

6.7 Restricted Band

Test Requirement : FCC Part15 E Section 15.407(b)

Test site : Measurement Distance: 3m

Test Limit	Frequency	Limit (dB μ V/m @3m)	Remark
	Above 1GHz	74	Peak Value
		54	Average Value

Test Procedure:

1. The EUT was placed on a styrofoam table which is 1.5m above ground plane.
2. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.
8. The test above 1GHz must be use the fully anechoic room, and the test below 1GHz use the half anechoic room

Test Result:

Worst case mode:		802.11a(6Mbps)		Test channel:		36		
NO.	Freq. [MHz]	level [dB μ V/m]	Factor [dB]	Emission level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Detector Type
1	5150	49.95	6.53	56.48	68.23	11.75	H	Peak
2	5150	39.74	6.53	46.27	54	7.73	H	Average
3	5150	49.18	6.53	55.71	68.23	12.52	V	Peak
4	5150	38.43	6.53	44.96	54	9.04	V	Average



Worst case mode:		802.11a(6Mbps)		Test channel:		48		
NO.	Freq. [MHz]	level [dB μ V/ m]	Factor [dB]	Emission level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Detector Type
1	5350	50.35	6.56	56.91	68.23	11.32	H	Peak
2	5350	40.2	6.56	46.76	54	7.24	H	Average
3	5350	49.2	6.56	55.76	68.23	12.47	V	Peak
4	5350	38.19	6.56	44.75	54	9.25	V	Average

Worst case mode:		802.11a(6Mbps)		Test channel:		165		
NO.	Freq. [MHz]	level [dB μ V/ m]	Factor [dB]	Emission level [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Detector Type
1	5850	49.89	6.64	56.53	68.23	11.7	H	Peak
2	5850	40.22	6.64	46.86	54	7.14	H	Average
3	5850	49.15	6.64	55.79	68.23	12.44	V	Peak
4	5850	38.63	6.64	45.27	54	8.73	V	Average

Note: Only recorded the worst case in the report.



7 Emission Bandwidth and Occupied Bandwidth

Test Requirement	: FCC CFR47 Part 15 Section 15.407(a)(e)
Test Method	: ANSI C63.10:2013 According to FCC §15.407(a), The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less.
Test Limit	Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth. As per FCC §15.407(e): for equipment operating in the band 5725 – 5850 MHz, the minimum 6 dB bandwidth of U-NII devices shall be 500 kHz.

7.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, Emission Bandwidth (EBW)

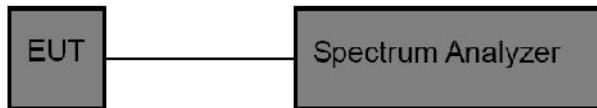
a) Set RBW = approximately 1% of the emission bandwidth; b) Set the VBW > RBW; c) Detector = Peak; d) Trace mode = max hold; e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%;99% Occupied Bandwidth. The 99% occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99% occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in II.G.3.d). Measurements of 99% occupied bandwidth may also optionally be used in lieu of the EBW to define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency.

The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

7.2 Test setup



7.3 Test Result

PASS

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations / data rates and antenna ports.

Following channel was selected for the final test as listed below.

26 dB emission bandwidth:

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.240	5170.520	5189.760	---	---
11A	Ant1	5200	19.040	5190.560	5209.600	---	---
11A	Ant1	5240	19.200	5230.480	5249.680	---	---
11A	Ant1	5745	20.080	5735.200	5755.280	---	---
11A	Ant1	5785	19.560	5775.160	5794.720	---	---
11A	Ant1	5825	19.600	5815.120	5834.720	---	---
11N20SISO	Ant1	5180	20.560	5169.840	5190.400	---	---
11N20SISO	Ant1	5200	20.280	5189.800	5210.080	---	---
11N20SISO	Ant1	5240	20.600	5229.600	5250.200	---	---
11N20SISO	Ant1	5745	24.000	5732.200	5756.200	---	---
11N20SISO	Ant1	5785	20.760	5774.760	5795.520	---	---
11N20SISO	Ant1	5825	20.640	5814.760	5835.400	---	---
11N40SISO	Ant1	5190	21.840	5179.360	5201.200	---	---
11N40SISO	Ant1	5230	38.480	5210.720	5249.200	---	---
11N40SISO	Ant1	5755	51.280	5732.280	5783.560	---	---
11N40SISO	Ant1	5795	41.360	5775.800	5817.160	---	---

minimum 6 dB bandwidth:

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.400	5737.400	5752.800	0.5	PASS
11A	Ant1	5785	15.360	5777.400	5792.760	0.5	PASS
11A	Ant1	5825	15.680	5817.200	5832.880	0.5	PASS
11N20SISO	Ant1	5745	16.520	5736.200	5752.720	0.5	PASS
11N20SISO	Ant1	5785	16.520	5776.200	5792.720	0.5	PASS
11N20SISO	Ant1	5825	16.480	5816.200	5832.680	0.5	PASS
11N40SISO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
11N40SISO	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS

Test Graphs:

