7. CHANNEL BANDWIDTH& 99% OCCUPY BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

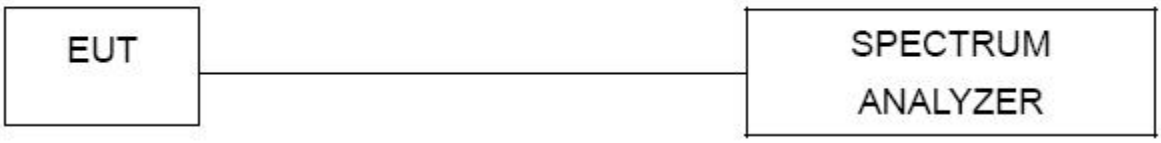
7.2 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 xRBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

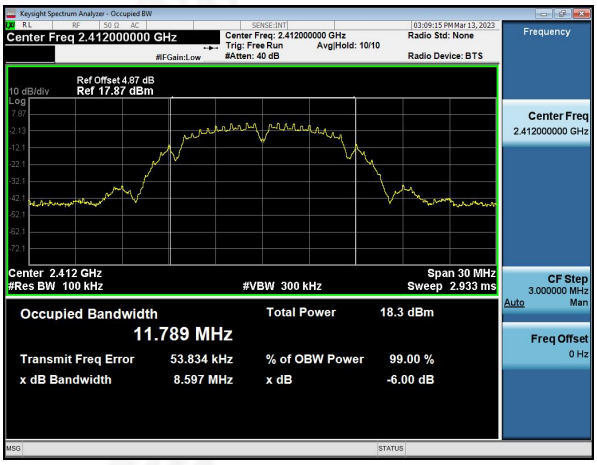
7.6 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX b Mode		

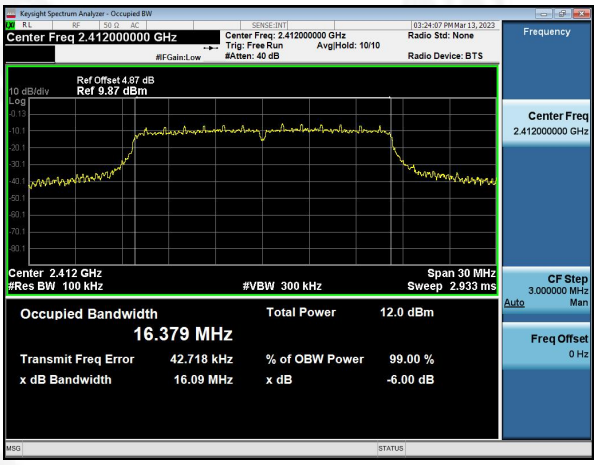
	Test CH	-6dB Occupy Bandwidth (MHz)							
		802.11 b	802.11 g	802.11n (HT20)	802.11n (HT40)	802.11ax (VHT20)	802.11ax (VHT40)	Limit(KHz)	Result
ANT1	Lowest	8.60	16.09	16.76	35.81	16.87	35.68	>500	Pass
	Middle	8.59	16.09	16.91	35.43	17.02	35.59		
	Highest	9.04	16.10	17.03	35.21	17.18	35.19		
ANT2	Lowest	8.14	16.09	16.85	35.81	16.87	35.76	>500	Pass
	Middle	9.05	16.10	17.01	35.59	16.90	35.57		
	Highest	8.60	16.10	17.17	35.18	17.08	35.21		

Test plot as follows:

