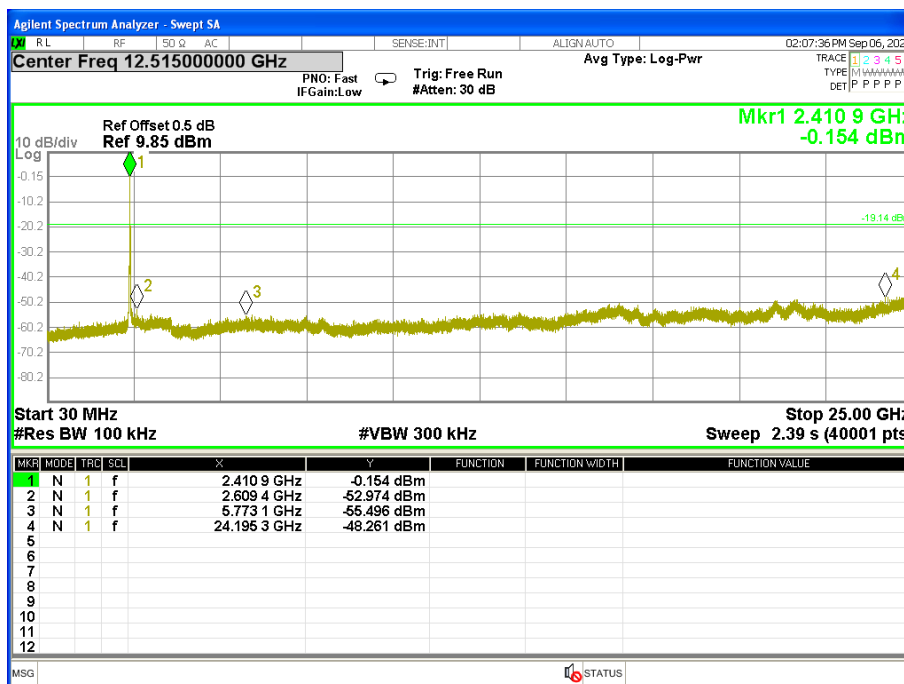




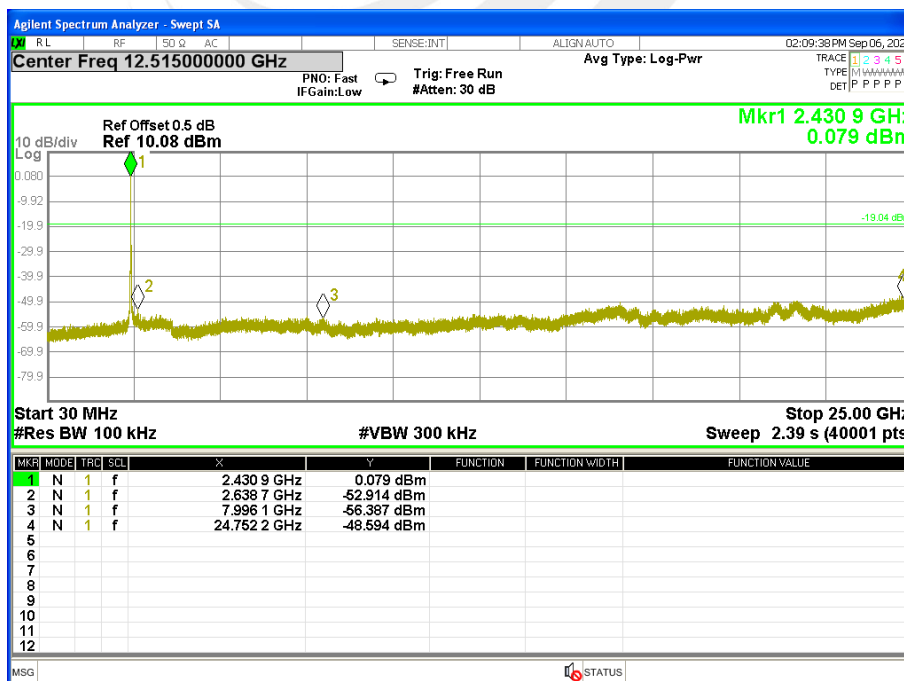
Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

ANT A

CH 01

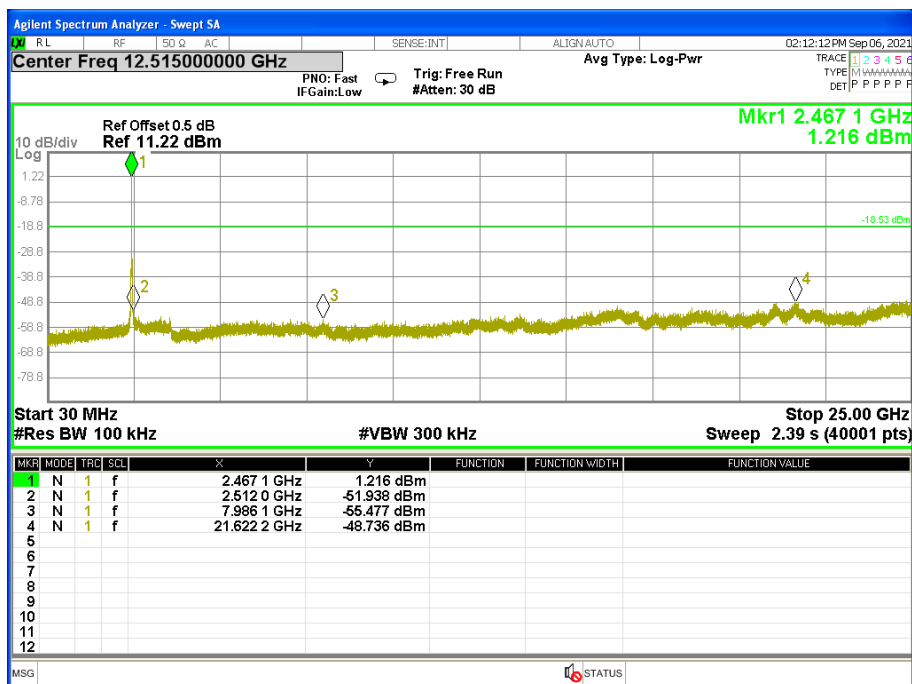


CH 06





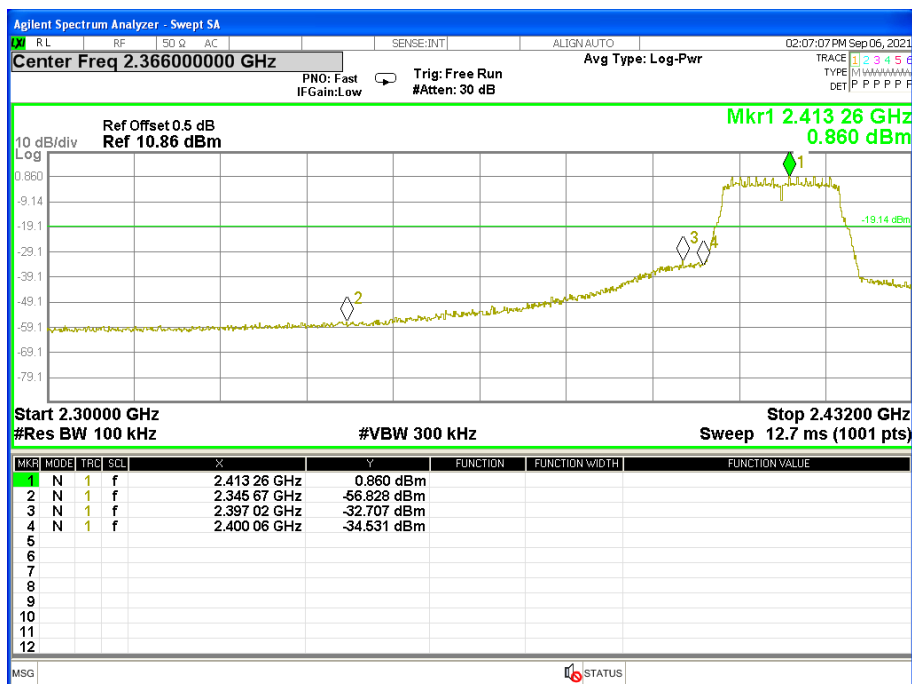
CH 11



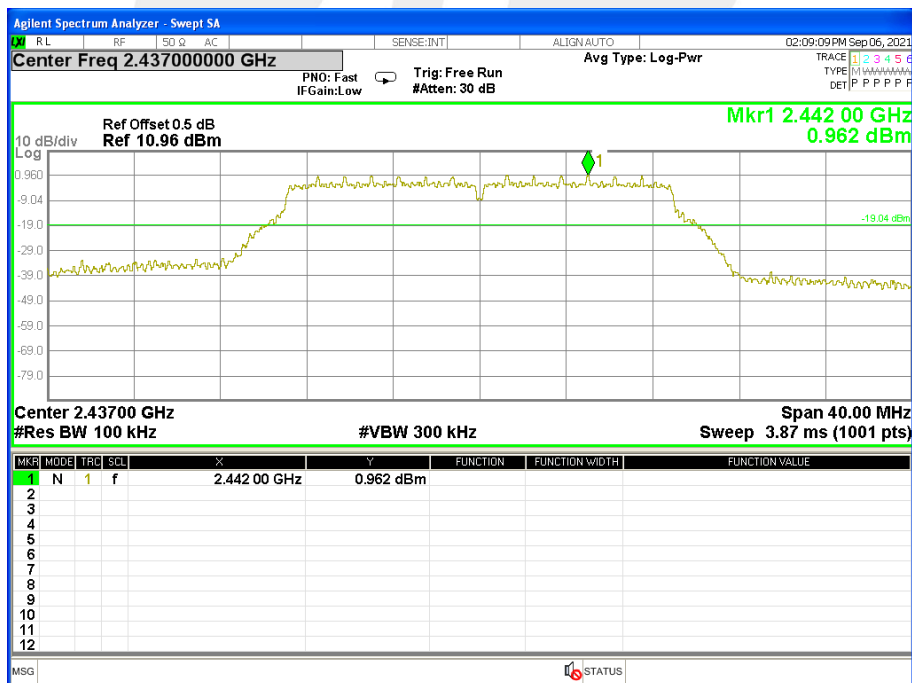


Band edge(it's also the reference level for conducted spurious emission)

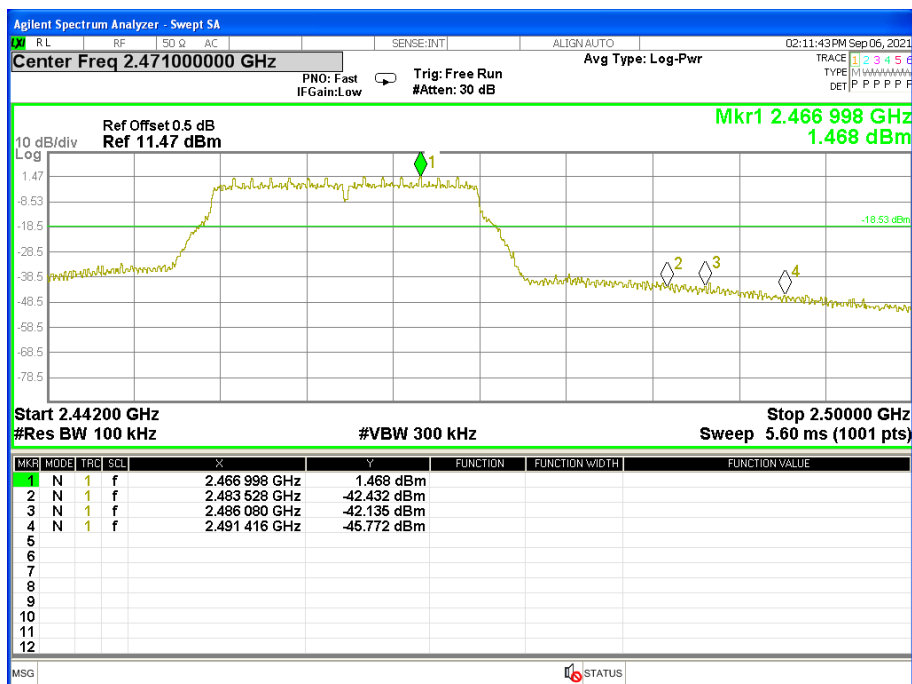
CH 01



CH 06



CH 11

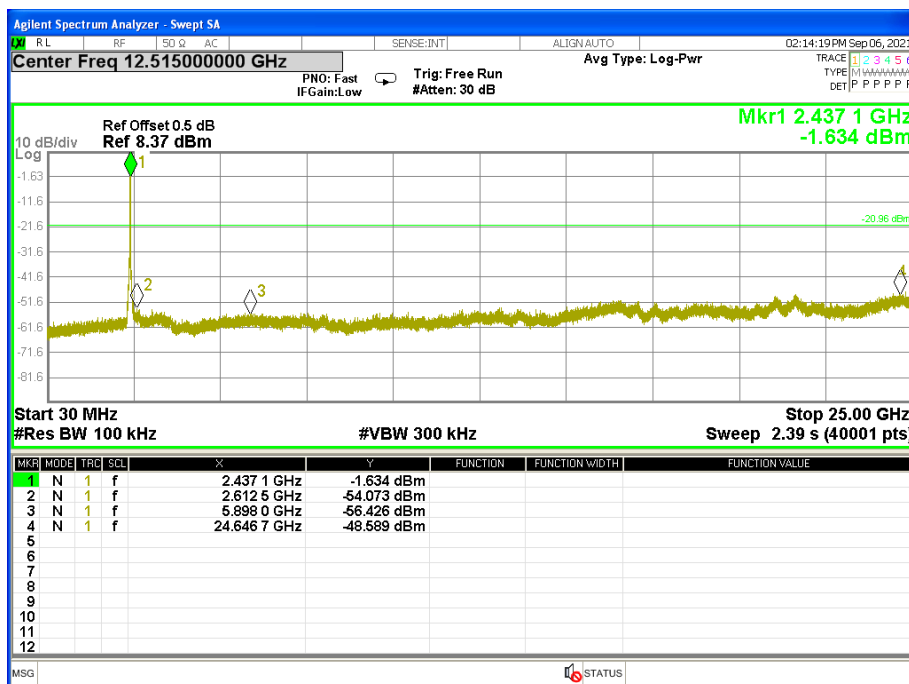




Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX n Mode(40M) /CH03, CH06, CH09

