



FCC CERTIFICATION TEST REPORT

Applicant:	Clear Touch Interactive Inc
Address:	1100 Thousand Oaks Boulevard Greenville South Carolina 29607 United States
Manufacturer:	Clear Touch Interactive Inc
Address:	1100 Thousand Oaks Boulevard Greenville South Carolina 29607 United States
Product Description:	PC27IG PC Module
Brand Name:	Clear Touch
Tested Model:	CTI-PCOPS-PC27-IG
FCC ID:	2AL27-CTI-PCOPS27IG
Report No.:	JCF240613031-009
Received Date:	Jun. 13, 2024
Tested Date:	Jun. 13, 2024 ~ Aug. 05, 2024
Issued Date:	Aug. 05, 2024
Test Standards:	FCC Rules and Regulations Part 15 Subpart C,
Test Procedure:	ANSI C63.10:2013
Test Result:	Pass

Prepared By:  <u>Roger Li/Engineer</u>		Date: Aug. 05, 2024
Reviewed By:  <u>Kennys Zhang/Engineer</u>		Date: Aug. 05, 2024
Approved By:  <u>Talent Zhang/Engineer</u>		Date: Aug. 05, 2024

Note: The test results in this report apply exclusively to the tested model / sample. Without written approval of Guangzhou Jingce Testing Technology Co., Ltd. the test report shall not be reproduced except in full.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Aug. 05, 2024	Original Report	/

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1. Test Report Declare

Applicant:	Clear Touch Interactive Inc
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Manufacturer:	Clear Touch Interactive Inc
Address:	1100 Thousand Oaks Boulevard Greenville South Carolina 29607 United States
Product Name:	PC27IG PC Module
Brand Name:	Clear Touch
Model Name:	CTI-PCOPS-PC27-IG
Difference Description:	NA

We Declare:

The equipment described above is tested by Guangzhou Jingce Testing Technology Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangzhou Jingce Testing Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests except as provided information by clients.

2. Summary of Test Results

Summary of Test Results			
Clause	Test Items	FCC Rules	Test Results
1	6dB Bandwidth	FCC Part 15.247 (a) (2)	Pass
2	Peak Conducted Output Power	FCC Part 15.247 (b) (3)	Pass
3	Power Spectral Density	FCC Part 15.247 (e)	Pass
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d)	Pass
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass
6	Conducted Emission Test For AC Power Port	FCC Part 15.207	Pass
7	Antenna Requirement	FCC Part 15.203	Pass

3. Test Laboratory

Guangzhou Jingce Testing Technology Co., Ltd.

Add.: No.10, Hefeng No.1 street, Huangpu District, Guangzhou, Guangdong, People's Republic of China

Association for Laboratory Accreditation(A2LA). Certificate Number: 6594.03

FCC Designation Number: CN1381. Test Firm Registration Number: 486550

IC Test Firm Registration Number: 31808

Conformity Assessment Body identifier: CN0173

4. Equipment Under Test

4.1. Description of EUT

EUT Name:	PC27IG PC Module
Model Number:	CTI-PCOPS-PC27-IG
EUT Function Description:	Please refer to user manual of this device
Power Supply:	DC 12-19V 8.5A
Hardware Version:	NA
Software Version:	NA
Radio Specification:	IEEE802.11b/g/n/ax
Operation Frequency:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz IEEE 802.11ax HE20: 2412MHz—2462MHz IEEE 802.11ax HE40: 2422MHz—2452MHz
Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n (HT20/40): OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax (HE20/40): OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
Data Rate:	IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130.0, 144.4Mbps IEEE 802.11n HT40: 30.0, 60.0, 90.0, 120.0, 180.0, 240.0, 270.0, 300.0 Mbps IEEE 802.11ax HE20: 17.2, 34.4, 51.6, 68.8, 103.2, 137.6, 154.8, 172.1, 206.5, 229.4, 258.1, 286.8Mbps IEEE 802.11ax HE40: 34.4, 51.6, 68.8, 103.2, 137.6, 206.5, 275.3, 309.7, 344.1, 412.9, 458.8, 516.2, 573.5Mbps
Antenna Type:	External Antenna, MAX. Gain: 3.83 dBi

Note 1: EUT is the ab. of equipment under test.

Note 2: The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.

4.2. Channel List

Channel List for 802.11b/g/n/ax (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

Channel List for 802.11n/ax (40 MHz)					
Channel	Frequency (MHz)	Channel	Frequency(MHz)	Channel	Frequency (MHz)
3	2422	6	2437	9	2452
4	2427	7	2442	/	/

5	2432	8	2447	/	/
---	------	---	------	---	---

4.3. Test Channel Configuration

Tested mode, channel and rand data rate information			
Mode	Data rate (Mbps) (see Note)	Channel	Frequency (MHz)
802.11b	1	Low: CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
802.11g	6	Low: CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
802.11n HT20	MCS 8	Low: CH1	2412
	MCS 8	Middle: CH6	2437
	MCS 8	High: CH11	2462
802.11n HT40	MCS 8	Low: CH3	2422
	MCS 8	Middle: CH6	2437
	MCS 8	High: CH9	2452
802.11ax HE20	MCS 0	Low: CH1	2412
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH11	2462
802.11ax HE40	MCS 0	Low: CH3	2422
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH9	2452

Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

4.4. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25 °C
Humidity range:	40-75%
Pressure range:	86-106 kPa

4.5. Description of Available Antennas

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band				
Test Software		DRTU		
Modulation Mode	Transmit Antenna Number	Test Software Setting Value		
		Channel	ANT1	ANT2
802.11b	2	CH1	15	15
		CH6	15	15
		CH11	15	15
802.11g	2	CH1	12	12
		CH6	12	12

		CH11	12	12
802.11HT20	2	CH1	8	8
		CH6	8	8
		CH11	8	8
802.11n HT40	2	CH3	8	8
		CH6	8	8
		CH9	8	8
802.11ax HE20	2	CH1	8	8
		CH6	8	8
		CH11	8	8
802.11ax HE40	2	CH3	8	8
		CH6	8	8
		CH9	8	8

4.6. Description of Available Antennas

Test Mode	Transmit and Receive Mode	Description
802.11b	☑ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11g	☑ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT20	☑ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT40	☑ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ax HE20	☑ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ax HE40	☑ 2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
Note: 1. Only 802.11n HT20/HT40 and 802.11ax HE20/HE40 support MIMO mode 2. WLAN 2.4 GHz & WLAN 5G can't transmit simultaneously. (declared by client)		

5. Description of Test Setup

5.1. Accessory

Description of Accessories	Manufacturer	Model Number	Description	Remark
/	/	/	/	/

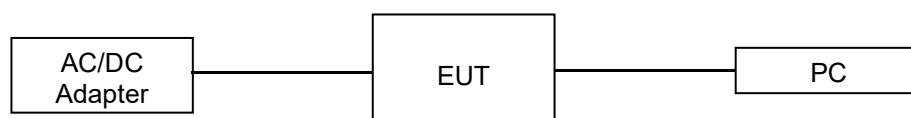
5.2. Support Equipment

Equipment	Brand Name	Model Name	P/N
Adapter	GanQi	GQ150-1900630-E2	/

5.3. Test Setup

The EUT can work in Fixed Frequency mode.

5.4. Setup Diagram for Tests



6. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Uncertainty
AC Power Conduction emission	1.37 dB
All Radiated emissions	5.4dB
Conducted emissions	3.09 dB
Occupied Channel Bandwidth	1.1%
Conducted Output power	0.82dB
Power Spectral Density	0.82dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k = 2.	

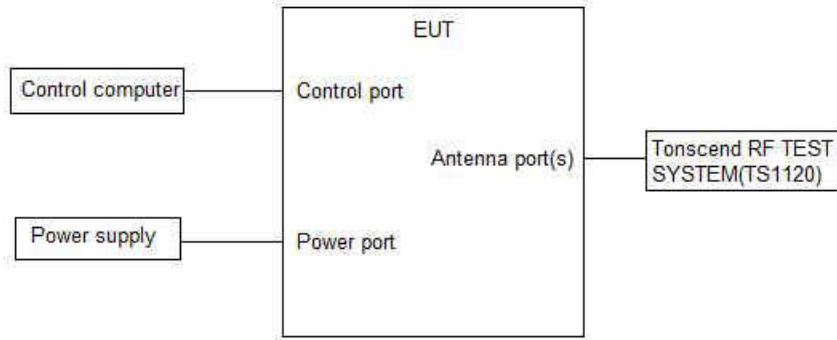
7. Measuring Instrument and Software Used

TS Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	Spectrum Analyzer	Keysight	N9030B	MY56320512	Sep. 12, 2023	Sep. 11, 2024
☒	Vector Signal Generator	Keysight	N5182B	MY57300334	Sep. 12, 2023	Sep. 11, 2024
☒	Signal Generator	Keysight	N5171B	MY57280639	Sep. 12, 2023	Sep. 11, 2024
☒	DC POWER	Keysight	E342A	MY59020356	Jun. 29, 2024	Jun. 28, 2025
☒	Incubator thermometer	GWS	EL-02JA	21107288	Sep. 12, 2023	Sep. 11, 2024
☒	Control unit(Power sensor)	Tonscend	JS0806-2	/	Sep. 12, 2023	Sep. 11, 2024
☒	Wideband radio communication tester	R&S	CMW500	163478	Jul. 03, 2024	Jul. 02, 2025
☒	Spectrum Analyzer	Keysight	N9020B	MY60112206	Sep. 12, 2023	Sep. 11, 2024
☒	Control unit(Power sensor)	Tonscend	JS0806-2	21H8060465	Sep. 12, 2023	Sep. 12, 2024
Software						
Used	Description	Manufacturer	Name		Version	
☒	Test software	Tonscend	JS1120-3		V3.3.10	
RSE Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	EMI Receiver	R&S	ESR	102154	Sep. 12, 2023	Sep. 11, 2024
☒	Bilog Antenna	Schwarzbeck	VULB 9163	01361	Aug. 16, 2023	Aug. 15, 2024
☒	Horn Antenna 1	Schwarzbeck	BBHA 9120 D	02411	May. 28, 2024	May. 27, 2025
☒	Horn Antenna 2	ETS	BBHA 9170	1090	Sep. 04, 2023	Sep. 03, 2024
☒	loop-antenna	Schwarzbeck	FMZB 1513-60	00030	Jan. 14, 2024	Jan. 13, 2025
☒	Signal Pre-Amplifier	Tonscend	TAP01018050	AP23I8060293	Oct. 12, 2023	Oct. 11, 2024