ANT1-802.11b

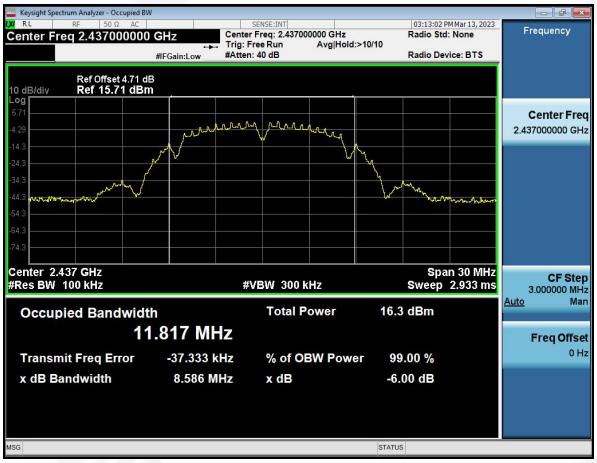


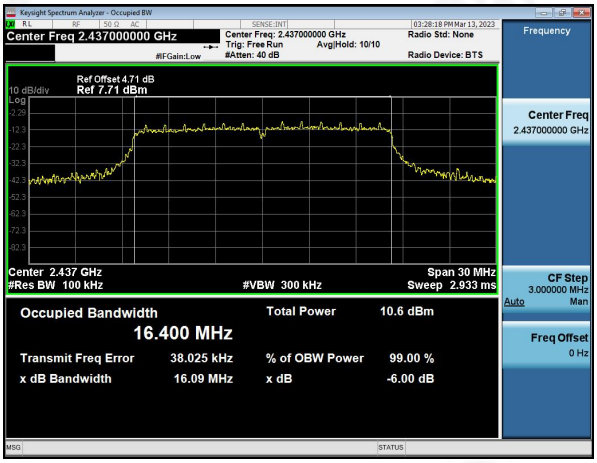
ANT1-802.11g



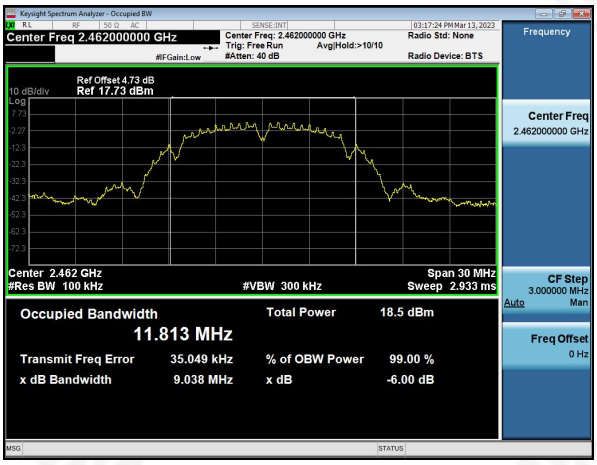
Lowest channel

Middle channel





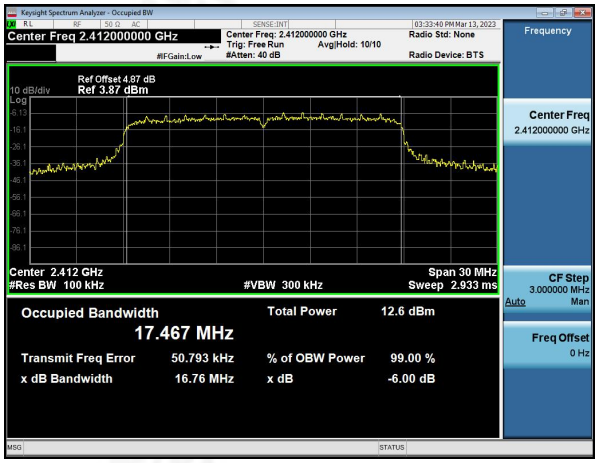
Highest channel

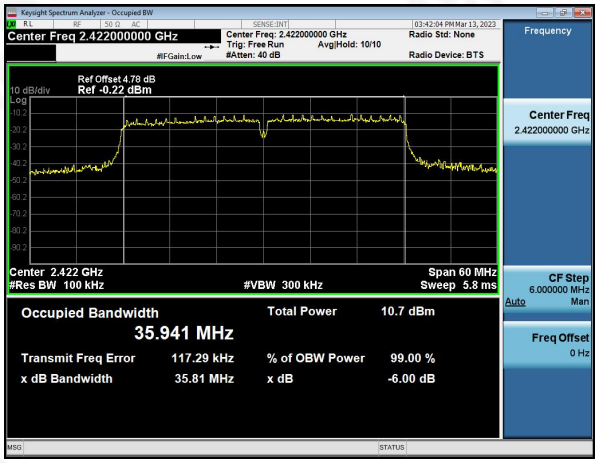


ANT1-802.11n20

