TEST REPORT

FCC ID: 2AIZN-X620B

Product: Mobile phone

Model No.: X620B

Additional Model No.: N/A

Trade Mark: Infinix

Report No.: FCC18070037A-5GWi-Fi

Issued Date: July 27, 2018

Issued for:

INFINIX MOBILITY LIMITED
RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON RD TST KLN HONG KONG

Issued By:

World Standardization Certification & Testing Group Co., Ltd.
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Table of Contents Page

1. GENERAL INFORMATION

Product:	Mobile phone
Model No.:	X620B
Additional Model:	N/A
Applicant:	INFINIX MOBILITY LIMITED
Address:	RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON RD TST KLN HONG KONG
Manufacturer:	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Address:	1/F-4/F,7/F, BUILDING 3, TAIPINGYANG INDUSTRIAL ZONE, NO.2088, SHENYAN ROAD, YANTIAN DISTRICT, SHENZHEN CITY, GUANGDONG PROVINCE, P.R.C
Data of receipt:	July 16, 2018
Date of Test:	July 16, 2018 to July 25, 2018
Applicable Standards:	FCC Rules Part15 Subpart E

The above equipment has been tested by World Standardization Certification & Testing Group Co., Ltd. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By: Pu Shixi **Date:** July 27, 2018
(Pu Shixi)

Check By: Qin Shuiquan **Date:** July 27. 2018
(Qin Shuiquan)

Approved By: Wang Fengbing **Date:** July 27, 2018
(Wang Fengbing)

1.1 GENERAL DESCRIPTION OF EUT

Equipment Type:	Mobile phone
Test Model:	X620B
Additional Model:	N/A
Trade Mark	Infinix
Applicant:	INFINIX MOBILITY LIMITED
Address:	RMS 05-15, 13A/F SOUTH TOWER WORLD FINANCE CTR HARBOUR CITY 17 CANTON RD TST KLN HONG KONG
Manufacturer:	SHENZHEN TECNO TECHNOLOGY CO.,LTD.
Address:	1/F-4/F,7/F, BUILDING 3, TAIPINGYANG INDUSTRIAL ZONE, NO.2088, SHENYAN ROAD, YANTIAN DISTRICT, SHENZHEN CITY, GUANGDONG PROVINCE, P.R.C
Hardware version:	V2.1
Software version:	X620B-Q6361A-O-180702V06
Extreme Temp. Tolerance:	-10℃ to +65℃
Battery information:	Li-Polymer Battery : BL-35BX Voltage: 3.85V Capacity: 3550mAh/3650mAh(min/typ) Limited Charge Voltage: 4.4V
Adapter Information:	Adapter: CQ-18VX Input: AC 100-240V 50/60Hz 0.5A Output: DC 5.0V⎓3.0A/ 9.0V⎓2.0A/ 12.0V⎓1.5A
Operating Frequency	see the below table
Channels	see the below table
Channel Spacing	see the below table
Modulation Type	see the below table
Antenna Type:	Integral Antenna
Antenna gain:	-1.5dBi
Deviation	None
Condition of Test Sample	Normal

1.2 EUT SPECIFICATION:

Items	Description	
Modulation	IEEE 802.11a: OFDM IEEE 802.11n: see the below table IEEE 802.11ac: see the below table	
Data Modulation	IEEE 802.11n: OFDM (BPSK / QPSK / 16QAM / 64QAM) IEEE 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)	
Data Rate (Mbps)	IEEE 802.11a: OFDM 6,9,12,18,24,36,48, and 54 Mbps IEEE 802.11n: MCS 0-15 up to 150 Mbps IEEE 802.11ac: MCS 0-9 up to 866.7 Mbps	
Frequency Range	Band 1: 5150 MHz ~ 5250 MHz Band 4: 5725 MHz ~ 5850 MHz	
Channel Number	13for 20MHz bandwidth ; 6 for 40MHz bandwidth ;	
Communication Mode	☒IP Based (Load Based)	☐Frame Based
TPC Function	☐With TPC	☒Without TPC
Weather Band	☐With 5600~5650MHz	☒Without 5600~5650MHz
Beamforming Function	☐With beamforming	☒Without beamforming
Operating Mode	☐Outdoor access point	☐Indoor access point
	☐Fixed point-to-point access points	☒Mobile and portable client devices
	☐Master	☐Slave with radar detection
	☐Slave without radar detection	

Antenna	One (TX)		
Band width Mode	20 MHz	40 MHz	80 MHz
IEEE 802.11a	V	X	X
IEEE 802.11n	V	V	X
IEEE 802.11ac	V	V	V

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	1	MCS 0-15
802.11n (HT40)	1	MCS 0-15
802.11ac (HT20)	1	MCS 0-9
802.11ac (HT40)	1	MCS 0-9
802.11ac (HT80)	1	MCS 0-9

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 and HT80 (HT: High Throughput). Then EUT supports HT20 and HT40 and HT80.
Note 2: Modulation modes consist of below configuration:
HT20/HT40: IEEE 802.11n
HT20/HT40/HT80: IEEE 802.11ac

2.FACILITIES AND ACCREDITATIONS

All measurement facilities used to collect the measurement data are located at **Building A-B, Baoshi Science & Technology Park, Baoshi Road, Bao'an District, Shenzhen, Guangdong, China of the World Standardization Certification & Testing Group Co., Ltd**

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

Registration Number: 366353

2.1 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	**NVLAP (The certificate registration number is NVLAP LAB CODE:600142-0)**
Japan	**VCCI (The certificate registration number is C-4790, R-3684, G-837)**
Canada	**INDUSTRY CANADA (The certificated registration number is 7700A-1)**
China	**CNAS (The certificated registration number is L3732)**

Copies of granted accreditation certificates are available for downloading from our web site, **http://www.wsct-cert.com**

3.TEST DESCRIPTION

3.1MEASUREMENT 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** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±3.2dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.7dB
5	All emissions,radiated(>1G)	±4.7dB
6	Temperature	±0.5°C
7	Humidity	±2%

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11a
Mode 2	802.11n20
Mode 3	802.11n40
Mode 4	802.11ac20
Mode 5	802.11ac40
Mode 6	802.11ac80

For Conducted Emission	
Final Test Mode	Description
Mode 1	802.11a

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11a
Mode 2	802.11n20
Mode 3	802.11n40
Mode 4	802.11ac20
Mode 5	802.11ac40
Mode 6	802.11ac80

Note:

(1) The measurements are performed at the highest, lowest available channels.

(2) The EUT use new battery.

(3) Record the worst case of each test item in this report.

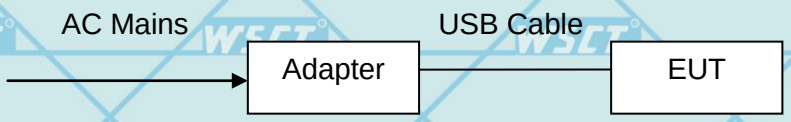
(4)When we test the equipment, duty cycle≥98%.

3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of FHSS

Test Software	N/A											
Test program	*#*#2008#*#*											
Mode	Test Frequency (MHz)											
	NCB: 20MHz											
802.11a	5180 MHz	5200 MHz	5240 MHz	5825 MHz	5785 MHz	5745 MHz						
802.11n MCS0 VHT20	5180 MHz	5200 MHz	5240 MHz	5825 MHz	5785 MHz	5745 MHz						
802.11ac MCS9 VHT20	5180 MHz	5200 MHz	5240 MHz	5825 MHz	5785 MHz	5745 MHz						
Mode	NCB: 40MHz											
802.11n MCS0 VHT40	5190 MHz	5230 MHz	5755 MHz	5795 MHz								
802.11ac MCS9 VHT40	5190 MHz	5230 MHz	5755 MHz	5795 MHz								
Mode	NCB: 80MHz											
802.11ac MCS9 VHT80	5210 MHz	5775 MHz										
During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.												

3.4CONFIGURATION OF SYSTEM UNDER TEST



(EUT: Mobile phone)

I/O Port of EUT			
I/O Port Type	**Q'TY**	**Cable**	**Tested with**
USB port	1	1m USB cable, unshielded	1
Power	1	1m	1

3.5 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Adapter	/	CQ-18VX	/	/
2	Earphone	/	N/A	/	/

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.
(3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".
(4) The adapter supply by the applicant.

4.SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 Subpart C&E			
Standard Section	Test Item	Judgment	Remark
2.1049 15.403(i)	26dB & 99% Bandwidth	PASS	Complies
15.407(e)	6dB Spectrum Bandwidth	PASS	Complies
15.407(a)	Maximum Conducted Output Power	PASS	Complies
15.407(a)	Power Spectral Density	PASS	Complies
15.407(b)	Unwanted Emissions	PASS	Complies
15.207	AC Conducted Emission	PASS	Complies
15.407(g)	Frequency Stability	PASS	Complies
15.203 & 15.407(a)	Antenna Requirement	PASS	Complies

NOTE:

(1)" N/A" denotes test is not applicable in this test report.

5. MEASUREMENT INSTRUMENTS

NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE.
EMI Test Receiver	R&S	ESCI	100005	08/19/2017	08/18/2018
LISN	AFJ	LS16	16010222119	08/19/2017	08/18/2018
LISN(EUT)	Mestec	AN3016	04/10040	08/19/2017	08/18/2018
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	08/19/2017	08/18/2018
Coaxial cable	Megalon	LMR400	N/A	08/12/2017	08/11/2018
GPIB cable	Megalon	GPIB	N/A	08/12/2017	08/11/2018
Spectrum Analyzer	R&S	FSU	100114	08/19/2017	08/18/2018
Pre Amplifier	H.P.	HP8447E	2945A02715	10/13/2017	10/12/2018
Pre-Amplifier	CDSI	PAP-1G18-38	--	10/13/2017	10/12/2018
Bi-log Antenna	SUNOL Sciences	JB3	A021907	09/13/2017	09/12/2018
9*6*6 Anechoic	--	--	--	08/21/2017	08/20/2018
Horn Antenna	COMPLIANCE ENGINEERING	CE18000	--	09/13/2017	09/12/2018
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-631	08/23/2017	08/22/2018
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	04/25/2018	04/24/2019
System-Controller	CCS	N/A	N/A	N.C.R	N.C.R
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R
RF cable	Murata	MXHQ87WA3000	-	08/21/2017	08/20/2018
Loop Antenna	EMCO	6502	00042960	08/22/2017	08/21/2018
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	08/19/2017	08/18/2018
Power meter	Anritsu	ML2487A	6K00003613	08/23/2017	08/22/2018
Power sensor	Anritsu	MX248XD	--	08/19/2017	08/18/2018

6. EMC EMISSION TEST

6.1 CONDUCTED EMISSION MEASUREMENT

6.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Conducted limit (dBμV)		Conducted limit (dBμV)
	Quasi-peak	Quasi-peak	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

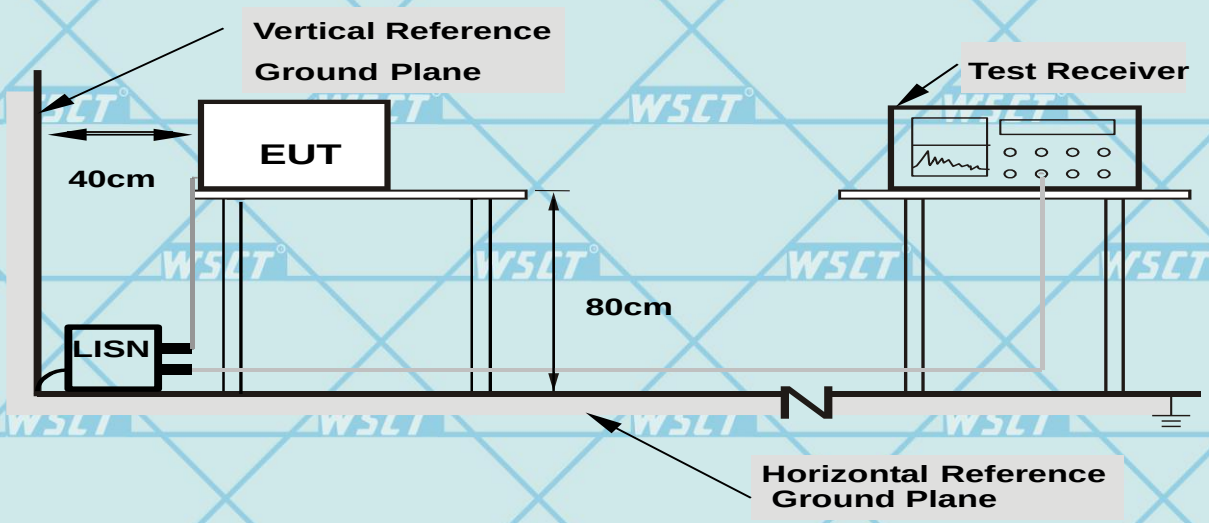
6.1.2 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

6.1.3 DEVIATION FROM TEST STANDARD

No deviation

6.1.4 TEST SETUP



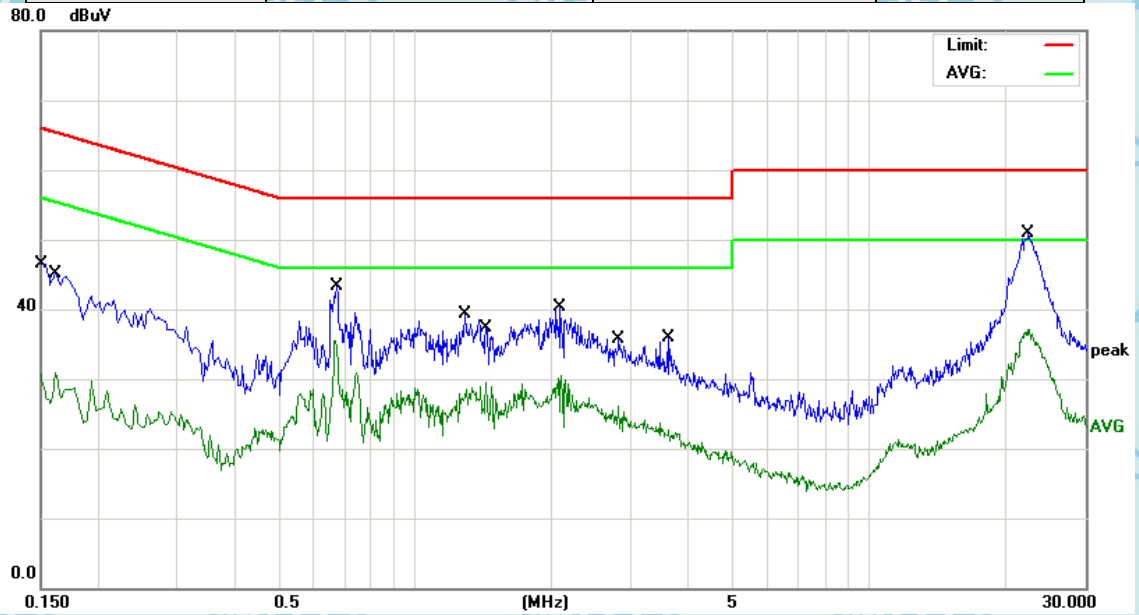
Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

6.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

6.1.6TEST RESULTS

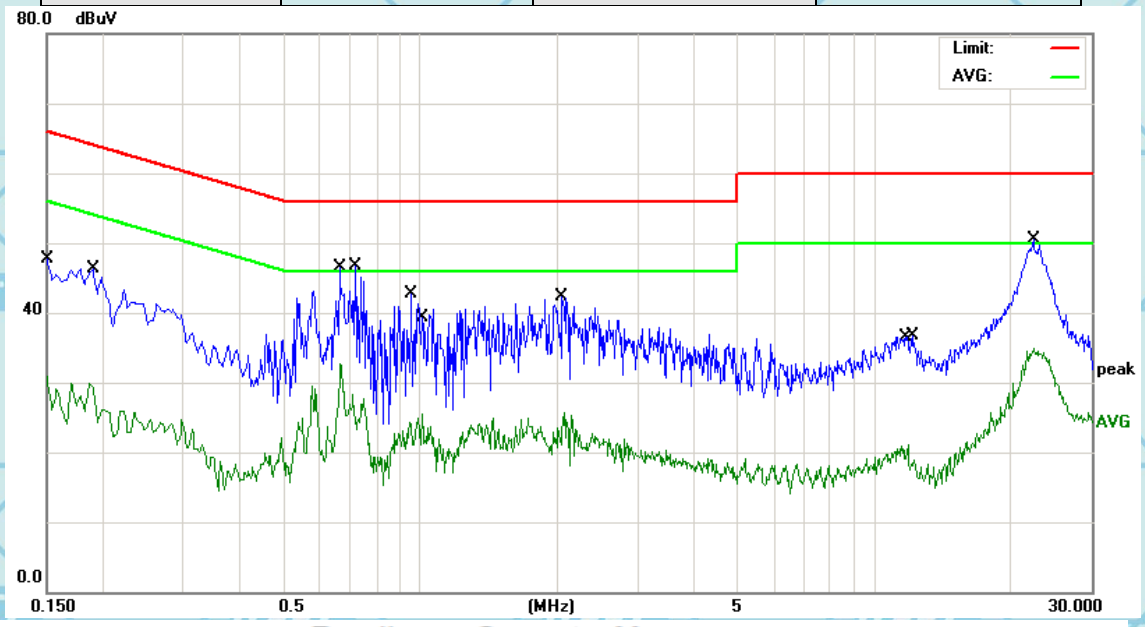
Temperature	26 ℃	RelativeHumidity	54%
Pressure	1010hPa	Phase	L
Test Mode	Mode 1		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1500	31.39	10.44	41.83	65.99	-24.16	QP
2		0.1500	32.09	10.44	42.53	65.99	-23.46	QP
3		0.1620	20.46	10.44	30.90	55.36	-24.46	AVG
4	*	0.6700	25.14	10.38	35.52	46.00	-10.48	AVG
5		0.6740	29.71	10.38	40.09	56.00	-15.91	QP
6		1.2940	22.63	10.33	32.96	56.00	-23.04	QP
7		1.4340	19.15	10.32	29.47	46.00	-16.53	AVG
8		2.0980	24.63	10.29	34.92	56.00	-21.08	QP
9		2.1020	20.18	10.29	30.47	46.00	-15.53	AVG
10		2.8179	15.83	10.27	26.10	46.00	-19.90	AVG
11		3.6100	17.22	10.26	27.48	56.00	-28.52	QP
12		22.3860	27.00	10.11	37.11	50.00	-12.89	AVG
13		22.4500	35.66	10.11	45.77	60.00	-14.23	QP

Remark: All the modes have been investigated, and only worst mode is presented in this report.

Temperature	26 ℃	Relative Humidity	54%
Pressure	1010hPa	Phase	N
Test Mode	Mode 1		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1500	20.38	10.44	30.82	55.99	-25.17	AVG
2		0.1900	28.66	10.44	39.10	64.03	-24.93	QP
3	*	0.6660	22.31	10.38	32.69	46.00	-13.31	AVG
4		0.7180	25.22	10.37	35.59	56.00	-20.41	QP
5		0.9540	21.95	10.35	32.30	56.00	-23.70	QP
6		1.0060	15.08	10.34	25.42	46.00	-20.58	AVG
7		2.0540	25.71	10.29	36.00	56.00	-20.00	QP
8		2.0660	15.48	10.29	25.77	46.00	-20.23	AVG
9		11.8300	10.95	10.18	21.13	50.00	-28.87	AVG
10		12.1140	18.27	10.17	28.44	60.00	-31.56	QP
11		22.3819	36.03	10.11	46.14	60.00	-13.86	QP
12		22.5060	24.69	10.11	34.80	50.00	-15.20	AVG

Remark: All the modes have been investigated, and only worst mode is presented in this report.

6.2 RADIATED EMISSION MEASUREMENT

6.2.1Radiated Emission Limits (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 1Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

6.2.2 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

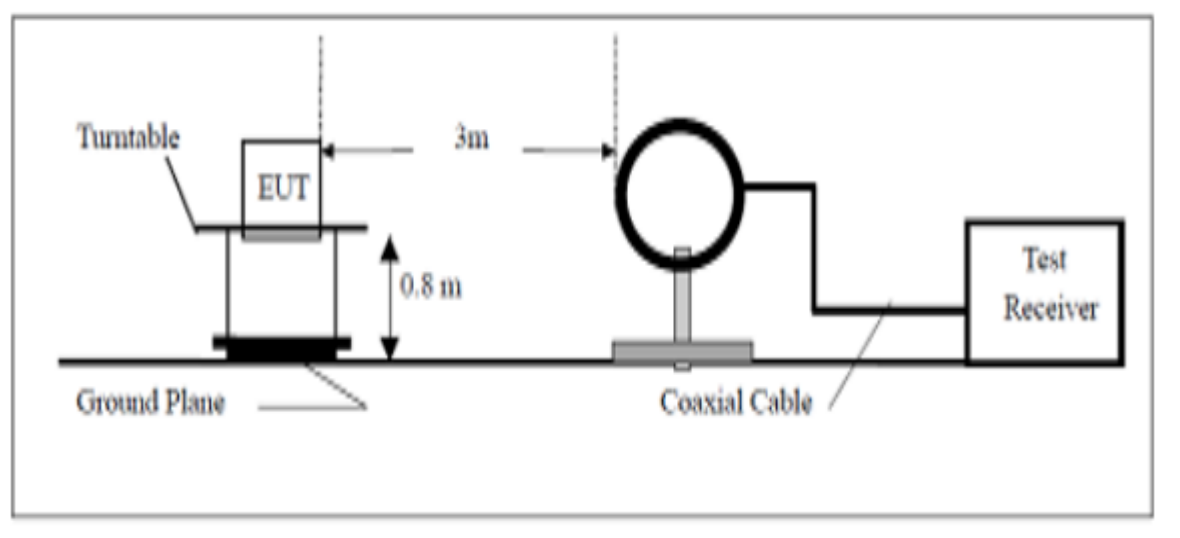
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

6.2.3 DEVIATION FROM TEST STANDARD

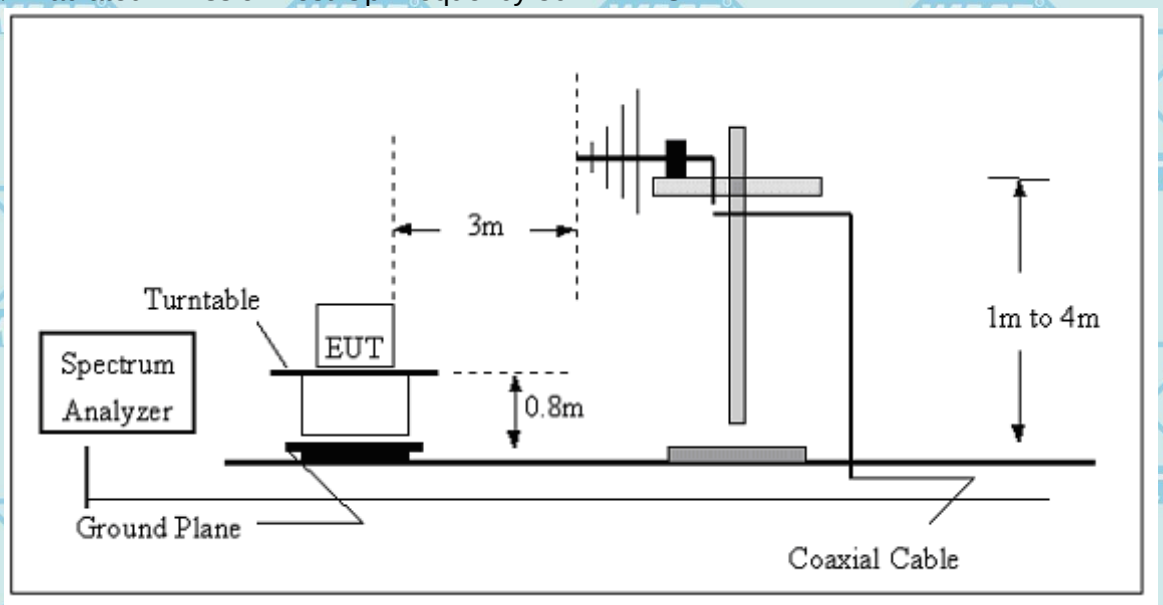
No deviation

6.2.4 TEST SETUP

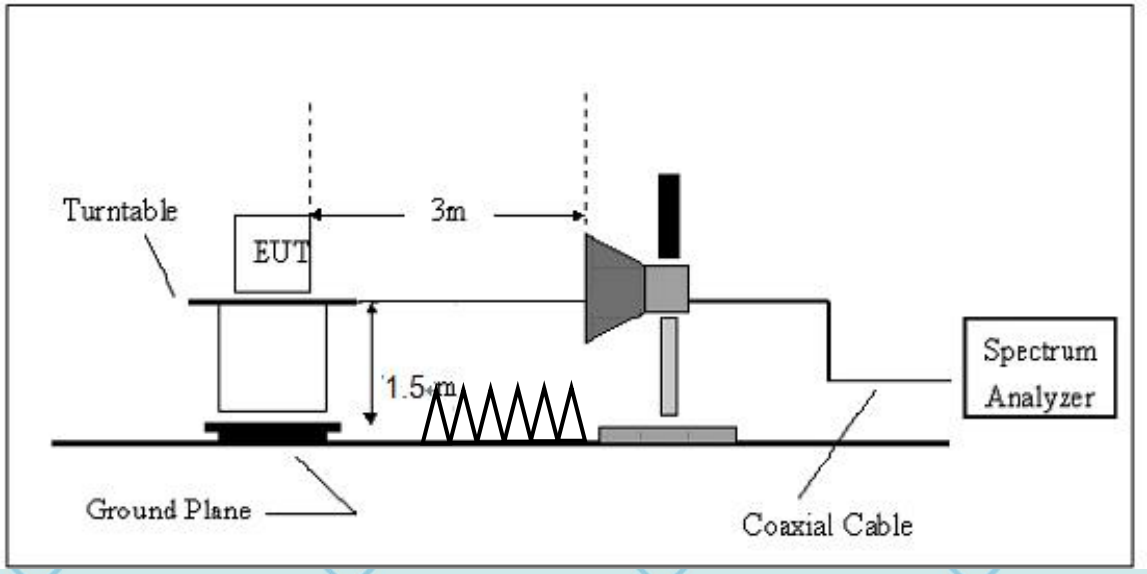
（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



6.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.2.5.1 RESULTS (Below 30 MHz)

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Polarization	---
Test Mode	Mode 1		

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	P
--	--	--	--	P

NOTE:
No result in this part for margin above 20dB.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuV) + distance extrapolation factor.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

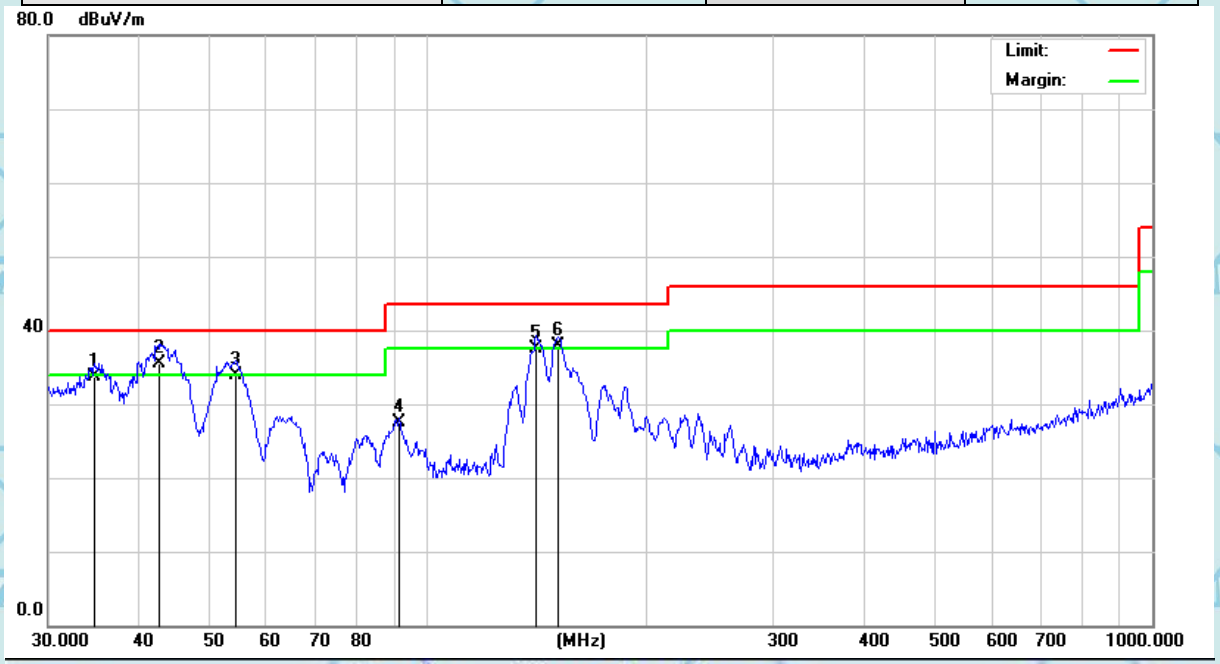
6.2.5.2 TEST RESULTS (Between 30M – 1000 MHz)

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Polarization :	Horizontal
Test Mode	Mode 1		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	*	31.9546	25.82	4.05	29.87	40.00	-10.13	QP
2		90.2205	34.63	-5.87	28.76	43.50	-14.74	QP
3		141.3298	34.26	-4.40	29.86	43.50	-13.64	QP
4		187.0958	37.98	-7.14	30.84	43.50	-12.66	QP
5		269.4284	35.33	-3.74	31.59	46.00	-14.41	QP
6		390.7226	28.49	-1.56	26.93	46.00	-19.07	QP

Remark: All the modes have been investigated, and only worst mode is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Polarization :	Vertical
Test Mode	Mode 1		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		34.7602	30.71	2.98	33.69	40.00	-6.31	QP
2	*	42.6000	36.58	-1.09	35.49	40.00	-4.51	QP
3		54.4516	39.39	-5.55	33.84	40.00	-6.16	QP
4		91.4949	33.06	-5.60	27.46	43.50	-16.04	QP
5		141.3298	41.89	-4.40	37.49	43.50	-6.01	QP
6	!	151.5972	42.91	-5.07	37.84	43.50	-5.66	QP

Remark: All the modes have been investigated, and only worst mode is presented in this report.

