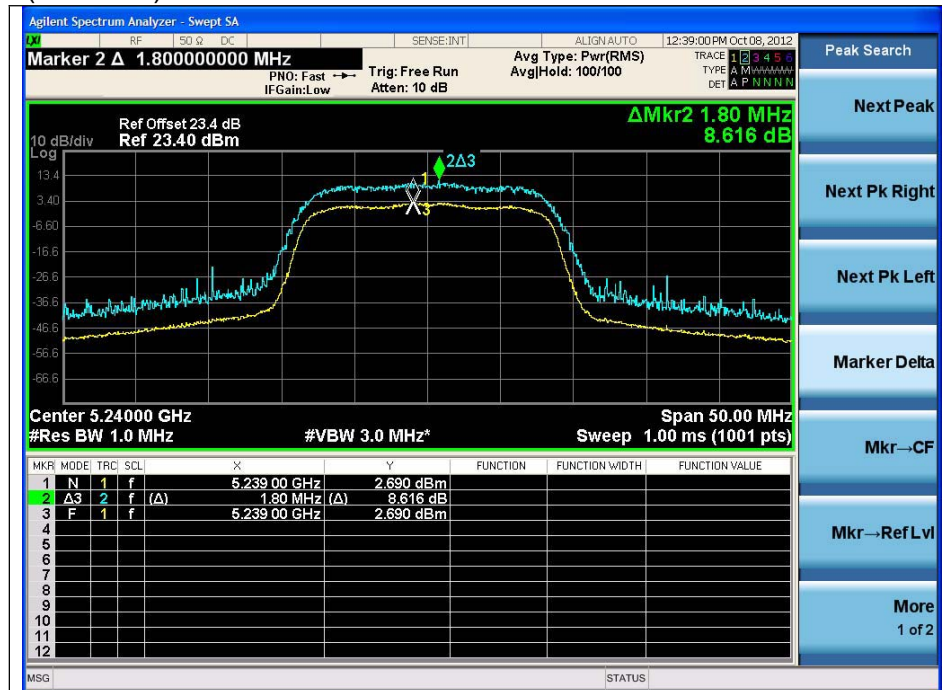
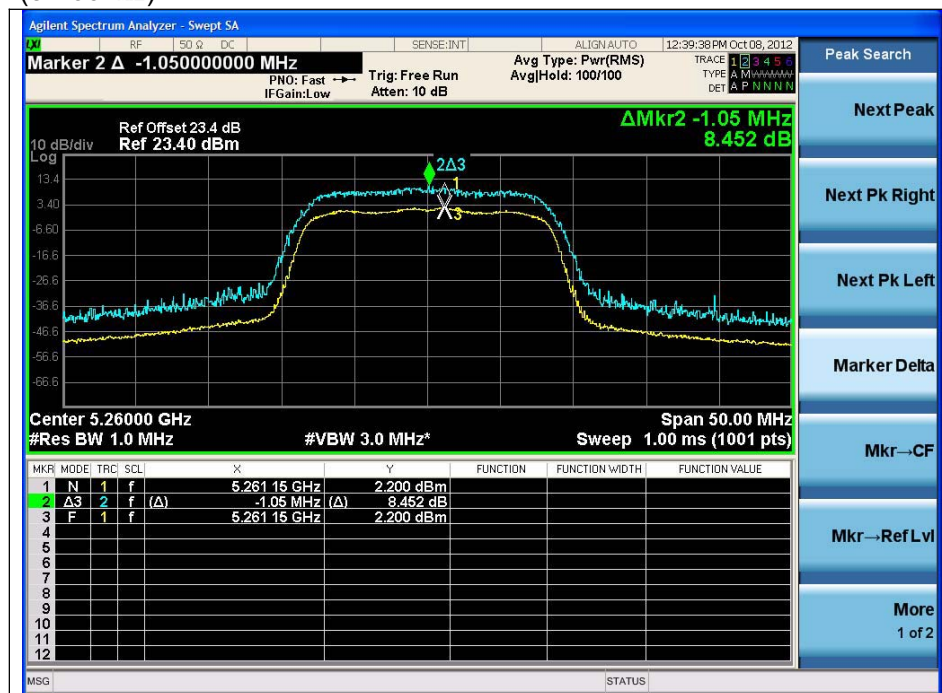


High Channel (5 240 MHz)



802.11a (DFS)

Low Channel (5 260 MHz)



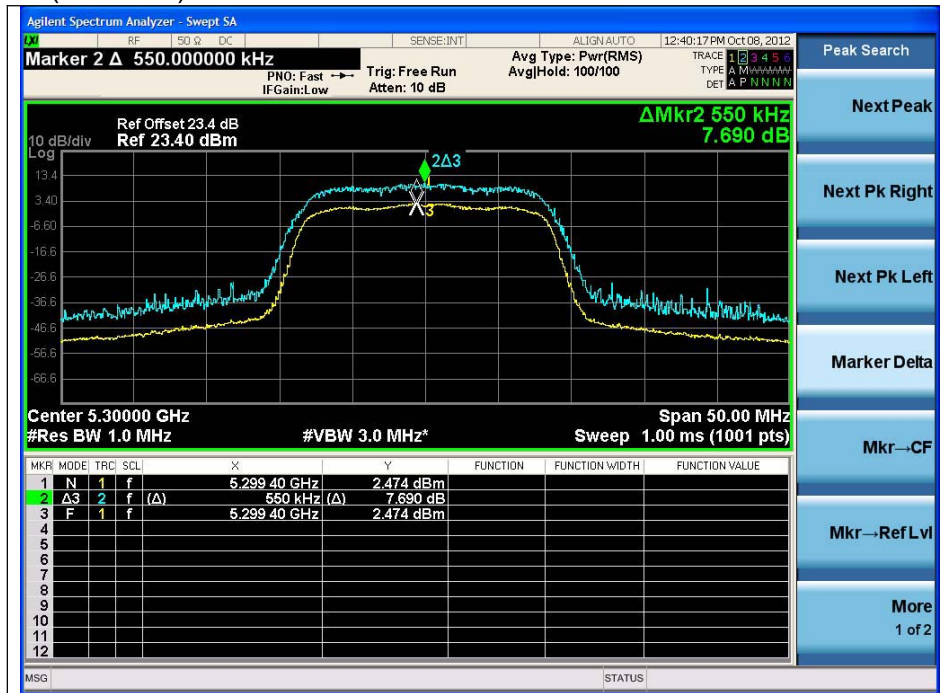
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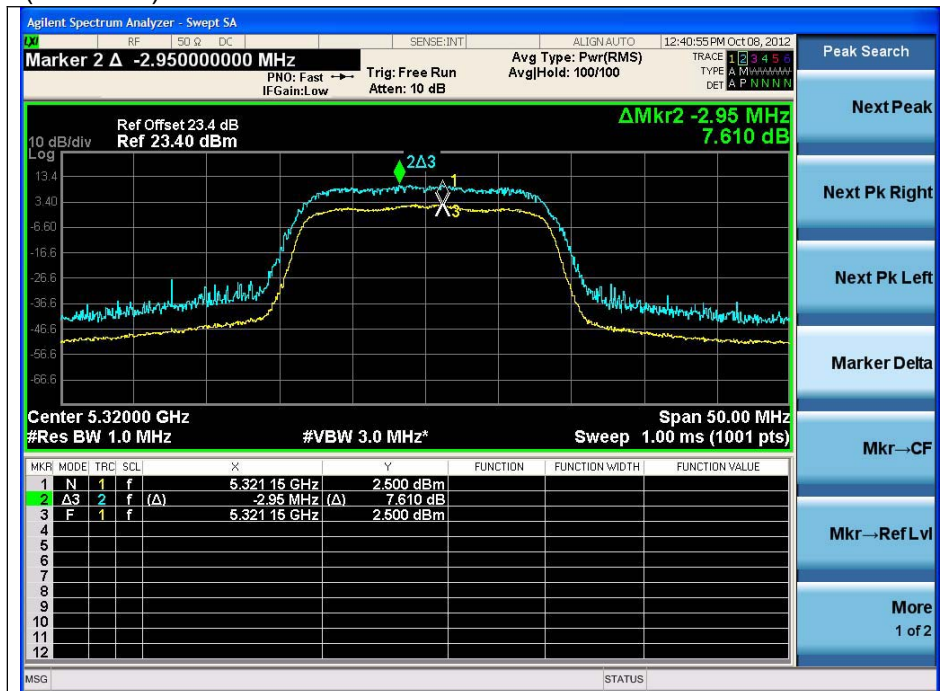
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Middle Channel (5 300 MHz)



