

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Antenna	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	Chain0	5745	99.63%	0	Fig.1
802.11a	Chain1	5745	99.59%	0	Fig.2
802.11n HT20	Chain0	5745	99.47%	0	Fig.3
802.11n HT20	Chain1	5745	99.54%	0	Fig.4
802.11ac VHT20	Chain0	5745	99.53%	0	Fig.5
802.11ac VHT20	Chain1	5745	99.55%	0	Fig.6
802.11n HT40	Chain0	5755	99.16%	0	Fig.7
802.11n HT40	Chain1	5755	99.24%	0	Fig.8
802.11ac VHT40	Chain0	5755	99.10%	0	Fig.9
802.11ac VHT40	Chain1	5755	99.15%	0	Fig.10
802.11ac VHT80	Chain0	5775	98.53%	0	Fig.11
802.11ac VHT80	Chain1	5775	98.35%	0	Fig.12

Note: Correction Factor=10*log (1/Duty Cycle)

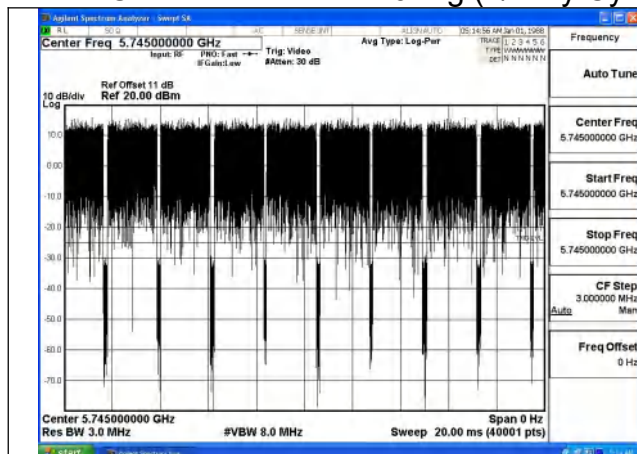


Fig.1

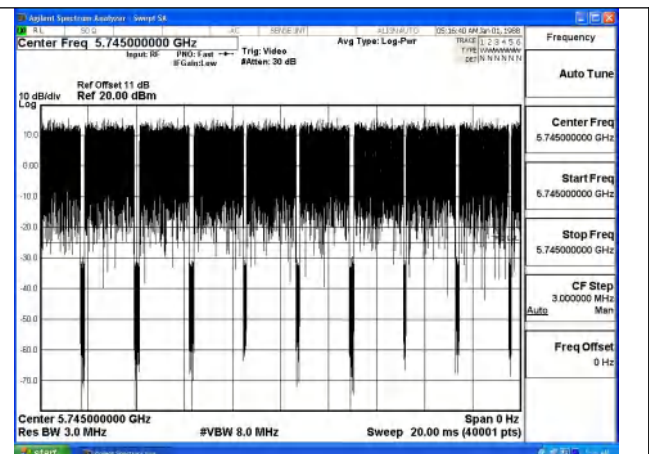


Fig.2

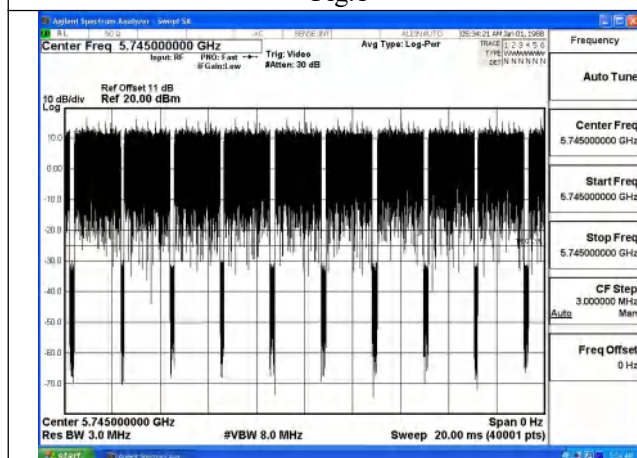


Fig.3

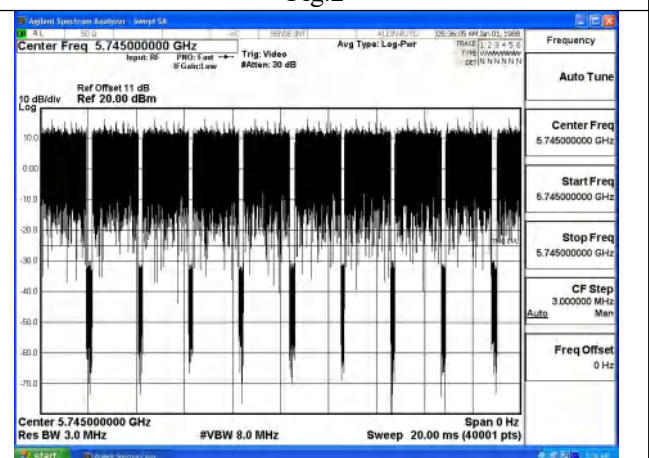


Fig.4

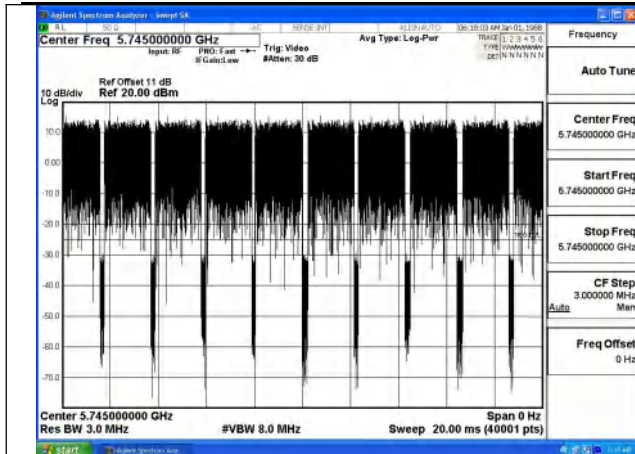


Fig.5

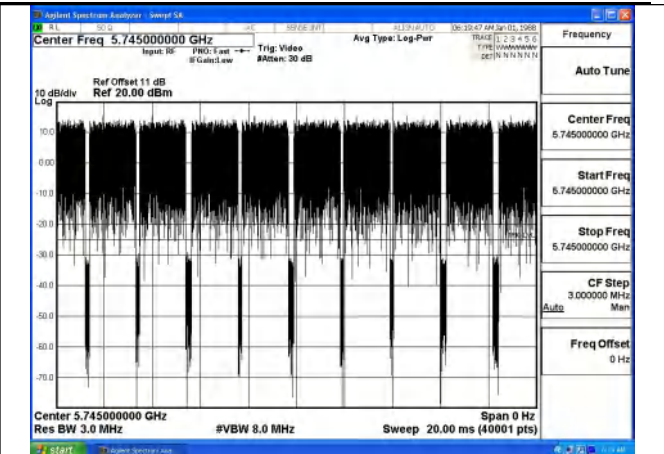


Fig.6

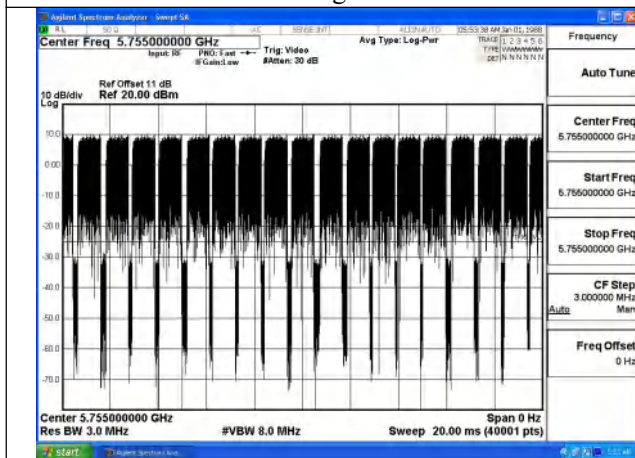


Fig.7

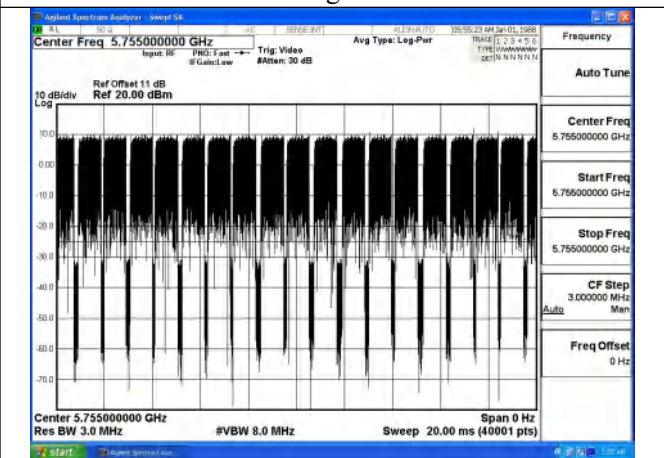


Fig.8

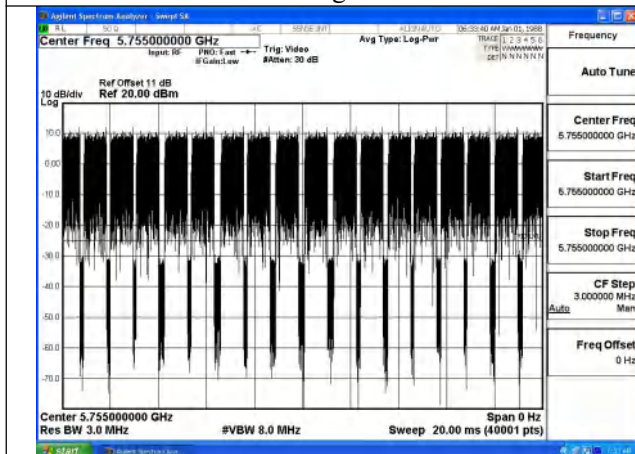


Fig.9

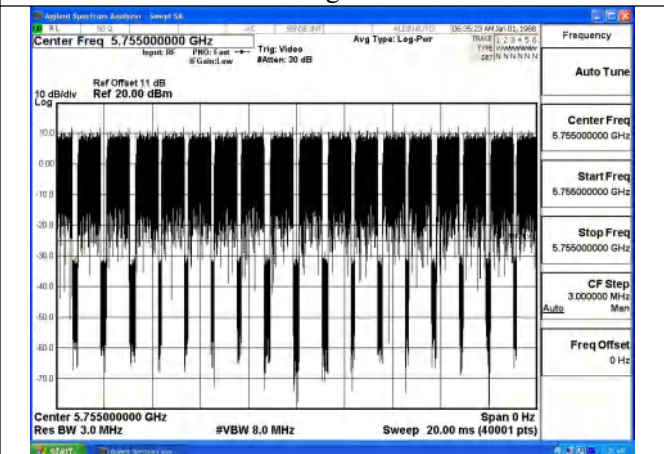


Fig.10

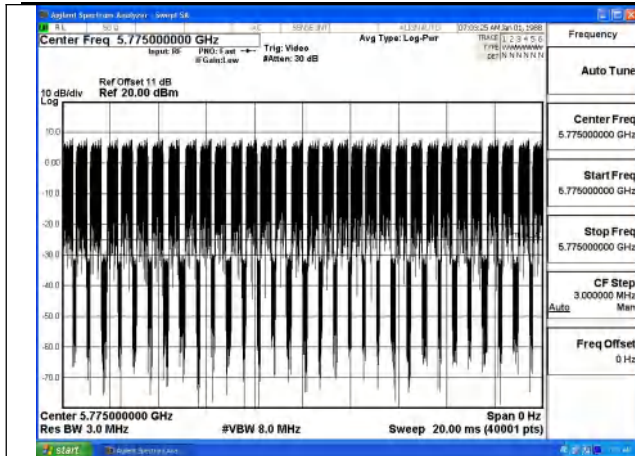


Fig.11

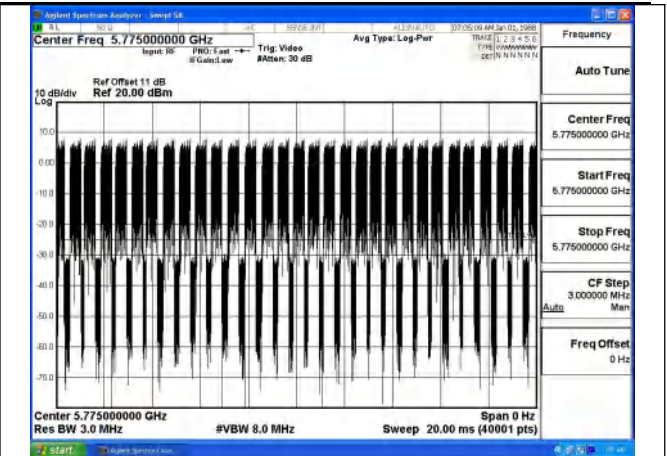


Fig.12

Output Power

Mode	Tones/ RU Index	Frequency (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5745	Chain0	12.50	12.71
802.11a	NA	5745	Chain1	12.33	12.54
802.11a	NA	5785	Chain0	12.91	13.12
802.11a	NA	5785	Chain1	12.68	12.89
802.11a	NA	5825	Chain0	12.60	12.81
802.11a	NA	5825	Chain1	12.51	12.72
802.11n HT20	NA	5745	Chain0	12.15	12.36
802.11n HT20	NA	5745	Chain1	12.37	12.58
802.11n HT20	NA	5745	MIMO	15.27	15.48
802.11n HT20	NA	5785	Chain0	12.71	12.92
802.11n HT20	NA	5785	Chain1	12.79	13.00
802.11n HT20	NA	5785	MIMO	15.76	15.97
802.11n HT20	NA	5825	Chain0	12.74	12.95
802.11n HT20	NA	5825	Chain1	12.70	12.91
802.11n HT20	NA	5825	MIMO	15.73	15.94
802.11ac VHT20	NA	5745	Chain0	12.23	12.44
802.11ac VHT20	NA	5745	Chain1	12.43	12.64
802.11ac VHT20	NA	5745	MIMO	15.34	15.55
802.11ac VHT20	NA	5785	Chain0	12.69	12.90
802.11ac VHT20	NA	5785	Chain1	12.77	12.98
802.11ac VHT20	NA	5785	MIMO	15.74	15.95
802.11ac VHT20	NA	5825	Chain0	12.77	12.98
802.11ac VHT20	NA	5825	Chain1	12.64	12.85
802.11ac VHT20	NA	5825	MIMO	15.72	15.93
802.11n HT40	NA	5755	Chain0	11.82	12.03
802.11n HT40	NA	5755	Chain1	12.03	12.24
802.11n HT40	NA	5755	MIMO	14.94	15.15
802.11n HT40	NA	5795	Chain0	12.08	12.29
802.11n HT40	NA	5795	Chain1	12.00	12.21
802.11n HT40	NA	5795	MIMO	15.05	15.26
802.11ac VHT40	NA	5755	Chain0	11.92	12.13
802.11ac VHT40	NA	5755	Chain1	11.93	12.14
802.11ac VHT40	NA	5755	MIMO	14.94	15.15
802.11ac VHT40	NA	5795	Chain0	12.07	12.28
802.11ac VHT40	NA	5795	Chain1	12.14	12.35
802.11ac VHT40	NA	5795	MIMO	15.12	15.33
802.11ac VHT80	NA	5775	Chain0	11.28	11.49
802.11ac VHT80	NA	5775	Chain1	11.33	11.54
802.11ac VHT80	NA	5775	MIMO	14.32	14.53

