TEST REPORT

Appendix C: Test results

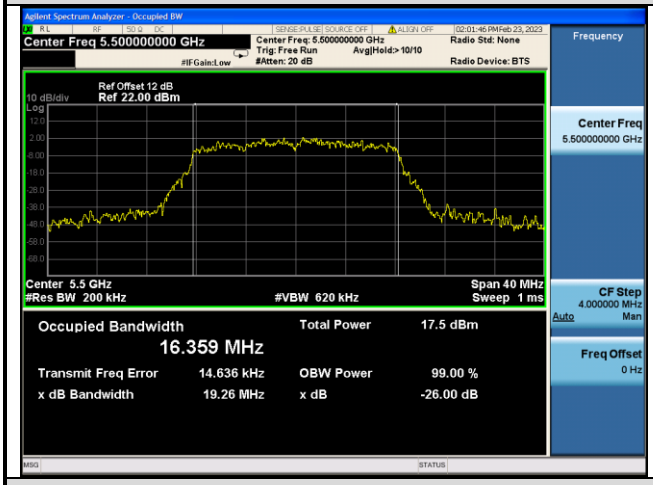
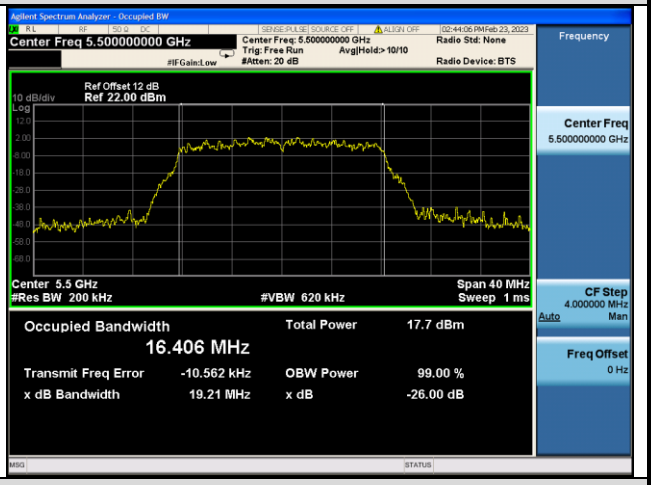
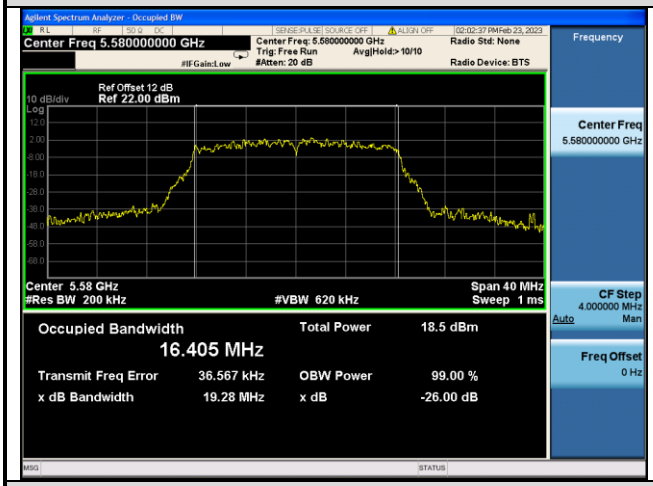
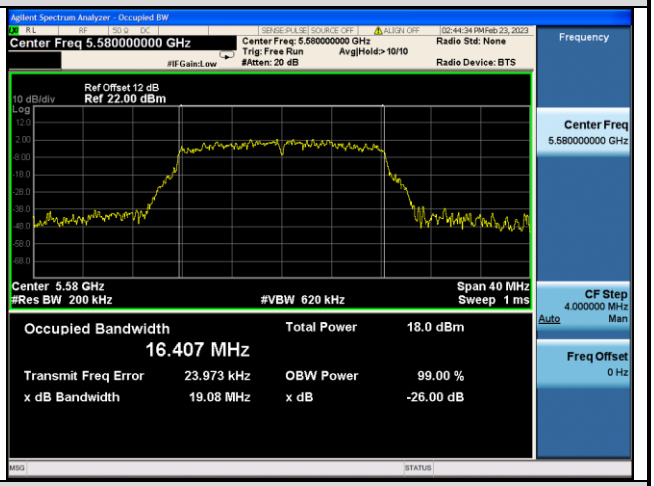
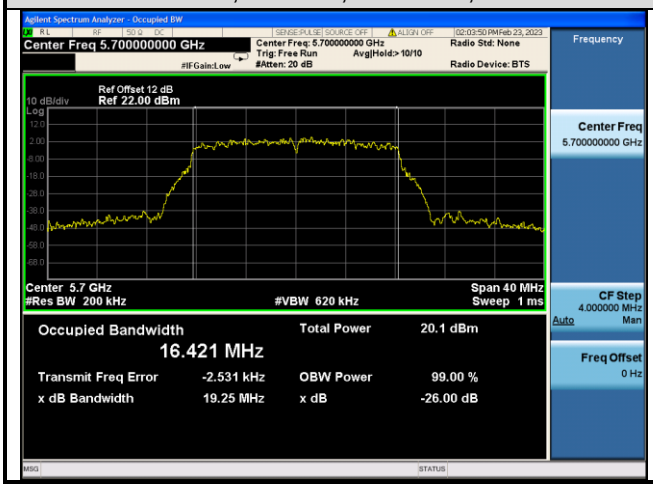
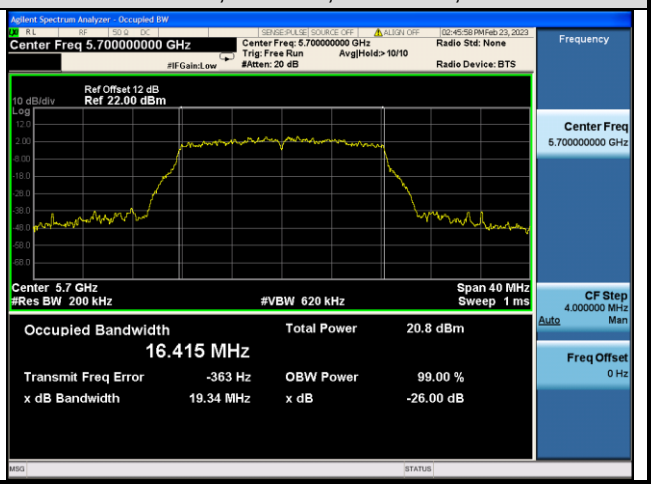
1 26 dB Bandwidth & 99% Occupied Bandwidth

1.1 Test Data

U-NII-2c 26 dB Bandwidth & 99% Occupied Bandwidth					
Mode	Test Frequency (MHz)	Ant	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Result
802.11a	5500	Ant0	19.26	16.491	Pass
		Ant1	19.21	16.459	Pass
	5580	Ant0	19.28	16.509	Pass
		Ant1	19.08	16.531	Pass
	5700	Ant0	19.25	16.413	Pass
		Ant1	19.34	16.481	Pass

1.2 Test Plots

26 dB Bandwidth:

U-NII-2c,802.11a,5500MHz, Ant0	U-NII-2c,802.11a,5500MHz, Ant1
	
U-NII-2c,802.11a,5580MHz, Ant0	U-NII-2c,802.11a,5580MHz, Ant1
	
U-NII-2c,802.11a,5700MHz, Ant0	U-NII-2c,802.11a,5700MHz, Ant1
	

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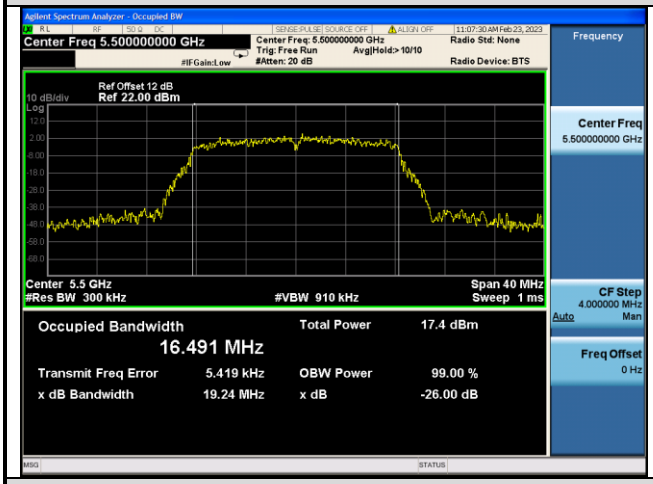
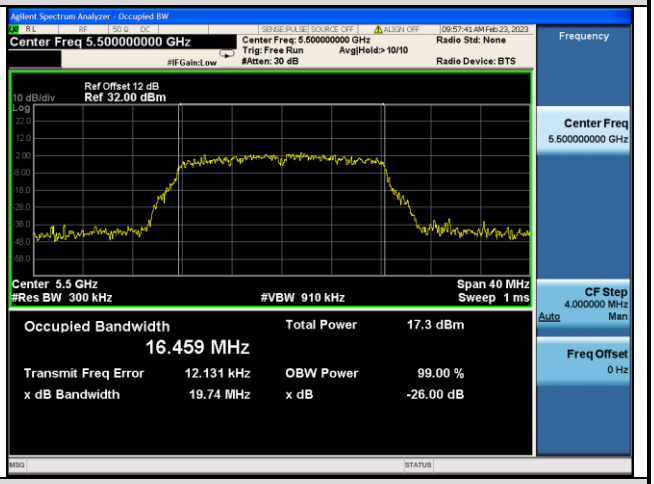
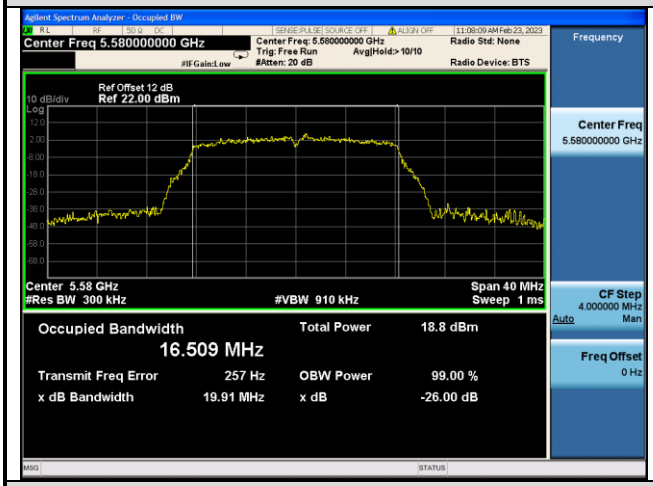
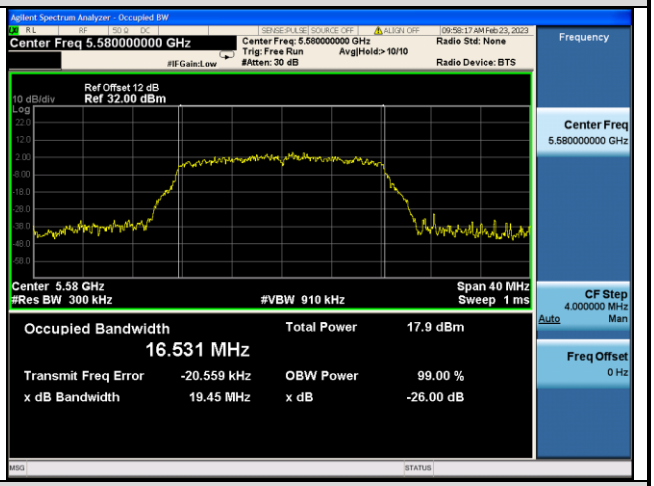
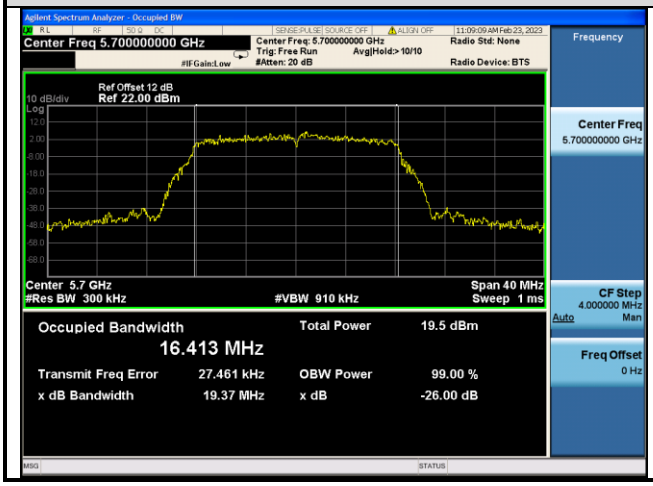
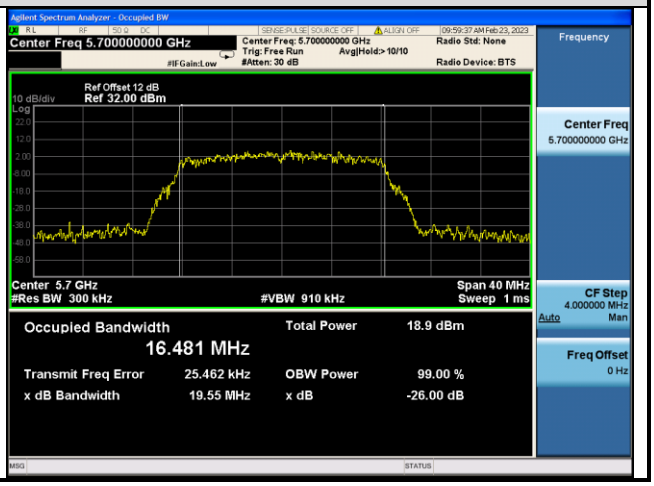
99% Occupied Bandwidth:

U-NII-2c,802.11a,5500MHz, Ant0	U-NII-2c,802.11a,5500MHz, Ant1
	
U-NII-2c,802.11a,5580MHz, Ant0	U-NII-2c,802.11a,5580MHz, Ant1
	
U-NII-2c,802.11a,5700MHz, Ant0	U-NII-2c,802.11a,5700MHz, Ant1
	

2 AVGSA Output Power

2.1 Test Data

U-NII-2c AVGSA Output Power						
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	Max Power (dBm)	FCC Limit (dBm)	Result
802.11a	5500	Ant0	1.19	12.92	23.81	Pass
		Ant1		12.27		
	5580	Ant0		13.04	23.81	Pass
		Ant1		12.45		
	5700	Ant0		13.63	23.81	Pass
		Ant1		13.46		

Note: The Duty Cycle Factor is compensated in the Max Power.

Frequency Band	Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Completely uncorrelated chains directional	Power Limits (dBm)
U-NII-1	4.39	4.39	4.39	24
U-NII-2A	4.39	4.39	4.39	24
U-NII-2C	4.39	4.39	4.39	24
U-NII-3	4.39	4.39	4.39	30
Basic methodology with N_{ANT} transmit antennas, each with the same directional gain G_{ANT} dBi, being driven by N_{ANT} transmitter outputs of equal power. Directional gain is to be computed as follows:				
If all transmit signals are completely uncorrelated with each other,				
Directional gain = G_{ANT}				

