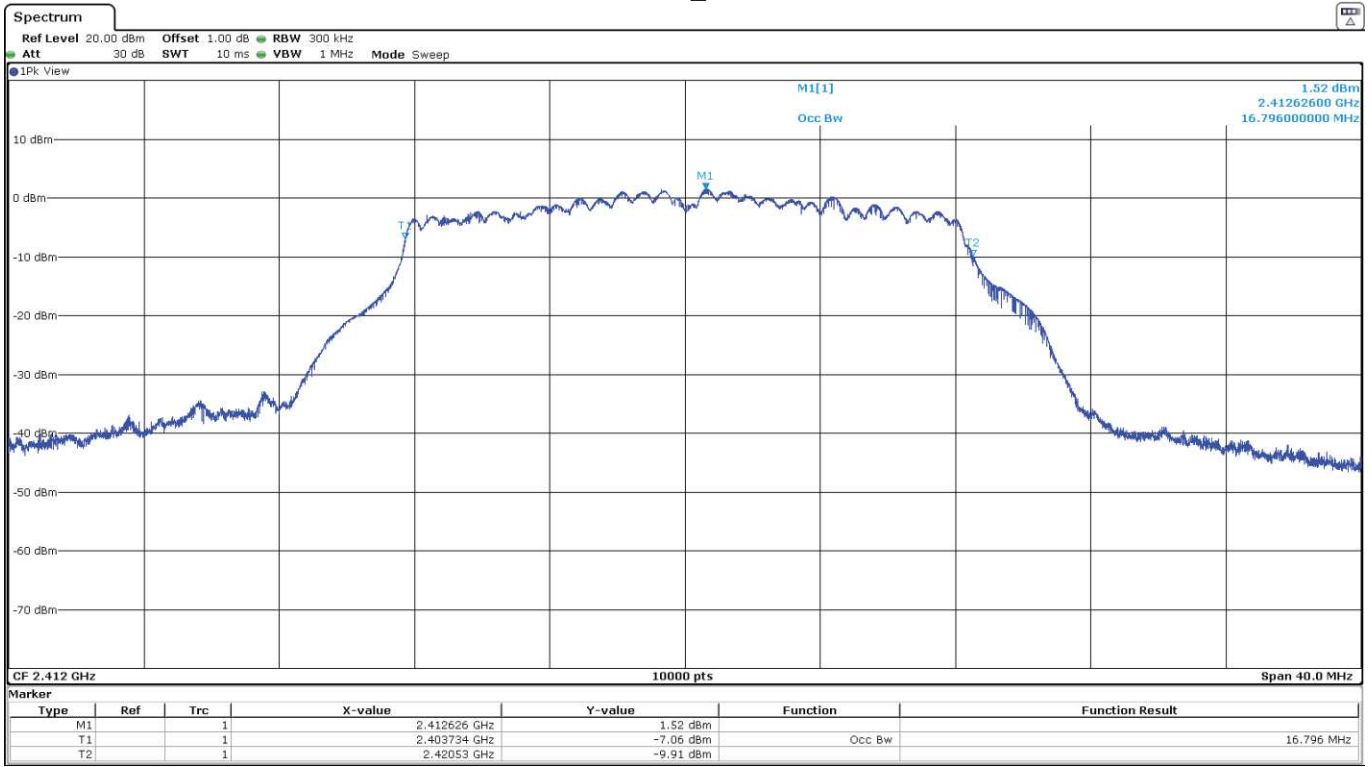


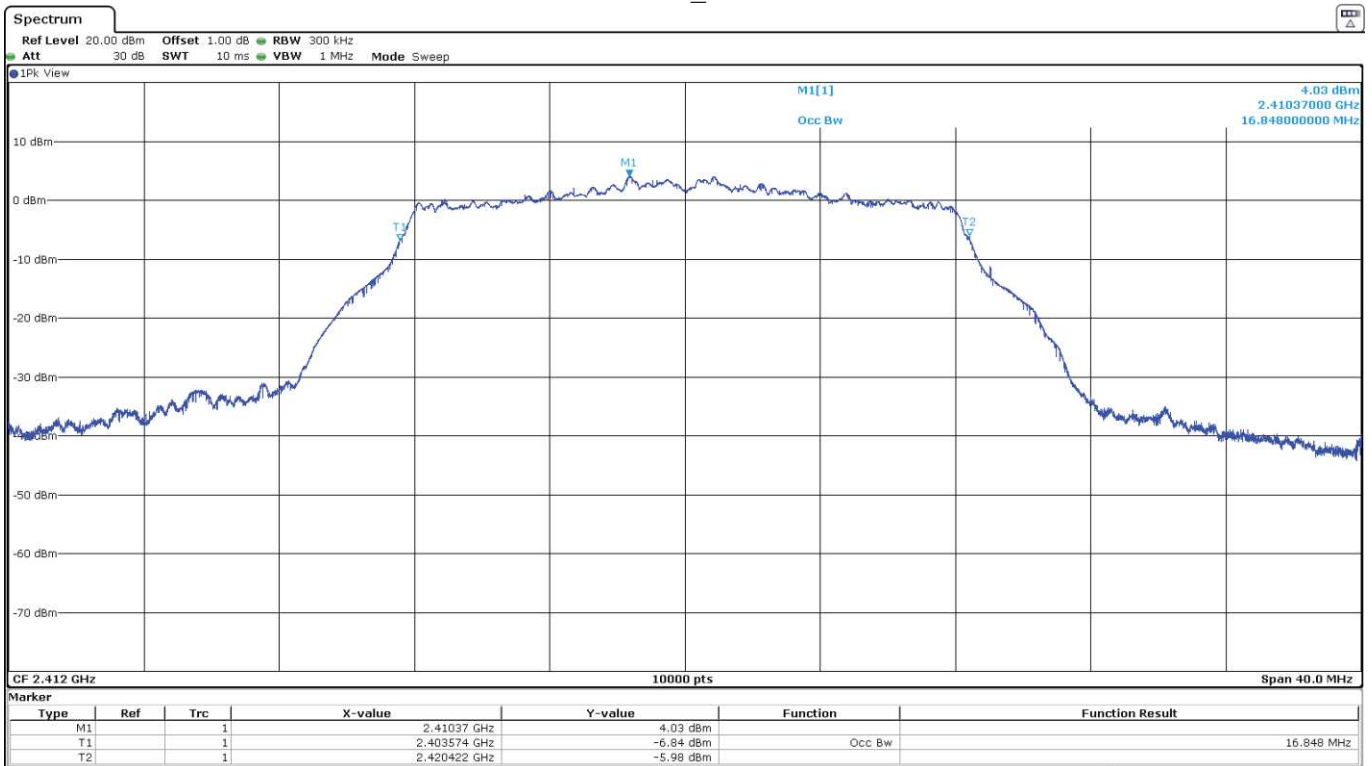
- **Mode 802.11 g – Occupied Bandwidth**