☒	Signal Pre-Amplifier	ETS	3116C-PA	00217677	Aug. 24, 2023	Aug. 23, 2024
☒	966 Chamber	YIHENG	9m*6m*6m	001	Sep. 05, 2023	Sep. 04, 2026
Software						
Used	Description	Manufacturer	Name		Version	
☒	Test software	Tonscend	TS+		V3.0.0.4	
Conducted Emission Test For AC Power Port						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	LISN	R&S	ENV216	102509	Sep. 12, 2023	Sep. 11, 2024
☒	EMI Receiver	R&S	ESR	102154	Sep. 12, 2023	Sep. 11, 2024
Software						
Used	Description	Manufacturer	Name		Version	
☒	Test software	EZ	EZ-EMC		EMEC-3A1	
Other Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☒	Temperature & Humidity	Temperature	HTC-1	/	Nov. 02, 2023	Nov. 01, 2024

8. On Time and Duty Cycle

8.1. Block diagram of test setup



8.2. Limits

None; for reporting purposes only

8.3. Procedure

KDB 558074 Zero-Span Spectrum Analyzer Method

8.4. Results

Test Mode	Ant.	Freq. (MHz)	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)
11B	Ant1	2412	8.35	8.40	99.40
	Ant2	2412	8.36	8.40	99.52
	Ant1	2437	8.35	8.40	99.40
	Ant2	2437	8.34	8.38	99.52
	Ant1	2462	8.35	8.40	99.40
	Ant2	2462	8.35	8.40	99.40
11G	Ant1	2412	0.15	0.20	75.00
	Ant2	2412	0.15	0.20	75.00
	Ant1	2437	0.14	0.19	73.68
	Ant2	2437	0.14	0.19	73.68
	Ant1	2462	0.15	0.20	75.00
	Ant2	2462	0.14	0.19	73.68
11N20MIMO	Ant1	2412	0.26	0.31	83.87
	Ant2	2412	0.27	0.31	87.10
	Ant1	2437	0.26	0.31	83.87
	Ant2	2437	0.26	0.31	83.87
	Ant1	2462	0.26	0.31	83.87
	Ant2	2462	0.26	0.31	83.87
11N40MIMO	Ant1	2422	0.18	0.23	78.26
	Ant2	2422	0.18	0.23	78.26
	Ant1	2437	0.18	0.23	78.26
	Ant2	2437	0.18	0.23	78.26
	Ant1	2452	0.18	0.23	78.26
	Ant2	2452	0.18	0.23	78.26
11AX20MIMO	Ant1	2412	0.18	0.23	78.26
	Ant2	2412	0.18	0.23	78.26
	Ant1	2437	0.18	0.23	78.26
	Ant2	2437	0.18	0.23	78.26

11AX40MIMO	Ant1	2462	0.18	0.23	78.26
	Ant2	2462	0.18	0.23	78.26
	Ant1	2422	0.18	0.23	78.26
	Ant2	2422	0.18	0.23	78.26
	Ant1	2437	0.18	0.23	78.26
	Ant2	2437	0.18	0.23	78.26
	Ant1	2452	0.18	0.23	78.26
	Ant2	2452	0.18	0.23	78.26

Note: Duty Cycle Correction Factor = $10\log(1/x)$.

Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer, then the next higher value should be used.

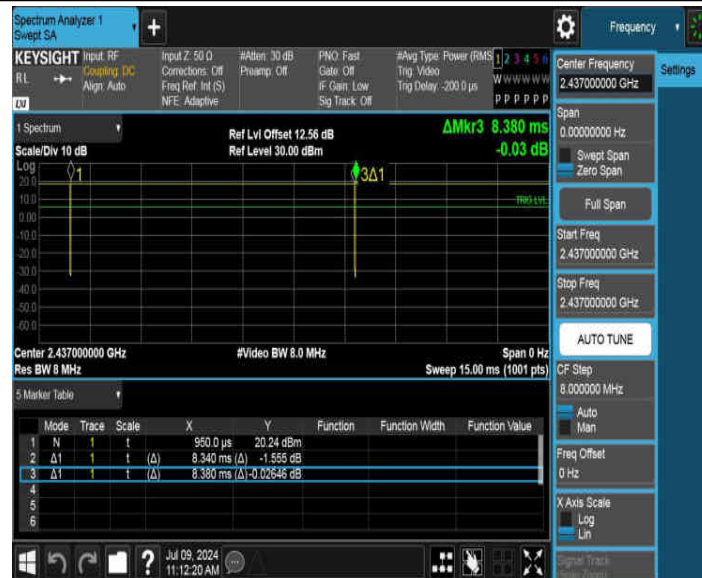
For mode 11b, the duty cycle is greater than 98 %, so it can set VBW to 10 Hz.

