

FCC 47 CFR PART 15 SUBPART E INDUSTRY CANADA RSS-247 ISSUE 2 February 2017

CERTIFICATION TEST REPORT

For

Product: Video Conferencing Endpoint

MODEL No.: VC200

FCC ID: T2C-VC200

IC: 10741A-VC200

Trade Mark: Yealink

REPORT NO.: ES180426021W01

ISSUE DATE: May 11, 2018

Prepared for

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Prepared by

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1 TEST RESULT CERTIFICATION

Applicant:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO.,LTD. 309, 3th Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
Manufacturer:	YEALINK(XIAMEN) NETWORK TECHNOLOGY CO., LTD. 309, 3th Floor, No.16, Yun Ding North Road, Huli District, Xiamen City, Fujian, P.R. China
Product Description:	Video Conferencing Endpoint
Model Number:	VC200
Trade Mark:	Yealink
File Number:	ES180426021W01

Measurement Procedure Used:

APPLICABLE STANDARDS					
STANDARD TEST RESULT					
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart E IC RSS-GEN, Issue 4, Nov 2014 IC RSS-247 Issue 2 February 2017	PASS				

The above equipment was tested by EMTEK(SHENZHEN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 2, Part 15.247, IC RSS-247 Issue 2 and IC RSS-GEN, Issue 4

The test results of this report relate only to the tested sample identified in this report

Date of Test :	March 15, 2018 to May 07, 2018
Prepared by:	Yaping Shen
	Yaping Shen/Editor
Reviewer:	Scur Ci ut SHENZHEN 8
	Sevin Li /Supervisor
	RSTING*
Approve & Authorized Signer :	Lisa Wang/Manager



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2 EUT TECHNICAL DESCRIPTION

Characteristics	Description						
IEEE 802.11 WLAN Mode Supported	 802.11a(20MHz channel bandwidth) 802.11n(20MHz channel bandwidth) 802.11n(40MHz channel bandwidth) 802.11ac(20MHz channel bandwidth) 802.11ac(40MHz channel bandwidth) 802.11ac(80MHz channel bandwidth) 						
Data Rate	802.11n(HT2 802.11n(HT4 802.11ac(HT	802.11 a:6,9,12,18,24,36,48,54Mbps; 802.11n(HT20)/ac(HT20): MCS0-MCS7; 802.11n(HT40): MCS0-MCS7; 802.11ac(HT40):MCS0-MCS9; 802.11ac(VHT80):MCS0-MCS9;					
Modulation		BPSK/QPSK/16QAM/64QAM f BPSK/QPSK/16QAM/64QAM/2					
	WIFI 5G Band	Mode	Frequency Range(MHz)	Number of channels			
		802.11a/n(HT20)/ac(VHT20)	5180-5240	4			
Operating Frequency	UNII Band I	802.11n(HT40)/ac(VHT40)	5190-5230	2			
Range		802.11 ac(VHT80)	5210	1			
		802.11a/n(HT20)/ac(VHT20)	5745-5825	5			
	UNII Band III	802.11n(HT40)/ac(VHT40)	5755-5795	2			
		802.11 ac(VHT80)	5775	1			
Transmit Power Max		or UNII Band I or UNII Band III					
Antenna Type	PCB antenna	a					
Smart system	⊠siso						
Antenna Gain	3.42 dBi						
Power supply	S.42 ubi ☑DC 54V from POE POE Rating: Model: YLPOE30 Input: 100-240~ 50/60Hz 1.0A Output: DC 54V 0.56A						

Note: for more details, please refer to the User's manual of the EUT.



3 SUMMARY OF TEST RESULT

FCC Part Clause	Test Parameter	Verdict	Remark			
15.407 (a) 15.407 (e) RSS-247§6.2 RSS-Gen	99% , 6dB and 26dB Bandwidth	PASS				
15.407 (a) RSS-247§6.2	Maximum Conducted Output Power	PASS				
15.407 (a) RSS-247§6.2	Peak Power Spectral Density	PASS				
5.205, 15.209, 15.407 (b), RSS-Gen, RSS-247§6.2	Radiated Spurious Emission	PASS				
15.407(g)	Frequency Stability	PASS				
15.407 (b)(6) 15.207 RSS-Gen [8.8]	Power Line Conducted Emission	PASS				
15.407(a) 15.203 Antenna Application PASS						
NOTE1: N/A (Not Applicable) NOTE2: According to FCC OET KDB 789033 D2 General UNII Test Procedures New Rules v01r02, In addition, the radiated test is also performed to ensure the emissions emanating from the device cabinet also comply with the applicable limits.						

RELATED SUBMITTAL(S) / GRANT(S):

This submittal(s) (test report) is intended for FCC ID: T2C-VC200 filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

This submittal(s) (test report) is intended for IC: 10741A-VC200 filing to comply with IC RSS-247 Issue 2 and IC RSS-GEN, Issue 4



4 TEST METHODOLOGY

4.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to its specifications, the EUT must comply with the requirements of the following standards: FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart E FCC KDB 789033 D2 General UNII Test Procedures New Rules v01r04 FCC KDB 662911 D01 Multiple Transmitter Output v02r01 FCC KDB 662911 D02 MIMO With Cross Polarized Antenna V01 IC RSS-Gen, ISSUE 4 IC RSS-247, ISSUE 2 February 2017

4.2 MEASUREMENT EQUIPMENT USED

4.2.1 Conducted Emission Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	DUE CAL.
Test Receiver	Rohde & Schwarz	ESCI	26115-010-0027	May 20, 2017	May 19, 2018
L.I.S.N.	Rohde & Schwarz	ENV216	101161	May 20, 2017	May 19, 2018
50Ω Coaxial Switch	Anritsu	MP59B	6100175589	May 21, 2017	May 20, 2018
Voltage Probe	Rohde & Schwarz	ESH2-Z3	100122	May 21, 2017	May 20, 2018
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	May 20, 2017	May 19, 2018
I.S.N	Teseq GmbH	ISN T800	30327	May 21, 2017	May 20, 2018

4.2.2 Radiated Emission Test Equipment

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	DUE CAL.
EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	May 21, 2017	May 20, 2018
Pre-Amplifier	HP	8447F	2944A07999	May 20, 2017	May 19, 2018
Bilog Antenna	Schwarzbeck	VULB9163	142	May 20, 2017	May 19, 2018
Loop Antenna	ARA	PLA-1030/B	1029	May 20, 2017	May 19, 2018
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170399	May 21, 2017	May 20, 2018
Horn Antenna	Schwarzbeck	BBHA 9120	D143	May 20, 2017	May 19, 2018
Cable	Schwarzbeck	AK9513	ACRX1	May 21, 2017	May 20, 2018
Cable	Rosenberger	N/A	FP2RX2	May 21, 2017	May 20, 2018
Cable	Schwarzbeck	AK9513	CRPX1	May 21, 2017	May 20, 2018
Cable	Schwarzbeck	AK9513	CRRX2	May 21, 2017	May 20, 2018

4.2.3 Radio Frequency Test Equipment

EQUIPMENT	MFR	MODEL	SERIAL	LAST CAL.	DUE CAL.
TYPE		NUMBER	NUMBER	LAST CAL.	
Spectrum Analyzer	Agilent	E4407B	88156318	May 21, 2017	May 20, 2018
Signal Analyzer	Agilent	N9010A	My53470879	May 21, 2017	May 20, 2018
Power Meter	Anritsu	ML2495A	0824006	May 21, 2017	May 20, 2018
Power sensor	Anritsu	MA2411B	0738172	May 21, 2017	May 20, 2018

Remark: Each piece of equipment is scheduled for calibration once a year.



4.3 DESCRIPTION OF TEST MODES

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (⊠802.11a: 6 Mbps; ⊠802.11n (HT20): MCS0; ⊠802.11n (HT20): MCS7; ⊠802.11n (HT40): MCS0; ⊠802.11n (HT40): MCS7; ⊠802.11ac (HT20): MCS0; ⊠802.11ac (HT20): MCS7; ⊠ 802.11ac (HT40): MCS0; ⊠802.11ac (HT40): MCS9; ⊠802.11ac (HT80): MCS0; ⊠802.11ac (HT80): MCS9;) were used for all test.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.



Wifi 5G with UNII Band I

Ch	nannel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
	36	5180	44	5220		
	40	5200	48	5240		

Frequency and Channel list for 802.11n(HT40)/ac(VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190				
46	5230				

Frequency and Channel list for 802.11ac(VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210				

Test Frequency and Channel for 802.11a/n(HT20)/ac(VHT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	48	5240

Test Frequency and channel for 802.11n(VHT40)/ac(VHT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	N/A	N/A	46	5230

Test Frequency and channel for 802.11ac(HT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	N/A	N/A	N/A	N/A



☑ Wifi 5G with UNII Band III

Frequency and Channel list for 802.11a/n(HT20)/ac(VHT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825
153	5765	161	5805		

Frequency and Channel list for 802.11n(HT40)/ac(VHT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755				
159	5795				

Frequency and Channel list for 802.11ac(VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775				

Test Frequency and Channel for 802.11a/n(HT20)/ac(VHT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785	165	5825

Test Frequency and channel for 802.11n(HT40)/ac(VHT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	N/A	N/A	159	5795

Test Frequency and channel for 802.11ac(VHT80):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
155	5775				



5 FACILITIES AND ACCREDITATIONS 5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

Bldg 69, Majialong Industry Zone District, Nanshan District, Shenzhen, China The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

5.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description	
EMC Lab.	 Accredited by CNAS,2016.10.24 The certificate is valid until 2022.10.28 The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005) The Certificate Registration Number is L2291.
	Accredited by TUV Rheinland Shenzhen 2016.5.19 The Laboratory has been assessed according to the requirements ISO/IEC 17025.
	Accredited by FCC, August 03, 2017 Designation Number: CN1204 Test Firm Registration Number: 882943 Accredited by A2LA, July 31, 2017 The Certificate Registration Number is 4321.01.
	Accredited by Industry Canada, November 29, 2012 The Certificate Registration Number is 4480A.
Name of Firm Site Location	 EMTEK(SHENZHEN) CO., LTD. Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China



6 TEST SYSTEM UNCERTAINTY

The following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Radio Frequency	±1x10^-5
Maximum Peak Output Power Test	±1.0dB
Conducted Emissions Test	±2.0dB
Radiated Emission Test	±2.0dB
Power Density	±2.0dB
Occupied Bandwidth Test	±1.0dB
Band Edge Test	±3dB
All emission, radiated	±3dB
Antenna Port Emission	±3dB
Temperature	±0.5°C
Humidity	±3%

Measurement Uncertainty for a level of Confidence of 95%



7 SETUP OF EQUIPMENT UNDER TEST

7.1 RADIO FREQUENCY TEST SETUP

The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



7.2 RADIO FREQUENCY TEST SETUP

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10. The test distance is 3m.The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

Below 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna (loop antenna). The Antenna should be positioned with its plane vertical at the specified distance from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. The center of the loop shall be 1 m above the ground. For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT.

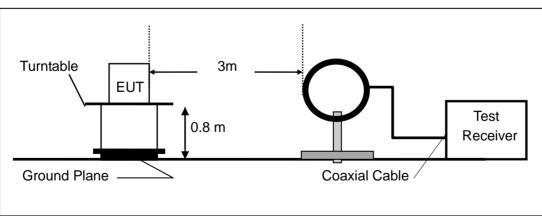
Above 30MHz:

The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

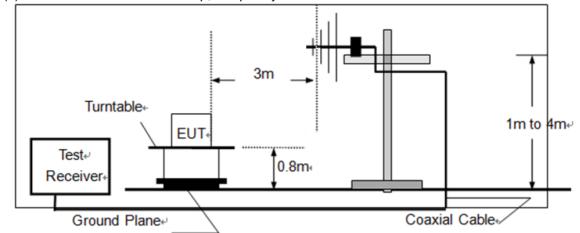
Above 1GHz:

(Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).

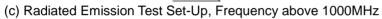
(a) Radiated Emission Test Set-Up, Frequency Below 30MHz

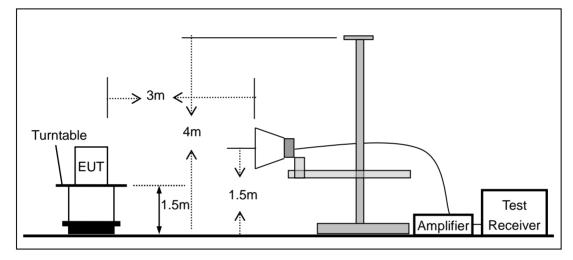






(b) Radiated Emission Test Set-Up, Frequency Below 1000MHz





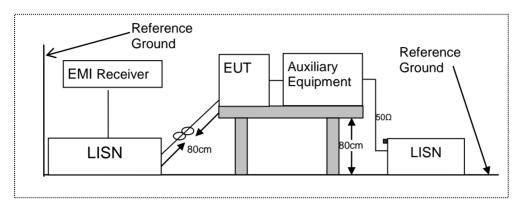


7.3 CONDUCTED EMISSION TEST SETUP

The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

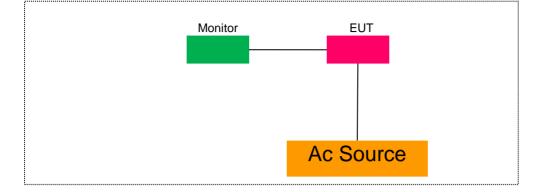
Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.





7.4 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



7.5 SUPPORT EQUIPMENT

Item	Equipment	Mfr/Brand	Model/Type No.	Series No	Note
1.	LCD Monitor	Lenovo	9227-AE6	4M0293084302824	N/A

Notes:

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

^{1.} All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.



8 TEST REQUIREMENTS

8.1 BANDWIDTH MEASUREMENT

8.1.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C According to FCC Part 15.407(a)(3) for UNII Band III According to FCC Part 15.407(e) for UNII Band III According to 789033 D02 Section II(C) According to 789033 D02 Section II(D)

8.1.2 Conformance Limit

No limit requirement. The minimum 6 dB emission bandwidth of at least 500 KHz for the UNII Band III.

8.1.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.1.4 Test Procedure

Connect the antenna port(s) to the spectrum analyzer input. Using the spectrum analyzer Channel Bandwidth mode, configure the spectrum analyzer as shown below

The following procedure shall be used for measuring (26 dB) power bandwidth:

Center Frequency: test Frequency

Set RBW = approximately 1% of the emission bandwidth.

Set the VBW > RBW.

Detector = Peak.

Trace mode = max hold.

X dB Bandwidth: 26 dB

Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.

Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

■ Minimum Emission Bandwidth for the UNII Band III

Center Frequency: test Frequency

Set RBW = 100 kHz

Set VBW \geq 3 \cdot RBW

Detector = Peak

Trace mode = max hold

Sweep = auto couple

X dB Bandwidth: 6 dB

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

■ The following procedure shall be used for measuring (99 %) power bandwidth:

Set center frequency to the nominal EUT channel center frequency.

Set span = 1.5 times to 5.0 times the OBW.

Set RBW = 1% to 5% of the OBW

Set VBW \geq 3 \cdot RBW

Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

Use the 99 % power bandwidth function of the instrument (if available).

If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.



8.1.5 Test Results

Temperature Humidity :	e: 28°C 65 %		☑ 802.11 Test Dat Test By:	:e :	March 2 King Ko	27, 2018 ong		
Band	Channel	Channel	26dB	EBW	99%	OBW	Limit	Vardiat
	Number	Freq. (MHz)	Ant0	Ant1	Ant0	Ant1	(MHz)	Verdict
	CH36	5180	22.178		16.384		N/A	N/A
UNII Band I	CH40	5200	21.339		16.384		N/A	N/A
Danu i	CH48	5240	20.899		16.384		N/A	N/A
UNII	CH149	5745	20.939		16.384		N/A	N/A
Band III	CH157	5785	20.819		16.384		N/A	N/A
Danu III	CH165	5825	21.019		16.384		N/A	N/A
N/A (Not Ap	e: 28°C		802.11n(H Test Dat	e :	March 2	27, 2018		
Humidity :	65 %		Test By:		King Ko	ong		
Band	Channel	Channel	26dB	EBW	99%	OBW	Limit	Vardiat
	Number	Freq. (MHz)	Ant0	Ant1	Ant0	Ant1	(MHz)	Verdict
UNII	CH36	5180	21.698		17.463		N/A	N/A
Band I	CH40	5200	22.338		17.423		N/A	N/A
Danu I	CH48	5240	22.018		17.463		N/A	N/A
UNII	CH149	5745	22.098		17.463		N/A	N/A
Band III	CH157	5785	21.339		17.463		N/A	N/A
Danu III	CH165	5825	21.179		17.463		N/A	N/A
Note: N/A (Not Ap	plicable)							

Temperature Humidity :	: 28°C 65 %		Test Dat Test By:	e:		27, 2018 ong		
Band	Channel Number	Channel Freg. (MHz)	26dB Ant0	EBW Ant1	99% Ant0	OBW Ant1	Limit (MHz)	Verdict
	CH36	5180	21.459		17.502		N/A	N/A
UNII	CH40	5200	21.299		17.463		N/A	N/A
Band I	CH48	5240	21.658		17.463		N/A	N/A
	CH149	5745	21.059		17.463		N/A	N/A
UNII Band III	CH157	5785	21.179		17.423		N/A	N/A
Dariu III	CH165	5825	21.459		17.502		N/A	N/A
Note: N/A (Not Ap	plicable)							



			802.11n(⊢	IT40) mod	le			
Temperature	: 28°C		Test Dat	:e :		27, 2018		
Humidity :	65 %		Test By:		King Ko	ong		
Band	Channel	Channel	26dB	EBW	99%	OBW	Limit	Vordiot
	Number	Freq. (MHz)	Ant0	Ant1	Ant0	Ant1	(MHz)	Verdict
UNII	CH38	5190	43.138		35.884		N/A	N/A
Band I	CH46	5230	42.517	-	35.884		N/A	N/A
UNII	CH151	5755	42.198	-	35.884		N/A	N/A
Band III	CH159	5795	41.239		35.884		N/A	N/A
Note:								
N/A (Not Ap	plicable)							

Temperature Humidity :	: 28°C 65 %	8 🛛	⊠ 802.11ac(VHT40) mode Test Date : March 27, 2018 Test By: King Kong						
Band	Channel	Channel	26dB	EBW	99%	OBW	Limit	Verdict	
	Number	Freq. (MHz)	Ant0	Ant1	Ant0	Ant1	(MHz)	verdict	
UNII	CH38	5190	43.716		35.804		N/A	N/A	
Band I	CH46	5230	41.479		35.804		N/A	N/A	
UNII	CH151	5755	41.798		35.804		N/A	N/A	
Band III	CH159	5795	41.638		35.804		N/A	N/A	
Note: N/A (Not Ap	plicable)								

Temperature Humidity :	: 28°C 65 %	8 🛛	02.11ac(V Test Dat Test By:	te:		27, 2018 ong		
Band	Channel	Channel		EBW	99%		Limit	Verdict
	Number	Freq. (MHz)	Ant0	Ant1	Ant0	Ant1	(MHz)	
UNII Band I	CH42	5210	85.990		75.125		N/A	N/A
UNII Band III	CH155	5775	85.830		75.125		N/A	N/A
Note: N/A (Not Ap	plicable)							



Temperature Humidity :	: 28°C 65 %		UNII Band III Test Date : Test By:	March 27, 2018 King Kong		
Operation Channel		Channel	6dB	EBW	Limit	Verdict
Mode	Number	Freq. (MHz)	Ant0	Ant1	(kHz)	verdict
	CH149	5745	15.504		500	PASS
802.11a	CH157	5785	15.744		500	PASS
	CH165	5825	15.624		500	PASS
802.11n	CH149	5745	15.145		500	PASS
(VHT20)	CH157	5785	15.145		500	PASS
(11120)	CH165	5825	15.425		500	PASS
802.11ac	CH149	5745	15.145		500	PASS
(VHT20)	CH157	5785	14.345		500	PASS
(11120)	CH165	5825	15.664		500	PASS
802.11n	CH151	5755	35.085		500	PASS
(VHT40)	CH159	5795	35.085		500	PASS
802.11ac	CH151	5755	35.085		500	PASS
(VHT40)	CH159	5795	35.105		500	PASS
802.11ac (VHT80)	CH155	5775	75.120		500	PASS
Note: N/A (Not Ap	plicable)					



av	width&99% Occ 802.11a	cupieu bandw		JNII Band I hcy(MHz)		5180
	002.11a		riequer			5160
	Spectrum					
	Ref Level 30.00 df	Bm Offset 14.00 dB	RBW 300 kHz			(
	Att 35		• VBW 1 MHz	Mode Sweep		
	1Pk Max			D3[1]		0.34 d
	20 dBm					22.1780 MH
	10 dBm			Occ Bw M1[1]		16.383616384 MH 4.07 dBr
	0 dBm	Thomas	mumm		<u>~</u> †2	5.1821580 GH
					7	
	-10 dBm	M2 J				
	-20 dBm-D1 -21.93	30 dBm			White D3	
	r30.dBrbm manuel	10°°				- white and white
	-40 dBm					
	-50 dBm					
	-60 dBm					
	-oo ubiii					
	CF 5.18 GHz		1001 pts	;		Span 40.0 MHz
	Marker 	X-value	Y-value	Function	Fund	tion Result
	M1 1 T1 1	5.182158 GHz 5.1718482 GHz	4.07 dBm -3.25 dBm	Occ Bw		16.383616384 MHz
	T2 1	5.1882318 GHz	-3.69 dBm			
	T2 1 M2 1	5.1882318 GHz 5.169091 GHz	-3.69 dBm -22.15 dBm) Measuring		27.03.2018 13:17:34
	T2 1 M2 1	5.1882318 GHz 5.169091 GHz 22.178 MHz	-3.69 dBm -22.15 dBm		••••••	27.03.2018 13:17:34
dv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34	-3.69 dBm -22.15 dBm 0.34 dB	Measuring		27.03.2018 13:17:34
dv	T2 1 M2 1 D3 M2 1 Date: 27.MAR 2018 13:1 width&99% Occ	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34	-3.69 dBm -22.15 dBm 0.34 dB	Measuring		13:17:34
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34	-3.69 dBm -22.15 dBm 0.34 dB	Measuring		27.03.2018 13:17:34 5200
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR 2018 13:1 width&99% Occ	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34	-3.69 dBm -22.15 dBm 0.34 dB	Measuring		13:17:34
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34	-3.69 dBm -22.15 dBm 0.34 dB	Measuring		5200
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring INII Band I Incy(MHz)		13:17:34
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df Att 35	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB	Measuring		5200
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring INII Band I Incy(MHz)		5200 0.35 d
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df Att 35	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep		5200
ndv	T2 1 M2 1 D3 M2 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 di Att 35 IPk Max	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring INII Band I Incy(MHz) Mode Sweep		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df Att 35 1Pk Max 20 dBm	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH
ndv	T2 1 M2 1 D3 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 db Att 35 1Pk Max 10 dBm 10 dBm 10 dBm	5,1882318 GHz 5,169091 GHz 22,178 MHz 7:34 Cupied Bandw	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
ndv	T2 1 M2 1 D3 M2 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df Att 35 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -10 dBm	5.1892318 GHz 5.169091 GHz 22.178 MHz 7:34 cupied Bandw Bm Offset 14.00 dB dB SWT 1 ms	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
ndv	T2 1 M2 1 D3 M2 Date: 27.MAR.2018 13.1 width&99% Occ 802.11a Spectrum Ref Level 30.00 dl Att 35 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -21 dBm	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34 cupied Bandw Bm Offset 14.00 dB 8 SWT 1 ms	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
ndv	T2 1 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df Att 35 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm D1 -21.22 r30.dBm 20.40m	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34 cupied Bandw Bm Offset 14.00 dB 8 SWT 1 ms	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
ndv	T2 1 M2 1 D3 M2 Date: 27.MAR.2018 13.1 width&99% Occ 802.11a Spectrum Ref Level 30.00 dl Att 35 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -21 dBm	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34 cupied Bandw Bm Offset 14.00 dB 8 SWT 1 ms	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
ıdv	T2 1 M2 1 Date: 27.MAR.2018 13:1 width&99% Occ 802.11a Spectrum Ref Level 30.00 df Att 35 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm D1 -21.22 r30.dBm 20.40m	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34 cupied Bandw Bm Offset 14.00 dB 8 SWT 1 ms	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr
	T2 1 M2 1 D3 M2 Date: 27.MAR.2018 13:1 width&99% Occe 802.11a Spectrum Ref Level 30.00 df Att 35 IPk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -10 dBm -40 dBm	5.1882318 GHz 5.169091 GHz 22.178 MHz 7:34 cupied Bandw Bm Offset 14.00 dB 8 SWT 1 ms	-3.69 dBm -22.15 dBm 0.34 dB idth L Frequer	Measuring JNII Band I ncy(MHz) Mode Sweep D3[1] Occ Bw		0.35 d 21.3390 MH 16.383616384 MH 4.77 dBr

1001 pts

Function

Occ Bw

Measuring...

Y-value 4.77 dBm -2.19 dBm -3.40 dBm -22.06 dBm 0.35 dB

Date: 27.MAR.2018 13:18:51

X-value 5.201558 GHz 5.1918482 GHz 5.2082318 GHz 5.189371 GHz 21.339 MHz

CF 5.2 GHz

 Marker

 Type
 Ref
 Trc

 M1
 1
 1

 T1
 1
 1

 T2
 1
 1

 M2
 1
 1

 D3
 M2
 1

Marker

Span 40.0 MHz

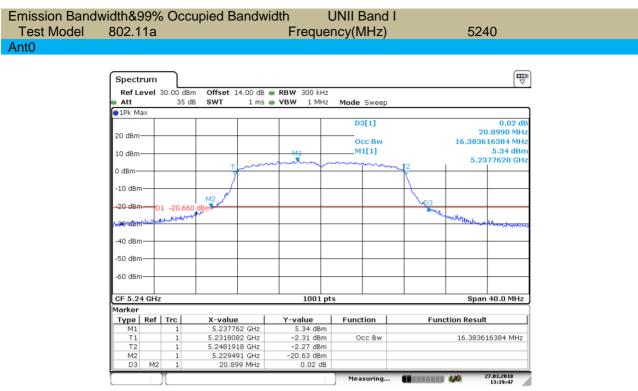
16.383616384 MHz

27.03.2018 13:18:51

Function Result

••••••





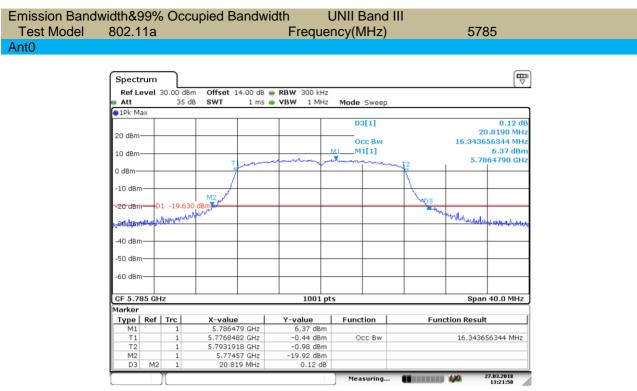
Date: 27.MAR.2018 13:19:47

Emission Band	width&99% O	cupied Bandwidth UNII Band III		
Test Model	802.11a	Frequency(MHz)	5745	
Ant0				

Ref L	evel :	30.00 dE	3m Offset 14.00	dB 🔵 R	BW 300 kHz					
Att		35	dB SWT 1	ms 🕳 V	BW 1 MHz	Mode	Sweep			
1Pk M	ax									
						D	3[1]			0.20 d
20 dBm										0.9390 MH
							cc Bw		16.3836	16384 MH
10 dBm	_				M1	M	1[1]			6.96 dB
			T.	m	many	and a stand and a stand of the	m		5.74	F27220 GF
0 dBm–			1 X					Ť		
-10 dBn								1		
-10 080	'		M2 🖉					202		
-20 dBn		1 -19.04	10 dBm					V~,D3		
		. Hunder	M2 m ⁴						and with the server	
30 dBn	10-4-									- wardense
-40 dBn										
-50 dBn	n									
-60 dBn	n									
CF 5.7	45 GH	z			1001 p	ts			Spar	40.0 MH
1arker										
Type	Ref	Trc	X-value	1	Y-value	Func	tion	Fun	ction Resul	t
M1		1	5.742722 GH	łz	6.96 dBm					
Τ1		1	5.7368482 GH		0.12 dBm	0	cc Bw		16.3836	16384 MHz
Т2		1	5.7532318 GH		-0.99 dBm					
M2		1	5.73469 GH		-18.94 dBm					
D3	M2	1	20.939 MH	1Z	0.20 dB					

Date: 27.MAR.2018 13:20:58





Date: 27.MAR.2018 13:21:49

Emission Band	width&99% C	ccupied Bandwidth UNII Band III		
Test Model	802.11a	Frequency(MHz)	5825	
Ant0				

Refl	evel	30.00 dE	m Offset 1	4 00 dB	• RBW 300 kH	7				
Att		35			VBW 1 MH		Mode Sweep			
1Pk M	ax			2		-	Mode Sweep			
	<u> </u>						M2[1]			-20.84 dBr
										146100 GH
20 dBm							Occ Bw		16.383	616384 MH
10 dBm					M1		M1[1]			4.85 dBi
10 0011					- markent				5.8	239610 GH
0 dBm-			T	- martine			m	~~ <u>1</u> 2		+
			1 1					Γ.		
-10 dBn	n							- <u>-</u>		
			M2 _					2000		
-20 dBn	° — †D	1 -21.15	50 dBm					- Maria		
the way		Marting	50 dBm						Montraphiene .	alue i
Hamberson	10.4								1	Rend Aproduces of
-40 dBn					_					
-50 dBn	n				_					-
-60 dBn	n									-
CF 5.8	25 GH	z			1001	pts			Spa	n 40.0 MHz
/larker										
Type	Ref	Trc	X-value		Y-value		Function	Fun	ction Resu	lt
M1		1	5.82396		4.85 dBn					
Τ1		1	5.816808		-2.40 dBn		Occ Bw		16.3836	516384 MHz
T2		1	5.83319:		-2.19 dBr					
M2		1	5.8146		-20.84 dBn					
D3	M2	1	21.01	9 MHz	-0.33 di	3				

Date: 27.MAR.2018 13:23:03

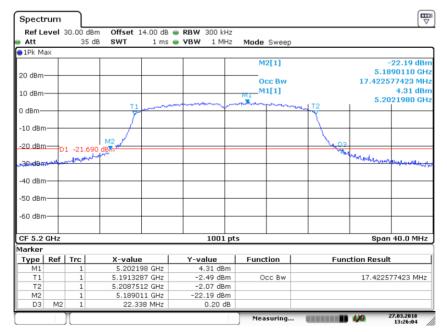




					Measuring		27.03.2018 13:24:02
D3	M2	1	21.698 MHz	0.09 dB			
M2		1	5.169291 GHz	-22.68 dBm			
T2		1	5.1887912 GHz	-3.67 dBm			
Τ1		1	5.1713287 GHz	-3.32 dBm	Occ Bw	17.4	462537463 MHz
M1		1	5.184436 GHz	3.31 dBm			

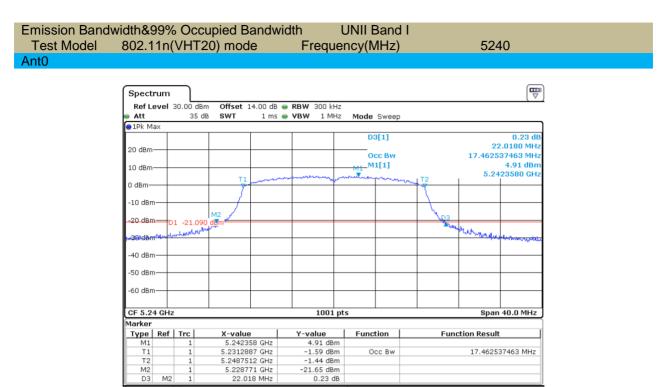
Date: 27.MAR.2018 13:24:02





Date: 27.MAR.2018 13:26:04





Date: 27.MAR.2018 13:27:06

M2 D3

Emission Band	width&99% Occupied Band	width UNII Band III		
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5745	
AntO				

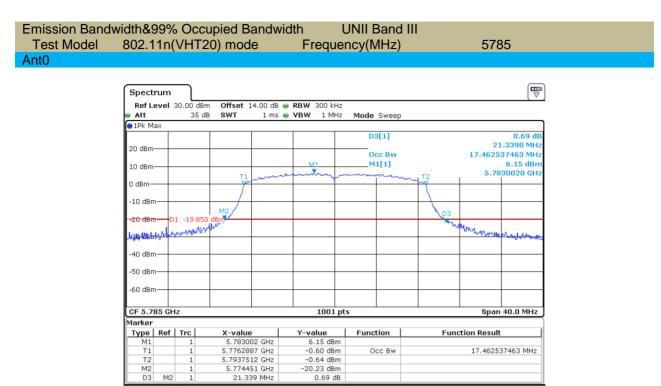
Measuring...

27.03.2018 13:27:06

	evel	30.00 dB		dB 👄 RBW 300 kHz	-		
Att		35 c	ib SWT 1	ms 👄 VBW 🛛 1 MHz	Mode Sweep		
∋1Pk M	lax						
					D3[1]		0.91 d
20 dBm							22.0980 MH
					Occ Bw		17.462537463 MH
10 dBm					M1M1[1]		6.25 dBr
			T1	menning	mumm	T2	5.7469980 GH
0 dBm-			1 7			Ĩ	
-10 dBr	~						
-10 UBI	" 		M2			N. N	
-20 dBr		1 -19.75	o do to			W,D3	
20 001	"	1 -19.75 Marillylun	JUN .			~	mound
30/48#	HP TOP W	Marrie Marrie					un mound and a decal
-40 dBr	n						
-50 dBr	n —						
-60 dBr	_						
-00 ubi							
CF 5.7		z		1001 p	its		Span 40.0 MHz
Marker							
Туре	Ref	Trc	X-value	Y-value	Function	Fun	ction Result
M1		1	5.746998 GH				17 400007400 MU-
		1	5.7362887 GH 5.7537512 GH				17.462537463 MHz
T1		-	5.734051 GH				
T1 T2 M2		1					

Date: 27.MAR.2018 13:28:29





Date: 27.MAR.2018 13:29:23

M2 M2 D3

Emission Band	width&99% Occupied Bandw	vidth UNII Band III		
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5825	
Ant0				

Measuring...

27.03.2018 13:29:23

Ref L	evel	30.00 d 35		00 dB 🥌 1 ms 🖷	RBW 300 kHz		Cureen			
1Pk M	ax	33	05 311	1 1115	YBW IMH2	Moue	Sweep			
						M	2[1]			20.36 dBr
20 dBm									5.81	.44910 GH
20 0011							c Bw		17.4625	37463 MH
10 dBm	-+				M1	M1	l[1]			5.05 dBr
			T1	m	- Terrer -		- Martine -	- 1T2	5.82	21230 GH
0 dBm—			7		+ r			~	-	
-10 dBn	דרי									
-20 dBn			M2					* •03		
	-	1 -20.9	50 dBm					A.	A. 1.	
nap gev	hannar	Jury nul	///		+ +				Munaner	Monoren
-40 dBr	+-י				+					
-50 dBri										
-50 UBI										
-60 dBr										
CF 5.8	25 GH	z			1001 p	its			Span	40.0 MHz
larker					•					
Type	Ref	Trc	X-value	1	Y-value	Funct	ion	Fun	ction Result	
M1		1	5.822123	GHz	5.05 dBm					
Τ1		1	5.8162887		-1.50 dBm	00	C BW		17.4625	37463 MHz
Т2		1	5.8337512		-2.32 dBm					
M2		1	5.814491		-20.36 dBm					
D3	M2	1	21.179	MHz	-0.65 dB	1				

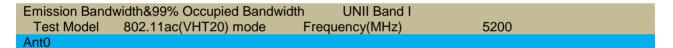
Date: 27.MAR.2018 13:30:41



Emission Band	width&99% Occupied Bandwid	th UNII Band I		
Test Model	802.11ac(VHT20) mode	Frequency(MHz)	5180	
Ant0				
	Spectrum			



Date: 27.MAR.2018 13:32:45



Ref L	evel :	30.00 dB	m Offset 1	.4.00 dB	😑 RBW 300 kH	Iz				
Att		35 0			• VBW 1 MH		Mode Sweep			
1Pk M	ах									
							D3[1]			-0.11 d
20 dBm									2	1.7380 MH
20 0011							Occ Bw		17.462	537463 MH
10 dBm	-+		_		M1		M1[1]			4.04 dBi
20 0000					A Land				5.1	978420 GH
0 dBm—	_		T1	and a start and a start and a start a st			mananan	~~T2		
-10 dBn	<u>ו</u> וי								-	
			M2					No.		
-20 dBri		1 -21.96	0 dBm			_		W.DG		
-36 dBb		Mulph	when a						un Multinger	and the second second
- and the put	1000									appending appending
-40 dBm										
10 001	·									
-50 dBri	1									
-60 dBr	י − ר								+	
CF 5.2	GHz		1		1001	pts	1		Spar	n 40.0 MHz
1arker						_				
Type	Ref	Trc	X-value	e	Y-value		Function	Fui	nction Resul	t
M1		1	5.1978	42 GHz	4.04 dBr	n				
Τ1		1	5.19128		-3.04 dBr		Occ Bw		17.4625	537463 MHz
Т2		1	5.20875		-2.50 dBr					
M2		1	5.1893		-22.07 dBr					
D3	M2	1	21.73	38 MHz	-0.11 d	в 🗌				

Date: 27.MAR.2018 13:33:33



Emission Bandy	vidth&99%	% Occi	pied B	andwid	th	UNII E	Band I				
									E0/		
	802.11a		20) 110	ue	Fiequ	iency(N	/ITZ)		524	Ð	
Ant0											
		_)
	Spectrum										J
		30.00 dBm			RBW 300 k						
	Att	35 dB	SWT	1 ms 😑	VBW 1 M	Hz Mode	Sweep				
	●1Pk Max										
						Da	3[1]		21	0.16 dB .2990 MHz	
	20 dBm					00	cc Bw			37463 MHz	
	10 dBm-				M1	M	1[1]			5.78 dBm	
			т1	man	montin	man	mann	1 7 2	5.23	80020 GHz	
	0 dBm		7					Y			
	-10 dBm										
	10 0.011		M2								
	-20 dBm പ്രാഷങ്ങാം	D1 -20.220	dBm					403 ••••		an n an an tar	
	150 HR HOLD	when when	μ r						many	Muchael	
	-36 6511										
	-40 dBm										
	-50 dBm										
	-30 dBill										
	-60 dBm										
								1			i

1001 pts

Function

Occ Bw

Measuring...

Y-value 5.78 dBm -1.66 dBm -2.32 dBm -20.58 dBm 0.16 dB

Date: 27.MAR.2018 13:35:00

X-value 5.238002 GHz 5.2312887 GHz 5.2487512 GHz 5.229331 GHz 21.299 MHz

CF 5.24 GHz Marker

> M2 D3 M2

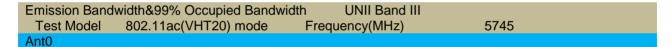
 Marker

 Type
 Ref
 Trc

 M1
 1
 1

 T1
 1
 1

 T2
 1
 1



Att	evel .	30.00 di 35		dB 👄 RBW 300 kHz ns 👄 VBW 🛛 1 MHz			
∋1Pk M	ах						
					D3[1]		0.65 di
20 dBm	\rightarrow						21.6580 MH
					Occ Bw		17.462537463 MH
10 dBm	_				M1_M1[1]		6.09 dBr
			T1	and the second s	and the second second	man T2	5.7473980 GH
0 dBm–			7			7	
			1			\rightarrow	
-10 dBn	n — —						
-20 dBn		1 10.0	10 dBm			M D3	
-20 UBI		1 -19.9	Judy Marine				manuel
ad dan	THIN AND	n -19.9	-				man marter with marked and
00 000							
-40 dBn	n — —						
-50 dBn	n — —						
-60 dBn	n						
CF 5.7	45 GH	lz		1001 p	ts		Span 40.0 MHz
1arker							
Туре	Ref	Trc	X-value	Y-value	Function	Fund	tion Result
M1		1	5.747398 GHz	2 6.09 dBm			
Τ1		1	5.7362887 GHz		Occ Bw		17.462537463 MHz
Т2		1	5.7537512 GHz				
M2		1	5.73453 GHz				
D3	M2	1	21.658 MHz	2 0.65 dB			

Date: 27.MAR.2018 13:36:32

Span 40.0 MHz

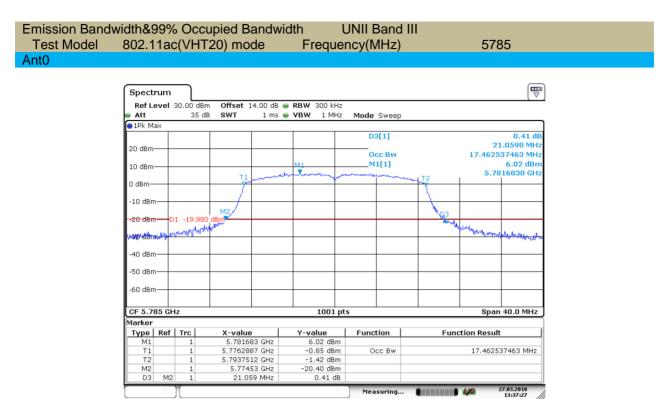
17.462537463 MHz

27.03.2018 13:35:01

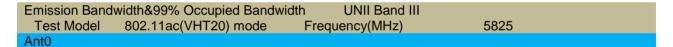
Function Result

....





Date: 27.MAR.2018 13:37:26

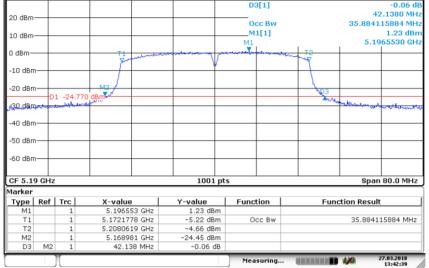


Ref L	evel :	30.00 dE	m Offset 14.00 c	18 👄 RBW 300 kHz				<u> </u>
Att		35	dB SWT 1 n	ns 👄 VBW 1 MHz	Mode Sweep			
) 1Pk M	ax							
-					D3[1]		-0.	04 dI
20 dBm·							21.1790	
20 00.00					Occ Bw		17.422577423	3 MH
10 dBm·	_			M1	M1[1]) dBr
			T1	man there a	matro-long-upton	- IT2	5.822882	0 GH
0 dBm—	-				and the second	when we want		
			1			- N		
-10 dBm								
00 d0-			M2			103		
-211 080	D	1 -21.40	0 dBm			-L.,		
IRO dan	mhlu	uto Martin	00 dBm			-	Mary Mary Mary and Mary Sele	
and the life series							an V Well and the second street was	(J) - 4-14
-40 dBrr	η <u> </u>							
-50 dBm								
							1	
-60 dBrr	ר ו							
CF 5.8: 1arker	25 GH	z		1001 p	ts		Span 40.0	MHZ
Type	Ref	Trc	X-value	Y-value	Function	Eune	tion Result	
M1	Rei	1	5.822882 GHz		Function	Func	ation Result	
T1		1	5.8162887 GHz		Occ Bw		17.422577423	MH2
T2		1	5.8337113 GHz		500 54		211122011420	1-1716
M2		1	5.814491 GHz					
D3	M2	1	21.179 MHz					

Date: 27.MAR.2018 13:38:14



Emission Bandw	vidth&99% Occ	upied Bandwic	lth	UNII Band I		
Test Model	802.11n(VHT4	l0) mode	Frequ	iency(MHz)	5190	
Ant0						
	Spectrum					
	Ref Level 30.00 dBr	n Offset 14.00 dB 👄	RBW 300 k	Hz		
		B SWT 1 ms 👄	VBW 1 M	Hz Mode Sweep		
	●1Pk Max					
				0.0[1]	ab oo a	



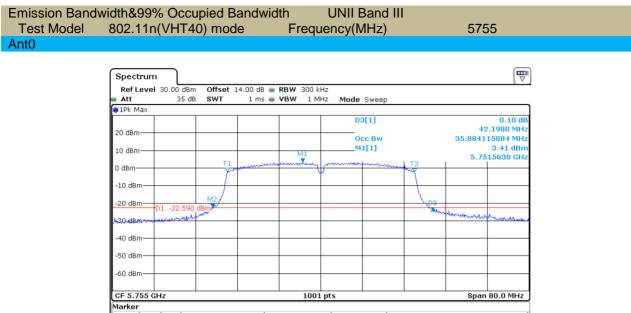
Date: 27.MAR.2018 13:42:38

Emission Band	width&99% Occupied Bandw	vidth UNII Band I		
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5230	
AntO				

Ref L	evel :	30.00 dB	m Offset 14.00	dB 👄 RBW 300 kH	Z		``````````````````````````````````````
Att		35 0		ns 👄 VBW 1 MH)	
1Pk M	ax						
					D3[1]		-0.10 d
20 dBm							42.5170 MH
					Occ Bw		35.884115884 MH
10 dBm	_				M1[1]		1.52 dBr
				M1			5.2233670 GH
0 dBm—			T1 Valleto	mas a further down		the T2	
				- I P			
-10 dBn							
-20 dBr			M2 /			\\	
-20 001	- D	1 -24.48	0 dBm			V 3	
-30.dBh		dom dane	where the second			- ~~	und and and and and and and and and and a
-40 dBr	ι 						
-50 dBr	ר ו						
-60 dBr							
-00 001	'						
CF 5.2	3 GHz			1001	nts		Span 80.0 MHz
larker				1001			
Type	Ref	Trc	X-value	Y-value	Function	l Fun	ction Result
M1		1	5.223367 GH				
Τ1		1	5.2120979 GH	z -4.43 dBm	n Occ Bw		35.884115884 MHz
Т2		1	5.247982 GH				
M2		1	5.208182 GH				
D3	M2	1	42.517 MH:	z -0.10 dE	3		

Date: 27.MAR.2018 13:44:54





Туре	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.751563 GHz	3.41 dBm		
T1		1	5.7370979 GHz	-2.22 dBm	Occ Bw	35.884115884 MHz
T2		1	5.772982 GHz	-2.54 dBm		
M2		1	5.734301 GHz	-22.63 dBm		
D3	M2	1	42.198 MHz	0.10 dB		
)[Measuring	

Date: 27.MAR.2018 13:46:00

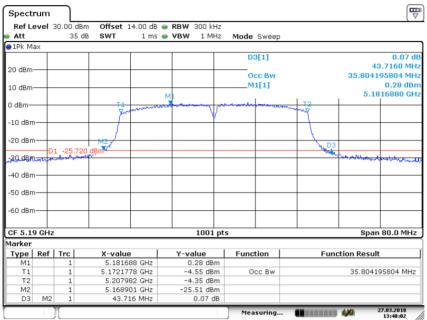
Emission Band	lwidth&99% Occupied Bandv	width UNII Band III		
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5795	
AntO				

	evel	30.00 dB			RBW 300 kHz				
Att		35 d	IB SWT	1 ms (VBW 1 MHz	Mode Sweep			
∋1Pk M	ax					20143			0.00.0
						D3[1]		41	0.63 d 2390 MH
20 dBm			+			Occ Bw		35.80419	
						M1[1]		00.00419	2.93 dBr
10 dBm					M1			5.792	29220 GH
0 dBm-			T1	man	monenty,	morene	T2		
o abiii			I r		1 Y		gung		
-10 dBn	n		+						
			M2						
-20 dBn		1 -23.07					- \Q 3		
20 Jp-		L -20.07	w www					water and all and	
-20. dBp	Real Property and								-00402
-40 dBn	n								
-50 dBn	n							+ +	
-60 dBn	n								
-60 dBn CF 5.7	n	Iz			1001 p	ts		Span (80.0 MHz
-60 dBn CF 5.7	95 GH								BO.0 MHz
-60 dBn CF 5.7 1arker Type	95 GH	Trc	X-value		Y-value	ts	Fun	Span s	BO.O MHz
-60 dBn CF 5.7 1arker Type M1	95 GH	Trc 1	5.79292	22 GHz	Y-value 2.93 dBm	Function	Fun	ction Result	
-60 dBn CF 5.7 1arker Type M1 T1	95 GH	1 1	5.79292 5.77709	22 GHz 79 GHz	Y-value 2.93 dBm -2.45 dBm		Fun		
	95 GH	Trc 1	5.79292	22 GHz 79 GHz 21 GHz	Y-value 2.93 dBm	Function	Fun	ction Result	

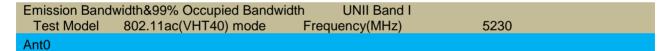
Date: 27.MAR.2018 13:47:01



Emission Bandw	vidth&99% Occupied Bandwic	th UNII Band I	
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5190
Ant0			



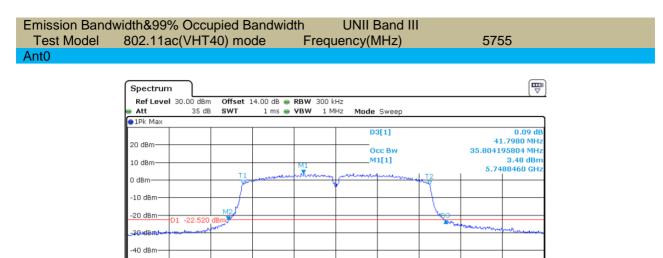
Date: 27.MAR.2018 13:48:02



Ref L	evel :	30.00 dB	m Offset 14.	00 dB 🧉	RBW 300 kH;	z				
Att		35 (VBW 1 MH	-	de Sweep			
1Pk M	ax						un enterp			
							D3[1]			-0.15 d
20 dBm									4	1.4790 MH
20 UBIII							Occ Bw		35.884	L15884 MH
10 dBm							_M1[1]			2.30 dB
20 00111						M1			5.2	347150 GF
) dBm—	_		T1	سانتحمين	annone ,	munder		T2		
			Print		1 V			- Part		
-10 dBr	n-+-				++			- <u>\</u>		
			Ma							
-20 dBri		1 00 70	0 dBm					<u> 2</u> 23		
		n -23.70						- May	honor half and	
30. dBo	Record and									- and the work
-40 dBn	<u> </u>									
10 001										
-50 dBri	n——						_			
-60 dBri	n-+-				++					
CF 5.2	3 GHz				1001 p	ots			Spa	n 80.0 MHz
1arker										
Type	Ref	Trc	X-value	1	Y-value	Fu	nction	Fun	ction Resul	t
M1		1	5.234715	GHz	2.30 dBm	1				
Τ1		1	5.2120979		-4.40 dBm		Occ Bw		35.8841	15884 MHz
Т2		1	5.247982		-4.37 dBm					
M2		1	5.209221		-23.42 dBm					
D3	M2	1	41.479	MHz	-0.15 dB					

Date: 27.MAR.2018 13:49:45





Emission Band	width&99% Occupied Bandw	vidth UNII Band III		
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5795	
AntO				

1001 pts

Function

Occ Bw

Measuring...

Y-value

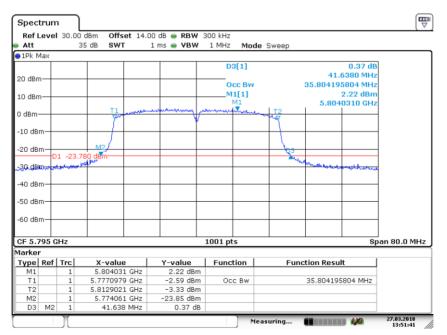
3.48 dBm -2.22 dBm -2.59 dBm

-22.87 dBm

0.09 dB

X-value 5.748846 GHz 5.7371778 GHz 5.772982 GHz

5.734381 GHz 41.798 MHz



Date: 27.MAR.2018 13:51:41

-50 dBm -60 dBm CF 5.755 GHz

Marker

M1 T1 T2

M2

D3 M2

Type Ref Trc

Date: 27.MAR.2018 13:50:55

Span 80.0 MHz

35.804195804 MHz

27.03.2018 13:50:56

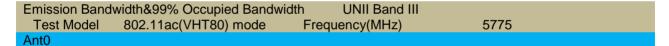
Function Result



Emission Band	width&99% Occupied Bandwid	dth UNII Band I		
Test Model	802.11ac(VHT80) mode	Frequency(MHz)	5210	
Ant0				
	Spectrum			



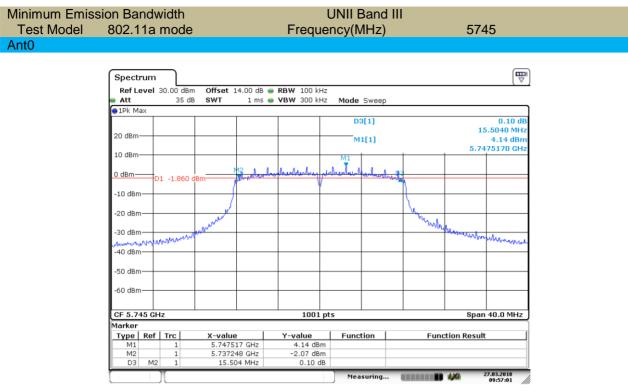
Date: 27.MAR.2018 13:53:37



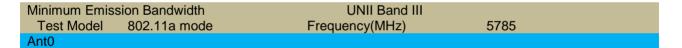
Refli	evel	30.00 dB	m Offset	4.00 dB	RBW 300 kH;	7					()
Att		35 c		1.1 ms		_	Sweep				
1Pk M	ax						F				
						D3	[1]				-0.10 d
20 dBm											85.830 MH
20 0011						Oc	c Bw			75.1248	875125 MH
10 dBm	-+					M1	[1]				0.25 dB
20 0000					M1					5.	7 <mark>66050 G</mark> H
0 dBm—	_		T1	A. Jonated State	manning	water	harring and a state of the				
			Sara	mar had been a start of the	Ĩ I Y	I		A manufactor			
-10 dBr	+-י		+ +								
-20 dBri			M2/						LD3		
-30 dBr	D	1 -25.75	0 dBm						March	Malaki	ante-aliterer
org, sinin	harter	dis posto a									and so-almostate
-40 dBr	<u> </u>										
-50 dBri	<u>ו</u>										
-60 dBr	<u>ו</u> וי										
CF 5.7	75 GH	z	•		1001	ots				Span	160.0 MHz
1arker											
Type	Ref	Trc	X-value	.	Y-value	Funct	ion		Func	tion Resul	t
M1		1		05 GHz	0.25 dBm						
Τ1		1	5.7374		-5.83 dBm		c Bw			75.1248	75125 MHz
Т2		1	5.8125		-6.44 dBm						
M2		1		64 GHz	-25.94 dBm						
D3	M2	1	85.1	33 MHz	-0.10 dB	5					

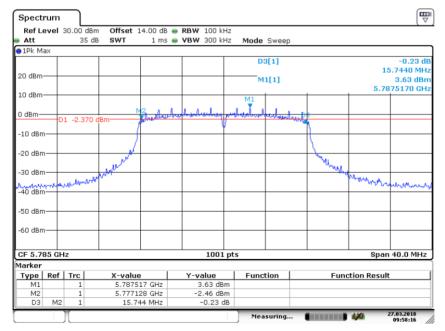
Date: 27.MAR.2018 13:54:24





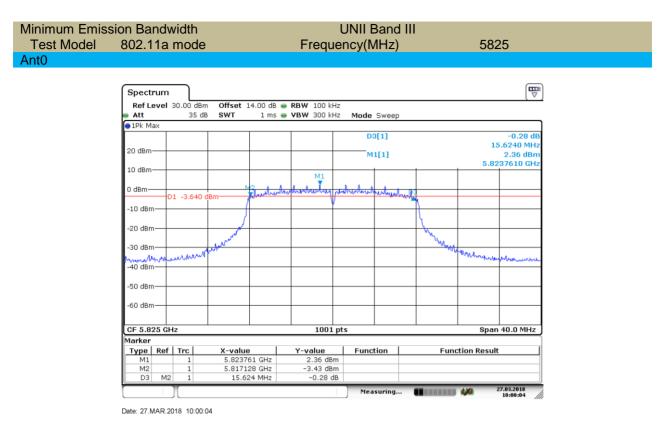
Date: 27.MAR.2018 09:57:01



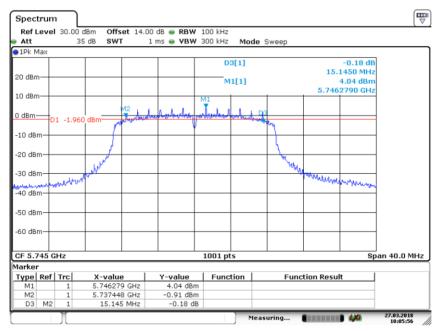


Date: 27.MAR.2018 09:58:16





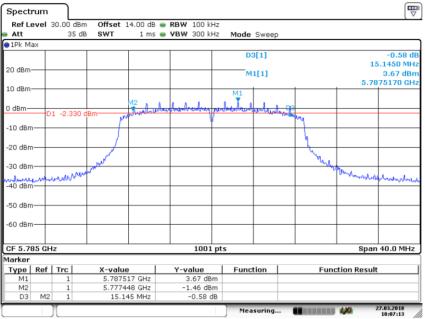
Minimum Emis	sion Bandwidth	UNII Band III		
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5745	
AntO				



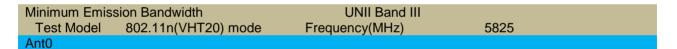
Date: 27.MAR.2018 10:05:57

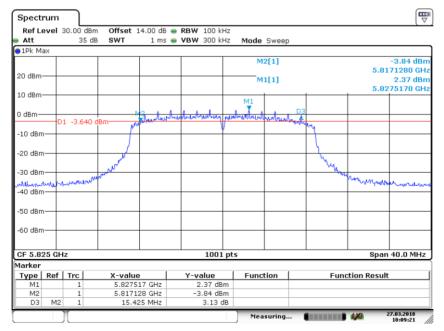


Minimum Emis	sion Bandwidth	UNII Band III		
Test Model	802.11n(VHT20) mode	Frequency(MHz)	5785	
Ant0				



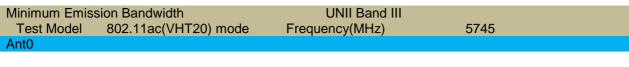
Date: 27.MAR.2018 10:07:13

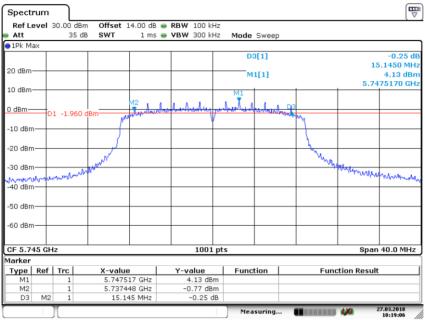




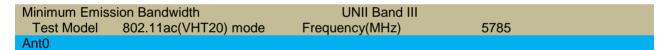
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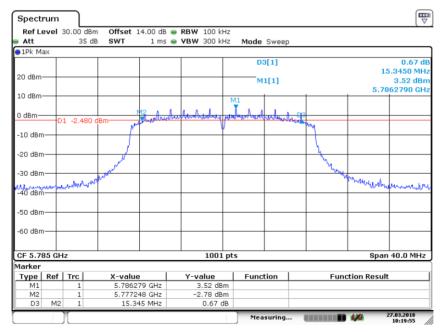






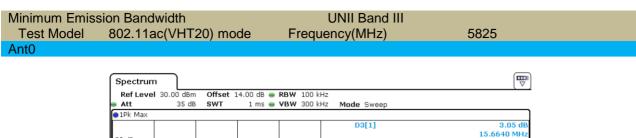
Date: 27.MAR.2018 10:19:06

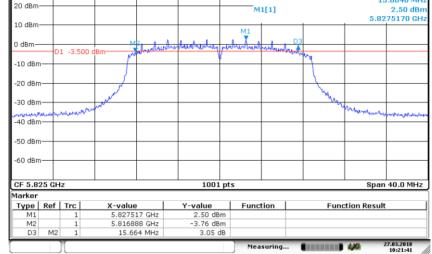




Date: 27.MAR.2018 10:19:55

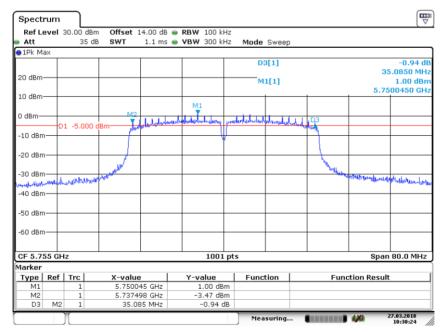






Date: 27.MAR.2018 10:21:41

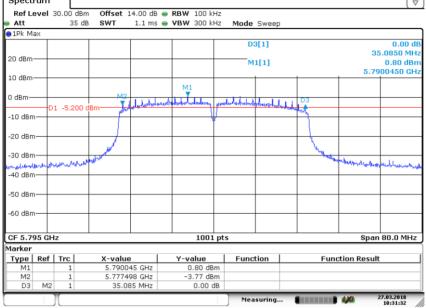
Minimum Emis	sion Bandwidth	UNII Band III		
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5755	
Ant0				



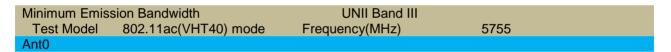
Date: 27.MAR.2018 10:30:25

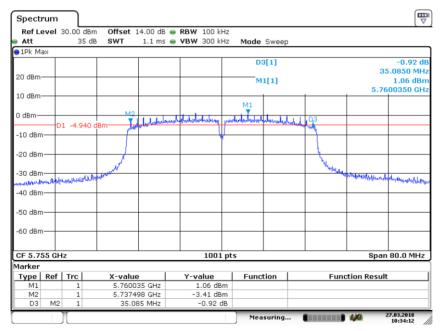


Minimum Emis	sion Bandwidth	UNII Band III		
Test Model	802.11n(VHT40) mode	Frequency(MHz)	5795	
Ant0				
	Spectrum			



Date: 27.MAR.2018 10:31:32

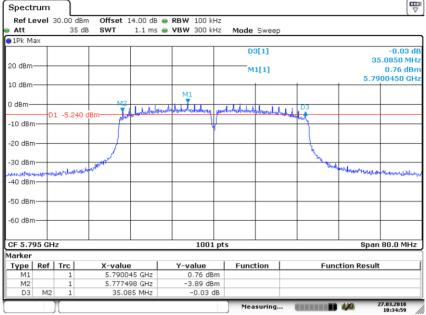




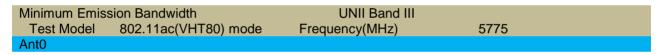
Date: 27.MAR.2018 10:34:11



Minimum Emission Bandwidth		UNII Band III		
Test Model	802.11ac(VHT40) mode	Frequency(MHz)	5795	
Ant0				
			(IIII)	



Date: 27.MAR.2018 10:34:59



Ref L	evel 🔅	30.00 dBi		.4.00 dB 🧉	• RBW 100 k	Ηz				
Att		35 d	B SWT	1.6 ms 🦷	• VBW 300 ki	Hz Mode	Sweep			
∋1Pk M	эх									
						D	3[1]			-0.32 d
20 dBm										75.120 MH
20 00111						м	1[1]			-1.47 dBr
10 dBm	_							+	5.	758860 GH
0 dBm—	_		M2		M1					
			M2	1 Hilling	allahand and a state of the second se	للللها الكالهم	Mondeller	D3		
-10 dBm		1 -7.510	dBm III				(ho			
-20 dBrr			+							
-30 dBm	-+-		What we have					"When		
Manufa	philas M	were and when							and the second second	apatrol marker and
-40 dBrr										
-50 dBrr										
-60 dBrr										
-60 aBri										
CF 5.7	75 GH	z			1001	pts			Span	160.0 MHz
1arker										
Туре	Ref		X-value		Y-value	Func	tion 📃	Fund	ction Resul	t
M1		1	5.7588		-1.47 dB					
M2		1	5.737		-6.66 dB					
D3	M2	1	/5.1	.2 MHz	-0.32 c	IB				

Date: 27.MAR.2018 10:38:29



8.2 MAXIMUM CONDUCTED OUTPUT POWER

8.2.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C According to FCC Part 15.407(a)(3) for UNII Band III According to 789033 D02 Section II(E)

8.2.2 Conformance Limit

■ For the band 5.15-5.25 GHz for FCC

(a) (1) (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W 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).

