

FCC Test Report

Report No.: AGC07716190701FE06

FCC ID : 2AFENWK03A

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION : LED Projector

BRAND NAME : XGIMI

MODEL NAME : WK03A, WK04A, WK05A, WK06A, WK07A, WK08A,
WK09A, WK10A, WK11A, WK12A, WK13A, WK14A

APPLICANT : Chengdu XGimi Technology Co., Ltd.

DATE OF ISSUE : Sep. 04, 2019

STANDARD(S) : FCC Part 15.407

TEST PROCEDURE(S) : KDB 789033 D02 v02r01

REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Sep. 04, 2019	Valid	Initial Release



TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	5
2. GENERAL INFORMATION.....	6
2.1. PRODUCT DESCRIPTION	6
2.2. TABLE OF CARRIER FREQUENCIES	6
2.3. RELATED SUBMITTAL(S) / GRANT (S)	7
2.4. TEST METHODOLOGY	7
2.5. SPECIAL ACCESSORIES	7
2.6. EQUIPMENT MODIFICATIONS	7
3. MEASUREMENT UNCERTAINTY	8
4. DESCRIPTION OF TEST MODES.....	9
5. SYSTEM TEST CONFIGURATION	10
5.1. CONFIGURATION OF EUT SYSTEM	10
5.2. EQUIPMENT USED IN EUT SYSTEM.....	10
5.3. SUMMARY OF TEST RESULTS.....	10
6. TEST FACILITY	11
7. MAXIMUM CONDUCTED OUTPUT POWER.....	12
7.1. MEASUREMENT PROCEDURE	12
7.2. TEST SET-UP.....	12
7.3. LIMITS AND MEASUREMENT RESULT	13
8. 6DB BANDWIDTH	15
8.1. MEASUREMENT PROCEDURE	15
8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....	15
8.3. LIMITS AND MEASUREMENT RESULTS	16
9. EMISSION BANDWIDTH.....	24
9.1. MEASUREMENT PROCEDURE	24
9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....	24
9.3. LIMITS AND MEASUREMENT RESULTS	25
10. MAXIMUM CONDUCTED OUTPUT PEAK POWER SPECTRAL DENSITY	33
10.1 MEASUREMENT PROCEDURE	33

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....	33
10.3 MEASUREMENT EQUIPMENT USED	33
10.4 LIMITS AND MEASUREMENT RESULT	33
11. CONDUCTED SPURIOUS EMISSION	64
11.1. MEASUREMENT PROCEDURE	64
11.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	64
11.3. MEASUREMENT EQUIPMENT USED	64
11.4. LIMITS AND MEASUREMENT RESULT	64
12. RADIATED EMISSION.....	86
12.1. MEASUREMENT PROCEDURE	86
12.2. TEST SETUP.....	87
12.3. LIMITS AND MEASUREMENT RESULT	88
12.4. TEST RESULT.....	88
13. BAND EDGE EMISSION	95
13.1. MEASUREMENT PROCEDURE	95
13.2. TEST SET-UP.....	95
13.3. TEST RESULT.....	96
14. FREQUENCY STABILITY.....	102
14.1. MEASUREMENT PROCEDURE	102
14.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION).....	102
14.3. MEASUREMENT RESULTS.....	103
15. FCC LINE CONDUCTED EMISSION TEST	109
15.1. LIMITS OF LINE CONDUCTED EMISSION TEST.....	109
15.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST	109
15.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST	110
15.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	110
15.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST	111
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	113

1. VERIFICATION OF CONFORMITY

Applicant	Chengdu XGimi Technology Co., Ltd.
Address	Building A4, Tianfu Software Park, High-tech zone, Chengdu, Sichuan, China 610041
Manufacturer	Chengdu XGimi Technology Co., Ltd.
Address	Building A4, Tianfu Software Park, High-tech zone, Chengdu, Sichuan, China 610041
Factory 1	Chengdu Guangqing Technology Co., Ltd.
Address	No.104, Putian Cable Park, No.18 Xinhang Road, West Hi-Tech district, Chengdu, Sichuan, China
Factory 2	TCL KING ELECTRICAL APPLIANCE(CHENG DU)CO., LTD.
Address	No.18 Kexin Road, Hi-Tech Development Zone (West Park), Chengdu, Sichuan
Factory 3	Yibin XGIMI Optoelectronics Co., Ltd.
Address	(1) A3, Intelligent Terminal Industrial Park, Cuiping District, Yibin. (2) Room 328, Enterprise Service Center, No.17, Section 3, West Section of Changjiang North Road, Lingang Economic and Technological Development Zone, Yibin
Product Designation	LED Projector
Brand Name	XGIMI
Test Model	WK03A
Series Model	WK04A, WK05A, WK06A, WK07A, WK08A, WK09A, WK10A, WK11A, WK12A, WK13A, WK14A
Difference description	All the same except for the model name and different appearance color
Date of test	Jul. 29, 2019 to Sep. 03, 2019
Deviation	None
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

Draven Li

Draven Li
(Project Engineer)

Sep. 03, 2019

Reviewed By

Max Zhang

Max Zhang
(Reviewer)

Sep. 04, 2019

Approved By

Forrest Lei

Forrest Lei
(Authorized Officer)

Sep. 04, 2019

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as “LED Projector”. 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
Output Power	IEEE 802.11a20:16.54dBm IEEE 802.11n(20):18.25dBm; IEEE802.11n(40):17.11dBm IEEE802.11ac(20):17.50dBm IEEE802.11ac(40):17.28dBm IEEE802.11ac(80):14.78dBm
Modulation	BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM,OFDM
Number of channels	15
Hardware Version	V03
Software Version	V1.0.0
Antenna Designation	FPC Antenna
Number of transmit chain	2(802.11n20/n40/a/ac all used two antennas,but 802.11a support SISO and 802.11n20/n40/ac support MIMO)
Directional gain	All transmit signals are completely uncorrelated with each other
Antenna Gain	5.65dBi
Power Supply	DC 11.01V by battery or DC 19V by adapter

2.2. TABLE OF CARRIER FREQUENCIES

Frequency Band	Channel Number	Frequency	Frequency Band	Channel Number	Frequency
5150 GHz~5250GHz	36	5180 MHz	5725 GHz~5850GHz	149	5745 MHz
	38	5190 MHz		151	5755 MHz
	40	5200 MHz		153	5765 MHz
	42	5210 MHz		155	5775MHz
	44	5220 MHz		157	5785 MHz
	46	5230 MHz		159	5795 MHz
	48	5240 MHz		161	5805 MHz
				165	5825MHz

Note: For 20MHz bandwidth system use Channel 36,40,44,48,149,153,157,161,165; For 40MHz bandwidth system use Channel 38,46,151,159; For 80MHz bandwidth system use Channel 42,155

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

This submittal(s) (test report) is intended for **FCC ID: 2AFENWK03A** 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.



3. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CISPR and ANSI.

- Uncertainty of Conducted Emission, $U_c = \pm 3.2$ dB
- Uncertainty of Radiated Emission below 1GHz, $U_c = \pm 3.9$ dB
- Uncertainty of Radiated Emission above 1GHz, $U_c = \pm 4.8$ dB



4. DESCRIPTION OF TEST MODES

Mode	Available channel	Tested channel	Modulation	Date rate(Mbps)
802.11a/n20/ac20	36,40,44,48,149,153,157,161,165	36,38,48,149, 157,165	OFDM	6/6.5
802.11n40/ac40	38,46,151,159	38,46, 151,159	OFDM	13.5
802.11ac80	42,155	42,155	OFDM	13.5

Note:

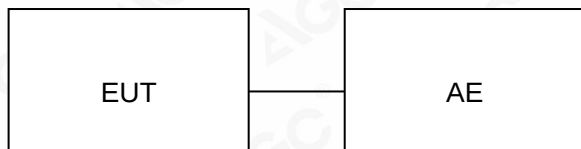
1. The EUT has been set to operate continuously on tested channel individually, and the EUT is operating at its maximum duty cycle>or equal 98%
2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
3. The test software is the SecureCRTSecure_V7.0.0.326 which can set the EUT into the individual test modes.



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	LED Projector	WK03A	2AFENWK03A	EUT
3	Adapter	HKA06519034-6J	Input: AC 100-240V, 50/60Hz, 1.5A Output: DC 19V, 4.74A	Market with EUT
4	Loudspeaker	--	--	AE
5	PC	Xiaomi	Air 13.3	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	Line Conduction Emission	Compliant

6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/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	Jun. 10, 2019	Jun. 09, 2020
LISN	R&S	ESH2-Z5	100086	Aug. 26, 2019	Aug. 25, 2020

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun. 11, 2019	Jun. 12, 2020
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec. 20, 2018	Dec. 19, 2019
Power sensor	Aglient	U2021XA	MY54110007	Dec. 20, 2018	Dec. 19, 2019
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep. 21, 2017	Sep. 20, 2020
preamplifier	ChengYi	EMC184045SE	980508	Sep. 21, 2017	Sep. 20, 2020
Active loop antenna (9K-30MHz)	A.H.	SAS-562B	XGIMI	May. 26, 2018	May. 25, 2020
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May. 26, 2018	May. 25, 2020
Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-205	Sep. 28, 2017	Sep. 27, 2019
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep. 28, 2017	Sep. 27, 2019

7. MAXIMUM CONDUCTED OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

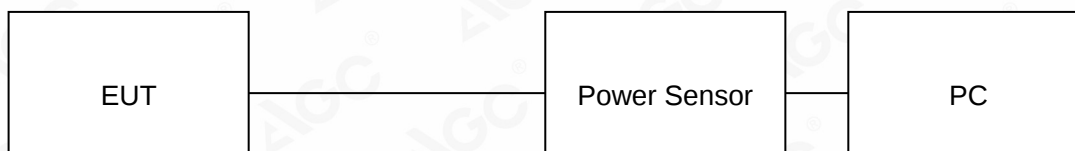
For average power test:

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



7.3. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION					
Frequency (MHz)	Average Power Chain 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5180	16.54	16.31	N/A	30	Pass
5200	16.38	16.39	N/A	30	Pass
5240	16.46	16.24	N/A	30	Pass
5745	16.40	16.29	N/A	30	Pass
5785	16.51	16.43	N/A	30	Pass
5825	16.32	16.35	N/A	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION					
Frequency (MHz)	Average Power Chain 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5180	15.26	15.21	18.25	30	Pass
5200	15.14	15.10	18.13	30	Pass
5240	15.22	15.15	18.20	30	Pass
5745	15.18	14.98	18.09	30	Pass
5785	15.09	15.00	18.06	30	Pass
5825	15.20	14.87	18.05	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION					
Frequency (MHz)	Average Power Chain 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5180	14.59	14.38	17.50	30	Pass
5200	14.47	14.42	17.46	30	Pass
5240	14.53	14.33	17.44	30	Pass
5745	14.50	14.29	17.41	30	Pass
5785	14.45	14.27	17.37	30	Pass
5825	14.55	14.35	17.46	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION					
Frequency (MHz)	Average Power Chain 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5190	14.17	14.02	17.11	30	Pass
5230	13.98	13.92	16.96	30	Pass
5755	14.11	13.87	17.00	30	Pass
5795	14.06	14.12	17.10	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION					
Frequency (MHz)	Average Power Chain 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5190	14.33	14.21	17.28	30	Pass
5230	14.28	14.15	17.23	30	Pass
5755	14.30	14.06	17.19	30	Pass
5795	14.22	14.11	17.18	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION					
Frequency (MHz)	Average Power Chain 1(dBm)	Average Power Chain 2(dBm)	Average Power Total(dBm)	Applicable Limits (dBm)	Pass or Fail
5210	11.82	11.72	14.78	30	Pass
5775	11.77	11.69	14.74	30	Pass

8. 6dB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

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 $\geq 3 \times$ 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.

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)



8.3. LIMITS AND MEASUREMENT RESULTS

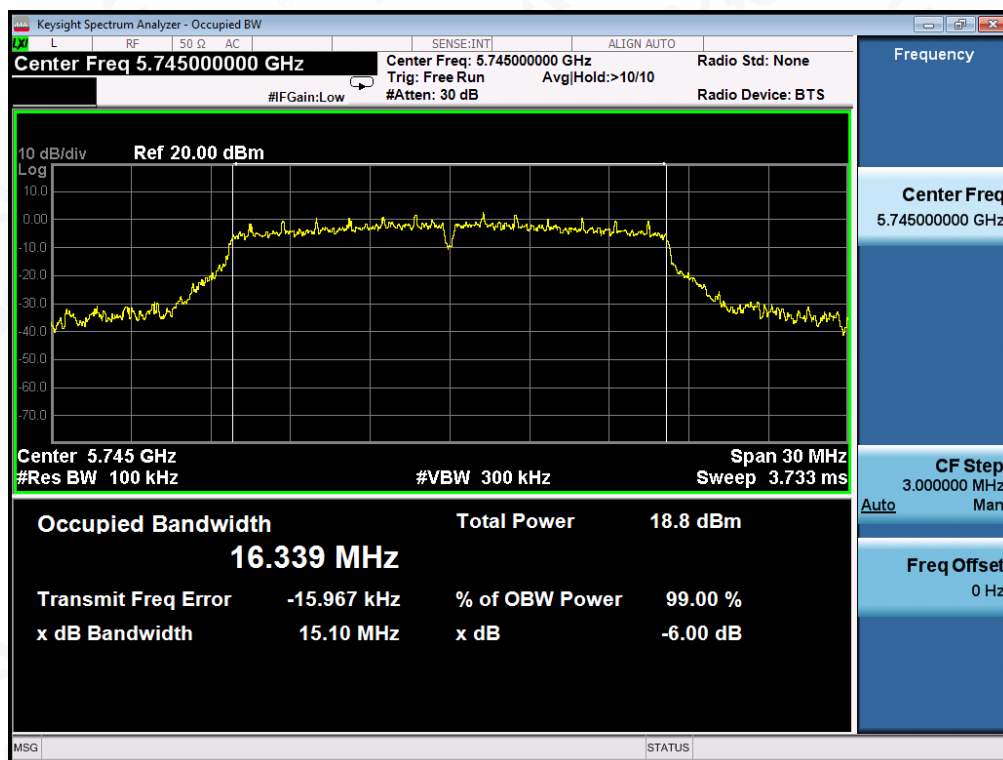
LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	15.10	PASS
	5785MHz	15.09	PASS
	5825MHz	13.88	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	15.12	PASS
	5785MHz	15.13	PASS
	5825MHz	15.12	PASS
	5755MHz	35.14	PASS
	5795MHz	35.05	PASS

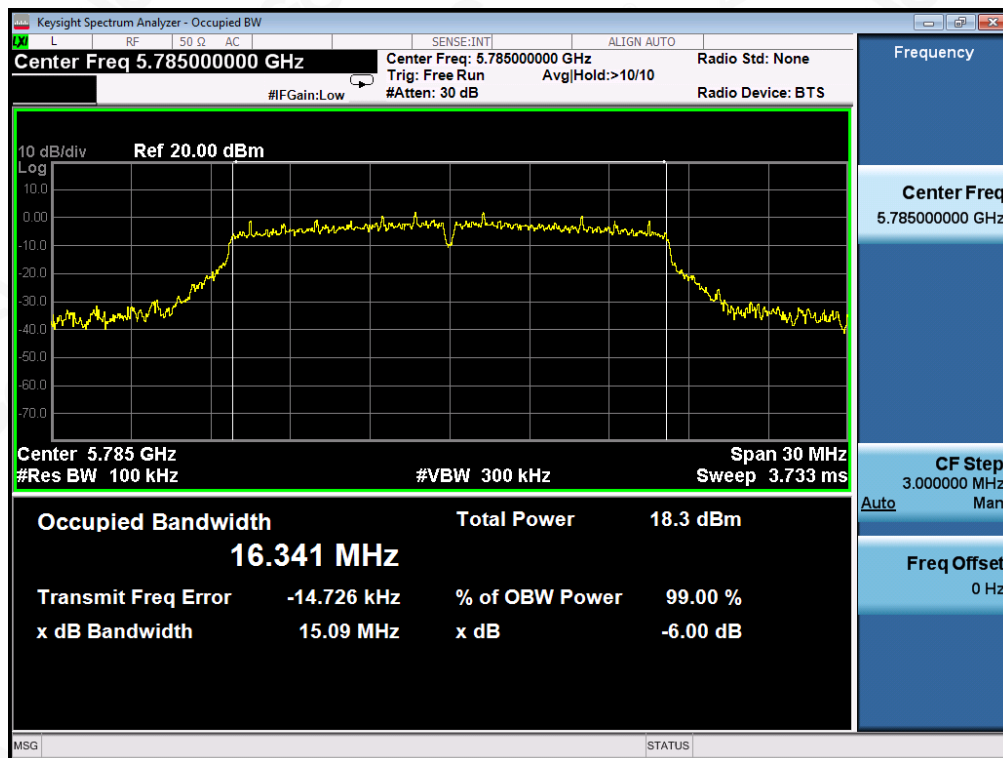
LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	15.10	PASS
	5785MHz	15.09	PASS
	5825MHz	15.10	PASS
	5755MHz	35.10	PASS
	5795MHz	35.11	PASS
	5775MHz	76.32	PASS

802.11a20 TEST RESULT

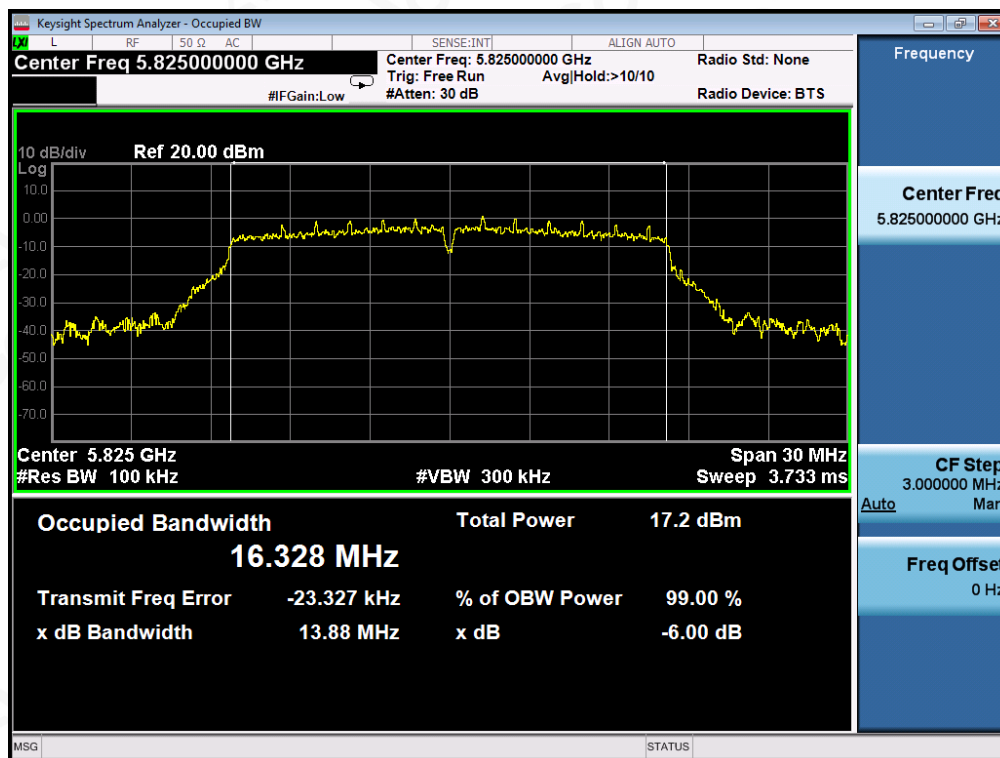
TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz

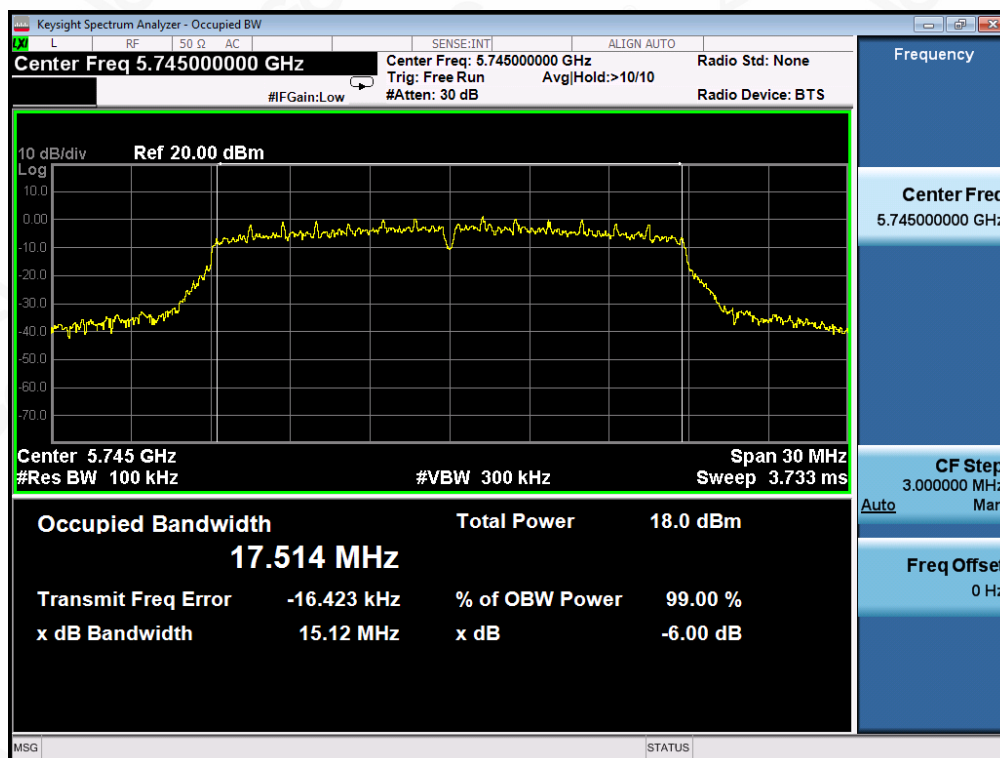


TEST PLOT OF BANDWIDTH FOR 5825MHz

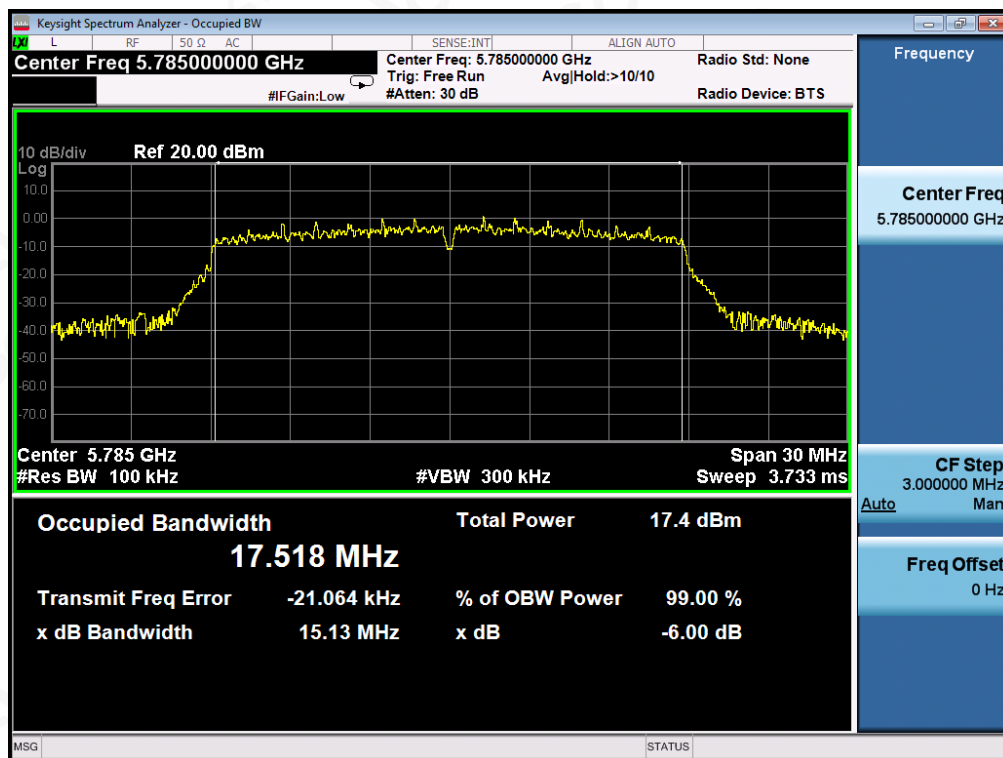


802.11n20/40 TEST RESULT

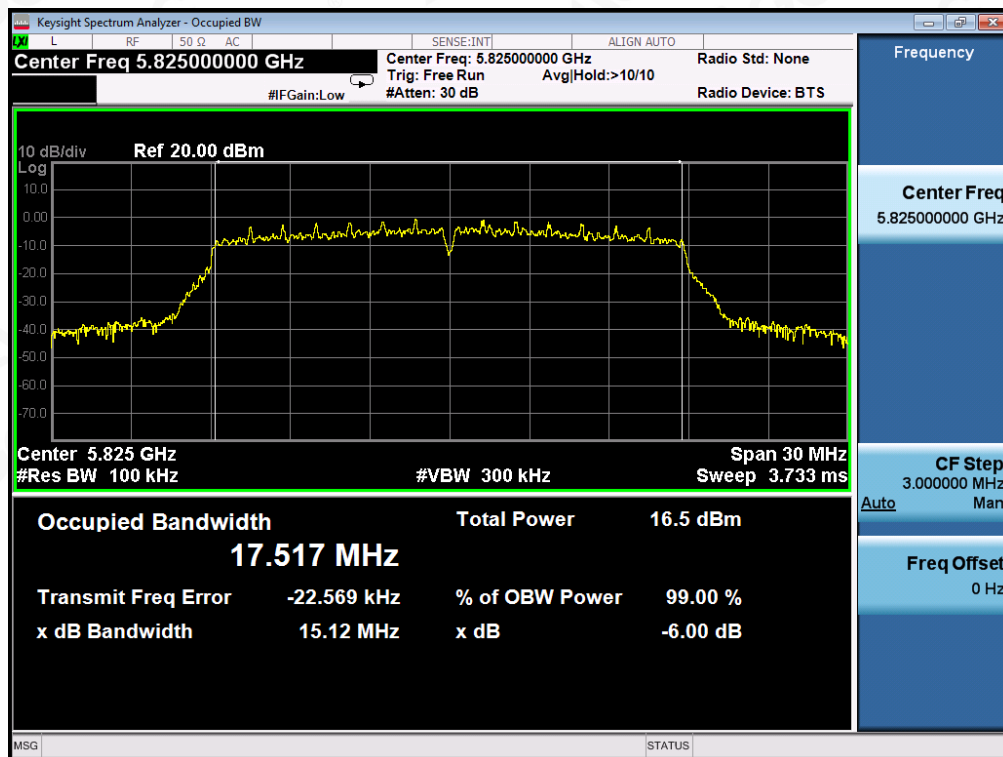
TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz



TEST PLOT OF BANDWIDTH FOR 5825MHz



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

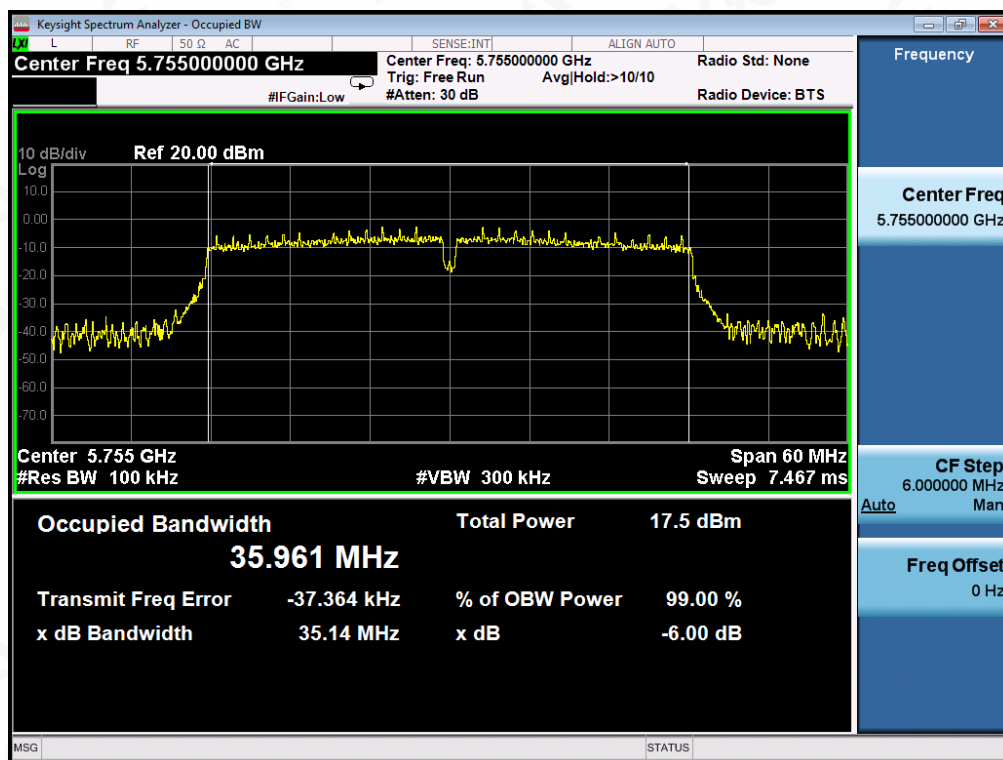
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

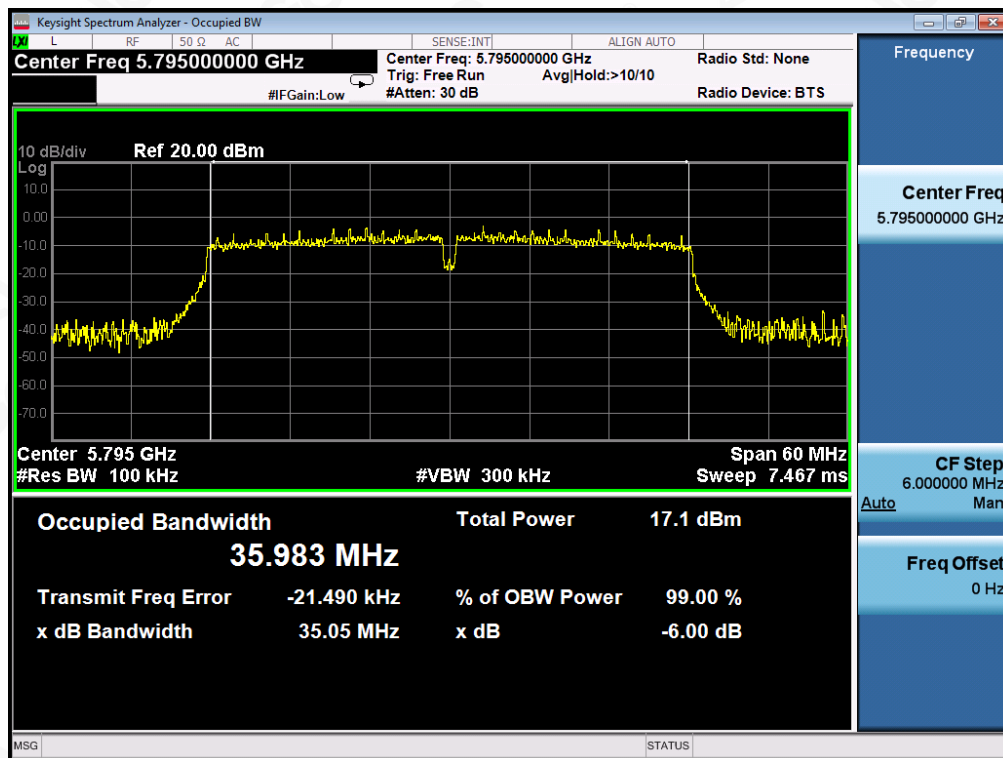
Service Hotline: 400 089 2118

802.11n40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5755MHz

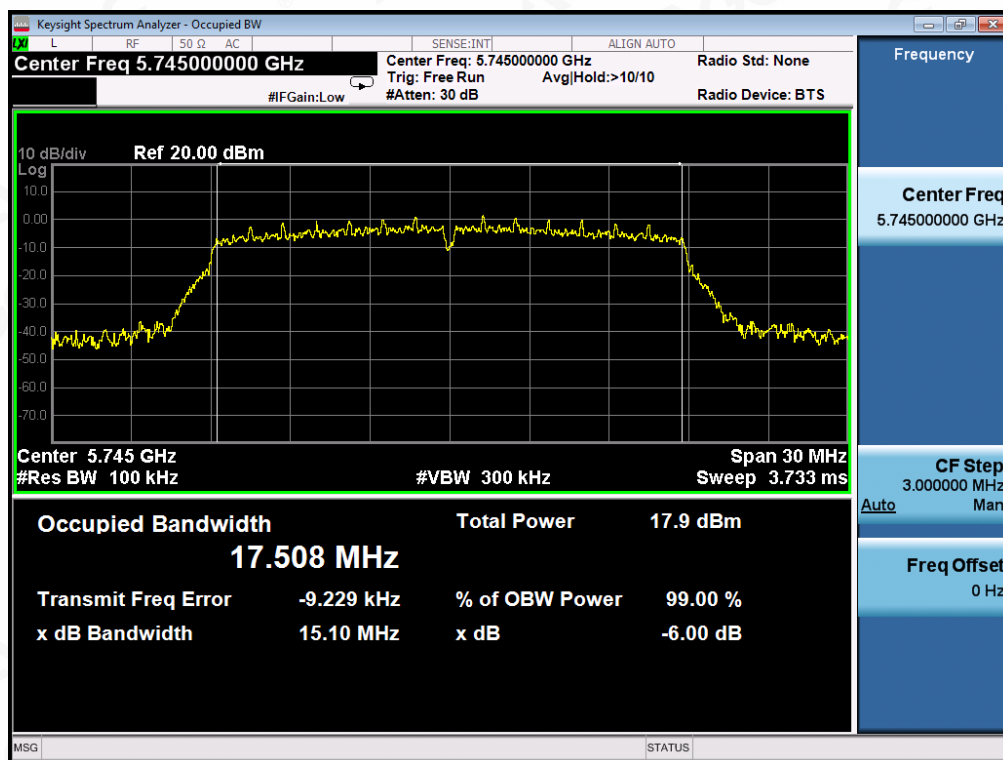


TEST PLOT OF BANDWIDTH FOR 5795MHz

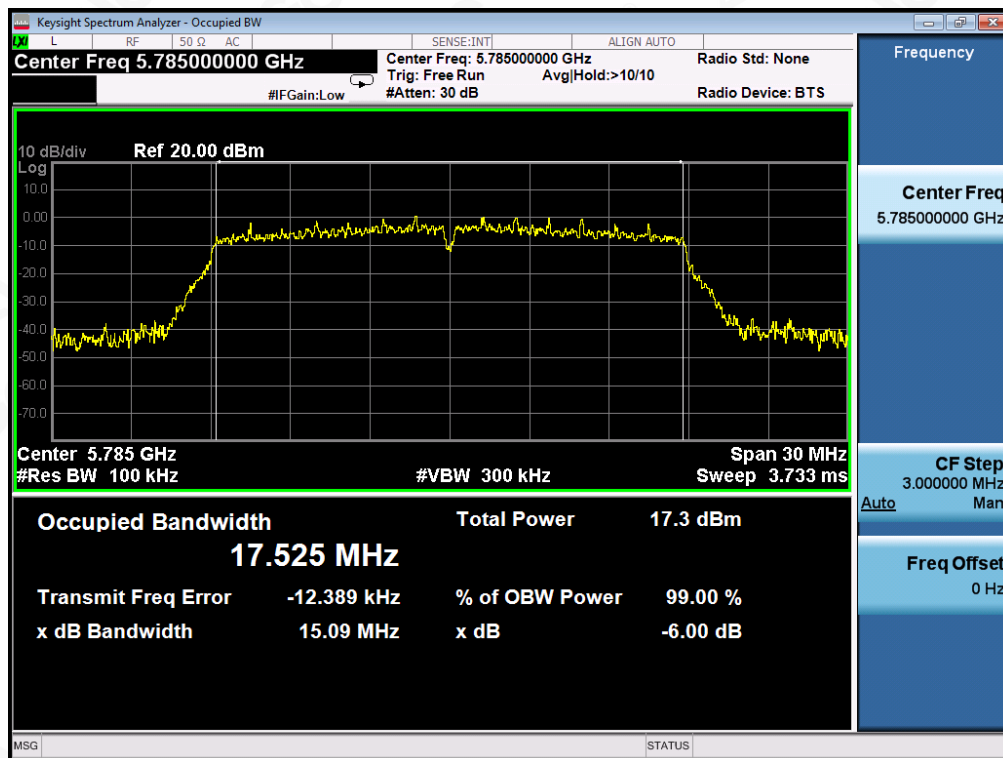


802.11ac20 TEST RESULT

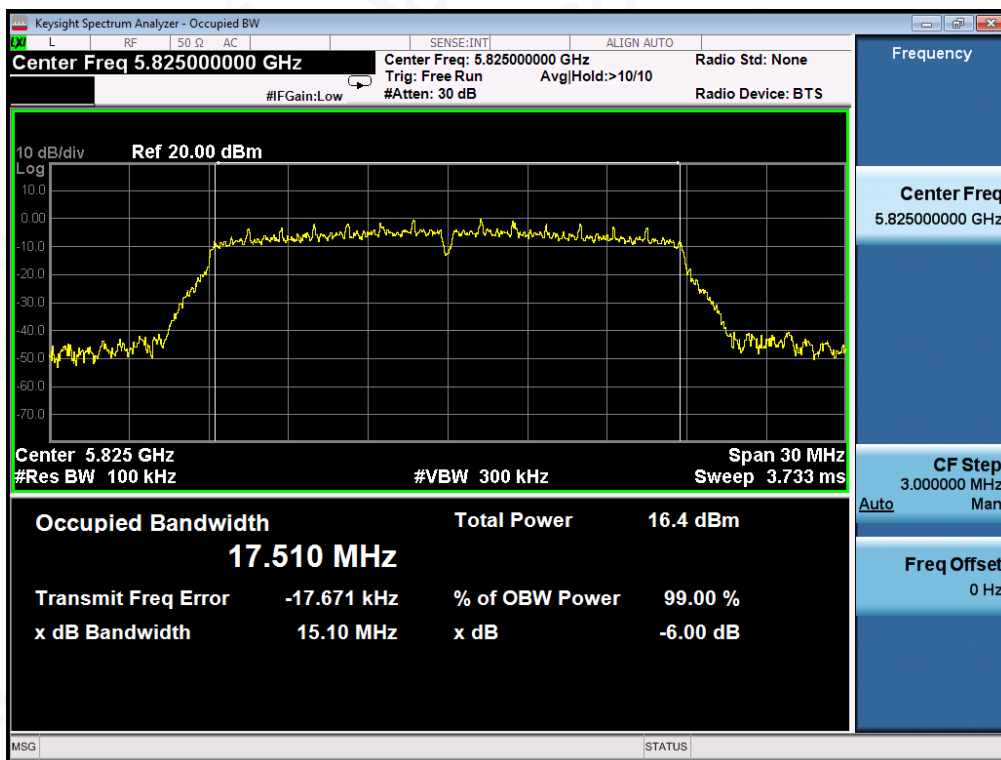
TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz

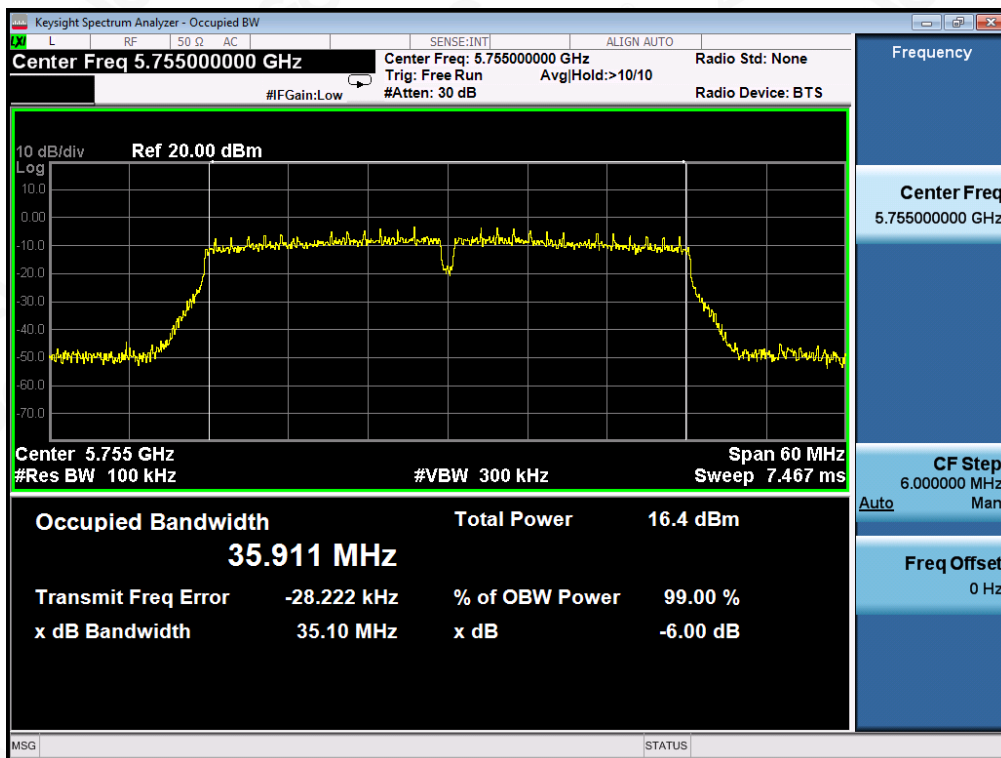


TEST PLOT OF BANDWIDTH FOR 5825MHZ



802.11ac40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5755MHZ



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

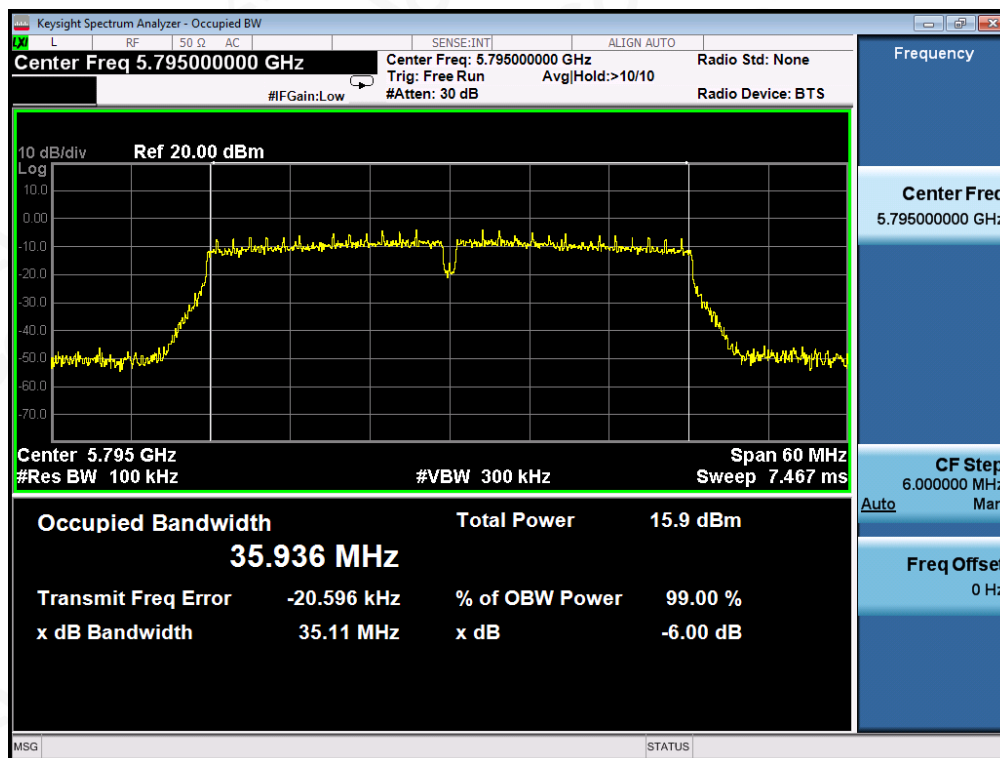
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

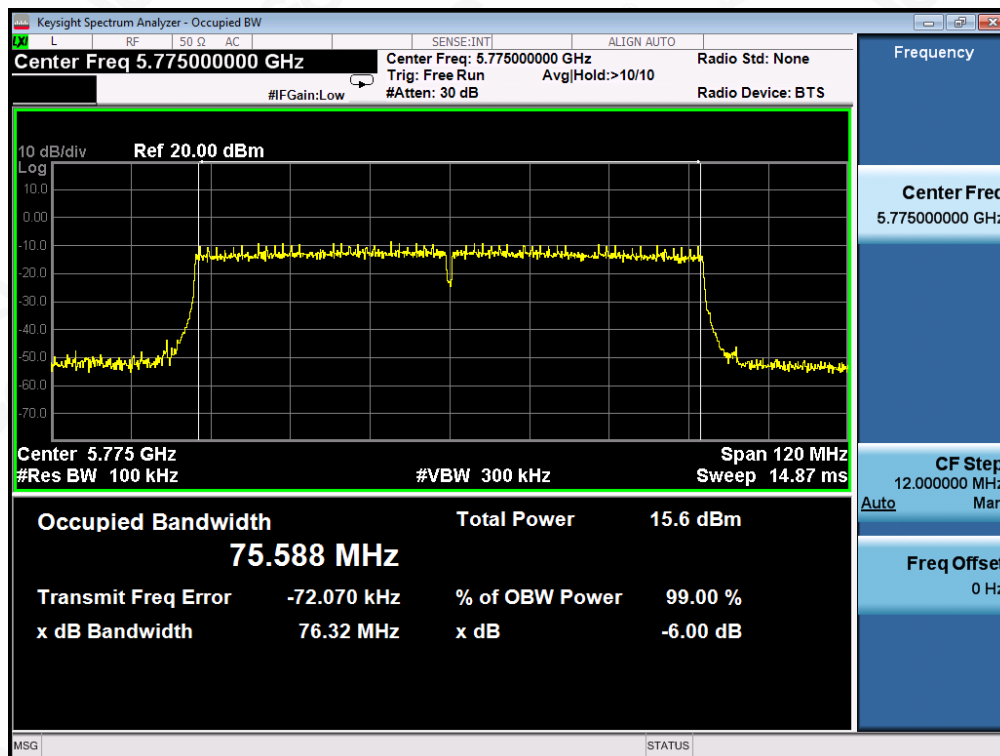
Service Hotline: 400 089 2118

TEST PLOT OF BANDWIDTH FOR 5795MHz



802.11ac80 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5775MHz



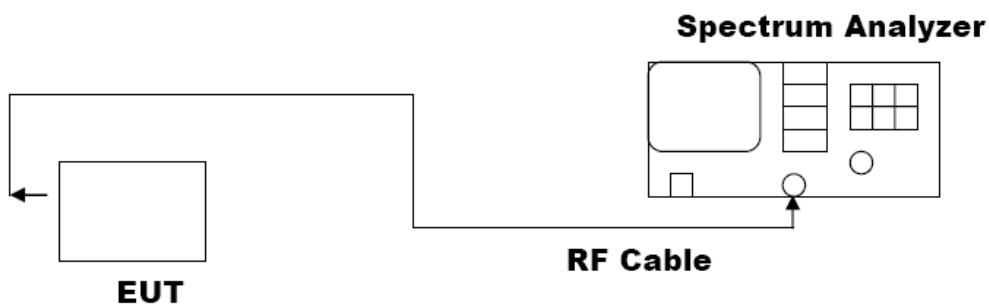
9. EMISSION BANDWIDTH

9.1. MEASUREMENT PROCEDURE

- Set RBW = approximately 1% of the emission bandwidth.
 - Set the VBW > RBW.
 - Detector = Peak.
 - Trace mode = max hold.
 - 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.

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



9.3. LIMITS AND MEASUREMENT RESULTS

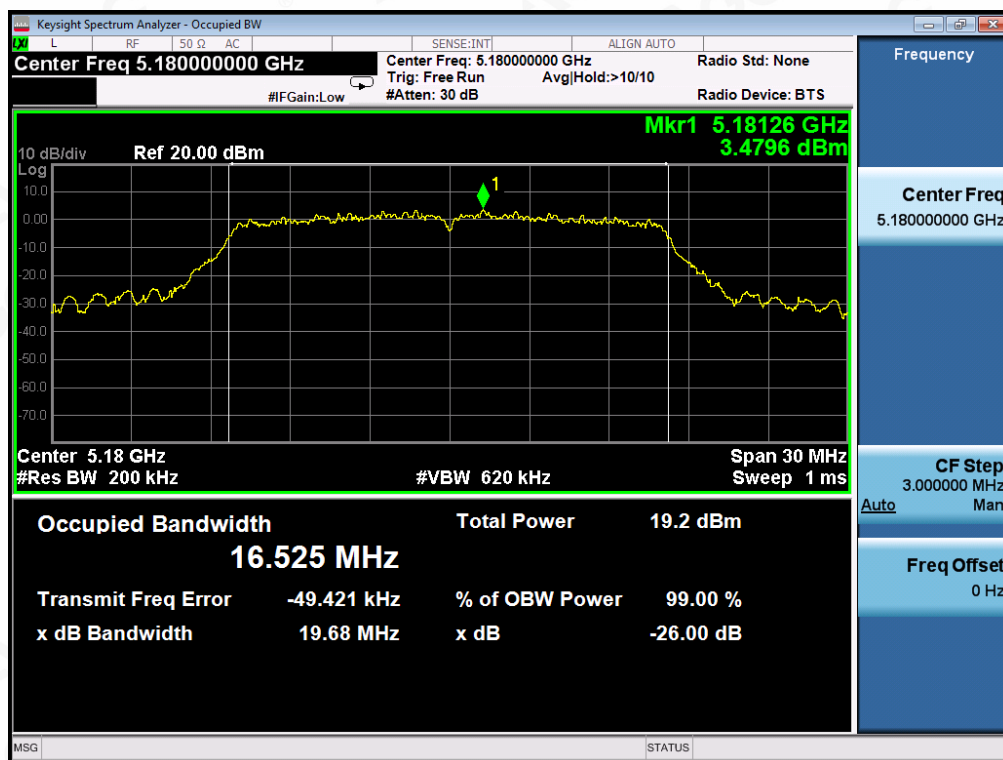
LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
Within the Band	5180MHz	19.68	PASS
	5200MHz	20.04	PASS
	5240MHz	19.41	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
Within the Band	5180MHz	19.99	PASS
	5200MHz	19.84	PASS
	5240MHz	19.81	PASS
	5190MHz	40.93	PASS
	5230MHz	40.79	PASS

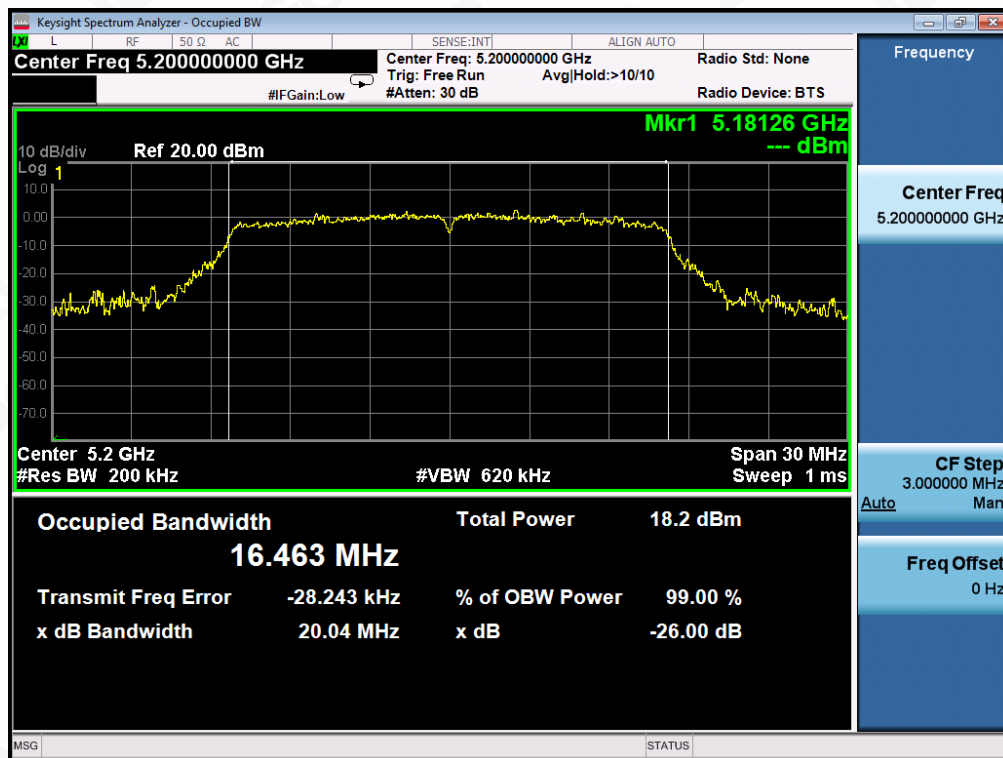
LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
Within the Band	5180MHz	19.90	PASS
	5200MHz	19.97	PASS
	5240MHz	19.85	PASS
	5190MHz	40.62	PASS
	5230MHz	40.57	PASS
	5210MHz	80.73	PASS