6.2.5.3 TEST RESULTS (1GHz to 40GHz)

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5180MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10360	V	58.19	39.33	68.2	54	-10.01	-14.67
15540	V	59.13	39.75	68.2	54	-9.07	-14.25
10360	H	59.07	40.88	68.2	54	-9.13	-13.12
15540	H	59.54	39.23	68.2	54	-8.66	-14.77

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5200MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10400	V	58.69	39.16	68.2	54	-9.51	-14.84
15600	V	58.76	40.99	68.2	54	-9.44	-13.01
10400	H	58.40	39.92	68.2	54	-9.80	-14.08
15600	H	59.01	39.87	68.2	54	-9.19	-14.13

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5240MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10480	V	58.25	41.33	68.2	54	-9.95	-12.67
15720	V	58.22	40.63	68.2	54	-9.98	-13.37
10480	H	59.29	40.64	68.2	54	-8.91	-13.36
15720	H	58.23	39.16	68.2	54	-9.97	-14.84

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5745MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11490	V	59.63	40.82	68.2	54	-8.57	-13.18
17235	V	59.98	40.50	68.2	54	-8.22	-13.50
11490	H	58.67	39.04	68.2	54	-9.53	-14.96
17235	H	58.55	40.72	68.2	54	-9.65	-13.28

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5785MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11570	V	58.01	40.43	68.2	54	-10.19	-13.57
17355	V	59.25	41.00	68.2	54	-8.95	-13.00
11570	H	58.98	40.02	68.2	54	-9.22	-13.98
17355	H	59.75	39.72	68.2	54	-8.45	-14.28

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5825MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11650	V	59.68	40.06	68.2	54	-8.52	-13.94
17475	V	58.64	39.54	68.2	54	-9.56	-14.46
11650	H	59.82	39.42	68.2	54	-8.38	-14.58
17475	H	58.21	39.94	68.2	54	-9.99	-14.06

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 2TX
Frequency	5180MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10360	V	60.35	40.42	68.2	54	-7.85	-13.58
15540	V	58.96	40.46	68.2	54	-9.24	-13.54
10360	H	59.25	40.20	68.2	54	-8.95	-13.80
15540	H	58.70	39.59	68.2	54	-9.50	-14.41

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5200MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10400	V	59.25	39.32	68.2	54	-8.95	-14.68
15600	V	59.82	39.93	68.2	54	-8.38	-14.07
10400	H	59.04	40.53	68.2	54	-9.16	-13.47
15600	H	58.73	39.12	68.2	54	-9.47	-14.88

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 2TX
Frequency	5240MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10480	V	59.30	40.83	68.2	54	-8.90	-13.17
15720	V	58.13	40.95	68.2	54	-10.07	-13.05
10480	H	59.63	39.33	68.2	54	-8.57	-14.67
15720	H	58.24	39.58	68.2	54	-9.96	-14.42

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 2TX
Frequency	5745MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11490	V	60.02	40.22	68.2	54	-8.18	-13.78
17235	V	59.16	40.38	68.2	54	-9.04	-13.62
11490	H	59.35	40.10	68.2	54	-8.85	-13.90
17235	H	58.79	40.27	68.2	54	-9.41	-13.73

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5785MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11570	V	59.01	40.29	68.2	54	-9.19	-13.71
17355	V	59.67	39.84	68.2	54	-8.53	-14.16
11570	H	58.70	39.25	68.2	54	-9.50	-14.75
17355	H	59.52	40.24	68.2	54	-8.68	-13.76

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 2TX
Frequency	5825MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11650	V	59.81	41.87	68.2	54	-8.39	-12.13
17475	V	59.86	39.59	68.2	54	-8.34	-14.41
11650	H	59.44	40.19	68.2	54	-8.76	-13.81
17475	H	59.22	39.80	68.2	54	-8.98	-14.20

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 3TX
Frequency	5190MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10380	V	60.64	40.90	68.2	54	-7.56	-13.10
15570	V	59.71	40.37	68.2	54	-8.49	-13.63
10380	H	58.20	40.98	68.2	54	-10.00	-13.02
15570	H	59.19	40.92	68.2	54	-9.01	-13.08

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 3TX
Frequency	5230MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10460	V	58.74	40.40	68.2	54	-9.46	-13.60
15690	V	59.70	39.68	68.2	54	-8.50	-14.32
10460	H	59.66	39.58	68.2	54	-8.54	-14.42
15690	H	59.57	39.16	68.2	54	-8.63	-14.84

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 3TX
Frequency	5755MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11510	V	59.03	40.12	68.2	54	-9.17	-13.88
17265	V	59.04	40.50	68.2	54	-9.16	-13.50
11510	H	58.14	41.00	68.2	54	-10.06	-13.00
17265	H	59.20	39.77	68.2	54	-9.00	-14.23

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 3TX
Frequency	5795MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
11590	V	58.05	41.33	68.2	54	-10.15	-12.67
17385	V	58.48	39.72	68.2	54	-9.72	-14.28
11590	H	58.10	40.18	68.2	54	-10.10	-13.82
17385	H	59.37	39.11	68.2	54	-8.83	-14.89

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 4TX
Frequency	5180MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
10360	V	60.91	40.40	68.2	54	-7.29	-13.60
15540	V	58.39	39.75	68.2	54	-9.81	-14.25
10360	H	59.61	40.27	68.2	54	-8.59	-13.73
15540	H	58.97	39.67	68.2	54	-9.23	-14.33

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5200MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV PK	Emission Level(dBuV AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
10400	V	60.80	40.35	68.2	54	-7.40	-13.65
15600	V	58.03	39.82	68.2	54	-10.17	-14.18
10400	H	58.85	40.39	68.2	54	-9.35	-13.61
15600	H	59.59	39.88	68.2	54	-8.61	-14.12

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 4TX
Frequency	5240MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10480	V	58.15	41.15	68.2	54	-10.05	-12.85
15720	V	59.57	39.34	68.2	54	-8.63	-14.66
10480	H	59.87	40.44	68.2	54	-8.33	-13.56
15720	H	59.17	39.79	68.2	54	-9.03	-14.21

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 4TX
Frequency	5745MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11490	V	59.86	40.01	68.2	54	-8.34	-13.99
17235	V	59.80	39.15	68.2	54	-8.40	-14.85
11490	H	59.80	39.63	68.2	54	-8.40	-14.37
17235	H	58.90	40.00	68.2	54	-9.30	-14.00

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 1 TX
Frequency	5785MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11570	V	59.54	40.85	68.2	54	-8.66	-13.15
17355	V	58.61	39.36	68.2	54	-9.59	-14.64
11570	H	59.85	39.25	68.2	54	-8.35	-14.75
17355	H	59.52	40.23	68.2	54	-8.68	-13.77

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 4TX
Frequency	5825MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
11650	V	60.22	39.96	68.2	54	-7.98	-14.04
17475	V	59.77	39.61	68.2	54	-8.43	-14.39
11650	H	59.87	39.69	68.2	54	-8.33	-14.31
17475	H	59.54	40.49	68.2	54	-8.66	-13.51

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 5TX
Frequency	5190MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
10380	V	59.06	39.91	68.2	54	-9.14	-14.09
15570	V	59.71	39.85	68.2	54	-8.49	-14.15
10380	H	60.00	40.79	68.2	54	-8.20	-13.21
15570	H	59.47	39.37	68.2	54	-8.73	-14.63

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 5TX
Frequency	5230MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV PK	Emission Level(dBuV AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
10460	V	58.41	40.39	68.2	54	-9.79	-13.61
15690	V	58.55	40.83	68.2	54	-9.65	-13.17
10460	H	58.68	39.14	68.2	54	-9.52	-14.86
15690	H	59.50	40.03	68.2	54	-8.70	-13.97

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 5TX
Frequency	5755MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11510	V	59.85	40.96	68.2	54	-8.35	-13.04
17265	V	59.96	40.91	68.2	54	-8.24	-13.09
11510	H	58.17	39.58	68.2	54	-10.03	-14.42
17265	H	58.57	39.01	68.2	54	-9.63	-14.99

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 5TX
Frequency	5795MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
11590	V	60.44	40.84	68.2	54	-7.76	-13.16
17385	V	58.85	40.39	68.2	54	-9.35	-13.61
11590	H	59.05	40.81	68.2	54	-9.15	-13.19
17385	H	59.74	40.43	68.2	54	-8.46	-13.57

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 6TX
Frequency	5210MHz		

Freq. (MHz)	Ant.Pol.	Emission Level(dBuV		Limit 3m(dBuV/m)		Over(dB)	
	H/V	PK	AV	PK	AV	PK	AV
10420	V	59.81	40.40	68.2	54	-8.39	-13.60
15630	V	58.12	40.15	68.2	54	-10.08	-13.85
10420	H	59.73	39.25	68.2	54	-8.47	-14.75
15630	H	58.48	40.19	68.2	54	-9.72	-13.81

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

Temperature	20 ℃	Relative Humidity	48%
Pressure	1010 hPa	Test Mode	Mode 6TX
Frequency	5775MHz		

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Over(dB) PK	Over(dB) AV
11550	V	59.03	39.45	68.2	54	-9.17	-14.55
17325	V	59.67	39.55	68.2	54	-8.53	-14.45
11550	H	59.37	40.01	68.2	54	-8.83	-13.99
17325	H	58.06	39.89	68.2	54	-10.14	-14.11

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
All the x/y/z orientation has been investigated, and only worst case is presented in this report.

7. ANTENNA APPLICATION

7.1 ANTENNA REQUIREMENT

The EUT'S antenna is met the requirement of FCC part 15C section 15.203 and FCC part 15C section 15.407.

FCC part 15C section 15.203 and FCC part 15C section 15.407 requirements: Systems operating in the 5150~5850MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

7.2 RESULT

The EUT's antenna Integral Antenna, The antenna's gain is -1.5dBi and meets the requirement.

8 FCC PART 15.407 REQUIREMENTS FOR 802.11A/N SYSTEMS

8. 1 TEST EQUIPMENT

Please refer to Section 5 this report.

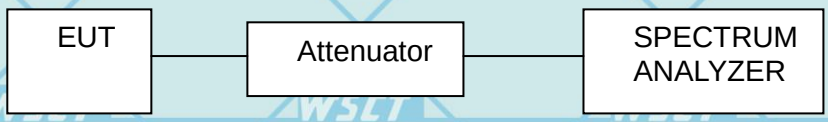
8. 2 TEST PROCEDURE

26dB Bandwidth and 99% Occupied Bandwidth:	
Test Method:	a)The transmitter was radiated to the spectrum analyzer in peak hold mode. b)Measure the maximum width of the emission that is 26 dB down from the peak of the emission Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement asneeded until the RBW/EBW ratio is approximately 1%.
Test Equipment Setting – 26dB Bandwidth:	Test Equipment Setting – 99%% Bandwidth:
a)Attenuation: Auto b)Span Frequency: > 26dB Bandwidth c)RBW: Approximately 1% of the emission bandwidth d)VBW: VBW > RBW e)Detector: Peak f)Trace: Max Hold g)Sweep Time: Auto	a)Span: 1.5 times to 5.0 times the OBW b)RBW: 1 % to 5 % of the OBW c)VBW: ⩾3 x RBW d)Detector: Peak e)Trace: Max Hold
6 dB Bandwidth:	
Test Method:	a)The transmitter was radiated to the spectrum analyzer in peak hold mode. b)Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of UnlicensedNational Information Infrastructure (U-NII) Devices - section (C) Emission Bandwidth. c)Multiple antenna system was performed in accordance with KDB662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band. d)Measured the spectrum width with power higher than 6dB below carrier.
Test Equipment Setting:	
a)Attenuation: Auto b)Span Frequency: > 6dB Bandwidth c)RBW: 100kHz d)VBW: ⩾3 x RBW	e)Detector: Peak f)Trace: Max Hold g)Sweep Time: Auto
Maximum Conducted Output Power Measurement:	
Test Method:	a)The transmitter output (antenna port) was connected to the power meter. b)Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of UnlicensedNational Information Infrastructure (U-NII) Devices - section (E) Maximum conducted output power =>3. Measurement using a Power Meter (PM) =>b) Method PM-G (Measurement using a gated RFaverage power meter). c)Multiple antenna systems was performed in accordance with KDB662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band. d)When measuring maximum conducted output power with multiple antenna systems,add every resultof the values by mathematic formula.
Test Equipment Setting: Detector - Average	
PowerSpectral Density:	
Test Method:	a)The transmitter output (antenna port) was connected RF switch to the spectrum analyzer. b)Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of UnlicensedNational Information Infrastructure (U-NII) Devices - section (F) Maximum Power Spectral Density (PSD). c)Multiple antenna systems was performed in accordance KDB662911 D01 v02r01 in-Band Power Spectral Density (PSD) Measurements (a) Measure and sum the spectra across the outputs. d)When measuring first spectral bin of output 1 is summed with that in the first spectral bin of output 2and that from the first spectral bin of output 3 and so on up to the Nth output to obtain the value for the first frequency bin of the summed spectrum. The summed spectrum value for each of the other frequency bins is computed in the same way. e)For 5.725~5.85 GHz, the measured result of PSD level must add 10log(500kHz/RBW) and the finalresult should ⩽30 dBm.

Test Equipment Setting:	
a)Attenuation: Auto b)Span Frequency: Encompass the entire emissions bandwidth (EBW) of the signal c)RBW: 1000 kHz d)VBW: 3000 kHz	e)Detector: RMS f)Trace: AVERAGE g)Sweep Time: Auto h)Trace Average: 100 times
Note: If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) tothe measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of thespectrum analyzer set during measurement.	

Frequency Stability Measurement:	
Test Method:	a)The transmitter output (antenna port) was connected to the spectrum analyzer. b)EUT have transmitted absence of modulation signal and fixed channelize. c)Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth. d)Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings. e)fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 106 ppm and the limit is less than ±20ppm (IEEE 802.11nspecification). f)The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value g)Extreme temperature is 0°C~40°C
Test Equipment Setting:	
a)Attenuation: Auto b)Span Frequency: Entire absence of modulation emissions bandwidth c)RBW: 10 kHz d)VBW: 10 kHz	e)Sweep Time: Auto

8. 2.1 Test Setup



8. 2.2 Configuration of the EUT

Same as section 3.4of this report

8. 2.3 EUT Operating Condition

Same as section 3.2of this report.

8. 3 LIMIT

26dB Bandwidth and 99% Occupied Bandwidth:	
Limit:	No restriction limits.
6 dB Bandwidth:	
Limit:	For digital modulation systems, the minimum 6dB bandwidth shall be at least 500 kHz.
Test Equipment Setting:	
a)Attenuation: Auto b)Span Frequency: > 6dB Bandwidth c)RBW: 100kHz d)VBW: ≥ 3 x RBW	e)Detector: Peak f)Trace: Max Hold g)Sweep Time: Auto
Maximum Conducted Output Power Measurement:	
☒5.15~5.25 GHz	
☐Limit of Outdoor access point:	☐Limit of Indoor access point:
The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☐Limit of Fixed point-to-point access points:	☒Limit of Mobile and portable client devices:
The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
☐5.25-5.35 GHz &☐5.470-5.725 GHz	
The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
☒5.725~5.85 GHz	
The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.	
Power Spectral Density	
☒5.15~5.25 GHz	
☐Limit of Outdoor access point:17 dBm/MHz	☐Limit of Indoor access point:17 dBm/MHz
☐Limit of Fixed point-to-point access points: 17 dBm/MHz	☒Limit of Mobile and portable client devices: 11 dBm/MHz
☐5.25-5.35 GHz	11 dBm/MHz
☐5.470-5.725 GHz	11 dBm/MHz
☒5.725~5.85 GHz	30 dBm/500kHz
Frequency Stability Measurement:	
Limit:	In-band emission is maintained within the band of operation under all conditions of normal operation asspecified in the user's manual. The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification).

8. 4 TEST RESULT

26dB Bandwidth&6dB Spectrum Bandwidth and 99% Occupied Bandwidth

Product	: Mobile phone	Test Mode	: See section 2.2
Test Item	: 26dB Bandwidth and 99% Occupied Bandwidth	Temperature	: 25℃
Test Voltage	: DC 3.85V	Humidity	: 56%RH
Test Result	: **PASS**		

26dB Bandwidth

IEEE 802.11a

Band1

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
36	5180	20.256	--	PASS
40	5200	20.577		PASS
48	5240	19.689		PASS

Band4

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
149	5745	21.090	--	PASS
157	5785	26.090		PASS
165	5825	25.897		PASS

IEEE 802.11n 5G 20MHz

Band1

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
36	5180	20.128	--	PASS
40	5200	20.064		PASS
48	5240	20.128		PASS

Band4

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
149	5745	33.397	--	PASS
157	5785	33.654		PASS
165	5825	25.833		PASS

IEEE 802.11n 5G 40MHz

Band1

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
38	5190	40.513	--	PASS
46	5230	40.513		PASS

Band4

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
151	5755	71.795	--	PASS
159	5795	62.949		PASS

IEEE 802.11ac 5G 20MHz

Band1

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
36	5180	19.808	--	PASS
40	5200	20.513		PASS
48	5240	20.000		PASS

]Band4

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
149	5745	28.077	--	PASS
157	5785	40.577		PASS
165	5825	20.385		PASS

IEEE 802.11ac 5G 40MHz
Band1

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
38	5190	39.103	--	PASS
46	5230	39.519		PASS

Band4

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
151	5755	66.827	--	PASS
159	5795	39.968		PASS

IEEE 802.11ac 5G 80MHz
Band1

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
42	5210	81.53	--	PASS

Band4

Channel	Frequency (MHz)	26dBBandwidth (MHz)	FCC Limit (kHz)	Result
155	5775	82.05	--	PASS

99% Occupied

IEEE 802.11a
Band1

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
36	5180	16.859	--	PASS
40	5200	17.821		PASS
48	5240	16.859		PASS

Band4

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
149	5745	17.179	--	PASS
157	5785	17.885		PASS
165	5825	17.115		PASS

IEEE 802.11n 5G 20MHz
Band1

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
36	5180	17.692	--	PASS
40	5200	17.692		PASS
48	5240	17.821		PASS

Band4

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
149	5745	18.205	--	PASS
157	5785	17.885		PASS
165	5825	17.821		PASS

IEEE 802.11n 5G 40MHz

Band1

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
38	5190	36.026	--	PASS
46	5230	36.026		PASS

Band4

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
151	5755	36.795	--	PASS
159	5795	36.282		PASS

IEEE 802.11ac 5G 20MHz

Band1

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
36	5180	17.692	--	PASS
40	5200	17.788		
48	5240	17.692		PASS

Band4

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
149	5745	17.885	--	PASS
157	5785	22.981		PASS
165	5825	17.692		PASS

IEEE 802.11ac 5G 40MHz

Band1

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
38	5190	35.897	--	PASS
46	5230	36.058		PASS

Band4

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
151	5755	36.378	--	PASS
159	5795	36.218		PASS

IEEE 802.11ac 5G 80MHz

Band1

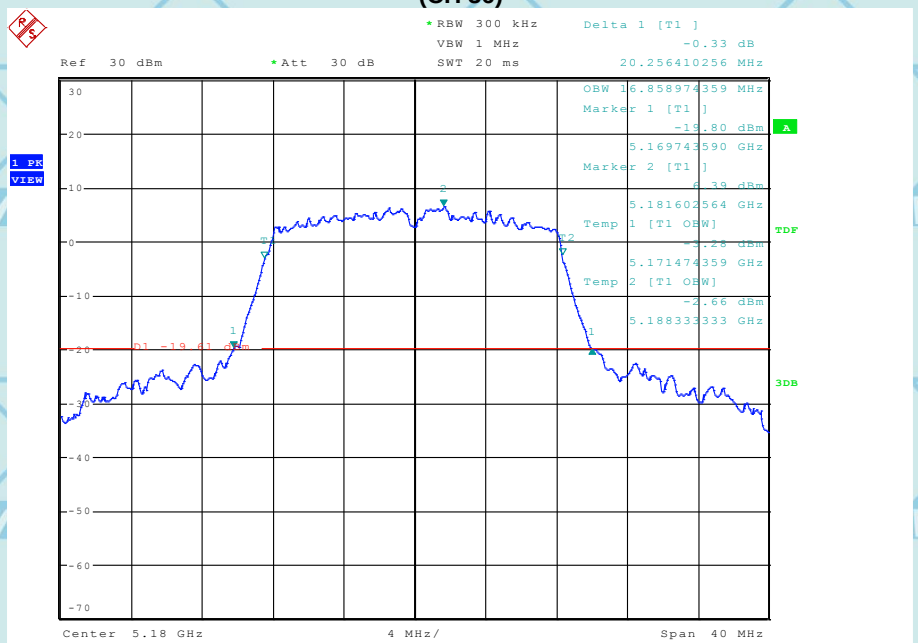
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
42	5210	76.15	--	PASS

Band4

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	FCC Limit (kHz)	Result
155	5775	76.15	--	PASS

IEEE 802.11a Band1

(CH 36)



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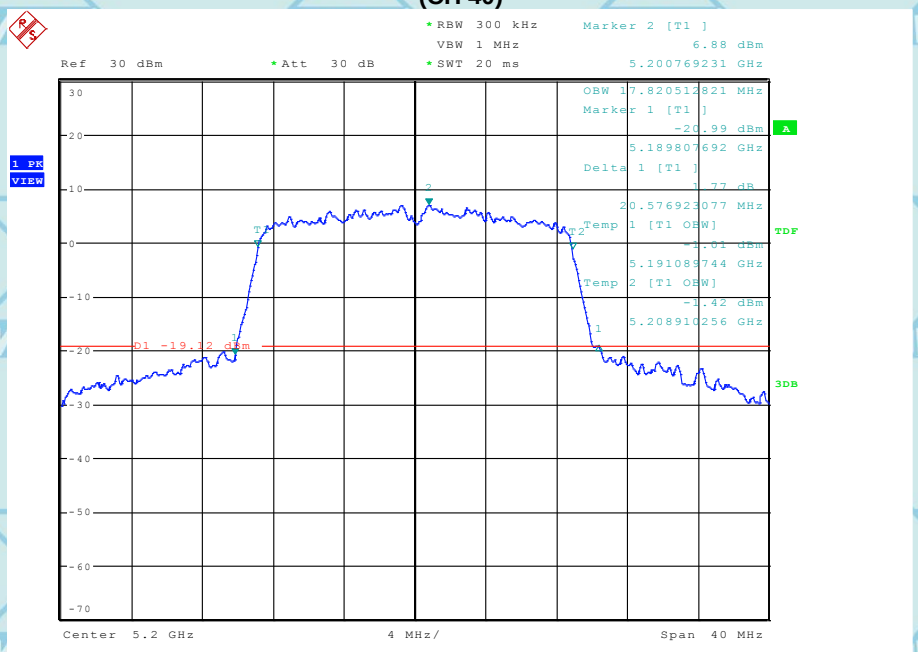

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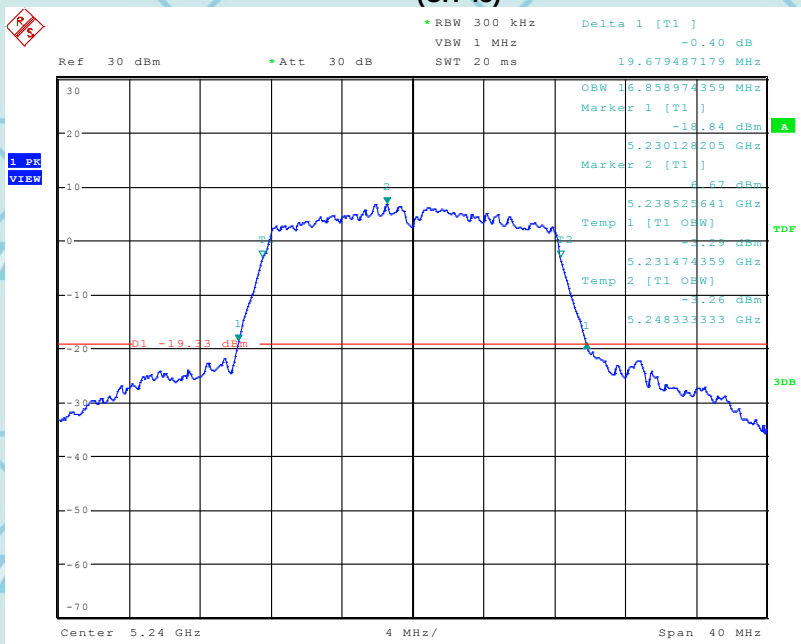

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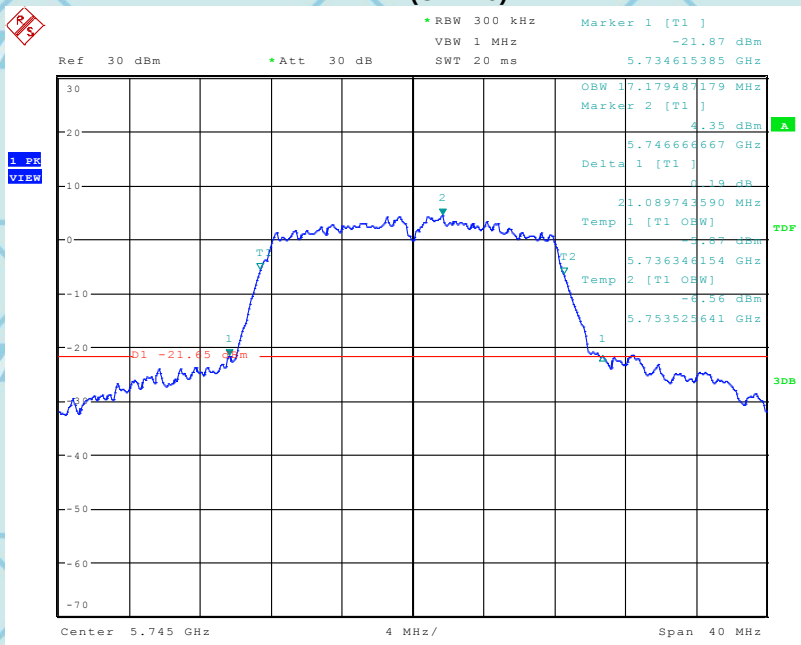
IEEE 802.11a Band4

(CH 149)



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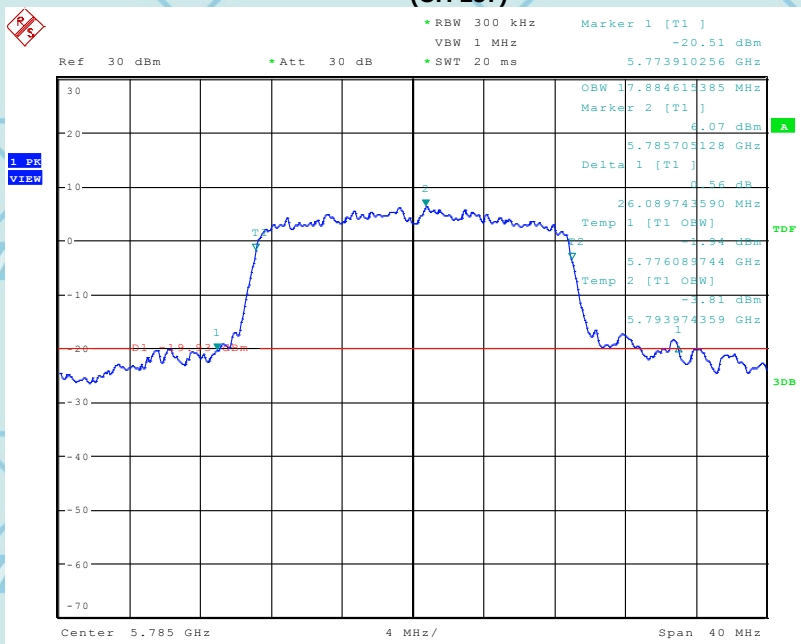

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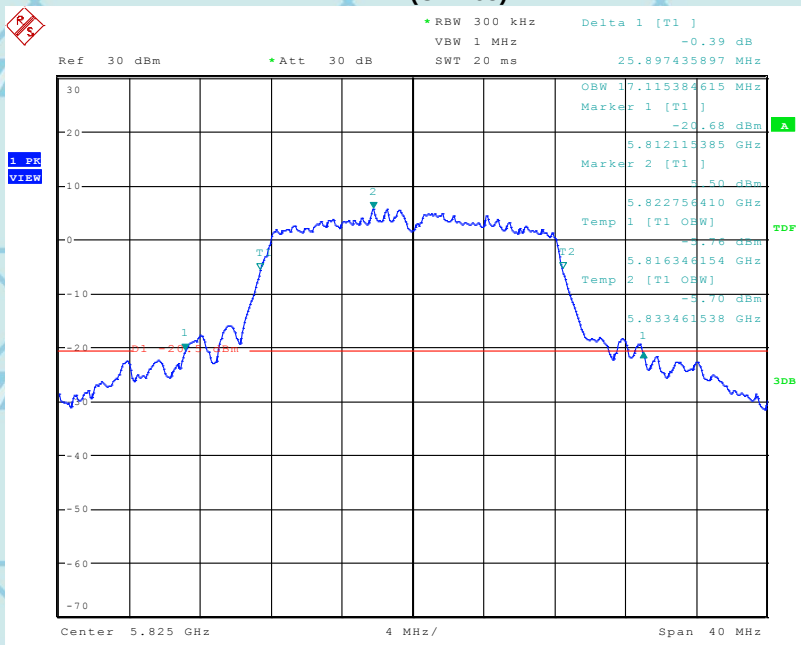

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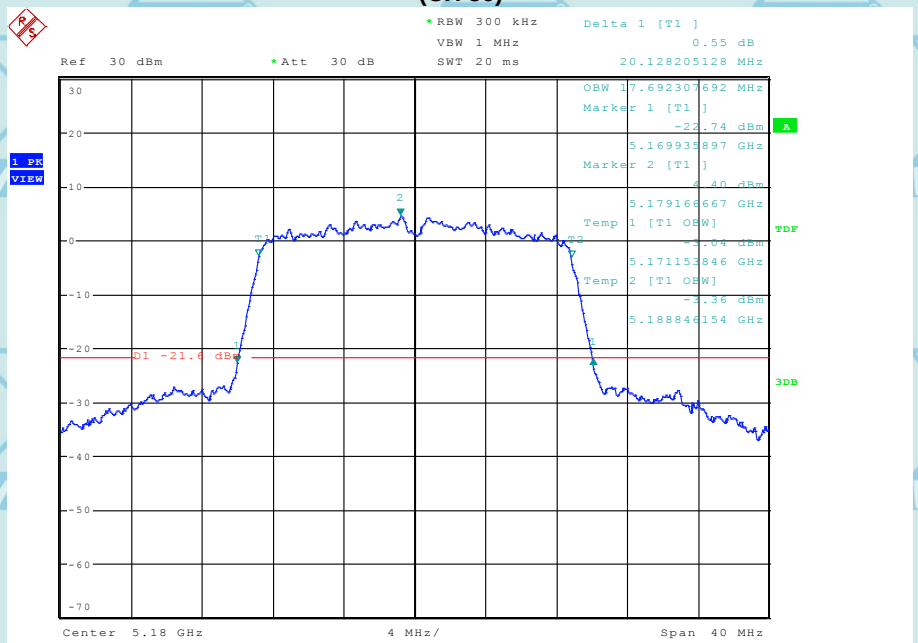
IEEE 802.11n 5G 20MHz Band1

(CH 36)



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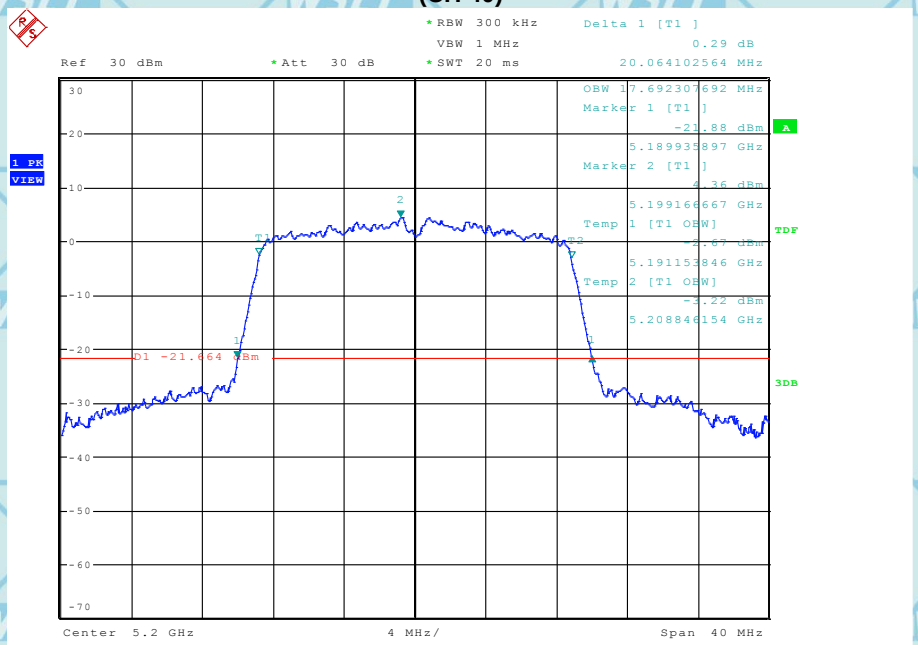

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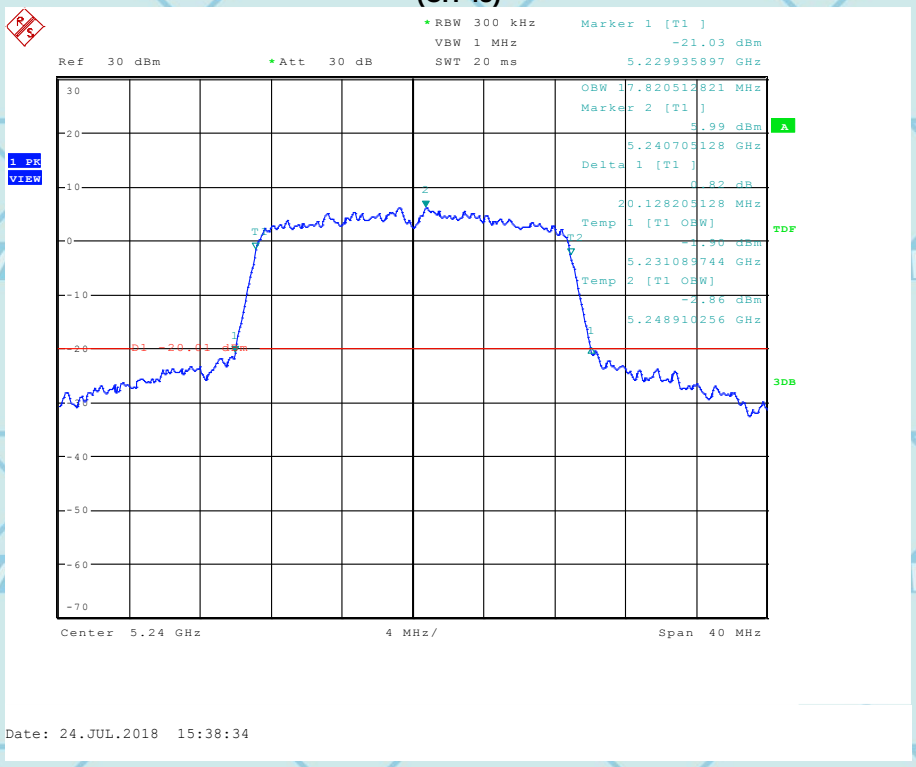

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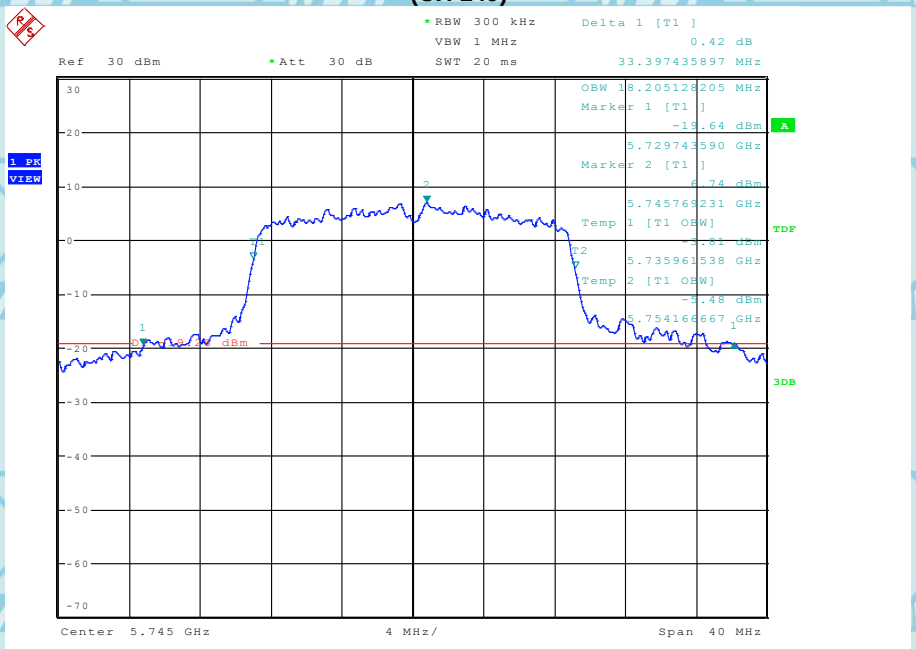
IEEE 802.11n 5G 20MHz Band4

(CH 149)



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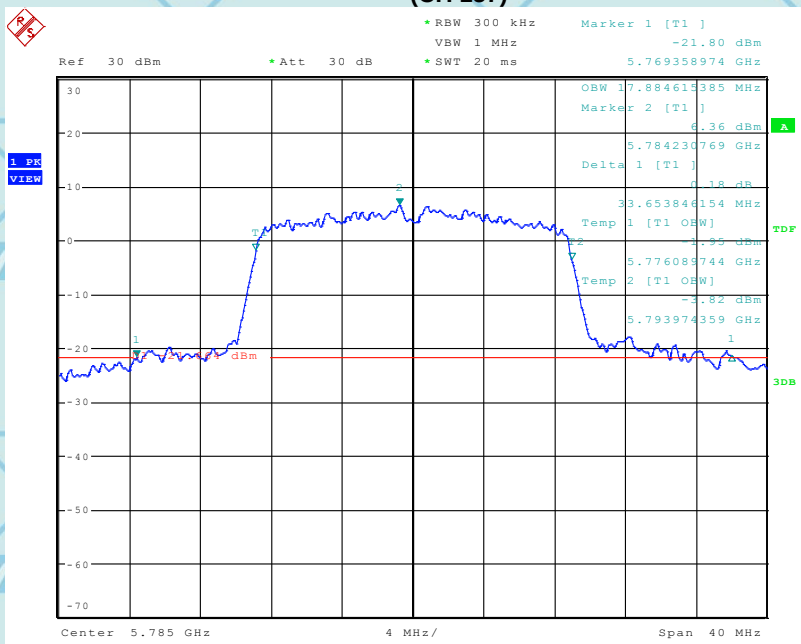

