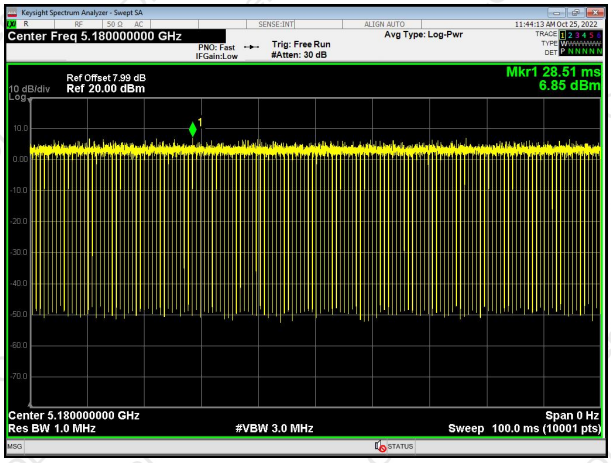
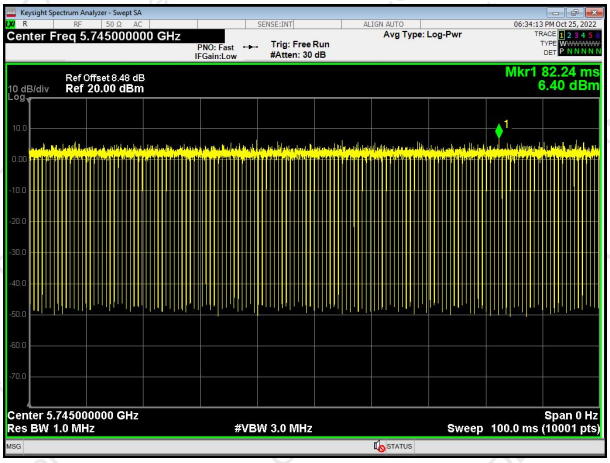
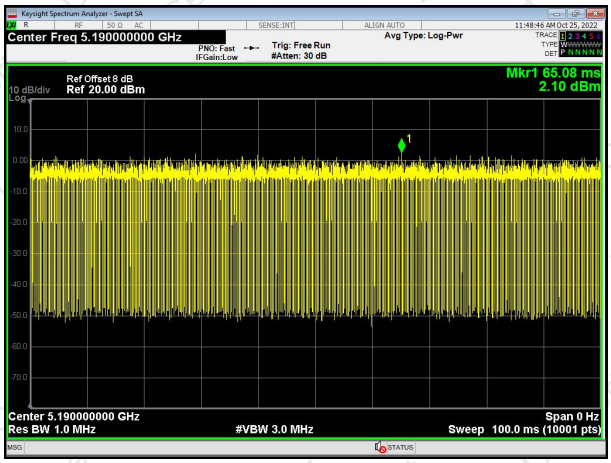
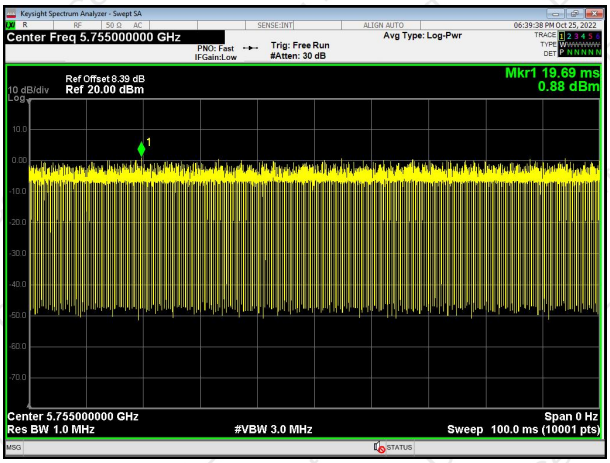
802.11n HT20



