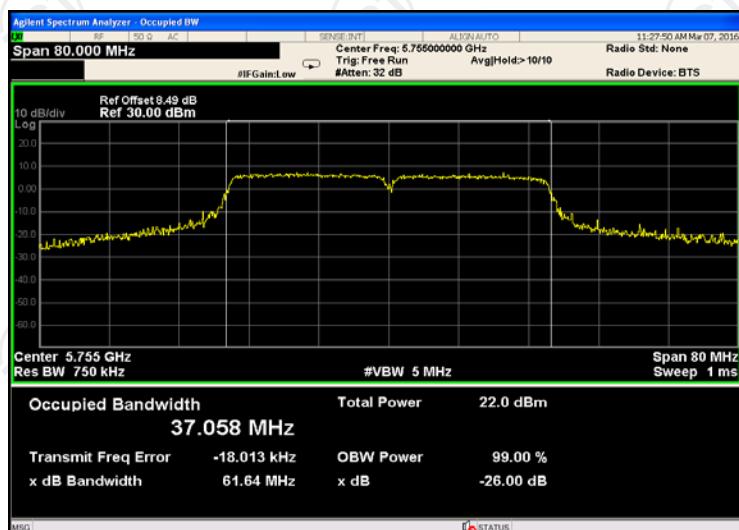
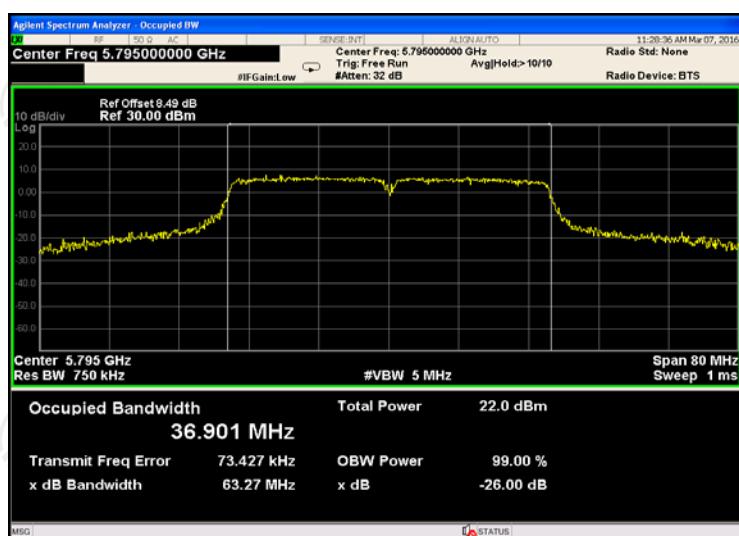


11ac(HT40)

CH151

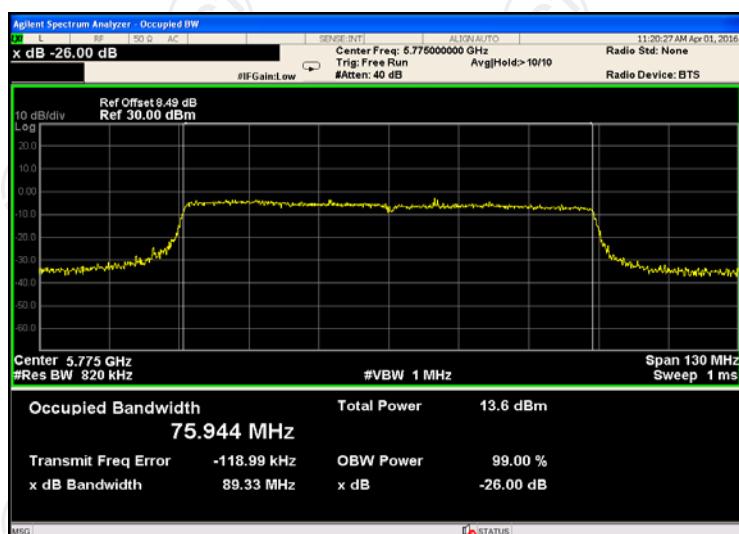


CH159



11ac(HT80)

CH155

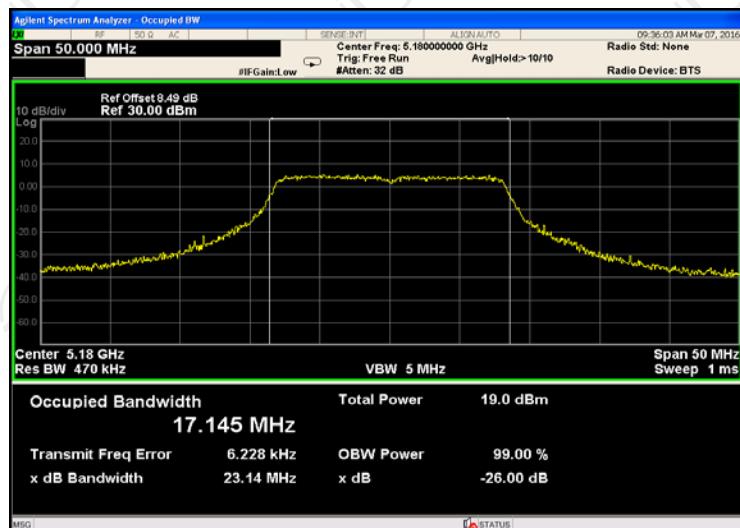


ANT 1

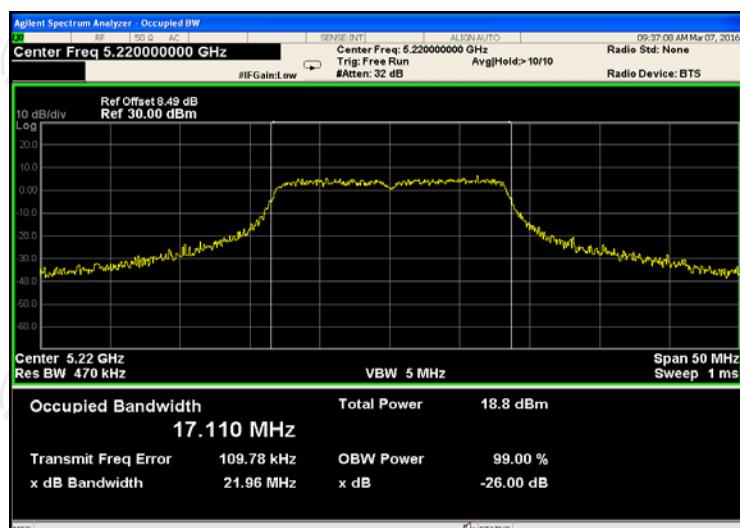
Band I (5150 – 5250 MHz)

11a

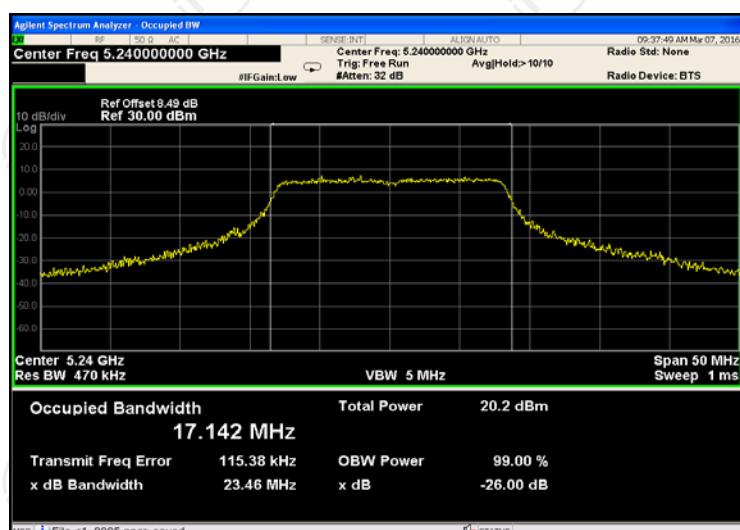
CH36



CH44

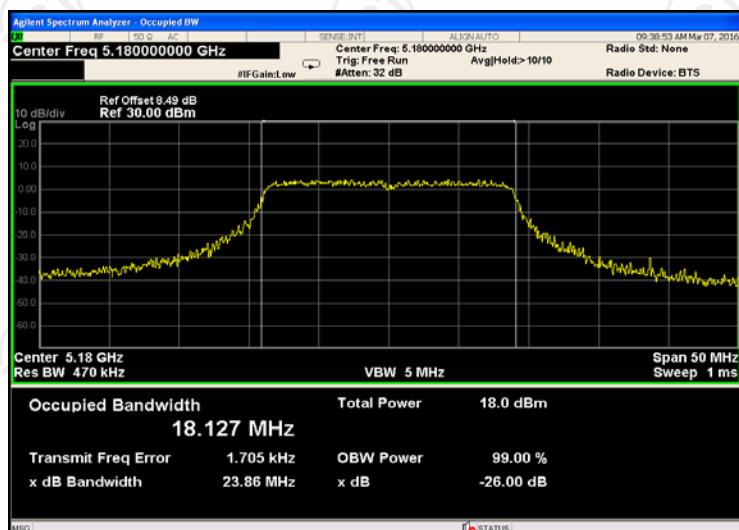


CH48

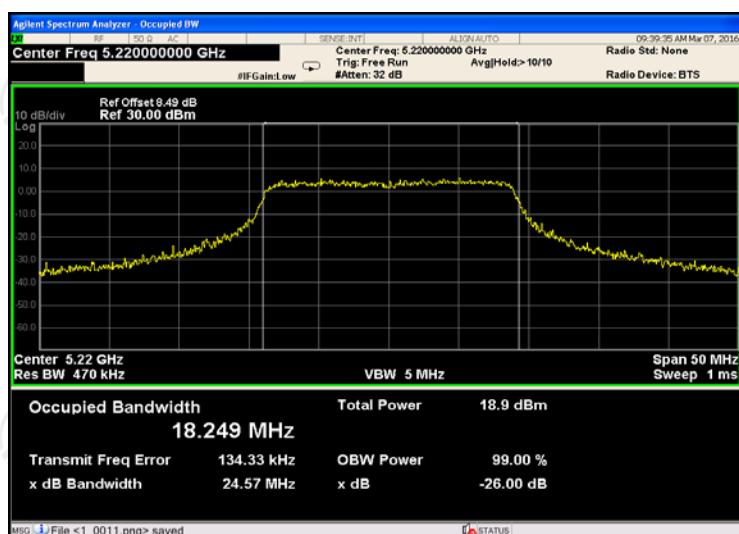


11n(HT20)

