

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
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)	12.00	5260.0087	5260	0.0087	1.6540
		V max (V)	13.80	5260.0028	5260	0.0028	0.5323
		V min (V)	10.20	5260.0078	5260	0.0078	1.4829
Limits				5260-5320 MHz			
Result				Complies			

**Temperature vs. Frequency Stability**

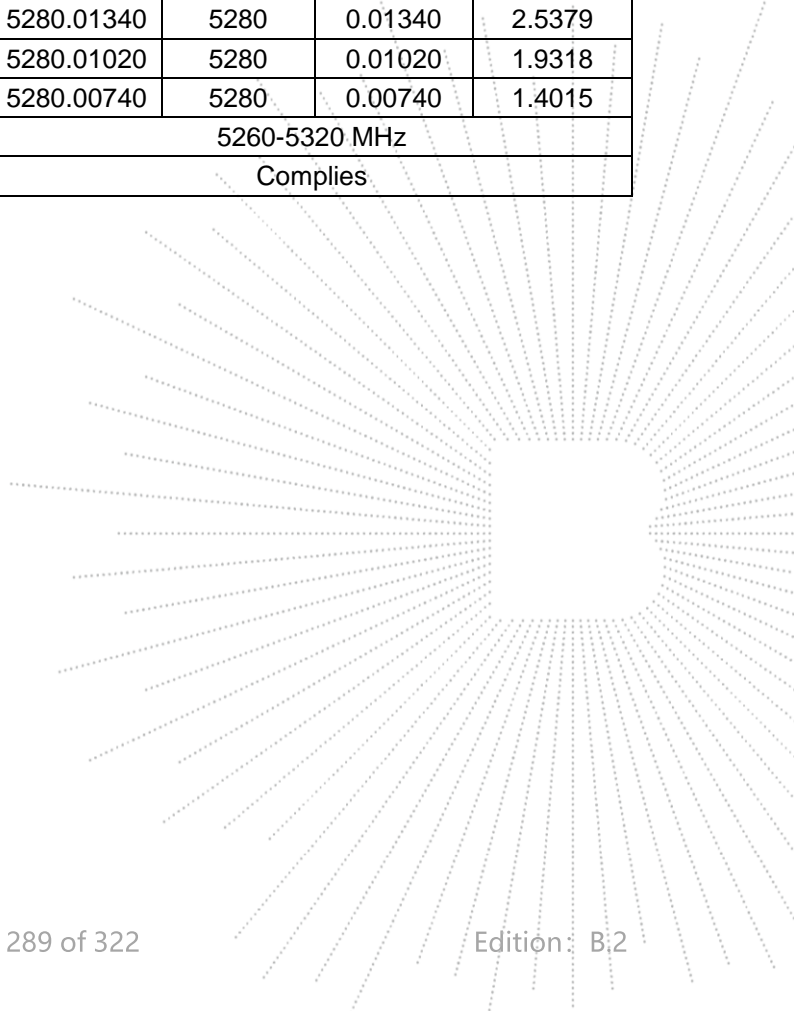
TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5260.0080	5260	0.0080	1.5209
		T (°C)	-10	5260.0076	5260	0.0076	1.4449
		T (°C)	0	5260.0054	5260	0.0054	1.0266
		T (°C)	10	5260.0126	5260	0.0126	2.3954
		T (°C)	20	5260.0040	5260	0.0040	0.7605
		T (°C)	30	5260.0029	5260	0.0029	0.5513
		T (°C)	40	5260.0057	5260	0.0057	1.0837
		T (°C)	50	5260.0101	5260	0.0101	1.9202
		T (°C)	60	5260.0022	5260	0.0022	0.4183
		T (°C)	70	5260.0100	5260	0.0100	1.9011
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)	12.00	5280.0099	5280	0.0099	1.8750
		V max (V)	13.80	5280.0057	5280	0.0057	1.0795
		V min (V)	10.20	5280.0003	5280	0.0003	0.0568
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)	12	T (°C)	-20	5280.00780	5280	0.00780	1.4773
		T (°C)	-10	5280.00950	5280	0.00950	1.7992
		T (°C)	0	5280.00820	5280	0.00820	1.5530
		T (°C)	10	5280.01190	5280	0.01190	2.2538
		T (°C)	20	5280.01320	5280	0.01320	2.5000
		T (°C)	30	5280.00150	5280	0.00150	0.2841
		T (°C)	40	5280.00870	5280	0.00870	1.6477
		T (°C)	50	5280.01340	5280	0.01340	2.5379
		T (°C)	60	5280.01020	5280	0.01020	1.9318
		T (°C)	70	5280.00740	5280	0.00740	1.4015
Limits				5260-5320 MHz			
Result				Complies			

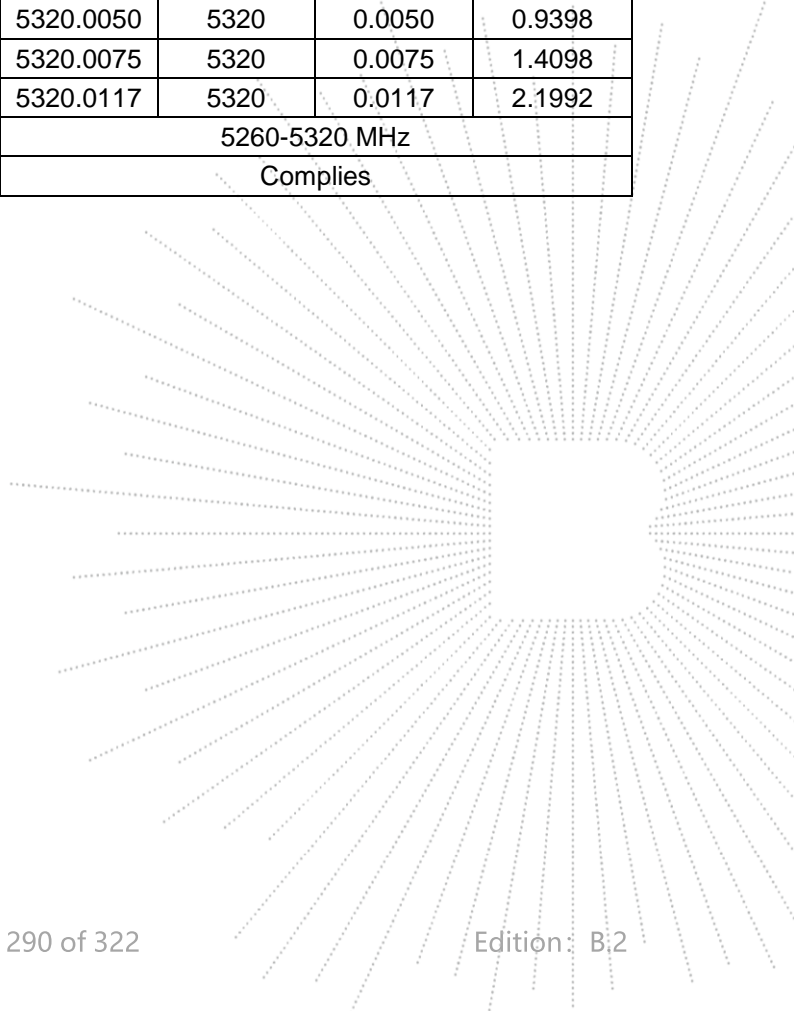


## Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5320.0063	5320	0.0063	1.1842
		V max (V)	13.80	5320.0082	5320	0.0082	1.5414
		V min (V)	10.20	5320.0126	5320	0.0126	2.3684
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)	12	T (°C)	-20	5320.0022	5320	0.0022	0.4135
		T (°C)	-10	5320.0128	5320	0.0128	2.4060
		T (°C)	0	5320.0043	5320	0.0043	0.8083
		T (°C)	10	5320.0133	5320	0.0133	2.5000
		T (°C)	20	5320.0111	5320	0.0111	2.0865
		T (°C)	30	5320.0009	5320	0.0009	0.1692
		T (°C)	40	5320.0121	5320	0.0121	2.2744
		T (°C)	50	5320.0050	5320	0.0050	0.9398
		T (°C)	60	5320.0075	5320	0.0075	1.4098
		T (°C)	70	5320.0117	5320	0.0117	2.1992
Limits				5260-5320 MHz			
Result				Complies			



Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
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)	12.00	5500.0128	5500	0.0128	2.3273
		V max (V)	13.80	5500.0122	5500	0.0122	2.2182
		V min (V)	10.20	5500.0128	5500	0.0128	2.3273
Limits				5500-5700 MHz			
Result				Complies			

**Temperature vs. Frequency Stability**

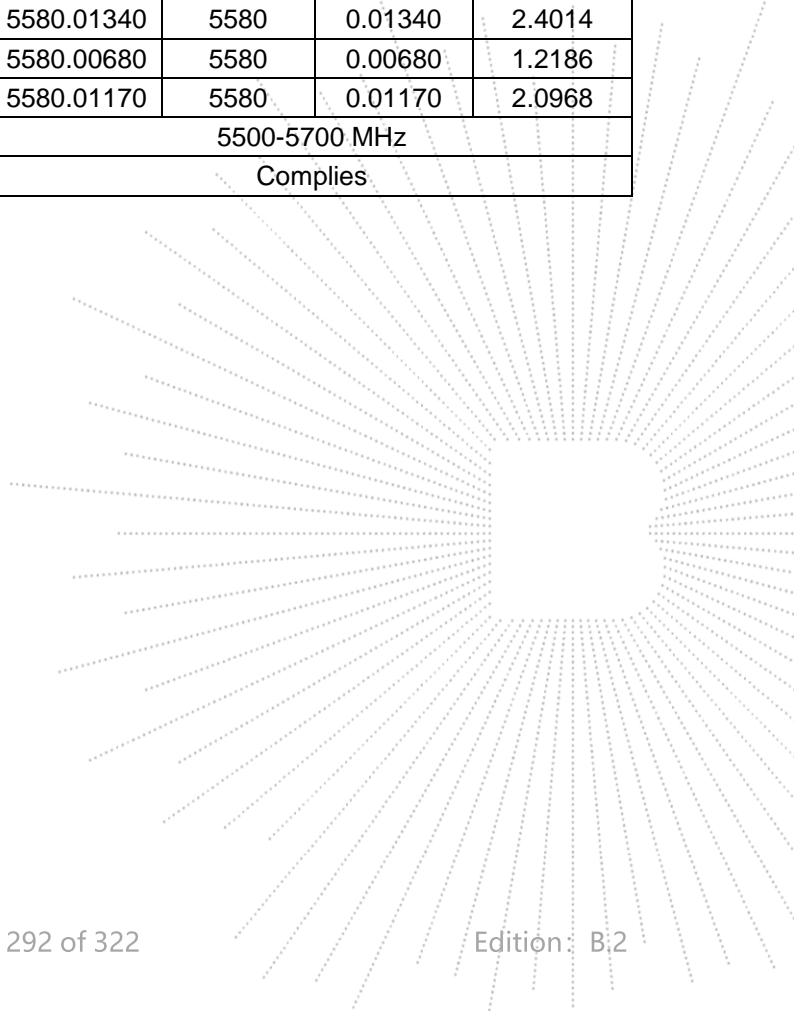
TEST CONDITIONS				Reference Frequency : 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5500.0006	5500	0.0006	0.1091
		T (°C)	-10	5500.0031	5500	0.0031	0.5636
		T (°C)	0	5500.0098	5500	0.0098	1.7818
		T (°C)	10	5500.0000	5500	0.0000	0.0000
		T (°C)	20	5500.0035	5500	0.0035	0.6364
		T (°C)	30	5500.0000	5500	0.0000	0.0000
		T (°C)	40	5500.0005	5500	0.0005	0.0909
		T (°C)	50	5500.0083	5500	0.0083	1.5091
		T (°C)	60	5500.0089	5500	0.0089	1.6182
		T (°C)	70	5500.0099	5500	0.0099	1.8000
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)	12.00	5580.0078	5580	0.0078	1.3978
		V max (V)	13.80	5580.0022	5580	0.0022	0.3943
		V min (V)	10.20	5580.0111	5580	0.0111	1.9892
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)	12	T (°C)	-20	5580.01140	5580	0.01140	2.0430
		T (°C)	-10	5580.00360	5580	0.00360	0.6452
		T (°C)	0	5580.00720	5580	0.00720	1.2903
		T (°C)	10	5580.01310	5580	0.01310	2.3477
		T (°C)	20	5580.00620	5580	0.00620	1.1111
		T (°C)	30	5580.01060	5580	0.01060	1.8996
		T (°C)	40	5580.01110	5580	0.01110	1.9892
		T (°C)	50	5580.01340	5580	0.01340	2.4014
		T (°C)	60	5580.00680	5580	0.00680	1.2186
		T (°C)	70	5580.01170	5580	0.01170	2.0968
Limits				5500-5700 MHz			
Result				Complies			