Emission Bandwidth

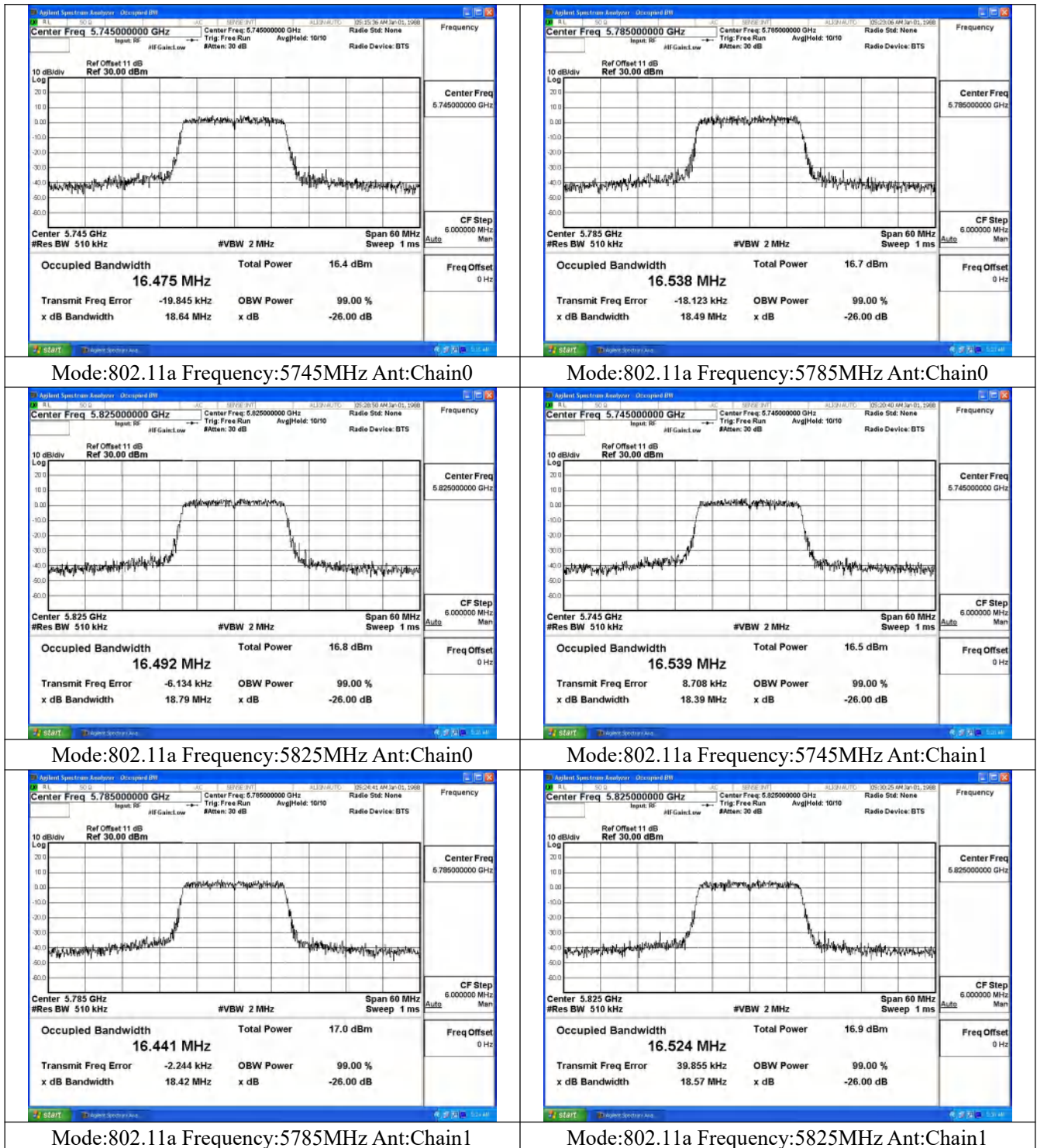
Offset 11dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	18.64	18.49	18.79
802.11a	Chain1	18.39	18.42	18.57
802.11n HT20	Chain0	19.48	19.89	19.47
802.11n HT20	Chain1	19.66	19.37	19.35
802.11ac VHT20	Chain0	19.75	19.40	19.85
802.11ac VHT20	Chain1	19.58	20.14	19.95

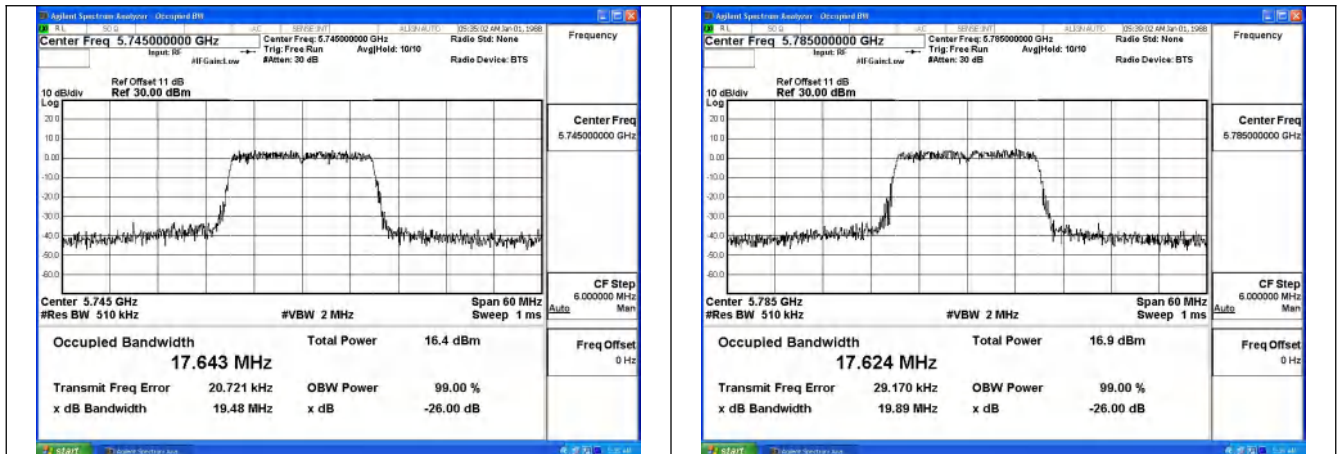
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5755MHz	---	5795MHz
802.11n HT40	Chain0	40.83	---	39.75
802.11n HT40	Chain1	41.29	---	40.31
802.11ac VHT40	Chain0	40.83	---	39.65
802.11ac VHT40	Chain1	41.17	---	41.02

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5775MHz	---	---
802.11ac VHT80	Chain0	80.96	---	---
802.11ac VHT80	Chain1	80.78	---	---

Test Mode: 802.11a

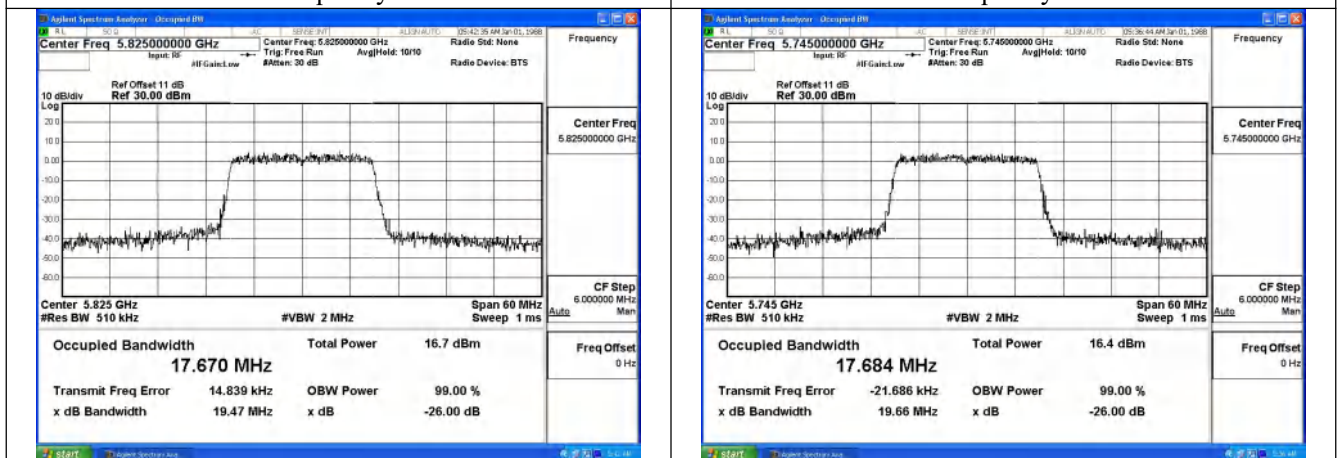


Test Mode: 802.11n HT20



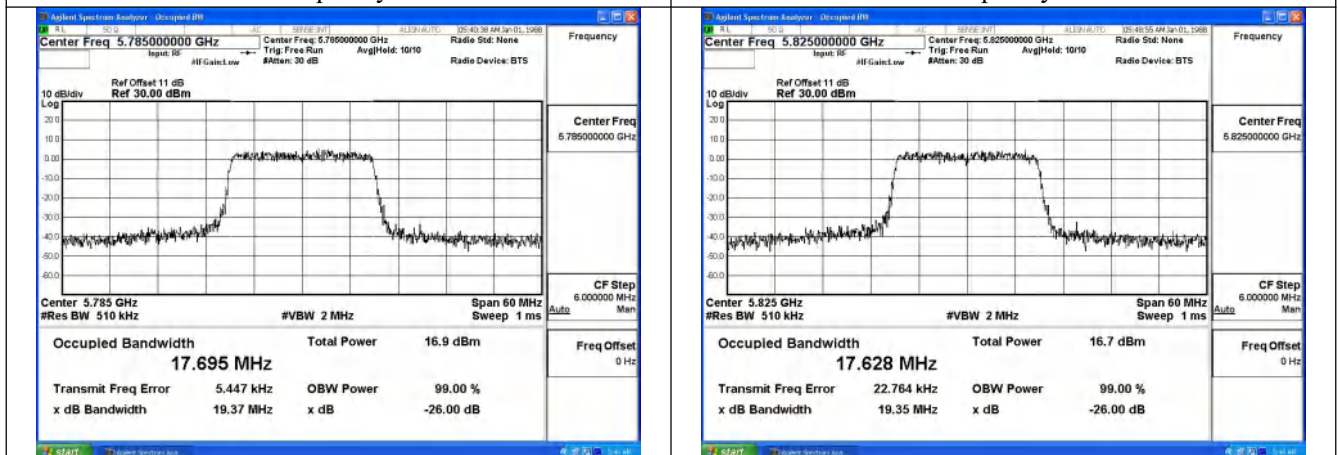
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5785MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5825MHz Ant:Chain0

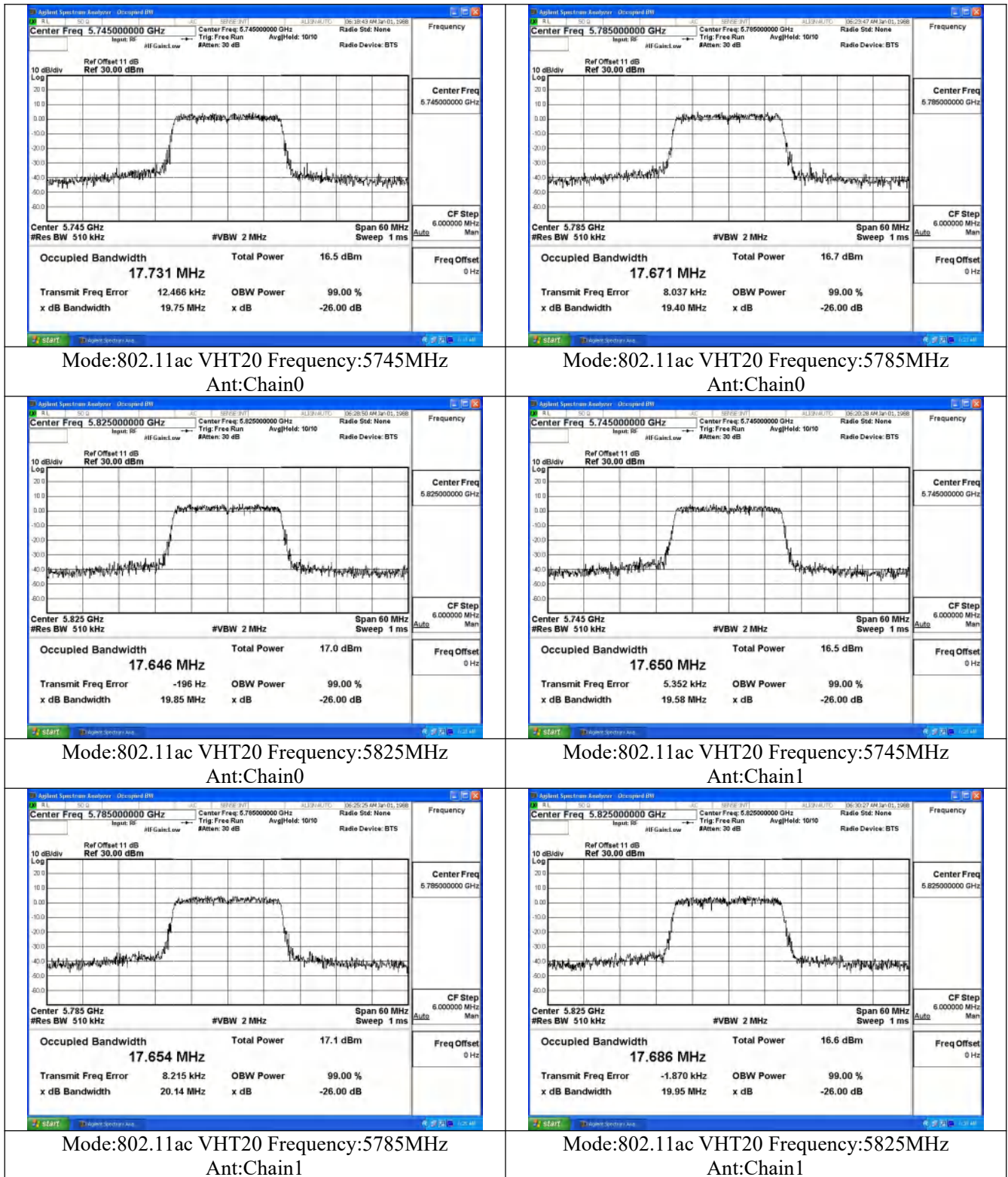
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain1