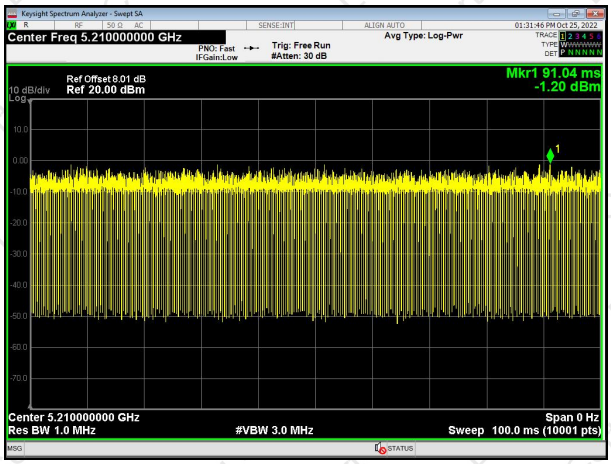


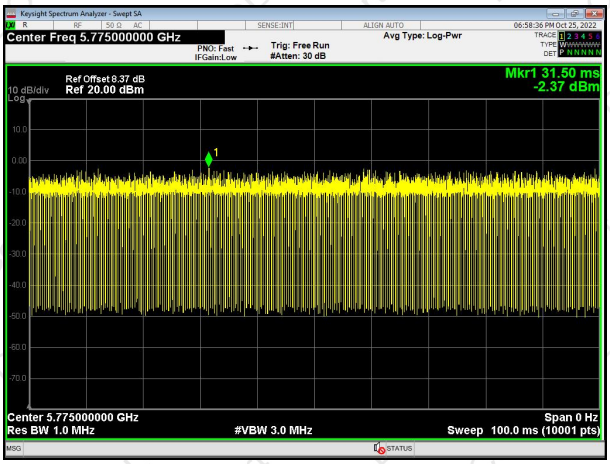
802.11n HT40





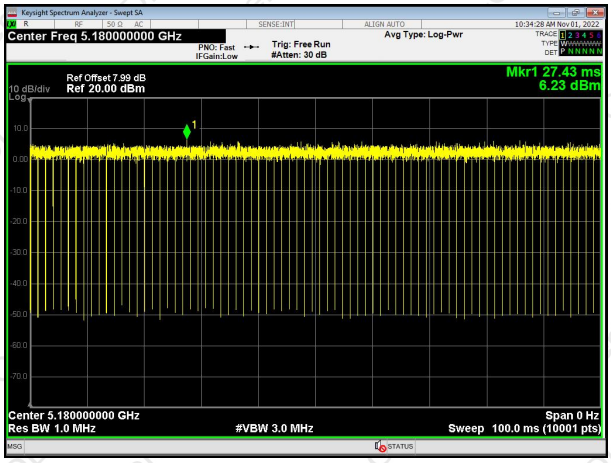
802.11ac HT80

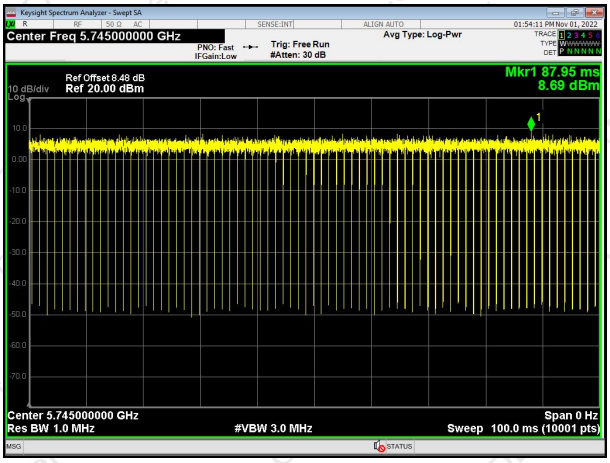




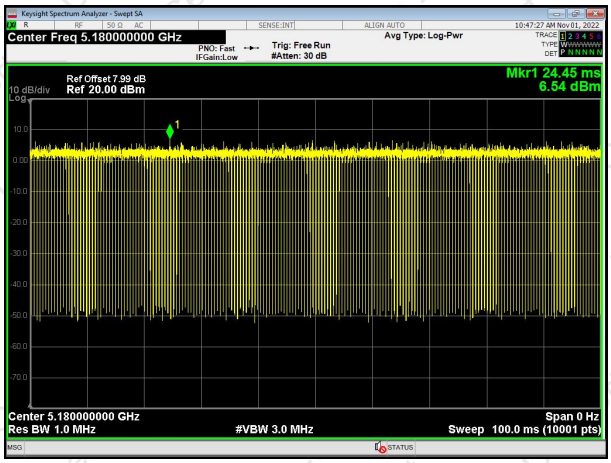
Antenna 2:

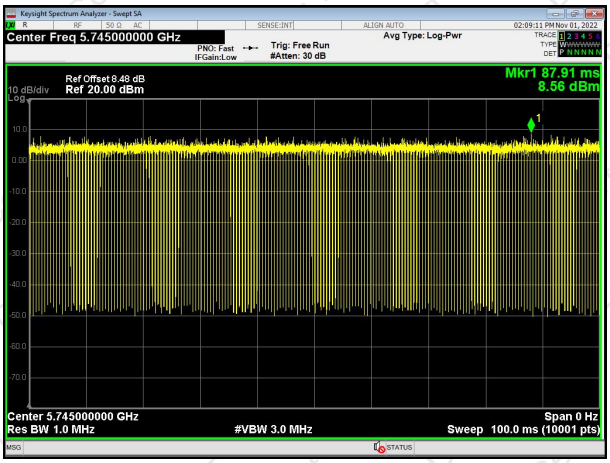
802.11a



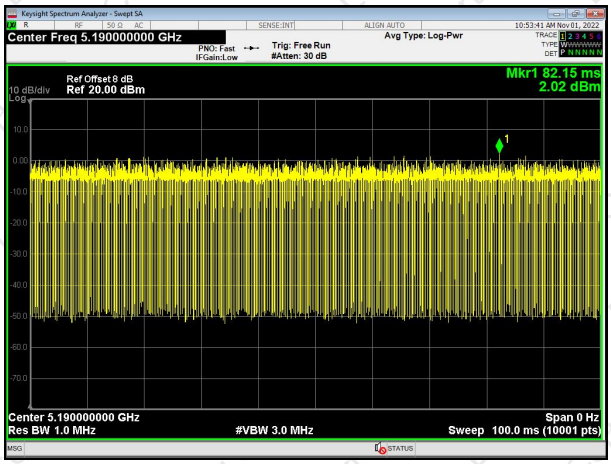


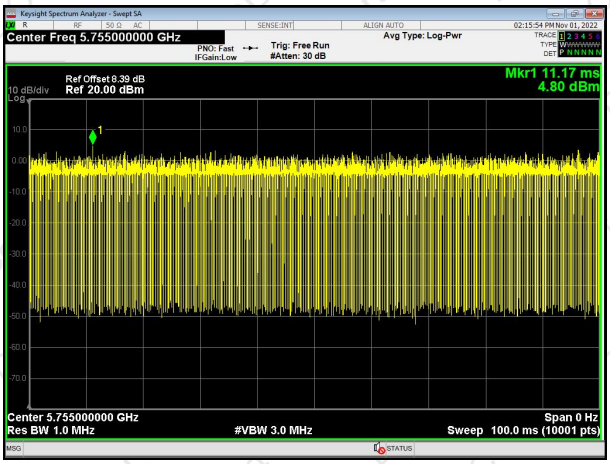
802.11ac HT20



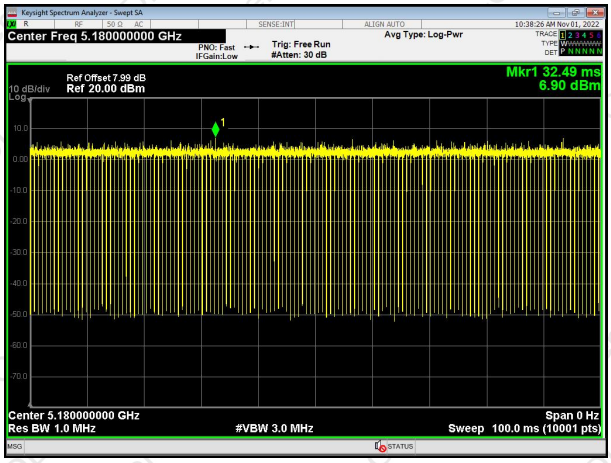


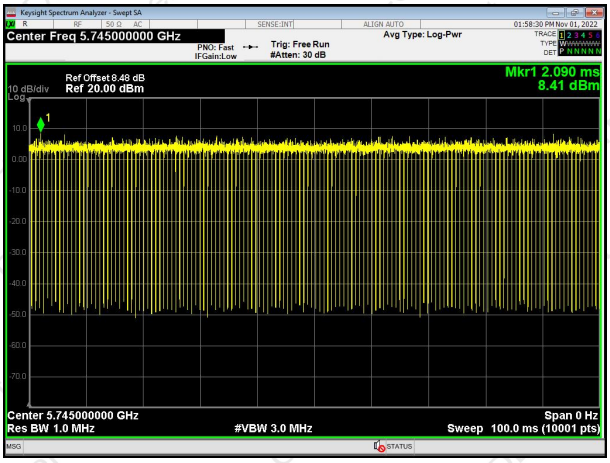
802.11ac HT40



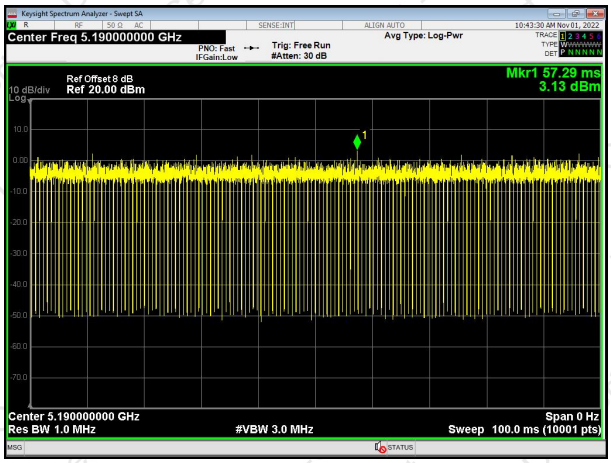