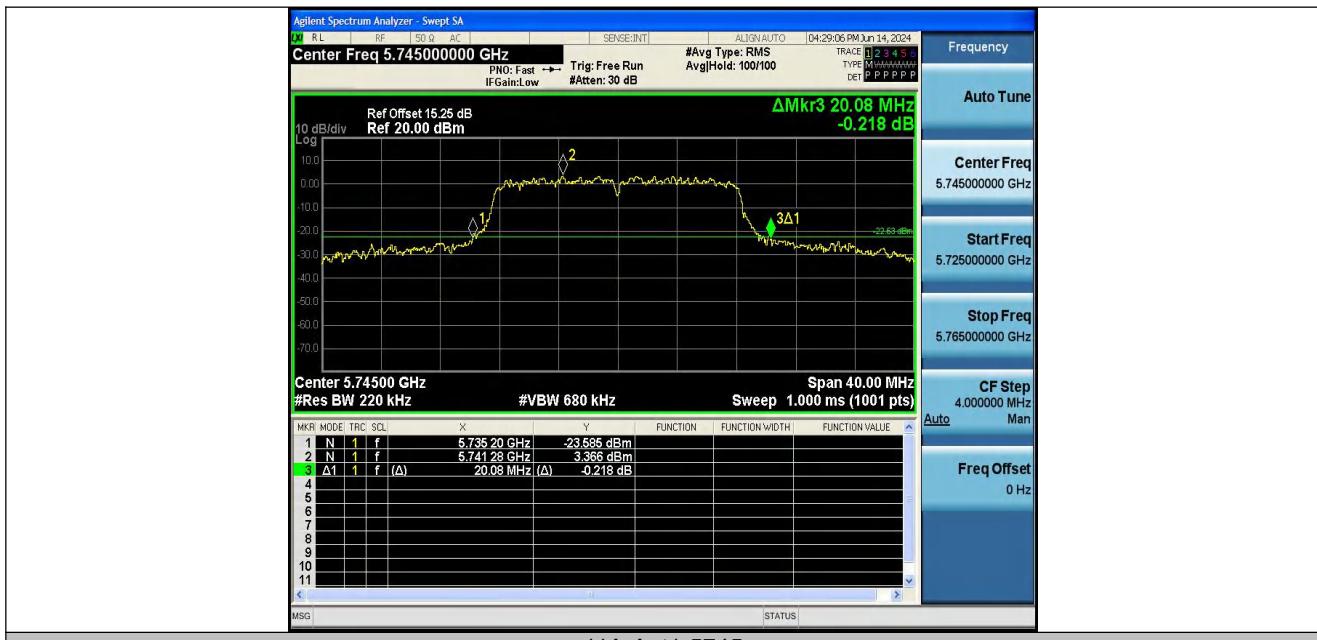




11A-Ant1-5200



11A-Ant1-5240



11A-Ant1-5745



11A-Ant1-5785



11A-Ant1-5825



11N20SISO-Ant1-5180



11N20SISO-Ant1-5200



11N20SISO-Ant1-5240



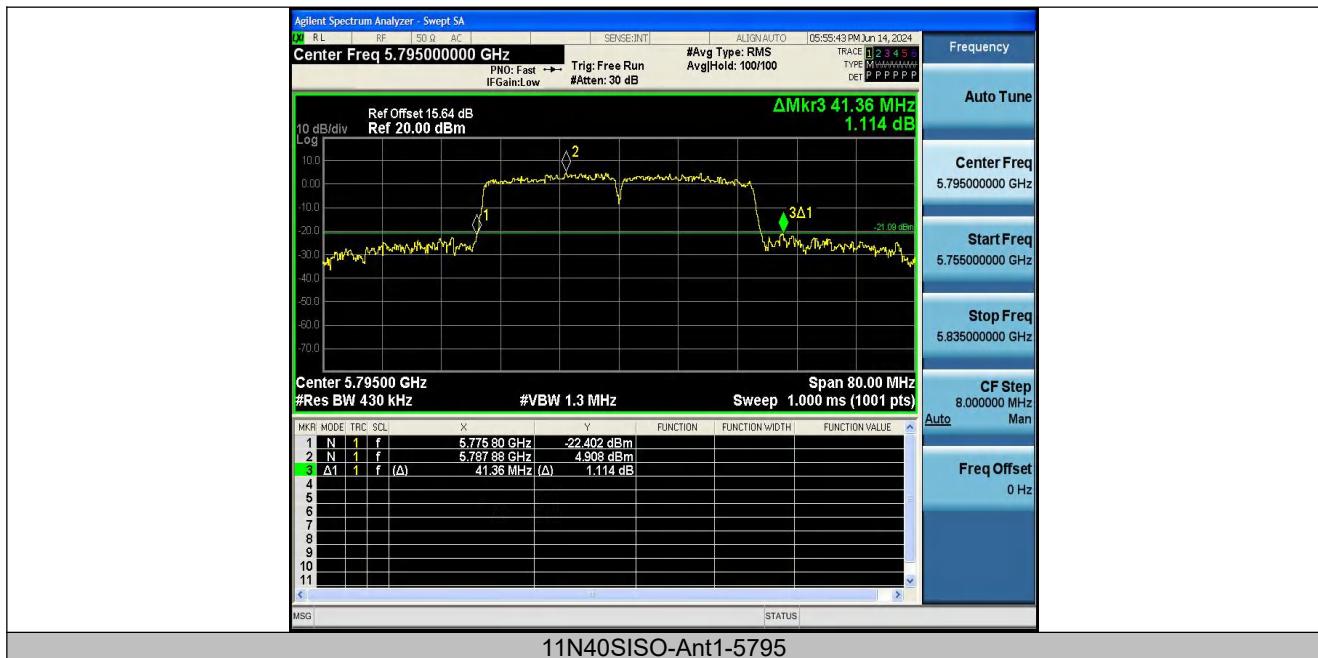


11N20SISO-Ant1-5825

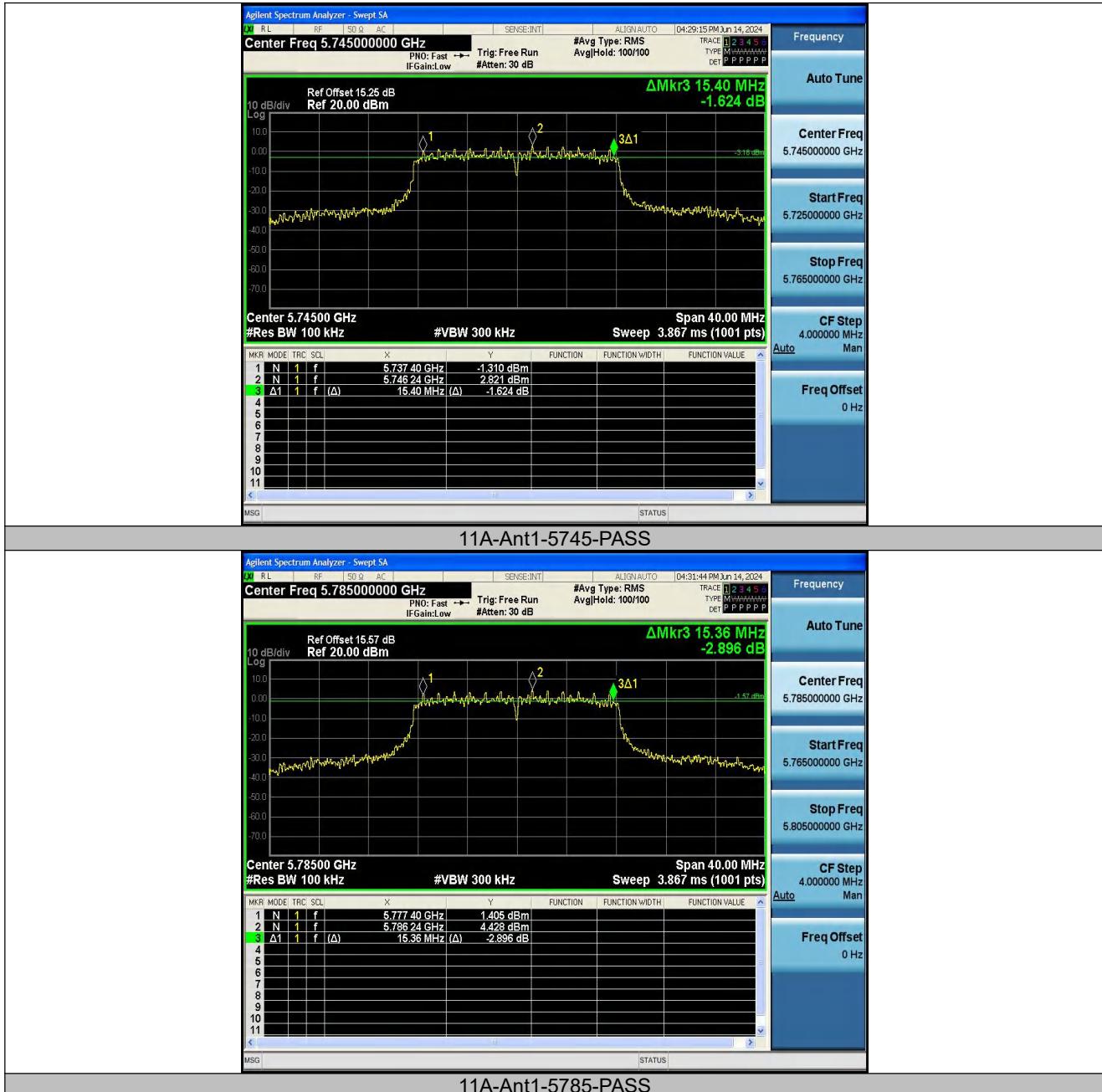


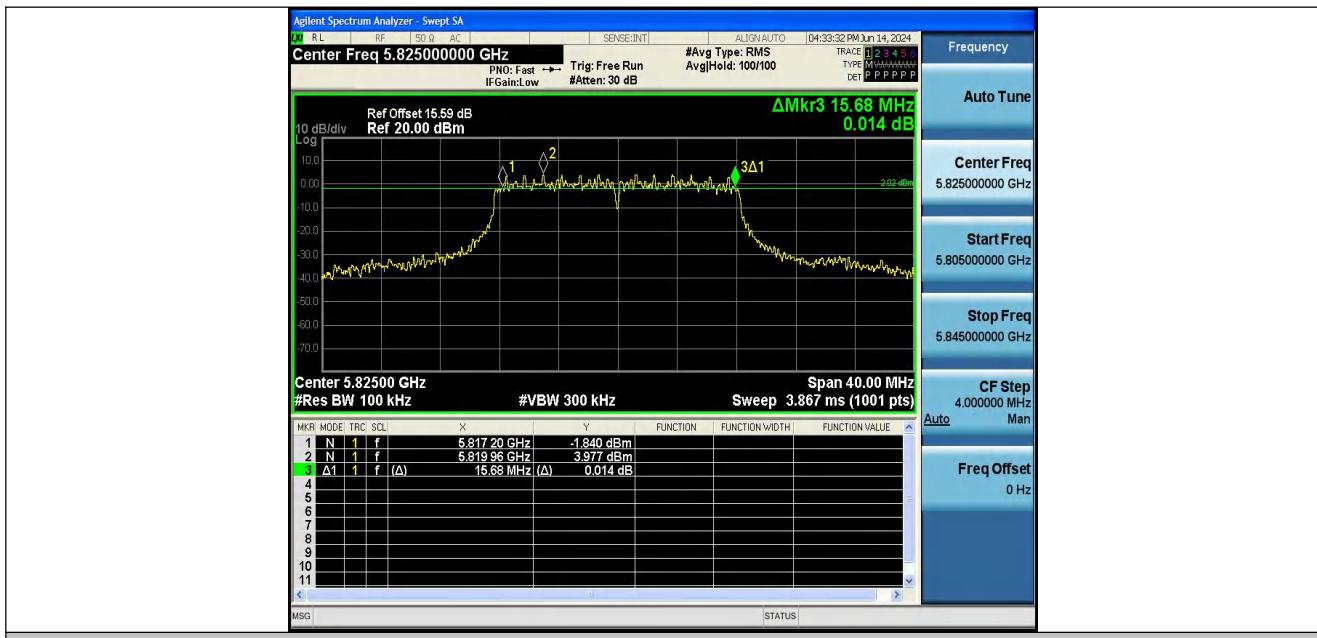
11N40SISO-Ant1-5190



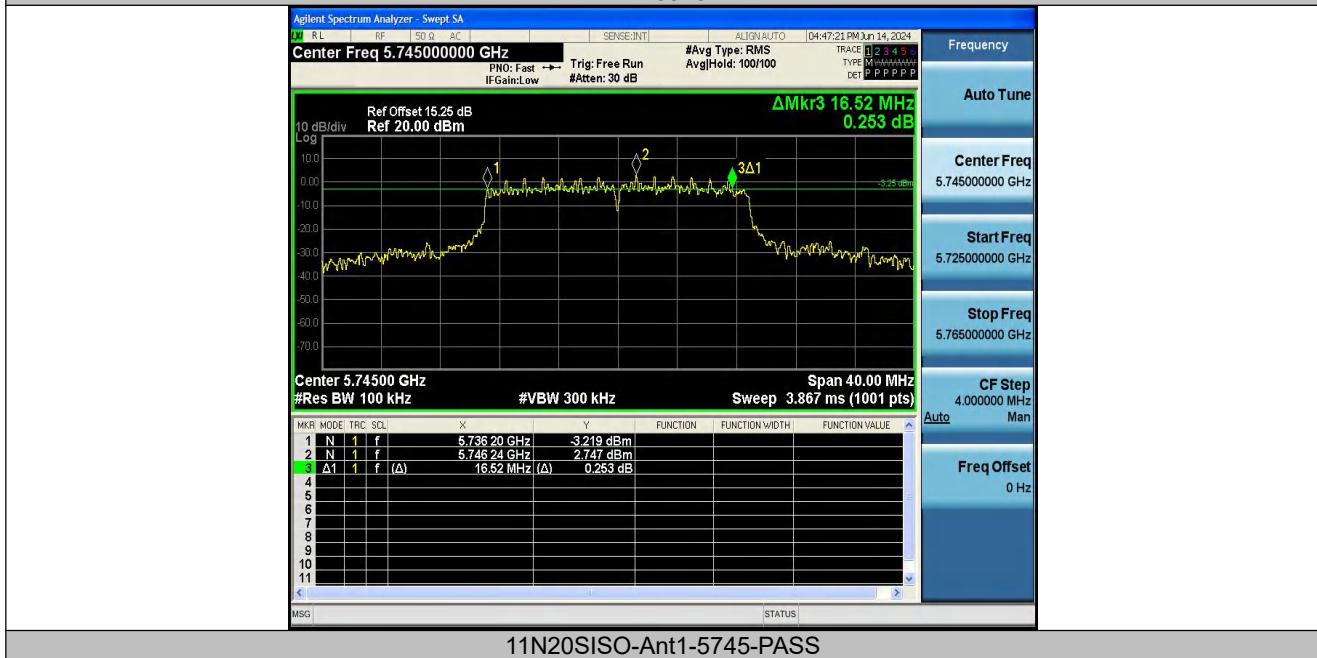


Min emission bandwidth Test Graphs:

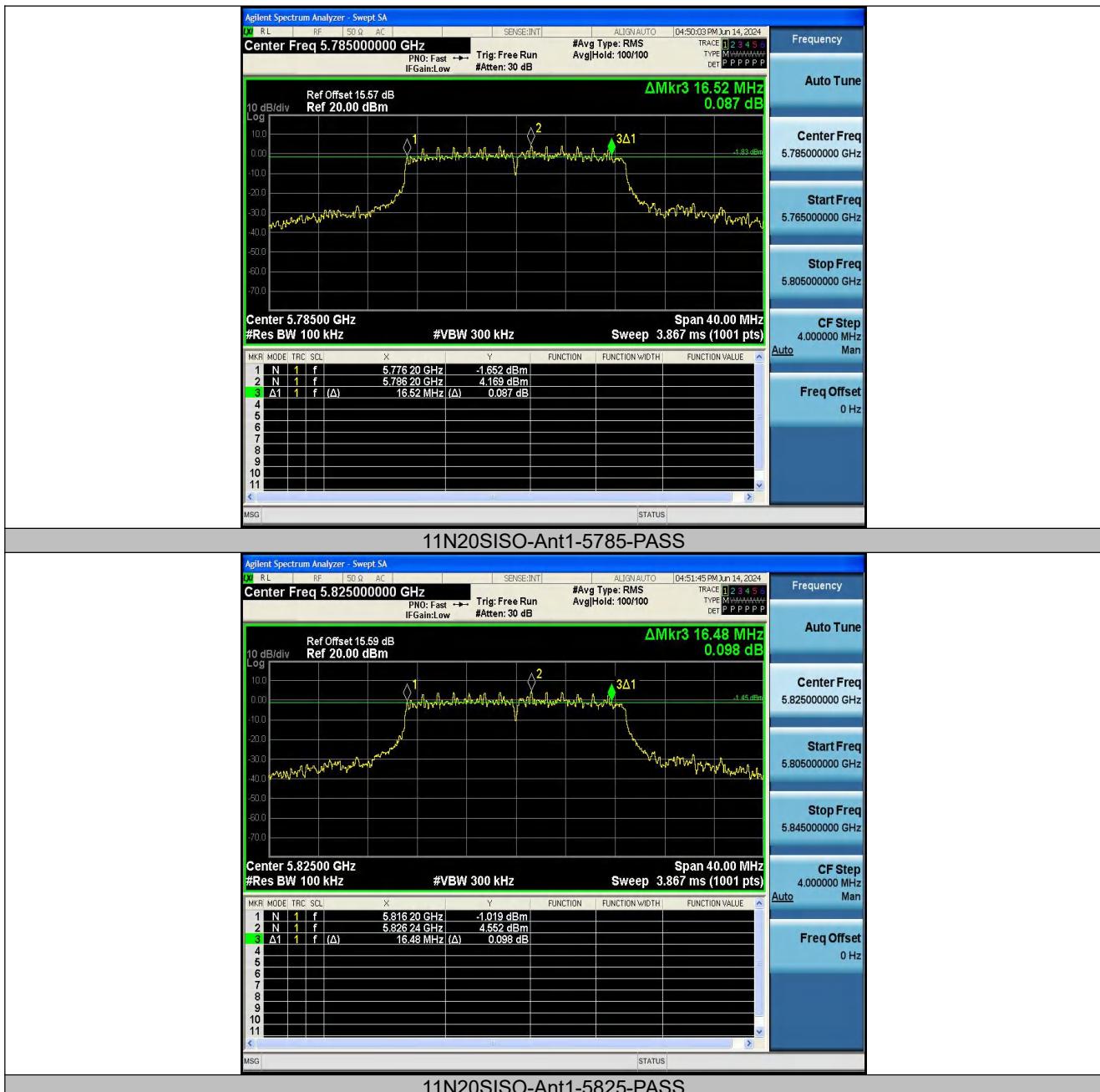


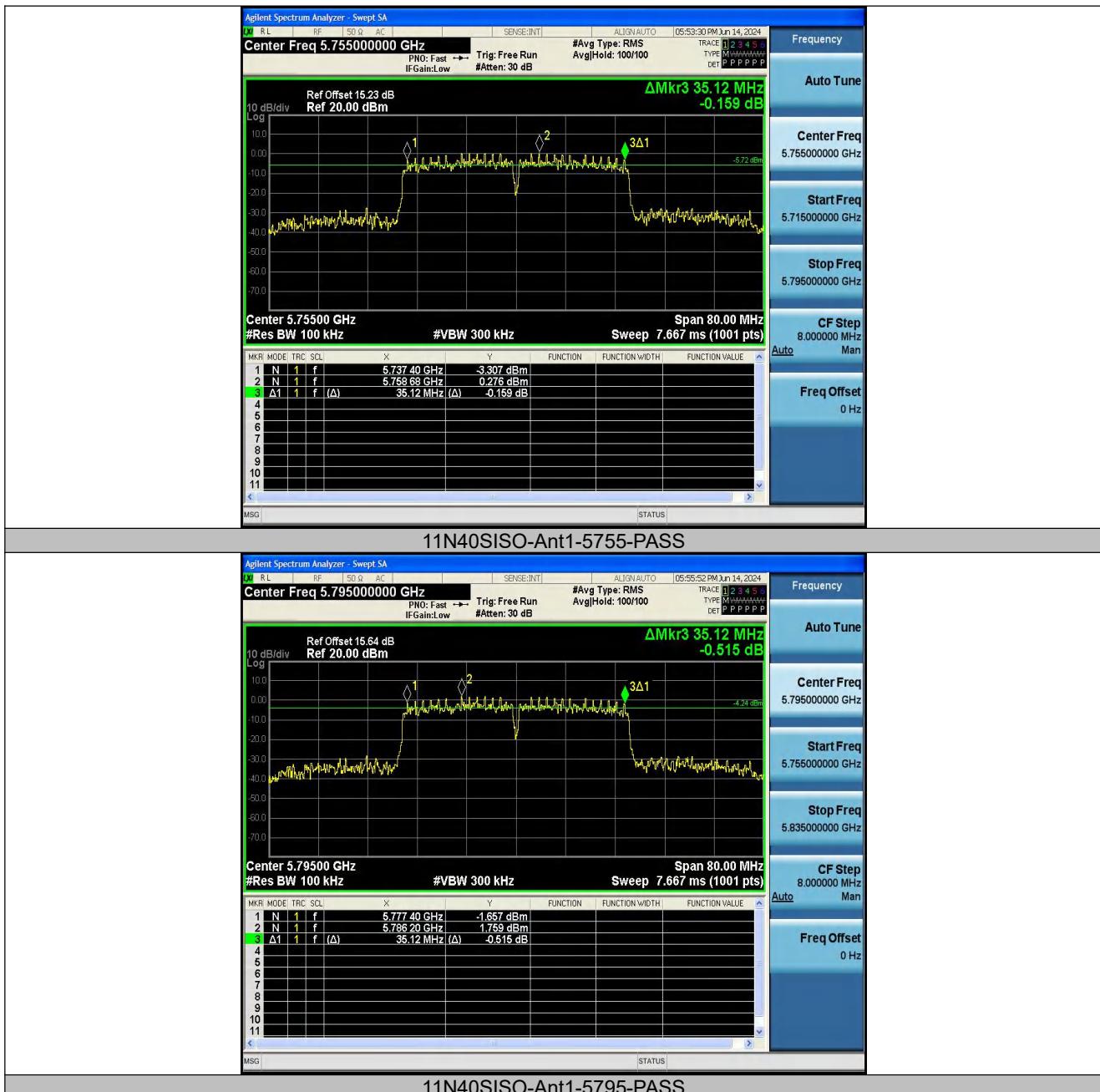


11A-Ant1-5825-PASS



11N20SISO-Ant1-5745-PASS





8 Maximum Conducted Output Power

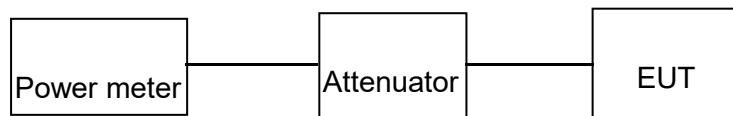
Test Requirement : FCC CFR47 Part 15 Section 15.247

Test Method : ANSI C63.10:2013

Test Limit : For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

8.1 Test Setup



8.2 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, The use Power Meter 1. Place the EUT on a bench and set it in transmitting mode. 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a Power meter.



8.3 Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	17.61	≤23.98	PASS
11A	Ant1	5200	18.66	≤23.98	PASS
11A	Ant1	5240	19.03	≤23.98	PASS
11A	Ant1	5745	13.30	≤30.00	PASS
11A	Ant1	5785	14.86	≤30.00	PASS
11A	Ant1	5825	15.18	≤30.00	PASS
11N20SISO	Ant1	5180	17.40	≤23.98	PASS
11N20SISO	Ant1	5200	18.43	≤23.98	PASS
11N20SISO	Ant1	5240	19.06	≤23.98	PASS
11N20SISO	Ant1	5745	13.12	≤30.00	PASS
11N20SISO	Ant1	5785	14.69	≤30.00	PASS
11N20SISO	Ant1	5825	15.04	≤30.00	PASS
11N40SISO	Ant1	5190	18.03	≤23.98	PASS
11N40SISO	Ant1	5230	18.44	≤23.98	PASS
11N40SISO	Ant1	5755	13.62	≤30.00	PASS
11N40SISO	Ant1	5795	15.11	≤30.00	PASS



9 Power Spectral density

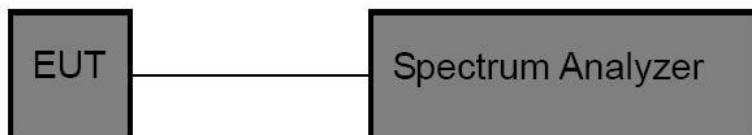
Test Requirement	: FCC CFR47 Part 15 Section 15.2407(a)
Test Method	: ANSI C63.10:2013
Test Limit	<p>: For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi..</p> <p>For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations</p>

9.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 and ANSI 63.10: 2013 Sec 10.3.7. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

- a) Set the RBW to 1 MHz.
- b) Set the VBW to be at least 1 MHz (a VBW of 3 MHz is desirable).
- c) Set the frequency span to examine the spectrum across a convenient frequency segment (e.g., 600 MHz).
- d) Select the power averaging (rms) detector.
- e) Set the sweep time so that there is no more than a 1 ms integration period over each measurement bin.
- f) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

9.2 Test Setup



9.3 Test Result

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations / data rates and antenna ports.