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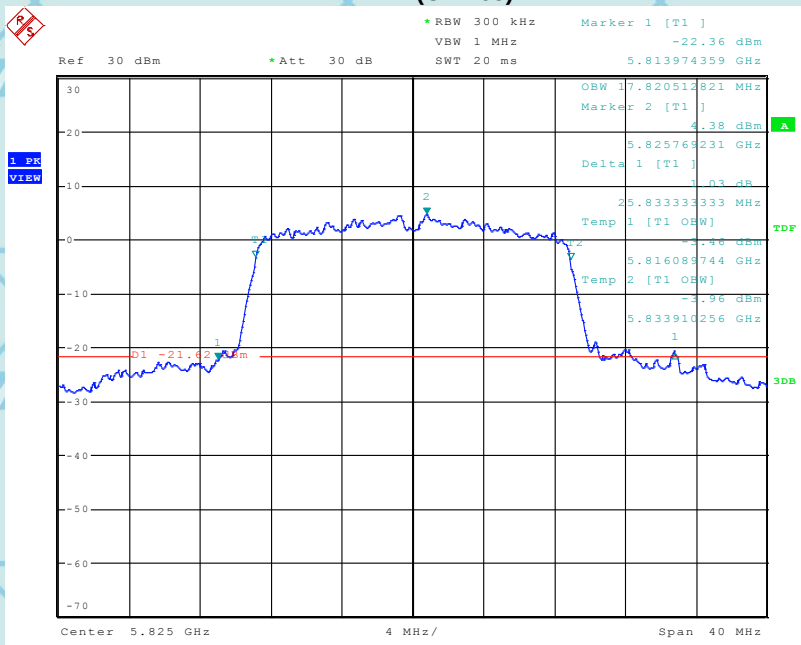

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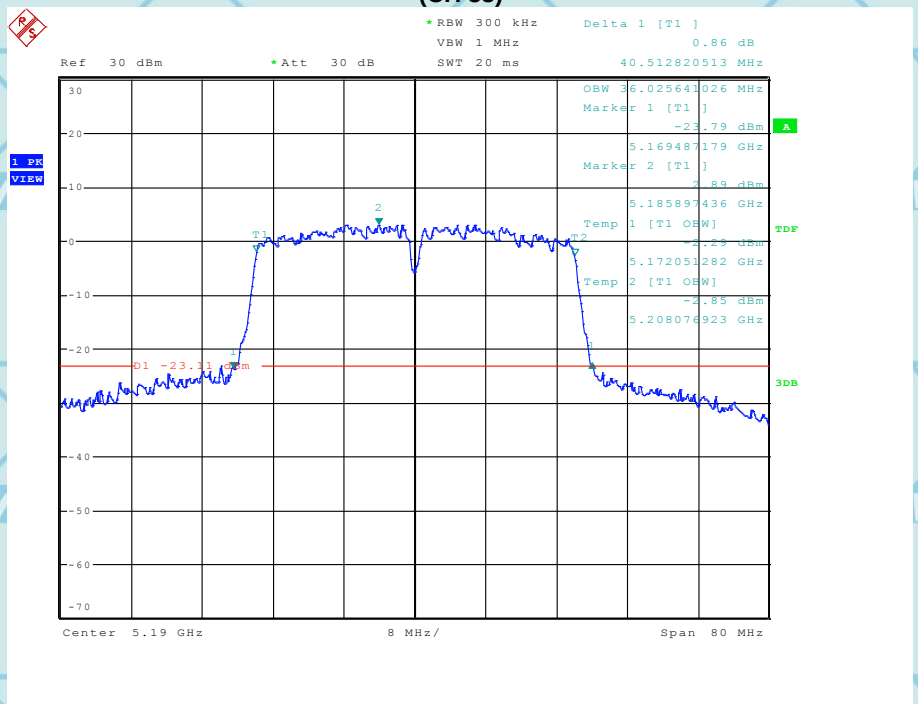
IEEE 802.11n 5G 40MHz Band1

(CH 38)



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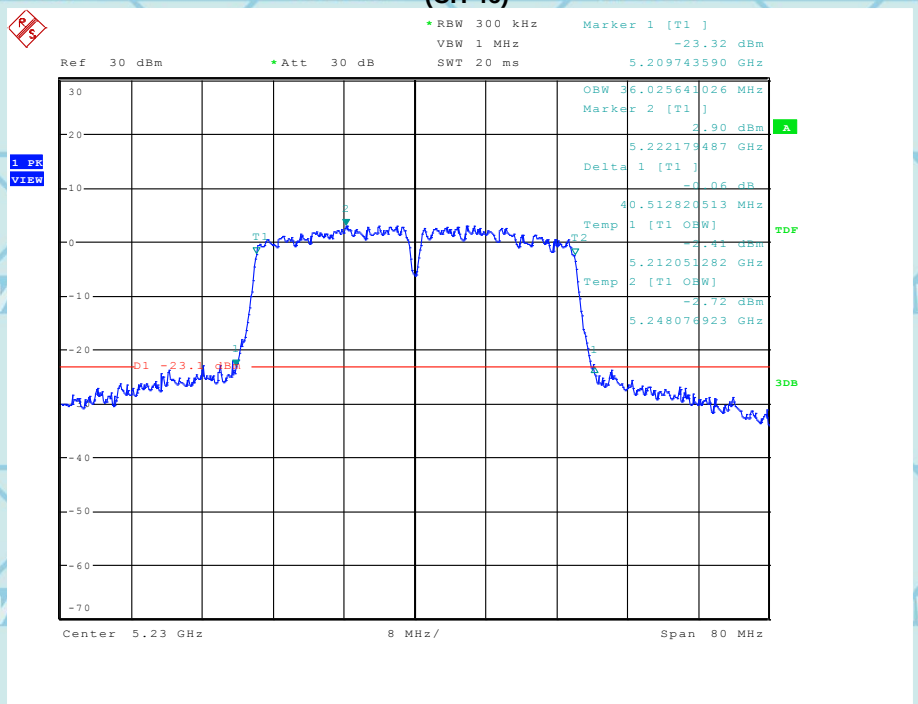

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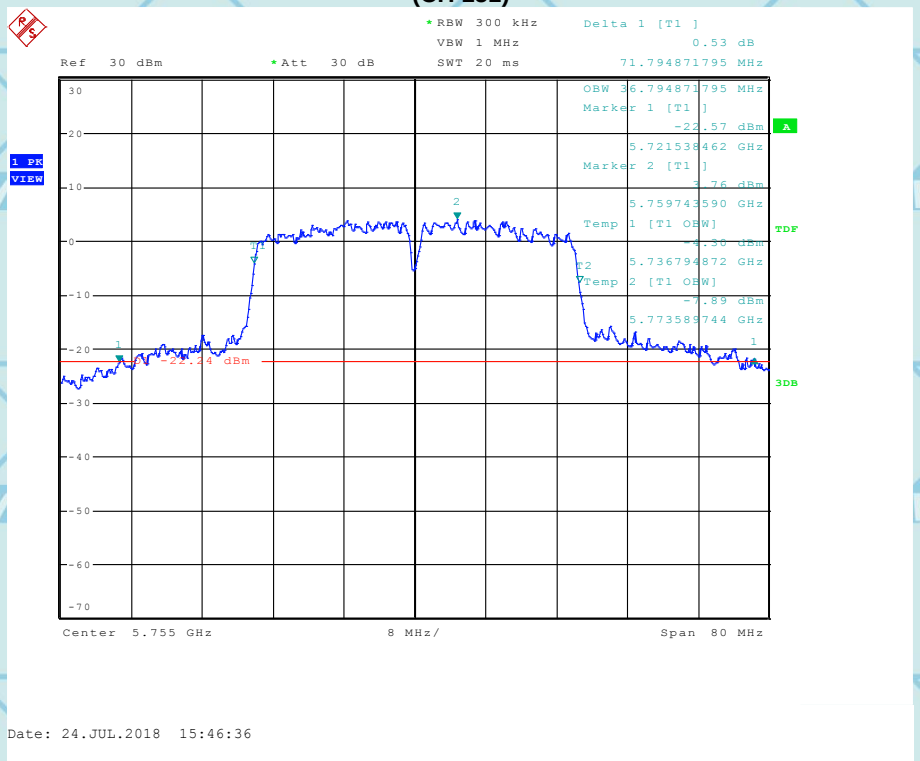
IEEE 802.11n 5G 40MHz Band4

(CH 151)



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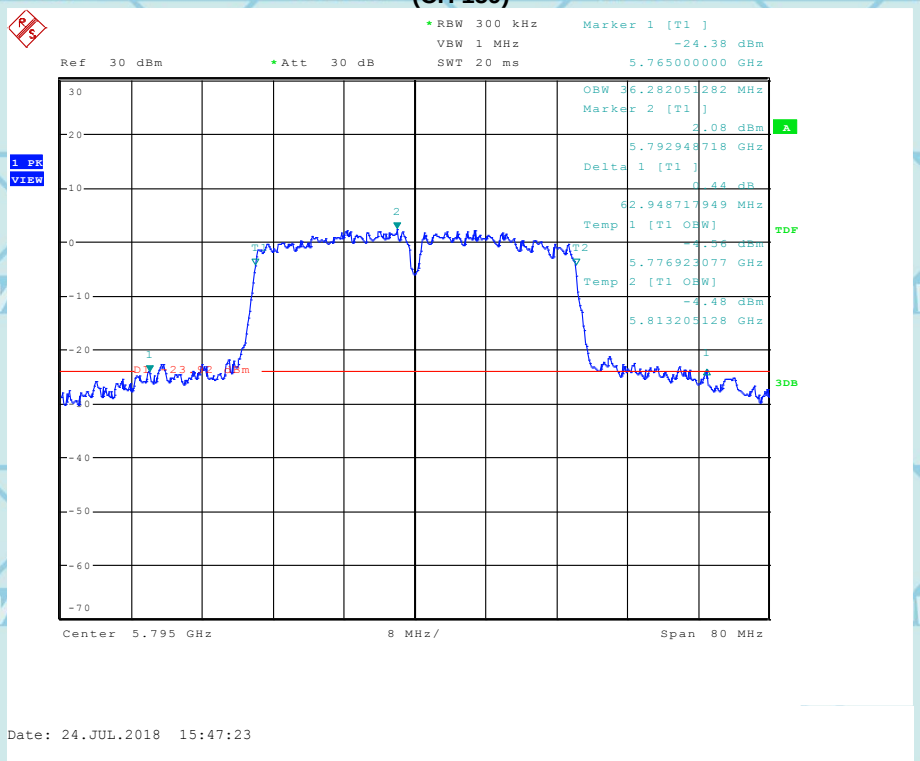
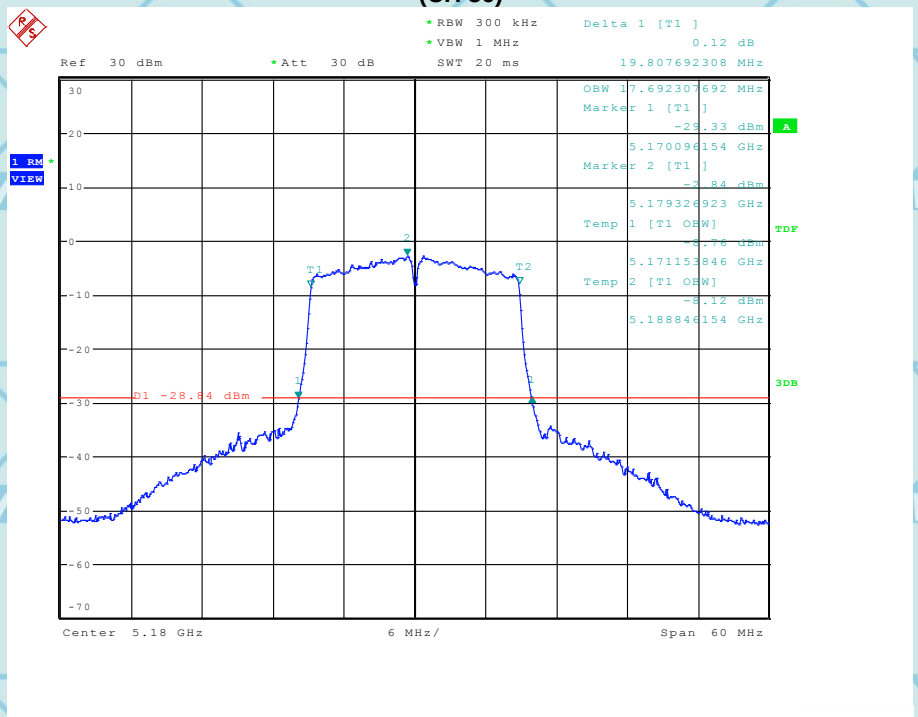


IEEE 802.11ac 5G 20MHz Band1

(CH 36)



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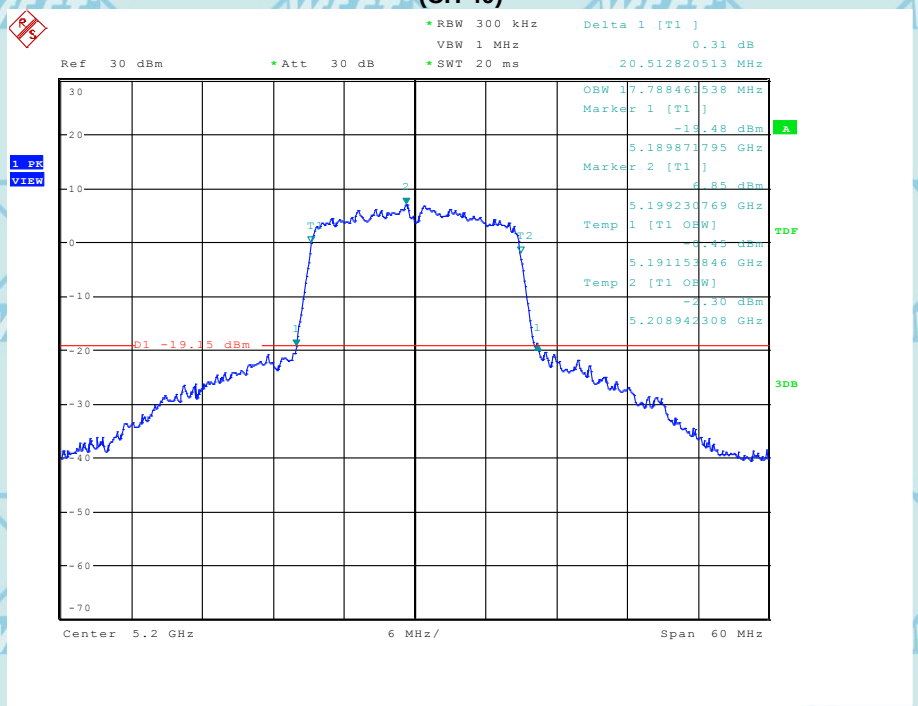

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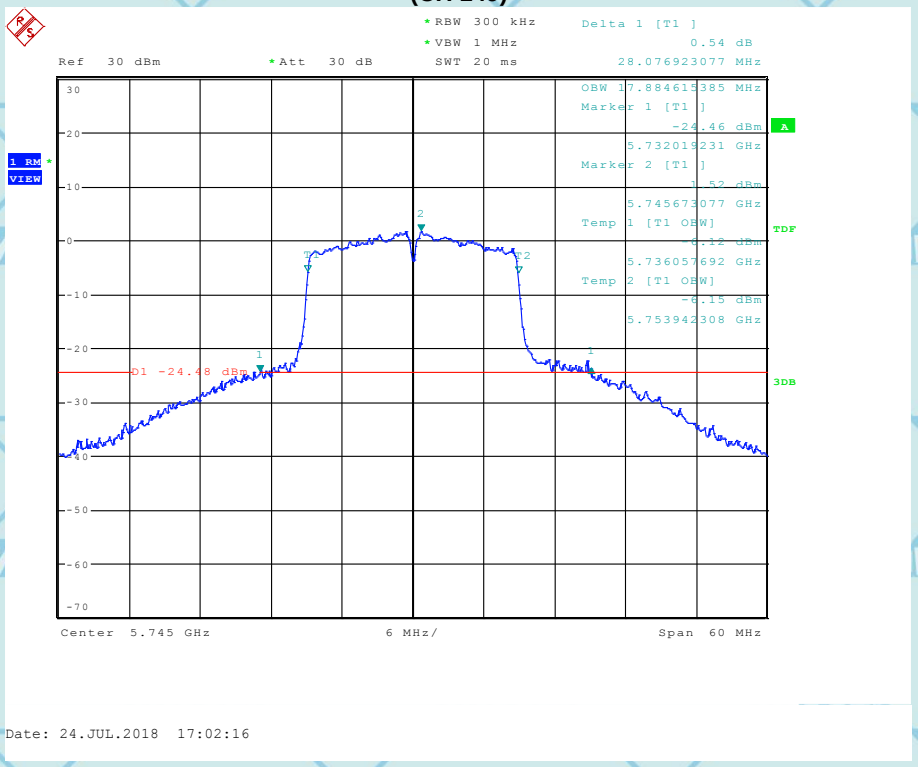
IEEE 802.11ac 5G 20MHz Band4

(CH 149)



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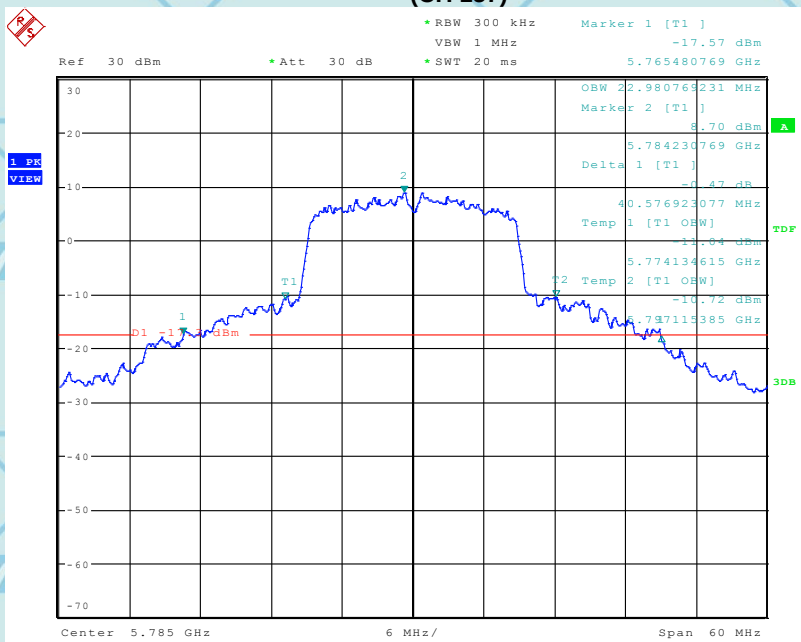

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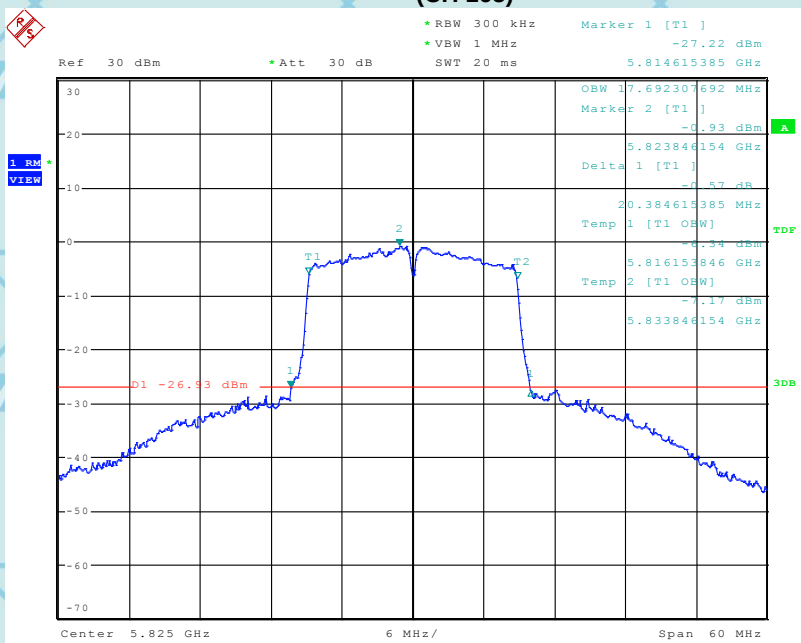

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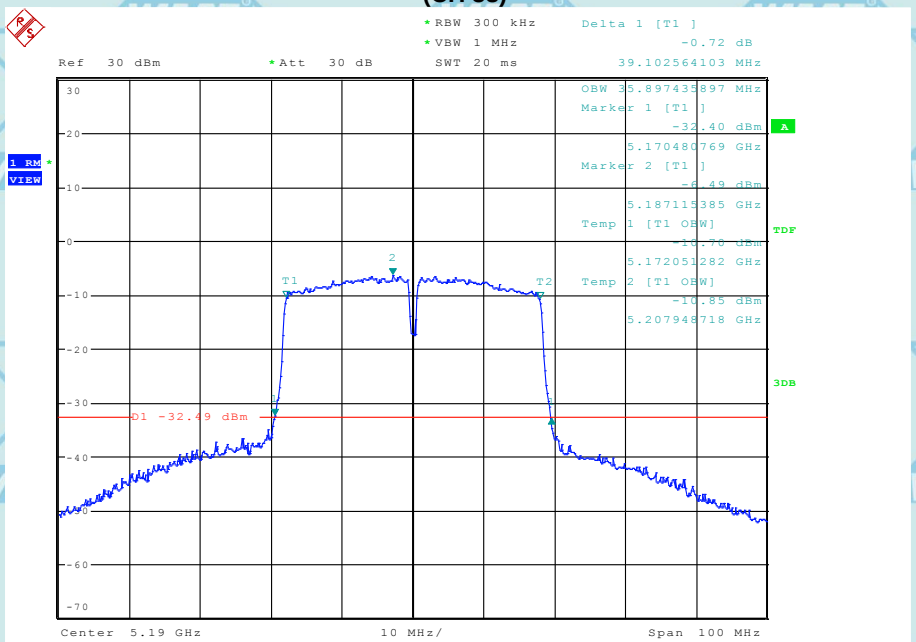
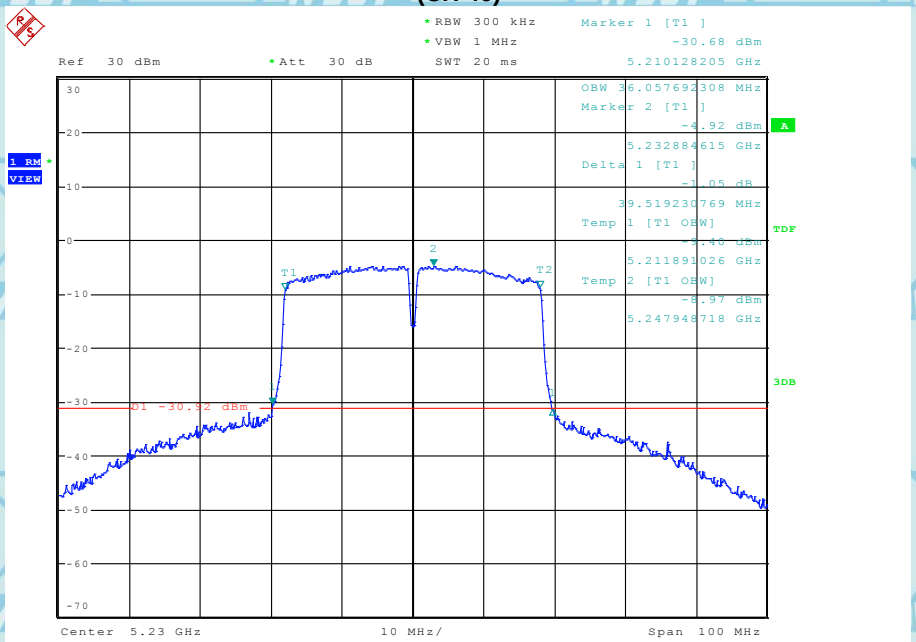
IEEE 802.11ac 5G 40MHz Band1

(CH 38)



Date: 24.JUL.2018 17:04:18

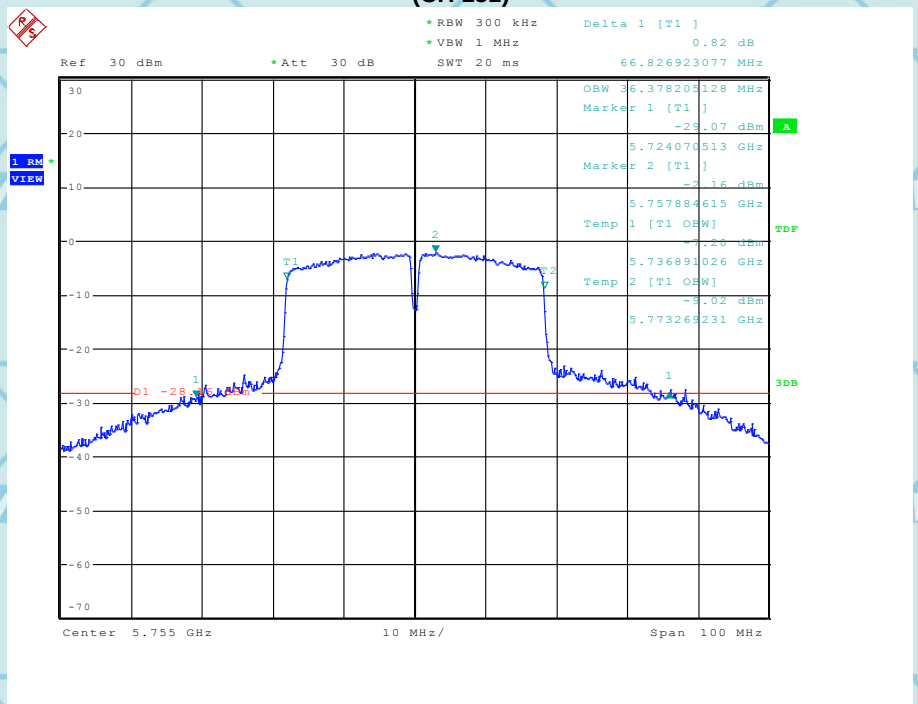
(CH 46)



Date: 24.JUL.2018 17:05:12

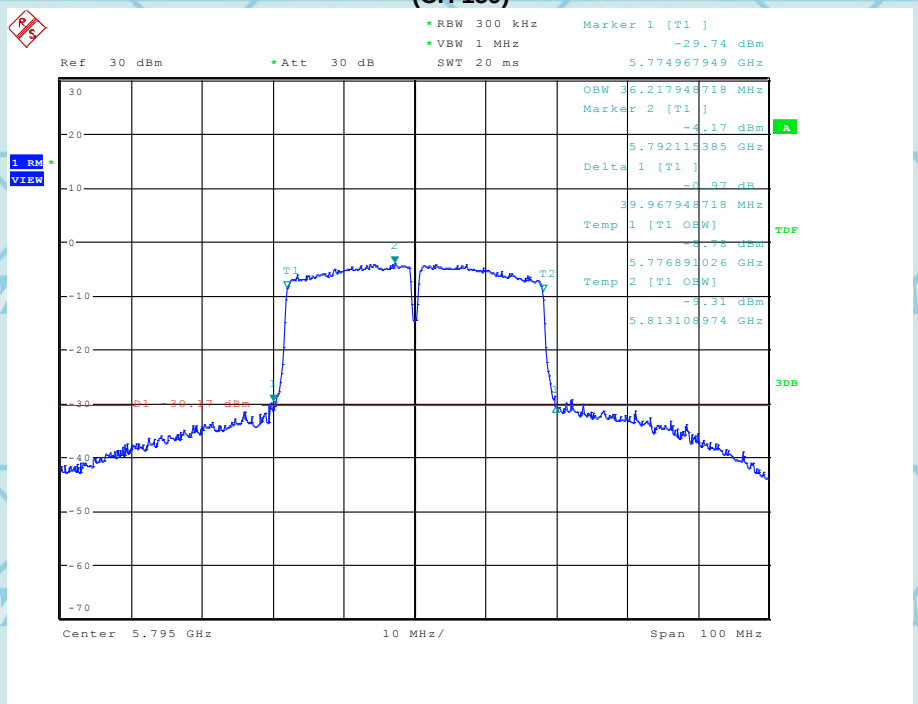
IEEE 802.11ac 5G 40MHz Band4

(CH 151)



Date: 24.JUL.2018 17:06:05

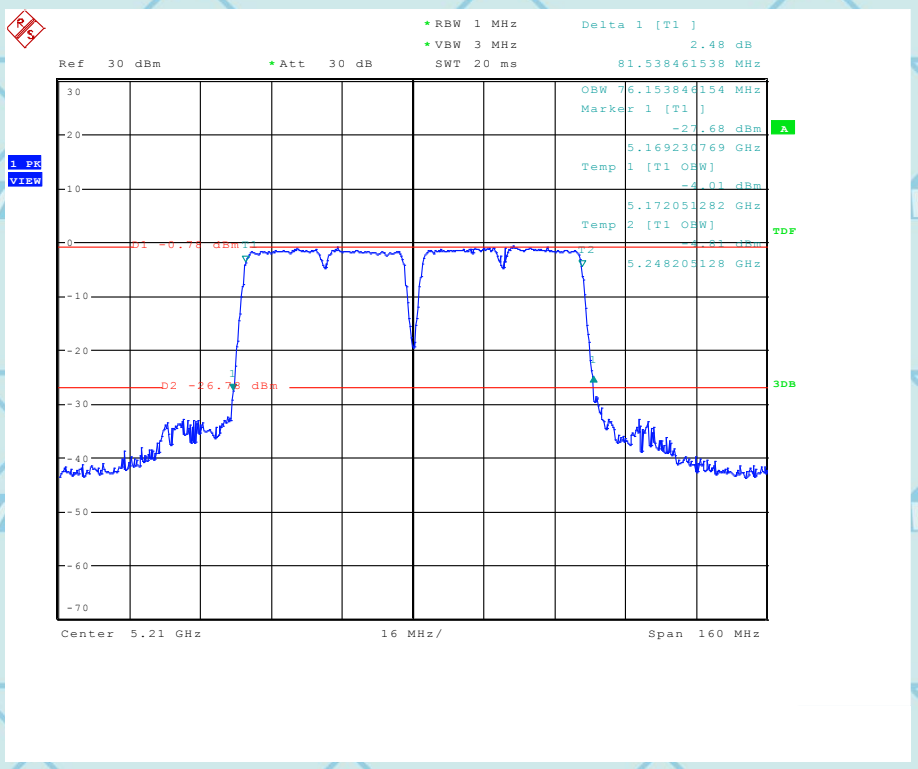
(CH 159)



Date: 24.JUL.2018 17:07:01

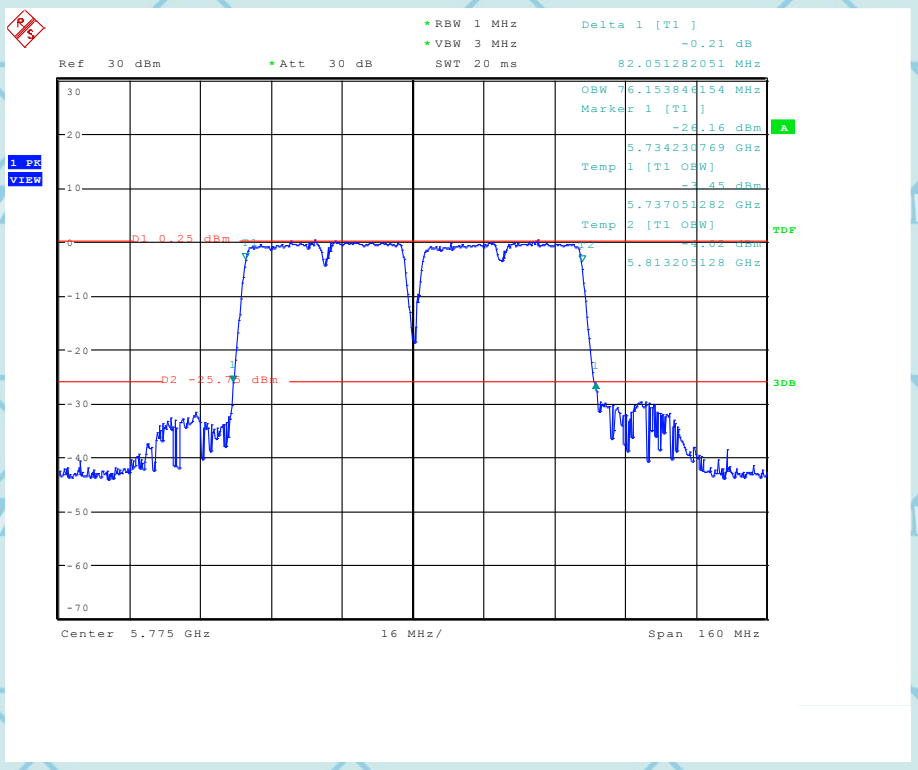
IEEE 802.11ac 5G 80MHz Band1

(CH 42)



IEEE 802.11ac 5G 80MHz Band4

(CH 5775)



