ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

Test Report No.	**: W174R-D003**
AGR No.	**: A172A-372**
Applicant	**: LG Innotek Co., Ltd.**
Address	**: 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea**
Manufacturer	**: LG Innotek Co., Ltd.**
Address	**: 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea**
Type of Equipment	**: BT(V4.2) + WLAN(802.11a/b/g/n/ac) 2x2 MIMO Module**
FCC ID.	**: YZP-RBHP-B216C**
Model Name	**: RBHP-B216C**
Serial number	**: N/A**
Total page of Report	**: 258 pages (including this page)**
Date of Incoming	**: March 21, 2017**
Date of issue	**: April 05, 2017**

SUMMARY

The equipment complies with the regulation; ***FCC PART 15 SUBPART E Section 15.407***

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

Reviewed by: Ki-Hong, Nam / Asst, Chief Engineer
ONETECH Corp.

Approved by: Keun-Young, Choi / Vice President
ONETECH Corp.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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REVISION HISTORY

Issued Report No.	Issued Date	Revisions	Effect Section
W174R-D003	April 05, 2017	Initial Issue	All

DOCUMENT HISTORY

Revision No.	Issued Date	Revisions	Effect Section
Original	April 05, 2017	Initial Issue	-
Revision 01	April 11, 2017	The add FCC ID/IC information and DFS function.	13 Page
Revision 02	April 12, 2017	The add information for master device.	14 Page
Revision 03		The modify information for master device.	14 Page
Revision 04	April 13, 2017	Delete for the FCC ID/IC information.	13 Page

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1. VERIFICATION OF COMPLIANCE

Applicant	: LG Innotek Co., Ltd.
Address	: 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea
Contact Person	: Jeong Inchang / Senior Research Engineer
Telephone No.	: +82-62-950-0332
FCC ID	: YZP-RBHP-B216C
Model Name	: RBHP-B216C
Serial Number	: N/A
Date	: April 05, 2017

EQUIPMENT CLASS	Unlicensed National Information infrastructure(UNII)
E.U.T. DESCRIPTION	Modular Transmitter, BT(V4.2) + WLAN(802.11a/b/g/n/ac) 2x2 MIMO Module
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SUBPART E Section 15.407
Modifications on the Equipment to Achieve Compliance	None
Final Test was Conducted On	3 m, Semi Anechoic Chamber

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

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2. TEST SUMMARY

2.1 Test items and results

SECTION	TEST ITEMS	RESULTS
15.407(a)	26 dB Bandwidth	PASS
15.407(a)	Maximum Conducted Output Power	Met the Limit / PASS
15.407(a)	Peak Power Spectral Density	Met the Limit / PASS
15.407(a)	Peak Excursion	Met the Limit / PASS
15.407(g)	Frequency Stability	Met the Limit / PASS
15.407(b)	Undesirable Emissions	Met the Limit / PASS
15.205, 15.407(b)	General Field Strength Limits (Restricted Bandsand Radiated Emission Limits)	Met the Limit / PASS
15.207	AC Conducted Emissions 150 kHz-30 MHz	Met the Limit / PASS
15.407(h)	Dynamic frequency Selection	Met the Limit / PASS

2.2 Additions, deviations, exclusions from standards

No additions, deviations or exclusions have been made from standard.

2.3 Related Submittal(s) / Grant(s)

Original submittal only

2.4 Purpose of the test

To determine whether the equipment under test fulfills the requirements of the regulation stated in FCC PART 15 SUBPART E Section 15.407

2.5 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2013. Radiated testing was performed at a distance of 3 m from EUT to the antenna.

2.6 Test Facility

The Onetech Corp. has been designated to perform equipment testing in compliance with ISO/IEC 17025.

The Electromagnetic compatibility measurement facilities are located at 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea

-. Site Filing:

VCCI (Voluntary Control Council for Interference) – Registration No. R-4112/ C-4617/ G-10666 / T-1842

IC (Industry Canada) – Registration No. Site# 3736A-3

-. Site Accreditation:

KOLAS (Korea Laboratory Accreditation Scheme) - Accreditation NO. KT085

FCC (Federal Communications Commission) - Accreditation No. KR0013

RRA (Radio Research Agency) – Designation No. KR0013

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3. GENERAL INFORMATION

3.1 Product Description

The LG Innotek Co., Ltd., Model RBHP-B216C (referred to as the EUT in this report) is a BT(V4.2) + WLAN(802.11a/b/g/n/ac) 2x2 MIMO Module. Product specification information described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	BT(V4.2) + WLAN(802.11a/b/g/n/ac) 2x2 MIMO Module		
FREQUENCY RANGE	Bluetooth	2 402 MHz ~ 2 480 MHz	
	WLAN 2.4 GHz Band	2 412 MHz ~ 2 462 MHz (802.11b/g/n(HT20))	
	WLAN 5 GHz Band	5 150 MHz ~ 5 250 MHz Band	5 180 MHz ~ 5 240 MHz (802.11a/n(HT20)/ac(VHT20))
			5 190 MHz ~ 5 230 MHz (802.11n(HT40)/ac(VHT40))
			5 210 MHz (802.11ac(VHT80))
		5 250 MHz ~ 5 350 MHz Band	5 260 MHz ~ 5 320 MHz (802.11a/n(HT20)/ac(VHT20))
			5 270 MHz ~ 5 310 MHz (802.11n(HT40)/ac(VHT40))
			5 290 MHz (802.11ac(VHT80))
		5 470 MHz ~ 5 725 MHz Band	5 500 MHz ~ 5 720 MHz (802.11a/n(HT20)/ac(VHT20))
			5 510 MHz ~ 5 710 MHz (802.11n(HT40)/ac(VHT40))
			5 530 MHz (802.11ac(VHT80))
		5 725 MHz ~ 5 850 MHz Band	5 745 MHz ~ 5 825 MHz (802.11a/n(HT20)/ac(VHT20))
			5 755 MHz ~ 5 795 MHz (802.11n(HT40)/ac(VHT40))
			5 775 MHz (802.11ac(VHT80))

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<table>
<tr><td rowspan="11">MAX. RF OUTPUT POWER</td><td rowspan="3">Bluetooth</td><td colspan="2">1 Mbps</td><td>0.97 dBm</td></tr>
<tr><td colspan="2">2 Mbps</td><td>-1.67 dBm</td></tr>
<tr><td colspan="2">3 Mbps</td><td>-1.24 dBm</td></tr>
<tr><td>WLAN
2.4 GHz Band</td><td colspan="3">Wi-Fi 802.11b (16.40 dBm)
Wi-Fi 802.11g (15.84 dBm)
Wi-Fi 802.11n(HT20) (15.05 dBm)</td></tr>
<tr><td rowspan="8">WLAN
5 GHz Band</td><td rowspan="3">5 150 MHz ~
5 250 MHz Band</td><td>Antenna 0</td><td>Wi-Fi 802.11a (13.96 dBm)
Wi-Fi 802.11n(HT20) (11.80 dBm)
Wi-Fi 802.11n(HT40) (10.14 dBm)
Wi-Fi 802.11ac(HT80) (12.61 dBm)</td></tr>
<tr><td>Antenna 1</td><td>Wi-Fi 802.11a (13.92 dBm)
Wi-Fi 802.11n(HT20) (10.62 dBm)
Wi-Fi 802.11n(HT40) (10.54 dBm)
Wi-Fi 802.11ac(HT80) (12.66 dBm)</td></tr>
<tr><td>Antenna 0
+ Antenna 1</td><td>Wi-Fi 802.11n(HT20) (14.24 dBm)
Wi-Fi 802.11n(HT40) (13.29 dBm)
Wi-Fi 802.11ac(HT80) (12.96 dBm)</td></tr>
<tr><td rowspan="3">5 250 MHz ~
5 350 MHz Band</td><td>Antenna 0</td><td>Wi-Fi 802.11a (14.42 dBm)
Wi-Fi 802.11n(HT20) (14.61 dBm)
Wi-Fi 802.11n(HT40) (14.10 dBm)
Wi-Fi 802.11ac(HT80) (12.51 dBm)</td></tr>
<tr><td>Antenna 1</td><td>Wi-Fi 802.11a (14.41 dBm)
Wi-Fi 802.11n(HT20) (14.54 dBm)
Wi-Fi 802.11n(HT40) (13.56 dBm)
Wi-Fi 802.11ac(HT80) (13.21 dBm)</td></tr>
<tr><td>Antenna 0
+ Antenna 1</td><td>Wi-Fi 802.11n(HT20) (17.59 dBm)
Wi-Fi 802.11n(HT40) (16.85 dBm)
Wi-Fi 802.11ac(HT80) (15.88 dBm)</td></tr>
</table>

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MAX. RF OUTPUT POWER	WLAN 5 GHz Band	5 470 MHz ~ 5 725 MHz Band	Antenna 0	Wi-Fi 802.11a (14.91 dBm) Wi-Fi 802.11n(HT20) (14.94 dBm) Wi-Fi 802.11n(HT40) (14.81 dBm) Wi-Fi 802.11ac(HT80) (12.99 dBm)
			Antenna 1	Wi-Fi 802.11a (14.62 dBm) Wi-Fi 802.11n(HT20) (14.97 dBm) Wi-Fi 802.11n(HT40) (14.32 dBm) Wi-Fi 802.11ac(HT80) (13.44dBm)
			Antenna 0 + Antenna 1	Wi-Fi 802.11n(HT20) (17.88 dBm) Wi-Fi 802.11n(HT40) (17.58 dBm) Wi-Fi 802.11ac(HT80) (16.23 dBm)
		5 725 MHz ~ 5 850 MHz Band	Antenna 0	Wi-Fi 802.11a (14.58 dBm) Wi-Fi 802.11n(HT20) (14.27 dBm) Wi-Fi 802.11n(HT40) (13.88 dBm) Wi-Fi 802.11ac(HT80) (12.80 dBm)
			Antenna 1	Wi-Fi 802.11a (14.74 dBm) Wi-Fi 802.11n(HT20) (14.84 dBm) Wi-Fi 802.11n(HT40) (14.69 dBm) Wi-Fi 802.11ac(HT80) (13.88 dBm)
			Antenna 0 + Antenna 1	Wi-Fi 802.11n(HT20) (17.57 dBm) Wi-Fi 802.11n(HT40) (17.31 dBm) Wi-Fi 802.11ac(HT80) (16.38 dBm)
MODULATION TYPE	Bluetooth	GFSK for 1 Mbps, π/4-DQPSK for 2 Mbps, 8-DPSK for 3 Mbps		
	WLAN 2.4 GHz Band	DSSS Modulation(DBPSK/DQPSK/CCK)		
	WLAN 5 GHz Band	OFDM Modulation(BPSK/QPSK/16QAM/64QAM)		

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ANTENNA TYPE & GAIN	Bluetooth (BDR/EDR)	Antenna 0	2.2 dBi
	WLAN 2.4 GHz Band (802.11b/g/n(HT20))	Antenna 0	4.8 dBi
	5 150 MHz ~ 5 250 MHz Band	Antenna 0	5.4 dBi
		Antenna 1	5.7 dBi
		Antenna 0 + Antenna 1	8.56 dBi
	5 250 MHz ~ 5 350 MHz Band	Antenna 0	5.6 dBi
		Antenna 1	4.8 dBi
		Antenna 0 + Antenna 1	8.23 dBi
	5 470 MHz ~ 5 725 MHz Band	Antenna 0	5.7 dBi
		Antenna 1	5.3 dBi
		Antenna 0 + Antenna 1	8.51 dBi
	5 725 MHz ~ 5 850 MHz Band	Antenna 0	5.2 dBi
		Antenna 1	5.4 dBi
		Antenna 0 + Antenna 1	8.31 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	37.4 MHz		
DFS FUNCTION	Slave without radar detection		

3.2 Alternative type(s)/model(s); also covered by this test report.

-. None

4. EUT MODIFICATIONS

-. None

5. SYSTEM TEST CONFIGURATION

5.1 Justification

This device was configured for testing in a typical way as a normal customer is supposed to be used. During the test, the following components were installed inside of the EUT.

DEVICE TYPE	MANUFACTURER	MODEL/PART NUMBER	FCC ID
Main Board	LG Innotek Co., Ltd.	RBHA-B2168_RDK_Rev0.1	N/A

5.2 Peripheral equipment

Defined as equipment needed for correct operation of the EUT, but not considered as tested:

Model	Manufacturer	Description	Connected to
RBHP-B216C	LG Innotek Co., Ltd.	BT(V4.2) + WLAN(802.11a/b/g/n/ac) 2x2 MIMO Module (EUT)	Notebook PC
PP11L	DELL	Notebook PC	EUT
WEA504i	Samsung Electronics Co Ltd	WLAN Access Point (FCC ID.: A3LWEA504I)	EUT

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5.3 Mode of operation during the test

For the testing, software used to control the EUT for staying in continuous transmitting mode is programmed.

UNII 1

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Ant 0	Ant 1
802.11 a	6 Mbps	13.96	13.92
	9 Mbps	13.72	13.57
	12 Mbps	13.46	13.27
	18 Mbps	13.34	12.93
	24 Mbps	13.11	12.62
	36 Mbps	12.92	12.48
	48 Mbps	12.54	12.33
	54 Mbps	12.25	12.01
HT 20	6.5 Mbps	11.80	10.62
	13 Mbps	11.61	10.24
	19.5 Mbps	11.33	10.14
	26 Mbps	11.21	9.87
	39 Mbps	11.06	9.63
	52 Mbps	10.67	9.43
	58.5 Mbps	10.52	9.15
	65 Mbps	10.42	8.97
HT 40	13.5 Mbps	10.14	10.54
	27 Mbps	9.82	10.43
	40.5 Mbps	9.63	10.26
	54 Mbps	9.41	10.06
	81 Mbps	9.30	9.88
	108 Mbps	9.20	9.72
	121.5 Mbps	9.02	9.39
	135 Mbps	8.76	9.20

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VHT80	29.3 Mbps	12.61	12.66
	58.5 Mbps	12.41	12.54
	87.8 Mbps	12.21	12.42
	117 Mbps	11.89	12.18
	175.5 Mbps	11.65	11.78
	234 Mbps	11.45	11.46
	263.3 Mbps	11.21	11.12
	292.5 Mbps	10.86	10.76
	351 Mbps	10.68	10.39
	390 Mbps	10.51	10.22

-. The worse case data rate for each modulation is determined 6 Mbps(Ant.0/Ant.1) for IEEE 802.11a, 6.5 Mbps(Ant.0/Ant.1) for HT20, 13.5 Mbps(Ant.0/Ant.1) for HT40, 29.3 Mbps(Ant.0/Ant.1) for VHT80.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

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UNII 2A

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Ant 0	Ant 1
802.11 a	6 Mbps	14.42	14.41
	9 Mbps	14.30	14.20
	12 Mbps	14.14	13.85
	18 Mbps	13.78	13.45
	24 Mbps	13.68	13.24
	36 Mbps	13.42	13.02
	48 Mbps	13.03	12.70
	54 Mbps	12.69	12.44
HT 20	6.5 Mbps	14.61	14.54
	13 Mbps	14.37	14.16
	19.5 Mbps	14.18	13.79
	26 Mbps	13.78	13.51
	39 Mbps	13.50	13.14
	52 Mbps	13.34	13.01
	58.5 Mbps	13.17	12.88
	65 Mbps	12.82	12.68
HT 40	13.5 Mbps	14.10	13.56
	27 Mbps	13.82	13.34
	40.5 Mbps	13.67	12.95
	54 Mbps	13.39	12.59
	81 Mbps	13.04	12.25
	108 Mbps	12.92	12.05
	121.5 Mbps	12.79	11.68
	135 Mbps	12.47	11.38

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VHT80	29.3 Mbps	12.51	13.21
	58.5 Mbps	12.31	12.81
	87.8 Mbps	12.06	12.52
	117 Mbps	11.73	12.24
	175.5 Mbps	11.55	11.93
	234 Mbps	11.20	11.57
	263.3 Mbps	11.04	11.38
	292.5 Mbps	10.66	11.01
	351 Mbps	10.46	10.91
	390 Mbps	10.09	10.57

-. The worse case data rate for each modulation is determined 6 Mbps(Ant.0/Ant.1) for IEEE 802.11a, 6.5 Mbps(Ant.0/Ant.1) for HT20, 13.5 Mbps(Ant.0/Ant.1) for HT40, 29.3 Mbps(Ant.0/Ant.1) for VHT80.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

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UNII 2C

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Ant 0	Ant 1
802.11 a	6 Mbps	14.91	14.62
	9 Mbps	14.58	14.27
	12 Mbps	14.23	13.99
	18 Mbps	13.90	13.80
	24 Mbps	13.68	13.54
	36 Mbps	13.35	13.26
	48 Mbps	12.95	12.96
	54 Mbps	12.79	12.69
HT 20	6.5 Mbps	14.94	14.97
	13 Mbps	14.63	14.72
	19.5 Mbps	14.38	14.62
	26 Mbps	14.17	14.25
	39 Mbps	14.00	13.95
	52 Mbps	13.65	13.69
	58.5 Mbps	13.34	13.43
	65 Mbps	13.18	13.10
HT 40	13.5 Mbps	14.81	14.32
	27 Mbps	14.50	14.04
	40.5 Mbps	14.16	13.88
	54 Mbps	13.96	13.62
	81 Mbps	13.84	13.37
	108 Mbps	13.45	13.16
	121.5 Mbps	13.13	12.77
	135 Mbps	12.81	12.49

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VHT80	29.3 Mbps	12.99	13.44
	58.5 Mbps	12.73	13.15
	87.8 Mbps	12.40	12.83
	117 Mbps	12.09	12.72
	175.5 Mbps	11.87	12.56
	234 Mbps	11.53	12.44
	263.3 Mbps	11.18	12.14
	292.5 Mbps	10.93	11.87
	351 Mbps	10.61	11.73
	390 Mbps	10.27	11.61

-. The worse case data rate for each modulation is determined 6 Mbps(Ant.0/Ant.1) for IEEE 802.11a, 6.5 Mbps(Ant.0/Ant.1) for HT20, 13.5 Mbps(Ant.0/Ant.1) for HT40, 29.3 Mbps(Ant.0/Ant.1) for VHT80.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

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UNII 3

Modulation	DATA RATE	OUTPUT POWER[dBm]	
		Ant 0	Ant 1
802.11 a	6 Mbps	14.58	14.74
	9 Mbps	14.23	14.54
	12 Mbps	14.11	14.30
	18 Mbps	13.92	13.98
	24 Mbps	13.53	13.68
	36 Mbps	13.41	13.47
	48 Mbps	13.03	13.13
	54 Mbps	12.71	13.02
HT 20	6.5 Mbps	14.27	14.84
	13 Mbps	14.08	14.55
	19.5 Mbps	13.84	14.43
	26 Mbps	13.63	14.19
	39 Mbps	13.33	13.86
	52 Mbps	13.16	13.73
	58.5 Mbps	12.85	13.43
	65 Mbps	12.65	13.12
HT 40	13.5 Mbps	13.88	14.69
	27 Mbps	13.65	14.35
	40.5 Mbps	13.28	14.08
	54 Mbps	13.04	13.89
	81 Mbps	12.73	13.59
	108 Mbps	12.58	13.36
	121.5 Mbps	12.33	13.26
	135 Mbps	12.04	13.16

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VHT80	29.3 Mbps	12.80	13.88
	58.5 Mbps	12.47	13.63
	87.8 Mbps	12.18	13.53
	117 Mbps	12.06	13.27
	175.5 Mbps	11.71	12.93
	234 Mbps	11.49	12.64
	263.3 Mbps	11.34	12.38
	292.5 Mbps	11.11	12.14
	351 Mbps	10.90	11.77
	390 Mbps	10.79	11.52

-. The worse case data rate for each modulation is determined 6 Mbps(Ant.0/Ant.1) for IEEE 802.11a, 6.5 Mbps(Ant.0/Ant.1) for HT20, 13.5 Mbps(Ant.0/Ant.1) for HT40, 29.3 Mbps(Ant.0/Ant.1) for VHT80.

-. To get a maximum emission levels from the EUT, the EUT was moved throughout the XY, XZ, and YZ planes and the worst case is “XY” axis.

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5.4 Configuration of Test System

Line Conducted Test: The jig board of the EUT was connected to LISN. All supporting equipments were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions.

Radiated Emission Test: Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 meter Semi Anechoic Chamber.

The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.

5.5 Antenna Requirement

For intentional device, according to section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna Construction:

The transmitter antenna of the EUT is WLAN 2.4 GHz Band & WLAN 5 GHz Band is PCB antenna and Bluetooth & WLAN 5 GHz Band is PIFA antenna so no consideration of replacement by the user.

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6. PRELIMINARY TEST

6.1 AC Power line Conducted Emissions Tests

During Preliminary Test, the following operating mode was investigated.

Operation Mode	The Worse operating condition (Please check one only)
Transmitting Mode	X

6.2 General Radiated Emissions Tests

During Preliminary Test, the following operating mode was investigated.

Operation Mode	The Worse operating condition (Please check one only)
Transmitting Mode	X

7. MIMIMUM 26 dB BANDWIDTH

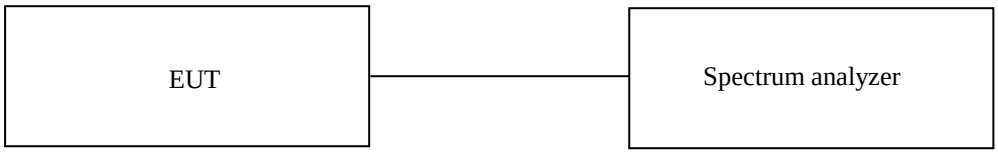
7.1 Operating environment

Temperature : 21 ℃

Relative humidity : 45 % R.H.

7.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 26 dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 26 dB.



7.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ -	FSV40	Rohde & Schwarz	Signal Analyzer	101009	April 05, 2017 (1Y)

All test equipment used is calibrated on a regular basis.

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7.4 Test data for 802.11a RLAN Mode

7.4.1 Test data for Antenna 0

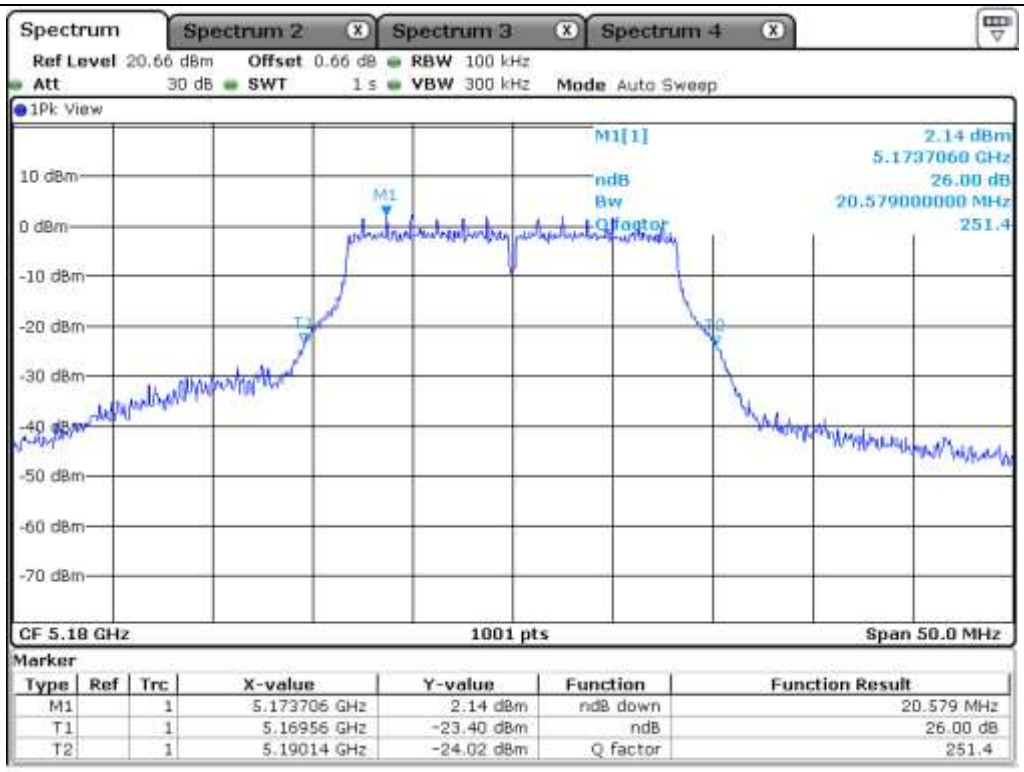
-. Test Date : March 24, 2017

-. Test Result : Pass

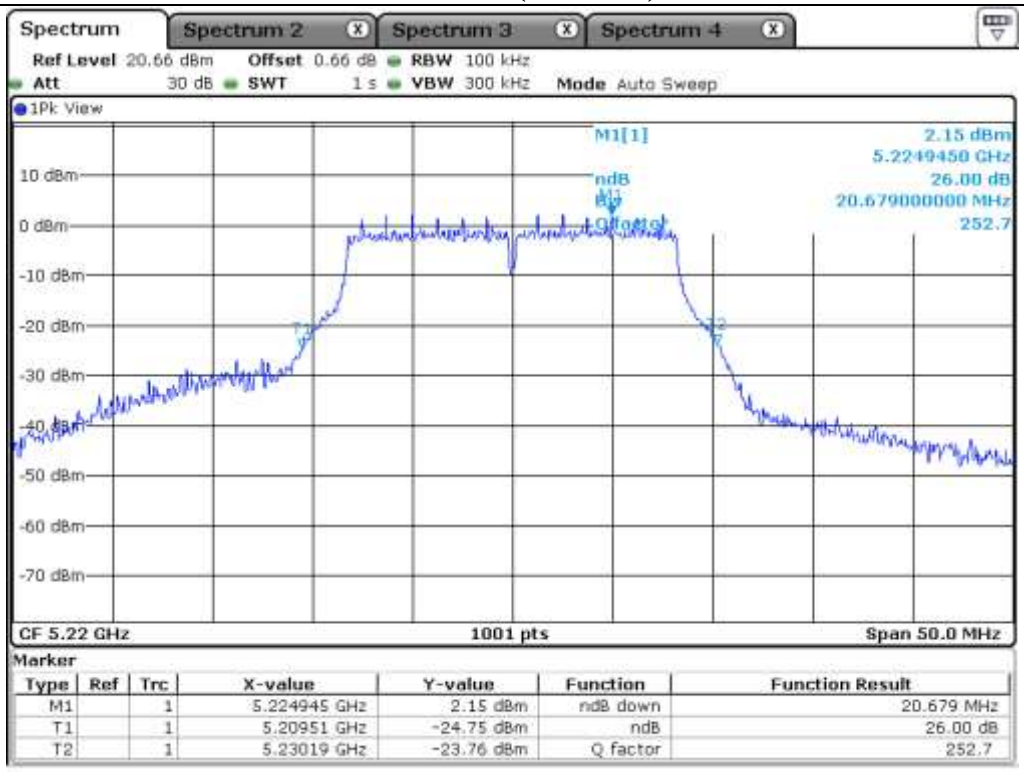
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Low	5 180.00	20.68
	Middle	5 220.00	20.67
	High	5 240.00	20.68
5 250 ~ 5 350	Low	5 260.00	20.68
	Middle	5 300.00	20.68
	High	5 320.00	20.68
5 470 ~ 5 725	Low	5 500.00	20.68
	Middle	5 560.00	20.78
	High	5 700.00	20.68

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

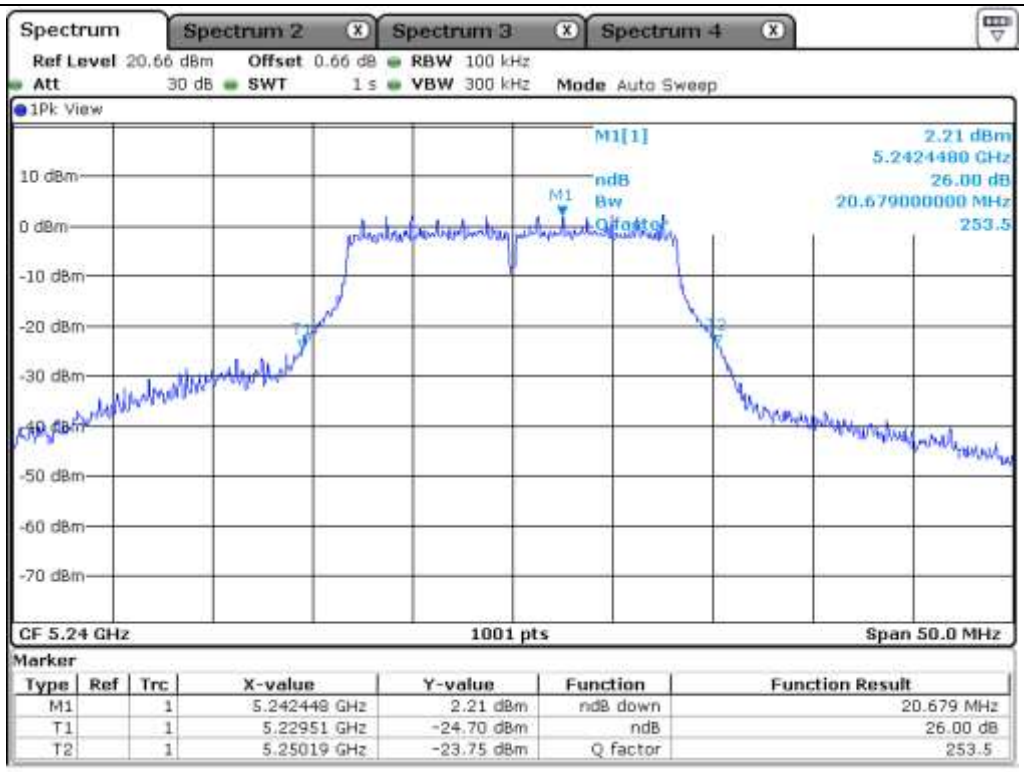


Low Channel (5 180 MHz)

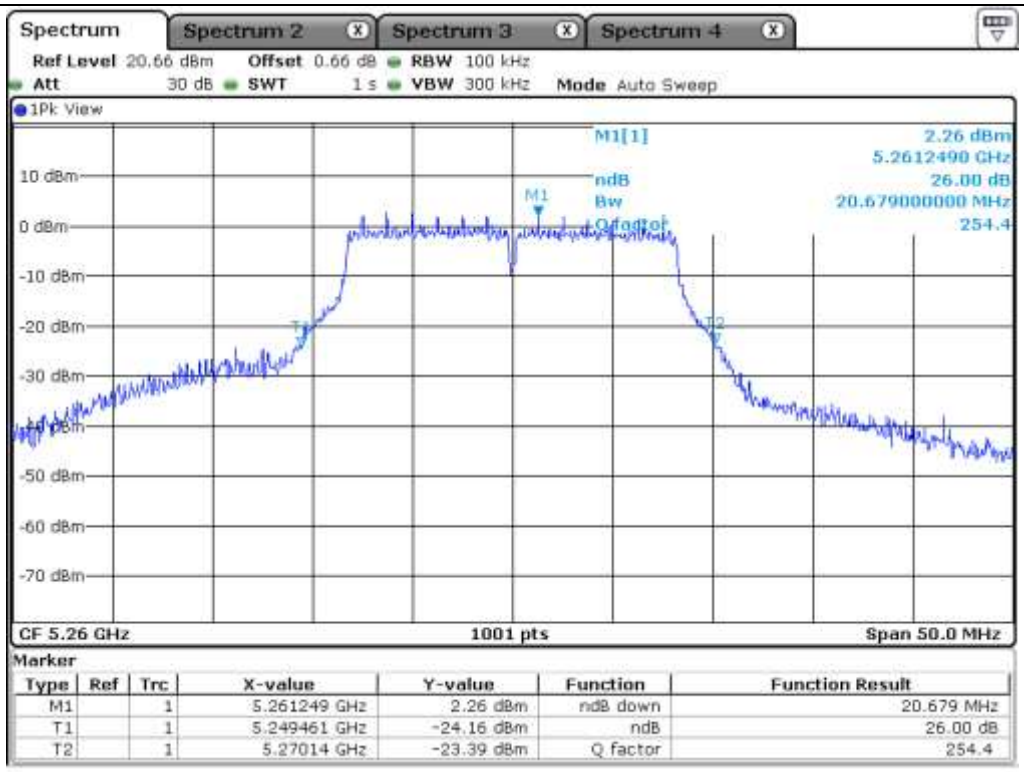


Middle Channel (5 220 MHz)

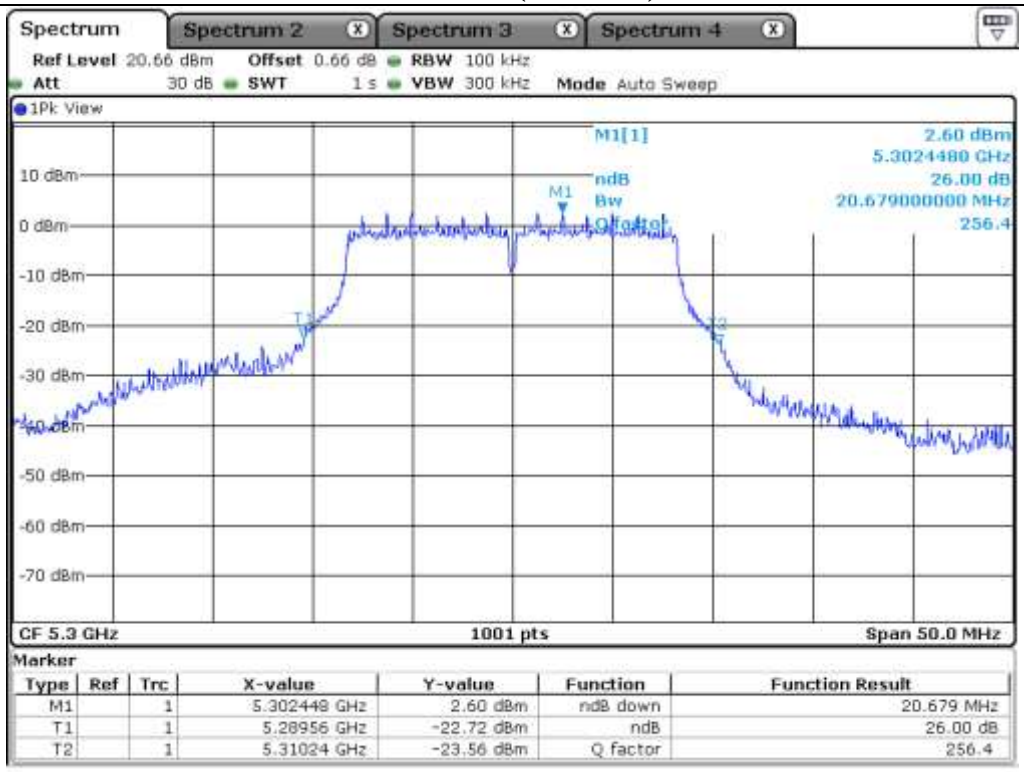
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 240 MHz)

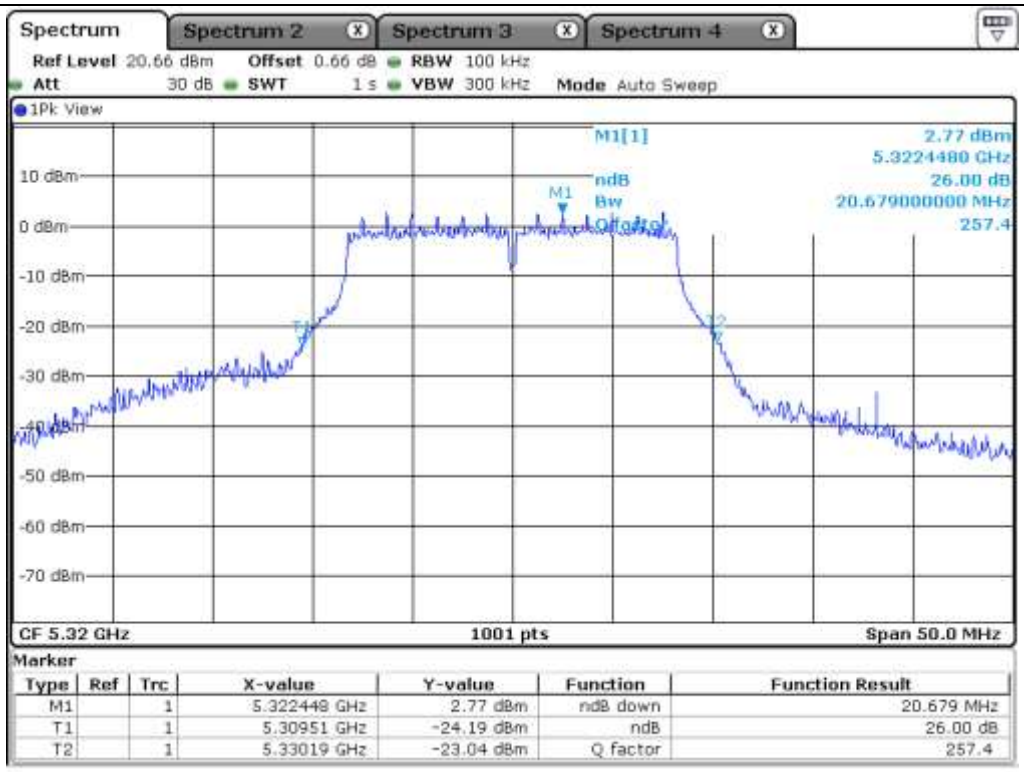


Low Channel (5 260 MHz)

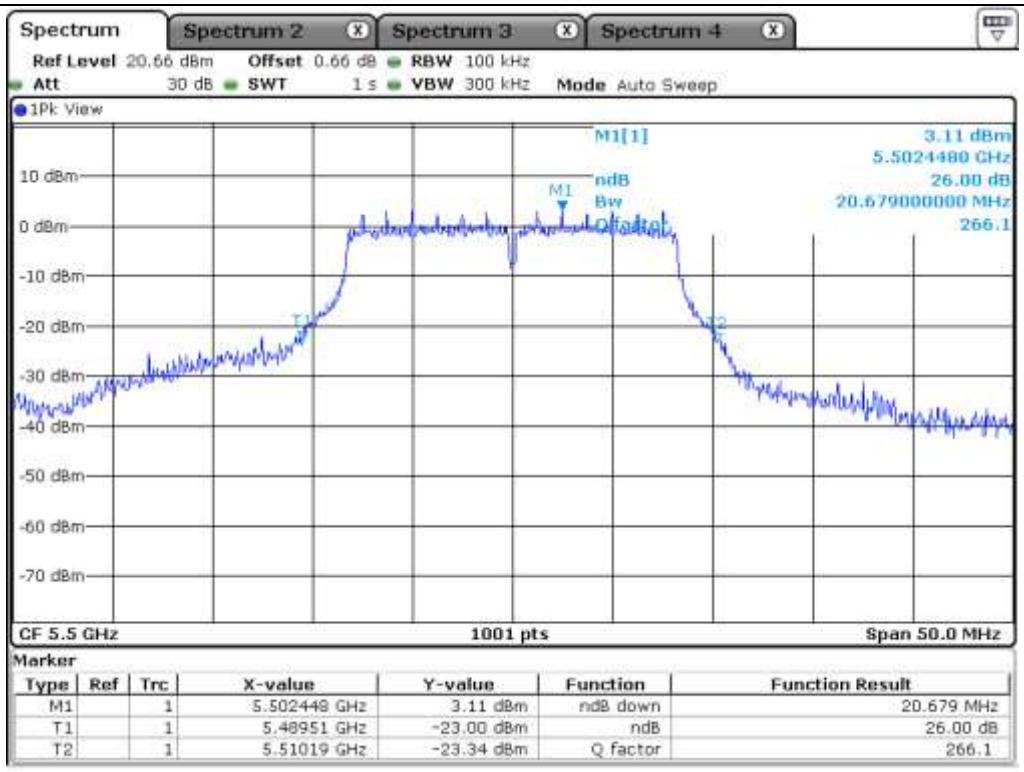


Middle Channel (5 300 MHz)

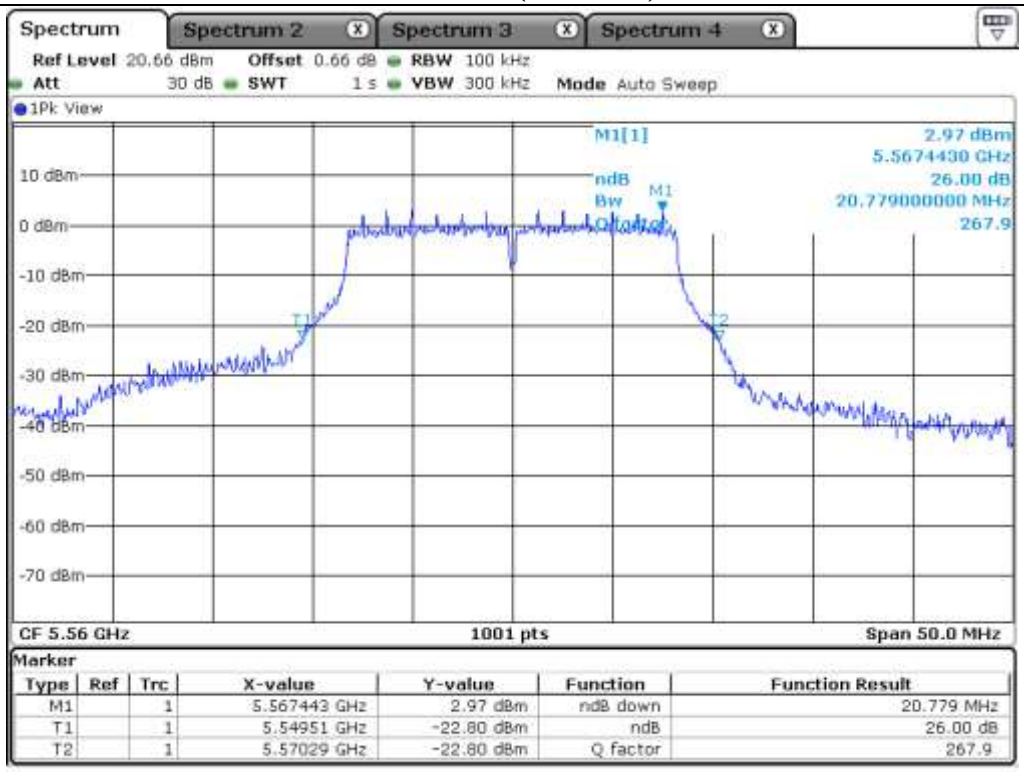
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 320 MHz)

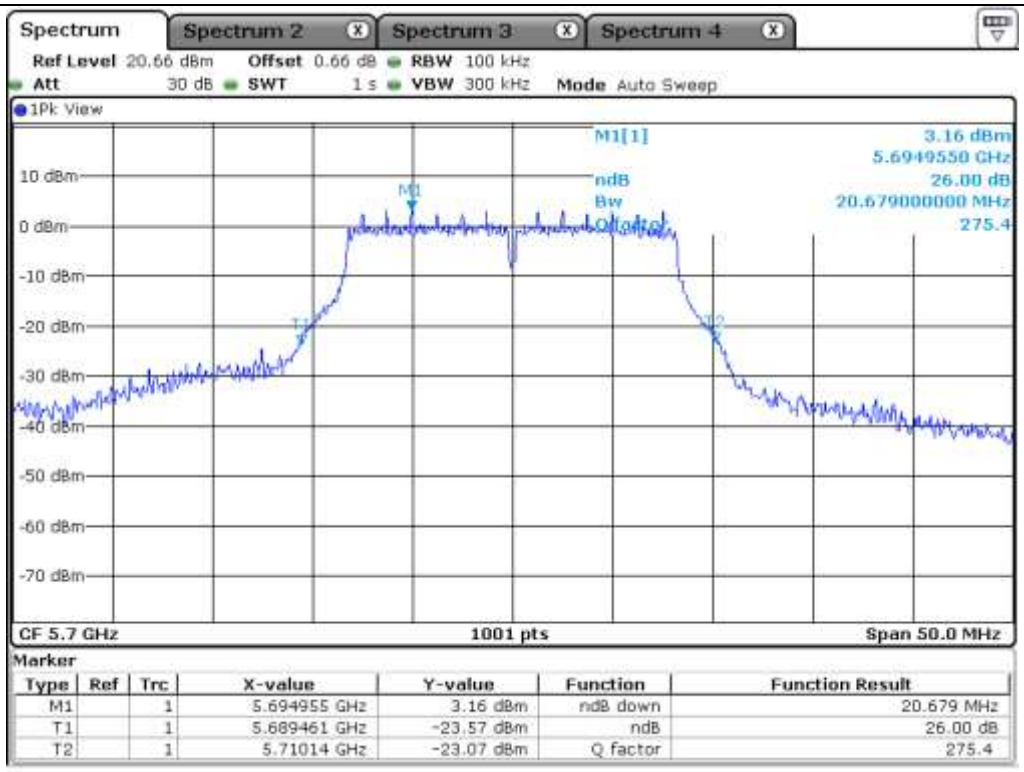


Low Channel (5 500 MHz)



Middle Channel (5 560 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



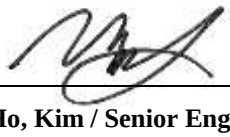
High Channel (5 720 MHz)

7.4.2 Test data for Antenna 1

-. Test Date : March 24, 2017

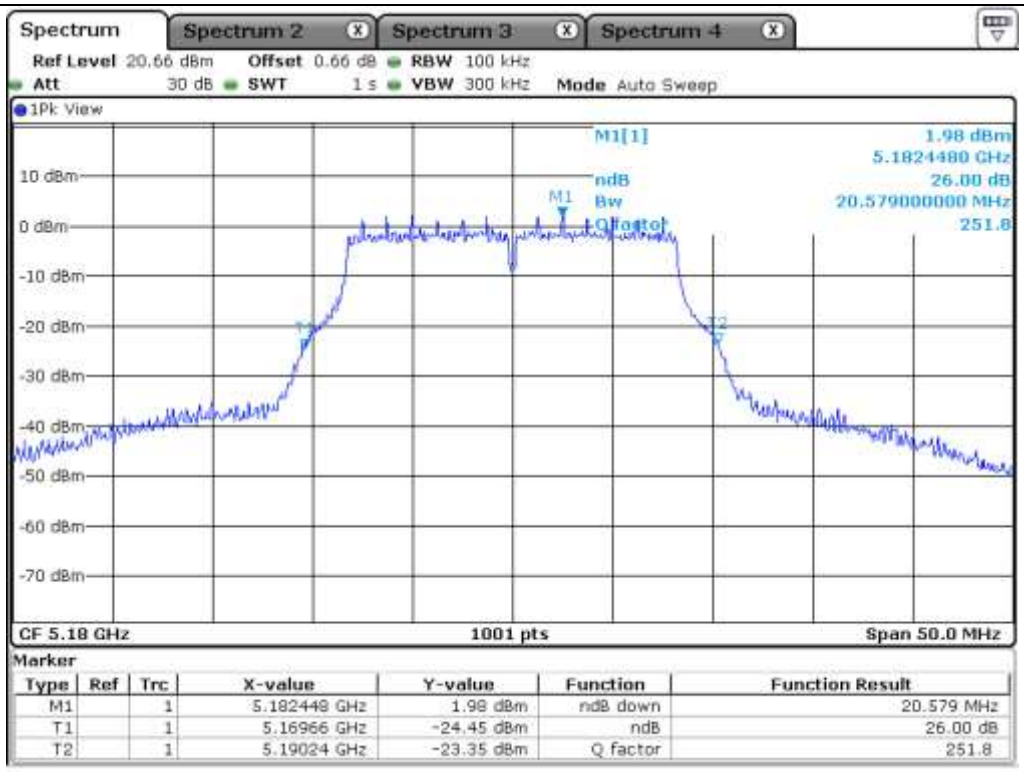
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Low	5 180.00	20.58
	Middle	5 220.00	20.82
	High	5 240.00	20.82
5 250 ~ 5 350	Low	5 260.00	20.73
	Middle	5 300.00	20.63
	High	5 320.00	20.58
5 470 ~ 5 725	Low	5 500.00	20.68
	Middle	5 560.00	20.88
	High	5 700.00	20.68

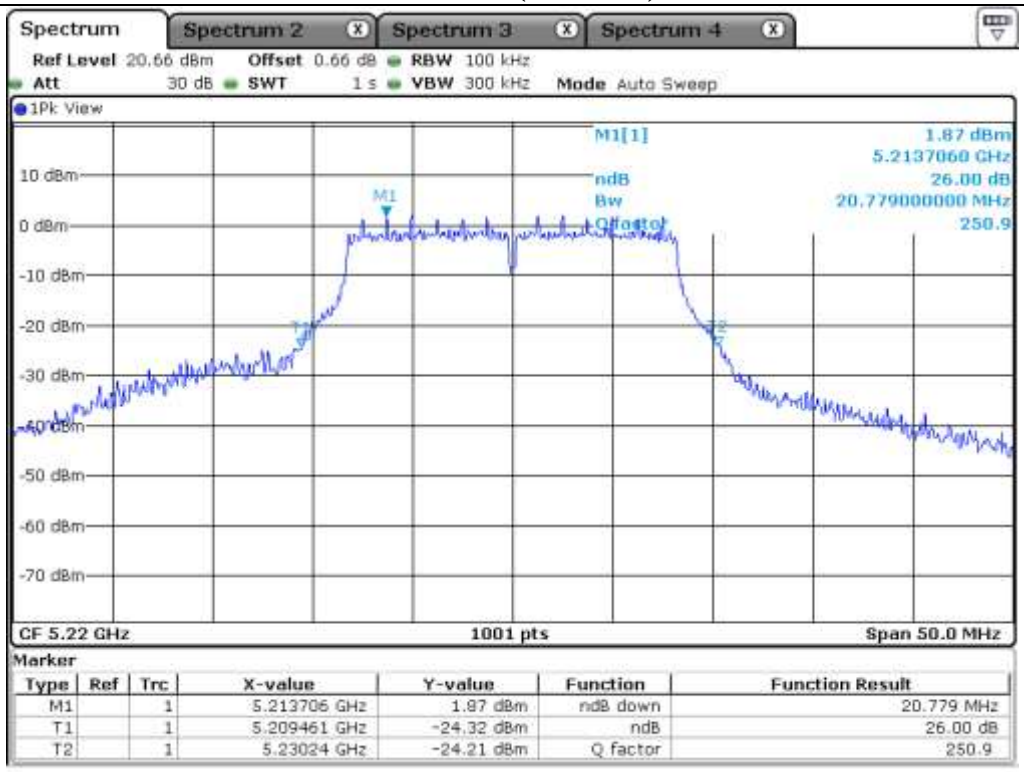


Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

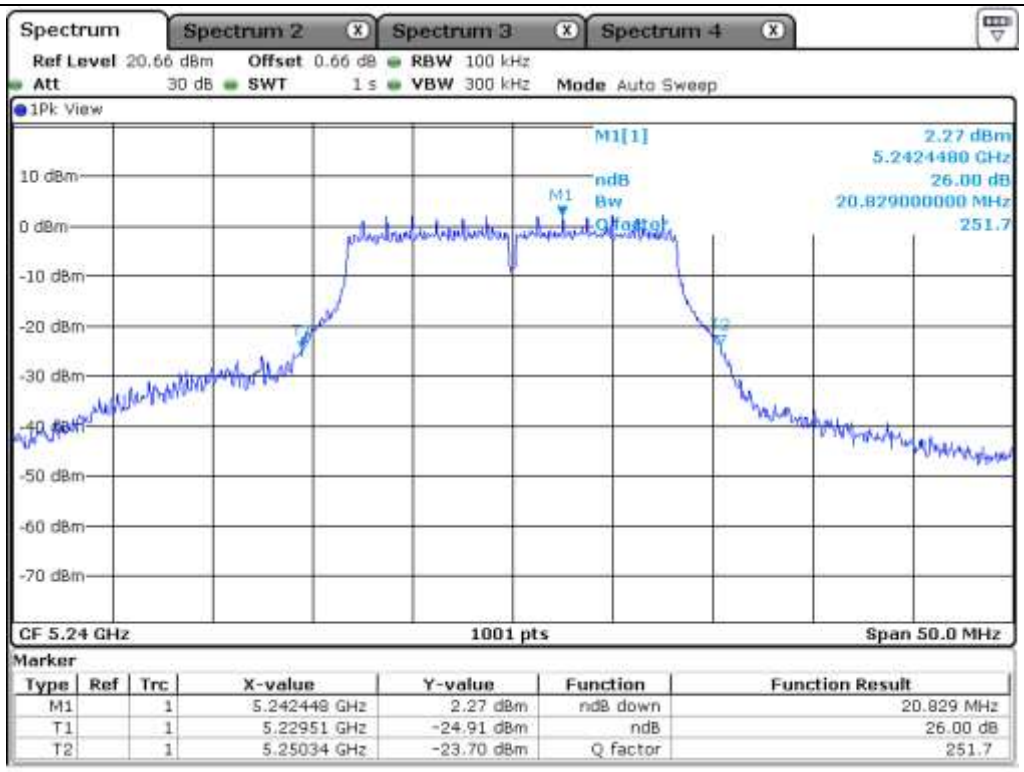


Low Channel (5 180 MHz)