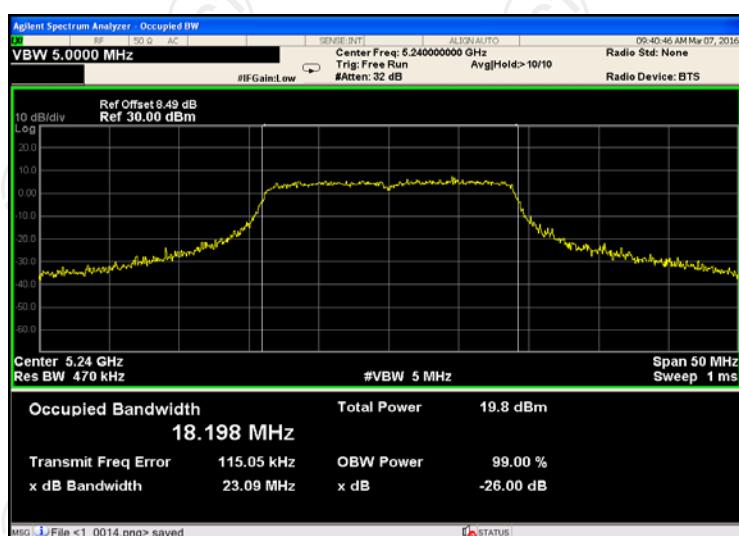
CH36



CH44

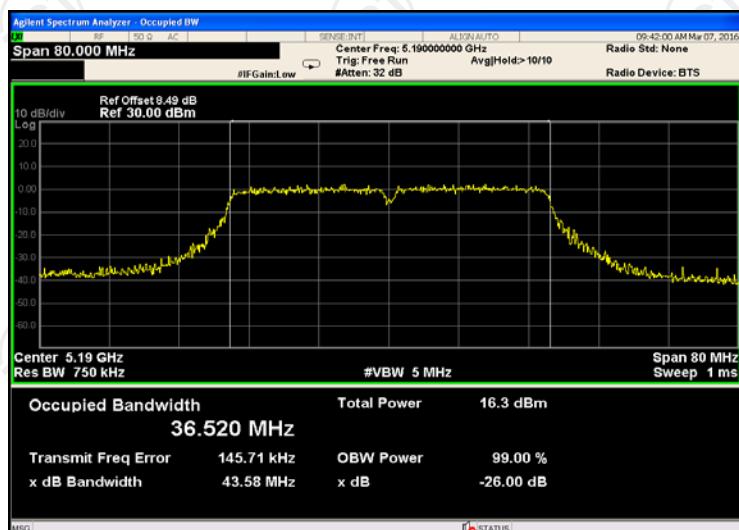


CH48

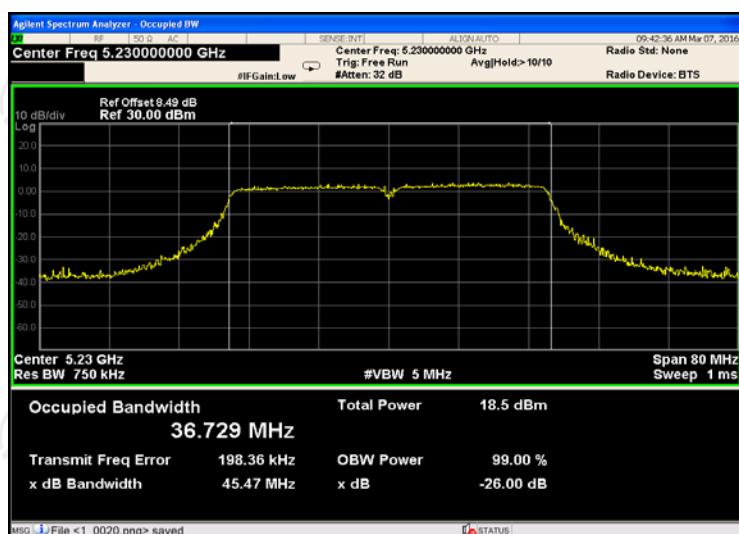


11n(HT40)

CH38

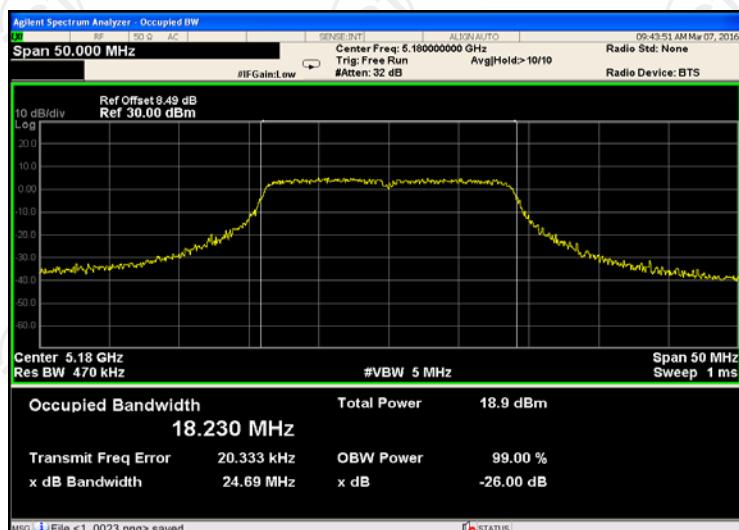


CH46

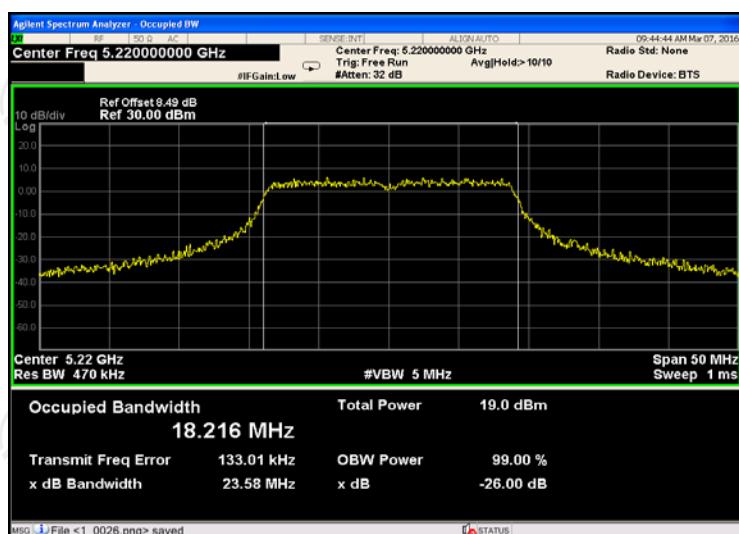


11ac(HT20)

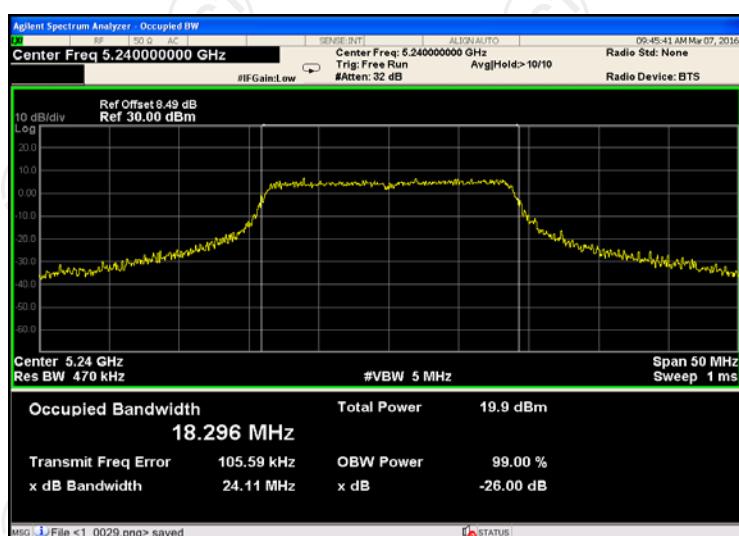
CH36



CH44

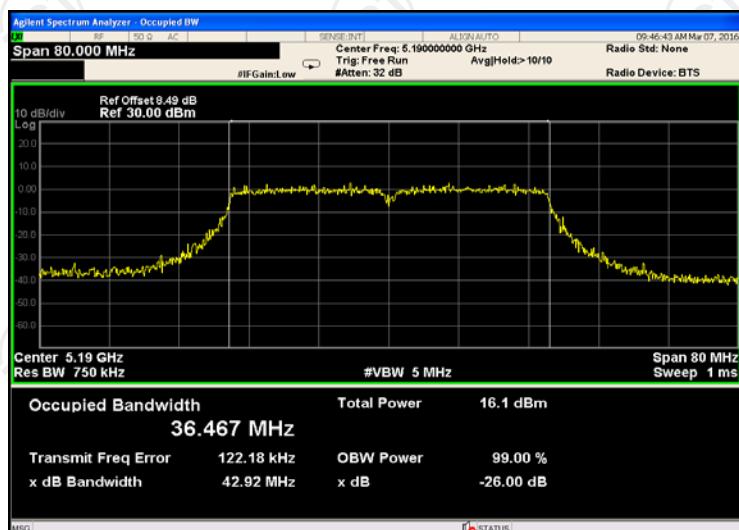


CH48

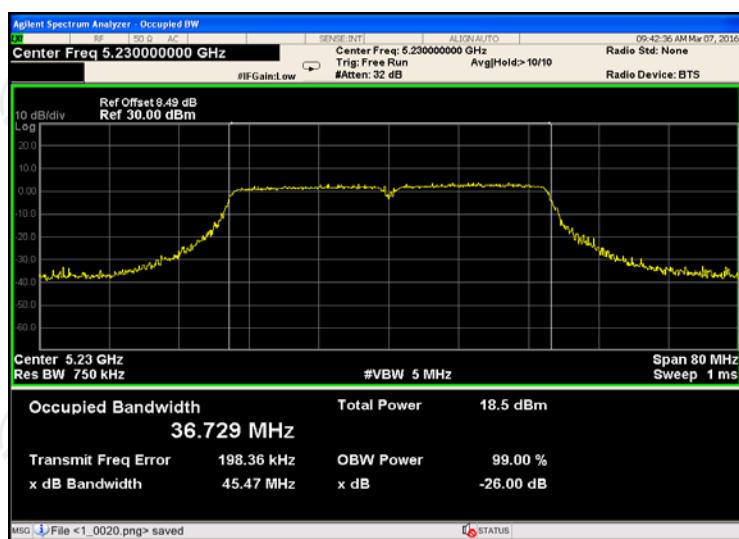


11ac(HT40)

CH38

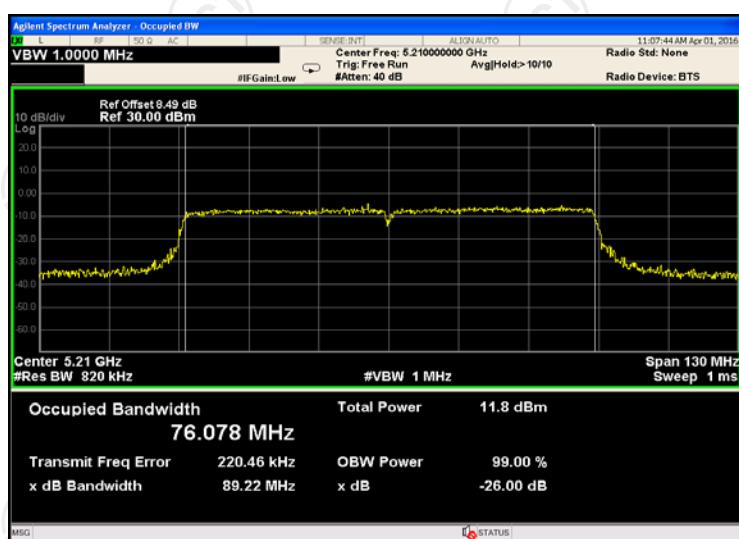


CH46



11ac(HT80)

