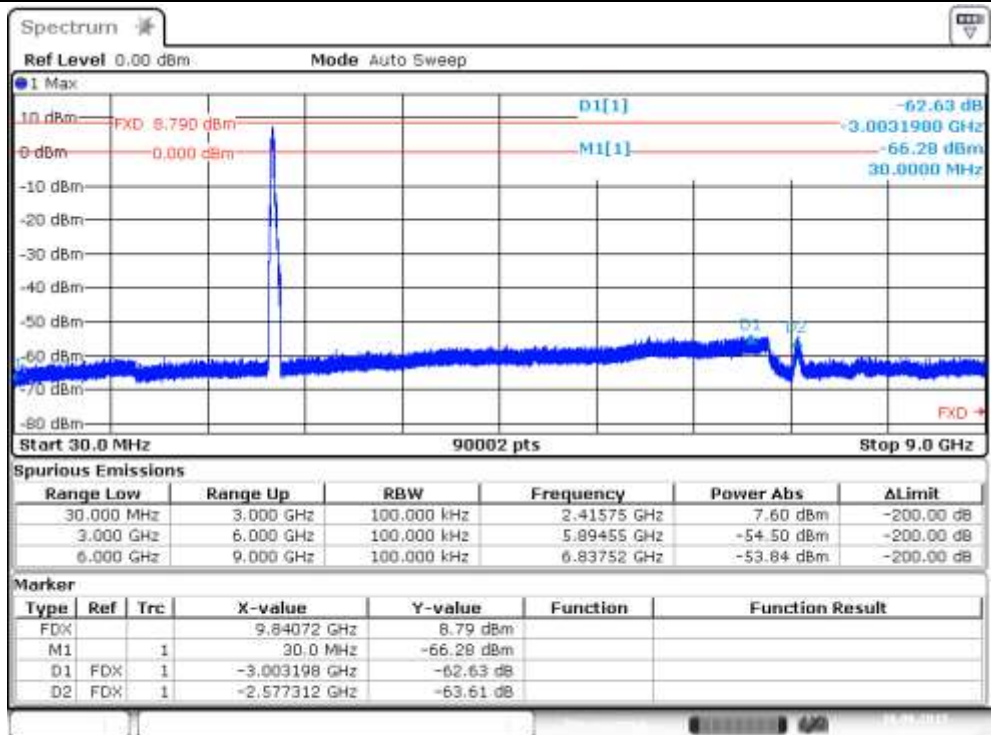


Date: 12 JUN 2015 15:59:03



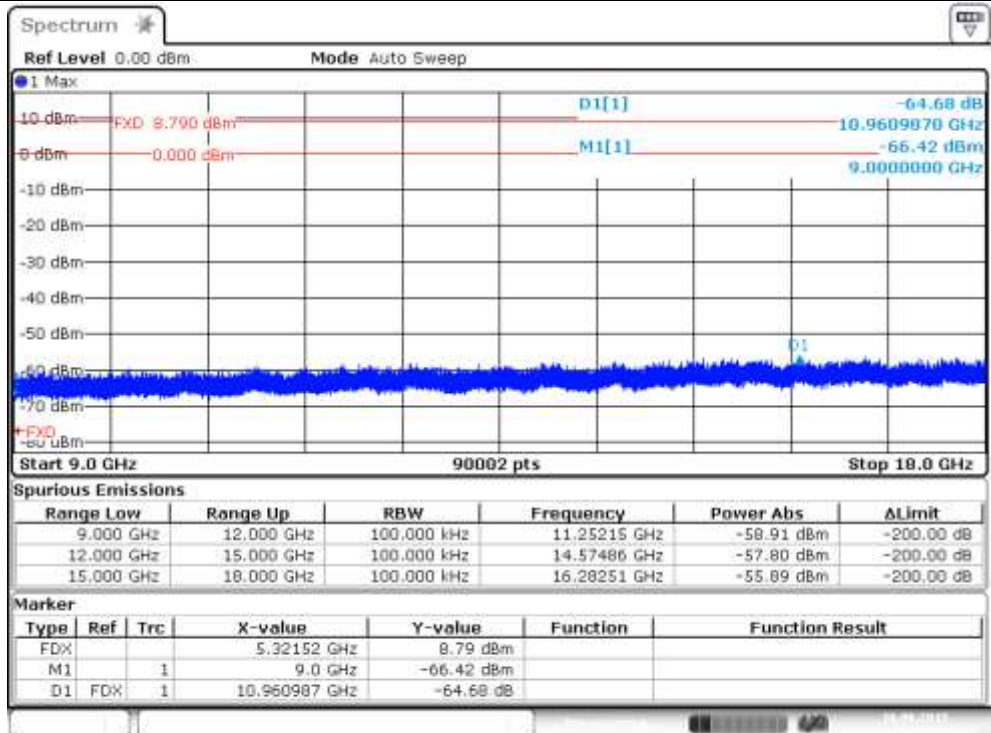
802.11n40, HT0 (SISO) – Chain B, CH3F

Cond Spur, 30MHz – 9GHz