802.11a20 TEST RESULT

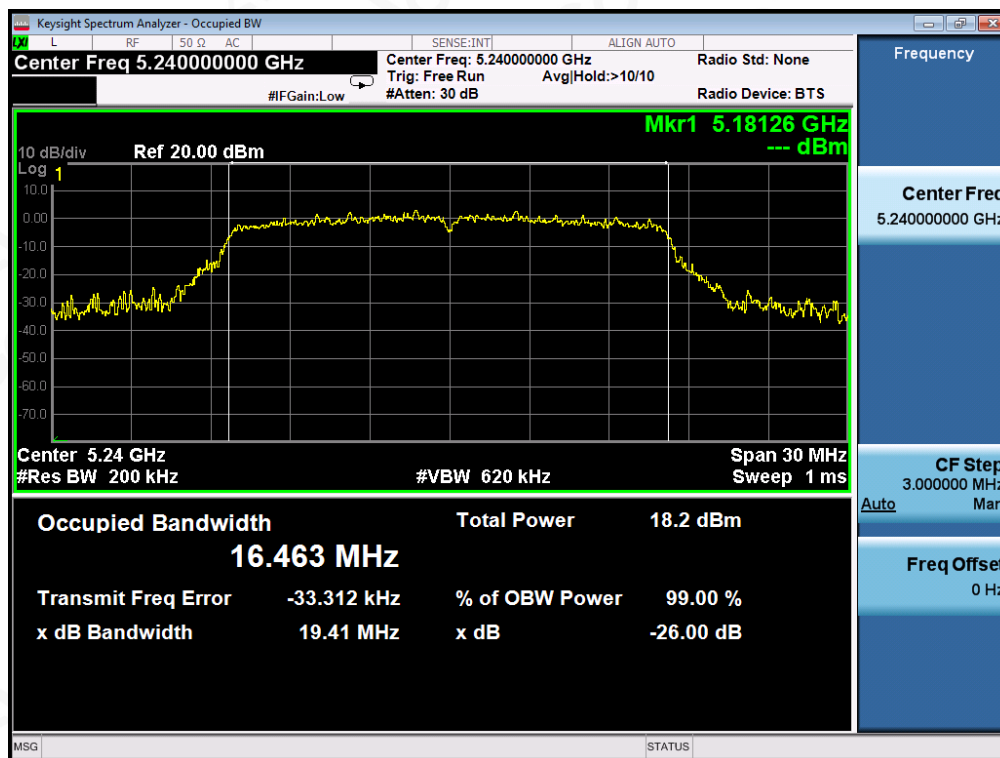
TEST PLOT OF BANDWIDTH FOR 5180MHz



TEST PLOT OF BANDWIDTH FOR 5200MHz

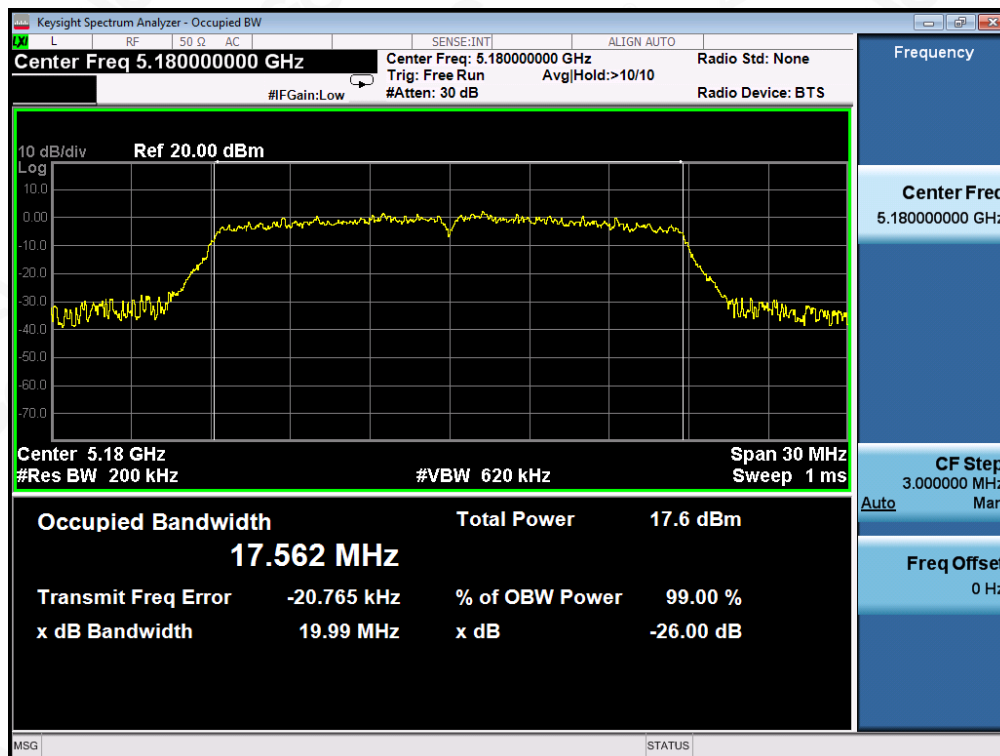


TEST PLOT OF BANDWIDTH FOR 5240MHz

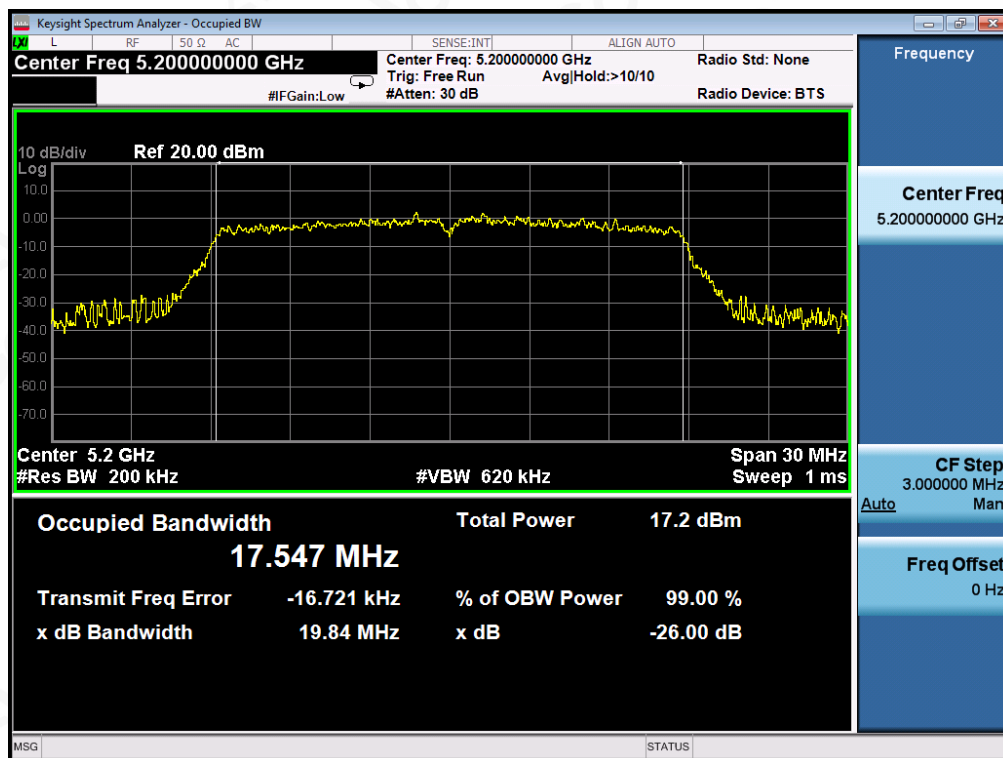


802.11n20 TEST RESULT

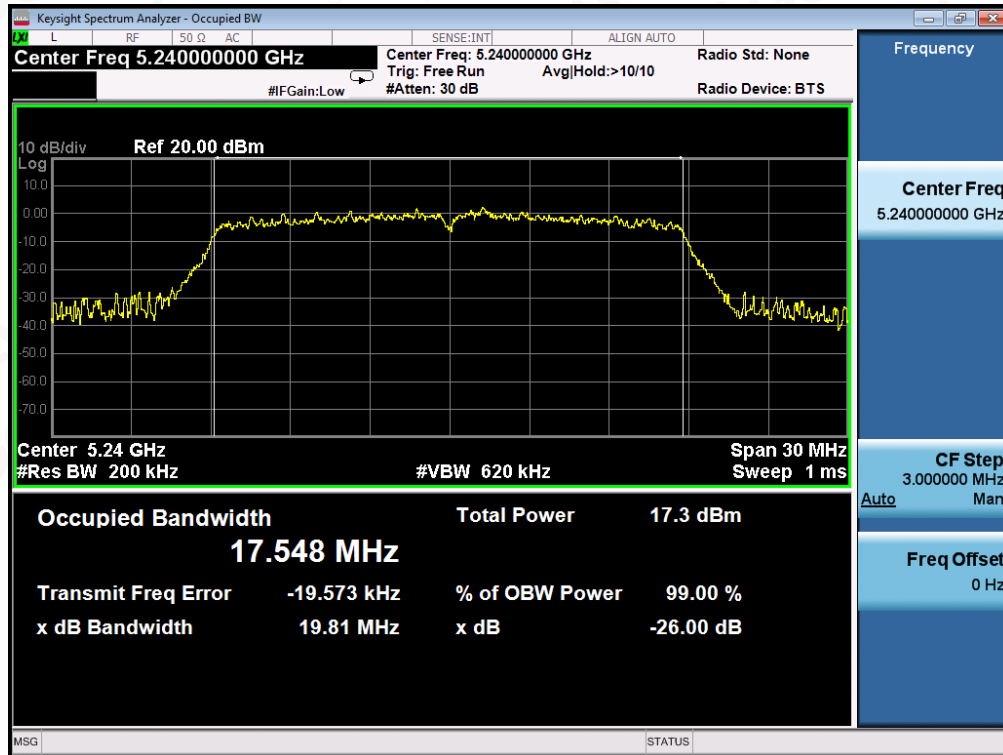
TEST PLOT OF BANDWIDTH FOR 5180MHz



TEST PLOT OF BANDWIDTH FOR 5200MHZ

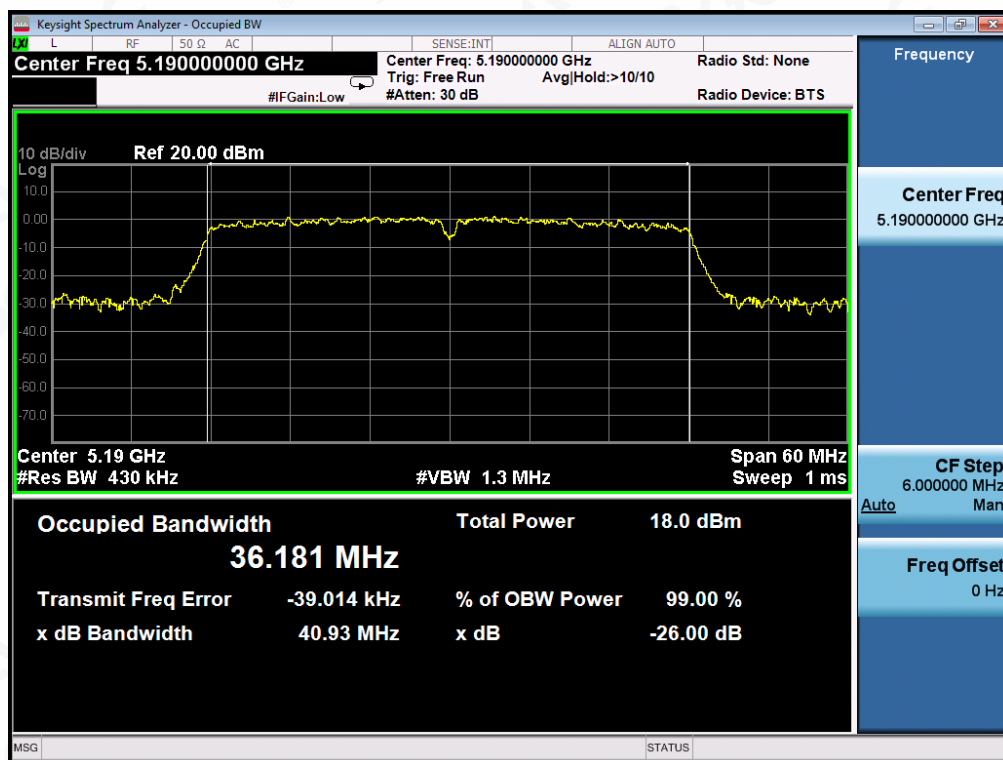


TEST PLOT OF BANDWIDTH FOR 5240MHZ

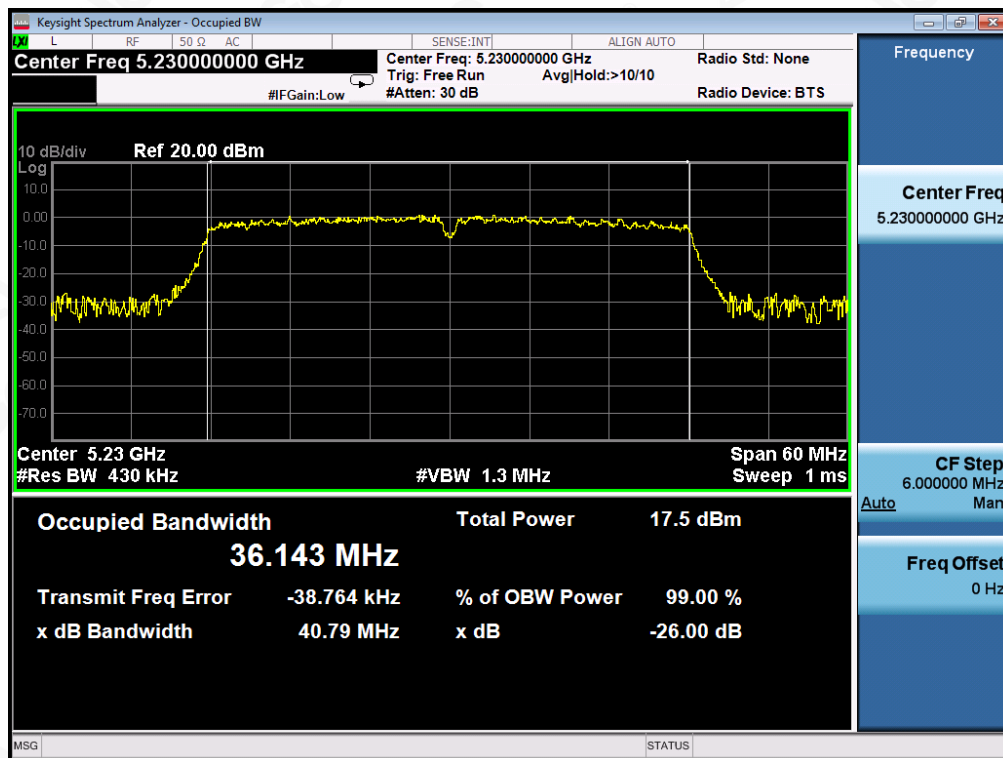


802.11n40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5190MHz

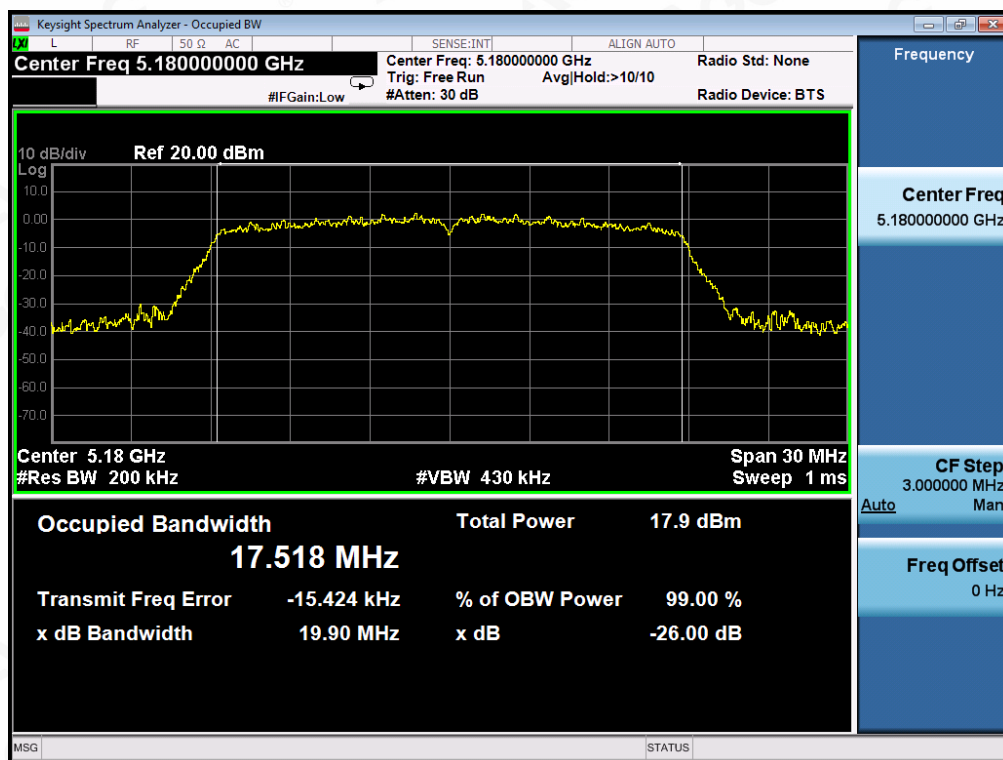


TEST PLOT OF BANDWIDTH FOR 5230MHz

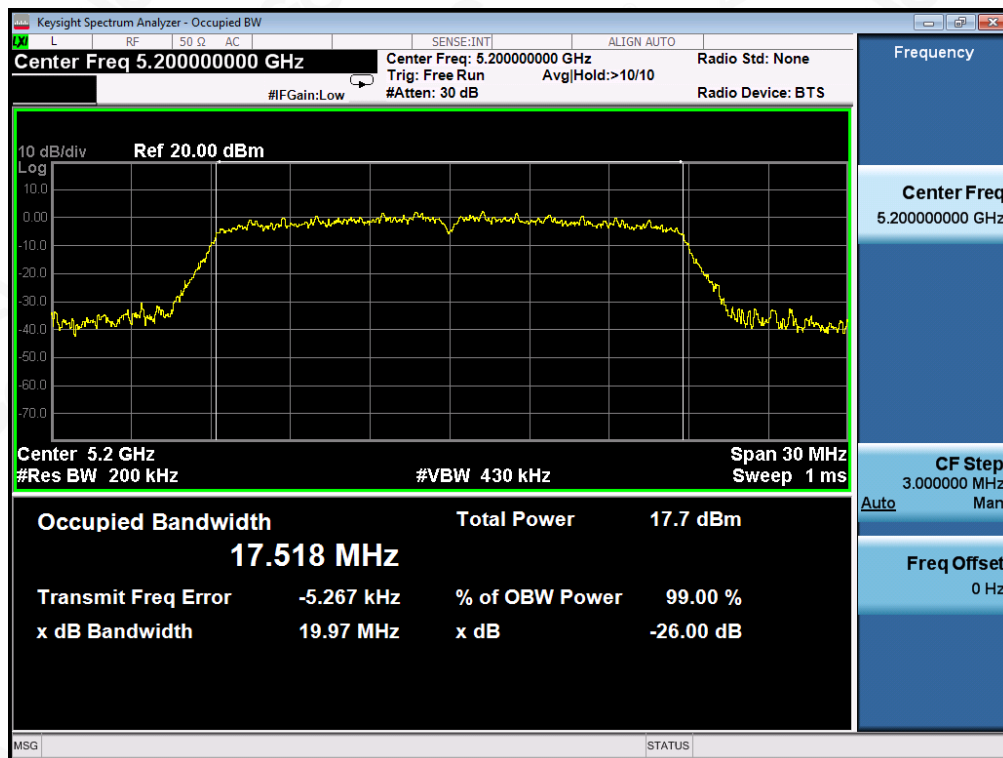


802.11ac20 TEST RESULT

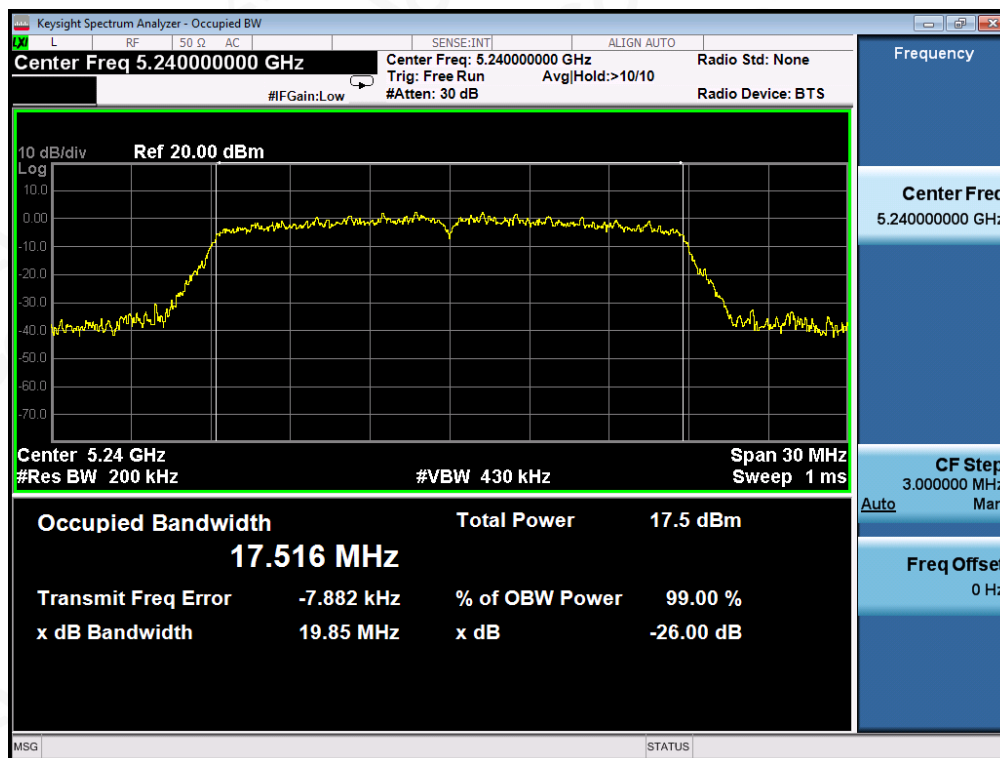
TEST PLOT OF BANDWIDTH FOR 5180MHz



TEST PLOT OF BANDWIDTH FOR 5200MHz

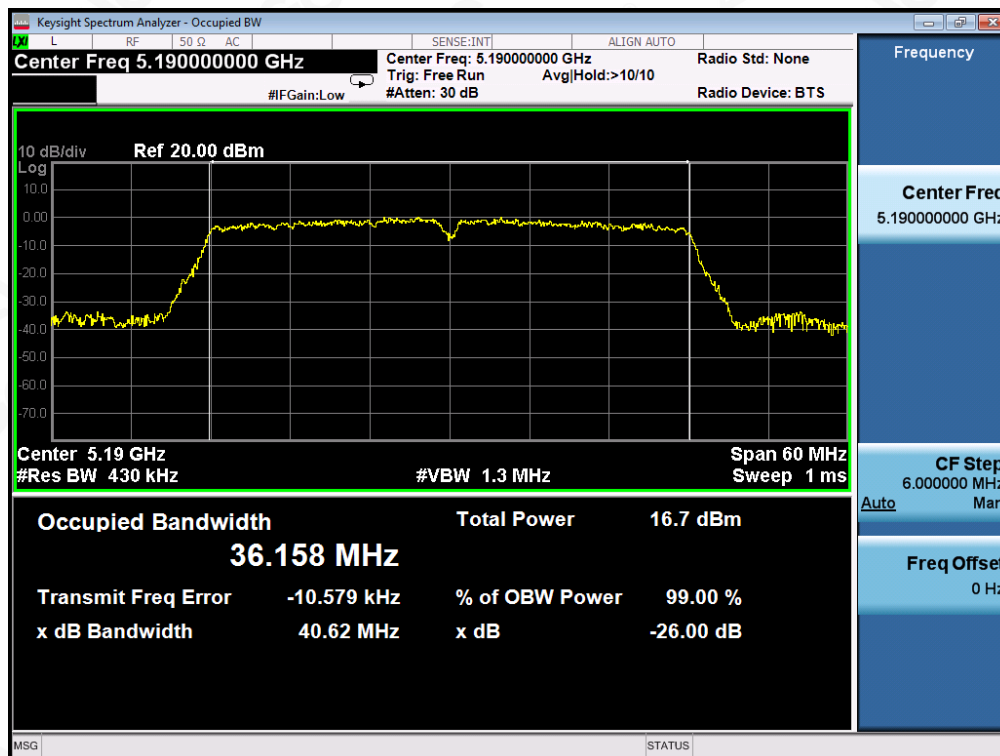


TEST PLOT OF BANDWIDTH FOR 5240MHz



802.11ac40 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5190MHz



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

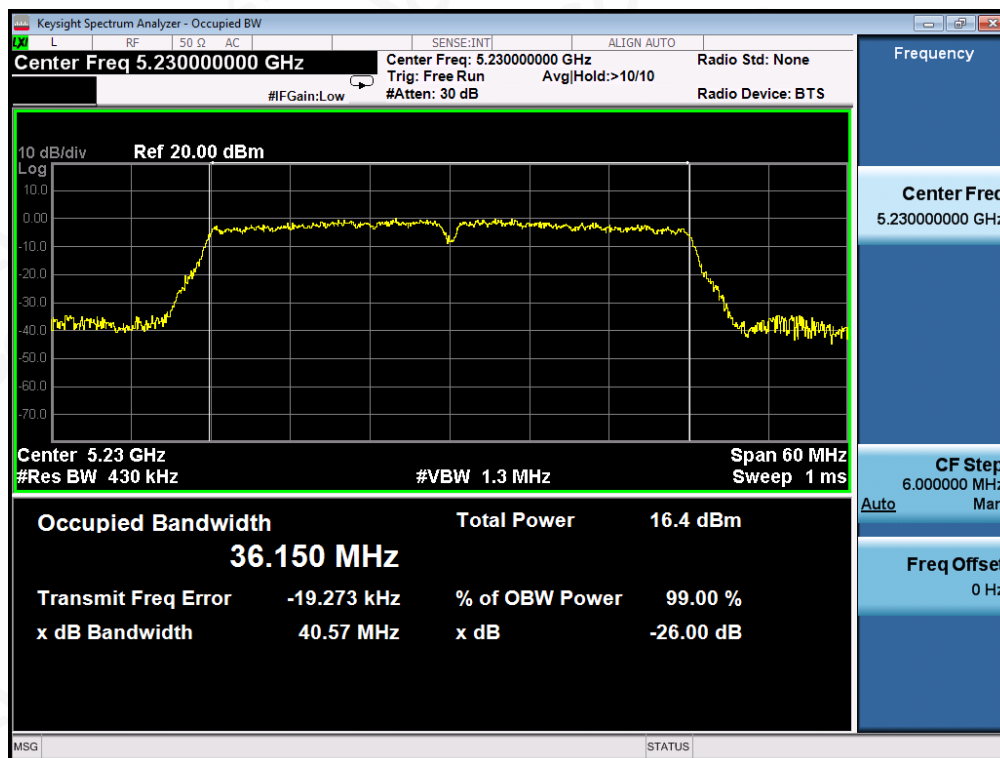
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

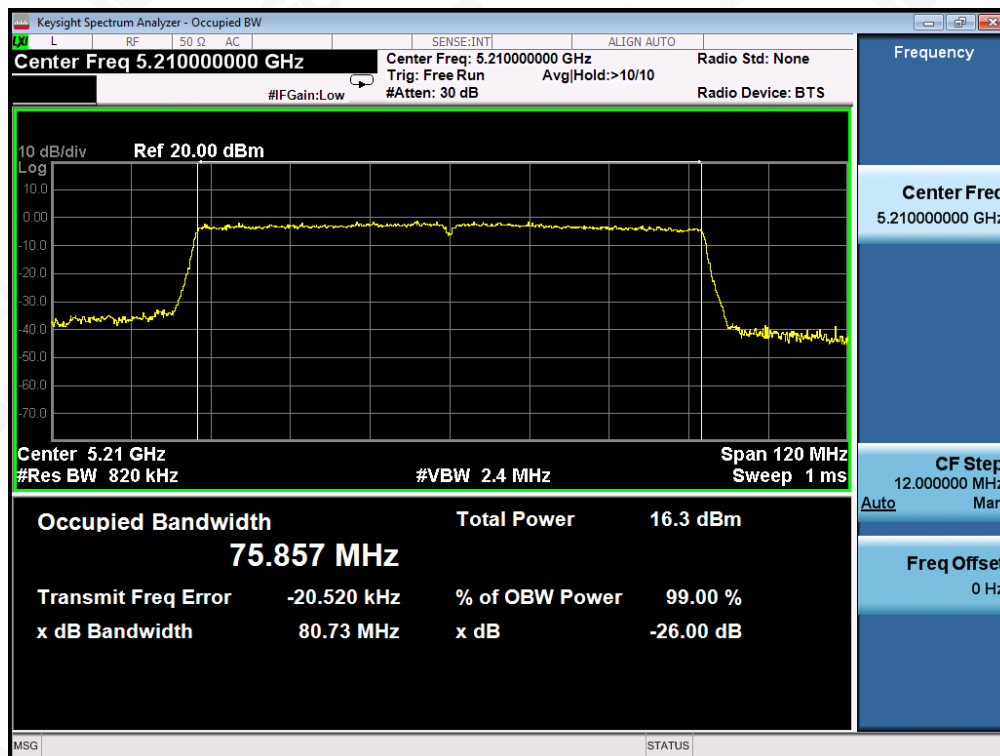
Service Hotline: 400 089 2118

TEST PLOT OF BANDWIDTH FOR 5230MHz



802.11ac80 TEST RESULT

TEST PLOT OF BANDWIDTH FOR 5210MHz



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

10. MAXIMUM CONDUCTED OUTPUT PEAK POWER SPECTRAL DENSITY

10.1 MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2.

10.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

10.4 LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION					
Frequency (MHz)	Power density Chain 1 (dBm/MHz)	Power density Chain 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	2.388	2.660	N/A	17	Pass
5200	2.551	2.257	N/A	17	Pass
5240	2.625	2.505	N/A	17	Pass
Frequency (MHz)	Power density Chain 1 (dBm/500kHz)	Power density Chain 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	0.442	0.032	N/A	30	Pass
