8 Bandwidth

8.1 Method

Tests are performed in accordance with FCC Part 15 Subpart E, FCC Part 15 Subpart C (15.247) and RSS 247.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

8.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV002'	Weather Station	Davis Instruments	7400	PE80519A93	06/01/2016	06/01/2017
ROS005'	ETSI Test System	Rhode & Schwartz	TS8997	N/A	09/15/2016	09/15/2017
WEI8'	Attenuator	Weinschel Corp	47-10-34	BD8309	04/08/2017	04/08/2018
CBLHF2012-2M-1'	2m 9kHz-40GHz Coaxial Cable - SET1	Huber & Suhner	SF102	252675001	02/08/2017	02/08/2018

Software Utilized:

Name	Manufacturer	Version
None		

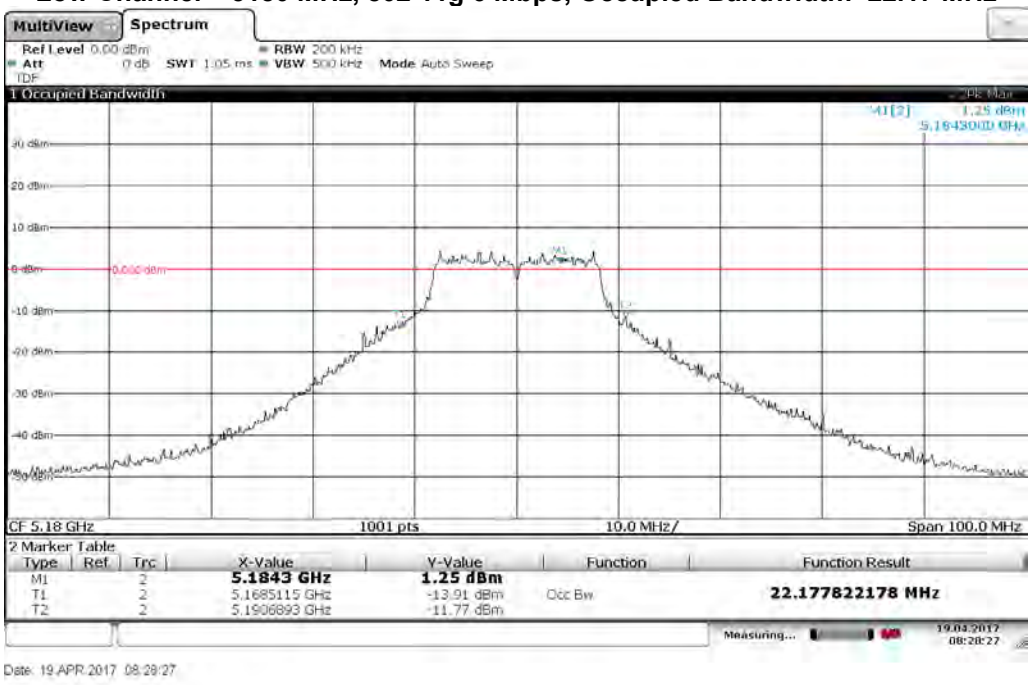
8.3 Results:

The sample tested was found to Comply.

8.4 Plots/Data:

Band 1 (20 MHz Bandwidth)

Low Channel – 5180 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 22.17 MHz

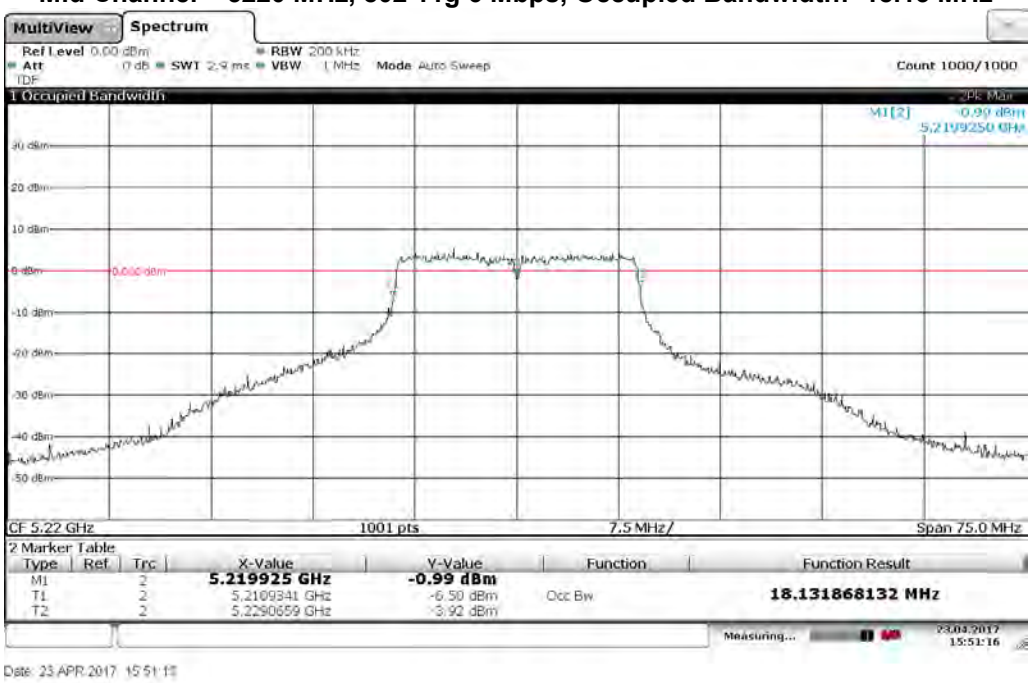


Date: 19.APR.2017 08:28:27

Low Channel – 5180 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 33.07 MHz

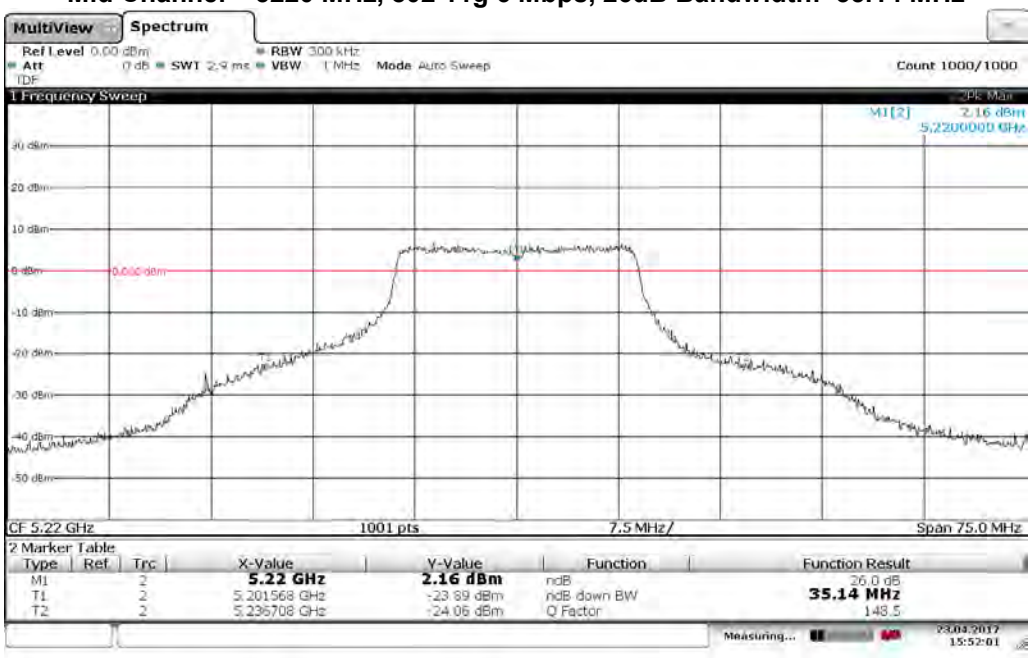
Date: 19.APR.2017 08:30:14

Mid Channel – 5220 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 18.13 MHz



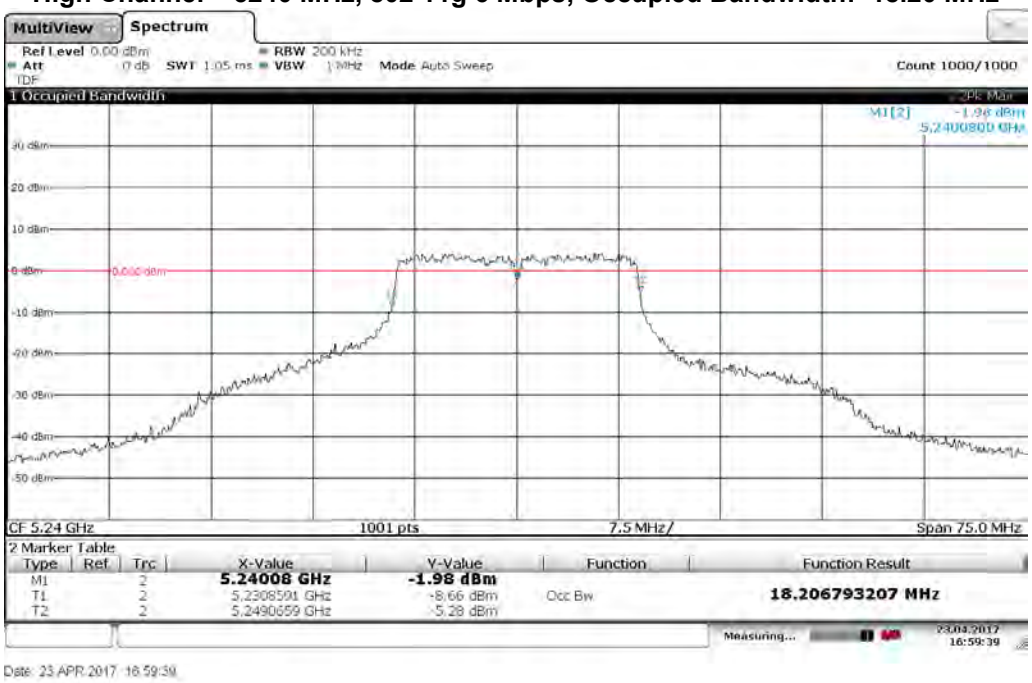
Date: 23.APR.2017 15:51:16

Mid Channel – 5220 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 35.14 MHz



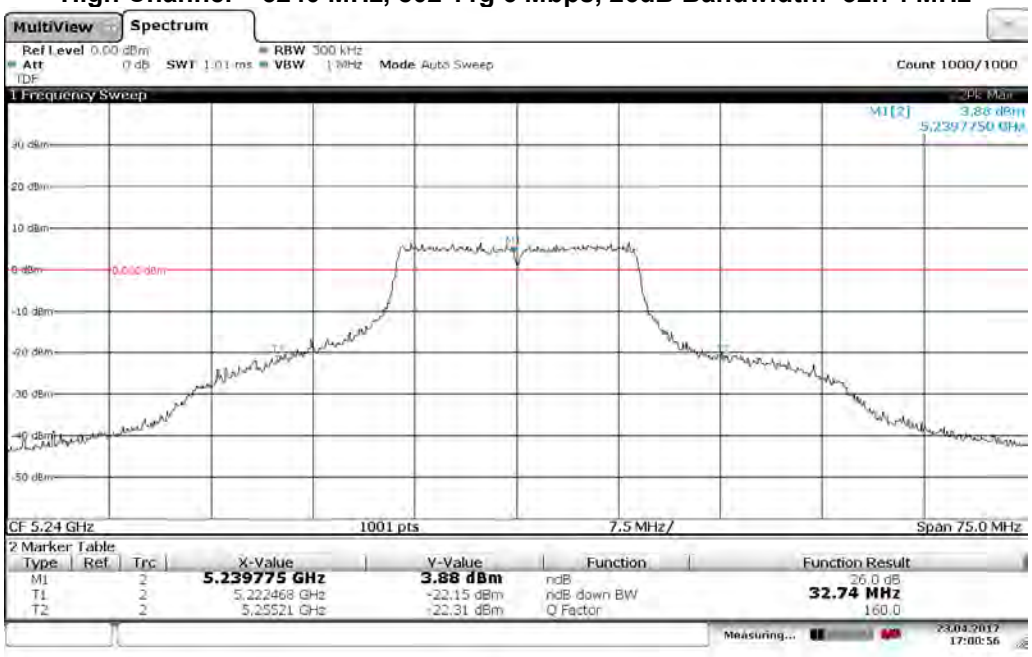
Date: 23.APR.2017 15:52:00

High Channel – 5240 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 18.20 MHz



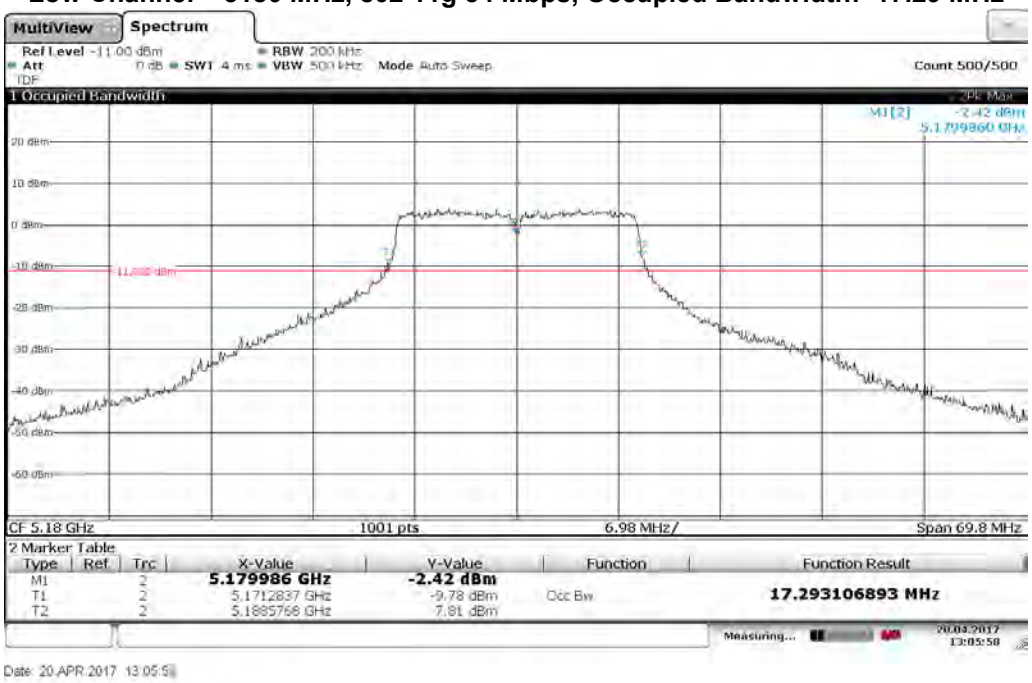
Date: 23.APR.2017 16:59:39

High Channel – 5240 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 32.74 MHz



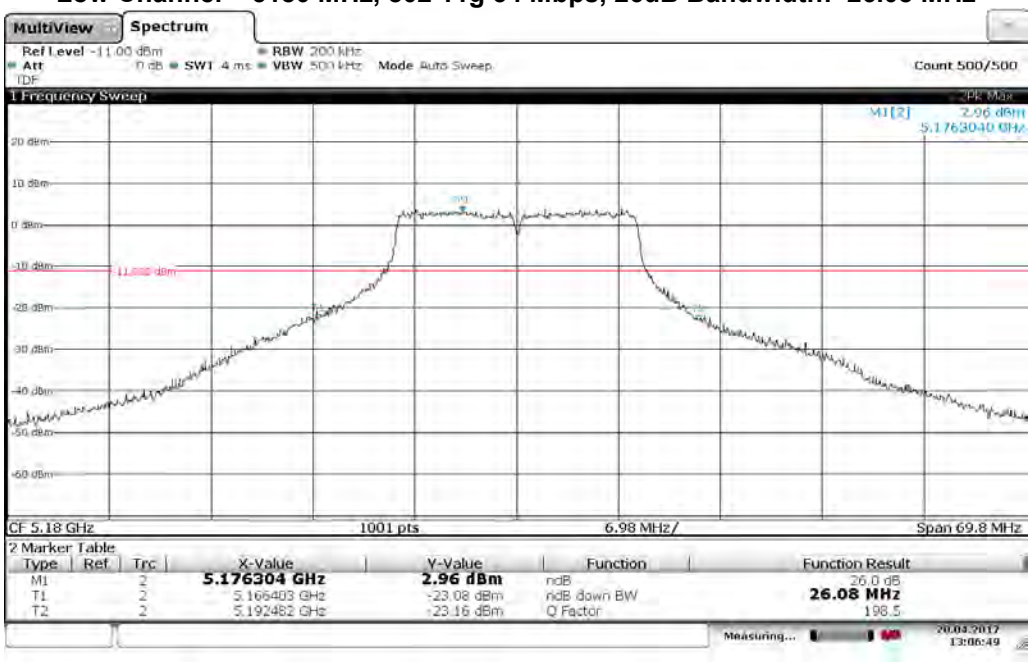
Date: 23.APR.2017 17:00:56

Low Channel – 5180 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 17.29 MHz



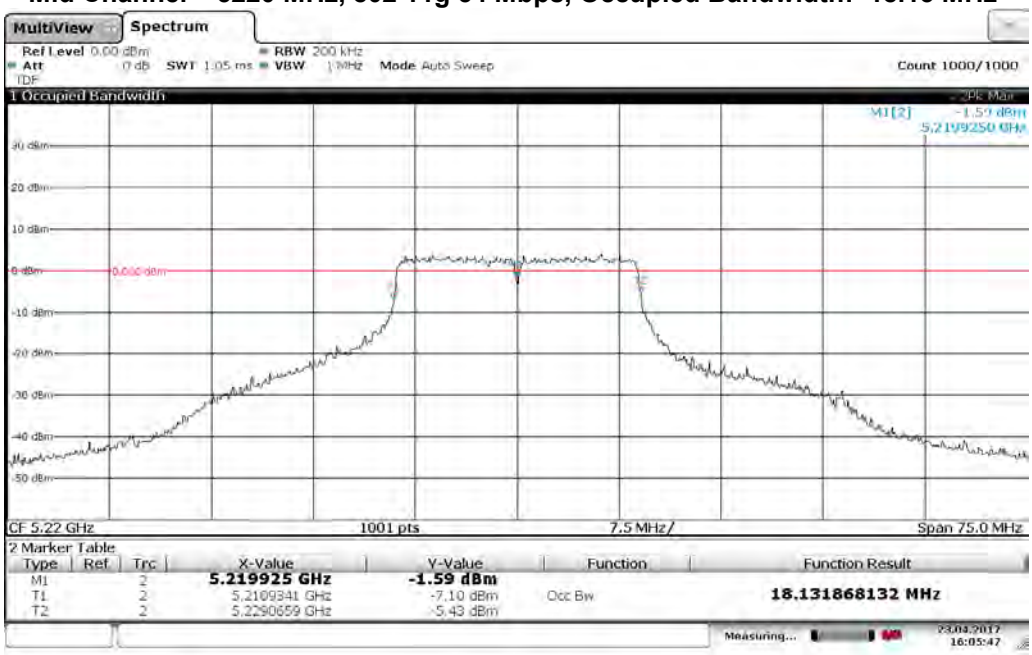
Date: 20.APR.2017 13:05:58

Low Channel – 5180 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 26.08 MHz



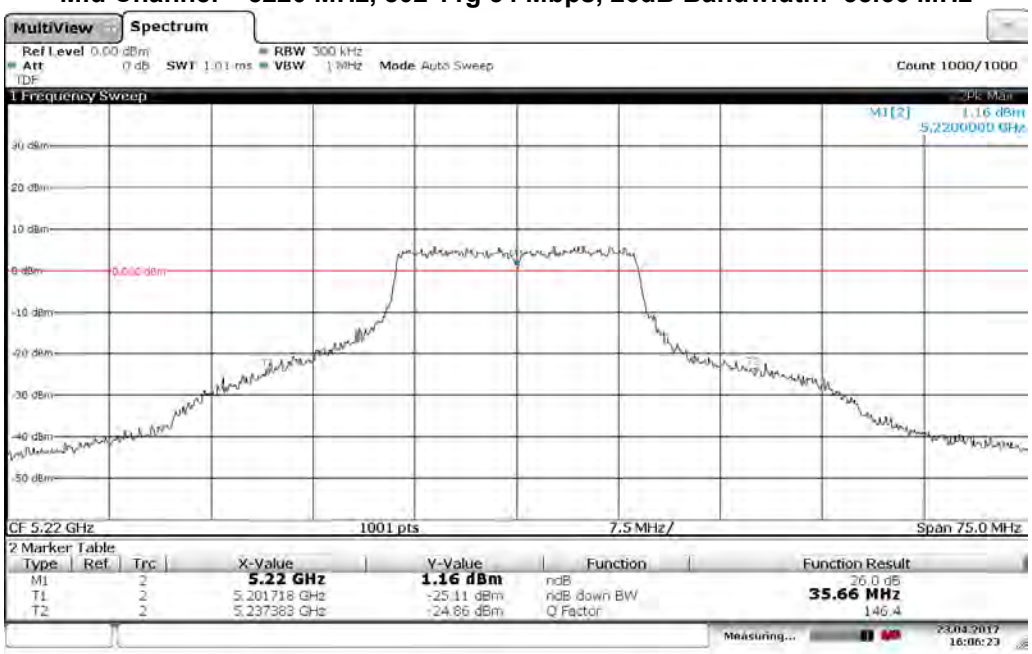
Date: 20.APR.2017 13:06:49

Mid Channel – 5220 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 18.13 MHz



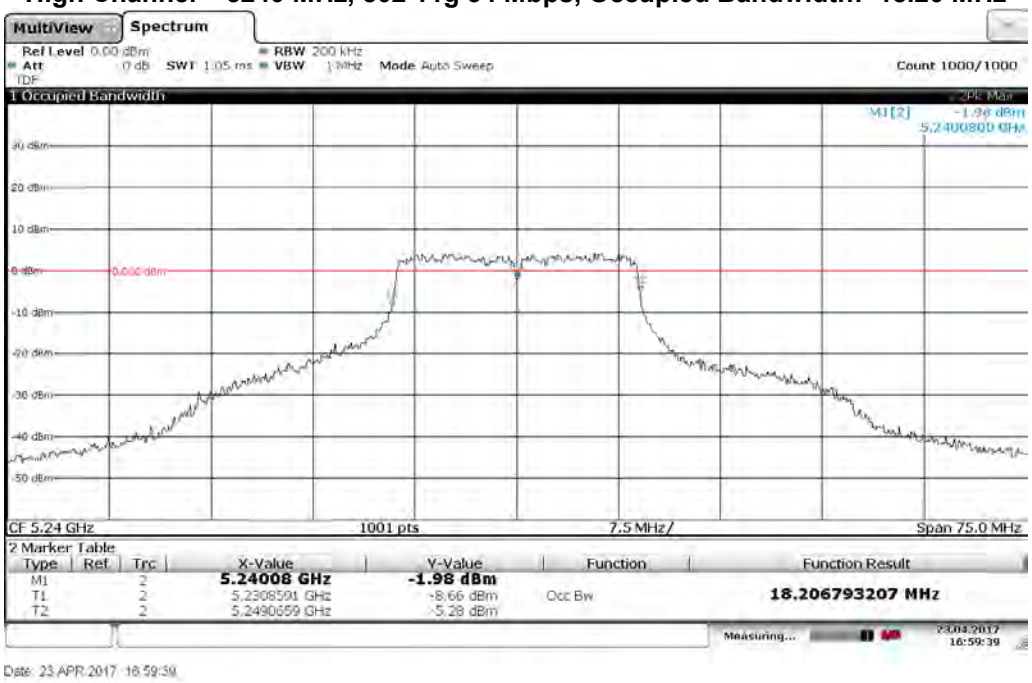
Date: 23.APR.2017 16:05:47

Mid Channel – 5220 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 35.66 MHz



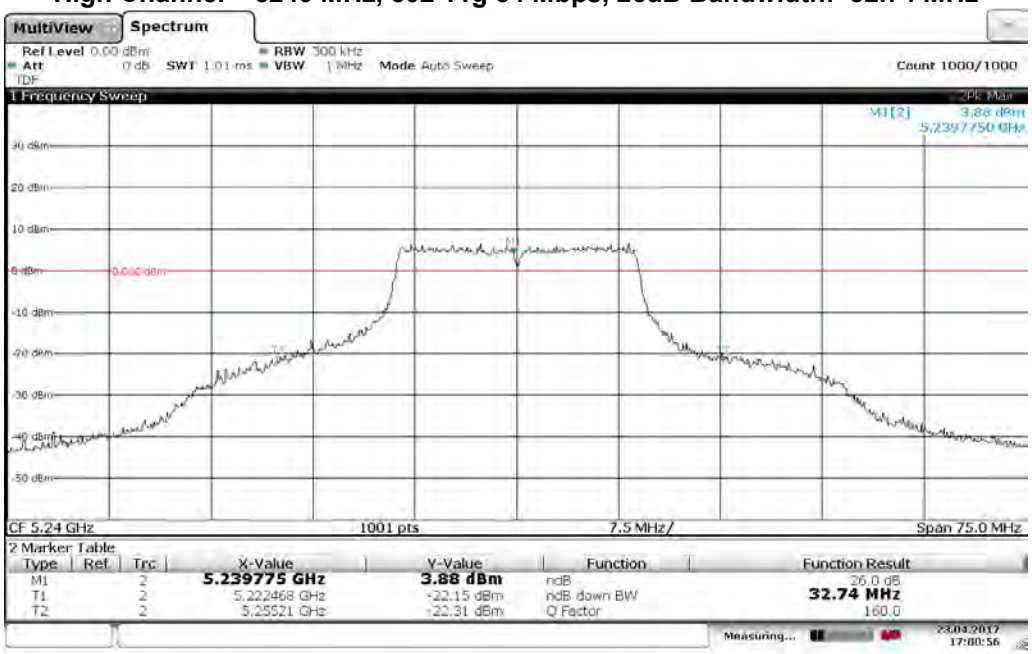
Date: 23.APR.2017 16:06:22

High Channel – 5240 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 18.20 MHz



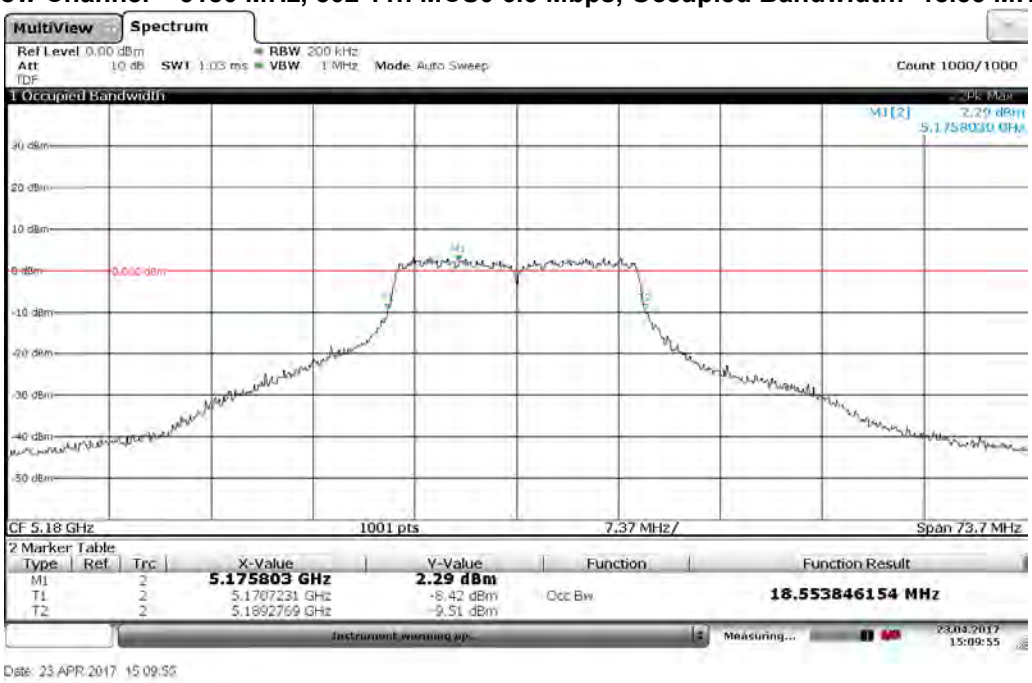
Date: 23.APR.2017 16:59:39

High Channel – 5240 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 32.74 MHz



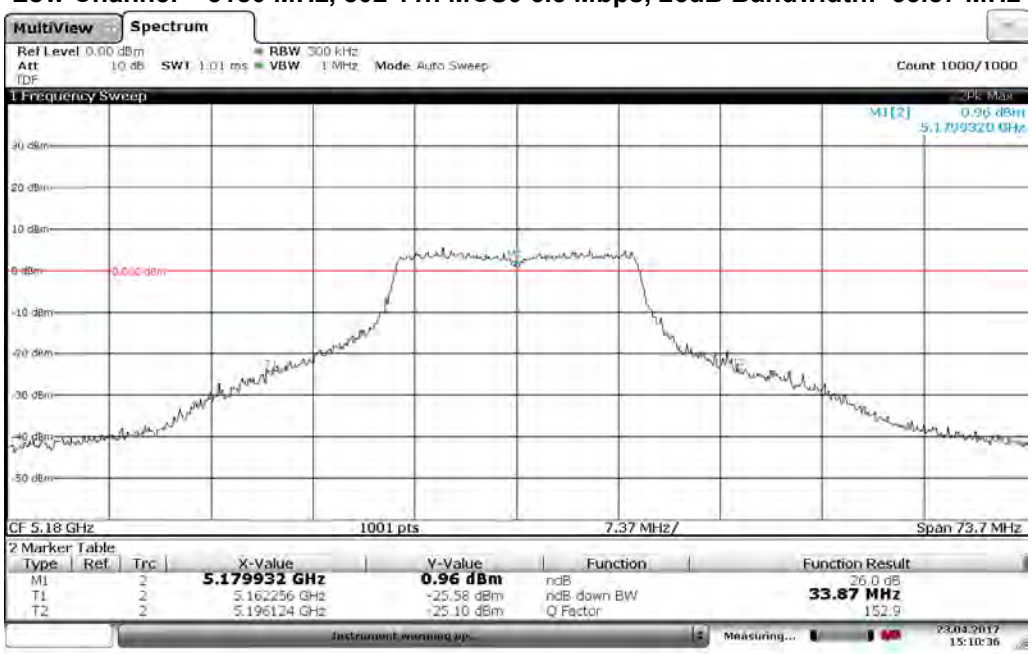
Date: 23.APR.2017 17:00:56

Low Channel – 5180 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 18.55 MHz



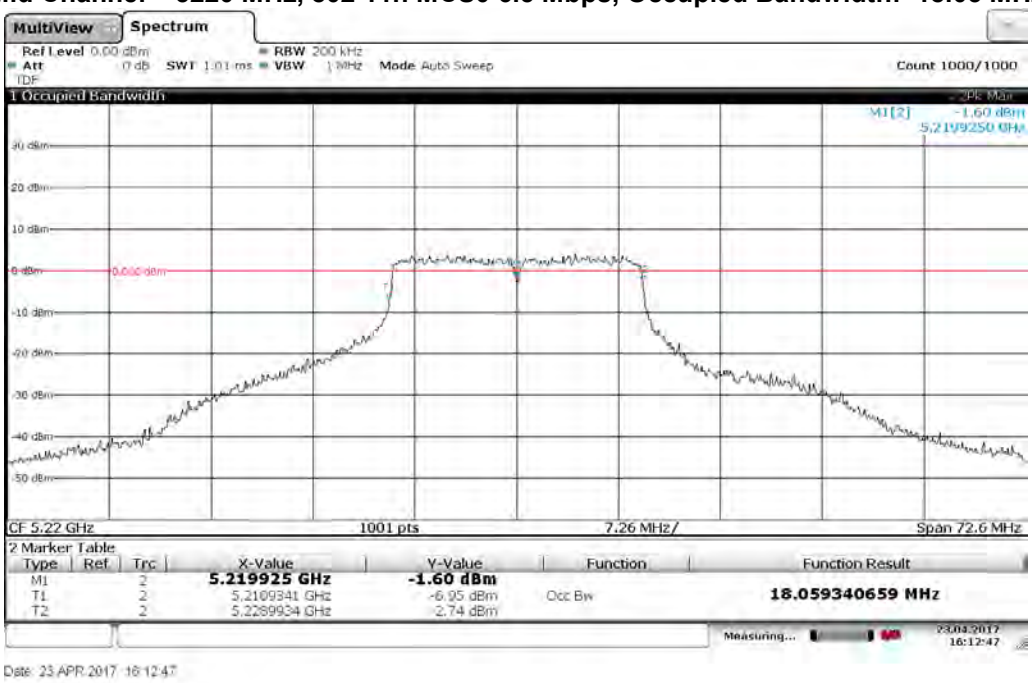
Date: 23.APR.2017 15:09:55

Low Channel – 5180 MHz, 802 11n MCS0 6.5 Mbps, 26dB Bandwidth: 33.87 MHz



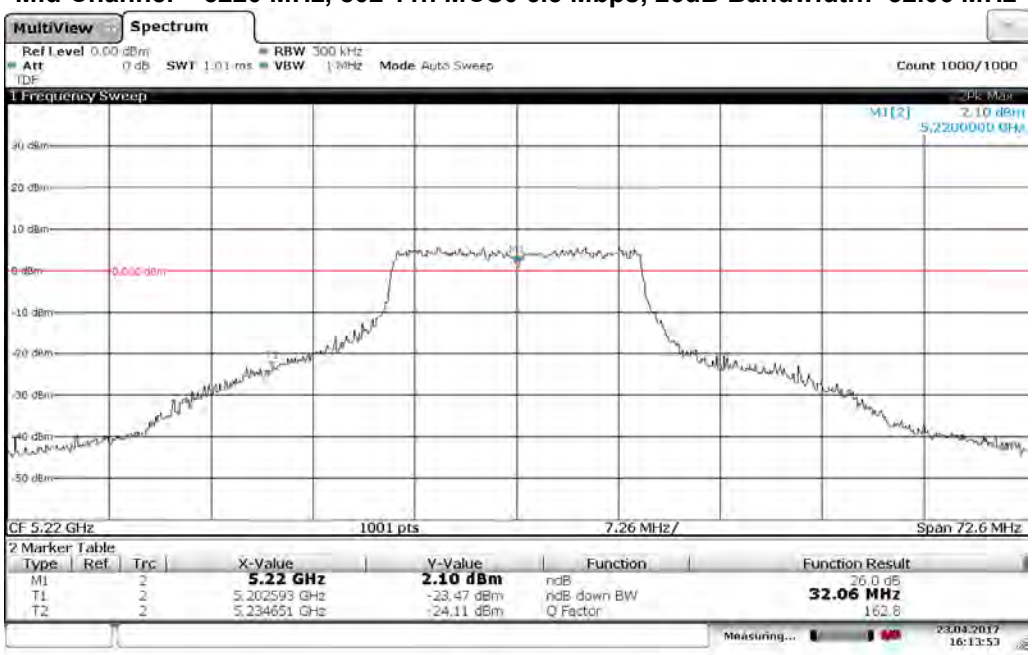
Date: 23.APR.2017 15:10:36

Mid Channel – 5220 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 18.05 MHz



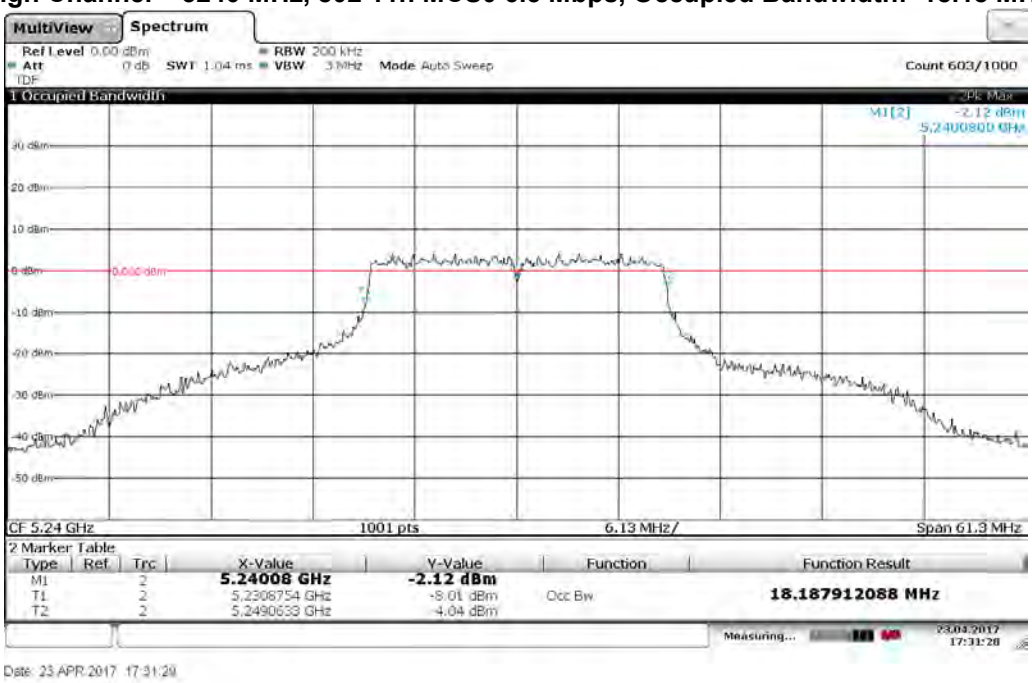
Date: 23.APR.2017 16:12:47

Mid Channel – 5220 MHz, 802 11n MCS0 6.5 Mbps, 26dB Bandwidth: 32.06 MHz



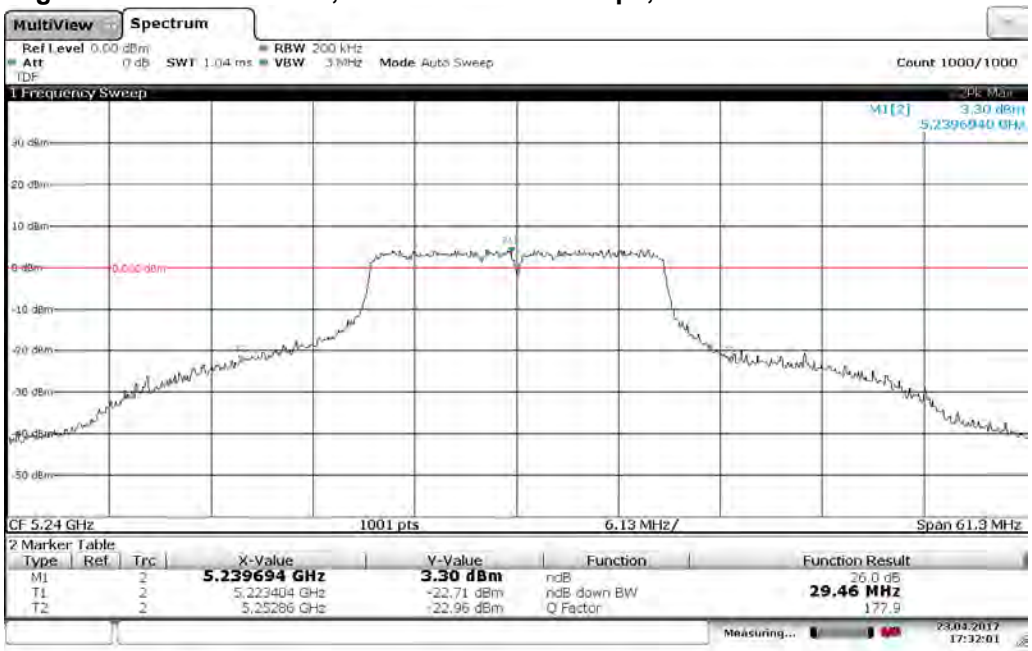
Date: 23.APR.2017 16:13:53

High Channel – 5240 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 18.18 MHz



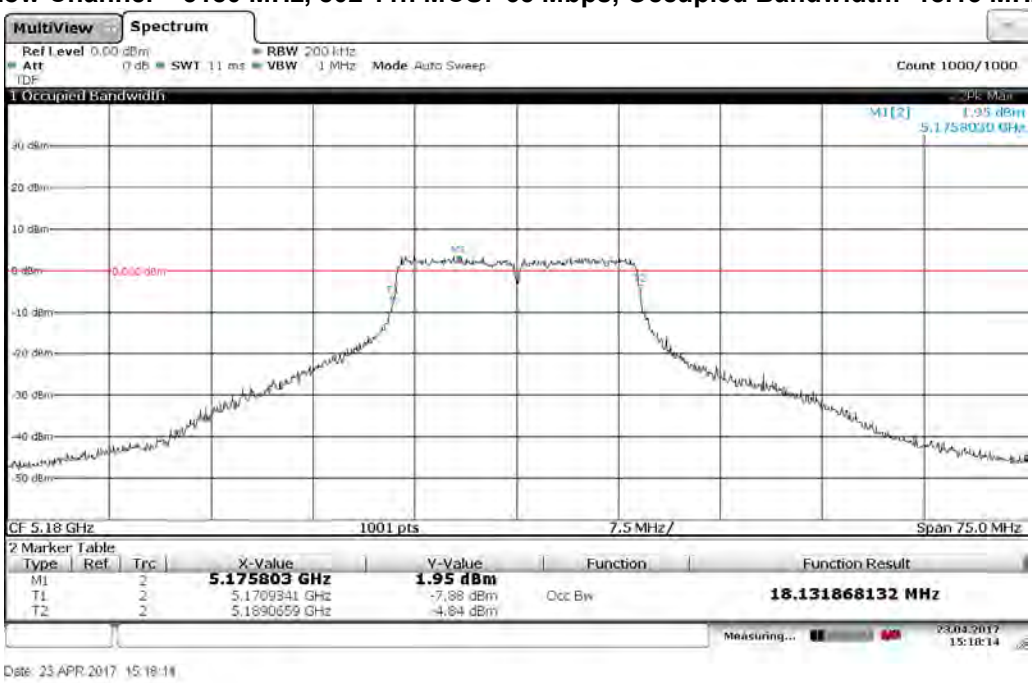
Date: 23.APR.2017 17:31:29

High Channel – 5240 MHz, 802 11n MCS0 6.5 Mbps, 26dB Bandwidth: 29.46 MHz



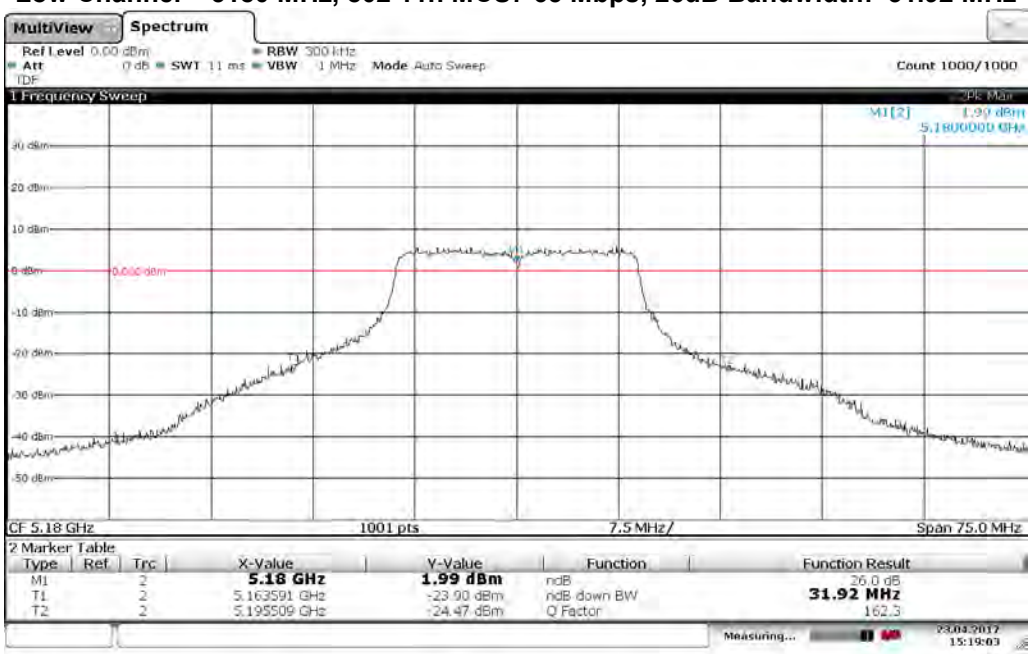
Date: 23.APR.2017 17:32:01

Low Channel – 5180 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.13 MHz



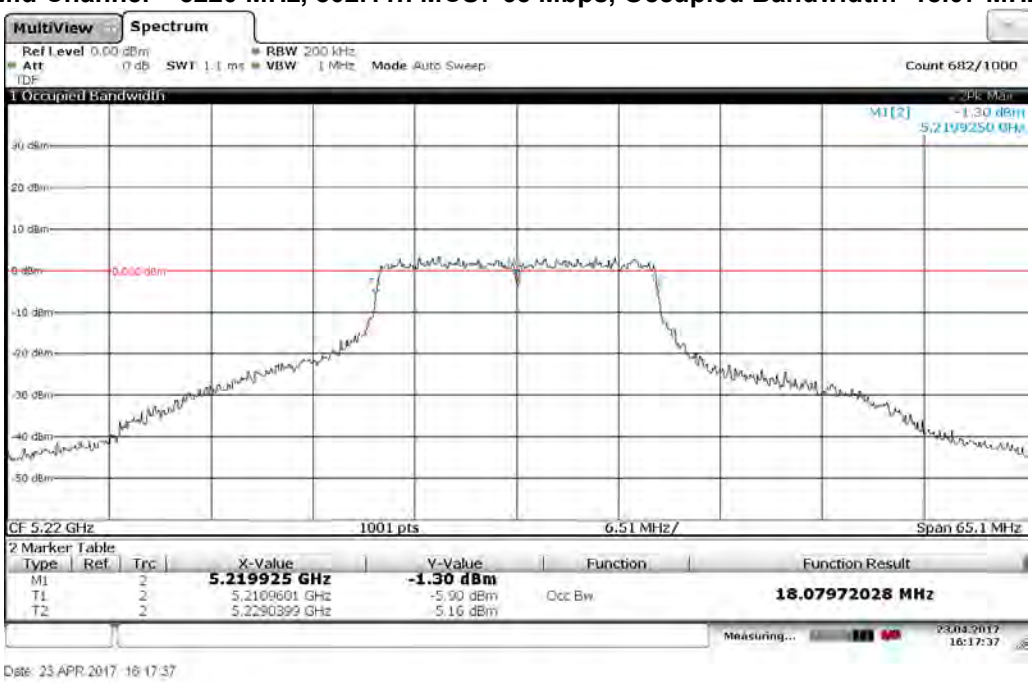
Date: 23.APR.2017 15:18:14

Low Channel – 5180 MHz, 802 11n MCS7 65 Mbps, 26dB Bandwidth: 31.92 MHz



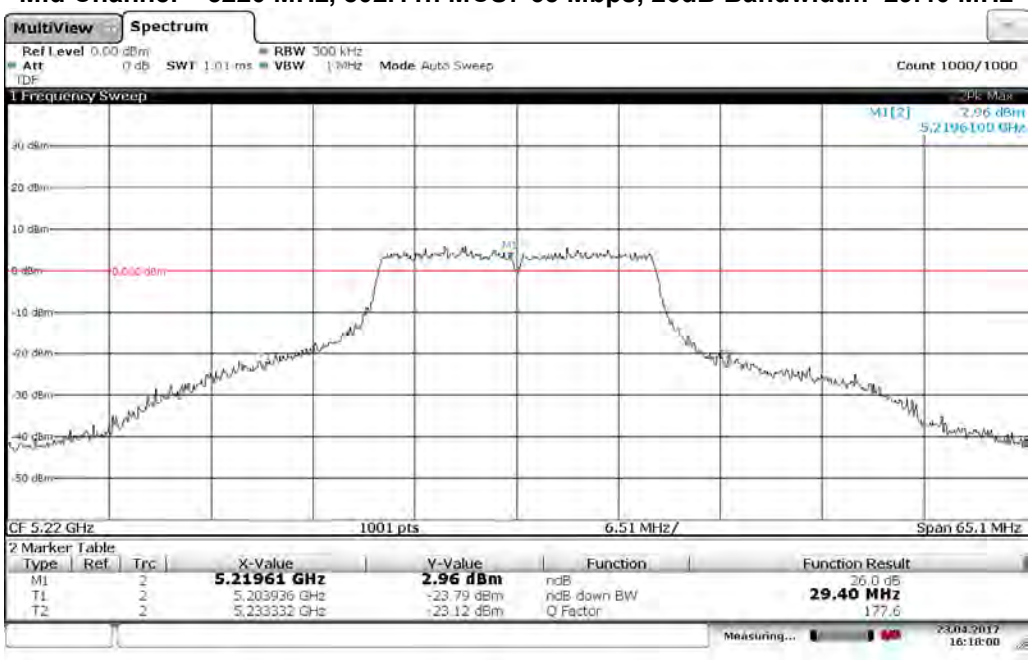
Date: 23.APR.2017 15:19:03

Mid Channel – 5220 MHz, 802.11n MCS7 65 Mbps, Occupied Bandwidth: 18.07 MHz



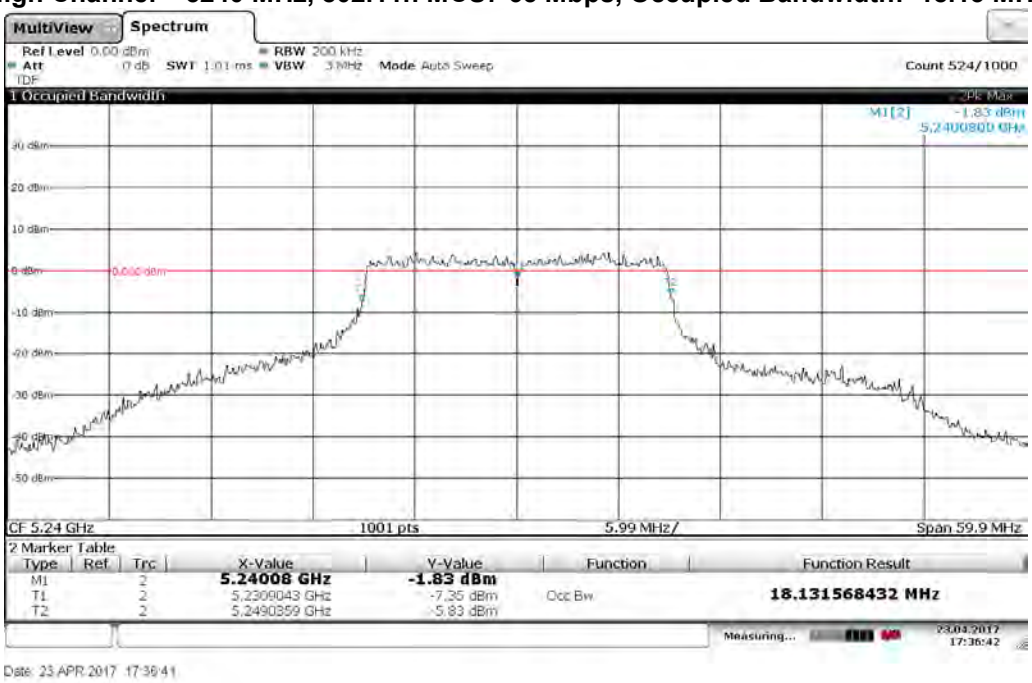
Date: 23.APR.2017 16:17:37

Mid Channel – 5220 MHz, 802.11n MCS7 65 Mbps, 26dB Bandwidth: 29.40 MHz



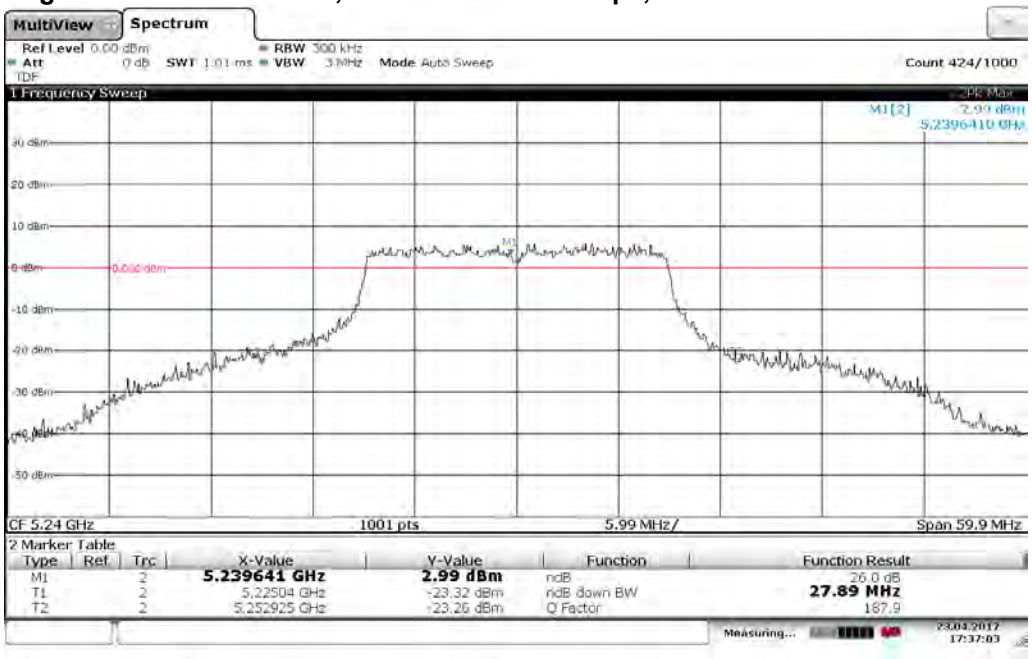
Date: 23.APR.2017 16:18:00

High Channel – 5240 MHz, 802.11n MCS7 65 Mbps, Occupied Bandwidth: 18.13 MHz



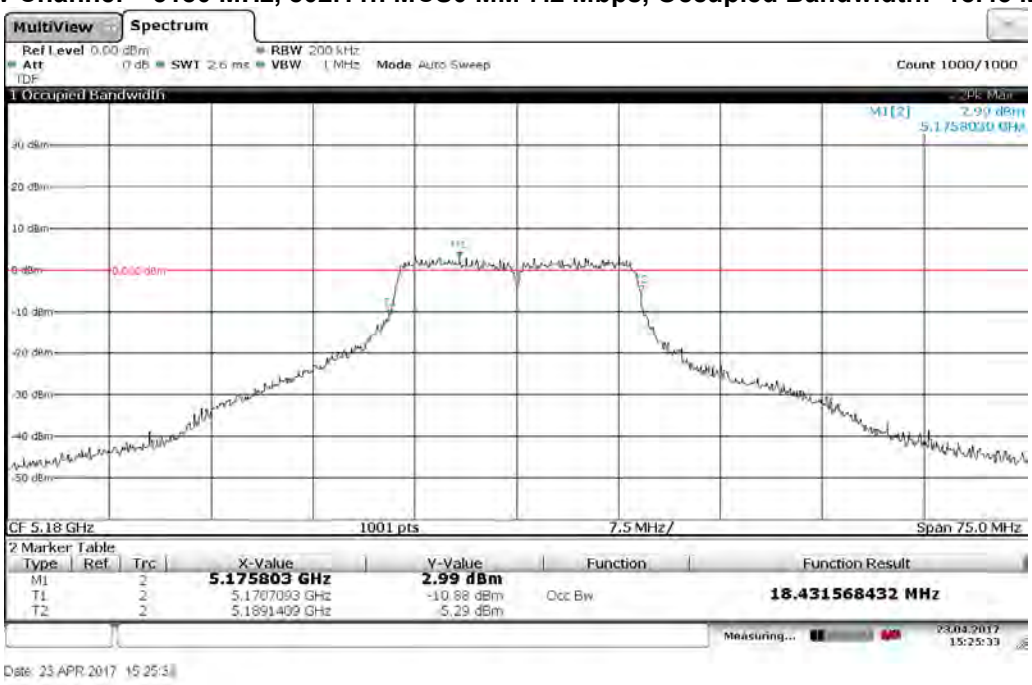
Date: 23.APR.2017 17:36:41

High Channel – 5240 MHz, 802.11n MCS7 65 Mbps, 26dB Bandwidth: 27.89 MHz

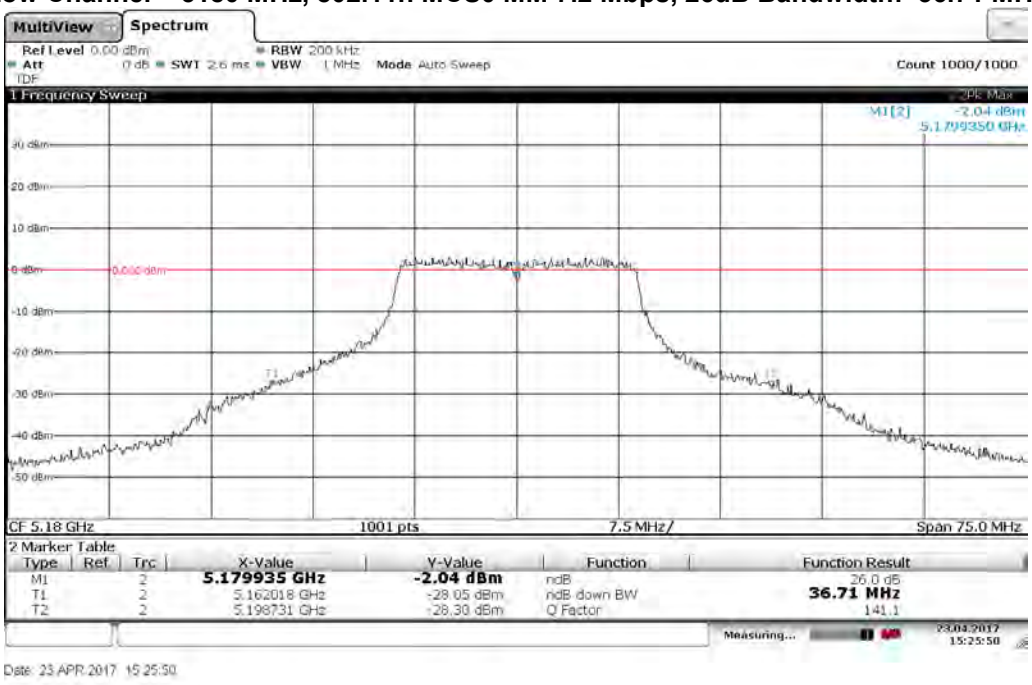


Date: 23.APR.2017 17:37:03

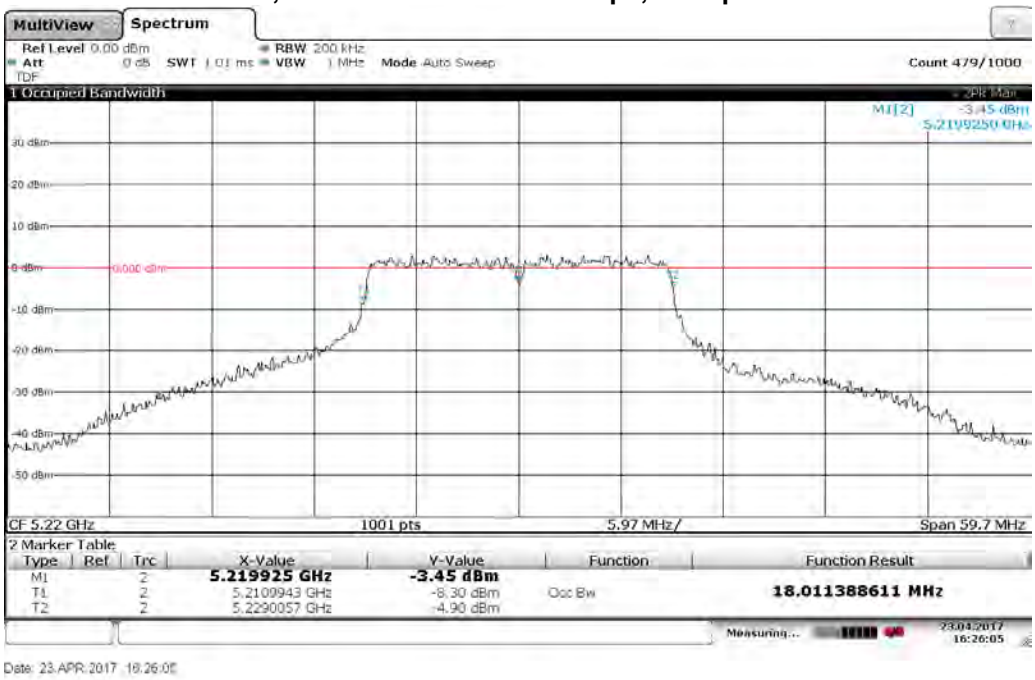
Low Channel – 5180 MHz, 802.11n MCS0 MM 7.2 Mbps, Occupied Bandwidth: 18.43 MHz



Low Channel – 5180 MHz, 802.11n MCS0 MM 7.2 Mbps, 26dB Bandwidth: 36.71 MHz

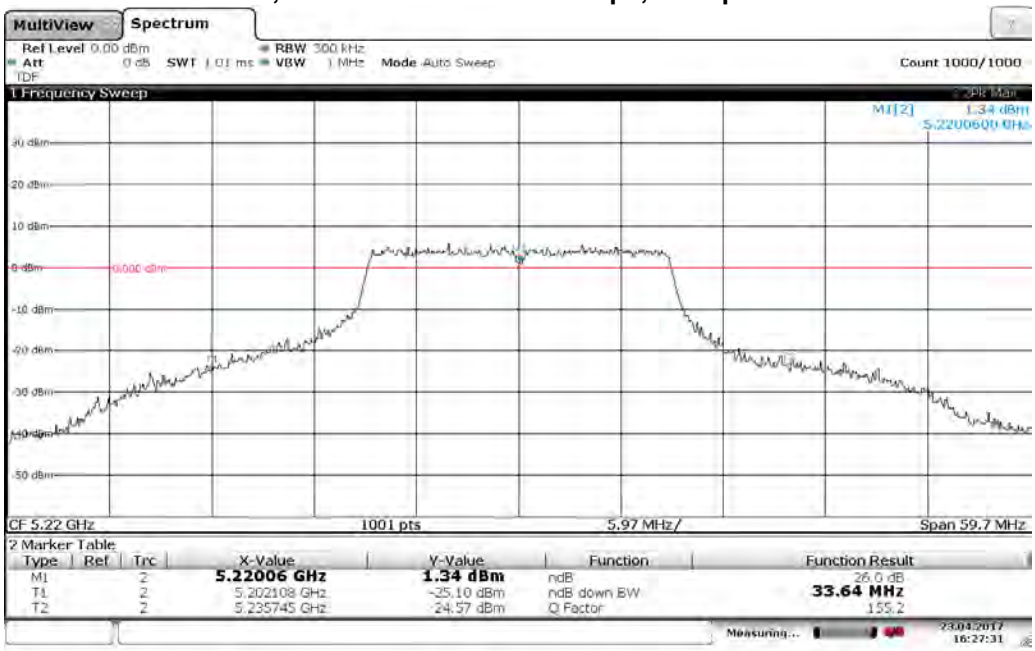


Mid Channel – 5220 MHz, 802.11n MCS0 MM 7.2 Mbps, Occupied Bandwidth: 18.01 MHz



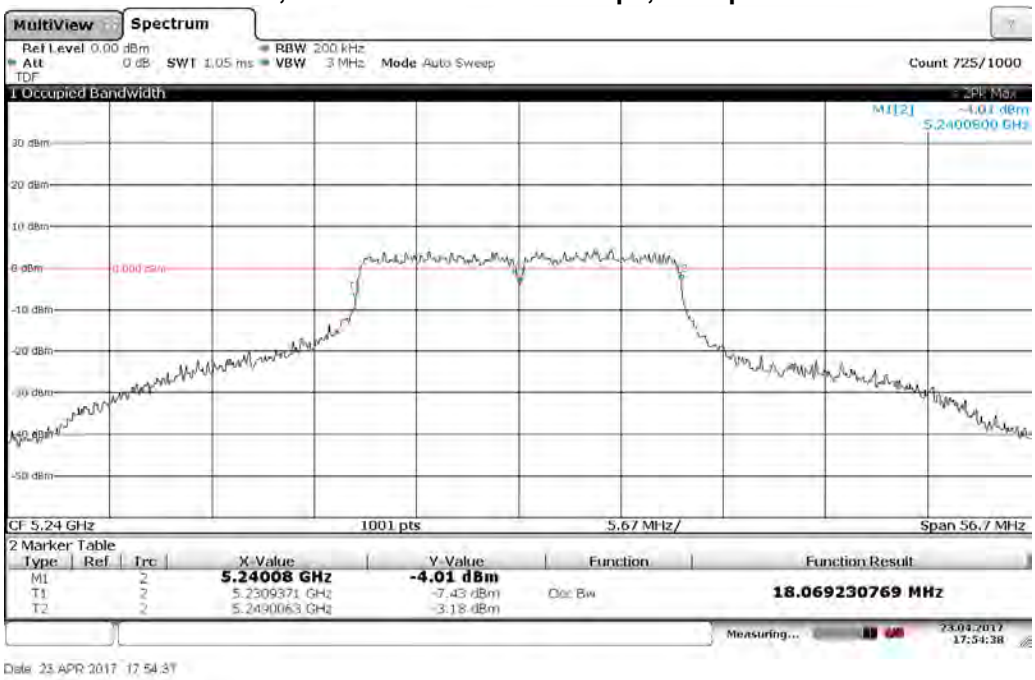
Date: 23.APR.2017 16:26:05

Mid Channel – 5220 MHz, 802.11n MCS0 MM 7.2 Mbps, Occupied Bandwidth: 33.64 MHz

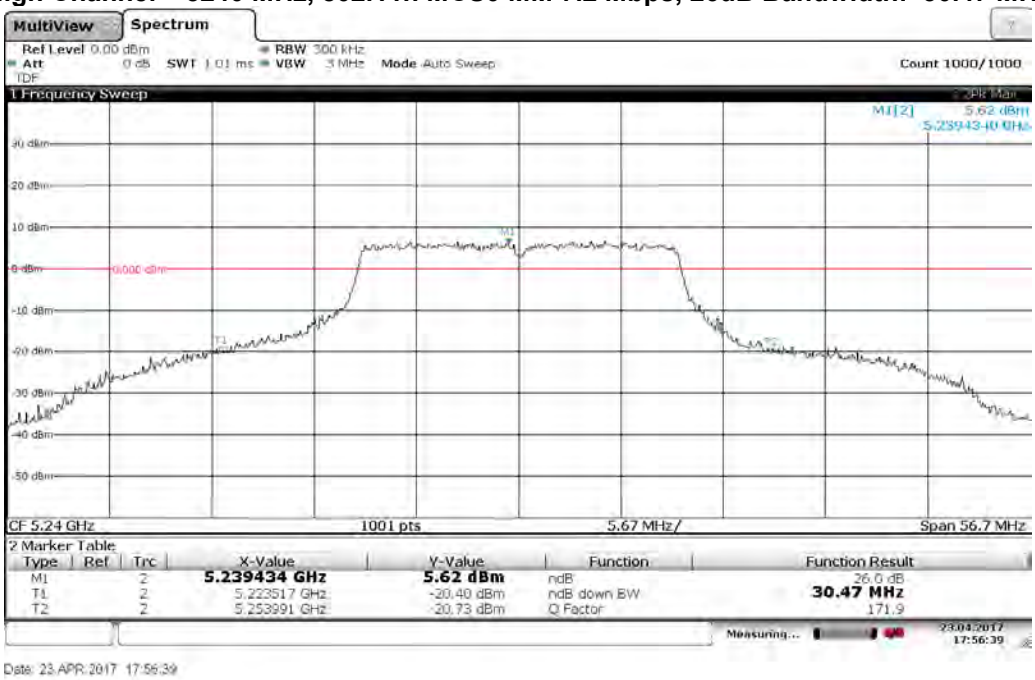


Date: 23.APR.2017 16:27:32

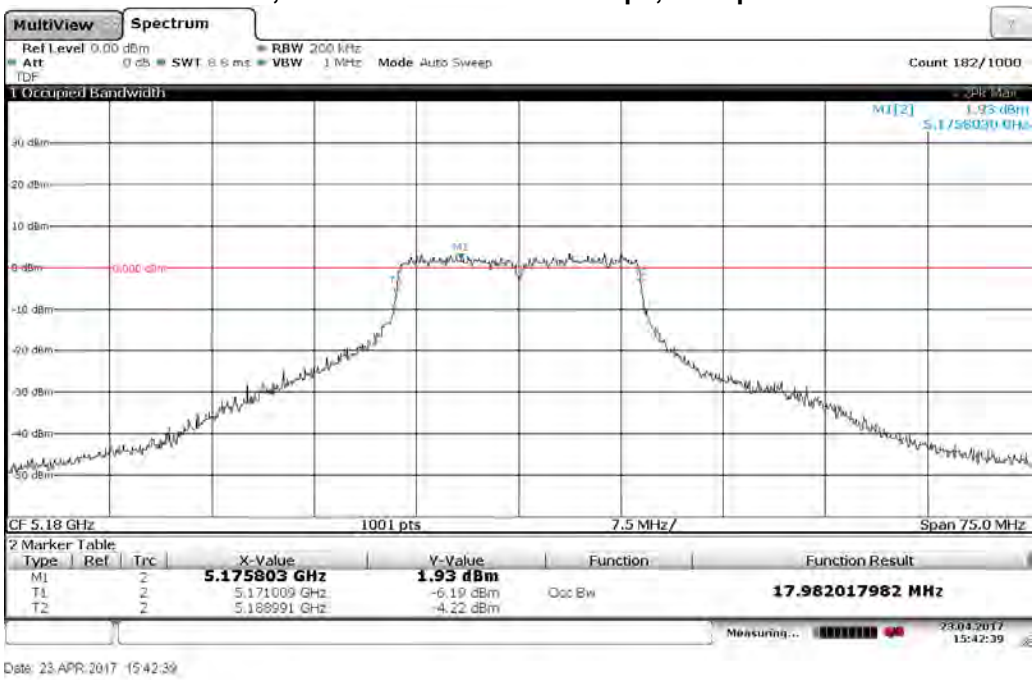
High Channel – 5240 MHz, 802.11n MCS0 MM 7.2 Mbps, Occupied Bandwidth: 18.06 MHz



High Channel – 5240 MHz, 802.11n MCS0 MM 7.2 Mbps, 26dB Bandwidth: 30.47 MHz

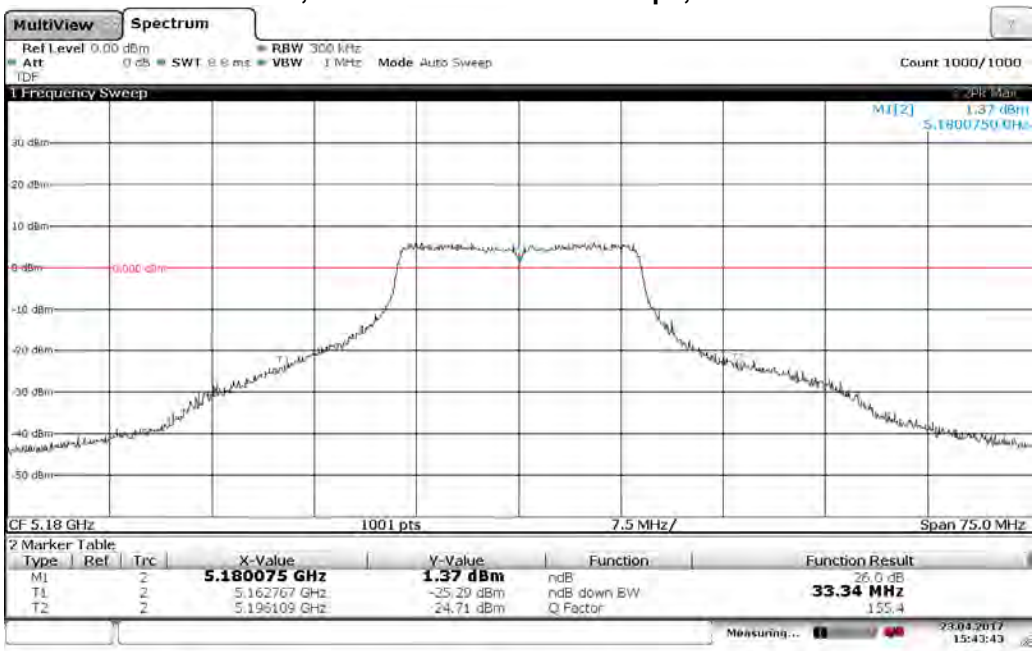


Low Channel – 5180 MHz, 802.11n MCS7 MM 72.2 Mbps, Occupied Bandwidth: 17.98 MHz



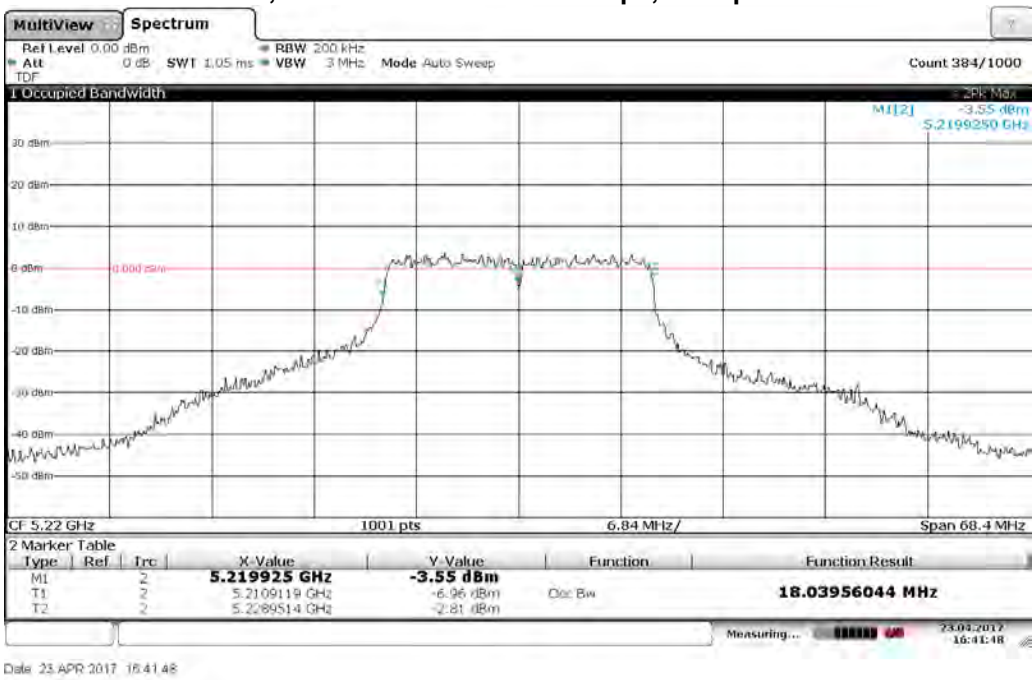
Date: 23.APR.2017 15:42:39

Low Channel – 5180 MHz, 802.11n MCS7 MM 72.2 Mbps, 26dB Bandwidth: 33.34 MHz



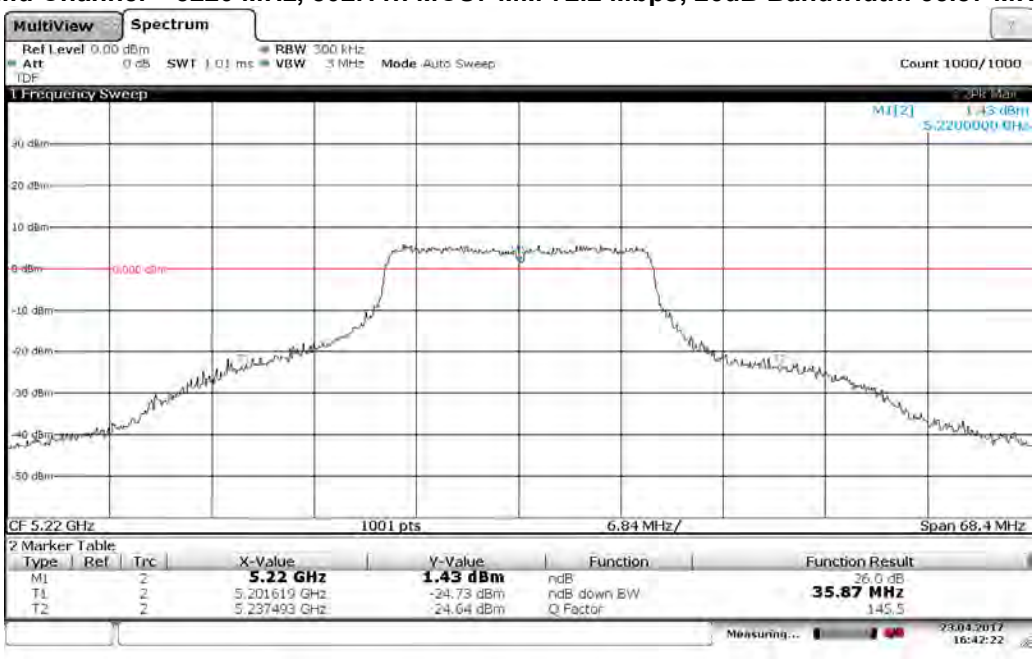
Date: 23.APR.2017 15:43:43

Mid Channel – 5220 MHz, 802.11n MCS7 MM 72.2 Mbps, Occupied Bandwidth: 18.03 MHz



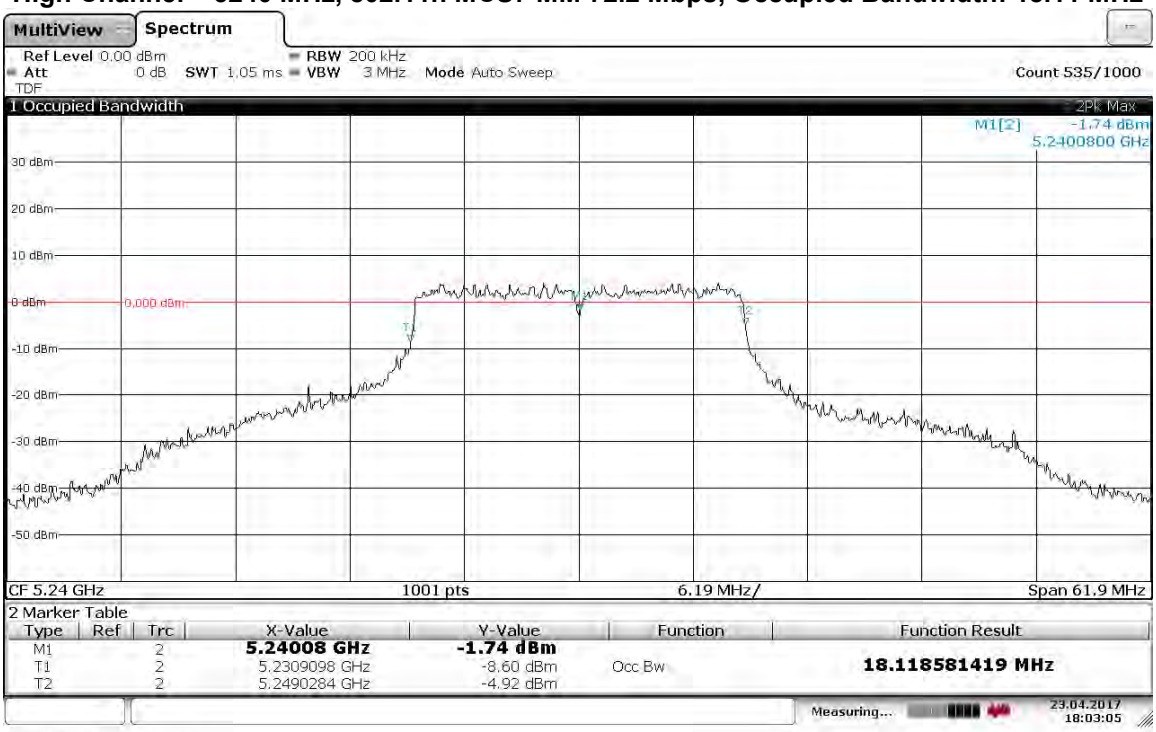
Date: 23.APR.2017 16:41:48

Mid Channel – 5220 MHz, 802.11n MCS7 MM 72.2 Mbps, 26dB Bandwidth: 35.87 MHz



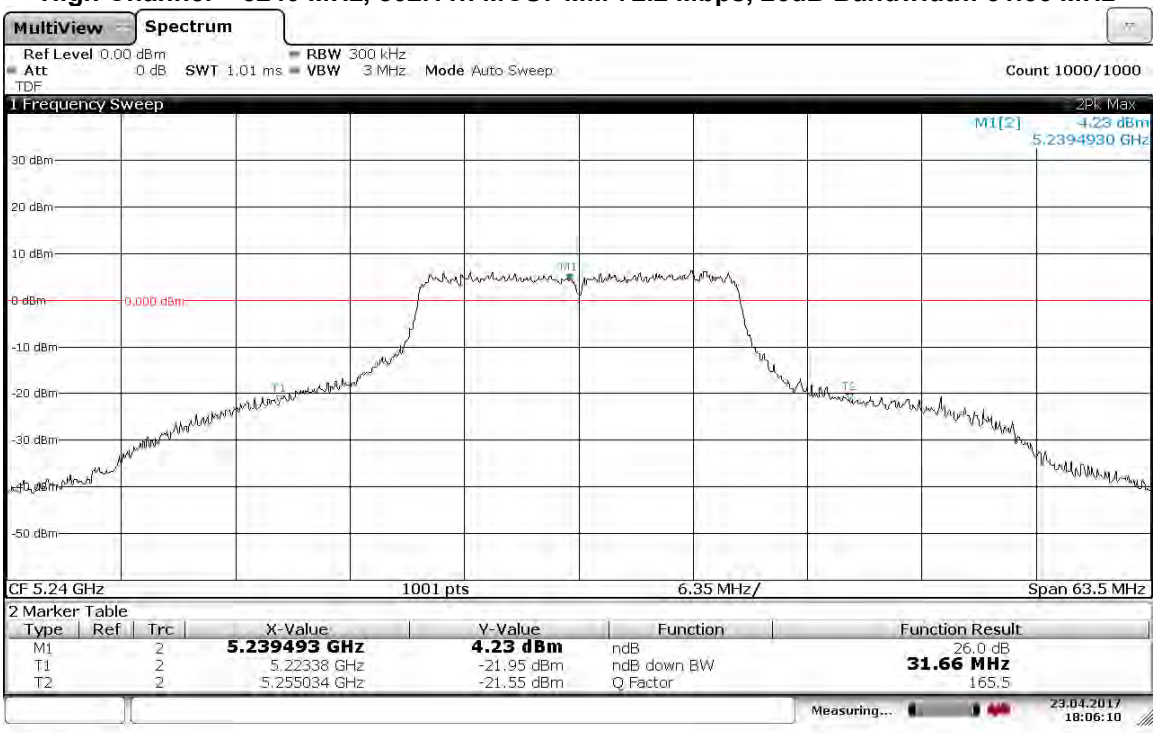
Date: 23.APR.2017 16:42:22

High Channel – 5240 MHz, 802.11n MCS7 MM 72.2 Mbps, Occupied Bandwidth: 18.11 MHz