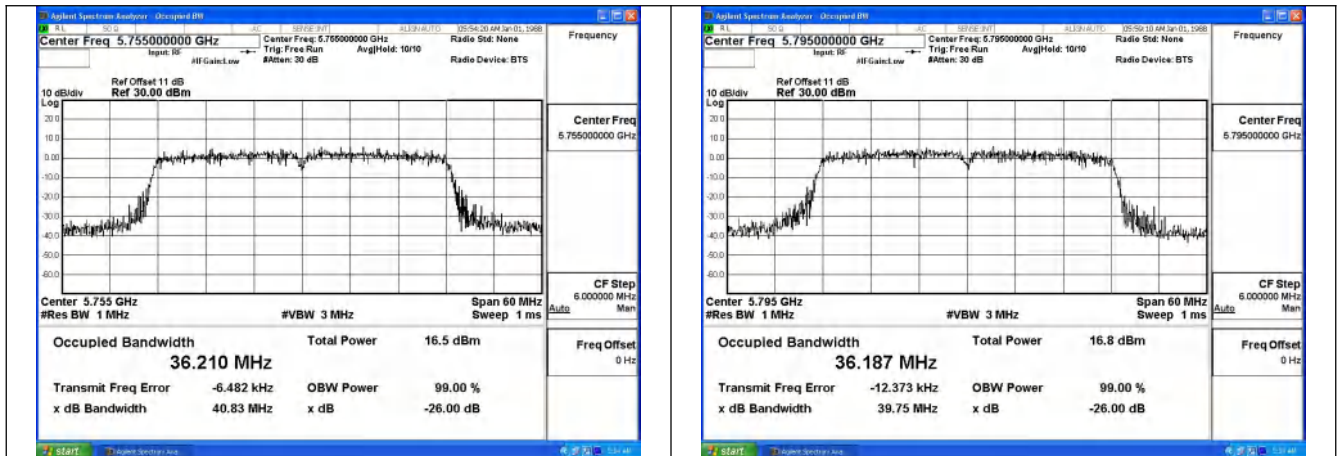
Mode:802.11n HT20 Frequency:5785MHz Ant:Chain1

Mode:802.11n HT20 Frequency:5825MHz Ant:Chain1

Test Mode: 802.11ac VHT20

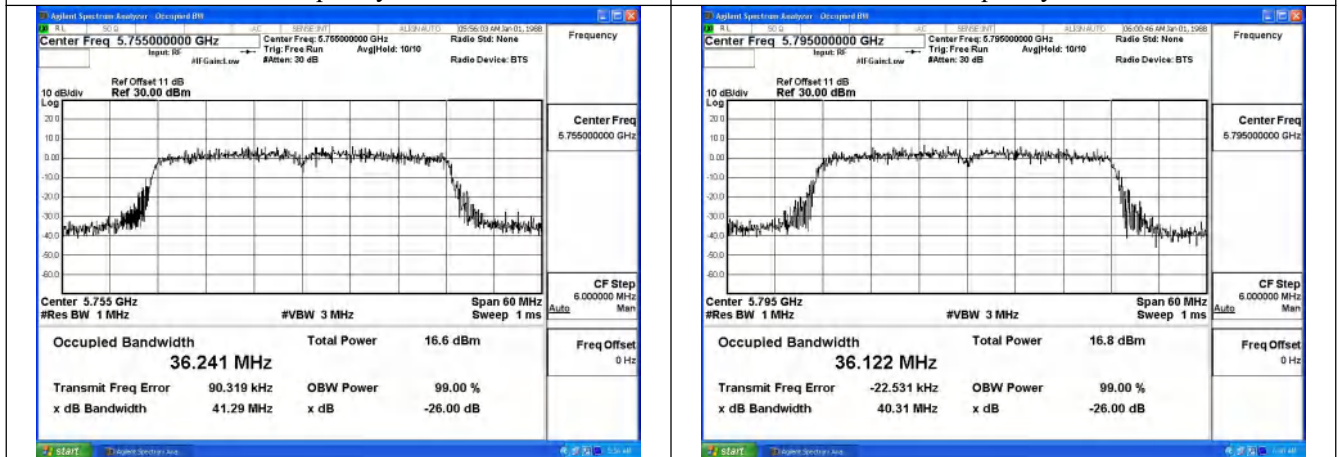


Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5755MHz Ant:Chain0

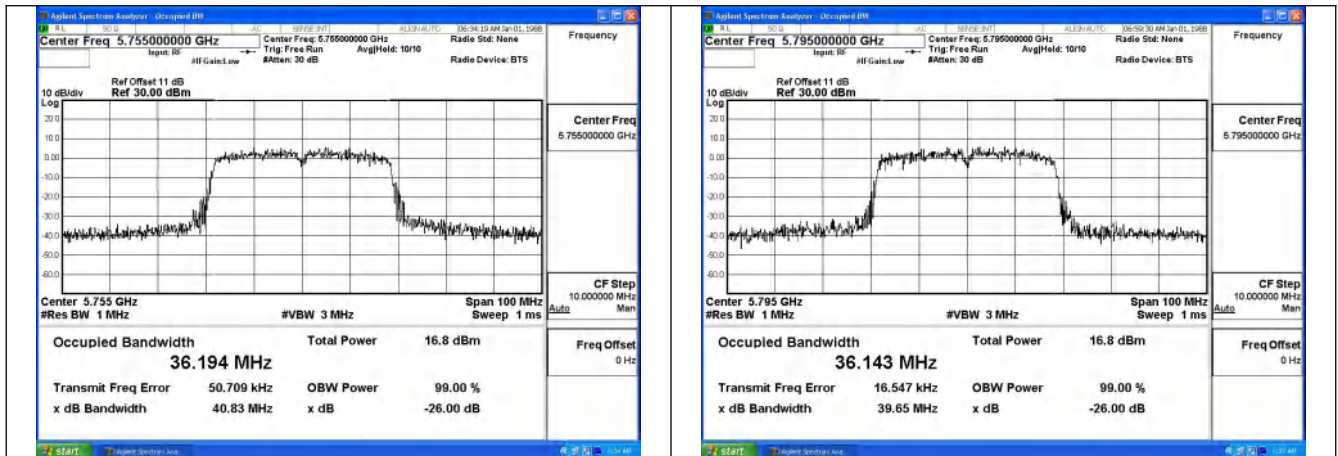
Mode:802.11n HT40 Frequency:5795MHz Ant:Chain0



Mode:802.11n HT40 Frequency:5755MHz Ant:Chain1

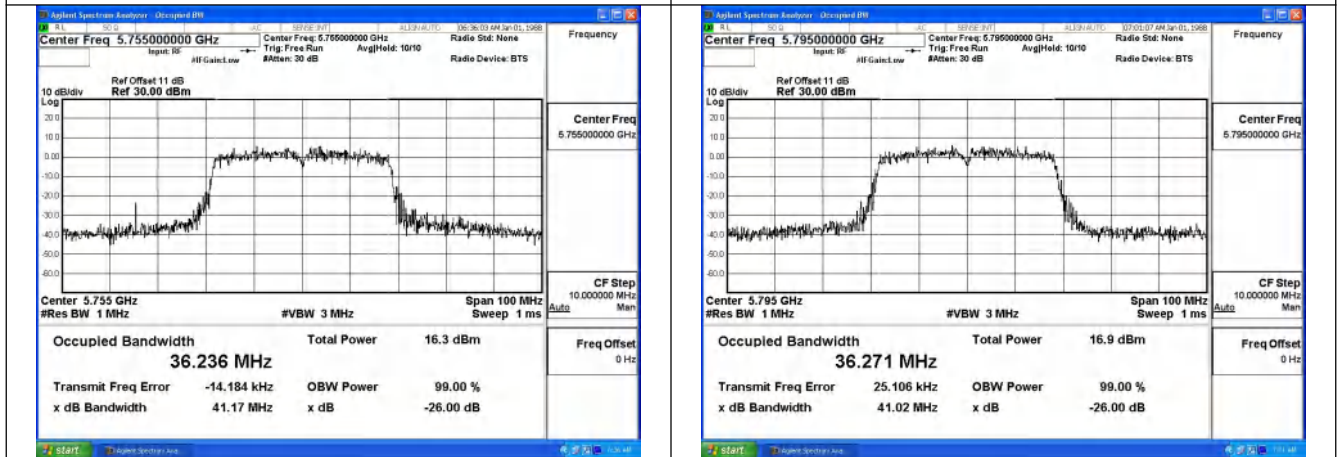
Mode:802.11n HT40 Frequency:5795MHz Ant:Chain1

Test Mode: 802.11ac VHT40



Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain0

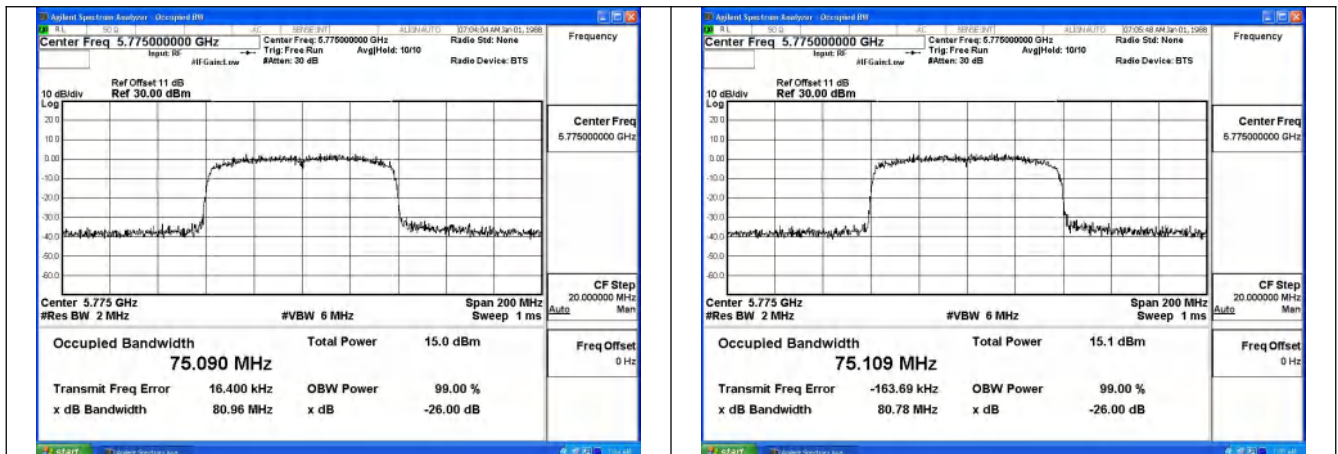
Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain1

Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain0

Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain1

Occupied Bandwidth

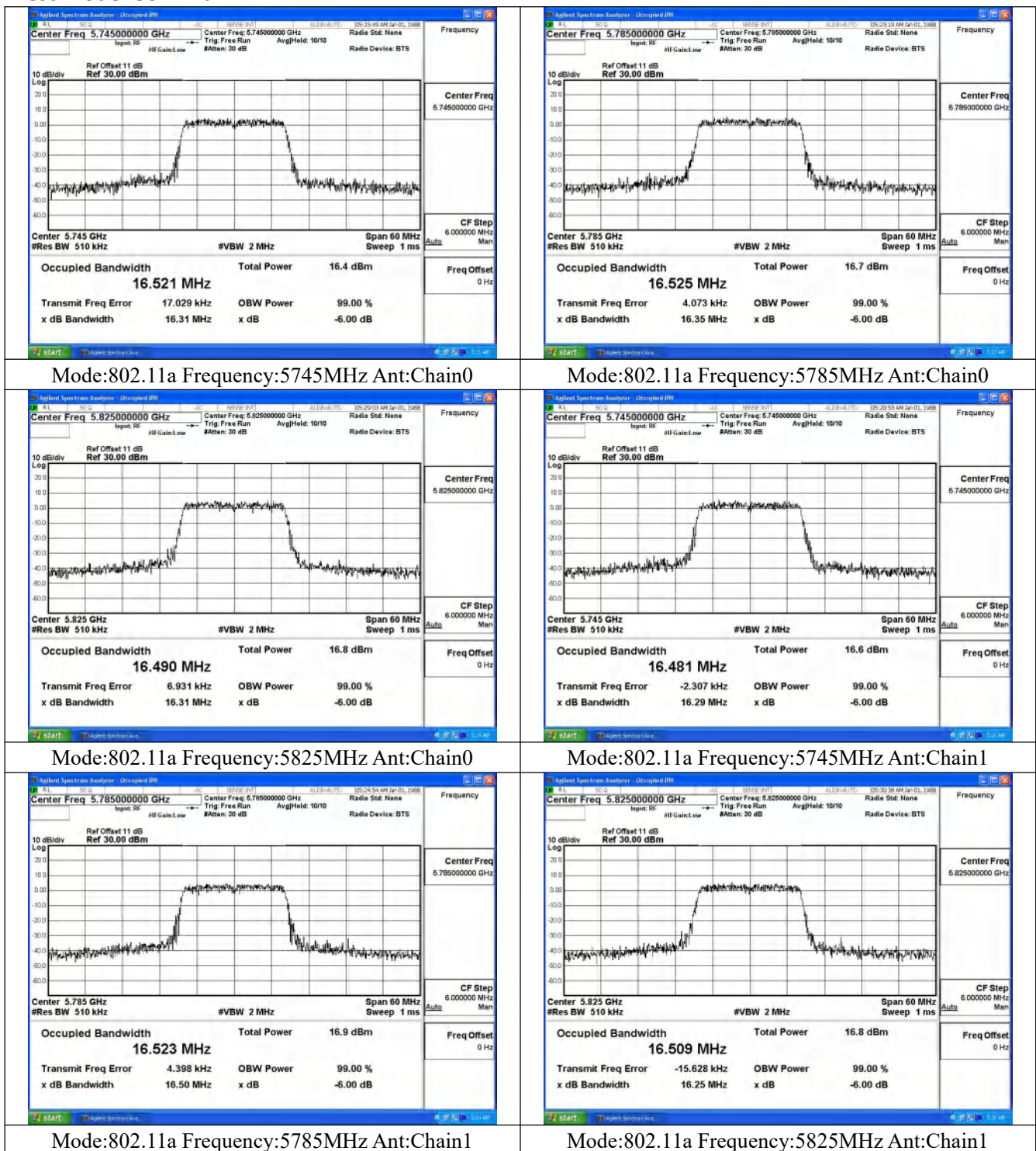
Offset 11dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	16.521	16.525	16.490
802.11a	Chain1	16.481	16.523	16.509
802.11n HT20	Chain0	17.657	17.641	17.658
802.11n HT20	Chain1	17.666	17.656	17.690
802.11ac VHT20	Chain0	17.673	17.646	17.703
802.11ac VHT20	Chain1	17.673	17.698	17.667

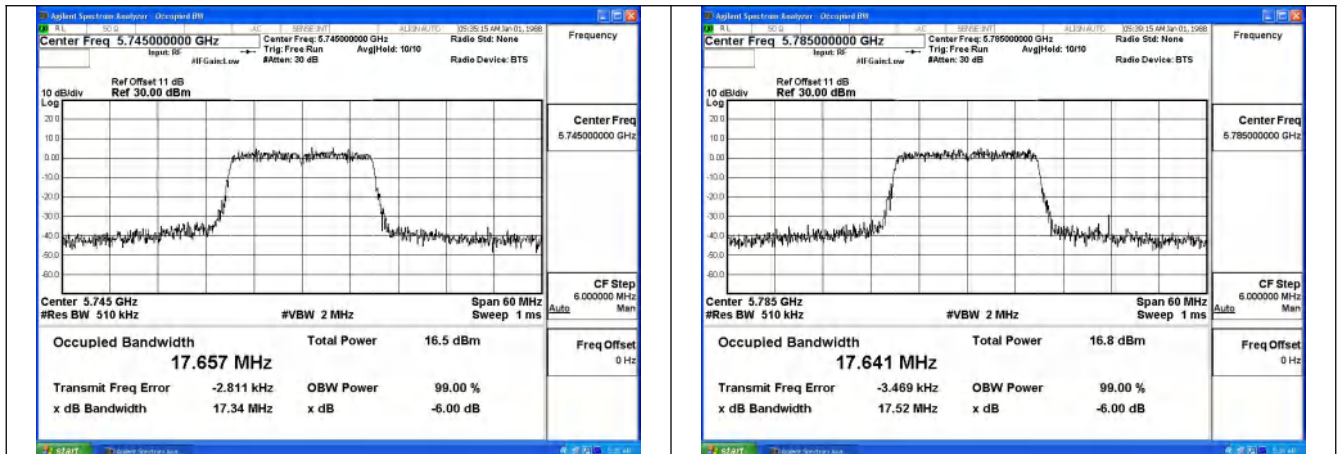
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5755MHz	---	5795MHz
802.11n HT40	Chain0	36.196	---	36.228
802.11n HT40	Chain1	36.183	---	36.129
802.11ac VHT40	Chain0	36.268	---	36.189
802.11ac VHT40	Chain1	36.016	---	36.176