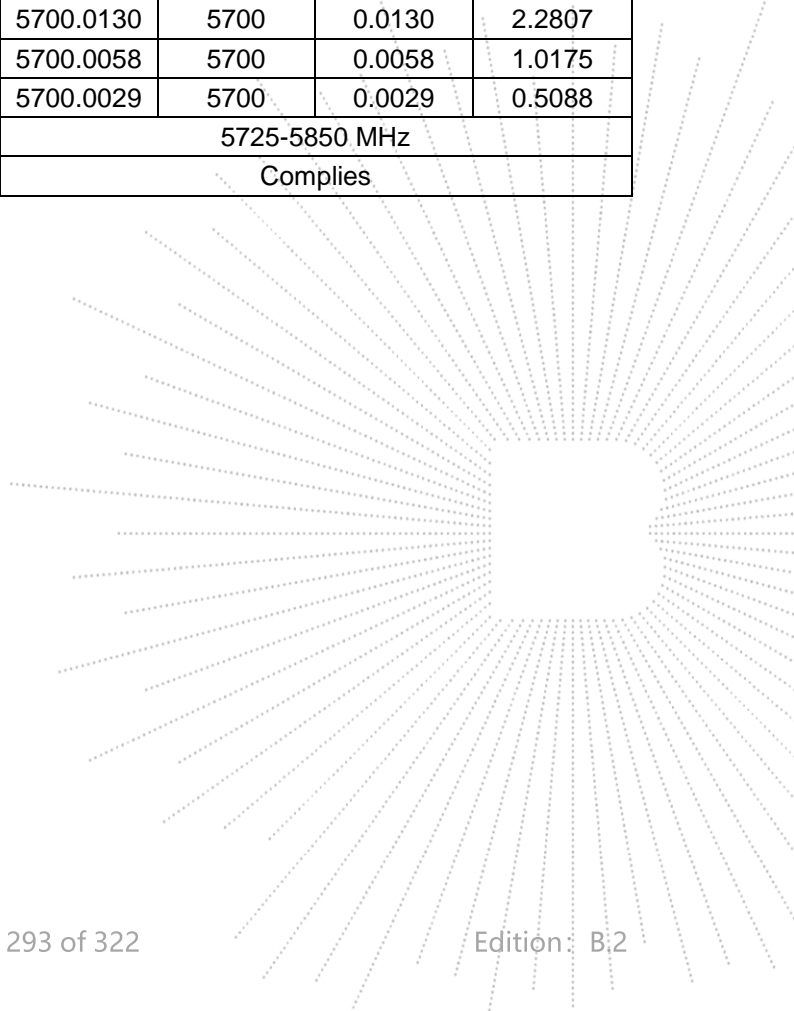


## Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5700.0018	5700	0.0018	0.3158
		V max (V)	13.80	5700.0061	5700	0.0061	1.0702
		V min (V)	10.20	5700.0038	5700	0.0038	0.6667
Limits				5725-5850 MHz			
Result				Complies			

## Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	12	T (°C)	-20	5700.0059	5700	0.0059	1.0351
		T (°C)	-10	5700.0056	5700	0.0056	0.9825
		T (°C)	0	5700.0101	5700	0.0101	1.7719
		T (°C)	10	5700.0035	5700	0.0035	0.6140
		T (°C)	20	5700.0116	5700	0.0116	2.0351
		T (°C)	30	5700.0129	5700	0.0129	2.2632
		T (°C)	40	5700.0053	5700	0.0053	0.9298
		T (°C)	50	5700.0130	5700	0.0130	2.2807
		T (°C)	60	5700.0058	5700	0.0058	1.0175
		T (°C)	70	5700.0029	5700	0.0029	0.5088
Limits				5725-5850 MHz			
Result				Complies			



Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V
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)	12.00	5745.01020	5745	0.01020	1.7755
		V max (V)	13.80	5745.01130	5745	0.01130	1.9669
		V min (V)	10.20	5745.00340	5745	0.00340	0.5918
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)	12	T (°C)	-20	5745.00200	5745	0.00200	0.3481
		T (°C)	-10	5745.00050	5745	0.00050	0.0870
		T (°C)	0	5745.00790	5745	0.00790	1.3751
		T (°C)	10	5745.00280	5745	0.00280	0.4874
		T (°C)	20	5745.00700	5745	0.00700	1.2185
		T (°C)	30	5745.01340	5745	0.01340	2.3325
		T (°C)	40	5745.00050	5745	0.00050	0.0870
		T (°C)	50	5745.00470	5745	0.00470	0.8181
		T (°C)	60	5745.00000	5745	0.00000	0.0000
		T (°C)	70	5745.01050	5745	0.01050	1.8277
Limits				5725-5850 MHz			
Result				Complies			

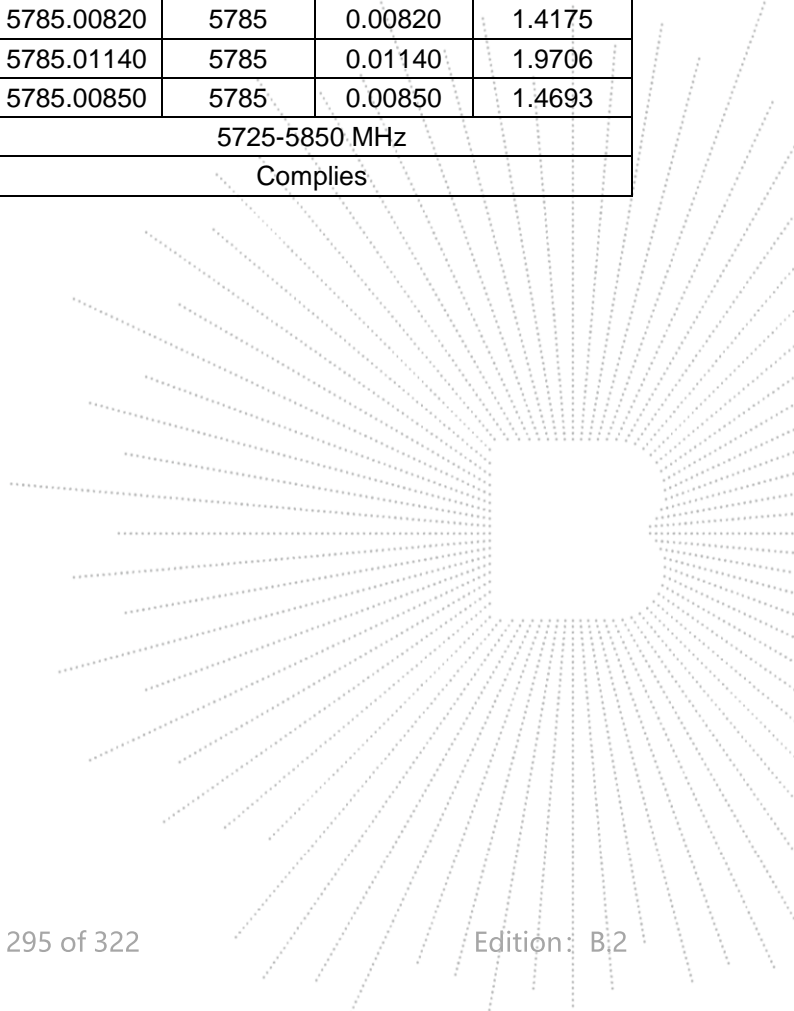


## Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5785.00620	5785	0.00620	1.0717
		V max (V)	13.80	5785.00400	5785	0.00400	0.6914
		V min (V)	10.20	5785.00510	5785	0.00510	0.8816
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)	12	T (°C)	-20	5785.01190	5785	0.01190	2.0570
		T (°C)	-10	5785.01280	5785	0.01280	2.2126
		T (°C)	0	5785.00670	5785	0.00670	1.1582
		T (°C)	10	5785.00460	5785	0.00460	0.7952
		T (°C)	20	5785.00570	5785	0.00570	0.9853
		T (°C)	30	5785.01010	5785	0.01010	1.7459
		T (°C)	40	5785.01080	5785	0.01080	1.8669
		T (°C)	50	5785.00820	5785	0.00820	1.4175
		T (°C)	60	5785.01140	5785	0.01140	1.9706
		T (°C)	70	5785.00850	5785	0.00850	1.4693
Limits				5725-5850 MHz			
Result				Complies			



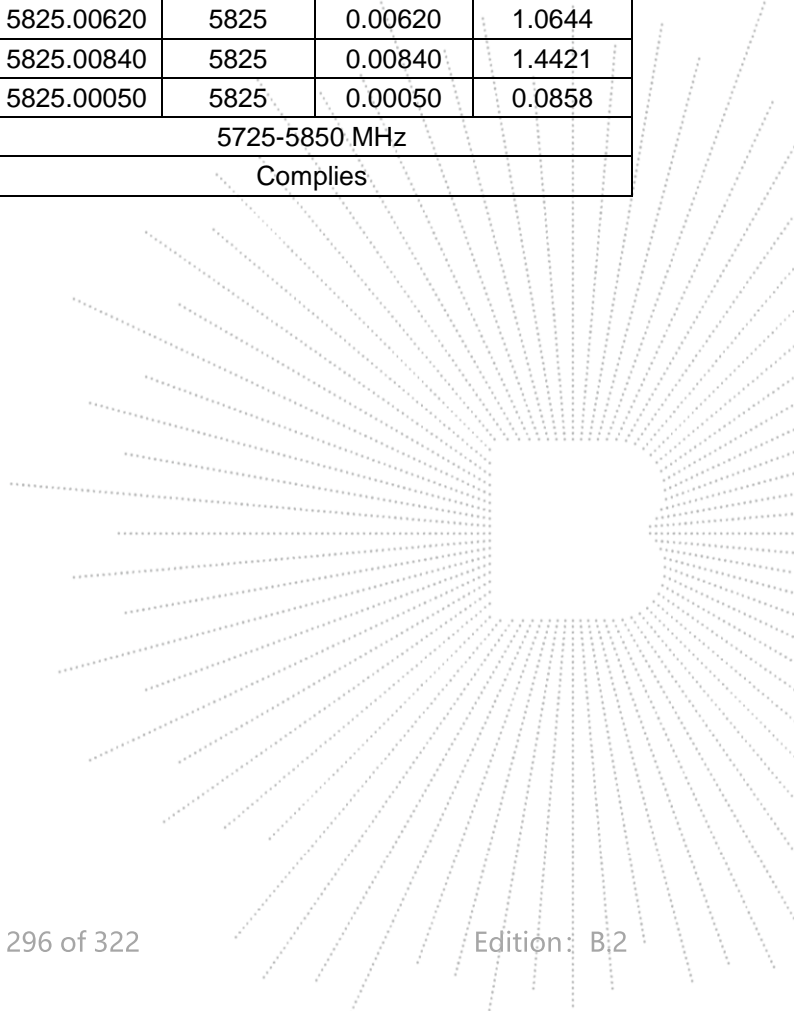


## Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	12.00	5825.01320	5825	0.01320	2.2661
		V max (V)	13.80	5825.00760	5825	0.00760	1.3047
		V min (V)	10.20	5825.00430	5825	0.00430	0.7382
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)	12	T (°C)	-20	5825.00970	5825	0.00970	1.6652
		T (°C)	-10	5825.00100	5825	0.00100	0.1717
		T (°C)	0	5825.00180	5825	0.00180	0.3090
		T (°C)	10	5825.00240	5825	0.00240	0.4120
		T (°C)	20	5825.00060	5825	0.00060	0.1030
		T (°C)	30	5825.00280	5825	0.00280	0.4807
		T (°C)	40	5825.00810	5825	0.00810	1.3906
		T (°C)	50	5825.00620	5825	0.00620	1.0644
		T (°C)	60	5825.00840	5825	0.00840	1.4421
		T (°C)	70	5825.00050	5825	0.00050	0.0858
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 =  $T_{on} / (T_{on} + T_{off})$

### 14.3 Test Procedure

1. Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

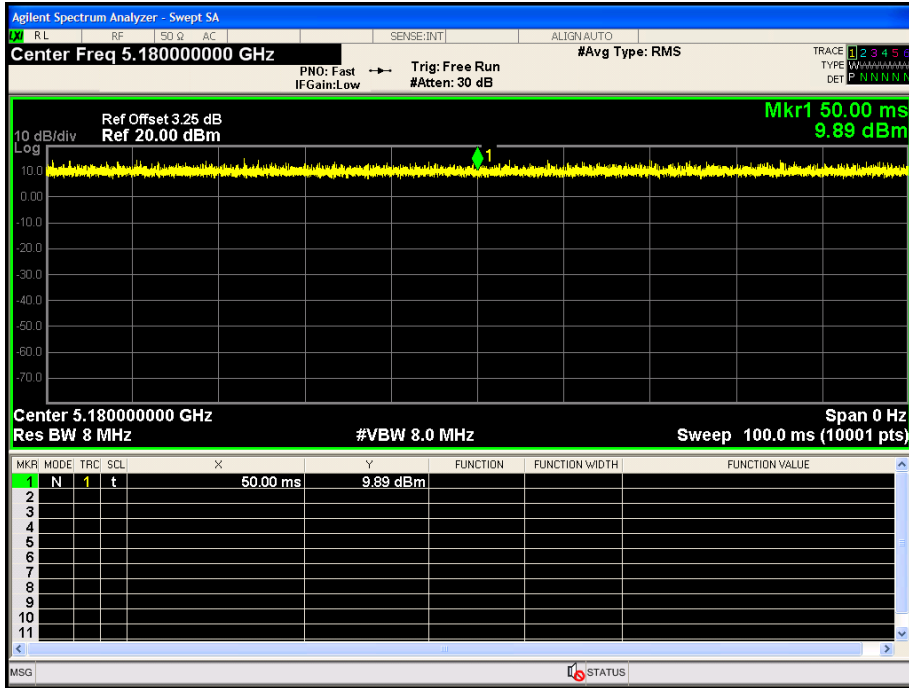
### 14.4 Test Result

5.1G  
ANT A & B

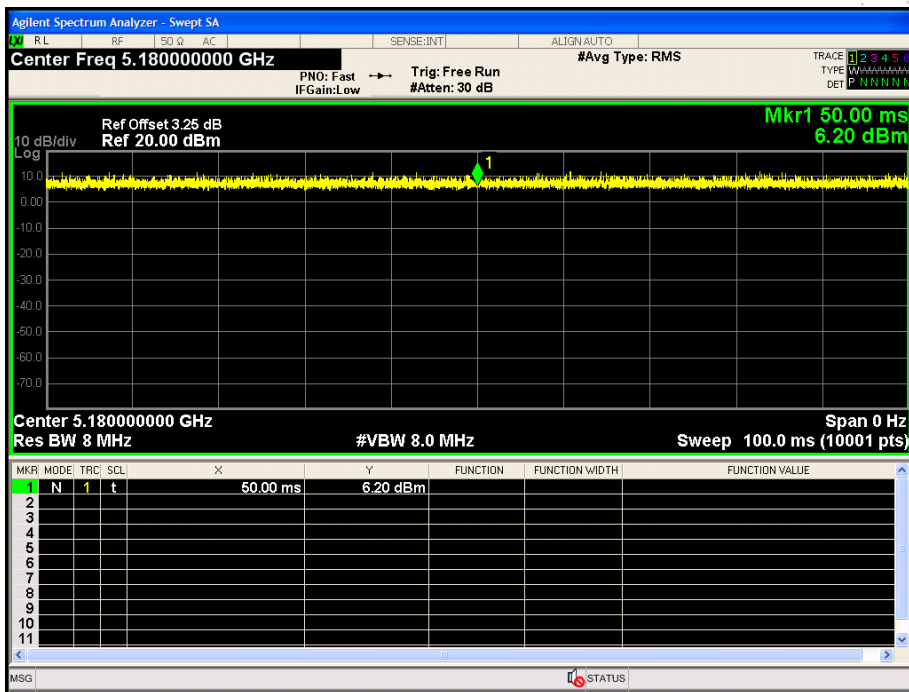
Condition	Mode	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	100	0	0
NVNT	n20	100	0	0
NVNT	n40	100	0	0
NVNT	ac20	100	0	0
NVNT	ac40	100	0	0
NVNT	ac80	100	0	0
NVNT	ax20	100	0	0
NVNT	ax40	100	0	0
NVNT	ax80	100	0	0

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A ,only shown Antenna A . Plot.