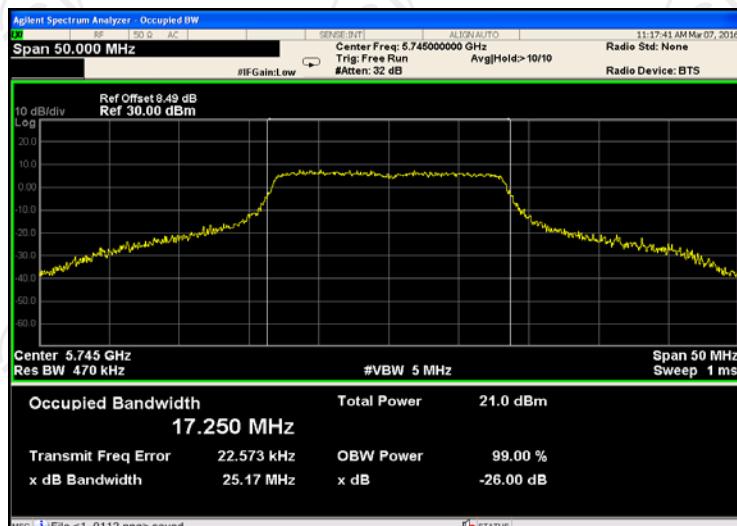
CH42



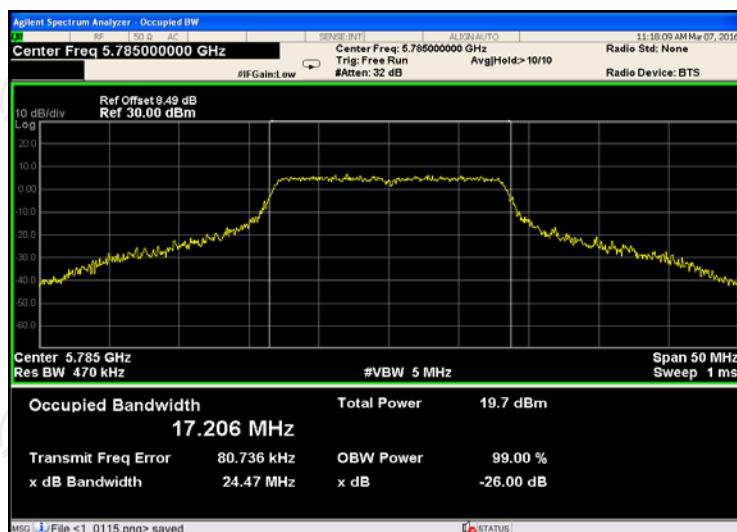
Band IV (5725 – 5850 MHz)

11a

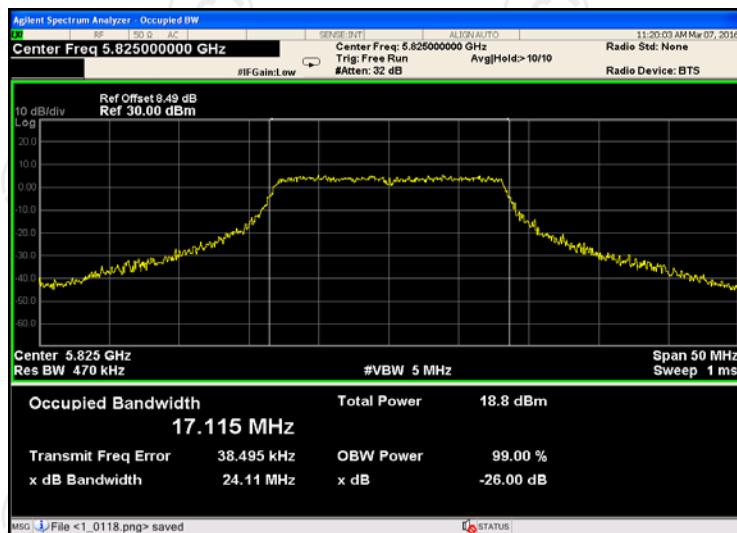
CH149



CH157

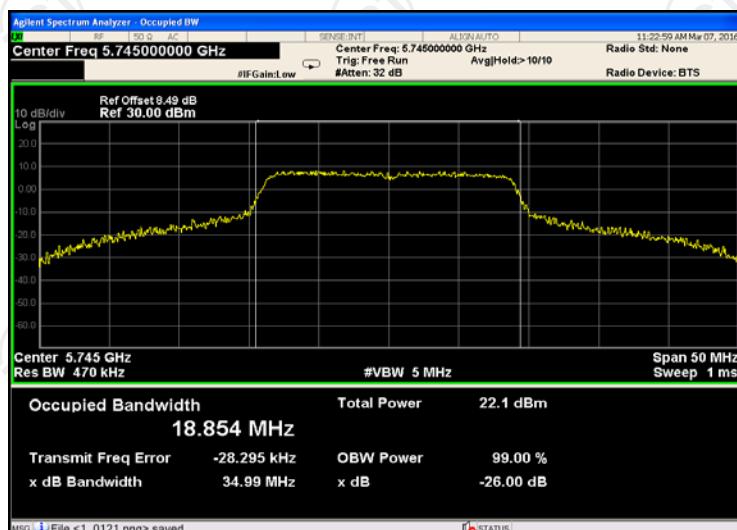


CH165

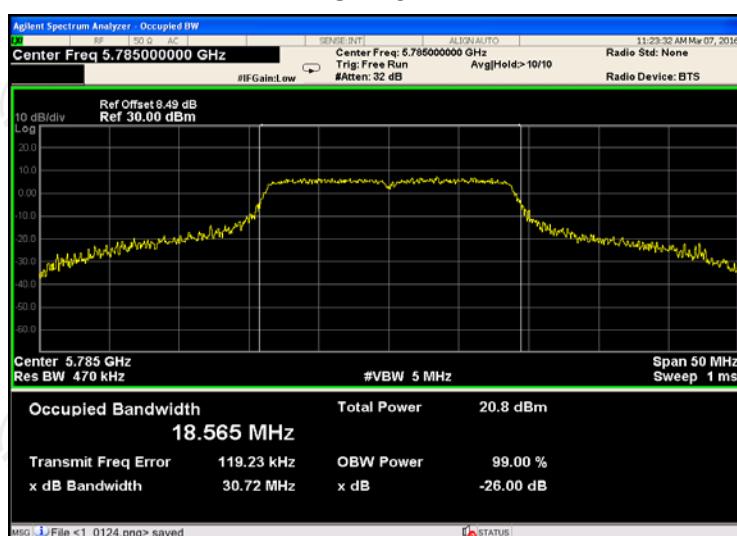


11n(HT20)

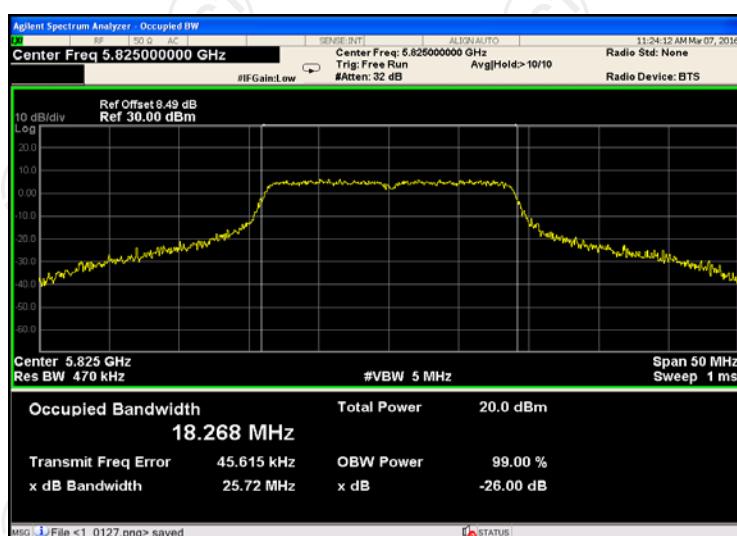
CH149



CH157

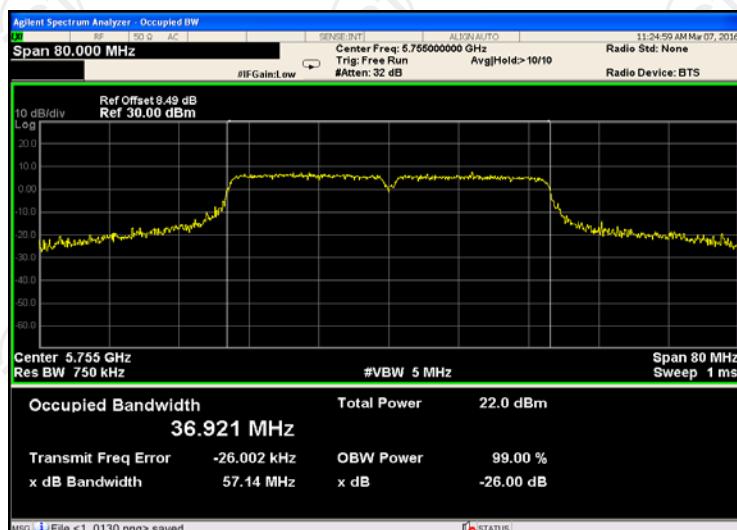


CH165

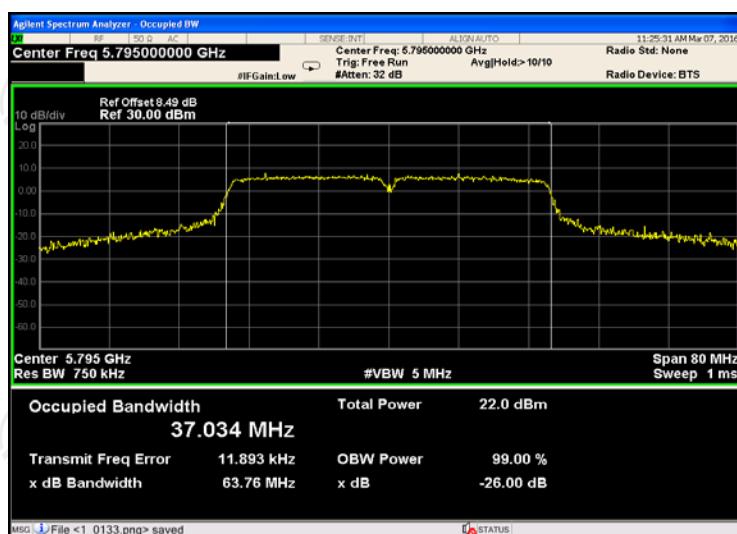


11n(HT40)

CH151

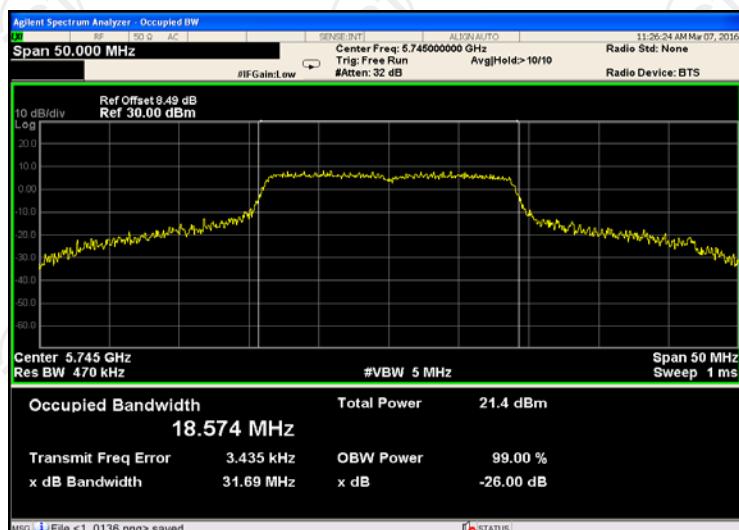


CH159

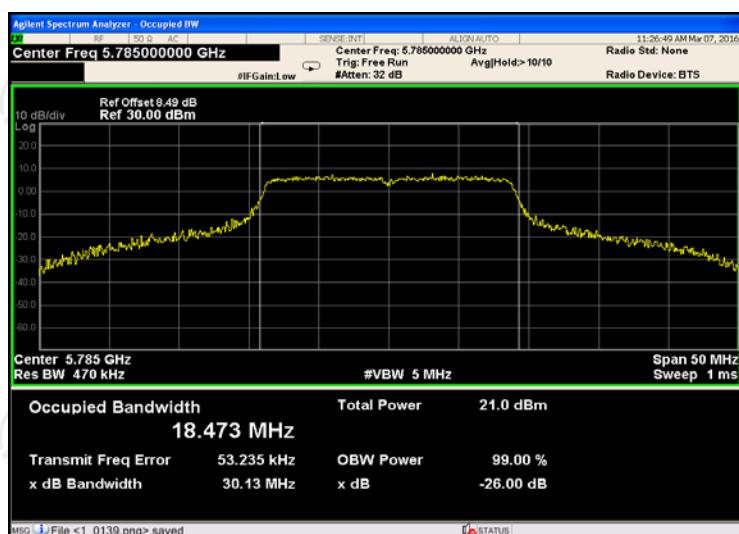


11ac(HT20)

