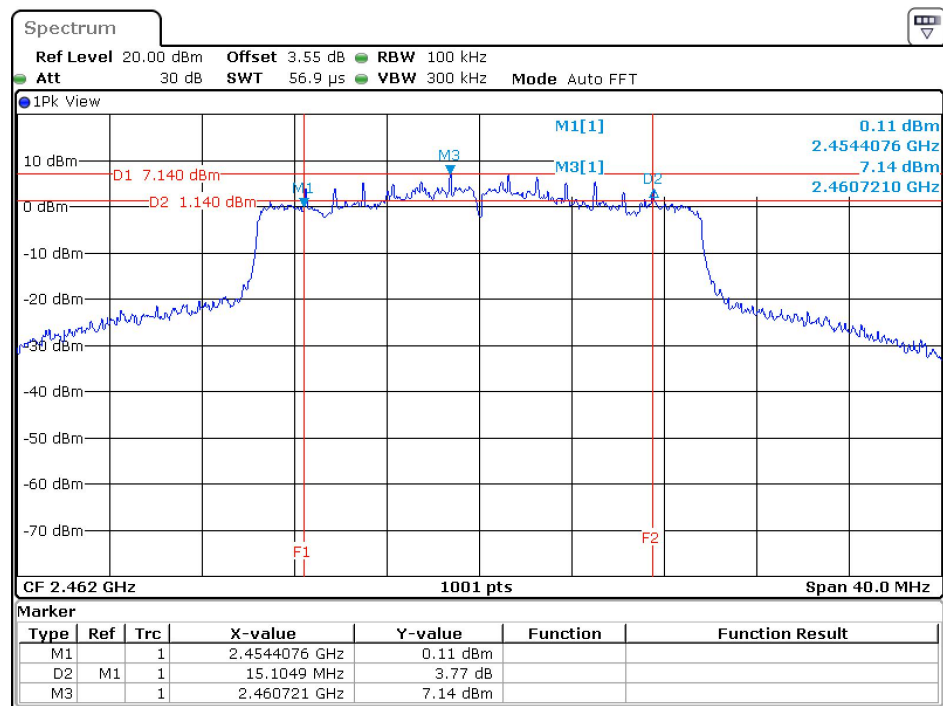


Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : 6dB Bandwidth Data
 Test Mode : Transmit (802.11ax-20 MHz)

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	A	18222	>500	Pass
06	2437	A	16783	>500	Pass
11	2462	A	15145	>500	Pass
01	2412	B	16983	>500	Pass
06	2437	B	18781	>500	Pass
11	2462	B	15105	>500	Pass

Channel 11 (Chain B)

