

FCC Test Report

Report No.: AGC02115210403FE06

FCC ID : 2AG6IANAFIAI

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: ANAFI Ai

BRAND NAME: Parrot

MODEL NAME : ANAFI Ai

APPLICANT: PARROT DRONE SAS

DATE OF ISSUE : Jul. 19, 2021

STANDARD(S) FCC Part 15.407

TEST PROCEDURE(S) KDB 789033 D02 v02r01

REPORT VERSION : V1.

Attestation of Global Compliance (Shenzhen) Co., Ltd

AGC





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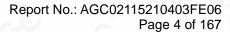
REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul. 19, 2021	Valid	Initial Release



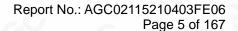
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1. VERIFICATION OF CONFORMITY

Applicant	PARROT DRONE SAS			
Address	174 quai de jemmapes 75010 Paris France			
Manufacturer	Shenzhen Allcomm Electronic Company Limited.			
Address	272, Guangtian Road Left Side, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen City, Guangdong Province, China			
Factory	Shenzhen Allcomm Electronic Company Limited.			
Address	272, Guangtian Road Left Side, Tangxiayong Community, Yanluo Street, Baoan, Shenzhen City, Guangdong Province, China			
Product Designation	ANAFI Ai			
Brand Name	Parrot			
Test Model	ANAFI Ai			
Date of test	Apr. 16, 2021~Jul. 19, 2021			
Deviation	No any deviation from the test method			
Condition of Test Sample	Normal			
Test Result	Pass			
Report Template	AGCRT-US-BGN/RF			

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Prepared By	Injon Hurong	
	Donjon Huang (Project Engineer)	Jul. 19, 2021
Reviewed By	Calin Lin	CC C
	Calvin Liu (Reviewer)	Jul. 19, 2021
Approved By	Forrest ve	
	Forrest Lei Authorized Officer	Jul. 19, 2021

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2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as "ANAFI Ai". It is designed by way of utilizing the OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	5150 MHz ~ 5250MHz; 5725 MHz ~ 5850MHz	z G			
Output Power(5G 10MHz)	OFDM with data rate 6:24.83dBm; OFDM wit	h data rate MCS0:24.50dBm			
Output Power(5G MIMO)	OFDM with data rate MCS0:27.19dBm	,0			
Output Power(5G 20MHz)	IEEE 802.11A:24.50dBm; IEEE 802.11N:24.5	IEEE 802.11A:24.50dBm; IEEE 802.11N:24.57dBm			
Output Power(5G MIMO)	IEEE 802.11N:27.53dBm	0			
Modulation	BPSK, QPSK, 16QAM, 64QAM, 128QAM, 25	66QAM, OFDM			
Modulation(5G 10MHz)	OFDM				
Number of channels	15				
Hardware Version	ANAFI2_MB_HW06				
Software Version	V1.0				
Antenna Designation	Integral antenna (Comply with requirements of the FCC part 15.203)				
Number of transmit chain	4 (802.11n/a uses four antennas, but 802.11a supports SISO, 802.11n supports MIMO, and only two antennas in the same direction are mutually MIMO) 4 (OFDM with data rate 6/ OFDM with data rate MCS0 uses four antennas, but 802.11a supports MIMO, and only two antennas in the same direction are mutually MIMO)				
Antenna Gain	Band 1 Band 4 Ant 1:5.5dBi; Ant 2: 5.5dBi Ant 1:				
Power Supply	DC 11.55V by battery				

Note:

- 1. The EUT is client devices operating without radar detection.
- 2. The device do not support TPC.



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2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency	Frequency Band	Channel Number	Frequency
	36	5180 MHz	8	149	5745 MHz
-C.	40	5200 MHz	30	153	5765 MHz
5150 GHz ~ 5250GHz	44	5220 MHz	5725 GHz ~ 5850GHz	157	5785 MHz
02000112	48	5240 MHz	30300112	161	5805 MHz
GC C			- 60	165	5825MHz



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2.3. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2AG6IANAFIAI** filing to comply with the FCC Part 15 requirements.

2.4. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013). Radiated testing was performed at an antenna to EUT distance 3 meters.

Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.407 rules KDB 789033 D02

2.5. SPECIAL ACCESSORIES

Refer to section 5.2.

2.6. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2.7. ANTENNA REQUIREMENT

This intentional radiator is designed with a permanently attached antenna of an antenna to ensure that no antenna other than that furnished by the responsible party shall be used with the device. For more information of the antenna, please refer to the APPENDIX B: PHOTOGRAPHS OF EUT.