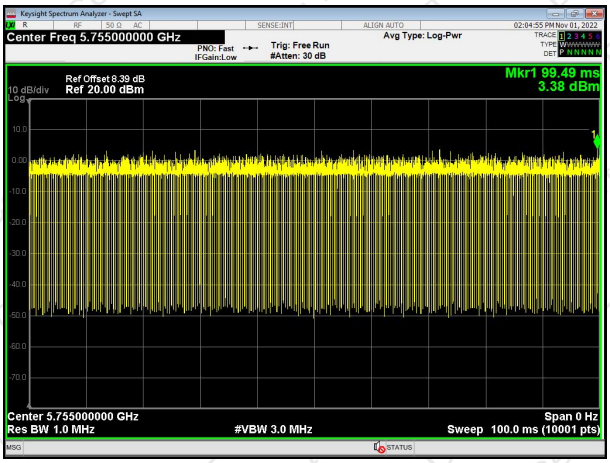
802.11n HT20



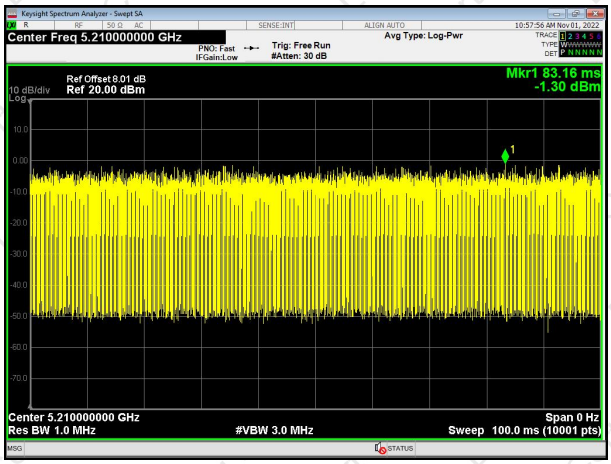


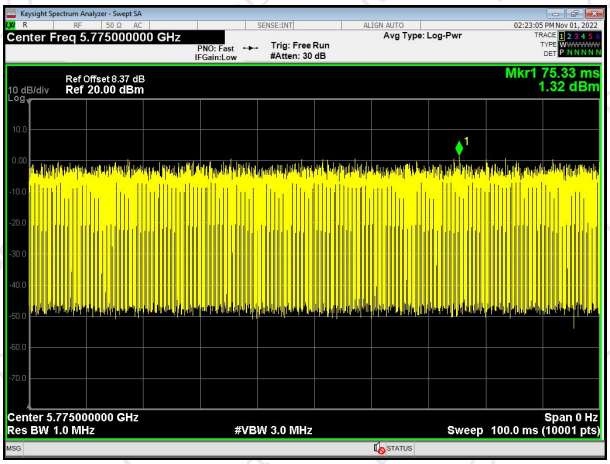
802.11n HT40





802.11ac HT80





. FREQUENCY STABILITY

APPLIED PROCEDURES / 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.

