

FCC Test Report (Class II Permissive Change)

Product Name	MOXA IEEE 802.11 a/b/g/n
Model No	WAPN008
FCC ID	SLE-WAPN008

Applicant	MOXA Inc.
Address	FL.4, NO. 135. LANE 235, BAOQIAO RD. XINDIAN
	DIST.,NEW TAIPEI CITY, TAIWAN

Date of Receipt	Feb. 22, 2018
Issued Date	June 20, 2018
Report No.	1820210R-RFUSP48V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issued Date: June 20, 2018 Report No.: 1820210R-RFUSP48V00

DEKRA

Product Name	MOXA IEEE 802.11 a/b/g/n	
Applicant	MOXA Inc.	
Address	FL.4, NO. 135. LANE 235, BAOQIAO RD. XINDIAN DIST.,NEW TAIPEI CITY, TAIWAN	
Manufacturer	MOXA Inc.	
Model No.	WAPN008	
FCC ID.	SLE-WAPN008	
EUT Rated Voltage	DC 3.3V	
EUT Test Voltage	AC 120V/60Hz	
Trade Name	MOXA	
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2016 ANSI C63.4: 2014, ANSI C63.10: 2013	
	789033 D02 General UNII Test Procedures New Rules v02	
Test Result	Complied	

Documented By :

:

:

Gente Chang

(Senior Adm. Specialist / Genie Chang)

Tested By

Jiang Pau

(Engineer / Paul Jiang)

Approved By

(Director / Vincent Lin)



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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	MOXA IEEE 802.11 a/b/g/n	
Trade Name	MOXA	
FCC ID.	SLE-WAPN008	
Model No.	WAPN008	
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz, 5745-5825MHz	
	802.11n-40MHz: 5190-5310, 5510-5670MHz, 5755-5795MHz	
Number of Channels	Number of Channels 802.11a/n-20MHz: 24; 802.11n-40MHz: 11	
Data Rate	802.11a: 6 - 54Mbps	
	802.11n: up to 300Mbps	
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM	
Antenna Type	Omni-directional	
Channel Control	Auto	
Antenna Gain	Refer to the table "Antenna List"	

Antenna List:

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	MOXA	ANT-WDB-ANM-0306	Omni-directional	6.0dBi For 5GHz
2	MOXA	MAT-WDB-CA-RM-2-0205	Omni-directional	5.0dBi for 5 GHz
3	MOXA	MAT-WDB-DA-RM-2-0203-1m	Omni-directional	3.0 Bi for 5 GHz
4	MOXA	ANT-WDB-ARM-0202	Omni-directional	1.8dBi for 5 GHz
5	MOXA	ANT-WDB-ARM-02	Omni-directional	2.0dBi for 5 GHz
6	MOXA	ANT-WDB-ANM-0502	Omni-directional	2.0dBi for 5 GHz
7	MOXA	ANT-WDB-ANF-0407	Omni-directional	7.0dBi for 5 GHz
8	MOXA	ANT-WDB-ANM-0407	Omni-directional	7.0dBi for 5 GHz
9	MOXA	ANT-WDB-ANF-0609	Omni-directional	9.0dBi for 5 GHz
10	MOXA	ANT-WDB-ANM-0609	Omni-directional	9.0dBi for 5 GHz
11	MOXA	ANT-WSB5-ANF-12	Omni-directional	12dBi for 5 GHz

Note: 1. The antenna of EUT is conform to FCC 15.203

2. Only the higher gain antenna was tested and recorded in this report.



802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 52:	5260 MHz	Channel 56:	5280 MHz	Channel 60:	5300 MHz	Channel 64:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz	Channel 149:	5745 MHz
Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz	Channel 165:	5825 MHz

802.11n-40MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 38:	5190 MHz	Channel 46:	5230 MHz	Channel 54:	5270 MHz	Channel 62:	5310 MHz
Channel 102:	5510 MHz	Channel 110:	5550 MHz	Channel 118:	5590 MHz	Channel 126:	5630 MHz
Channel 134:	5670 MHz	Channel 151:	5755 MHz	Channel 159:	5795 MHz		

Note:

- 1. This device is a MOXA IEEE 802.11 a/b/g/n built-in 2.4GHz and 5GHz transceiver, this report for 5G WLAN.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
- 4. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.
- 5. This is to request a Class II permissive change for FCC ID: SLE-WAPN008, originally granted on 08/25/2015. The major change filed under this application is:

Change #1: Addition eleven Omni-directional antenna, antenna type is different with the original application. Change #2: Reduce the Output Power through firmware filing to demonstrate compliance .

Test Mode	Mode 1: Transmit (802.11a-6Mbps)
	Mode 1: Transmit (802.11n-20BW 14.2Mbps)
	Mode 1: Transmit (802.11n-40BW 30Mbps)

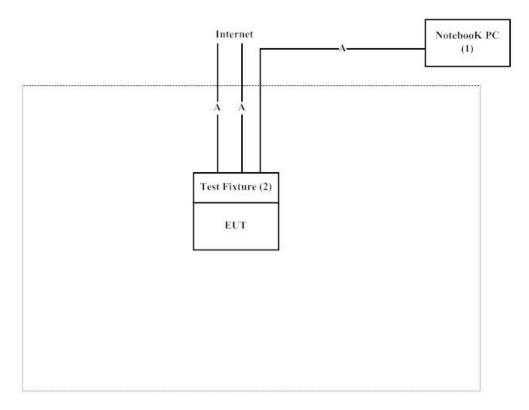
1.3. Tested System Datails

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	Latitude E5440	HG26TZ1	Non-Shielded, 1.8m
2	Test Fixture	MOXA	N/A	N/A	N/A

Signa	ll Cable Type	Signal cable Description
А	LAN Cable	Shielded, 1.8m, three PCS.

1.4. Configuration of tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown on 1.4
- (2) Execute "ART2-GUI 2.3" programon the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Start the continuous transmission.
- (5) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

http://www.dekra.com.tw/english/about/certificates.aspx?bval=5

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: <u>http://www.dekra.com.tw/index_en.aspx</u>

Site Description: Accredited by TAF Accredited Number: 3023

Site Name: DEKRA Testing and Certification Co., Ltd Site Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C. TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW3023



1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2018/2/12	2019/2/11
Х	Spectrum Analyzer	Agilent	N9010A	MY48030495	2017/10/13	2018/10/12
Х	Peak Power Analyzer	Keysight	8990B	MY51000410	2017/7/19	2018/7/18
Х	Wideband Power Sensor	Keysight	N1923A	MY56080003	2017/7/6	2018/7/5
Х	Wideband Power Sensor	Keysight	N1923A	MY56080004	2017/7/6	2018/7/5
Х	EMI Test Receiver	R&S	ESCS 30	100369	2017/11/7	2018/11/6
Х	LISN	R&S	ESH3-Z5	836679/017	2018/2/9	2019/2/8
Х	LISN	R&S	ENV216	100097	2018/2/9	2019/2/8
Х	Coaxial Cable	DEKRA	RG 400	LC018-RG	2017/6/22	2018/6/21

For Radiated measurements /Site3/CB8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
Х	Spectrum Analyzer	R&S	FSP40	100170	2018/3/12	2019/3/11
Х	Loop Antenna	Teseq	HLA6121	37133	2017/10/13	2018/10/12
Х	Bilog Antenna	Schaffner Chase	CBL6112B	2707	2017/6/25	2018/6/24
Х	Coaxial Cable	DEKRA	RG 214	LC003-RG	2017/6/15	2018/6/14
Х	Pre-Amplifier	Jet-Power	JPA-10M1G33	17010100033001	2017/7/19	2018/7/18
Х	Horn Antenna	ETS-Lindgren	3117	00135205	2018/5/3	2019/5/2
Х	Pre-Amplifier	EMCI	EMC012630SE	980210	2018/4/10	2019/4/9
Х	Coaxial Cable	QuieTek	SF-106	LC035/37/41-SF	2017/6/21	2018/6/20
Х	Amplifier + Cable	EMCI	EMC184045SE	980370	2018/3/21	2019/3/20
Х	Horn Antenna	Com-Power	AH-840	101043	2018/1/9	2019/1/8
Х	Filter	MicroTRON	BRM50701	019	2017/11/21	2018/11/20
Х	Filter	Microwave Circuits	N0257881	36681	2018/1/22	2019/1/21

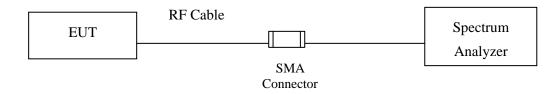
Note:

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version :QuieTek EMI 2.0 V2.1.113.

2. Maximun conducted output power

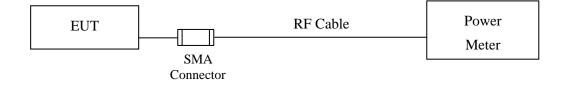
2.1. Test Setup

99%Occupied Bandwidth

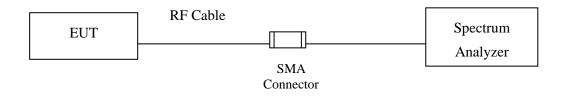


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Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)



2.2. Limits

2.2.1. For the band 5.15-5.25 GHz,

(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 maximumantenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi areused, the maximum conducted output power shall bereduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximume.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125mW (21 dBm).

(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. In addition. If transmitting antennas of directional gain greater than 6 dBi areused, the maximum conducted output power shall bereduced by the amount in dB that the

directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximumconducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topointU-NII devices may employ antennas with directional gain up to 23 dBi without any correspondingreduction in the maximum conducted output power. For fixedpoint-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reductionin maximum conducted output power is required for each 1 dB ofantenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipointsystems, omnidirectional applications, and multiple collocated transmitters transmitting the sameinformation. 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 exclusivelyfor fixed, point-to-point operations.
(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 maximumantenna gain does not exceed 6 dBi. In addition. If transmitting antennas of directional gain greater than 6 dBi areused, the maximum conducted output power shall bereduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

- 2.2.2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power overthe frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where Bis the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- 2.2.3. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency bandof operation shall not exceed 1 W. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced bythe amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNIIdevices operating in this band may employ transmitting antennas with directional gain greater than 6dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-pointoperations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiplecollocated transmitters transmitting the same information. The operator of the U-NII device, or if theequipment is professionally installed, the installer, is responsible for ensuring that systems employinghigh gain directional antennas are used exclusively for fixed, point-to-point operations.

2.3. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an(BW \leq 40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter) <u>Note:the power meter have a video bandwidth that is greater than or equal to the measurement</u> <u>bandwidth,(Anritsu/MA2411B video bandwidth: 65MHz)</u>

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 sectionE)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D03 section D) procedure is used for measurements.

2.4. Uncertainty

±1.27dB

2.5. Test Result of Maximum conducted output power

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Maximum conducted output power
Test Site	:	No.3 OATS
Test Date	:	2018/03/07
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)

Cable	e loss=1dB					Avera	ge Pow	er		
				D	ata Rat	e (Mbps	5)			
Channel No.	Frequency (MHz)	6	9	12	18	24	36	48	54	Required Limit
				Measu	ırement	Level (dBm)			
36	5180	17.59								<18dBm
40	5200	17.83	17.74	17.67	17.58	17.51	17.43	17.37	17.29	<18dBm
48	5240	17.85								<18dBm
52	5260	17.71								<18dBm
60	5300	17.61	17.53	17.49	17.42	17.34	17.28	17.2	17.12	<18dBm
64	5320	17.56								<18dBm
100	5500	16.21								<18dBm
120	5580	17.52	17.43	17.36	17.27	17.21	17.16	17.1	17.04	<18dBm
140	5700	15.08								<18dBm
149	5745	15.86				-				<24dBm
157	5785	15.85	15.76	17.69	17.57	17.5	17.42	17.36	17.24	<24dBm
165	5825	17.22								<24dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss Note: The maximum conducted output power shall be reduced by the amount in dB that the directional gain the antenna exceeds 6 dBi.



Channel No	Frequency Range	99% Bandwidth	Output Power	Output	t Power Limit	Result
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)	
36	5180		17.59	18		Pass
40	5200		17.83	18		Pass
48	5240		17.85	18		Pass
52	5260	18.283	17.71	18	23.62	Pass
60	5300	18.272	17.61	18	23.62	Pass
64	5320	18.214	17.56	18	23.60	Pass
100	5500	18.320	16.21	18	23.63	Pass
120	5580	18.586	17.52	18	23.69	Pass
140	5700	18.233	15.08	18	23.61	Pass
149	5745		15.86	24		Pass
157	5785		17.69	24		Pass
165	5825		17.22	24		Pass

Note: Power Output Value =Reading value on average power meter + cable loss



99% Occupied Bandwidth:

Channel 52:

E Keysigh	nt Spectrum Analyzer - Occ											
w⊔∟ Center	RF 50 Ω r Freq 5.26000		z	Center Fr	NSE:INT req: 5.26000			ALIGN AUTO	02:49:19 P Radio Std:	M Mar 07, 2018 : None	F	requency
	7		Gain:Low	Trig: Free #Atten: 3		Avg Hold	d: '	10/10	Radio Dev	vice: BTS		
	Ref Offset	1.5 dB					-					
10 dB/di Log									, 			
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-28.5 m							đ			- water whether		
-38.5							Д					
-58.5		<u> </u>	<u> </u>			<u> </u>	4		 			
-68.5			┥──┤				\vdash		 			
	5.26 GHz						Ц		Spa	n 50 MHz		
	BW 1 MHz			#VE	вwізмн	iz	_			eep 1 ms		CF Step 5.000000 MHz
000	cupied Band	width			Total P	ower		25.9) dBm		<u>Auto</u>	Man
			83 MH	1-	10121	•						
												Freq Offset 0 Hz
Tran	nsmit Freq Err	or 2	23.419 kl	Hz	% of OF	BW Pow	/er	r 99	0.00 %			0 Fiz
x dE	3 Bandwidth		25.63 M	Hz	x dB			-26.0	00 dB			
MSG							_	I STATUS	3			

Channel 60:

	sight Spec	trum Analyzer - Occ	upied BW									7 X
LXI L		RF 50 Ω	AC	1-		NSE:INT reg: 5.30000	0000 GH-	ALIGN AUTO	02:50:08 P	M Mar 07, 2018	Frequen	cy
Cent		eq 5.30000	0000 GF	1Z ↔	🚽 Trig: Fre	e Run	Avg Hold	: 10/10				-
			#IF	Gain:Low	#Atten: 3	0 dB			Radio Dev	vice: BTS		
		Ref Offset	15 dB									
10 dE	3/div	Ref 21.50	0 dBm				. <u> </u>	-				
Log 11.5						-					Cente	r Erea
1.50 -				June .			N.				5.30000000	
			- And	r 1			1	A. Maria				0 0112
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-20.5	hhuna	yllatellensensensensen								1.00 M 100 M		
-30.5												
-48.5												
-58.5 -												
-68.5 -												
Cent	ter 5.3	3 GHz							Spa	n 50 MHz		
#Res	s BW	1 MHz			#VE	BW 3 MH	z			eep 1 ms	5.0000	Step
											Auto	Man
0	ccup	ied Band	width			Total P	ower	25.4	l dBm			
			18.2	72 M	Hz						Freq	Offset
_т ,	anem	nit Freg Err	or	16.080	⊬ ⊔,	% of OF	3W Pow	or 00	0.00 %			0 Hz
			01									
X	dB Ba	andwidth		24.61 N	٨Hz	x dB		-26.	00 dB			
MSG									5			
								-	1			



Channel 64:

🔤 Keysight Sp	ectrum Analyzer - Occup									
		AC			ENSE:INT		ALIGN AUTO		M Mar 07, 2018	Frequency
Center F	req 5.320000	000 GHz	2	<u>-</u> · _	Freq: 5.32000	Avg Hol	d· 10/10	Radio Std	: None	Trequency
		#IFG	⊶ ain:Low	#Atten:		Arginon	4. 10/10	Radio Dev	rice: BTS	
· · · · · ·										
	Ref Offset 1.									
10 dB/div	Ref 21.50	dBm								
Log										
11.5			and the second second		*********	N.				Center F
1.50			ſ			- 1				5.320000000
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-28.5 11 10 10	bullities is a second									
-38.5										
-48.5										
-58.5										
-68.5										
Center 5	32 GHz		1					Sna	n 50 MHz	
#Res BW				#V	вжі з мн	7			ep 1 ms	CF St
						-				5.000000 N
Осси	pied Bandw	idth			Total P	ower	25.1	dBm		<u>Auto</u> N
0000										
		18.21	14 MI	HZ						Freq Off
Transi	mit Freq Erro	r	-7.006	kHz	% of O	3W Pow	ver 90	.00 %		
x dB E	Bandwidth		25.93 N	/IHz	x dB		-26.	00 dB		
							_1			
MSG							🚺 STATU:	5		

Channel 100:

🔤 Keysight Spectru	um Analyzer - Occ	upied BW									×
vv ∟ Center Fre	RF <u>50 Ω</u> q 5.50000	AC 0000 GH	lz	Center F	NSE:INT req: 5.50000	00000 GHz Avg Hole		02:51:28 P Radio Std	M Mar 07, 2018 : None	Frequency	/
		#IF	⊶ Gain:Low	#Atten: 3		Avginoi	4.210/10	Radio Dev	rice: BTS		
10 dB/div	Ref Offset Ref 21.50			-							
Log 11.5										Center F	req
1.50		יקיים	e la companya de				North Land			5.50000000	GHz
-8.50	AN THE MERINA	AN A					Martine Work	MALIN'T HALLAND			
-28.5	phillipping and the second								W-way water		
-30.5											
-58.5											
-68.5											
Center 5.5 #Res BW 1				#VE	в змн	z			n 50 MHz ep 1 ms	CF S 5.000000	
Occupi	ed Band	width			Total P	ower	24.9	9 dBm		<u>Auto</u>	Man
		18.3	20 MI	Ηz						Freq Of	fset
Transmi	t Freq Err	or	31.631	Hz	% of O	BW Pow	ver 99	9.00 %			0 Hz
x dB Bar	ndwidth		28.67 N	1Hz	x dB		-26	.00 dB			
MSG							Ko statu	IS			