Date: 23.APR.2017 18:03:05

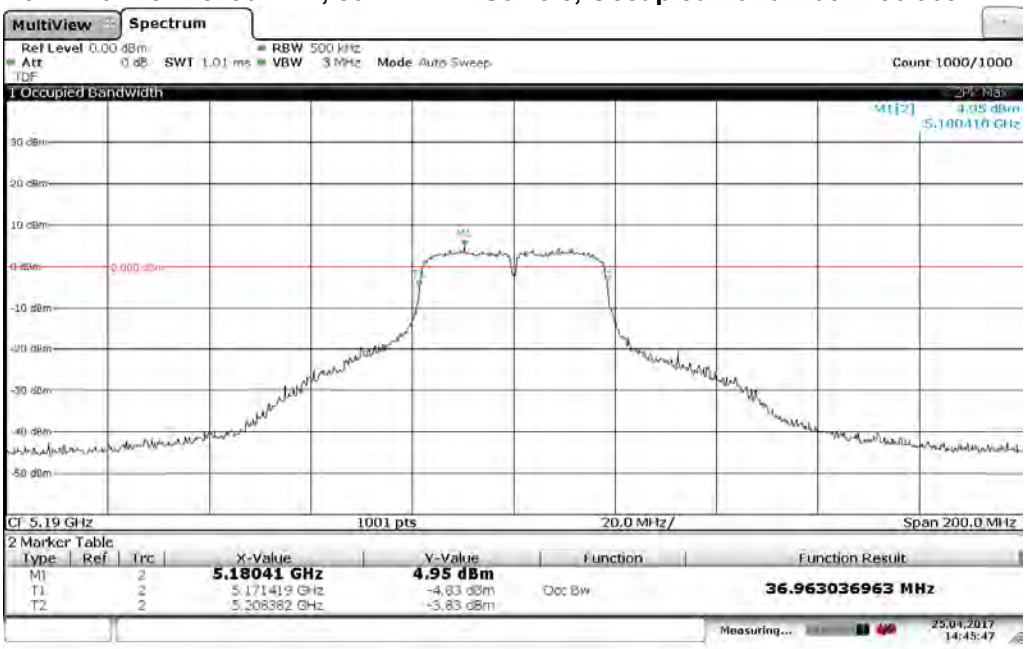
High Channel – 5240 MHz, 802.11n MCS7 MM 72.2 Mbps, 26dB Bandwidth: 31.66 MHz



Date: 23.APR.2017 18:06:10

Band 1 (40 MHz Bandwidth)

Low Channel – 5190 MHz, 802 11n MCS0 13.5, Occupied Bandwidth: 36.963 MHz

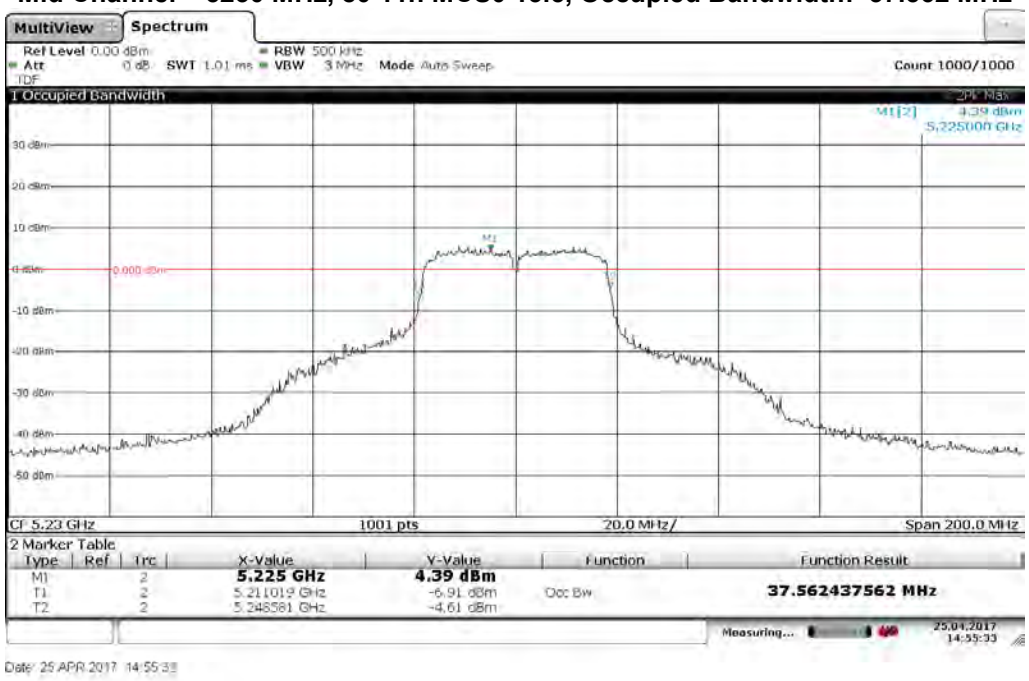


Date: 25 APR 2017 14:45:47

Low Channel – 5190 MHz, 802 11n MCS0 13.5, 26 dB Bandwidth: 56.34 MHz

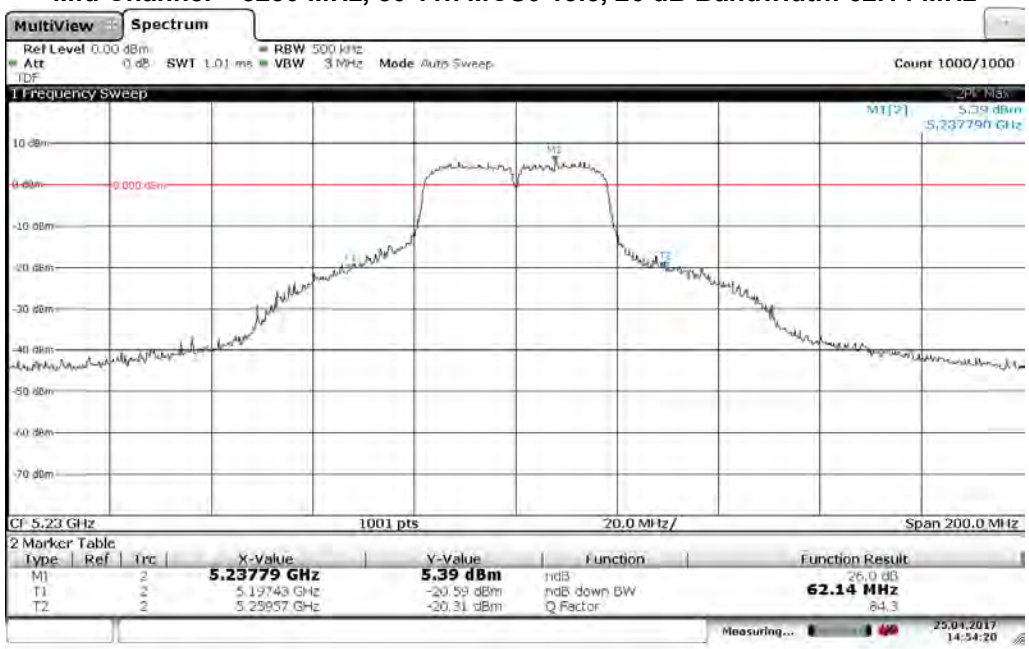
Date: 25 APR 2017 14:44:18

Mid Channel – 5230 MHz, 80 11n MCS0 13.5, Occupied Bandwidth: 37.562 MHz



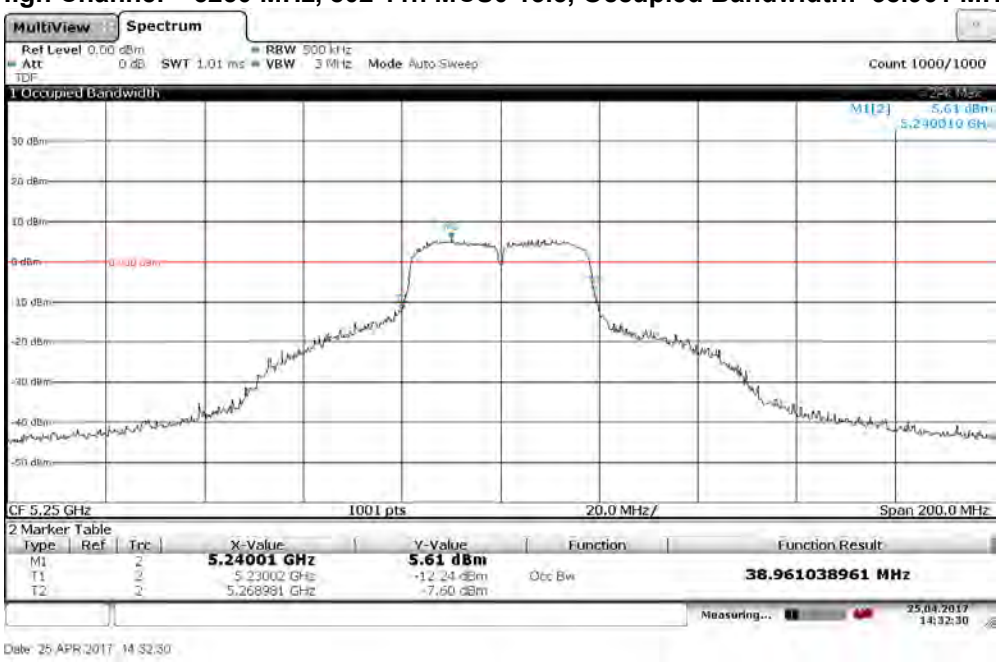
Date: 25.APR.2017 14:55:33

Mid Channel – 5230 MHz, 80 11n MCS0 13.5, 26 dB Bandwidth: 62.14 MHz

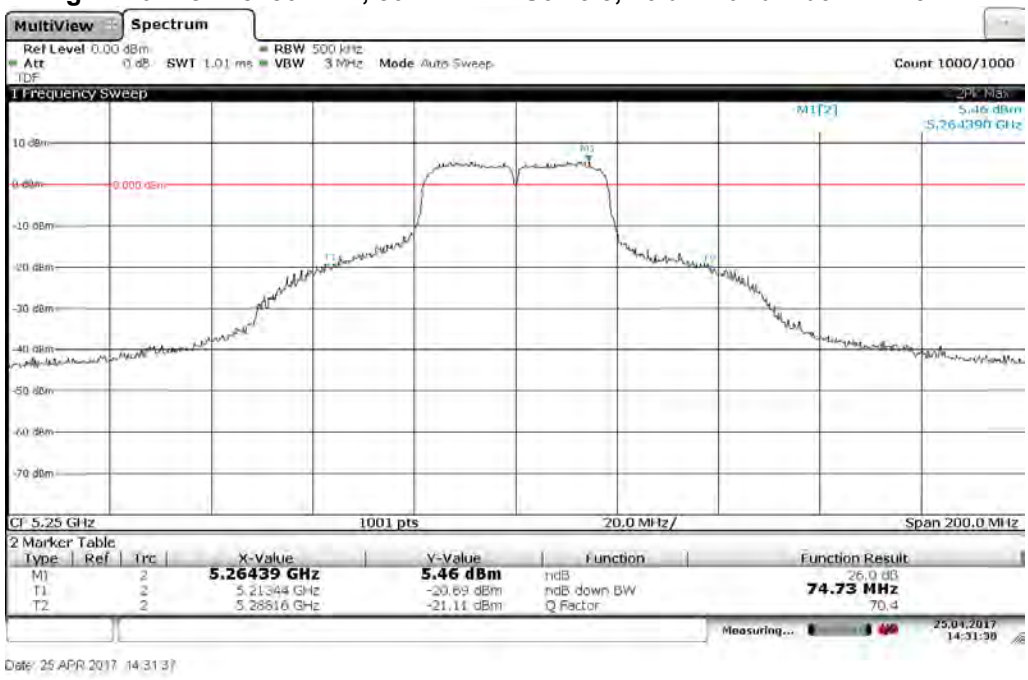


Date: 25.APR.2017 14:54:20

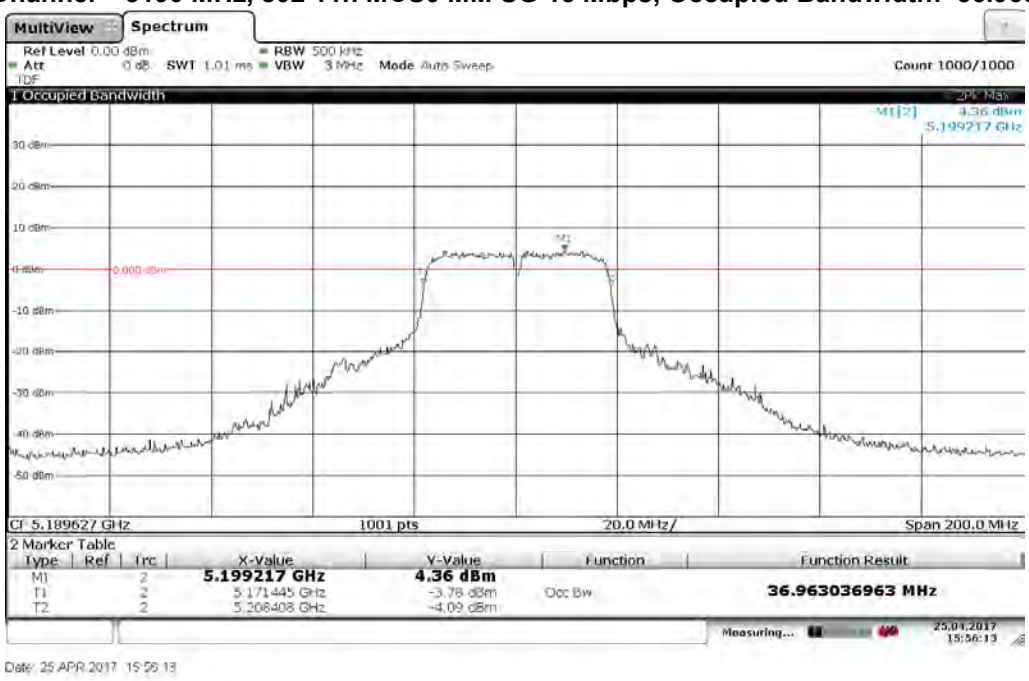
High Channel – 5250 MHz, 802 11n MCS0 13.5, Occupied Bandwidth: 38.961 MHz



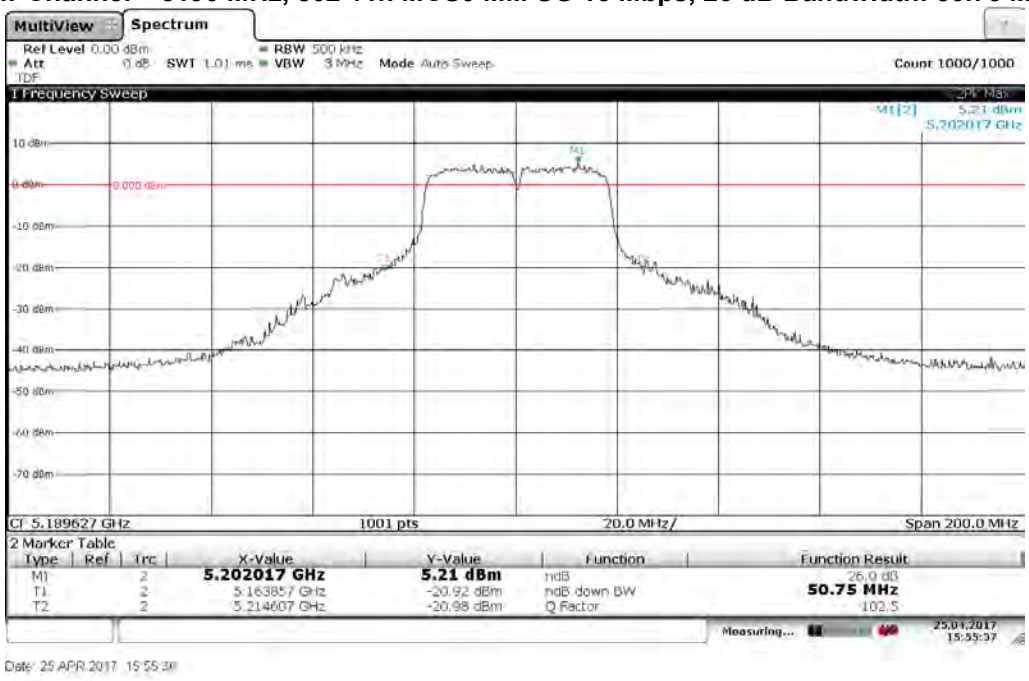
High Channel – 5250 MHz, 802 11n MCS0 13.5, 26 dB Bandwidth: 74.73 MHz



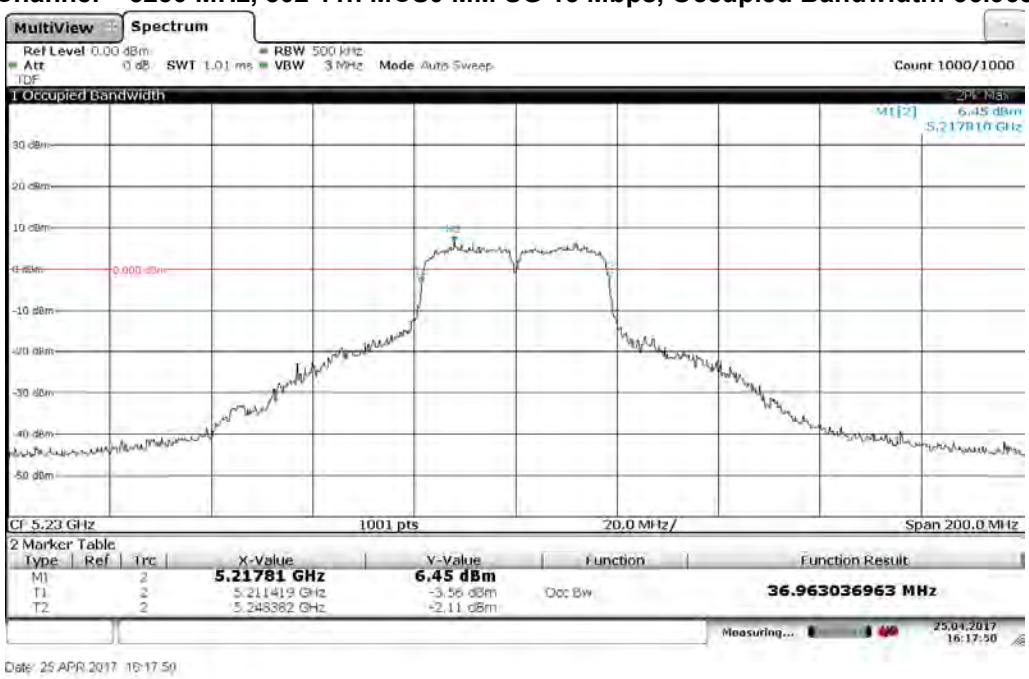
Low Channel – 5190 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 36.963 MHz



Low Channel – 5190 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 50.75 MHz



Mid Channel – 5230 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 36.963 MHz

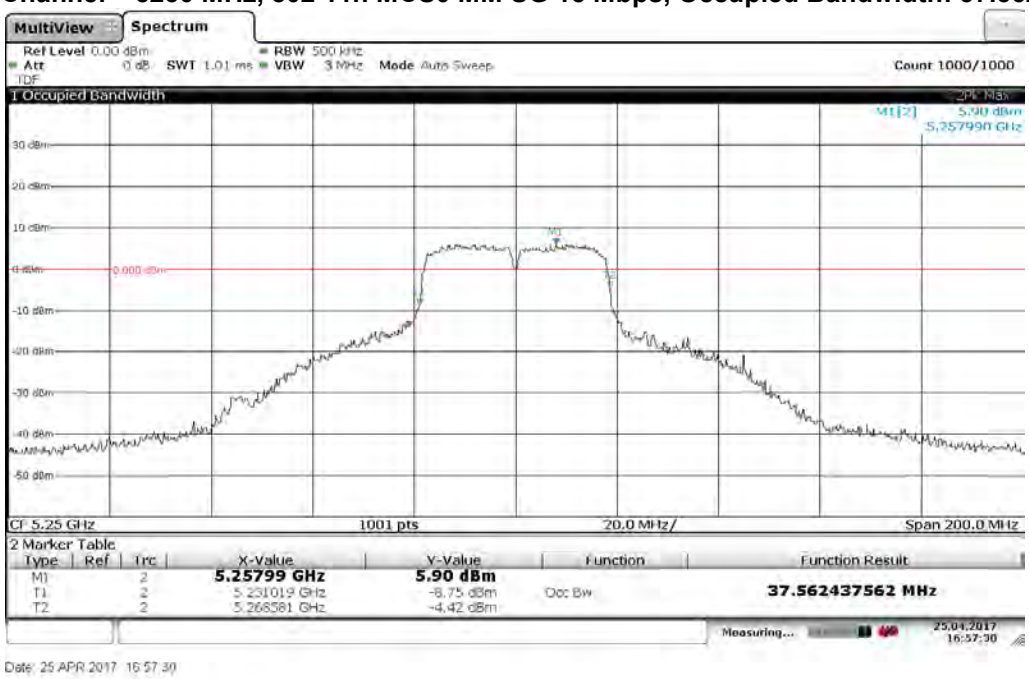


Date: 25.APR.2017 16:17:50

Mid Channel – 5230 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 56.74 MHz

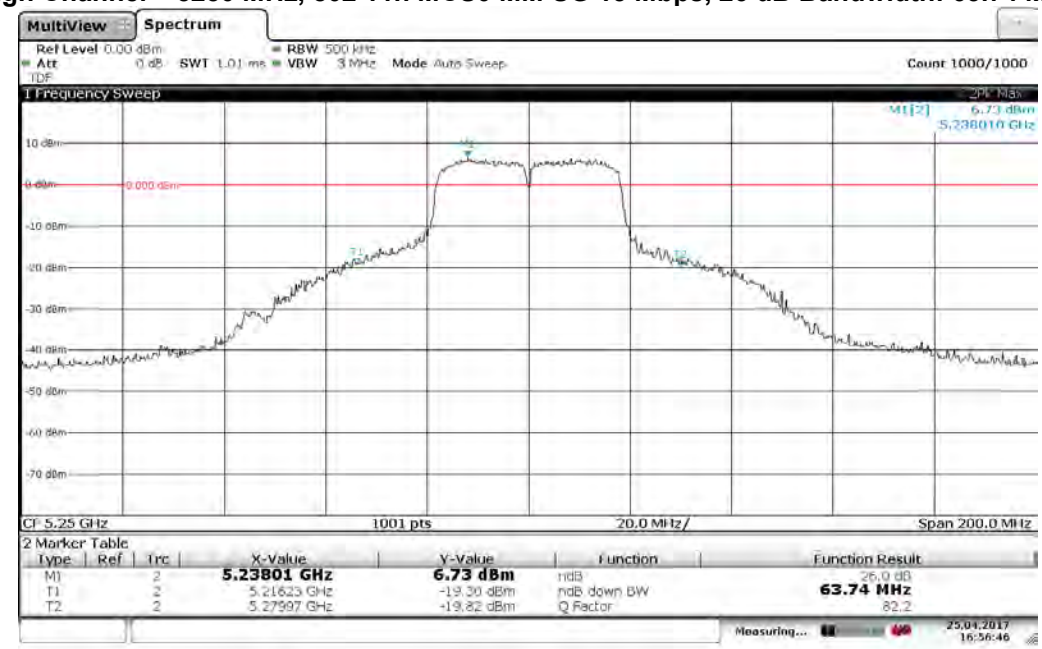
Date: 25.APR.2017 16:17:17

High Channel – 5250 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 37.562 MHz



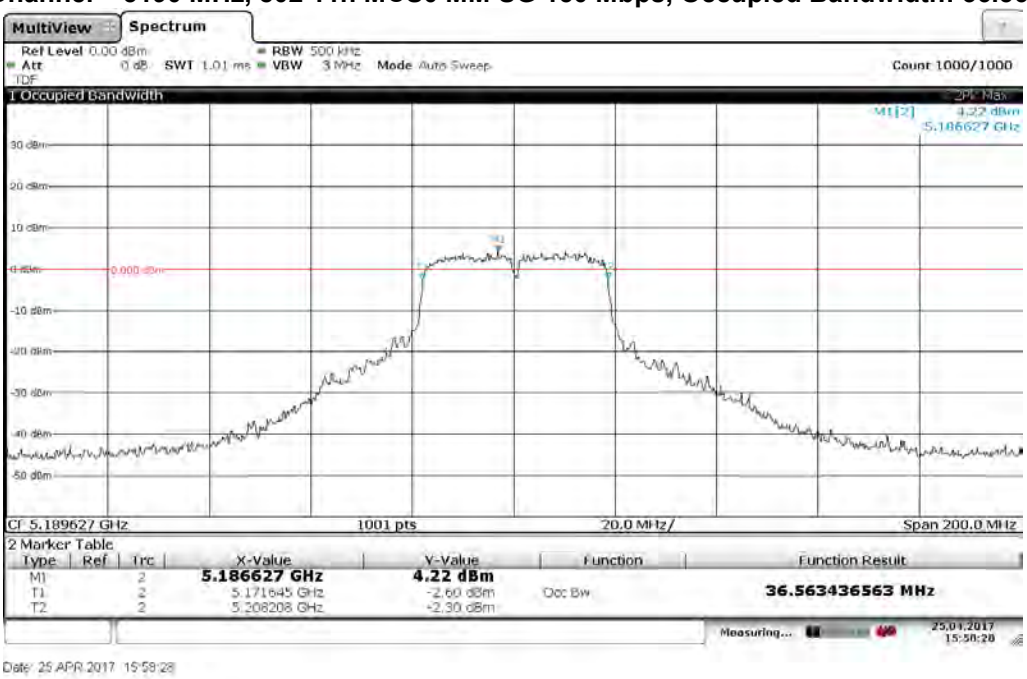
Date: 25 APR 2017 16:57:30

High Channel – 5250 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 63.74 MHz



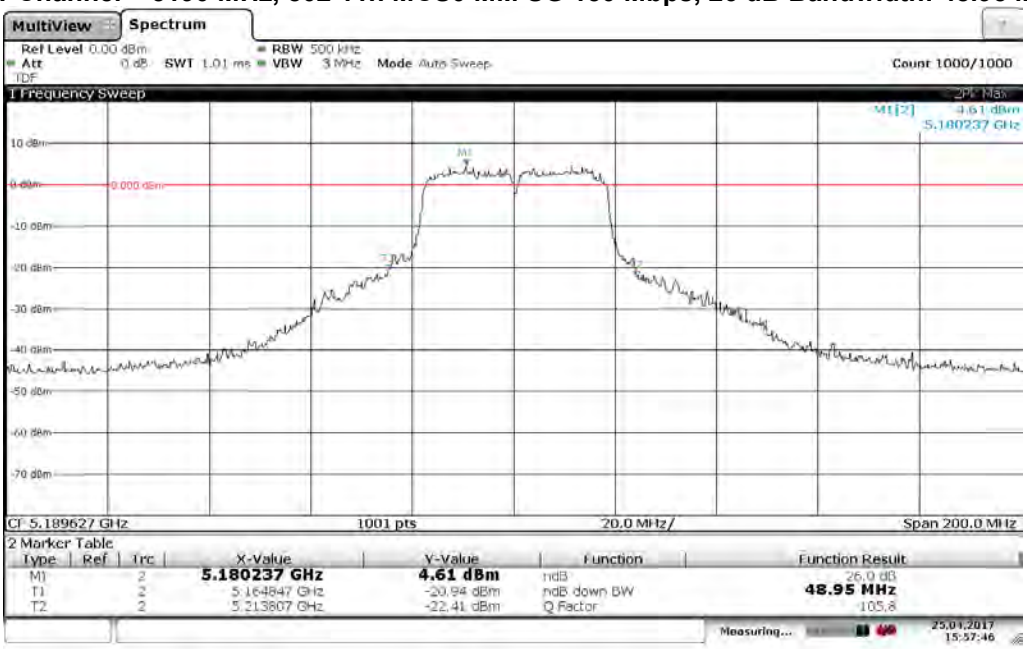
Date: 25 APR 2017 16:56:46

Low Channel – 5190 MHz, 802 11n MCS0 MM SG 150 Mbps, Occupied Bandwidth: 36.563 MHz



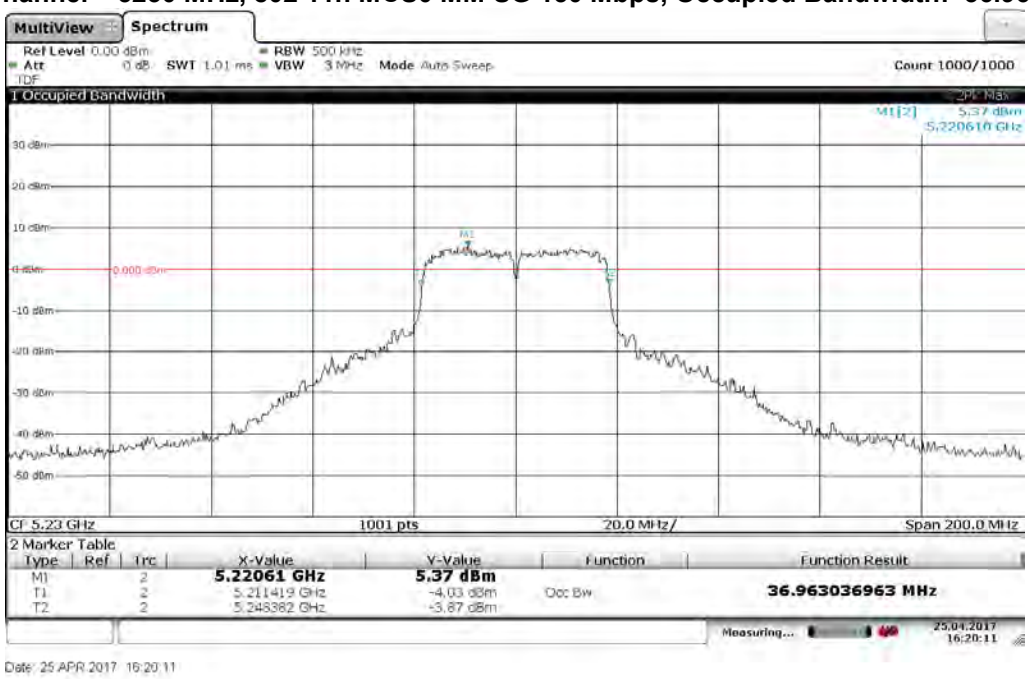
Date: 25.APR.2017 15:58:28

Low Channel – 5190 MHz, 802 11n MCS0 MM SG 150 Mbps, 26 dB Bandwidth: 48.95 MHz



Date: 25.APR.2017 15:57:46

Mid Channel – 5230 MHz, 802 11n MCS0 MM SG 150 Mbps, Occupied Bandwidth: 36.963 MHz

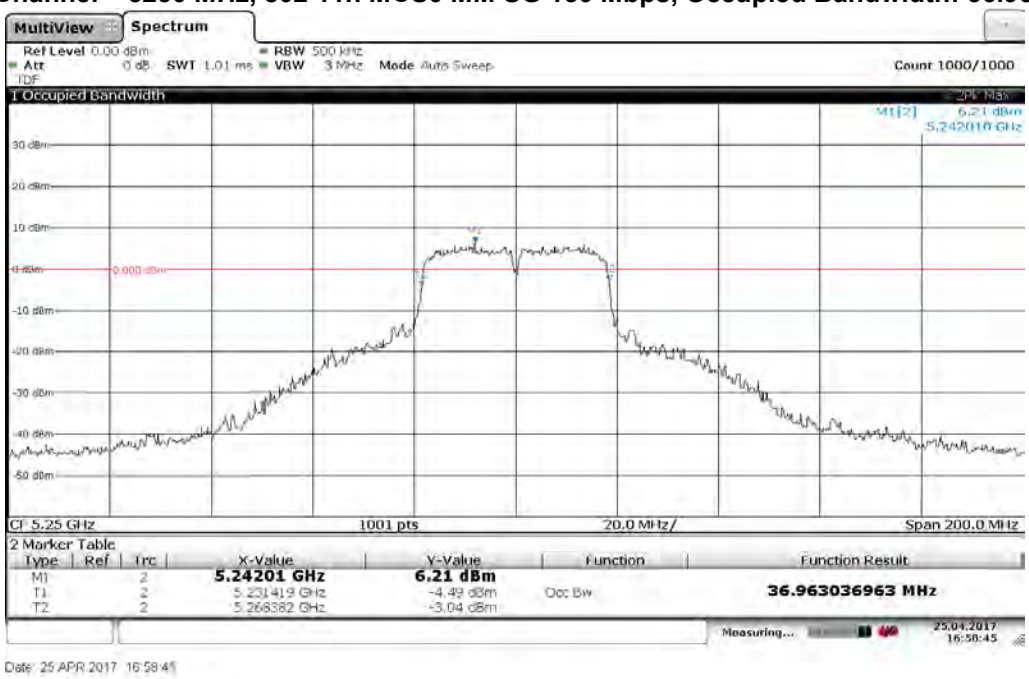


Date: 25 APR 2017 16:20:11

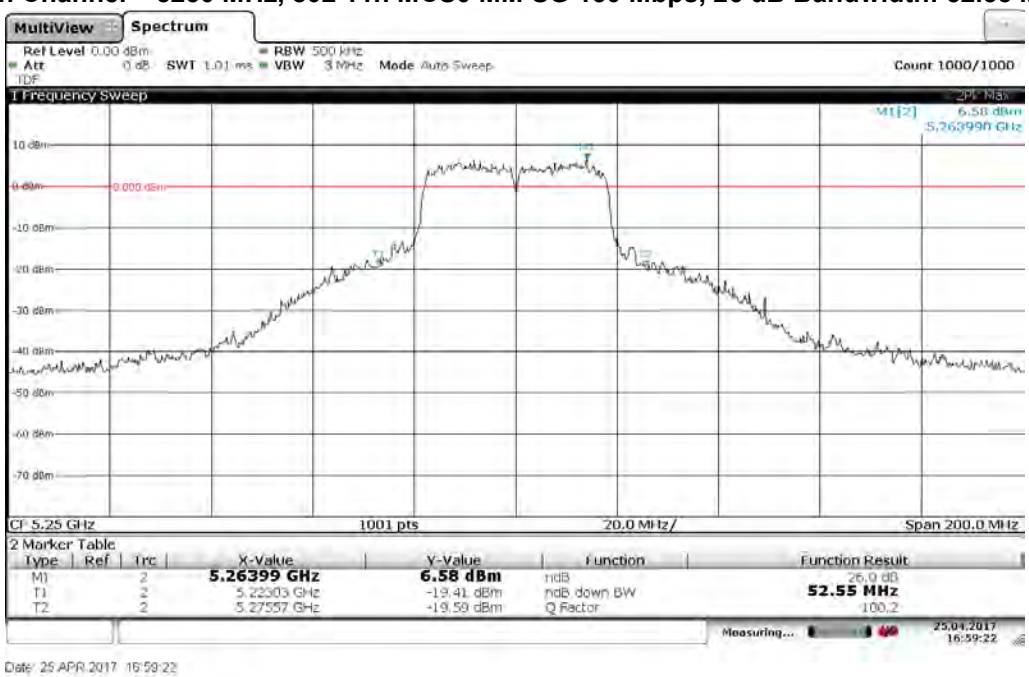
Mid Channel – 5230 MHz, 802 11n MCS0 MM SG 150 Mbps, 26 dB Bandwidth: 52.55 MHz

Date: 25 APR 2017 16:19:24

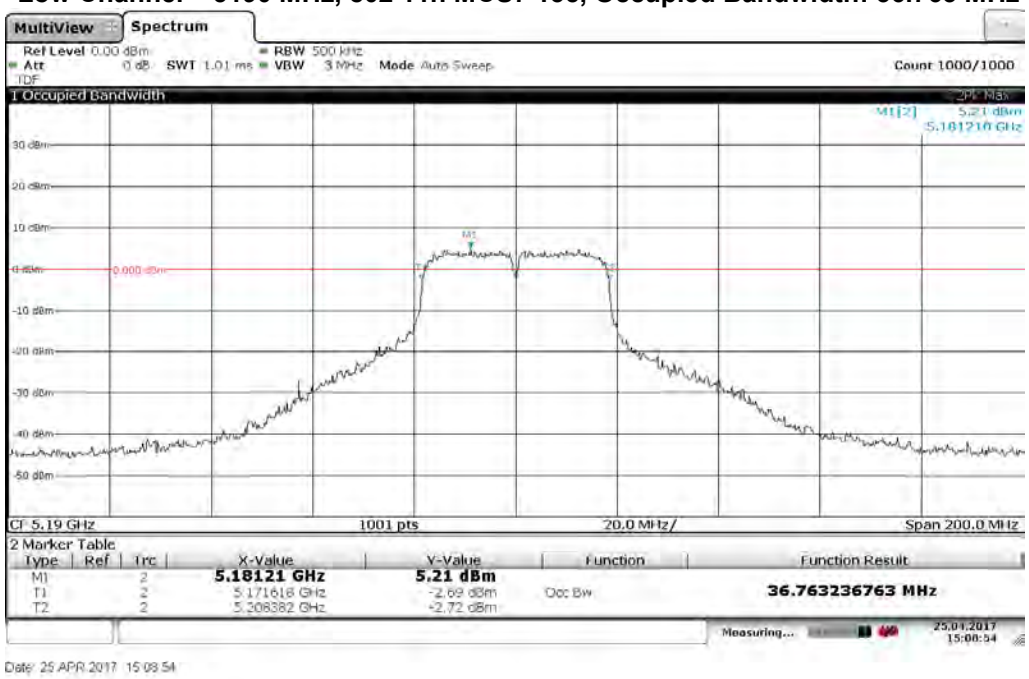
High Channel – 5250 MHz, 802 11n MCS0 MM SG 150 Mbps, Occupied Bandwidth: 36.963 MHz



High Channel – 5250 MHz, 802 11n MCS0 MM SG 150 Mbps, 26 dB Bandwidth: 52.55 MHz

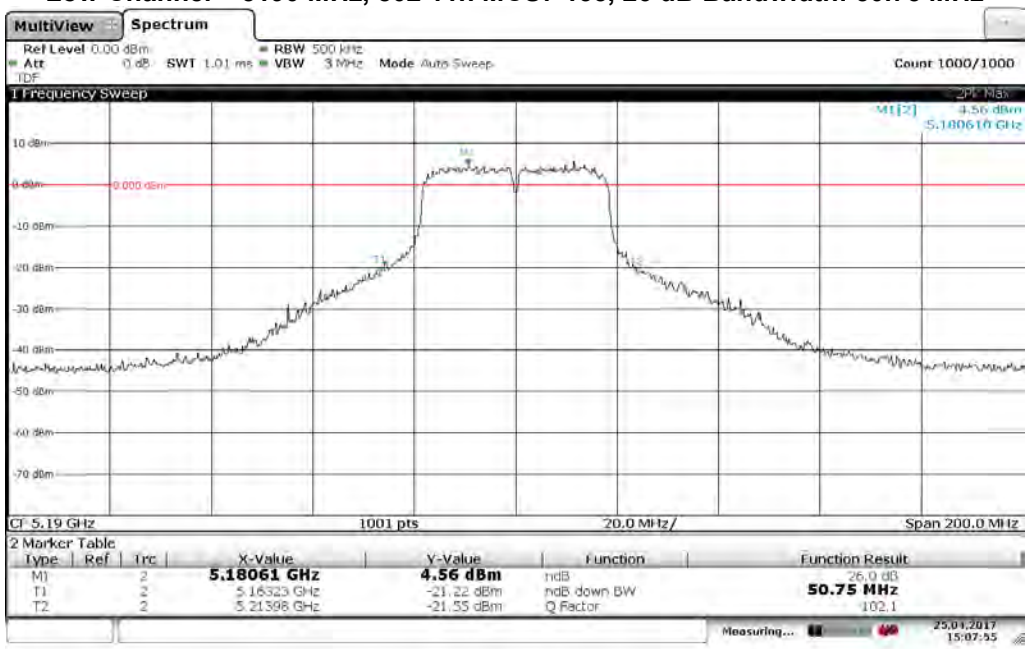


Low Channel – 5190 MHz, 802 11n MCS7 135, Occupied Bandwidth: 36.763 MHz



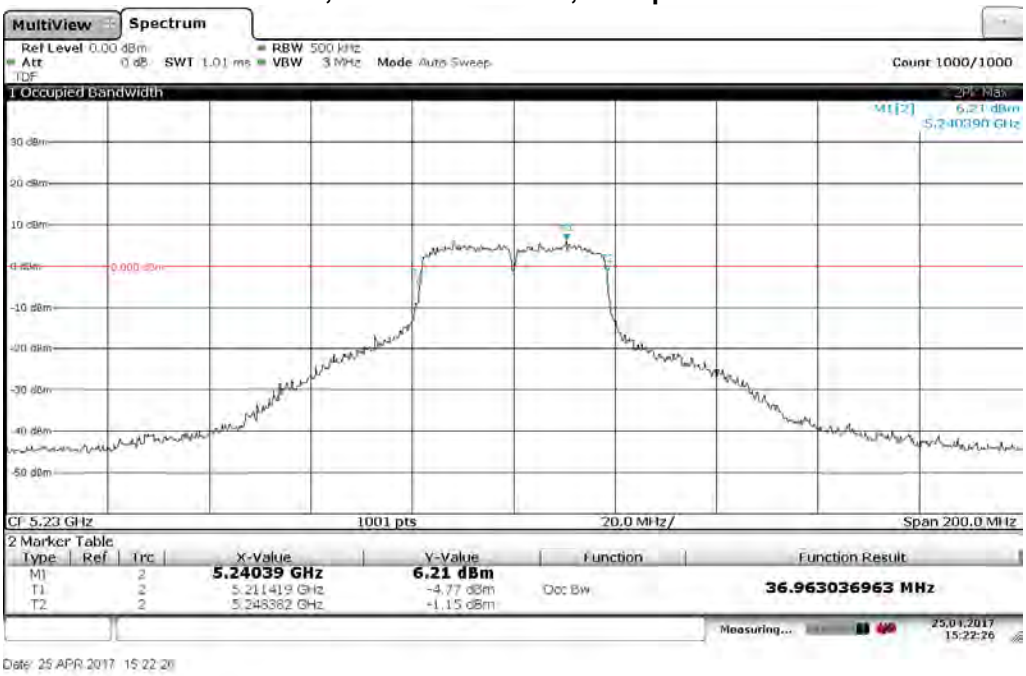
Date: 25.APR.2017 15:08:54

Low Channel – 5190 MHz, 802 11n MCS7 135, 26 dB Bandwidth: 50.75 MHz



Date: 25.APR.2017 15:07:55

Mid Channel – 5230MHz, 802 11n MCS7 135, Occupied Bandwidth: 36.963 MHz

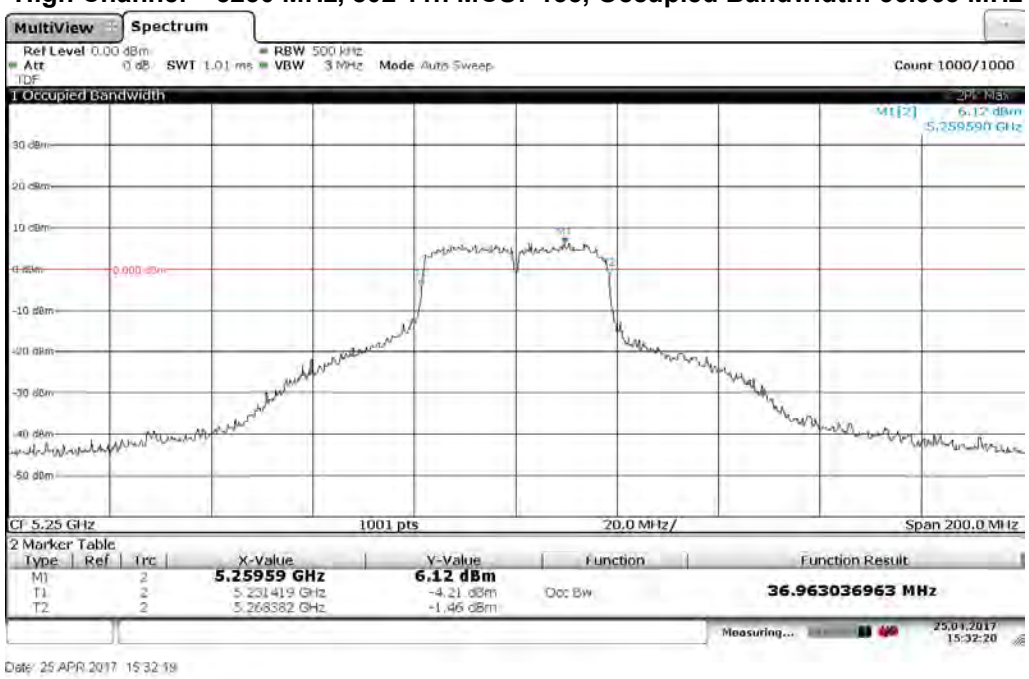


Date: 25.APR.2017 15:22:26

Mid Channel – 5230 MHz, 802 11n MCS7 135, 26 dB Bandwidth: 55.14 MHz

Date: 25.APR.2017 15:19:23

High Channel – 5250 MHz, 802 11n MCS7 135, Occupied Bandwidth: 36.963 MHz



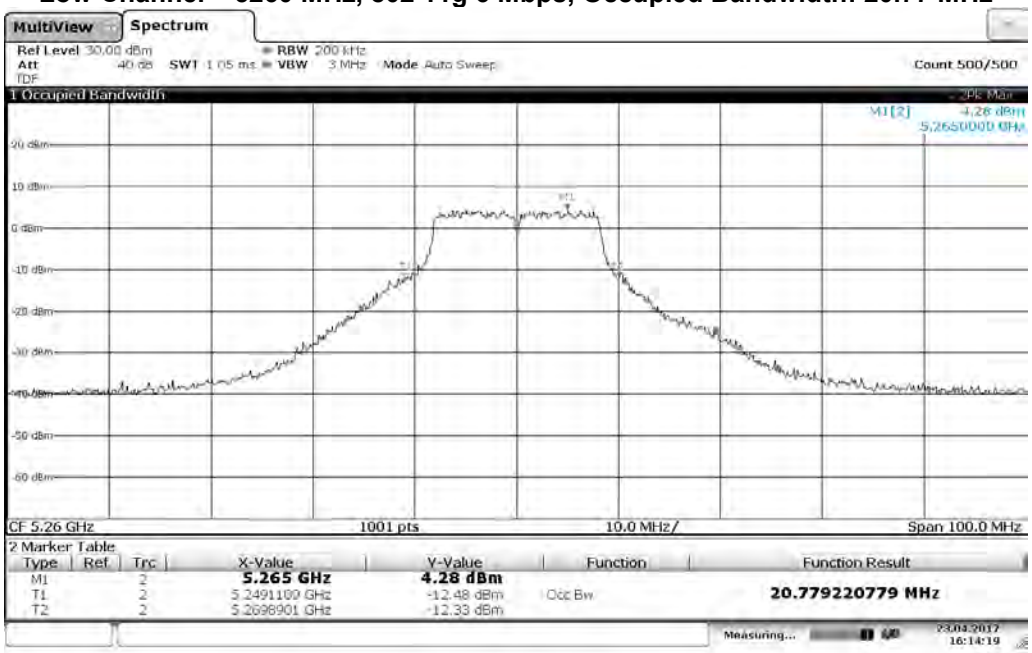
Date: 25.APR.2017 15:32:19

High Channel – 5250 MHz, 802 11n MCS7 135, 26 dB Bandwidth: 58.94 MHz

Date: 25.APR.2017 15:31:38

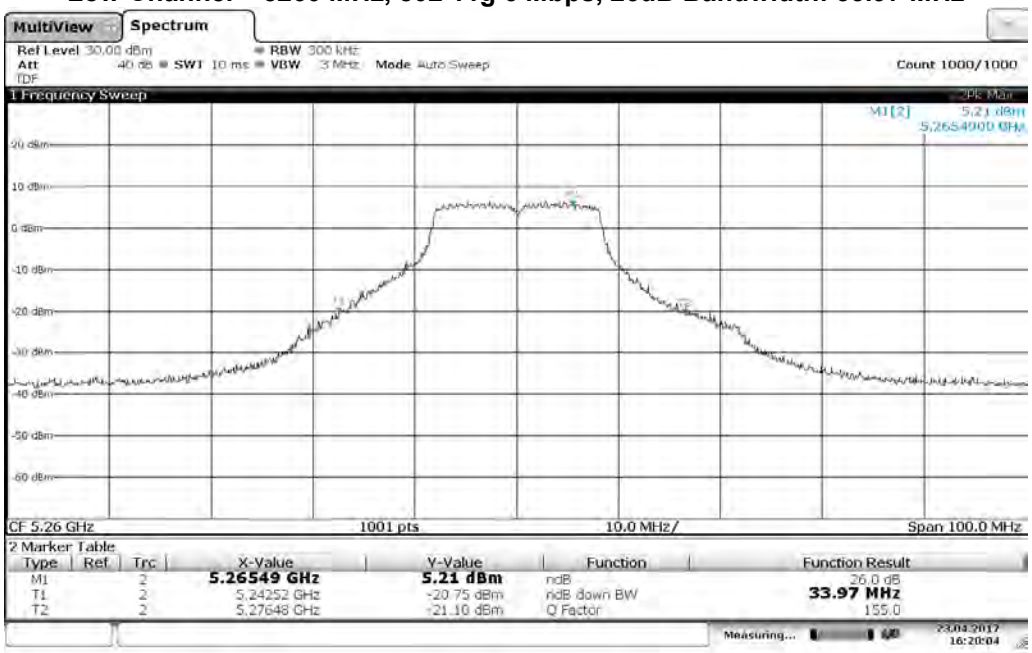
Band 2 (20 MHz Bandwidth)

Low Channel – 5260 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 20.77 MHz



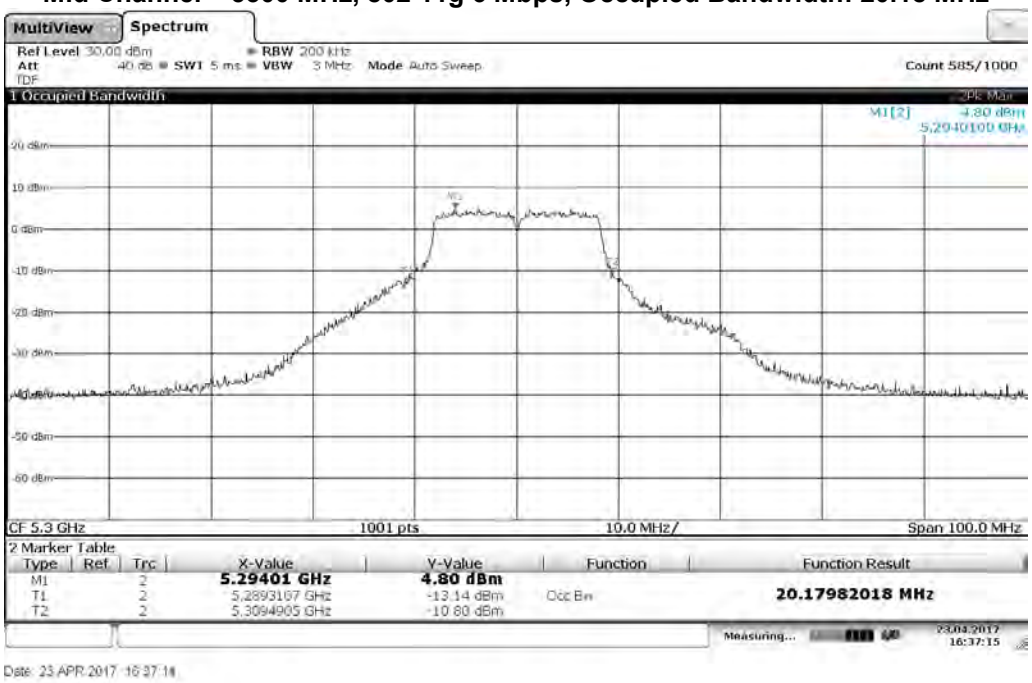
Date: 23.APR.2017 16:14:19

Low Channel – 5260 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 33.97 MHz



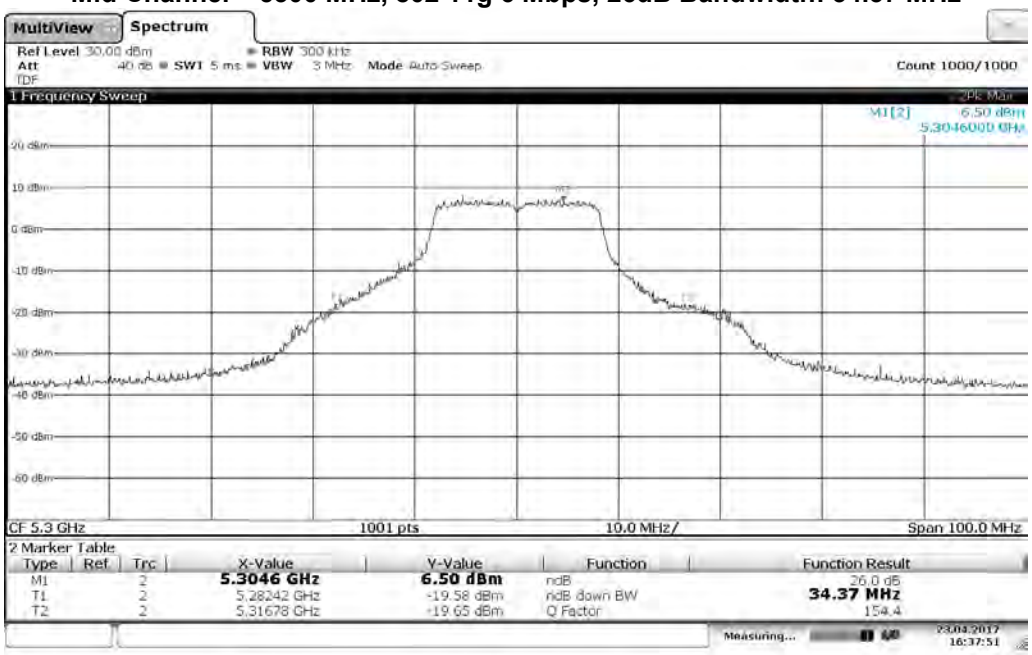
Date: 23.APR.2017 16:20:04

Mid Channel – 5300 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 20.18 MHz



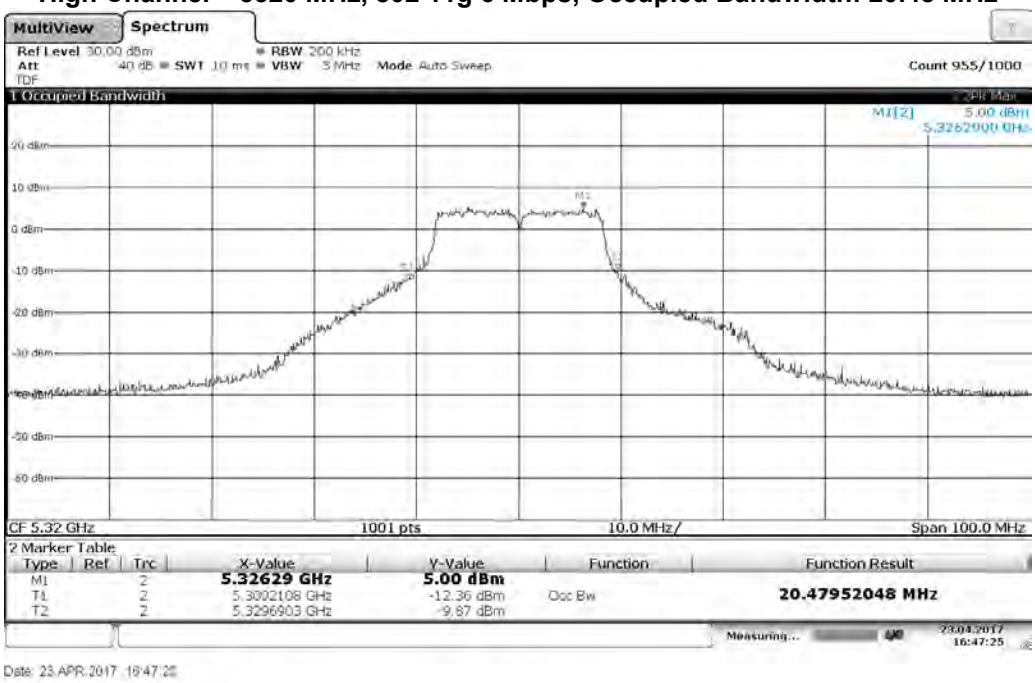
Date: 23.APR.2017 16:37:16

Mid Channel – 5300 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 34.37 MHz



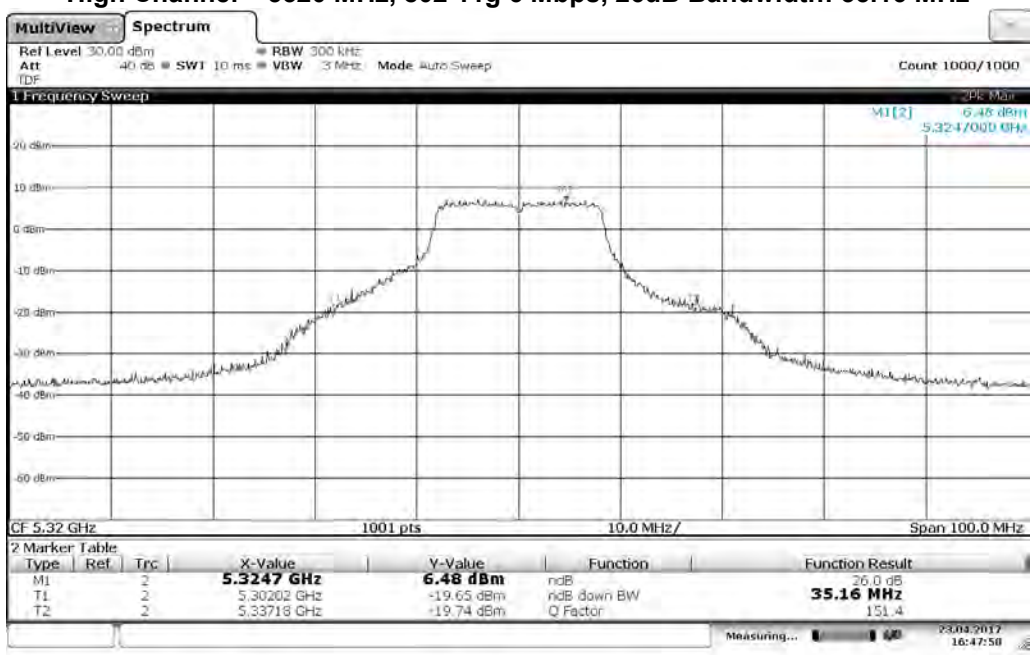
Date: 23.APR.2017 16:37:51

High Channel – 5320 MHz, 802 11g 6 Mbps, Occupied Bandwidth: 20.48 MHz



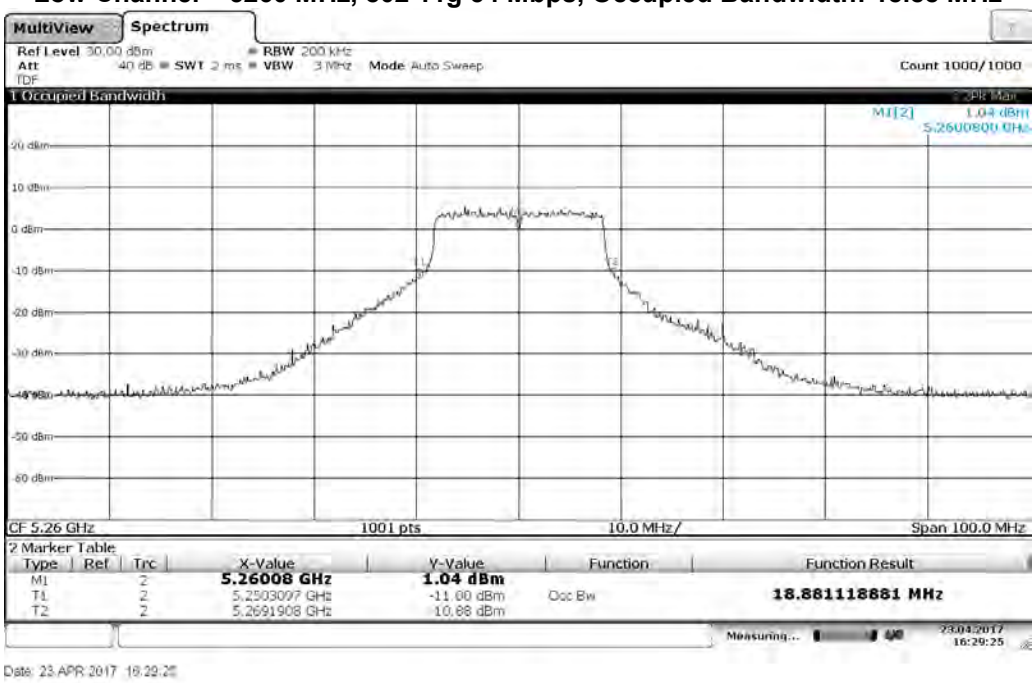
Date: 23.APR.2017 16:47:25

High Channel – 5320 MHz, 802 11g 6 Mbps, 26dB Bandwidth: 35.16 MHz



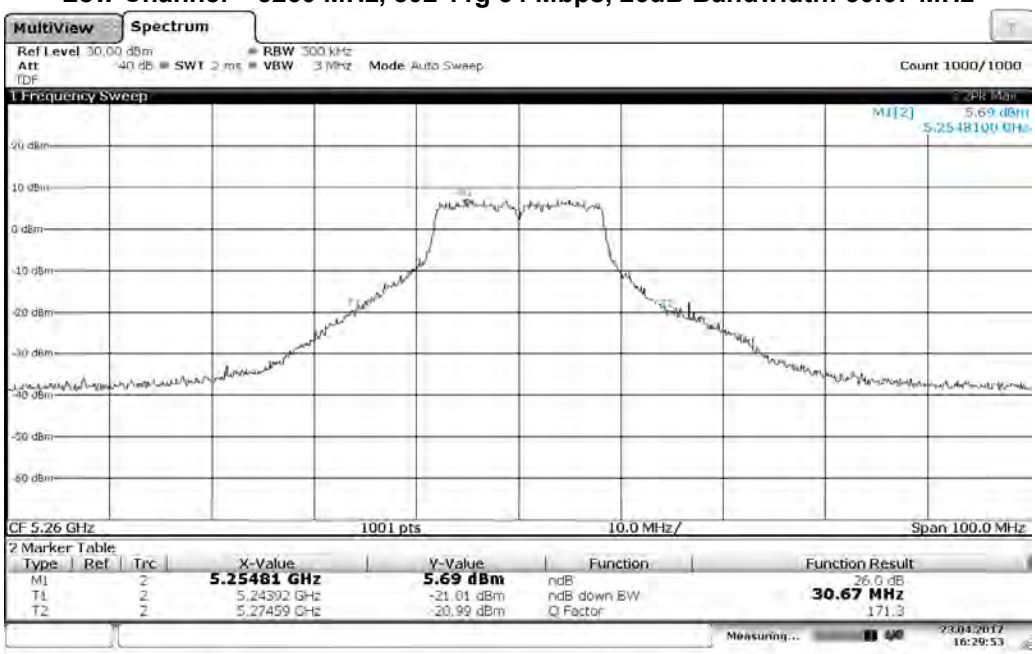
Date: 23.APR.2017 16:47:50

Low Channel – 5260 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 18.88 MHz



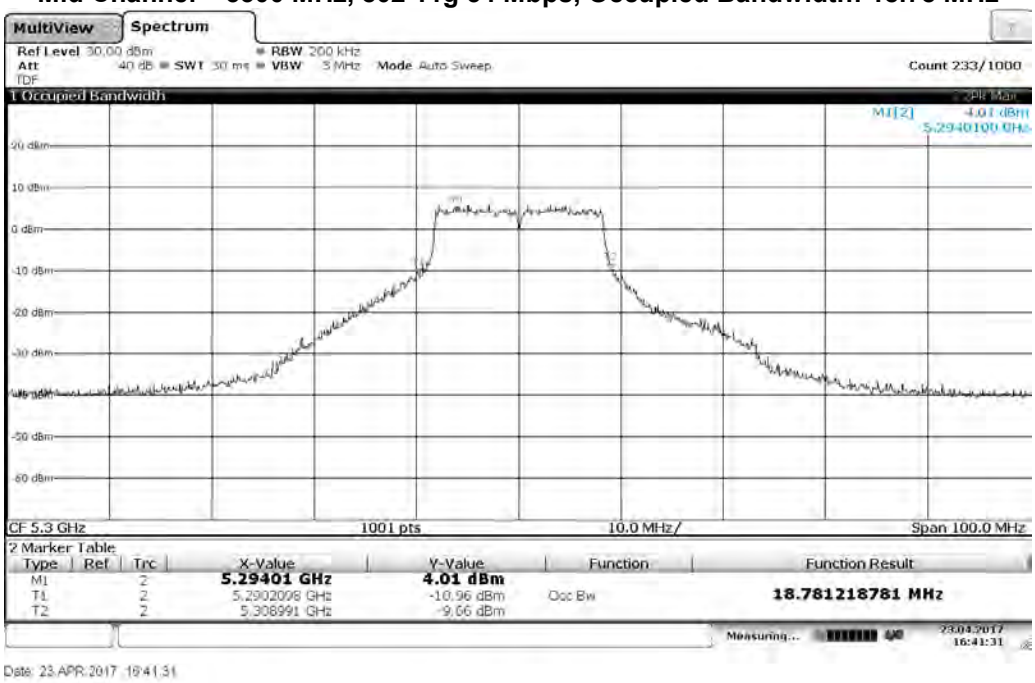
Date: 23.APR.2017 16:29:25

Low Channel – 5260 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 30.67 MHz



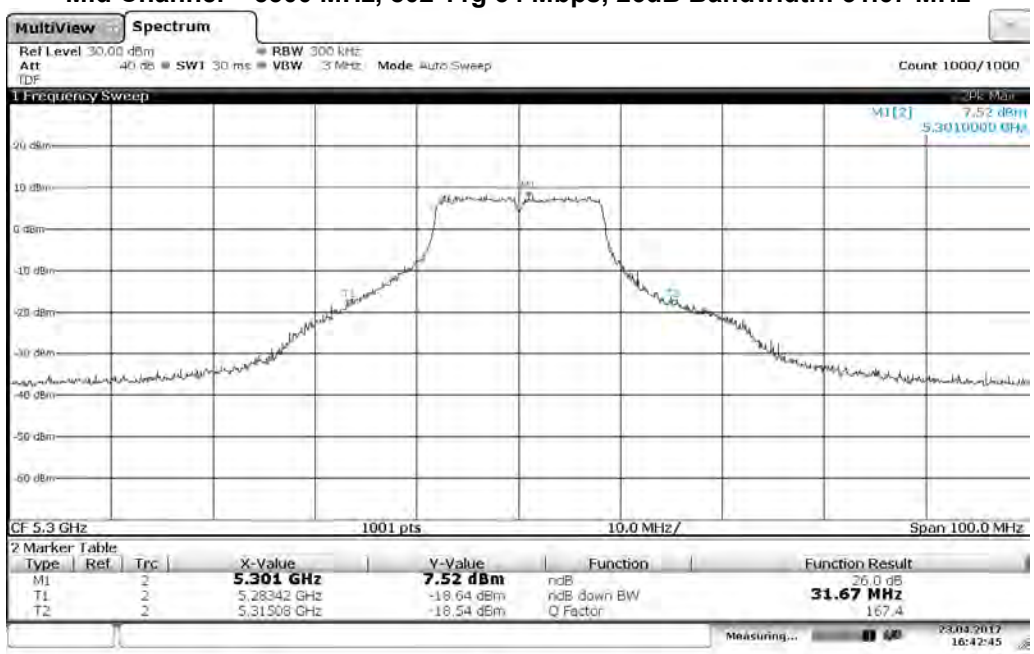
Date: 23.APR.2017 16:29:52

Mid Channel – 5300 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 18.78 MHz



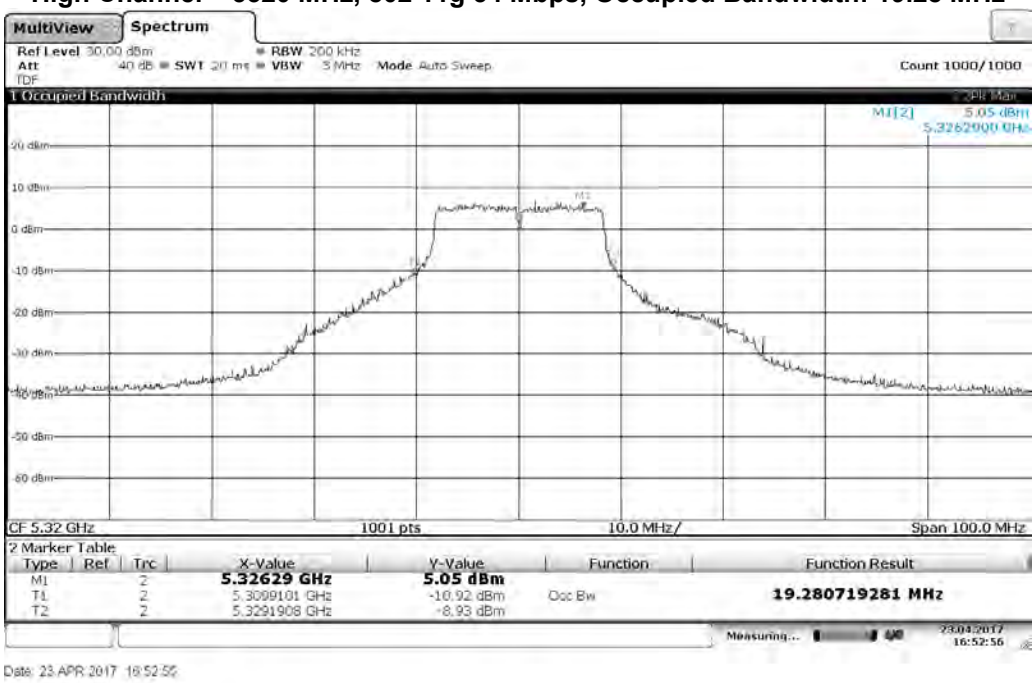
Date: 23.APR.2017 16:41:31

Mid Channel – 5300 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 31.67 MHz



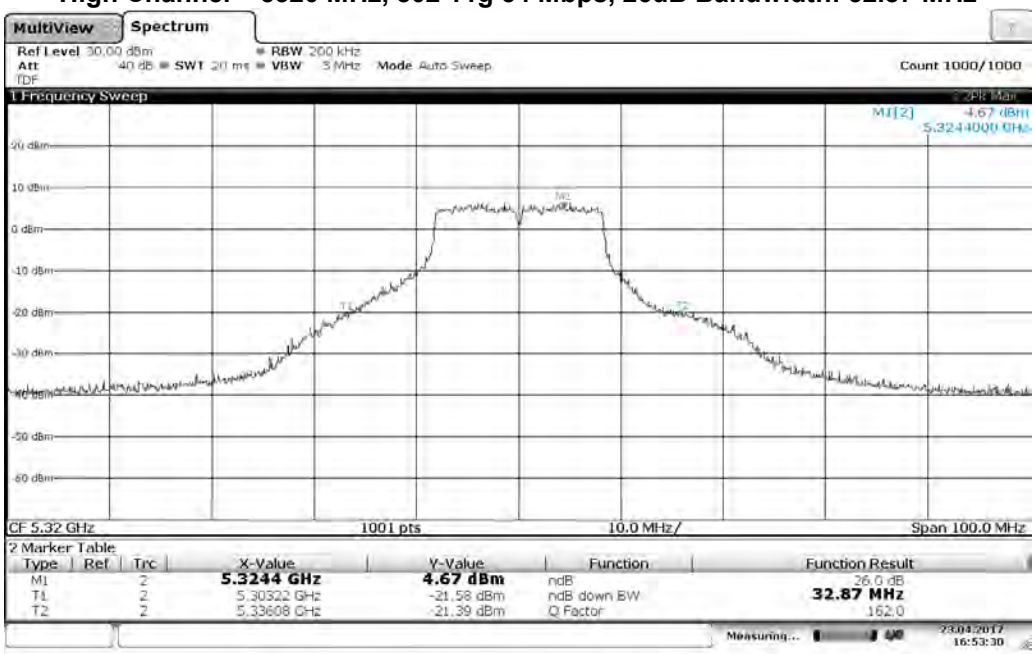
Date: 23.APR.2017 16:42:45

High Channel – 5320 MHz, 802 11g 54 Mbps, Occupied Bandwidth: 19.28 MHz



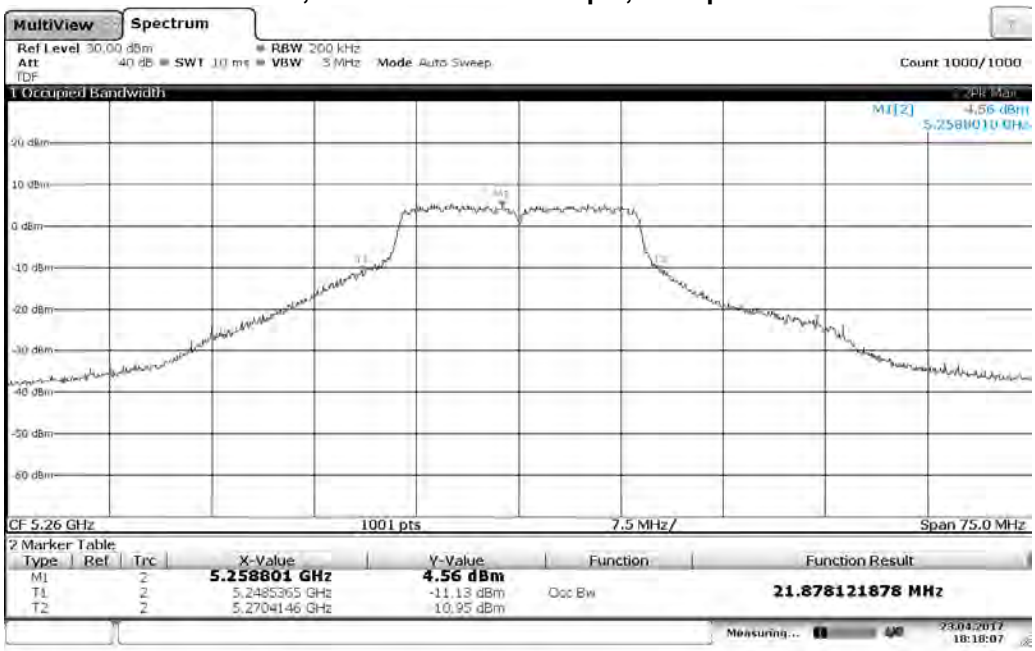
Date: 23.APR.2017 16:52:56

High Channel – 5320 MHz, 802 11g 54 Mbps, 26dB Bandwidth: 32.87 MHz



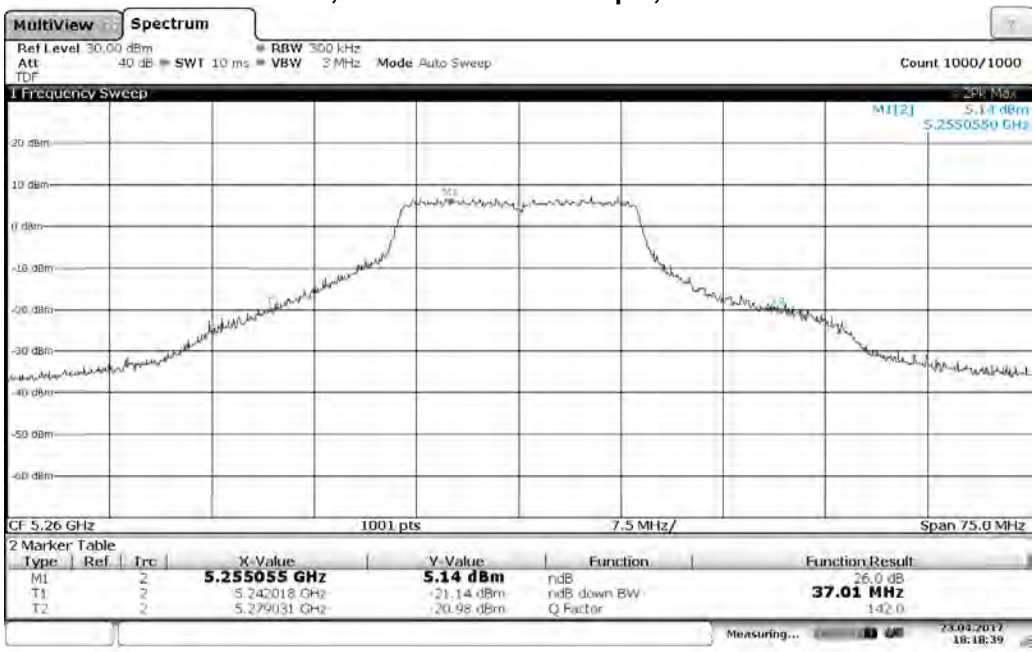
Date: 23.APR.2017 16:53:30

Low Channel – 5260 MHz, 802 11n MCS0 6.5 Mbps , Occupied Bandwidth: 21.87 MHz



Date: 23.APR.2017 18:18:07

Low Channel – 5260 MHz, 802 11n MCS0 6.5 Mbps , 26dB Bandwidth: 37.01 MHz

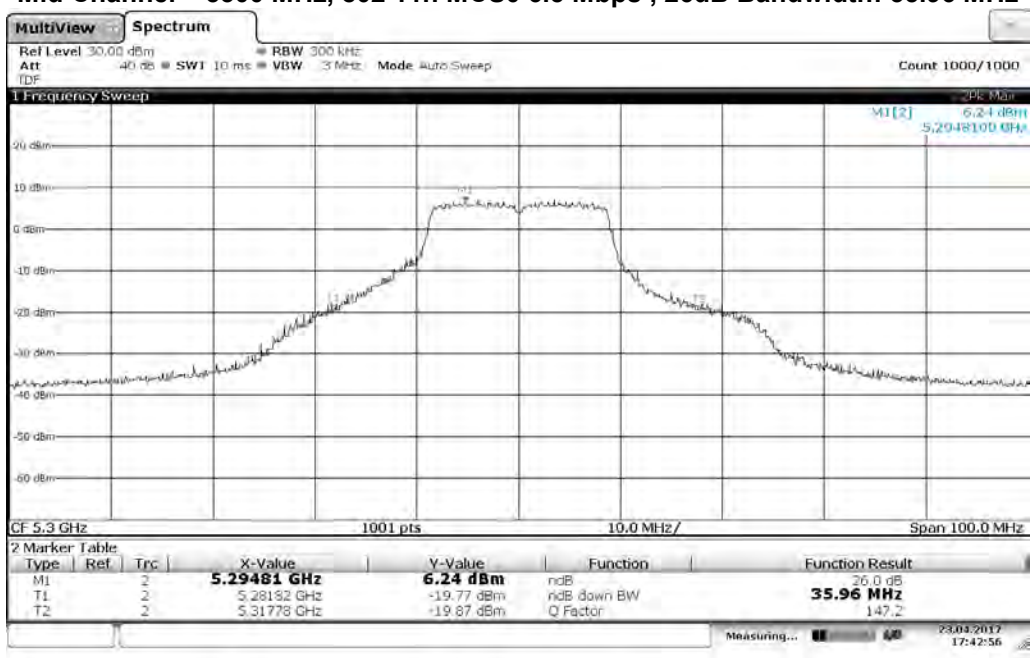


Date: 23.APR.2017 18:18:39

Mid Channel – 5300 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 21.27 MHz

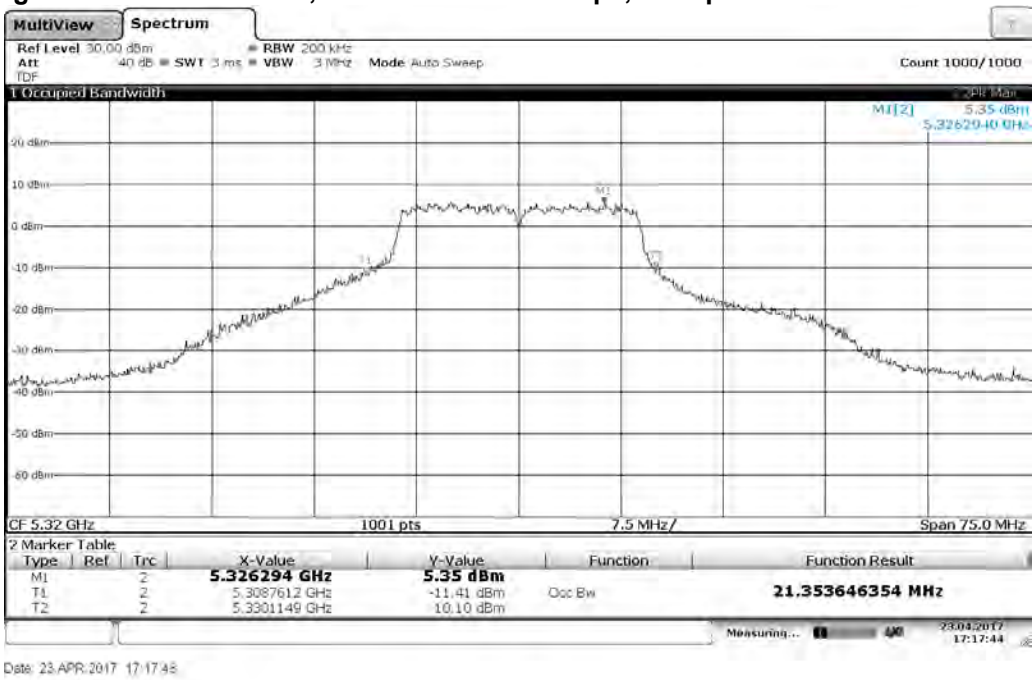
Date: 23.APR.2017 17:42:07

Mid Channel – 5300 MHz, 802 11n MCS0 6.5 Mbps , 26dB Bandwidth: 35.96 MHz



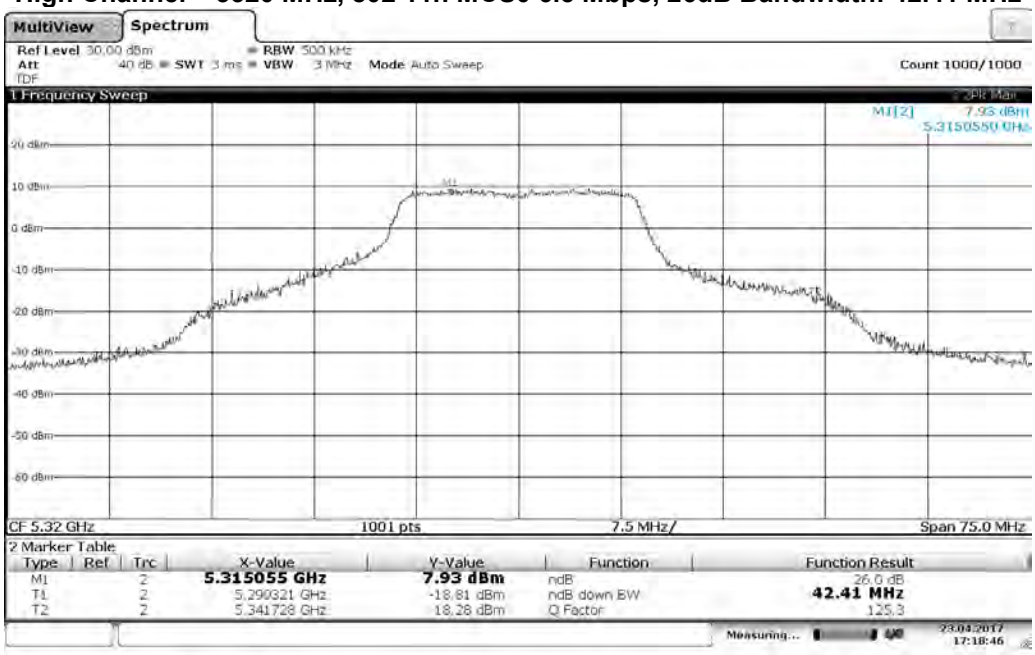
Date: 23.APR.2017 17:42:56

High Channel – 5320 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 21.35 MHz



