FCC Test Report

Product Name	Intelligent Robot
Model No	Zenbo
FCC ID	MSQ-ZENBO

Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt	Aug. 15, 2016
Issued Date	Jul. 20, 2017
Report No.	1740337R-RFUSP05V00
Report Version	V1.0

Testing Laboratory
3023

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: Jul. 20, 2017
Report No.: 1740337R-RFUSP05V00

Product Name	Intelligent Robot
Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	ASUSTeK COMPUTER INC.
Model No.	Zenbo
FCC ID.	MSQ-ZENBO
EUT Rated Voltage	DC 14.4V (Power by Battery)
EUT Test Voltage	AC 120V/60Hz
Trade Name	ASUS
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 v01r04
Test Result	Complied

Documented By : Genie Chang

(Senior Adm. Specialist / Genie Chang)

Tested By : Yulin Chen

(Engineer / Yulin Chen)

Approved By :

(Director / Vincent Lin)

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Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Intelligent Robot
Trade Name	ASUS
FCC ID.	MSQ-ZENBO
Model No.	Zenbo
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz, 5745-5825MHz 802.11n-40MHz: 5190-5310, 5510-5670MHz, 5755-5795MHz 802.11ac-20MHz: 5720, 802.11ac-40MHz: 5710 802.11ac-80MHz: 5210-5290MHz, 5530-5690MHz, 5775MHz
Number of Channels	802.11a/n-20MHz: 24; 802.11n-40MHz: 11 802.11ac-20MHz: 1, 802.11ac-40MHz: 1, 802.11ac-80MHz: 6
Data Rate	802.11a: 6 - 54Mbps 802.11n: up to 150Mbps 802.11ac-80MHz: up to 433.3MHz
Channel Control	Auto
Type of Modulation	802.11a/n/ac: OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna type	PIFA Antenna
Antenna Gain	Refer to the table “Antenna List”
Power Adapter	MFR: ASUS, M/N: ADP-45BW B Input: AC 100-240V, 50-60Hz, 1.2A Output: DC 19V, 2.37A Cable Out: Non-shielded, 2.3m

Antenna List

No.	Manufacturer	Part No.	ASUS Part No.	Antenna Type	Peak Gain
1	ASUS	290-70109	14008-02060000	PIFA Antenna	2.07dBi for 5.15~5.25GHz 1.05dBi for 5.25~5.35GHz 2.51dBi for 5.47~5.725GHz 1.80dBi for 5.725~5.850GHz

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		

802.11ac-20MHz Center Working Frequency of Each Channel:

Channel	Frequency
Channel 144:	5720 MHz

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

Channel	Frequency
Channel 142:	5710 MHz

802.11ac-80MHz Center Working Frequency of Each Channel:

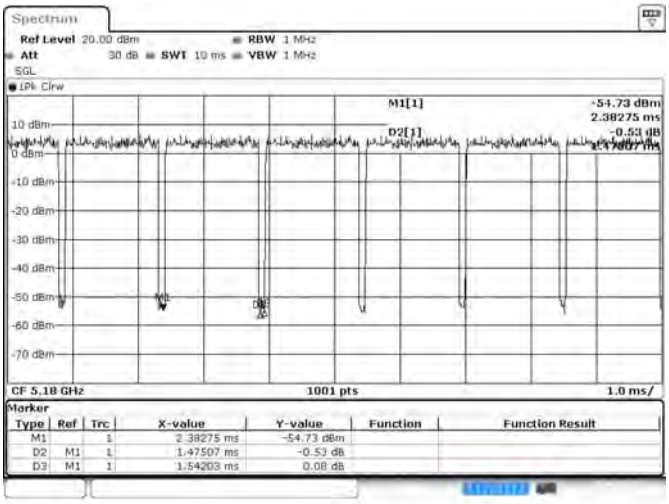
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 42:	5210 MHz	Channel 58:	5290 MHz	Channel 106:	5530 MHz	Channel 122:	5610 MHz
Channel 138:	5690 MHz	Channel 155:	5775 MHz				

Duty Cycle:

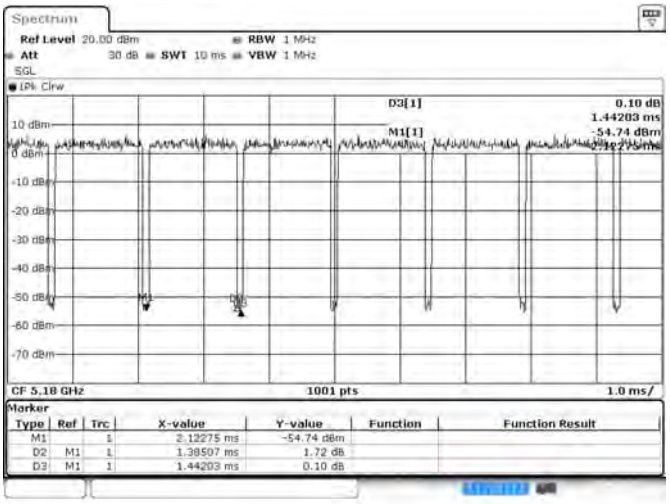
802.11a	0.9565	802.11ac-20	0.9430
802.11n-20	0.9573	802.11ac-40	0.8926
802.11n-40	0.8873	802.11ac-80	0.8198

*Duty cycle = Ton / (Ton + Toff)

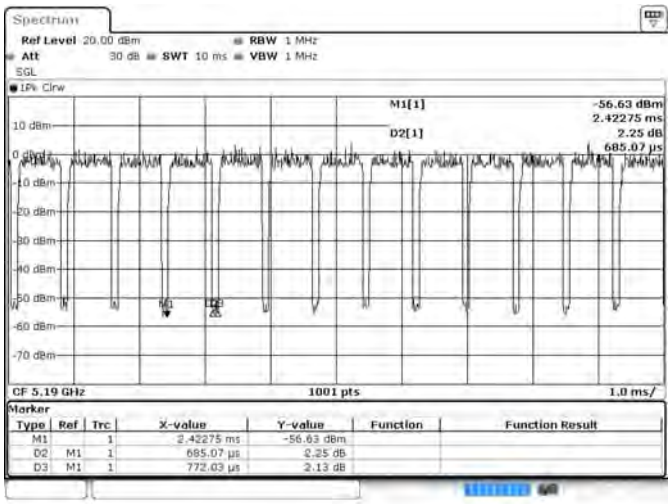
802.11a:



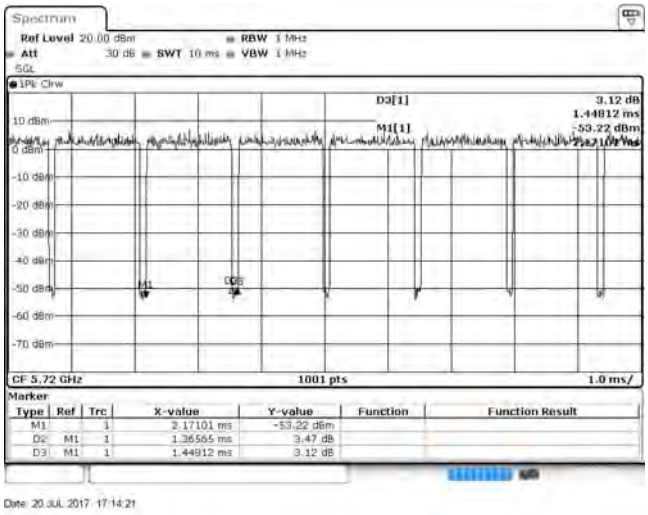
802.11n-20:



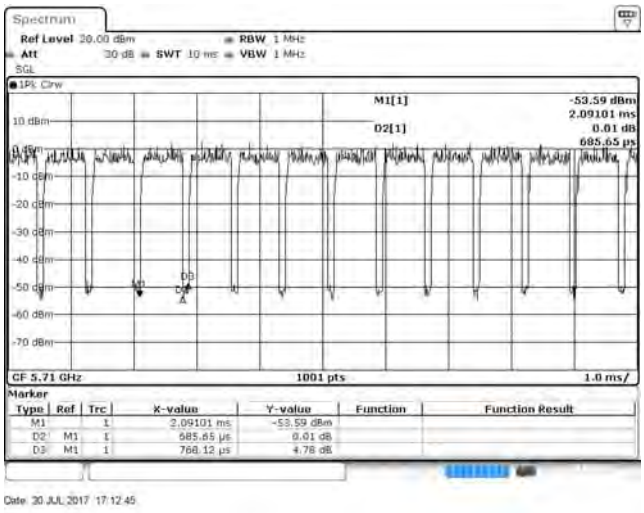
802.11n-40:



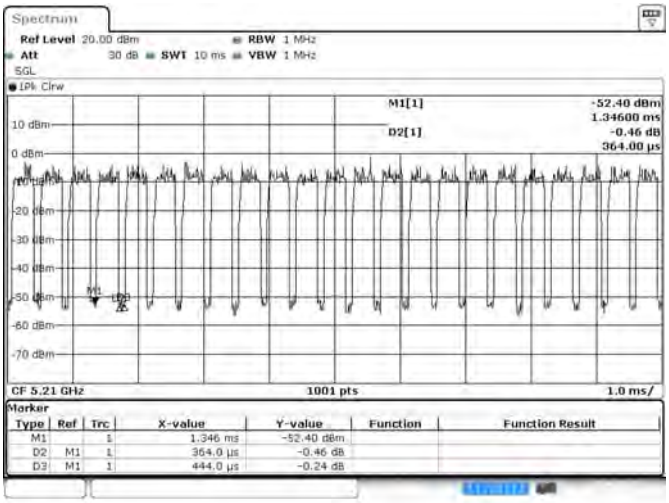
802.11ac-20:



802.11ac-40:



802.11ac-80:



Note:

1. This device is an Intelligent Robot with a built-in 802.11a/b/g/n WLAN transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
5. 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.

Test Mode	Mode 1: Transmit (802.11a-6Mbps) Mode 2: Transmit (802.11n-20BW 7.2Mbps) Mode 3: Transmit (802.11n-40BW 15Mbps) Mode 4: Transmit (802.11ac-20BW-7.2Mbps) Mode 5: Transmit (802.11ac-40BW-15Mbps) Mode 6: Transmit (802.11ac-80BW-32.5Mbps)

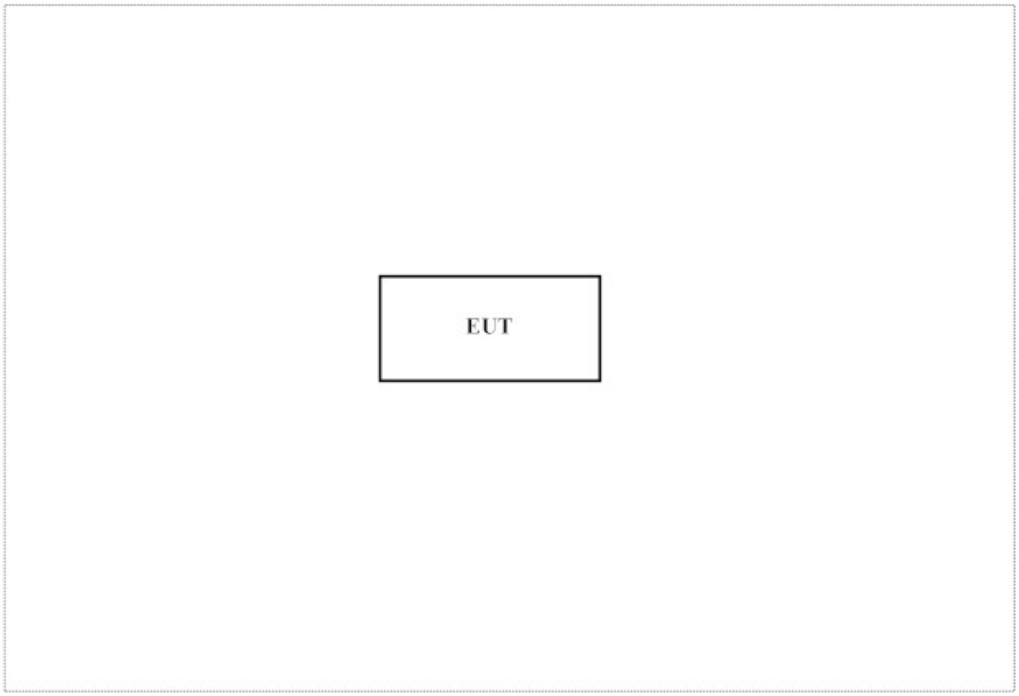
1.3. Tested System Datails

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
N/A				

Signal Cable Type	Signal cable Description
N/A	

1.4. Configuration of tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “Raltek MP Tool” on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
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: http://www.dekra.com.tw/index_en

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E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW1014

1.7. List of Test Equipment

For Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	161601	2017.01.06	2018.01.05
X	Two-Line V-Network	R&S	ENV216	101306	2017.02.16	2018.02.15
X	Two-Line V-Network	R&S	ENV216	101307	2017.03.17	2018.03.16
X	Coaxial Cable	Quietek	RG400_BNC	RF001	2017.05.24	2018.05.23

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

For Conducted measurements /ASR3

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Temperature Chamber	KSON	THS-D4T-100	A0606	2017.01.09	2018.01.08
X	Spectrum Analyzer	R&S	FSV30	103464	2016.12.15	2017.12.14
X	Power Meter	Anritsu	ML2496A	1548003	2016.12.15	2017.12.14
X	Power Sensor	Anritsu	MA2411B	1531024	2016.12.15	2017.12.14
X	Power Sensor	Anritsu	MA2411B	1531025	2017.01.03	2018.01.02

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 Conduction Test System V8.0.110

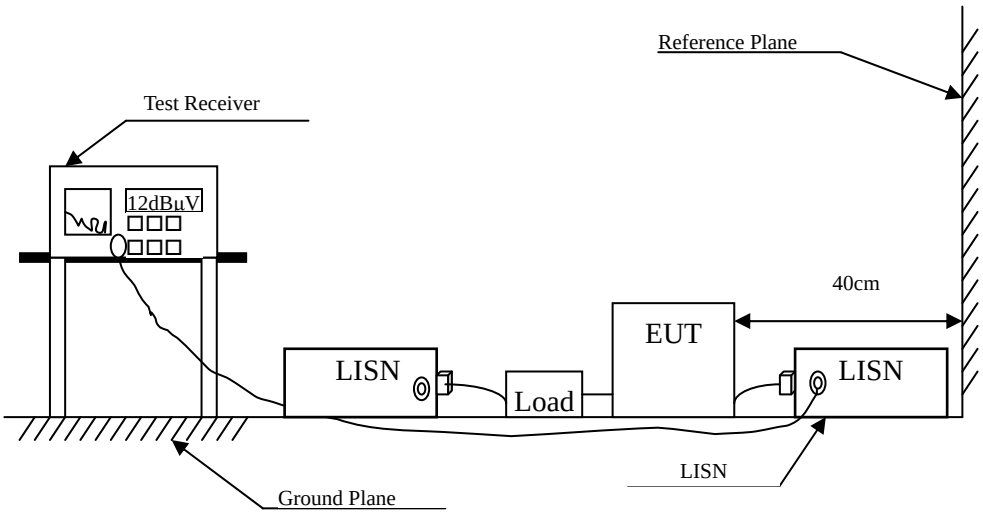
For Radiated measurements /ACB1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	A.H.	SAS-562B	272	2016.03.18	2018.03.17
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2017.02.09	2018.02.08
X	Horn Antenna	ETS-Lindgren	3117	00203800	2016.10.13	2017.10.12
X	Horn Antenna	Com-Power	AH-840	101087	2017.05.24	2018.05.23
X	Pre-Amplifier	EMCI	EMC001330	980316	2017.05.14	2018.05.13
X	Pre-Amplifier	EMCI	EMC051835SE	980311	2017.05.15	2018.05.14
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2017.05.15	2018.05.14
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2017.05.17	2018.05.16
	Filter	MICRO TRONICS	BRM50702	G251	2016.08.11	2017.08.10
X	Filter	MICRO TRONICS	BRM50716	G188	2016.08.11	2017.08.10
X	EMI Test Receiver	R&S	ESR7	101602	2016.12.15	2017.12.14
X	Spectrum Analyzer	R&S	FSV40	101149	2017.01.24	2018.01.23
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2017.05.25	2018.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2016.08.11	2017.08.10

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. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBµV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.4, 2014; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

2.4. Uncertainty

±2.35dB

2.5. Test Result of Conducted Emission

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 1
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 1					
Quasi-Peak					
0.157	9.705	40.459	50.164	-15.636	65.800
0.445	9.726	31.295	41.022	-16.549	57.571
2.310	9.805	18.200	28.005	-27.995	56.000
2.697	9.820	18.135	27.955	-28.045	56.000
13.013	10.028	15.804	25.832	-34.168	60.000
24.576	10.172	24.490	34.662	-25.338	60.000
Average					
0.157	9.705	23.215	32.921	-22.879	55.800
0.445	9.726	22.664	32.390	-15.181	47.571
2.310	9.805	12.642	22.447	-23.553	46.000
2.697	9.820	12.379	22.199	-23.801	46.000
13.013	10.028	10.395	20.423	-29.577	50.000
24.576	10.172	23.753	33.925	-16.075	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 2					
Quasi-Peak					
0.152	10.800	37.845	48.645	-17.298	65.943
0.449	10.012	33.775	43.788	-13.669	57.457
2.301	9.934	18.763	28.697	-27.303	56.000
3.622	9.939	17.650	27.589	-28.411	56.000
13.126	10.089	16.738	26.827	-33.173	60.000
24.576	10.270	22.357	32.627	-27.373	60.000
Average					
0.152	10.800	22.816	33.616	-22.327	55.943
0.449	10.012	24.495	34.508	-12.949	47.457
2.301	9.934	13.214	23.148	-22.852	46.000
3.622	9.939	11.231	21.170	-24.830	46.000
13.126	10.089	11.415	21.504	-28.496	50.000
24.576	10.270	21.339	31.609	-18.391	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 1
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 1					
Quasi-Peak					
0.152	9.707	38.941	48.648	-17.295	65.943
0.440	9.726	31.447	41.173	-16.541	57.714
2.983	9.829	17.075	26.904	-29.096	56.000
5.032	9.882	13.623	23.505	-36.495	60.000
13.357	10.039	16.371	26.410	-33.590	60.000
24.576	10.172	22.776	32.948	-27.052	60.000
Average					
0.152	9.707	19.982	29.689	-26.254	55.943
0.440	9.726	22.266	31.992	-15.722	47.714
2.983	9.829	10.443	20.272	-25.728	46.000
5.032	9.882	7.819	17.701	-32.299	50.000
13.357	10.039	10.816	20.855	-29.145	50.000
24.576	10.172	21.668	31.840	-18.160	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 2					
Quasi-Peak					
0.152	10.800	37.314	48.114	-17.829	65.943
0.447	10.012	33.883	43.895	-13.619	57.514
2.337	9.926	17.366	27.293	-28.707	56.000
3.660	9.937	17.780	27.717	-28.283	56.000
13.378	10.086	17.219	27.305	-32.695	60.000
24.576	10.270	23.459	33.729	-26.271	60.000
Average					
0.152	10.800	21.742	32.542	-23.401	55.943
0.447	10.012	25.423	35.435	-12.079	47.514
2.337	9.926	11.653	21.579	-24.421	46.000
3.660	9.937	11.303	21.240	-24.760	46.000
13.378	10.086	11.518	21.604	-28.396	50.000
24.576	10.270	22.599	32.869	-17.131	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 1
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 1					
Quasi-Peak					
0.150	9.708	37.850	47.558	-18.442	66.000
0.443	9.726	31.251	40.977	-16.652	57.629
2.954	9.827	14.857	24.684	-31.316	56.000
5.039	9.880	12.853	22.733	-37.267	60.000
13.157	10.054	16.024	26.077	-33.923	60.000
24.576	10.172	23.319	33.491	-26.509	60.000
Average					
0.150	9.708	17.708	27.416	-28.584	56.000
0.443	9.726	22.099	31.825	-15.804	47.629
2.954	9.827	7.123	16.951	-29.049	46.000
5.039	9.880	7.477	17.357	-32.643	50.000
13.157	10.054	10.608	20.662	-29.338	50.000
24.576	10.172	22.004	32.176	-17.824	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 2					
Quasi-Peak					
0.159	10.002	38.397	48.399	-17.344	65.743
0.440	10.010	33.894	43.903	-13.811	57.714
2.202	9.933	17.382	27.315	-28.685	56.000
3.215	9.938	14.904	24.842	-31.158	56.000
12.925	10.084	16.499	26.583	-33.417	60.000
24.576	10.270	23.294	33.564	-26.436	60.000
Average					
0.159	10.002	25.070	35.071	-20.672	55.743
0.440	10.010	25.257	35.267	-12.447	47.714
2.202	9.933	11.571	21.504	-24.496	46.000
3.215	9.938	6.376	16.314	-29.686	46.000
12.925	10.084	10.914	20.998	-29.002	50.000
24.576	10.270	21.794	32.064	-17.936	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 1
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 1					
Quasi-Peak					
0.152	9.707	37.695	47.403	-18.540	65.943
0.443	9.726	30.818	40.544	-17.085	57.629
3.194	9.843	15.365	25.207	-30.793	56.000
5.102	9.882	12.776	22.658	-37.342	60.000
13.533	10.058	16.168	26.226	-33.774	60.000
24.576	10.172	22.931	33.103	-26.897	60.000
Average					
0.152	9.707	19.313	29.021	-26.922	55.943
0.443	9.726	22.044	31.770	-15.859	47.629
3.194	9.843	7.447	17.289	-28.711	46.000
5.102	9.882	7.539	17.421	-32.579	50.000
13.533	10.058	10.898	20.956	-29.044	50.000
24.576	10.172	21.984	32.156	-17.844	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Intelligent Robot
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV	Margin dB	Limit dBμV
LINE 2					
Quasi-Peak					
0.154	10.526	37.908	48.434	-17.452	65.886
0.443	10.010	33.769	43.779	-13.850	57.629
2.926	9.935	14.148	24.083	-31.917	56.000
6.032	9.958	12.667	22.625	-37.375	60.000
12.867	10.093	16.250	26.343	-33.657	60.000
24.576	10.270	23.079	33.349	-26.651	60.000
Average					
0.154	10.526	23.612	34.138	-21.748	55.886
0.443	10.010	24.894	34.905	-12.724	47.629
2.926	9.935	8.224	18.159	-27.841	46.000
6.032	9.958	7.245	17.203	-32.797	50.000
12.867	10.093	10.853	20.946	-29.054	50.000
24.576	10.270	22.024	32.294	-17.706	50.000

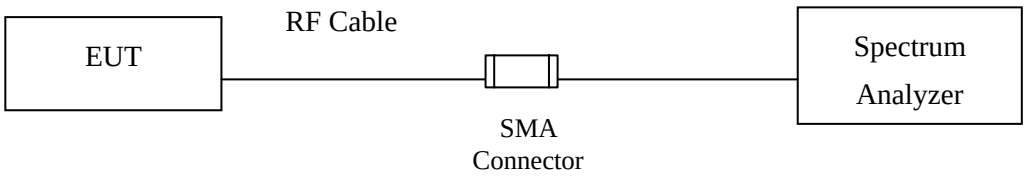
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ “ means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Maximun conducted output power

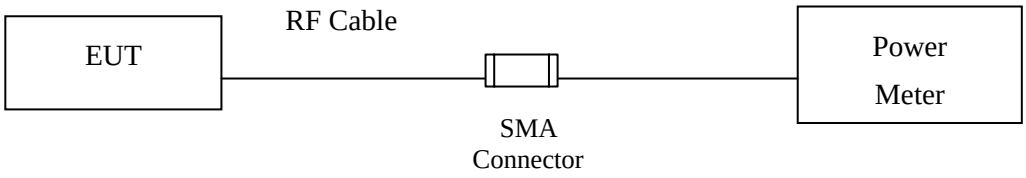
3.1. Test Setup

99% Occupied Bandwidth

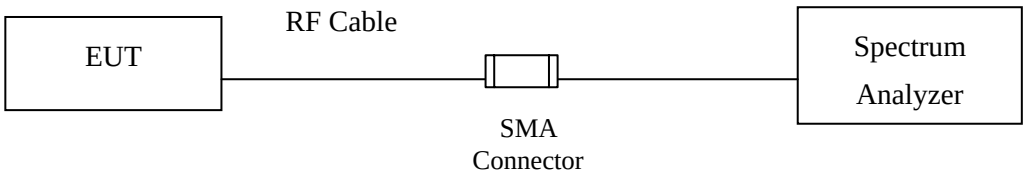


Conduction Power Measurement

Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)



3.2. Limits

3.2.1. 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 maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(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 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition. If transmitting antennas of directional gain greater than 6 dBi 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.

3.2.2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi 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.

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

3.3. 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≦40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)
Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)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 D01 section F) procedure is used for measurements.

3.4. Uncertainty

Power Meter: ±0.95dB
Spectrum Analyzer: ±1.30dB

3.5. Test Result of Maximum conducted output power

Product : Intelligent Robot
Test Item : Maximum conducted output power
Test Mode : Mode 1: Transmit (802.11a-6Mbps)
Test Date : 2016/09/19

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	14.00	--	--	--	--	--	--	--
44	5220	14.98	14.91	14.79	14.70	14.61	14.51	14.42	14.32
48	5240	15.23	--	--	--	--	--	--	--
52	5260	14.51	--	--	--	--	--	--	--
60	5300	14.81	14.73	14.66	14.58	14.51	14.43	14.36	14.28
64	5320	14.55	--	--	--	--	--	--	--
100	5500	14.73	--	--	--	--	--	--	--
116	5580	15.10	15.02	14.95	14.87	14.80	14.72	14.65	14.57
140	5700	14.68	--	--	--	--	--	--	--
149	5745	14.98	--	--	--	--	--	--	--
157	5785	14.74	14.66	14.57	14.49	14.40	14.32	14.23	14.15
165	5825	14.71	--	--	--	--	--	--	--

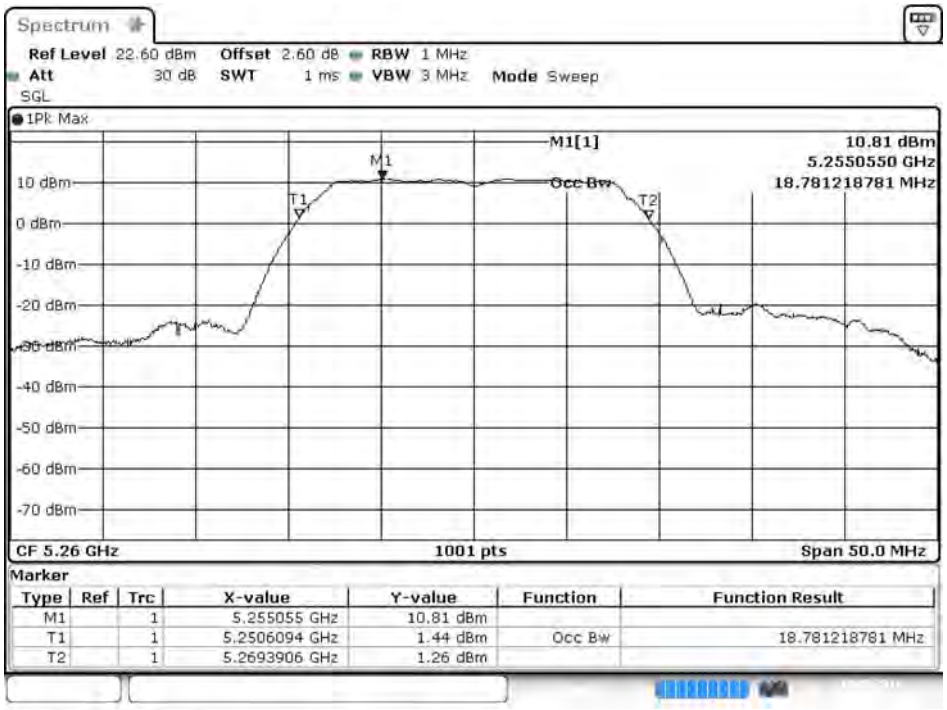
Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	99% Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	--	14.00	30	--
44	5220	--	14.98	30	--
48	5240	--	15.23	30	--
52	5260	18.78	14.51	24	23.74
60	5300	18.68	14.81	24	23.71
64	5320	18.73	14.55	24	23.73
100	5500	18.78	14.73	24	23.74
116	5580	18.73	15.10	24	23.73
140	5700	18.78	14.68	24	23.74
149	5745	--	14.98	30	--
157	5785	--	14.74	30	--
165	5825	--	14.71	30	--

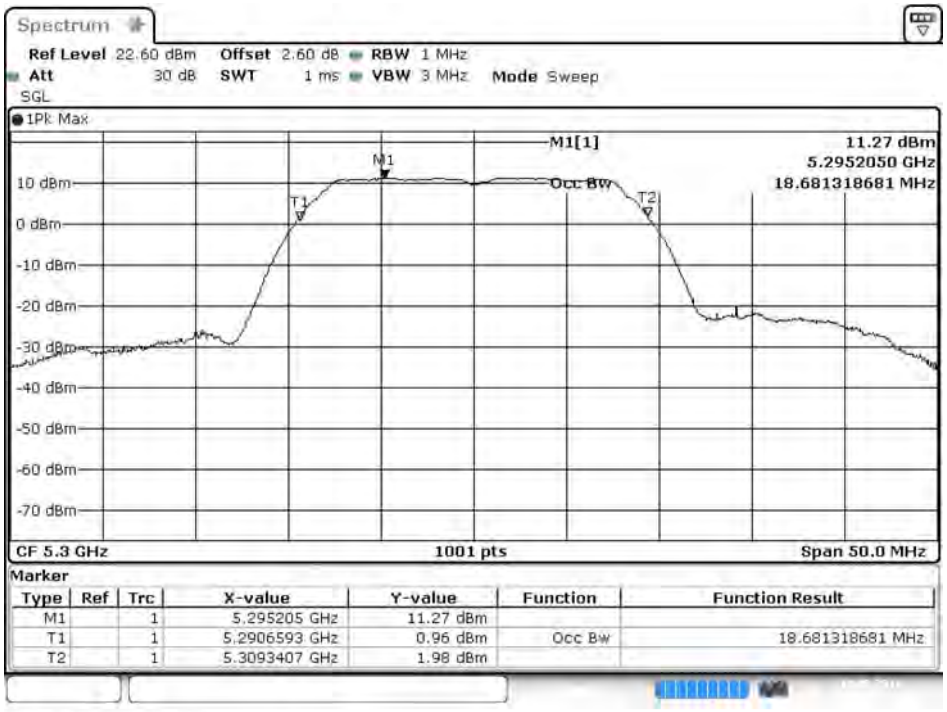
Note: Power Output Value =Reading value on average power meter + cable loss

99% Occupied Bandwidth:
Channel 52:



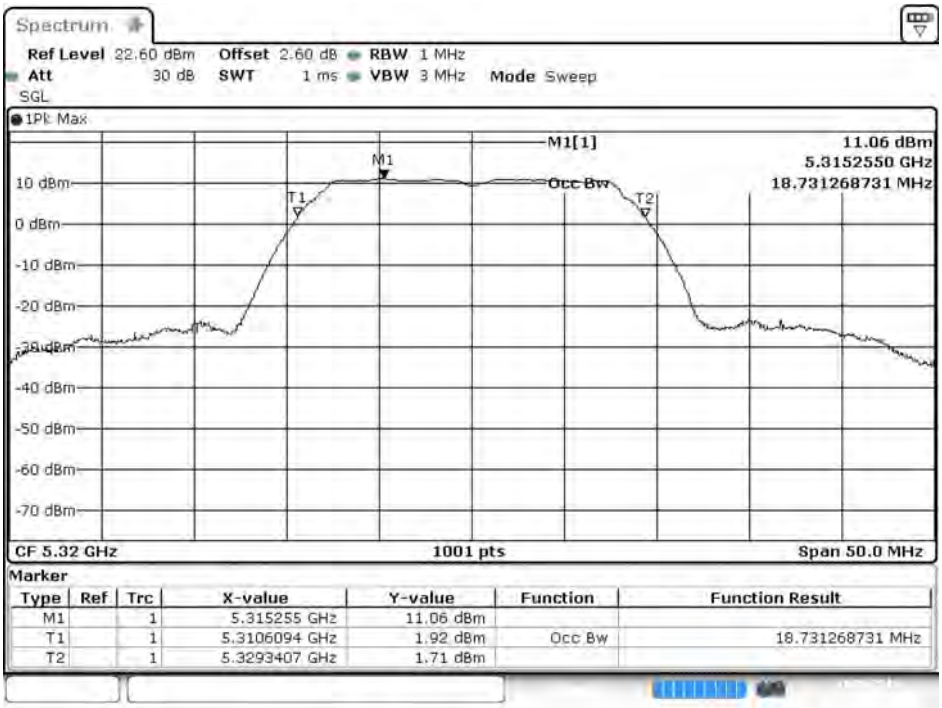
Date: 19.SEP.2016 08.27.25

Channel 60:



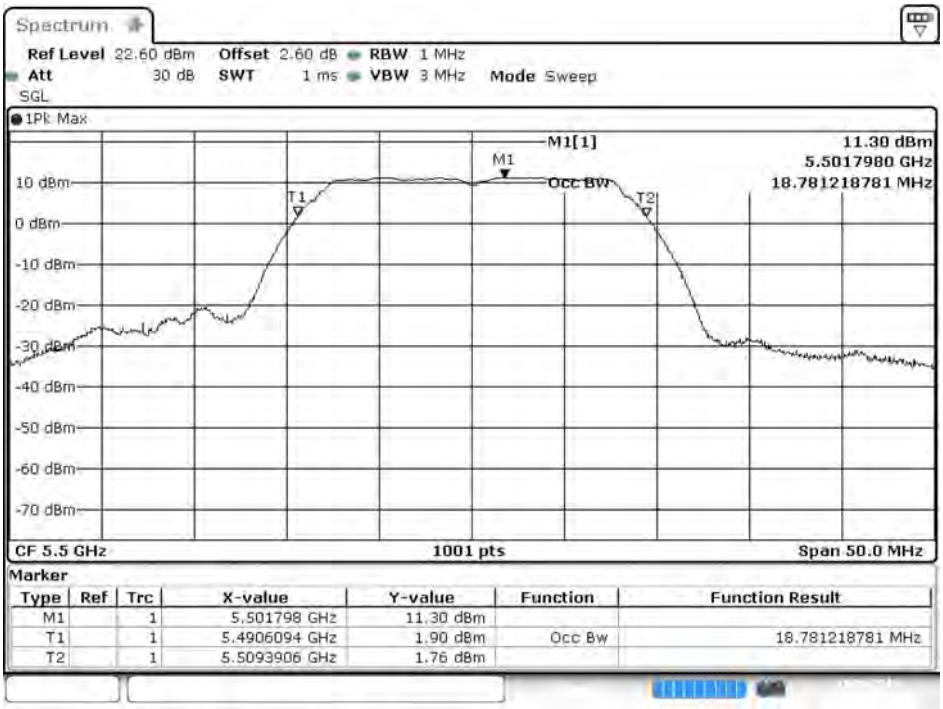
Date: 19.SEP.2016 08.30.41

Channel 64:



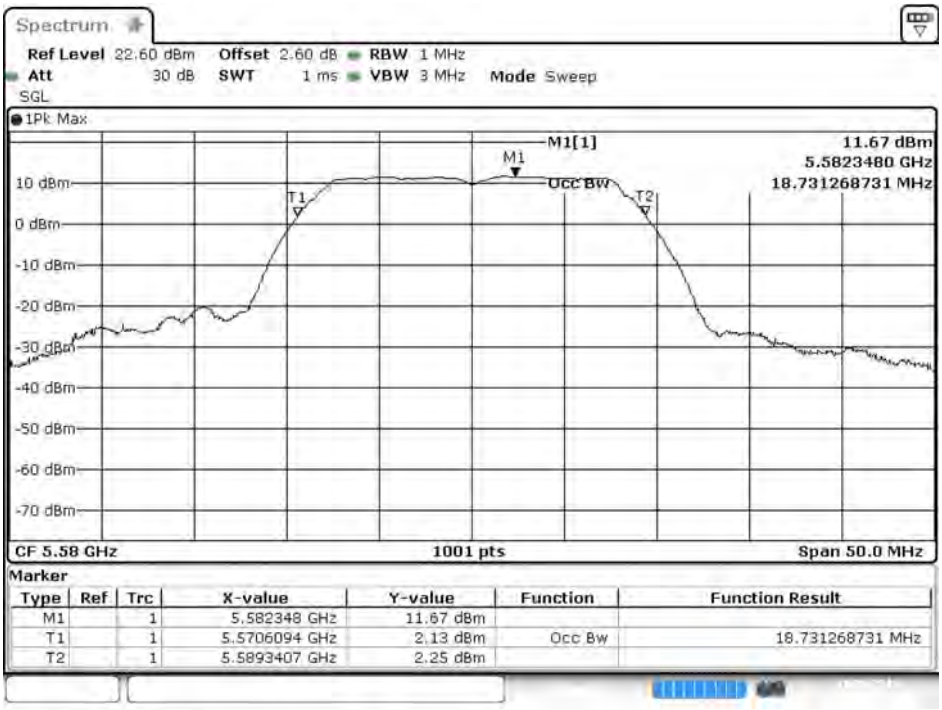
Date: 19.SEP.2016 08:33:04

Channel 100:



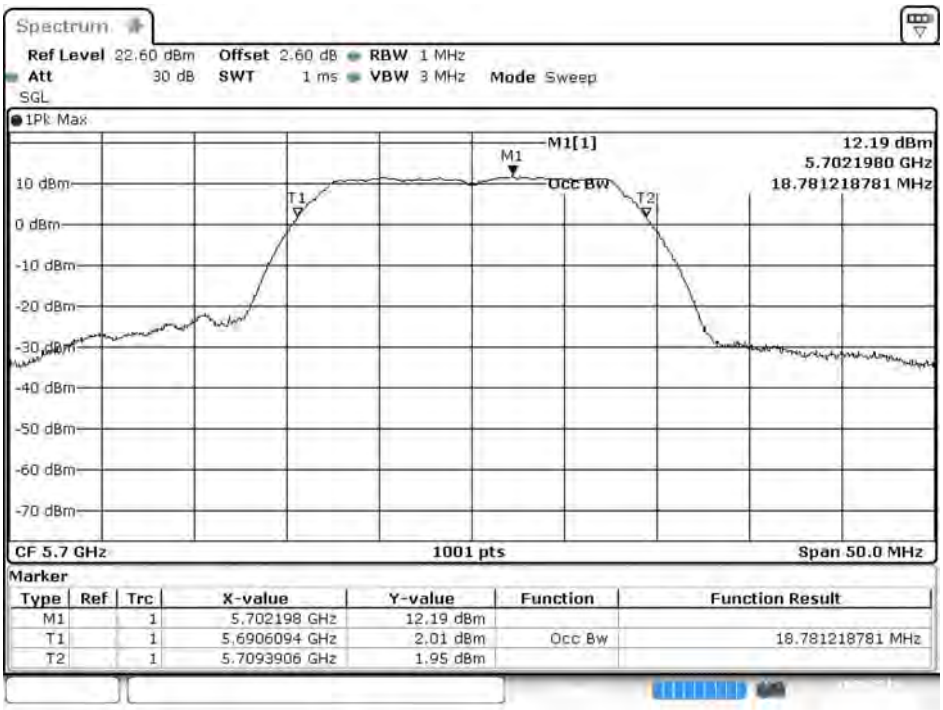
Date: 19.SEP.2016 08:35:30

Channel 116:



Date: 19.SEP.2016 08:37:59

Channel 140:



Date: 19.SEP.2016 08:42:58

Product : Intelligent Robot
Test Item : Maximum conducted output power
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)
Test Date : 2016/09/19

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2
		Measurement Level (dBm)							
36	5180	14.53	--	--	--	--	--	--	--
44	5220	14.97	14.89	14.76	14.66	14.56	14.45	14.35	14.24
48	5240	15.01	--	--	--	--	--	--	--
52	5260	14.44	--	--	--	--	--	--	--
60	5300	14.97	14.85	14.72	14.60	14.47	14.35	14.22	14.10
64	5320	14.8	--	--	--	--	--	--	--
100	5500	14.61	--	--	--	--	--	--	--
116	5580	14.82	14.73	14.65	14.56	14.48	14.39	14.31	14.22
140	5700	14.84	--	--	--	--	--	--	--
149	5745	14.73	--	--	--	--	--	--	--
157	5785	14.51	14.42	14.3	14.2	14.10	13.99	13.89	13.78
165	5825	14.65	--	--	--	--	--	--	--

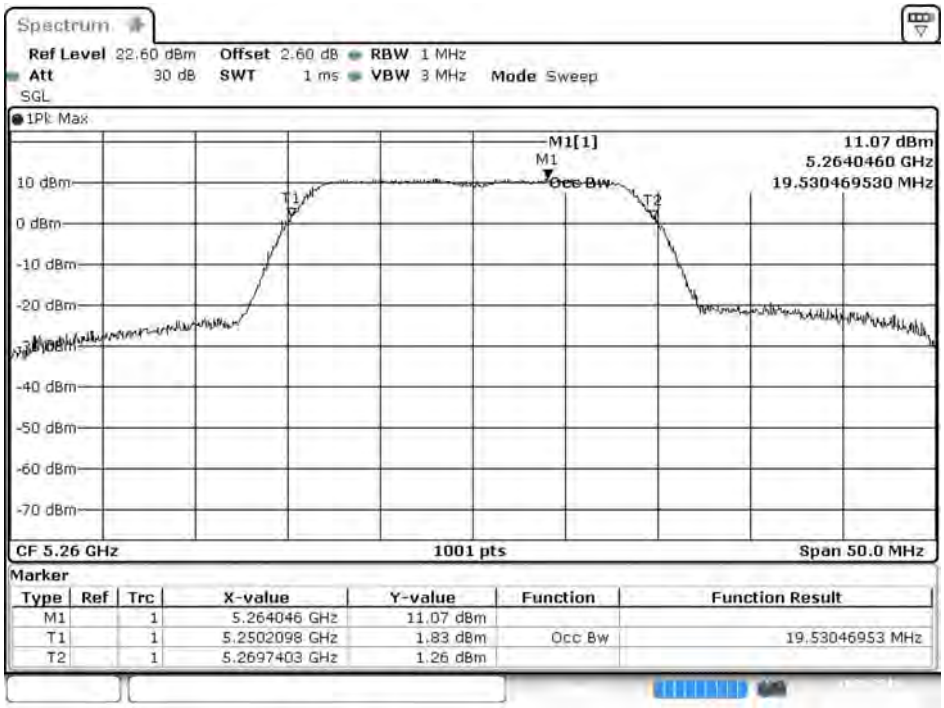
Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	99% Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	--	14.53	30	--
44	5220	--	14.97	30	--
48	5240	--	15.01	30	--
52	5260	19.53	14.44	24	23.91
60	5300	19.53	14.97	24	23.91
64	5320	19.53	14.8	24	23.91
100	5500	19.53	14.61	24	23.91
116	5580	19.43	14.82	24	23.88
140	5700	19.63	14.84	24	23.93
149	5745	--	14.73	30	--
157	5785	--	14.51	30	--
165	5825	--	14.65	30	--

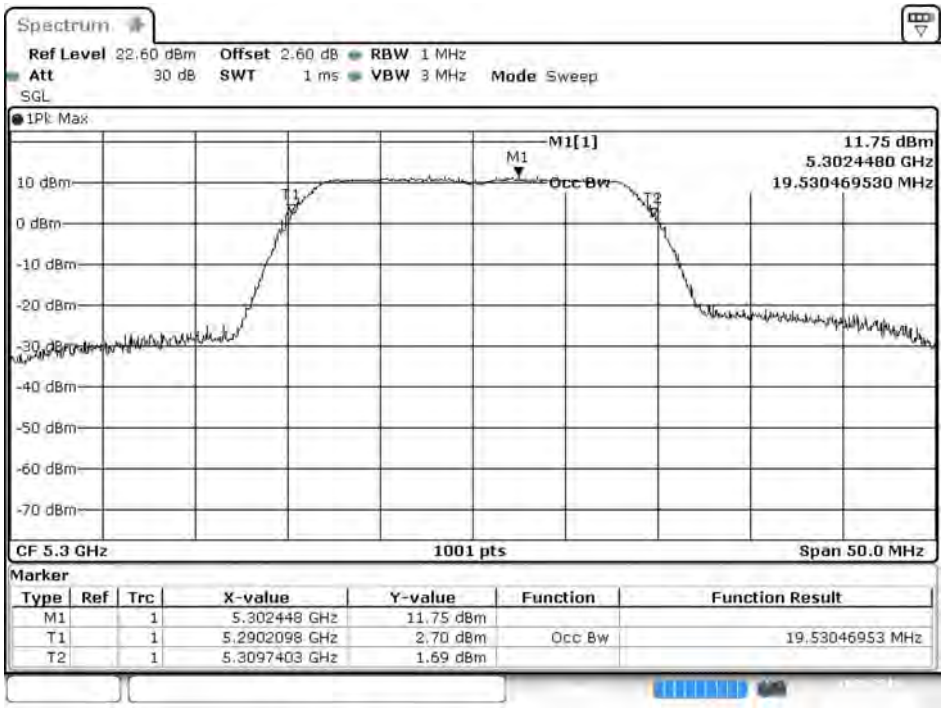
Note: Power Output Value =Reading value on average power meter + cable loss

99% Occupied Bandwidth:
Channel 52



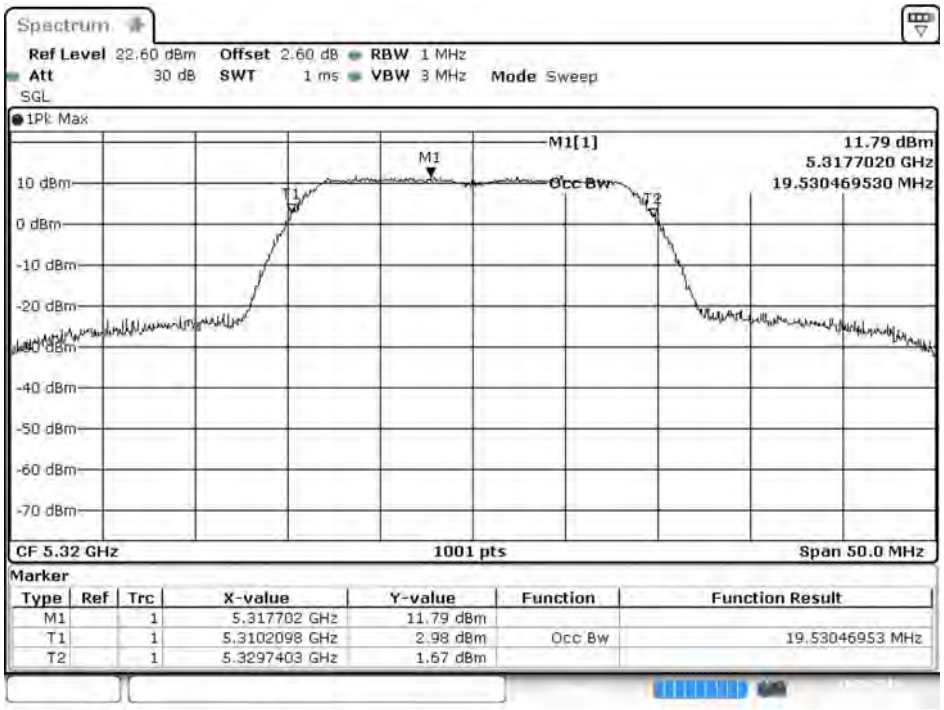
Date: 19.SEP.2016 10:20:04

Channel 60



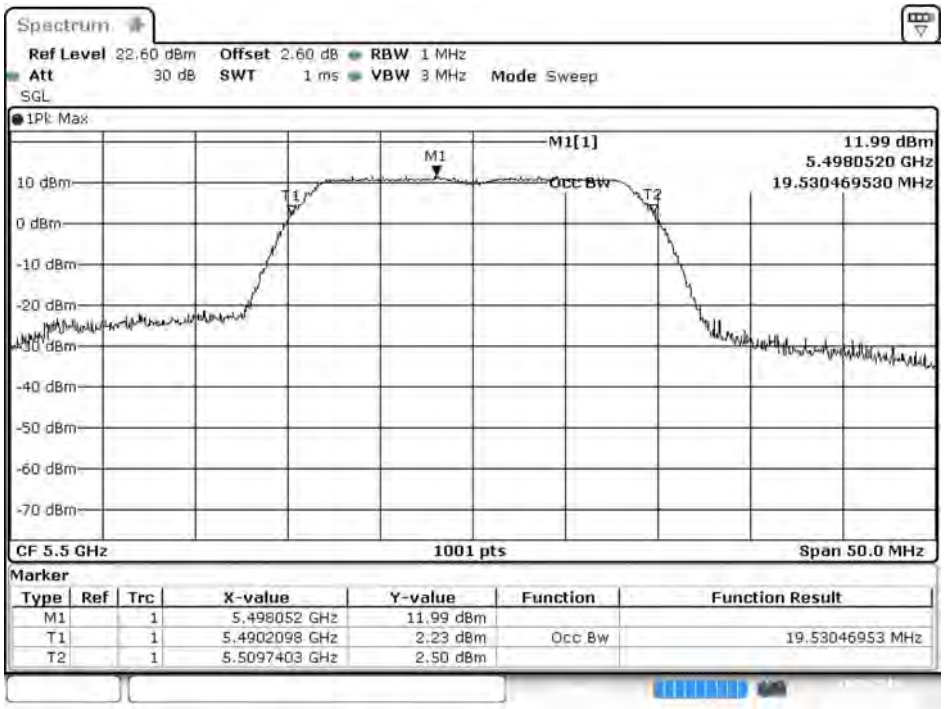
Date: 19.SEP.2016 10:22:20

Channel 64



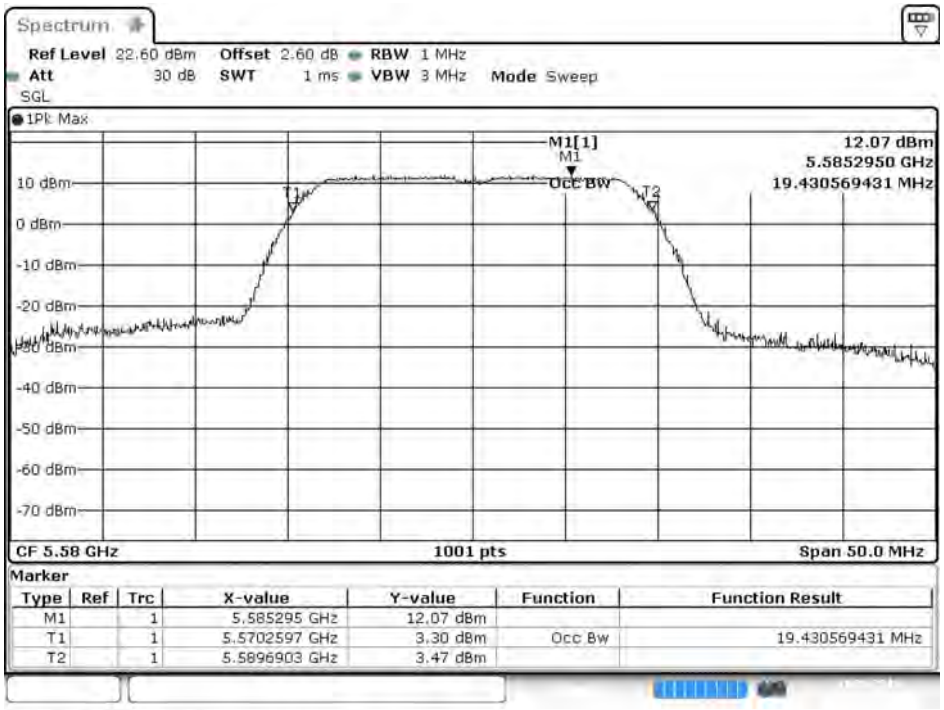
Date: 19.SEP.2016 10:25:21

Channel 100



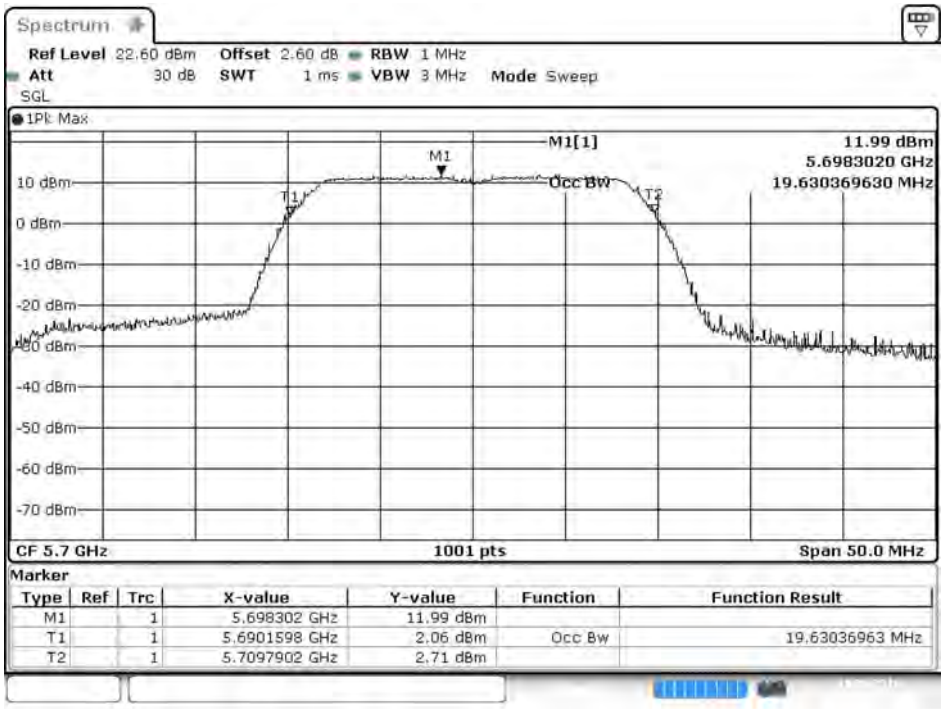
Date: 19.SEP.2016 10:28:38

Channel 116



Date: 19.SEP.2016 10:31:49

Channel 140



Date: 19.SEP.2016 10:39:36

Product : Intelligent Robot
Test Item : Maximum conducted output power
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)
Test Date : 2016/09/19

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		15	30	45	60	90	120	135	150
		Measurement Level (dBm)							
38	5190	12.04	11.93	11.85	11.75	11.655	11.56	11.465	11.37
46	5230	15.44	--	--	--	--	--	--	--
54	5270	15.03	14.95	14.86	14.78	14.69	14.61	14.52	14.44
62	5310	13.34	--	--	--	--	--	--	--
102	5510	10.43	--	--	--	--	--	--	--
110	5550	15.23	15.12	15.04	14.94	14.85	14.75	14.66	14.56
134	5670	15.37	--	--	--	--	--	--	--
151	5755	15.47	15.39	15.32	15.24	15.17	15.09	15.02	14.94
159	5795	15.34	--	--	--	--	--	--	--