High Channel (5 320 MHz)



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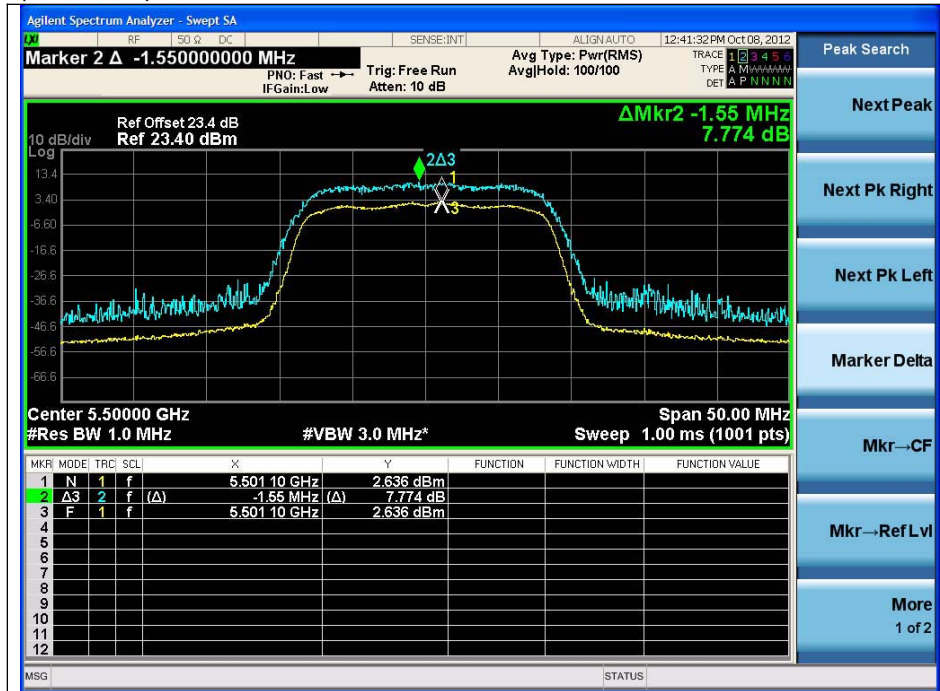
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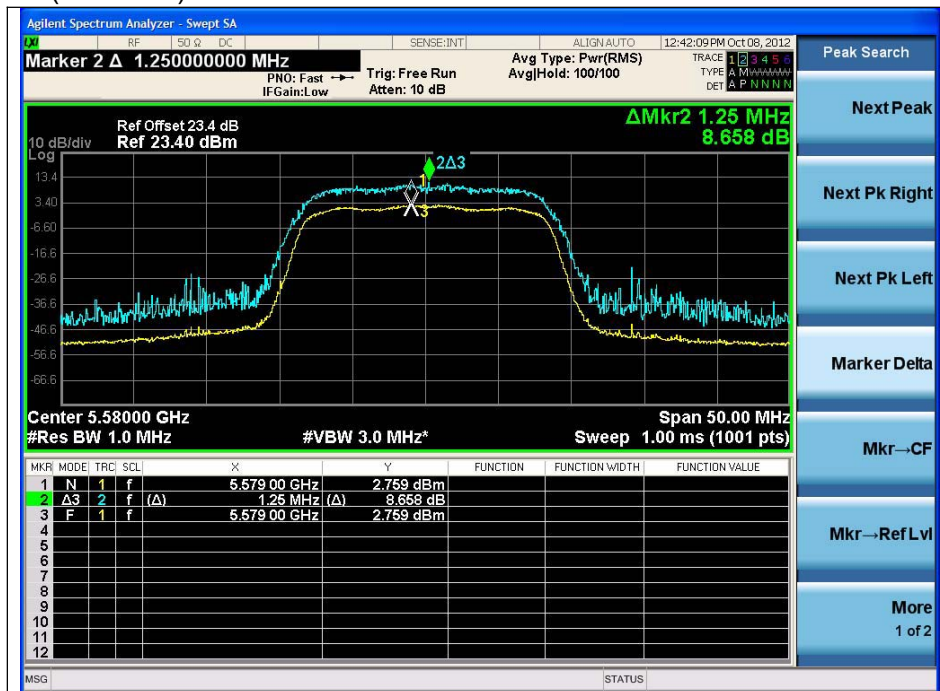
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802.11a (DFS)

Low Channel (5 500 MHz)



Middle Channel (5 580 MHz)



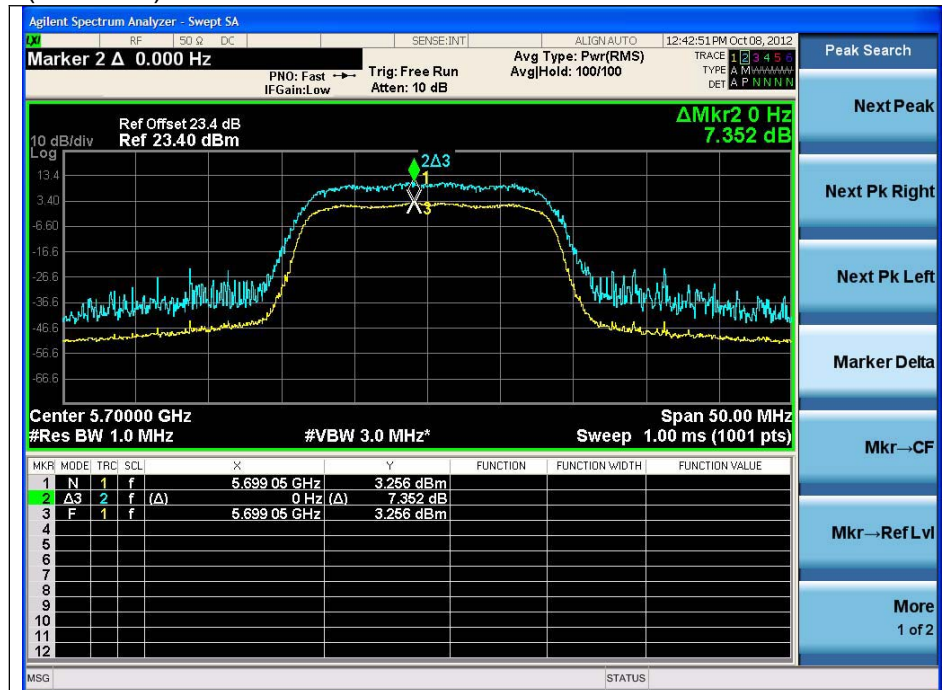
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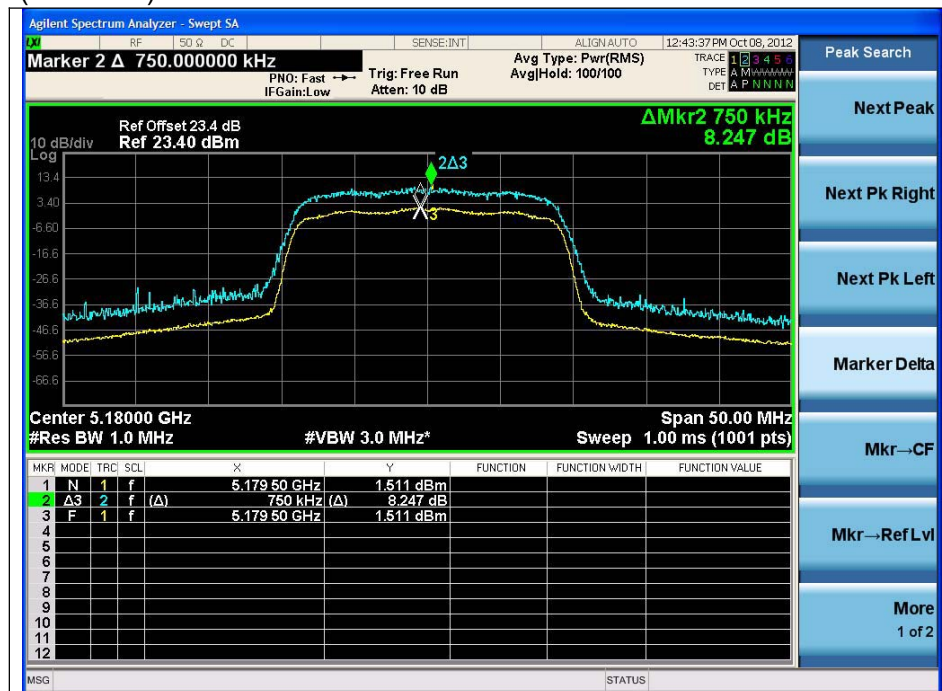
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High Channel (5 700 MHz)



