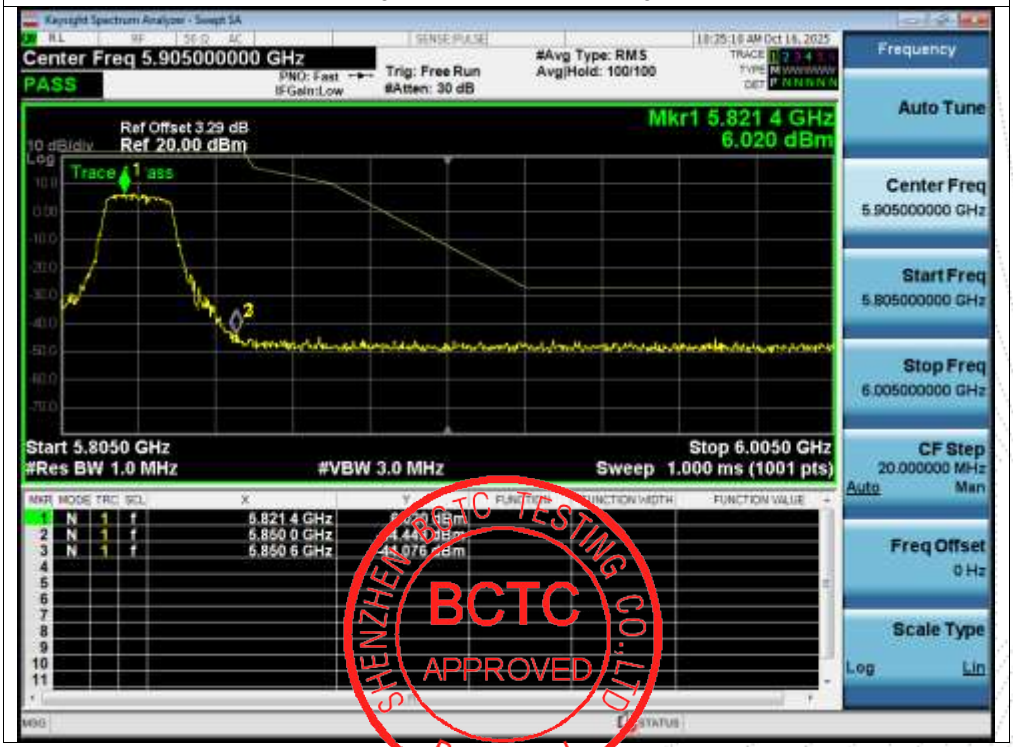
Band Edge NVNT ac20 5745MHz Low Ant1

Band Edge NVNT ac20 5825MHz High Ant1



Band Edge NVNT ac40 5755MHz Low Ant1

Band Edge NVNT ac40 5795MHz High Ant1

Band Edge NVNT ax20 5745MHz Low Ant1

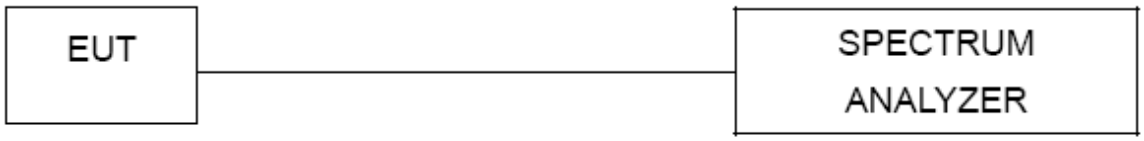
Band Edge NVNT ax20 5825MHz High Ant1

Band Edge NVNT ax40 5755MHz Low Ant1

Band Edge NVNT ax40 5795MHz High Ant1

12. Spurious RF Conducted Emissions

12.1 Block Diagram Of Test Setup



12.2 Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1)For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2)For transmitters operating in the 5.725-5.85 GHz band(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge..
(3)For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4)For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

12.3 Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

12.4 Test Result

Remark: The measurement frequency range is from 9KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

About:26.5GHz-40GHz, The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Test Graphs
Tx. Spurious NVNT a 5180MHz Ant1 Emission