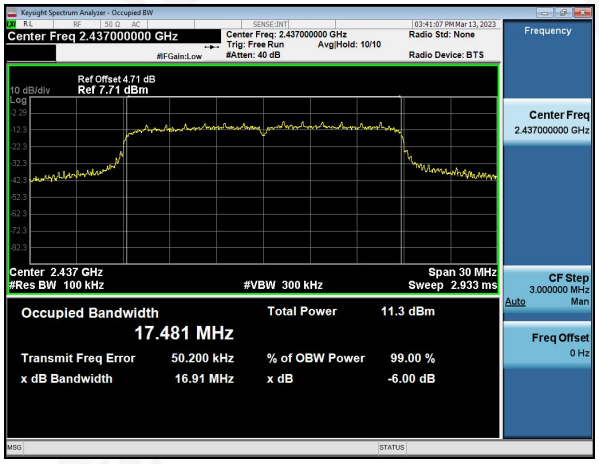
ANT1-802.11n40

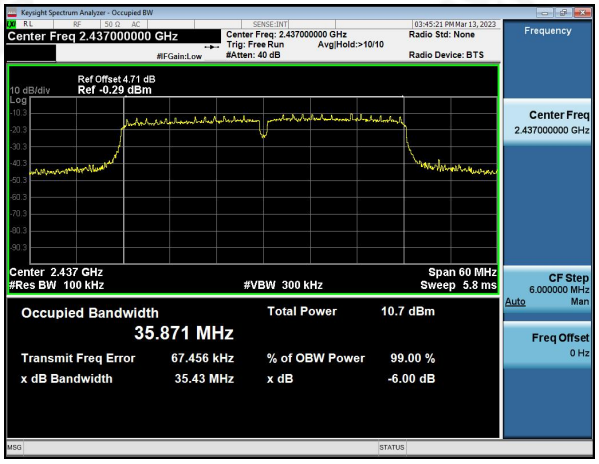
Lowest channel



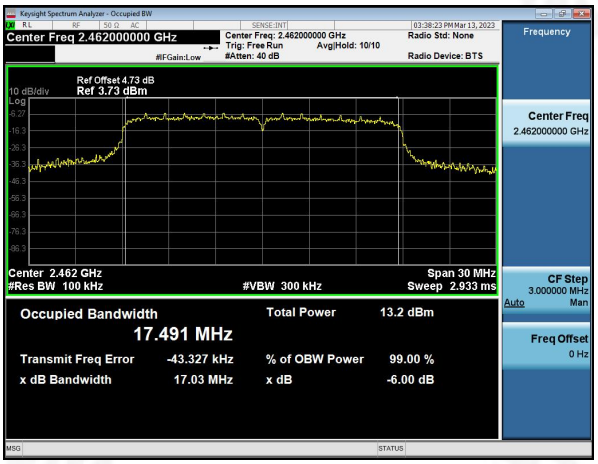


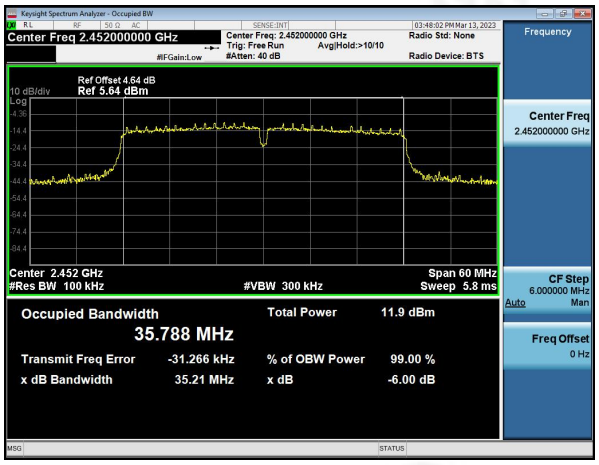
Middle channel





Highest channel

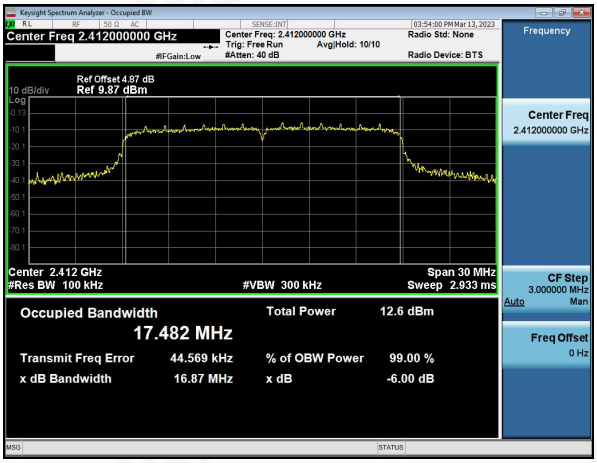


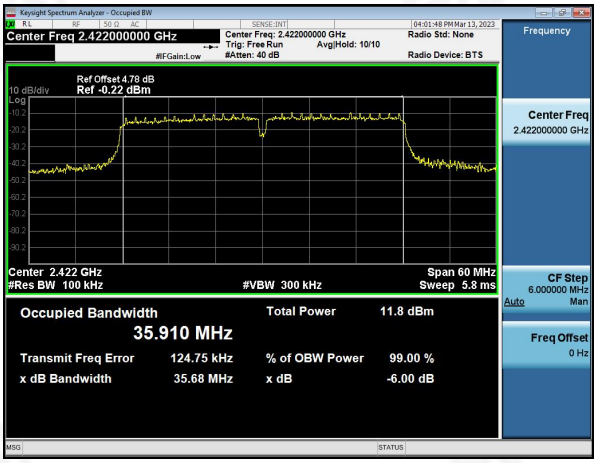


ANT1-802.11ax(HE20)