802.11n-HT20 (Non-DFS)

Low Channel (5 180 MHz)



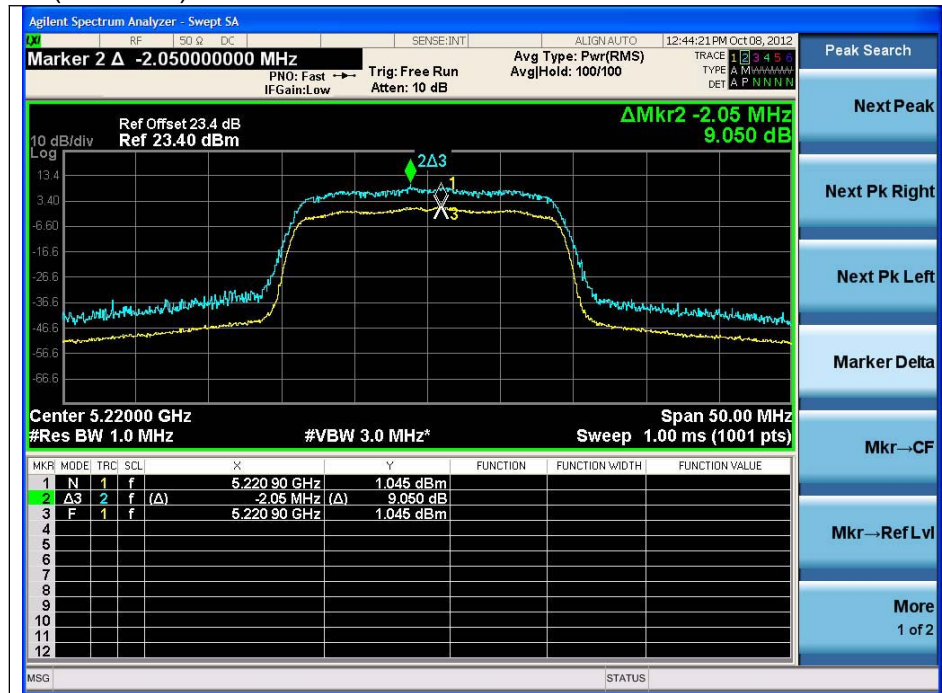
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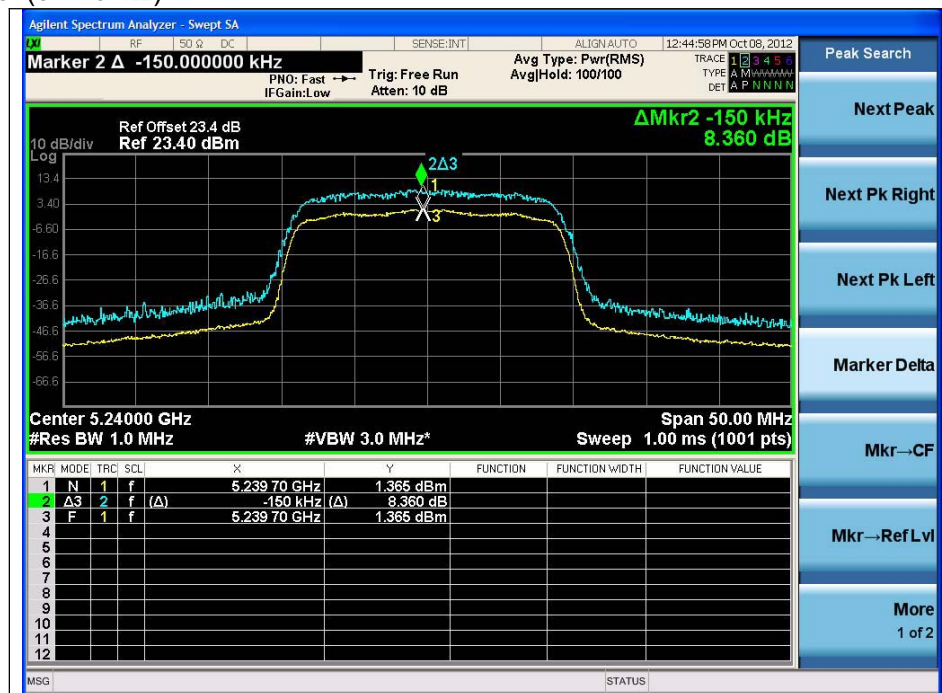
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Middle Channel (5 220 MHz)



High Channel (5 240 MHz)



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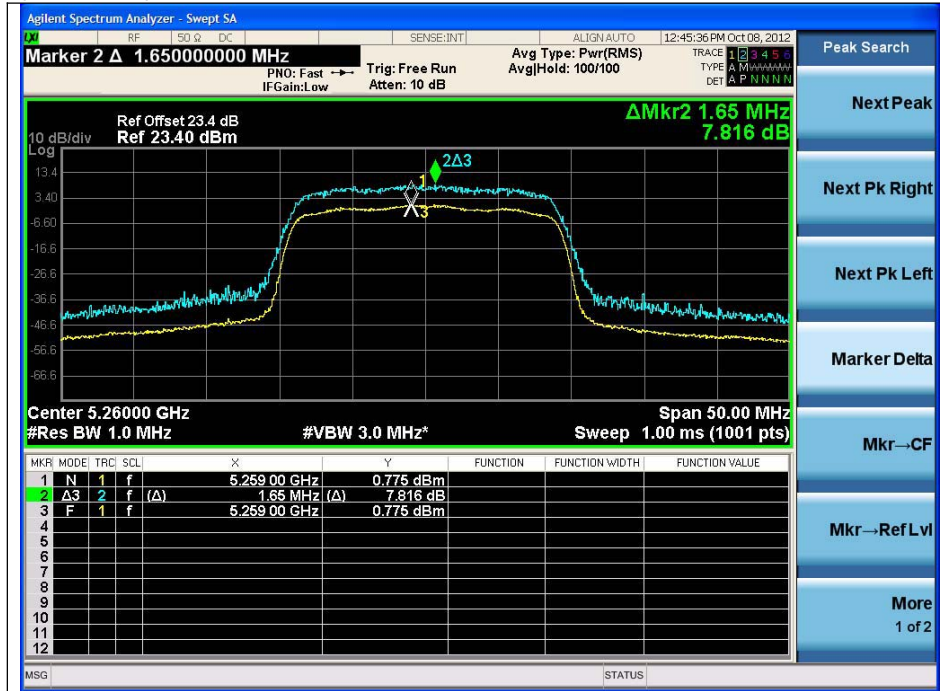
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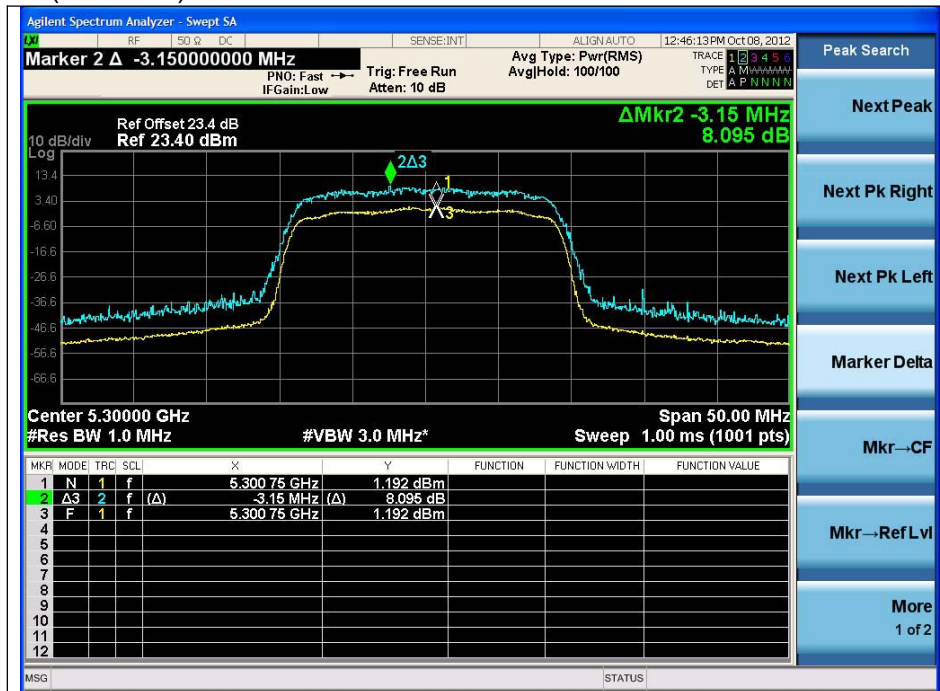
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802.11-HT20 (DFS)