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

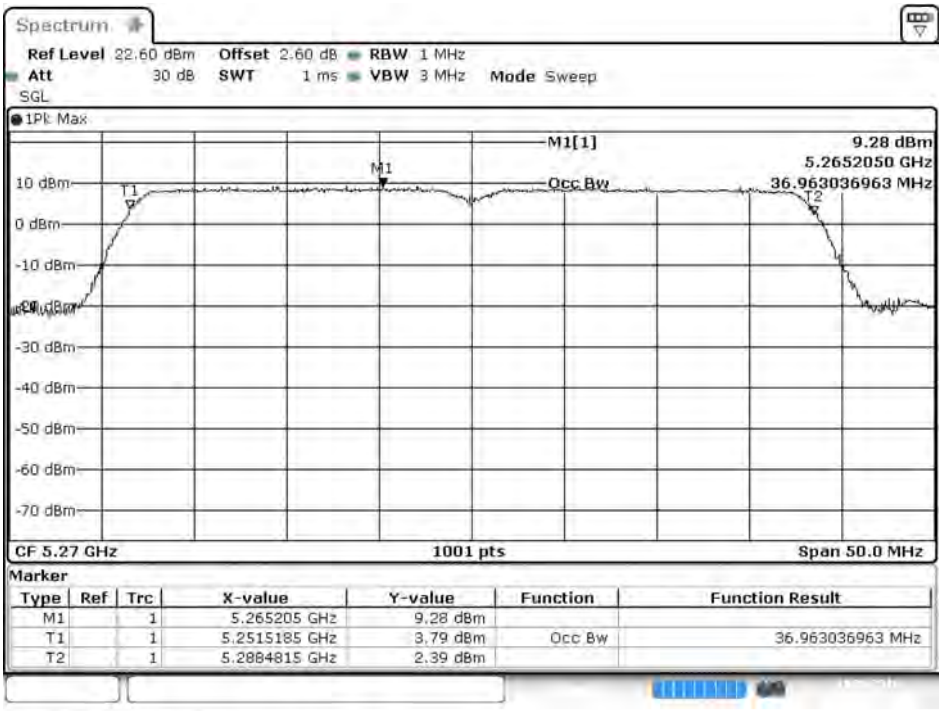
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	99% Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
38	5190	--	12.04	30	--
46	5230	--	15.44	30	--
54	5270	36.96	15.03	24	26.68
62	5310	36.86	13.34	24	26.67
102	5510	36.96	10.43	24	26.68
110	5550	37.63	15.23	24	26.76
134	5670	36.86	15.37	24	26.67
151	5755	--	15.47	30	--
159	5795	--	15.34	30	--

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

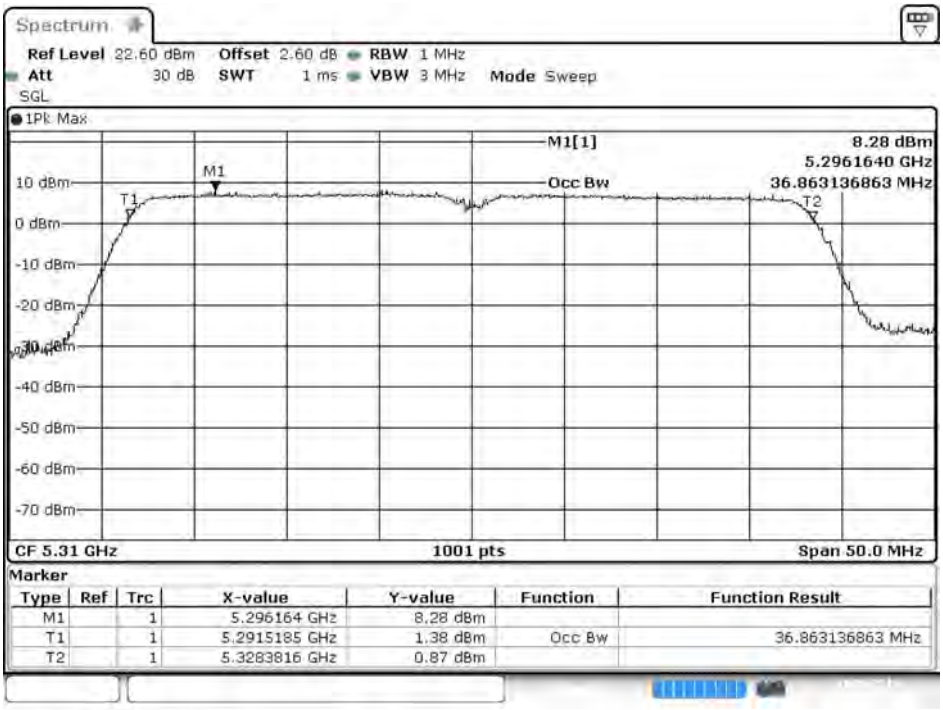
99% Occupied Bandwidth:

Channel 54



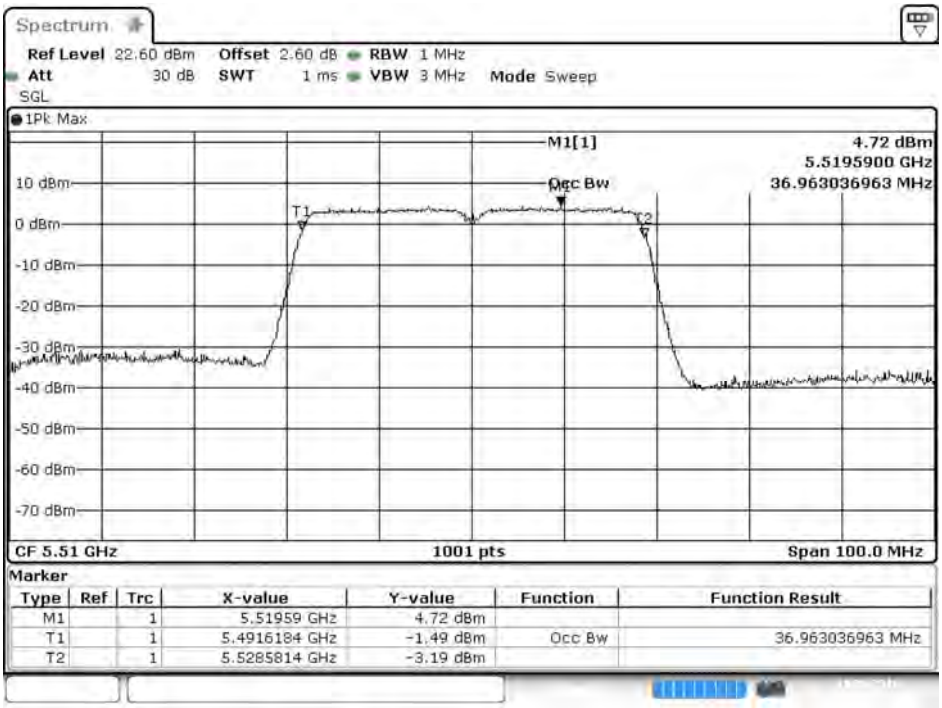
Date: 19.SEP.2016 10:53:40

Channel 62



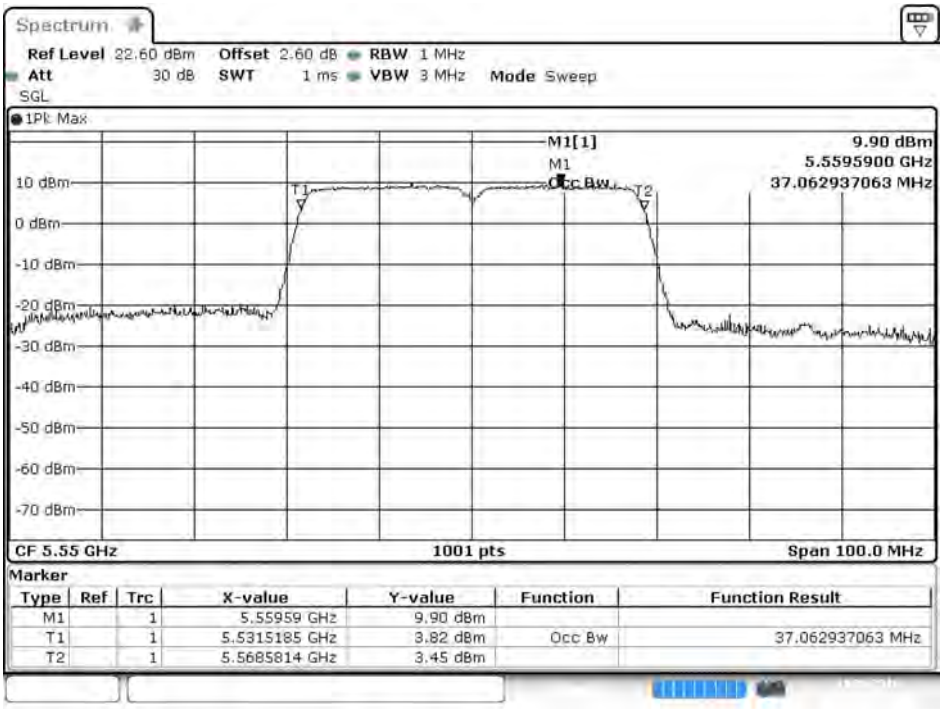
Date: 19.SEP.2016 11:02:36

Channel 102



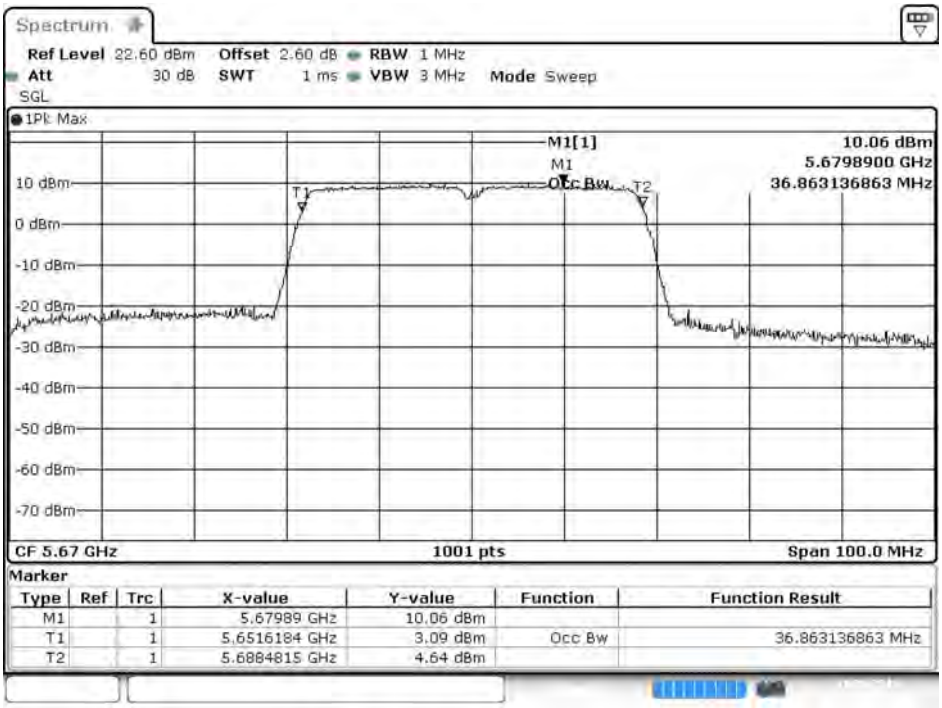
Date: 19.SEP.2016 11:05:12

Channel 110



Date: 19.SEP.2016 11:07:30

Channel 134


Spectrum
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Att 30 dB SWT 1 ms VBW 3 MHz Mode Sweep
SGL
1Pk Max
M1[1] 10.06 dBm
M1 5.6798900 GHz
Occ Bw 36.863136863 MHz
T1
T2
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 5.67 GHz
1001 pts
Span 100.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 5.67989 GHz 10.06 dBm
T1 1 5.6516184 GHz 3.09 dBm Occ Bw 36.863136863 MHz
T2 1 5.6884815 GHz 4.64 dBm
Date: 19.SEP.2016 11:12:40

Product : Intelligent Robot
Test Item : Maximum conducted output power
Test Mode : Mode 4: Transmit (802.11ac-20BW-7.2Mbps)
Test Date : 2016/09/13

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
		Measurement Level (dBm)								
144 (Band3)	5720	11.33	11.27	11.18	11.11	11.04	10.96	10.89	10.81	10.74
144 (Band4)	5720	5.68	5.61	5.53	5.46	5.38	5.31	5.23	5.16	5.08

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

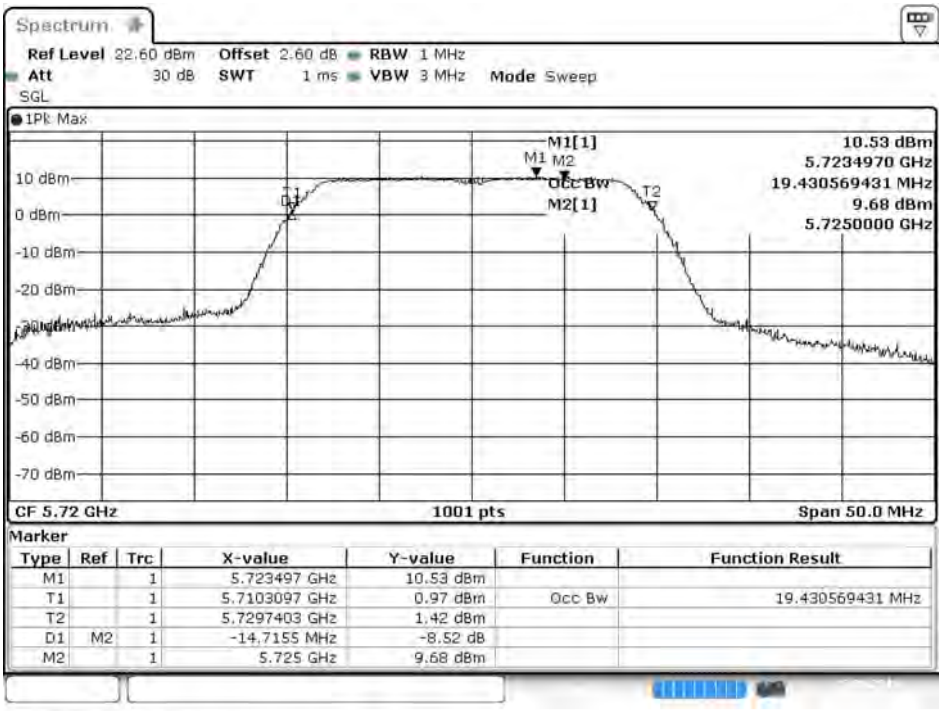
Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	99% Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
144(Band3)	5720	14.72	11.33	24	22.68	Pass
144(Band4)	5720	--	5.68	30	--	Pass

Note: Power Output Value = Reading value on Spectrum Analyzer + cable loss

99% Occupied Bandwidth:

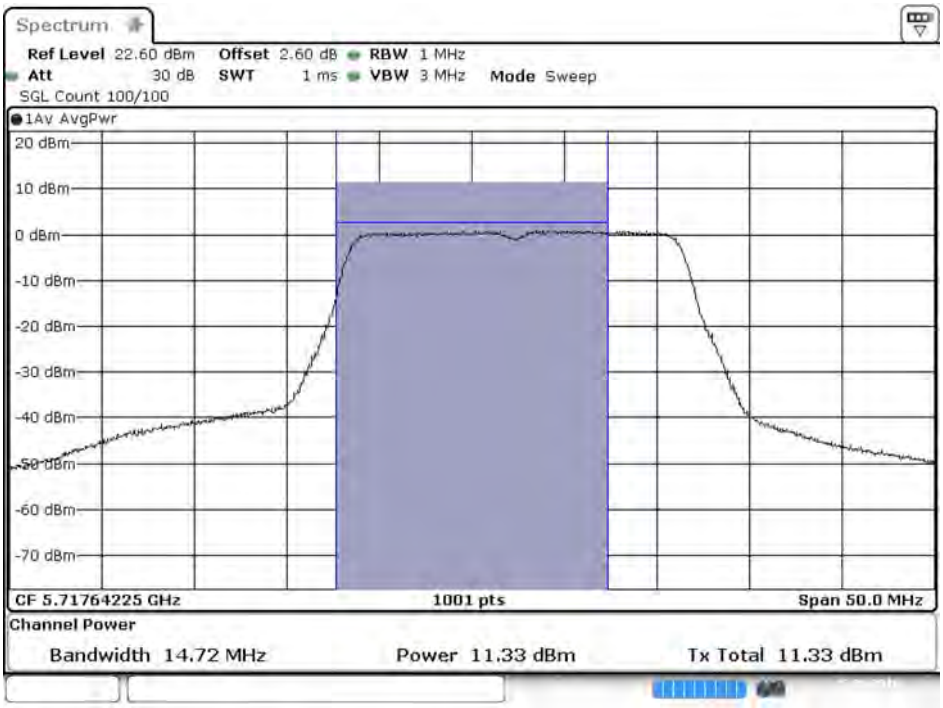
Channel 144



Date: 13.SEP.2016 12:46:45

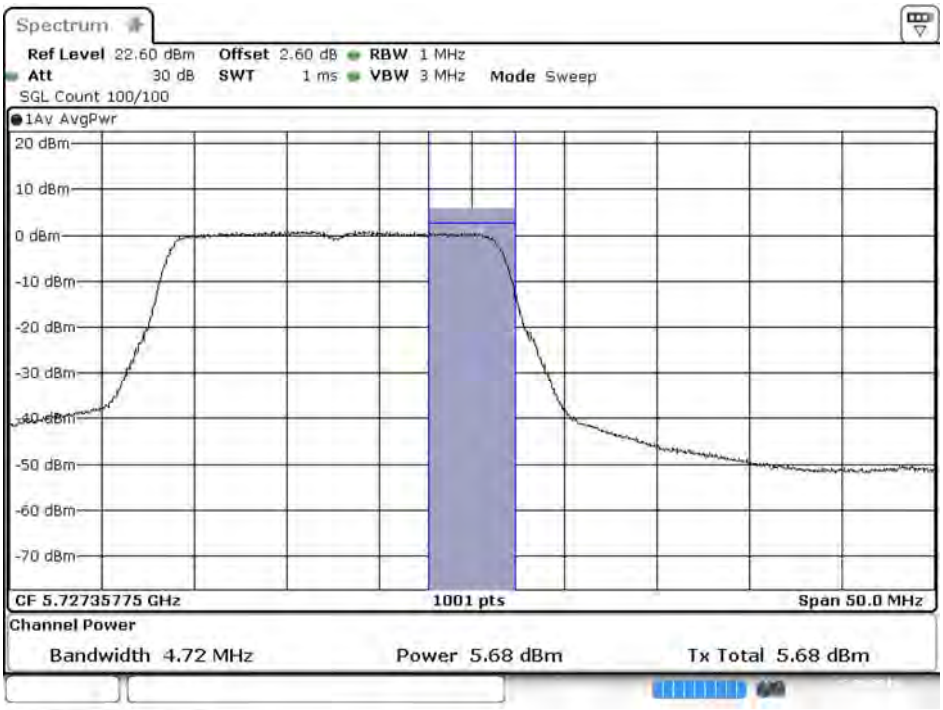
Maximum conducted output power:

Channel 144



Date: 13.SEP.2016 12:49:34

Channel 144



Date: 13.SEP.2016 12:49:56

Product : Intelligent Robot
Test Item : Maximum conducted output power
Test Mode : Mode 5: Transmit (802.11ac-40BW-15Mbps)
Test Date : 2016/09/13

Cable loss=1dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
142(Band3)	5710	12.51	12.44	12.32	12.23	12.14	12.04	11.95	11.85	11.76	11.66
142(Band4)	5710	2.44	2.37	2.26	2.18	2.09	2.00	1.91	1.82	1.73	1.64

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

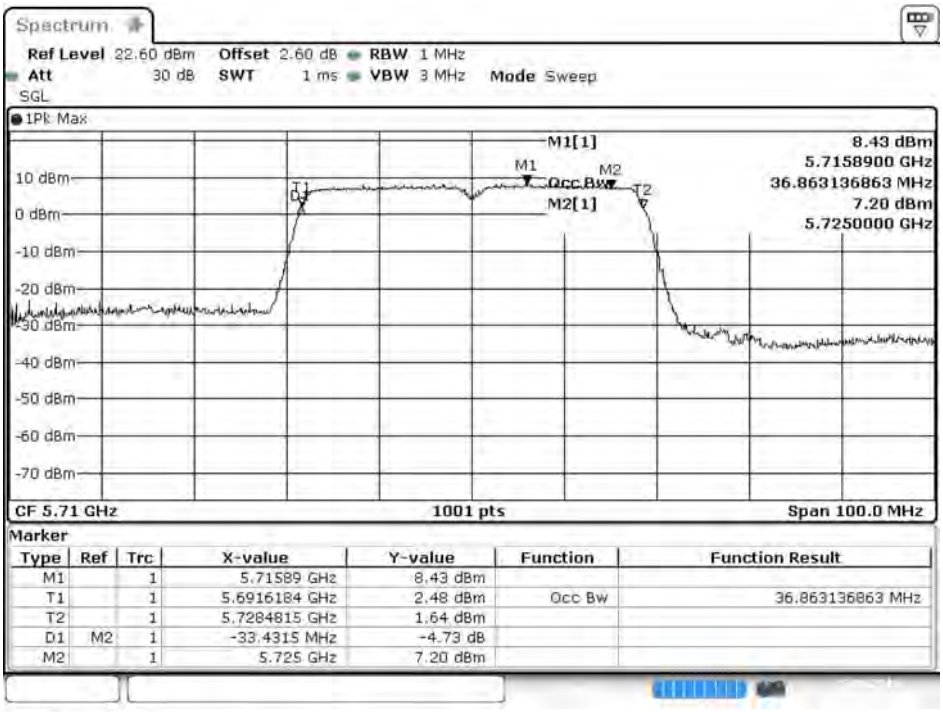
Maximum conducted output power Measurement:

Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit		Result
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)	
142(Band3)	5710	33.43	12.51	24	26.24	Pass
142(Band4)	5710	--	2.44	30	--	Pass

Note: Power Output Value = Reading value on Spectrum Analyzer + cable loss

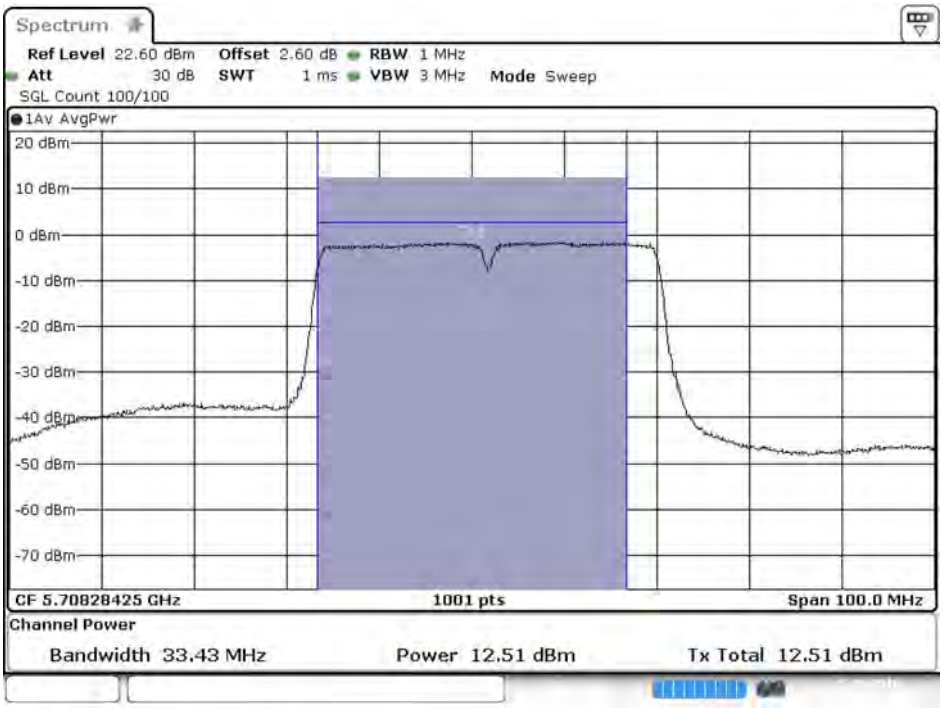
99% Occupied Bandwidth:

Channel 142



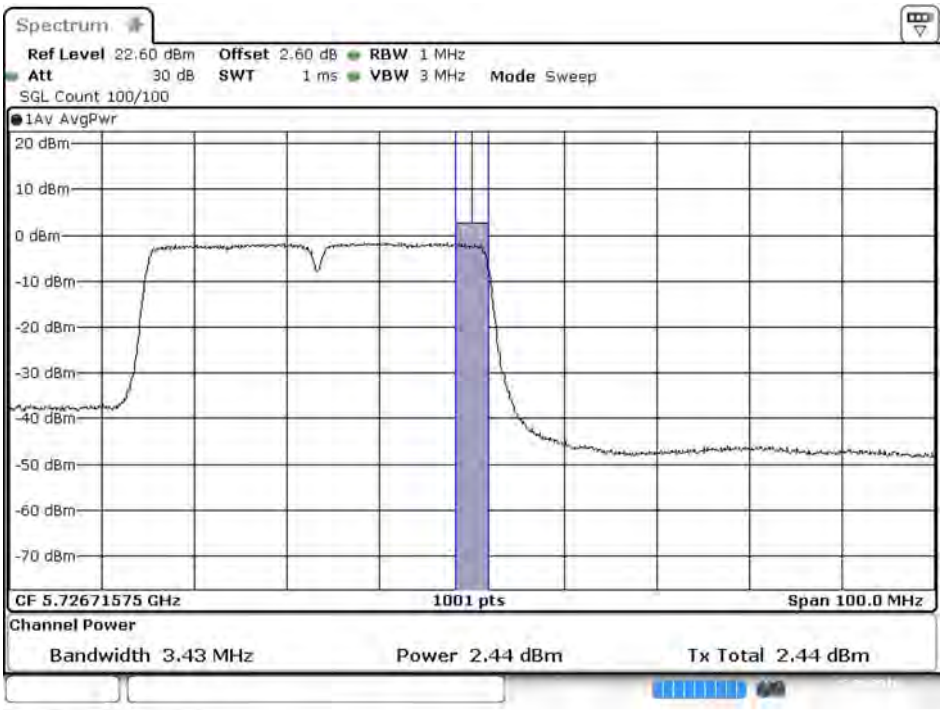
Maximum conducted output power:

Channel 142



Date: 13.SEP.2016 12:54:05

Channel 142



Date: 13.SEP.2016 12:54:27

Product : Intelligent Robot
Test Item : Maximum conducted output power
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps)
Test Date : 2016/09/13

Cable loss=1dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
42	5210	11.64	11.59	11.52	11.46	11.40	11.34	11.28	11.22	11.16	11.10
58	5290	11.22	11.14	11.09	11.02	10.96	10.89	10.83	10.76	10.70	10.63
106	5530	10.40	--	--	--	--	--	--	--	--	--
122	5610	11.66	11.59	11.52	11.45	11.38	11.31	11.24	11.17	11.1	11.03
138(Band3)	5690	11.44	--	--	--	--	--	--	--	--	--
138(Band4)	5690	-3.00	--	--	--	--	--	--	--	--	--
155	5775	11.29	11.22	11.14	11.07	10.99	10.92	10.84	10.77	10.69	10.62

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

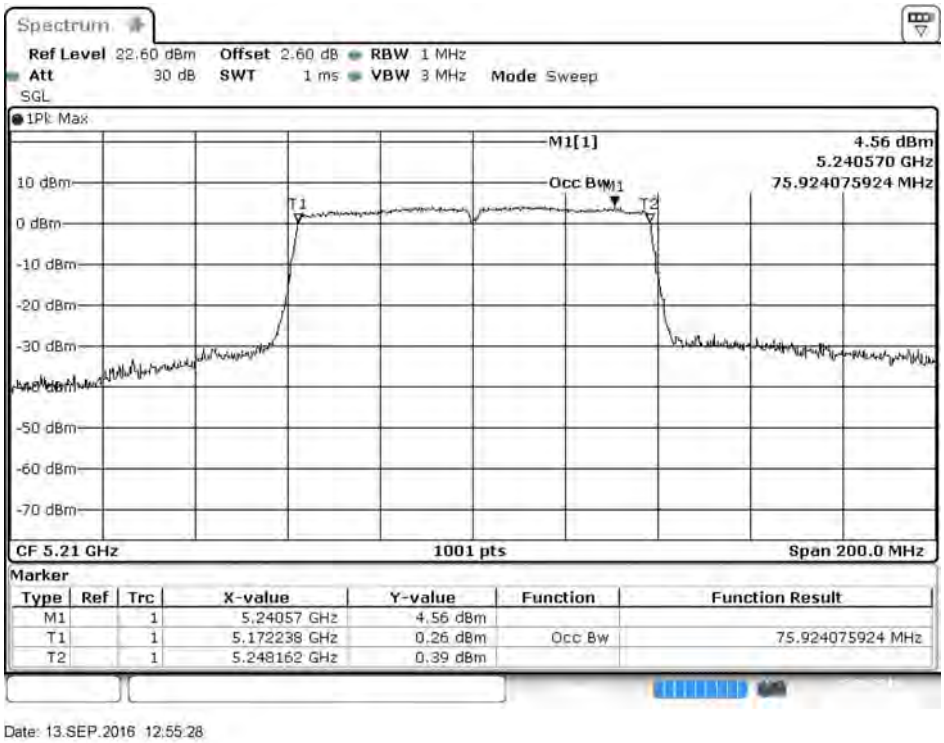
Maximum conducted output power Measurement

Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit		Result
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)	
42	5210	--	11.64	24	--	Pass
58	5290	75.92	11.22	24	29.80	Pass
106	5530	76.12	10.40	24	29.82	Pass
122	5610	76.12	11.66	24	29.82	Pass
138(Band3)	5690	72.96	11.44	24	29.63	Pass
138(Band4)	5690	--	-3.00	30	--	Pass
155	5775	--	11.29	30	--	Pass

Note: Power Output Value = Reading value on Spectrum Analyzer + cable loss

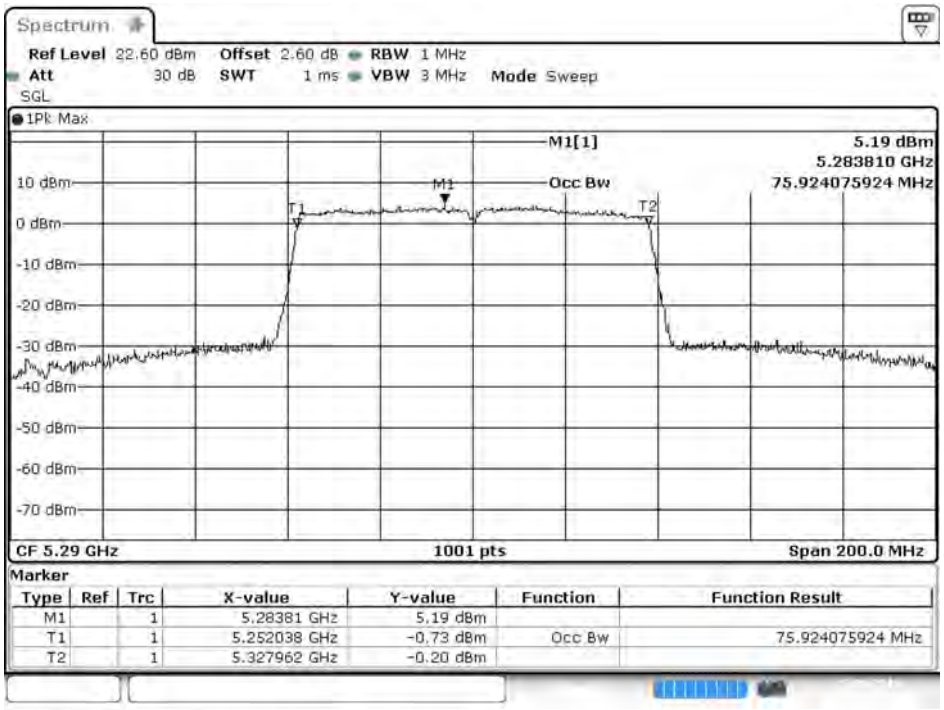
99% Occupied Bandwidth:

Channel 42



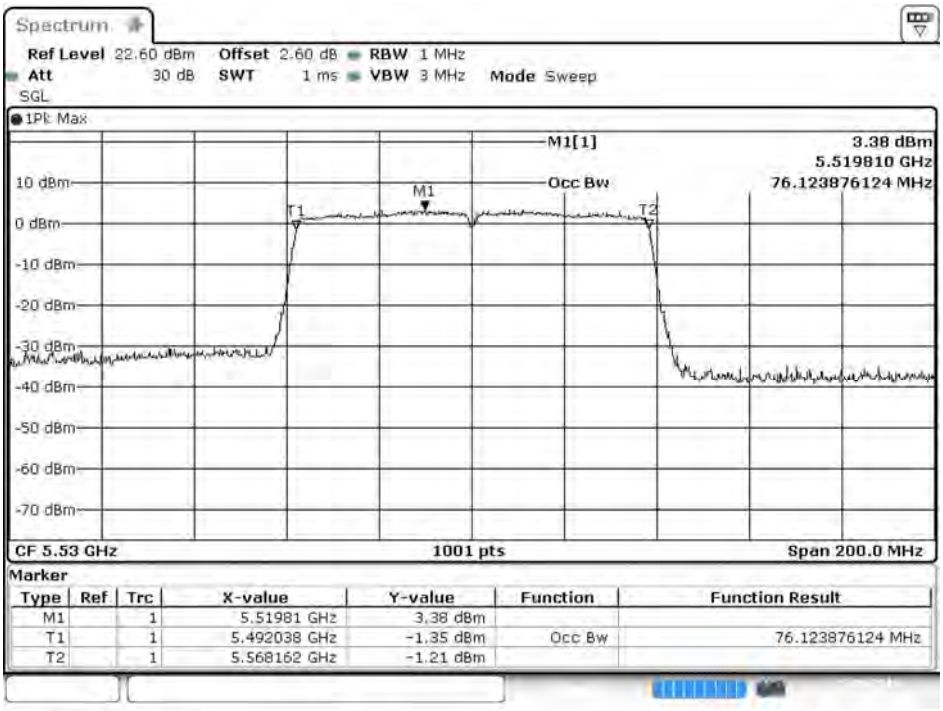
Date: 13.SEP.2016 12:55:28

Channel 58



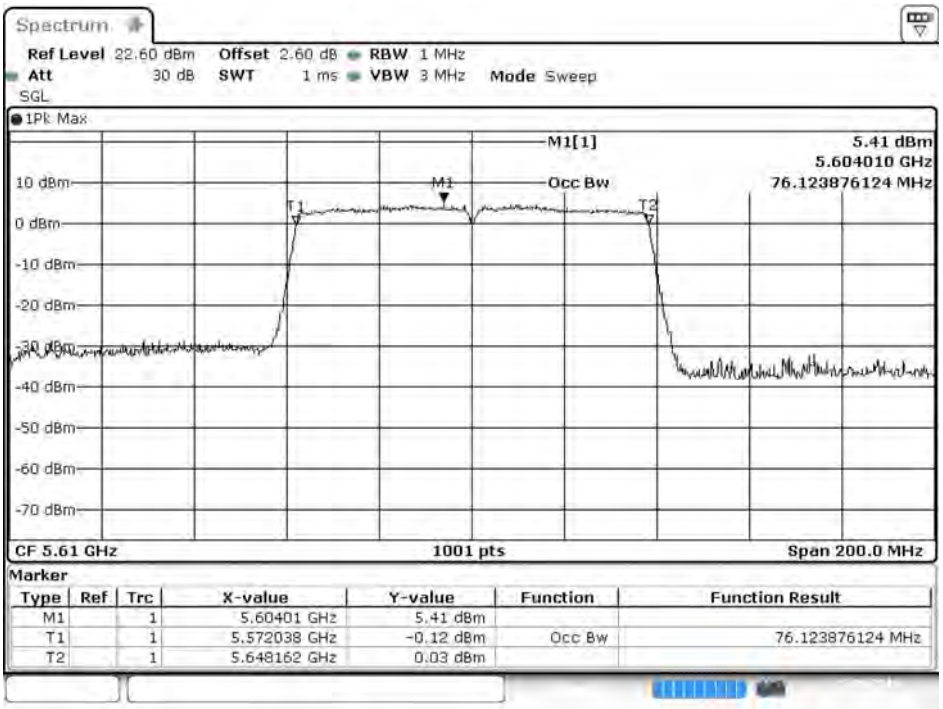
Date: 13.SEP.2016 13:01:15

Channel 106



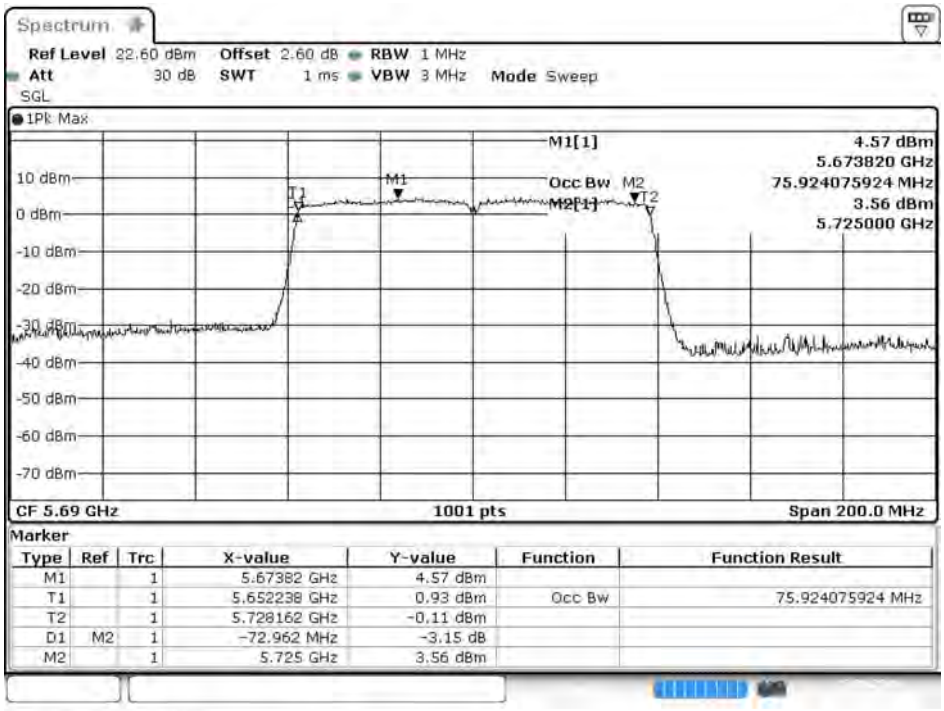
Date: 13.SEP.2016 13:05:55

Channel 122



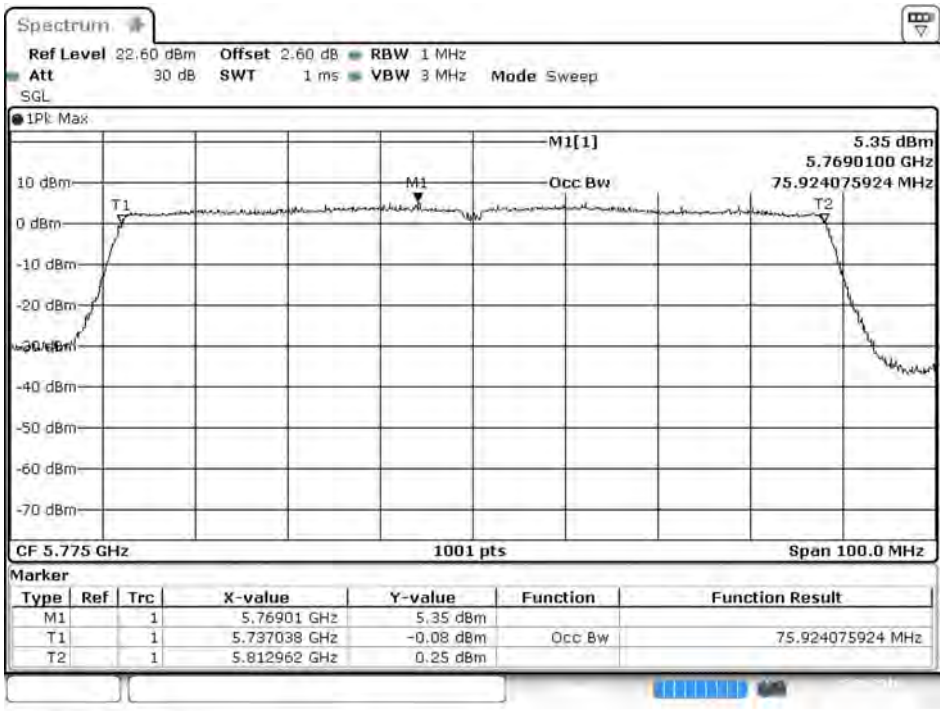
Date: 13.SEP.2016 13:11:51

Channel 122



Date: 13.SEP.2016 13:20:34

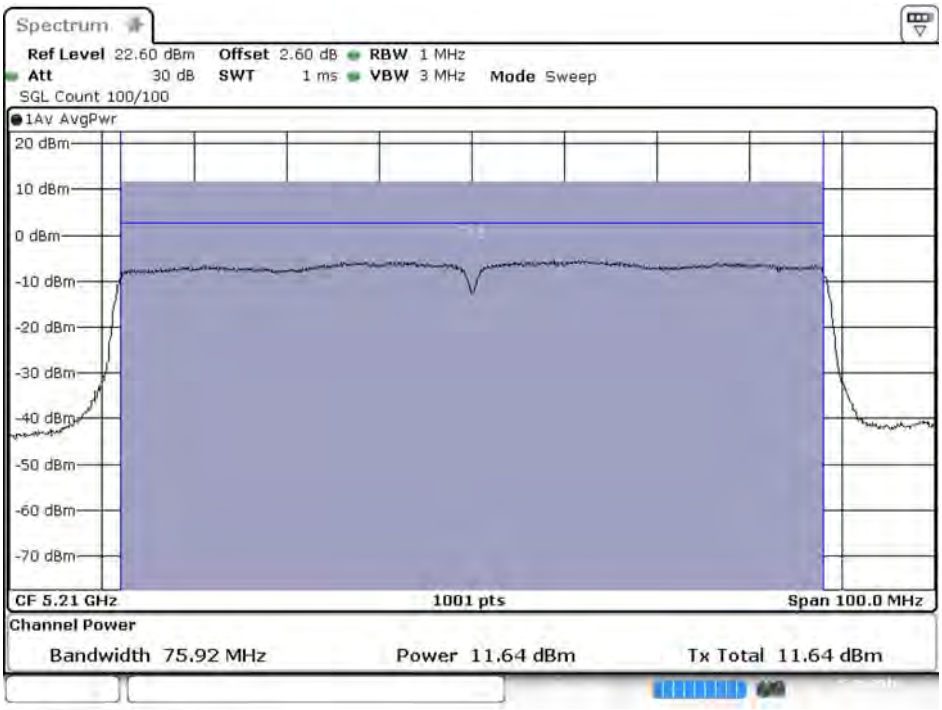
Channel 155



Date: 13.SEP.2016 13:38:34

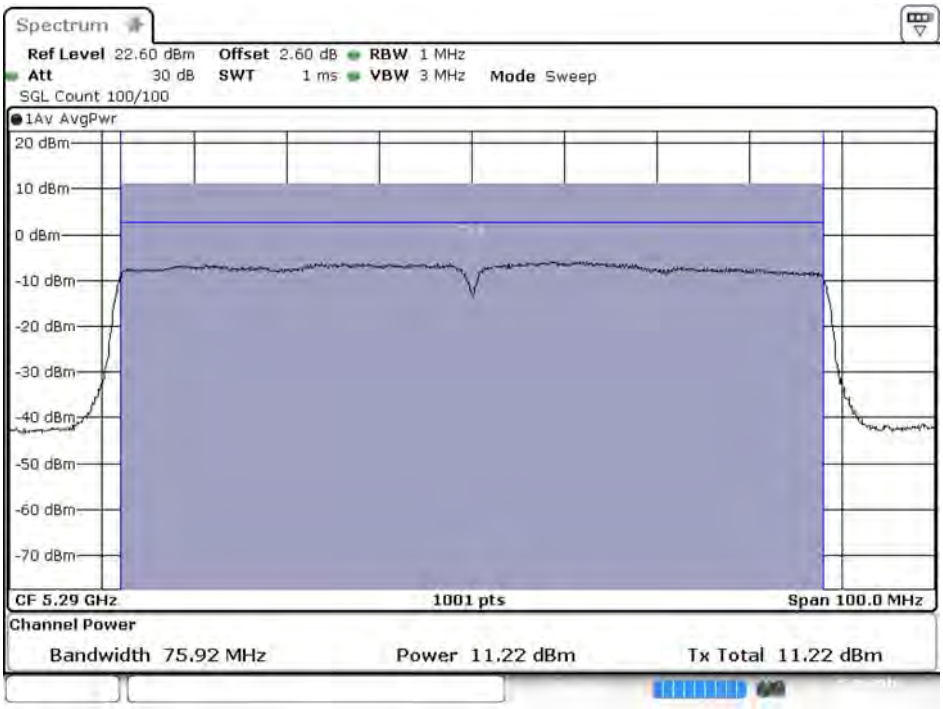
Maximum conducted output power:

Channel 42



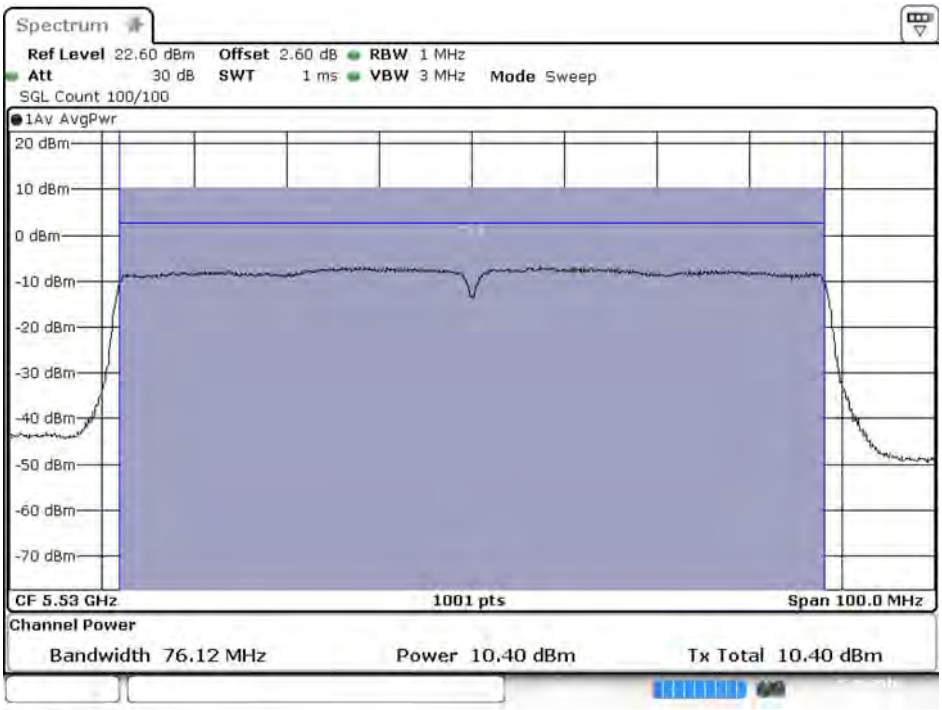
Date: 13.SEP.2016 12:58:02

Channel 58



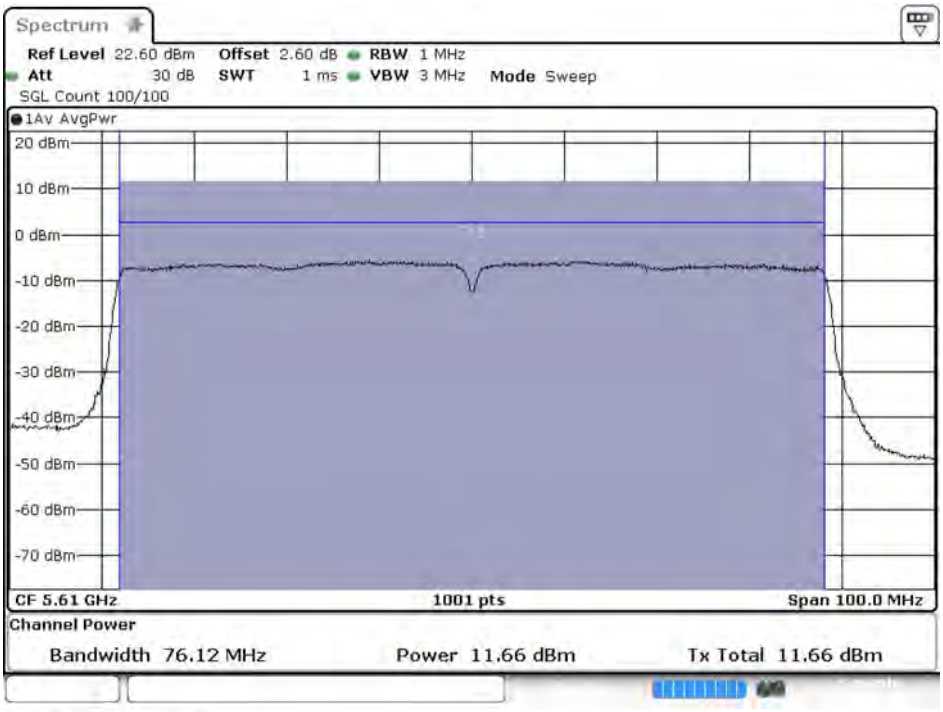
Date: 13.SEP.2016 13:03:11

Channel 106



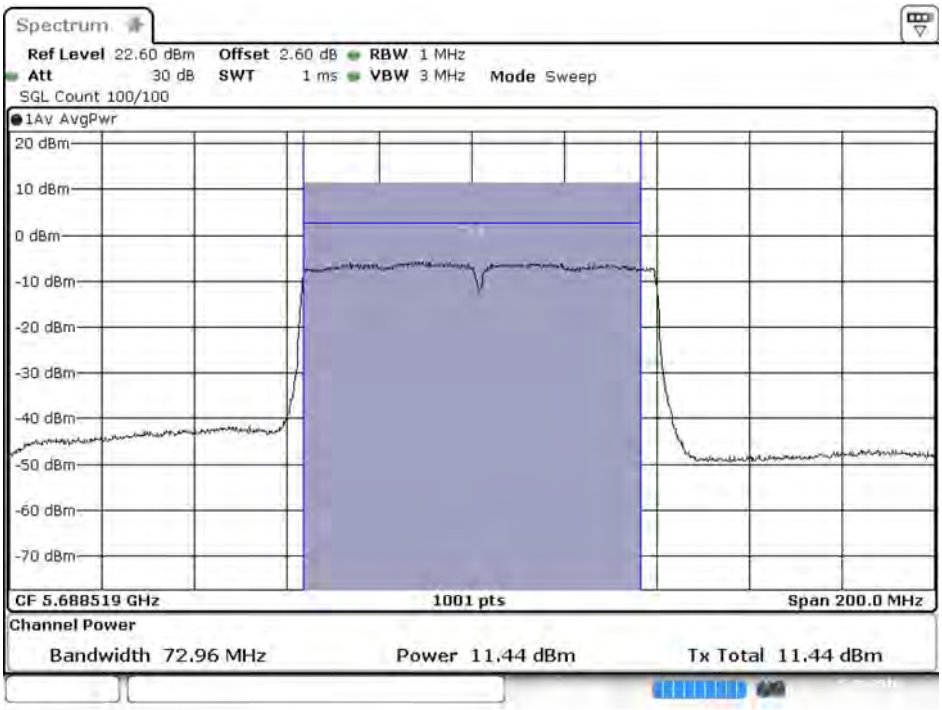
Date: 13.SEP.2016 13:07:51

Channel 122



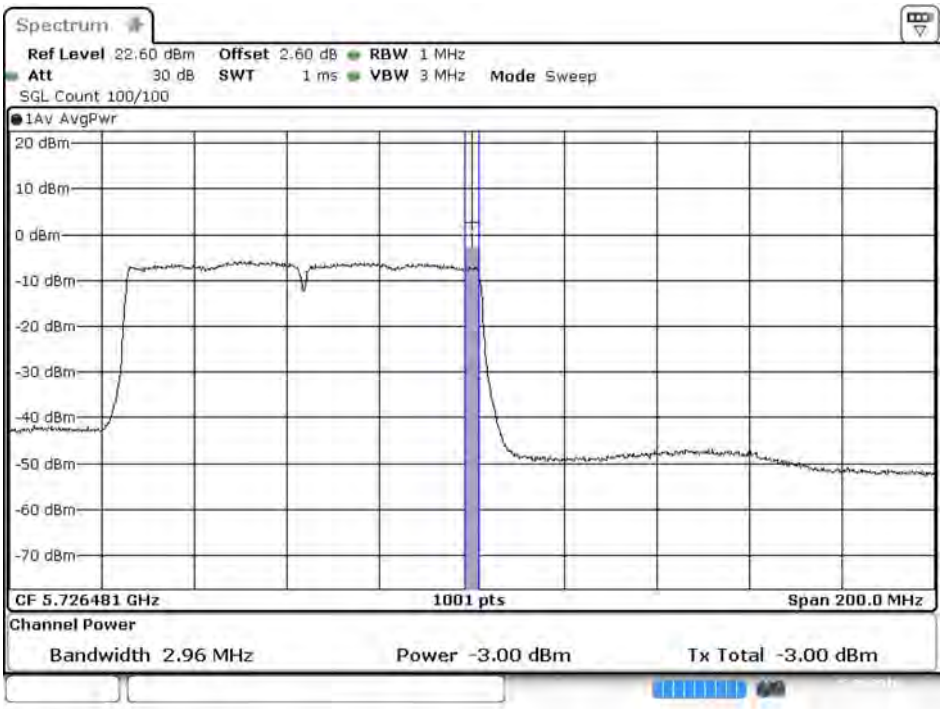
Date: 13.SEP.2016 13:13:48

Channel 138



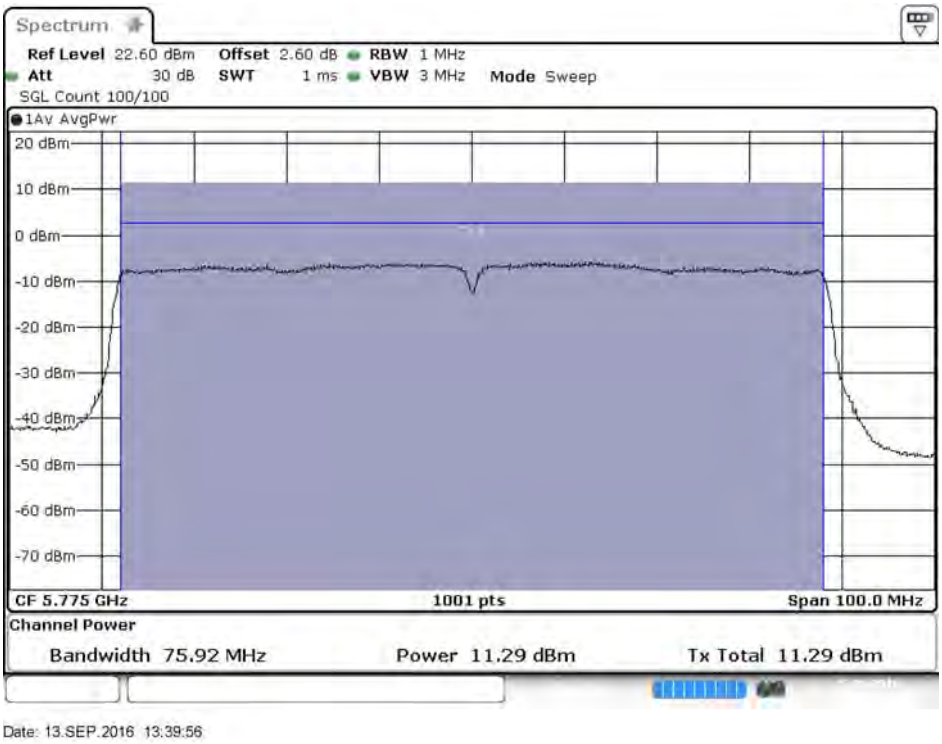
Date: 13.SEP.2016 13:23:22

Channel 138



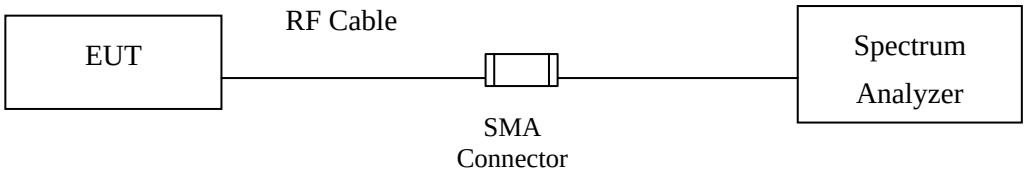
Date: 13.SEP.2016 13:23:44

Channel 155


Spectrum
Ref Level 22.60 dBm Offset 2.60 dB RBW 1 MHz
Att 30 dB SWT 1 ms VBW 3 MHz Mode Sweep
SGL Count 100/100
1Av AvgPwr
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 5.775 GHz
1001 pts
Span 100.0 MHz
Channel Power
Bandwidth 75.92 MHz
Power 11.29 dBm
Tx Total 11.29 dBm
Date: 13.SEP.2016 13:39:56

4. Peak Power Spectral Density

4.1. Test Setup



4.2. Limits

(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 power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced 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 maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.+

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

4.3. Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.
The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.
SA-1 method is selected to run the test.
For the band 5.725-5.85 GHz, Scale the observed power level to an equivalent value in 500 kHz by adjusting (increase) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (500 kHz/100 kHz) = 6.98 dB.