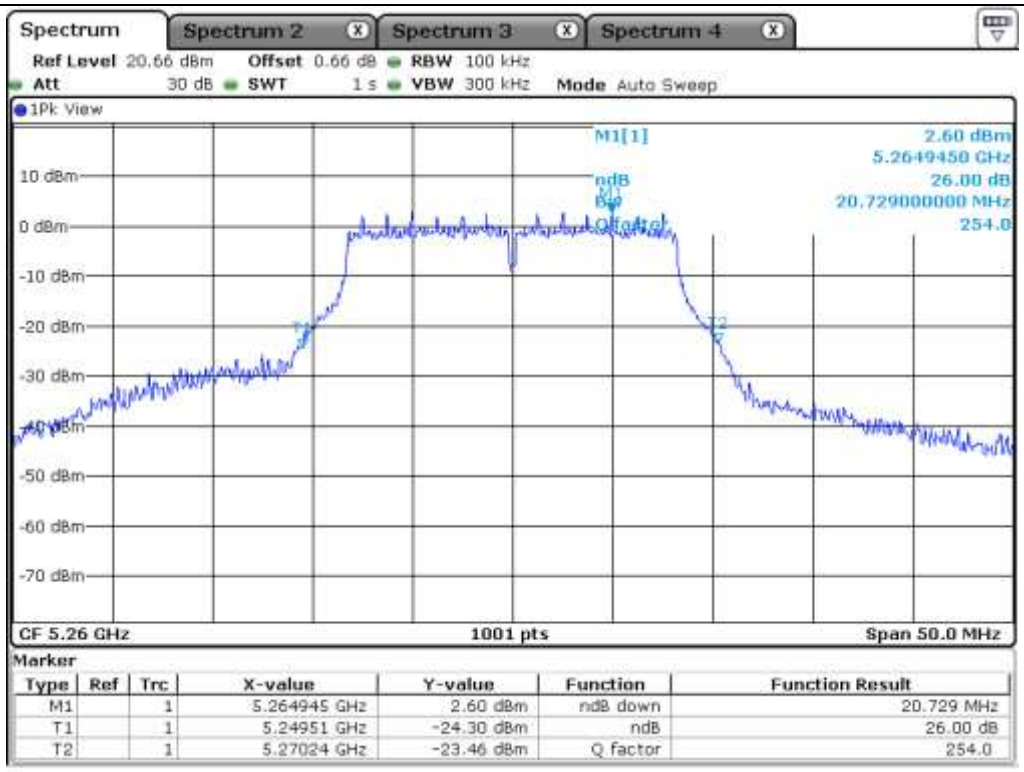


Middle Channel (5 220 MHz)

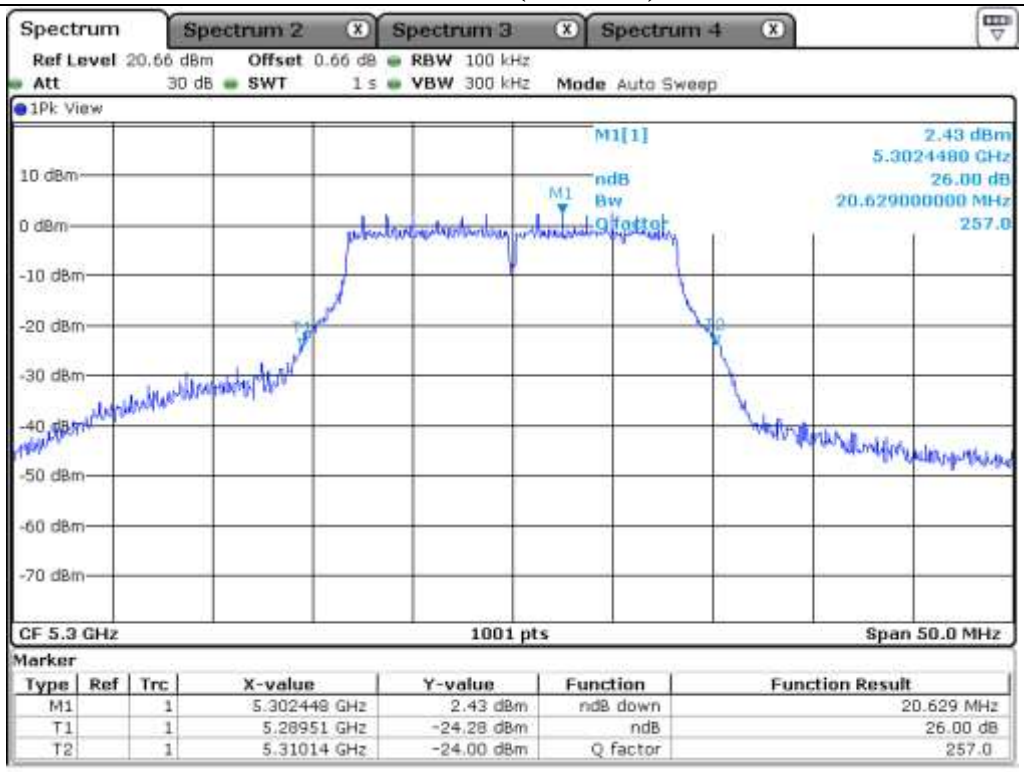
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 240 MHz)

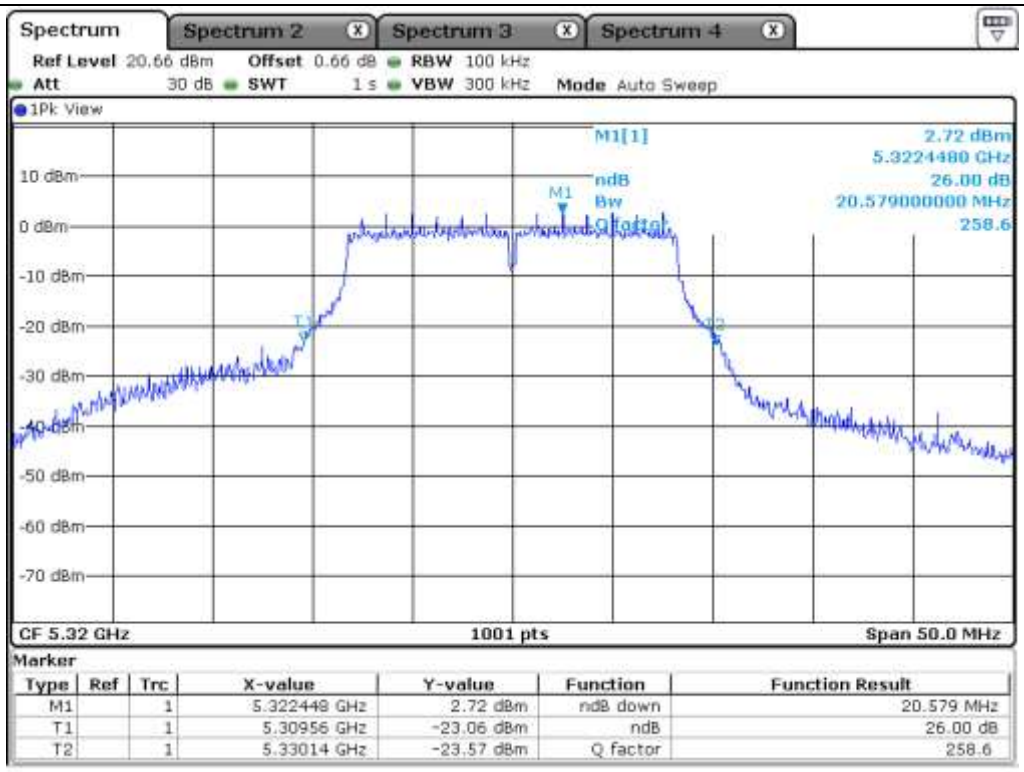


Low Channel (5 260 MHz)

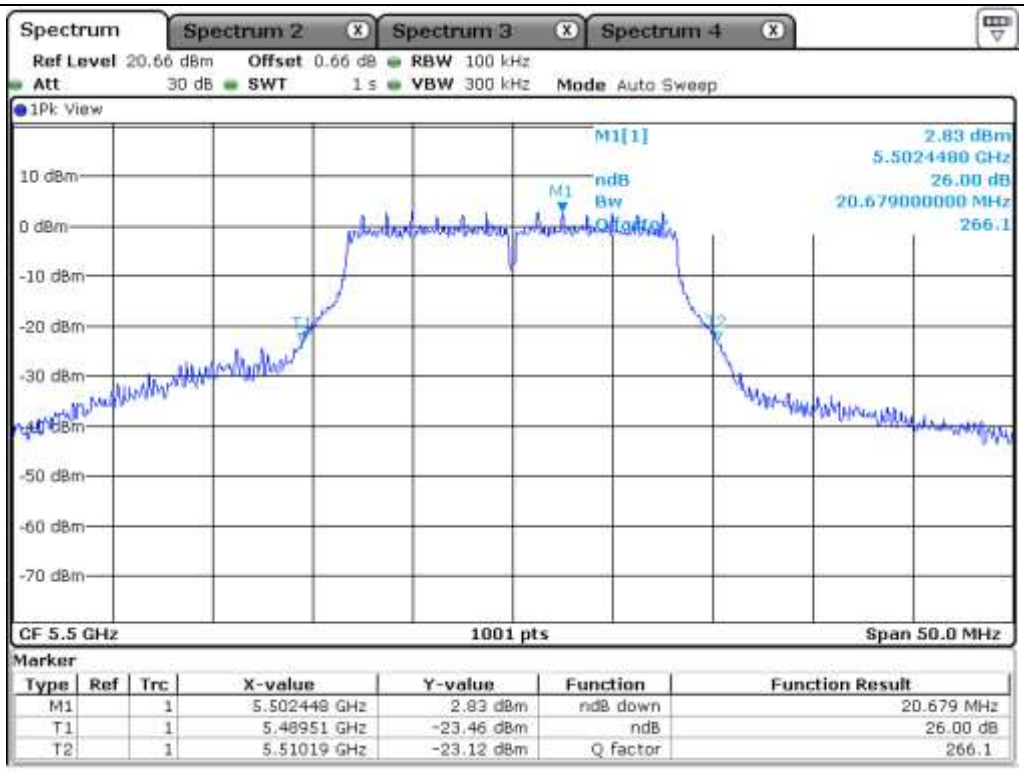


Middle Channel (5 300 MHz)

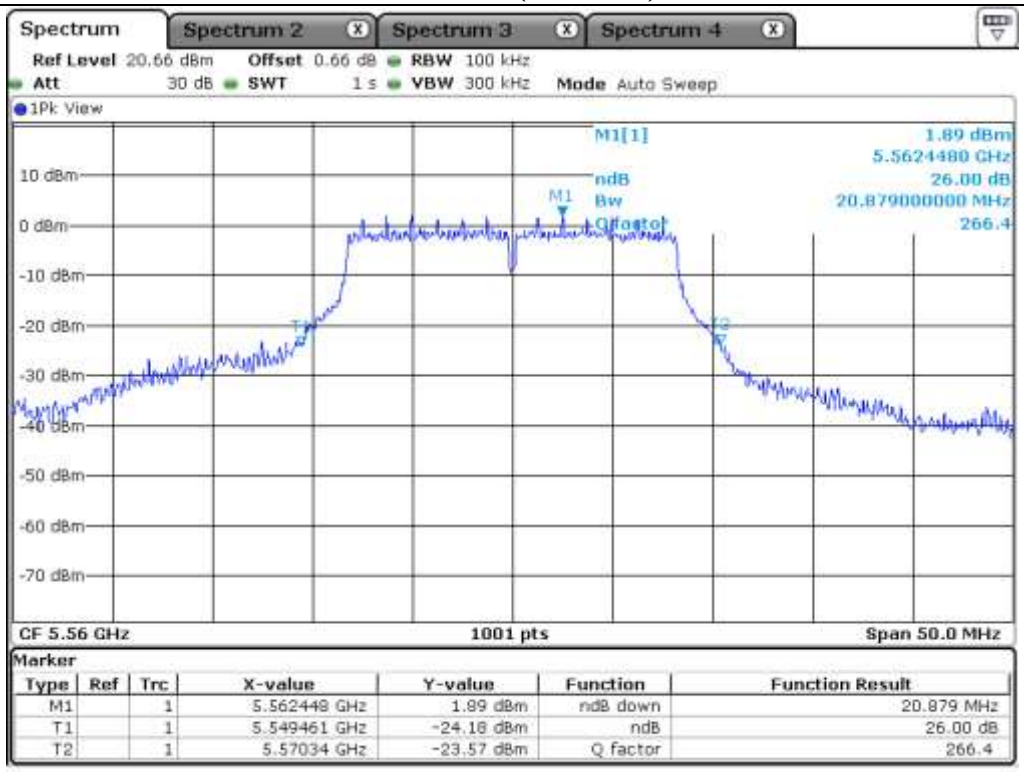
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 320 MHz)

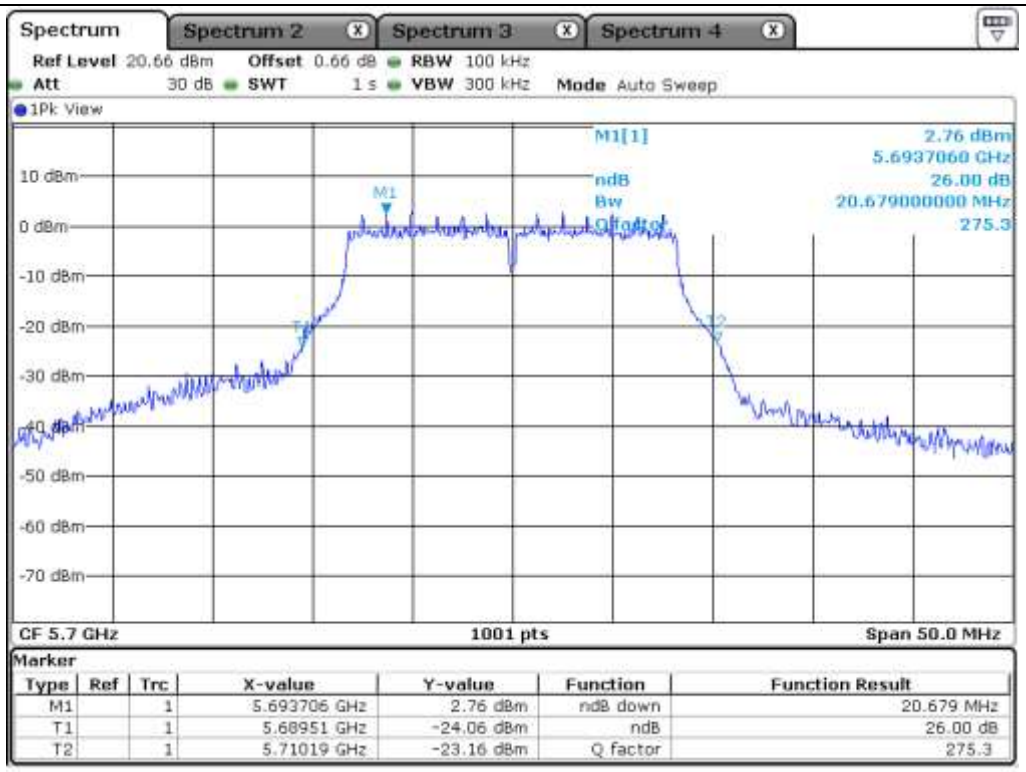


Low Channel (5 500 MHz)



Middle Channel (5 560 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 720 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

7.5 Test data for 802.11n_HT20 RLAN Mode

7.5.1 Test data for Antenna 0

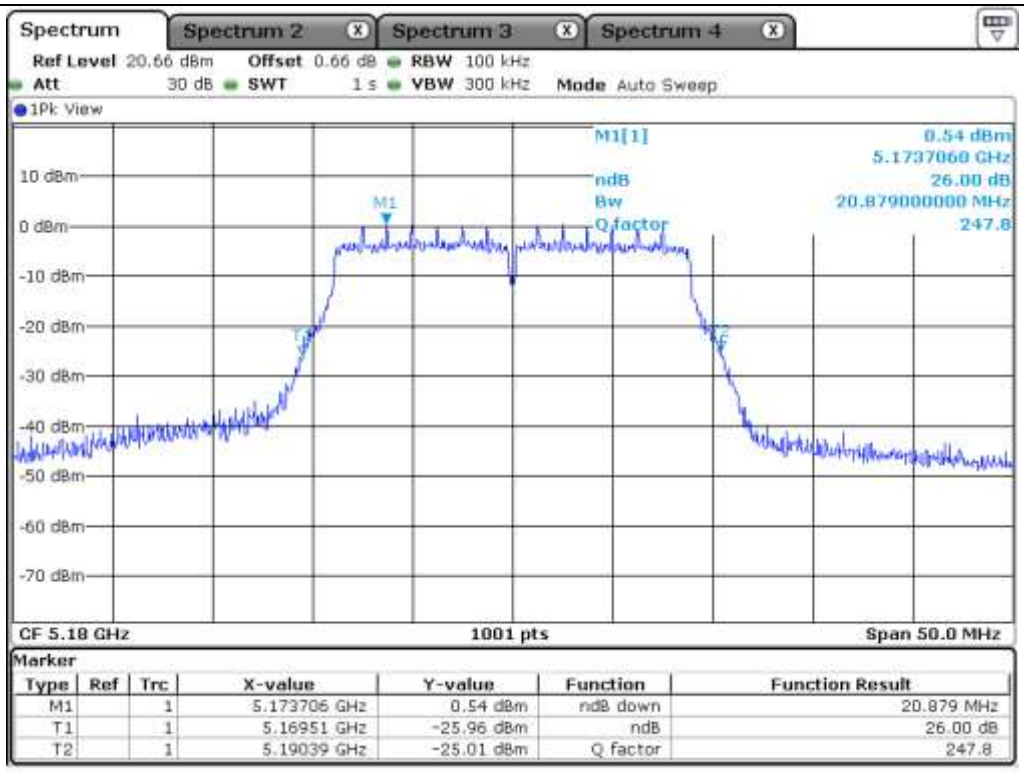
-. Test Date : March 24, 2017

-. Test Result : Pass

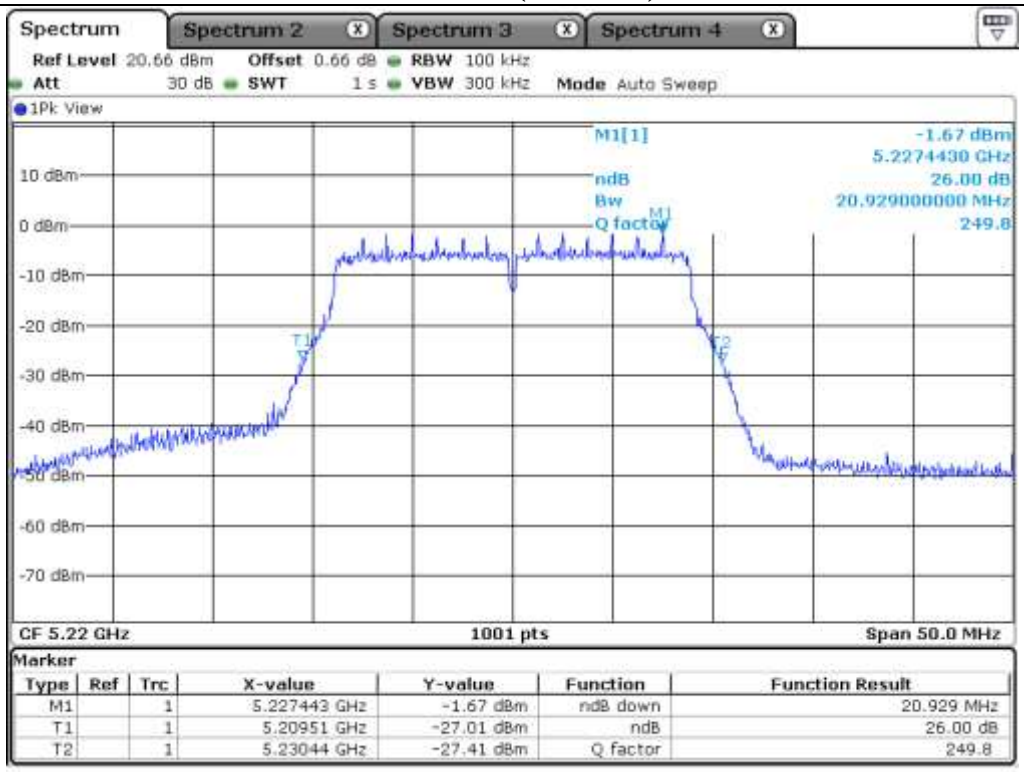
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Low	5 180.00	20.88
	Middle	5 220.00	20.93
	High	5 240.00	20.88
5 250 ~ 5 350	Low	5 260.00	21.18
	Middle	5 300.00	21.18
	High	5 320.00	21.18
5 470 ~ 5 725	Low	5 500.00	21.18
	Middle	5 560.00	21.23
	High	5 700.00	21.18

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

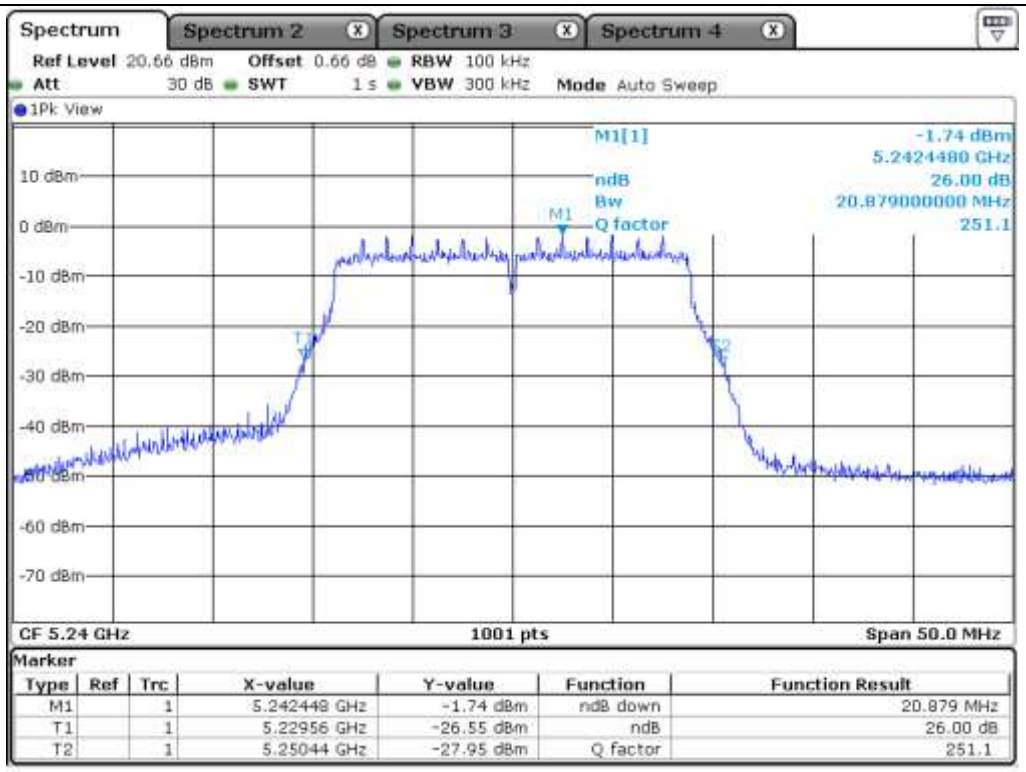


Low Channel (5 180 MHz)



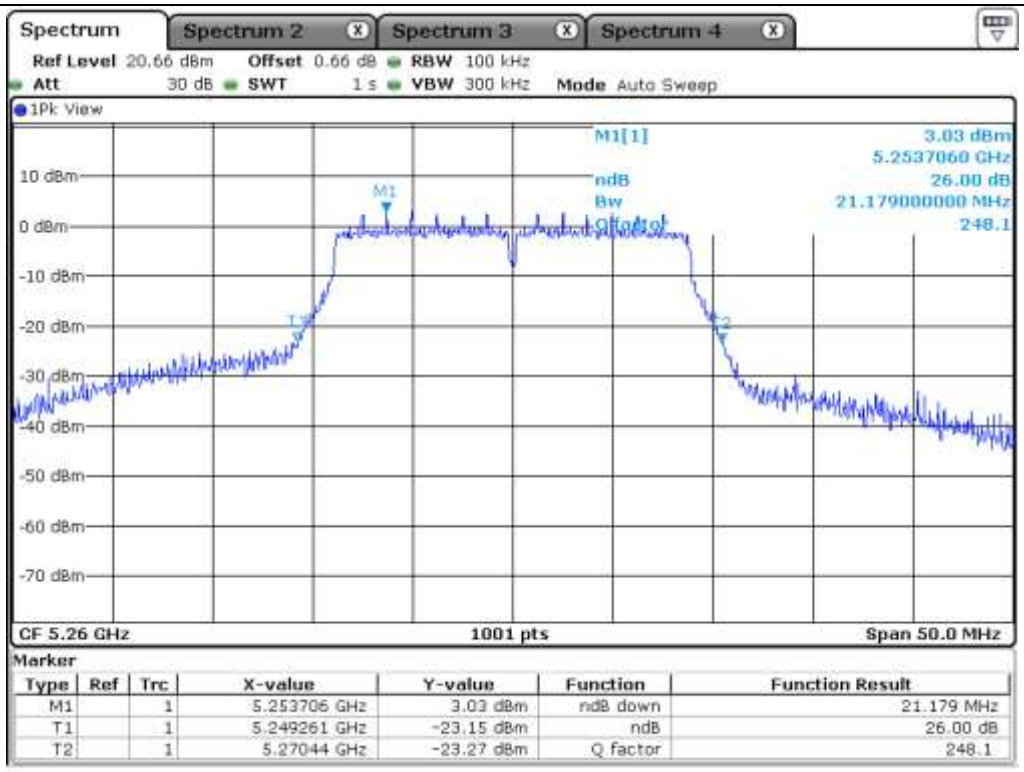
Middle Channel (5 220 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

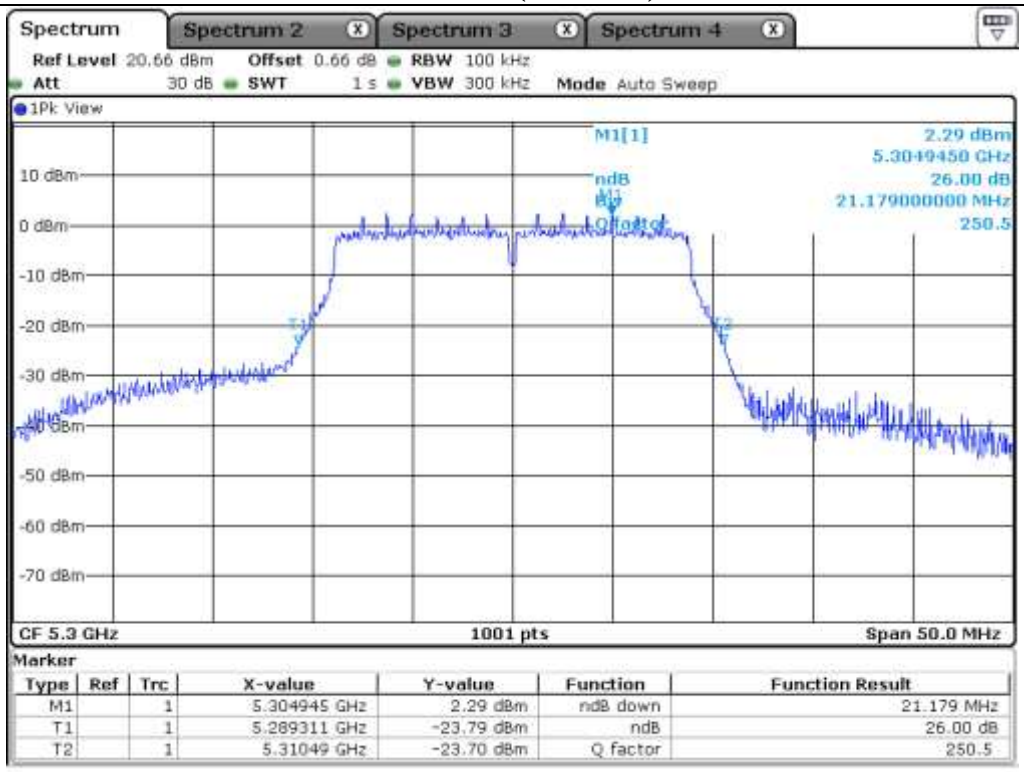


High Channel (5 240 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

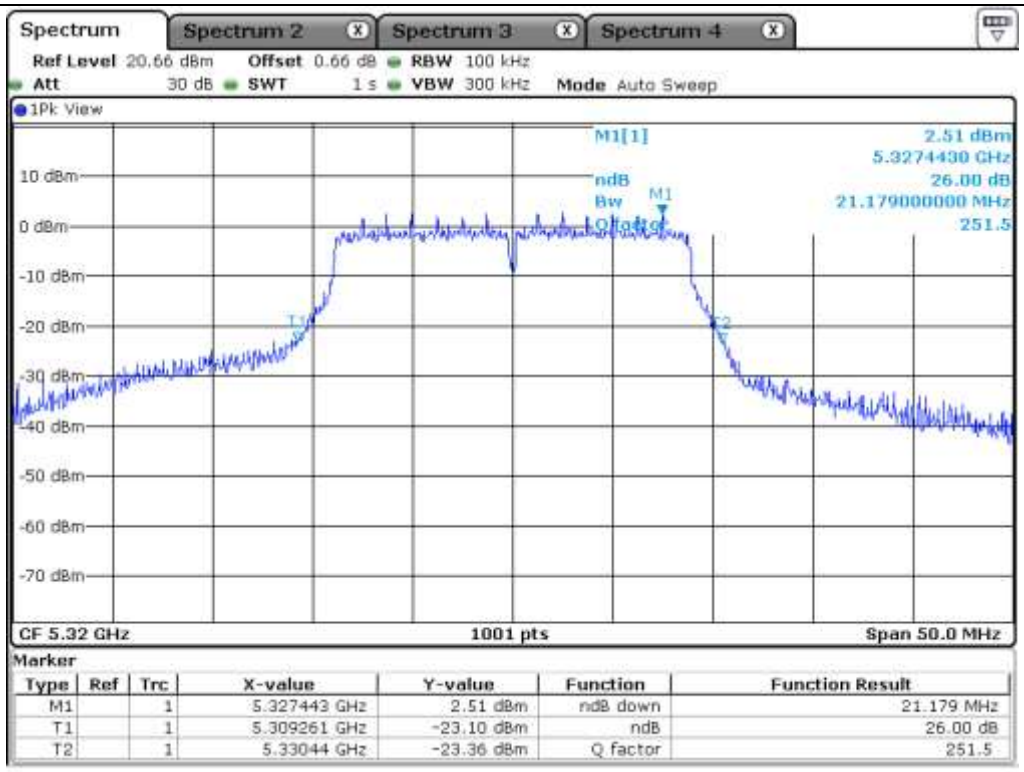


Low Channel (5 260 MHz)

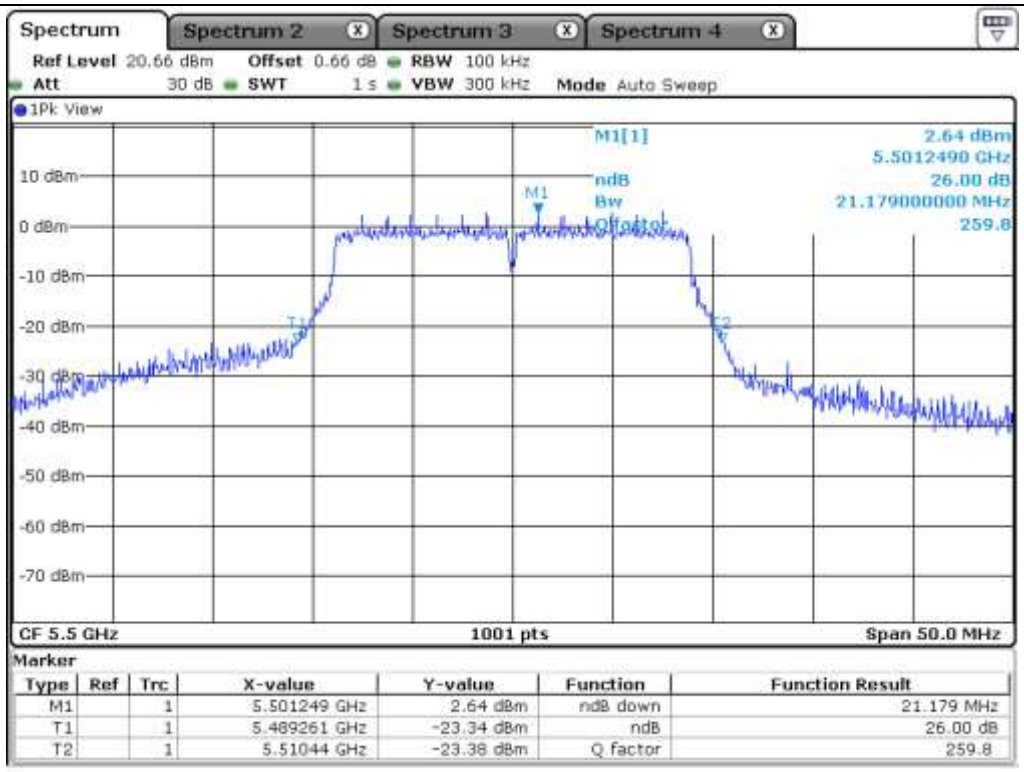


Middle Channel (5 300 MHz)

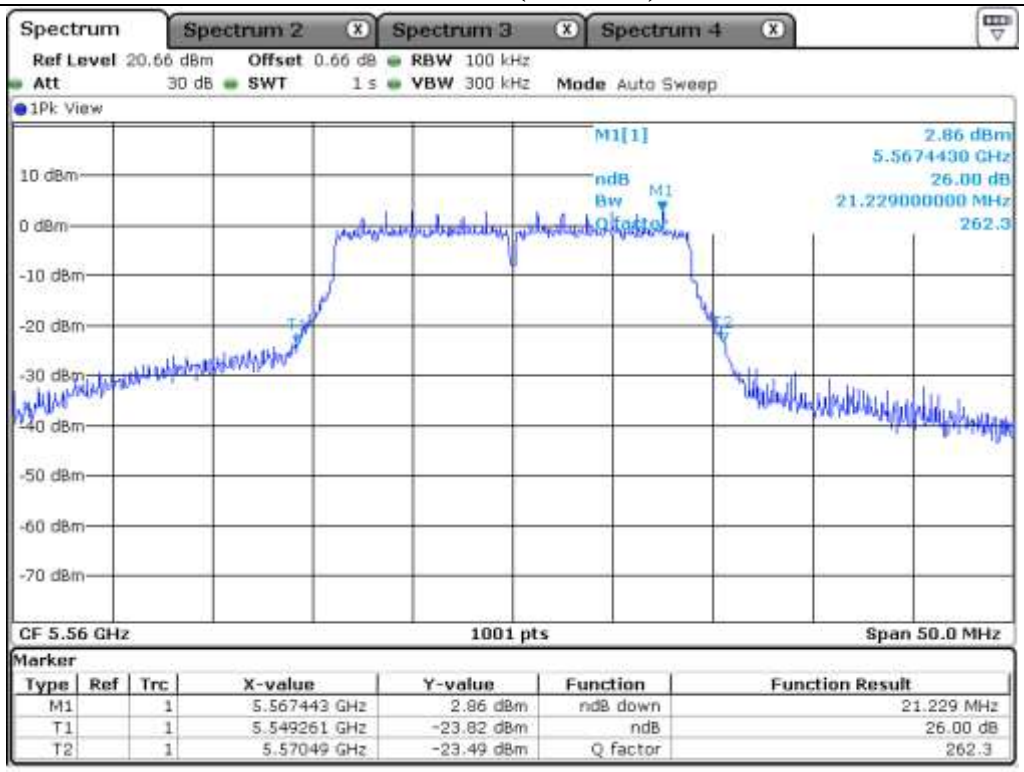
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 320 MHz)

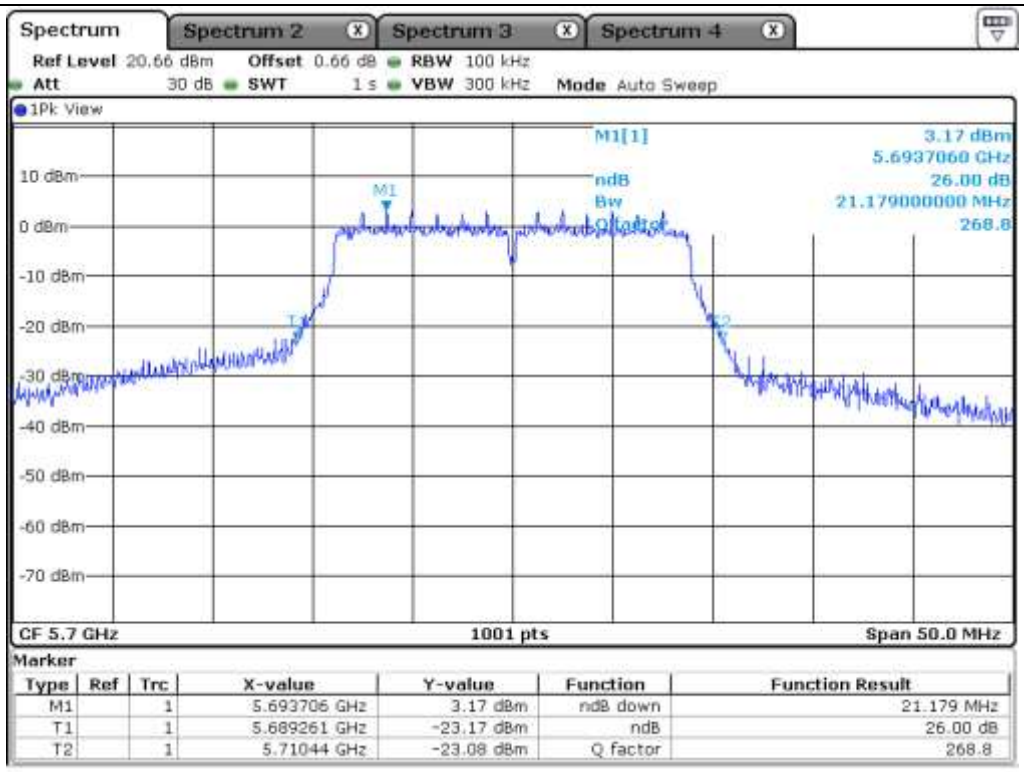


Low Channel (5 500 MHz)



Middle Channel (5 560 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



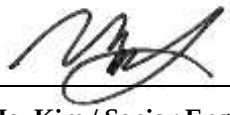
High Channel (5 720 MHz)

7.5.2 Test data for Antenna 1

-. Test Date : March 24, 2017

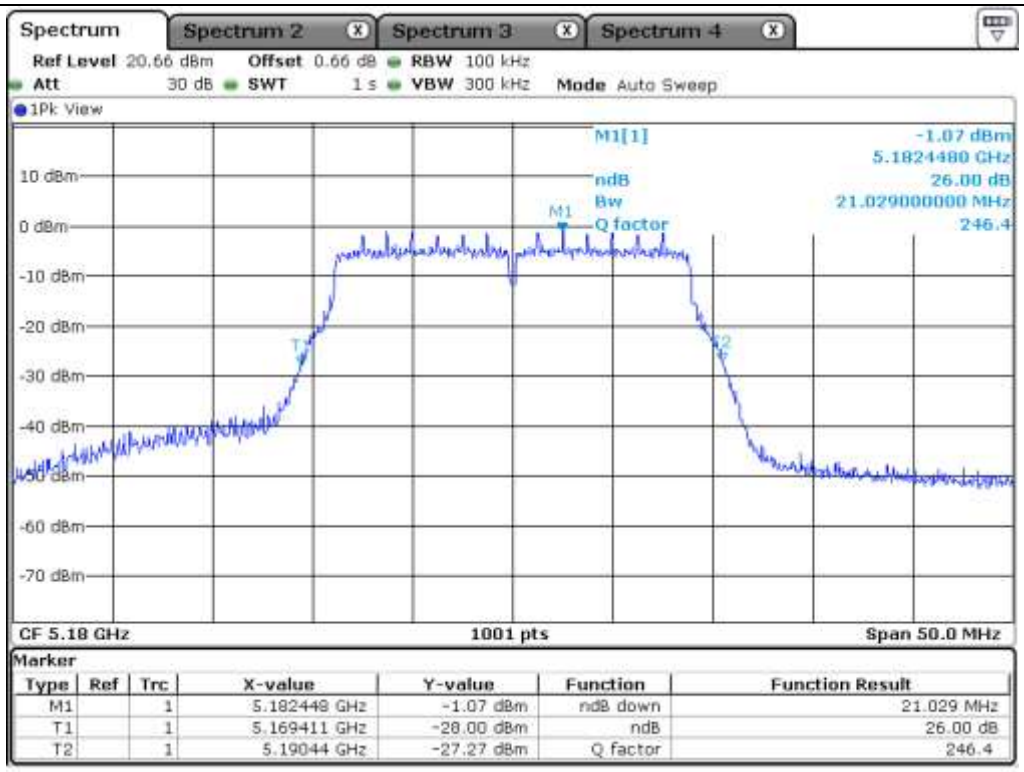
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Low	5 180.00	21.03
	Middle	5 220.00	20.88
	High	5 240.00	20.88
5 250 ~ 5 350	Low	5 260.00	21.08
	Middle	5 300.00	21.13
	High	5 320.00	21.18
5 470 ~ 5 725	Low	5 500.00	21.23
	Middle	5 560.00	20.98
	High	5 700.00	21.13

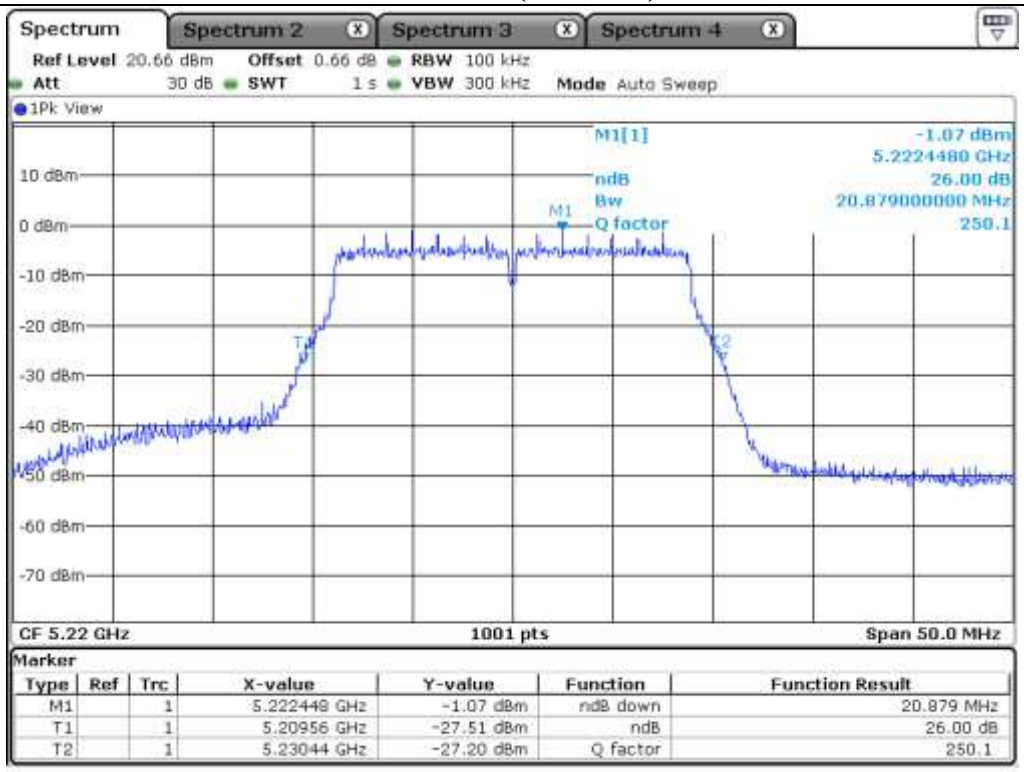


Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

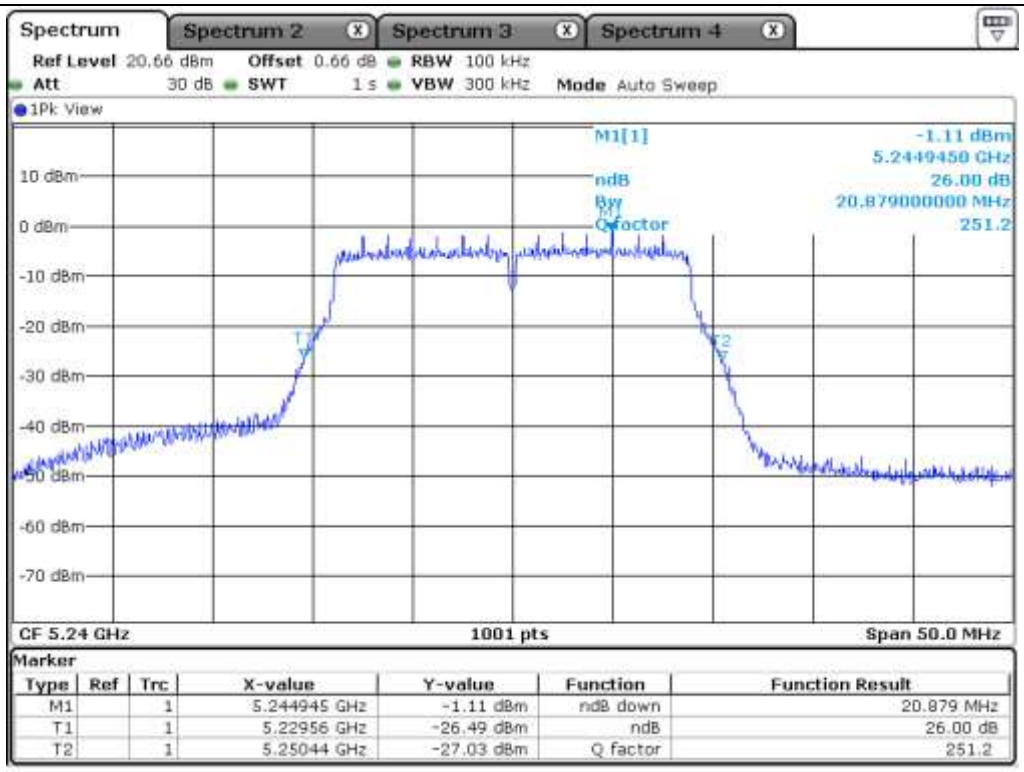


Low Channel (5 180 MHz)



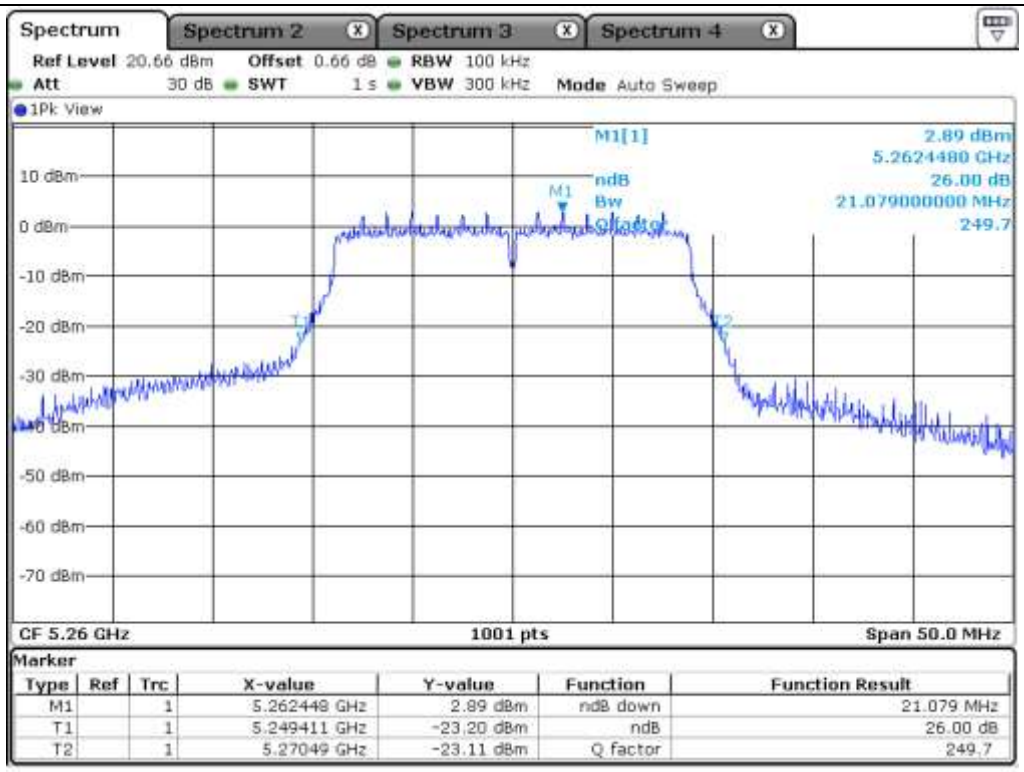
Middle Channel (5 220 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