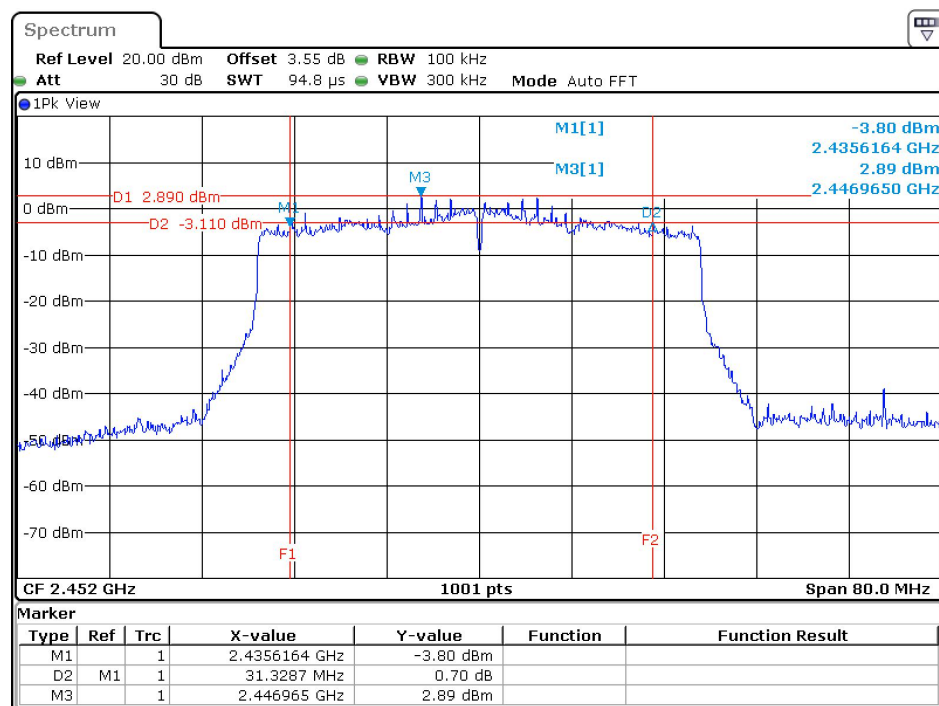


Date: 15.SEP.2023 19:45:24

Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : 6dB Bandwidth Data
 Test Mode : Transmit (802.11ax-40 MHz)

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	A	18222	>500	Pass
06	2437	A	16783	>500	Pass
09	2452	A	15145	>500	Pass
03	2422	B	16983	>500	Pass
06	2437	B	18781	>500	Pass
09	2452	B	15105	>500	Pass

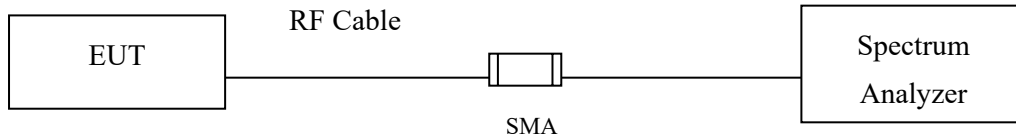
Channel 09 (Chain B)



Date: 15.SEP.2023 20:04:19

8. Power Density

8.1. Test Setup



8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3 kHz bandwidth.

The maximum power density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For CDD mode:

2400MHz: Directional gain = 6.09 dBi, Limit= 7.91 dBm

Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ dBi

8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

The maximum power spectral density using C63.10 Section 11.10.2 Method PKPSD (peak PSD)

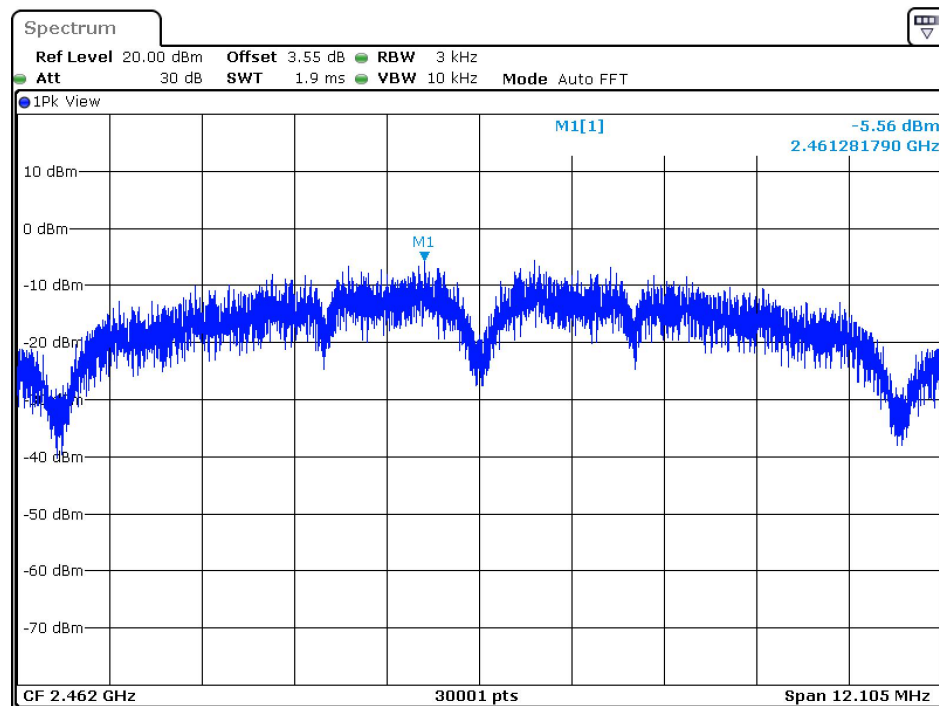
8.4. Test Result of Power Density

Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : Power Density Data
 Test Mode : Transmit (802.11b)