8.5. Original test data

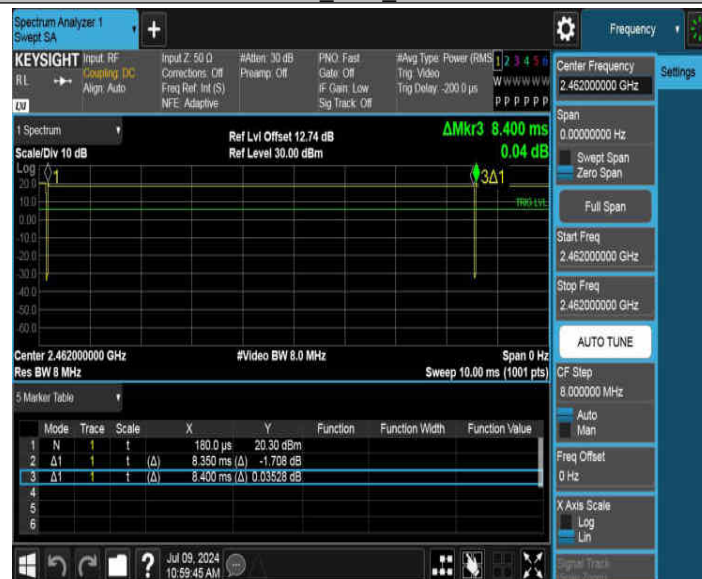




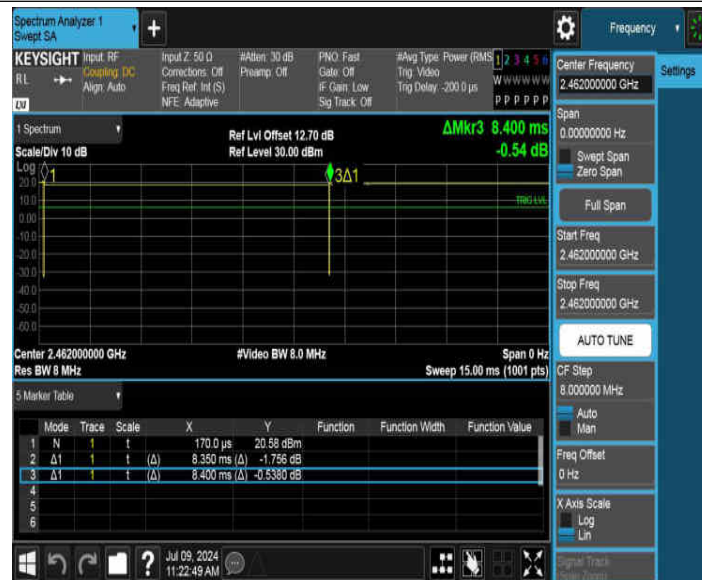
11B_Ant2_2437



11B_Ant1_2462



11B_Ant2_2462



11G_Ant1_2412



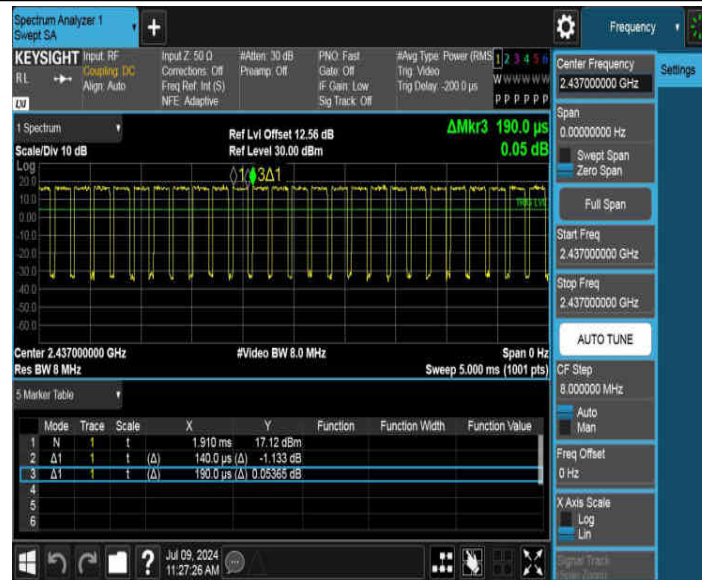
11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