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5775MHz	---	---
802.11ac VHT80	Chain0	75.269	---	---
802.11ac VHT80	Chain1	75.127	---	---

Test Mode: 802.11a

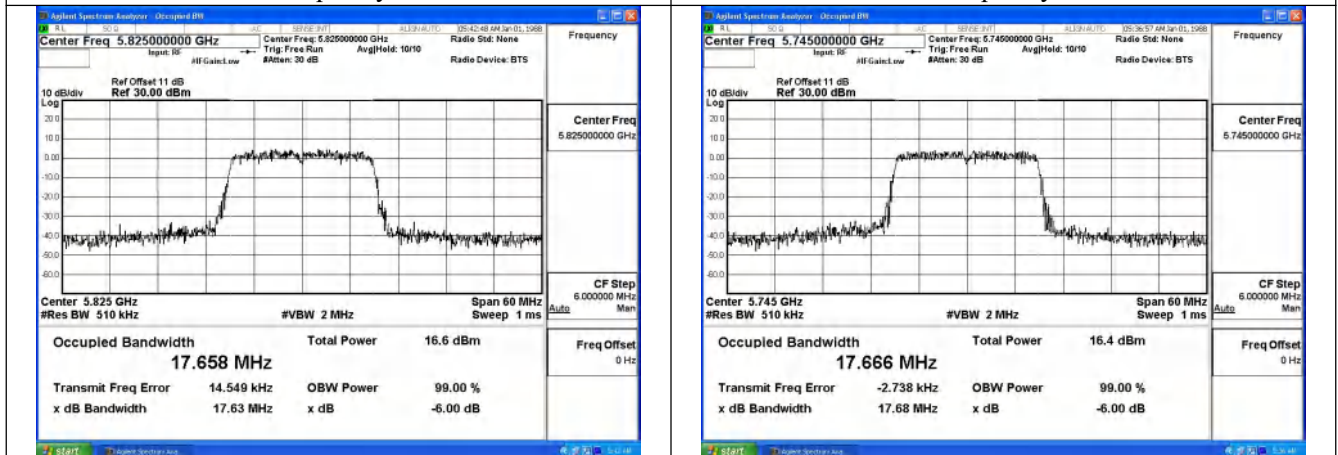


Test Mode: 802.11n HT20



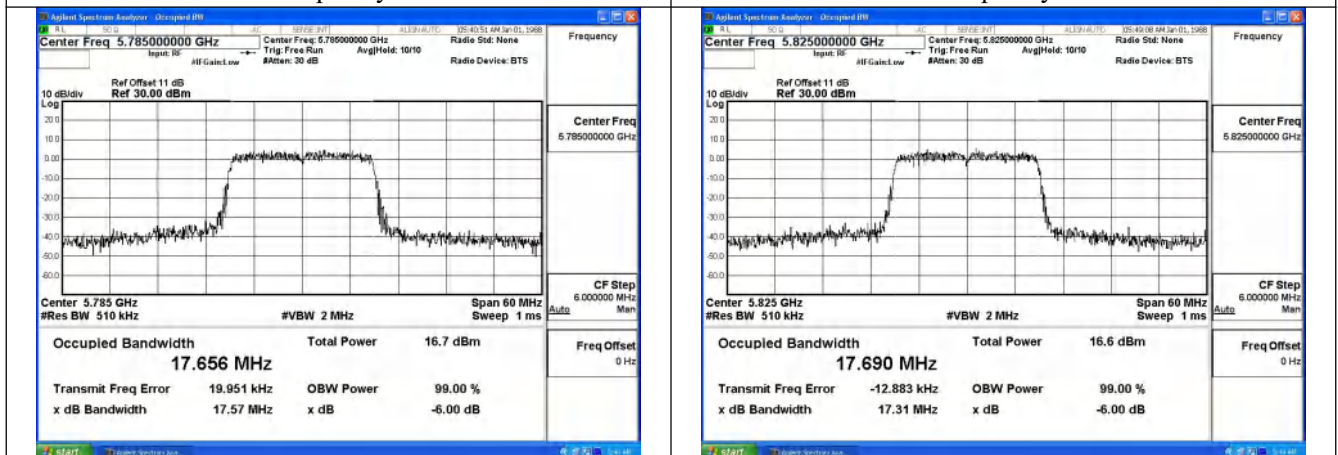
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5785MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5825MHz Ant:Chain0

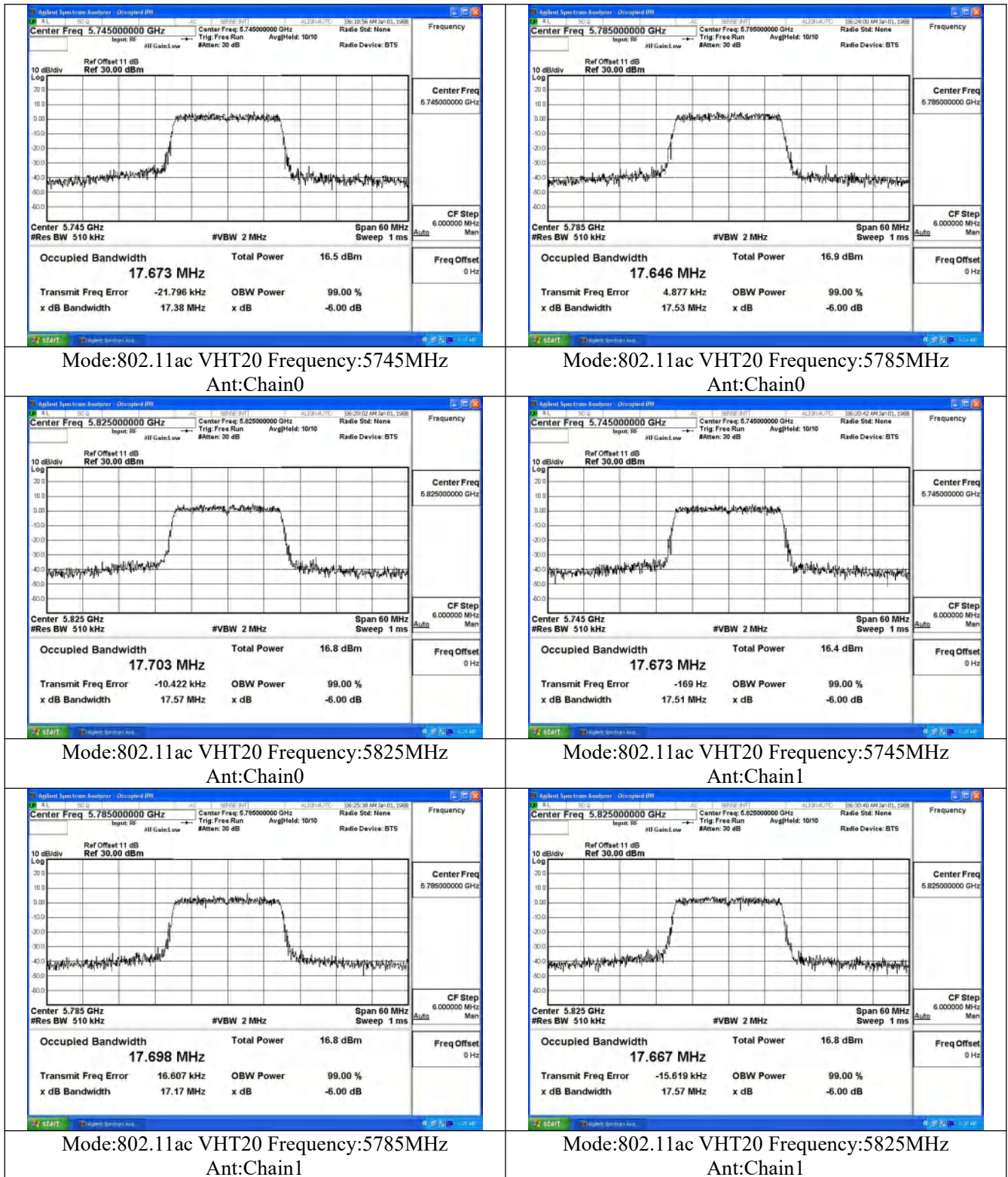
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain1



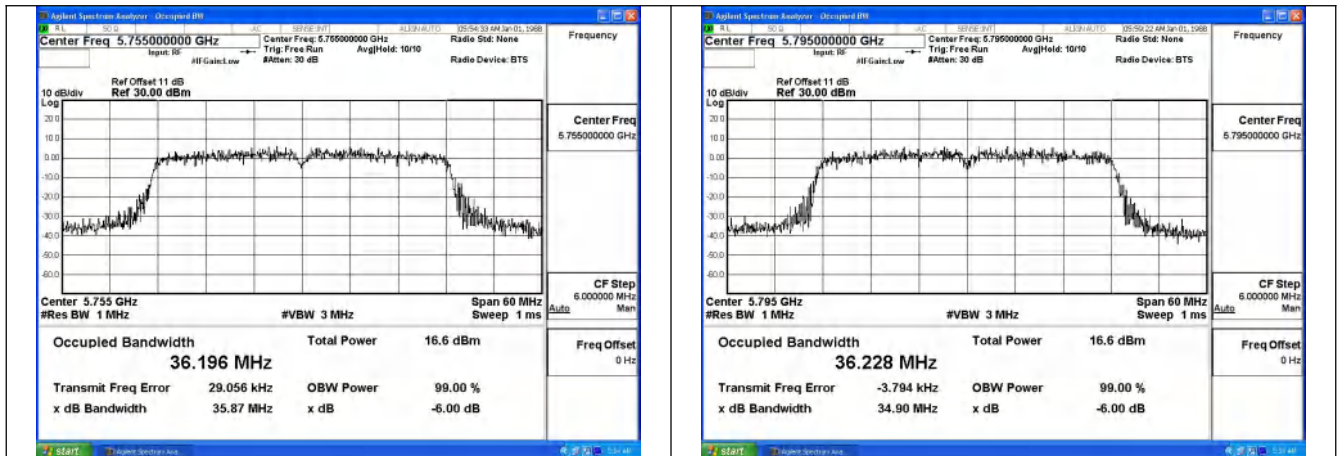
Mode:802.11n HT20 Frequency:5785MHz Ant:Chain1

Mode:802.11n HT20 Frequency:5825MHz Ant:Chain1

Test Mode: 802.11ac VHT20

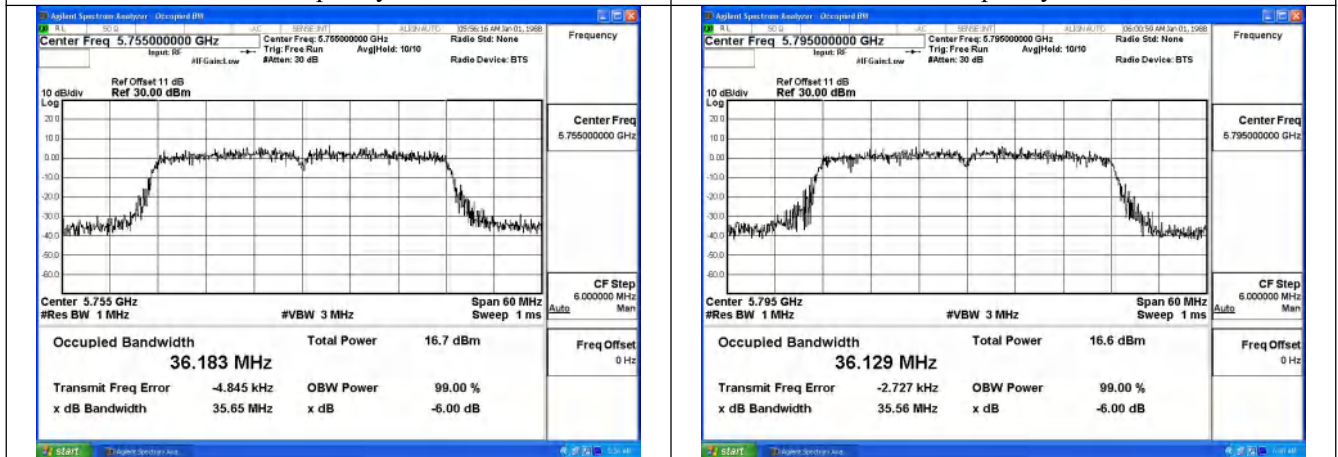


Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5755MHz Ant:Chain0

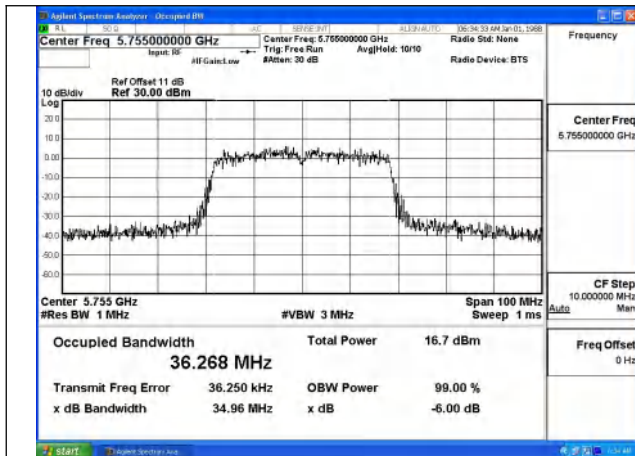
Mode:802.11n HT40 Frequency:5795MHz Ant:Chain0



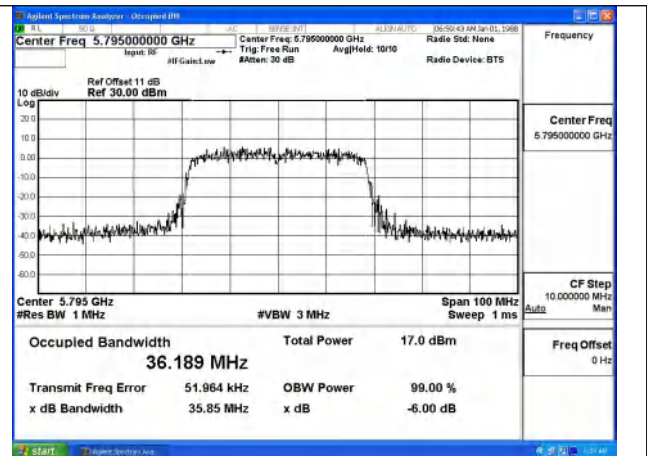
Mode:802.11n HT40 Frequency:5755MHz Ant:Chain1