Channel No.	Frequency (MHz)	Chain	PPSD (dBm)	10*log(2) (dB)	Total PPSSD (dBm)	Limit (dBm)	Result
01	2412	A	-6.27	3.01	-3.26	7.91	Pass
		B	-6.01	3.01	-3.00		
06	2437	A	-6.66	3.01	-3.65	7.91	Pass
		B	-6.43	3.01	-3.42		
11	2462	A	-5.78	3.01	-2.77	7.91	Pass
		B	-5.56	3.01	-2.55		

Note: The quantity 10*log(2) (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 11 (Chain B)



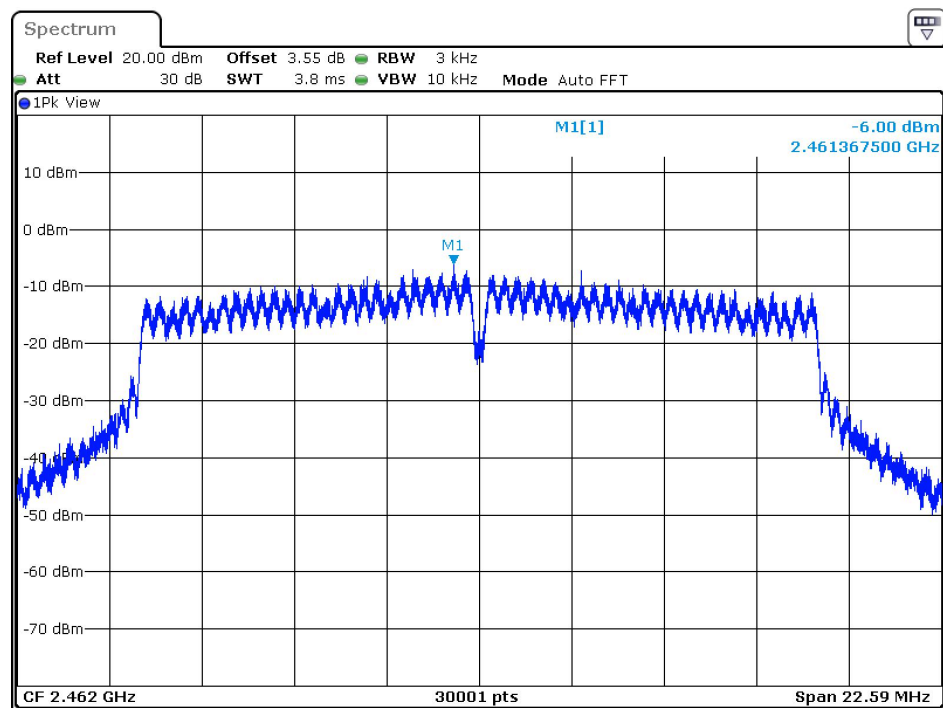
Date: 15.SEP.2023 19:09:55

Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : Power Density Data
 Test Mode : Transmit (802.11g)

Channel No.	Frequency (MHz)	Chain	PPSD (dBm)	10*log(2) (dB)	Total PPSSD (dBm)	Limit (dBm)	Result
01	2412	A	-6.98	3.01	-3.97	7.91	Pass
		B	-6.38	3.01	-3.37		
06	2437	A	-7.04	3.01	-4.03	7.91	Pass
		B	-6.25	3.01	-3.24		
11	2462	A	-7.54	3.01	-4.53	7.91	Pass
		B	-6.00	3.01	-2.99		