Low Channel (5 260 MHz)



Middle Channel (5 300 MHz)



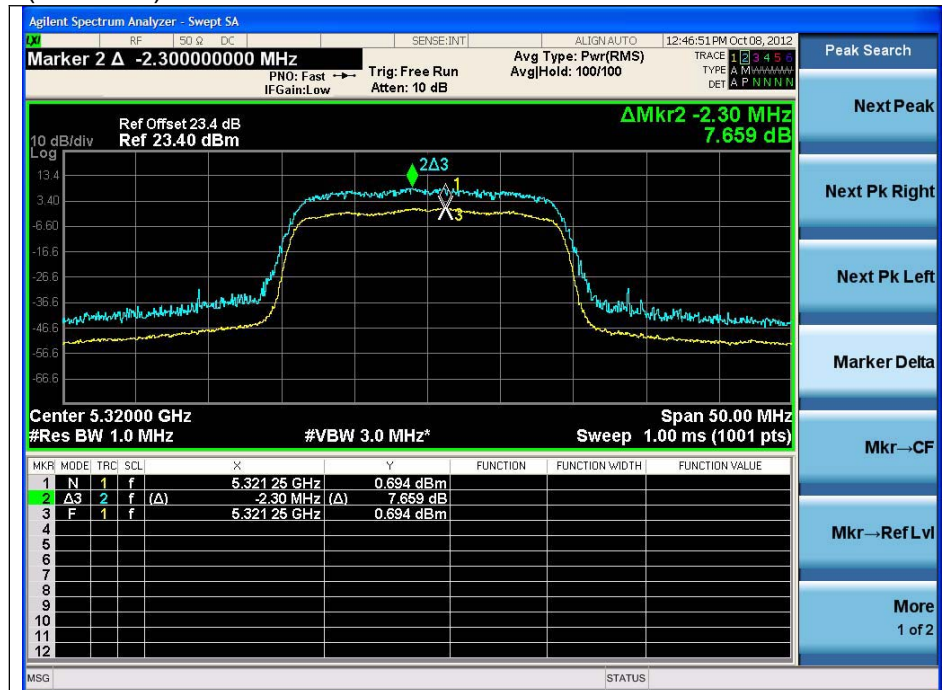
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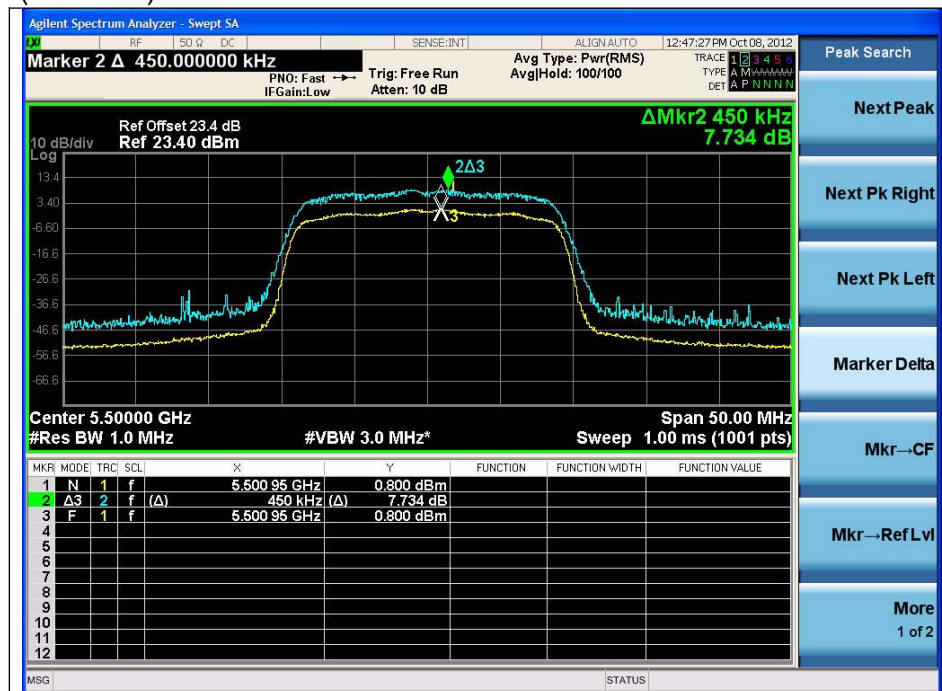
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High Channel (5 320 MHz)



802.11-HT20 (DFS)

Low Channel (5 500 MHz)



