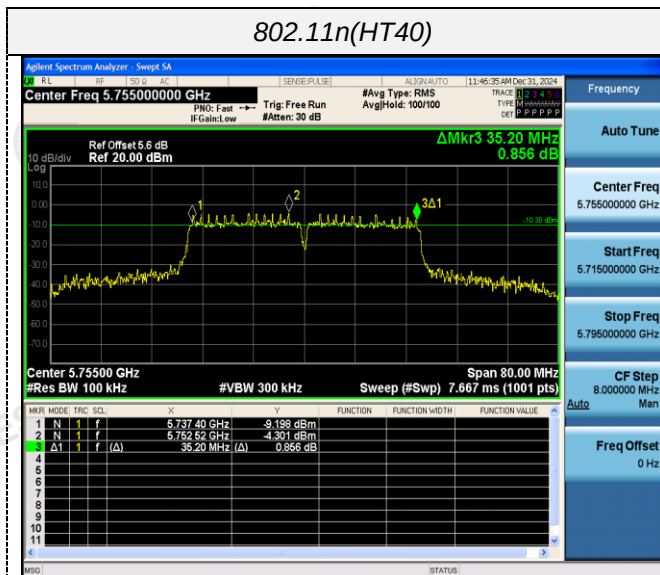
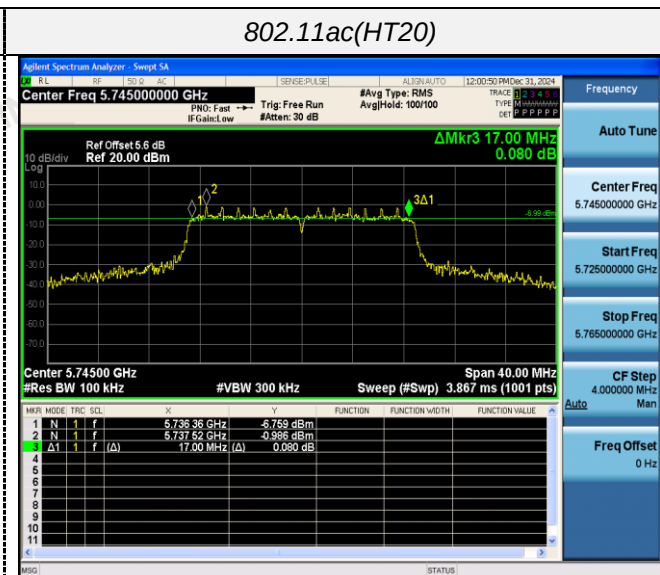


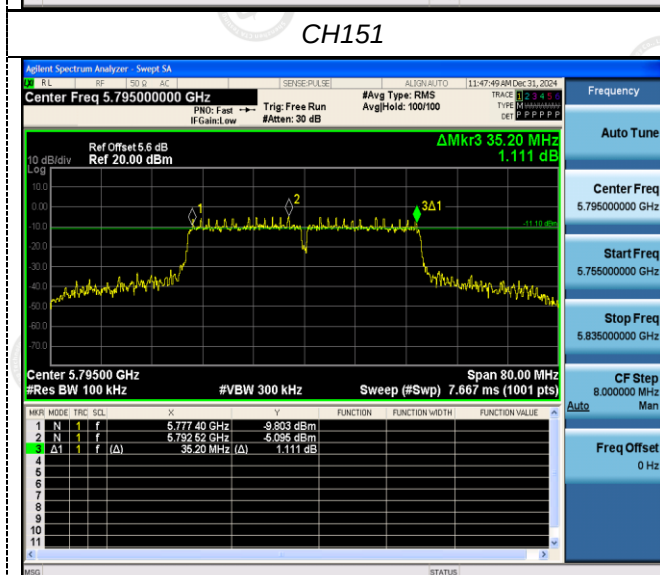
802.11n(HT40)