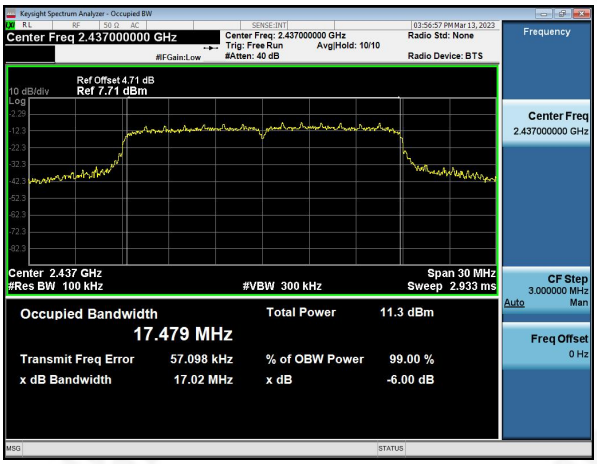
ANT1-802.11ax(VHT40)

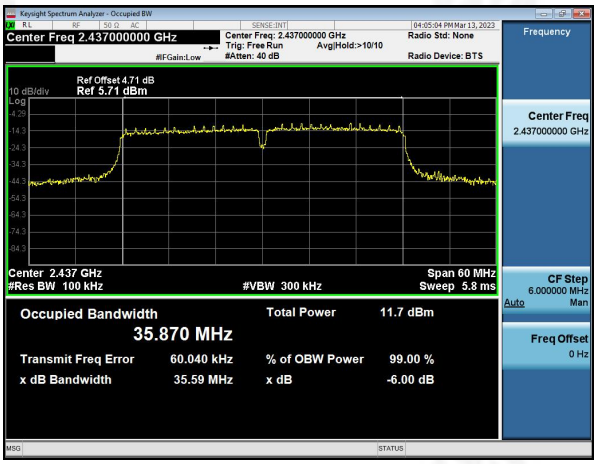
Lowest channel



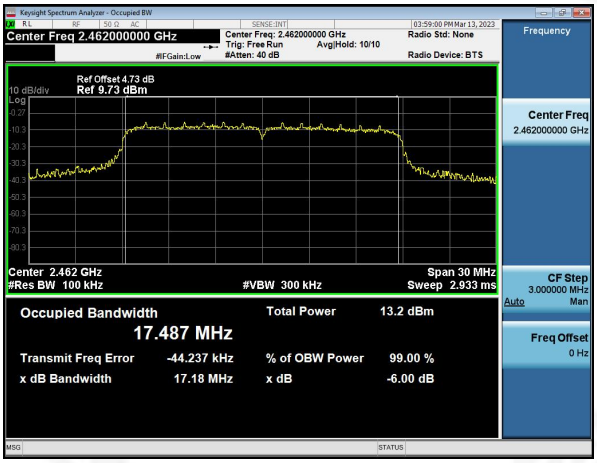


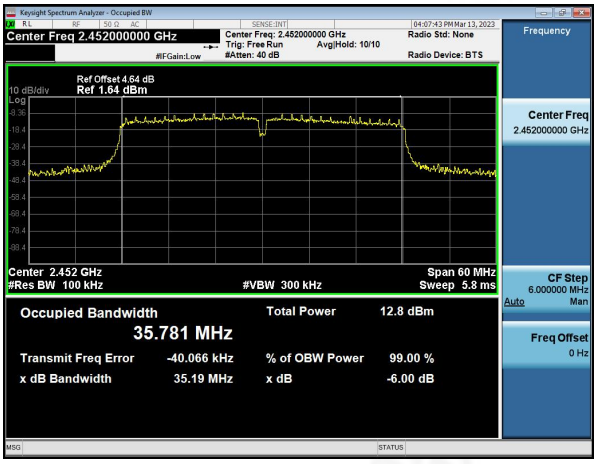
Middle channel





Highest channel

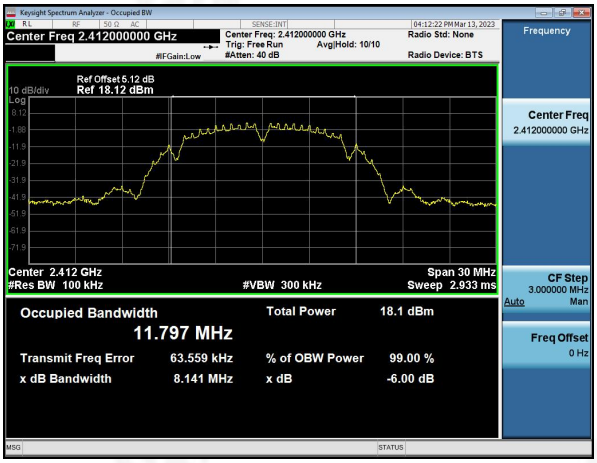