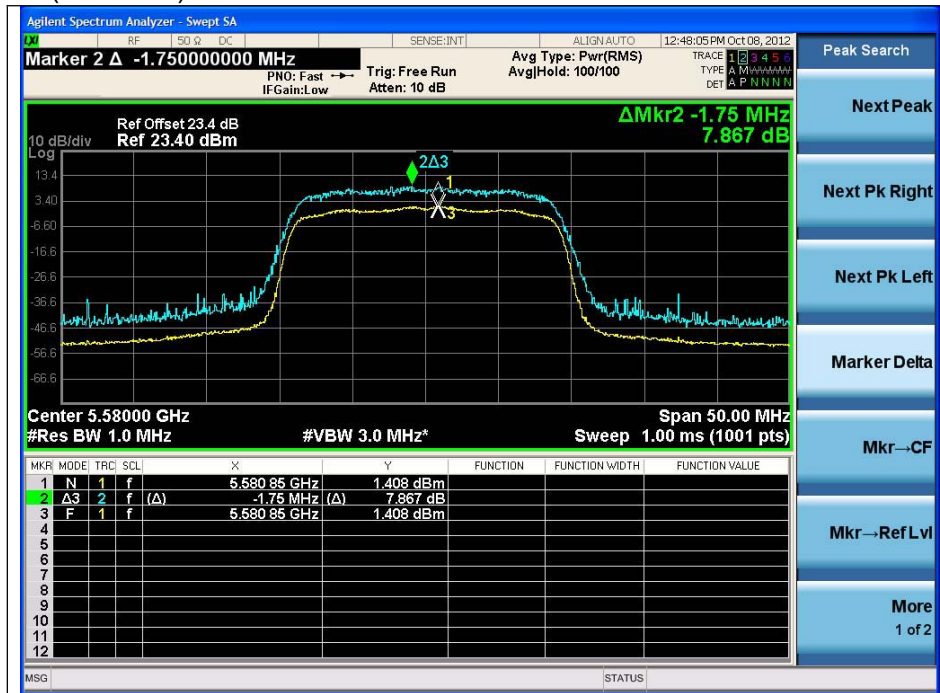
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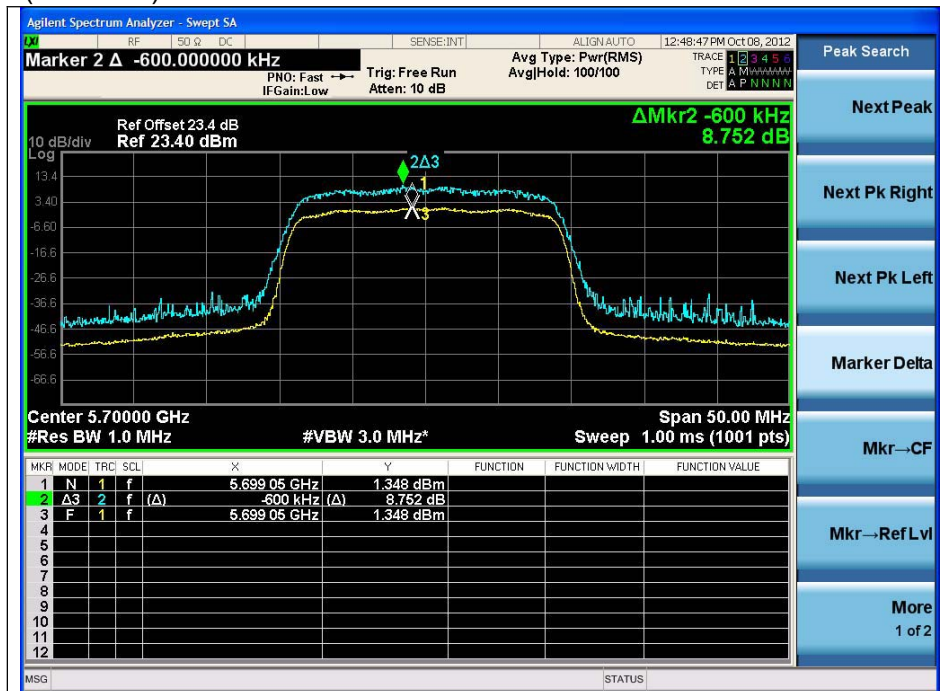
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Middle Channel (5 580 MHz)



High Channel (5 700 MHz)



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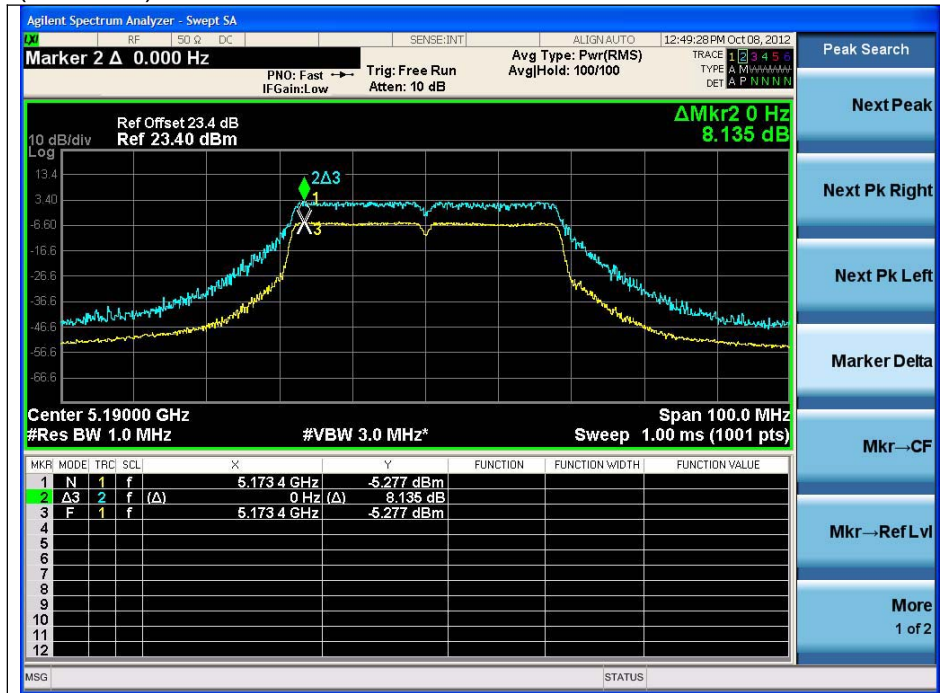
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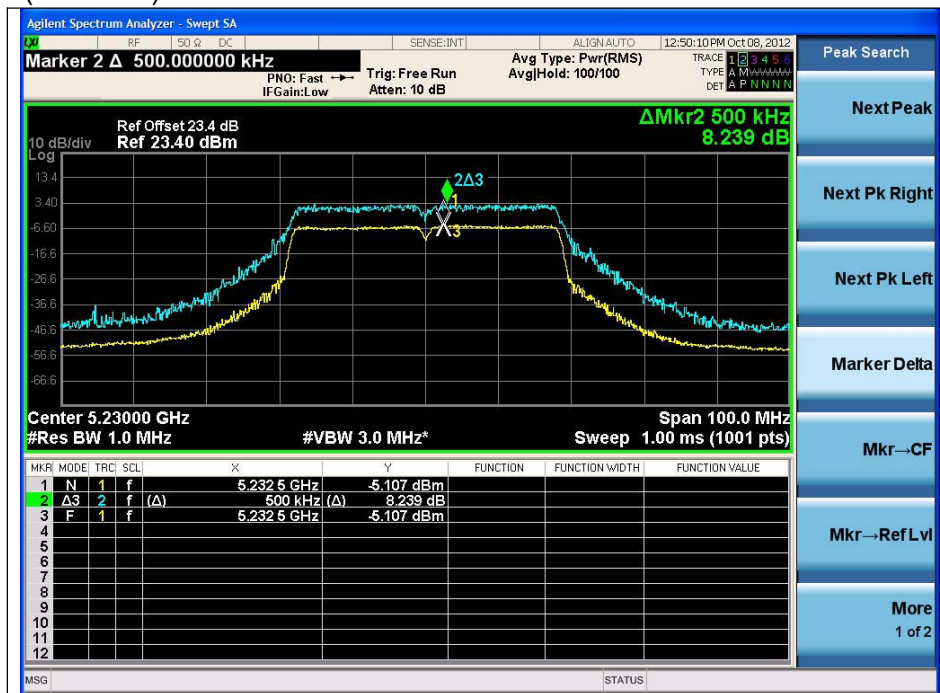
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802.11n-HT40 (Non-DFS)

Low Channel (5 190 MHz)



High Channel (5 230 MHz)