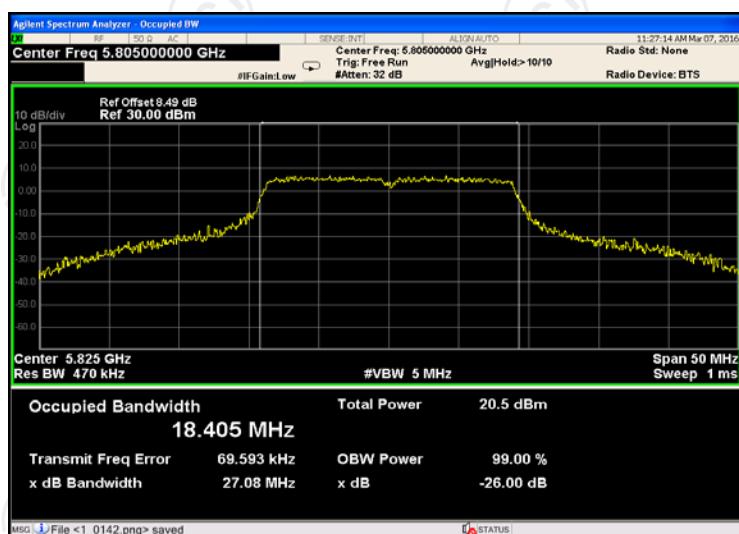
CH149



CH157

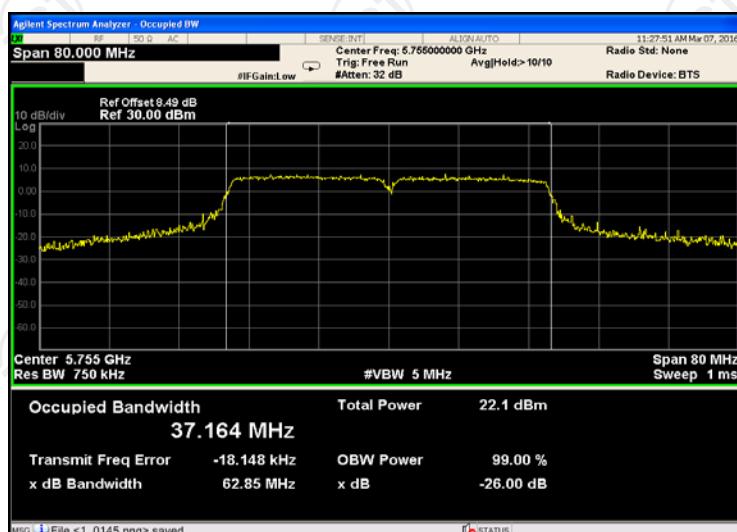


CH165

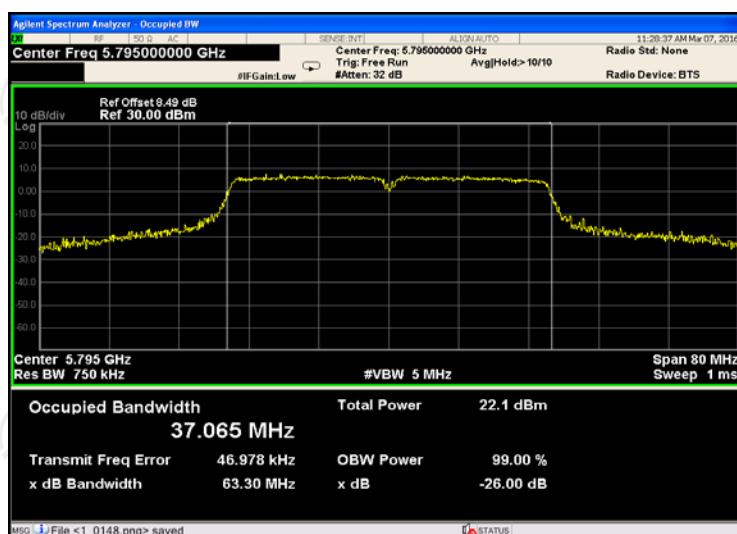


11ac(HT40)

CH151

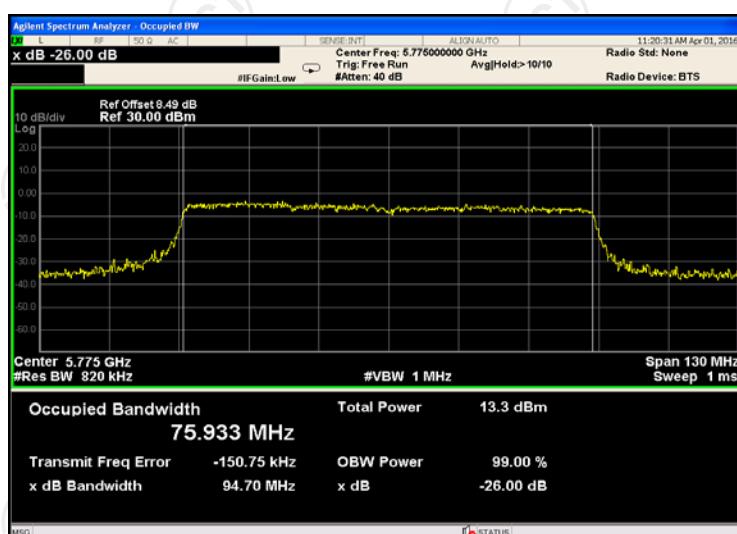


CH159



11ac(HT80)

CH155

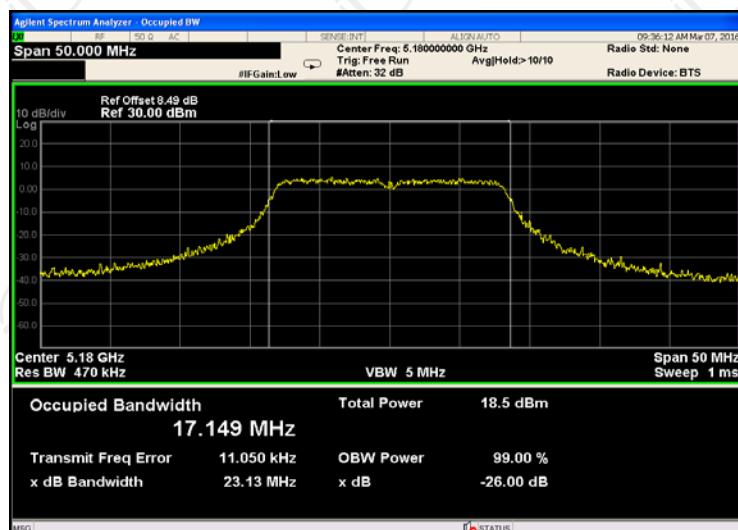


ANT 2

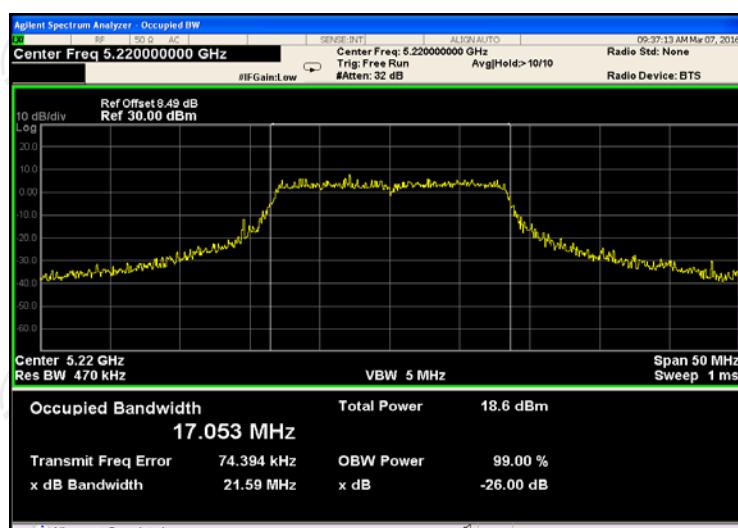
Band I (5150 – 5250 MHz)

11a

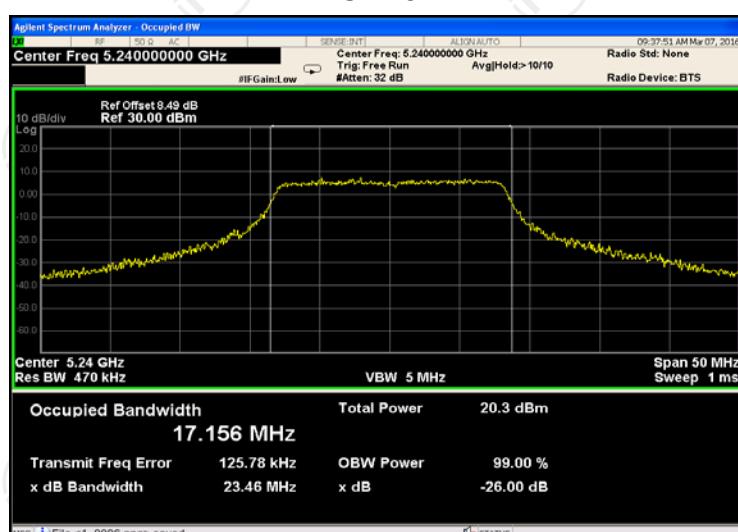
CH36



CH44

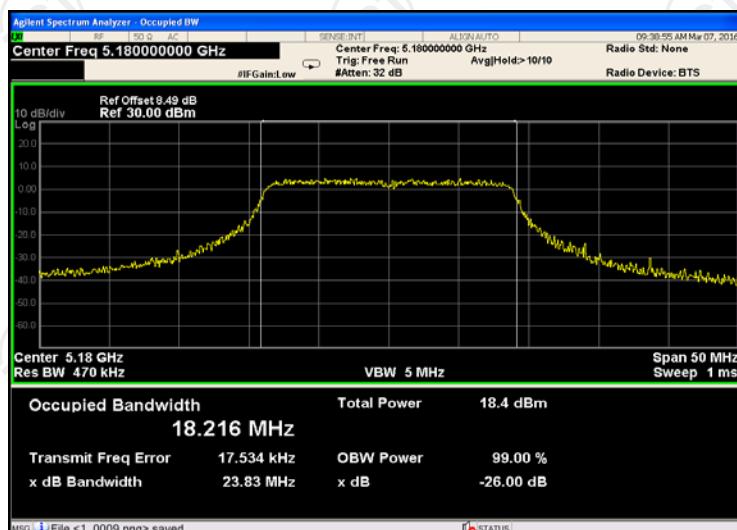


CH48

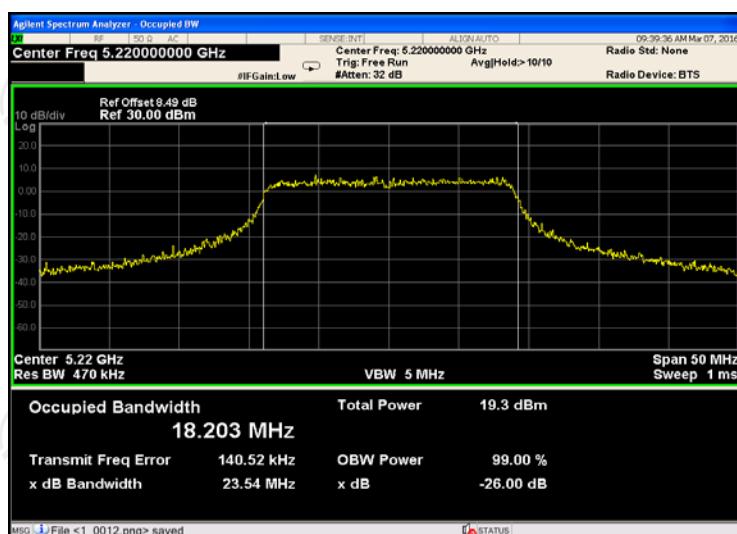


11n(HT20)