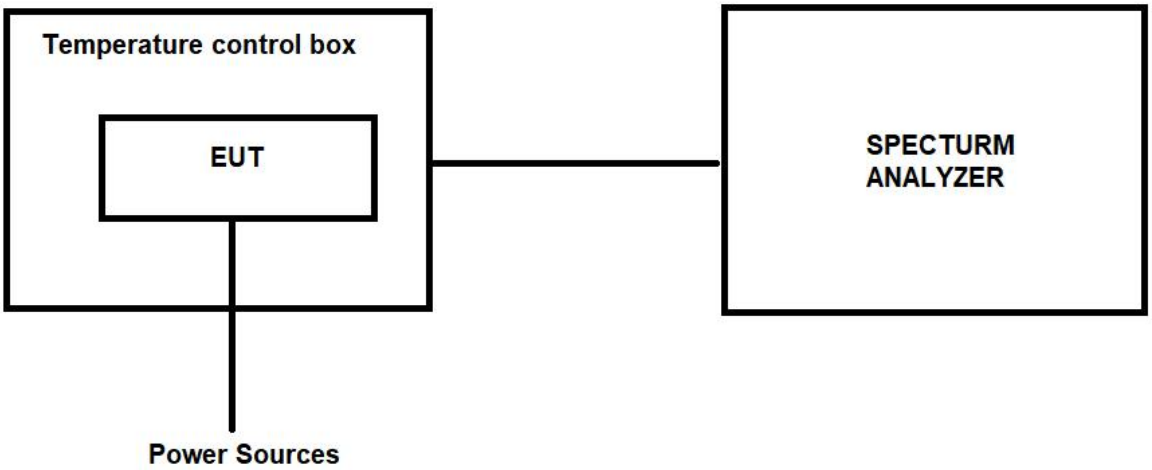
TEST PROCEDURE

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

DEVIATION FROM STANDARD

No deviation.

TEST SETUP



EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

TEST RESULTS

We test all antenna's data, the data only show the antenna1 worst mode.