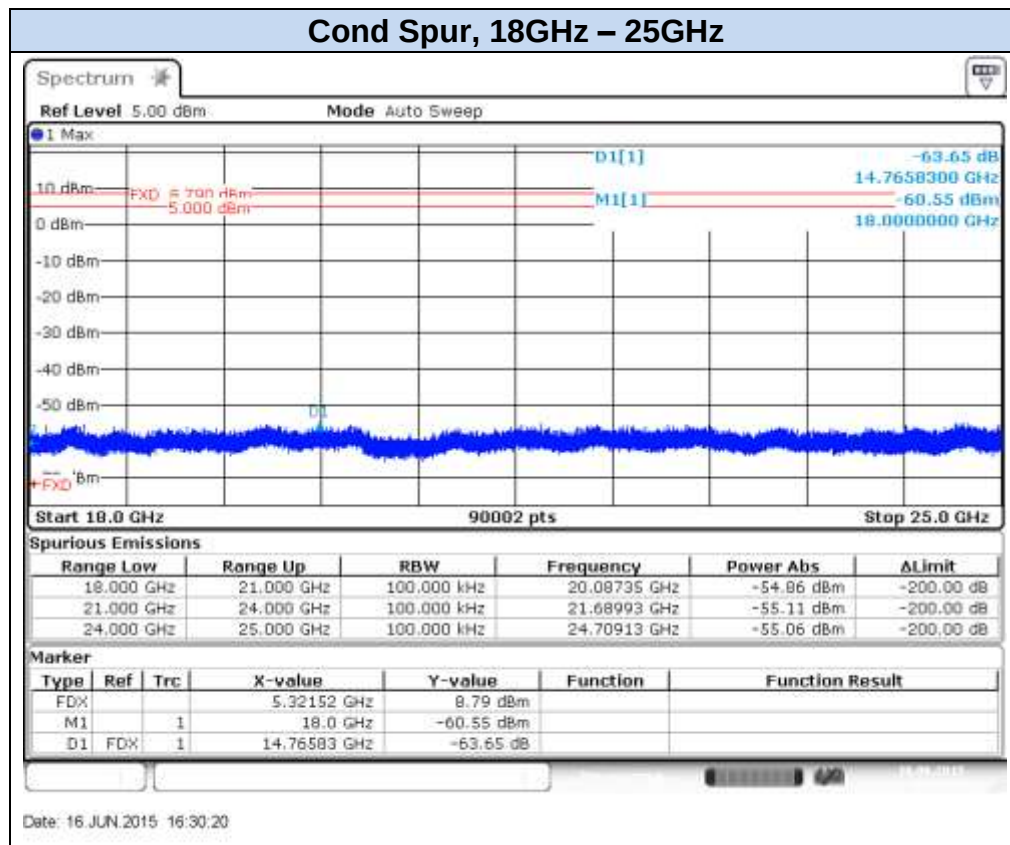


Date: 16 JUN 2015 16:27:24

Cond Spur, 9GHz – 18GHz

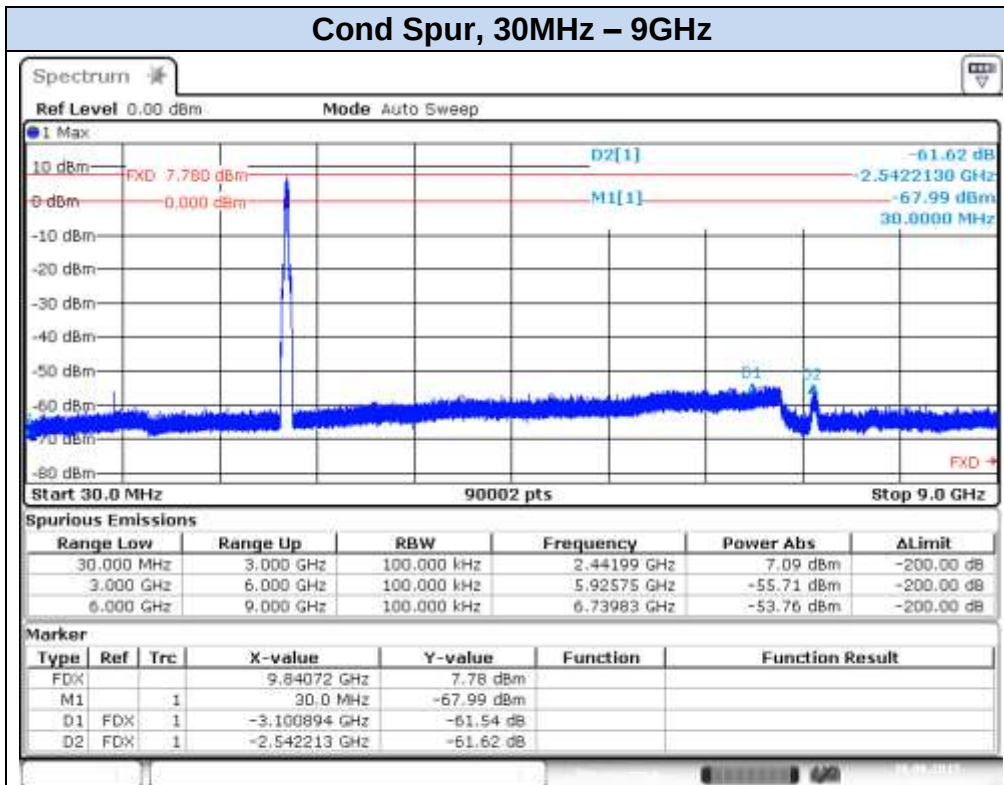


Date: 16 JUN 2015 16:29:37



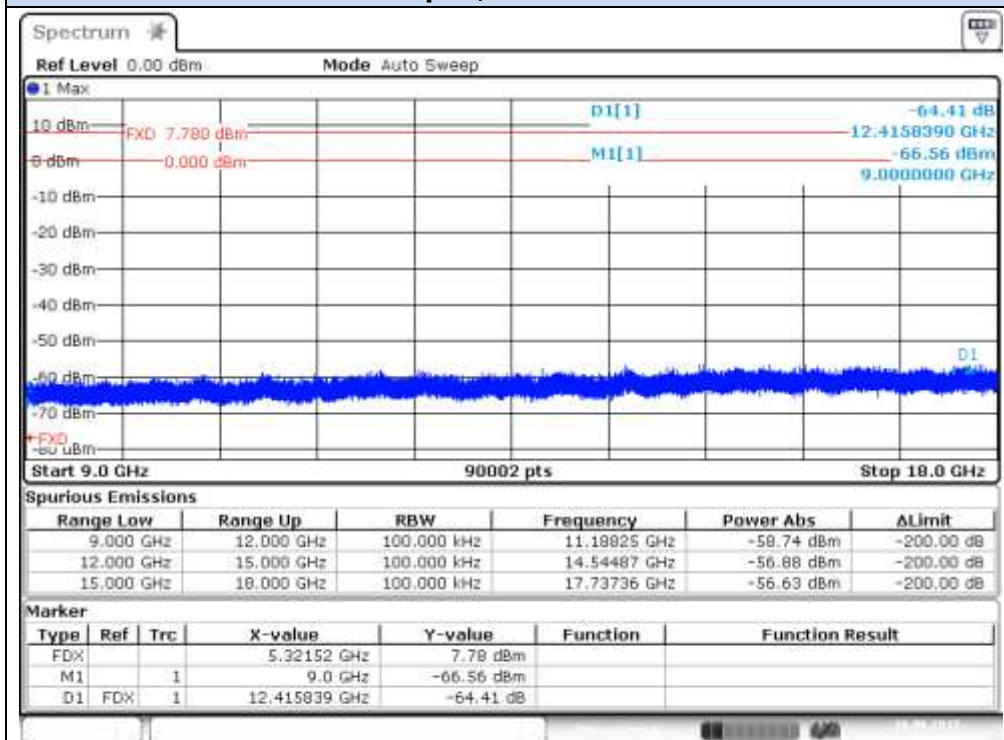