4.4. Uncertainty

±1.30dB

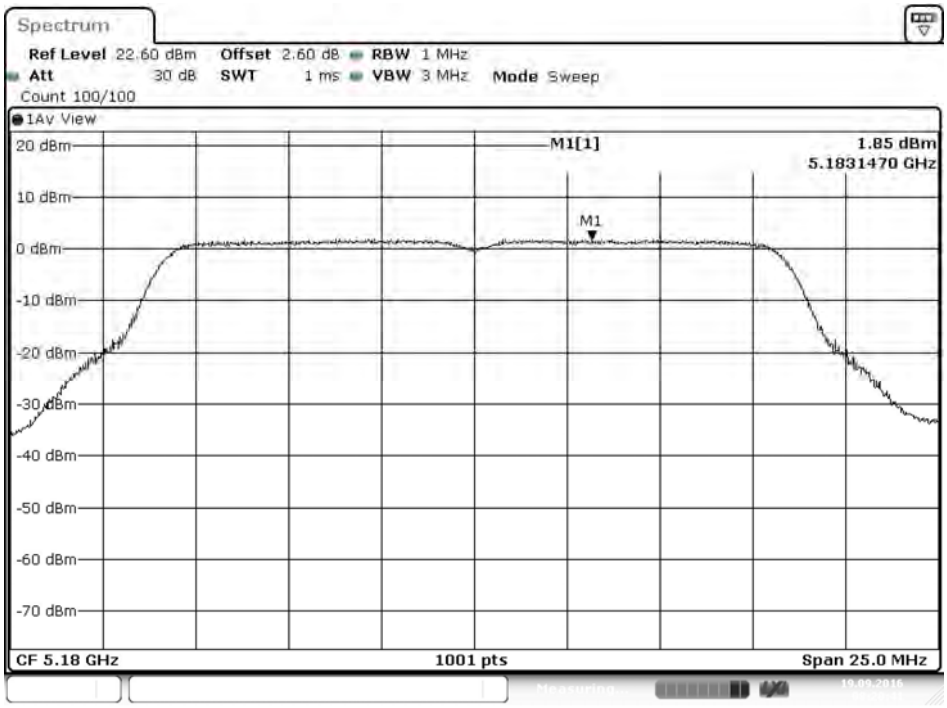
4.5. Test Result of Peak Power Spectral Density

Product : Intelligent Robot
Test Item : Peak Power Spectral Density
Test Mode : Mode 1: Transmit (802.11a-6Mbps)
Test Date : 2016/09/19

Channel Number	Frequency (MHz)	Data Rata (Mbps)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	6	1.85	<11	Pass
44	5220	6	2.96	<11	Pass
48	5240	6	3.03	<11	Pass
52	5260	6	1.97	<11	Pass
60	5300	6	2.63	<11	Pass
64	5320	6	2.26	<11	Pass
100	5500	6	2.38	<11	Pass
116	5580	6	2.73	<11	Pass
140	5700	6	2.50	<11	Pass

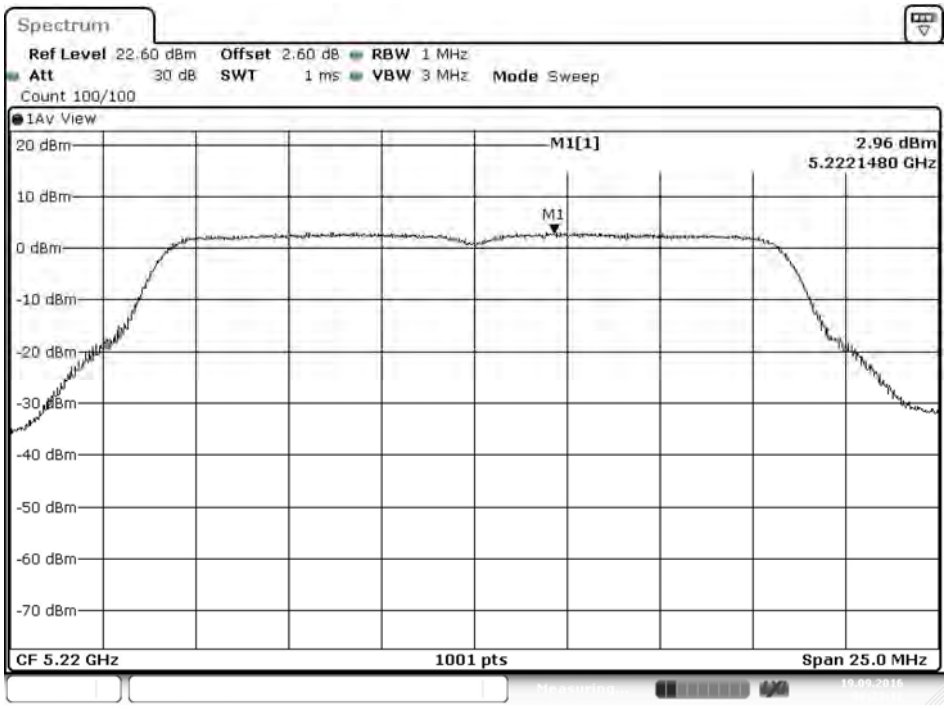
Channel Number	Frequency (MHz)	Data Rata (Mbps)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	6	-5.53	6.98	1.45	<30	Pass
157	5785	6	-5.37	6.98	1.61	<30	Pass
165	5825	6	-6.03	6.98	0.95	<30	Pass

Channel 36:



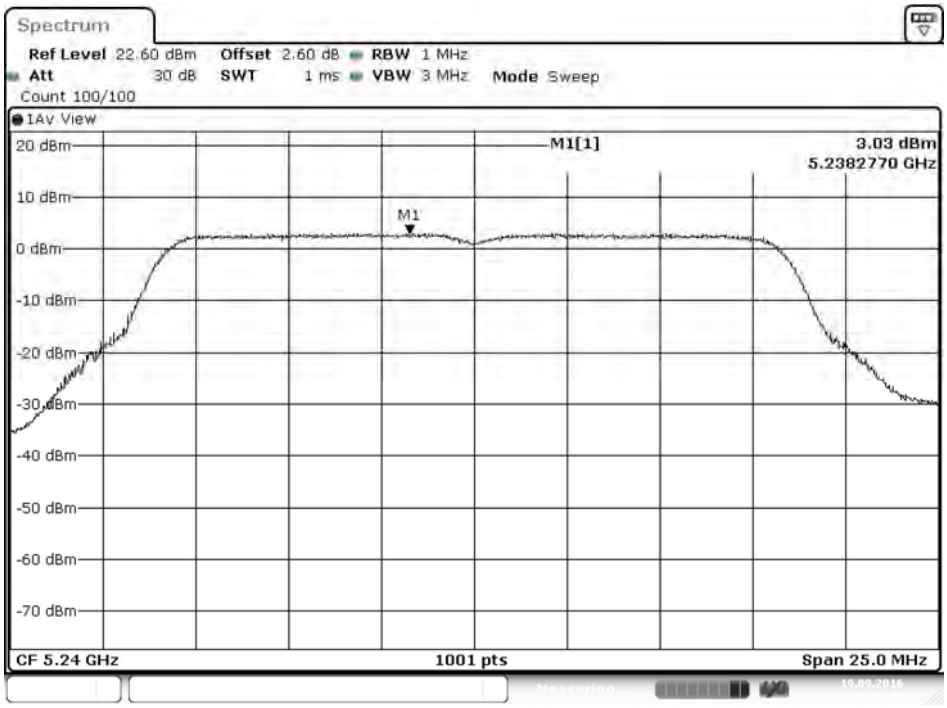
Date: 19.SEP.2016 08:20:42

Channel 44:



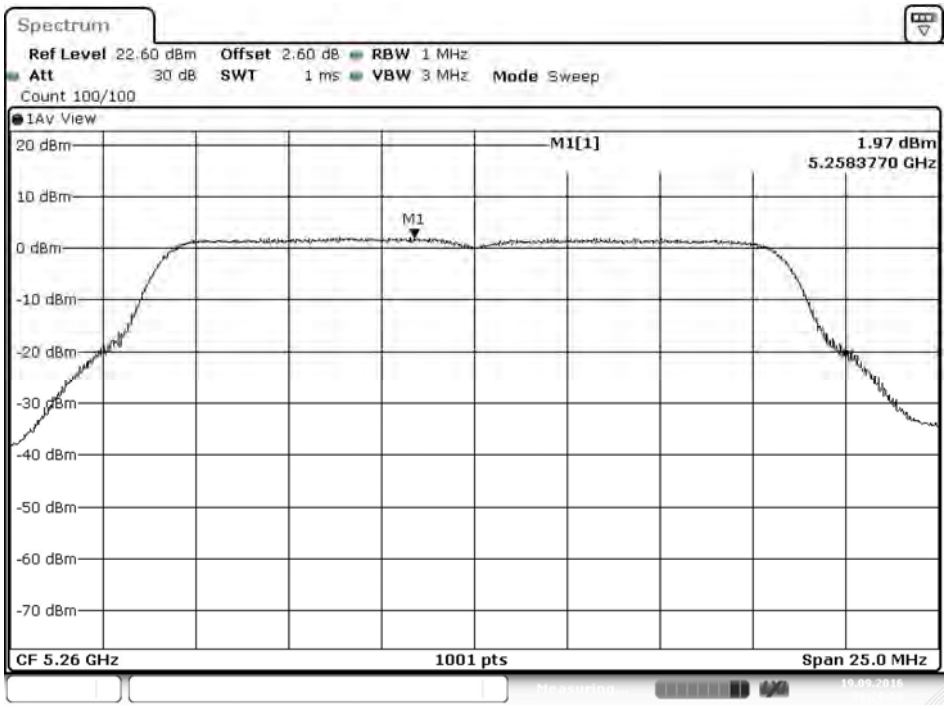
Date: 19.SEP.2016 08:23:13

Channel 48:



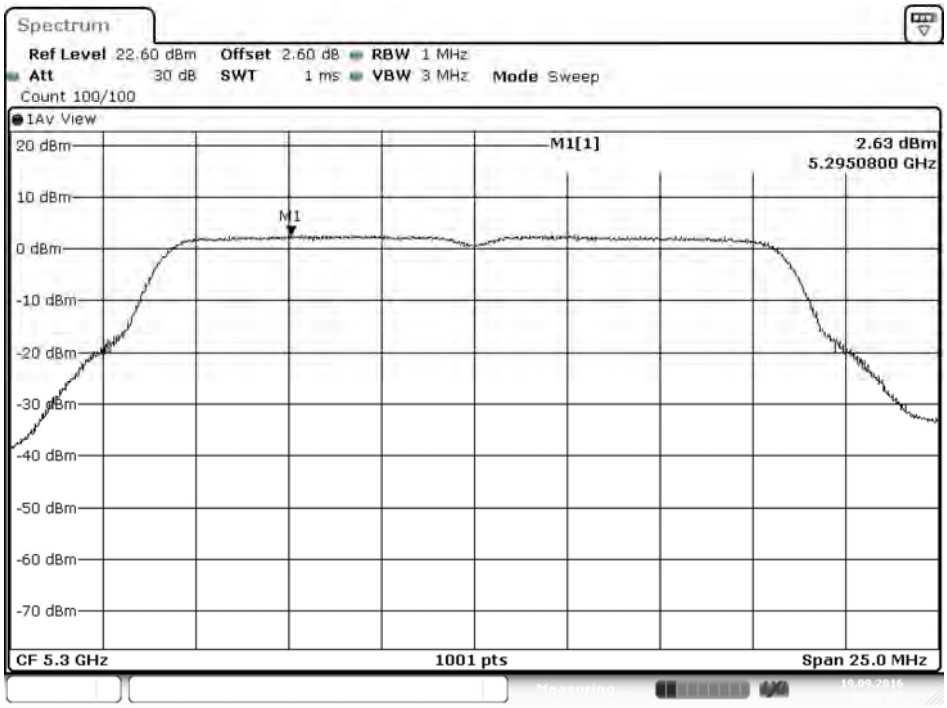
Date: 19.SEP.2016 08:26:47

Channel 52:



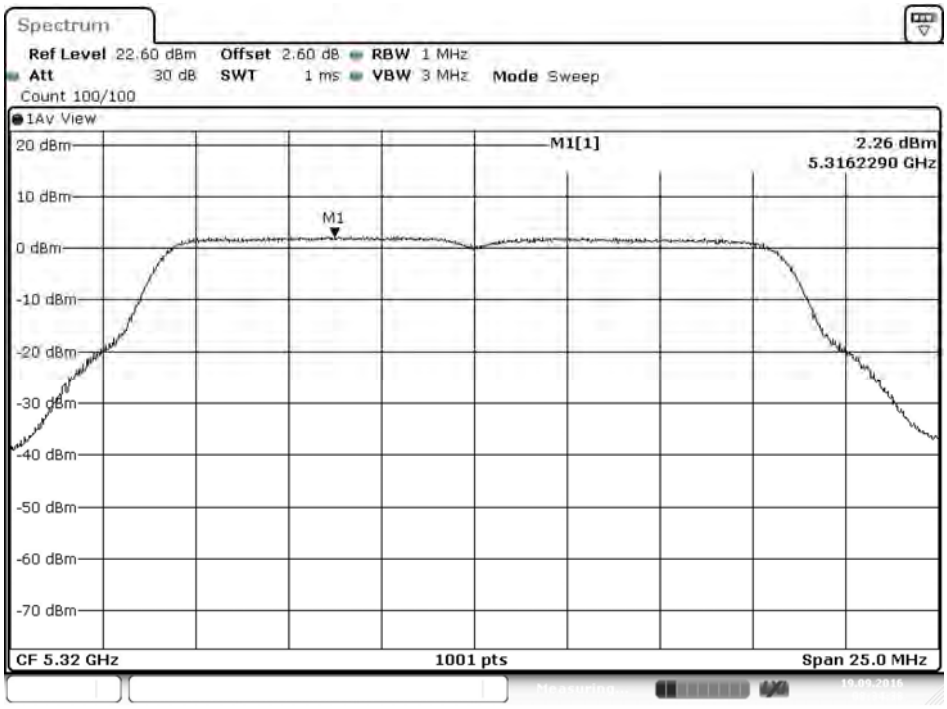
Date: 19.SEP.2016 08:29:00

Channel 60:



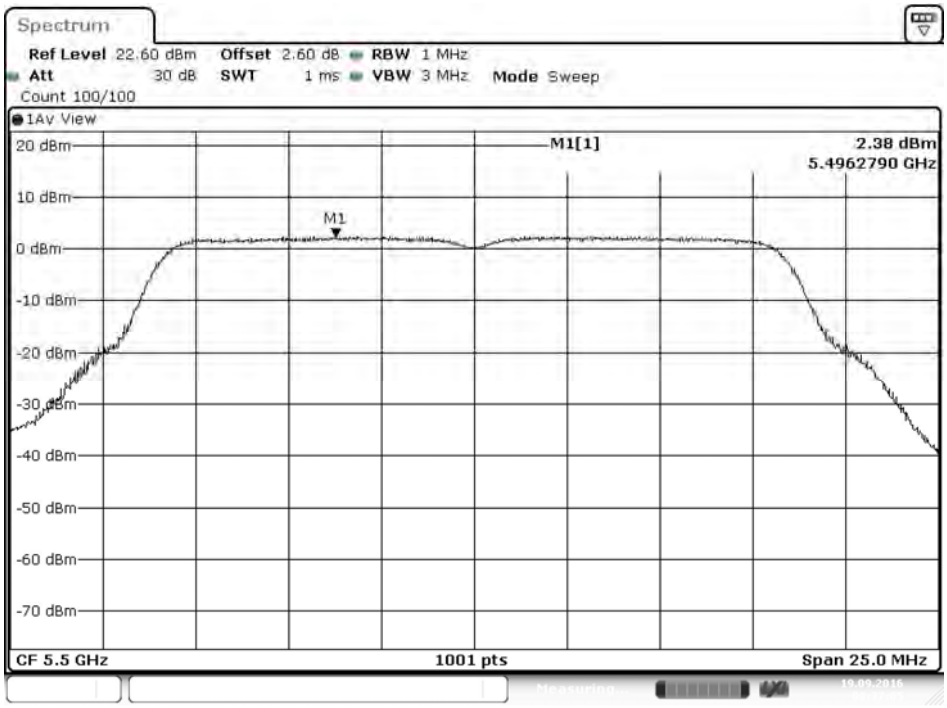
Date: 19.SEP.2016 08:32:16

Channel 64:



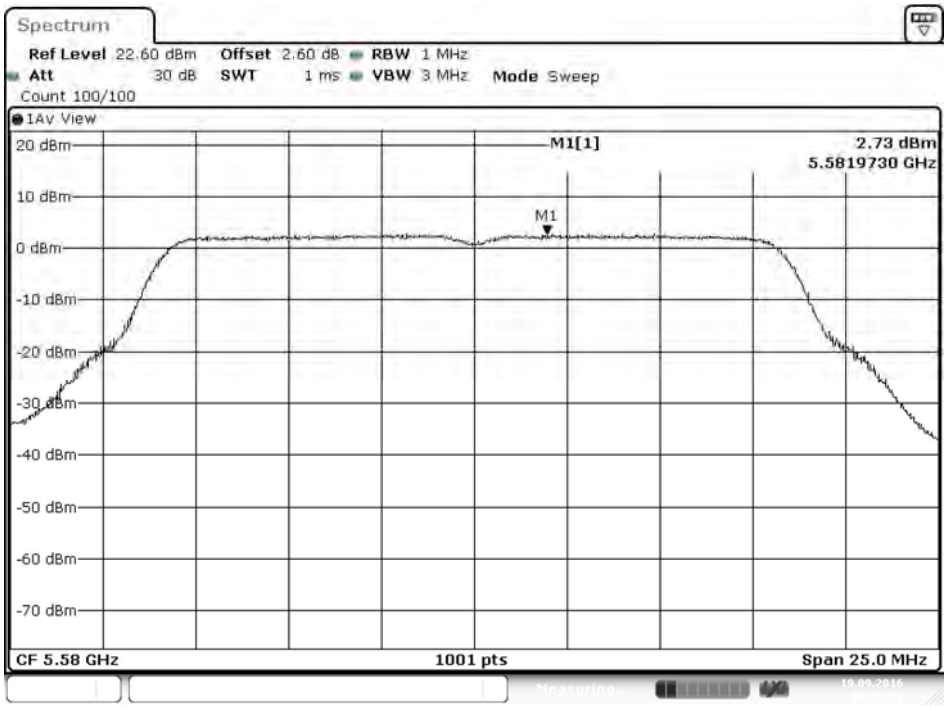
Date: 19.SEP.2016 08:34:38

Channel 100:



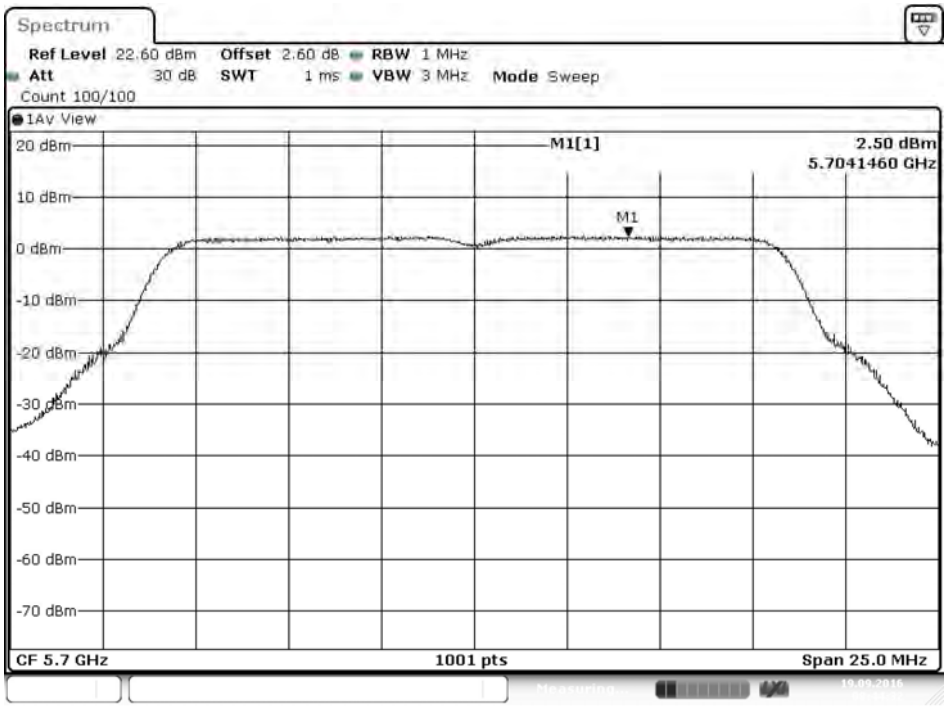
Date: 19.SEP.2016 08:37:05

Channel 116:



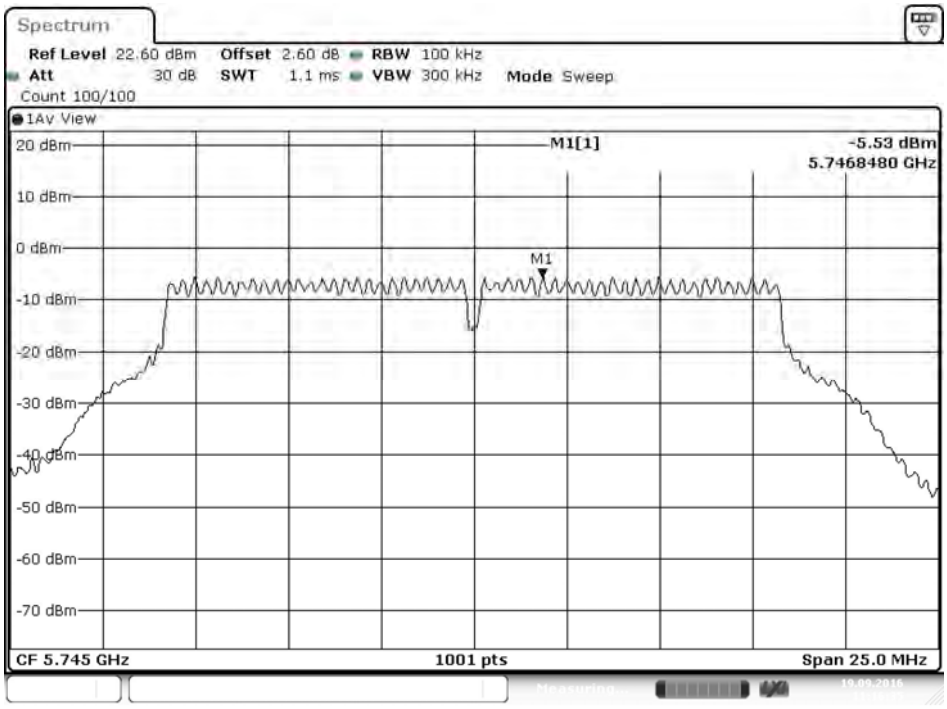
Date: 19.SEP.2016 08:39:34

Channel 140:



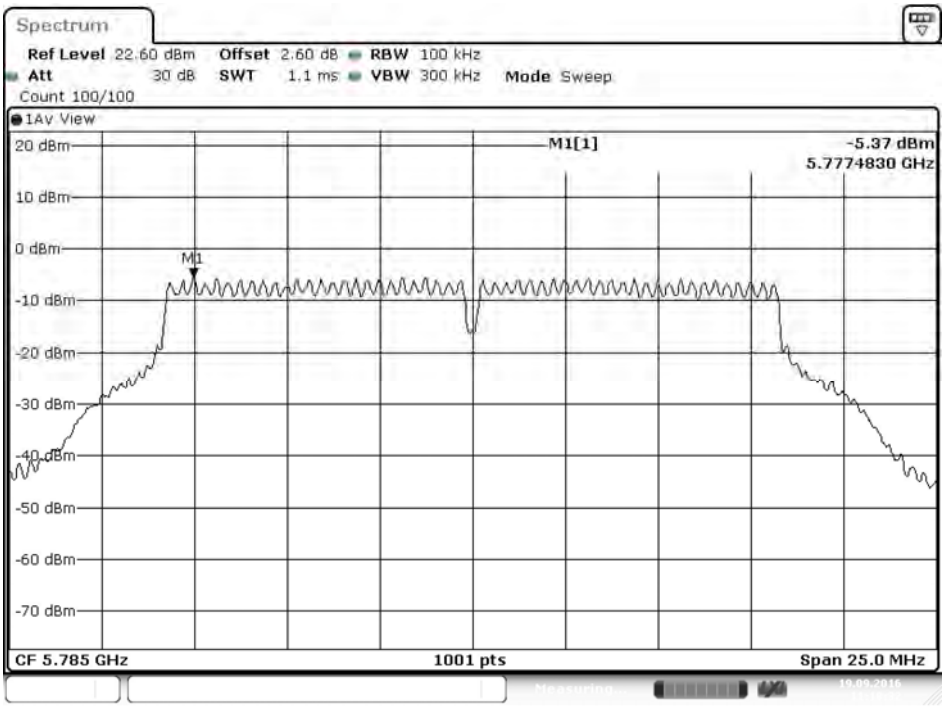
Date: 19.SEP.2016 08:44:33

Channel 149



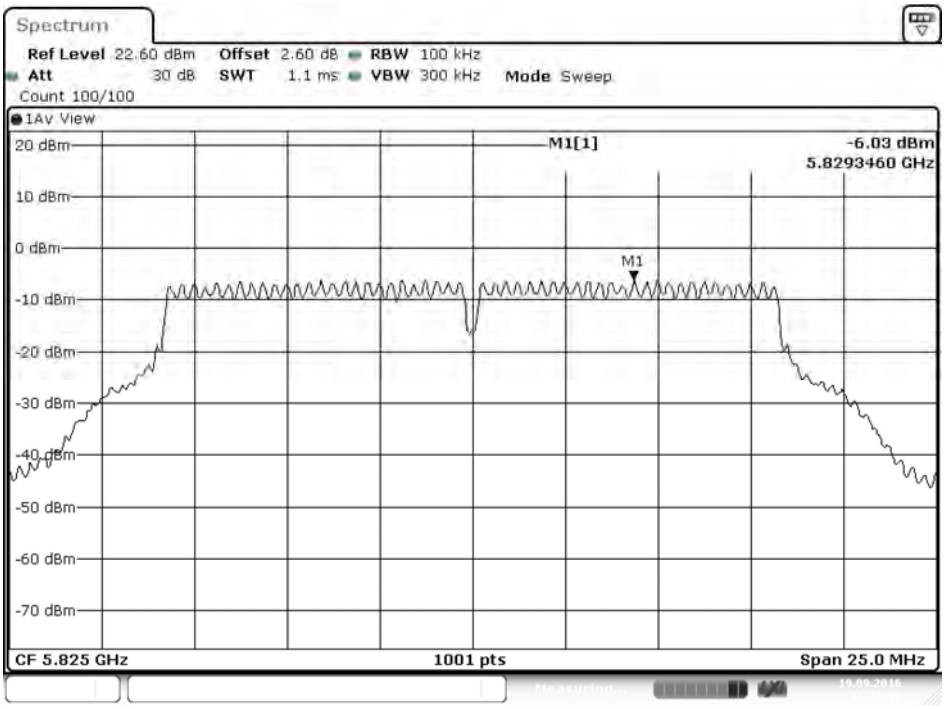
Date: 19.SEP.2016 11:16:36

Channel 157



Date: 19.SEP.2016 11:18:33

Channel 165



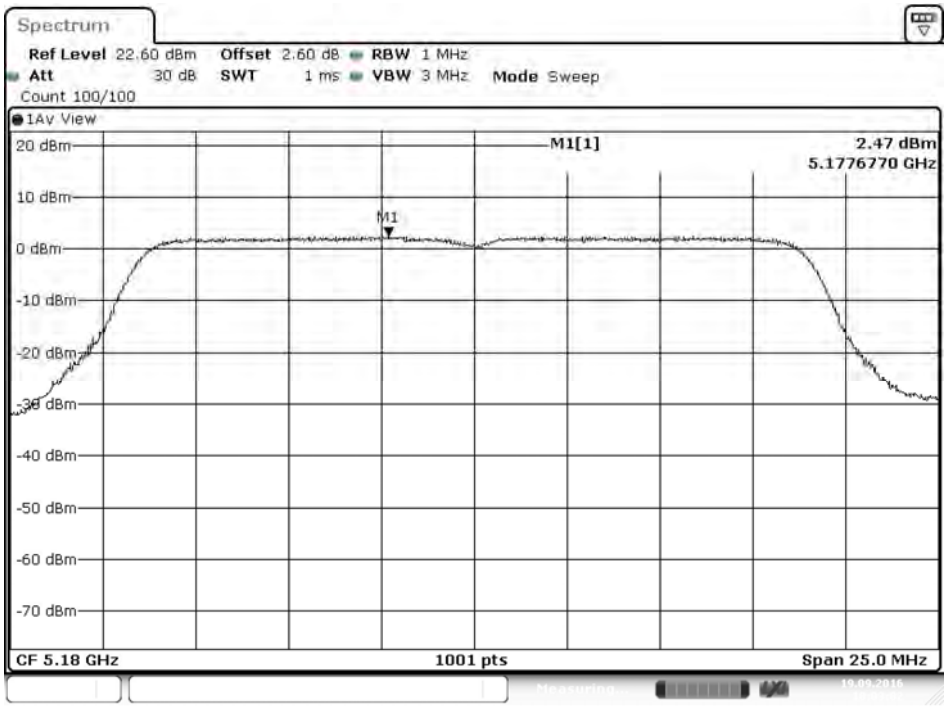
Date: 19.SEP.2016 11:26:50

Product : Intelligent Robot
Test Item : Peak Power Spectral Density
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)
Test Date : 2016/09/19

Channel Number	Frequency (MHz)	Data Rata (Mbps)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	7.2	2.47	11	Pass
44	5220	7.2	2.61	11	Pass
48	5240	7.2	2.73	11	Pass
52	5260	7.2	1.55	11	Pass
60	5300	7.2	2.29	11	Pass
64	5320	7.2	2.05	11	Pass
100	5500	7.2	2.35	11	Pass
116	5580	7.2	2.62	11	Pass
140	5700	7.2	2.17	11	Pass

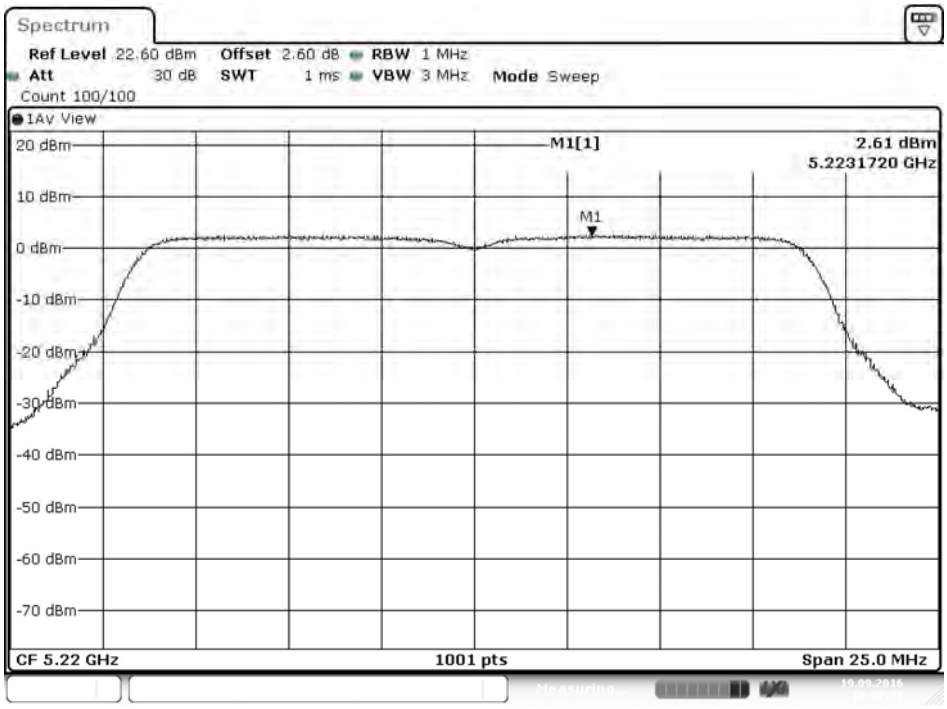
Channel Number	Frequency (MHz)	Data Rata (Mbps)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	7.2	-5.65	6.98	1.33	<30	Pass
157	5785	7.2	-6.17	6.98	0.81	<30	Pass
165	5825	7.2	-6.02	6.98	0.96	<30	Pass

Channel 36:



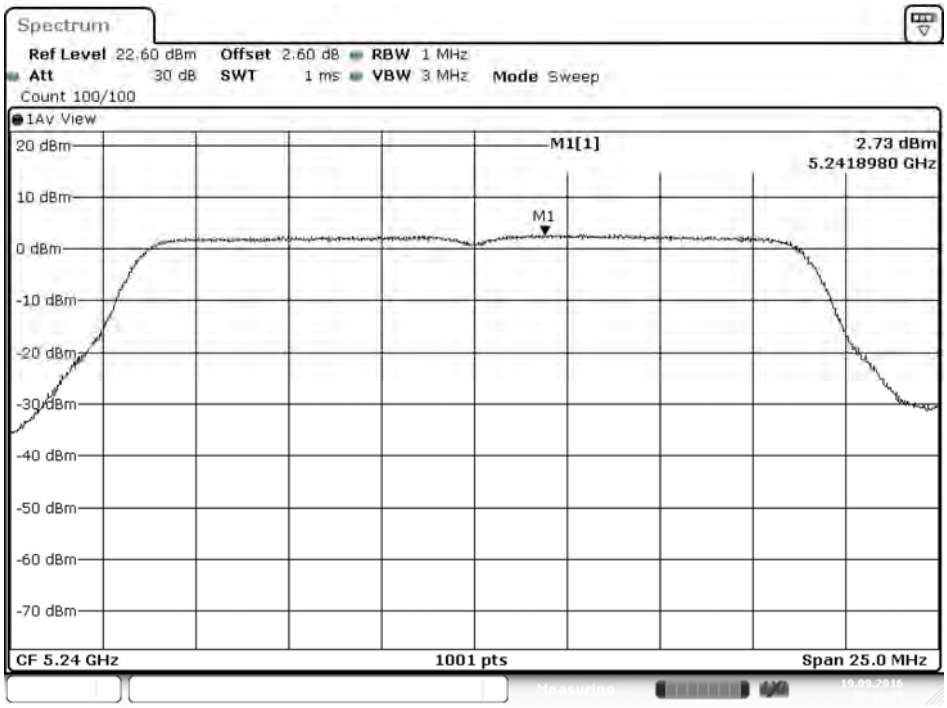
Date: 19.SEP.2016 10:03:02

Channel 44:



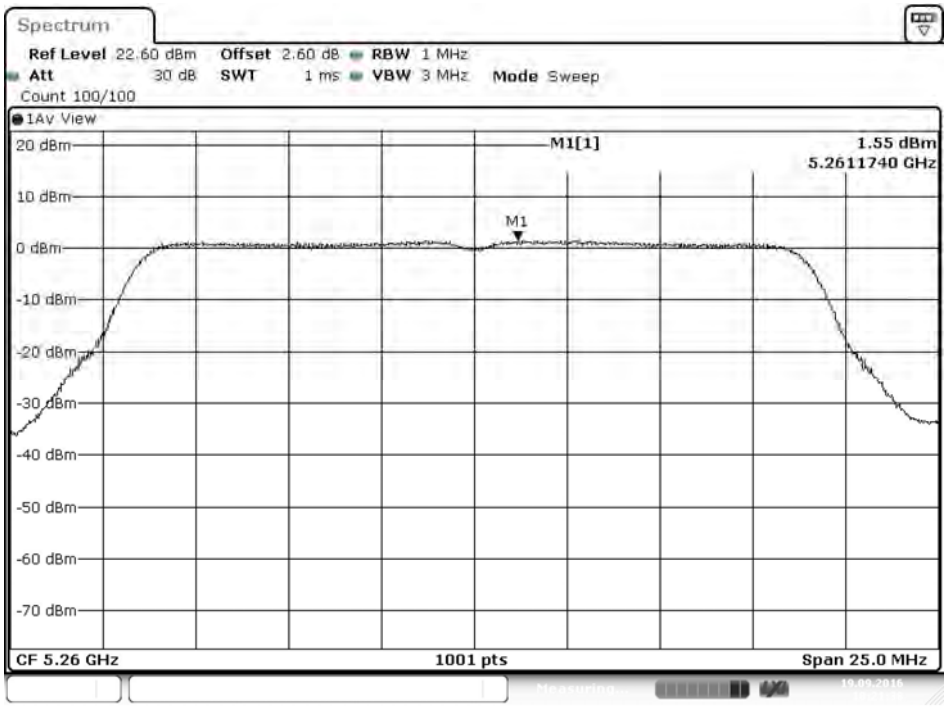
Date: 19.SEP.2016 10:07:21

Channel 48:



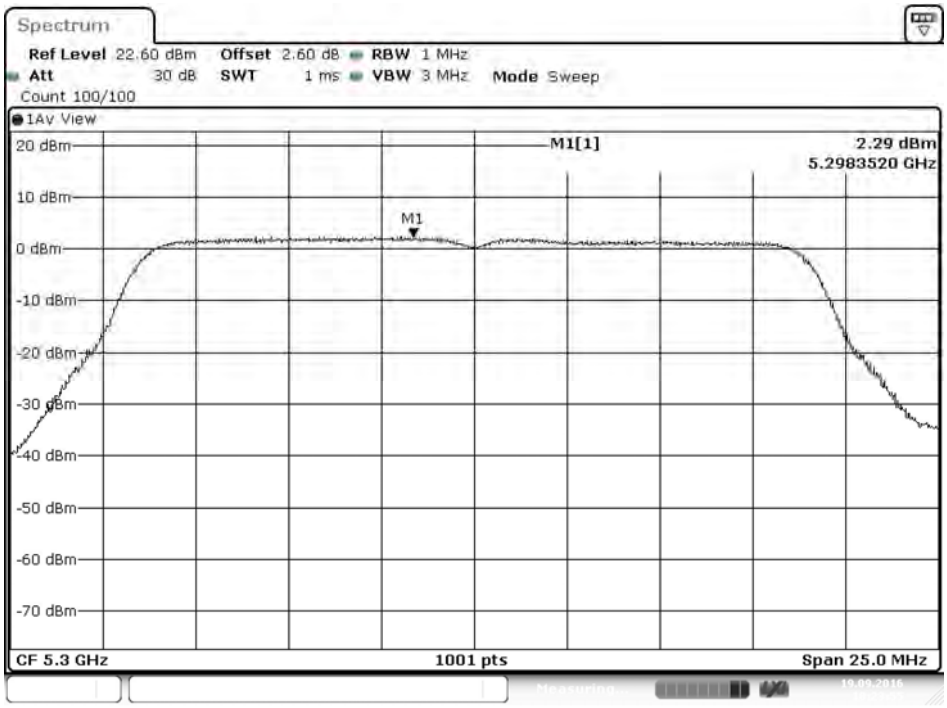
Date: 19.SEP.2016 10:13:36

Channel 52:



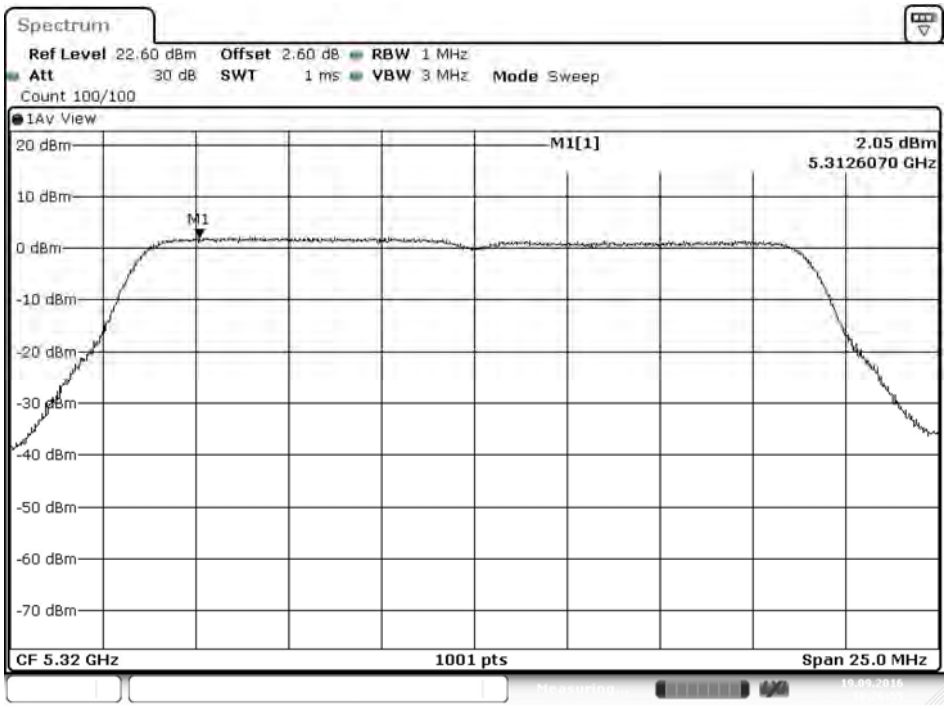
Date: 19.SEP.2016 10:21:38

Channel 60:



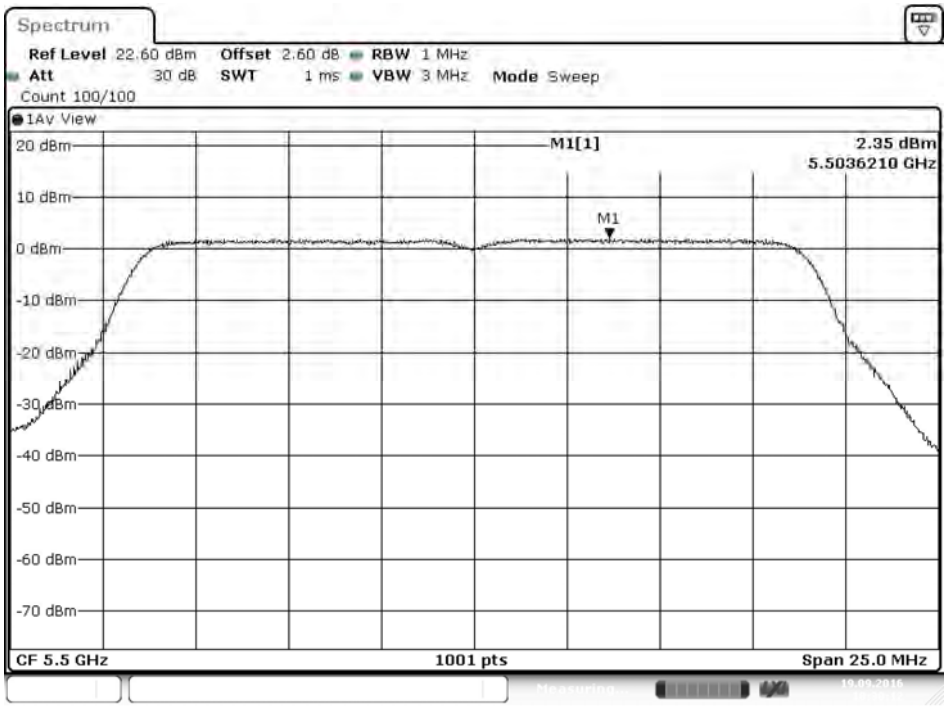
Date: 19.SEP.2016 10:23:54

Channel 64:



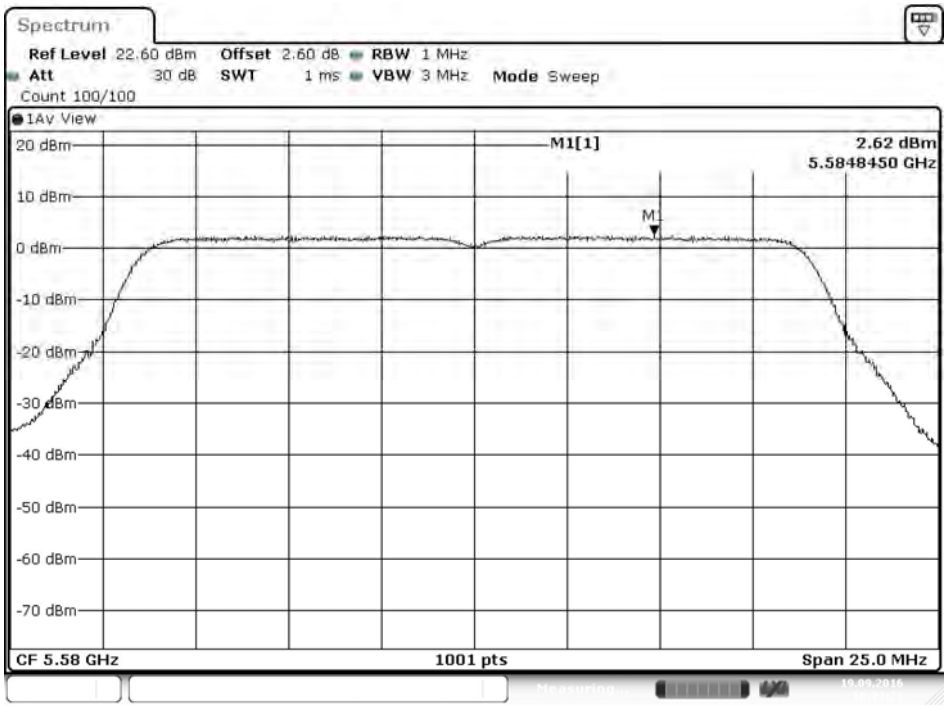
Date: 19.SEP.2016 10:26:55

Channel 100:



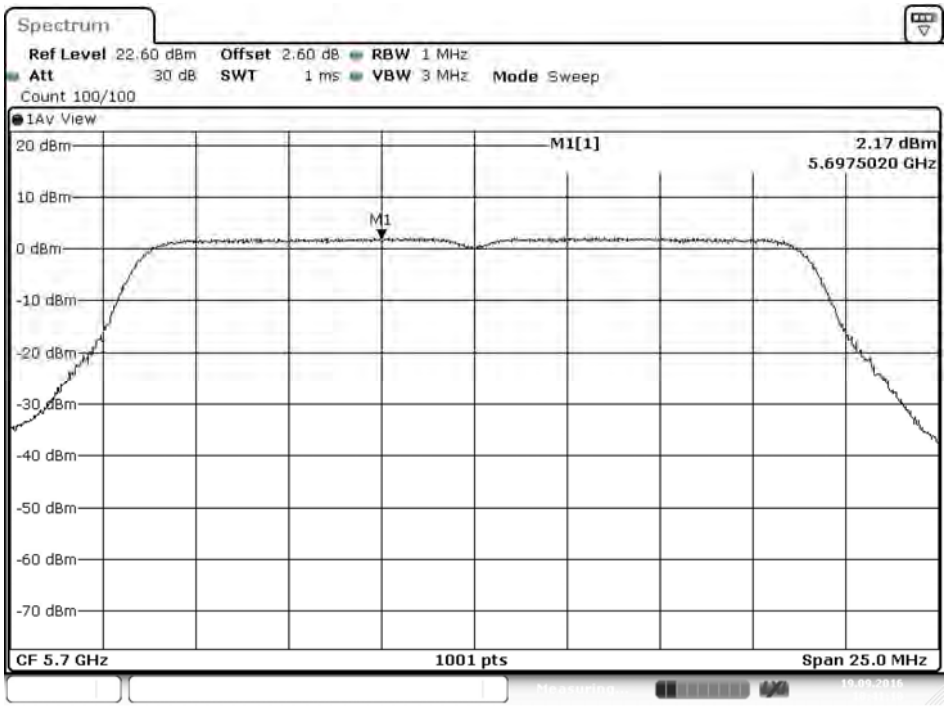
Date: 19.SEP.2016 10:30:12

Channel 116:



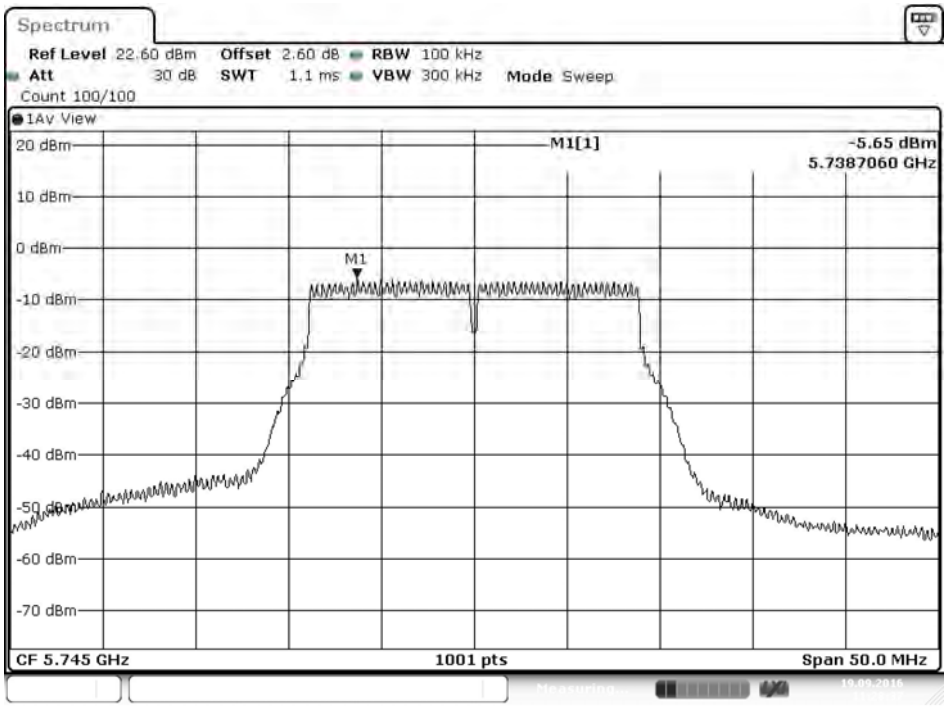
Date: 19.SEP.2016 10:33:23

Channel 140:



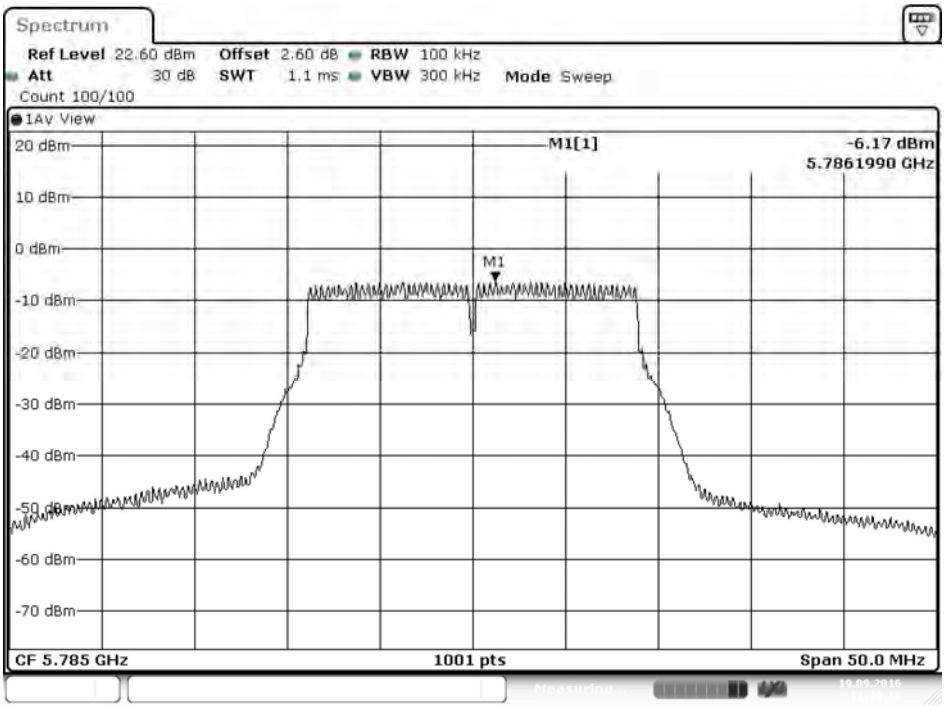
Date: 19.SEP.2016 10:41:11

Channel 149



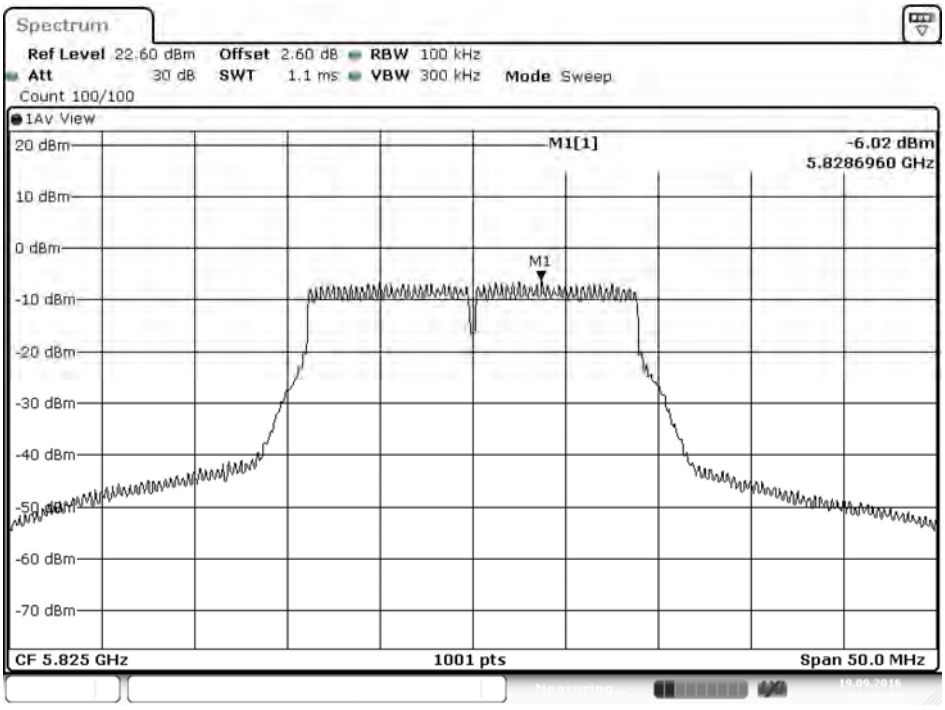
Date: 19.SEP.2016 11:28:37

Channel 157



Date: 19.SEP.2016 11:30:16

Channel 165



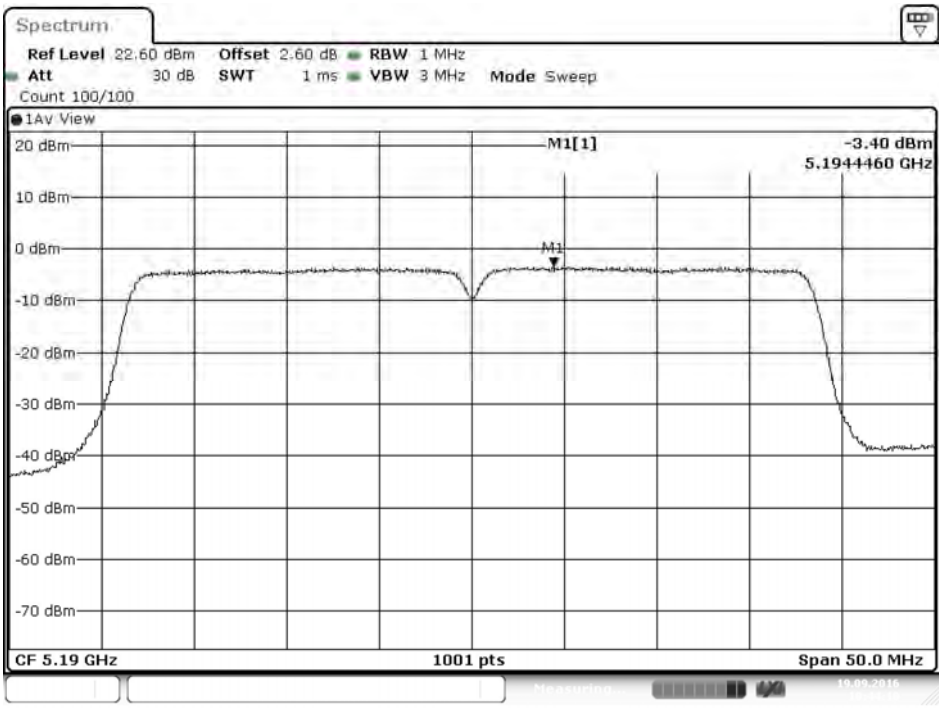
Date: 19.SEP.2016 11:33:47

Product : Intelligent Robot
Test Item : Peak Power Spectral Density
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)
Test Date : 2016/09/19

Channel Number	Frequency (MHz)	Data Rata (Mbps)	Measurement Level (dBm)	Required Limit (dBm)	Result
38	5190	15	-3.40	11	Pass
46	5230	15	0.18	11	Pass
54	5270	15	-0.90	11	Pass
62	5310	15	-2.33	11	Pass
102	5510	15	-5.67	11	Pass
110	5550	15	-0.35	11	Pass
134	5670	15	0.07	11	Pass

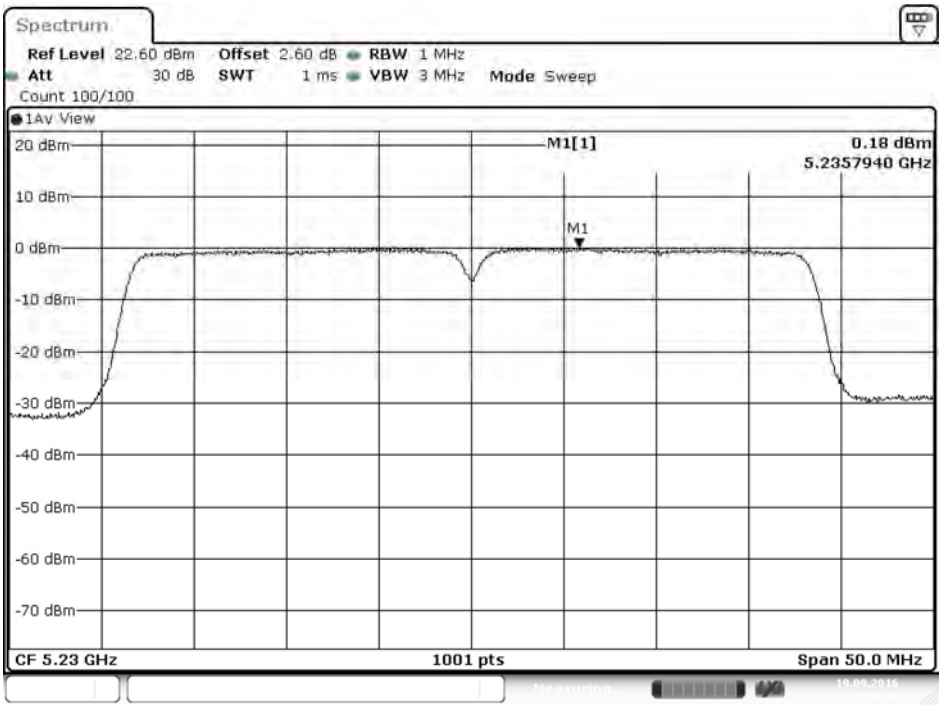
Channel Number	Frequency (MHz)	Data Rata (Mbps)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
151	5755	15	-16.61	6.98	-9.63	<30	Pass
159	5795	15	-16.35	6.98	-9.37	<30	Pass

Channel 38



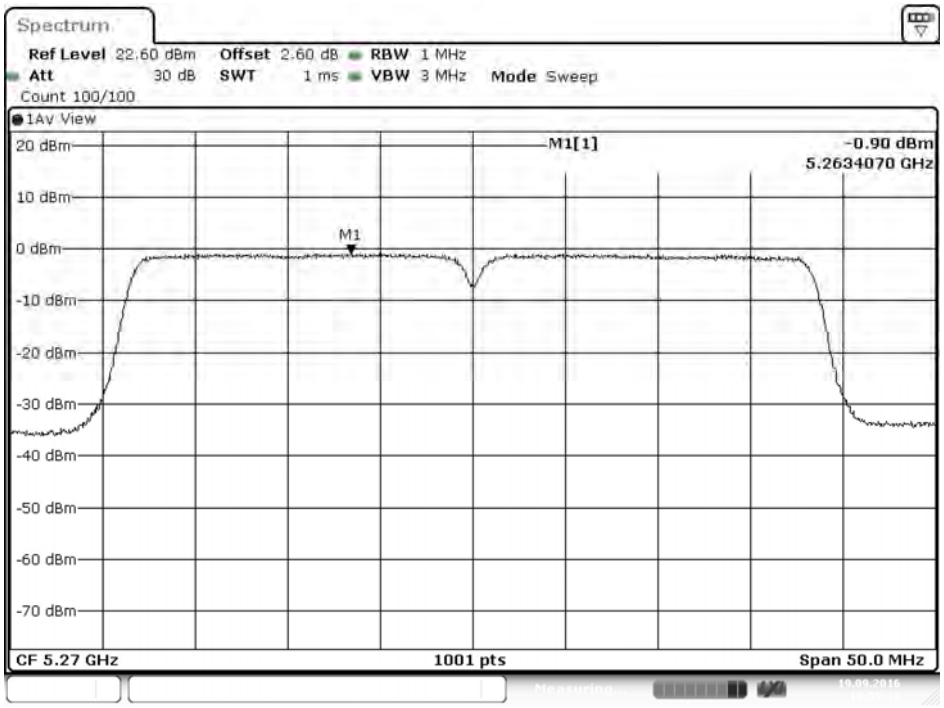
Date: 19.SEP.2016 10:44:11

Channel 46



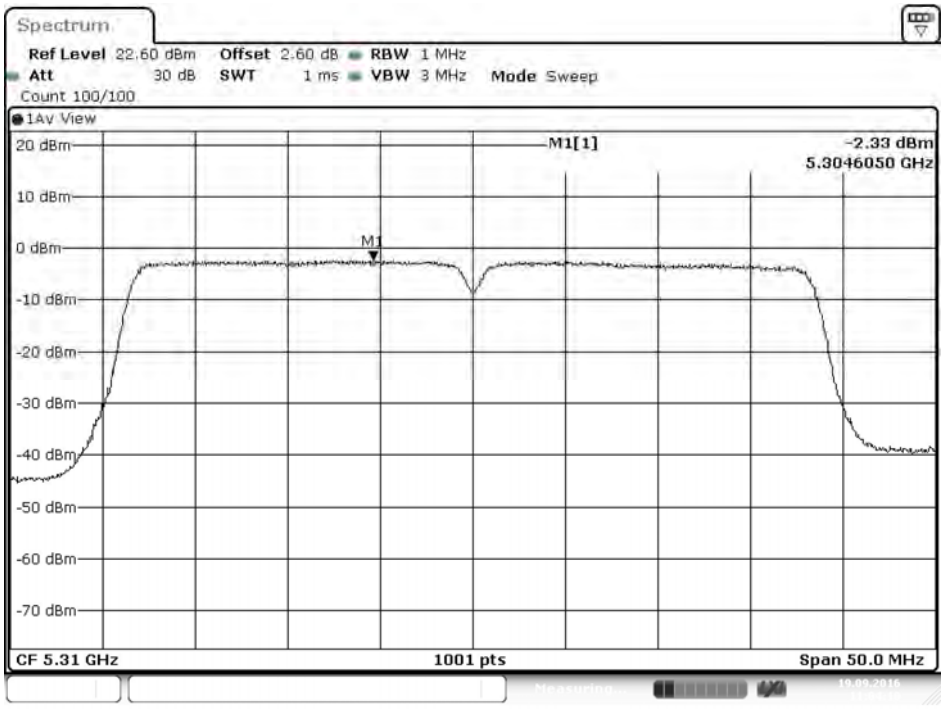
Date: 19.SEP.2016 10:50:48

Channel 54



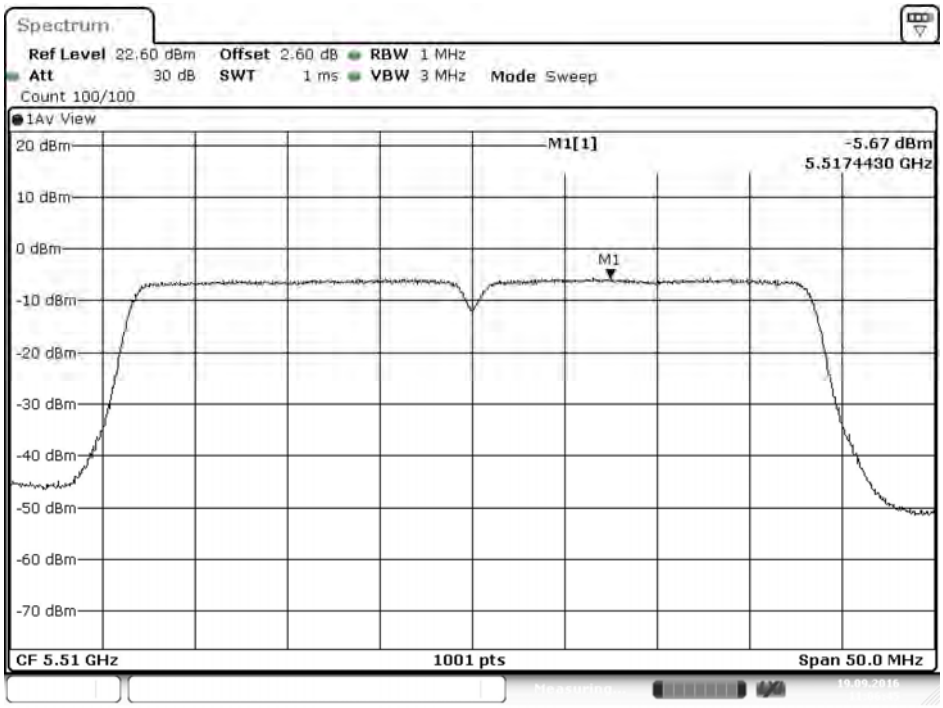
Date: 19.SEP.2016 10:55:14

Channel 62



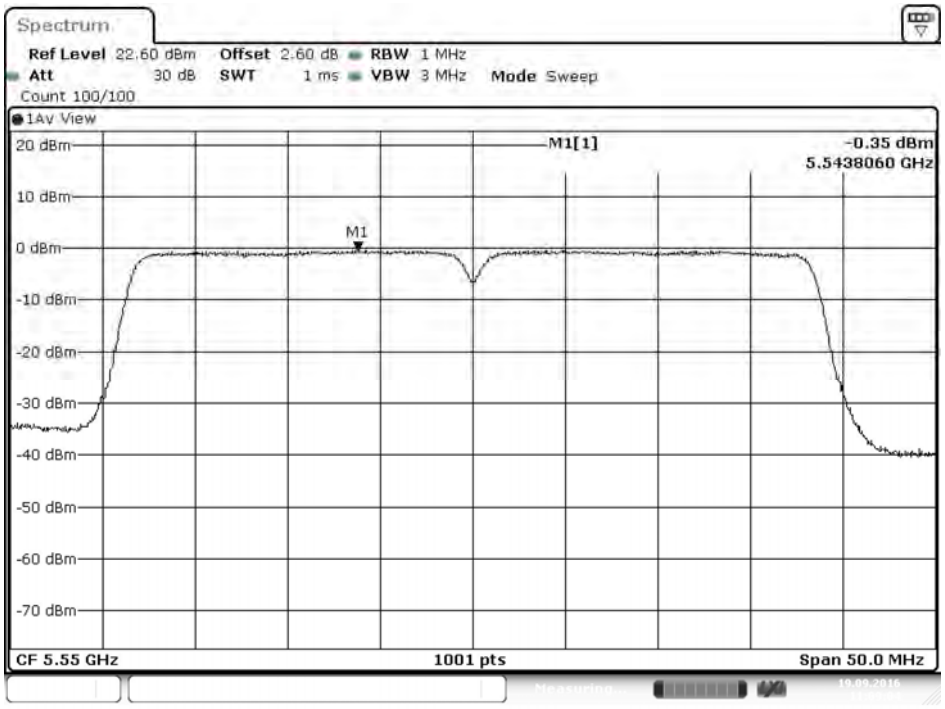
Date: 19.SEP.2016 11:04:10

Channel 102



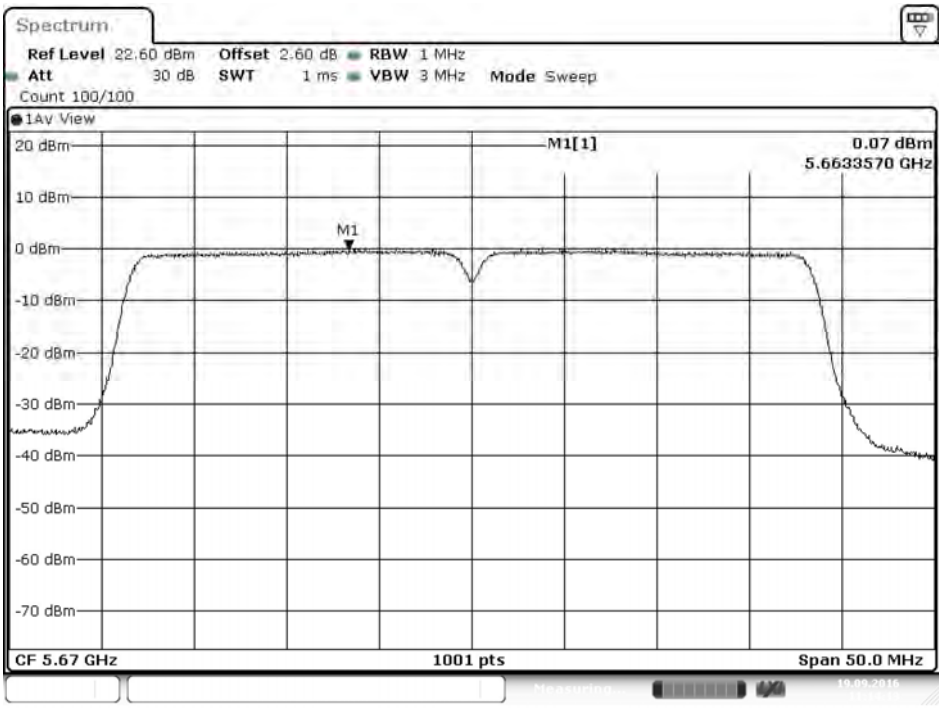
Date: 19.SEP.2016 11:06:46

Channel 110



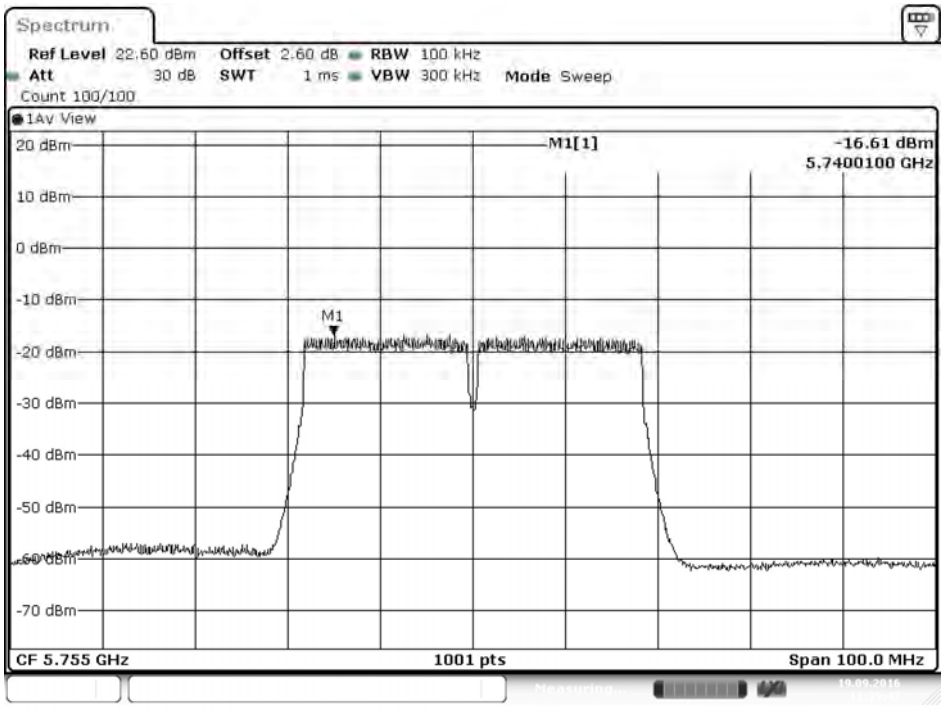
Date: 19.SEP.2016 11:09:04

Channel 134



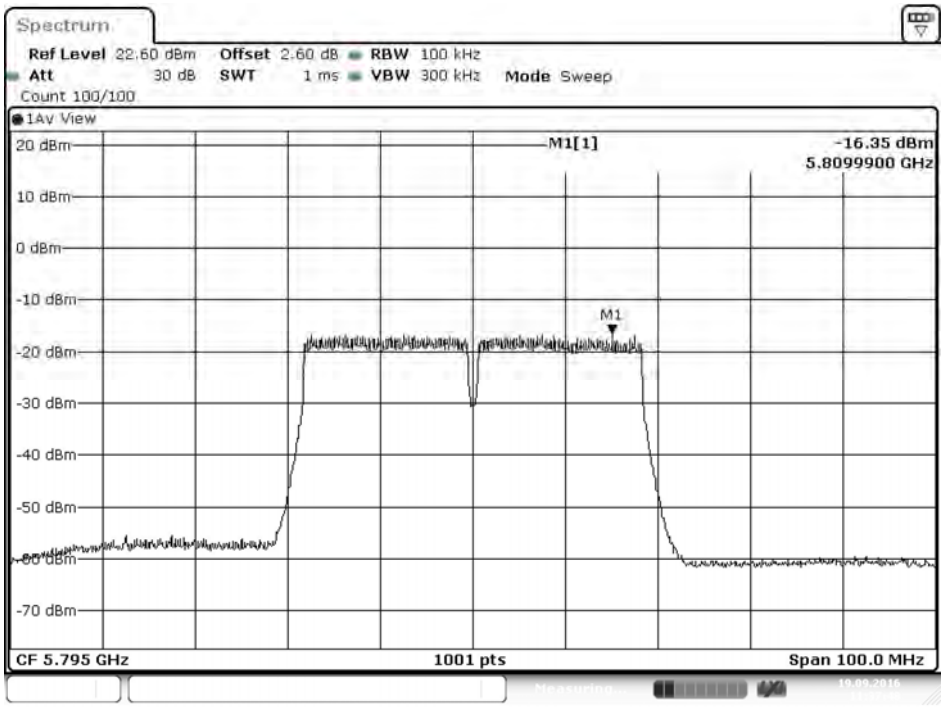
Date: 19.SEP.2016 11:14:14

Channel 151



Date: 19.SEP.2016 11:35:47

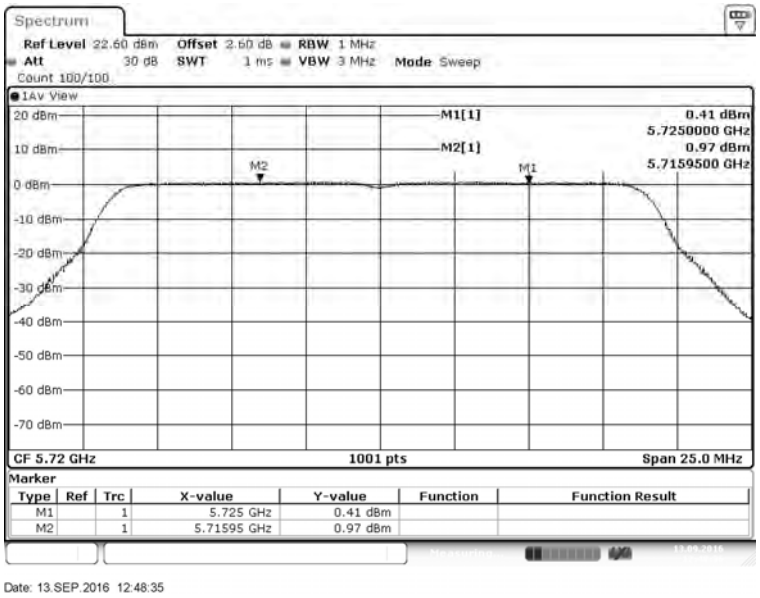
Channel 159


Spectrum
Ref Level 22.60 dBm Offset 2.60 dB RBW 100 kHz
Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep
Count 100/100
1Av View
M1[1]
-16.35 dBm
5.8099900 GHz
M1
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 5.795 GHz
1001 pts
Span 100.0 MHz
Date: 19.SEP.2016 11:37:48

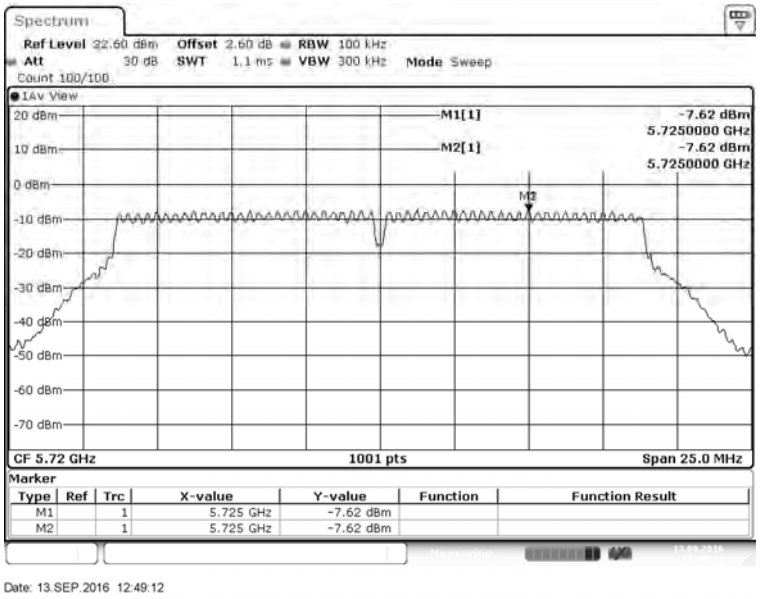
Product : Intelligent Robot
Test Item : Peak Power Spectral Density
Test Mode : Mode 4: Transmit (802.11ac-20BW-7.2Mbps)
Test Date : 2016/09/13

Channel Number	Frequency (MHz)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
144	5720(Band3)	0.97	--	0.970	<11	Pass
144	5720(Band4)	-7.62	6.98	-0.640	<30	Pass

Channel 144



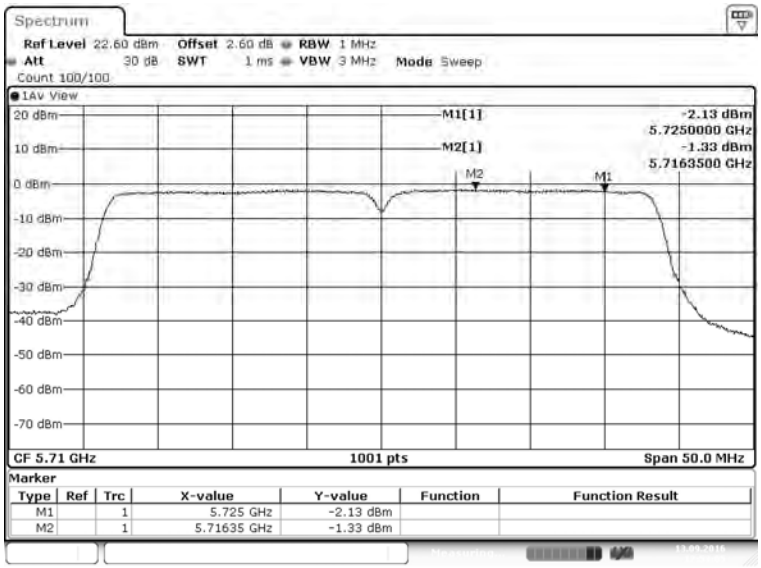
Channel 144



Product : Intelligent Robot
Test Item : Peak Power Spectral Density
Test Mode : Mode 5: Transmit (802.11ac-40BW-15Mbps)
Test Date : 2016/09/13

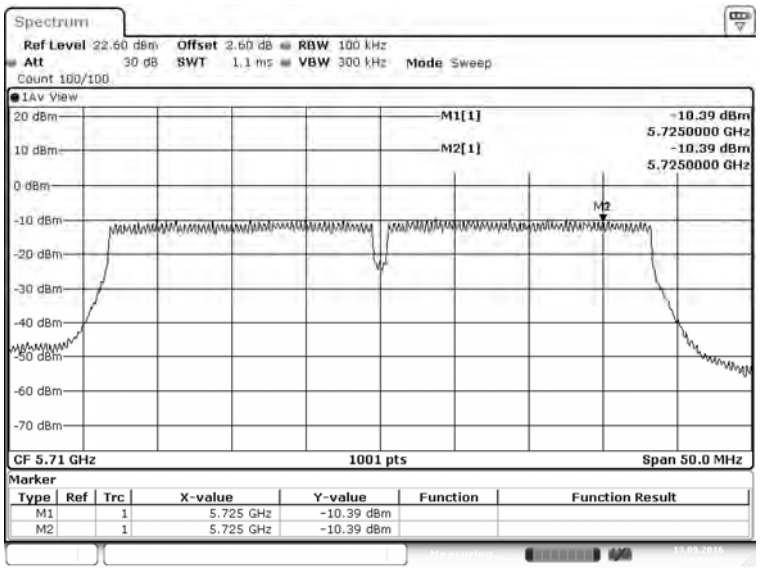
Channel Number	Frequency (MHz)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
142	5710(Band3)	-1.33	--	-1.330	<11	Pass
142	5710(Band4)	-10.39	6.98	-3.410	<30	Pass

Channel 142



Date: 13.SEP.2016 12:53:06

Channel 142



Date: 13.SEP.2016 12:53:42

Product : Intelligent Robot
Test Item : Peak Power Spectral Density
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps)
Test Date : 2016/09/13

Channel Number	Frequency (MHz)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Result
42	5210	-5.68	--	-5.680	<11
58	5290	-5.95	--	-5.950	<11
106	5530	-6.84	--	-6.840	<11
122	5610	-5.72	--	-5.720	<11
138	5690(Band3)	-6.00	--	-6.000	<11
138	5690(Band4)	-14.48	6.98	-7.500	<30
155	5775	-13.82	6.98	-6.840	<30

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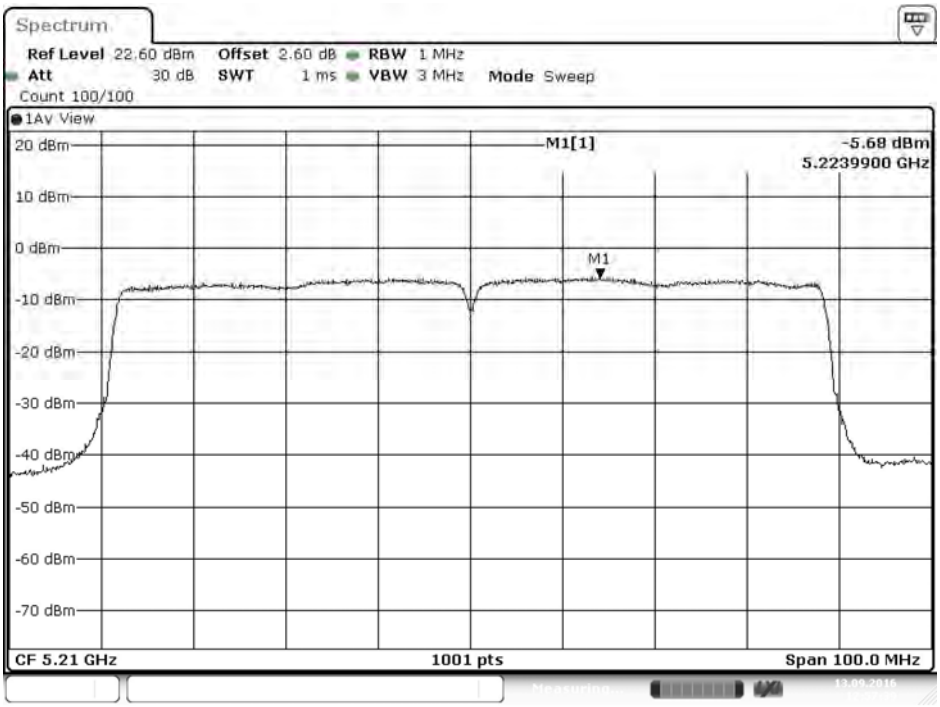
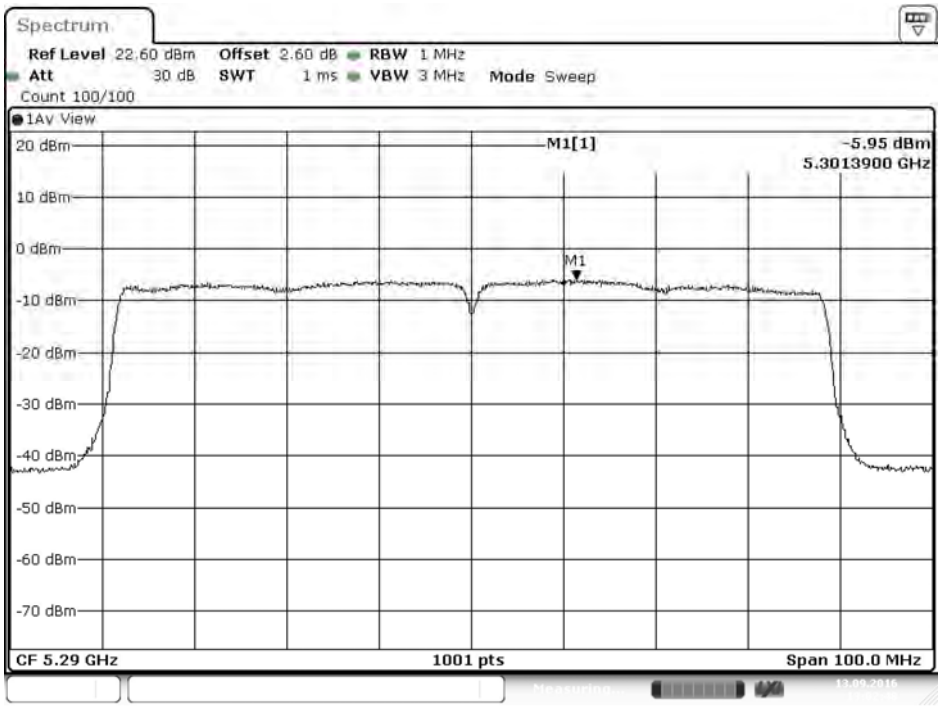
Channel 42



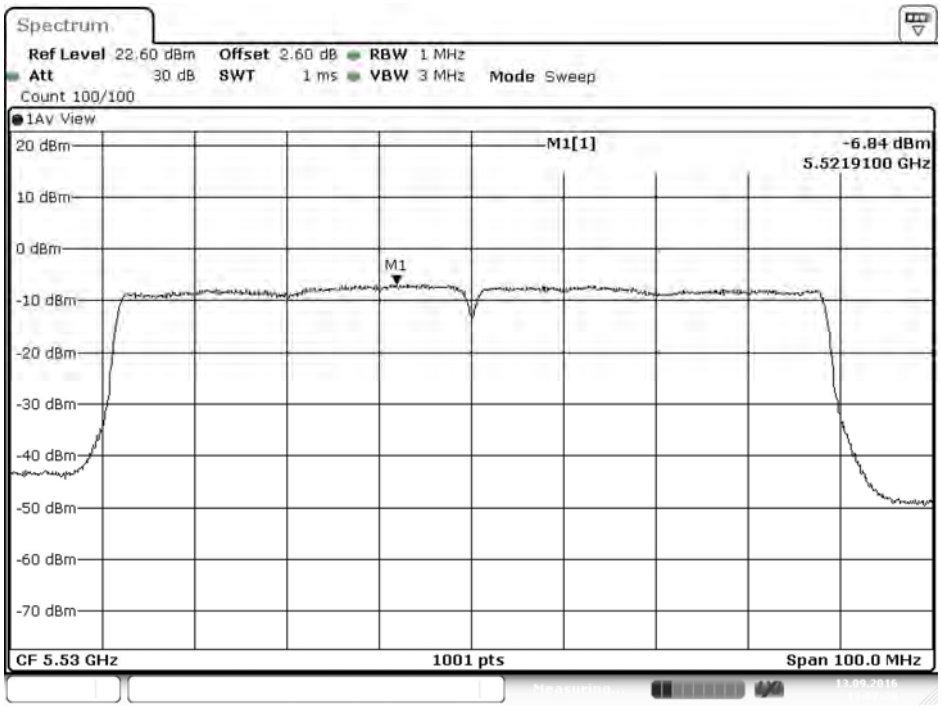
Date: 13.SEP.2016 12:57:39

Channel 58



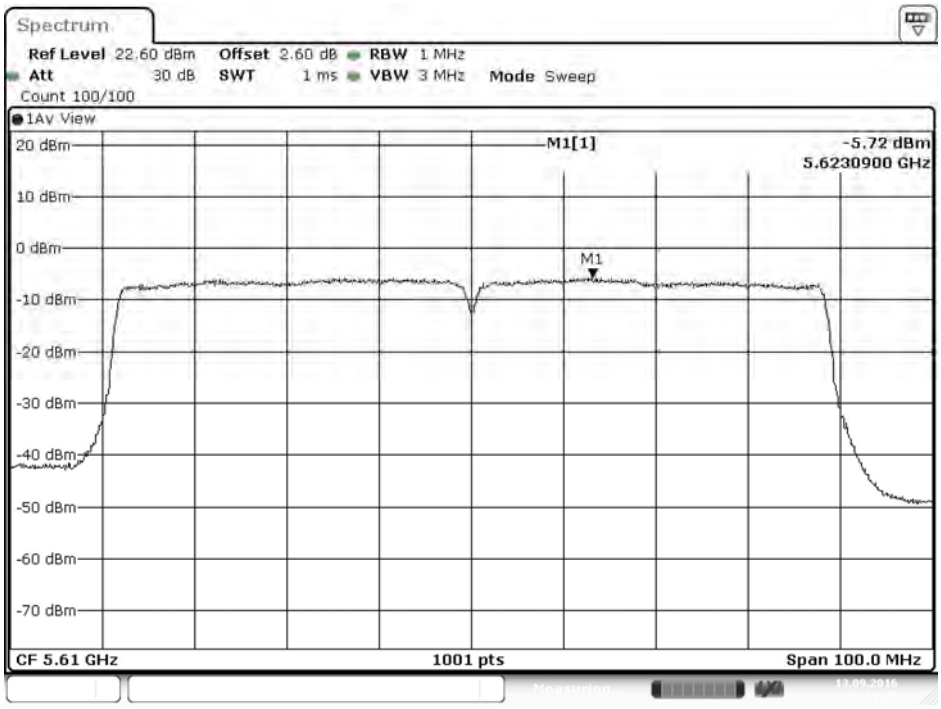
Date: 13.SEP.2016 13:02:49

Channel 106



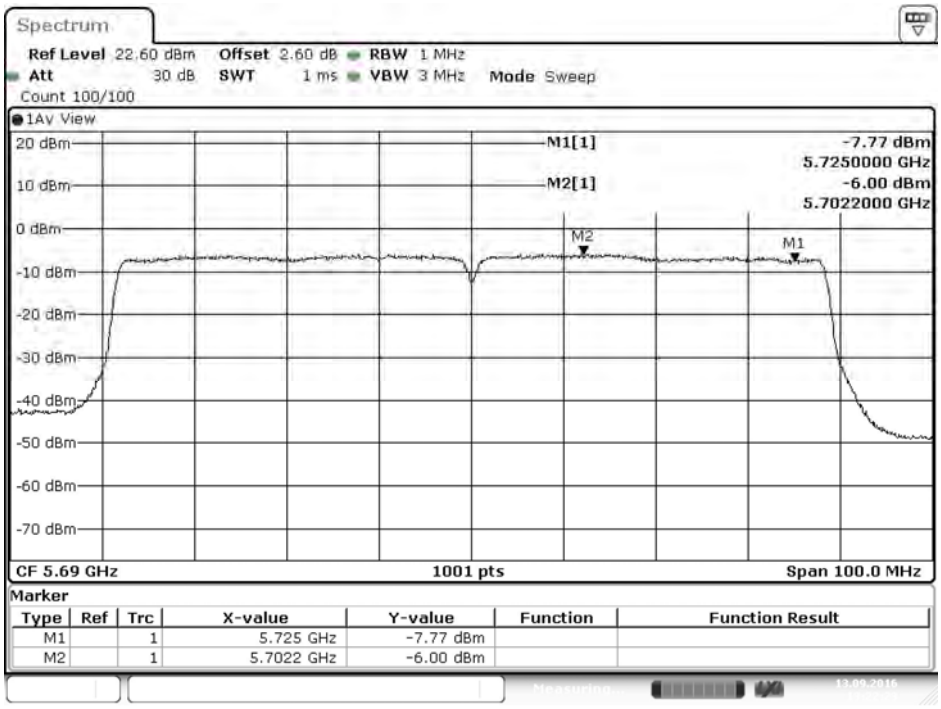
Date: 13.SEP.2016 13:07:29

Channel 122



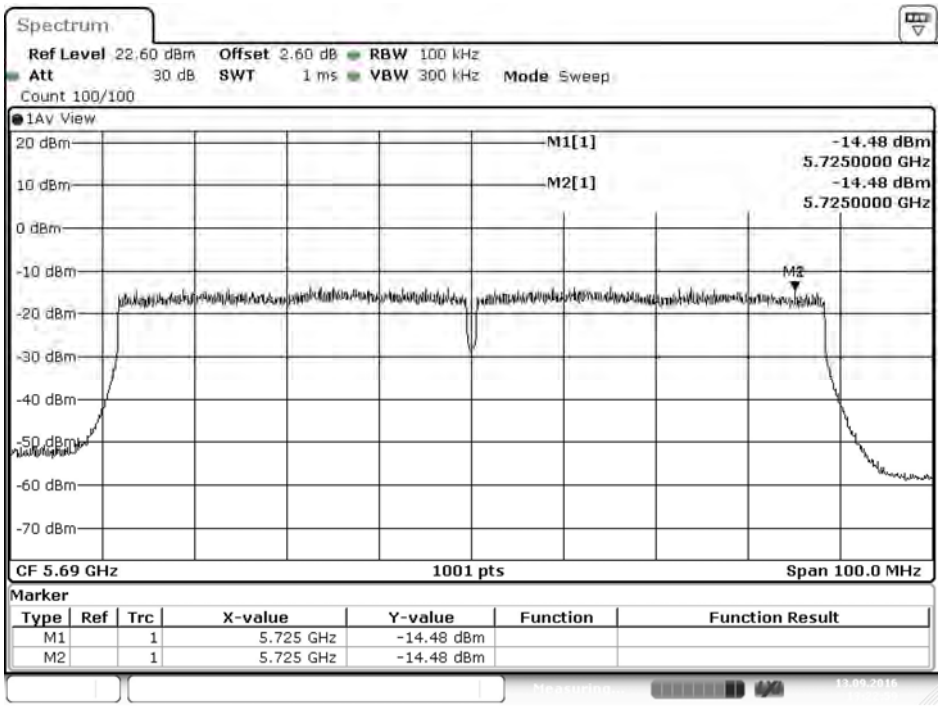
Date: 13.SEP.2016 13:13:25

Channel 138



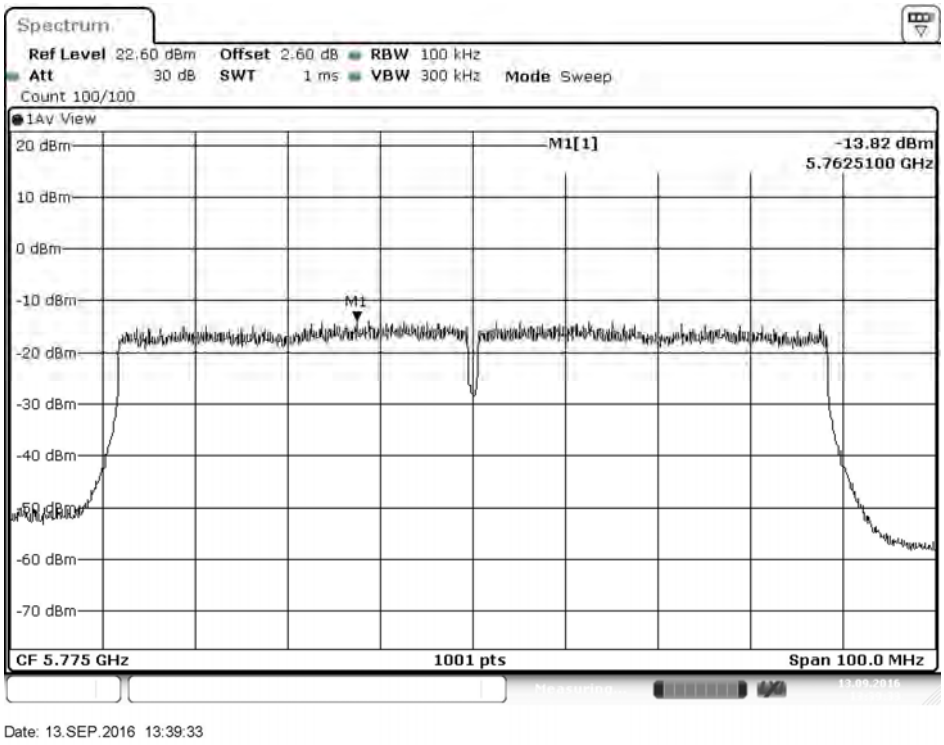
Date: 13.SEP.2016 13:22:23

Channel 138



Date: 13.SEP.2016 13:23:00

Channel 155

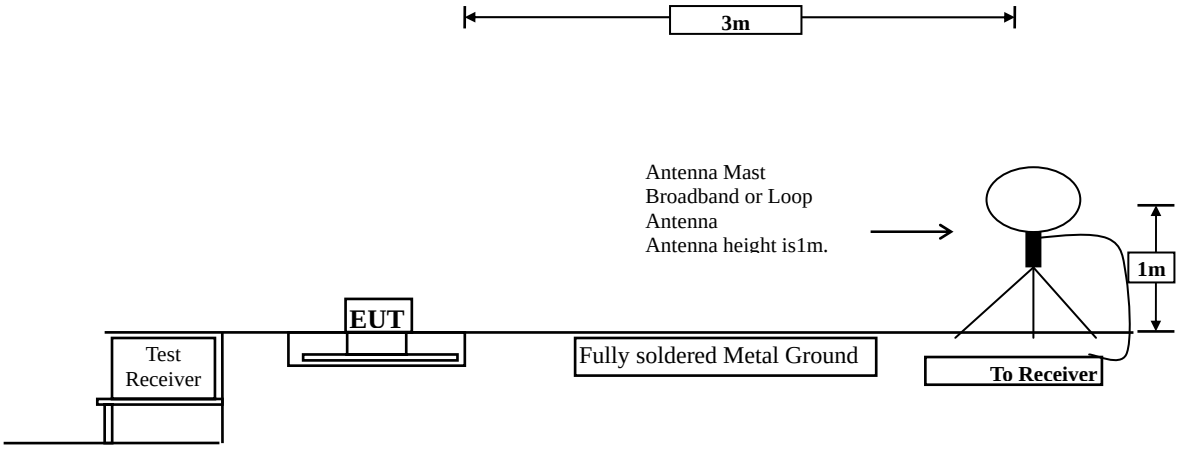


Date: 13.SEP.2016 13:39:33

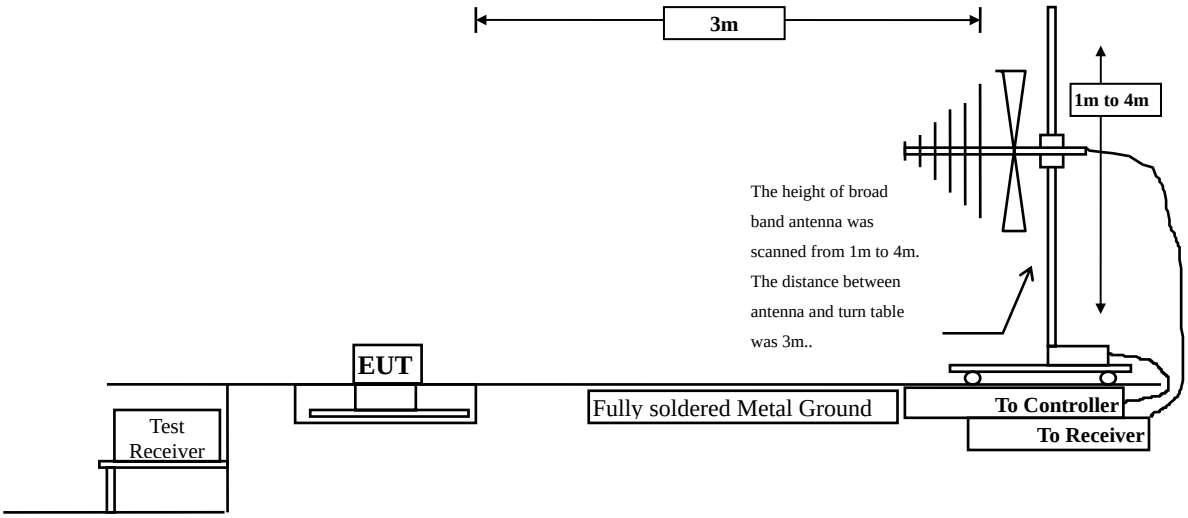
5. Radiated Emission

5.1. Test Setup

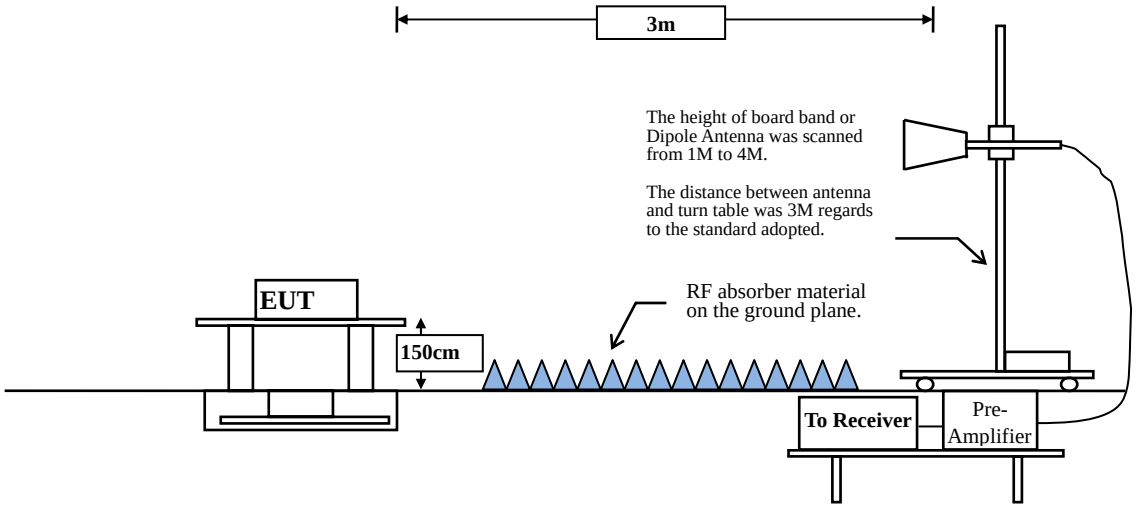
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



5.2. 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		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

5.3. 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~1GHz are 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 measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

The average measurement tested according to KDB 789033 section H)6)d) Method VB (Averaging using reduced video bandwidth).