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)			Δ Frequency (MHz)		
			802.11a	802.11n HT20	802.11ac HT20	802.11a	802.11n HT20	802.11ac HT20
132V	-20℃	5180	5180.0331	5180.0350	5180.0351	-0.0331	-0.0350	-0.0351
		5220	5220.0360	5220.0312	5220.0369	-0.0360	-0.0312	-0.0369
		5240	5240.0237	5240.0259	5240.0255	-0.0237	-0.0259	-0.0255
		5745	5745.0372	5745.0335	5745.0318	-0.0372	-0.0335	-0.0318
		5785	5785.0395	5785.0343	5785.0337	-0.0395	-0.0343	-0.0337
		5825	5825.0350	5825.0373	5825.0356	-0.0350	-0.0373	-0.0356
108V		5180	5180.0240	5180.0233	5180.0236	-0.0240	-0.0233	-0.0236
		5220	5220.0330	5220.0350	5220.0352	-0.0330	-0.0350	-0.0352
		5240	5240.0271	5240.0261	5240.0239	-0.0271	-0.0261	-0.0239
		5745	5745.0226	5745.0222	5745.0231	-0.0226	-0.0222	-0.0231
		5785	5785.0392	5785.0310	5785.0348	-0.0392	-0.0310	-0.0348
		5825	5825.0458	5825.0454	5825.0474	-0.0458	-0.0454	-0.0474
120V	25℃	5180	5180.0556	5180.0527	5180.0580	-0.0556	-0.0527	-0.0580
		5220	5220.0267	5220.0285	5220.0266	-0.0267	-0.0285	-0.0266
		5240	5240.0367	5240.0346	5240.0349	-0.0367	-0.0346	-0.0349
		5745	5745.0351	5745.0328	5745.0358	-0.0351	-0.0328	-0.0358
		5785	5785.0495	5785.0422	5785.0472	-0.0495	-0.0422	-0.0472
		5825	5825.0231	5825.0288	5825.0244	-0.0231	-0.0288	-0.0244
132V	50℃	5180	5180.0325	5180.0369	5180.0358	-0.0325	-0.0369	-0.0358
		5220	5220.0282	5220.0245	5220.0241	-0.0282	-0.0245	-0.0241
		5240	5240.0334	5240.0358	5240.0379	-0.0334	-0.0358	-0.0379
		5745	5745.0679	5745.0647	5745.0665	-0.0679	-0.0647	-0.0665
		5785	5785.0433	5785.0430	5785.0448	-0.0433	-0.0430	-0.0448
		5825	5825.0689	5825.0628	5825.0657	-0.0689	-0.0628	-0.0657
108V	50℃	5180	5180.0320	5180.0326	5180.0369	-0.0320	-0.0326	-0.0369
		5220	5220.0219	5220.0269	5220.0280	-0.0219	-0.0269	-0.0280
		5240	5240.0333	5240.0359	5240.0359	-0.0333	-0.0359	-0.0359
		5745	5745.0442	5745.0442	5745.0442	-0.0442	-0.0442	-0.0442
		5785	5785.0258	5785.0258	5785.0246	-0.0258	-0.0258	-0.0246
		5825	5825.0743	5825.0738	5825.0765	-0.0743	-0.0738	-0.0765

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)		Δ Frequency (MHz)	
			802.11n HT40	802.11ac HT40	802.11n HT40	802.11ac HT40
132V	-20℃	5190	5190.0218	5190.0237	-0.0218	-0.0237
		5230	5230.0335	5230.0372	-0.0335	-0.0372
		5755	5755.0565	5755.0563	-0.0565	-0.0563
		5795	5795.0629	5795.0622	-0.0629	-0.0622
108V		5190	5190.0258	5190.0235	-0.0258	-0.0235
		5230	5230.0332	5230.0351	-0.0332	-0.0351
		5755	5755.0249	5755.0677	-0.0249	-0.0677
		5795	5795.0456	5795.0483	-0.0456	-0.0483
120V	25℃	5190	5190.0279	5190.0259	-0.0279	-0.0259
		5230	5230.0681	5230.0662	-0.0681	-0.0662
		5755	5755.0257	5755.0271	-0.0257	-0.0271
		5795	5795.0576	5795.0542	-0.0576	-0.0542
132V	50℃	5190	5190.0669	5190.0652	-0.0669	-0.0652
		5230	5230.0575	5230.0563	-0.0575	-0.0563
		5755	5755.0478	5755.0443	-0.0478	-0.0443
		5795	5795.0371	5795.0328	-0.0371	-0.0328
108V	50℃	5190	5190.0564	5190.0556	-0.0564	-0.0556
		5230	5230.0344	5230.0340	-0.0344	-0.0340
		5755	5755.0319	5755.0341	-0.0319	-0.0341
		5795	5795.0475	5795.0451	-0.0475	-0.0451