5785	-0.034	-0.376	N/A	30	Pass
5825	-1.443	-1.584	N/A	30	Pass



LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION					
Frequency (MHz)	Power density Chain 1 (dBm/MHz)	Power density Chain 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	0.991	1.154	4.084	17	Pass
5200	1.187	1.174	4.191	17	Pass
5240	1.113	1.034	4.084	17	Pass
5190	-2.132	-1.930	0.980	17	Pass
5230	-1.942	-2.076	1.002	17	Pass
Frequency (MHz)	Power density Chain 1 (dBm/500kHz)	Power density Chain 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	-0.689	-1.209	2.069	30	Pass
5785	-1.172	-1.085	1.882	30	Pass
5825	-2.272	-2.610	0.573	30	Pass
5755	-4.242	-4.307	-1.264	30	Pass
5795	-4.622	-4.650	-1.626	30	Pass

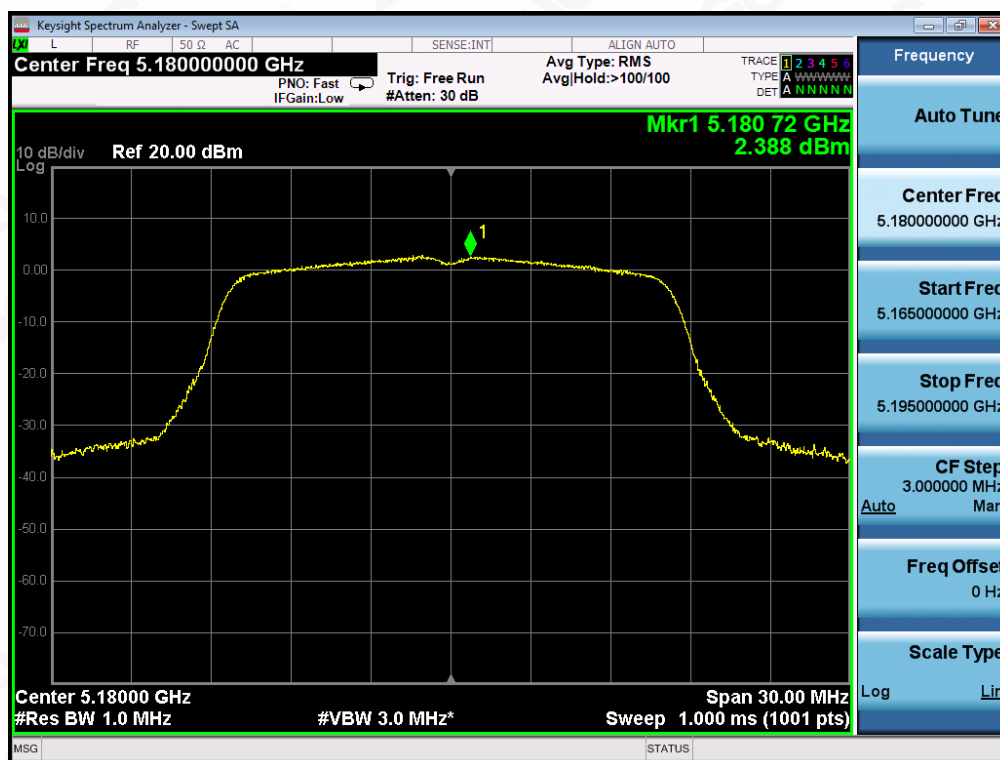


LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40/80 MODULATION					
Frequency (MHz)	Power density Chain 1 (dBm/MHz)	Power density Chain 2 (dBm/MHz)	Power density Total (dBm/MHz)	Applicable Limits (dBm)	Pass or Fail
5180	1.179	1.250	4.225	17	Pass
5200	1.049	0.906	3.988	17	Pass
5240	1.064	1.170	4.128	17	Pass
5190	-2.892	-3.346	-0.103	17	Pass
5230	-3.065	-3.233	-0.138	17	Pass
5210	-8.995	-8.065	-5.495	17	Pass
Frequency (MHz)	Power density Chain 1 (dBm/500kHz)	Power density Chain 2 (dBm/500kHz)	Power density Total (dBm/500kHz)	Applicable Limits (dBm)	Pass or Fail
5745	-1.160	-1.365	1.749	30	Pass
5785	-1.204	-1.547	1.638	30	Pass
5825	-2.792	-2.751	0.239	30	Pass
5755	-5.300	-5.374	-2.327	30	Pass
5795	-5.567	-5.689	-2.617	30	Pass
5775	-11.987	-11.138	-8.531	30	Pass

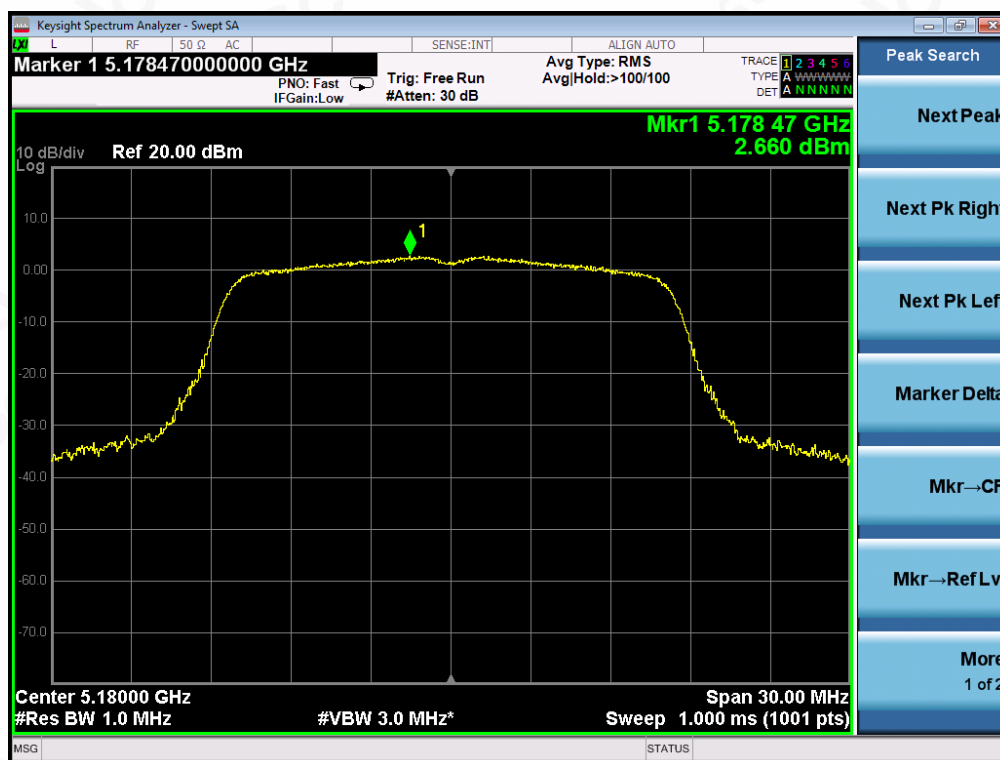


802.11a20 TEST RESULT

TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

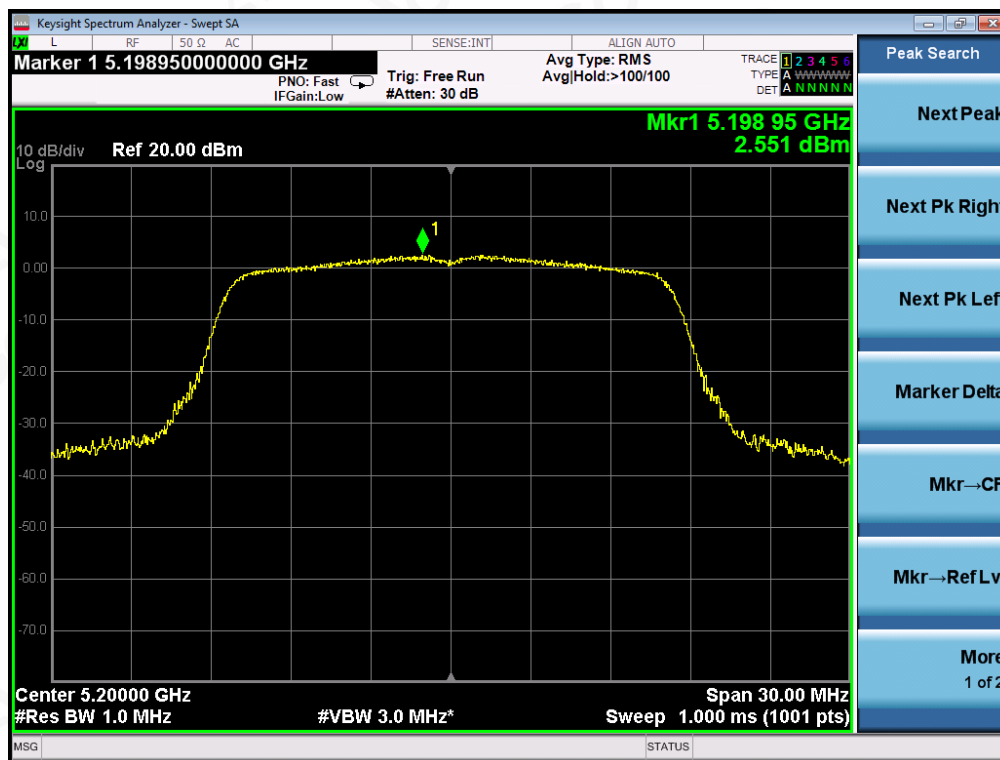
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

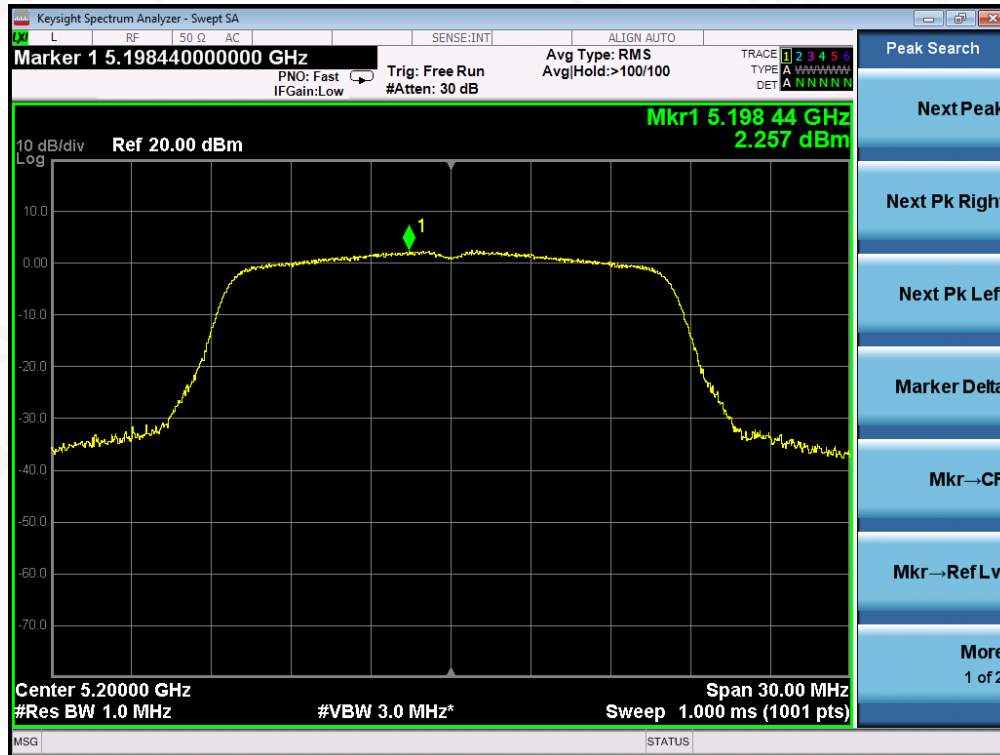
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

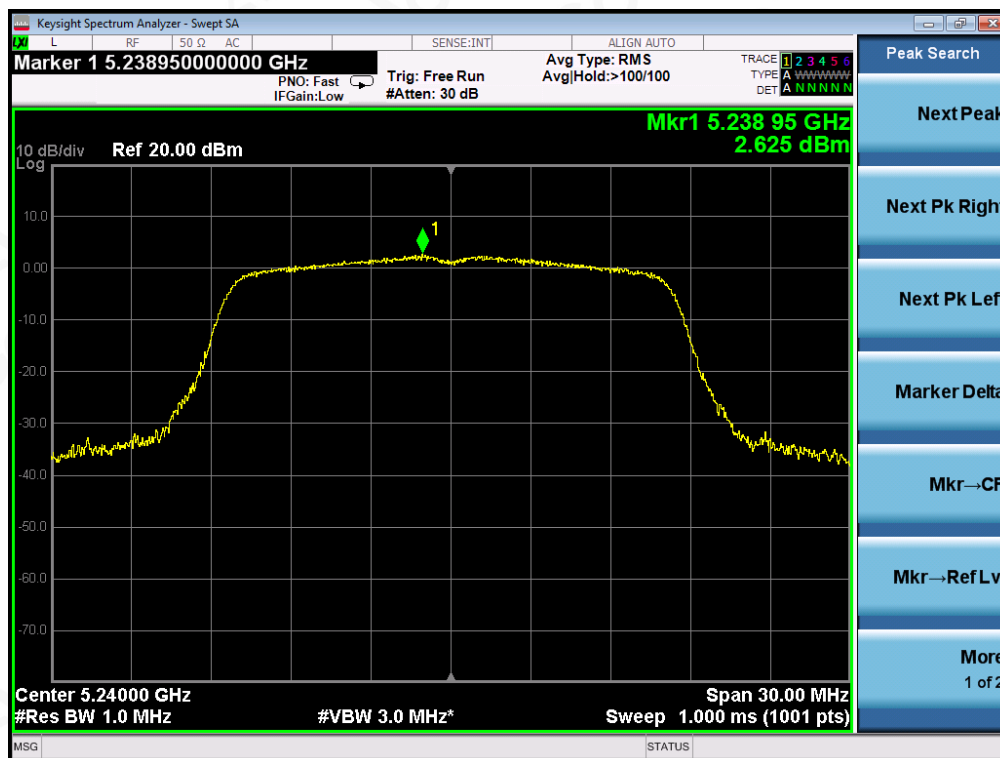
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 1