IEEE 802.11a: the minimum 26 dB emission bandwidth is 19.08 MHz

11 dBm + 10log10 (19.08) = 23.81 dBm

23.81 dBm < 24 dBm

So the 23.81 dBm limit applicable

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AVGSA Power Spectral Density

2.2 Test Data

U-NII-2c AVGSA Power Spectral Density							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	PSD (dBm)	RBW (kHz)	FCC Limit (dBm)	Result
802.11a	5500	Ant0	1.19	2.825	1000	11	Pass
		Ant1		2.119			
	5580	Ant0		3.259	1000	11	Pass
		Ant1		3.604			
	5700	Ant0		4.330	1000	11	Pass
		Ant1		4.234			

Note: The Duty Cycle Factor is compensated in the PSD.

Frequency Band	Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Completely uncorrelated chains directional	PSD Limits (dBm/MHz or dBm/500kHz)
U-NII-1	4.39	4.39	4.39	11
U-NII-2A	4.39	4.39	4.39	11
U-NII-2C	4.39	4.39	4.39	11
U-NII-3	4.39	4.39	4.39	30
Basic methodology with N_{ANT} transmit antennas, each with the same directional gain G_{ANT} dBi, being driven by N_{ANT} transmitter outputs of equal power. Directional gain is to be computed as follows:				
If all transmit signals are completely uncorrelated with each other,				
Directional gain = G_{ANT}				

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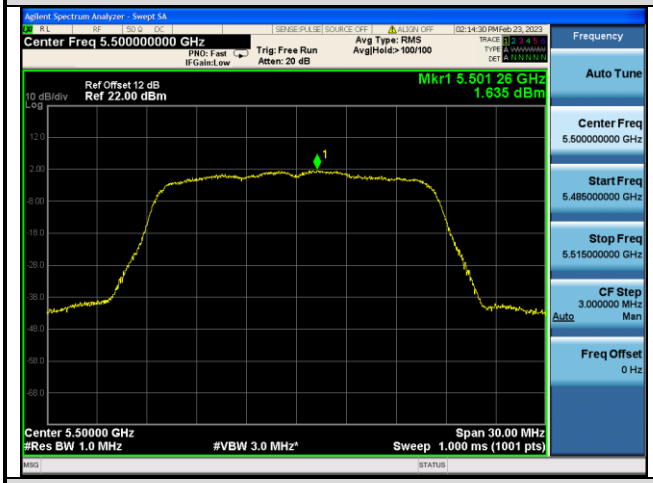
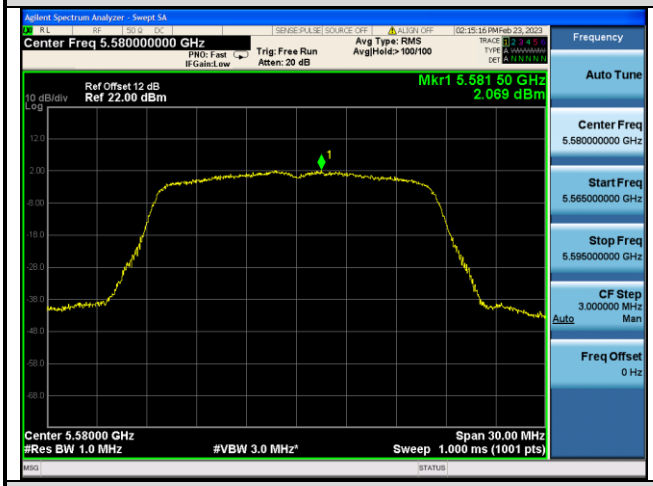
2.3 Test Plots

U-NII-2c,802.11a,5500MHz, Ant0	U-NII-2c,802.11a,5500MHz, Ant1
	
U-NII-2c,802.11a,5580MHz, Ant0	U-NII-2c,802.11a,5580MHz, Ant1
	
U-NII-2c,802.11a,5700MHz, Ant0	U-NII-2c,802.11a,5700MHz, Ant1