Mode:802.11n HT40 Frequency:5795MHz Ant:Chain1

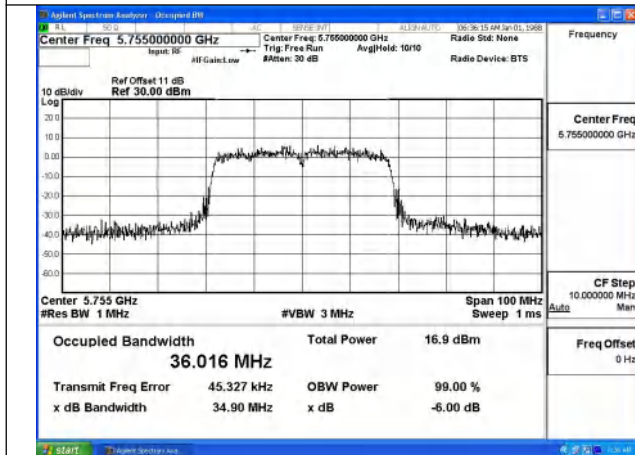
Test Mode: 802.11ac VHT40



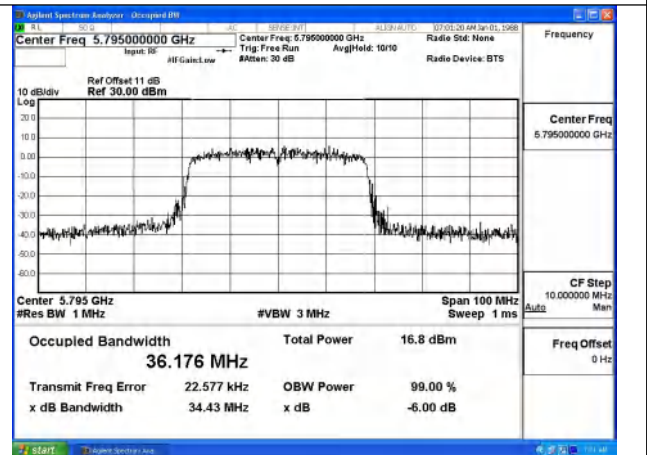
Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain0

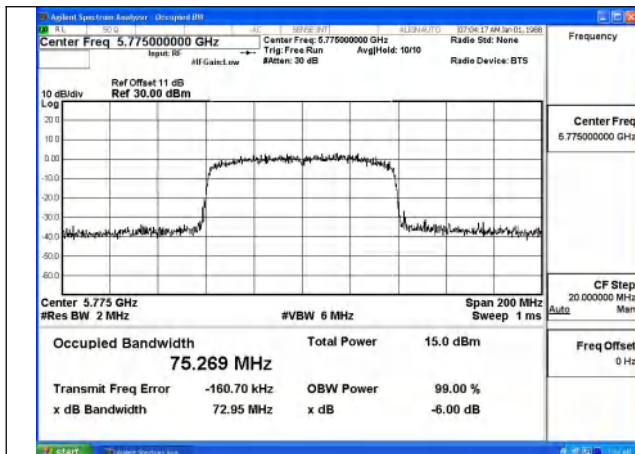


Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain1

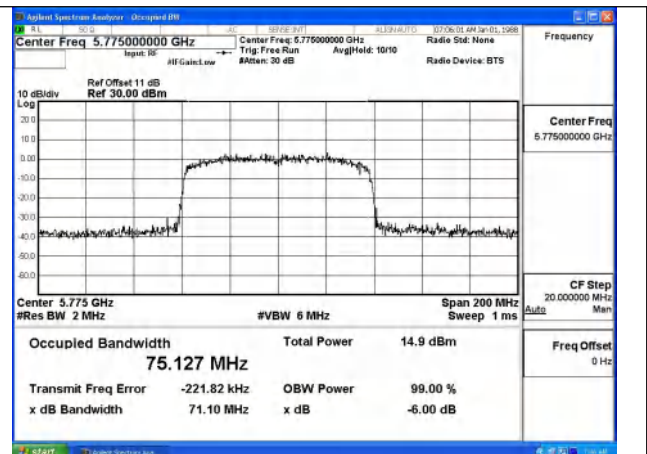


Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain1

6dB Bandwidth

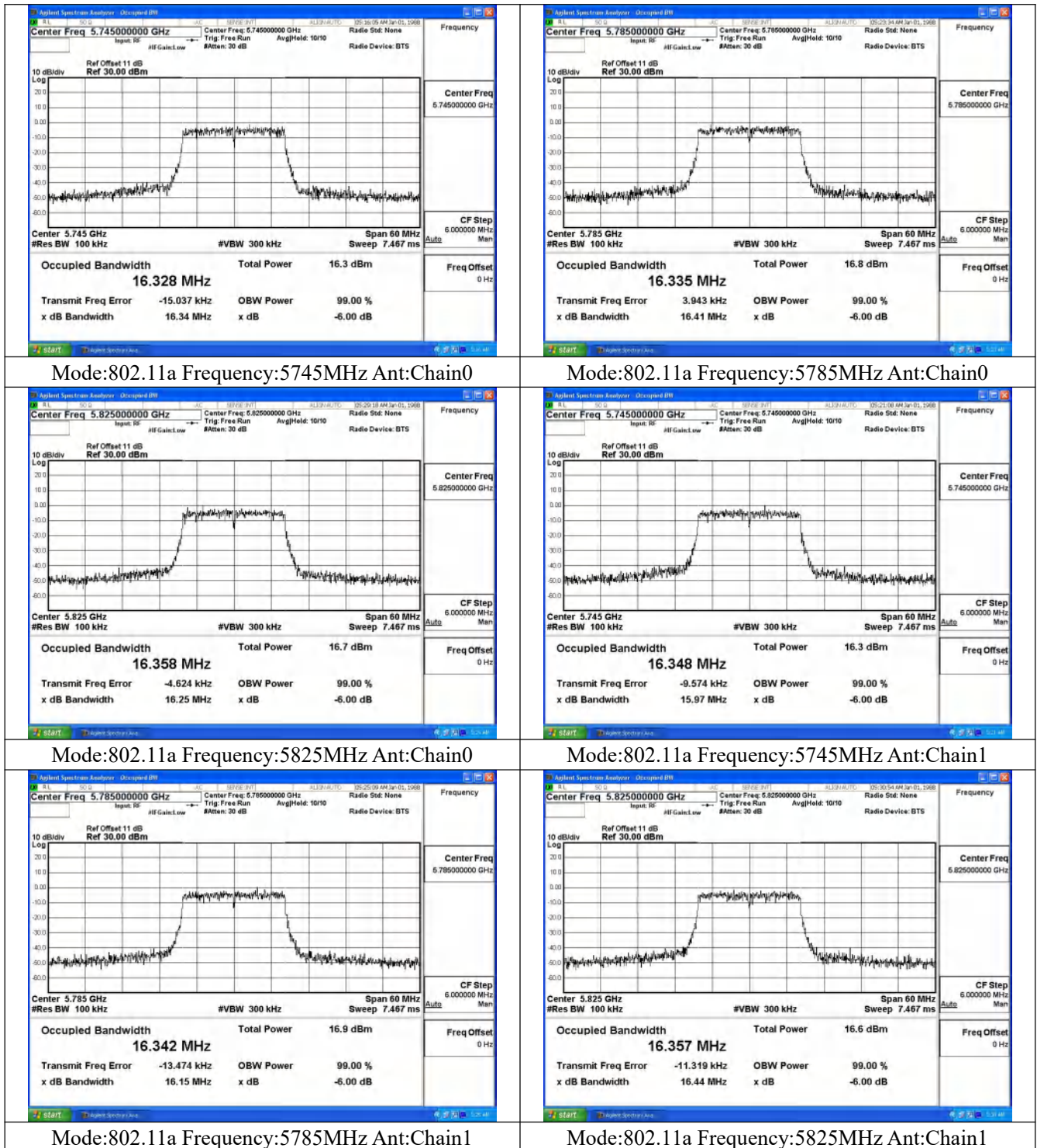
Offset 11dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	6dB Bandwidth (MHz)		
		5745MHz	5785MHz	5825MHz
802.11a	Chain0	16.34	16.41	16.25
802.11a	Chain1	15.97	16.15	16.44
802.11n HT20	Chain0	17.64	17.59	17.70
802.11n HT20	Chain1	16.78	17.56	17.66
802.11ac VHT20	Chain0	17.24	17.62	17.61
802.11ac VHT20	Chain1	17.67	17.58	17.54

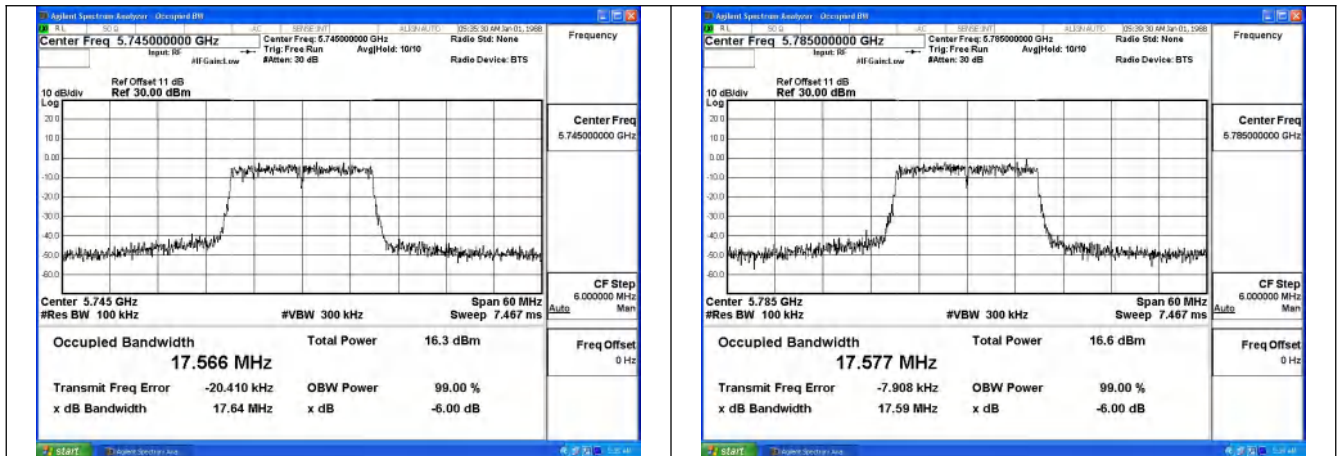
Test Mode	Antenna	6dB Bandwidth (MHz)		
		5755MHz	---	5795MHz
802.11n HT40	Chain0	36.32	---	34.74
802.11n HT40	Chain1	34.44	---	33.36
802.11ac VHT40	Chain0	36.45	---	35.98
802.11ac VHT40	Chain1	35.76	---	35.07

Test Mode	Antenna	6dB Bandwidth (MHz)		
		5775MHz	---	---
802.11ac VHT80	Chain0	69.89	---	---
802.11ac VHT80	Chain1	74.45	---	---

Test Mode: 802.11a

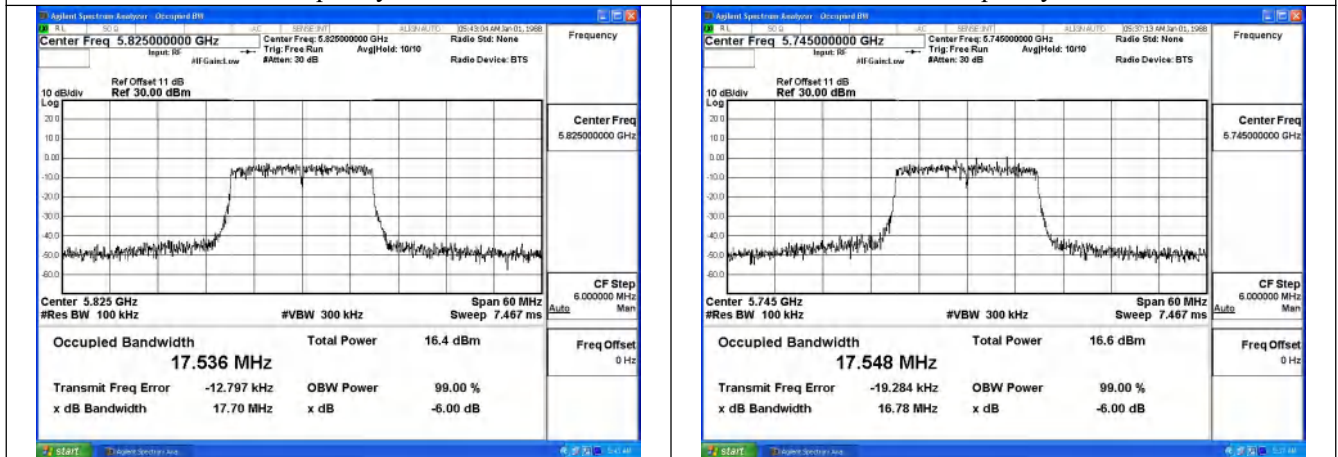


Test Mode: 802.11n HT20



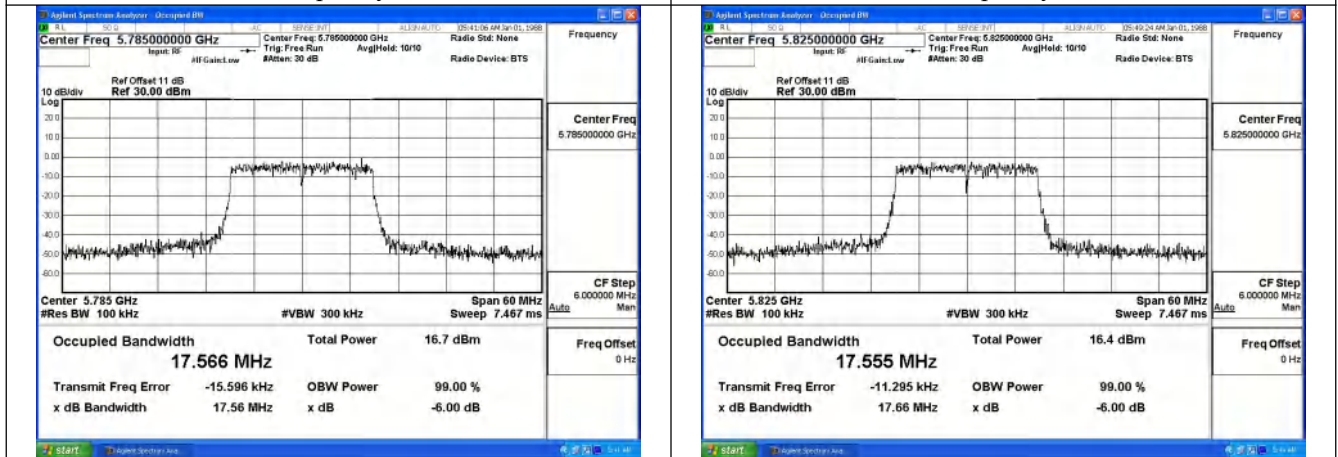
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5785MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5825MHz Ant:Chain0