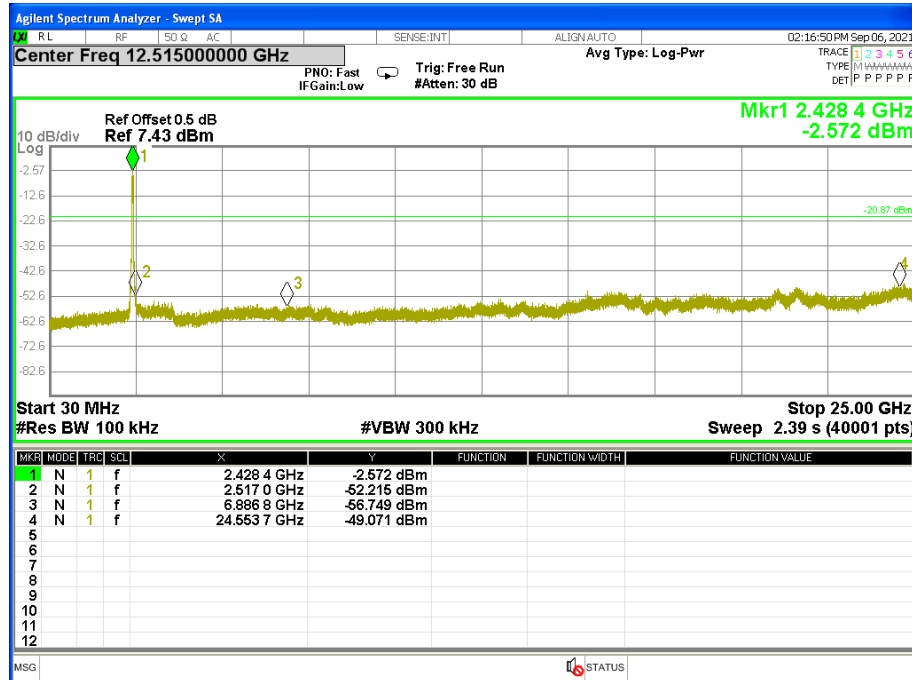
ANT A

CH 03

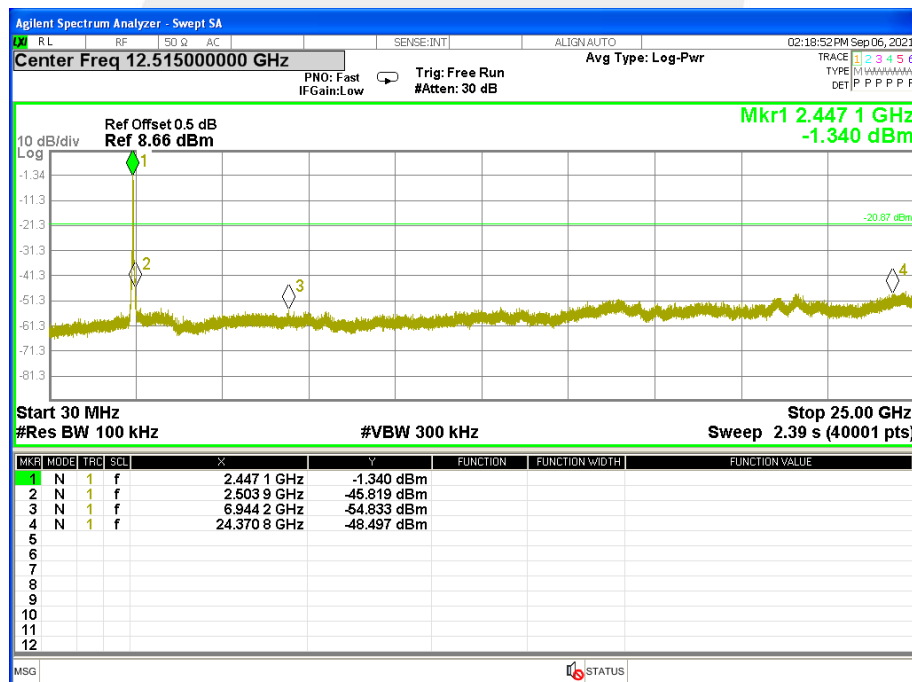




CH06



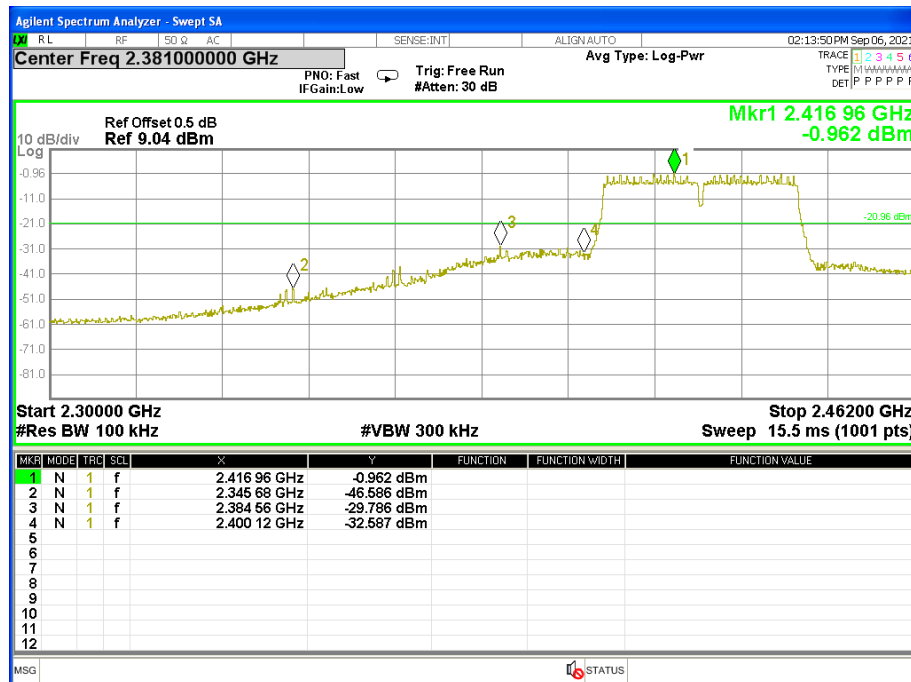
CH09



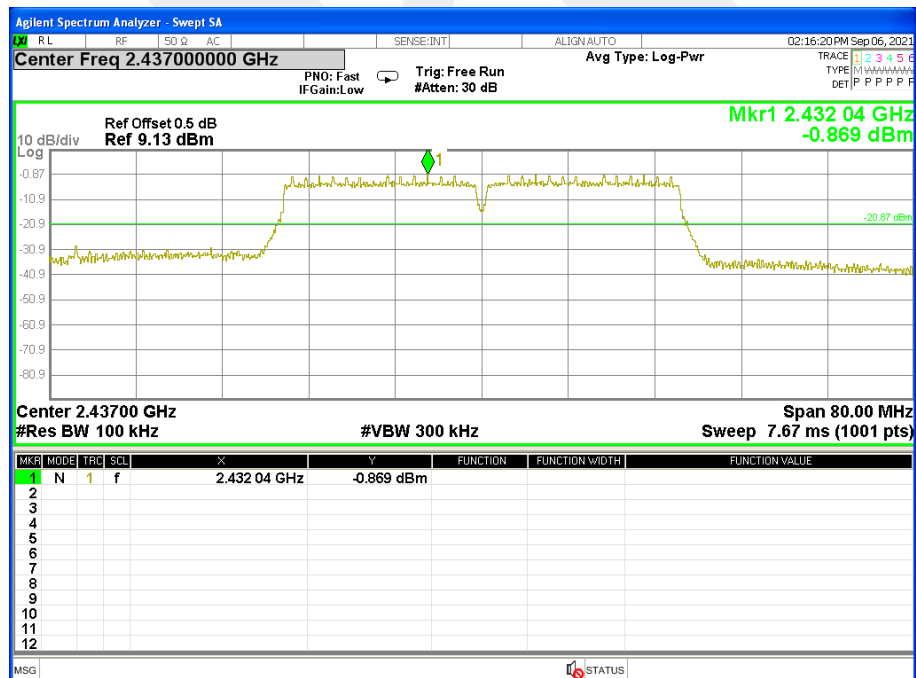


Band edge(it's also the reference level for conducted spurious emission)

CH03

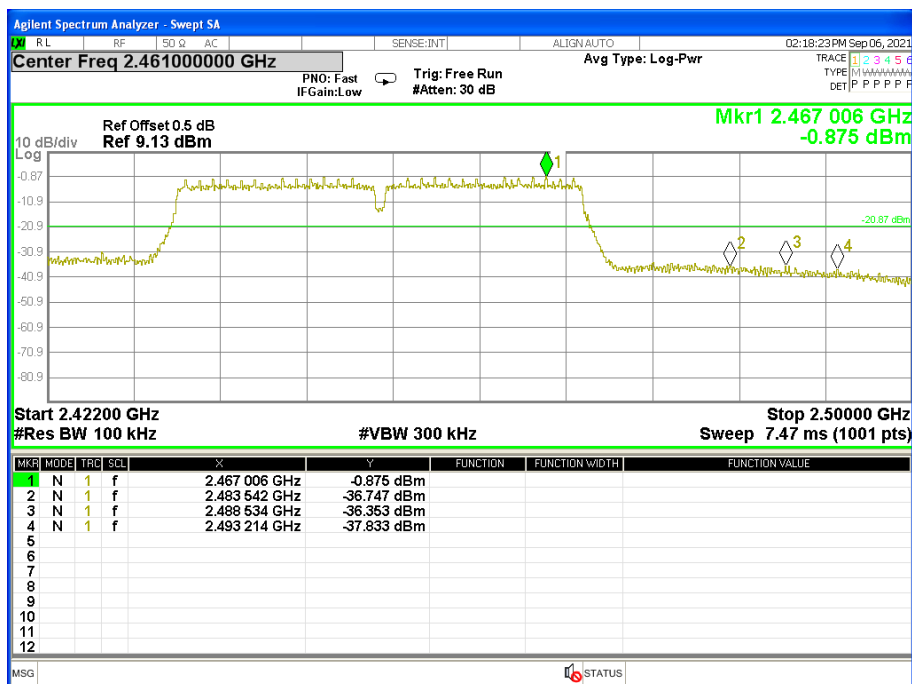


CH 06





CH 09





5. POWER SPECTRAL DENSITY TEST

5.1 LIMIT

FCC Part15.247 , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	≤ 8 dBm (RBW ≥ 3 KHz)	2400-2483.5	PASS

5.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the $100 \text{ kHz} \geq \text{RBW} \geq 3 \text{ kHz}$.
4. Set the $\text{VBW} \geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.



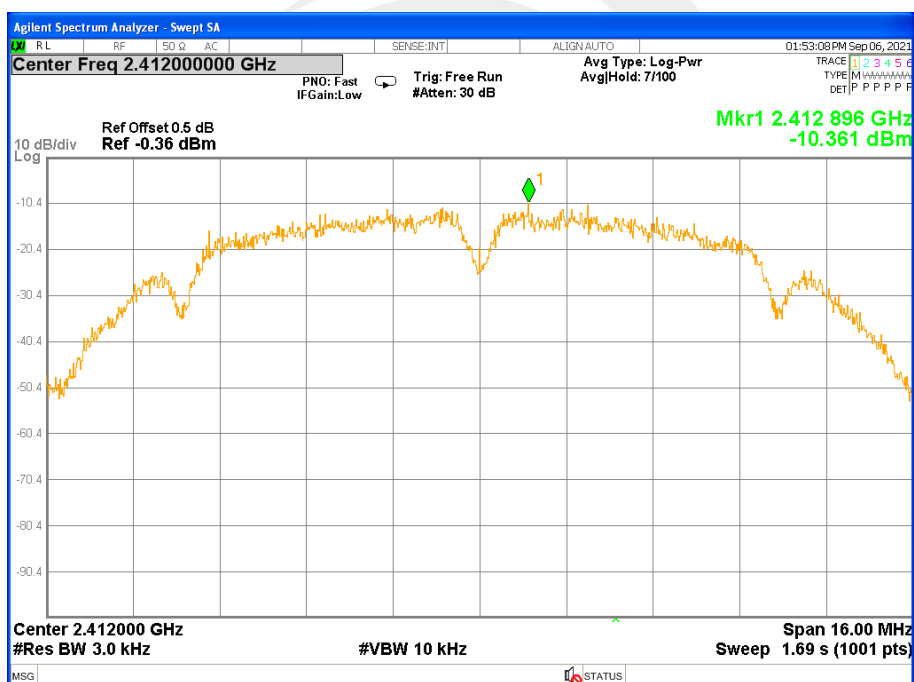
5.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX b Mode /CH01, CH06, CH11

Frequency	Power Density			Limit	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)	(dBm/3KHz)	
2412	-10.36	-11.20	--	8	PASS
2437	-10.12	-11.59	--	8	PASS
2462	-10.54	-9.66	--	8	PASS