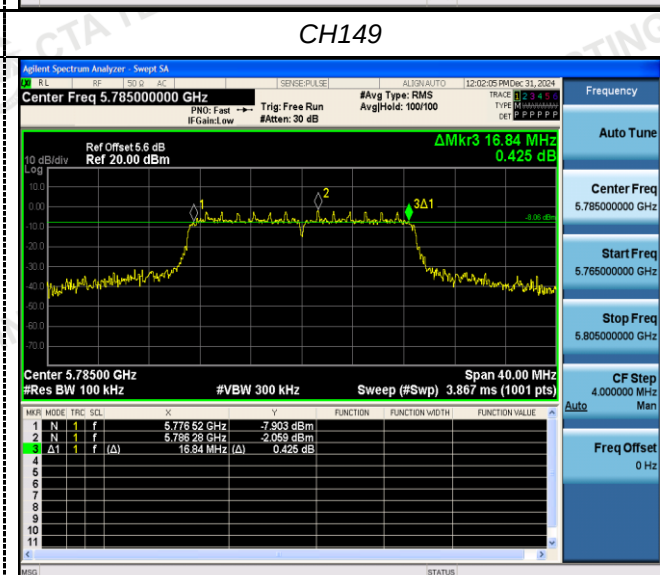
802.11ac(HT20)