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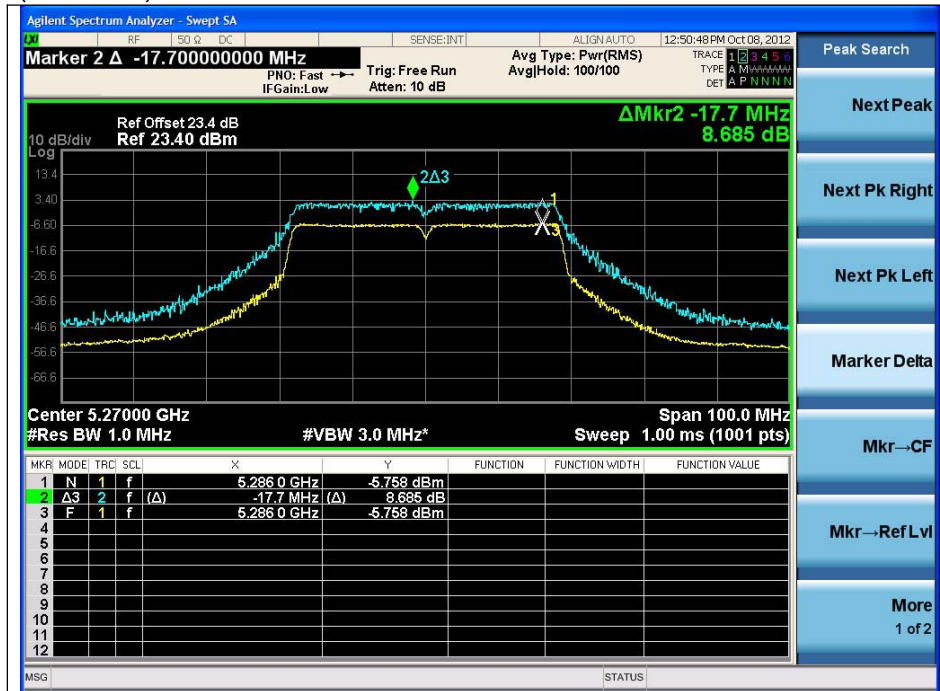
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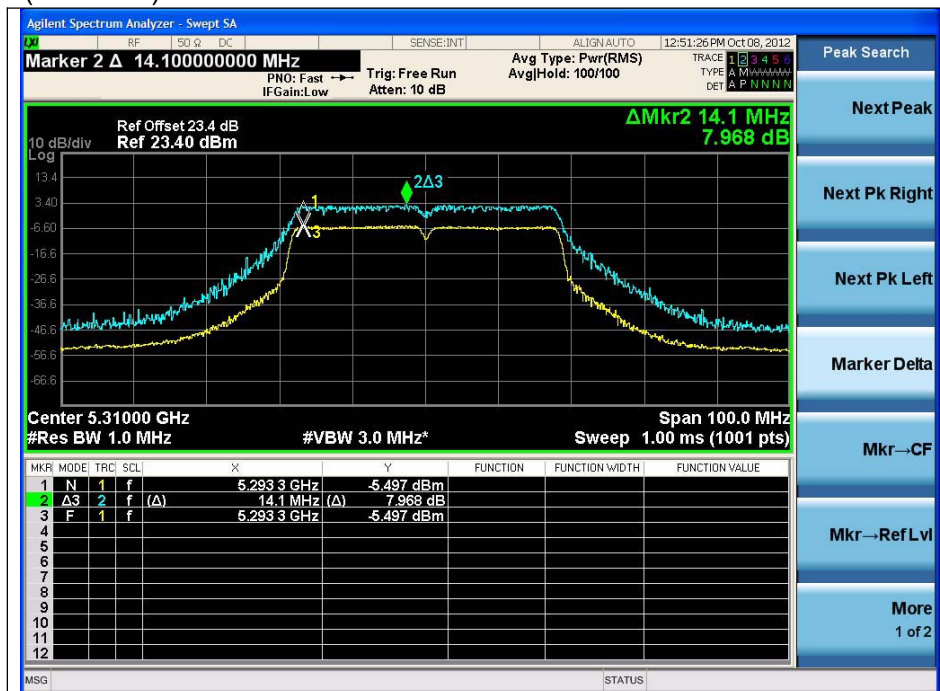
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802.11-HT40 (DFS)

Low Channel (5 270 MHz)



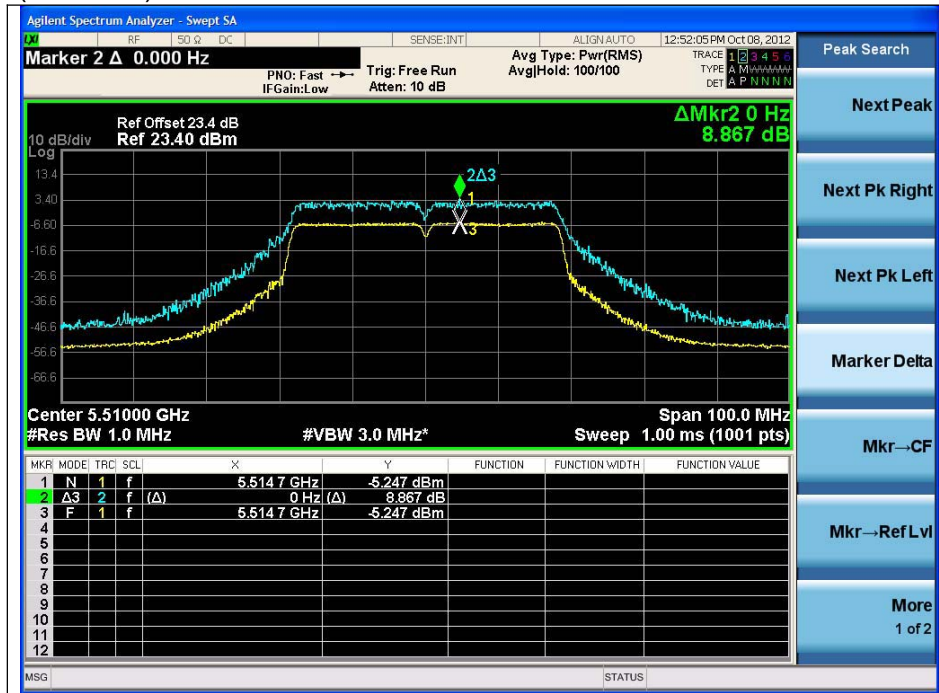
High Channel (5 310 MHz)



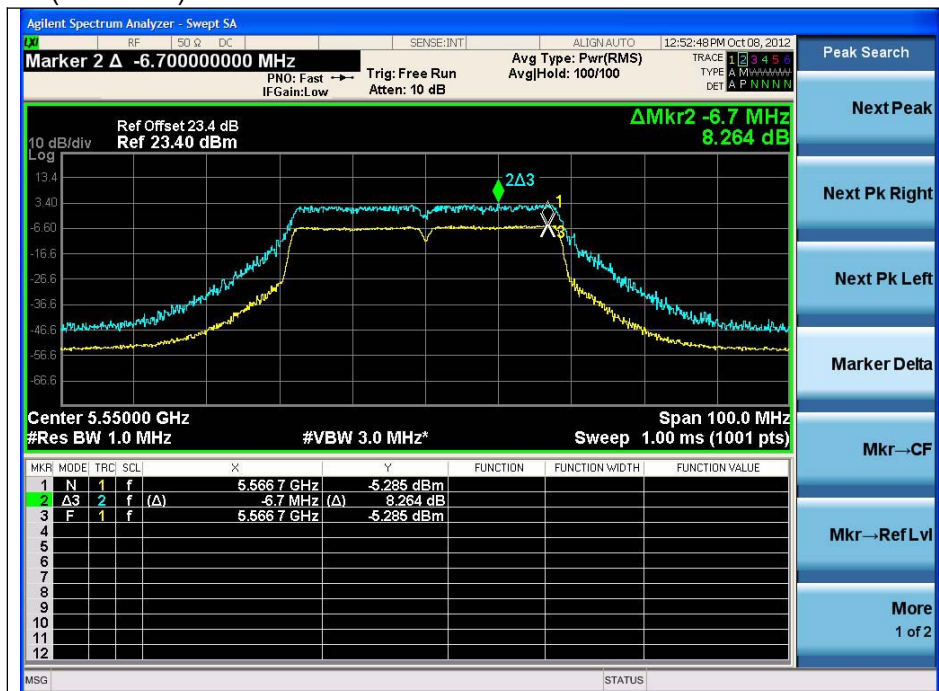
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802.11-HT40 (DFS)

Low Channel (5 510 MHz)