VBW ≥ 1/T:

Mode	Duty Cycle	T	1/T	VBW Setting
802.11a	0.9565	1.475 ms	677.90 Hz	1 KHz
802.11n-20	0.9573	1.385 ms	722.02 Hz	1 KHz
802.11n-40	0.8873	685.07 us	1.459 KHz	2 KHz
802.11ac-20	0.9430	1.365 ms	732.60 Hz	1 KHz
802.11ac-40	0.8926	685.65 us	1.458 KHz	2 KHz
802.11ac-80	0.8198	364 us	2.747 KHz	3 KHz

5.4. Uncertainty

Horizontal polarization：

30-300MHz: ±4.08dB；300M-1GHz: ±3.86dB；1-18GHz: ±3.77dB；18-40GHz: ±3.98dB

Vertical polarization：

30-300MHz: ±4.81dB；300M-1GHz: ±3.87dB；1-18GHz：±3.83dB；18-40GHz: ±3.98dB

5.5. Test Result of Radiated Emission

Product : Intelligent Robot
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)
Test Date : 2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10360.000	4.149	47.180	51.329	-22.671	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10360.000	4.149	45.400	49.549	-24.451	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5220MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10440.000	4.171	47.660	51.832	-22.168	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10440.000	4.171	46.320	50.492	-23.508	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5240MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10480.000	4.186	47.680	51.865	-22.135	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10480.000	4.186	45.620	49.805	-24.195	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5260MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10520.000	4.249	47.570	51.819	-22.181	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10520.000	4.249	45.980	50.229	-23.771	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5300MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10600.000	4.367	46.520	50.887	-23.113	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10600.000	4.367	45.710	50.077	-23.923	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5320MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10640.000	4.449	46.320	50.769	-23.231	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10640.000	4.449	45.360	49.809	-24.191	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5500MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11000.000	5.032	46.310	51.343	-22.657	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11000.000	5.032	46.150	51.183	-22.817	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5580MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11160.000	5.391	46.820	52.211	-21.789	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11160.000	5.391	45.730	51.121	-22.879	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5700MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11400.000	6.011	46.920	52.931	-21.069	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11400.000	6.011	46.550	52.561	-21.439	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5745MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11490.000	6.208	46.930	53.138	-20.862	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11490.000	6.208	46.110	52.318	-21.682	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5785MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11570.000	6.420	45.960	52.380	-21.620	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11570.000	6.420	45.320	51.740	-22.260	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5825MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11650.000	6.616	46.550	53.166	-20.834	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11650.000	6.616	45.740	52.356	-21.644	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10360.000	4.149	47.880	52.029	-21.971	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10360.000	4.149	46.380	50.529	-23.471	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5220MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10440.000	4.171	47.040	51.212	-22.788	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10440.000	4.171	46.330	50.502	-23.498	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5240MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10480.000	4.186	48.730	52.915	-21.085	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10480.000	4.186	46.510	50.695	-23.305	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5260MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10520.000	4.249	46.190	50.439	-23.561	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10520.000	4.249	45.860	50.109	-23.891	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5300MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10600.000	4.367	45.170	49.537	-24.463	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10600.000	4.367	45.240	49.607	-24.393	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10640.000	4.449	46.310	50.759	-23.241	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10640.000	4.449	45.740	50.189	-23.811	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11000.000	5.032	46.520	51.553	-22.447	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11000.000	5.032	46.210	51.243	-22.757	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5580MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11160.000	5.391	46.570	51.961	-22.039	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11160.000	5.391	46.310	51.701	-22.299	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5700MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11400.000	6.011	45.790	51.801	-22.199	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11400.000	6.011	44.740	50.751	-23.249	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5745MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11490.000	6.208	45.360	51.568	-22.432	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11490.000	6.208	44.390	50.598	-23.402	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5785MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11570.000	6.420	46.350	52.770	-21.230	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11570.000	6.420	45.620	52.040	-21.960	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5825MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11650.000	6.616	47.250	53.866	-20.134	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11650.000	6.616	46.760	53.376	-20.624	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 1kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10380.000	4.147	46.440	50.587	-23.413	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10380.000	4.147	45.710	49.857	-24.143	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5230MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10460.000	4.177	46.020	50.197	-23.803	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10460.000	4.177	45.800	49.977	-24.023	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5270MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10540.000	4.302	45.710	50.012	-23.988	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10540.000	4.302	44.860	49.162	-24.838	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10620.000	4.406	46.020	50.426	-23.574	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10620.000	4.406	44.810	49.216	-24.784	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11020.000	5.100	45.390	50.490	-23.510	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11020.000	5.100	44.760	49.860	-24.140	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5550MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11100.000	5.252	45.360	50.612	-23.388	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11100.000	5.252	44.430	49.682	-24.318	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5670MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11340.000	5.820	45.270	51.091	-22.909	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11340.000	5.820	44.630	50.451	-23.549	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11510.000	6.245	45.360	51.604	-22.396	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11510.000	6.245	44.630	50.874	-23.126	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5795MHz)
Test Date	:	2017/06/30

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11590.000	6.489	45.880	52.369	-21.631	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11590.000	6.489	45.470	51.959	-22.041	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-20BW-7.2Mbps) (5720MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11440.000	3.570	42.480	46.050	-27.950	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11440.000	3.570	42.450	46.020	-27.980	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 5: Transmit (802.11ac-40BW-15Mbps) (5710MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11420.000	3.524	42.420	45.944	-28.056	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11420.000	3.524	42.360	45.884	-28.116	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 2kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10420.000	2.167	44.490	46.657	-27.343	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
10420.000	2.167	44.370	46.537	-27.463	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 3kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
10580.000	2.407	44.560	46.966	-27.034	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11580.000	3.873	44.310	48.183	-25.817	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 3kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11060.000	2.879	43.560	46.439	-27.561	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11060.000	2.879	43.520	46.399	-27.601	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 3kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5610MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11220.000	3.128	44.300	47.428	-26.572	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11220.000	3.128	43.560	46.688	-27.312	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 3kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5690MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11220.000	3.128	43.560	46.688	-27.312	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11380.000	3.424	42.740	46.164	-27.836	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 3kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)
Test Date	:	2016/09/10

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
11550.000	3.800	42.400	46.200	-27.800	74.000
Average Detector:					
--					54.000
Vertical					
Peak Detector:					
11550.000	3.800	42.260	46.060	-27.940	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. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 3kHz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5220MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
157.928	-8.612	34.964	26.353	-17.147	43.500
280.232	-8.520	35.688	27.168	-18.832	46.000
392.696	-5.784	35.405	29.622	-16.378	46.000
479.855	-3.895	37.268	33.372	-12.628	46.000
590.913	-1.544	35.320	33.776	-12.224	46.000
731.493	0.508	34.810	35.318	-10.682	46.000
Vertical					
Peak Detector					
160.739	-8.620	35.404	26.785	-16.715	43.500
283.043	-8.457	34.646	26.189	-19.811	46.000
342.087	-7.151	35.283	28.132	-17.868	46.000
437.681	-4.706	33.459	28.753	-17.247	46.000
522.029	-3.101	35.832	32.731	-13.269	46.000
619.029	-1.186	33.789	32.603	-13.397	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a-6Mbps) (5300MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
167.768	-8.930	36.081	27.150	-16.350	43.500
283.043	-8.457	34.486	26.029	-19.971	46.000
370.203	-6.414	33.902	27.487	-18.513	46.000
477.043	-3.944	34.580	30.636	-15.364	46.000
579.667	-1.816	31.959	30.143	-15.857	46.000
675.261	-0.418	33.275	32.858	-13.142	46.000
Vertical					
Peak Detector					
32.812	-9.948	34.873	24.926	-15.074	40.000
173.391	-9.499	35.946	26.447	-17.053	43.500
464.391	-4.163	32.039	27.876	-18.124	46.000
562.797	-2.225	32.485	30.260	-15.740	46.000
661.203	-0.701	33.539	32.838	-13.162	46.000
759.609	0.870	35.294	36.165	-9.835	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
169.174	-8.993	35.710	26.716	-16.784	43.500
305.536	-7.955	34.668	26.714	-19.286	46.000
409.565	-5.361	35.714	30.353	-15.647	46.000
486.884	-3.774	35.073	31.299	-14.701	46.000
569.826	-2.055	34.579	32.524	-13.476	46.000
633.087	-1.067	32.214	31.147	-14.853	46.000
Vertical					
Peak Detector					
177.609	-10.067	35.752	25.685	-17.815	43.500
298.507	-8.106	34.124	26.018	-19.982	46.000
370.203	-6.414	35.236	28.821	-17.179	46.000
423.623	-5.033	35.183	30.150	-15.850	46.000
495.319	-3.627	34.919	31.291	-14.709	46.000
568.420	-2.088	36.842	34.754	-11.246	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
141.058	-9.059	35.064	26.005	-17.495	43.500
264.768	-9.321	35.545	26.224	-19.776	46.000
335.058	-7.307	35.575	28.268	-17.732	46.000
416.594	-5.197	35.450	30.253	-15.747	46.000
502.348	-3.498	33.701	30.202	-15.798	46.000
574.043	-1.952	35.236	33.284	-12.716	46.000
Vertical					
Peak Detector					
157.928	-8.612	35.273	26.662	-16.838	43.500
297.101	-8.139	35.455	27.316	-18.684	46.000
358.957	-6.724	33.674	26.949	-19.051	46.000
382.855	-6.059	35.055	28.997	-17.003	46.000
453.145	-4.361	32.951	28.590	-17.410	46.000
526.246	-3.015	33.516	30.501	-15.499	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5220MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
37.029	-9.511	35.115	25.605	-14.395	40.000
159.333	-8.589	34.318	25.729	-17.771	43.500
287.261	-8.362	33.377	25.015	-20.985	46.000
415.188	-5.231	34.041	28.811	-17.189	46.000
529.058	-2.959	33.378	30.419	-15.581	46.000
597.942	-1.375	33.340	31.966	-14.034	46.000
Vertical					
Peak Detector					
160.739	-8.620	35.966	27.347	-16.153	43.500
284.449	-8.425	35.837	27.412	-18.588	46.000
382.855	-6.059	33.717	27.659	-18.341	46.000
477.043	-3.944	32.990	29.046	-16.954	46.000
564.203	-2.191	33.424	31.233	-14.767	46.000
626.058	-1.128	33.468	32.339	-13.661	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5300MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
167.768	-8.930	35.879	26.948	-16.552	43.500
274.609	-8.802	34.643	25.841	-20.159	46.000
363.174	-6.608	36.406	29.798	-16.202	46.000
455.957	-4.311	34.950	30.639	-15.361	46.000
565.609	-2.157	36.940	34.784	-11.216	46.000
645.739	-0.962	33.662	32.700	-13.300	46.000
Vertical					
Peak Detector					
164.957	-8.807	35.009	26.202	-17.298	43.500
271.797	-8.950	33.859	24.908	-21.092	46.000
363.174	-6.608	34.563	27.955	-18.045	46.000
454.551	-4.336	32.945	28.609	-17.391	46.000
545.928	-2.619	32.551	29.933	-16.067	46.000
609.188	-1.262	37.432	36.171	-9.829	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5580MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
155.116	-8.655	36.088	27.433	-16.067	43.500
250.710	-9.795	35.783	25.987	-20.013	46.000
311.159	-7.832	35.299	27.467	-18.533	46.000
403.942	-5.492	35.517	30.025	-15.975	46.000
477.043	-3.944	36.028	32.084	-13.916	46.000
638.710	-1.018	35.813	34.795	-11.205	46.000
Vertical					
Peak Detector					
42.652	-9.023	35.654	26.631	-13.369	40.000
153.710	-8.677	34.244	25.567	-17.933	43.500
531.870	-2.903	32.308	29.406	-16.594	46.000
620.435	-1.175	33.668	32.493	-13.507	46.000
728.681	0.469	35.278	35.747	-10.253	46.000
828.493	1.681	34.757	36.438	-9.562	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5785MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
164.957	-8.807	33.645	24.838	-18.662	43.500
370.203	-6.414	33.548	27.133	-18.867	46.000
482.667	-3.847	32.476	28.629	-17.371	46.000
578.261	-1.851	31.655	29.804	-16.196	46.000
665.420	-0.616	34.970	34.354	-11.646	46.000
782.101	1.131	36.014	37.145	-8.855	46.000
Vertical					
Peak Detector					
176.203	-9.878	34.597	24.719	-18.781	43.500
333.652	-7.337	32.070	24.732	-21.268	46.000
471.420	-4.041	31.252	27.211	-18.789	46.000
552.957	-2.462	32.602	30.140	-15.860	46.000
637.304	-1.031	31.627	30.597	-15.403	46.000
807.406	1.426	32.042	33.467	-12.533	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)
Test Date	:	2016/08/23

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
159.333	-8.589	32.865	24.276	-19.224	43.500
264.768	-9.321	33.556	24.235	-21.765	46.000
416.594	-5.197	32.491	27.294	-18.706	46.000
540.304	-2.732	32.228	29.496	-16.504	46.000
633.087	-1.067	31.713	30.646	-15.354	46.000
727.275	0.450	31.949	32.399	-13.601	46.000
Vertical					
Peak Detector					
162.145	-8.681	33.653	24.972	-18.528	43.500
337.870	-7.245	36.578	29.333	-16.667	46.000
507.971	-3.385	32.920	29.535	-16.465	46.000
599.348	-1.344	33.831	32.488	-13.512	46.000
690.725	-0.113	32.535	32.422	-13.578	46.000
803.188	1.374	33.081	34.455	-11.545	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5270MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
263.362	-9.395	35.152	25.757	-20.243	46.000
387.072	-5.940	34.120	28.180	-17.820	46.000
515.000	-3.244	35.238	31.995	-14.005	46.000
635.899	-1.043	34.259	33.216	-12.784	46.000
765.232	0.939	33.560	34.498	-11.502	46.000
888.942	2.407	35.088	37.495	-8.505	46.000
Vertical					
Peak Detector					
323.812	-7.555	33.447	25.892	-20.108	46.000
440.493	-4.640	33.062	28.422	-17.578	46.000
537.493	-2.789	32.503	29.714	-16.286	46.000
609.188	-1.262	35.499	34.238	-11.762	46.000
756.797	0.837	34.037	34.874	-11.126	46.000
950.797	3.095	36.816	39.911	-6.089	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5550MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
146.681	-8.855	33.689	24.834	-18.666	43.500
313.971	-7.772	34.954	27.182	-18.818	46.000
450.333	-4.411	31.979	27.568	-18.432	46.000
574.043	-1.952	35.305	33.353	-12.647	46.000
707.594	0.173	33.806	33.979	-12.021	46.000
828.493	1.681	33.937	35.618	-10.382	46.000
Vertical					
Peak Detector					
160.739	-8.620	35.564	26.945	-16.555	43.500
297.101	-8.139	34.058	25.919	-20.081	46.000
427.841	-4.935	33.617	28.682	-17.318	46.000
567.014	-2.123	32.389	30.266	-15.734	46.000
703.377	0.116	34.938	35.054	-10.946	46.000
850.986	1.951	33.028	34.979	-11.021	46.000

Note:

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

Product	:	Intelligent Robot
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)
Test Date	:	2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
276.014	-8.729	33.184	24.455	-21.545	46.000
391.290	-5.822	33.597	27.775	-18.225	46.000
462.986	-4.187	32.124	27.936	-18.064	46.000
568.420	-2.088	32.389	30.301	-15.699	46.000
661.203	-0.701	33.772	33.071	-12.929	46.000
776.478	1.067	32.641	33.708	-12.292	46.000
Vertical					
Peak Detector					
150.899	-8.723	34.510	25.787	-17.713	43.500
277.420	-8.654	33.378	24.724	-21.276	46.000
385.667	-5.980	32.392	26.413	-19.587	46.000
453.145	-4.361	31.927	27.566	-18.434	46.000
537.493	-2.789	33.318	30.529	-15.471	46.000
623.246	-1.153	35.442	34.289	-11.711	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 4: Transmit (802.11ac-20BW-7.2Mbps) (5720MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
242.275	-9.990	34.781	24.791	-21.209	46.000
367.391	-6.492	32.327	25.835	-20.165	46.000
474.232	-3.993	32.633	28.640	-17.360	46.000
589.507	-1.578	33.967	32.389	-13.611	46.000
741.333	0.639	32.620	33.260	-12.740	46.000
866.449	2.135	34.760	36.895	-9.105	46.000
Vertical					
Peak Detector					
242.275	-9.990	33.531	23.541	-22.459	46.000
389.884	-5.861	33.211	27.350	-18.650	46.000
482.667	-3.847	34.562	30.715	-15.285	46.000
581.072	-1.783	33.111	31.328	-14.672	46.000
714.623	0.272	33.447	33.719	-12.281	46.000
804.594	1.390	33.647	35.038	-10.962	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 5: Transmit (802.11ac-40BW-15Mbps) (5710MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
149.493	-8.756	32.748	23.993	-19.507	43.500
301.319	-8.045	33.627	25.582	-20.418	46.000
416.594	-5.197	33.258	28.061	-17.939	46.000
567.014	-2.123	33.520	31.397	-14.603	46.000
668.232	-0.558	33.845	33.286	-12.714	46.000
776.478	1.067	35.962	37.029	-8.971	46.000
Vertical					
Peak Detector					
153.710	-8.677	32.431	23.754	-19.746	43.500
299.913	-8.075	33.419	25.344	-20.656	46.000
392.696	-5.784	34.137	28.354	-17.646	46.000
500.942	-3.526	32.813	29.287	-16.713	46.000
658.391	-0.757	33.173	32.415	-13.585	46.000
787.725	1.195	33.989	35.184	-10.816	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
233.841	-10.419	33.420	23.001	-22.999	46.000
408.159	-5.393	34.055	28.662	-17.338	46.000
533.275	-2.874	32.432	29.558	-16.442	46.000
628.870	-1.104	32.687	31.583	-14.417	46.000
707.594	0.173	33.552	33.725	-12.275	46.000
811.623	1.478	34.000	35.478	-10.522	46.000
Vertical					
Peak Detector					
149.493	-8.756	35.349	26.594	-16.906	43.500
337.870	-7.245	33.457	26.212	-19.788	46.000
471.420	-4.041	35.848	31.807	-14.193	46.000
607.783	-1.271	33.480	32.209	-13.791	46.000
696.348	-0.001	33.739	33.737	-12.263	46.000
832.710	1.729	35.482	37.211	-8.789	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
152.304	-8.700	32.889	24.189	-19.311	43.500
382.855	-6.059	32.708	26.650	-19.350	46.000
502.348	-3.498	33.256	29.757	-16.243	46.000
617.623	-1.197	32.783	31.586	-14.414	46.000
737.116	0.583	32.769	33.352	-12.648	46.000
828.493	1.681	34.237	35.918	-10.082	46.000
Vertical					
Peak Detector					
176.203	-9.878	34.510	24.632	-18.868	43.500
333.652	-7.337	33.744	26.406	-19.594	46.000
462.986	-4.187	33.085	28.897	-17.103	46.000
592.319	-1.510	33.627	32.117	-13.883	46.000
745.551	0.696	32.865	33.561	-12.439	46.000
877.696	2.269	33.269	35.538	-10.462	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
160.739	-8.620	33.078	24.459	-19.041	43.500
468.609	-4.089	35.429	31.340	-14.660	46.000
565.609	-2.157	33.687	31.531	-14.469	46.000
673.855	-0.445	32.795	32.349	-13.651	46.000
786.319	1.180	33.875	35.055	-10.945	46.000
856.609	2.020	34.336	36.356	-9.644	46.000
Vertical					
Peak Detector					
160.739	-8.620	32.530	23.911	-19.589	43.500
342.087	-7.151	33.549	26.398	-19.602	46.000
432.058	-4.837	35.690	30.853	-15.147	46.000
603.565	-1.306	33.188	31.883	-14.117	46.000
694.942	-0.030	34.035	34.005	-11.995	46.000
843.957	1.865	34.307	36.172	-9.828	46.000

Note:

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

Product : Intelligent Robot
Test Item : General Radiated Emission
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)
Test Date : 2017/07/12

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector					
211.348	-11.185	33.207	22.023	-21.477	43.500
429.246	-4.903	33.045	28.142	-17.858	46.000
500.942	-3.526	32.645	29.119	-16.881	46.000
628.870	-1.104	32.059	30.955	-15.045	46.000
739.928	0.620	34.701	35.321	-10.679	46.000
870.667	2.185	34.679	36.864	-9.136	46.000
Vertical					
Peak Detector					
242.275	-9.990	32.505	22.515	-23.485	46.000
375.826	-6.256	33.352	27.095	-18.905	46.000
484.072	-3.822	34.141	30.319	-15.681	46.000
607.783	-1.271	33.941	32.670	-13.330	46.000
703.377	0.116	34.049	34.165	-11.835	46.000
848.174	1.916	35.942	37.858	-8.142	46.000

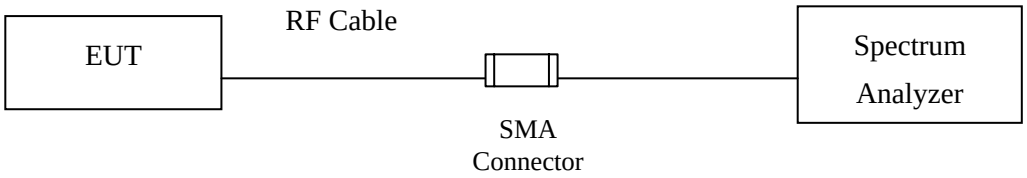
Note:

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

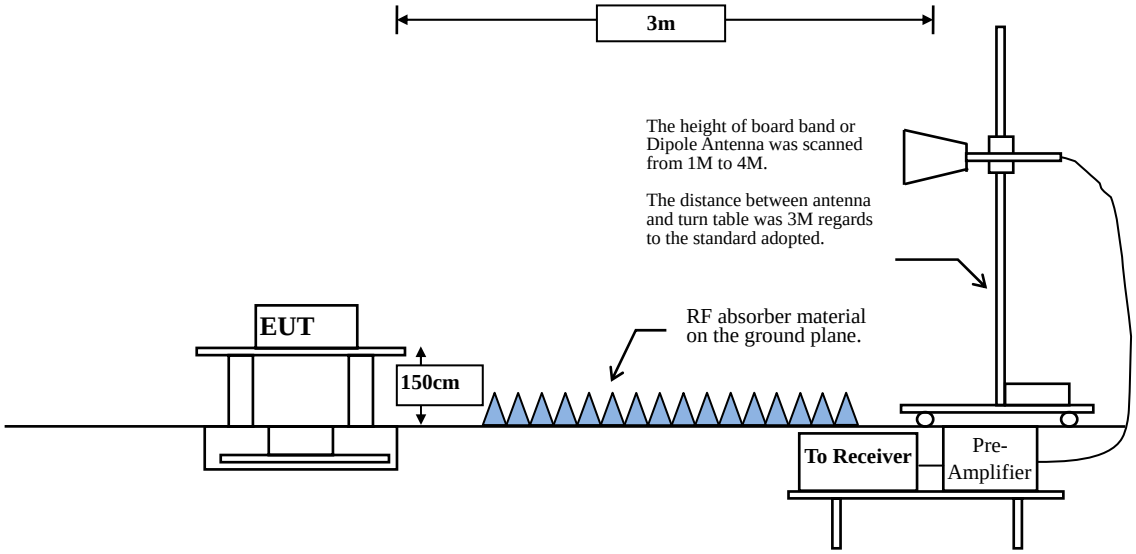
6. Band Edge

6.1. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



6.2. 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 (dBμV) = 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.

6.3. 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.

The average measurement tested according to KDB 789033 section H)6)d) Method VB (Averaging using reduced video bandwidth).

VBW ≥ 1/T:

Mode	Duty Cycle	T	1/T	VBW Setting
802.11a	0.9565	1.475 ms	677.90 Hz	1 KHz
802.11n-20	0.9573	1.385 ms	722.02 Hz	1 KHz
802.11n-40	0.8873	685.07 us	1.459 KHz	2 KHz
802.11ac-20	0.9430	1.365 ms	732.60 Hz	1 KHz
802.11ac-40	0.8926	685.65 us	1.458 KHz	2 KHz
802.11ac-80	0.8198	364 us	2.747 KHz	3 KHz

6.4. Uncertainty

Conducted: ±1.23dB

Radiated:

Horizontal polarization：1-18GHz: ±3.77dB

Vertical polarization：1-18GHz : ±3.83dB

6.5. Test Result of Band Edge

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)
Test Date : 2017/06/29

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)	5144.783	19.380	45.410	64.790	74.00	54.00	Pass
36 (Peak)	5150.000	19.386	43.962	63.348	74.00	54.00	Pass
36 (Peak)	5178.261	19.434	89.493	108.927	--	--	--
36 (Average)	5148.406	19.384	33.300	52.684	74.00	54.00	Pass
36 (Average)	5150.000	19.386	32.922	52.308	74.00	54.00	Pass
36 (Average)	5177.971	19.433	81.999	101.432	--	--	--

Figure Channel 36: Horizontal (Peak)

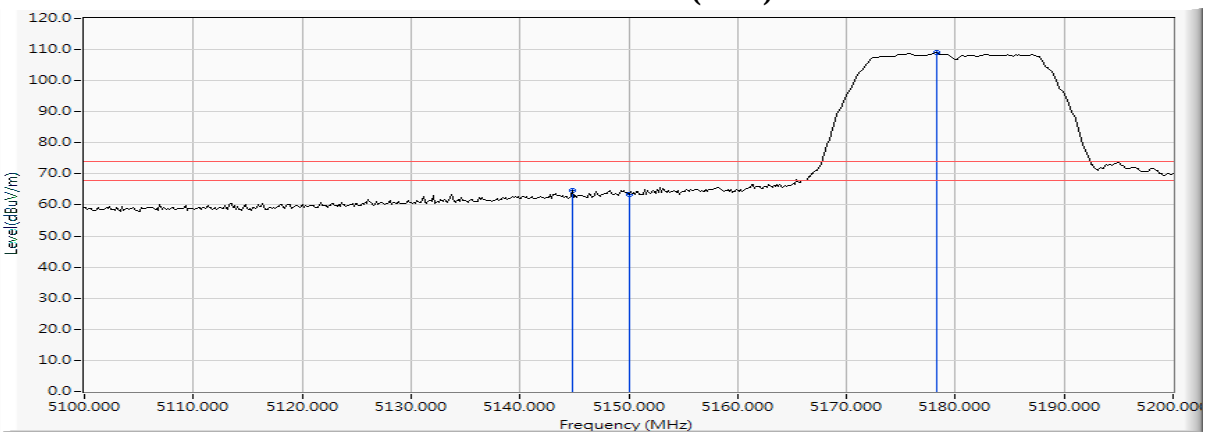
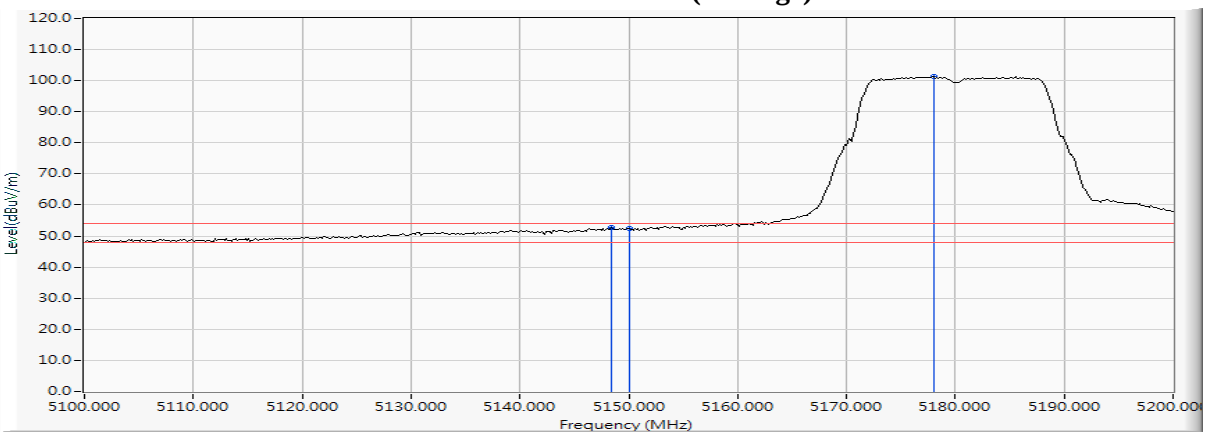


Figure Channel 36: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)
Test Date : 2017/06/29

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)	5149.565	19.386	46.033	65.418	74.00	54.00	Pass
36 (Peak)	5150.000	19.386	45.789	65.175	74.00	54.00	Pass
36 (Peak)	5178.261	19.434	89.903	109.337	--	--	--
36 (Average)	5149.565	19.386	33.949	53.334	74.00	54.00	Pass
36 (Average)	5150.000	19.386	33.126	52.512	74.00	54.00	Pass
36 (Average)	5178.261	19.434	82.089	101.523	--	--	--

Figure Channel 36: Vertical (Peak)

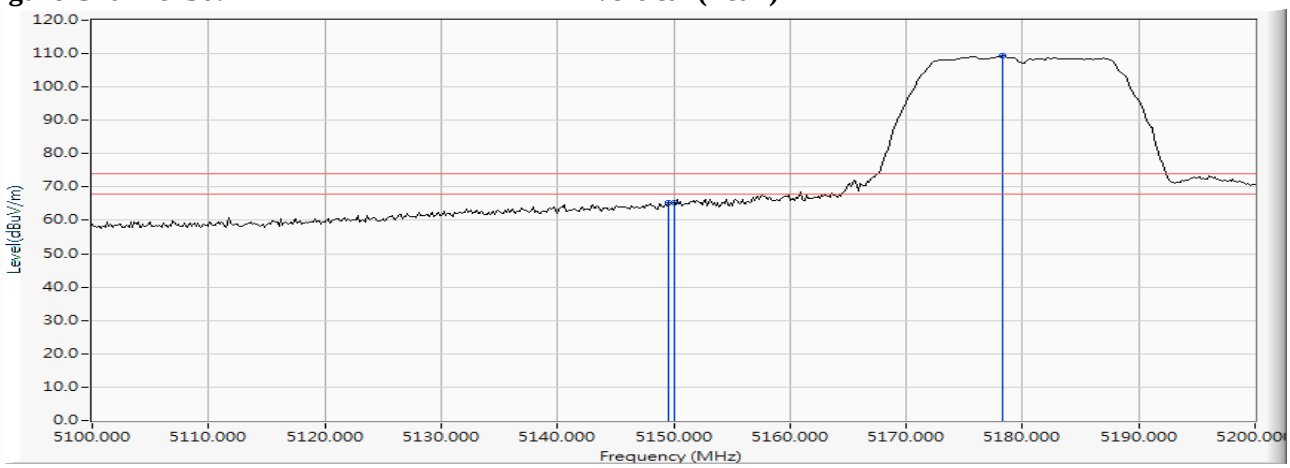
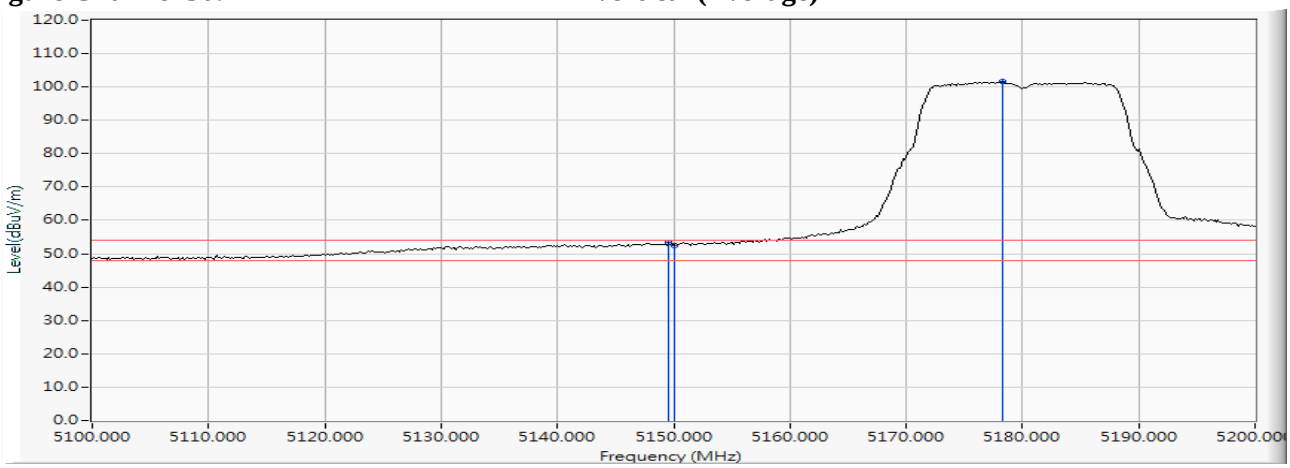


Figure Channel 36: Vertical (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)
Test Date : 2017/06/29

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)	5322.754	19.692	87.416	107.109	--	--	--
64 (Peak)	5350.000	19.758	42.366	62.124	74.00	54.00	Pass
64 (Peak)	5353.478	19.763	43.160	62.923	74.00	54.00	Pass
64 (Average)	5318.116	19.688	79.368	99.056	--	--	--
64 (Average)	5350.000	19.758	31.304	51.062	74.00	54.00	Pass

Figure Channel 64: Horizontal (Peak)

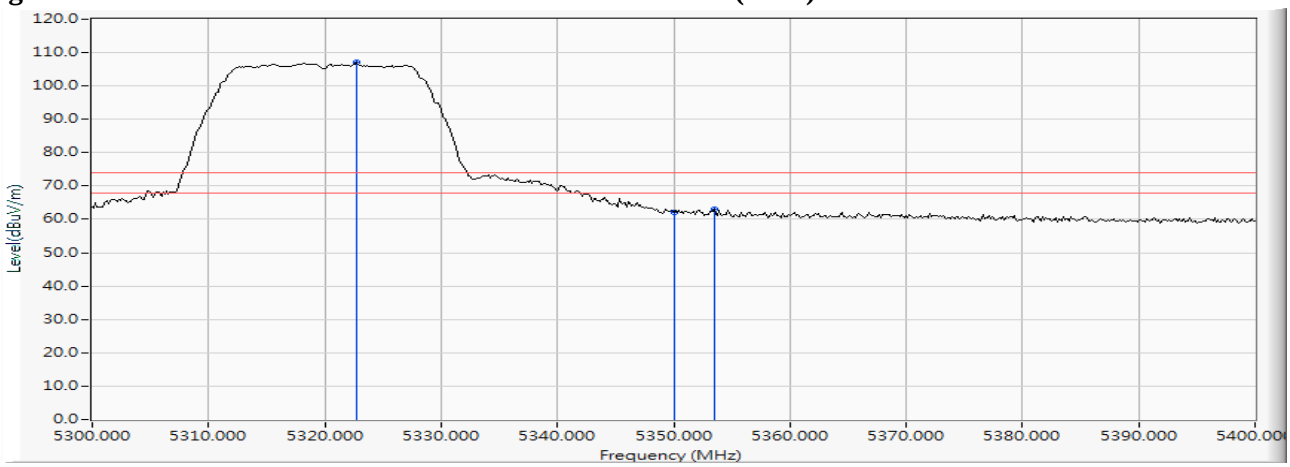
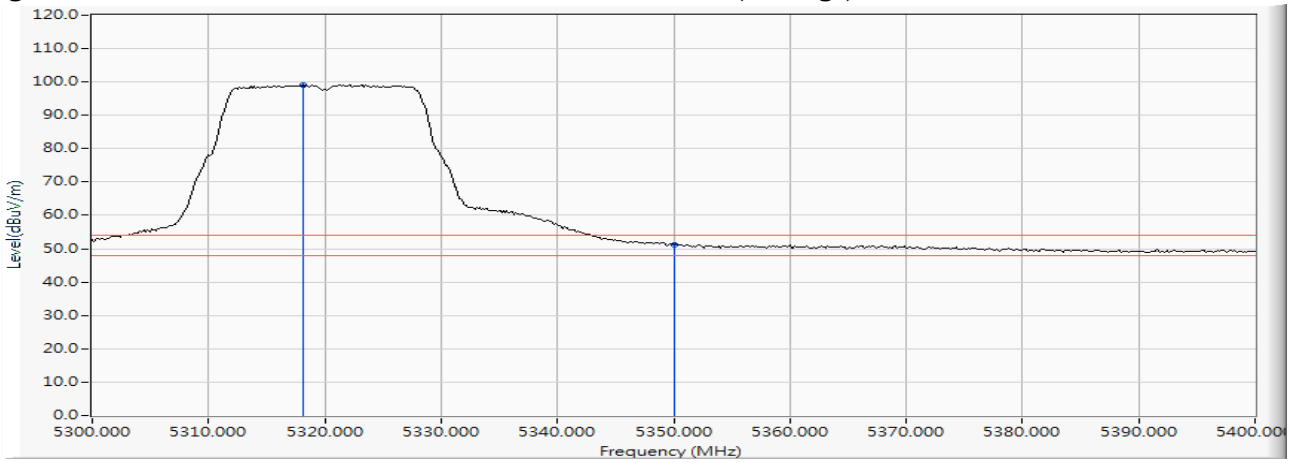


Figure Channel 64: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)
Test Date : 2017/06/29

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)	5322.174	19.692	90.347	110.039	--	--	--
64 (Peak)	5350.000	19.758	44.397	64.155	74.00	54.00	Pass
64 (Peak)	5351.014	19.760	45.800	65.559	74.00	54.00	Pass
64 (Average)	5321.304	19.691	82.517	102.208	--	--	--
64 (Average)	5350.000	19.758	33.510	53.268	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

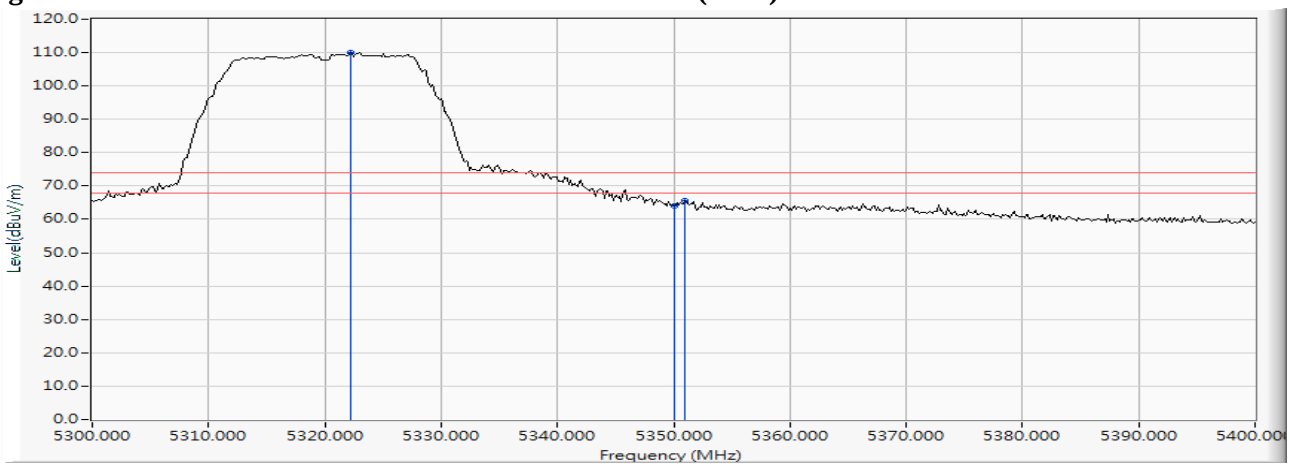
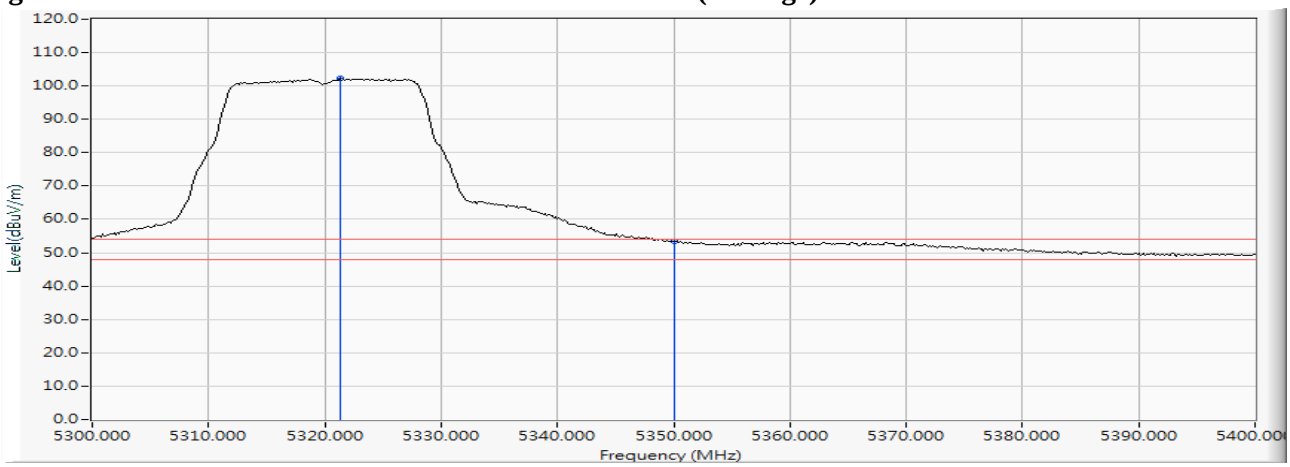


Figure Channel 64: Vertical (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)
Test Date : 2017/06/29

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)	5458.696	19.943	43.277	63.219	74.00	54.00	Pass
100 (Peak)	5460.000	19.945	42.144	62.088	74.00	54.00	Pass
100 (Peak)	5498.261	20.030	87.494	107.524	--	--	--
100 (Average)	5459.130	19.943	32.060	52.003	74.00	54.00	Pass
100 (Average)	5460.000	19.945	31.388	51.332	74.00	54.00	Pass
100 (Average)	5497.826	20.028	79.497	99.526	--	--	--

Figure Channel 100: Horizontal (Peak)

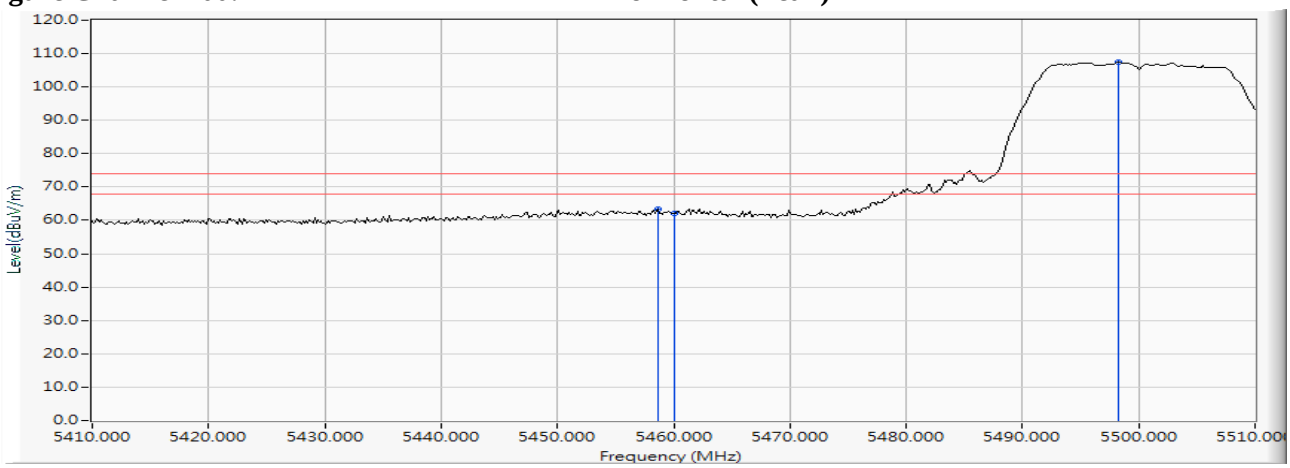
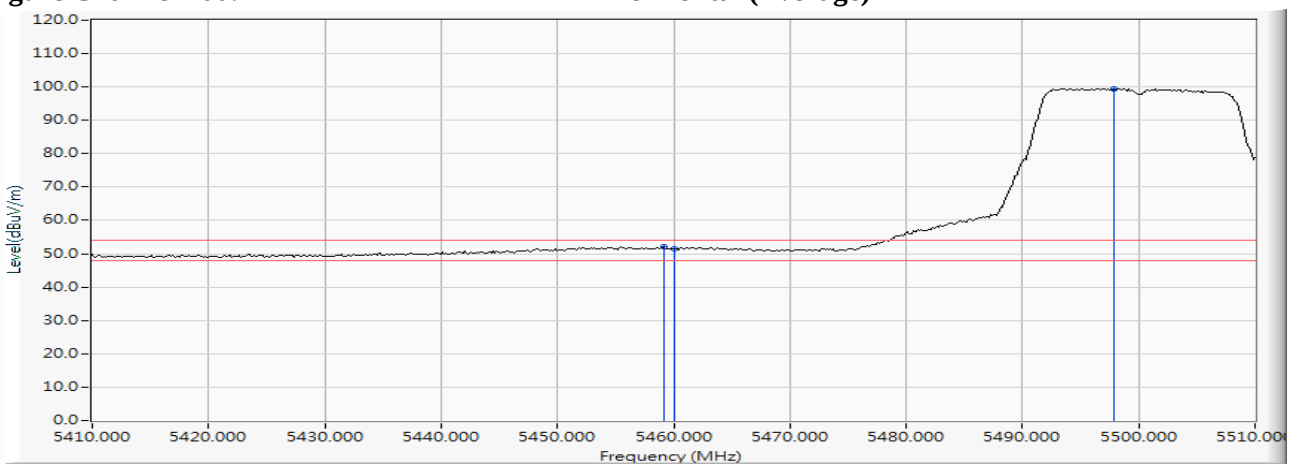


Figure Channel 100: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)
Test Date : 2017/06/29

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)	5450.580	19.928	45.150	65.078	74.00	54.00	Pass
100 (Peak)	5460.000	19.945	43.098	63.042	74.00	54.00	Pass
100 (Peak)	5498.261	20.030	88.681	108.711	--	--	--
100 (Average)	5455.362	19.937	32.963	52.900	74.00	54.00	Pass
100 (Average)	5460.000	19.945	32.183	52.127	74.00	54.00	Pass
100 (Average)	5496.667	20.024	80.831	100.856	--	--	--

Figure Channel 100: Vertical (Peak)

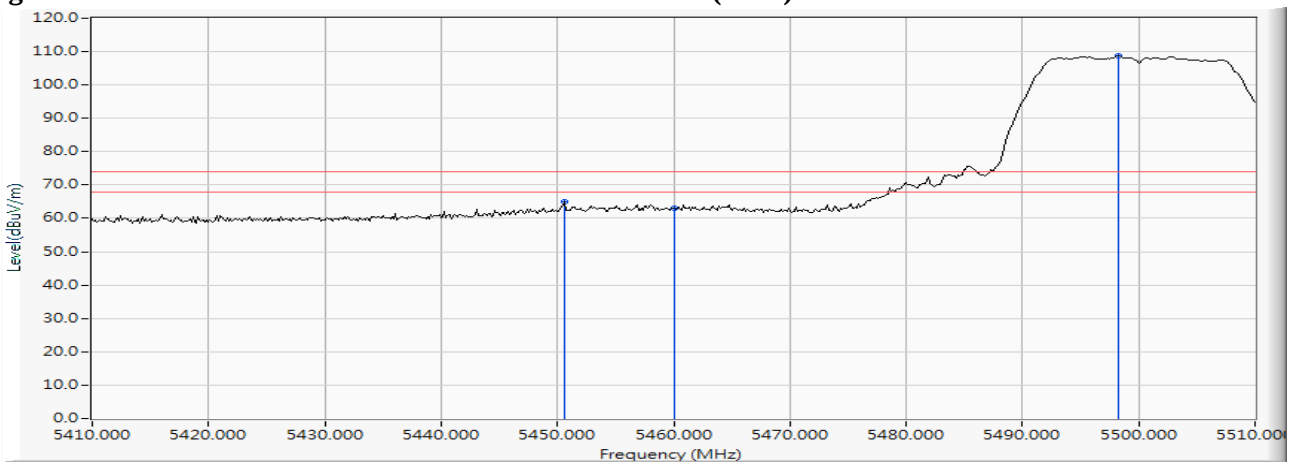
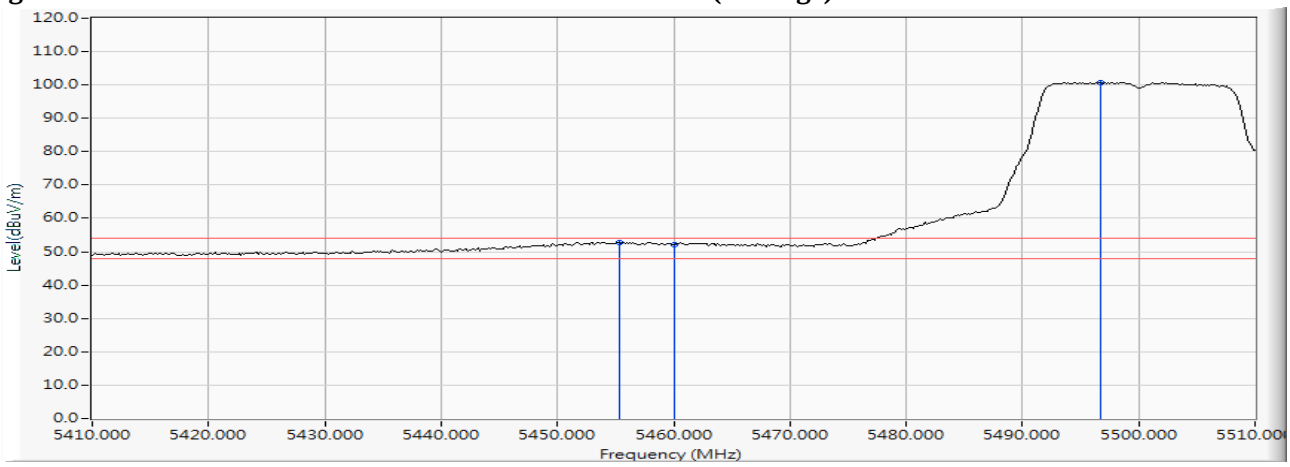


Figure Channel 100: Vertical (Average)



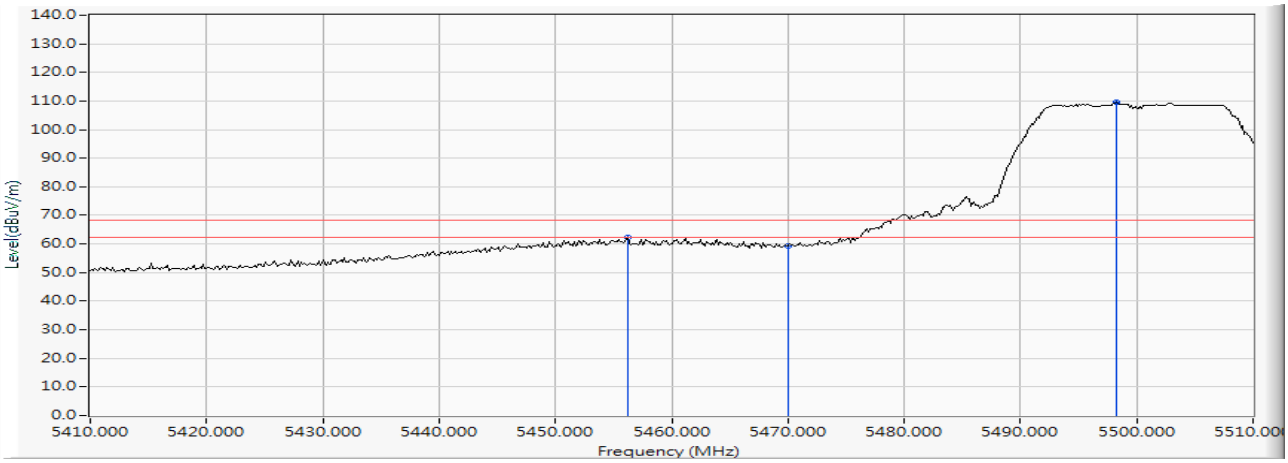
Note:

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

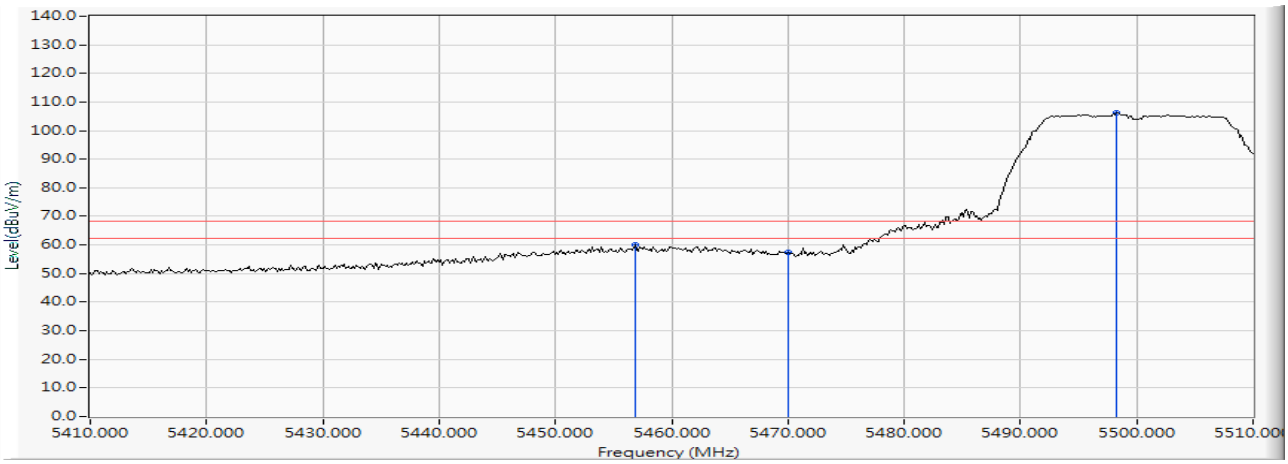
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)
Test Date : 2017/06/29

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5456.232	19.939	42.434	62.372	-5.848	68.220	Pass
Horizontal	5470.000	19.963	39.385	59.347	-8.873	68.220	Pass
Horizontal	5498.261	20.030	89.434	109.464	--	--	--



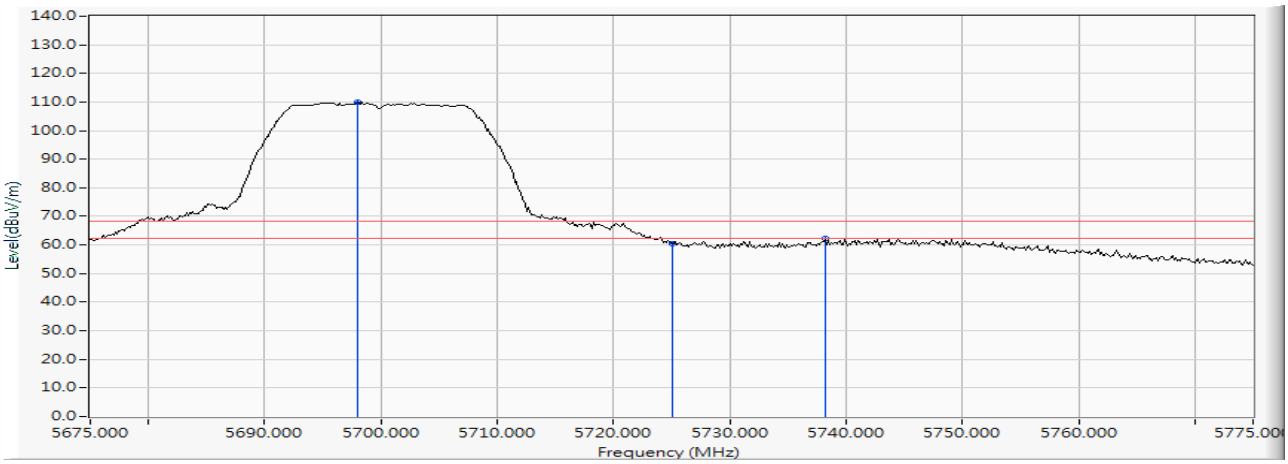
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5456.812	19.939	40.064	60.003	-8.217	68.220	Pass
Vertical	5470.000	19.963	37.339	57.301	-10.919	68.220	Pass
Vertical	5498.261	20.030	86.034	106.064	--	--	--



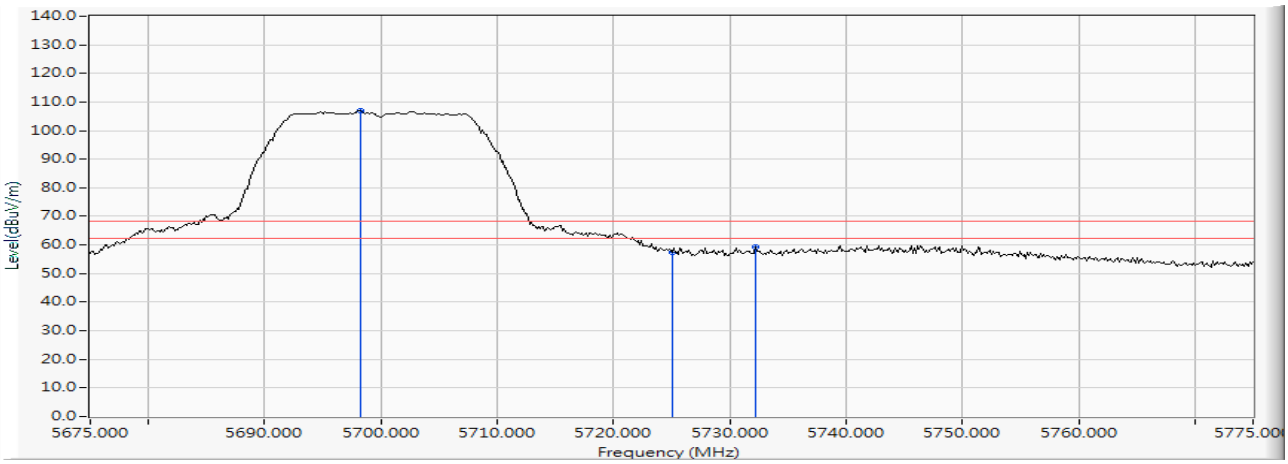
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5700MHz)
Test Date : 2017/06/29

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5698.043	20.626	89.327	109.953	--	--	--
Horizontal	5725.000	20.711	39.584	60.295	-7.925	68.220	Pass
Horizontal	5738.188	20.758	41.587	62.345	-5.875	68.220	Pass



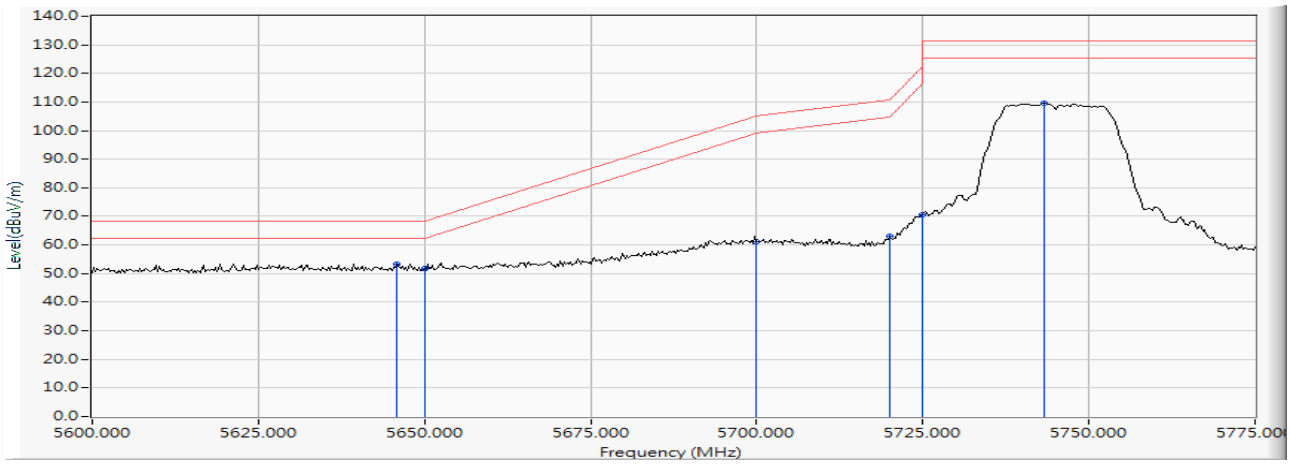
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5698.188	20.626	86.212	106.839	--	--	--
Vertical	5725.000	20.711	36.665	57.376	-10.844	68.220	Pass
Vertical	5732.246	20.737	38.630	59.367	-8.853	68.220	Pass