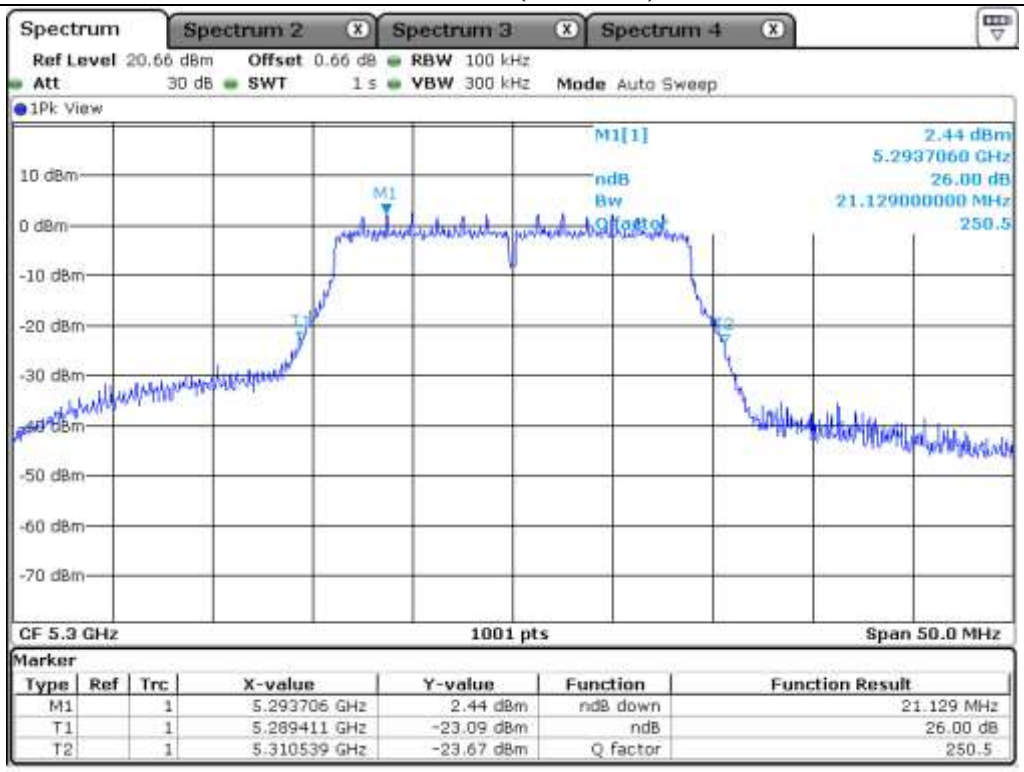


High Channel (5 240 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

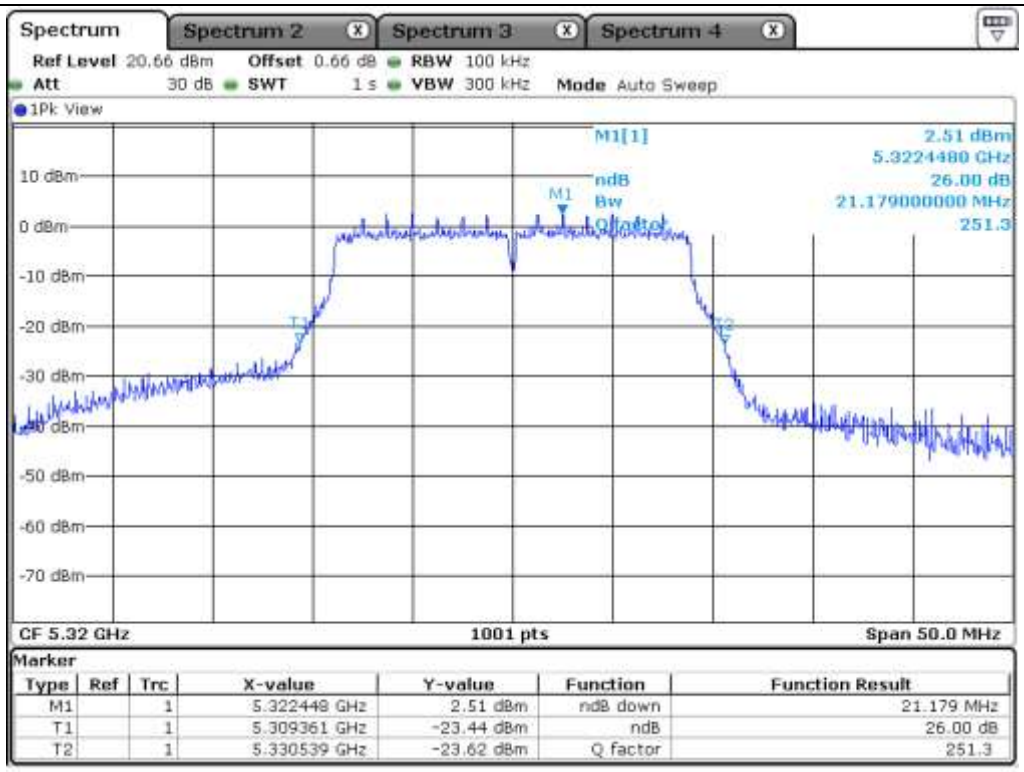


Low Channel (5 260 MHz)

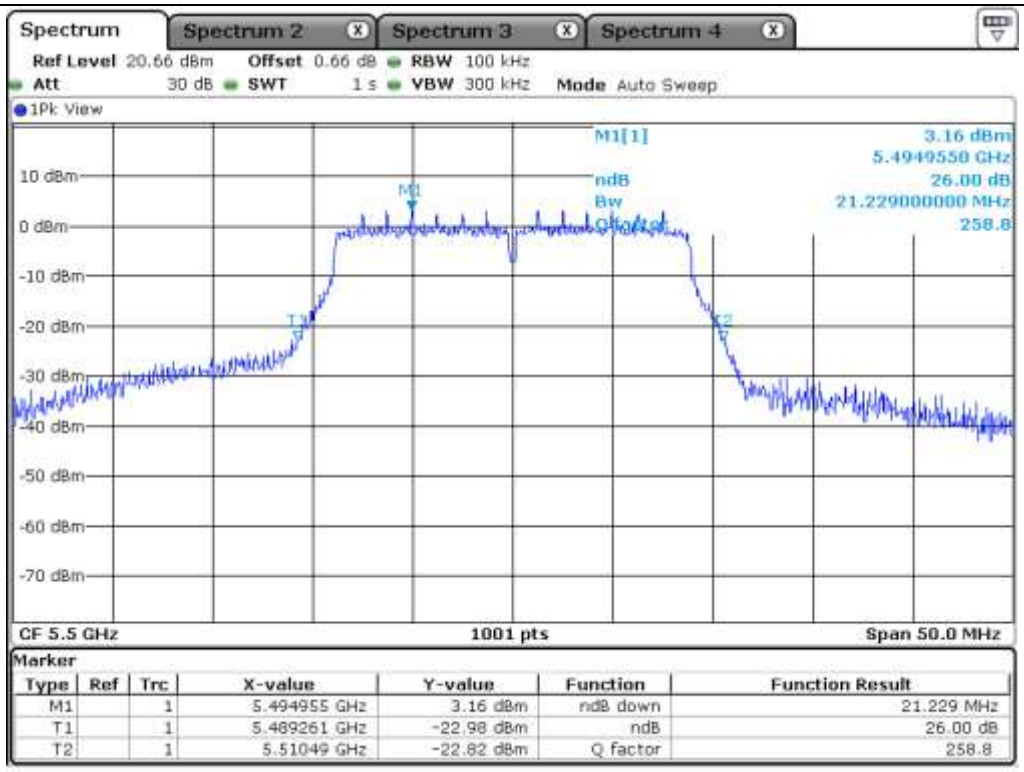


Middle Channel (5 300 MHz)

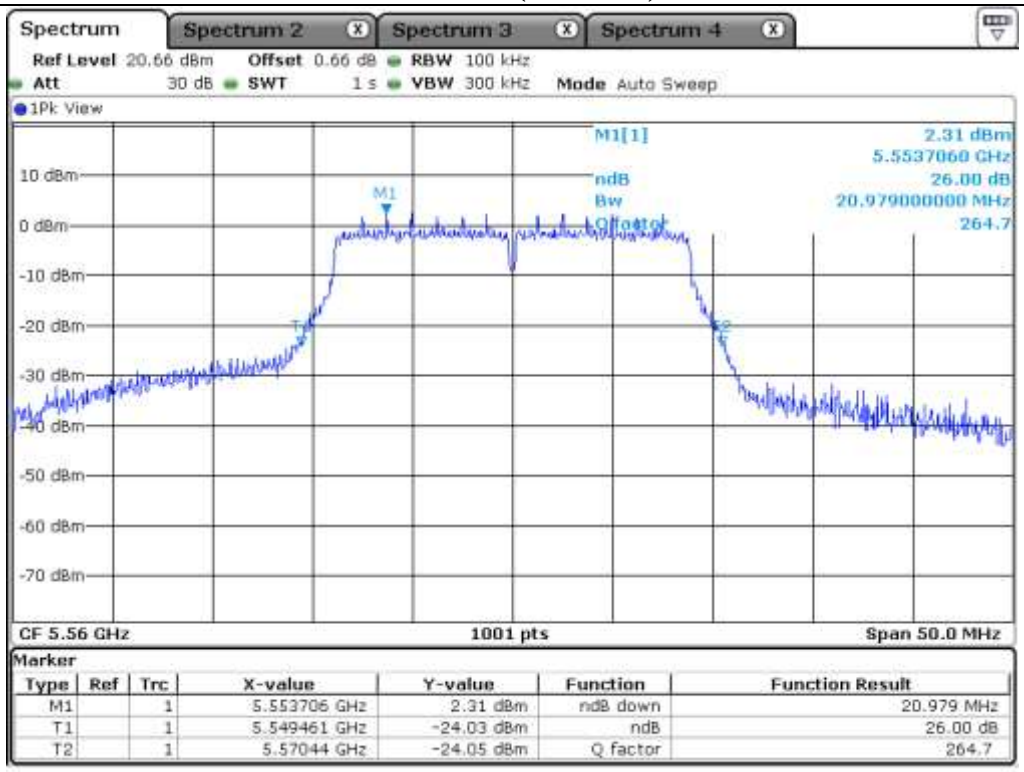
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 320 MHz)

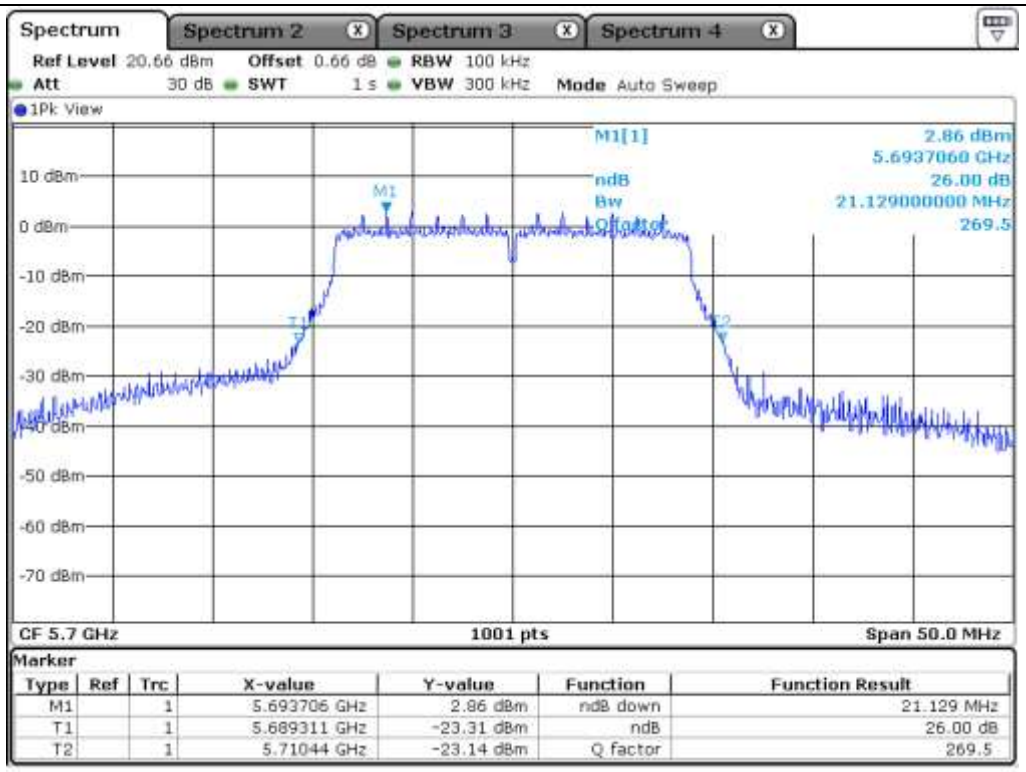


Low Channel (5 500 MHz)



Middle Channel (5 560 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 720 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

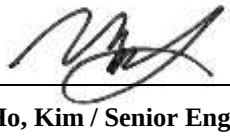
7.6 Test data for 802.11n_HT40 RLAN Mode

7.6.1 Test data for Antenna 0

-. Test Date : March 24, 2017

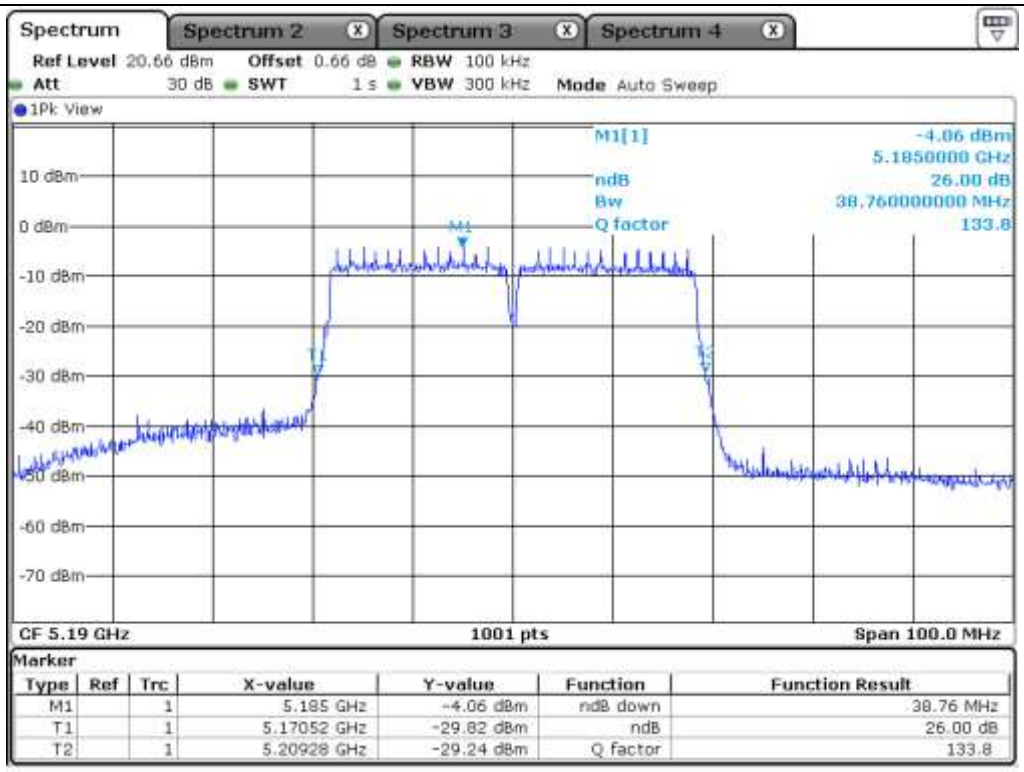
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Low	5 190.00	38.76
	High	5 230.00	38.66
5 250 ~ 5 350	Low	5 270.00	38.96
	High	5 310.00	38.96
5 470 ~ 5 725	Low	5 510.00	38.96
	Middle	5 550.00	39.16
	High	5 670.00	39.06

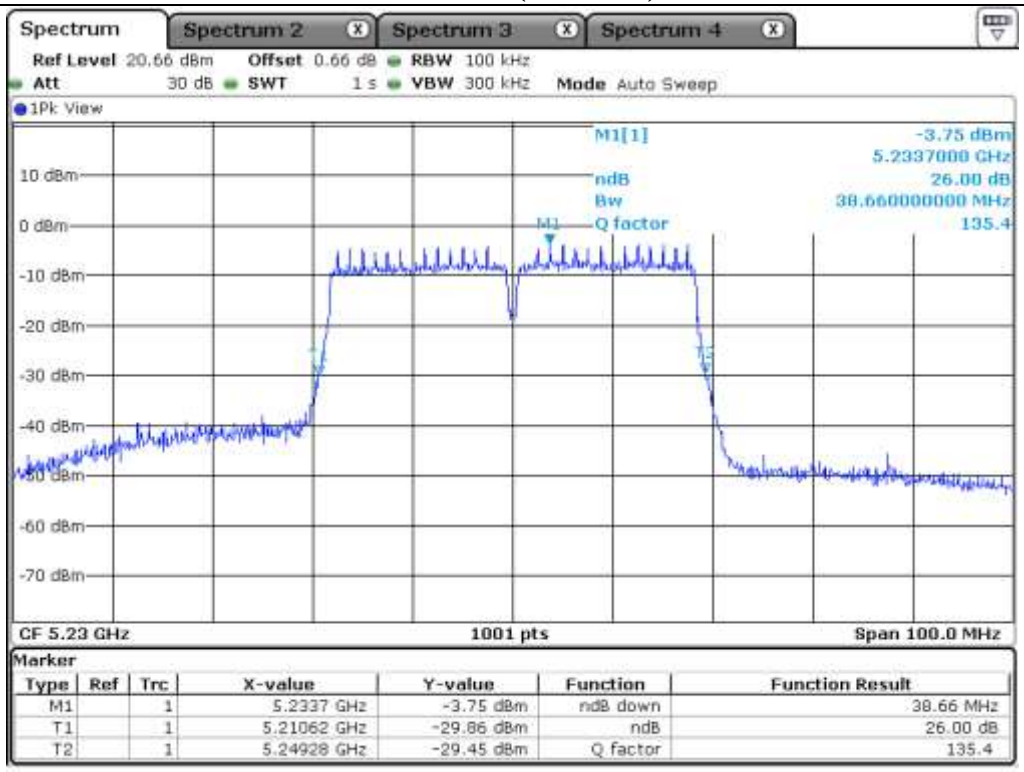


Tested by: Tae-Ho, Kim / Senior Engineer

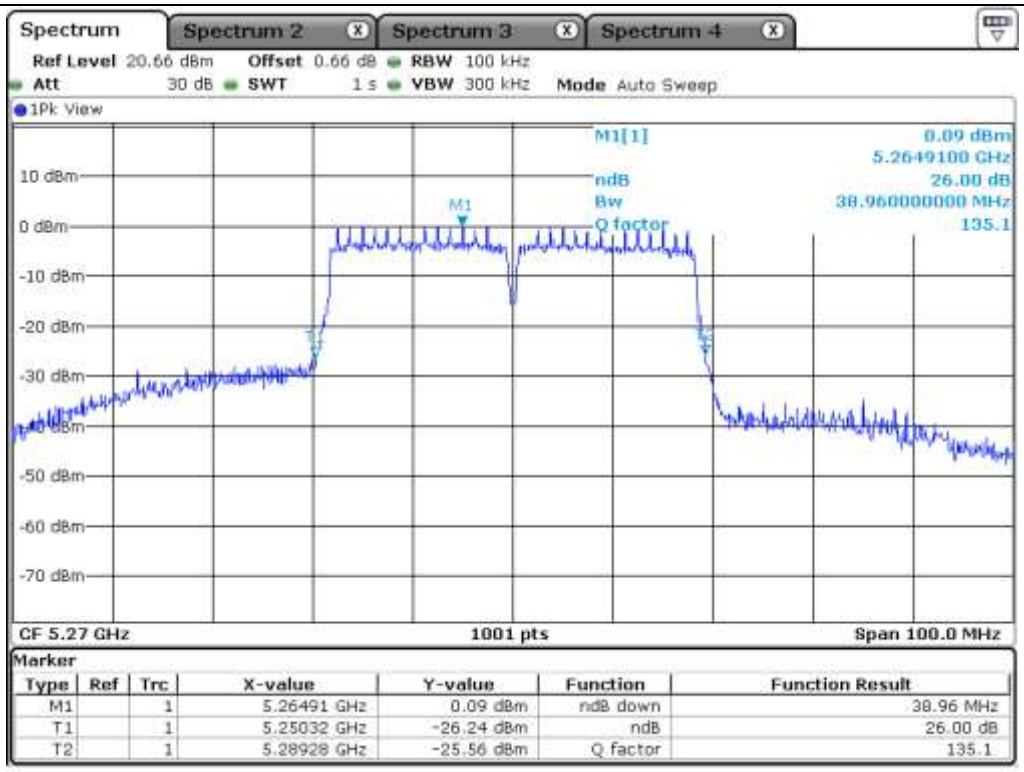
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



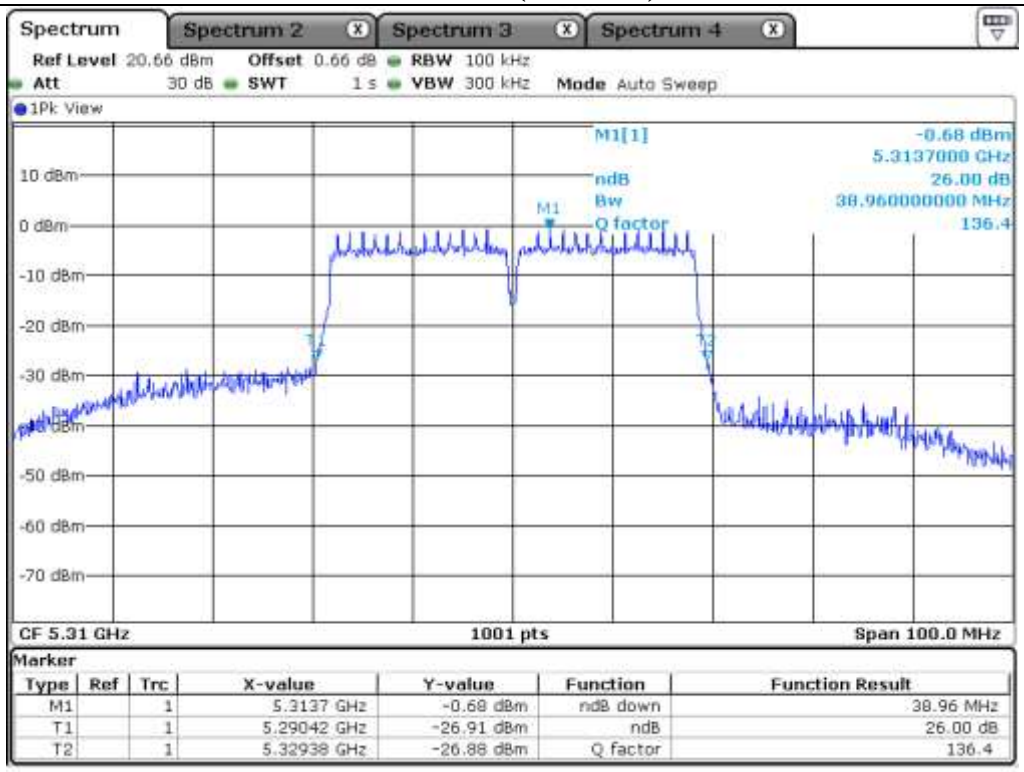
Low Channel (5 190 MHz)



High Channel (5 230 MHz)

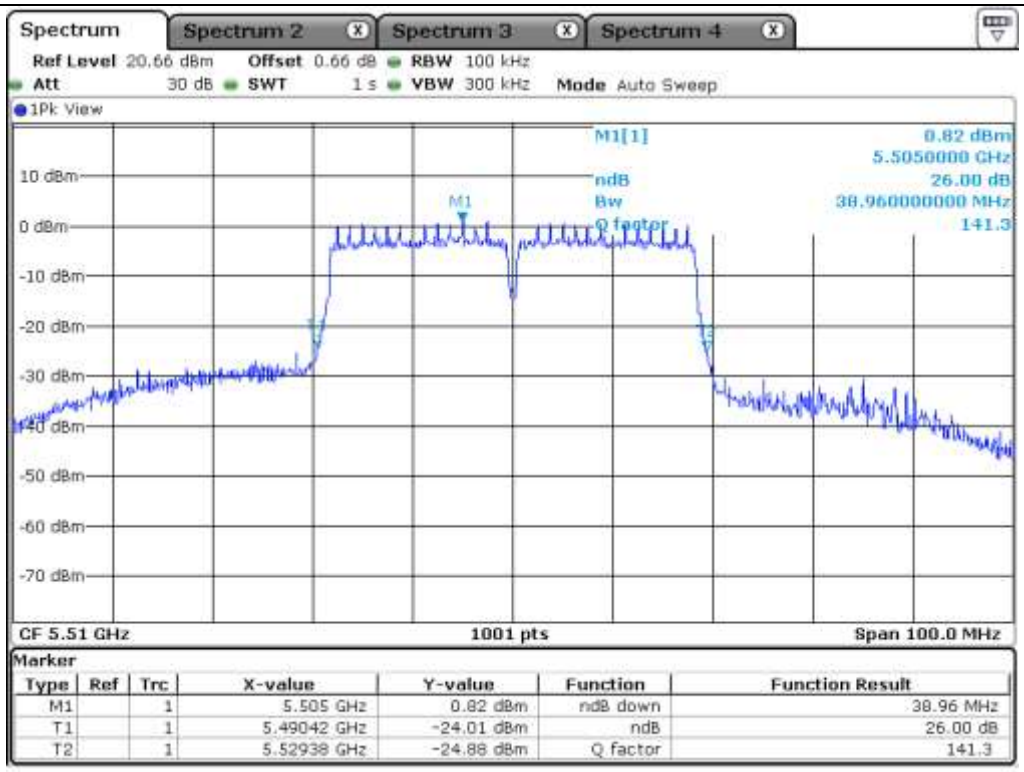


Low Channel (5 270 MHz)

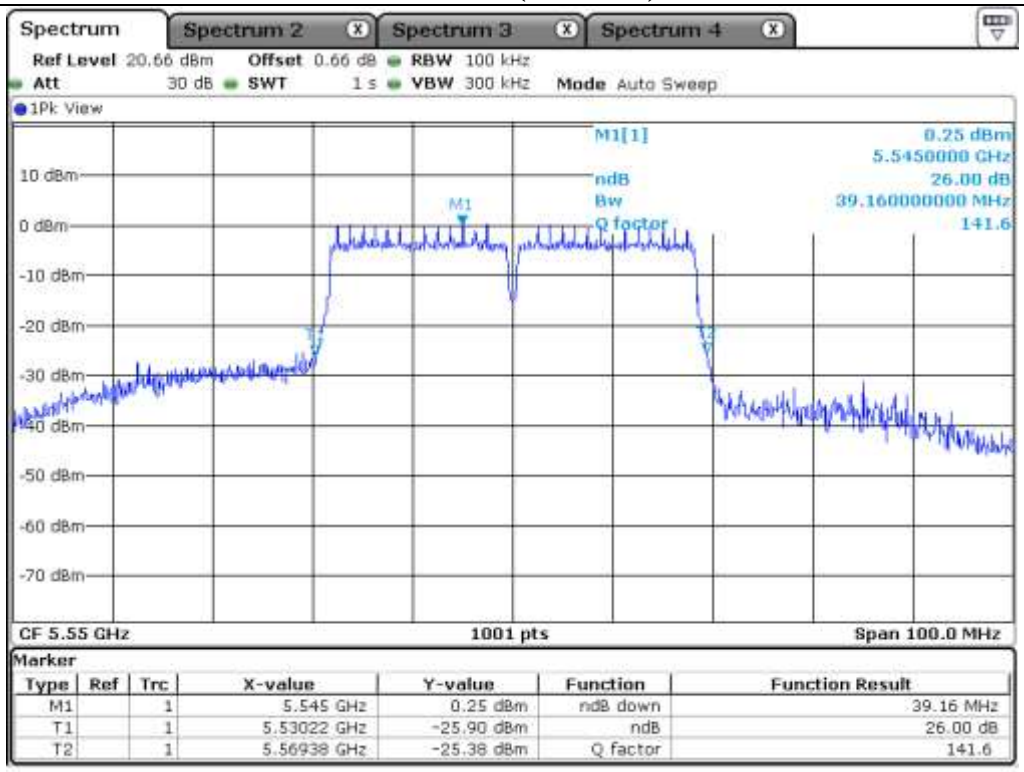


High Channel (5 310 MHz)

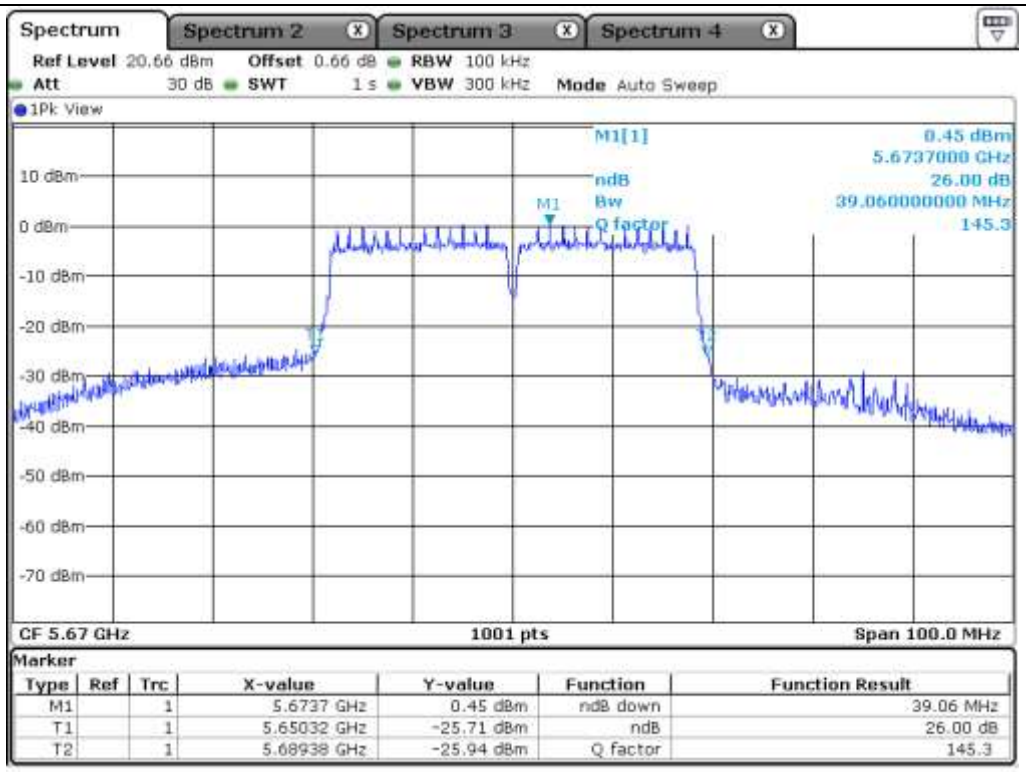
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Low Channel (5 510 MHz)



Middle Channel (5 550 MHz)



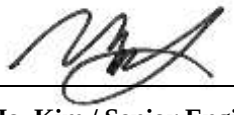
High Channel (5 710 MHz)

7.6.2 Test data for Antenna 1

-. Test Date : March 24, 2017

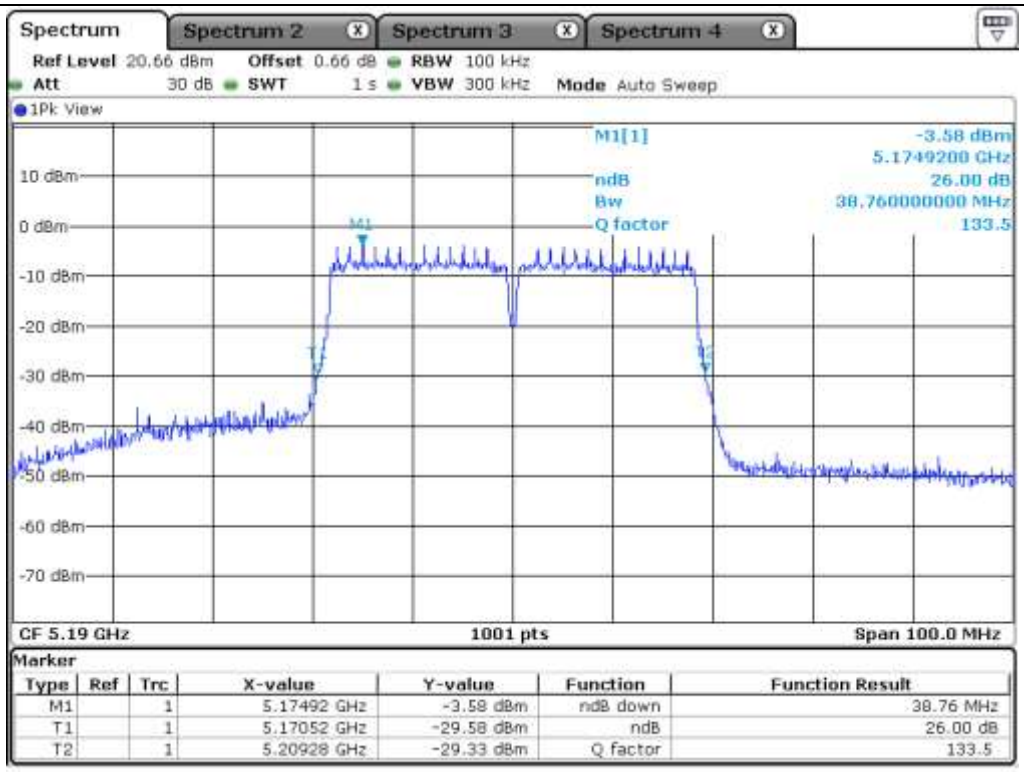
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Low	5 190.00	38.76
	High	5 230.00	38.86
5 250 ~ 5 350	Low	5 270.00	38.76
	High	5 310.00	39.06
5 470 ~ 5 725	Low	5 510.00	38.96
	Middle	5 550.00	38.96
	High	5 710.00	39.16

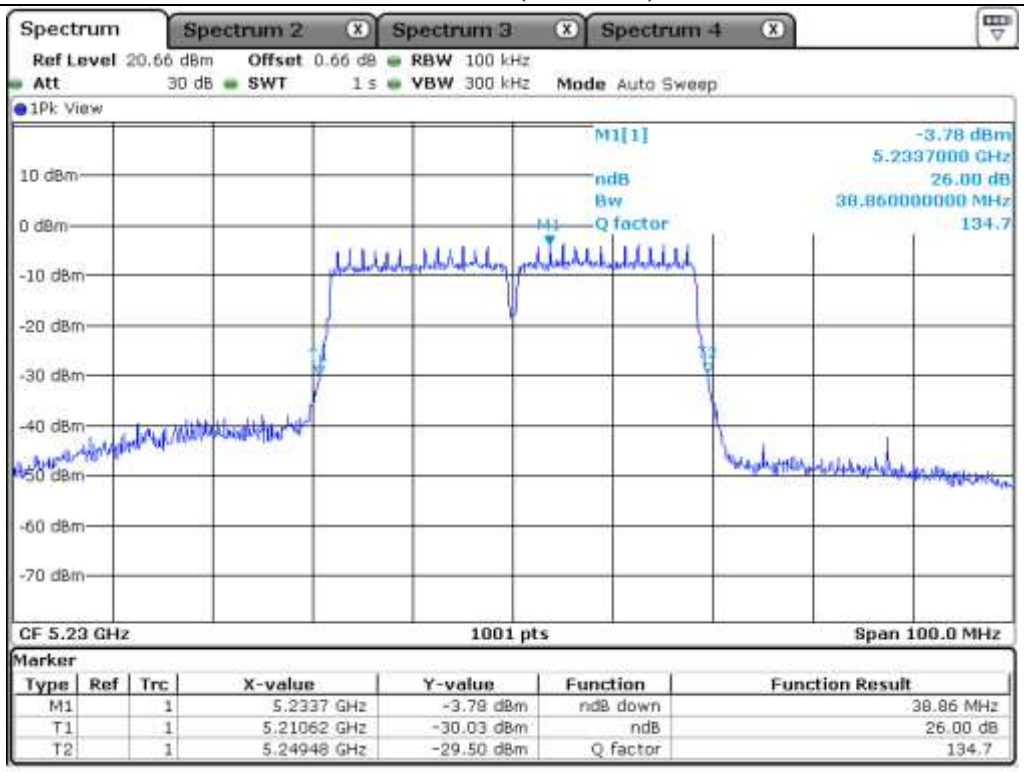


Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

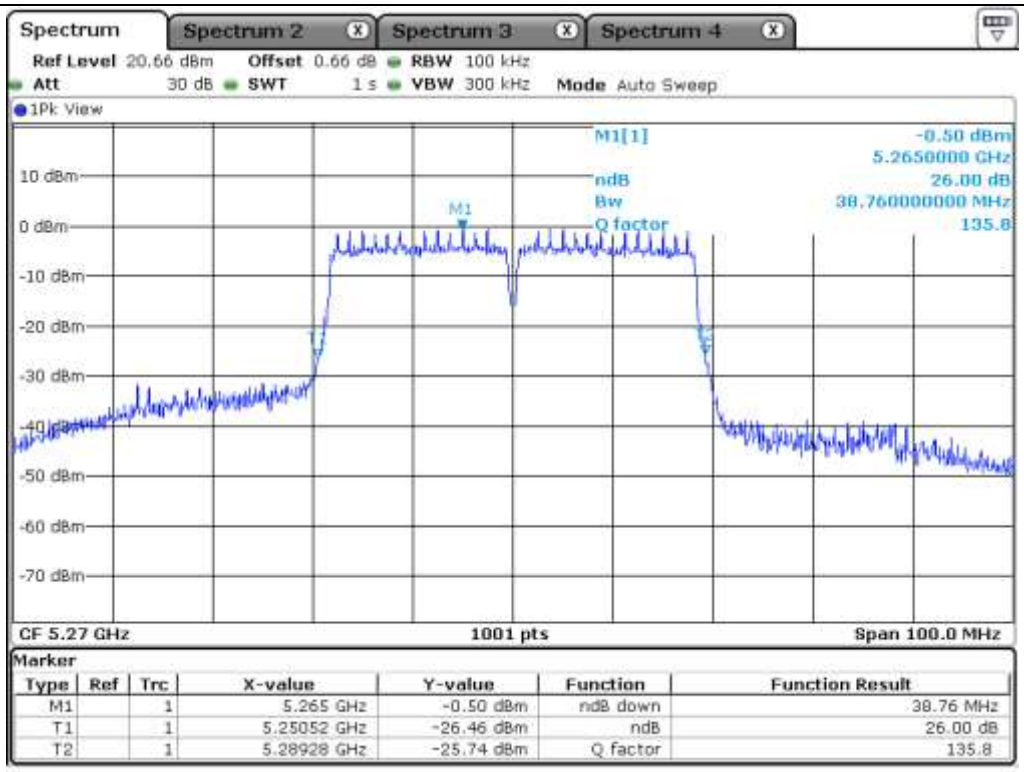


Low Channel (5 190 MHz)

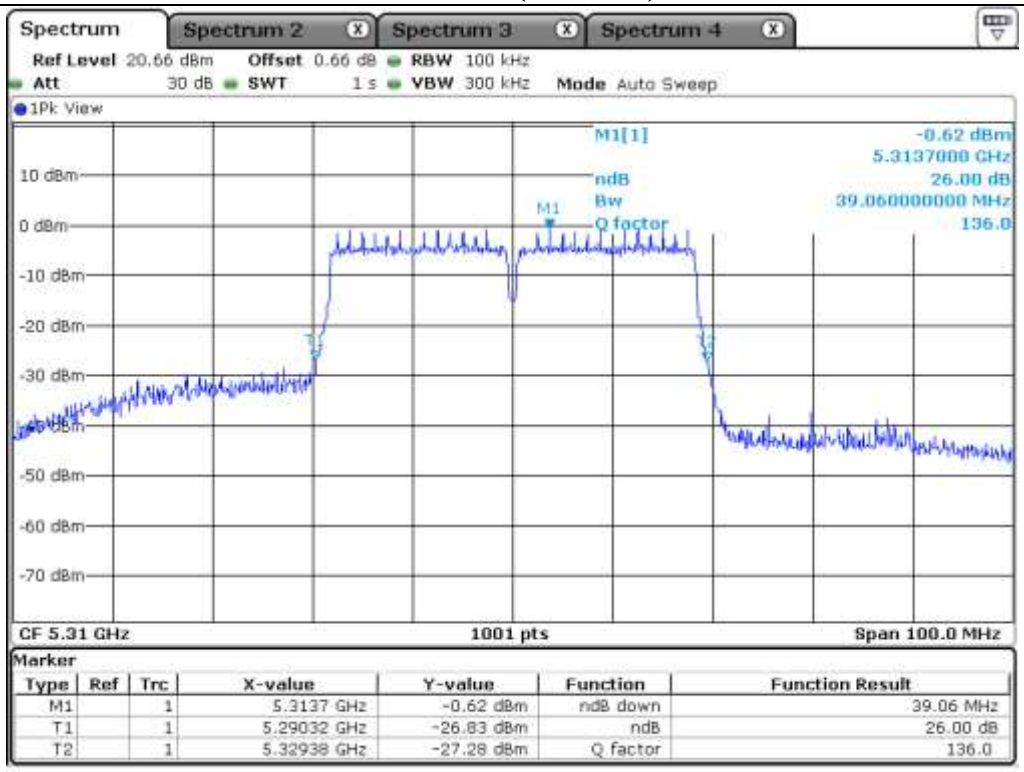


High Channel (5 230 MHz)

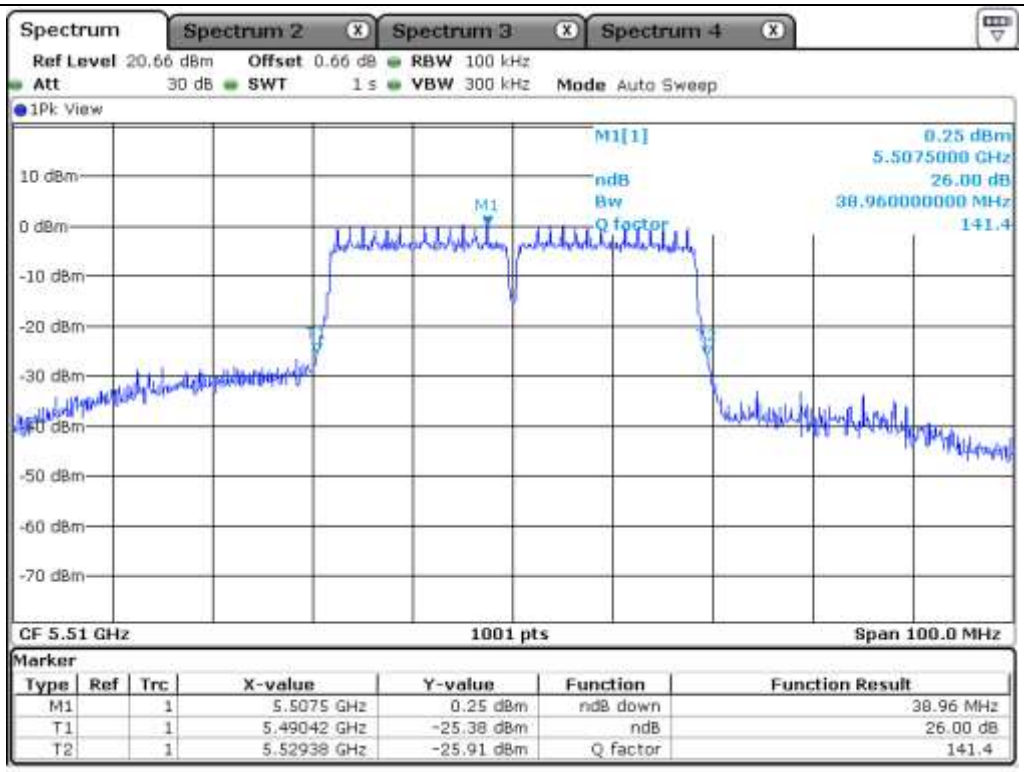
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



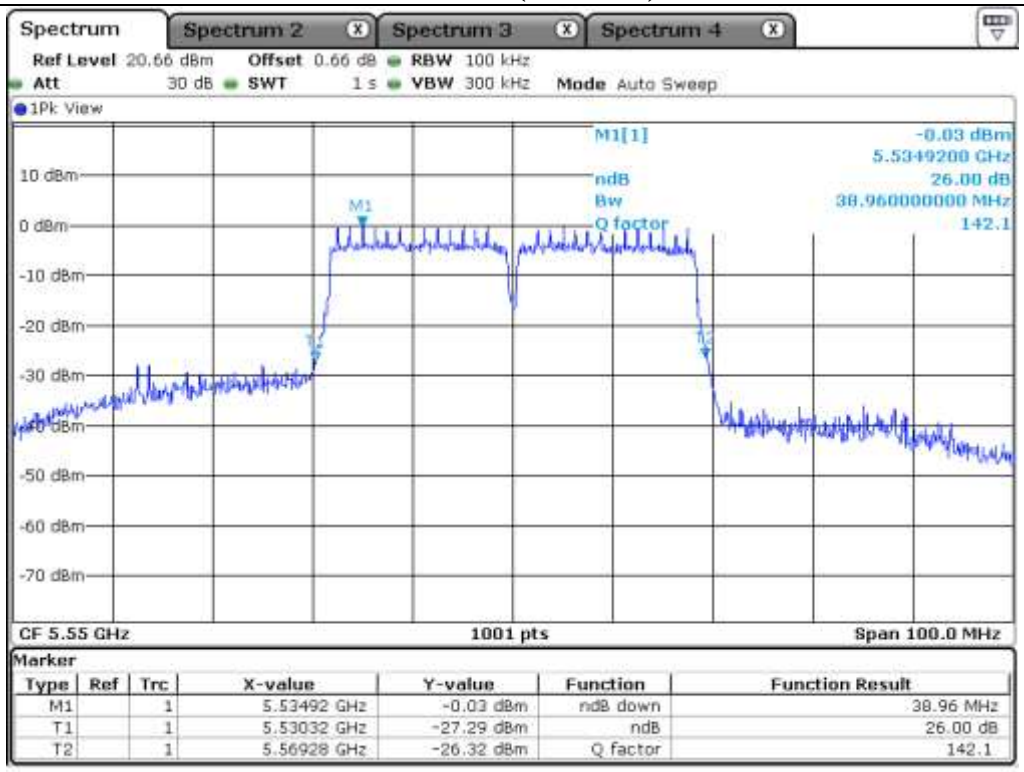
Low Channel (5 270 MHz)



High Channel (5 310 MHz)

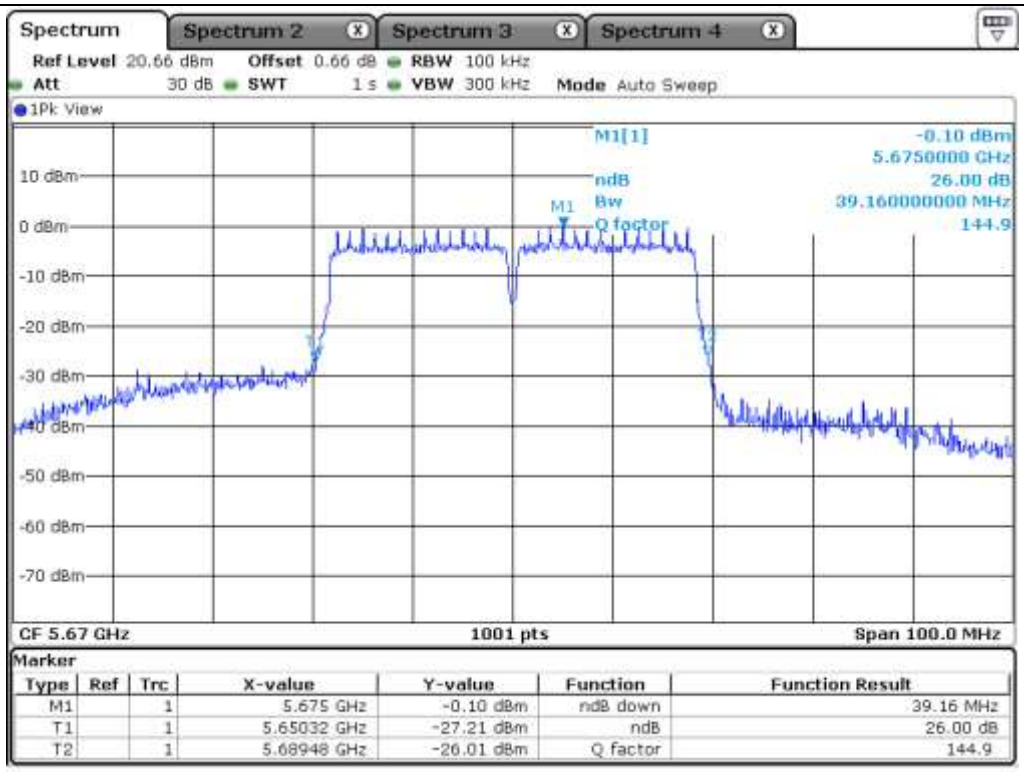


Low Channel (5 510 MHz)



Middle Channel (5 550 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 710 MHz)

7.7 Test data for 802.11ac_VHT80 RLAN Mode

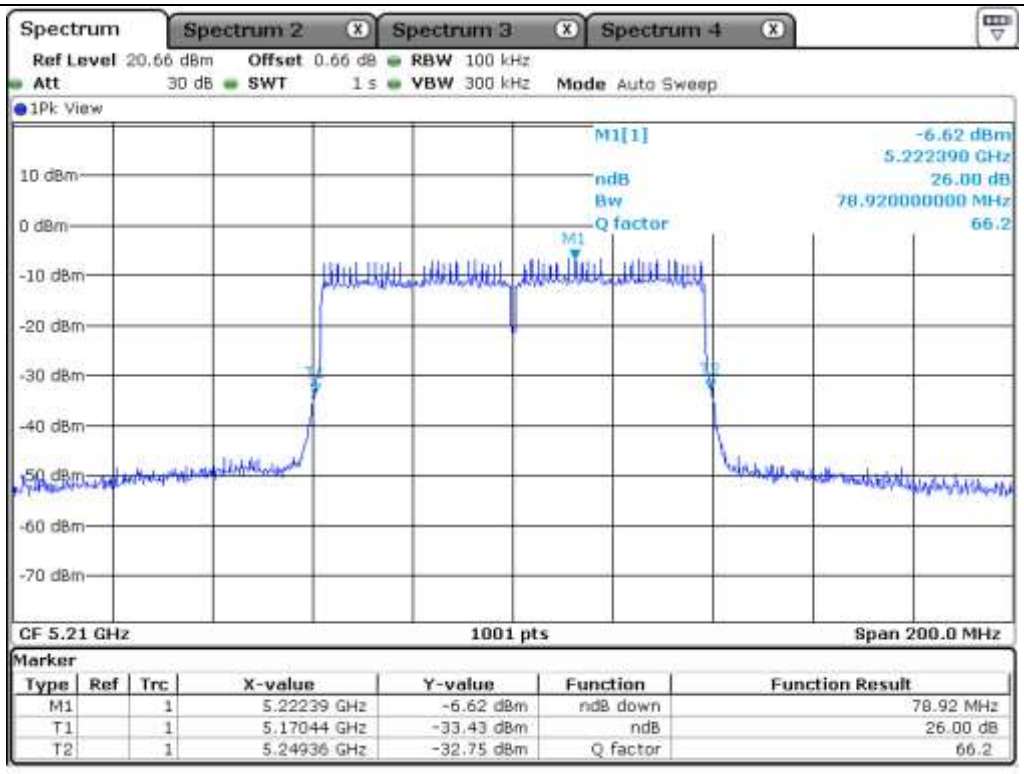
7.7.1 Test data for Antenna 0

-. Test Date : March 24, 2017

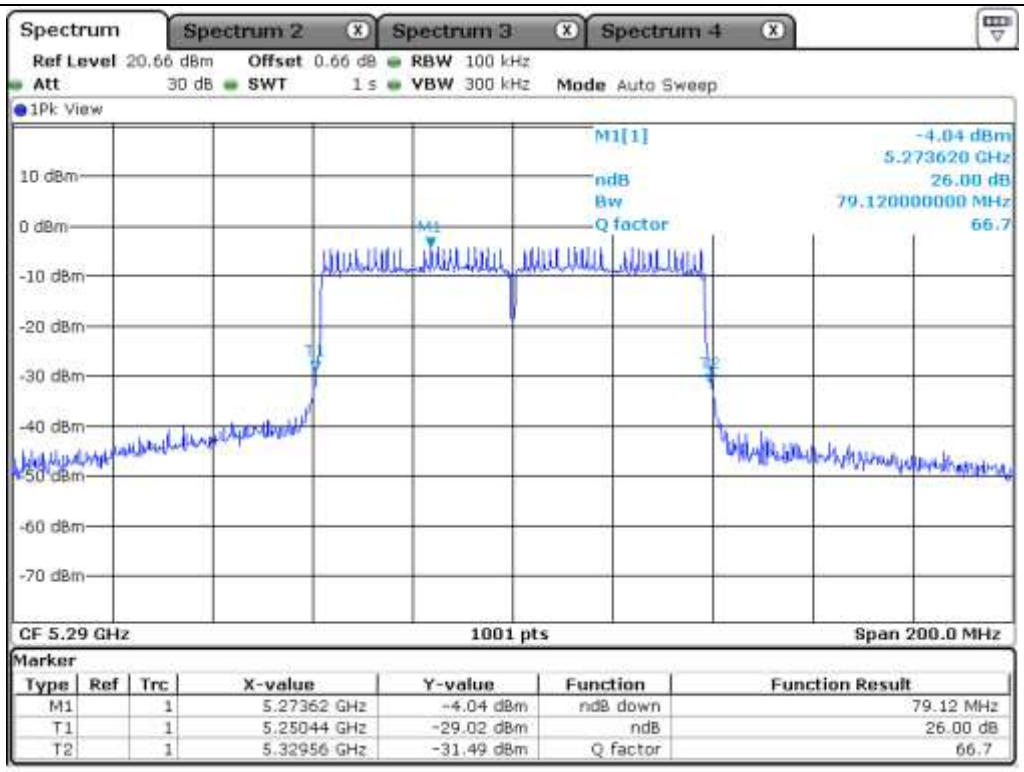
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Middle	5 210.00	78.92
5 250 ~ 5 350	Middle	5 290.00	79.12
5 470 ~ 5 725	Middel	5 530.00	79.12

