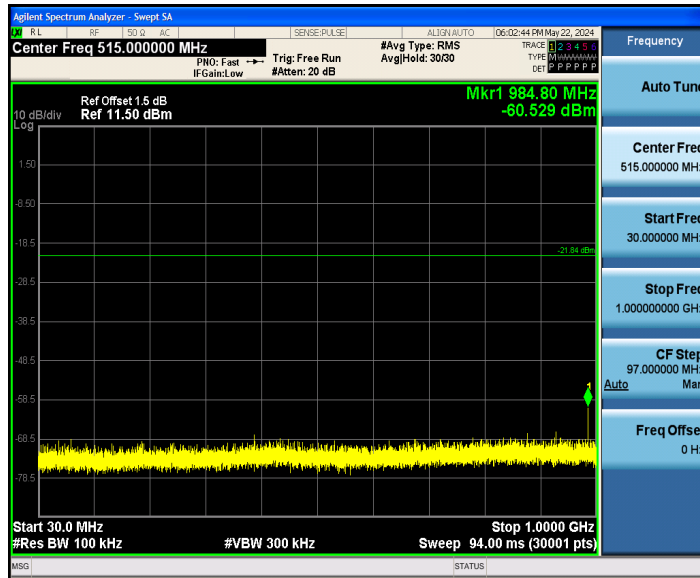




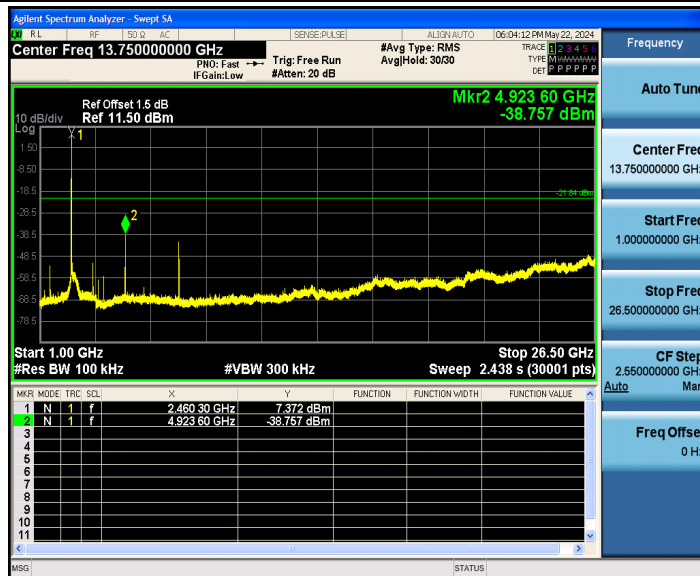
802.11b\_2462\_0~Reference



802.11b\_2462\_30~1000



802.11b\_2462\_1000~26500

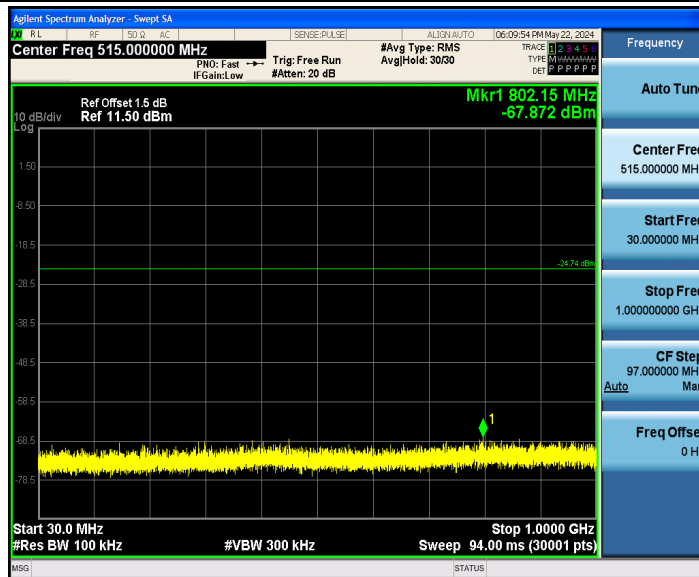




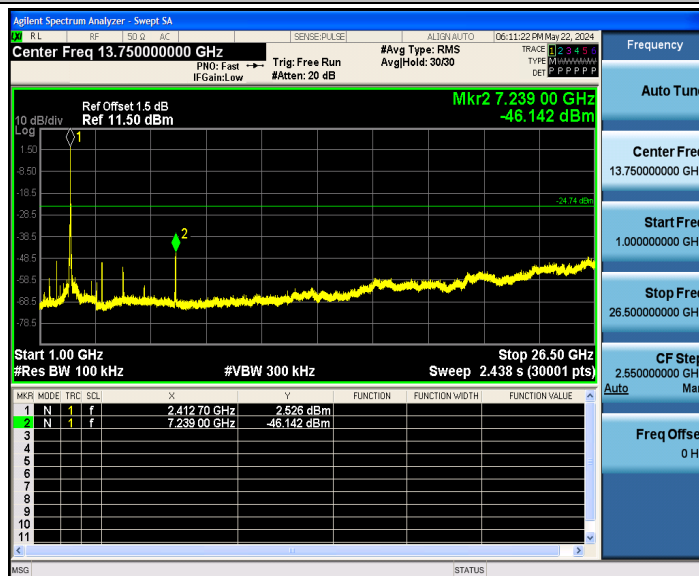
802.11g\_2412\_0~Reference



802.11g\_2412\_30~1000

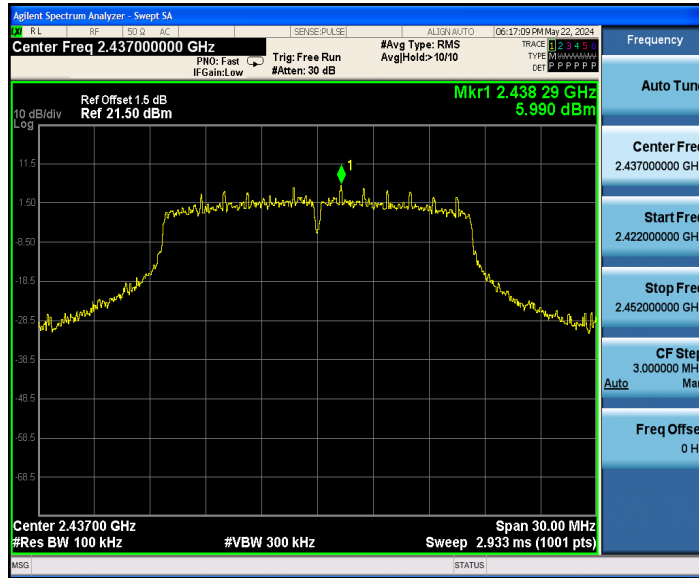


802.11g\_2412\_1000~26500

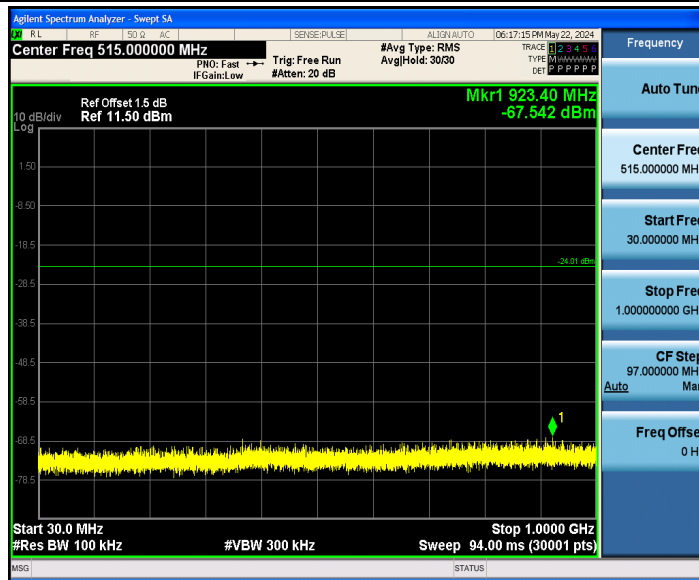




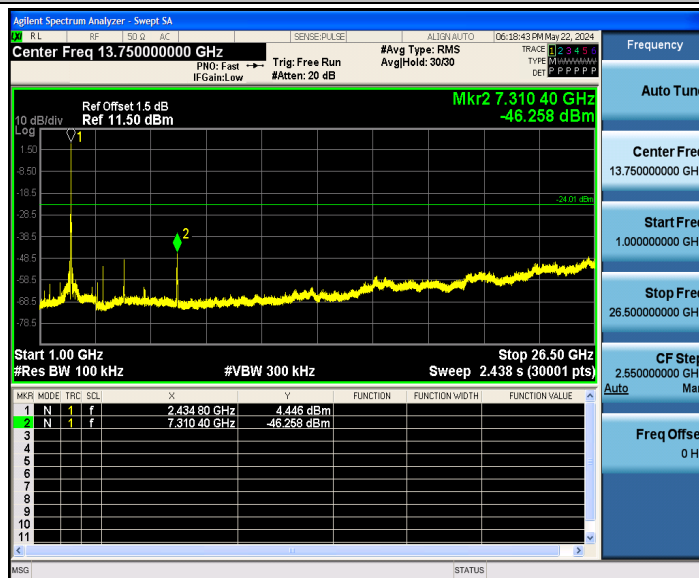
802.11g\_2437\_0~Reference



802.11g\_2437\_30~1000



802.11g\_2437\_1000~26500

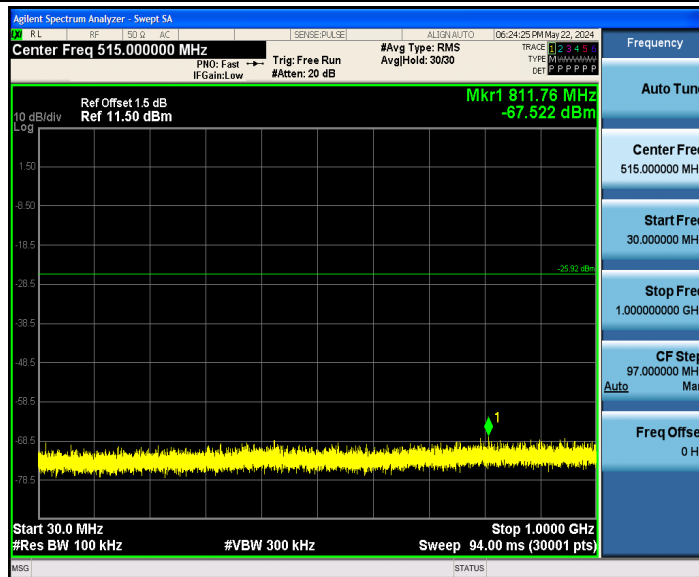




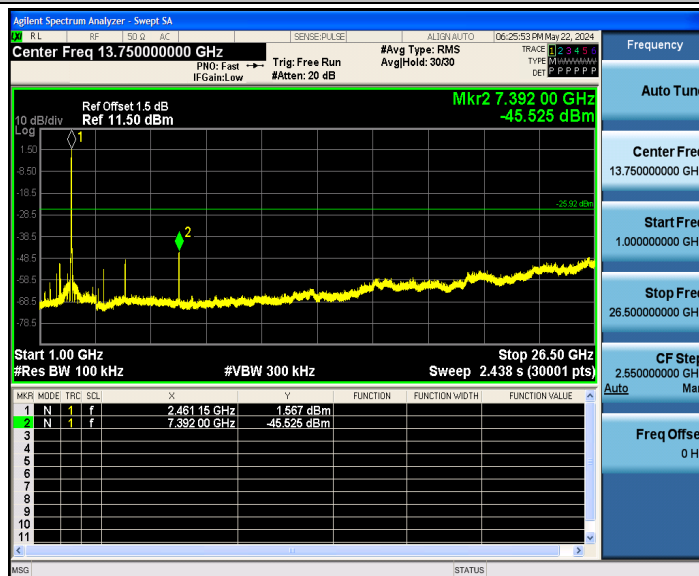
802.11g\_2462\_0~Reference



802.11g\_2462\_30~1000

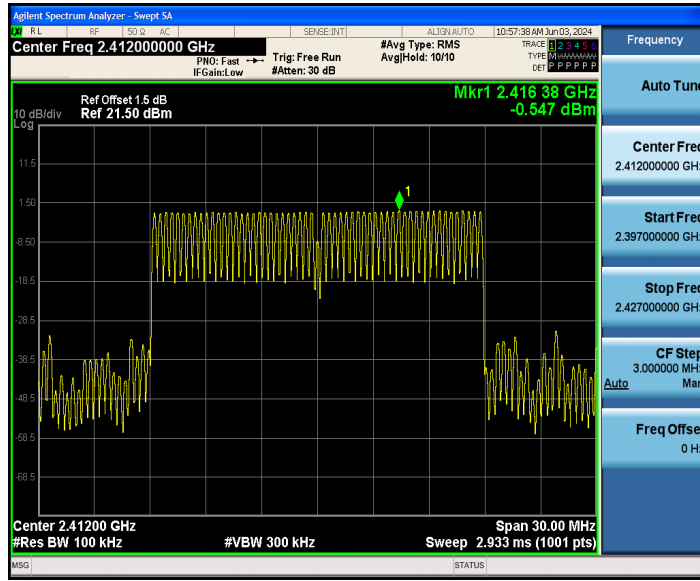


802.11g\_2462\_1000~26500

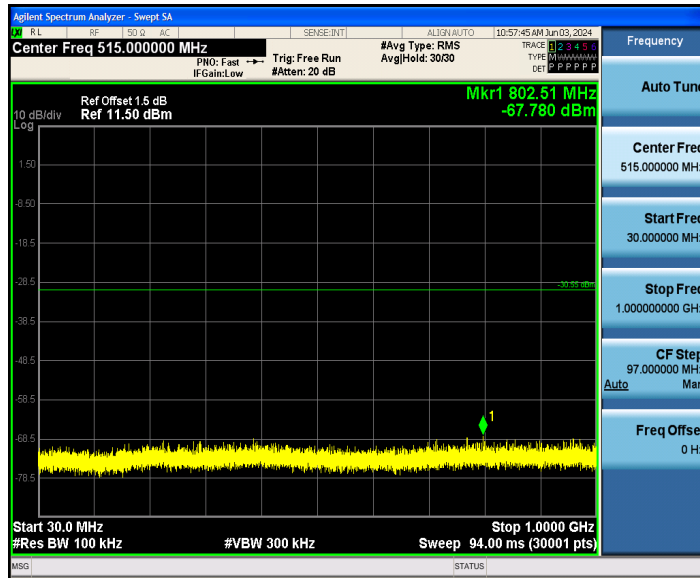




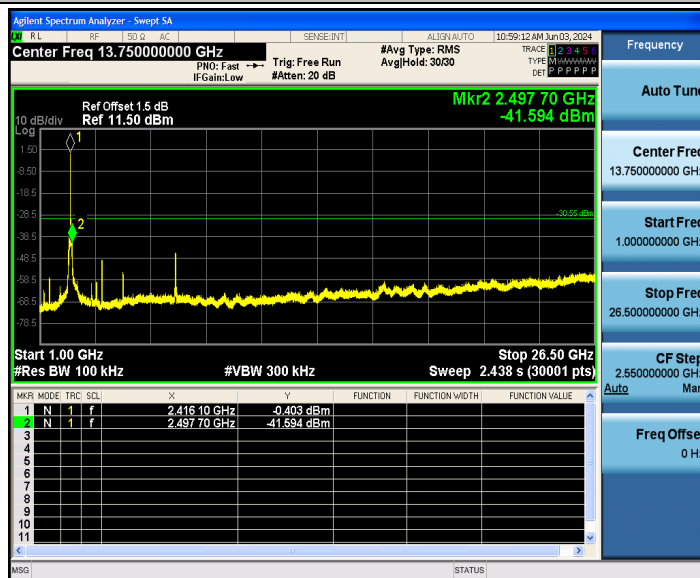
802.11n(HT20)\_2412\_0~Reference



802.11n(HT20)\_2412\_30~1000



802.11n(HT20)\_2412\_1000~26500

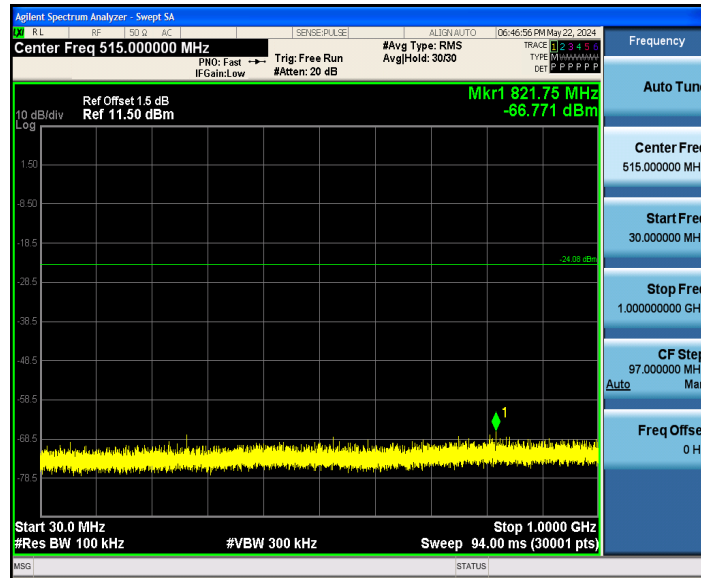