11G_Ant1_2462



11G_Ant2_2462



11N20MIMO_Ant1_2412



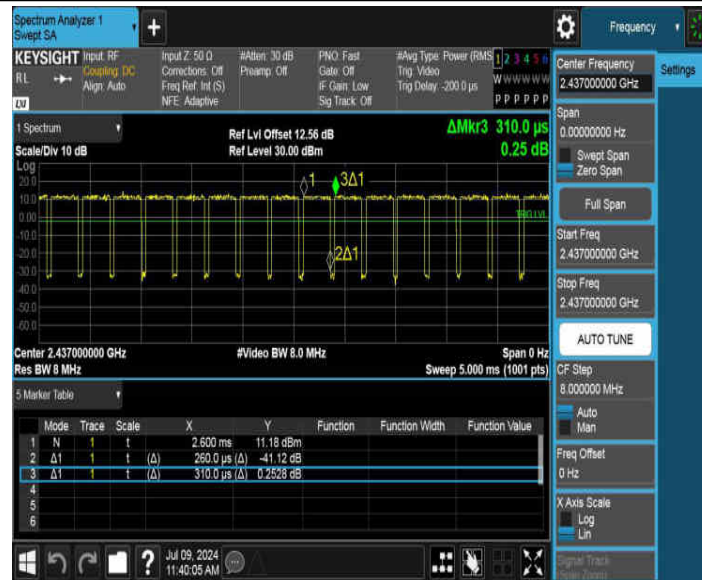
11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462



11N40MIMO_Ant1_2422



11N40MIMO_Ant2_2422



11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



11AX20MIMO_Ant1_2412



11AX20MIMO_Ant2_2412



11AX20MIMO_Ant1_2437



11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462



11AX40MIMO_Ant1_2422



11AX40MIMO_Ant2_2422



11AX40MIMO_Ant1_2437



11AX40MIMO_Ant2_2437



11AX40MIMO_Ant1_2452



11AX40MIMO_Ant2_2452



9. 6 dB DTS Bandwidth

9.1. Block diagram of test setup

Same as section 8.1

9.2. Limits

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5

9.3. Test Procedure

Connect the UUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth :100 kHz For 99 % Occupied Bandwidth :1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: $\geq 3 \times$ RBW For 99 % Occupied Bandwidth : $\geq 3 \times$ RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and 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 and 99 % relative to the maximum level measured in the fundamental emission.

9.4. Results

6dB bandwidth:

Test Mode	Ant.	Freq. (MHz)	DTS BW (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11B	Ant1	2412	8.560	2407.480	2416.040	0.5	PASS
	Ant2	2412	9.040	2407.480	2416.520	0.5	PASS
	Ant1	2437	8.040	2432.960	2441.000	0.5	PASS
	Ant2	2437	8.080	2432.960	2441.040	0.5	PASS
	Ant1	2462	8.040	2458.000	2466.040	0.5	PASS
	Ant2	2462	9.040	2457.480	2466.520	0.5	PASS
11G	Ant1	2412	15.120	2404.440	2419.560	0.5	PASS
	Ant2	2412	15.120	2404.440	2419.560	0.5	PASS
	Ant1	2437	15.120	2429.440	2444.560	0.5	PASS
	Ant2	2437	15.120	2429.440	2444.560	0.5	PASS
	Ant1	2462	15.120	2454.440	2469.560	0.5	PASS
	Ant2	2462	15.120	2454.440	2469.560	0.5	PASS
11N20MIMO	Ant1	2412	15.280	2404.280	2419.560	0.5	PASS
	Ant2	2412	13.800	2404.440	2418.240	0.5	PASS
	Ant1	2437	15.280	2429.280	2444.560	0.5	PASS
	Ant2	2437	15.120	2429.440	2444.560	0.5	PASS
	Ant1	2462	16.280	2453.280	2469.560	0.5	PASS
	Ant2	2462	15.080	2454.440	2469.520	0.5	PASS
11N40MIMO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
	Ant2	2422	30.080	2404.480	2434.560	0.5	PASS
	Ant1	2437	35.040	2419.480	2454.520	0.5	PASS
	Ant2	2437	33.840	2419.480	2453.320	0.5	PASS
	Ant1	2452	35.040	2434.480	2469.520	0.5	PASS

	Ant2	2452	33.840	2435.680	2469.520	0.5	PASS
11AX20MIMO	Ant1	2412	15.120	2404.440	2419.560	0.5	PASS
	Ant2	2412	15.040	2404.520	2419.560	0.5	PASS
	Ant1	2437	15.120	2429.440	2444.560	0.5	PASS
	Ant2	2437	15.120	2429.440	2444.560	0.5	PASS
	Ant1	2462	15.120	2454.440	2469.560	0.5	PASS
	Ant2	2462	15.080	2454.480	2469.560	0.5	PASS
11AX40MIMO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
	Ant2	2422	30.080	2404.480	2434.560	0.5	PASS
	Ant1	2437	34.960	2419.560	2454.520	0.5	PASS
	Ant2	2437	35.040	2419.480	2454.520	0.5	PASS
	Ant1	2452	33.840	2435.680	2469.520	0.5	PASS
	Ant2	2452	35.040	2434.480	2469.520	0.5	PASS

99 % bandwidth:

Test Mode	Ant.	Channel Freq. (MHz)	OCB (MHz)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
11B	Ant1	2412	13.410	2405.3163	2418.7263	---	---
	Ant2	2412	13.403	2405.3133	2418.7163	---	---
	Ant1	2437	13.418	2430.2620	2443.6800	---	---
	Ant2	2437	13.488	2430.1816	2443.6696	---	---
	Ant1	2462	13.437	2455.2216	2468.6586	---	---
	Ant2	2462	13.446	2455.2728	2468.7188	---	---
11G	Ant1	2412	16.780	2403.6201	2420.4001	---	---
	Ant2	2412	16.758	2403.6087	2420.3667	---	---
	Ant1	2437	16.717	2428.6567	2445.3737	---	---
	Ant2	2437	16.723	2428.6109	2445.3339	---	---
	Ant1	2462	16.804	2453.5420	2470.3460	---	---
	Ant2	2462	16.722	2453.6771	2470.3991	---	---
11N20MIMO	Ant1	2412	18.933	2402.5126	2421.4456	---	---
	Ant2	2412	18.855	2402.5793	2421.4343	---	---
	Ant1	2437	18.926	2427.5431	2446.4691	---	---
	Ant2	2437	18.915	2427.5104	2446.4254	---	---
	Ant1	2462	18.935	2452.5120	2471.4470	---	---
	Ant2	2462	18.890	2452.5571	2471.4471	---	---
11N40MIMO	Ant1	2422	37.499	2403.2880	2440.7870	---	---
	Ant2	2422	37.177	2403.0587	2440.2357	---	---
	Ant1	2437	37.556	2418.2164	2455.7724	---	---
	Ant2	2437	37.589	2418.2208	2455.8098	---	---
	Ant1	2452	37.536	2433.3205	2470.8565	---	---
	Ant2	2452	37.544	2433.4082	2470.9522	---	---
11AX20MIMO	Ant1	2412	17.830	2403.0846	2420.9146	---	---
	Ant2	2412	17.749	2403.1348	2420.8838	---	---
	Ant1	2437	17.779	2428.0561	2445.8351	---	---
	Ant2	2437	17.782	2428.1005	2445.8825	---	---
	Ant1	2462	17.804	2453.0396	2470.8436	---	---
	Ant2	2462	17.780	2453.1007	2470.8807	---	---
11AX40MIMO	Ant1	2422	35.934	2404.0274	2439.9614	---	---
	Ant2	2422	35.952	2403.7001	2439.6521	---	---
	Ant1	2437	35.924	2419.0156	2454.9396	---	---
	Ant2	2437	35.977	2419.0337	2455.0107	---	---

	Ant1	2452	36.003	2434.0201	2470.0231	---	---
	Ant2	2452	36.052	2434.0962	2470.1482	---	---

9.5. Original test data

6dB bandwidth:





11B_Ant2_2437



11B_Ant1_2462



11B_Ant2_2462



11G_Ant1_2412



11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



11G_Ant1_2462



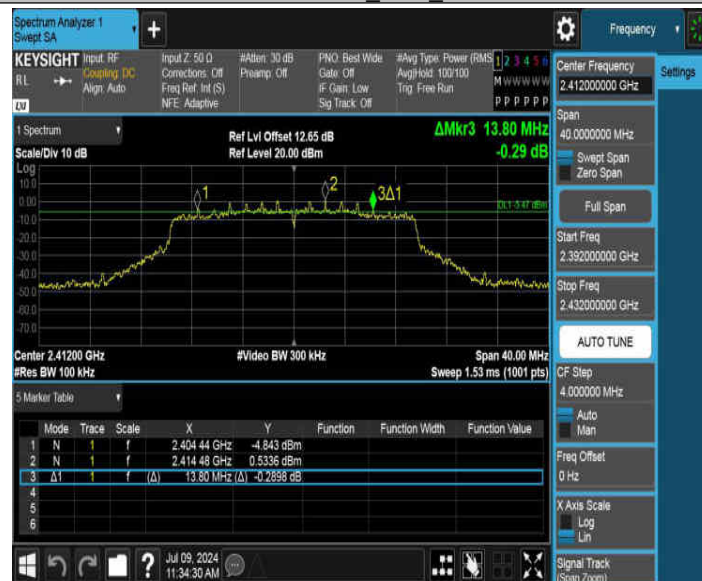
11G_Ant2_2462



11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462



11N40MIMO_Ant1_2422



11N40MIMO_Ant2_2422



11N40MIMO_Ant1_2437



11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



11AX20MIMO_Ant1_2412



11AX20MIMO_Ant2_2412



11AX20MIMO_Ant1_2437



11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462



11AX40MIMO_Ant1_2422



11AX40MIMO_Ant2_2422



11AX40MIMO_Ant1_2437



11AX40MIMO_Ant2_2437



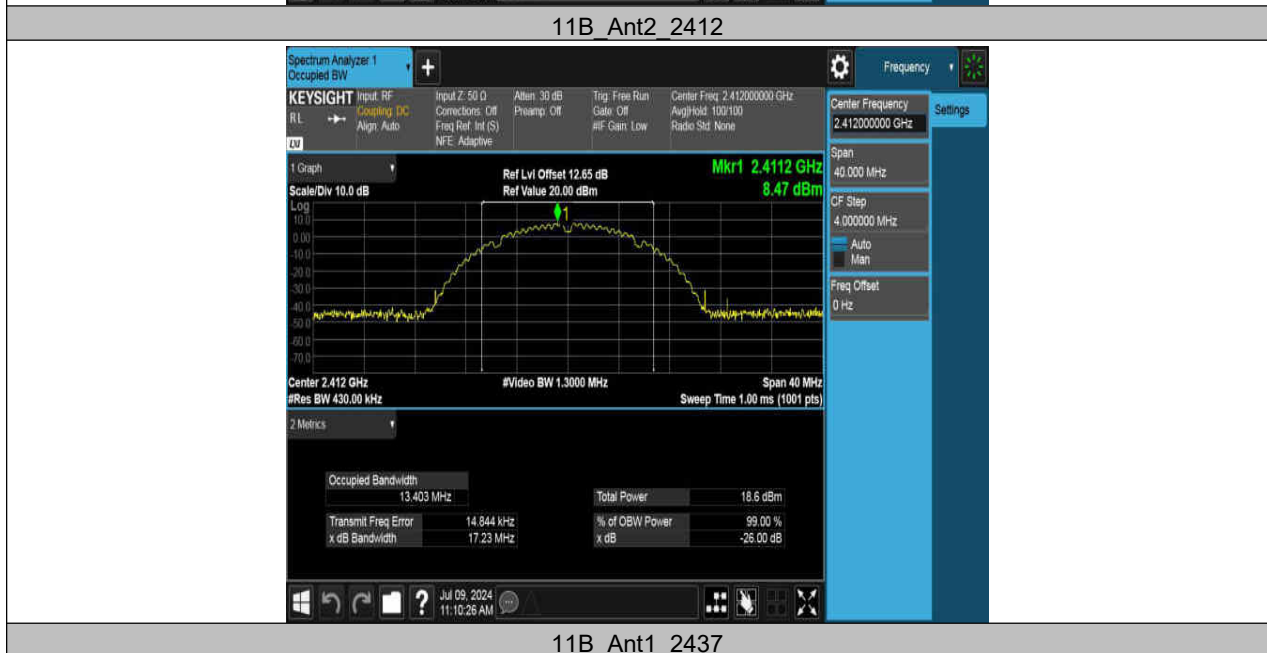
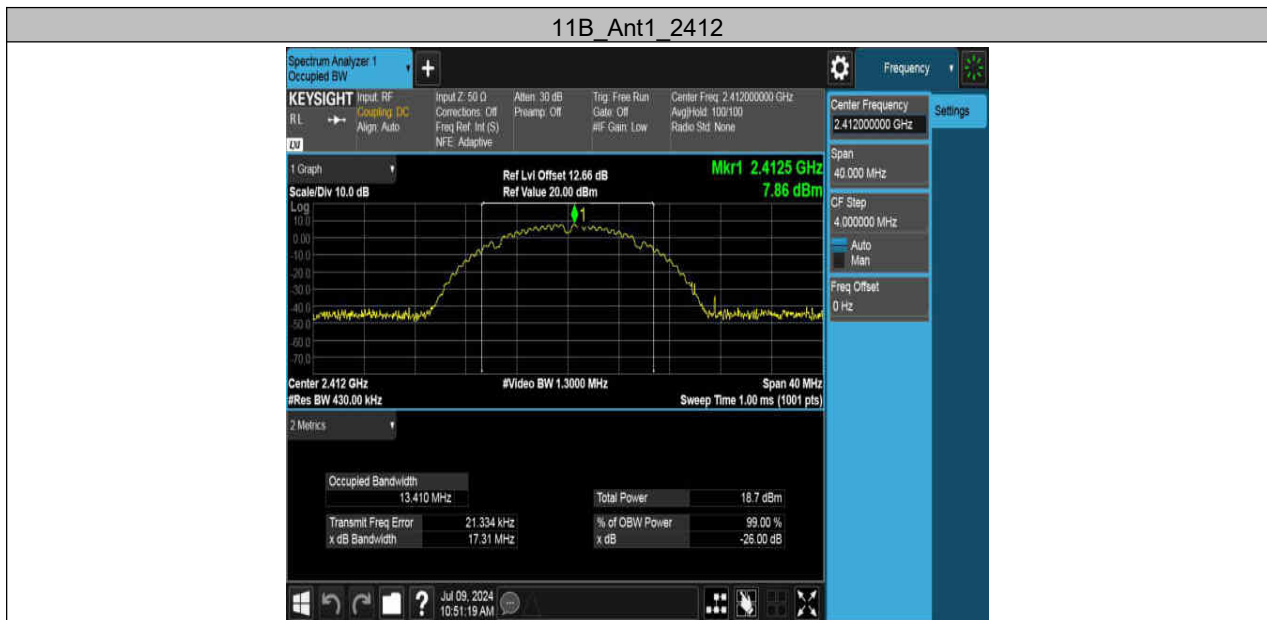
11AX40MIMO_Ant1_2452

