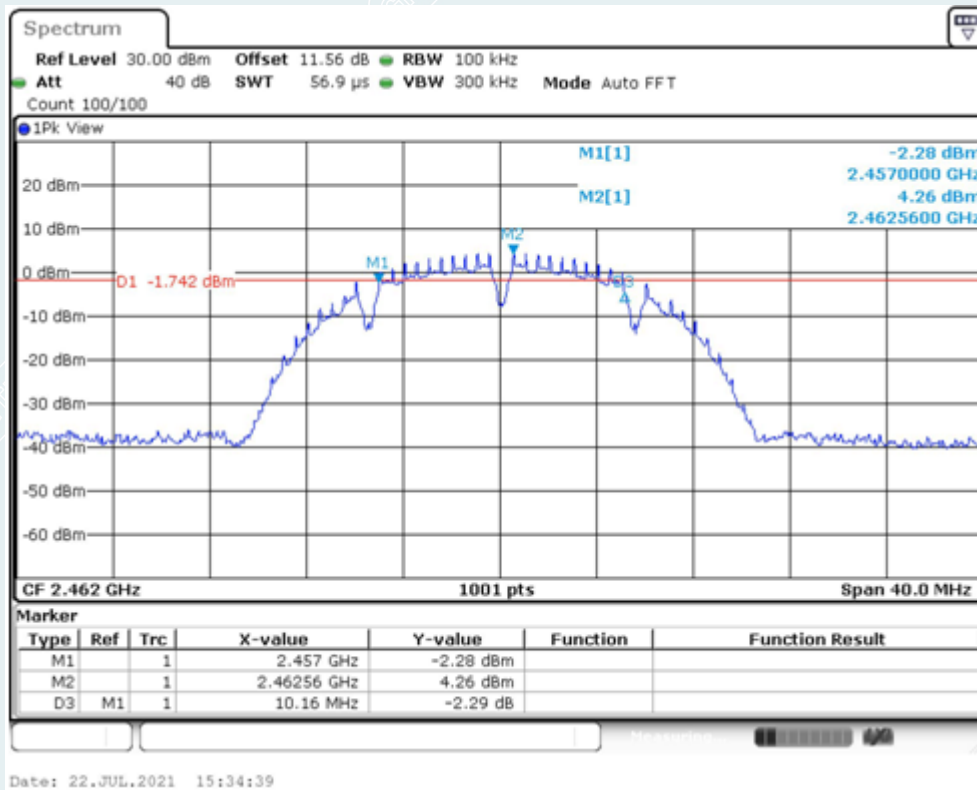
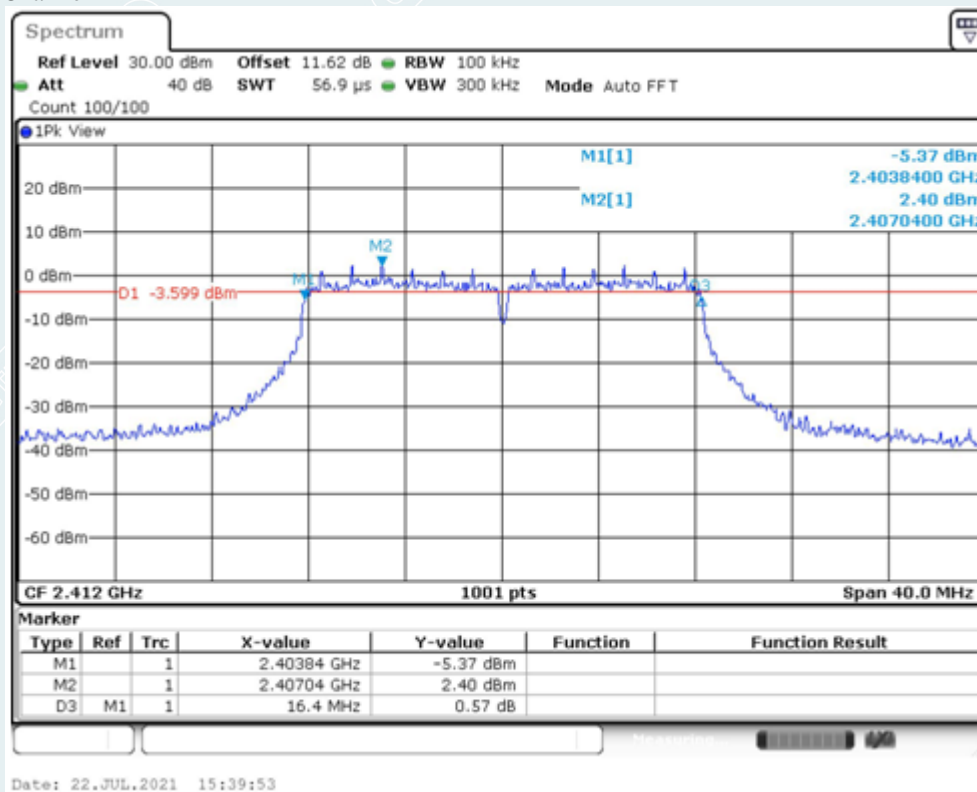