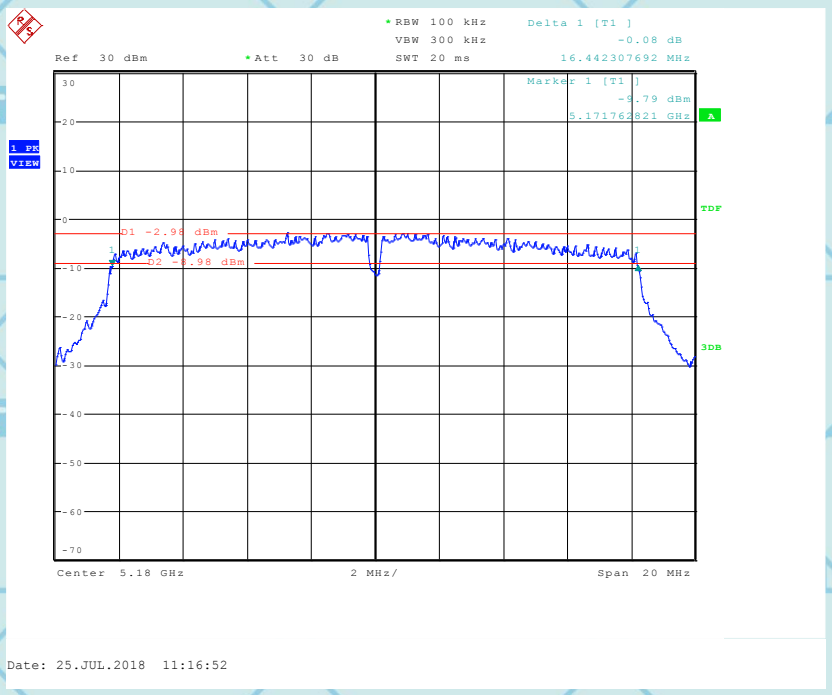
6 dB Bandwidth

Product	: Mobile phone	Test Mode	: See Section 2.2
Test Item	: 6 dB BW	Temperature	: 25℃
Test Voltage	: DC 3.85V	Humidity	: 56%RH
Test Result	: **PASS**		

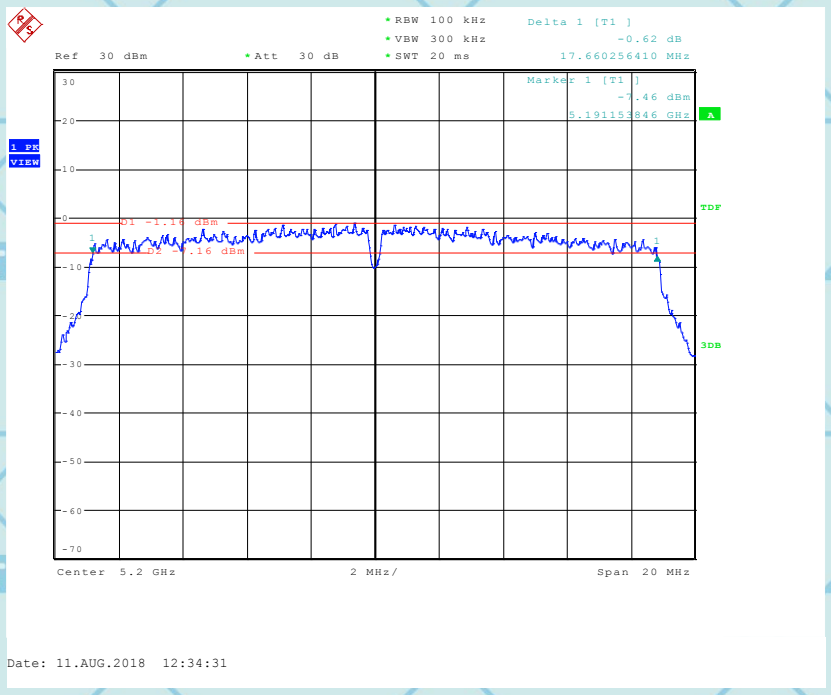
IEEE 802.11a

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
36	5180	16.44	> 0.5MHz
40	5200	17.66	> 0.5MHz
48	5240	16.41	> 0.5MHz

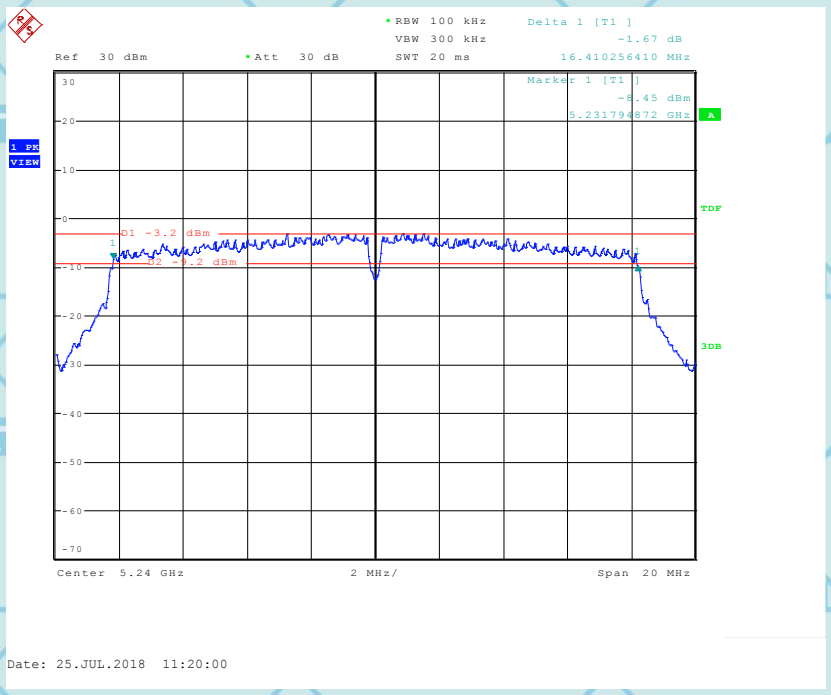
Channel 36



Channel 40



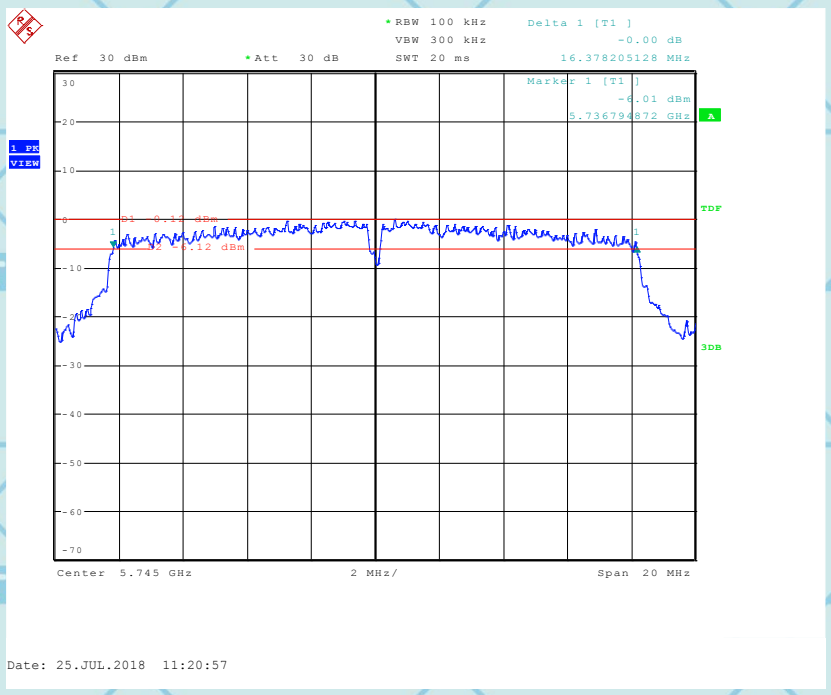
Channel 48



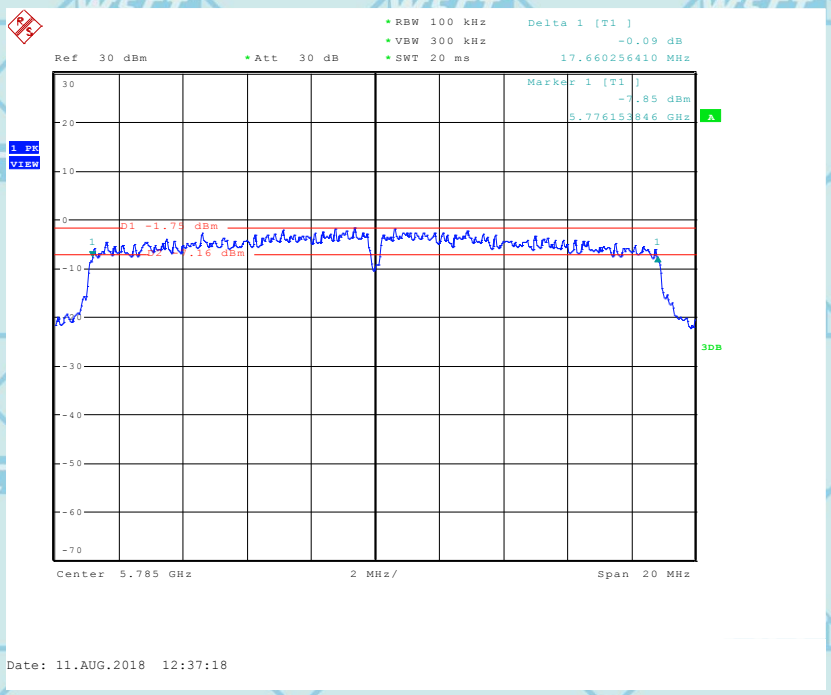
IEEE 802.11a

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
149	5745	16.38	> 0.5MHz
157	5785	17.66	> 0.5MHz
165	5825	16.41	> 0.5MHz

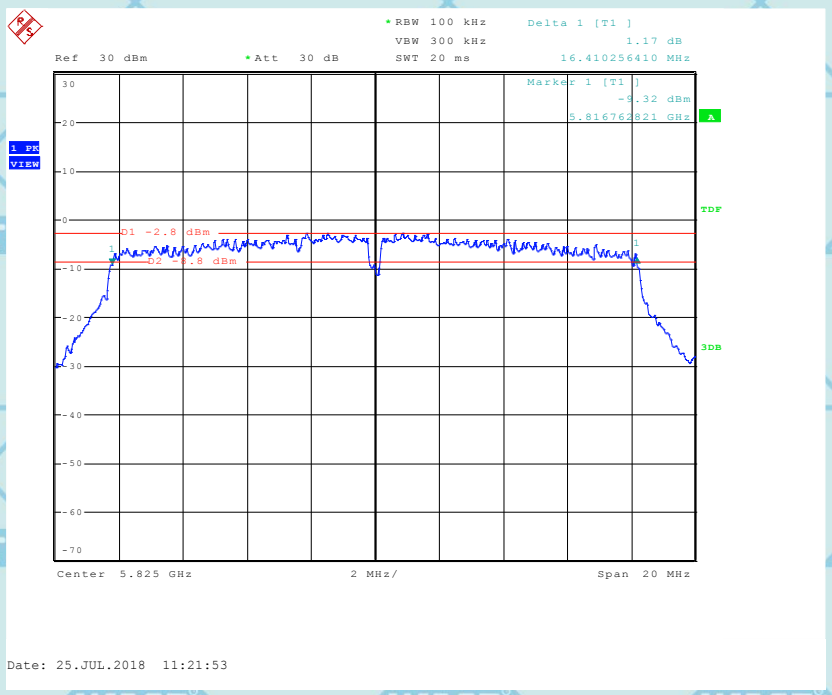
Channel 149



Channel 157



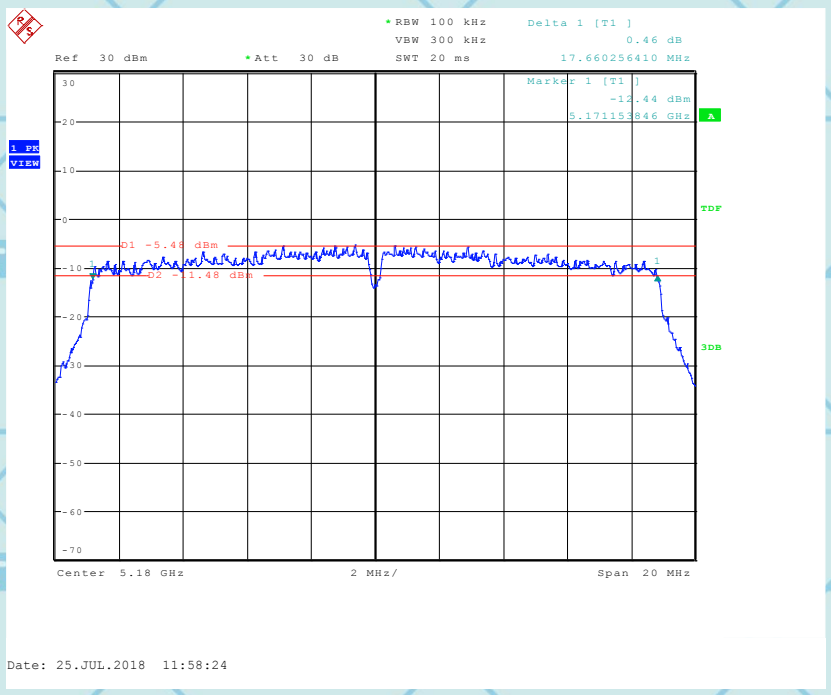
Channel 165


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Delta 1 [T1]
1.17 dB
16.410256410 MHz
Ref 30 dBm
Att 30 dB
Marker 1 [T1]
-9.32 dBm
5.816762821 GHz
1 PK VIEW
D1 -2.8 dBm
D2 -4.8 dBm
TDF
3DB
Center 5.825 GHz
2 MHz/
Span 20 MHz
Date: 25.JUL.2018 11:21:53

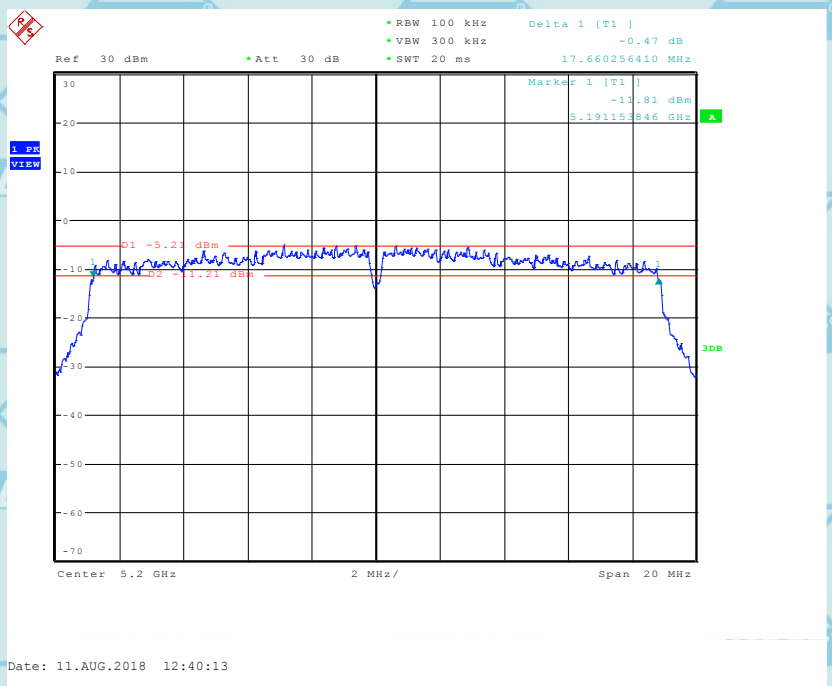
IEEE802.11n 20MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
36	5180	17.66	> 0.5MHz
40	5200	17.66	> 0.5MHz
48	5240	17.63	> 0.5MHz

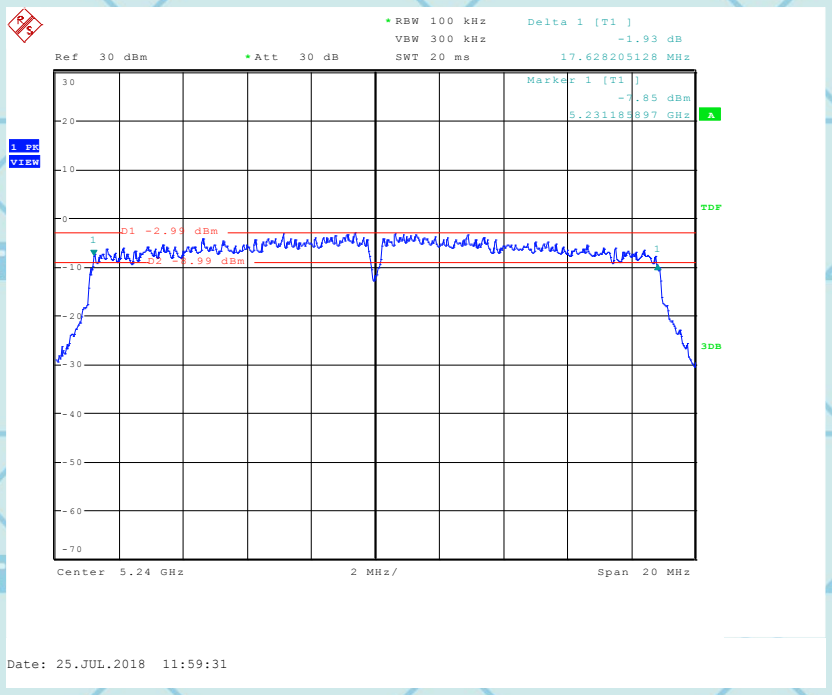
Channel 36



Channel 40



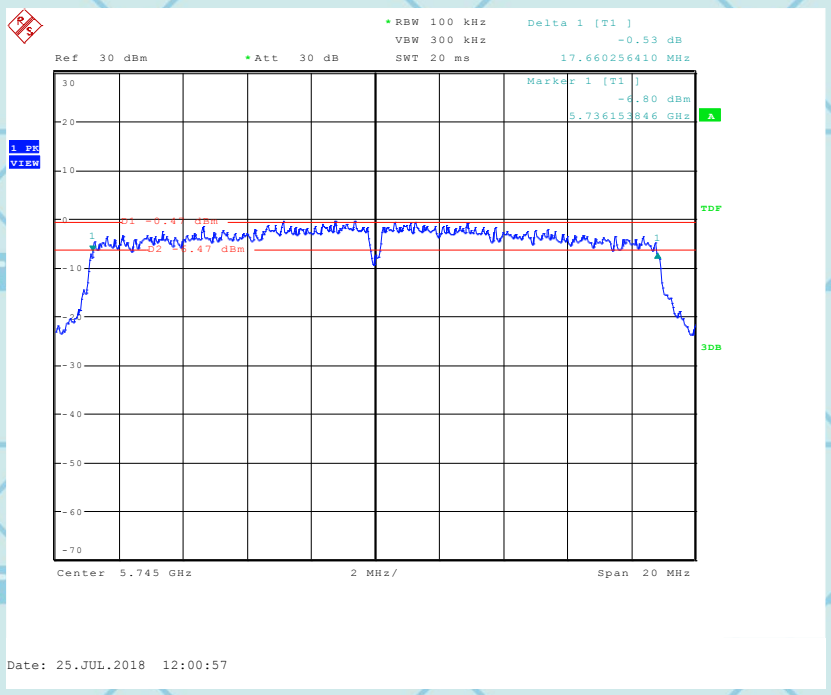
Channel 48


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Delta 1 [T1]
-1.93 dB
17.628205128 MHz
Ref 30 dBm
Att 30 dB
Marker 1 [T1]
-7.85 dBm
5.231185897 GHz
1 PK VIEW
D1 -2.99 dBm
D2 -4.99 dBm
TDF
3DB
Center 5.24 GHz
2 MHz/
Span 20 MHz
Date: 25.JUL.2018 11:59:31

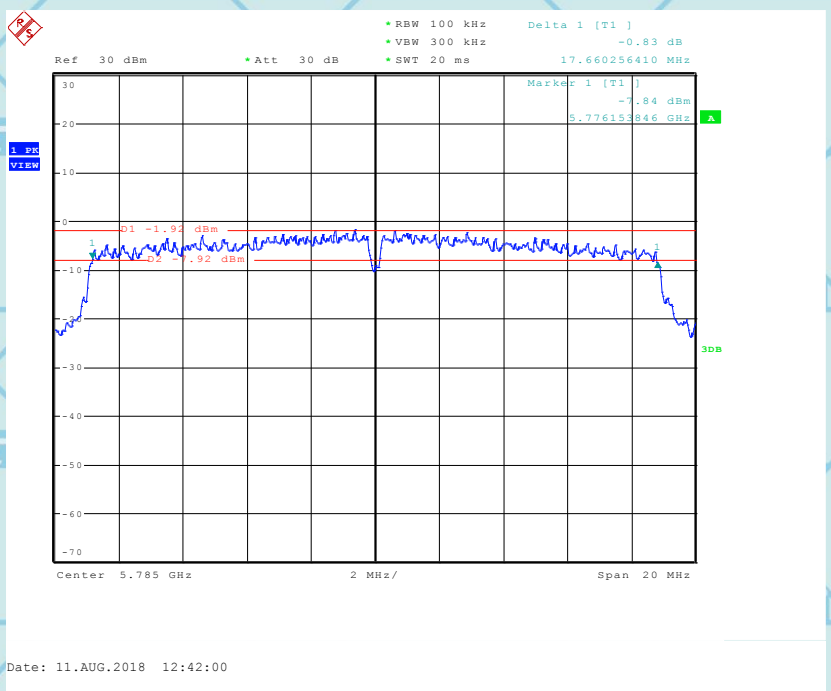
IEEE 802.11n 20MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
149	5745	17.66	> 0.5MHz
157	5785	17.66	> 0.5MHz
165	5825	17.63	> 0.5MHz

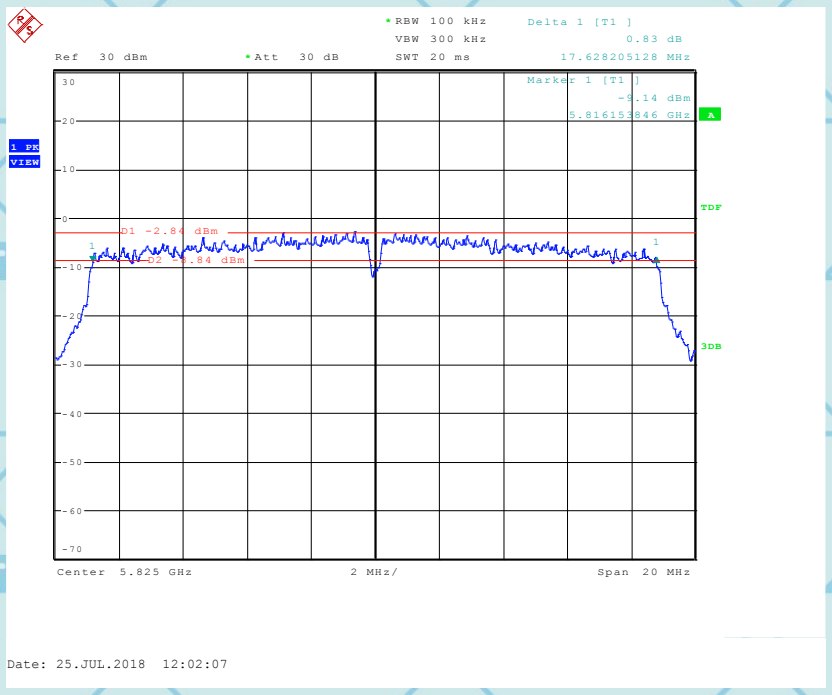
Channel 149



Channel 157



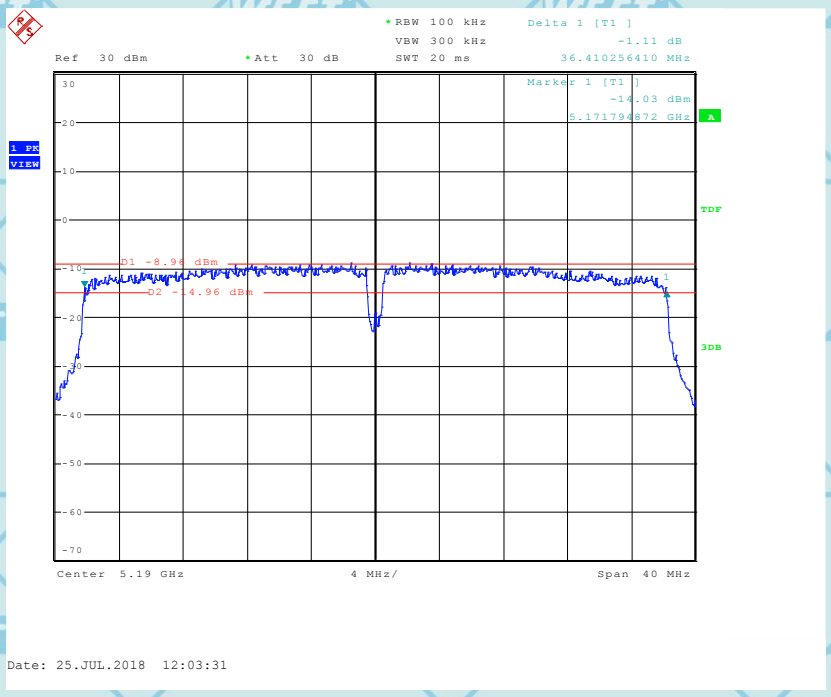
Channel 165


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Delta 1 [T1]
0.83 dB
17.628205128 MHz
Ref 30 dBm
Att 30 dB
Marker 1 [T1]
-9.14 dBm
5.816153846 GHz
1 PK VIEW
D1 -2.84 dBm
TDF
3DB
Center 5.825 GHz
2 MHz/
Span 20 MHz
Date: 25.JUL.2018 12:02:07

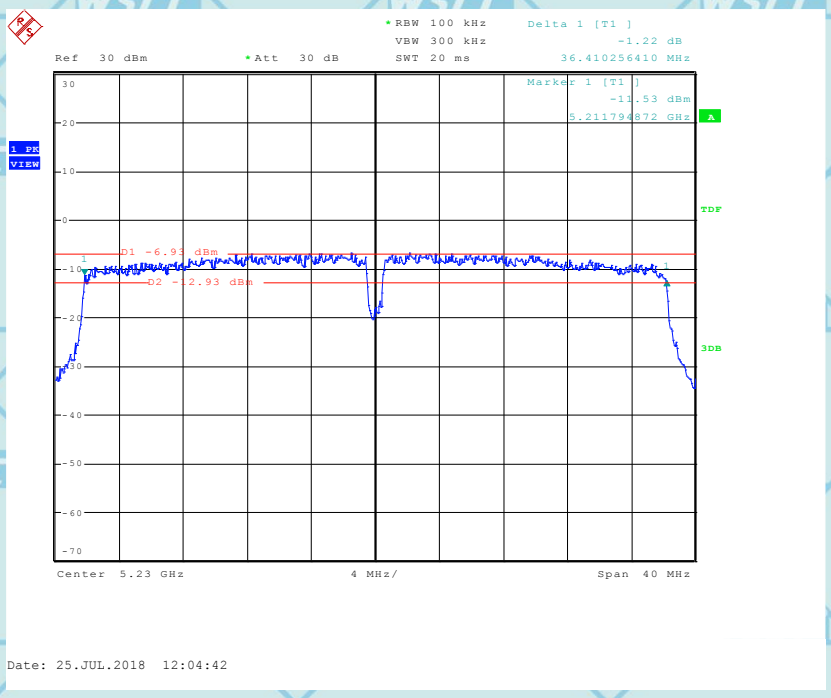
IEEE802.11n 40MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
38	5190	36.41	> 0.5MHz
46	5230	36.41	> 0.5MHz

Channel 38



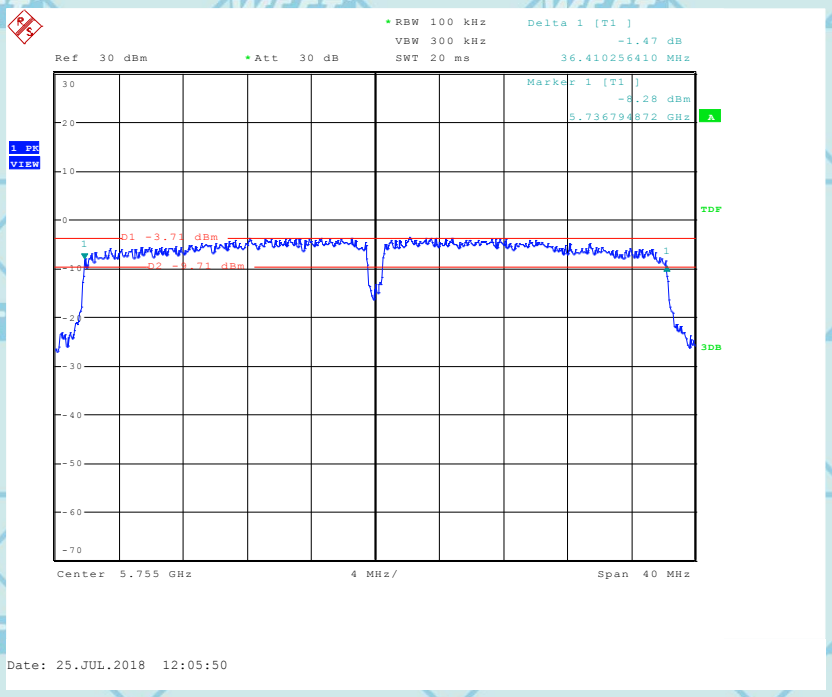
Channel 46



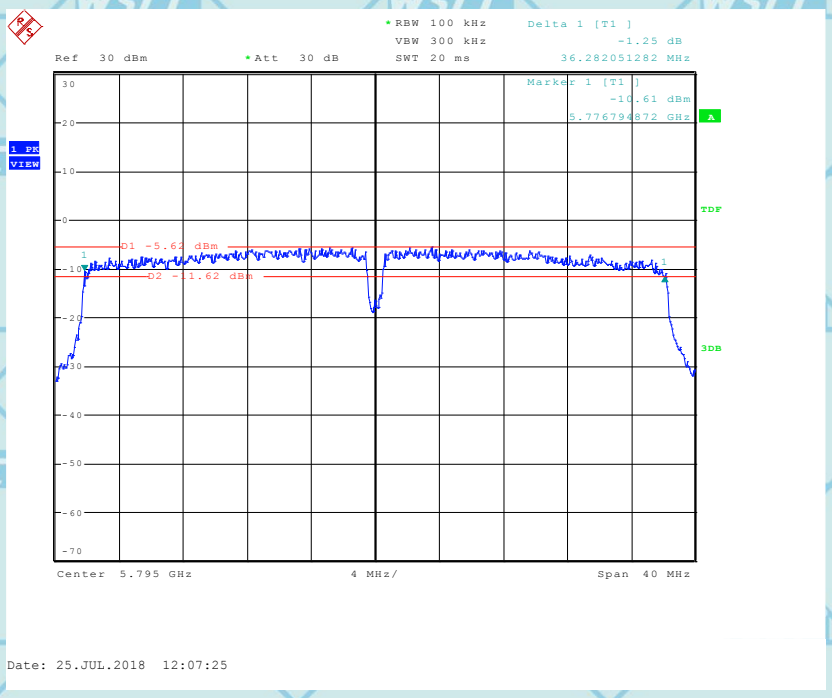
IEEE 802.11n 40MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
151	5755	36.41	> 0.5MHz
159	5795	36.28	> 0.5MHz

Channel 151



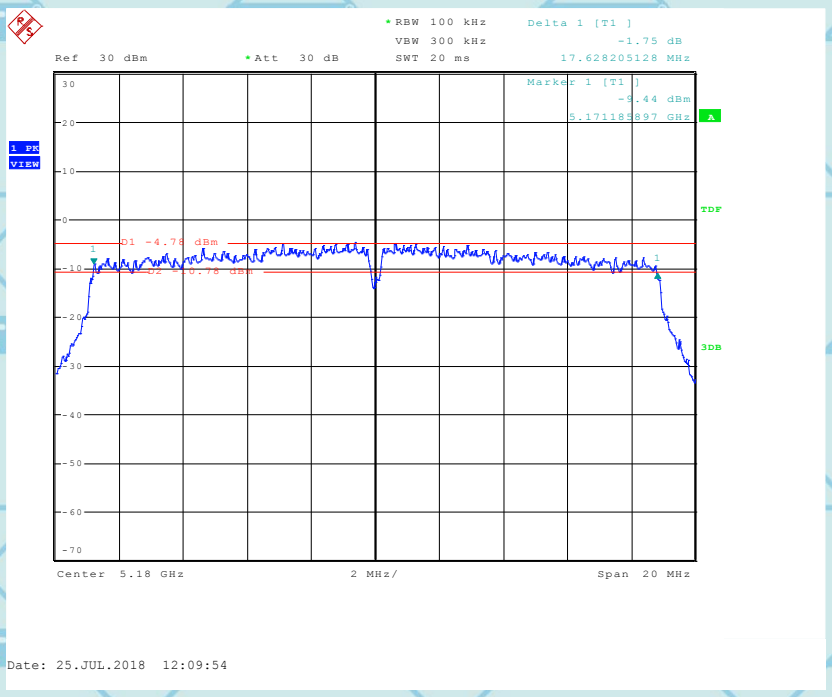
Channel 159



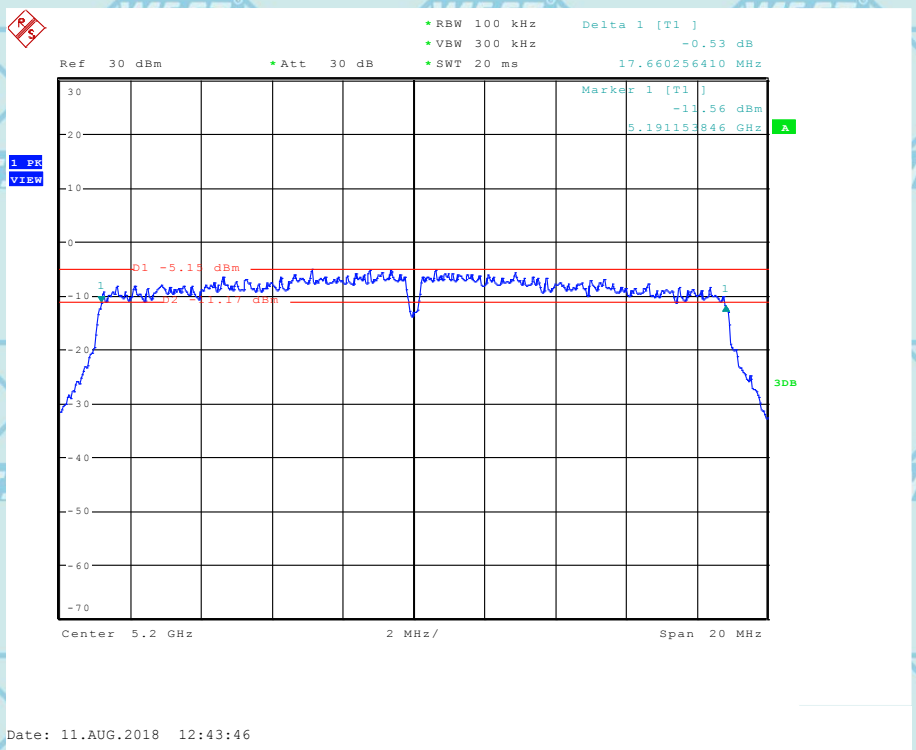
802.11ac 5GHz 20MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
36	5180	17.63	> 0.5MHz
40		17.66	> 0.5MHz
48	5240	17.66	> 0.5MHz