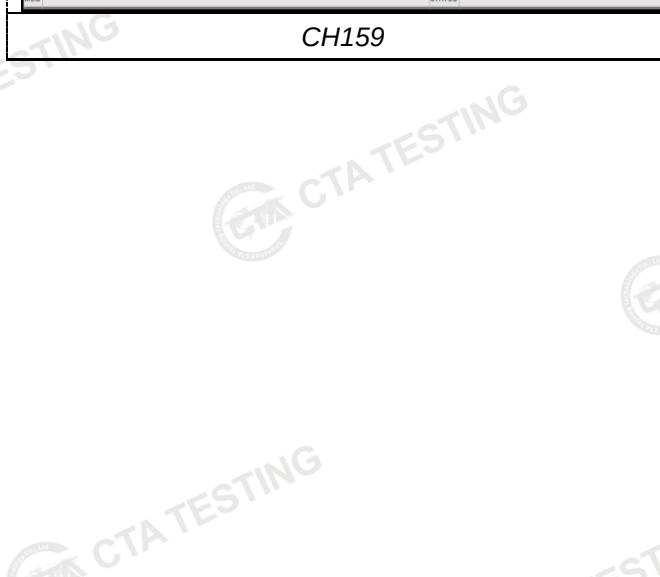
CH151



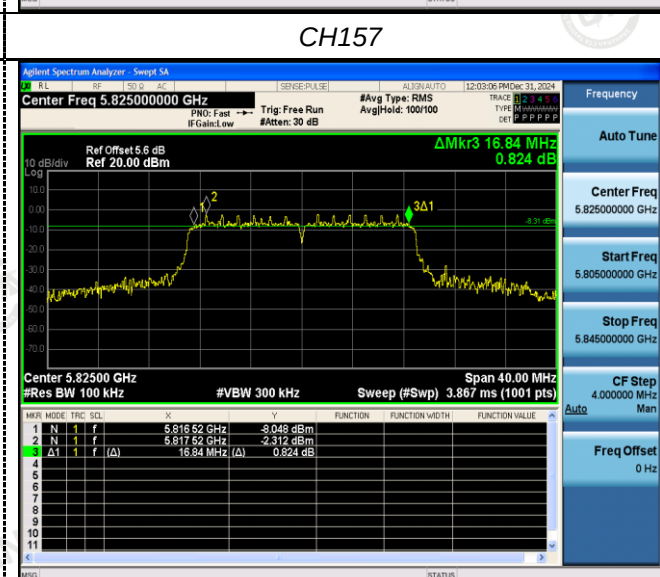
CH149



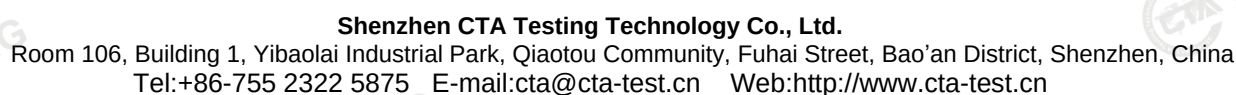
CH159



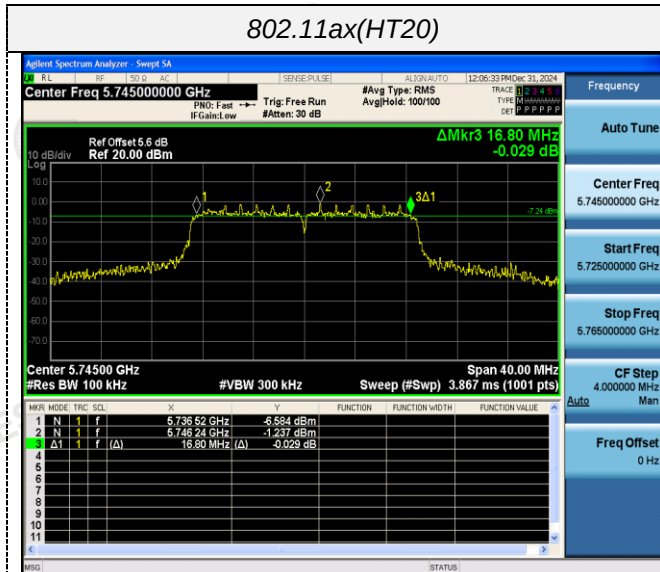
CH157



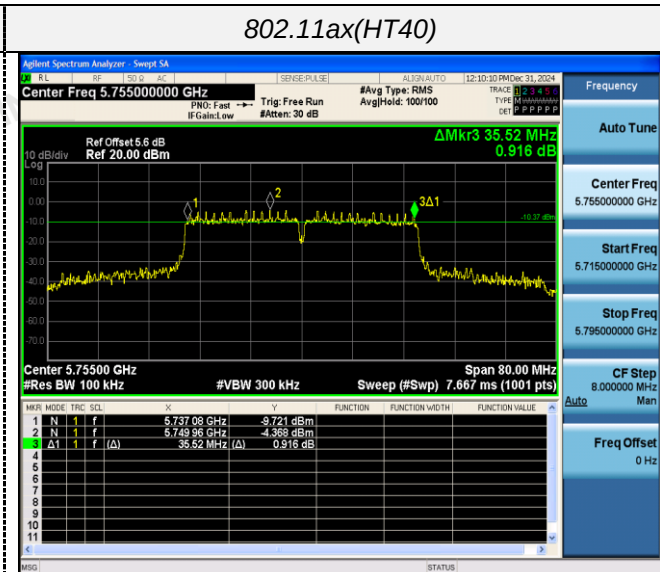
CH165



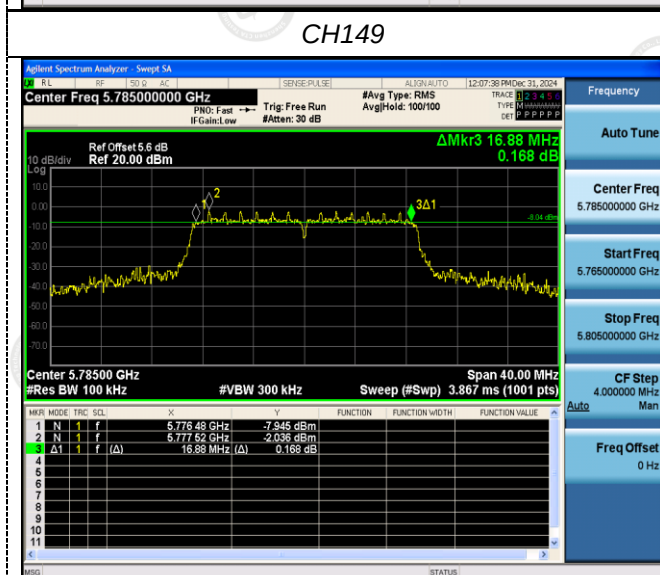
802.11ax(HT20)