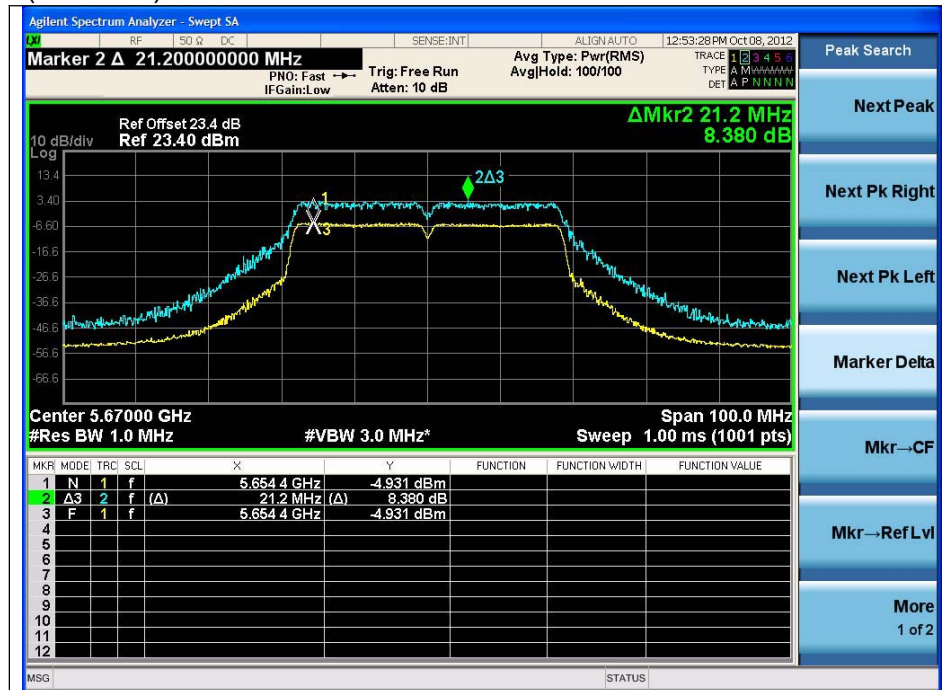


Middle Channel (5 550 MHz)



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High Channel (5 670 MHz)



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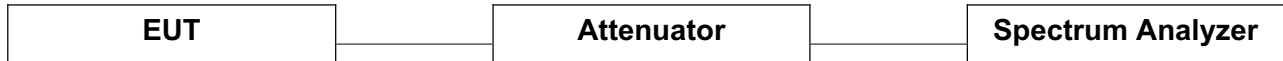
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6. Peak excursion

6.1. Test setup



6.2. Limit

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

6.3. Test procedure

All data rates and modes were investigated for this test. The full data for the worst case data rate are reported in this section.

1. This measurement settings are specified in section F of KDB 789033.
2. Set the spectrum analyzer span to view the entire emission bandwidth.
3. Find the maximum of the peak-max-hold spectrum.
4. Set RBW = 1 MHz.
5. Set VBW $\geq$ 3 MHz.
6. Detector = Peak.
7. Trace mode = max-hold.
8. Allow the sweeps to continue until the trace stabilizes.
9. Use the peak search function to find the peak of the spectrum.
10. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSP.

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6.4. Test result

Ambient temperature : (24 ± 2) °C
Relative humidity : 49 % R.H.

6.4.1. Non-DFS Band

Operation Mode	Channel	Data Rate (Mbps)	Channel Frequency (MHz)	Peak excursion (dB)	Limit (dB)
11a	Low	6	5 180	8.085	13
	Middle	6	5 220	8.309	
	High	6	5 240	8.616	
11n_HT20	Low	MCS0	5 180	8.247	
	Middle	MCS0	5 220	9.050	
	High	MCS0	5 240	8.360	
11n_HT40	Low	MCS0	5 190	8.135	
	High	MCS0	5 230	8.239	

6.4.2. DFS Band

Operation Mode	Channel	Data Rate (Mbps)	Channel Frequency (MHz)	Peak excursion (dB)	Limit (dB)
11a	Lower Band	6	5 260	8.452	13
		6	5 300	7.690	
		6	5 320	7.610	
	Upper Band	6	5 500	7.774	
		6	5 580	8.658	
		6	5 700	7.352	
11n_HT20	Lower Band	MCS0	5 260	7.816	
		MCS0	5 300	8.095	
		MCS0	5 320	7.659	
	Upper Band	MCS0	5 500	7.734	
		MCS0	5 580	7.867	
		MCS0	5 700	8.752	
11n_HT40	Lower Band	MCS0	5 270	8.685	
		MCS0	5 310	7.968	
	Upper Band	MCS0	5 510	8.867	
		MCS0	5 550	8.264	
		MCS0	5 670	8.380	

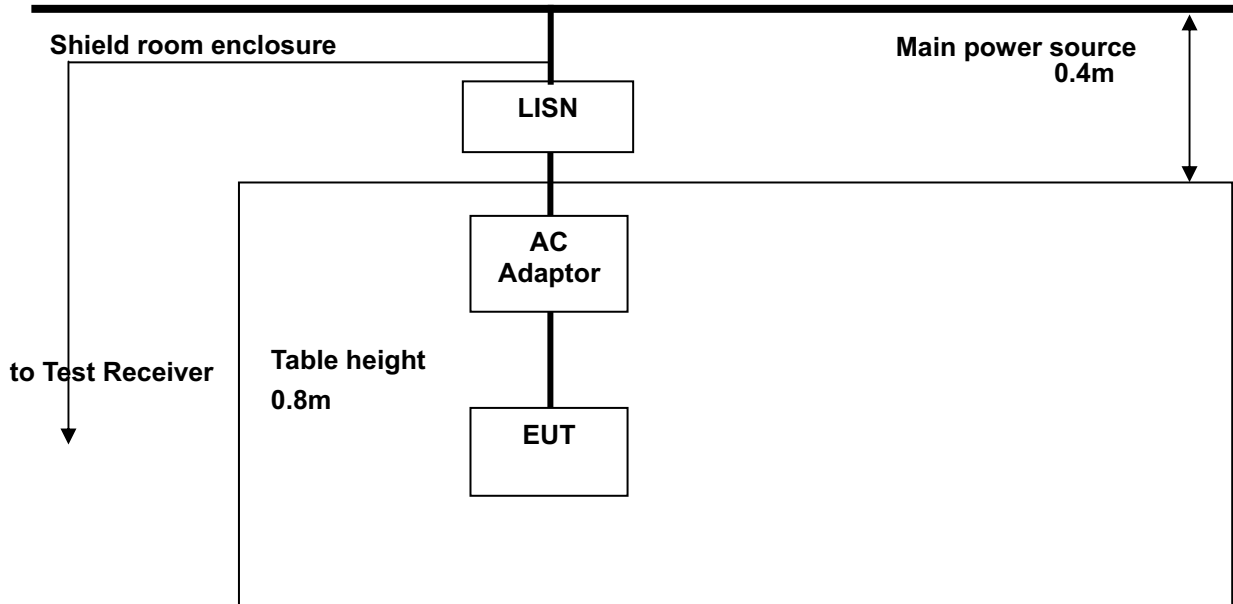
Captured images

Please refer to the PPSD captured image as above. (100 page – 112 page)

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7. Transmitter AC Power Line Conducted Emission

7.1. Test Setup



7.2. Limit

According to §15.207(a) for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 uH/50 ohm line impedance stabilization network(LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

* Decreases with the logarithm of the frequency.

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7.3. Test Procedures

All data rates, frequency bands and modes were investigated for this test. The full data for the worst case data rate are reported in this section.

AC line conducted emissions from the EUT were measured according to the dictates of ANSI C63.4-2003

1. The test procedure is performed in a 6.5m × 3.6m × 3.6m (L × W × H) shielded room. The EUT along with its peripherals were placed on a 1.0 m(W) × 1.5 m(L) and 0.8 m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
2. The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room.
3. The excess power cable between the EUT and the LISN was bundled. All connecting cables of EUT were moved to find the maximum emission.