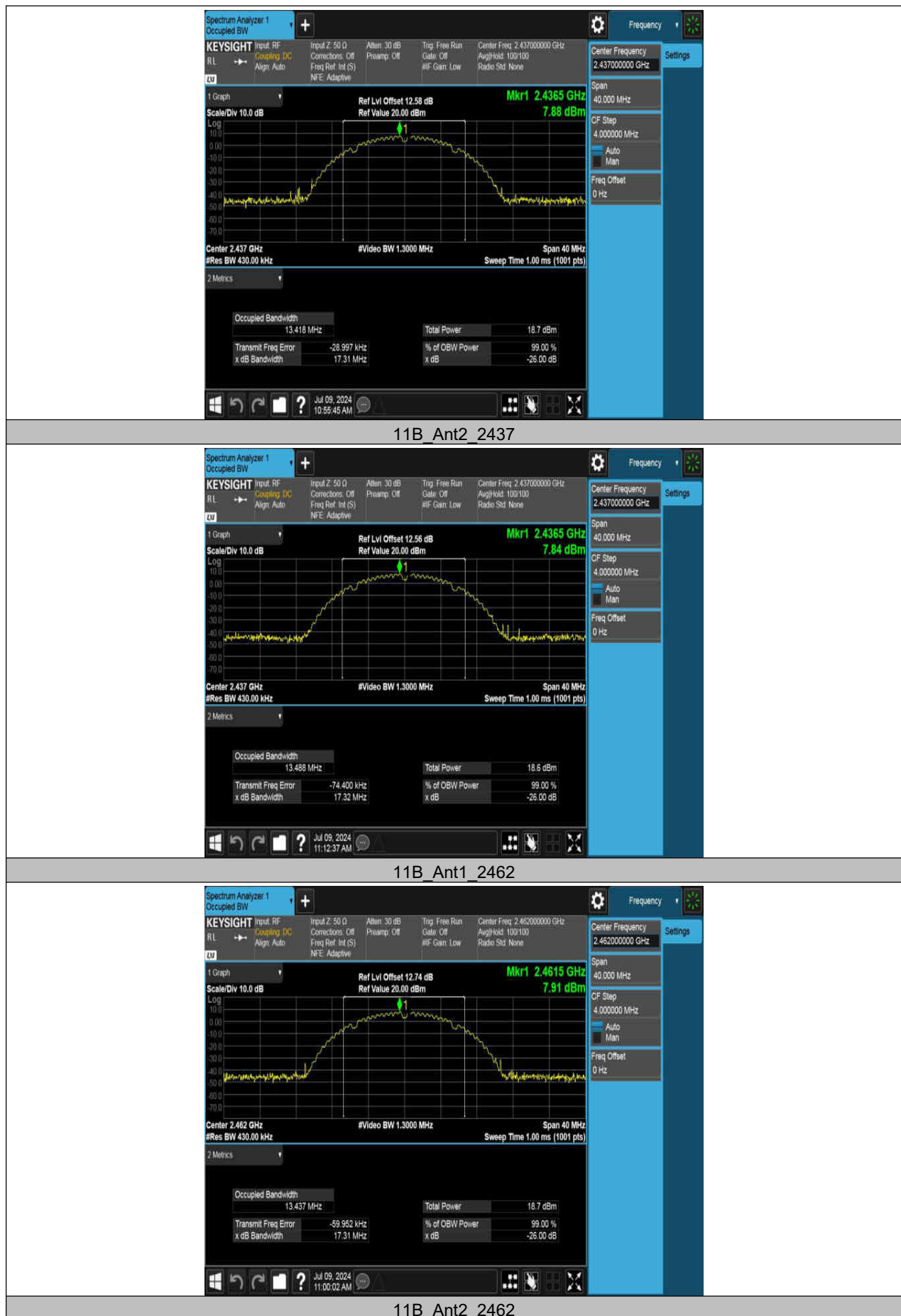


11AX40MIMO_Ant2_2452



99 % bandwidth:







11G_Ant1_2412



11G_Ant2_2412



11G_Ant1_2437



11G_Ant2_2437



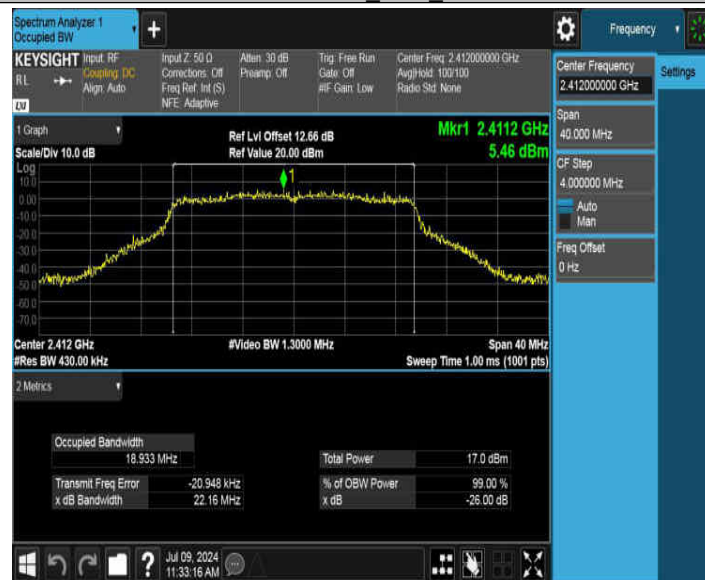
11G_Ant1_2462



11G_Ant2_2462



11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



11N20MIMO_Ant2_2462