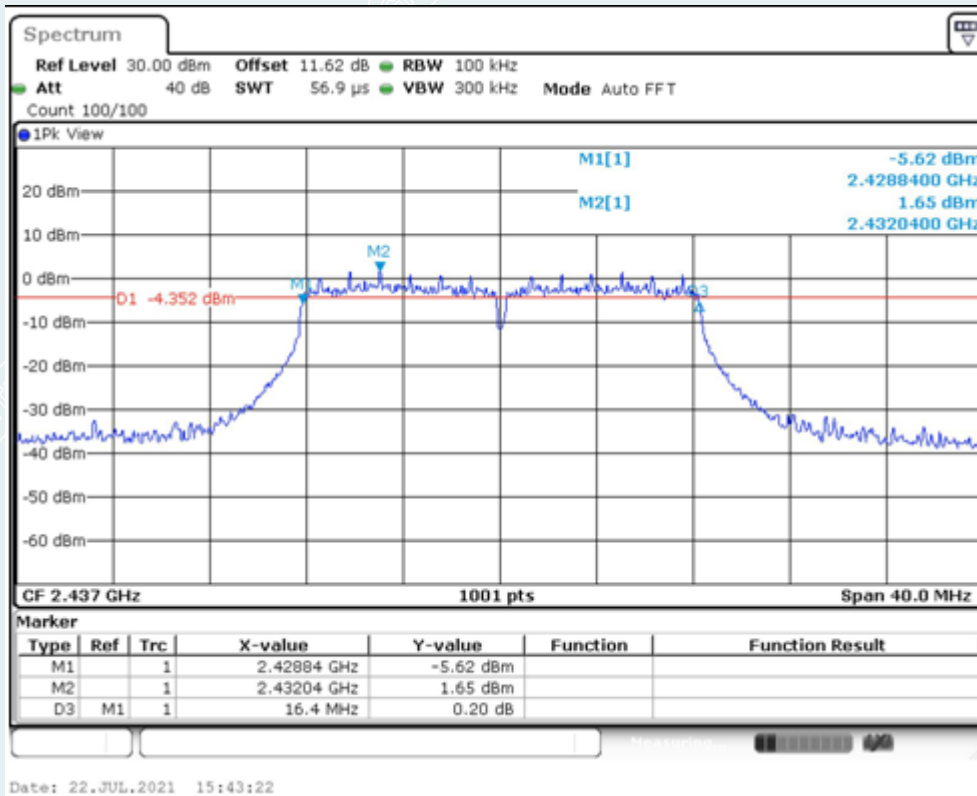
802.11b mode:  
Channel 2462MHz



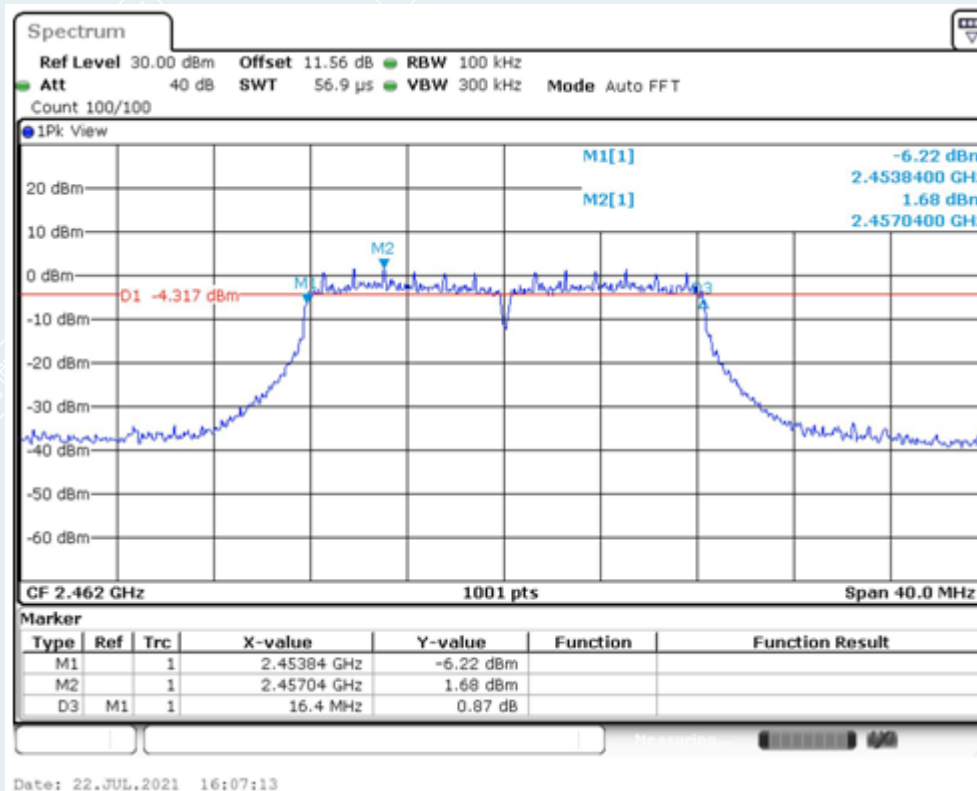
802.11g mode:  
Channel 2412MHz



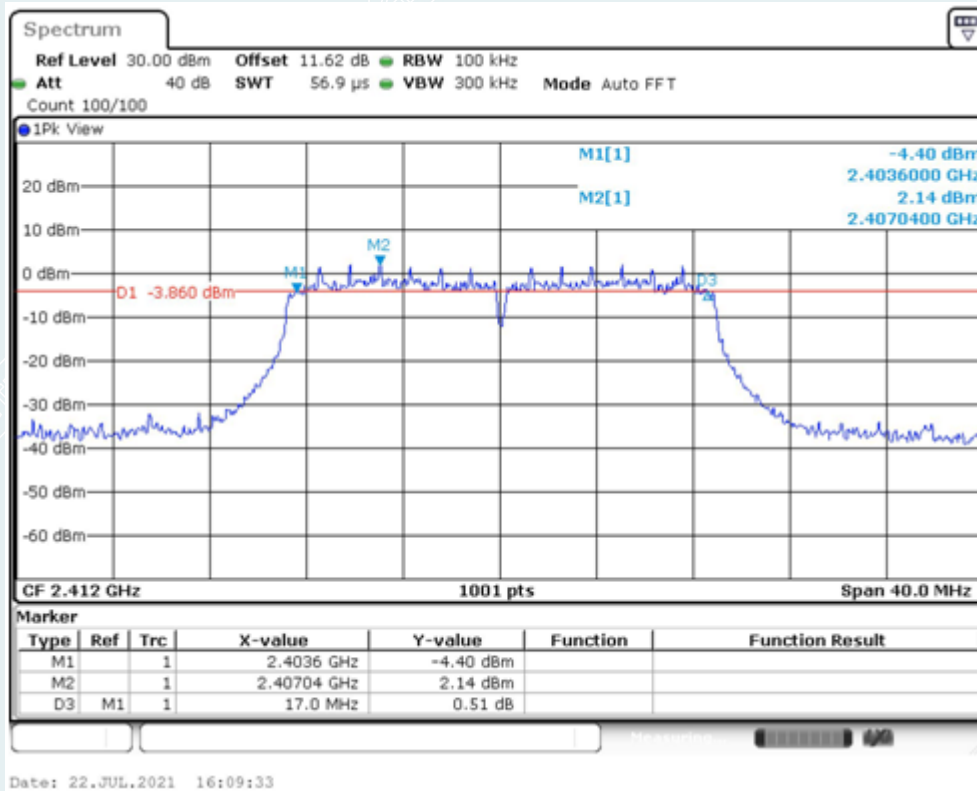
802.11g mode:  
Channel 2437MHz



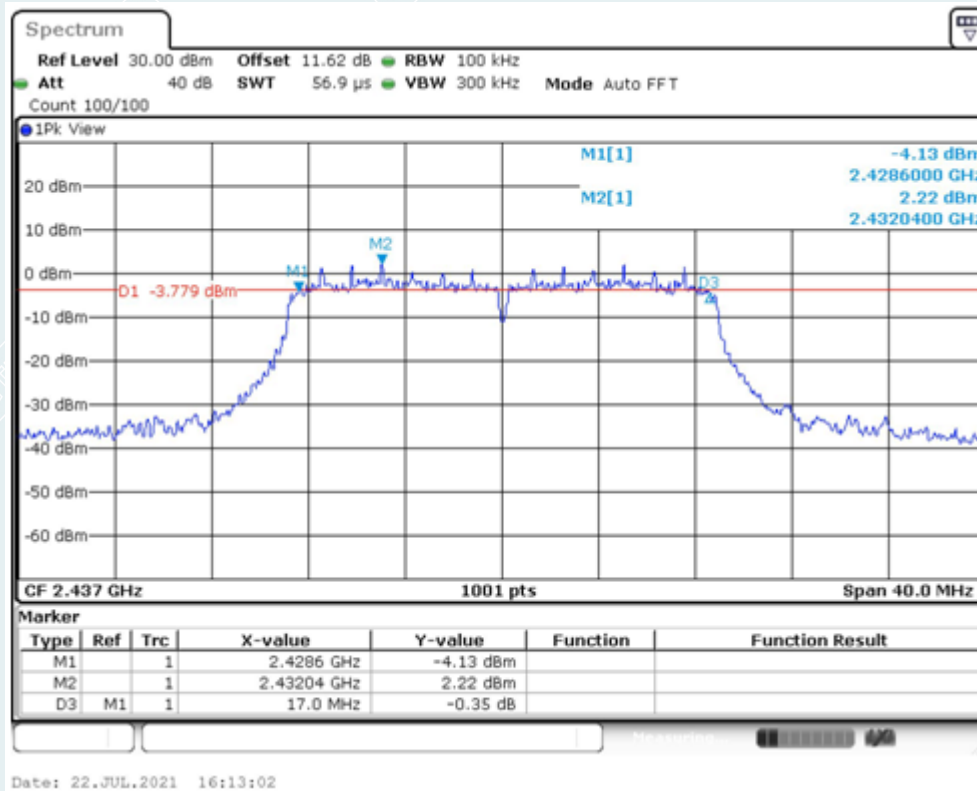
802.11g mode:  
Channel 2462MHz



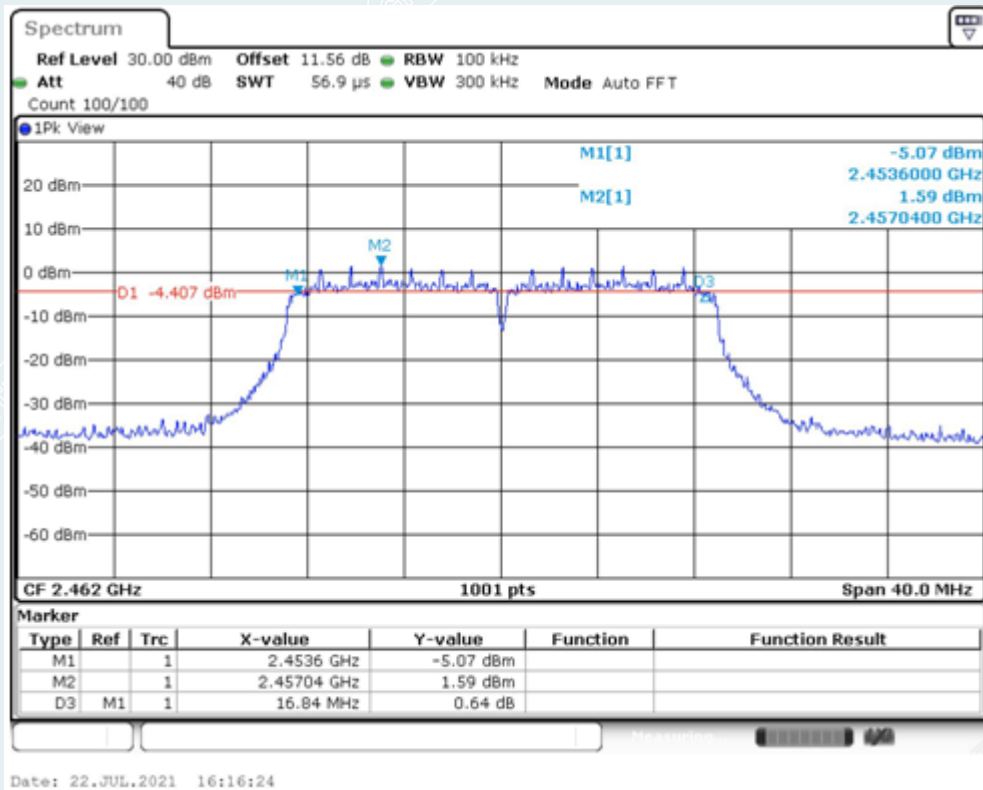
802.11n HT20 mode:  
Channel 2412MHz



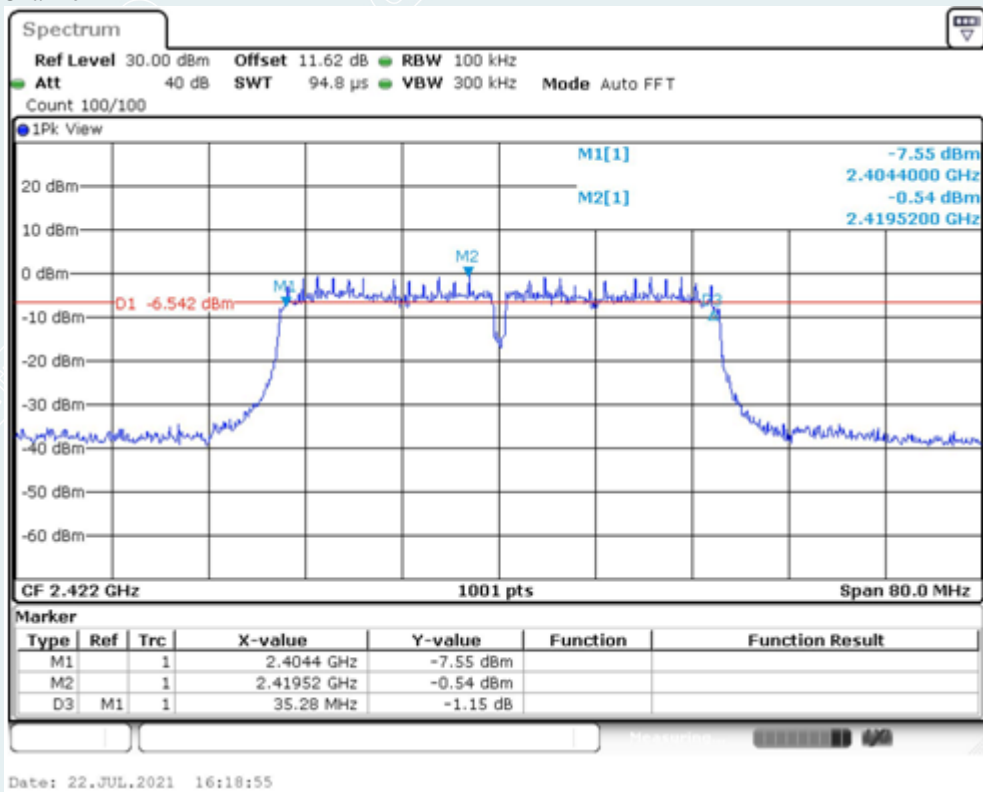
802.11n HT20 mode:  
Channel 2437MHz



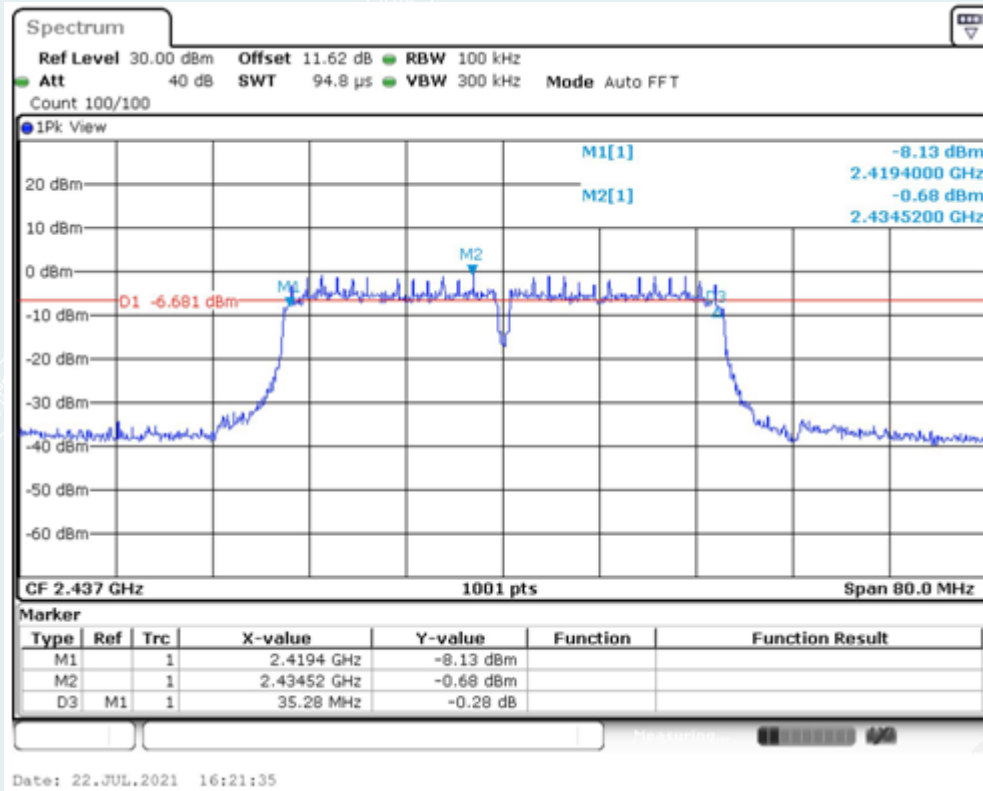
802.11n HT20 mode:  
Channel 2462MHz



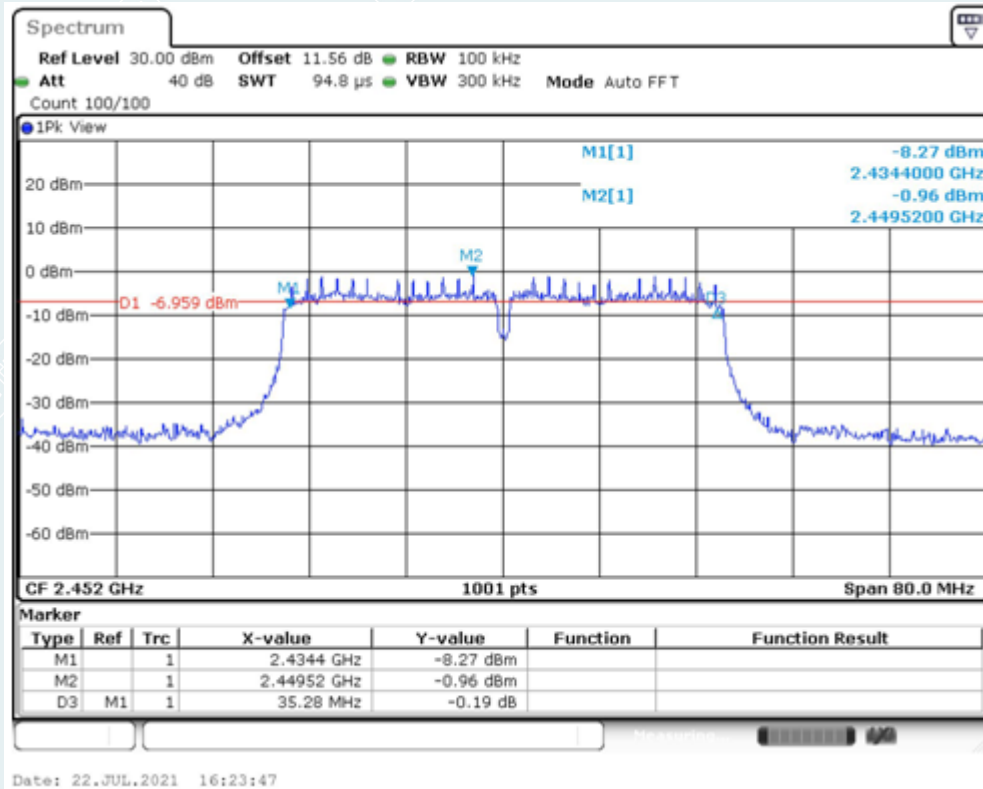
802.11n HT40 mode:  
Channel 2422MHz



802.11n HT40 mode:  
Channel 2437MHz



802.11n HT40 mode:  
Channel 2452MHz





## 8. MAXIMUM PEAK OUTPUT POWER

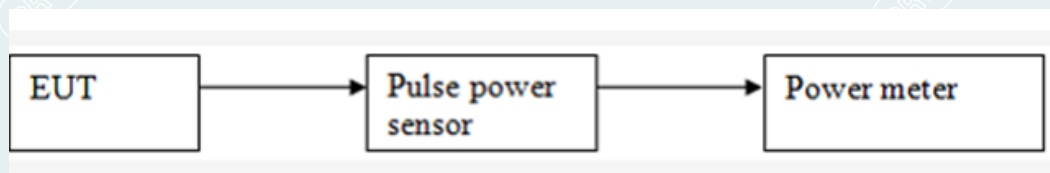
### 8.1. LIMITS

The maximum Peak output power measurement is 1W

### 8.2. TEST PROCEDURES

- 1) RF output of EUT was connected to the broadband peak RF power meter by RF cable and attenuator. The path loss was compensated to the results for each measureme.
- 2) Set to the maximum power setting and enable the EUT transmit continuously.
- 3) Measure the conducted output power and record the results in the test report.

### 8.3. TEST SETUP



## 8.4. TEST RESULT

### 802.11b Mode:

Channel No.	Frequency (MHz)	Measured Channel Power with Duty Factor (dBm)	Peak / AVG	Limit	Result
1	2412	19.32	Peak	30dBm	Pass
6	2437	19.21			Pass
11	2462	18.97			Pass

### 802.11g Mode:

Channel No.	Frequency (MHz)	Measured Channel Power with Duty Factor (dBm)	Peak / AVG	Limit	Result
1	2412	21.53	Peak	30dBm	Pass
6	2437	21.93			Pass
11	2462	21.72			Pass

### 802.11n HT20 Mode :

Channel No.	Frequency (MHz)	Measured Channel Power with Duty Factor (dBm)	Peak/ AVG	Limit	Result
1	2412	22.13	Peak	30dBm	Pass
6	2437	21.53			Pass
11	2462	21.60			Pass

### 802.11n HT40 Mode :

Channel No.	Frequency (MHz)	Measured Channel Power with Duty Factor (dBm)	Peak/ AVG	Limit	Result
3	2422	22.60	Peak	30dBm	Pass
6	2437	22.28			Pass
9	2452	22.91			Pass