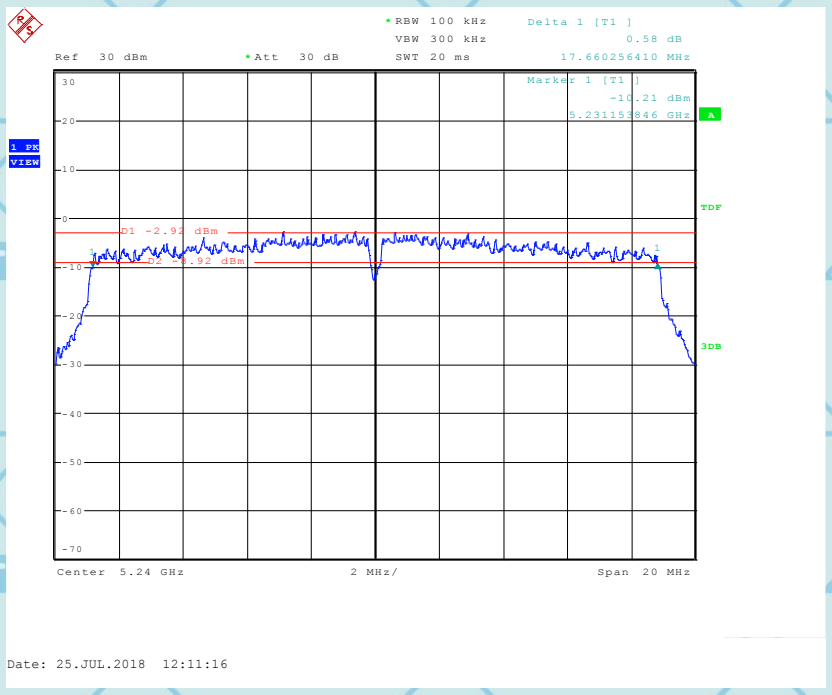
Channel 36



Channel 40



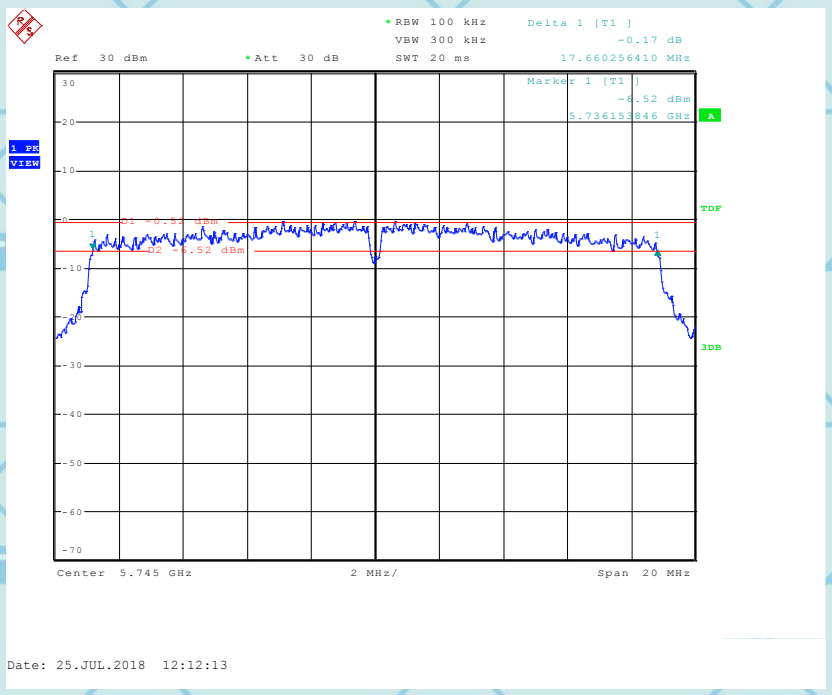
Channel 48


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Delta 1 [T1]
0.58 dB
17.660256410 MHz
Ref 30 dBm
Att 30 dB
Marker 1 [T1]
-10.21 dBm
5.231153846 GHz
1 PK VIEW
D1 -2.92 dBm
D2 -2.92 dBm
TDF
3DB
Center 5.24 GHz
2 MHz/
Span 20 MHz
Date: 25.JUL.2018 12:11:16

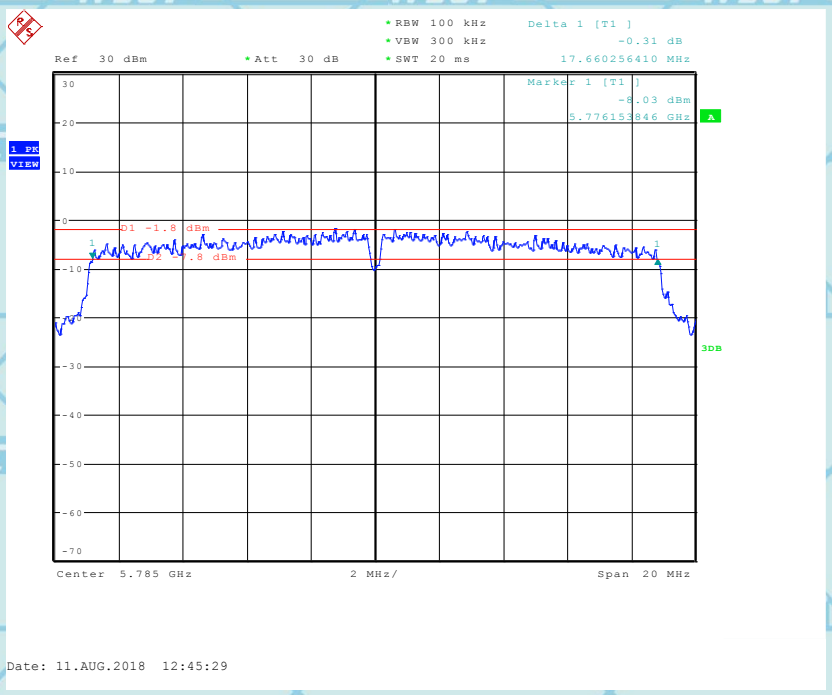
802.11ac 5GHz 20MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
149	5745	17.66	> 0.5MHz
157	5785	17.66	> 0.5MHz
165	5825	17.63	> 0.5MHz

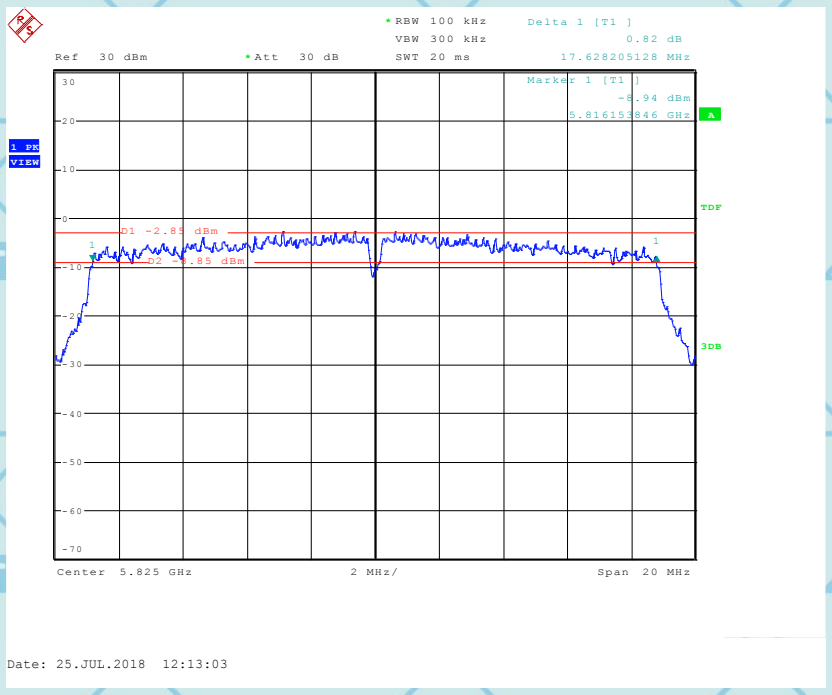
Channel 149



Channel 157



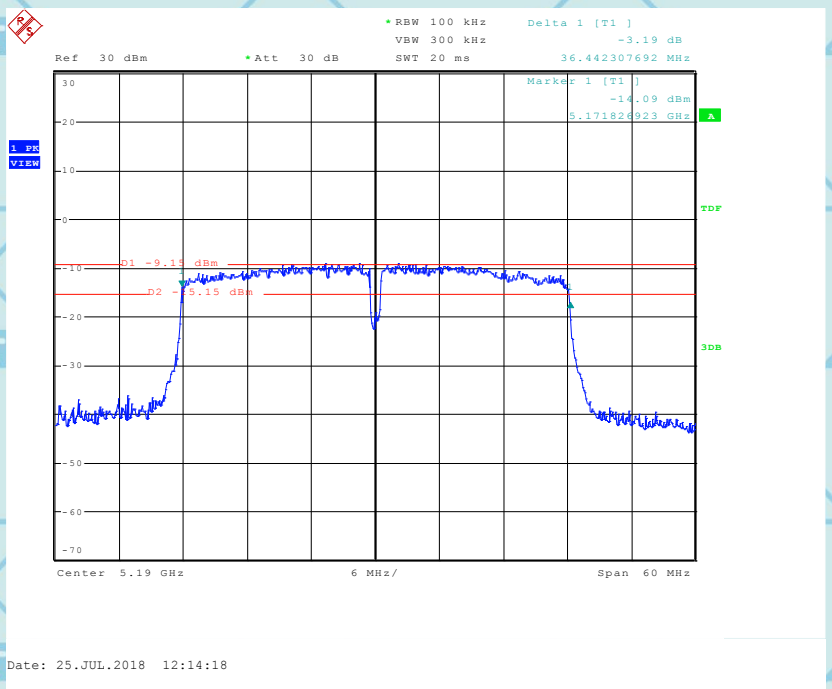
Channel 165


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
Delta 1 [T1]
0.82 dB
17.628205128 MHz
Marker 1 [T1]
-8.94 dBm
5.816153846 GHz
Ref 30 dBm
Att 30 dB
1 PK VIEW
D1 -2.85 dBm
D2 -3.85 dBm
TDF
3DB
Center 5.825 GHz
2 MHz/
Span 20 MHz
Date: 25.JUL.2018 12:13:03

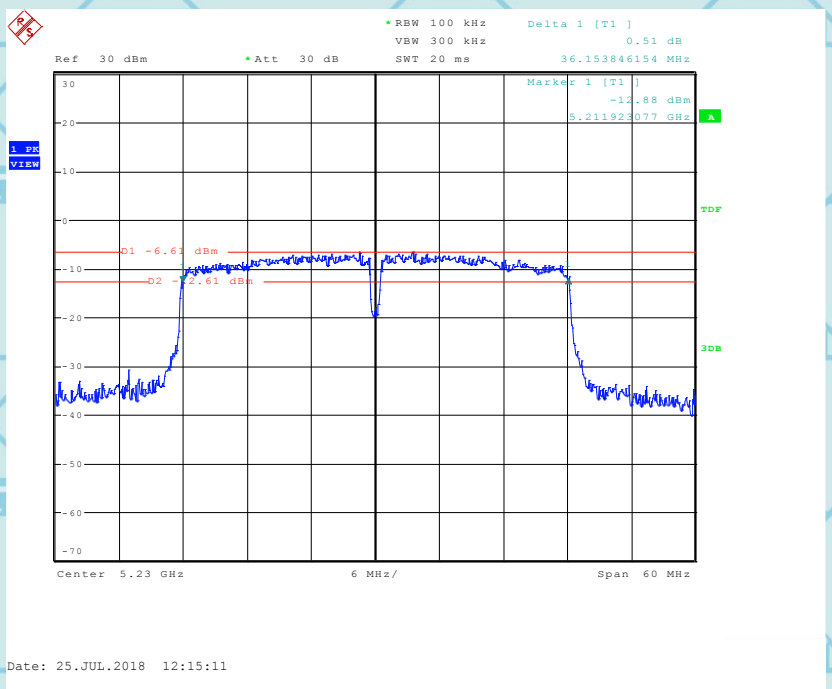
802.11ac 5GHz 40MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
38	5190	36.44	> 0.5MHz
46	5230	36.15	> 0.5MHz

Channel 38



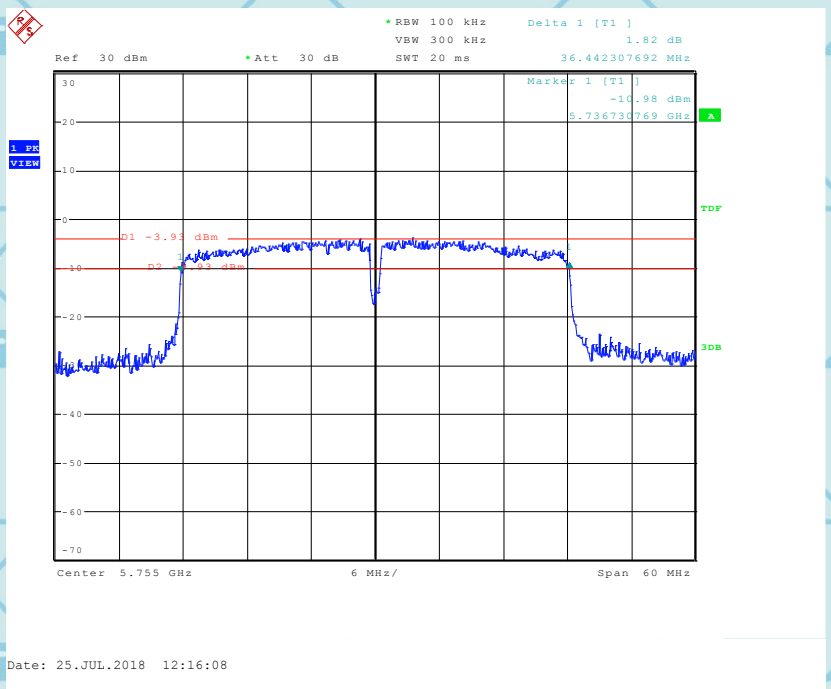
Channel 46



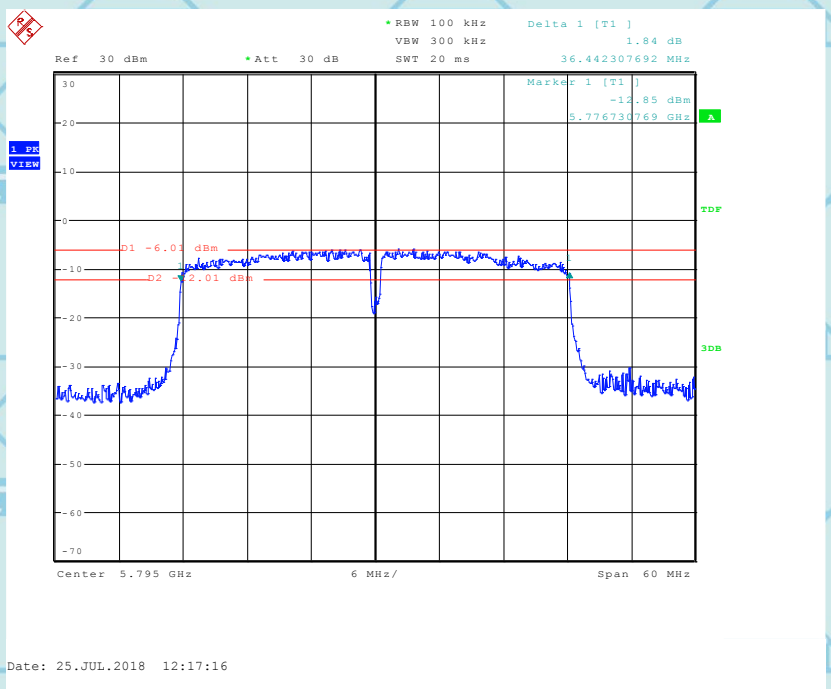
802.11ac 5GHz 40MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
151	5755	36.44	> 0.5MHz
159	5795	36.44	> 0.5MHz

Channel 151



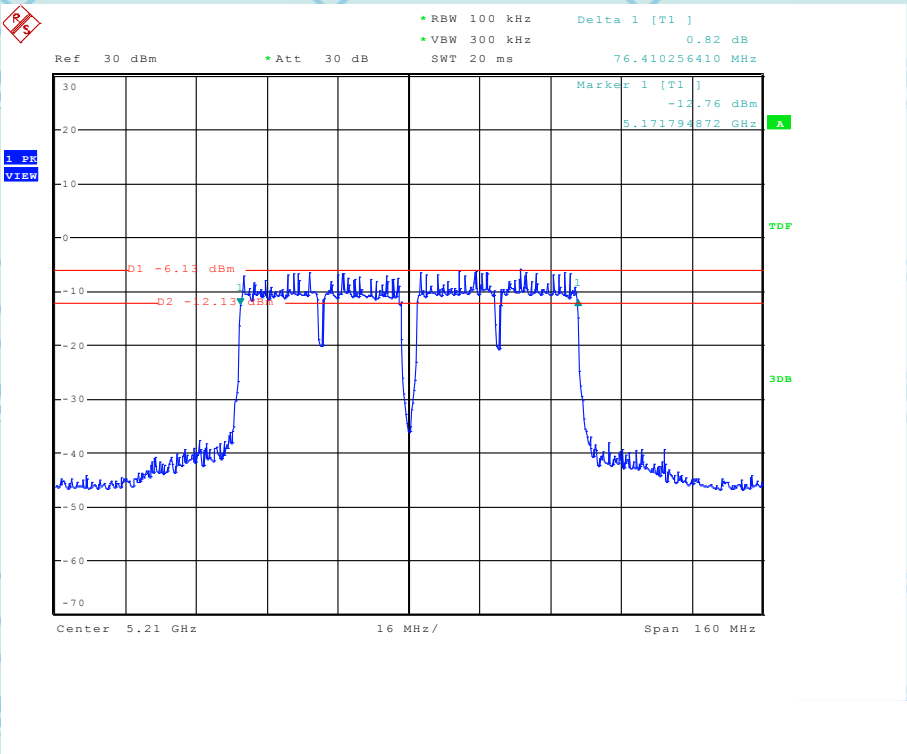
Channel 159



802.11ac 5GHz 80MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
42	5210	76.41	> 0.5MHz

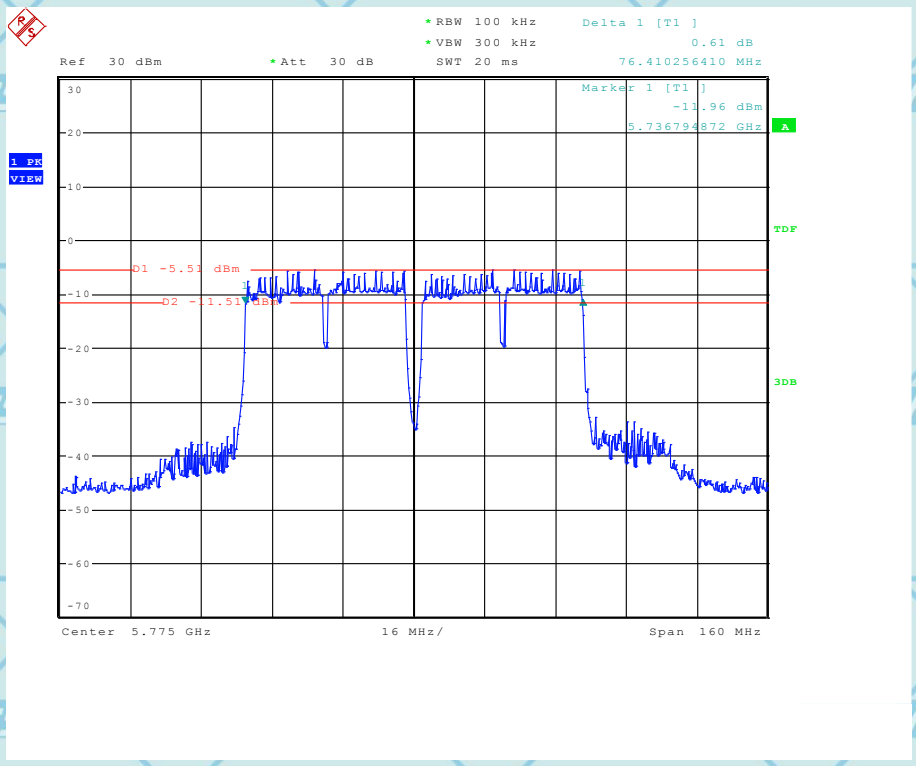
Channel 42



802.11ac 5GHz 80MHz

Channel	Measured Frequency (MHz)	6 dB Bandwidth (MHz)	Limit
155	5775	76.41	> 0.5MHz

Channel 155



9. MAXIMUM CONDUCTED OUTPUT POWER

The test method

Test Requirement: FCC 47 CFR Part 15 Subpart E Section 15.407 (a)(1)(2)(3)

Test Method: KDB 789033 D02 v01r04 Section E.3.a(Method PM)

Limits:

(1) For the band 5.15-5.25 GHz.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over thefrequency band of operation shall not exceed 250 mW provided the maximum antenna gain does notexceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both themaximum conducted output power and the maximum power spectral density shall be reduced by theamount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure:

1. Connected the EUT's antenna port to measure device by 10dB attenuator.
2. Method PM is used to perform output power measurement, trigger and gating function of wide band powermeter is enabled to measure max output power of Tx on burst.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

For Conducted RF test setup

(EUT: Mobile phone)

Test Data:
Band 1: 5150 MHz ~ 5250 MHz

Mode	Channel/ Frequency (MHz)	Maximum conducted output power (dBm)	Limit(dBm)	Pass / Fail
		Meas Power		
IEEE 802.11a	36 (5180)	15.22	24	Pass
	40(5200)	15.28	24	Pass
	44 (5220)	15.32	24	Pass
	48 (5240)	**15.36**	24	Pass
IEEE 802.11n-HT20	36 (5180)	14.17	24	Pass
	40(5200)	14.32	24	Pass
	44 (5220)	14.46	24	Pass
	48 (5240)	14.61	24	Pass
802.11n(HT40)	38 (5190)	13.24	24	Pass
	46 (5230)	13.31	24	Pass
IEEE 802.11ac-HT20	36(5180)	12.51	24	Pass
	40(5200)	12.54	24	Pass
	44 (5220)	12.36	24	Pass
	48(5240)	12.48	24	Pass
IEEE 802.11ac-HT40	38(5190)	12.36	24	Pass
	46(5230)	12.08	24	Pass
IEEE 802.11ac-HT80	42(5210)	10.12	24	Pass

Band 4: 5725 MHz ~ 5850 MHz

Mode	Channel/ Frequency (MHz)	Maximum conducted output power (dBm)	Limit(dBm)	Pass / Fail
		Meas Power		
IEEE 802.11a	149 (5745)	15.18	30	Pass
	153 (5765)	15.26	30	Pass
	157 (5785)	15.21	30	Pass
	161 (5805)	15.35	30	Pass
	165 (5825)	**15.40**	30	Pass
IEEE 802.11n-HT20	149 (5745)	14.21	30	Pass
	153 (5765)	14.08	30	Pass
	157 (5785)	14.20	30	Pass
	161 (5805)	14.36	30	Pass
	165 (5825)	14.23	30	Pass
802.11n(HT40)	151 (5755)	13.56	30	Pass
	159 (5795)	13.47	30	Pass
IEEE 802.11ac-HT20	149(5745)	12.56	30	Pass
	153 (5765)	12.36	30	Pass
	157 (5785)	12.42	30	Pass
	161 (5805)	12.64	30	Pass
	165(5825)	12.46	30	Pass
IEEE 802.11ac-HT40	151(5755)	12.41	30	Pass
	159(5795)	12.25	30	Pass
IEEE 802.11ac-HT80	155(5775)	10.64	30	Pass

10. PEAK POWER SPECTRAL DENSITY

Product	: Mobile phone	Test Mode	: See Section 2.2
Test Item	: Peak Power Spectral Density	Temperature	: 25℃
Test Voltage	: DC 3.85V	Humidity	: 56%RH
Test Result	: **PASS**		

IEEE 802.11a
Band1

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
36	5180	6.37	11dBm/MHz	PASS
40	5200	6.43		PASS
48	5240	8.65		PASS

Band4

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
149	5745	11.04	30dBm/500 kHz	PASS
157	5785	9.74		PASS
165	5825	8.89		PASS

IEEE 802.11n 5G 20MHz
Band1

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
36	5180	6.10	11dBm/MHz	PASS
40	4200	6.32		PASS
48	5240	7.86		PASS

Band4

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
149	5745	10.83	30dBm/500 kHz	PASS
157	5785	12.10		PASS
165	5825	8.44		PASS

IEEE 802.11n 5G 40MHz
Band1

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
38	5190	2.60	11dBm/MHz	PASS
46	5230	4.73		PASS

Band4

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
151	5755	7.68	30dBm/500 kHz	PASS
159	5795	5.97		PASS

IEEE 802.11ac 5G 20MHz
Band1

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
36	5180	6.03	11dBm/MHz	PASS
40	4200	8.78		
48	5240	7.90		PASS

Band4

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
149	5745	10.63	30dBm/500 kHz	PASS
157	5785	9.12		
165	5825	4.44		PASS

IEEE 802.11ac 5G 40MHz

Band1

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
38	5190	2.64	11dBm/MHz	PASS
46	5230	4.77		PASS

Band4

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
151	5755	8.31	30dBm/500 kHz	PASS
159	5795	6.36		PASS

IEEE 802.11ac 5G 80MHz

Band1

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
42	5210	-5.58	11dBm/MHz	PASS

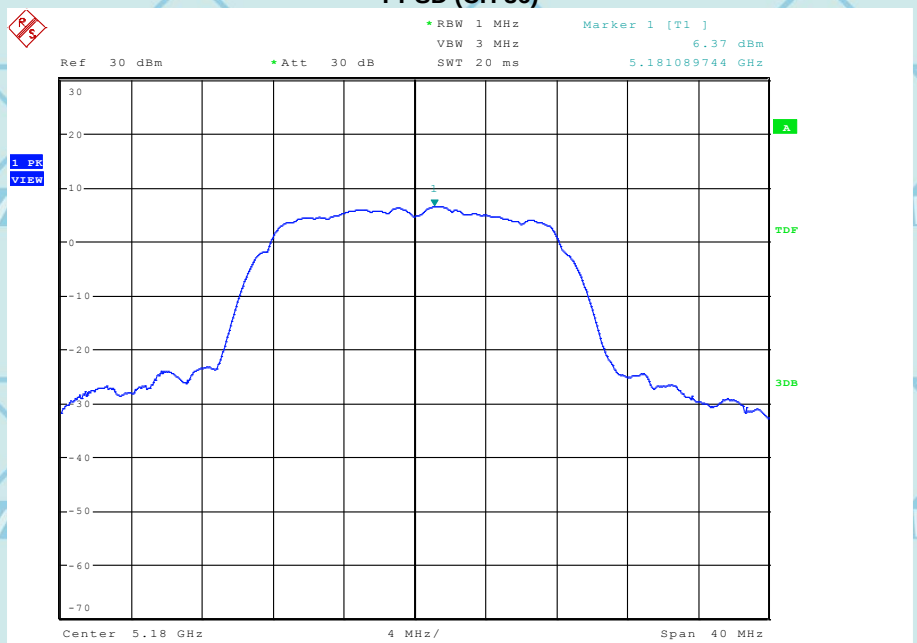
Band4

Channel	Frequency (MHz)	PPSD (dBm)	FCC Limit (kHz)	Result
155	5775	-4.57	30dBm/500 kHz (26.99dBm/MHz)	PASS

Note: For 5.725~5.85GHz (Band4): Power Density(dBm/500kHz)= Power Density (dBm/MHz)- 10log(500kHz/RBW) (dB)

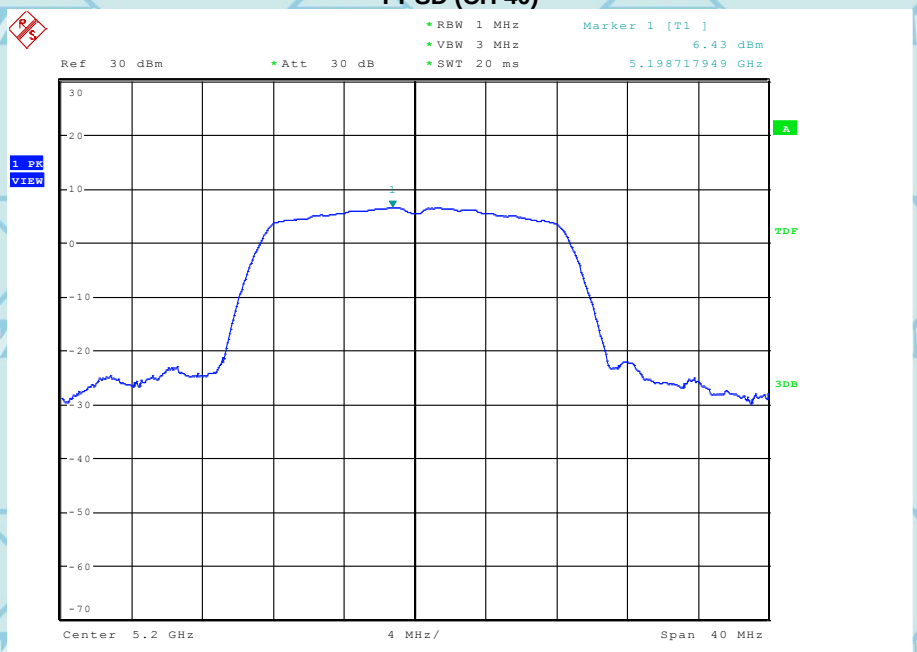
IEEE 802.11a Band1

PPSD (CH 36)



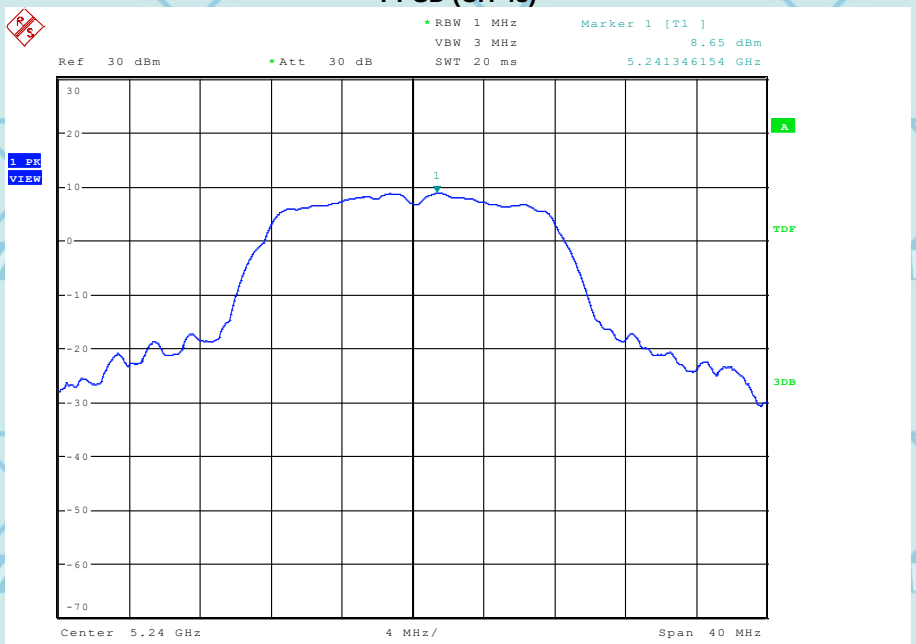
Date: 25.JUL.2018 10:38:46

PPSD (CH 40)



Date: 11.AUG.2018 15:28:34

PPSD (CH 48)



IEEE 802.11a Band4

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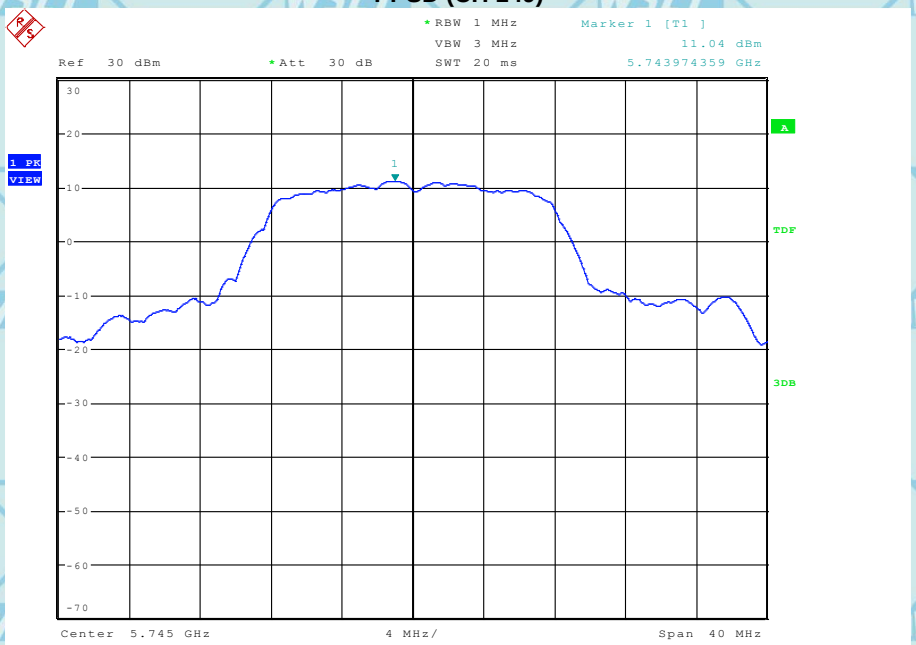