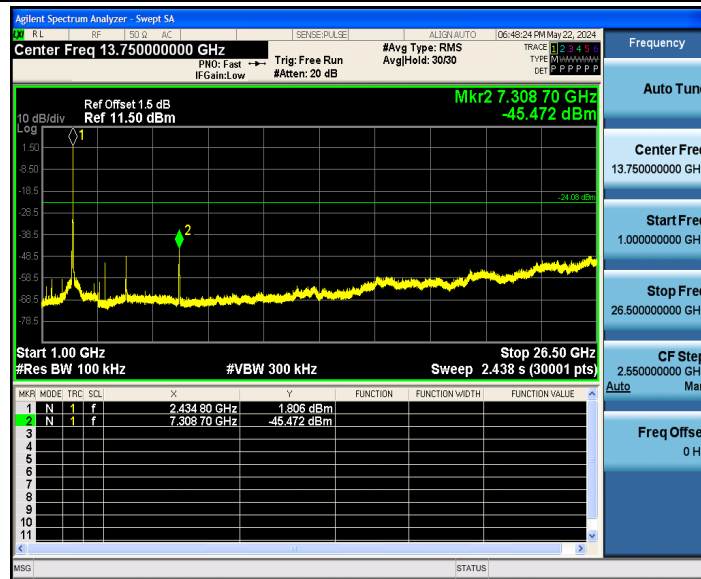
802.11n(HT20)\_2437\_0~Reference



802.11n(HT20)\_2437\_30~1000



802.11n(HT20)\_2437\_1000~26500

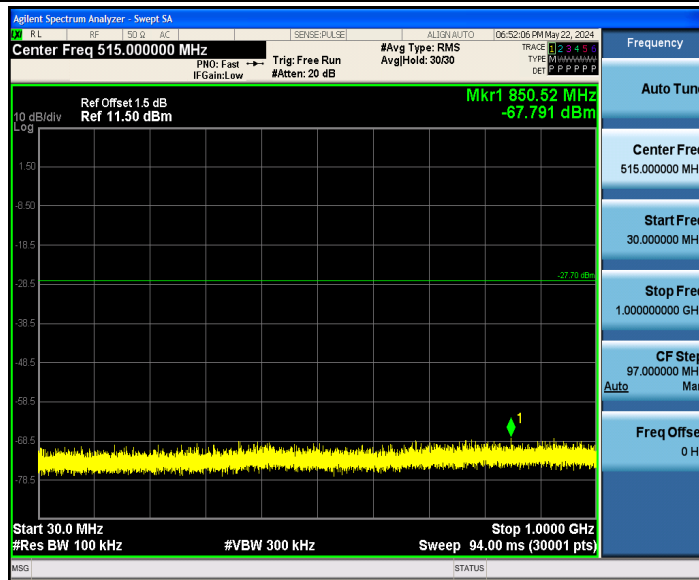




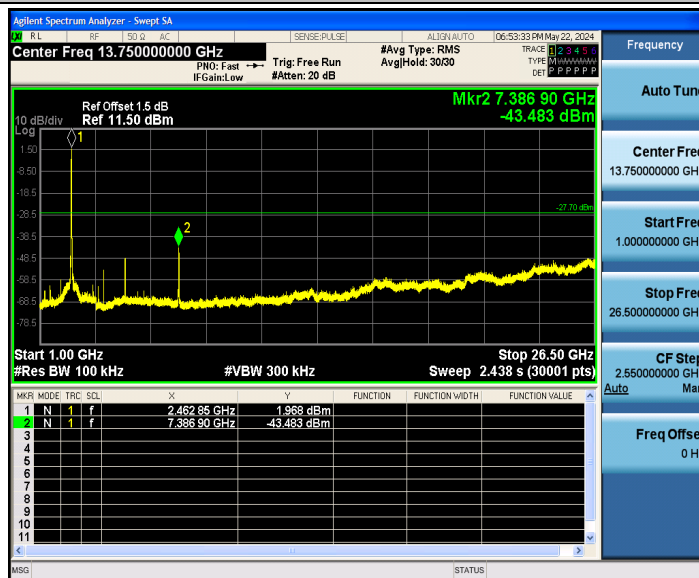
802.11n(HT20)\_2462\_0~Reference



802.11n(HT20)\_2462\_30~1000

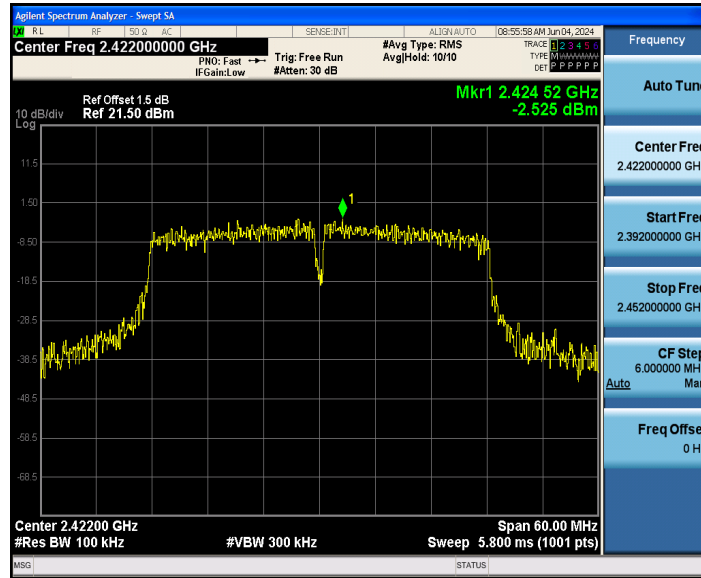


802.11n(HT20)\_2462\_1000~26500

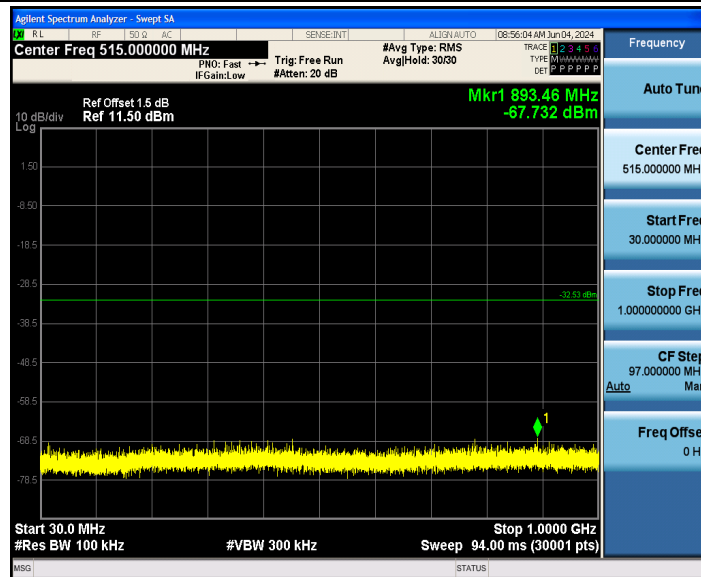




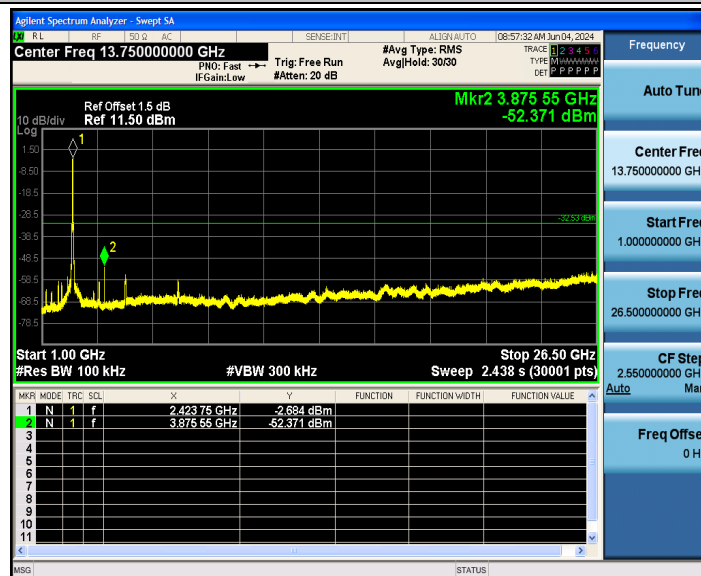
802.11n(HT40)\_2422\_0~Reference



802.11n(HT40)\_2422\_30~1000



802.11n(HT40)\_2422\_1000~26500



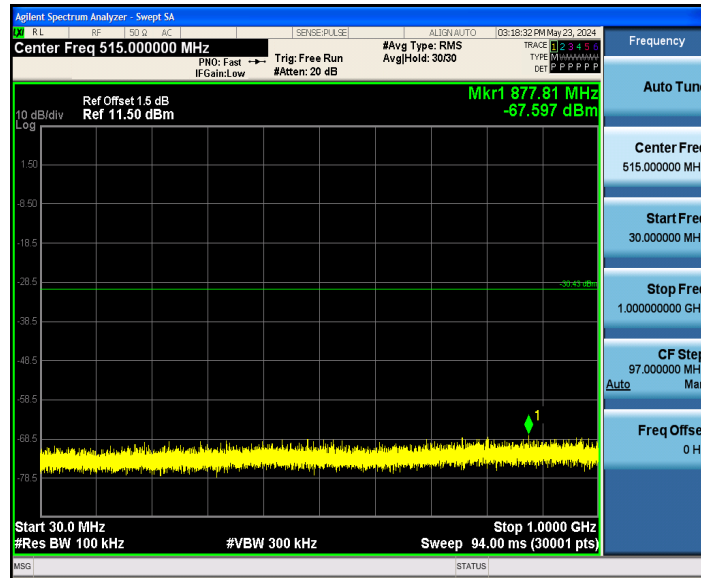




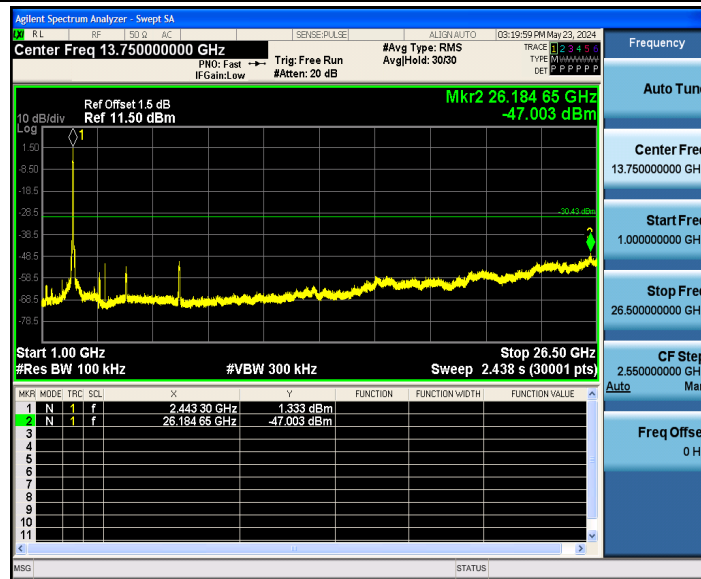
802.11n(HT40)\_2437\_0~Reference



802.11n(HT40)\_2437\_30~1000



802.11n(HT40)\_2437\_1000~26500

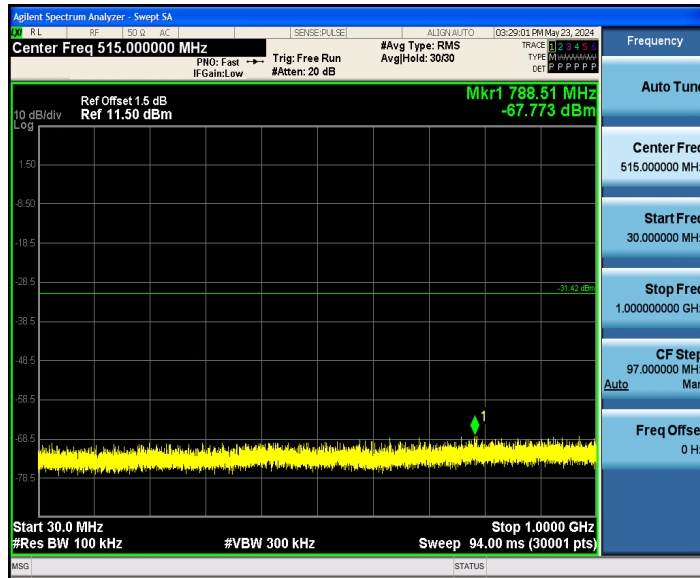




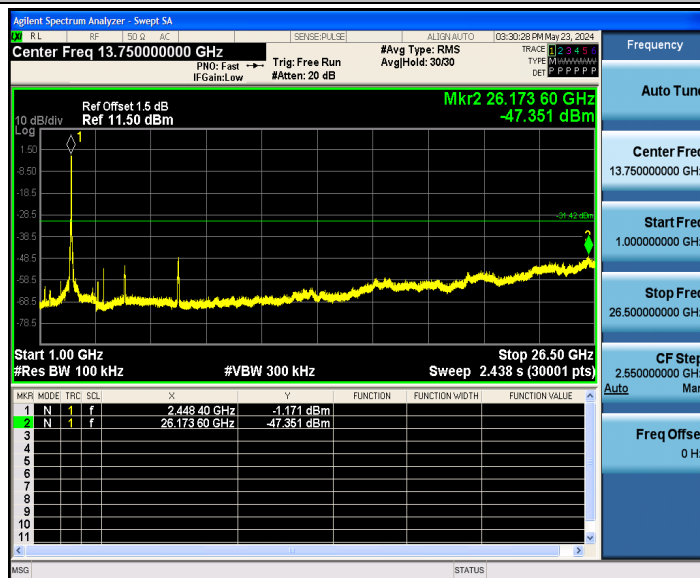
802.11n(HT40)\_2452\_0~Reference



802.11n(HT40)\_2452\_30~1000



802.11n(HT40)\_2452\_1000~26500

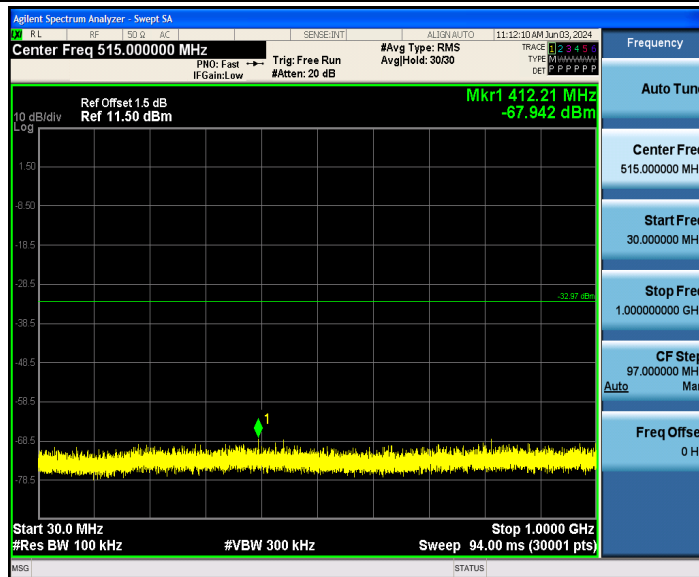