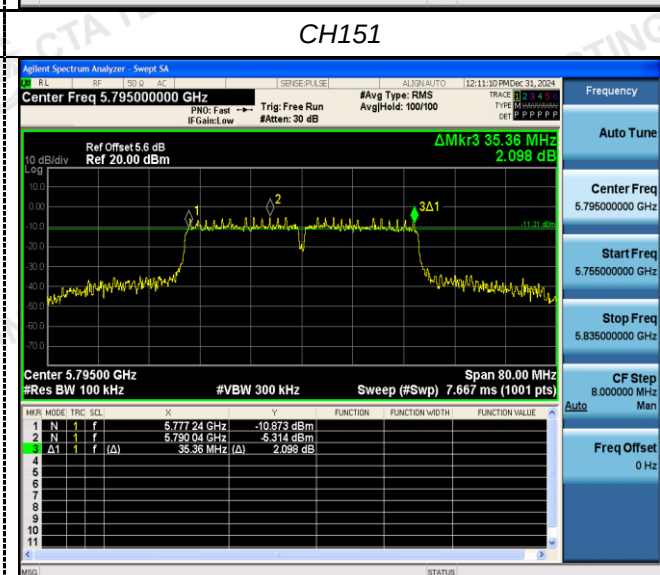
802.11ax(HT40)