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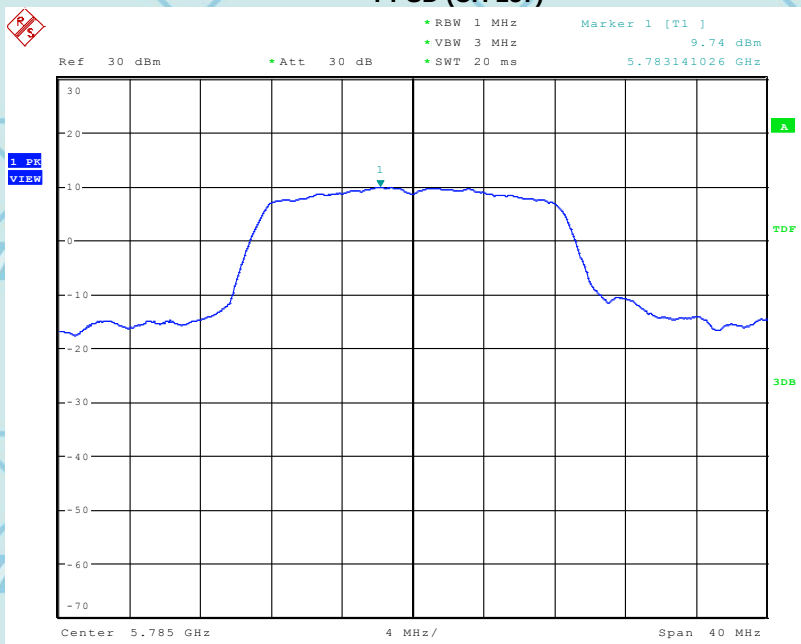

Date: 11.AUG.2018 15:29:19

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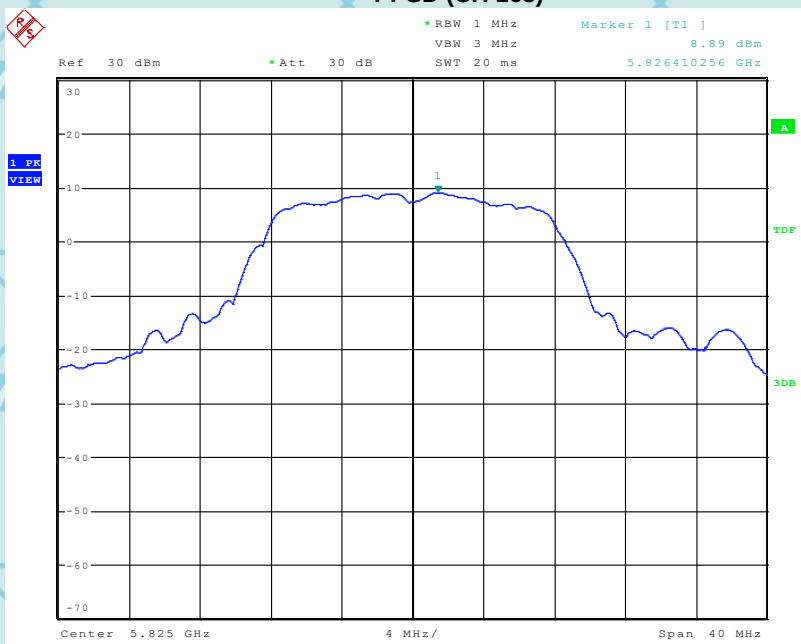

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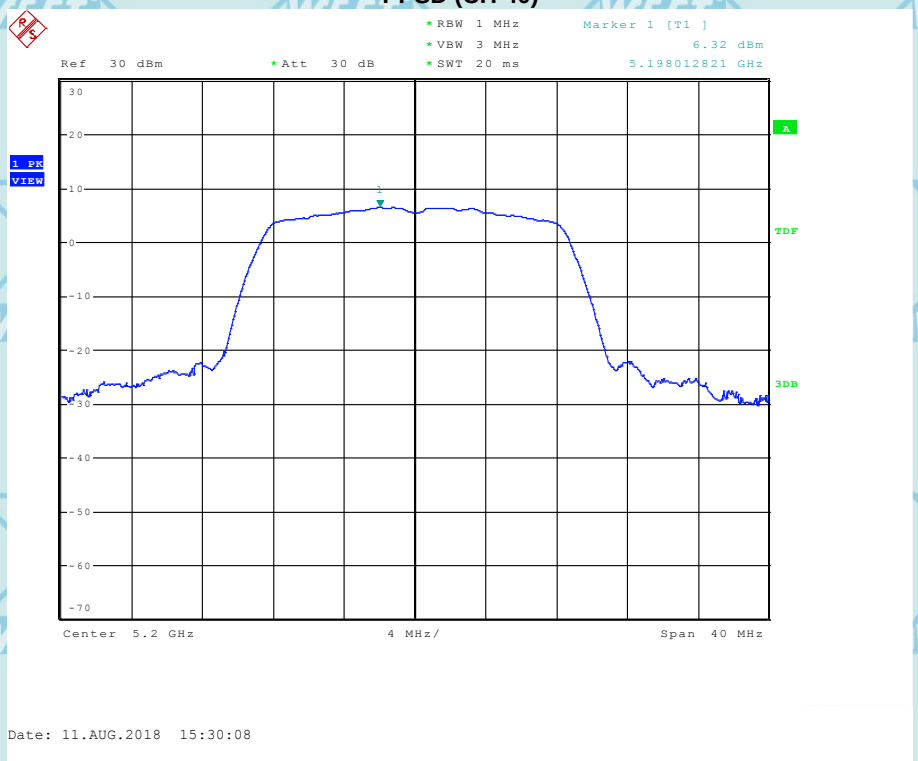
IEEE 802.11n 5G 20MHz Band1

PPSD (CH 36)

PPSD (CH 40)



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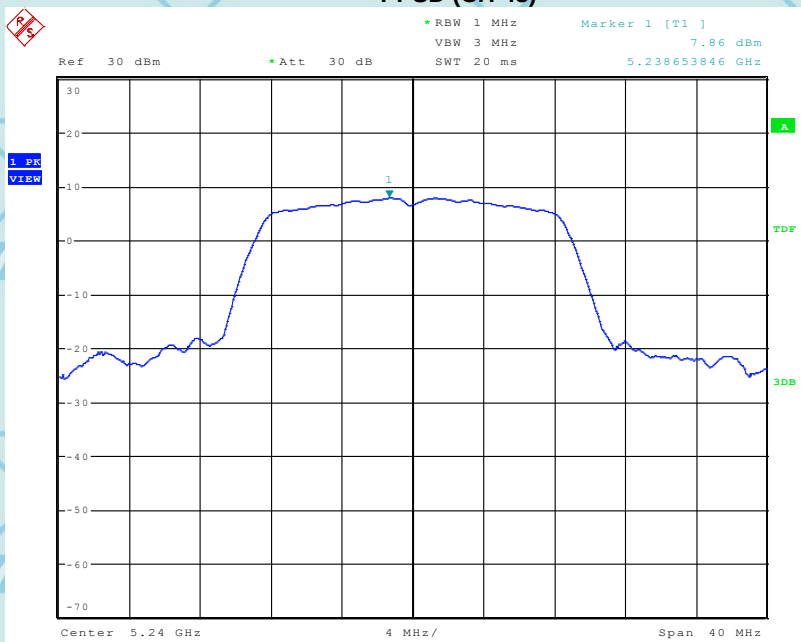
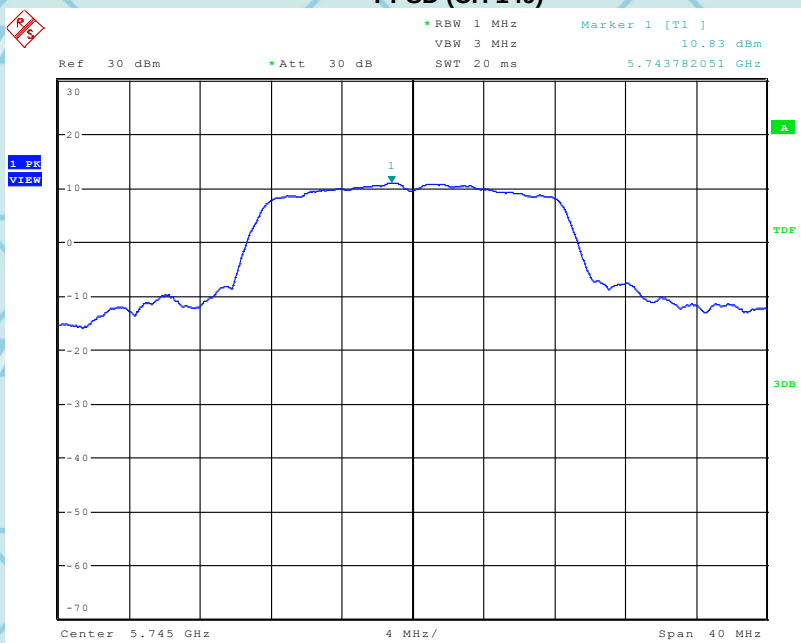


IEEE 802.11n 5G 20MHz Band4

PPSD (CH 149)



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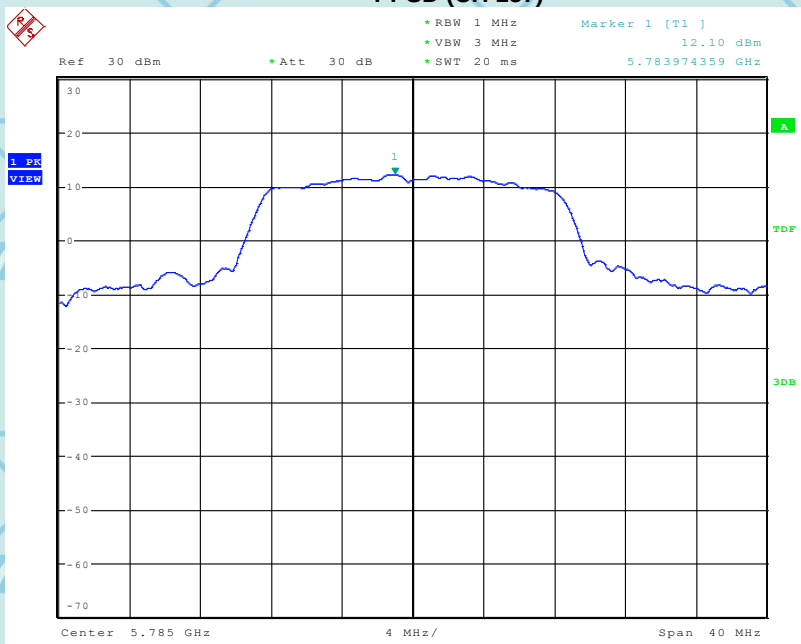

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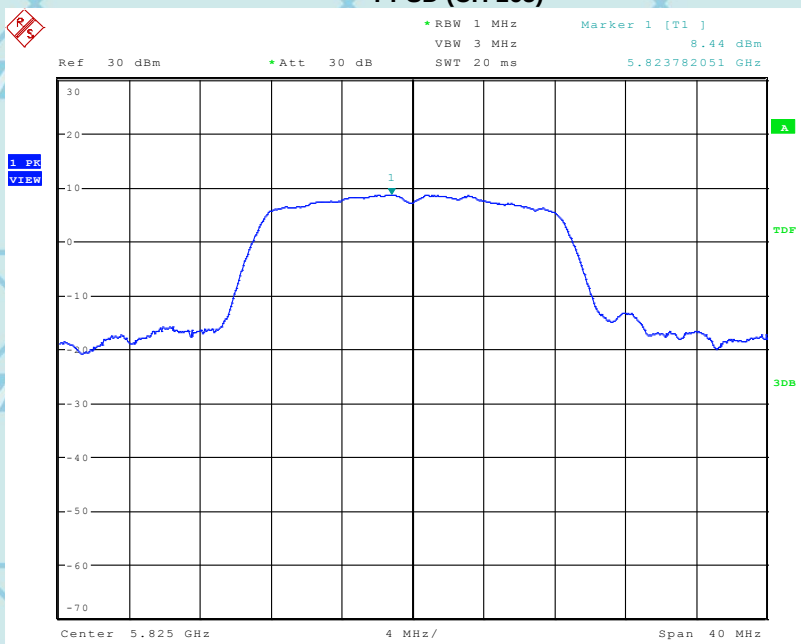

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IEEE 802.11n 5G 40MHz Band1

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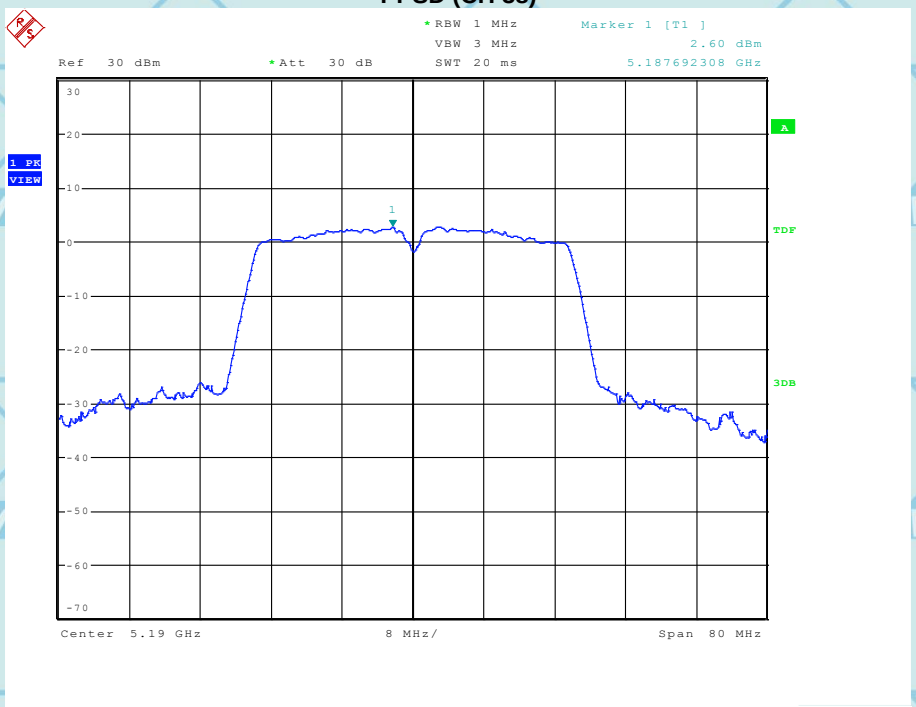

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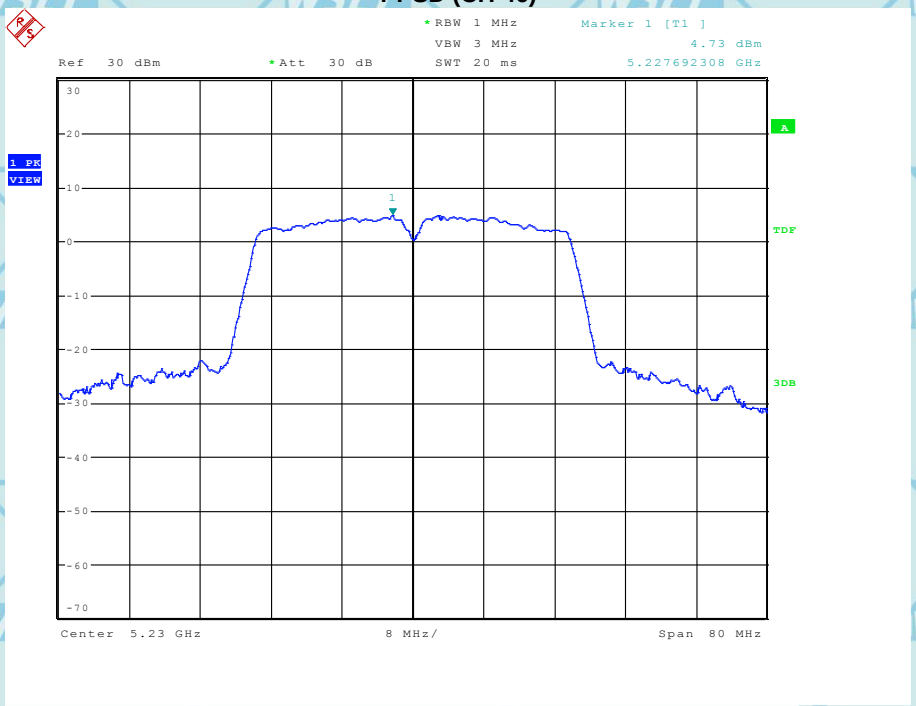
PPSD (CH 46)



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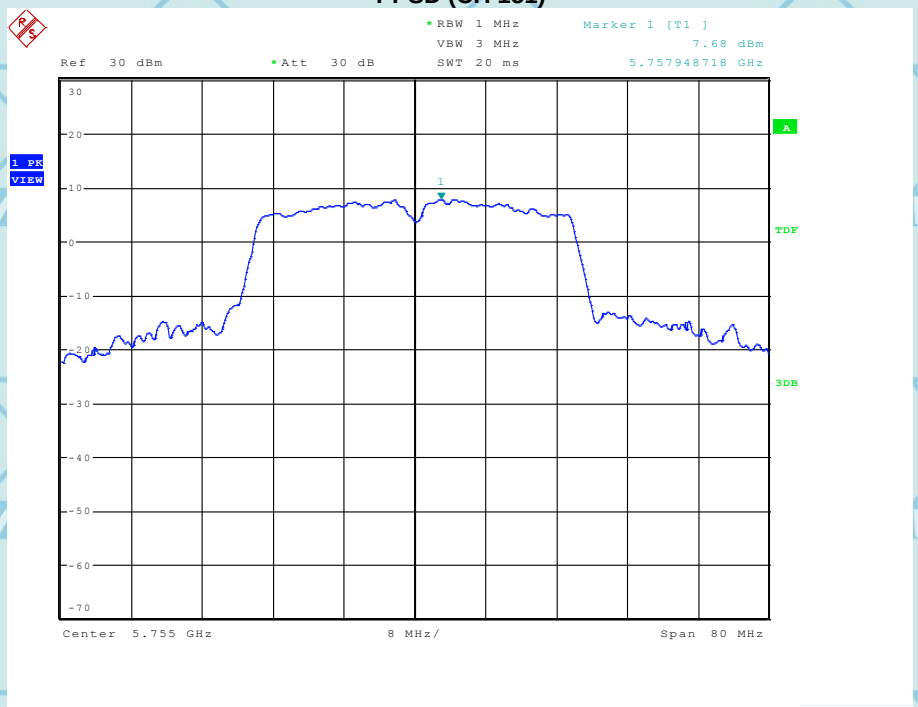
IEEE 802.11n 5G 40MHz Band4

PPSD (CH 151)



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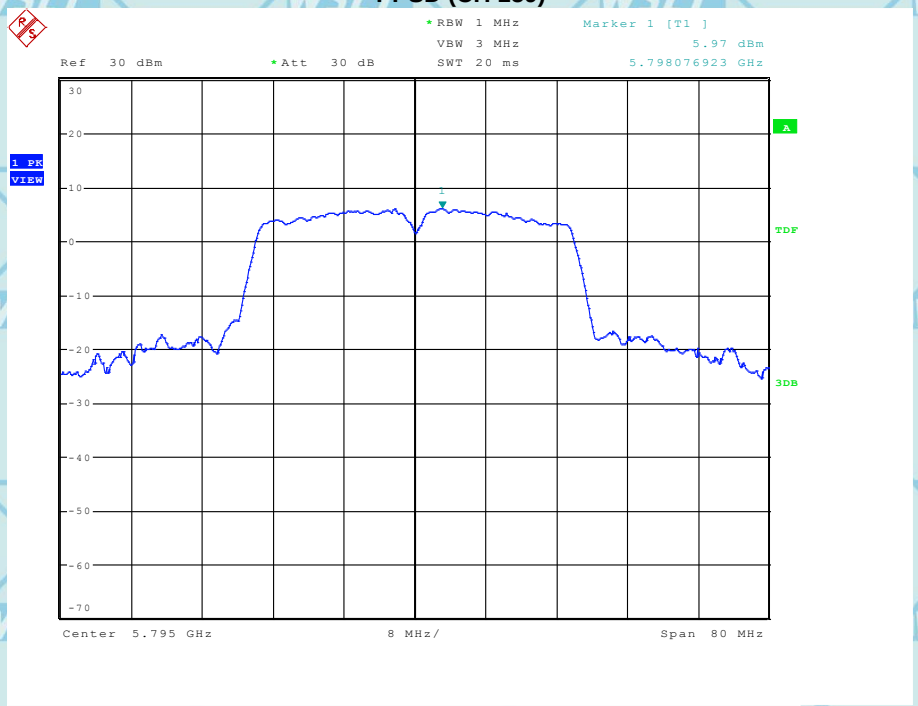

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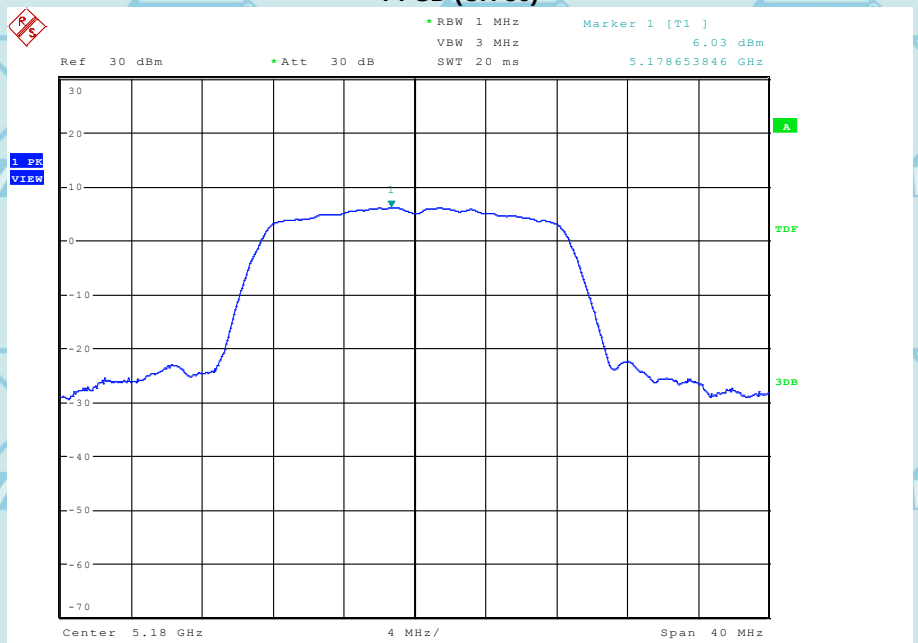
IEEE 802.11ac 5G 20MHz Band1

PPSD (CH 36)



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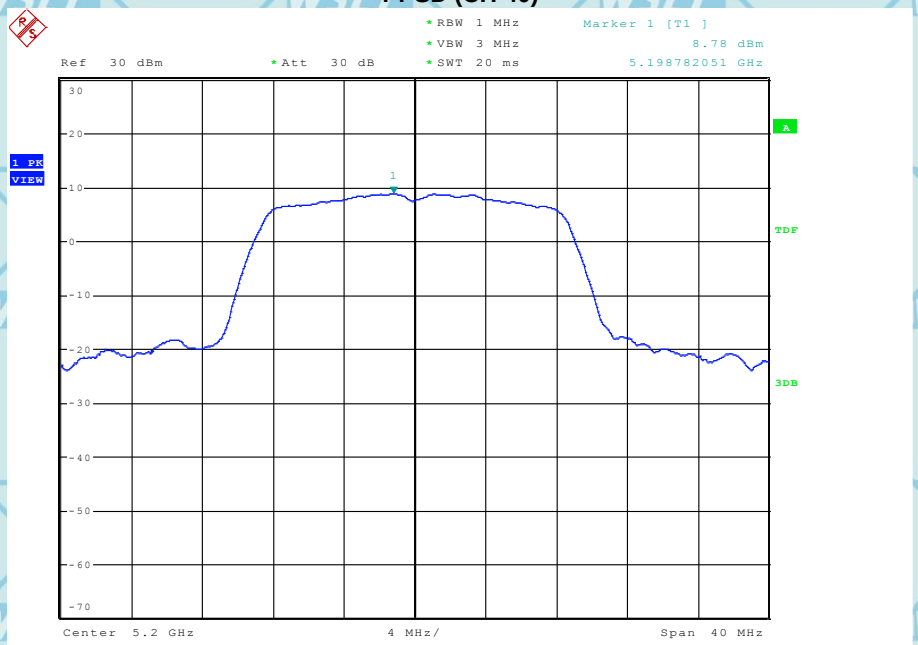

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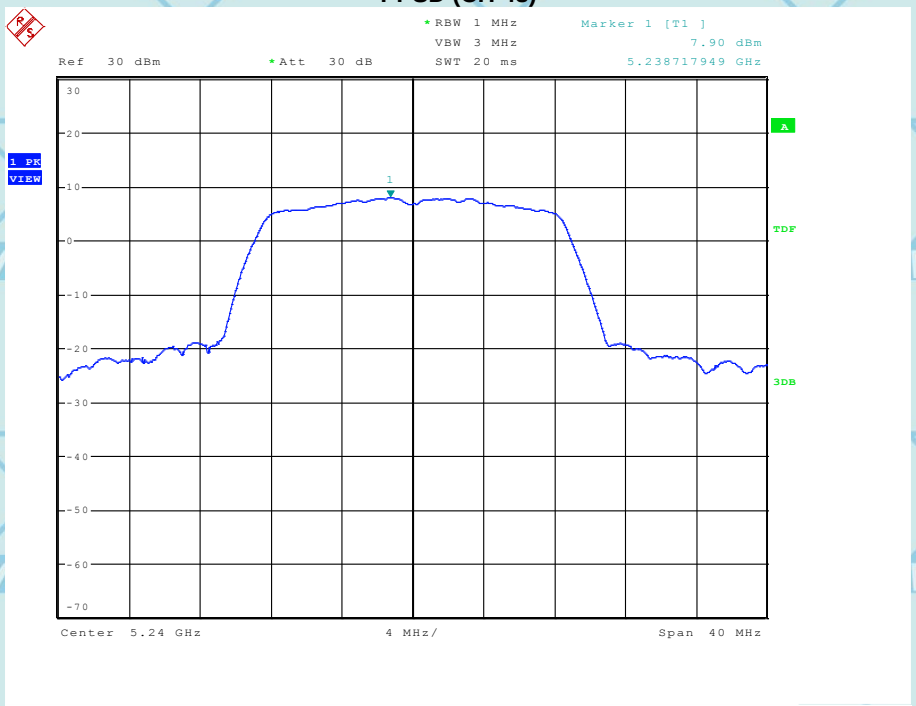
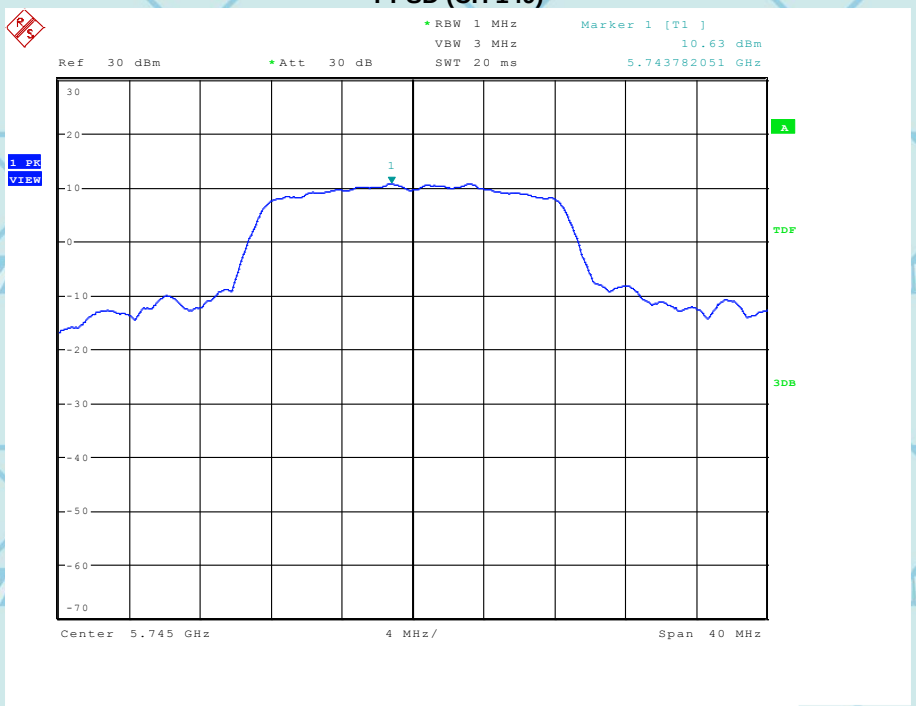
PPSD (CH 48)

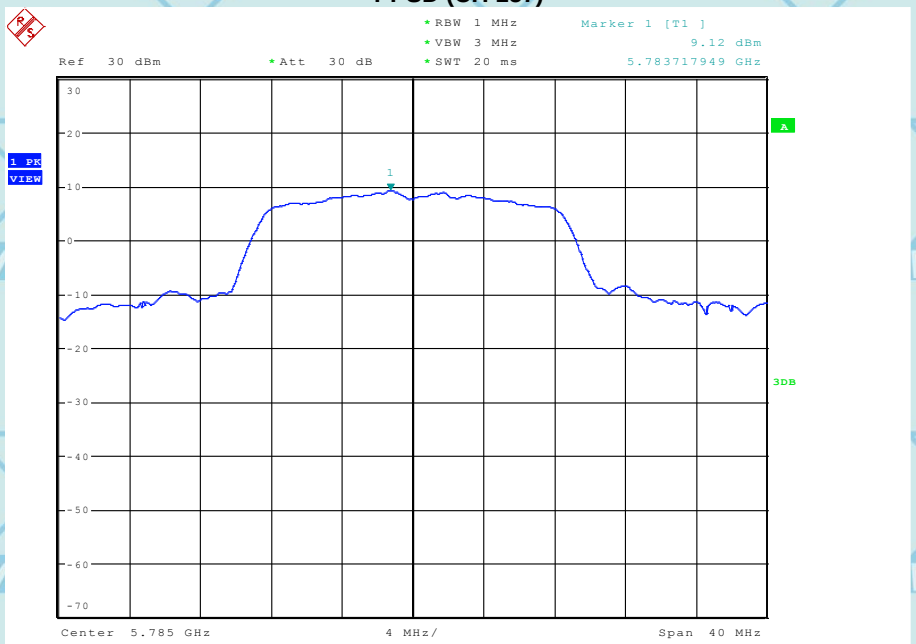


IEEE 802.11ac 5G 20MHz Band4

PPSD (CH 149)



PPSD (CH 157)



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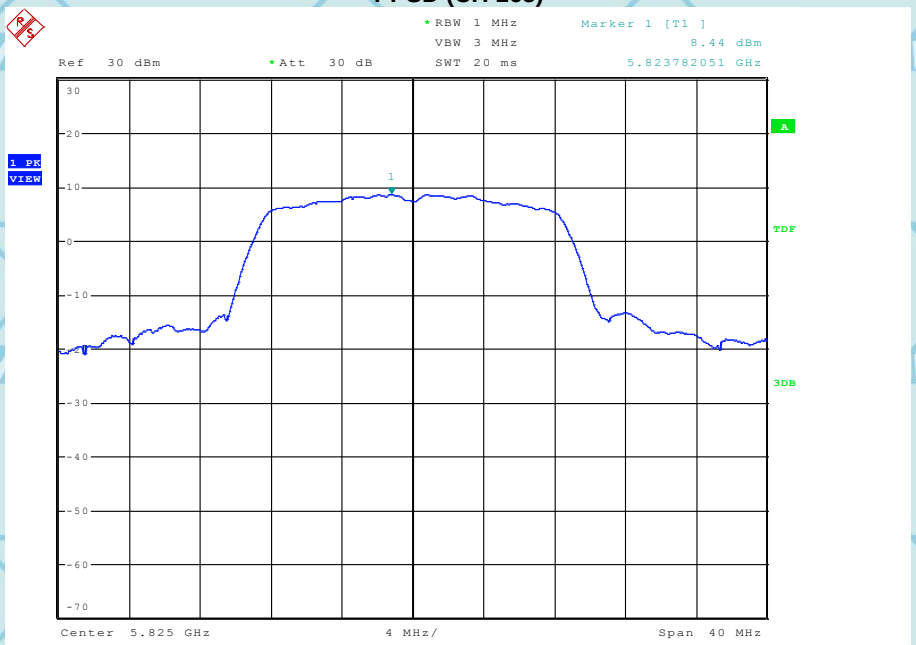
PPSD (CH 165)



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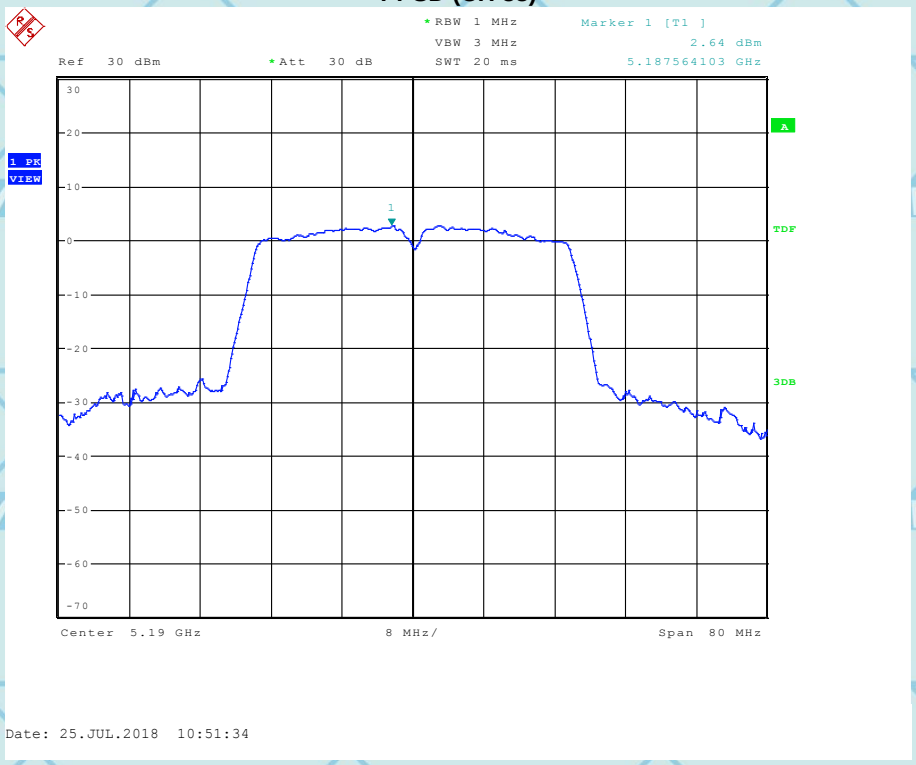
IEEE 802.11ac 5G 40MHz Band1