Following channel was selected for the final test as listed below

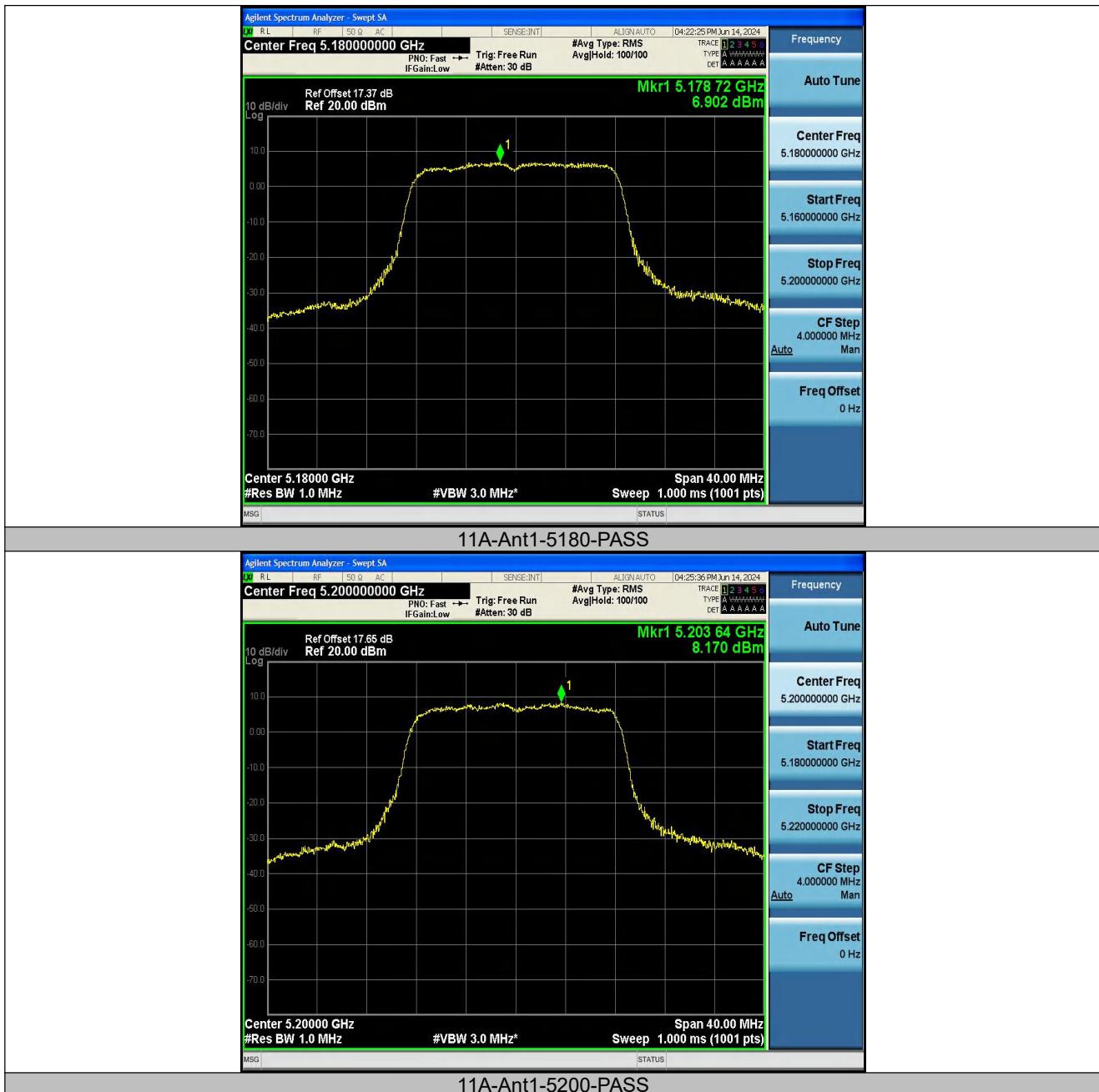
TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	6.9	≤11.00	PASS
11A	Ant1	5200	8.17	≤11.00	PASS
11A	Ant1	5240	8.53	≤11.00	PASS
11N20SISO	Ant1	5180	6.56	≤11.00	PASS
11N20SISO	Ant1	5200	7.46	≤11.00	PASS
11N20SISO	Ant1	5240	8.33	≤11.00	PASS
11N40SISO	Ant1	5190	7.17	≤11.00	PASS
11N40SISO	Ant1	5230	5.37	≤11.00	PASS

TestMode	Antenna	Frequency[MHz]	Result [dBm/300kHz]	Result [dBm/500kHz]	Result [dBm/500kHz]	Verdict
11A	Ant1	5745	0.11	2.33	≤30.00	PASS
11A	Ant1	5785	1.65	3.87	≤30.00	PASS
11A	Ant1	5825	1.77	3.99	≤30.00	PASS
11N20SISO	Ant1	5745	0.01	2.23	≤30.00	PASS
11N20SISO	Ant1	5785	1.97	4.19	≤30.00	PASS
11N20SISO	Ant1	5825	1.81	4.03	≤30.00	PASS
11N40SISO	Ant1	5755	-1.59	0.63	≤30.00	PASS
11N40SISO	Ant1	5795	0.27	2.49	≤30.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2. in the band 5.725–5.85 GHz the test RBW select 300KHz,so the measured result corrected by $\text{Result} + 10 \log (500 \text{ kHz}/300\text{kHz})$.

Test Graphs:





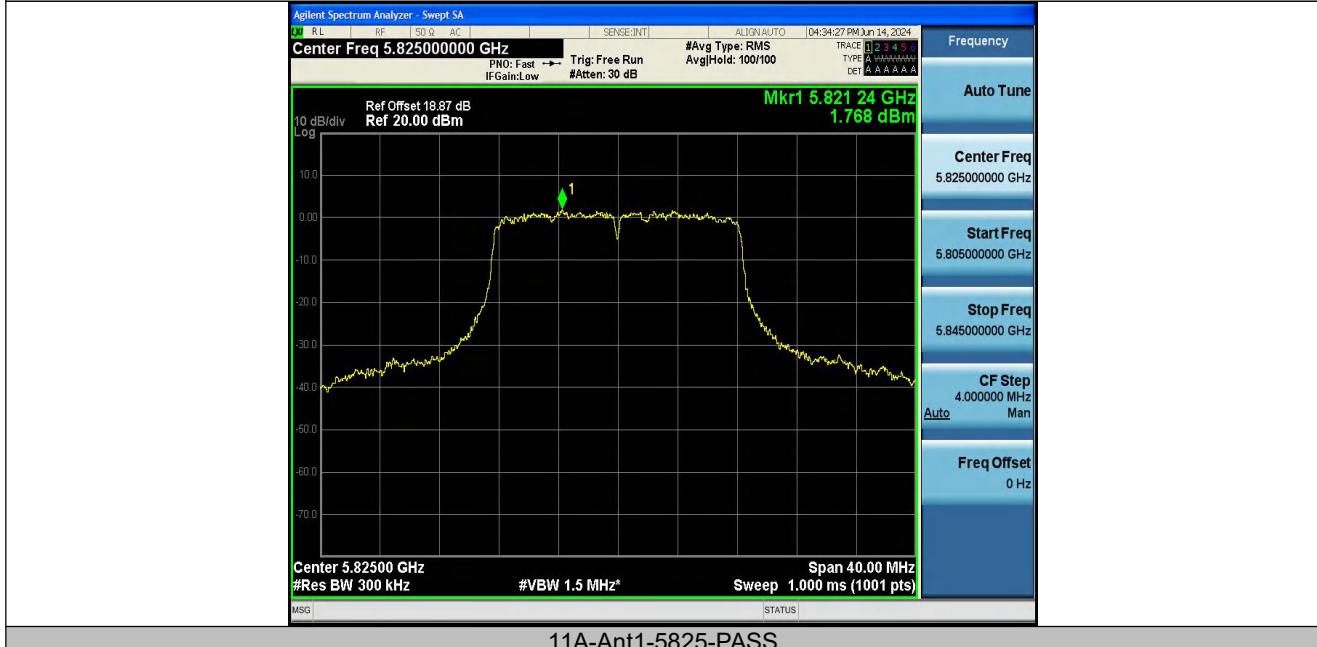
11A-Ant1-5240-PASS



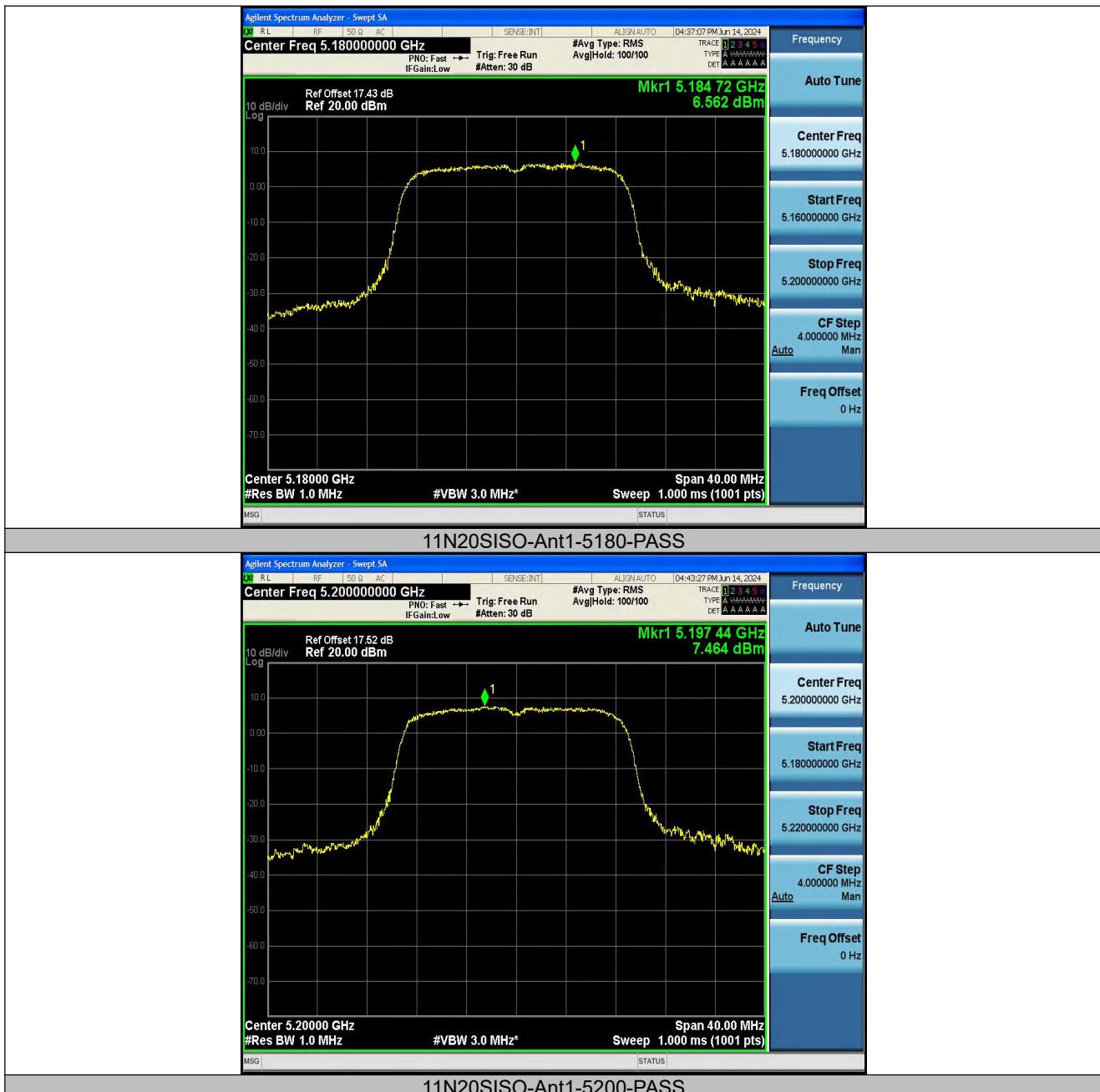
11A-Ant1-5745-PASS

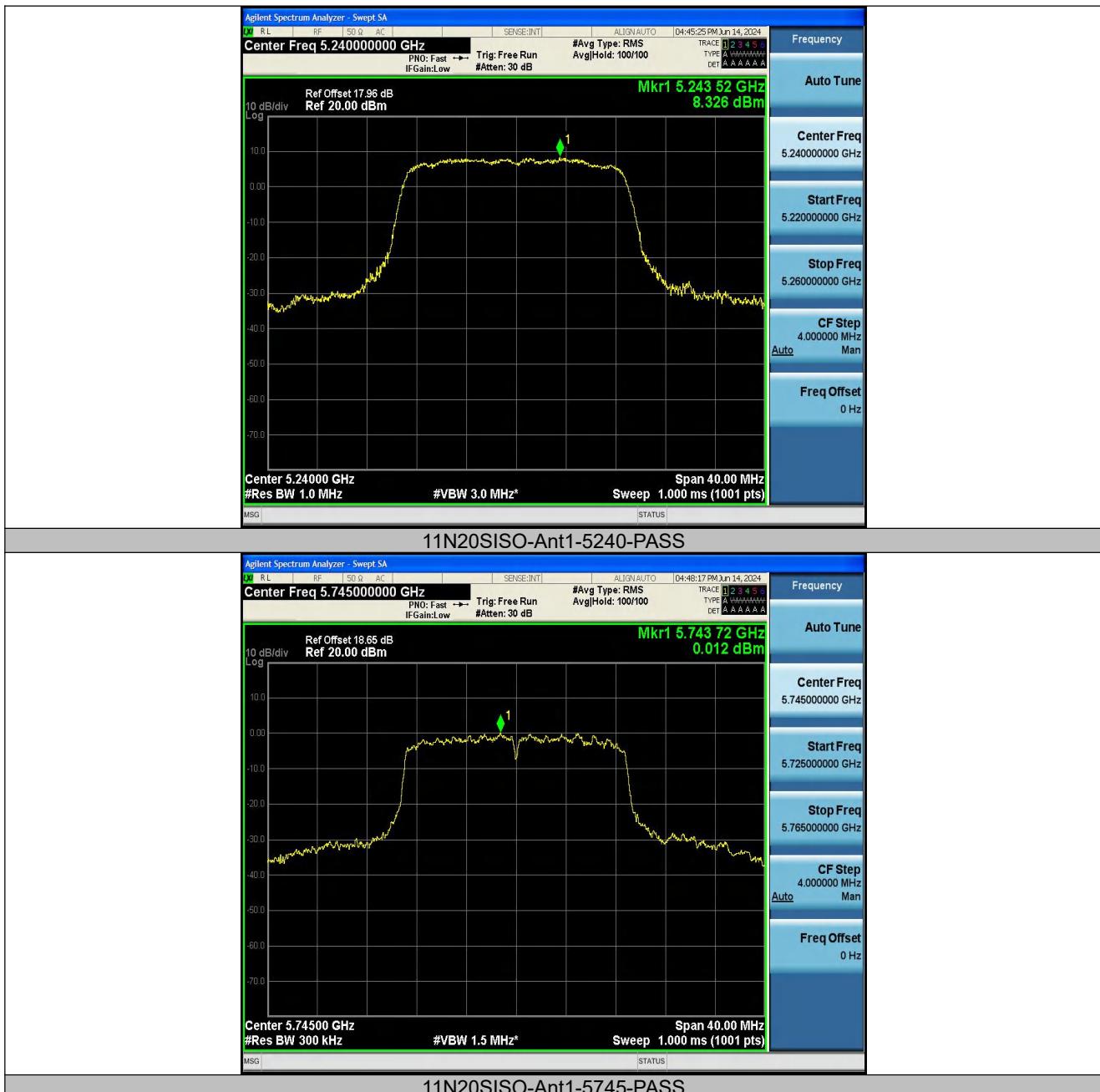


11A-Ant1-5785-PASS



11A-Ant1-5825-PASS







11N20SISO-Ant1-5785-PASS



11N20SISO-Ant1-5825-PASS



11N40SISO-Ant1-5190-PASS



11N40SISO-Ant1-5230-PASS



Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2. in the band 5.725–5.85 GHz the test RBW select 300KHz,so the measured result corrected by Result+10 log (500 kHz/300kHz).



9.4 Antenna Requirement

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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

9.5 Result

The EUT'S antenna, permanent attached antenna, is FPC Antenna. The antenna's gain are 5180-5240MHz: 5.18 dBi, 5745-5825MHz: 5.08 dBi and meets the requirement.

10 Frequency Stability

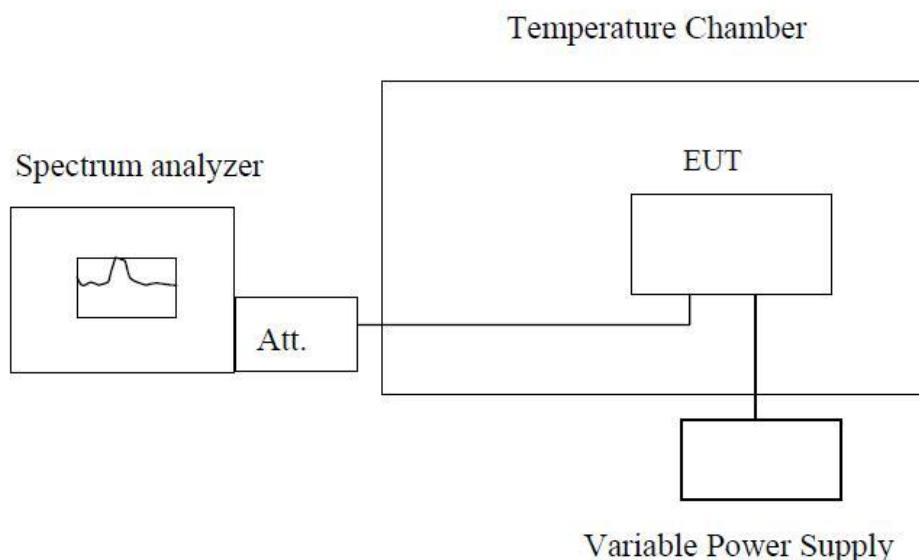
Test Requirement : FCC Part15 E Section 15.407 (g)

Test 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 user's manual.

10.1 Test Procedure

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

10.2 Test Setup



10.3 Test Result

TestMode	Antenna	Frequency [MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	-43000.00	-8.301158	20	PASS
11A	Ant1	5180	LV	NT	-42000.00	-8.108108	20	PASS
11A	Ant1	5180	HV	NT	-41000.00	-7.915058	20	PASS
11N20SISO	Ant1	5180	NV	NT	-35000.00	-6.756757	20	PASS
11N20SISO	Ant1	5180	LV	NT	-34000.00	-6.563707	20	PASS
11N20SISO	Ant1	5180	HV	NT	-34000.00	-6.563707	20	PASS
11A	Ant1	5200	NV	NT	-37000.00	-7.115385	20	PASS
11A	Ant1	5200	LV	NT	-37000.00	-7.115385	20	PASS
11A	Ant1	5200	HV	NT	-38000.00	-7.307692	20	PASS
11N20SISO	Ant1	5200	NV	NT	-40000.00	-7.692308	20	PASS
11N20SISO	Ant1	5200	LV	NT	-40000.00	-7.692308	20	PASS
11N20SISO	Ant1	5200	HV	NT	-40000.00	-7.692308	20	PASS
11A	Ant1	5240	NV	NT	-41000.00	-7.824427	20	PASS
11A	Ant1	5240	LV	NT	-41000.00	-7.824427	20	PASS
11A	Ant1	5240	HV	NT	-41000.00	-7.824427	20	PASS
11N20SISO	Ant1	5240	NV	NT	-42000.00	-8.015267	20	PASS
11N20SISO	Ant1	5240	LV	NT	-42000.00	-8.015267	20	PASS
11N20SISO	Ant1	5240	HV	NT	-42000.00	-8.015267	20	PASS
11A	Ant1	5745	NV	NT	-43000.00	-7.484769	20	PASS
11A	Ant1	5745	LV	NT	-43000.00	-7.484769	20	PASS
11A	Ant1	5745	HV	NT	-43000.00	-7.484769	20	PASS
11N20SISO	Ant1	5745	NV	NT	-42000.00	-7.310705	20	PASS
11N20SISO	Ant1	5745	LV	NT	-42000.00	-7.310705	20	PASS
11N20SISO	Ant1	5745	HV	NT	-42000.00	-7.310705	20	PASS
11A	Ant1	5785	NV	NT	-42000.00	-7.260156	20	PASS
11A	Ant1	5785	LV	NT	-42000.00	-7.260156	20	PASS
11A	Ant1	5785	HV	NT	-42000.00	-7.260156	20	PASS
11N20SISO	Ant1	5785	NV	NT	-41000.00	-7.087295	20	PASS
11N20SISO	Ant1	5785	LV	NT	-41000.00	-7.087295	20	PASS
11N20SISO	Ant1	5785	HV	NT	-42000.00	-7.260156	20	PASS
11A	Ant1	5825	NV	NT	-41000.00	-7.038627	20	PASS
11A	Ant1	5825	LV	NT	-41000.00	-7.038627	20	PASS
11A	Ant1	5825	HV	NT	-41000.00	-7.038627	20	PASS
11N20SISO	Ant1	5825	NV	NT	-41000.00	-7.038627	20	PASS
11N20SISO	Ant1	5825	LV	NT	-41000.00	-7.038627	20	PASS
11N20SISO	Ant1	5825	HV	NT	-41000.00	-7.038627	20	PASS
11N40SISO	Ant1	5190	NV	NT	-36000.00	-6.936416	20	PASS
11N40SISO	Ant1	5190	LV	NT	-38000.00	-7.321773	20	PASS
11N40SISO	Ant1	5190	HV	NT	-38000.00	-7.321773	20	PASS
11N40SISO	Ant1	5230	NV	NT	-39000.00	-7.456979	20	PASS
11N40SISO	Ant1	5230	LV	NT	-40000.00	-7.648184	20	PASS
11N40SISO	Ant1	5230	HV	NT	-40000.00	-7.648184	20	PASS
11N40SISO	Ant1	5755	NV	NT	-43000.00	-7.471764	20	PASS
11N40SISO	Ant1	5755	LV	NT	-43000.00	-7.471764	20	PASS
11N40SISO	Ant1	5755	HV	NT	-43000.00	-7.471764	20	PASS
11N40SISO	Ant1	5795	NV	NT	-41000.00	-7.075065	20	PASS
11N40SISO	Ant1	5795	LV	NT	-42000.00	-7.247627	20	PASS
11N40SISO	Ant1	5795	HV	NT	-42000.00	-7.247627	20	PASS