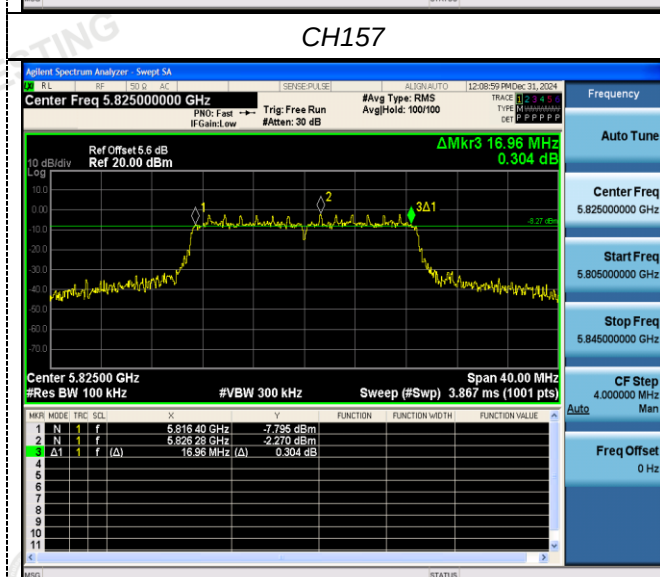
CH149



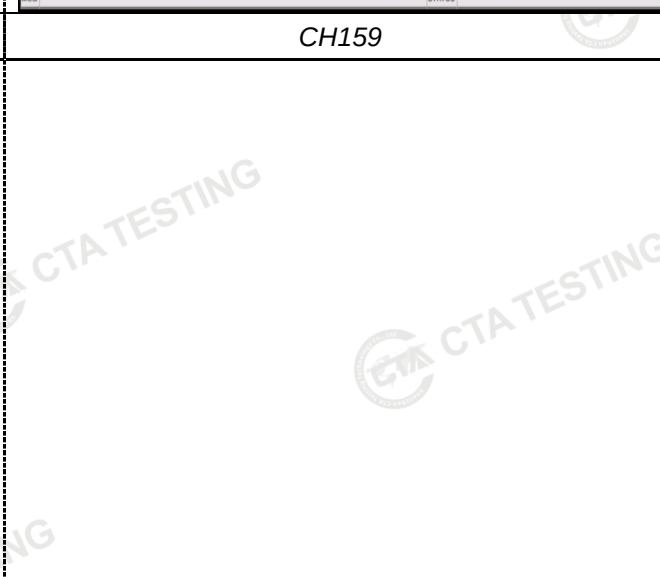
CH151



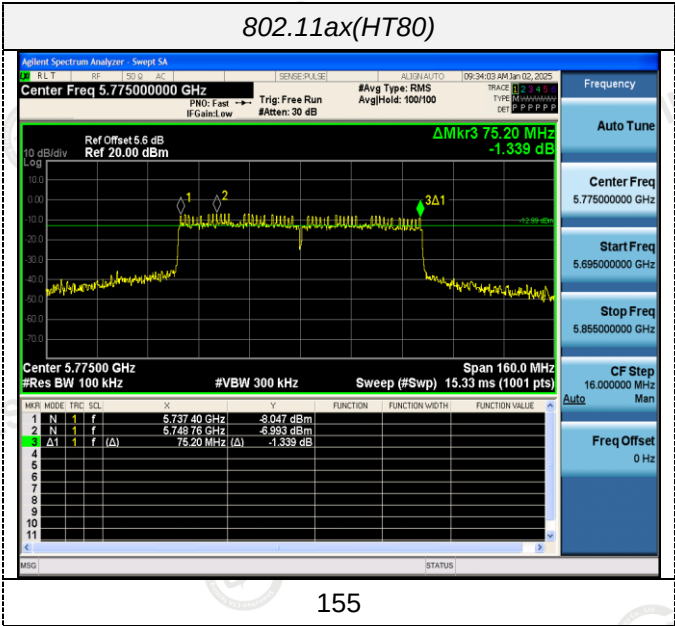
CH157



CH159



CH165

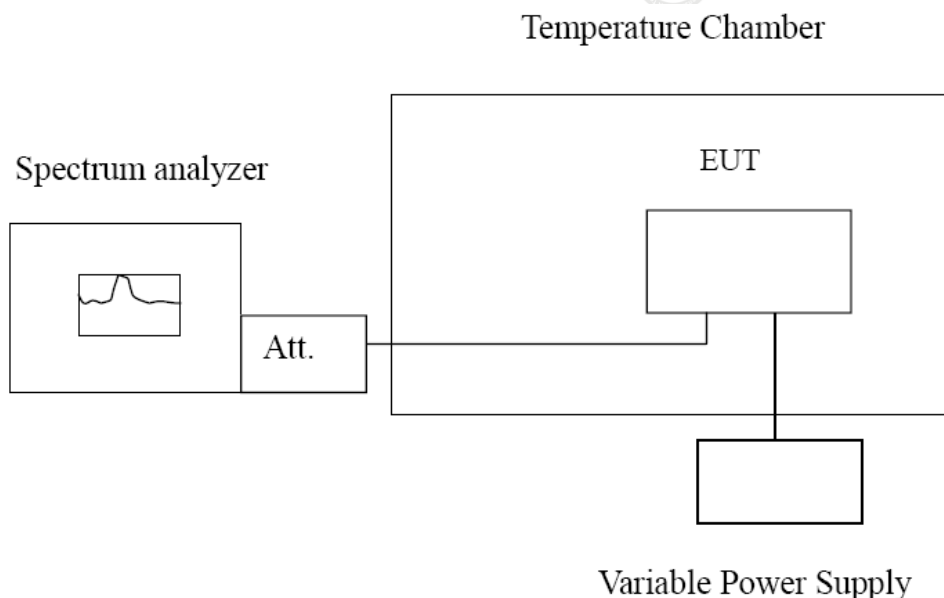


4.7 Frequency Stability

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: 802.11ac channel=36 frequency=5180MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 120	-30	110.28	0.021290	Within the band of operation	Pass
	-20	174.71	0.033728		
	-10	145.17	0.028025		
	0	146.46	0.028274		
	10	145.99	0.028183		
	20	99.68	0.019243		
	30	167.44	0.032324		
	40	129.33	0.024967		
	50	128.62	0.024830		
AC 132	25	195.31	0.037705	Within the band of operation	Pass
AC 108	25	118.72	0.022919		

Reference Frequency: 802.11ac channel=149 frequency=5745MHz					
Voltage (V)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
AC 120	-30	110.28	0.019196	Within the band of operation	Pass
	-20	174.71	0.030411		
	-10	145.17	0.025269		
	0	146.46	0.025493		
	10	145.99	0.025412		
	20	99.68	0.017351		
	30	167.44	0.029145		
	40	129.33	0.022512		
	50	128.62	0.022388		
AC 132	25	195.31	0.033997	Within the band of operation	Pass
AC 108	25	118.72	0.020665		

5 Test Setup Photos of the EUT



6 Photos of the EUT

Reference to the test report No. CTA24121202201.

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