



**CTC Laboratories, Inc.**

1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, China  
Tel: +86-755- 27521059 Fax: +86-755- 27521011 Http://www.sz-ctc.org.cn

## **Appendix for 5G WIFI**

**Applicant: Imin Technology Pte Ltd**

**Address: 11 Bishan Street 21, #03-05 Bosch Building, Singapore,  
573943**

**Product Name: POS Device**

**Model: I23M03**

**FCC ID: 2AYD5-I23M03**

## TABLE OF CONTENTS

Appendix A1: Emission Bandwidth .....	3
Appendix A2: Occupied channel bandwidth.....	25
Appendix A3: Min emission bandwidth .....	47
Appendix B: Maximum conducted output power.....	53
Appendix C: Maximum power spectral density .....	55
Appendix D: Frequency Stability.....	77
Appendix E: Duty Cycle .....	83

## Appendix A1: Emission Bandwidth

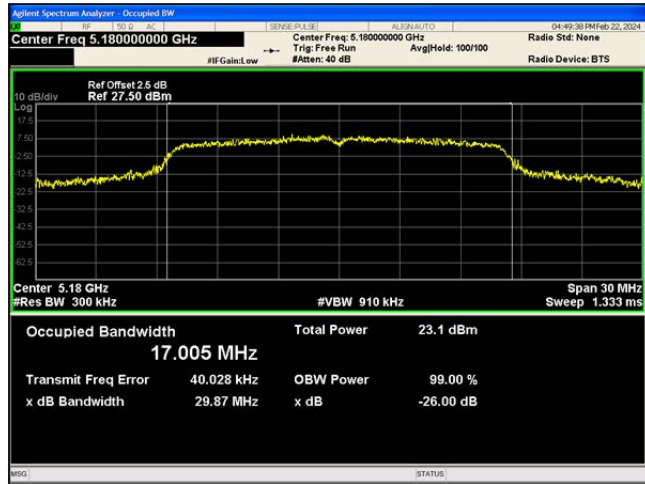
### Test Result

Test Mode	Channel	26db EBW [MHz]	Verdict
802.11a	5180	29.87	PASS
	5200	29.79	PASS
	5240	29.94	PASS
	5260	29.82	PASS
	5280	29.92	PASS
	5320	29.86	PASS
	5500	30.00	PASS
	5580	29.45	PASS
	5700	29.75	PASS
	5745	28.86	PASS
	5785	29.95	PASS
	5825	29.91	PASS
802.11n(HT20)	5180	29.98	PASS
	5200	29.68	PASS
	5240	30.00	PASS
	5260	29.58	PASS
	5280	29.87	PASS
	5320	29.58	PASS
	5500	29.96	PASS
	5580	30.00	PASS
	5700	29.87	PASS
	5745	29.88	PASS
	5785	29.95	PASS
	5825	29.41	PASS
802.11n(HT40)	5190	59.87	PASS
	5230	59.73	PASS
	5270	59.71	PASS
	5310	59.72	PASS
	5510	59.94	PASS
	5550	59.96	PASS
	5670	59.92	PASS
	5755	59.89	PASS
	5795	59.92	PASS
802.11ac(VHT20)	5180	29.19	PASS
	5200	29.50	PASS
	5240	29.80	PASS
	5260	29.90	PASS
	5280	29.44	PASS
	5320	29.97	PASS
	5500	29.98	PASS
	5580	29.70	PASS

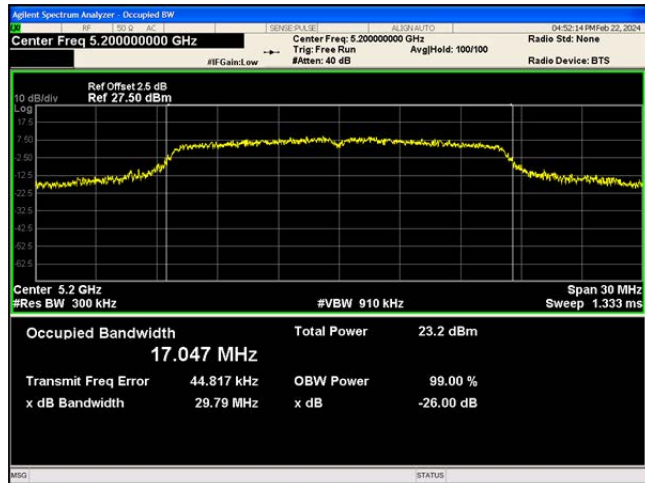
	5700	29.95	PASS
	5745	29.74	PASS
	5785	29.58	PASS
	5825	29.68	PASS
802.11ac(VHT40)	5190	59.78	PASS
	5230	60.00	PASS
	5270	59.87	PASS
	5310	59.61	PASS
	5510	60.00	PASS
	5550	59.85	PASS
	5670	59.83	PASS
	5755	59.92	PASS
	5795	59.87	PASS
802.11ac(VHT80)	5210	119.91	PASS
	5290	119.99	PASS
	5530	120.00	PASS
	5610	119.91	PASS
	5775	120.00	PASS