## 9. POWER SPECTRAL DENSITY

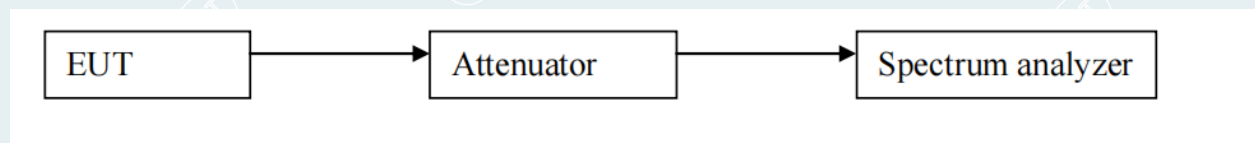
### 9.1 LIMITS

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

### 9.2 TEST PROCEDURES

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) Position the EUT was set 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 the analyzer span to 1.5 times the DTS bandwidth. Set the RBW = 3 kHz. Set the VBW  $\geq 3$  RBW. Detector = peak. Ensure that the number of measurement points in the sweep  $\geq 2 \times$  span/RBW (use of a greater number of measurement points than this minimum requirement is recommended).
- 4) Repeat above procedures until all frequencies measured were complete.

### 9.3 TEST SETUP





## 9.4 TEST RESULTS

Mode	ON Time(ms)	Total Time(ms)	Duty Cycle	Duty Factor
802.11b	12.380	12.450	99.438%	0.00
802.11g	2.050	2.220	92.342%	0.35
802.11n HT20	1.910	2.010	95.025%	0.22
802.11n HT20	0.940	1.100	85.455%	0.68

### 802.11b Mode:

Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Duty Factor	Total PSD with Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	2412	-8.47	0.00	-8.47	8.00	Pass
6	2437	-9.77	0.00	-9.77	8.00	Pass
11	2462	-9.03	0.00	-9.03	8.00	Pass

### 802.11g Mode:

Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Duty Factor	Total PSD with Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	2412	-11.67	0.35	-11.32	8.00	Pass
6	2437	-11.55	0.35	-11.20	8.00	Pass
11	2462	-11.36	0.35	-11.01	8.00	Pass

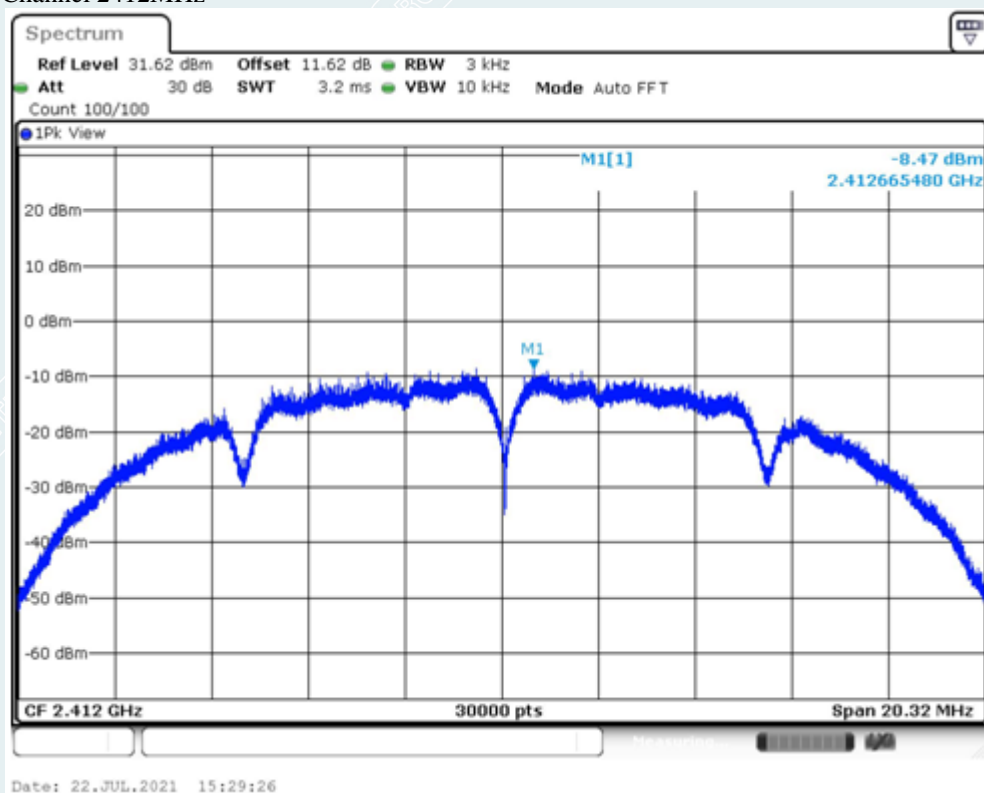
### 802.11n HT20 Mode:

Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Duty Factor	Total PSD with Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	2412	-11.66	0.22	-11.44	8.00	Pass
6	2437	-11.36	0.22	-11.14	8.00	Pass
11	2462	-12.65	0.22	-12.43	8.00	Pass

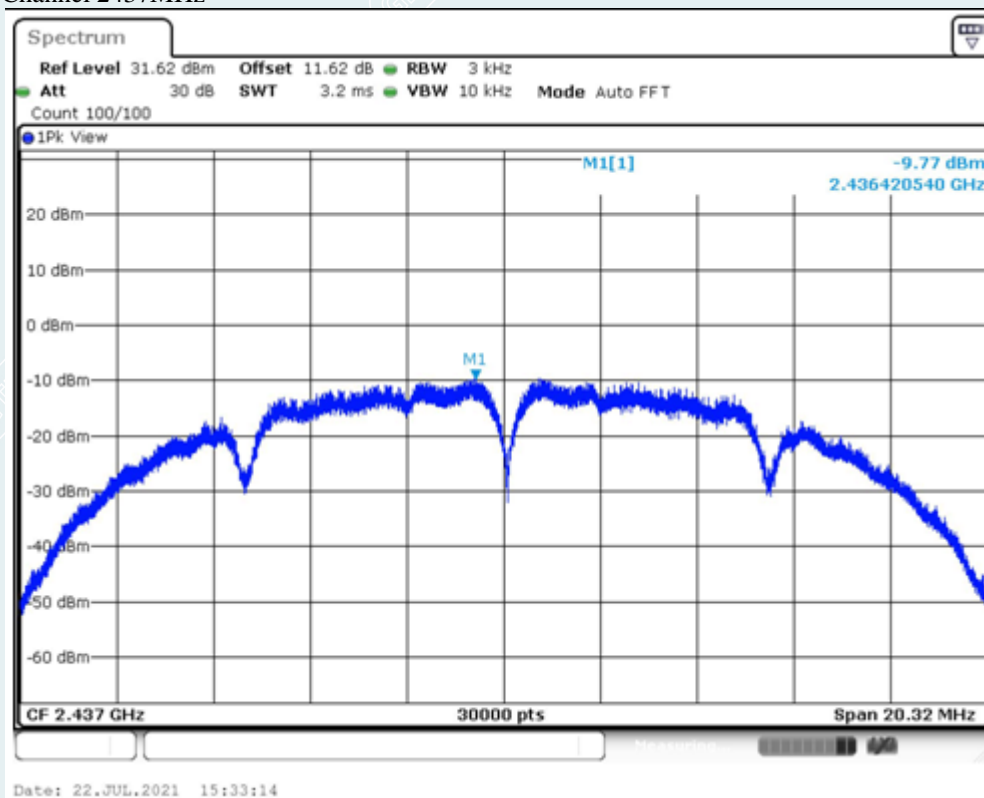
### 802.11n HT40 Mode:

Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Duty Factor	Total PSD with Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Result
3	2422	-15.14	0.68	-14.46	8.00	Pass
6	2437	-14.87	0.68	-14.19	8.00	Pass
9	2452	-14.46	0.68	-13.78	8.00	Pass