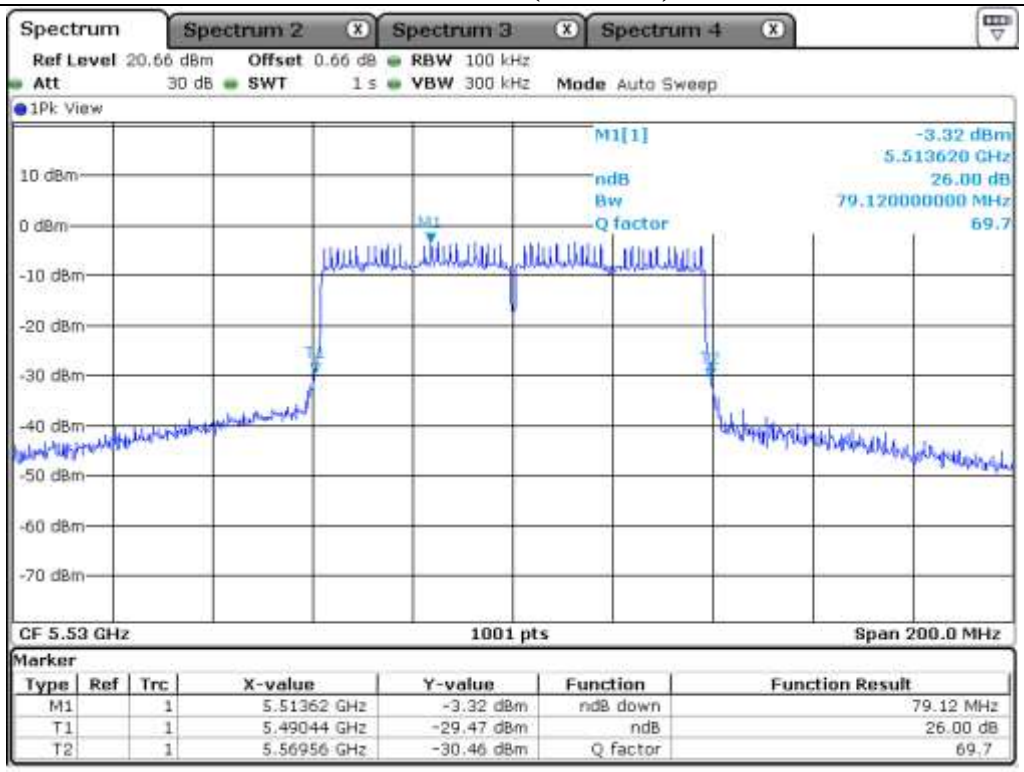
Tested by: Tae-Ho, Kim / Senior Engineer



Middle Channel (5 210 MHz)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

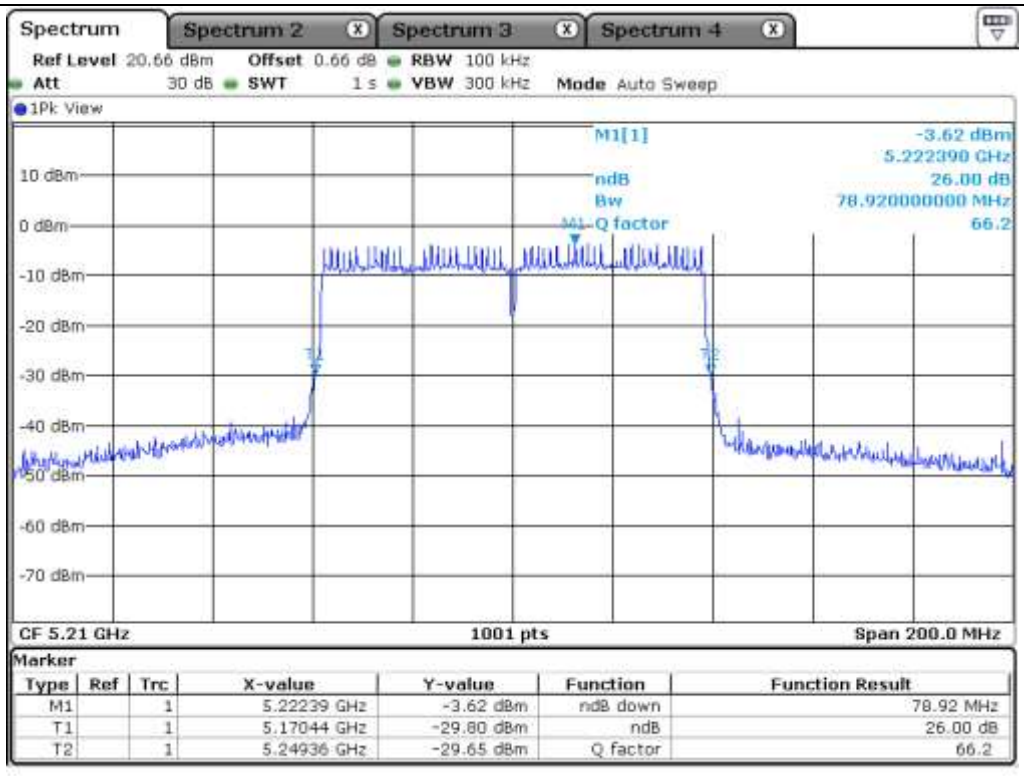
7.7.2 Test data for Antenna 1

-. Test Date : March 24, 2017

-. Test Result : Pass

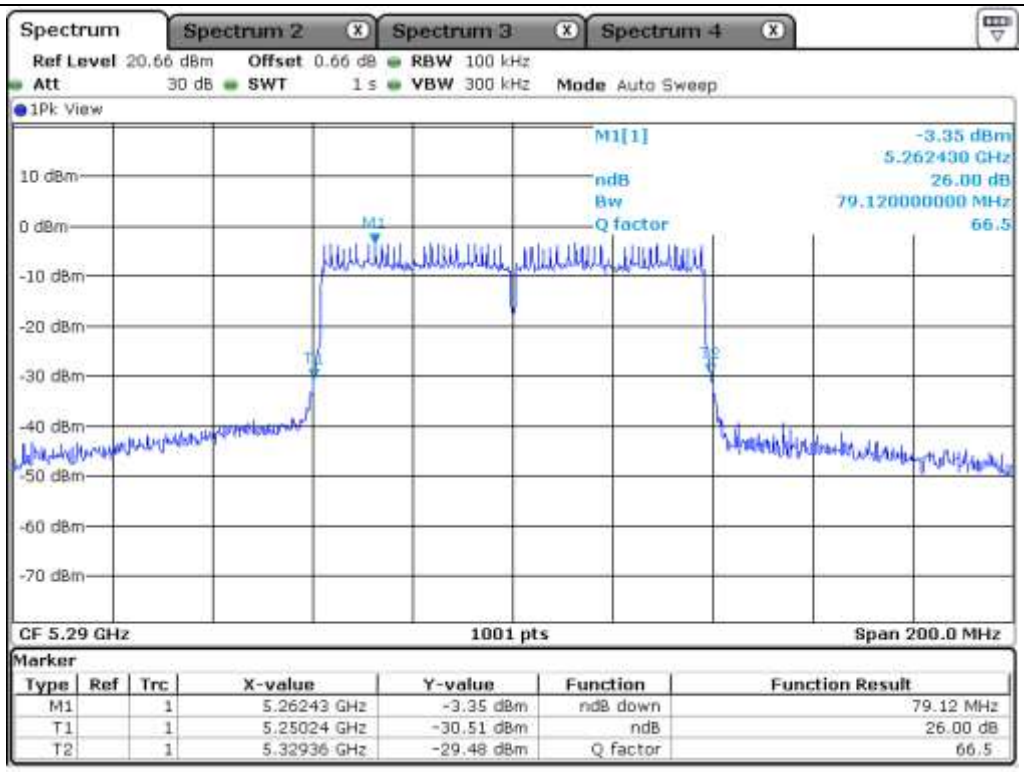
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)
5 150 ~ 5 250	Middle	5 210.00	78.92
5 250 ~ 5 350	Middle	5 290.00	79.12
5 470 ~ 5 725	Middle	5 530.00	78.92

Tested by: Tae-Ho, Kim / Senior Engineer

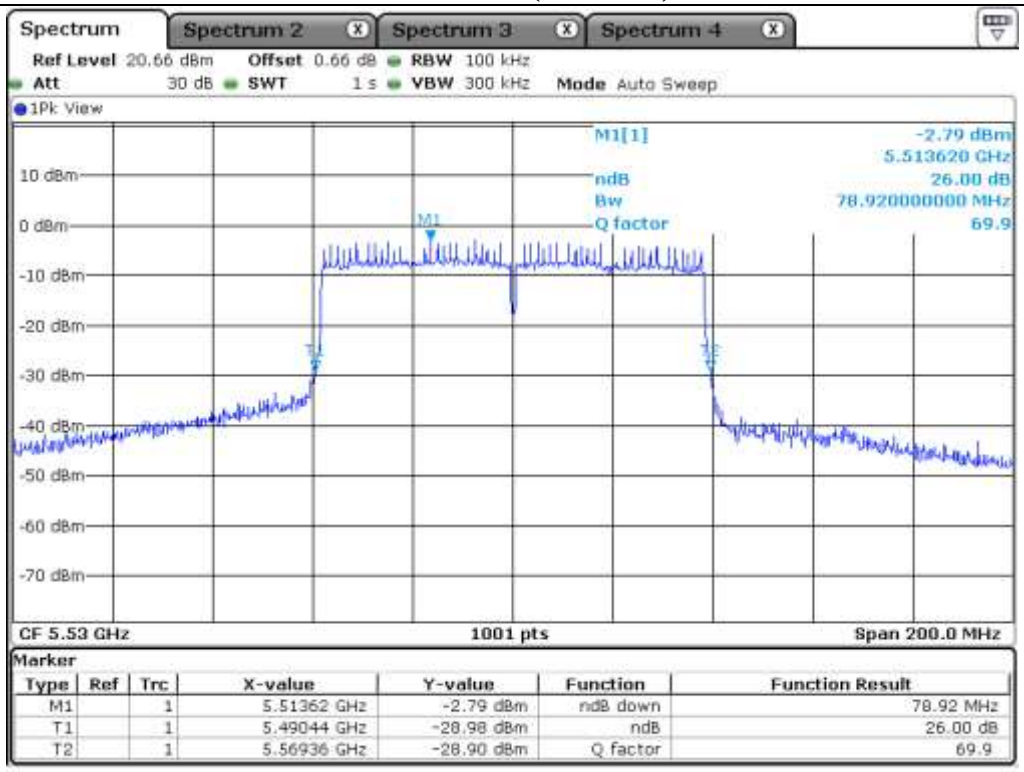


Middle Channel (5 210 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Middle Channel (5 290 MHz)



Middle Channel (5 530 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8. 6 dB BANDWIDTH

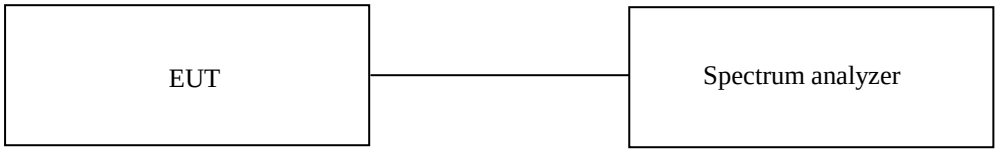
8.1 Operating environment

Temperature : 21 ℃

Relative humidity : 45 % R.H.

8.2 Test set-up

The antenna output of the EUT was connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz, and peak detection was used. The 6dB bandwidth is defined as the total spectrum over which the power is higher than the peak power minus 6 dB.



8.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ -	FSV40	Rohde & Schwarz	Signal Analyzer	101009	April 05, 2017 (1Y)

All test equipment used is calibrated on a regular basis.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8.4 Test data for 802.11a RLAN Mode

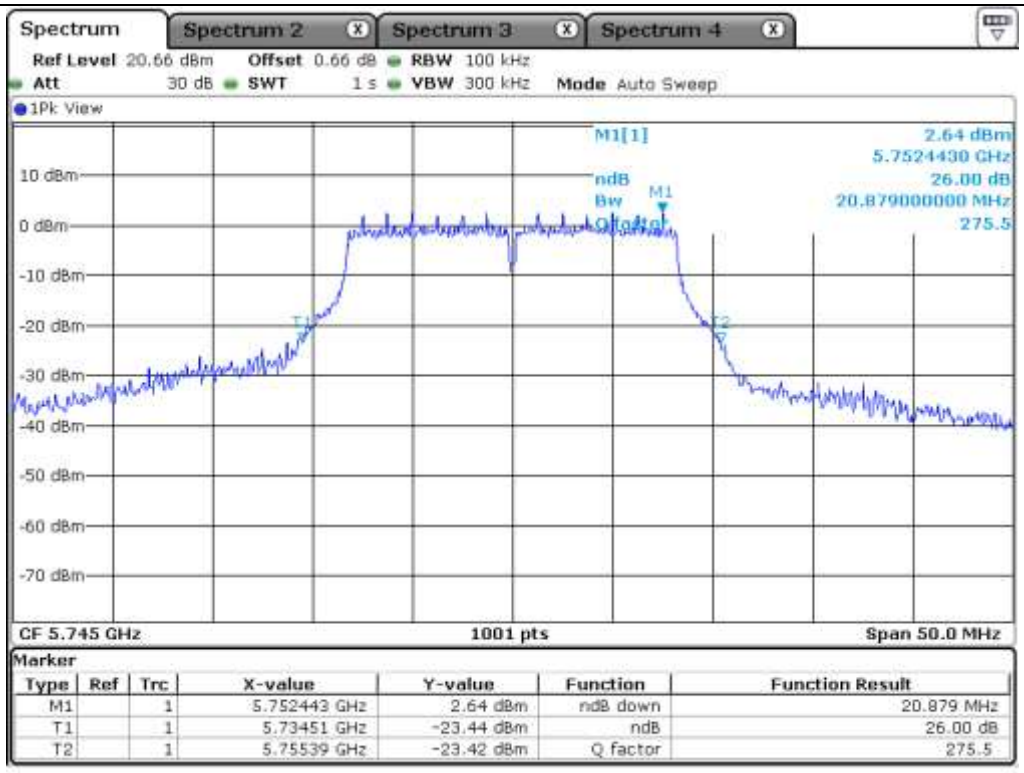
8.4.1 Test data for Antenna 0

-. Test Date : March 24, 2017

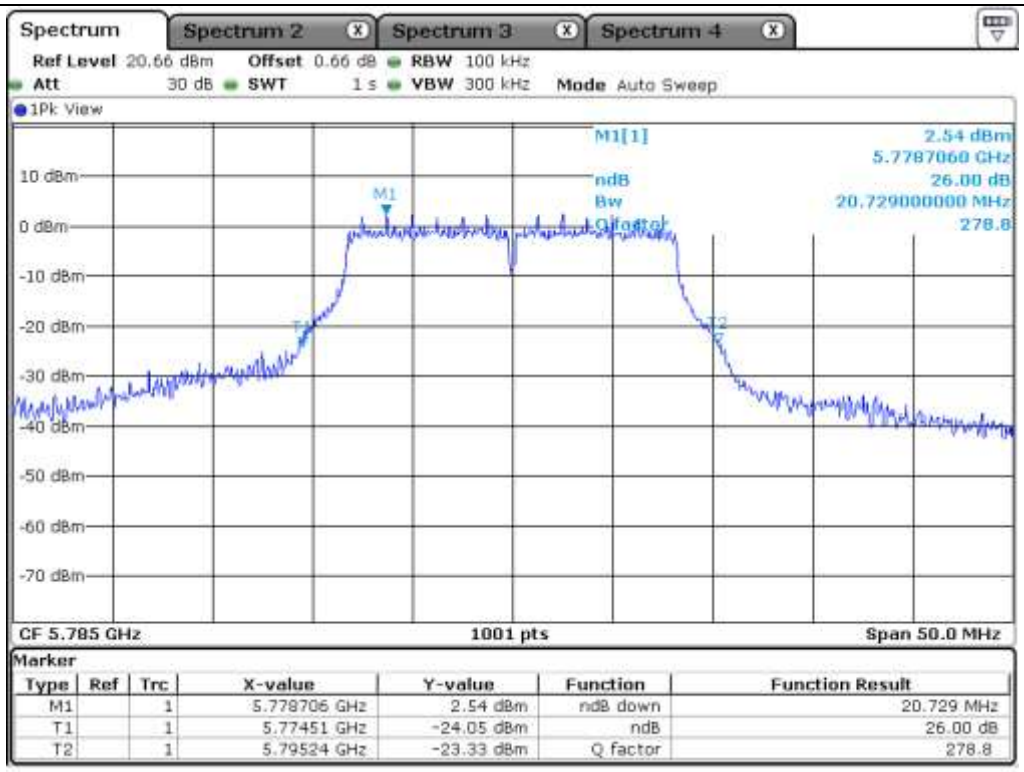
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	20.88
	Middle	5 785.00	20.73
	High	5 825.00	20.82

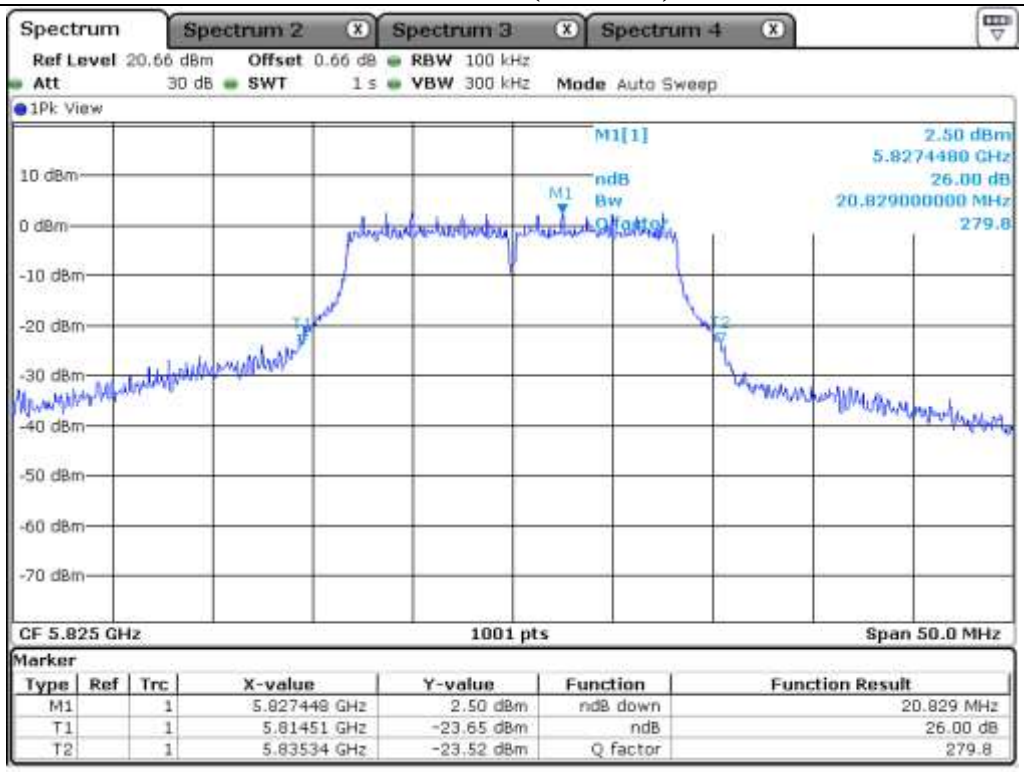
Tested by: Tae-Ho, Kim / Senior Engineer



Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



High Channel (5 825 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

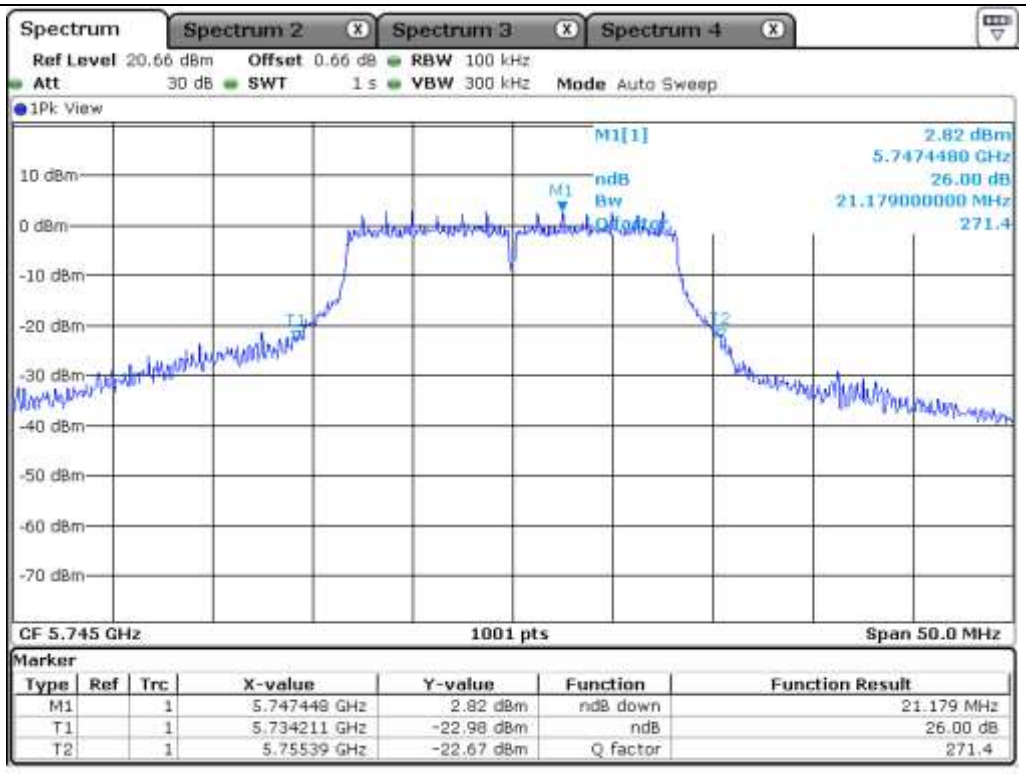
8.4.2 Test data for Antenna 1

-. Test Date : March 24, 2017

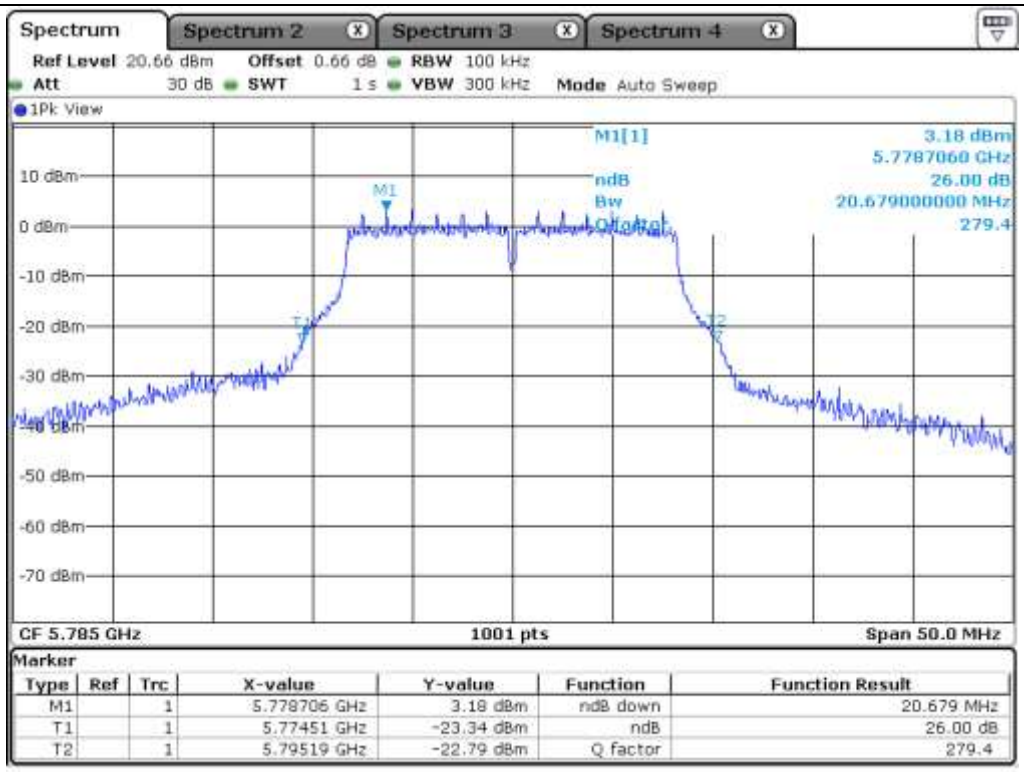
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	21.18
	Middle	5 785.00	20.68
	High	5 825.00	20.78

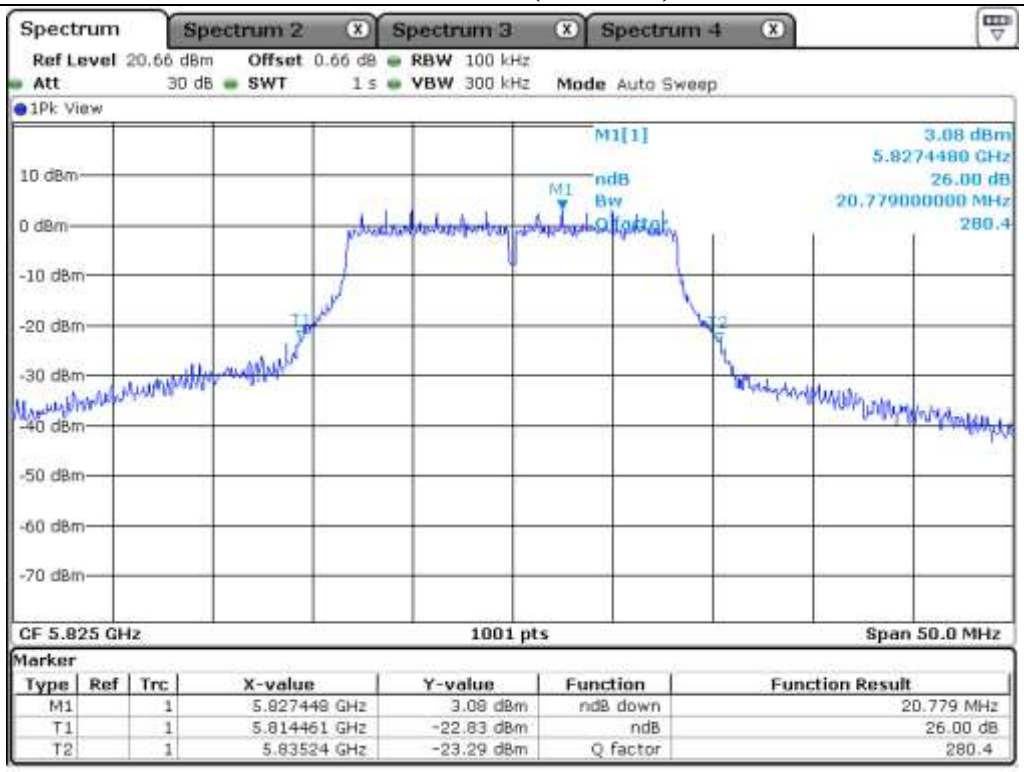
Tested by: Tae-Ho, Kim / Senior Engineer



Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



High Channel (5 825 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8.5 Test data for 802.11n_HT20 RLAN Mode

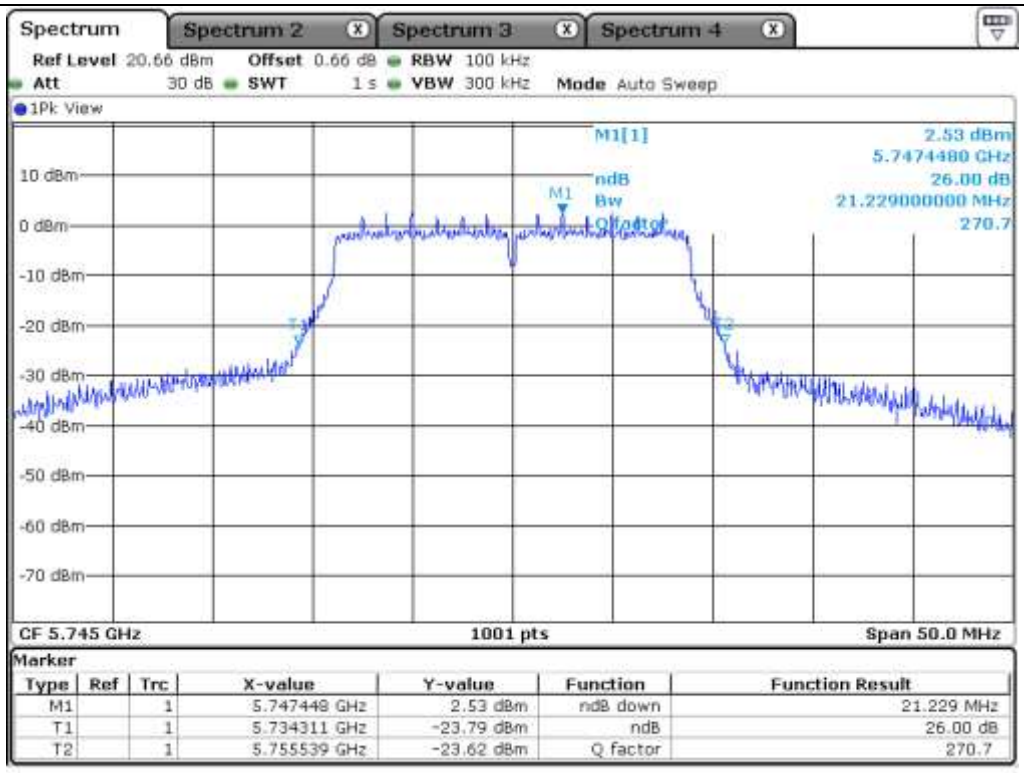
8.5.1 Test data for Antenna 0

-. Test Date : March 24, 2017

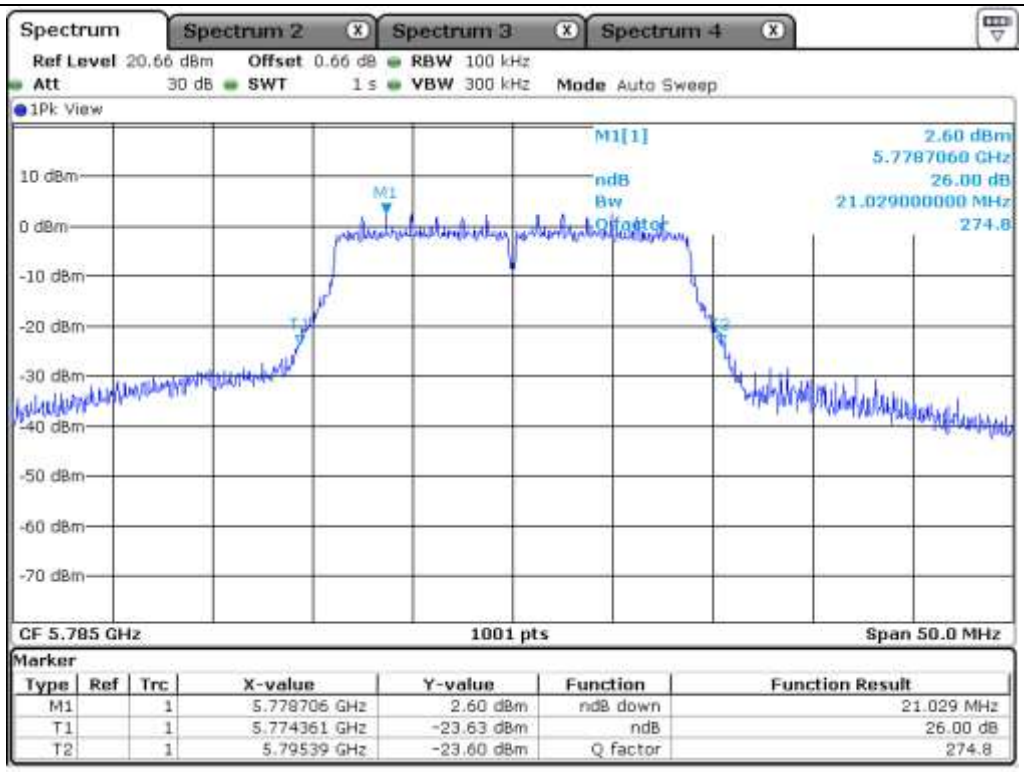
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	21.23
	Middle	5 785.00	21.23
	High	5 825.00	21.23

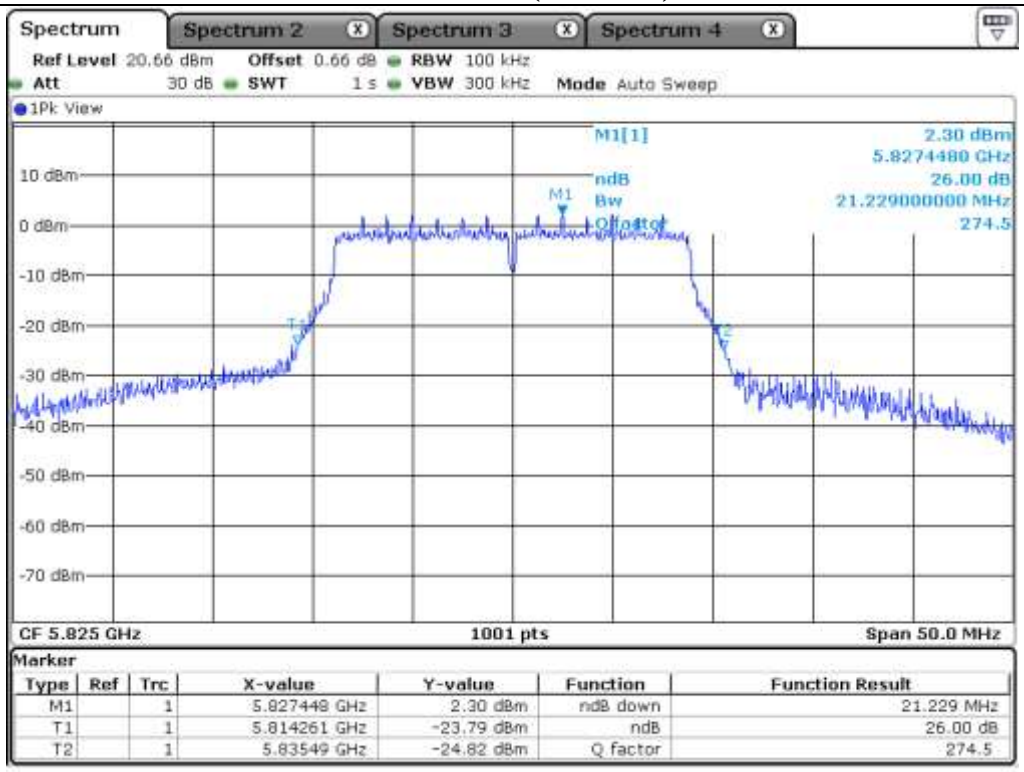
Tested by: Tae-Ho, Kim / Senior Engineer



Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



High Channel (5 825 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

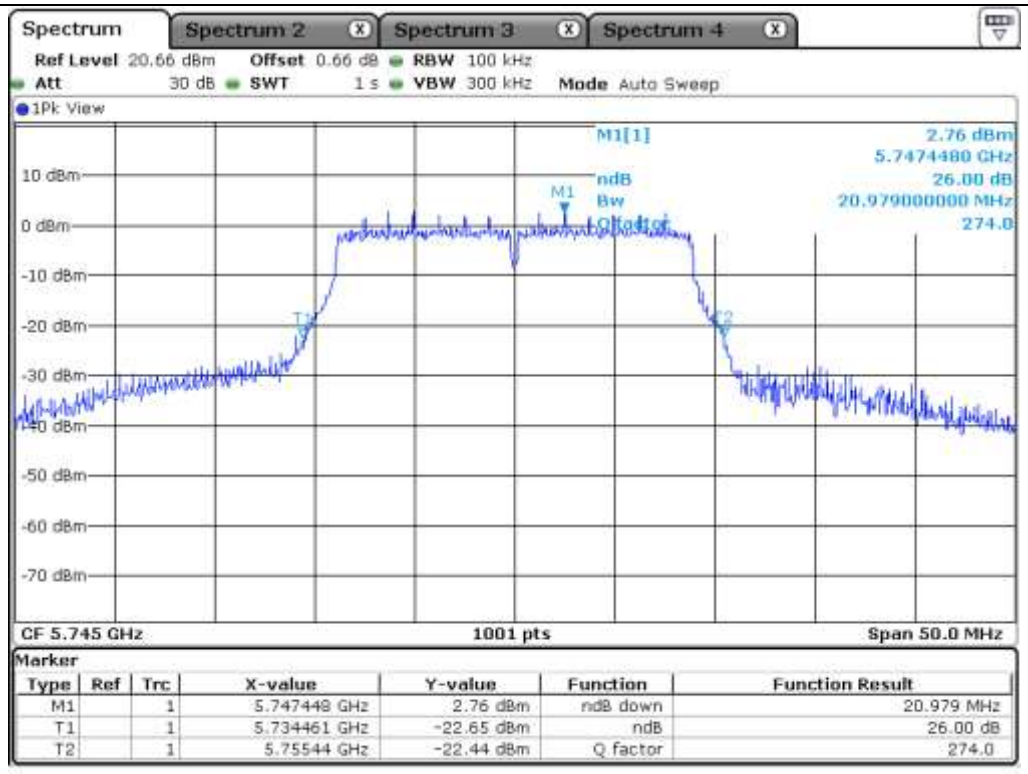
8.5.2 Test data for Antenna 1

-. Test Date : March 24, 2017

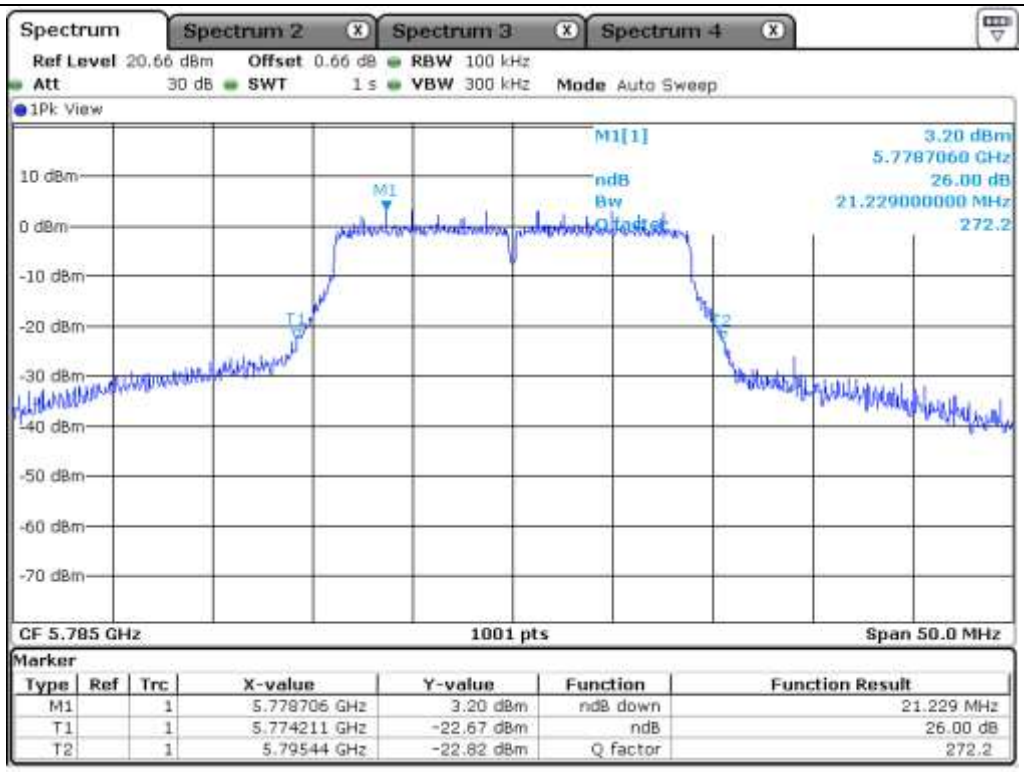
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 745.00	20.98
	Middle	5 785.00	21.23
	High	5 825.00	21.18

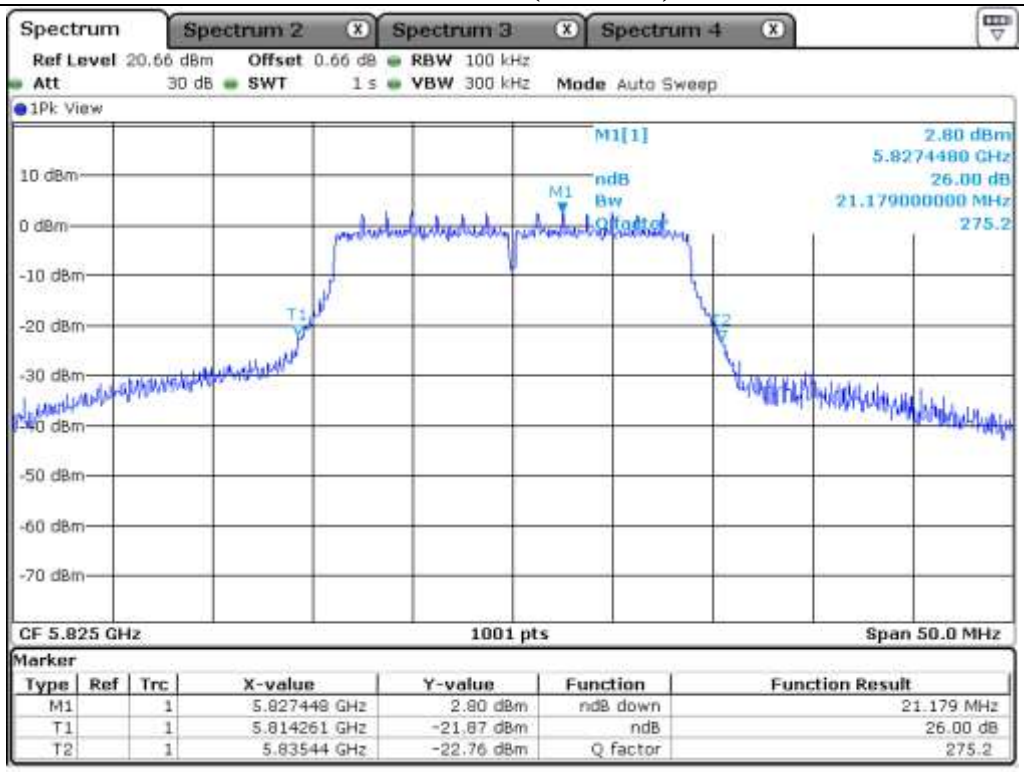
Tested by: Tae-Ho, Kim / Senior Engineer



Low Channel (5 745 MHz)



Middle Channel (5 785 MHz)



High Channel (5 825 MHz)

8.6 Test data for 802.11n_HT40 RLAN Mode

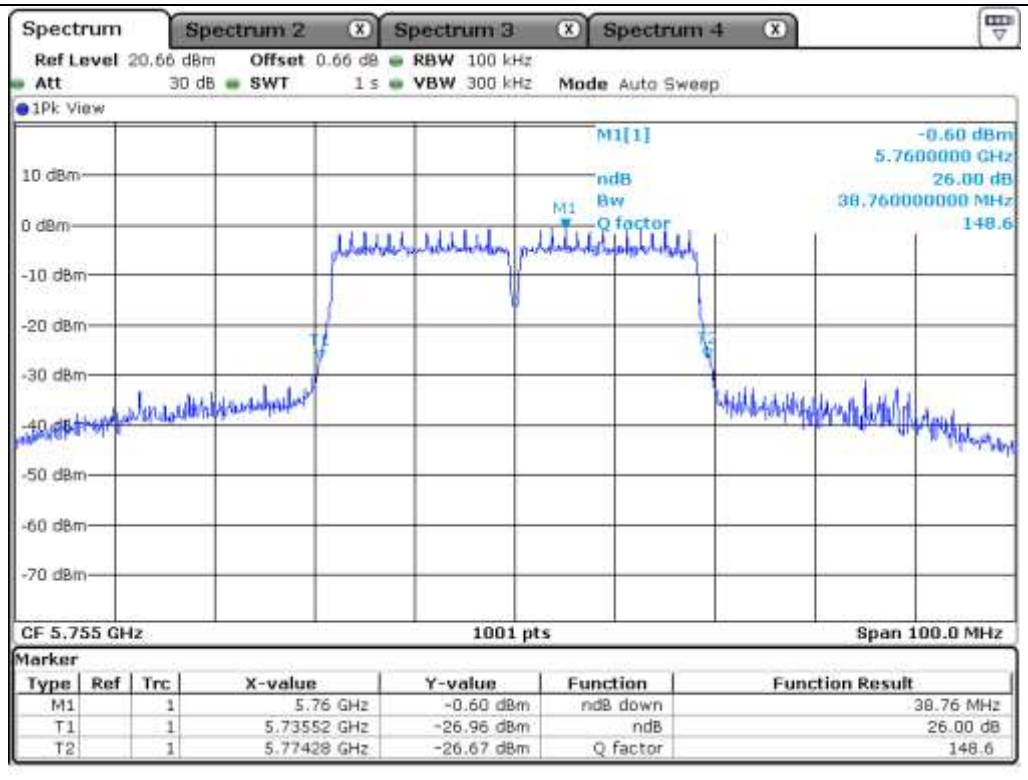
8.6.1 Test data for Antenna 0

-. Test Date : March 24, 2017

-. Test Result : Pass

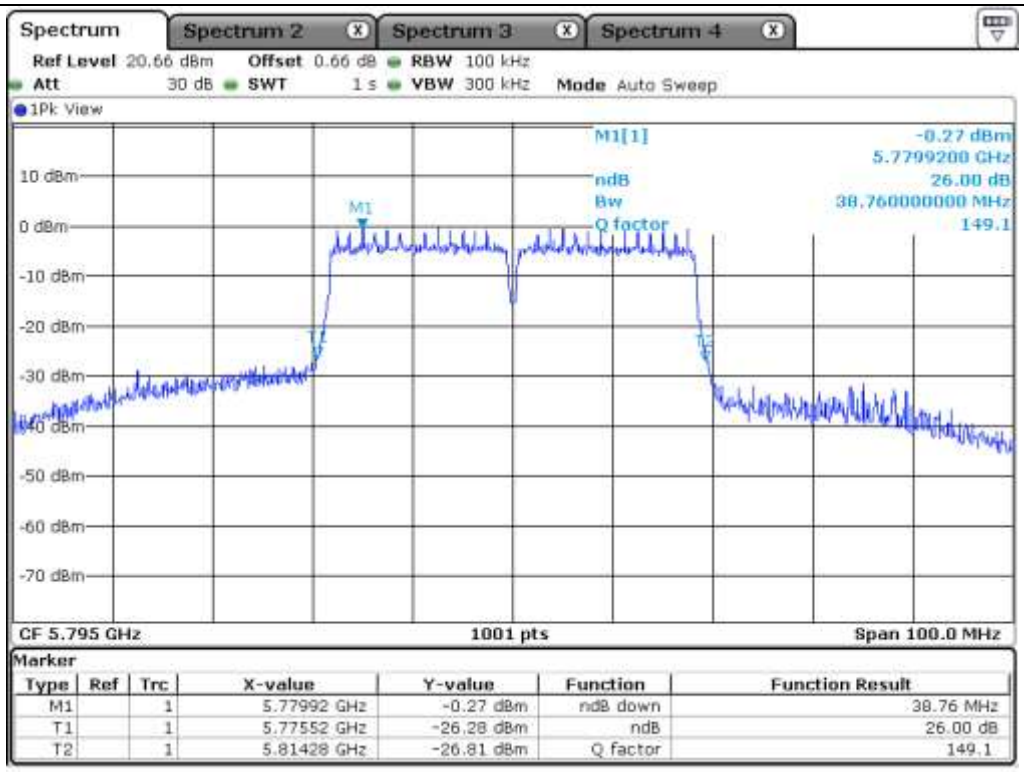
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 755.00	38.76
	High	5 795.00	38.76

Tested by: Tae-Ho, Kim / Senior Engineer



Low Channel (5 755 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel (5 795 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

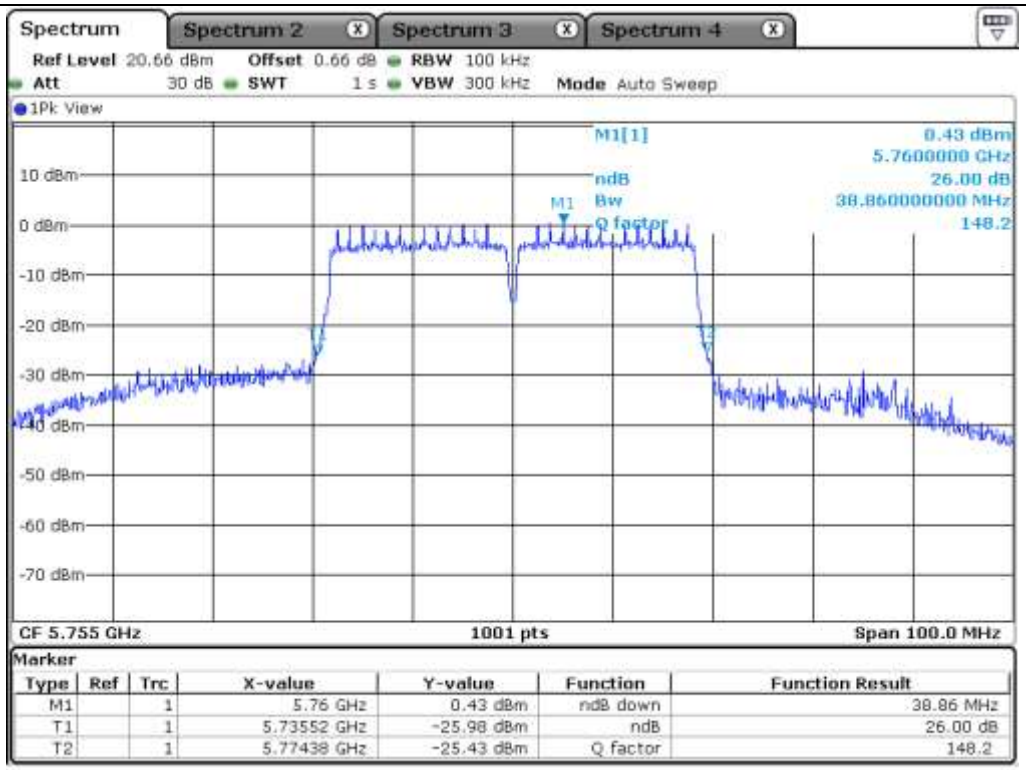
8.6.2 Test data for Antenna 1

-. Test Date : March 24, 2017

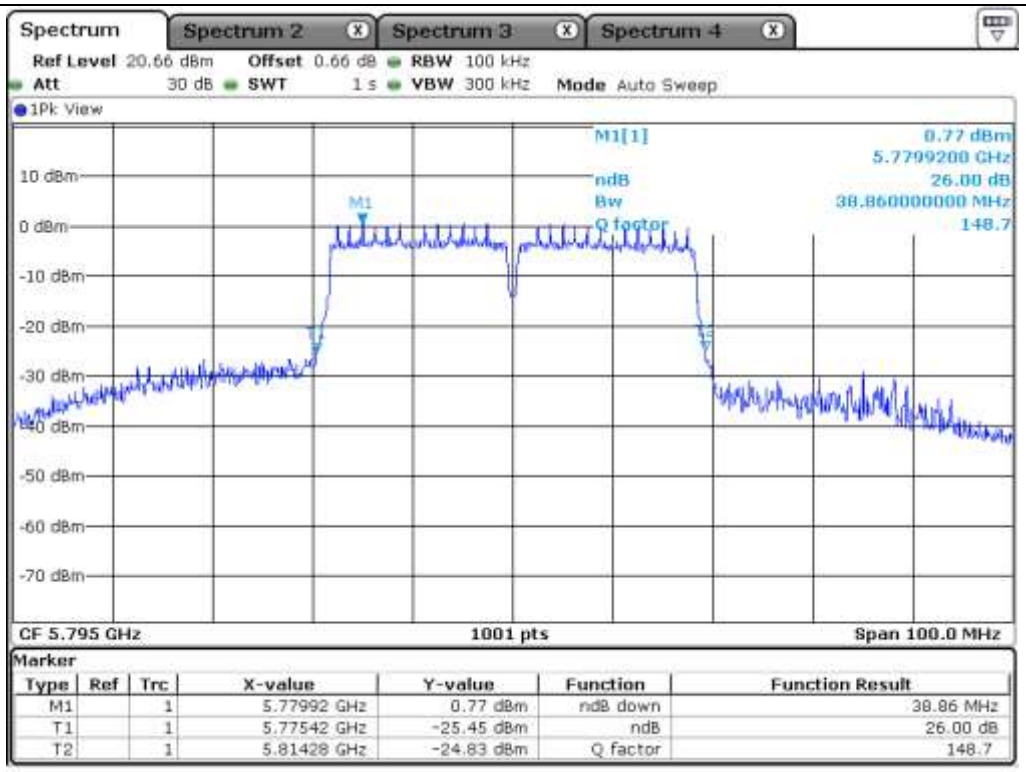
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Low	5 755.00	38.86
	High	5 795.00	38.86