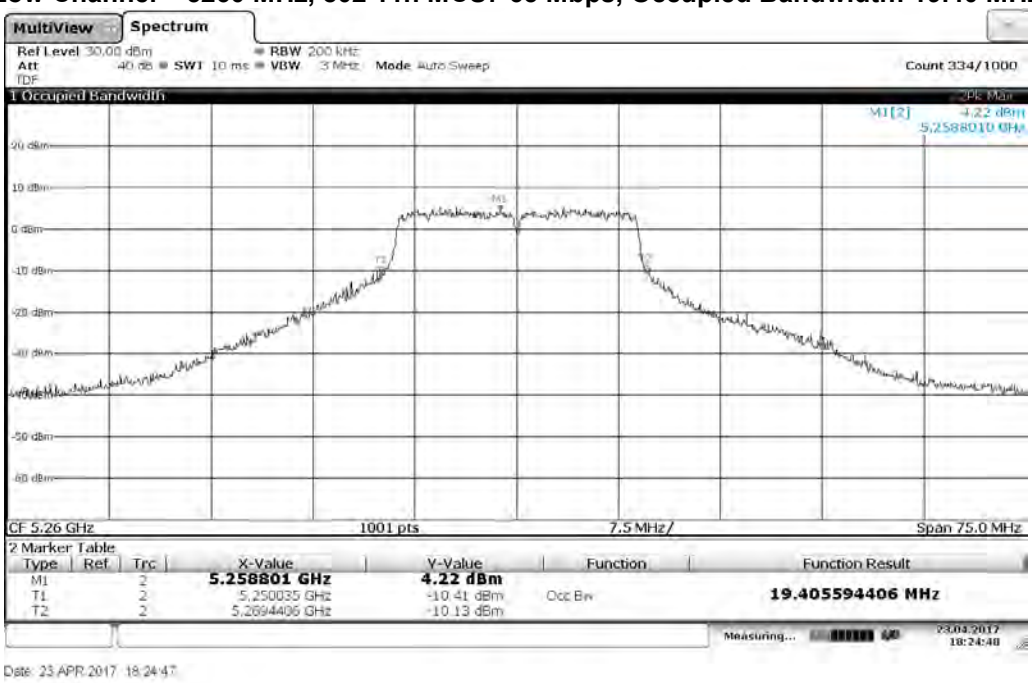
Date: 23.APR.2017 17:17:45

High Channel – 5320 MHz, 802 11n MCS0 6.5 Mbps, 26dB Bandwidth: 42.41 MHz



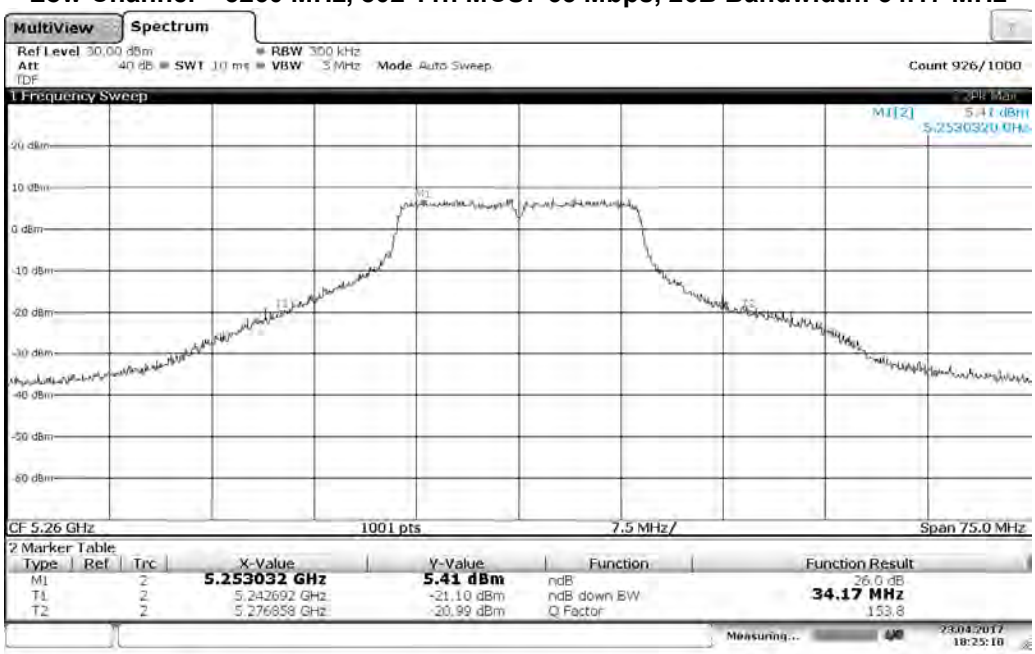
Date: 23.APR.2017 17:18:46

Low Channel – 5260 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 19.40 MHz



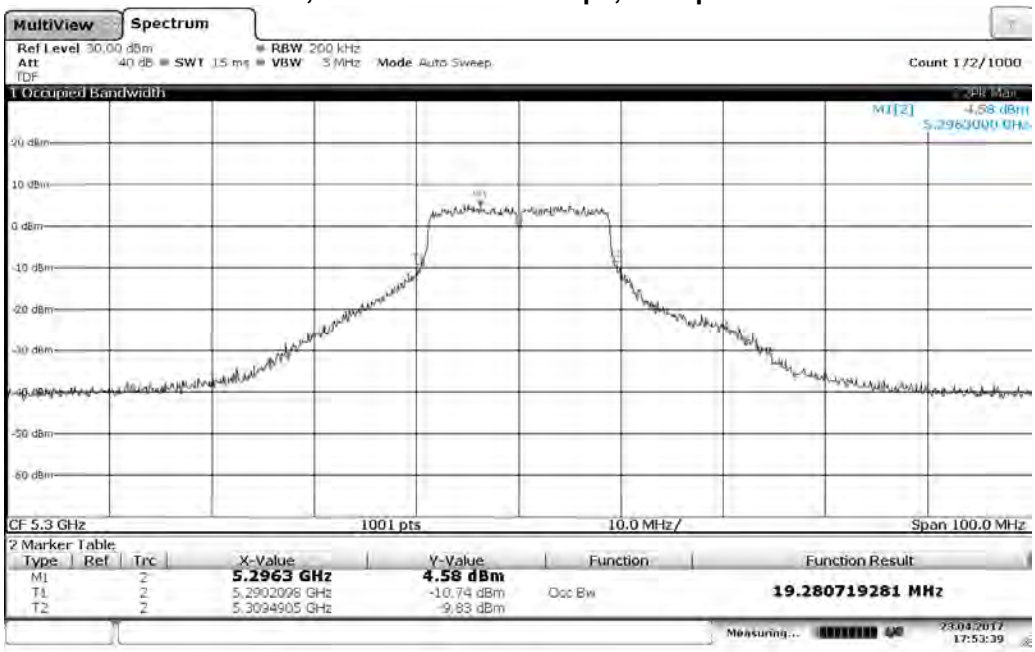
Date: 23.APR.2017 18:24:47

Low Channel – 5260 MHz, 802 11n MCS7 65 Mbps, 26B Bandwidth: 34.17 MHz



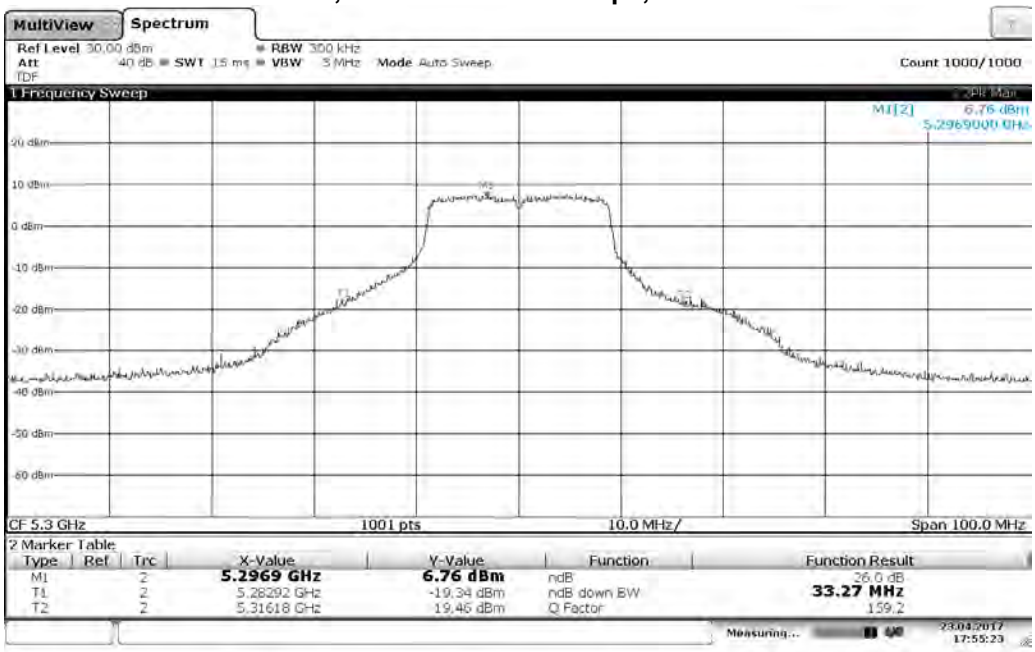
Date: 23.APR.2017 18:25:18

Mid Channel – 5300 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 19.28 MHz



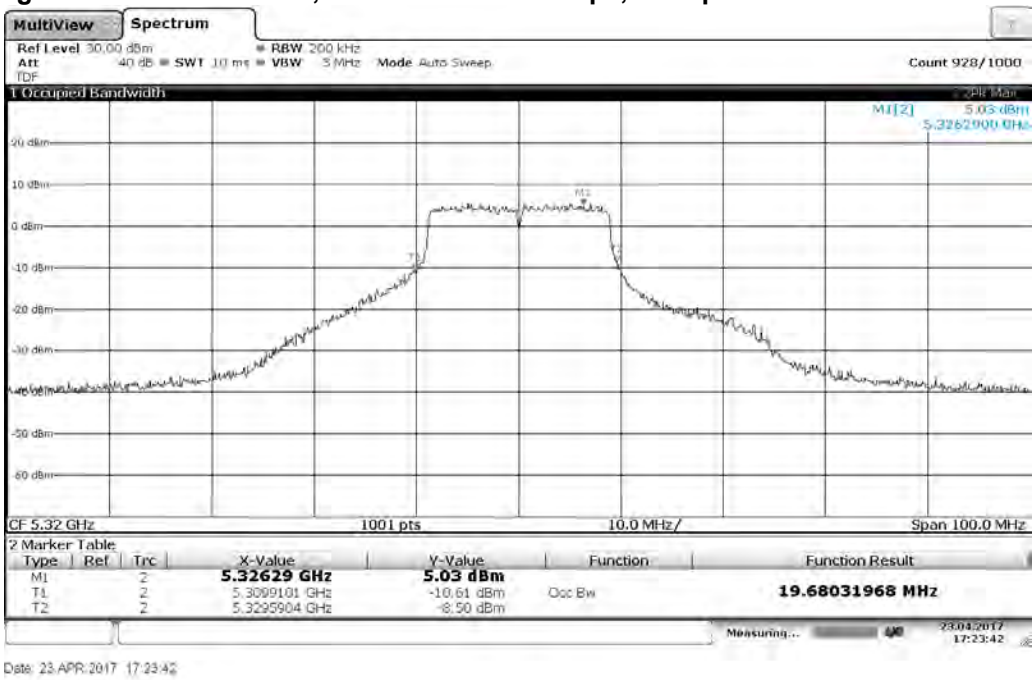
Date: 23.APR.2017 17:53:39

Mid Channel – 5300 MHz, 802 11n MCS7 65 Mbps, 26dB Bandwidth: 33.27 MHz



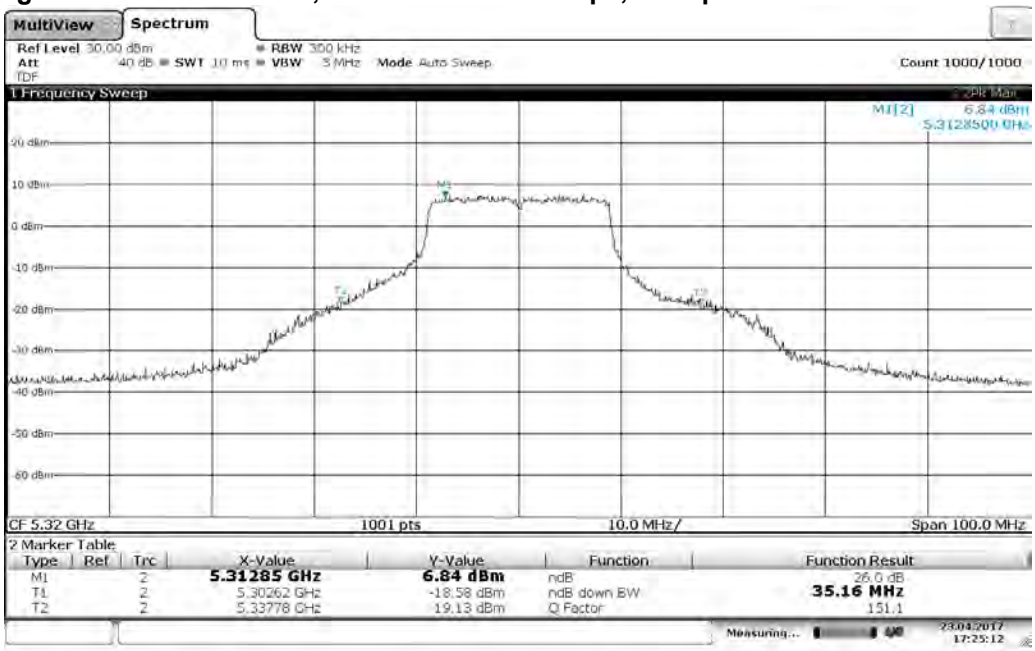
Date: 23.APR.2017 17:55:23

High Channel – 5320 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 19.68 MHz



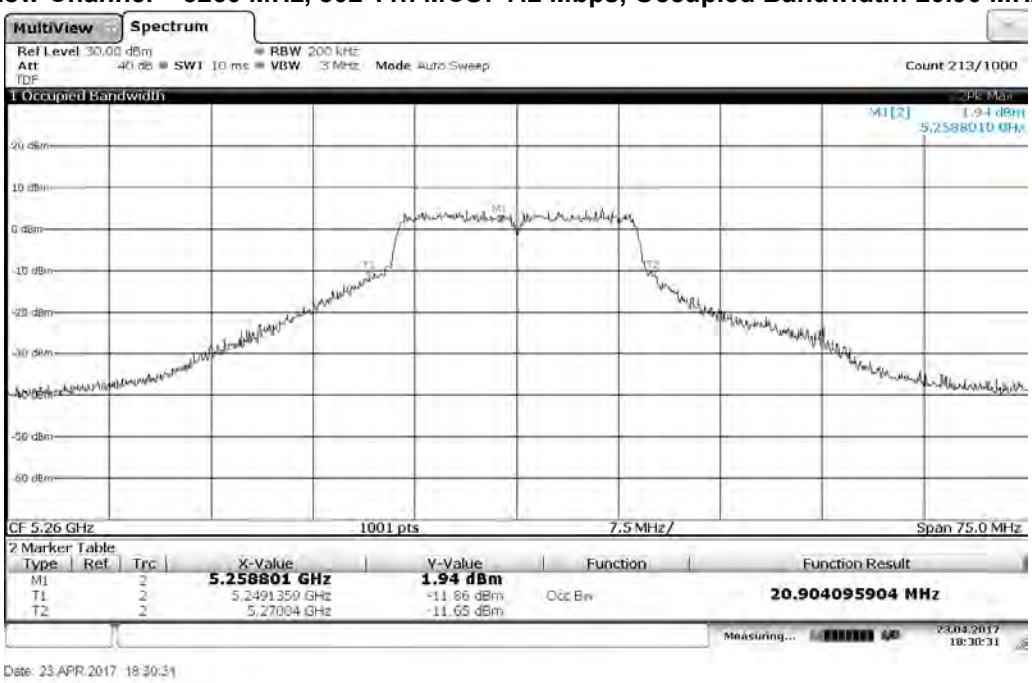
Date: 23.APR.2017 17:23:42

High Channel – 5320 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 35.16 MHz



Date: 23.APR.2017 17:25:12

Low Channel – 5260 MHz, 802 11n MCS7 7.2 Mbps, Occupied Bandwidth: 20.90 MHz

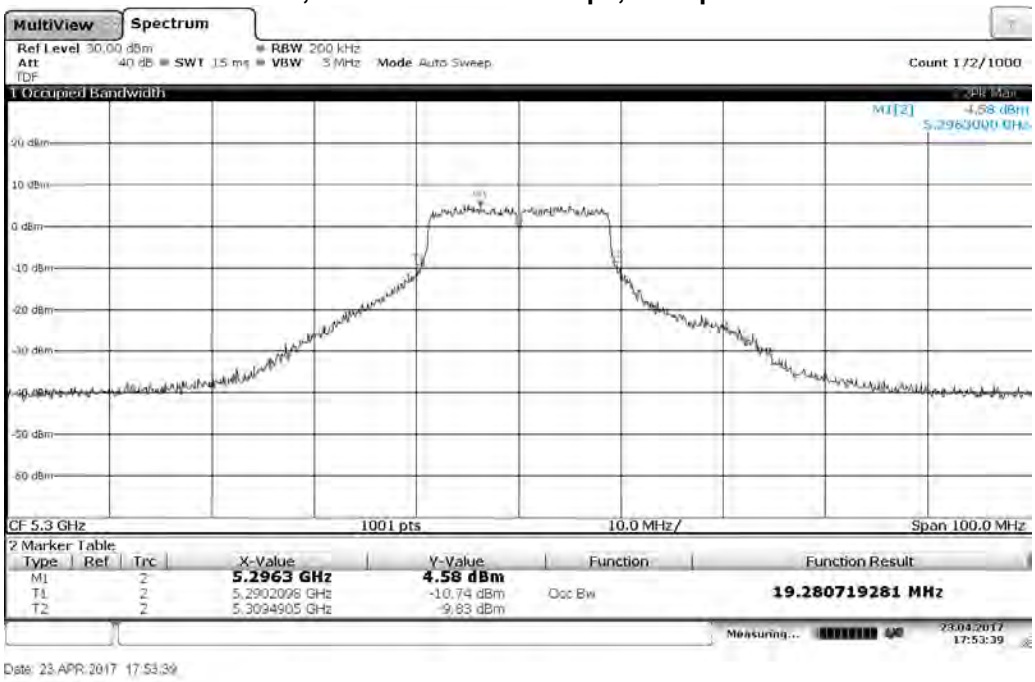


Date: 23.APR.2017 18:30:31

Low Channel – 5260 MHz, 802 11n MCS7.2 Mbps, 26dB Bandwidth: 35.22 MHz

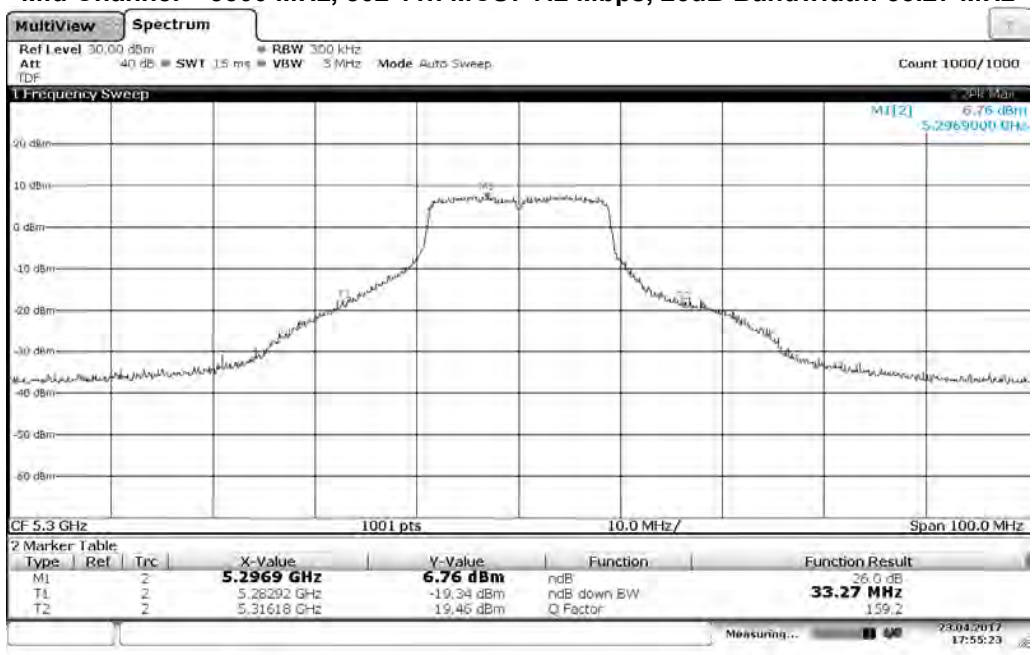
Date: 23.APR.2017 18:31:36

Mid Channel – 5300 MHz, 802 11n MCS7 7.2 Mbps, Occupied Bandwidth: 19.28 MHz



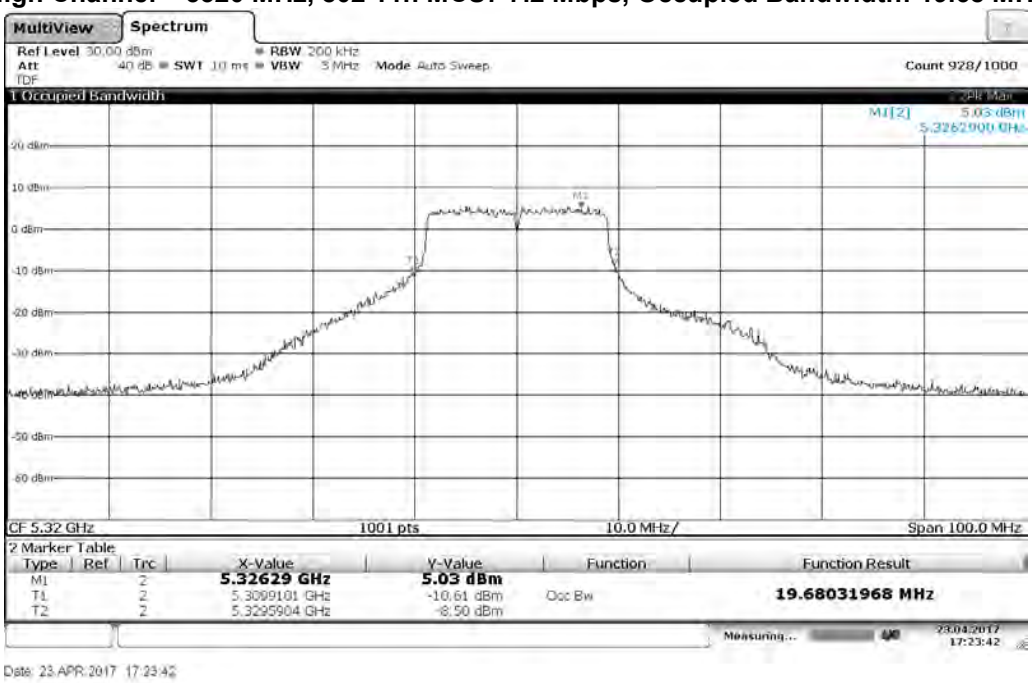
Date: 23.APR.2017 17:53:39

Mid Channel – 5300 MHz, 802 11n MCS7 7.2 Mbps, 26dB Bandwidth: 33.27 MHz



Date: 23.APR.2017 17:55:23

High Channel – 5320 MHz, 802 11n MCS7 7.2 Mbps, Occupied Bandwidth: 19.68 MHz

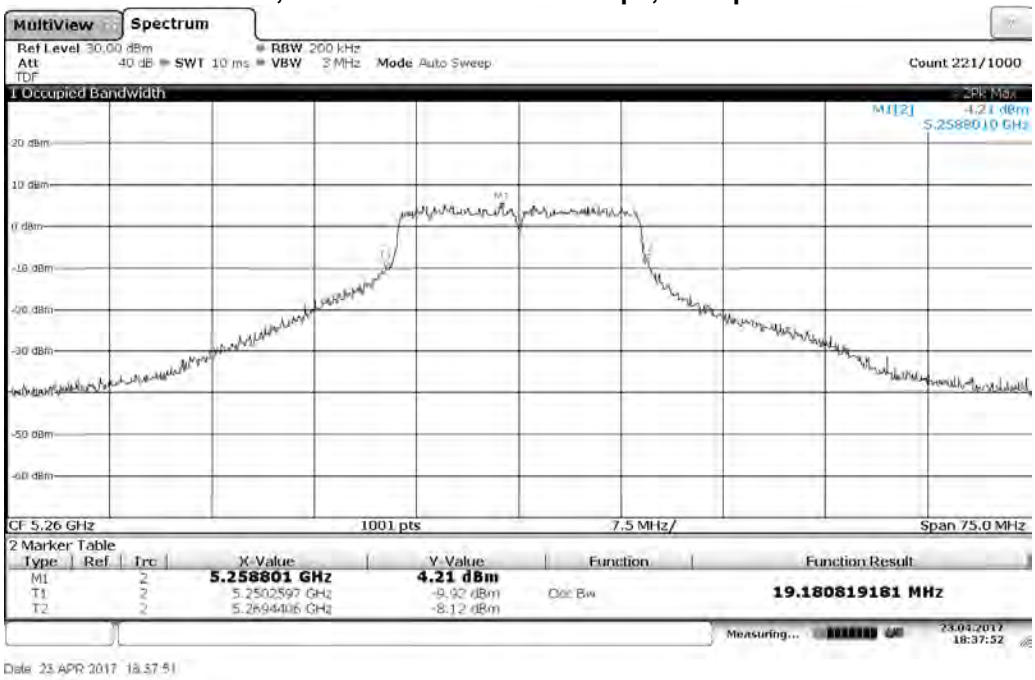


Date: 23.APR.2017 17:23:42

High Channel – 5320 MHz, 802 11n MCS7 7.2 Mbps, 26dB Bandwidth: 35.16 MHz

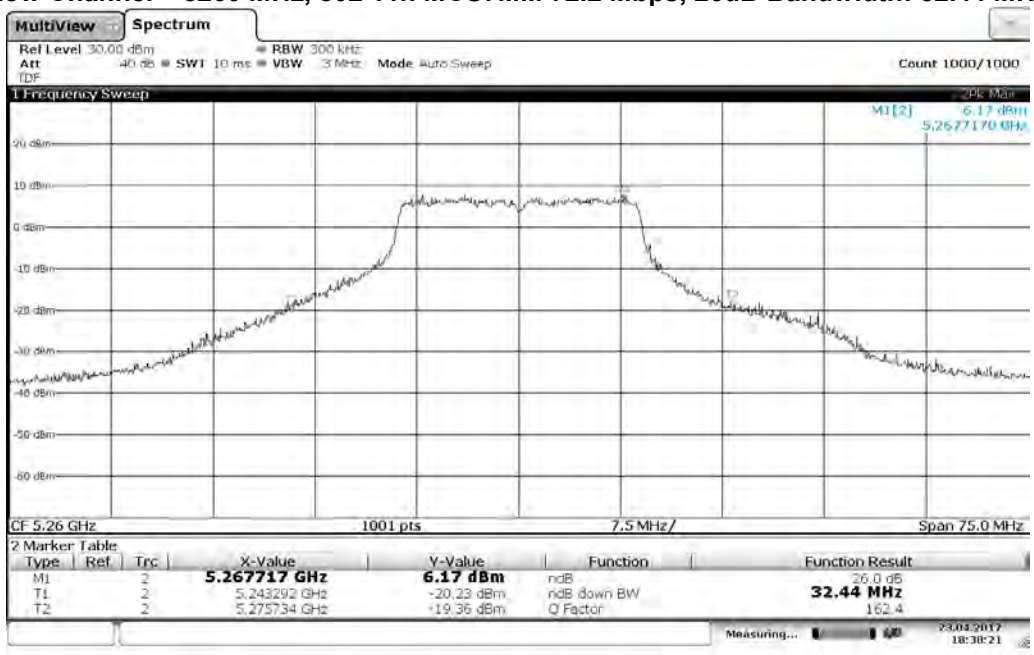
Date: 23.APR.2017 17:25:12

Low Channel – 5260 MHz, 802 11n MCS7MM 72.2 Mbps, Occupied Bandwidth: 19.18 MHz



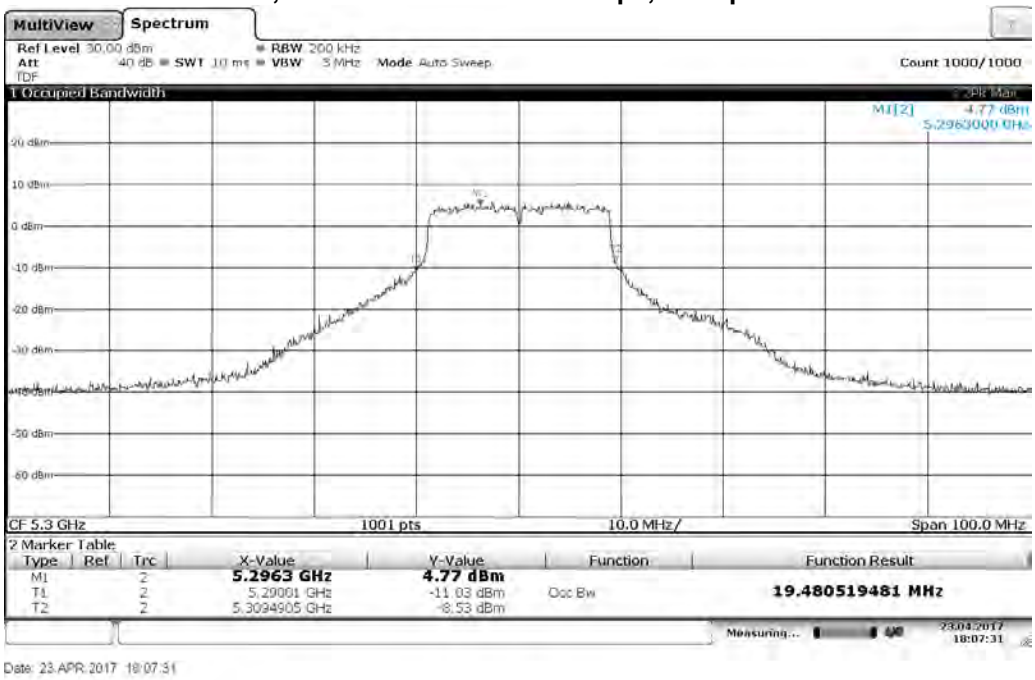
Date: 23.APR.2017 18:37:51

Low Channel – 5260 MHz, 802 11n MCS7MM 72.2 Mbps, 26dB Bandwidth: 32.44 MHz



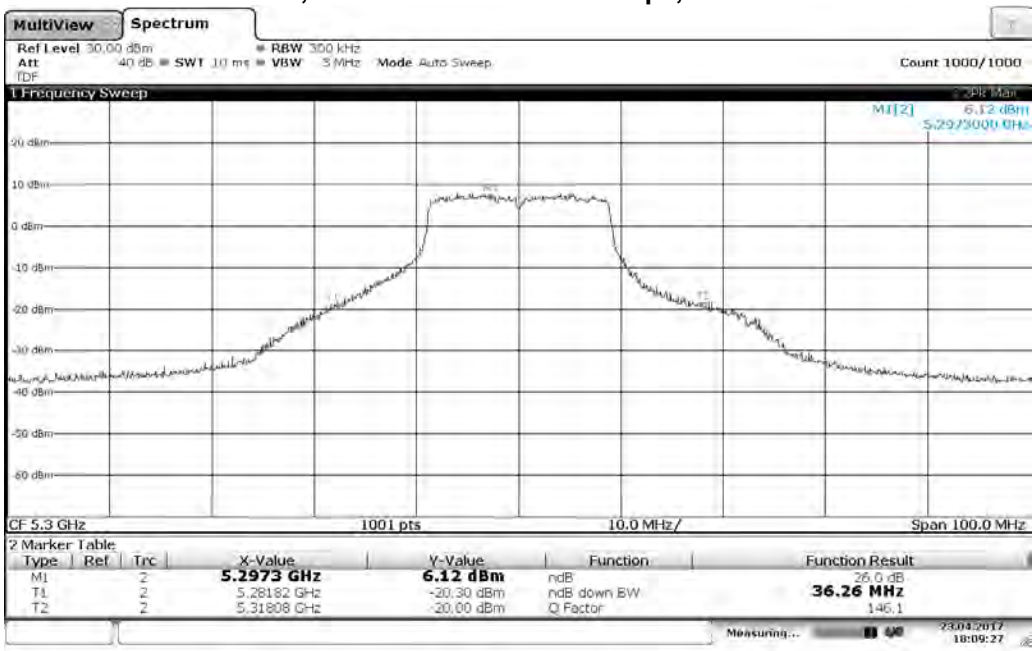
Date: 23.APR.2017 18:38:20

Mid Channel – 5300 MHz, 802 11n MCS7MM 72.2 Mbps, Occupied Bandwidth: 19.48 MHz



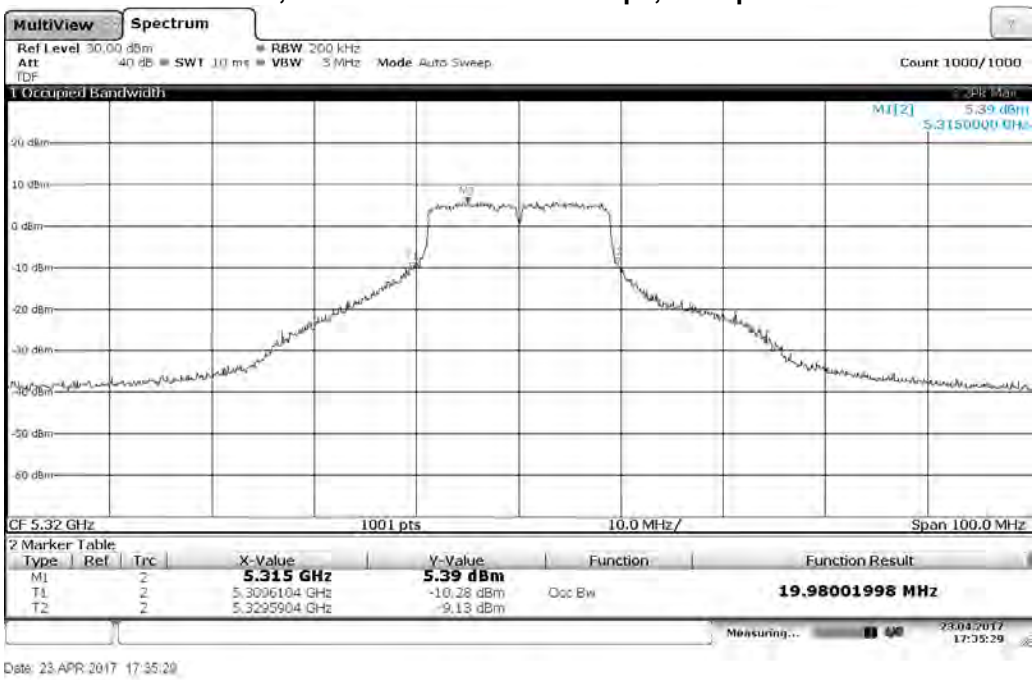
Date: 23.APR.2017 18:07:31

Mid Channel – 5300 MHz, 802 11n MCS7MM 72.2 Mbps, 26dB Bandwidth: 36.26 MHz



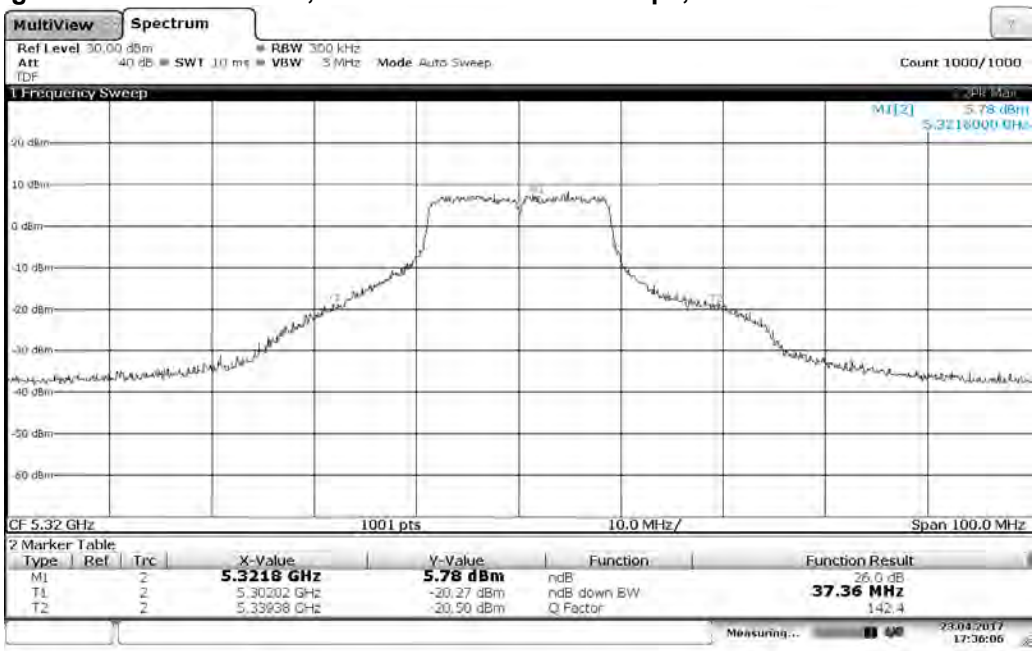
Date: 23.APR.2017 18:09:28

High Channel – 5320 MHz, 802 11n MCS7MM 72.2 Mbps, Occupied Bandwidth: 19.98 MHz



Date: 23.APR.2017 17:35:29

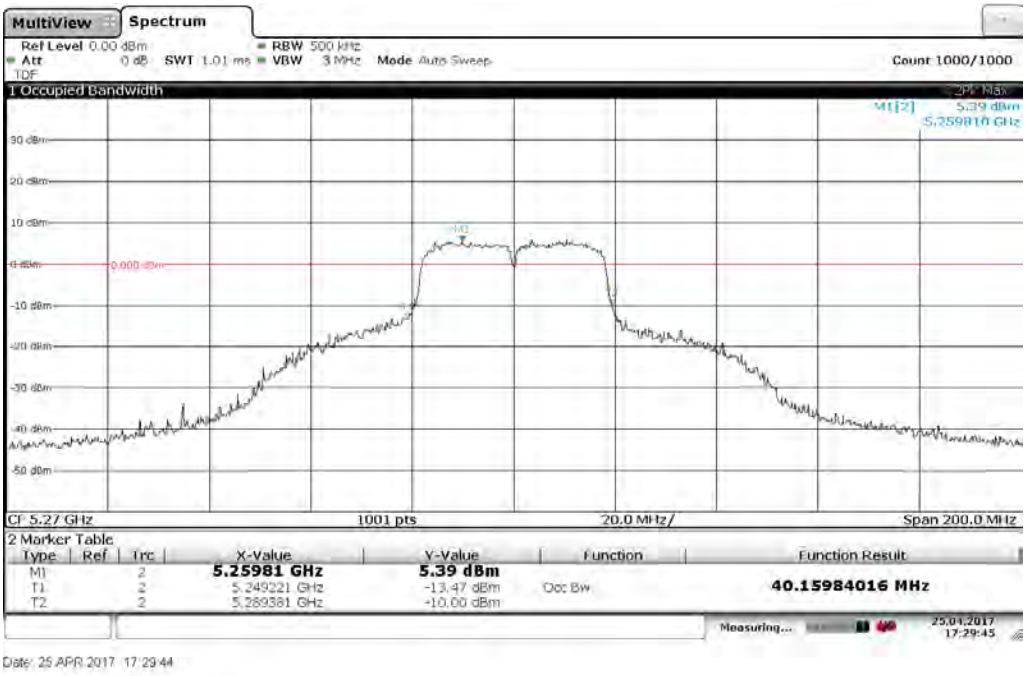
High Channel – 5320 MHz, 802 11n MCS7MM 72.2 Mbps, 26dB Bandwidth: 37.36 MHz



Date: 23.APR.2017 17:36:06

Band 2 (40 MHz Bandwidth)

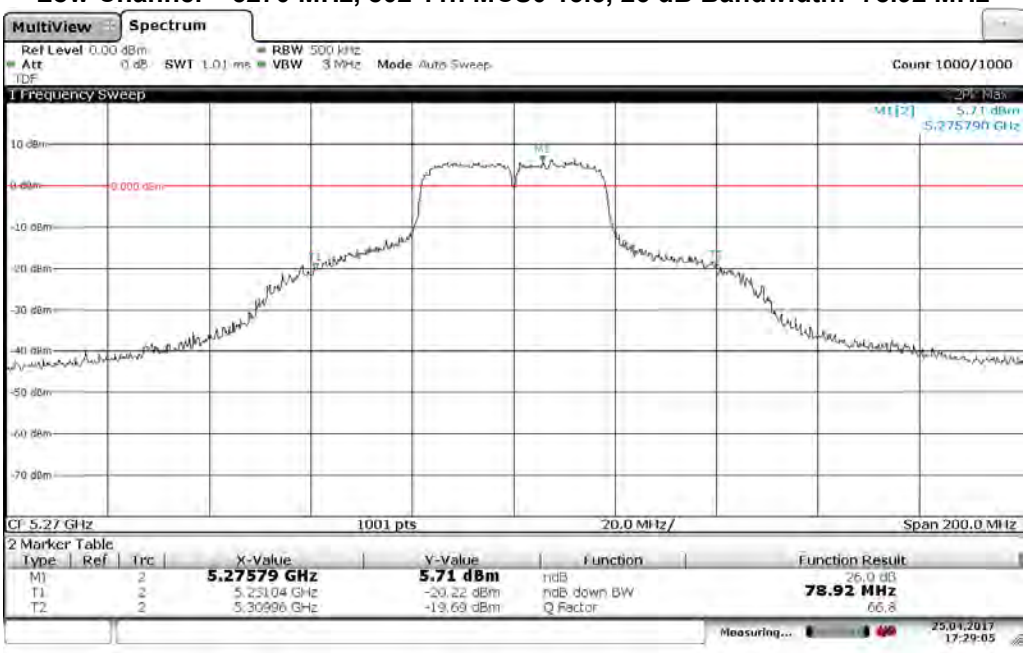
Low Channel – 5270 MHz, 802 11n MCS0 13.5, Occupied Bandwidth: 40.160 MHz



Date: 25.APR.2017 17:29:44

Band 2 (40 MHz Bandwidth)

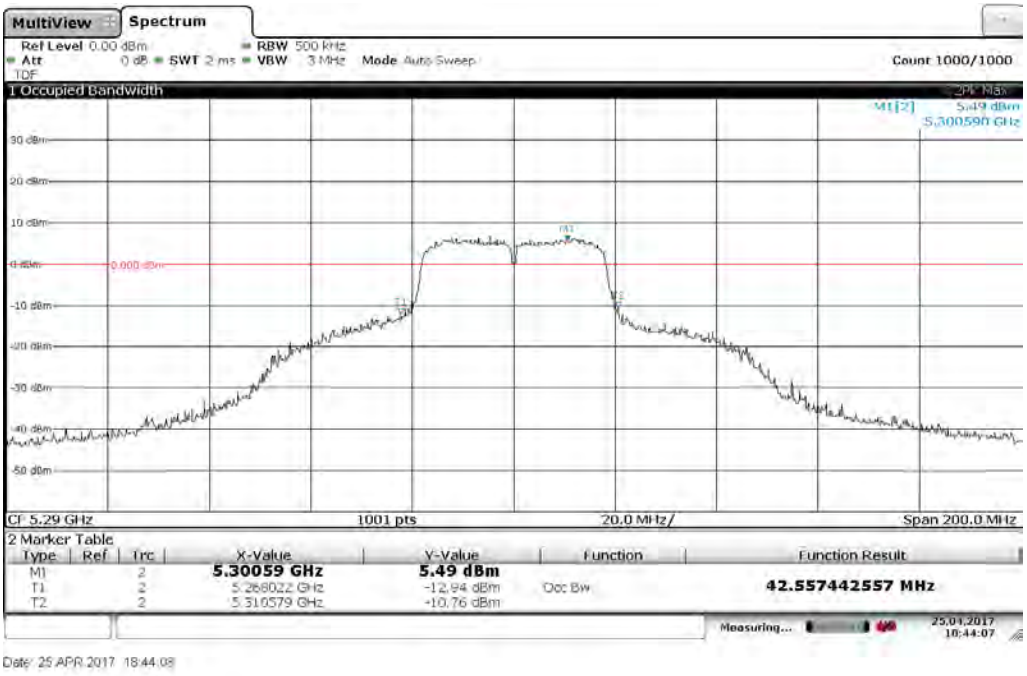
Low Channel – 5270 MHz, 802 11n MCS0 13.5, 26 dB Bandwidth: 78.92 MHz



Date: 25.APR.2017 17:29:05

Band 2 (40 MHz Bandwidth)

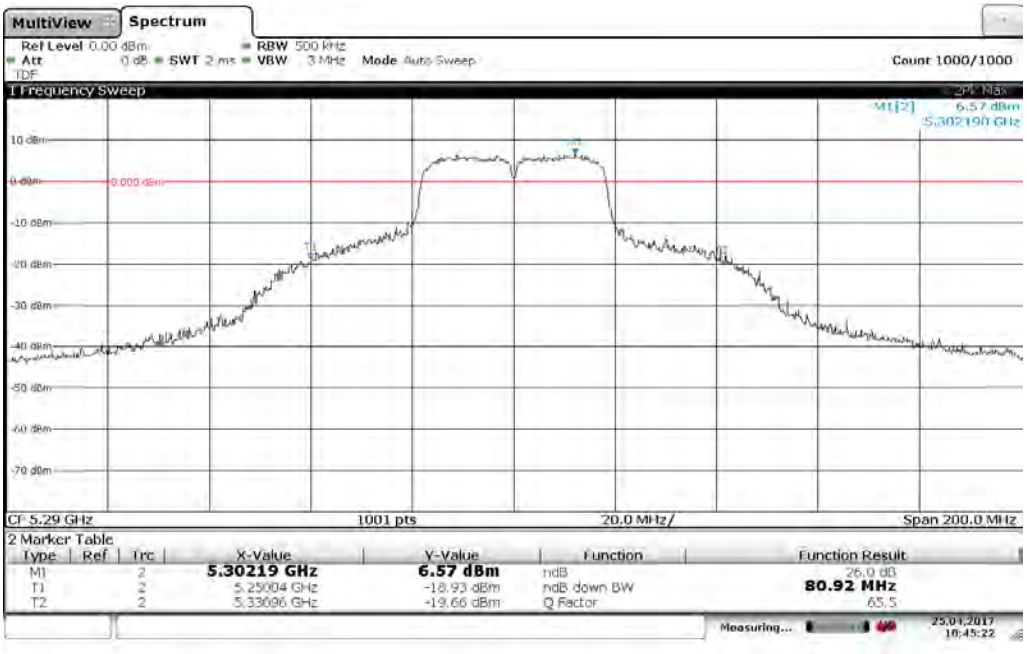
Mid Channel – 5290 MHz, 802 11n MCS0 13.5, Occupied Bandwidth: 42.557 MHz



Date: 25.APR.2017 18:44:08

Band 2 (40 MHz Bandwidth)

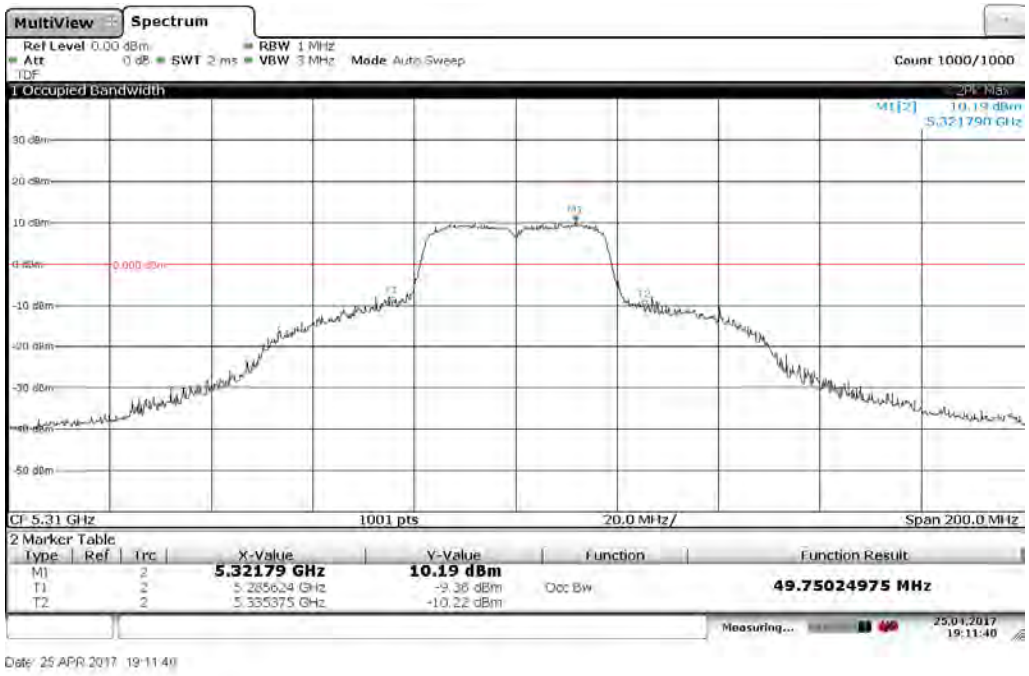
Mid Channel – 5290 MHz, 802 11n MCS0 13.5, 26 dB Bandwidth: 80.92 MHz



Date: 25.APR.2017 18:45:21

Band 2 (40 MHz Bandwidth)

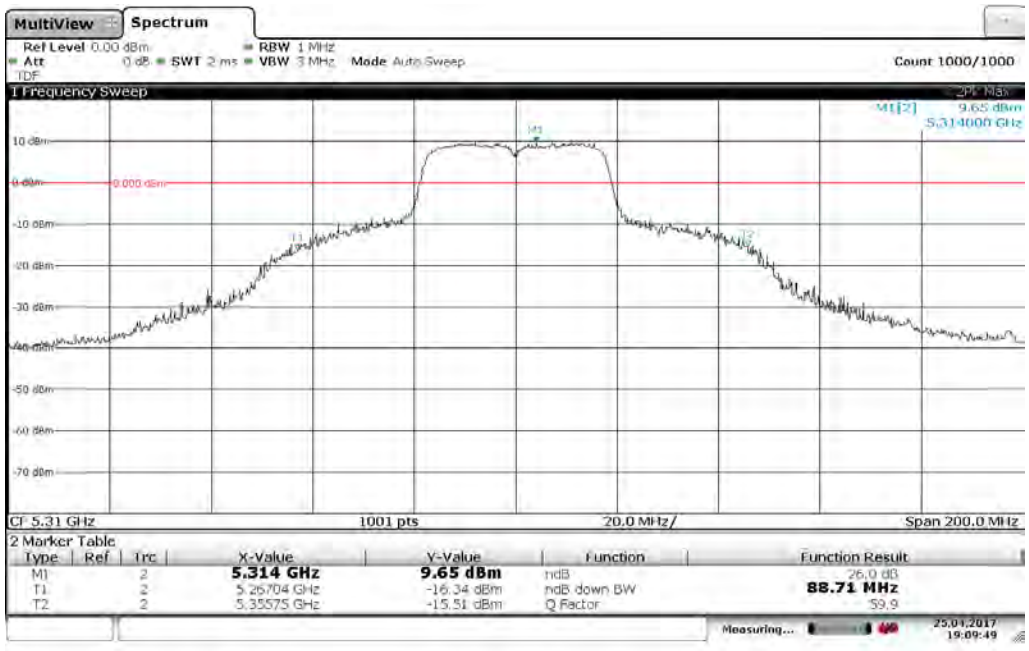
High Channel – 5310 MHz, 802 11n MCS0 13.5, Occupied Bandwidth: 49.750 MHz



Date: 25 APR 2017 19:11:40

Band 2 (40 MHz Bandwidth)

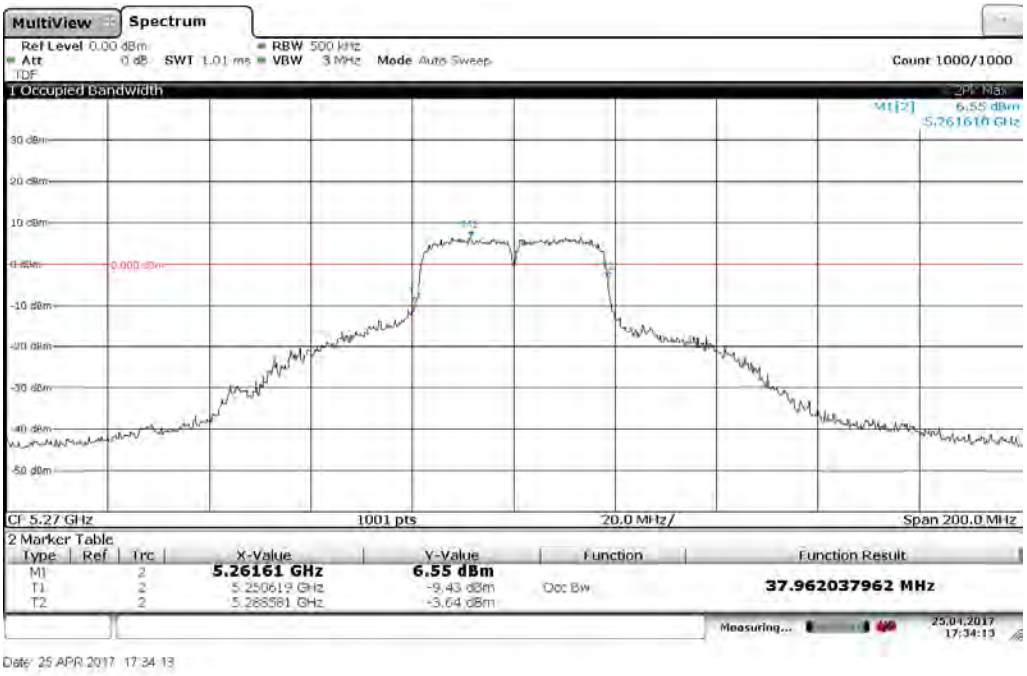
High Channel – 5310 MHz, 802 11n MCS0 13.5, 26 dB Bandwidth: 88.71 MHz



Date: 25 APR 2017 19:09:48

Band 2 (40 MHz Bandwidth)

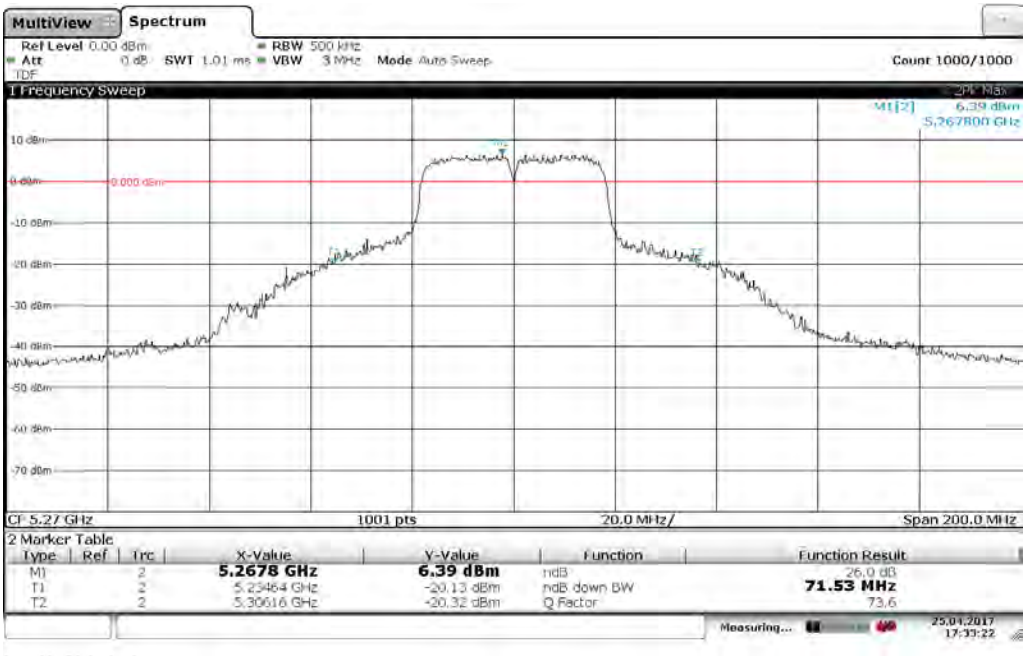
Low Channel – 5270 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 37.962 MHz



Date: 25 APR 2017 17:34:13

Band 2 (40 MHz Bandwidth)

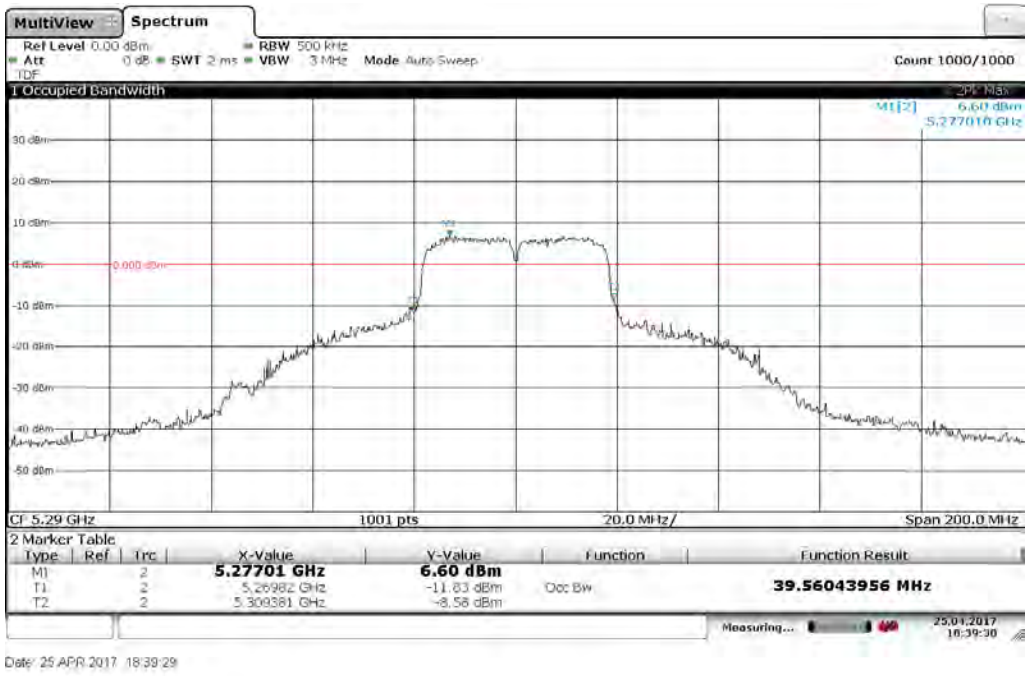
Low Channel – 5270 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 71.53 MHz



Date: 25 APR 2017 17:33:21

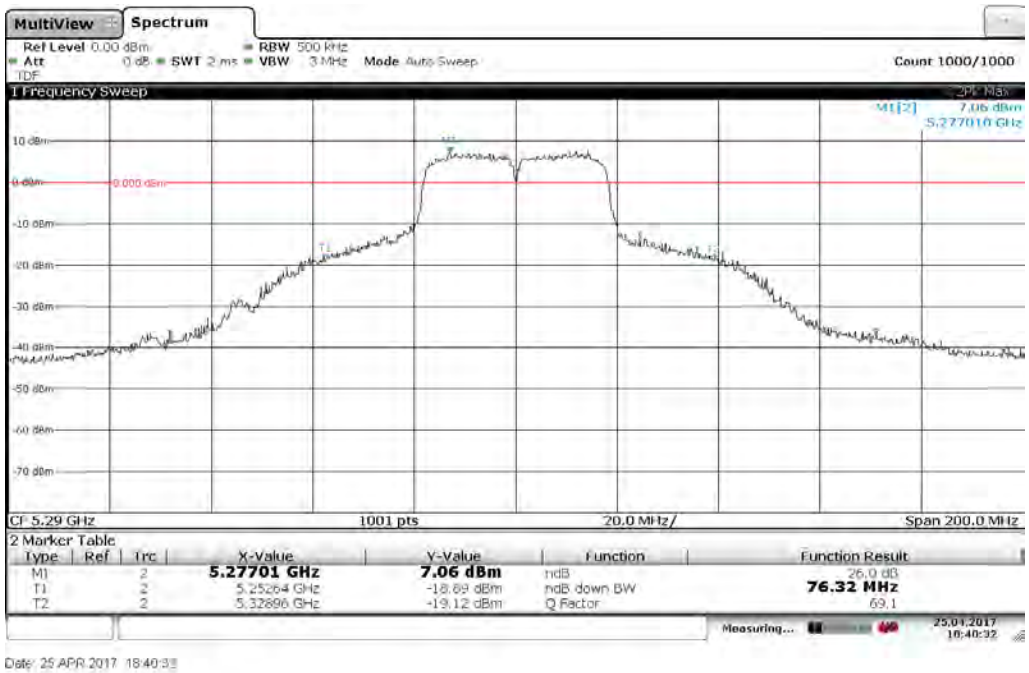
Band 2 (40 MHz Bandwidth)

Mid Channel – 5290 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 39.560 MHz



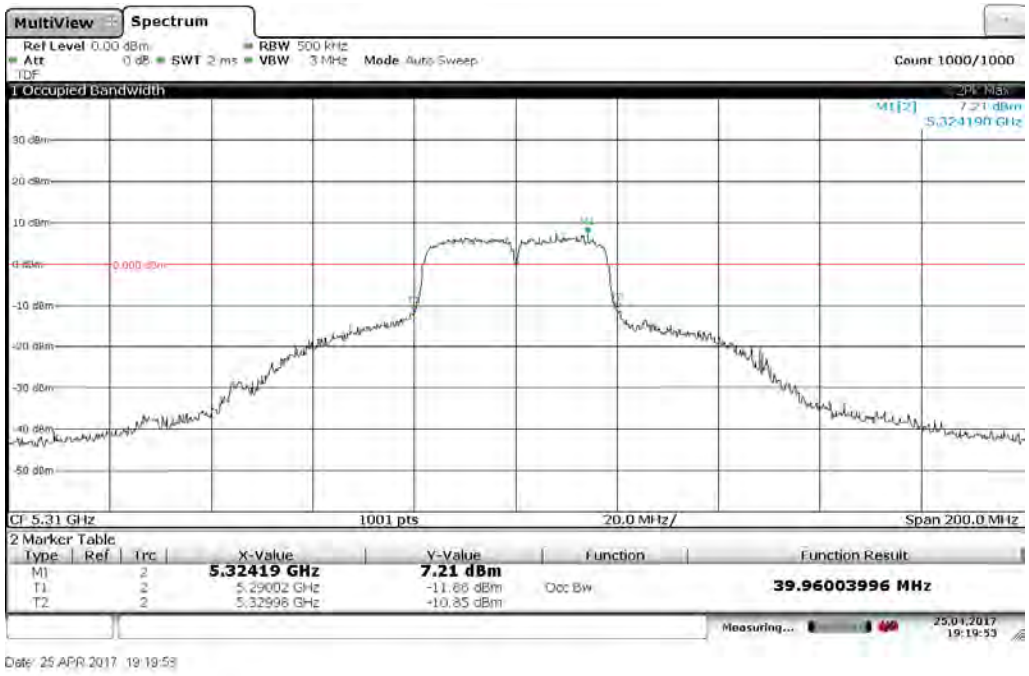
Band 2 (40 MHz Bandwidth)

Mid Channel – 5290 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 76.32 MHz



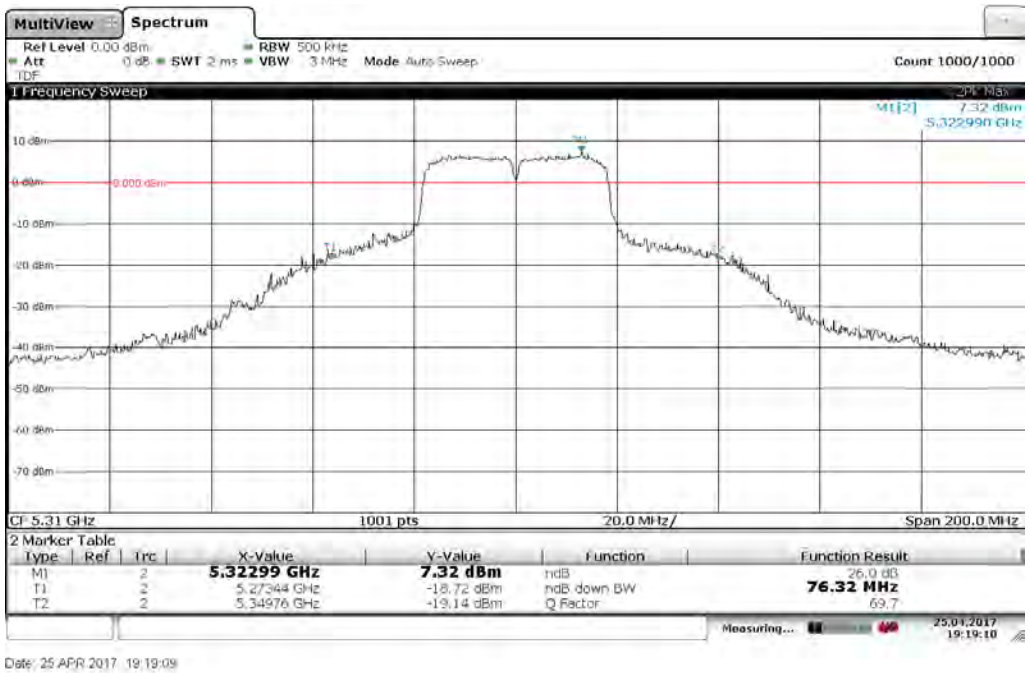
Band 2 (40 MHz Bandwidth)

High Channel – 5310 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 39.960 MHz



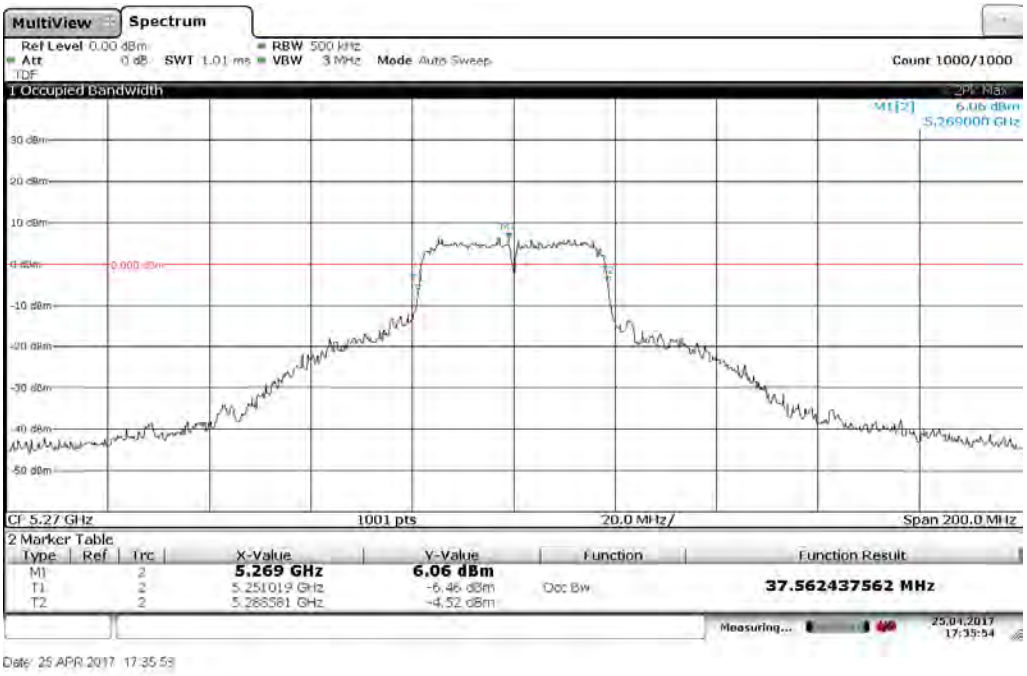
Band 2 (40 MHz Bandwidth)

High Channel – 5310 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 76.32MHz



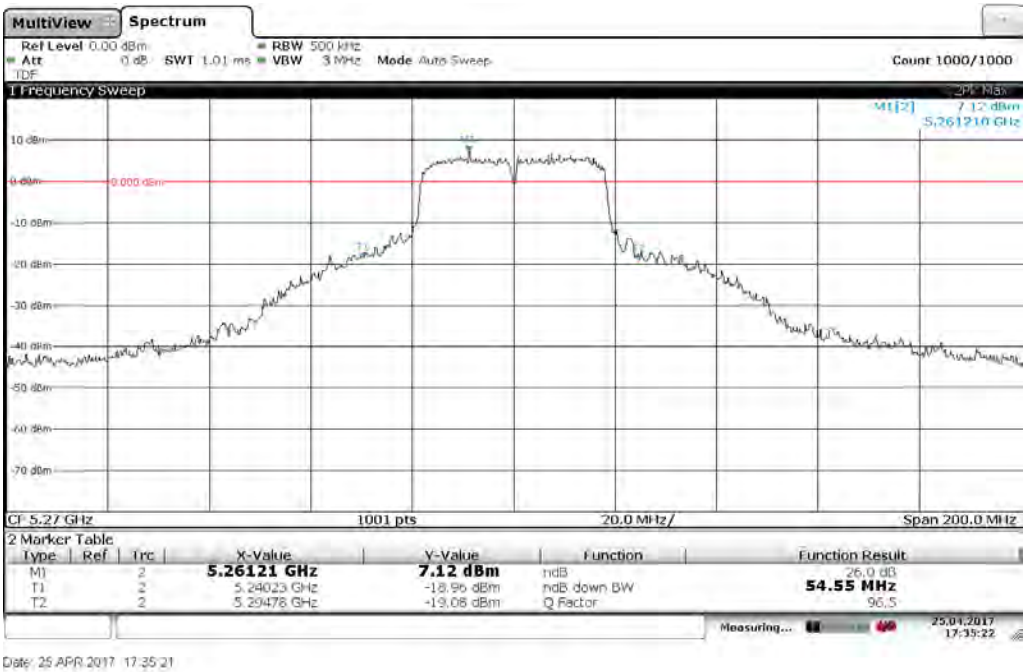
Band 2 (40 MHz Bandwidth)

Low Channel – 5270 MHz, 802 11n MCS0 MM SG 150 Mbps, Occupied Bandwidth: 37.562 MHz



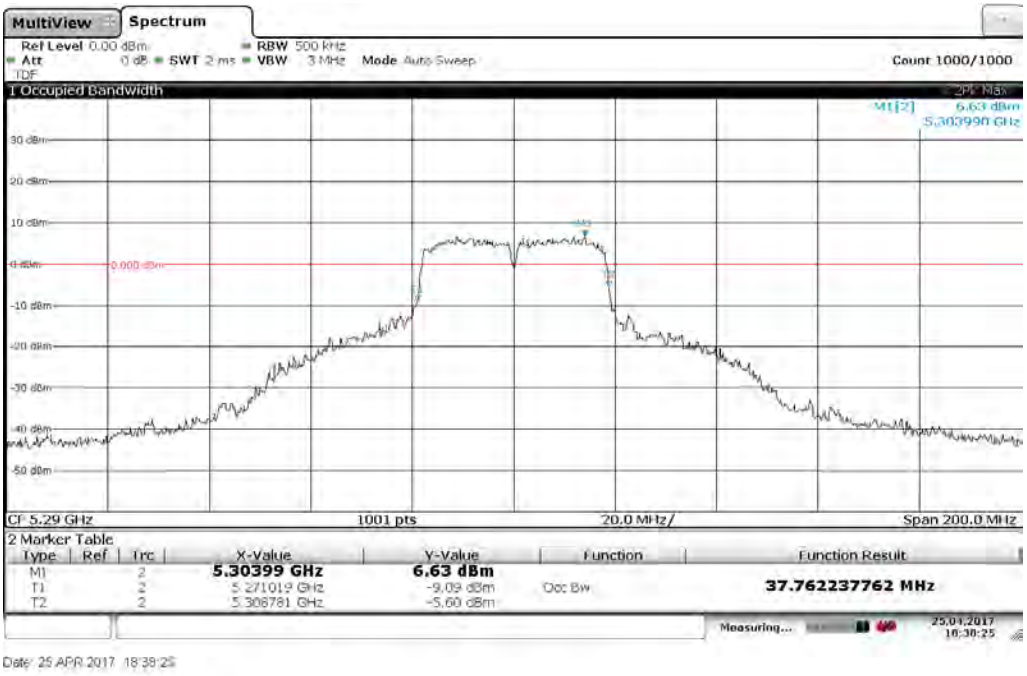
Band 2 (40 MHz Bandwidth)

Low Channel – 5270 MHz, 802 11n MCS0 MM SG 150 Mbps, 26 dB Bandwidth: 54.55 MHz



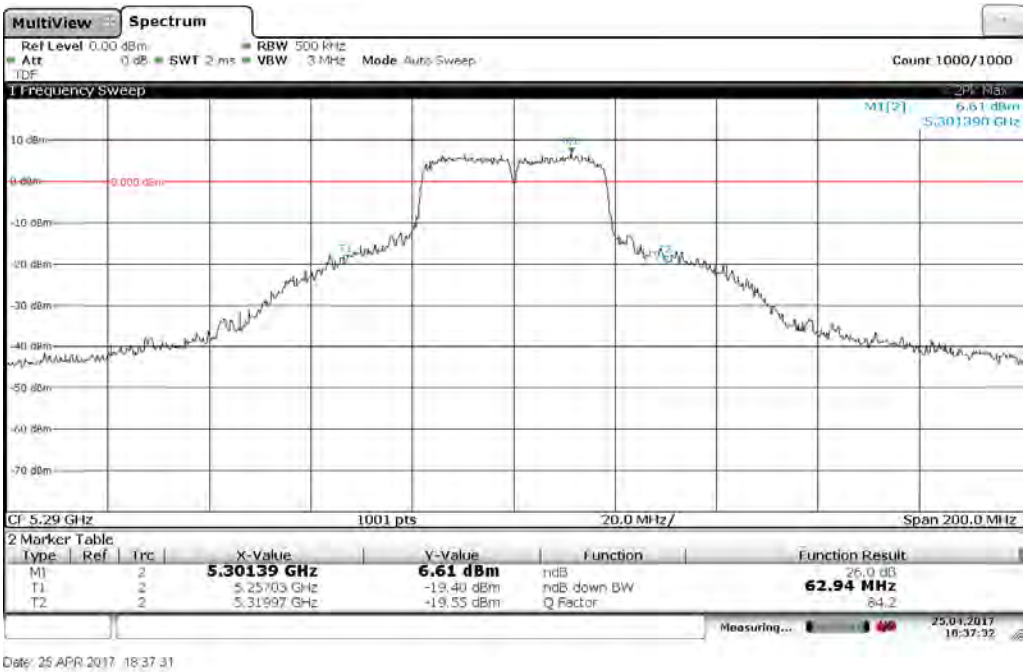
Band 2 (40 MHz Bandwidth)

Mid Channel – 5290 MHz, 802 11n MCS0 MM SG 150 Mbps, Occupied Bandwidth: 37.762 MHz



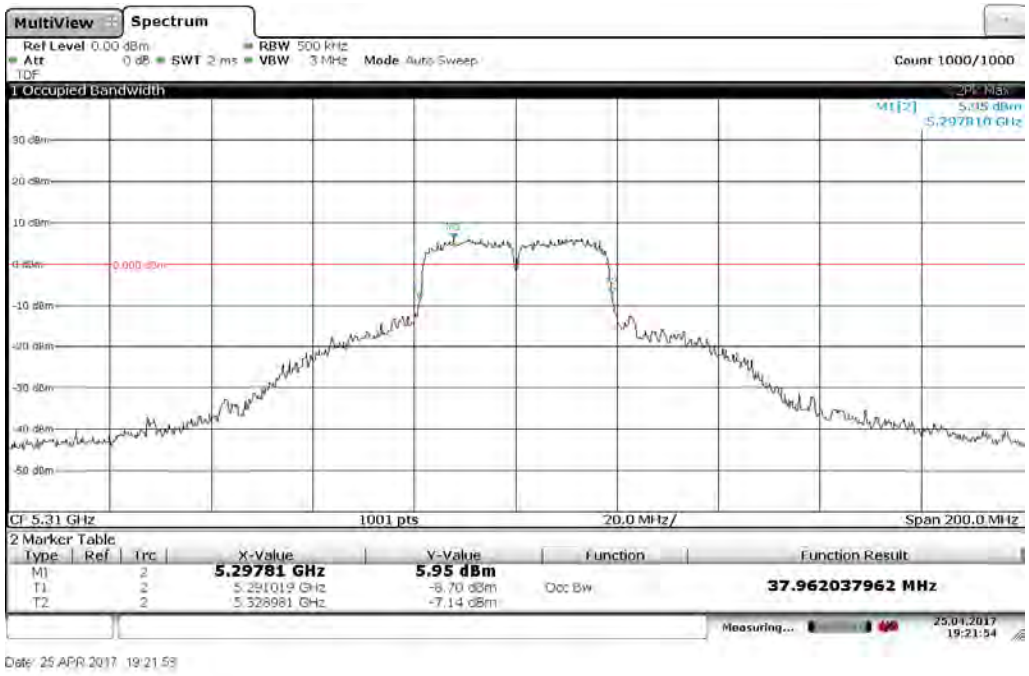
Band 2 (40 MHz Bandwidth)

Mid Channel – 5290 MHz, 802 11n MCS0 MM SG 150 Mbps, 26 dB Bandwidth: 62.94 MHz



Band 2 (40 MHz Bandwidth)

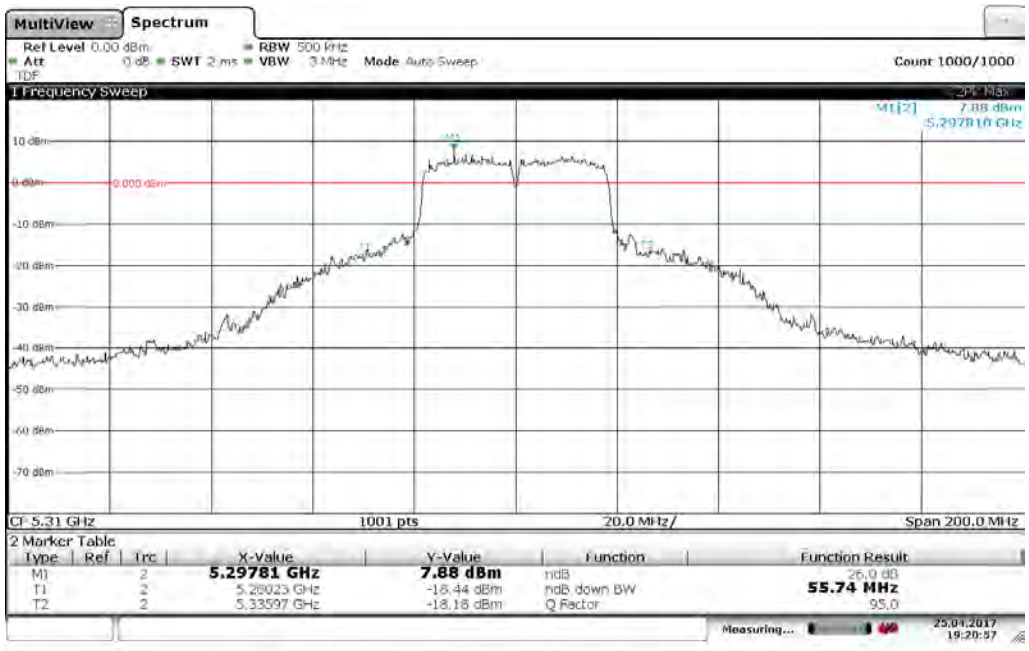
High Channel – 5310 MHz, 802 11n MCS0 MM SG 150 Mbps, Occupied Bandwidth: 37.962 MHz



Date: 25 APR 2017 19:21:58

Band 2 (40 MHz Bandwidth)