PPSD (CH 38)



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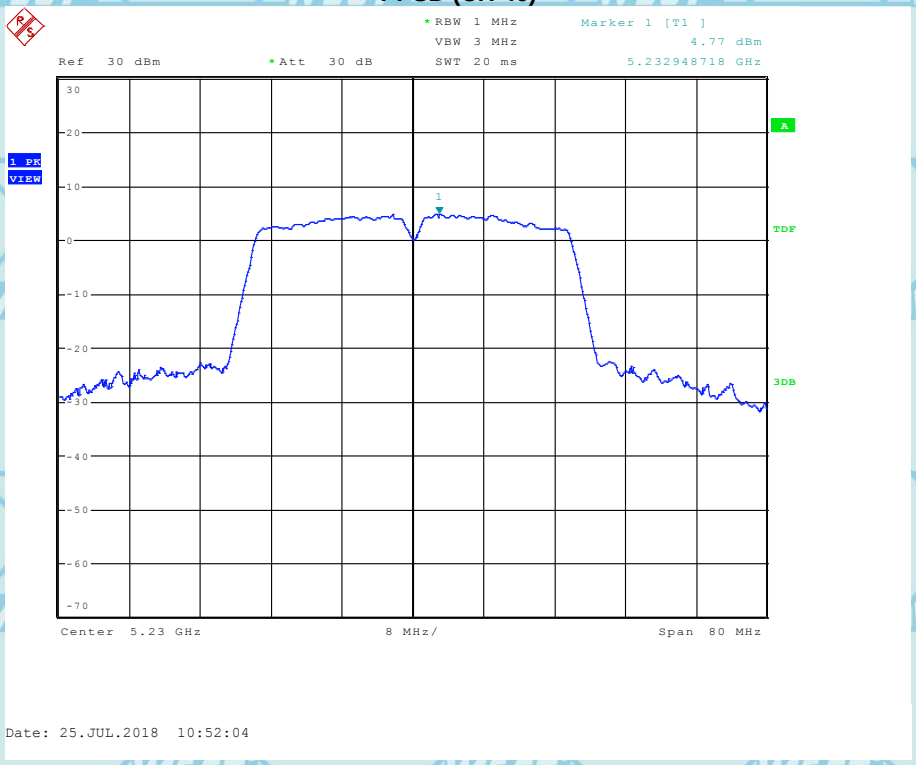

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IEEE 802.11ac 5G 40MHz Band4

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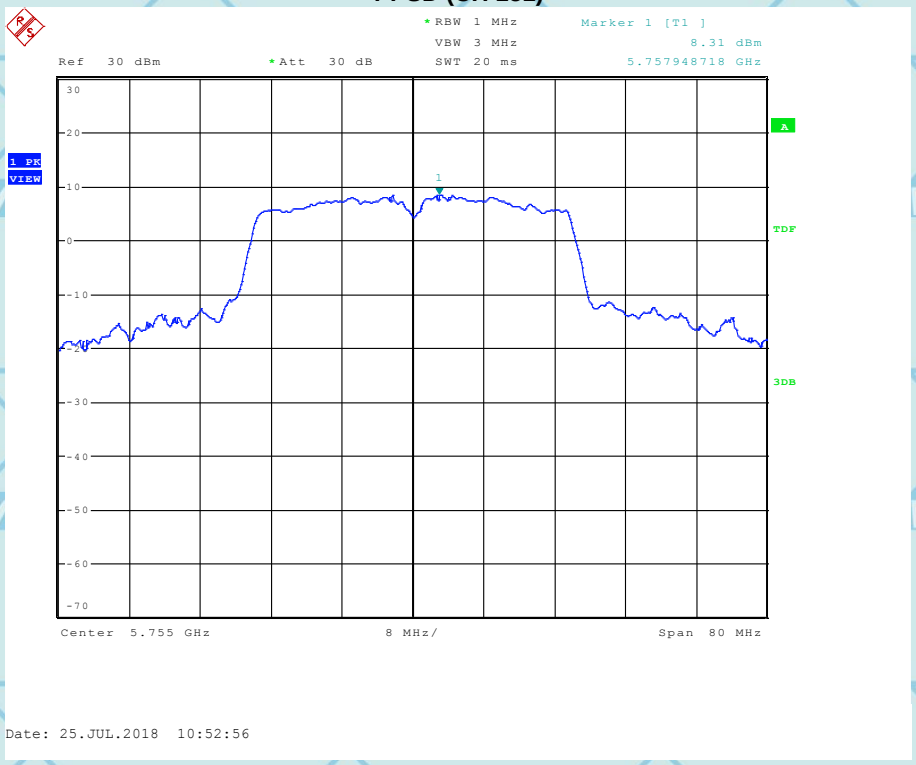

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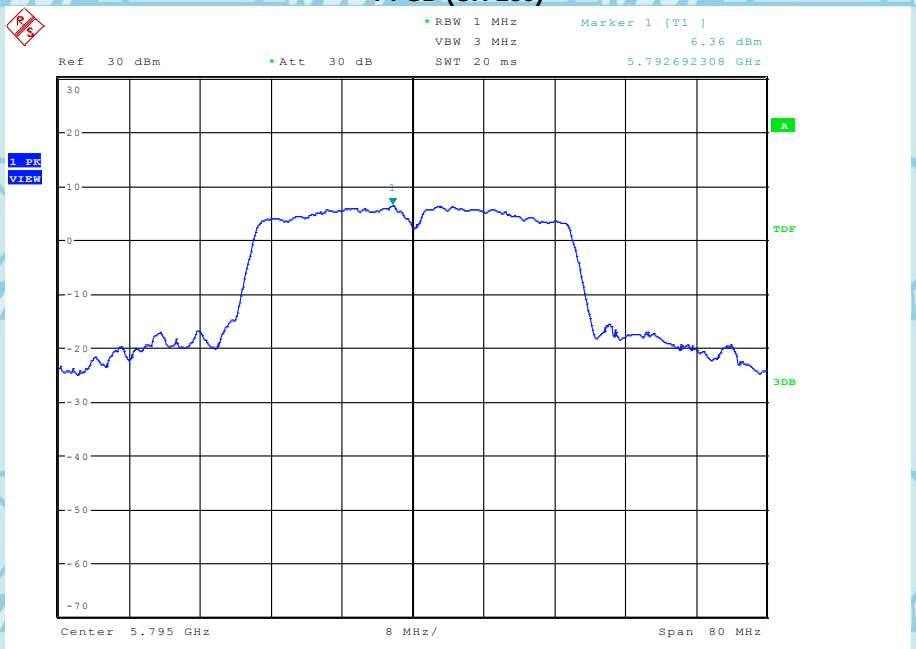

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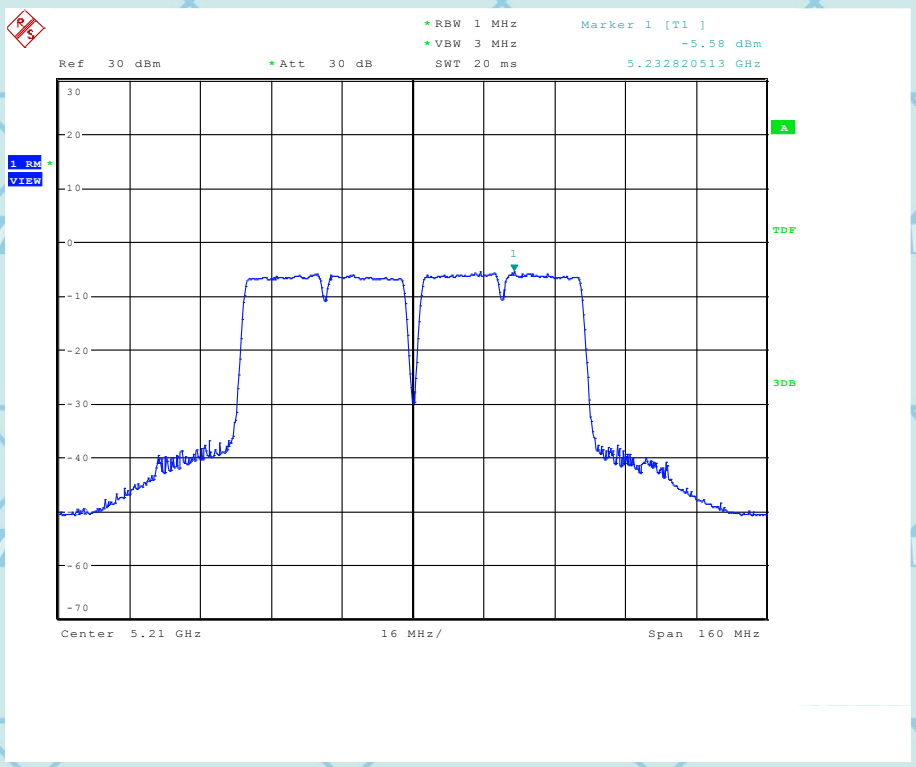
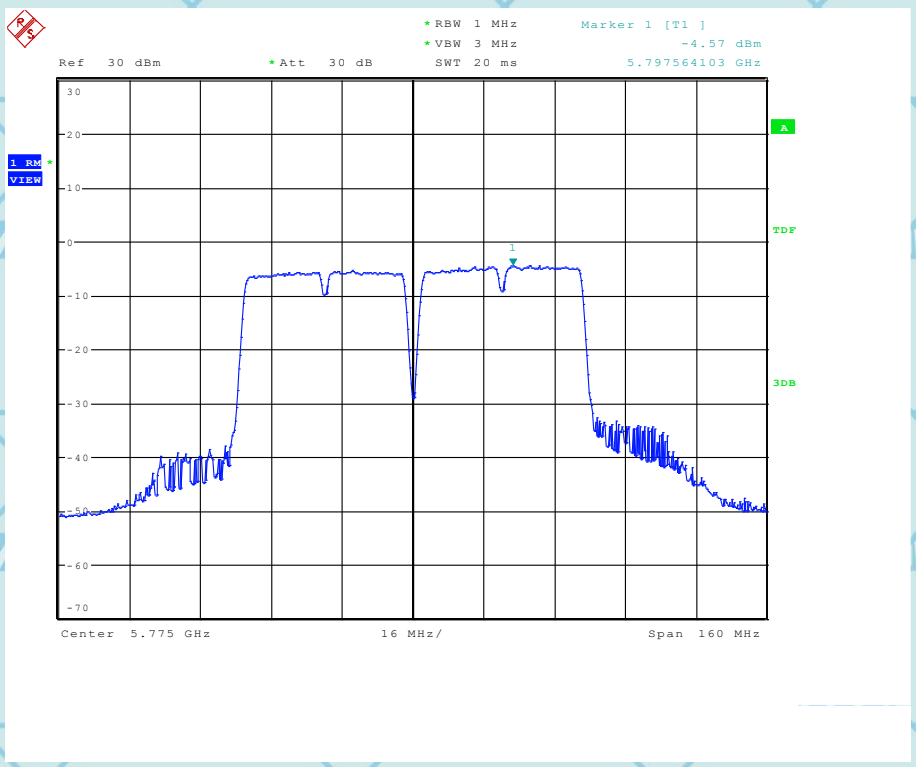
IEEE 802.11ac 5G 80MHz Band1

PPSD (CH 42)



IEEE 802.11ac 5G 80MHz Band4

PPSD (CH 155)



11.BAND EDGE EMISSIONS

11. 1 TEST EQUIPMENT

Please refer to Section 5 this report.

11. 2 TEST PROCEDURE

Band Edge Emissions Measurement:	
Test Method:	a.)The EUT was tested according to ANSI C63.10. b)The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 1.5m. All set up is according to ANSI C63.10. c)The frequency spectrum from 9kHz to 40 GHz was investigated. All readings from 9kHz to 150kHz are quasi-peak values with a resolution bandwidth of 200 Hz. All readings from 150kHz to 30MHz are quasi-peak values with a resolution bandwidth of 9 KHz. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz , peak values with a resolution bandwidth of 1 MHz . Measurements were made at 3 meters. d)The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. The Receiving antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency. Emissions below 30MHz were measured with a loop antenna while emission above 30MHz were measured using a broadband E-field antenna. e) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is withall installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings wasperformed only when an emission was found to be marginal (within -4 dB of specification limit), and aredistinguished with a "**QP**" in the data table. f)Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 8 and 13 of ANSI C63.10.

Band Edge Emissions Measurement:	
Test Equipment Setting:	
a)Attenuation: Auto b)Span Frequency: 100 MHz c)RBW/VBW (Emission in restricted band): 1MHz / 3MHz for Peak, 1MHz / 1/T for Average	d)RBW/VBW(Emission in non-restricted band) 1MHz / 3MHz for peak

11.2. 1 Test Setup

Same as section 3.2of this report

11. 2.2 Configuration of the EUT

Same as section 3.2of this report

11. 2.3 EUT Operating Condition

Same as section 3.2of this report.

11. 3 LIMIT

Spurious Radiated Emission & Band Edge Emissions Measurement:	
Limit:	Part 15.407(b) (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz. (4) For transmitters operating in the 5.725-5.85 GHz band: (i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. (ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
Note: Applies to harmonics/spurious emissions that fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209. 47 CFR § 15.237(c): The emission limits as specified above are based on measurement instrument employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.	

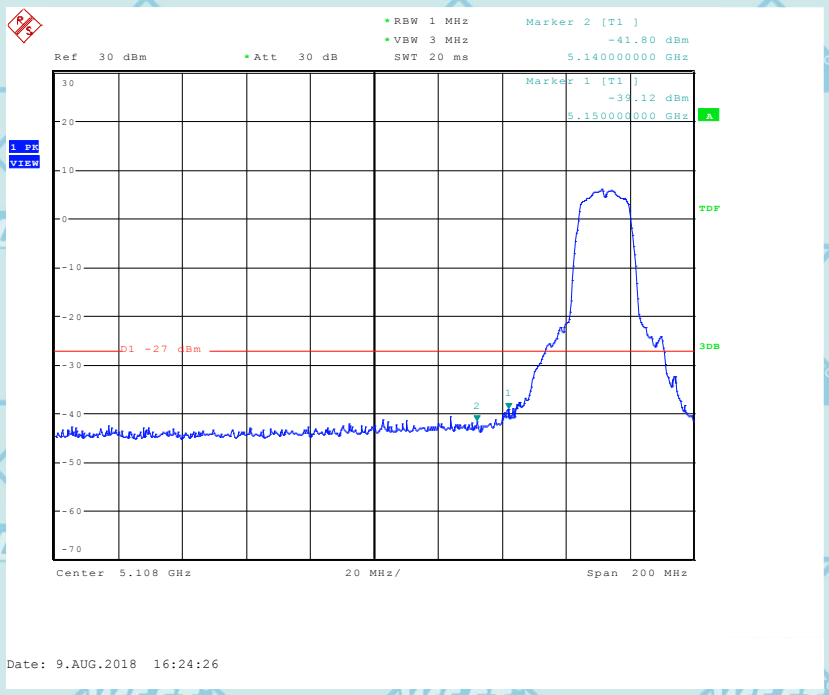
11. 4 TEST RESULT

Band Edge and Fundamental Emissions

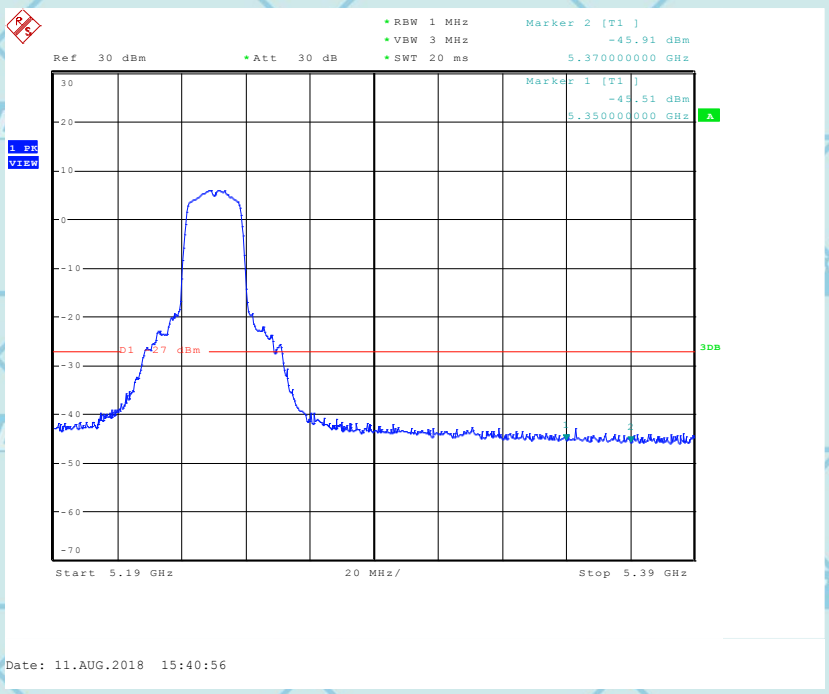
Product:	Mobile phone	Test Mode:	IEEE 802.11a/n/ac 5G
Test Item:	Band Edge and Fundamental Emissions	Temperature:	25℃
Test Voltage:	3.85V	Humidity:	56%RH
Test Result:	**PASS**		

IEEE 802.11a

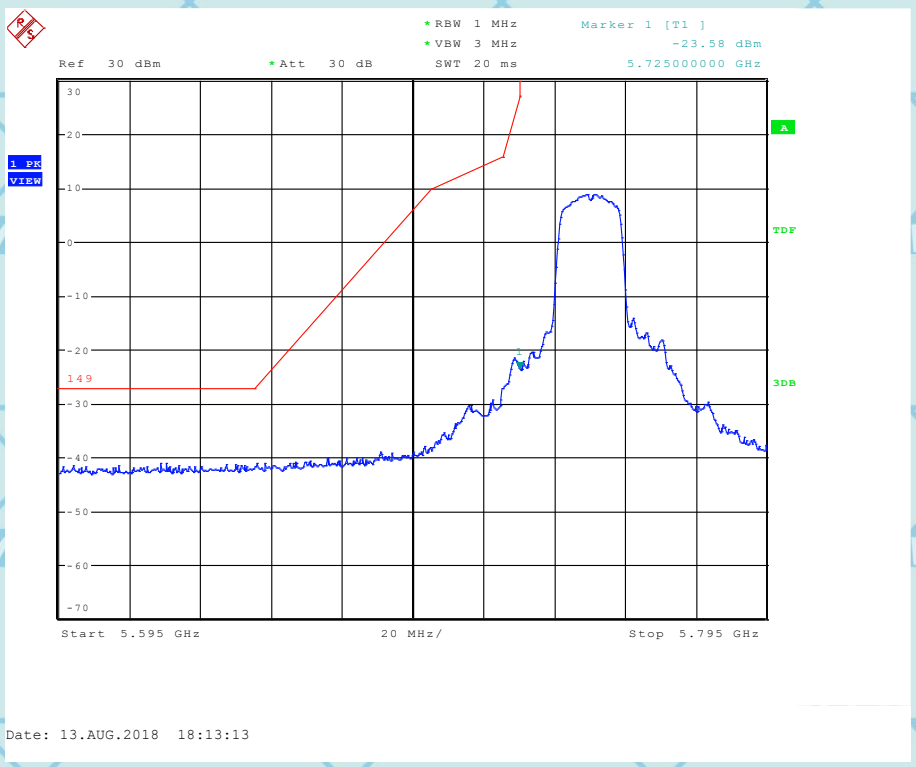
Channel 36 (5180MHz)



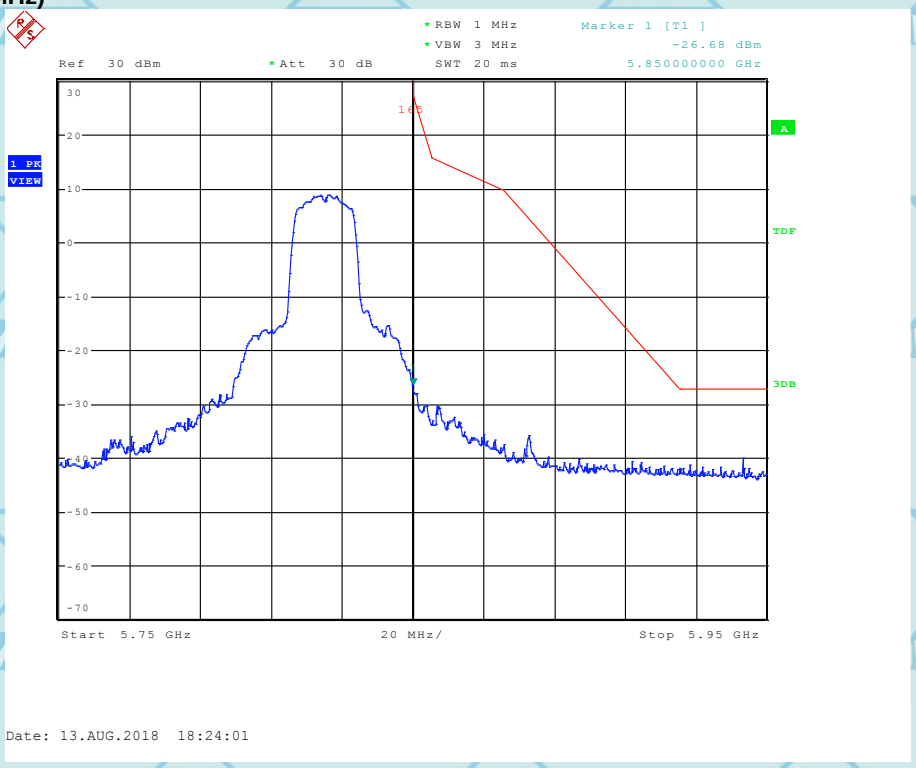
Channel 48 (5240MHz)



Channel 149 (5745MHz)

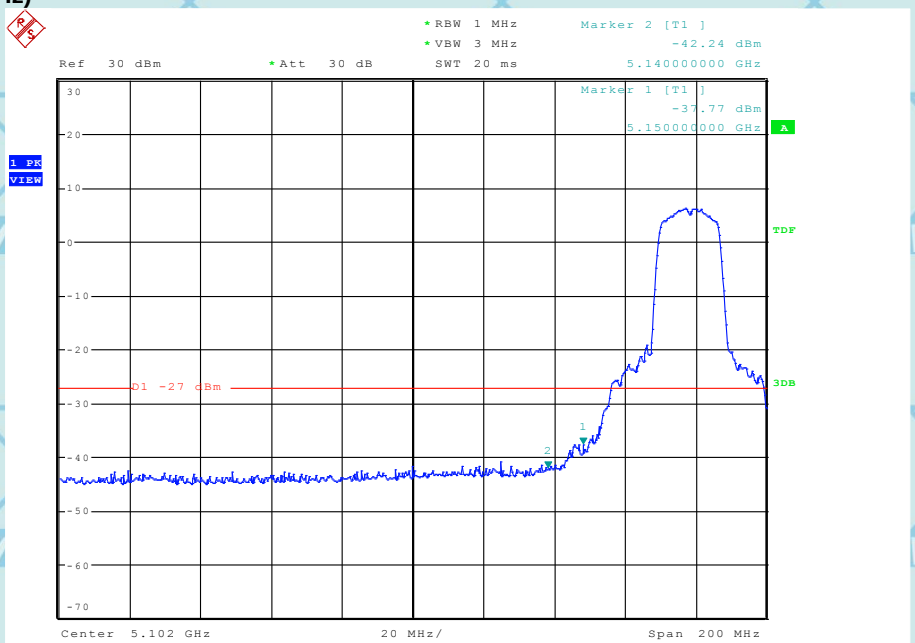


Channel 165 (5825MHz)



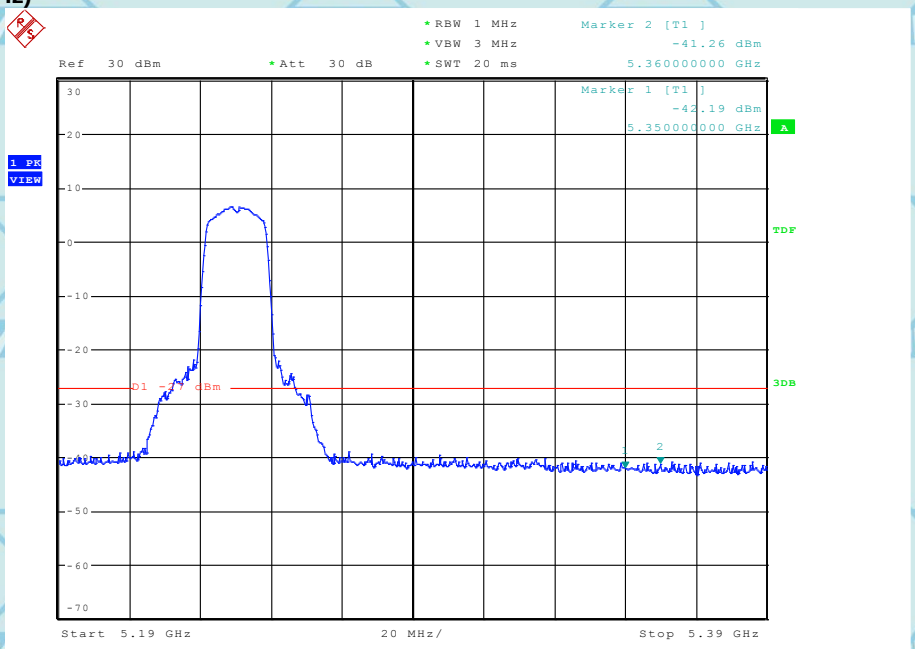
IEEE 802.11n 20MHz

Channel 36 (5180MHz)



Date: 9.AUG.2018 16:28:31

Channel 48 (5240MHz)



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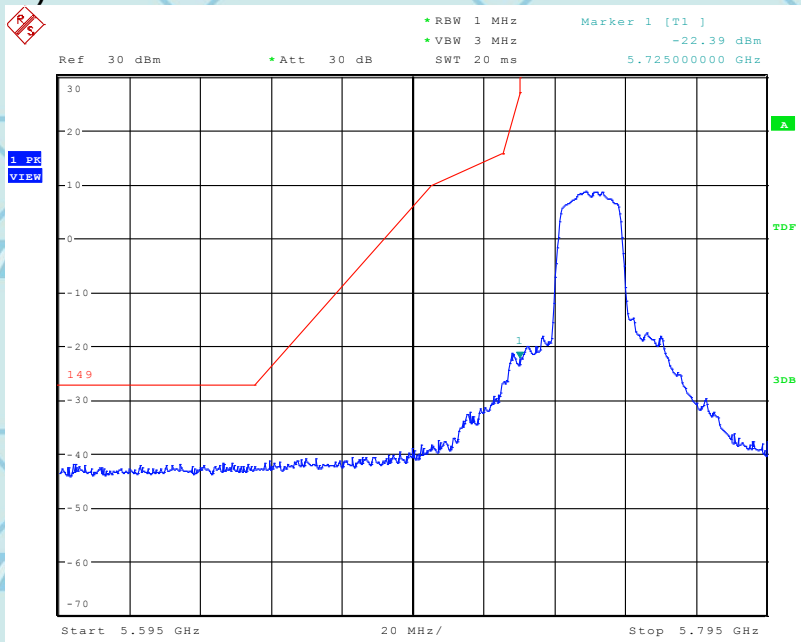
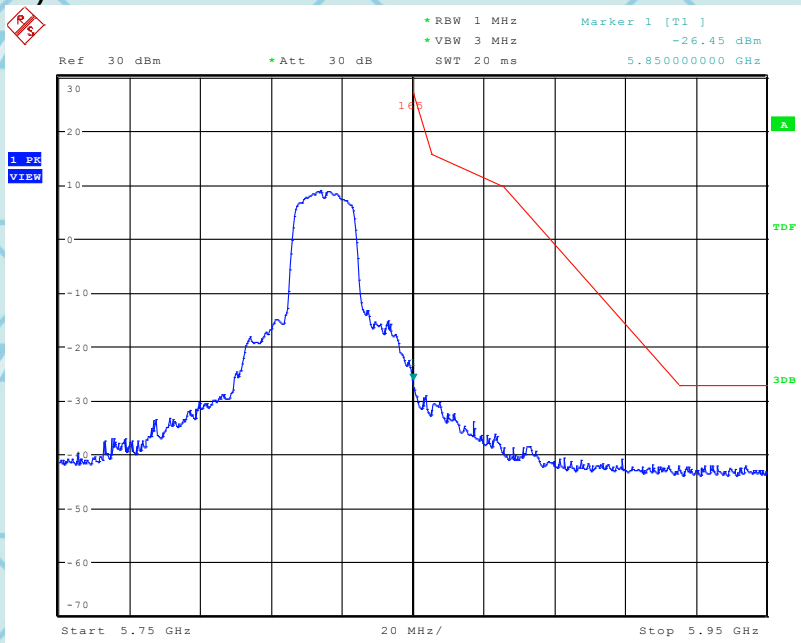
Channel 149 (5745MHz)

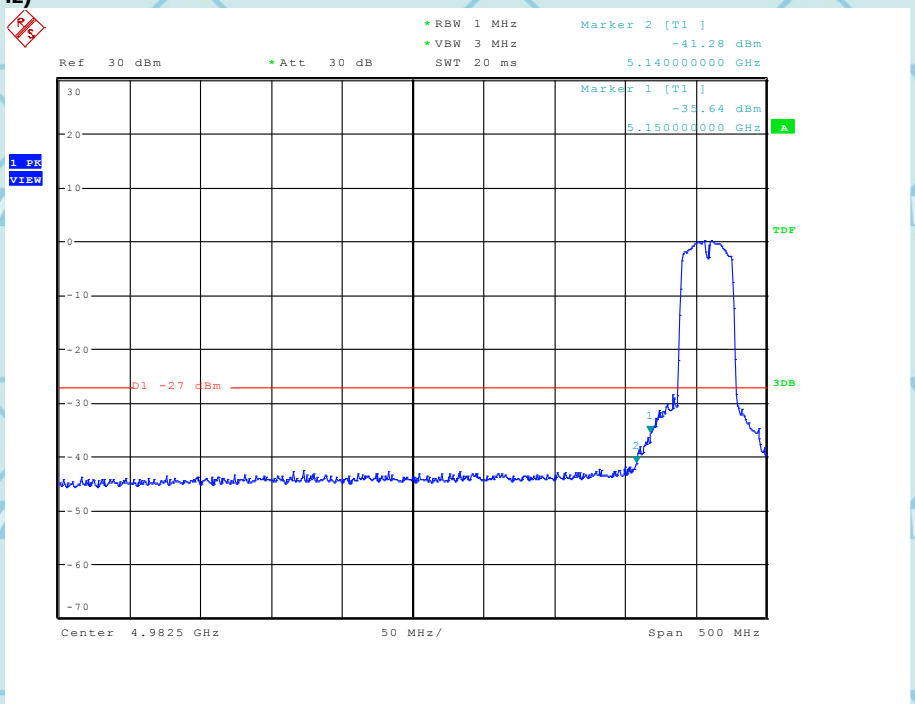


Channel 165 (5825MHz)

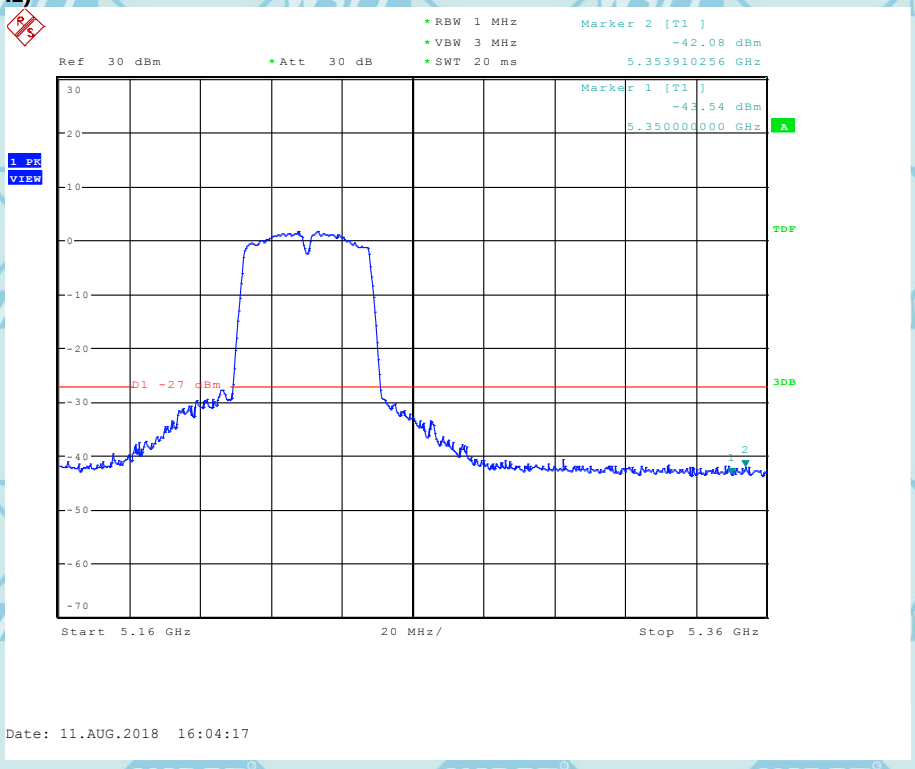


IEEE 802.11n 40MHz

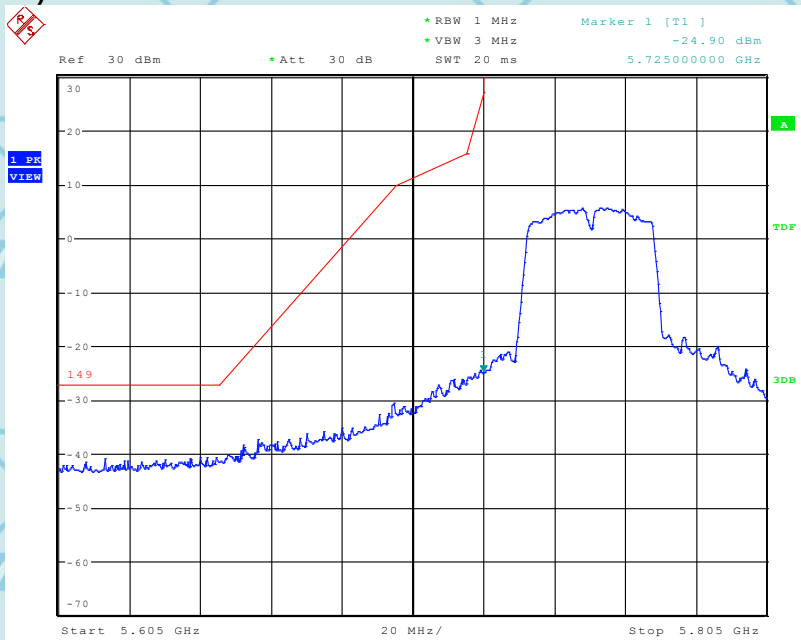
Channel 38 (5190MHz)