Tested by: Tae-Ho, Kim / Senior Engineer



Low Channel (5 755 MHz)



High Channel (5 795 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

8.7 Test data for 802.11ac_VHT80 RLAN Mode

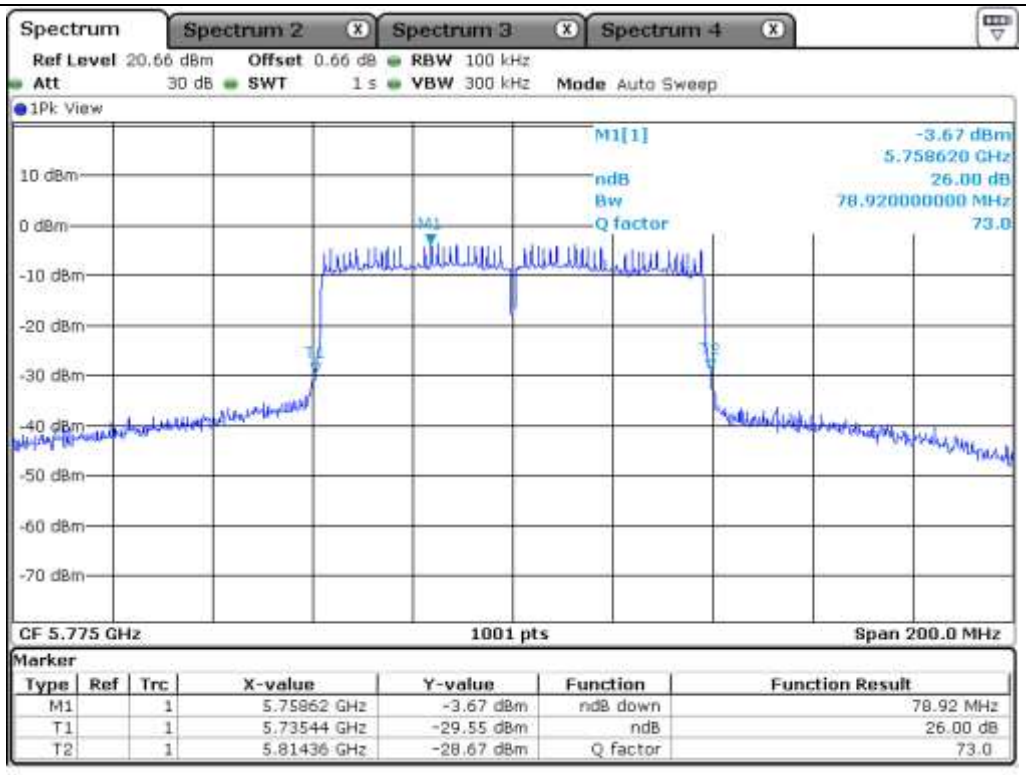
8.7.1 Test data for Antenna 0

-. Test Date : March 24, 2017

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Middle	5 775.00	78.92

Tested by: Tae-Ho, Kim / Senior Engineer



Middle Channel (5 775 MHz)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

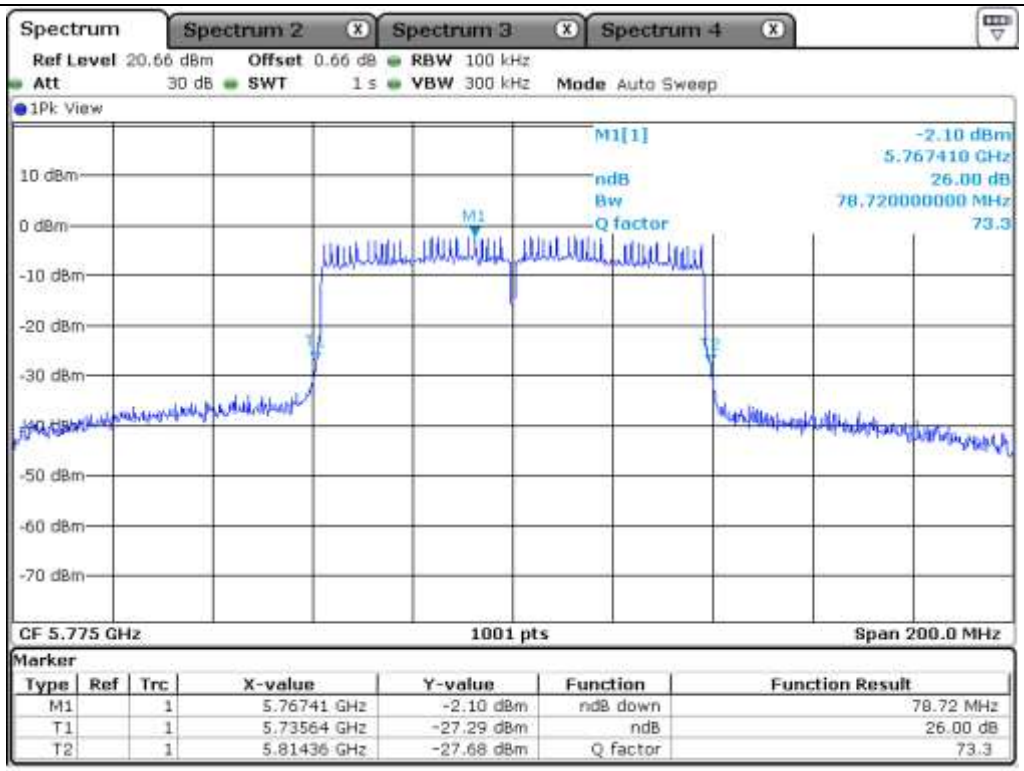
8.7.2 Test data for Antenna 1

-. Test Date : March 24, 2017

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	6 dB Bandwidth (MHz)
5 725 ~ 5 850	Middle	5 775.00	78.72

Tested by: Tae-Ho, Kim / Senior Engineer



Middle Channel (5 775 MHz)

9. MAXIMUM PEAK OUTPUT POWER

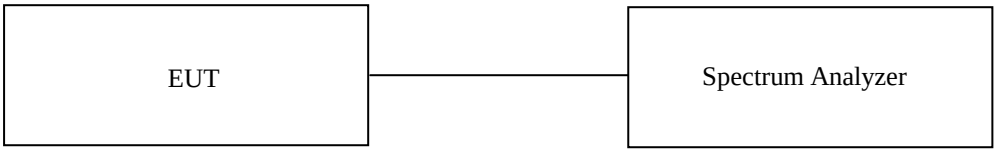
9.1 Operating environment

Temperature : 21 ℃

Relative humidity : 45 % R.H.

9.2 Test set-up

The maximum peak output power was measured with the spectrum analyzer connected to the antenna output of the EUT. The spectrum analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 26 dB & 6 dB bandwidth. The EUT was operating in transmit mode at the appropriate center frequency.



9.3 Test equipment used

	Model Number	Manufacturer	Description	Serial Number	Last Cal.
■ -	FSV40	Rohde & Schwarz	Signal Analyzer	101009	April 05, 2017 (1Y)

All test equipment used is calibrated on a regular basis.

9.4 Limit for Antenna

Operation Mode	Band	Mode	Ant.Port	Ant.gain (dBi)	Limit (dBm)	20 MHz BW Limit (dBm)	40/80 MHz BW Limit (dBm)
SISO	UNII 1	802.11a	0	5.40	24.00	24.00	24.00
			1	5.70	24.00	24.00	24.00
	UNII 2A	802.11a	0	5.60	24.00	24.00	24.00
			1	4.80	24.00	24.00	24.00
	UNII 2C	802.11a	0	5.70	24.00	24.00	24.00
			1	5.30	24.00	24.00	24.00
	UNII 3	802.11a	0	5.20	30.00	30.00	30.00
			1	5.40	30.00	30.00	30.00
MIMO(2TX)	UNII 1	802.11a	0+1	8.56	21.44	21.44	21.44
	UNII 2A	802.11a	0+1	8.23	21.77	21.77	21.77
	UNII 2C	802.11a	0+1	8.51	21.49	21.49	21.49
	UNII 3	802.11a	0+1	8.31	27.69	27.69	27.69

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.5 Test data for 802.11a RLAN Mode

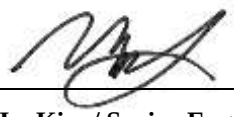
9.5.1 Test data for Antenna 0

-. Test Date : March 24, 2017

-. Test Result : Pass

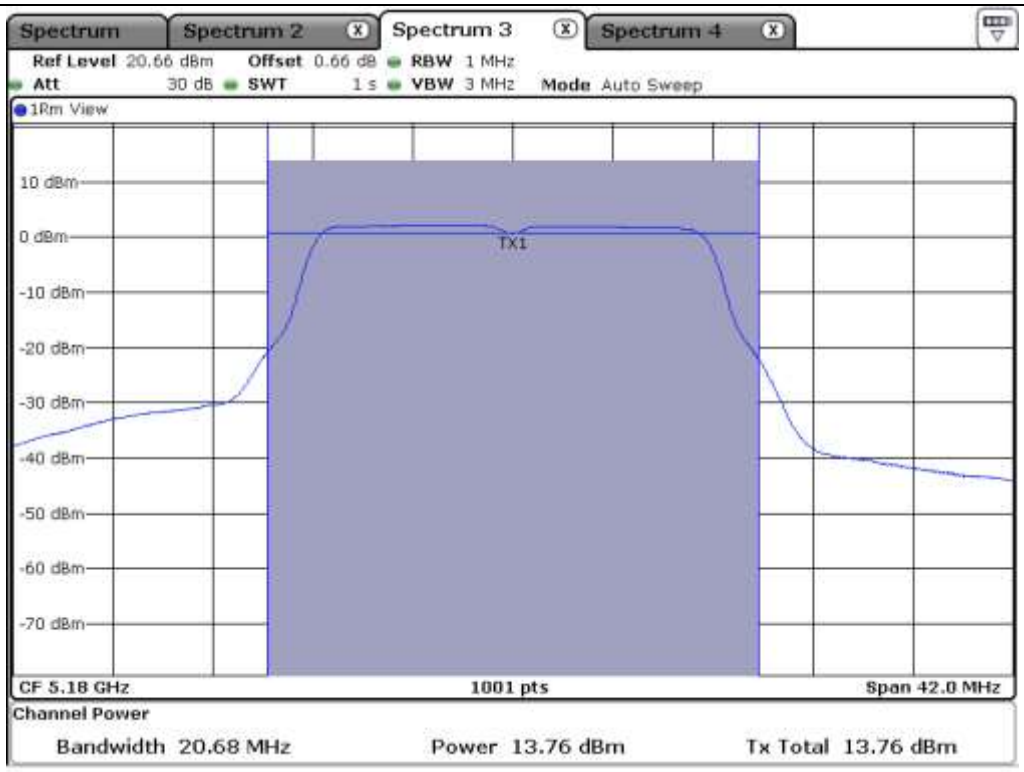
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	20.68	13.76	24.00	10.24
	Middle	5 220.00	20.67	13.83	24.00	10.17
	High	5 240.00	20.68	13.96	24.00	10.04
5 250 ~ 5 350	Low	5 260.00	20.68	14.35	24.00	9.65
	Middle	5 300.00	20.68	14.35	24.00	9.65
	High	5 320.00	20.68	14.42	24.00	9.58
5 470 ~ 5 725	Low	5 500.00	20.68	14.91	24.00	9.09
	Middle	5 560.00	20.78	14.64	24.00	9.36
	High	5 700.00	20.68	14.75	24.00	9.25
5 725 ~ 5 850	Low	5 745.00	20.88	14.08	30.00	15.92
	Middle	5 785.00	20.73	14.58	30.00	15.42
	High	5 825.00	20.82	14.00	30.00	16.00

Remark: See next page for measurement data.

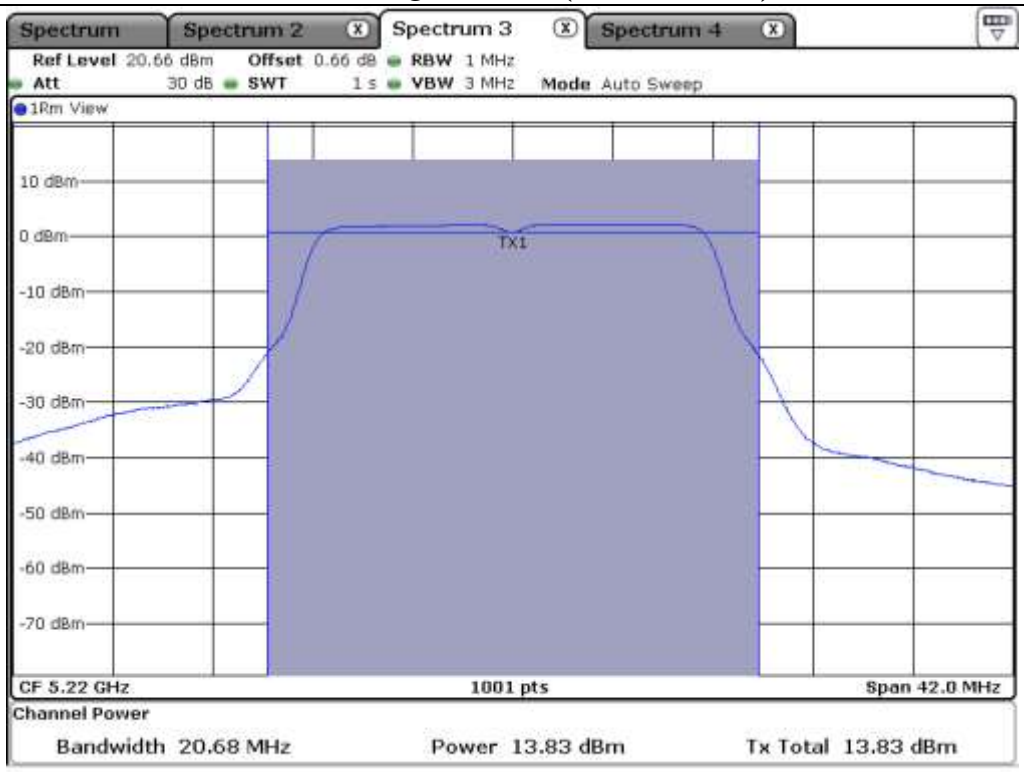


Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

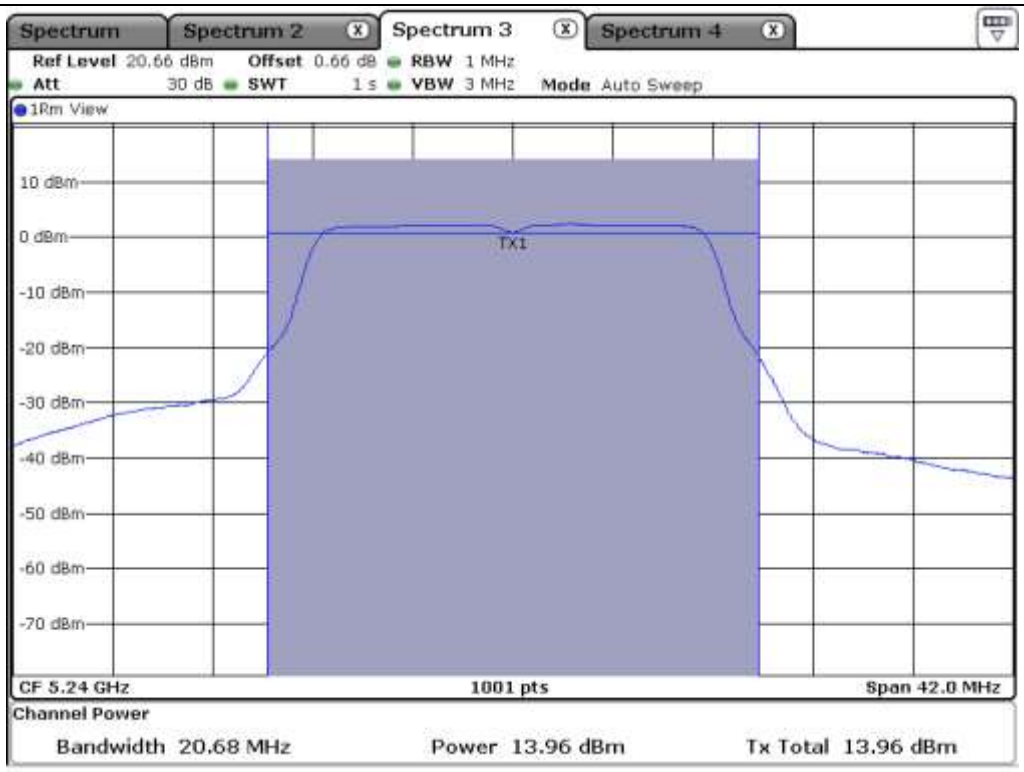


Low Channel @ 5 180 MHz (26 dB Bandwidth)



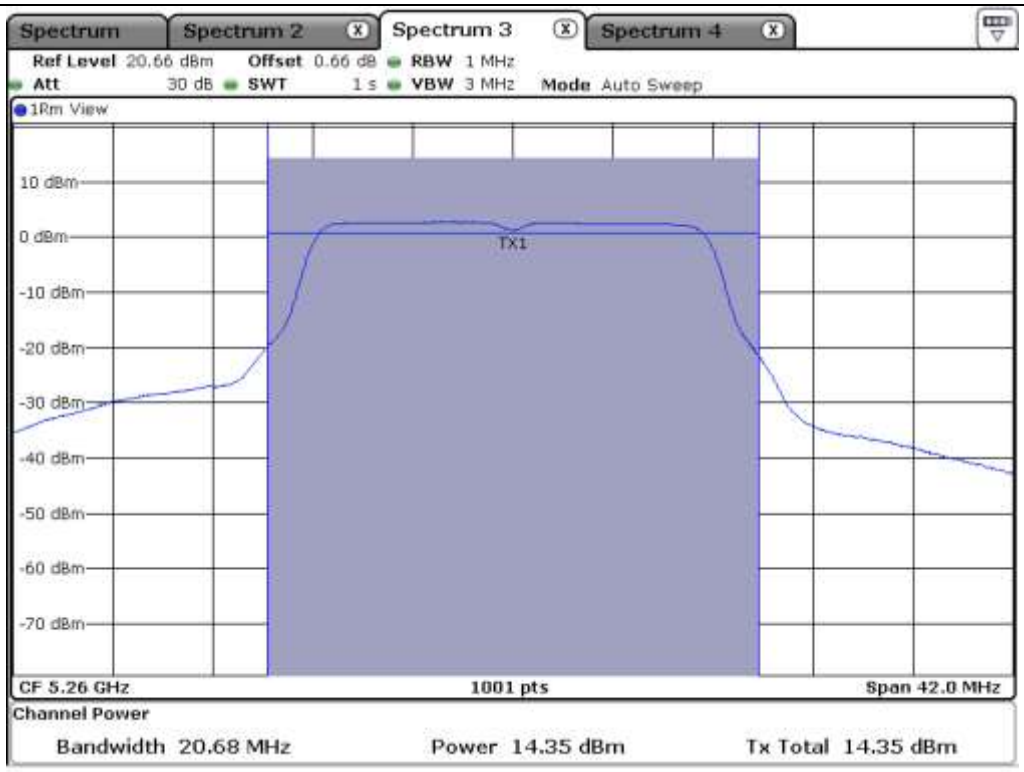
Middle Channel @ 5 220 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

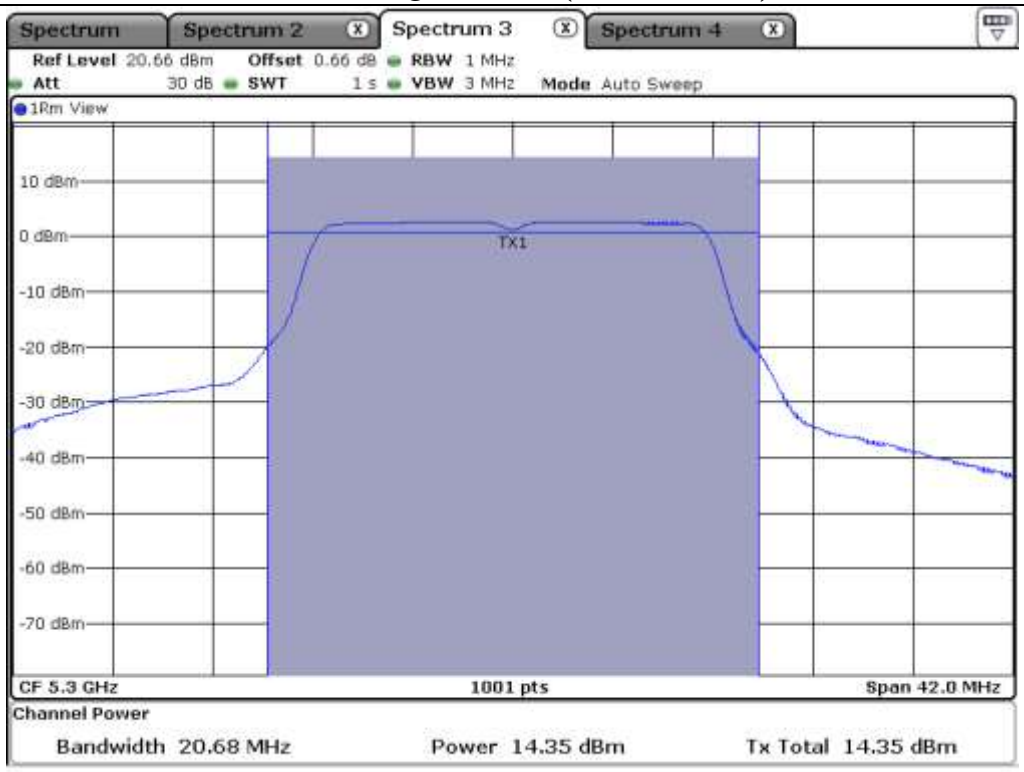


High Channel @ 5 240 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

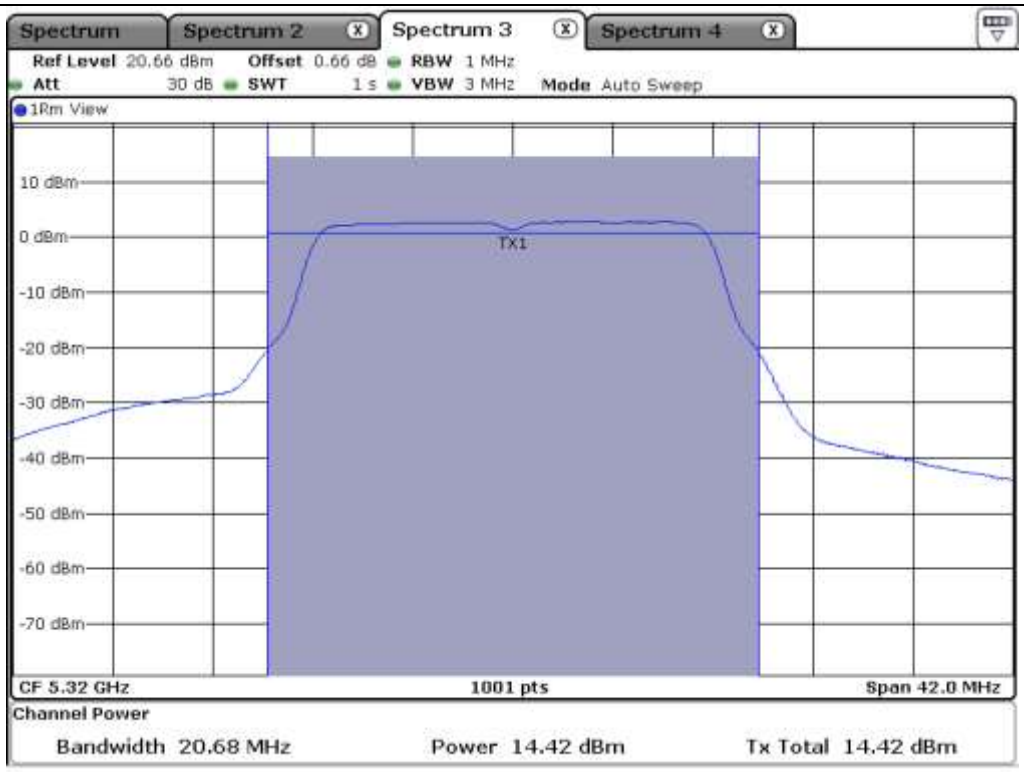


Low Channel @ 5 260 MHz (26 dB Bandwidth)

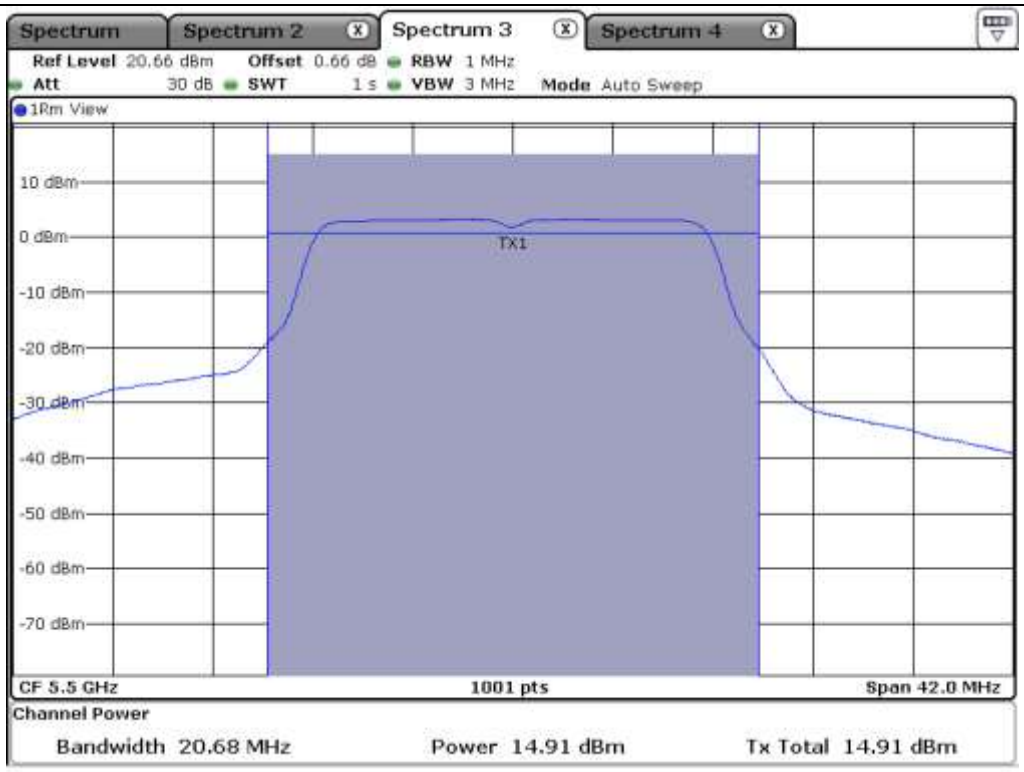


Middle Channel @ 5 300 MHz (26 dB Bandwidth)

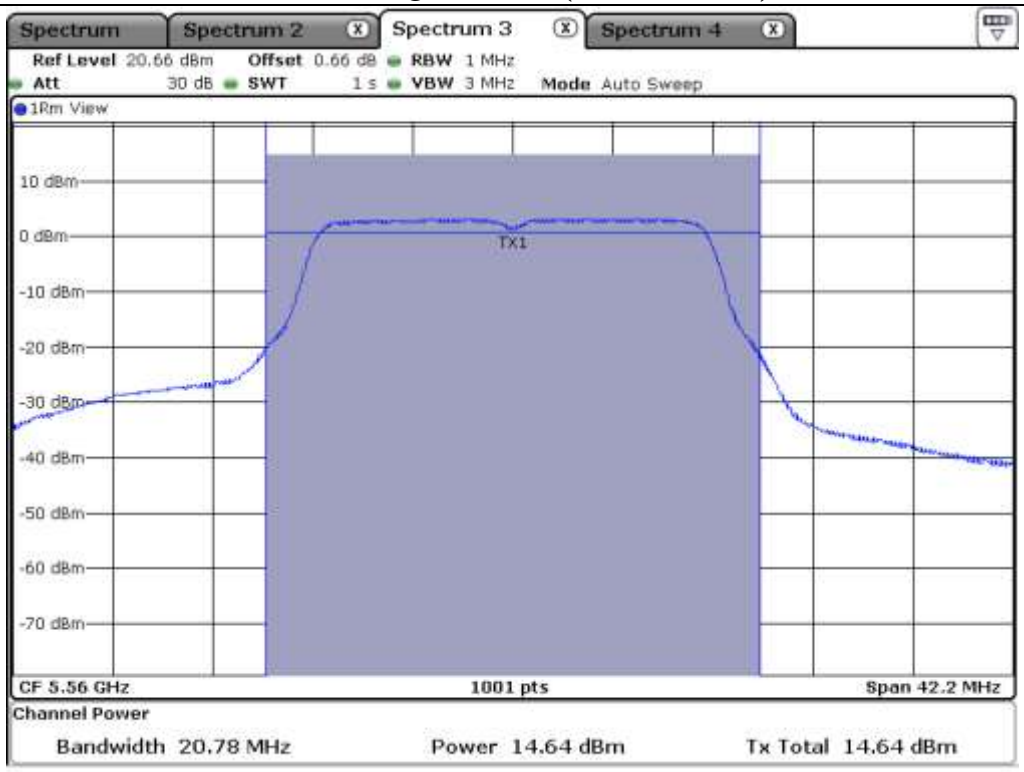
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 320 MHz (26 dB Bandwidth)

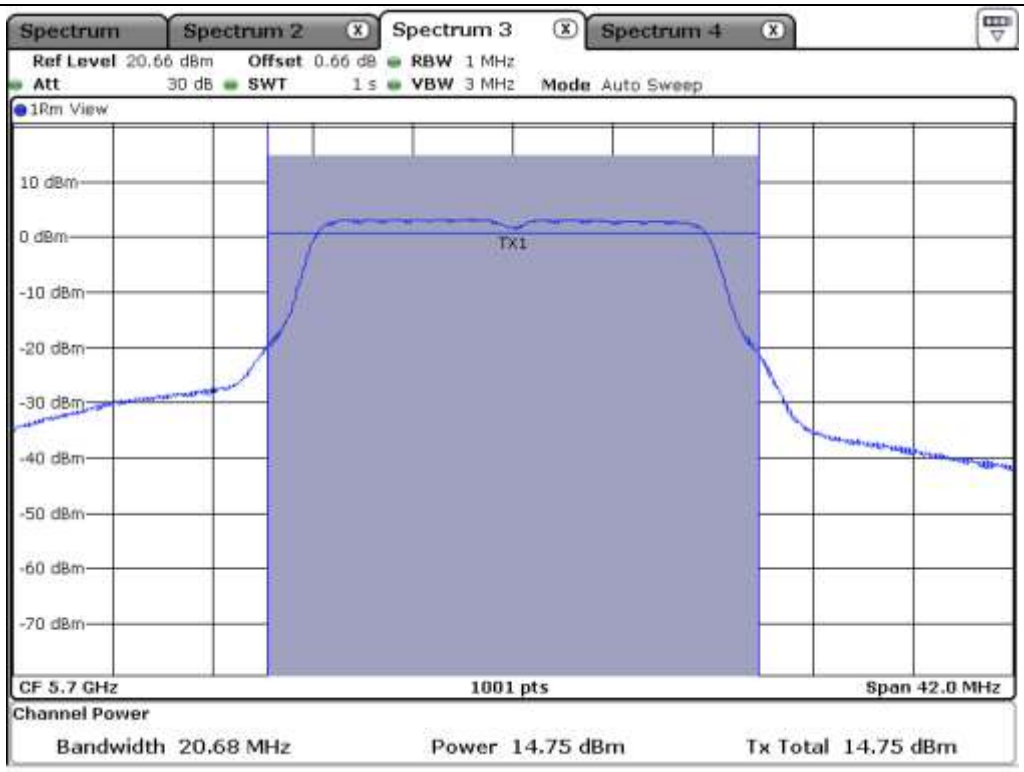


Low Channel @ 5 500 MHz (26 dB Bandwidth)

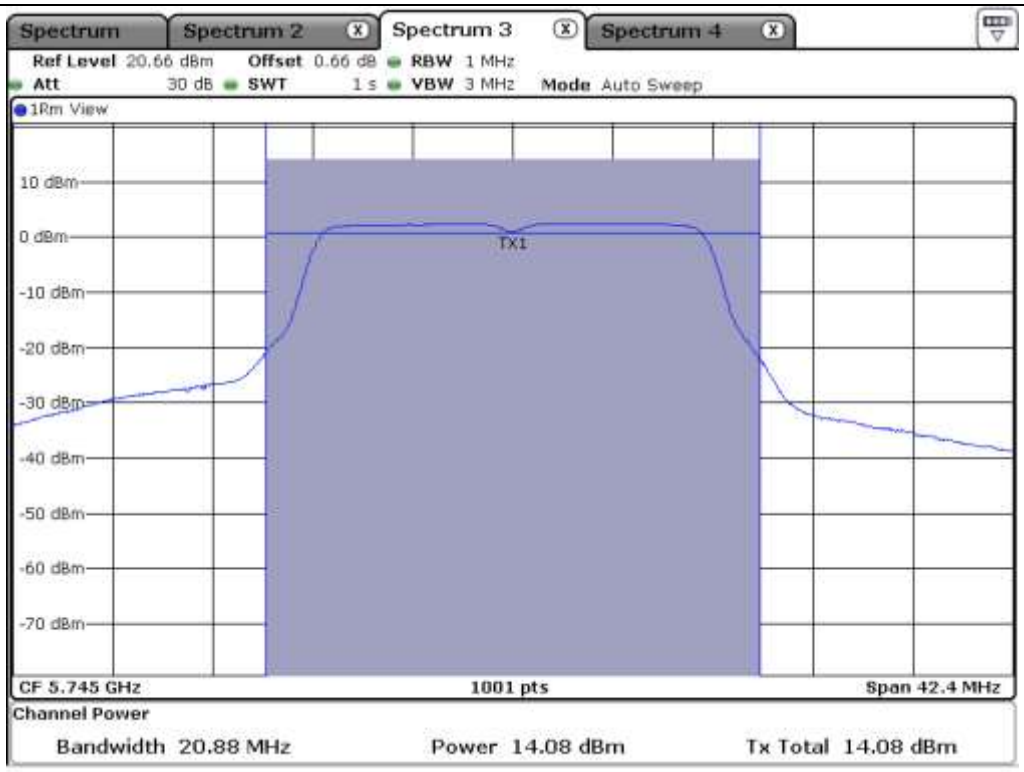


Middle Channel @ 5 560 MHz (26 dB Bandwidth)

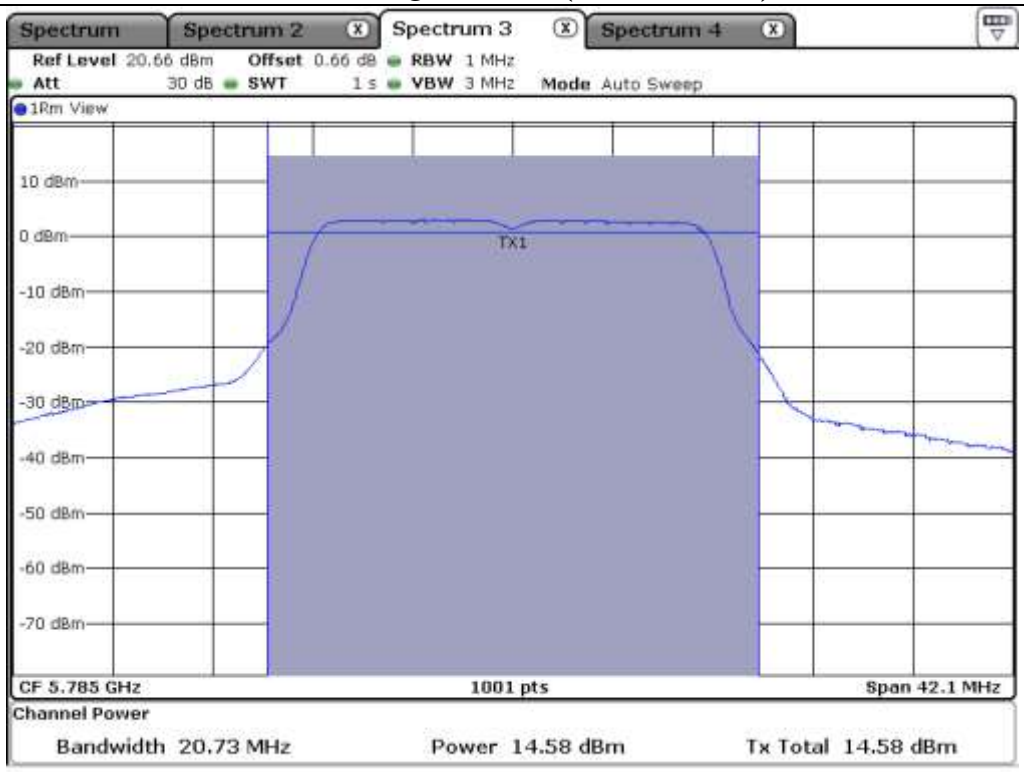
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 720 MHz (26 dB Bandwidth)

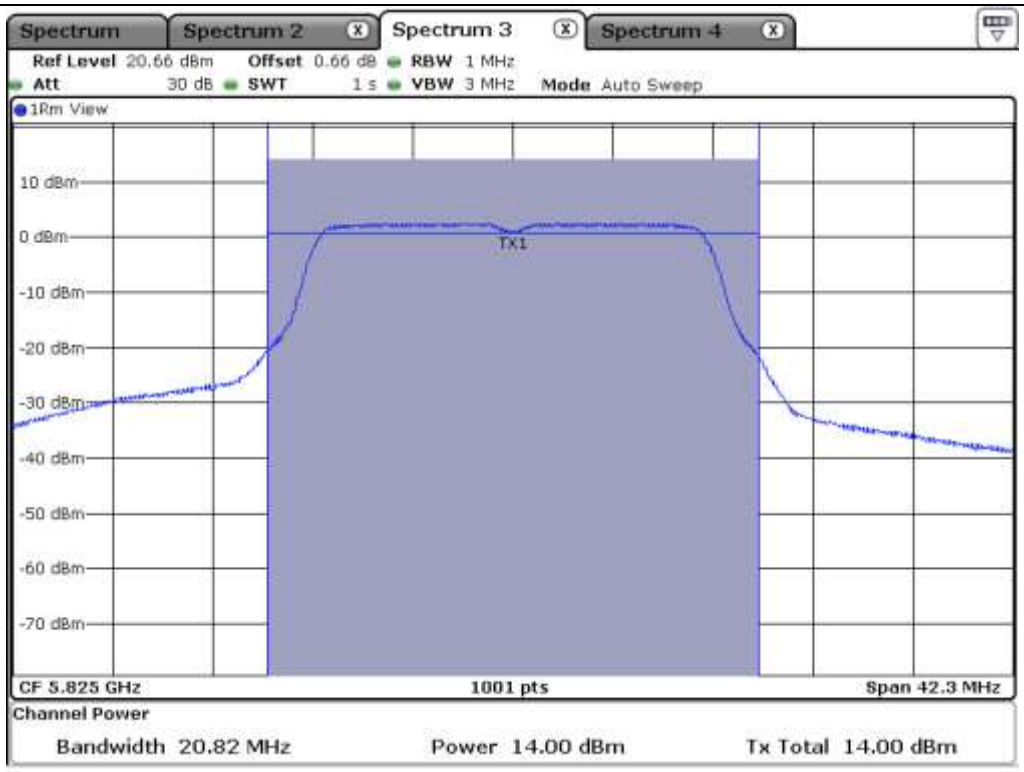


Low Channel @ 5 745 MHz (26 dB Bandwidth)



Middle Channel @ 5 785 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 825 MHz (6 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.5.2 Test data for Antenna 1

-. Test Date : March 24, 2017

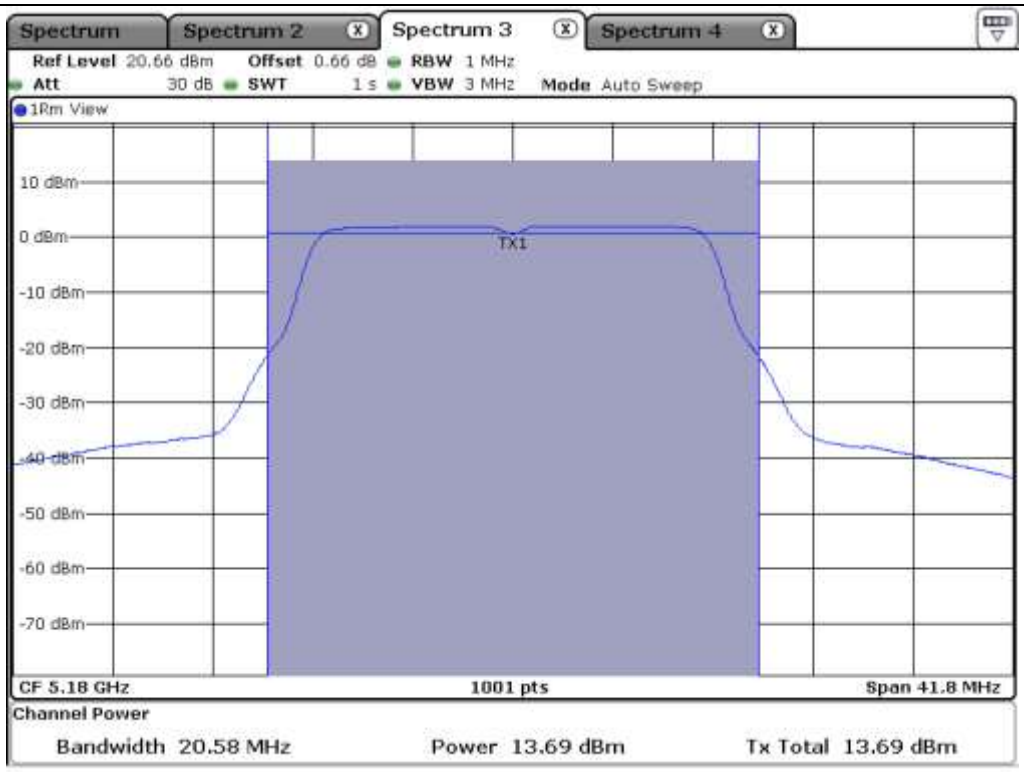
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	20.58	13.69	24.00	10.31
	Middle	5 220.00	20.82	13.57	24.00	10.43
	High	5 240.00	20.82	13.92	24.00	10.08
5 250 ~ 5 350	Low	5 260.00	20.73	14.37	24.00	9.63
	Middle	5 300.00	20.63	14.19	24.00	9.81
	High	5 320.00	20.58	14.41	24.00	9.59
5 470 ~ 5 725	Low	5 500.00	20.68	14.62	24.00	9.38
	Middle	5 560.00	20.88	13.99	24.00	10.01
	High	5 720.00	20.68	14.39	24.00	9.61
5 725 ~ 5 850	Low	5 745.00	21.18	14.36	30.00	15.64
	Middle	5 785.00	20.68	14.71	30.00	15.29
	High	5 825.00	20.78	14.74	30.00	15.26

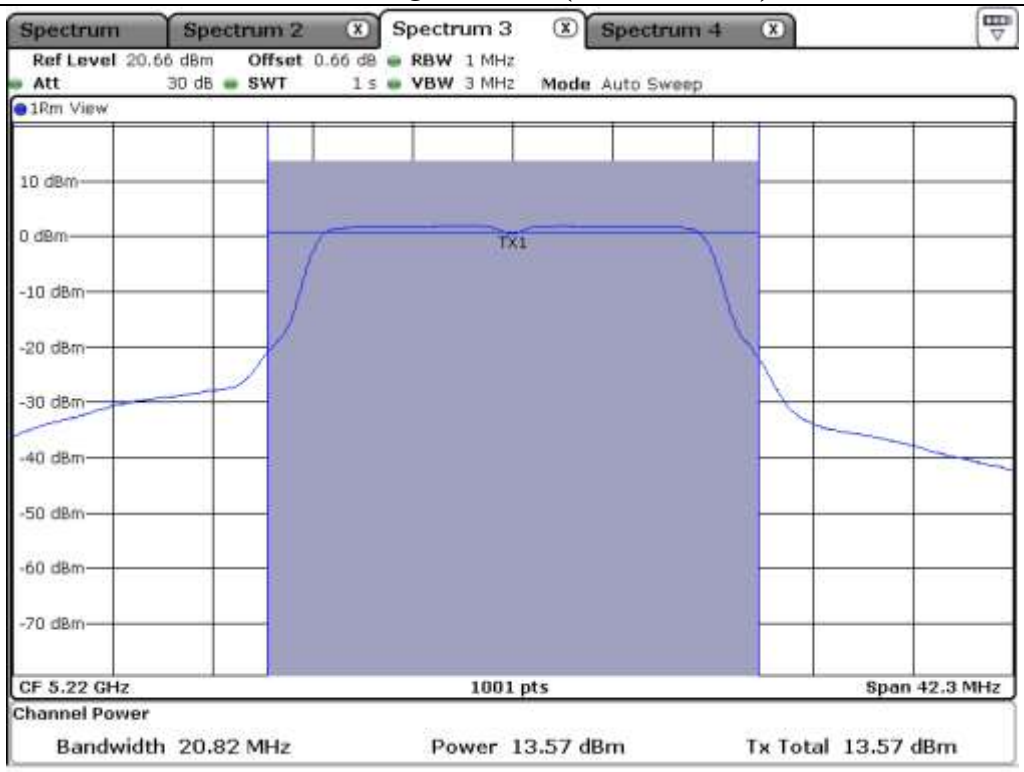
Remark: See next page for measurement data.