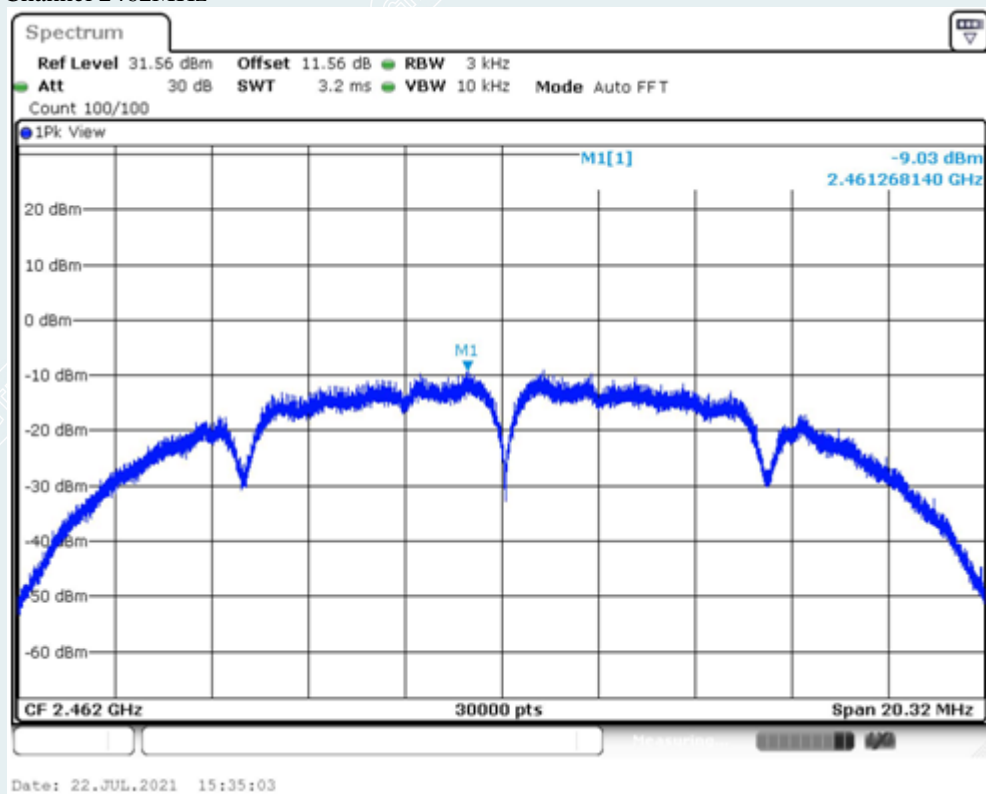
802.11b mode:  
Channel 2412MHz



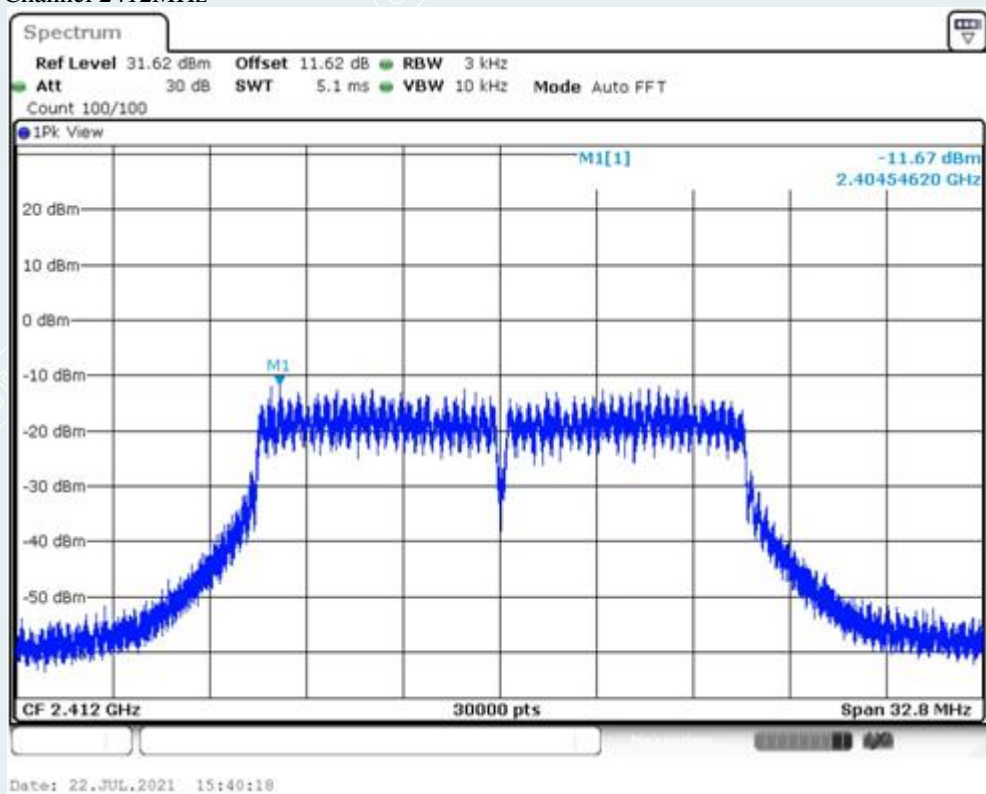
802.11b mode:  
Channel 2437MHz



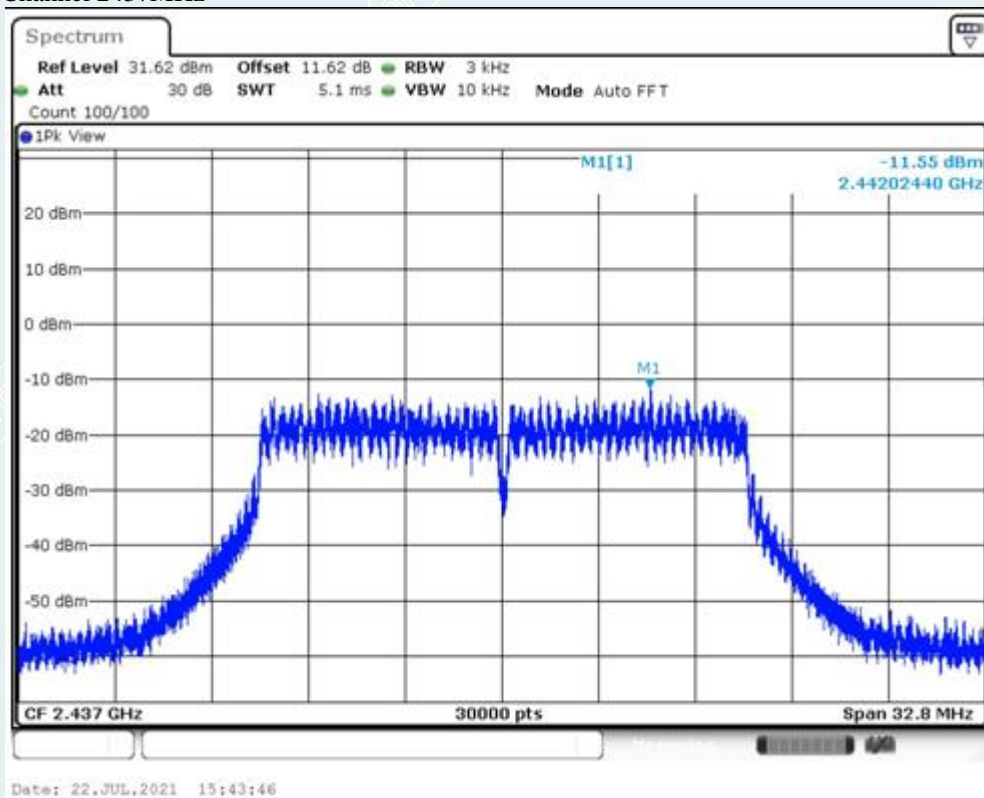
802.11b mode:  
Channel 2462MHz



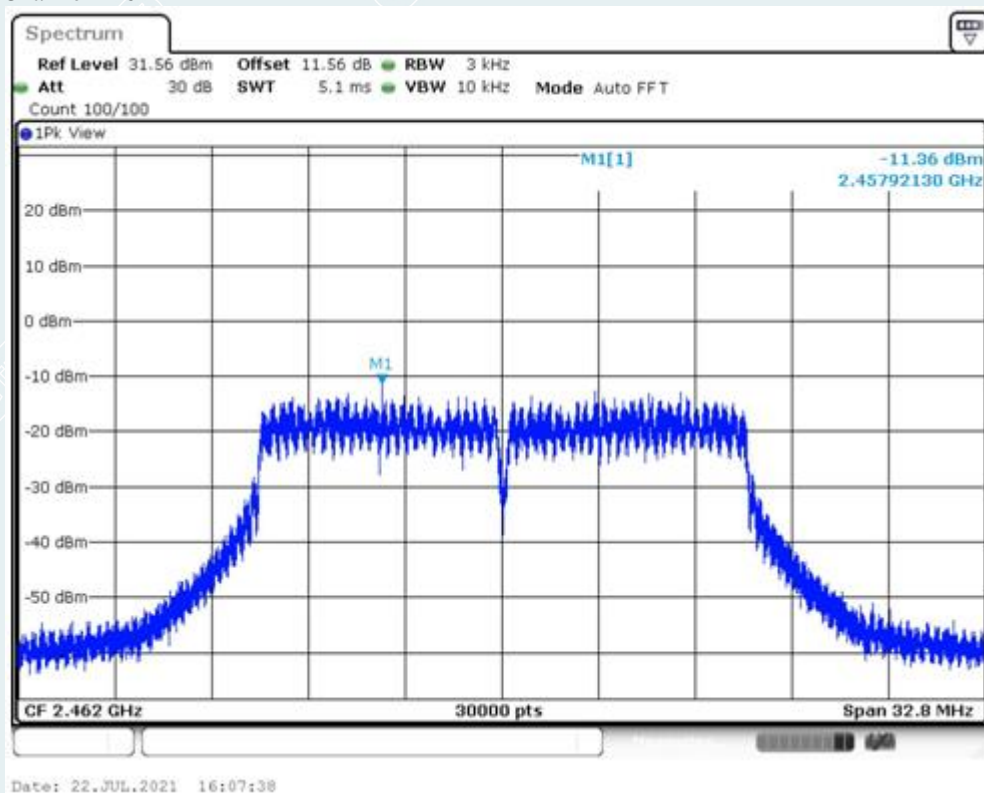
802.11g mode:  
Channel 2412MHz



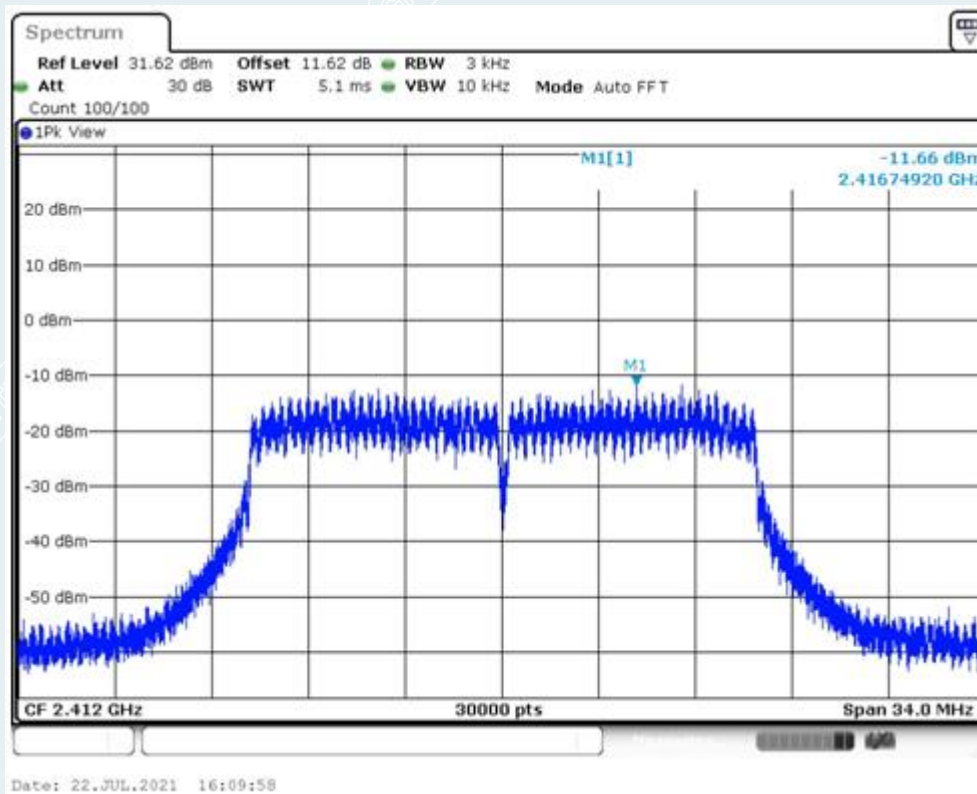
802.11g mode:  
Channel 2437MHz



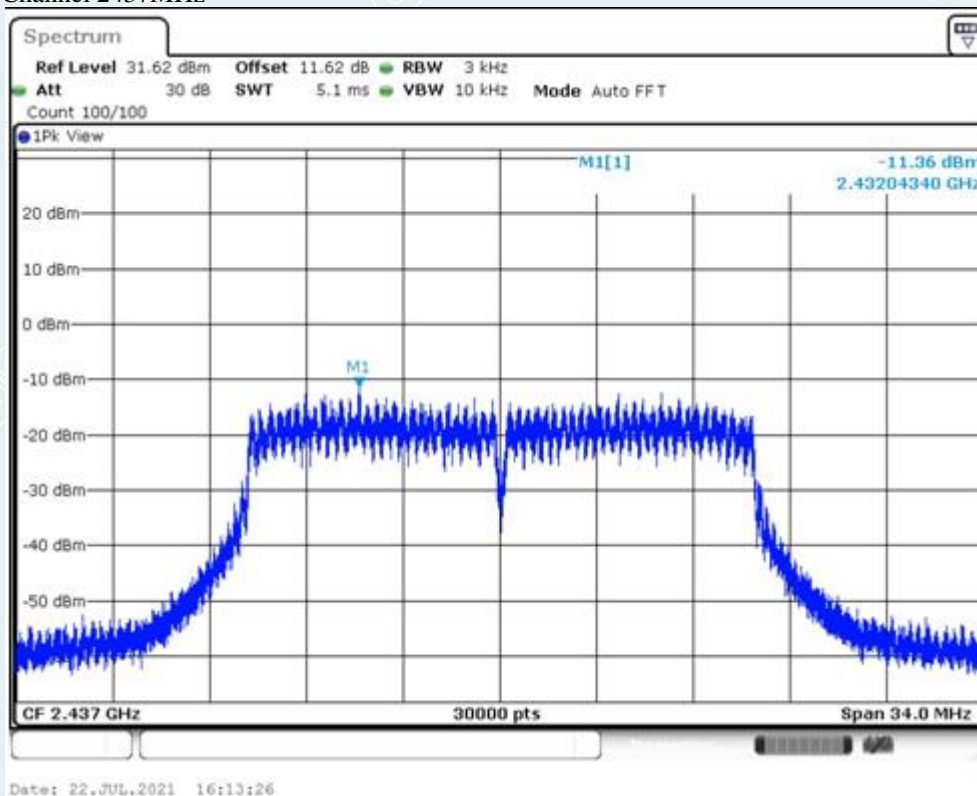
802.11g mode:  
Channel 2462MHz



802.11n HT20 mode:  
Channel 2412MHz

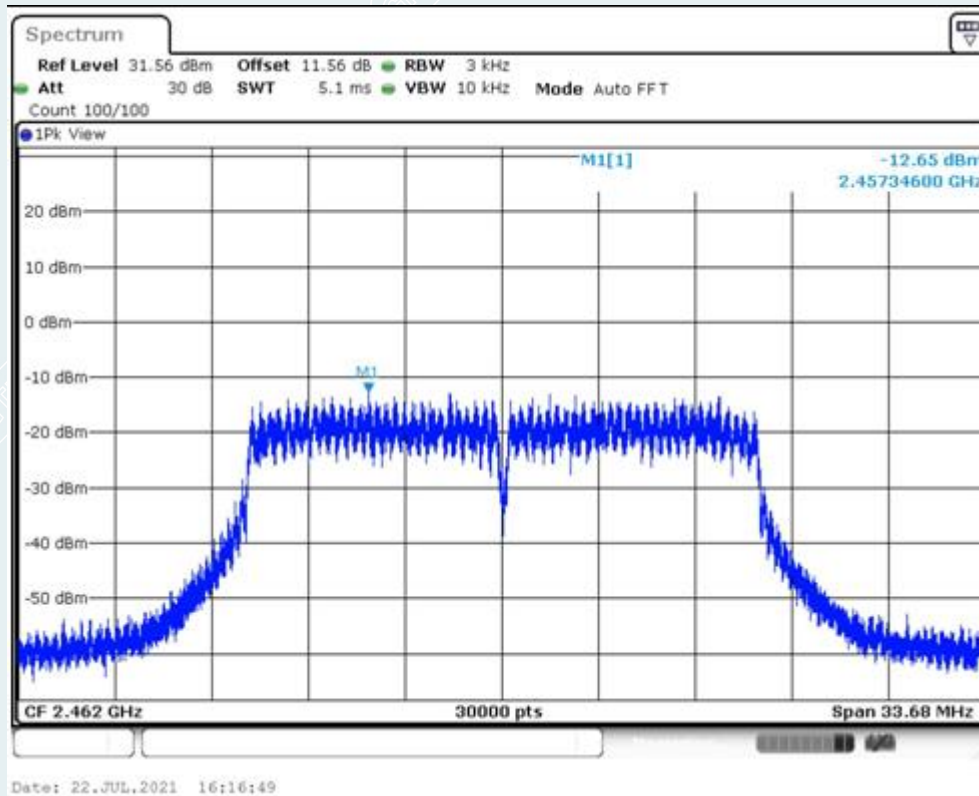


802.11n HT20 mode:  