- Low Channel:

CORE1_Port4

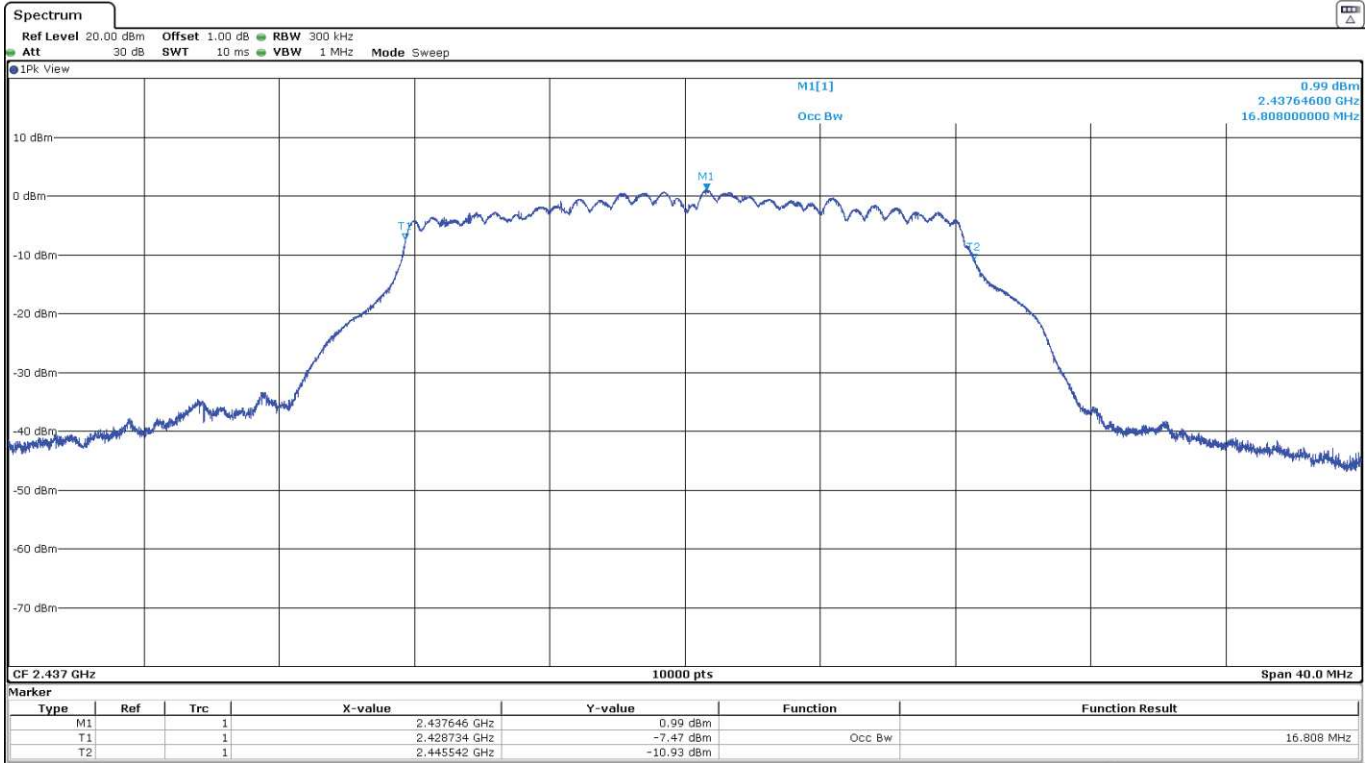


CORE0_Port2

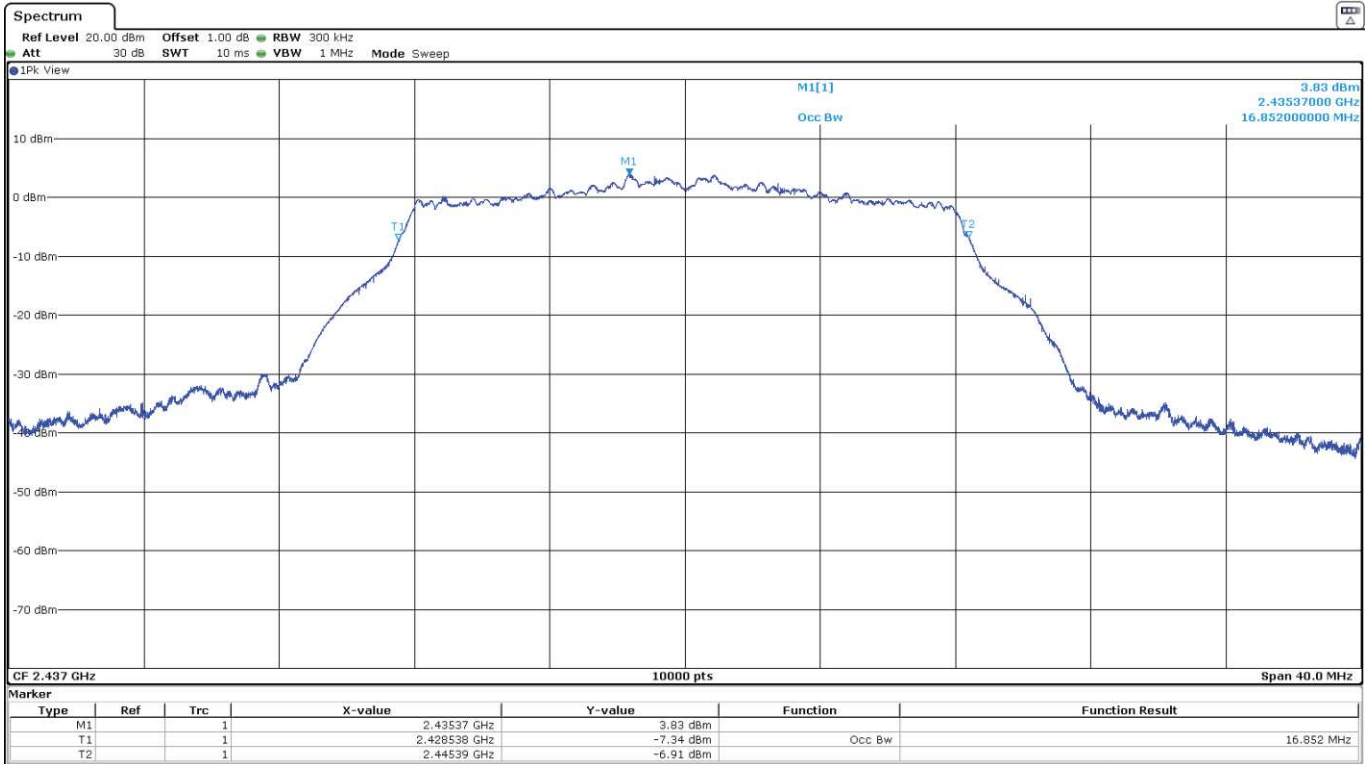


- Middle Channel:

CORE1_Port4

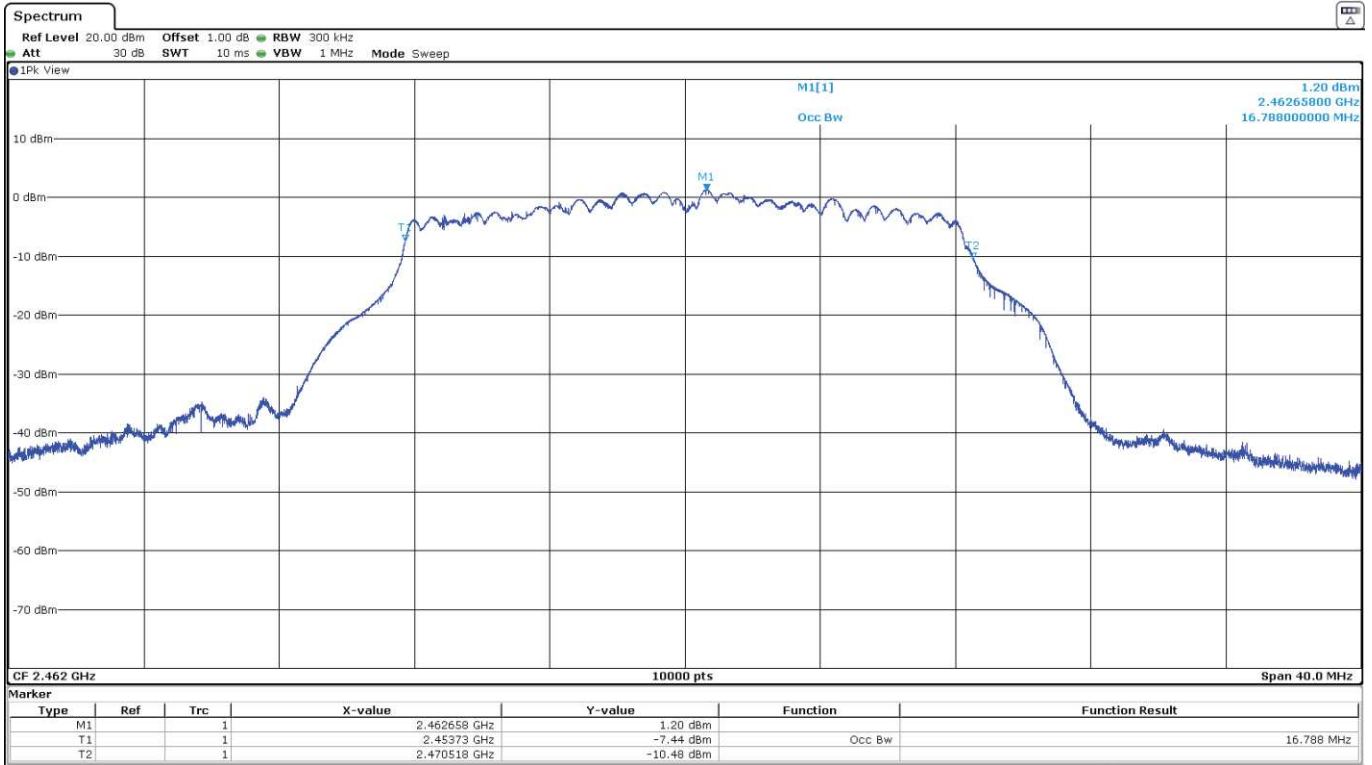


CORE0_Port2

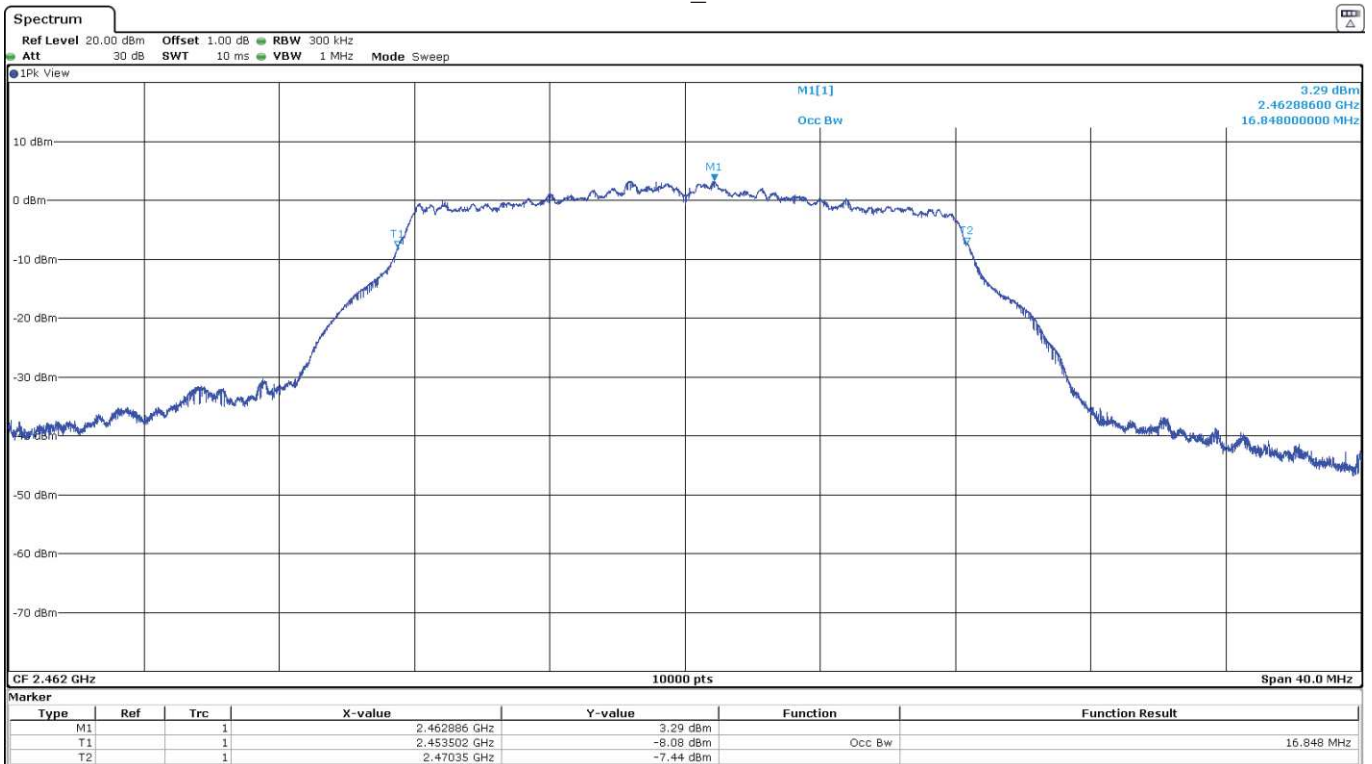


- High Channel:

CORE1_Port4



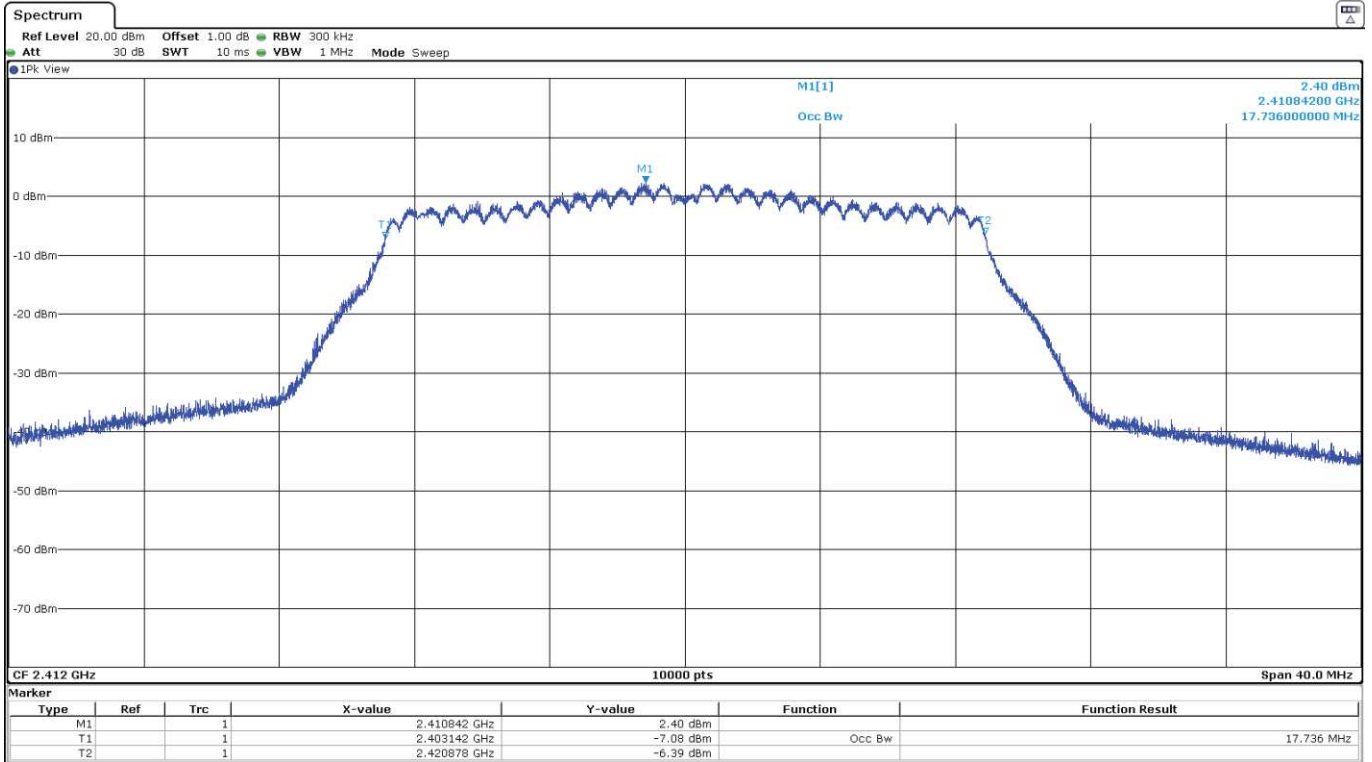
CORE0_Port2



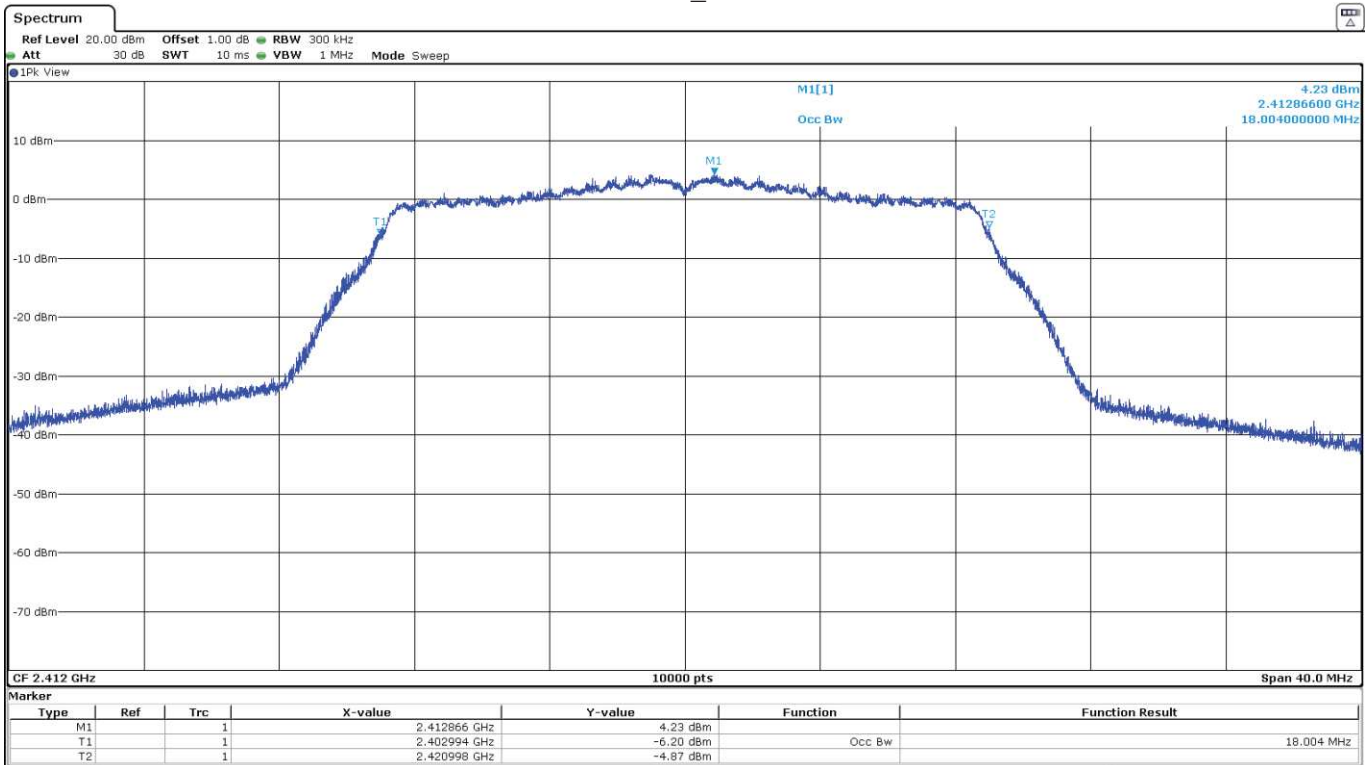
- **Mode 802.11 n20 – Occupied Bandwidth**

- Low Channel:

CORE1_Port4

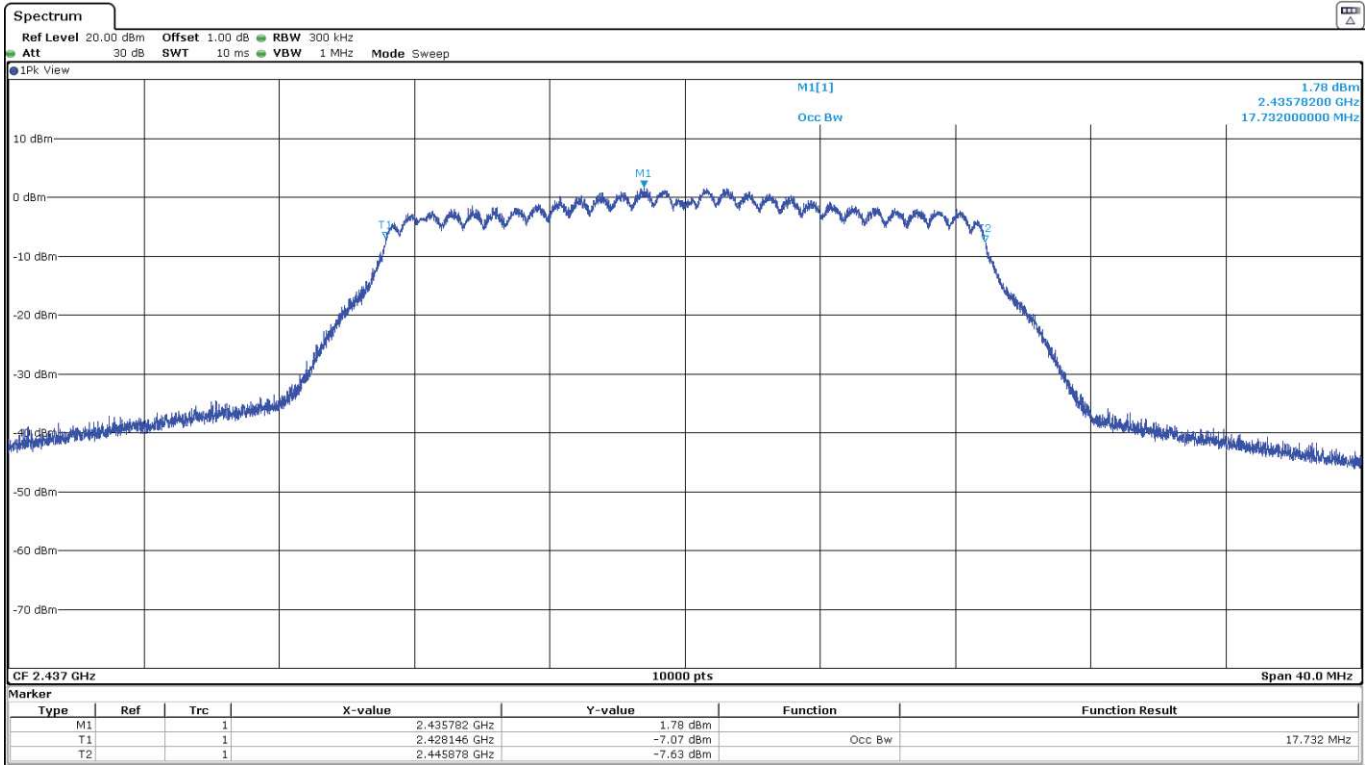


CORE0_Port2

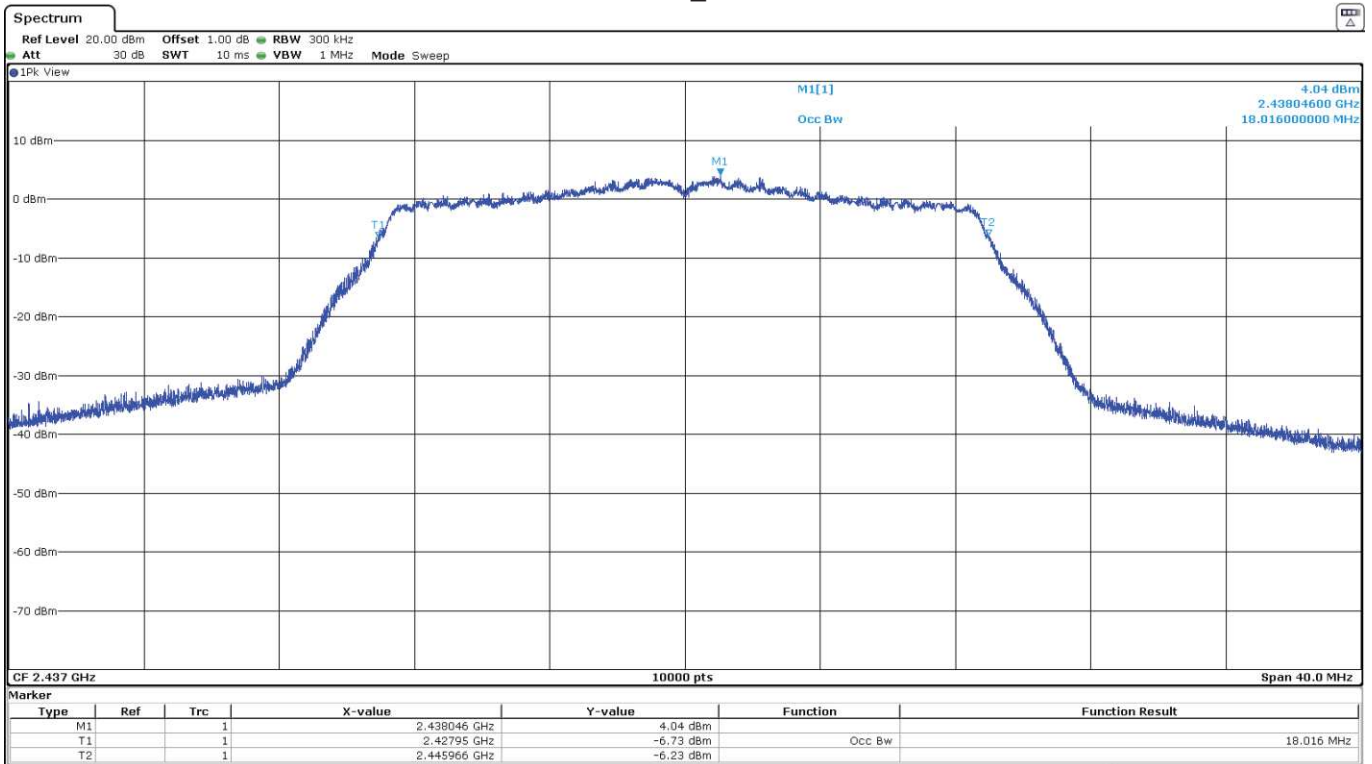


- Middle Channel:

CORE1_Port4

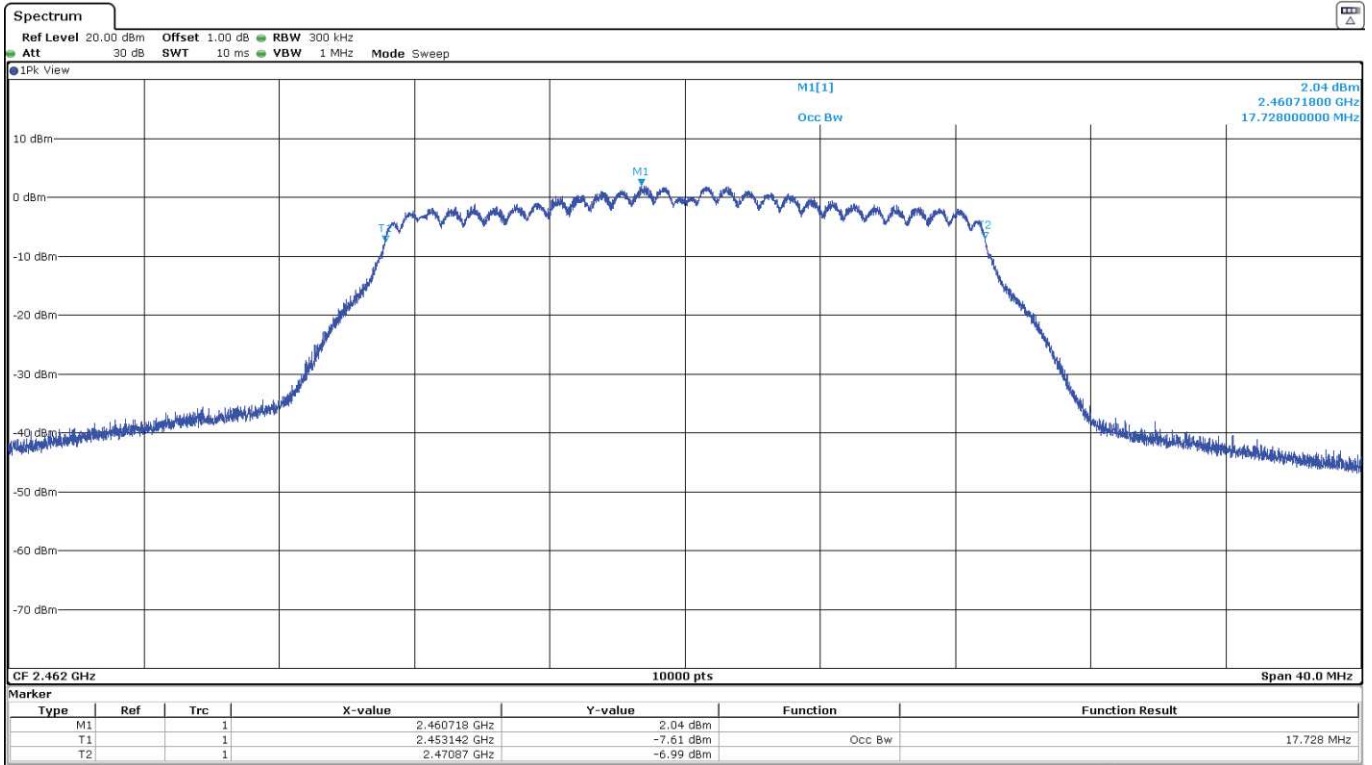


CORE0_Port2

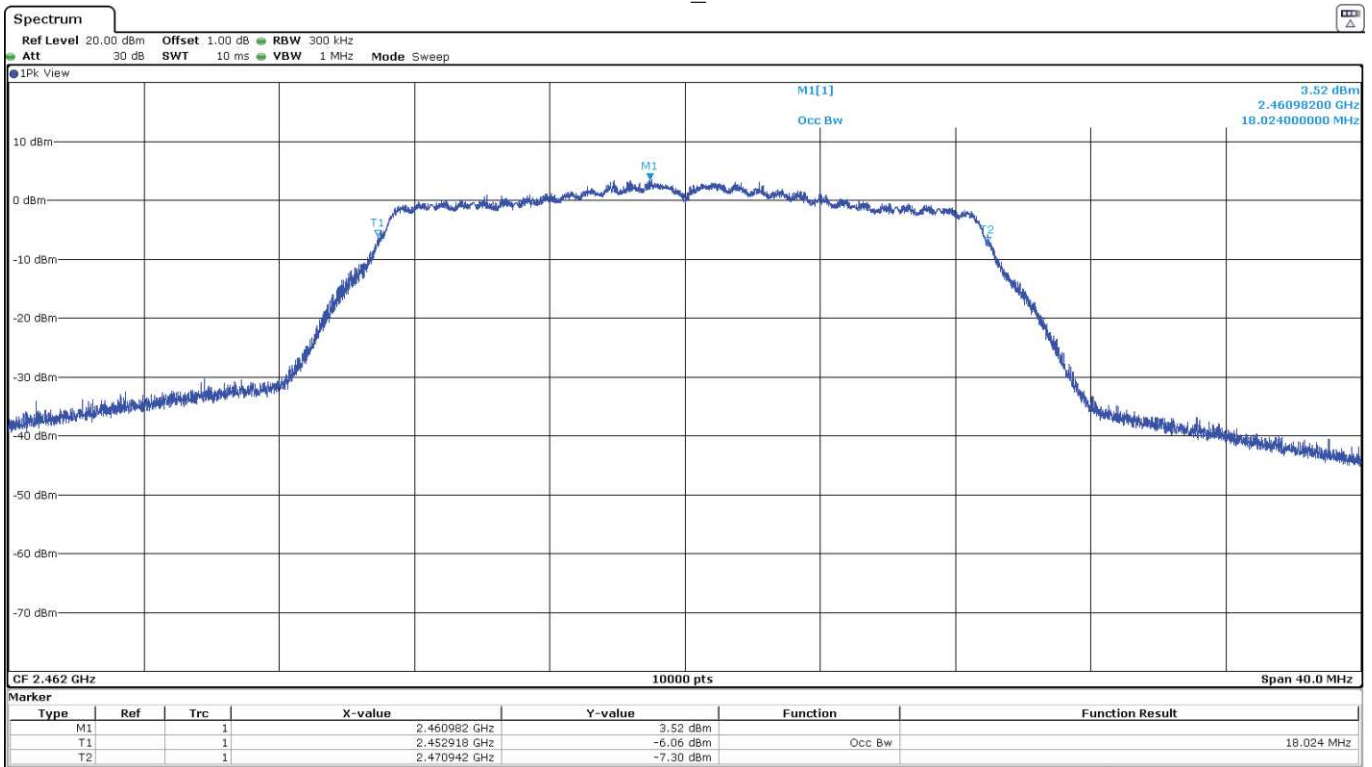


- High Channel:

CORE1_Port4



CORE0_Port2



FCC 15.35 (c) / RSS-Gen 6.10. Transmitter Duty Cycle

SPECIFICATION:

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

RESULTS:

The results below are for data rates with a duty cycle less than 98%. The results for all rest of modes having a value > 98%.