Test Voltage	Test Temp.	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
			802.11ac HT80	802.11ac HT80
132V	-20℃	5210	5210.0135	-0.0135
		5775	5775.0171	-0.0171
108V		5210	5210.0248	-0.0248
		5775	5775.0331	-0.0331
230V	25℃	5210	5210.0483	-0.0483
		5775	5775.0370	-0.0370
132V	50℃	5210	5210.0318	-0.0318
		5775	5775.0267	-0.0267
108V	50℃	5210	5210.0337	-0.0337
		5775	5775.0554	-0.0554

. TRANSMISSION IN THE ABSENCE OF DATA

STANDARD REQUIREMENT

According to §15.407(c)
The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

TEST RESULT

No non-compliance noted:
Refer to the theory of operation.

. ANTENNA REQUIREMENT

STANDARD REQUIREMENT

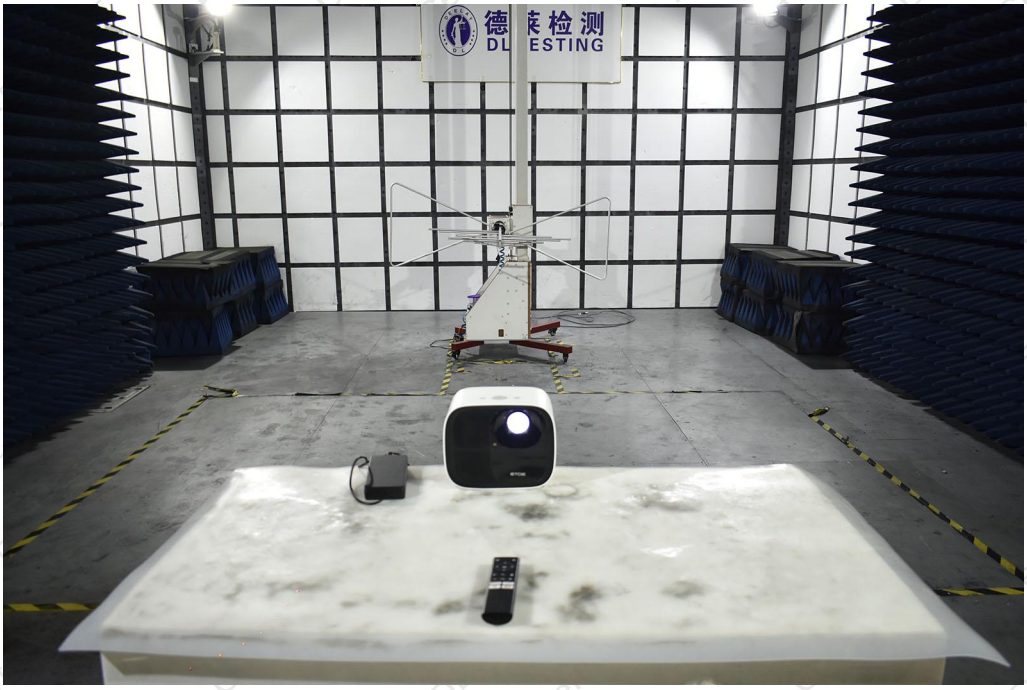
15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

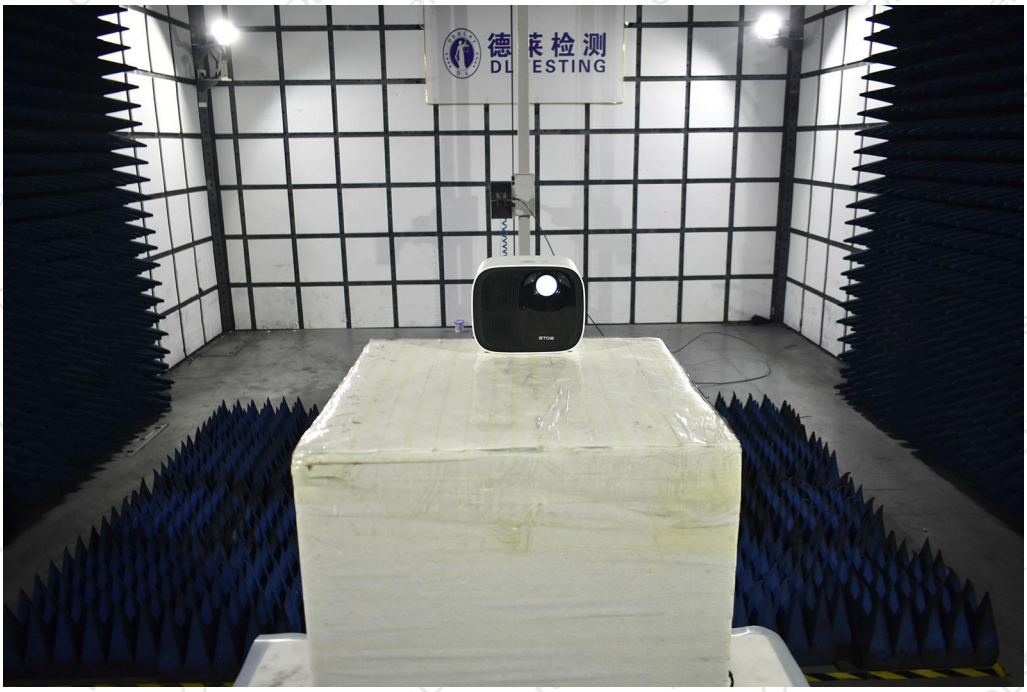
EUT ANTENNA

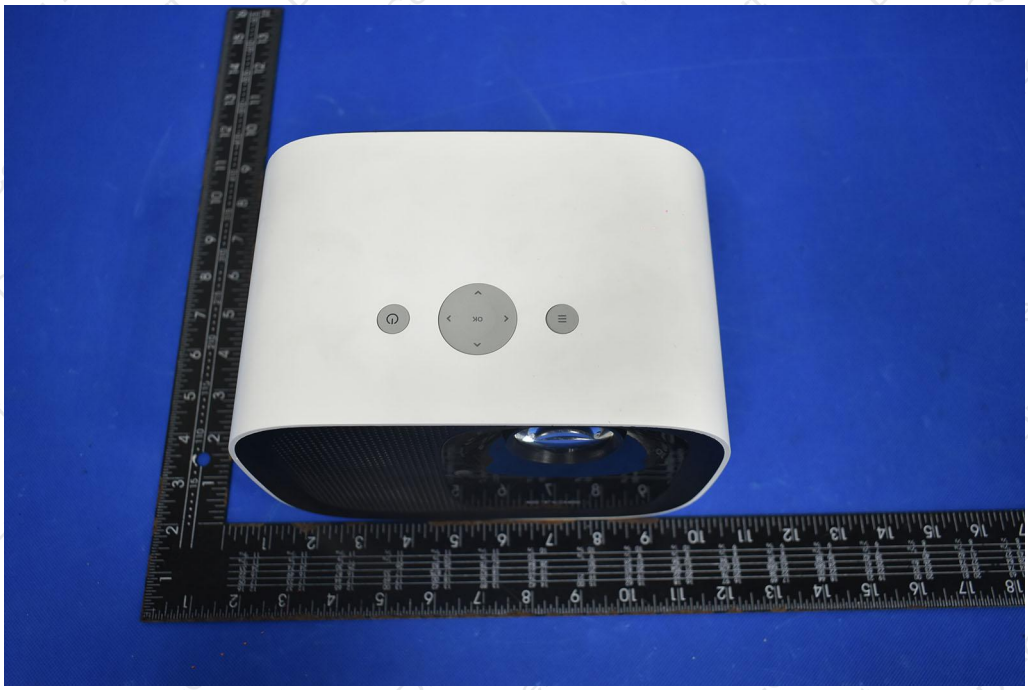
The EUT antenna is PCB antenna, It comply with the standard requirement.

. TEST SEUUP PHOTO

Radiated Measurement Photos





Conducted Measurement Photos

. EUT PHOTO