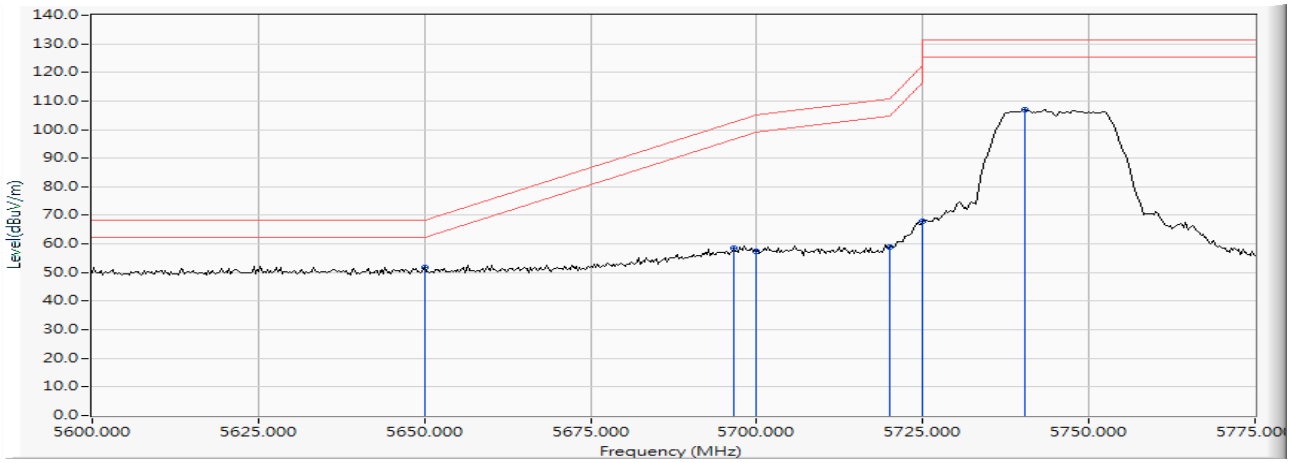
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)
Test Date : 2017/06/29

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5645.906	20.469	32.938	53.407	--	--	--
Horizontal	5650.000	20.483	31.216	51.698	-16.522	68.220	Pass
Horizontal	5700.000	20.632	40.615	61.247	-43.953	105.200	Pass
Horizontal	5720.000	20.693	42.317	63.010	-47.790	110.800	Pass
Horizontal	5725.000	20.711	49.952	70.663	-51.537	122.200	Pass
Horizontal	5743.297	20.771	88.906	109.677	-21.523	131.200	Pass



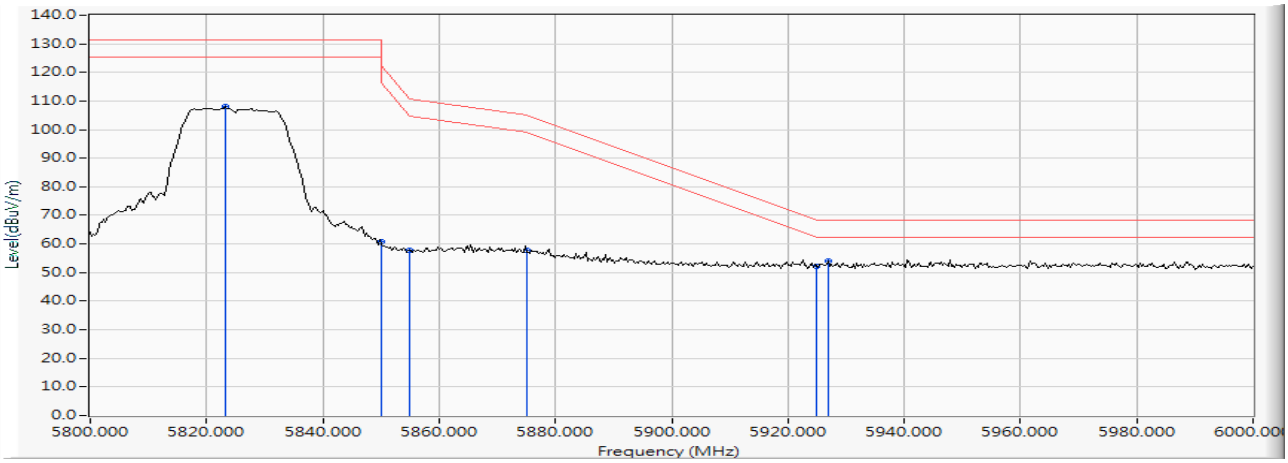
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5650.000	20.483	31.486	51.968	--	--	--
Vertical	5696.630	20.623	38.016	58.638	-44.070	102.708	Pass
Vertical	5700.000	20.632	36.759	57.391	-47.809	105.200	Pass
Vertical	5720.000	20.693	38.412	59.105	-51.695	110.800	Pass
Vertical	5725.000	20.711	47.094	67.805	-54.395	122.200	Pass
Vertical	5740.254	20.764	86.215	106.979	-24.221	131.200	Pass



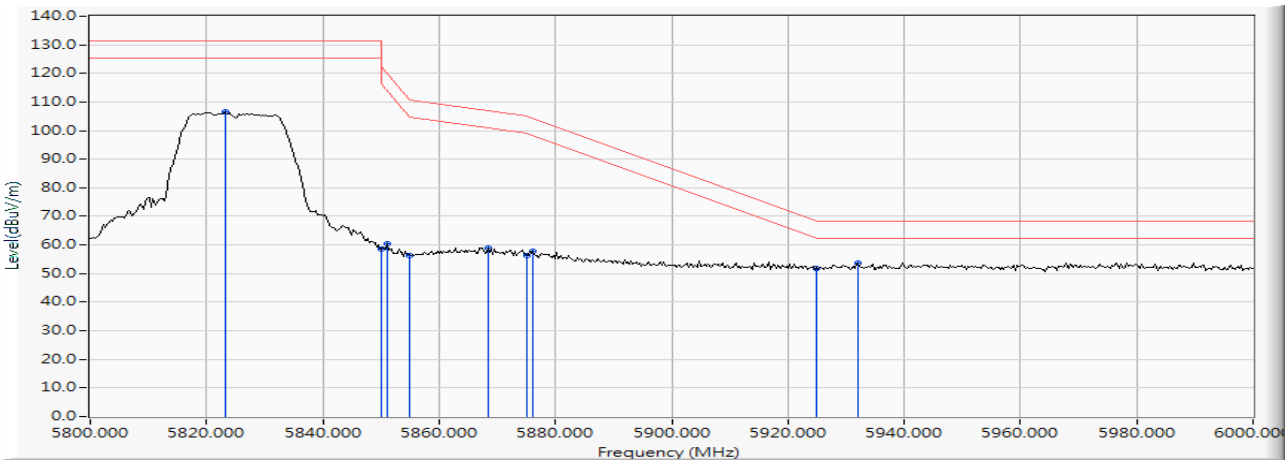
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)
Test Date : 2017/06/29

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5823.188	21.021	86.989	108.010	-23.190	131.200	Pass
Horizontal	5850.000	21.103	39.700	60.803	-61.397	122.200	Pass
Horizontal	5855.000	21.115	36.549	57.665	-53.135	110.800	Pass
Horizontal	5875.000	21.177	36.493	57.670	-47.530	105.200	Pass
Horizontal	5925.000	21.333	30.969	52.301	-15.899	68.200	Pass
Horizontal	5926.957	21.338	32.661	53.999	--	--	--



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5823.188	21.021	85.561	106.582	-24.618	131.200	Pass
Vertical	5850.000	21.103	37.299	58.402	-63.798	122.200	Pass
Vertical	5851.014	21.106	39.258	60.364	-59.524	119.888	Pass
Vertical	5855.000	21.115	35.234	56.350	-54.450	110.800	Pass
Vertical	5868.406	21.153	37.734	58.887	-48.159	107.046	Pass
Vertical	5875.000	21.177	35.268	56.445	-48.755	105.200	Pass
Vertical	5876.232	21.181	36.661	57.843	-46.445	104.288	Pass
Vertical	5925.000	21.333	30.539	51.871	-16.329	68.200	Pass
Vertical	5932.174	21.353	32.340	53.693	--	--	--



Product	:	Intelligent Robot
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)
Test Date	:	2017/06/29

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)	5147.246	19.383	46.533	65.916	74.00	54.00	Pass
36 (Peak)	5150.000	19.386	45.835	65.221	74.00	54.00	Pass
36 (Peak)	5182.464	19.444	89.862	109.306	--	--	--
36 (Average)	5150.000	19.386	32.660	52.046	74.00	54.00	Pass
36 (Average)	5178.551	19.435	80.865	100.300	--	--	--

Figure Channel 36: Horizontal (Peak)

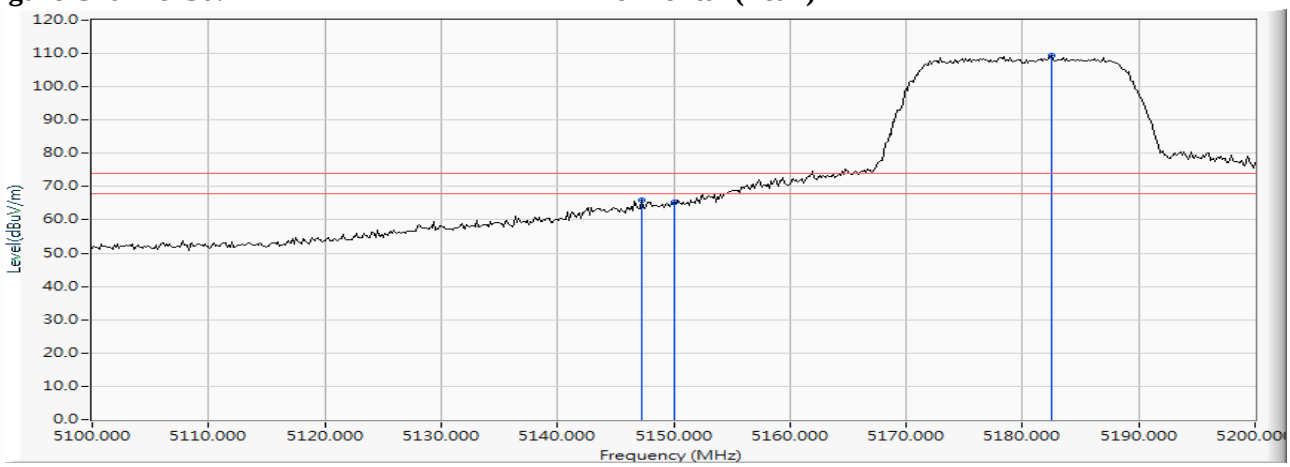
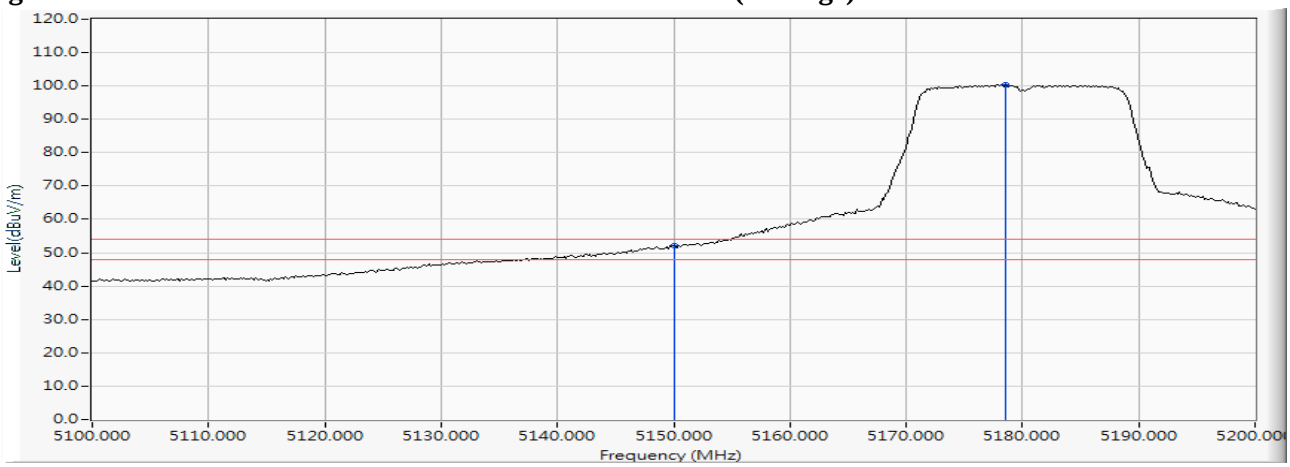


Figure Channel 36: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)
Test Date : 2017/06/29

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	19.386	46.498	65.884	74.00	54.00	Pass
36 (Peak)	5184.928	19.449	90.285	109.734	--	--	--
36 (Average)	5150.000	19.386	32.485	51.871	74.00	54.00	Pass
36 (Average)	5177.826	19.433	81.143	100.576	--	--	--

Figure Channel 36: Vertical (Peak)

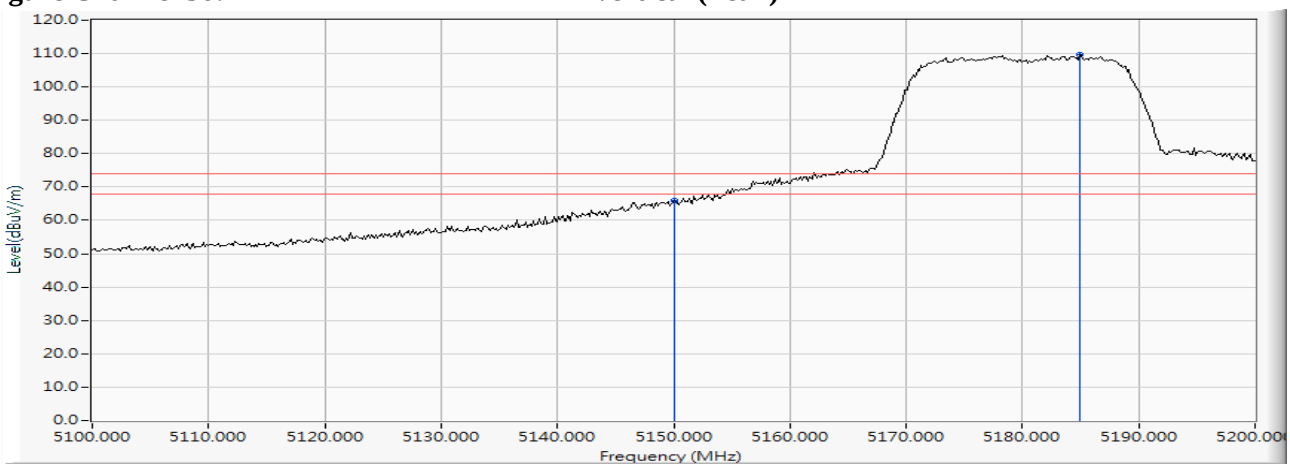
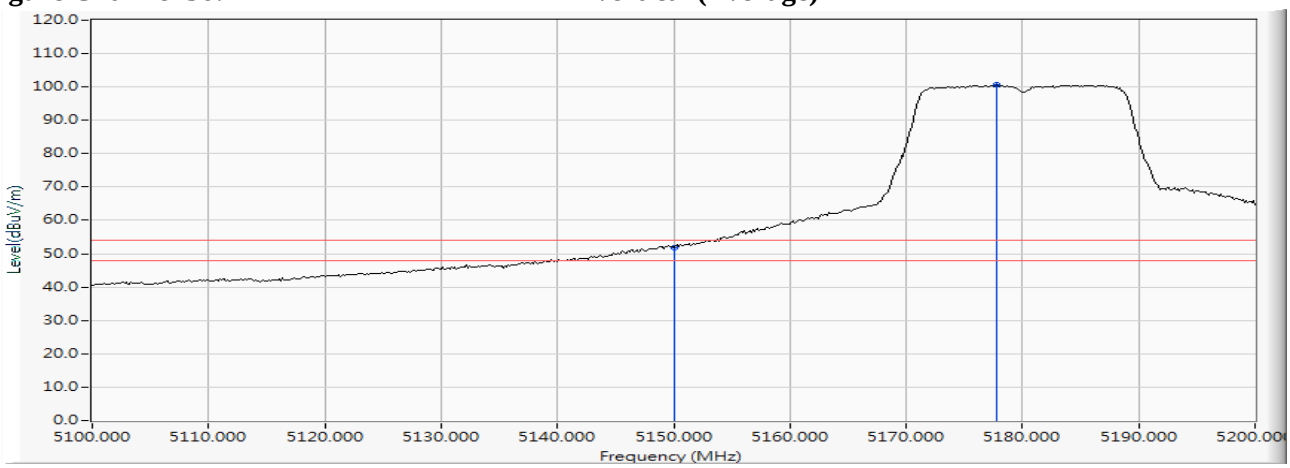


Figure Channel 36: Vertical (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)
Test Date : 2017/06/29

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)	5317.681	19.687	87.808	107.495	--	--	--
64 (Peak)	5350.000	19.758	42.819	62.577	74.00	54.00	Pass
64 (Peak)	5350.580	19.759	44.620	64.379	74.00	54.00	Pass
64 (Average)	5318.696	19.688	79.154	98.842	--	--	--
64 (Average)	5350.000	19.758	31.442	51.200	74.00	54.00	Pass
64 (Average)	5350.580	19.759	31.491	51.250			

Figure Channel 64: Horizontal (Peak)

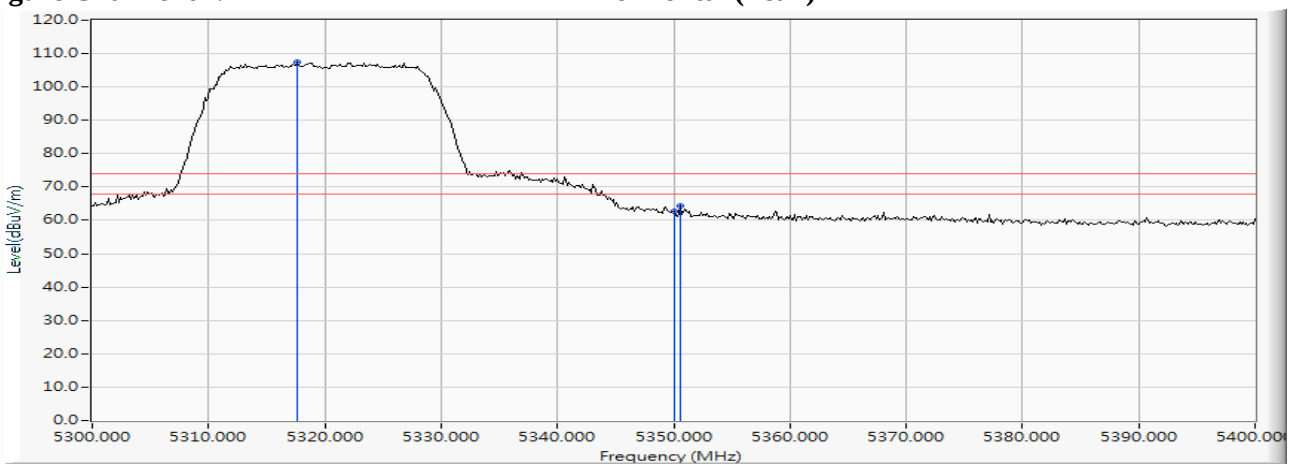
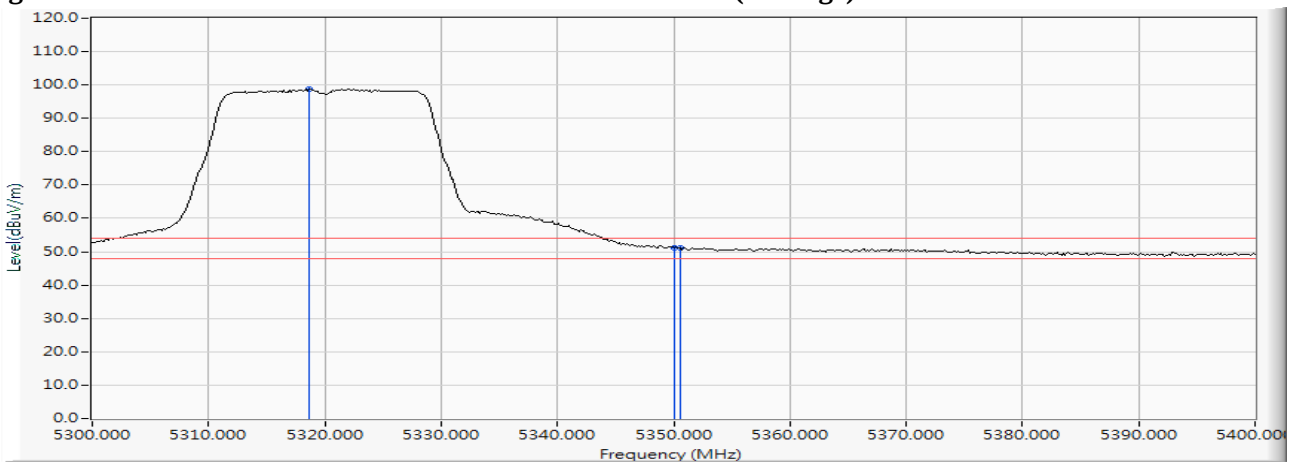


Figure Channel 64: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)
Test Date : 2017/06/29

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)	5324.928	19.695	90.938	110.633	--	--	--
64 (Peak)	5350.000	19.758	45.656	65.414	74.00	54.00	Pass
64 (Average)	5321.594	19.692	81.877	101.569	--	--	--
64 (Average)	5350.000	19.758	33.634	53.392	74.00	54.00	Pass

Figure Channel 64: Vertical (Peak)

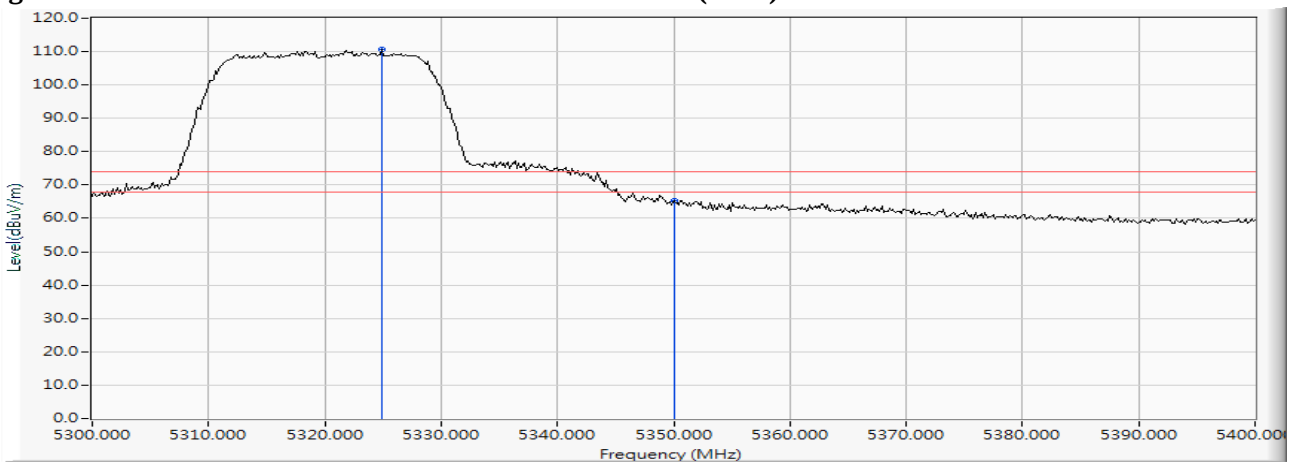
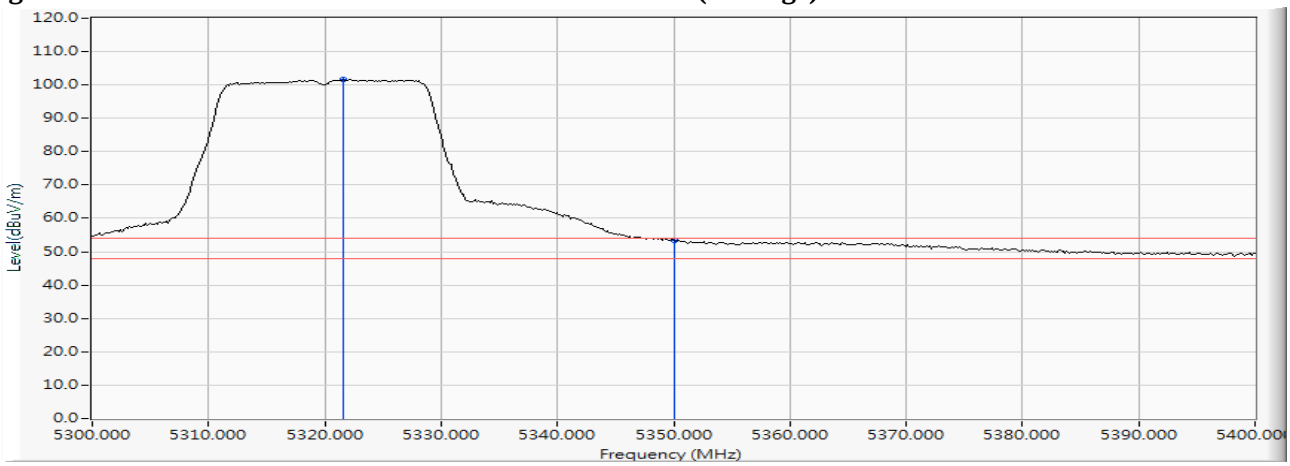


Figure Channel 64: Vertical (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)
Test Date : 2017/06/29

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)	5459.275	19.943	43.352	63.295	74.00	54.00	Pass
100 (Peak)	5460.000	19.945	42.650	62.594	74.00	54.00	Pass
100 (Peak)	5497.826	20.028	88.042	108.071	--	--	--
100 (Average)	5457.246	19.939	31.963	51.903	74.00	54.00	Pass
100 (Average)	5460.000	19.945	31.679	51.623	74.00	54.00	Pass
100 (Average)	5494.783	20.020	79.114	99.134			

Figure Channel 100: Horizontal (Peak)

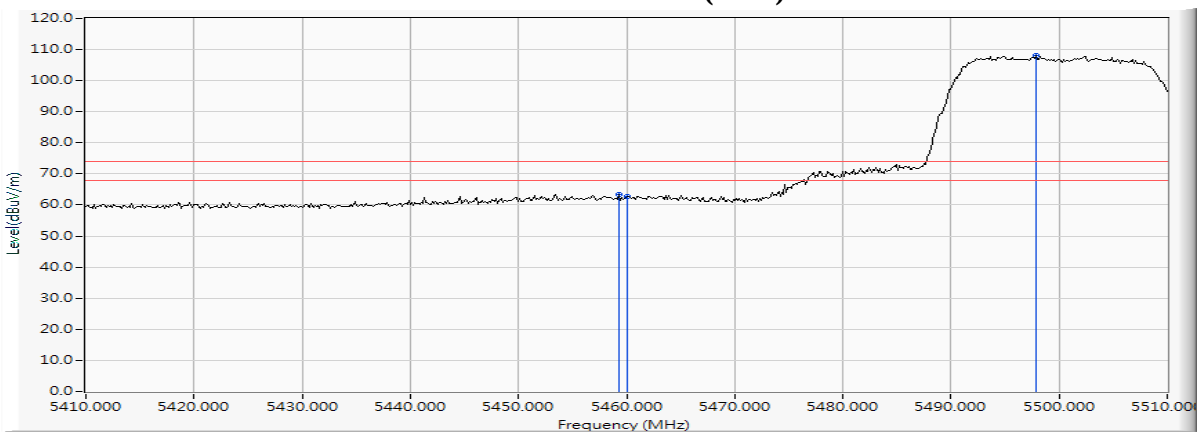
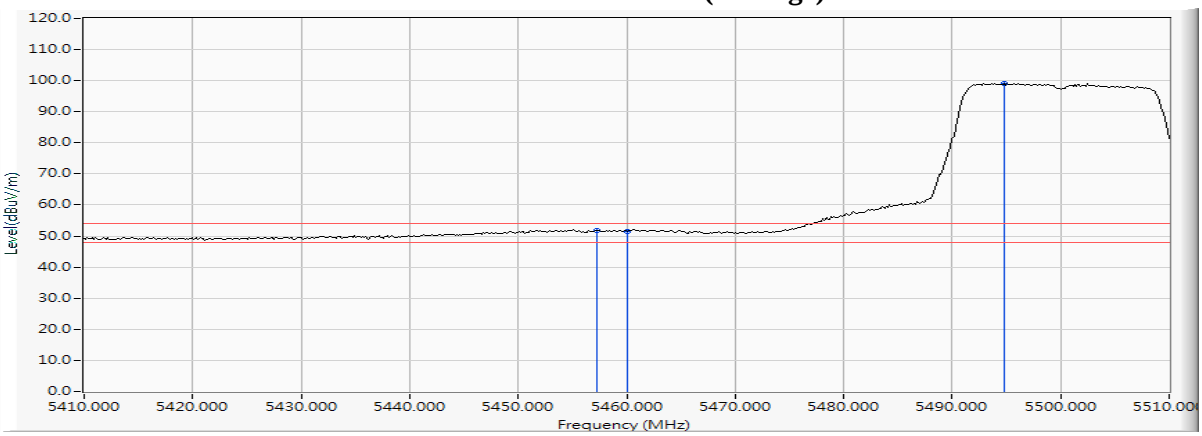


Figure Channel 100: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)
Test Date : 2017/06/29

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)	5454.638	19.936	45.173	65.108	74.00	54.00	Pass
100 (Peak)	5460.000	19.945	42.621	62.565	74.00	54.00	Pass
100 (Peak)	5494.638	20.019	89.235	109.255	--	--	--
100 (Average)	5457.971	19.941	32.916	52.857	74.00	54.00	Pass
100 (Average)	5460.000	19.945	32.186	52.130	74.00	54.00	Pass
100 (Average)	5497.536	20.027	80.362	100.390	--	--	--

Figure Channel 100: Vertical (Peak)

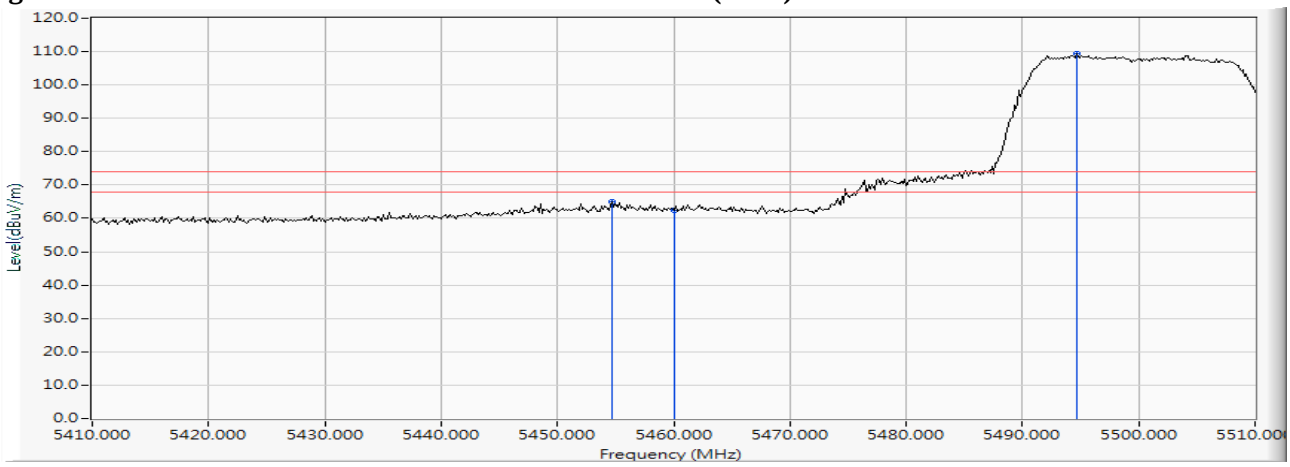
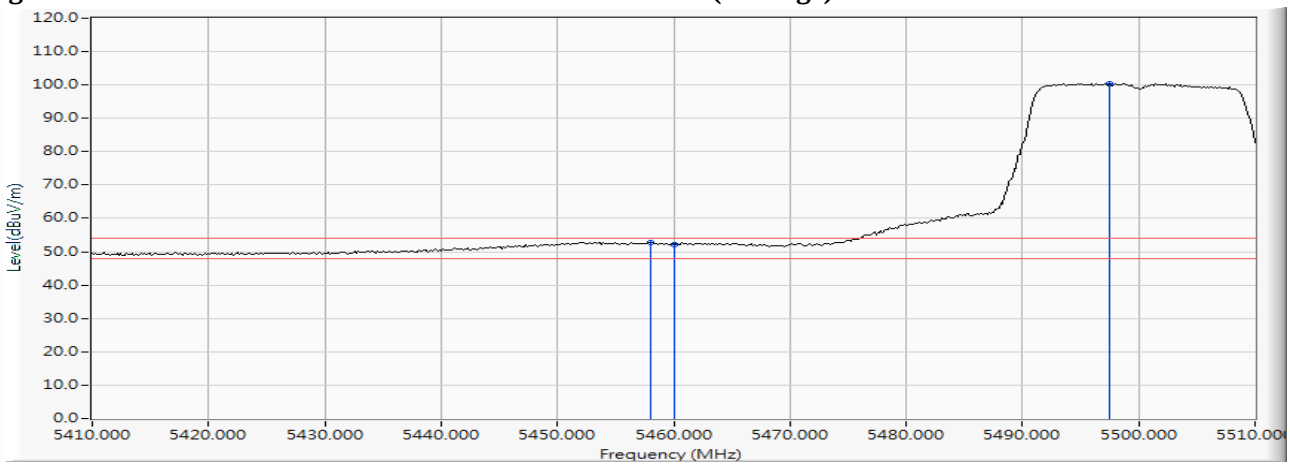


Figure Channel 100: Vertical (Average)



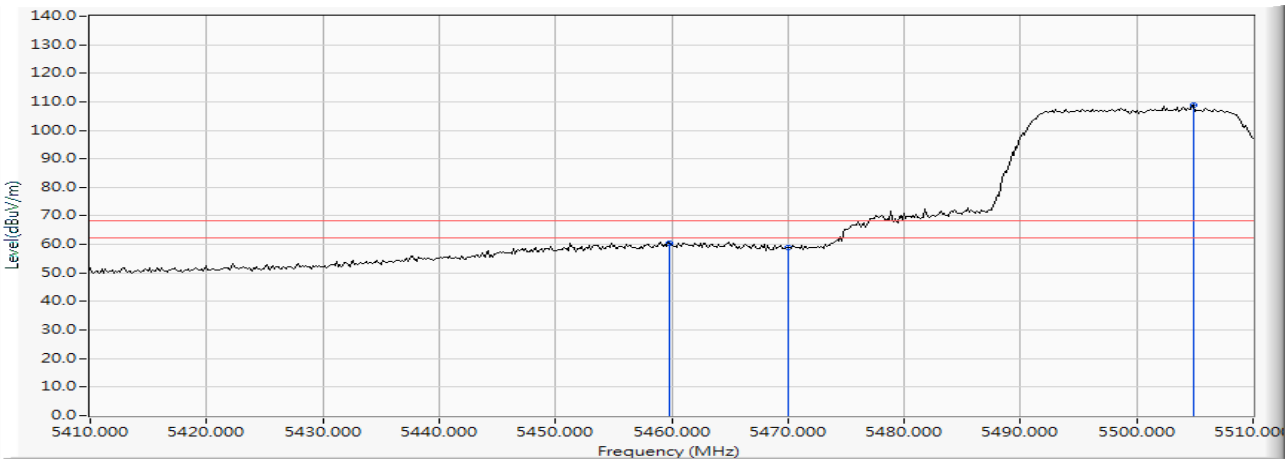
Note:

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

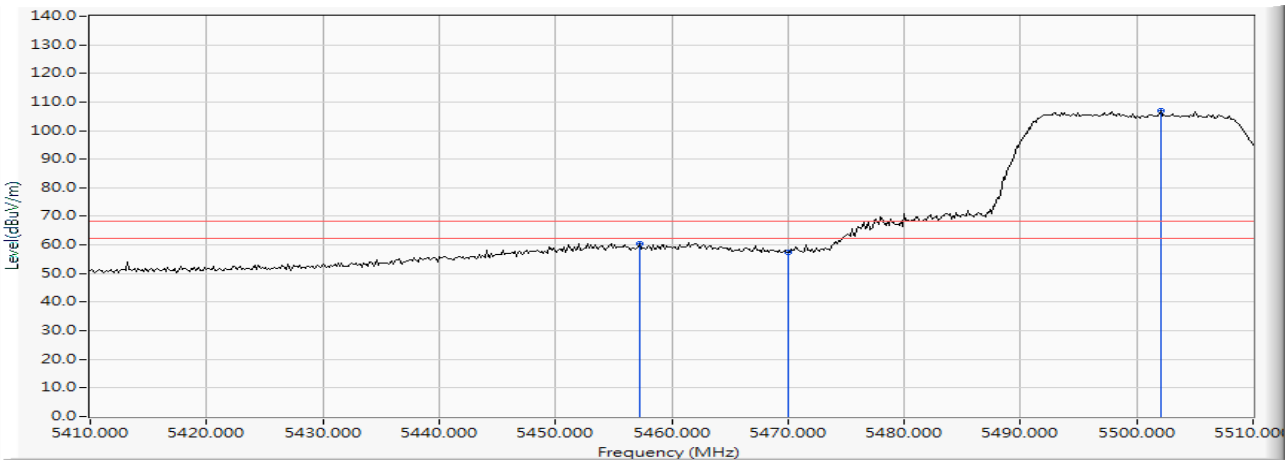
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5459.855	19.944	40.505	60.449	-7.771	68.220	Pass
Horizontal	5470.000	19.963	38.970	58.932	-9.288	68.220	Pass
Horizontal	5504.928	20.054	88.697	108.751	--	--	--



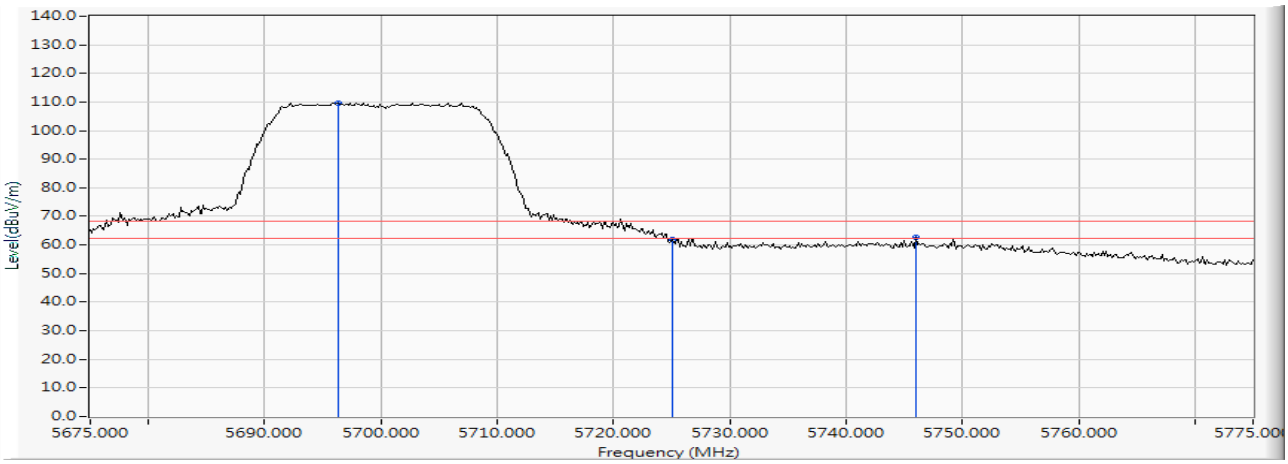
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5457.246	19.939	40.663	60.603	-7.617	68.220	Pass
Vertical	5470.000	19.963	37.588	57.550	-10.670	68.220	Pass
Vertical	5502.029	20.043	86.791	106.834	--	--	--



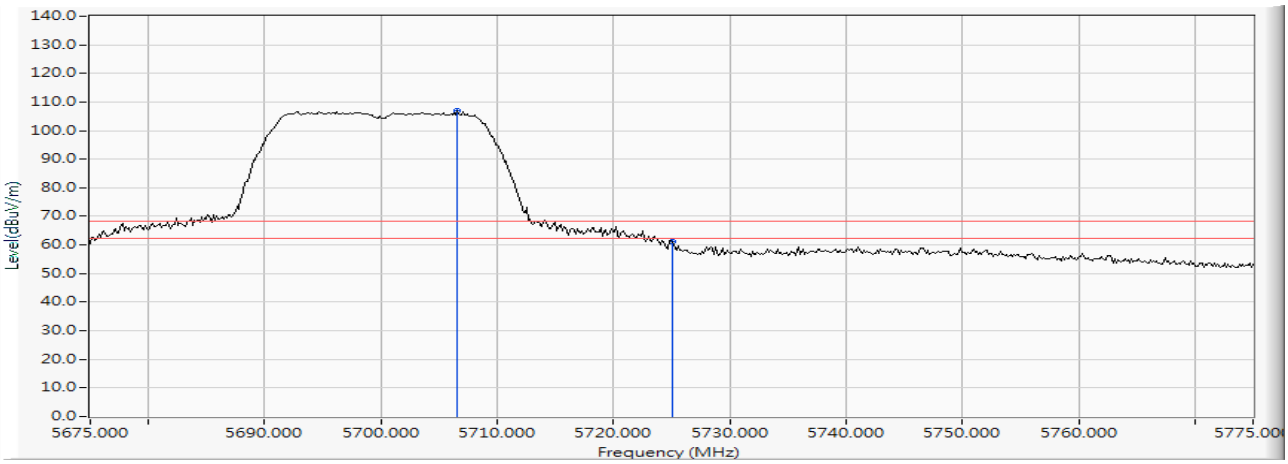
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5700MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5696.304	20.621	89.088	109.709	--	--	--
Horizontal	5725.000	20.711	41.289	62.000	-6.220	68.220	Pass
Horizontal	5746.015	20.778	41.725	62.503	-5.717	68.220	Pass



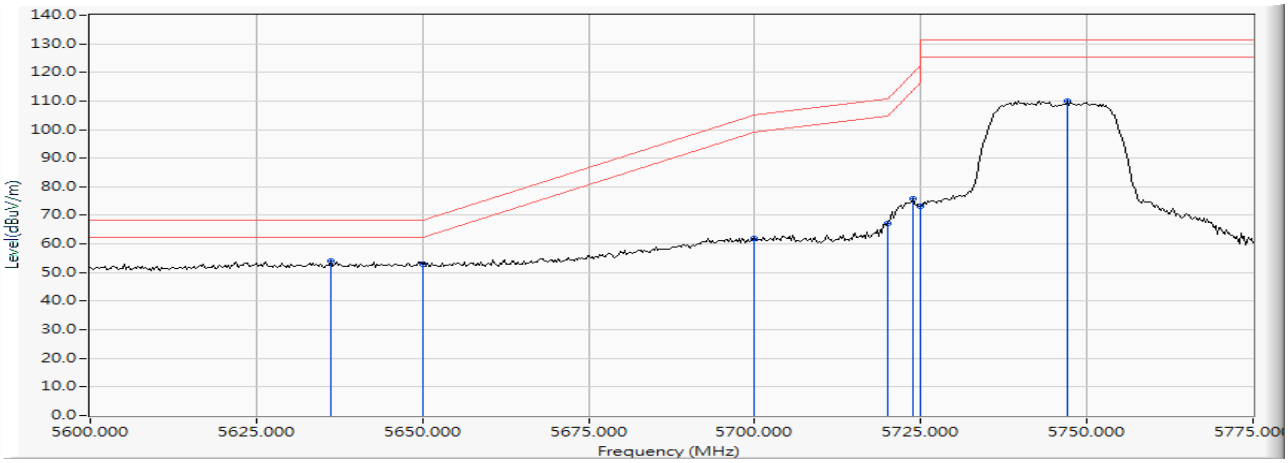
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5706.594	20.653	86.283	106.936	--	--	--
Vertical	5725.000	20.711	40.472	61.183	-7.037	68.220	Pass



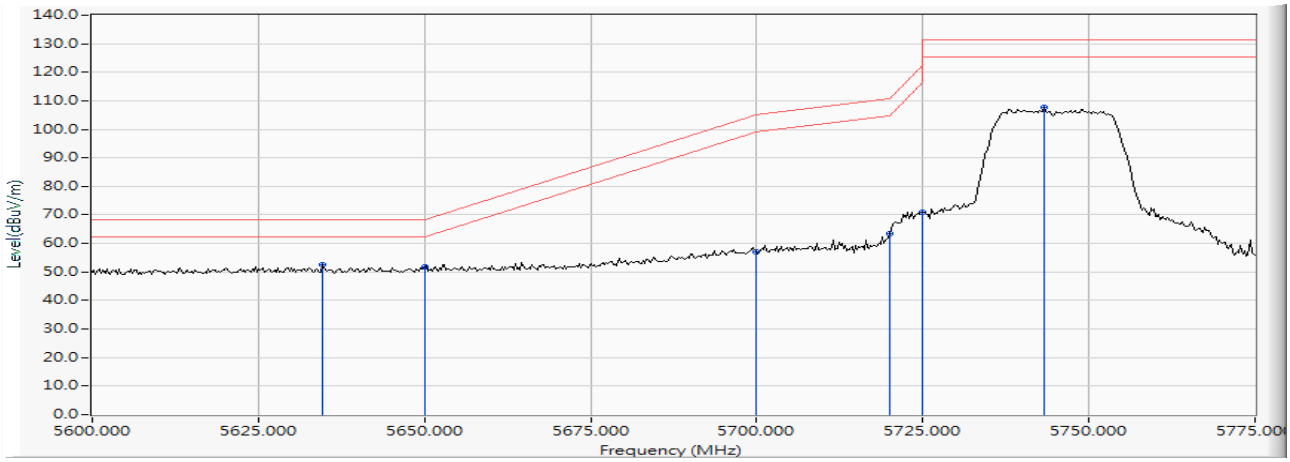
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5745MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5636.268	20.440	33.586	54.026	--	--	--
Horizontal	5650.000	20.483	32.452	52.934	-15.286	68.220	Pass
Horizontal	5700.000	20.632	41.394	62.026	-43.174	105.200	Pass
Horizontal	5720.000	20.693	46.512	67.205	-43.595	110.800	Pass
Horizontal	5723.768	20.706	55.046	75.752	-43.639	119.391	Pass
Horizontal	5725.000	20.711	52.456	73.167	-49.033	122.200	Pass
Horizontal	5747.101	20.780	89.376	110.156	-21.044	131.200	Pass



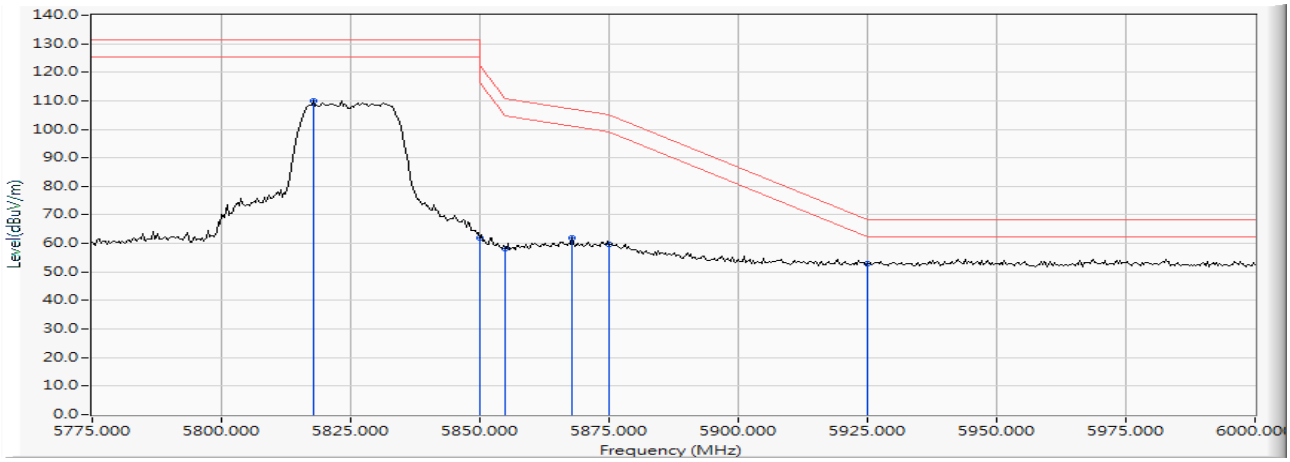
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5634.746	20.435	32.017	52.452	--	--	--
Vertical	5650.000	20.483	31.215	51.697	-16.523	68.220	Pass
Vertical	5700.000	20.632	36.406	57.038	-48.162	105.200	Pass
Vertical	5720.000	20.693	42.910	63.603	-47.197	110.800	Pass
Vertical	5725.000	20.711	50.177	70.888	-51.312	122.200	Pass
Vertical	5743.297	20.771	86.910	107.681	-23.519	131.200	Pass



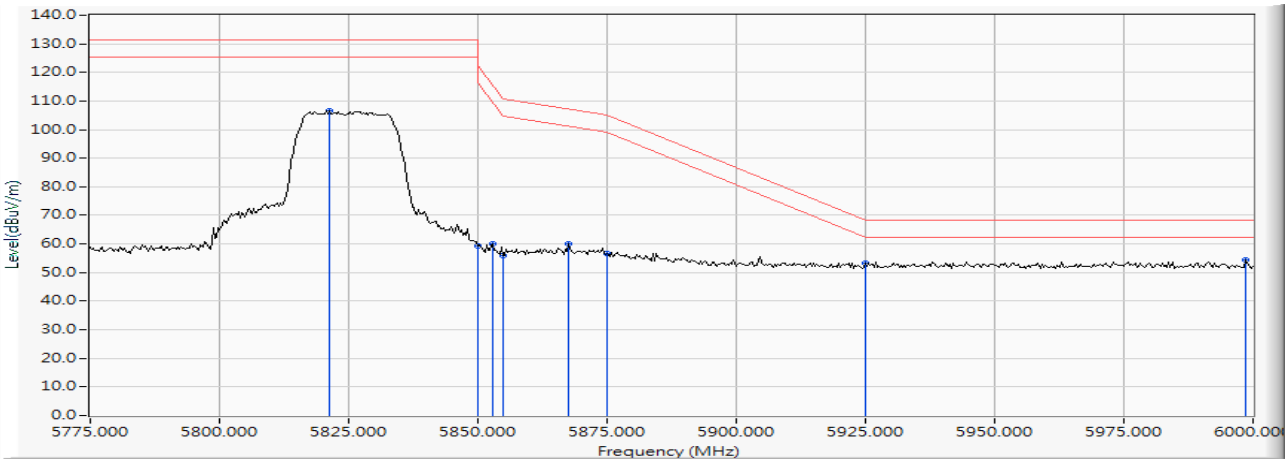
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5825MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5817.717	21.010	89.004	110.014	-21.186	131.200	Pass
Horizontal	5850.000	21.103	41.005	62.108	-60.092	122.200	Pass
Horizontal	5855.000	21.115	37.075	58.191	-52.609	110.800	Pass
Horizontal	5867.935	21.151	40.681	61.833	-45.345	107.178	Pass
Horizontal	5875.000	21.177	38.608	59.785	-45.415	105.200	Pass
Horizontal	5925.000	21.333	31.727	53.059	--	--	--



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5821.304	21.017	85.429	106.446	-24.754	131.200	Pass
Vertical	5850.000	21.103	38.158	59.261	-62.939	122.200	Pass
Vertical	5852.935	21.110	38.756	59.866	-55.642	115.508	Pass
Vertical	5855.000	21.115	34.911	56.027	-54.773	110.800	Pass
Vertical	5867.609	21.151	38.924	60.074	-47.195	107.269	Pass
Vertical	5875.000	21.177	35.396	56.573	-48.627	105.200	Pass
Vertical	5925.000	21.333	32.002	53.334	-14.866	68.200	Pass
Vertical	5998.696	21.543	33.017	54.559	--	--	--



Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)
Test Date : 2017/06/29

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)	5150.000	19.386	49.962	69.348	74.00	54.00	Pass
38 (Peak)	5176.232	19.429	85.012	104.441	--	--	--
38 (Average)	5149.710	19.386	34.603	53.989	74.00	54.00	Pass
38 (Average)	5150.000	19.386	34.382	53.768	74.00	54.00	Pass
38 (Average)	5186.232	19.451	75.943	95.395	--	--	--

Figure Channel 38: Horizontal (Peak)