(a) (1) (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W 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.

(a) (1) (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. 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. 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.

(a) (1) (iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW 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.

■ For the band 5.725-5.85 GHz for FCC

(a) (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.

■ For the band 5.15-5.25 GHz for IC

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10B, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

■ For the band 5.725-5.850GHz for IC

The maximum conducted output power shall not exceed 1 W. The 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 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 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-multipointFootnote3 systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

8.2.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.2.4 Test Procedure

The maximum average conducted output power can be measured using Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

- a. The Transmitter output (antenna port) was connected to the power meter.
- b. Turn on the EUT and power meter and then record the power value.
- c. Repeat above procedures on all channels needed to be tested.



8.2.5 Test Results

Temperature Humidity :	e : 28°C 65 %		⊠ 802.11a mode Test Date : Test By:	March 27, 20 King Kong)18		
Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict
	CH36	5180	10.54	24	13.96	23	Pass
UNII Band I	CH40	5200	11.18	24	14.60	23	Pass
Banu I	CH48	5240	11.09	24	14.51	23	Pass
UNII	CH149	5745	13.68	30		30	Pass
•••••	CH157	5785	12.83	30		30	Pass
Band III	CH165	5825	11.68	30		30	Pass
Note: The a	intenna gain i	s 3.42dBi.					

Temperature Humidity :	: 28°C 65 %		802.11n(HT20) mode Test Date : Test By:	March 27, 20 King Kong)18		
Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict
UNII	CH36	5180	10.38	24	13.80	23	Pass
Band I	CH40	5200	11.00	24	14.42	23	Pass
Danu i	CH48	5240	10.91	24	14.33	23	Pass
UNII	CH149	5745	13.43	30		30	Pass
Band III	CH157	5785	12.47	30		30	Pass
Band III	CH165	5825	11.43	30		30	Pass
Note: The a	ntenna gain i	is 3.42dBi.					

🛛 802.11ac(VHT20) mode					
Temperature :	28°C	Test Date :	March 27, 2018		
Humidity :	65 %	Test By:	King Kong		

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict	
UNII	CH36	5180	10.41	24	13.83	23	Pass	
Band I	CH40	5200	11.03	24	14.45	23	Pass	
Danu i	CH48	5240	10.88	24	14.30	23	Pass	
UNII	CH149	5745	13.36	30		30	Pass	
Band III	CH157	5785	12.47	30		30	Pass	
Danu III	CH165	5825	11.38	30		30	Pass	
Note: The a	Note: The antenna gain is 3.42dBi.							



Temperature Humidity :	: 28°C 65 %		802.11n(HT40) mode Test Date : Test By:	March 27, 20 King Kong)18		
Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict
UNII	CH38	5190	10.42	24	13.84	23	Pass
Band I	CH46	5230	10.47	24	13.89	23	Pass
UNII	CH151	5755	13.15	30		30	Pass
Band III	CH159	5795	12.04	30		30	Pass
Note: The a	ntenna gain i	s 3.42dBi.					

🛛 802.11ac(VHT40) mode					
Temperature :	28°C	Test Date :	March 27, 2018		
Humidity :	65 %	Test By:	King Kong		

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict	
UNII	CH38	5190	10.38	24	13.80	23	Pass	
Band I	CH46	5230	10.62	24	14.04	23	Pass	
UNII	CH151	5755	13.17	30		30	Pass	
Band III	CH159	5795	11.96	30		30	Pass	
Note: The a	Note: The antenna gain is 3.42dBi.							

⊠ 802.11ac(VHT80) mode					
Temperature :	28°C	Test Date :	March 27, 2018		
Humidity :	65 %	Test By:	King Kong		

Band	Channel Number	Channel Freq. (MHz)	Conducted Output Power(dBm)	FCC Limit (dBm)	EIRP (dBm)	IC Limit (dBm)	Verdict
UNII Band I	CH42	5210	10.26	24	13.26	23	Pass
UNII Band III	CH155	5775	12.15	30		30	Pass
Note: The antenna gain is 3.42dBi.							



8.3 MAXIMUM PEAK POWER DENSITY

8.3.1 Applicable Standard

According to FCC Part 15.407(a)(1) for UNII Band I According to FCC Part 15.407(a)(2) for UNII Band II-A and UNII Band II-C According to FCC Part 15.407(a)(3) for UNII Band III According to 789033 D02 Section II(F)

8.3.2 Conformance Limit

■ For the band 5.15-5.25 GHz,

(a) (1) (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W 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).

(a) (1) (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W 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.

(a) (1) (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. 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. 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.

(a) (1) (iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW 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.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands

(a) (2) the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

■ For the band 5.725-5.85 GHz

(a) (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.

8.3.3 Test Configuration

Test according to clause 6.1 radio frequency test setup

8.3.4 Test Procedure

Methods refer to FCC KDB 789033



1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power...".

2) Use the peak search function on the instrument to find the peak of the spectrum.

3) The result is the PPSD.

4) The above procedures make use of 500kHz resolution bandwidth to satisfy the 500kHz measurement bandwidth specified in the 15.407(a)(5). That rule section also permits use of resolution bandwidths less than 1 MHz "provided that the measured power is integrated to show the total power over the measurement bandwidth" (i.e., 1 MHz). If measurements are performed using a reduced resolution bandwidth and integrated over 500kHz bandwidth

Note: As a practical matter, it is recommended to use reduced RBW of 500 kHz for the sections 5.c) and 5.d) above, since RBW=500 kHz is available on nearly all spectrum analyzers.



8.3.5 Test Results

Temperature Humidity :	e : 28°C 65 %		802.11a mode Test By:	King Kong		
Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density Ant0	Limit	Verdict	
	CH36	5180	-0.96	≤11dBm/1MHz	Pass	
UNII Band I	CH40	5200	-0.04	≤11dBm/1MHz	Pass	
	CH48	5240	-0.23	≤11dBm/1MHz	Pass	
UNII	CH149	5745	-1.15	≤11dBm/500KHz	Pass	
Band III	CH157	5785	-1.94 ≤30dBm/500I		Pass	
Danu III	CH165	5825	-3.05	≤30dBm/500KHz	Pass	
Temperature Humidity :	e : 28°C 65 %		802.11n(VHT20) mo Test By:	de King Kong		
Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density Ant0	Limit	Verdict	
	CH36	5180	-1.00	≤11dBm/1MHz	Pass	
UNII Band I	CH40	5200	-0.86	≤11dBm/1MHz	Pass	
Danu I	CH48	5240	-0.11	≤11dBm/1MHz	Pass	
UNII	CH149	5745	-2.17	≤30dBm/500KHz	Pass	
Band III	CH157	5785	-2.80	≤30dBm/500KHz	Pass	
Danu III	CH165	5825	-3.53	≤30dBm/500KHz	Pass	
Temperature Humidity :	65 %		802.11ac(VHT20) mo Test By:	ode King Kong		
Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density Ant0	Limit	Verdict	
	CH36	5180	-1.61	≤11dBm/1MHz	Pass	
UNII	CH40	5200	-0.33	≤11dBm/1MHz	Pass	
Band I	CH48	5240	-0.42	≤11dBm/1MHz	Pass	
	CH149	5745	-2.22	≤30dBm/500KHz	Pass	
	CH157	5785	-2.58	≤30dBm/500KHz	Pass	
Band III	CH165	5825	-3.59	≤30dBm/500KHz	Pass	
I					·	
Temperature Humidity :	e : 28°C 65 %		802.11n(VHT40) mo Test By:	de King Kong		
Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density Ant0	Limit	Verdict	
UNII	CH38	5190	-4.57	≤11dBm/1MHz	Pass	
Band I	CH46	5230	-3.49	≤11dBm/1MHz	Pass	
LINIII	CU151	5755	6 40	< 20 d Bm/500 k Hz	Docc	

UNII

Band III

CH151

CH159

-6.40

-6.49

5755

5795

Pass

Pass

≤30dBm/500KHz

≤30dBm/500KHz

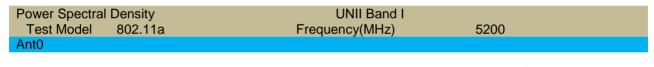


∑ Temperature : 28°C Humidity : 65 %			02.11ac(VHT40) m Test Date : Test By:	ode March 27, 2018 King Kong	
Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density	Limit	Verdict
			Ant0		
UNII	CH38	5190	-3.49	≤11dBm/1MHz	Pass
Band I	CH46	5230	-6.40	≤11dBm/1MHz	Pass
UNII	CH151	5755	-6.49	≤30dBm/500KHz	Pass
Band III	CH159	5795	-4.57	≤30dBm/500KHz	Pass

Image: Sec						
Band	Channel Number	Channel Freq. (MHz)	Power Spectral Density Ant0	Limit	Verdict	
UNII Band I	CH42	5210	-9.62	≤11dBm/1MHz	Pass	
UNII Band III	CH155	5775	-11.68	≤30dBm/500KHz	Pass	













Power Spectral DensityUNII Band IIITest Model802.11aFrequency(MHz)5745Ant0



TRF No.: FCC 15.407/A