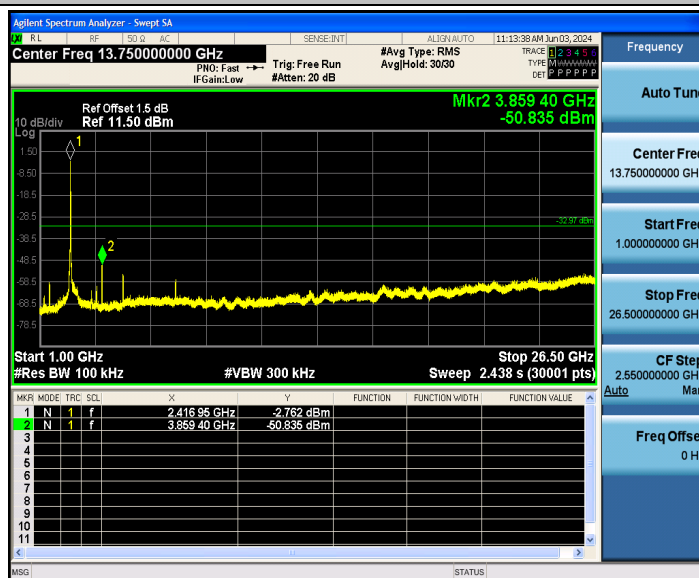
802.11ax(HE20)\_2412\_0~Reference



802.11ax(HE20)\_2412\_30~1000



802.11ax(HE20)\_2412\_1000~26500

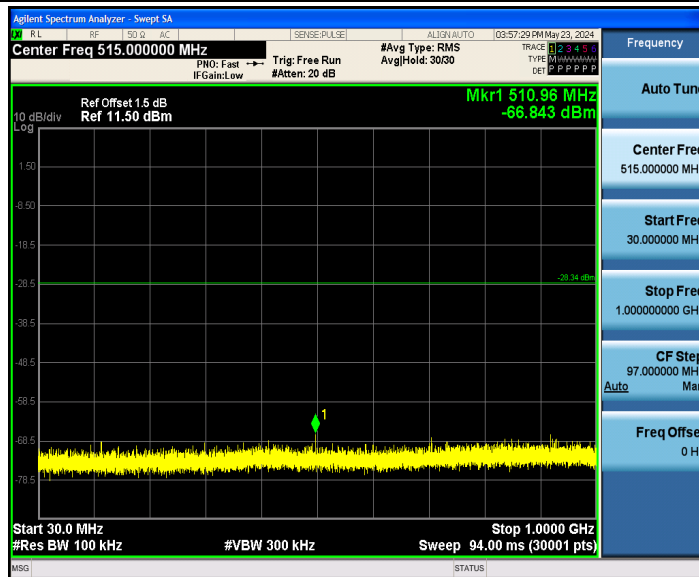




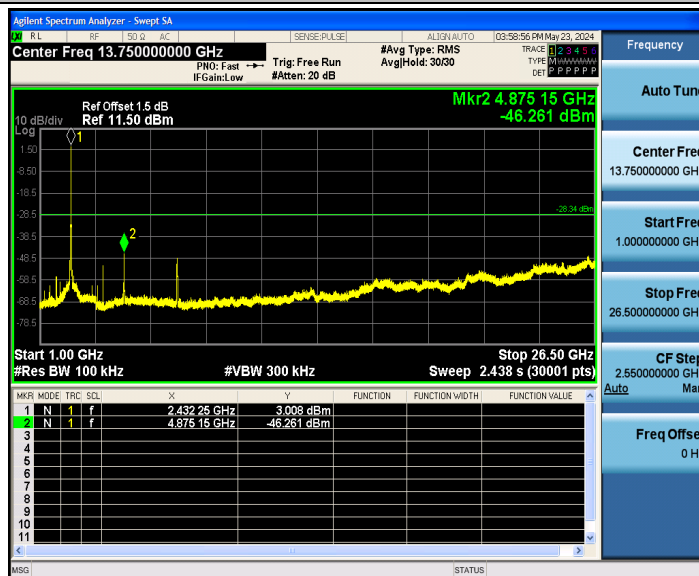
802.11ax(HE20)\_2437\_0~Reference



802.11ax(HE20)\_2437\_30~1000



802.11ax(HE20)\_2437\_1000~26500

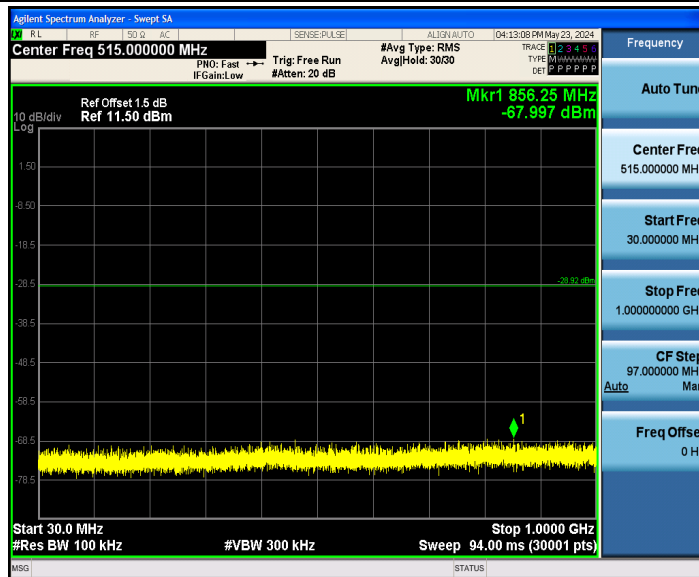




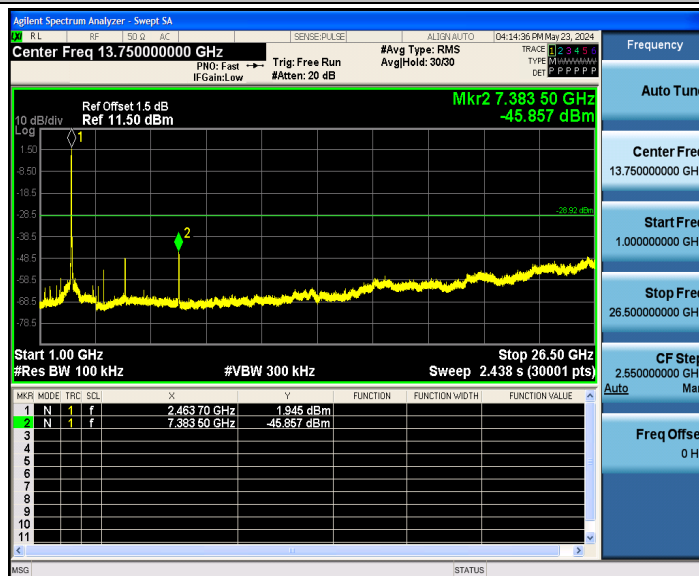
802.11ax(HE20)\_2462\_0~Reference



802.11ax(HE20)\_2462\_30~1000



802.11ax(HE20)\_2462\_1000~26500

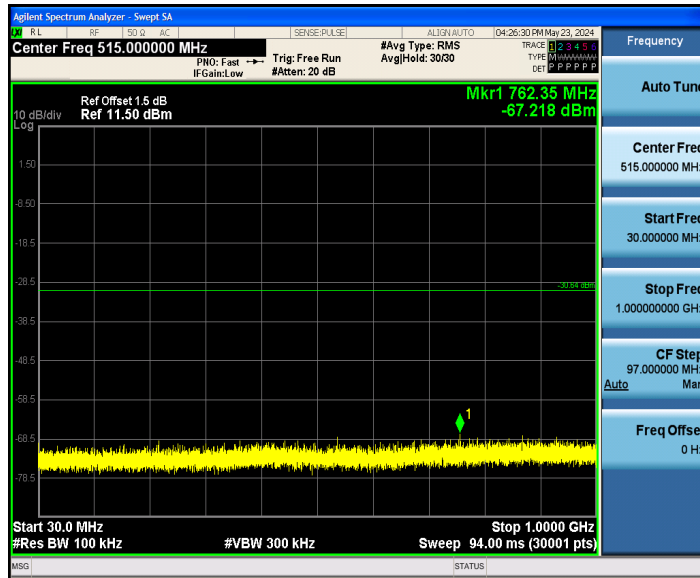




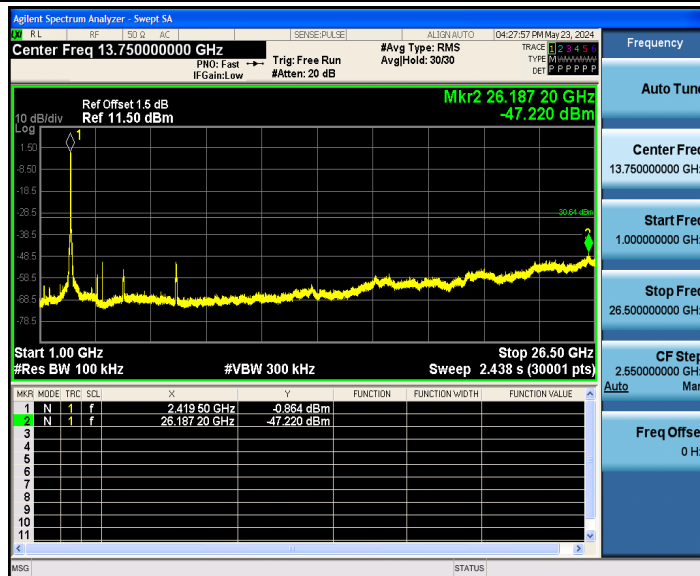
802.11ax(HE40)\_2422\_0~Reference



802.11ax(HE40)\_2422\_30~1000



802.11ax(HE40)\_2422\_1000~26500

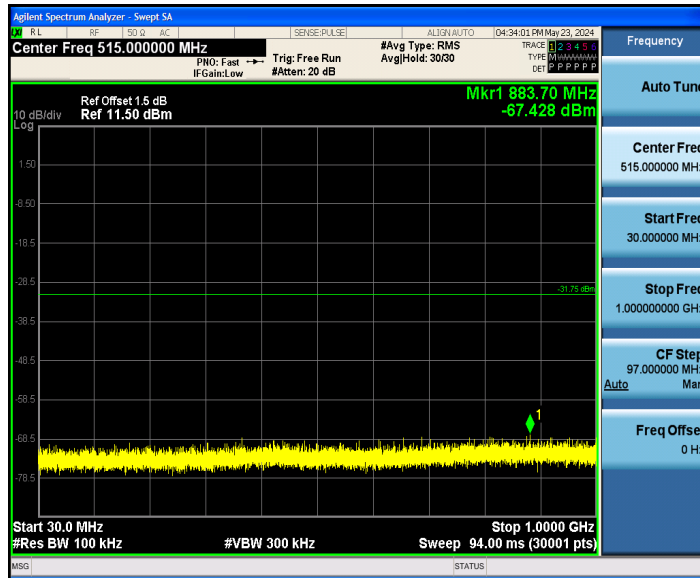




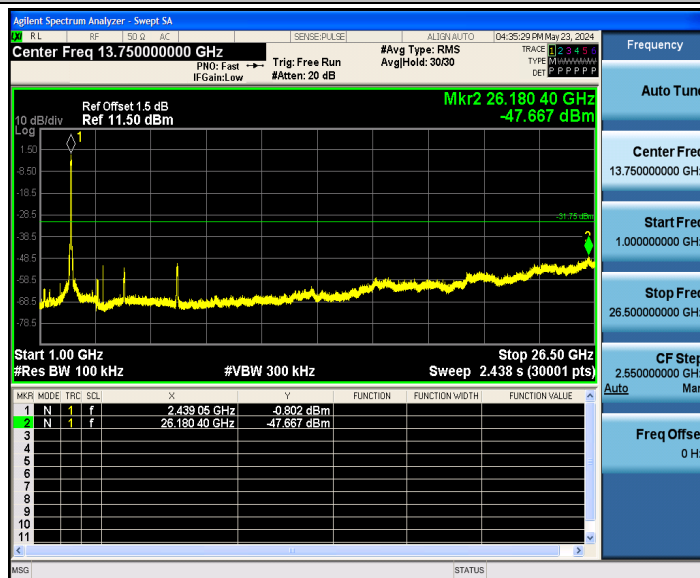
802.11ax(HE40)\_2437\_0~Reference



802.11ax(HE40)\_2437\_30~1000



802.11ax(HE40)\_2437\_1000~26500

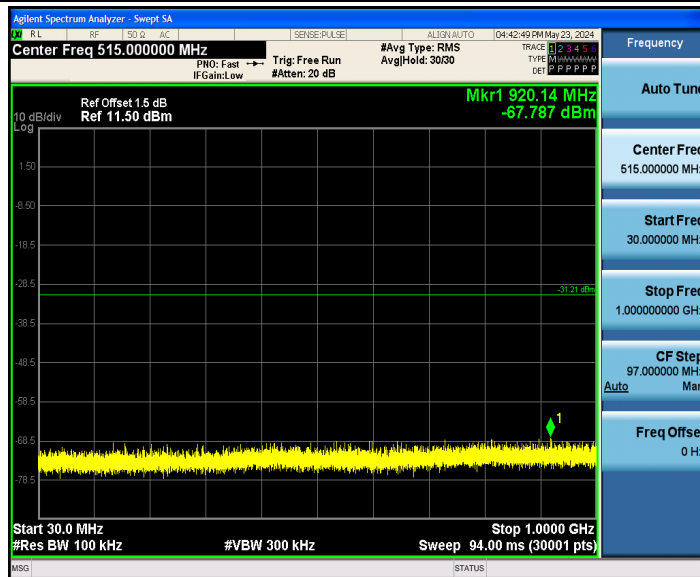




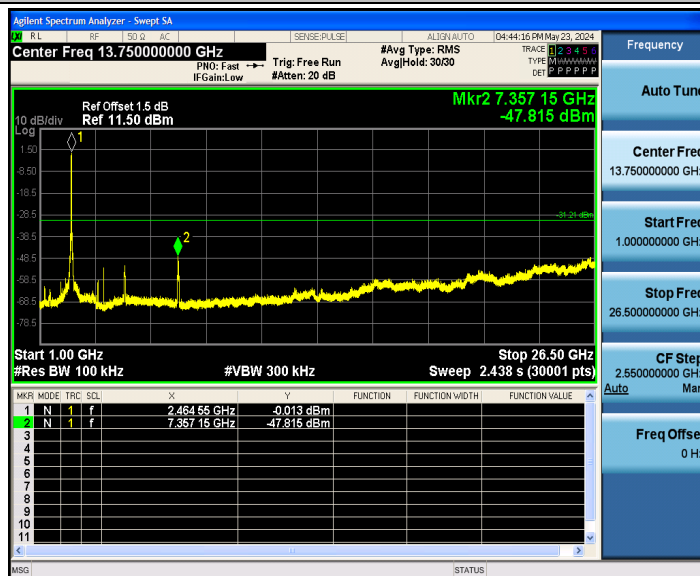