Temperature								
TestMode	Antenna	Channel	Voltage [Vdc]	Temperat ure (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	40000.00	7.722008	20	PASS
			NV	-20	40000.00	7.722008	20	PASS
			NV	-10	40000.00	7.722008	20	PASS
			NV	0	40000.00	7.722008	20	PASS
			NV	10	40000.00	7.722008	20	PASS
			NV	20	40000.00	7.722008	20	PASS
			NV	30	40000.00	7.722008	20	PASS
			NV	40	40000.00	7.722008	20	PASS
			NV	50	40000.00	7.722008	20	PASS
			NV	-30	40000.00	7.662835	20	PASS
11A	Ant1	5220	NV	-20	40000.00	7.662835	20	PASS
			NV	-10	40000.00	7.662835	20	PASS
			NV	0	40000.00	7.662835	20	PASS
			NV	10	40000.00	7.662835	20	PASS
			NV	20	40000.00	7.662835	20	PASS
			NV	30	40000.00	7.662835	20	PASS
			NV	40	40000.00	7.662835	20	PASS
			NV	50	40000.00	7.662835	20	PASS
			NV	-30	40000.00	7.633588	20	PASS
			NV	-20	40000.00	7.633588	20	PASS
11A	Ant1	5240	NV	-10	40000.00	7.633588	20	PASS
			NV	0	40000.00	7.633588	20	PASS
			NV	10	40000.00	7.633588	20	PASS
			NV	20	40000.00	7.633588	20	PASS
			NV	30	40000.00	7.633588	20	PASS
			NV	40	40000.00	7.633588	20	PASS
			NV	50	40000.00	7.633588	20	PASS
			NV	-30	40000.00	6.962576	20	PASS
			NV	-20	40000.00	6.962576	20	PASS
			NV	-10	40000.00	6.962576	20	PASS
11A	Ant1	5745	NV	0	40000.00	6.962576	20	PASS
			NV	10	40000.00	6.962576	20	PASS
			NV	20	40000.00	6.962576	20	PASS
			NV	30	40000.00	6.962576	20	PASS
			NV	40	40000.00	6.962576	20	PASS
			NV	50	40000.00	6.962576	20	PASS
			NV	-30	40000.00	6.914434	20	PASS
			NV	-20	40000.00	6.914434	20	PASS
			NV	-10	40000.00	6.914434	20	PASS
			NV	0	40000.00	6.914434	20	PASS
11A	Ant1	5785	NV	10	40000.00	6.914434	20	PASS
			NV	20	40000.00	6.914434	20	PASS
			NV	30	40000.00	6.914434	20	PASS
			NV	40	40000.00	6.914434	20	PASS
			NV	50	40000.00	6.914434	20	PASS
			NV	-30	40000.00	6.866953	20	PASS
			NV	-20	40000.00	6.866953	20	PASS
			NV	-10	40000.00	6.866953	20	PASS
			NV	0	40000.00	6.866953	20	PASS
			NV	10	40000.00	6.866953	20	PASS
11A	Ant1	5825	NV	20	40000.00	6.866953	20	PASS



11N20SISO	Ant1	5180	NV	30	40000.00	6.866953	20	PASS		
			NV	40	40000.00	6.866953	20	PASS		
			NV	50	40000.00	6.866953	20	PASS		
			NV	-30	40000.00	7.722008	20	PASS		
			NV	-20	40000.00	7.722008	20	PASS		
			NV	-10	40000.00	7.722008	20	PASS		
			NV	0	40000.00	7.722008	20	PASS		
			NV	10	40000.00	7.722008	20	PASS		
			NV	20	40000.00	7.722008	20	PASS		
			NV	30	40000.00	7.722008	20	PASS		
5220			NV	40	40000.00	7.722008	20	PASS		
			NV	50	40000.00	7.722008	20	PASS		
			NV	-30	40000.00	7.662835	20	PASS		
			NV	-20	40000.00	7.662835	20	PASS		
			NV	-10	40000.00	7.662835	20	PASS		
			NV	0	40000.00	7.662835	20	PASS		
			NV	10	40000.00	7.662835	20	PASS		
			NV	20	40000.00	7.662835	20	PASS		
			NV	30	40000.00	7.662835	20	PASS		
			NV	40	40000.00	7.662835	20	PASS		
5240			NV	50	40000.00	7.662835	20	PASS		
			NV	-30	40000.00	7.633588	20	PASS		
			NV	-20	40000.00	7.633588	20	PASS		
			NV	-10	40000.00	7.633588	20	PASS		
			NV	0	40000.00	7.633588	20	PASS		
			NV	10	40000.00	7.633588	20	PASS		
			NV	20	40000.00	7.633588	20	PASS		
			NV	30	40000.00	7.633588	20	PASS		
			NV	40	40000.00	7.633588	20	PASS		
			NV	50	40000.00	7.633588	20	PASS		
5745			NV	-30	40000.00	6.962576	20	PASS		
			NV	-20	40000.00	6.962576	20	PASS		
			NV	-10	40000.00	6.962576	20	PASS		
			NV	0	40000.00	6.962576	20	PASS		
			NV	10	40000.00	6.962576	20	PASS		
			NV	20	40000.00	6.962576	20	PASS		
			NV	30	40000.00	6.962576	20	PASS		
			NV	40	40000.00	6.962576	20	PASS		
			NV	50	40000.00	6.962576	20	PASS		
			NV	-30	40000.00	6.914434	20	PASS		
5785			NV	-20	40000.00	6.914434	20	PASS		
			NV	-10	40000.00	6.914434	20	PASS		
			NV	0	40000.00	6.914434	20	PASS		
			NV	10	40000.00	6.914434	20	PASS		
			NV	20	40000.00	6.914434	20	PASS		
			NV	30	40000.00	6.914434	20	PASS		
			NV	40	40000.00	6.914434	20	PASS		
			NV	50	40000.00	6.914434	20	PASS		
			NV	-30	40000.00	6.866953	20	PASS		
			NV	-20	40000.00	6.866953	20	PASS		
5825			NV	-10	40000.00	6.866953	20	PASS		
			NV	0	40000.00	6.866953	20	PASS		
			NV	10	40000.00	6.866953	20	PASS		
			NV	20	40000.00	6.866953	20	PASS		
			NV	30	40000.00	6.866953	20	PASS		
			NV	40	40000.00	6.866953	20	PASS		



			NV	50	40000.00	6.866953	20	PASS
11N40SISO	Ant1	5190	NV	-30	40000.00	7.707129	20	PASS
			NV	-20	40000.00	7.707129	20	PASS
			NV	-10	40000.00	7.707129	20	PASS
			NV	0	40000.00	7.707129	20	PASS
		5230	NV	10	40000.00	7.707129	20	PASS
			NV	20	40000.00	7.707129	20	PASS
			NV	30	40000.00	7.707129	20	PASS
			NV	40	40000.00	7.707129	20	PASS
			NV	50	40000.00	7.707129	20	PASS
		5755	NV	-30	40000.00	7.648184	20	PASS
			NV	-20	40000.00	7.648184	20	PASS
			NV	-10	40000.00	7.648184	20	PASS
			NV	0	40000.00	7.648184	20	PASS
			NV	10	40000.00	7.648184	20	PASS
			NV	20	40000.00	7.648184	20	PASS
			NV	30	40000.00	7.648184	20	PASS
			NV	40	40000.00	7.648184	20	PASS
			NV	50	40000.00	7.648184	20	PASS
			NV	-30	40000.00	6.950478	20	PASS
		5795	NV	-20	40000.00	6.950478	20	PASS
			NV	-10	40000.00	6.950478	20	PASS
			NV	0	40000.00	6.950478	20	PASS
			NV	10	40000.00	6.950478	20	PASS
			NV	20	40000.00	6.950478	20	PASS
			NV	30	40000.00	6.950478	20	PASS
			NV	40	40000.00	6.950478	20	PASS
			NV	50	40000.00	6.950478	20	PASS
			NV	-30	40000.00	6.902502	20	PASS
			NV	-20	40000.00	6.902502	20	PASS

11 Test Setup

Conducted Emissions



Radiated Spurious Emissions
From 30MHz-1000MHz



Test frequency from Above 1GHz

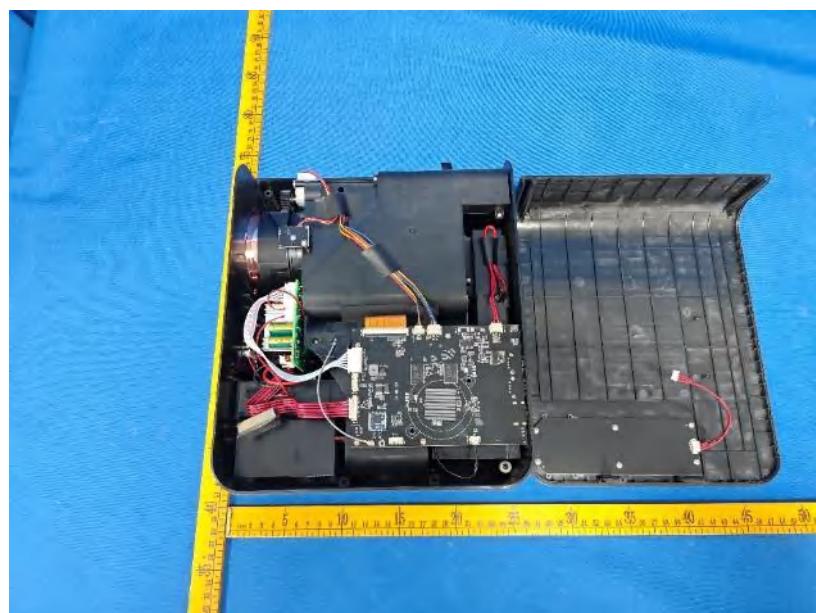
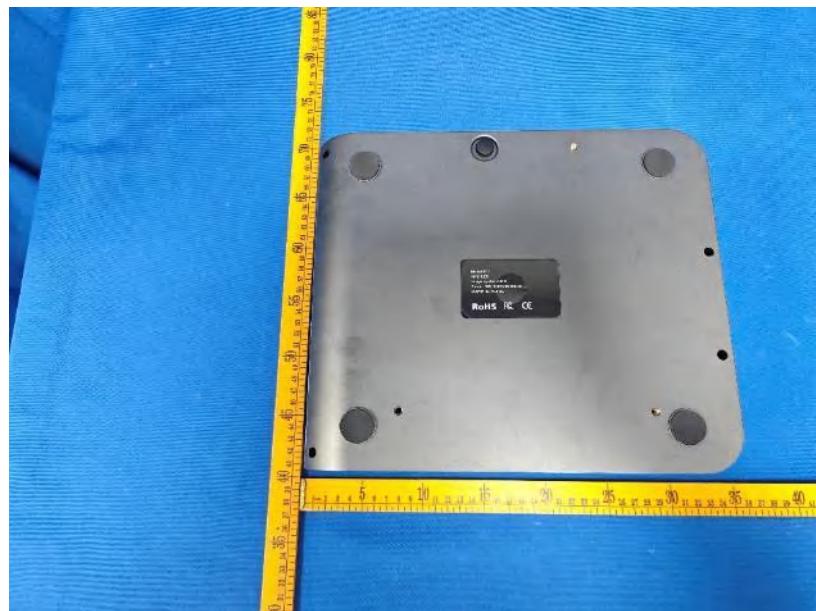