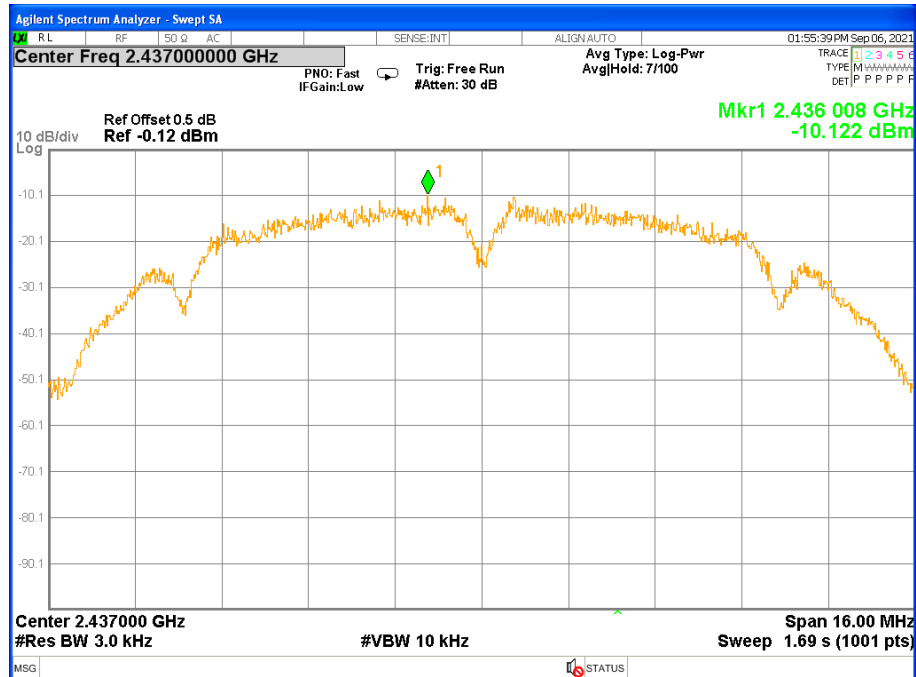
Test plots for Ant A

TX CH01

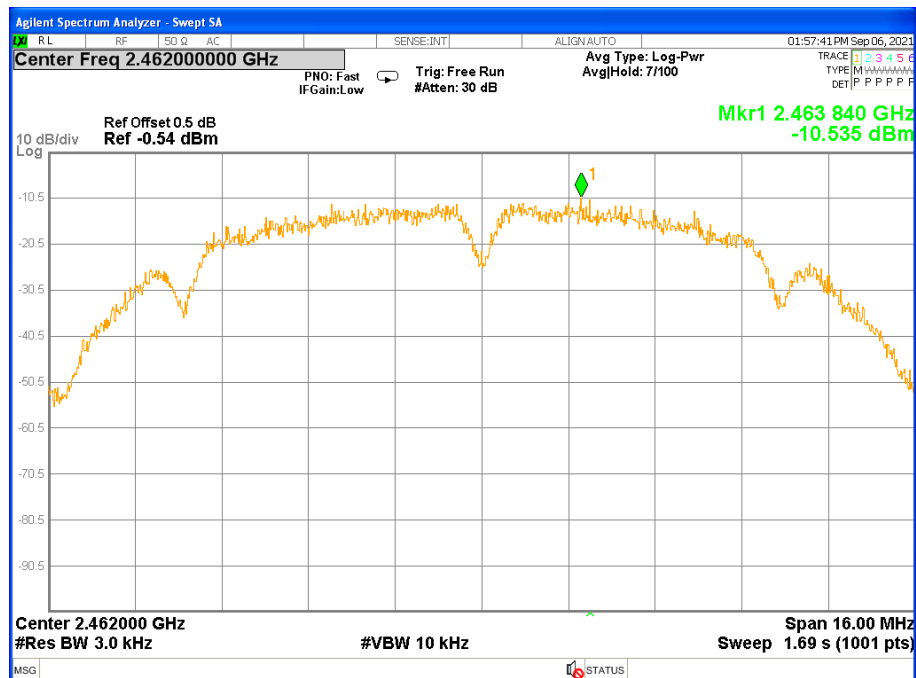




TX CH06



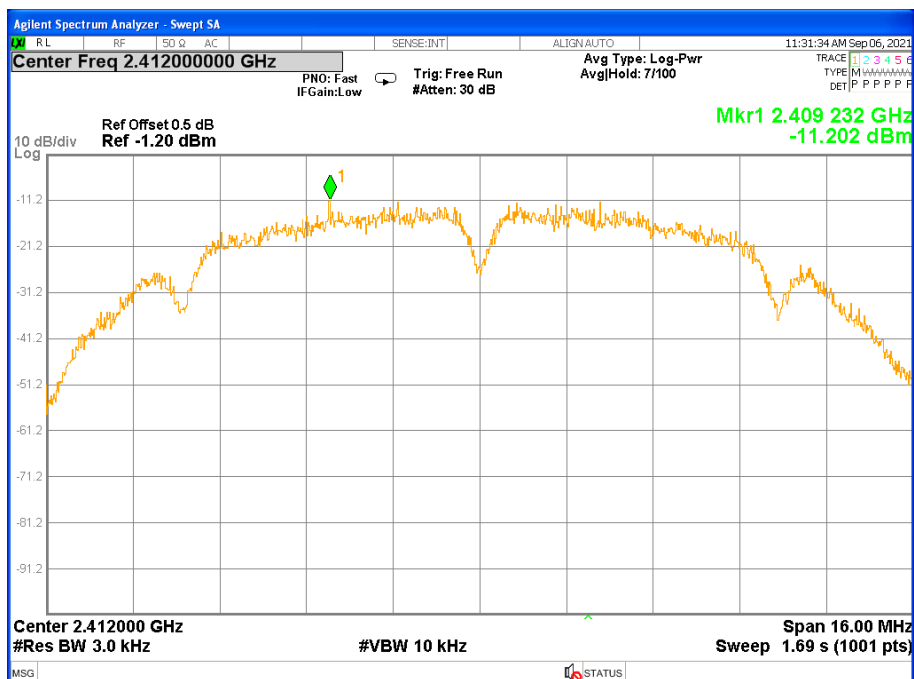
TX CH11



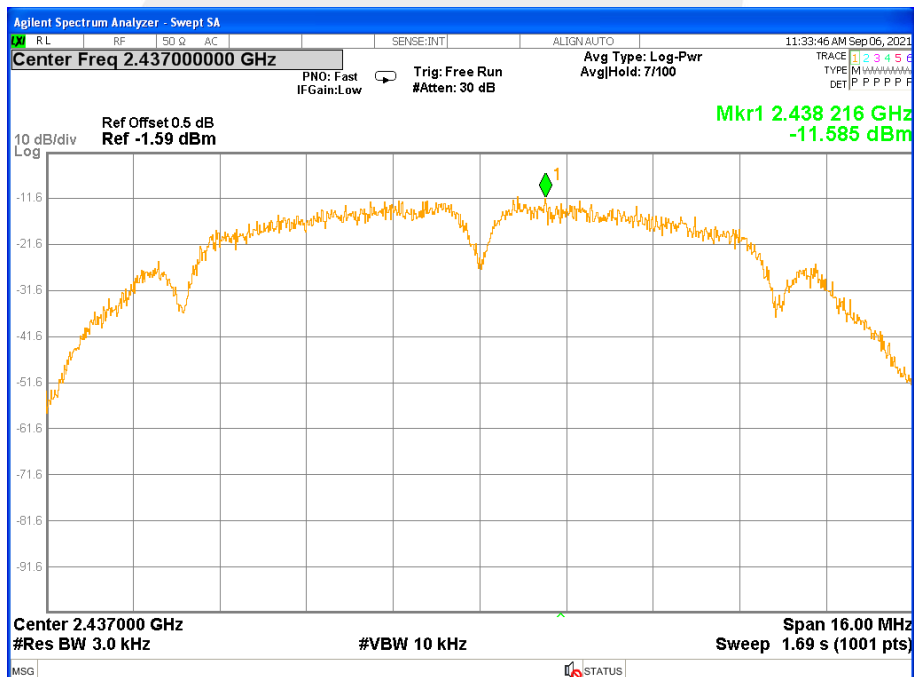


Test plots for Ant B

TX CH01

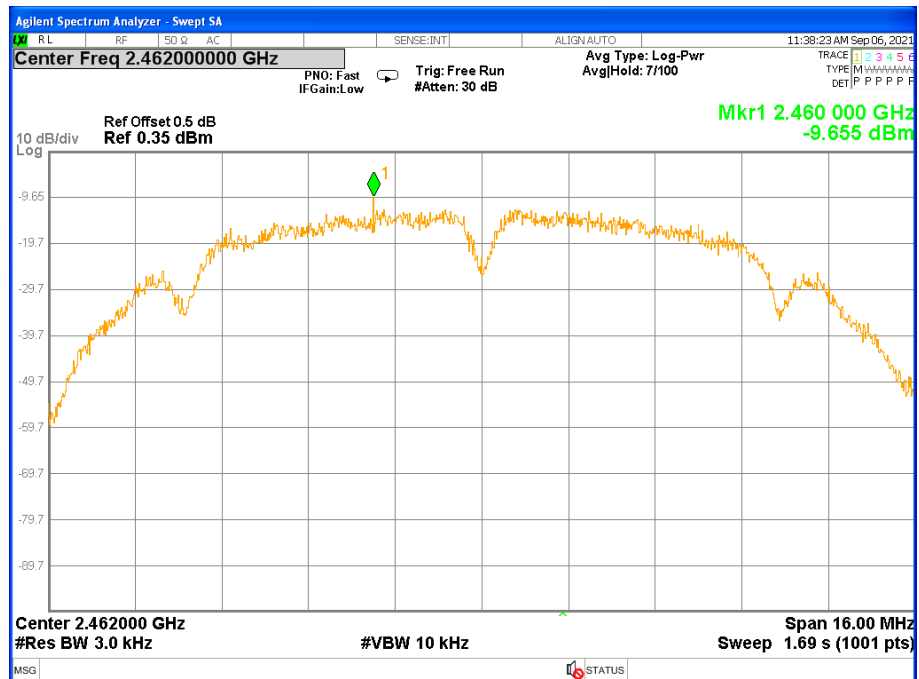


TX CH06





TX CH11



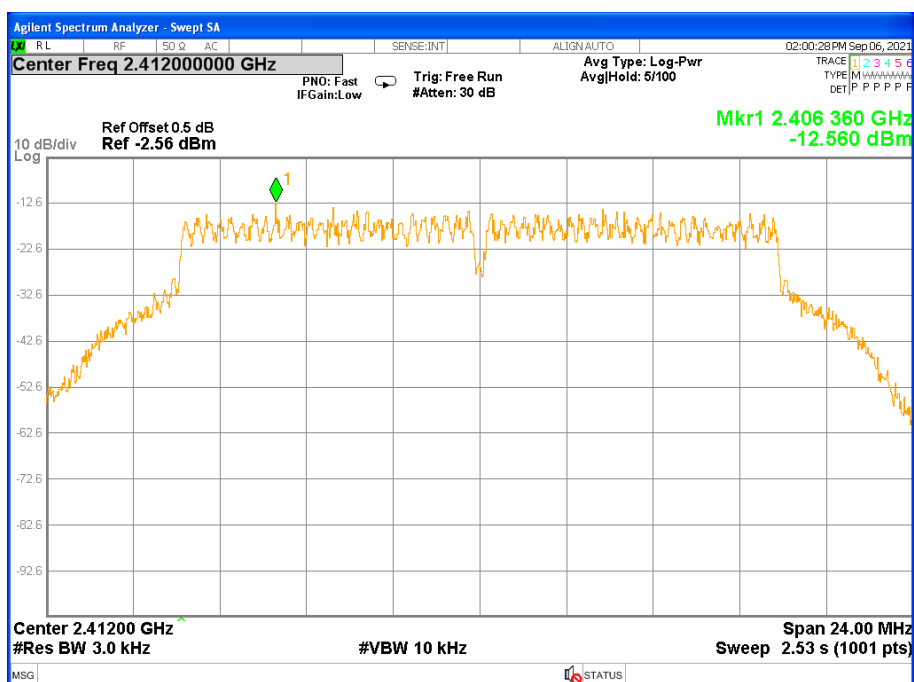


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX g Mode /CH01, CH06, CH11

Frequency	Power Density			Limit	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)	(dBm/3KHz)	
2412	-12.56	-13.72	--	8	PASS
2437	-13.78	-12.97	--	8	PASS
2462	-12.53	-14.19	--	8	PASS