802.11ax(HE40)\_2452\_0~Reference



802.11ax(HE40)\_2452\_30~1000



802.11ax(HE40)\_2452\_1000~26500







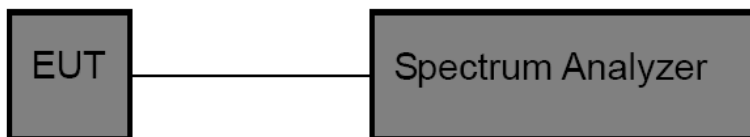
### 3.5. DTS Bandwidth

#### Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2)/ RSS-247 5.2 a:

Test Item	Limit	Frequency Range(MHz)
DTS Bandwidth	$\geq 500$ KHz (6dB bandwidth)	2400~2483.5

#### Test Configuration



#### Test Procedure

5. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
6. DTS Spectrum Setting:
  - (1) Set RBW = 100 kHz.
  - (2) Set the video bandwidth (VBW)  $\geq 3$  RBW.
  - (3) Detector = Peak.
  - (4) Trace mode = Max hold.
  - (5) Sweep = Auto couple.
 OCB Spectrum Setting:
  - (1) Set RBW = 1% ~ 5% occupied bandwidth.
  - (2) Set the video bandwidth (VBW)  $\geq 3$  RBW.
  - (3) Detector = Peak.
  - (4) Trace mode = Max hold.
  - (5) Sweep = Auto couple.

NOTE: The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

#### Test Mode

Please refer to the clause 2.4.