Test Graphs

802.11a\_5180



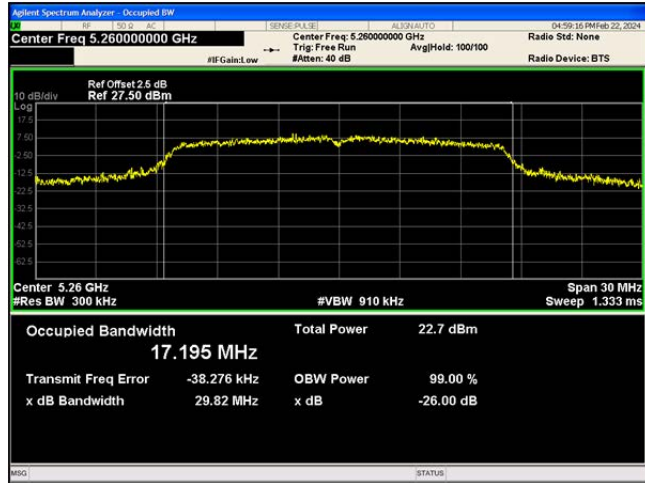
802.11a\_5200



802.11a\_5240



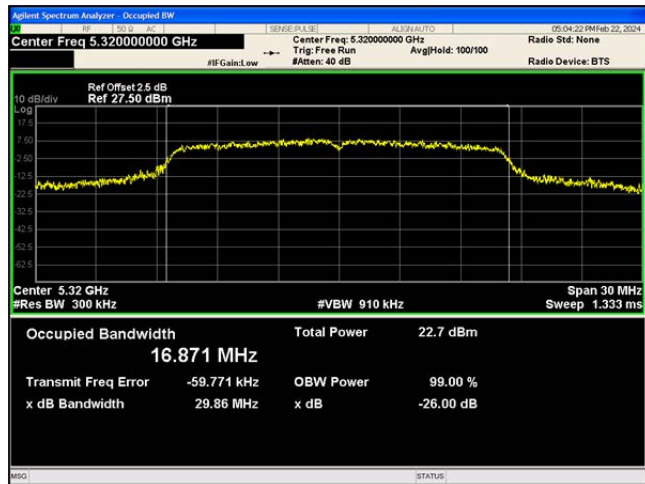
802.11a\_5260



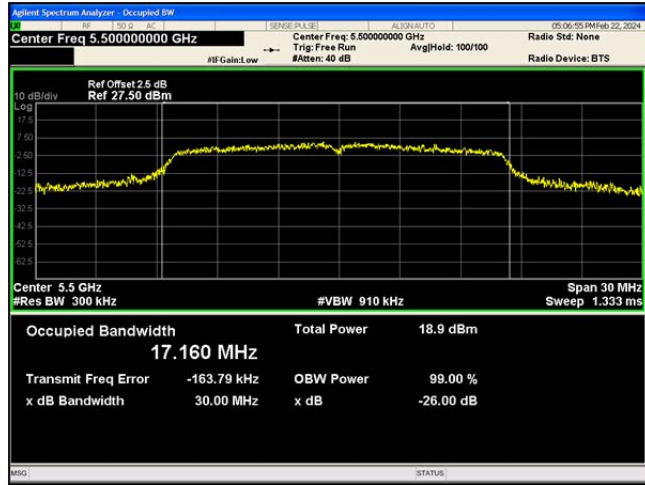
802.11a\_5280



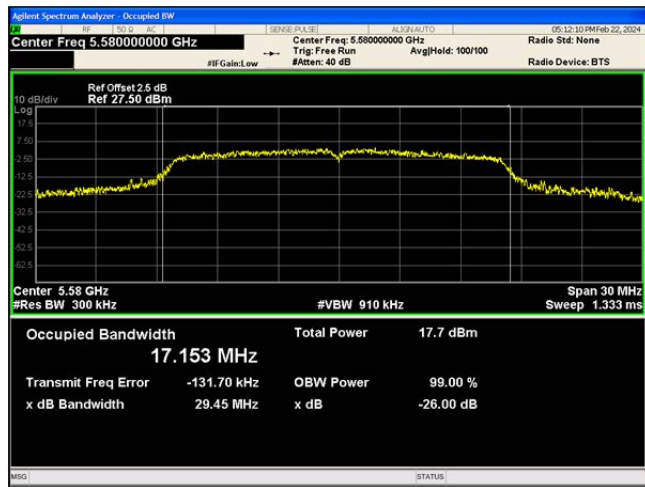
802.11a\_5320



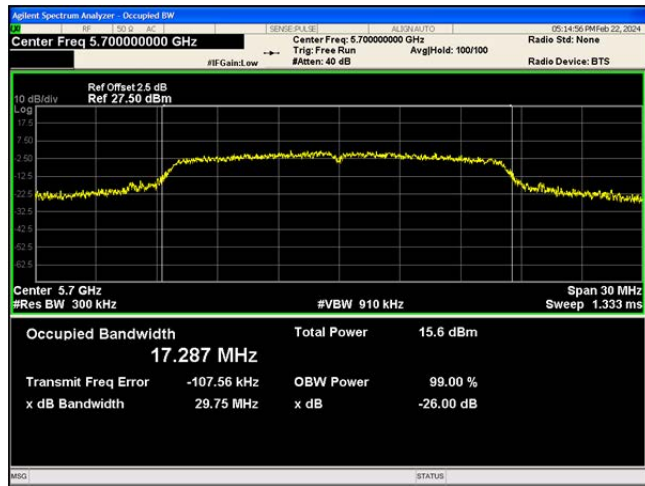
802.11a\_5500



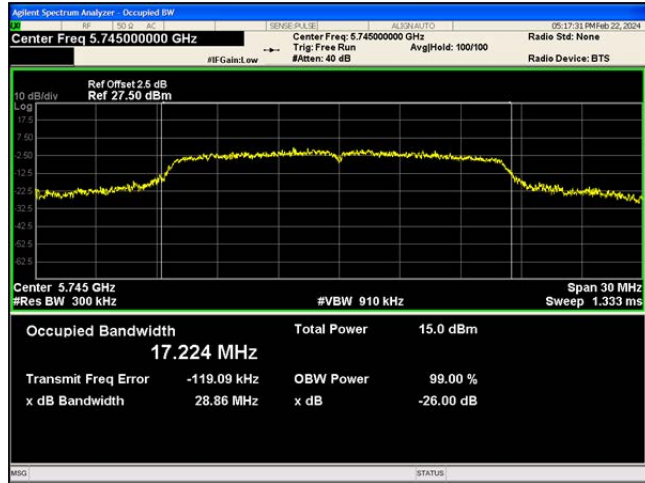
802.11a\_5580



802.11a\_5700



802.11a\_5745



802.11a\_5785

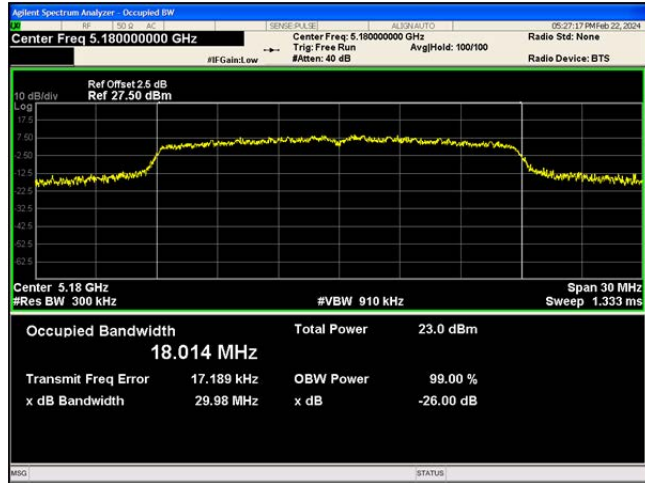


802.11a\_5825



802.11n(HT20)\_5180





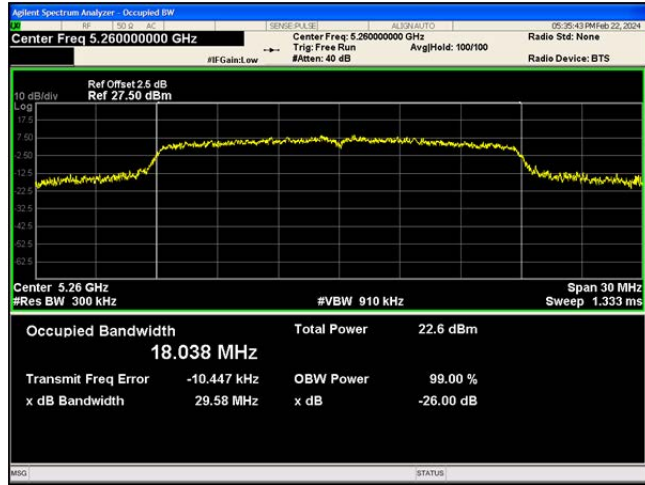
802.11n(HT20)\_5200



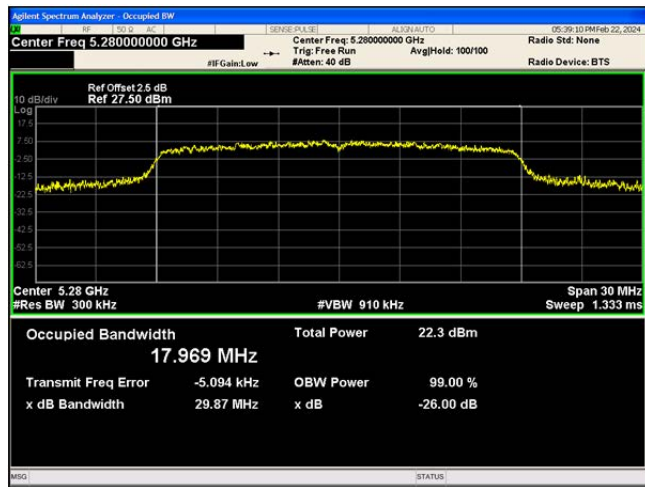
802.11n(HT20)\_5240



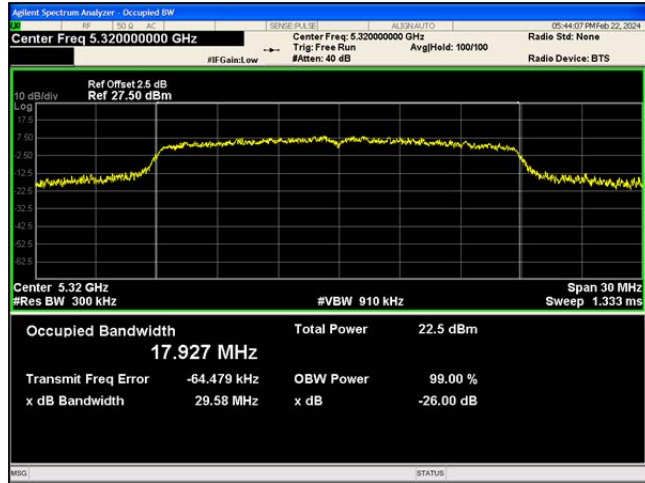
802.11n(HT20)\_5260



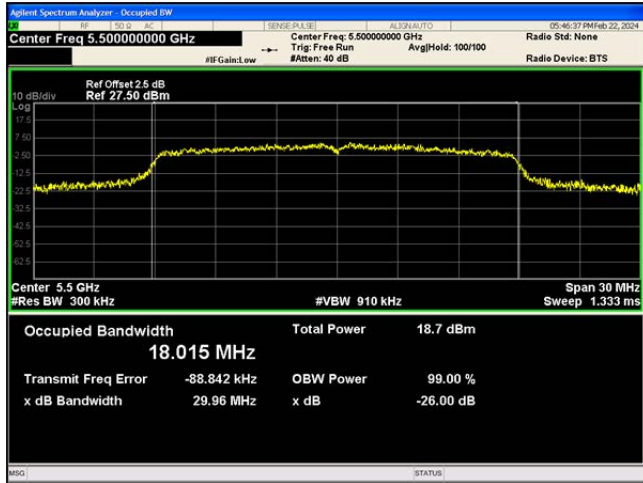
802.11n(HT20)\_5280



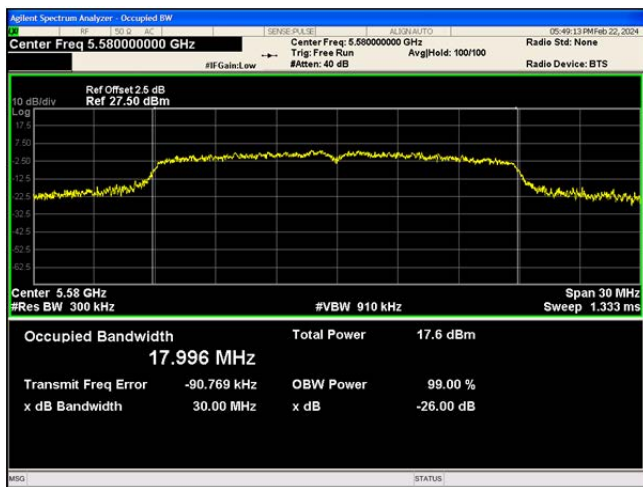
802.11n(HT20)\_5320



802.11n(HT20)\_5360



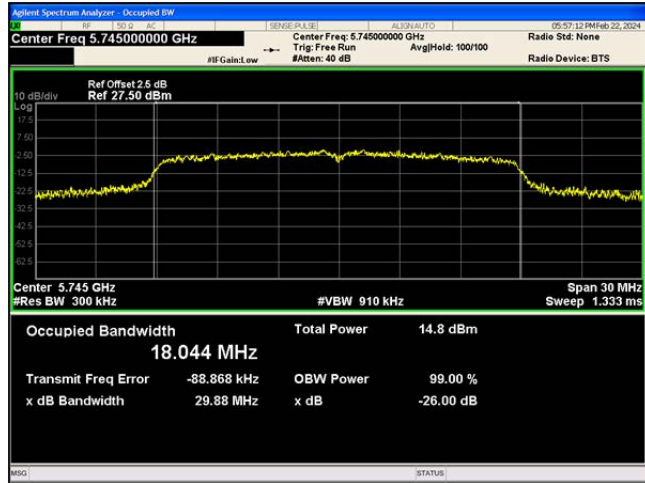
802.11n(HT20)\_5580



802.11n(HT20)\_5700



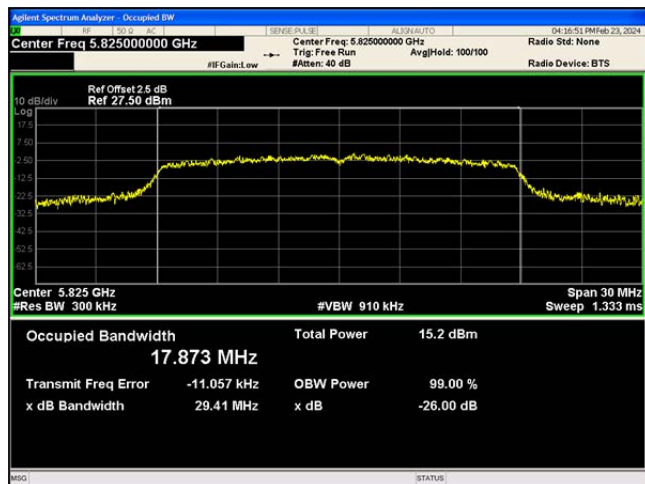
802.11n(HT20)\_5745



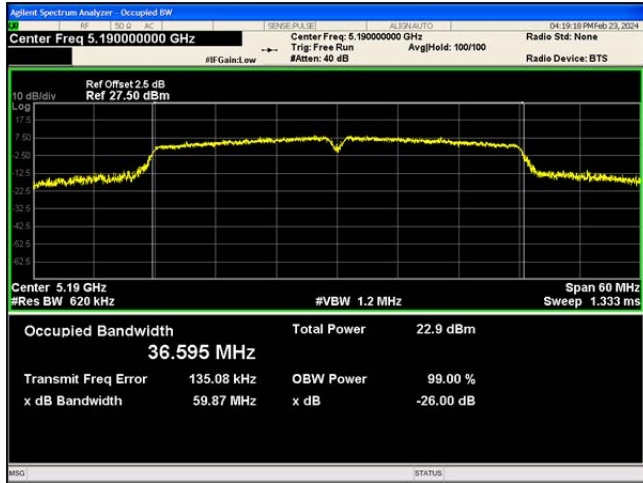
802.11n(HT20)\_5785



802.11n(HT20)\_5825



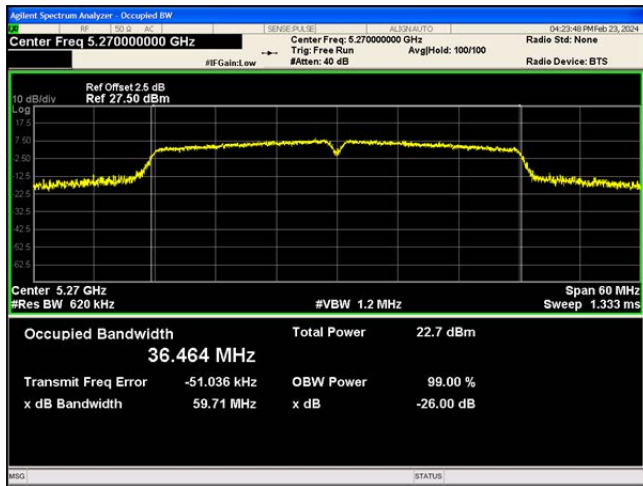
802.11n(HT40)\_5190



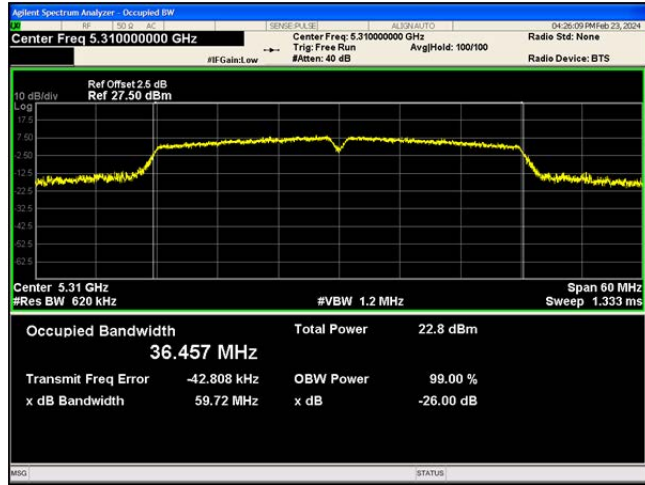
802.11n(HT40)\_5230



802.11n(HT40)\_5270



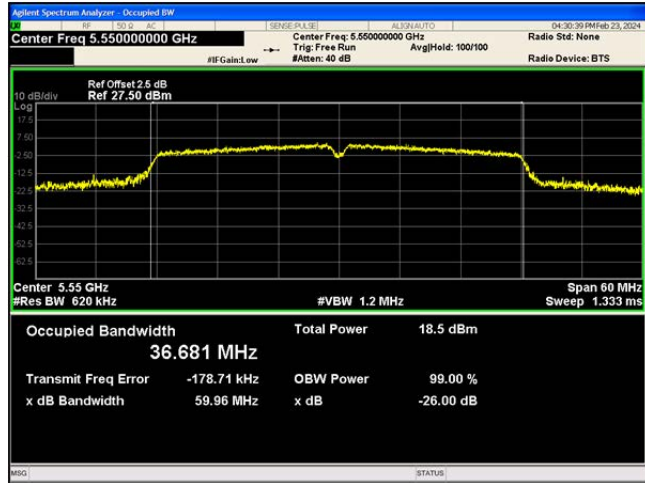
802.11n(HT40)\_5310



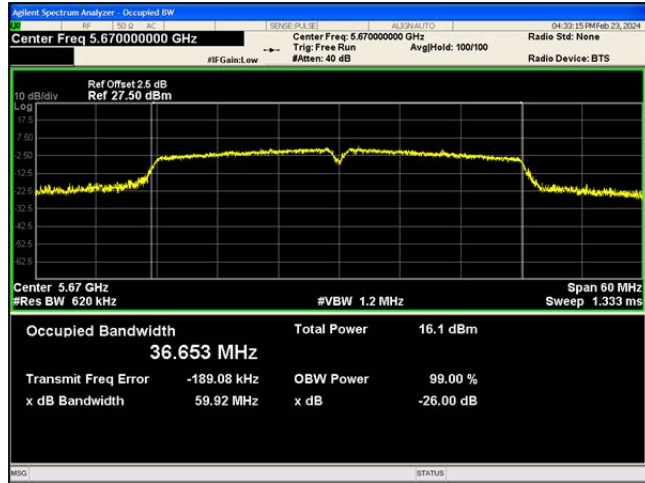
802.11n(HT40)\_5510