Tx. Spurious NVNT a 5200MHz Ant1 Emission

Tx. Spurious NVNT a 5240MHz Ant1 Emission

Tx. Spurious NVNT n20 5180MHz Ant1 Emission

Tx. Spurious NVNT n20 5200MHz Ant1 Emission

Tx. Spurious NVNT n20 5240MHz Ant1 Emission

Tx. Spurious NVNT n40 5190MHz Ant1 Emission

Tx. Spurious NVNT n40 5230MHz Ant1 Emission

Tx. Spurious NVNT ac20 5180MHz Ant1 Emission

Tx. Spurious NVNT ac20 5200MHz Ant1 Emission

Tx. Spurious NVNT ac20 5240MHz Ant1 Emission

Tx. Spurious NVNT ac40 5190MHz Ant1 Emission

Tx. Spurious NVNT ac40 5230MHz Ant1 Emission

Tx. Spurious NVNT ax20 5180MHz Ant1 Emission

Tx. Spurious NVNT ax20 5200MHz Ant1 Emission

Tx. Spurious NVNT ax20 5240MHz Ant1 Emission

Tx. Spurious NVNT ax40 5190MHz Ant1 Emission

Tx. Spurious NVNT ax40 5230MHz Ant1 Emission

Test Graphs
Tx. Spurious NVNT a 5260MHz Ant1 Emission

Tx. Spurious NVNT a 5280MHz Ant1 Emission


Tx. Spurious NVNT a 5320MHz Ant1 Emission

Tx. Spurious NVNT n20 5260MHz Ant1 Emission

Tx. Spurious NVNT n20 5280MHz Ant1 Emission

Tx. Spurious NVNT n20 5320MHz Ant1 Emission

Tx. Spurious NVNT n40 5270MHz Ant1 Emission

Tx. Spurious NVNT n40 5310MHz Ant1 Emission

Tx. Spurious NVNT ac20 5260MHz Ant1 Emission

Tx. Spurious NVNT ac20 5280MHz Ant1 Emission

Tx. Spurious NVNT ac20 5320MHz Ant1 Emission

Tx. Spurious NVNT ac40 5270MHz Ant1 Emission

Tx. Spurious NVNT ac40 5310MHz Ant1 Emission

Tx. Spurious NVNT ax20 5260MHz Ant1 Emission

Tx. Spurious NVNT ax20 5280MHz Ant1 Emission

Tx. Spurious NVNT ax20 5320MHz Ant1 Emission

Tx. Spurious NVNT ax40 5270MHz Ant1 Emission

Tx. Spurious NVNT ax40 5310MHz Ant1 Emission

Test Graphs
Tx. Spurious NVNT a 5500MHz Ant1 Emission

Tx. Spurious NVNT a 5580MHz Ant1 Emission

Tx. Spurious NVNT a 5700MHz Ant1 Emission

Tx. Spurious NVNT n20 5500MHz Ant1 Emission

Tx. Spurious NVNT n20 5580MHz Ant1 Emission

Tx. Spurious NVNT n20 5700MHz Ant1 Emission

Tx. Spurious NVNT n40 5510MHz Ant1 Emission

Tx. Spurious NVNT n40 5550MHz Ant1 Emission

Tx. Spurious NVNT n40 5670MHz Ant1 Emission

Tx. Spurious NVNT ac20 5500MHz Ant1 Emission

Tx. Spurious NVNT ac20 5580MHz Ant1 Emission

Tx. Spurious NVNT ac20 5700MHz Ant1 Emission

Tx. Spurious NVNT ac40 5510MHz Ant1 Emission

Tx. Spurious NVNT ac40 5550MHz Ant1 Emission

Tx. Spurious NVNT ac40 5670MHz Ant1 Emission

Tx. Spurious NVNT ax20 5500MHz Ant1 Emission

Tx. Spurious NVNT ax20 5580MHz Ant1 Emission

Tx. Spurious NVNT ax20 5700MHz Ant1 Emission

Tx. Spurious NVNT ax40 5510MHz Ant1 Emission

Tx. Spurious NVNT ax40 5550MHz Ant1 Emission

Tx. Spurious NVNT ax40 5670MHz Ant1 Emission


Test Graphs
Tx. Spurious NVNT a 5745MHz Ant1 Emission

Tx. Spurious NVNT a 5785MHz Ant1 Emission

Tx. Spurious NVNT a 5825MHz Ant1 Emission

Tx. Spurious NVNT n20 5745MHz Ant1 Emission

Tx. Spurious NVNT n20 5785MHz Ant1 Emission

Tx. Spurious NVNT n20 5825MHz Ant1 Emission

Tx. Spurious NVNT n40 5755MHz Ant1 Emission

Tx. Spurious NVNT n40 5795MHz Ant1 Emission

Tx. Spurious NVNT ac20 5745MHz Ant1 Emission

Tx. Spurious NVNT ac20 5785MHz Ant1 Emission