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

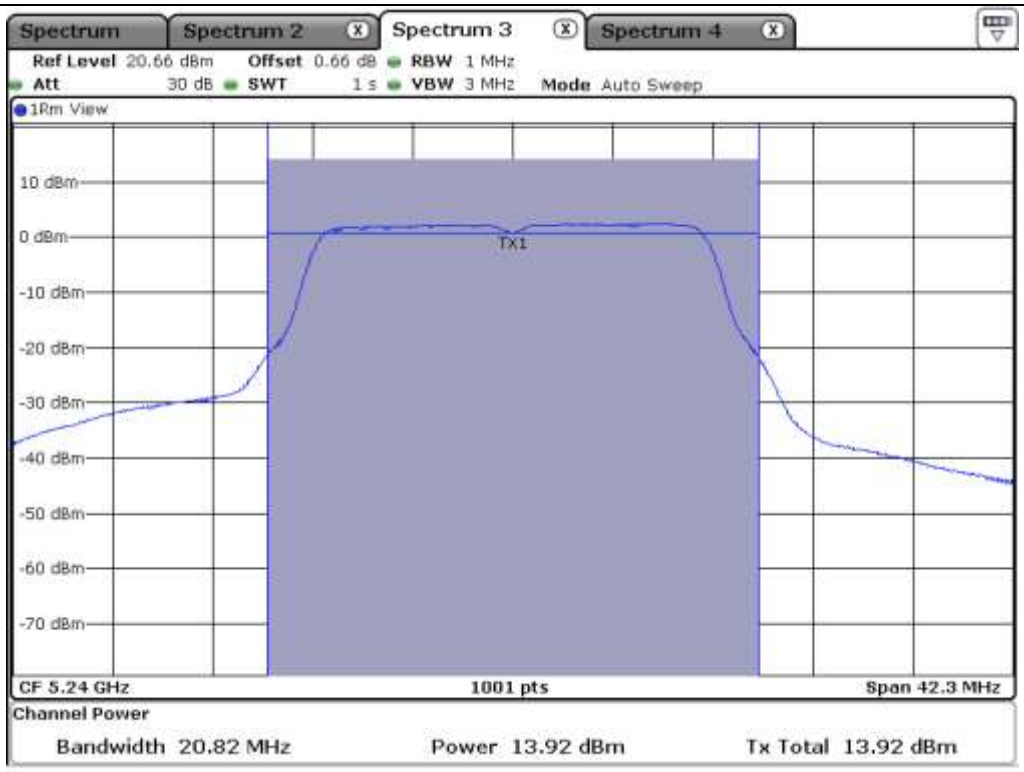


Low Channel @ 5 180 MHz (26 dB Bandwidth)

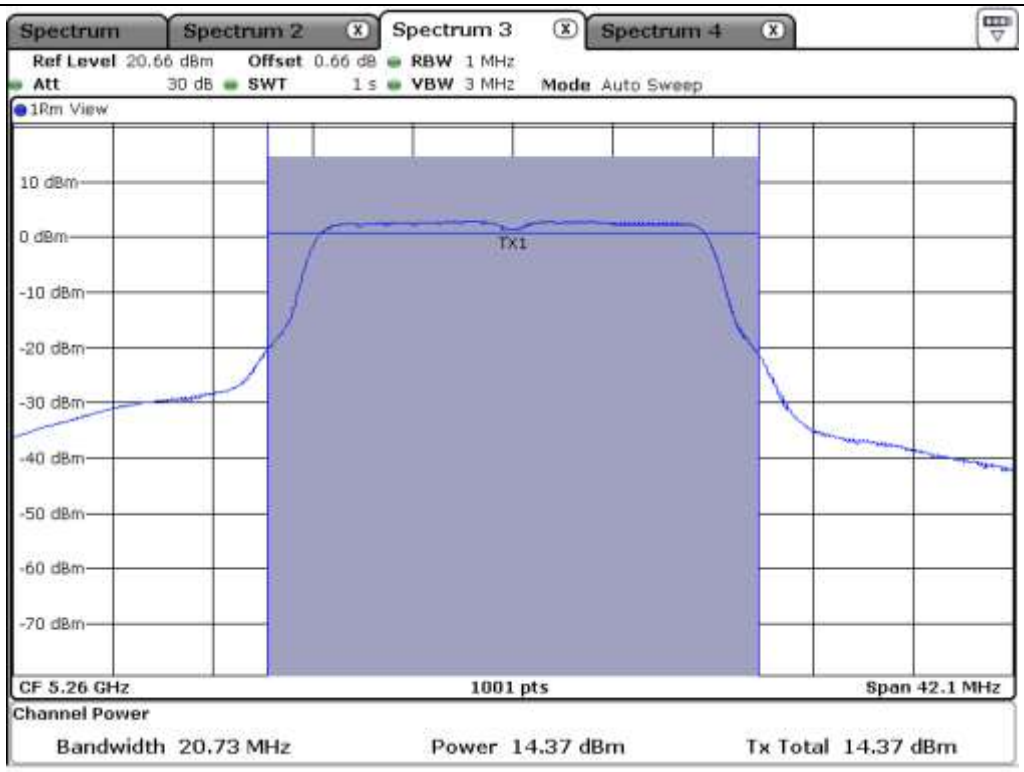


Middle Channel @ 5 220 MHz (26 dB Bandwidth)

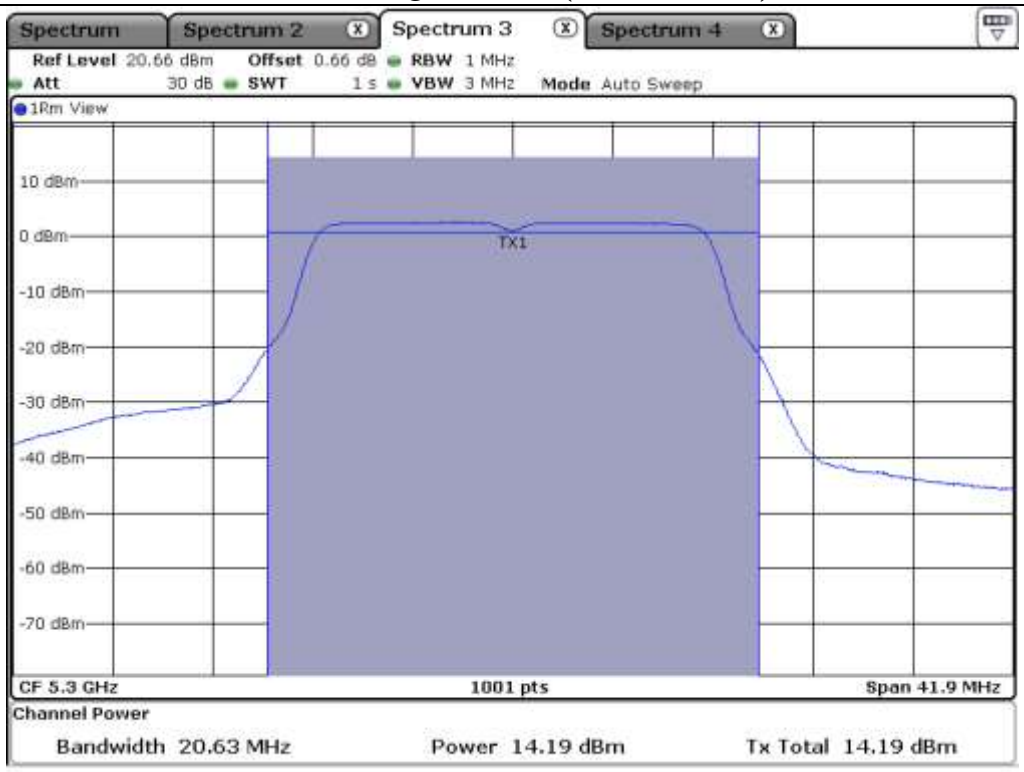
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 240 MHz (26 dB Bandwidth)

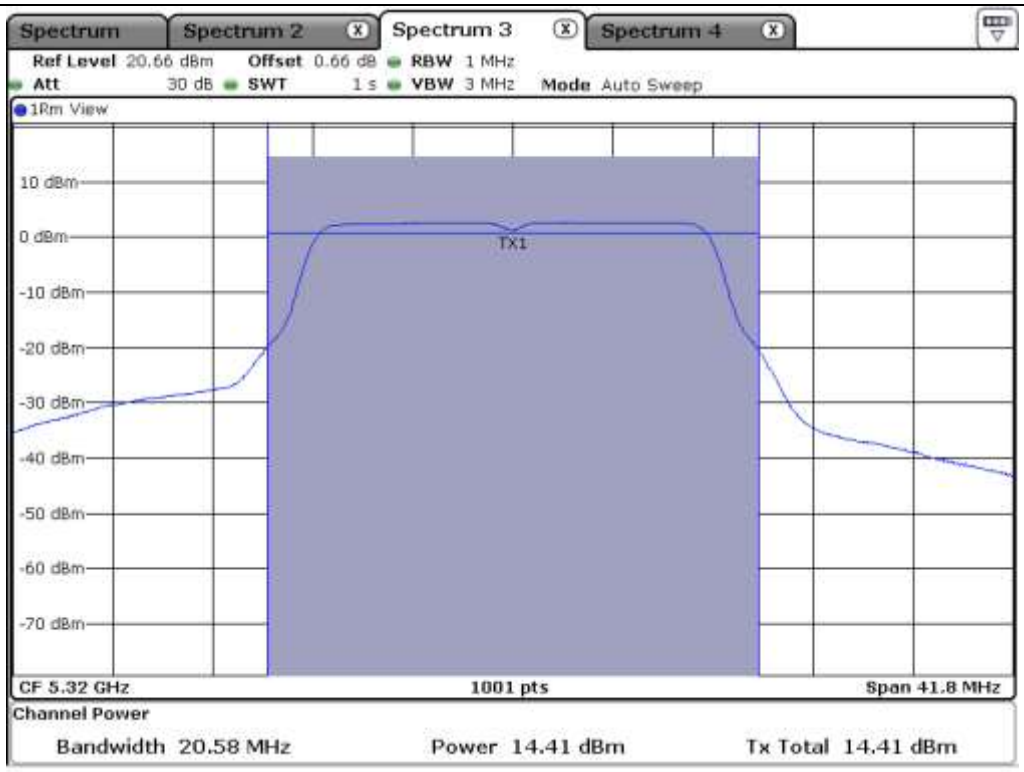


Low Channel @ 5 260 MHz (26 dB Bandwidth)

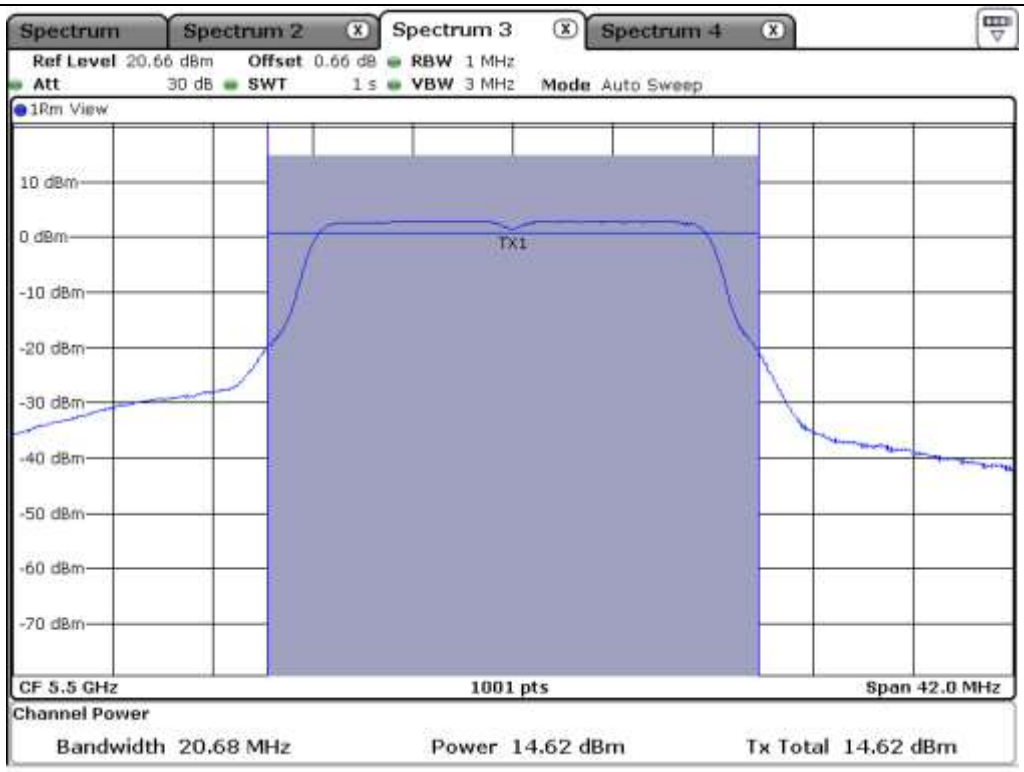


Middle Channel @ 5 300 MHz (26 dB Bandwidth)

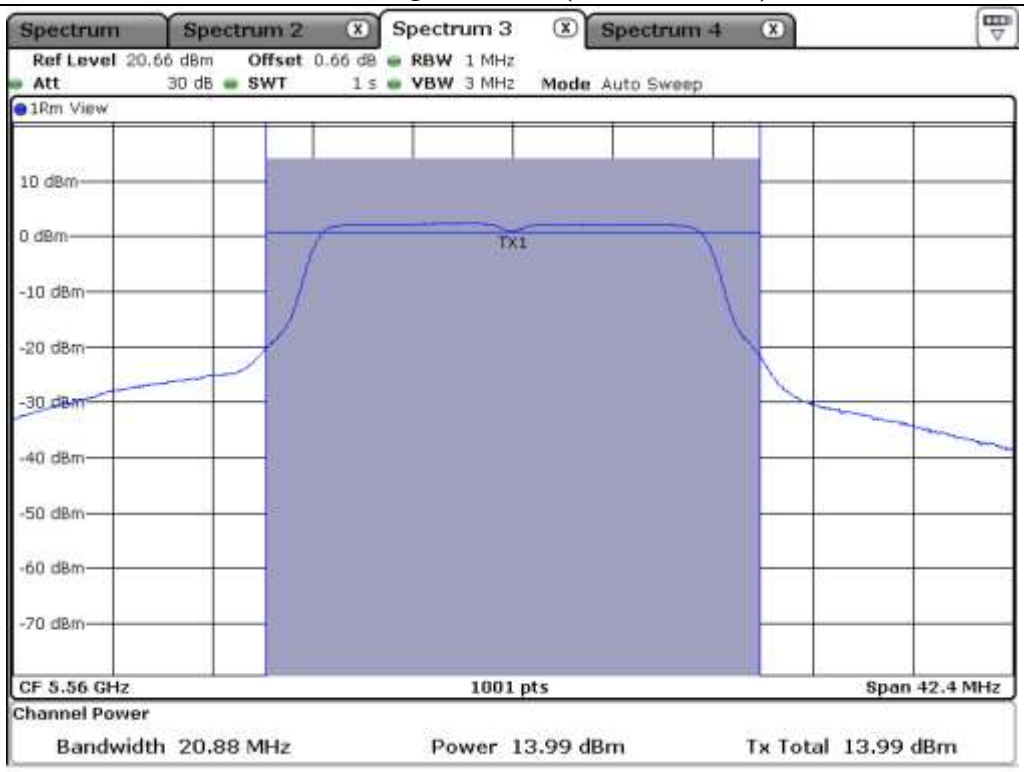
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 320 MHz (26 dB Bandwidth)

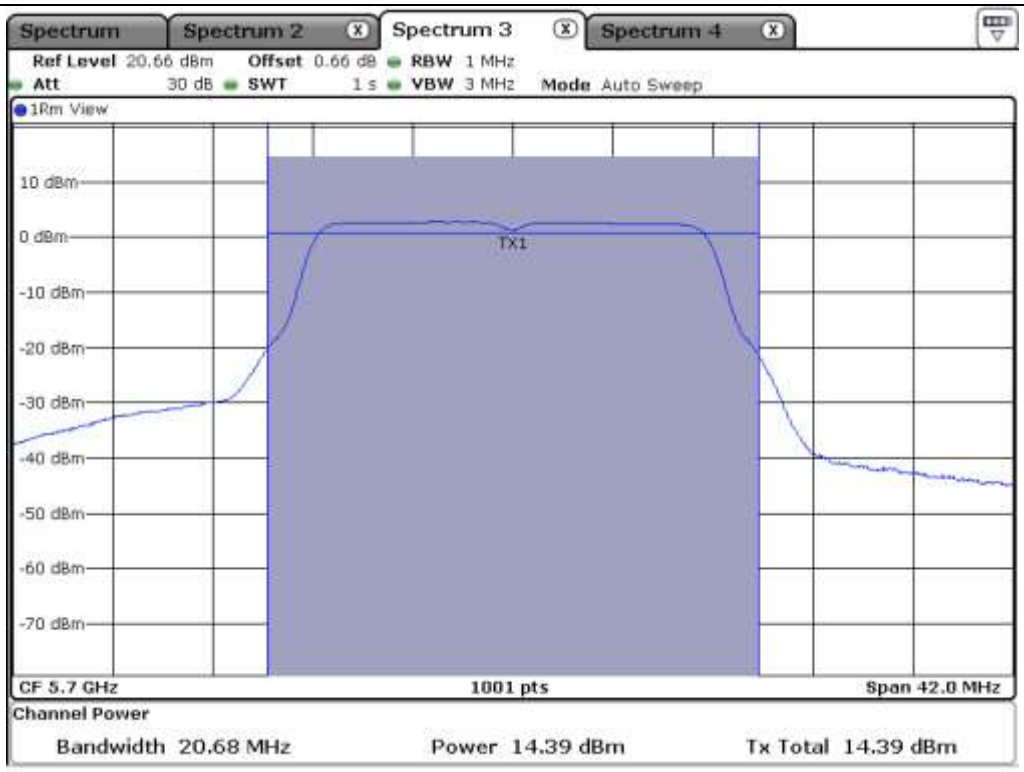


Low Channel @ 5 500 MHz (26 dB Bandwidth)

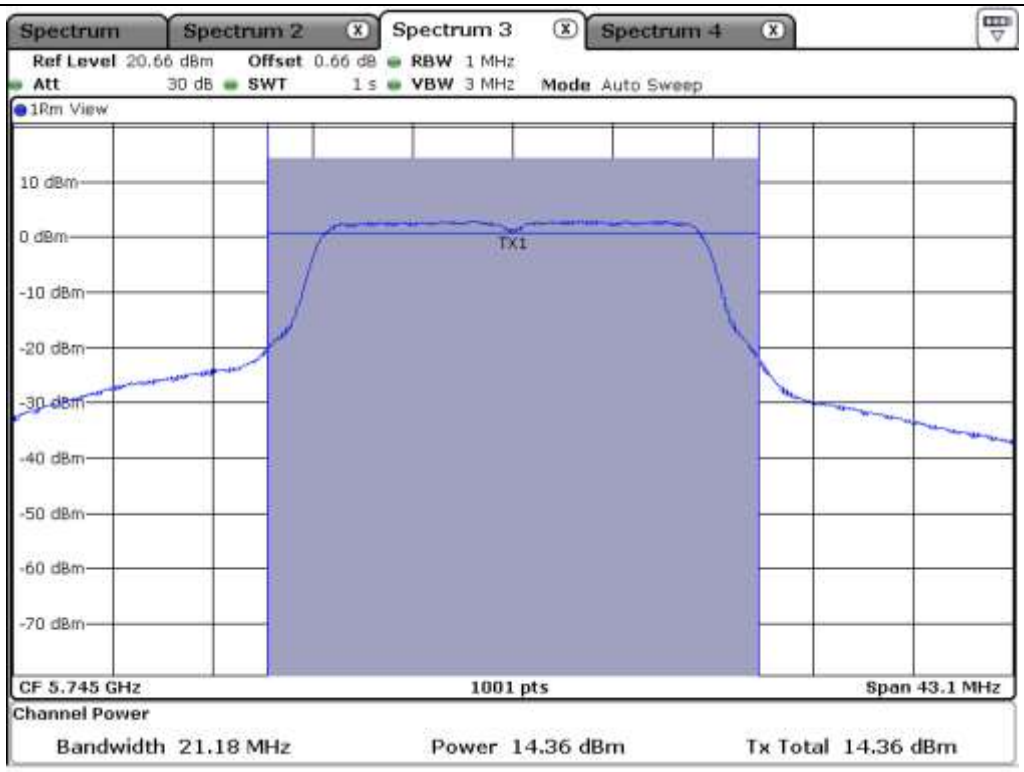


Middle Channel @ 5 560 MHz (26 dB Bandwidth)

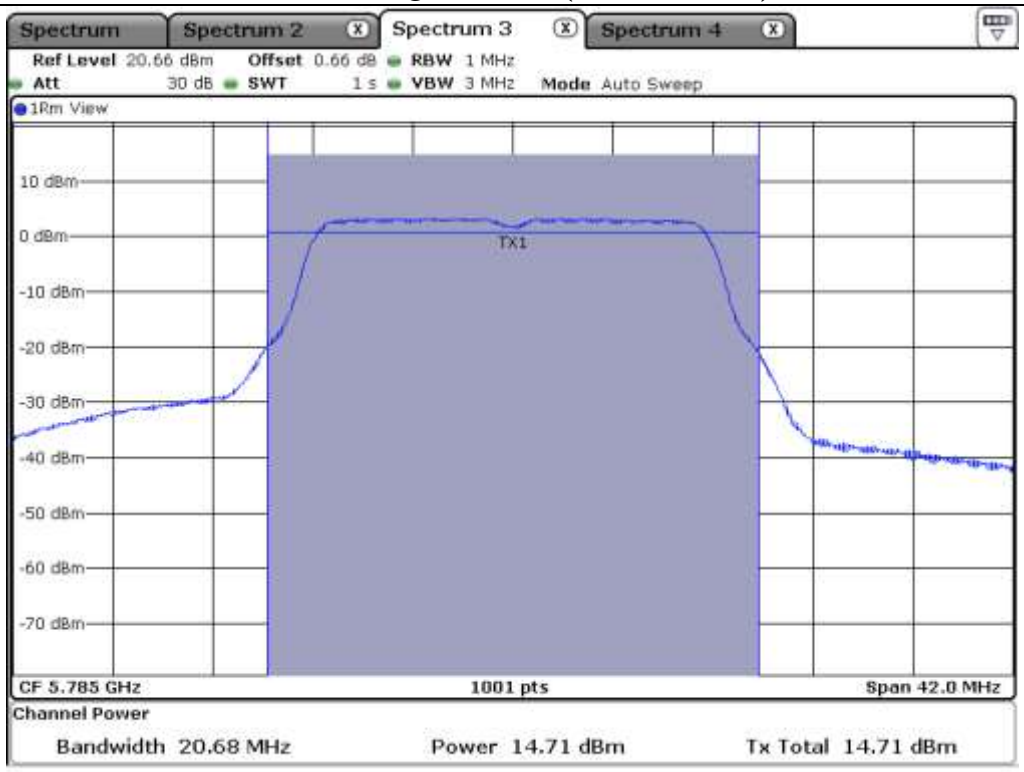
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 720 MHz (26 dB Bandwidth)

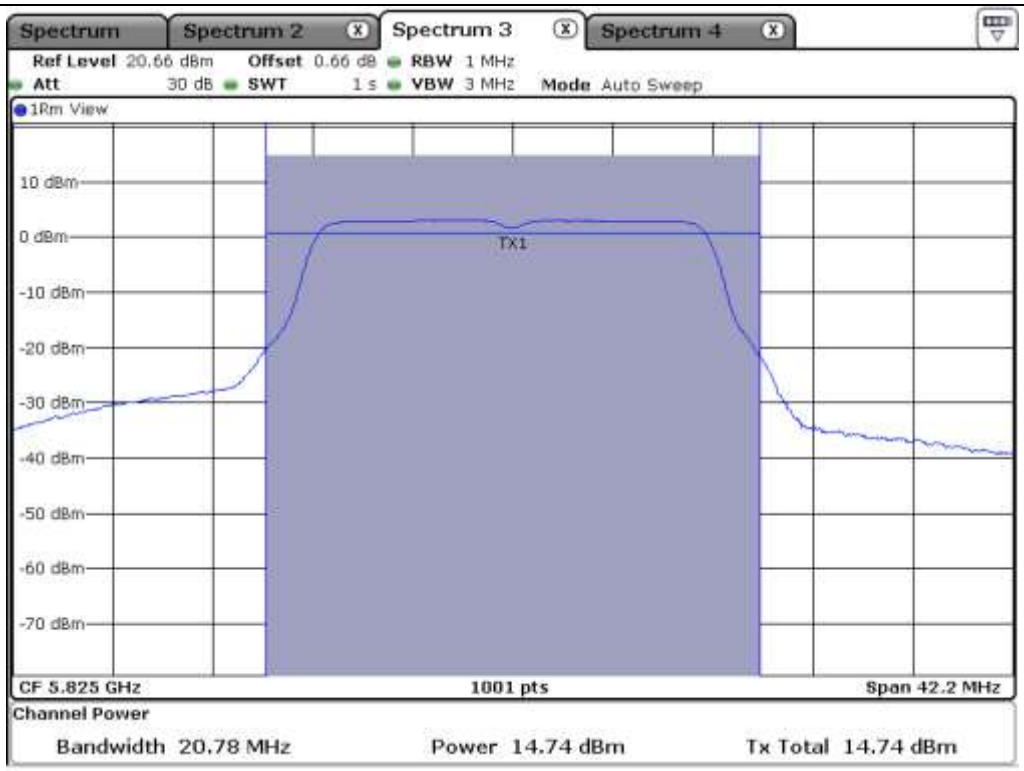


Low Channel @ 5 745 MHz (26 dB Bandwidth)



Middle Channel @ 5 785 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 825 MHz (26 dB Bandwidth)

9.6 Test data for 802.11n_HT20 RLAN Mode

9.6.1 Test data for Antenna 0

-. Test Date : March 24, 2017

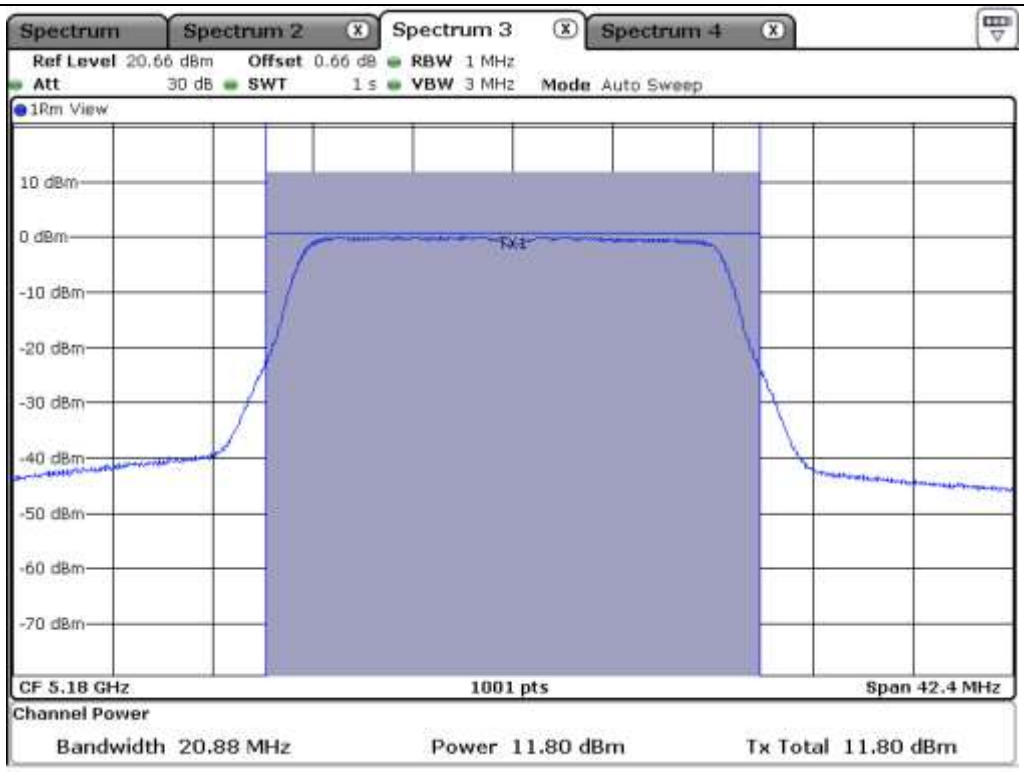
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	20.88	11.80	24.00	12.20
	Middle	5 220.00	20.93	9.97	24.00	14.03
	High	5 240.00	20.88	9.84	24.00	14.16
5 250 ~ 5 350	Low	5 260.00	21.18	14.61	24.00	9.39
	Middle	5 300.00	21.18	14.09	24.00	9.91
	High	5 320.00	21.18	14.33	24.00	9.67
5 470 ~ 5 725	Low	5 500.00	21.18	14.76	24.00	9.24
	Middle	5 560.00	21.23	14.66	24.00	9.34
	High	5 720.00	21.18	14.94	24.00	9.06
5 725 ~ 5 850	Low	5 745.00	21.23	14.24	30.00	15.76
	Middle	5 785.00	21.23	14.27	30.00	15.73
	High	5 825.00	21.23	13.93	30.00	16.07

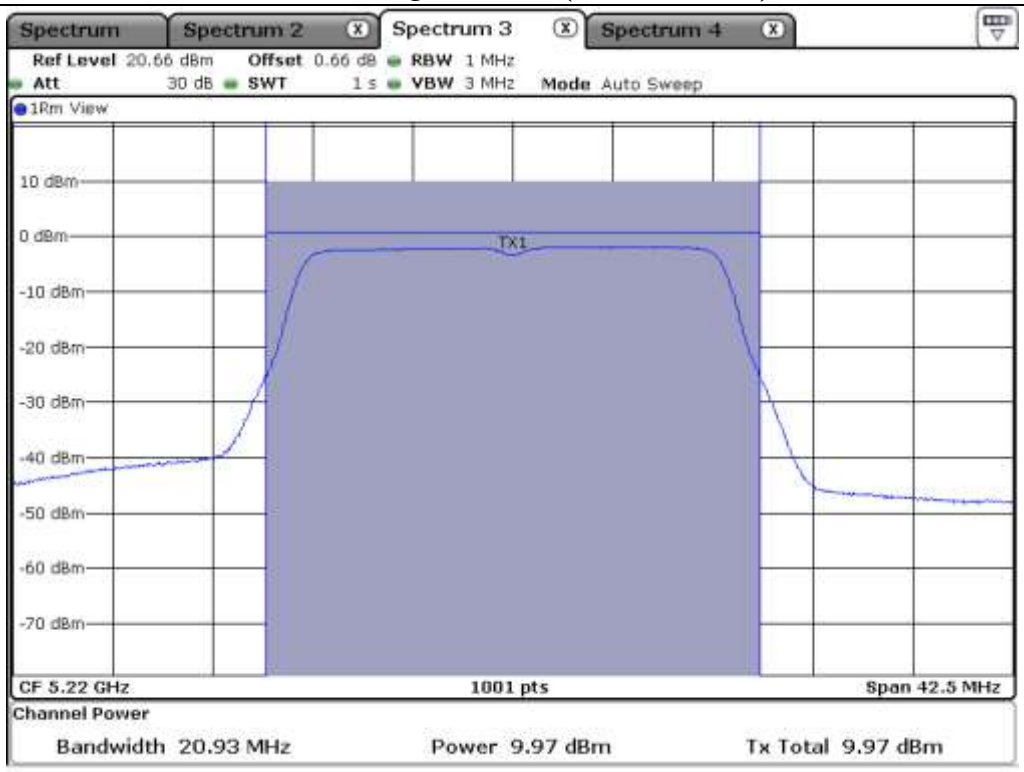
Remark: See next page for measurement data.

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

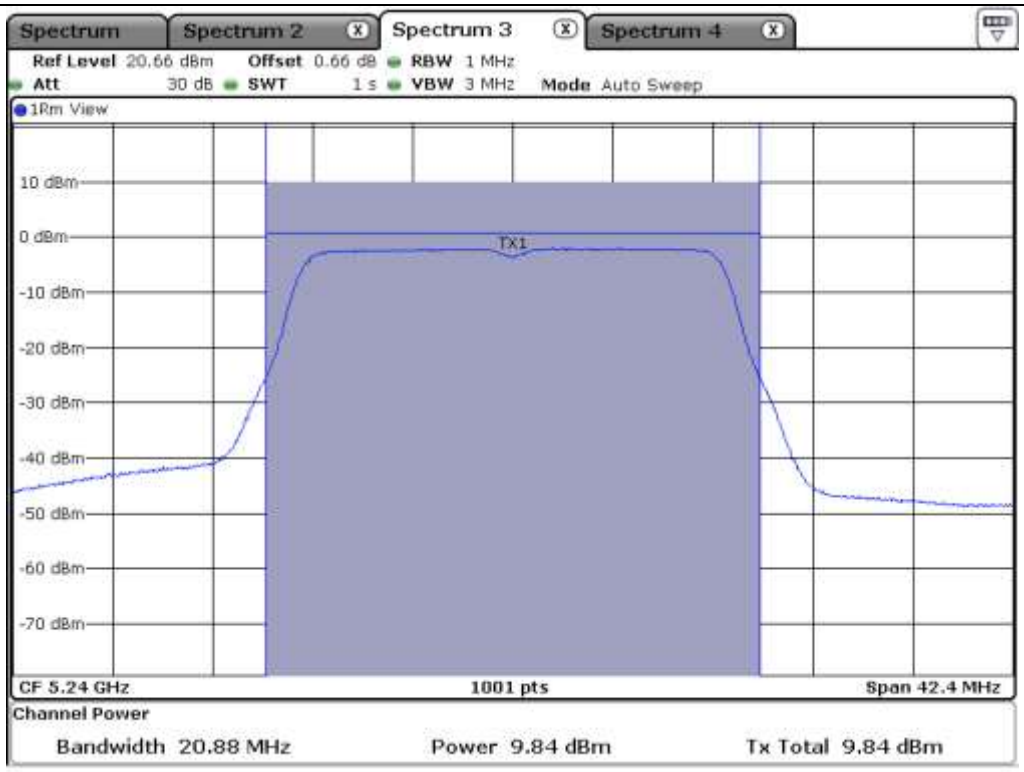


Low Channel @ 5 180 MHz (26 dB Bandwidth)

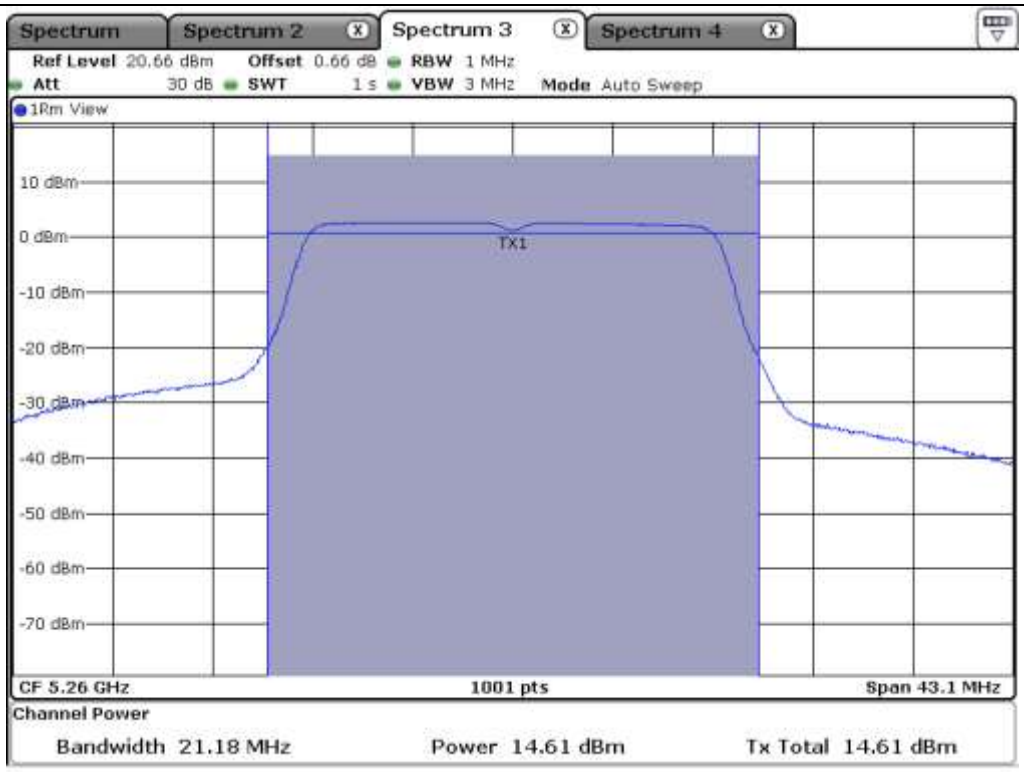


Middle Channel @ 5 220 MHz (26 dB Bandwidth)

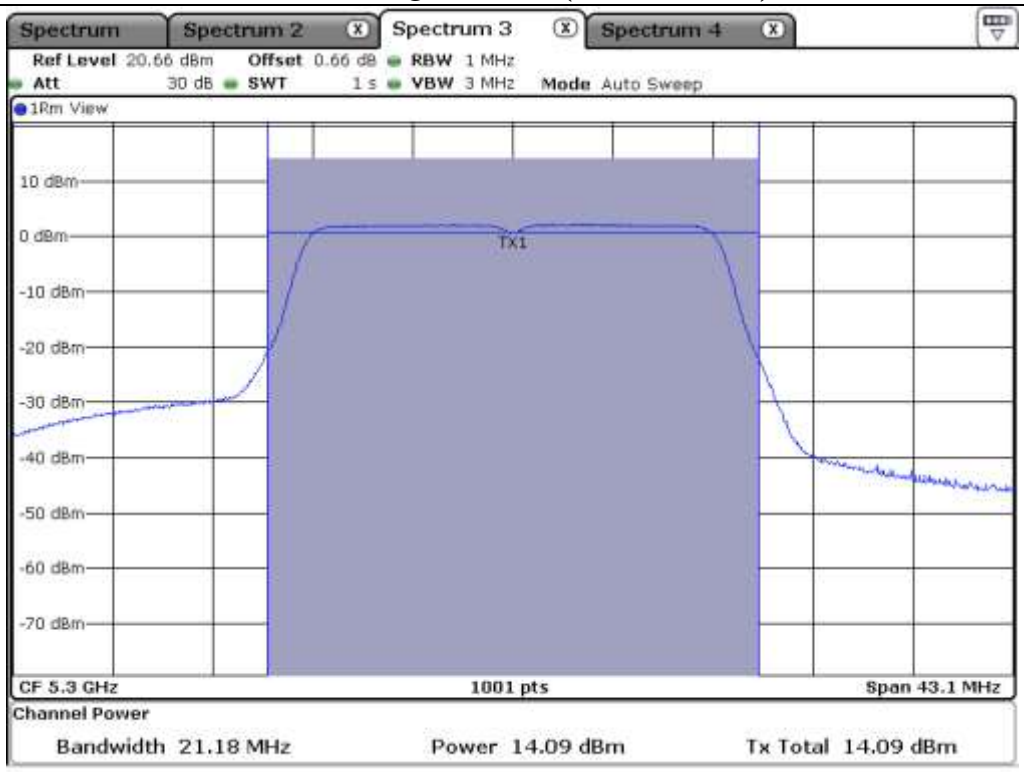
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 240 MHz (26 dB Bandwidth)

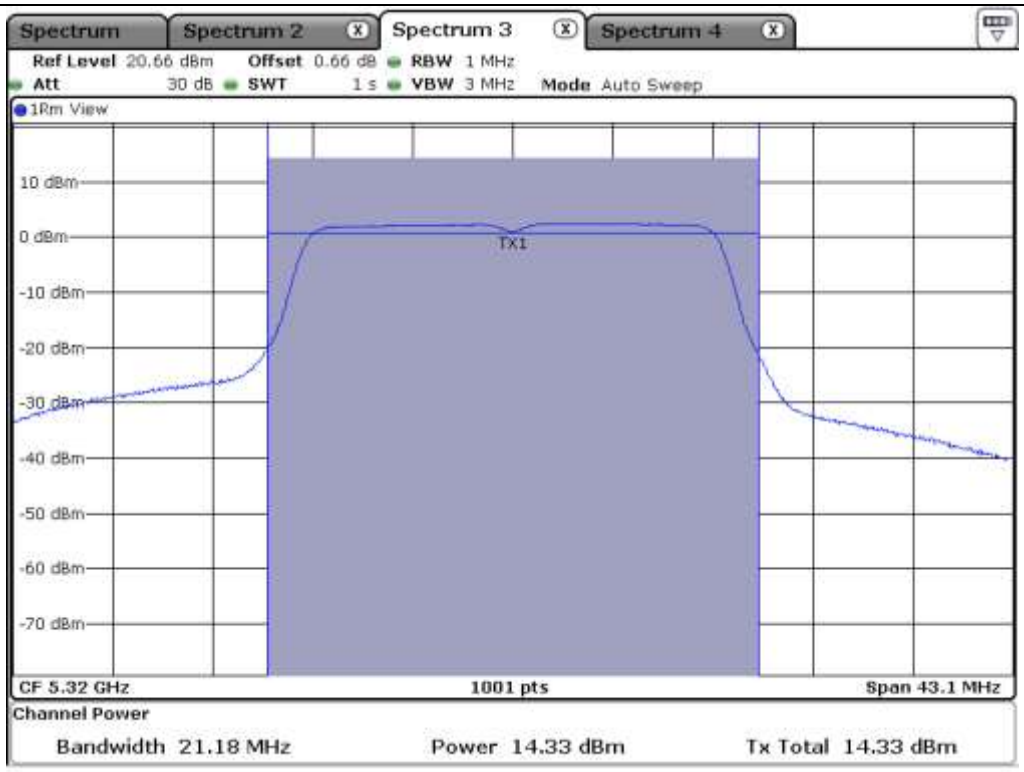


Low Channel @ 5 260 MHz (26 dB Bandwidth)

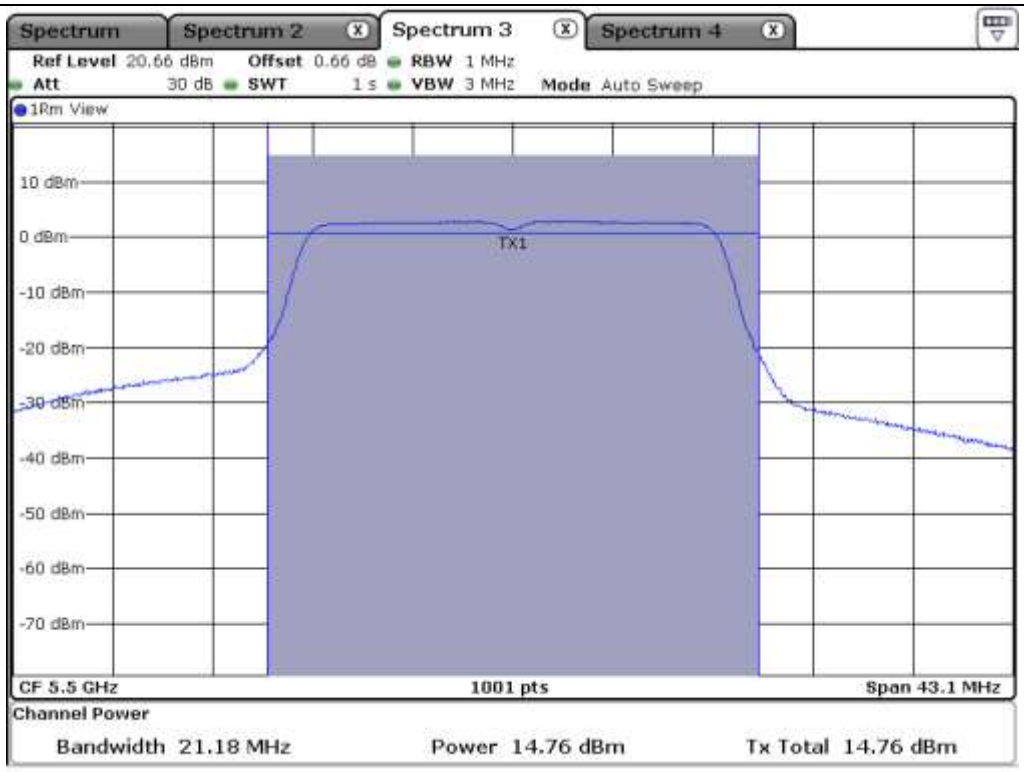


Middle Channel @ 5 300 MHz (26 dB Bandwidth)

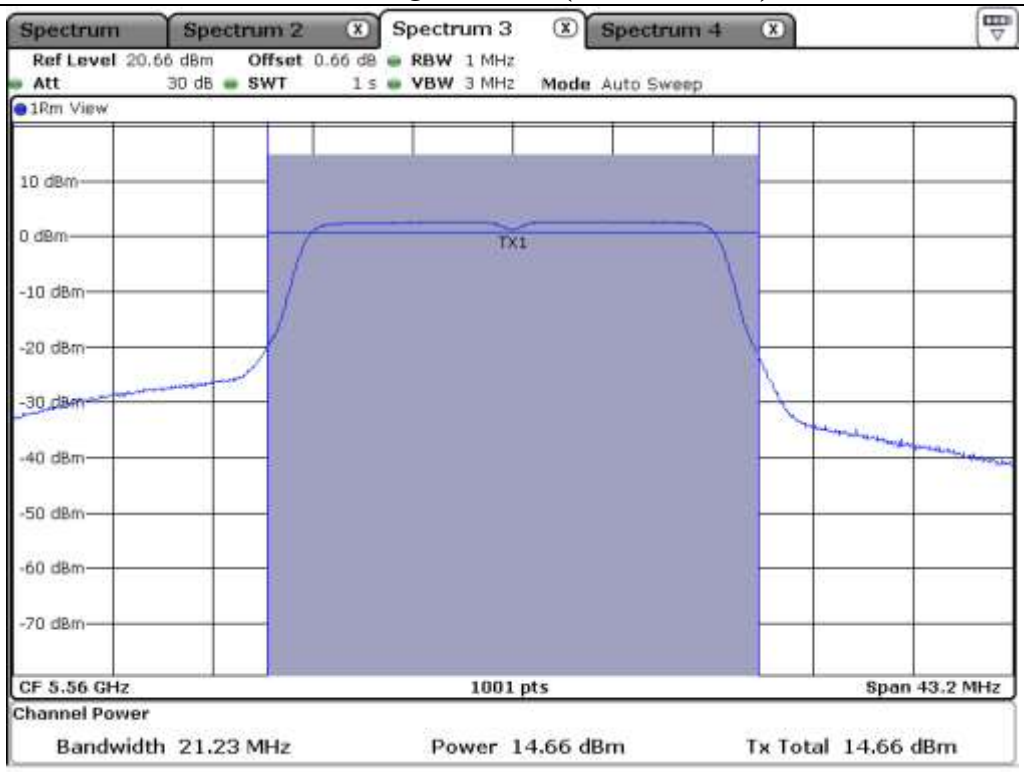
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 320 MHz (26 dB Bandwidth)

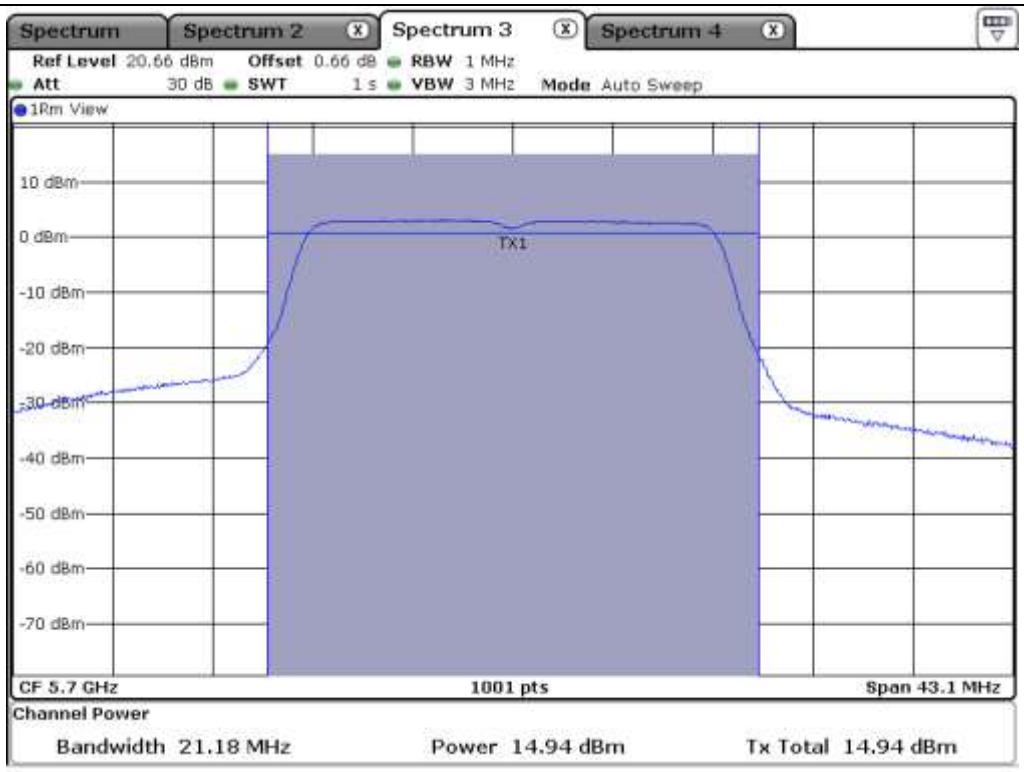


Low Channel @ 5 500 MHz (26 dB Bandwidth)

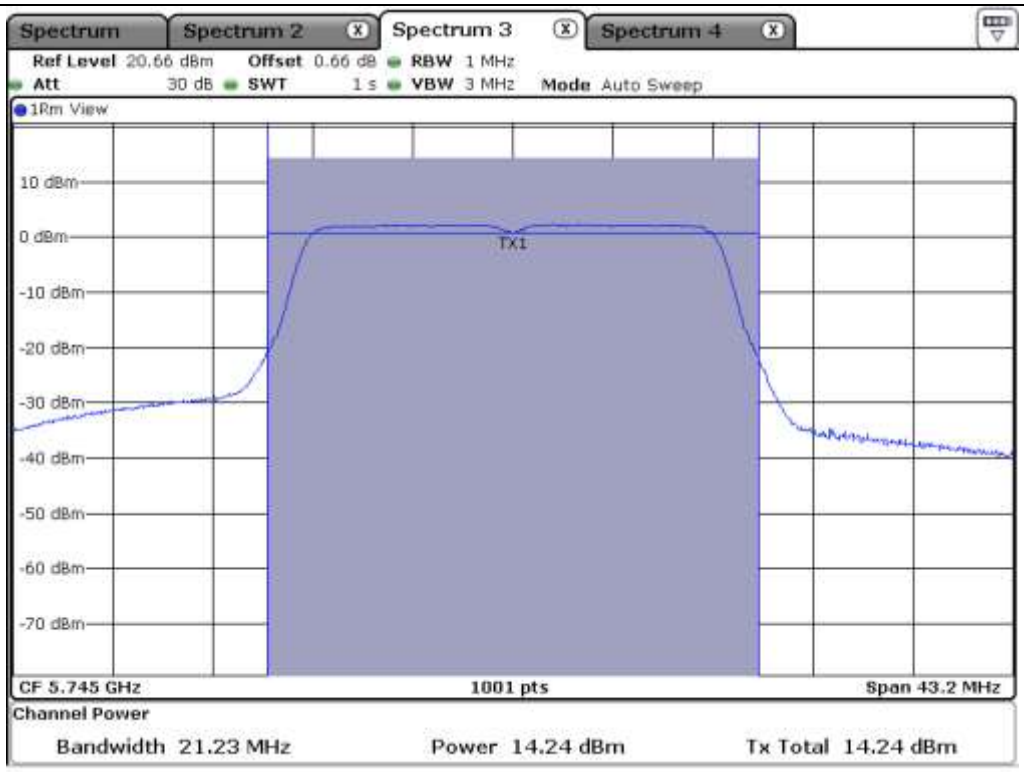


Middle Channel @ 5 560 MHz (26 dB Bandwidth)

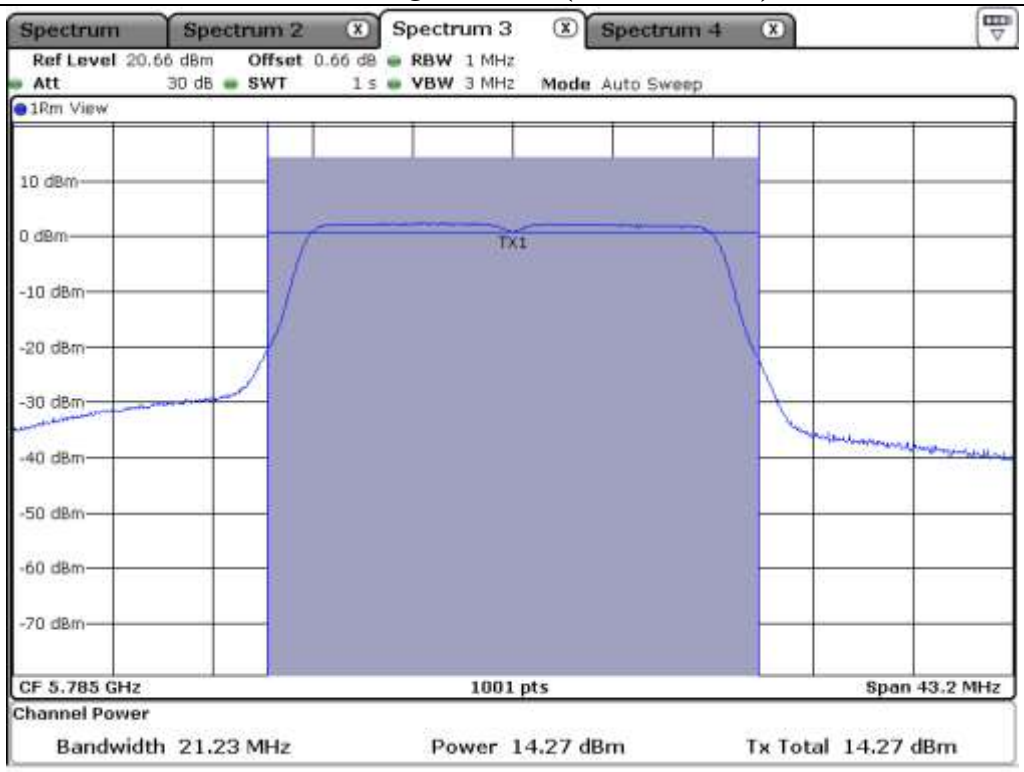
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 720 MHz (26 dB Bandwidth)

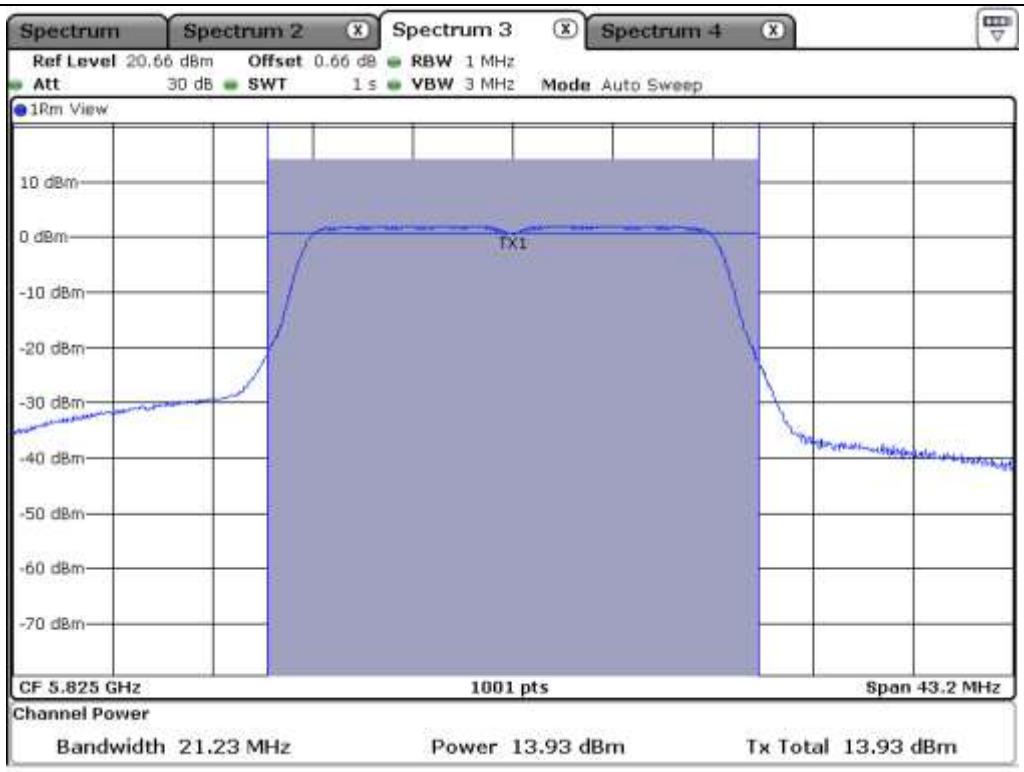


Low Channel @ 5 745 MHz (26 dB Bandwidth)



Middle Channel @ 5 785 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 825 MHz (26 dB Bandwidth)

9.6.2 Test data for Antenna 1

-. Test Date : March 24, 2017

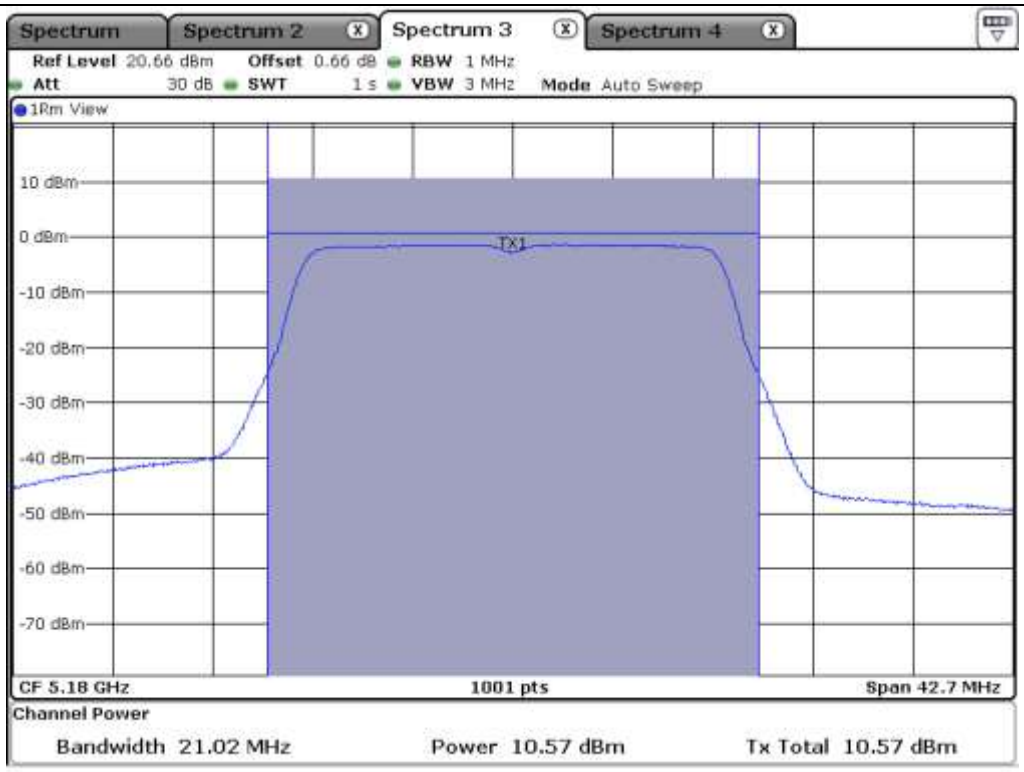
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	21.03	10.57	24.00	13.43
	Middle	5 220.00	20.88	10.62	24.00	13.38
	High	5 240.00	20.88	10.43	24.00	13.57
5 250 ~ 5 350	Low	5 260.00	21.08	14.54	24.00	9.46
	Middle	5 300.00	21.13	14.09	24.00	9.91
	High	5 320.00	21.18	14.23	24.00	9.77
5 470 ~ 5 725	Low	5 500.00	21.23	14.97	24.00	9.03
	Middle	5 560.00	20.98	14.04	24.00	9.96
	High	5 720.00	21.13	14.50	24.00	9.50
5 725 ~ 5 850	Low	5 745.00	20.98	14.33	30.00	15.67
	Middle	5 785.00	21.23	14.84	30.00	15.16
	High	5 825.00	21.18	14.42	30.00	15.58

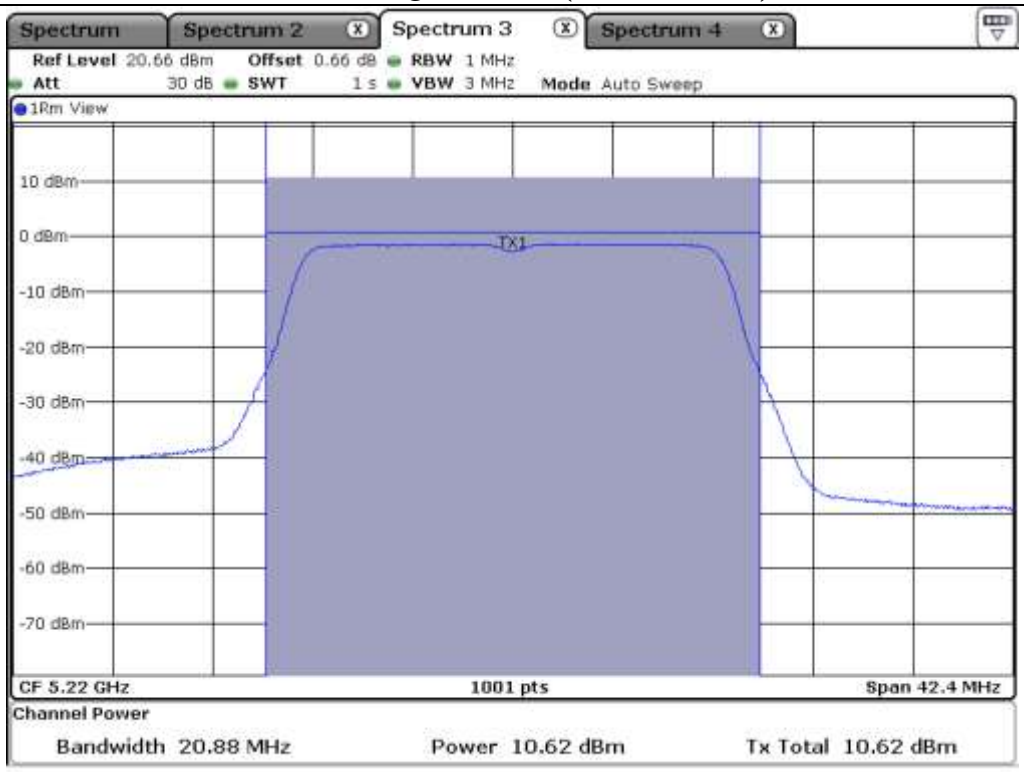
Remark: See next page for measurement data.

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

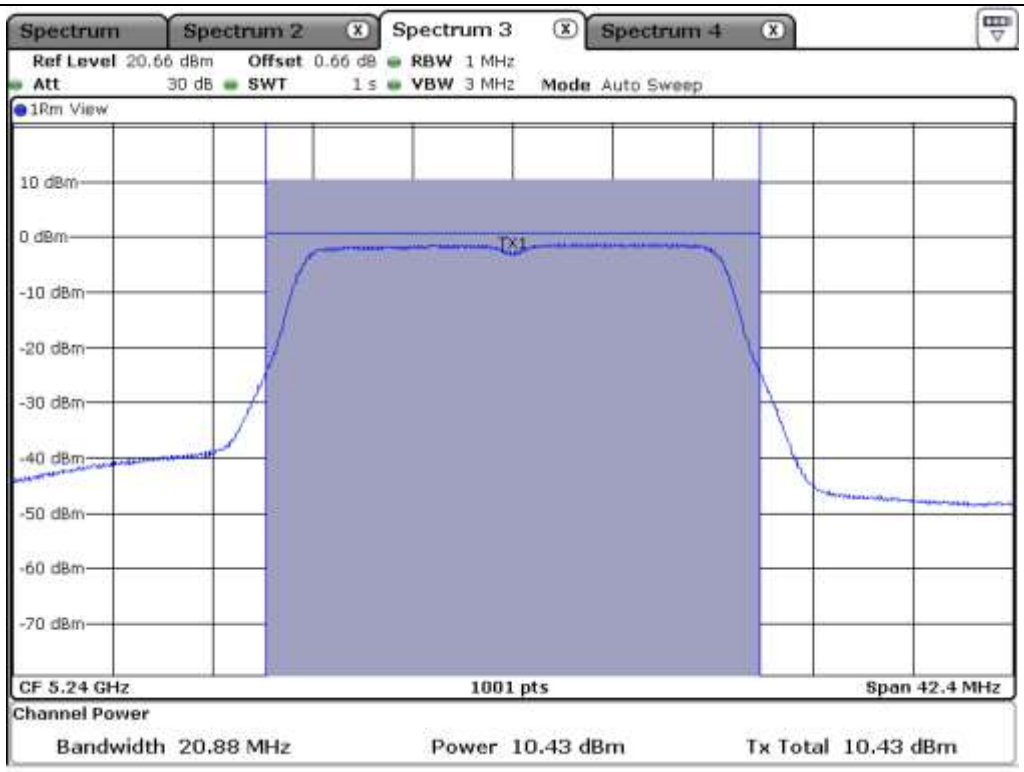


Low Channel @ 5 180 MHz (26 dB Bandwidth)

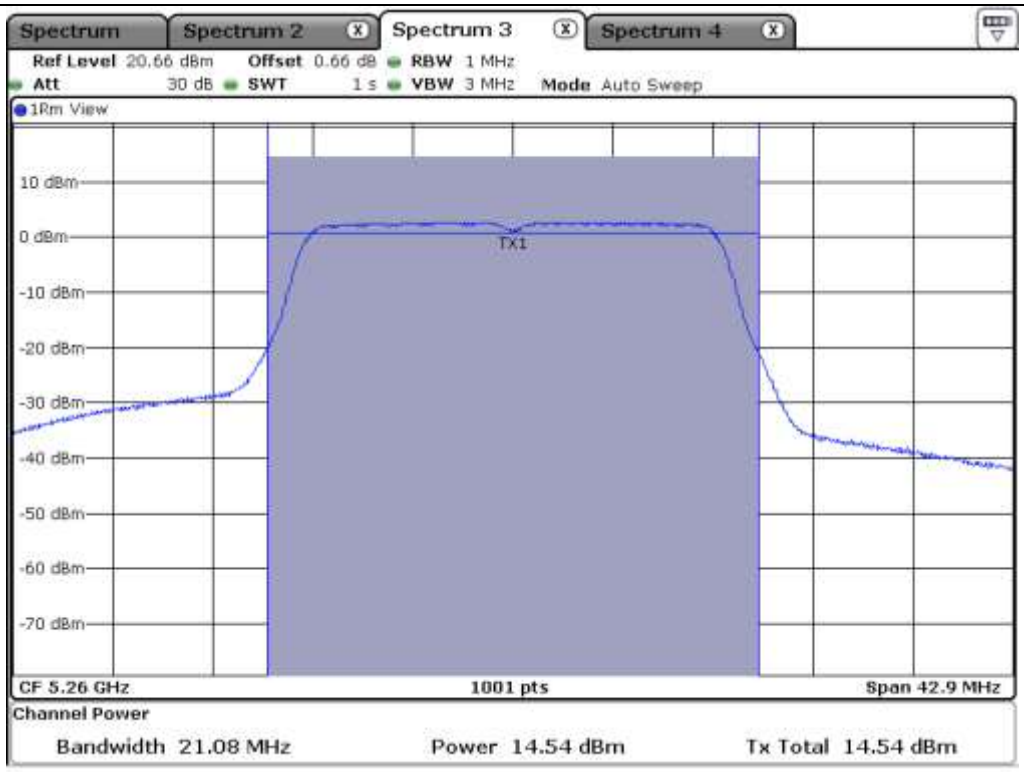


Middle Channel @ 5 220 MHz (26 dB Bandwidth)

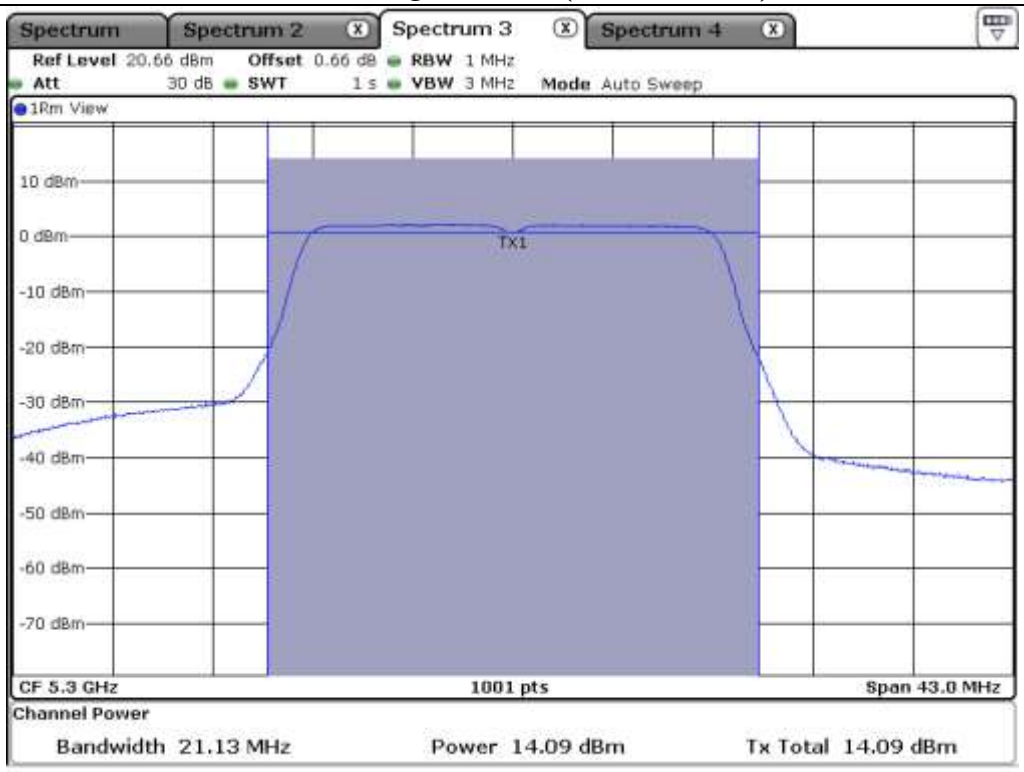
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 240 MHz (26 dB Bandwidth)

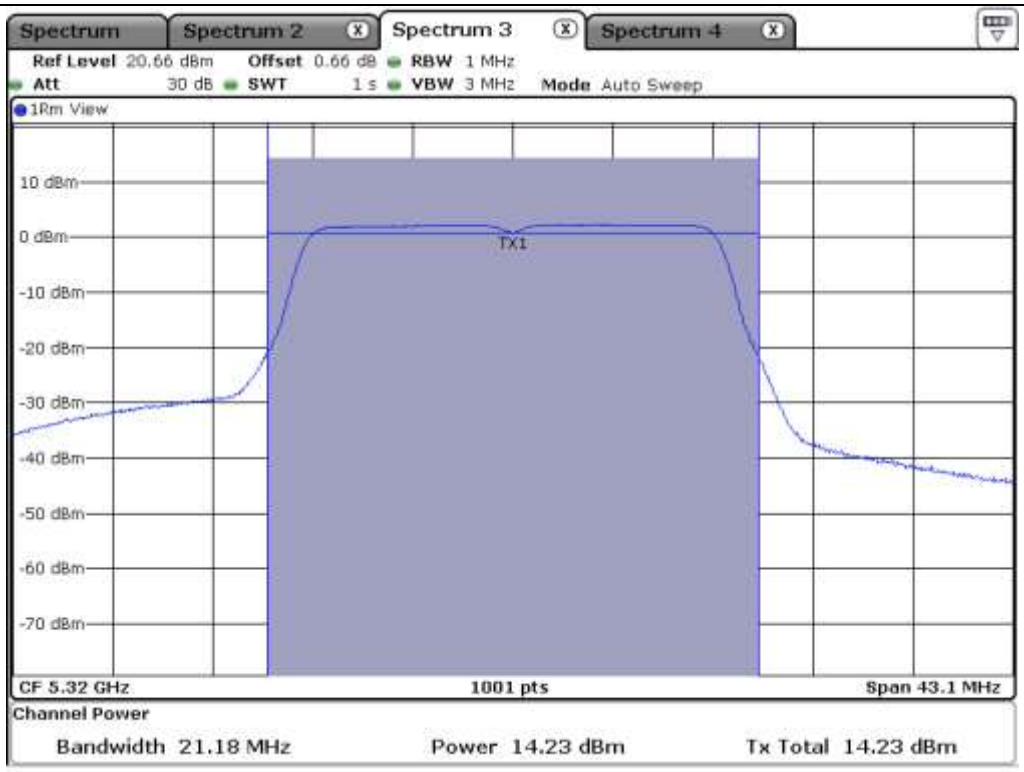


Low Channel @ 5 260 MHz (26 dB Bandwidth)

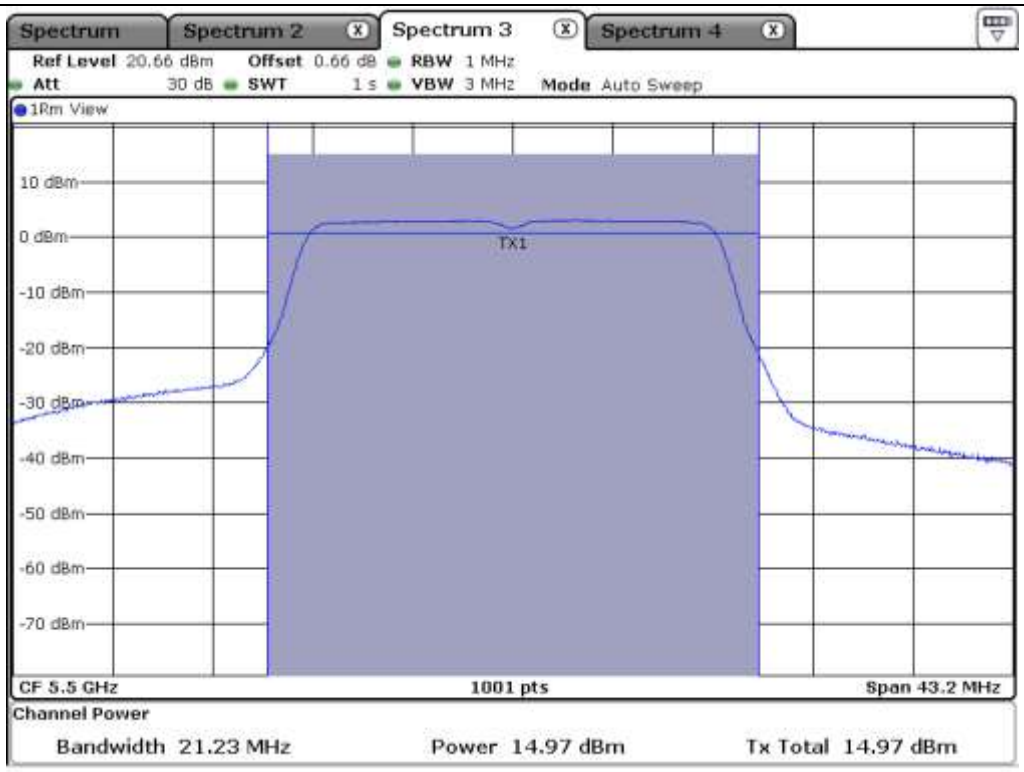


Middle Channel @ 5 300 MHz (26 dB Bandwidth)

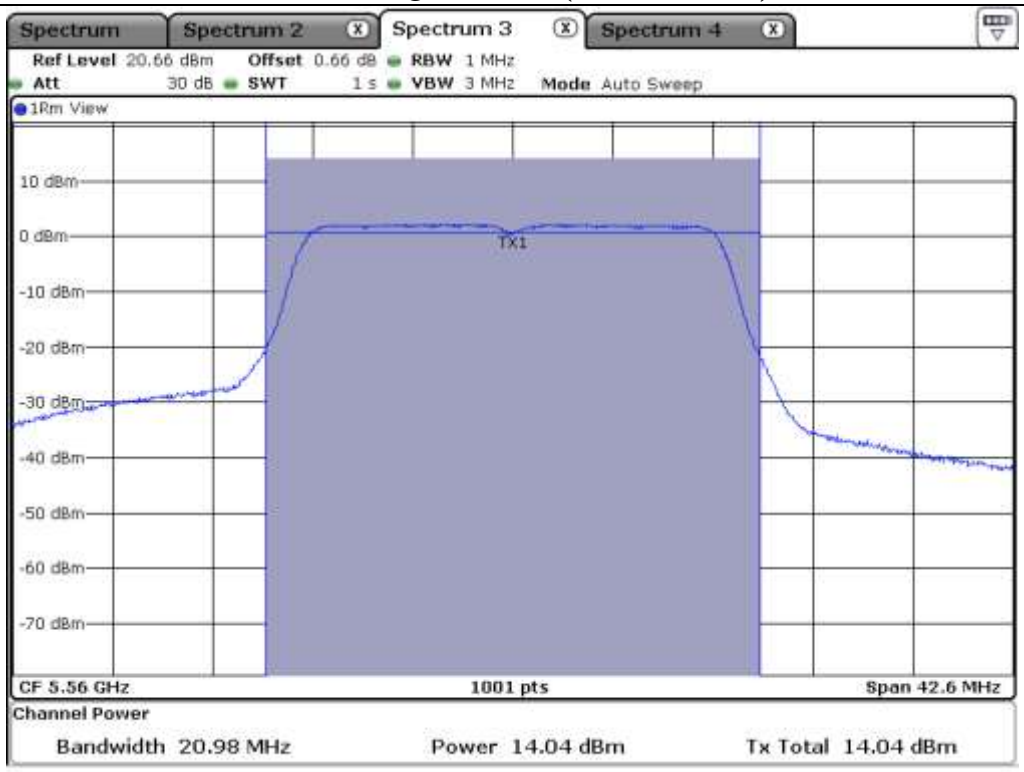
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 320 MHz (26 dB Bandwidth)

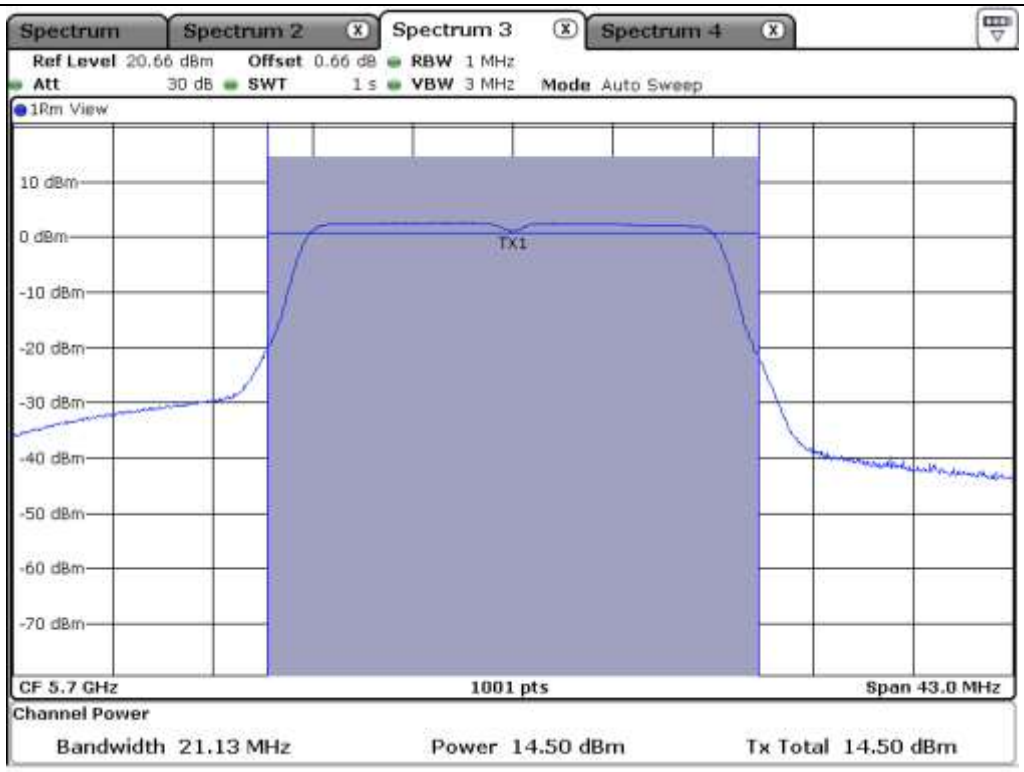


Low Channel @ 5 500 MHz (26 dB Bandwidth)

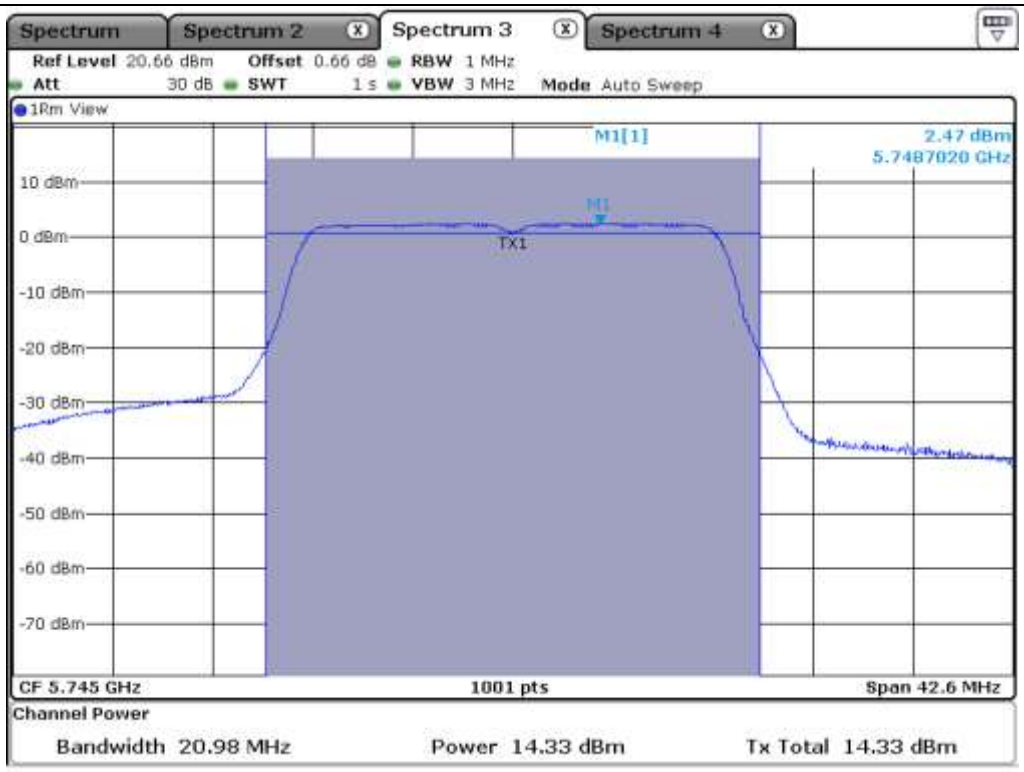


Middle Channel @ 5 560 MHz (26 dB Bandwidth)

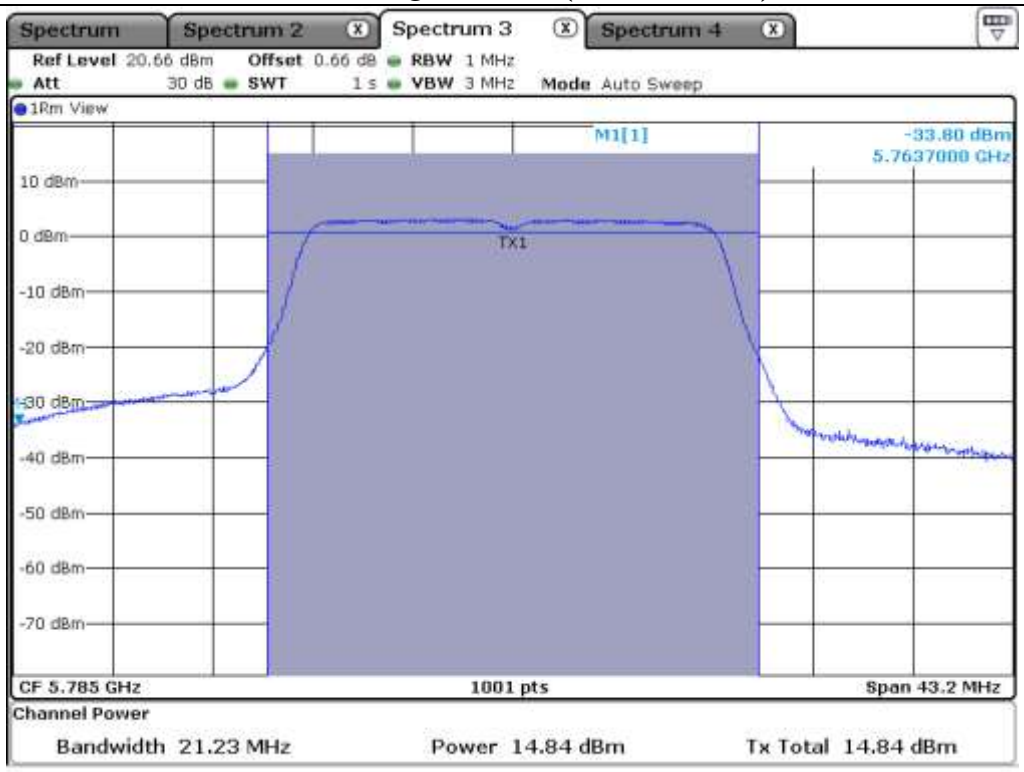
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 720 MHz (26 dB Bandwidth)

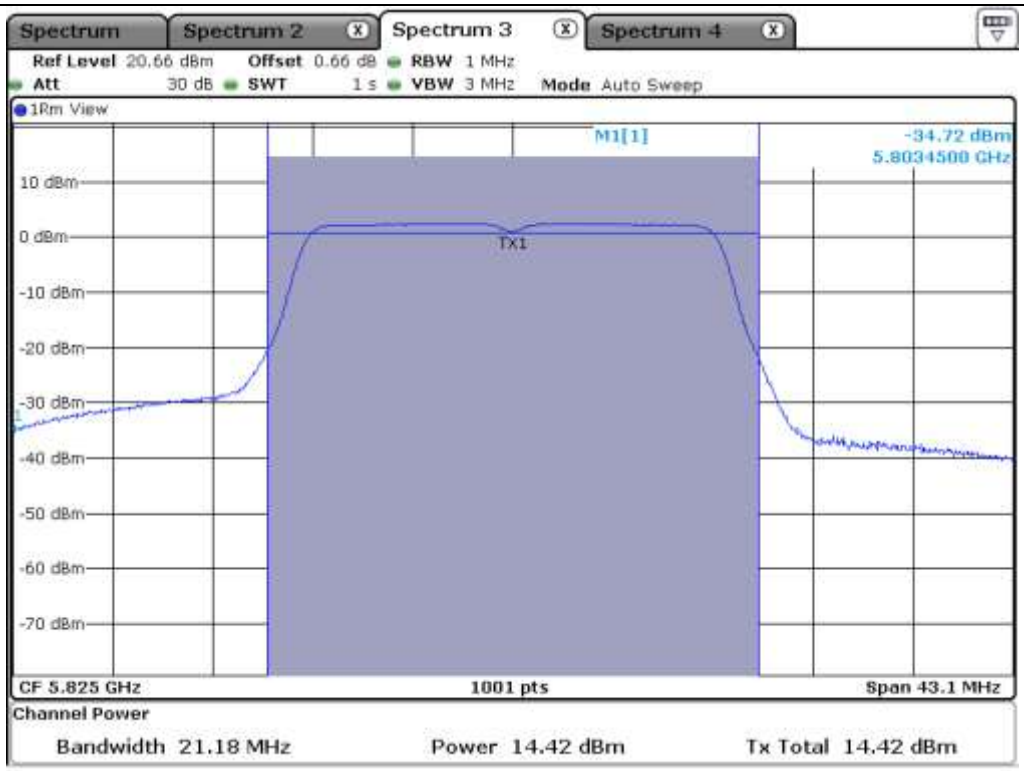


Low Channel @ 5 745 MHz (26 dB Bandwidth)



Middle Channel @ 5 785 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 825 MHz (26 dB Bandwidth)

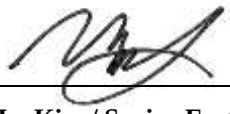
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.6.3 Test data for Multiple Transmit

-. Test Date : March 24, 2017

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 180.00	14.24	21.44	7.20
	Middle	5 220.00	13.32	21.44	8.12
	High	5 240.00	13.16	21.44	8.28
5 250 ~ 5 350	Low	5 260.00	17.59	21.77	4.18
	Middle	5 300.00	17.10	21.77	4.67
	High	5 320.00	17.29	21.77	4.48
5 470 ~ 5 725	Low	5 500.00	17.88	21.49	3.61
	Middle	5 560.00	17.37	21.49	4.12
	High	5 720.00	17.74	21.49	3.75
5 725 ~ 5 850	Low	5 745.00	17.30	27.69	10.39
	Middle	5 785.00	17.57	27.69	10.12
	High	5 825.00	17.19	27.69	10.50



Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.7 Test data for 802.11n_HT40 RLAN Mode

9.7.1 Test data for Antenna 0

-. Test Date : March 24, 2017

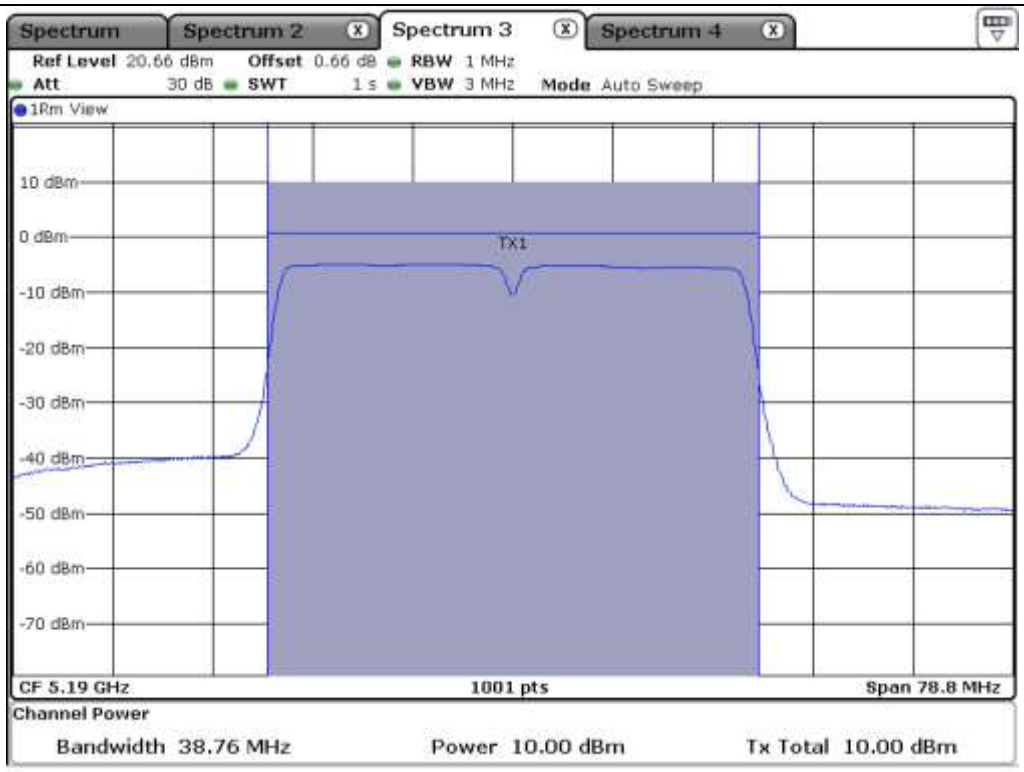
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	38.76	10.00	24.00	14.00
	High	5 230.00	38.66	10.14	24.00	13.86
5 250 ~ 5 350	Low	5 270.00	38.96	14.10	24.00	9.90
	High	5 310.00	38.96	13.14	24.00	10.86
5 470 ~ 5 725	Low	5 510.00	38.96	14.81	24.00	9.19
	Middle	5 550.00	39.16	14.44	24.00	9.56
	High	5 710.00	39.06	14.43	24.00	9.57
5 725 ~ 5 850	Low	5 755.00	38.76	13.40	30.00	16.60
	High	5 795.00	38.76	13.88	30.00	16.12

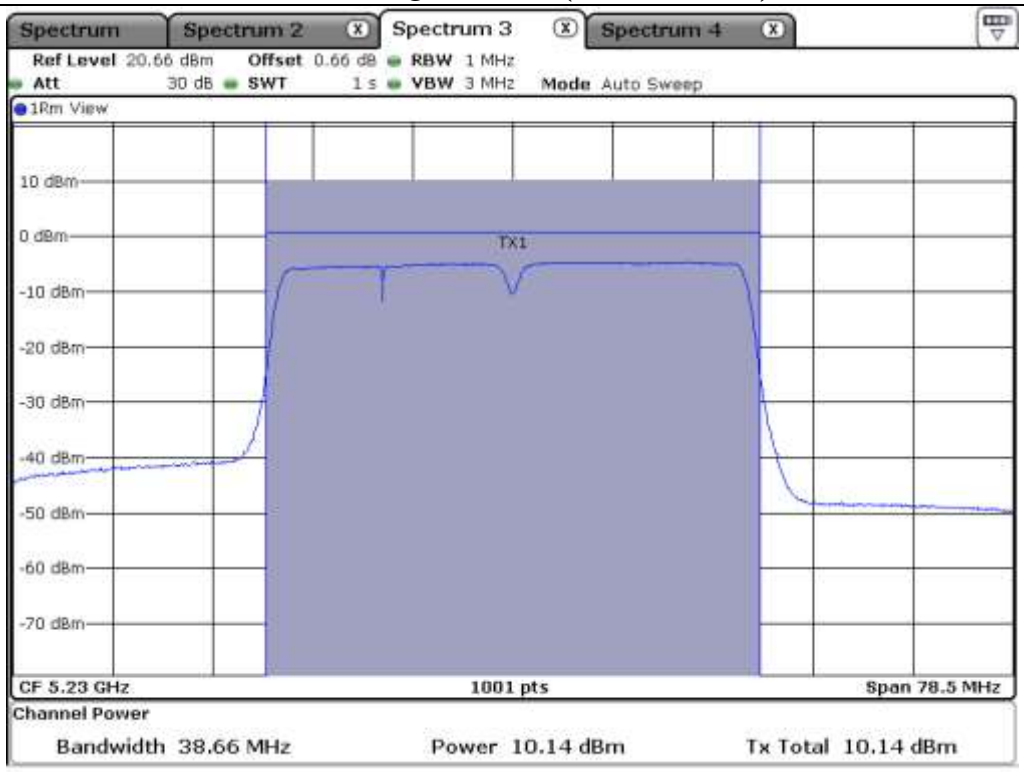
Remark: See next page for measurement data.

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

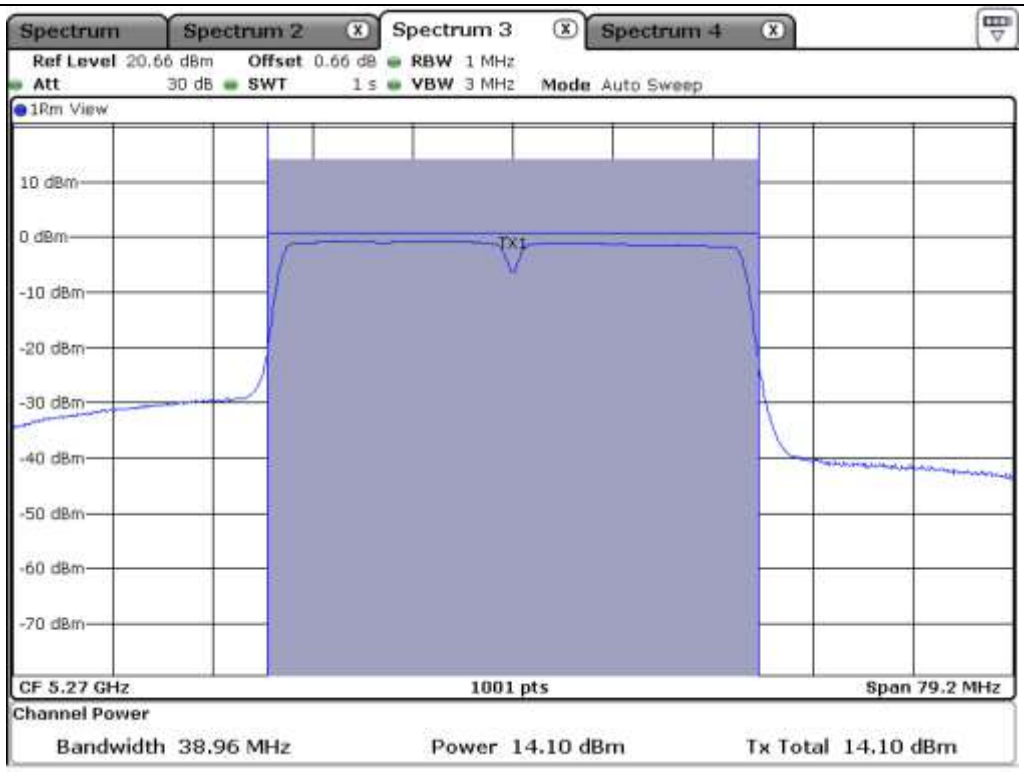


Low Channel @ 5 190 MHz (26 dB Bandwidth)

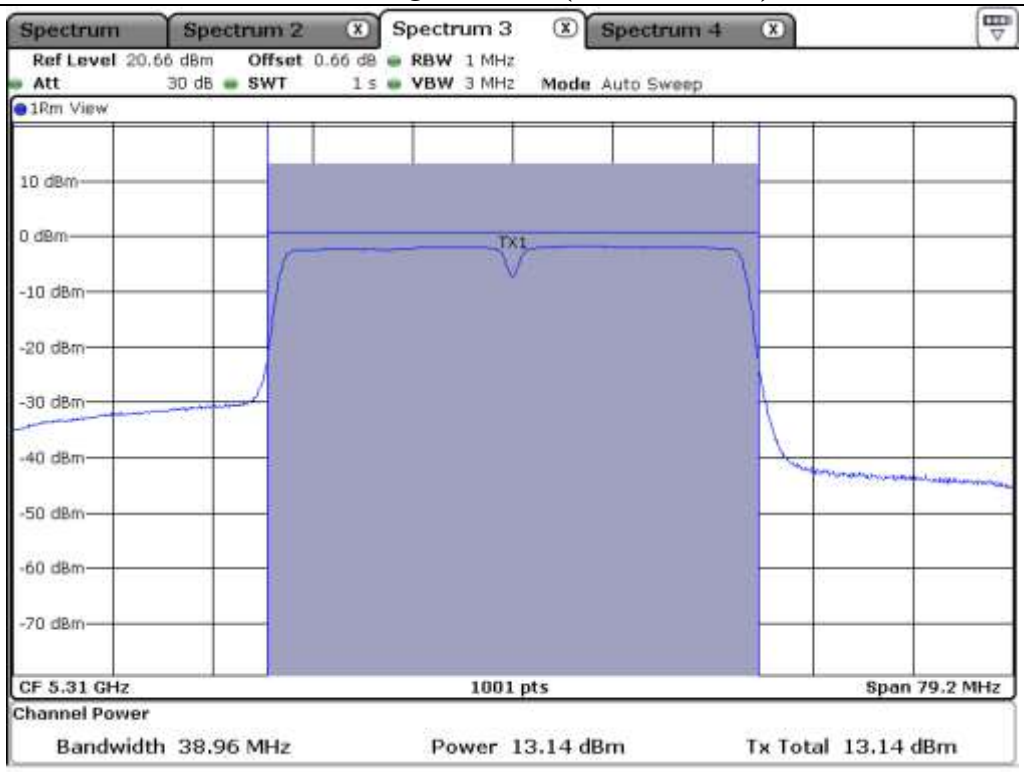


High Channel @ 5 230 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

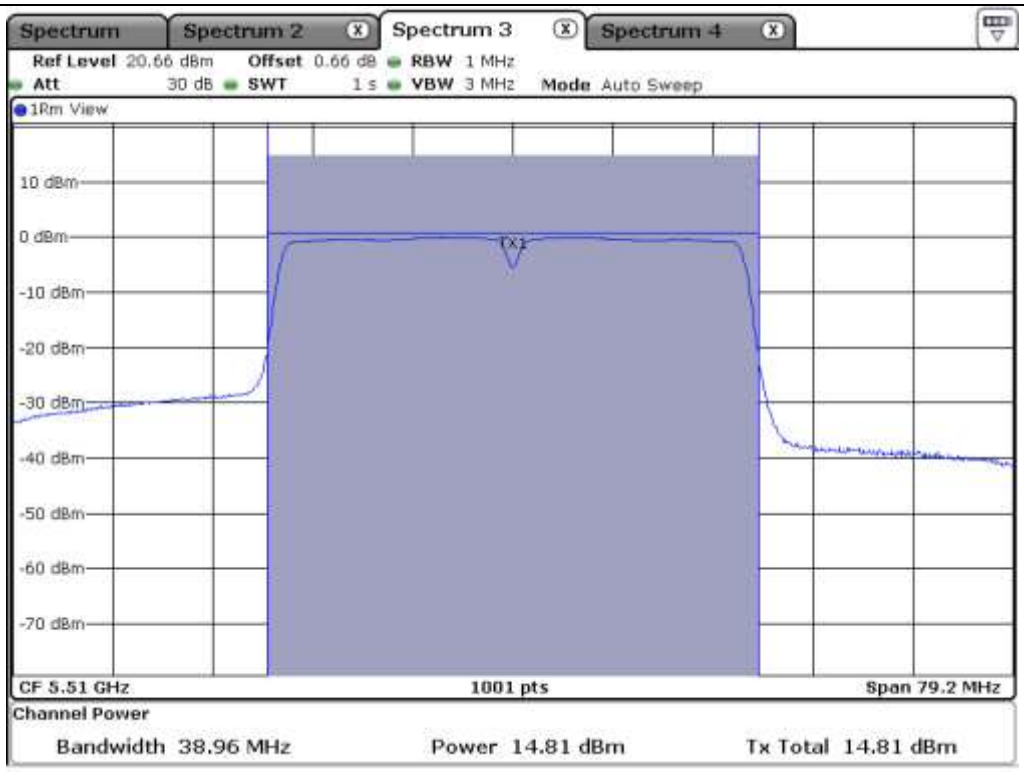


Low Channel @ 5 270 MHz (26 dB Bandwidth)

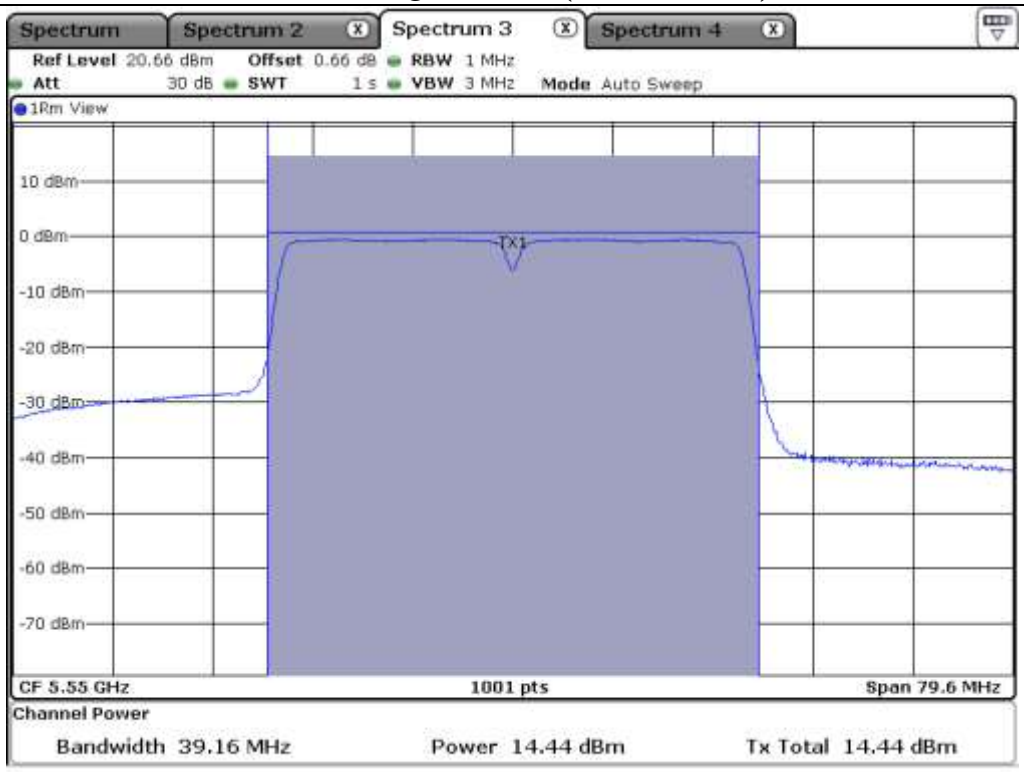


High Channel @ 5 310 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

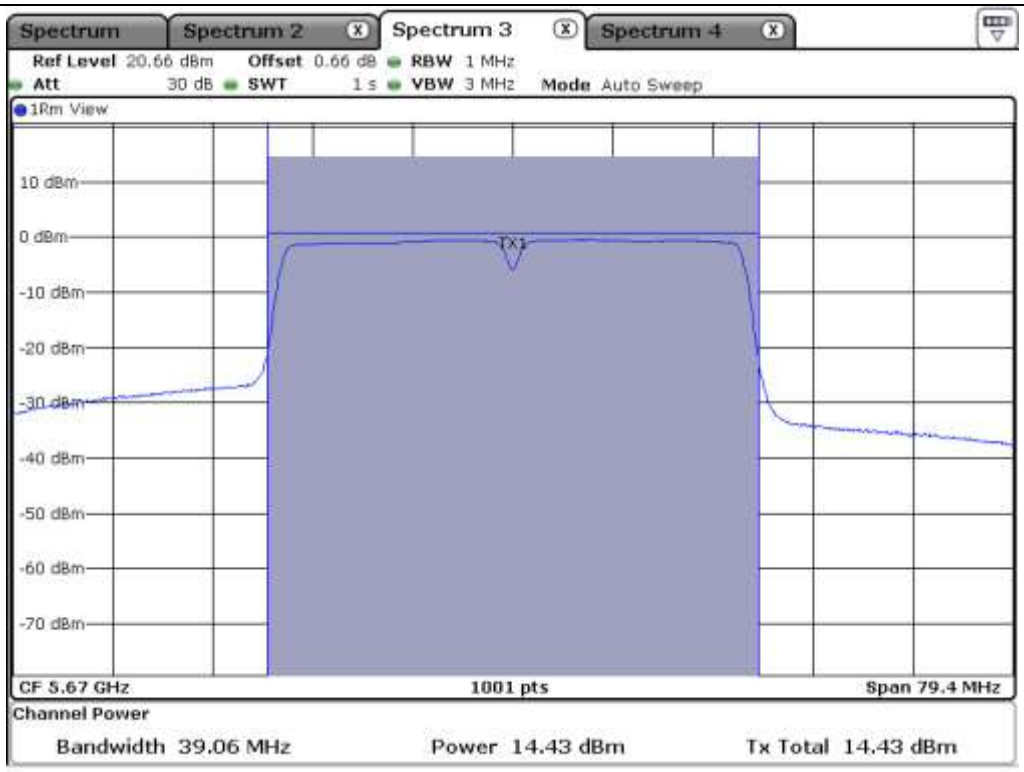


Low Channel @ 5 510 MHz (26 dB Bandwidth)



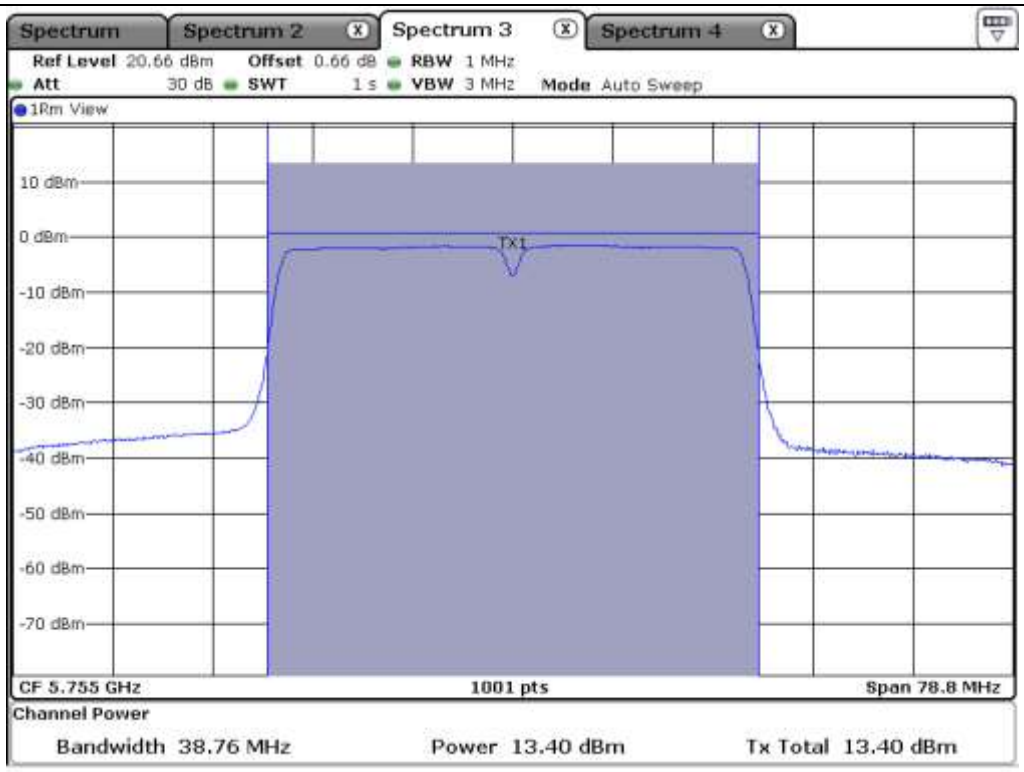
Middle Channel @ 5 550 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

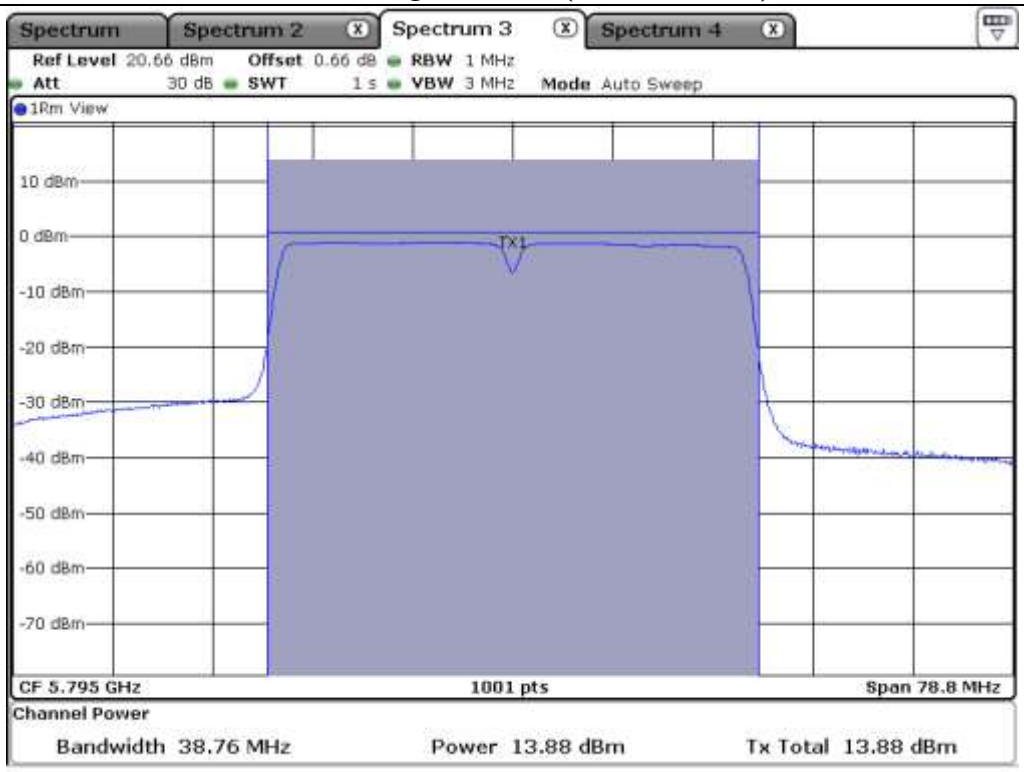


High Channel @ 5 710 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Low Channel @ 5 755 MHz (26 dB Bandwidth)



High Channel @ 5 795 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

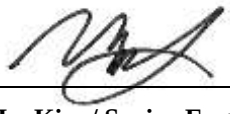
9.7.2 Test data for Antenna 1

-. Test Date : March 24, 2017

-. Test Result : Pass

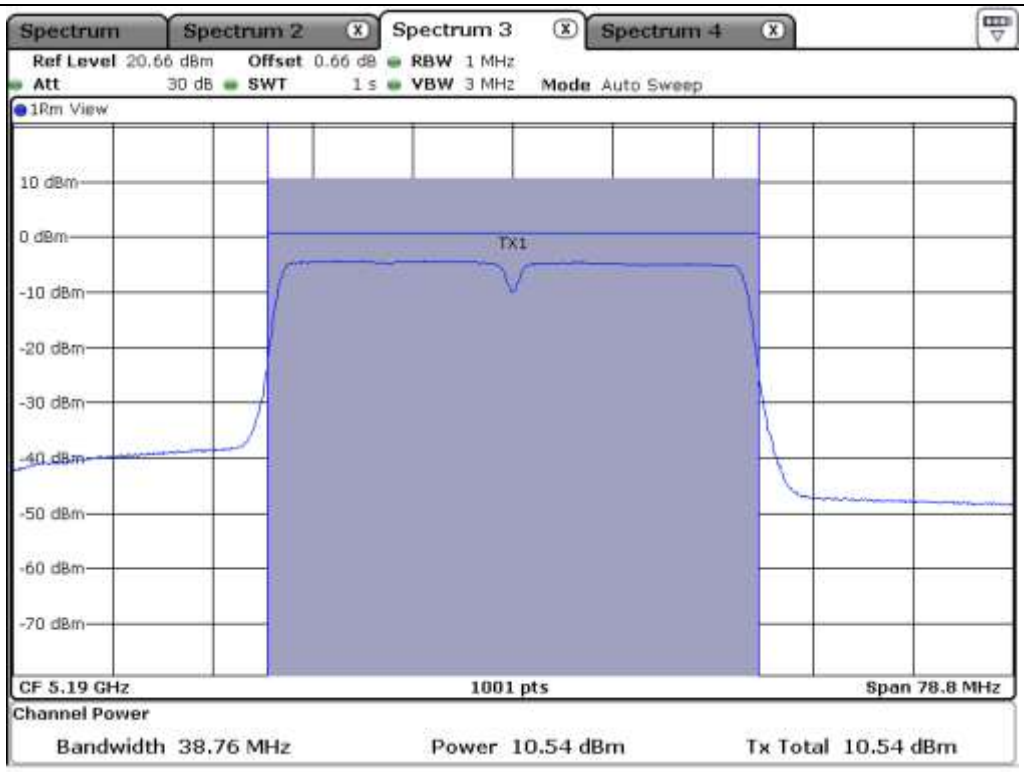
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	38.76	10.54	24.00	13.46
	High	5 230.00	38.86	10.19	24.00	13.81
5 250 ~ 5 350	Low	5 270.00	38.76	13.56	24.00	10.44
	High	5 310.00	39.06	13.52	24.00	10.48
5 470 ~ 5 725	Low	5 510.00	38.96	14.32	24.00	9.68
	Middle	5 550.00	38.96	14.02	24.00	9.98
	High	5 710.00	39.16	13.95	24.00	10.05
5 725 ~ 5 850	Low	5 755.00	38.86	14.36	30.00	15.64
	High	5 795.00	38.86	14.69	30.00	15.31

Remark: See next page for measurement data.

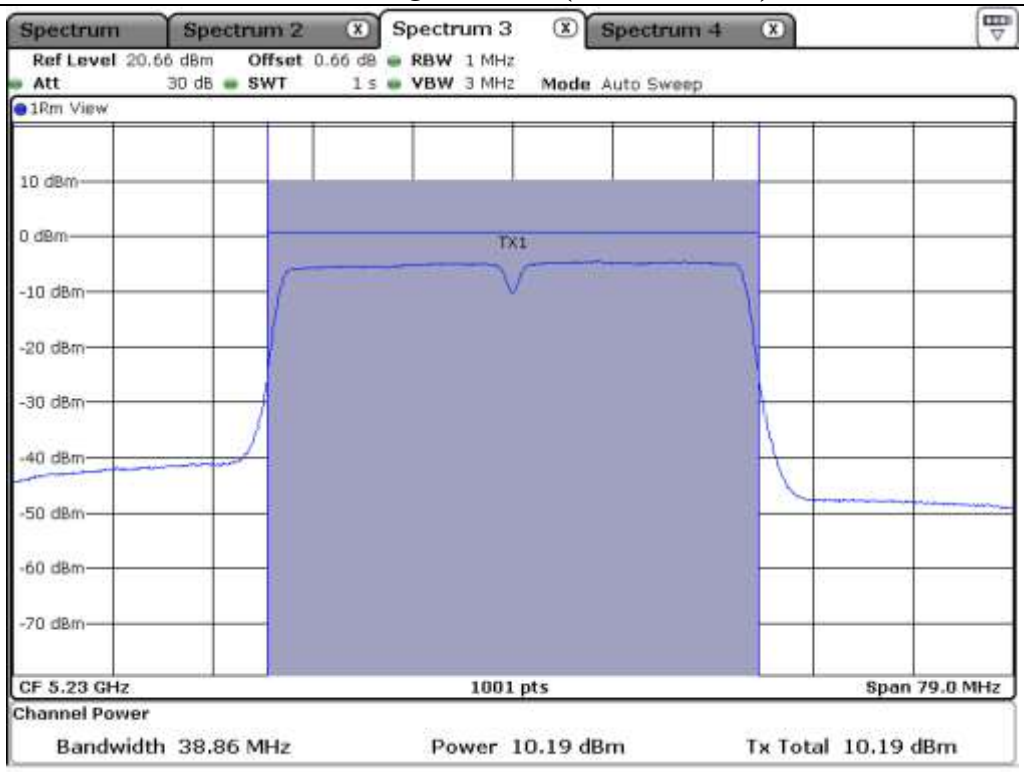


Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

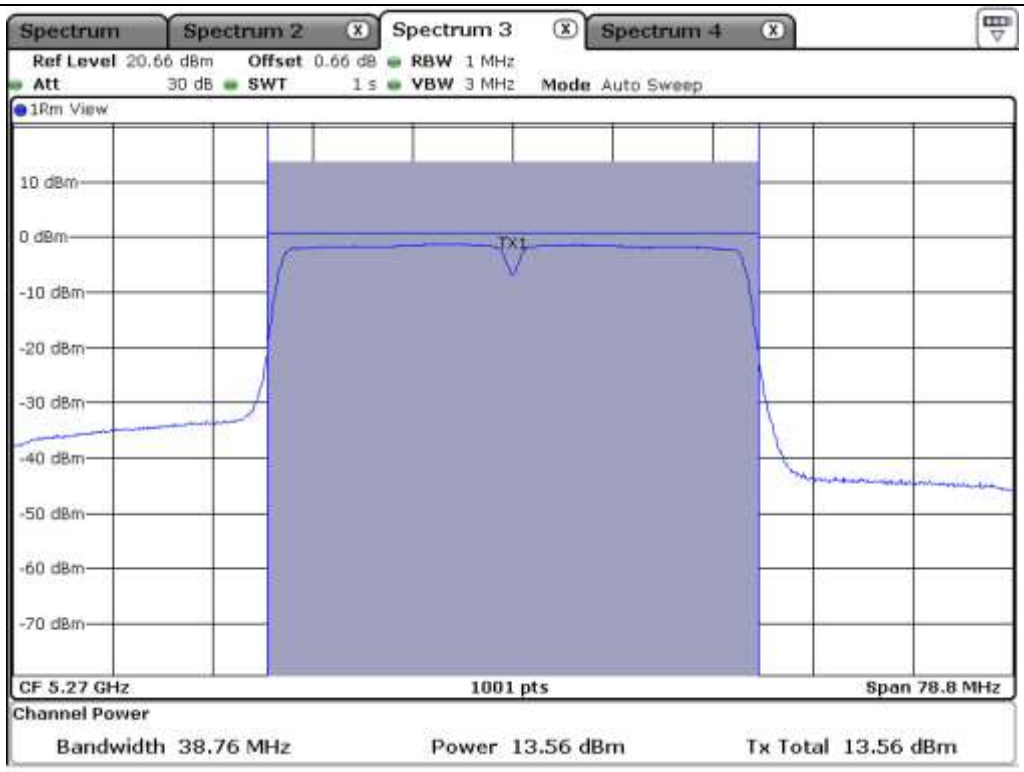


Low Channel @ 5 190 MHz (26 dB Bandwidth)

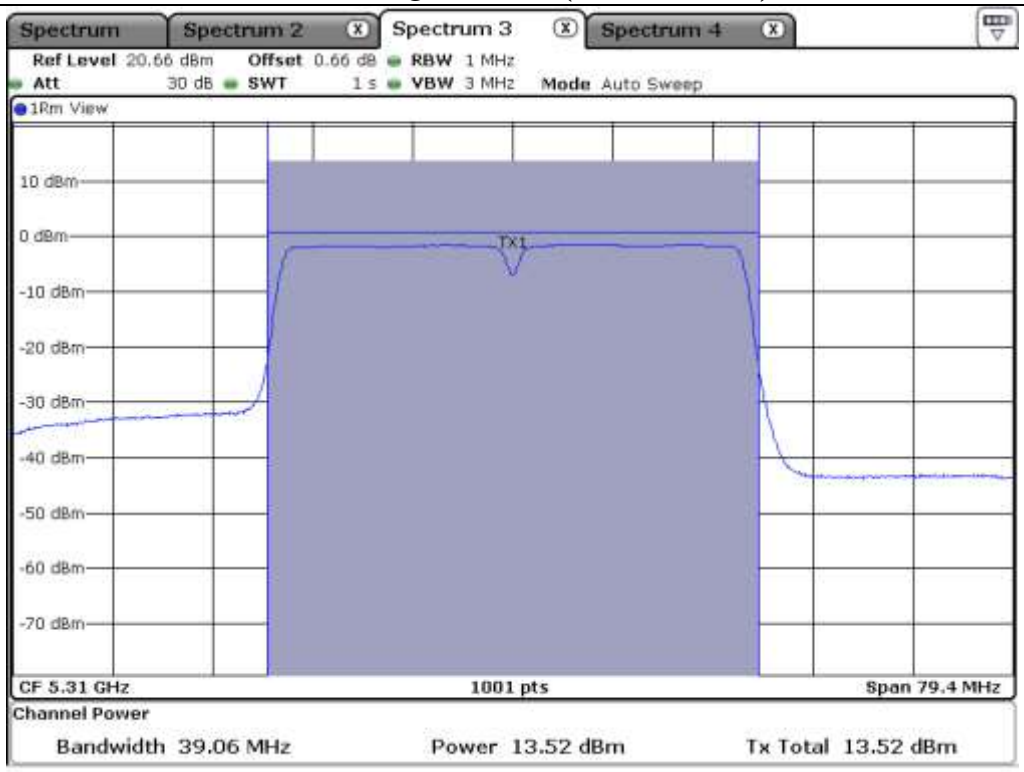


High Channel @ 5 230 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

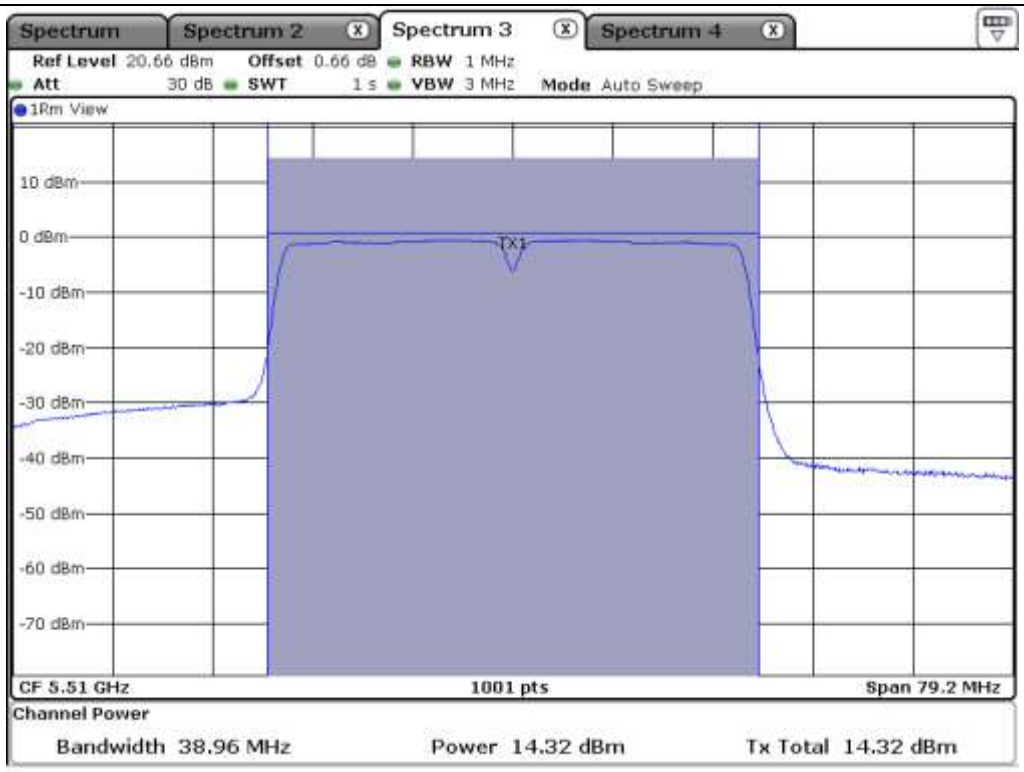


Low Channel @ 5 270 MHz (26 dB Bandwidth)

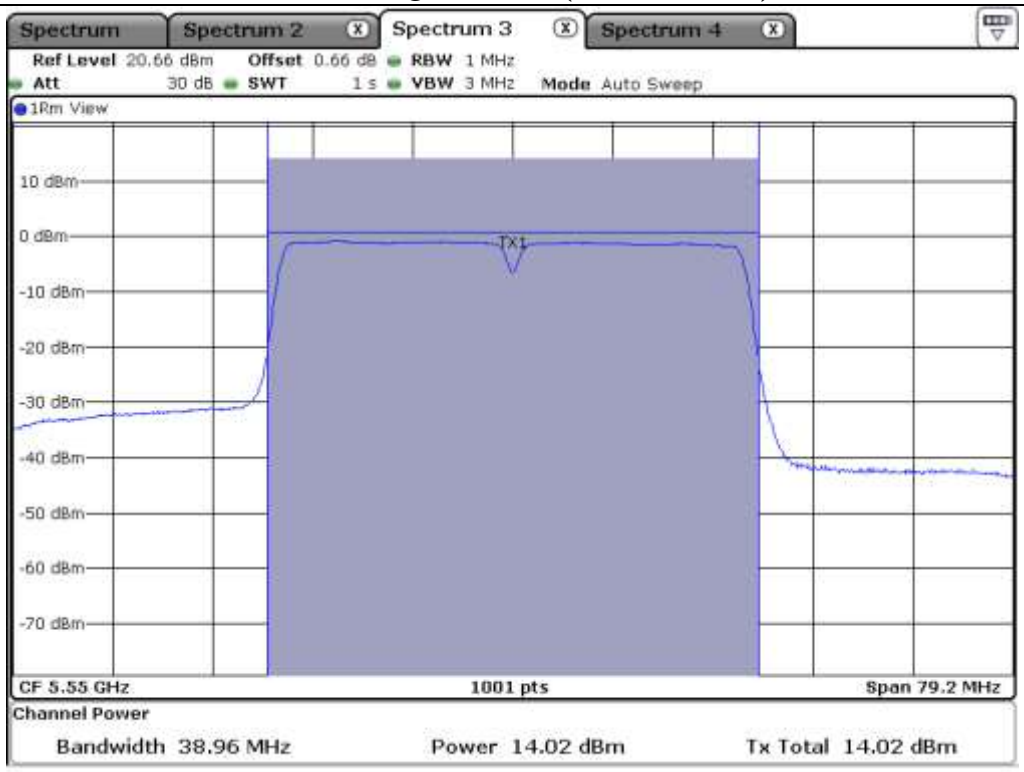


High Channel @ 5 310 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

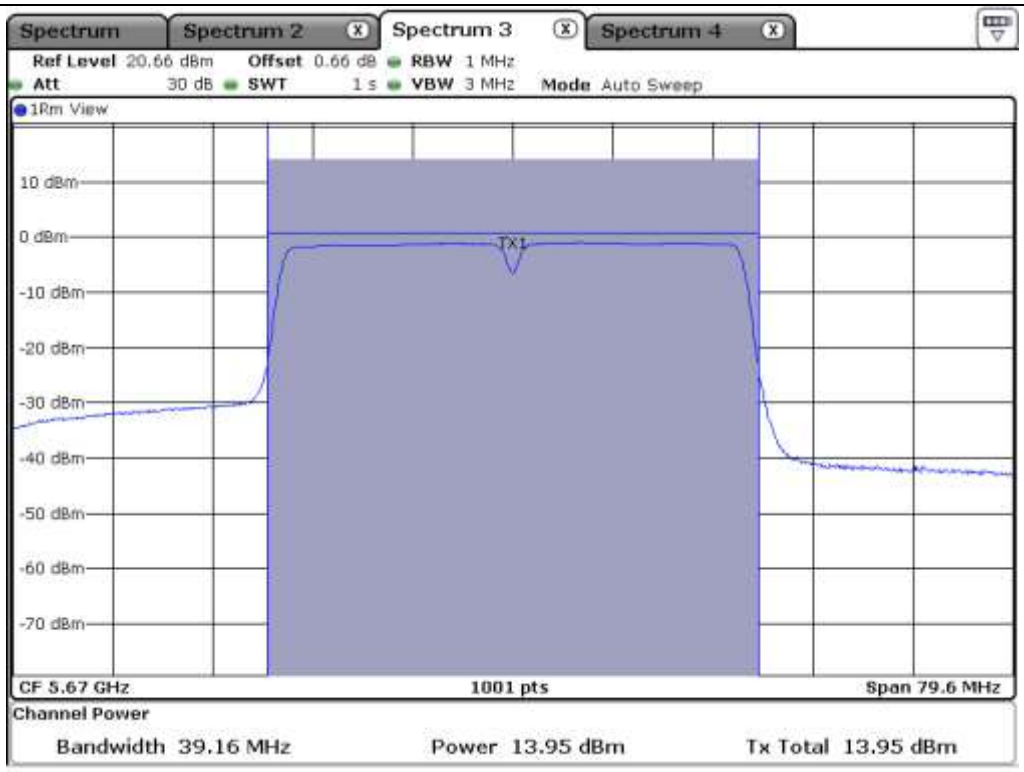


Low Channel @ 5 510 MHz (26 dB Bandwidth)

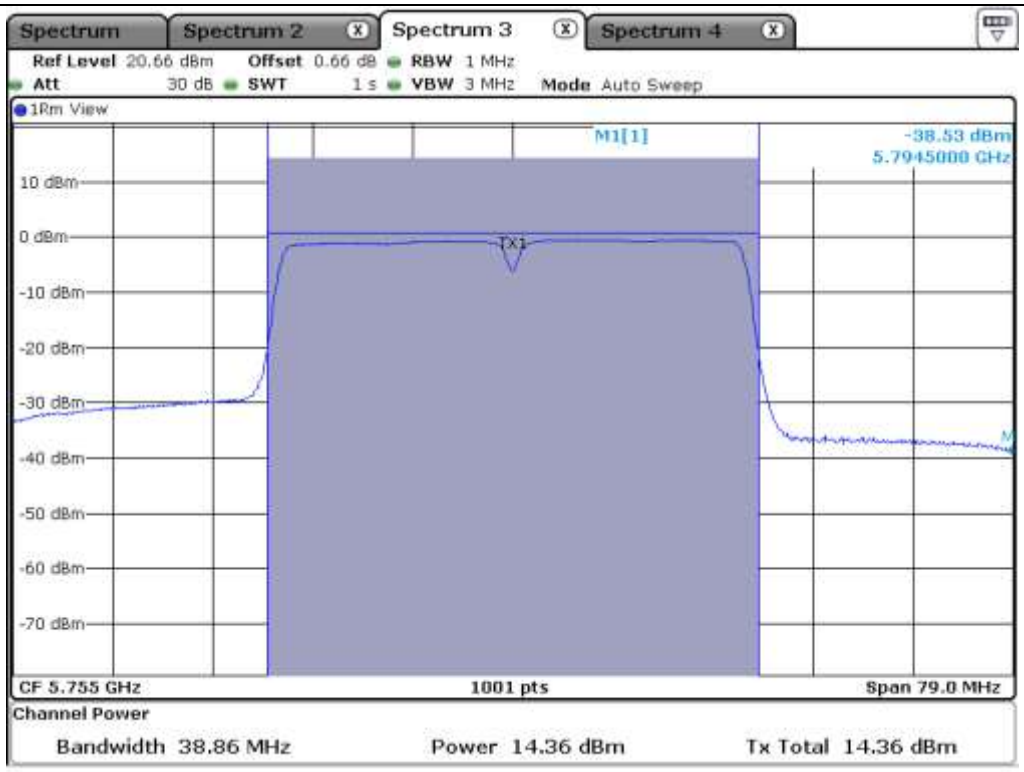


Middle Channel @ 5 550 MHz (26 dB Bandwidth)

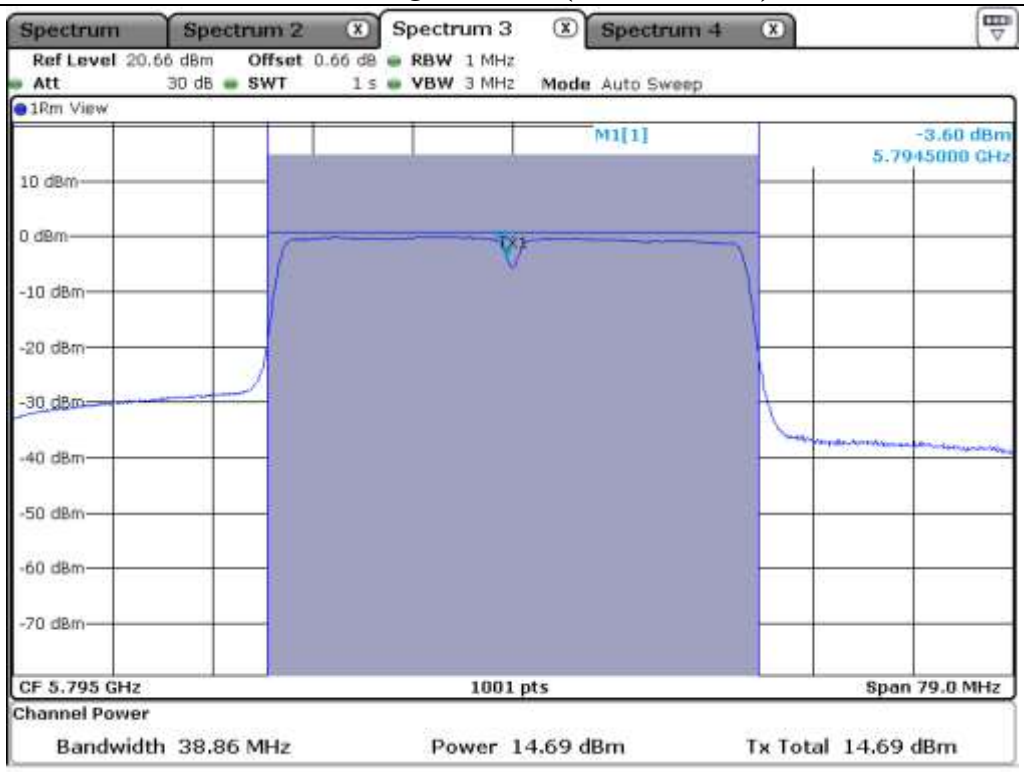
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



High Channel @ 5 710 MHz (26 dB Bandwidth)



Low Channel @ 5 755 MHz (26 dB Bandwidth)



High Channel @ 5 795 MHz (26 dB Bandwidth)

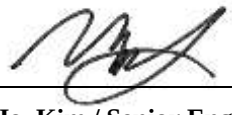
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.7.3 Test data for Multiple Transmit

-. Test Date : March 24, 2017

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Low	5 190.00	13.29	21.44	8.15
	High	5 230.00	13.18	21.44	8.26
5 250 ~ 5 350	Low	5 270.00	16.85	21.77	4.92
	High	5 310.00	16.34	21.77	5.43
5 470 ~ 5 725	Low	5 510.00	17.58	21.49	3.91
	Middle	5 550.00	17.25	21.49	4.24
	High	5 710.00	17.21	21.49	4.28
5 725 ~ 5 850	Low	5 755.00	16.92	27.69	10.77
	High	5 795.00	17.31	27.69	10.38



Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.8 Test data for 802.11ac_HT80 RLAN Mode

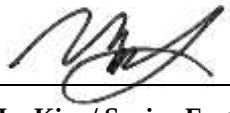
9.8.1 Test data for Antenna 0

-. Test Date : March 24, 2017

-. Test Result : Pass

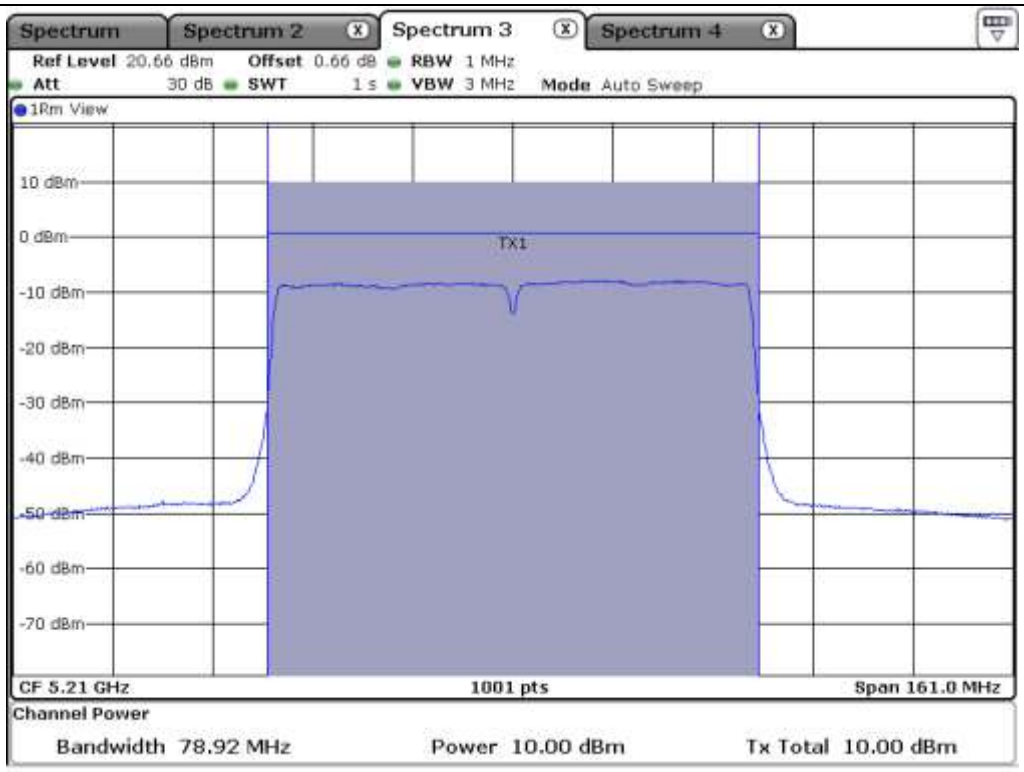
FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Middle	5 210.00	78.92	10.00	24.00	14.00
5 250 ~ 5 350	Middle	5 290.00	79.12	12.51	24.00	11.49
5 470 ~ 5 725	Middle	5 530.00	79.12	12.99	24.00	11.01
5 725 ~ 5 850	Middle	5 775.00	78.92	12.80	30.00	17.20

Remark: See next page for measurement data.

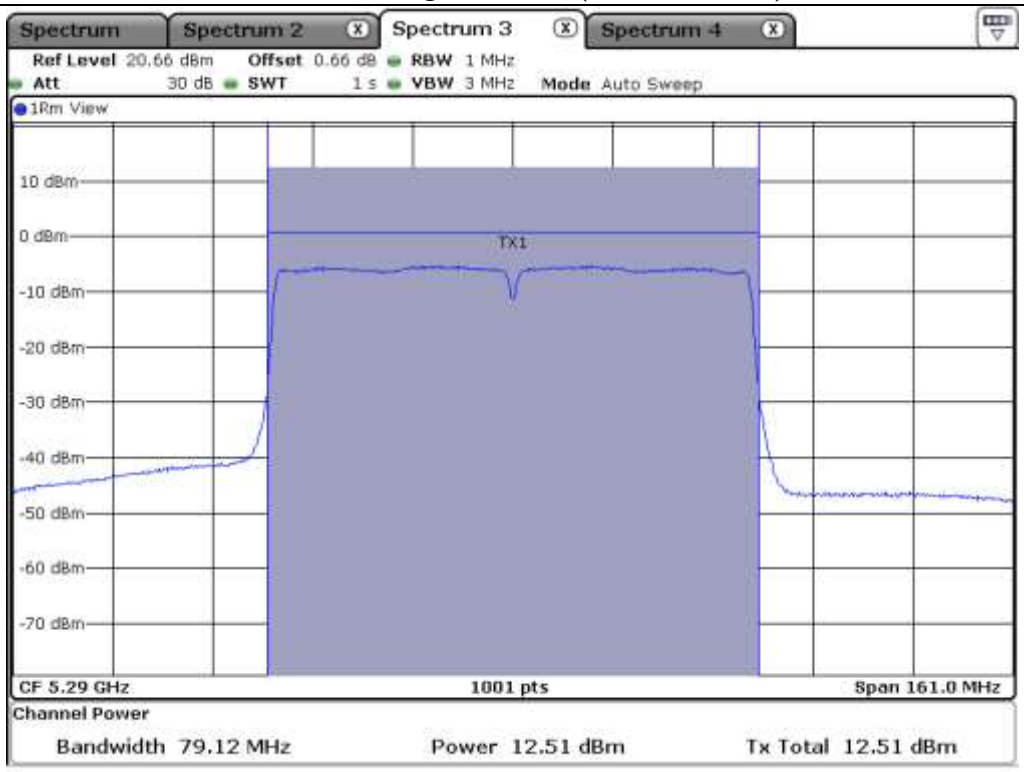


Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

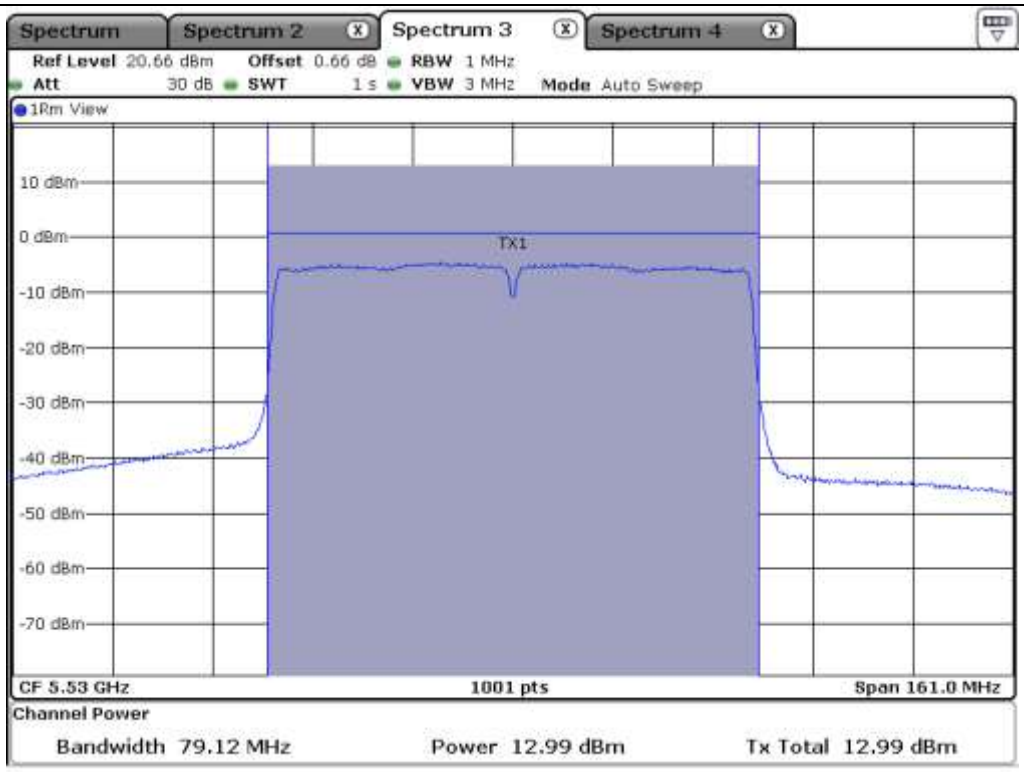


Middle Channel @ 5 210 MHz (26 dB Bandwidth)

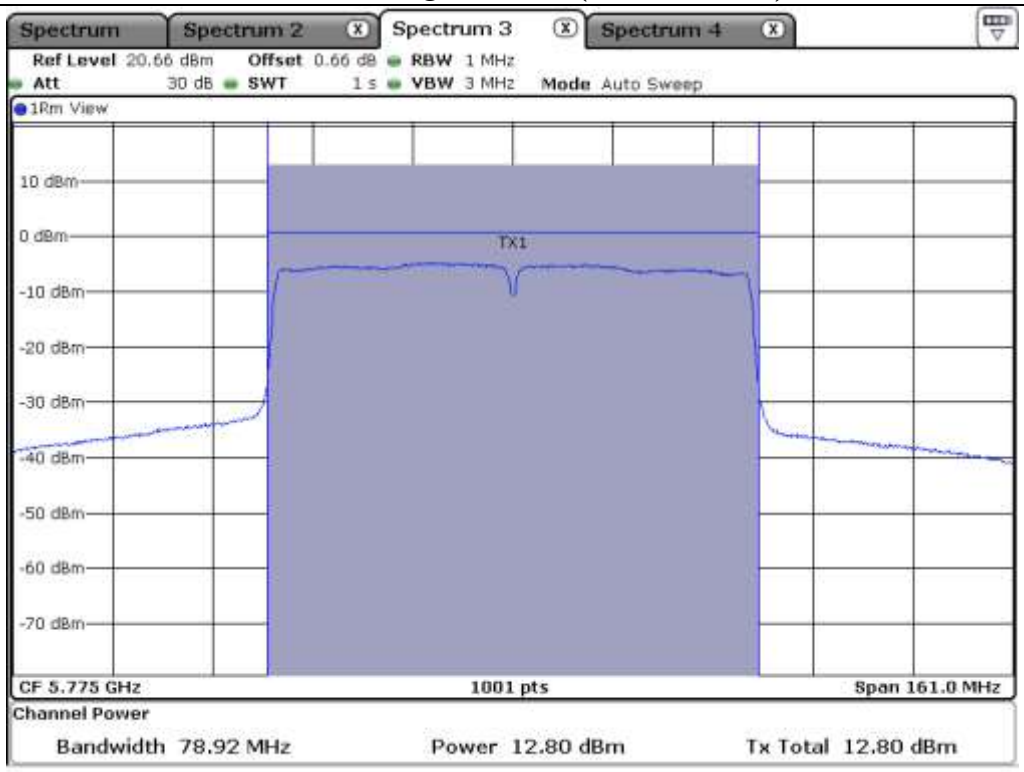


Middle Channel @ 5 290 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Middle Channel @ 5 530 MHz (26 dB Bandwidth)



Middle Channel @ 5 775 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.8.2 Test data for Antenna 1

-. Test Date : March 24, 2017

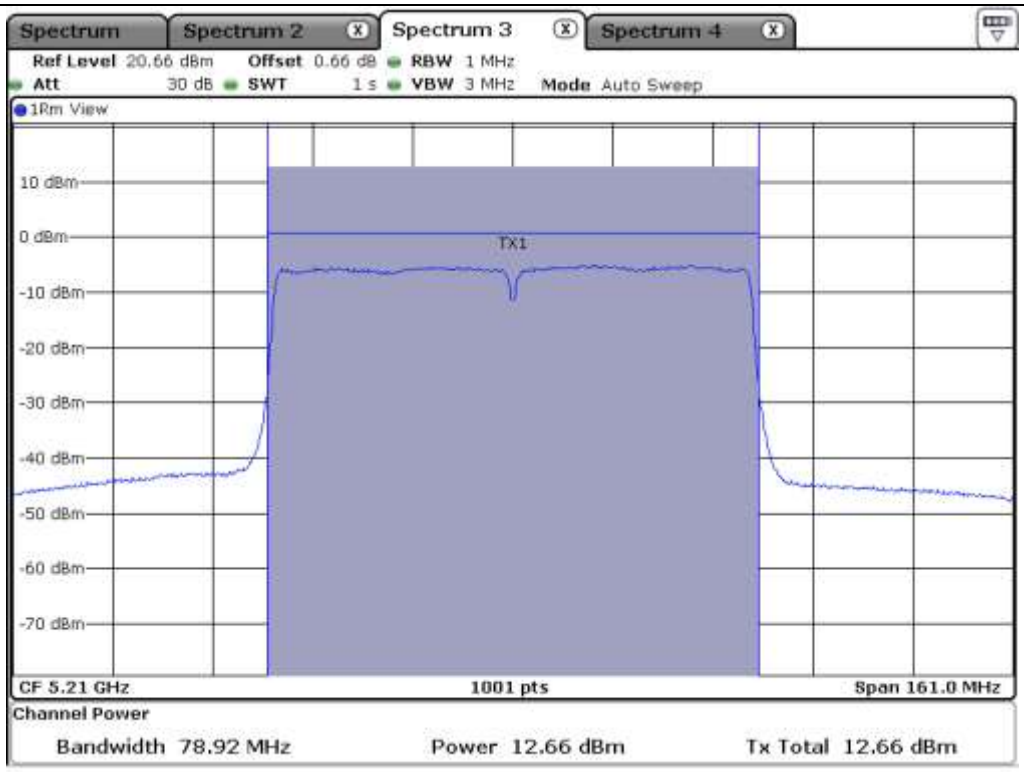
-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	26 dB & 6 dB Bandwidth (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Middle	5 210.00	78.92	9.90	24.00	14.10
5 250 ~ 5 350	Middle	5 290.00	79.12	13.21	24.00	10.79
5 470 ~ 5 725	Middle	5 530.00	78.92	13.44	24.00	10.56
5 725 ~ 5 850	Middle	5 775.00	78.72	13.88	30.00	16.12

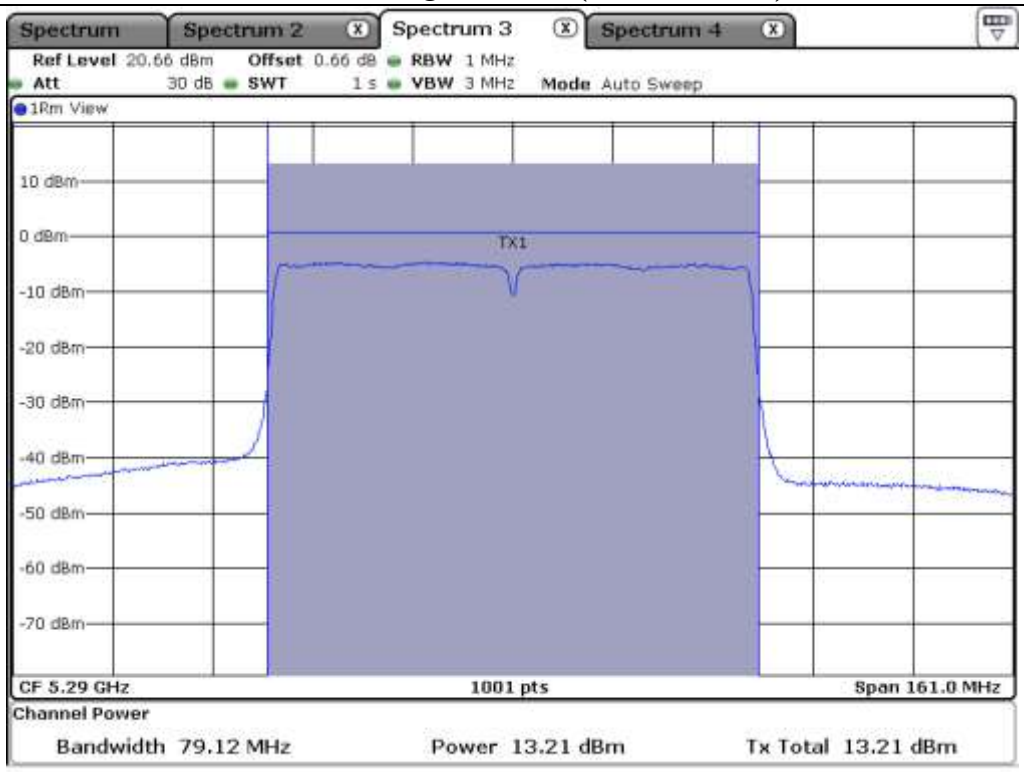
Remark: See next page for measurement data.

Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

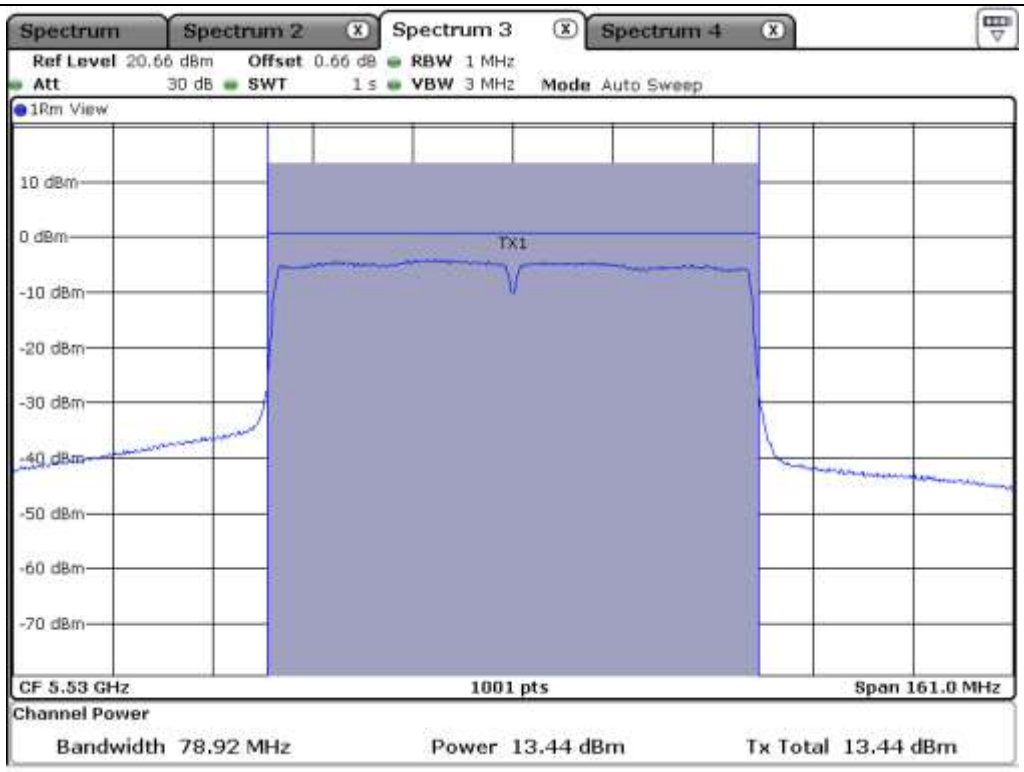


Middle Channel @ 5 210 MHz (26 dB Bandwidth)

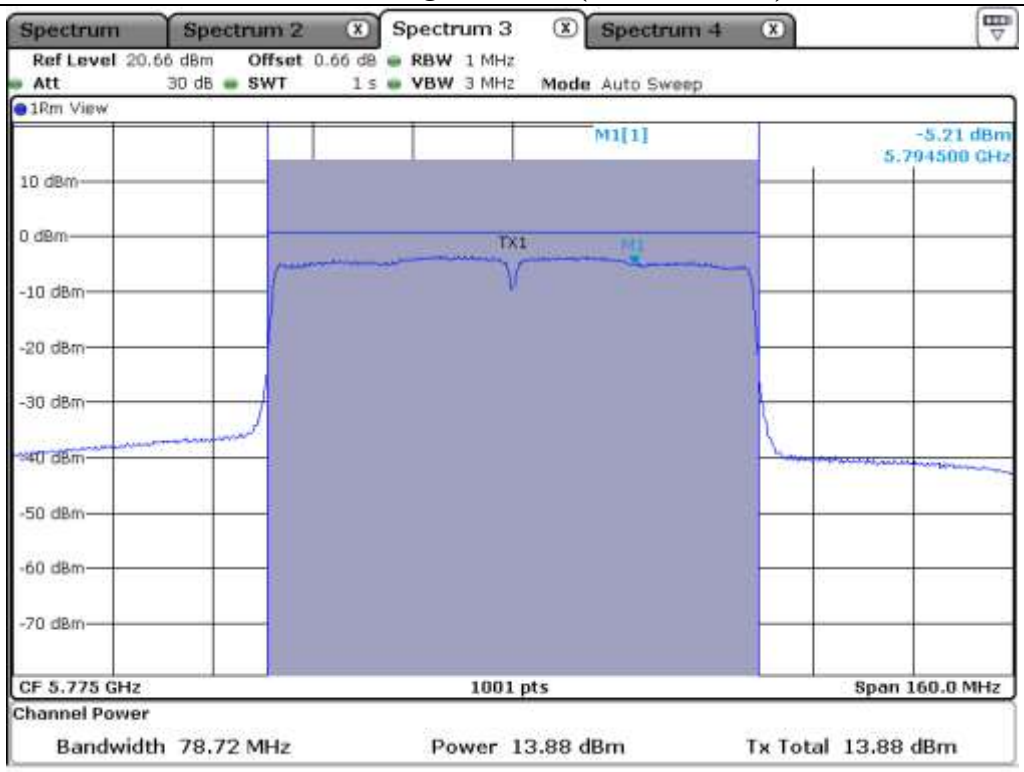


Middle Channel @ 5 290 MHz (26 dB Bandwidth)

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)



Middle Channel @ 5 530 MHz (26 dB Bandwidth)



Middle Channel @ 5 775 MHz (26 dB Bandwidth)

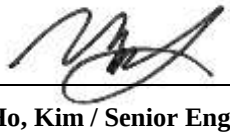
ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

9.8.3 Test data for Multiple Transmit

-. Test Date : March 24, 2017

-. Test Result : Pass

FREQUENCY RANGE (MHz)	CHANNEL	FREQUENCY (MHz)	MEASURED VLAUE (dBm)	LIMIT (dBm)	MARGIN (dB)
5 150 ~ 5 250	Middle	5 210.00	12.96	21.44	8.48
5 250 ~ 5 350	Middle	5 290.00	15.88	21.77	5.89
5 470 ~ 5 725	Middle	5 530.00	16.23	21.49	5.26
5 725 ~ 5 850	Middle	5 775.00	16.38	27.69	11.31



Tested by: Tae-Ho, Kim / Senior Engineer

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)