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2.8. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency	TX	Bandwidth	N	lax Peal	k Gain (dl	3i)	Max													
Type	Band (MHz)	Paths	(MHz)	Ant 1	Ant 2	Ant 3	Ant 4	Directional Gain (dBi)													
5G WIFI Inte	ernal Antenna Lis	t (5GHz	2*2 MIMO)																		
- GO	- 6	(8)		5.5	5.5			8													
	5150 ~ 5250	2	10,20	®		2.55	2.66	8.51													
0	3130 ~ 3230	2	10,20	5.5		2.55		6.51													
Internal	-6			0													<u> </u>	5.5	-	2.66	•
Antenna	9 . 60		8	5.0	5.1	i	7	-,0													
0	670E 6960	2	10.20	G		2.30	2.61	8.11													
	5725 ~ 5850	2	10,20	5.0	3-	2.30		0.11													
	- GC		©		5.1		2.61	-6													

Note 1: The EUT supports Cyclic Delay Diversity (CDD) technology for 802.11n mode.

Note 2: The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

If all antennas have the same gain, Gant, Directional gain = Gant + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on devices:

Array Gain = $10 \log (N_{ANT}/N_{SS}) dB = 3.01$;

For power measurements on IEEE 802.1devices:

Array Gain = 0 dB for Nant ≤ 4;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥40 MHz for any NANT;

Array Gain = 5 log(Nant/Nss) dB or 3 dB, whichever is less, for 20 MHz channel widths with Nant ≥ 5.

If antenna gains are not equal, Directional gain may be calculated by using the formulas applicable to equal gain antennas with Gant set equal to the gain of the antenna having the highest gain.

Note 3: Antenna 1 corresponds to the front right of the EUT, antenna 2 corresponds to the front left of the EUT, antenna 3 corresponds to the right rear of the EUT, and antenna 4 corresponds to the left rear of the EUT.



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3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%

Item	Measurement Uncertainty	
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 3.1 \text{ dB}$	
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 4.0 \text{ dB}$	
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.8 \text{ dB}$	
Uncertainty of total RF power, conducted	$U_c = \pm 0.8 \text{ dB}$	
Uncertainty of RF power density, conducted	$U_c = \pm 2.6 \text{ dB}$	
Uncertainty of spurious emissions, conducted	U _c = ±2 %	
Uncertainty of Occupied Channel Bandwidth	U _c = ±2 %	



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4. DESCRIPTION OF TEST MODES

Mode	Tested channel	Modulation	Date rate (Mbps)
802.11a/n20	36,40,48, 149,157,165	OFDM	6Mbps/MCS0
5G 10MHz	36,40,48, 149,157,165	OFDM	6Mbps/MCS0

Note:

- 1. The EUT has been set to operate continuously on tested channel individually, and the EUT is operating at its maximum duty cycle>or equal 98%.
- 2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
- 3. The test software is the QSPR V5.0-00099 which can set the EUT into the individual test modes.

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Bedicated Pesting/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written extraordinary of AGC within 15day after the issuance of the test represented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15day after the issuance of the test represented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15day after the issuance of the test represented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15day after the issuance of the test represented in the report apply only to the test report should be addressed to AGC by agc@agc-cert.com.

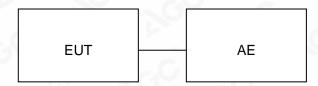


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5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure 1:



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	ANAFI Ai	ANAFI Ai	2AG6IANAFIAI	EUT
2	Battery	ANAFI2 Lithium-ion Polymer rechargeable Battery	DC 11.55V	EUT
3	Adapter	TY0500100E1MN	N/A	AE
4	Type-C line	N/A	N/A	AE

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.407	6dB Bandwidth	Compliant
§15.407	Emission Bandwidth	Compliant
§15.407	Maximum conducted output power	Compliant
§15.407	Conducted Spurious Emission	Compliant
§15.407	Maximum Conducted Output Power Density	Compliant
§15.209	Radiated Emission	Compliant
§15.407	Band Edges	Compliant
§15.207	AC Line Conduction Emission	Compliant



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6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd				
Location	I-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China				
Designation Number	CN1259				
FCC Test Firm Registration Number	975832				
A2LA Cert. No.	5054.02				
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA				

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	May 15, 2020	May 14, 2021
TEST RECEIVER	R&S	ESPI	101206	May 13, 2021	May 12, 2022
LISN	R&S	ESH2-Z5	100086	Jul. 03,2020	Jul. 02,2021
LISN	R&S	ESH2-Z5	100086	Jun. 09, 2021	Jun. 08, 2022
Test software	R&S	ES-K1 (Ver V1.71)	N/A	N/A	N/A

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Apr. 14, 2021	Apr. 13, 2022
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec. 07, 2020	Dec. 06, 2021
Power sensor	Aglient	U2021XA	MY54110007	Jun. 08, 2020	Jun. 07, 2021
5GHz Fliter	EM Electronics	5150-5880MHz	N/A	Mar. 23, 2020	Mar. 22, 2022
Attenuator	ZHINAN	E-002	N/A	Sep. 03, 2020	Sep. 02, 2022
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.21, 2019	Sep. 20, 2021
Active loop antenna (9K-30MHz)	ZHINAN	ZN30900C	18051	May 22, 2020	May 21, 2022
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May 17, 2019	May 16, 2021
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May 15, 2021	May 14, 2023
Broadband Preamplifier	ETS LINDGREN	3117PA	00225134	Sep. 03, 2020	Sep. 02, 2022
ANTENNA	SCHWARZBECK	VULB9168	494	Sep. 20, 2019	Sep. 19, 2021
Test software	FARA	EZ-EMC(Ver.RA-03 A)	N/A	N/A	N/A



