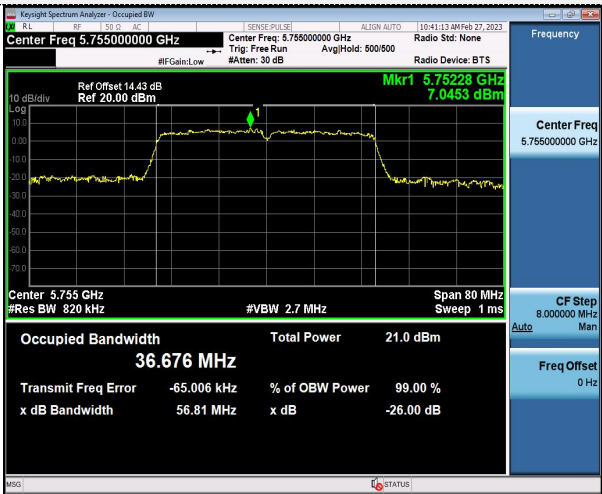
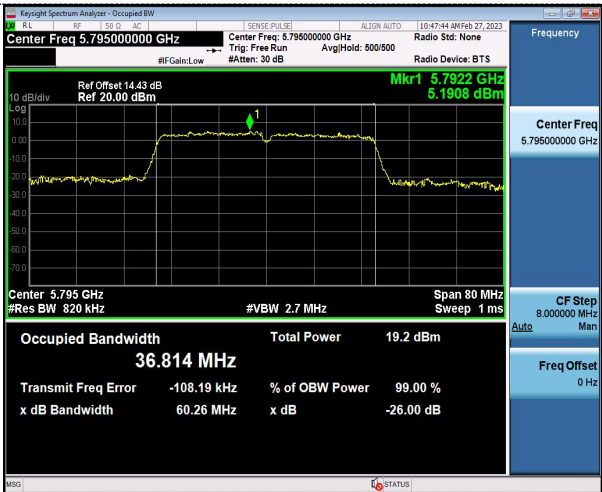


802.11n(HT40)



CH151



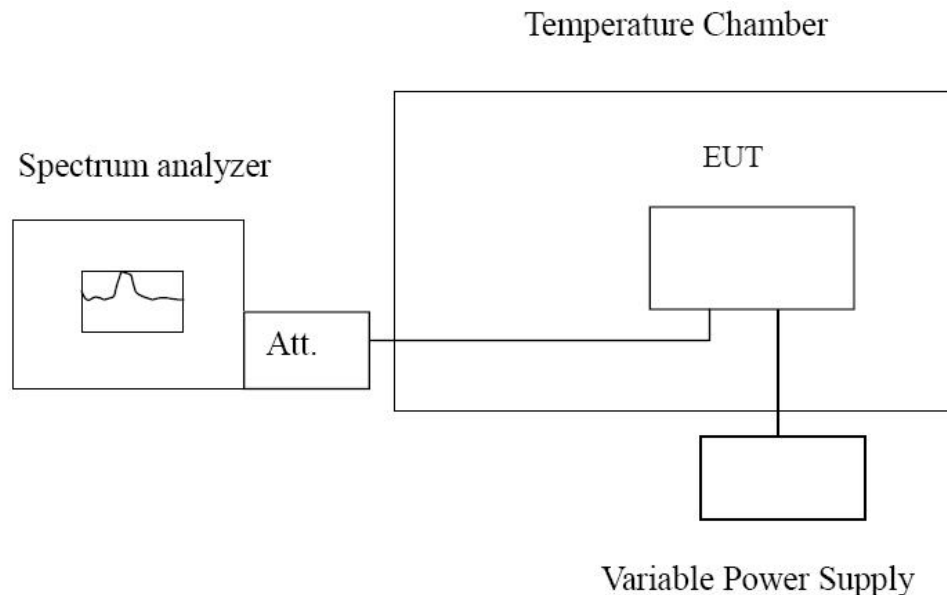
CH159

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.