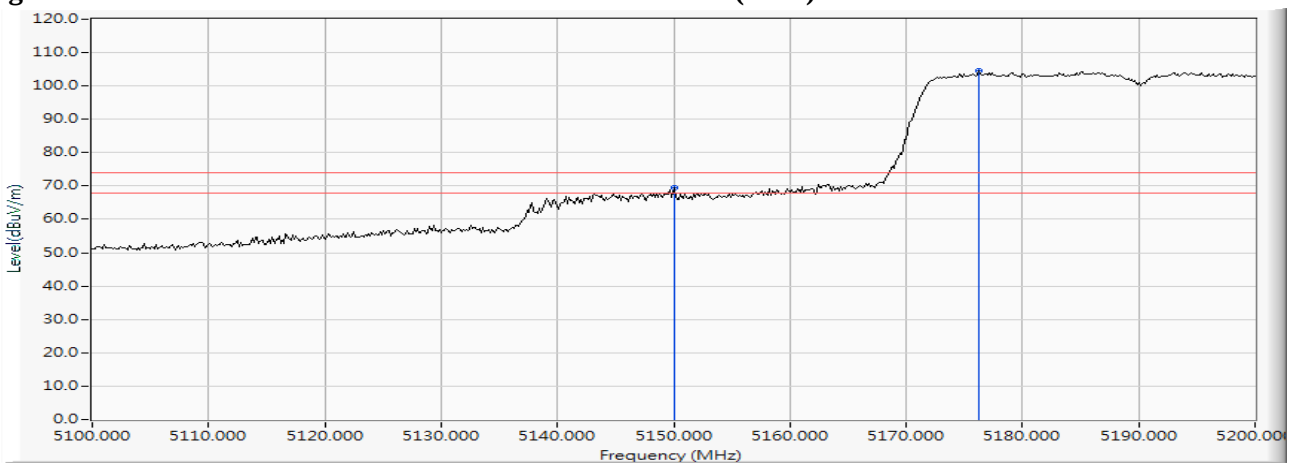
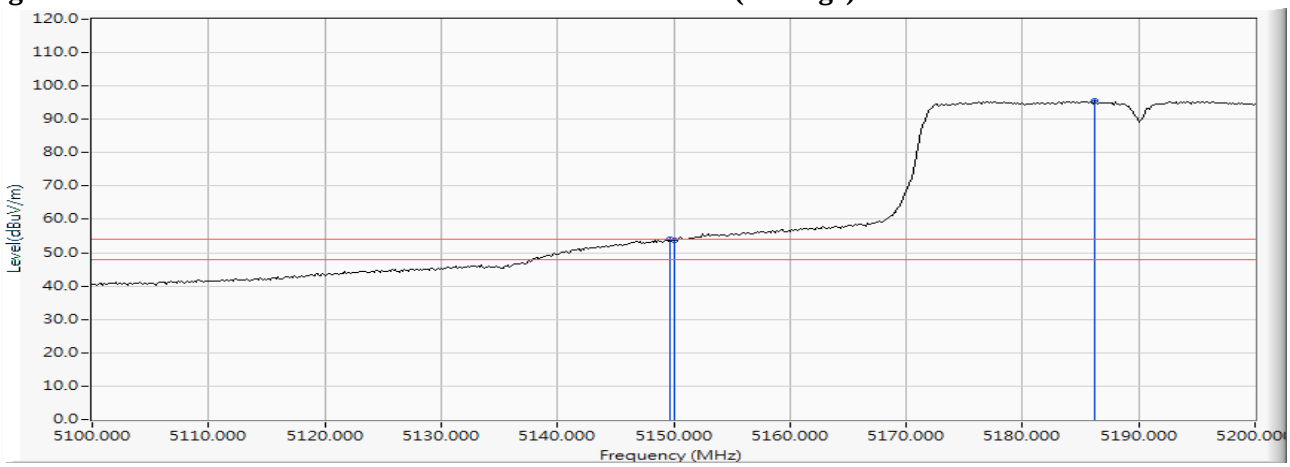


Figure Channel 38: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)
Test Date : 2017/06/29

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)	5147.971	19.383	49.424	68.807	74.00	54.00	Pass
38 (Peak)	5150.000	19.386	46.703	66.089	74.00	54.00	Pass
38 (Peak)	5195.507	19.473	85.520	104.992	--	--	--
38 (Average)	5149.855	19.386	34.388	53.774	74.00	54.00	Pass
38 (Average)	5150.000	19.386	33.390	52.776	74.00	54.00	Pass
38 (Average)	5186.087	19.451	76.286	95.737	--	--	--

Figure Channel 38: Vertical (Peak)

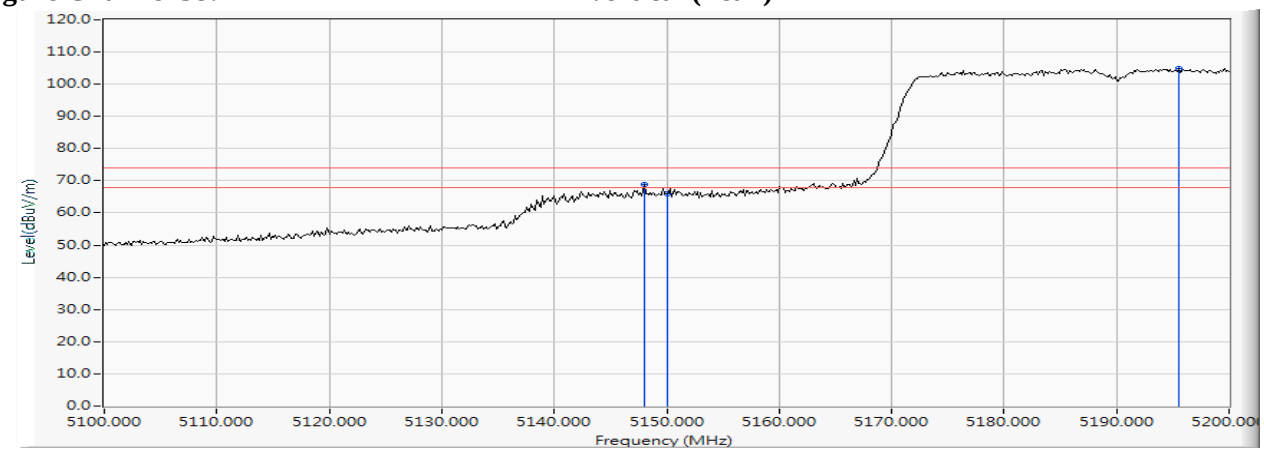
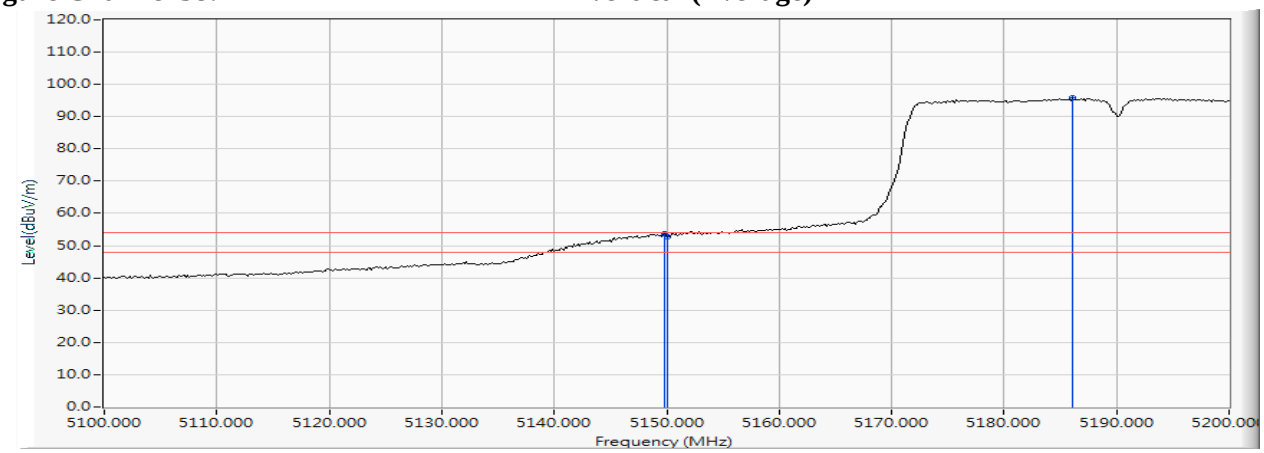


Figure Channel 38: Vertical (Average)



Note:

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

Product	:	Intelligent Robot
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)
Test Date	:	2017/06/29

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)	5319.710	19.690	84.388	104.078	--	--	--
62 (Peak)	5350.000	19.758	45.793	65.551	74.00	54.00	Pass
62 (Peak)	5350.290	19.759	47.128	66.886	74.00	54.00	Pass
62 (Average)	5312.319	19.681	74.805	94.486	--	--	--
62 (Average)	5350.000	19.758	34.158	53.916	74.00	54.00	Pass

Figure Channel 62: Horizontal (Peak)

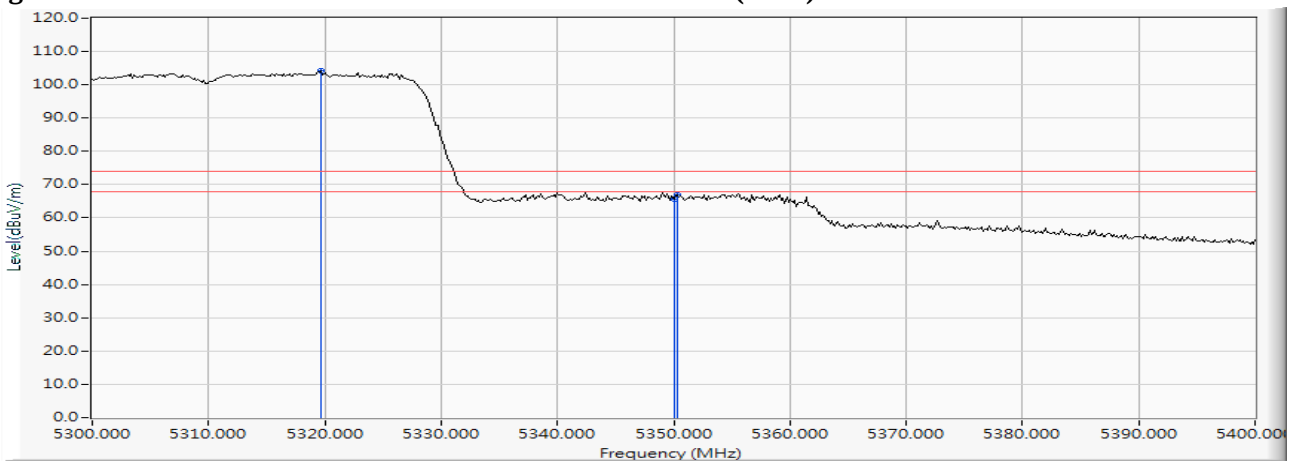
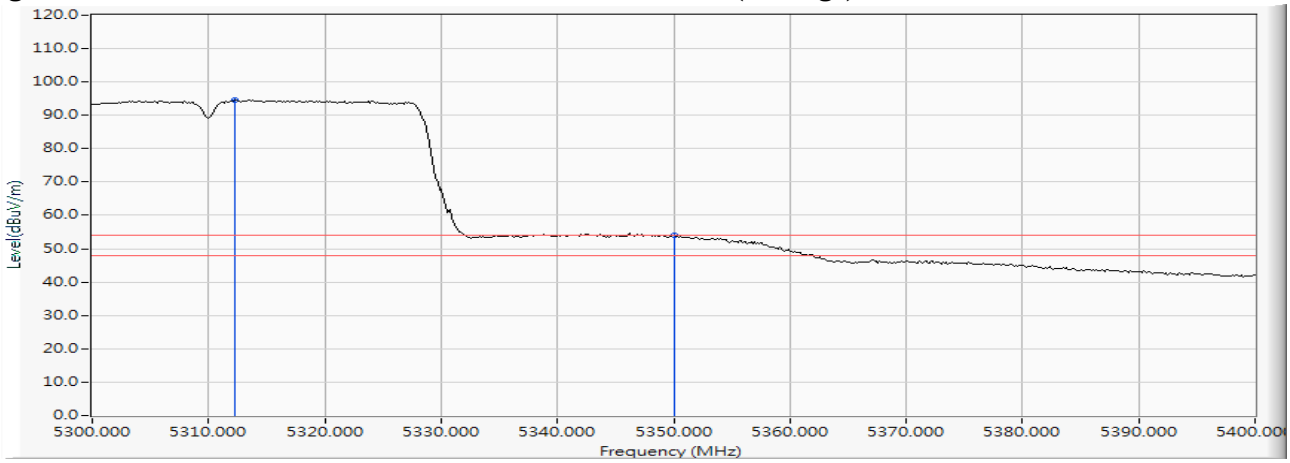


Figure Channel 62: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)
Test Date : 2017/06/29

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)	5304.928	19.671	83.617	103.288	--	--	--
62 (Peak)	5350.000	19.758	44.552	64.310	74.00	54.00	Pass
62 (Peak)	5357.681	19.771	45.651	65.421	74.00	54.00	Pass
62 (Average)	5303.768	19.669	74.484	94.153	--	--	--
62 (Average)	5350.000	19.758	32.021	51.779	74.00	54.00	Pass
62 (Average)	5350.870	19.759	32.098	51.857	74.00	54.00	Pass

Figure Channel 62: Vertical (Peak)

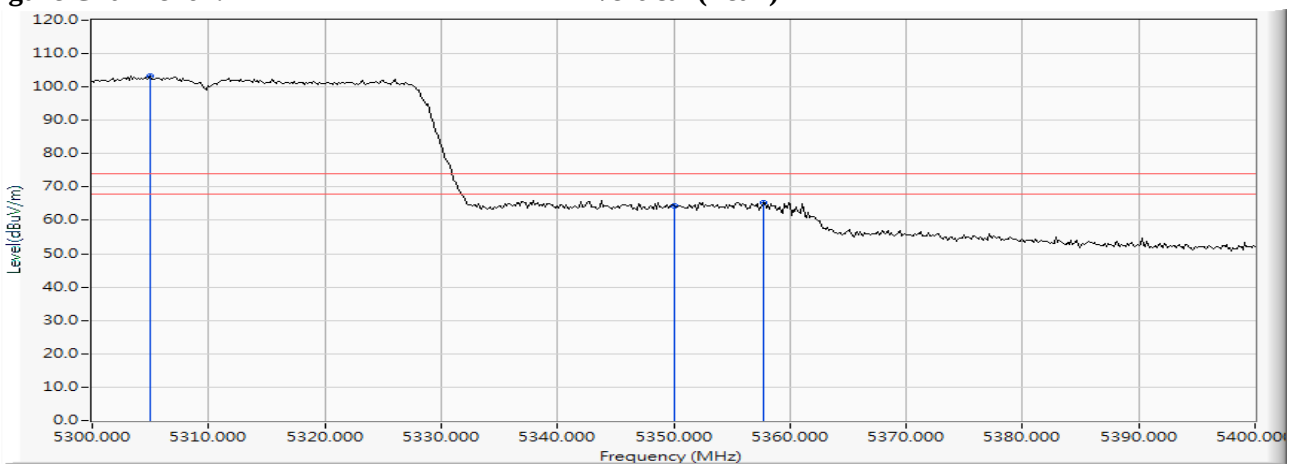
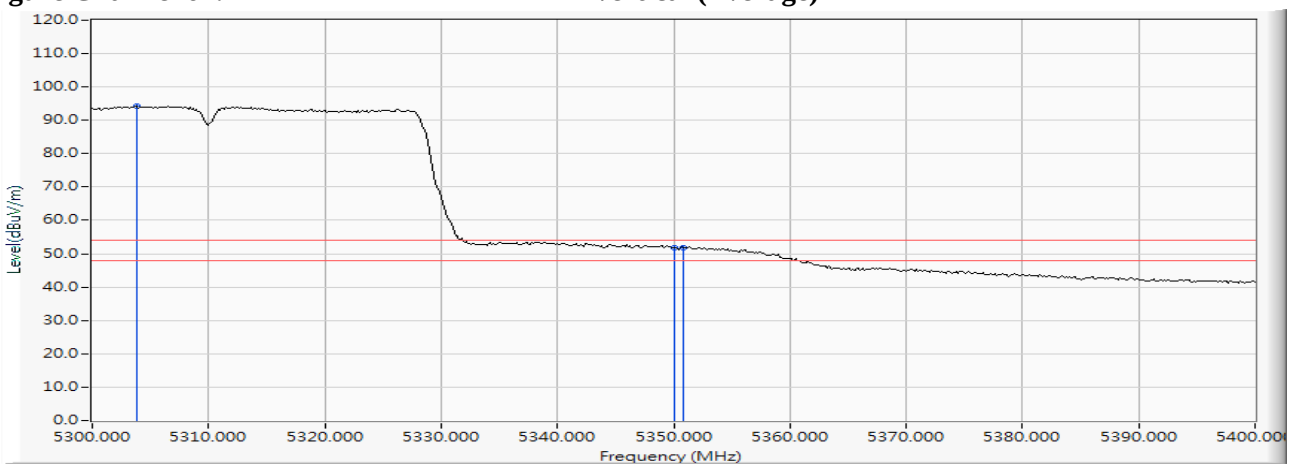


Figure Channel 62: Vertical (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)
Test Date : 2017/06/30

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
102 (Peak)	5457.826	19.941	42.656	62.597	74.00	54.00	Pass
102 (Peak)	5460.000	19.945	41.668	61.612	74.00	54.00	Pass
102 (Peak)	5504.928	20.054	79.930	99.984	--	--	--
102 (Average)	5460.000	19.945	31.067	51.011	74.00	54.00	Pass
102 (Average)	5497.101	20.027	71.194	91.220	--	--	--

Figure Channel 102: Horizontal (Peak)

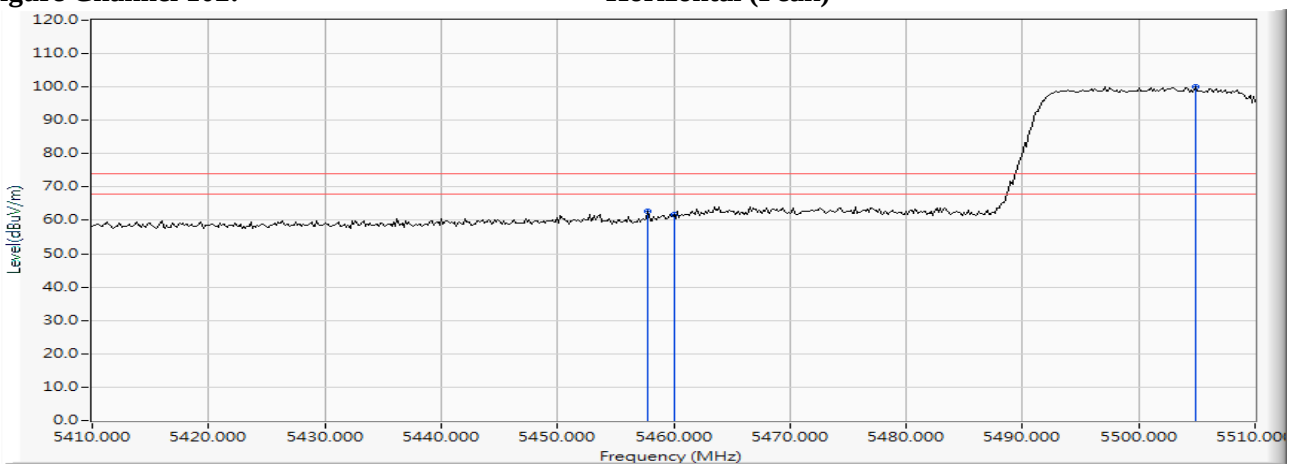
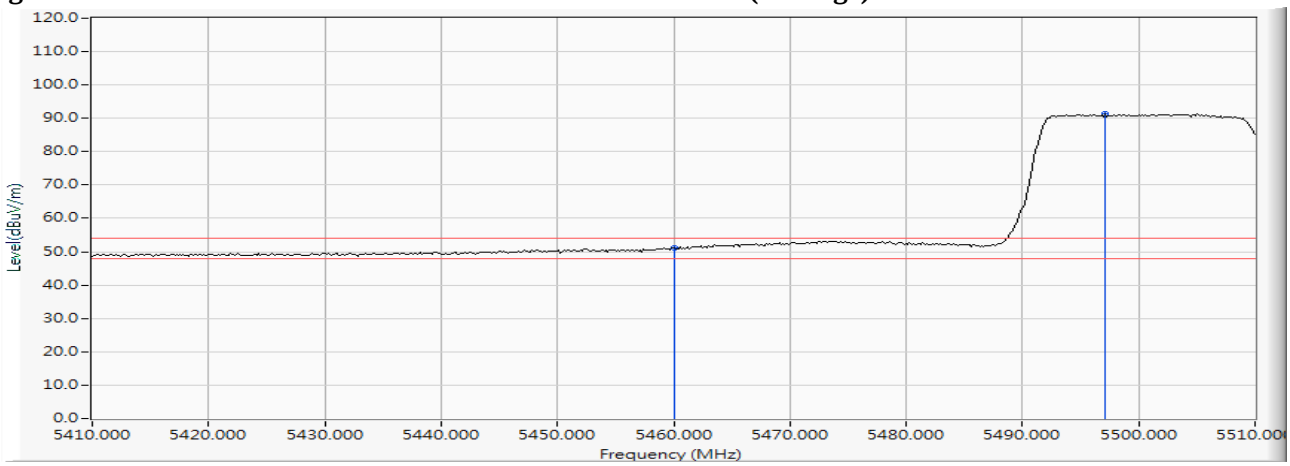


Figure Channel 102: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)
Test Date : 2017/06/30

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
102 (Peak)	5458.696	19.943	42.914	62.856	74.00	54.00	Pass
102 (Peak)	5460.000	19.945	41.396	61.340	74.00	54.00	Pass
102 (Peak)	5505.362	20.055	81.171	101.226	--	--	--
102 (Average)	5460.000	19.945	31.822	51.766	74.00	54.00	Pass
102 (Average)	5502.899	20.046	72.258	92.304	--	--	--

Figure Channel 102: Vertical (Peak)

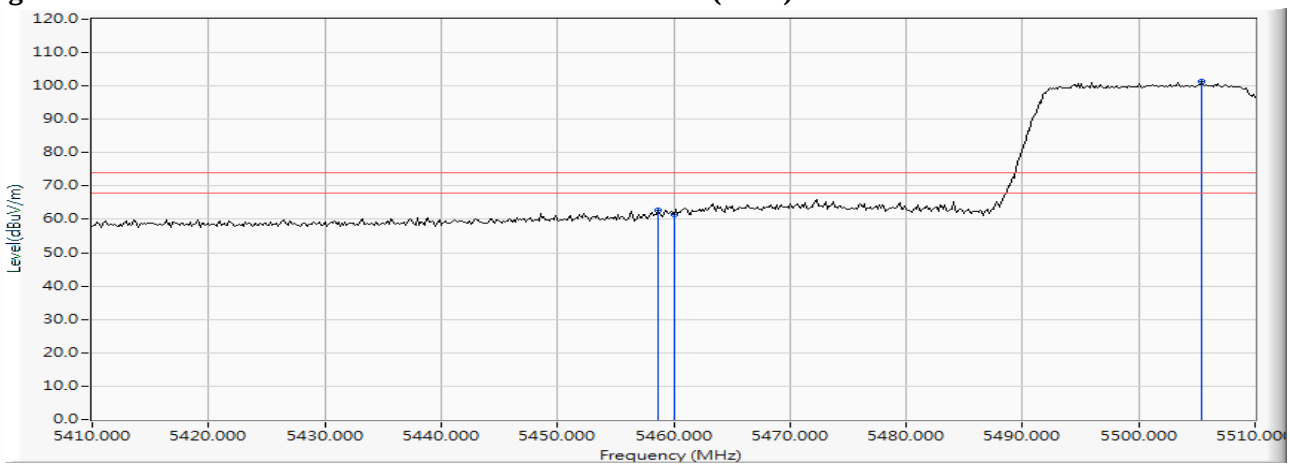
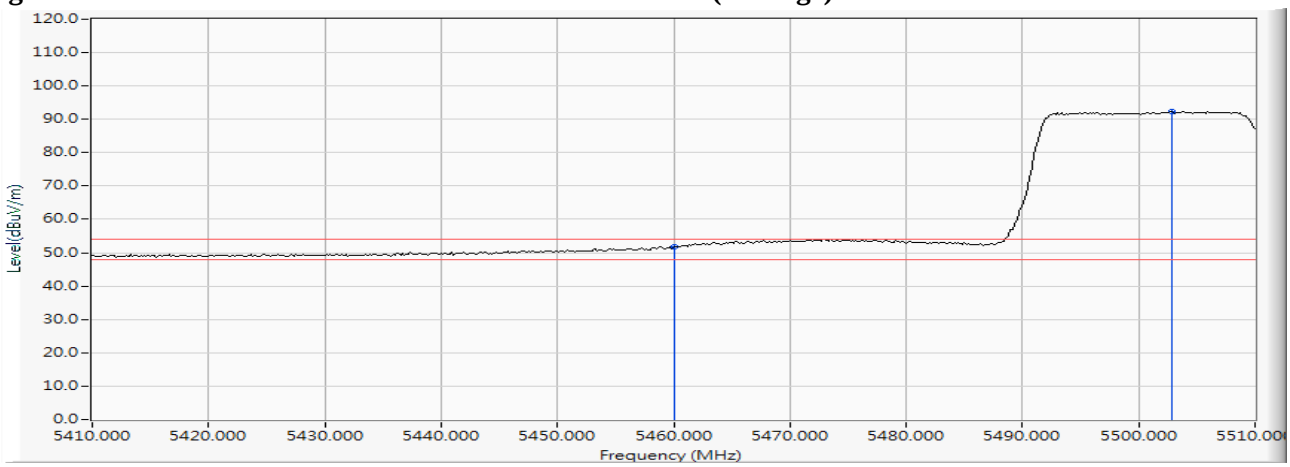


Figure Channel 102: Vertical (Average)



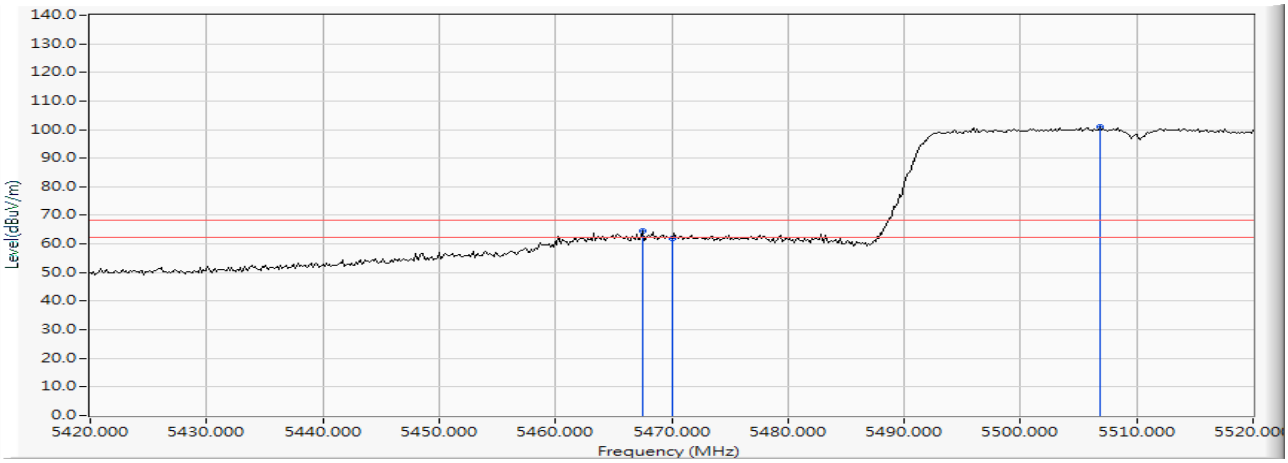
Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)
Test Date : 2017/06/30

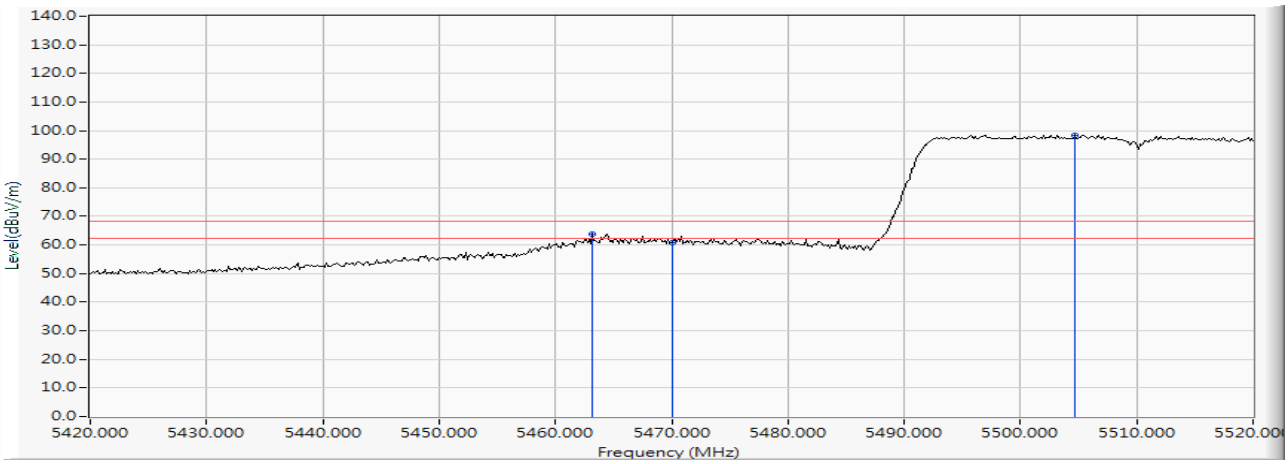
RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5467.536	19.958	44.466	64.424	-3.796	68.220	Pass
Horizontal	5470.000	19.963	41.794	61.756	-6.464	68.220	Pass
Horizontal	5506.812	20.057	81.024	101.082	--	--	--



RF Radiated Measurement:

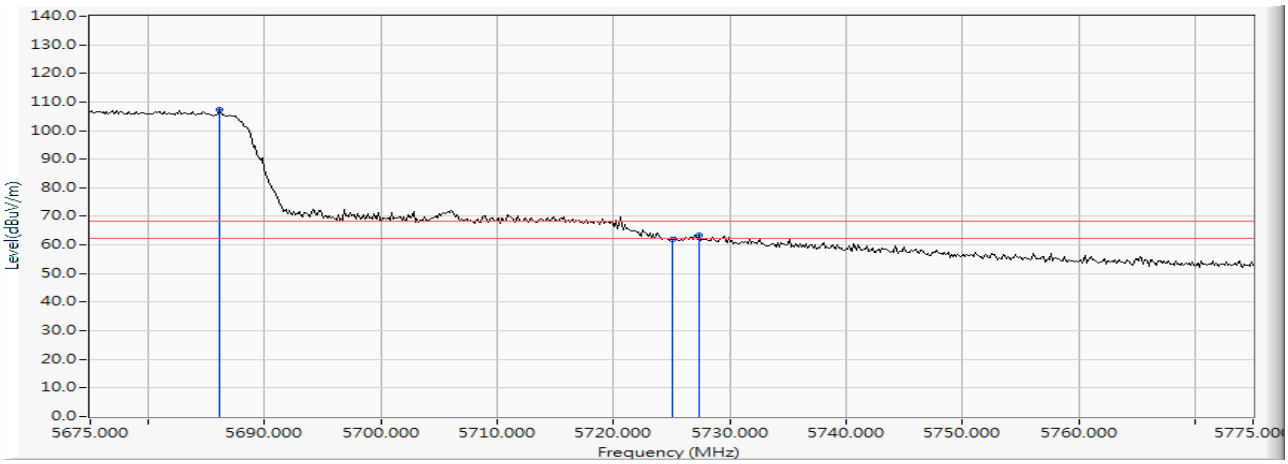
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5463.188	19.950	43.977	63.927	-4.293	68.220	Pass
Horizontal	5470.000	19.963	40.784	60.746	-7.474	68.220	Pass
Horizontal	5504.638	20.053	78.432	98.485	--	--	--



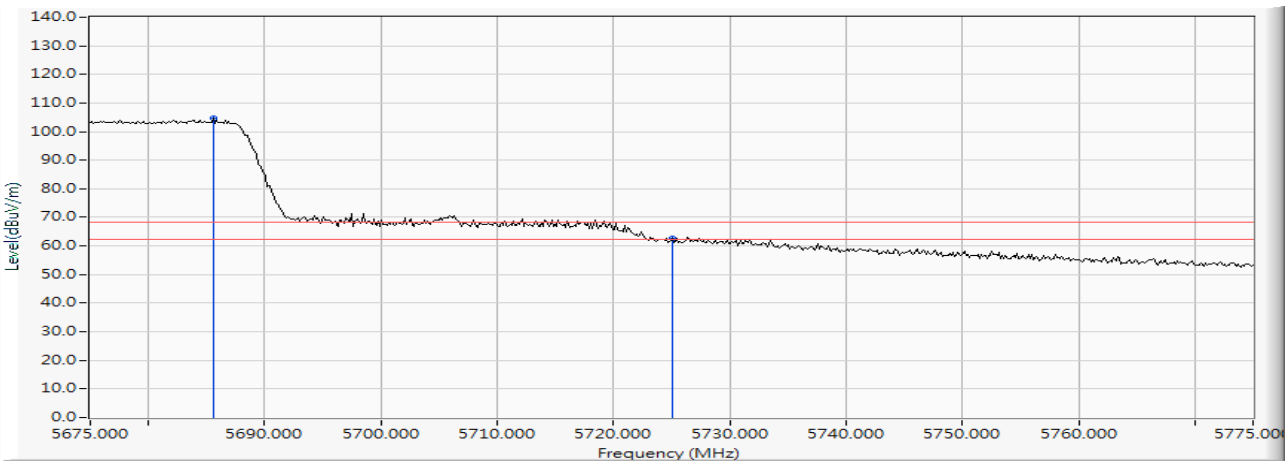
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5670MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5686.159	20.591	86.616	107.206	--	--	--
Horizontal	5725.000	20.711	41.165	61.876	-6.344	68.220	Pass
Horizontal	5727.319	20.718	42.775	63.494	-4.726	68.220	Pass



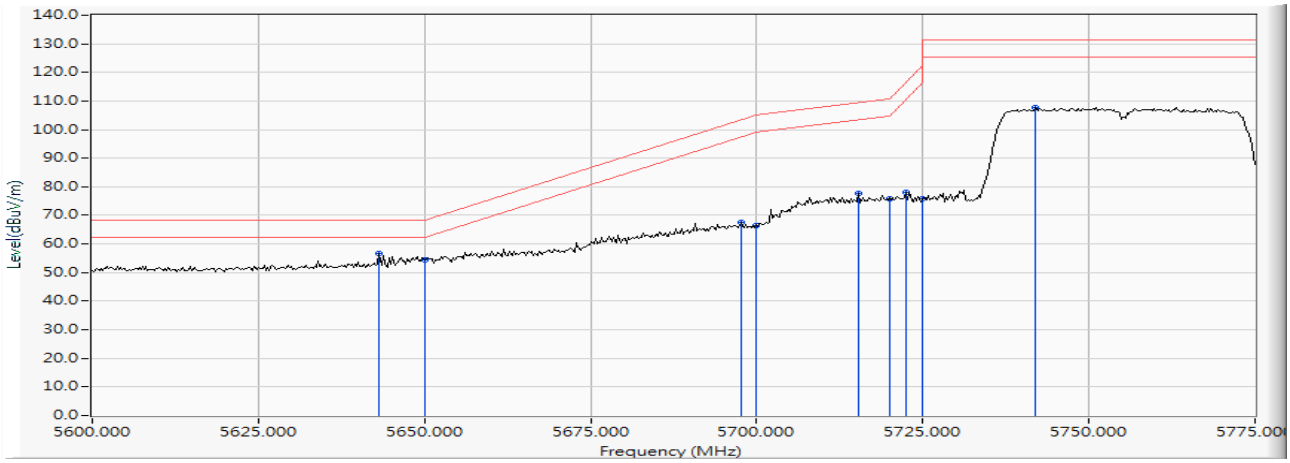
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5685.580	20.588	84.234	104.822	--	--	--
Vertical	5725.000	20.711	42.003	62.714	-5.506	68.220	Pass



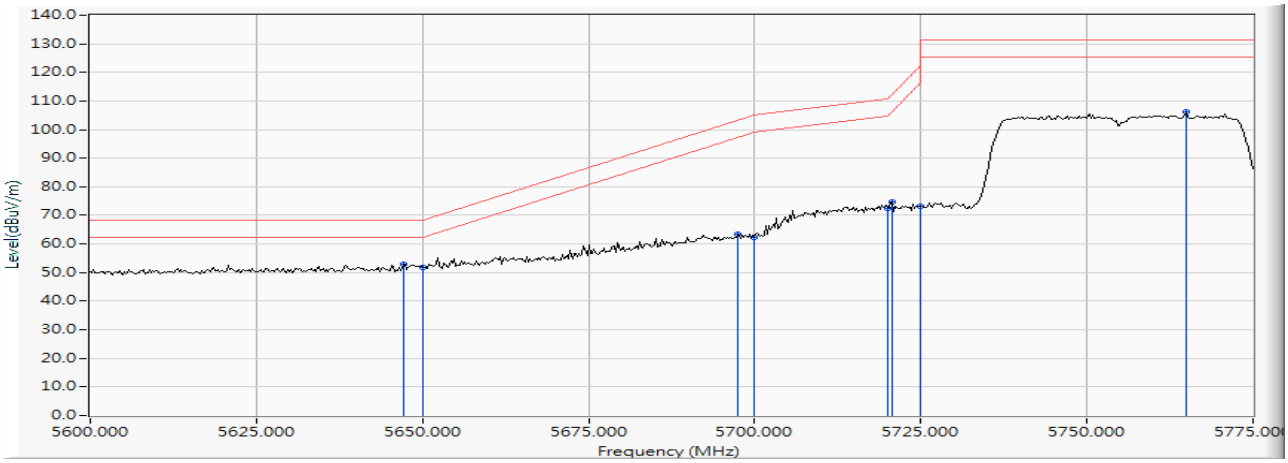
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5643.116	20.461	36.352	56.813	--	--	--
Horizontal	5650.000	20.483	33.971	54.453	-13.767	68.220	Pass
Horizontal	5697.645	20.625	46.864	67.489	-35.969	103.458	Pass
Horizontal	5700.000	20.632	45.861	66.493	-38.707	105.200	Pass
Horizontal	5715.399	20.679	56.977	77.656	-31.856	109.512	Pass
Horizontal	5720.000	20.693	55.270	75.963	-34.837	110.800	Pass
Horizontal	5722.500	20.702	57.549	78.251	-38.249	116.500	Pass
Horizontal	5725.000	20.711	55.048	75.759	-46.441	122.200	Pass
Horizontal	5742.029	20.768	87.020	107.788	-23.412	131.200	Pass



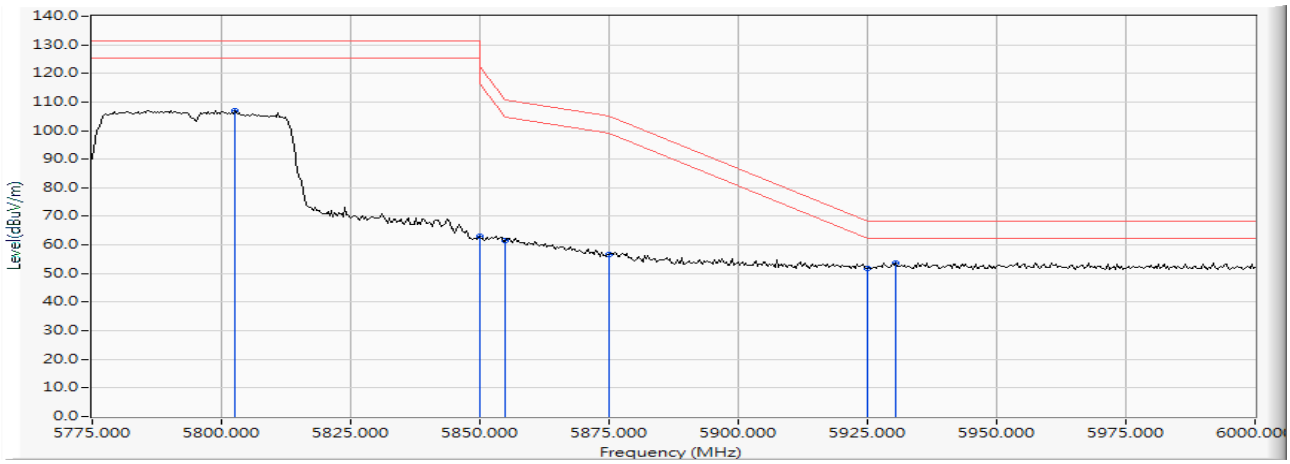
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5647.174	20.473	32.344	52.817	--	--	--
Vertical	5650.000	20.483	31.154	51.636	-16.584	68.220	Pass
Vertical	5697.391	20.624	42.883	63.508	-39.762	103.270	Pass
Vertical	5700.000	20.632	41.819	62.451	-42.749	105.200	Pass
Vertical	5720.000	20.693	51.921	72.614	-38.186	110.800	Pass
Vertical	5720.725	20.695	53.821	74.516	-37.937	112.453	Pass
Vertical	5725.000	20.711	52.568	73.279	-48.921	122.200	Pass
Vertical	5764.855	20.832	85.203	106.036	-25.164	131.200	Pass



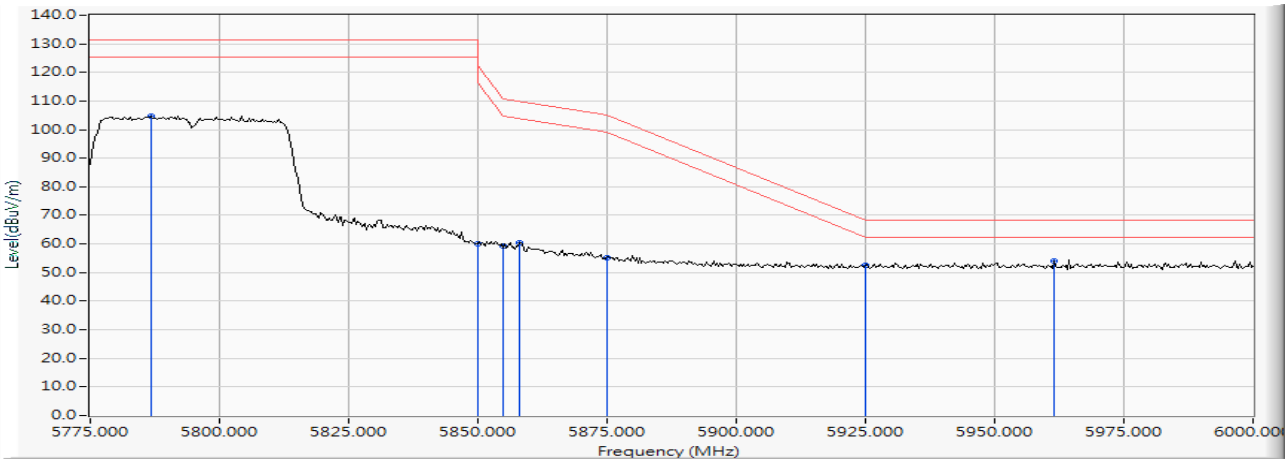
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5795MHz)
Test Date : 2017/06/30

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5802.717	20.964	86.079	107.043	-24.157	131.200	Pass
Horizontal	5850.000	21.103	41.777	62.880	-59.320	122.200	Pass
Horizontal	5855.000	21.115	40.532	61.648	-49.152	110.800	Pass
Horizontal	5875.000	21.177	35.631	56.808	-48.392	105.200	Pass
Horizontal	5925.000	21.333	30.605	51.937	-16.263	68.200	Pass
Horizontal	5930.543	21.348	32.225	53.573	--	--	--



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5786.739	20.905	83.988	104.893	-26.307	131.200	Pass
Vertical	5850.000	21.103	39.119	60.222	-61.978	122.200	Pass
Vertical	5855.000	21.115	38.024	59.140	-51.660	110.800	Pass
Vertical	5858.152	21.123	39.335	60.458	-49.459	109.917	Pass
Vertical	5875.000	21.177	34.083	55.260	-49.940	105.200	Pass
Vertical	5925.000	21.333	31.036	52.368	-15.832	68.200	Pass
Vertical	5961.522	21.436	32.698	54.134	--	--	--



Product	:	Intelligent Robot
Test Item	:	Band Edge Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)
Test Date	:	2017/06/29

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
42 (Peak)	5134.928	19.368	45.066	64.434	74.00	54.00	Pass
42 (Peak)	5150.000	19.386	42.261	61.647	74.00	54.00	Pass
42 (Peak)	5197.391	19.477	82.089	101.566	--	--	--
42 (Average)	5150.000	19.386	31.370	50.756	74.00	54.00	Pass
42 (Average)	5197.101	19.477	72.980	92.456	--	--	--

Figure Channel 42: Horizontal (Peak)

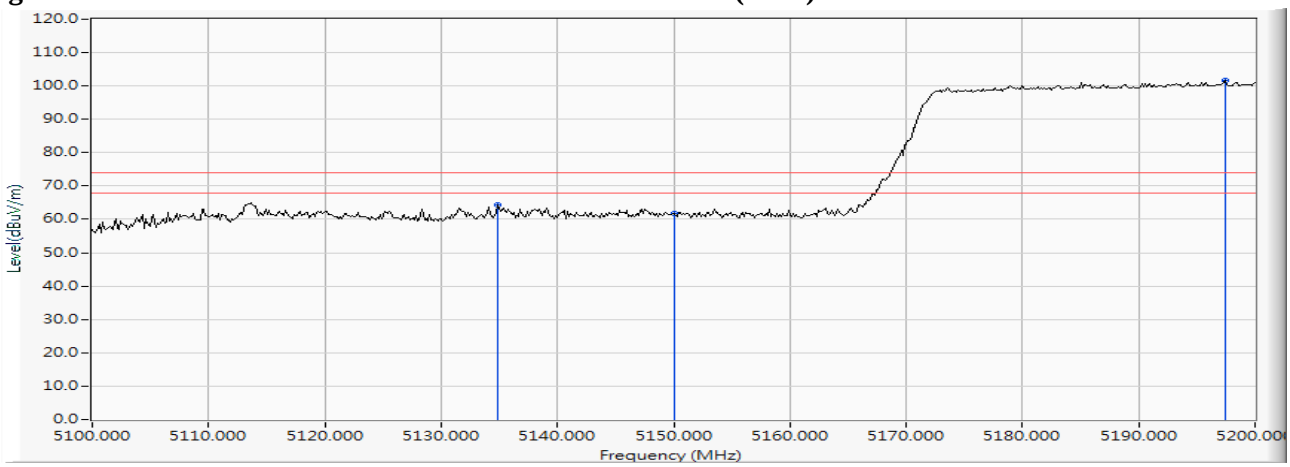
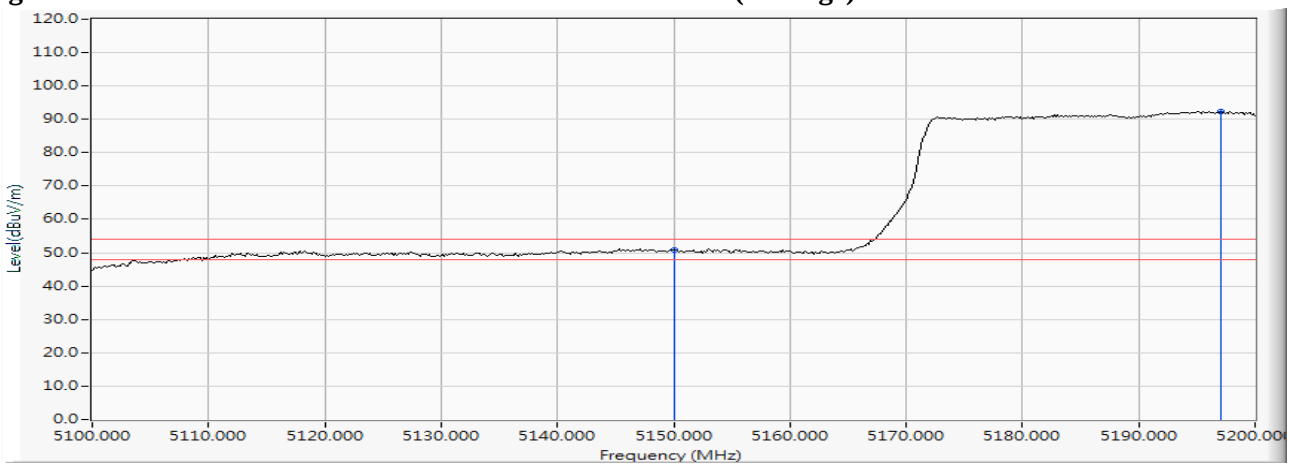


Figure Channel 42: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)
Test Date : 2017/06/29

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
42 (Peak)	5135.072	19.368	44.882	64.251	74.00	54.00	Pass
42 (Peak)	5150.000	19.386	41.805	61.191	74.00	54.00	Pass
42 (Peak)	5194.058	19.469	82.263	101.732	--	--	--
42 (Average)	5150.000	19.386	30.551	49.937	74.00	54.00	Pass
42 (Average)	5198.406	19.479	72.856	92.335	--	--	--

Figure Channel 42: Vertical (Peak)

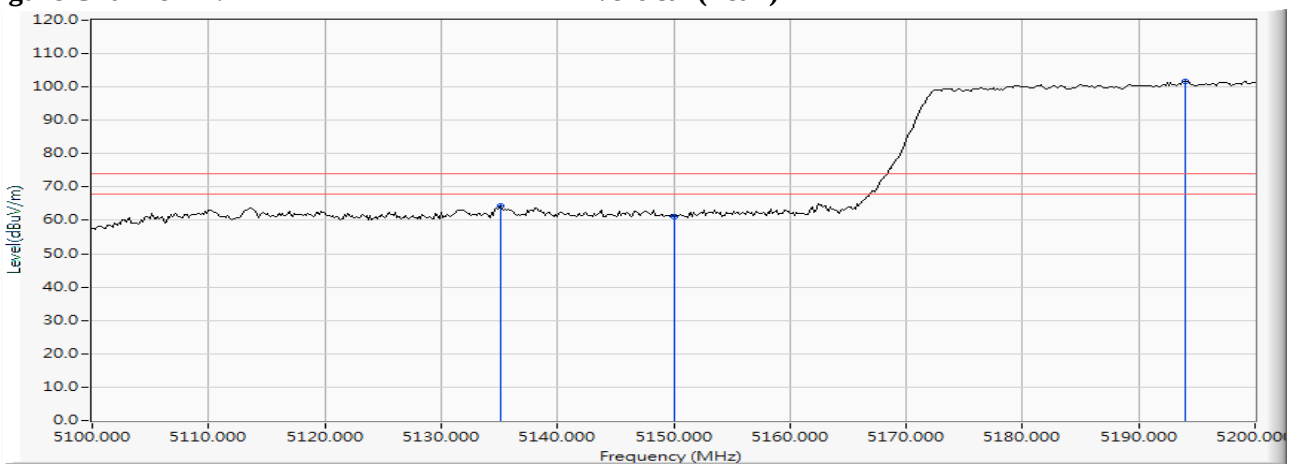
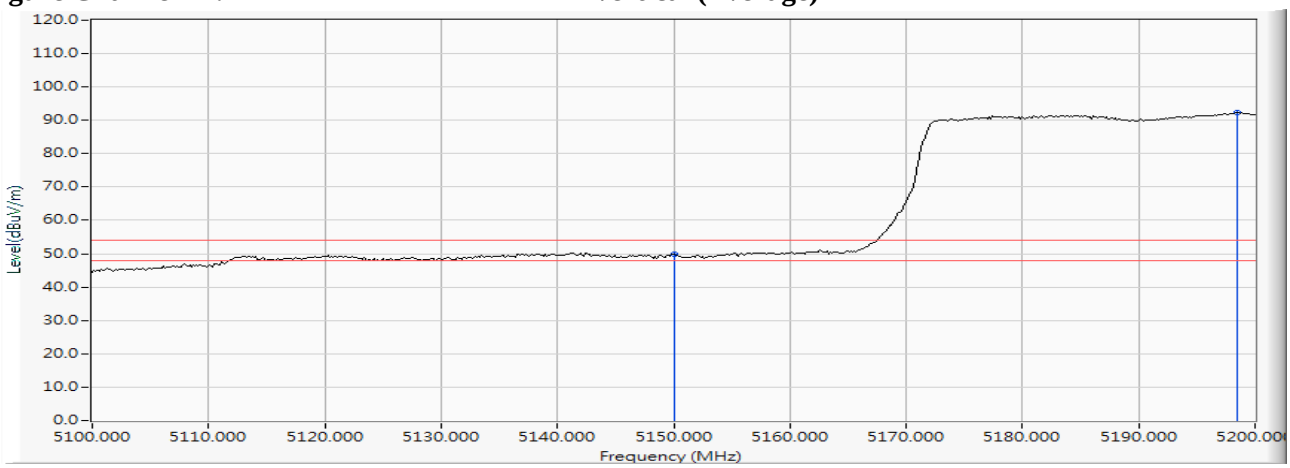


Figure Channel 42: Vertical (Average)



Note:

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

Product	:	Intelligent Robot
Test Item	:	Band Edge Data
Test Mode	:	Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)
Test Date	:	2017/06/29

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
58 (Peak)	5312.609	19.681	81.196	100.877	--	--	--
58 (Peak)	5350.000	19.758	44.367	64.125	74.00	54.00	Pass
58 (Peak)	5350.435	19.759	47.086	66.845	74.00	54.00	Pass
58 (Average)	5302.174	19.667	71.828	91.495	--	--	--
58 (Average)	5350.000	19.758	33.281	53.039	74.00	54.00	Pass
58 (Average)	5351.159	19.760	33.725	53.485	74.00	54.00	Pass

Figure Channel 58: Horizontal (Peak)

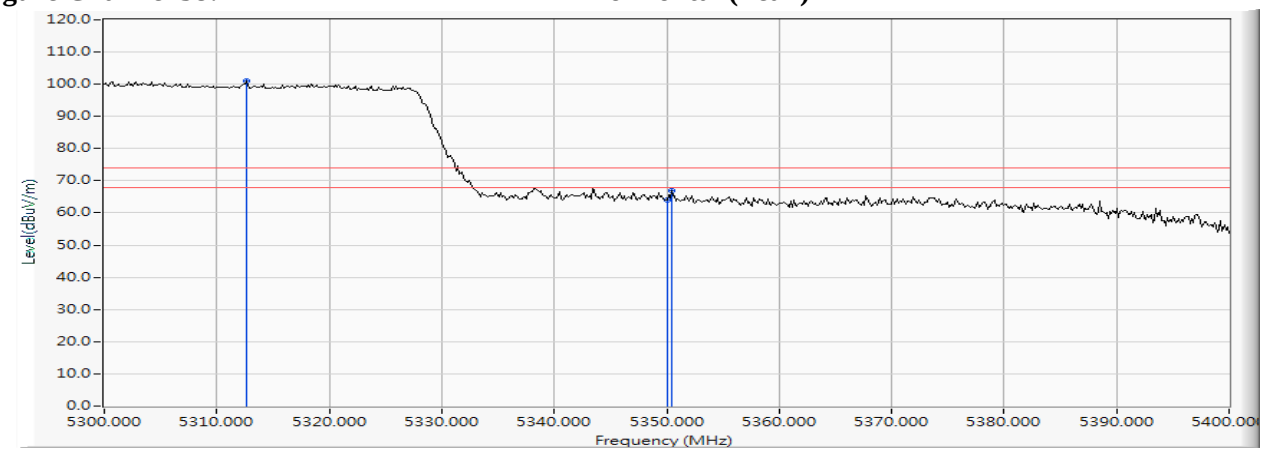
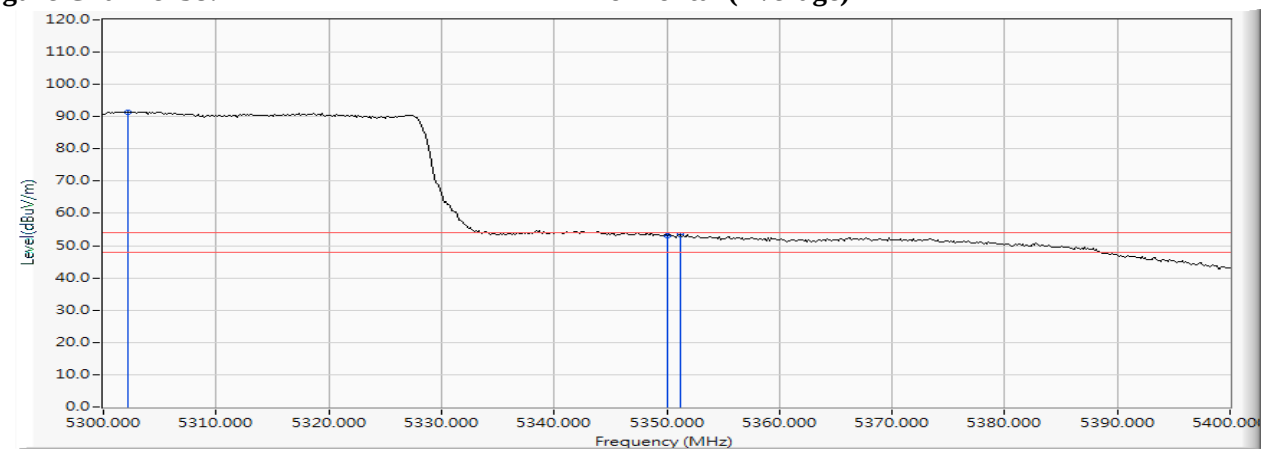