Tx. Spurious NVNT ac20 5825MHz Ant1 Emission

Tx. Spurious NVNT ac40 5755MHz Ant1 Emission

Tx. Spurious NVNT ac40 5795MHz Ant1 Emission

Tx. Spurious NVNT ax20 5745MHz Ant1 Emission

Tx. Spurious NVNT ax20 5785MHz Ant1 Emission

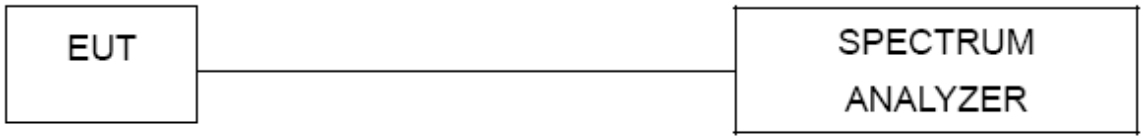
Tx. Spurious NVNT ax20 5825MHz Ant1 Emission

Tx. Spurious NVNT ax40 5755MHz Ant1 Emission

Tx. Spurious NVNT ax40 5795MHz Ant1 Emission

13. Frequency Stability Measurement

13.1 Block Diagram Of Test Setup



13.2 Limit

Manufactures 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.
The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification)..

13.3 Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 106 ppm and he limit is less than ±20ppm (IEEE 802.11nspecification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is -20°C~70°C.

13.4 Test Result

Temperature:	26 ℃	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.1G) Mode Frequency U-NII-1 (5180-5240MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency:5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5180.0111	5180	0.0111	2.1429
		V max (V)	132	5180.0037	5180	0.0037	0.7143
		V min (V)	108	5180.0126	5180	0.0126	2.4324
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency:5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5180.0025	5180	0.0025	0.4826
		T (°C)	-10	5180.0001	5180	0.0001	0.0193
		T (°C)	0	5180.0107	5180	0.0107	2.0656
		T (°C)	10	5180.0003	5180	0.0003	0.0579
		T (°C)	20	5180.0063	5180	0.0063	1.2162
		T (°C)	30	5180.0069	5180	0.0069	1.3320
		T (°C)	40	5180.0059	5180	0.0059	1.1390
		T (°C)	50	5180.0054	5180	0.0054	1.0425
		T (°C)	60	5180.0115	5180	0.0115	2.2201
		T (°C)	70	5180.0086	5180	0.0086	1.6602
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5200.0102	5200	0.0102	1.9615
		V max (V)	132	5200.0016	5200	0.0016	0.3077
		V min (V)	108	5200.0061	5200	0.0061	1.1731
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5200.0105	5200	0.0105	2.0192
		T (°C)	-10	5200.0077	5200	0.0077	1.4808
		T (°C)	0	5200.0083	5200	0.0083	1.5962
		T (°C)	10	5200.0024	5200	0.0024	0.4615
		T (°C)	20	5200.0112	5200	0.0112	2.1538
		T (°C)	30	5200.0104	5200	0.0104	2.0000
		T (°C)	40	5200.0080	5200	0.0080	1.5385
		T (°C)	50	5200.0108	5200	0.0108	2.0769
		T (°C)	60	5200.0017	5200	0.0017	0.3269
		T (°C)	70	5200.0073	5200	0.0073	1.4038
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5240.0088	5240	0.0088	1.6794
		V max (V)	132	5240.0123	5240	0.0123	2.3473
		V min (V)	108	5240.0017	5240	0.0017	0.3244
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5240.0069	5240	0.0069	1.3168
		T (°C)	-10	5240.0050	5240	0.0050	0.9542
		T (°C)	0	5240.0040	5240	0.0040	0.7634
		T (°C)	10	5240.0063	5240	0.0063	1.2023
		T (°C)	20	5240.0002	5240	0.0002	0.0382
		T (°C)	30	5240.0085	5240	0.0085	1.6221
		T (°C)	40	5240.0038	5240	0.0038	0.7252
		T (°C)	50	5240.0038	5240	0.0038	0.7252
		T (°C)	60	5240.0121	5240	0.0121	2.3092
		T (°C)	70	5240.0066	5240	0.0066	1.2595
Limits				5150-5250 MHz			
Result				Complies			