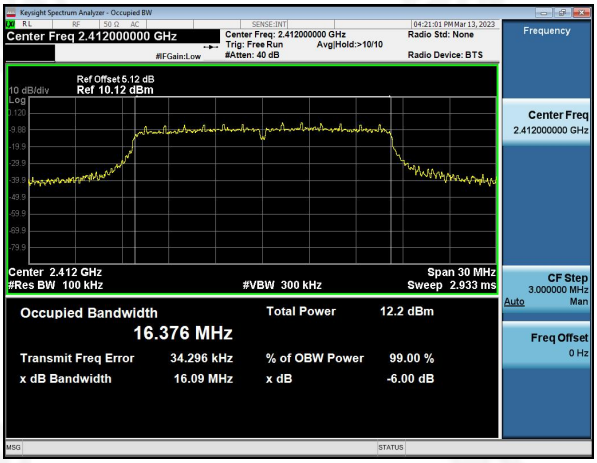


ANT2-802.11b

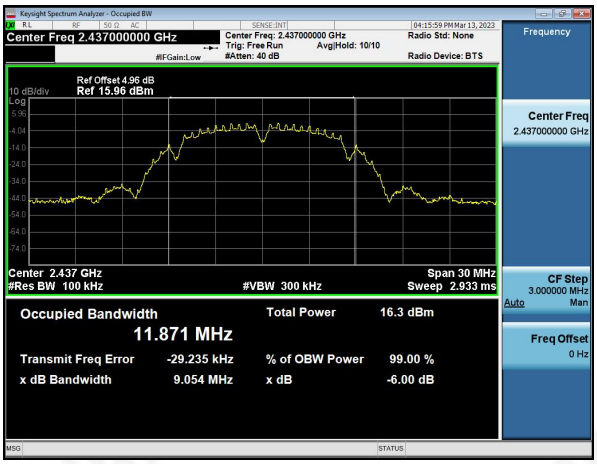
ANT2-802.11g

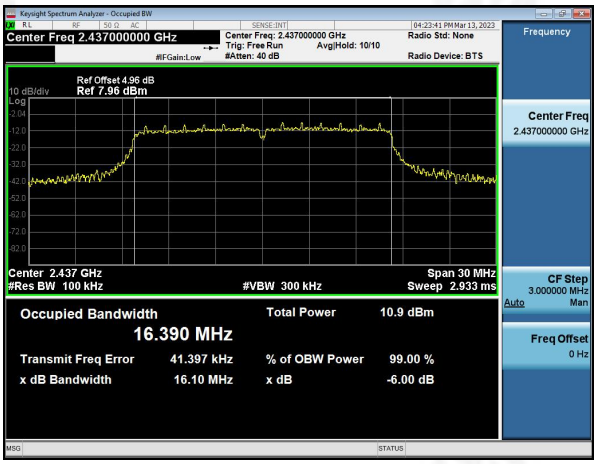
Lowest channel



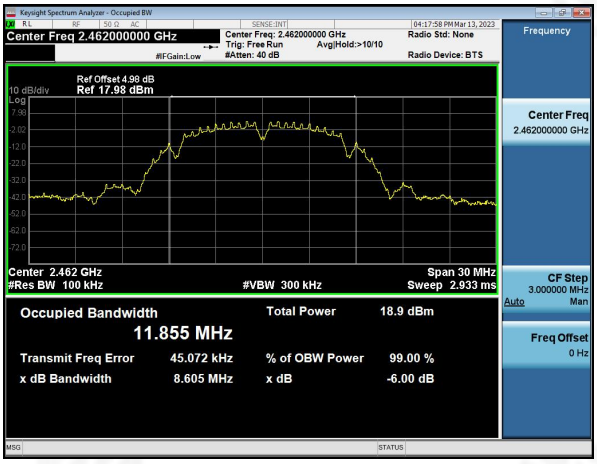


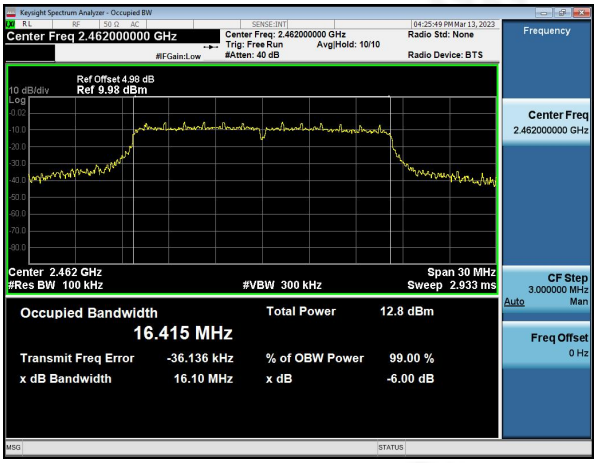