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7. MAXIMUM CONDUCTED OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

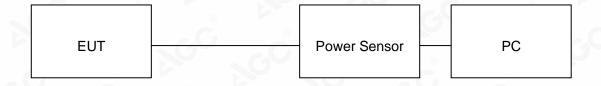
For average power test:

- 1. Connect EUT RF output port to power sensor through an RF attenuator.
- 2. Connect the power sensor to the PC.
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Record the maximum power from the software.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

7.2. TEST SET-UP

AVERAGE POWER SETUP





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7.3. LIMITS AND MEASUREMENT RESULT

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 1					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDM With Data Rate 6	5180	16.02	24	Pass	
	5200	15.91	24	Pass	
	5240	16.18	24	Pass	
OFDIAMES D.	5180	12.16	24	Pass	
OFDM With Data Rate Mcs0	5200	13.17	24	Pass	
	5240	13.10	24	Pass	

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 2					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDMANA!!! D. (5180	15.45	24	Pass	
OFDM With Data Rate 6	5200	15.83	24	Pass	
Nate o	5240	15.83	24	Pass	
0551414771 5	5180	12.66	24	Pass	
OFDM With Data Rate Mcs0	5200	12.65	24	Pass	
Nate MCSU	5240	12.82	24	Pass	

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 3					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDIAMES D	5180	15.98	24	Pass	
OFDM With Data Rate 6	5200	16.52	24	Pass	
Nate o	5240	15.84	24	Pass	
OFFINANCIA D. (5180	12.49	24	Pass	
OFDM With Data Rate Mcs0	5200	12.74	24	Pass	
	5240	13.04	24	Pass	

Test Data of C	onducted Output Powe	er for band 5.15-5.25 GHz- Bar	ndwidth 10 MHz	of antenna 4
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OEDMANA!!! D	5180	15.83	24	Pass
OFDM With Data Rate 6	5200	15.92	24	Pass
	5240	15.78	24	Pass
055144444	5180	12.42	24	Pass
OFDM With Data Rate Mcs0	5200	12.93	24	Pass
	5240	12.74	24	Pass



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Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 1+2				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OFDM With Data Rate Mcs0	5180	15.43	24	Pass
	5200	15.93	24	Pass
	5240	15.97	24	Pass

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 3+4					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDM With Data Rate Mcs0	5180	15.47	24	Pass	
	5200	15.85	24	Pass	
	5240	15.90	24	Pass	

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 1+3					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDM With Data Rate Mcs0	5180	15.34	24	Pass	
	5200	15.97	24	Pass	
	5240	16.08	24	Pass	

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 2+4				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OFDM With Data Rate Mcs0	5180	15.55	24	Pass
	5200	15.80	24	Pass
	5240	15.79	24	Pass

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Test Data of	Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 1				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
	5180	18.73	24	Pass	
802.11a	5200	19.07	24	Pass	
z.C	5240	18.88	24	Pass	
	5180	15.35	24	Pass	
802.11n20	5200	16.21	24	Pass	
0	5240	15.94	24	Pass	

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 2				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
802.11a	5180	18.64	24	Pass
	5200	18.92	24	Pass
	5240	19.13	24	Pass
- 6	5180	15.89	24	Pass
802.11n20	5200	15.97	24	Pass
	5240	16.05	24	Pass

Test Data of	Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 3				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
8	5180	18.59	24	Pass	
802.11a	5200	18.73	24 🏻	Pass	
	5240	18.86	24	Pass	
	5180	15.45	24	Pass	
802.11n20	5200	15.96	24	Pass	
100 -	5240	15.83	24	Pass	

Test Data of	Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 4				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
	5180	18.93	24	Pass	
802.11a	5200	18.53	24	Pass	
U _ C	5240	18.73	24	Pass	
	5180	15.87	24	Pass	
802.11n20	5200	15.51	24	Pass	
8	5240	15.37	24	Pass	



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Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 1+2					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
	5180	18.64	24	Pass	
802.11n20	5200	19.10	24	Pass	
	5240	19.01	24	Pass	

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 3+4				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
802.11n20	5180	18.68	24	Pass
	5200	18.75	24	Pass
	5240	18.62	24	Pass

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 1+3				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
802.11n20	5180	18.41	24	Pass
	5200	19.10	24	Pass
	5240	18.90	24	Pass

Test Data of Conducted Output Power for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 2+4				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
- GU	5180	18.89	24	Pass
802.11n20	5200	18.76	24	Pass
· ·	5240	18.73	24	Pass





Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 1				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OFDMANU D.	5745	24.67	30	Pass
OFDM With Data Rate 6	5785	24.83	30	Pass
Rate o	5825	24.03	30	Pass
OFDM With Data Rate Mcs0	5745	23.67	30	Pass
	5785	24.18	30	Pass
	5825	23.72	30	Pass