802.11n(HT40)\_5550



802.11n(HT40)\_5670



802.11n(HT40)\_5755

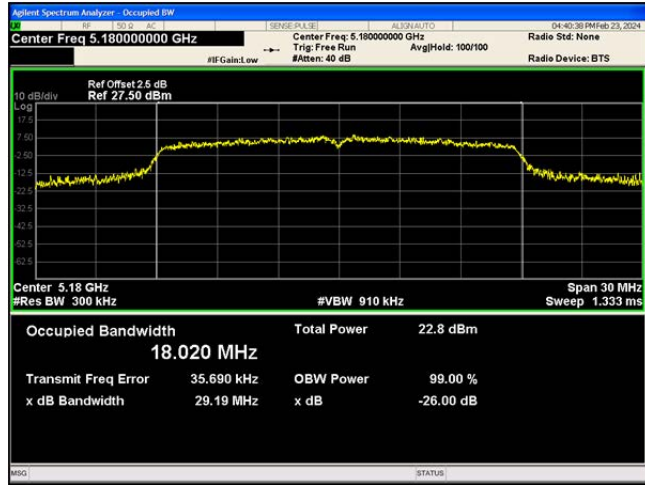


802.11n(HT40)\_5795



802.11ac(VHT20)\_5180

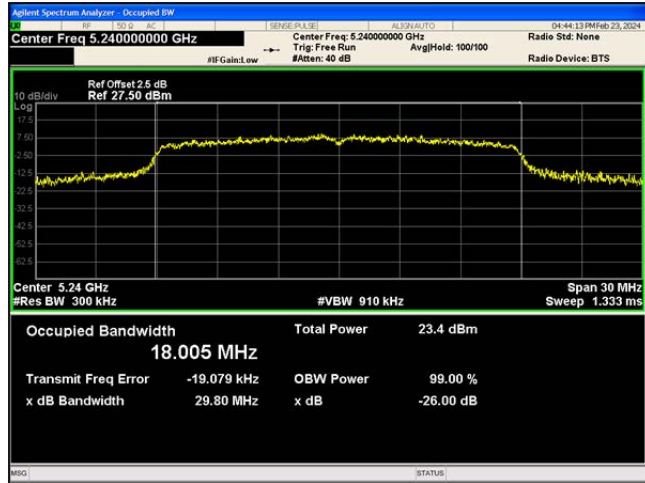




802.11ac(VHT20)\_5200

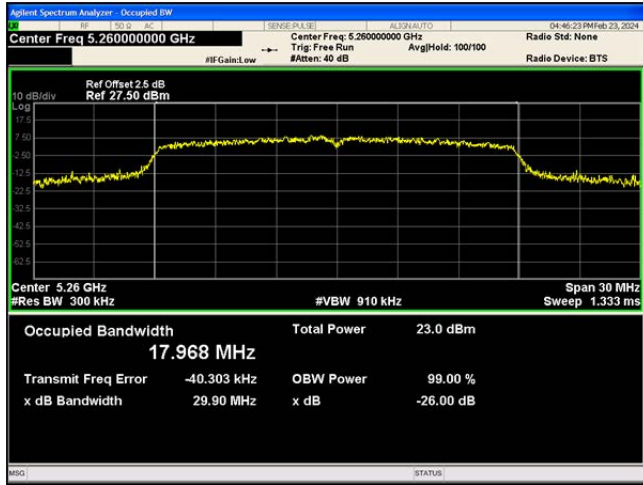


802.11ac(VHT20)\_5240

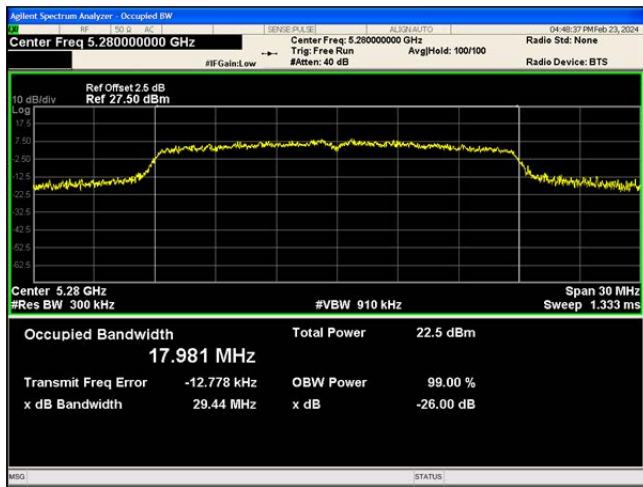


802.11ac(VHT20)\_5260

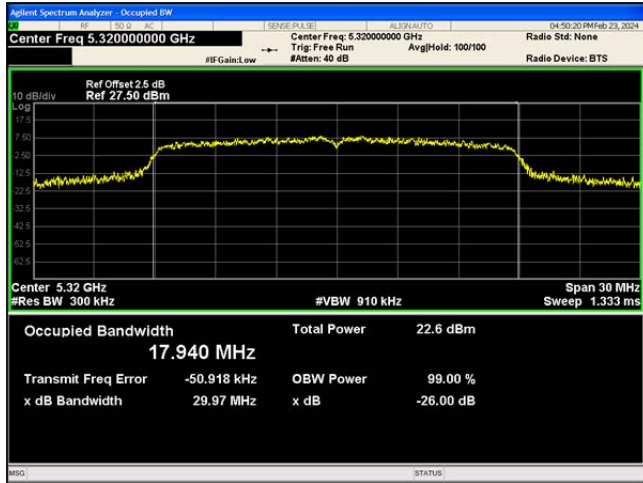




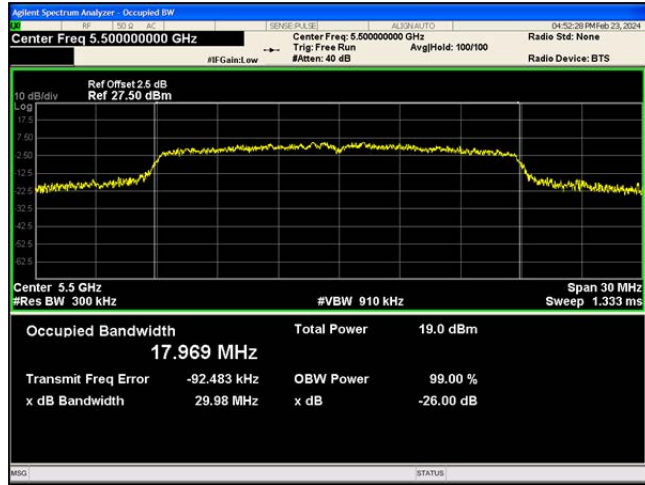
802.11ac(VHT20)\_5280



802.11ac(VHT20)\_5320



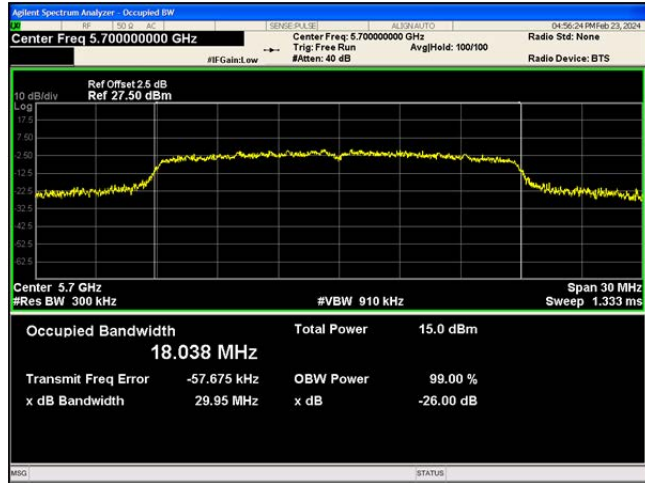
802.11ac(VHT20)\_5500



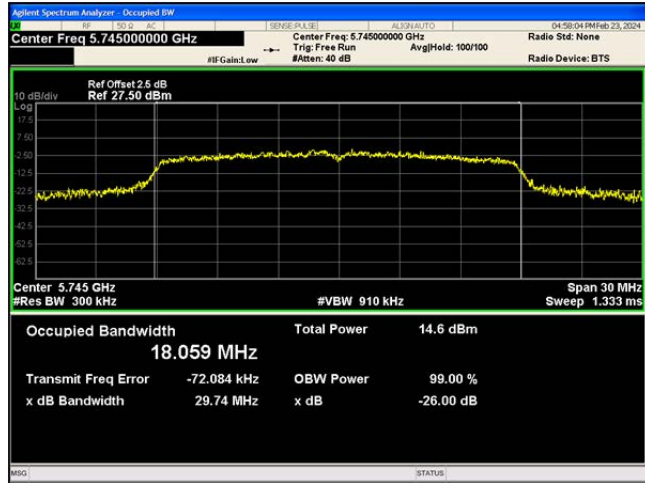
802.11ac(VHT20)\_5580



802.11ac(VHT20)\_5700



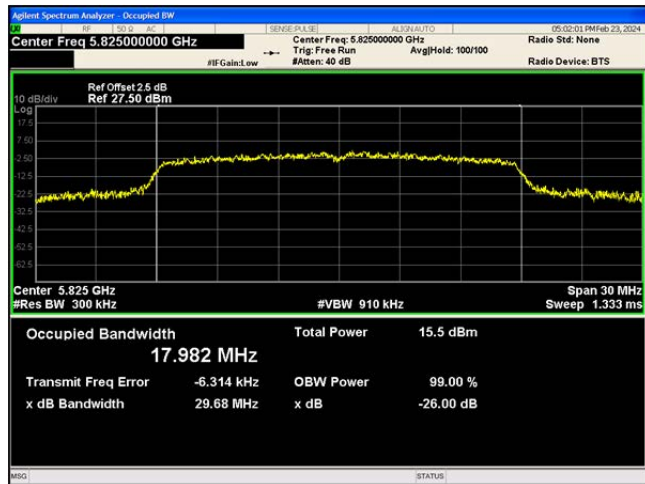
802.11ac(VHT20)\_5745



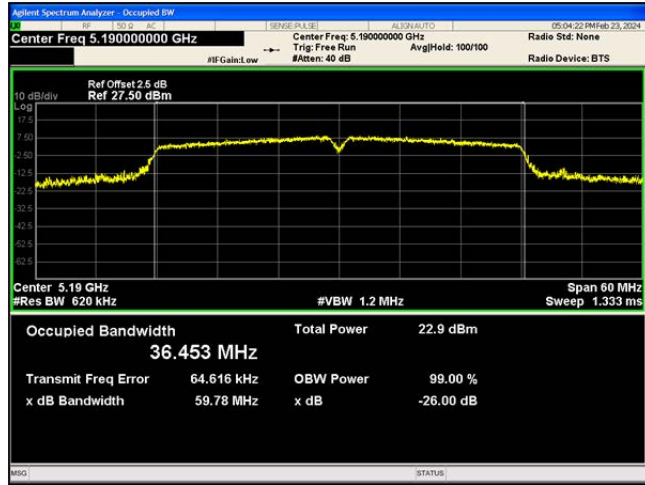
802.11ac(VHT20)\_5785



802.11ac(VHT20)\_5825



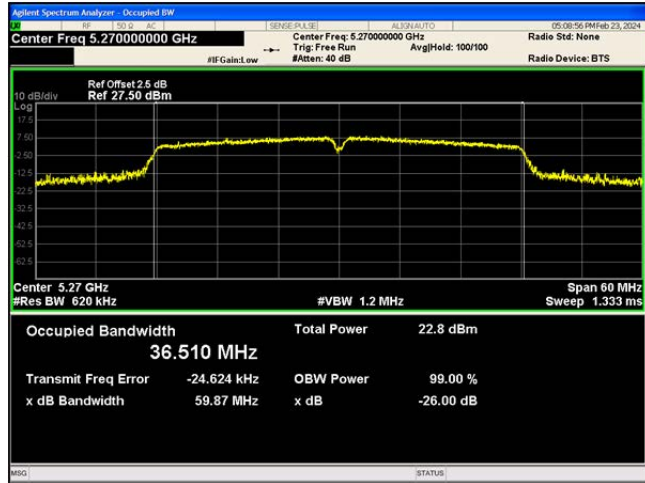
802.11ac(VHT40)\_5190



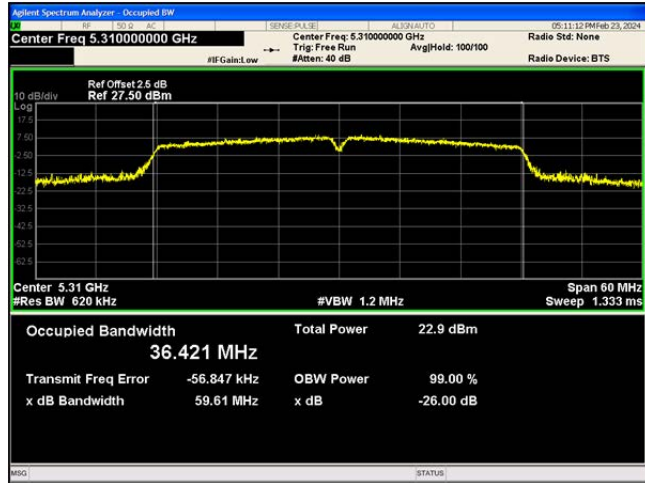
802.11ac(VHT40)\_5230



802.11ac(VHT40)\_5270



802.11ac(VHT40)\_5310



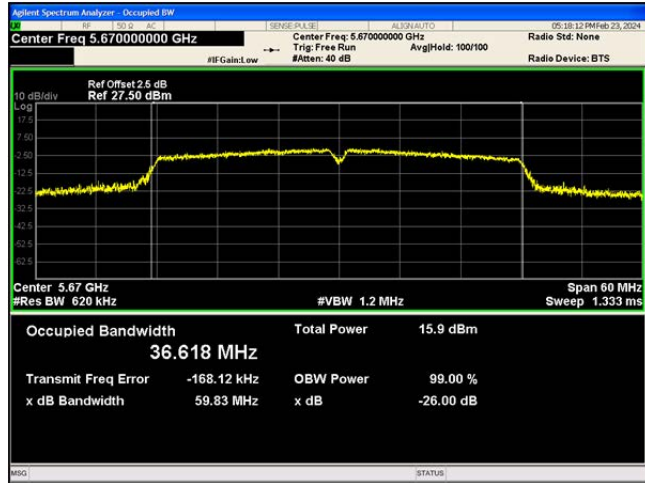
802.11ac(VHT40)\_5510



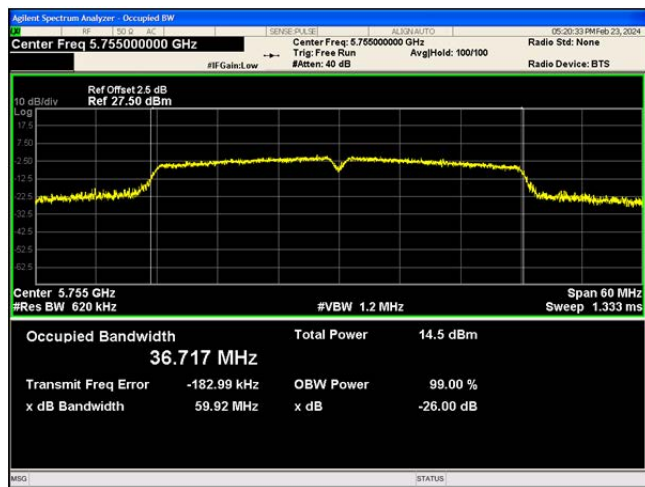
802.11ac(VHT40)\_5550



802.11ac(VHT40)\_5670



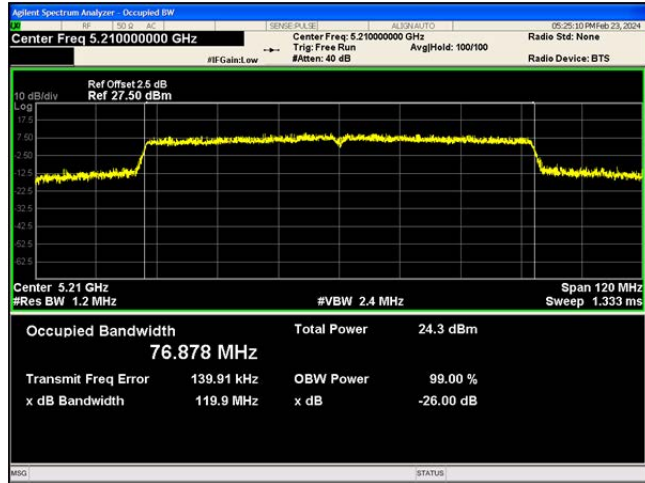
802.11ac(VHT40)\_5755



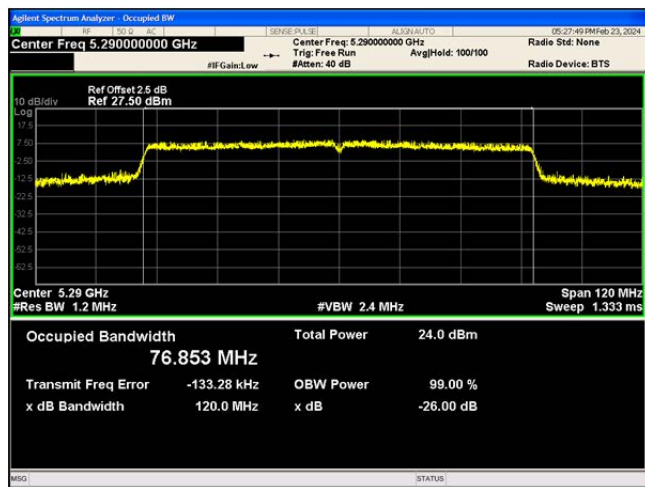
802.11ac(VHT40)\_5795



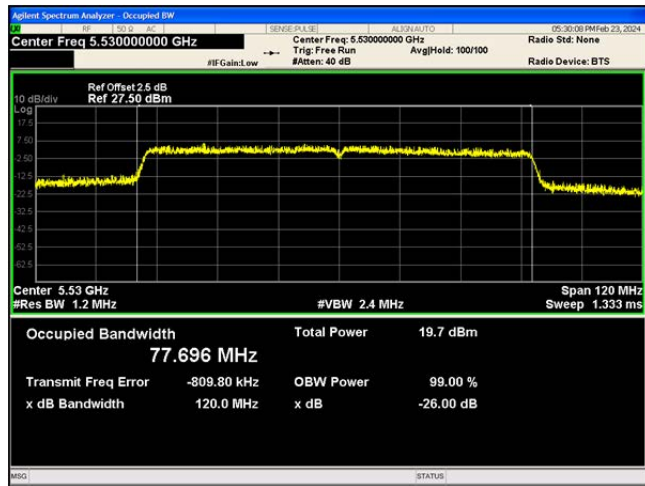
802.11ac(VHT80)\_5210



802.11ac(VHT80)\_5290

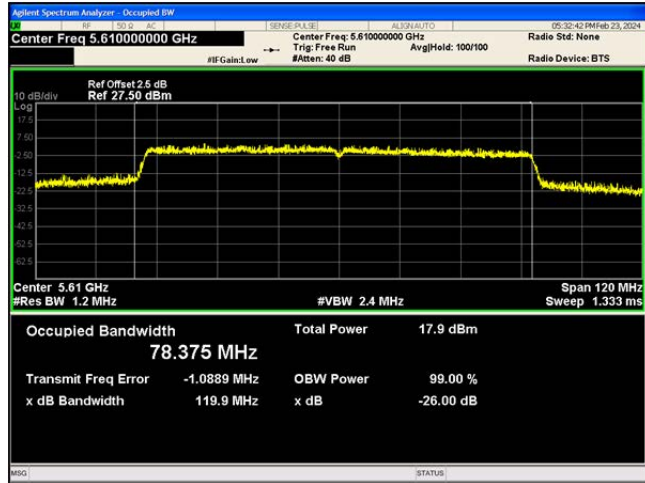