Middle channel





Highest channel

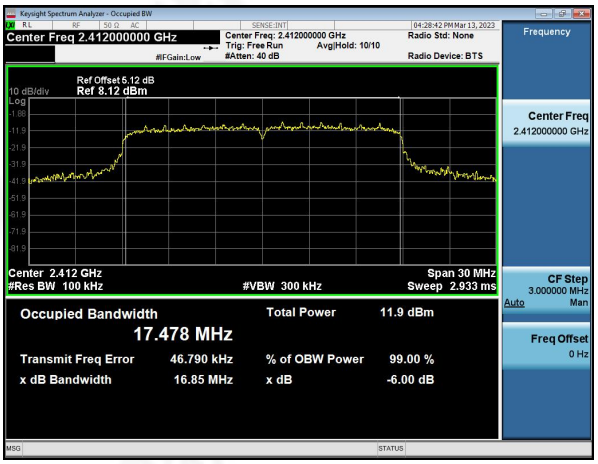


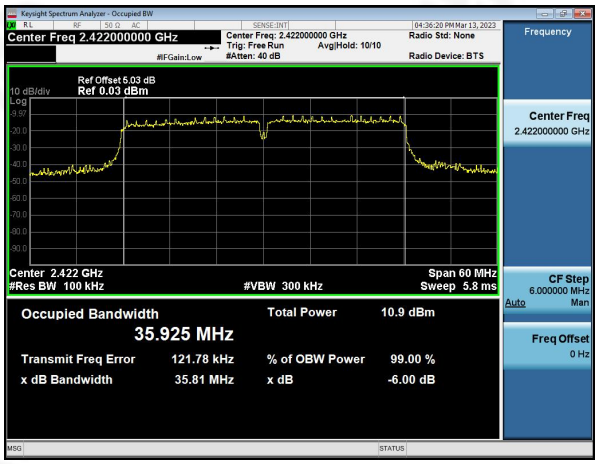


ANT2-802.11n20

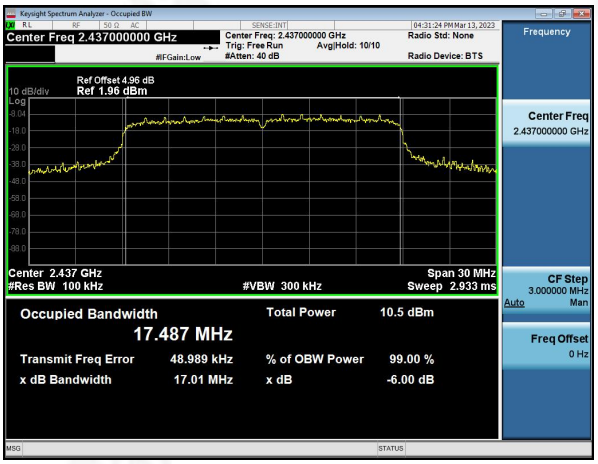
ANT2-802.11n40

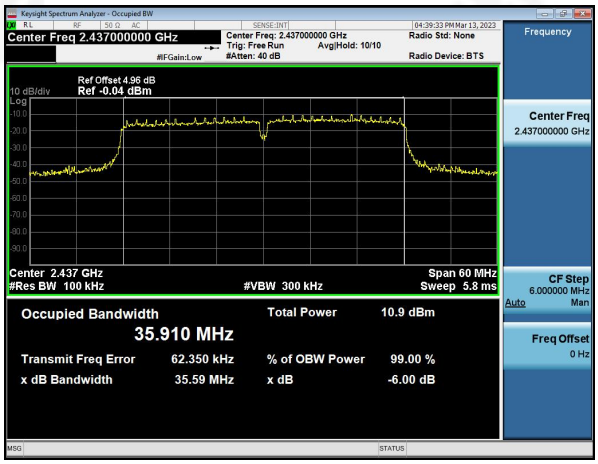
Lowest channel