Technique	Mode	Antenna Port	Pulse Duration (ms)	Period (ms)	Duty Cycle Correction (dB)
SISO	802.11 b	CORE1_Port4	12.3377	12.9032	0.19
SISO	802.11 g	CORE1_Port4	2.0384	2.5709	1.01
SISO	802.11 n20	CORE1_Port4	1.9083	2.4207	1.03
SISO	802.11 b	CORE0_Port2	12.4215	12.937	0.18
SISO	802.11 g	CORE0_Port2	2.0379	2.5649	0.99
SISO	802.11 n20	CORE0_Port2	1.9061	2.4256	1.05
MIMO	802.11 b	CORE1_Port4	12.3687	12.9099	0.19
MIMO	802.11 b	CORE0_Port2	2.0406	2.5695	1.00
MIMO	802.11 g	CORE1_Port4	1.9053	2.4275	1.05
MIMO	802.11 g	CORE0_Port2	12.458	12.9437	0.17
MIMO	802.11 n20	CORE1_Port4	2.0438	2.5655	0.99
MIMO	802.11 n20	CORE0_Port2	1.9037	2.4253	1.05

FCC 15.247 (b) / RSS-247 5.4 (d) Maximum peak output power and antenna gain

SPECIFICATION:

For systems using digital modulation in the 2400-2483.5 MHz band: 1 watt (30 dBm).
 The e.i.r.p. shall not exceed 4 W (36 dBm) (Canada).

RESULTS:

For SISO and MIMO modes b, g and n20, the maximum conducted output power was measured using the method according to point 11.9.2.2.4 “Method AVGSA-2” of ANSI C.63.10-2013.

The EIRP power (dBm) is calculated by adding the maximum declared antenna gain to the measured conducted power.

SISO case CORE1_Port4 Antenna and SISO case CORE0_Port2.
 MIMO case CORE1_Port4 Antenna & CORE0_Port2 Antenna.

Maximum Declared Antenna Gain:

CORE1_Port4:	+2.4 dBi
CORE0_Port2:	-0.3 dBi

The maximum directional gain of the antenna is less than 6 dBi and therefore the maximum output power is not required to be reduced from the stated values.

In the measure-and-sum approach for MIMO mode, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in linear power units (mW—not dBm).

SISO – CORE1_Port4 Antenna:

- **Mode 802.11 b**

	Low Channel	Middle Channel	High Channel
Maximum Average Conducted Power (dBm)	9.78	9.93	10.32
Duty Cycle Correction (dB)	0.19		
Max. conducted power corrected (dBm)	9.97	10.12	10.51
Maximum EIRP Power with Duty Cycle Correction (dBm)	12.37	12.52	12.91
Measurement uncertainty (dB)	<±2.57		

- **Mode 802.11 g**

	Low Channel	Middle Channel	High Channel
Maximum Average Conducted Power (dBm)	9.26	9.48	10.12
Duty Cycle Correction (dB)	1.01		
Max. conducted power corrected (dBm)	11.16	10.49	11.13
Maximum EIRP Power with Duty Cycle Correction (dBm)	13.56	12.89	13.53
Measurement uncertainty (dB)	<±2.57		

- **Mode 802.11 n20**

	Low Channel	Middle Channel	High Channel
Maximum Average Conducted Power (dBm)	9.03	9.27	9.88
Duty Cycle Correction (dB)	1.03		
Max. conducted power corrected (dBm)	10.06	10.30	10.91
Maximum EIRP Power with Duty Cycle Correction (dBm)	12.46	12.70	13.31
Measurement uncertainty (dB)	<±2.57		

Verdict: PASS

SISO – CORE0_Port2 Antenna:

- **Mode 802.11 b**

	Low Channel	Middle Channel	High Channel
Maximum Average Conducted Power (dBm)	12.89	12.71	12.06
Duty Cycle Correction (dB)	0.18		
Max. conducted power corrected (dBm)	13.07	12.89	12.24
Maximum EIRP Power with Duty Cycle Correction (dBm)	12.77	12.59	11.94
Measurement uncertainty (dB)	<±2.57		

- **Mode 802.11 g**

	Low Channel	Middle Channel	High Channel
Maximum Average Conducted Power (dBm)	12.30	12.08	11.59
Duty Cycle Correction (dB)	0.99		
Max. conducted power corrected (dBm)	13.30	13.08	12.59
Maximum EIRP Power with Duty Cycle Correction (dBm)	13	12.78	12.29
Measurement uncertainty (dB)	<±2.57		

- **Mode 802.11 n20**

	Low Channel	Middle Channel	High Channel
Maximum Average Conducted Power (dBm)	12.03	11.89	11.38
Duty Cycle Correction (dB)	1.05		
Max. conducted power corrected (dBm)	13.08	12.94	12.13
Maximum EIRP Power with Duty Cycle Correction (dBm)	12.78	12.64	12.13
Measurement uncertainty (dB)	<±2.57		

Verdict: PASS

MIMO – CORE1_Port4 Antenna & CORE1_Port1 Antenna:

- **Mode 802.11 b**

Gain MIMO mode (CORE1_Port4 & CORE0_Port2) = +4.16 dBi

	Low Channel		Middle Channel		High Channel	
	CORE1_Port4	CORE0_Port2	CORE1_Port4	CORE0_Port2	CORE1_Port4	CORE0_Port2
Maximum Average Conducted Power (dBm)	8	11.18	7.67	10.46	8	10.16
Maximum Average Conducted Power corrected (dBm)	8.19	11.35	7.86	10.63	8.19	10.33
	CORE1_Port4 + CORE0_Port2		CORE1_Port4 + CORE0_Port2		CORE1_Port4 + CORE0_Port2	
Maximum Conducted Power (dBm)	13.06		12.47		12.40	
Maximum EIRP Power (dBm)	17.22		16.63		16.56	
Measurement uncertainty (dB)	<±2.574					

- **Mode 802.11 g**

Gain MIMO mode (CORE1_Port4 & CORE0_Port2) = +4.16 dBi

	Low Channel		Middle Channel		High Channel	
	CORE1_Port4	CORE0_Port2	CORE1_Port4	CORE0_Port2	CORE1_Port4	CORE0_Port2
Maximum Average Conducted Power (dBm)	7.3	9.93	6.88	9.54	6.98	9.32
Maximum Average Conducted Power corrected (dBm)	8.30	10.92	7.88	10.53	7.98	10.31
	CORE1_Port4 + CORE0_Port2		CORE1_Port4 + CORE0_Port2		CORE1_Port4 + CORE0_Port2	
Maximum Conducted Power (dBm)	12.81		12.41		12.31	
Maximum EIRP Power (dBm)	16.97		16.57		16.47	
Measurement uncertainty (dB)	<±2.574					