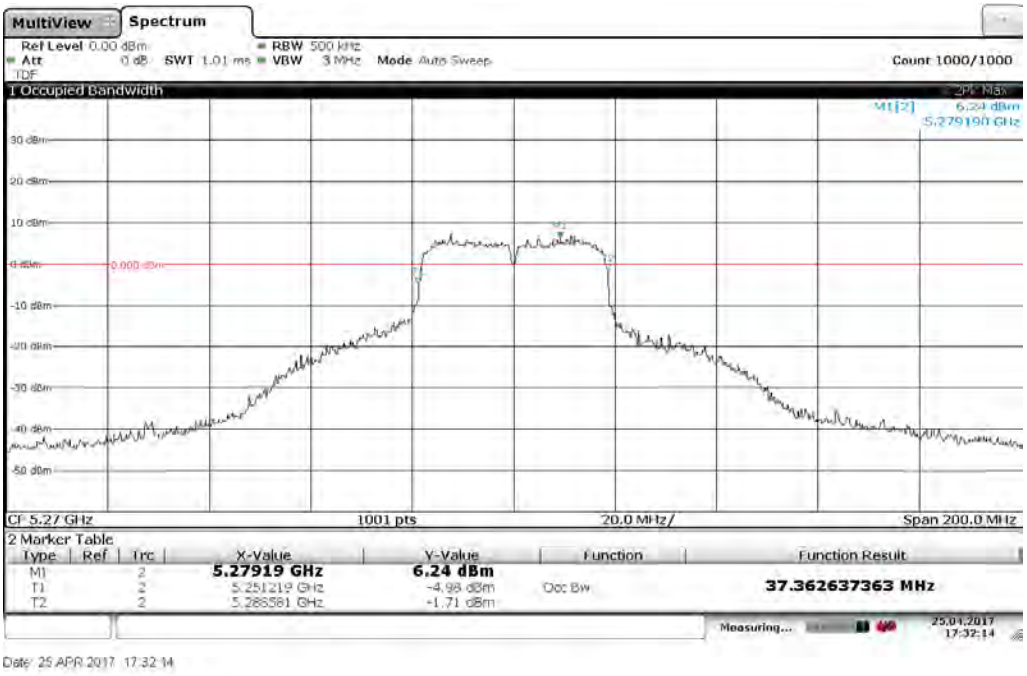
High Channel – 5310 MHz, 802 11n MCS0 MM SG 150 Mbps, 26 dB Bandwidth: 55.74 MHz



Date: 25 APR 2017 19:20:57

Band 2 (40 MHz Bandwidth)

Low Channel – 5270 MHz, 802 11n MCS7 135, Occupied Bandwidth: 37.36 MHz



Date: 25 APR 2017 17:32:14

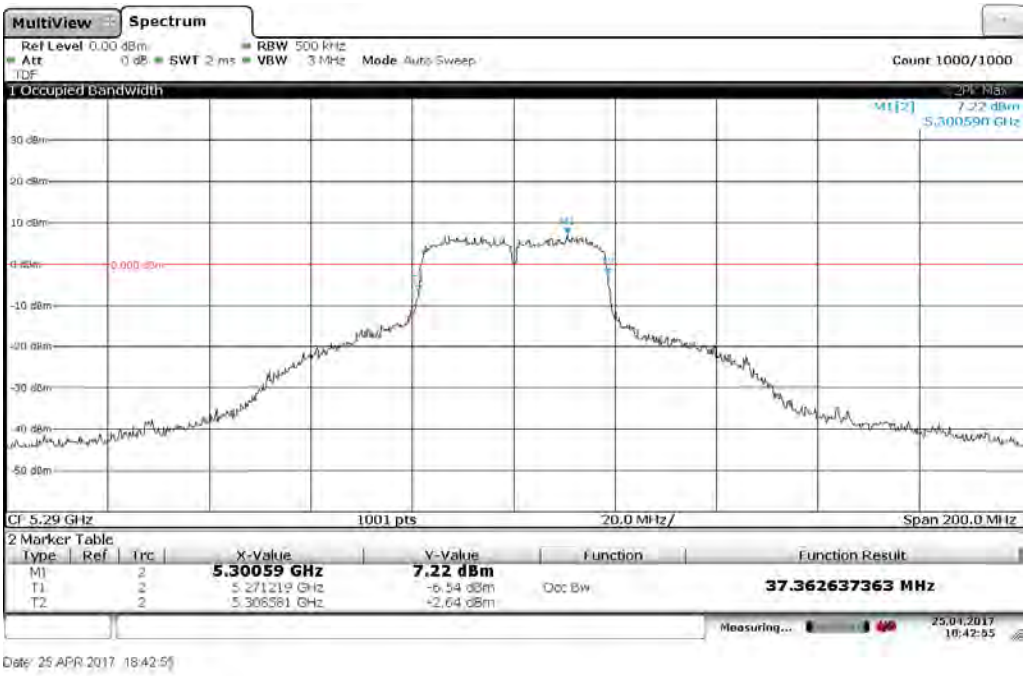
Band 2 (40 MHz Bandwidth)

Low Channel – 5270 MHz, 802 11n MCS7 135, 26 dB Bandwidth: 54.75 MHz

Date: 25 APR 2017 17:31:33

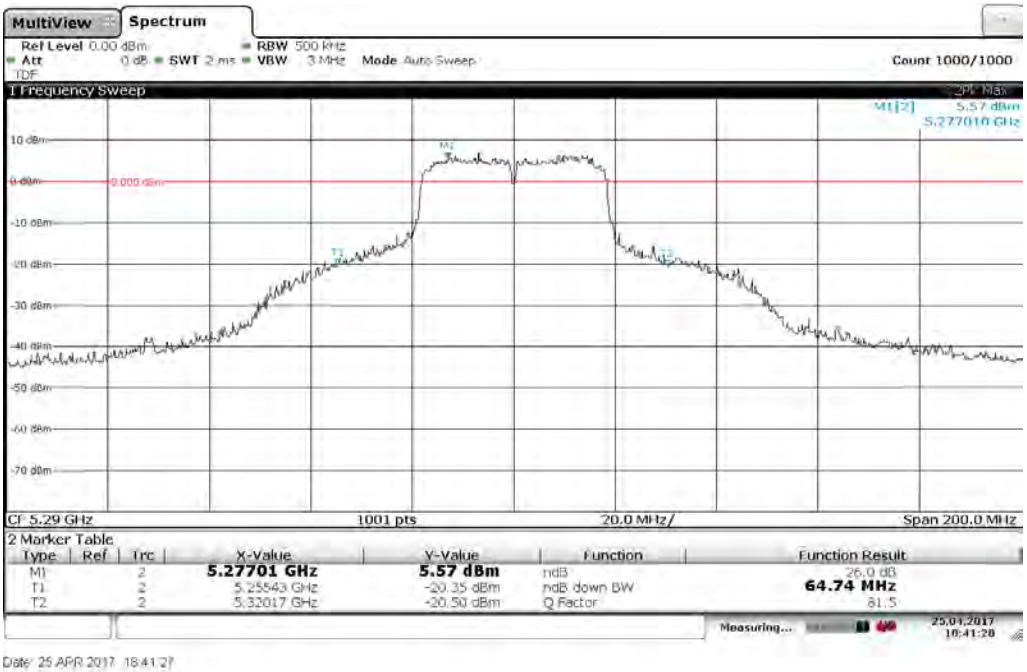
Band 2 (40 MHz Bandwidth)

Mid Channel – 5290 MHz, 802 11n MCS7 135, Occupied Bandwidth: 37.36 MHz



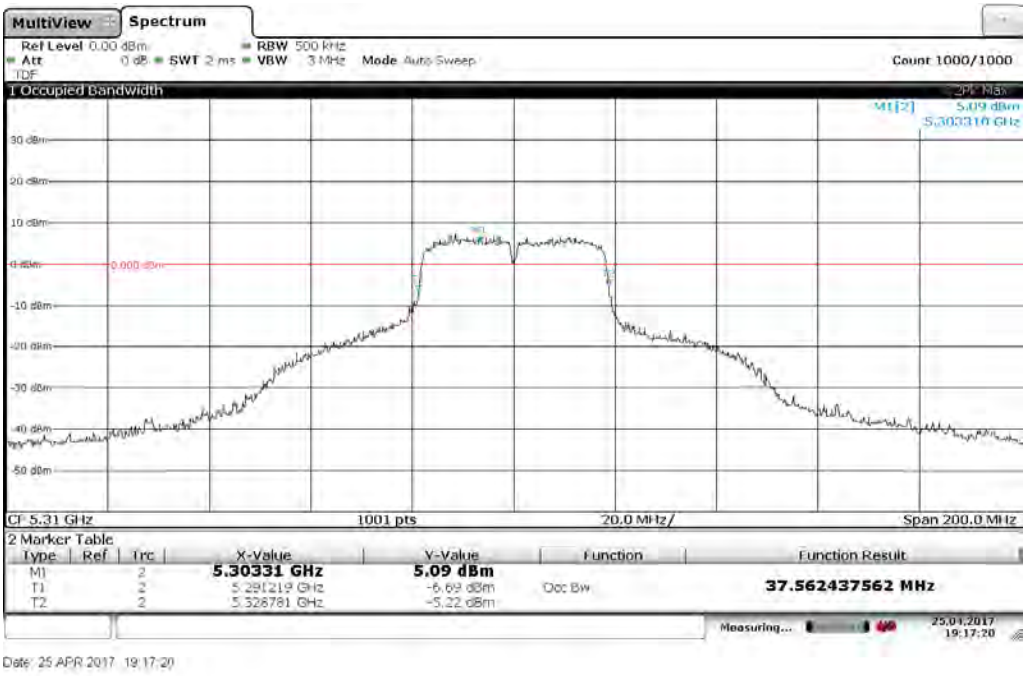
Band 2 (40 MHz Bandwidth)

Mid Channel – 5290 MHz, 802 11n MCS7 135, 26 dB Bandwidth: 64.74 MHz



Band 2 (40 MHz Bandwidth)

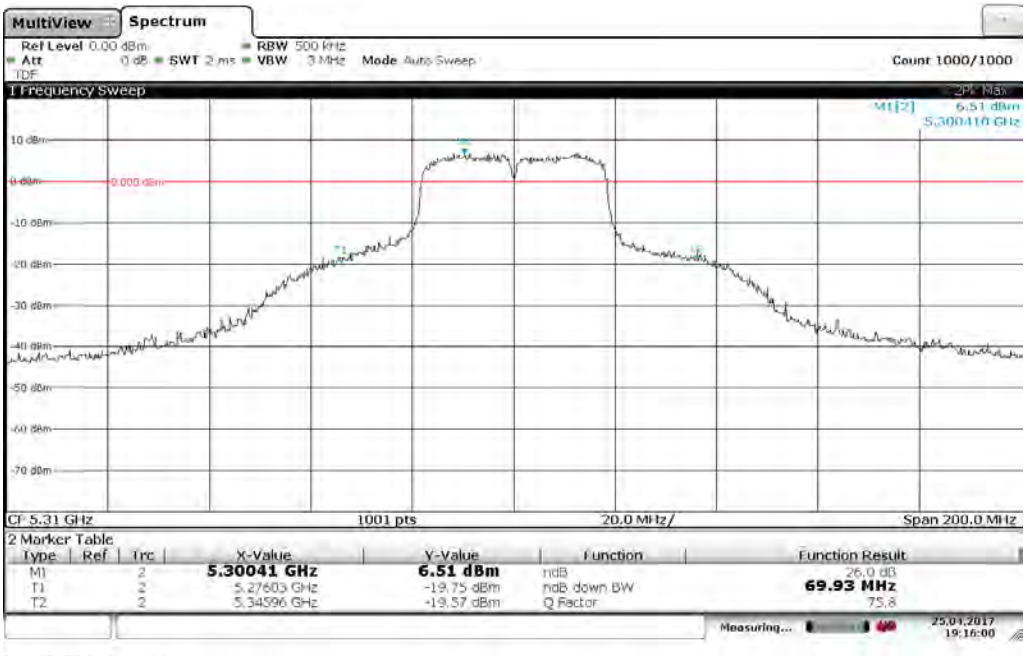
High Channel – 5310 MHz, 802 11n MCS7 135, Occupied Bandwidth: 37.56 MHz



Date: 25 APR 2017 19:17:20

Band 2 (40 MHz Bandwidth)

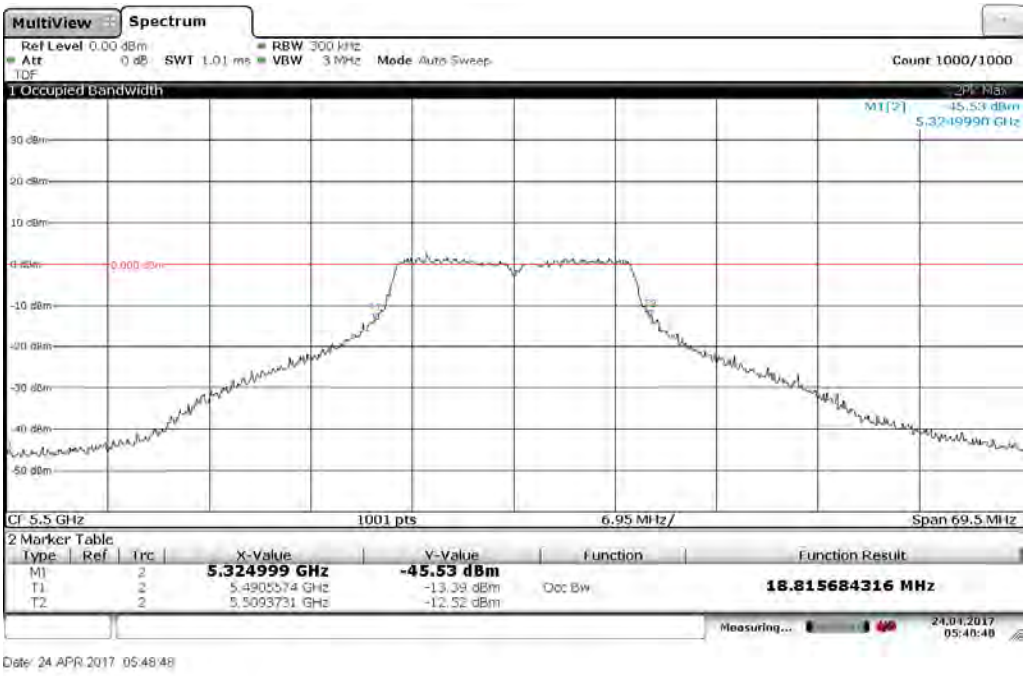
High Channel – 5310 MHz, 802 11n MCS7 135, 26 dB Bandwidth: 69.93 MHz



Date: 25 APR 2017 19:16:59

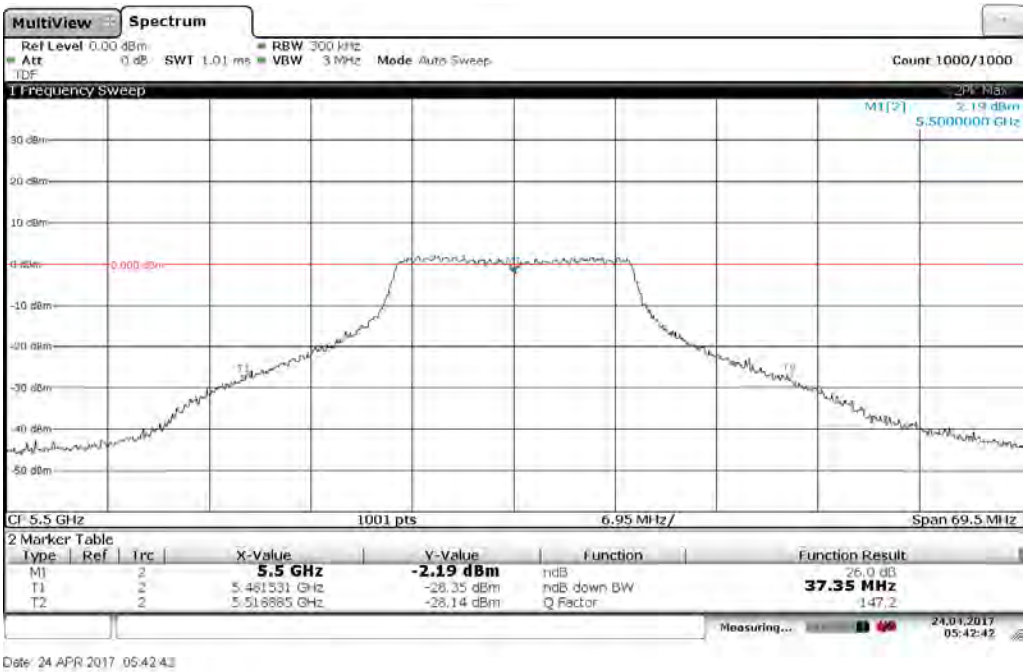
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11ag 6 Mbps, Occupied Bandwidth: 18.816 MHz



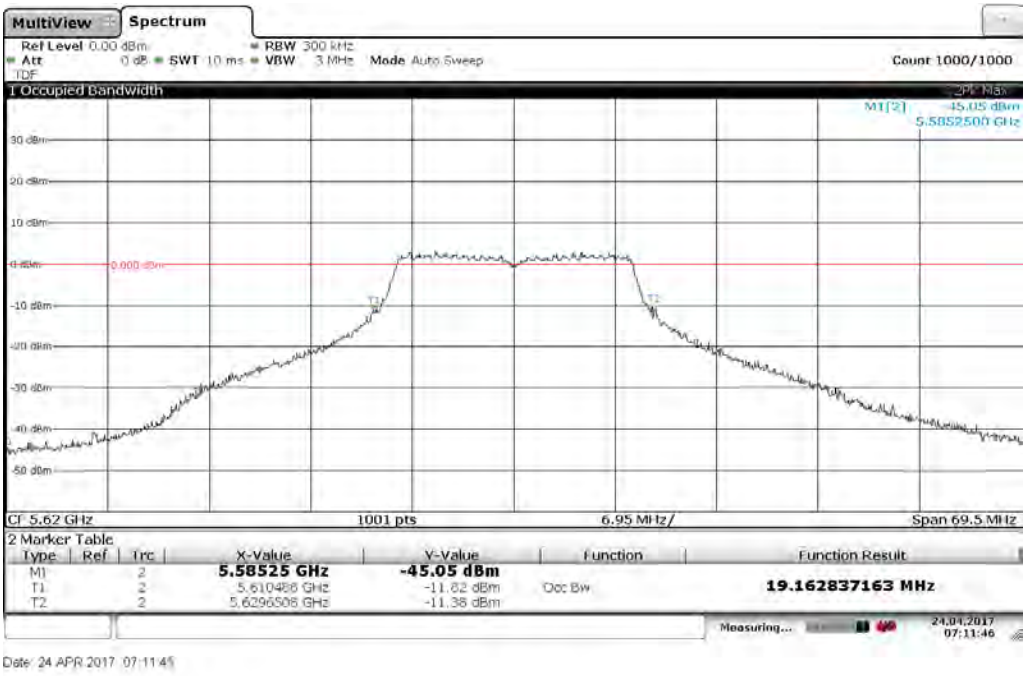
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11ag 6 Mbps, 26 dB Bandwidth: 37.35 MHz



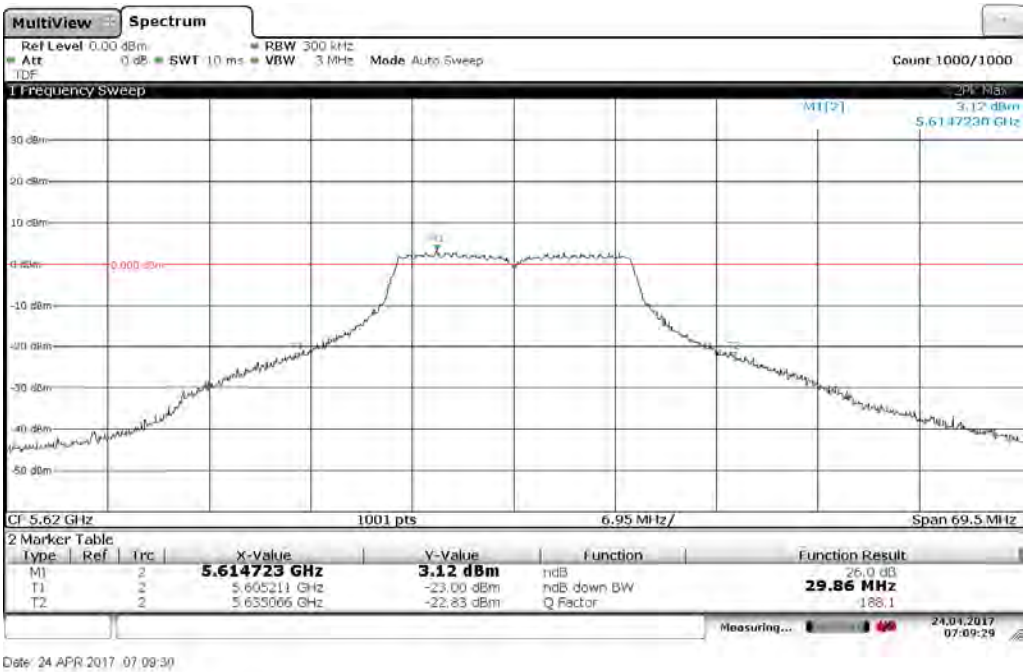
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11ag 6 Mbps, Occupied Bandwidth: 19.163 MHz



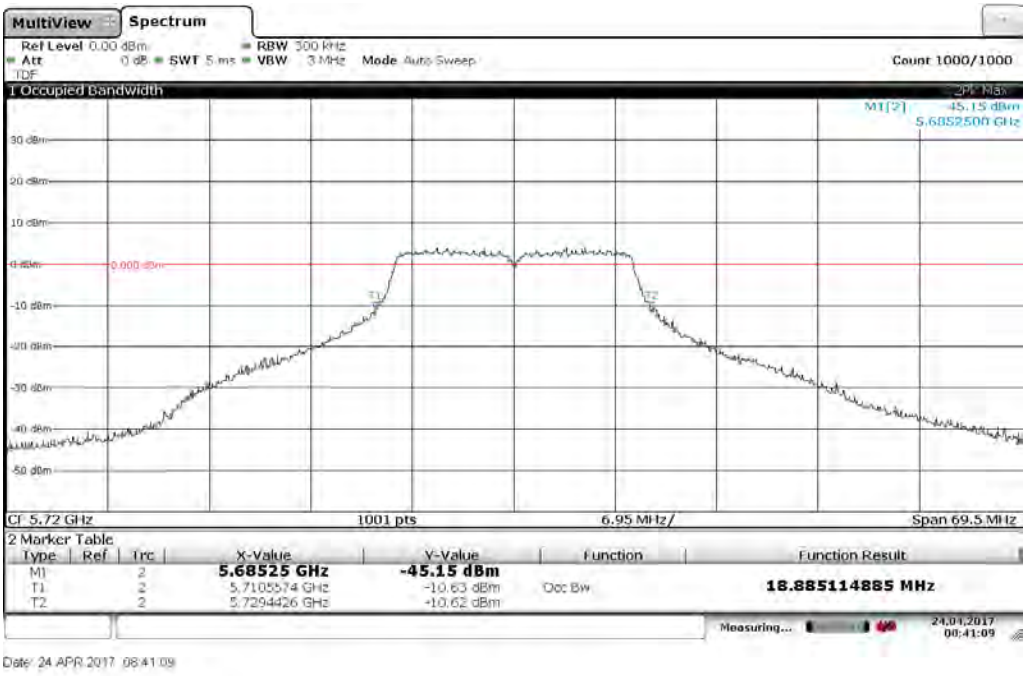
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11ag 6 Mbps, 26 dB Bandwidth: 29.86 MHz



Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11ag 6 Mbps, Occupied Bandwidth: 18.885 MHz



Date: 24.APR.2017 08:41:09

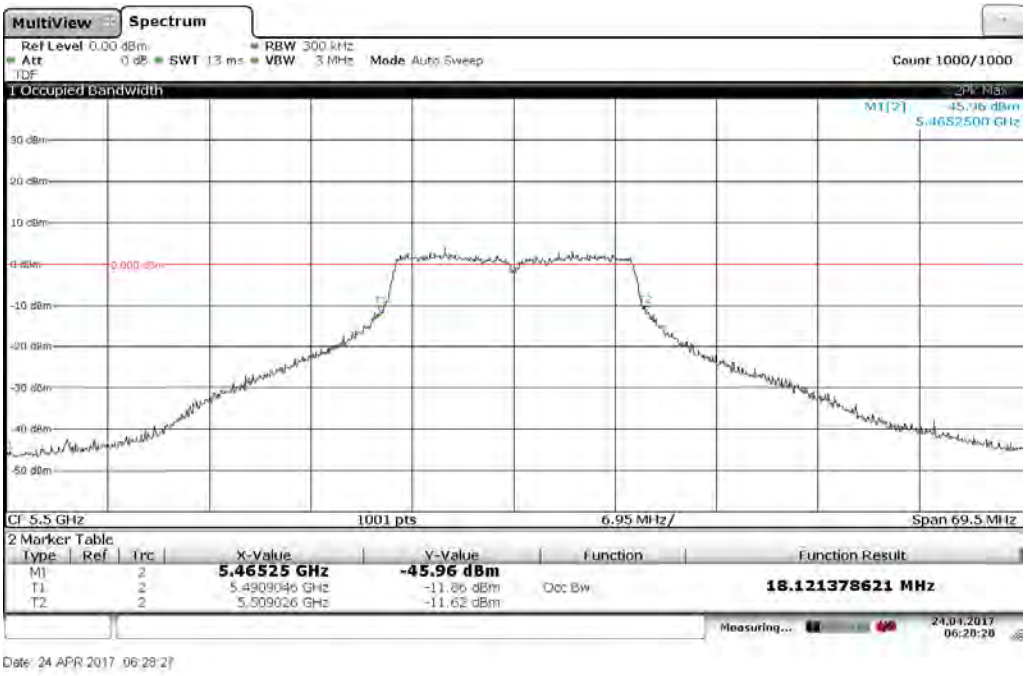
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11ag 6 Mbps, 26 dB Bandwidth: 31.24 MHz

Date: 24.APR.2017 08:39:17

Band 3 (20 MHz Bandwidth)

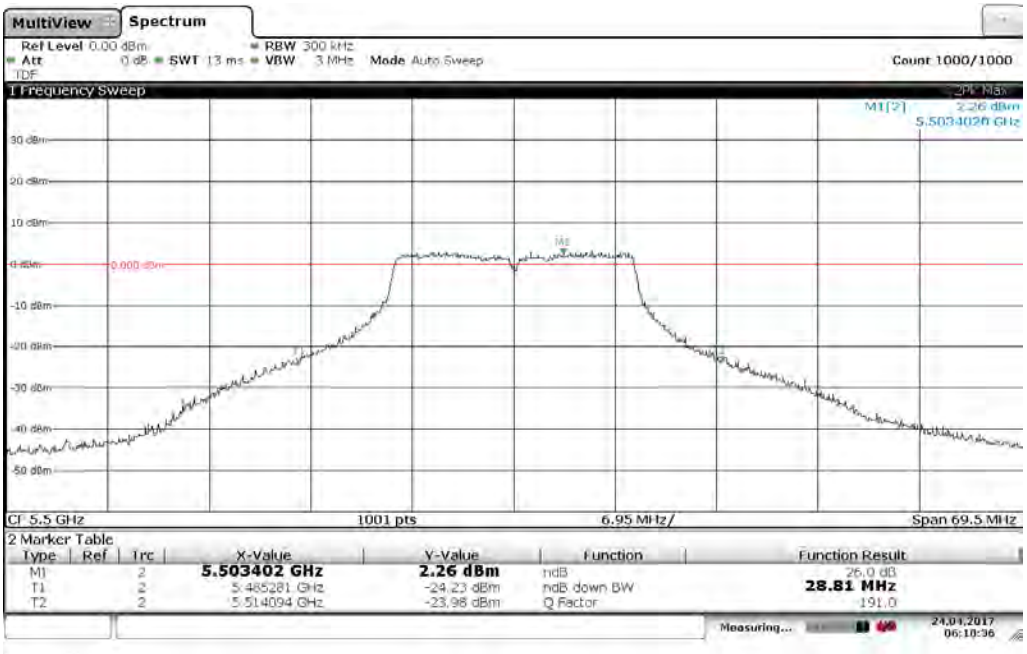
Low Channel – 5500 MHz, 802 11ag 54 Mbps, Occupied Bandwidth: 18.121 MHz



Date: 24 APR 2017 06:28:27

Band 3 (20 MHz Bandwidth)

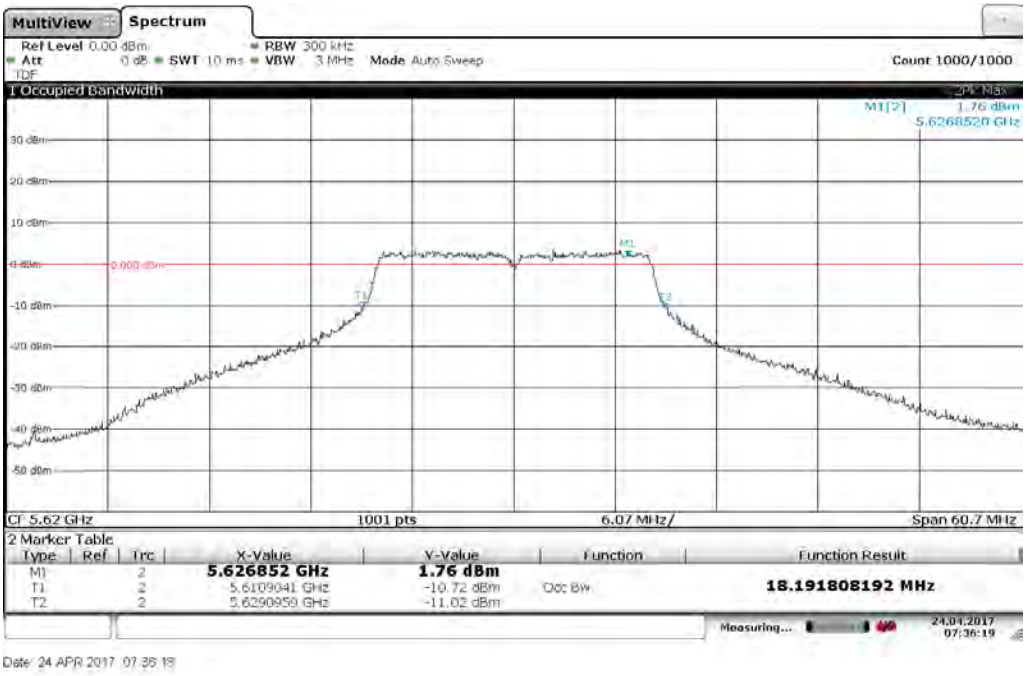
Low Channel – 5500 MHz, 802 11ag 54 Mbps, 26 dB Bandwidth: 28.81MHz



Date: 24 APR 2017 06:18:30

Band 3 (20 MHz Bandwidth)

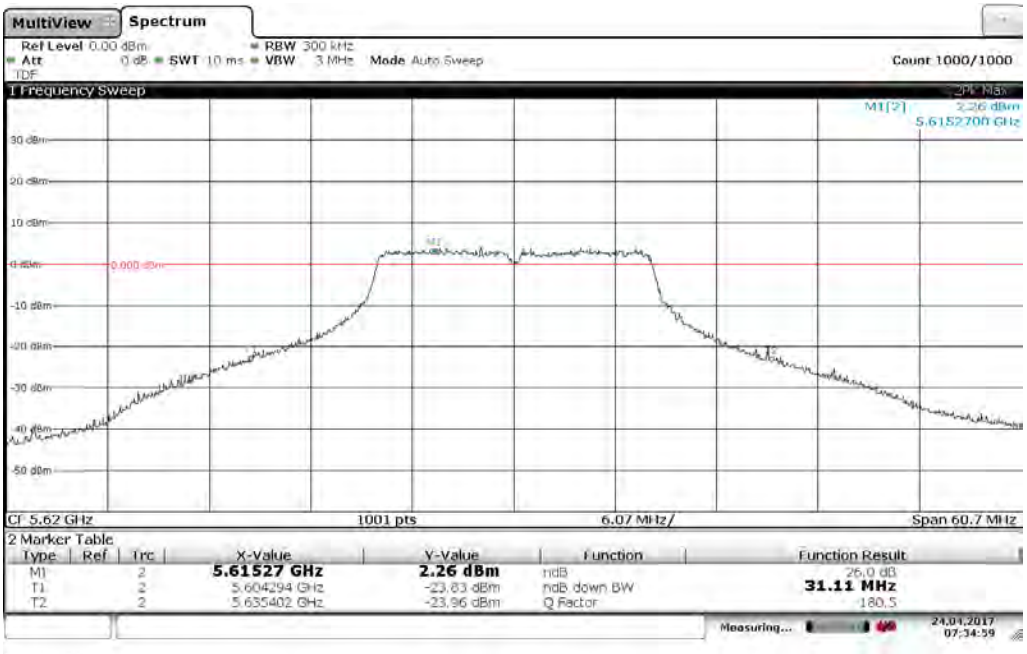
Mid Channel – 5620 MHz, 802 11ag 54 Mbps, Occupied Bandwidth: 18.192 MHz



Date: 24 APR 2017 07:36:19

Band 3 (20 MHz Bandwidth)

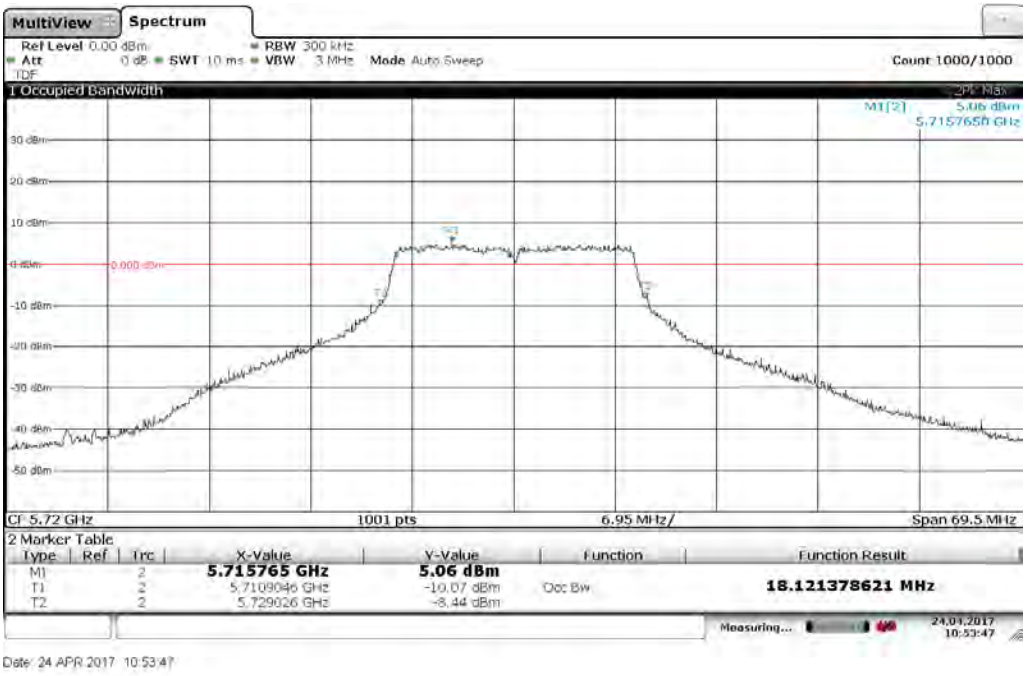
Mid Channel – 5620 MHz, 802 11ag 54 Mbps, 26 dB Bandwidth: 31.11 MHz



Date: 24 APR 2017 07:34:59

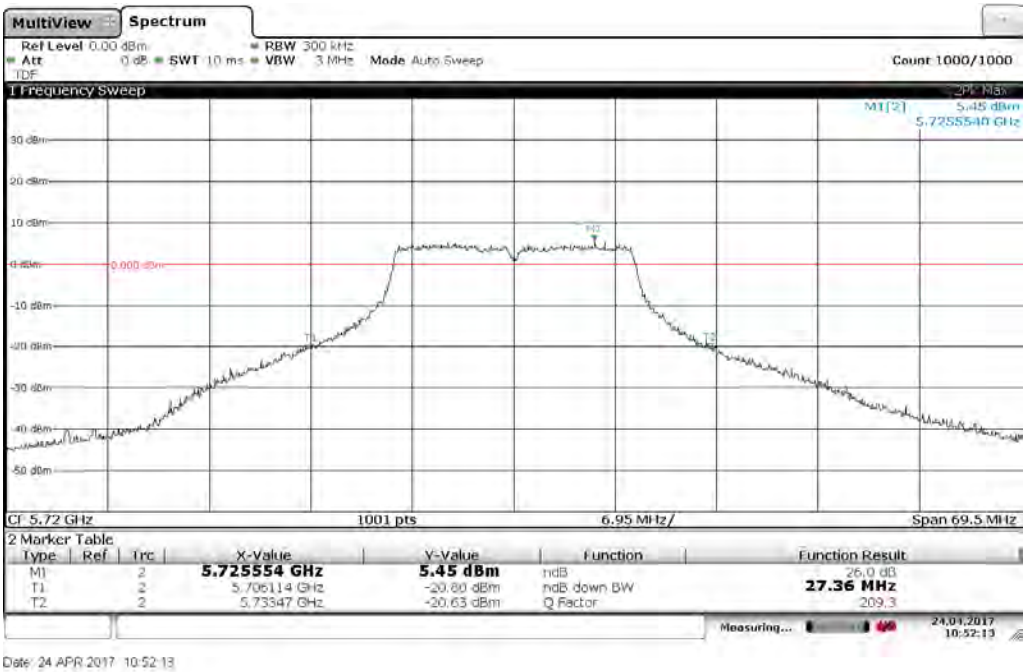
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11ag 54 Mbps, Occupied Bandwidth: 18.121 MHz



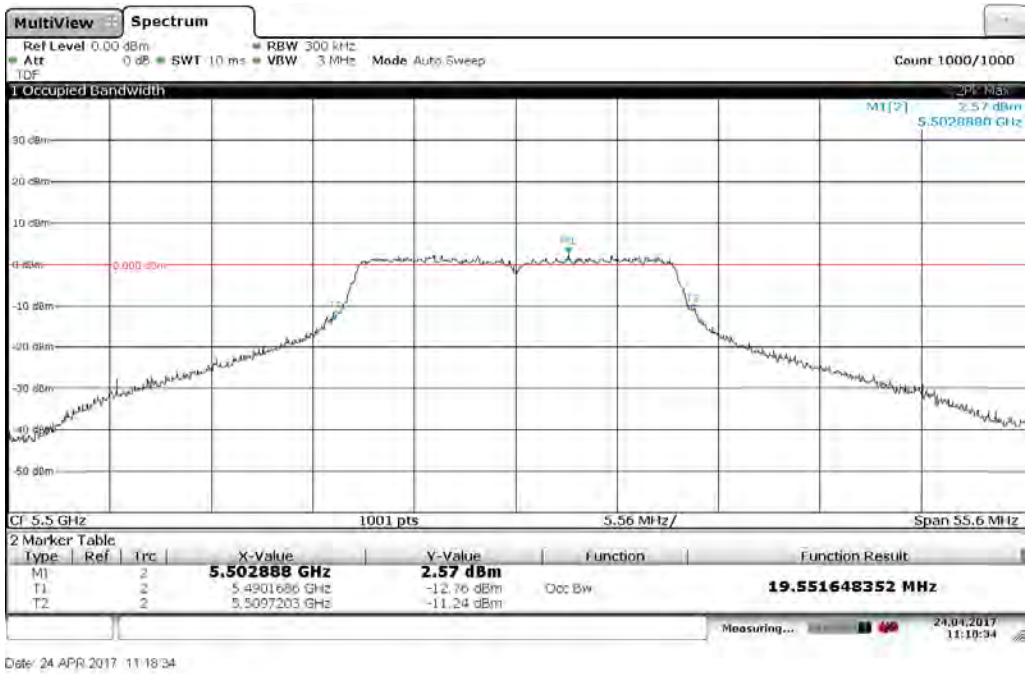
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11ag 54 Mbps, 26 dB Bandwidth: 27.36 MHz



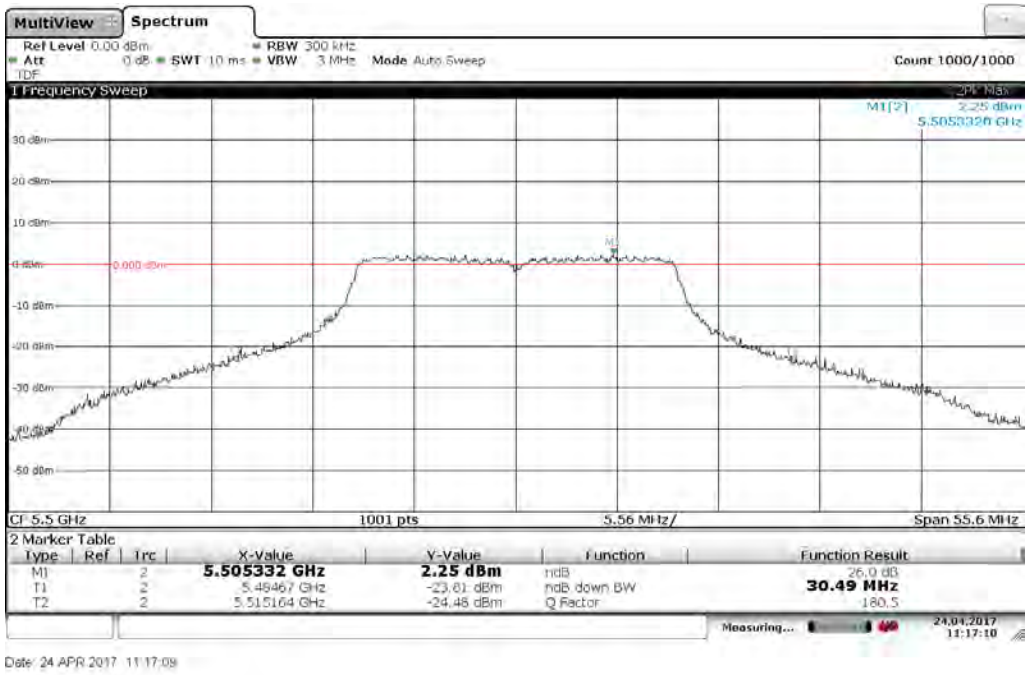
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 19.552 MHz



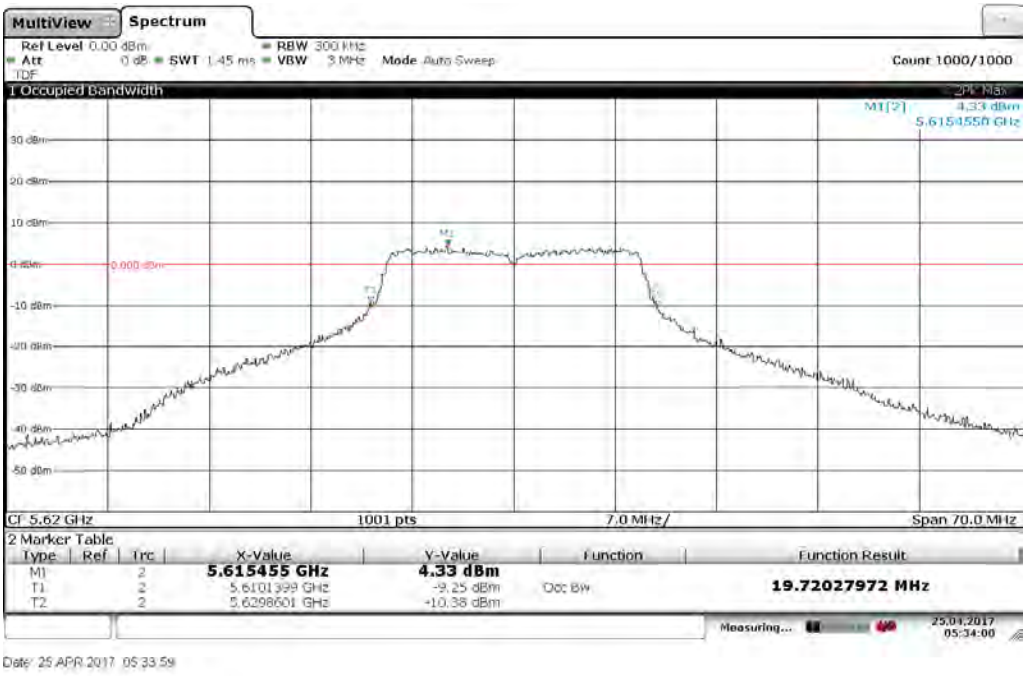
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11n MCS0 6.5 Mbps, 26 dB Bandwidth: 30.49 MHz



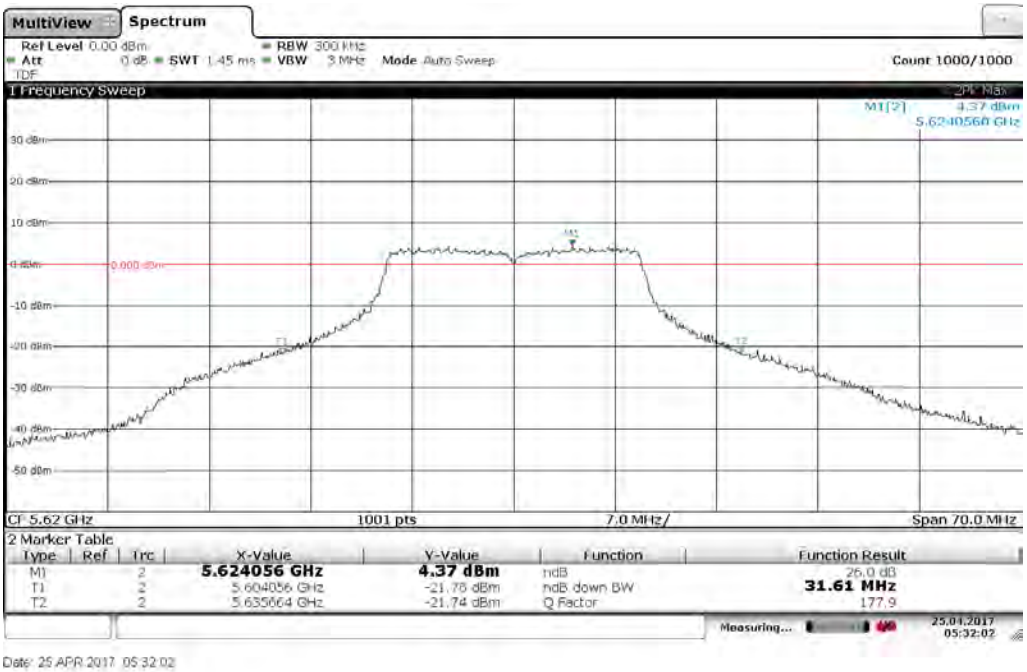
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 19.720 MHz



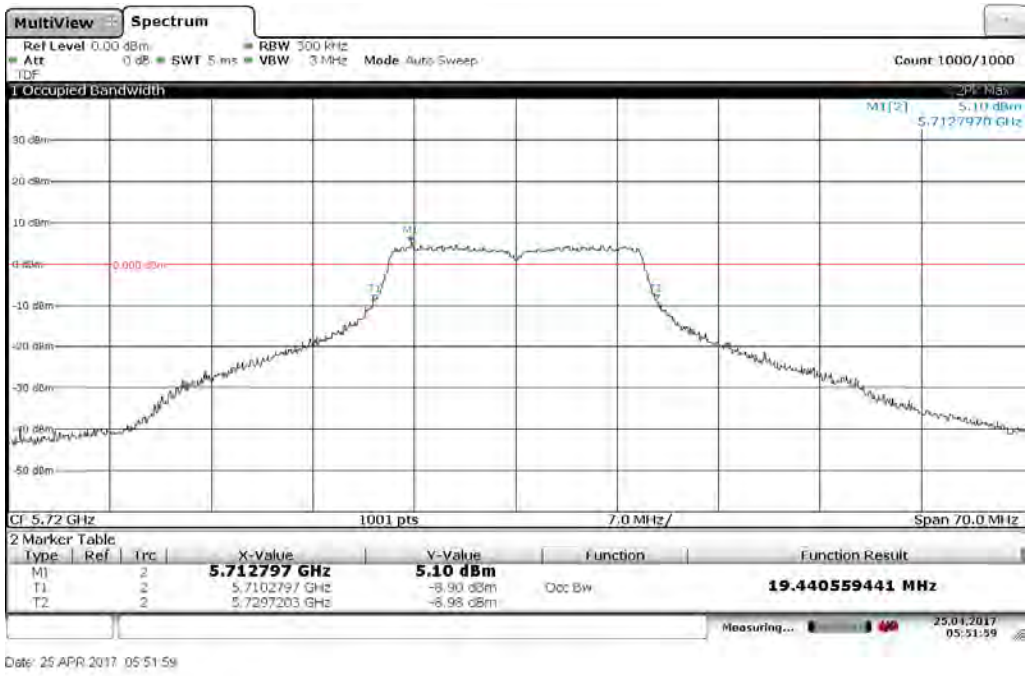
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11n MCS0 6.5 Mbps, 26 dB Bandwidth: 31.61 MHz



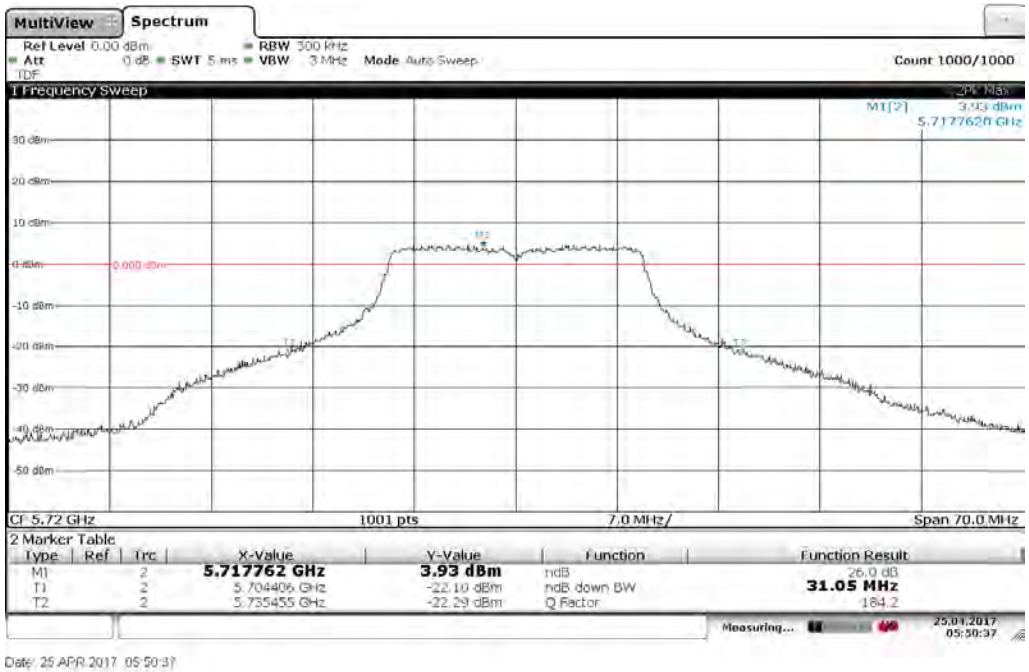
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11n MCS0 6.5 Mbps, Occupied Bandwidth: 19.441 MHz



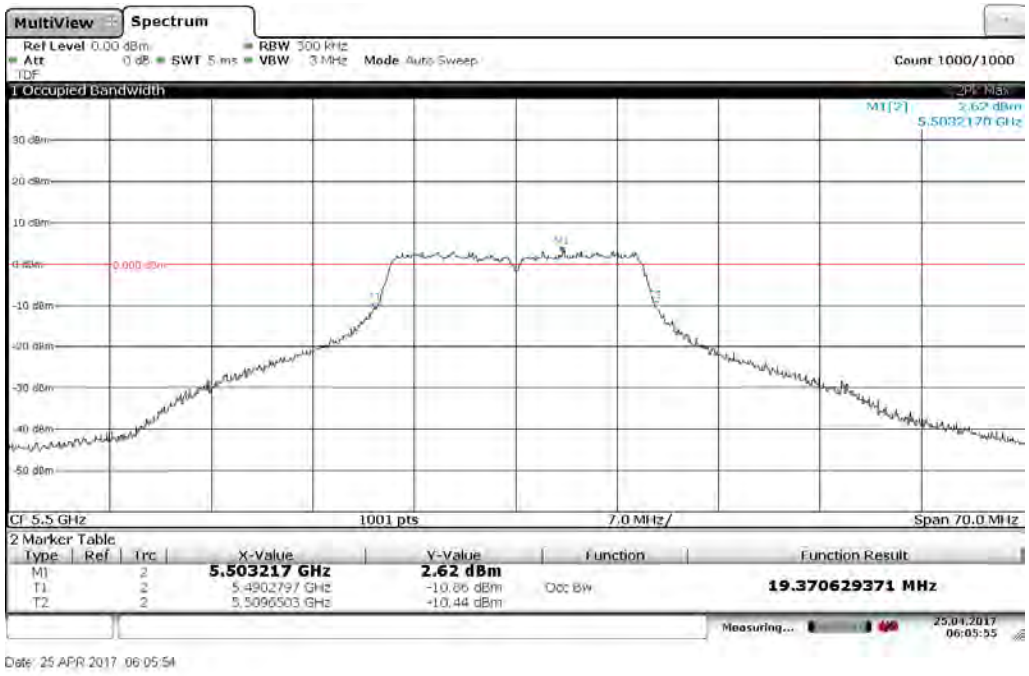
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11n MCS0 6.5 Mbps, 26 dB Bandwidth: 31.05 MHz



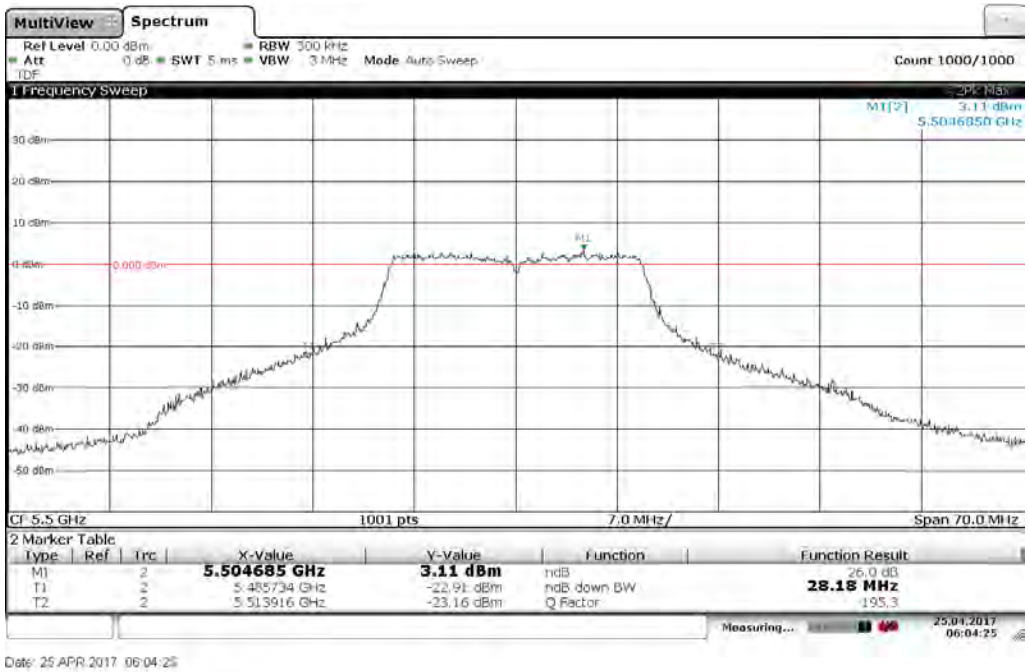
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11n MCS0 SG 7.2 Mbps, Occupied Bandwidth: 19.371 MHz



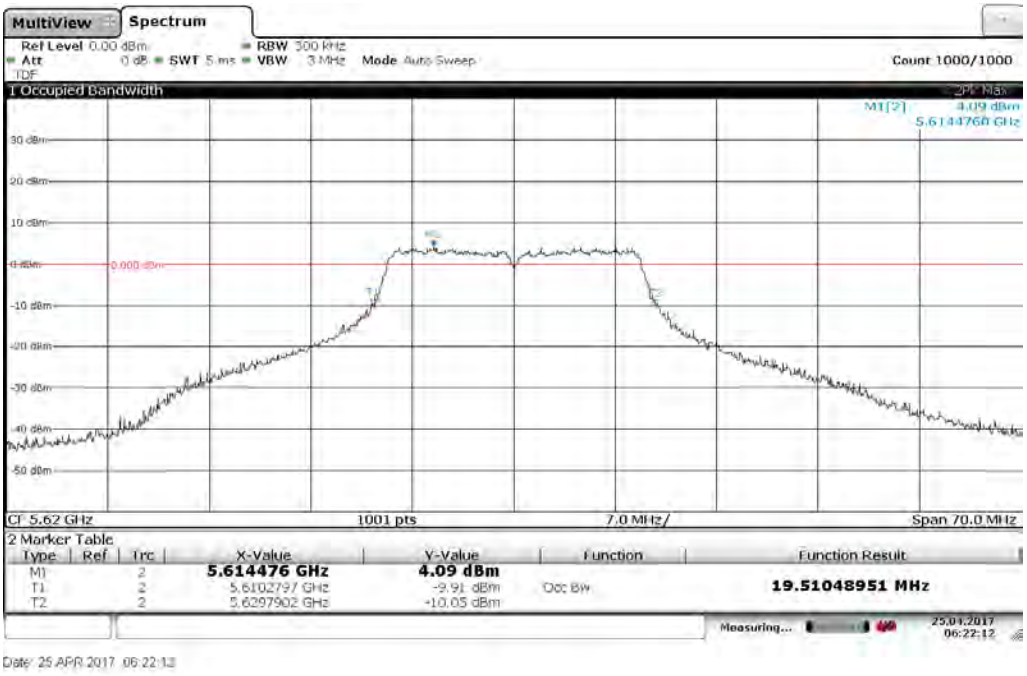
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11n MCS0 SG 7.2 Mbps, 26 dB Bandwidth: 28.18 MHz



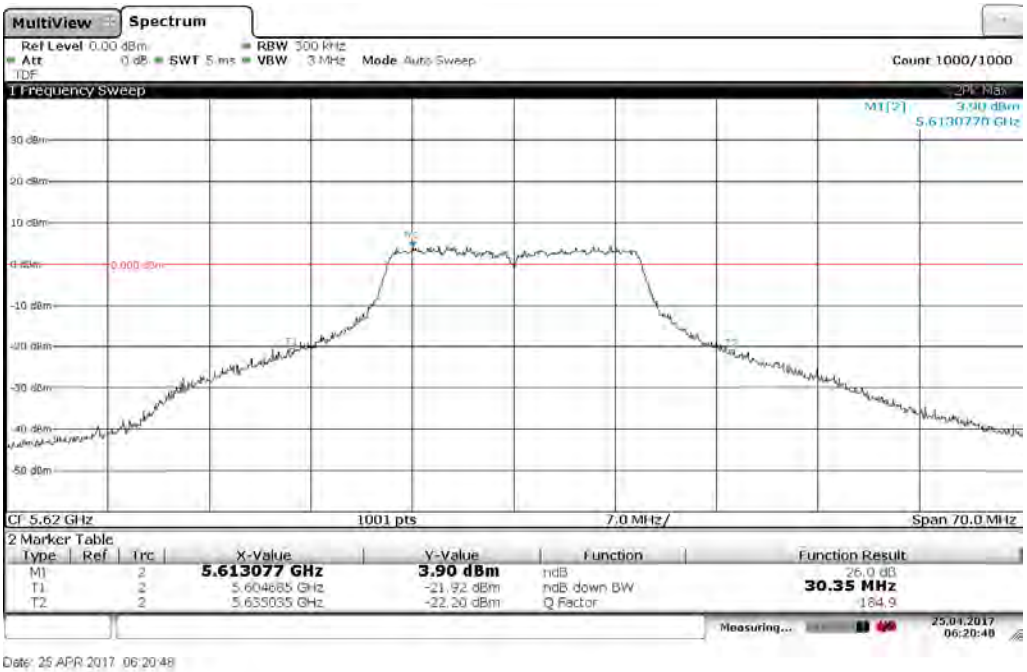
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 80211n MCS0 SG 7.2 Mbps, Occupied Bandwidth: 19.510 MHz



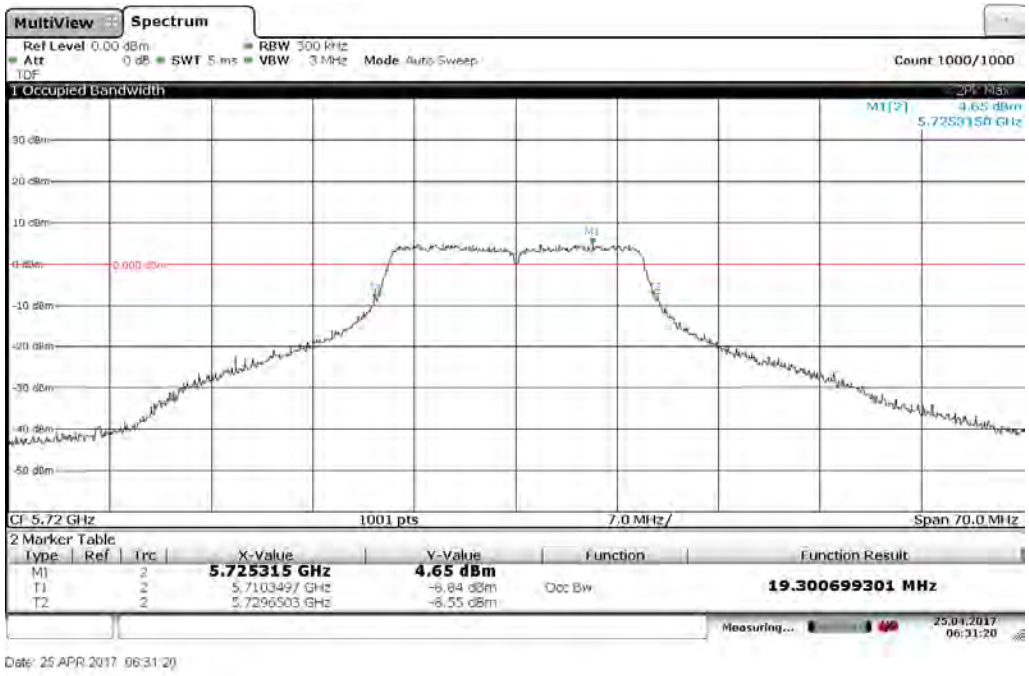
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11n MCS0 SG 7.2 Mbps, 26 dB Bandwidth: 30.35 MHz



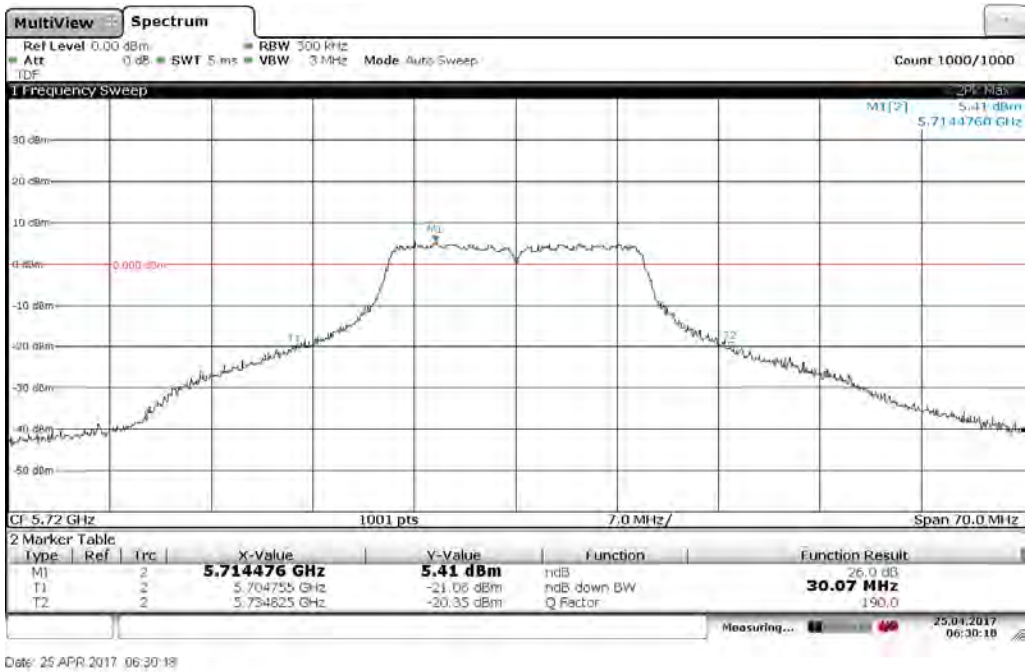
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11n MCS0 SG 7.2 Mbps, Occupied Bandwidth: 19.301 MHz



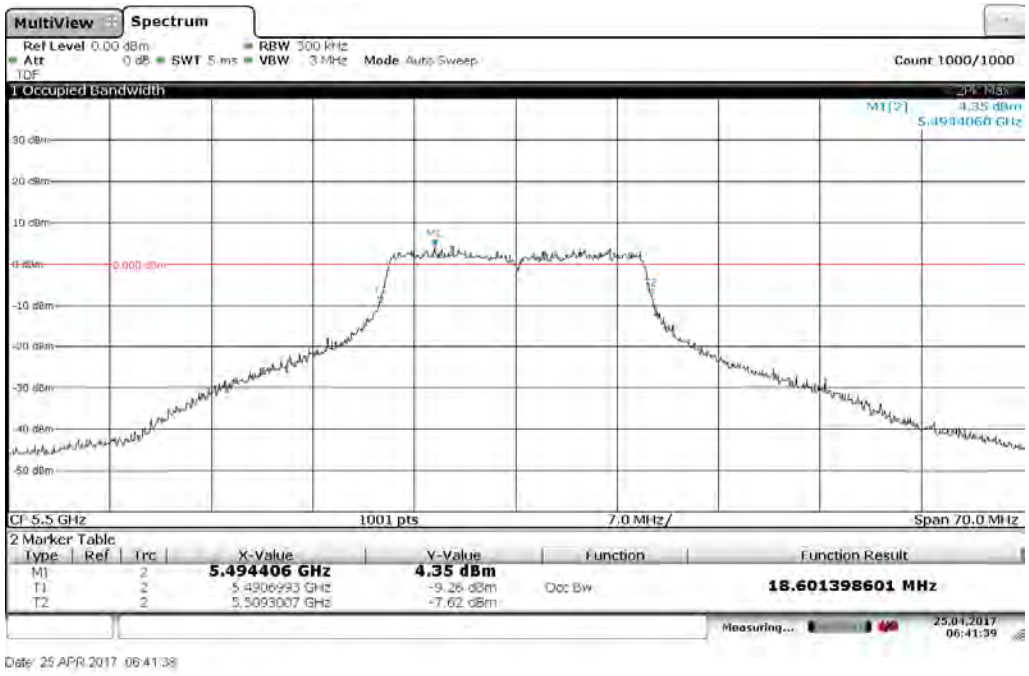
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11n MCS0 SG 7.2 Mbps, 26 dB Bandwidth: 30.07 MHz



Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.60 1MHz



Date: 25.APR.2017 06:41:38

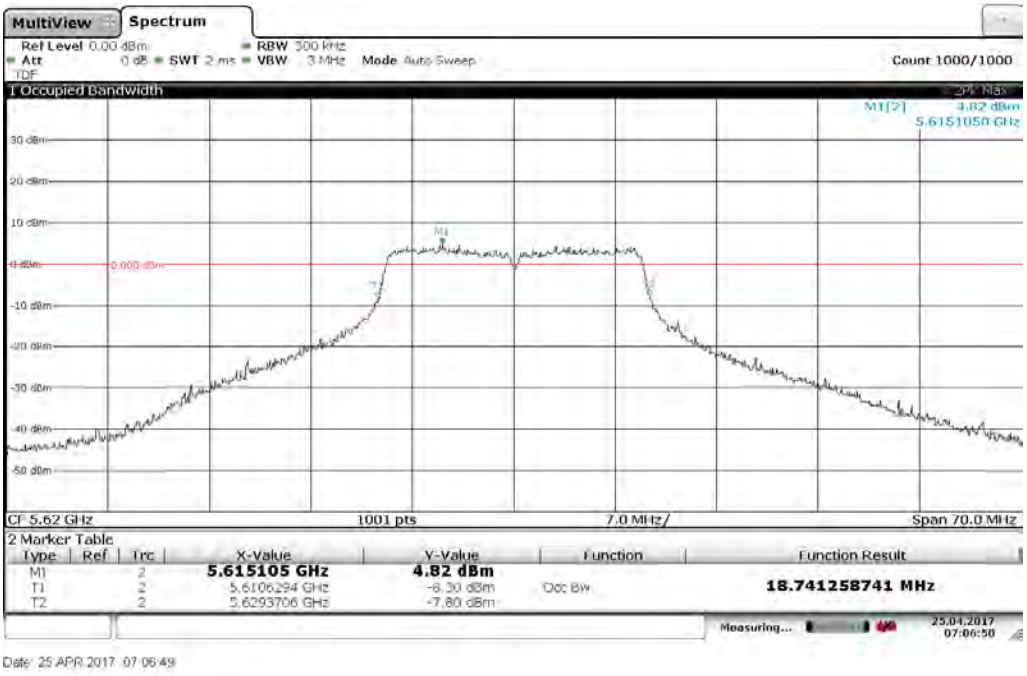
Band 3 (20 MHz Bandwidth)

Low Channel – 5500 MHz, 802 11n MCS7 65 Mbps, 26 dB Bandwidth: 26.78 MHz

Date: 25.APR.2017 06:40:30

Band 3 (20 MHz Bandwidth)

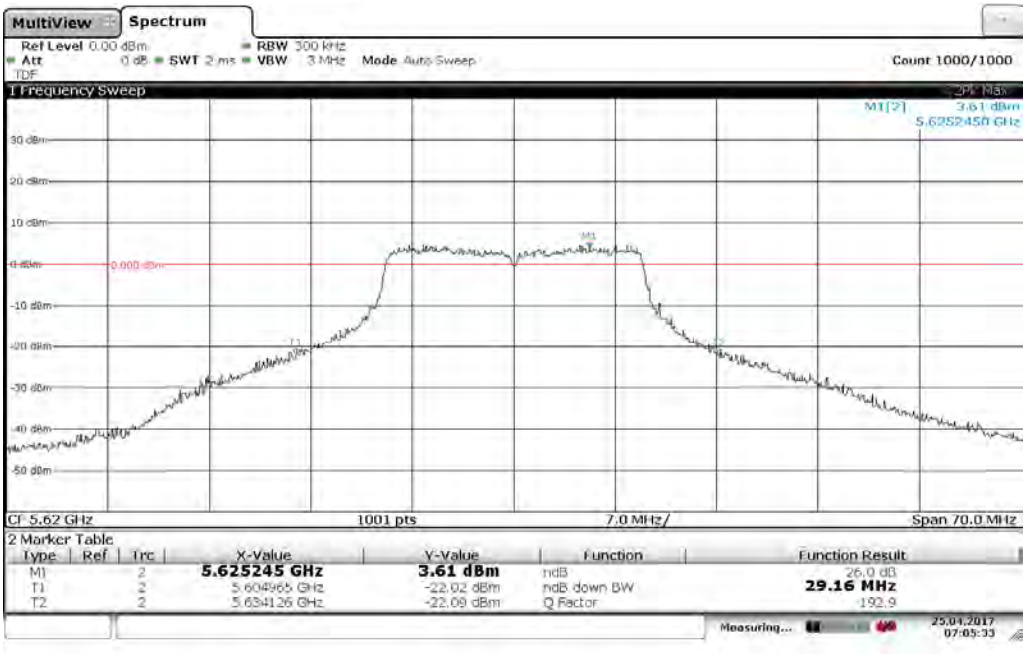
Mid Channel – 5620 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.741 MHz



Date: 25.APR.2017 07:06:49

Band 3 (20 MHz Bandwidth)

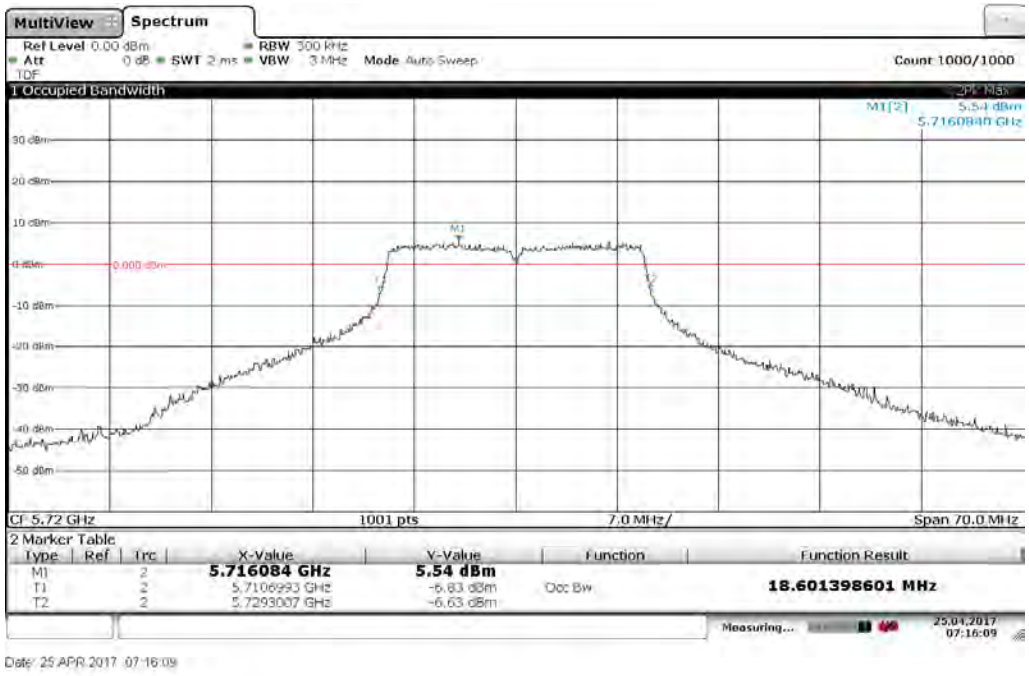
Mid Channel – 5620 MHz, 802 11n MCS7 65 Mbps, 26 dB Bandwidth: 29.16 MHz



Date: 25.APR.2017 07:05:33

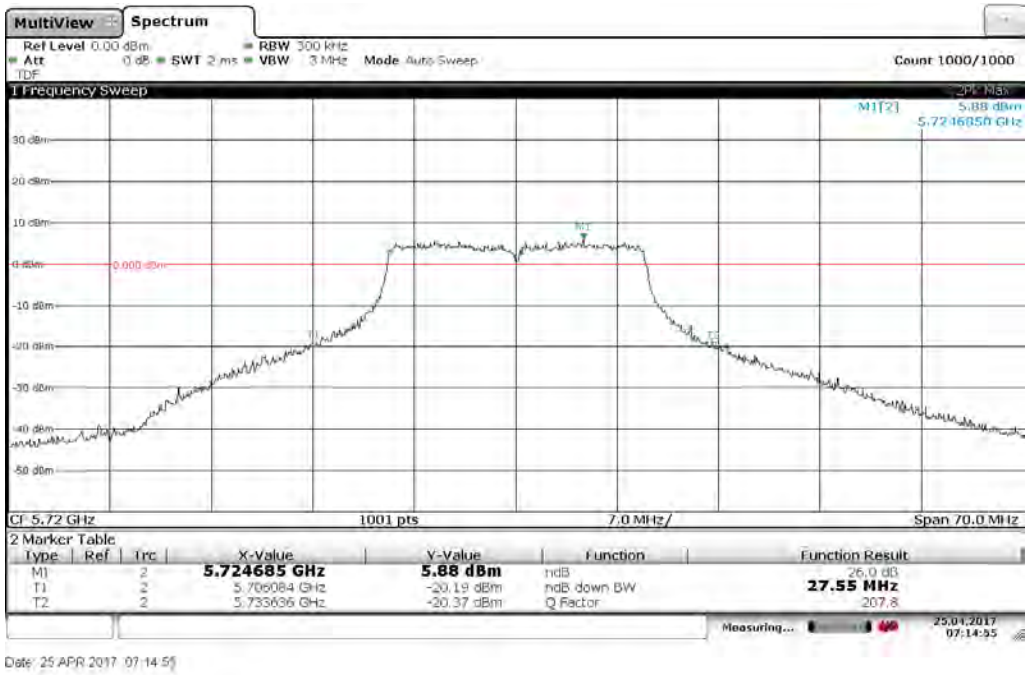
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.601 MHz



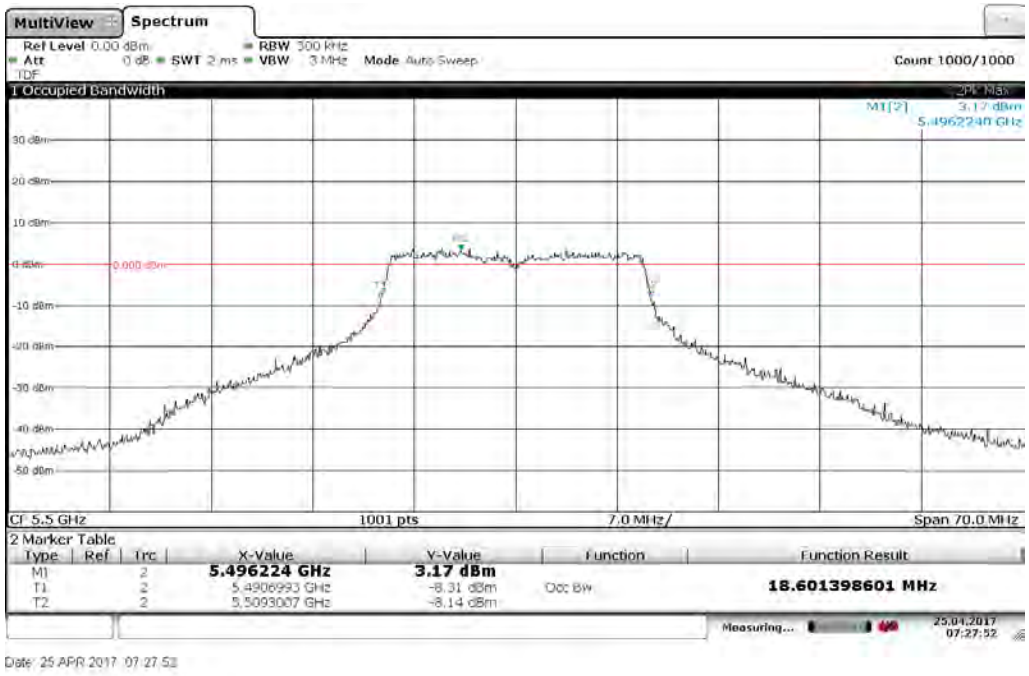
Band 3 (20 MHz Bandwidth)

High Channel – 5720 MHz, 802 11n MCS7 65 Mbps, 26 dB Bandwidth: 27.55 MHz



Band 3 (20 MHz Bandwidth)

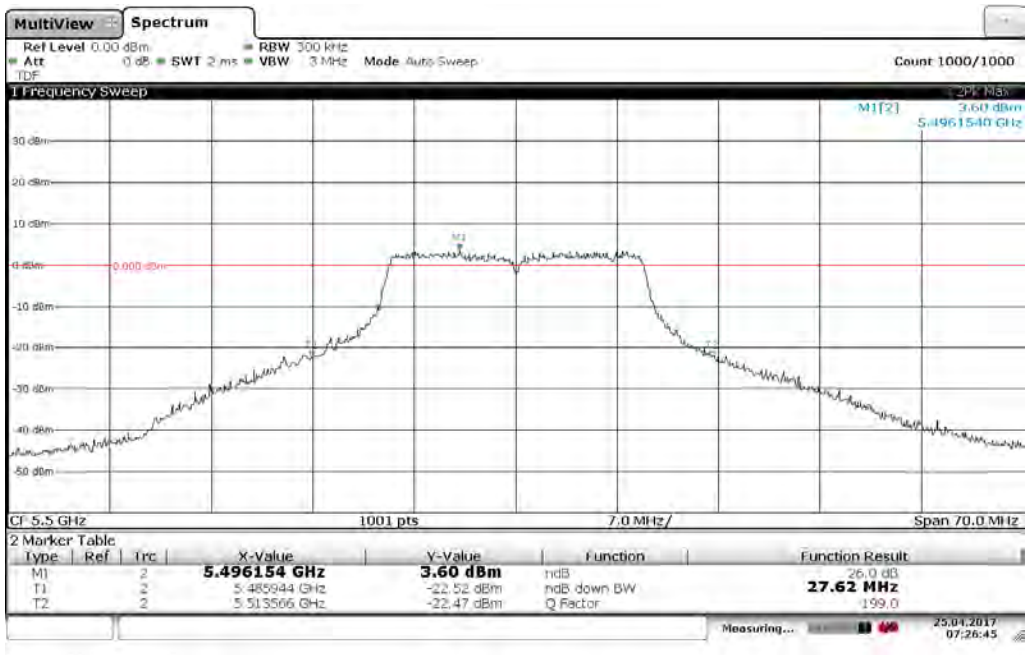
Low Channel – 5500 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Occupied Bandwidth: 18.601 MHz



Date: 25.APR.2017 07:27:52

Band 3 (20 MHz Bandwidth)

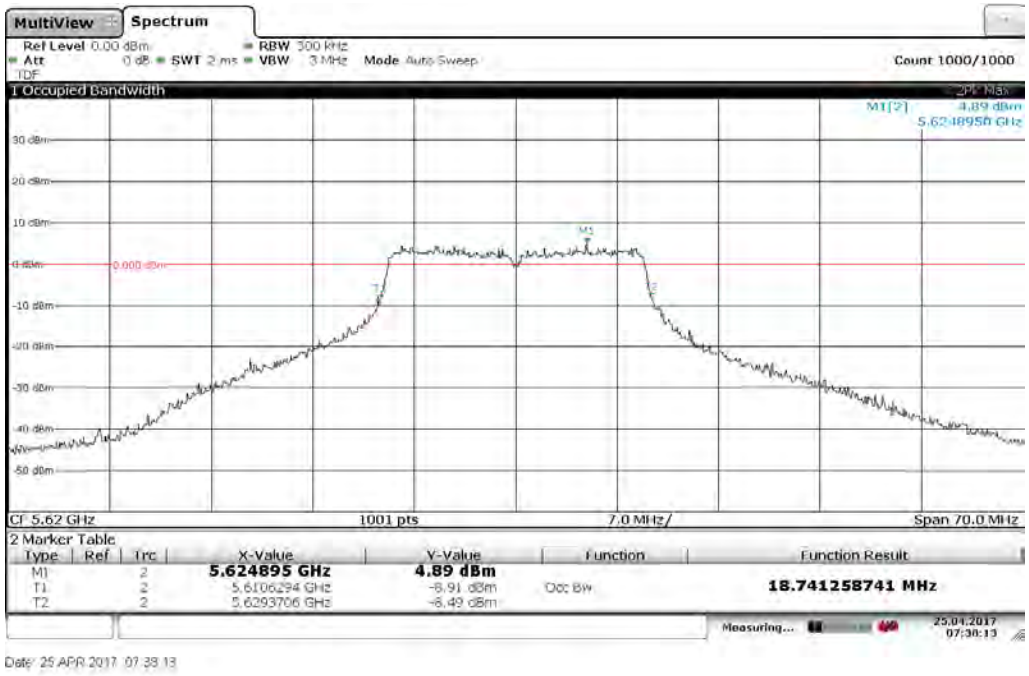
Low Channel – 5500 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 26 dB Bandwidth: 27.62 MHz