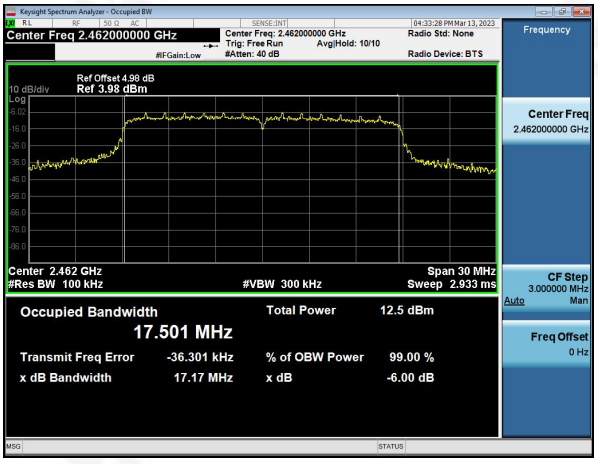


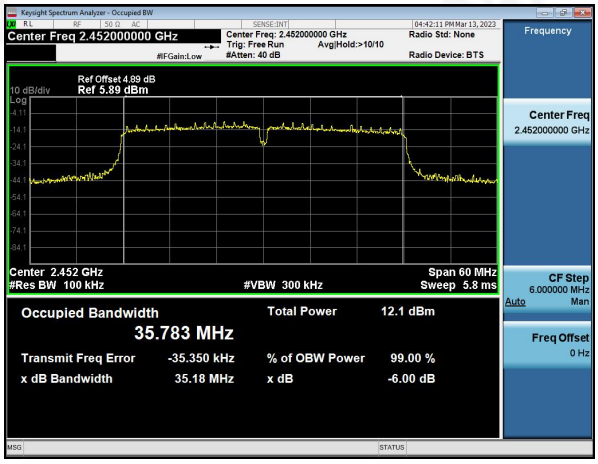
Middle channel





Highest channel

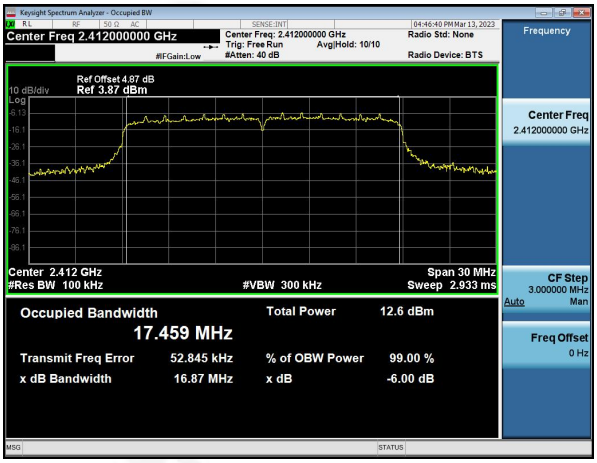


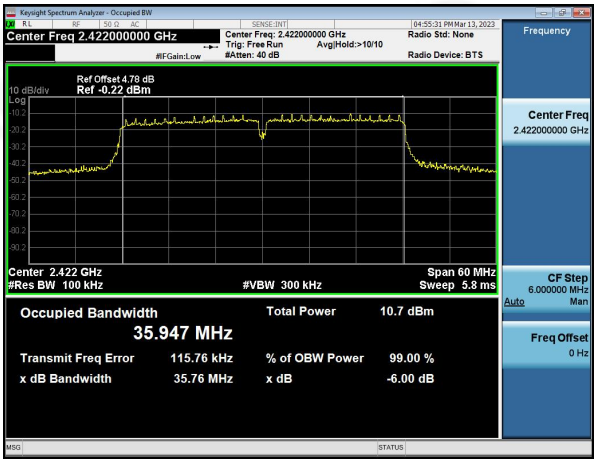


ANT2-802.11ax(HE20)

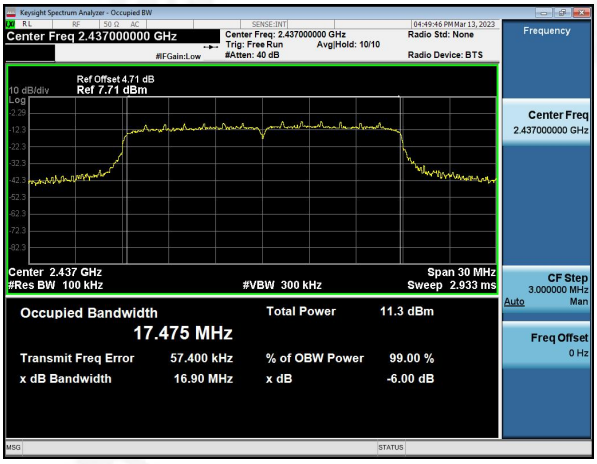
ANT2-02.11ax(VHT40)