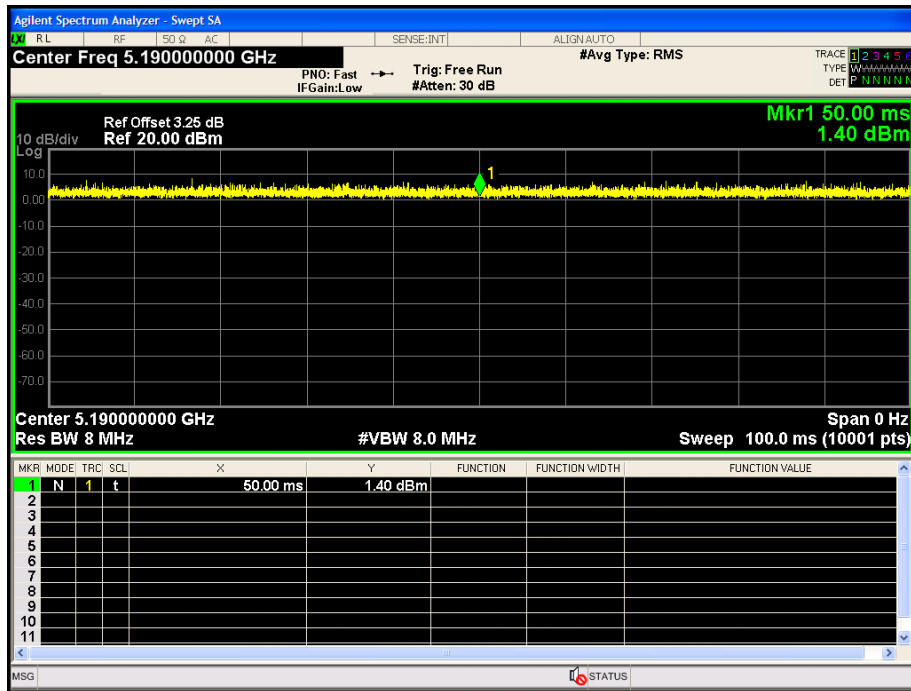
a



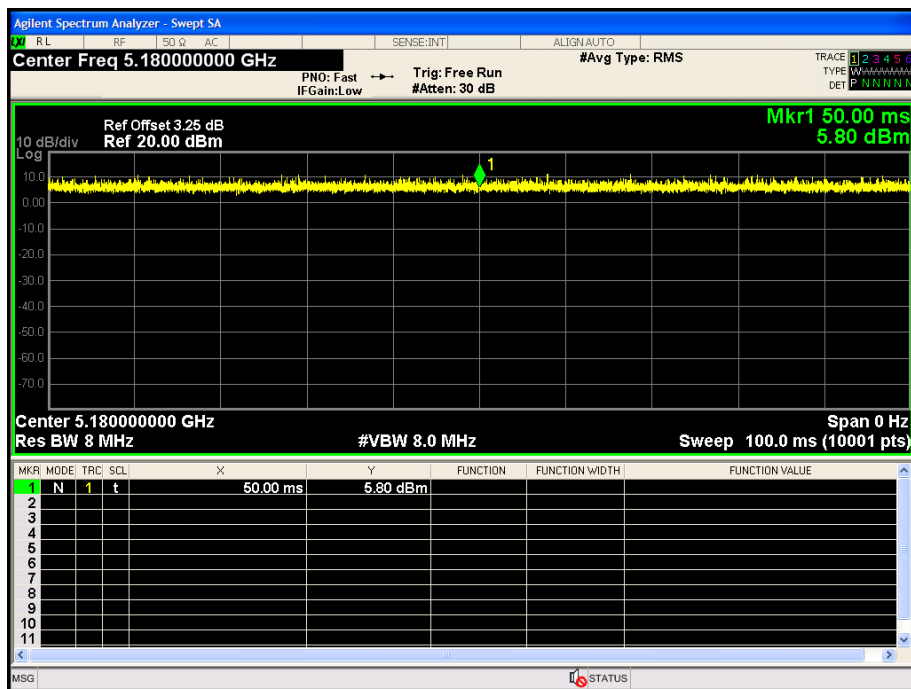
N20



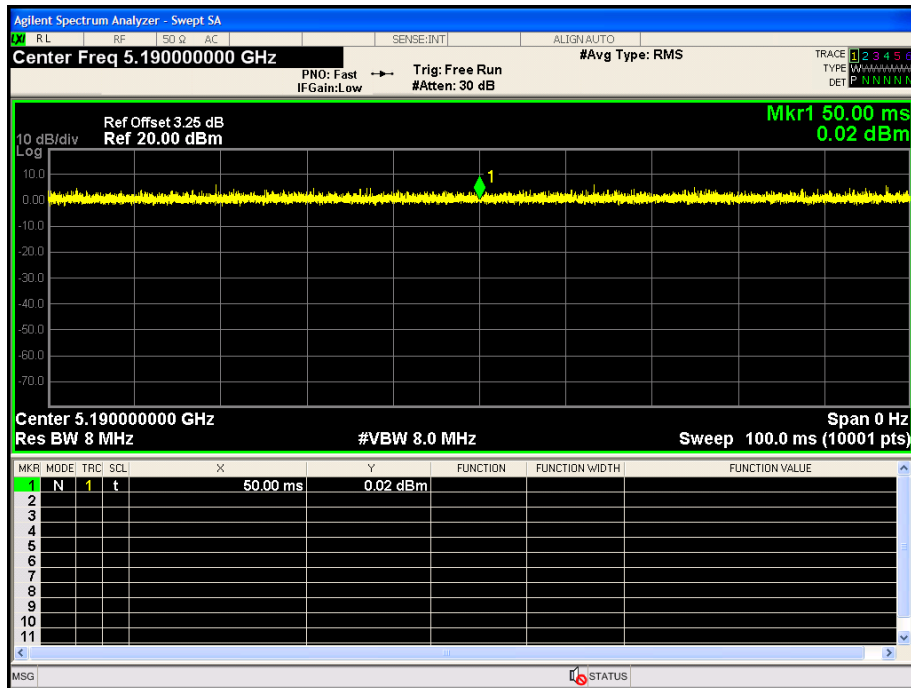
n40



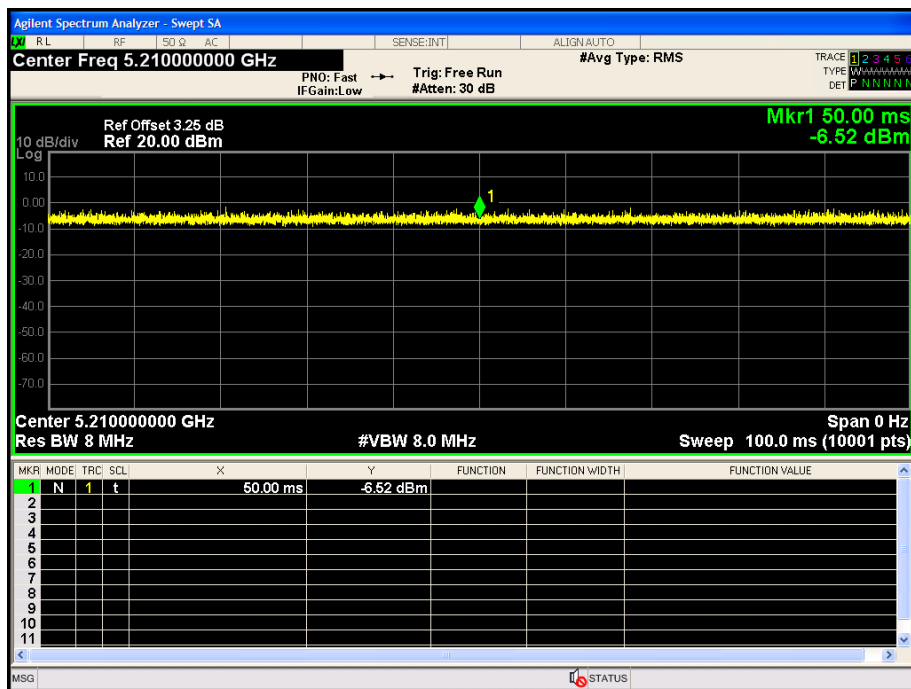
ac20



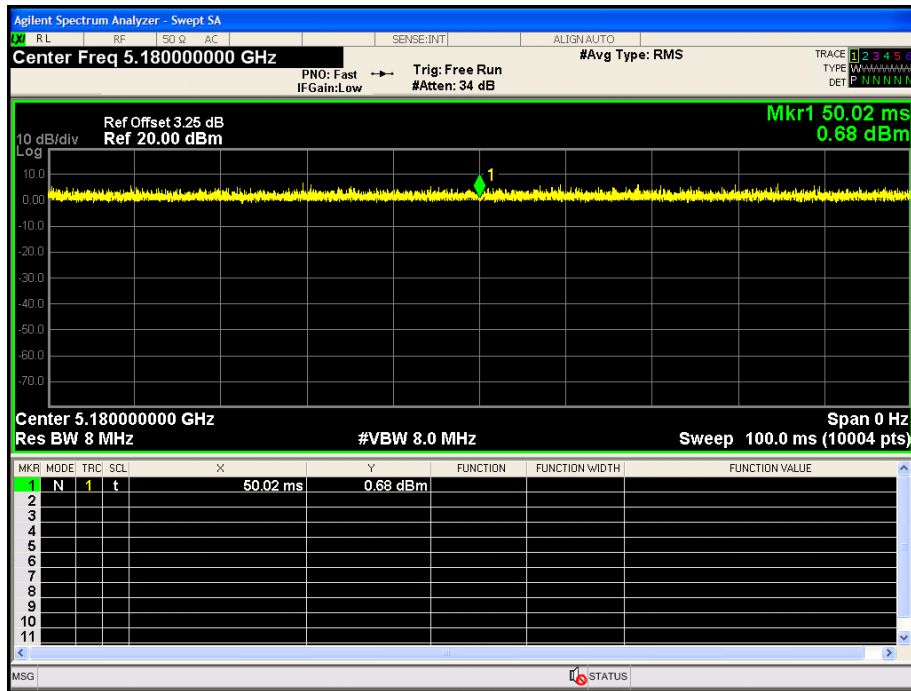
## ac40



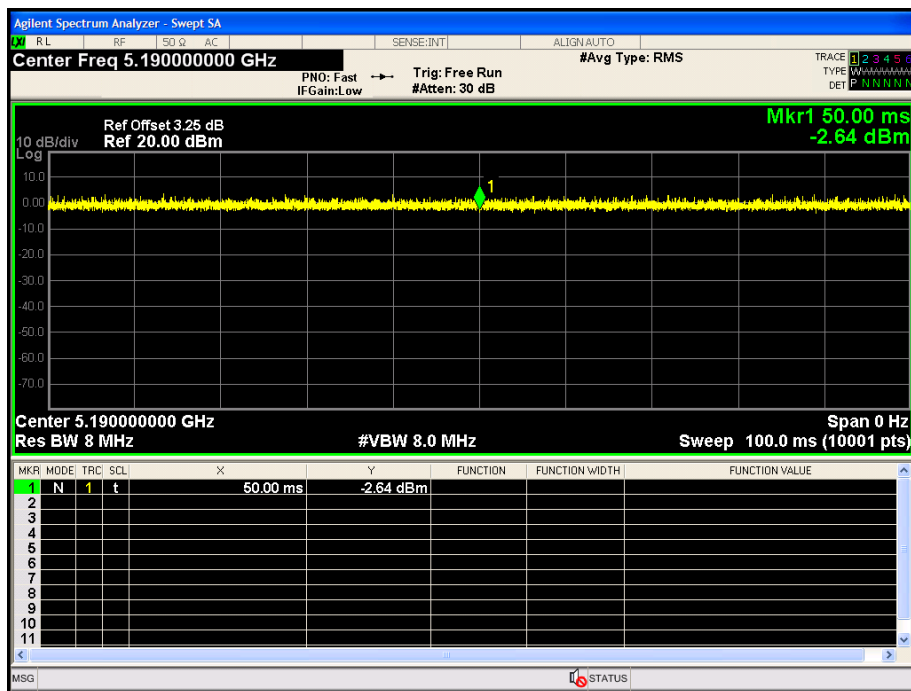
## ac80



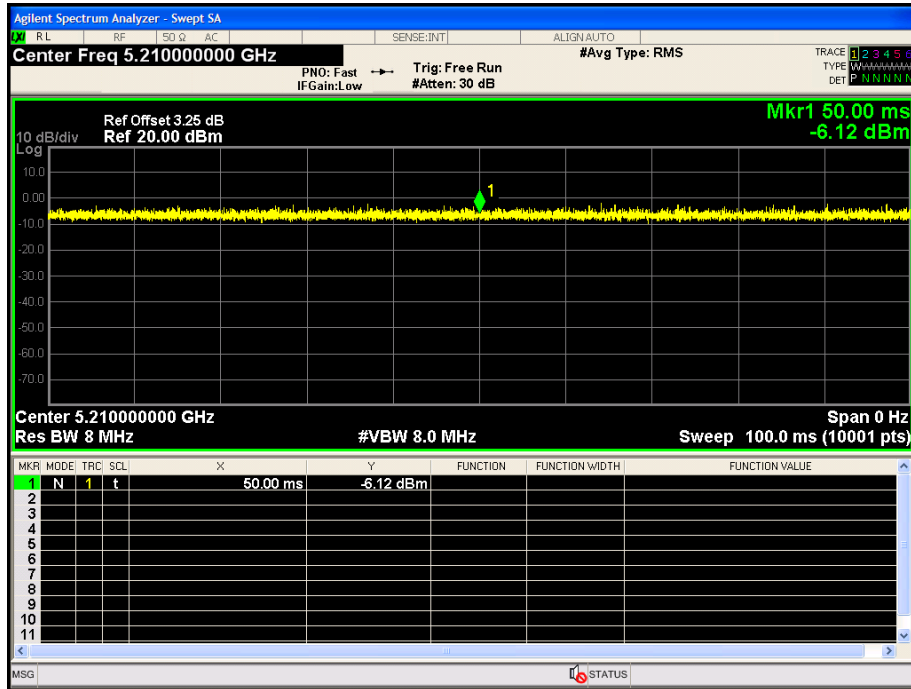
## ax20



## ax40



ax80

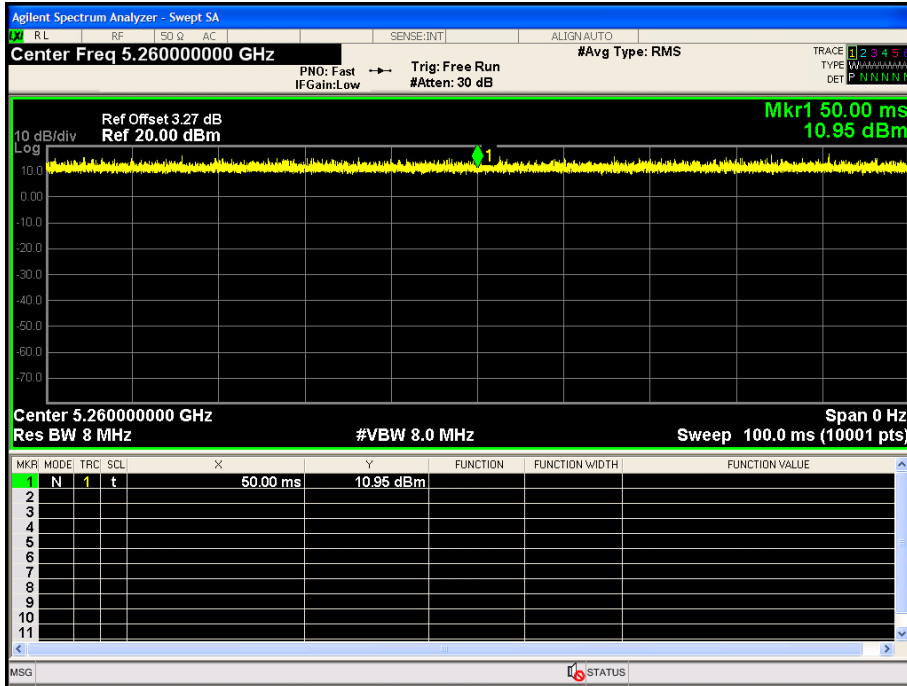