Date: 25.APR.2017 07:26:45

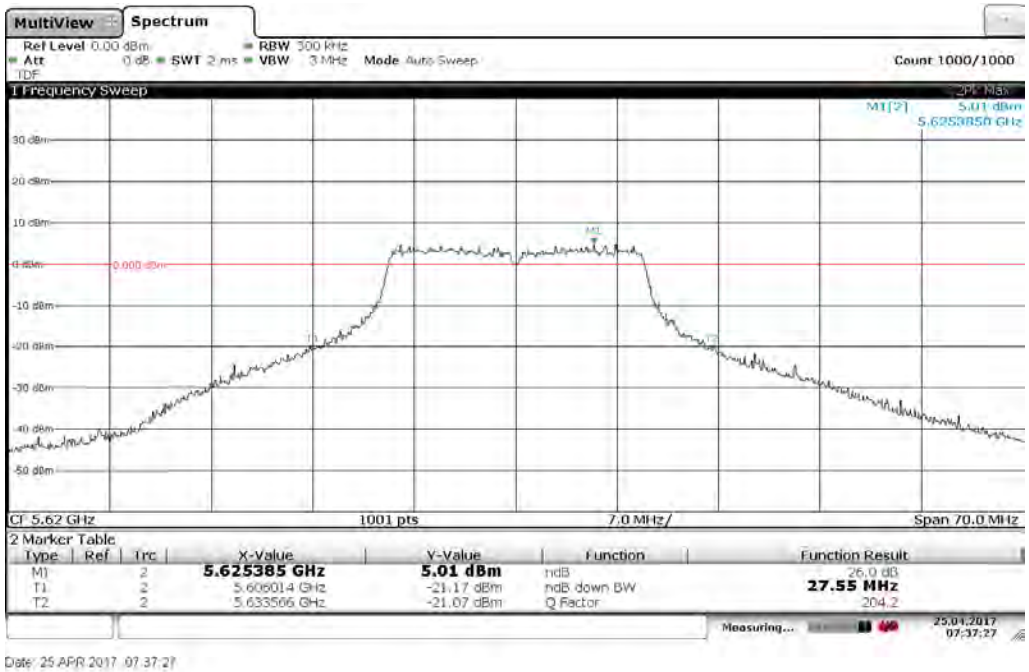
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Occupied Bandwidth: 18.741 MHz



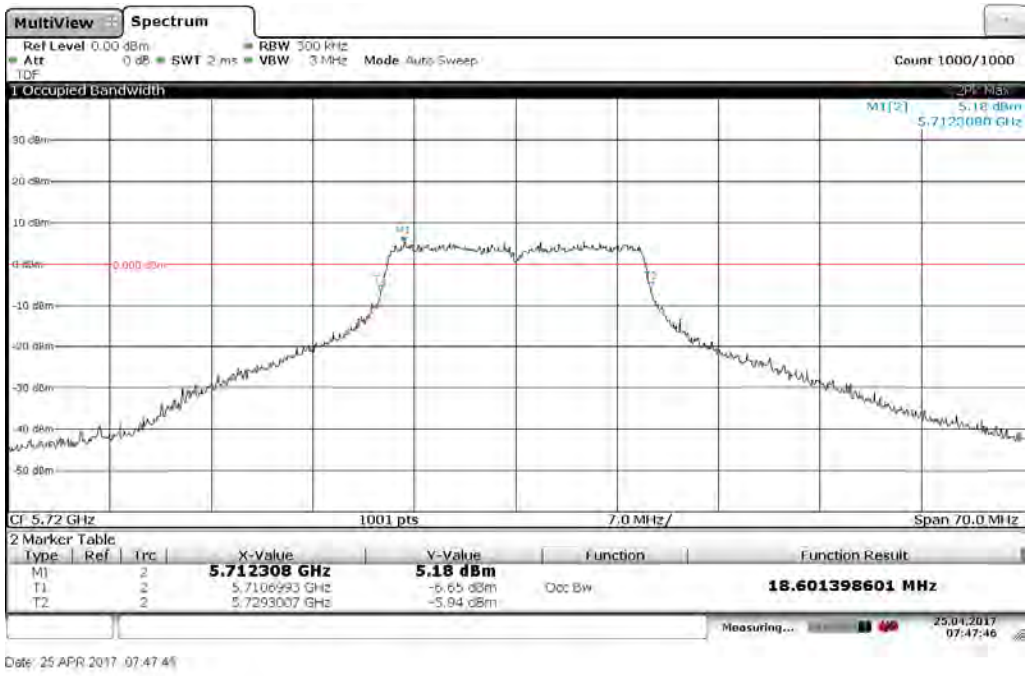
Band 3 (20 MHz Bandwidth)

Mid Channel – 5620 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 26 dB Bandwidth: 27.55 MHz



Band 3 (20 MHz Bandwidth)

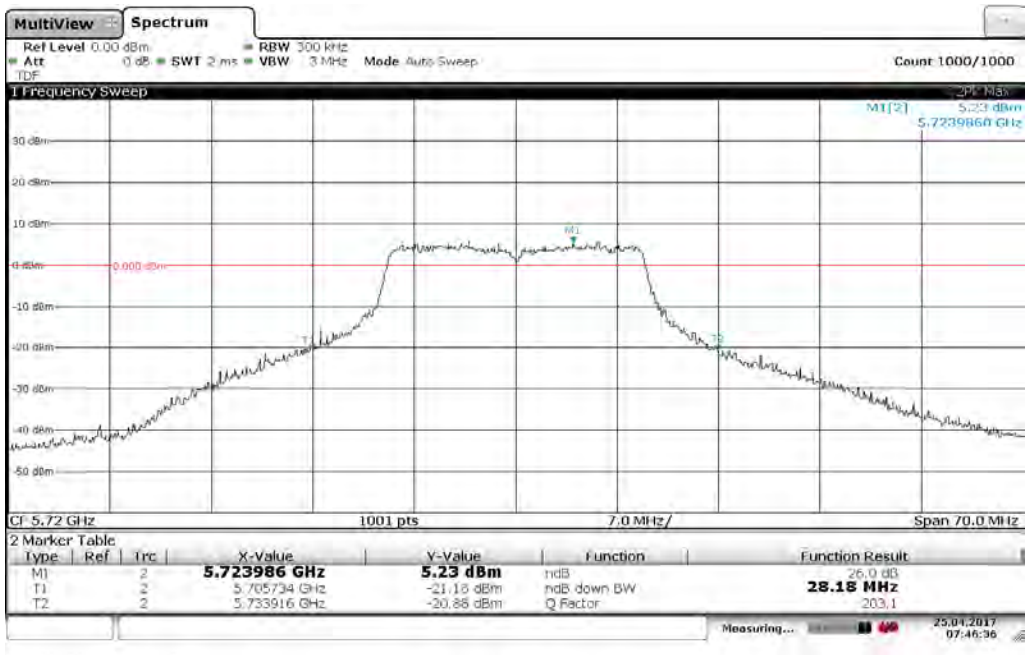
High Channel – 5720 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Occupied Bandwidth: 18.601 MHz



Date: 25 APR 2017 07:47:46

Band 3 (20 MHz Bandwidth)

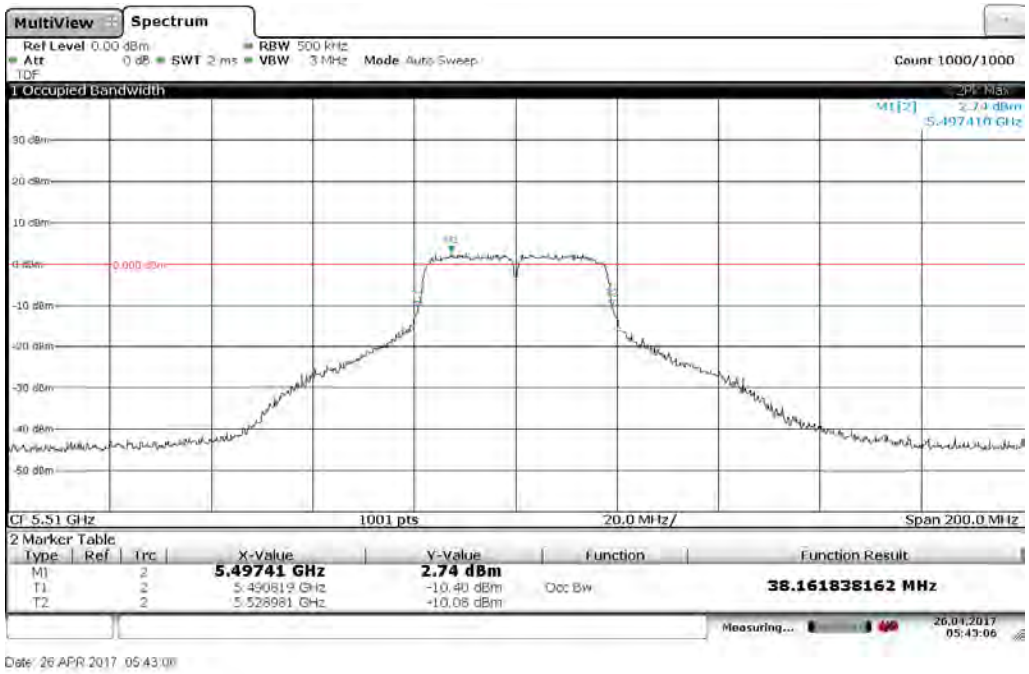
High Channel – 5720 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 26 dB Bandwidth: 28.18 MHz



Date: 25 APR 2017 07:46:36

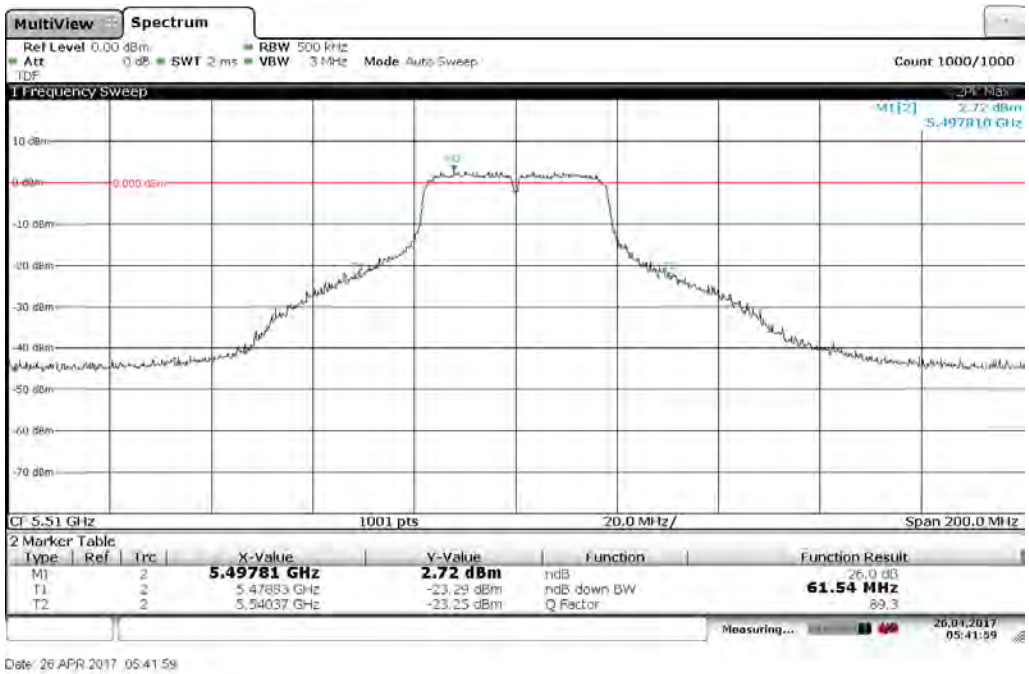
Band 3 (40 MHz Bandwidth)

Low Channel – 5510 MHz, 802 11n MCS0 13.5 Mbps, Occupied Bandwidth: 38.162 MHz



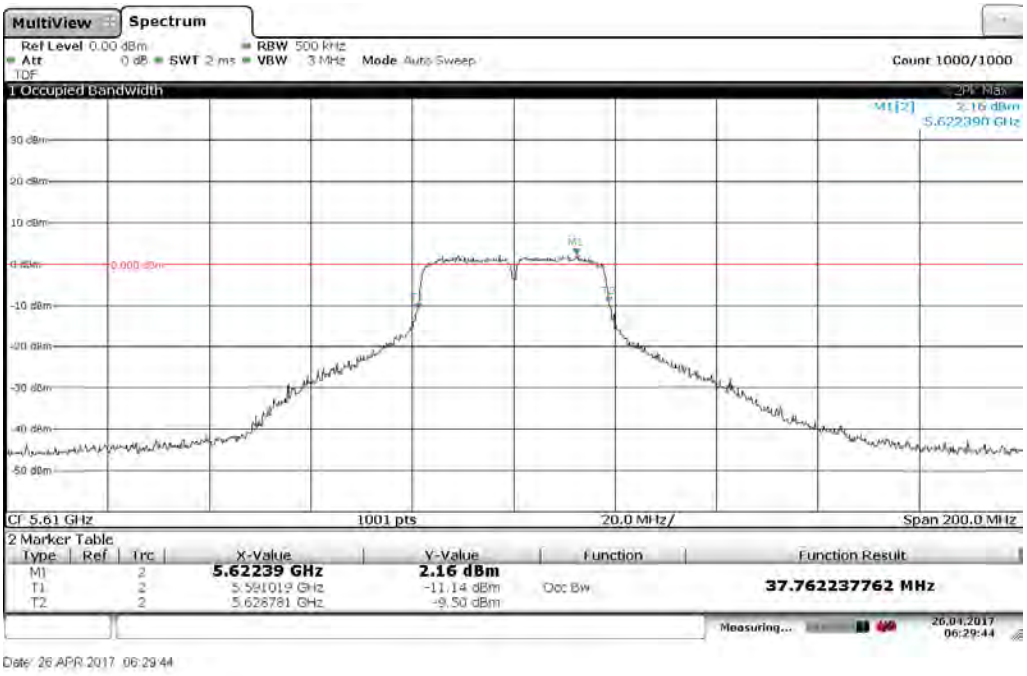
Band 3 (40 MHz Bandwidth)

Low Channel – 5510 MHz, 802 11n MCS0 13.5 Mbps, 26 dB Bandwidth: 61.54 MHz



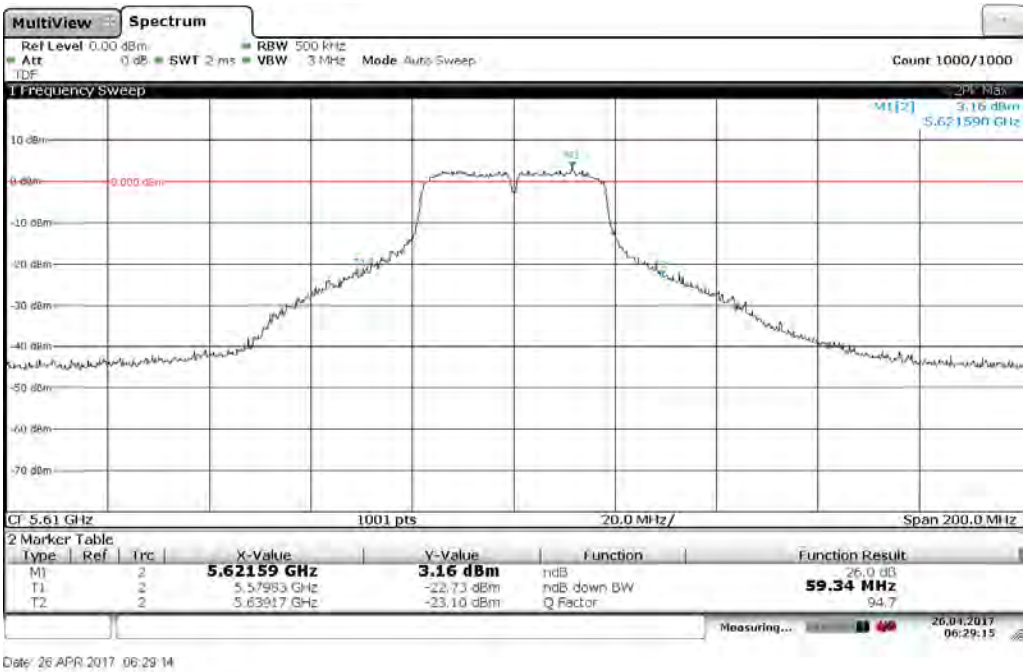
Band 3 (40 MHz Bandwidth)

Mid Channel – 5610 MHz, 802 11n MCS0 13.5 Mbps, Occupied Bandwidth: 37.762 MHz



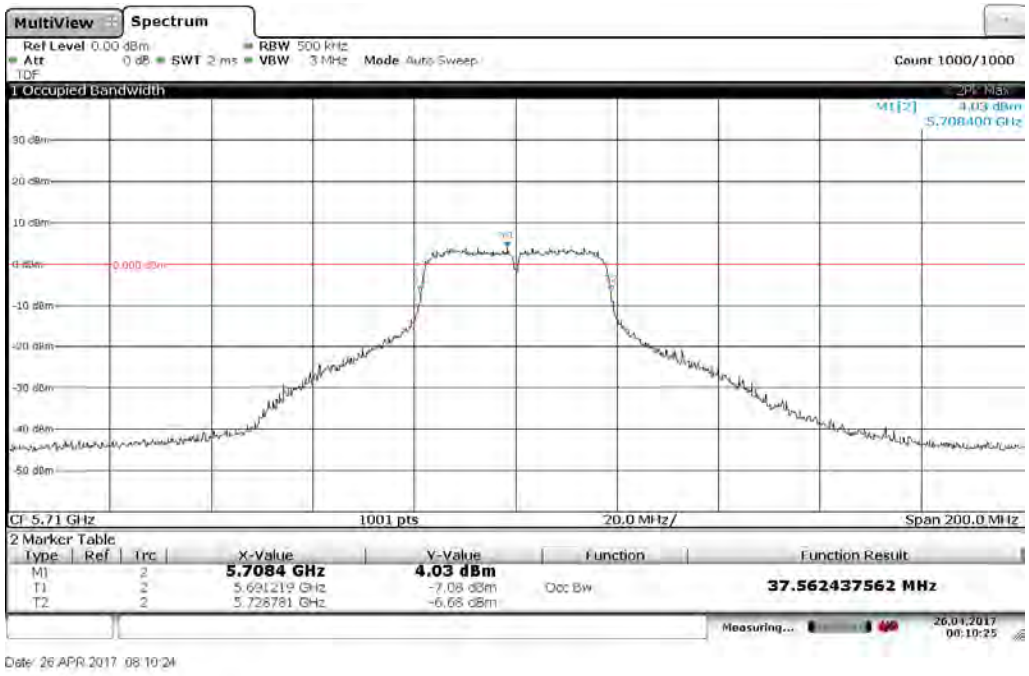
Band 3 (40 MHz Bandwidth)

Mid Channel – 5610 MHz, 802 11n MCS0 13.5 Mbps, 26 dB Bandwidth: 59.34 MHz



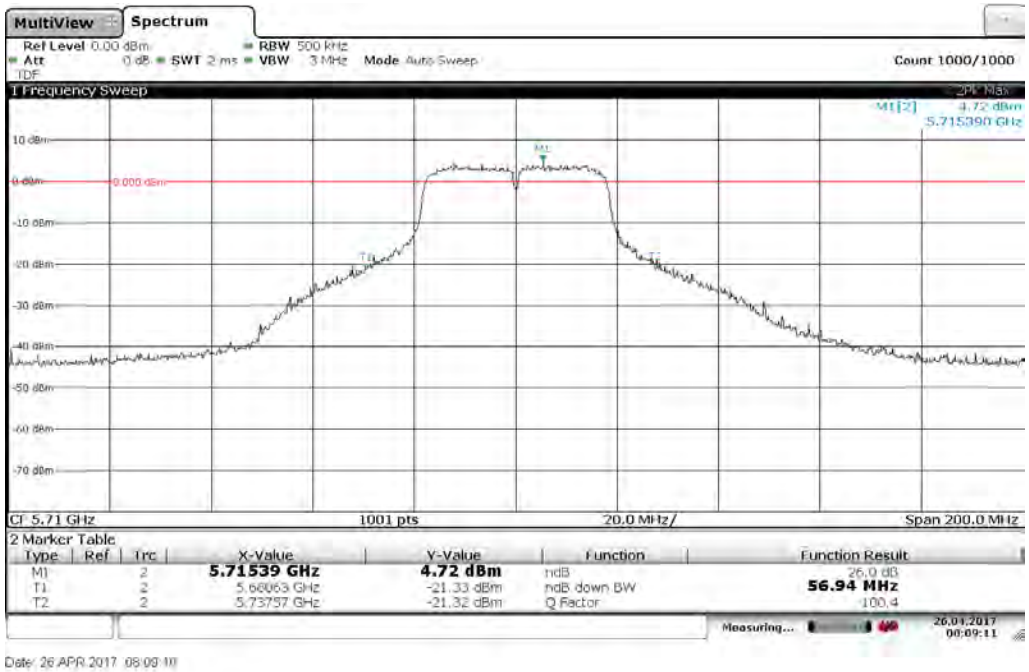
Band 3 (40 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS0 13.5 Mbps, Occupied Bandwidth: 37.562 MHz



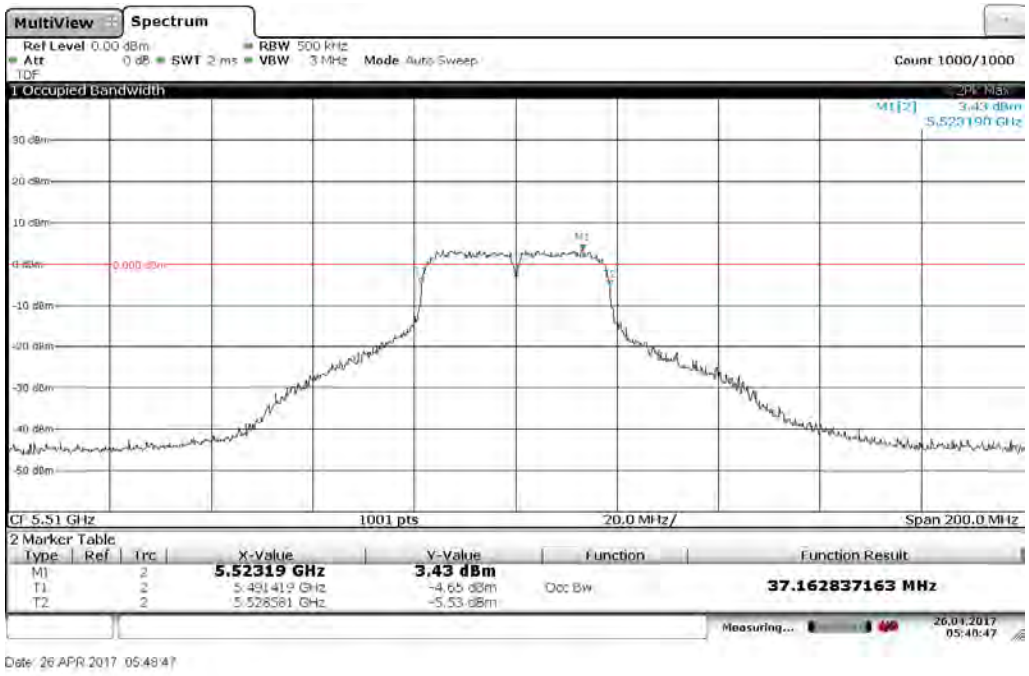
Band 3 (40 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS0 13.5 Mbps, 26 dB Bandwidth: 56.94 MHz



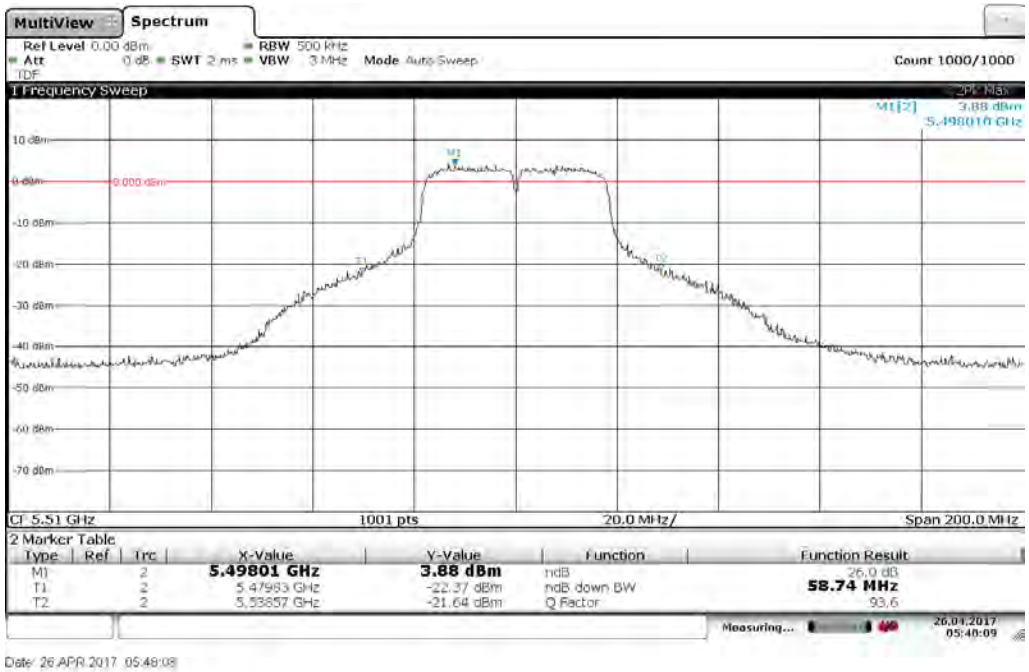
Band 3 (40 MHz Bandwidth)

Low Channel – 5510 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 37.163 MHz



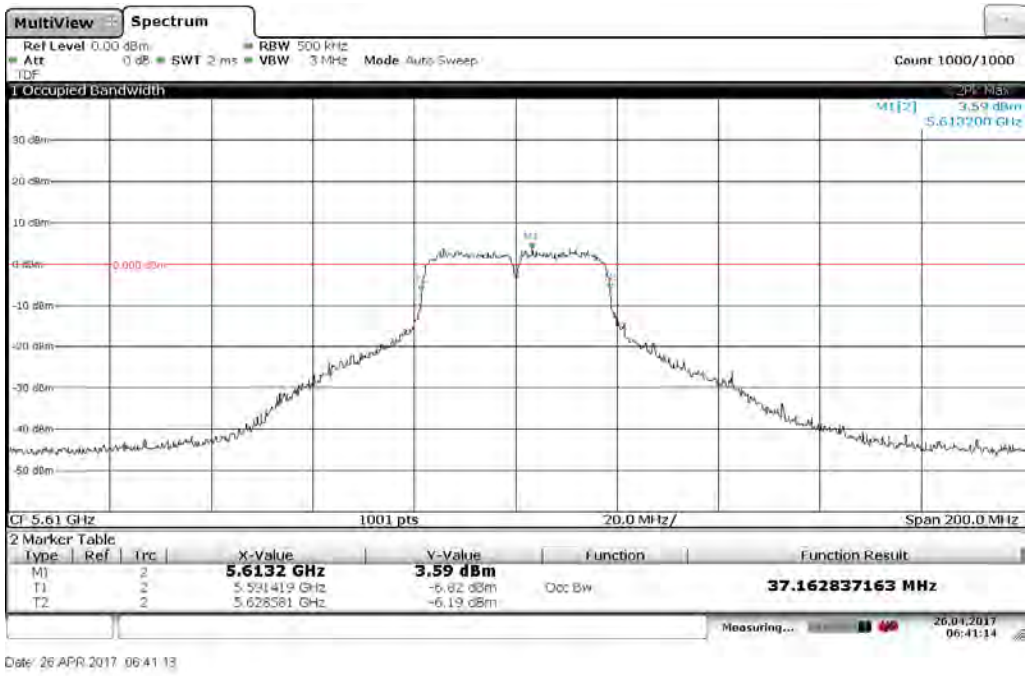
Band 3 (20 MHz Bandwidth)

Low Channel – 5510 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 58.74 MHz



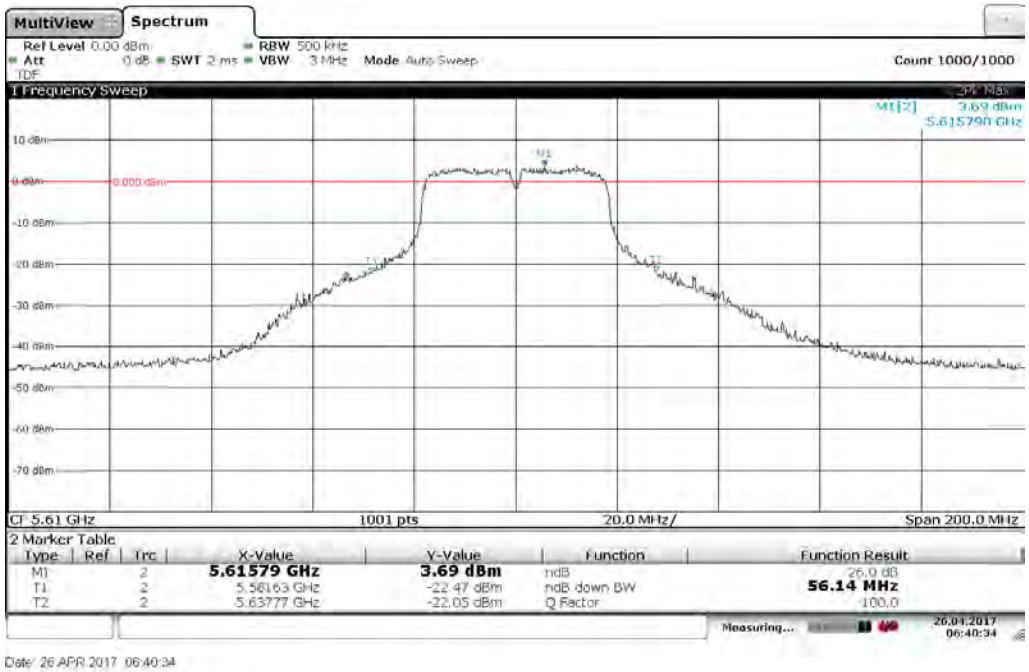
Band 3 (20 MHz Bandwidth)

Mid Channel – 5610 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 37.163 MHz



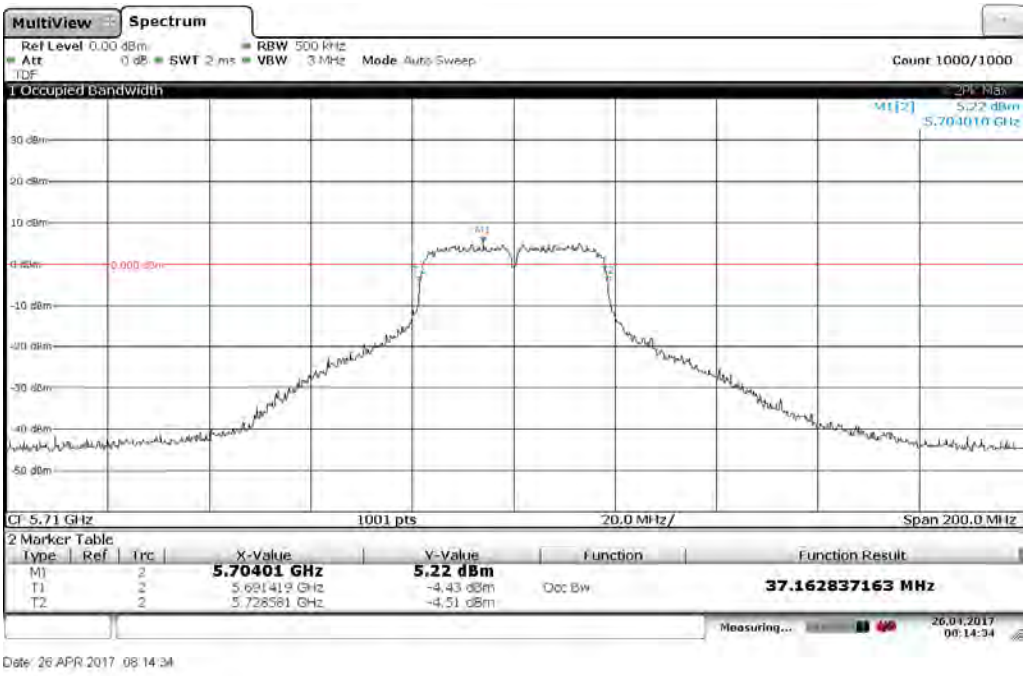
Band 3 (20 MHz Bandwidth)

Mid Channel – 5610 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 56.14 MHz



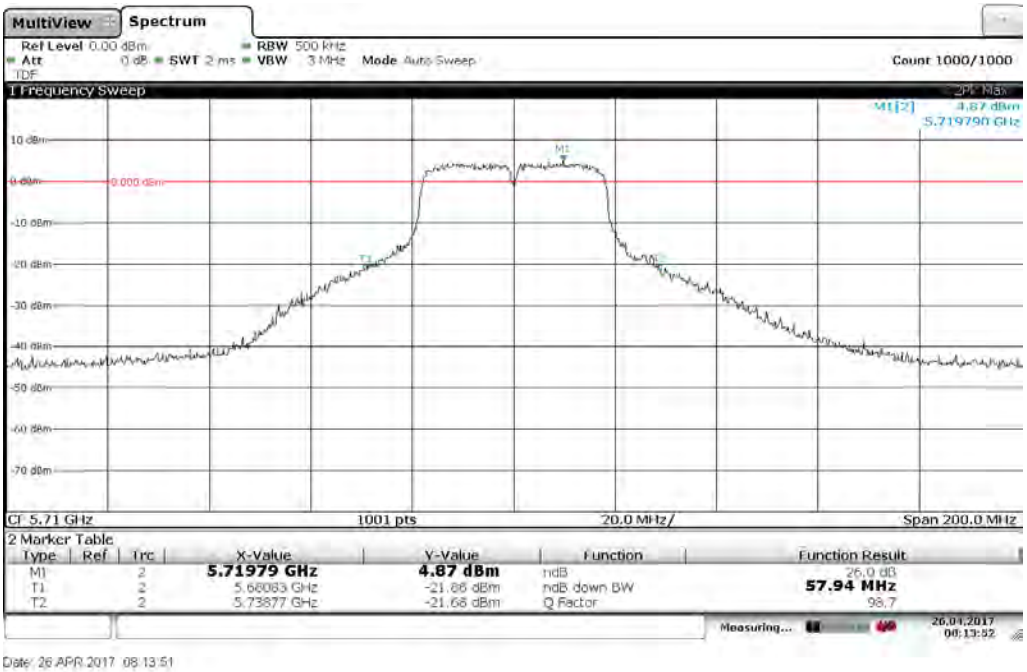
Band 3 (20 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS0 MM SG 15 Mbps, Occupied Bandwidth: 37.163 MHz



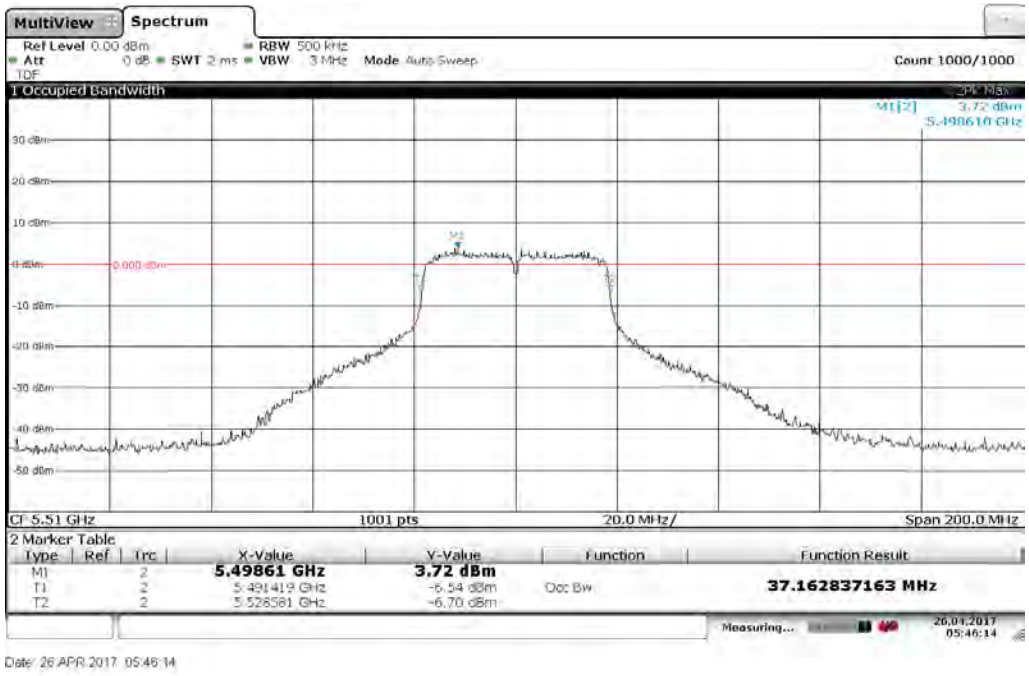
Band 3 (20 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS0 MM SG 15 Mbps, 26 dB Bandwidth: 57.94 MHz



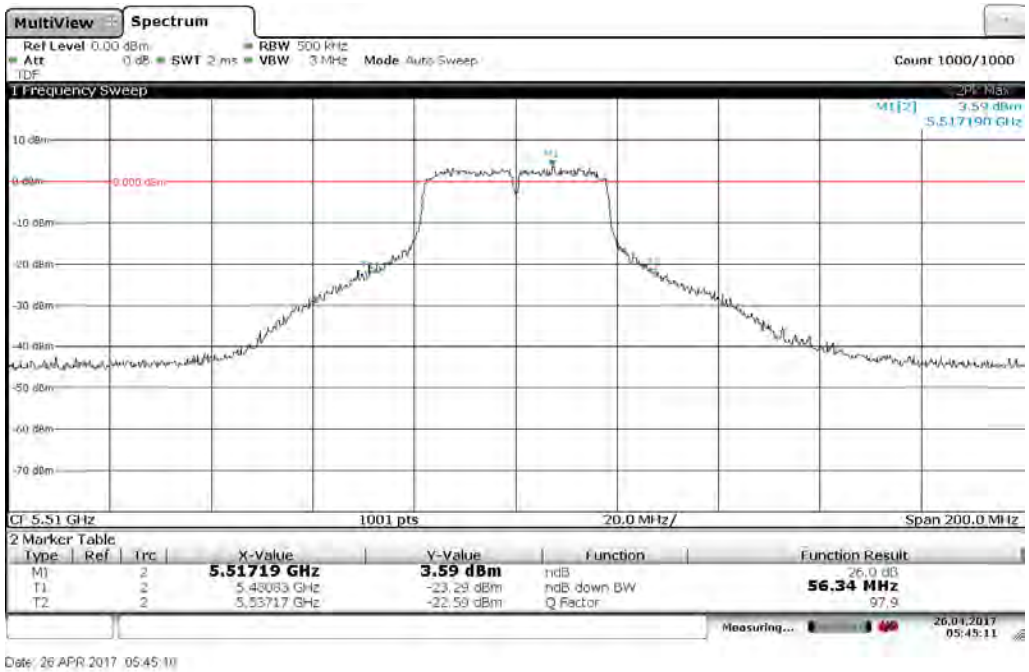
Band 3 (40 MHz Bandwidth)

Low Channel – 5510 MHz, 802 11n MCS7 135 Mbps, Occupied Bandwidth: 37.163 MHz



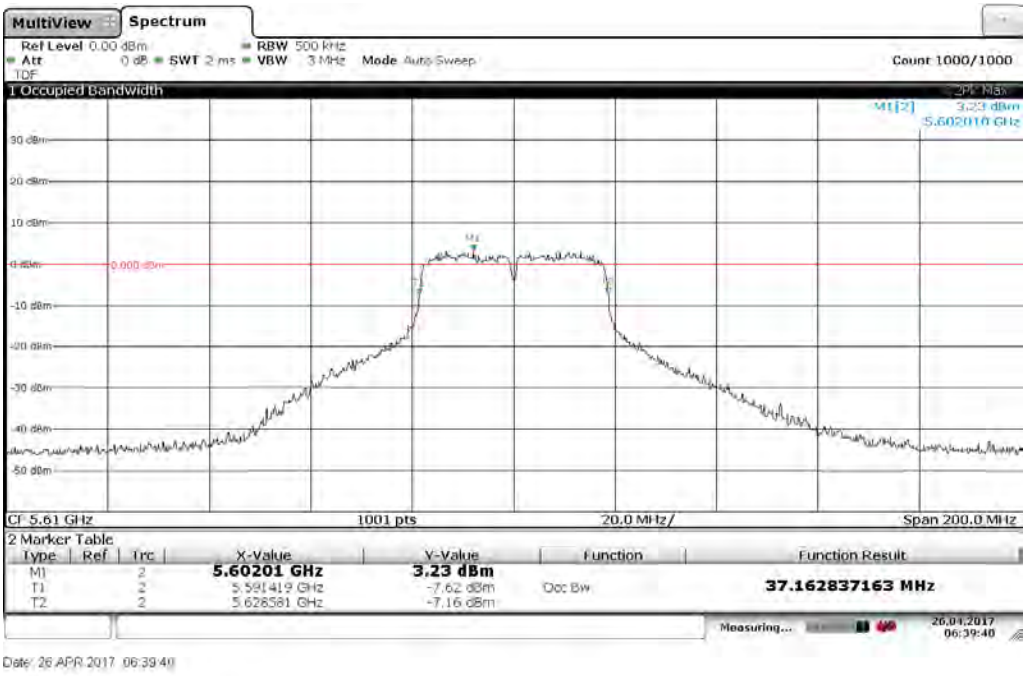
Band 3 (20 MHz Bandwidth)

Low Channel – 5510 MHz, 802 11n MCS7 135 Mbps, 26 dB Bandwidth: 56.34 MHz



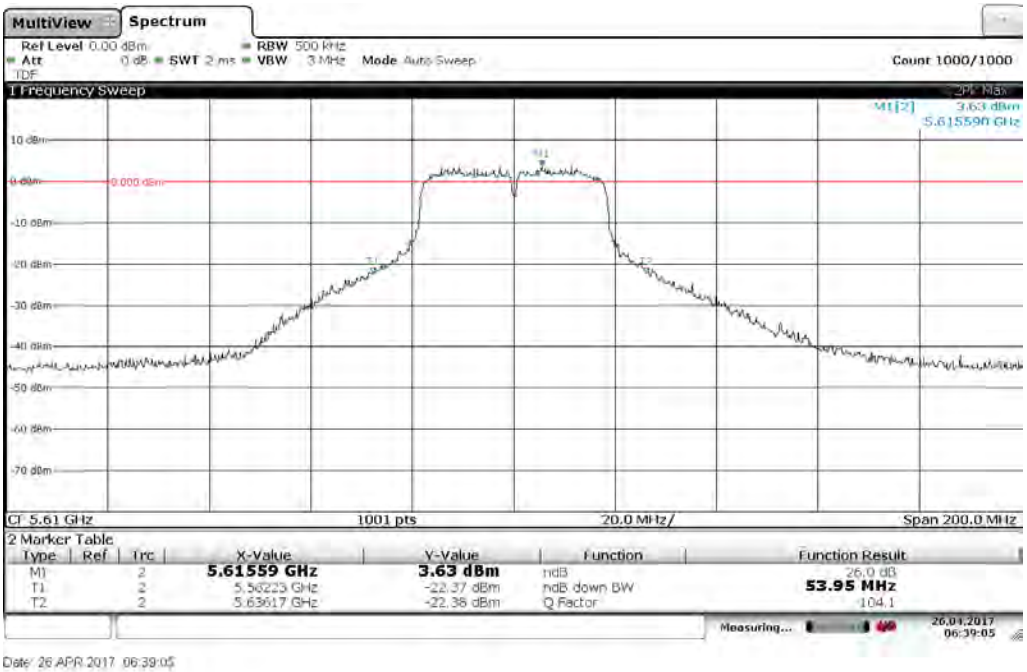
Band 3 (40 MHz Bandwidth)

Mid Channel – 5610 MHz, 802 11n MCS7 135 Mbps, Occupied Bandwidth: 37.163 MHz



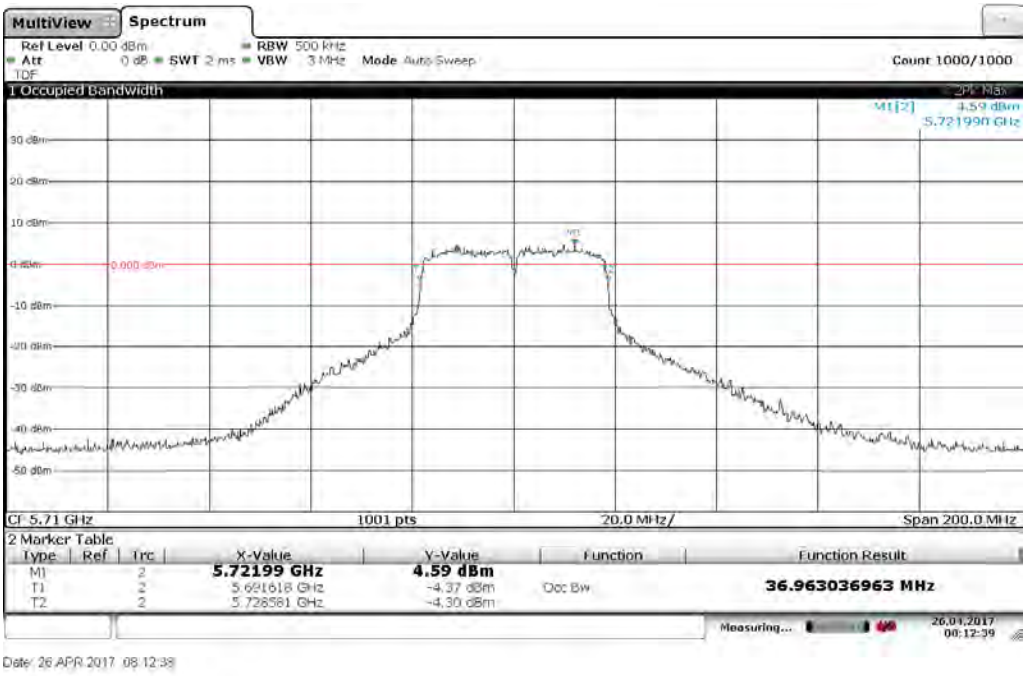
Band 3 (40 MHz Bandwidth)

Mid Channel – 5610 MHz, 802 11n MCS7 135 Mbps, 26 dB Bandwidth: 53.95 MHz



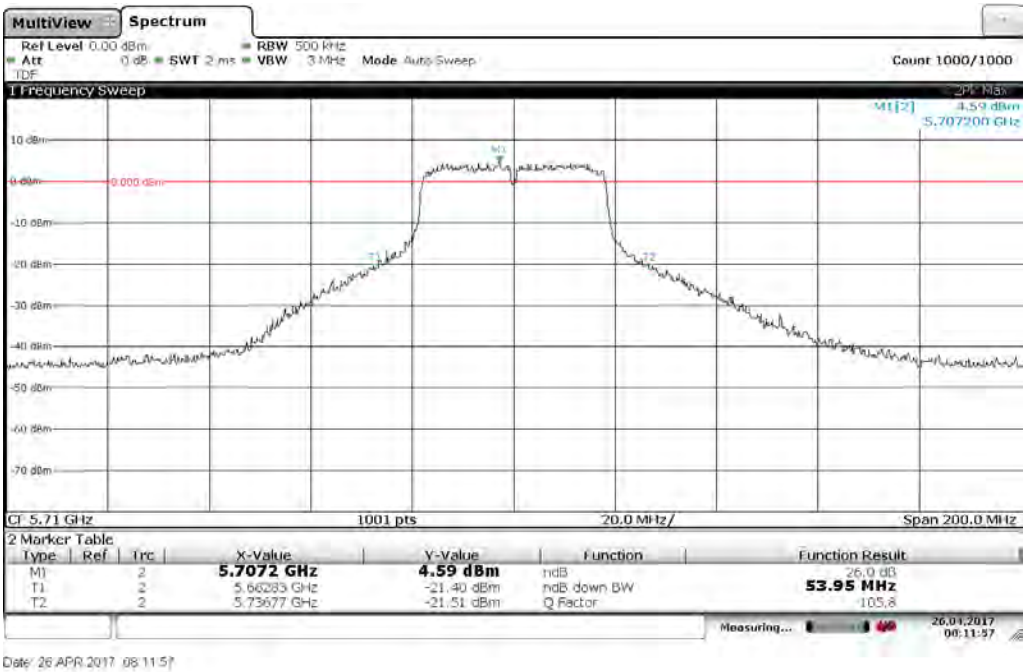
Band 3 (40 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS7 135 Mbps, Occupied Bandwidth: 36.963 MHz



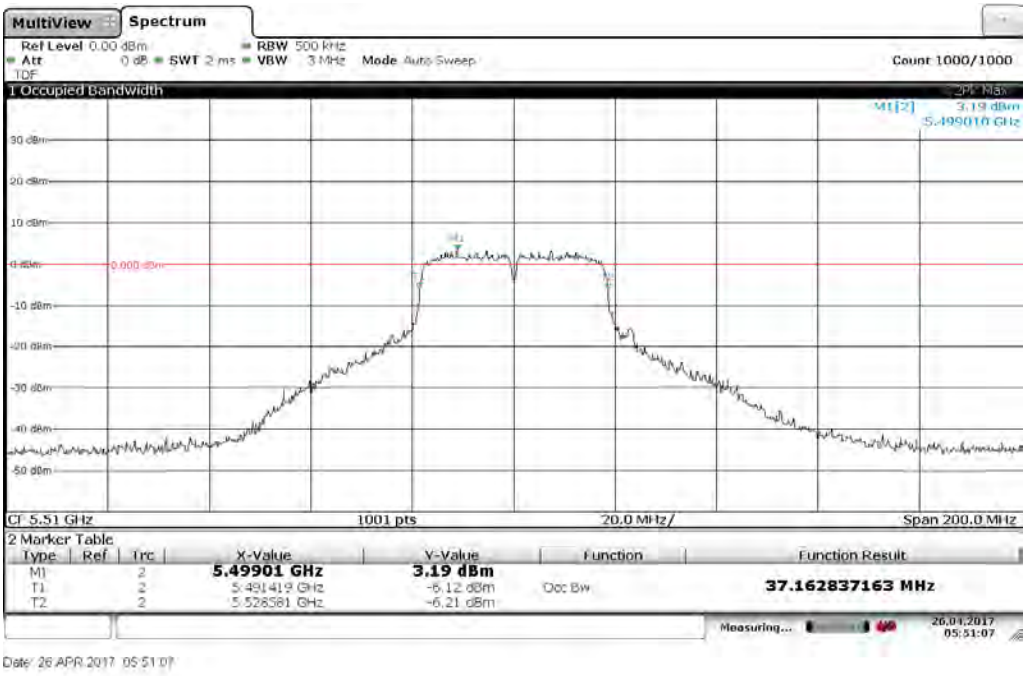
Band 3 (40 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS7 135 Mbps, 26 dB Bandwidth: 53.95 MHz



Band 3 (40 MHz Bandwidth)

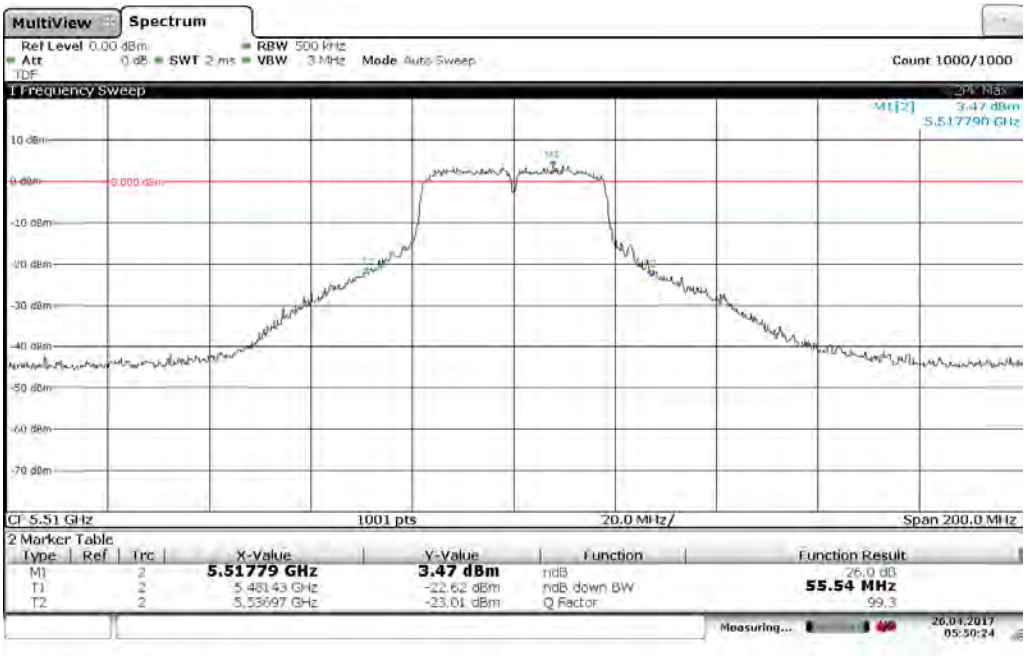
Low Channel – 5510 MHz, 802 11n MCS7 MM SG 150 Mbps, Occupied Bandwidth: 37.163 MHz



Date: 26.APR.2017 05:51:07

Band 3 (20 MHz Bandwidth)

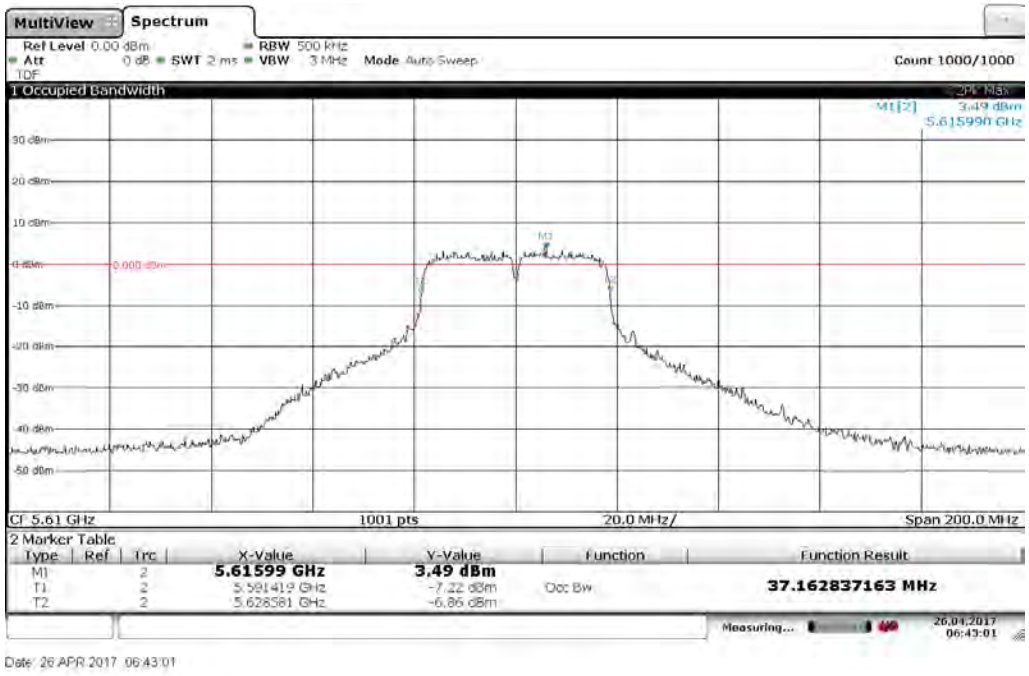
Low Channel – 5510 MHz, 802 11n MCS7 MM SG 150 Mbps, 26 dB Bandwidth: 55.54 MHz



Date: 26.APR.2017 05:50:23

Band 3 (40 MHz Bandwidth)

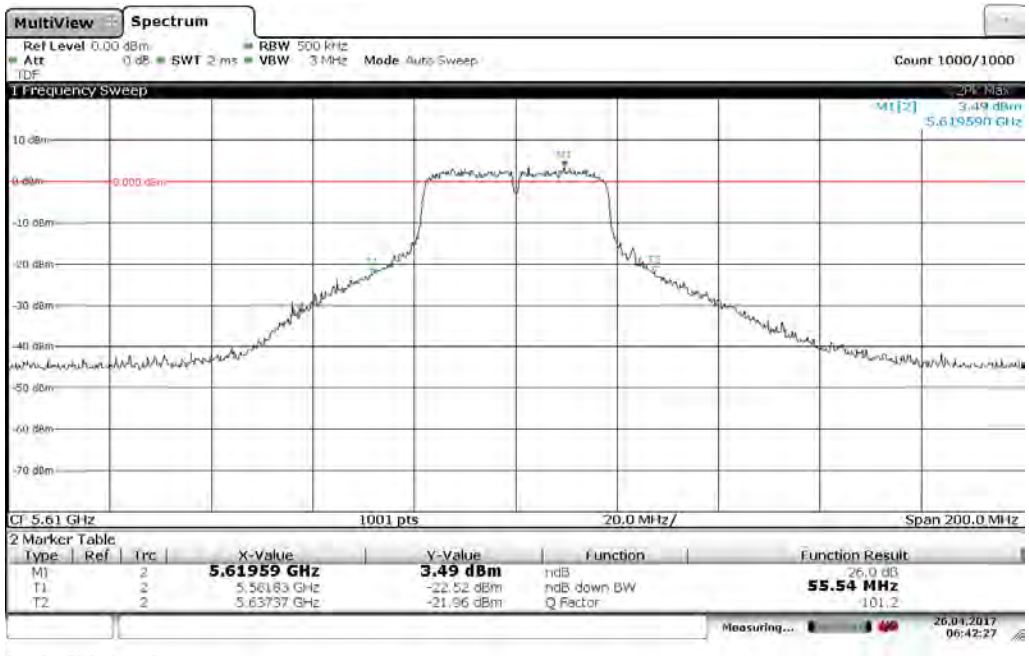
Mid Channel – 5610 MHz, 802 11n MCS7 MM SG 150 Mbps, Occupied Bandwidth: 37.163 MHz



Date: 26.APR.2017 06:43:01

Band 3 (40 MHz Bandwidth)

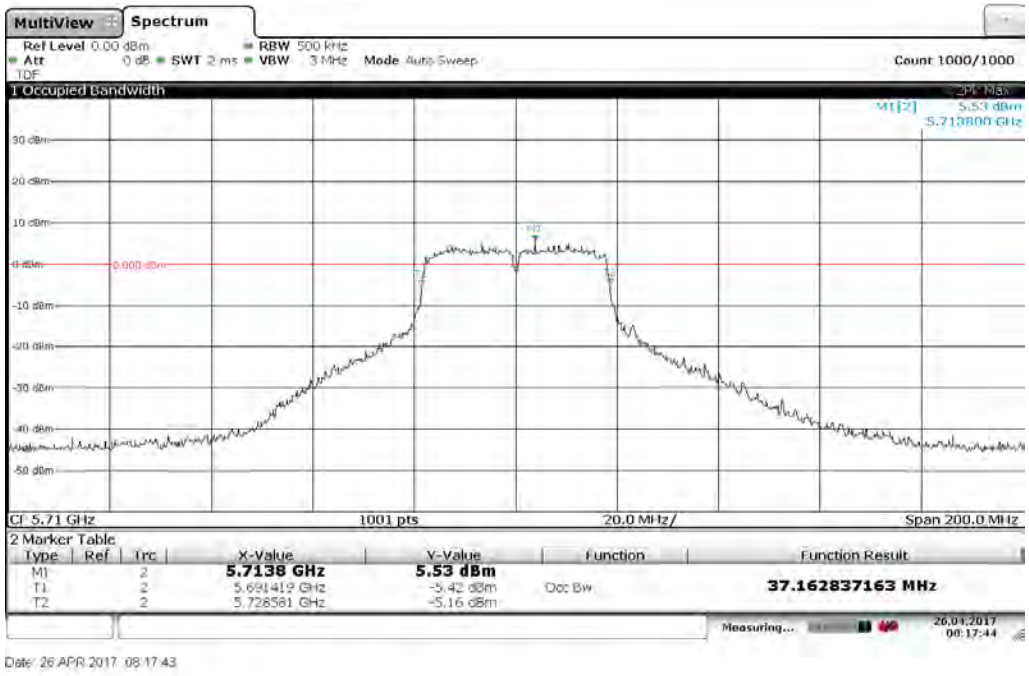
Mid Channel – 5610 MHz, 802 11n MCS7 MM SG 150 Mbps, 26 dB Bandwidth: 55.54 MHz



Date: 26.APR.2017 06:42:28

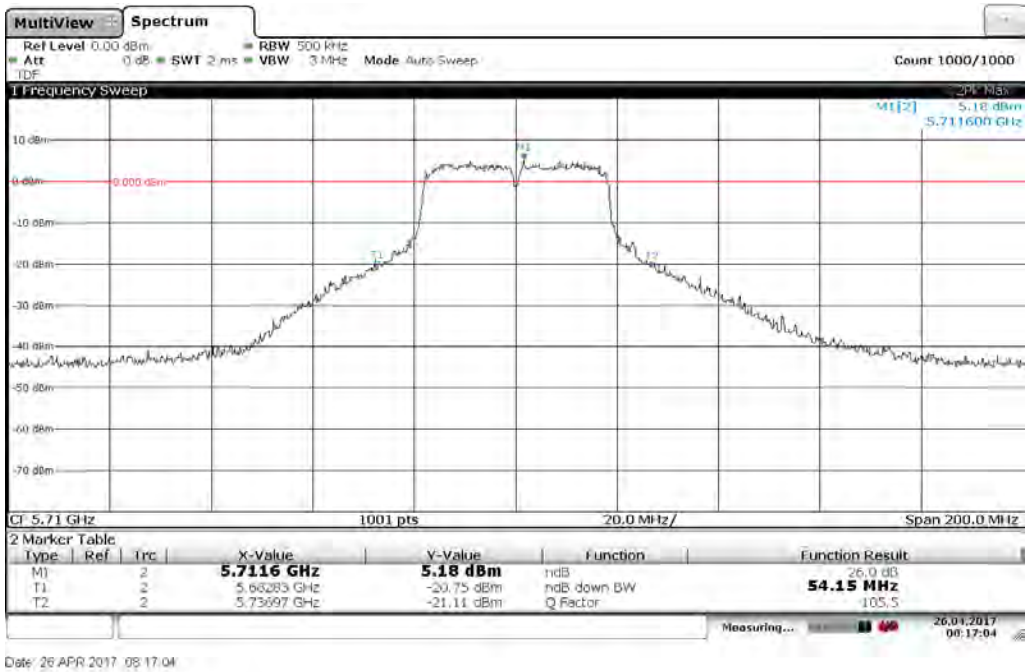
Band 3 (20 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS7 MM SG 150 Mbps, Occupied Bandwidth: 37.163 MHz



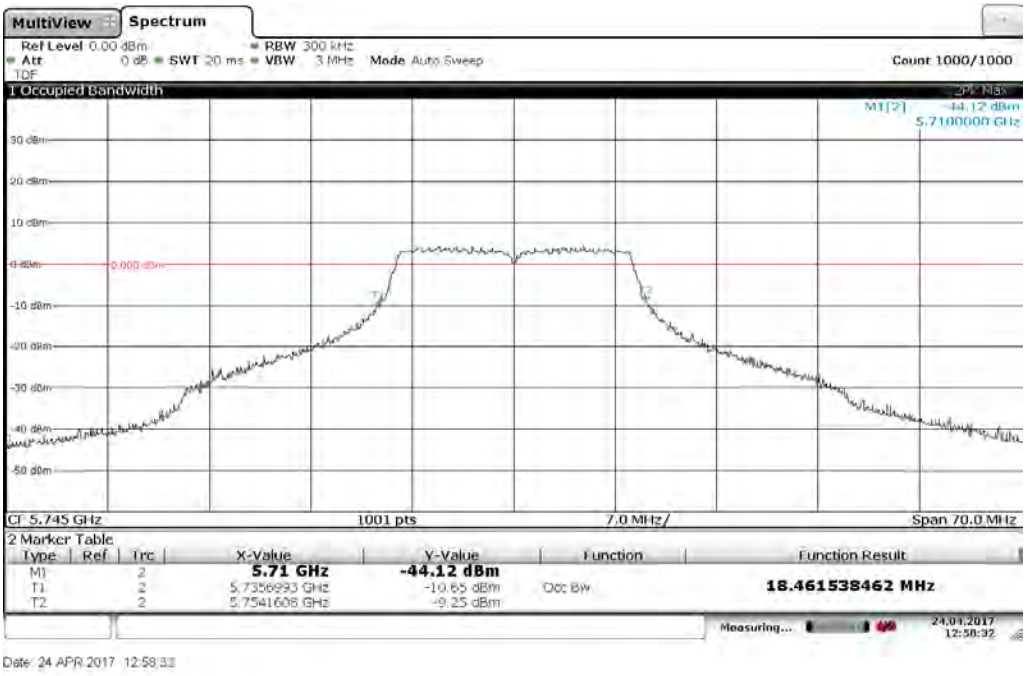
Band 3 (20 MHz Bandwidth)

High Channel – 5710 MHz, 802 11n MCS7 MM SG 150 Mbps, 26 dB Bandwidth: 54.15 MHz



Band 4 (20 MHz Bandwidth)

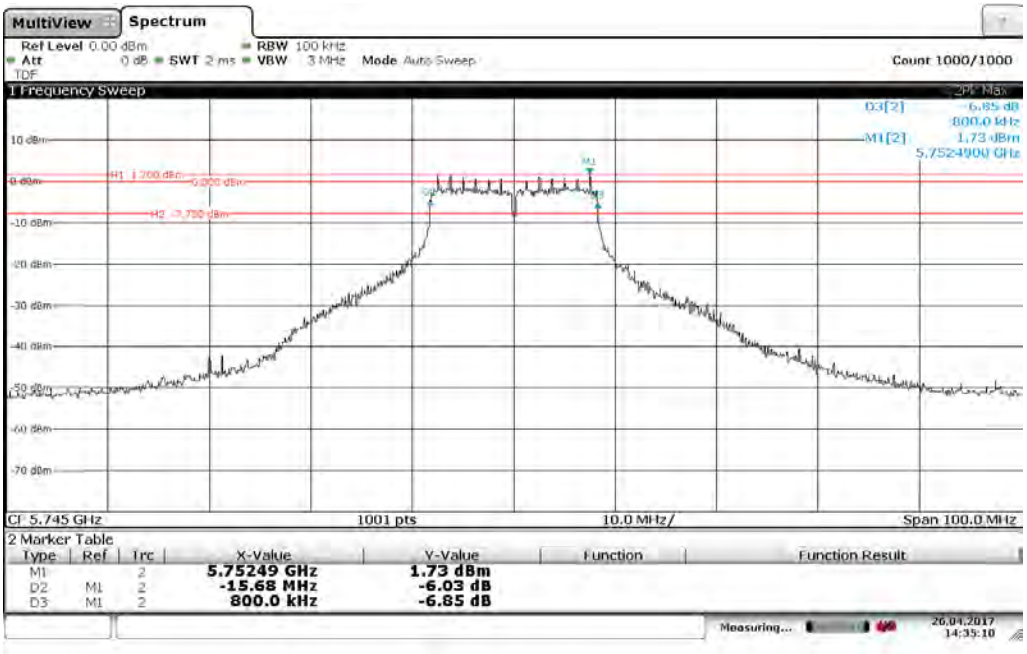
Low Channel – 5745 MHz, 802 11ag 6 Mbps, Occupied Bandwidth: 18.462 MHz



Date: 24 APR 2017 12:58:33

Band 4 (20 MHz Bandwidth)

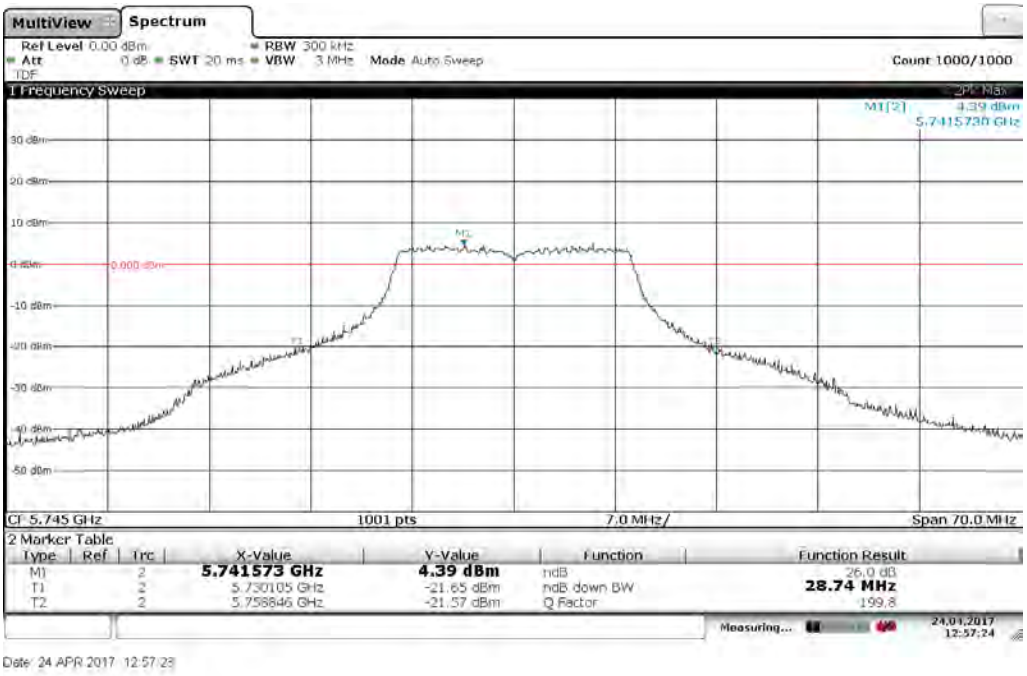
Low Channel – 5745 MHz, 802 11ag 6 Mbps, 6 dB Bandwidth: 16.48 MHz



Date: 26 APR 2017 14:35:09

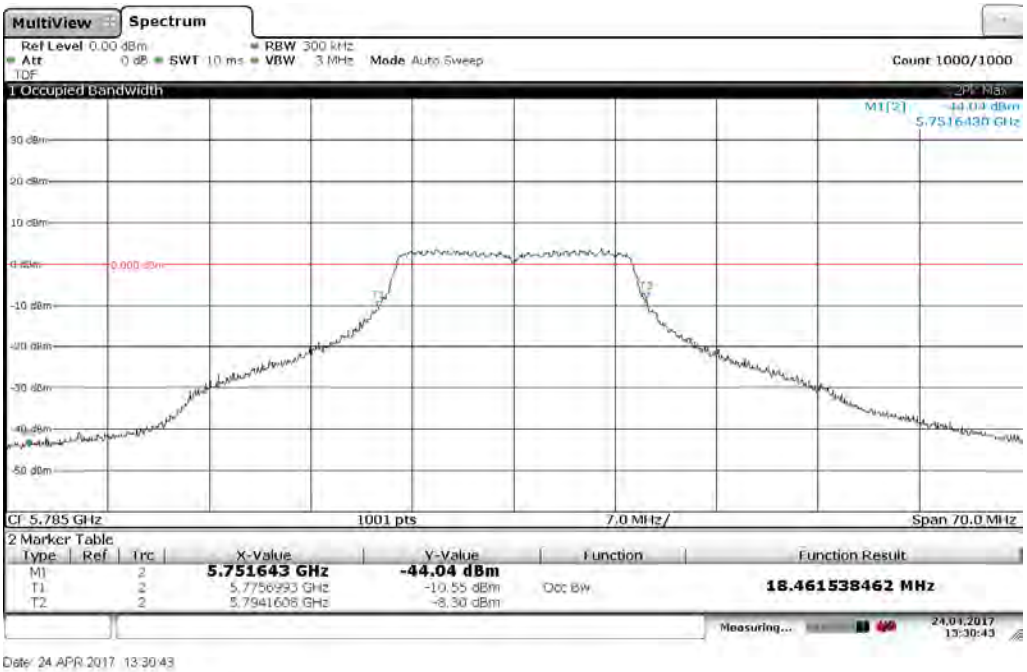
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11ag 6 Mbps, 26 dB Bandwidth: 28.74 MHz



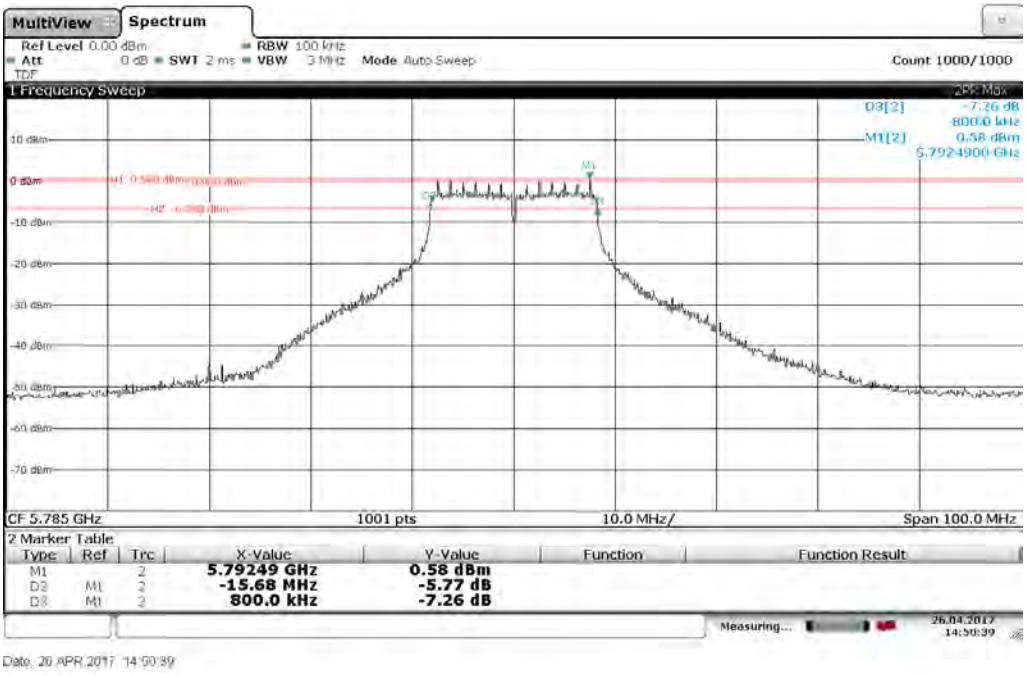
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11ag 6 Mbps, Occupied Bandwidth: 18.462 MHz



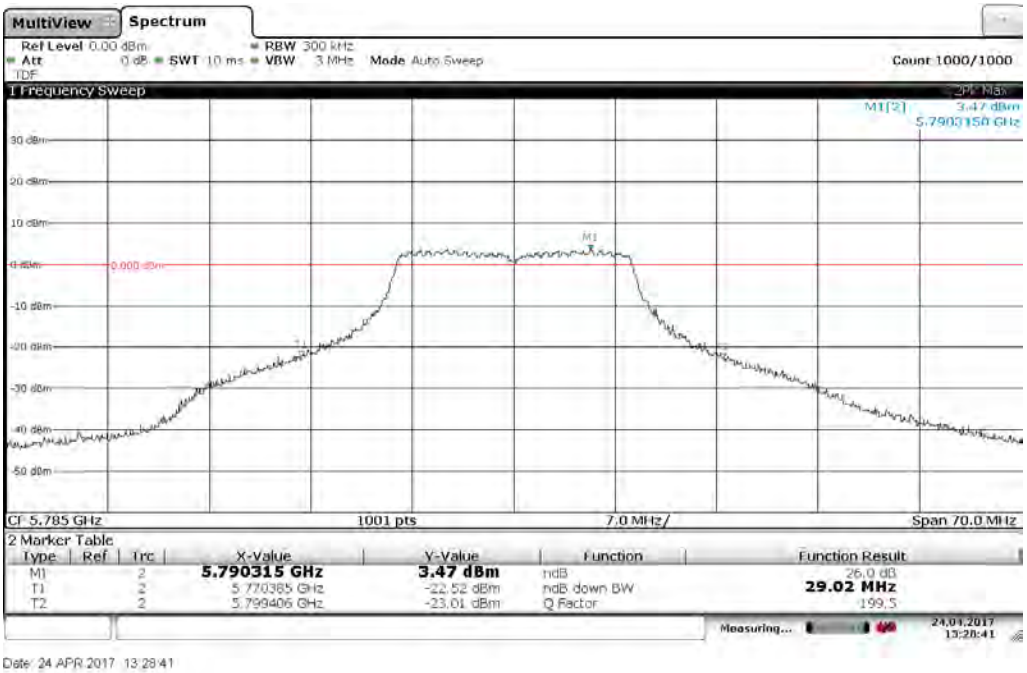
Band (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11ag 6 Mbps, 6 dB Bandwidth: 16.48 MHz



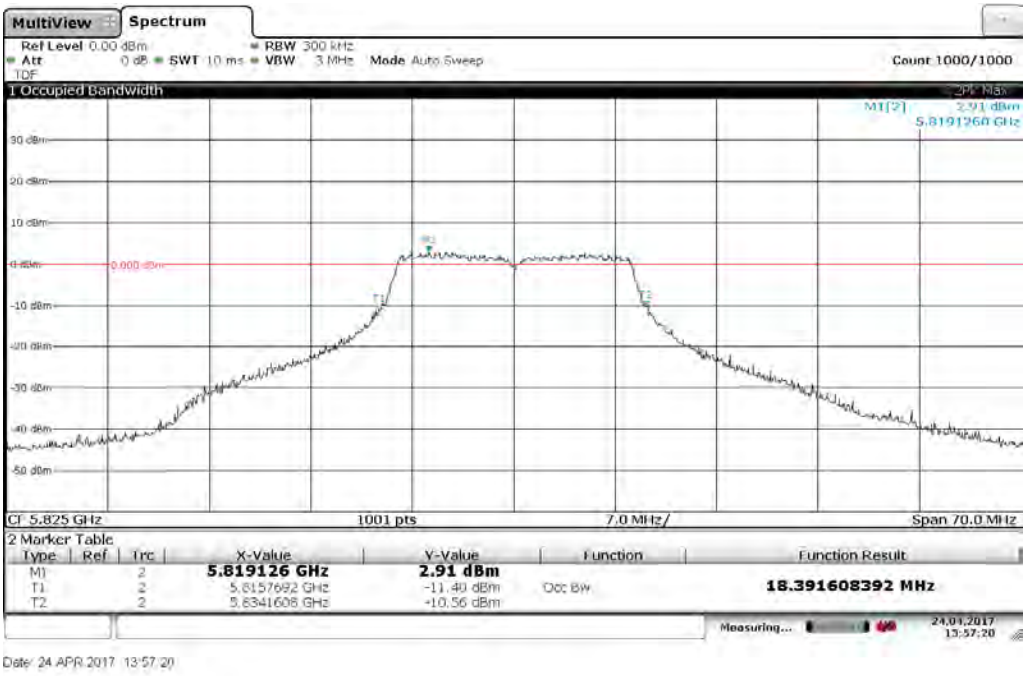
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11ag 6 Mbps, 26 dB Bandwidth: 29.02 MHz



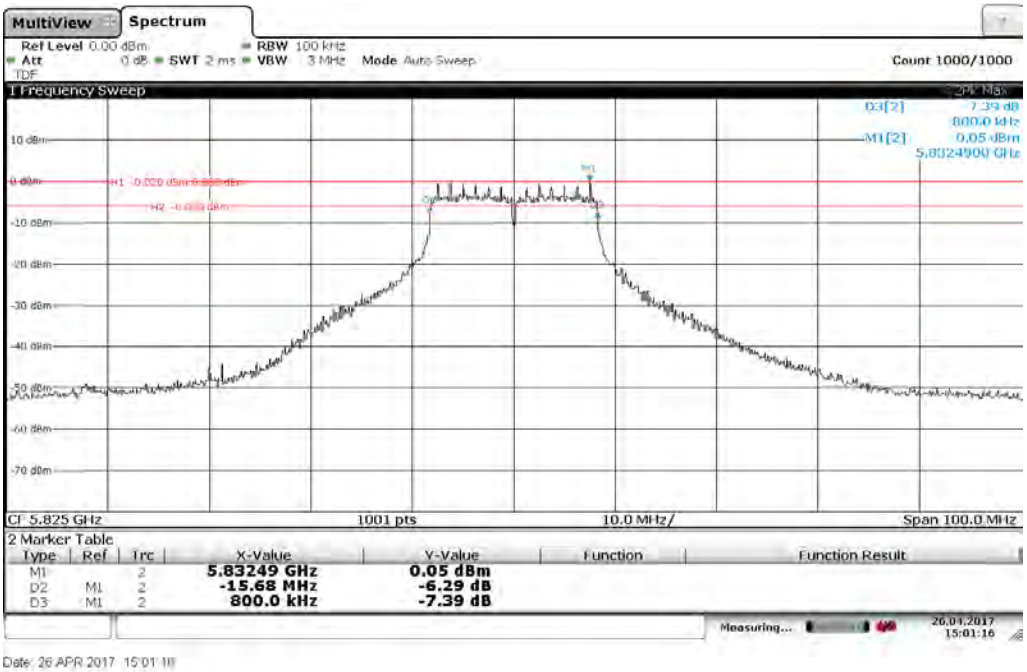
Band 4 (20 MHz Bandwidth)