**Test Results**

Test Mode	Test Frequency [MHz]	DTS BW [MHz]	Limit [MHz]	Verdict
802.11b	2412	9.080	>=0.5	PASS
	2437	10.040	>=0.5	PASS
	2462	10.040	>=0.5	PASS
802.11g	2412	16.320	>=0.5	PASS
	2437	16.280	>=0.5	PASS
	2462	13.160	>=0.5	PASS
802.11n(HT20)	2412	17.600	>=0.5	PASS
	2437	17.520	>=0.5	PASS
	2462	17.320	>=0.5	PASS
802.11n(HT40)	2422	32.080	>=0.5	PASS
	2437	35.920	>=0.5	PASS
	2452	36.320	>=0.5	PASS
802.11ax(HE20)	2412	18.120	>=0.5	PASS
	2437	12.880	>=0.5	PASS
	2462	18.800	>=0.5	PASS
802.11ax(HE40)	2422	37.280	>=0.5	PASS
	2437	36.080	>=0.5	PASS
	2452	37.360	>=0.5	PASS



802.11b\_2412



802.11b\_2437

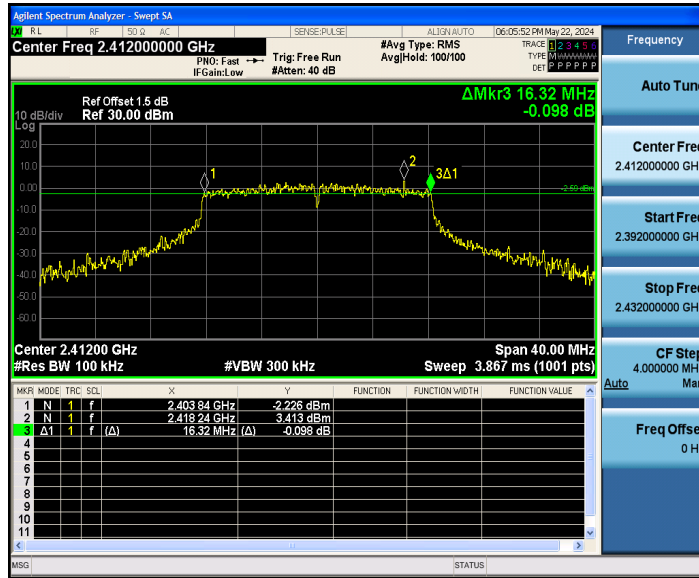


802.11b\_2462

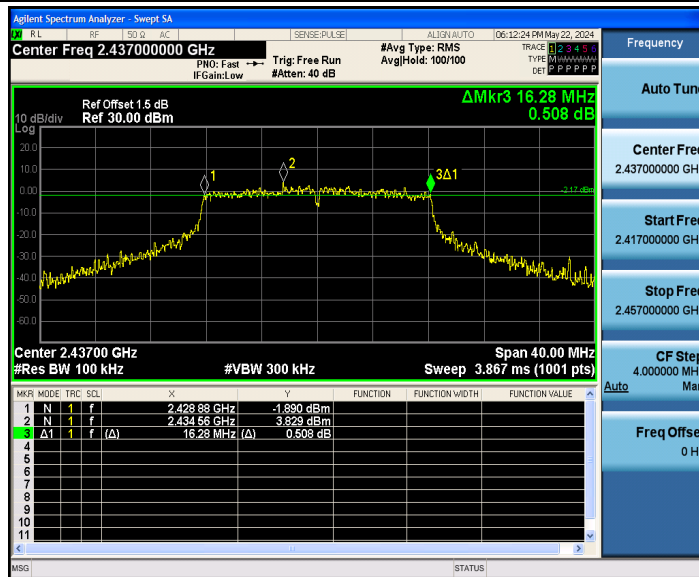




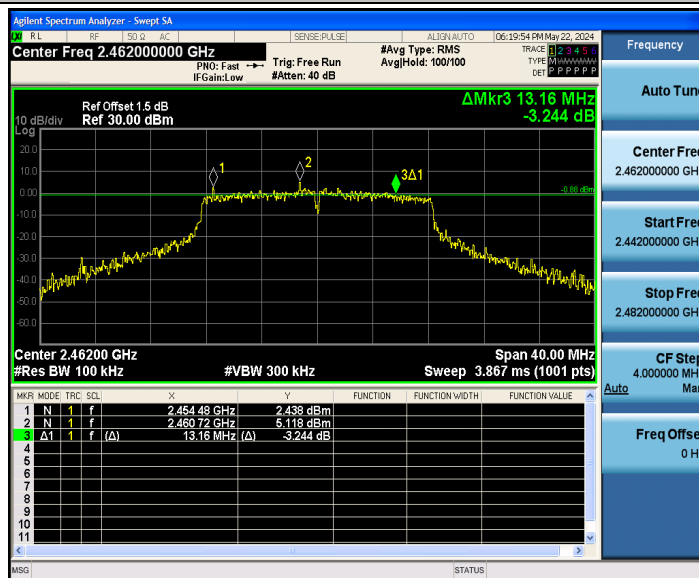
802.11g\_2412



802.11g\_2437



802.11g\_2462

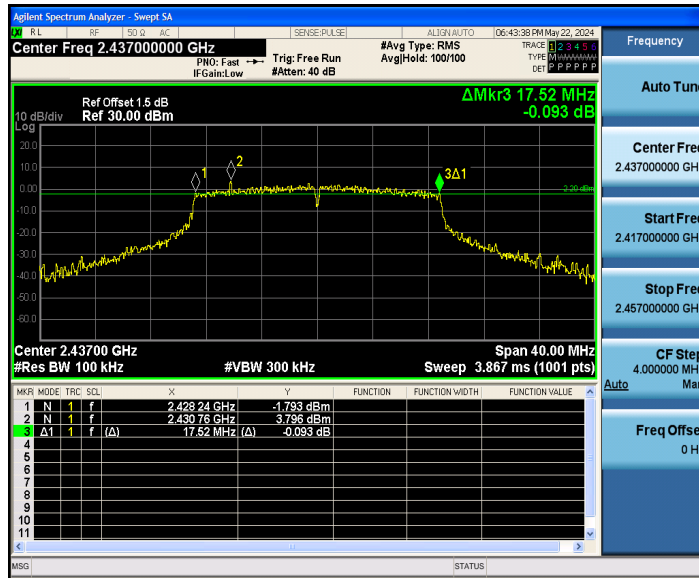




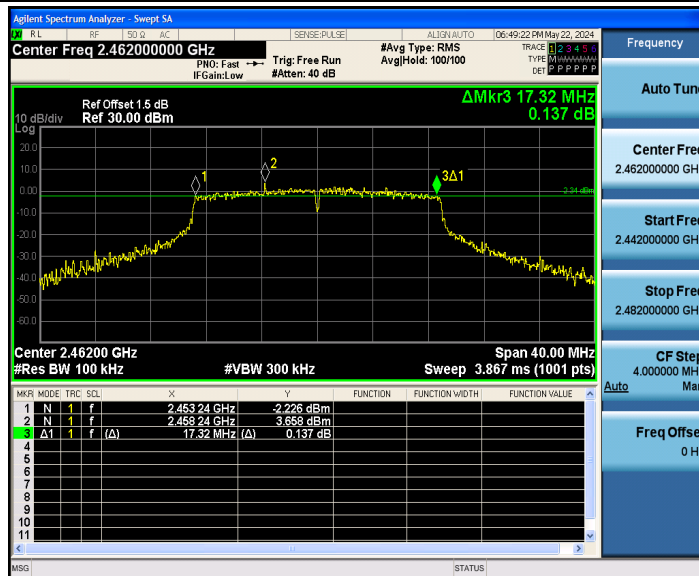
802.11n(HT20)\_2412



802.11n(HT20)\_2437

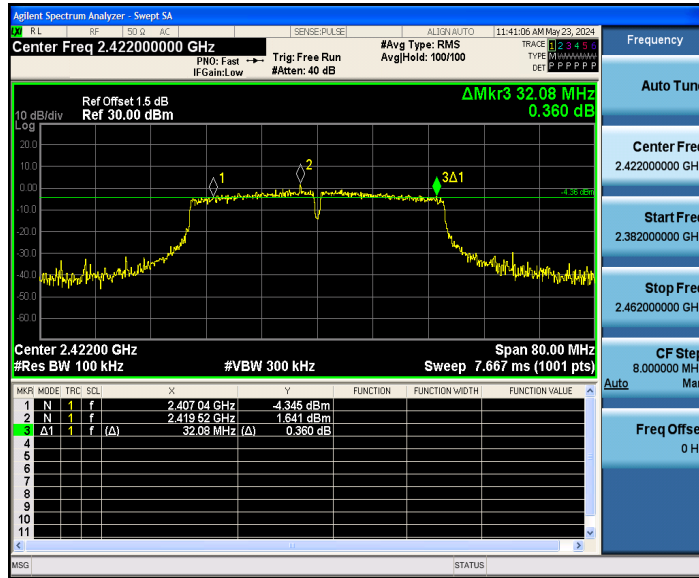


802.11n(HT20)\_2462

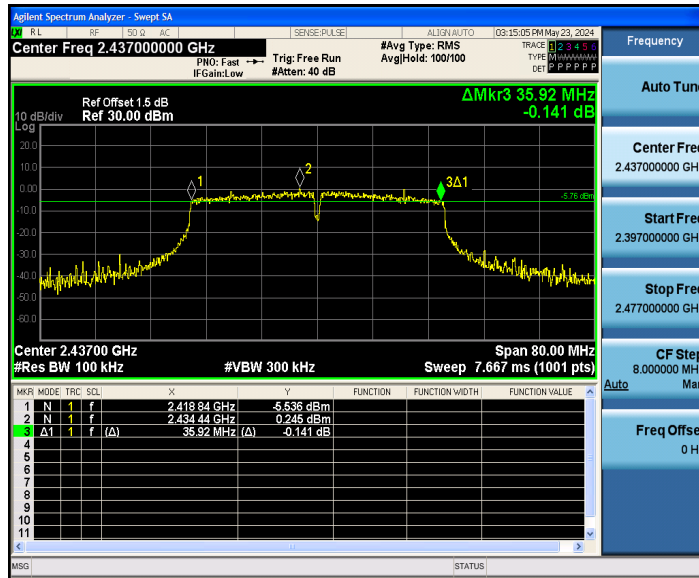




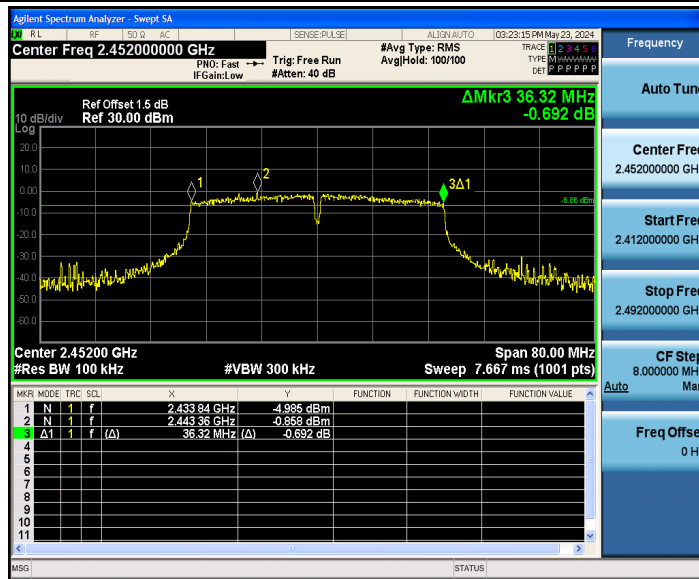
802.11n(HT40)\_2422



802.11n(HT40)\_2437

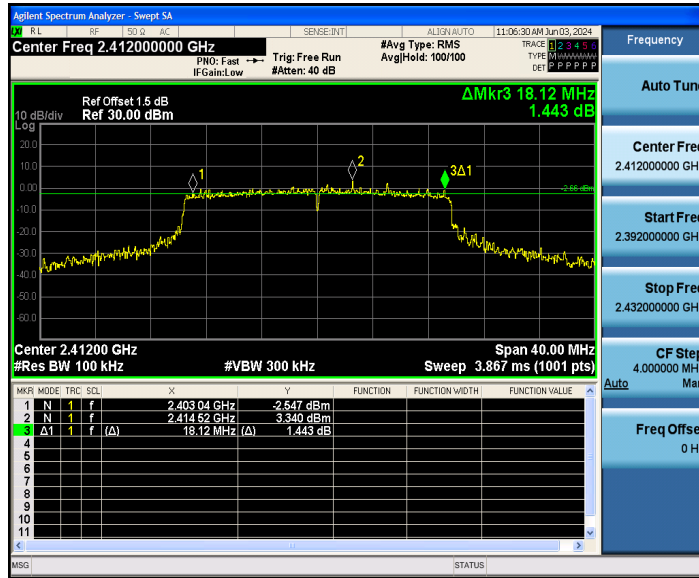


802.11n(HT40)\_2452

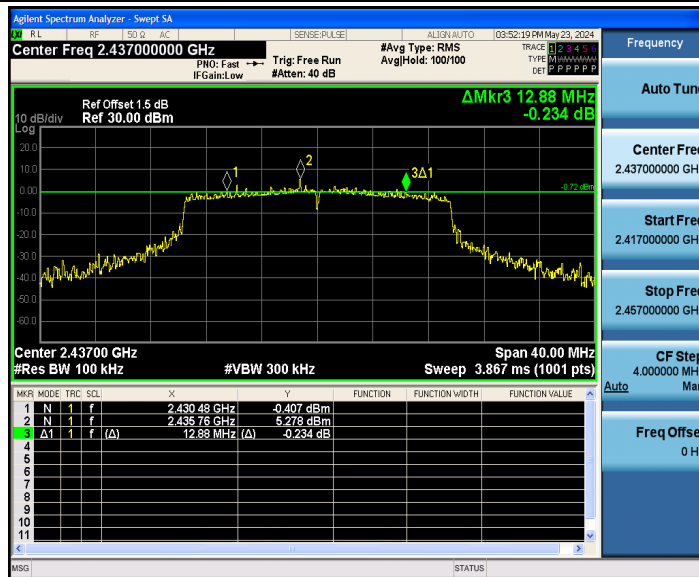




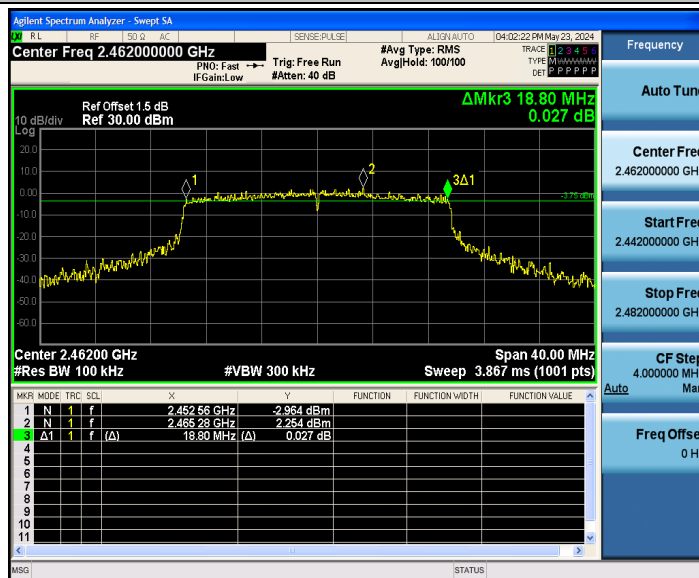
802.11ax(HE20)\_2412



802.11ax(HE20)\_2437

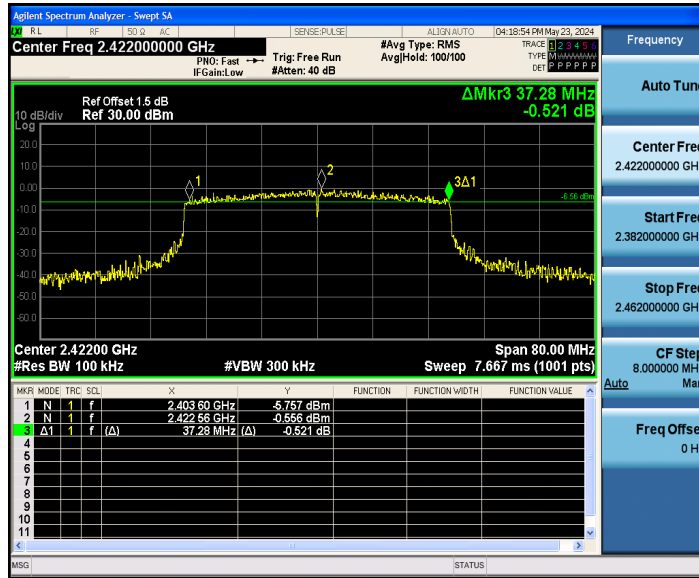


802.11ax(HE20)\_2462

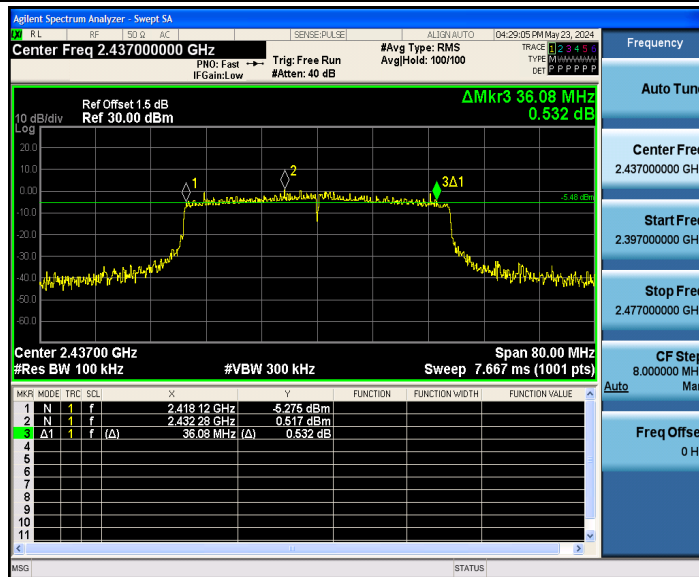




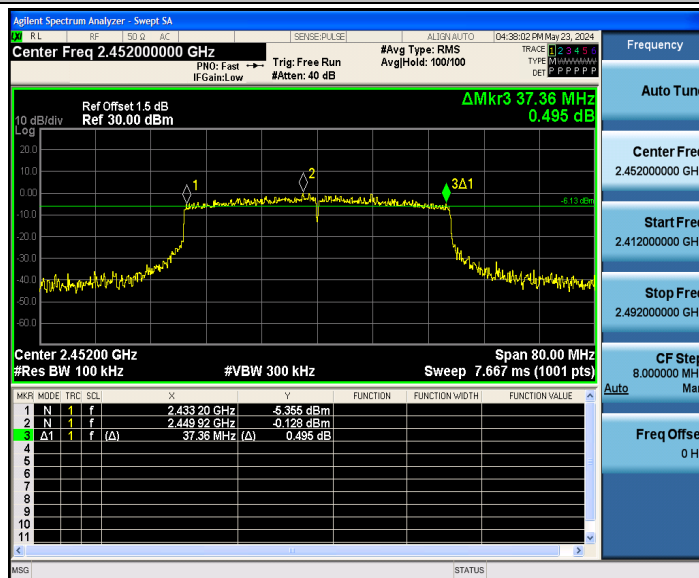
802.11ax(HE40)\_2422



802.11ax(HE40)\_2437



802.11ax(HE40)\_2452







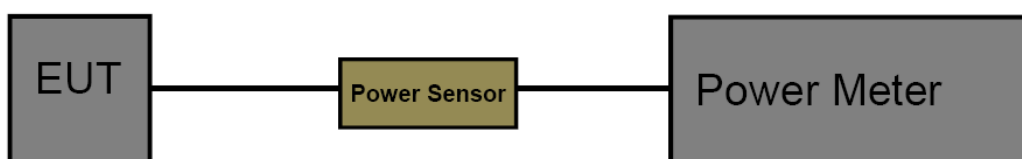
### 3.6. Maximum Conducted Output Power

#### Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3)/ RSS-247 5.4:

Section	Test Item	Limit	Frequency Range(MHz)
CFR 47 FCC 15.247(b)(3)	Maximum conducted output power	1 Watt or 30dBm	2400~2483.5