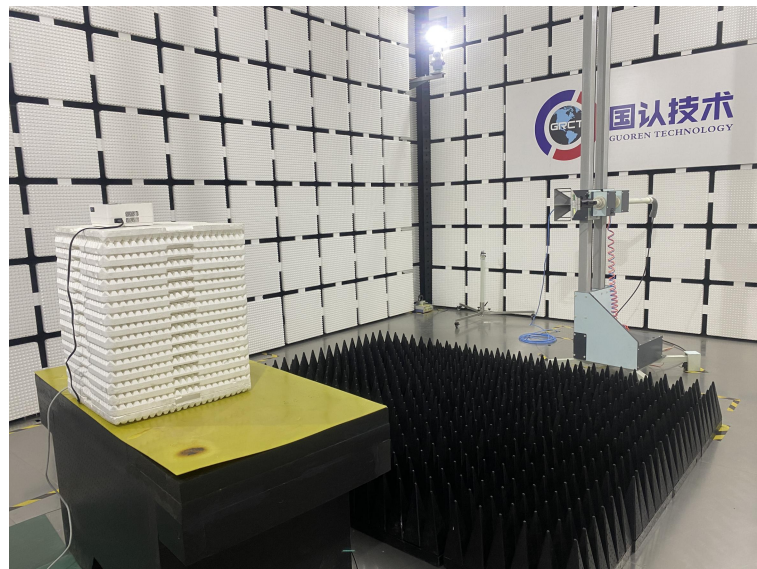
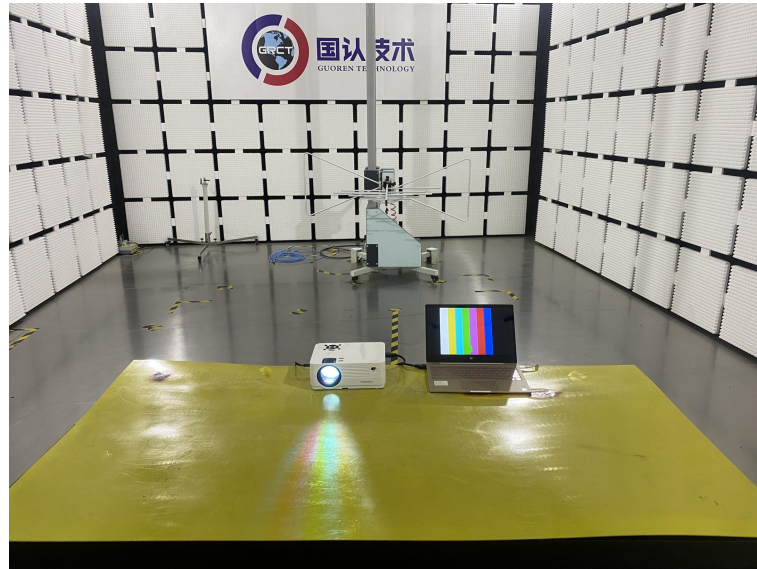
TEST RESULTS

Record worst case as below:

Reference Frequency: 802.11n(HT20) channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
120.0	-30	154.73	0.02987	Within the band of operation	Pass
	-20	142.86	0.02758		
	-10	126.48	0.02442		
	0	130.52	0.02520		
	10	134.65	0.02600		
	20	141.83	0.02738		
	30	129.75	0.02505		
	40	136.84	0.02642		
	50	131.55	0.02540		
132.0	25	147.67	0.02851	Within the band of operation	Pass
108.0	25	130.68	0.02523		

Reference Frequency: 802.11n(HT20) channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
120.0	-30	125.86	0.02191	Within the band of operation	Pass
	-20	135.63	0.02361		
	-10	140.45	0.02445		
	0	128.71	0.02240		
	10	126.51	0.02202		
	20	132.45	0.02305		
	30	138.62	0.02413		
	40	132.38	0.02304		
	50	129.47	0.02254		
132.0	25	135.74	0.02363	Within the band of operation	Pass
108.0	25	136.52	0.02376		

5 Test Setup Photos of the EUT



6 Photos of the EUT

Reference to the test report No. GRCTR230202015-01.

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