High Channel – 5875 MHz, 802 11ag 6 Mbps, Occupied Bandwidth: 18.392 MHz



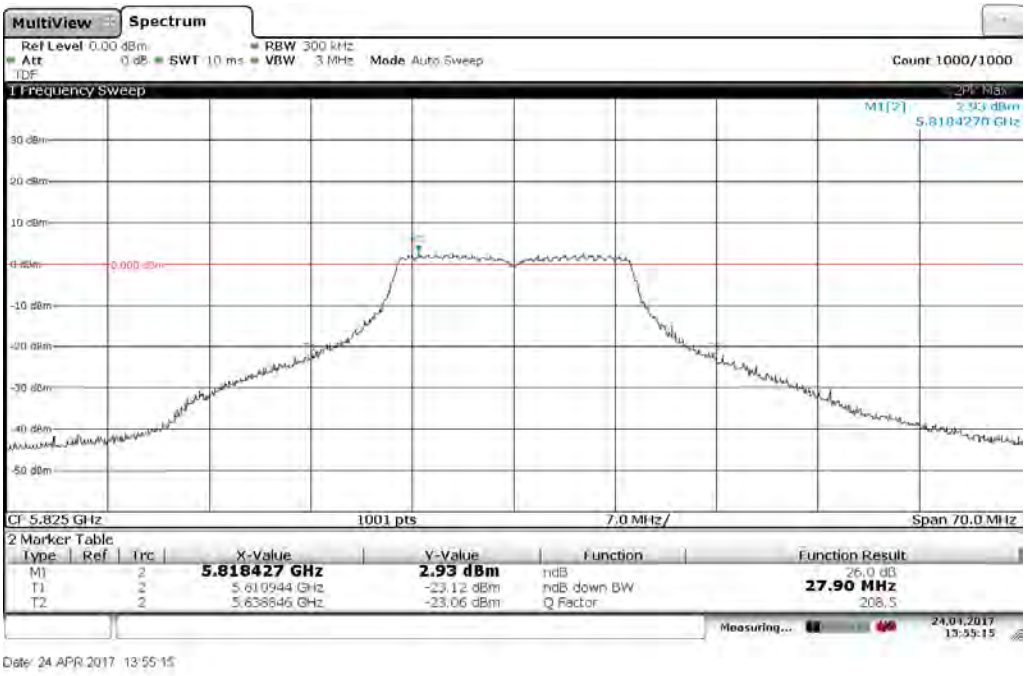
Band 4 (20 MHz Bandwidth)

High Channel – 5875 MHz, 802 11ag 6 Mbps, 6 dB Bandwidth: 16.48 MHz



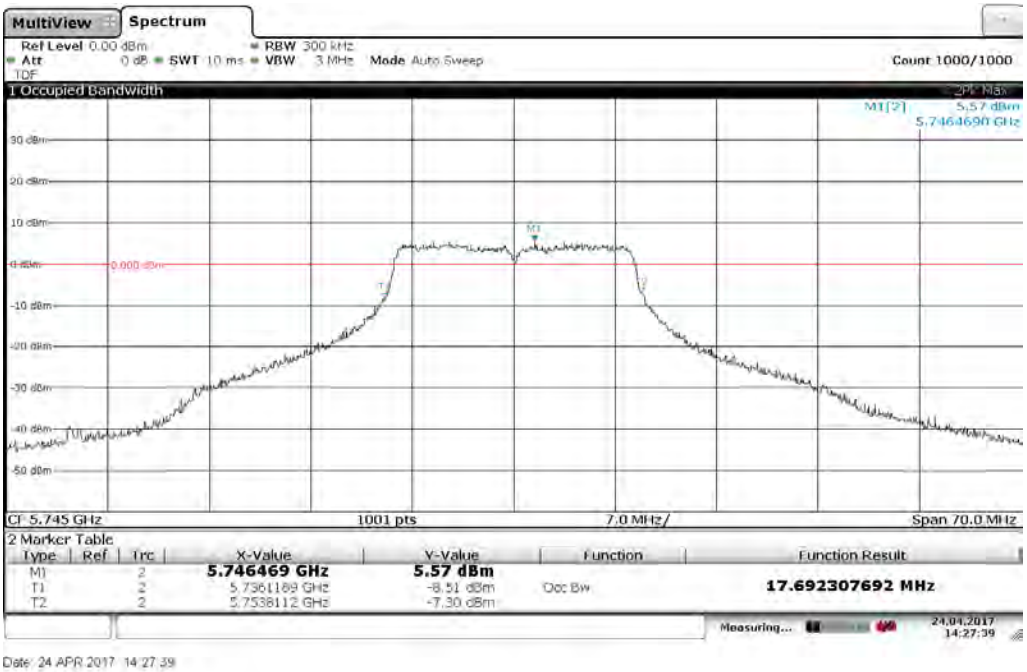
Band 4 (20 MHz Bandwidth)

High Channel – 5875 MHz, 802 11ag 6 Mbps, 26 dB Bandwidth: 27.90MHz



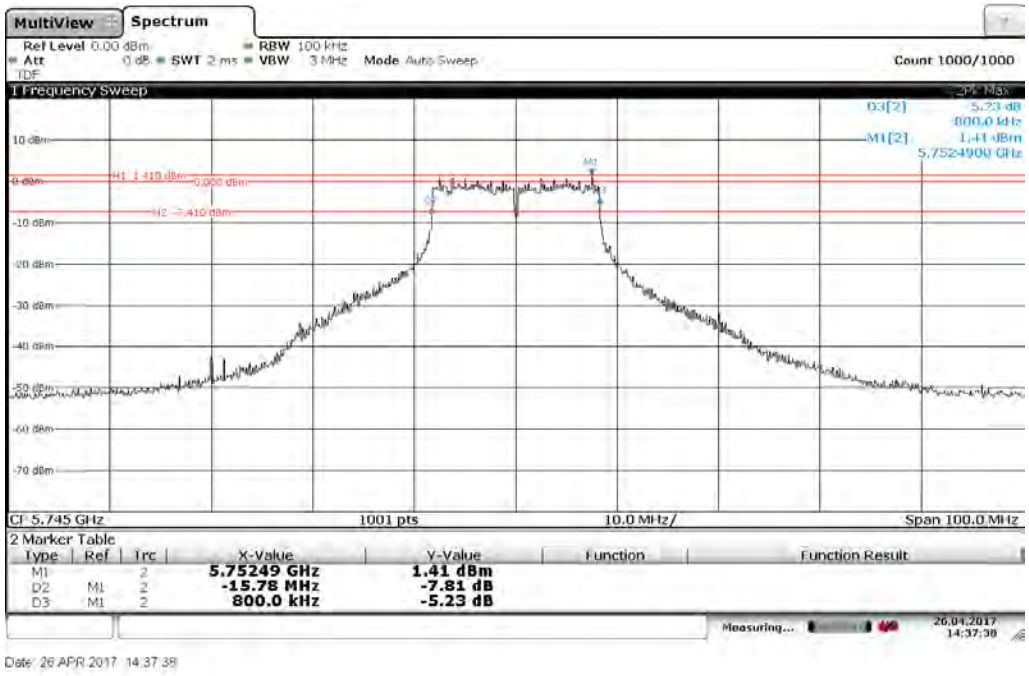
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 80 11ag 54 Mbps, Occupied Bandwidth: 17.692 MHz



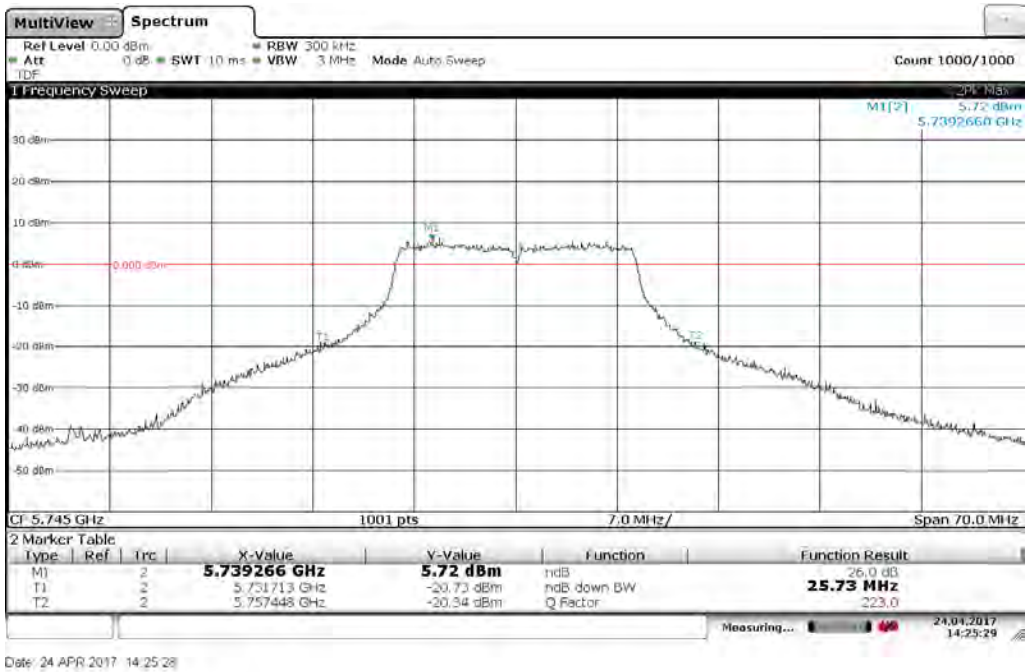
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11ag 54 Mbps, 6 dB Bandwidth: 16.58 MHz



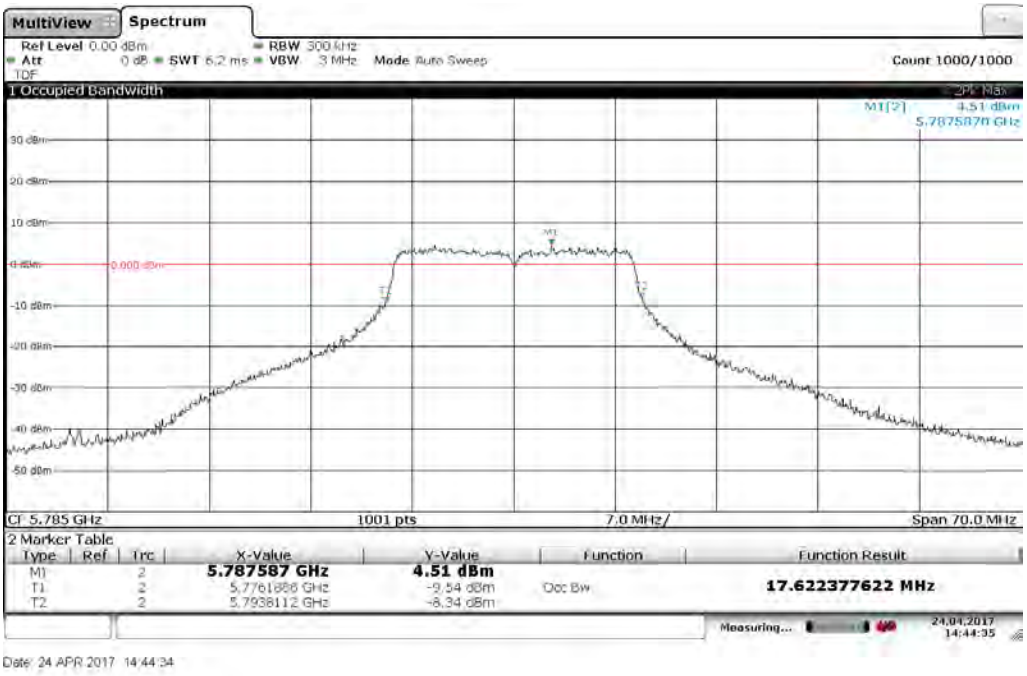
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11ag 54 Mbps, 26 dB Bandwidth: 25.73 MHz



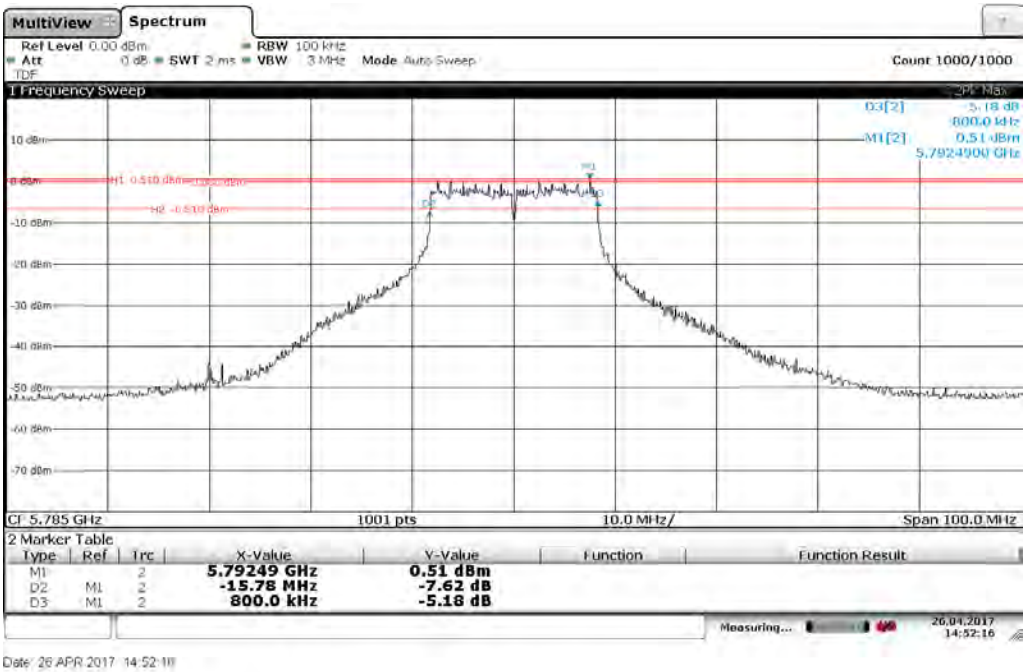
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11ag 54 Mbps, Occupied Bandwidth: 17.622 MHz

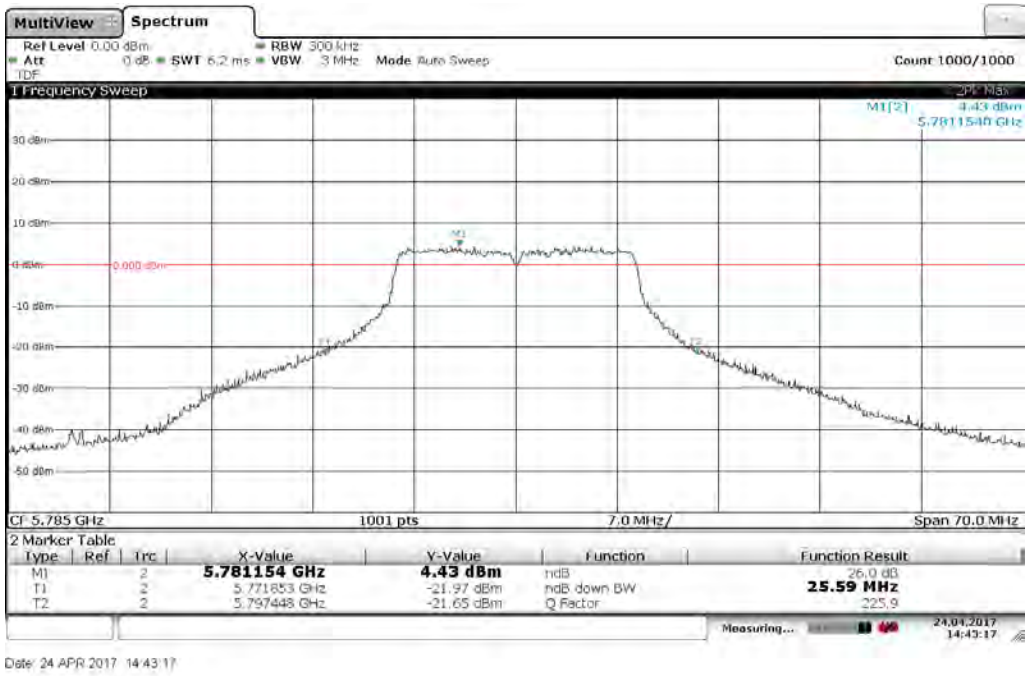


Band (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11ag 54 Mbps, 6 dB Bandwidth: 16.58 MHz



Band 4 (20 MHz Bandwidth)
Mid Channel – 5785 MHz, 802 11ag 54 Mbps, 26 dB Bandwidth: 25.59 MHz



Date: 24.APR.2017 14:43:17

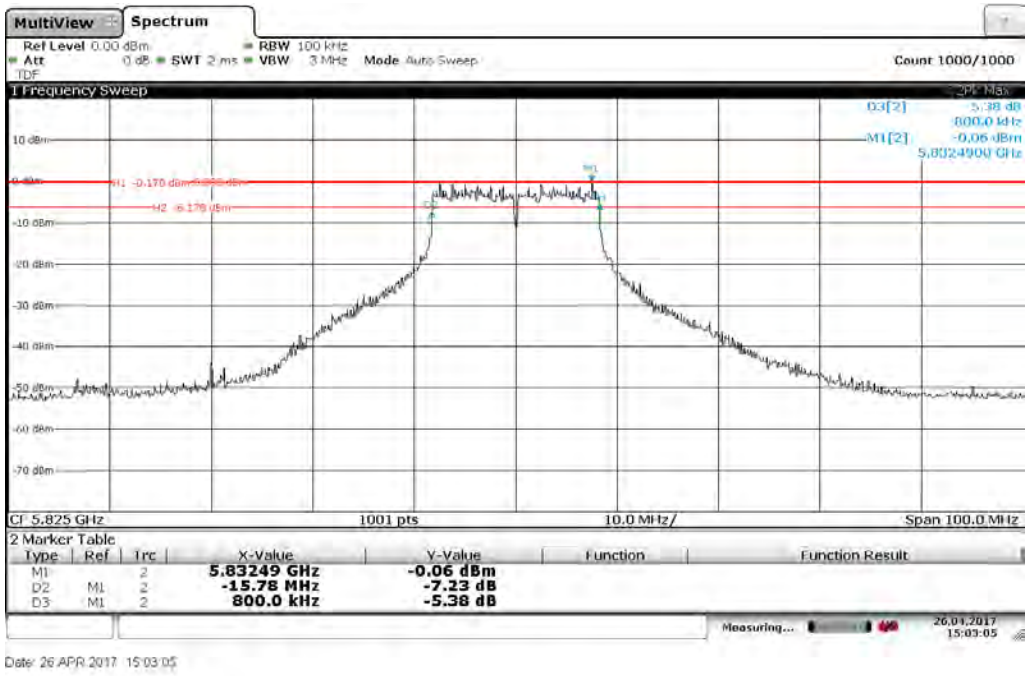
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11ag 54 Mbps, Occupied Bandwidth: 17.692 MHz

Date: 24.APR.2017 15:03:27

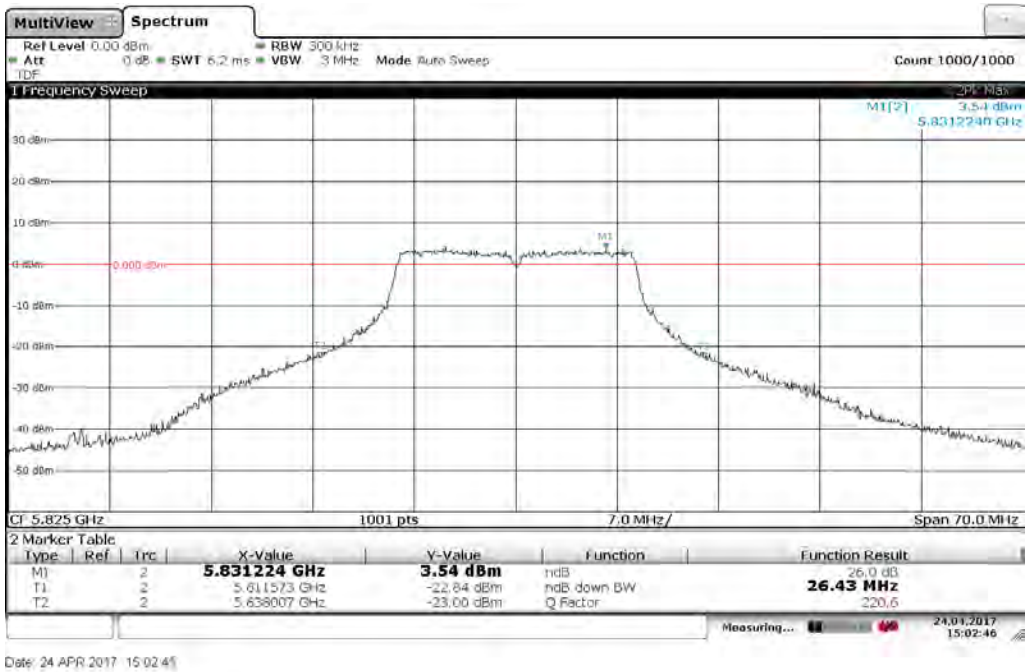
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11ag 54 Mbps, 6 dB Bandwidth: 16.58 MHz



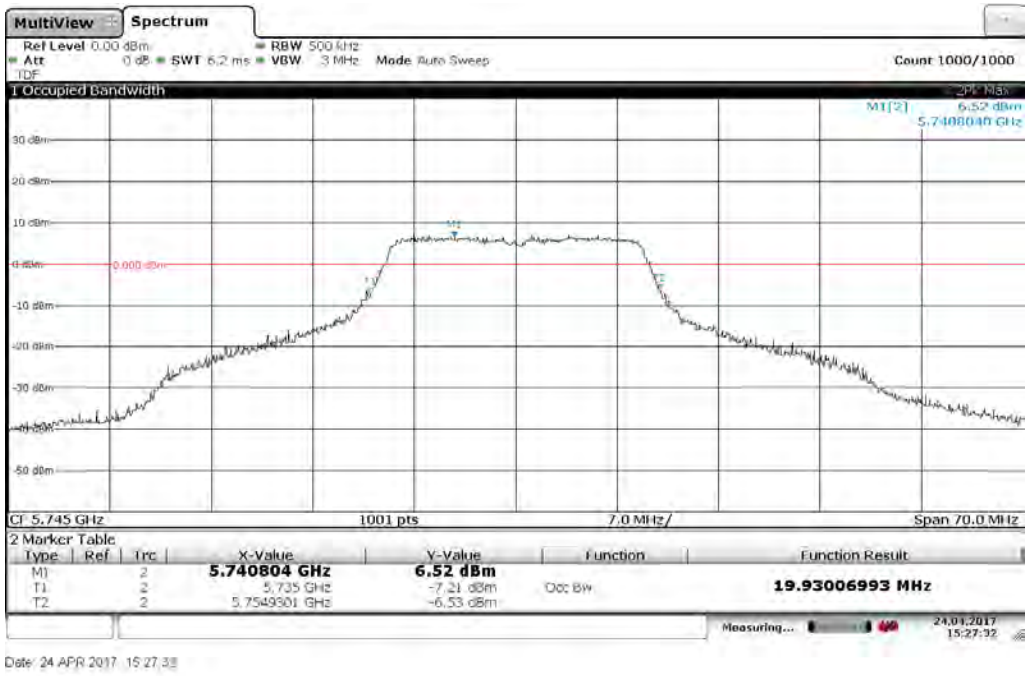
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11ag 54 Mbps, 26 dB Bandwidth: 26.43 MHz



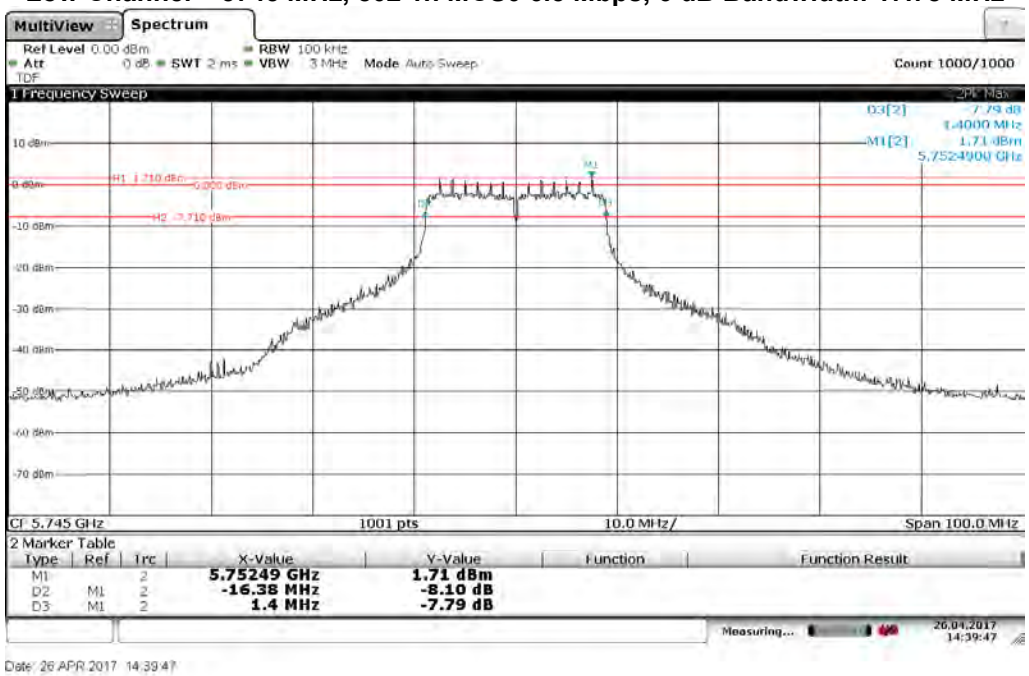
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 1n MCS0 6.5 Mbps, Occupied Bandwidth: 19.930 MHz

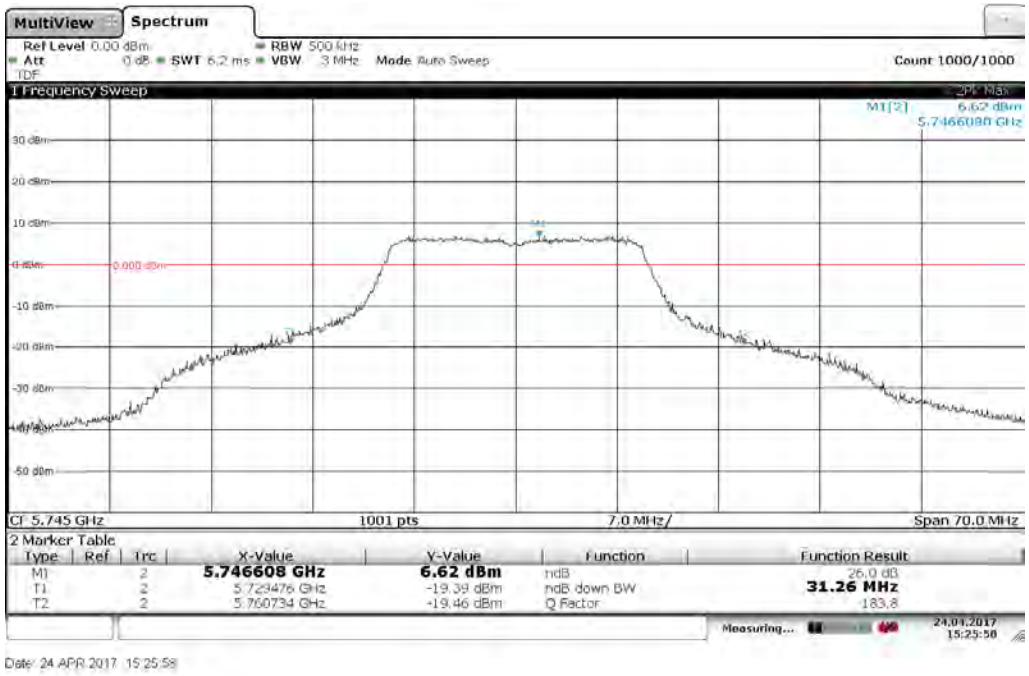


Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 1n MCS0 6.5 Mbps, 6 dB Bandwidth: 17.78 MHz

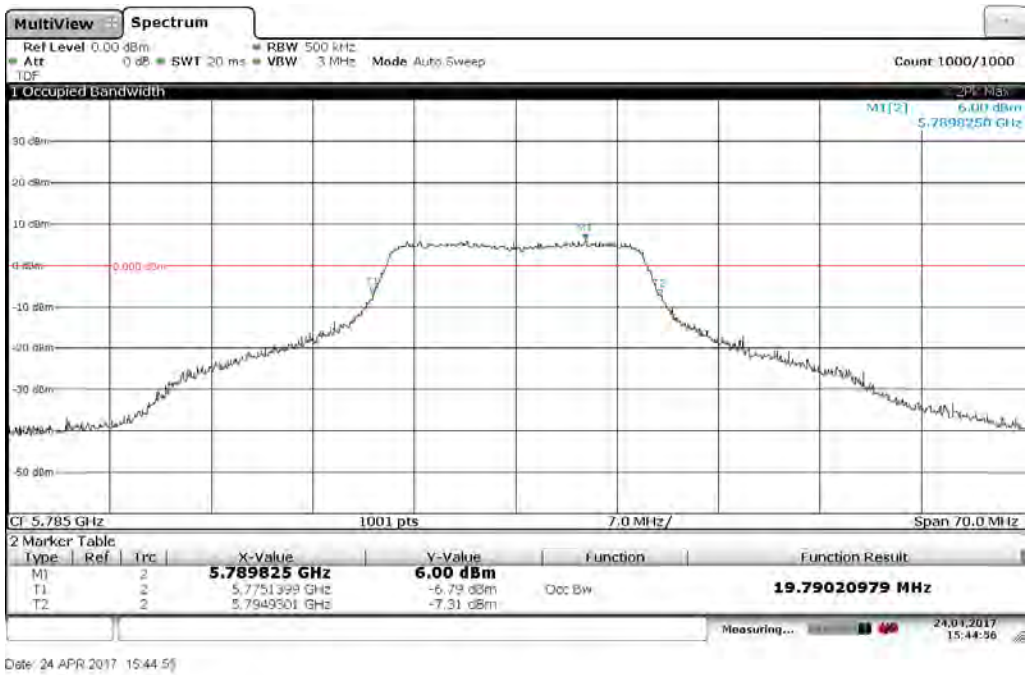


Band 4 (20 MHz Bandwidth)
Low Channel – 5745 MHz, 802 1n MCS0 6.5 Mbps, 26 dB Bandwidth: 31.26 MHz



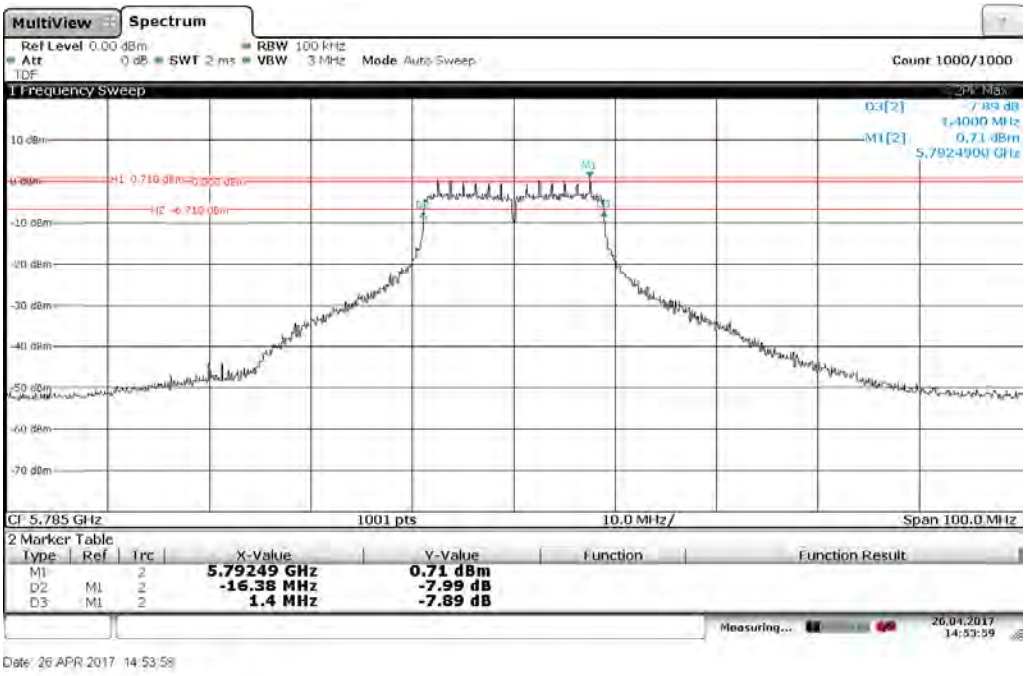
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 1n MCS0 6.5 Mbps, Occupied Bandwidth: 19.790 MHz



Band (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 1n MCS0 6.5 Mbps, 6 dB Bandwidth: 17.78 MHz



Date: 26.APR.2017 14:53:58

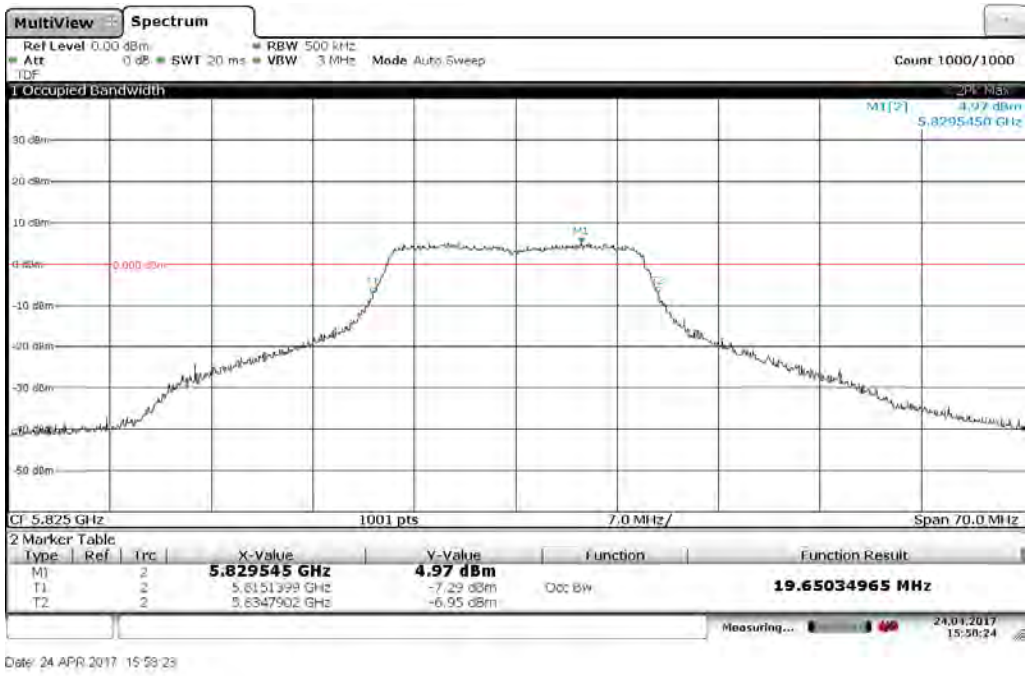
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 1n MCS0 6.5 Mbps, 26 dB Bandwidth: 31.12 MHz

Date: 24.APR.2017 15:43:41

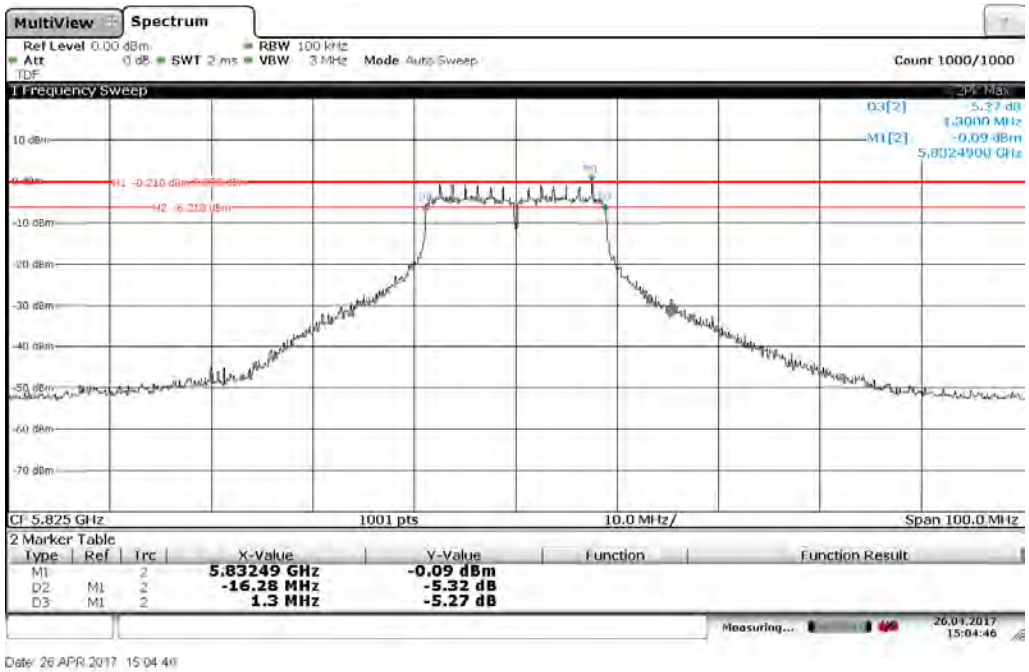
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 1n MCS0 6.5 Mbps, Occupied Bandwidth: 19.650 MHz

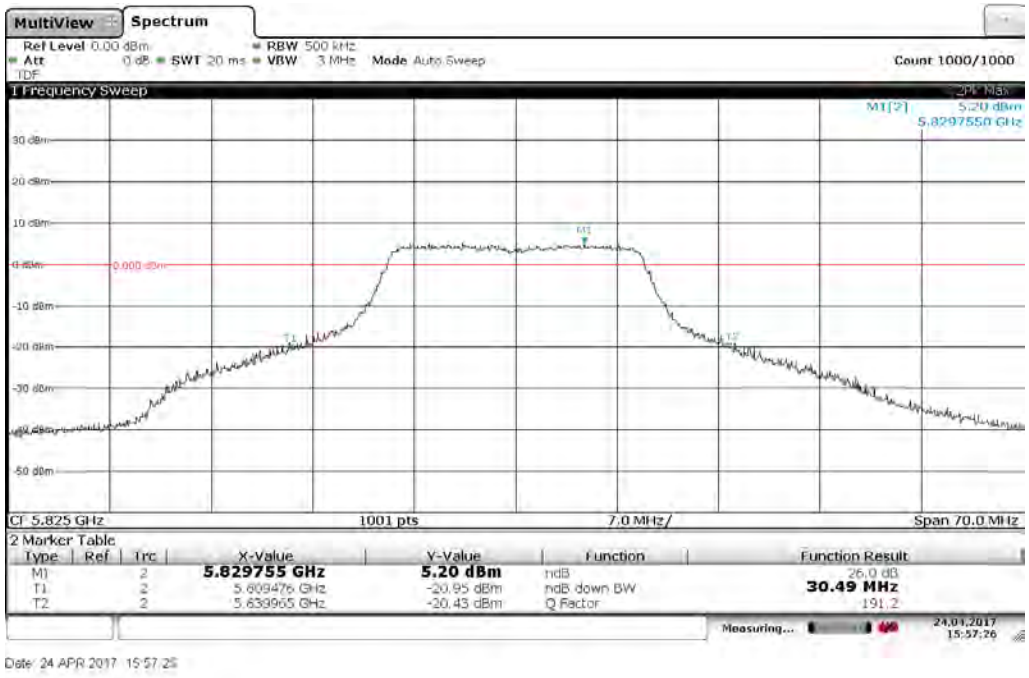


Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 1n MCS0 6.5 Mbps, 6 dB Bandwidth: 27.58 MHz

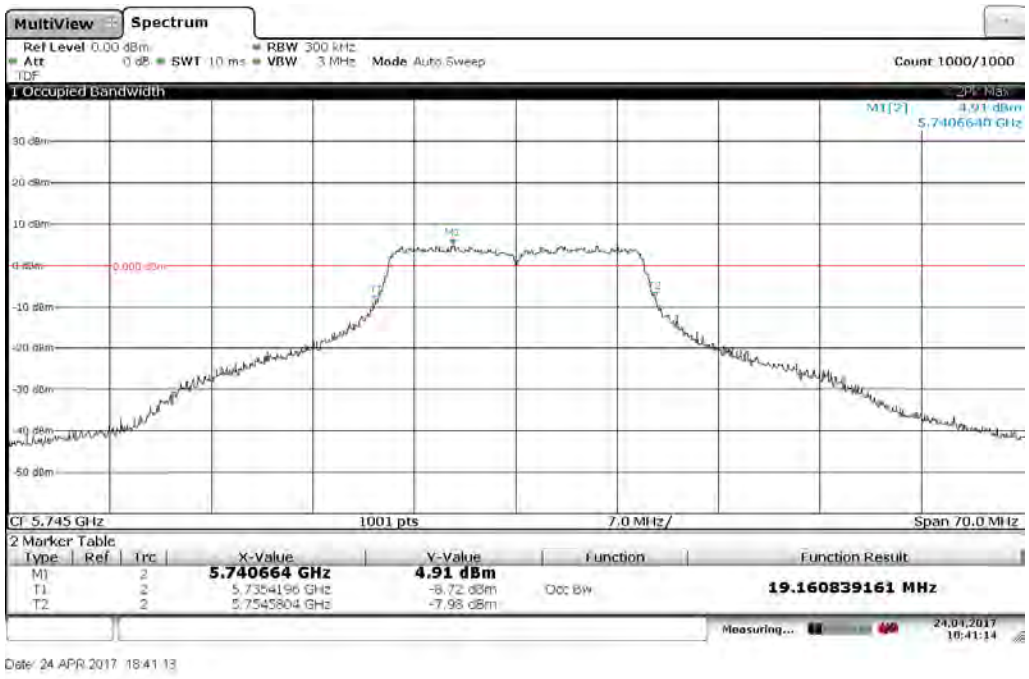


Band 4 (20 MHz Bandwidth)
High Channel – 5825 MHz, 802 1n MCS0 6.5 Mbps, 26 dB Bandwidth: 30.49 MHz



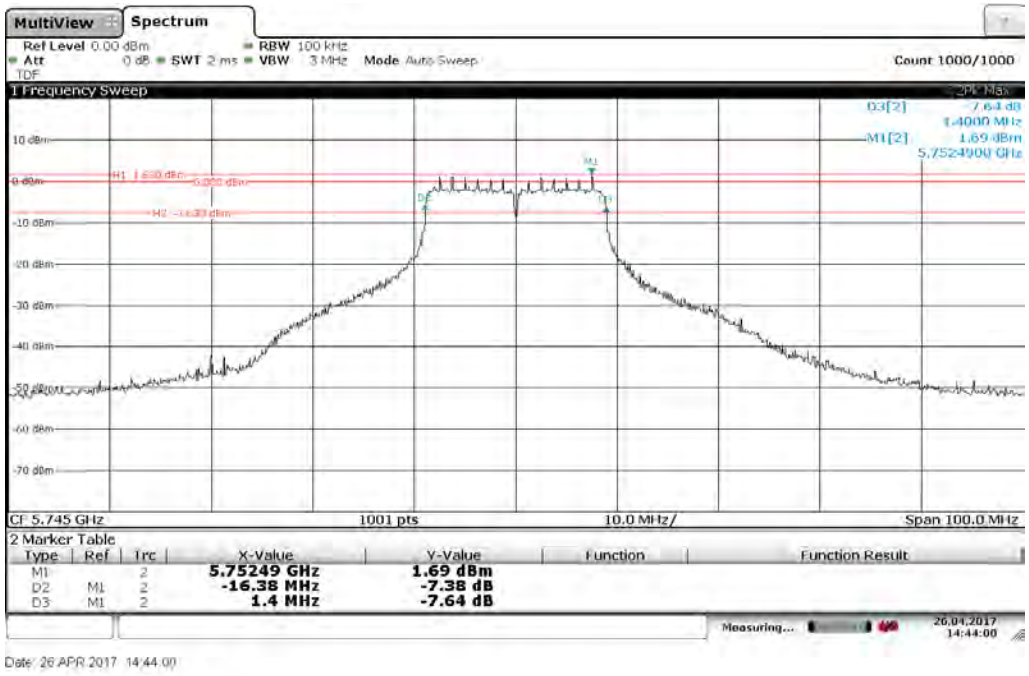
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS0 MM SG 7.2 Mbps, Occupied Bandwidth: 19.161 MHz



Band 4 (20 MHz Bandwidth)

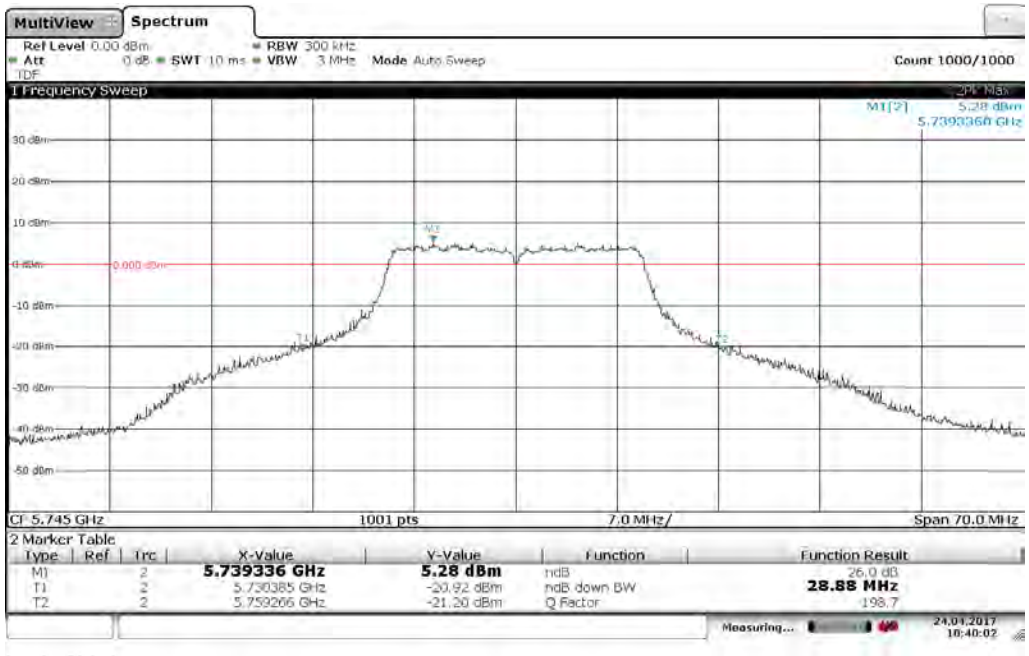
Low Channel – 5745 MHz, 802 11n MCS0 MM SG 7.2 Mbps, 6 dB Bandwidth: 27.78 MHz



Date: 26 APR 2017 14:44:00

Band 4 (20 MHz Bandwidth)

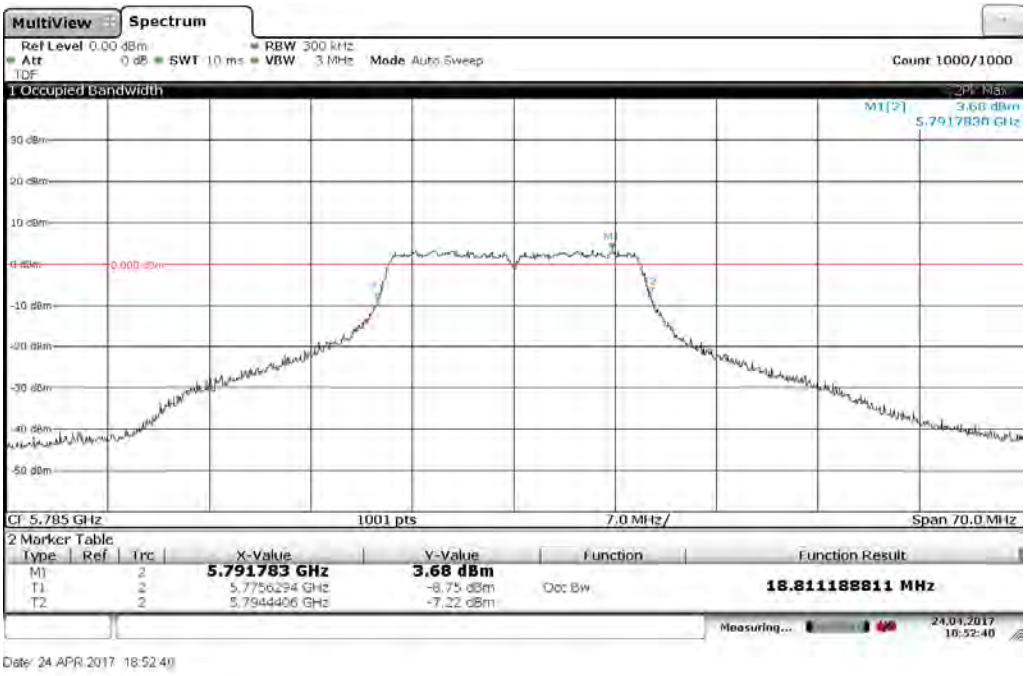
Low Channel – 5745 MHz, 802 11n MCS0 MM SG 7.2 Mbps, 26 dB Bandwidth: 28.88 MHz



Date: 24 APR 2017 18:40:01

Band 4 (20 MHz Bandwidth)

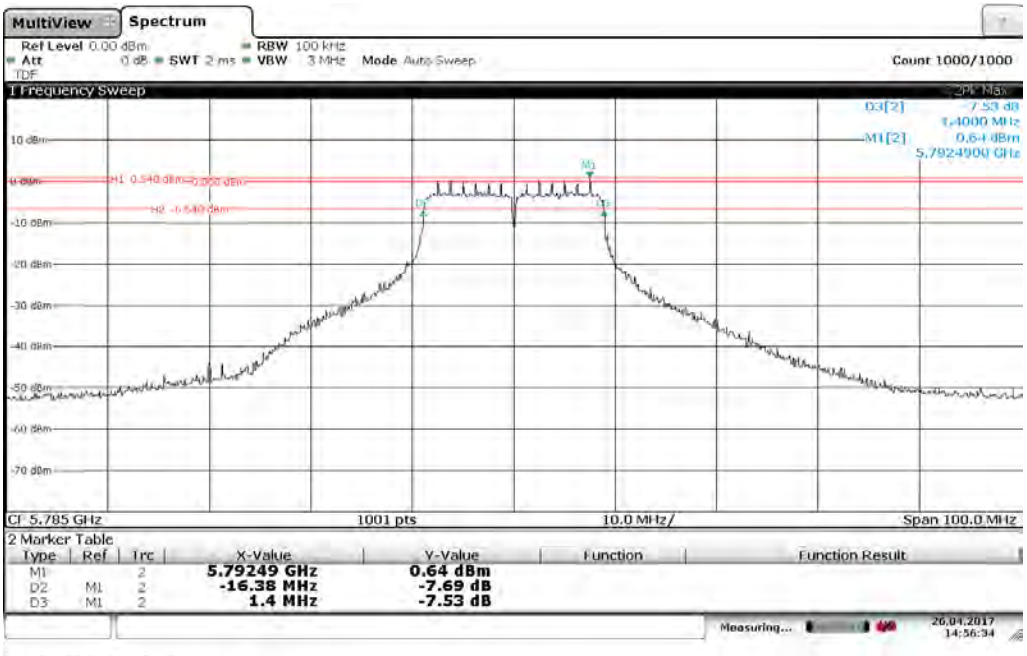
Mid Channel – 5785 MHz, 802 11n MCS0 MM SG 7.2 Mbps, Occupied Bandwidth: 18.811 MHz



Date: 24.APR.2017 10:52:40

Band (20 MHz Bandwidth)

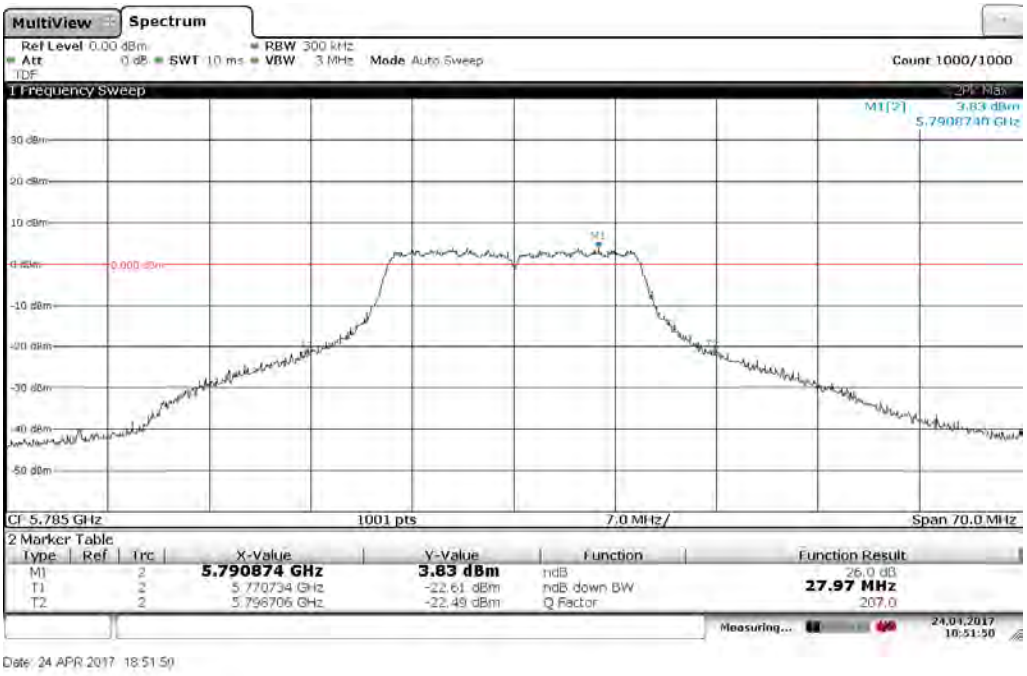
Mid Channel – 5785 MHz, 802 11n MCS0 MM SG 7.2 Mbps, 6 dB Bandwidth: 17.78 MHz



Date: 26.APR.2017 14:56:34

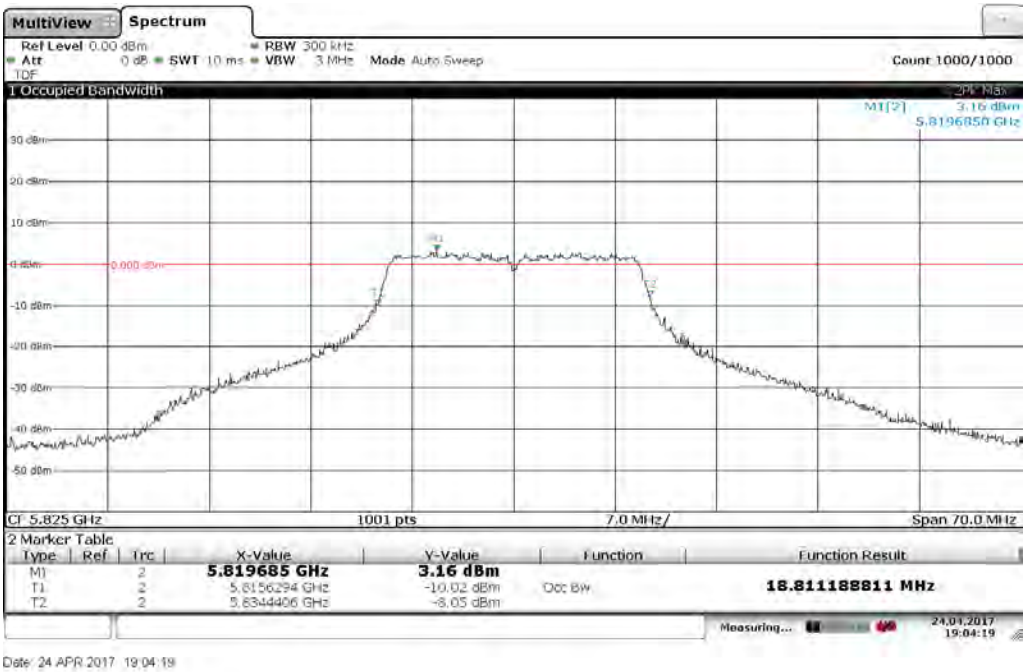
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11n MCS0 MM SG 7.2 Mbps, 26 dB Bandwidth: 27.97 MHz



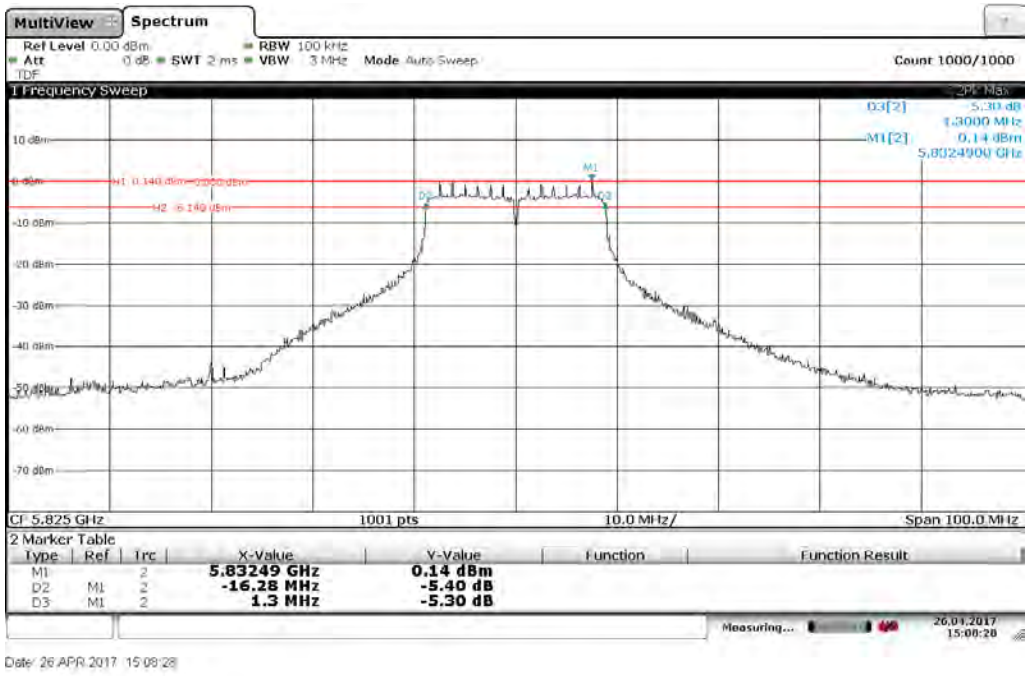
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11n MCS0 MM SG 7.2 Mbps, Occupied Bandwidth: 18.811 MHz



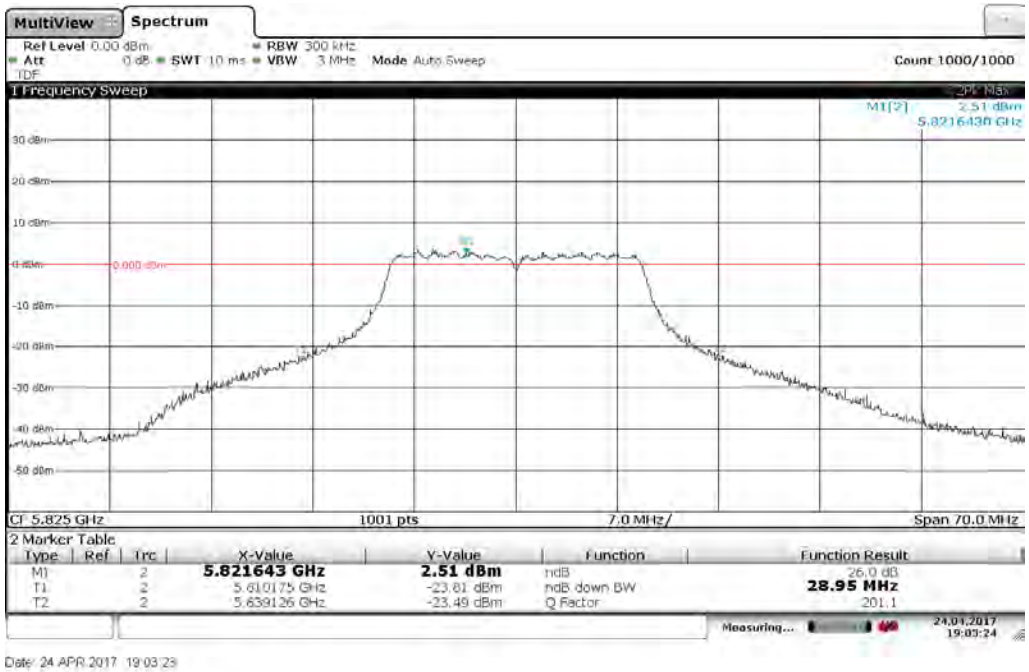
Band 4 (20 MHz Bandwidth)

High Channel – 5785 MHz, 802 11n MCS0 MM SG 7.2 Mbps, 6 dB Bandwidth: 17.58 MHz



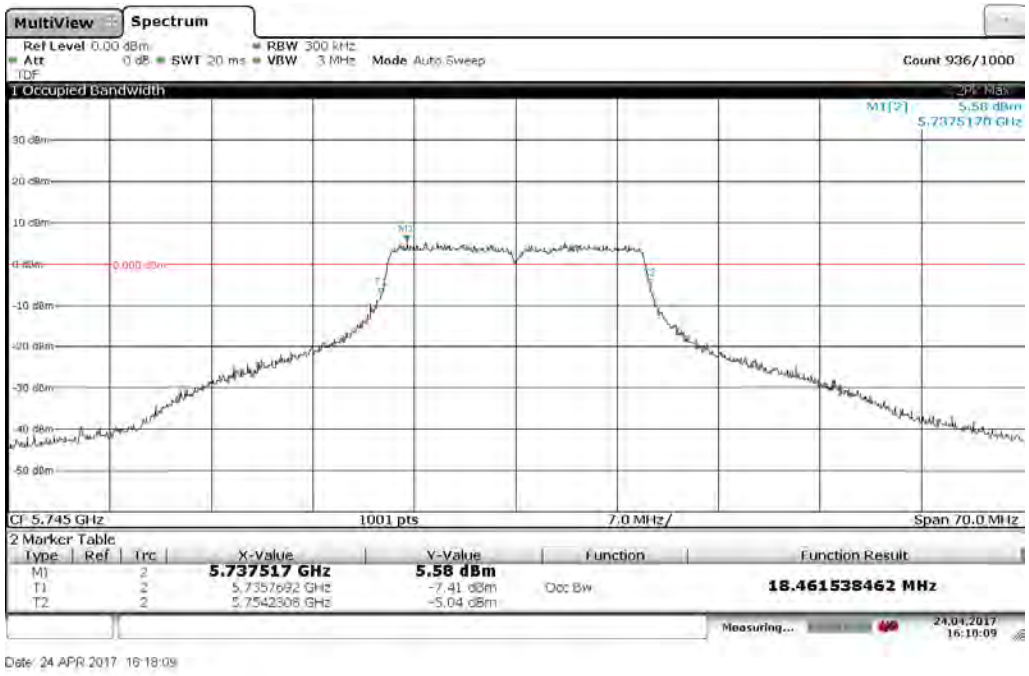
Band 4 (20 MHz Bandwidth)

High Channel – 5785 MHz, 802 11n MCS0 MM SG 7.2 Mbps, 26 dB Bandwidth: 28.95 MHz



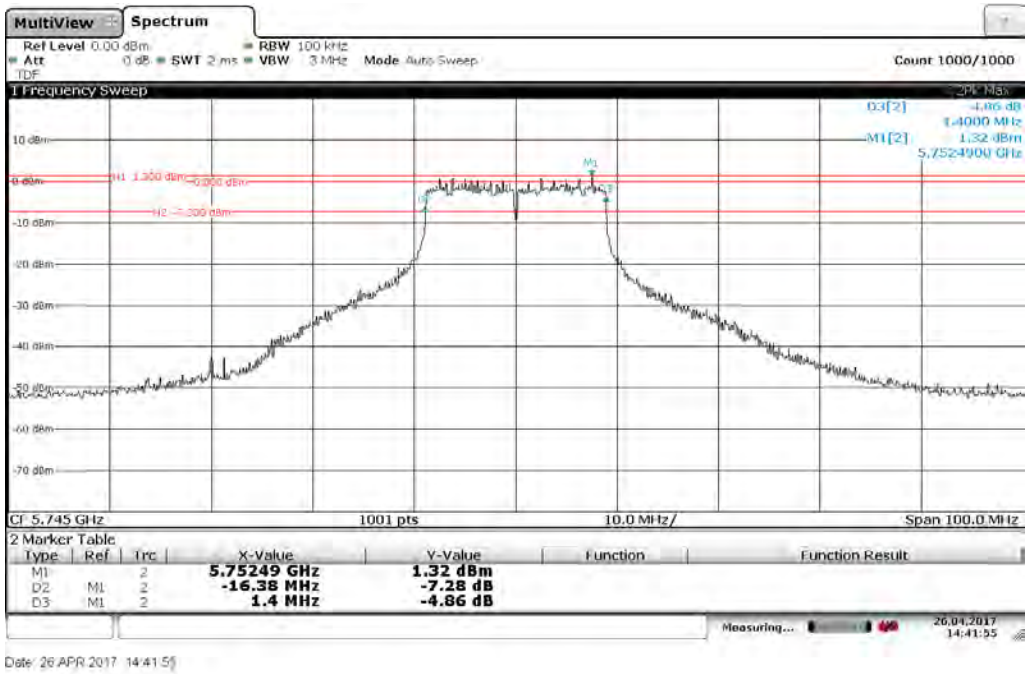
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.462 MHz



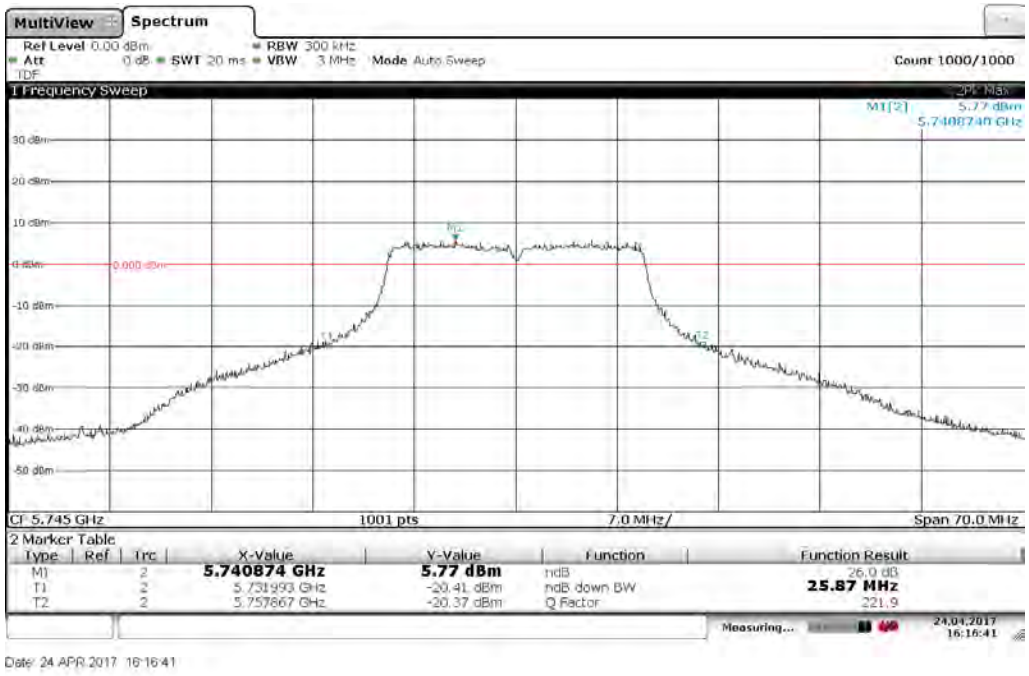
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS7 65 Mbps, 6 dB Bandwidth: 17.78 MHz



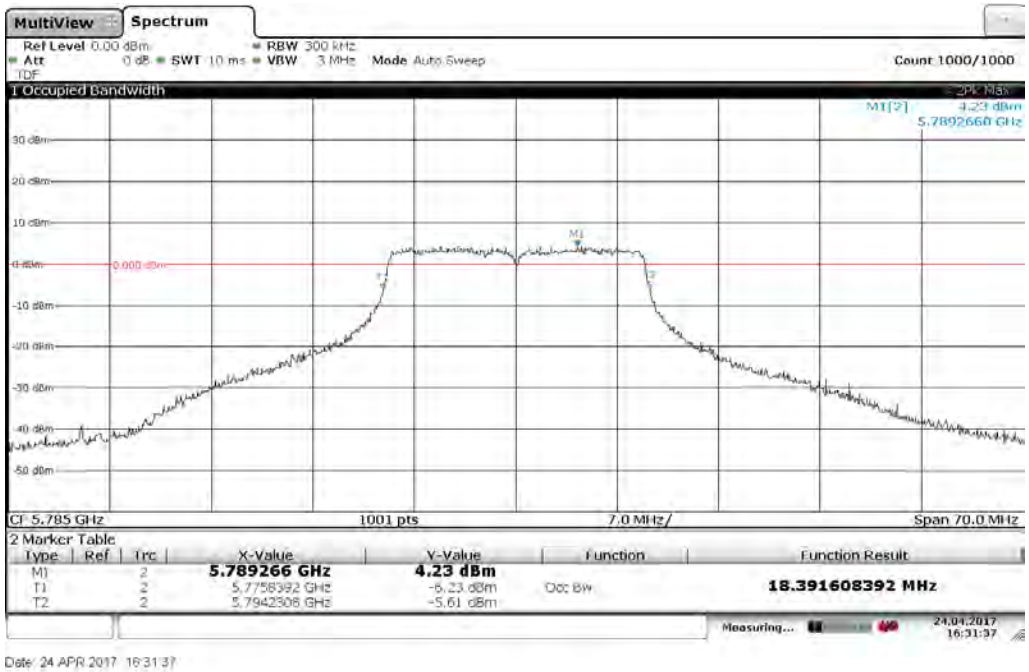
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS7 65 Mbps, 26 dB Bandwidth: 25.87 MHz



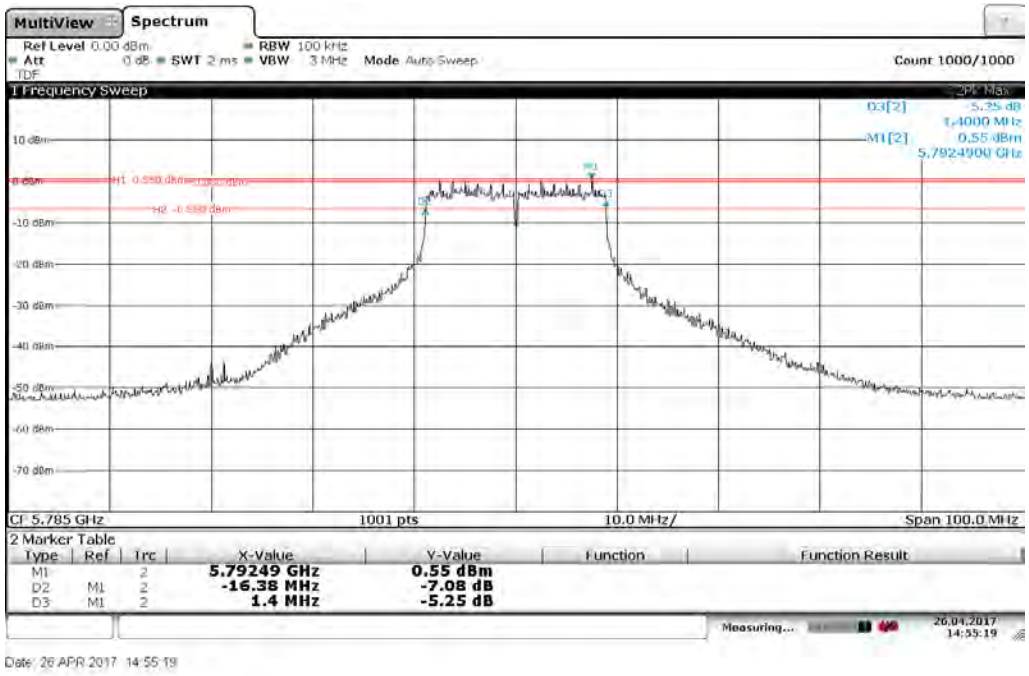
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.392 MHz



Band (20 MHz Bandwidth)

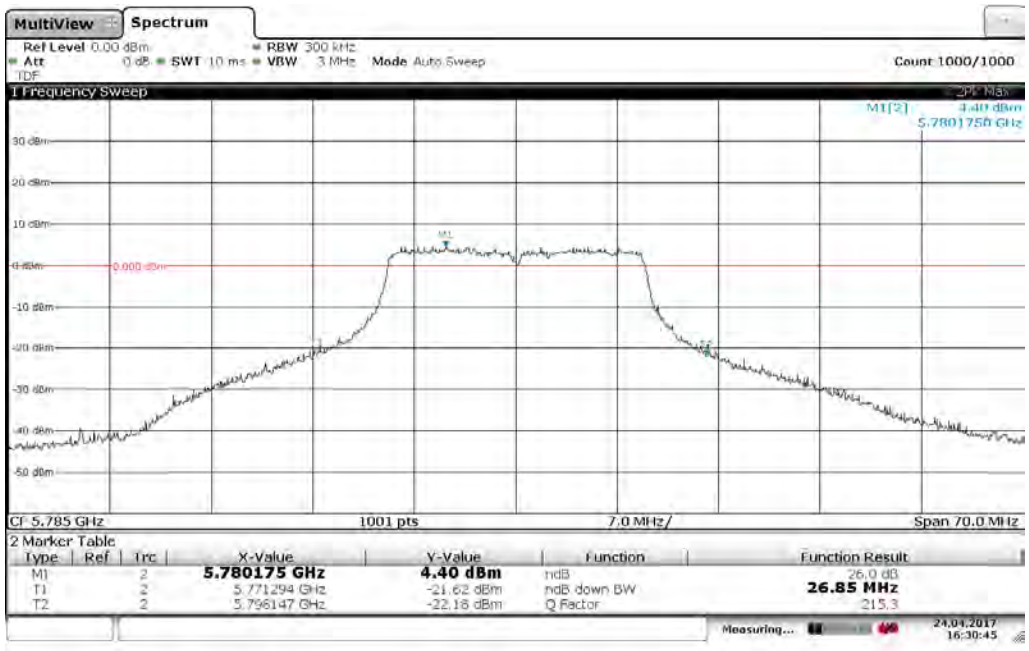
Mid Channel – 5785 MHz, 802 11n MCS7 65 Mbps, 6 dB Bandwidth: 17.78 MHz



Date: 26 APR 2017 14:55:19

Band 4 (20 MHz Bandwidth)

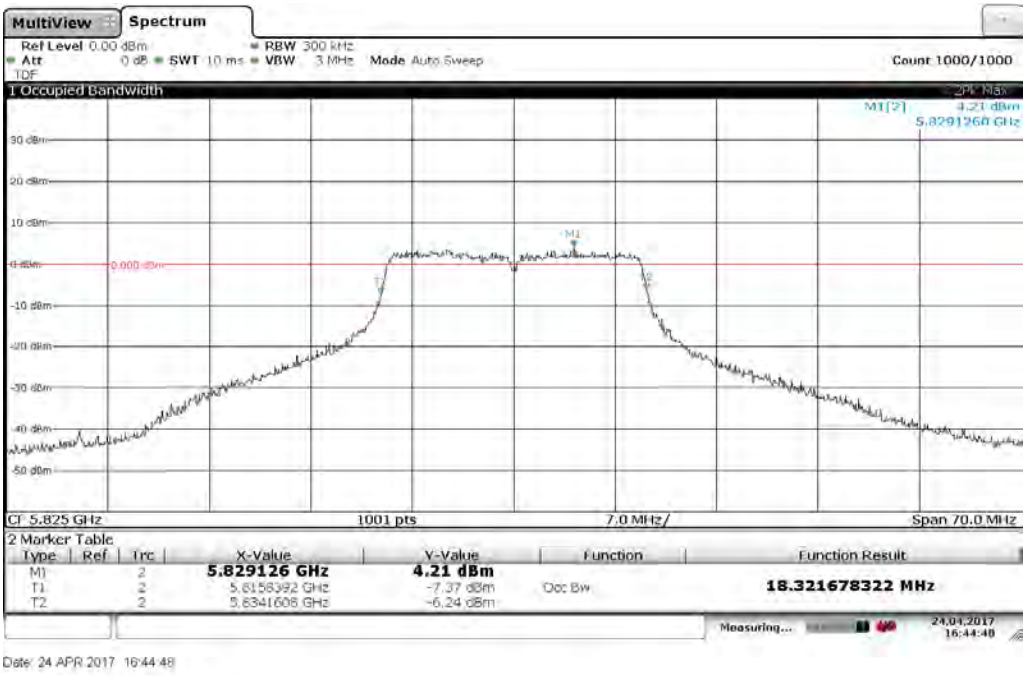
Mid Channel – 5785 MHz, 802 11n MCS7 65 Mbps, 26 dB Bandwidth: 26.85 MHz



Date: 24 APR 2017 16:30:45

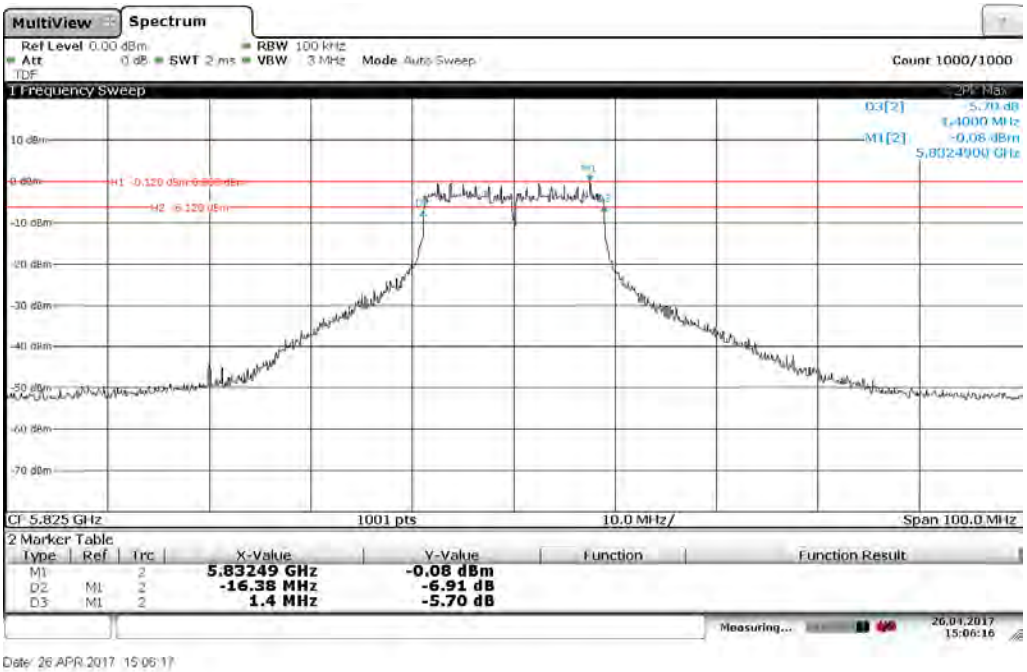
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11n MCS7 65 Mbps, Occupied Bandwidth: 18.322 MHz



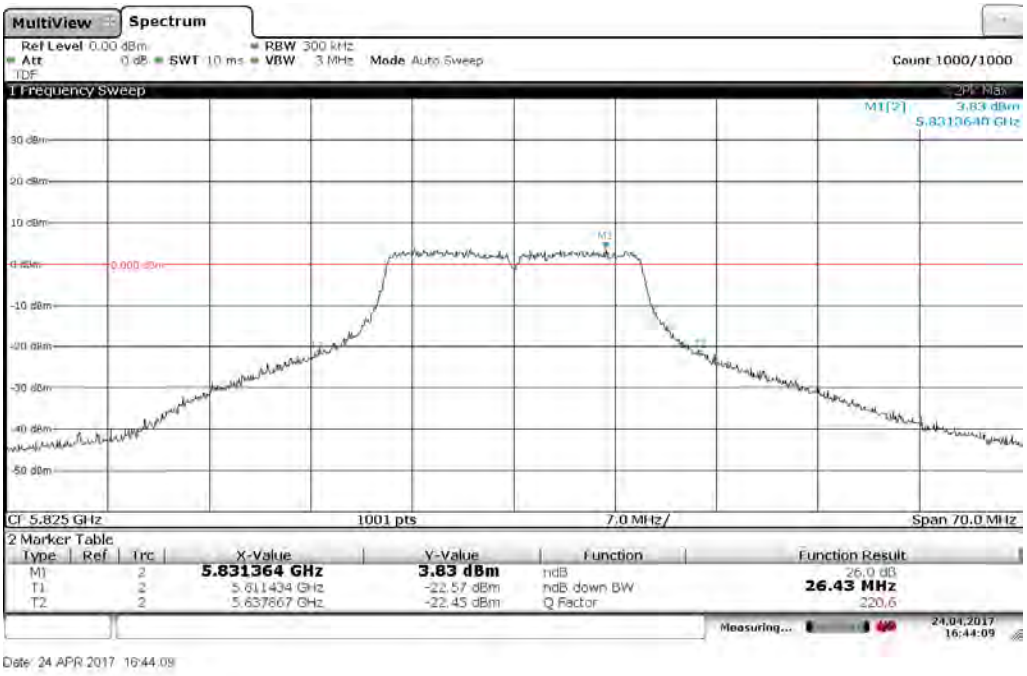
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11n MCS7 65 Mbps, 6 dB Bandwidth: 17.78 MHz



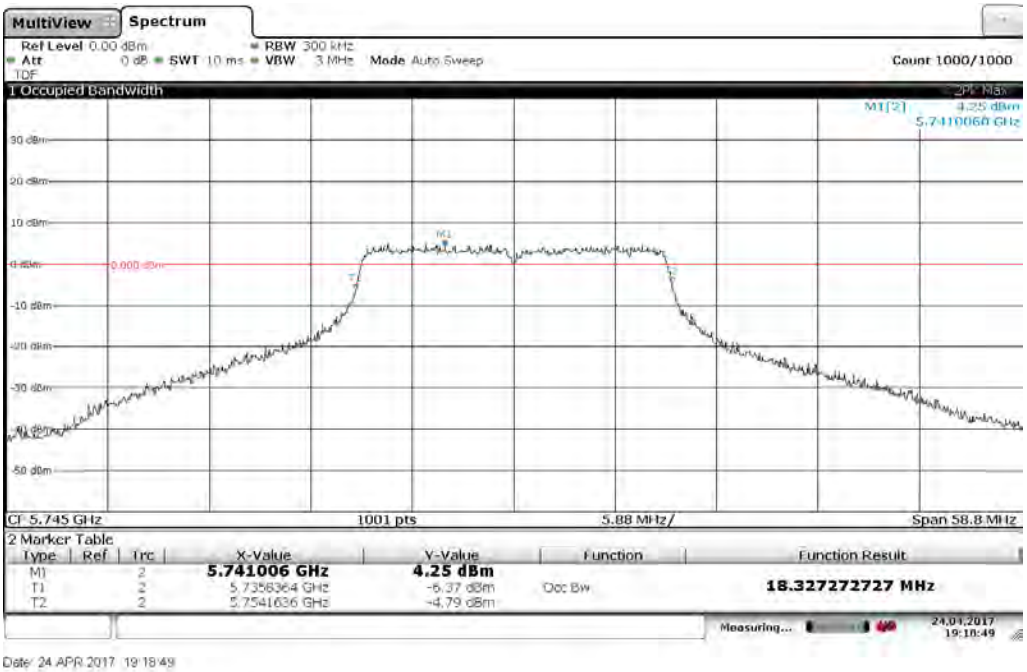
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11n MCS7 65 Mbps, 26 dB Bandwidth: 26.43 MHz