ISED RSS-247 5.4 d	EIRP	4 Watt or 36dBm	2400~2483.5

#### Test Configuration



#### Test Procedure

1. The maximum conducted output power may be measured using a broadband RF power meter.
2. Power measurements were performed only when the EUT was transmitting at its AVG power control level using a broadband power meter with a pulse sensor.
3. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.
4. Record the measurement data.

#### Test Mode

Please refer to the clause 2.4.

#### Test Result



Test Mode	Test Frequency [MHz]	Result Avg [dBm]	Limit [dBm]	Verdict
802.11b	2412	16.13	<=30	PASS
	2437	16.44	<=30	PASS
	2462	16.82	<=30	PASS
802.11g	2412	14.66	<=30	PASS
	2437	15.75	<=30	PASS
	2462	15.85	<=30	PASS
802.11n(HT20)	2412	15.84	<=30	PASS
	2437	16.01	<=30	PASS
	2462	15.80	<=30	PASS
802.11n(HT40)	2422	15.79	<=30	PASS
	2437	15.79	<=30	PASS
	2452	15.69	<=30	PASS
802.11ax(HE20)	2412	15.81	<=30	PASS
	2437	16.38	<=30	PASS
	2462	16.01	<=30	PASS
802.11ax(HE40)	2422	15.74	<=30	PASS
	2437	15.89	<=30	PASS
	2452	15.72	<=30	PASS

Note: Test results increased RF cable loss by 1.5dB and Duty Cycle Factor.



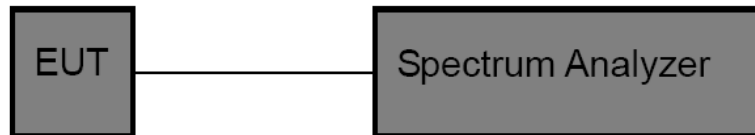
### 3.7. Power Spectral Density

#### Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e)/ RSS-247 5.2 b:

Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

#### Test Configuration



#### Test Procedure

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
- Spectrum Setting:  
 Set analyzer center frequency to DTS channel center frequency.  
 Set the span to 1.5 times the DTS bandwidth.  
 Set the RBW to: 3 kHz  
 Set the VBW to: 10 kHz  
 Detector: PK  
 Sweep time: Auto  
 Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

#### Test Mode

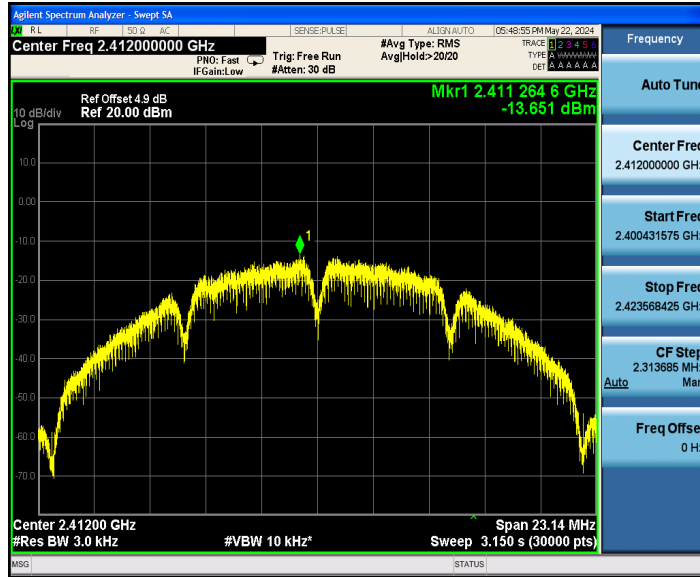
Please refer to the clause 2.4.