 5.3G  
 ANT A & B

Condition	Mode	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	100	0	0
NVNT	n20	100	0	0
NVNT	n40	100	0	0
NVNT	ac20	100	0	0
NVNT	ac40	100	0	0
NVNT	ac80	100	0	0
NVNT	ax20	100	0	0
NVNT	ax40	100	0	0
NVNT	ax80	100	0	0

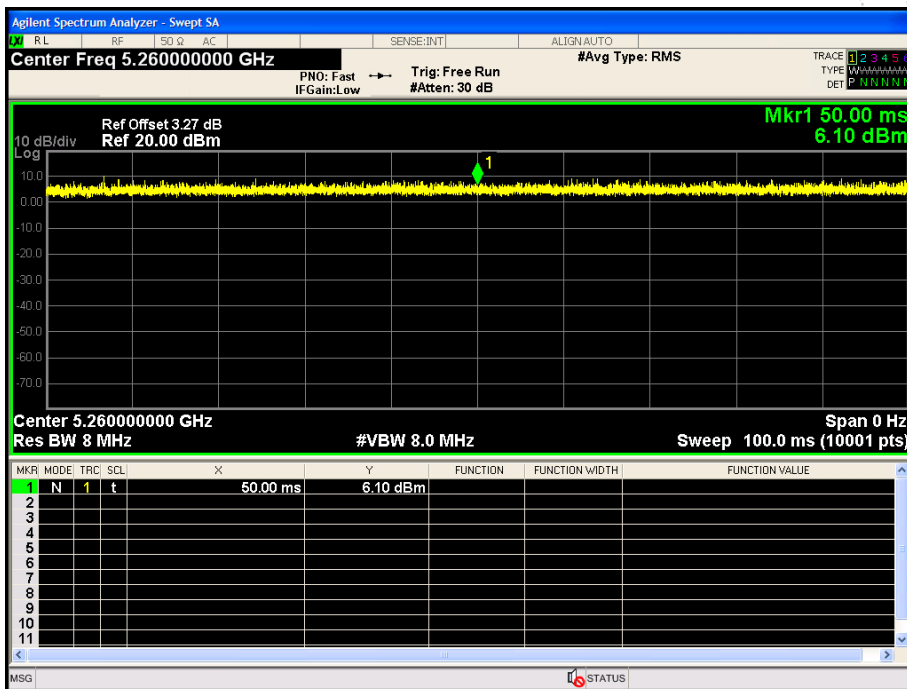


Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A ,only shown Antenna A . Plot.