802.11ac(VHT80)\_5530

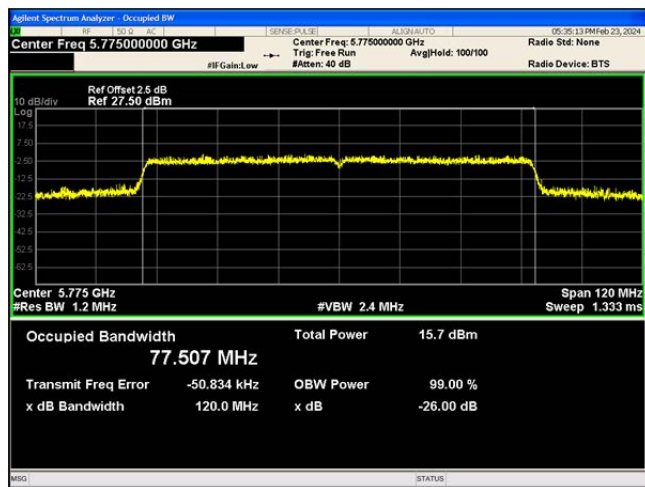


802.11ac(VHT80)\_5610





802.11ac(VHT80)\_5775





## Appendix A2: Occupied channel bandwidth

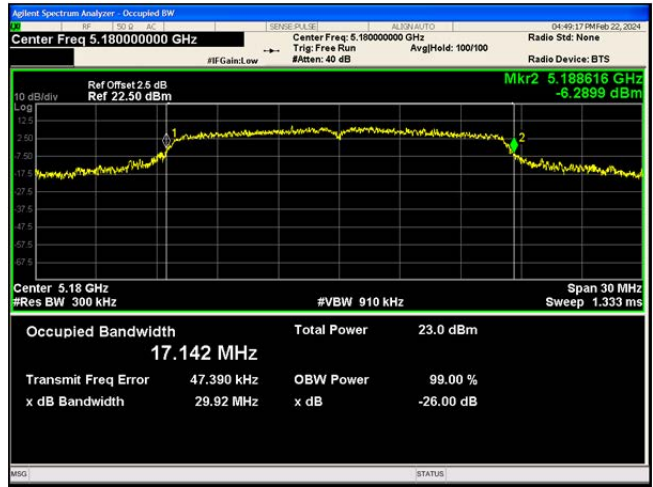
### Test Result

Test Mode	Channel	OCB [MHz]	Verdict
802.11a	5180	17.142	PASS
	5200	17.114	PASS
	5240	17.069	PASS
	5260	17.156	PASS
	5280	17.064	PASS
	5320	16.965	PASS
	5500	17.238	PASS
	5580	17.154	PASS
	5700	17.303	PASS
	5745	17.239	PASS
	5785	17.353	PASS
	5825	17.109	PASS
802.11n(HT20)	5180	18.046	PASS
	5200	18.036	PASS
	5240	18.023	PASS
	5260	18.030	PASS
	5280	17.968	PASS
	5320	17.913	PASS
	5500	18.038	PASS
	5580	18.001	PASS
	5700	18.099	PASS
	5745	18.032	PASS
	5785	18.413	PASS
	5825	17.883	PASS
802.11n(HT40)	5190	36.476	PASS
	5230	36.414	PASS
	5270	36.481	PASS
	5310	36.386	PASS
	5510	36.748	PASS
	5550	36.678	PASS
	5670	36.572	PASS
	5755	36.783	PASS
	5795	36.772	PASS
802.11ac(VHT20)	5180	18.050	PASS
	5200	18.055	PASS
	5240	18.013	PASS
	5260	18.023	PASS
	5280	17.947	PASS
	5320	17.946	PASS
	5500	17.989	PASS
	5580	18.064	PASS

	5700	18.025	PASS
	5745	18.039	PASS
	5785	18.095	PASS
	5825	17.994	PASS
802.11ac(VHT40)	5190	36.451	PASS
	5230	36.392	PASS
	5270	36.439	PASS
	5310	36.354	PASS
	5510	36.710	PASS
	5550	36.593	PASS
	5670	36.481	PASS
	5755	36.699	PASS
	5795	36.779	PASS
802.11ac(VHT80)	5210	76.736	PASS
	5290	76.852	PASS
	5530	77.239	PASS
	5610	78.123	PASS
	5775	77.336	PASS

# Test Graphs

802.11a\_5180



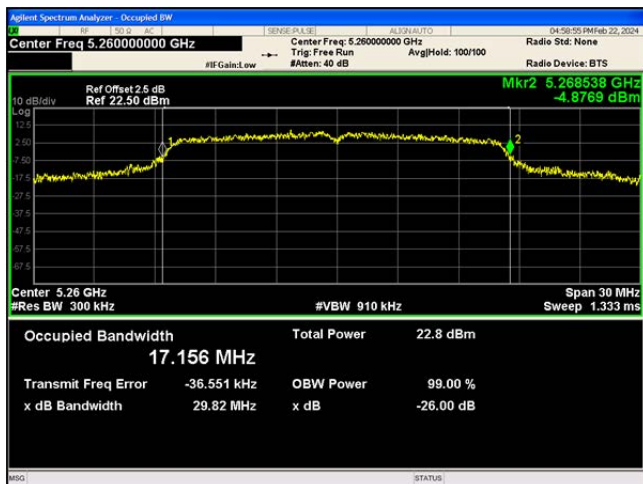
802.11a\_5200



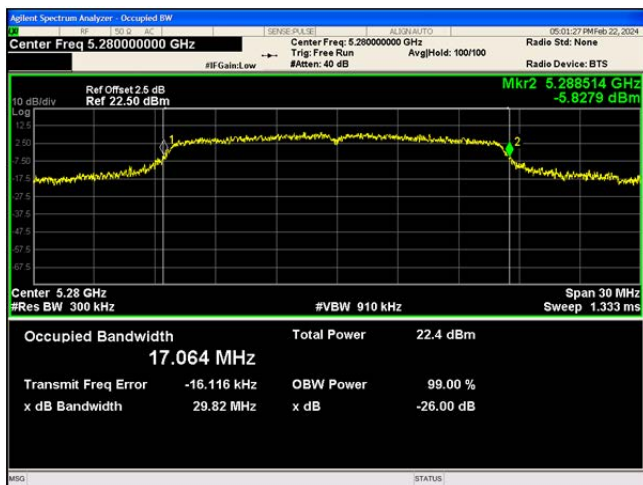
802.11a\_5240



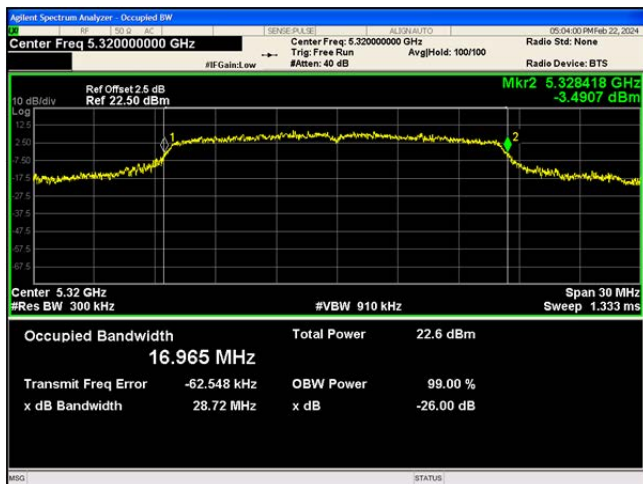
802.11a\_5260



802.11a\_5280



802.11a\_5320



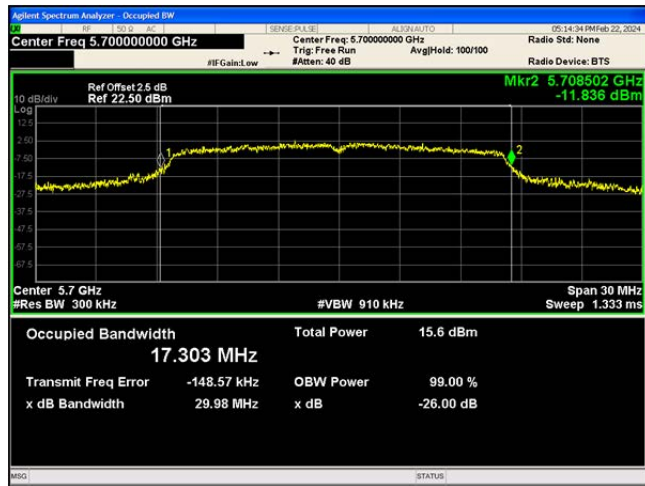
802.11a\_5500



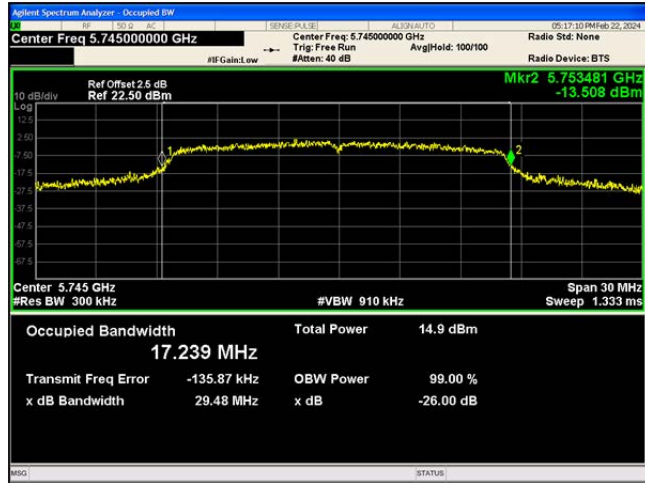
802.11a\_5580



802.11a\_5700



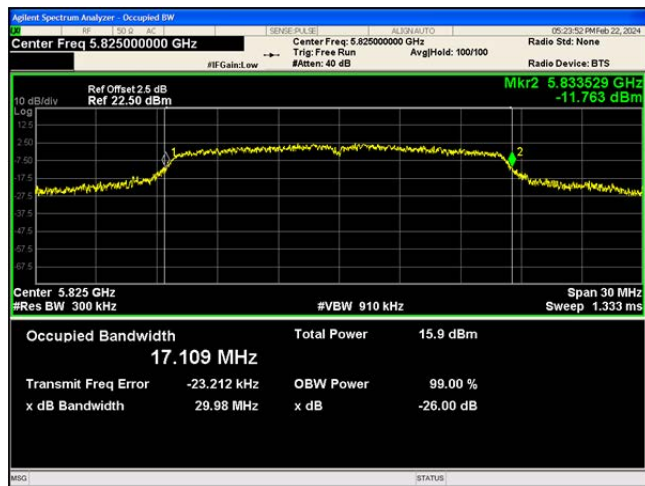
802.11a\_5745



802.11a\_5785



802.11a\_5825



802.11n(HT20)\_5180



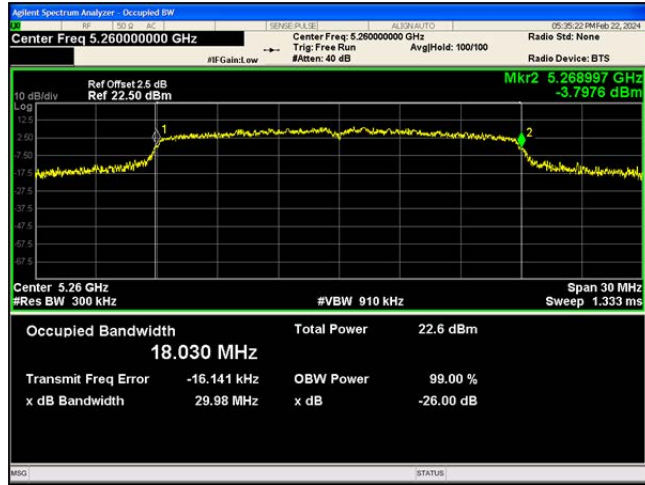
802.11n(HT20)\_5200



802.11n(HT20)\_5240



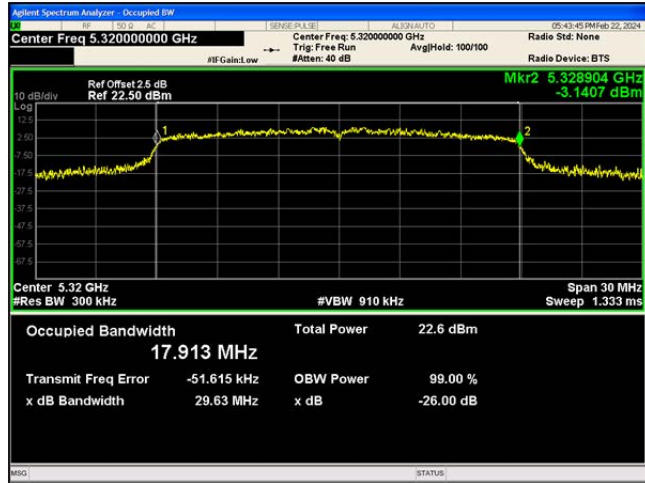
802.11n(HT20)\_5260



802.11n(HT20)\_5280

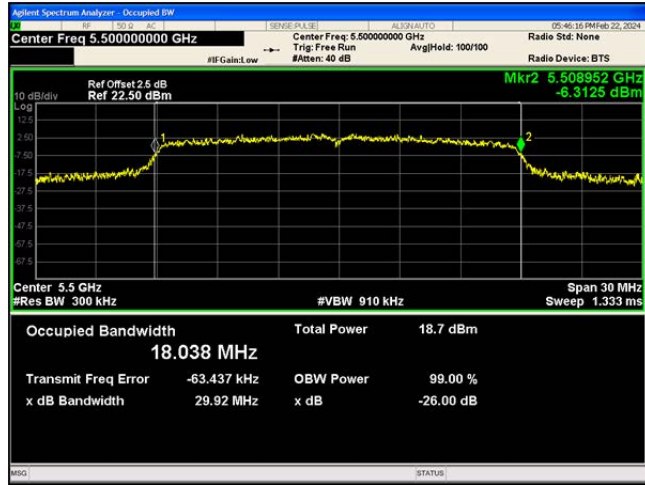


802.11n(HT20)\_5320

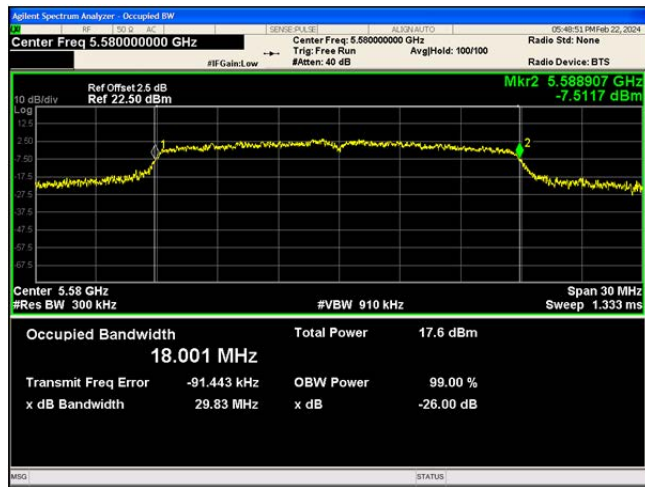


802.11n(HT20)\_5500

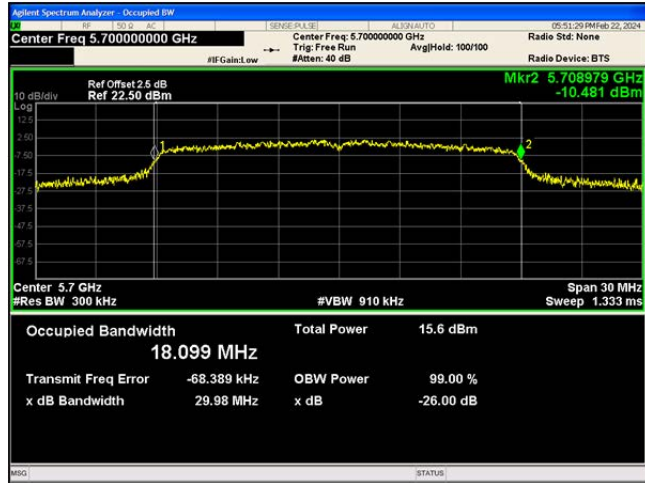




802.11n(HT20)\_5580



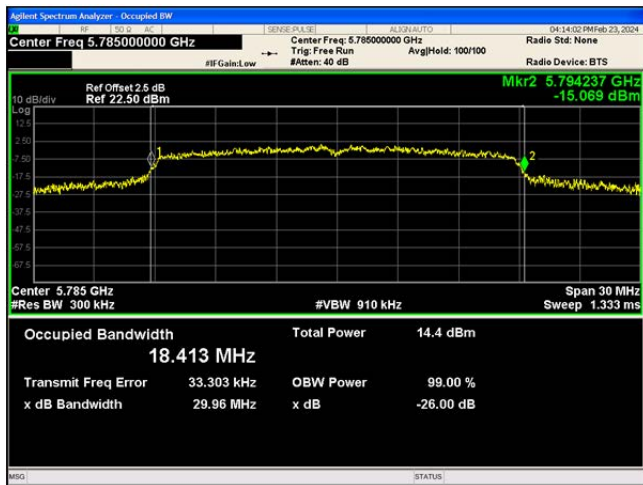
802.11n(HT20)\_5700



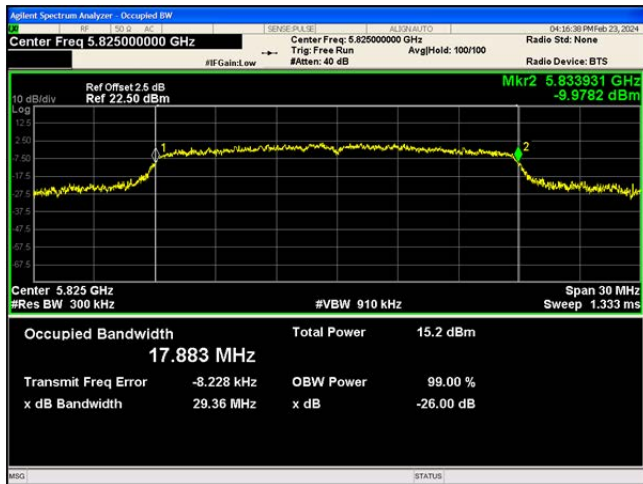
802.11n(HT20)\_5745



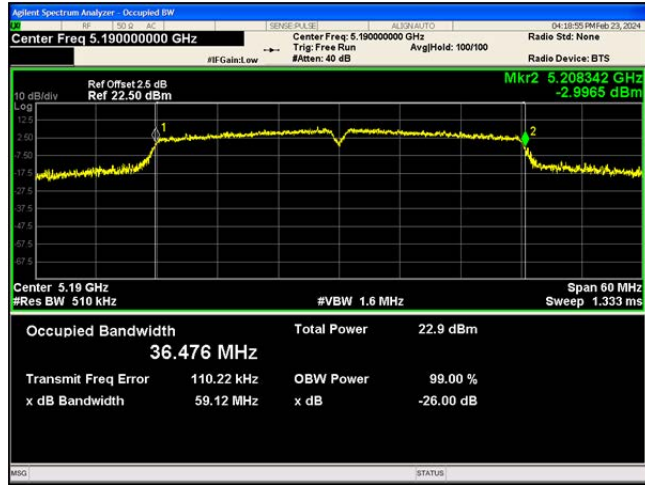
802.11n(HT20)\_5785



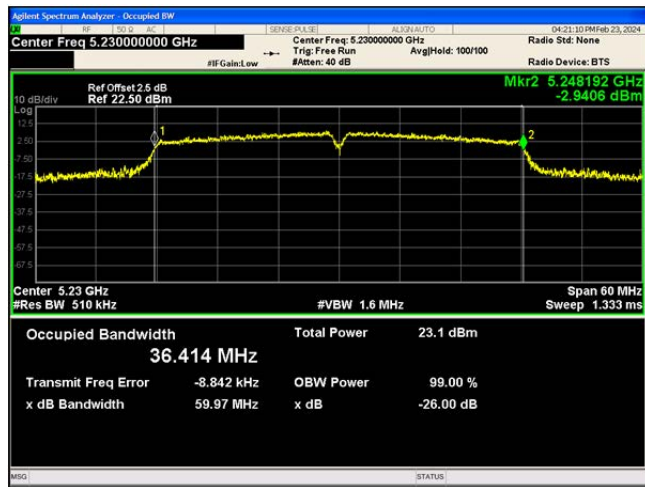
802.11n(HT20)\_5825



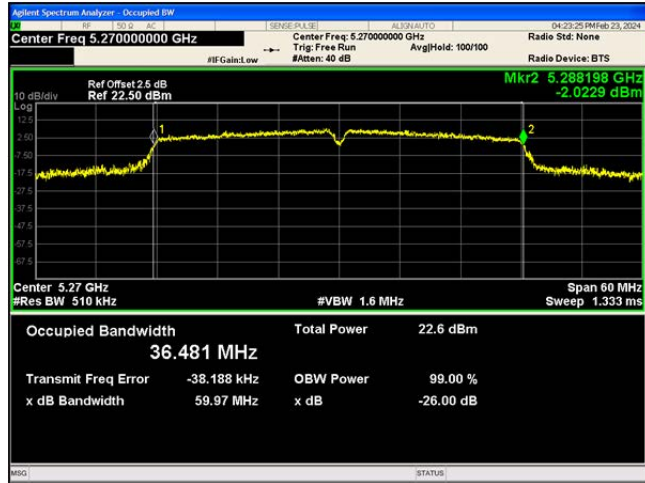
802.11n(HT40)\_5190



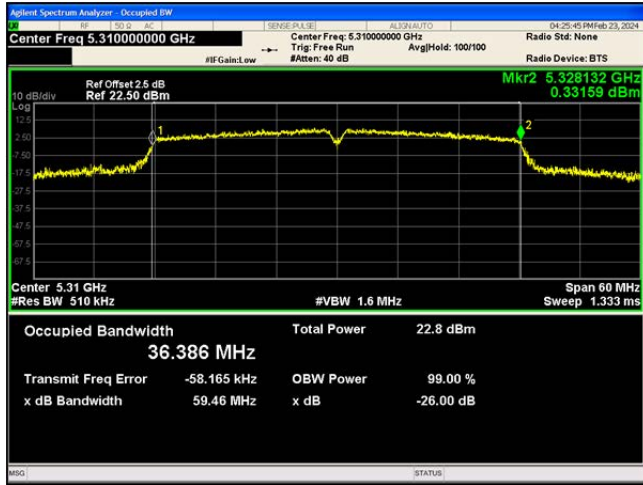
802.11n(HT40)\_5230



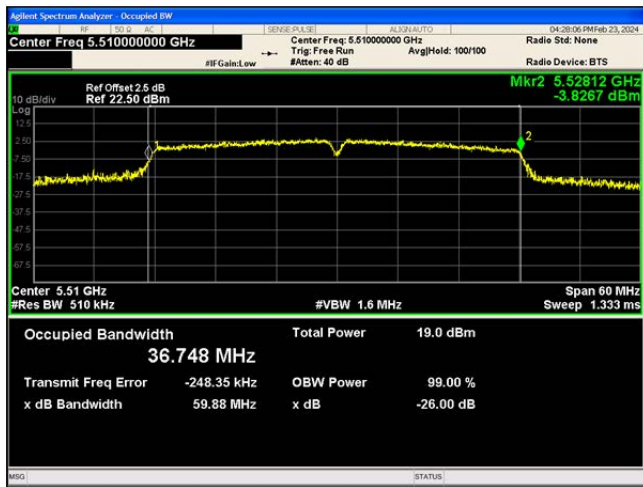
802.11n(HT40)\_5270



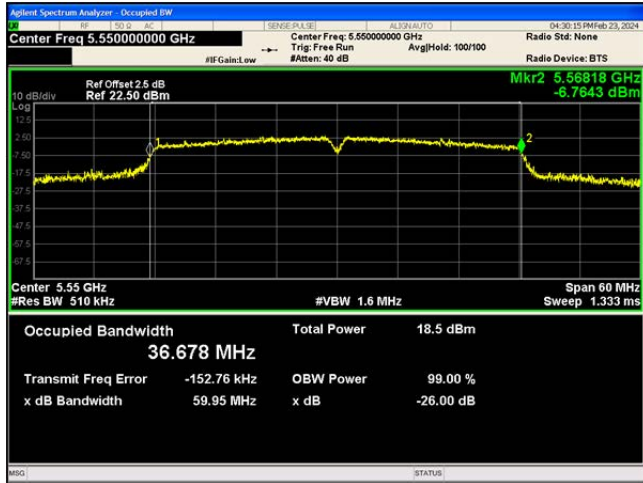
802.11n(HT40)\_5310



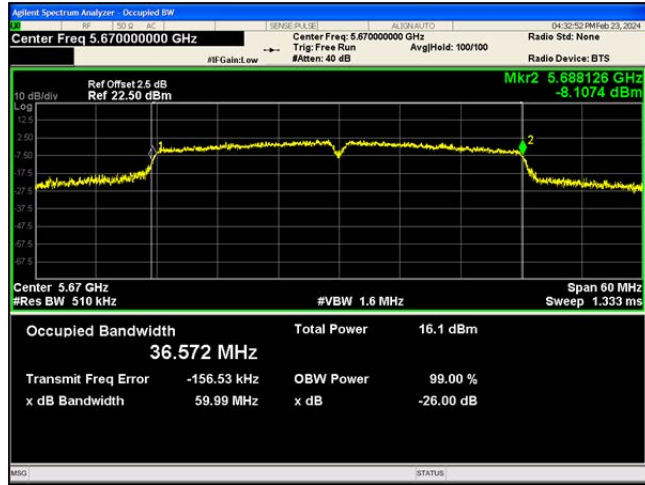
802.11n(HT40)\_5510



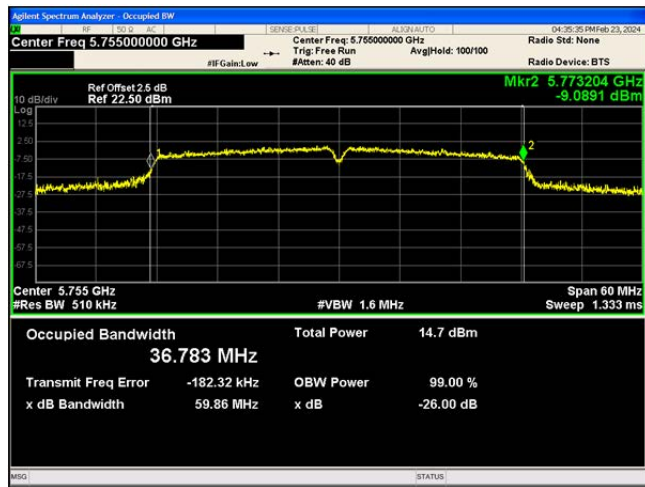
802.11n(HT40)\_5550



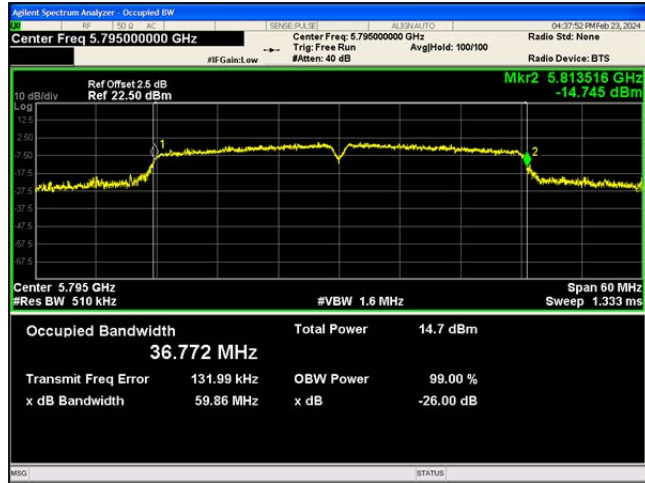
802.11n(HT40)\_5670



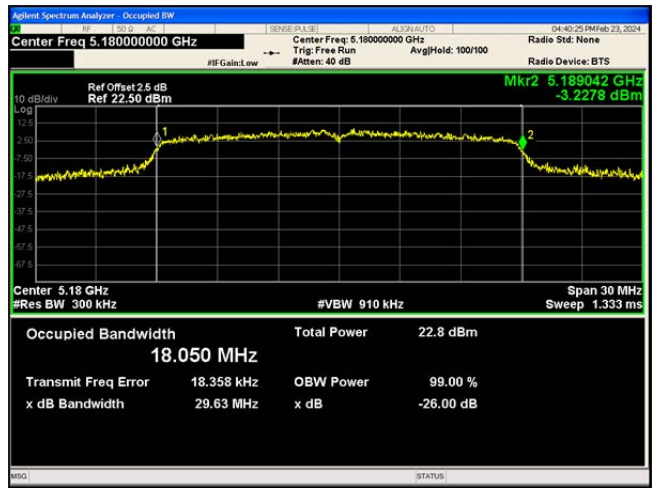
802.11n(HT40)\_5755



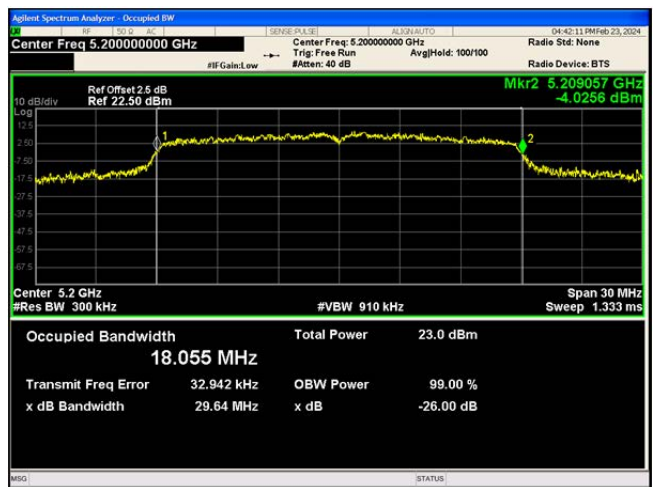
802.11n(HT40)\_5795



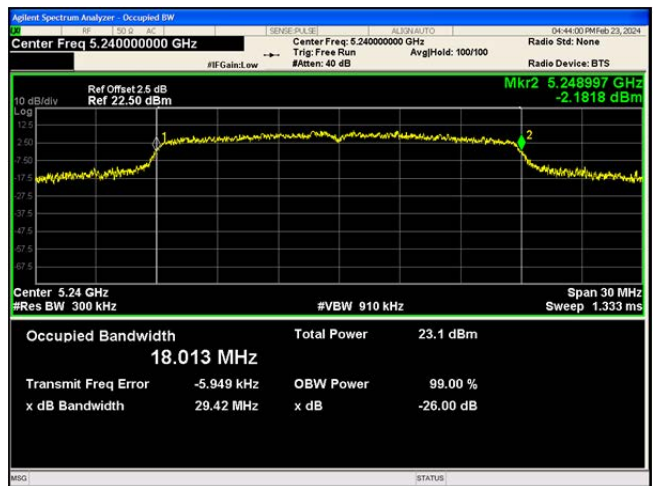
802.11ac(VHT20)\_5180



802.11ac(VHT20)\_5200

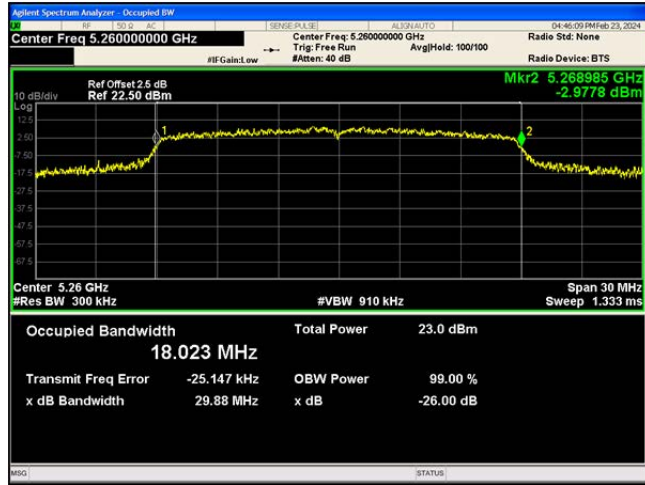


802.11ac(VHT20)\_5240

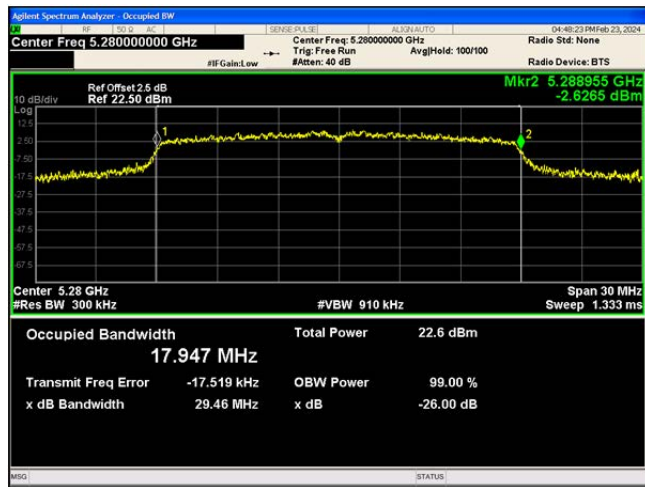


802.11ac(VHT20)\_5260

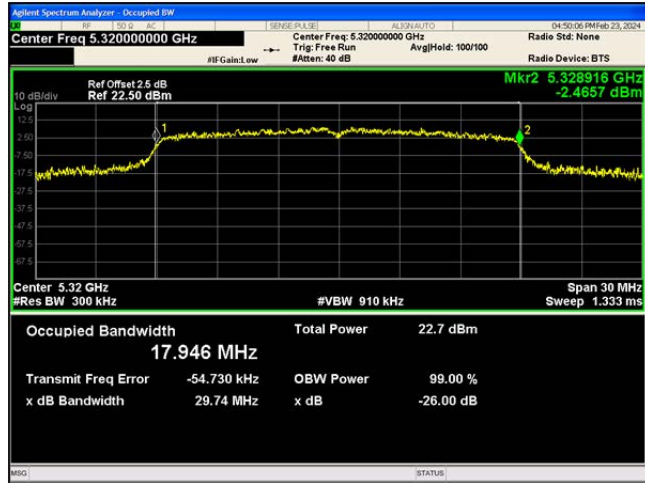




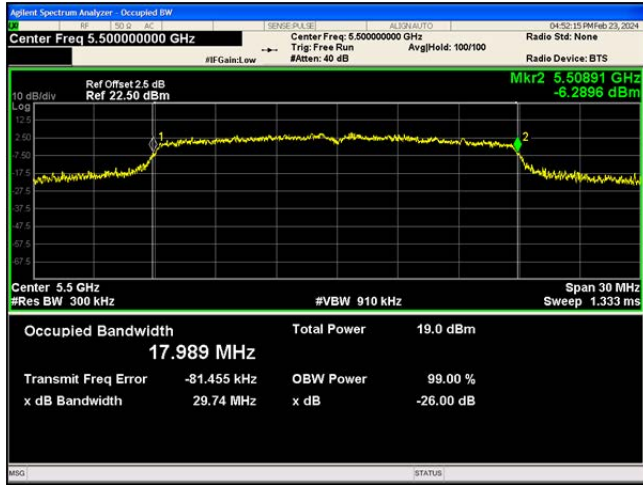
802.11ac(VHT20)\_5280



802.11ac(VHT20)\_5320



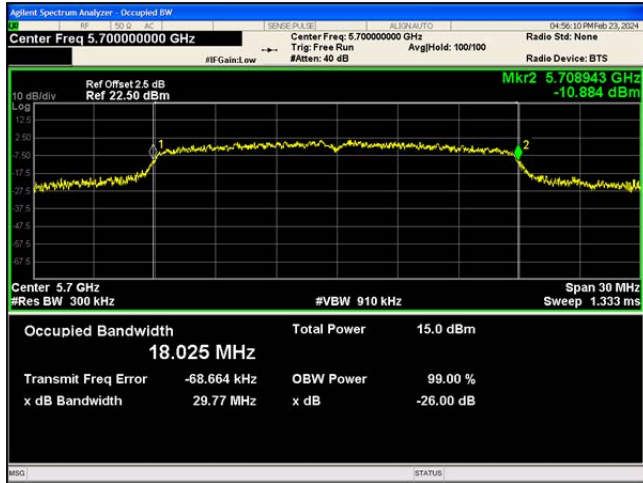
802.11ac(VHT20)\_5500



802.11ac(VHT20)\_5580

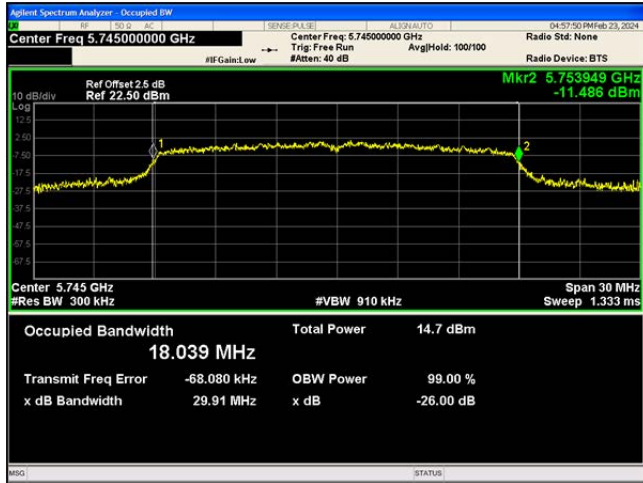


802.11ac(VHT20)\_5700



802.11ac(VHT20)\_5745

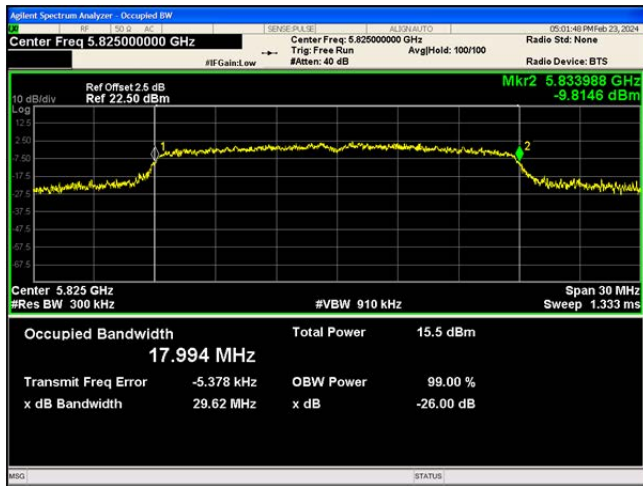




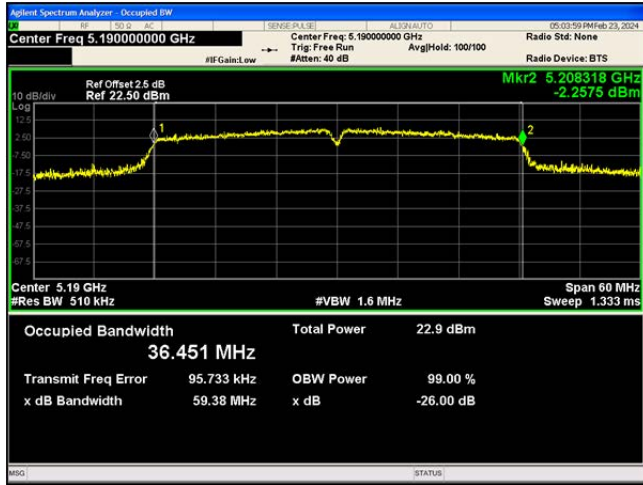
802.11ac(VHT20)\_5785



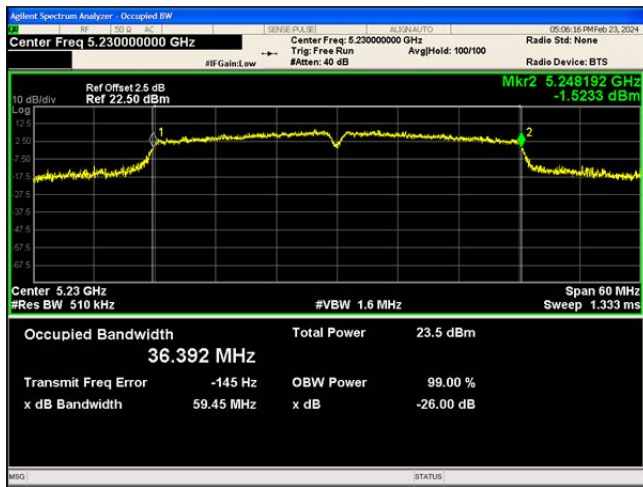
802.11ac(VHT20)\_5825



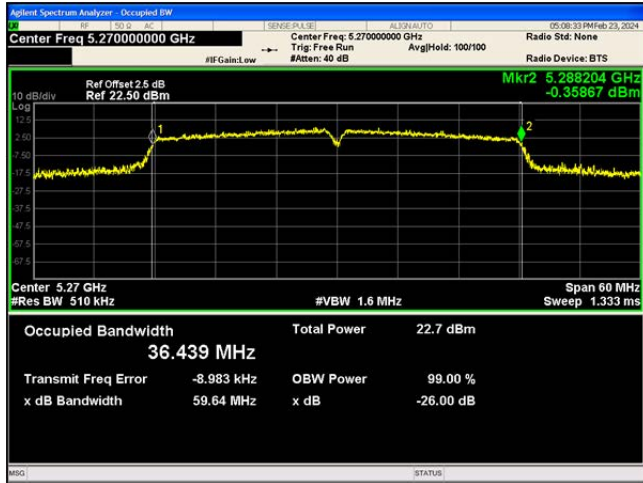
802.11ac(VHT40)\_5190



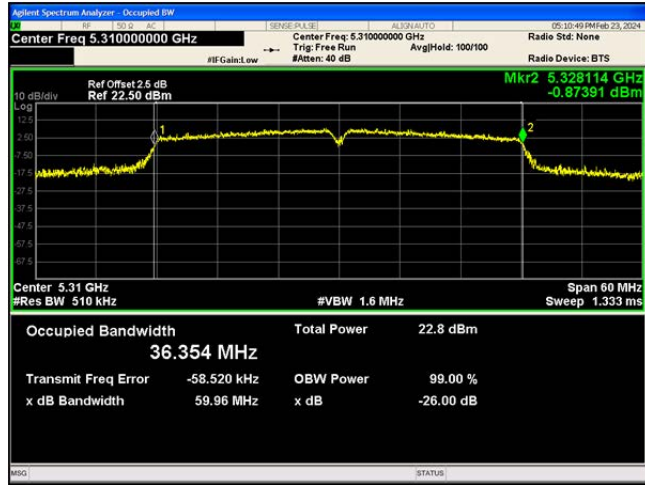
802.11ac(VHT40)\_5230



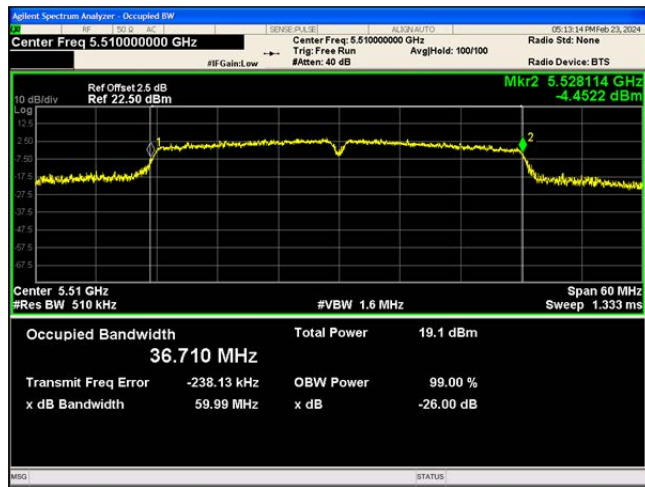
802.11ac(VHT40)\_5270



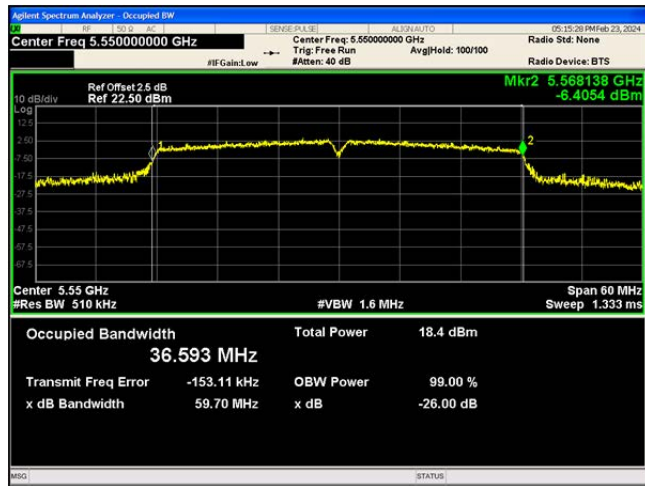
802.11ac(VHT40)\_5310



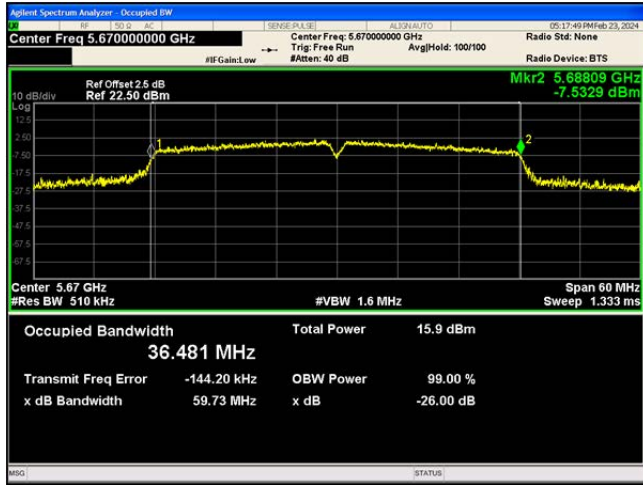
802.11ac(VHT40)\_5510



802.11ac(VHT40)\_5550



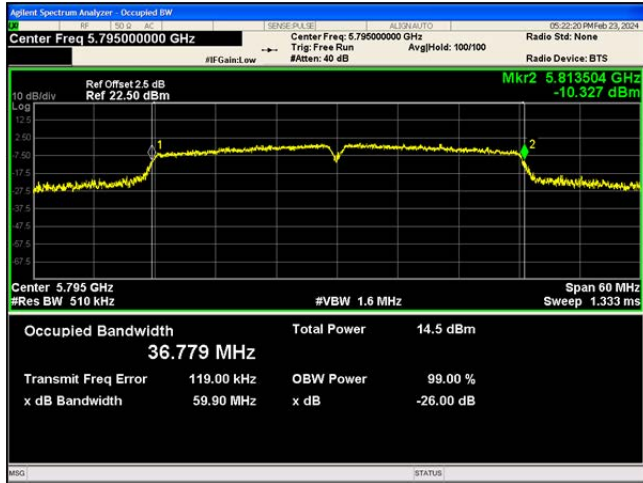
802.11ac(VHT40)\_5670



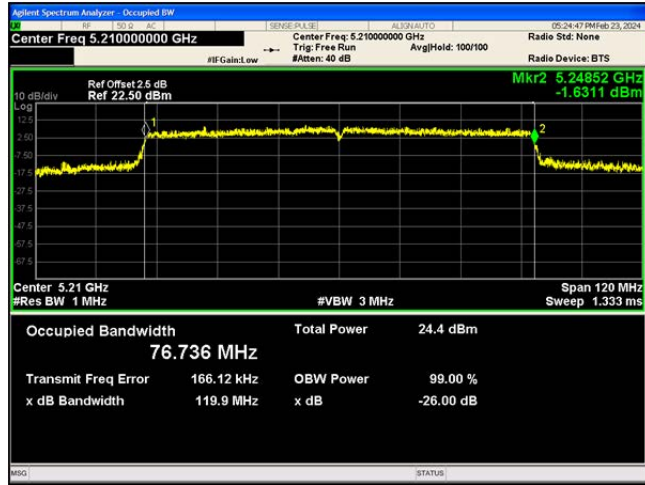
802.11ac(VHT40)\_5755



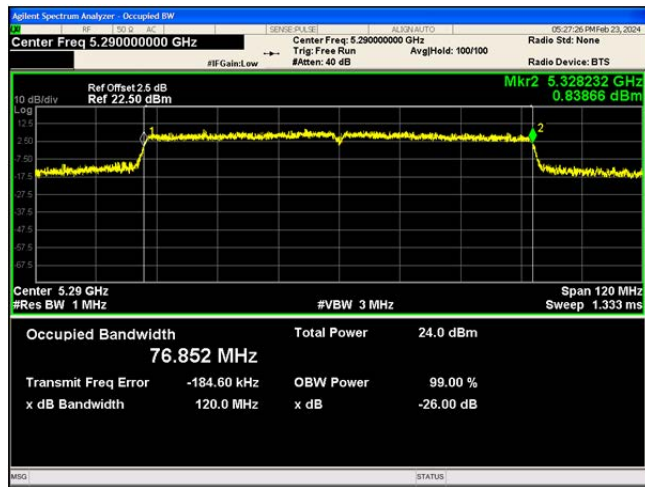
802.11ac(VHT40)\_5795



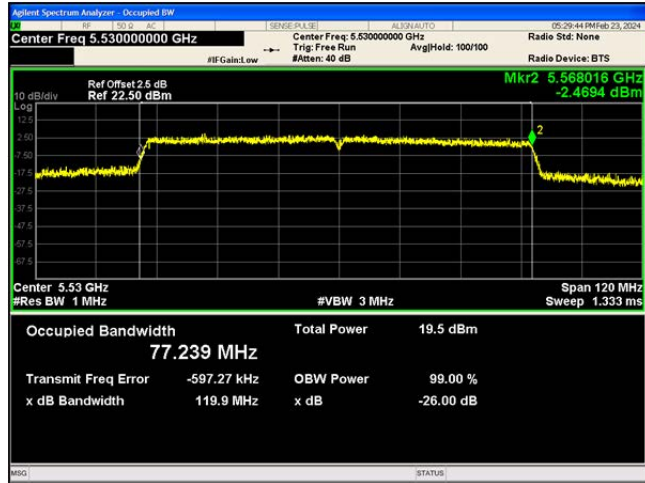
802.11ac(VHT80)\_5210



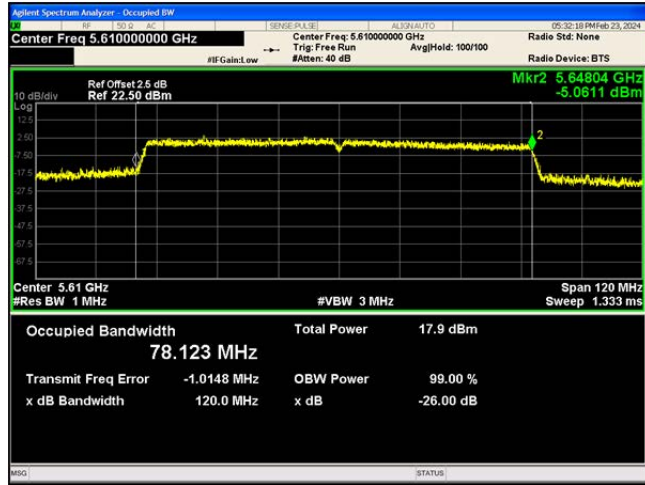
802.11ac(VHT80)\_5290



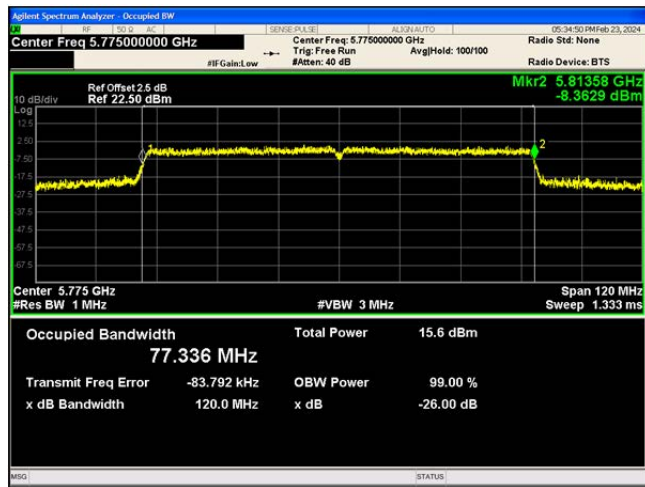
802.11ac(VHT80)\_5530



802.11ac(VHT80)\_5610



802.11ac(VHT80)\_5775



## Appendix A3: Min emission bandwidth

### Test Result

Test Mode	Channel	6db EBW [MHz]	Limit[MHz]	Verdict
802.11a	5745	13.86	>0.5	PASS
	5785	15.02	>0.5	PASS
	5825	15.00	>0.5	PASS
802.11n(HT20)	5745	12.57	>0.5	PASS
	5785	15.12	>0.5	PASS
	5825	15.00	>0.5	PASS
802.11n(HT40)	5755	33.82	>0.5	PASS
	5795	35.04	>0.5	PASS
802.11ac(VHT20)	5745	15.09	>0.5	PASS
	5785	15.09	>0.5	PASS
	5825	13.86	>0.5	PASS
802.11ac(VHT40)	5755	33.83	>0.5	PASS
	5795	35.03	>0.5	PASS
802.11ac(VHT80)	5775	75.94	>0.5	PASS