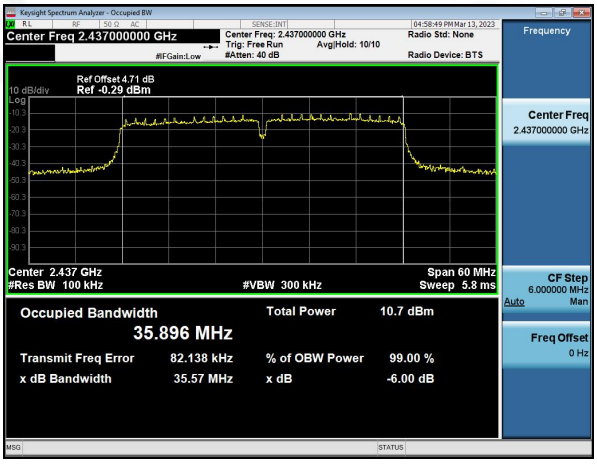
Lowest channel



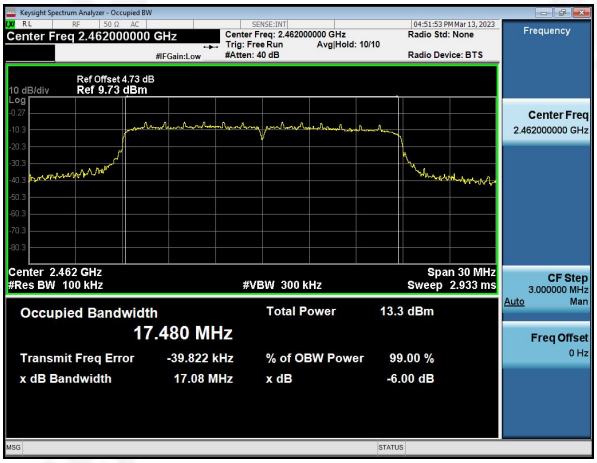


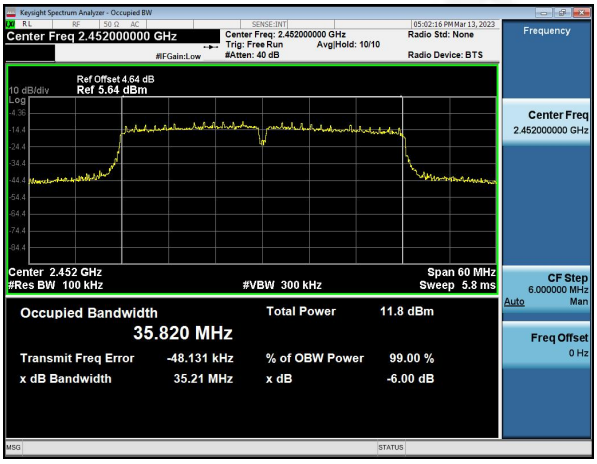
Middle channel





Highest channel





8.PEAK OUTPUT POWER TEST

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

8.1 APPLIED PROCEDURES/LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

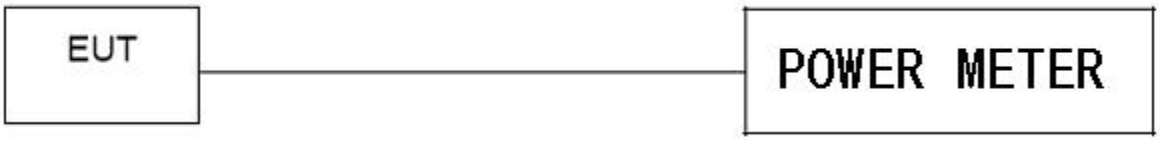
8.2 TEST PROCEDURE

a. The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

8.6 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC 120V/60Hz

Test Channel	Frequency (MHz)	Maximum Conducted Output Power (dBm)		Total power (dBm)	Limit (dBm)
		ANT 1	ANT 2		
TX 802.11b Mode					
CH01	2412	18.51	18.48	-	30.00
CH06	2437	18.34	18.12	-	30.00
CH11	2462	18.88	18.67	-	30.00
TX 802.11g Mode					
CH01	2412	16.59	16.31	-	30.00
CH06	2437	16.84	16.61	-	30.00
CH11	2462	16.92	16.98	-	30.00
TX 802.11n(HT20) Mode					
CH01	2412	15.25	15.09	18.18	30.00
CH06	2437	15.63	15.48	18.57	30.00
CH11	2462	15.72	15.83	18.79	30.00
TX 802.11n(HT40) Mode					
CH03	2422	14.53	14.32	17.44	30.00
CH06	2437	14.85	14.67	17.77	30.00
CH09	2452	15.01	14.96	18.00	30.00
TX 802.11ax(HE20) Mode					
CH01	2412	15.17	14.94	18.07	30.00
CH06	2437	15.41	15.23	18.33	30.00
CH11	2462	15.63	15.49	18.57	30.00
TX 802.11ax(VHT40) Mode					
CH03	2422	14.31	14.05	17.19	30.00
CH06	2437	14.77	14.32	17.56	30.00
CH09	2452	14.94	14.83	17.90	30.00

Note:
1. In 802.11b and 802.11g mode, the ANT 1 and ANT 2 can't work at TX and RX mode at the same time;
2. In 802.11n(HT20), 802.11n(HT40), 802.11ax(HE20), 802.11ax(VHT40) mode the ANT 1 and ANT 2 can work at TX and RX mode at the same time;
3. For power test the duty cycle is 100% in continous transmitting mode;
4. TX means Transmit, RX means Receive.