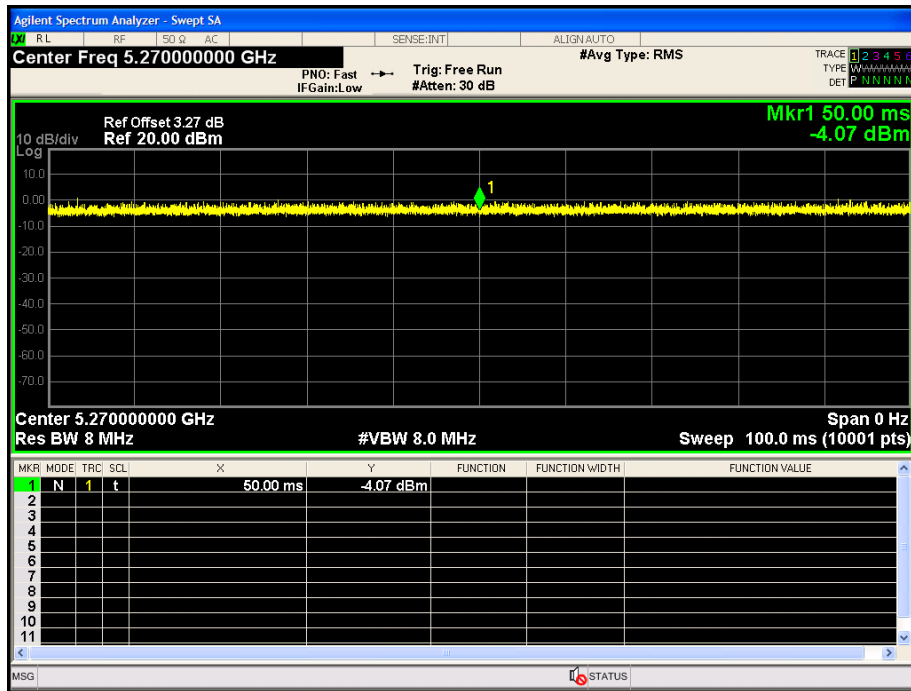
a



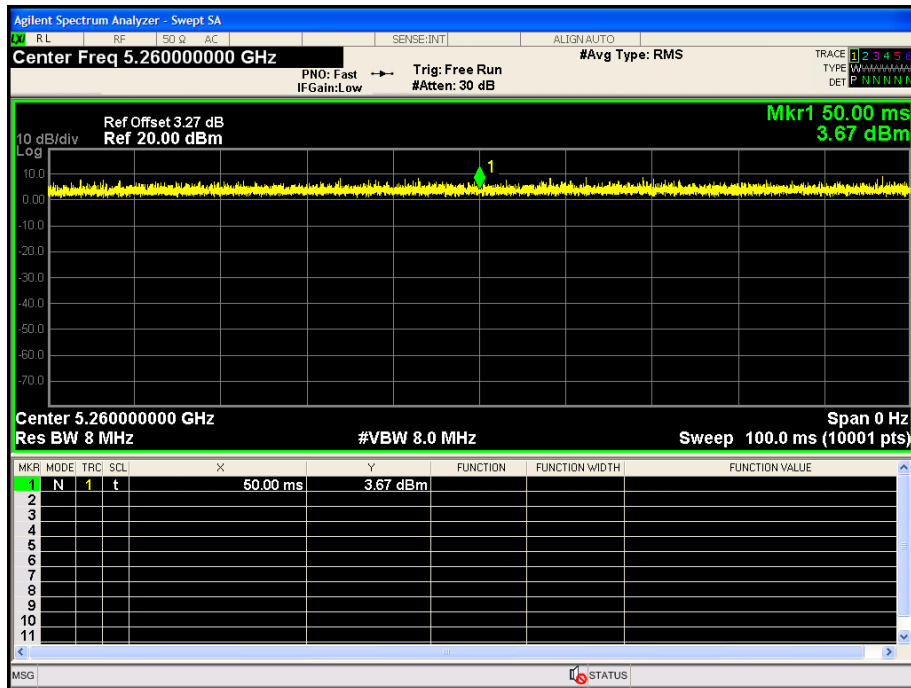
N20



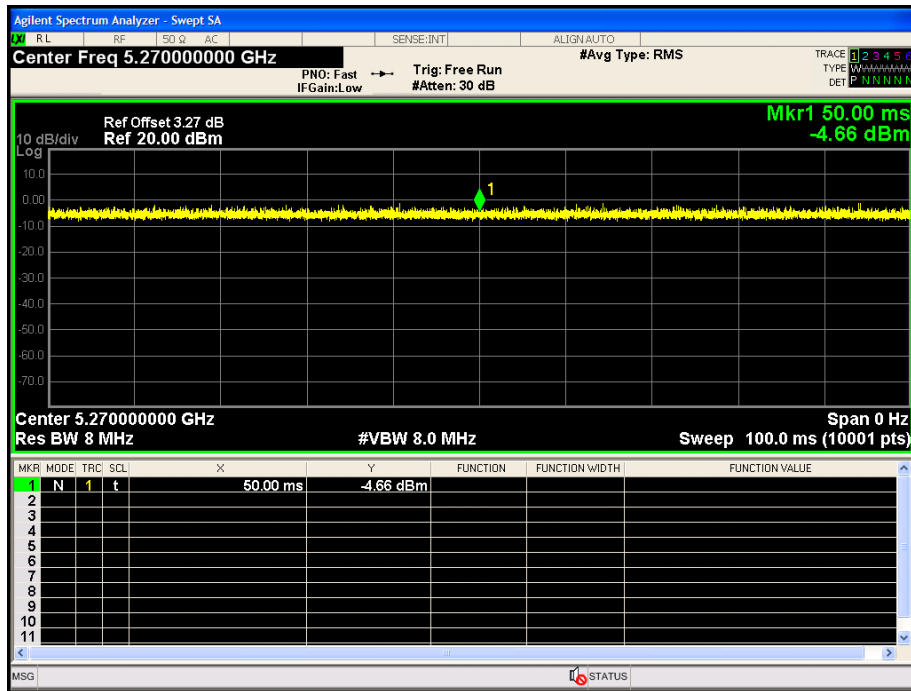
n40



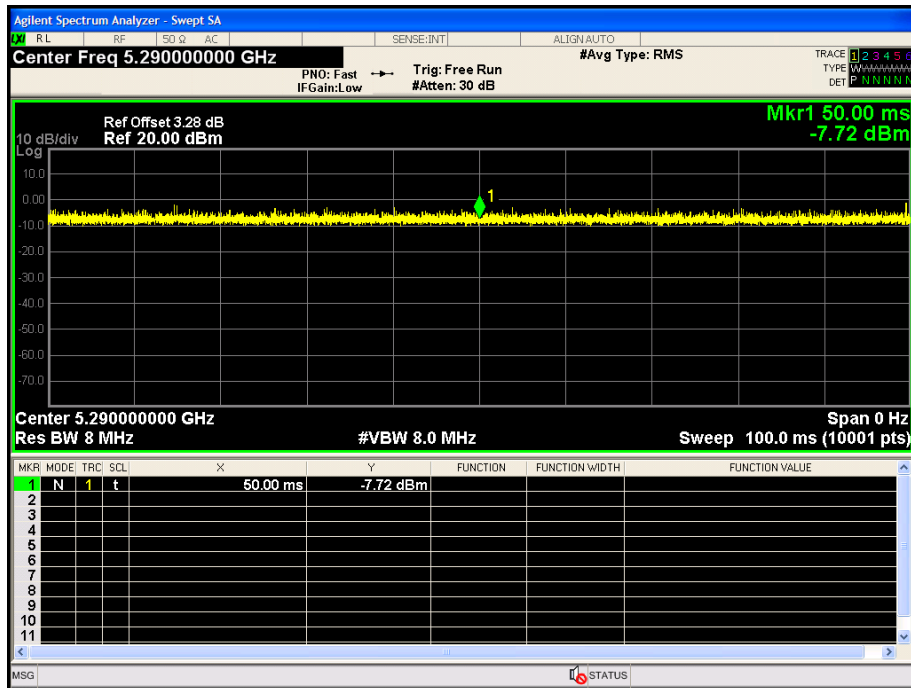
ac20



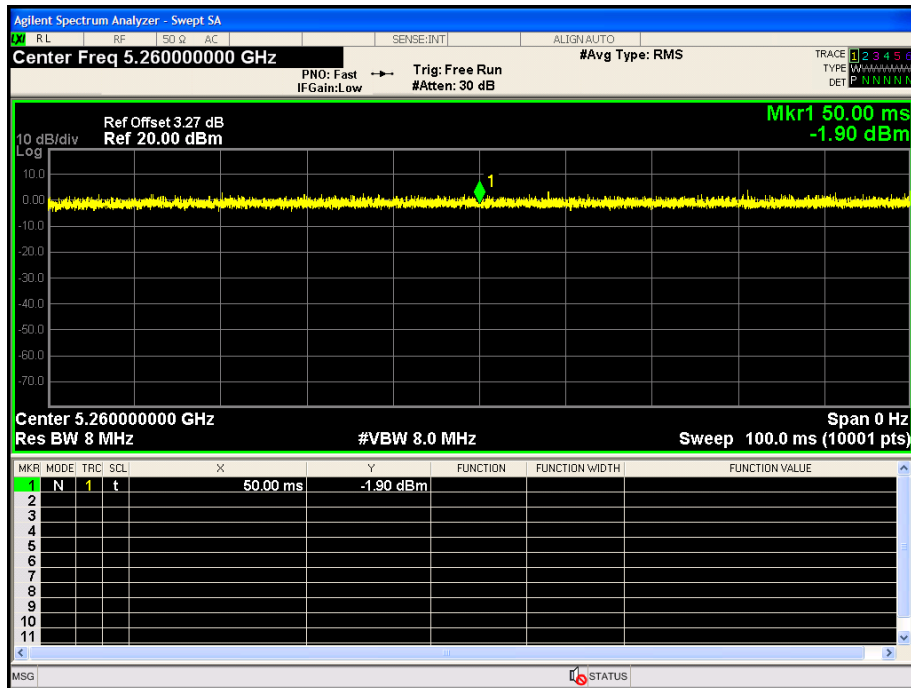
## ac40



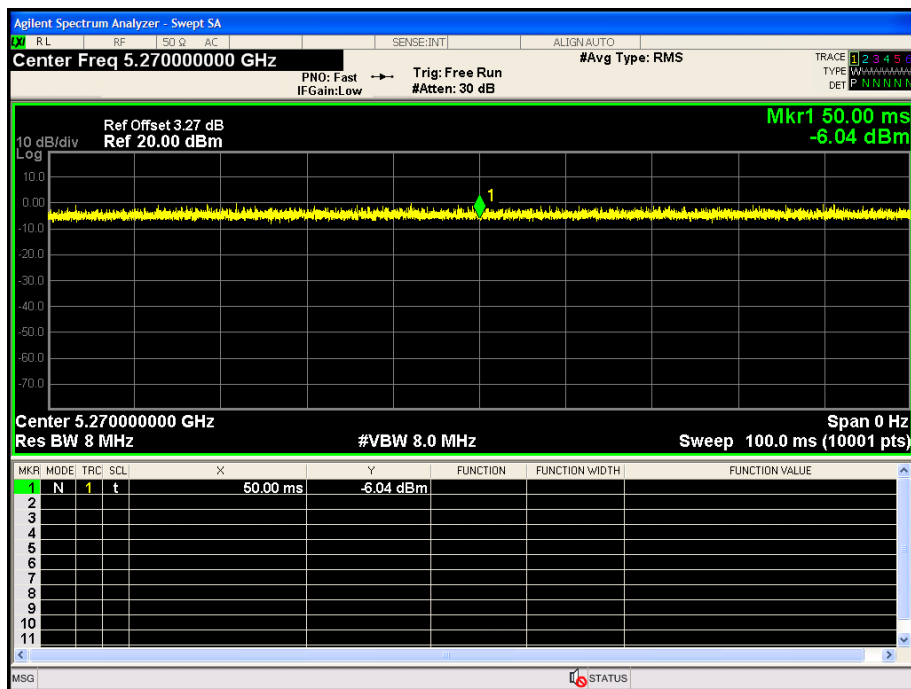
## ac80



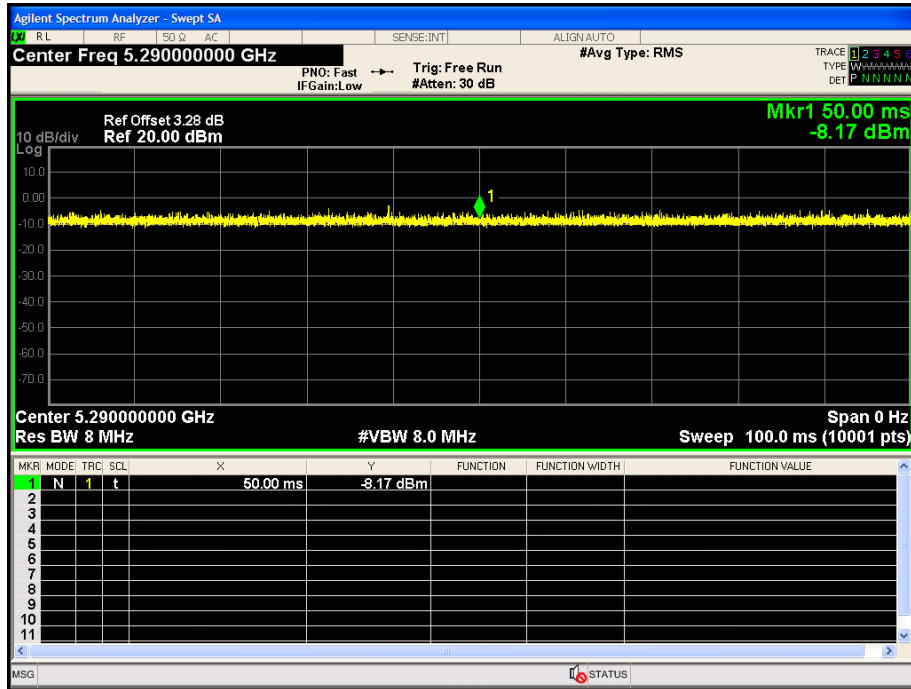
## ax20



## ax40



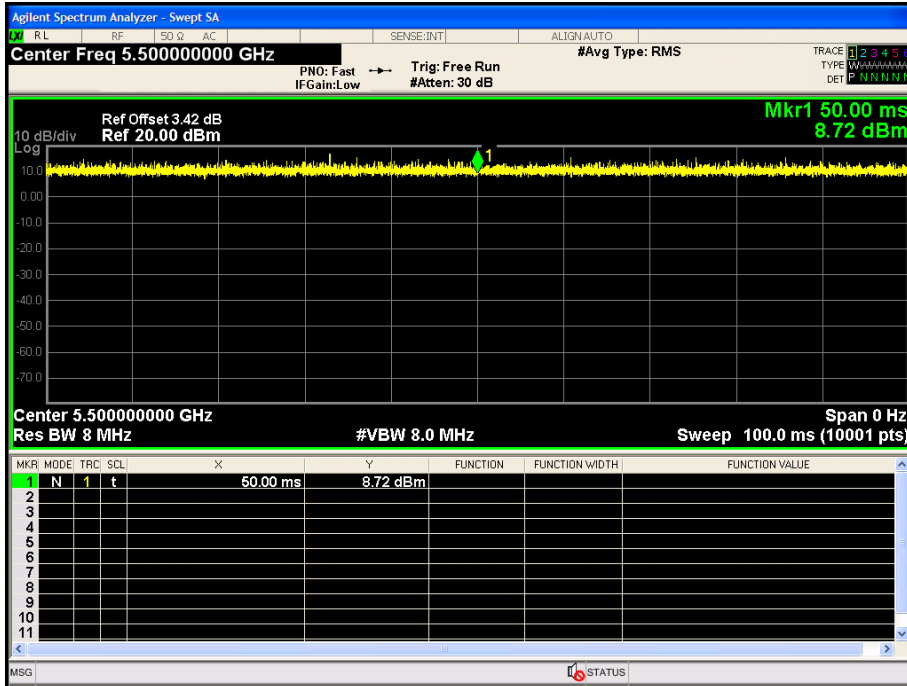
ax80


 5.6G  
 ANT A & B

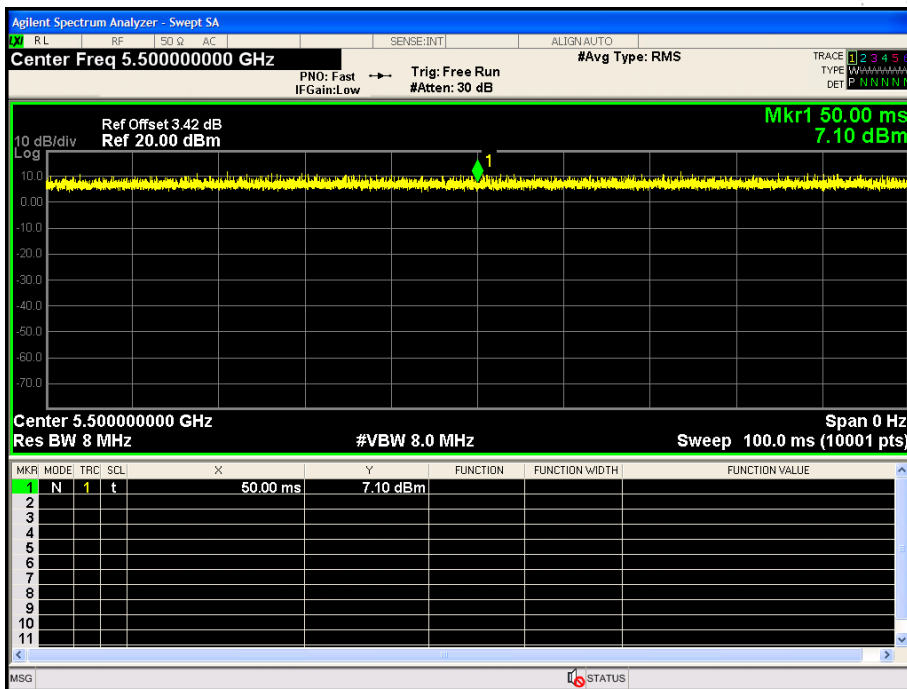
Condition	Mode	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	100	0	0
NVNT	n20	100	0	0
NVNT	n40	100	0	0
NVNT	ac20	100	0	0
NVNT	ac40	100	0	0
NVNT	ac80	100	0	0
NVNT	ax20	100	0	0
NVNT	ax40	100	0	0
NVNT	ax80	100	0	0

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A ,only shown Antenna A . Plot.

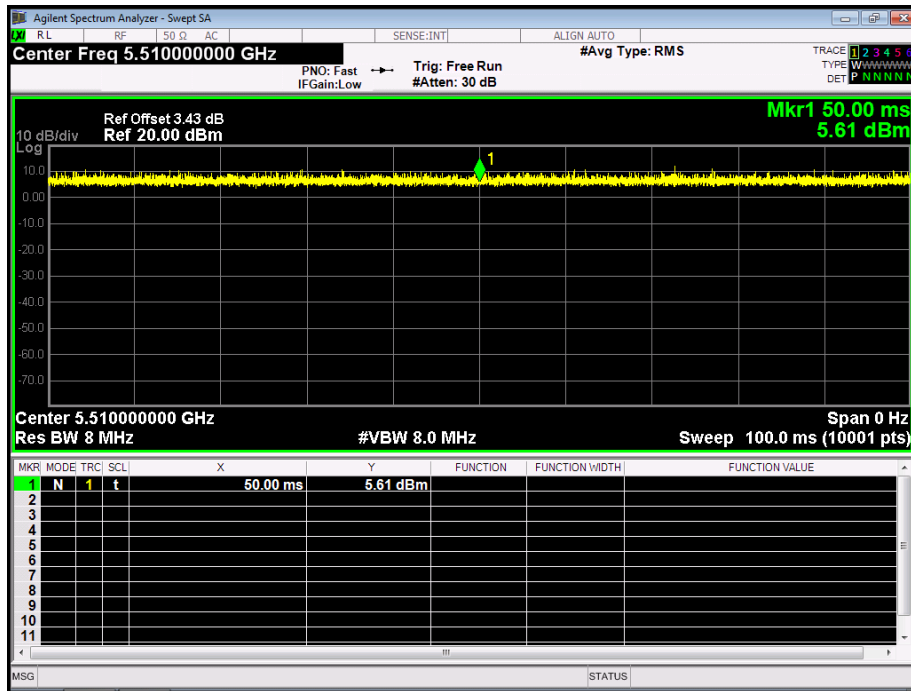
a



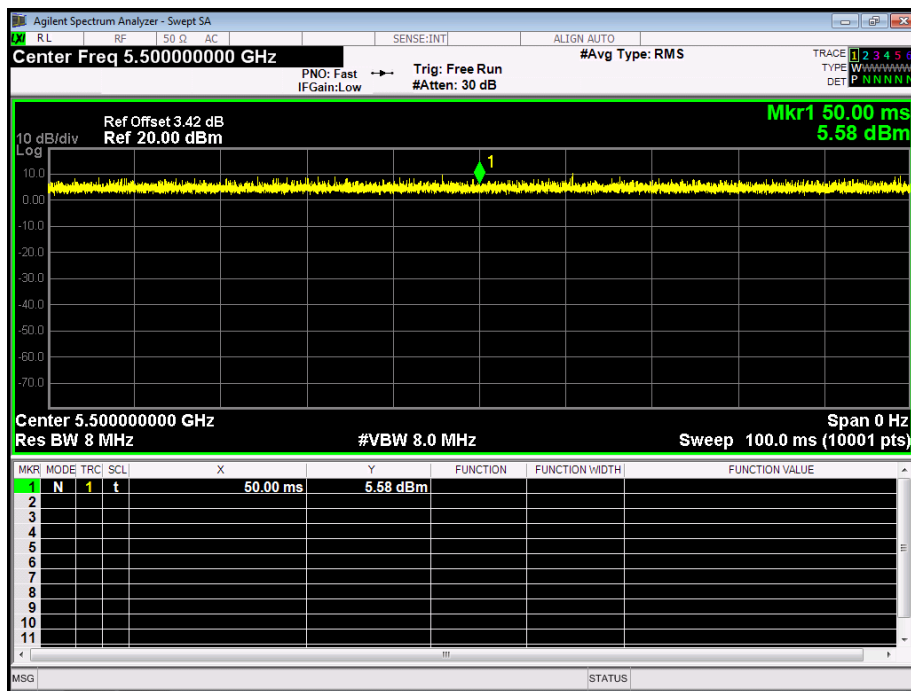
N20



n40

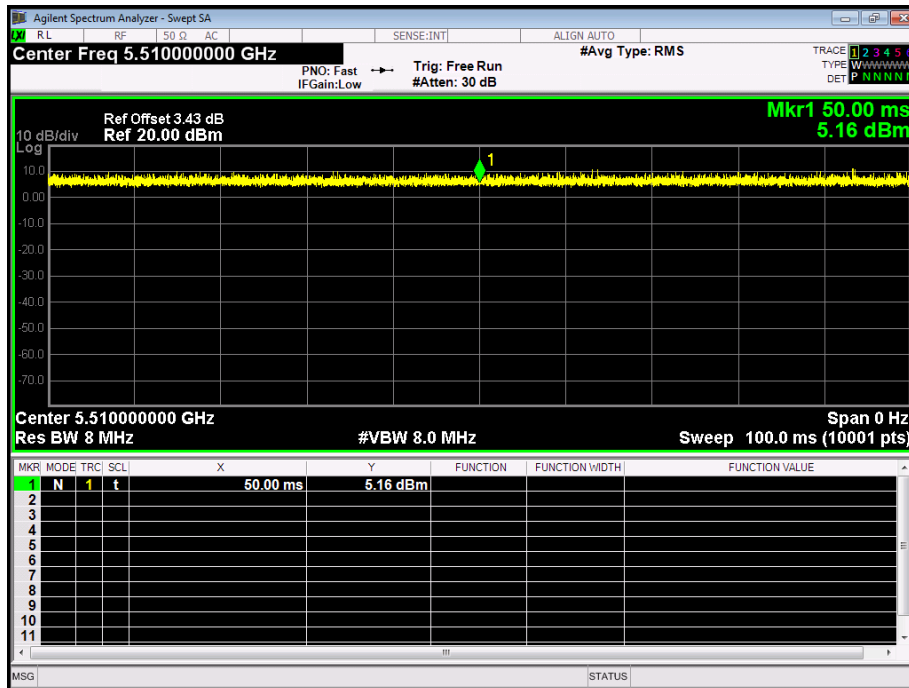


ac20

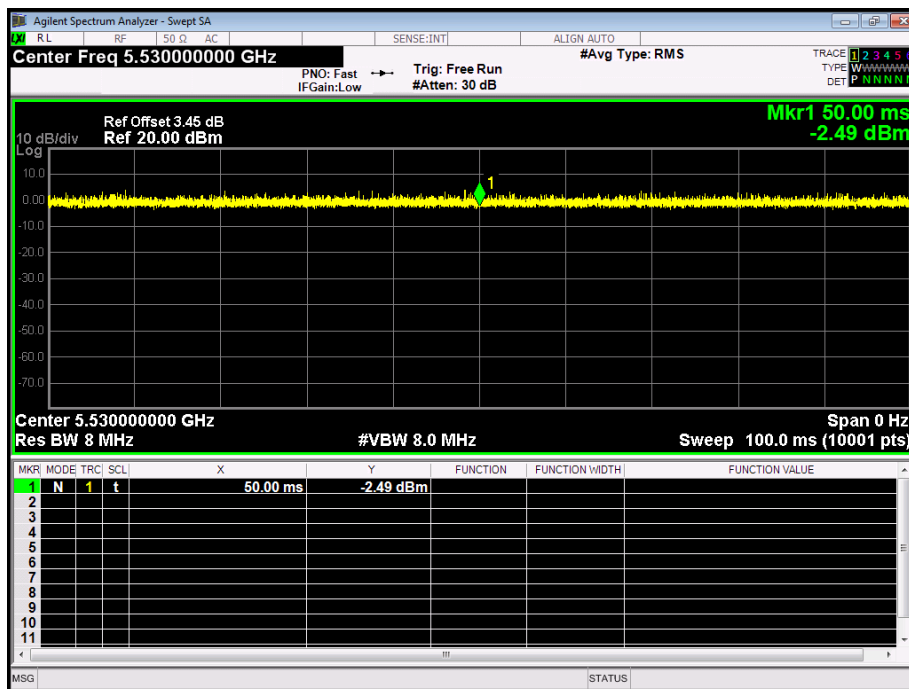




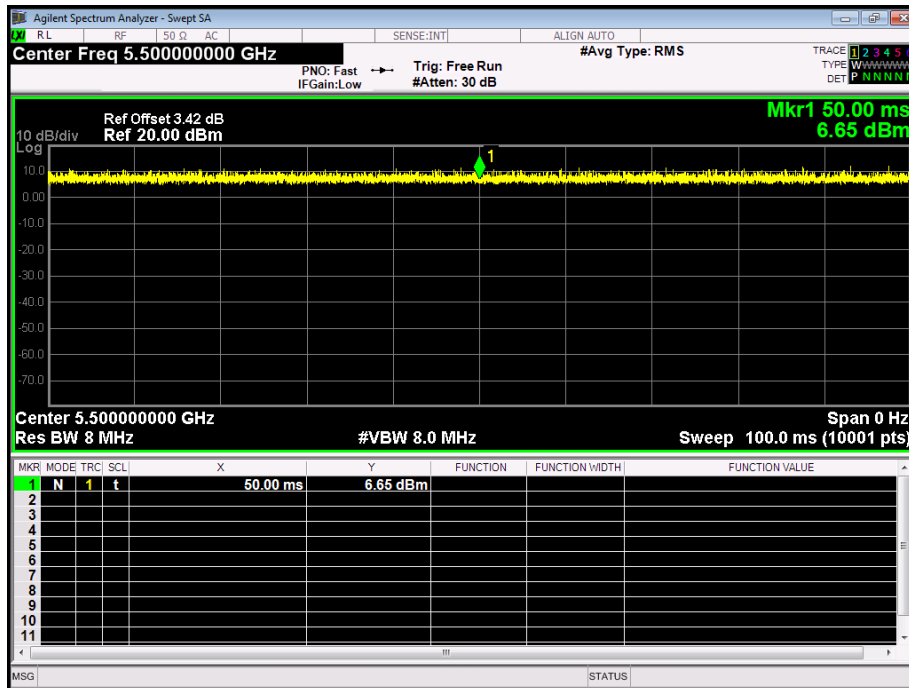
## ac40



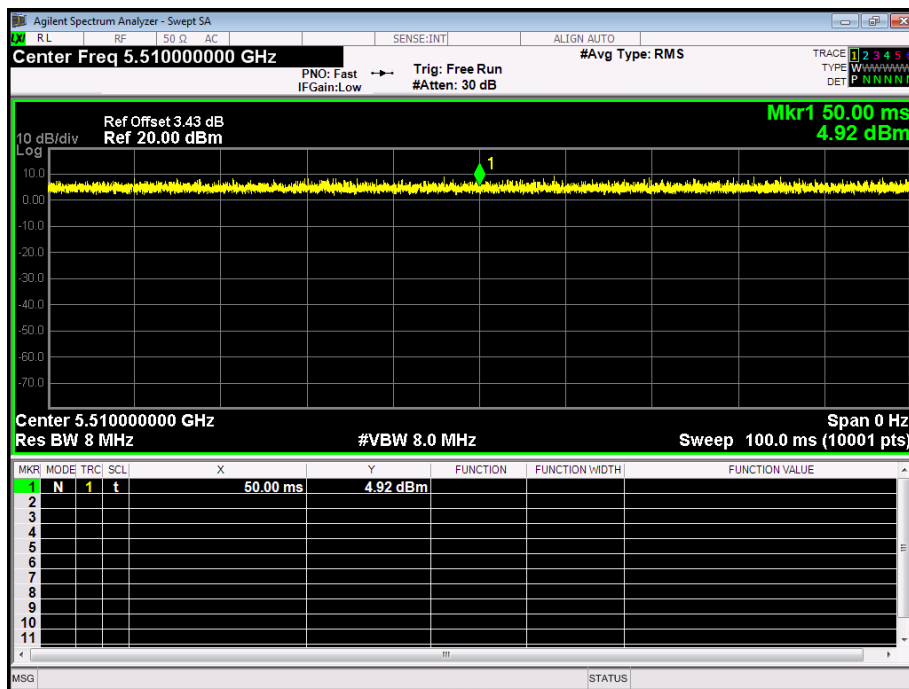
## ac80



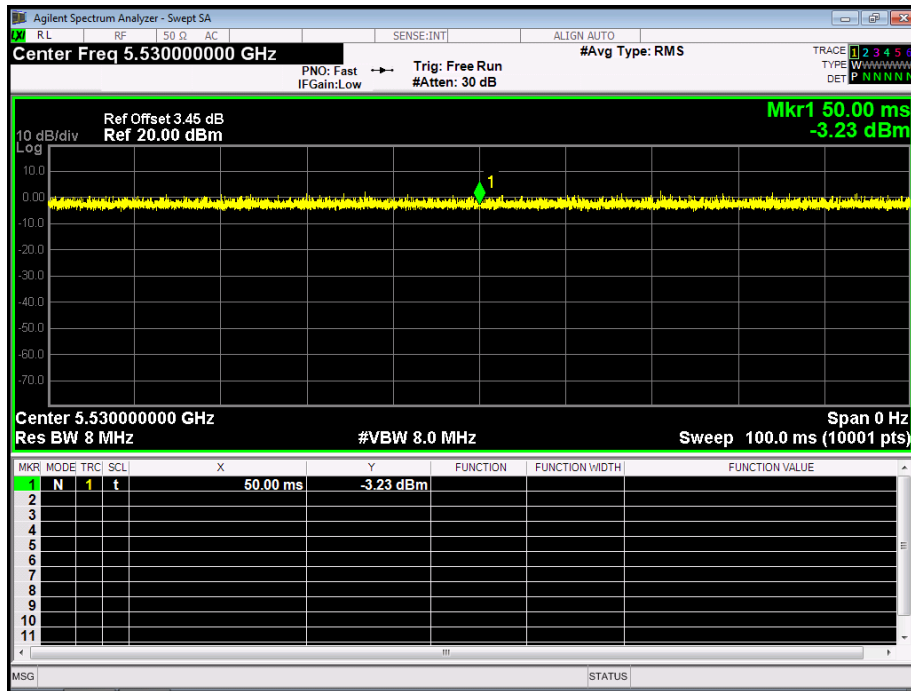
## ax20



## ax40



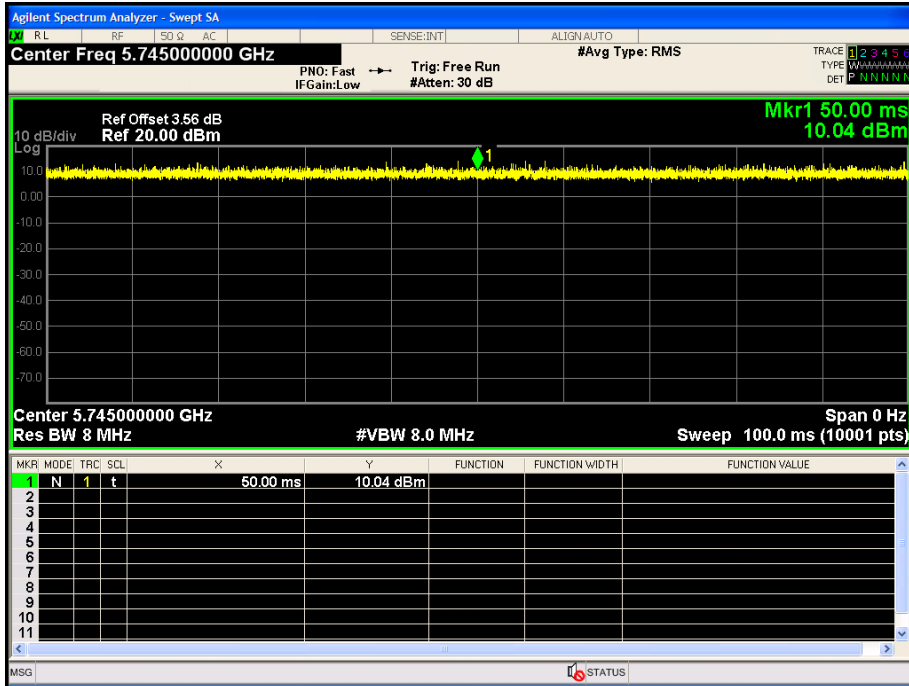
ax80


 5.8G  
 ANT A & B

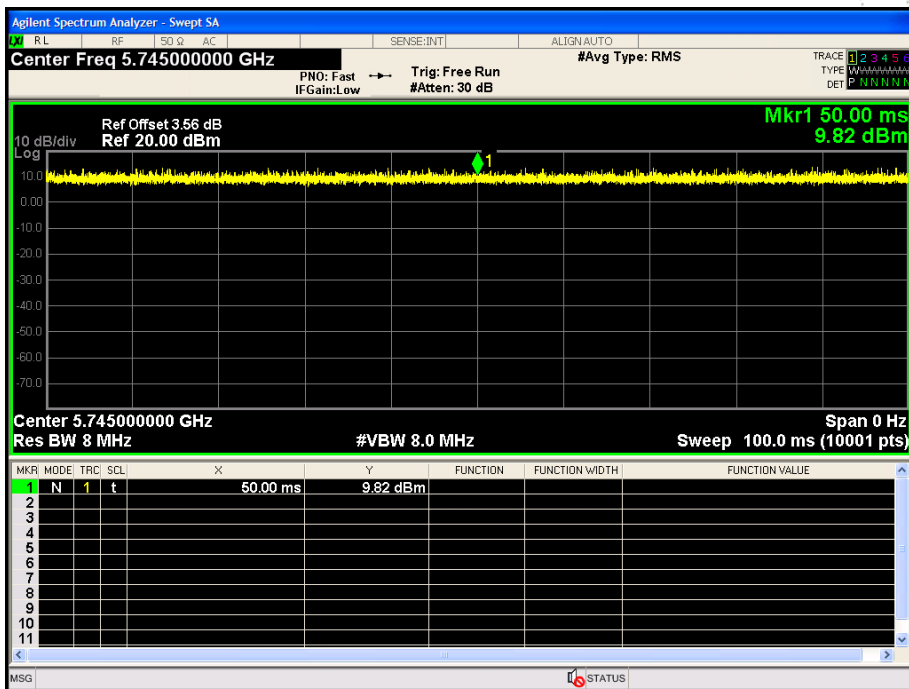
Condition	Mode	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	100	0	0
NVNT	n20	100	0	0
NVNT	n40	100	0	0
NVNT	ac20	100	0	0
NVNT	ac40	100	0	0
NVNT	ac80	100	0	0
NVNT	ax20	100	0	0
NVNT	ax40	100	0	0
NVNT	ax80	100	0	0

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A ,only shown Antenna A . Plot.