802.11n40, HT0 (SISO) – Chain B, CH6F

Cond Spur, 30MHz – 9GHz

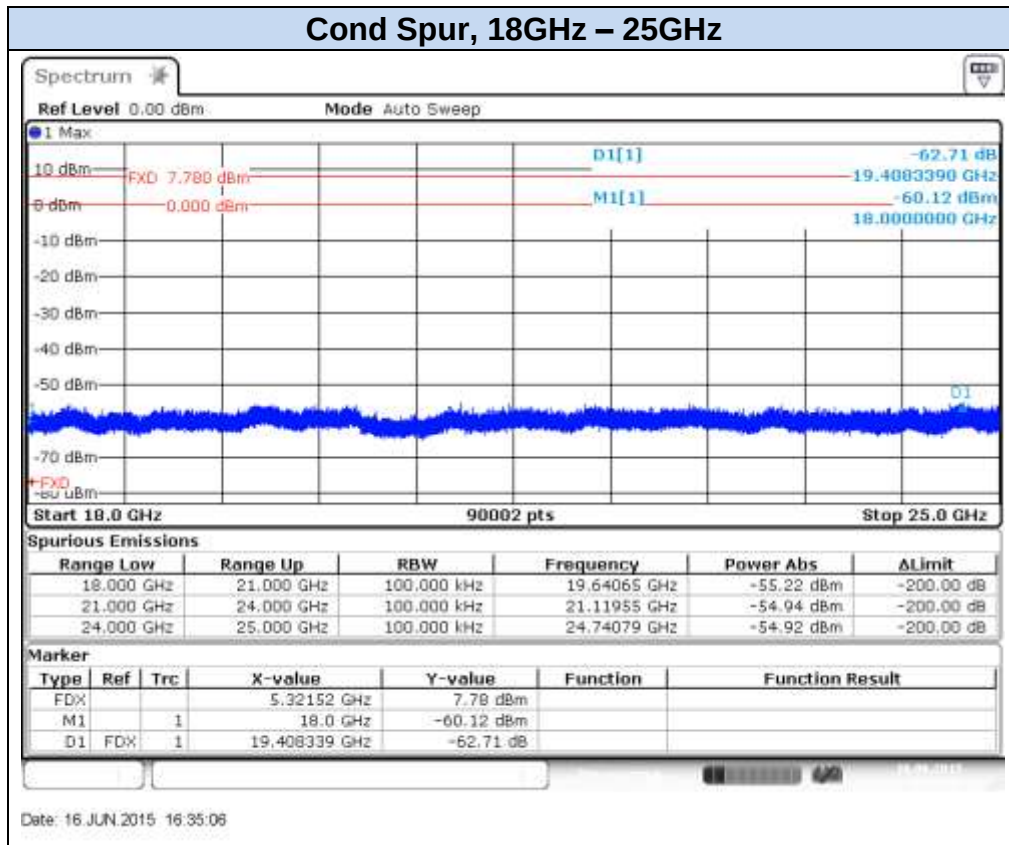


Date: 16 JUN 2015 16:31:57

Cond Spur, 9GHz – 18GHz

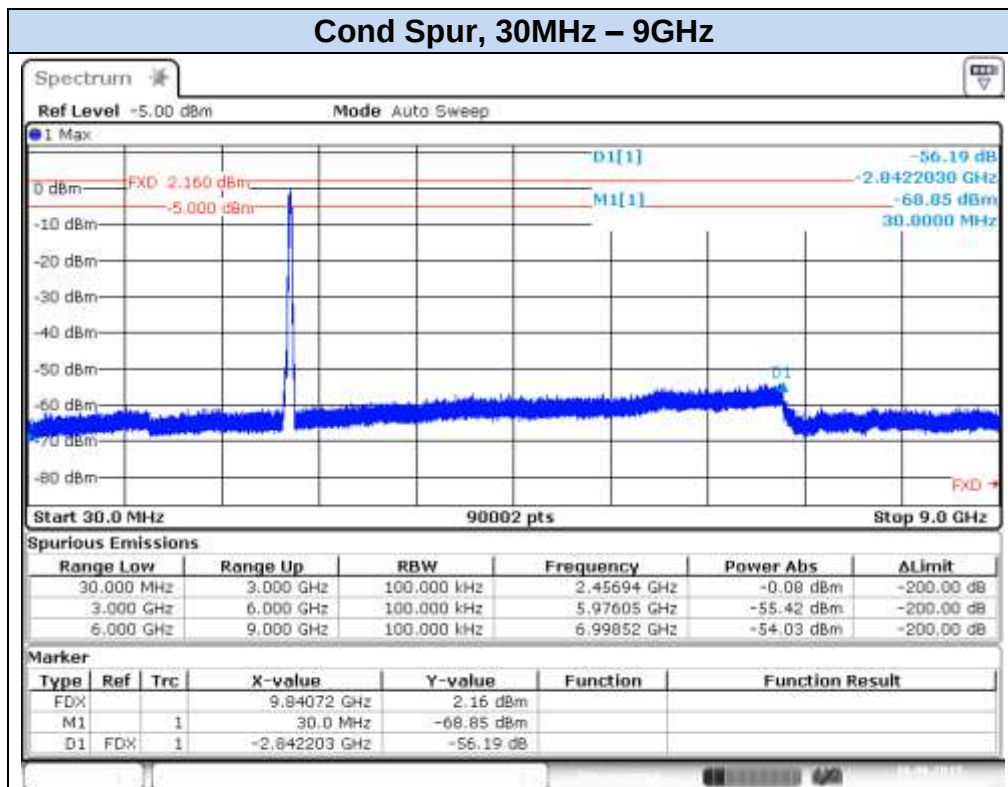