Temperature:	26 ℃	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.3G) Mode Frequency U-NII-2A (5260-5320MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency:5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5260.0024	5260	0.0024	0.4563
		V max (V)	132	5260.0082	5260	0.0082	1.5589
		V min (V)	108	5260.0095	5260	0.0095	1.8061
Limits				5260-5320 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency:5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5260.0069	5260	0.0069	1.3118
		T (°C)	-10	5260.0089	5260	0.0089	1.6920
		T (°C)	0	5260.0067	5260	0.0067	1.2738
		T (°C)	10	5260.0005	5260	0.0005	0.0951
		T (°C)	20	5260.0020	5260	0.0020	0.3802
		T (°C)	30	5260.0104	5260	0.0104	1.9772
		T (°C)	40	5260.0001	5260	0.0001	0.0190
		T (°C)	50	5260.0110	5260	0.0110	2.0913
		T (°C)	60	5260.0065	5260	0.0065	1.2357
		T (°C)	70	5260.0076	5260	0.0076	1.4449
Limits				5260-5320 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5280.0081	5280	0.0081	1.5341
		V max (V)	132	5280.0052	5280	0.0052	0.9848
		V min (V)	108	5280.0130	5280	0.0130	2.4621
Limits				5260-5320 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5280.0069	5280	0.0069	1.3068
		T (°C)	-10	5280.0098	5280	0.0098	1.8561
		T (°C)	0	5280.0119	5280	0.0119	2.2538
		T (°C)	10	5280.0026	5280	0.0026	0.4924
		T (°C)	20	5280.0085	5280	0.0085	1.6098
		T (°C)	30	5280.0019	5280	0.0019	0.3598
		T (°C)	40	5280.0033	5280	0.0033	0.6250
		T (°C)	50	5280.0078	5280	0.0078	1.4773
		T (°C)	60	5280.0111	5280	0.0111	2.1023
		T (°C)	70	5280.0043	5280	0.0043	0.8144
Limits				5260-5320 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5320.0094	5320	0.0094	1.7669
		V max (V)	132	5320.0039	5320	0.0039	0.7331
		V min (V)	108	5320.0117	5320	0.0117	2.1992
Limits				5260-5320 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5320.0074	5320	0.0074	1.3910
		T (°C)	-10	5320.0128	5320	0.0128	2.4060
		T (°C)	0	5320.0083	5320	0.0083	1.5602
		T (°C)	10	5320.0050	5320	0.0050	0.9398
		T (°C)	20	5320.0011	5320	0.0011	0.2068
		T (°C)	30	5320.0135	5320	0.0135	2.5376
		T (°C)	40	5320.0006	5320	0.0006	0.1128
		T (°C)	50	5320.0044	5320	0.0044	0.8271
		T (°C)	60	5320.0017	5320	0.0017	0.3195
		T (°C)	70	5320.0096	5320	0.0096	1.8045
Limits				5260-5320 MHz			
Result				Complies			

Temperature:	26 ℃	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.6G) Mode Frequency U-NII-2C (5500-5700MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency:5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5500.0089	5500	0.0089	1.6182
		V max (V)	132	5500.0135	5500	0.0135	2.4545
		V min (V)	108	5500.0085	5500	0.0085	1.5455
Limits				5500-5700 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency:5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5500.0079	5500	0.0079	1.4364
		T (°C)	-10	5500.0093	5500	0.0093	1.6909
		T (°C)	0	5500.0126	5500	0.0126	2.2909
		T (°C)	10	5500.0100	5500	0.0100	1.8182
		T (°C)	20	5500.0014	5500	0.0014	0.2545
		T (°C)	30	5500.0071	5500	0.0071	1.2909
		T (°C)	40	5500.0100	5500	0.0100	1.8182
		T (°C)	50	5500.0016	5500	0.0016	0.2909
		T (°C)	60	5500.0044	5500	0.0044	0.8000
		T (°C)	70	5500.0098	5500	0.0098	1.7818
Limits				5500-5700 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5580.0029	5580	0.0029	0.5197
		V max (V)	132	5580.0056	5580	0.0056	1.0036
		V min (V)	108	5580.0078	5580	0.0078	1.3978
Limits				5500-5700 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5580.0072	5580	0.0072	1.2903
		T (°C)	-10	5580.0107	5580	0.0107	1.9176
		T (°C)	0	5580.0043	5580	0.0043	0.7706
		T (°C)	10	5580.0061	5580	0.0061	1.0932
		T (°C)	20	5580.0072	5580	0.0072	1.2903
		T (°C)	30	5580.0020	5580	0.0020	0.3584
		T (°C)	40	5580.0033	5580	0.0033	0.5914
		T (°C)	50	5580.0028	5580	0.0028	0.5018
		T (°C)	60	5580.0079	5580	0.0079	1.4158
		T (°C)	70	5580.0117	5580	0.0117	2.0968
Limits				5500-5700 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5700.0042	5700	0.0042	0.7368
		V max (V)	132	5700.0036	5700	0.0036	0.6316
		V min (V)	108	5700.0121	5700	0.0121	2.1228
Limits				5500-5700 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5700.0095	5700	0.0095	1.6667
		T (°C)	-10	5700.0110	5700	0.0110	1.9298
		T (°C)	0	5700.0019	5700	0.0019	0.3333
		T (°C)	10	5700.0071	5700	0.0071	1.2456
		T (°C)	20	5700.0120	5700	0.0120	2.1053
		T (°C)	30	5700.0002	5700	0.0002	0.0351
		T (°C)	40	5700.0073	5700	0.0073	1.2807
		T (°C)	50	5700.0118	5700	0.0118	2.0702
		T (°C)	60	5700.0061	5700	0.0061	1.0702
		T (°C)	70	5700.0020	5700	0.0020	0.3509
Limits				5500-5700 MHz			
Result				Complies			

Temperature:	26 ℃	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.8G) Mode Frequency U-NII-3 (5745-5825MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5745.0086	5745	0.0086	1.4970
		V max (V)	132	5745.0018	5745	0.0018	0.3133
		V min (V)	108	5745.0014	5745	0.0014	0.2437
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5745.0089	5745	0.0089	1.5492
		T (°C)	-10	5745.0040	5745	0.0040	0.6963
		T (°C)	0	5745.0010	5745	0.0010	0.1741
		T (°C)	10	5745.0098	5745	0.0098	1.7058
		T (°C)	20	5745.0104	5745	0.0104	1.8103
		T (°C)	30	5745.0034	5745	0.0034	0.5918
		T (°C)	40	5745.0115	5745	0.0115	2.0017
		T (°C)	50	5745.0102	5745	0.0102	1.7755
		T (°C)	60	5745.0041	5745	0.0041	0.7137
		T (°C)	70	5745.0030	5745	0.0030	0.5222
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5785.0096	5785	0.0096	1.6595
		V max (V)	132	5785.0015	5785	0.0015	0.2593
		V min (V)	108	5785.0134	5785	0.0134	2.3163
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5785.0043	5785	0.0043	0.7433
		T (°C)	-10	5785.0006	5785	0.0006	0.1037
		T (°C)	0	5785.0061	5785	0.0061	1.0545
		T (°C)	10	5785.0072	5785	0.0072	1.2446
		T (°C)	20	5785.0034	5785	0.0034	0.5877
		T (°C)	30	5785.0007	5785	0.0007	0.1210
		T (°C)	40	5785.0054	5785	0.0054	0.9334
		T (°C)	50	5785.0054	5785	0.0054	0.9334
		T (°C)	60	5785.0106	5785	0.0106	1.8323
		T (°C)	70	5785.0113	5785	0.0113	1.9533
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120	5825.0021	5825	0.0021	0.3605
		V max (V)	132	5825.0041	5825	0.0041	0.7039
		V min (V)	108	5825.0110	5825	0.0110	1.8884
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.3	T (°C)	-20	5825.0126	5825	0.0126	2.1631
		T (°C)	-10	5825.0016	5825	0.0016	0.2747
		T (°C)	0	5825.0125	5825	0.0125	2.1459
		T (°C)	10	5825.0029	5825	0.0029	0.4979
		T (°C)	20	5825.0042	5825	0.0042	0.7210
		T (°C)	30	5825.0031	5825	0.0031	0.5322
		T (°C)	40	5825.0073	5825	0.0073	1.2532
		T (°C)	50	5825.0126	5825	0.0126	2.1631
		T (°C)	60	5825.0080	5825	0.0080	1.3734
		T (°C)	70	5825.0032	5825	0.0032	0.5494
Limits				5725-5850 MHz			
Result				Complies			

14. Duty Cycle Of Test Signal

14.1 Standard Requirement

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle. All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

14.2 Formula

Duty Cycle = Ton / (Ton+Toff)

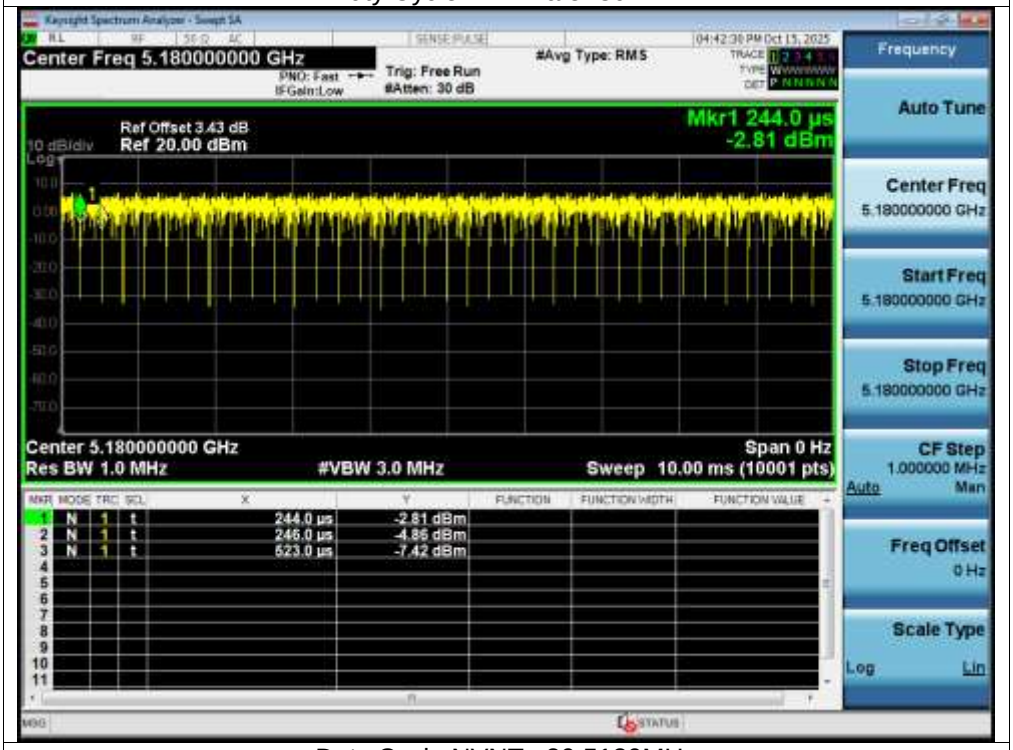
14.3 Test Procedure

1.Set span = Zero
2. RBW = 1MHz
3. VBW = 3MHz,
4. Detector = Peak

14.4 Test Result

Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
	a		99.28	0	3.61
	n20	5180	99.32	0	3.41
	n40	5190	100	0	0
	ac20	5180	99.33	0	3.37
NVNT	ac40	5190	97.83	0.1	1.11
	ax20	5180	99.25	0	3.77
NVNT	ax40	5190	97.83	0.1	1.11

Test Graphs
Duty Cycle NVNT a 5180MHz



Duty Cycle NVNT n20 5180MHz