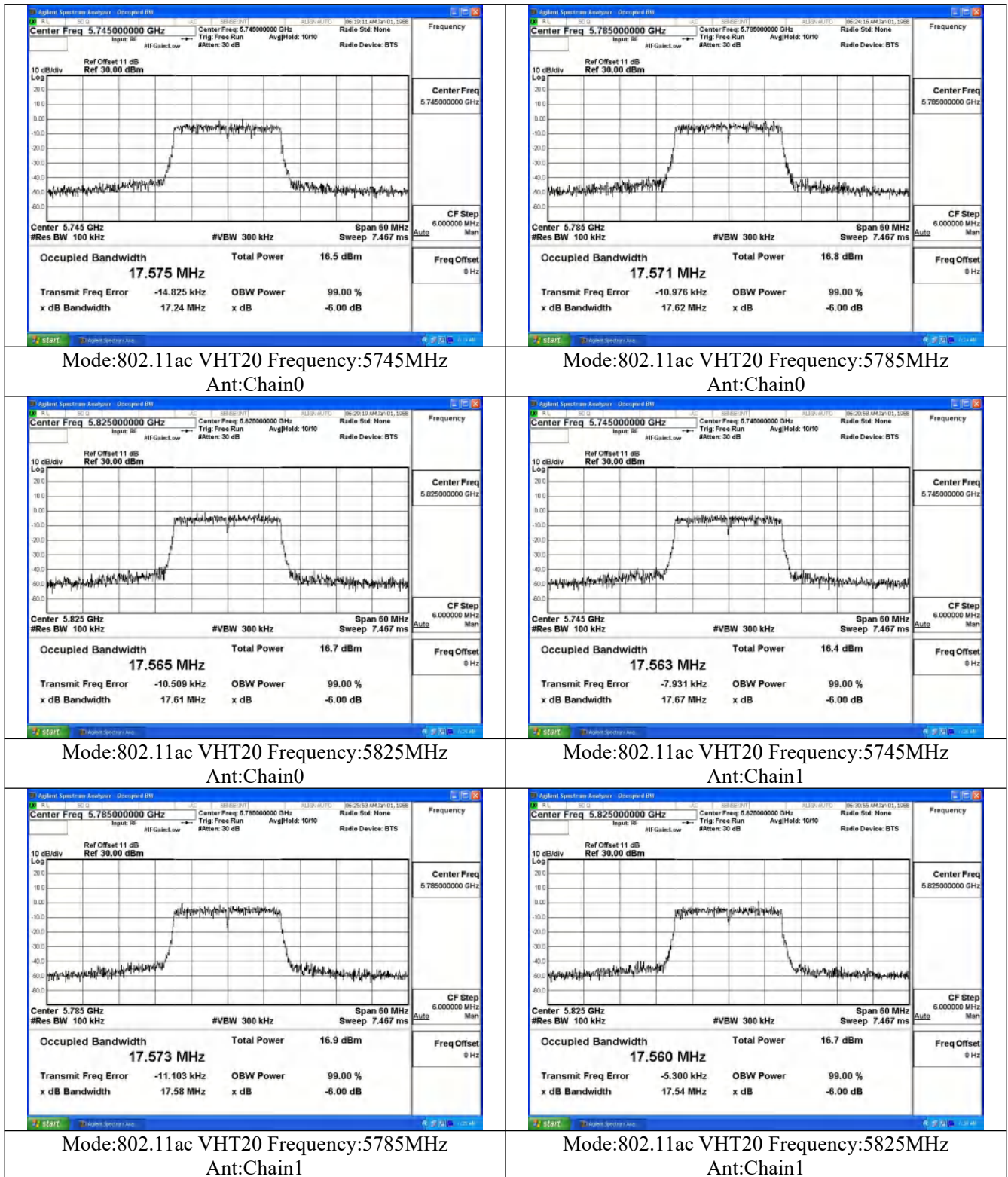
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain1



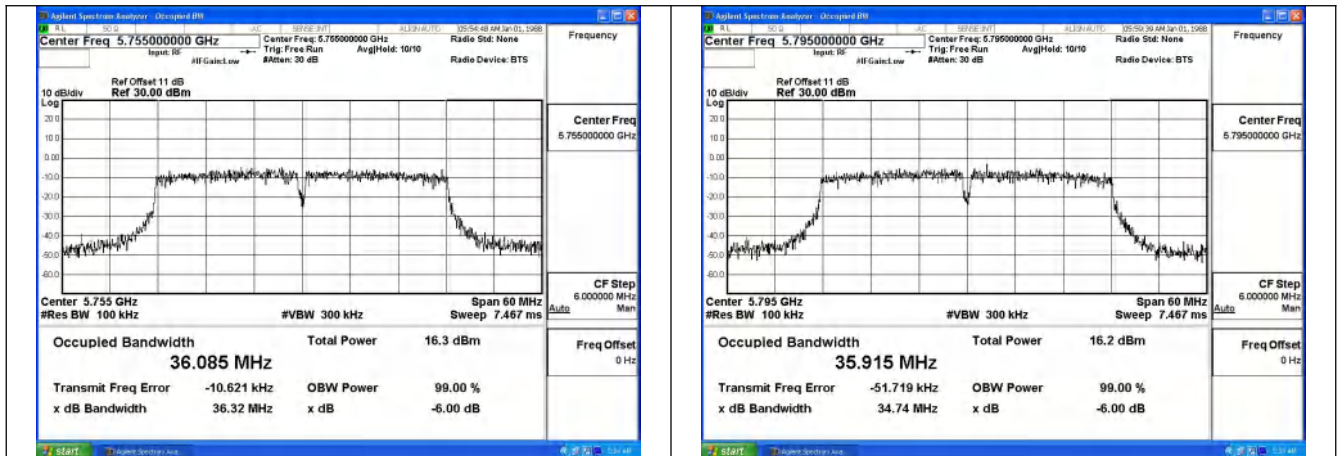
Mode:802.11n HT20 Frequency:5785MHz Ant:Chain1

Mode:802.11n HT20 Frequency:5825MHz Ant:Chain1

Test Mode: 802.11ac VHT20

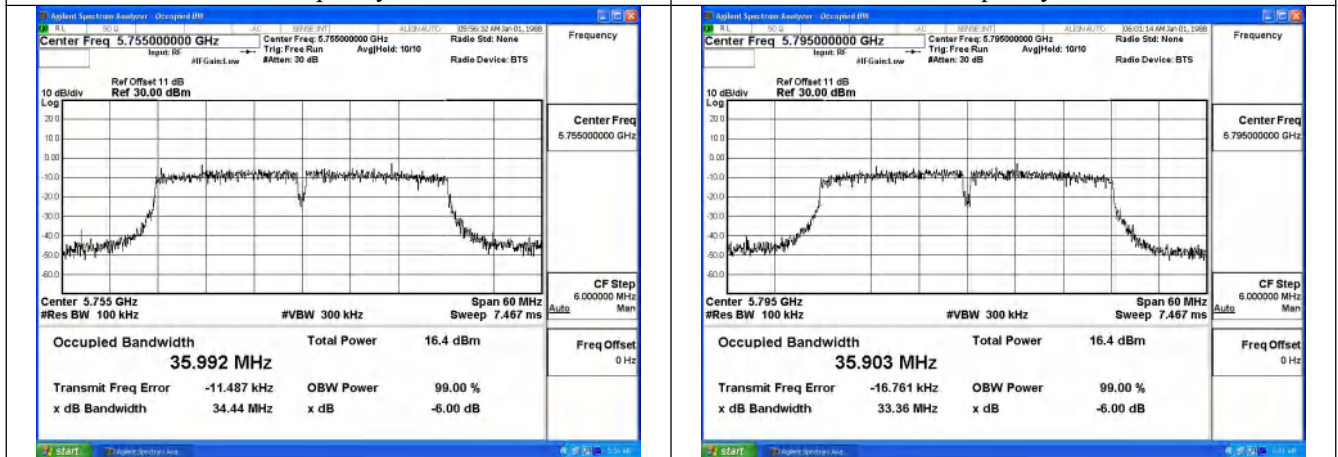


Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5755MHz Ant:Chain0

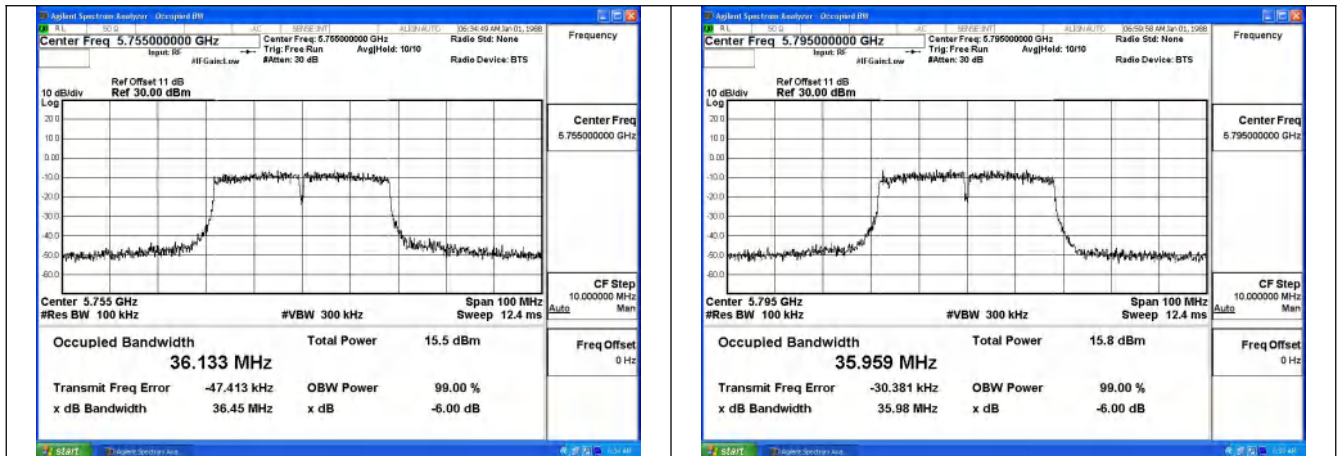
Mode:802.11n HT40 Frequency:5795MHz Ant:Chain0



Mode:802.11n HT40 Frequency:5755MHz Ant:Chain1

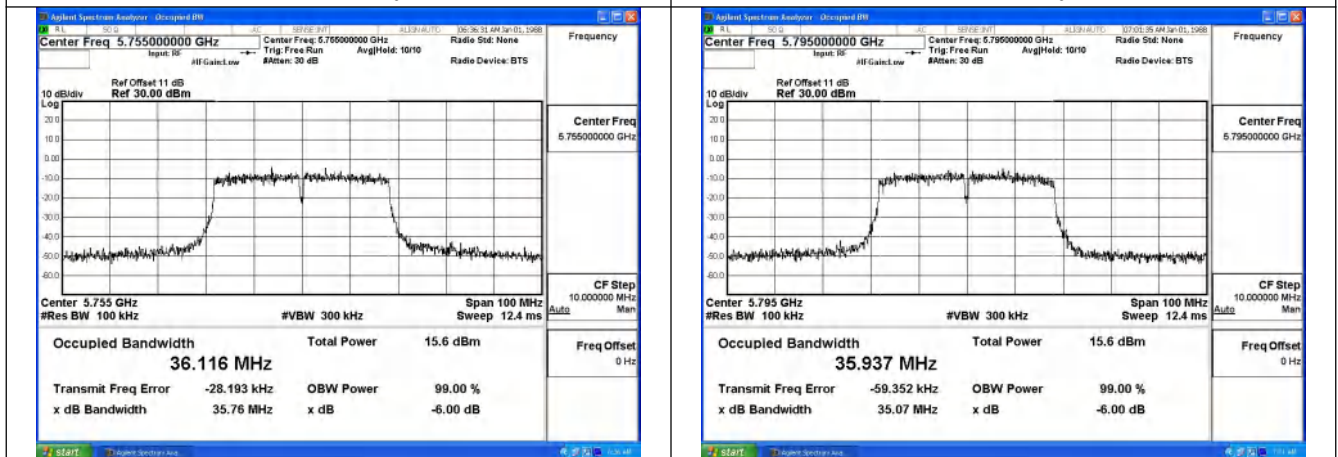
Mode:802.11n HT40 Frequency:5795MHz Ant:Chain1

Test Mode: 802.11ac VHT40



Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain0

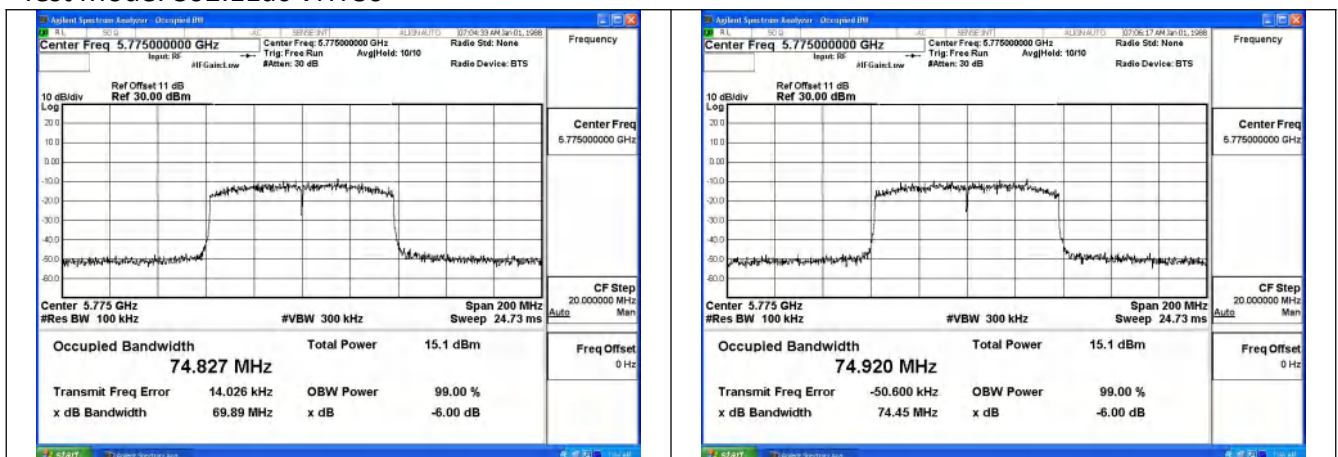
Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain1

Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain0

Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain1

Transmitter Power Spectral Density

Offset 11dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Tones	5745MHz		5785MHz		5825MHz	
			Correction Factor (dB)	Power Density (dBm/500KHz)	Correction Factor (dB)	Power Density (dBm/500KHz)	Correction Factor (dB)	Power Density (dBm/500KHz)
802.11a	Chain0	NA	0.00	-0.361	0.00	-0.319	0.00	-0.463
802.11a	Chain1	NA	0.00	-0.536	0.00	-0.291	0.00	-0.414
802.11n HT20	Chain0	NA	0.00	-1.035	0.00	-0.529	0.00	-0.553
802.11n HT20	Chain1	NA	0.00	-0.930	0.00	-0.722	0.00	-0.851
802.11n HT20	MIMO	NA	0.00	2.028	0.00	2.386	0.00	2.311
802.11ac VHT20	Chain0	NA	0.00	-0.800	0.00	-0.386	0.00	-0.555
802.11ac VHT20	Chain1	NA	0.00	-0.801	0.00	-0.470	0.00	-0.337
802.11ac VHT20	MIMO	NA	0.00	2.210	0.00	2.583	0.00	2.566

Note: As measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result.

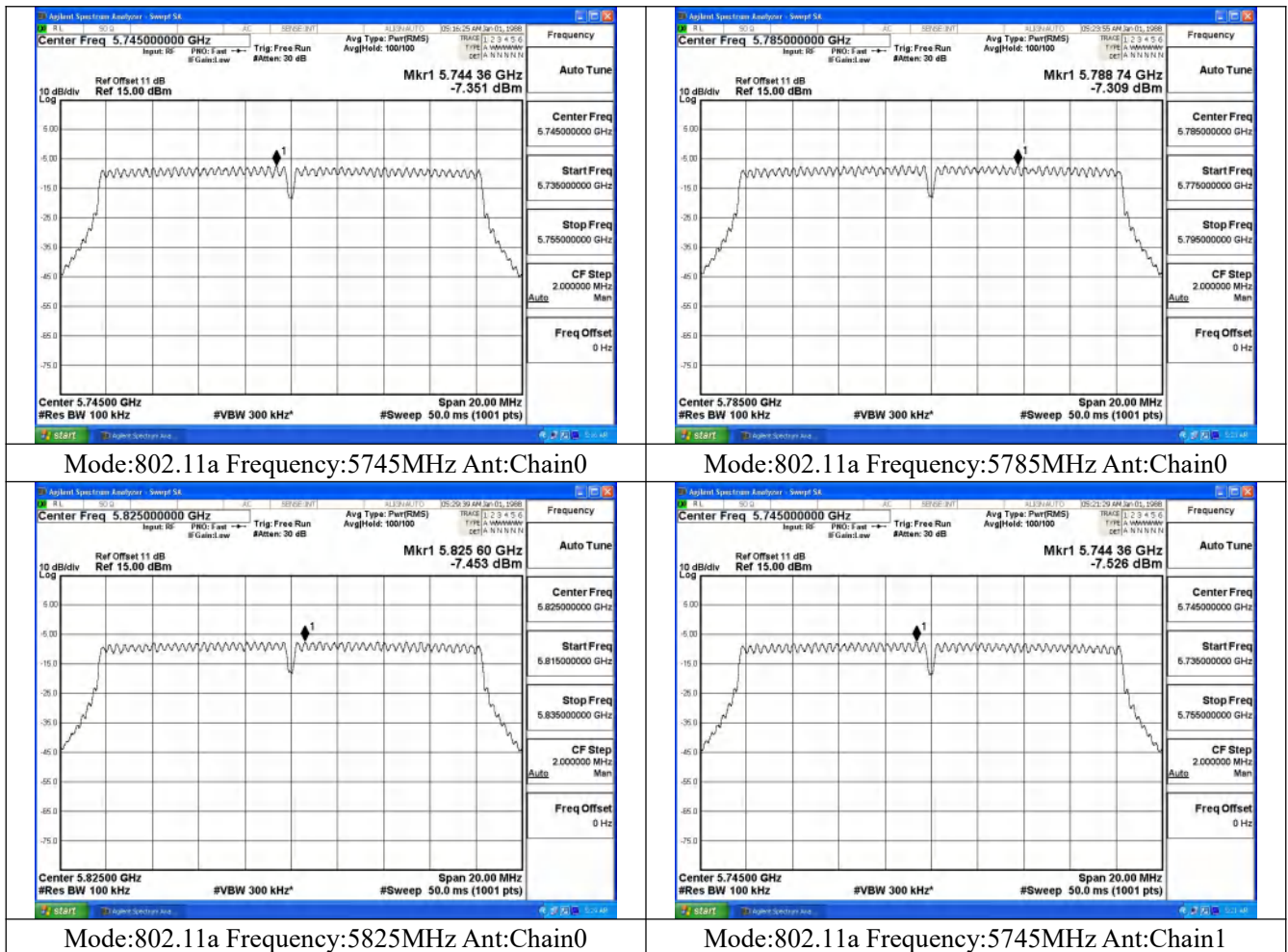
Test Mode	Antenna	Tones	5755MHz		---		5795MHz	
			Correction Factor (dB)	Power Density (dBm/500KHz)	Correction Factor (dB)	Power Density (dBm/500KHz)	Correction Factor (dB)	Power Density (dBm/500KHz)
802.11n HT40	Chain0	NA	0.00	-3.677	---	---	0.00	-3.711
802.11n HT40	Chain1	NA	0.00	-3.602	---	---	0.00	-3.617
802.11n HT40	MIMO	NA	0.00	-0.629	---	---	0.00	-0.653
802.11ac VHT40	Chain0	NA	0.00	-3.737	---	---	0.00	-3.539
802.11ac VHT40	Chain1	NA	0.00	-3.803	---	---	0.00	-3.458
802.11ac VHT40	MIMO	NA	0.00	-0.760	---	---	0.00	-0.488

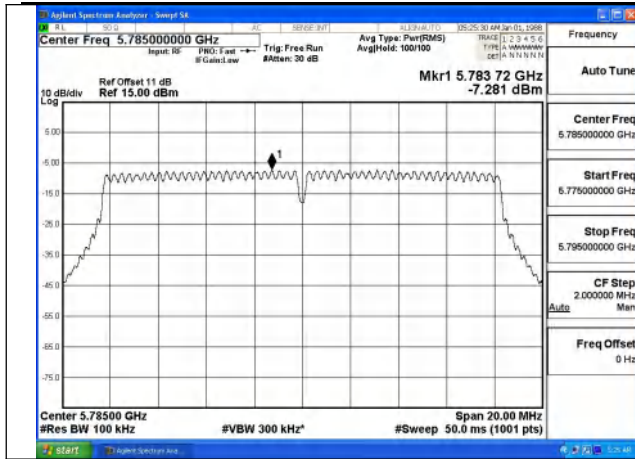
Note: As measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result.

Test Mode	Antenna	Tones	5775MHz		---		---	
			Correction Factor (dB)	Power Density (dBm/500KHz)	Correction Factor (dB)	Power Density (dBm/500KHz)	Correction Factor (dB)	Power Density (dBm/500KHz)
802.11ac VHT80	Chain0	NA	0.00	-6.203	---	---	---	---
802.11ac VHT80	Chain1	NA	0.00	-6.368	---	---	---	---
802.11ac VHT80	MIMO	NA	0.00	-3.274	---	---	---	---

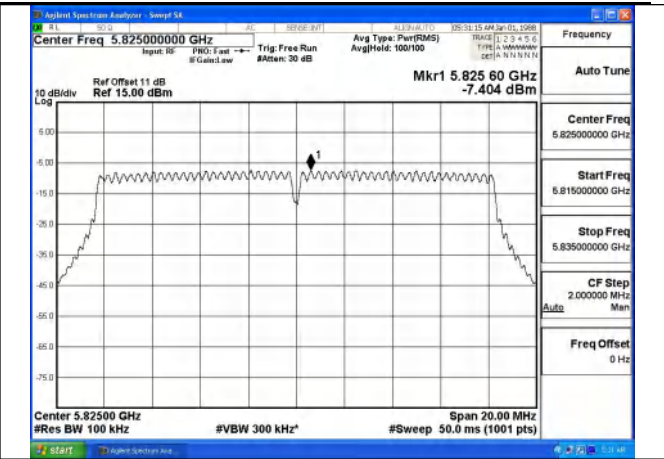
Note: As measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result.

Test Mode: 802.11a



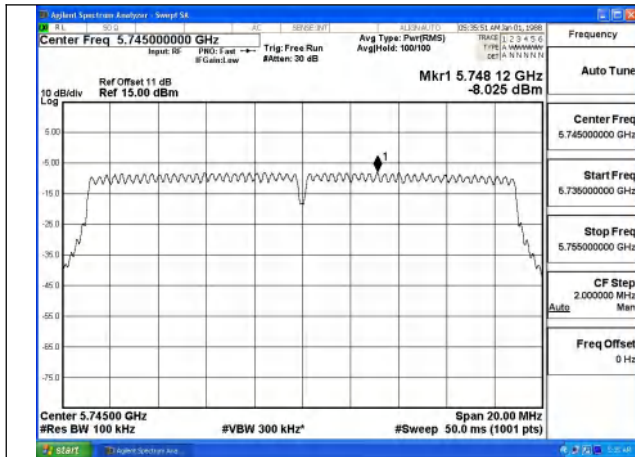


Mode:802.11a Frequency:5785MHz Ant:Chain1

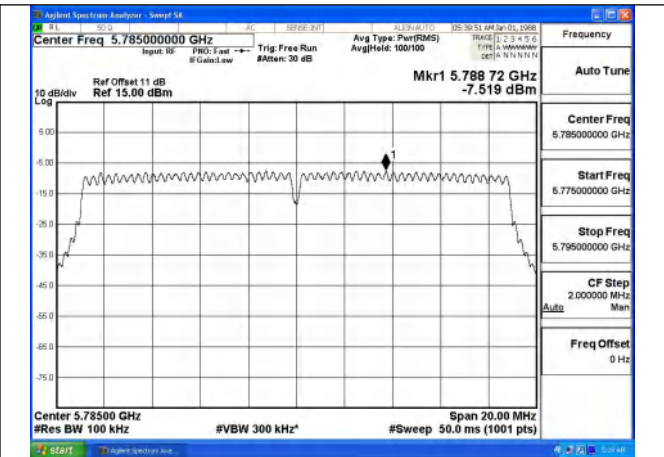


Mode:802.11a Frequency:5825MHz Ant:Chain1

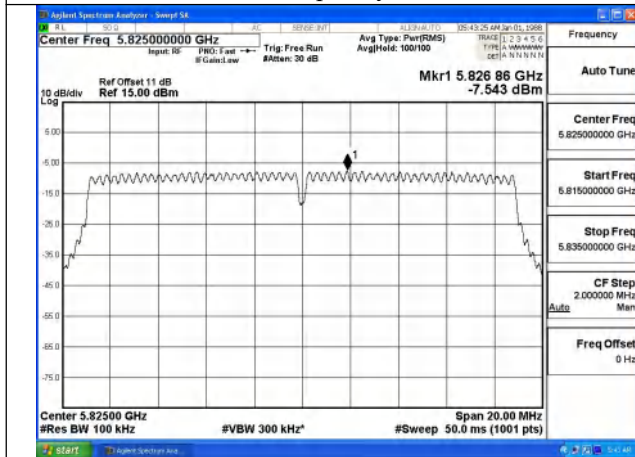
Test Mode: 802.11n HT20



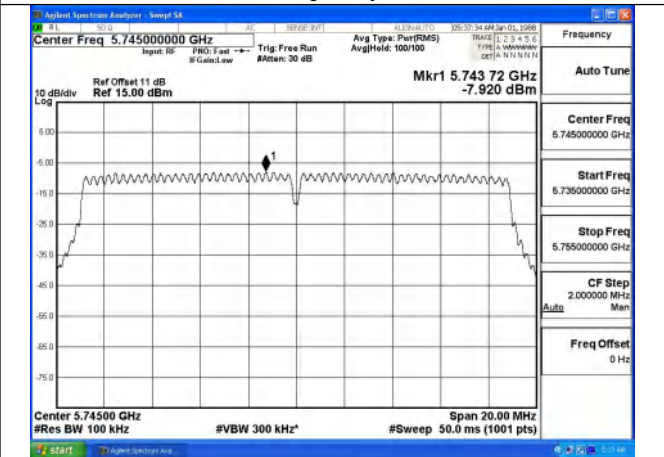
Mode:802.11n HT20 Frequency:5745MHz Ant:Chain0



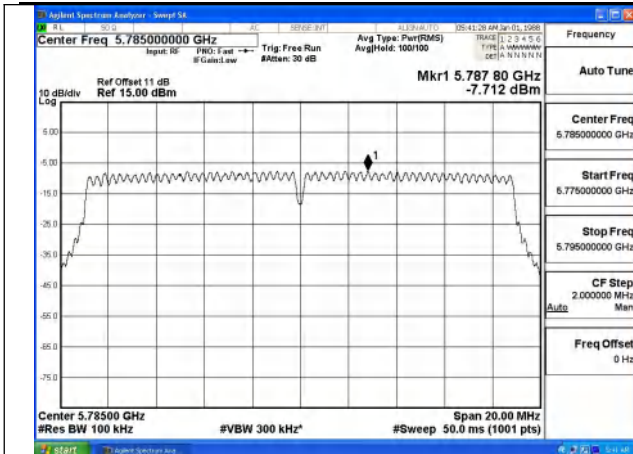
Mode:802.11n HT20 Frequency:5785MHz Ant:Chain0



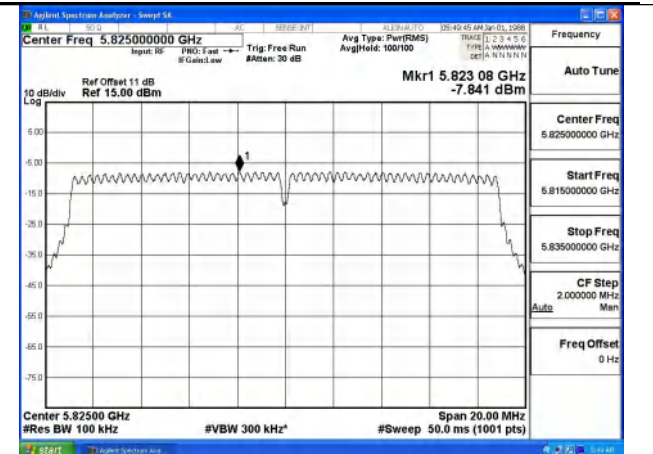
Mode:802.11n HT20 Frequency:5825MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5745MHz Ant:Chain1