Channel 120:

Keysight Spectrum Analyzer - Occupied BW Center Freq 5.580000000 GHz ALIGN AUTO 02:52:05 PM Mar 07, 2018 Frequency Center Freq 5.580000000 GHz Center Freq: 5.580000000 GHz Radio Std: None Radio Std: None Frequency #IF Gain:Low #IFGain:Low #Atten: 30 dB Radio Device: BTS Center Freq: 5.580000000 10 dB/div Ref Offset 1.5 dB Center Freq: 5.58000000 Center Freq: 5.58000000 Frequency 1.60
Center Freq 5.580000000 GHz Center Freq 5.580000000 GHz Radio Std: None #IFGain:Low #IFGain:Low #IFGain:Low Ref Offset 1.5 dB Log Info: 1.5 Info: 8.50 Info: 1.65 Info: 1.65 Info: 1.65
Center Freq 5.560000000 GH2 Trig: Free Run Avg Hold: 10/10 Radio Device: BTS 10 dB/div Ref Offset 1.5 dB Ref 21.50 dBm Center 11.5 Avg Avg Hold: 10/10 Radio Device: BTS 10 dB/div Ref 21.50 dBm Center 5.58000000 11.5 Avg Avg Avg 11.5 Avg Avg Avg 18.50 Avg Avg Avg
#/FGain:Low #Atten: 30 dB Radio Device: BTS 10 dB/div Ref 21.50 dBm Center 11.5
Ref Offset 1.5 dB Center 10 dB/div Ref 21.50 dBm 11.5
10 dB/div Ref 21.50 dBm Log Center 11.5
Log 11.5 1.50 8.50 1.8.5 2.8.5 2.8.5 1.8.5 2.8.5 1.8.5
11.5 Center 1.50
1.50 No No So S
-30.3
48.5
-58.5
-68.5
Center 5.58 GHz Span 50 MHz CF
#ResBW 1MHz #VBW 3MHz Sweep 1ms 5.000000
Occupied Bandwidth Total Power 26.0 dBm
Occupied Bandwidth Total Power 26.0 dBm
18.586 MHz Freg O
Transmit Freq Error 5.435 kHz % of OBW Power 99.00 %
x dB Bandwidth 34.57 MHz x dB -26.00 dB

Channel 140:

🔤 Key	sight Sp	ectrum Analyzer - O	ccupied BW								
	tor F	RF 50 S		1-		NSE:INT req: 5.7000	0000 GHz	ALIGN AUTO	02:52:38 P Radio Std	M Mar 07, 2018	Frequency
Cen	ter F	req 5.7000	00000 Gr	1Z ↔	🚽 Trig: Fre	e Run	Avg Hol	d: 10/10			
			#IF	Gain:Low	#Atten: 3	0 dB		Radio Dev	ice: BTS		
		Ref Offse	t1.5 dB								
10 dE	3/div	Ref 21.5									
Log 11.5											Center Free
1.50				AN AN			- Na				5.70000000 GH
				1				N.			
-8.50 -		erf ^{te} ville ^t flandle ^t strage	WWW.					"hughy		then Alman	
-18.5 -		1.1.1.10/2019-	N H.					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	WWWWWWW		
-28.5		P P P P P P P P P P P P P P P P P P P							. and whit May	the discount	
-38.5	- India	•••									
-48.5											
-58.5								-			
-68.5											
	F	7.011								CO 8411	
		.7 GHz 1 MHz			#\/6	з мзмн	17			n 50 MHz ep 1 ms	CF Step
#Rea	5 0 9 9				#VL	746 2 1411	12		300	sep i liis	5.000000 MH Auto Mar
Ιo	ccu	pied Band	dwidth			Total F	ower	23.	3 dBm		Auto Mai
		•••••		33 MI	_ _						
			10.2	55 111	12						Freq Offse
Tr	ans	mit Freq Er	ror	-49.921	kHz	% of O	BW Pow	/er 99	9.00 %		0 H:
x	dB E	Bandwidth		25.34 N	1Hz	x dB		-26	.00 dB		
								1	-		
MSG									5		



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Maximum conducted output power
Test Site	:	No.3 OATS
Test Date	:	2018/03/07
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)

CHAIN A

Cable	loss=1dB					Avera	ige Pow	er		
				D	Data Rat	e (Mbps	s)			
Channel No.	Frequency (MHz)	14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	Required Limit
36	5180	14.5								<18dBm
40	5200	14.34	14.27	14.21	14.13	14.09	14.02	13.95	13.91	<18dBm
48	5240	15.47								<18dBm
52	5260	14.1								<18dBm
60	5300	14.54	14.49	14.38	14.28	14.21	14.17	14.1	14.04	<18dBm
64	5320	14.01								<18dBm
100	5500	13.18								<18dBm
120	5580	14.03	13.94	13.86	13.77	13.72	13.64	13.58	13.49	<18dBm
140	5700	14.29								<18dBm
149	5745	16.83								<24dBm
157	5785	18.6	18.51	18.43	18.39	18.3	18.24	18.18	18.1	<24dBm
165	5825	18.52								<24dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss



Cable	e loss=1dB					Avera	ige Pow	er			
				Ľ	Data Rat	e (Mbps	s)				
Channel No.	Frequency (MHz)	14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	Required Limit	
				Measu	urement	Level (dBm)				
36	5180	13.01								<18dBm	
40	5200	14.51	14.43	14.37	14.31	14.25	14.18	14.12	14.04	<18dBm	
48	5240	14.13								<18dBm	
52	5260	12.28	12.15	12.09	11.98	11.84	11.76	11.59	11.42	<18dBm	
60	5300	10.26								<18dBm	
64	5320	13.37	13.27	13.18	13.06	12.94	12.85	12.72	12.6	<18dBm	
100	5500	14.42								<18dBm	
120	5580	13.65								<18dBm	
140	5700	18.94	18.8	18.71	18.59	18.4	18.29	18.15	18.06	<18dBm	
149	5745	13.01								<24dBm	
157	5785	14.51	14.43	14.37	14.31	14.25	14.18	14.12	14.04	<24dBm	
165	5825	14.13								<24dBm	

CHAIN B

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel Number	Frequency	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Outp	ut Power Limit
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)
36	5180		14.50	14.73	17.63	18	
44	5220		14.34	15.30	17.86	18	
48	5240		15.47	14.32	17.94	18	
52	5260	18.739	14.10	15.35	17.78	18	23.73
60	5300	18.780	14.54	15.28	17.94	18	23.74
64	5320	18.753	14.01	15.18	17.64	18	23.73
100	5500	18.790	13.18	15.09	17.25	18	23.74
116	5580	18.731	14.03	15.66	17.93	18	23.73
140	5700	18.752	14.29	15.40	17.89	18	23.73
149	5745		16.83	17.27	20.07	24	
157	5785		18.60	18.58	21.60	24	
165	5825		18.52	18.90	21.72	24	

(CHAIN A+ B)

Note:

1. Power Output Value =Reading value on average power meter + cable loss

2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

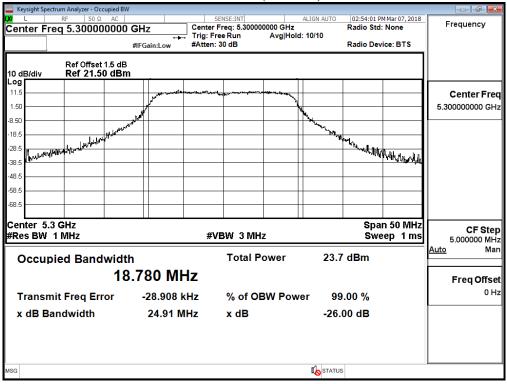
4. The maximum conducted output power shall be reduced by the amount in dB that the directional gain the antenna exceeds 6 dBi.

99% Occupied Bandwidth:

					Cham	nci 54	(Unan	111)			
🔤 Key	sight Spe	ctrum Analyzer - Oc	cupied BW								
LXI L	-	RF 50 Ω	2 AC			NSE:INT		ALIGN AUTO		M Mar 07, 2018	En marine and
Cent	ter F	reg 5.2600	00000 GH	z		req: 5.26000			Radio Std:	None	Frequency
L				++	Trig: Fre		Avg Hold	1: 10/10			
			#IF	Gain:Low	#Atten: 3	0 dB			Radio Dev	ICE: BIS	
		Ref Offset									
10 dE Loa	3/div	Ref 21.5	o dBm								
11.5				Jul and a start of the start of	and the second second	and the state of the second	allelain-serveron y				Center Freq
1.50				J.			L Y	ι — —			5.260000000 GHz
-8.50			لىرى	1				<u> </u>			
-8.50			لل ^{ير} ال					MA.			
-18.5		n.pherMr.Mandlewi	No Martin					The state		MIL Town I HANNE	
20 E		M House	•					-	Marken .		
-20.5	- 40	e								AUD	
-38.5	104A									AND A REAL OF A	
-48.5											
-58.5											
-68.5											
00.0											
Can	tor 5	26 GHz	1		1				Sna	n 50 MHz	
		1 MHz			#\/E	зжіз мн	-			ep 1 ms	CF Step
#Re:	SDW				#VE		2		SWE	epims	3.000000 141112
_											<u>Auto</u> Man
0	ccu	bied Band	lwidth			Total P	ower	23.8	dBm		
			40 7	87 MI	1-						
			10.7	0/ IVI	72						Freq Offset
_											0 Hz
T T	ransr	nit Freq Er	ror	25.745	(Hz	% of OE	3W Pow	er 99	.00 %		0112
		andwidth		25.12 N		u dD		26	00 dB		
x	авв	andwidth		Z0.1Z I	IHZ	x dB		-20.	00 aB		
MSG											L
mod								SIAIO	1		

Channel 52 (Chain A)

Channel 60 (Chain A)





Channel 64 (Chain A)

_	ht Spectrum Analyzer - Occ						·				7 ×
uxu⊥ Cente	RF 50 Ω Freq 5.32000	AC 0000 GH	7		NSE:INT req: 5.32000	0000 GHz	ALIGN AUTO	02:54:36 P Radio Std	M Mar 07, 2018 : None	Frequen	су
001110			⊶ Gain:Low	Trig: Fre #Atten: 3		Avg Hold	l: 10/10	Radio Dev	vice: BTS		
			Jam.cow						1		
10 dB/d	Ref Offset div Ref 21.5 0										
Log											_
11.5 —			A Manuful and			Contraction of the second s				Center	
1.50		لى	r				W			5.32000000	0 GHz
-8.50		Al and a second					Mund Maria				
-28.5	^{بر} امار بر ا	N.					~~~	Way hallow			
-20.0 -38.5 L	reprise the distance in the sheet							- MUM	hin the state		
-48.5											
-58.5											
-68.5											
	r 5.32 GHz BW 1 MHz			#\/E	з мзмн	7			n 50 MHz eep 1 ms		Step
#Res				#**	JAA DIALL	2		300	eep mis	5.00000 Auto	0 MHz Man
Oc	cupied Band	width			Total P	ower	23.5	ōdBm		Auto	man
		18.8	62 MH	Ηz						Freq	offect
.					W - 6 OT					i i cqv	0 Hz
	nsmit Freq Err	or	5.303 k			3W Pow		9.00 %			
x d	B Bandwidth		25.53 N	IHz	x dB		-26.	00 dB			
							~				
MSG							Ko STATU:	S			

Channel 100 (Chain A)

Image: Solution of the service of	er Freq
Ref Offset 1.5 dB Avg Hold: 10/10 10 dB/div Ref 21.50 dBm 10 dB/div Ref 21.50 dBm 11.5 Cente 12.5 Cente 13.5 Cente 14.5 Cente 15.5 Cente 16.5 Cente 17.5 Cente 18.5 Cente 18.5 Cente 18.5 Cente	•
10 dB/div Ref 21.50 dBm Cente 11.5	•
10 dB/div Ref 21.50 dBm Cente 11.5	
11.5 Cente 150	
1.50	
-8.50 -18.5 -28.5 -28.5	
-18.5 -28.5 -28.5	
28.5	
-39.5 My/M**	
30.3	
-48.5	
-58.5	
-68.5	
Center 5.5 GHz Span 50 MHz	
	F Step
Auto	Man
18.861 MHz Freq	Offset
Transmit Freq Error 759 Hz % of OBW Power 99.00 %	0 Hz
x dB Bandwidth 24.88 MHz x dB -26.00 dB	
MSG KATUS	



Channel 120 (Chain A)

Center Freq 5.580000000 GHz Center Freq: 5.80000000 GHz Radio Std: None #FGain:Low Trig: Freq: S.80000000 GHz Radio Device: BTS 10 dB/div Ref Offset 1.5 dB Center Freq: 5.80000000 GHz Radio Device: BTS 10 dB/div Ref Offset 1.5 dB Center Freq: 5.80000000 GHz Radio Device: BTS 10 dB/div Ref Offset 1.5 dB Center Freq: 5.80000000 GHz Radio Device: BTS 10 dB/div Ref Offset 1.5 dB Center Freq: 5.80000000 GHz Second 48.5 Image: Second GHz Image: Second GHz Second GHz 48.5 Image: Second GHz Image: Second GHz Second GHz 65 Image: Second GHz Image: Second GHz Second GHz 66 Image: Second GHz Second GHz Second GHz 7 Res BW 1 MHz #VBW 3 MHz Span 50 MHz 7 Ccupied Bandwidth Total Power 24.2 dBm 18.852 MHz % of OBW Power 99.00 % x dB Bandwidth 25.20 MHz x dB -26.00 dB	🔤 Keysight S	pectrum Analyzer - Occup						
Center Pred 3.58000000 GHZ Officer Pred 3.580000000 GHZ Radio Jac. Hole #IFGain:Low #IFGain:Low Radio Device: BTS Ref 0ffset 15 dB Center Freq 10 dB/div Ref 21.50 dBm Center Freq 300 Market M	L <mark>XI</mark> L							Frequency
#IFGain:Low #Atten: 30 dB Radio Device: BTS 10 dB/div Ref Offset 1.5 dB	Center I	-req 5.580000	000 GHz			Radio Std	None	riequency
Ref Offset 1.5 dB Center Freq 10 11.5 1 <t< td=""><td></td><td></td><td></td><td></td><td>Avginoia: 10/10</td><td>Radio Dev</td><td>ice: BTS</td><td></td></t<>					Avginoia: 10/10	Radio Dev	ice: BTS	
10 dB/div Ref 21.50 dBm Log Image: Control of the second seco			an ounieon					
Log Center Freq 115 150 150 150 180 100 181 100 182 100 183 100 184 100 185 100 186 100 186 100 186 100 186 100 186 100 186 100 18 100 18 100 18 100 18 100 18 100 18 100 115 100 115 100 18 100 18 100 100 100 100 100 110 100 110 100 110 100 110 100 110 100 110 100 110 100 110 100 110 1								
115 Image: Conter Freq 150 Image: Conter Freq 180 Image: Conter Freq 180 Image: Conter Freq 181 Image: Conter Freq 183 Image: Conter Freq 184 Image: Conter 184<		Ref 21.50	dBm		· · · ·	-		
150 100 1				and the second sec				Contor From
a a a a b b a			1					
48.5					<u> </u>			5.580000000 GHz
48.5	-8.50		- Advertised		in the second			
48.5	-18.5	. I Bull from the	-11014			Hall		
48.5	-28.5					م المركبة الع م	WALL N	
48.5	-38.5 M ⁴⁴							
58.5 Span 50 MHz CF Step 68.5 Span 50 MHz Span 50 MHz CF Step Center 5.58 GHz #VBW 3 MHz Sweep 1 ms Auto Man Man Sweep 1 ms Source Man Occupied Bandwidth Total Power 24.2 dBm Freq Offset Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB 0 Hz								
Image: Center 5.58 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms Center 5.58 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms Occupied Bandwidth Total Power 24.2 dBm 18.852 MHz Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % x dB Bandwidth 25.20 MHz x dB -26.00 dB								
Center 5.58 GHz #Res BW 1 MHz #VBW 3 MHz Span 50 MHz Sweep 1 ms CF Step 5.000000 MHz Auto Occupied Bandwidth Total Power 24.2 dBm Auto Man 18.852 MHz Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB 0 Hz	-58.5							
#Res BW 1 MHz #VBW 3 MHz Sweep 1 ms CF Step 5.000000 MHz Occupied Bandwidth Total Power 24.2 dBm Auto Man 18.852 MHz Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB 0 Hz	-68.5							
#Res BW 1 MHz #VBW 3 MHz Sweep 1 ms CF Step 5.000000 MHz Occupied Bandwidth Total Power 24.2 dBm Auto Man 18.852 MHz Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB 0 Hz								
#Res BW 1 MHZ #VBW 3 MHZ Sweep 1 ms Occupied Bandwidth Total Power 24.2 dBm 18.852 MHz Freq Offset Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % x dB Bandwidth 25.20 MHz x dB -26.00 dB								CF Step
Occupied Bandwidth Total Power 24.2 dBm 18.852 MHz Freq Offset Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % x dB Bandwidth 25.20 MHz x dB -26.00 dB	#Res BV	V 1 IVIMZ		#VBW 3 MH	Z	SWE	ep 1 ms	5.000000 MHz
18.852 MHz Freq Offset Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB	0.000		vi altila	Total P	ower 24	2 dBm		<u>Auto</u> Man
Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB	Occu	ipied Bandw			24.			
Transmit Freq Error -42.524 kHz % of OBW Power 99.00 % 0 Hz x dB Bandwidth 25.20 MHz x dB -26.00 dB			18.852 M	Hz				Freg Offset
x dB Bandwidth 25.20 MHz x dB -26.00 dB	_							
	Trans	mit Freq Erro	r -42.524	KHZ % of OE	SW Power 9	9.00 %		0112
MSG Land Land Land Land Land Land Land Land	x dB	Bandwidth	25.20	MHz xdB	-26	.00 dB		
MSG Land Land Land Land Land Land Land Land								
MSG Land Land Land Land Land Land Land Land								
MSG Landow								
MSG 🔣 STATUS								
	MSG					IS		