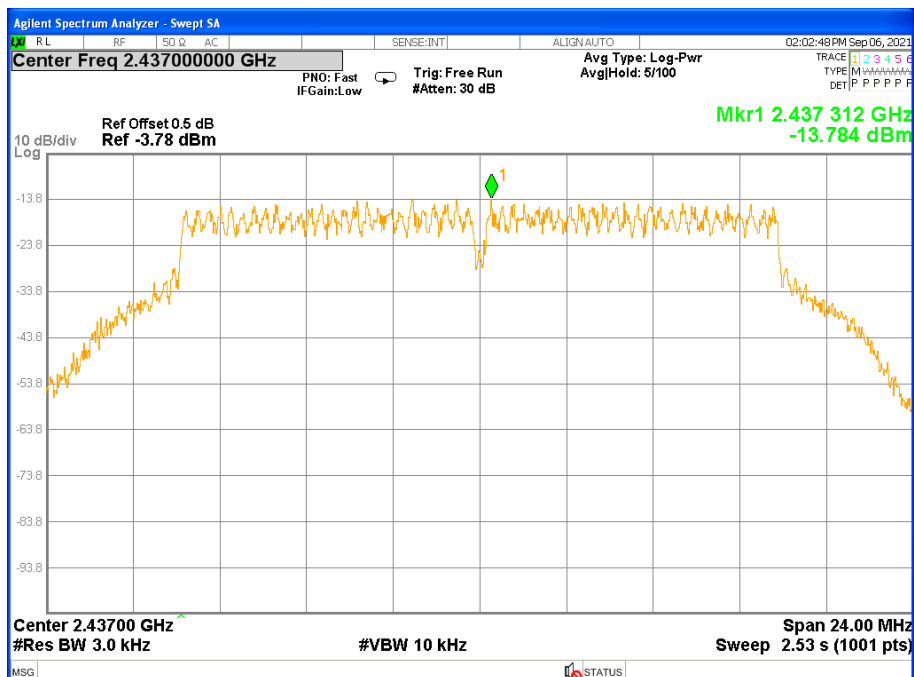
Test plots for Ant A

TX CH01

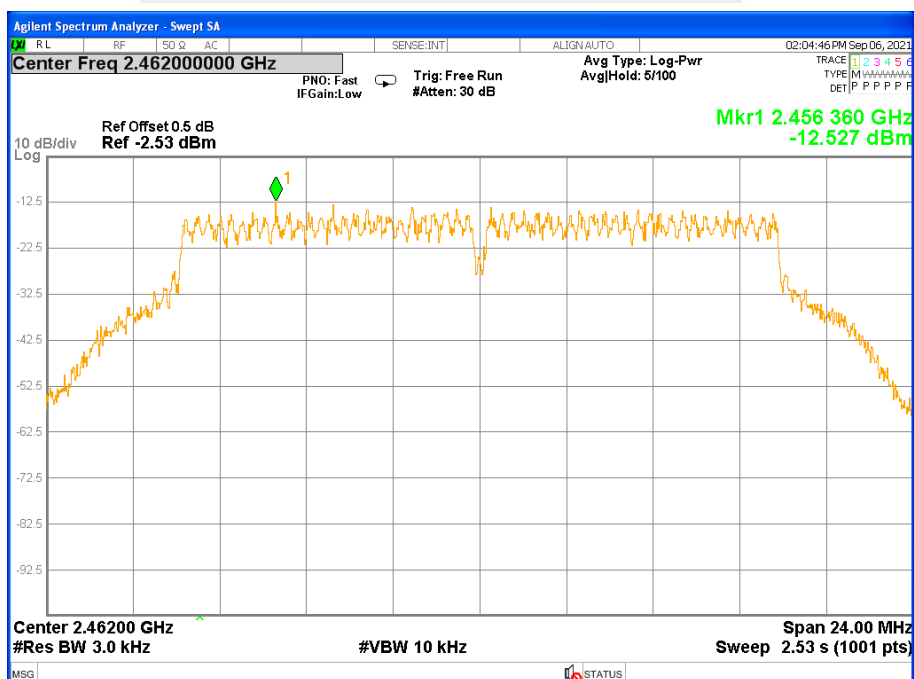




TX CH06



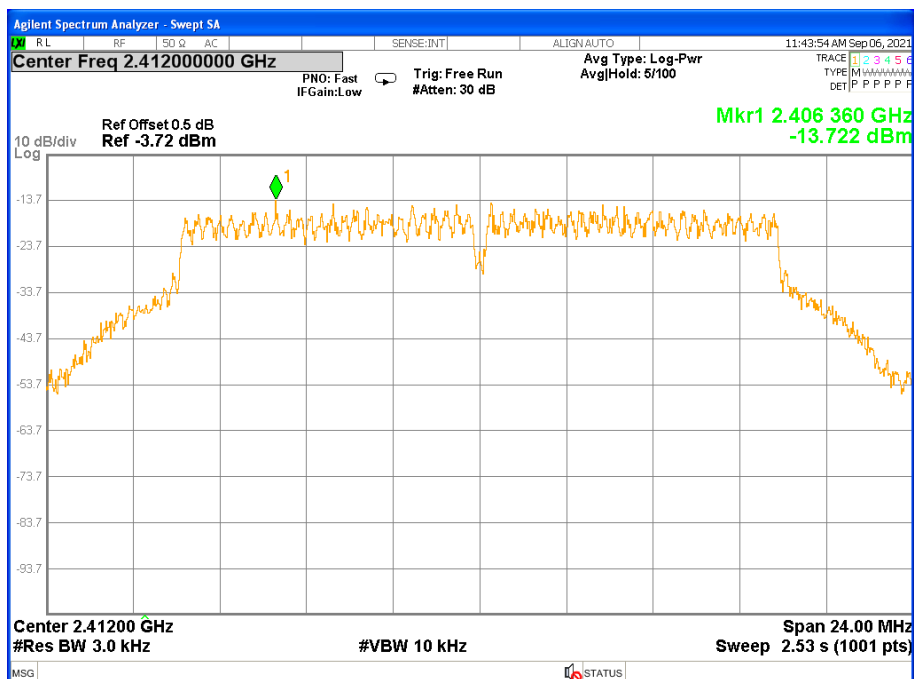
TX CH11



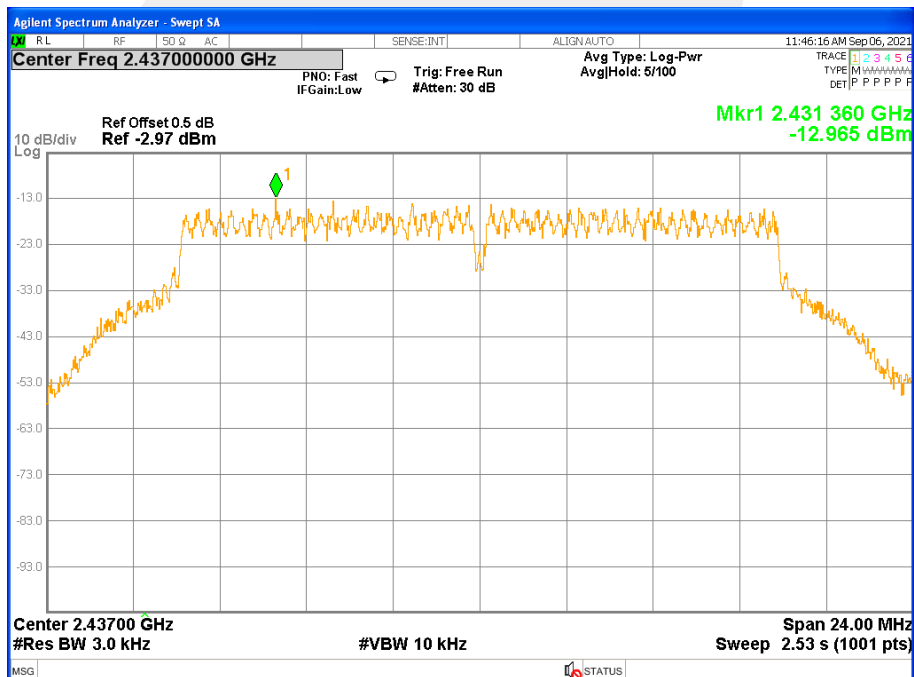


Test plots for Ant B

TX CH01

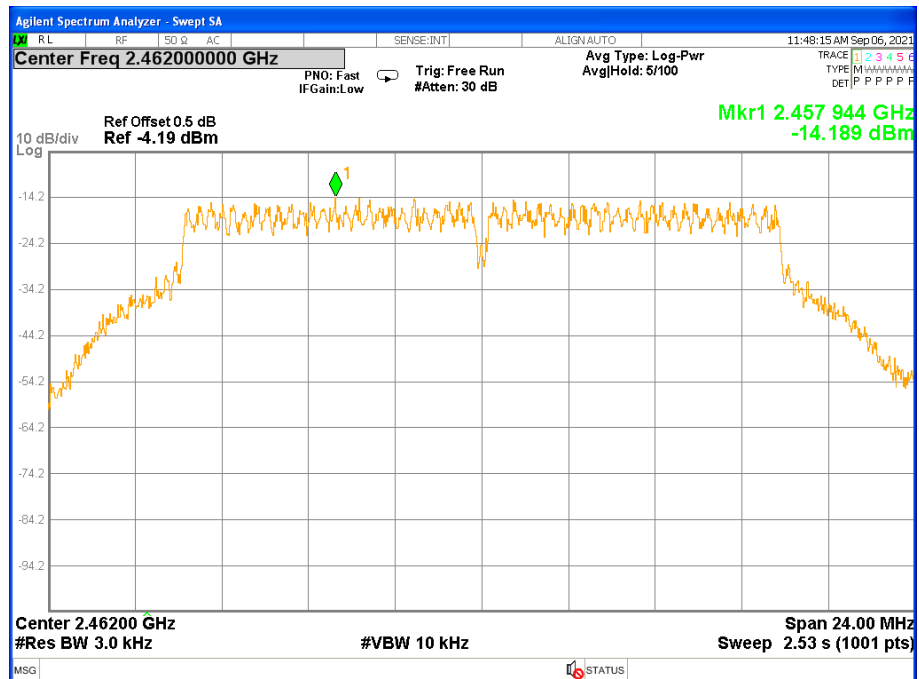


TX CH06





TX CH11



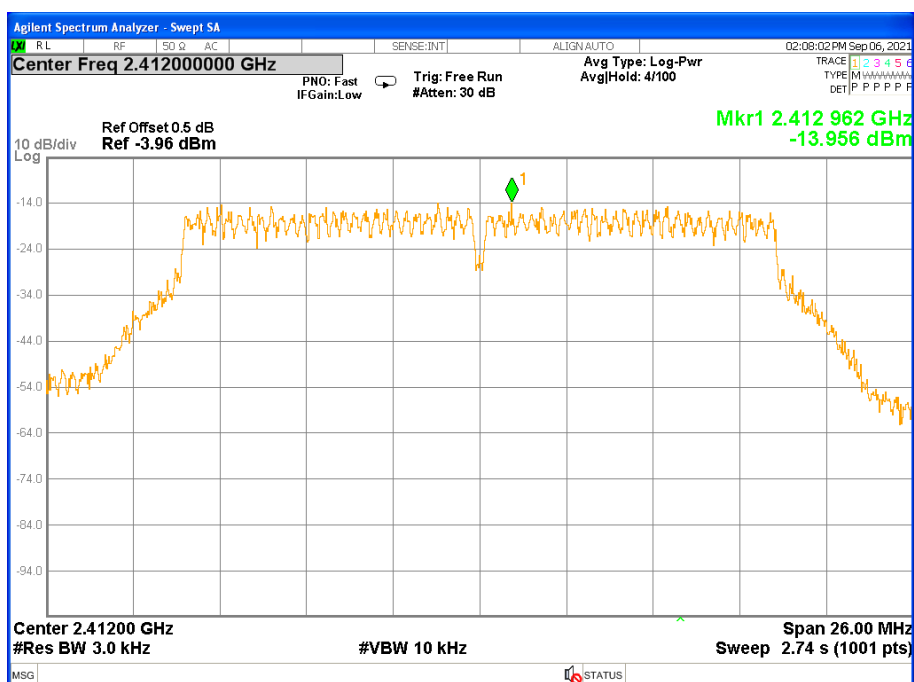


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

Frequency	Power Density			Limit	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)	(dBm/3KHz)	
2412	-13.96	-13.89	-10.91	7	PASS
2437	-14.06	-13.96	-11.00	7	PASS
2462	-13.16	-14.99	-10.97	7	PASS