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 2				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OFDIANAIL D	5745	24.68	30	Pass
OFDM With Data Rate 6	5785	24.35	30	Pass
Nate o	5825	23.99	30	Pass
0551414711 5	5745	23.60	30	Pass
OFDM With Data Rate Mcs0	5785	23.64	30	Pass
	5825	23.61	30	Pass

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 3				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OEDMANN D	5745	24.68	30	Pass
OFDM With Data Rate 6	5785	24.39	30	Pass
rate o	5825	23.80	30	Pass
OFDIAMES D.	5745	23.86	30	Pass
OFDM With Data Rate Mcs0	5785	24.18	30	Pass
	5825	23.78	30	Pass

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 4				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
OEDMAKI B	5745	24.66	30	Pass
OFDM With Data Rate 6	5785	24.48	30	Pass
rate o	5825	23.93	30	Pass
OFDM With Data Rate Mcs0	5745	24.48	30	Pass
	5785	24.50	30	Pass
Tale Meso	5825	23.84	30	Pass



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Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 1+2					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDM With Data Rate Mcs0	5745	26.65	30	Pass	
	5785	26.93	30	Pass	
	5825	26.68	30	Pass	

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 3+4						
Test Mode Test Channel (MHz) Average Power (dBm) Limits (dBm) Pass or Fail						
OFDIANAL D.	5745	27.19	30	Pass		
OFDM With Data Rate Mcs0	5785	27.35	30	Pass		
	5825	26.82	30	Pass		

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 1+3					
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
OFDM With Data Rate Mcs0	5745	26.78	30	Pass	
	5785	27.19	30	Pass	
	5825	26.76	30	Pass	

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 2+4						
Test Mode Test Channel (MHz) Average Power Limits (dBm) Pass or Fail						
OFDM With Data Rate Mcs0	5745	27.07	30	Pass		
	5785	27.10	30	Pass		
	5825	26.74	30	Pass		



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Test Data of 0	Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 1				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
	5745	23.94	30	Pass	
802.11a	5785	24.50	30	Pass	
	5825	24.14	30	Pass	
	5745	24.51	30	Pass	
802.11n20	5785	24.46	30	Pass	
	5825	23.89	30	Pass	

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 2				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail
802.11a	5745	24.01	30	Pass
	5785	23.92	30	Pass
	5825	24.13	30	Pass
- 0	5745	23.87	30	Pass
802.11n20	5785	24.57	30	Pass
	5825	24.05	30	Pass

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 3				
Test Mode	t Mode Test Channel Average (MHz) (dBn		Limits (dBm)	Pass or Fail
8	5745	23.99	30	Pass
802.11a	5785	23.67	30 🏻	Pass
	5825	24.14	30	Pass
	5745	23.76	30	Pass
802.11n20	5785	23.56	30	Pass
\O'	5825	23.94	30	Pass

Test Data of C	Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 4				
Test Mode	Test Channel (MHz)	Average Power (dBm)	Limits (dBm)	Pass or Fail	
	5745	23.94	30	Pass	
802.11a	5785	23.59	30	Pass	
C	5825	24.03	30	Pass	
	5745	23.81	30	Pass	
802.11n20	5785	23.76	30	Pass	
®	5825	24.21	30	Pass	



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/Inspection The test results

the test report.

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 1+2							
Test Mode	Test Channel (MHz) Average Power (dBm) Limits (dBm) Pass or Fail						
	5745	27.21	30	Pass			
802.11n20	5785	27.53	30	Pass			
	5825	26.98	30	Pass			

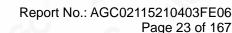
Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 3+4						
Test Mode Test Channel (MHz) Average Power Limits (dBm) Pass or F						
802.11n20	5745	26.80	30	Pass		
	5785	26.67	30	Pass		
	5825	27.09	30	Pass		

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 1+3							
Test Mode Test Channel Average Power Limits (MHz) (dBm) Pass or Fa							
802.11n20	5745	27.16	30	Pass			
	5785	27.04	30	Pass			
	5825	26.93	30	Pass			

Test Data of Conducted Output Power for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 2+4							
Test Mode	Test Mode Test Channel Average Power Limits (MHz) (dBm) Pass or Fai						
802.11n20	5745	26.85	30	Pass			
	5785	27.19	30	Pass			
	5825	27.14	30	Pass			

Note: 1.E.I.R.P (dBm) = Average Output Power (dBm) + Antenna Gain (dBi).

- 2. The Total Average Power (dBm) = $10*log \{10^{(Ant \ 1 \ Average \ Power \ /10)} + 10^{(Ant \ 2 \ Average \ Power \ /10)}\}$.
- 3. The Total Average Power (dBm) = $10*log \{10^{(Ant 3 Average Power/10)} + 10^{(Ant 4 Average Power/10)}\}$.
- 4. The Total Average Power (dBm) = $10*log \{10^{(Ant \ 1 \ Average \ Power \ /10)} + \ 10^{(Ant \ 3 \ Average \ Power \ /10)}\}$.
- 5. The Total Average Power (dBm) = $10*\log \{10^{(Ant \ 2 \ Average \ Power \ /10)} + 10^{(Ant \ 4 \ Average \ Power \ /10)}\}$.