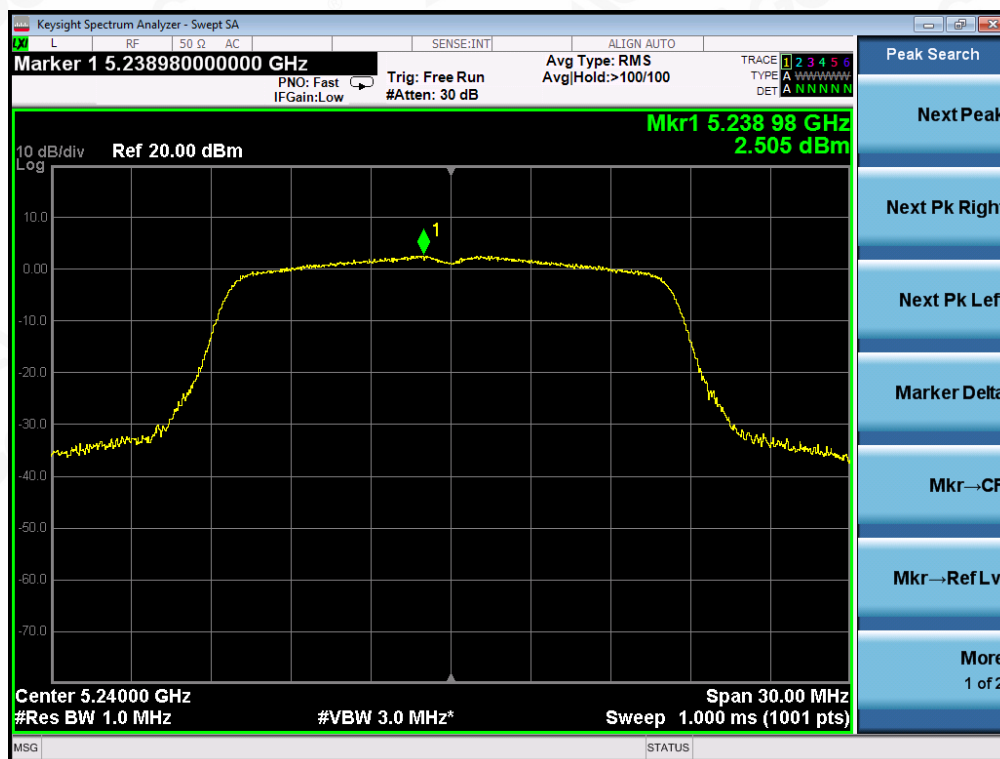
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 2



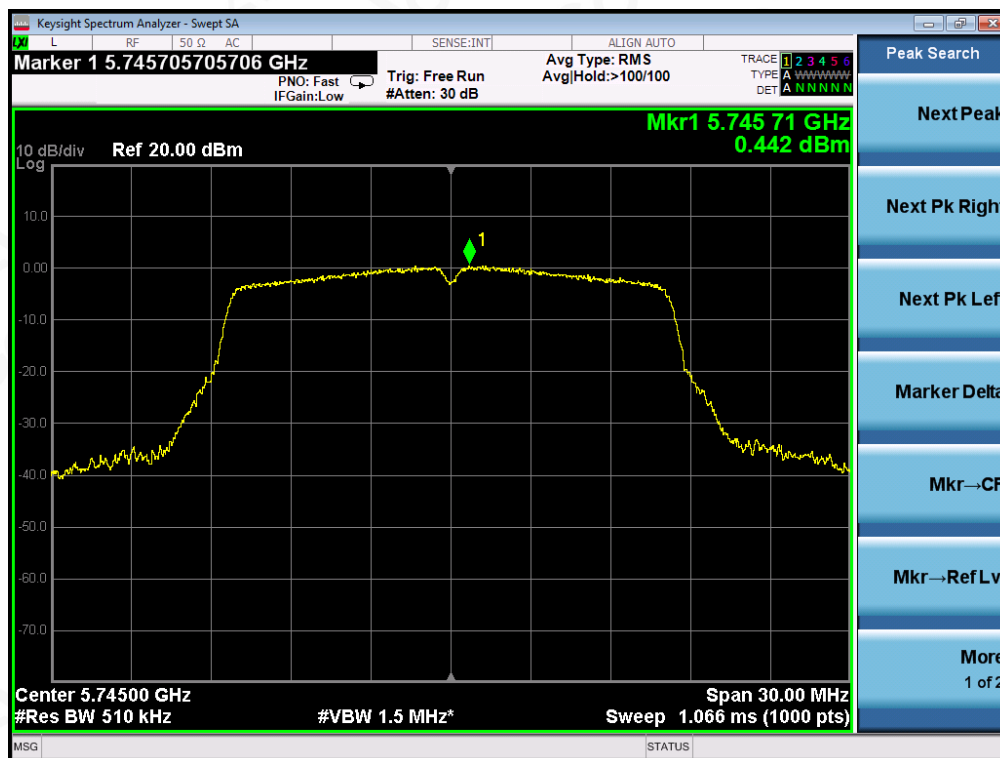
TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 1



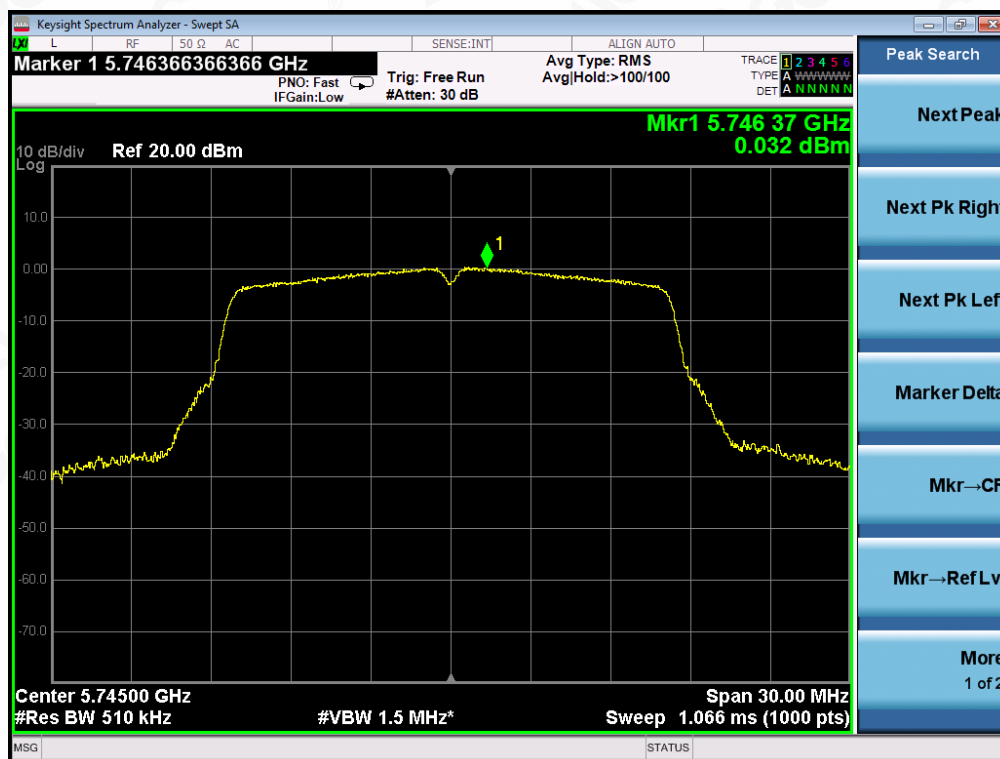
TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 1

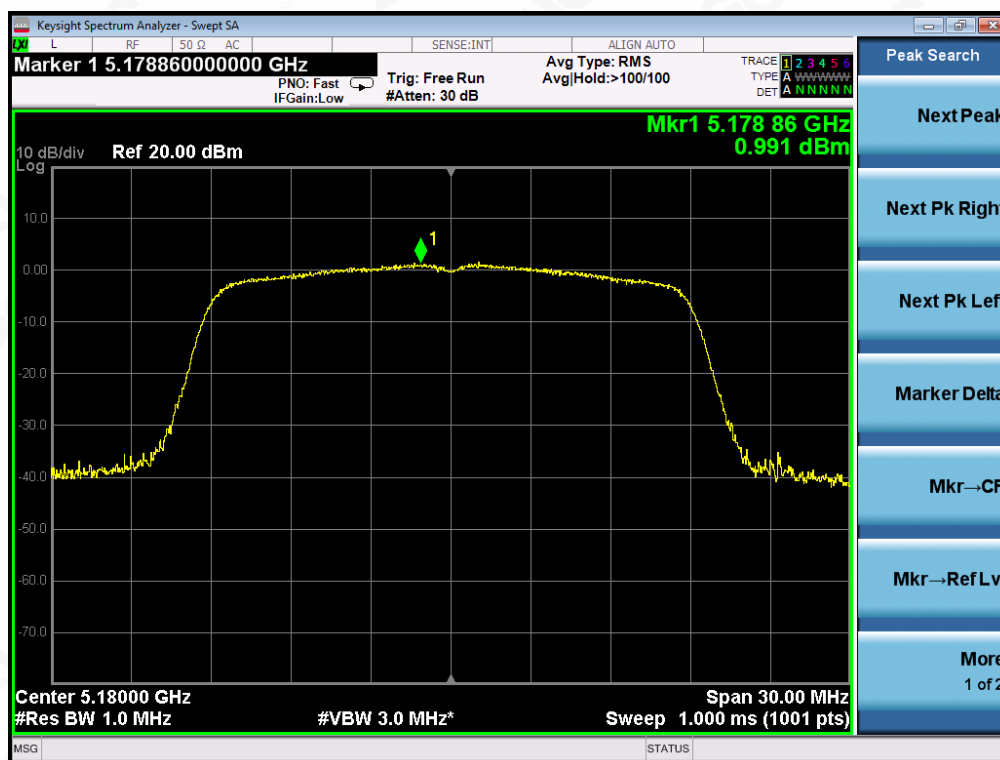


TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 2

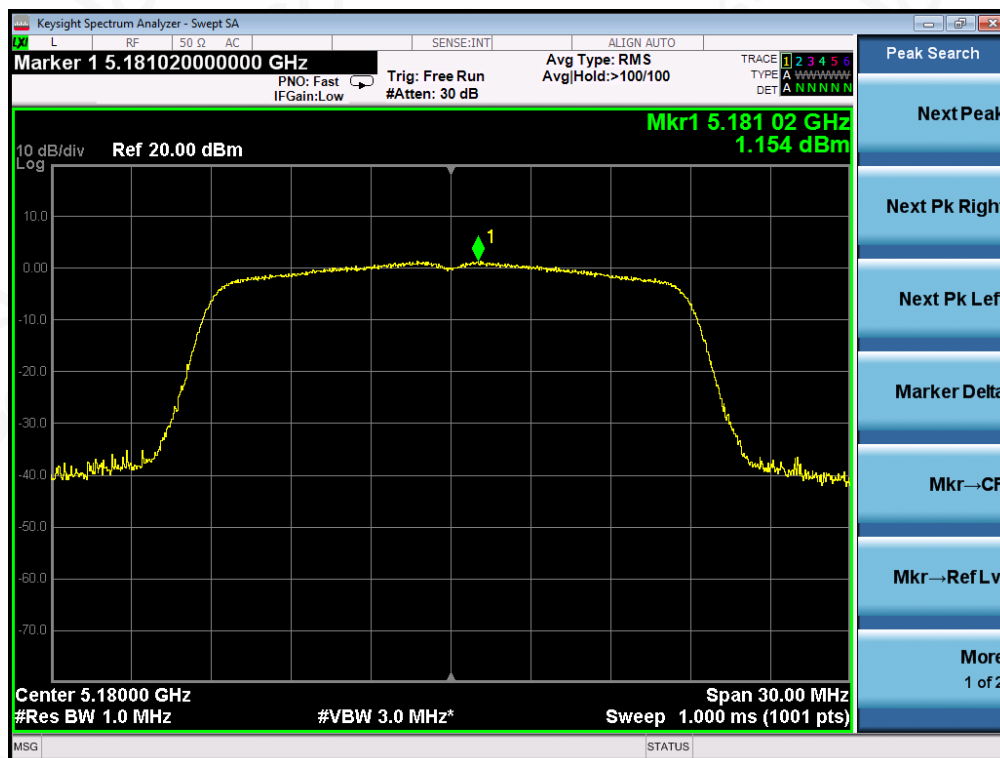


802.11n20 TEST RESULT

TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

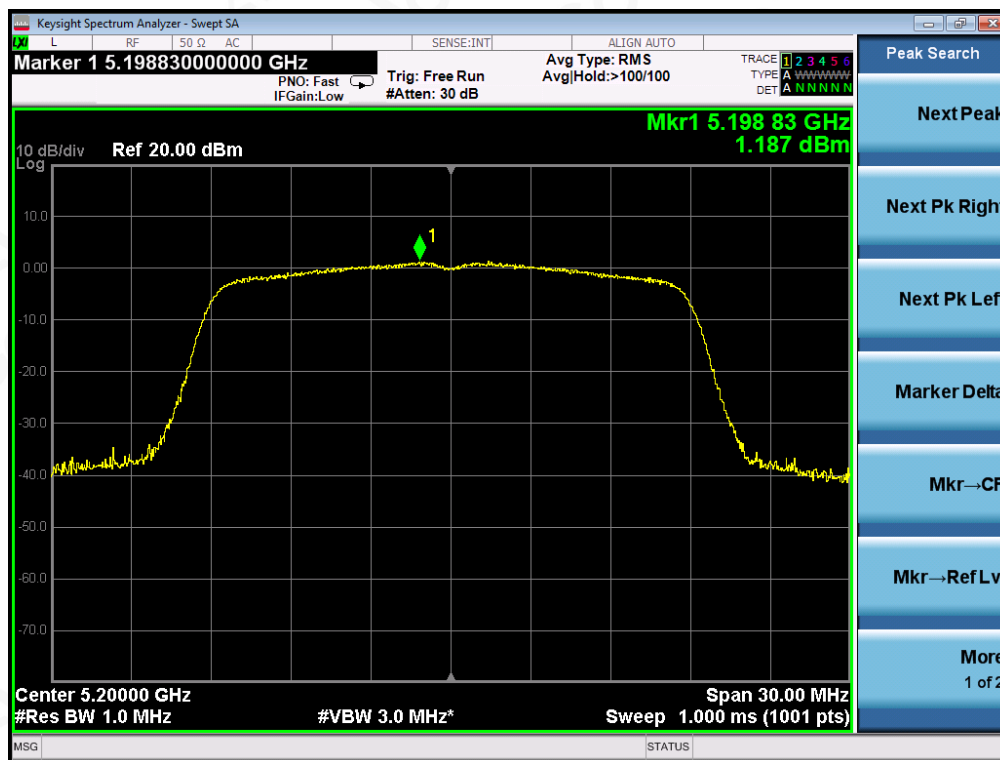
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

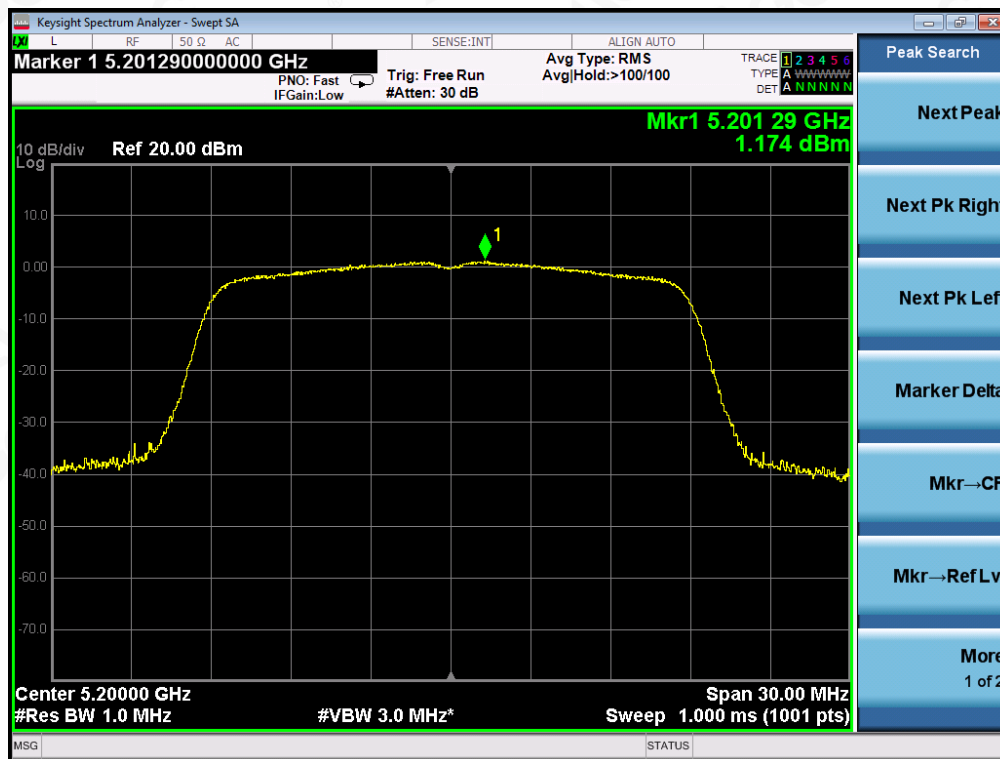
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

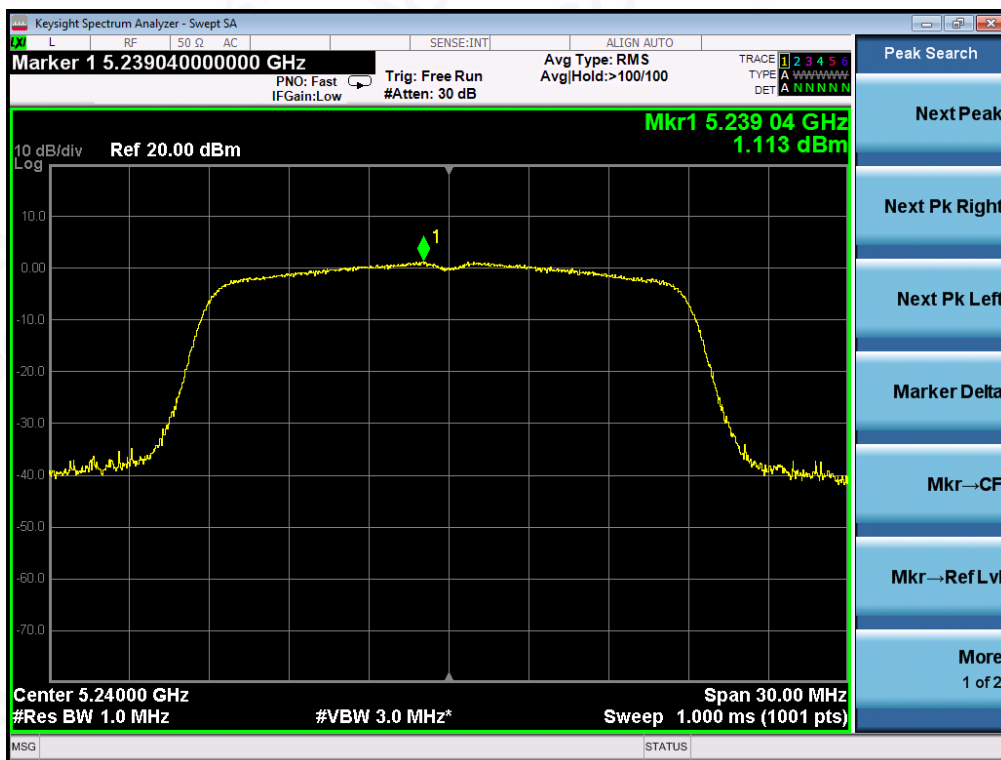
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 1



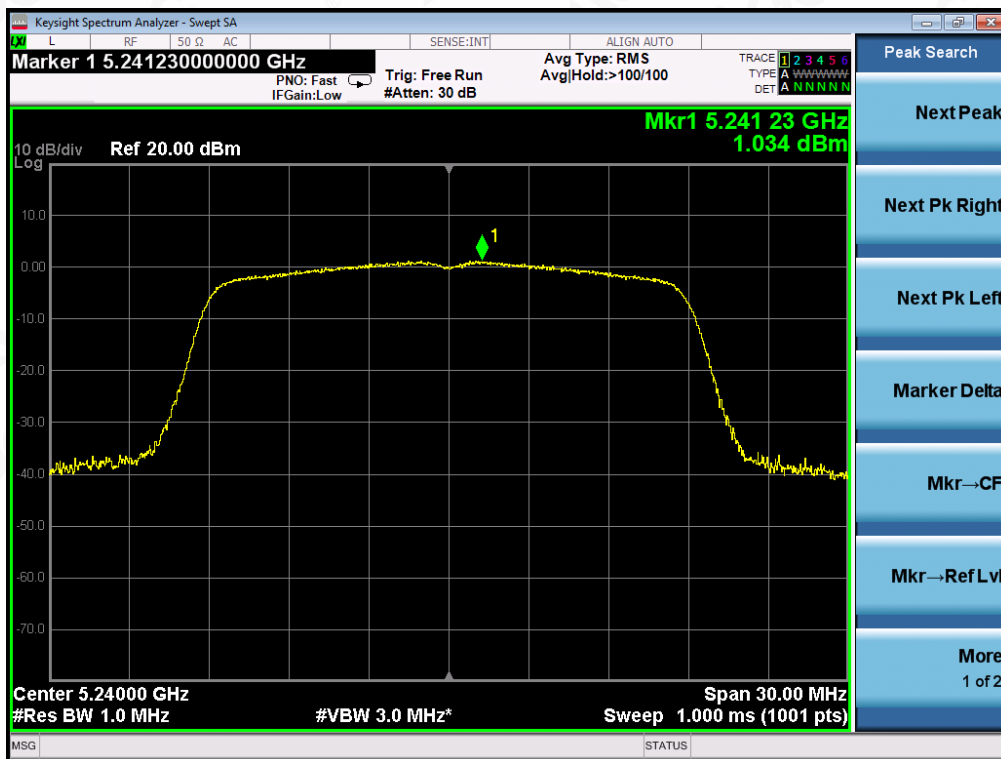
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

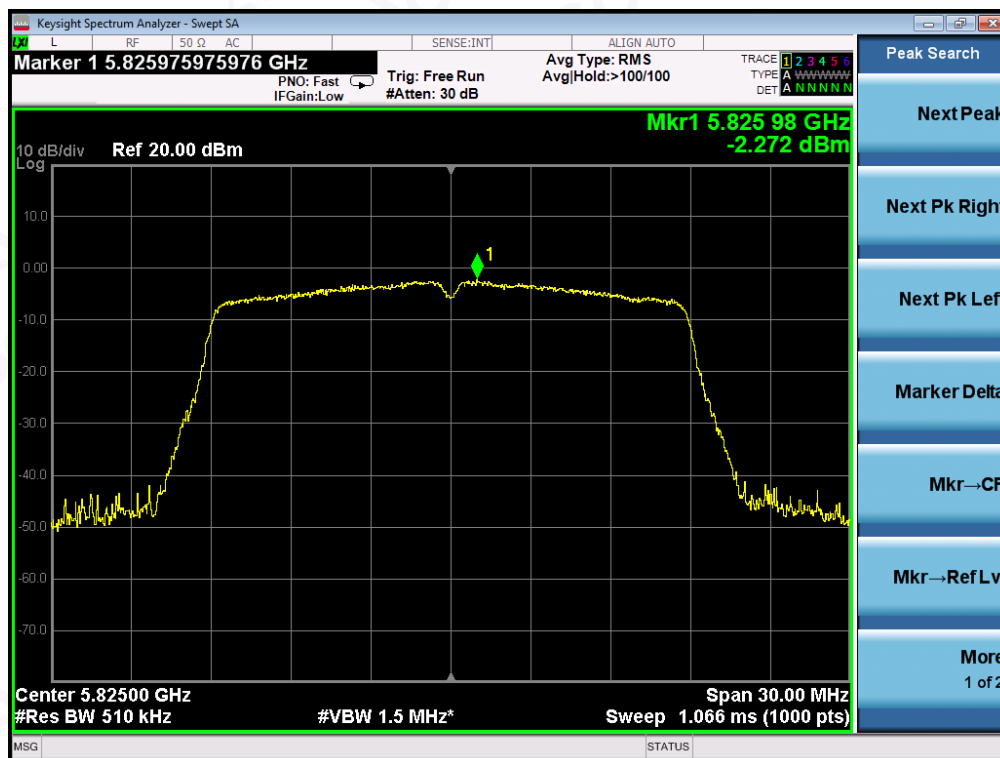
TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 1



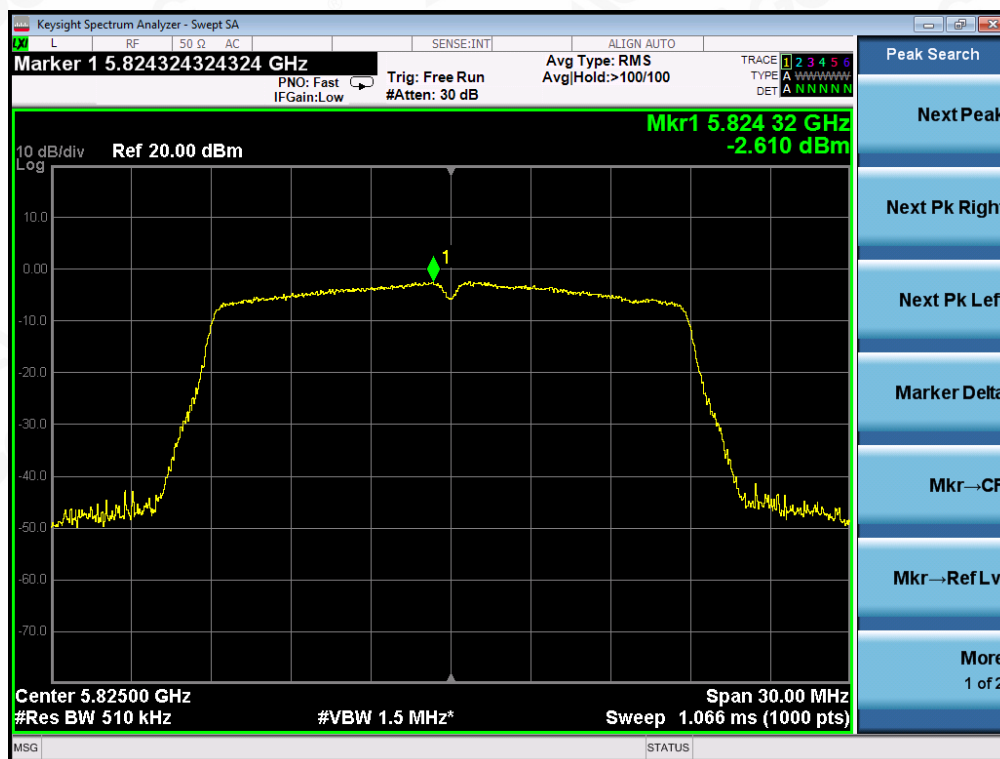
TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 2



802.11n40 TEST RESULT

TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

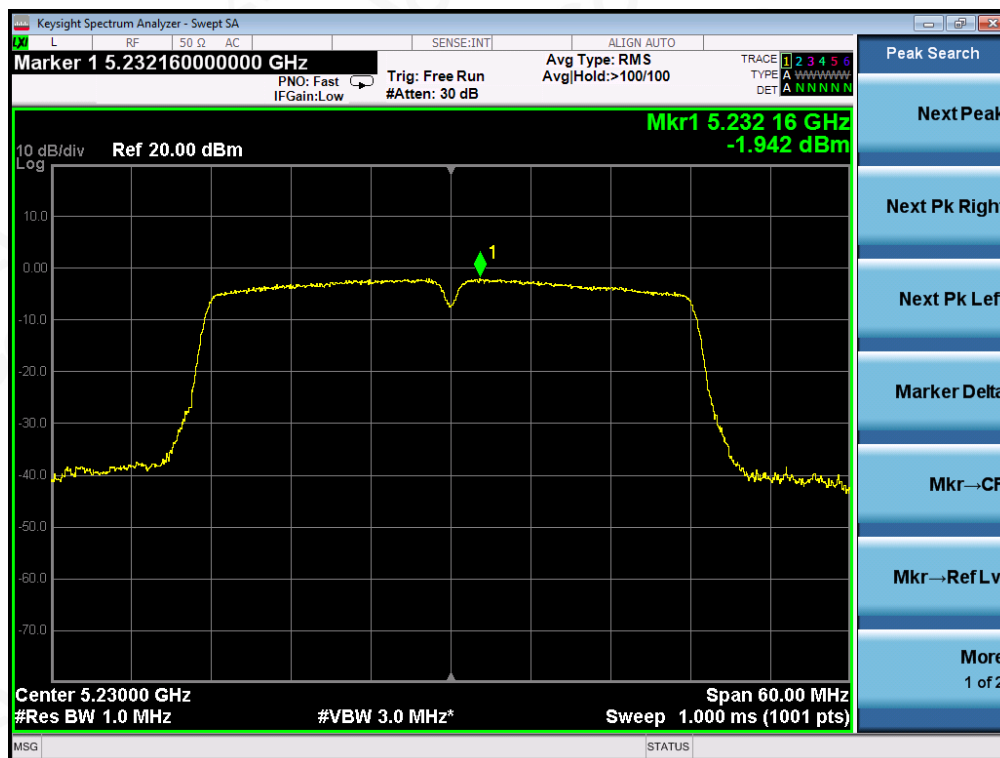
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

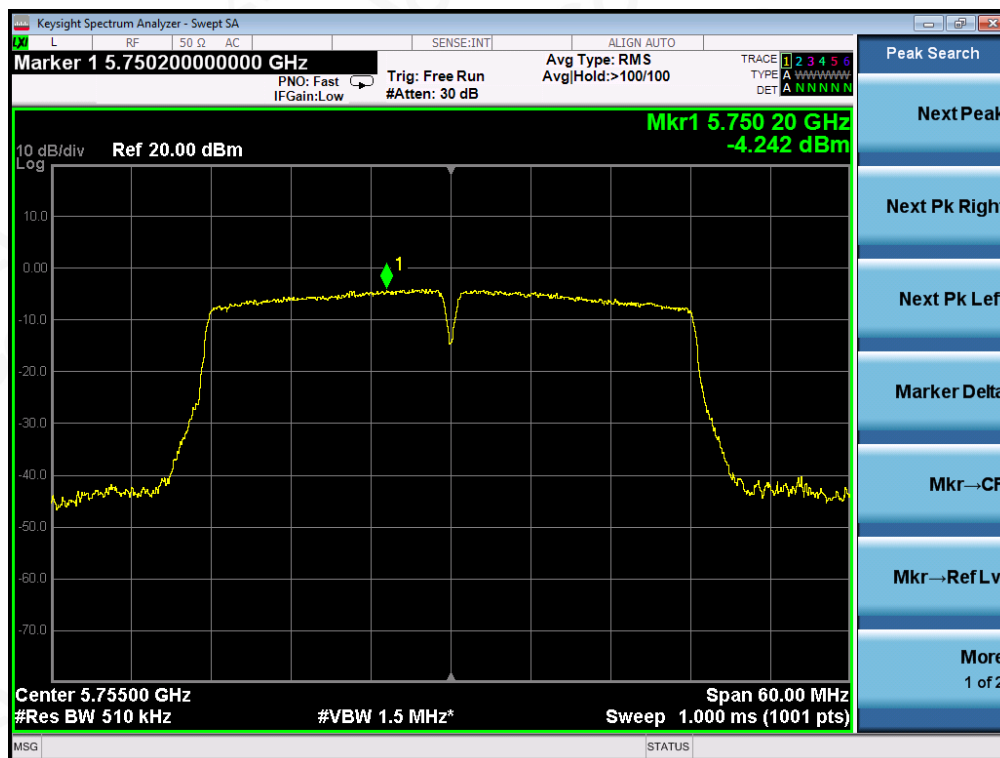
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

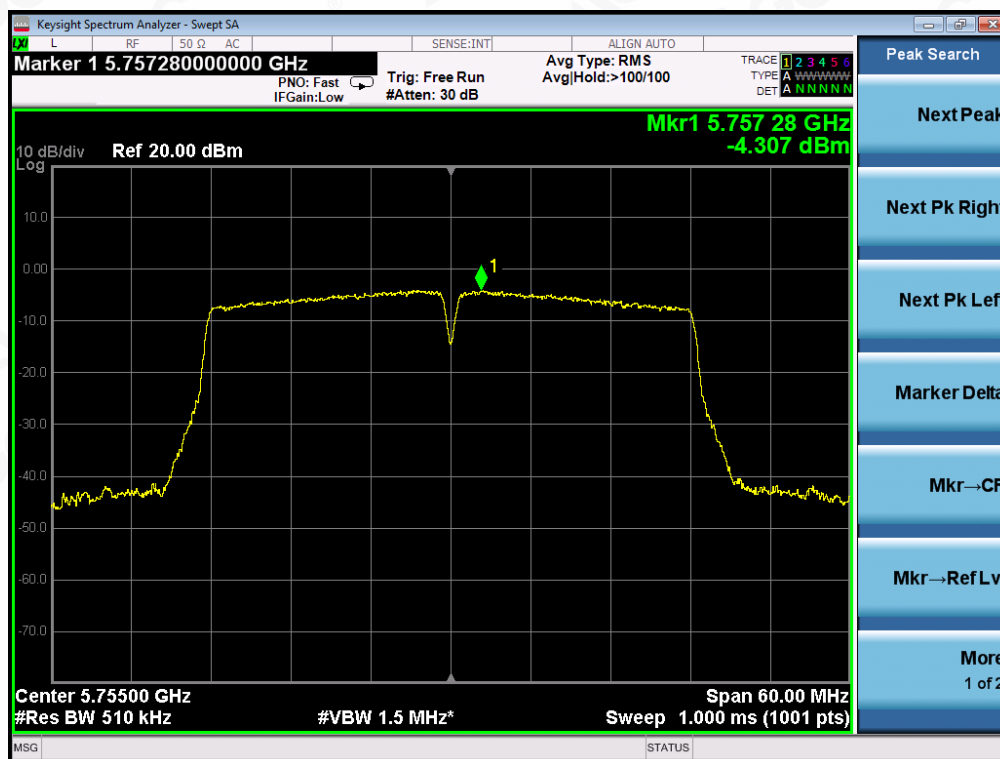
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

TEST PLOT OF SPECTRAL DENSITY FOR 5755MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5755MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5795MHz AT CHAIN 1

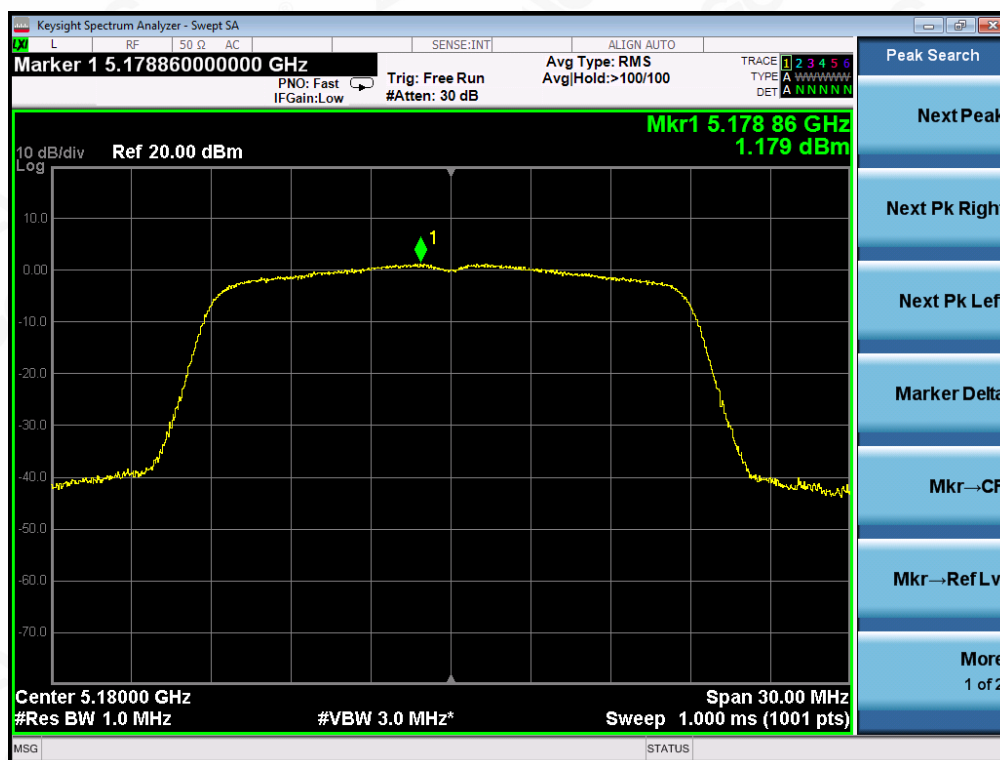


TEST PLOT OF SPECTRAL DENSITY FOR 5795MHz AT CHAIN 2

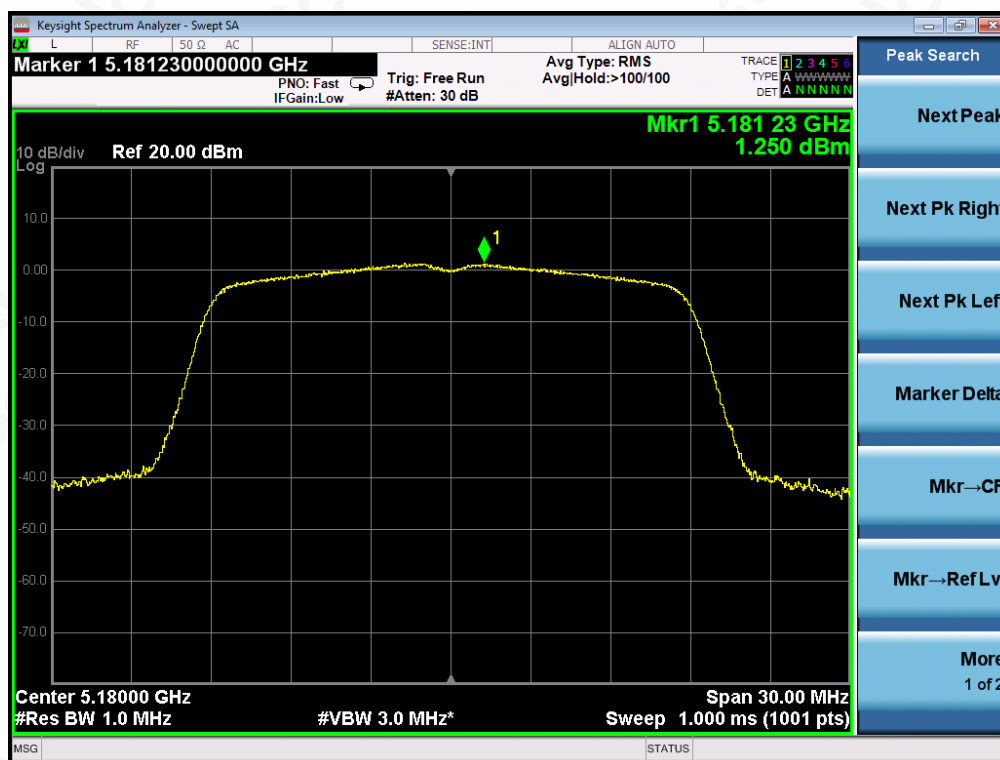


802.11ac20 TEST RESULT

TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5180MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