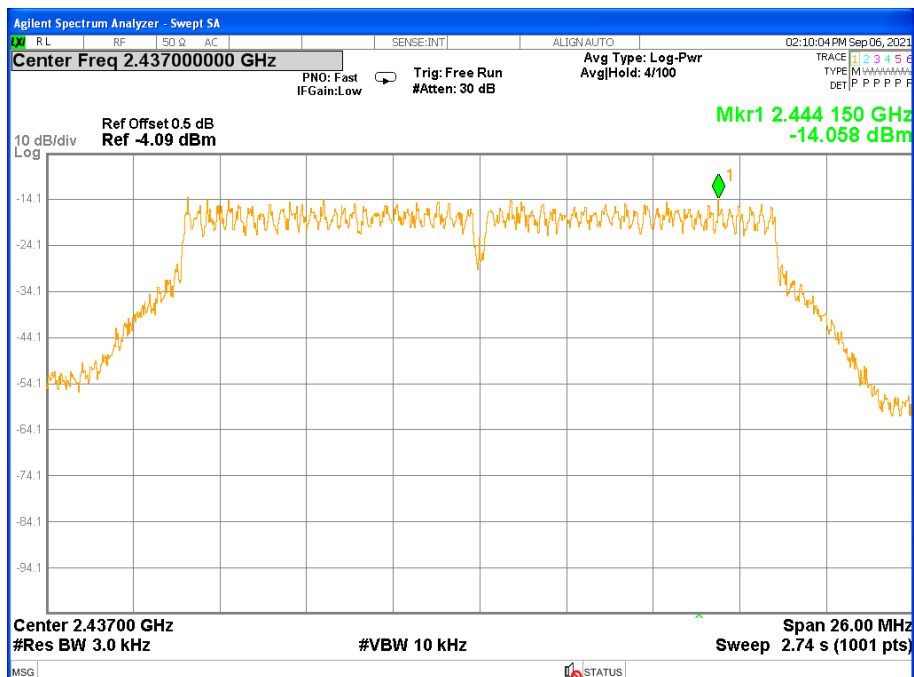
Test plots for Ant A

TX CH01

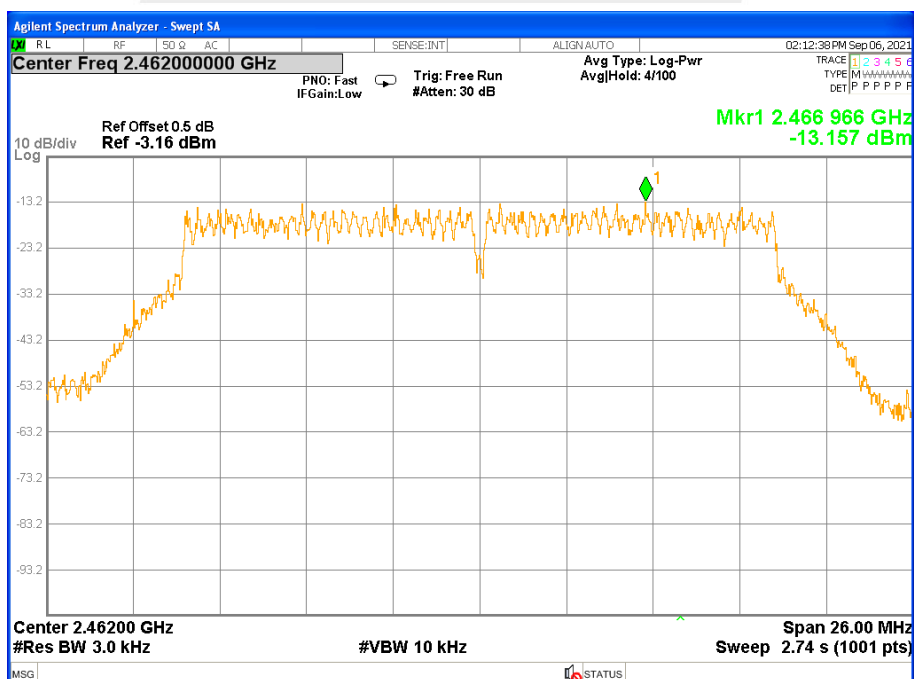




TX CH06



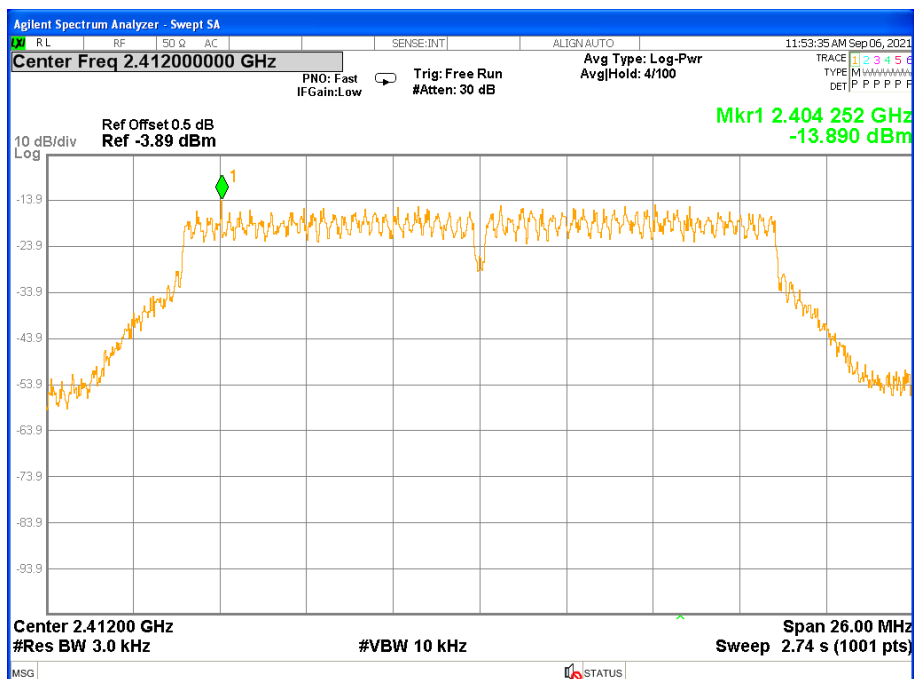
TX CH11



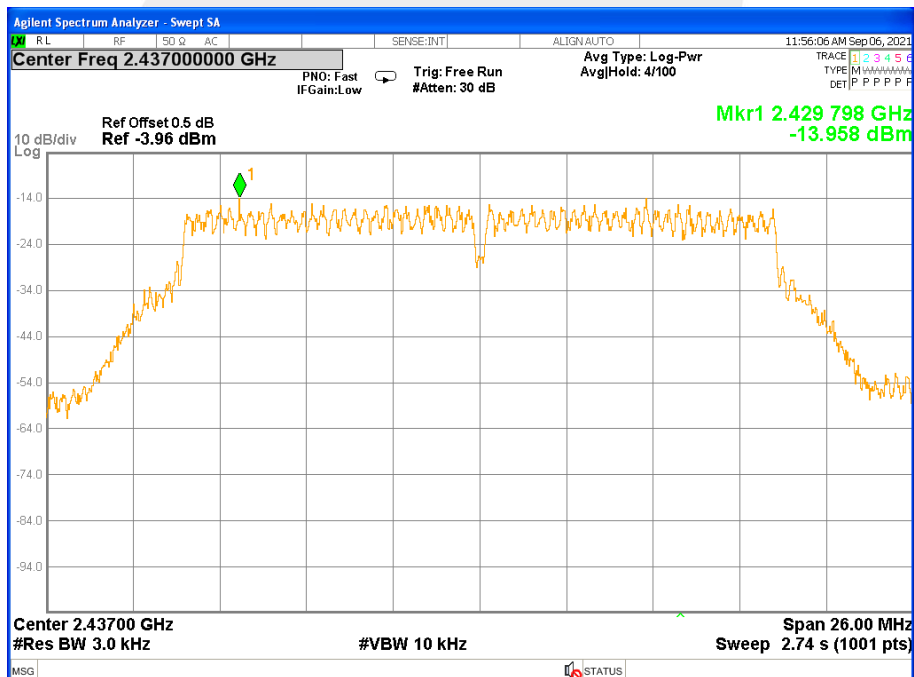


Test plots for Ant B

TX CH01

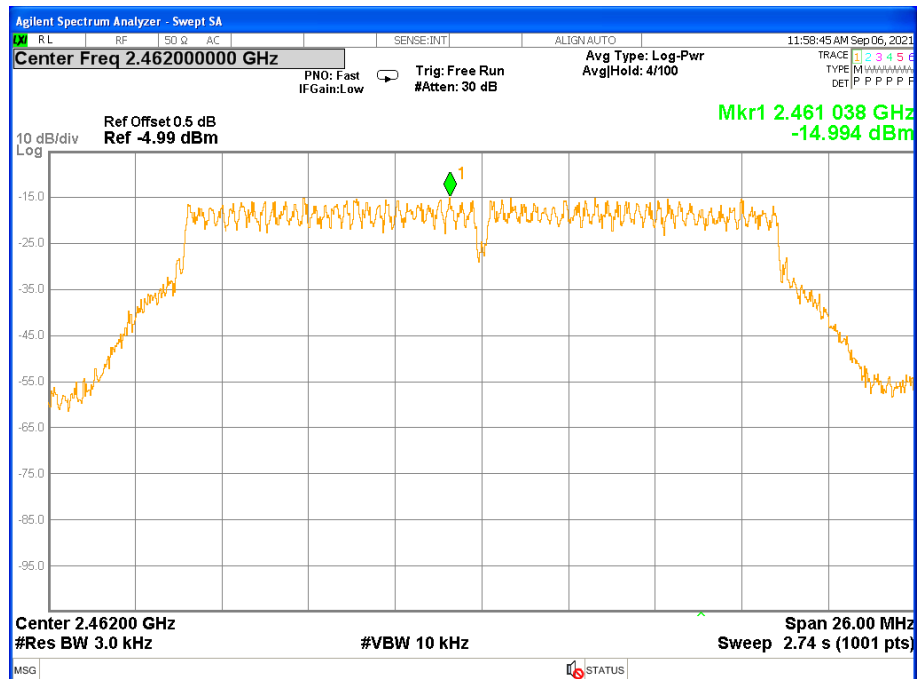


TX CH06





TX CH11



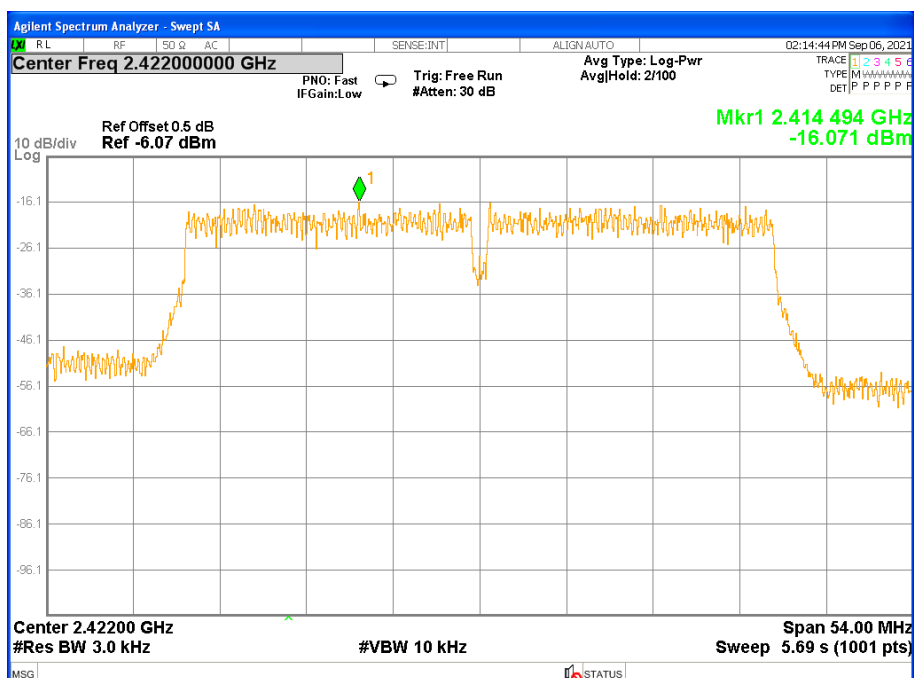


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX n Mode(40M) /CH03, CH06, CH09

Frequency	Power Density			Limit	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)	(dBm/3KHz)	
2422	-16.07	-15.75	-12.90	7	PASS
2437	-15.13	-16.05	-12.55	7	PASS
2452	-15.35	-16.22	-12.76	7	PASS

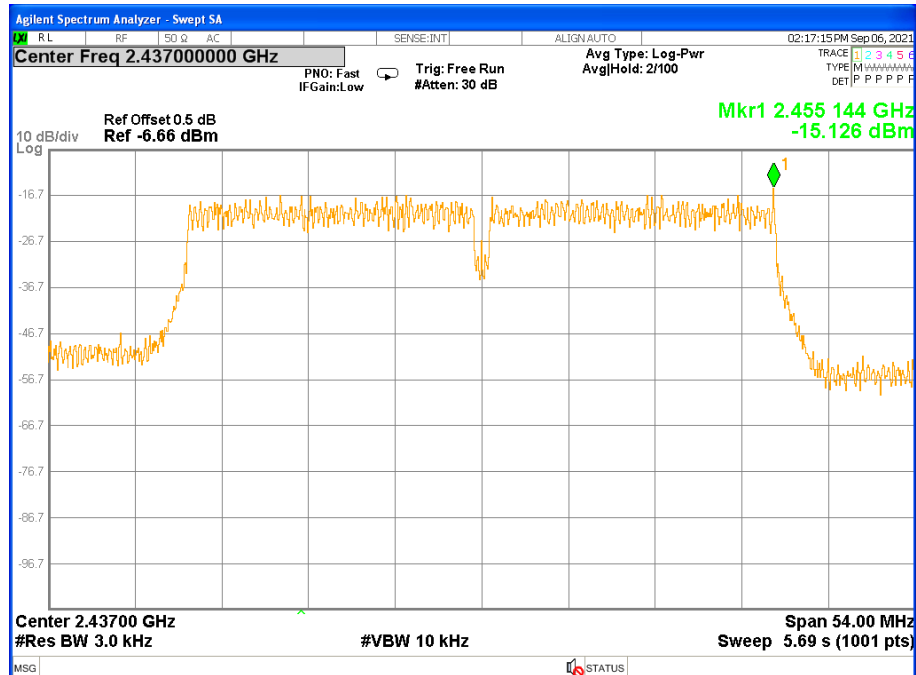
Test plots for Ant A

TX CH03

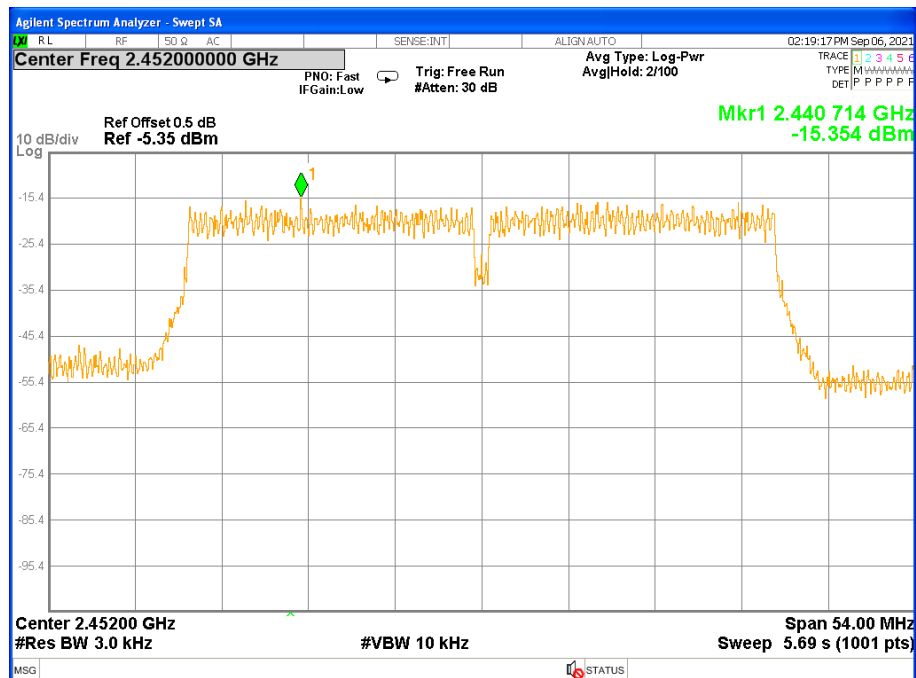




TX CH06



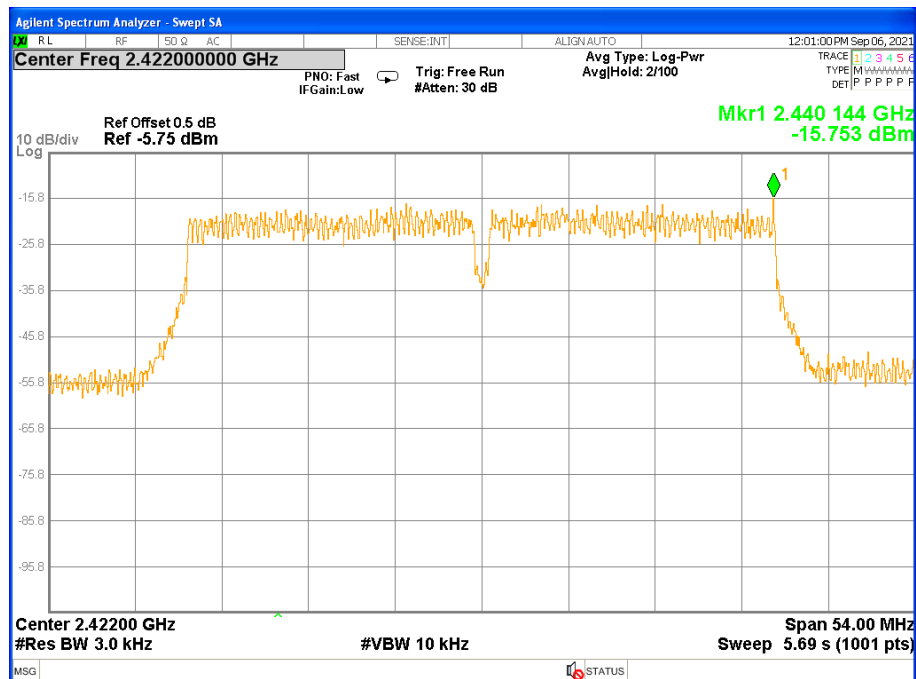
TX CH09



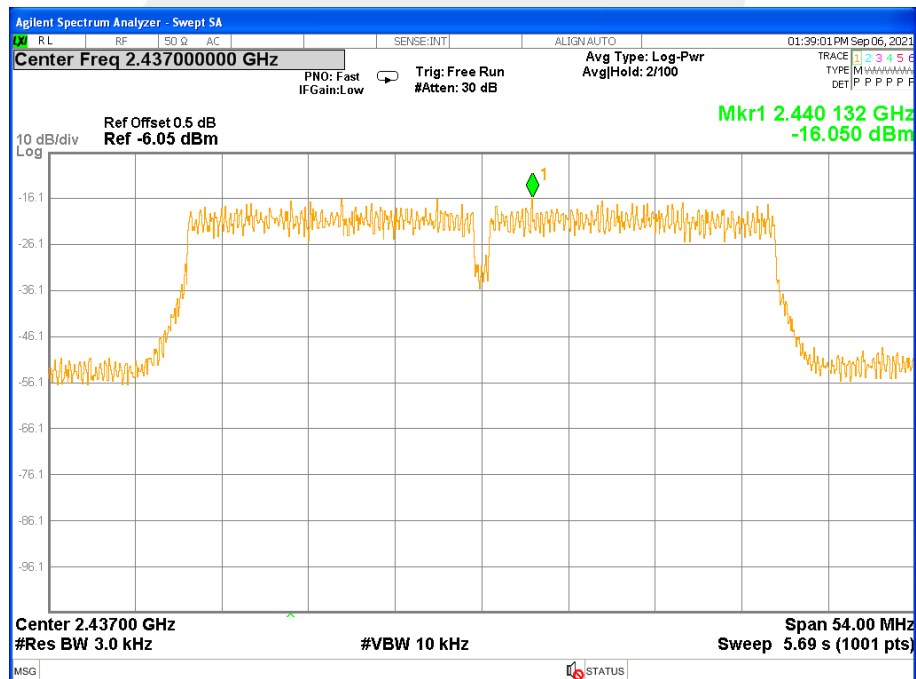


Test plots for Ant B

TX CH03

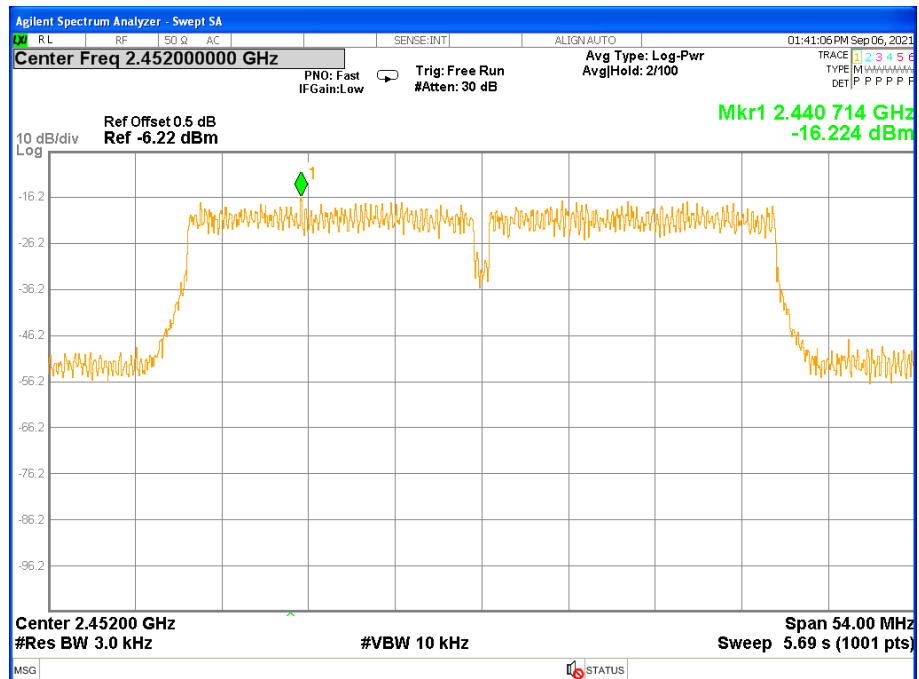


TX CH06





TX CH09



6. BANDWIDTH TEST

6.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW $\geq$ 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.



6.6 TEST RESULTS

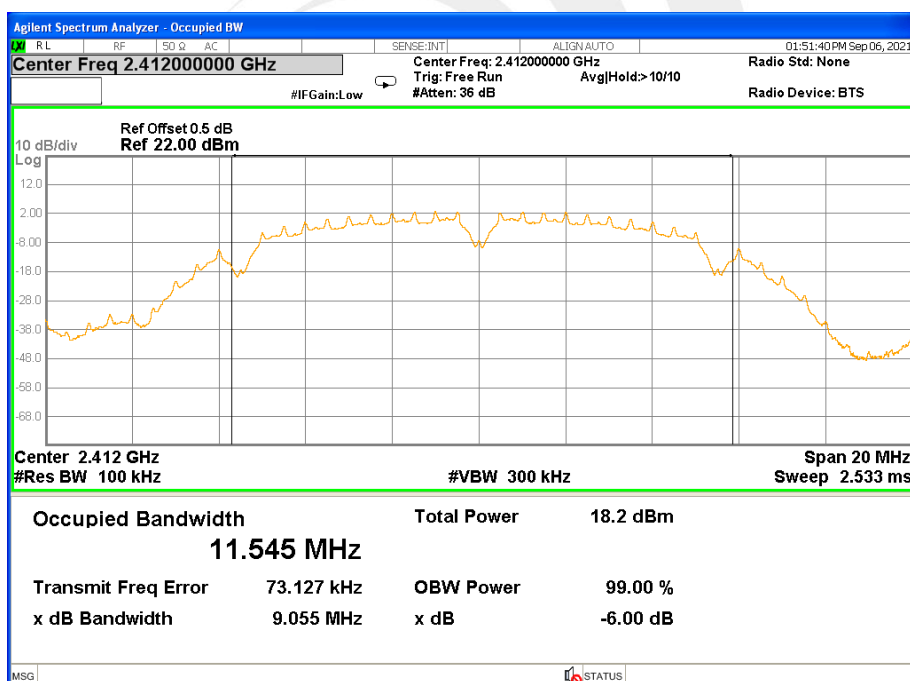
Note: ANT A Power> ANT B Power, Both ANT A and B have been test, Only show the worst data of ANT A

Temperature:	25℃	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX b Mode /CH01, CH06, CH11

Remark: PEAK DETECTOR IS USED

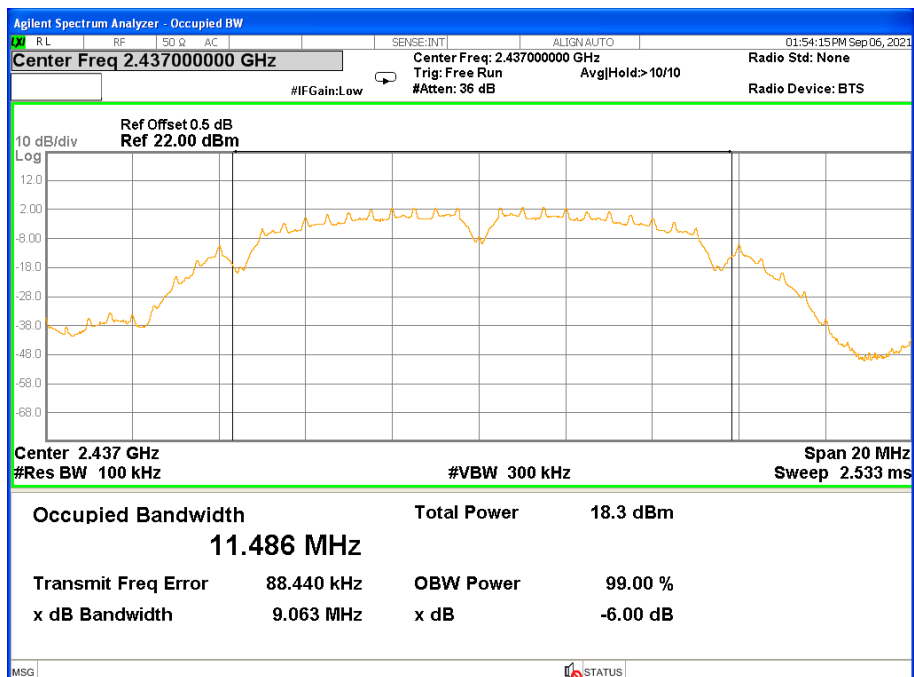
Frequency	6dB Bandwidth	Limit	Result
	(MHz)	(KHz)	
2412 MHz	9.055	≥500KHz	PASS
2437 MHz	9.063	≥500KHz	PASS
2462 MHz	9.066	≥500KHz	PASS