12 EUT PHOTOS

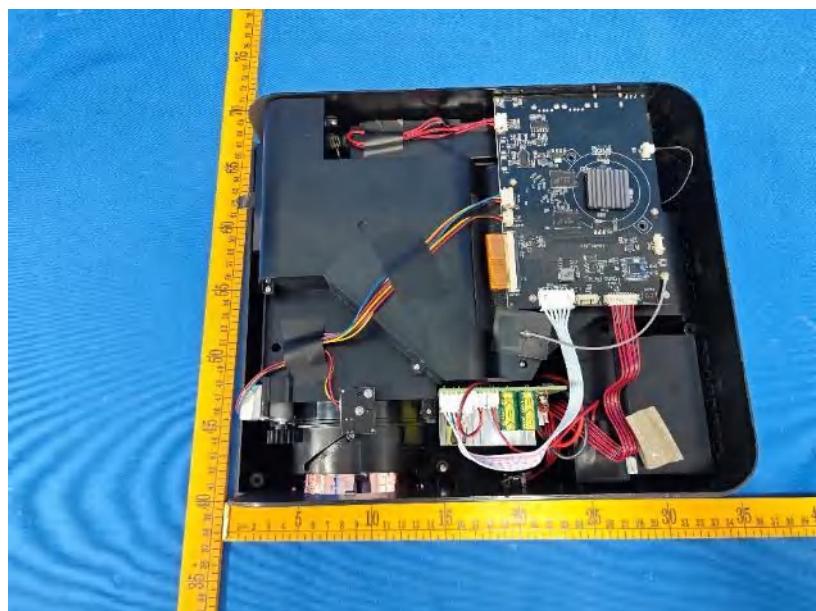
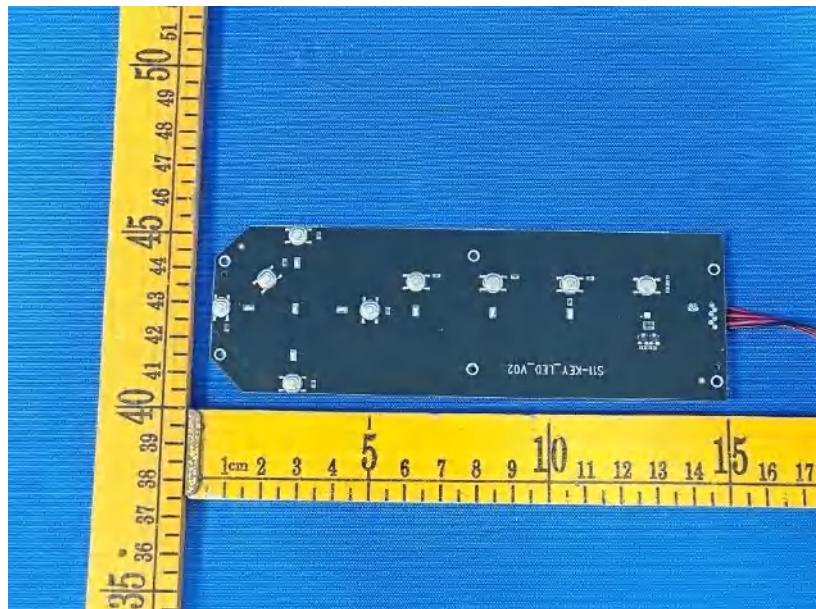


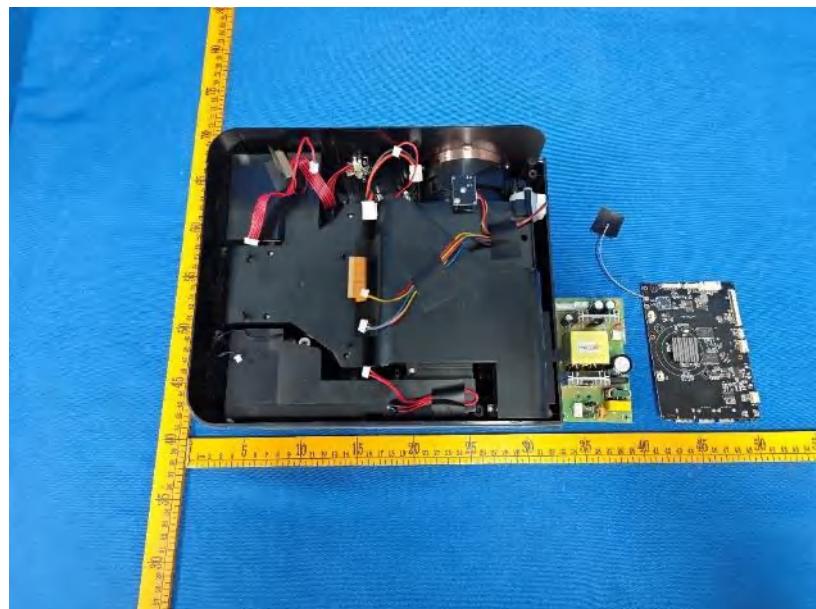


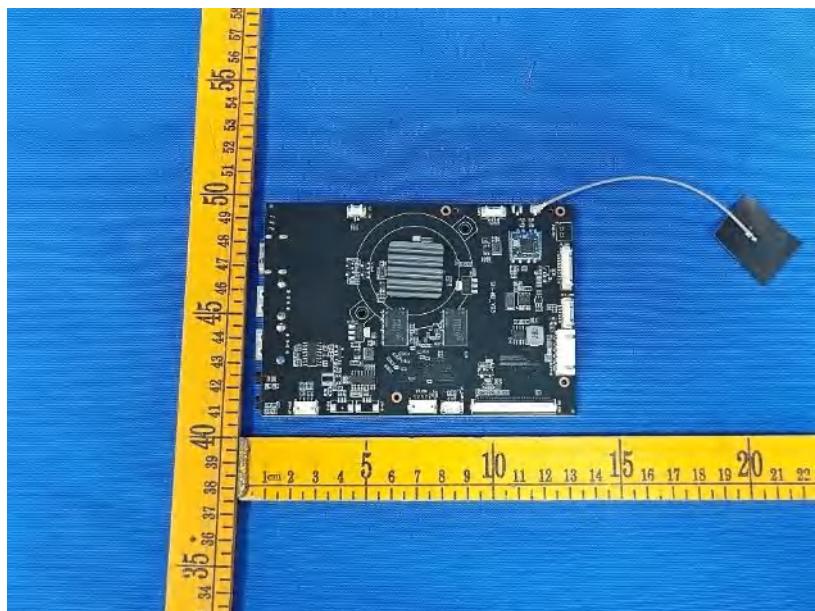
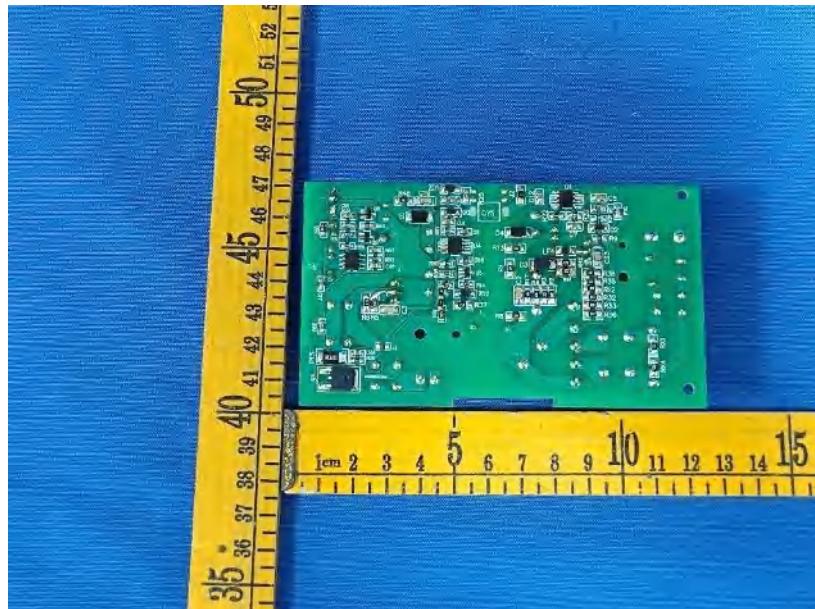


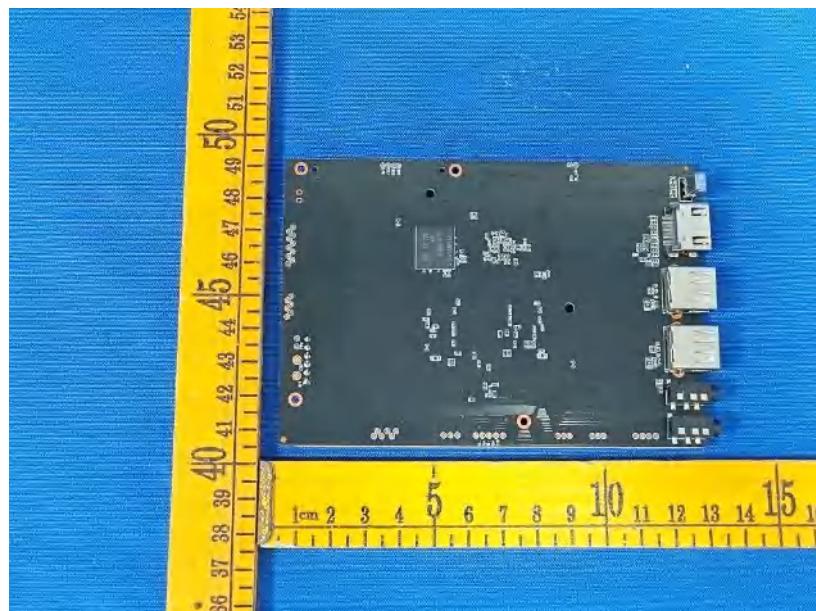
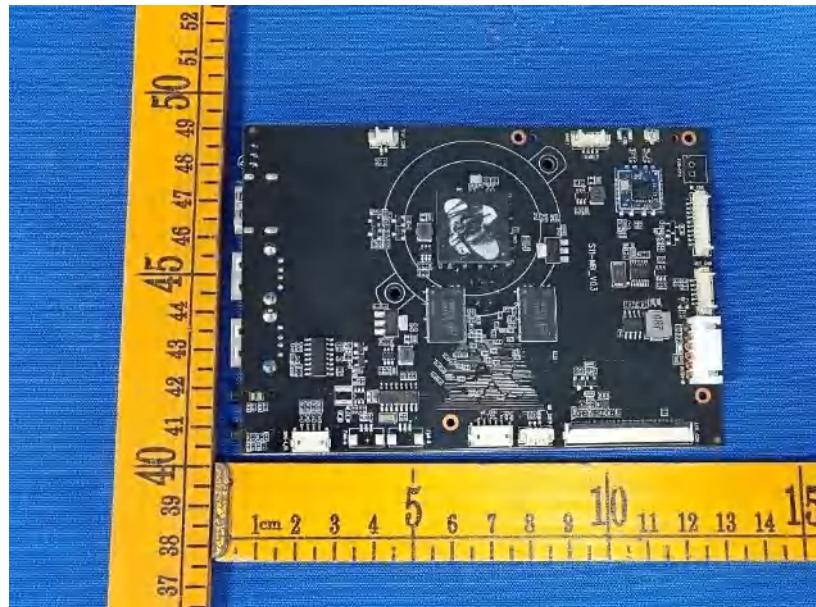