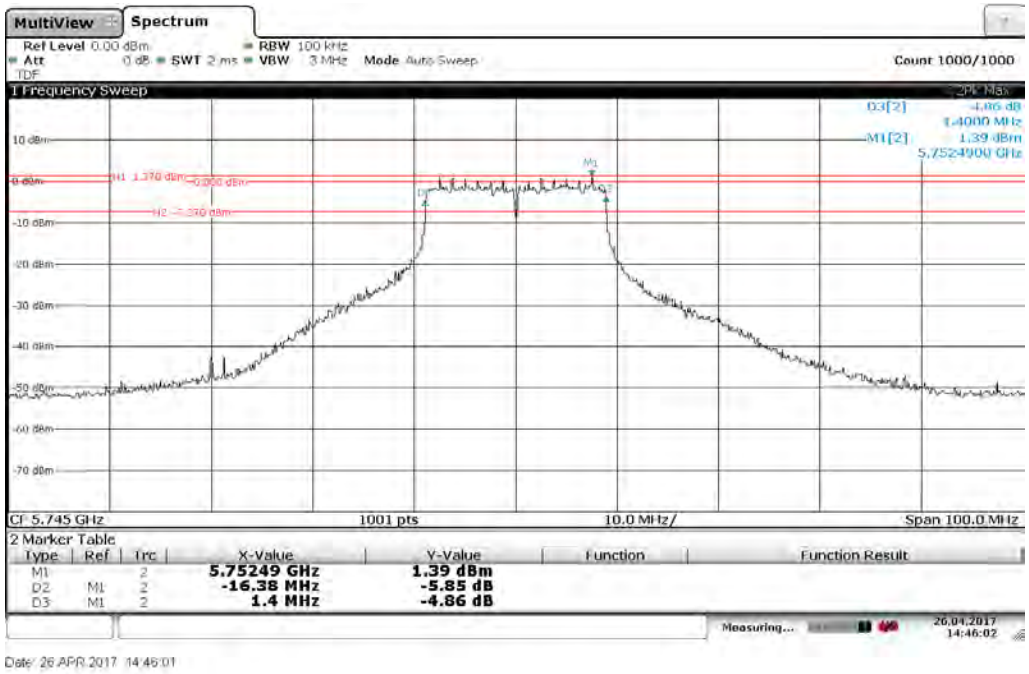
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Occupied Bandwidth: 18.327 MHz



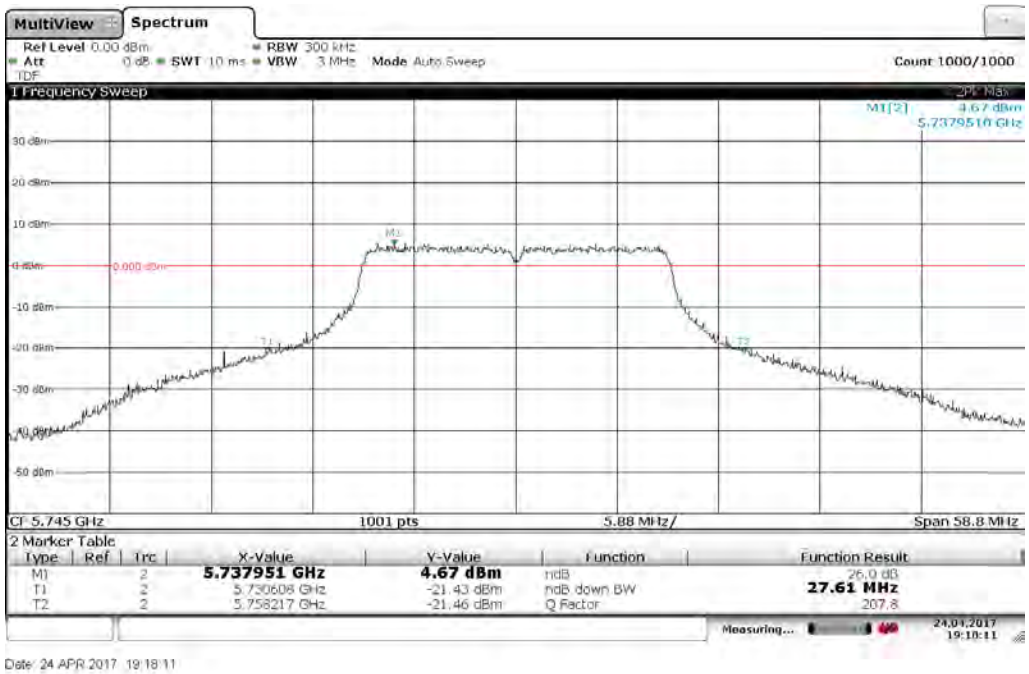
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 6 dB Bandwidth: 17.78 MHz



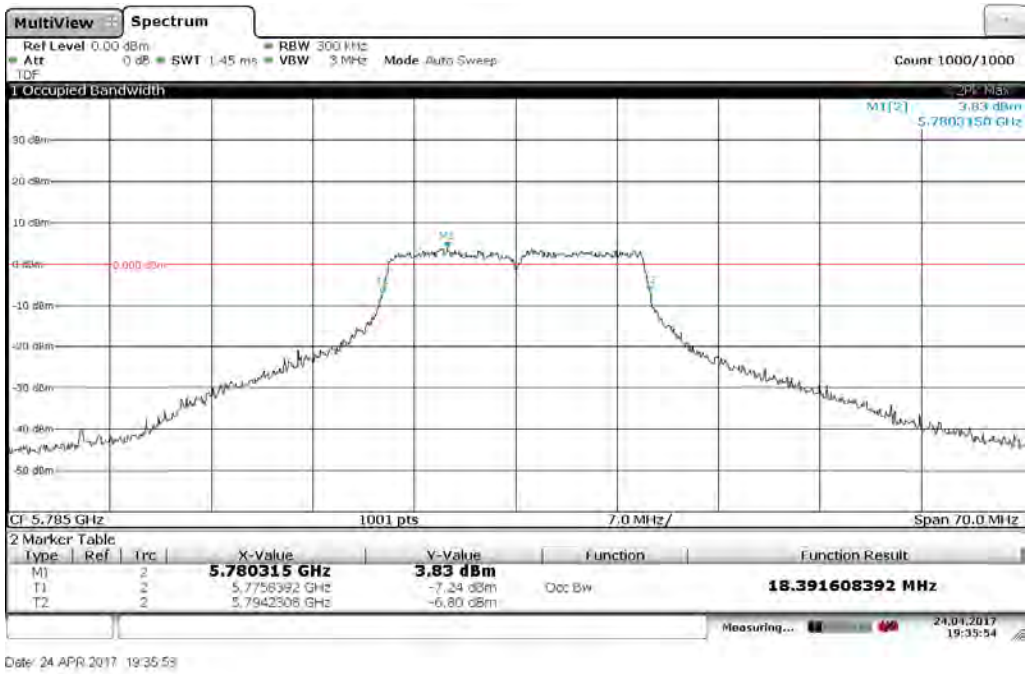
Band 4 (20 MHz Bandwidth)

Low Channel – 5745 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 26 dB Bandwidth: 27.61 MHz



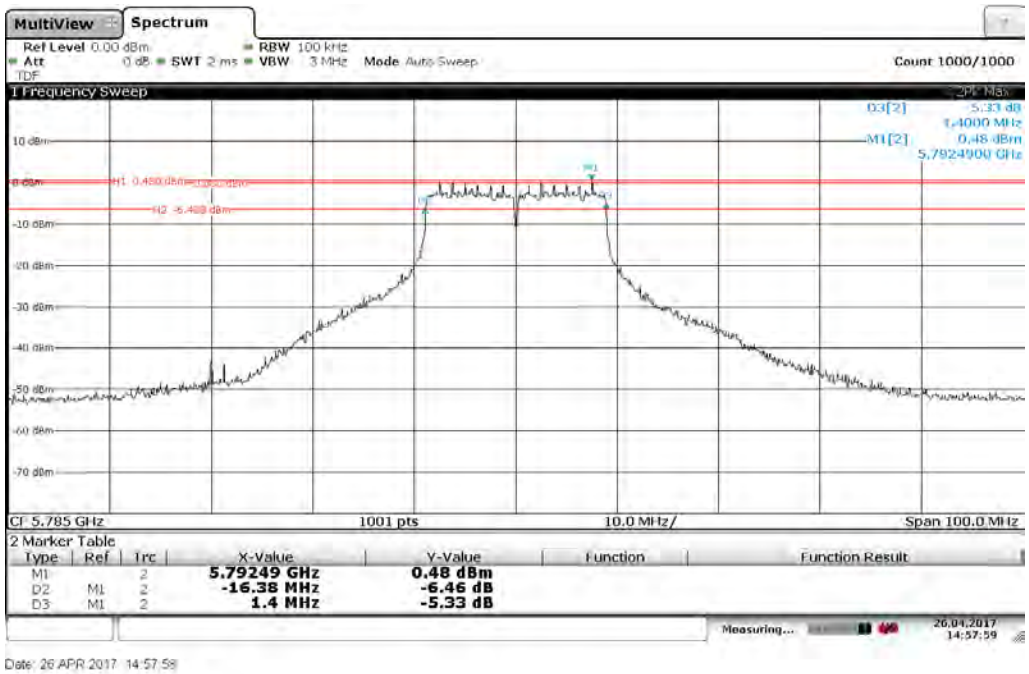
Band 4 (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Occupied Bandwidth: 18.392 MHz



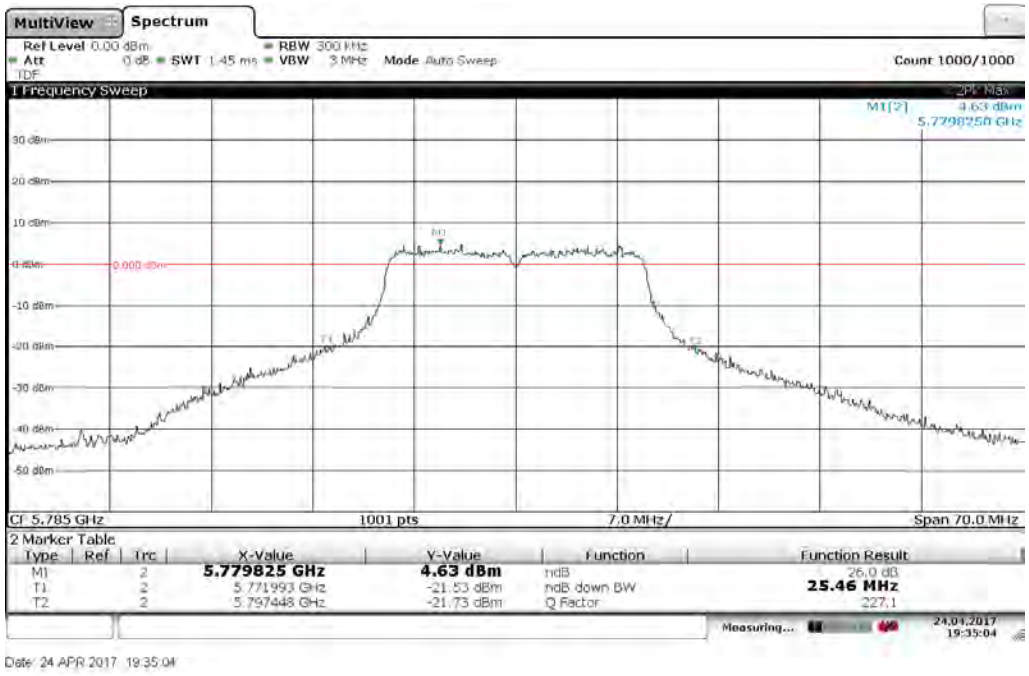
Band (20 MHz Bandwidth)

Mid Channel – 5785 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 6 dB Bandwidth: 17.78 MHz



Band 4 (20 MHz Bandwidth)

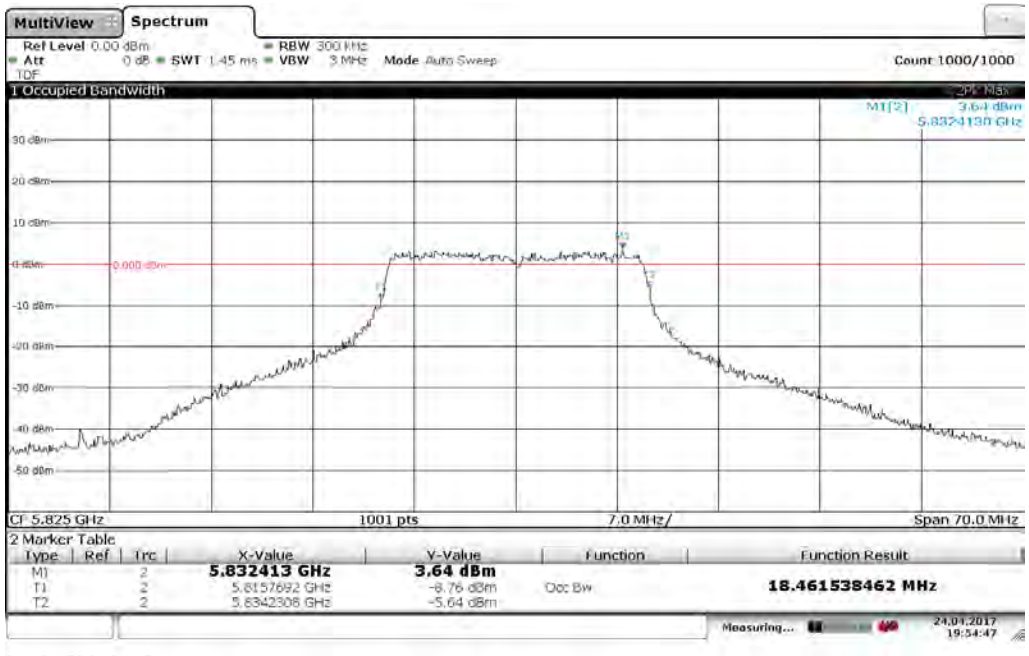
Mid Channel – 5785 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 26 dB Bandwidth: 25.46 MHz



Date: 24.APR.2017 19:35:04

Band 4 (20 MHz Bandwidth)

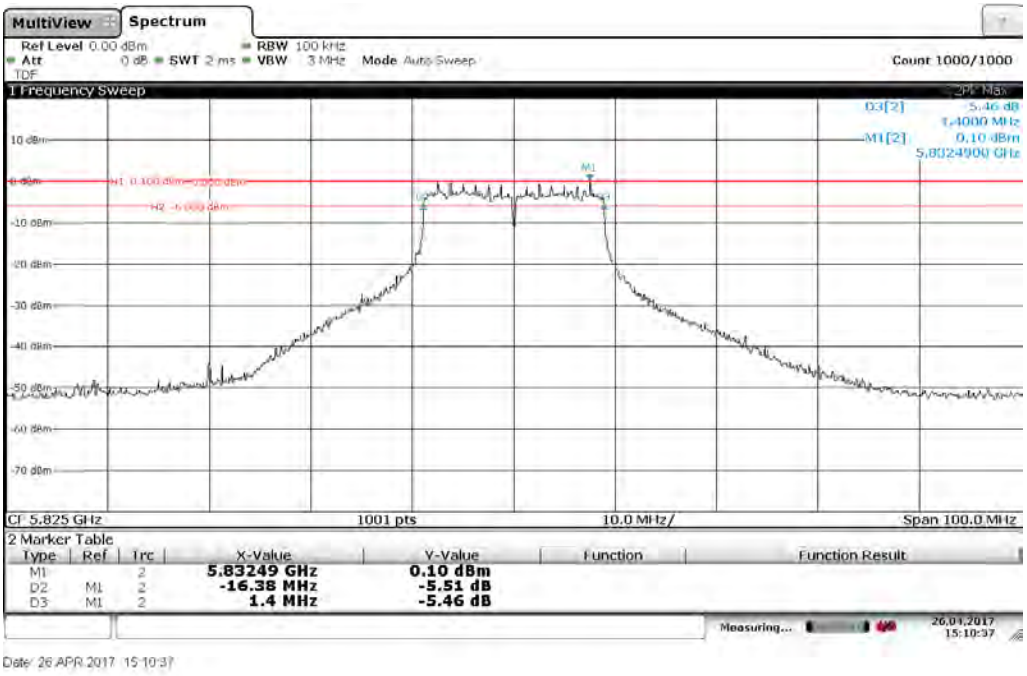
High Channel – 5825 MHz, 802 11n MCS7 MM SG 72.2 Mbps, Occupied Bandwidth: 18.462 MHz



Date: 24.APR.2017 19:54:47

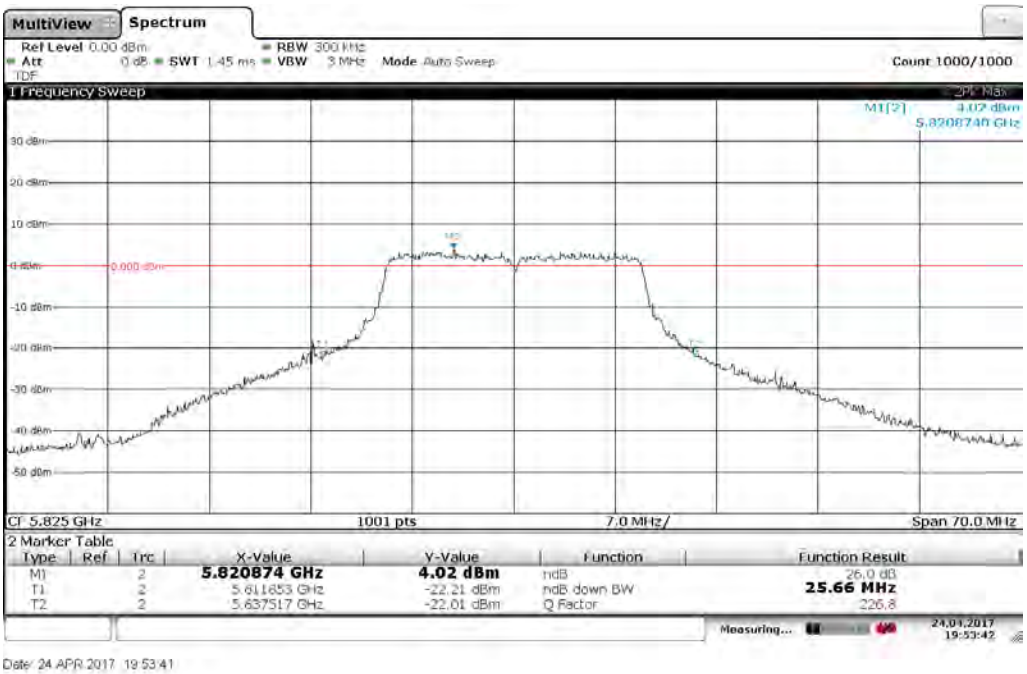
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 6 dB Bandwidth: 17.78 MHz



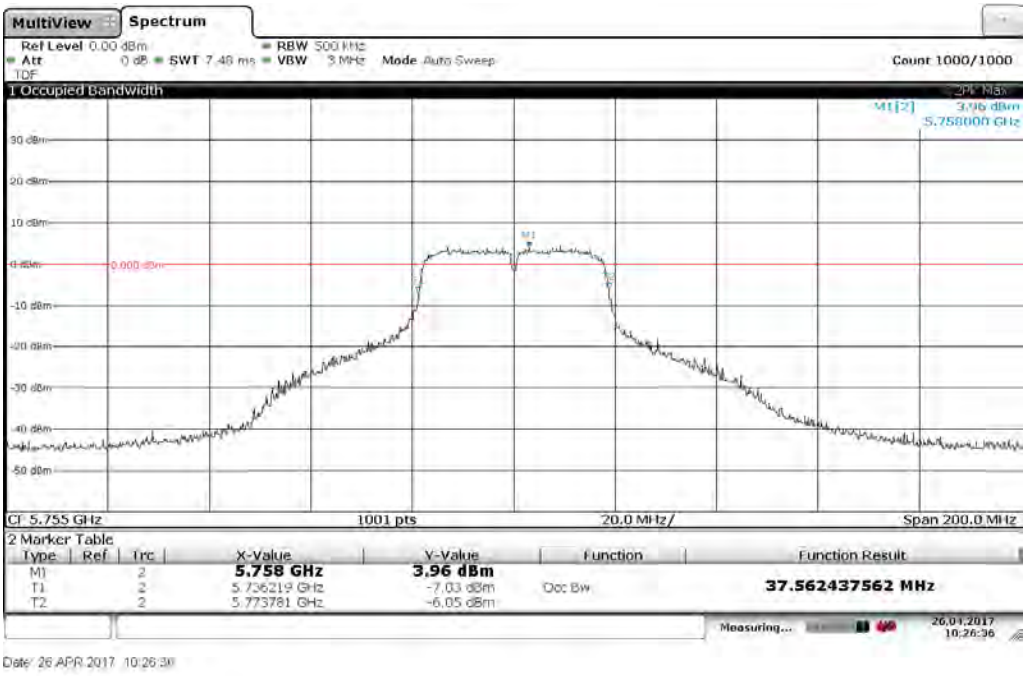
Band 4 (20 MHz Bandwidth)

High Channel – 5825 MHz, 802 11n MCS7 MM SG 72.2 Mbps, 26 dB Bandwidth: 25.66 MHz



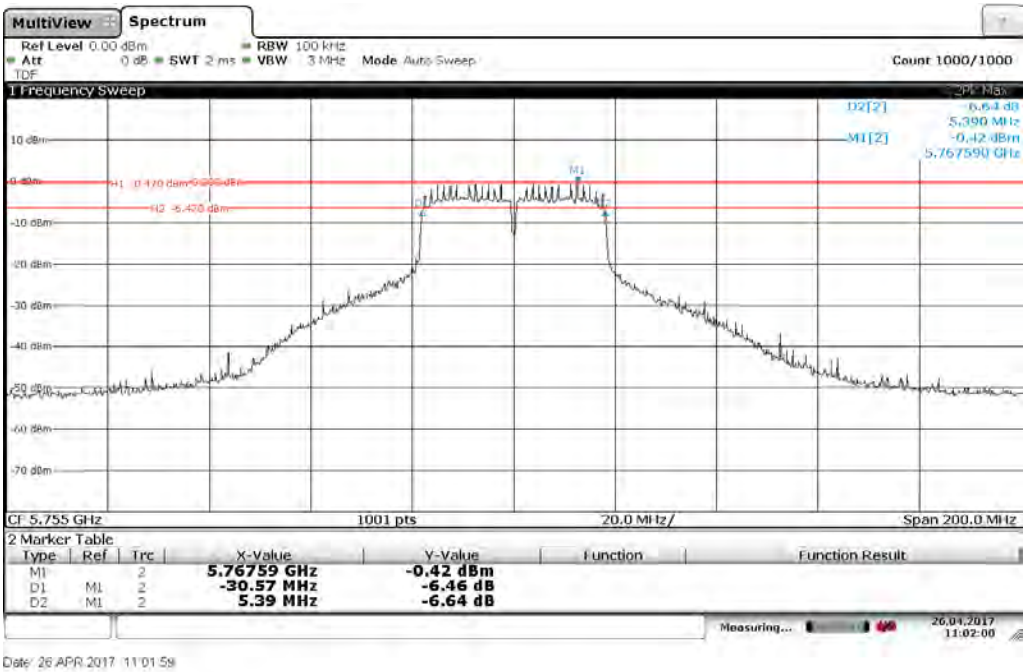
Band 4 (40 MHz Bandwidth)

Low Channel – 5755 MHz, 802 11n MSC0 13.5Mbps, Occupied Bandwidth: 37.562 MHz

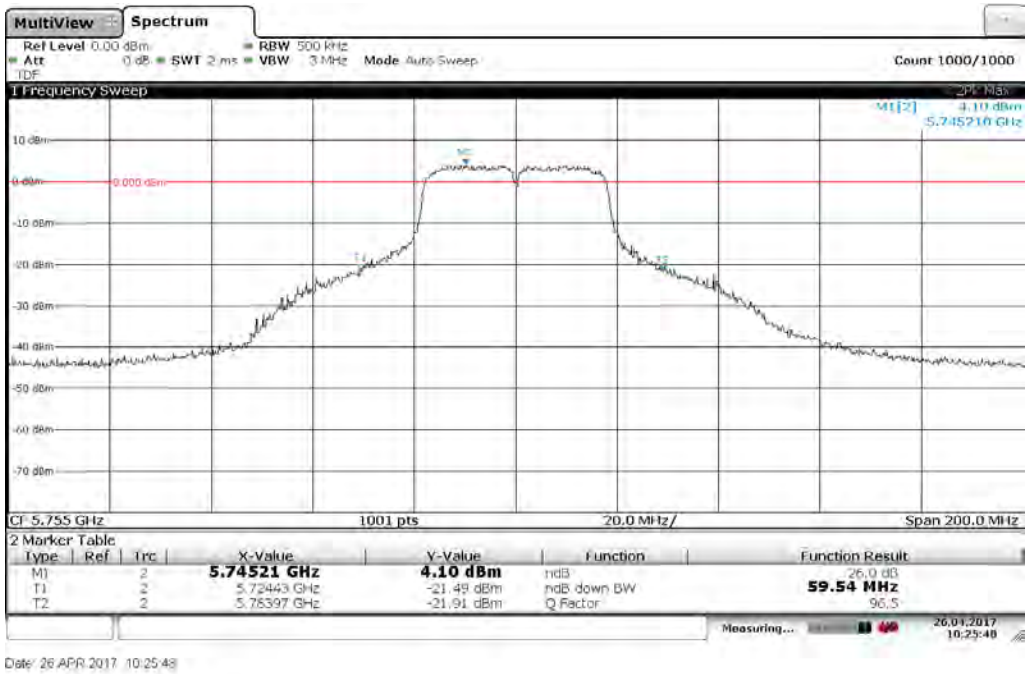


Band 4 (40 MHz Bandwidth)

Low Channel – 5755 MHz, 802 11n MSC0 13.5Mbps, 6 dB Bandwidth: 35.96 MHz



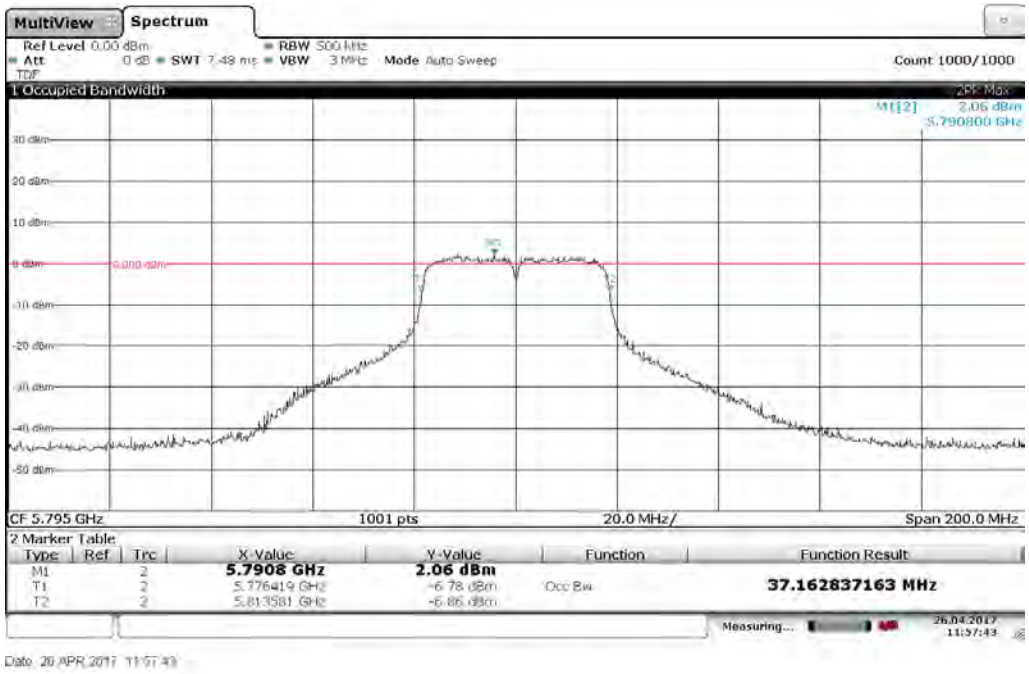
Low Channel – 5755MHz, 802 11n MSC0 13.5Mbps, 26 dB Bandwidth: 59.54MHz



Date: 26.APR.2017 10:25:48

Band 4 (40 MHz Bandwidth)

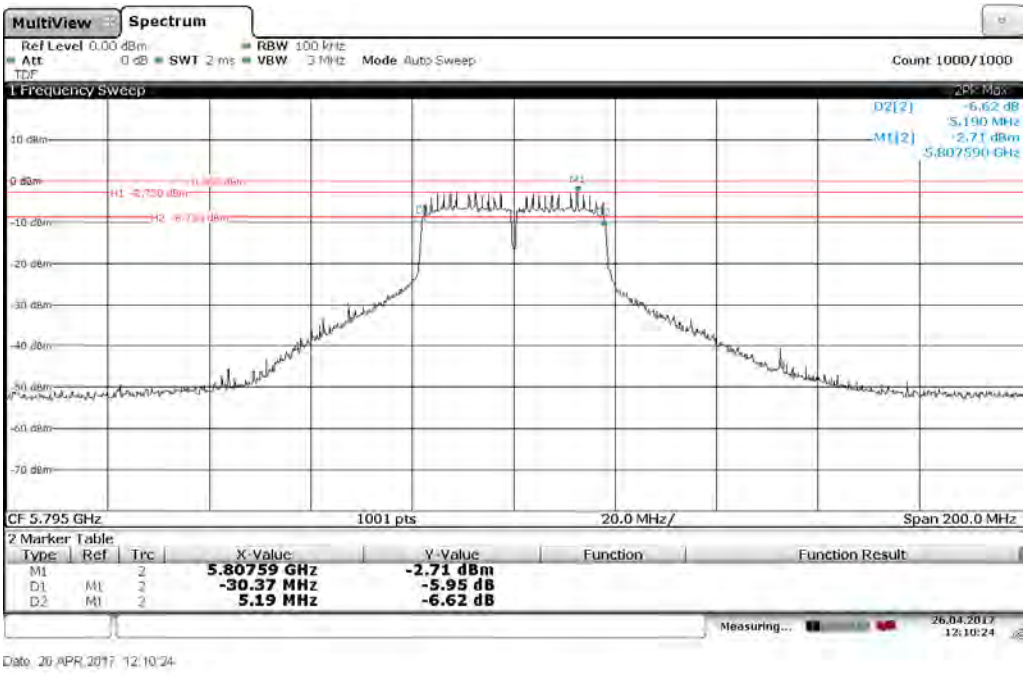
Mid Channel – 5795 MHz, 802 11n MSC0 13.5Mbps, Occupied Bandwidth: 37.163 MHz



Date: 26.APR.2017 11:57:43

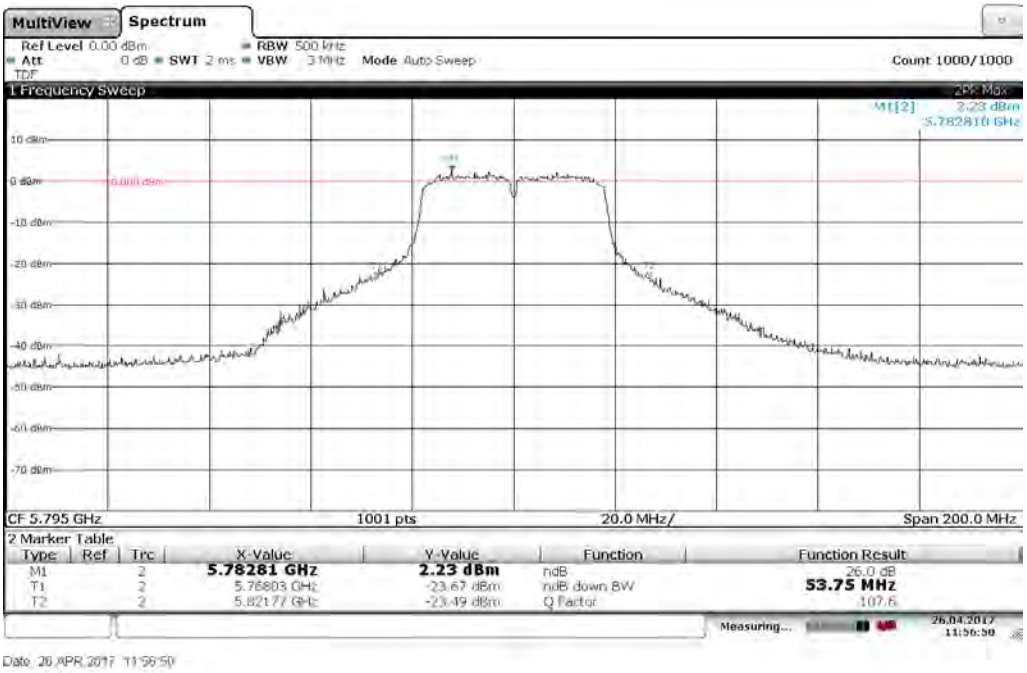
Band (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC0 13.5Mbps, 6 dB Bandwidth: 35.56 MHz



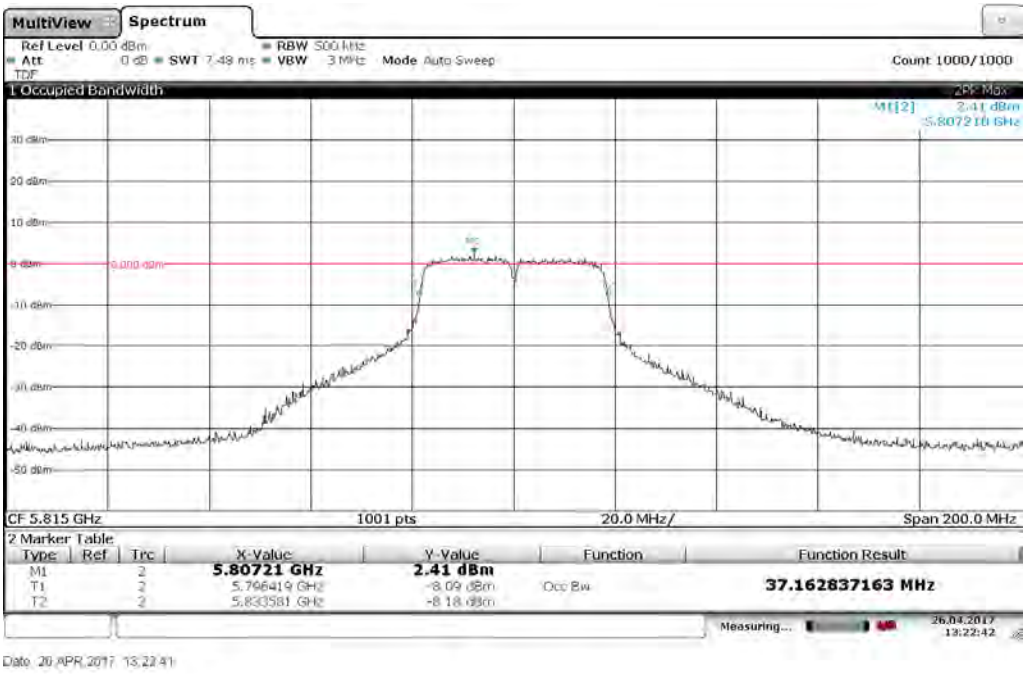
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC0 13.5Mbps, 26 dB Bandwidth: 53.75 MHz



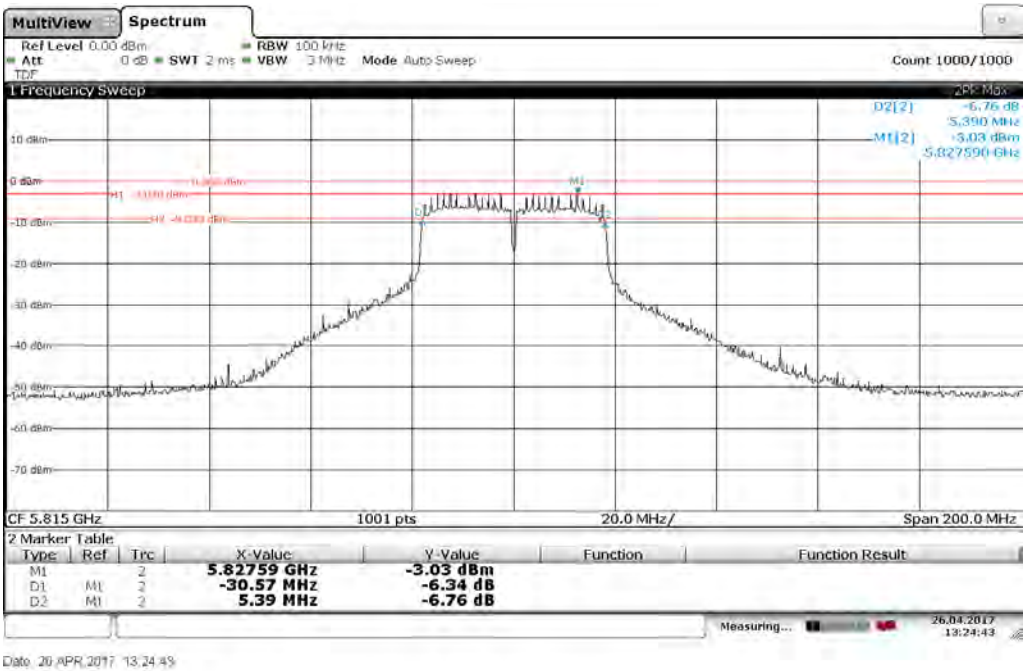
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC0 13.5Mbps, Occupied Bandwidth: 37.163 MHz



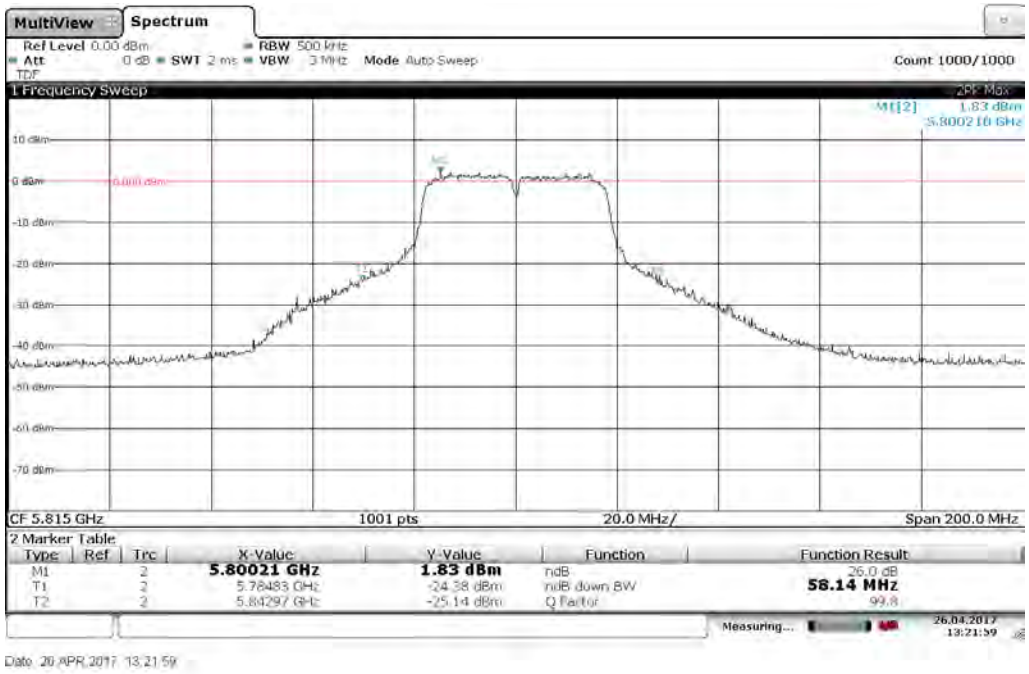
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC0 13.5Mbps, 6 dB Bandwidth: 35.96 MHz



Band 4 (40 MHz Bandwidth)

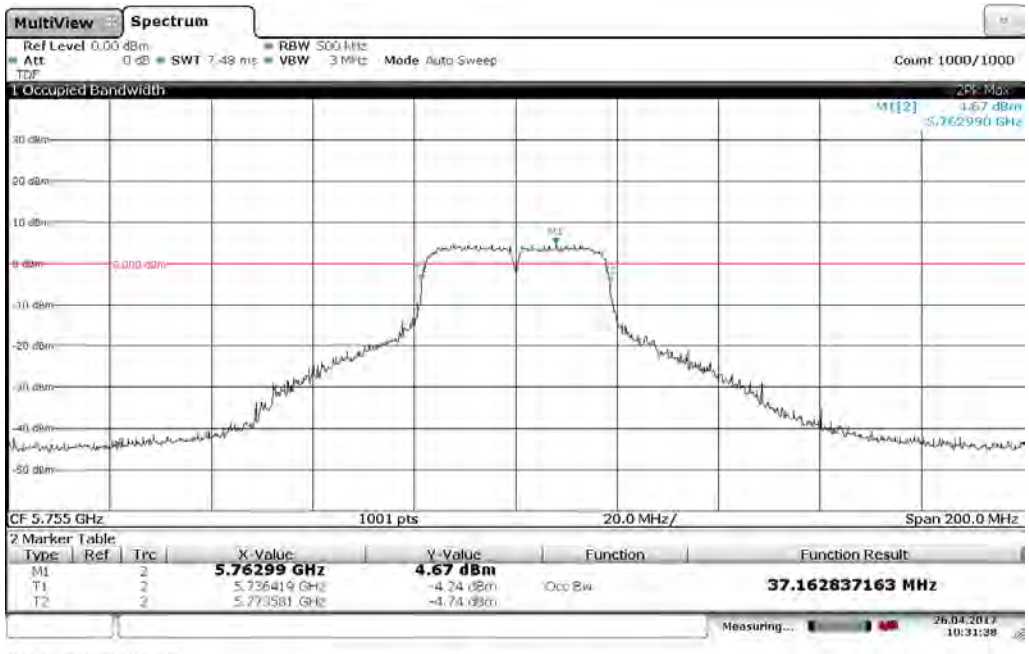
High Channel – 5815 MHz, 802 11n MSC0 13.5Mbps, 26 dB Bandwidth: 58.14 MHz



Date: 26.APR.2017 13:21:59

Band 3 (40 MHz Bandwidth)

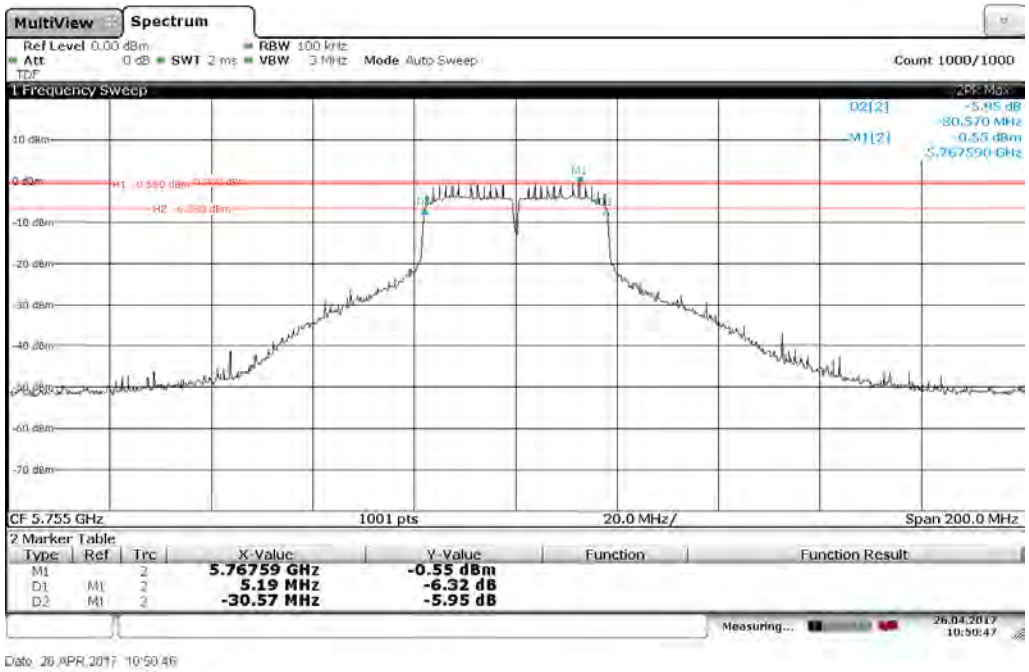
Low Channel – 5755 MHz, 802 11n MSC0 MM SG 15Mbps, Occupied Bandwidth: 37.163 MHz



Date: 26.APR.2017 10:31:37

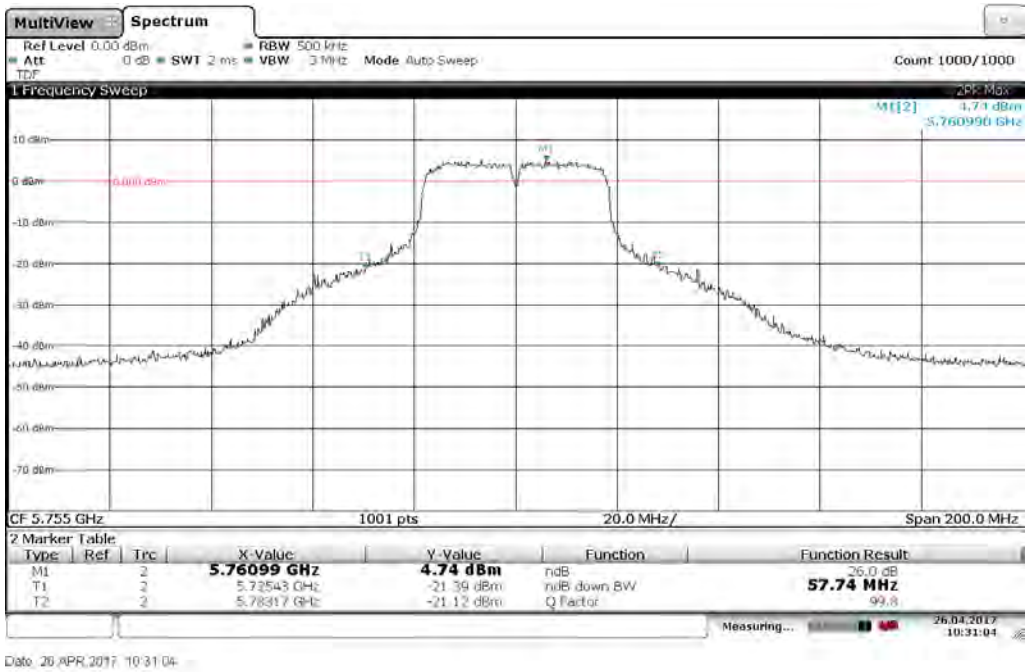
Band 4 (40 MHz Bandwidth)

Low Channel – 5755 MHz, 802 11n MSC0 MM SG 15Mbps, 6 dB Bandwidth: 35.76 MHz



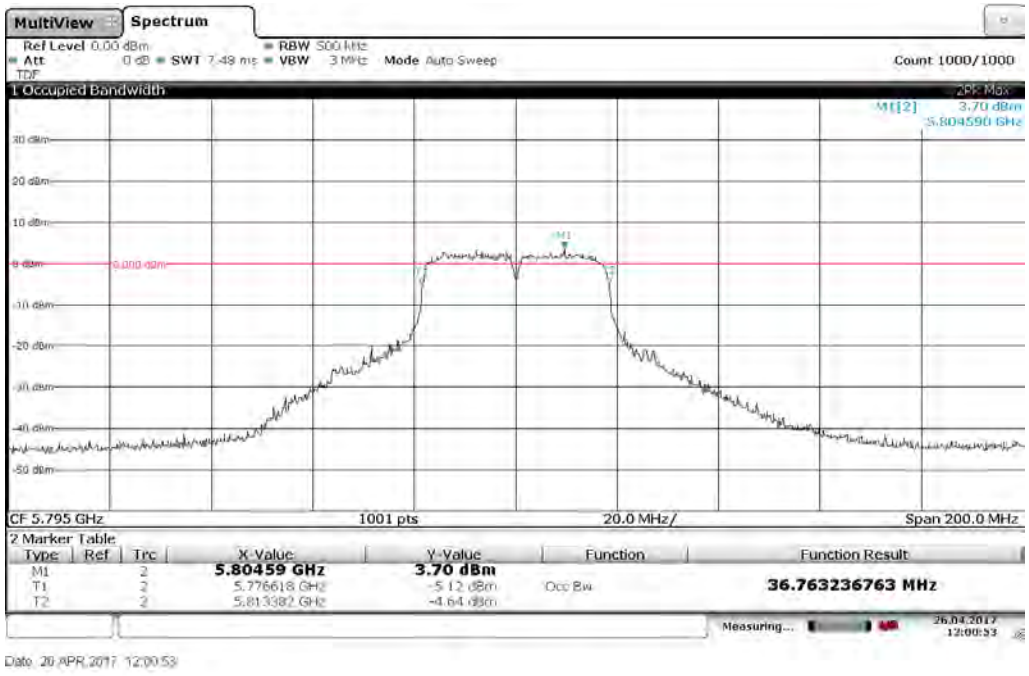
Band 4 (40 MHz Bandwidth)

Low Channel – 5755 MHz, 802 11n MSC0 MM SG 15Mbps, 26 dB Bandwidth: 57.74 MHz



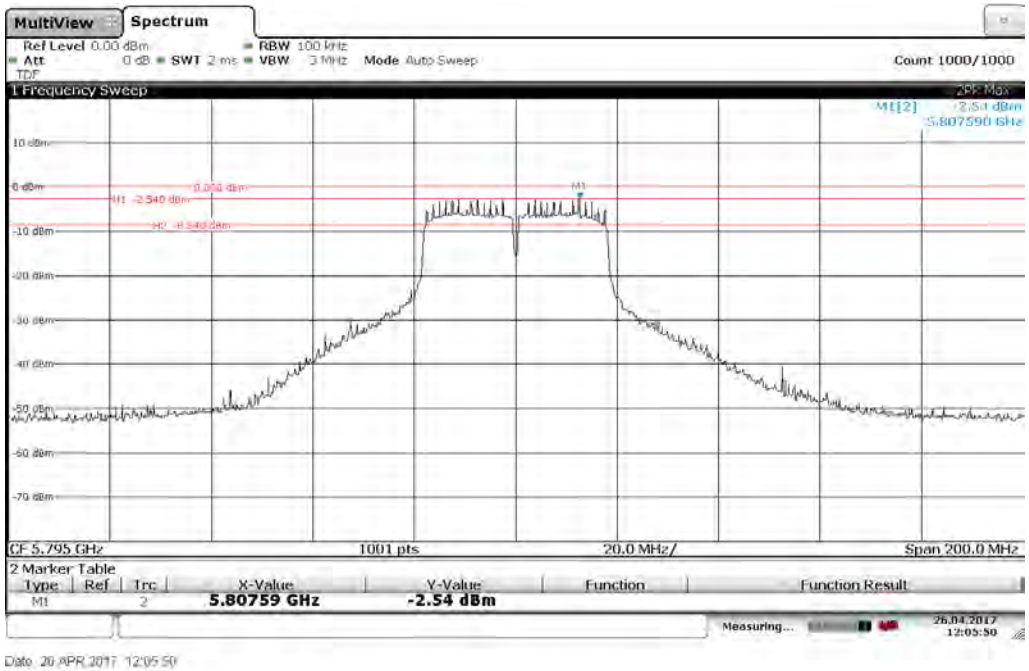
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC0 MM SG 15Mbps, Occupied Bandwidth: 36.763 MHz



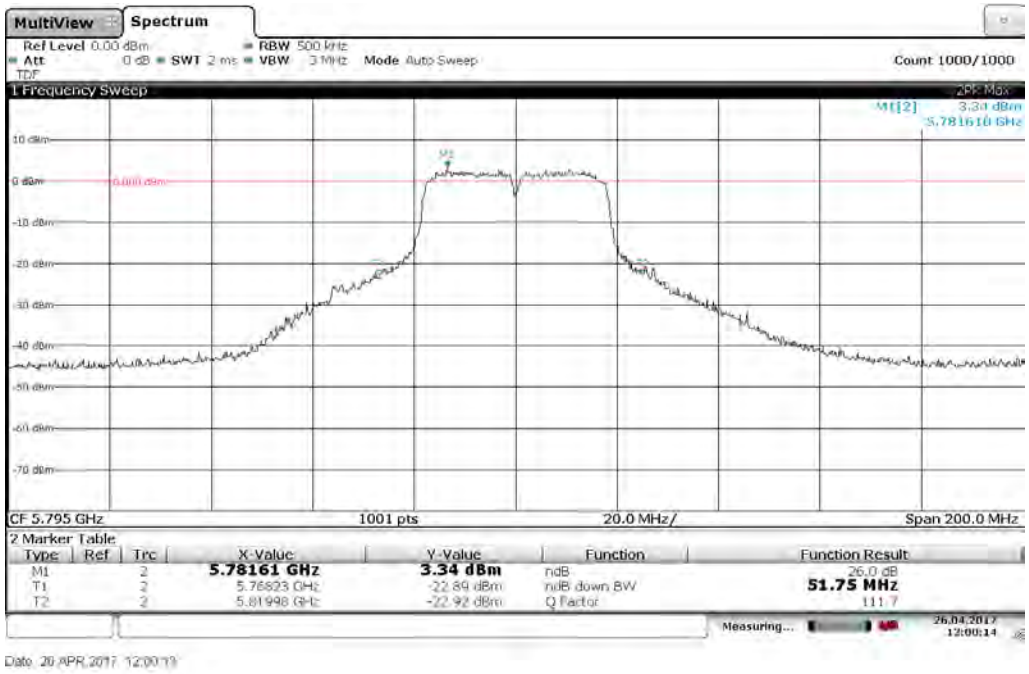
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC0 MM SG 15Mbps, 6 dB Bandwidth: ~ 36 MHz



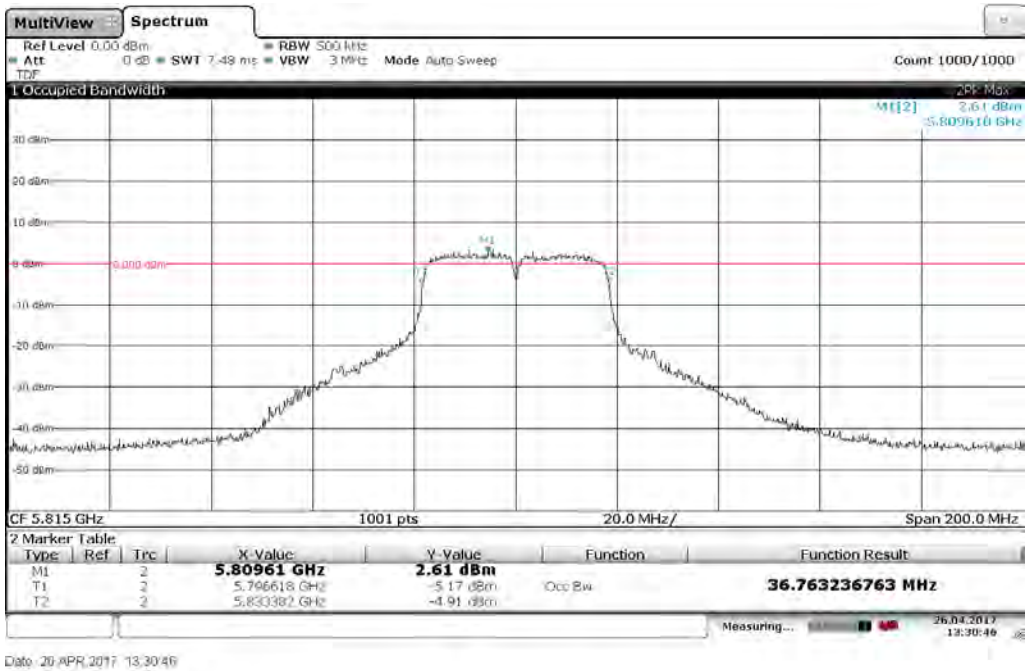
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC0 MM SG 15Mbps, 26 dB Bandwidth: 51.75 MHz



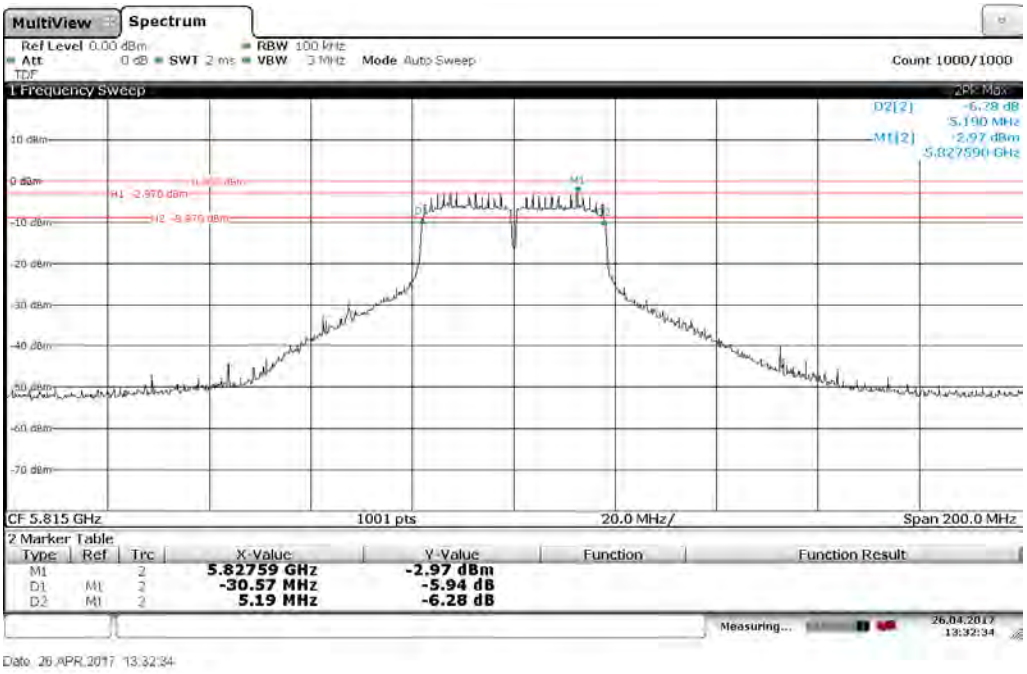
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC0 MM SG 15Mbps, Occupied Bandwidth: 36.763 MHz



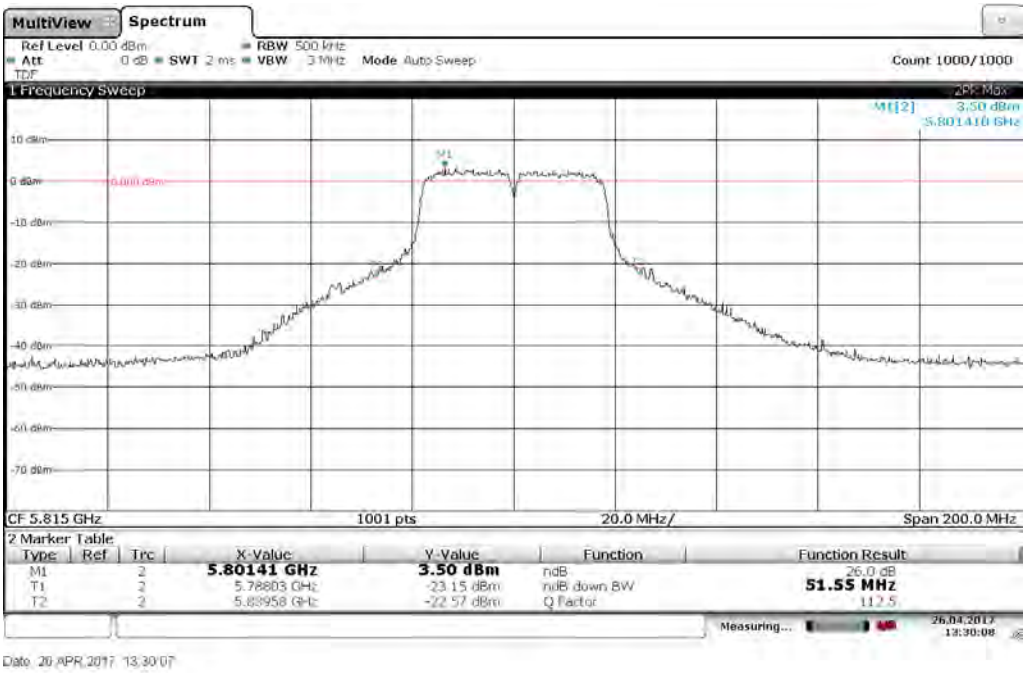
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC0 MM SG 15Mbps, 6 dB Bandwidth: 35.76 MHz



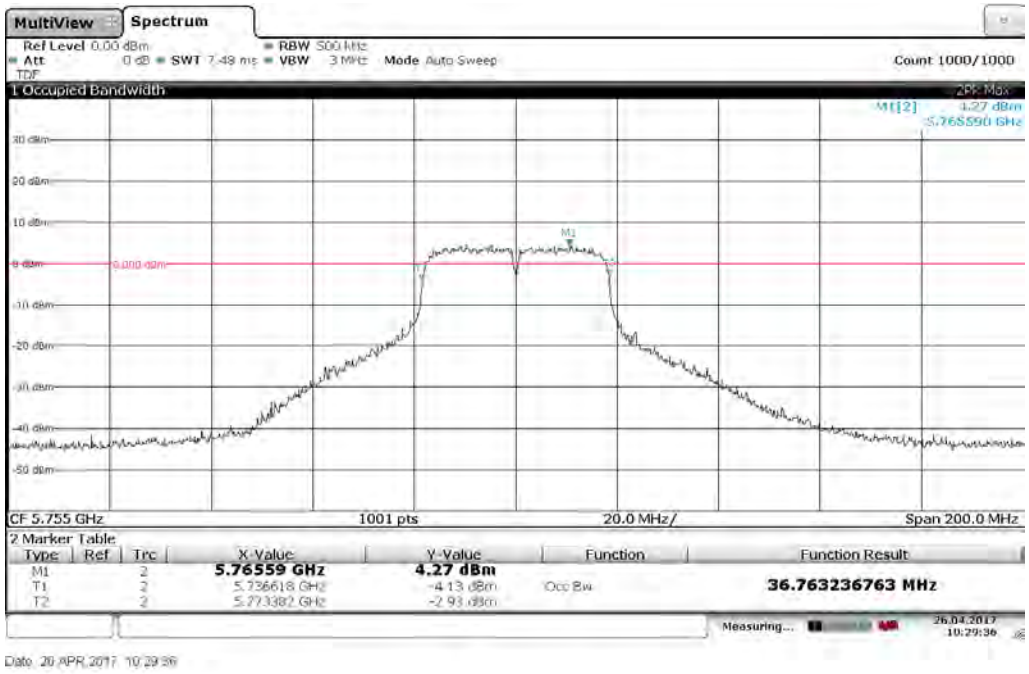
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC0 MM SG 15Mbps, 26 dB Bandwidth: 51.55 MHz



Band 4 (40 MHz Bandwidth)

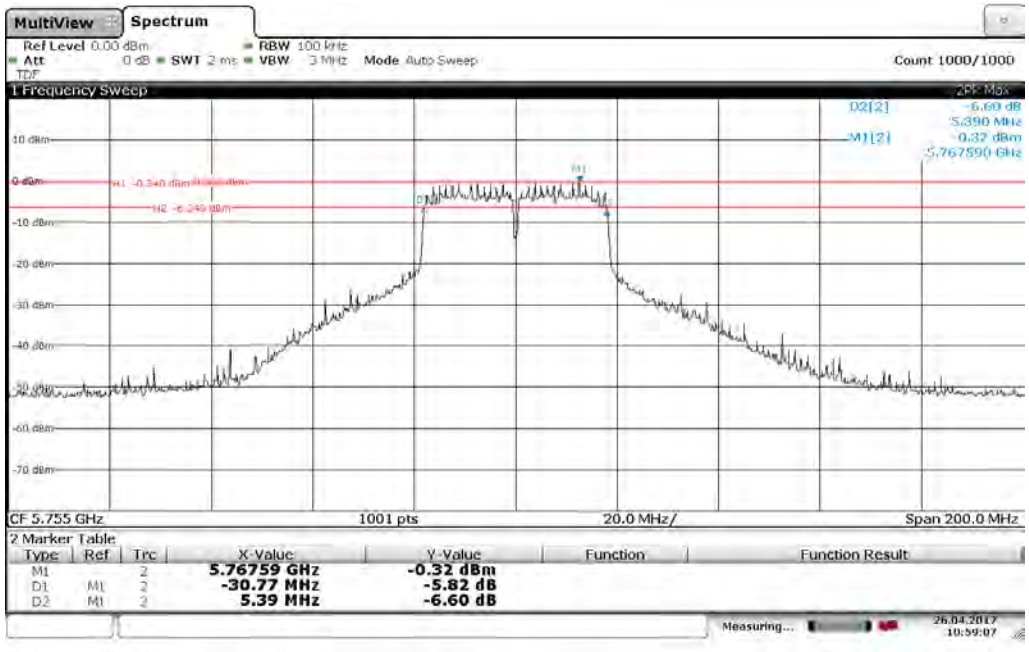
Low Channel – 5755 MHz, 802 11n MSC7 135Mbps, Occupied Bandwidth: 36.763 MHz



Date: 26.APR.2017 10:29:36

Band 4 (40 MHz Bandwidth)

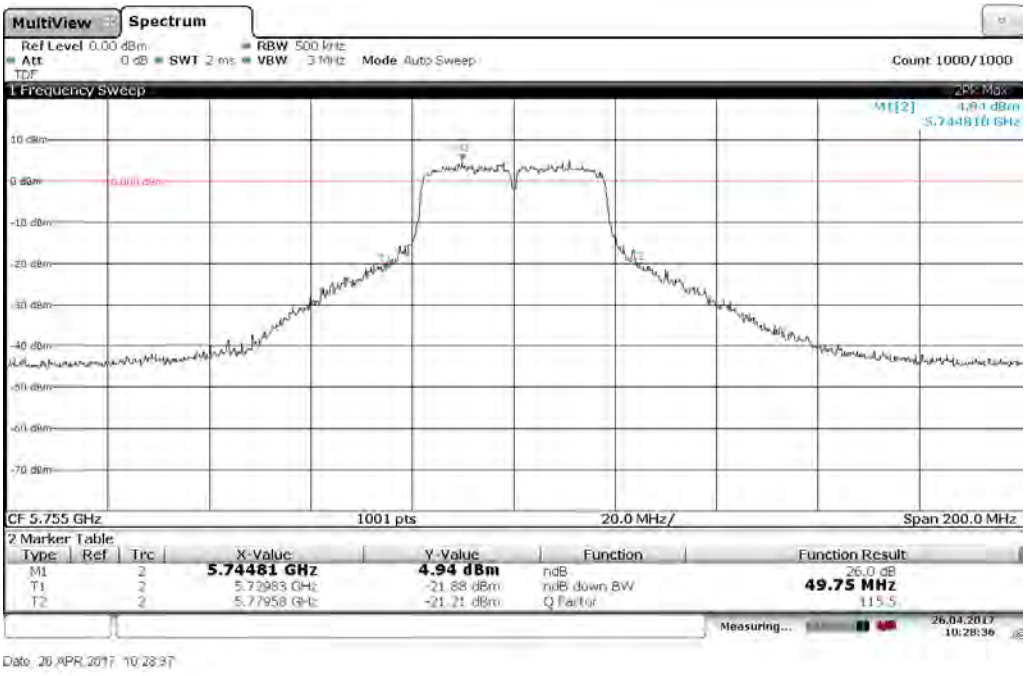
Low Channel – 5755 MHz, 802 11n MSC7 135Mbps, 6 dB Bandwidth: 36.16 MHz



Date: 26.APR.2017 10:59:08

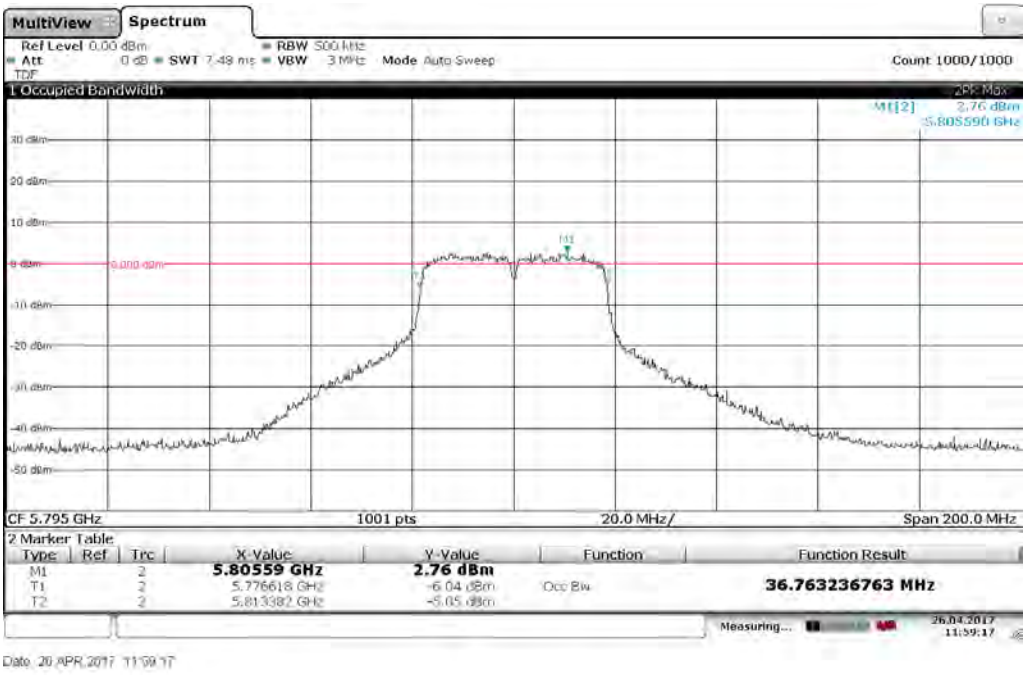
Band 4 (40 MHz Bandwidth)

Low Channel – 5755 MHz, 802 11n MSC7 135Mbps, 26 dB Bandwidth: 49.75 MHz



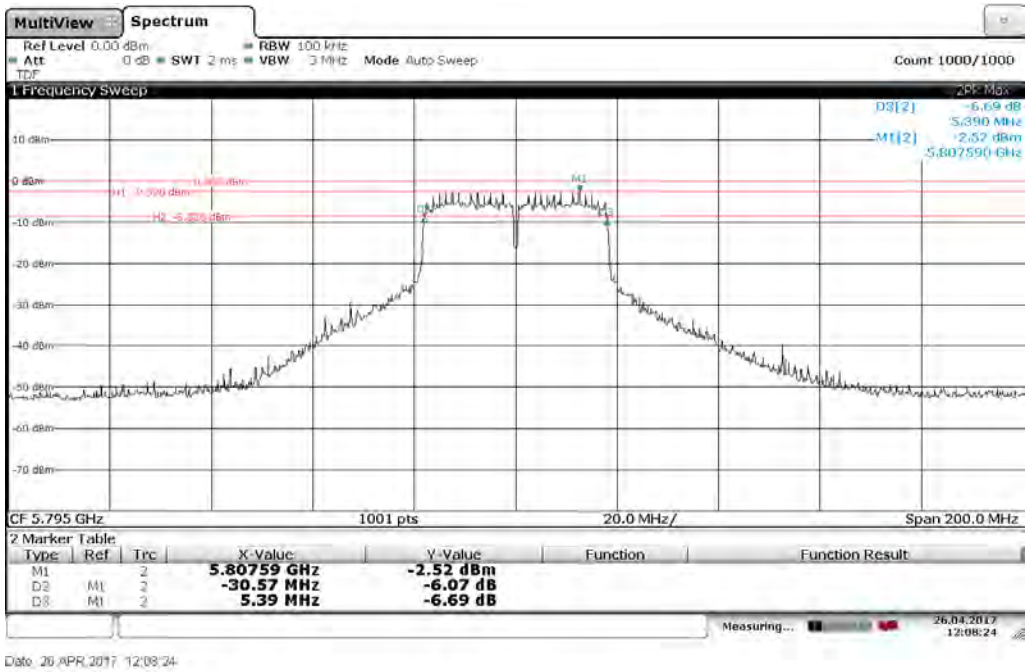
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC7 135Mbps, Occupied Bandwidth: 36.763 MHz



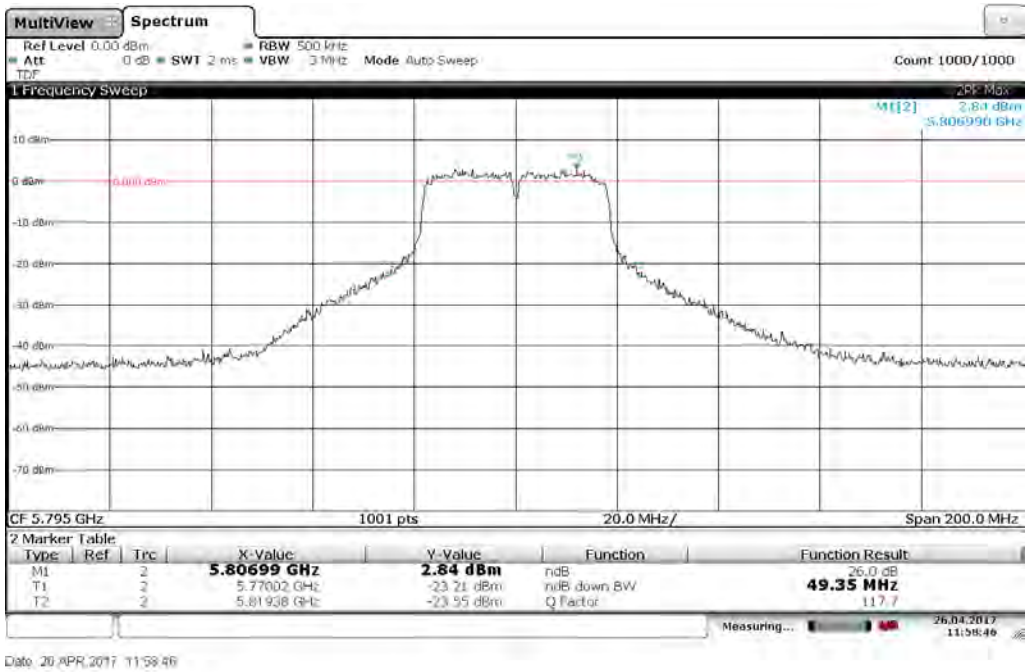
Band 4 (40 MHz Bandwidth)

Mid Channel – 5.795 MHz, 802 11n MSC7 135Mbps, 6 dB Bandwidth: 35.96 MHz



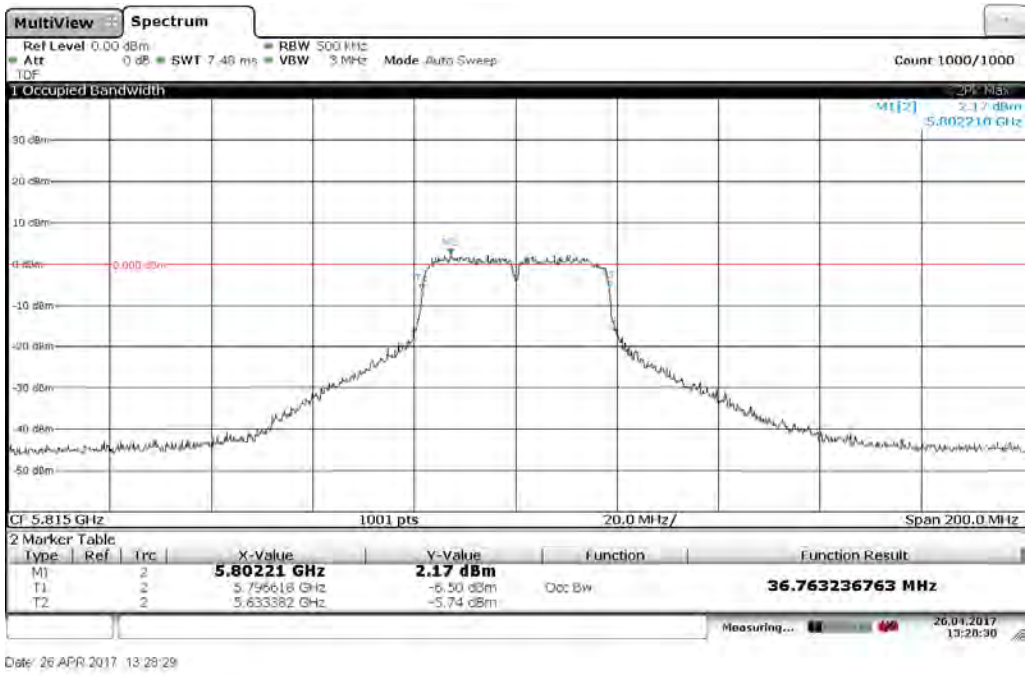
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC7 135Mbps, 26 dB Bandwidth: 49.35 MHz



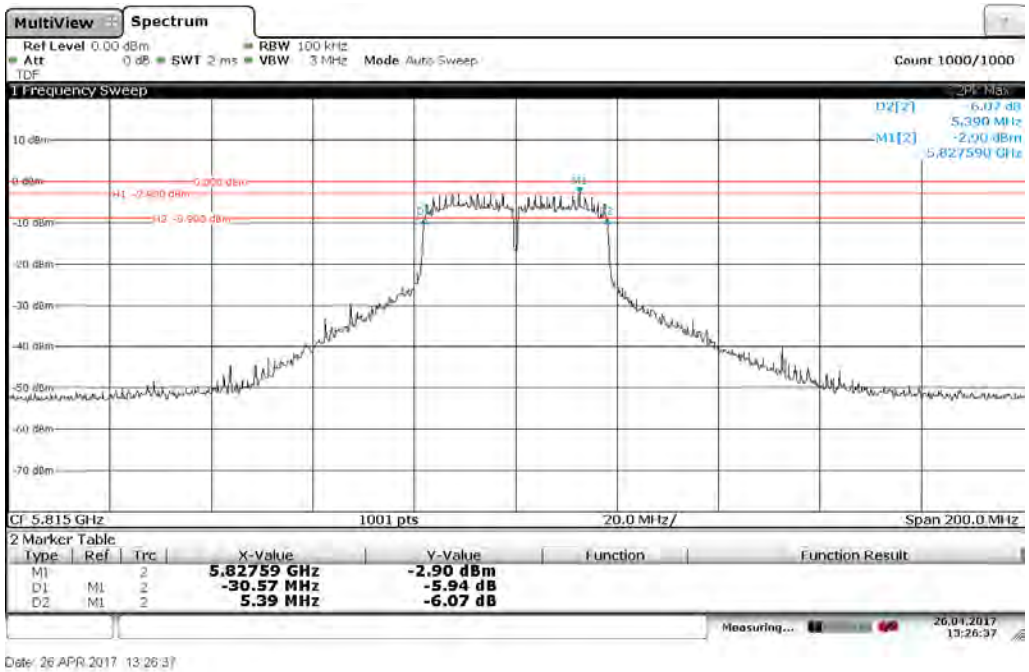
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC7 135Mbps, Occupied Bandwidth: 36.763 MHz



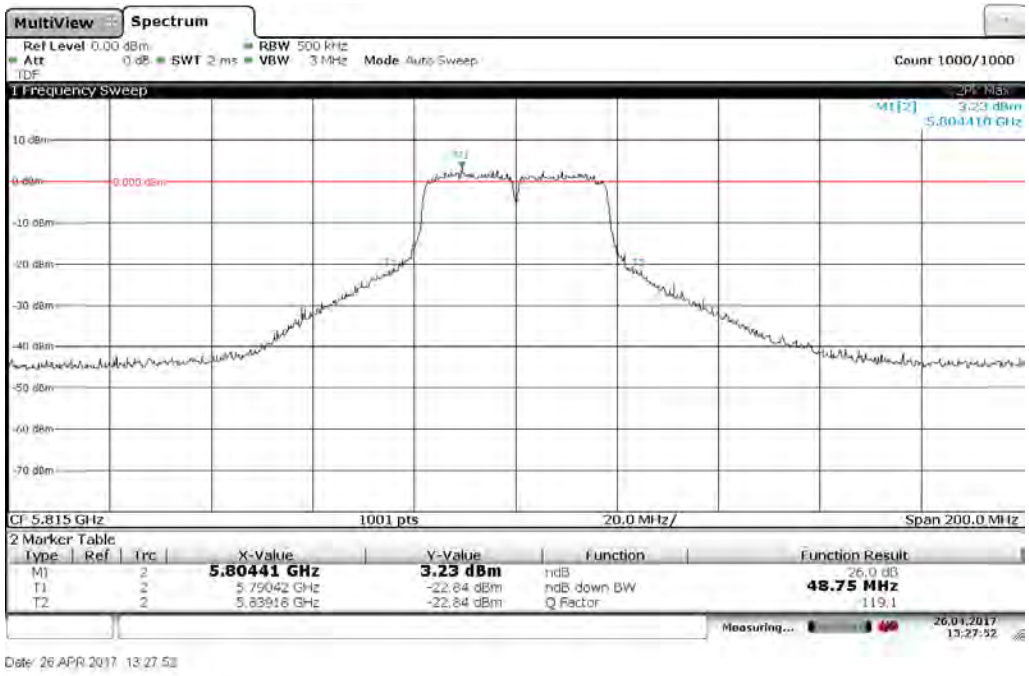
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC7 135Mbps, 6 dB Bandwidth: 35.96 MHz