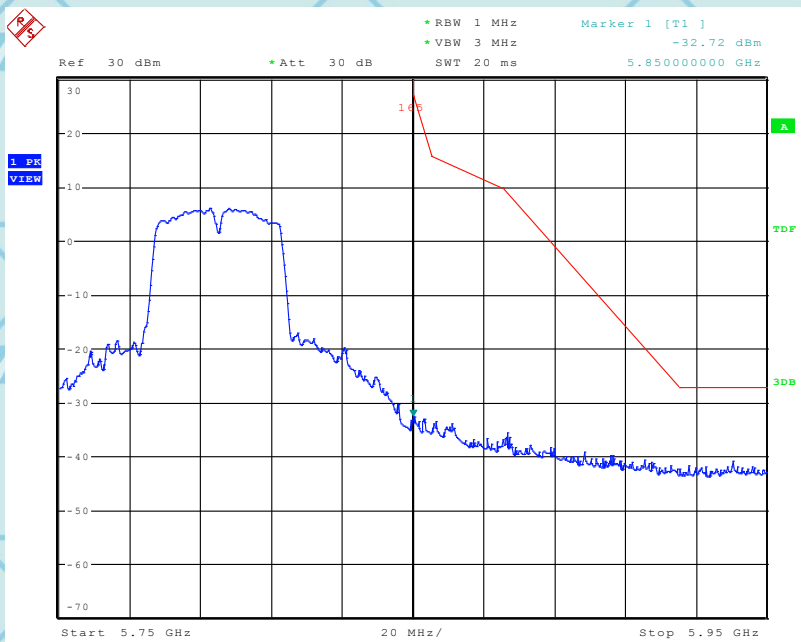
Channel 46 (5230MHz)



Channel 151 (5755MHz)

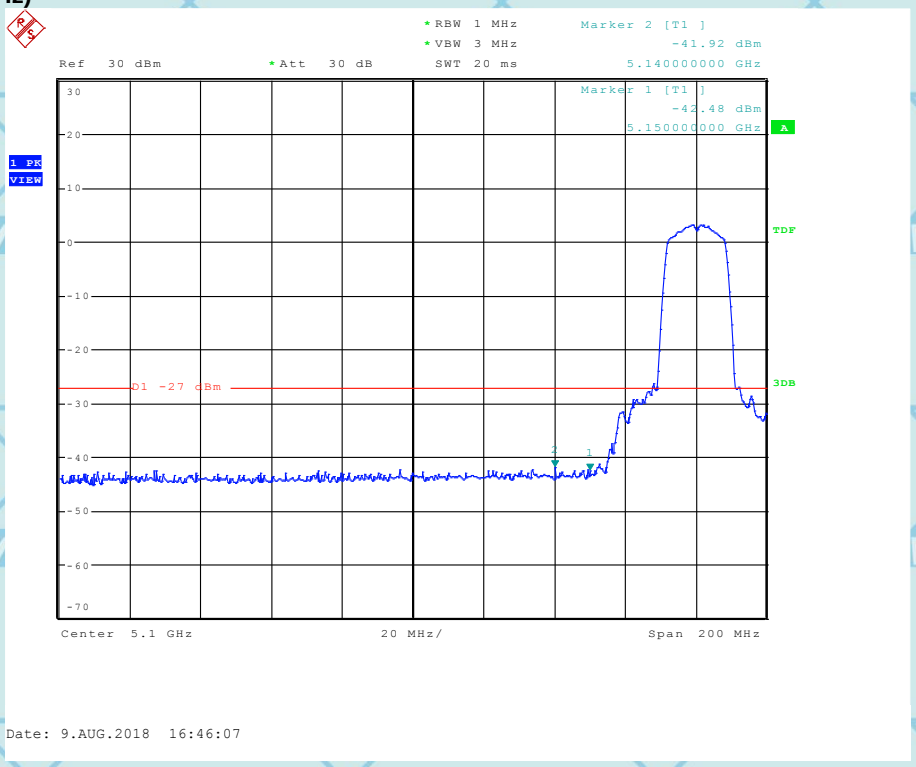


Channel 159 (5795MHz)

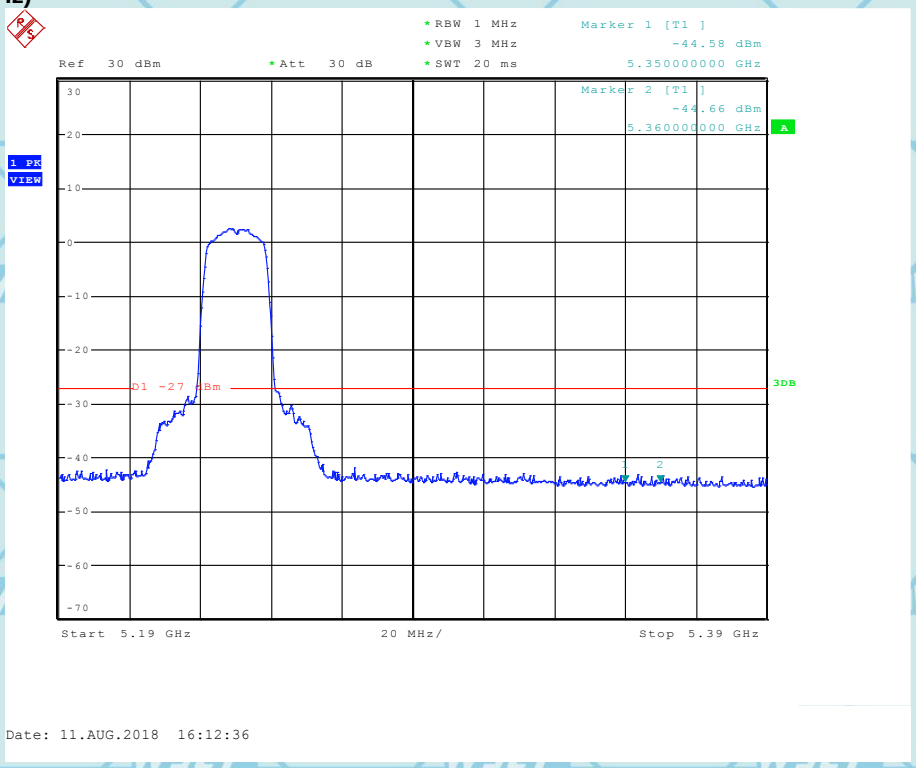


IEEE 802.11ac 20MHz

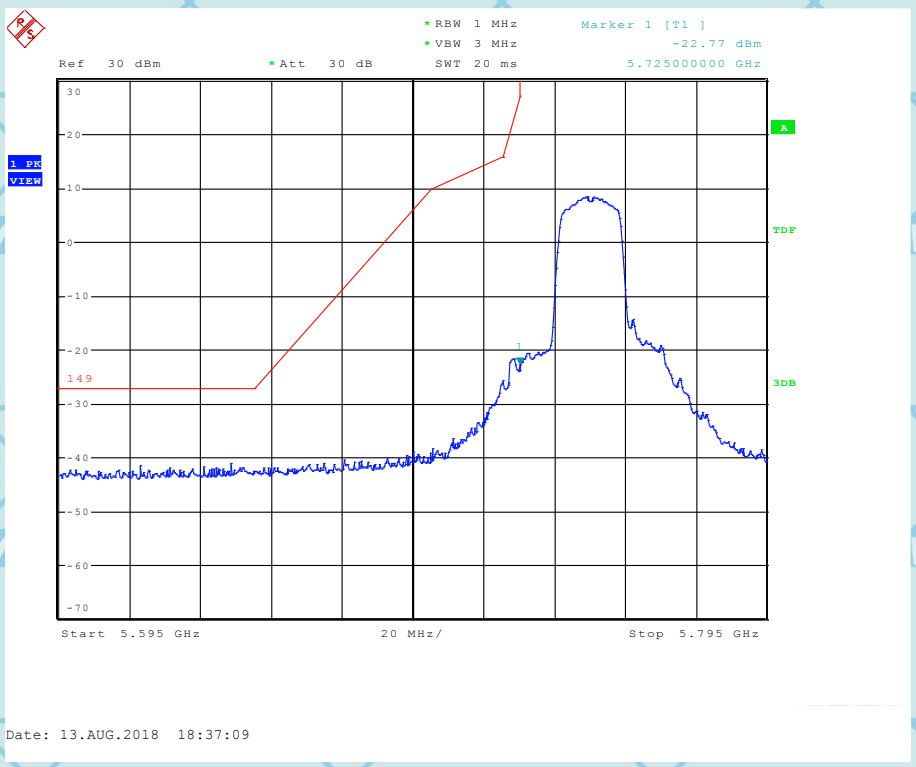
Channel 36 (5180MHz)



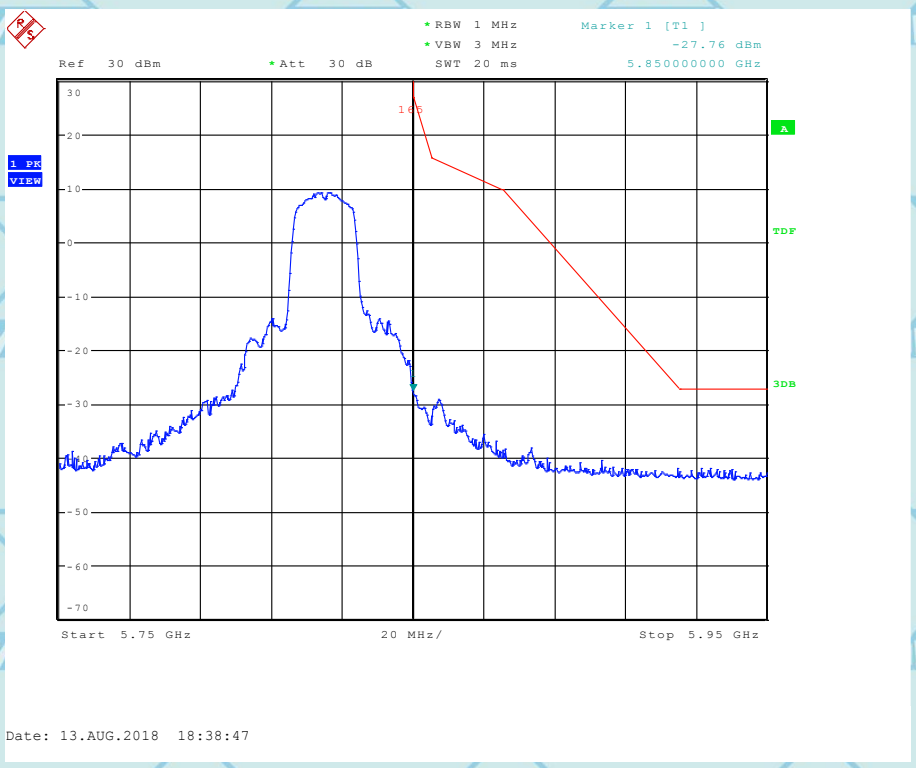
Channel 36 (5180MHz)



Channel 149 (5745MHz)

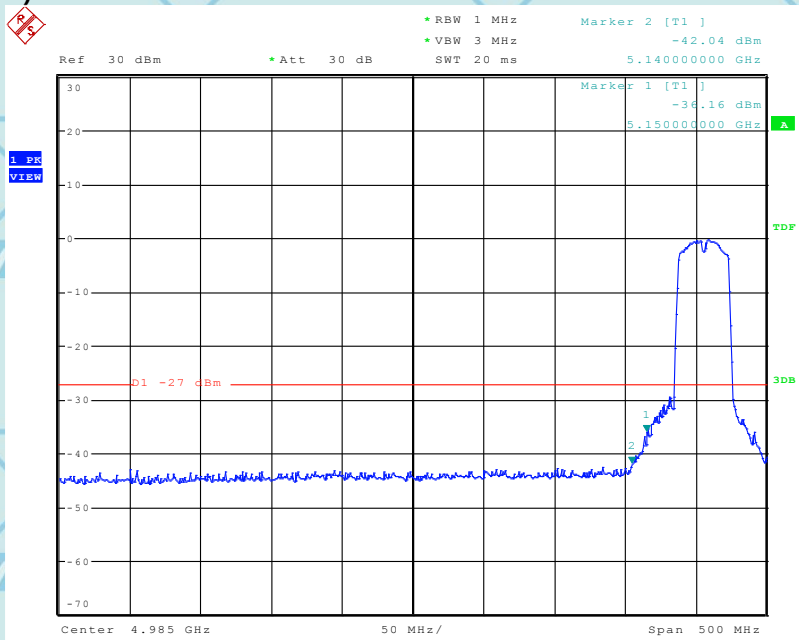


Channel 165 (5825MHz)



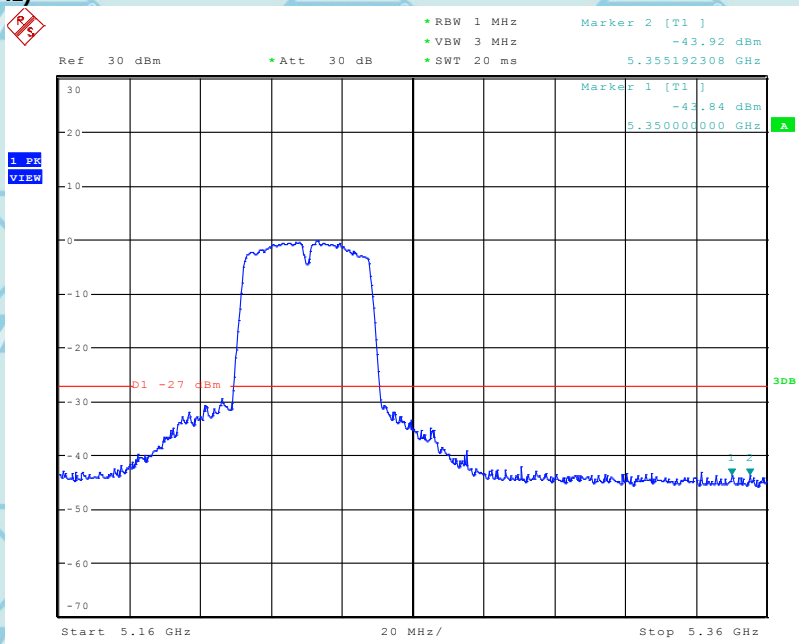
IEEE 802.11ac 40MHz

Channel 38 (5190MHz)



Date: 9.AUG.2018 16:56:06

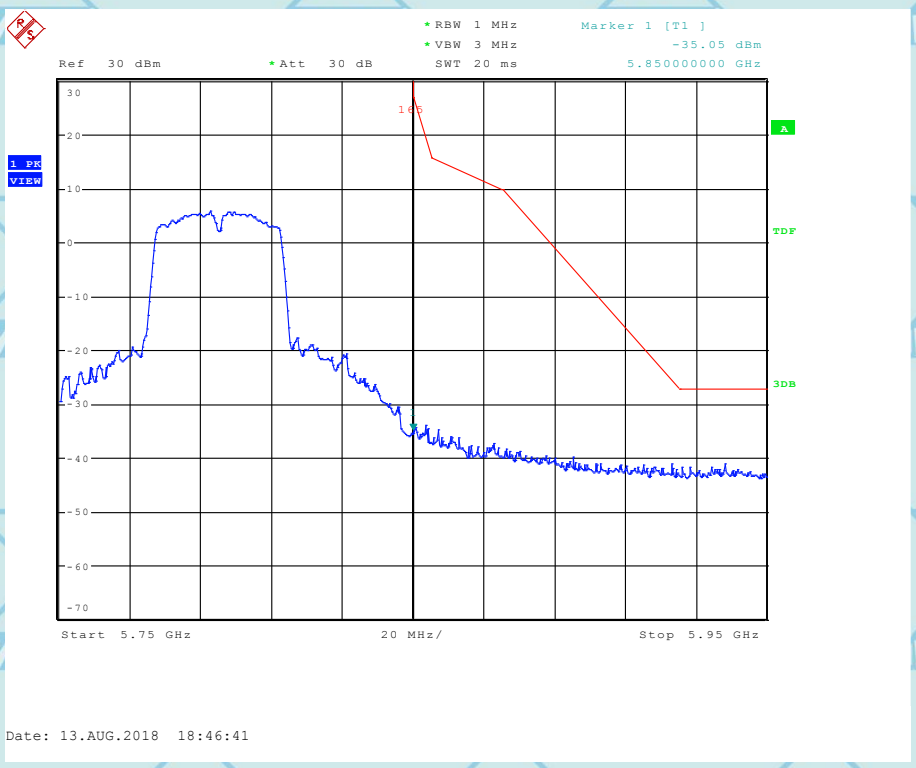
Channel 46 (5230MHz)



Date: 11.AUG.2018 16:20:13

Channel 151 (5755MHz)

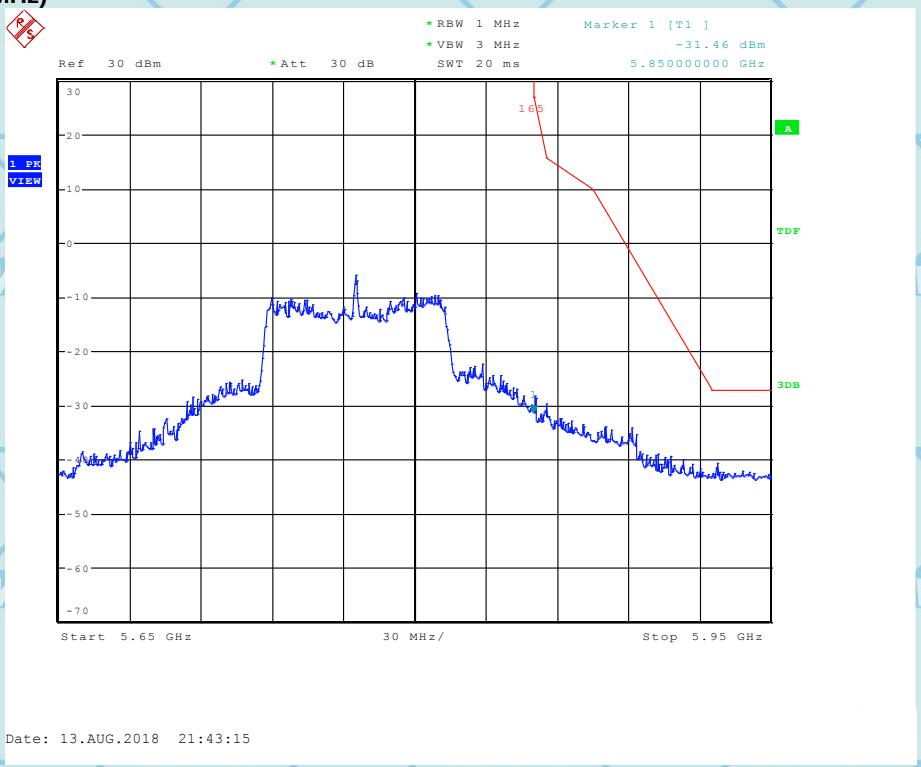
Channel 159 (5795MHz)



IEEE 802.11n 80MHz

Channel 42 (5210MHz)

Channel 155 (5775MHz)



12. IN RESTRICTED BAND

Test Requirement: FCC 47 CFR Part 15 Subpart E Section 15.407 (b)(1)(2)(3)(4)(6)
FCC 47 CFR Part 15 Subpart C Section 15.209/205

Test Method: KDB 789033 D02 v01r04 Section G.2

a) For all measurements, follow the requirements in II.G.3. “General Requirements for Unwanted Emissions Measurements.”

b) At frequencies below 1000 MHz, use the procedure described in II.G.4. “Procedure for Unwanted Emissions Measurements Below 1000 MHz.”

c) At frequencies above 1000 MHz, use the procedure for maximum emissions described in II.G.5., “Procedure for Unwanted Emissions Measurements Above 1000 MHz.”

(i) Sections 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of 27 dBm/MHz.3

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.4

d) If radiated measurements are performed, field strength is then converted to EIRP as follows:

(i) EIRP = ((E×d)^2) / 30 where:
E is the field strength in V/m;
d is the measurement distance in meters;
EIRP is the equivalent isotropically radiated power in watts.

(ii) Working in dB units, the above equation is equivalent to:
EIRP[dBm] = E[dBμ V/m] + 20 log (d[meters]) -104.77

(iii) Or, if d is 3 meters:
EIRP[dBm] = E[dBμ V/m] -95.2

§15.205 Restricted bands of operation.

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

Test result

802.11a
Band1:5180MHz

Indicated		result	Antenna	Correction Factor					
Frequency (MHz)	Receiver Reading (dBμV/m)	(PK/AV)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5150	29.72	AV	V	30.3	4.1	33.1	31.02	54	22.98
5150	30.48	AV	H	30.3	4.1	33.1	31.78	54	22.22
5150	39.44	PK	V	30.3	4.1	33.1	40.74	74	33.26
5150	40.74	PK	H	30.3	4.1	33.1	42.04	74	31.96
5050	30.75	AV	V	31	4.4	32.7	33.45	54	20.55
5050	30.30	AV	H	31	4.4	32.7	33.00	54	21.00
5050	41.65	PK	V	31	4.4	32.7	44.35	74	29.65
5050	41.15	PK	H	31	4.4	32.7	43.85	74	30.15

802.11n/H20
Band1:5180MHz

Indicated		result	Antenna	Correction Factor					
Frequency (MHz)	Receiver Reading (dBμV/m)	(PK/AV)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5150	31.08	AV	V	30.3	4.1	33.1	32.38	54	21.62
5150	29.59	AV	H	30.3	4.1	33.1	30.89	54	23.11
5150	41.93	PK	V	30.3	4.1	33.1	43.23	74	30.77
5150	40.61	PK	H	30.3	4.1	33.1	41.91	74	32.09
5050	29.56	AV	V	31	4.4	32.7	32.26	54	21.74
5050	30.60	AV	H	31	4.4	32.7	33.30	54	20.70
5050	41.79	PK	V	31	4.4	32.7	44.49	74	29.51
5050	40.83	PK	H	31	4.4	32.7	43.53	74	30.47

802.11ac/H20
Band1:5180MHz

Indicated		result (PK/AV)	Antenna Polar (H/V)	Correction Factor					
Frequency (MHz)	Receiver Reading (dBμV/m)			Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5150	34.50	AV	V	30.3	4.1	33.1	35.80	54	18.20
5150	33.46	AV	H	30.3	4.1	33.1	34.76	54	19.24
5150	51.01	PK	V	30.3	4.1	33.1	52.31	74	21.69
5150	49.97	PK	H	30.3	4.1	33.1	51.27	74	22.73
5050	30.98	AV	V	31	4.4	32.7	33.68	54	20.32
5050	31.62	AV	H	31	4.4	32.7	34.32	54	19.68
5050	42.05	PK	V	31	4.4	32.7	44.75	74	29.25
5050	41.69	PK	H	31	4.4	32.7	44.39	74	29.61

802.11n/H40
Band1:5190MHz

Indicated		result (PK/AV)	Antenna Polar (H/V)	Correction Factor					
Frequency (MHz)	Receiver Reading (dBμV/m)			Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5150	38.15	AV	V	30.3	4.1	33.1	39.45	54	14.55
5150	37.70	AV	H	30.3	4.1	33.1	39.00	54	15.00
5150	53.64	PK	V	30.3	4.1	33.1	54.94	74	19.06
5150	53.65	PK	H	30.3	4.1	33.1	54.95	74	19.05
5050	34.15	AV	V	31	4.4	32.7	36.85	54	17.15
5050	32.00	AV	H	31	4.4	32.7	34.70	54	19.30
5050	46.83	PK	V	31	4.4	32.7	49.53	74	24.47
5050	46.18	PK	H	31	4.4	32.7	48.88	74	25.12

802.11ac/H40
Band1:5190MHz

Indicated		result (PK/AV)	Antenna Polar (H/V)	Correction Factor					
Frequency (MHz)	Receiver Reading (dBμV/m)			Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5150	37.61	AV	V	30.3	4.1	33.1	38.91	54	15.09
5150	37.22	AV	H	30.3	4.1	33.1	38.52	54	15.48
5150	53.13	PK	V	30.3	4.1	33.1	54.43	74	19.57
5150	53.45	PK	H	30.3	4.1	33.1	54.75	74	19.25
5050	33.82	AV	V	31	4.4	32.7	36.52	54	17.48
5050	32.52	AV	H	31	4.4	32.7	35.22	54	18.78
5050	45.47	PK	V	31	4.4	32.7	48.17	74	25.83
5050	46.25	PK	H	31	4.4	32.7	48.95	74	25.05

802.11ac/H80
Band1:5210MHz

Indicated		result (PK/AV)	Antenna Polar (H/V)	Correction Factor					
Frequency (MHz)	Receiver Reading (dBμV/m)			Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5150	29.93	AV	V	30.3	4.1	33.1	31.23	54	22.77
5150	29.75	AV	H	30.3	4.1	33.1	31.05	54	22.95
5150	39.34	PK	V	30.3	4.1	33.1	40.64	74	33.36
5150	41.53	PK	H	30.3	4.1	33.1	42.83	74	31.17
5050	30.24	AV	V	31	4.4	32.7	32.94	54	21.06
5050	32.21	AV	H	31	4.4	32.7	34.91	54	19.09
5050	40.96	PK	V	31	4.4	32.7	43.66	74	30.34
5050	40.15	PK	H	31	4.4	32.7	42.85	74	31.15

Remark:
All emissions not reported were more than 20dB below the specified limit or in the noise floor.
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
And only worst case is presented in this report.

13. FREQUENCY STABILITY

Product:	Mobile phone	Test Mode:	Mode: IEEE 802.11a
Test Item:	Frequency Stability	Temperature:	25 ℃
Test Voltage:	DC 5V	Humidity:	56%RH
Test Result:	**PASS**		

Voltage vs. Frequency Stability

Voltage			Measurement Frequency (MHz)			
(V)	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
126.50	5179.9522	5199.9215	5239.9438	5744.9364	5784.9532	5824.9456
110.00	5179.9522	5199.9215	5239.9438	5744.9364	5784.9532	5824.9456
93.50	5179.9522	5199.9215	5239.9438	5744.9364	5784.9532	5824.9456
Max. Deviation (MHz)	-0.0478	-0.0785	-0.0562	-0.0636	-0.0468	-0.0544
Max. Deviation (ppm)	-9.23	-15.10	-10.73	-11.07	-8.09	-9.34

Temperature vs. Frequency Stability

Temperature			Measurement Frequency (MHz)			
(℃)	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
0	5179.9515	5199.9562	5239.9323	5744.9282	5784.9398	5824.9252
10	5179.9515	5199.9562	5239.9352	5744.9222	5784.9398	5824.9232
20	5179.951	5199.9562	5239.9322	5744.9272	5784.9398	5824.9412
30	5179.951	5199.9562	5239.9331	5744.9246	5784.9398	5824.9642
40	5179.9525	5199.9562	5239.9311	5744.9235	5784.9398	5824.9362
Max. Deviation (MHz)	-0.0475	-0.0438	-0.0648	-0.0718	-0.0602	-0.0358
Max. Deviation (ppm)	-9.17	-8.42	-12.37	-12.50	-10.41	-6.15

Product:	Mobile phone	Test Mode:	Mode: IEEE 802.11n 20MHz
Test Item:	Frequency Stability	Temperature:	25 ℃
Test Voltage:	DC 5V	Humidity:	56%RH
Test Result:	**PASS**		

Voltage vs. Frequency Stability

Voltage			Measurement Frequency (MHz)			
(V)	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
126.50	5179.9641	5199.9423	5239.9454	5744.9343	5784.9462	5824.9388
110.00	5179.9641	5199.9423	5239.9454	5744.9343	5784.9462	5824.9456
93.50	5179.9641	5199.9423	5239.9454	5744.9343	5784.9462	5824.9456
Max. Deviation (MHz)	-0.0359	-0.0577	-0.0546	-0.0657	-0.0538	-0.0544
Max. Deviation (ppm)	-6.93	-11.10	-10.42	-11.44	-9.30	-9.34

Temperature vs. Frequency Stability

Temperature			Measurement Frequency (MHz)			
(℃)	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
0	5179.9523	5199.9425	5239.9343	5744.9289	5784.9425	5824.9552
10	5179.9523	5199.9425	5239.9343	5744.9289	5784.9425	5824.9552
20	5179.9523	5199.9425	5239.9343	5744.9289	5784.9425	5824.9552
30	5179.9523	5199.9425	5239.9343	5744.9289	5784.9425	5824.9552
40	5179.9523	5199.9425	5239.9343	5744.9289	5784.9425	5824.9552
Max. Deviation (MHz)	0.0482	-0.0575	0.0782	0.0788	-0.0575	0.0748
Max. Deviation (ppm)	9.31	-11.06	14.92	13.72	-9.94	12.84

Product:	Mobile phone	Test Mode:	Mode: IEEE 802.11n 40MHz
Test Item:	Frequency Stability	Temperature:	25 ℃
Test Voltage:	DC 5V	Humidity:	56%RH
Test Result:	**PASS**		

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz	5230 MHz	5755 MHz	5795 MHz
126.50	5189.9652	5229.9592	5754.9391	5794.9422
110.00	5189.9652	5229.9592	5754.9391	5794.9422
93.50	5189.9652	5229.9592	5754.9391	5794.9422
Max. Deviation (MHz)	-0.0348	-0.0408	-0.0609	-0.0578
Max. Deviation (ppm)	-6.71	-7.80	-10.58	-9.97

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz	5230 MHz	5755 MHz	5795 MHz
0	5189.9381	5229.9364	5754.9364	5794.9413
10	5189.9381	5229.9364	5754.9364	5794.9413
20	5189.9381	5229.9364	5754.9364	5794.9413
30	5189.9381	5229.9364	5754.9364	5794.9413
40	5189.9381	5229.9364	5754.9364	5794.9413
Max. Deviation (MHz)	-0.0619	-0.0636	-0.0636	-0.0587
Max. Deviation (ppm)	-11.93	-12.16	-11.05	-10.13

Product:	Mobile phone	Test Mode:	Mode: IEEE 802.11ac 20MHz
Test Item:	Frequency Stability	Temperature:	25 ℃
Test Voltage:	DC 5V	Humidity:	56%RH
Test Result:	**PASS**		

Voltage vs. Frequency Stability

Voltage			Measurement Frequency (MHz)			
(V)	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
126.50	5179.9556	5199.9305	5239.9236	5744.9228	5784.9289	5824.9244
110.00	5179.9556	5199.9305	5239.9236	5744.9228	5784.9289	5824.9242
93.50	5179.9554	5199.9305	5239.9234	5744.9230	5784.9289	5824.9242
Max. Deviation (MHz)	0.0446	-0.0695	0.0766	0.0770	-0.0711	0.0758
Max. Deviation (ppm)	8.61	-13.37	14.62	13.40	-12.29	13.01

Temperature vs. Frequency Stability

Temperature			Measurement Frequency (MHz)			
(℃)	5180 MHz	5200 MHz	5240 MHz	5745 MHz	5785 MHz	5825 MHz
0	5179.9536	5199.9263	5239.9248	5744.9224	5784.9132	5824.9234
10	5179.9536	5199.9263	5239.9244	5744.9224	5784.9132	5824.9234
20	5179.9535	5199.9263	5239.9246	5744.9224	5784.9132	5824.9236
30	5179.9534	5199.9263	5239.9246	5744.9222	5784.9132	5824.9236
40	5179.9534	5199.9263	5239.9244	5744.9222	5784.9132	5824.9234
Max. Deviation (MHz)	0.0466	-0.0737	0.0756	0.0776	-0.0868	0.0766
Max. Deviation (ppm)	9.00	-14.17	14.43	13.51	-15.00	13.15

Product:	Mobile phone	Test Mode:	Mode: IEEE 802.11ac 40MHz
Test Item:	Frequency Stability	Temperature:	25 ℃
Test Voltage:	DC 5V	Humidity:	56%RH
Test Result:	**PASS**		

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)			
(V)	5190 MHz	5230 MHz	5755 MHz	5795 MHz
126.50	5189.9633	5229.9422	5754.9421	5794.9358
110.00	5189.9633	5229.9422	5754.9421	5794.9358
93.50	5189.9633	5229.9422	5754.9421	5794.9358
Max. Deviation (MHz)	-0.0367	-0.0578	-0.0579	-0.0642
Max. Deviation (ppm)	-7.07	-11.05	-10.06	-11.08

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)			
(℃)	5190 MHz	5230 MHz	5755 MHz	5795 MHz
0	5189.9355	5229.9414	5754.9456	5794.9642
10	5189.9355	5229.9414	5754.9456	5794.9642
20	5189.9355	5229.9414	5754.9456	5794.9642
30	5189.9355	5229.9414	5754.9456	5794.9642
40	5189.9355	5229.9414	5754.9456	5794.9642
Max. Deviation (MHz)	-0.0645	-0.0586	-0.0544	-0.0358
Max. Deviation (ppm)	-12.43	-11.20	-9.45	-6.18

Product:	Mobile phone	Test Mode:	Mode: IEEE 802.11ac 80MHz
Test Item:	Frequency Stability	Temperature:	25 ℃
Test Voltage:	DC 5V	Humidity:	56%RH
Test Result:	**PASS**		

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)					
(V)	5210 MHz		5775 MHz			
126.50	5209.9226		5774.9202			
110.00	5209.9222		5774.9204			
93.50	5209.9222		5774.9202			
Max. Deviation (MHz)	0.0778		0.0798			
Max. Deviation (ppm)	14.93		13.82			

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)					
(℃)	5210 MHz		5775 MHz			
0	5209.9314		5774.9166			
10	5209.9314		5774.9166			
20	5209.9312		5774.9164			
30	5209.9312		5774.9164			
40	5209.9312		5774.9164			
Max. Deviation (MHz)	0.0688		0.0836			
Max. Deviation (ppm)	13.21		14.48			

---END OF REPORT---