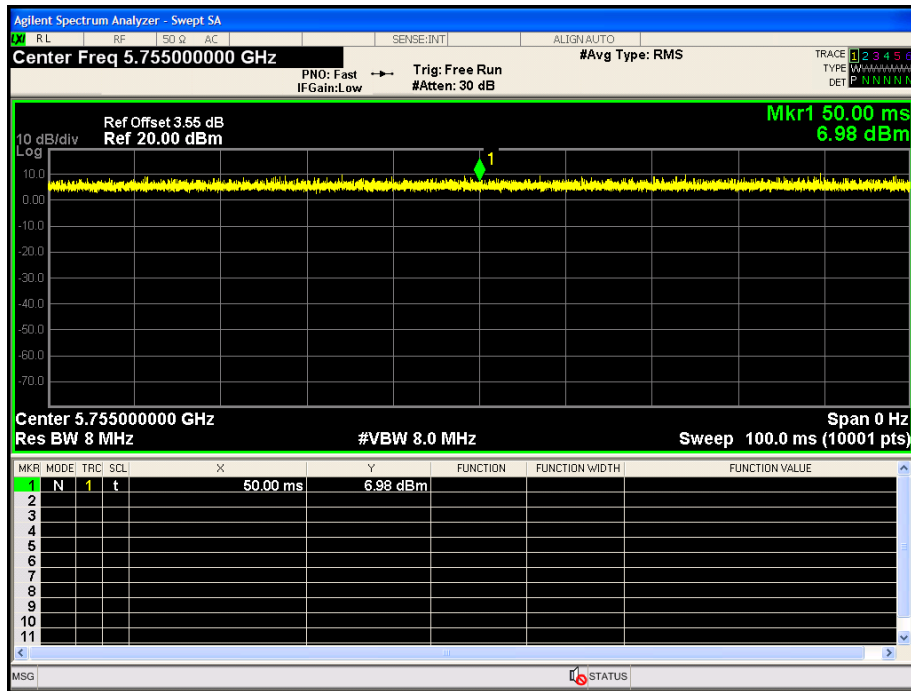
a



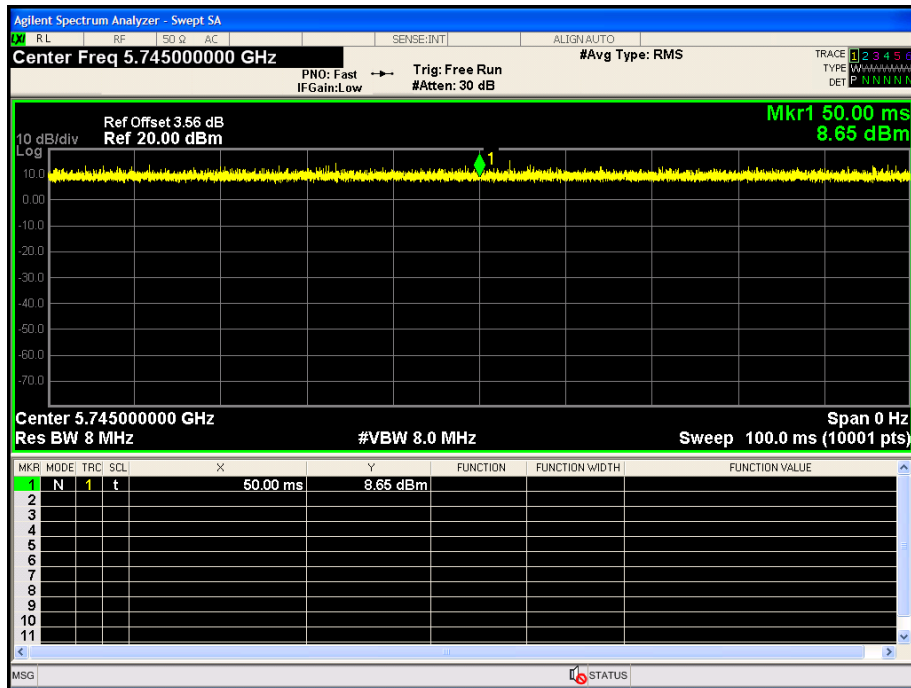
N20



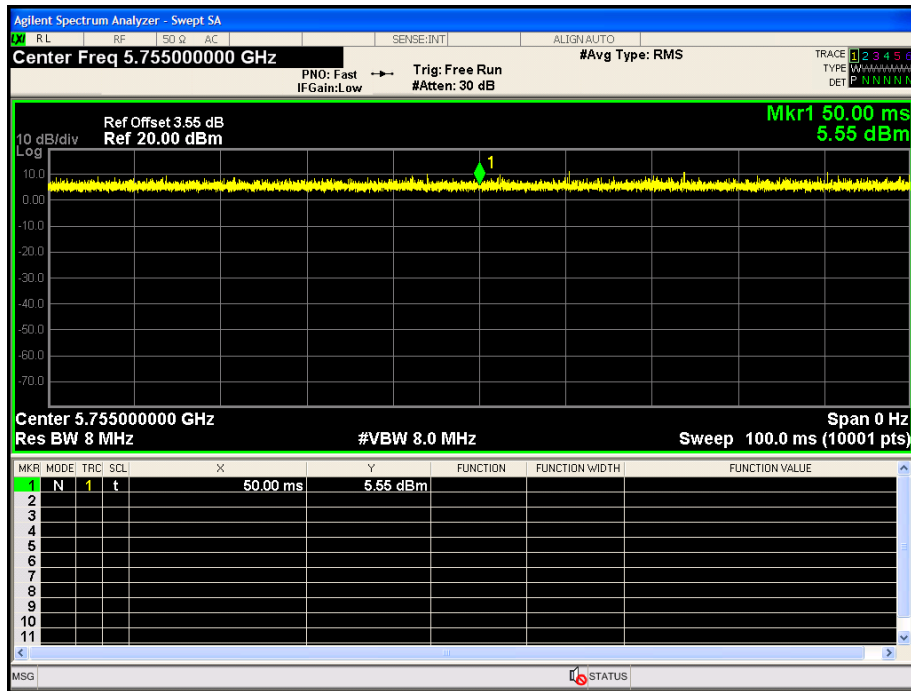
n40



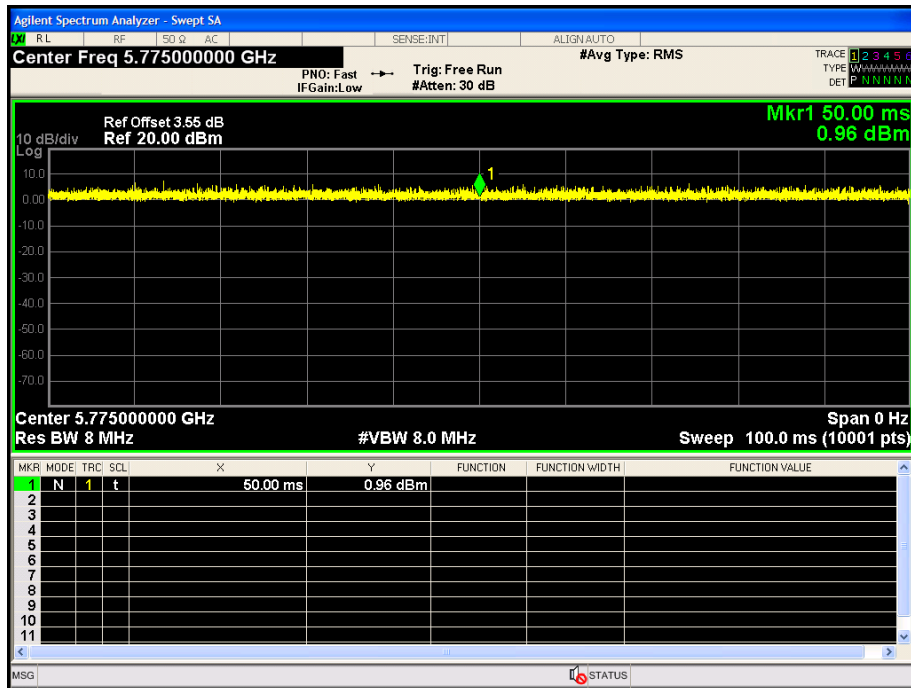
ac20



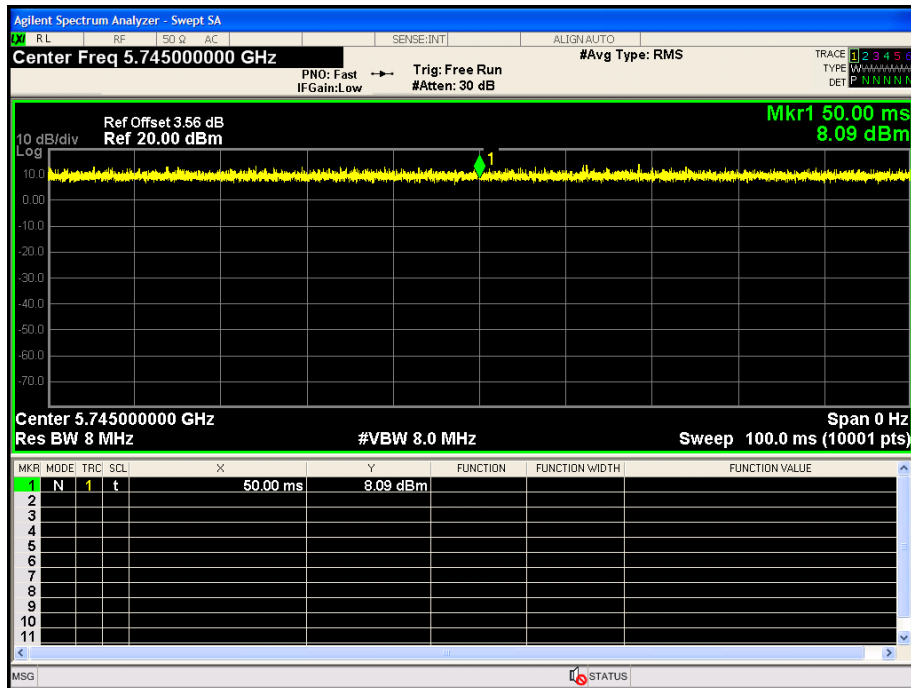
## ac40



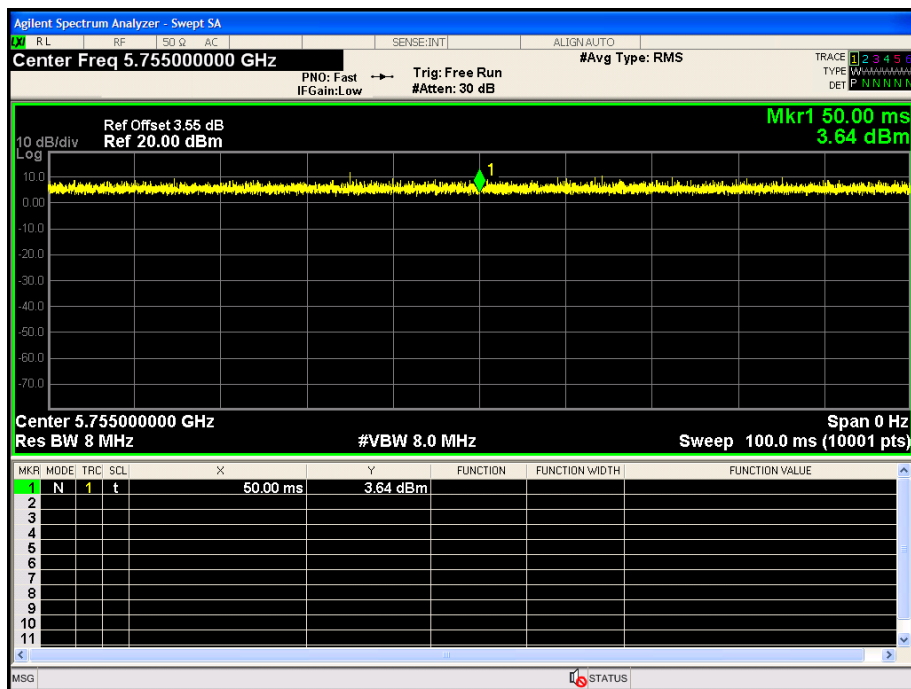
## ac80



## ax20

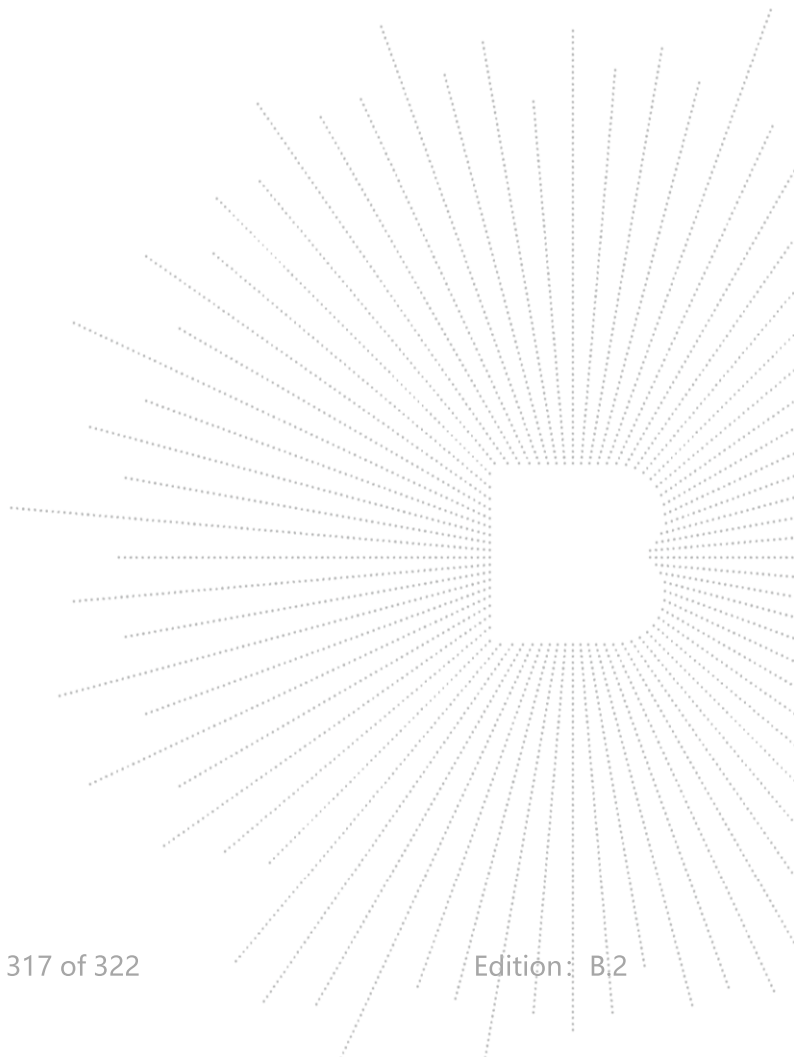
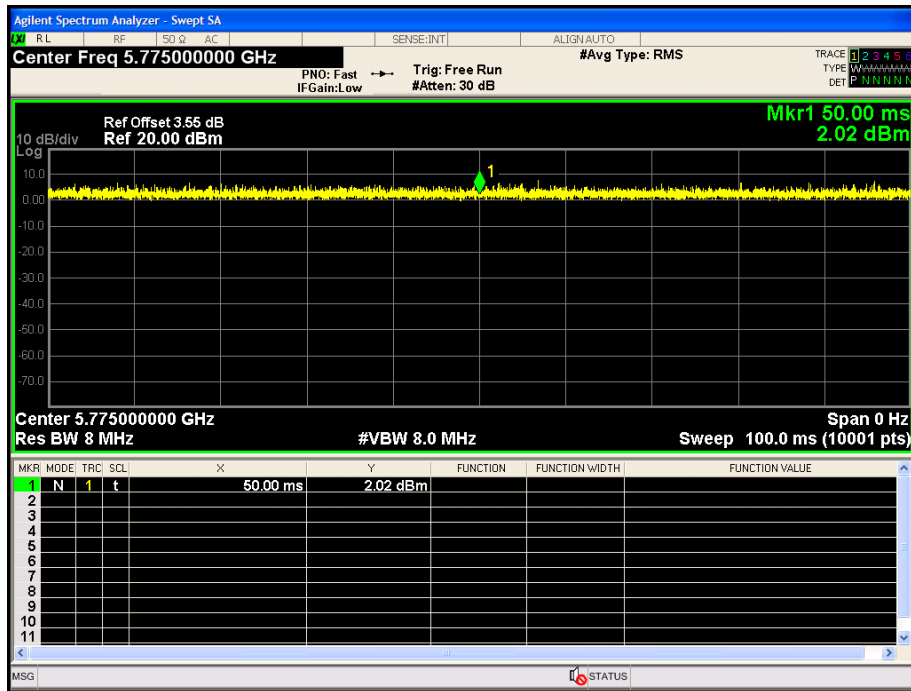


## ax40





ax80



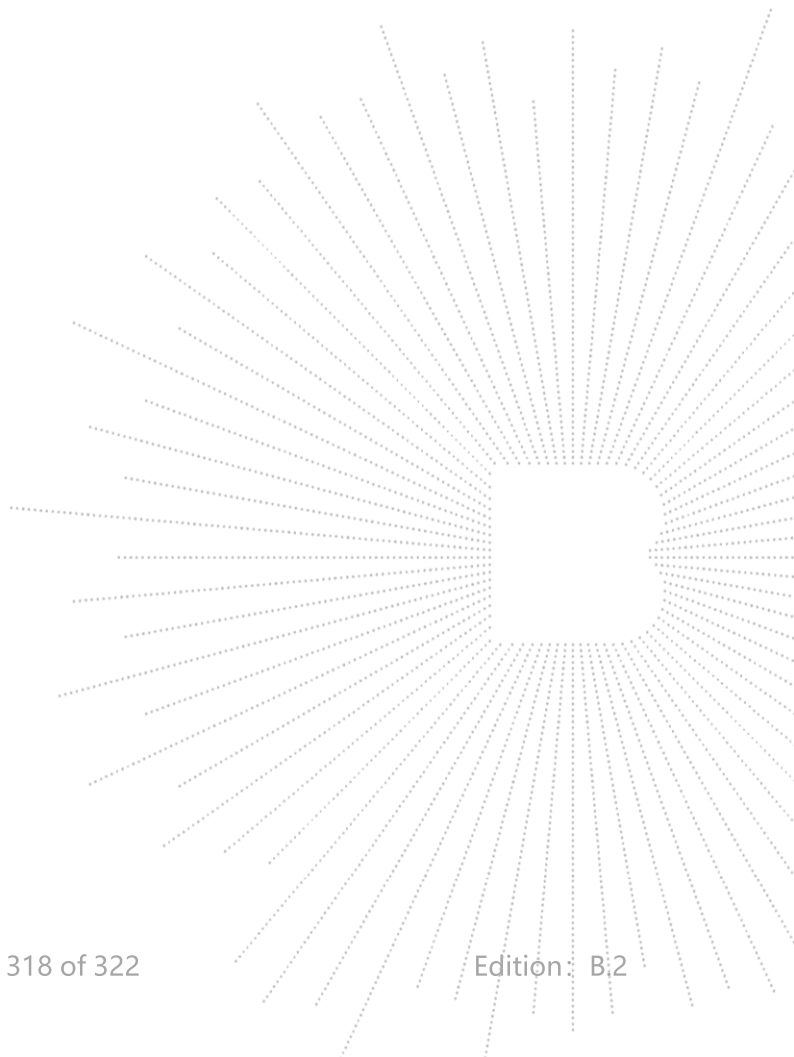
## 15. Antenna Requirement

### 15.1 Limit

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.

### 15.2 Test Result

The EUT antenna is Internal antenna (antenna gain (A): 6.98 dBi; antenna gain (B): 6.98 dBi). It comply with the standard requirement.

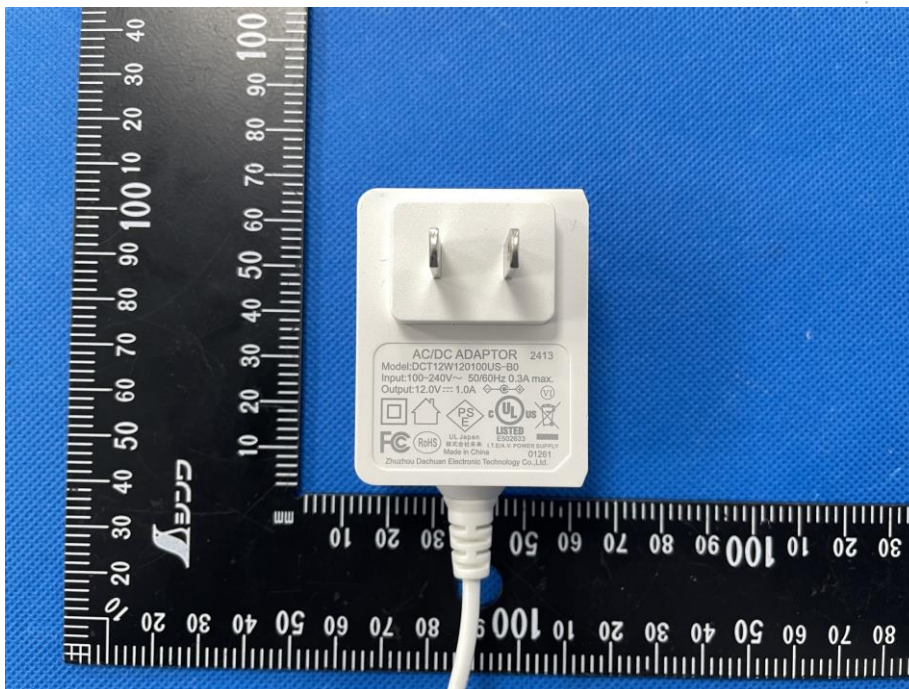


### 16. EUT Photographs

EUT Photo 1



EUT Photo 2



NOTE: Appendix-Photographs Of EUT Constructional Details

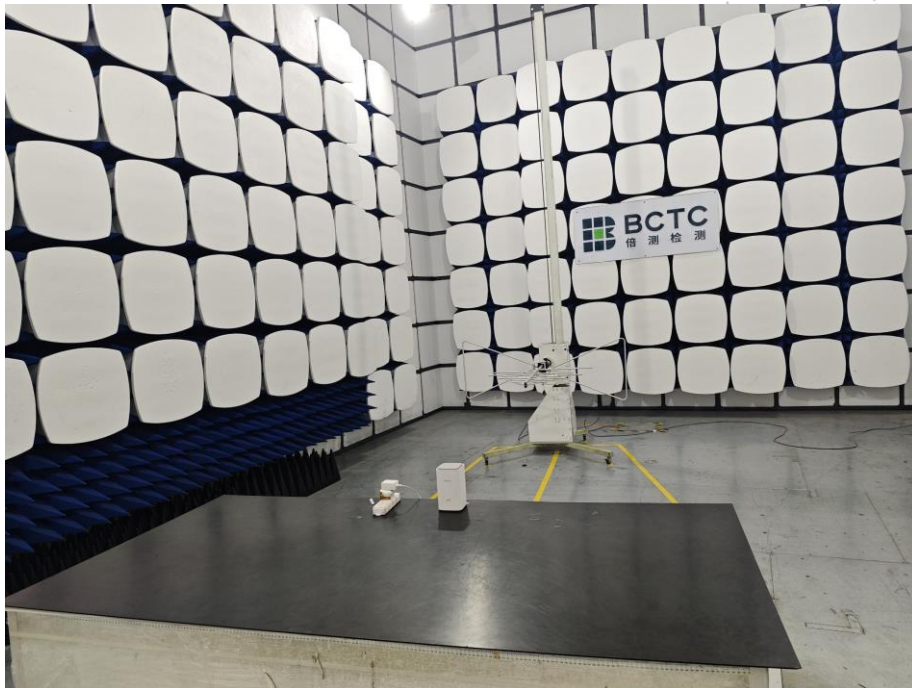


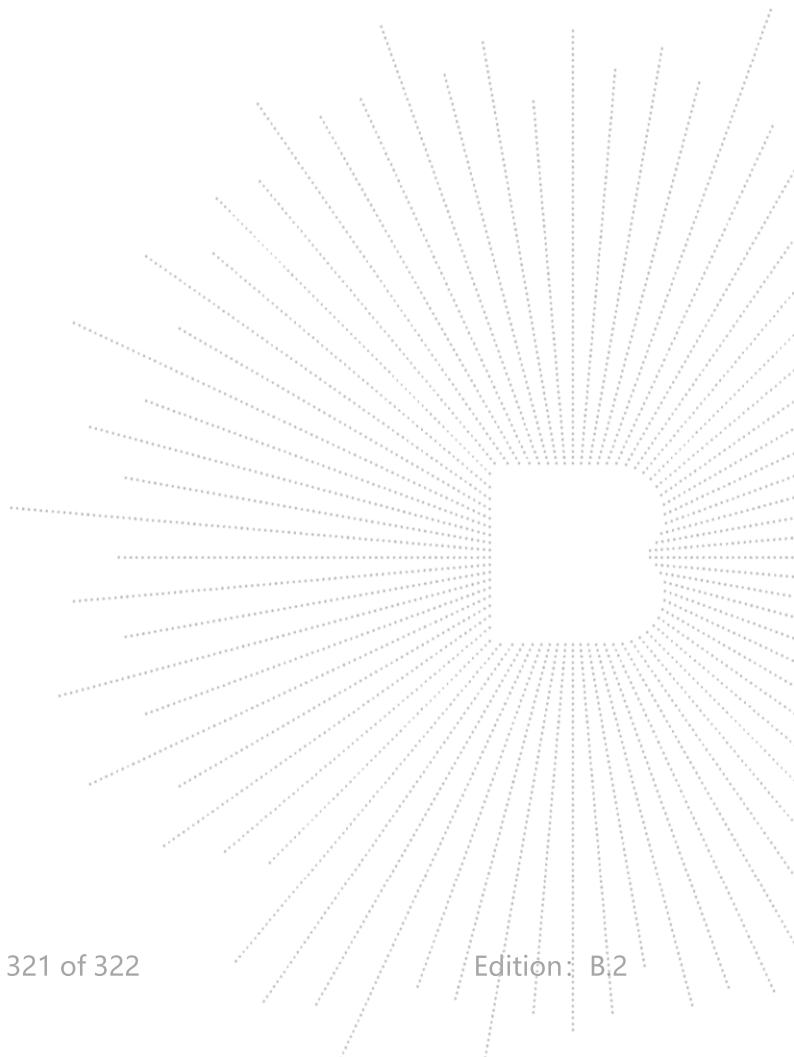
## 17. EUT Test Setup Photographs

### Conducted Emissions Photo



### Radiated Measurement Photos





**STATEMENT**

1. The equipment lists are traceable to the national reference standards.
2. The test report can not be partially copied unless prior written approval is issued from our lab.
3. The test report is invalid without the "special seal for inspection and testing".
4. The test report is invalid without the signature of the approver.
5. The test process and test result is only related to the Unit Under Test.
6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
7. The quality system of our laboratory is in accordance with ISO/IEC17025.
8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

**Address:**

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: 400-788-9558

P.C.: 518103

FAX: 0755-33229357

Website: <http://www.chnbctc.com>

Consultation E-mail: [bctc@bctc-lab.com.cn](mailto:bctc@bctc-lab.com.cn)

Complaint/Advice E-mail: [advice@bctc-lab.com.cn](mailto:advice@bctc-lab.com.cn)

\*\*\*\*\* END \*\*\*\*\*