Date: 16 JUN 2015 16:33:57



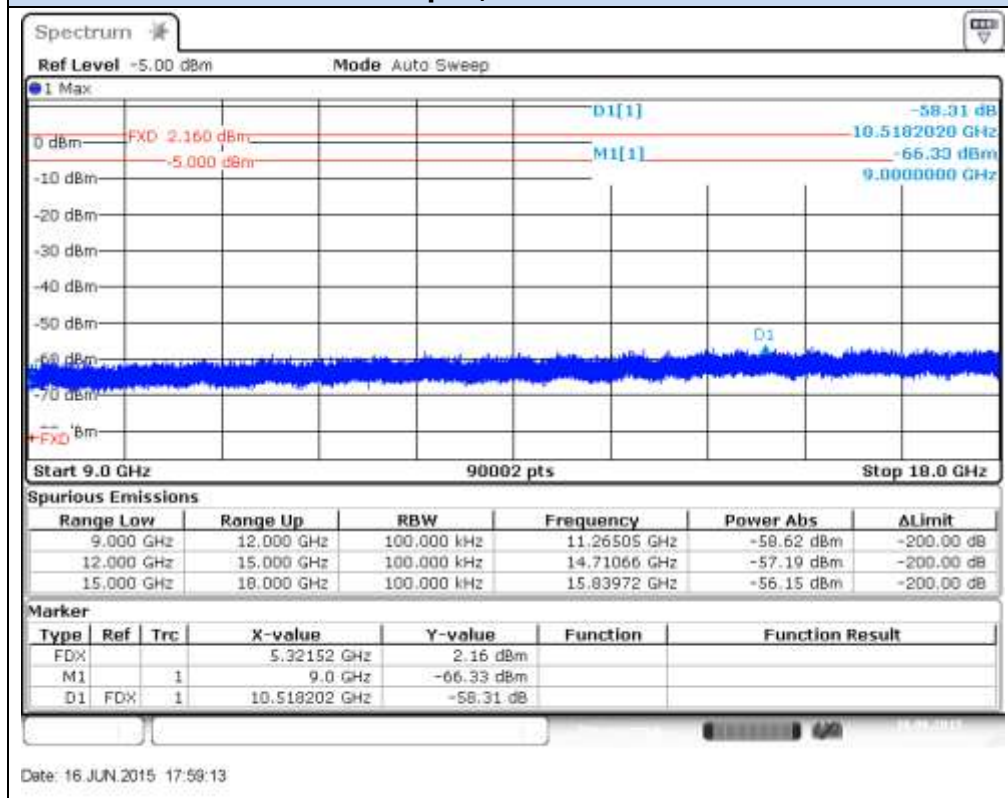
802.11n40, HT0 (SISO) – Chain B, CH9F

Cond Spur, 30MHz – 9GHz

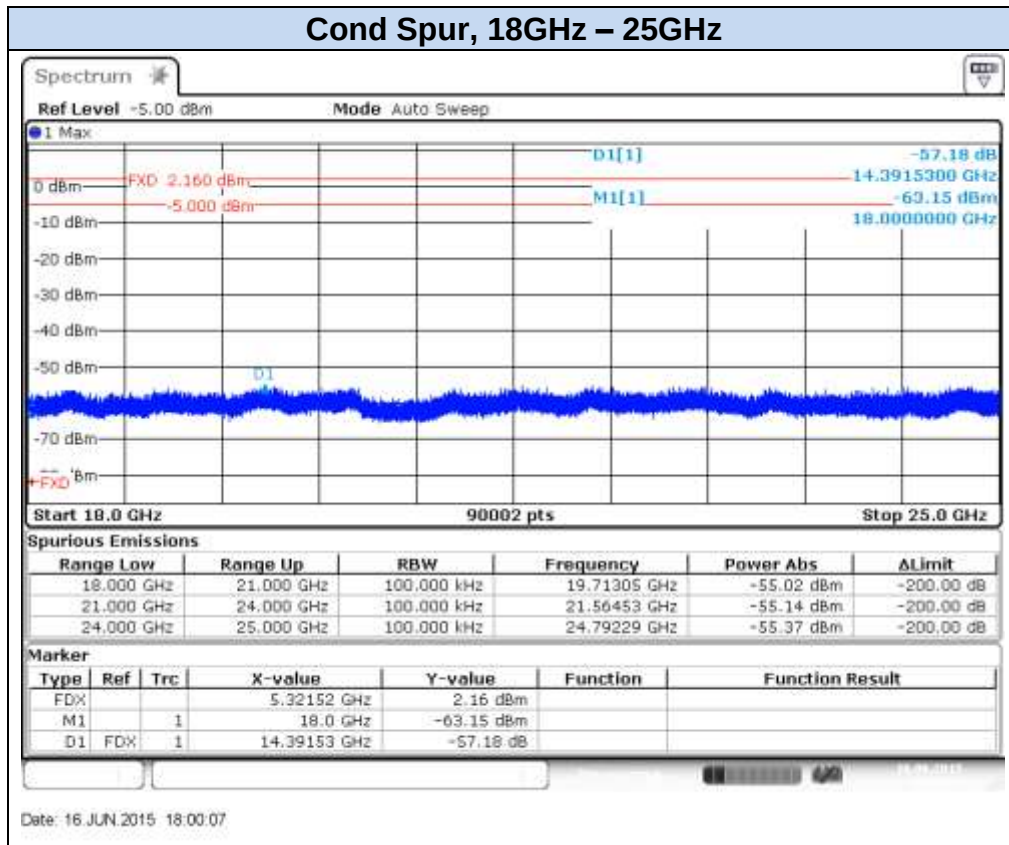


Date: 16 JUN 2015 17:58:21