Note: The quantity 10*log(2) (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 11 (Chain B)



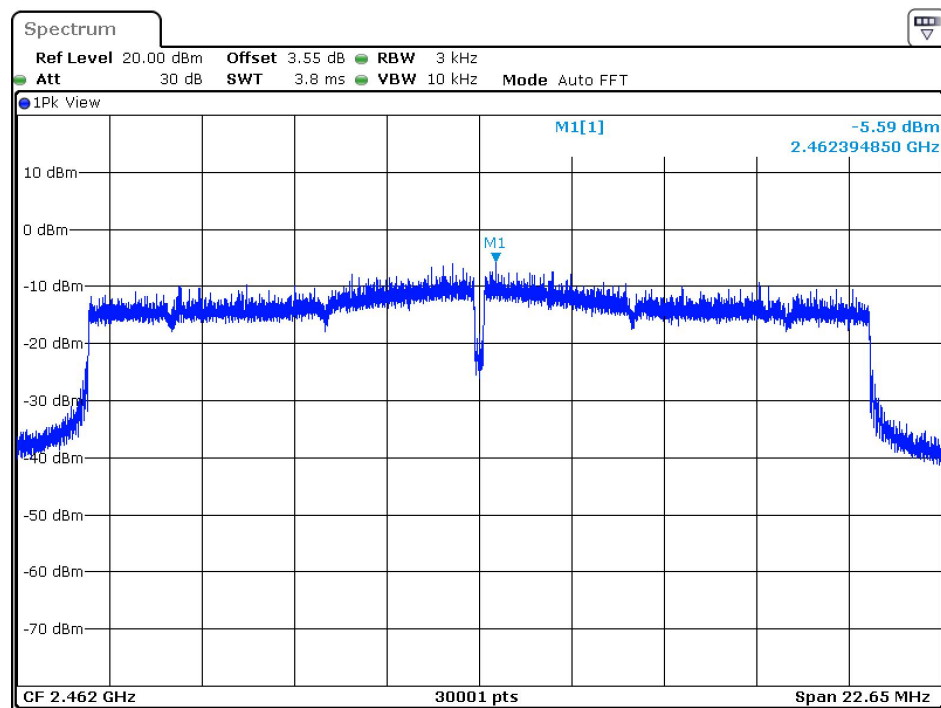
Date: 15.SEP.2023 19:22:25

Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : Power Density Data
 Test Mode : Transmit (802.11ax-20 MHz)

Channel No.	Frequency (MHz)	Chain	PPSD (dBm)	10*log(2) (dB)	Total PPSSD (dBm)	Limit (dBm)	Result
01	2412	A	-6.44	3.01	-3.43	7.91	Pass
		B	-6.69	3.01	-3.68		
06	2437	A	-5.93	3.01	-2.92	7.91	Pass
		B	-6.43	3.01	-3.42		
11	2462	A	-6.60	3.01	-3.59	7.91	Pass
		B	-5.59	3.01	-2.58		

Note: The quantity 10*log(2) (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 11 (Chain B)