**Test Result**

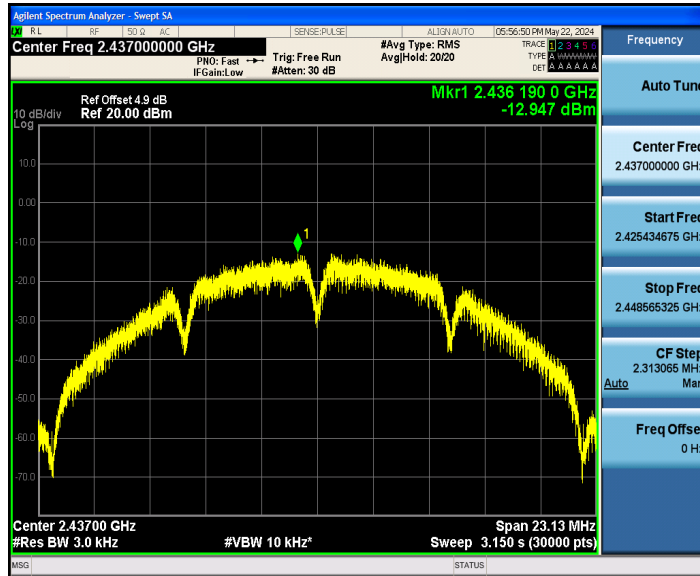
Test Mode	Test Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
802.11b	2412	-13.44	<=8	PASS
	2437	-12.95	<=8	PASS
	2462	-12.67	<=8	PASS
802.11g	2412	-13.85	<=8	PASS
	2437	-13.20	<=8	PASS
	2462	-13.20	<=8	PASS
802.11n(HT20)	2412	-16.30	<=8	PASS
	2437	-13.94	<=8	PASS
	2462	-14.99	<=8	PASS
802.11n(HT40)	2422	-18.22	<=8	PASS
	2437	-17.16	<=8	PASS
	2452	-18.18	<=8	PASS
802.11ax(HE20)	2412	-15.40	<=8	PASS
	2437	-15.61	<=8	PASS
	2462	-15.00	<=8	PASS
802.11ax(HE40)	2422	-18.26	<=8	PASS
	2437	-19.73	<=8	PASS
	2452	-19.22	<=8	PASS



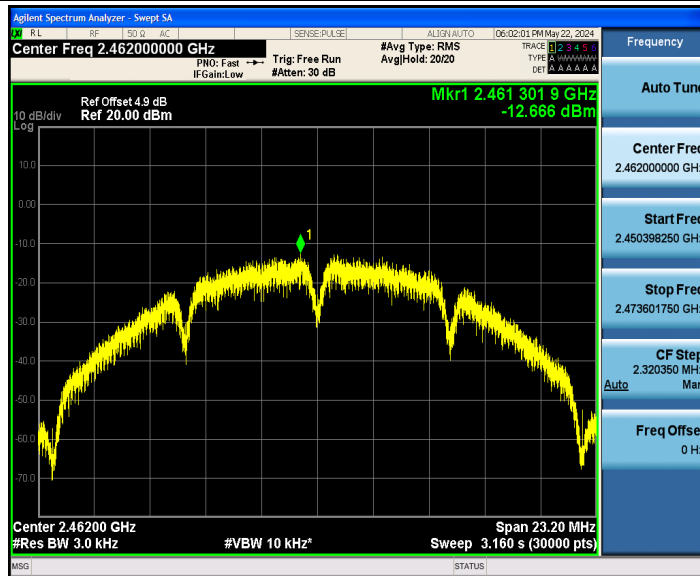
802.11b\_2412



802.11b\_2437



802.11b\_2462



CTC Laboratories, Inc.

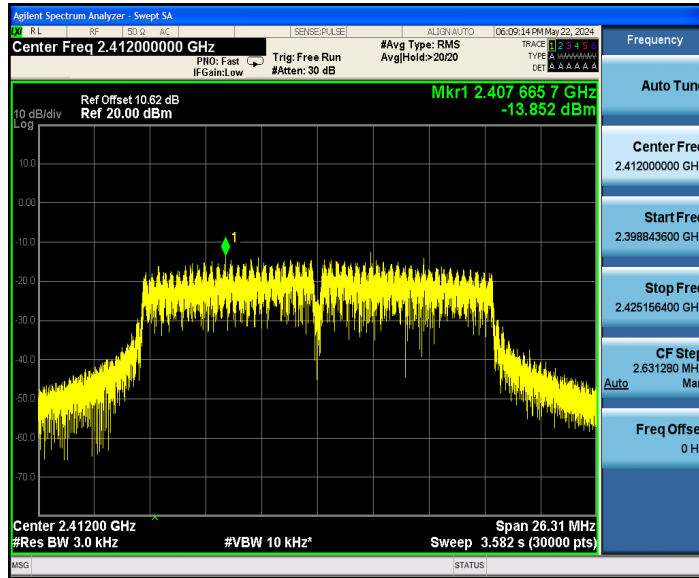
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Tel.: (86)755-27521059 Fax: (86)755-27521011 Http://www.sz-ctc.org.cn



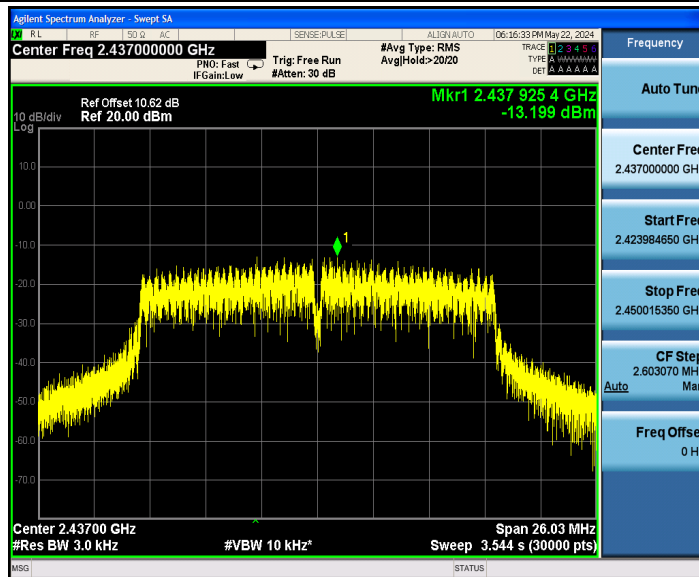
For anti-fake verification, please visit the official website of Certification and Accreditation Administration of the People's Republic of China : [yz.cnca.cn](http://yz.cnca.cn)