ANT A
TX CH 01

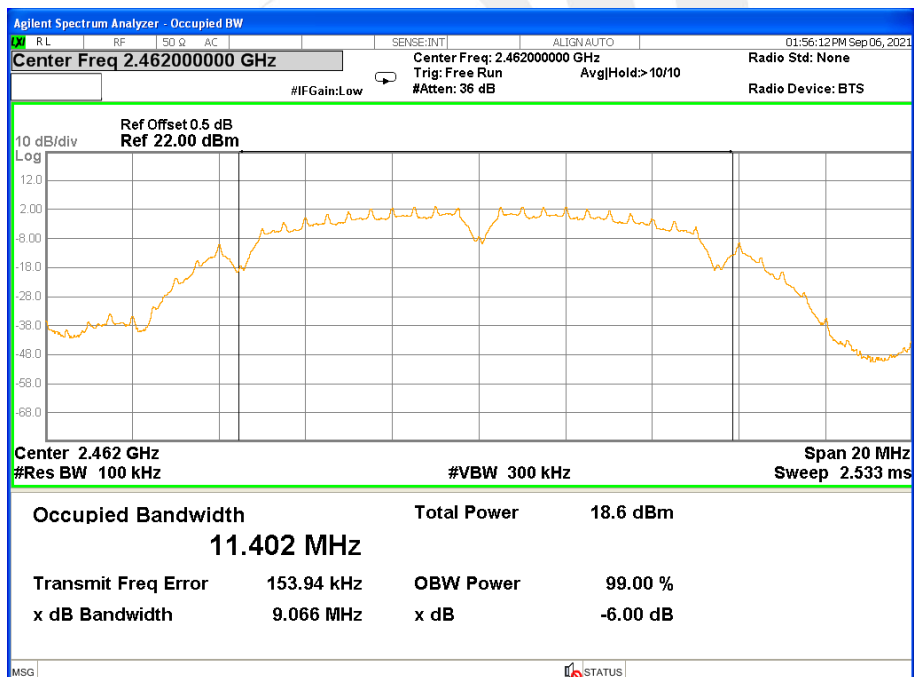




TX CH 06



TX CH 11



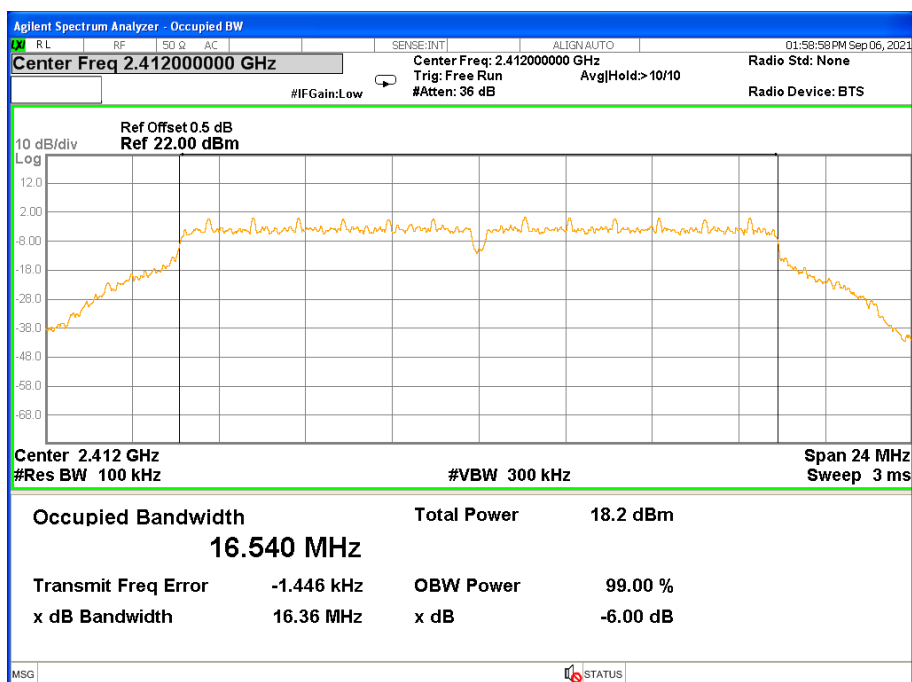


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX g Mode /CH01, CH06, CH11

Frequency	6dB Bandwidth	Limit	Result
	(MHz)	(KHz)	
2412 MHz	16.36	≥500KHz	PASS
2437 MHz	16.36	≥500KHz	PASS
2462 MHz	16.36	≥500KHz	PASS

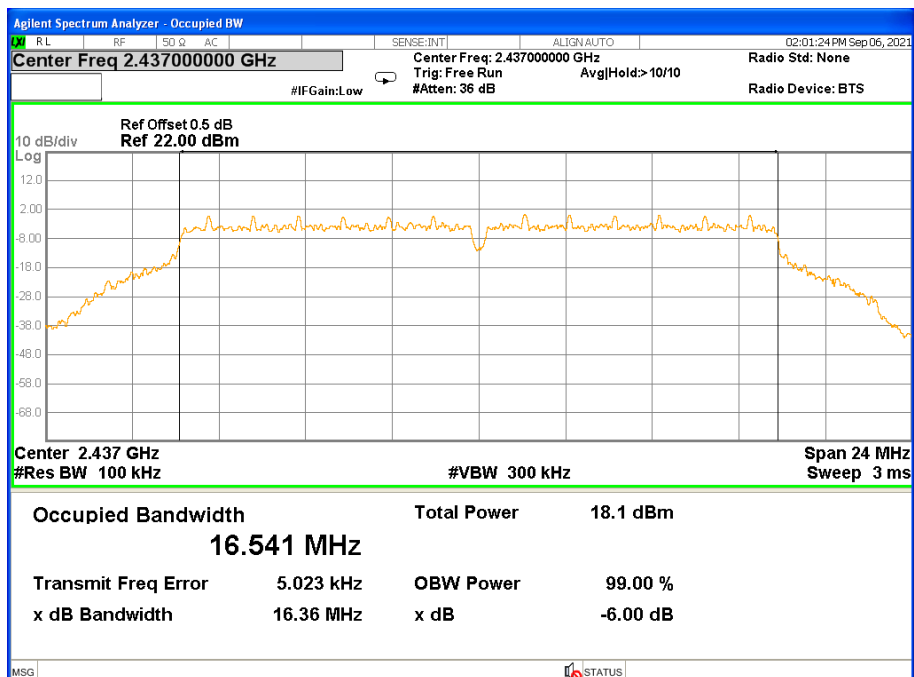
ANT A

TX CH 01

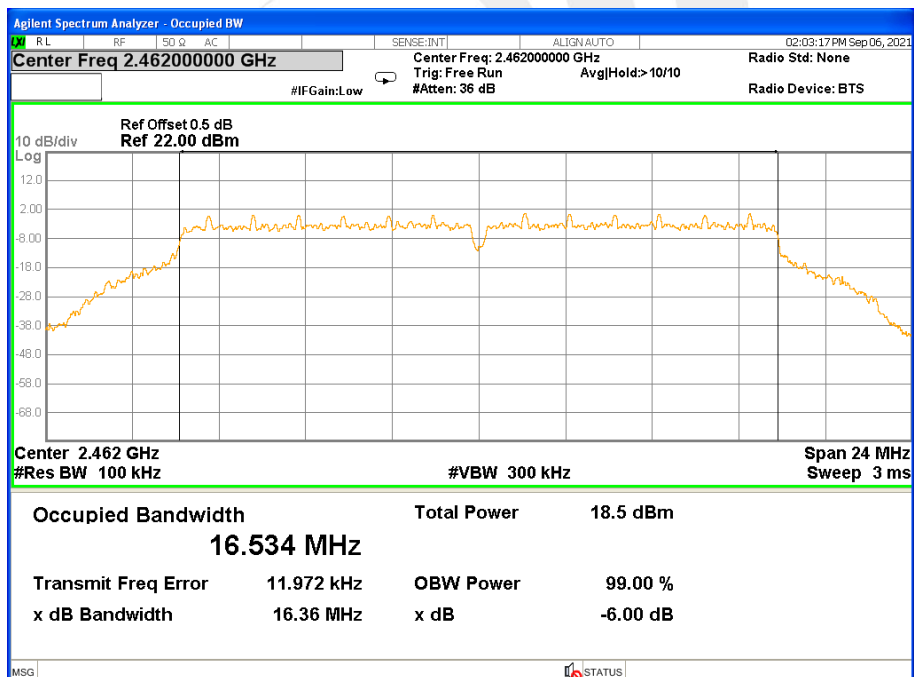




TX CH 06



TX CH 11



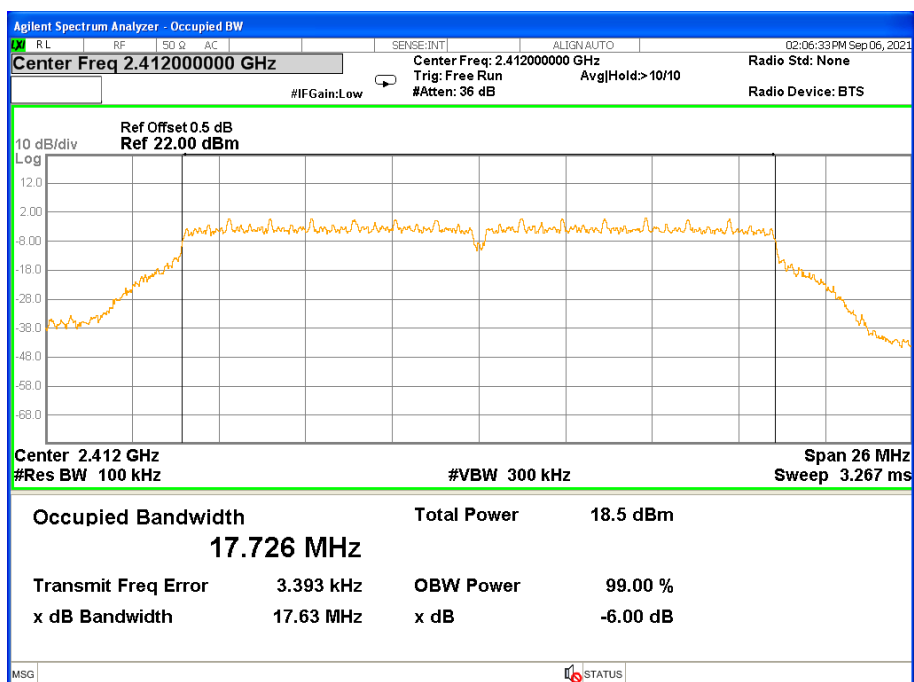


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

Frequency	6dB Bandwidth	Limit	Result
	(MHz)	(KHz)	
2412 MHz	17.63	≥500KHz	PASS
2437 MHz	17.64	≥500KHz	PASS
2462 MHz	17.63	≥500KHz	PASS

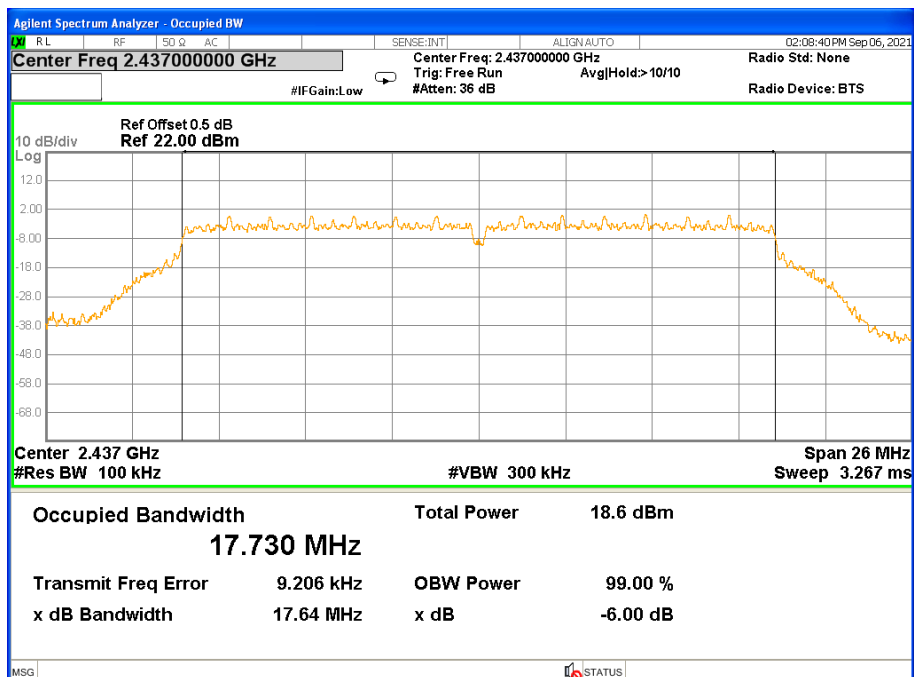
ANT A

TX CH 01

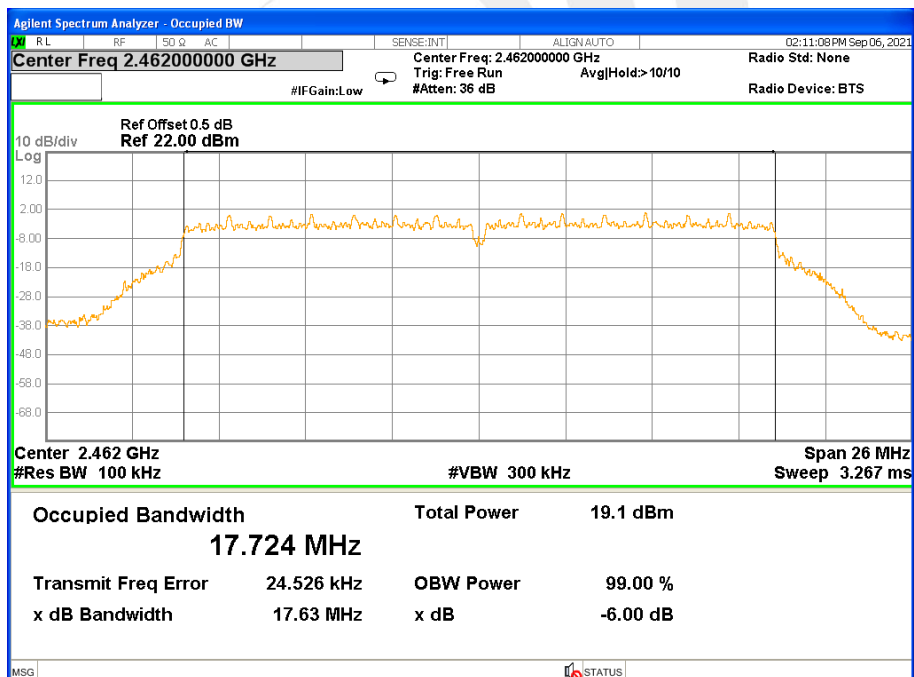




TX CH 06



TX CH 11



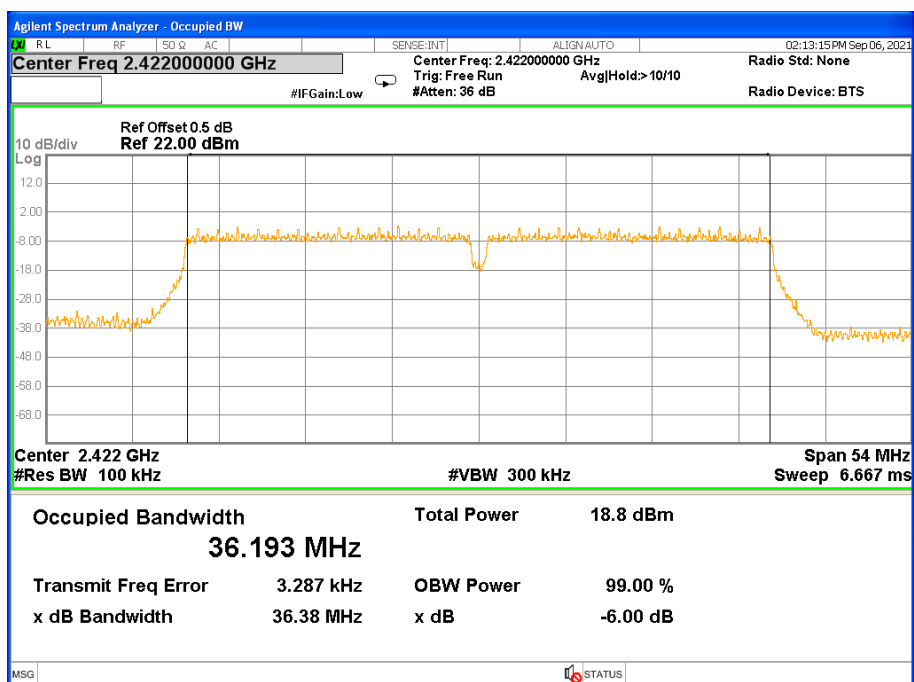


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	DC 25.41V	Test Mode:	TX n Mode(40M) /CH03, CH06, CH09