Cond Spur, 9GHz – 18GHz

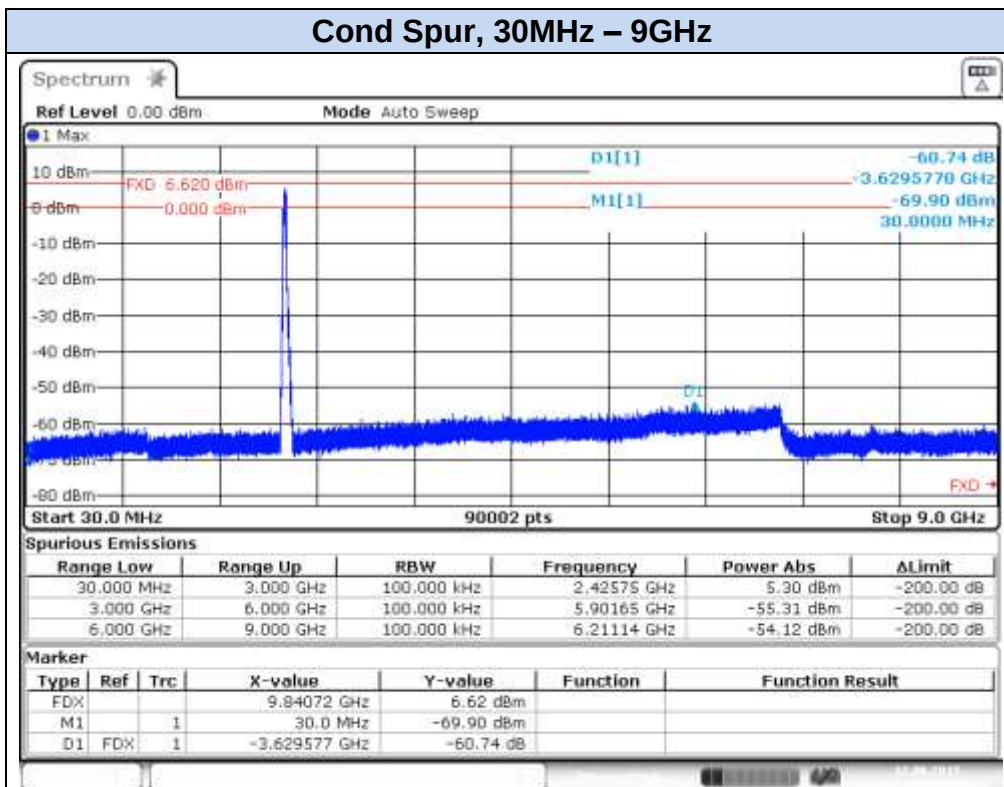


Date: 16 JUN 2015 17:59:13

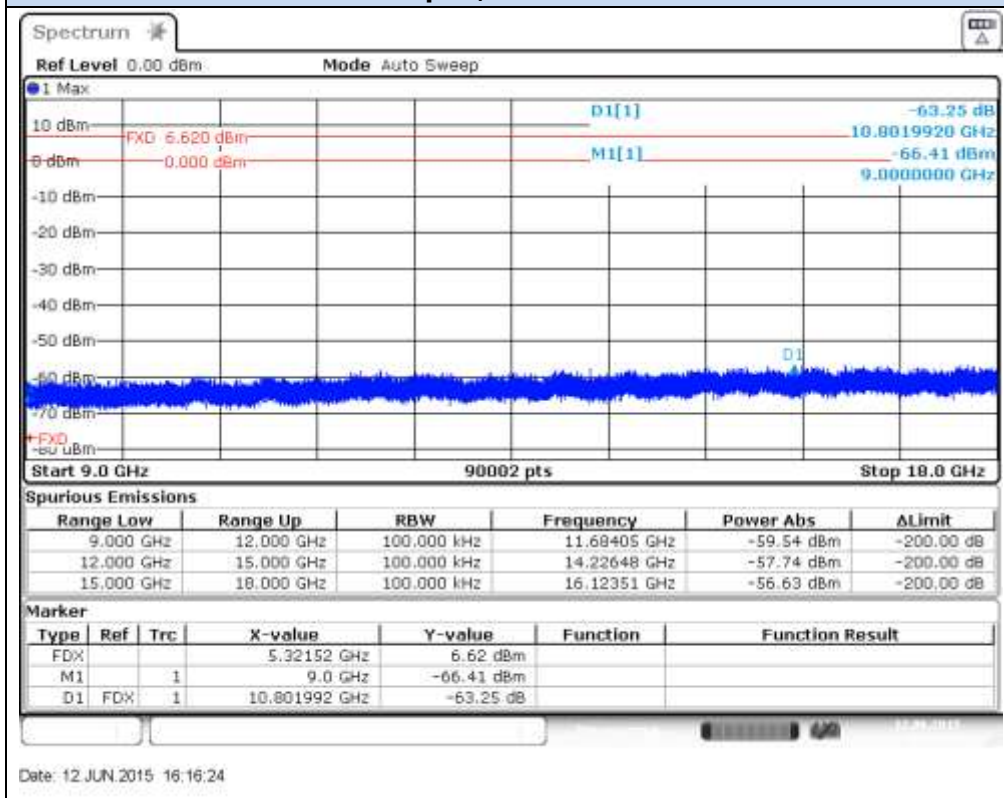


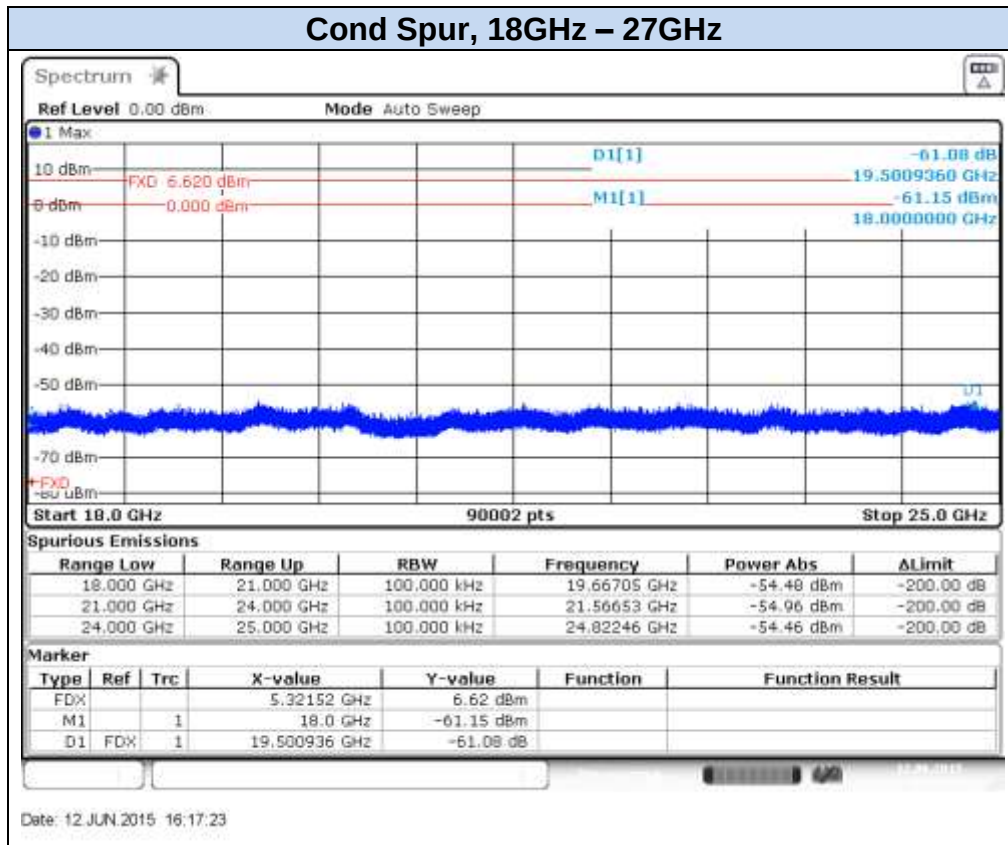