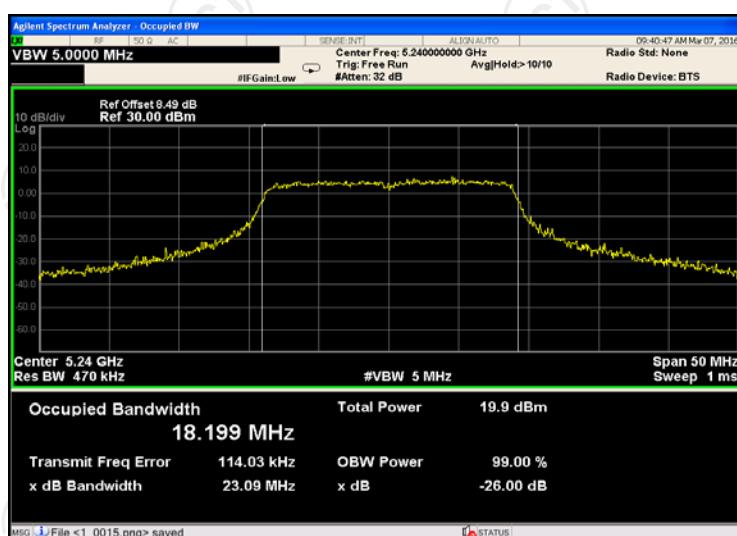
CH36



CH44

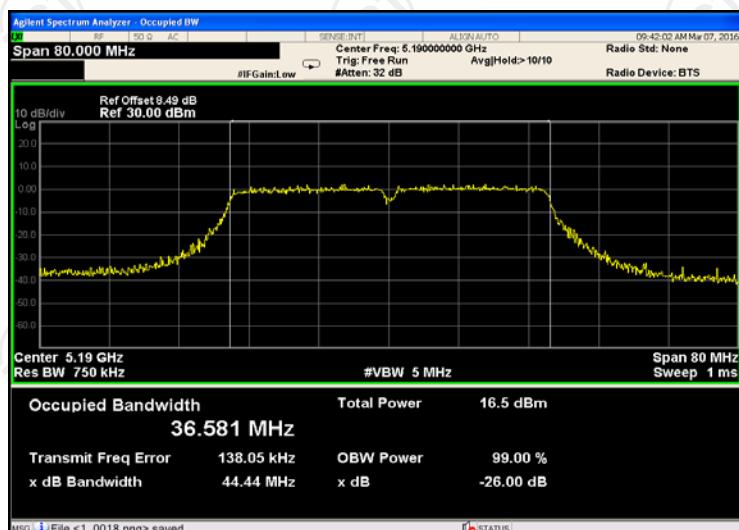


CH48

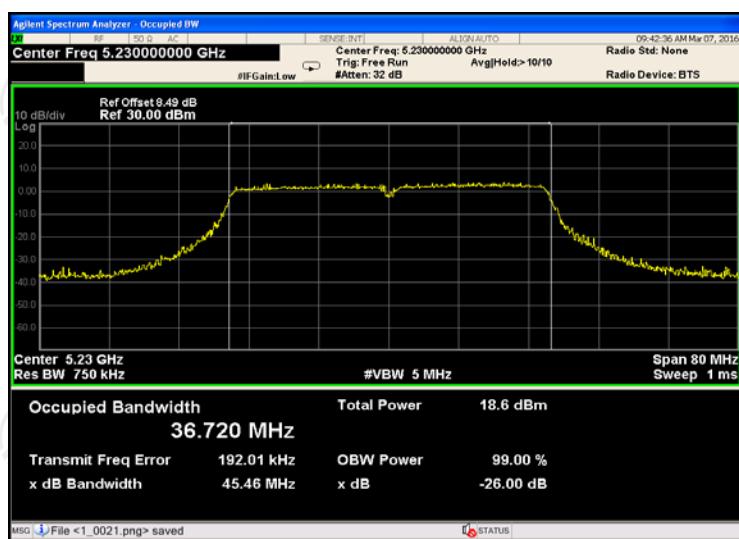


11n(HT40)

CH38

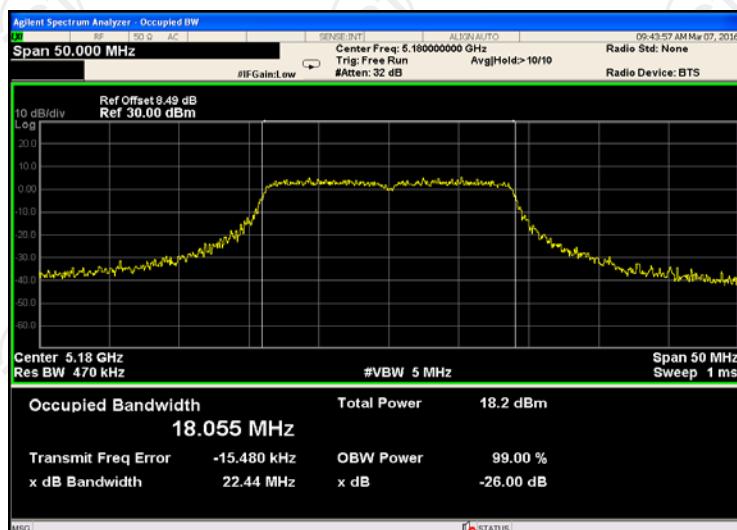


CH46

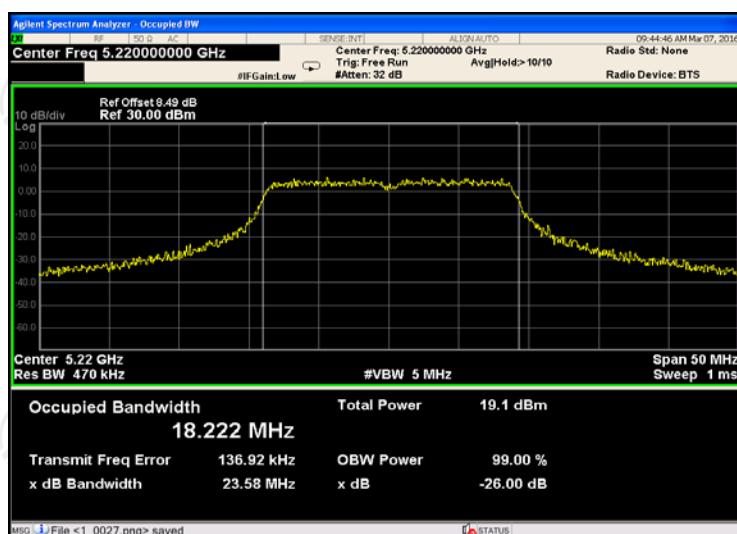


11ac(HT20)

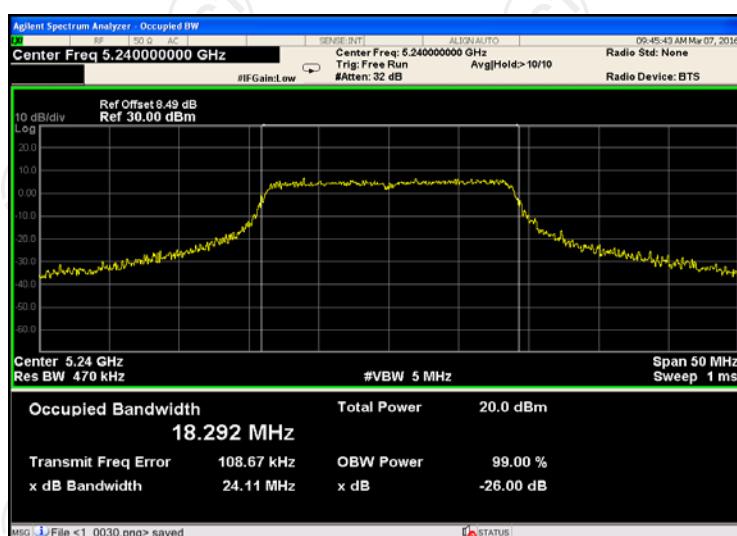
CH36



CH44

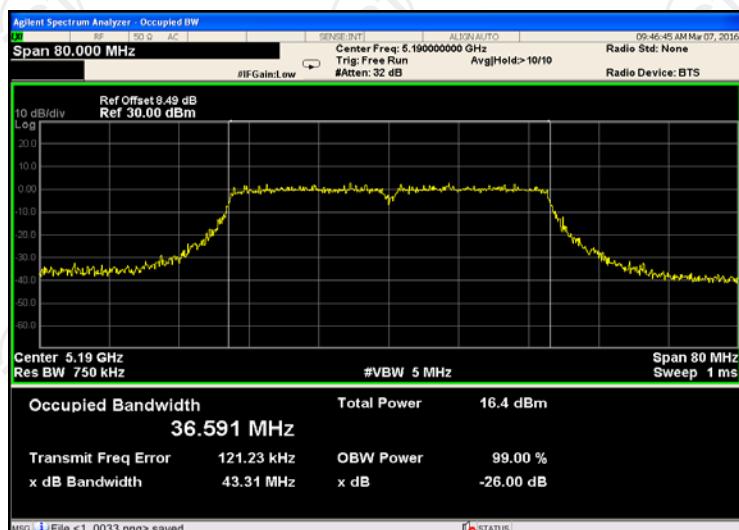


CH48

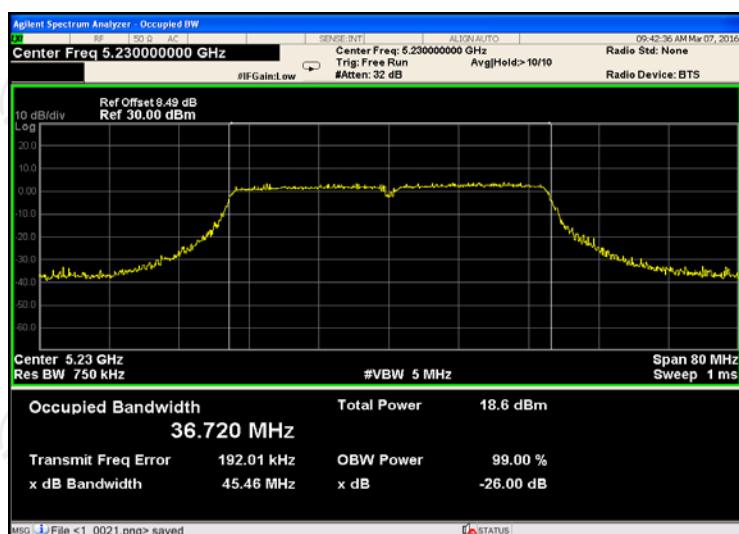


11ac(HT40)

CH38

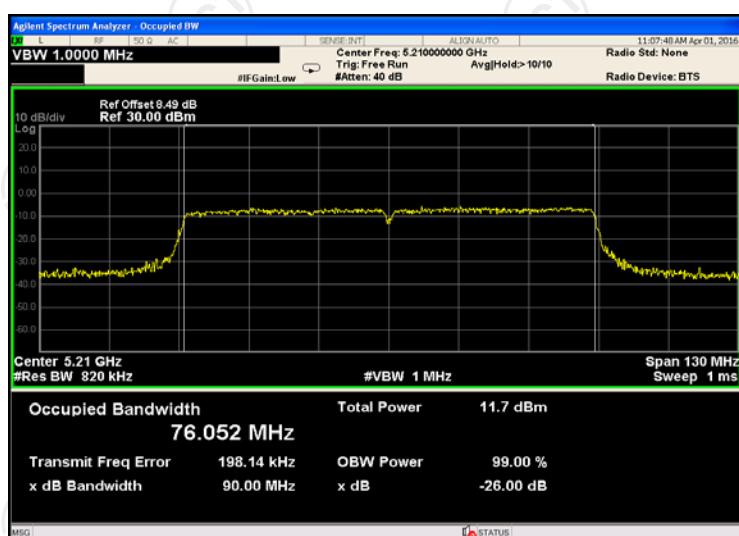


CH46



11ac(HT80)

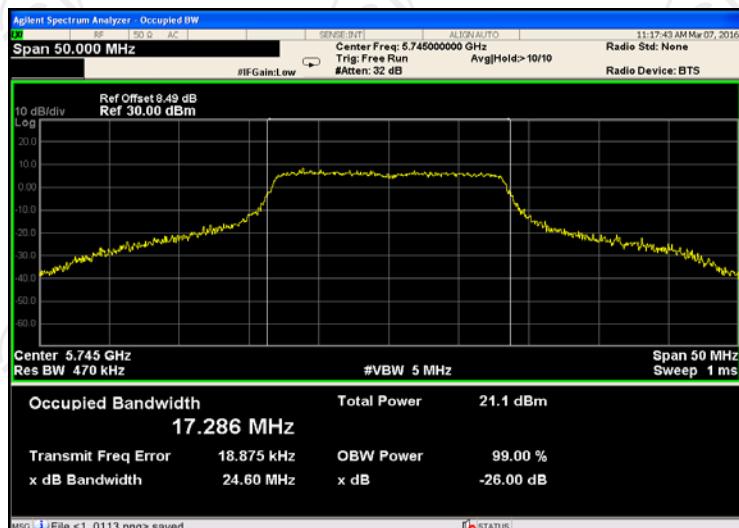
CH42



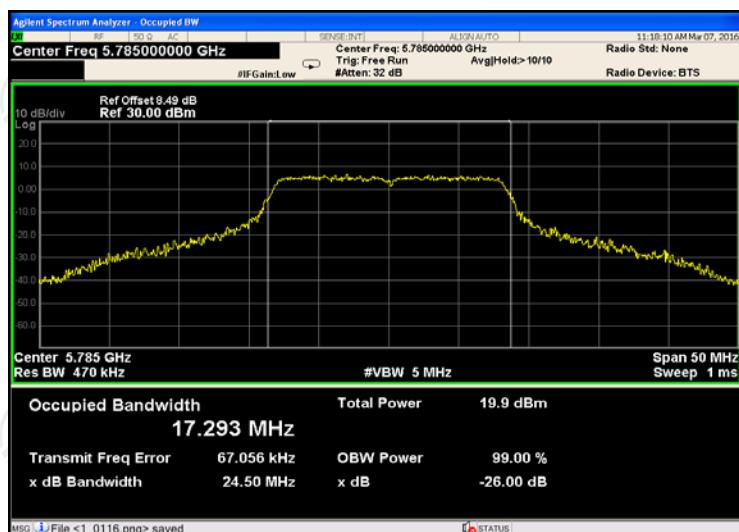
Band IV (5725 – 5850 MHz)

11a

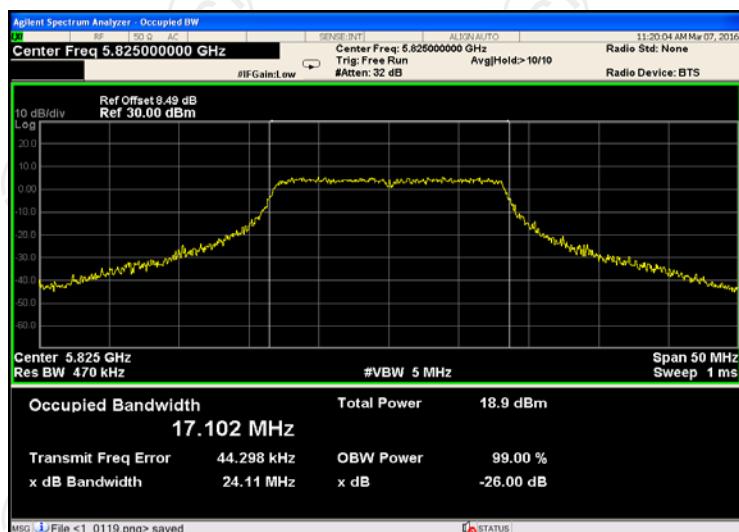
CH149



CH157

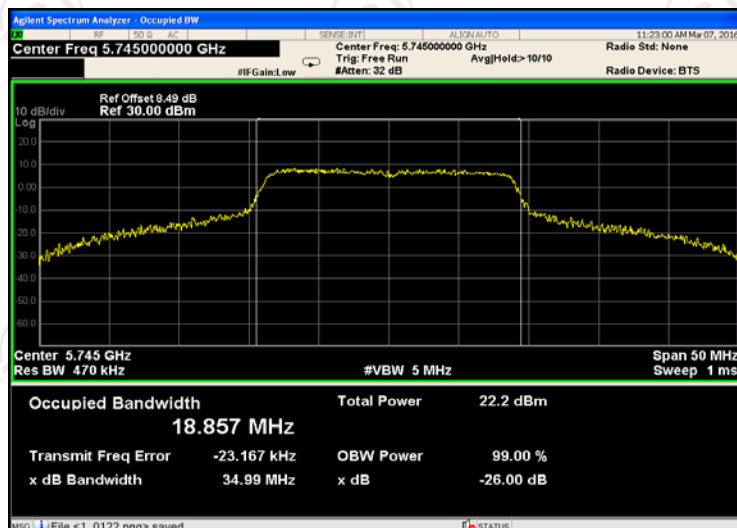


CH165

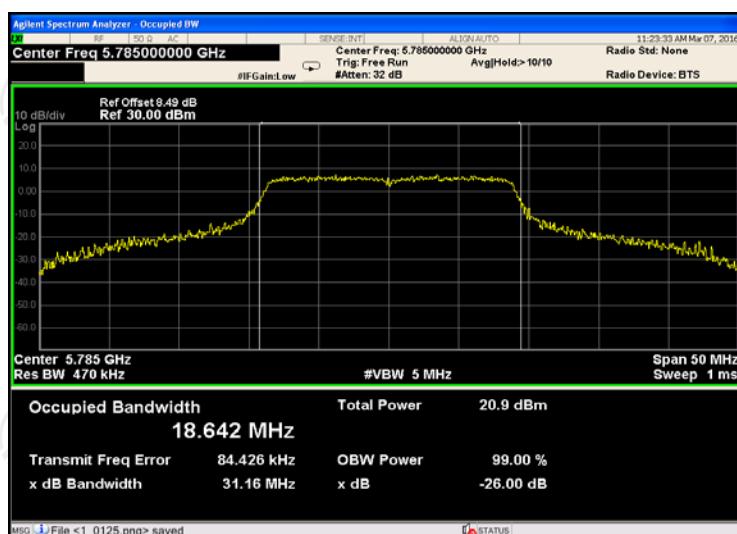


11n(HT20)

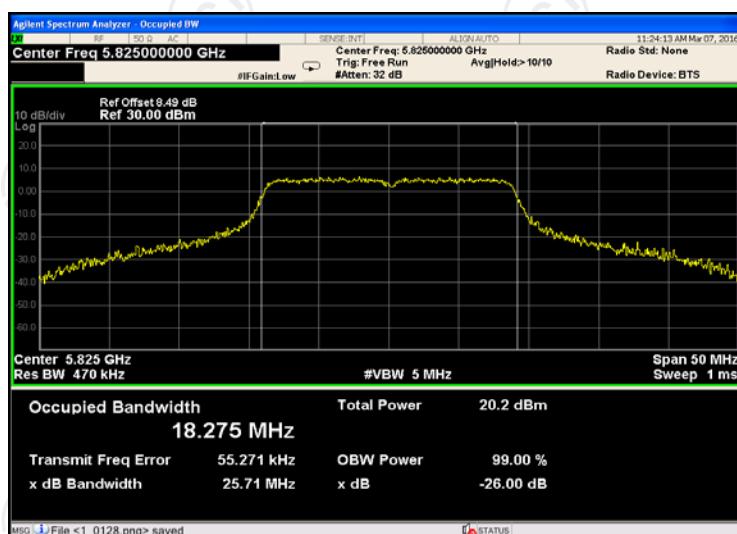
CH149



CH157

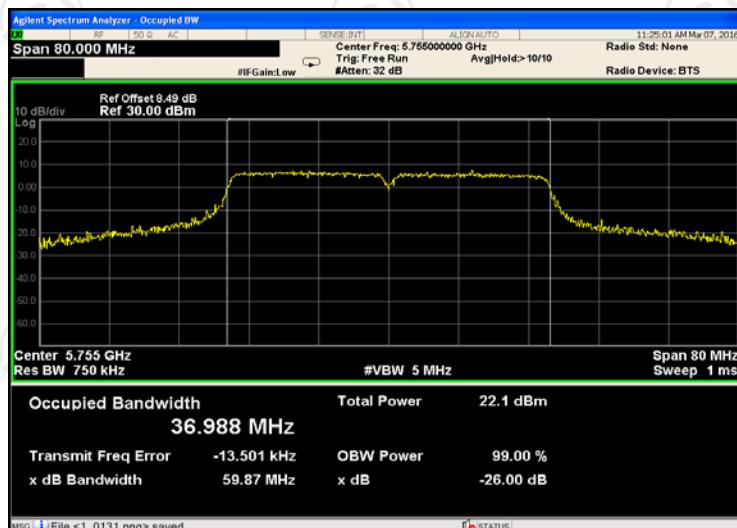


CH165

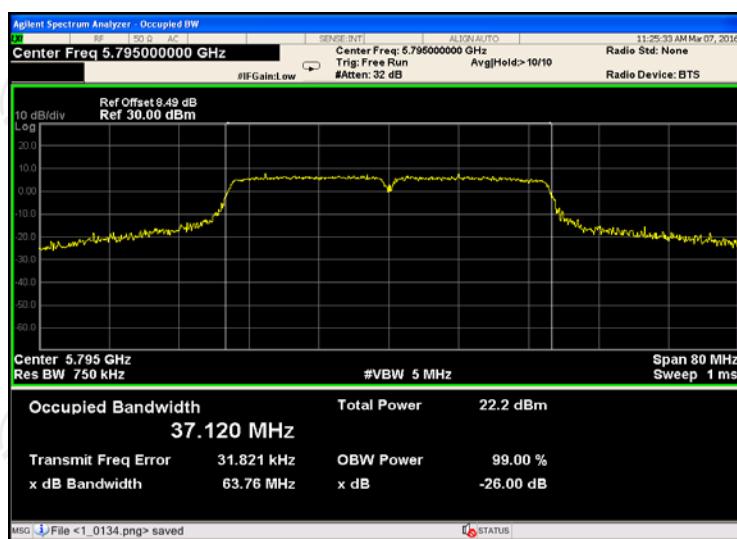


11n(HT40)

CH151

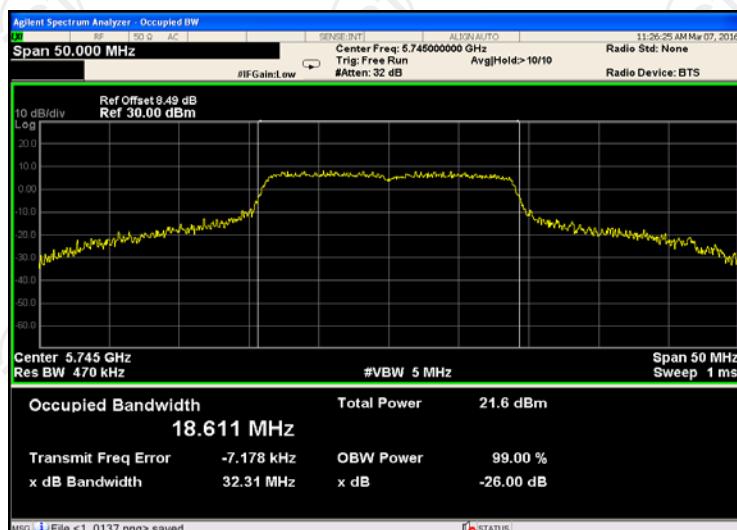


CH159

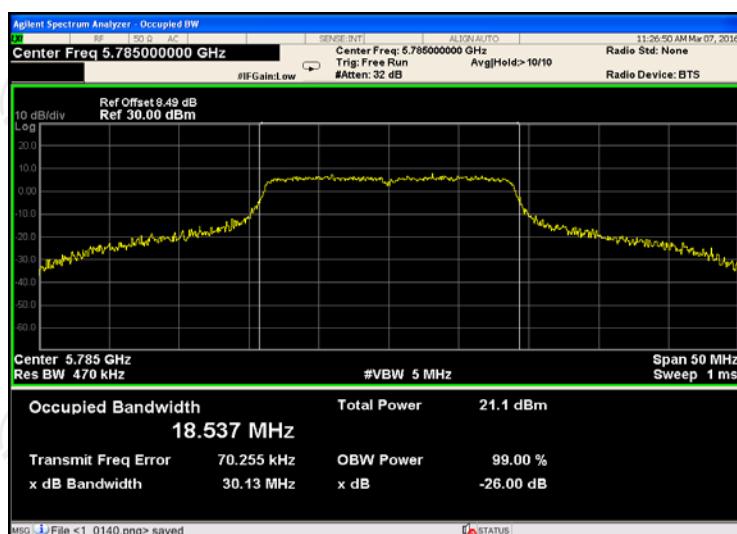


11ac(HT20)

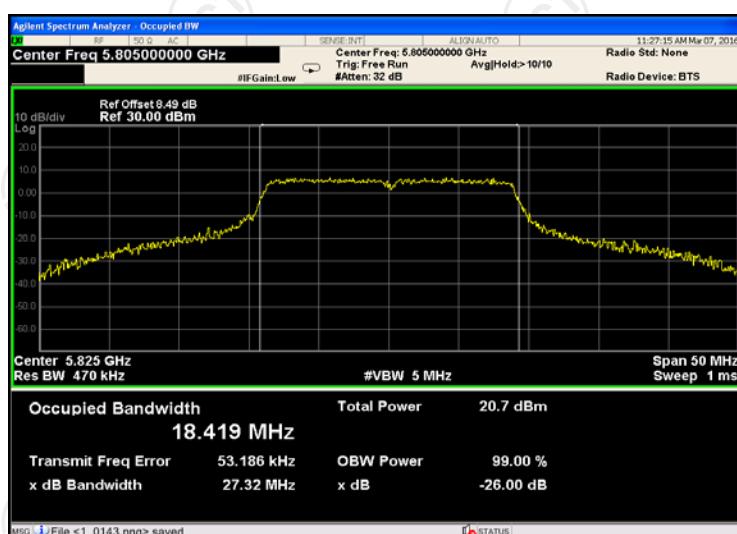
CH149



CH157

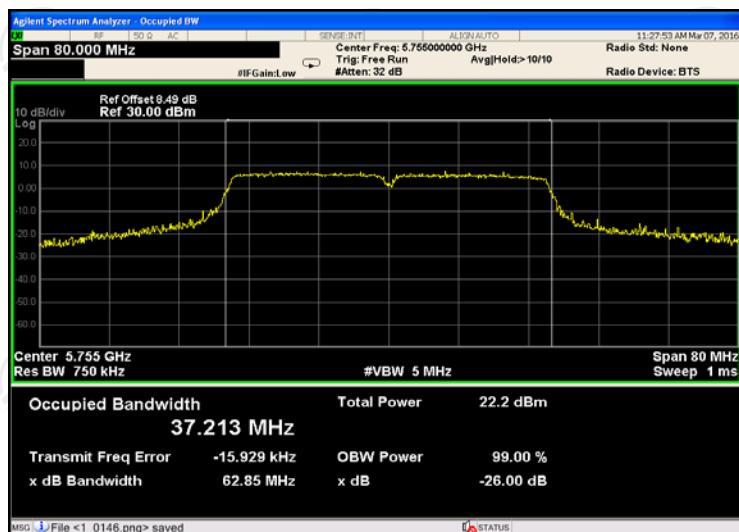


CH165

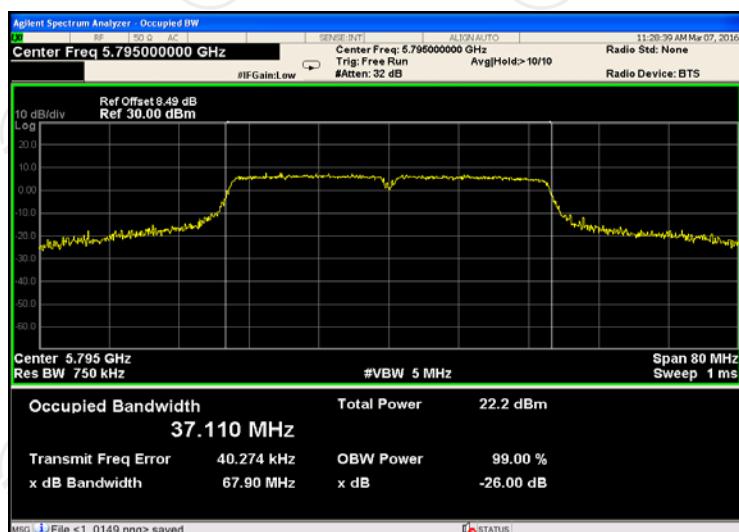


11ac(HT40)

CH151

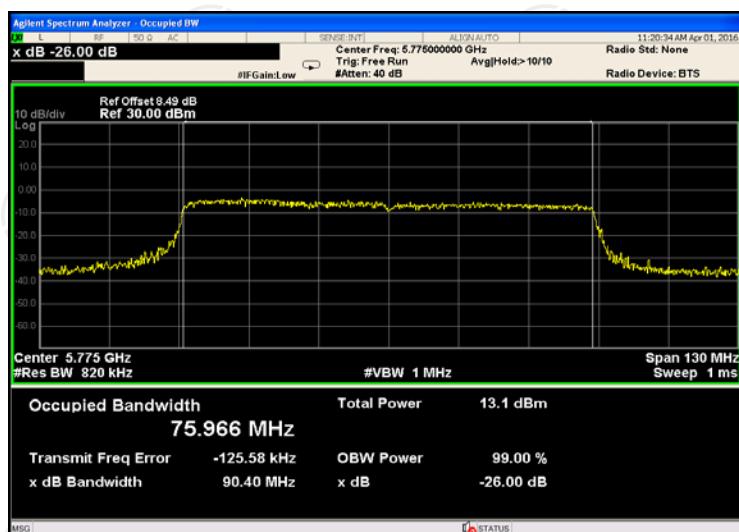


CH159



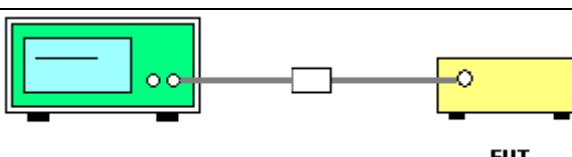
CH155

11ac(HT80)



6.6. Power Spectral Density

6.6.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407 (a)
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01r02 Section F
Limit:	$\leq 17.00 \text{dBm/MHz}$ for Band I 5150MHz-5250MHz $\leq 11.00 \text{dBm/MHz}$ for Band II 5250MHz-5350MHz $\leq 11.00 \text{dBm/MHz}$ for Band III 5450MHz-5725MHz $\leq 30.00 \text{dBm/500KHz}$ for Band IV 5725MHz-5850MHz
Test Setup:	 <p style="text-align: center;">Spectrum Analyzer EUT</p>
Test Mode:	Transmitting mode with modulation
Test Procedure:	<ol style="list-style-type: none"> Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth. Set RBW = 510 kHz/1 MHz, VBW $\geq 3 \times$ RBW, Sweep time = Auto, Detector = RMS. Allow the sweeps to continue until the trace stabilizes. Use the peak marker function to determine the maximum amplitude level. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.
Test Result:	PASS

6.6.2. Test Instruments

RF Test Room				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 12, 2016
RF cable	TCT	RE-06	N/A	Sep. 12, 2016
Antenna Connector	TCT	RFC-01	N/A	Sep. 12, 2016

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

6.6.3. Test data

Configuration Band I (5150 - 5250 MHz) / Antenna 0+Antenna 1+ Antenna 2							
Mode	Test channel	Power Spectral Density				Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2	Total		
11a	CH36	8.376	8.219	8.315	13.08	15.20	PASS
11a	CH44	9.421	10.655	10.442	14.98	15.20	PASS
11a	CH48	8.521	8.656	7.857	13.13	15.20	PASS
11n(HT20)	CH36	8.494	8.146	8.315	13.09	15.20	PASS
11n(HT20)	CH44	9.849	10.333	10.839	15.13	15.20	PASS
11n(HT20)	CH48	8.185	8.324	7.857	12.90	15.20	PASS
11n(HT40)	CH38	4.782	4.895	4.842	9.61	15.20	PASS
11n(HT40)	CH46	5.741	5.972	5.62	10.55	15.20	PASS
11ac(HT20)	CH36	7.975	8.276	8.315	12.96	15.20	PASS
11ac(HT20)	CH44	9.746	10.097	11.082	15.12	15.20	PASS
11ac(HT20)	CH48	8.103	8.208	7.857	12.83	15.20	PASS
11ac(HT40)	CH38	4.975	4.77	5.325	9.80	15.20	PASS
11ac(HT40)	CH46	5.983	5.572	5.62	10.50	15.20	PASS
11ac(HT80)	CH42	0.337	-1.698	0.045	4.42	15.20	PASS

Note: 1. All antennas have the same gain. $G_{ANT}=3\text{dBi}$, Array Gain= $10\log(N_{ANT}/N_{SS})=4.8\text{dBi}$

Directional Gain= $G_{ANT} + \text{Array Gain}=7.8\text{dBi}$, so limit= $17-(7.8-6)=15.2\text{ dBm/MHz}$