Frequency	6dB Bandwidth	Limit	Result
	(MHz)	(KHz)	
2422 MHz	36.38	≥500KHz	PASS
2437 MHz	36.40	≥500KHz	PASS
2452 MHz	36.39	≥500KHz	PASS

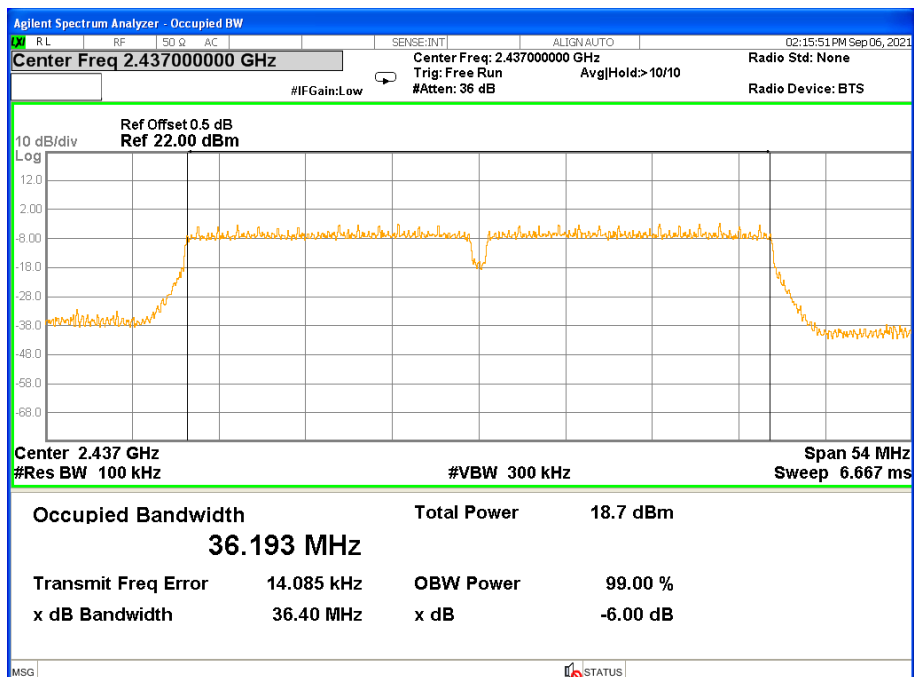
ANT A

TX CH 03

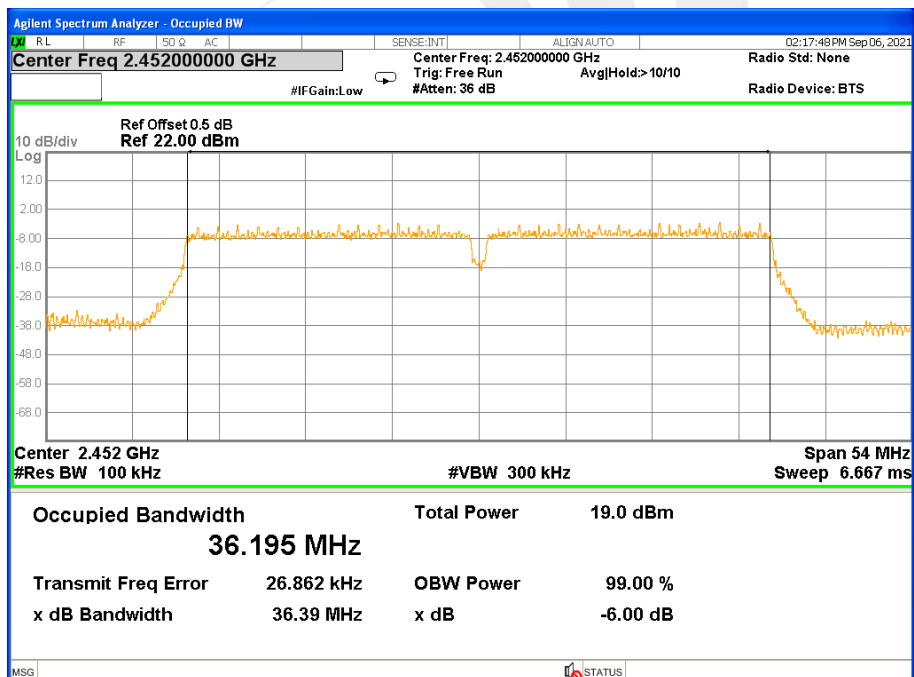




TX CH 06



TX CH 09





7. PEAK OUTPUT POWER TEST

7.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2 TEST PROCEDURE

One of the following procedures may be used to determine the maximum peak conducted output power of a DTS EUT.

RBW $\geq$ DTS bandwidth

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- Set the RBW $\geq$ DTS bandwidth.
- Set VBW $\geq$ [3 $\times$ RBW].
- Set span $\geq$ [3 $\times$ RBW].
- Sweep time = auto couple.
- Detector = peak.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use peak marker function to determine the peak amplitude level.

Integrated band power method:

The following procedure can be used when the maximum available RBW of the instrument is less than the

DTS bandwidth:

- Set the RBW = 1 MHz.
- Set the VBW $\geq$ [3 $\times$ RBW].
- Set the span $\geq$ [1.5 $\times$ DTS bandwidth].
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

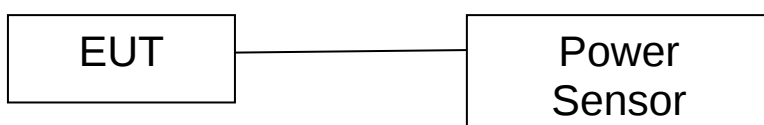
PKPM1 Peak power meter method:

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.



7.6 TEST RESULTS

Temperature:	25℃	Relative Humidity:	60%
Test Voltage:	DC 25.41V		

TX 802.11b Mode								
Test Channe	Frequency	PK Power ANT A	PK Power ANT B	PK Power ANT A+ANT B	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	dBm
CH01	2412	16.14	14.37	--	11.82	11.25	--	30
CH06	2437	14.95	14.91	--	11.76	11.53	--	30
CH11	2462	15.19	14.65	--	11.85	11.36	--	30

TX 802.11g Mode								
Test Channe	Frequency	PK Power ANT A	PK Power ANT B	PK Power ANT A+ANT B	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	dBm
CH01	2412	18.18	17.29	--	11.91	11.07	--	30
CH06	2437	18.45	17.75	--	12.14	11.49	--	30
CH11	2462	18.59	17.40	--	12.27	11.38	--	30

TX 802.11n20 Mode								
Test Channe	Frequency	PK Power ANT A	PK Power ANT B	PK Power ANT A+ANT B	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	dBm
CH01	2412	18.35	16.97	20.72	11.79	11.06	14.45	29
CH06	2437	18.33	17.86	21.11	11.86	11.32	14.61	29
CH11	2462	18.15	17.58	20.88	12.01	11.10	14.59	29



TX 802.11n40 Mode								
Test Channel	Frequency	PK Power ANT A	PK Power ANT B	PK Power ANT A+ANT B	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
CH03	2422	18.44	17.81	21.15	12.42	11.84	15.15	29
CH06	2437	18.54	17.86	21.22	12.40	11.81	15.13	29
CH09	2452	18.30	17.68	21.01	12.52	11.80	15.19	29

Note: Our power sensor test AVG power has no duty cycle display. The power sensor measures AVG power is Burst power. The software has considered the factor of the duty cycle factor, so it is unnecessary to add it again.

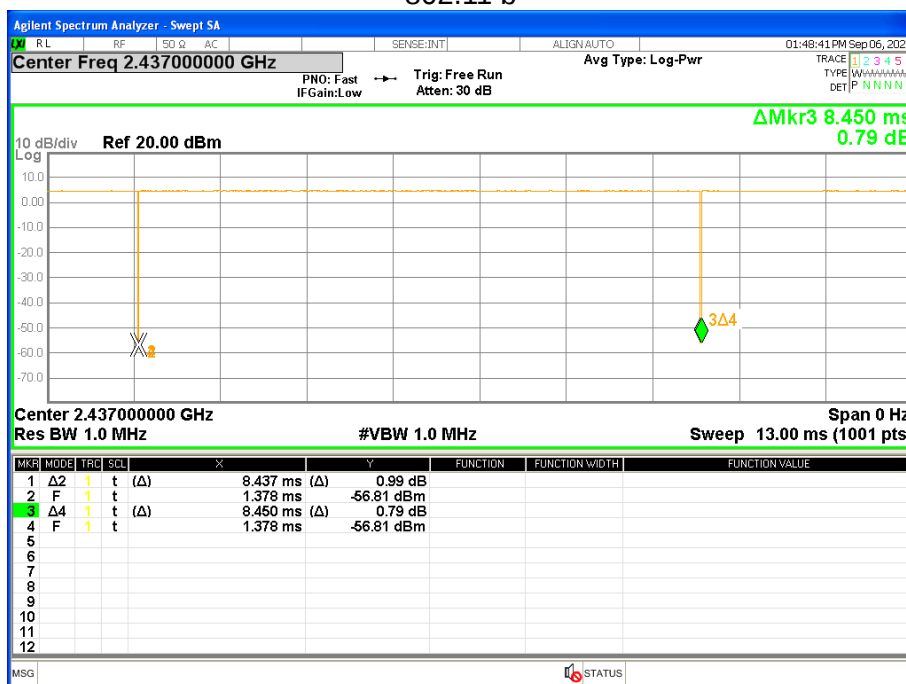




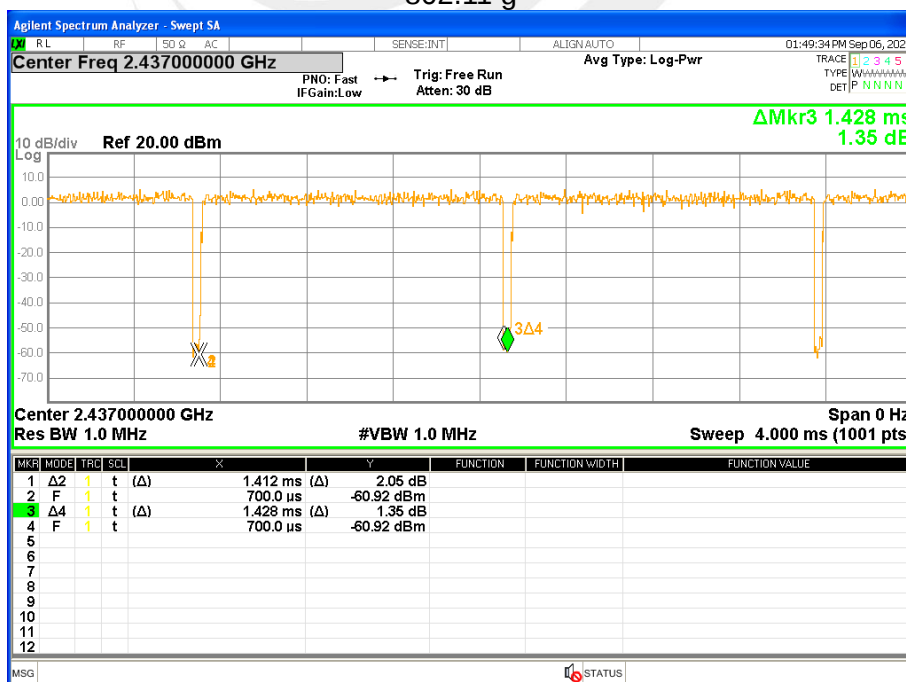
Duty cycle

Mode	Ton	Tp	Duty cycle(%)	Duty factor(dB)
802.11b	8.437	8.450	99.85%	0.01
802.11g	1.412	1.428	98.88%	0.10
802.11n20	1.324	1.344	98.51%	0.13
802.11n40	0.664	0.696	95.40%	0.41

802.11 b



802.11 g





802.11n20



802.11n40





8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2 EUT ANTENNA

The EUT antenna is FPC Antenna. It comply with the standard requirement.





APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※