802.11n40, HT8 (MIMO) – Chain A, CH3F

Cond Spur, 30MHz – 9GHz



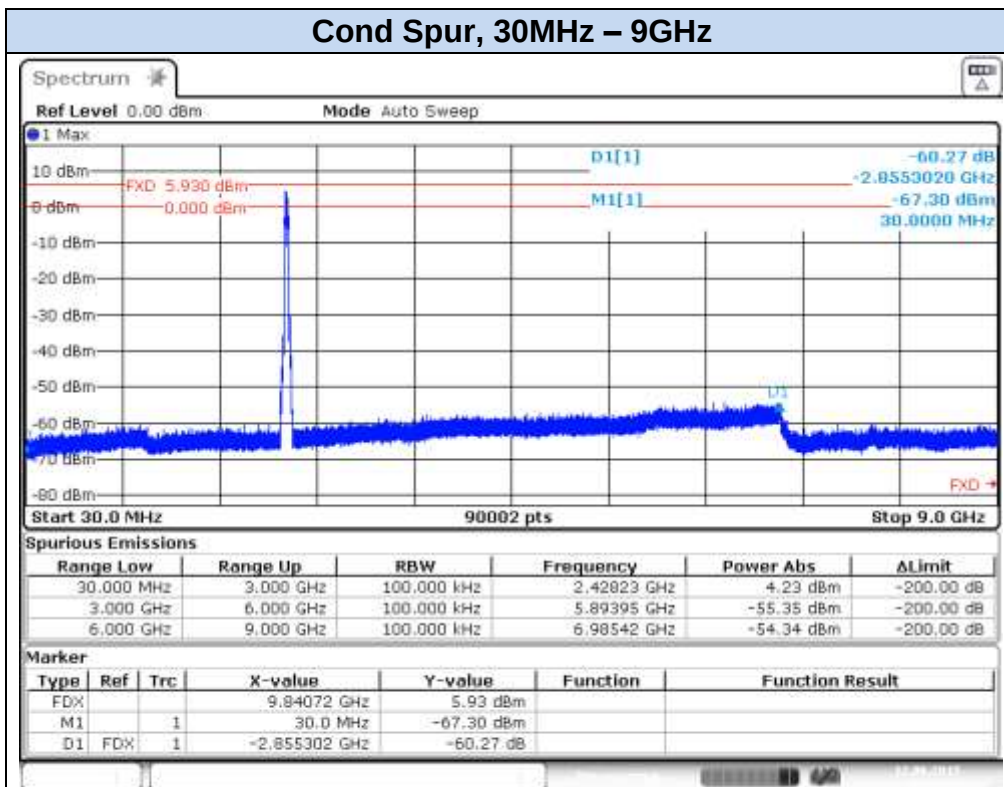
Cond Spur, 9GHz – 18GHz





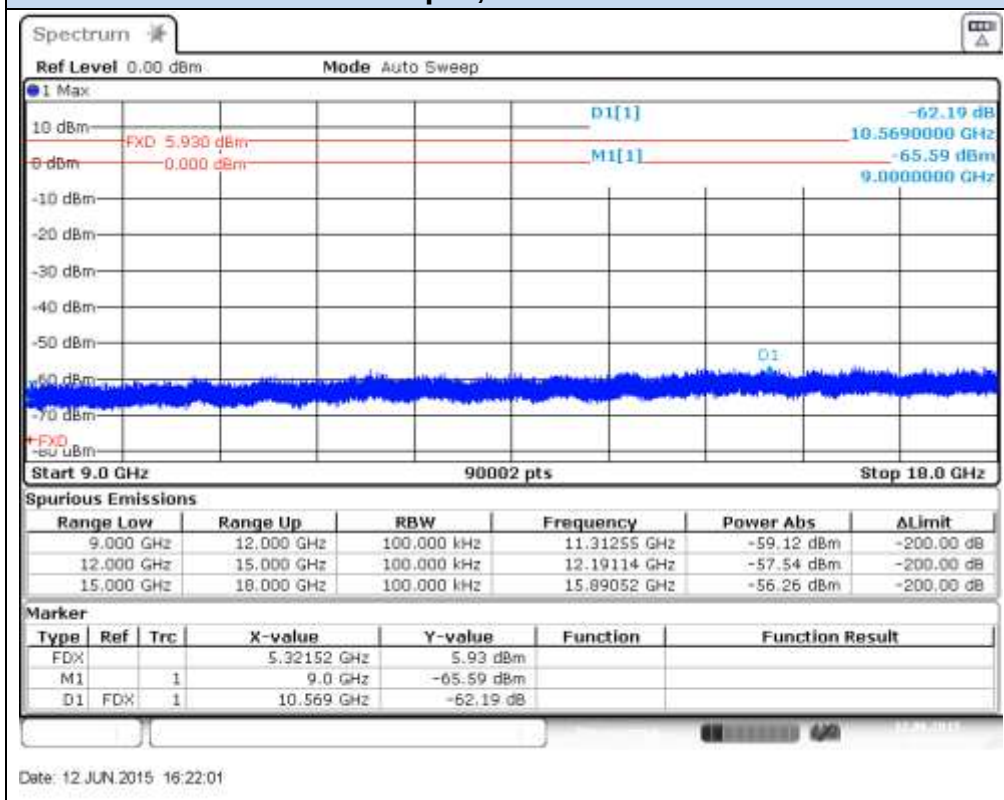
802.11n40, HT8 (MIMO) – Chain A, CH6F

Cond Spur, 30MHz – 9GHz

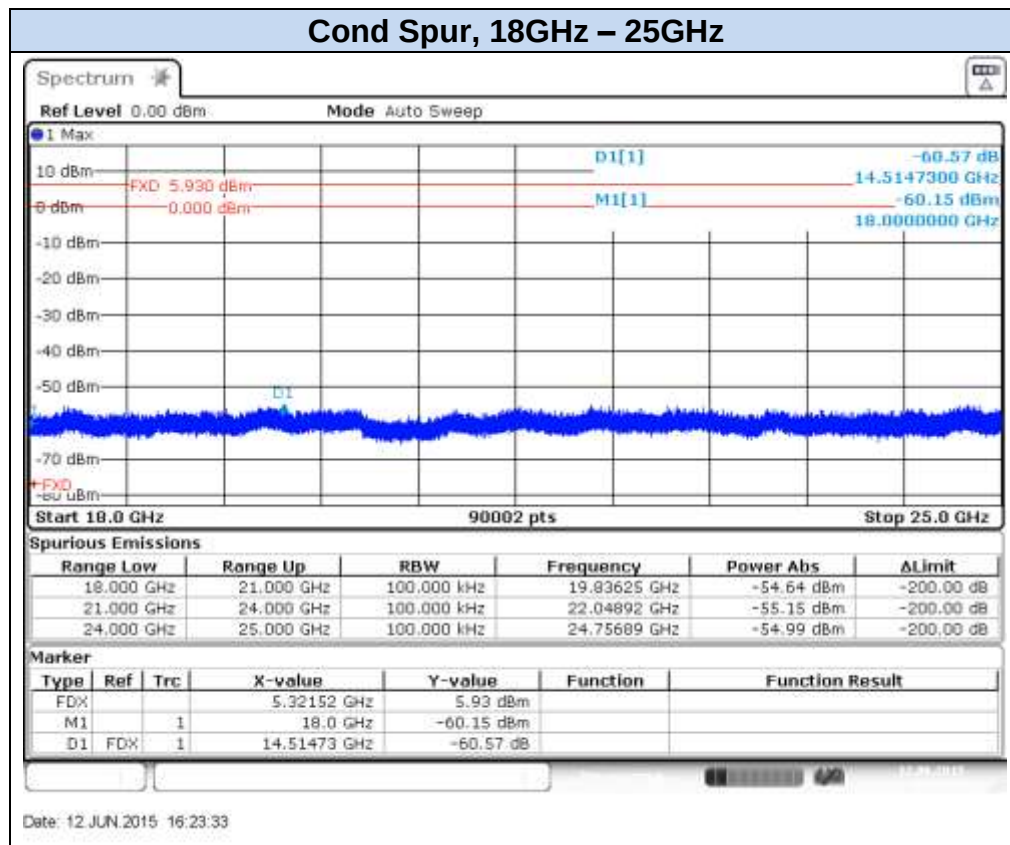


Date: 12 JUN 2015 16:20:22

Cond Spur, 9GHz – 18GHz

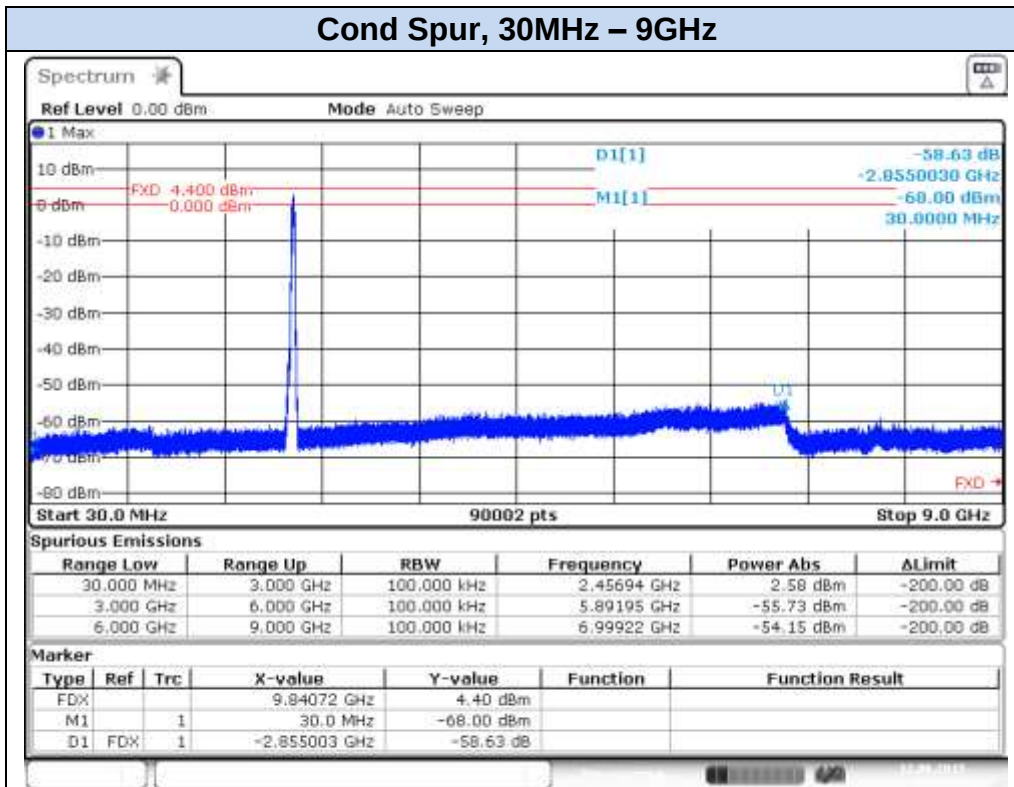


Date: 12 JUN 2015 16:22:01



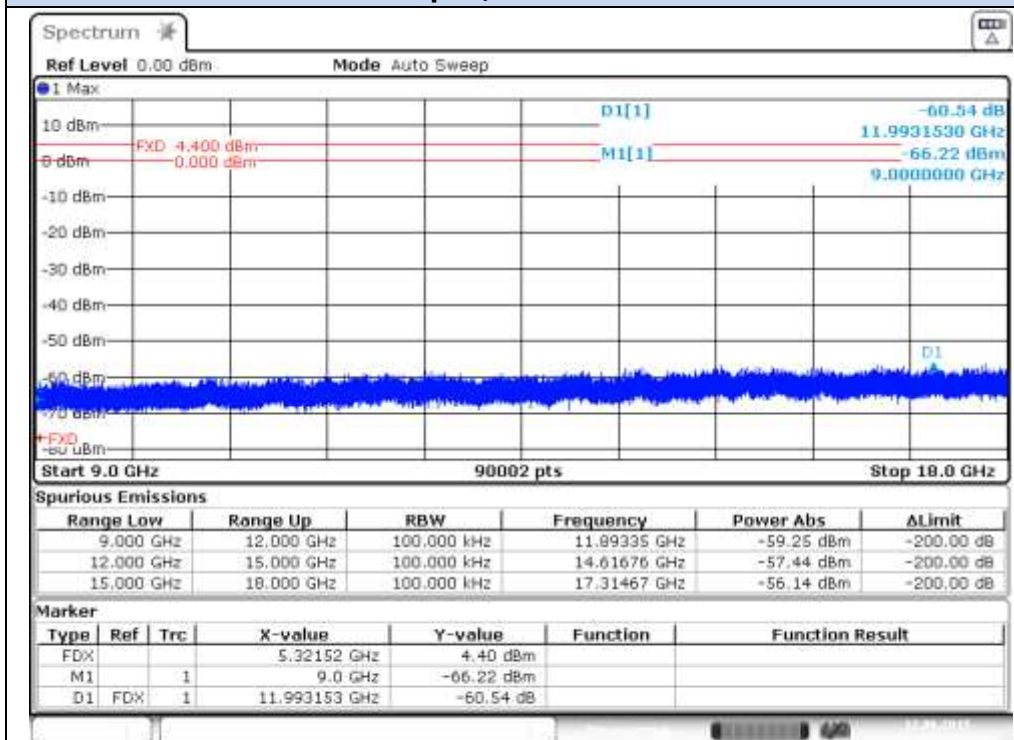
802.11n40, HT8 (MIMO) – Chain A, CH9F

Cond Spur, 30MHz – 9GHz



Date: 12 JUN 2015 16:25:02

Cond Spur, 9GHz – 18GHz



Date: 12 JUN 2015 16:28:38