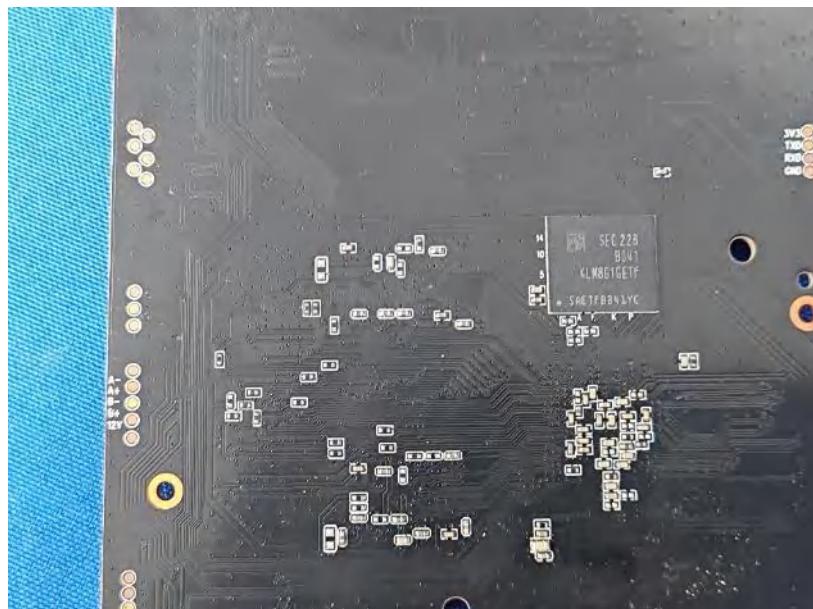
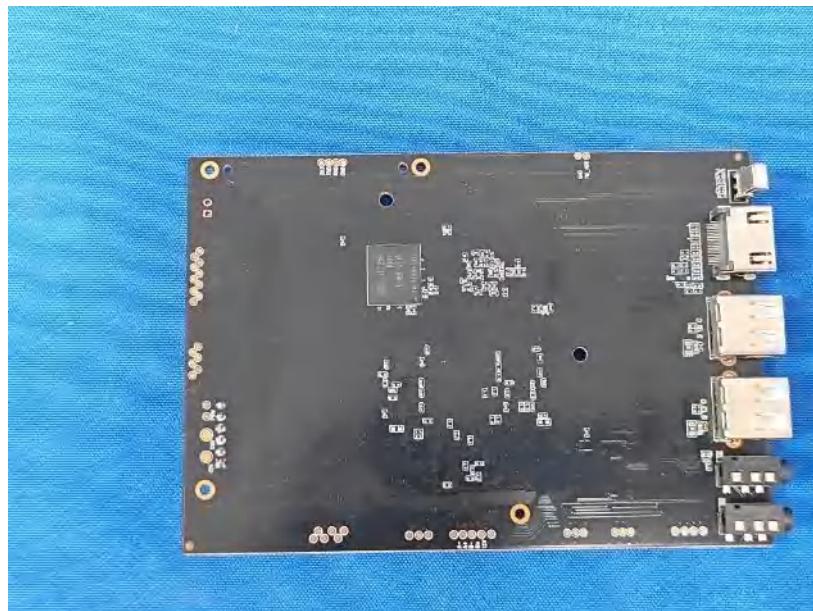


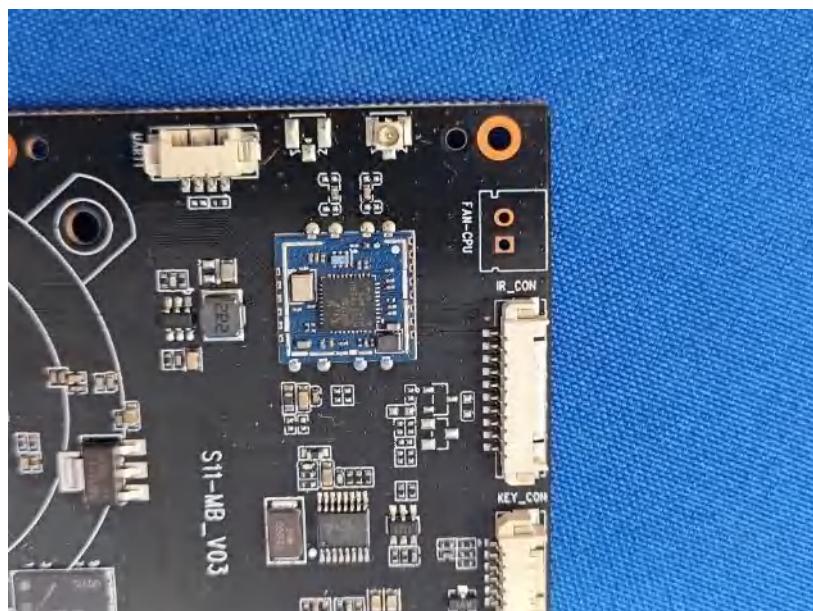
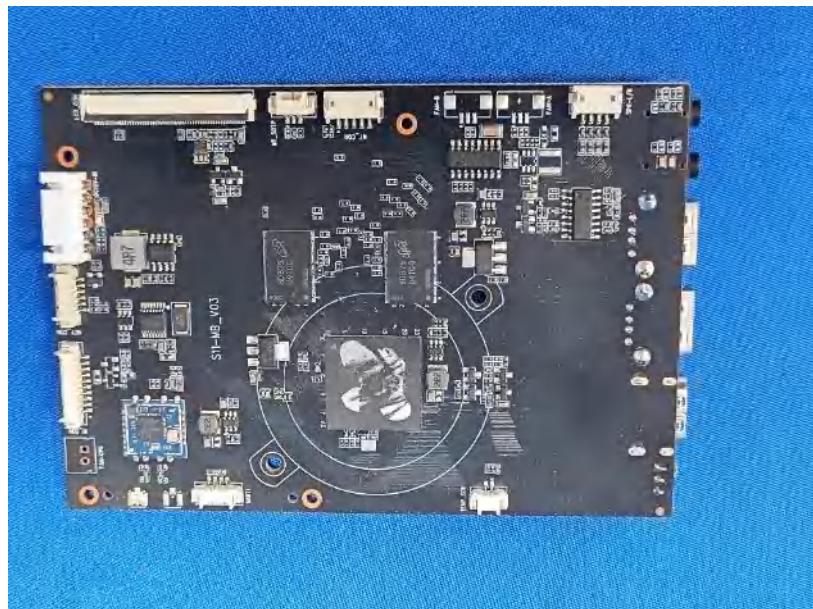


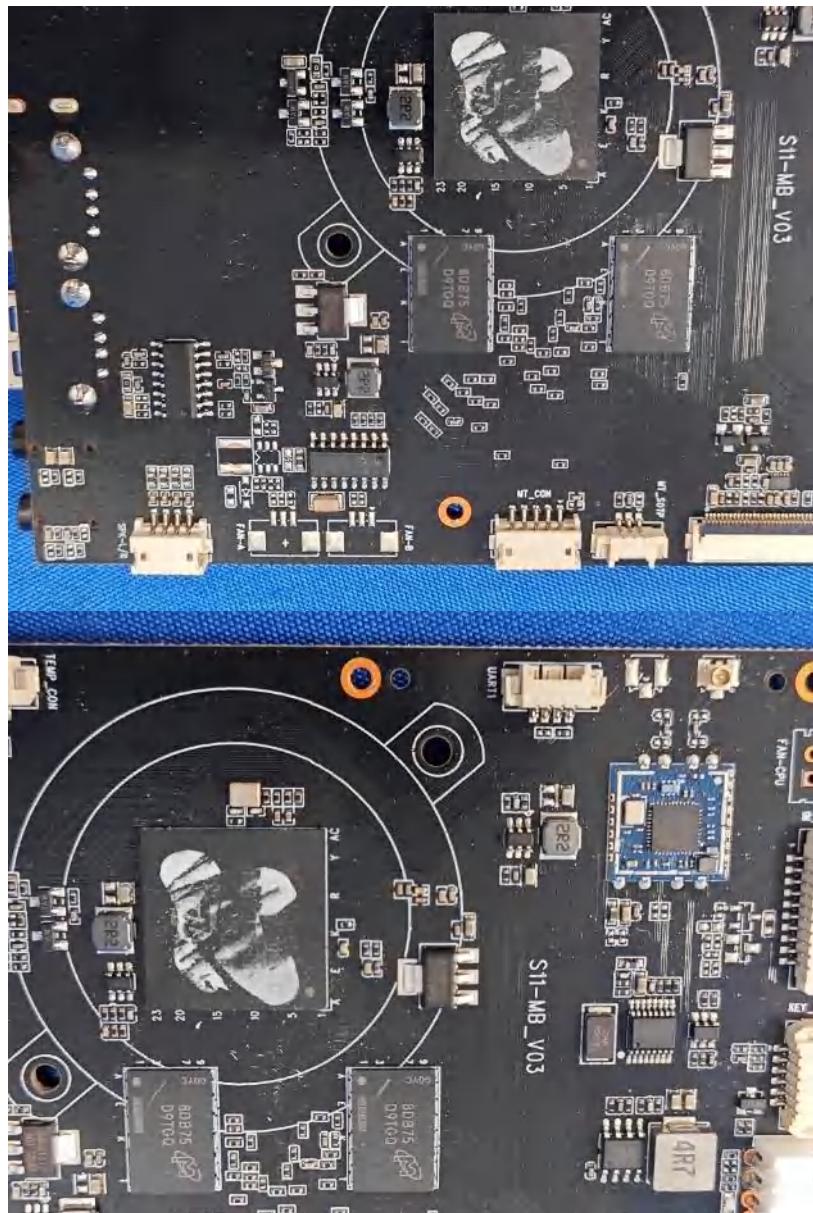












*****THE END REPORT*****