Figure Channel 58: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)
Test Date : 2017/06/29

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
58 (Peak)	5302.029	19.667	81.681	101.348	--	--	--
58 (Peak)	5350.000	19.758	44.489	64.247	74.00	54.00	Pass
58 (Peak)	5350.435	19.759	47.528	67.287	74.00	54.00	Pass
58 (Average)	5302.464	19.667	72.382	92.049	--	--	--
58 (Average)	5350.000	19.758	32.996	52.754	74.00	54.00	Pass
58 (Average)	5350.290	19.759	33.622	53.380	74.00	54.00	Pass

Figure Channel 58: Vertical (Peak)

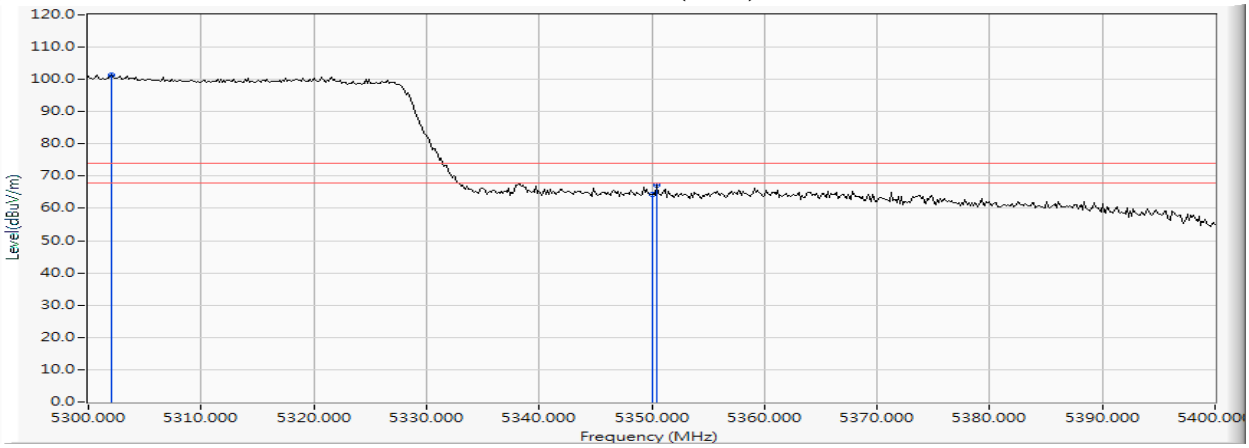
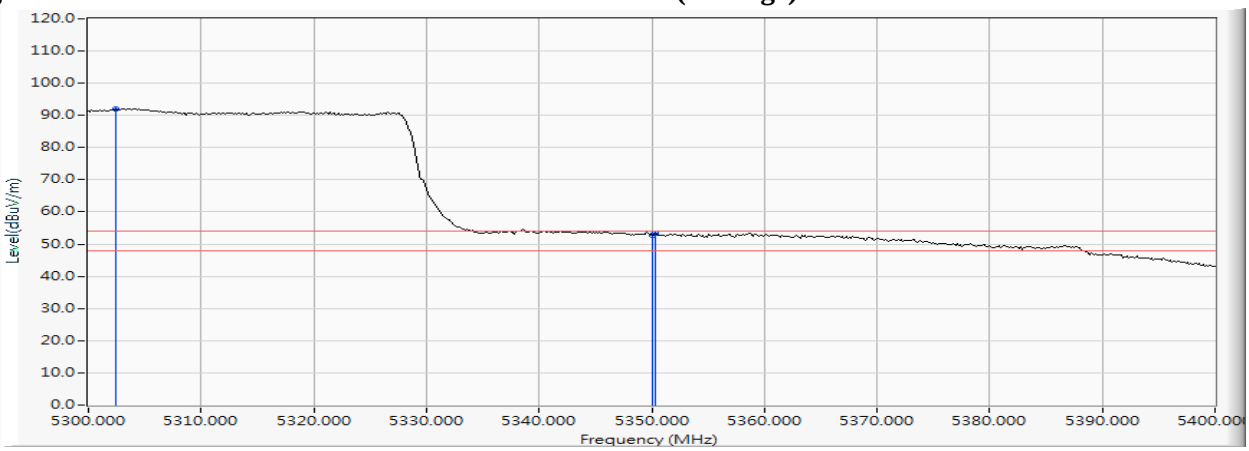


Figure Channel 58: Vertical (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date : 2017/06/29

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
106 (Peak)	5454.493	19.936	46.847	66.782	74.00	54.00	Pass
106 (Peak)	5460.000	19.945	43.756	63.700	74.00	54.00	Pass
106 (Peak)	5519.130	20.080	80.764	100.844	--	--	--
106 (Average)	5453.478	19.933	32.700	52.634	74.00	54.00	Pass
106 (Average)	5460.000	19.945	32.250	52.194	74.00	54.00	Pass
106 (Average)	5516.957	20.076	70.823	90.899	--	--	--

Figure Channel 106: Horizontal (Peak)

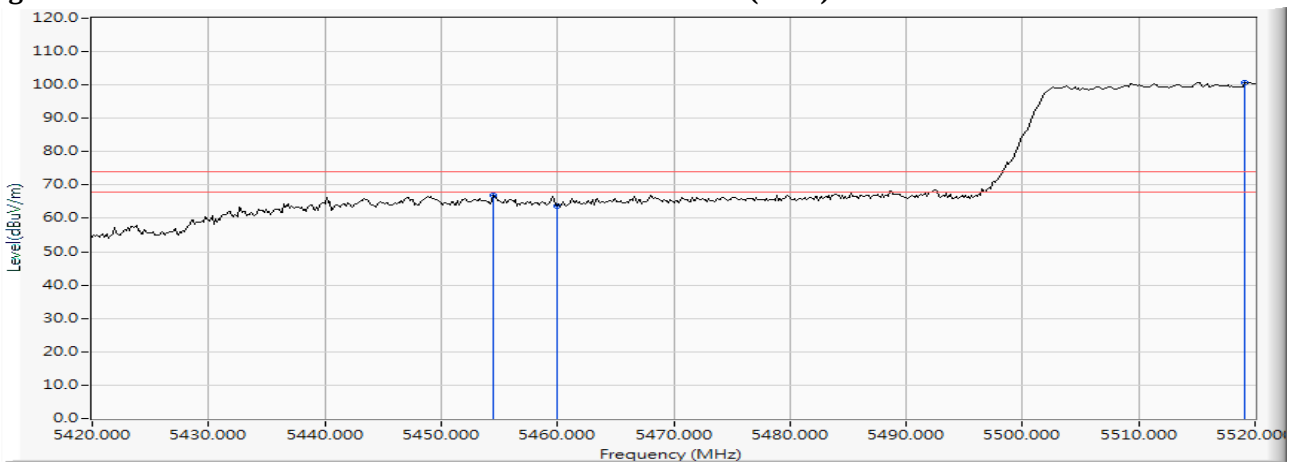
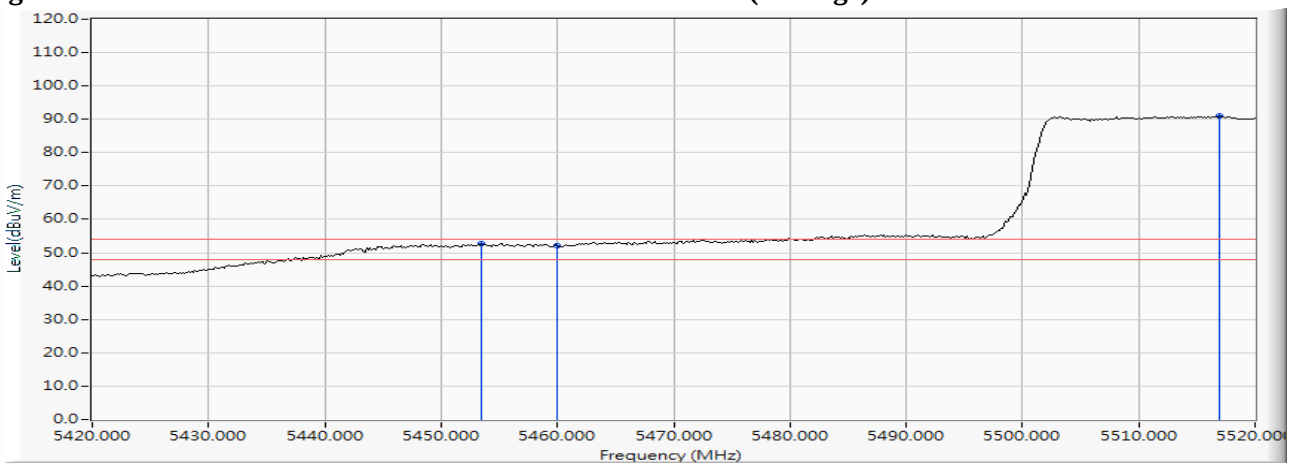


Figure Channel 106: Horizontal (Average)



Note:

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

Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date : 2017/06/29

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
106 (Peak)	5448.551	19.923	46.012	65.935	74.00	54.00	Pass
106 (Peak)	5460.000	19.945	42.768	62.712	74.00	54.00	Pass
106 (Peak)	5515.362	20.073	80.521	100.594	--	--	--
106 (Average)	5456.232	19.939	33.215	53.153	74.00	54.00	Pass
106 (Average)	5460.000	19.945	32.614	52.558	74.00	54.00	Pass
106 (Average)	5512.174	20.068	70.895	90.963	--	--	--

Figure Channel 106: Vertical (Peak)

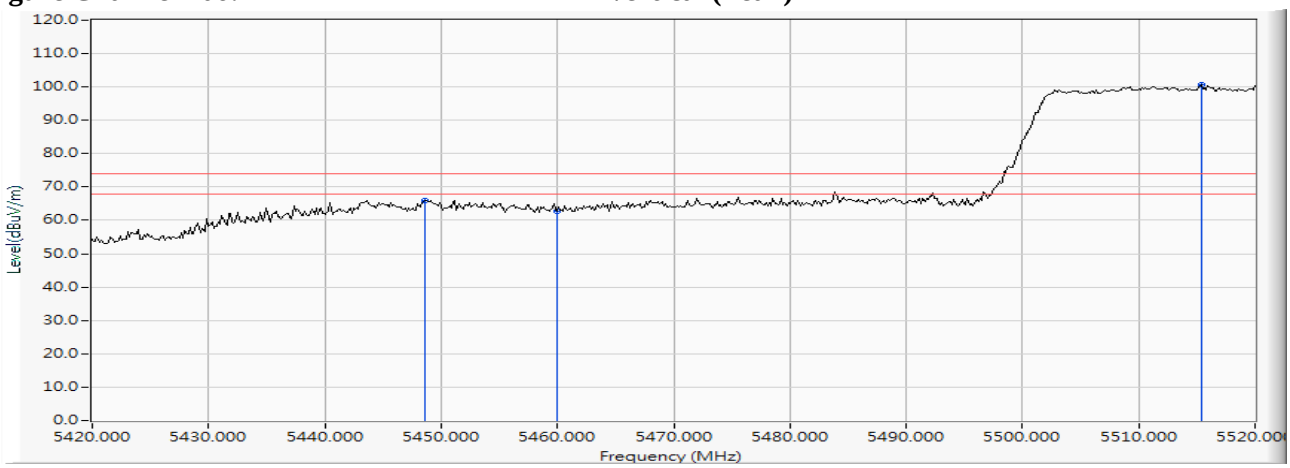
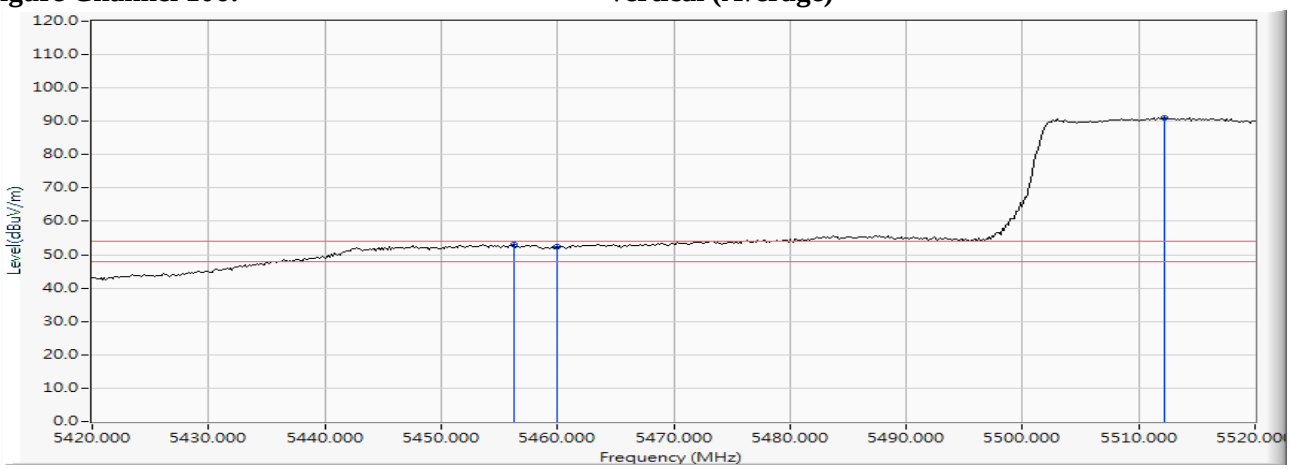


Figure Channel 106: Vertical (Average)



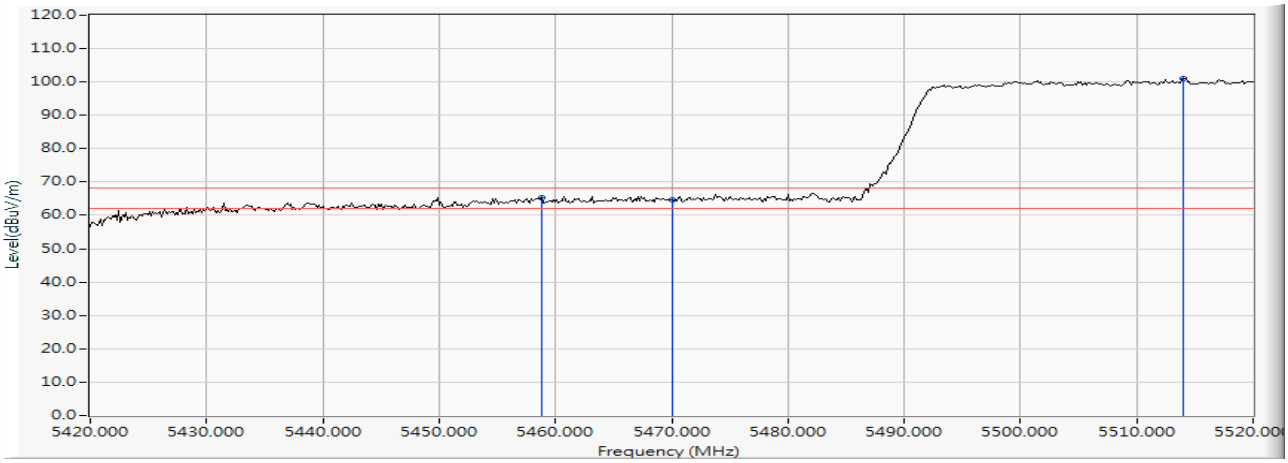
Note:

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

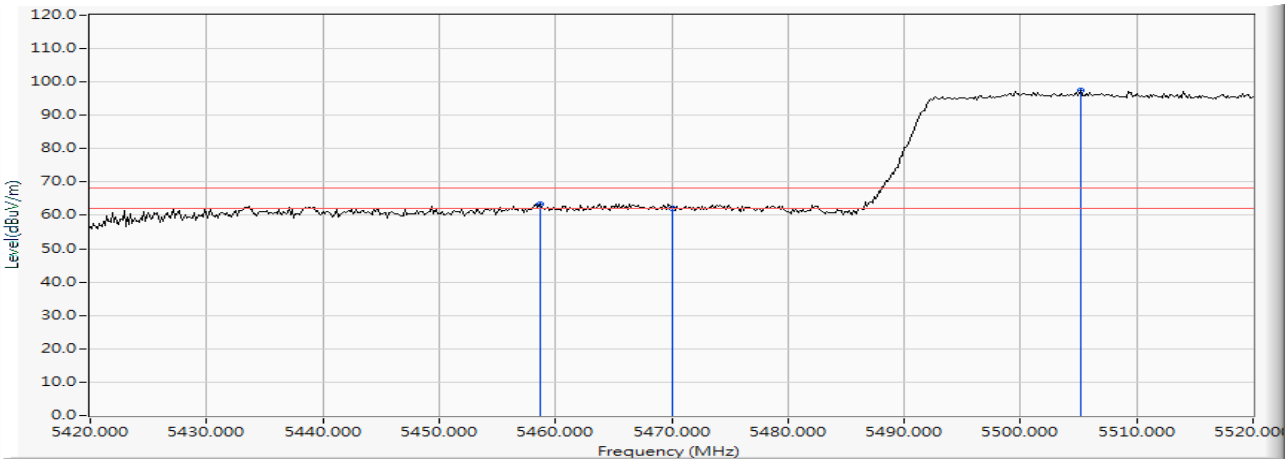
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)
Test Date : 2017/06/29

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5458.841	19.943	45.389	65.331	-2.889	68.220	Pass
Horizontal	5470.000	19.963	44.647	64.609	-3.611	68.220	Pass
Horizontal	5514.058	20.071	80.863	100.934	--	--	--



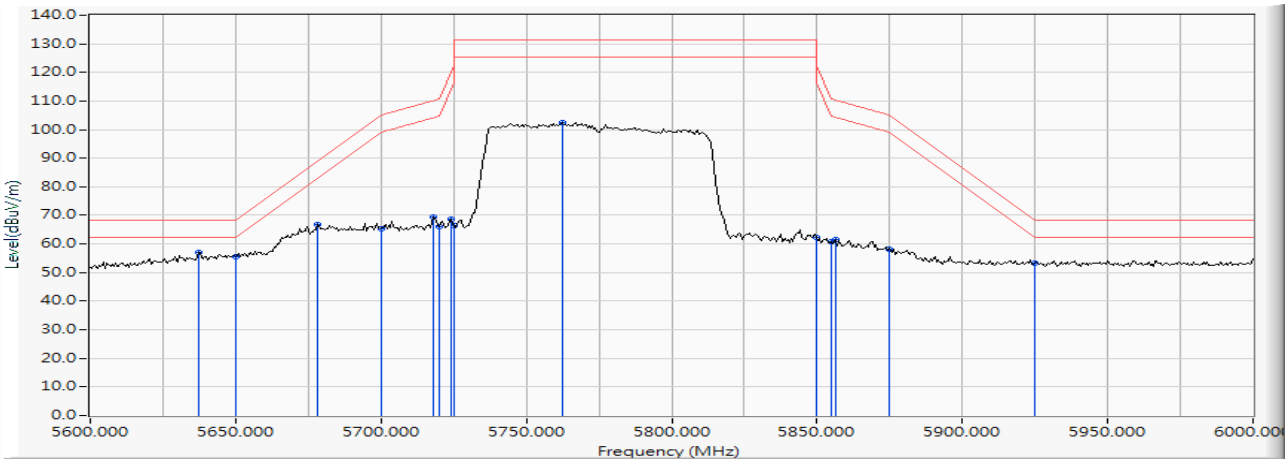
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5458.696	19.943	43.448	63.390	-4.830	68.220	Pass
Vertical	5470.000	19.963	42.028	61.990	-6.230	68.220	Pass
Vertical	5505.217	20.055	77.335	97.390	--	--	--



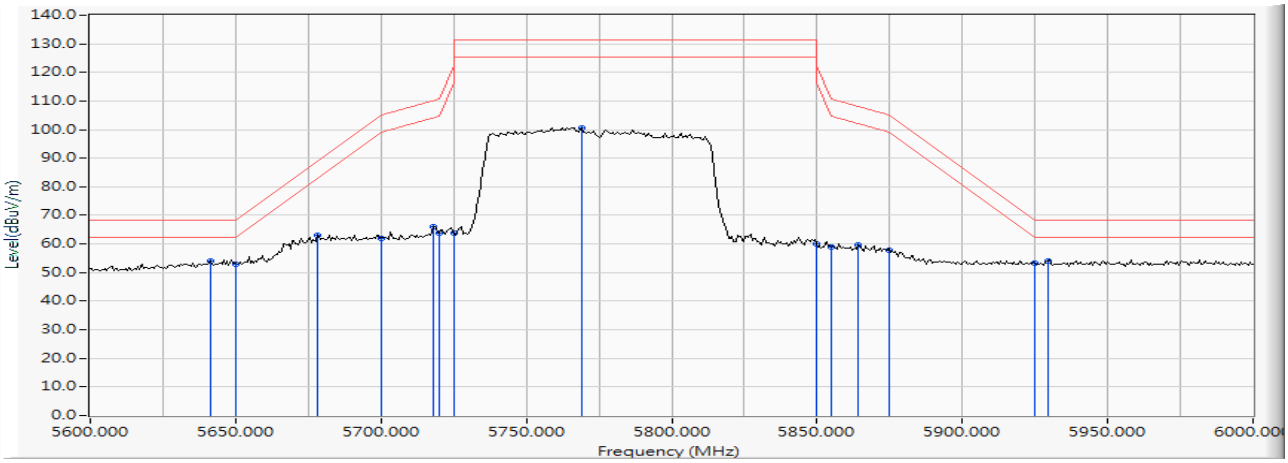
Product : Intelligent Robot
Test Item : Band Edge Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)
Test Date : 2017/06/29

RF Radiated Measurement:

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Horizontal	5637.101	20.442	36.557	57.000	--	--	--
Horizontal	5650.000	20.483	35.131	55.613	-12.607	68.220	Pass
Horizontal	5678.261	20.566	46.293	66.860	-22.262	89.122	Pass
Horizontal	5700.000	20.632	44.848	65.480	-39.720	105.200	Pass
Horizontal	5718.261	20.688	48.750	69.438	-40.875	110.313	Pass
Horizontal	5720.000	20.693	45.281	65.974	-44.826	110.800	Pass
Horizontal	5724.058	20.707	47.859	68.566	-51.486	120.052	Pass
Horizontal	5725.000	20.711	45.898	66.609	-55.591	122.200	Pass
Horizontal	5762.319	20.823	81.582	102.406	-28.794	131.200	Pass
Horizontal	5850.000	21.103	41.037	62.140	-60.060	122.200	Pass
Horizontal	5855.000	21.115	39.613	60.729	-50.071	110.800	Pass
Horizontal	5856.232	21.119	40.433	61.552	-48.903	110.455	Pass
Horizontal	5875.000	21.177	37.067	58.244	-46.956	105.200	Pass
Horizontal	5925.000	21.333	32.055	53.387	-14.813	68.200	Pass

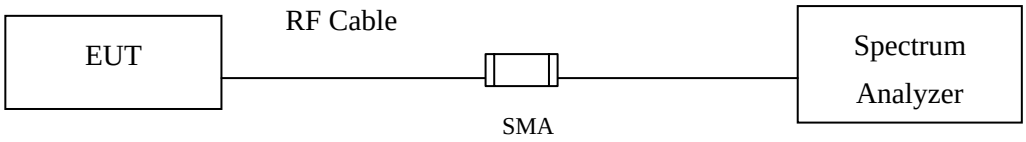


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm/m)	Margin (dB)	Limit (dBm/m)	Result
Vertical	5641.159	20.456	33.504	53.959	-14.261	68.220	Pass
Vertical	5650.000	20.483	32.626	53.108	-15.112	68.220	Pass
Vertical	5678.261	20.566	42.308	62.875	-26.247	89.122	Pass
Vertical	5700.000	20.632	41.401	62.033	-43.167	105.200	Pass
Vertical	5718.261	20.688	45.442	66.130	-44.183	110.313	Pass
Vertical	5720.000	20.693	42.936	63.629	-47.171	110.800	Pass
Vertical	5725.000	20.711	43.229	63.940	-58.260	122.200	Pass
Vertical	5769.275	20.849	79.863	100.711	-30.489	131.200	Pass
Vertical	5850.000	21.103	39.045	60.148	-62.052	122.200	Pass
Vertical	5855.000	21.115	37.972	59.088	-51.712	110.800	Pass
Vertical	5864.348	21.139	38.674	59.813	-48.370	108.183	Pass
Vertical	5875.000	21.177	36.724	57.901	-47.299	105.200	Pass
Vertical	5925.000	21.333	31.922	53.254	-14.946	68.200	Pass
Vertical	5929.275	21.345	32.614	53.959	--	--	--



7. Occupied Bandwidth

7.1. Test Setup



7.2. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.3. .Test Procedure

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.

7.4. Uncertainty

±671.83Hz

7.5. Test Result of Occupied Bandwidth

Product : Intelligent Robot
Test Item : Occupied Bandwidth Data
Test Mode : Mode 1: Transmit (802.11a-6Mbps)
Test Date : 2016/09/19

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	16450	>500	Pass
157	5785	16450	>500	Pass
165	5825	16450	>500	Pass

Figure Channel 149:

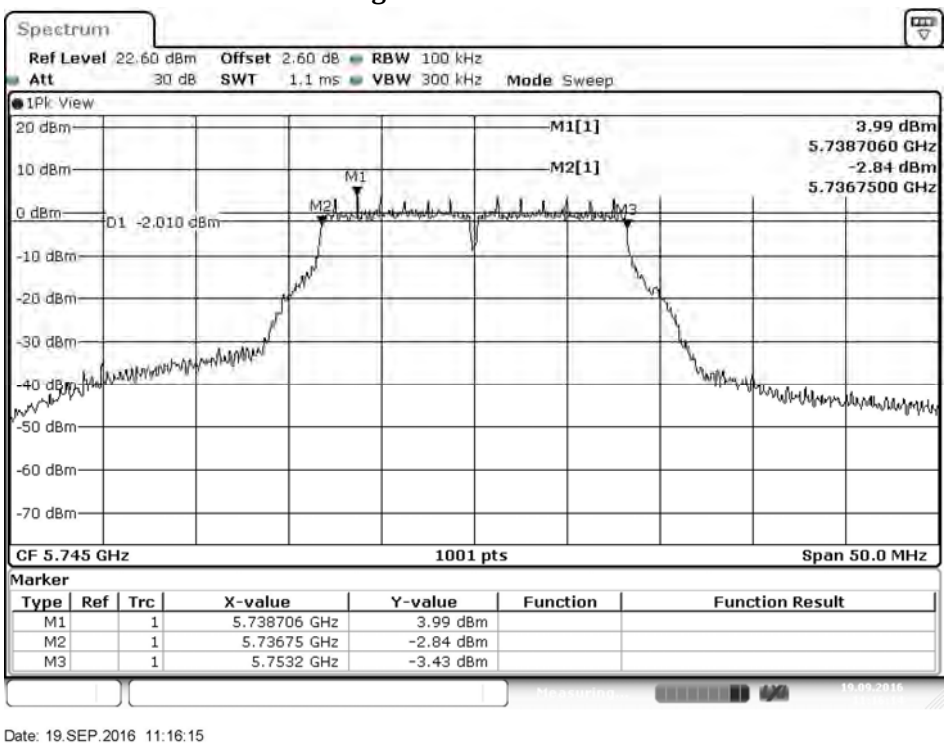
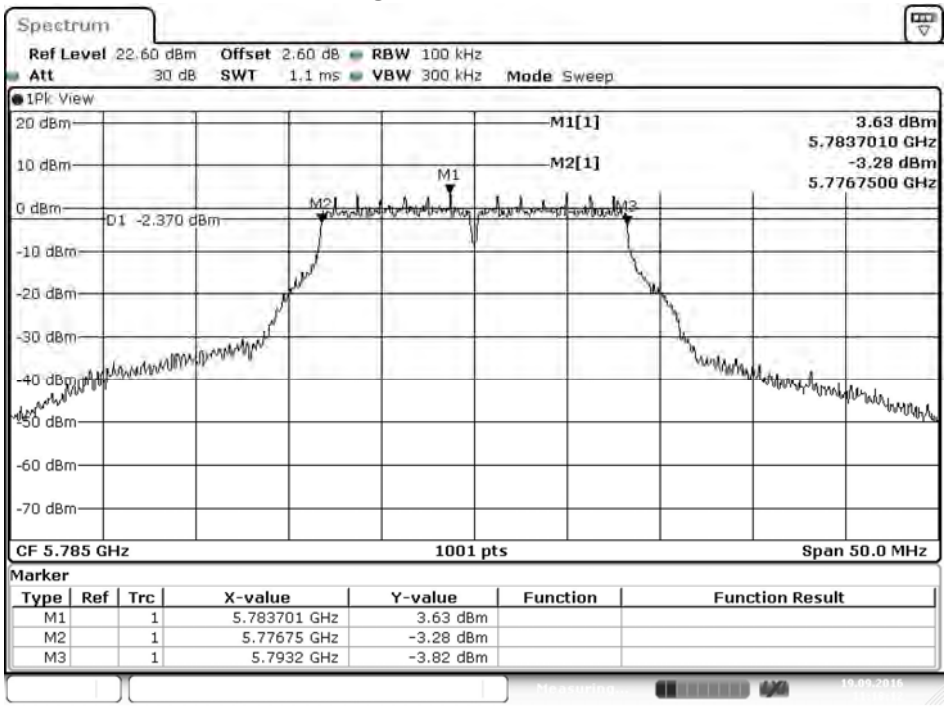
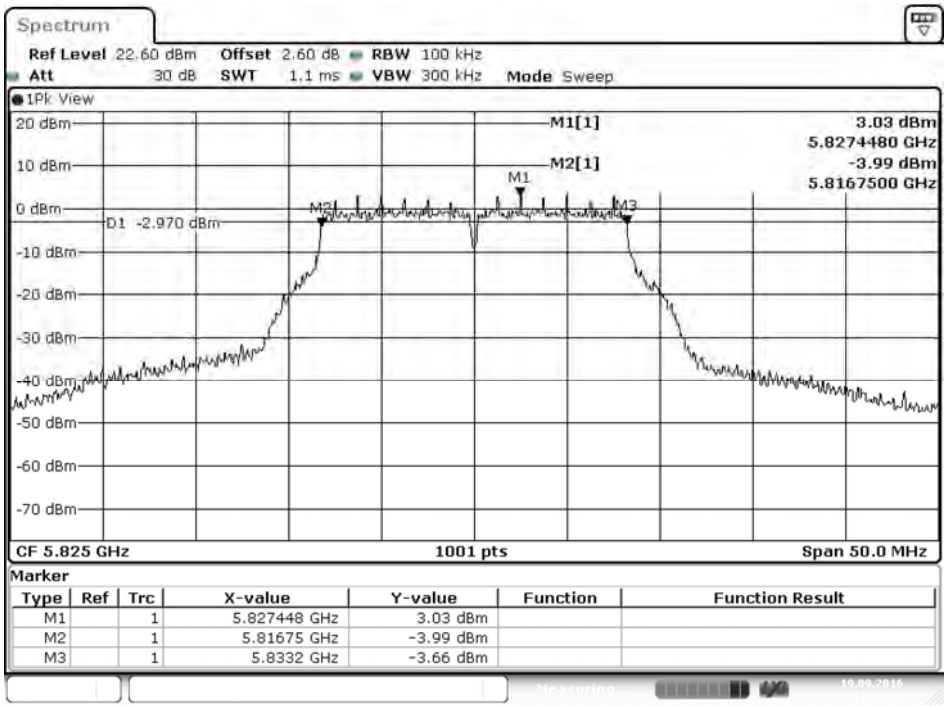


Figure Channel 157:



Date: 19.SEP.2016 11:18:12

Figure Channel 165:



Date: 19.SEP.2016 11:26:29

Product : Intelligent Robot
Test Item : Occupied Bandwidth Data
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)
Test Date : 2016/09/19

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	17700	>500	Pass
157	5785	17650	>500	Pass
165	5825	17650	>500	Pass

Figure Channel 149:

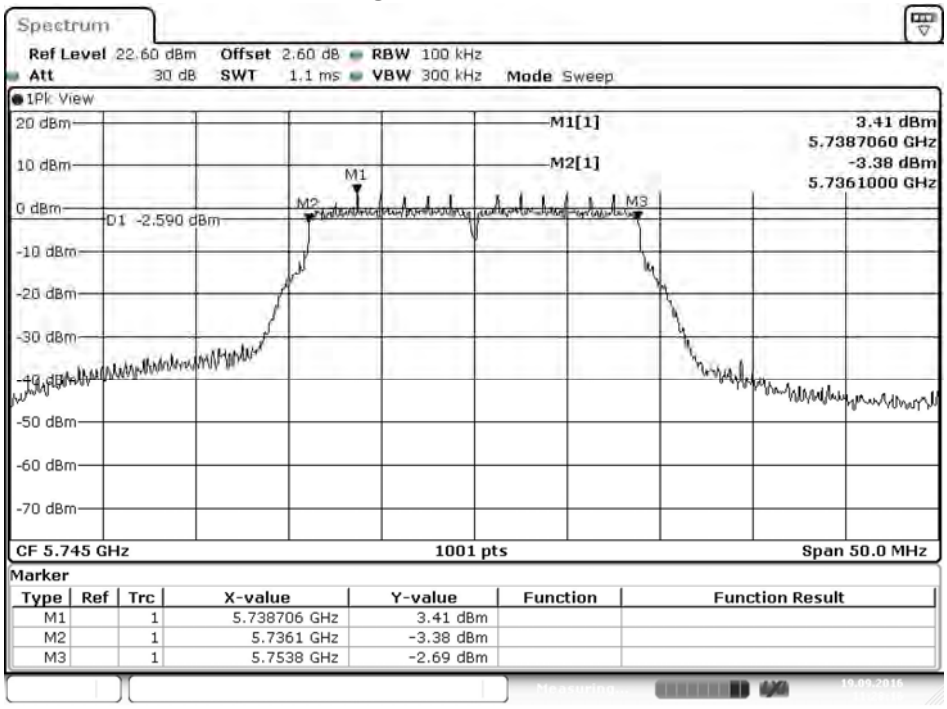
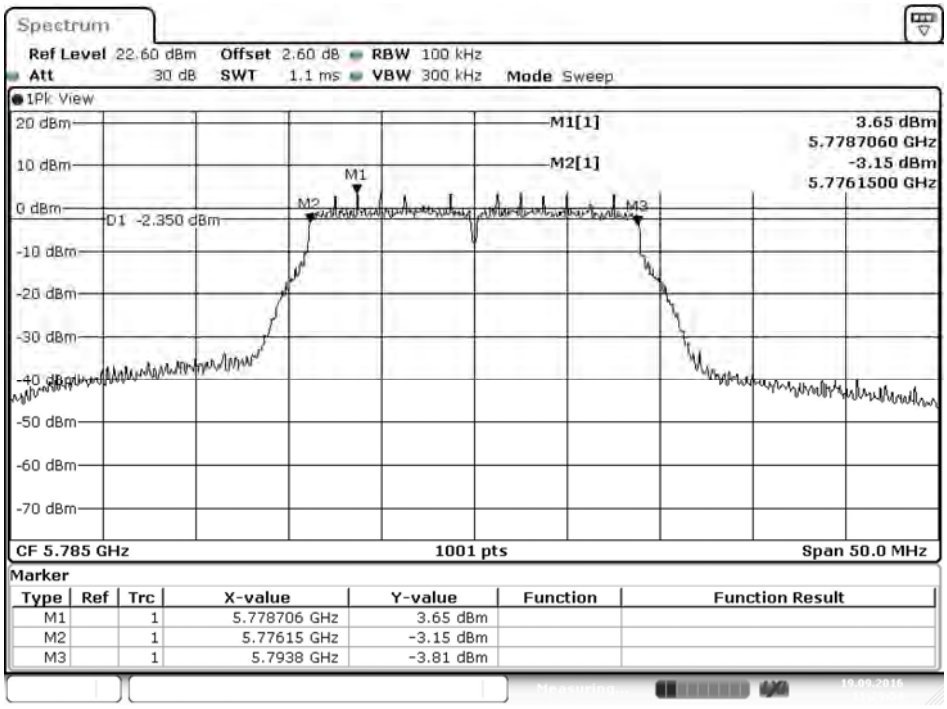
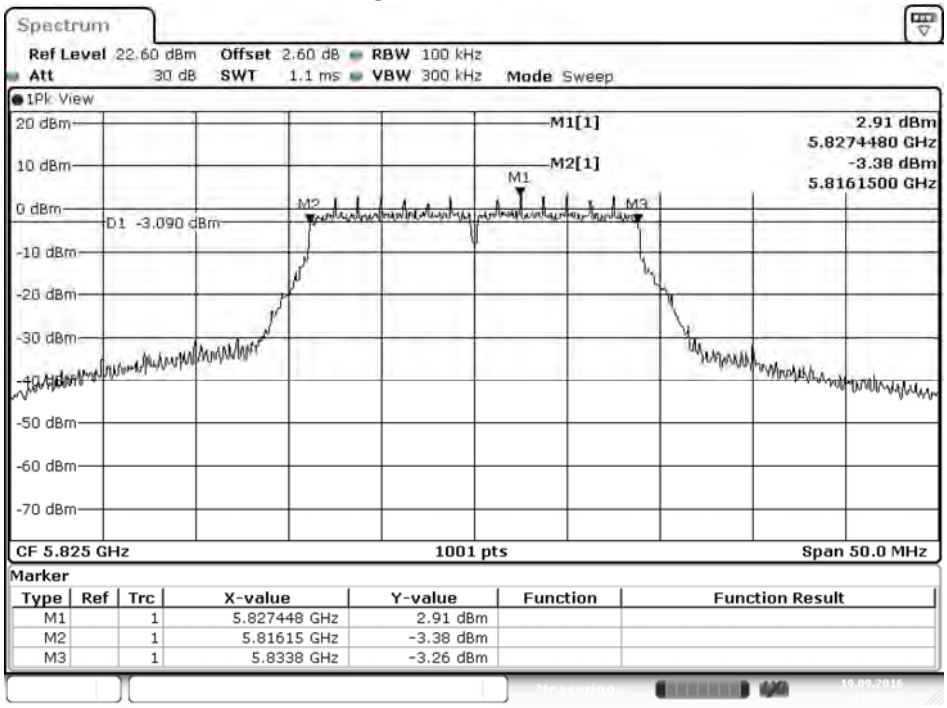


Figure Channel 157:



Date: 19.SEP.2016 11:29:55

Figure Channel 165:



Date: 19.SEP.2016 11:33:26

Product : Intelligent Robot
Test Item : Occupied Bandwidth Data
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)
Test Date : 2016/09/19

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	36600	>500	Pass
159	5795	36600	>500	Pass

Figure Channel 151:

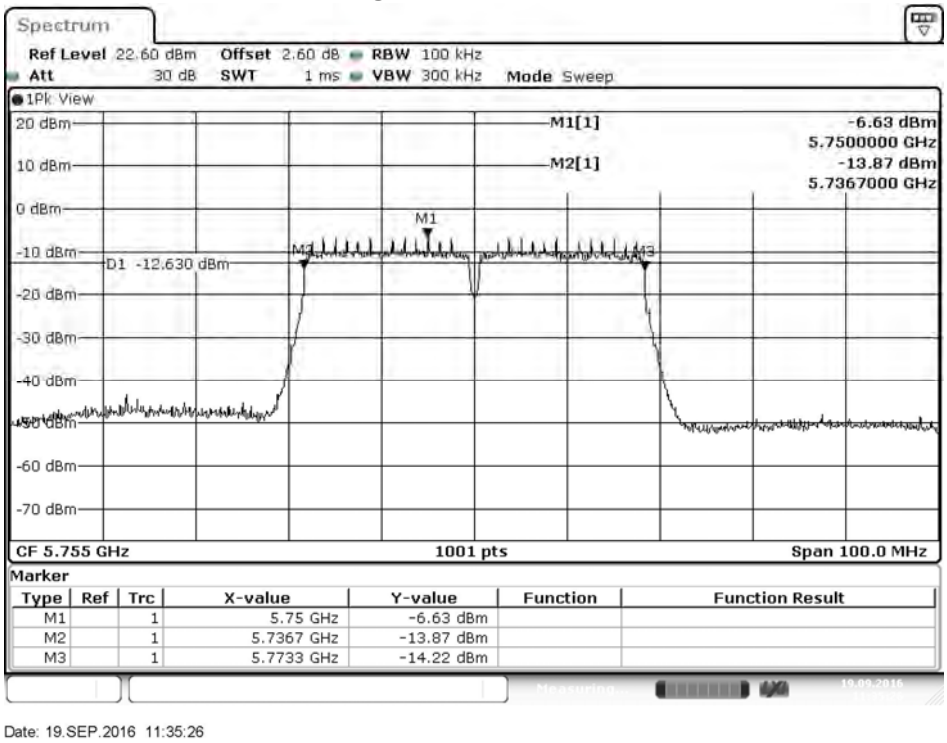
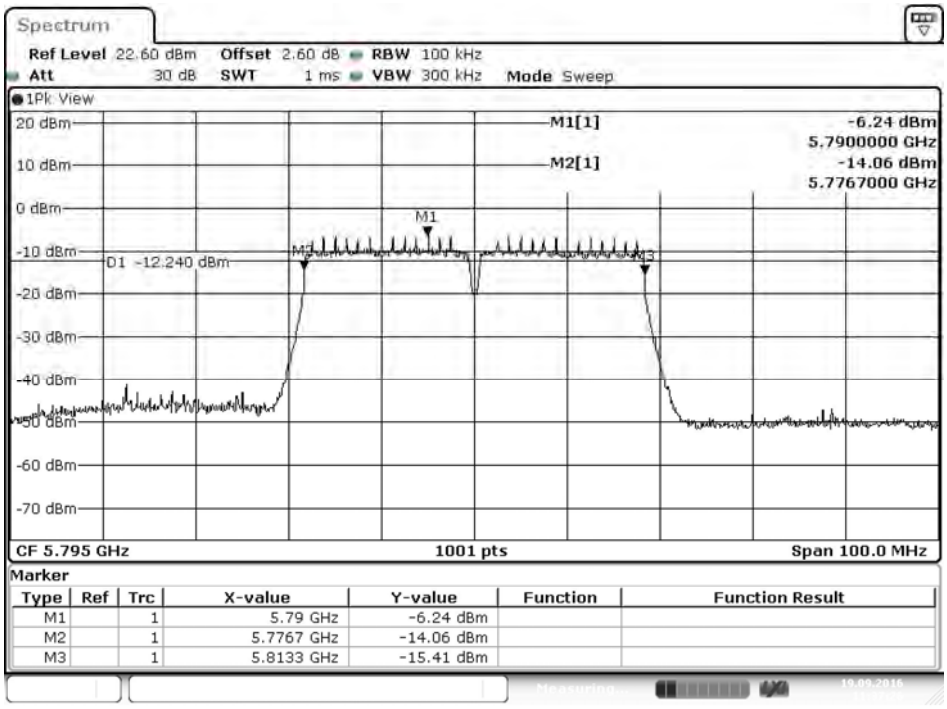


Figure Channel 159:

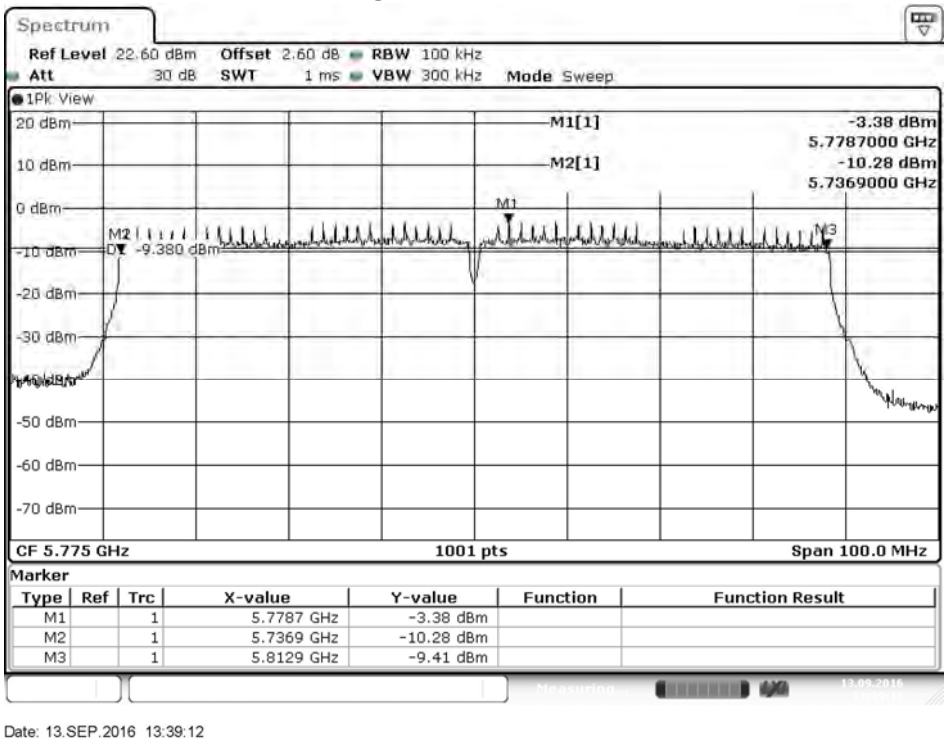


Date: 19.SEP.2016 11:37:27

Product : Intelligent Robot
Test Item : Occupied Bandwidth Data
Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps)
Test Date : 2016/09/13

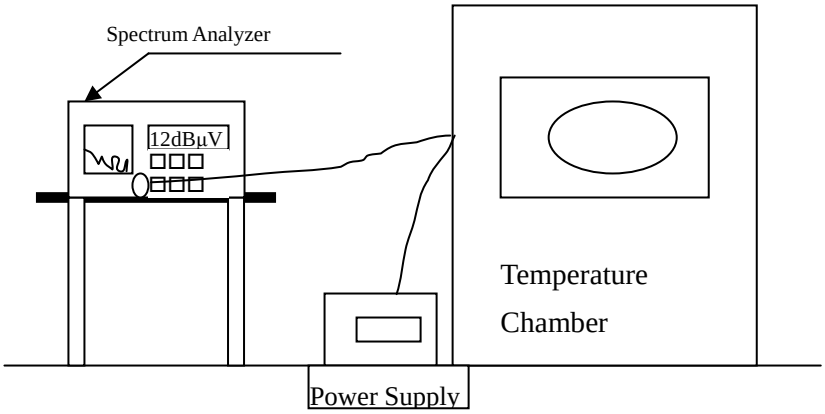
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775	76000	>500	Pass

Figure Channel 155:



8. Frequency Stability

8.1. Test Setup



8.2. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

8.3. Test Procedure

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.

8.4. Uncertainty

±671.83Hz

8.5. Test Result of Frequency Stability

Product : Intelligent Robot
Test Item : Frequency Stability
Test Mode : Carrier Wave
Test Date : 2016/09/21

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20)℃	Vnom (120)V	36	5180.0000	5180.0090	-0.0090
		38	5190.0000	5190.0037	-0.0037
		44	5220.0000	5220.0040	-0.0040
		46	5230.0000	5230.0089	-0.0089
		48	5240.0000	5240.0040	-0.0040
		52	5260.0000	5260.0018	-0.0018
		54	5270.0000	5270.0032	-0.0032
		60	5300.0000	5300.0020	-0.0020
		62	5310.0000	5310.0026	-0.0026
		64	5320.0000	5320.0065	-0.0065
		100	5500.0000	5500.0040	-0.0040
		102	5510.0000	5510.0102	-0.0102
		110	5550.0000	5550.0079	-0.0079
		116	5580.0000	5580.0036	-0.0036
		134	5670.0000	5670.0092	-0.0092
		140	5700.0000	5700.0032	-0.0032
		149	5745.0000	5745.0103	-0.0103
		151	5755.0000	5755.0046	-0.0046
		157	5785.0000	5785.0027	-0.0027
		159	5795.0000	5795.0098	-0.0098
		165	5825.0000	5825.0095	-0.0095

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmax (50)℃	Vmax (138)V	36	5180.0000	5180.0069	-0.0069
		38	5190.0000	5190.0070	-0.0070
		44	5220.0000	5220.0039	-0.0039
		46	5230.0000	5230.0103	-0.0103
		48	5240.0000	5240.0046	-0.0046
		52	5260.0000	5260.0078	-0.0078
		54	5270.0000	5270.0016	-0.0016
		60	5300.0000	5300.0023	-0.0023
		62	5310.0000	5310.0086	-0.0086
		64	5320.0000	5320.0092	-0.0092
		100	5500.0000	5500.0056	-0.0056
		102	5510.0000	5510.0036	-0.0036
		110	5550.0000	5550.0098	-0.0098
		116	5580.0000	5580.0106	-0.0106
		134	5670.0000	5670.0074	-0.0074
		140	5700.0000	5700.0077	-0.0077
		149	5745.0000	5745.0084	-0.0084
		151	5755.0000	5755.0072	-0.0072
		157	5785.0000	5785.0052	-0.0052
		159	5795.0000	5795.0023	-0.0023
		165	5825.0000	5825.0096	-0.0096

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmax (50)℃	Vmin (102)V	36	5180.0000	5180.0096	-0.0096
		38	5190.0000	5190.0034	-0.0034
		44	5220.0000	5220.0075	-0.0075
		46	5230.0000	5230.0012	-0.0012
		48	5240.0000	5240.0020	-0.0020
		52	5260.0000	5260.0041	-0.0041
		54	5270.0000	5270.0023	-0.0023
		60	5300.0000	5300.0023	-0.0023
		62	5310.0000	5310.0016	-0.0016
		64	5320.0000	5320.0014	-0.0014
		100	5500.0000	5500.0057	-0.0057
		102	5510.0000	5510.0106	-0.0106
		110	5550.0000	5550.0076	-0.0076
		116	5580.0000	5580.0033	-0.0033
		134	5670.0000	5670.0019	-0.0019
		140	5700.0000	5700.0096	-0.0096
		149	5745.0000	5745.0033	-0.0033
		151	5755.0000	5755.0083	-0.0083
		157	5785.0000	5785.0037	-0.0037
		159	5795.0000	5795.0025	-0.0025
		165	5825.0000	5825.0021	-0.0021

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmin (-30)℃	Vmax (138)V	36	5180.0000	5180.0150	-0.0150
		38	5190.0000	5190.0173	-0.0173
		44	5220.0000	5220.0134	-0.0134
		46	5230.0000	5230.0200	-0.0200
		48	5240.0000	5240.0117	-0.0117
		52	5260.0000	5260.0102	-0.0102
		54	5270.0000	5270.0102	-0.0102
		60	5300.0000	5300.0165	-0.0165
		62	5310.0000	5310.0129	-0.0129
		64	5320.0000	5320.0175	-0.0175
		100	5500.0000	5500.0118	-0.0118
		102	5510.0000	5510.0193	-0.0193
		110	5550.0000	5550.0149	-0.0149
		116	5580.0000	5580.0156	-0.0156
		134	5670.0000	5670.0150	-0.0150
		140	5700.0000	5700.0125	-0.0125
		149	5745.0000	5745.0151	-0.0151
		151	5755.0000	5755.0167	-0.0167
		157	5785.0000	5785.0134	-0.0134
		159	5795.0000	5795.0103	-0.0103
		165	5825.0000	5825.0113	-0.0113

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tmin (-30)℃	Vmin (102)V	36	5180.0000	5180.0150	-0.0150
		38	5190.0000	5190.0173	-0.0173
		44	5220.0000	5220.0134	-0.0134
		46	5230.0000	5230.0200	-0.0200
		48	5240.0000	5240.0117	-0.0117
		52	5260.0000	5260.0102	-0.0102
		54	5270.0000	5270.0102	-0.0102
		60	5300.0000	5300.0165	-0.0165
		62	5310.0000	5310.0129	-0.0129
		64	5320.0000	5320.0175	-0.0175
		100	5500.0000	5500.0118	-0.0118
		102	5510.0000	5510.0193	-0.0193
		110	5550.0000	5550.0149	-0.0149
		116	5580.0000	5580.0156	-0.0156
		134	5670.0000	5670.0150	-0.0150
		140	5700.0000	5700.0125	-0.0125
		149	5745.0000	5745.0151	-0.0151
		151	5755.0000	5755.0167	-0.0167
		157	5785.0000	5785.0134	-0.0134
		159	5795.0000	5795.0103	-0.0103
		165	5825.0000	5825.0113	-0.0113

Product : Intelligent Robot
Test Item : Frequency Stability
Test Mode : Carrier Wave
Test Date : 2016/09/21

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	△F (MHz)
Tnom (20)℃	Vnom (120)V	42	5210.0000	5210.0036	-0.0036
		58	5290.0000	5290.0027	-0.0027
		138	5690.0000	5530.0011	-0.0011
		122	5610.0000	5610.0069	-0.0069
		138	5690.0000	5690.0088	-0.0088
		142	5710.0000	5710.0075	-0.0075
		144	5720.0000	5720.0106	-0.0106
		155	5775.0000	5775.0100	-0.0100
Tmax (50)℃	Vmax (138)V	42	5210.0000	5210.0062	-0.0062
		58	5290.0000	5290.0024	-0.0024
		138	5530.0000	5530.0073	-0.0073
		122	5610.0000	5610.0062	-0.0062
		138	5690.0000	5690.0027	-0.0027
		142	5710.0000	5710.0032	-0.0032
		144	5720.0000	5720.0084	-0.0084
		155	5775.0000	5775.0101	-0.0101
Tmax (50)℃	Vmin (102)V	42	5210.0000	5210.0011	-0.0011
		58	5290.0000	5290.0047	-0.0047
		138	5530.0000	5530.0097	-0.0097
		122	5610.0000	5610.0098	-0.0098
		138	5690.0000	5690.0082	-0.0082
		142	5710.0000	5710.0064	-0.0064
		144	5720.0000	5720.0084	-0.0084
		155	5775.0000	5775.0035	-0.0035
Tmin (0)℃	Vmax (138)V	42	5210.0000	5210.0197	-0.0197
		58	5290.0000	5290.0192	-0.0192
		138	5530.0000	5530.0141	-0.0141
		122	5610.0000	5610.0104	-0.0104
		138	5690.0000	5690.0166	-0.0166
		142	5710.0000	5710.0146	-0.0146
		144	5720.0000	5720.0120	-0.0120
		155	5775.0000	5775.0195	-0.0195
Tmin (0)℃	Vmin (102)V	42	5210.0000	5210.0102	-0.0102
		58	5290.0000	5290.0138	-0.0138
		138	5530.0000	5530.0110	-0.0110
		122	5610.0000	5610.0189	-0.0189
		138	5690.0000	5690.0122	-0.0122
		142	5710.0000	5710.0171	-0.0171
		144	5720.0000	5720.0174	-0.0174
		155	5775.0000	5775.0119	-0.0119

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs