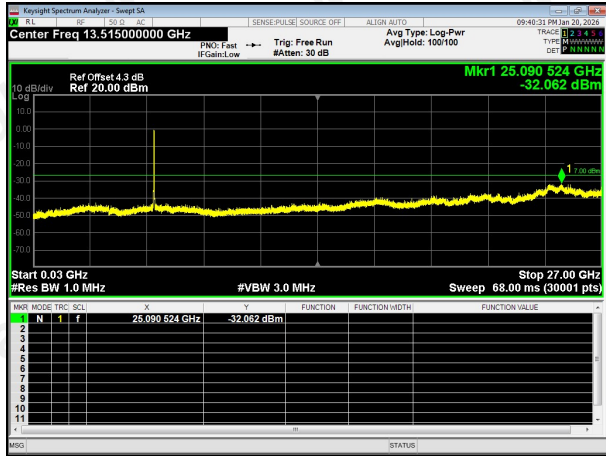
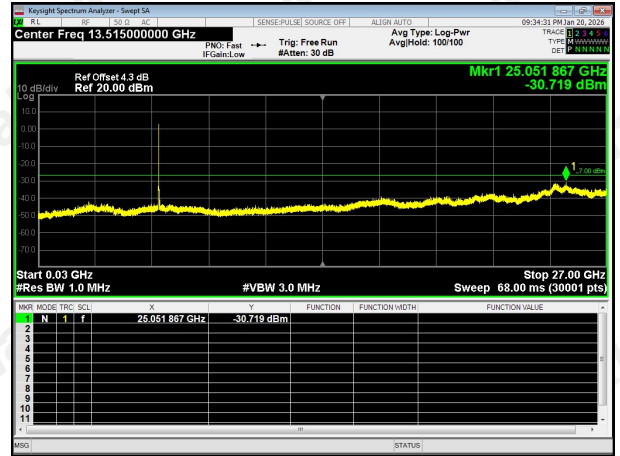


Test Plot

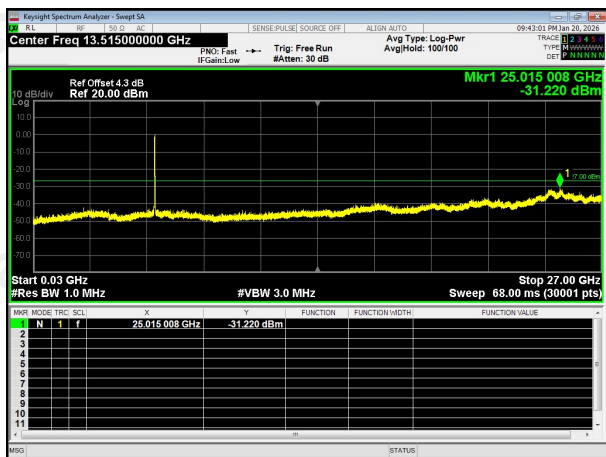
802.11n40 on channel 151



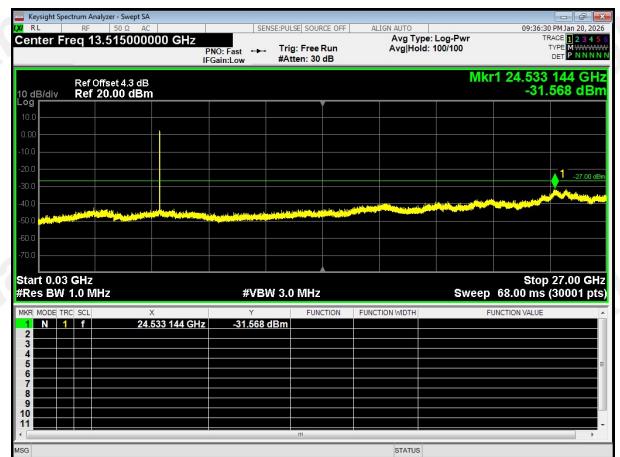
802.11ac20 on channel 149



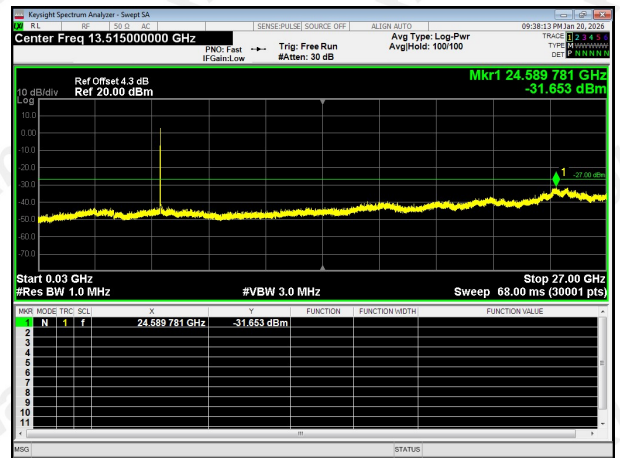
802.11n40 on channel 159



802.11ac20 on channel 157

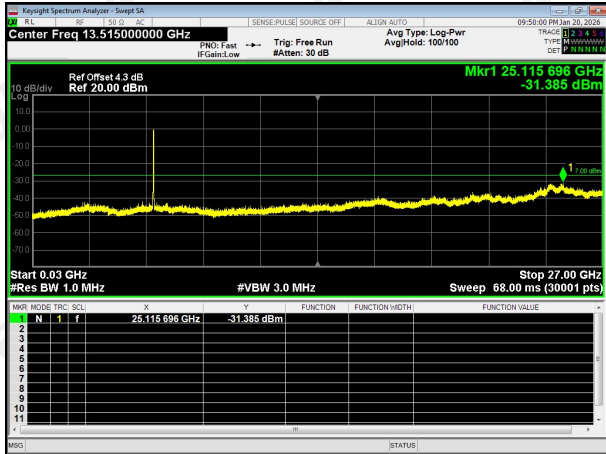


802.11ac20 on channel 165

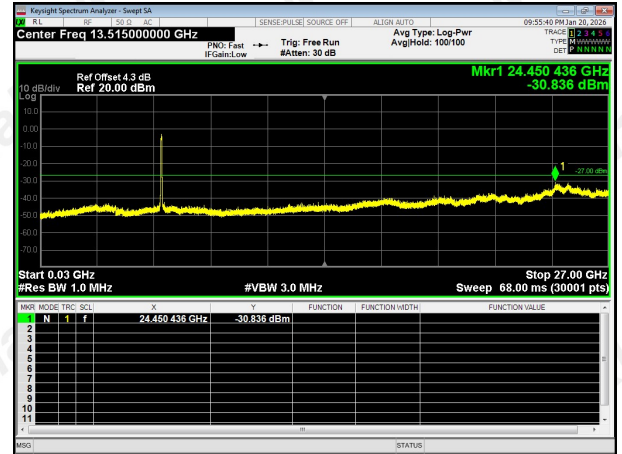


Test Plot

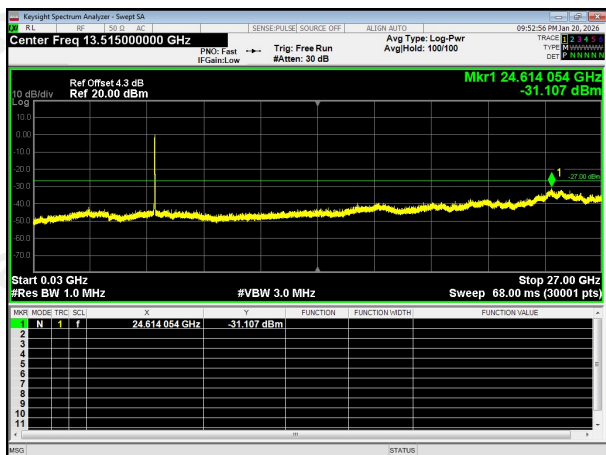
802.11ac40 on channel 151



802.11ac80 on channel 155



802.11ac40 on channel 159

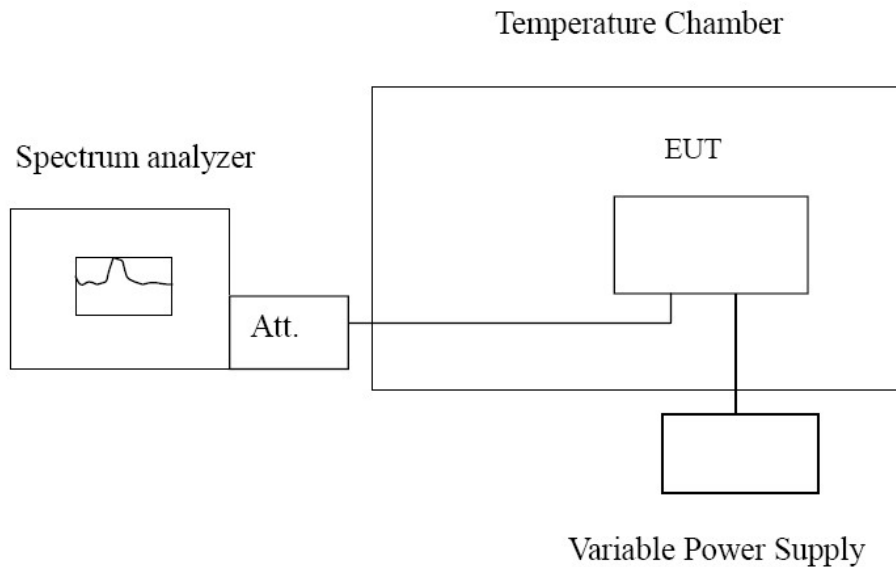


4.9 Frequency Stability

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 25°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 25°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.

Reference Frequency: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
120	-30	77.49	0.015	Within the band of operation	Pass
	-20	81.04	0.016		
	-10	93.87	0.018		
	0	82.63	0.016		
	10	83.17	0.016		
	20	48.01	0.009		
	30	71.65	0.014		
	40	87.26	0.017		
	50	81.95	0.016		
132	25	97.57	0.019	Within the band of operation	Pass
108	25	54.11	0.010		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
120	-30	68.06	0.012	Within the band of operation	Pass
	-20	89.35	0.016		
	-10	49.11	0.009		
	0	112.42	0.020		
	10	56.82	0.010		
	20	71.00	0.012		
	30	42.41	0.007		
	40	94.76	0.016		
	50	69.75	0.012		
132	25	54.44	0.009	Within the band of operation	Pass
108	25	83.73	0.015		

4.10 Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited

Test Result:

The maximum gain of antenna is 1.5 dBi.

Remark: The antenna gain is provided by the customer, if the data provided by the customer is not accurate, MAXLAB Testing Co.,Ltd. does not assume any responsibility.

5 Test Setup Photos of the EUT

Reference to the appendix I for details.

6 Photos of the EUT

Reference to the appendix II for details.

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