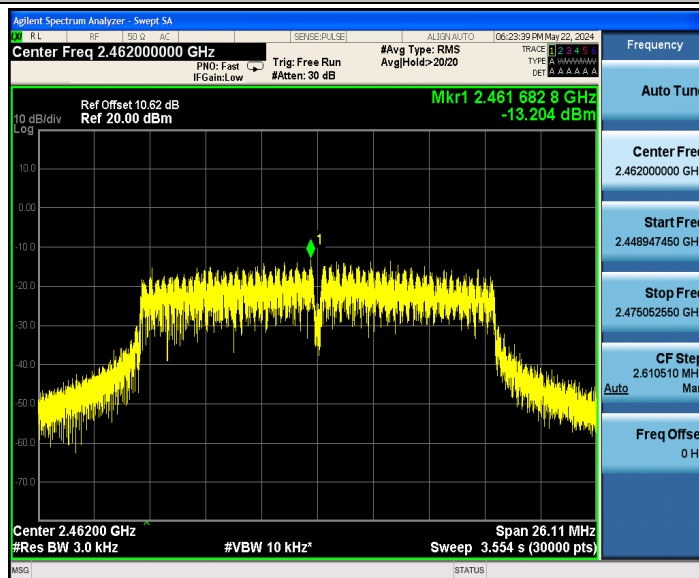
802.11g\_2412



802.11g\_2437

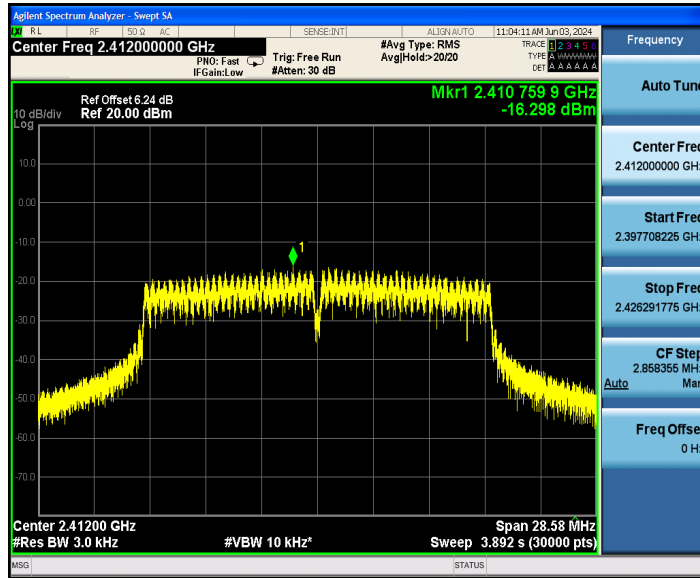


802.11g\_2462

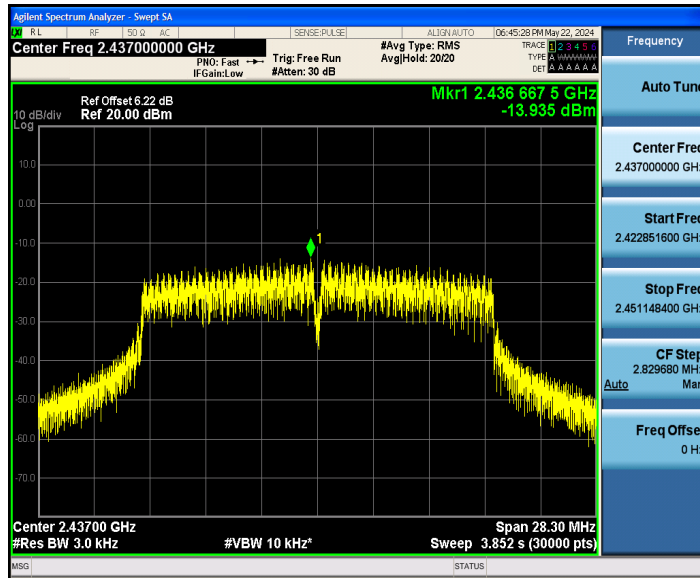




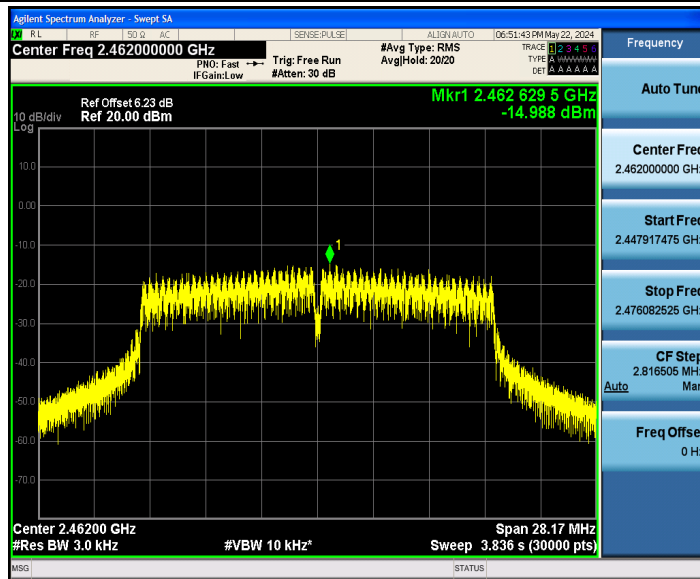
802.11n(HT20)\_2412



802.11n(HT20)\_2437

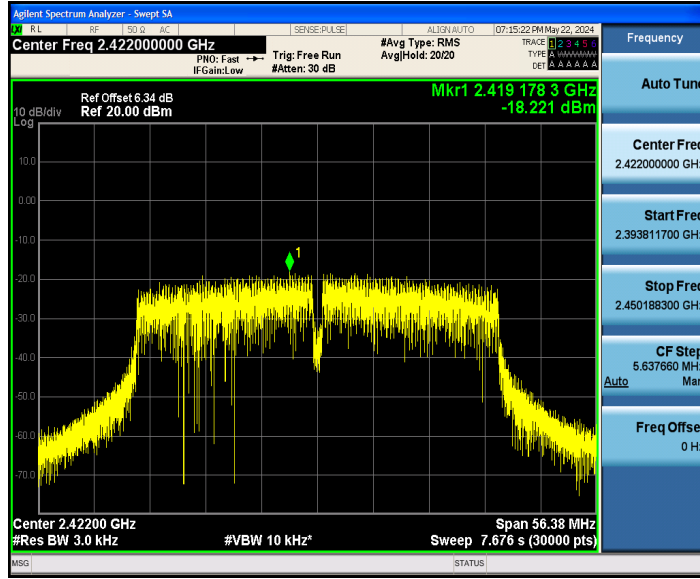


802.11n(HT20)\_2462

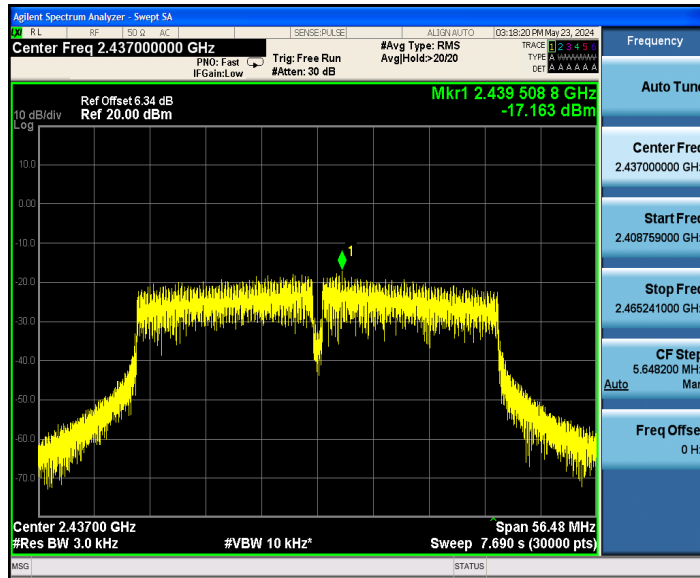




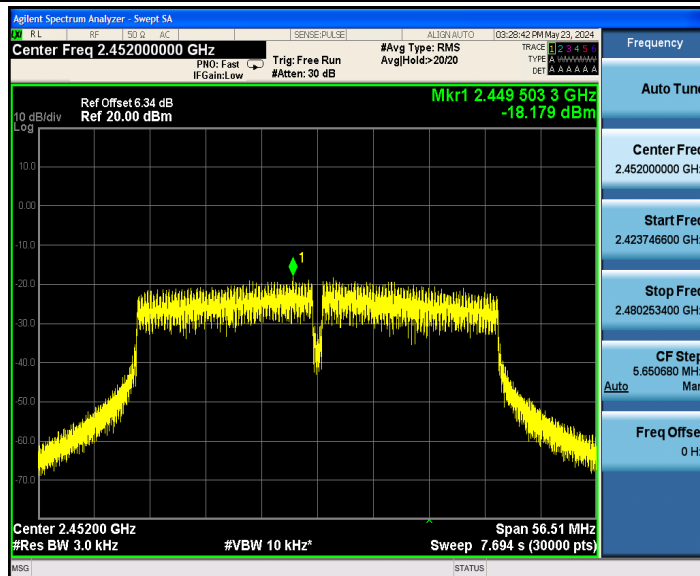
802.11n(HT40)\_2422



802.11n(HT40)\_2437



802.11n(HT40)\_2452



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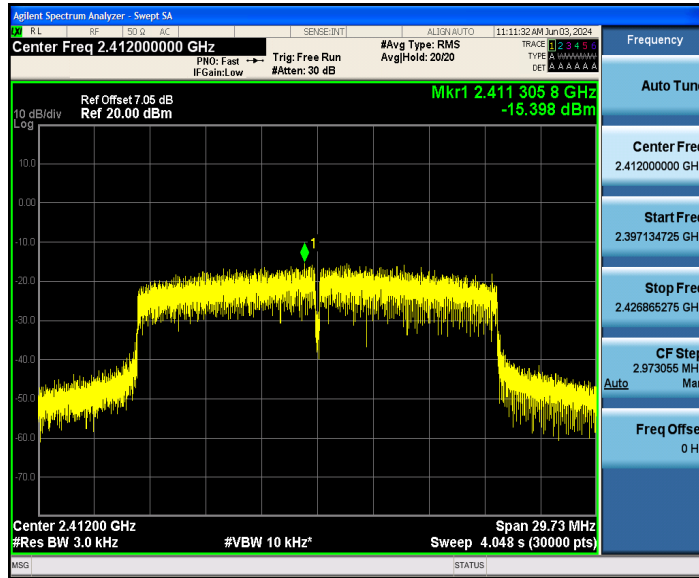


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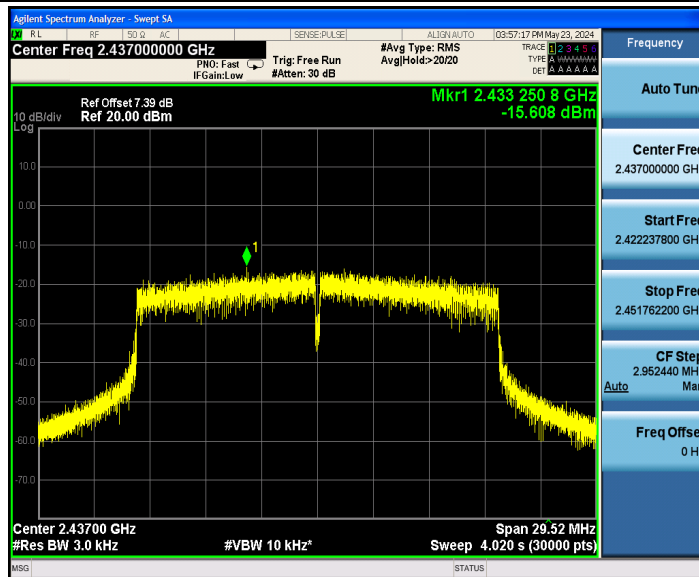




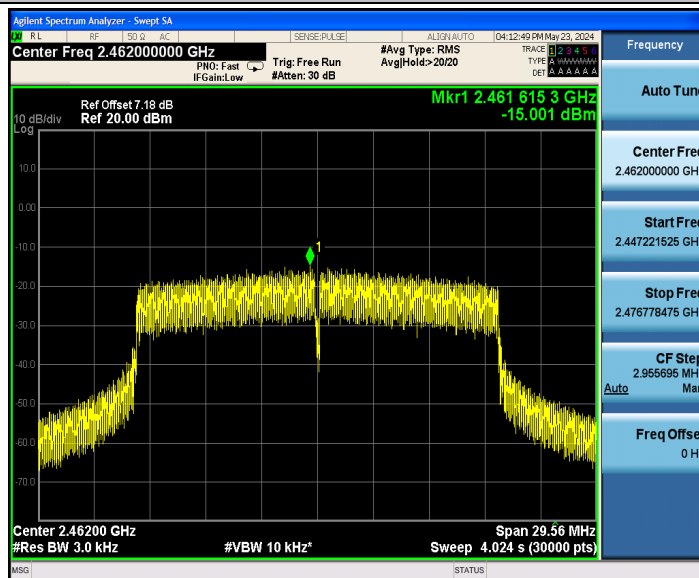
802.11ax(HE20)\_2412



802.11ax(HE20)\_2437



802.11ax(HE20)\_2462



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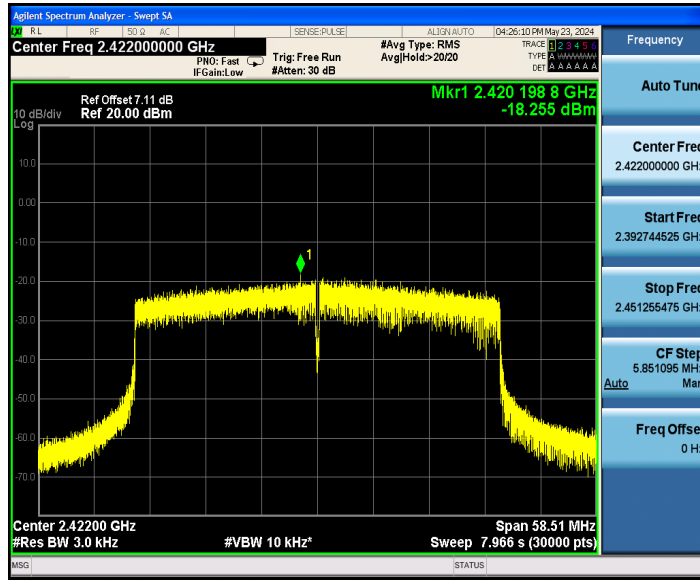
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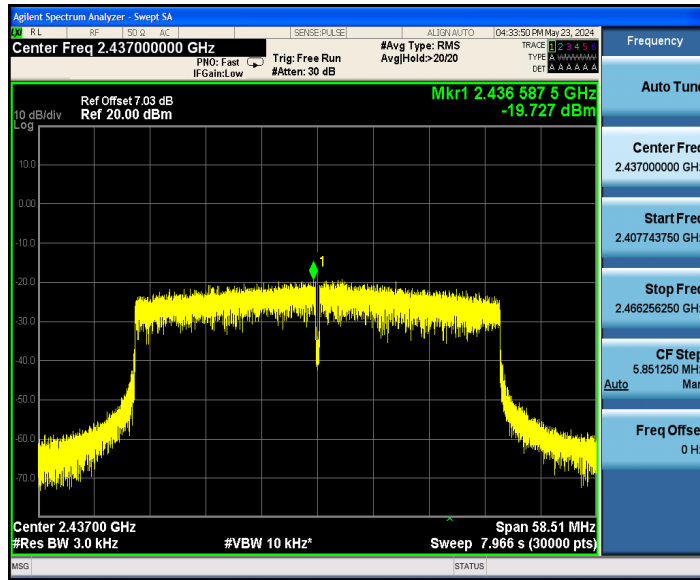
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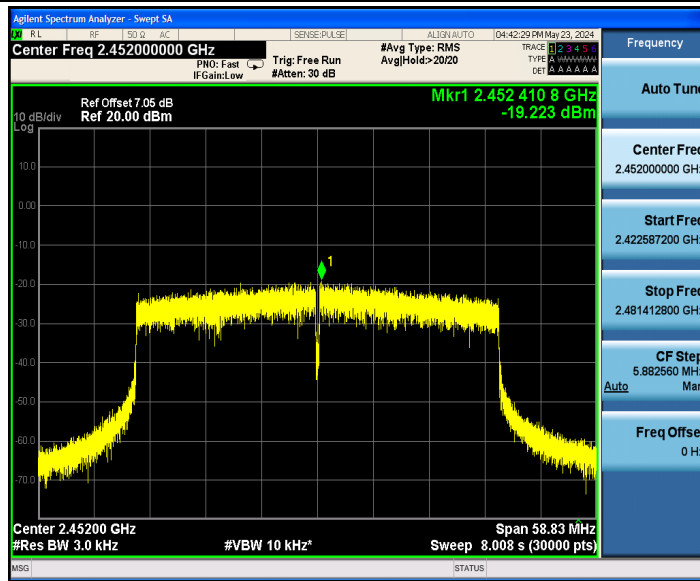
802.11ax(HE40)\_2422



802.11ax(HE40)\_2437



802.11ax(HE40)\_2452



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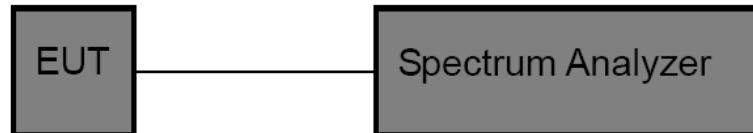


### 3.8. Duty Cycle

#### Limit

None, for report purposes only.

#### Test Configuration



#### Test Procedure

1. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
2. The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05r02.
3. Spectrum Setting:  
Set analyzer center frequency to DTS channel center frequency.  
Set the span to 0Hz  
Set the RBW to 8MHz  
Set the VBW to 8MHz  
Detector: peak  
Sweep time: auto  
Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

#### Test Mode

Please refer to the clause 2.4.

**Test Result**

Test Mode	Test Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Duty Cycle Factor	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
802.11b	2412	8.42	18.44	45.66	3.40	0.119	1
	2437	8.42	18.44	45.66	3.40	0.119	1
	2462	8.42	18.44	45.66	3.40	0.119	1
802.11g	2412	1.40	11.43	12.25	9.12	0.714	1
	2437	1.40	11.43	12.25	9.12	0.714	1
	2462	1.40	11.42	12.26	9.12	0.714	1
802.11n(HT20)	2412	5.07	15.11	33.55	4.74	0.197	1
	2437	5.09	15.11	33.69	4.72	0.196	1
	2462	5.09	15.12	33.66	4.73	0.196	1
802.11n(HT40)	2422	4.90	16.84	29.10	5.36	0.204	1
	2437	4.90	14.93	32.82	4.84	0.204	1
	2452	4.90	14.93	32.82	4.84	0.204	1
802.11ax(HE20)	2412	3.87	13.90	27.84	5.55	0.258	2
	2437	3.87	15.03	25.75	5.89	0.258	2
	2462	3.87	14.31	27.04	5.68	0.258	2
802.11ax(HE40)	2422	3.88	14.11	27.50	5.61	0.258	2
	2437	3.89	13.91	27.97	5.53	0.257	2
	2452	3.87	13.90	27.84	5.55	0.258	2

Note: Duty Cycle Factor =  $10 \cdot \log_{10}(1/\text{Duty Cycle})$