Channel 140 (Chain A)

		n Analyzer - Occ									
Cento		^{RF} 50 Ω 5.70000		↔	Center F Trig: Fre		0000 GHz Avg Hold	ALIGN AUTO	Radio Std:		Frequency
			#IFC	Sain:Low	#Atten: 3	30 dB			Radio Dev	ice: BTS	
10 dB/	div	Ref Offset Ref 21.50									
Log 11.5				والملاحد ورجر	-						Center Freq
1.50 -				X		ļ					5.70000000 GHz
-8.50 -			and set and					We hay			
-18.5 —			State and the state of the stat					"Wathhard	d .		
-28.5 -		Trungan							multin tala in the	up _{uter}	
-38.5 -	Jahren									ullustr while	
-48.5 —											
-58.5 -											
-68.5 —											
L Cento	er 5.7 G	2H7							Sna	n 50 MHz	
	BW 11				#VE	з мзмн	z			ep 1 ms	CF Step 5.00000 MHz
0	cupie	d Band	width			Total P	ower	23.9) dBm		Auto Man
00	cupie	u Danu		0 E NA		. otal i		2010			
			10.0	85 MI	ΠZ						Freq Offset
Tra	ansmit	Freq Err	or -	56.534	kHz	% of OBW Power 99.00 %					0 Hz
x d	IB Ban	dwidth		25.21 N	/Hz	x dB		-26.	00 dB		
MSG											Ľ



Channel 52 (Chain B)

Keysight S	Spectrum Analyzer - Occup								
LXI L		AC		SENSE:INT		ALIGN AUTO		M Mar 07, 2018	Frequency
Center	Freq 5.260000	000 GHz	Center	Freq: 5.2600	00000 GHz Avg Hold	1. 10/10	Radio Std	: None	riequency
		#IFGain:Lo		: 30 dB	Avginoid	1. 10/10	Radio Dev	vice: BTS	
		#FGall.LU	w written					1	
	Ref Offset 1.	5 dB							
10 dB/div	Ref 21.50	dBm							
Log									
11.5		Jana Mark	wysayle	al a sub-sub-sub-sub-sub-sub-sub-sub-sub-sub-	and the second and				Center Freq
1.50					- 4	1			5.26000000 GHz
-8.50						Nu.			
-18.5		UMM MAR				19. Mar.		Yhitriwy franktormet	
-10.5	مريلون ا						WAR.		
-28.5	Why make and						. Ward and a	ALL I	
-38.5	willing the analysis of the second							Contraction of	
-48.5									
-58.5									
-68.5									
	5 00 0 U-						0		
	5.26 GHz V 1 MHz			УВЖ ЗМН	ı			n 50 MHz	CF Step
#Res DV			#		12		SWG	eep 1 ms	5.000000 MHz
0		با ما 4 ام		Total F	owor	22	9 dBm		<u>Auto</u> Man
Occi	upied Bandw			Total I	OWEI	22.	5 ubm		
		18.739	MHz						Freq Offset
									0 Hz
Trans	smit Freq Erro	r -10.4	75 kHz	% of O	BW Pow	er 99	9.00 %		0 HZ
v dP	Bandwidth	24 7	8 MHz	x dB		-26	.00 dB		
	Danawidth	24.1	0 10112	A UD		-20			
MSG							0		
MaG						STATU	0		

Channel 60 (Chain B)

Keysight Spectr	rum Analyzer - Occup									- J X
Center Fre	RF 50 Ω cq 5.300000				Run	00000 GHz Avg Hold	ALIGN AUT	Radio St		Frequency
10 dB/div	Ref Offset 1.t	5 dB	Sain:Low #	Atten: 30	ав			Radio De	evice: BTS	
Log 11.5 1.50		مريم ا	er and a second		رور الدور المراجع المر المراجع المراجع	A A A A A A A A A A A A A A A A A A A	the second secon			Center Freq 5.300000000 GHz
-18.5 -28.5 -38.5	water the way to the second second	A MILLOW AF						Marine Marine Marine	llal duni dentri den	
-48.5 -58.5 -68.5										
Center 5.3 #Res BW 1				#VB	w змн	Iz			an 50 MHz /eep 1 ms	CF Step 5.000000 MHz
Occupi	ed Bandw		22 MHz		Total P	ower	22	2.4 dBm		Auto Mar Freq Offse
Transmi x dB Ba	it Freq Erro ndwidth	r	22.885 kH; 24.52 MH;		% of Ol x dB	BW Pow		99.00 % 6.00 dB		0 Hz
MSG							K sta	TUS		



Channel 64 (Chain B)

Keysight S	pectrum Analyzer - Occ							
LXI L	RF 50 Ω	AC		SENSE:INT			:17 PM Mar 07, 2018	Frequency
Center F	req 5.32000	0000 GHz		er Freq: 5.3200000 Free Run	00 GHz Avg Hold: 10/′		Std: None	requercy
]	#IFG		en: 30 dB	nvg noia: 10/1		Device: BTS	
10 dB/div	Ref Offset Ref 21.50							
Log 11.5 1.50			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	مدخولي سالام يور محمد المحاص	~~~~~			Center Freq 5.320000000 GHz
-8.50 -18.5		agreed the move and the				Muhanhar way the		
-28.5 -38.5 -38.5	halen Mingol Der monte and a second						M. Libulat Providing	
-48.5								
-68.5								
Center : #Res BW	5.32 GHz / 1 MHz			#VBW 3 MHz			Span 50 MHz Sweep 1 ms	CF Step 5.000000 MHz
Осси	pied Band	width		Total Pov	wer	22.2 dBm	1	<u>Auto</u> Man
		18.7	53 MHz					Freq Offset
Trans	mit Freq Err	or	-7.037 kHz	% of OBV	V Power	99.00 %	b	0 Hz
x dB l	Bandwidth		25.52 MHz	x dB		-26.00 dE	3	
MSG					4	STATUS		

Channel 100 (Chain AB)

Keysight Spectrum Analyzer -									
Center Freq 5.500	000000 GH	lz	Center Fr		00000 GHz Avg Hold	ALIGN AUTO	04:26:56 F Radio Std	M Mar 07, 2018 I: None	Frequency
	#IF	Gain:Low	#Atten: 3		.		Radio De	vice: BTS	
10 dB/div Ref 21	set 1.5 dB I .50 dBm								
11.5		morena	المعمورين والمراجع	appersidence					Center Freq
1.50		of the second			- ⁻ v	h.			5.50000000 GHz
-8.50						M. M.			
-18.5	Marna					- Martinalia	hullen and a		
-8.50 -18.5 -28.5 -38.5							and the second sec	Hand Martin Have allow	
-48.5									
-58.5									
-68.5									
Center 5.5 GHz #Res BW 1 MHz			#VE	SW 3 MH	lz			an 50 MHz eep 1 ms	CF Step 5.000000 MHz
Occupied Bar	ndwidth			Total F	ower	21.9	9 dBm		<u>Auto</u> Man
	18.7	90 MH	Ηz						Freq Offset
Transmit Freq E	rror	16.222 k	Hz	% of O	BW Pow	er 99	9.00 %		0 Hz
x dB Bandwidth	n	24.78 M	IHz	x dB		-26.	.00 dB		
MSG						I o statu	s		



Channel 120 (Chain B)

Keysight S	pectrum Analyzer - Occupied I	BW					
L <mark>XI</mark> L	RF 50 Ω AC		SENSE:INT	ALIGN AUTO		M Mar 07, 2018	Frequency
Center I	Freq 5.5800000		Center Freq: 5.580000 Trig: Free Run	000 GHz Avg Hold: 10/10	Radio Std	: None	requercy
		⊶⊶ #IFGain:Low	#Atten: 30 dB	Avginola, IV/IV	Radio Dev	rice: BTS	
10 dB/div	Ref Offset 1.5 d Ref 21.50 dB						
Log		<u> </u>			<u> </u>		
11.5					+	<u> </u>	Center Free
1.50				V		L	5.58000000 GH
-8.50				<u>\</u>			
		June V		The second secon		Millingraphic	
-18.5	Annotation and hereit and and				hankulata an		
-28.5	NAME AND A CONTRACT OF A CONTR				TINNEART	WINSTOWN IN	
-38.5 - ⁴⁰1''''	·				+	1111	
-48.5						L	
-58.5					L		
-68.5							
Center 4	5.58 GHz				Spa	n 50 MHz	
#Res BW			#VBW 3 MHz			eep 1 ms	CF Step 5.000000 MH
							Auto Ma
Occu	pied Bandwid	ith	Total Po	wer 23.3	3 dBm		
	1	8.731 MH	7				
	I		12				Freq Offse
Trans	mit Freq Error	51.704 k	Hz % of OB	W Power 99	9.00 %		0 H
	Bandwidth	25.34 M	Hz x dB	26	.00 dB		
x uB l	Banawiaui	25.34 M		-20.	.00 uB		
MSG					5		

Channel 140 (Chain B)

Keysight Spectru										
Center Free	RF 50 Ω q 5.70000	0000 GH	↔	Center	SENSE:INT Freq: 5.70000 ree Run	00000 GHz Avg Hold	ALIGN AUTO	Radio Sto		Frequency
		#IF	Gain:Low	#Atten	: 30 dB			Radio De	vice: BTS	
10 dB/div	Ref Offset Ref 21.5					<u> </u>				
Log 11.5			merine			-				Center Freq
1.50			and a second			- \				5.700000000 GHz
-8.50		when the	1				Mul Marker			
-8.50 -18.5 -28.5 -38.5	. MAR	and the state of t					- The second	a. Mar 11		
-28.5	MARY WWW								un and an and a state of the st	
-38.5 -1001									- TUP MIN	
40.0										
-58.5										
-68.5										
Center 5.7 (#Res BW 1				#\	/BW/3MH	lz			an 50 MHz eep 1 ms	CF Step 5.000000 MHz
Occupie	ed Band	width			Total P	ower	23.	3 dBm		Auto Man
		18.7	'52 M	Hz						FreqOffset
Transmit	t Freq Err		14.382		% of O	BW Pow	or O	9.00 %		0 Hz
x dB Ban		01	25.52		x dB			.00 dB		
х ав вал	awiath		29.92 1	MHZ	хав		-20	.00 aB		
MSG							I o statu	IS		



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Maximum conducted output power
Test Site	:	No.3 OATS
Test Date	:	2018/03/07
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)

CHAIN A

Cable	loss=1dB					Avera	ige Pow	er		
Channel No.	Frequency (MHz)	30	60	90	120	180	240	270	300	Required Limit
				Measu	urement	Level (dBm)			
38	5190	13.01								<18dBm
46	5230	14.51	14.43	14.37	14.31	14.25	14.18	14.12	14.04	<18dBm
54	5270	14.13								<18dBm
62	5310	12.28	12.15	12.09	11.98	11.84	11.76	11.59	11.42	<18dBm
102	5510	10.26								<18dBm
118	5550	13.37	13.27	13.18	13.06	12.94	12.85	12.72	12.6	<18dBm
134	5670	14.42								<18dBm
151	5755	13.65								<24dBm
159	5795	18.94	18.8	18.71	18.59	18.4	18.29	18.15	18.06	<24dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

CHAIN B

Cable	e loss=1dB					Avera	ige Pow	er		
		Data Rate (Mbps)								
Channel No.	Frequency (MHz)	30	60	90	120	180	240	270	300	Required Limit
				Measu	ırement	Level (dBm)			
38	5190	13.94								<18dBm
46	5230	15.09	15.01	14.93	14.86	14.81	14.72	14.65	14.61	<18dBm
54	5270	14.76								<18dBm
62	5310	13.96	13.85	13.72	13.69	13.55	13.48	13.39	13.25	<18dBm
102	5510	13.45								<18dBm
118	5550	15.34	15.22	15.14	15.06	14.92	14.81	14.73	14.59	<18dBm
134	5670	15.2								<18dBm
151	5755	14.31								<24dBm
159	5795	19.19	19.05	18.92	18.79	18.61	18.52	18.44	18.29	<24dBm

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel Number	Frequency	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Outp	put Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)	
38	5190		13.01	13.94	16.51	18		
46	5230		14.51	15.09	17.82	18		
54	5270	36.871	14.13	14.76	17.47	18	26.67	
62	5310	36.860	12.28	13.96	16.21	18	26.67	
102	5510	36.910	10.26	13.45	15.15	18	26.67	
110	5550	36.958	13.37	15.34	17.48	18	26.68	
134	5670	36.922	14.42	15.20	17.84	18	26.67	
151	5755		13.65	14.31	17.00	24		
159	5795		18.94	19.19	22.08	24		

(CHAIN A+ B)

Note:

1. Power Output Value = Reading value on average power meter + cable loss

2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

3. 26 dB Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

4. The maximum conducted output power shall be reduced by the amount in dB that the directional gain the antenna exceeds 6 dBi.

99% Occupied Bandwidth:

			0		(0)					
Keysight Spectr	um Analyzer - Occu	upied BW									
	RF 50 Ω			SENSE:INT		ALIGN AUTO		PM Mar 07, 2018	Frequency Center Freq 5.270000000 GHz		
Center Fre	q 5.27000	0000 GHz		r Freq: 5.27000 Free Run	Avg Hold:	10/10	Radio Sto	d: None	riequency		
		#IFGain:Lov		: 30 dB	Arginola.	10/10	Radio De	vice: BTS			
<u>`</u>											
	Ref Offset 1										
10 dB/div	Ref 21.50	dBm									
Log 11.5											
	man	*****		Mart mannah		يسالم رجوه فراستجره	managerice a				
1.50	~						L N		5.270000000 GHz		
-8.50	ut Li							NU			
-8.50 -18.5 -18.5								- Marson Marson			
-28.5											
-38.5											
-48.5	+ + +										
-58.5											
-68.5											
-00.0											
Center 5.2	7 GHz						Spa	an 50 MHz	05.04		
#Res BW 1			#	<mark>ив</mark> жи з мн	z			eep 1 ms	CF Step 5.000000 MHz		
									Auto Man		
Occupi	ed Band	width		Total P	ower	24.1	dBm		<u>Auto</u> man		
		36.895	VIHZ						Freq Offset		
Transmi	t Freq Erro	or 34.4	51 kHz	% of O	3W Powe	r 99	.00 %		0 Hz		
x dB Ba	ماغام ان درام	47 5	0 MIL-			26	00 dB				
хавва	nawiath	47.5	0 MHz	x dB		-20.	00 aB				
 						1					
MSG						I STATUS	5				

Channel 54 (Chain A)

Channel 62 (Chain A)

Keysi	ight Spectrun	n Analyz RF	zer - Occ 50 Ω	AC		05	NSE:INT	`		02.57	50 DM M	- 07 2010		
Cent				0000 G	Hz	Center F	req: 5.31000	00000 GHz	ALIGN AUTO	Radio		ar 07, 2018 one	Freque	ncy
					⊷ FGain:Low	Trig: Fre #Atten: 3		Avg Hold:	: 10/10	Radio	Device	: BTS		
		Dof	Offset ·	15 40									1	
10 dB/	/div) dBm										
Log 11.5 -										ļ			Cent	er Freq
1.50 —		pr.	ال مدير عيد م	and the second second	and the second s	warmer and the	an service and a service and a service a servi	and the second	⊶⊀~,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-			5.3100000	- 11
-8.50		N ^{HV}									1 Val	e.l.		
-18.5 🕫	part and all all all and a second second											-lummer		
-28.5 —														
-38.5 —														
-48.5 —														
-58.5 —														
-68.5 —														
	er 5.31											50 MHz	c	F Step
#Res	BW 1	VIHZ				#VE	BW 3 MH	IZ		8	weep)1ms	5.0000 Auto	000 MHz Man
00	cupie	d B	and	width			Total P	ower	22.1	1 dBm			Auto	Wan
				36.9	933 MI	Hz							Erec	Offset
_		F					0/ af O	BW Powe		9.00 %				0 Hz
	ansmit			or	47.372			BW FOW						
xd	B Ban	dwic	ith		47.22 N	1Hz	x dB		-26.	00 dB				
MSG									STATU:	s				
									N	-				



L RF 50 Ω AC SENSE:INT ALIGN AUTO 02:58:41 PM Mar 07, 2018	
Center Freq 5.510000000 GHz Center Freq: 5.510000000 GHz Radio Std: None	Frequency
Trig: Free Run Avg Hold: 10/10	
#FGain:Low #Atten: 30 dB Radio Device: BTS	
Ref Offset 1.5 dB 10 dB/div Ref 21.50 dBm	
11.5	Center Freq
	5.51000000 GHz
8.50	
185	
185	
-38.5 mm/l/2014/1/ 1000	
-48.5	
-58.5	
-68.5	
Center 5.51 GHz Span 100 MHz	05.01-
#Res BW 1 MHz #VBW 3 MHz Sweep 1 ms	CF Step 10.000000 MHz
Occupied Bandwidth Total Power 22.2 dBm	<u>Auto</u> Man
37.022 MHz	Freq Offset
Transmit Freq Error 32.125 kHz % of OBW Power 99.00 %	0 Hz
x dB Bandwidth 47.12 MHz x dB -26.00 dB	
MSG STATUS	L]