8. BANDWIDTH

8.1. MEASUREMENT PROCEDURE

-6dB bandwidth (DTS bandwidth):

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on operation frequency individually.
- 3. Set RBW = 100kHz.
- 4. Set the VBW ≥3*RBW. Detector = Peak. Trace mode = max hold.
- 5. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.

99% occupied bandwidth:

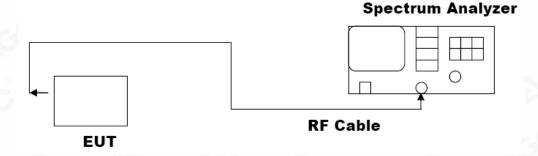
- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set Span = approximately 1.5 to 5 times the OBW, centered on a nominal channel
 The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video
 bandwidth (VBW) shall be approximately three times RBW; Sweep = auto; Detector function = peak
- 4. Set SPA Trace 1 Max hold, then View.

-26dB Bandwidth:

- 1. Set RBW = approximately 1% of the emission bandwidth.
- 2. Set the VBW > RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



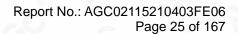


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8.3. LIMITS AND MEASUREMENT RESULTS

Test Data of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz- Bandwidth 10 MHz of antenna 1						
Test Mode Test Channel (MHz) 99% Occupied -26dB Bandwidth Limits (MHz) Pass or Fail						
0	5180	8.175	9.556	N/A	PASS	
OFDM With Data Rate 6	5200	8.192	9.666	N/A	PASS	
Trate o	5240	8.164	9.446	N/A	PASS	
OFDM With Data Rate Mcs0	5180	8.736	9.930	N/A	PASS	
	5200	8.742	9.923	N/A	PASS	
	5240	8.739	10.131	N/A	PASS	

Test Data of Occupied Bandwidth and DTS Bandwidth for band 5.725-5.85 GHz- Bandwidth 10 MHz of antenna 1							
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	DTS Bandwidth (MHz)	Limits (MHz)	Pass or Fail		
OFDM With Data Rate 6	5745	8.392	7.896	0.5	Pass		
	5785	8.327	7.816	0.5	Pass		
	5825	8.325	7.851	0.5	Pass		
OFDM With Data Rate Mcs0	5745	8.871	8.272	0.5	Pass		
	5785	8.879	8.281	0.5	Pass		
	5825	8.873	7.851	0.5	Pass		

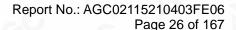




Test Data of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz- Bandwidth 20 MHz of antenna 1						
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	-26dB Bandwidth (MHz)	Limits (MHz)	Pass or Fail	
	5180	16.313	19.243	N/A	Pass	
802.11a	5200	16.286	18.721	N/A	Pass	
8	5240	16.267	18.719	N/A	Pass	
802.11n20	5180	17.390	19.385	N/A	Pass	
	5200	17.381	19.573	N/A	Pass	
	5240	17.373	19.731	N/A	Pass	

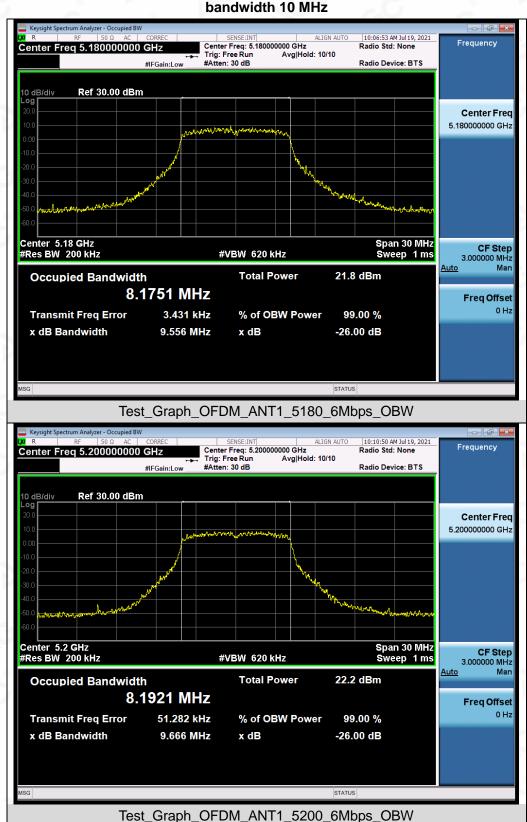
Test Data of Occupied Bandwidth and DTS Bandwidth for band 5.725-5.85 GHz- Bandwidth 20 MHz of antenna 1							
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	DTS Bandwidth (MHz)	Limits (MHz)	Pass or Fail		
802.11a	5745	16.578	15.055	0.5	Pass		
	5785	16.570	15.315	0.5	Pass		
	5825	16.578	15.992	0.5	Pass		
802.11n20	5745	17.586	15.070	0.5	Pass		
	5785	17.578	14.986	0.5	Pass		
	5825	17.526	15.046	0.5	Pass		

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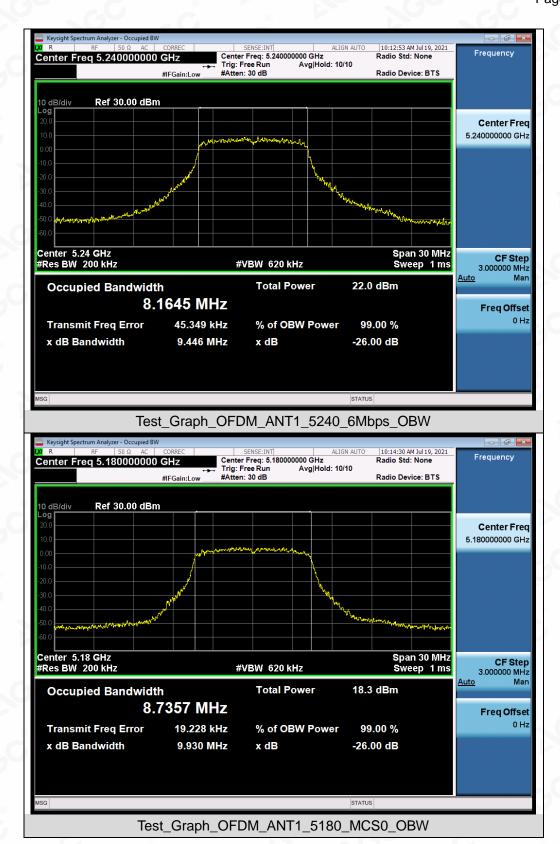


Test Graphs of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz

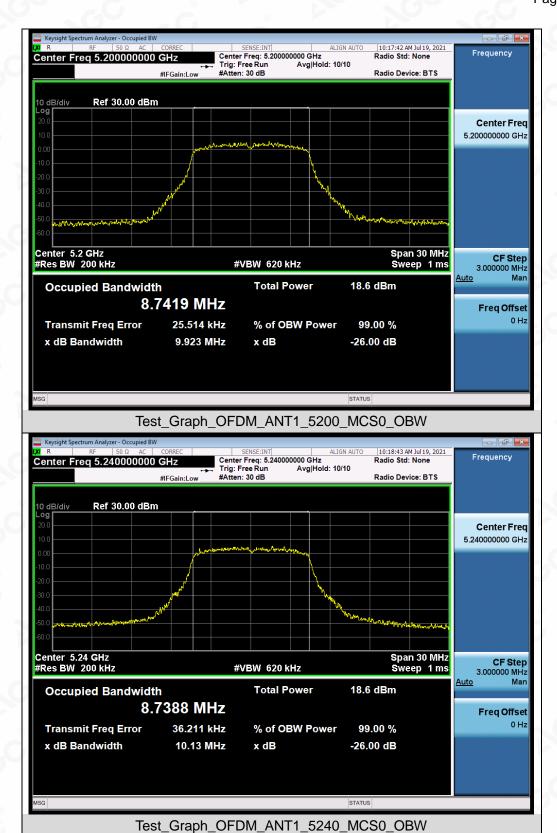


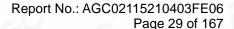
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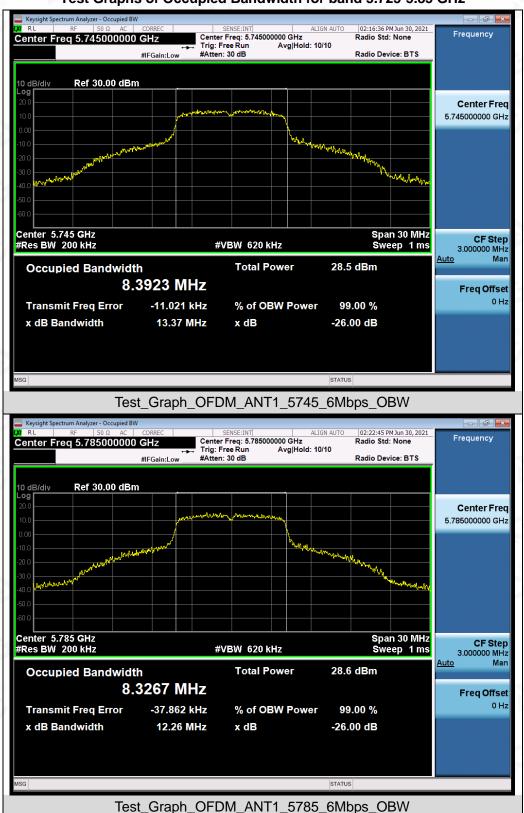