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7.4. Test Results (Worst case configuration_ 11n_HT20 mode, MCS0, 5500 – 5700 MHz)

The following table shows the highest levels of conducted emissions on both phase of Hot and Neutral line.

Ambient temperature : (24 ± 2) °C
Relative humidity : 47 % R.H.

Frequency range : 0.15 MHz – 30 MHz

Measured Bandwidth : 9 kHz

FREQ. (MHz)	LEVEL(dB μ V)		LINE	LIMIT(dB μ V)		MARGIN(dB)	
	Q-Peak	Average		Q-Peak	Average	Q-Peak	Average
0.15	42.47	25.67	H	66.00	56.00	23.53	30.33
0.17	40.61	24.01	H	64.96	54.96	24.35	30.95
0.61	26.37	17.27	H	56.00	46.00	29.63	28.73
3.56	32.78	23.38	H	56.00	46.00	23.22	22.62
7.92	34.01	24.51	H	60.00	50.00	25.99	25.49
8.36	34.98	25.48	H	60.00	50.00	25.02	24.52
0.15	42.35	24.95	N	66.00	56.00	23.65	31.05
0.17	40.59	22.99	N	64.96	54.96	24.37	31.97
3.34	26.85	18.65	N	56.00	46.00	29.15	27.35
3.62	27.26	20.56	N	56.00	46.00	28.74	25.44
7.86	32.39	22.49	N	60.00	50.00	27.61	27.51
8.37	31.66	21.66	N	60.00	50.00	28.34	28.34

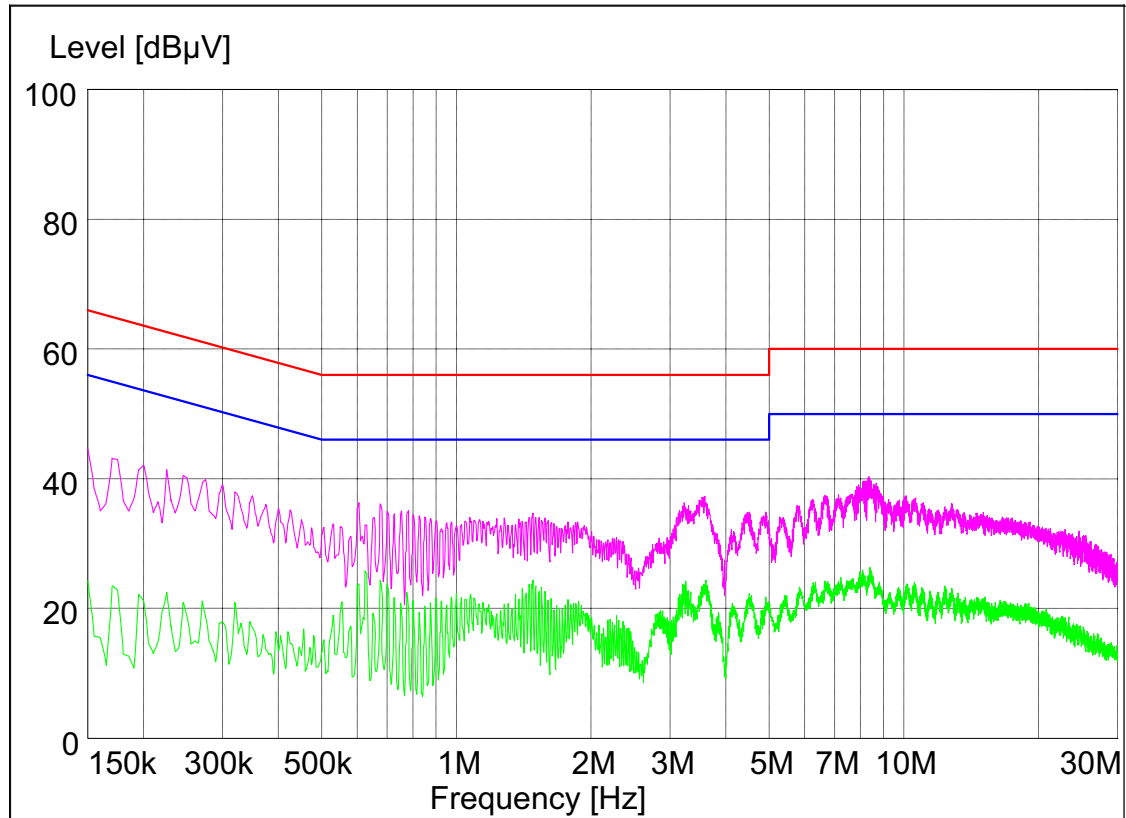
Note ;

1. Line (H): Hot, Line (N): Neutral
2. All modes of operation were investigated and the worst-case emissions are reported using 11n_HT20 MCS0
3. The limit for Class B device(s) from 150 kHz to 30 MHz are specified in Section of the Title 47 CFR.
4. Traces shown in plot mad using a peak detector and average detector
5. Deviations to the Specifications: None.

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Plot of Conducted Power line

Test mode : (Hot)



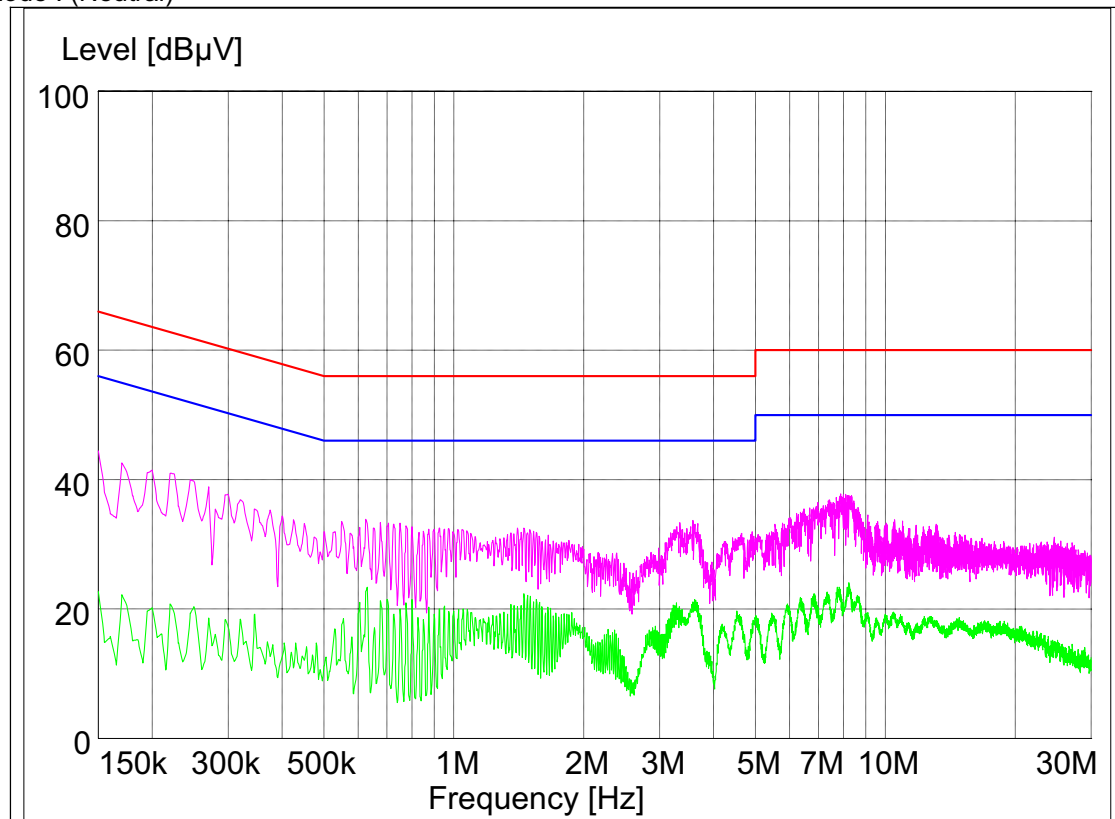
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Test mode : (Neutral)



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