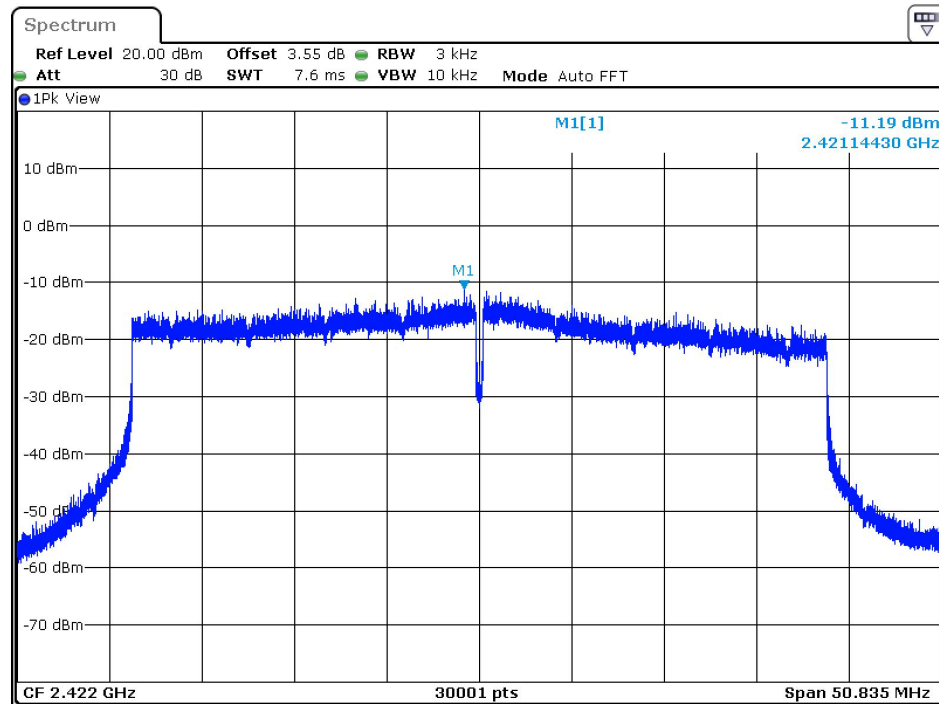
Date: 15.SEP.2023 19:45:42

Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : Power Density Data
 Test Mode : Transmit (802.11ax-40 MHz)

Channel No.	Frequency (MHz)	Chain	PPSD (dBm)	10*log(2) (dB)	Total PPSD (dBm)	Limit (dBm)	Result
03	2422	A	-11.19	3.01	-8.18	7.91	Pass
		B	-12.02	3.01	-9.01		
06	2437	A	-11.92	3.01	-8.91	7.91	Pass
		B	-11.84	3.01	-8.83		
09	2452	A	-11.68	3.01	-8.67	7.91	Pass
		B	-12.02	3.01	-9.01		

Note: The quantity 10*log(2) (two antennas) is added to the spectrum peak value according to document 662911 D01.

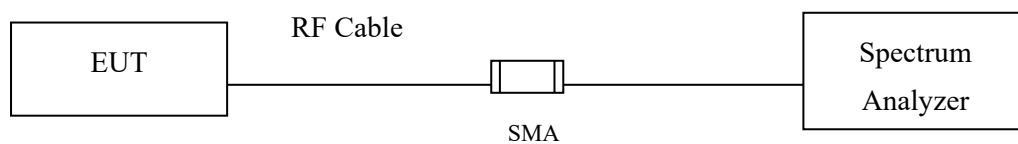
Channel 03 (Chain A)



Date: 15.SEP.2023 19:50:43

9. Duty Cycle

9.1. Test Setup



9.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to ANSI C63.10 2013 for compliance to FCC 47CFR 15.247 requirements.

9.3. Test Result of Duty Cycle

Product : Set Back Box with Wi-Fi6E, BT & PoE
 Test Item : Duty Cycle
 Test Mode : Transmit

Duty Cycle Formula:

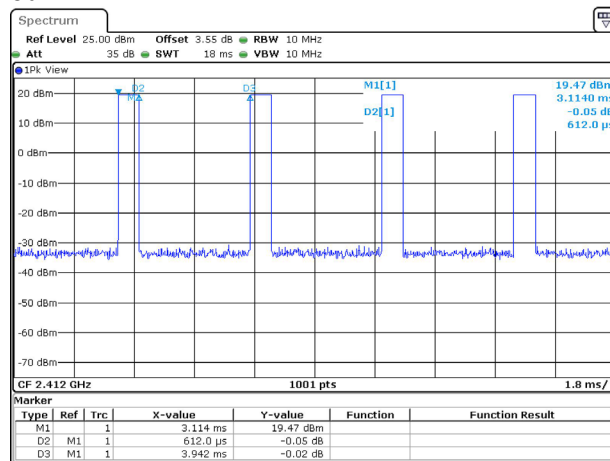
$$\text{Duty Cycle} = \text{Ton} / (\text{Ton} + \text{Toff})$$

$$\text{Duty Factor} = 10 \log (1/\text{Duty Cycle})$$

Results:

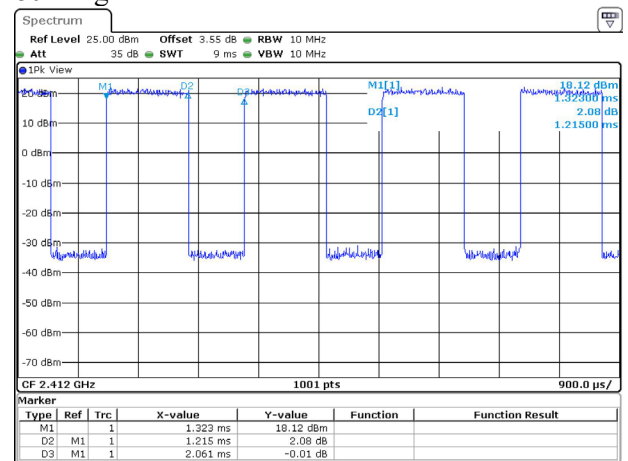
2.4 GHz band	Time On (ms)	Time On + Time Off (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11b	0.6120	3.9420	15.53	8.09
802.11g	1.2150	2.0610	58.95	2.30
802.11ax-20 MHz	5.4000	6.3600	84.91	0.71
802.11ax-40 MHz	4.0800	4.5600	89.47	0.48

802.11b



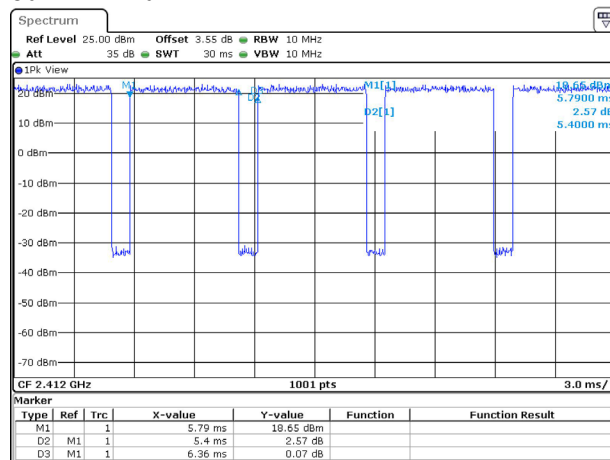
Date: 15.SEP.2023 18:55:25

802.11g



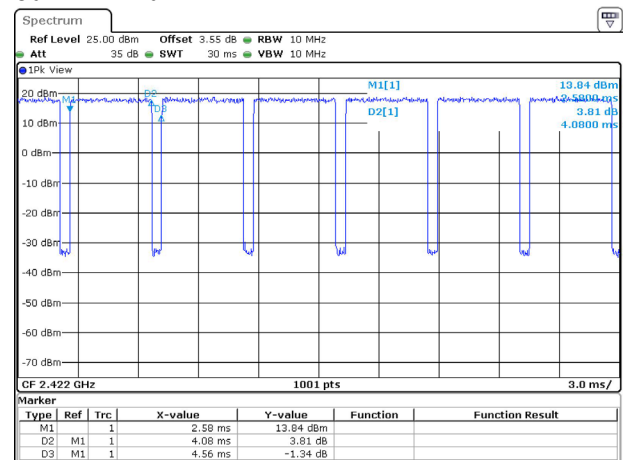
Date: 15.SEP.2023 19:13:40

802.11ax-20 MHz



Date: 15.SEP.2023 19:26:19

802.11ax-40 MHz



Date: 15.SEP.2023 19:47:33