Test Graphs of Occupied Bandwidth for band 5.725-5.85 GHz











Total Power

Test_Graph_OFDM_ANT1_5825_MCS0_OBW

x dB

% of OBW Power

27.7 dBm

99.00 %

-26.00 dB

Freq Offset

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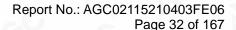
Occupied Bandwidth

Transmit Freq Error x dB Bandwidth

8.8729 MHz

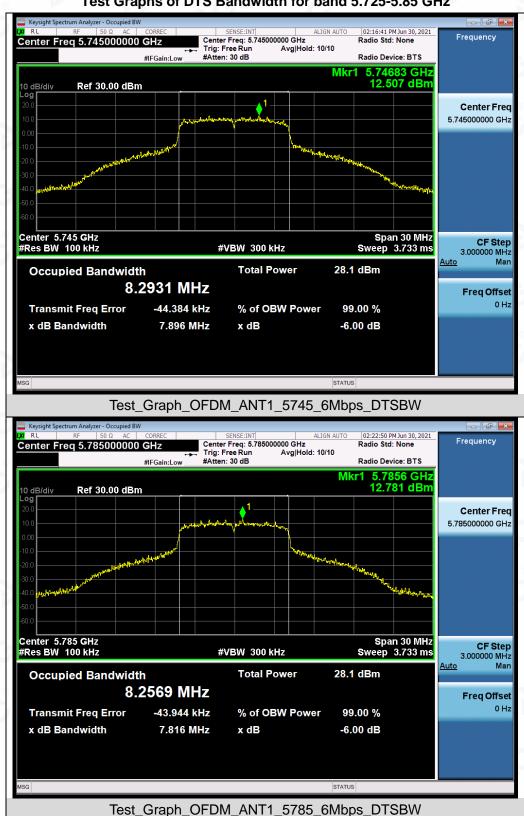
-51.904 kHz

12.98 MHz



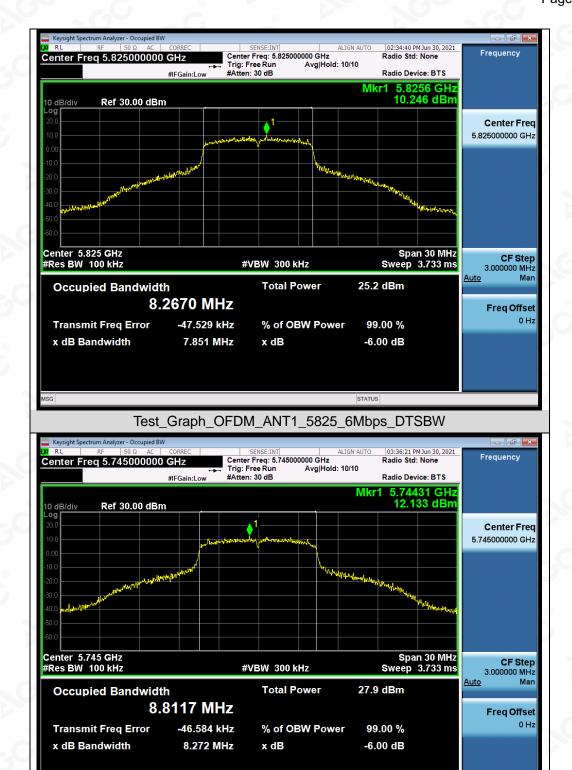


Test Graphs of DTS Bandwidth for band 5.725-5.85 GHz



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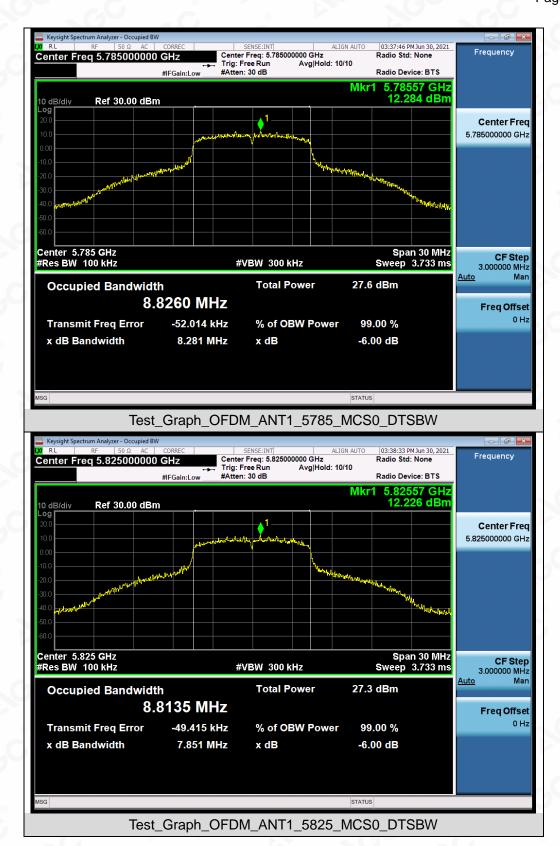




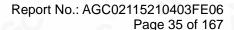
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Test_Graph_OFDM_ANT1_5745_MCS0_DTSBW





Note: Band 1 and Band 4 bandwidth tests only reflect the data of antenna 1.