Channel 102 (Chain A)

Channel 118 (Chain A)

🔤 Keysight Spec	ctrum Analyzer - Occupie	d BW			,	,			
KALL L	RF 50 Ω A0 eq 5.5500000			SENSE:INT Freq: 5.55000	00000 GHz	ALIGN AUTO	02:59:23 P Radio Std	M Mar 07, 2018 None	Frequency
	<u>eq 3.3300000</u>	#IFGain:Lo	Trig: F	ree Run					
10 dB/div	Ref Offset 1.5 Ref 21.50 d								
Log 11.5 1.50			farmar flagstyre, an meraph	an server and the server	· · · · · · · · · · · · · · · · · · ·				Center Freq 5.55000000 GHz
-8.50	alalifet regatitions and and	Alexandra and a second s				Ulwhyl har areas	^{er-left-w^{fl/}HullⁱefTr-styr}	Windwijten	
-38.5	ev 1							"""""I'd'tek	
-58.5									
-68.5 Center 5.4	55 GHz						Span	100 MHz	CF Step
#Res BW	1 MHz		#\	BW 3 MH	z			ep 1ms	10.000000 MHz
Occup	oied Bandwi	dth		Total P	ower	24.5	dBm		<u>Auto</u> Man
	:	37.148	MHz						Freq Offset
Transm	nit Freq Error	140.	53 kHz	% of O	BW Pow	er 99	.00 %		0 Hz
x dB Ba	andwidth	47.9	90 MHz	x dB		-26.	00 dB		
MSG						K STATUS	b		



🔤 Keysight :	Spectrum Analyzer - Occ										
<mark>⊯ ∟</mark>	RF 50 Ω Freq 5.67000		1-		NSE:INT eq: 5.67000	0000 GHz	ALIGN AU	TO 03:00:09 P Radio Std	M Mar 07, 2018	Frequency	
Center				Trig: Free #Atten: 3	Run	Avg Hol	d: 10/10				
		#IF	Gain:Low	#Atten: 3	0 dB			Radio Dev	rice: BTS		
	Ref Offset										
10 dB/div Log	Ref 21.50) dBm				,	-				
11.5				مىلىيەت مالى د ى		In other d.				Center Freq	
1.50				· ···	<i>,</i>	an and				5.670000000 GHz	
-8.50		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	r				V.				
-18.5	muthampouriter me	- n n					""hulle	AUNILANILUMAN AUNT			
-28.5	- Warner Mary Mary Mary	- ANN					~	WWWWWWWWWWW			
-38.5 WHAT	nhadan								hint ware		
-48.5											
-58.5											
-68.5											
-00.5											
	5.67 GHz							Span	100 MHz	CF Step	
#Res B۱	N/1 MHz			#VE	зм змн	z		Swe	ep 1ms	10.000000 MHz	
0.00	upied Band	width			Total P	ower	2	4.2 dBm		<u>Auto</u> Man	
0000	upled Ballo		~~ • • • •		Totarr	0000	-	4.2 UDM			
		36.9	22 MH	Z						Freq Offset	
Tran	Transmit Freq Error -38.414 kHz					SW Pow	/er	99.00 %		0 Hz	
x dB	Bandwidth	Ηz	x dB		-						
	24.14.144							26.00 dB			
MSG											
	STATUS										

Channel 134 (Chain A)

Channel 54 (Chain B)

	Keysight				upied BW												
IXI Ce	L nter		Բ 52	50 Ω	AC 0000	GH7		Cente	SENSE:INT or Freq: 5.2	270000	000 GHz	ALIGN AUTO	04:28 Radio		Mar 07, 2018 None	Fre	equency
66	nici		J.2	1000			. +	Trig:	Free Run		Avg Hold	: 10/10			ce: BTS		
						#IFGain	:Low	#Atte	n: 30 dB				Radio	Devi	Ce: DIS	r l	
				Offset													
10 Log	dB/div a F		Ref	21.50	0 dBm							1	1	- 			
11.											a	a and a Mary Isla				с	enter Freq
1.5	0		1	,					where we				and all and a second	₩.			000000 GHz
-8.5	o —	Å	and the second sec						_					- L	H.		
-18.	։ 5 _{Խմ} գիի	APP AND													What a way was a second		
-28.																	
-38.	6					_											
-48.	6																
-58.	5																
-68.	6								_								
	Ļ																
		5.27 · N 1 M						+		MHZ					n 50 MHz ep 1 ms		CF Step
<u></u>	C3 D1		1112					#VBW 3 MHz						0	ср т шэ	5. Auto	000000 MHz Man
	Occi	upie	d E	Band	width				Tota	al Po	wer	22.	6 dBn	n		Auto	man
					36	87	1 MI	H7									
																1 '	req Offset 0 Hz
1	Transmit Freq Error 41.959 kHz					% o	f OB	W Powe	er 9	9.00 %	6			0 112			
,	x dB Bandwidth 47.62 MHz					x dE	x dB -26.00 dB										
MSG																	
	1											-					



Channel	62 (Chain	B)

🔤 Keysigh	t Spectrum													
LXI L Constan	R		50 Ω	AC	<u>u-</u>		ENSE:INT Freq: 5.31000		ALIGN AUTO	04:29:3 Radio S		Mar 07, 2018	F	requency
Center	Freq	5.5	1000	0000 G	ΠZ	🗖 Trig: Fre	ee Run	Avg Hold	: 10/10					
				#I	FGain:Low	#Atten:	30 dB			Radio I	Devi	ice: BTS		
		Ref	Offset	1.5 dB										
10 dB/di				0 dBm										
Log 11.5														Contor From
1.50			مي	anger (John same		-	Le marine	have the standar	*************	- immedly				Center Freq 10000000 GHz
-8.50		Χ					T			1	٦,		5.5	10000000 GH2
-0.50 -18.5	. Mary Strates										z	HUNDER HIME		
	n ^{av.}											· · · · · · · · · · · · · · · · · · ·		
-28.5														
-38.5														
-48.5														
-58.5											_			
-68.5														
Center	5.31 (GHZ								S	nai	n 50 MHz		
#Res B						#V	вки з мн	z				ep 1 ms		CF Step 5.000000 MHz
											_		Auto	Man
Occ	upie	d B	and	width			Total P	ower	20.6	6 dBm				
				36.8	8 <mark>60 M</mark>	Hz								Freq Offset
_	•	_	_											0 Hz
Tran	Ismit	Fre	q Err	or	-40.229	kHz	% of O	BW Powe	er 99	0.00 %				0112
x dB	x dB Bandwidth 46.77 MHz					x dB -26.00 dB								
MSG	s to the status													
									•	1				

Channel 102 (Chain B)

Keysight Spee	ctrum Analyzer - Occ	upied BW					,			
Karler Fr	RF 50 Ω eq 5.51000	AC	z	Center Fr	NSE:INT req: 5.51000 e Rup	0000 GHz Avg Hold	ALIGN AUTO	04:30:17 P Radio Std	M Mar 07, 2018 : None	Frequency
		#IF(Gain:Low	#Atten: 3		Arginoid	. 10/10	Radio Dev	rice: BTS	
10 dB/div	Ref Offset Ref 21.5									
Log 11.5										Center Freq
1.50			monum	and the second	renterior	month the second				5.510000000 GHz
-8.50		م م م م	/				N.			
-28.5	www.walandariona	ulal when have					Wylder W	Martin State		
-38.5	proved and for the way of the second s							The wind	mythist the war	
-48.5										
-68.5										
Center 5.: #Res BW				#VE	ы зw:змн	z			100 MHz ep 1 ms	CF Step 10.000000 MHz
Occup	ied Band	width			Total P	ower	20.	0 dBm		<u>Auto</u> Man
			10 MI	Ηz						Freq Offset
Transn	nit Freq Err	kHz	% of O	3W Pow	er 9	9.00 %		0 Hz		
x dB Ba	x dB Bandwidth 48.26 MHz									
MSG							K STAT	US		<u> </u>



🛄 Keysigh	Keysight Spectrum Analyzer - Occupied BW											
Center	RF 50 Ω r Freq 5.55000		z	Center Fr	vse:INT req: 5.55000 e Run	0000 GHz Avg Hold	ALIGN AU	TO 04:30:56 P Radio Std	M Mar 07, 2018 : None	Frequency		
		#IFG	ain:Low	#Atten: 3				Radio Dev	rice: BTS			
10 dB/di												
Log 11.5			mensorem	************	population and the second	and the state of the				Center Freq		
1.50 -8.50			A land				1			5.550000000 GHz		
-18.5	h	Way Market Market					Mul Wi	4k2.				
-28.5 -38.5	water and the second of the	ophyse ^{or}						Willer The served and for some	annal Unicology			
-48.5												
-58.5												
-68.5												
	5.55 GHz W 1 MHz			#VB	зм змн	z			ep 1 ms	CF Step 10.000000 MHz		
Oco	upied Band	width			Total P	ower	2	3.1 dBm		<u>Auto</u> Man		
	-	36.9	58 M⊦	łz						Freq Offset		
Trar	Transmit Freq Error 32.297 kHz					3W Pow	er	99.00 %		0 Hz		
x dE	x dB Bandwidth 46.68 MHz						-2					
MSG												

Channel 118 (Chain B)

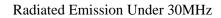
Channel 134 (Chain B)

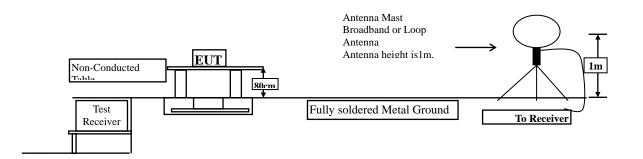
🔤 Key	/sight Sp	pectrum Analyzer - Oo	ccupied BW				,	,			
LXI L	_	RF 50 Ω				NSE:INT		ALIGN AUTO	04:31:37 P Radio Std	M Mar 07, 2018	Frequency
Cen	ter F	req 5.6700	00000 GH	IZ		req: 5.6700 e Run	Avg Holo	d: 10/10	Radio Std	: None	,,
			#IF	Gain:Low	#Atten: 3		•.		Radio Dev	vice: BTS	
		Ref Offse	+15 40								
10 di	3/div	Ref 21.5									
Log 11.5											
				Journand	and some sorry		not many				Center Fred
1.50				Í				L.			5.67000000 GHz
-8.50			. North					No.			
-18.5			Lugado alla							//	
-28.5	Lod	Washington and and and and and and and and and an	parae.						HUNNING MANYU	William	
-38.5	1 Marrie									· · ····	
-48.5											
-58.5											
-68.5											
		5.67 GHz / 1 MHz			40. /F	swi 3 m⊩	-			100 MHz	CF Step
#Res	SBW				#VE	5WV 3 IVIF	12		SWO	eep 1ms	10.000000 MHz
۱o	CCU	pied Band	dwidth			Total F	ower	23.9	dBm		<u>Auto</u> Mar
-				78 M	U-						
			37.0		п						Freq Offset
Т	Transmit Freq Error 5.502 kHz					% of O	BW Pow	ver 99	9.00 %		0 Hz
x	dB B	Bandwidth		46.05	MHz	x dB		-26.	00 dB		
MSG								I STATU	e		
Mag								STATU	3		



3. Radiated Emission

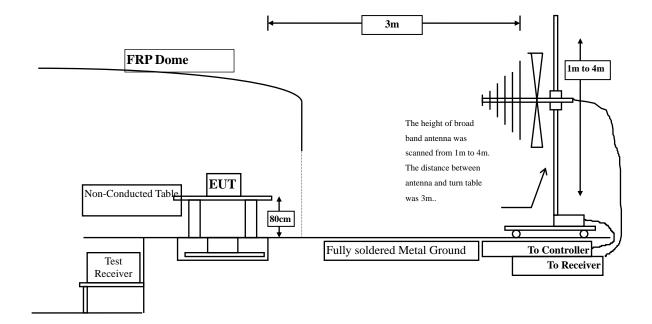
3.1. Test Setup



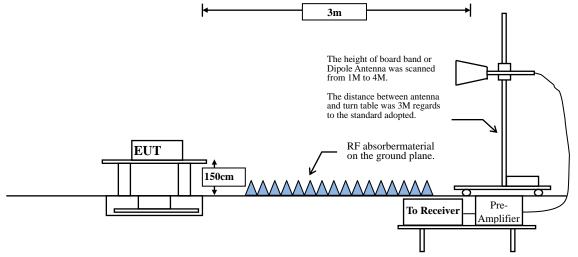


3m

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



3.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits										
Field strength	Measurement distance									
(microvolts/meter)	(meter)									
2400/F(kHz)	300									
24000/F(kHz)	30									
30	30									
100	3									
150	3									
200	3									
500	3									
	Field strength (microvolts/meter) 2400/F(kHz) 24000/F(kHz) 30 100 150 200									

Remarks: E field strength (dB μ V/m) = 20 log E field strength (uV/m)

3.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHzare made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna. The worst radiated emission is measured in the Open Area Test Site on the Final Measurement. The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

3.4. Uncertainty

±4.08 dB below 1GHz ±4.22 dB above 1GHz

3.5. Test Result of Radiated Emission

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(5180MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10360.000	10.540	38.768	49.308	-24.692	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10360.000	12.044	39.064	51.107	-22.893	74.000
Average					
Detector:					
					54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

5. The emission levels of other frequencies are very lower than the limit and not show in test report.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11a-6Mbps)(5220MHz)
	:

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10440.000	9.649	40.863	50.511	-23.489	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10440.000	11.429	40.914	52.342	-21.658	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11a-6Mbps)(5240MHz)
	: : :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10480.000	10.166	39.965	50.130	-23.870	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10480.000	12.101	41.023	53.124	-20.876	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(5260MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10520.000	11.021	38.684	49.705	-24.295	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10520.000	12.931	39.805	52.736	-21.264	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11a-6Mbps)(5300MHz)
	: : :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10600.000	44.618	38.016	49.884	-24.116	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10600.000	13.403	39.274	52.677	-21.323	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11a-6Mbps)(5320MHz)
	: : :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10640.000	11.844	38.375	50.219	-23.781	74.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
10640.000	13.517	39.176	52.693	-21.307	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11a-6Mbps)(5500MHz)
	: : :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11000.000	12.392	38.216	50.608	-23.392	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11000.000	14.514	39.016	53.530	-20.470	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(5580MHz)

Frequency	Correct	Correct Reading Measure		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
11160.000	12.201	38.134	50.335	-23.665	74.000
Average					
Detector:					- 4 000
					54.000
Vertical					
Peak Detector:					
11160.000	14.445	39.083	53.528	-20.472	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11a-6Mbps)(5700MHz)
	: : :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11400.000	13.372	38.814	52.186	-21.814	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11400.000	14.922	41.059	55.981	-18.019	74.000
Average					
Detector:					
11400.000	14.922	26.380	41.302	-12.698	54.000
Mata					

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	14.326	38.914	53.239	-20.761	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11490.000	15.842	42.755	58.596	-15.404	74.000
Average					
Detector:					
11490.000	15.842	26.903	42.744	-11.256	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(5785MHz)

Frequency	Correct	Reading Measurement		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.849	37.229	52.078	-21.922	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11570.000	16.215	39.360	55.574	-18.426	74.000
Average					
Detector:					
11570.000	16.215	25.190	41.404	-12.596	54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)(5825MHz)

Frequency	Correct	ct Reading Measurement		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	13.179	37.532	50.711	-23.289	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11650.000	14.634	41.423	56.057	-17.943	74.000
Average					
Detector:					
11650.000	14.634	26.591	41.225	-12.775	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5180MHz)
Test Site Test Date	: :	No.3 OATS 2018/03/10

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10360.000	10.540	36.916	47.456	-26.544	74.000
Average					
Detector:					- 4 - 9 - 9
					54.000
Vertical					
Peak Detector:					
10360.000	12.044	38.287	50.330	-23.670	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5220MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10440.000	9.649	38.340	47.988	-26.012	74.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
10440.000	11.429	40.570	51.998	-22.002	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5240MHz)
	: : :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10480.000	10.166	38.361	48.527	-25.473	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10480.000	12.101	39.573	51.674	-22.326	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5260MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10520.000	11.021	38.160	49.181	-24.819	74.000
Average					
Detector:					54.000
					54.000
T 7 / 1 1					
Vertical					
Peak Detector:					
10520.000	12.931	39.517	52.448	-21.552	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5300MHz)
	: :

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
10600.000	11.868	37.512	49.380	-24.620	74.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
10600.000	13.403	38.672	52.075	-21.925	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

:	MOXA IEEE 802.11 a/b/g/n
:	Harmonic Radiated Emission Data
:	No.3 OATS
:	2018/03/10
:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5320MHz)
	:

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10640.000	13.517	37.342	50.859	-3.141	54.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
10640.000	13.517	38.893	52.410	-21.590	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5500MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
11000.000	12.392	37.493	49.885	-24.115	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11000.000	14.514	38.491	53.005	-20.995	74.000
Average					
Detector:					
					54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5580MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11160.000	12.201	37.914	50.115	-23.885	74.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
11160.000	14.445	39.172	53.617	-20.383	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5700MHz)

Frequency	Correct	Reading Measurement		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11400.000	13.372	39.814	53.186	-20.814	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11400.000	14.922	42.763	57.685	-16.315	74.000
Average					
Detector:					
11400.000	14.922	27.455	42.377	-11.623	54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5745MHz)

Frequency	Correct	Reading Measurement		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11490.000 Average	14.326	40.372	54.697	-19.303	74.000
Detector:					
11490.000	14.326	25.031	39.356	-14.644	54.000
Vertical Peak Detector:					
11490.000 Average Detector:	15.842	43.292	59.133	-14.867	74.000
11490.000	15.842	27.418	43.259	-10.741	54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5785MHz)

Correct	Reading Measurement		Margin	Limit
Factor	Level	Level		
dB	dBuV	dBuV/m	dB	dBuV/m
14.849	40.391	55.240	-18.760	74.000
14.849	25.472	40.321	-13.679	54.000
16.215	42.813	59.027	-14.973	74.000
16.215	27.172	43.386	-10.614	54.000
	Factor dB 14.849 14.849 16.215	Factor Level dB dBuV 14.849 40.391 14.849 25.472 16.215 42.813	Factor Level Level dB dBuV dBuV/m 14.849 40.391 55.240 14.849 25.472 40.321 16.215 42.813 59.027	Factor Level Level dB dB dBuV dBuV/m dB 14.849 40.391 55.240 -18.760 14.849 25.472 40.321 -13.679 16.215 42.813 59.027 -14.973

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5825MHz)

Frequency	Correct	Reading Measurement		Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	13.179	41.372	54.551	-19.449	74.000
Average					
Detector:					
11650.000	13.179	25.517	38.696	-15.304	54.000
Vertical					
Peak Detector:					
11650.000	14.634	44.381	59.015	-14.985	74.000
Average					
Detector:					
11650.000	14.634	27.392	42.026	-11.974	54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10380.000	10.164	36.891	47.055	-26.945	74.000
Average					
Detector:					5 4 000
					54.000
Vertical					
Peak Detector:					
10380.000	11.729	37.268	48.998	-25.002	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5230MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10460.000	9.786	38.591	48.377	-25.623	74.000
Average					
Detector:					5 4 000
					54.000
T 7 4 1					
Vertical					
Peak Detector:					
10460.000	11.644	40.572	52.216	-21.784	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5270MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10540.000	11.479	37.061	48.540	-25.460	74.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
10540.000	13.289	38.348	51.637	-22.363	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5310MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
10620.000	11.862	36.912	48.774	-25.226	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10620.000	13.449	38.061	51.510	-22.490	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5510MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
11020.000	12.632	37.681	50.313	-23.687	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11020.000	14.778	38.884	53.662	-20.338	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5550MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11100.000	12.305	37.256	49.561	-24.439	74.000
Average					
Detector:					54.000
					54.000
Vertical					
Peak Detector:					
11100.000	14.559	39.207	53.766	-20.234	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5670MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
11340.000	12.852	38.730	51.581	-22.419	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11340.000	14.594	41.413	56.007	-17.993	74.000
Average					
Detector:					
11340.000	14.594	26.791	41.385	-12.615	54.000
11340.000	14.594	26.791	41.385	-12.615	54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	14.402	36.752	51.154	-22.846	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11510.000	15.894	37.821	53.715	-20.285	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/10
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps)(5795MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	15.138	37.324	52.462	-21.538	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11590.000	16.461	39.518	55.979	-18.021	74.000
Average					
Detector:					
11590.000	16.461	24.061	40.522	-13.478	54.000

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

2. Measurement Level = Reading Level + Correct Factor.

3. Correct Factor = Antenna factor + Cable loss – Amplifier gain.

4. The average measurement was not performed when the peak measured data under the limit of average detection.



 MOXA IEEE 802.11 a/b/g/n General Radiated Emission No.3 OATS 2018/03/10 Mode 1: Transmit (802.11a-6Mbps)(5220MHz) 					
Correct	Reading	Measurement	Margin	Limit	
Factor	Level	Level			
dB	dBµV	dBµV/m	dB	dBµV/m	
-7.394	44.714	37.320	-6.180	43.500	
-4.650	41.583	36.933	-9.067	46.000	
2.147	35.646	37.793	-8.207	46.000	
2.817	34.160	36.977	-9.023	46.000	
7.346	34.369	41.715	-4.285	46.000	
6.880	32.866	39.746	-6.254	46.000	
-3.714	43.616	39.902	-3.598	43.500	
-4.061	43.391	39.330	-6.670	46.000	
-2.503	34.990	32.487	-13.513	46.000	
0.247	42.477	42.724	-3.276	46.000	
3.583	32.302	35.885	-10.115	46.000	
3.215	30.034	33.249	-12.751	46.000	
	 General No.3 OA 2018/03/ Mode 1: Correct Factor dB -7.394 -4.650 2.147 2.817 7.346 6.880 -3.714 -4.061 -2.503 0.247 3.583 	 General Radiated Emissio No.3 OATS 2018/03/10 Mode 1: Transmit (802.11 Correct Reading Factor Level dB dBµV -7.394 44.714 -4.650 41.583 2.147 35.646 2.817 34.160 7.346 34.369 6.880 32.866 -3.714 43.616 -4.061 43.391 -2.503 34.990 0.247 42.477 3.583 32.302 	 General Radiated Emission No.3 OATS 2018/03/10 Mode 1: Transmit (802.11a-6Mbps)(5220MHz) Correct Reading Measurement Factor Level Level dB dBµV dBµV/m -7.394 44.714 37.320 -4.650 41.583 36.933 2.147 35.646 37.793 2.817 34.160 36.977 7.346 34.369 41.715 6.880 32.866 39.746 -3.714 43.616 39.902 -4.061 43.391 39.330 -2.503 34.990 32.487 0.247 42.477 42.724 3.583 32.302 35.885 	General Radiated Emission:No.3 OATS:2018/03/10:Mode 1: Transmit (802.11a-6Mbps)(5220MHz)CorrectReadingMeasurementMarginFactorLeveldBdB μ VdBdB μ V-7.39444.71437.320-6.180-4.65041.58336.933-9.0672.14735.64637.793-8.2072.81734.16036.977-9.0237.34634.36941.715-4.2856.88032.86639.746-6.254-3.71443.61639.902-3.598-4.06143.39139.330-6.670-2.50334.99032.487-13.5130.24742.47742.47742.724-3.58332.30235.885-10.115	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	 MOXA IEEE 802.11 a/b/g/n General Radiated Emission No.3 OATS 2018/03/10 Mode 1: Transmit (802.11a-6Mbps)(5300MHz) 					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	dBµV/m	dB	dBµV/m	
Horizontal						
Peak Detector						
129.910	-7.394	43.760	36.366	-7.134	43.500	
310.330	-4.602	41.851	37.249	-8.751	46.000	
559.620	2.147	35.034	37.181	-8.819	46.000	
675.050	2.837	39.478	42.315	-3.685	46.000	
825.400	7.346	33.201	40.547	-5.453	46.000	
949.560	7.036	33.223	40.259	-5.741	46.000	
Vertical Peak Detector						
129.910	-3.714	43.431	39.717	-3.783	43.500	
299.660	-4.061	43.445	39.384	-6.616	46.000	
450.010	-5.869	43.202	37.333	-8.667	46.000	
682.810	1.817	37.635	39.452	-6.548	46.000	
784.660	2.736	31.857	34.593	-11.407	46.000	
900.090	1.958	40.922	42.880	-3.120	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	 MOXA IEEE 802.11 a/b/g/n General Radiated Emission No.3 OATS 2018/03/10 Mode 1: Transmit (802.11a-6Mbps)(5580MHz) 					
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	dBµV/m	dB	dBµV/m	
Horizontal						
Peak Detector						
129.910	-7.394	44.476	37.082	-6.418	43.500	
309.360	-4.463	41.030	36.567	-9.433	46.000	
559.620	2.147	35.208	37.355	-8.645	46.000	
675.050	2.837	40.005	42.842	-3.158	46.000	
825.400	7.346	33.554	40.900	-5.100	46.000	
950.530	7.044	32.928	39.971	-6.029	46.000	
Vertical						
Peak Detector						
129.910	-3.714	43.536	39.822	-3.678	43.500	
299.660	-4.061	44.632	40.571	-5.429	46.000	
450.010	-5.869	43.132	37.263	-8.737	46.000	
675.050	0.247	42.010	42.257	-3.743	46.000	
779.810	2.745	31.538	34.283	-11.717	46.000	
925.310	3.215	29.490	32.705	-13.295	46.000	

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 O. : 2018/03	8/10	-)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
129.910	-7.394	43.577	36.183	-7.317	43.500
308.390	-4.287	41.267	36.981	-9.019	46.000
559.620	2.147	35.509	37.656	-8.344	46.000
691.540	3.722	32.352	36.074	-9.926	46.000
790.480	6.363	32.082	38.445	-7.555	46.000
930.160	7.530	30.818	38.348	-7.652	46.000
Vertical					
Peak Detector					
129.910	-3.714	43.458	39.744	-3.756	43.500
299.660	-4.061	44.034	39.973	-6.027	46.000
450.010	-5.869	43.402	37.533	-8.467	46.000
675.050	0.247	42.573	42.820	-3.180	46.000
805.030	3.583	32.748	36.331	-9.669	46.000
925.310	3.215	34.327	37.542	-8.458	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Mode	 MOXA IEEE 802.11 a/b/g/n General Radiated Emission No.3 OATS Mode 1: Transmit (802.11n-20BW 14.2Mbps)(5220MHz) 				
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
104.690	-7.862	45.257	37.396	-6.104	43.500
174.530	-9.557	44.218	34.660	-8.840	43.500
308.390	-4.287	41.526	37.240	-8.760	46.000
559.620	2.147	35.664	37.811	-8.189	46.000
805.030	6.223	34.152	40.375	-5.625	46.000
949.560	7.036	33.587	40.623	-5.377	46.000
Vertical Peak Detector					
61.040	-11.587	47.395	35.808	-4.192	40.000
134.760	-4.093	40.393	36.300	-7.200	43.500
299.660	-4.061	43.553	39.492	-6.508	46.000
450.010	-5.869	43.460	37.591	-8.409	46.000
675.050	0.247	41.943	42.190	-3.810	46.000
784.660	2.736	34.180	36.916	-9.084	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 OA : 2018/03	/10		5300MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
104.690	-7.862	45.942	38.081	-5.419	43.500
164.830	-9.947	44.317	34.370	-9.130	43.500
309.360	-4.463	41.413	36.950	-9.050	46.000
559.620	2.147	35.128	37.275	-8.725	46.000
809.880	6.266	32.442	38.708	-7.292	46.000
949.560	7.036	32.807	39.843	-6.157	46.000
Vertical					
Peak Detector					
133.790	-3.999	40.884	36.885	-6.615	43.500
299.660	-4.061	43.353	39.292	-6.708	46.000
545.070	1.305	32.892	34.197	-11.803	46.000
682.810	1.817	37.958	39.775	-6.225	46.000
805.030	3.583	33.573	37.156	-8.844	46.000
925.310	3.215	37.293	40.508	-5.492	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 OA : 2018/03/	/10		5580MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
125.060	-7.335	43.681	36.346	-7.154	43.500
305.480	-3.836	41.578	37.742	-8.258	46.000
554.770	3.018	34.043	37.061	-8.939	46.000
725.490	3.838	30.875	34.712	-11.288	46.000
820.550	7.044	33.369	40.413	-5.587	46.000
944.710	6.880	34.169	41.049	-4.951	46.000
Vertical Peak Detector					
115.360	-3.870	40.881	37.012	-6.488	43.500
159.980	-5.120	45.177	40.056	-3.444	43.500
300.630	-3.999	44.184	40.185	-5.815	46.000
554.770	-2.262	36.276	34.014	-11.986	46.000
744.890	1.112	41.148	42.260	-3.740	46.000
895.240	0.317	42.490	42.807	-3.193	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 OA : 2018/03	/10		5785MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
125.060	-7.335	43.534	36.199	-7.301	43.500
307.420	-4.120	41.546	37.426	-8.574	46.000
445.160	-0.432	43.047	42.615	-3.385	46.000
554.770	3.018	34.089	37.107	-8.893	46.000
795.330	6.388	32.711	39.099	-6.901	46.000
944.710	6.880	33.383	40.263	-5.737	46.000
Vertical Peak Detector					
125.060	-3.725	43.290	39.565	-3.935	43.500
168.710	-4.431	42.315	37.884	-5.616	43.500
300.630	-3.999	42.503	38.504	-7.496	46.000
445.160	-6.402	42.929	36.527	-9.473	46.000
670.200	-0.898	42.141	41.243	-4.757	46.000
895.240	0.317	42.440	42.757	-3.243	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 O/ : 2018/03	3/10	e	230MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level	-	
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
125.060	-7.335	43.594	36.259	-7.241	43.500
306.450	-3.944	41.670	37.726	-8.274	46.000
554.770	3.018	34.362	37.380	-8.620	46.000
670.200	1.872	40.968	42.840	-3.160	46.000
809.880	6.266	33.236	39.502	-6.498	46.000
944.710	6.880	33.159	40.039	-5.961	46.000
Vertical Peak Detector					
127.000	-3.712	43.391	39.679	-3.821	43.500
299.660	-4.061	42.735	38.674	-7.326	46.000
445.160	-6.402	43.472	37.070	-8.930	46.000
670.200	-0.898	42.582	41.684	-4.316	46.000
809.880	3.026	32.625	35.651	-10.349	46.000
920.460	3.272	29.687	32.959	-13.041	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 OA : 2018/03/	/10		310MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
125.060	-7.335	44.513	37.178	-6.322	43.500
305.480	-3.836	41.542	37.706	-8.294	46.000
445.160	-0.432	43.030	42.598	-3.402	46.000
554.770	3.018	34.789	37.807	-8.193	46.000
795.330	6.388	32.486	38.874	-7.126	46.000
944.710	6.880	34.148	41.028	-4.972	46.000
Vertical Peak Detector					
125.060	-3.725	42.847	39.122	-4.378	43.500
300.630	-3.999	43.075	39.076	-6.924	46.000
445.160	-6.402	43.296	36.894	-9.106	46.000
494.630	-1.452	43.986	42.535	-3.465	46.000
670.200	-0.898	41.966	41.068	-4.932	46.000
760.410	1.971	32.204	34.175	-11.825	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 O. : 2018/03	8/10	-	550MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level	-	
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector					
125.060	-7.335	43.856	36.521	-6.979	43.500
305.480	-3.836	41.276	37.440	-8.560	46.000
554.770	3.018	34.416	37.434	-8.566	46.000
670.200	1.872	40.757	42.629	-3.371	46.000
805.030	6.223	33.259	39.482	-6.518	46.000
944.710	6.880	33.447	40.327	-5.673	46.000
Vertical Peak Detector					
125.060	-3.725	43.425	39.700	-3.800	43.500
299.660	-4.061	43.058	38.997	-7.003	46.000
445.160	-6.402	40.472	34.070	-11.930	46.000
670.200	-0.898	42.625	41.727	-4.273	46.000
790.480	2.693	32.428	35.121	-10.879	46.000
920.460	3.272	33.687	36.959	-9.041	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.



Product Test Item Test Site Test Date Test Mode	: General : No.3 O/ : 2018/03	8/10		'55MHz)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector					
125.060	-7.335	45.173	37.838	-5.662	43.500
306.450	-3.944	42.237	38.293	-7.707	46.000
445.160	-0.432	43.119	42.687	-3.313	46.000
554.770	3.018	34.657	37.675	-8.325	46.000
800.180	6.417	34.242	40.659	-5.341	46.000
944.710	6.880	32.943	39.823	-6.177	46.000
Vertical					
Peak Detector					
125.060	-3.725	43.185	39.460	-4.040	43.500
300.630	-3.999	42.975	38.976	-7.024	46.000
445.160	-6.402	43.171	36.769	-9.231	46.000
670.200	-0.898	42.303	41.405	-4.595	46.000
805.030	3.583	34.928	38.511	-7.489	46.000
920.460	3.272	37.875	41.147	-4.853	46.000

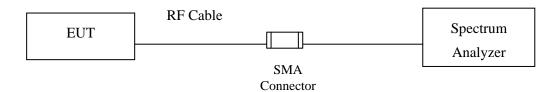
- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 6. No emission found between lowest internal used/generated frequency to 30MHz.

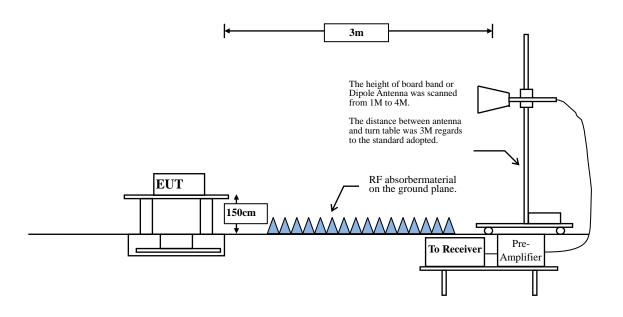


4. Band Edge

4.1. Test Setup

RF Conducted Measurement:





4.2. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits					
Frequency MHz	uV/m @3m	dBµV/m@3m			
30-88	100	40			
88-216	150	43.5			
216-960	200	46			
Above 960	500	54			

Remarks : 1. RF Voltage $(dB\mu V) = 20 \log RF$ Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.3. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

4.4. Uncertainty

±4.08 dB below 1GHz ±4.22 dB above 1GHz



4.5. Test Result of Band Edge

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps)-Channel 36 (5180MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
36 (Peak)	5129.565	· · ·	45.481	56.002	74.00	54.00	Pass
36 (Peak)	5150.000	10.470	43.729	54.200	74.00	54.00	Pass
36 (Peak)	5182.899	10.386	84.312	94.698			
36 (Average)	5150.000	10.470	24.217	34.688	74.00	54.00	Pass
36 (Average)	5176.812	10.402	72.700	83.102			

Figure Channel 36: Horizontal (Peak)

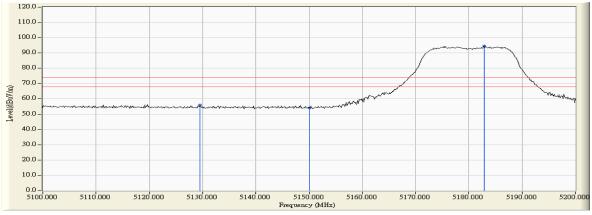
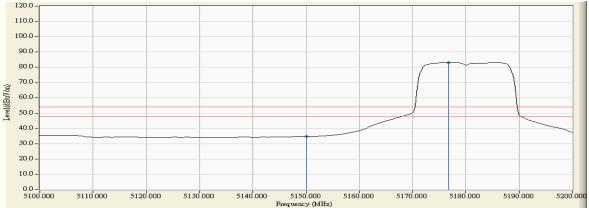


Figure Channel 36: Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS

1000 0100	•	
Test Date	:	2018/03/06

Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36 (5180MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
36 (Peak)	5150.000	12.390	60.481	72.871	74.00	54.00	Pass
36 (Peak)	5182.609	12.510	104.762	117.273			
36 (Average)	5104.638	12.231	41.232	53.463	74.00	54.00	Pass
36 (Average)	5150.000	12.390	38.811	51.201	74.00	54.00	Pass
36 (Average)	5185.507	12.522	93.290	105.812			

Figure Channel 36: Vertical (Peak)

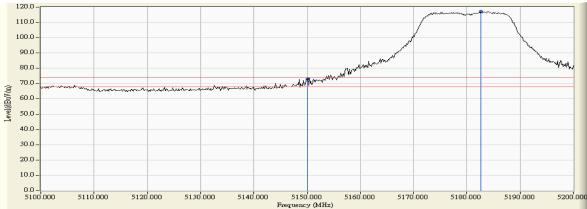
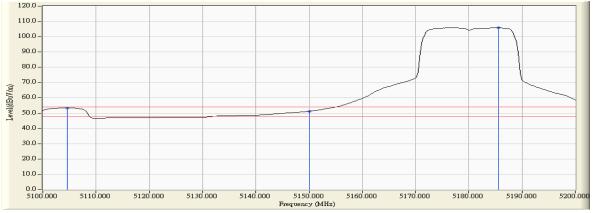


Figure Channel 36:Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Ba	and Edge Data
----------------	---------------

- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Horizontal):

	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
64 (Peak)	5322.899	11.094	87.696	98.789			
64 (Peak)	5350.000	11.024	45.519	56.543	74.00	54.00	Pass
64 (Peak)	5352.899	11.017	45.799	56.816	74.00	54.00	Pass
64 (Average)	5324.058	11.090	75.704	86.794			
64 (Average)	5350.000	11.024	25.644	36.668	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

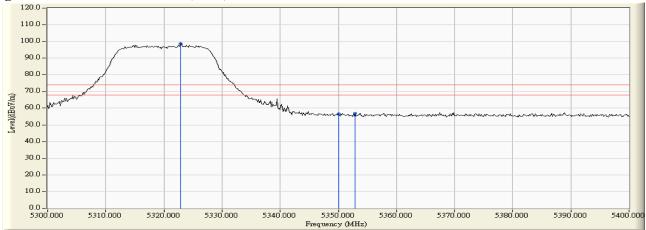
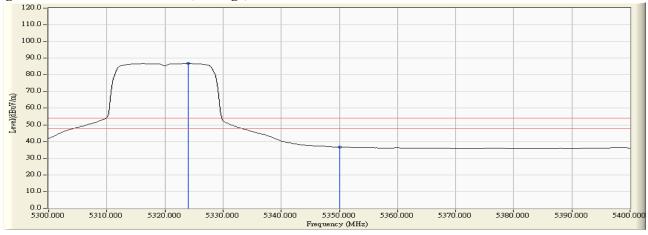


Figure Channel 64: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS

Test Date	2018/03/06
I SI Dale	2010/05/00

Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
64 (Peak)	5323.043	13.016	105.010	118.026			
64 (Peak)	5350.000	12.999	58.379	71.378	74.00	54.00	Pass
64 (Peak)	5350.725	13.000	60.565	73.564	74.00	54.00	Pass
64 (Average)	5316.522	13.020	93.633	106.653			
64 (Average)	5350.000	12.999	39.230	52.229	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

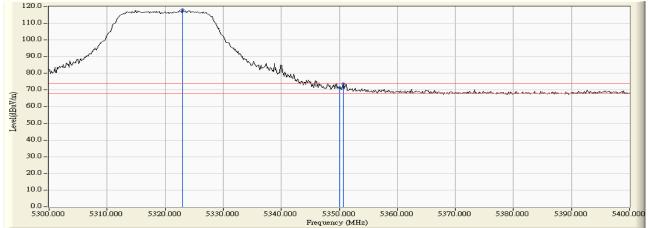
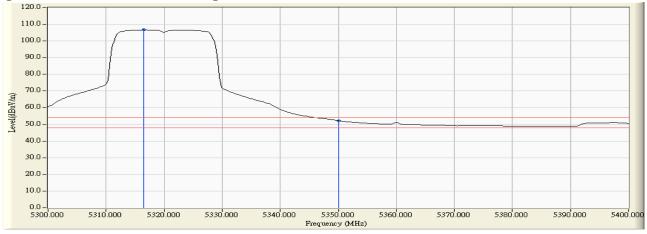


Figure Channel 64: Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
100 (Peak)	5430.000	11.300	45.277	56.577	74.00	54.00	Pass
100 (Peak)	5460.000	11.703	41.361	53.064	74.00	54.00	Pass
100 (Peak)	5503.623	12.194	83.684	95.878			
100 (Average)	5448.551	11.549	34.731	46.280	74.00	54.00	Pass
100 (Average)	5460.000	11.703	33.640	45.343	74.00	54.00	Pass
100 (Average)	5504.058	12.197	73.637	85.834			

Figure Channel 100: Horizontal (Peak)

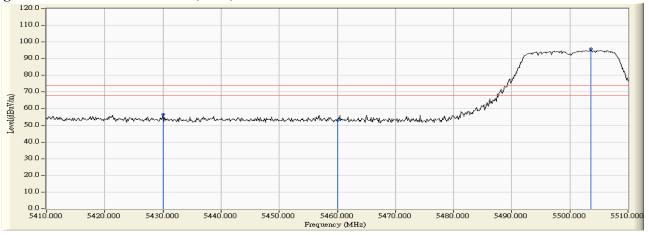
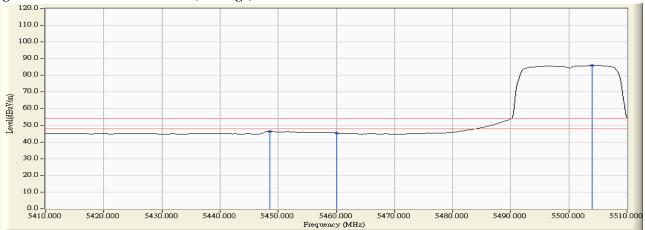


Figure Channel 100: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Vertical):

Channel Ne	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Degult
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
100 (Peak)	5417.246	13.087	51.698	64.786	74.00	54.00	Pass
100 (Peak)	5460.000	13.390	47.467	60.857	74.00	54.00	Pass
100 (Peak)	5503.043	13.639	102.144	115.783			
100 (Average)	5415.942	13.078	39.388	52.467	74.00	54.00	Pass
100 (Average)	5460.000	13.390	35.976	49.366	74.00	54.00	Pass
100 (Average)	5504.493	13.642	91.154	104.797			

Figure Channel 100: Vertical (Peak)

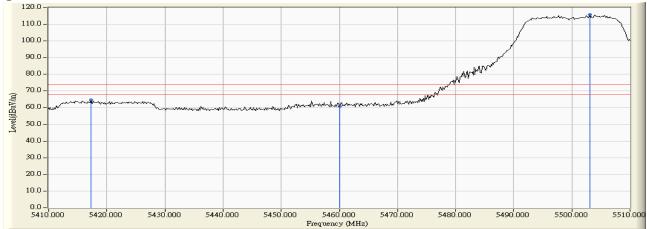
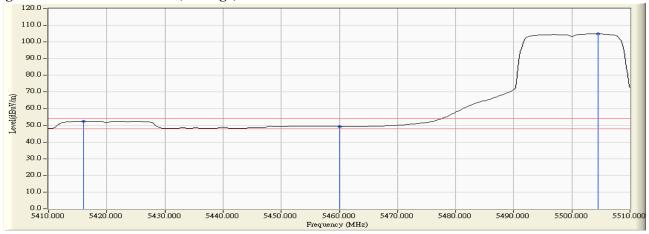


Figure Channel 100: Vertical (Average)

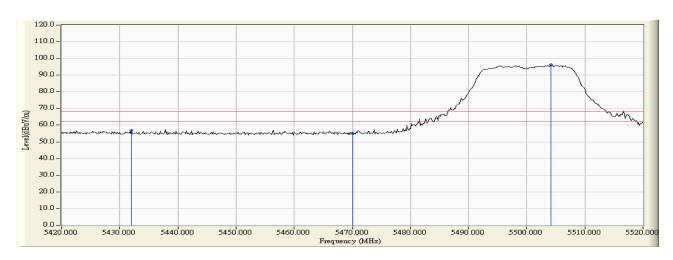


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.

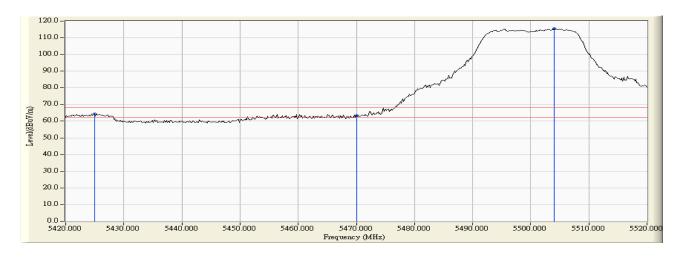


Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 100 (5500MHz)

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5432.029	11.328	45.662	56.989	-11.231	68.220	Pass
Horizontal	5470.000	11.838	43.194	55.032	-13.188	68.220	Pass
Horizontal	5504.203	12.198	83.846	96.044			



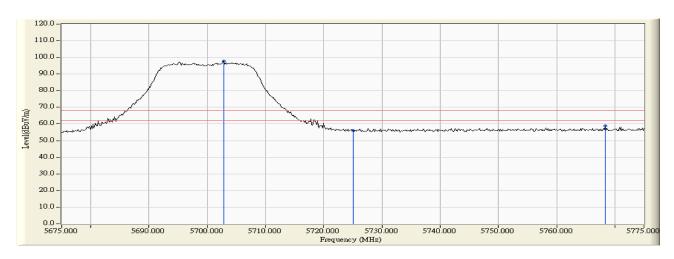
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5424.928	13.142	51.169	64.311	-3.909	68.220	Pass
Vertical	5470.000	13.462	50.069	63.531	-4.689	68.220	Pass
Vertical	5504.058	13.641	101.820	115.462			



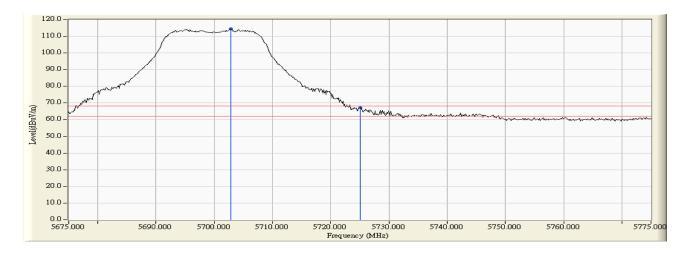


Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 140 (5700MHz)

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5702.826	11.645	86.014	97.660			
Horizontal	5725.000	11.592	44.344	55.936	-12.284	68.220	Pass
Horizontal	5768.333	11.455	47.401	58.856	-9.364	68.220	Pass



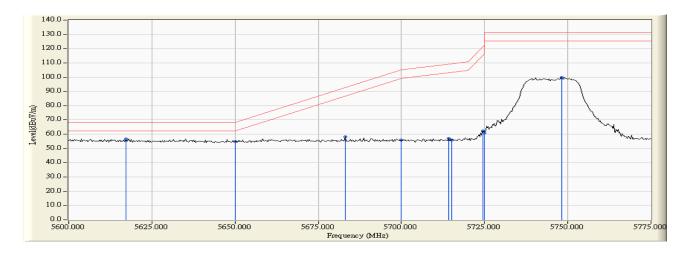
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5702.826	12.997	101.428	114.426			
Vertical	5725.000	12.930	54.388	67.318	-0.902	68.220	Pass





Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 149 (5745MHz)

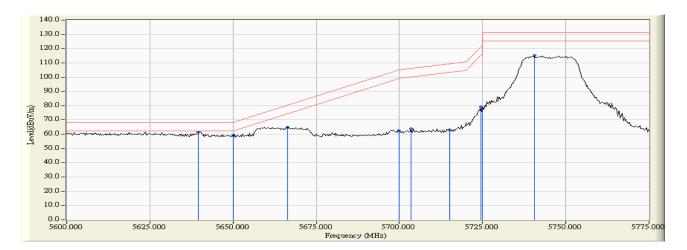
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5617.246	11.477	45.035	56.512	-11.708	68.220	Pass
Horizontal	5650.000	11.554	43.216	54.771	-13.449	68.220	Pass
Horizontal	5683.188	11.632	46.478	58.110	-34.656	92.766	Pass
Horizontal	5700.000	11.647	44.219	55.866	-49.334	105.200	Pass
Horizontal	5714.130	11.625	45.611	57.236	-51.920	109.156	Pass
Horizontal	5715.000	11.623	44.296	55.918	-53.482	109.400	Pass
Horizontal	5724.529	11.594	50.547	62.140	-58.986	121.126	Pass
Horizontal	5725.000	11.592	49.323	60.915	-61.285	122.200	Pass
Horizontal	5748.116	11.519	88.448	99.966			





Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 149 (5745MHz)

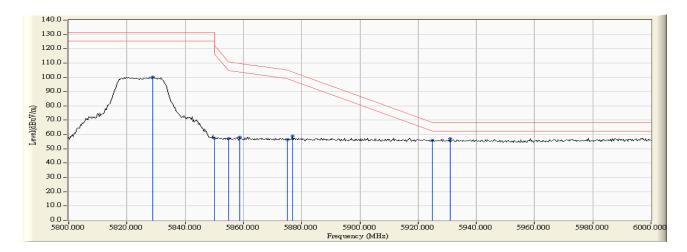
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5639.565	13.032	48.569	61.600	-6.620	68.220	Pass
Vertical	5650.000	13.029	46.433	59.462	-8.758	68.220	Pass
Vertical	5666.449	13.026	52.029	65.055	-15.331	80.386	Pass
Vertical	5700.000	13.003	49.163	62.166	-43.034	105.200	Pass
Vertical	5703.478	12.997	50.856	63.852	-42.322	106.174	Pass
Vertical	5715.000	12.965	50.142	63.106	-46.294	109.400	Pass
Vertical	5724.529	12.932	66.317	79.249	-41.877	121.126	Pass
Vertical	5725.000	12.930	65.373	78.303	-43.897	122.200	Pass
Vertical	5740.507	12.876	102.370	115.247			





Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) -Channel 165 (5825MHz)

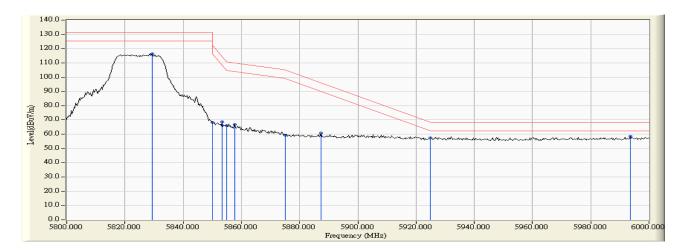
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5828.986	11.555	88.477	100.032			
Horizontal	5850.000	11.701	45.897	57.598	-64.602	122.200	Pass
Horizontal	5855.000	11.735	45.446	57.181	-53.619	110.800	Pass
Horizontal	5858.841	11.762	46.303	58.065	-51.660	109.725	Pass
Horizontal	5875.000	11.873	44.479	56.352	-48.848	105.200	Pass
Horizontal	5876.812	11.886	46.950	58.836	-45.023	103.859	Pass
Horizontal	5925.000	12.068	43.786	55.855	-12.345	68.200	Pass
Horizontal	5931.014	12.073	45.117	57.191	-11.009	68.200	Pass





Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) - Channel 165 (5825MHz)

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5829.275	12.731	103.677	116.407			
Vertical	5850.000	12.774	55.477	68.251	-53.949	122.200	Pass
Vertical	5853.333	12.780	55.851	68.632	-45.969	114.601	Pass
Vertical	5855.000	12.784	53.261	66.045	-44.755	110.800	Pass
Vertical	5857.681	12.789	53.860	66.650	-43.399	110.049	Pass
Vertical	5875.000	12.825	46.409	59.234	-45.966	105.200	Pass
Vertical	5887.246	12.853	47.808	60.660	-35.478	96.138	Pass
Vertical	5925.000	12.911	44.403	57.314	-10.886	68.200	Pass
Vertical	5993.623	13.002	45.394	58.396	-9.804	68.200	Pass





Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 36 (5180MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
36 (Peak)	5149.420	10.472	45.847	56.319	74.00	54.00	Pass
36 (Peak)	5150.000	10.470	44.709	55.180	74.00	54.00	Pass
36 (Peak)	5176.812	10.402	90.347	100.749			
36 (Average)	5150.000	10.470	33.070	43.541	74.00	54.00	Pass
36 (Average)	5185.797	10.379	78.532	88.911			

Figure Channel 36: Horizontal (Peak)

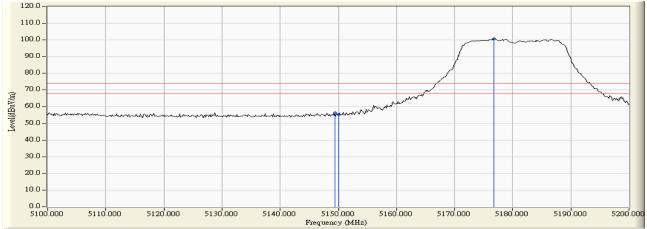


Figure Channel 36: Horizontal (Average)



- All readings above 1GHz are performed with peak and/or average measurements as necessary. 1.
- Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto. 2.
- Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. "*", means this data is the worst emission level. 3.
- 4.
- 5. Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average 6. detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 36 (5180MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
36 (Peak)	5136.957	12.340	57.982	70.323	74.00	54.00	Pass
36 (Peak)	5150.000	12.390	56.537	68.927	74.00	54.00	Pass
36 (Peak)	5185.217	12.521	106.718	119.239			
36 (Average)	5104.058	12.230	41.705	53.935	74.00	54.00	Pass
36 (Average)	5150.000	12.390	40.477	52.867	74.00	54.00	Pass
36 (Average)	5185.362	12.520	94.222	106.743			

Figure Channel 36: Vertical (Peak)

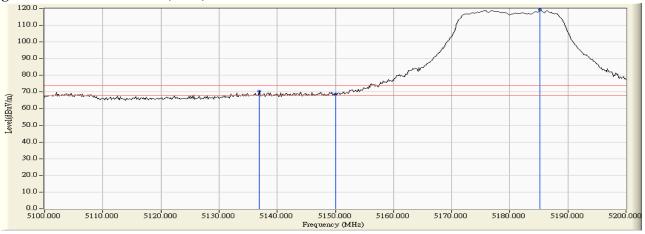


Figure Channel 36: Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product :	MOXA IEEE 802.11 a/b/g/n
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- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
64 (Peak)	5325.217	11.088	89.104	100.191			
64 (Peak)	5350.000	11.024	44.717	55.741	74.00	54.00	Pass
64 (Peak)	5360.435	10.997	45.919	56.916	74.00	54.00	Pass
64 (Average)	5316.522	11.110	76.411	87.521			
64 (Average)	5350.000	11.024	25.882	36.906	74.00	54.00	Pass
64 (Average)	5360.000	10.998	27.157	38.155	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

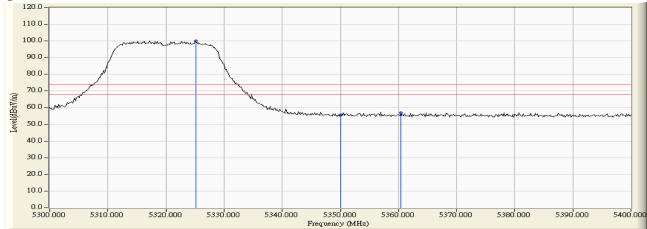
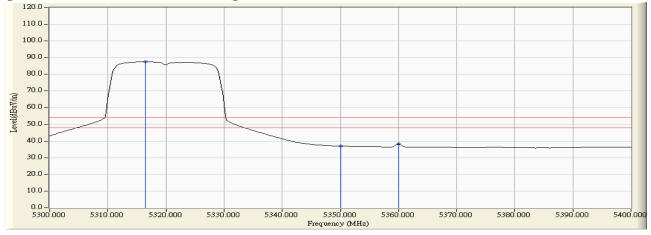


Figure Channel 64: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product :	MOXA IEEE 802.11 a/b/g/n
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Test Item : Band Edge Data

Test Site : No.3 OATS

Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 64 (5320MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
64 (Peak)	5316.522	13.020	105.353	118.373			
64 (Peak)	5350.000	12.999	56.097	69.096	74.00	54.00	Pass
64 (Peak)	5395.072	12.980	58.051	71.032	74.00	54.00	Pass
64 (Average)	5316.087	13.020	92.318	105.338			
64 (Average)	5350.000	12.999	39.030	52.029	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

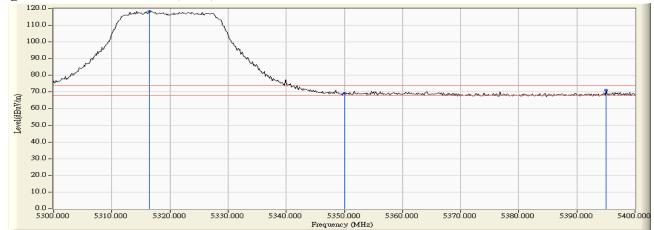
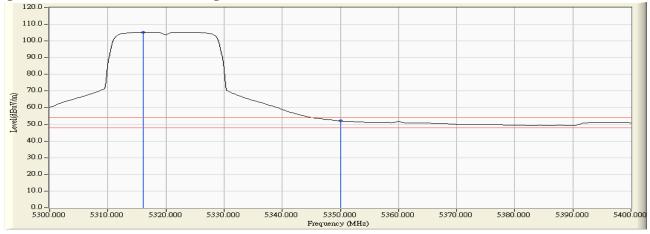


Figure Channel 64: Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/02/28

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Horizontal):

	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Kesuit
100 (Peak)	5414.493	11.090	46.365	57.455	74.00	54.00	Pass
100 (Peak)	5460.000	11.703	43.123	54.826	74.00	54.00	Pass
100 (Peak)	5495.362	12.137	86.206	98.342			
100 (Average)	5448.116	11.544	34.733	46.276	74.00	54.00	Pass
100 (Average)	5460.000	11.703	33.649	45.352	74.00	54.00	Pass
100 (Average)	5503.768	12.195	74.103	86.298			

Figure Channel 100: Horizontal (Peak)

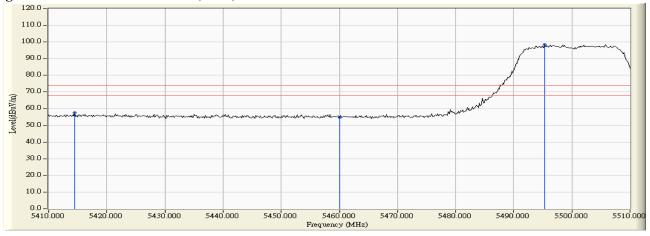
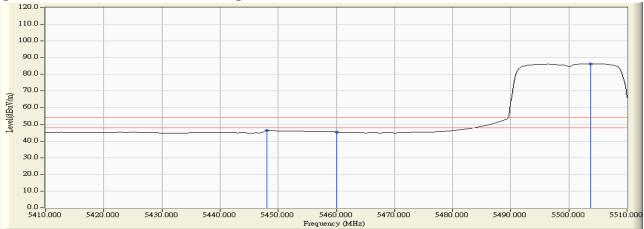


Figure Channel 100: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product :	MOXA IEEE 802.11 a/b/g/n
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Test Item : Band Edge Data

Test Site : No.3 OATS

Test Date : 2018/02/28

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 100 (5500MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
100 (Peak)	5420.725	13.112	57.813	70.925	74.00	54.00	Pass
100 (Peak)	5460.000	13.390	55.189	68.579	74.00	54.00	Pass
100 (Peak)	5505.072	13.645	104.085	117.729			
100 (Average)	5415.072	13.072	40.882	53.954	74.00	54.00	Pass
100 (Average)	5460.000	13.390	36.648	50.038	74.00	54.00	Pass
100 (Average)	5504.783	13.644	90.421	104.065			

Figure Channel 100: Vertical (Peak)

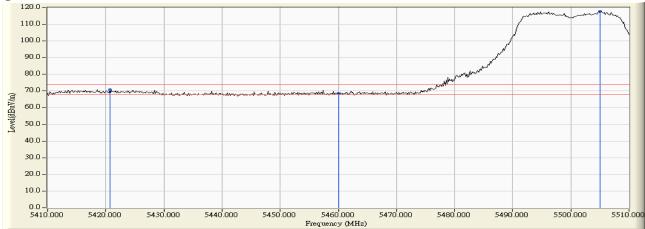
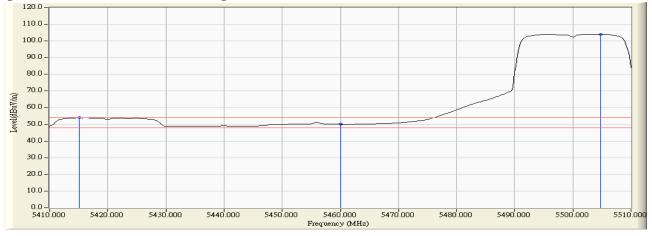


Figure Channel 100: Vertical (Average)

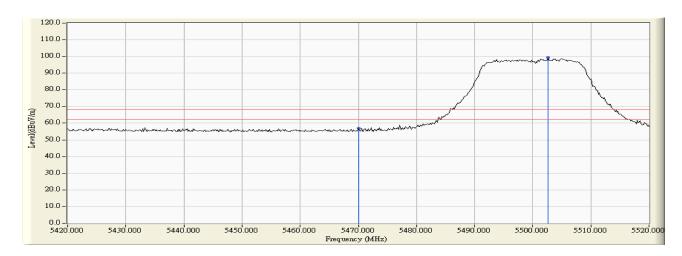


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.

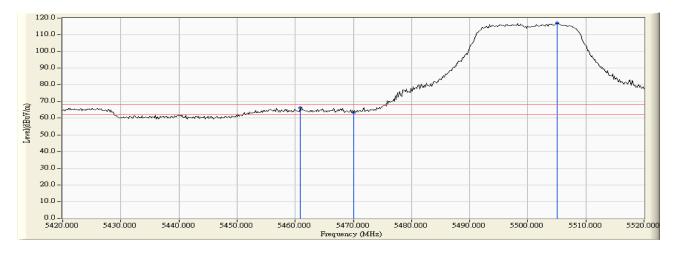


Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 100 (5500MHz)

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5470.000	11.838	45.090	56.928	-11.292	68.220	Pass
Horizontal	5502.609	12.187	87.105	99.292			



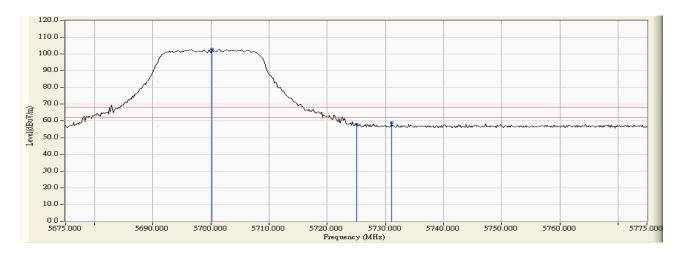
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5460.870	13.396	52.952	66.348	-1.872	68.220	Pass
Vertical	5470.000	13.462	49.765	63.227	-4.993	68.220	Pass
Vertical	5505.072	13.645	103.354	116.998			



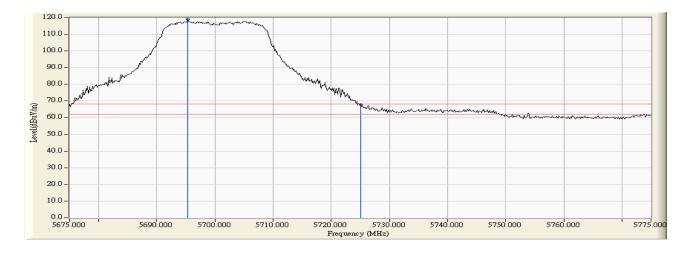


Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 140 (5700MHz)

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5700.217	11.647	91.313	102.960			
Horizontal	5725.000	11.592	46.218	57.810	-10.410	68.220	Pass
Horizontal	5731.087	11.574	47.341	58.914	-9.306	68.220	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5695.290	13.012	105.881	118.893			
Vertical	5725.000	12.930	54.966	67.896	-0.324	68.220	Pass



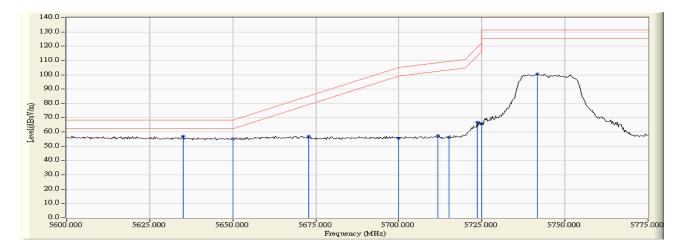


- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 149 (5745MHz)

<u>RF</u> Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5635.000	11.519	45.512	57.031	-11.189	68.220	Pass
Horizontal	5650.000	11.554	43.802	55.357	-12.863	68.220	Pass
Horizontal	5672.790	11.609	45.560	57.169	-27.906	85.075	Pass
Horizontal	5700.000	11.647	44.059	55.706	-49.494	105.200	Pass
Horizontal	5711.848	11.632	45.875	57.507	-51.010	108.517	Pass
Horizontal	5715.000	11.623	44.689	56.311	-53.089	109.400	Pass
Horizontal	5723.514	11.596	55.370	66.966	-51.846	118.812	Pass
Horizontal	5725.000	11.592	54.457	66.049	-56.151	122.200	Pass
Horizontal	5741.775	11.539	89.204	100.743			



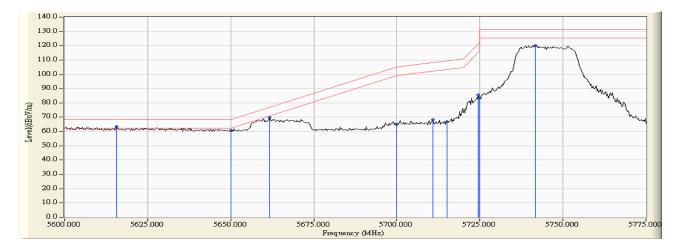


- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 149 (5745MHz)

<u>RF</u> Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5615.725	13.037	50.441	63.478	-4.742	68.220	Pass
Vertical	5650.000	13.029	47.747	60.776	-7.444	68.220	Pass
Vertical	5661.630	13.027	56.821	69.848	-6.974	76.822	Pass
Vertical	5700.000	13.003	52.027	65.030	-40.170	105.200	Pass
Vertical	5710.833	12.979	55.295	68.273	-39.960	108.233	Pass
Vertical	5715.000	12.965	53.936	66.900	-42.500	109.400	Pass
Vertical	5724.529	12.932	72.725	85.657	-35.469	121.126	Pass
Vertical	5725.000	12.930	70.562	83.492	-38.708	122.200	Pass
Vertical	5741.775	12.873	107.348	120.220			

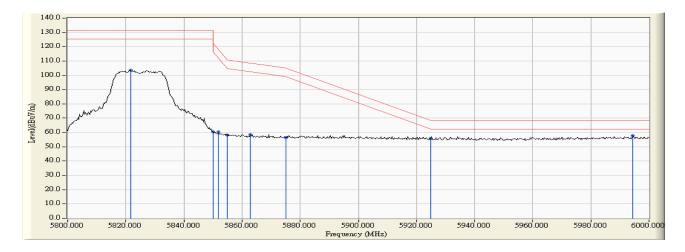




- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 165 (5825MHz)

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5821.739	11.505	92.053	103.558			
Horizontal	5850.000	11.701	48.541	60.242	-61.958	122.200	Pass
Horizontal	5851.884	11.715	48.671	60.385	-57.519	117.904	Pass
Horizontal	5855.000	11.735	46.365	58.100	-52.700	110.800	Pass
Horizontal	5862.899	11.789	46.906	58.695	-49.893	108.588	Pass
Horizontal	5875.000	11.873	44.446	56.319	-48.881	105.200	Pass
Horizontal	5925.000	12.068	43.738	55.807	-12.393	68.200	Pass
Horizontal	5994.493	12.126	45.757	57.884	-10.316	68.200	Pass

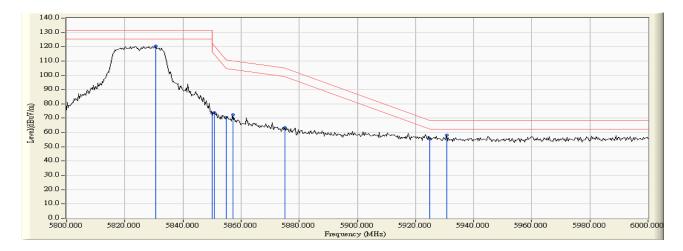




Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-20BW 14.2Mbps) -Channel 165 (5825MHz)

<u>RF</u> Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5830.725	12.733	107.812	120.545			
Vertical	5850.000	12.774	60.678	73.452	-48.748	122.200	Pass
Vertical	5850.725	12.775	61.137	73.912	-46.635	120.547	Pass
Vertical	5855.000	12.784	57.893	70.677	-40.123	110.800	Pass
Vertical	5857.101	12.788	59.719	72.507	-37.705	110.212	Pass
Vertical	5875.000	12.825	50.485	63.310	-41.890	105.200	Pass
Vertical	5925.000	12.911	42.798	55.709	-12.491	68.200	Pass
Vertical	5930.725	12.919	45.167	58.086	-10.114	68.200	Pass





Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/02/28
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 38 (5190MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
38 (Peak)	5139.565	· · · ·	44.599	55.095	74.00	54.00	Pass
38 (Peak)	5150.000	10.470	43.503	53.974	74.00	54.00	Pass
38 (Peak)	5196.522	10.344	78.372	88.716			
38 (Average)	5150.000	10.470	25.260	35.731	74.00	54.00	Pass
38 (Average)	5198.551	10.337	65.442	75.779			

Figure Channel 38: Horizontal (Peak)

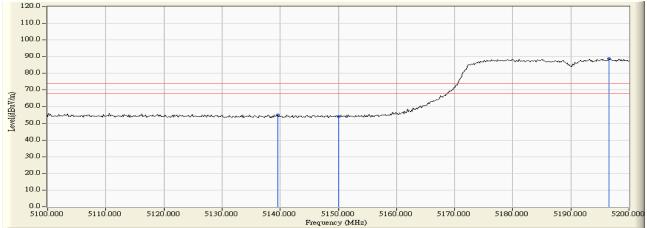


Figure Channel 38: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS

Test Date : 2018/02/28

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 38 (5190MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
38 (Peak)	5148.551	12.385	58.662	71.047	74.00	54.00	Pass
38 (Peak)	5150.000	12.390	57.247	69.637	74.00	54.00	Pass
38 (Peak)	5193.188	12.546	99.415	111.961			
38 (Average)	5150.000	12.390	41.003	53.393	74.00	54.00	Pass
38 (Average)	5197.536	12.558	86.263	98.821			

Figure Channel 38: Vertical (Peak)

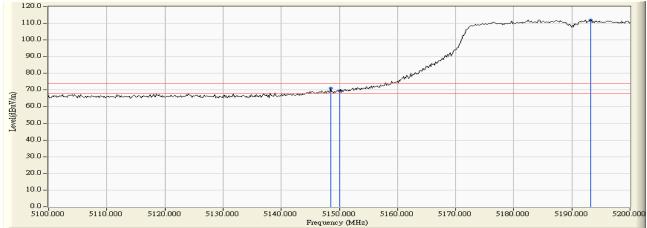
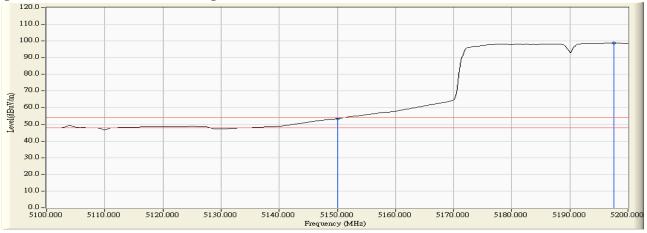


Figure Channel 38: Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 62 (5310MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
62 (Peak)	5320.000	11.101	84.955	96.056			
62 (Peak)	5350.000	11.024	45.596	56.620			
62 (Peak)	5395.942	10.932	47.263	58.196	74.00	54.00	Pass
62 (Average)	5316.667	11.109	71.141	82.250			
62 (Average)	5350.000	11.024	26.655	37.679	74.00	54.00	Pass
62 (Average)	5360.000	10.998	27.335	38.333			

Figure Channel 62: Horizontal (Peak)

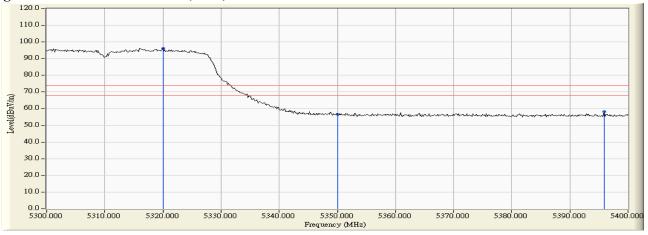
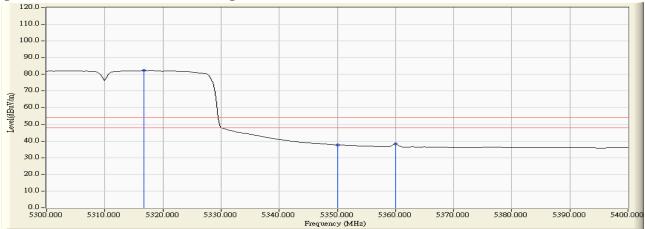


Figure Channel 62: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
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- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 62 (5310MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
62 (Peak)	5319.420	13.018	101.134	114.152			
62 (Peak)	5350.000	12.999	57.035	70.034	74.00	54.00	Pass
62 (Peak)	5356.957	12.995	57.936	70.930	74.00	54.00	Pass
62 (Average)	5318.551	13.019	87.375	100.394			
62 (Average)	5350.000	12.999	40.527	53.526	74.00	54.00	Pass

Figure Channel 62: Vertical (Peak)

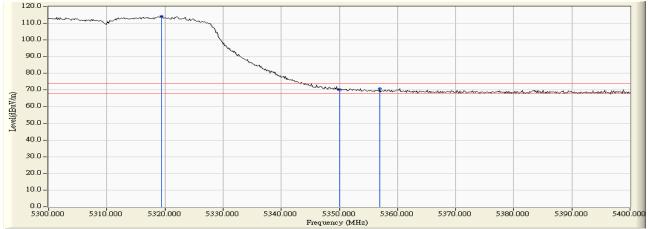
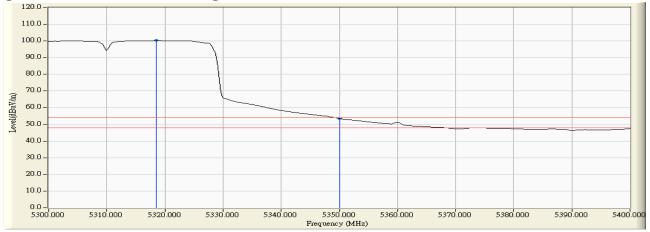


Figure Channel 62: Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 102 (5510MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
$100 (D_{2} - 1_{2})$	· · · /	· · · ·					Deres
102 (Peak)	5460.000	11.703	46.408	58.111	74.00	54.00	Pass
102 (Peak)	5505.652		82.060	94.258			
102 (Average)	5448.406	11.547	34.756	46.303	74.00	54.00	Pass
102 (Average)	5460.000	11.703	33.749	45.452	74.00	54.00	Pass
102 (Average)	5501.739	12.181	69.248	81.429			

Figure Channel 102: Horizontal (Peak)

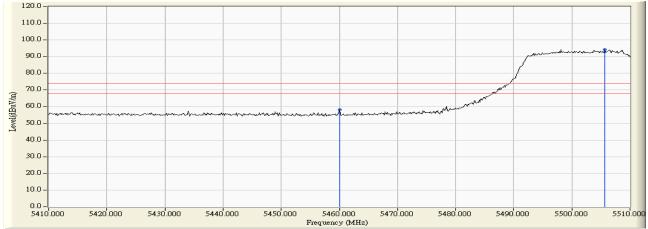
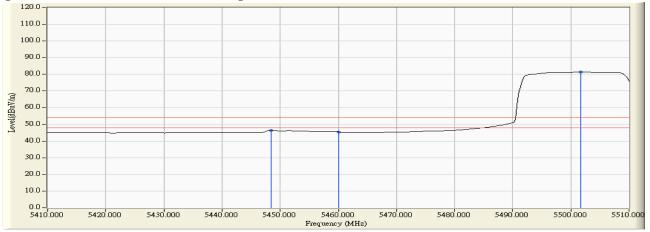


Figure Channel 102: Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS

Test Date	•	2018/03/06	

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 102 (5510MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Docult
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
102 (Peak)	5460.000	13.390	52.238	65.628	74.00	54.00	Pass
102 (Peak)	5505.072	13.645	100.021	113.665			
102 (Average)	5460.000	13.390	38.585	51.975	74.00	54.00	Pass
102 (Average)	5503.768	13.641	86.728	100.369			

Figure Channel 102: Vertical (Peak)

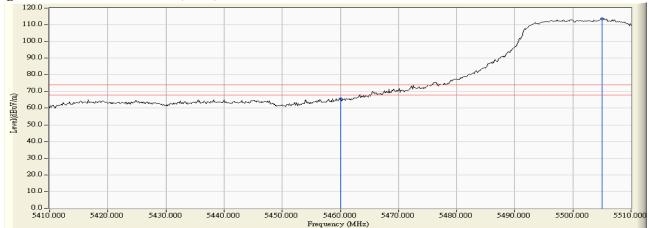
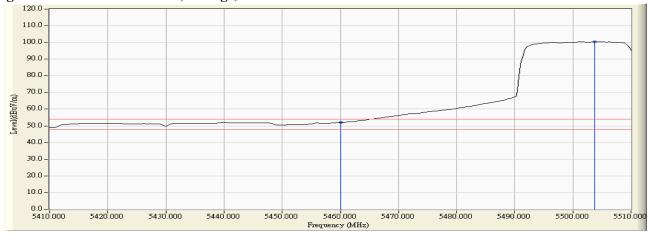


Figure Channel 102: Vertical (Average)



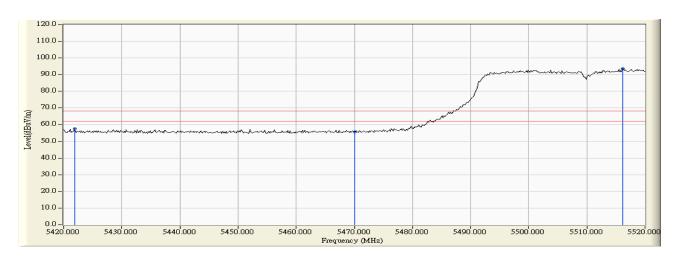
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



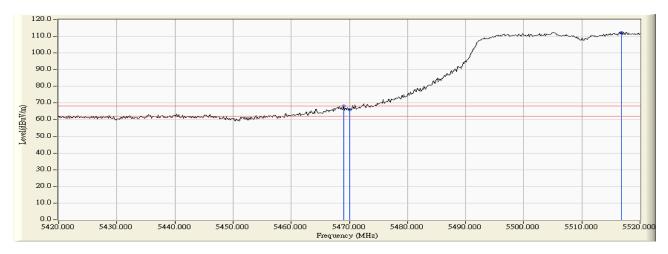
Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 102 (5510MHz)

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5421.884	11.190	46.313	57.503	-10.717	68.220	Pass
Horizontal	5470.000	11.838	43.876	55.714	-12.506	68.220	Pass
Horizontal	5516.232	12.113	81.458	93.571			



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5468.986	13.454	54.732	68.187	-0.033	68.220	Pass
Vertical	5470.000	13.462	52.567	66.029	-2.191	68.220	Pass
Vertical	5516.812	13.569	98.828	112.397			

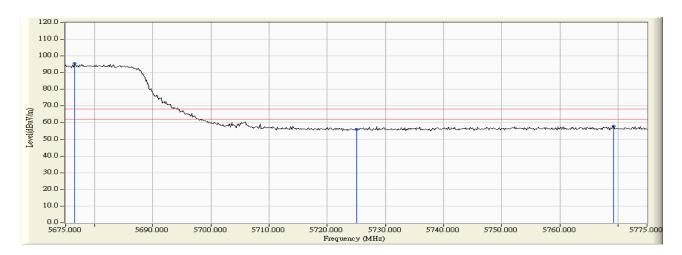




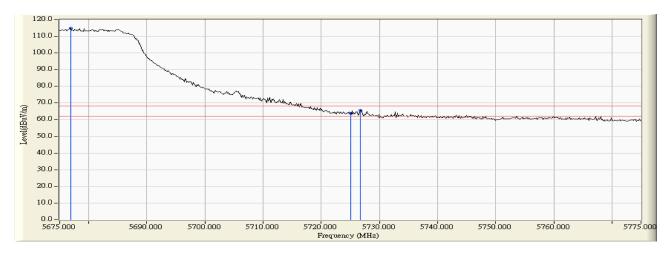
Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Date	:	2018/03/06
Test Mode	:	Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 134 (5670MHz)

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5676.594	11.617	83.780	95.397			
Horizontal	5725.000	11.592	44.361	55.953	-12.267	68.220	Pass
Horizontal	5769.203	11.453	46.379	57.831	-10.389	68.220	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5676.884	13.022	101.699	114.722			
Vertical	5725.000	12.930	50.619	63.549	-4.671	68.220	Pass
Vertical	5726.739	12.925	52.828	65.752	-2.468	68.220	Pass



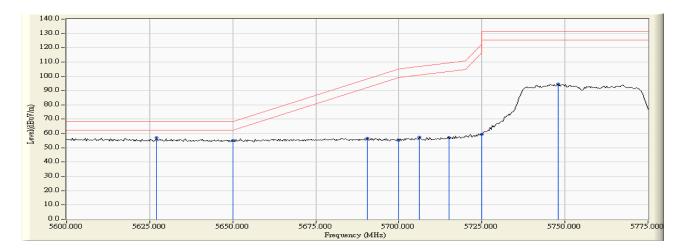


- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 151 (5755MHz)

<u>RF</u> Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5627.138	11.500	45.394	56.894	-11.326	68.220	Pass
Horizontal	5650.000	11.554	43.527	55.082	-13.138	68.220	Pass
Horizontal	5690.543	11.649	45.003	56.652	-41.554	98.206	Pass
Horizontal	5700.000	11.647	43.699	55.346	-49.854	105.200	Pass
Horizontal	5706.268	11.643	45.912	57.555	-49.400	106.955	Pass
Horizontal	5715.000	11.623	45.504	57.126	-52.274	109.400	Pass
Horizontal	5725.000	11.592	47.880	59.472	-62.728	122.200	Pass
Horizontal	5747.862	11.519	83.002	94.521			



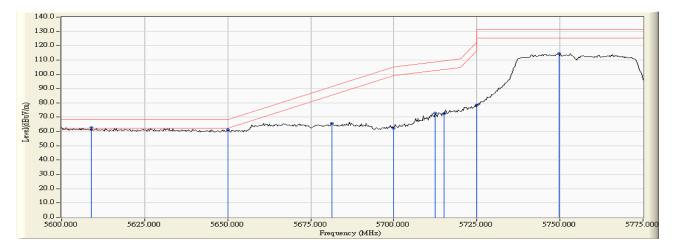


- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 151 (5755MHz)

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5608.877	13.038	49.756	62.794	-5.426	68.220	Pass
Vertical	5650.000	13.029	48.043	61.072	-7.148	68.220	Pass
Vertical	5681.413	13.022	52.636	65.657	-25.796	91.453	Pass
Vertical	5700.000	13.003	49.461	62.464	-42.736	105.200	Pass
Vertical	5712.355	12.973	59.730	72.703	-35.956	108.659	Pass
Vertical	5715.000	12.965	59.436	72.400	-37.000	109.400	Pass
Vertical	5725.000	12.930	65.635	78.565	-43.635	122.200	Pass
Vertical	5749.638	12.844	101.690	114.534			



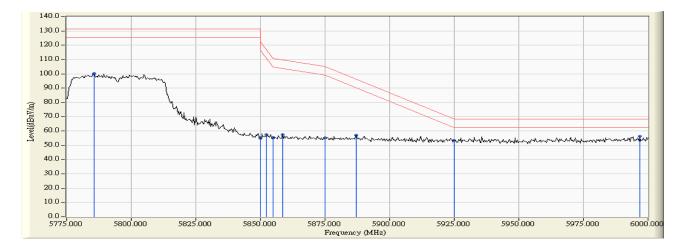


- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 159 (5795MHz)

<u>RF</u> Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5785.761	11.399	88.865	100.264			
Horizontal	5850.000	11.701	43.242	54.943	-67.257	122.200	Pass
Horizontal	5852.283	11.717	45.841	57.557	-59.438	116.995	Pass
Horizontal	5855.000	11.735	43.826	55.561	-55.239	110.800	Pass
Horizontal	5858.478	11.759	45.520	57.279	-52.547	109.826	Pass
Horizontal	5875.000	11.873	43.328	55.201	-49.999	105.200	Pass
Horizontal	5887.174	11.960	45.058	57.017	-39.174	96.191	Pass
Horizontal	5925.000	12.068	41.184	53.253	-14.947	68.200	Pass
Horizontal	5996.739	12.129	43.984	56.113	-12.087	68.200	Pass



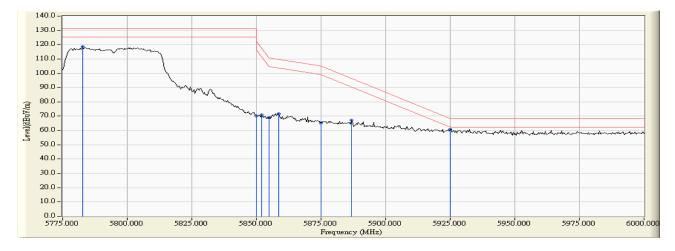


- Product : MOXA IEEE 802.11 a/b/g/n
- Test Item : Band Edge Data
- Test Site : No.3 OATS
- Test Date : 2018/03/06

Test Mode : Mode 1: Transmit (802.11n-40BW 30Mbps) -Channel 159 (5795MHz)

<u>RF</u> Radiated Measurement:

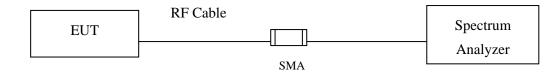
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV /m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5782.826	12.728	105.770	118.497			
Vertical	5850.000	12.774	57.384	70.158	-52.042	122.200	Pass
Vertical	5851.957	12.778	58.207	70.985	-46.753	117.738	Pass
Vertical	5855.000	12.784	56.342	69.126	-41.674	110.800	Pass
Vertical	5858.478	12.791	58.737	71.528	-38.298	109.826	Pass
Vertical	5875.000	12.825	52.496	65.321	-39.879	105.200	Pass
Vertical	5886.848	12.851	54.183	67.034	-29.398	96.432	Pass
Vertical	5925.000	12.911	47.815	60.726	-7.474	68.200	Pass





5. Duty Cycle

5.1. Test Setup



5.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

5.3. Uncertainty

± 2.31msec



5.4. Test Result of Duty Cycle

Product	:	MOXA IEEE 802.11 a/b/g/n
Test Item	:	Duty Cycle
Test Mode	:	Transmit

Duty Cycle Formula:

 $Duty \ Cycle = Ton \ / \ (Ton + Toff)$

Duty Factor = 10 Log (1/Duty Cycle)

Results:

5GHz band	Ton	Ton + Toff	Duty Cycle	Duty Factor
	(ms)	(ms)	(%)	(dB)
802.11a	5.3250	5.4000	98.61	0.06
802.11n20	2.4750	2.5500	97.06	0.13
802.11n40	1.2000	1.2600	95.24	0.21

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鼶 Keysight Spectrum Analyzer - Swept SA	
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802.11n40



6. EMI Reduction Method During Compliance Testing

No modification was made during testing.



Attachment 1: EUT Test Photographs



Attachment 2: EUT Detailed Photographs