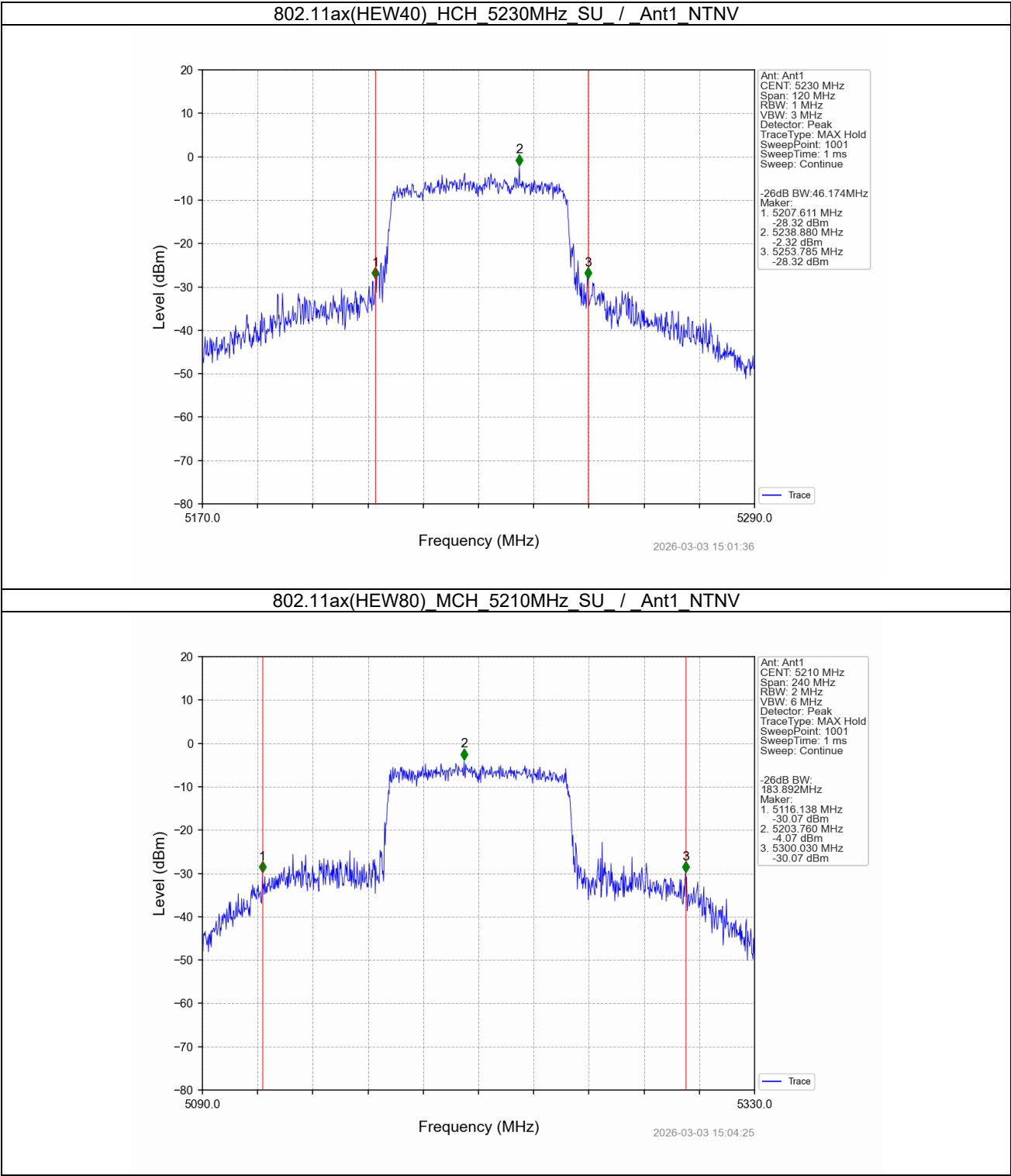




4.6 Minimum Emission Bandwidth (6dB Bandwidth)

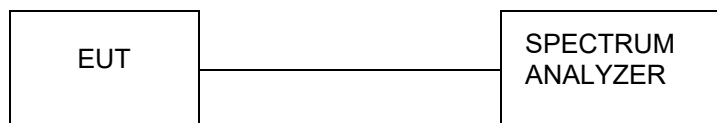
Limit

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth 3 x RBW.
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Configuration



Test Results

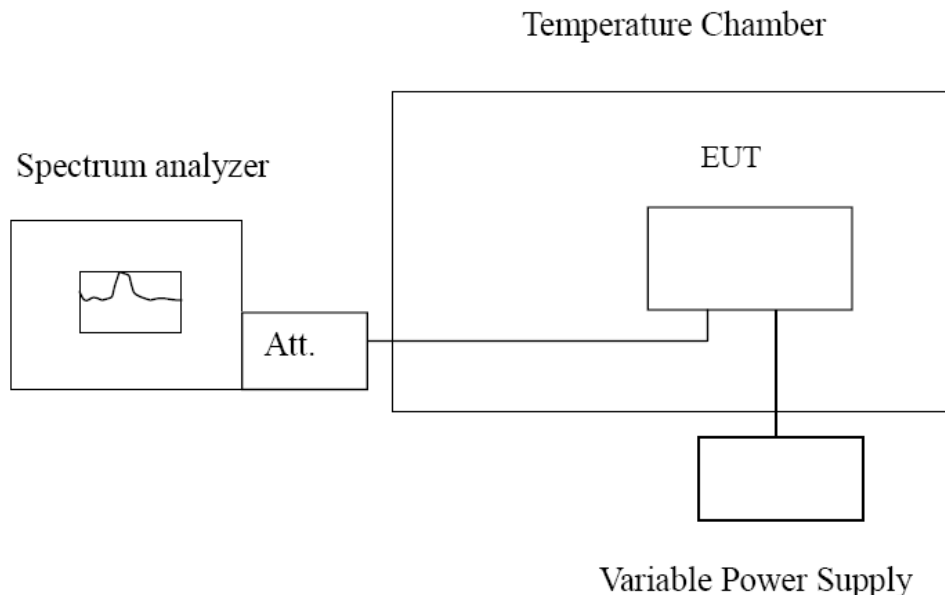
N/A

4.7 Frequency Stability

LIMIT

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

TEST CONFIGURATION



TEST PROCEDURE

Frequency Stability under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

TEST RESULTS

Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	20	102	5180.040	5150 to 5250	Pass
				120	5179.960	5150 to 5250	Pass
				138	5180.040	5150 to 5250	Pass
			-30	120	5180.020	5150 to 5250	Pass
			-20	120	5180.020	5150 to 5250	Pass
			-10	120	5179.960	5150 to 5250	Pass
			0	120	5179.960	5150 to 5250	Pass
			10	120	5179.980	5150 to 5250	Pass
			30	120	5180.020	5150 to 5250	Pass
			40	120	5180.040	5150 to 5250	Pass
			50	120	5179.980	5150 to 5250	Pass

		5200	20	102	5200.000	5150 to 5250	Pass
				120	5199.960	5150 to 5250	Pass
				138	5200.040	5150 to 5250	Pass
			-30	120	5200.060	5150 to 5250	Pass
			-20	120	5199.960	5150 to 5250	Pass
			-10	120	5200.000	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5200.040	5150 to 5250	Pass
			30	120	5199.960	5150 to 5250	Pass
			40	120	5199.880	5150 to 5250	Pass
			50	120	5199.960	5150 to 5250	Pass
		5240	20	102	5240.040	5150 to 5250	Pass
				120	5240.100	5150 to 5250	Pass
				138	5240.060	5150 to 5250	Pass
			-30	120	5240.060	5150 to 5250	Pass
			-20	120	5240.060	5150 to 5250	Pass
			-10	120	5240.040	5150 to 5250	Pass
			0	120	5239.960	5150 to 5250	Pass
			10	120	5240.120	5150 to 5250	Pass
			30	120	5239.980	5150 to 5250	Pass
			40	120	5240.080	5150 to 5250	Pass
			50	120	5239.960	5150 to 5250	Pass
802.11n (HT20)	SISO	5180	20	102	5180.100	5150 to 5250	Pass
				120	5179.960	5150 to 5250	Pass
				138	5179.940	5150 to 5250	Pass
			-30	120	5180.020	5150 to 5250	Pass
			-20	120	5179.920	5150 to 5250	Pass
			-10	120	5180.000	5150 to 5250	Pass
			0	120	5179.960	5150 to 5250	Pass
			10	120	5179.960	5150 to 5250	Pass
			30	120	5180.000	5150 to 5250	Pass
			40	120	5179.900	5150 to 5250	Pass
			50	120	5180.000	5150 to 5250	Pass
		5200	20	102	5199.960	5150 to 5250	Pass
				120	5200.020	5150 to 5250	Pass
				138	5200.020	5150 to 5250	Pass
			-30	120	5200.040	5150 to 5250	Pass
			-20	120	5200.080	5150 to 5250	Pass
			-10	120	5200.060	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5200.060	5150 to 5250	Pass
			30	120	5200.060	5150 to 5250	Pass
			40	120	5199.980	5150 to 5250	Pass
			50	120	5200.040	5150 to 5250	Pass
		5240	20	102	5240.000	5150 to 5250	Pass
				120	5240.060	5150 to 5250	Pass
				138	5239.980	5150 to 5250	Pass
			-30	120	5240.000	5150 to 5250	Pass
			-20	120	5240.020	5150 to 5250	Pass
			-10	120	5240.060	5150 to 5250	Pass
			0	120	5239.940	5150 to 5250	Pass
			10	120	5239.980	5150 to 5250	Pass
			30	120	5240.120	5150 to 5250	Pass
			40	120	5240.000	5150 to 5250	Pass
			50	120	5240.020	5150 to 5250	Pass
802.11n (HT40)	SISO	5190	20	102	5190.040	5150 to 5250	Pass
				120	5190.040	5150 to 5250	Pass
				138	5190.000	5150 to 5250	Pass
			-30	120	5190.000	5150 to 5250	Pass
			-20	120	5190.040	5150 to 5250	Pass
			-10	120	5190.120	5150 to 5250	Pass
			0	120	5190.120	5150 to 5250	Pass
			10	120	5190.040	5150 to 5250	Pass
			30	120	5190.000	5150 to 5250	Pass
			40	120	5190.000	5150 to 5250	Pass
			50	120	5190.040	5150 to 5250	Pass
		5230	20	102	5230.080	5150 to 5250	Pass

				120	5230.080	5150 to 5250	Pass	
				138	5230.080	5150 to 5250	Pass	
				-30	120	5230.000	5150 to 5250	Pass
				-20	120	5230.040	5150 to 5250	Pass
				-10	120	5230.040	5150 to 5250	Pass
				0	120	5230.160	5150 to 5250	Pass
				10	120	5230.120	5150 to 5250	Pass
				30	120	5230.160	5150 to 5250	Pass
				40	120	5230.040	5150 to 5250	Pass
				50	120	5230.000	5150 to 5250	Pass
802.11ac (VHT20)	SISO	5180	20	102	5179.980	5150 to 5250	Pass	
				120	5179.920	5150 to 5250	Pass	
				138	5179.920	5150 to 5250	Pass	
			-30	120	5179.980	5150 to 5250	Pass	
			-20	120	5179.960	5150 to 5250	Pass	
			-10	120	5180.060	5150 to 5250	Pass	
			0	120	5179.980	5150 to 5250	Pass	
			10	120	5180.020	5150 to 5250	Pass	
			30	120	5179.960	5150 to 5250	Pass	
			40	120	5180.060	5150 to 5250	Pass	
			50	120	5180.020	5150 to 5250	Pass	
		5200	20	102	5199.980	5150 to 5250	Pass	
				120	5200.020	5150 to 5250	Pass	
				138	5200.040	5150 to 5250	Pass	
			-30	120	5200.040	5150 to 5250	Pass	
			-20	120	5199.920	5150 to 5250	Pass	
			-10	120	5199.980	5150 to 5250	Pass	
			0	120	5199.960	5150 to 5250	Pass	
			10	120	5199.960	5150 to 5250	Pass	
			30	120	5200.040	5150 to 5250	Pass	
			40	120	5200.020	5150 to 5250	Pass	
			50	120	5200.040	5150 to 5250	Pass	
		5240	20	102	5240.060	5150 to 5250	Pass	
				120	5240.040	5150 to 5250	Pass	
				138	5240.040	5150 to 5250	Pass	
			-30	120	5240.100	5150 to 5250	Pass	
			-20	120	5240.040	5150 to 5250	Pass	
			-10	120	5240.040	5150 to 5250	Pass	
			0	120	5240.020	5150 to 5250	Pass	
			10	120	5240.020	5150 to 5250	Pass	
			30	120	5239.960	5150 to 5250	Pass	
			40	120	5240.040	5150 to 5250	Pass	
			50	120	5239.980	5150 to 5250	Pass	
802.11ac (VHT40)	SISO	5190	20	102	5190.080	5150 to 5250	Pass	
				120	5190.040	5150 to 5250	Pass	
				138	5190.040	5150 to 5250	Pass	
			-30	120	5190.000	5150 to 5250	Pass	
			-20	120	5190.040	5150 to 5250	Pass	
			-10	120	5190.040	5150 to 5250	Pass	
			0	120	5189.960	5150 to 5250	Pass	
			10	120	5190.000	5150 to 5250	Pass	
			30	120	5190.040	5150 to 5250	Pass	
			40	120	5190.000	5150 to 5250	Pass	
			50	120	5189.960	5150 to 5250	Pass	
		5230	20	102	5230.160	5150 to 5250	Pass	
				120	5230.000	5150 to 5250	Pass	
				138	5229.920	5150 to 5250	Pass	
			-30	120	5230.040	5150 to 5250	Pass	
			-20	120	5230.080	5150 to 5250	Pass	
			-10	120	5230.040	5150 to 5250	Pass	
			0	120	5230.080	5150 to 5250	Pass	
			10	120	5230.080	5150 to 5250	Pass	
			30	120	5230.080	5150 to 5250	Pass	
			40	120	5230.080	5150 to 5250	Pass	
			50	120	5230.120	5150 to 5250	Pass	
802.11ac (VHT80)	SISO	5210	20	102	5210.150	5150 to 5250	Pass	
				120	5210.075	5150 to 5250	Pass	

				138	5210.000	5150 to 5250	Pass
			-30	120	5210.150	5150 to 5250	Pass
			-20	120	5210.150	5150 to 5250	Pass
			-10	120	5210.000	5150 to 5250	Pass
			0	120	5210.150	5150 to 5250	Pass
			10	120	5210.075	5150 to 5250	Pass
			30	120	5210.075	5150 to 5250	Pass
			40	120	5210.075	5150 to 5250	Pass
			50	120	5210.075	5150 to 5250	Pass
802.11ax (HEW20)	SISO	5180	20	102	5180.060	5150 to 5250	Pass
				120	5180.020	5150 to 5250	Pass
				138	5179.960	5150 to 5250	Pass
			-30	120	5180.000	5150 to 5250	Pass
			-20	120	5179.940	5150 to 5250	Pass
			-10	120	5180.000	5150 to 5250	Pass
			0	120	5180.040	5150 to 5250	Pass
			10	120	5180.000	5150 to 5250	Pass
			30	120	5179.960	5150 to 5250	Pass
			40	120	5180.020	5150 to 5250	Pass
			50	120	5180.040	5150 to 5250	Pass
		5200	20	102	5199.980	5150 to 5250	Pass
				120	5199.940	5150 to 5250	Pass
				138	5200.040	5150 to 5250	Pass
			-30	120	5199.940	5150 to 5250	Pass
			-20	120	5200.100	5150 to 5250	Pass
			-10	120	5199.980	5150 to 5250	Pass
			0	120	5200.040	5150 to 5250	Pass
			10	120	5200.020	5150 to 5250	Pass
			30	120	5200.040	5150 to 5250	Pass
			40	120	5200.000	5150 to 5250	Pass
			50	120	5200.060	5150 to 5250	Pass
		5240	20	102	5240.000	5150 to 5250	Pass
				120	5240.020	5150 to 5250	Pass
				138	5240.000	5150 to 5250	Pass
			-30	120	5240.020	5150 to 5250	Pass
			-20	120	5239.960	5150 to 5250	Pass
			-10	120	5240.120	5150 to 5250	Pass
			0	120	5239.960	5150 to 5250	Pass
			10	120	5240.060	5150 to 5250	Pass
			30	120	5240.000	5150 to 5250	Pass
			40	120	5240.040	5150 to 5250	Pass
			50	120	5240.040	5150 to 5250	Pass
802.11ax (HEW40)	SISO	5190	20	102	5190.040	5150 to 5250	Pass
				120	5189.960	5150 to 5250	Pass
				138	5190.040	5150 to 5250	Pass
			-30	120	5190.000	5150 to 5250	Pass
			-20	120	5190.040	5150 to 5250	Pass
			-10	120	5190.120	5150 to 5250	Pass
			0	120	5189.960	5150 to 5250	Pass
			10	120	5190.080	5150 to 5250	Pass
			30	120	5190.000	5150 to 5250	Pass
			40	120	5190.040	5150 to 5250	Pass
			50	120	5190.040	5150 to 5250	Pass
		5230	20	102	5230.080	5150 to 5250	Pass
				120	5230.080	5150 to 5250	Pass
				138	5230.080	5150 to 5250	Pass
			-30	120	5230.040	5150 to 5250	Pass
			-20	120	5230.040	5150 to 5250	Pass
			-10	120	5230.040	5150 to 5250	Pass
			0	120	5230.040	5150 to 5250	Pass
			10	120	5230.040	5150 to 5250	Pass
			30	120	5230.120	5150 to 5250	Pass
			40	120	5230.080	5150 to 5250	Pass
			50	120	5230.040	5150 to 5250	Pass
802.11ax (HEW80)	SISO	5210	20	102	5210.075	5150 to 5250	Pass
				120	5210.075	5150 to 5250	Pass
				138	5210.075	5150 to 5250	Pass

			-30	120	5210.075	5150 to 5250	Pass
			-20	120	5210.225	5150 to 5250	Pass
			-10	120	5210.075	5150 to 5250	Pass
			0	120	5210.000	5150 to 5250	Pass
			10	120	5210.225	5150 to 5250	Pass
			30	120	5210.075	5150 to 5250	Pass
			40	120	5210.075	5150 to 5250	Pass
			50	120	5210.075	5150 to 5250	Pass

5 Test Setup Photos of the EUT

Reference to the test report No. HTT202601849F01.

6 Photos of the EUT

Reference to the test report No. HTT202601849F01.

***** End of Report *****