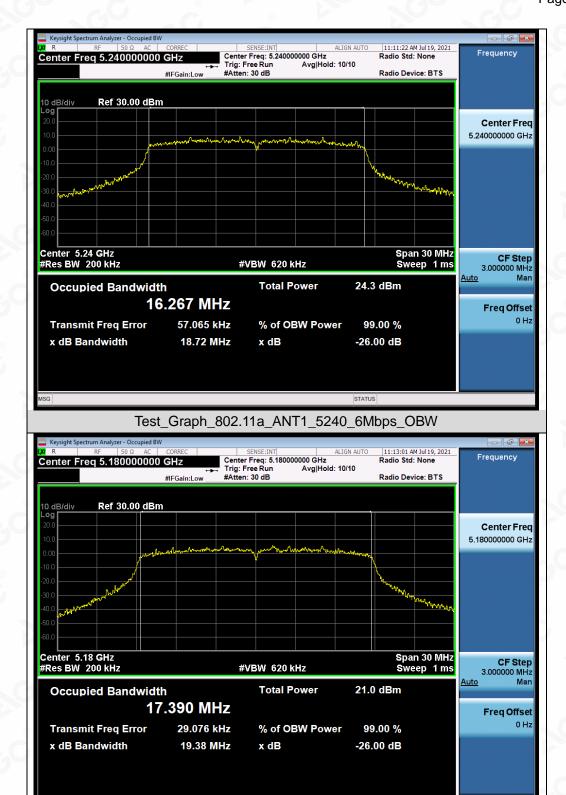




Test Graphs of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz



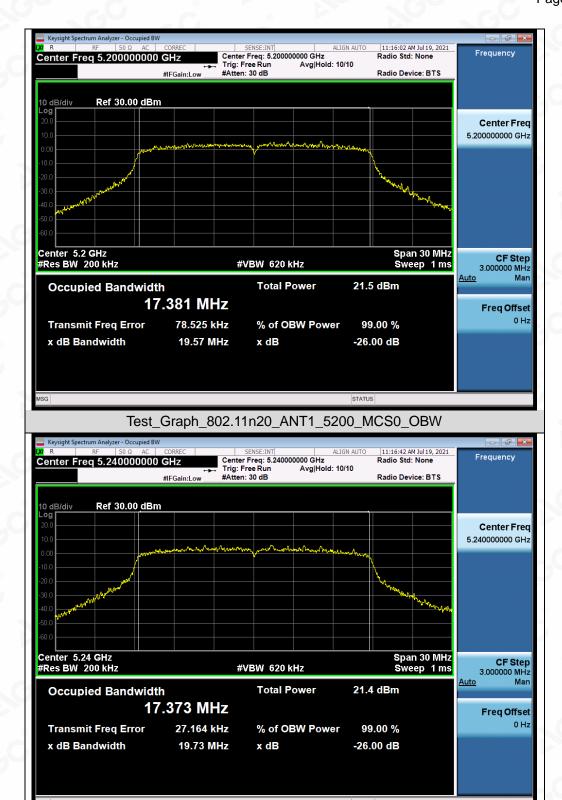




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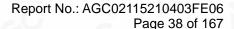
Test_Graph_802.11n20_ANT1_5180_MCS0_OBW





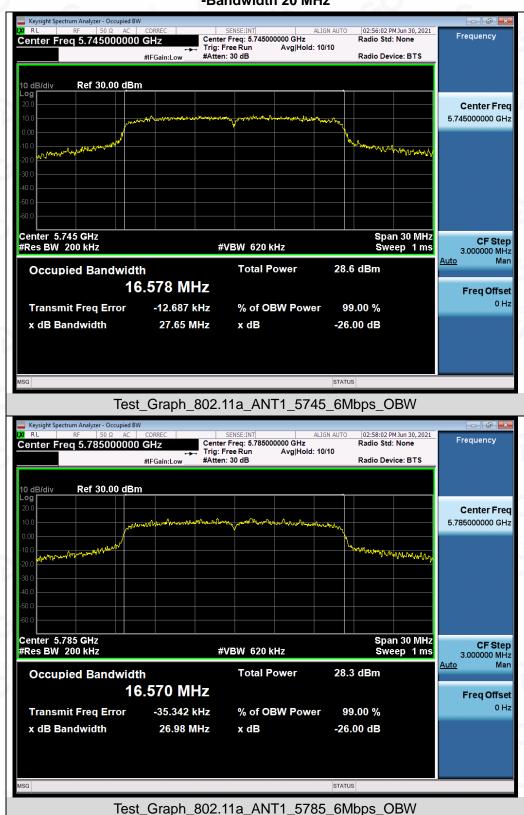
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Test_Graph_802.11n20_ANT1_5240_MCS0_OBW





Test Graphs of Occupied Bandwidth for band 5.725-5.85 GHz -Bandwidth 20 MHz



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