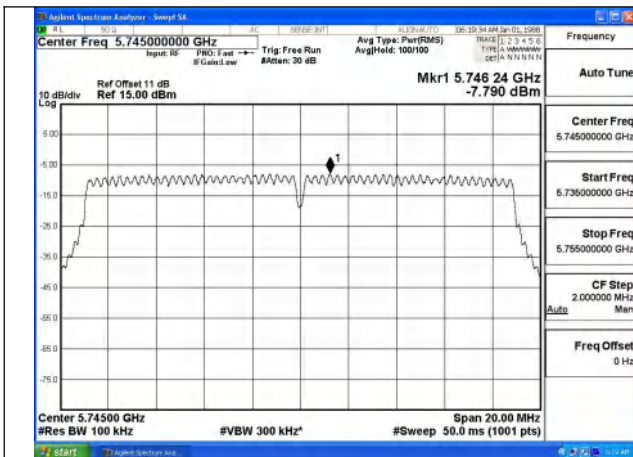


Mode:802.11n HT20 Frequency:5785MHz Ant:Chain1

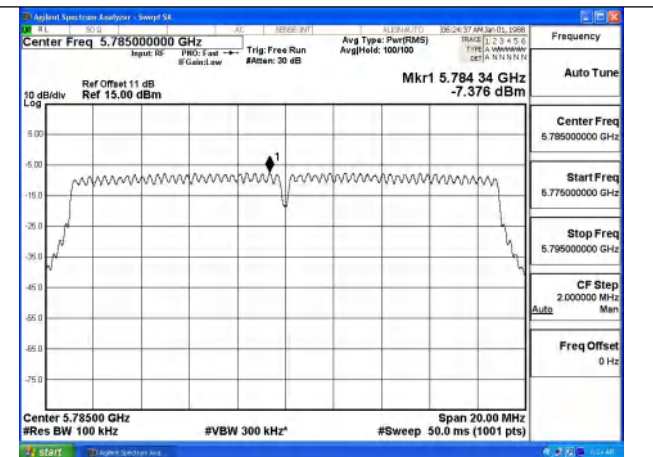


Mode:802.11n HT20 Frequency:5825MHz Ant:Chain1

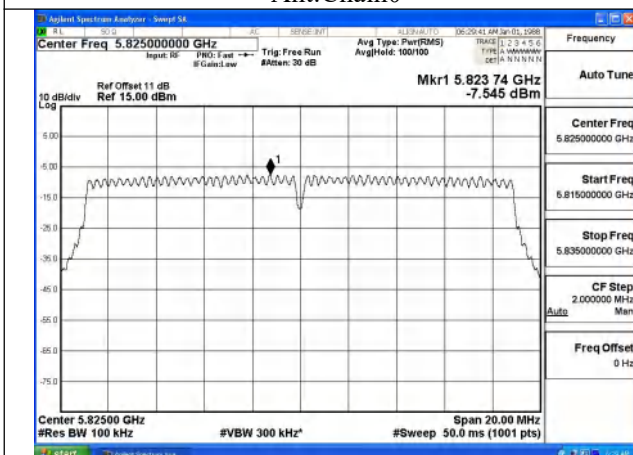
Test Mode: 802.11ac VHT20



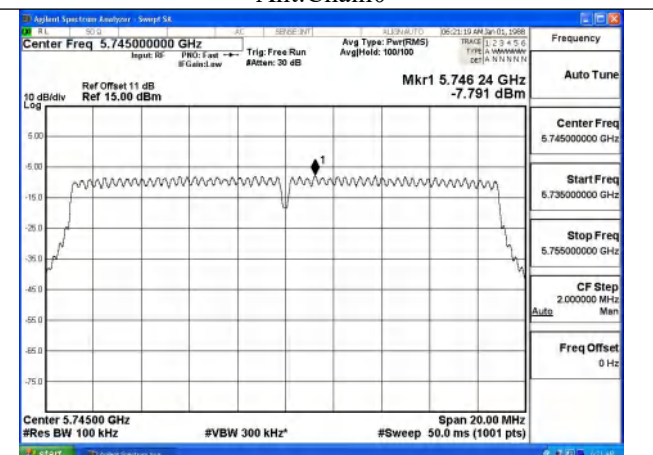
Mode:802.11ac VHT20 Frequency:5745MHz
Ant:Chain0



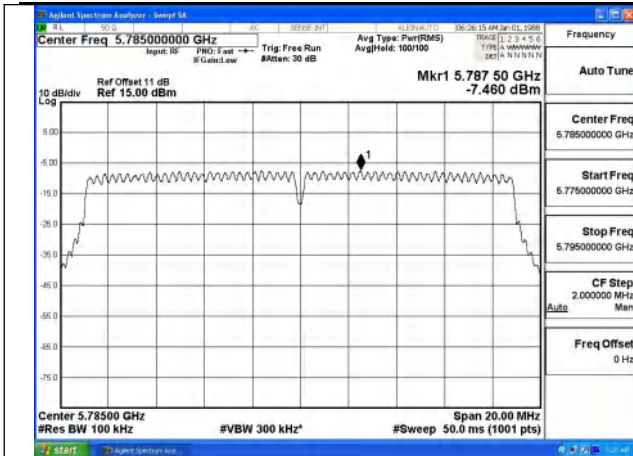
Mode:802.11ac VHT20 Frequency:5785MHz
Ant:Chain0



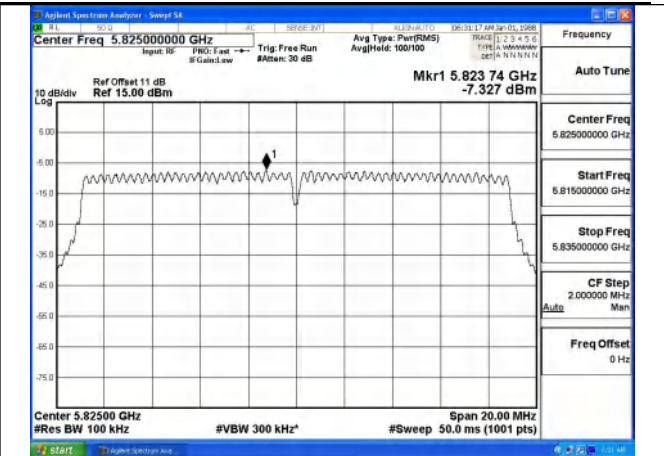
Mode:802.11ac VHT20 Frequency:5825MHz
Ant:Chain0



Mode:802.11ac VHT20 Frequency:5745MHz
Ant:Chain1

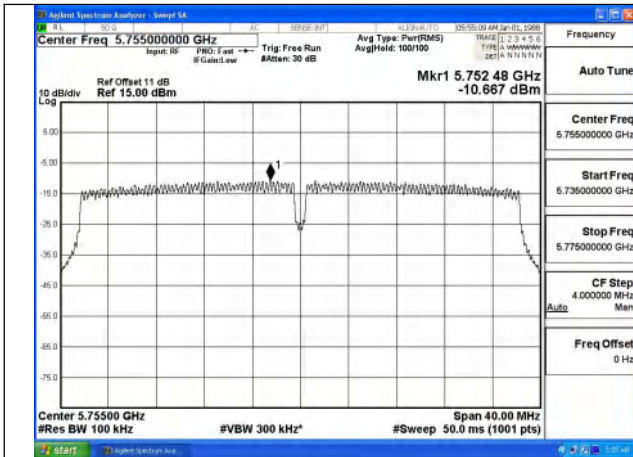


Mode:802.11ac VHT20 Frequency:5785MHz
Ant:Chain1

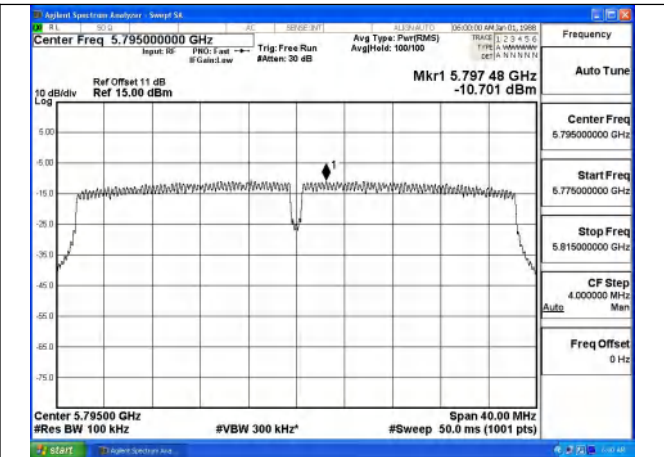


Mode:802.11ac VHT20 Frequency:5825MHz
Ant:Chain1

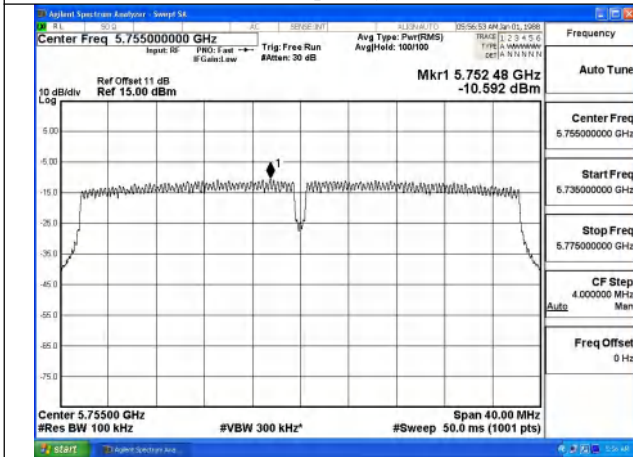
Test Mode: 802.11n HT40



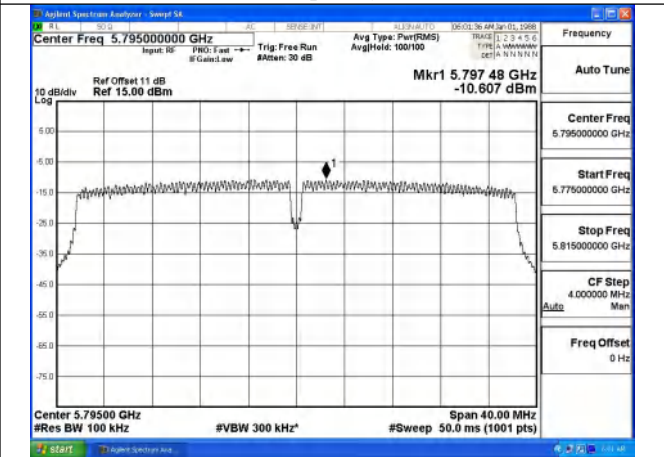
Mode:802.11n HT40 Frequency:5755MHz Ant:Chain0



Mode:802.11n HT40 Frequency:5795MHz Ant:Chain0

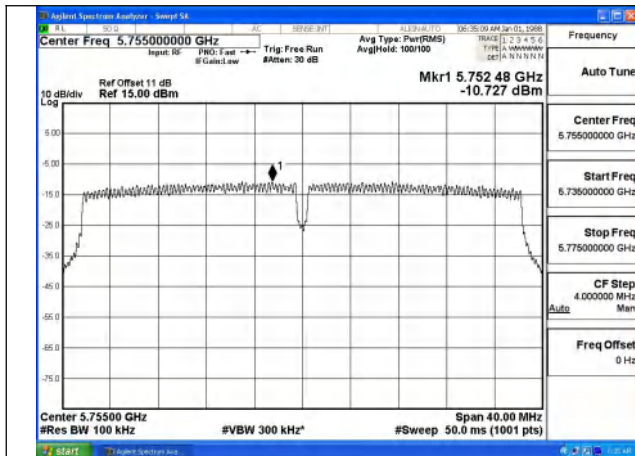


Mode:802.11n HT40 Frequency:5755MHz Ant:Chain1

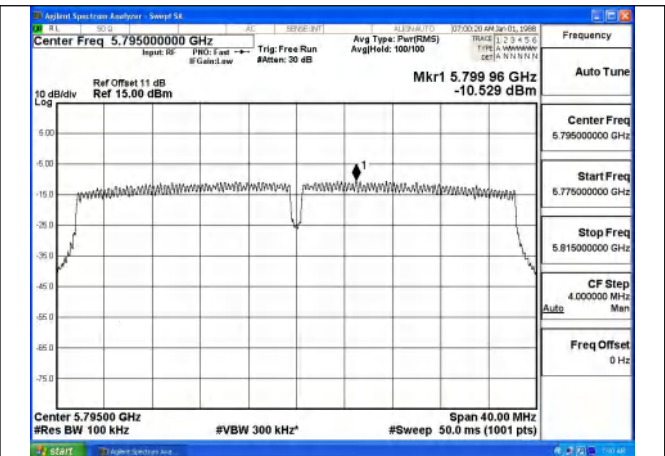


Mode:802.11n HT40 Frequency:5795MHz Ant:Chain1

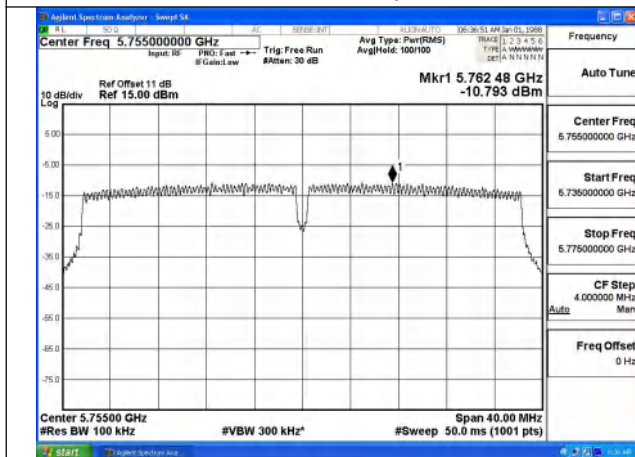
Test Mode: 802.11ac VHT40



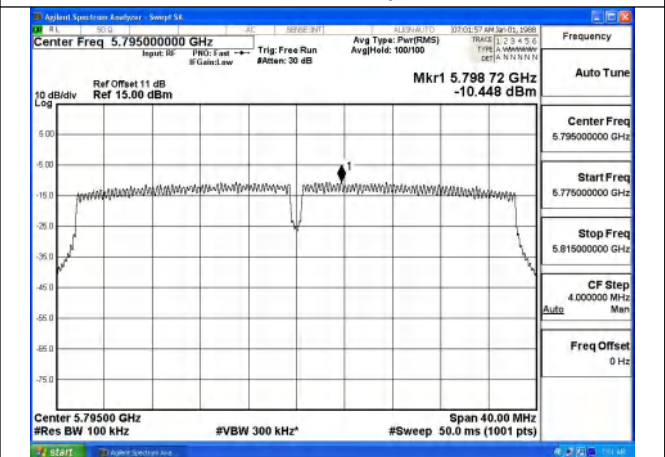
Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain0

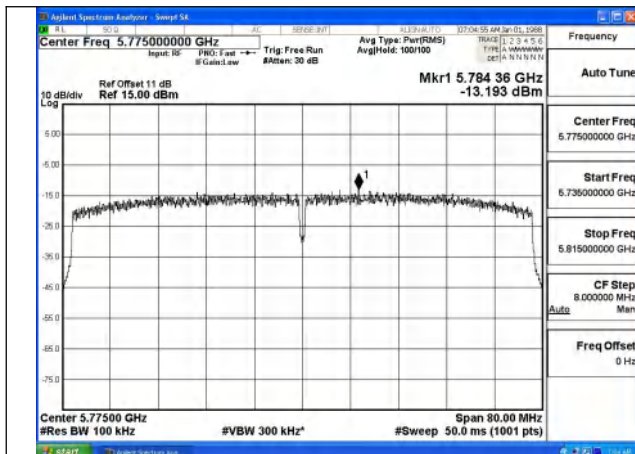


Mode:802.11ac VHT40 Frequency:5755MHz
Ant:Chain1

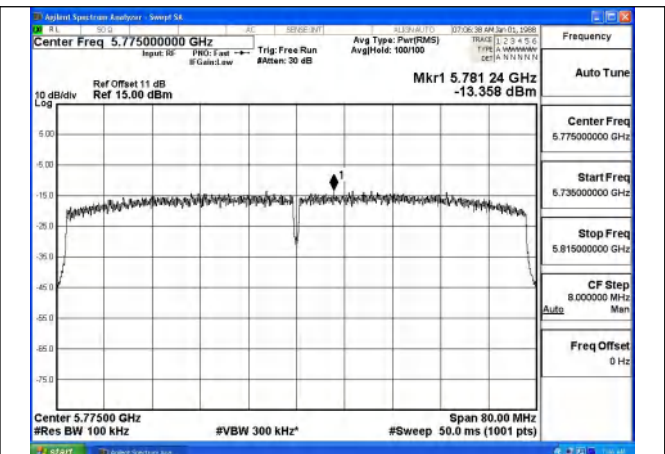


Mode:802.11ac VHT40 Frequency:5795MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5775MHz
Ant:Chain1