Channel 2437MHz

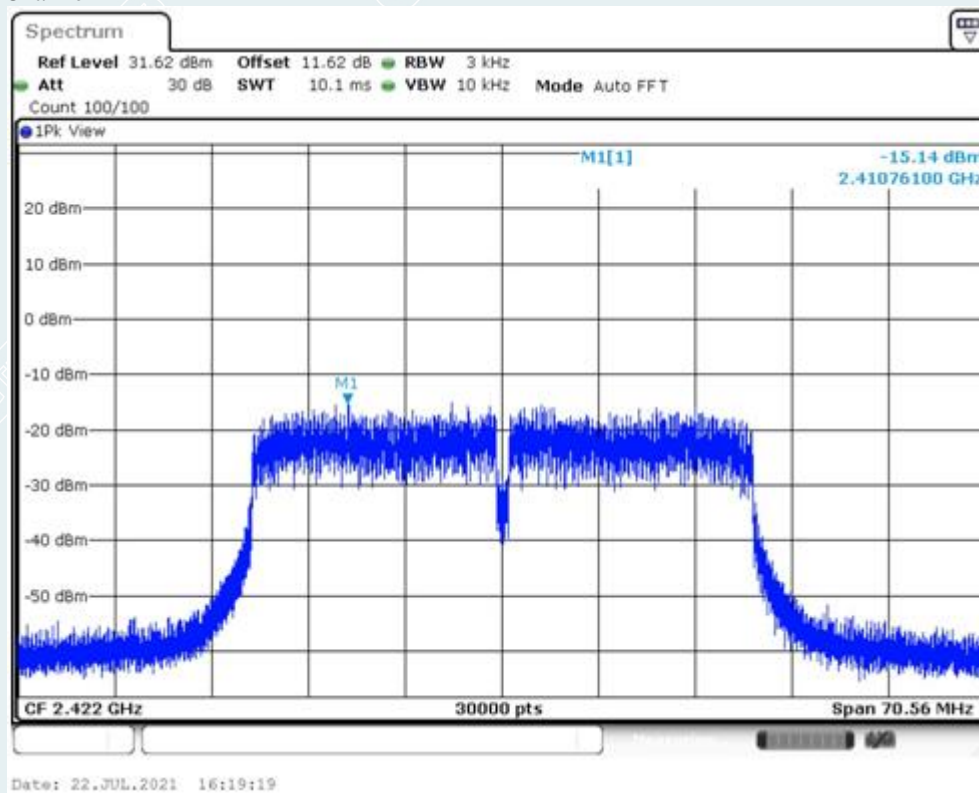




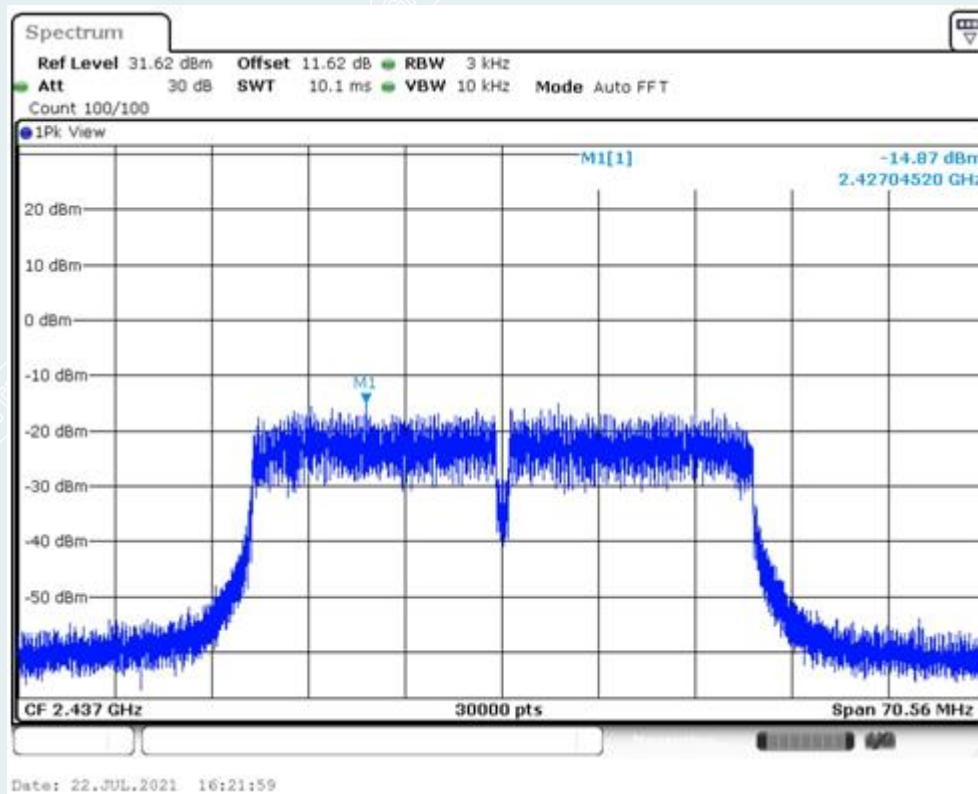
802.11n HT20 mode:  
Channel 2462MHz



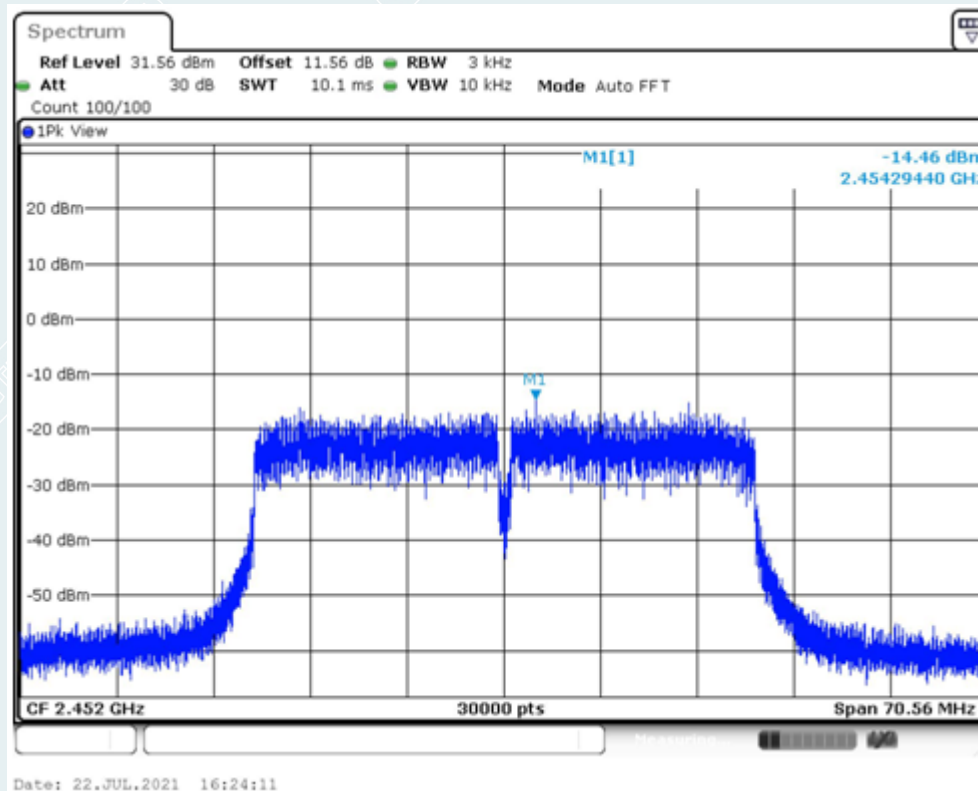
802.11n HT40 mode:  
Channel 2422MHz



802.11n HT40 mode:  
Channel 2437MHz



802.11n HT40 mode:  
Channel 2452MHz



## 10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS

### 10.1 LIMITS

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

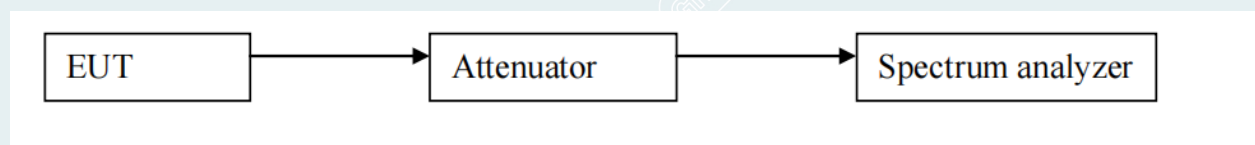
### 10.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 DTS Measurement Guidance v03r01.

Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.

- 1) Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.
- 2) Set the spectrum analyzer: RBW = 100KHz; VBW = 300KHz, Span = 30MHz to 25GHz; Sweep = auto; Detector Function = Peak. Trace = Max, hold.
- 3) Measure and record the results in the test report.
- 4) The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

### 10.3 TEST SETUP

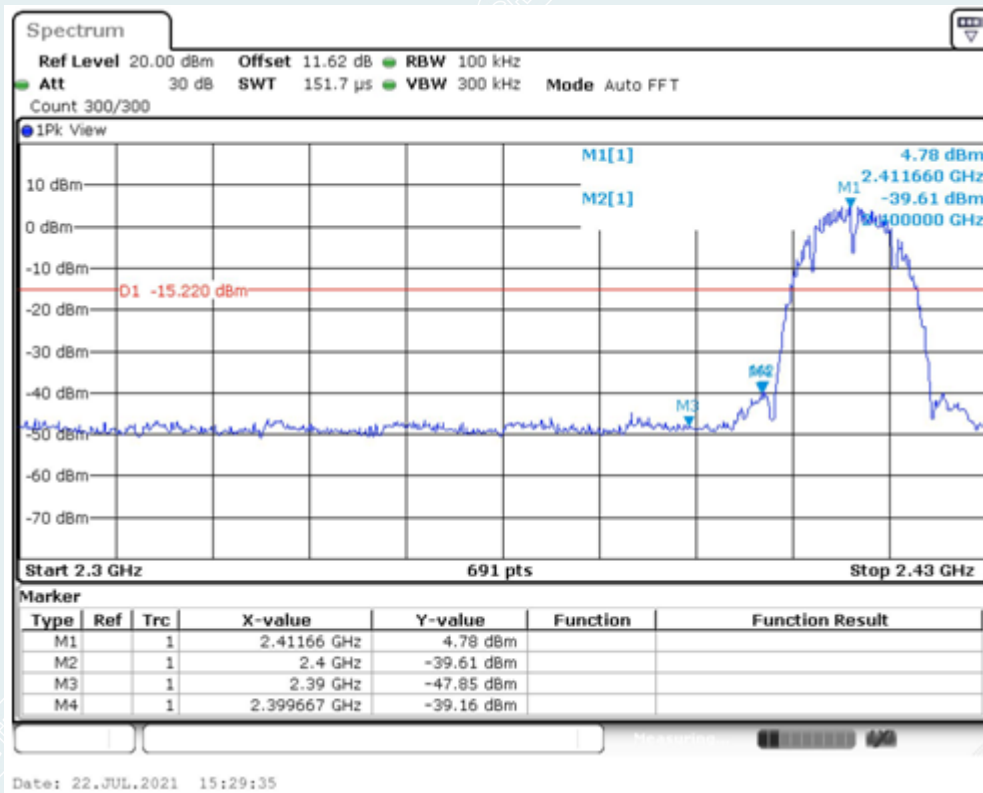


## 10.4 TEST RESULTS

### Band edge

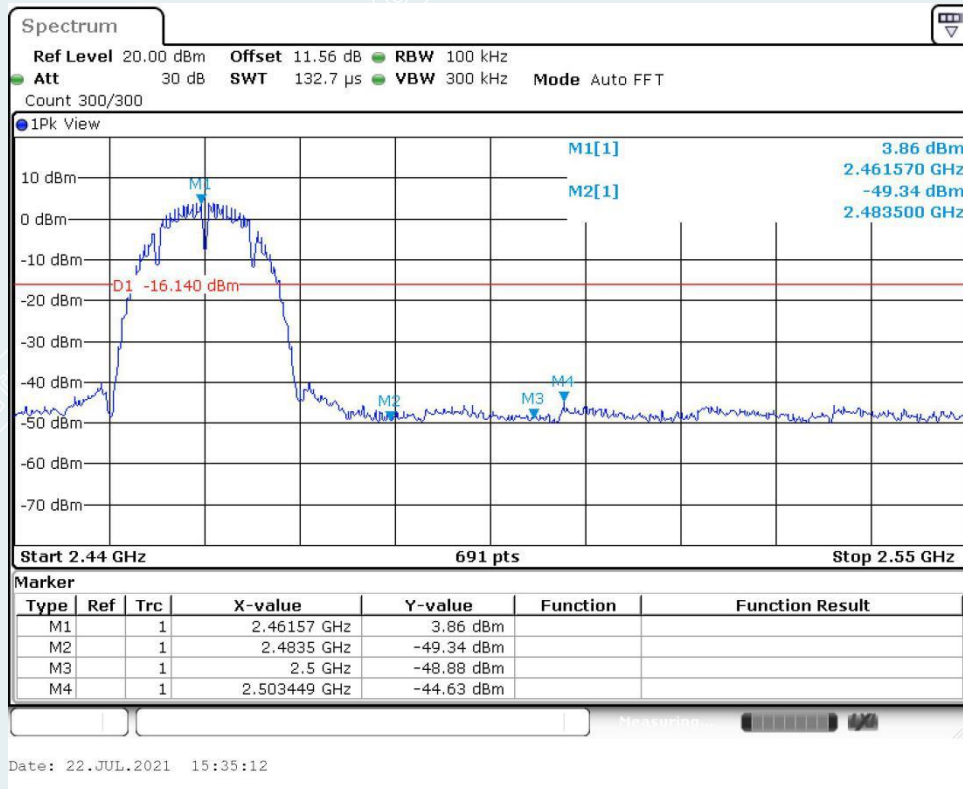
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
802.11b	Ant1	Low	2412	4.78	-39.16	≤-15.22	PASS
		High	2462	3.86	-44.63	≤-16.14	PASS
802.11g	Ant1	Low	2412	2.39	-34.56	≤-17.61	PASS
		High	2462	0.24	-44.35	≤-19.76	PASS
802.11n HT20	Ant1	Low	2412	2.45	-35.52	≤-17.55	PASS
		High	2462	1.78	-42.7	≤-18.22	PASS
802.11n HT40	Ant1	Low	2422	-0.36	-33.94	≤-20.36	PASS
		High	2452	-1.19	-39.31	≤-21.19	PASS

802.11b mode:  
Channel 2412MHz

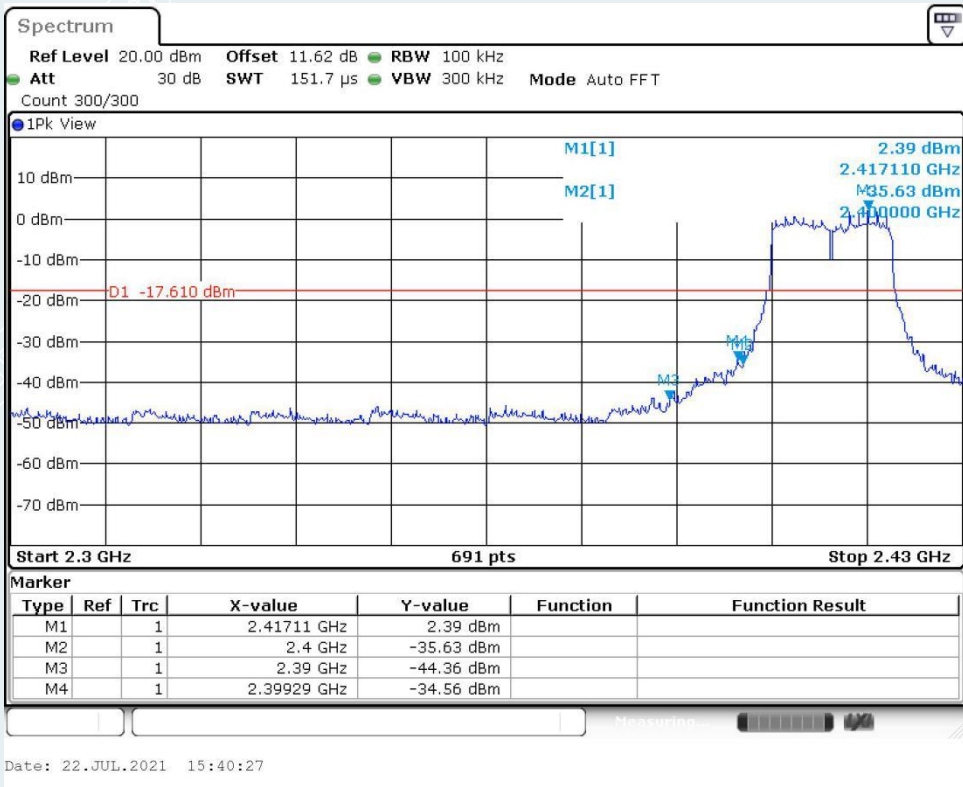




802.11b mode:  
Channel 2462MHz

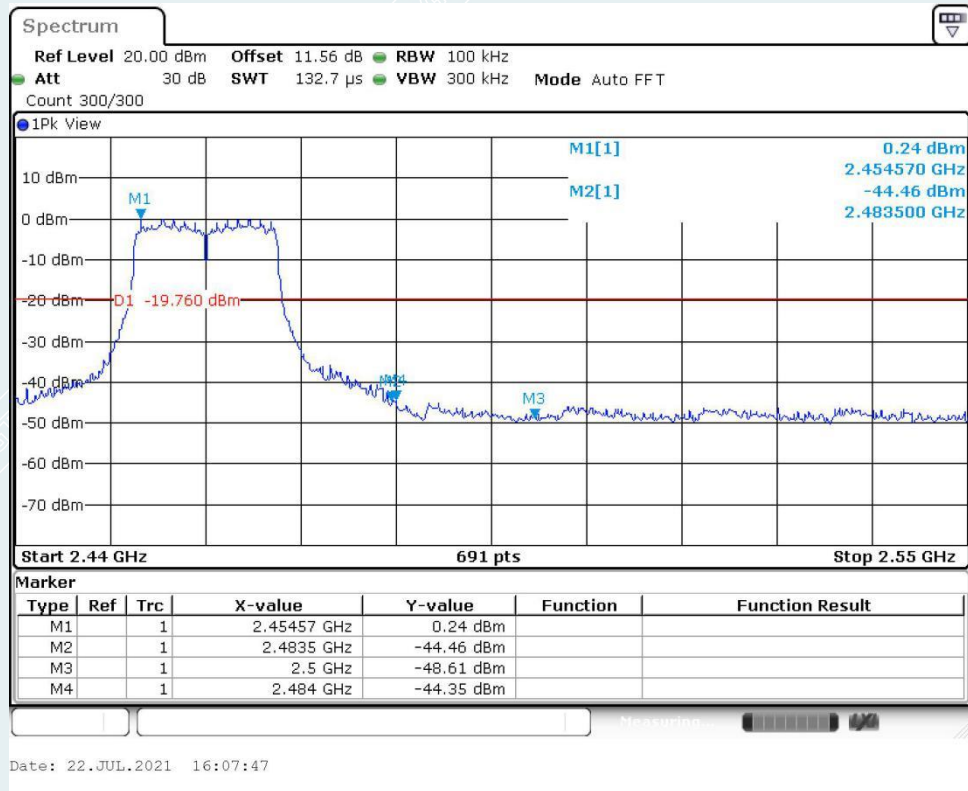


802.11g mode:  
Channel 2412MHz

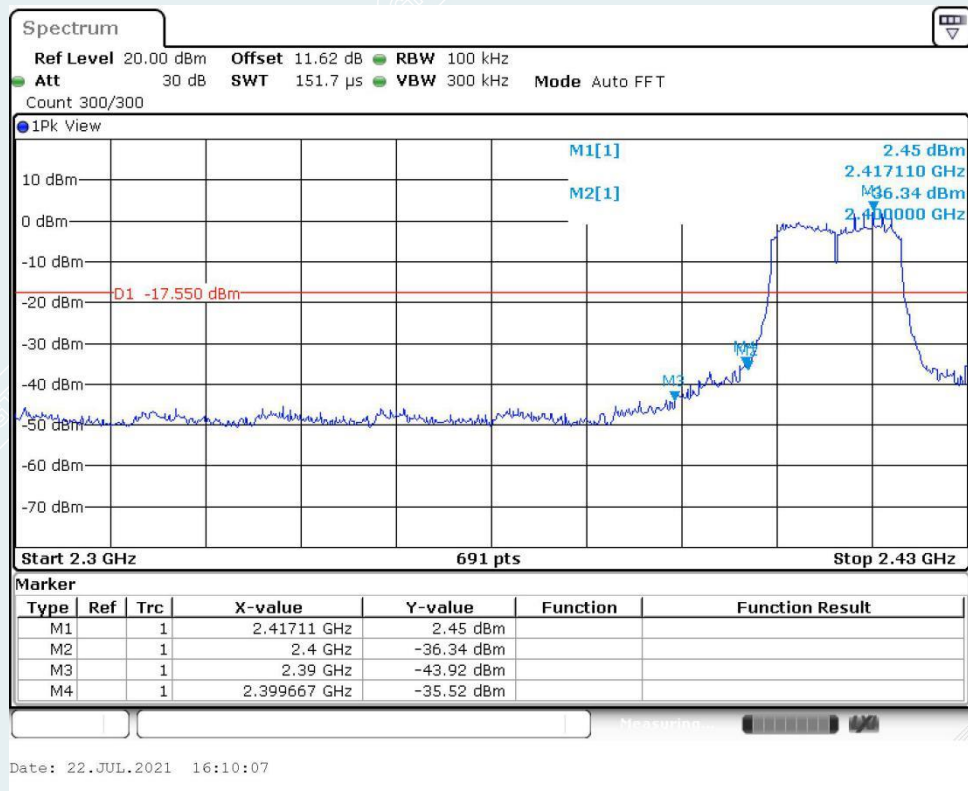


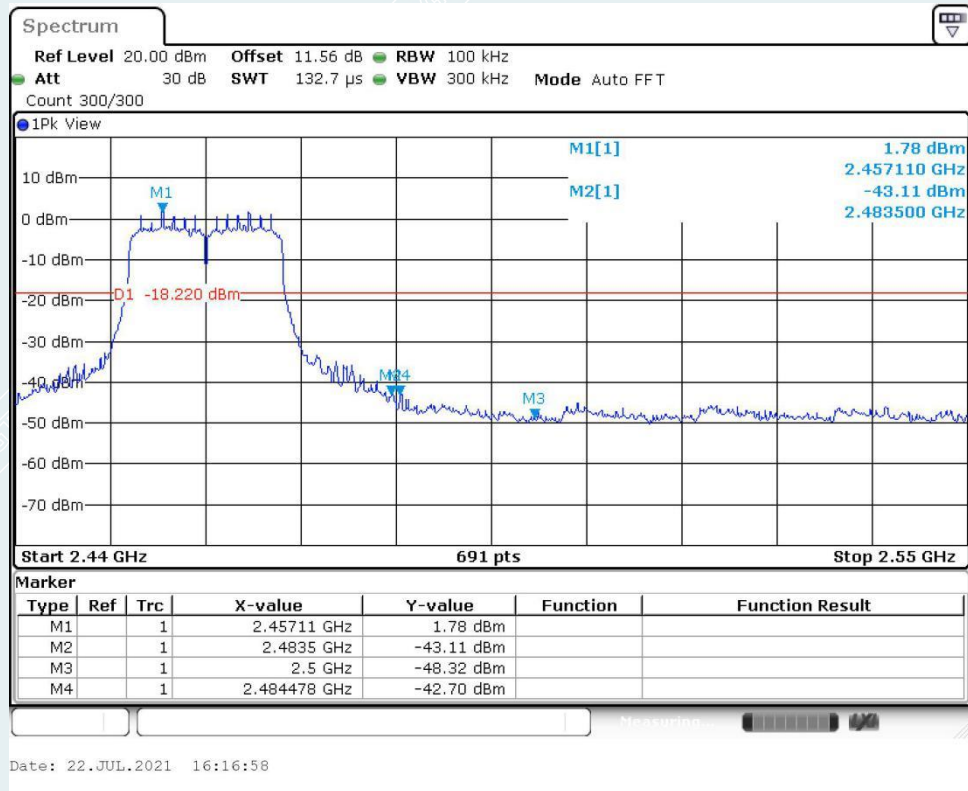
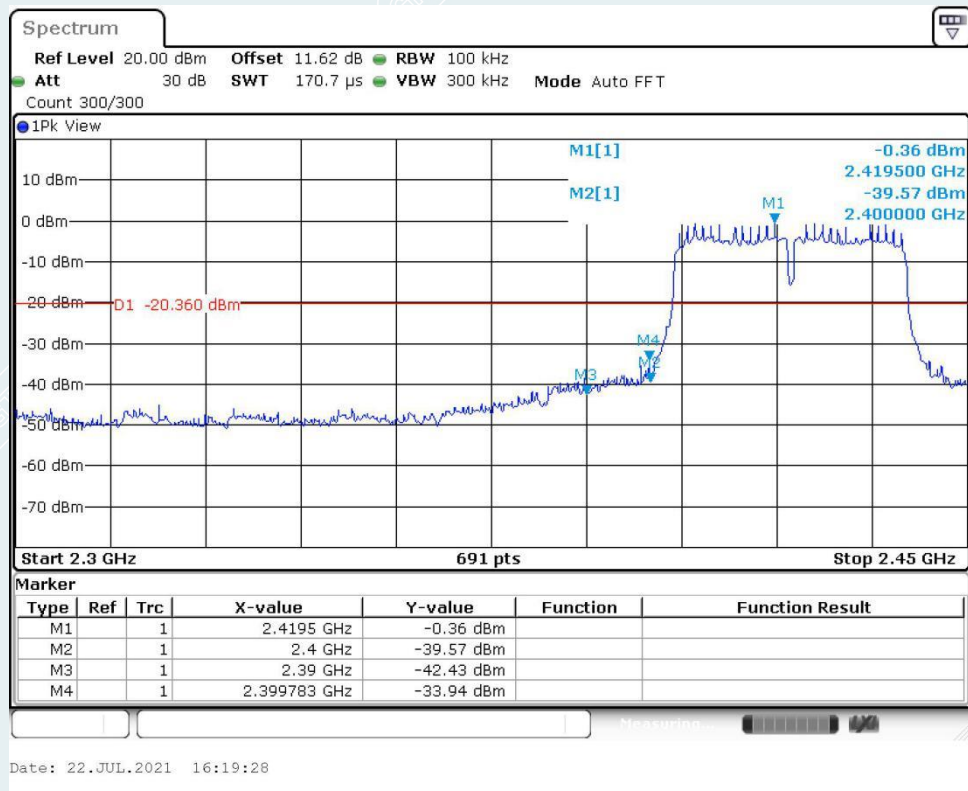