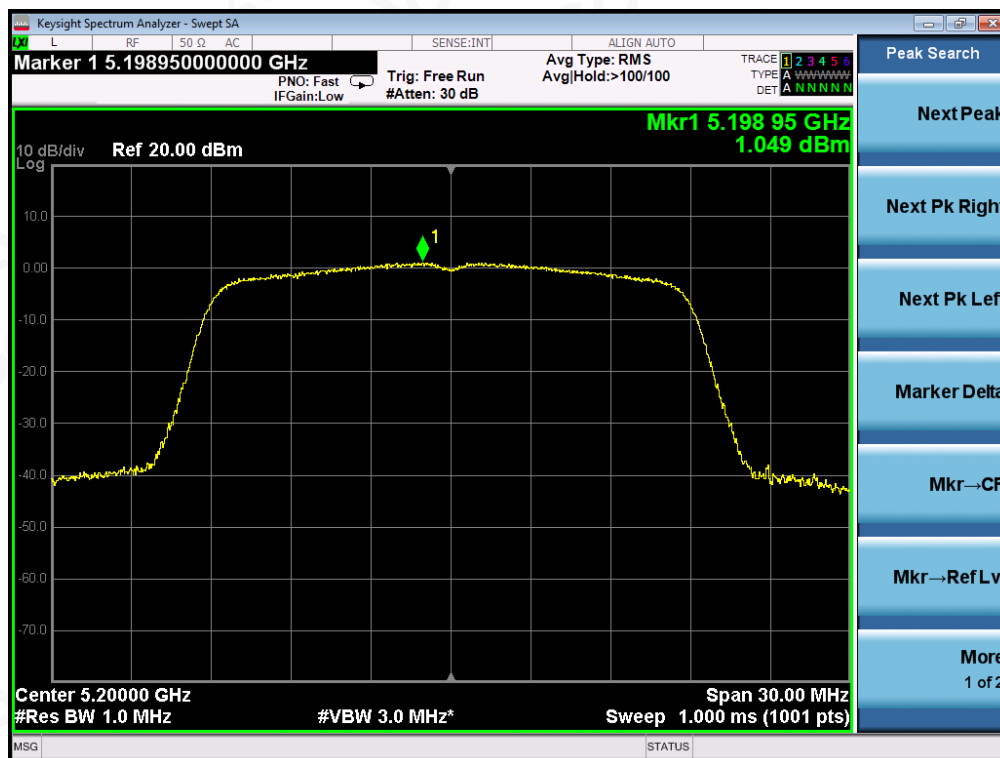
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

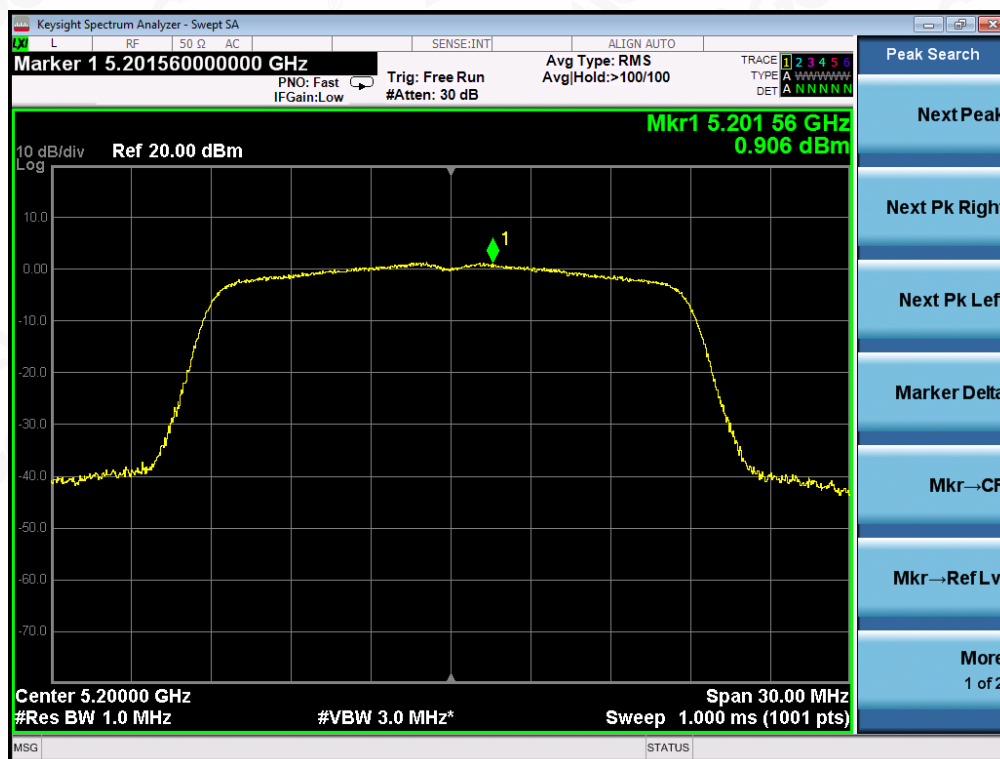
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 1



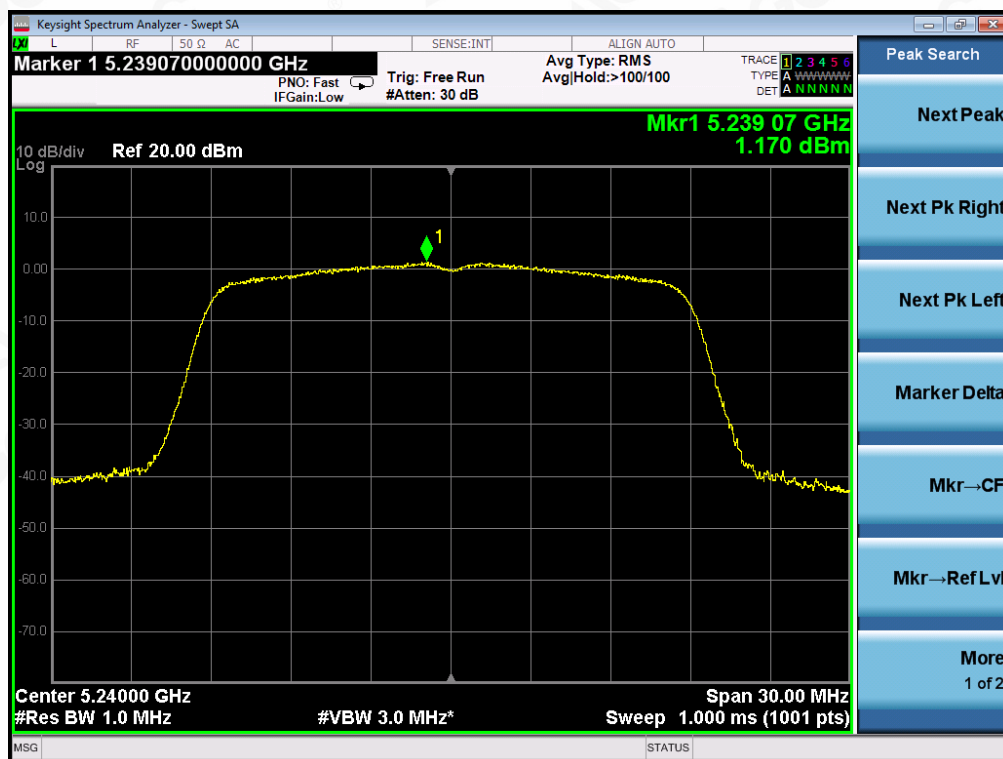
TEST PLOT OF SPECTRAL DENSITY FOR 5200MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5240MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5745MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5785MHz AT CHAIN 2



TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 1

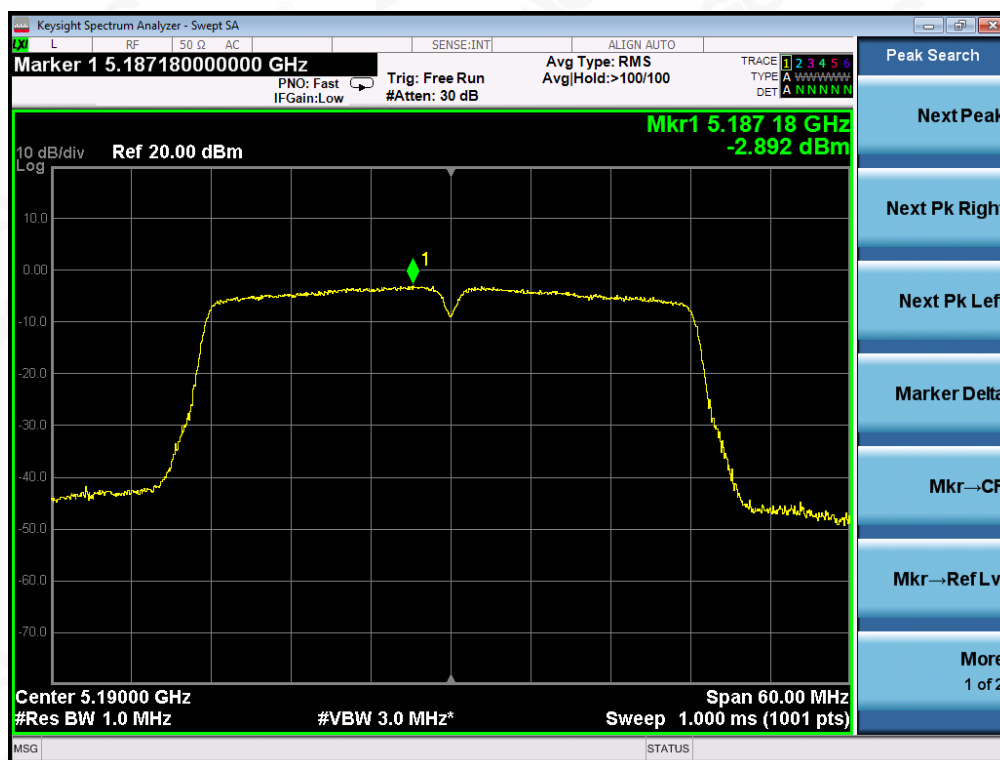


TEST PLOT OF SPECTRAL DENSITY FOR 5825MHz AT CHAIN 2

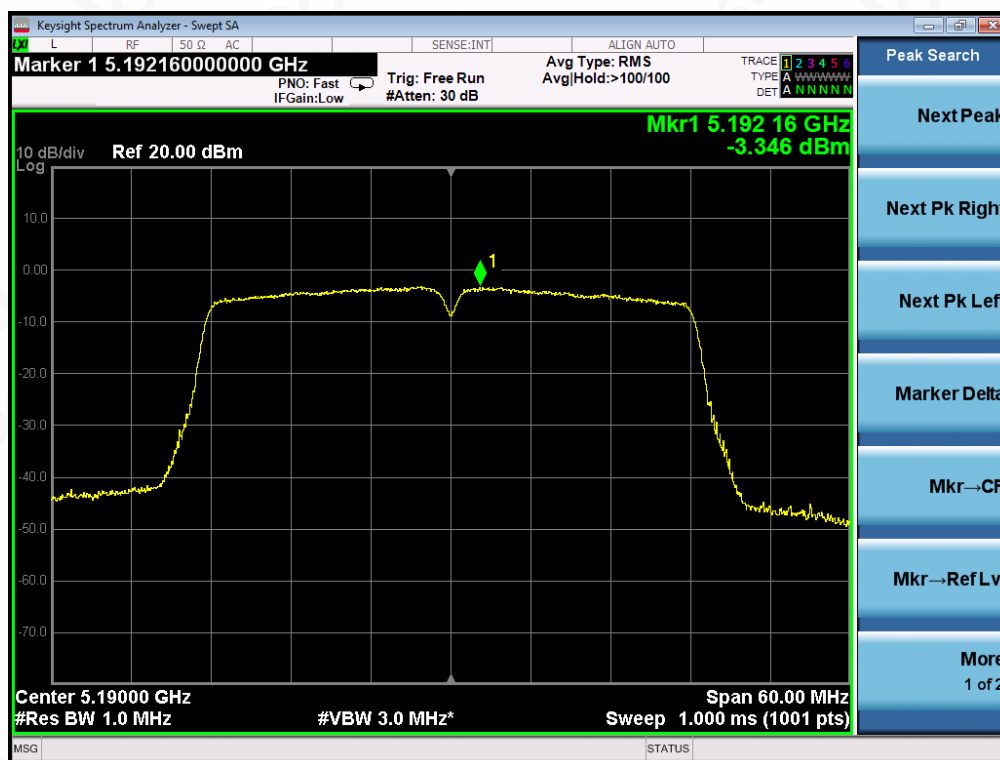


802.11ac40 TEST RESULT

TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5190MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

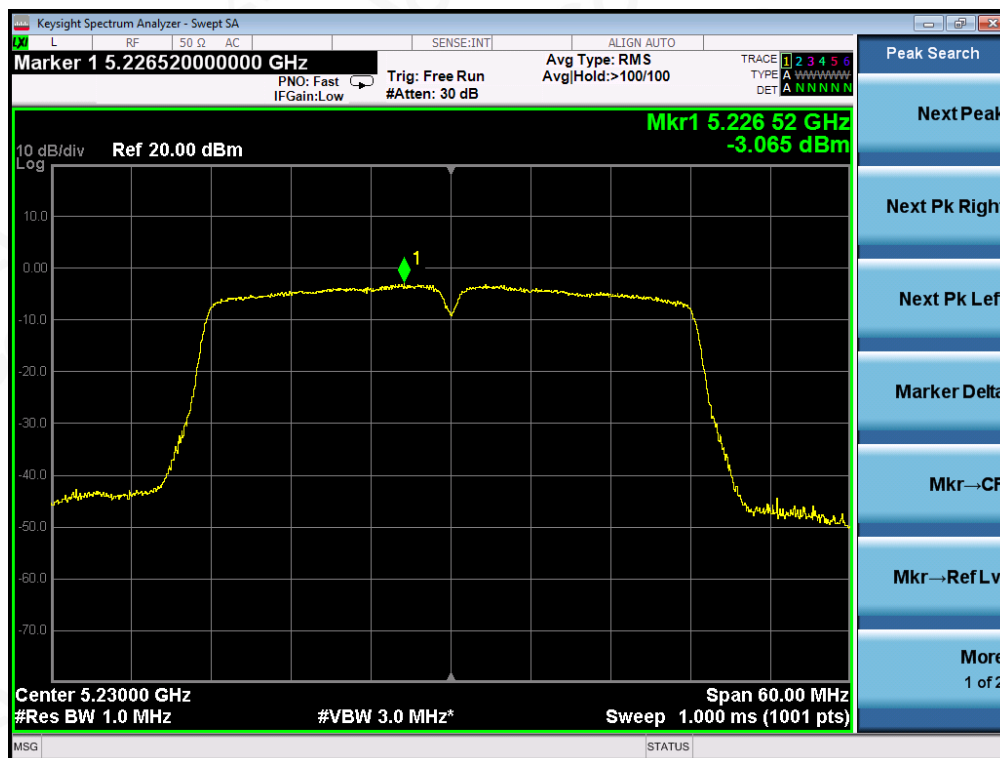
Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

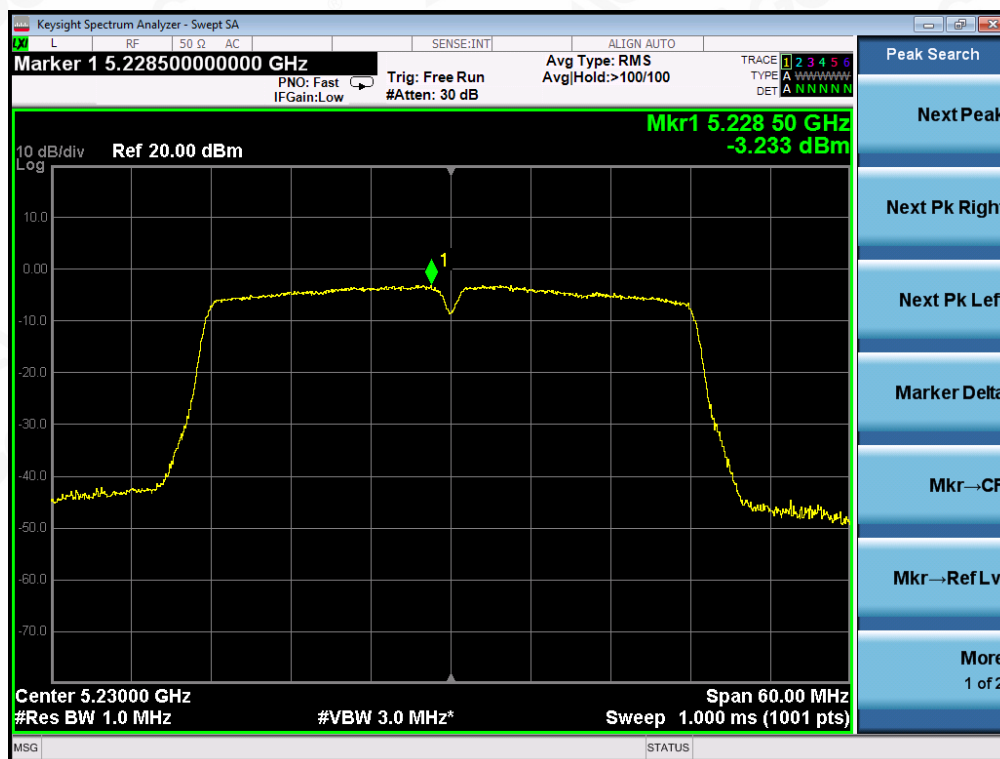
E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118

TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 1



TEST PLOT OF SPECTRAL DENSITY FOR 5230MHz AT CHAIN 2



Attestation of Global Compliance

Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community,
Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline: 400 089 2118