2. The total PSD method used the sum spectra maxima across the outputs.

Configuration Band IV (5725 - 5850 MHz) / Antenna 0+Antenna 1+ Antenna 2

Mode	Test channel	Power Spectral Density				Limit (dBm/MHz)	Result
		Ant0	Ant1	Ant2	Total		
11a	CH149	2.630	1.971	2.596	7.18	28.20	PASS
11a	CH157	4.663	4.074	4.363	9.14	28.20	PASS
11a	CH161	1.046	1.568	0.532	5.84	28.20	PASS
11n (HT20)	CH149	2.240	1.957	2.522	7.02	28.20	PASS
11n (HT20)	CH157	4.845	4.441	4.84	9.48	28.20	PASS
11n (HT20)	CH161	0.085	0.183	0.101	4.89	28.20	PASS
11n (HT40)	CH151	-2.025	-1.552	-2.108	2.88	28.20	PASS
11n (HT40)	CH159	-2.609	-2.110	-2.887	2.25	28.20	PASS
11ac (HT20)	CH149	1.659	2.555	1.803	6.79	28.20	PASS
11ac (HT20)	CH157	4.368	4.442	4.141	9.09	28.20	PASS
11ac (HT20)	CH161	0.844	0.896	0.399	5.49	28.20	PASS
11ac (HT40)	CH151	-1.394	-2.050	-2.095	2.94	28.20	PASS
11ac (HT40)	CH159	-2.356	-2.819	-2.186	2.33	28.20	PASS
11ac(HT80)	CH155	-1.677	-2.202	-2.154	2.77	28.20	PASS

Note: 1. All antennas have the same gain. $G_{ANT}=3\text{dBi}$, Array Gain= $10\log(N_{ANT}/N_{SS})=4.8\text{dBi}$

Directional Gain= $G_{ANT} + \text{Array Gain}=7.8\text{dBi}$, so limit= $30-(7.8-6)=28.2\text{ dBm/MHz}$

2. The total PSD method used the sum spectra maxima across the outputs.

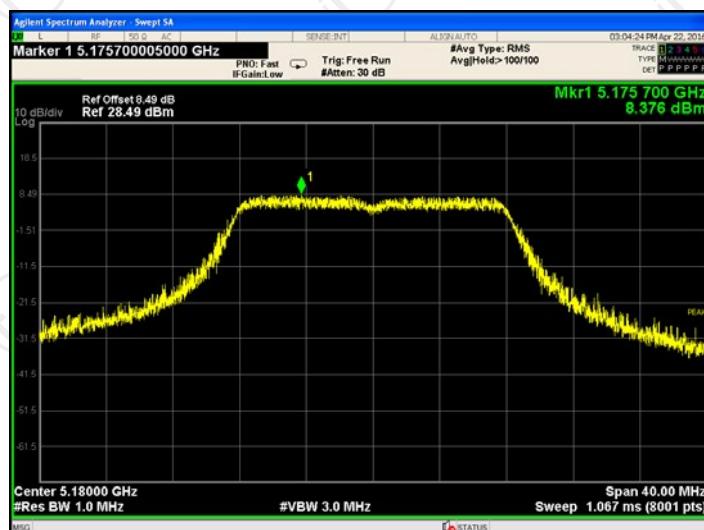
Test plots as follows:

ANT 0

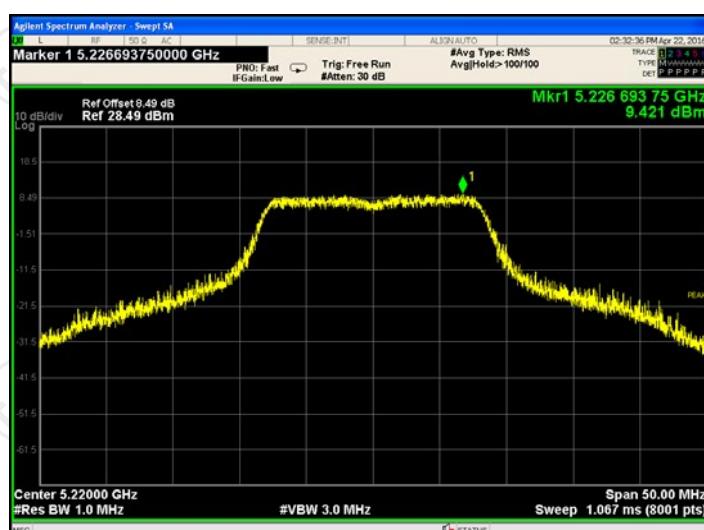
Band I (5150 – 5250 MHz)

11a

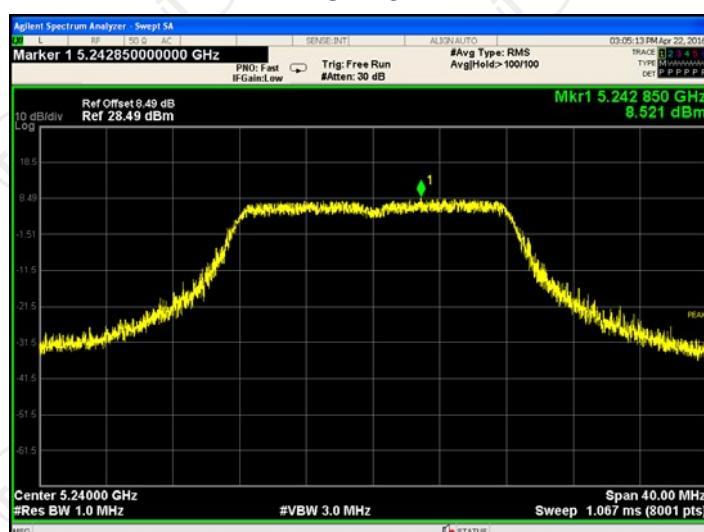
CH36



CH44



CH48



11n(HT20)

CH36



CH44

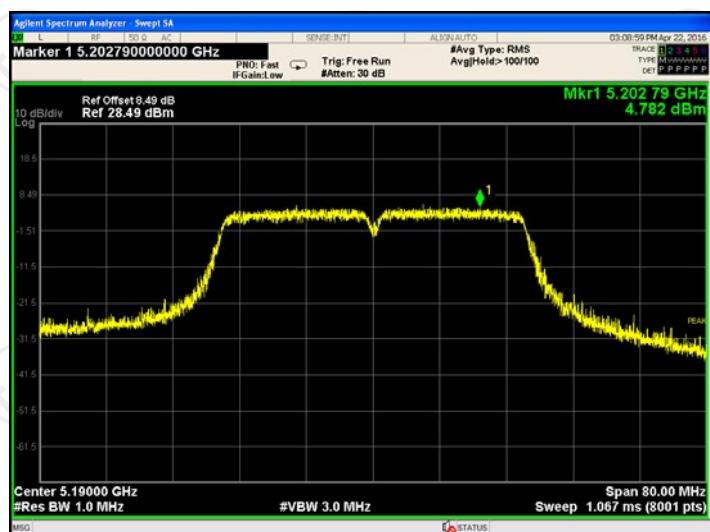


CH48



11n(HT40)

CH38



CH46

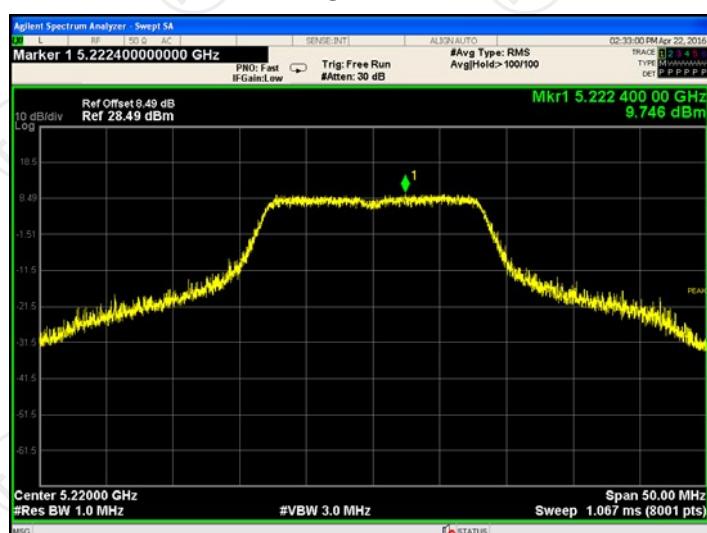


11ac(HT20)

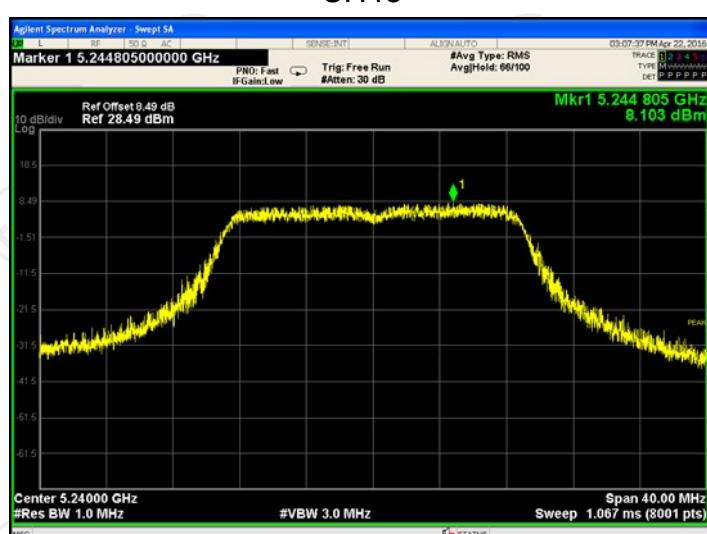
CH36



CH44



CH48



11ac(HT40)

CH38



CH46



11ac(HT80)

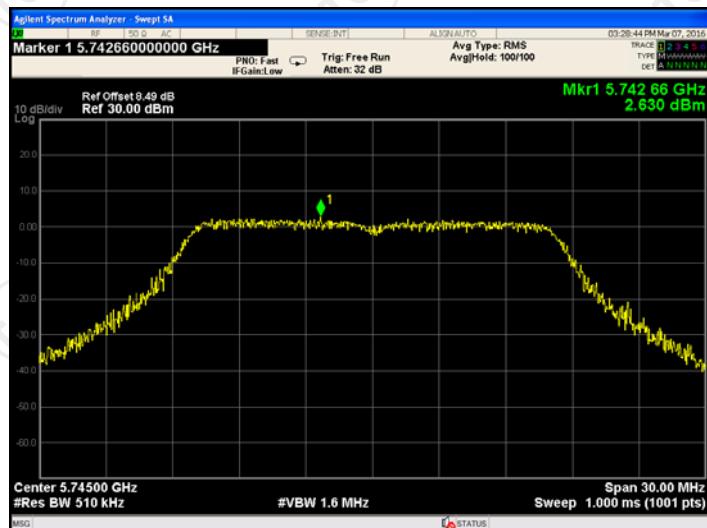
CH42



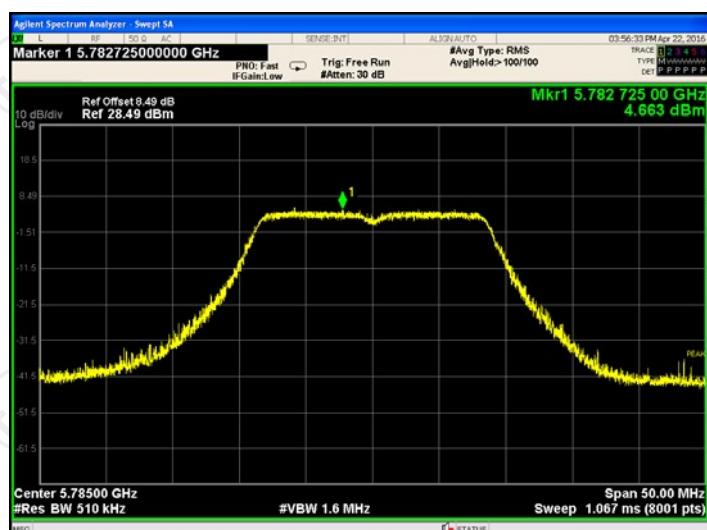
Band IV (5725 – 5850 MHz)

11a

CH149



CH157



CH165