802.11g mode:  
Channel 2462MHz

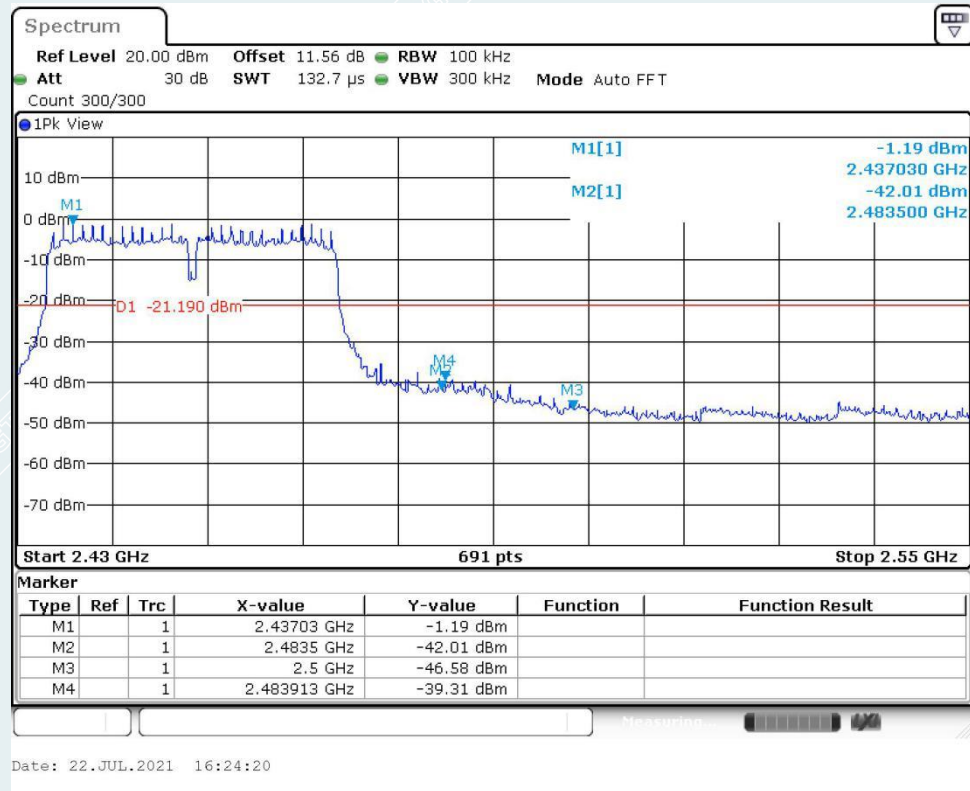


802.11n HT20 mode:  
Channel 2412MHz



**802.11n HT20 mode:  
Channel 2462MHz****802.11n HT40 mode:  
Channel 2422MHz**

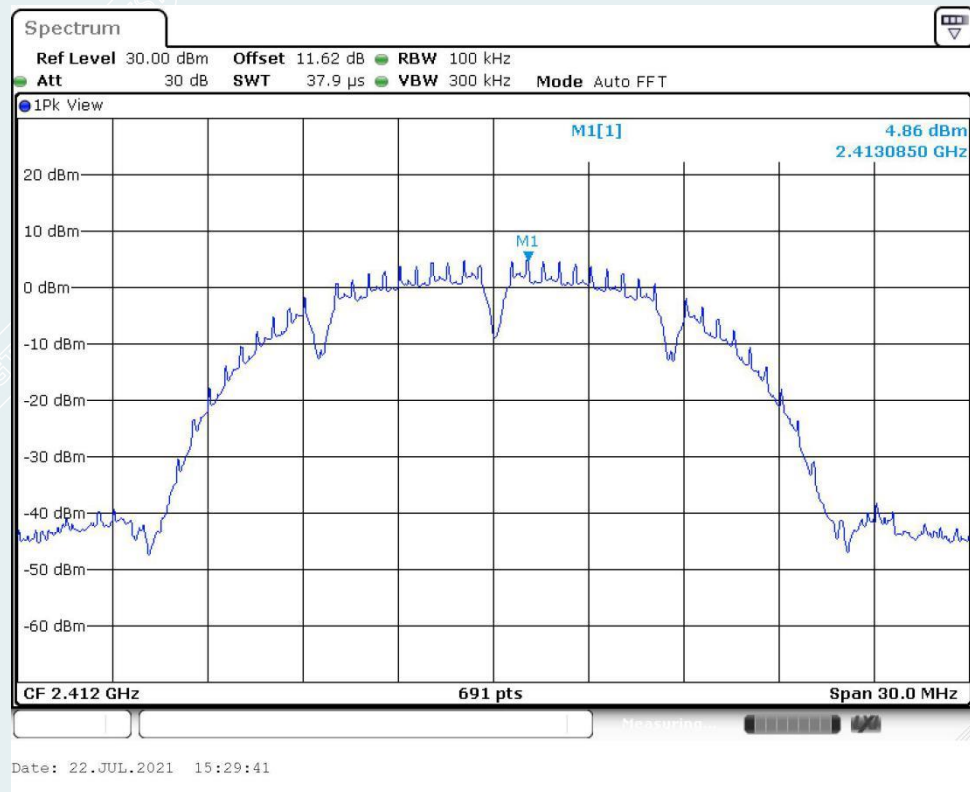
802.11n HT40 mode:  
Channel 2452MHz



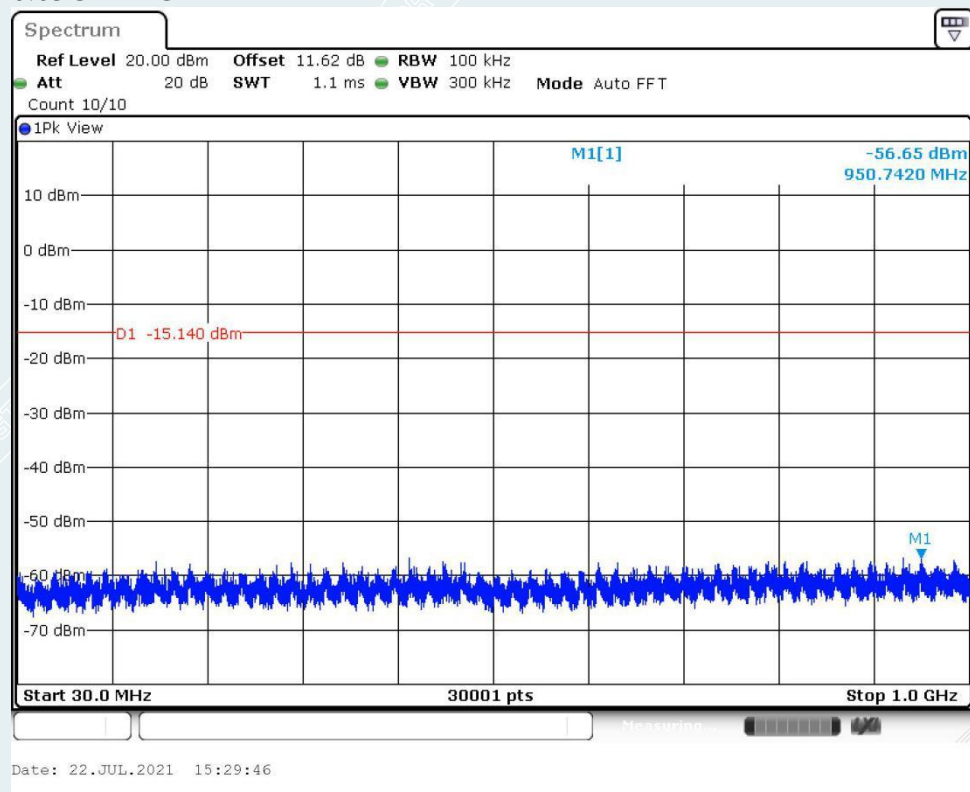
### Conducted Spurious Emission: Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
802.11b	Ant1	2412	Reference	4.86	4.86	---	PASS
			30~1000	4.86	-56.65	≤-15.14	PASS
			1000~26500	4.86	-52.33	≤-15.14	PASS
		2437	Reference	4.33	4.33	---	PASS
			30~1000	4.33	-56.5	≤-15.67	PASS
			1000~26500	4.33	-51.9	≤-15.67	PASS
		2462	Reference	3.90	3.90	---	PASS
			30~1000	3.90	-56.28	≤-16.1	PASS
			1000~26500	3.90	-52.19	≤-16.1	PASS
802.11g	Ant1	2412	Reference	2.46	2.46	---	PASS
			30~1000	2.46	-55.18	≤-17.54	PASS
			1000~26500	2.46	-52.54	≤-17.54	PASS
		2437	Reference	1.94	1.94	---	PASS
			30~1000	1.94	-56.2	≤-18.06	PASS
			1000~26500	1.94	-51.99	≤-18.06	PASS
		2462	Reference	1.63	1.63	---	PASS
			30~1000	1.63	-56.25	≤-18.37	PASS
			1000~26500	1.63	-52.06	≤-18.37	PASS
802.11n HT20	Ant1	2412	Reference	2.49	2.49	---	PASS
			30~1000	2.49	-56.53	≤-17.51	PASS
			1000~26500	2.49	-51.83	≤-17.51	PASS
		2437	Reference	2.05	2.05	---	PASS
			30~1000	2.05	-56.13	≤-17.95	PASS
			1000~26500	2.05	-52.83	≤-17.95	PASS
		2462	Reference	1.82	1.82	---	PASS
			30~1000	1.82	-56.96	≤-18.18	PASS
			1000~26500	1.82	-52.04	≤-18.18	PASS
802.11n HT40	Ant1	2422	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-55.85	≤-20.59	PASS
			1000~26500	-0.59	-52.01	≤-20.59	PASS
		2437	Reference	-0.90	-0.90	---	PASS
			30~1000	-0.90	-56.16	≤-20.9	PASS
			1000~26500	-0.90	-52.26	≤-20.9	PASS
		2452	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-56.67	≤-21.07	PASS
			1000~26500	-1.07	-51.93	≤-21.07	PASS

802.11b mode:  
Channel 2412MHz  
Reference

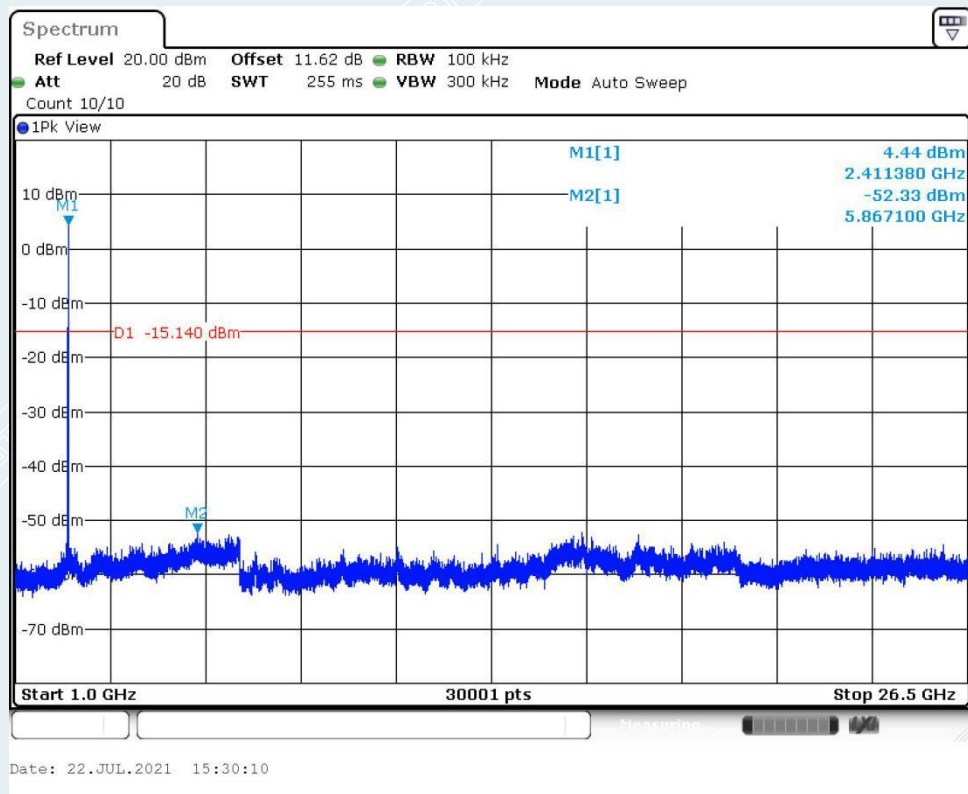


0.03GHz-1GHz

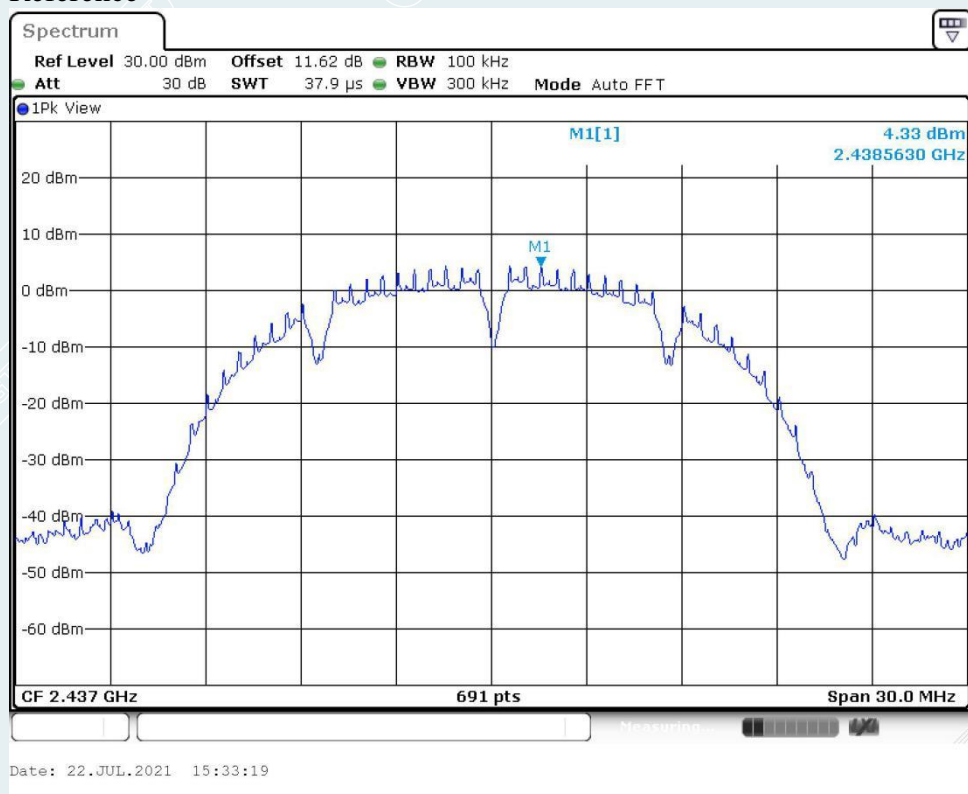




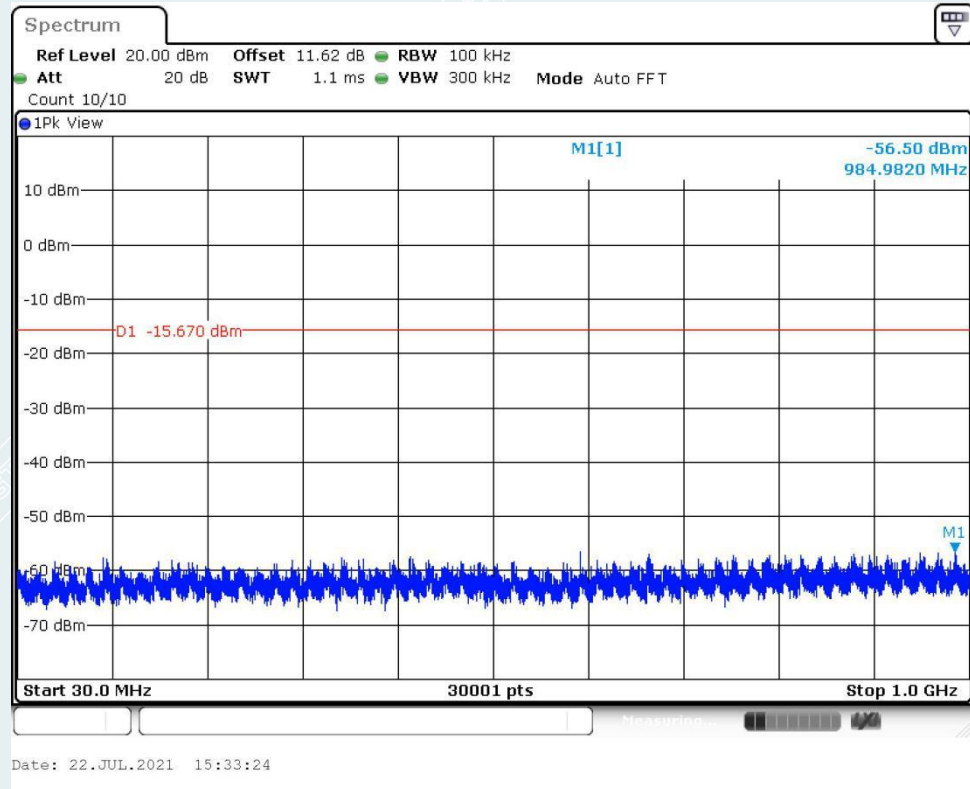
## 1GHz-26.5GHz



802.11b mode:  
Channel 2437MHz  
Reference



## 0.03GHz-1GHz



## 1GHz-26.5GHz