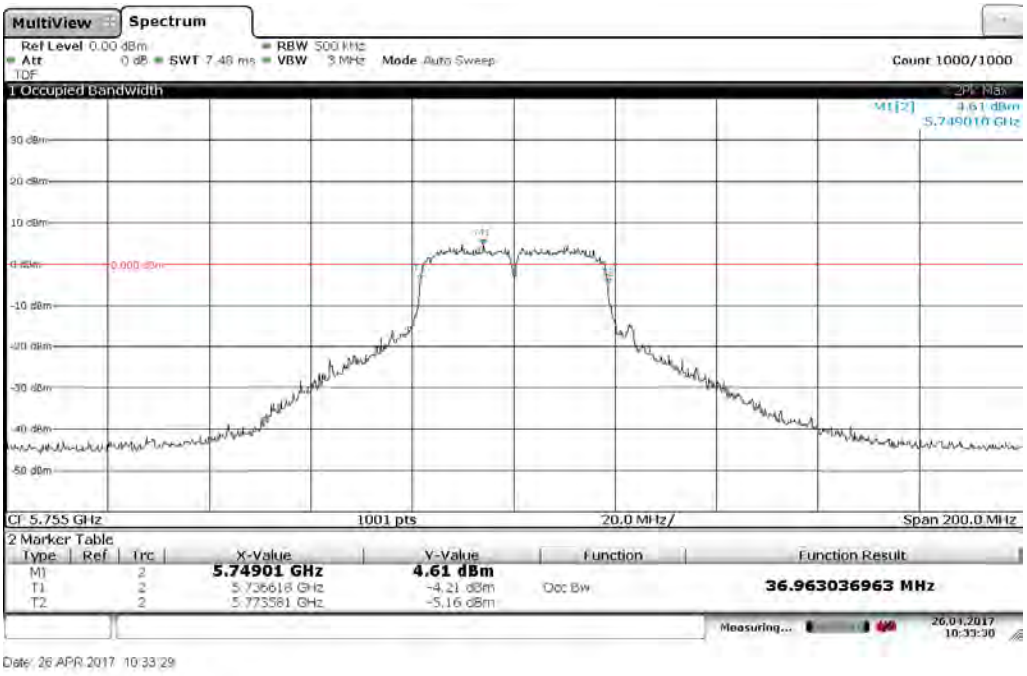
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC7 135Mbps, 26 dB Bandwidth: 48.75 MHz



Band 4 (40 MHz Bandwidth)

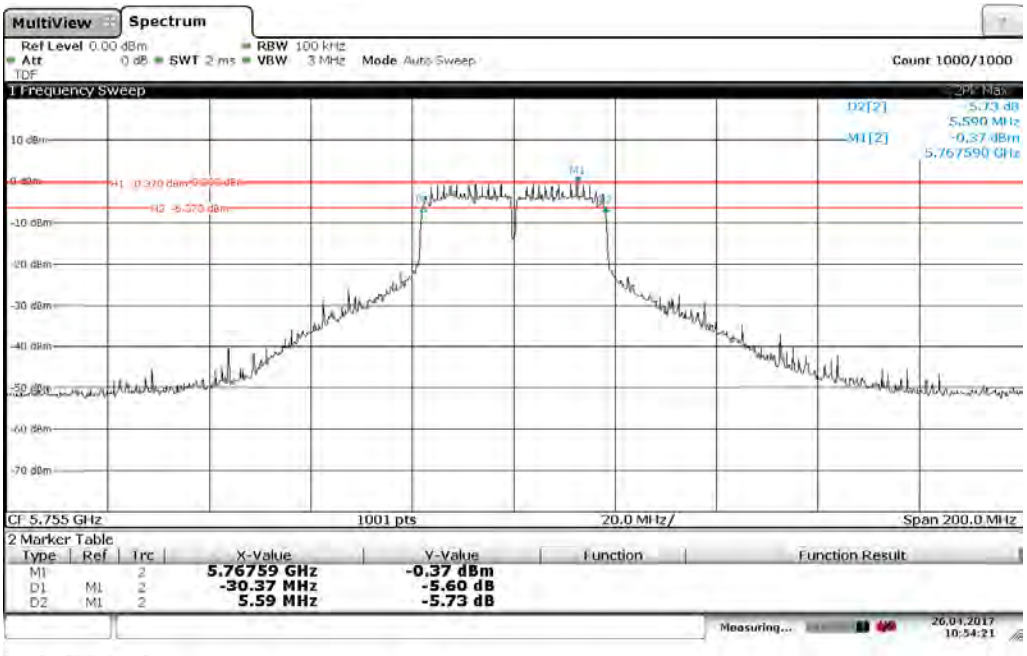
Low Channel – 5755 MHz, 802 11n MSC7 MM SG 150Mbps, Occupied Bandwidth: 36.963 MHz



Date: 26.APR.2017 10:33:29

Band 4 (40 MHz Bandwidth)

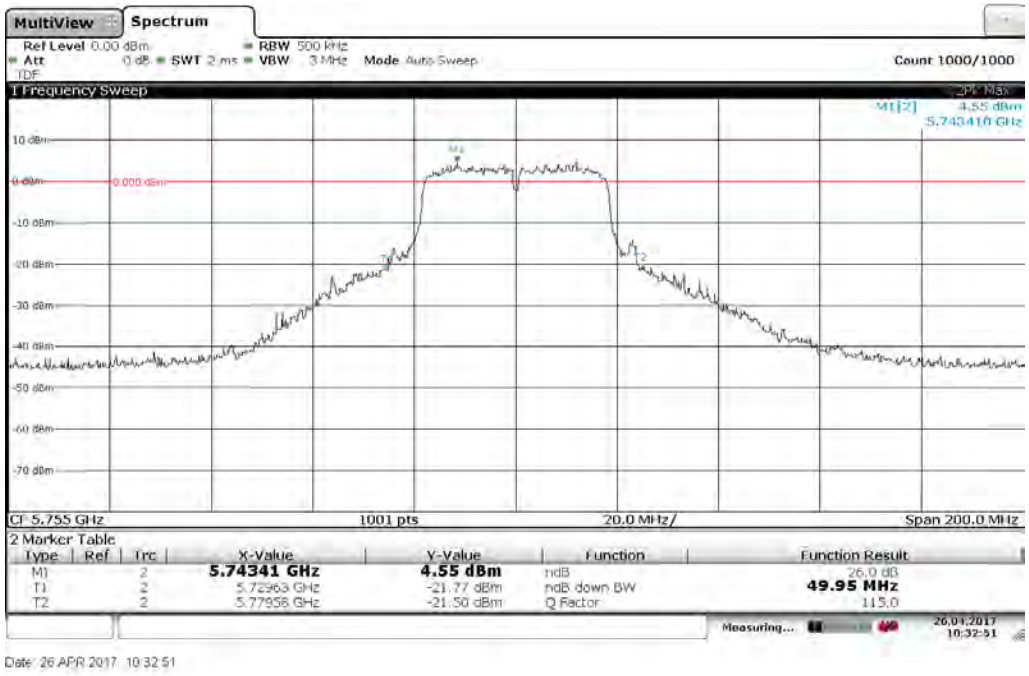
Low Channel – 5755 MHz, 802 11n MSC7 MM SG 150Mbps, 6 dB Bandwidth: 35.96 MHz



Date: 26.APR.2017 10:54:20

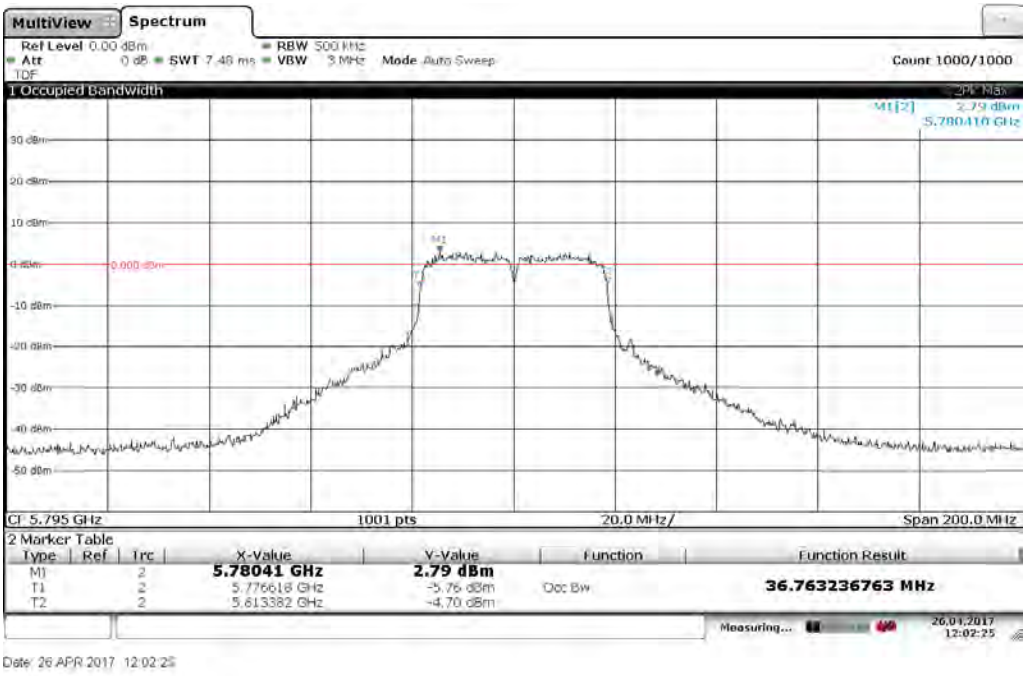
Band 4 (40 MHz Bandwidth)

Low Channel – 5755 MHz, 802 11n MSC7 MM SG 150Mbps, 26 dB Bandwidth: 49.95 MHz



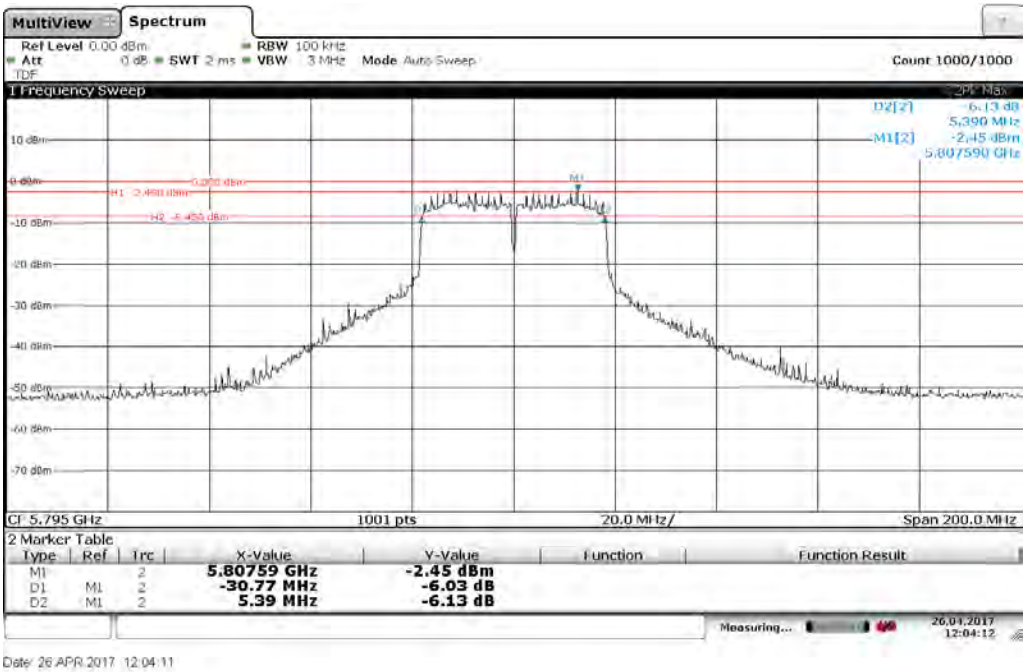
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC7 MM SG 150Mbps, Occupied Bandwidth: 36.763 MHz



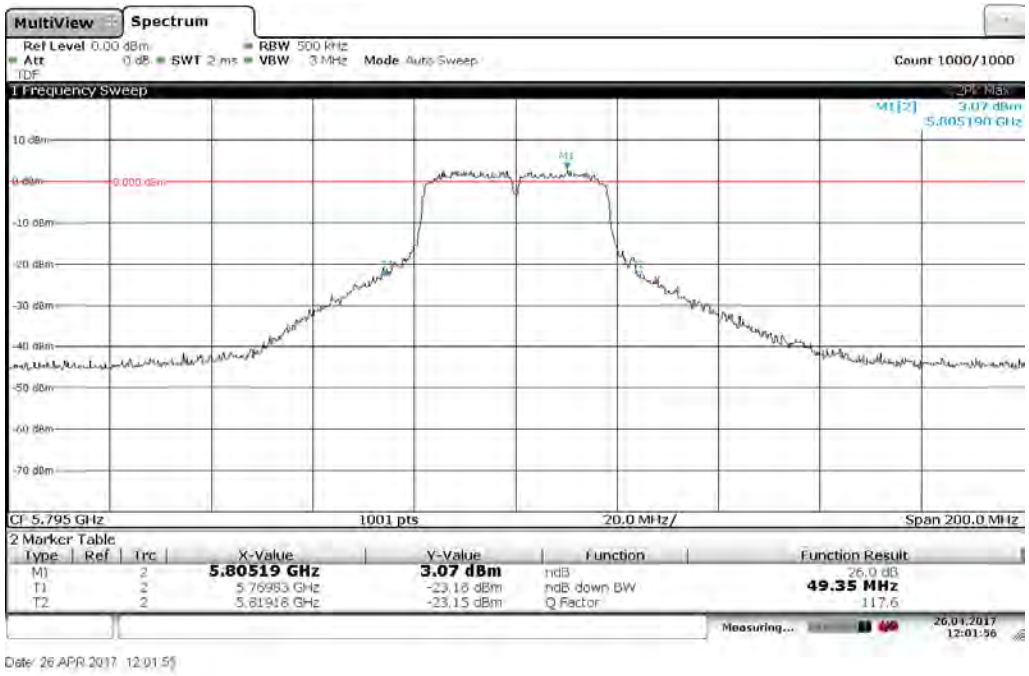
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC7 MM SG 150Mbps, 6 dB Bandwidth: 36.16 MHz



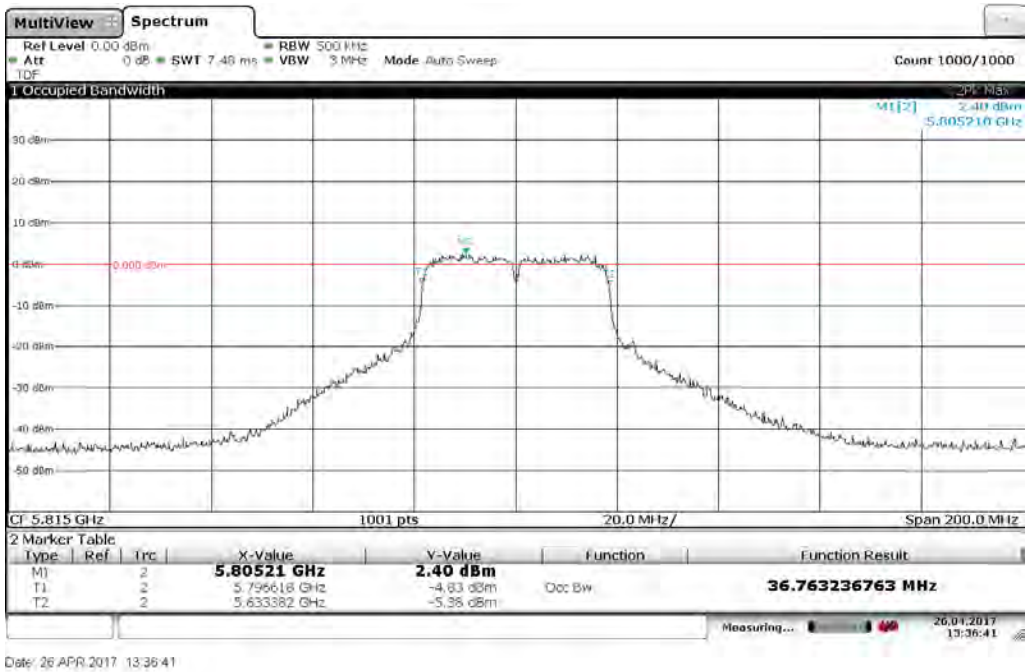
Band 4 (40 MHz Bandwidth)

Mid Channel – 5795 MHz, 802 11n MSC7 MM SG 150Mbps, 26 dB Bandwidth: 49.35 MHz



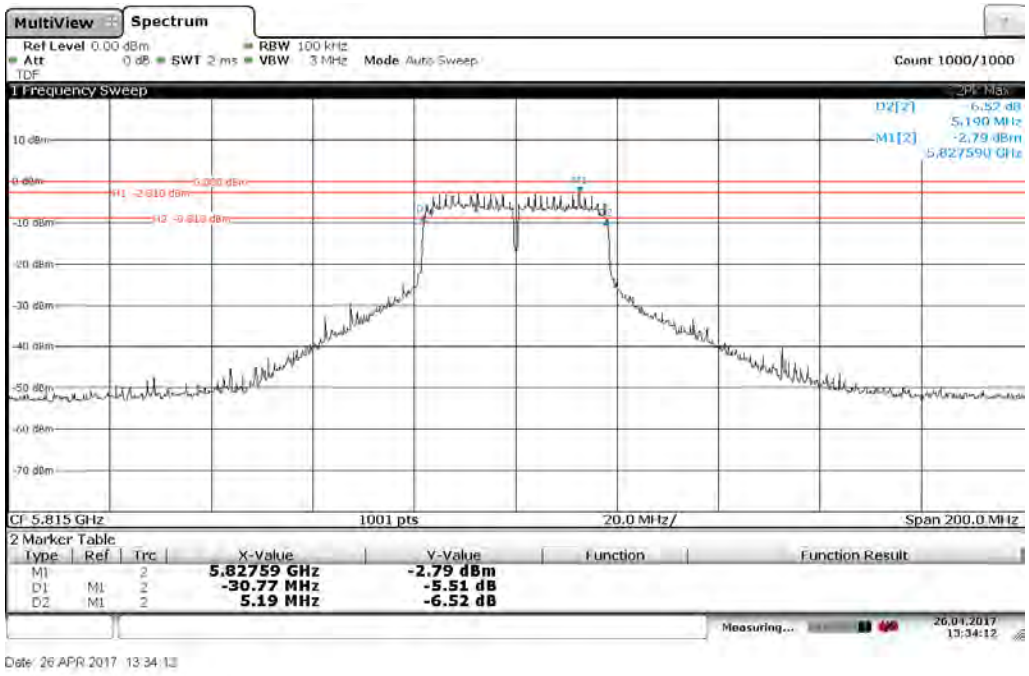
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC7 MM SG 150Mbps, Occupied Bandwidth: 36.763 MHz



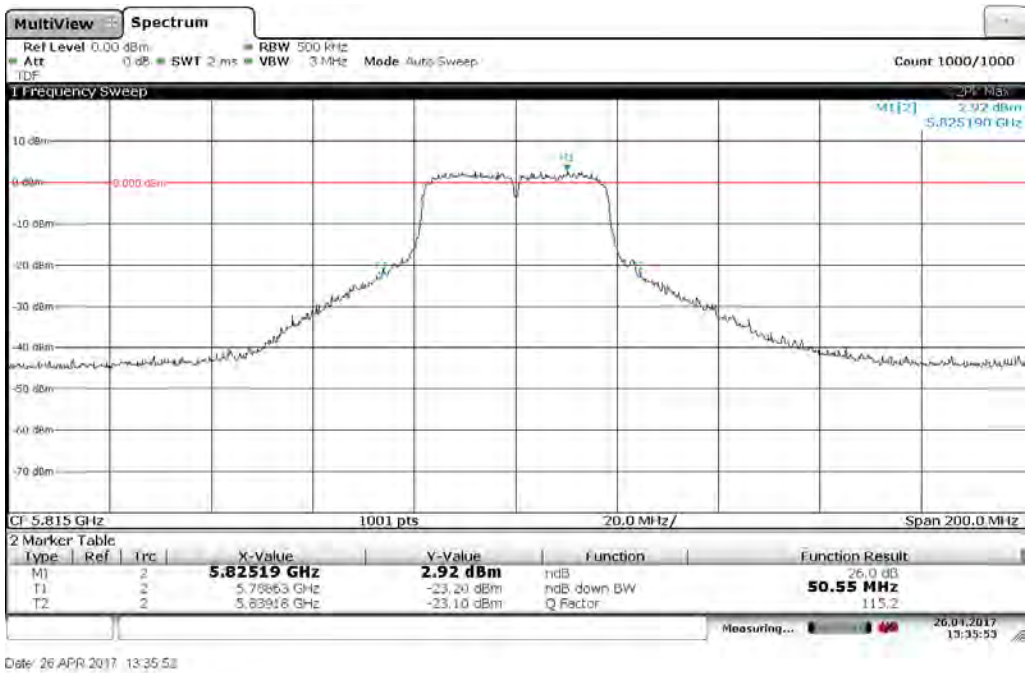
Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC7 MM SG 150Mbps, 6 dB Bandwidth: 35.96 MHz



Band 4 (40 MHz Bandwidth)

High Channel – 5815 MHz, 802 11n MSC7 MM SG 150Mbps, 26 dB Bandwidth: 5815 MHz



	Naga Suryadevara NS	Test Date:	04/23/2017 04/24/2017 04/25/2017 04/26/2017
Test Personnel:	Kouma Sinn KPS		
Supervising/Reviewing Engineer: (Where Applicable)	Vathana Ven VSV		
Product Standard:	FCC Part 15 Subpart C FCC Part 15 Subpart E RSS 247	Limit Applied:	As specified in Section 8.3
Input Voltage:	120VAC 60Hz		
Pretest Verification w/ Ambient Signals or BB Source:	N/A	Ambient Temperature:	22, 21, 23. 22 ºC
		Relative Humidity:	34, 29, 34, 28 %
		Atmospheric Pressure:	1002, 1004, 1008, 1005 mbars

Deviations, Additions, or Exclusions: None

9 Radiated Emissions (Transmitter Spurious, Band edge, Digital devices and Receiver)

9.1 Method

Tests are performed in accordance with FCC Part 15 Subpart E, FCC Part 15 Subpart C (15.247), RSS 247, FCC Part 15 Subpart B and ICES 003.

TEST SITE: 10m ALSE

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. The turntable is located on one end of the chamber and the antennas are mounted 3 and 10 meters away at the other end of the chamber on the adjustable an Antenna Mast. The antenna mast is a non-conductive bore sighted type with remote control of antenna height and polarization. The Antenna Mast and the turntable can be remotely controlled through the controller located in the adjacent Control room. A Styrofoam table 80 cm high is used for table-top equipment.

Measurement Uncertainty

Measurement	Frequency Range	Expanded Uncertainty (k=2)	Ucispr
Radiated Emissions, 10m	30-1000 MHz	4.6 dB	6.3 dB
Radiated Emissions, 3m	30-1000 MHz	5.3 dB	6.3 dB
Radiated Emissions, 3m	1-6 GHz	4.5 dB	5.2 dB
Radiated Emissions, 3m	6-15 GHz	5.2 dB	5.5 dB
Radiated Emissions, 3m	15-18 GHz	5.0 dB	5.5 dB
Radiated Emissions, 3m	18-40 GHz	5.0 dB	5.5 dB

As shown in the table above our radiated emissions U_{lab} is less than the corresponding U_{CISPR} reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required, based on CISPR 22 and CISPR 11 (for 2006 and later revisions) Clause 11.

Sample Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG
Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 52.0 dBμV
AF = 7.4 dB/m
CF = 1.6 dB
AG = 29.0 dB
FS = 32 dBμV/m

To convert from dBμV to μV or mV the following was used:

$UF = 10^{(NF / 20)}$ where UF = Net Reading in μV
NF = Net Reading in dBμV

Example:

FS = RA + AF + CF – AG = 52.0 + 7.4 + 1.6 – 29.0 = 32.0
$UF = 10^{(32\ dB\mu V / 20)}$ = 39.8 μV/m

Alternately, when BAT-EMC Emission Software is used, the “Level” includes all losses and gains and is compared directly in the “Margin” column to the “Limit”. The “Correction” includes Antenna Factor, Preamp, and Cable Loss. These are already accounted for in the “Level” column.

9.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
145145'	Broadband Hybrid Antenna 30 MHz - 3 GHz	Sunol Sciences Corp.	JB3	A122313	05/02/2017	05/02/2018
145-410'	Cables 145-420 145-421 145-422 145-406	Huber + Suhner	10m Track A Cables	multiple	07/30/2016	07/30/2017
PRE10'	30-1000MHz pre-amp	ITS	PRE10	PRE10	12/16/2016	12/16/2017
145128'	EMI Receiver (20 Hz - 40 Ghz)	Rohde & Schwarz	ESIB 40	839283/001	03/15/2017	03/15/2018
ETS002'	1-18GHz DRG Horn Antenna	ETS Lindgren	3117	00143260	05/13/2016	05/13/2017
145014'	Preamplifier (1 GHz to 26.5 GHz)	Hewlett Packard	8449B	3008A00232	05/27/2016	05/27/2017
EMC04'	ANTENNA, RIDGED GUIDE, 18-40 GHZ	EMCO	3116	2090	09/14/2016	09/14/2017
REA004'	3GHz High Pass Filter	Reactel, Inc	7HSX-3G/18G-S11	06-1	02/17/2017	02/17/2018
PRE9'	100MHz-40GHz Preamp	MITEQ	NSP4000-NFG	1260417	08/23/2016	08/23/2017
CBLHF2012-2M-1'	2m 9kHz-40GHz Coaxial Cable - SET1	Huber & Suhner	SF102	252675001	02/08/2017	02/08/2018
CBLHF2012-5M-1'	5m 9kHz-40GHz Coaxial Cable - SET 1	Huber & Suhner	SF102	252676001	02/08/2017	02/08/2018
145-416'	Cables 145-420 145-423 145-424 145-408	Huber + Suhner	3m Track B cables	multiple	07/30/2016	07/30/2017

Software Utilized:

Name	Manufacturer	Version
BAT-EMC	Nexio	3.16.0.69
EMI-Boxborough	Intertek Boxborough	08/27/2010

9.3 Results:

The sample tested was found to Comply.

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band:

All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Attenuation below FCC 15.209 limits is not required.

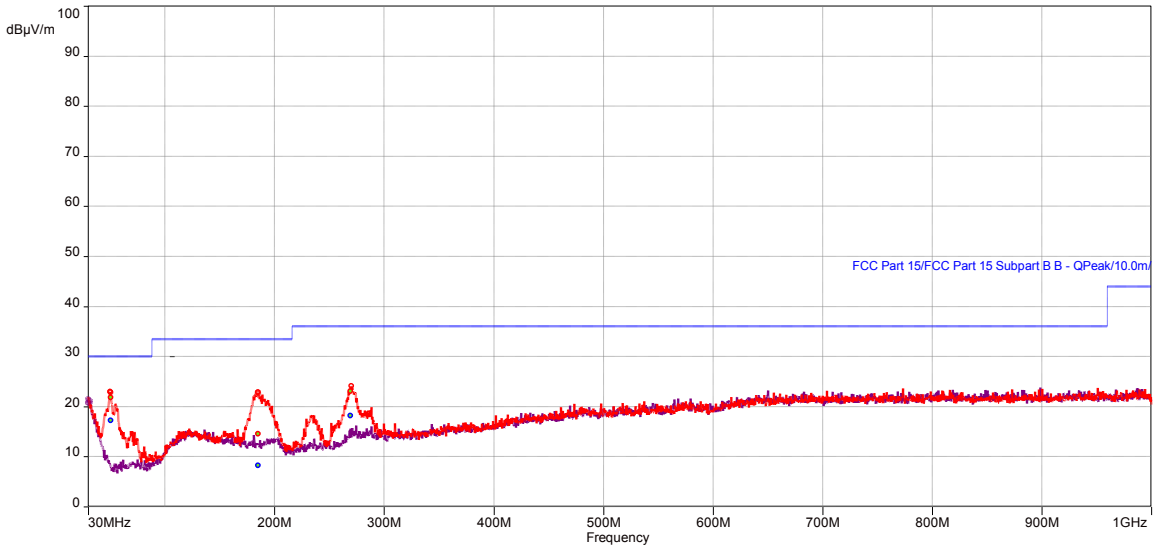
9.4 Plots/Data:

30-1000 MHz, Tx mode (5150 – 5250 MHz), 20 MHz BW Mid Channel

Test Information:

Date and Time	05/05/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	39%
Atmospheric Pressure	996 mB
Comments	120VAC 60Hz, Tx mode, Mid_channel, Band 1, 20 MHz BW, 802.11n 6.5 Mbps

Graph:



Results:

QuasiPeak (PASS) (3)

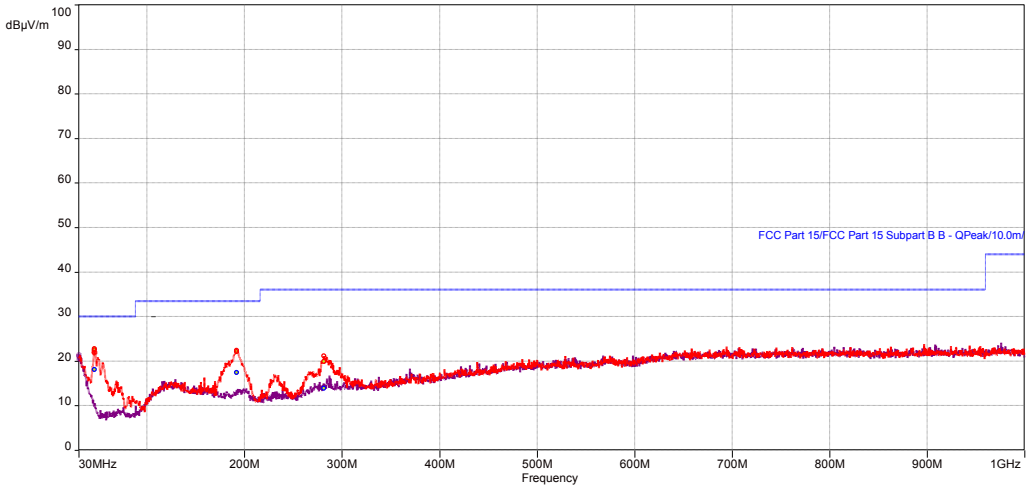
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
50.46	1	17.23	30.00	-12.77	142.00	1.78	Vertical	0.10	-25.65
185.1	1	8.21	33.50	-25.29	268.00	4.00	Vertical	0.10	-21.09
269.4	1	18.18	36.00	-17.82	200.00	1.36	Vertical	0.10	-18.91

30-1000 MHz, Tx mode (5150 – 5250 MHz), 40 MHz BW Mid Channel

Test Information:

Date and Time	05/05/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	39%
Atmospheric Pressure	996 mB
Comments	120VAC 60Hz, Tx mode, Mid_channel, Band 1, 40 MHz BW, 802.11n 13.5 Mbps

Graph:



Results:

QuasiPeak (PASS) (3)

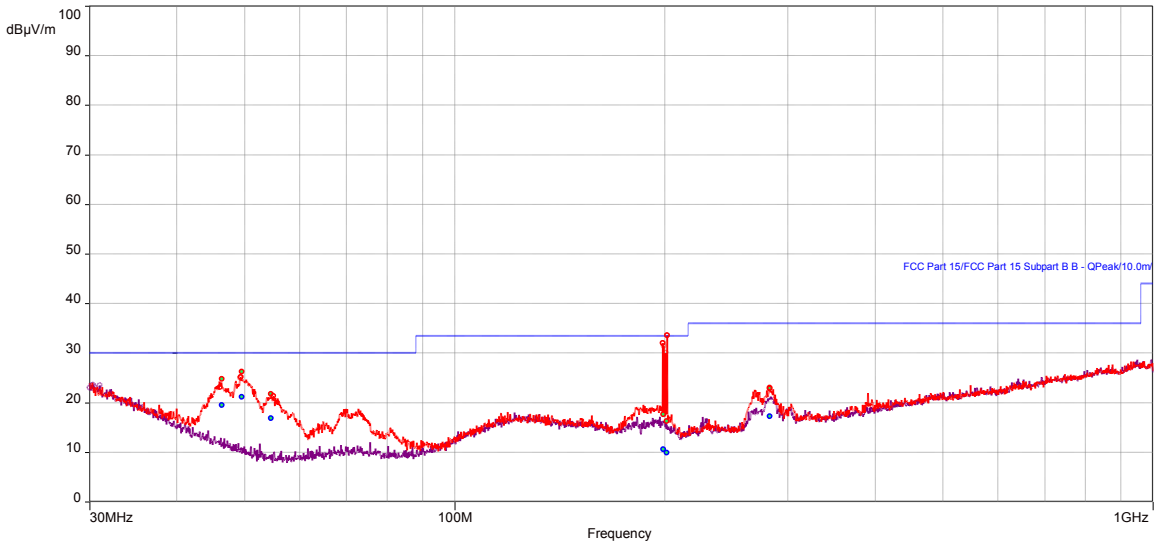
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
46.32	1	18.07	30.00	-11.93	359.00	1.00	Vertical	0.10	-24.07
192	1	17.44	33.50	-16.06	222.00	1.35	Vertical	0.10	-20.71
281.34	1	13.86	36.00	-22.14	19.00	1.50	Vertical	0.10	-18.71

30-1000 MHz, Tx mode (5250 – 5350 MHz), 20 MHz BW Mid Channel

Test Information:

Date and Time	05/01/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	20 deg C
Humidity	41%
Atmospheric Pressure	997 mB
Comments	120VAC 60Hz, Tx mode, Mid_channel, Band 2, 802.11n, 20 MHz BW, 6.5 Mbps

Graph:



Results:

QuasiPeak (PASS) (6)

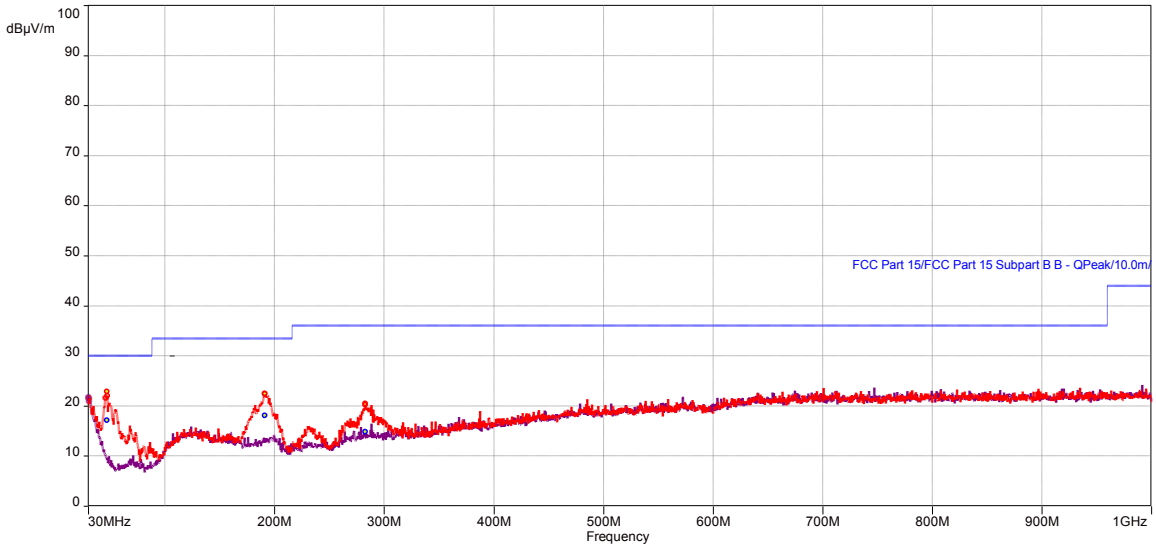
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
46.44	1	19.48	30.00	-10.52	220.00	1.00	Vertical	0.10	-22.50
49.56	1	21.14	30.00	-8.86	233.00	1.00	Vertical	0.10	-23.95
54.6	1	16.87	30.00	-13.13	188.00	1.97	Vertical	0.10	-25.29
198.9	1	10.58	33.50	-22.92	313.00	3.34	Vertical	0.10	-18.46
201.3	1	9.93	33.50	-23.57	222.00	3.36	Vertical	0.10	-18.69
282.72	1	17.20	36.00	-18.80	42.00	1.34	Vertical	0.10	-17.36

30-1000 MHz, Tx mode (5250 – 5350 MHz), 40 MHz BW Mid Channel

Test Information:

Date and Time	05/05/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	39%
Atmospheric Pressure	996 mB
Comments	120VAC 60Hz, Tx mode, Mid_channel, Band 2, 40 MHz BW, 802.11n 13.5 Mbps

Graph:



Results:

QuasiPeak (PASS) (3)

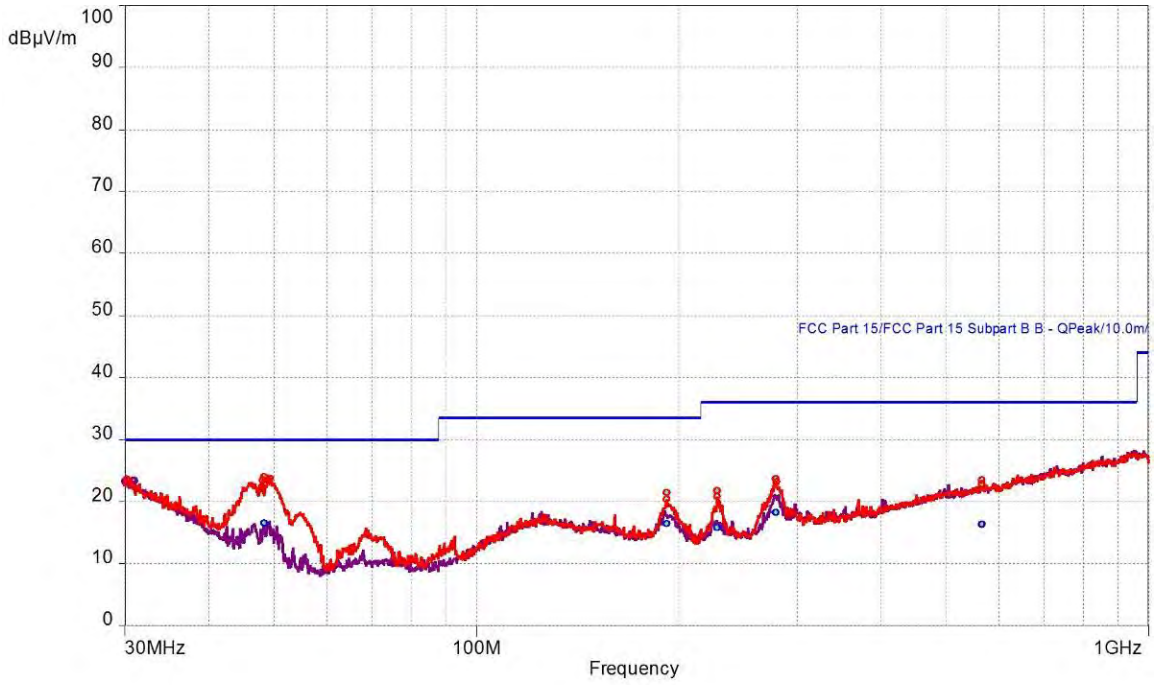
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
47.04	1	17.07	30.00	-12.93	298.00	1.00	Vertical	0.10	-24.49
190.98	1	18.05	33.50	-15.45	246.00	1.00	Vertical	0.10	-20.73
282.96	1	14.79	36.00	-21.21	0.00	1.35	Vertical	0.10	-18.71

30-1000 MHz, Tx mode (5470 – 5725 MHz), 20 MHz BW Mid Channel

Test Information:

Date and Time	04/27/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	47%
Atmospheric Pressure	1003 mB
Comments	120VAC 60Hz, Tx mode, Mid Channel, Band 3, 802.11ga, 20 MHz BW, 6.5 Mbps

Graph:



Results:

QuasiPeak (PASS) (5)

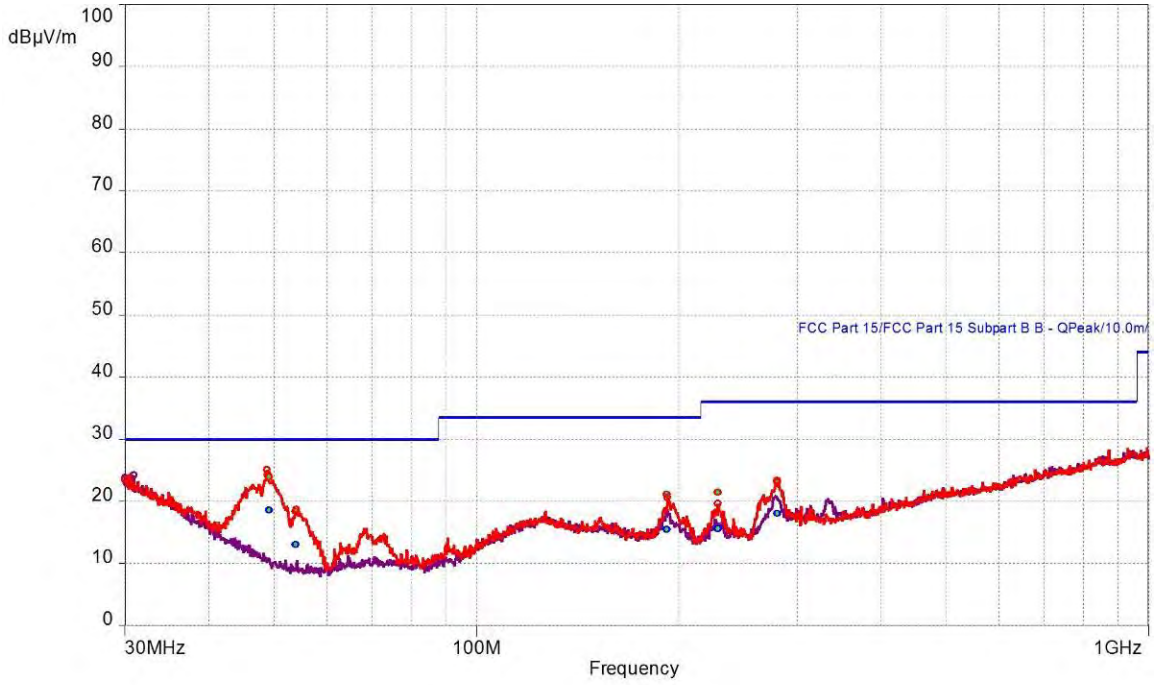
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
48.3	1	16.48	30.00	-13.52	52.00	1.80	Vertical	0.10	-23.40
191.88	1	16.40	33.50	-17.10	153.00	1.00	Vertical	0.10	-19.33
228.48	1	15.76	36.00	-20.24	322.00	1.51	Vertical	0.10	-19.75
279.36	1	18.28	36.00	-17.72	359.00	1.35	Vertical	0.10	-17.33
565.8	1	16.35	36.00	-19.65	133.00	1.50	Vertical	0.10	-11.07

30-1000 MHz, Tx mode (5470 – 5725 MHz), 40 MHz BW Mid Channel

Test Information:

Date and Time	04/27/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	47%
Atmospheric Pressure	1003 mB
Comments	120VAC 60Hz, Tx mode, Mid Channel, Band 3, 802.11n, 40 MHz

Graph:



Results:

QuasiPeak (PASS) (5)

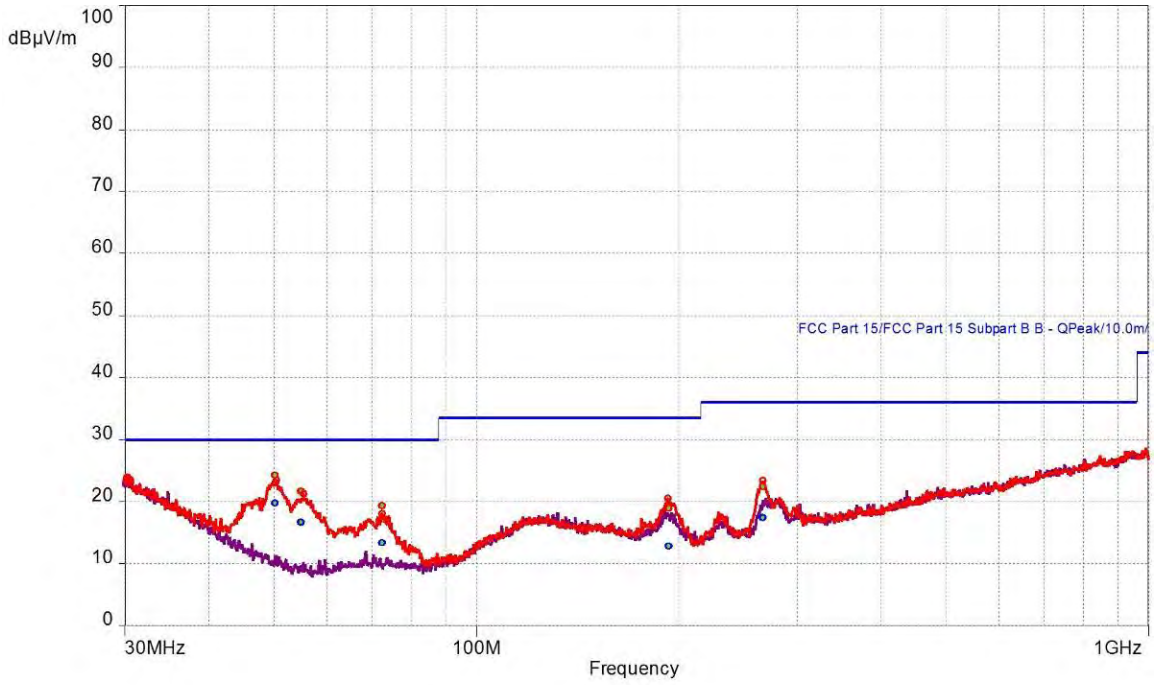
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
49.14	1	18.59	30.00	-11.41	211.00	1.34	Vertical	0.10	-23.79
53.88	1	13.03	30.00	-16.97	225.00	1.00	Vertical	0.10	-25.16
192.18	1	15.46	33.50	-18.04	189.00	1.34	Vertical	0.10	-19.29
228.66	1	15.62	36.00	-20.38	344.00	1.36	Vertical	0.10	-19.75
280.14	1	18.05	36.00	-17.95	355.00	1.35	Vertical	0.10	-17.31

30-1000 MHz, Tx mode (5725 – 5850 MHz) 20MHz BW Mid Channel

Test Information:

Date and Time	04/27/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	47%
Atmospheric Pressure	1003 mB
Comments	120VAC 60Hz, Tx mode, Mid Channel 5785 MHz, 802.11n, 20 MHz BW, 6.5 Mbps

Graph:



Results:

QuasiPeak (PASS) (5)

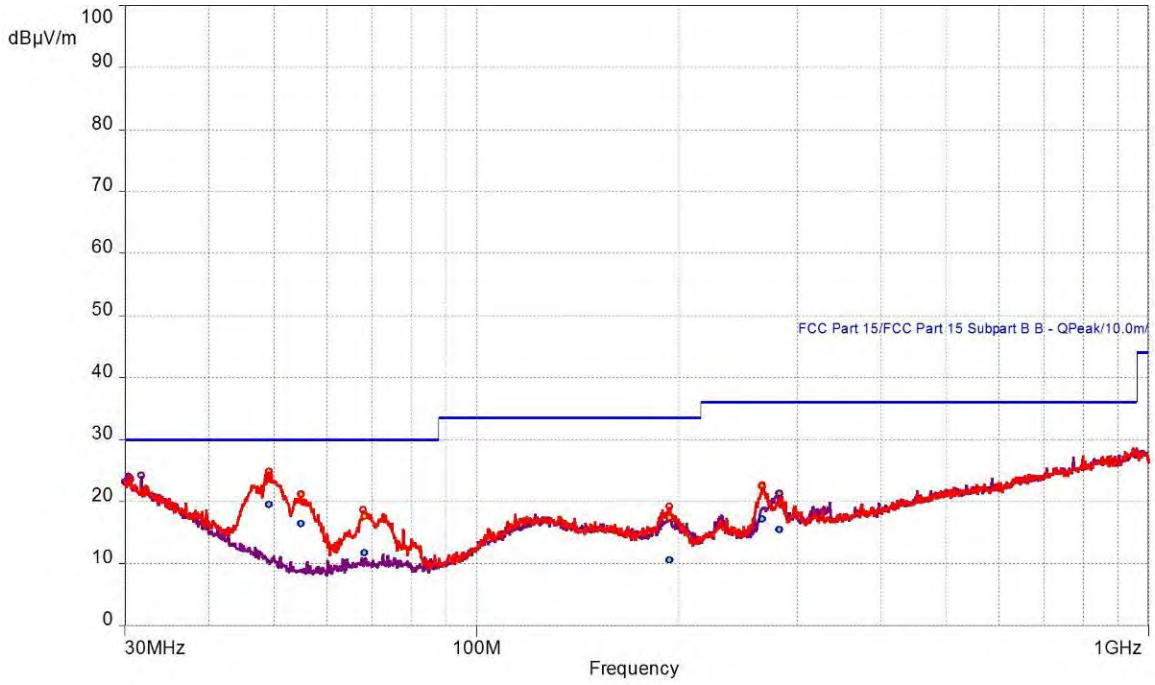
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
50.16	1	19.74	30.00	-10.26	294.00	1.00	Vertical	0.10	-24.18
54.9	1	16.60	30.00	-13.40	241.00	1.00	Vertical	0.10	-25.35
72.36	1	13.28	30.00	-16.72	215.00	2.34	Vertical	0.10	-24.00
193.2	1	12.82	33.50	-20.68	54.00	1.36	Vertical	0.10	-19.18
267	1	17.36	36.00	-18.64	54.00	1.34	Vertical	0.10	-18.10

30-1000 MHz, Tx mode (5725 – 5850 MHz) 40MHz BW Mid Channel

Test Information:

Date and Time	04/27/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	47%
Atmospheric Pressure	1003 mB
Comments	120VAC 60Hz, Tx mode, Mid Channel 5785 MHz, 802.11n, 40 MHz BW, MCS0MM

Graph:



Results:

QuasiPeak (PASS) (6)

Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
49.14	1	19.46	30.00	-10.54	189.00	1.00	Vertical	0.10	-23.79
54.78	1	16.41	30.00	-13.59	239.00	1.78	Vertical	0.10	-25.33
68.16	1	11.73	30.00	-18.27	60.00	2.94	Vertical	0.10	-24.04
193.86	1	10.58	33.50	-22.92	94.00	1.50	Vertical	0.10	-19.11
266.16	1	17.13	36.00	-18.87	0.00	1.78	Vertical	0.10	-18.19
282	2	15.42	36.00	-20.58	265.00	3.97	Horizontal	0.10	-17.35

1-40 GHz Band 1 (5150-5250 MHz) Tx on Low, Mid and High Channels @ 20 MHz and 40 MHz BW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth
Note: Spurious Emissions, Band 1 5150-5250 MHz, Lo Channel_5180 MHz, 802.11n, 20 MHz BW, 7.2 Mbps											
PK	H	10360.000	36.00	37.44	13.42	34.60	0.00	52.26	74.00	-21.74	1/3 MHz
AVG	H	10360.000	22.71	37.44	13.42	34.60	0.00	38.97	54.00	-15.03	1/3 MHz
PK	H	15540.000	36.65	39.98	16.01	33.87	0.00	58.78	74.00	-15.22	1/3 MHz
AVG	H	15540.000	22.92	39.98	16.01	33.87	0.00	45.05	54.00	-8.95	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Mid Channel_5220 MHz, 802.11n, 20 MHz BW, 7.2 Mbps											
PK	H	10440.000	35.14	37.51	13.52	34.50	0.00	51.67	74.00	-22.33	1/3 MHz
AVG	H	10440.000	21.82	37.51	13.52	34.50	0.00	38.35	54.00	-15.65	1/3 MHz
PK	H	15660.000	35.41	40.07	15.91	34.06	0.00	57.33	74.00	-16.67	1/3 MHz
AVG	H	15660.000	22.60	40.07	15.91	34.06	0.00	44.52	54.00	-9.48	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Hi Channel_5240 MHz, 802.11n, 20 MHz BW, 7.2 Mbps											
PK	H	10380.000	35.68	37.46	13.45	34.57	0.00	52.01	74.00	-21.99	1/3 MHz
AVG	H	10380.000	22.50	37.46	13.45	34.57	0.00	38.83	54.00	-15.17	1/3 MHz
PK	H	15720.000	35.27	40.19	15.86	34.15	0.00	57.16	74.00	-16.84	1/3 MHz
AVG	H	15720.000	22.39	40.19	15.86	34.15	0.00	44.28	54.00	-9.72	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Lo Channel_5190 MHz, 802.11n, 40 MHz BW, 13.5 Mbps											
PK	H	10380.000	35.82	37.46	13.45	34.57	0.00	52.15	74.00	-21.85	1/3 MHz
AVG	H	10380.000	22.71	37.46	13.45	34.57	0.00	39.04	54.00	-14.96	1/3 MHz
PK	H	15570.000	36.10	39.99	15.99	33.92	0.00	58.16	74.00	-15.84	1/3 MHz
AVG	H	15570.000	23.12	39.99	15.99	33.92	0.00	45.18	54.00	-8.82	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Mid Channel_5230 MHz, 802.11n, 40 MHz BW, 13.5 Mbps											
PK	H	10460.000	35.56	37.53	13.55	34.48	0.00	52.16	74.00	-21.84	1/3 MHz
AVG	H	10460.000	22.05	37.53	13.55	34.48	0.00	38.65	54.00	-15.35	1/3 MHz
PK	H	15690.000	35.56	40.12	15.88	34.11	0.00	57.45	74.00	-16.55	1/3 MHz
AVG	H	15690.000	22.60	40.12	15.88	34.11	0.00	44.49	54.00	-9.51	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Hi Channel_5250 MHz, 802.11n, 40 MHz BW, 13.5 Mbps											
PK	H	10500.000	35.27	37.56	13.60	34.44	0.00	52.00	74.00	-22.01	1/3 MHz
AVG	H	10500.000	22.50	37.56	13.60	34.44	0.00	39.23	54.00	-14.78	1/3 MHz
PK	H	15750.000	35.56	40.27	15.83	34.20	0.00	57.46	74.00	-16.54	1/3 MHz
AVG	H	15750.000	22.71	40.27	15.83	34.20	0.00	44.61	54.00	-9.39	1/3 MHz

Note: Test was performed on modulation and data rate indicated in the below table with highest power. Worst case polarization data is indicated in the above table, no emissions than the one indicated above were detected above the noise floor.

1-40 GHz Band 2 (5250-5350 MHz) Tx on Low, Mid and High Channels @ 20 MHz and 40 MHz BW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth
Note: Spurious Emissions, Band 2 5250-5350 MHz, Lo Channel_5260 MHz, 802.11g, 20 MHz BW, 6.0 Mbps											
PK	H	10520.000	39.19	37.56	13.63	34.41	0.00	55.97	74.00	-18.03	1/3 MHz
AVG	H	10520.000	23.24	37.56	13.63	34.41	0.00	40.02	54.00	-13.98	1/3 MHz
PK	H	15780.000	35.12	40.35	15.85	34.25	0.00	57.07	74.00	-16.93	1/3 MHz
AVG	H	15780.000	24.46	40.35	15.85	34.25	0.00	46.41	54.00	-7.59	1/3 MHz
Note: Spurious Emissions, Band 2 5250-5350 MHz, Mid Channel_5300 MHz, 802.11g, 20 MHz BW, 6.0 Mbps											
PK	H	10600.000	36.26	37.56	13.74	34.32	0.00	53.24	74.00	-20.76	1/3 MHz
AVG	H	10600.000	24.49	37.56	13.74	34.32	0.00	41.47	54.00	-12.53	1/3 MHz
PK	H	15900.000	28.19	40.42	15.91	34.43	0.00	50.09	74.00	-23.91	1/3 MHz
AVG	H	15900.000	25.43	40.42	15.91	34.43	0.00	47.33	54.00	-6.67	1/3 MHz
Note: Spurious Emissions, Band 2 5250-5350 MHz, Mid Channel_5320 MHz, 802.11g, 20 MHz BW, 6.0 Mbps											
PK	H	10640.000	33.24	37.61	13.79	34.27	0.00	50.36	74.00	-23.64	1/3 MHz
AVG	H	10640.000	21.19	37.61	13.79	34.27	0.00	38.31	54.00	-15.69	1/3 MHz
PK	H	15960.000	34.27	40.46	15.95	34.53	0.00	56.15	74.00	-17.85	1/3 MHz
AVG	H	15960.000	22.12	40.46	15.95	34.53	0.00	44.00	54.00	-10.00	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Lo Channel_5190 MHz, 802.11n, 40 MHz BW, 13.5 Mbps											
PK	H	10540.000	36.27	37.56	13.65	34.39	0.00	53.10	74.00	-20.90	1/3 MHz
AVG	H	10540.000	22.98	37.56	13.65	34.39	0.00	39.81	54.00	-14.19	1/3 MHz
PK	H	15810.000	37.19	40.41	15.86	34.29	0.00	59.17	74.00	-14.83	1/3 MHz
AVG	H	15810.000	22.98	40.41	15.86	34.29	0.00	44.96	54.00	-9.04	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Mid Channel_5230 MHz, 802.11n, 40 MHz BW, 13.5 Mbps											
PK	H	10580.000	37.27	37.56	13.71	34.34	0.00	54.20	74.00	-19.80	1/3 MHz
AVG	H	10580.000	24.08	37.56	13.71	34.34	0.00	41.01	54.00	-12.99	1/3 MHz
PK	H	15870.000	34.12	40.42	15.90	34.39	0.00	56.05	74.00	-17.95	1/3 MHz
AVG	H	15870.000	23.27	40.42	15.90	34.39	0.00	45.20	54.00	-8.80	1/3 MHz
Note: Spurious Emissions, Band 1 5150-5250 MHz, Hi Channel_5250 MHz, 802.11n, 40 MHz BW, 13.5 Mbps											
PK	H	10620.000	34.27	37.58	13.76	34.30	0.00	51.32	74.00	-22.68	1/3 MHz
AVG	H	10620.000	23.19	37.58	13.76	34.30	0.00	40.24	54.00	-13.76	1/3 MHz
PK	H	15930.000	33.19	40.44	15.93	34.48	0.00	55.08	74.00	-18.92	1/3 MHz
AVG	H	15930.000	21.21	40.44	15.93	34.48	0.00	43.10	54.00	-10.90	1/3 MHz

Note: Test was performed on modulation and data rate indicated in the below table with highest power. Worst case polarization data is indicated in the above table, no emissions than the one indicated above were detected above the noise floor.

1-40 GHz Band 3 (5470-5725 MHz) Tx on Low, Mid and High Channels @ 20 MHz and 40 MHz BW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth
Note: Spurious Emissions, Band 3 5470-5725 MHz, Lo Channel_5500 MHz, 802.11ag, 20 MHz BW, 6 Mbps											
PK	H	11000.000	36.00	37.78	14.06	33.86	0.00	53.98	74.00	-20.02	1/3 MHz
AVG	H	11000.000	22.71	37.78	14.06	33.86	0.00	40.69	54.00	-13.31	1/3 MHz
PK	H	16500.000	36.65	41.48	16.64	34.40	0.00	60.38	74.00	-13.63	1/3 MHz
AVG	H	16500.000	22.92	41.48	16.64	34.40	0.00	46.65	54.00	-7.36	1/3 MHz
Note: Spurious Emissions, Band 3 5470-5725 MHz, Mid Channel_5620 MHz, 802.11ag, 20 MHz BW, 6 Mbps											
PK	H	11240.000	35.14	37.96	14.42	33.74	0.00	53.78	74.00	-20.22	1/3 MHz
AVG	H	11240.000	21.82	37.96	14.42	33.74	0.00	40.46	54.00	-13.54	1/3 MHz
PK	H	16860.000	35.41	41.85	17.03	34.25	0.00	60.04	74.00	-13.96	1/3 MHz
AVG	H	16860.000	22.60	41.85	17.03	34.25	0.00	47.23	54.00	-6.77	1/3 MHz
Note: Spurious Emissions, Band 3 5470-5725 MHz, Hi Channel_5720 MHz, 802.11ag, 20 MHz BW, 6 Mbps											
PK	H	11440.000	35.68	38.12	14.20	33.65	0.00	54.35	74.00	-19.65	1/3 MHz
AVG	H	11440.000	22.50	38.12	14.20	33.65	0.00	41.17	54.00	-12.83	1/3 MHz
PK	H	17160.000	35.27	41.34	17.58	34.19	0.00	60.01	74.00	-13.99	1/3 MHz
AVG	H	17160.000	22.39	41.34	17.58	34.19	0.00	47.13	54.00	-6.87	1/3 MHz
Note: Spurious Emissions, Band 3_5470-5725 MHz, Lo Channel_5510 MHz, 802.11n, 40 MHz BW, MCS0 13.5 Mbps											
PK	H	11020.000	35.82	37.80	14.09	33.85	0.00	53.86	74.00	-20.14	1/3 MHz
AVG	H	11020.000	22.71	37.80	14.09	33.85	0.00	40.75	54.00	-13.25	1/3 MHz
PK	H	16530.000	36.10	41.55	16.61	34.38	0.00	59.88	74.00	-14.12	1/3 MHz
AVG	H	16530.000	23.12	41.55	16.61	34.38	0.00	46.90	54.00	-7.10	1/3 MHz
Note: Spurious Emissions, Band 3_5470-5725 MHz, Mid Channel_5610 MHz, 802.11n, 40 MHz BW, MCS0 13.5 Mbps											
PK	H	11220.000	35.56	37.96	14.39	33.75	0.00	54.16	74.00	-19.84	1/3 MHz
AVG	H	11220.000	22.05	37.96	14.39	33.75	0.00	40.65	54.00	-13.35	1/3 MHz
PK	H	16830.000	35.56	41.88	16.86	34.27	0.00	60.03	74.00	-13.97	1/3 MHz
AVG	H	16830.000	22.60	41.88	16.86	34.27	0.00	47.07	54.00	-6.93	1/3 MHz
Note: Spurious Emissions, Band 3_5470-5725 MHz, Hi Channel_5710 MHz, 802.11n, 40 MHz BW, MCS0 13.5 Mbps											
PK	H	11420.000	35.27	38.11	14.22	33.66	0.00	53.95	74.00	-20.05	1/3 MHz
AVG	H	11420.000	22.50	38.11	14.22	33.66	0.00	41.18	54.00	-12.82	1/3 MHz
PK	H	17130.000	35.56	41.38	17.63	34.19	0.00	60.37	74.00	-13.63	1/3 MHz
AVG	H	17130.000	22.71	41.38	17.63	34.19	0.00	47.52	54.00	-6.48	1/3 MHz

Note: Test was performed on modulation and data rate indicated in the below table with highest power. Worst case polarization data is indicated in the above table, no emissions than the one indicated above were detected.

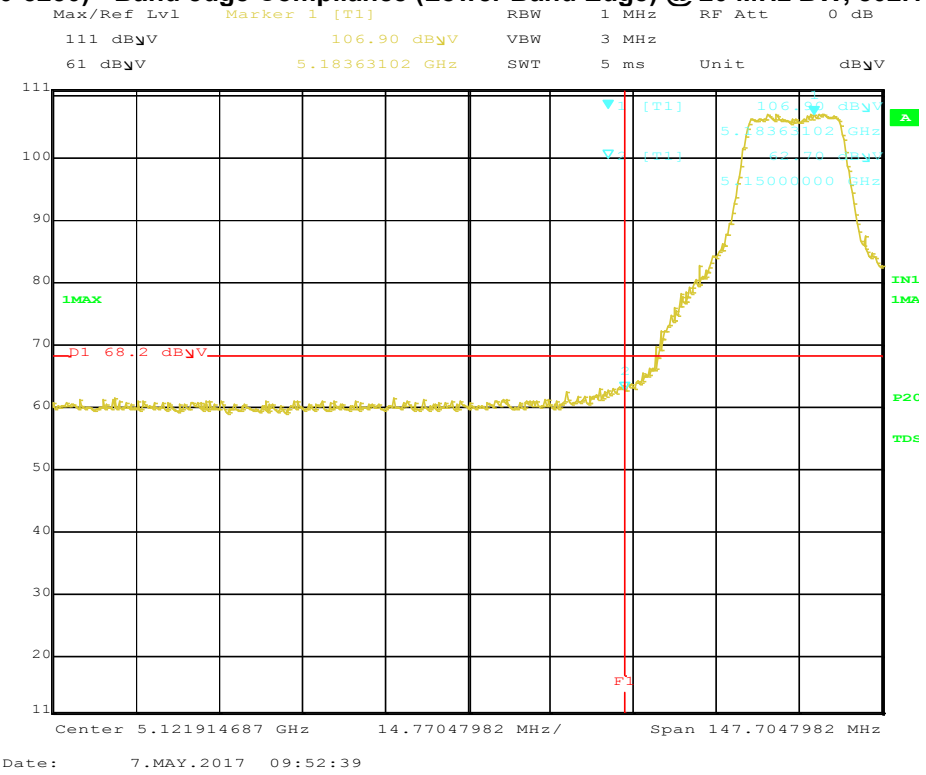
1-40 GHz Band 4 (5725-5850 MHz) Tx on Low, Mid and High Channels @ 20 MHz and 40 MHz BW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth
Note: Spurious Emissions, Band 4_5725-5850 MHz, Lo Channel_5745 MHz, 802.11n, 20 MHz BW, 6.5 Mbps											
PK	H	11490.000	35.68	38.15	14.13	33.62	0.00	54.34	74.00	-19.66	1/3 MHz
AVG	H	11490.000	22.71	38.15	14.13	33.62	0.00	41.37	54.00	-12.63	1/3 MHz
PK	H	17235.000	34.86	41.24	17.46	34.18	0.00	59.38	74.00	-14.62	1/3 MHz
AVG	H	17235.000	22.28	41.24	17.46	34.18	0.00	46.80	54.00	-7.20	1/3 MHz
Note: Spurious Emissions, Band 4_5725-5850 MHz, Low Channel_5755 MHz, 802.11n, 40 MHz BW, MCS0MM SG 15											
PK	H	11510.000	35.82	38.17	14.12	33.62	0.00	54.49	74.00	-19.51	1/3 MHz
AVG	H	11510.000	22.82	38.17	14.12	33.62	0.00	41.49	54.00	-12.51	1/3 MHz
PK	H	17265.000	36.10	41.18	17.43	34.18	0.00	60.53	74.00	-13.47	1/3 MHz
AVG	H	17265.000	22.60	41.18	17.43	34.18	0.00	47.03	54.00	-6.97	1/3 MHz
Note: Spurious Emissions, Band 4_5725-5850 MHz, Mid Channel_5785 MHz, 802.11n, 20 MHz BW, 6.5 Mbps											
PK	H	11570.000	36.20	38.23	14.10	33.59	0.00	54.95	74.00	-19.05	1/3 MHz
AVG	H	11570.000	23.32	38.23	14.10	33.59	0.00	42.07	54.00	-11.93	1/3 MHz
PK	H	17355.000	31.67	41.14	17.38	34.18	0.00	56.02	74.00	-17.98	1/3 MHz
AVG	H	17355.000	19.70	41.14	17.38	34.18	0.00	44.05	54.00	-9.95	1/3 MHz
Note: Spurious Emissions, Band 4_5725-5850 MHz, Mid Channel_5795 MHz, 802.11n, 40 MHz BW, MCS0MM SG 15											
PK	H	11590.000	35.74	38.25	14.10	33.58	0.00	54.51	74.00	-19.49	1/3 MHz
AVG	H	11590.000	23.12	38.25	14.10	33.58	0.00	41.89	54.00	-12.11	1/3 MHz
PK	H	17385.000	35.59	41.15	17.36	34.17	0.00	59.94	74.00	-14.06	1/3 MHz
AVG	H	17385.000	22.50	41.15	17.36	34.17	0.00	46.85	54.00	-7.15	1/3 MHz
Note: Spurious Emissions, Band 4_5725-5850 MHz, Hi Channel_5825 MHz, 802.11n, 20 MHz BW, 6.5 Mbps											
PK	H	11650.000	35.82	38.31	14.08	33.55	0.00	54.66	74.00	-19.34	1/3 MHz
AVG	H	11650.000	25.82	38.31	14.08	33.55	0.00	44.66	54.00	-9.34	1/3 MHz
PK	H	17475.000	35.14	41.21	17.31	34.17	0.00	59.49	74.00	-14.51	1/3 MHz
AVG	H	17475.000	22.60	41.21	17.31	34.17	0.00	46.95	54.00	-7.05	1/3 MHz
Note: Spurious Emissions, Band 4_5725-5850 MHz, Hi Channel_5815 MHz, 802.11n, 40 MHz BW, MCS0MM SG 15											
PK	H	11630.000	36.23	38.29	14.09	33.56	0.00	55.05	74.00	-18.95	1/3 MHz
AVG	H	11630.000	23.02	38.29	14.09	33.56	0.00	41.84	54.00	-12.16	1/3 MHz
PK	H	17445.000	35.68	41.19	17.33	34.17	0.00	60.03	74.00	-13.97	1/3 MHz
AVG	H	17445.000	22.50	41.19	17.33	34.17	0.00	46.85	54.00	-7.15	1/3 MHz

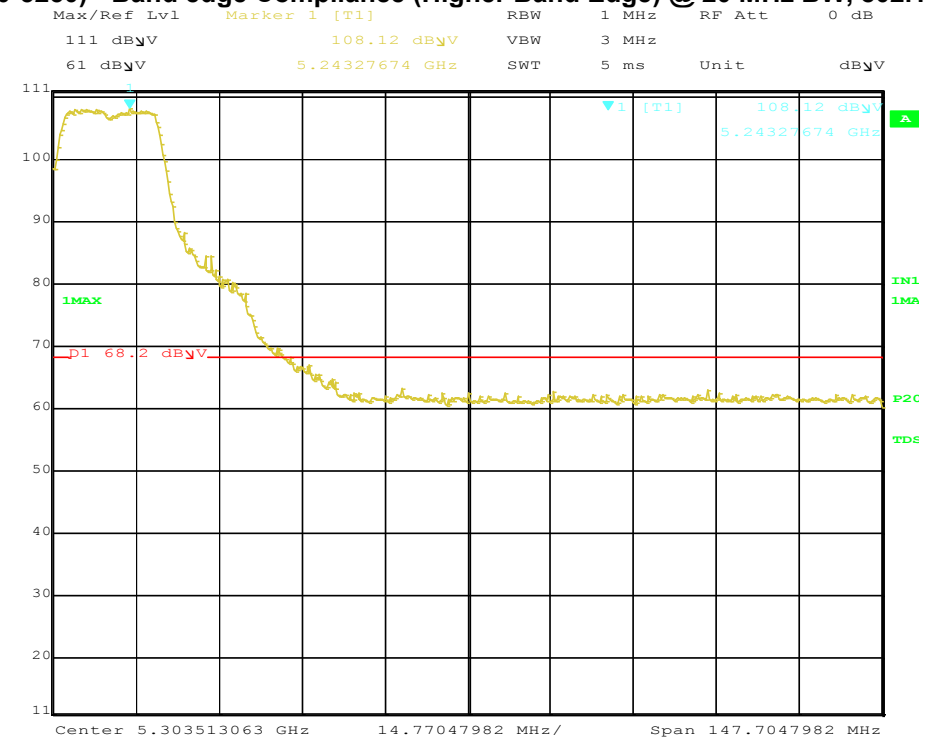
Note: Test was performed on modulation and data rate indicated in the below table with highest power. Worst case polarization data is indicated in the above table, no emissions than the one indicated above were detected.

Note: For all Band edge emissions worst case bandwidth modulation and data rates were used, antenna factor, cable loss were programmed into the spectrum analyzer and compliance @ band edge is shown to 68.2 dB(uV/m) which is = 27dBm/MHz – 95.2 dB(uV/m)

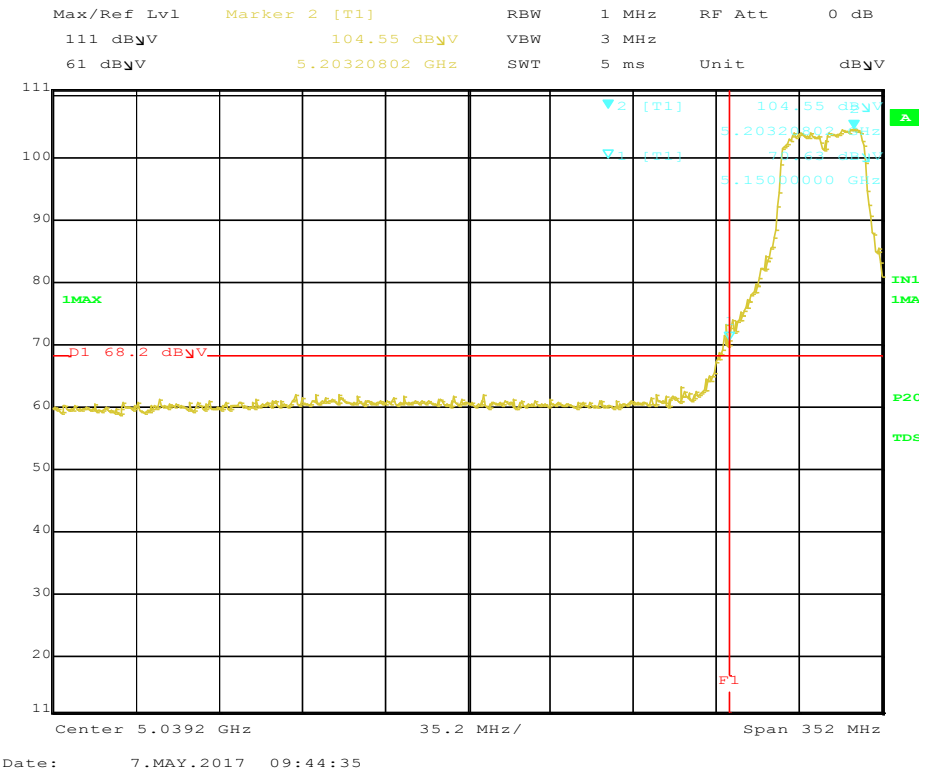
Band 1(5150-5250) - Band edge Compliance (Lower Band Edge) @ 20 MHz BW, 802.11n 6.5 Mbps



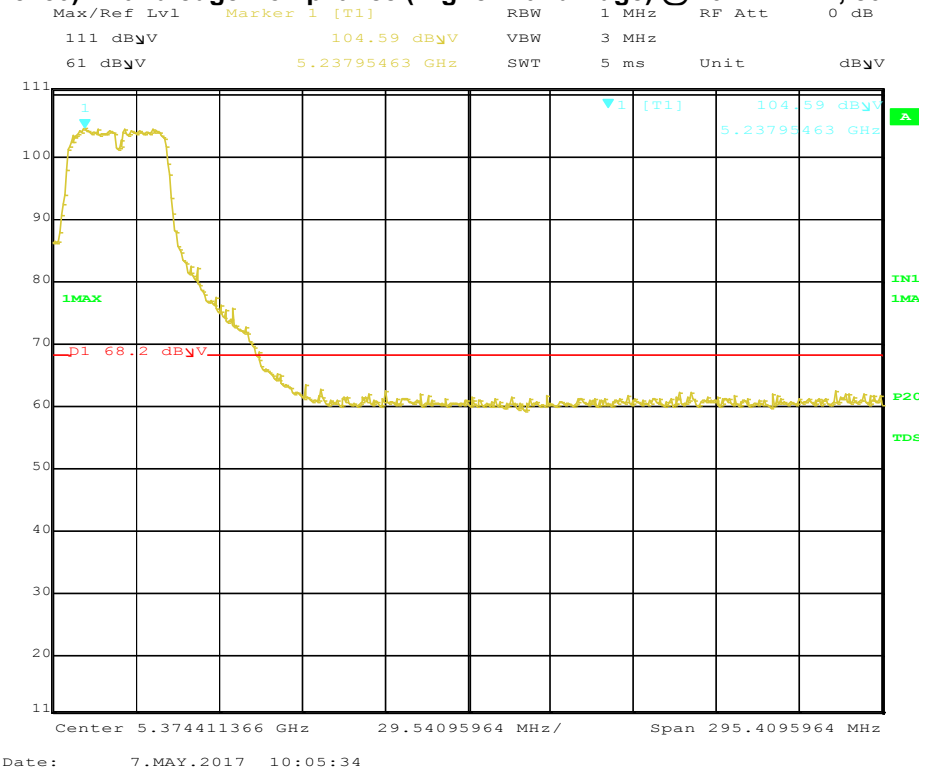
Band 1(5150-5250) - Band edge Compliance (Higher Band Edge) @ 20 MHz BW, 802.11n 6.5 Mbps



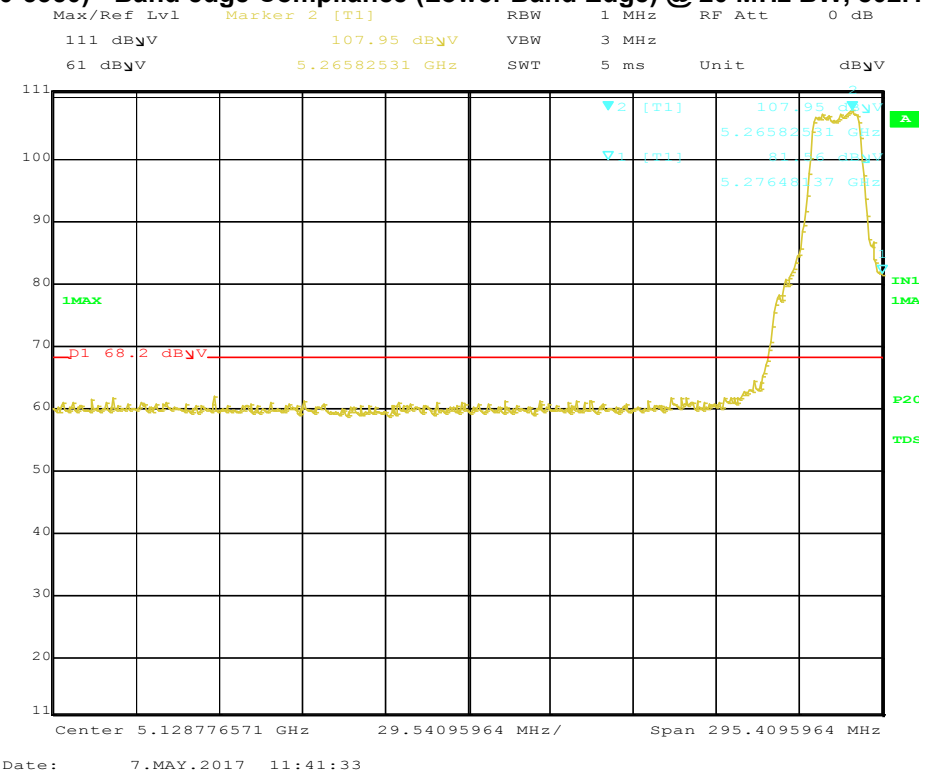
Band 1(5150-5250) - Band edge Compliance (Lower Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



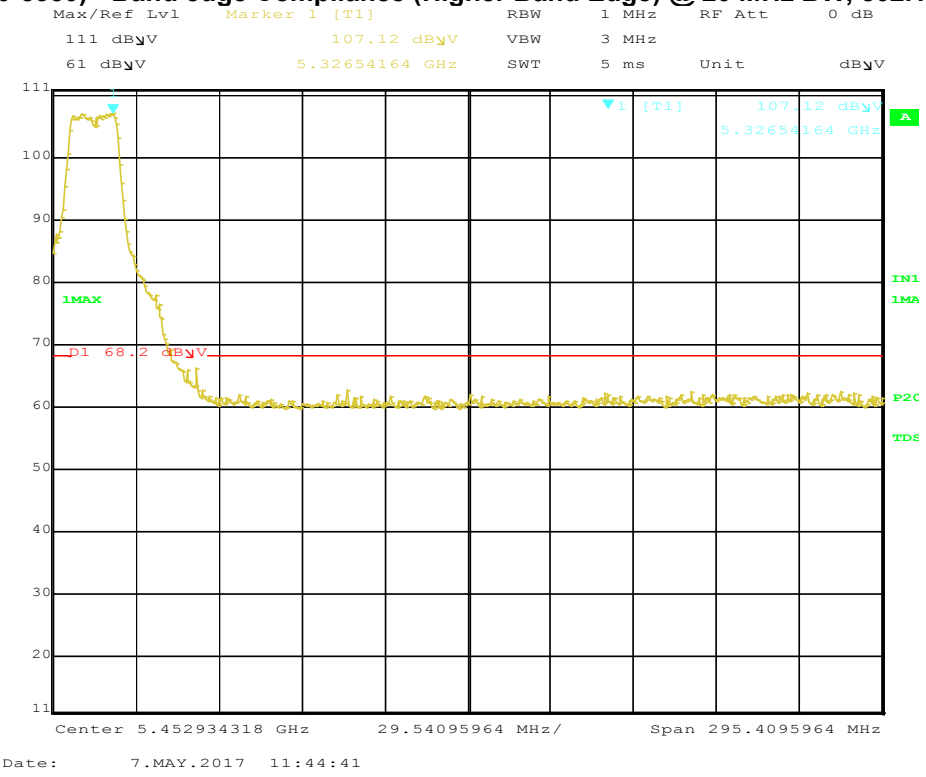
Band 1(5150-5250) - Band edge Compliance (Higher Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



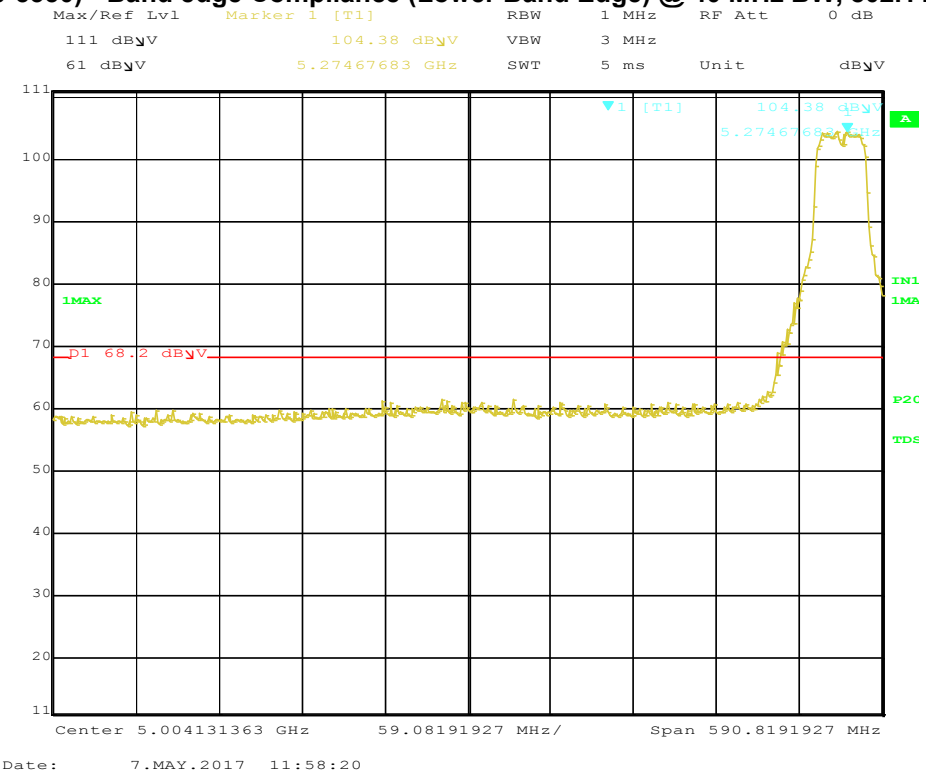
Band 2(5250-5350) - Band edge Compliance (Lower Band Edge) @ 20 MHz BW, 802.11n 6.5 Mbps



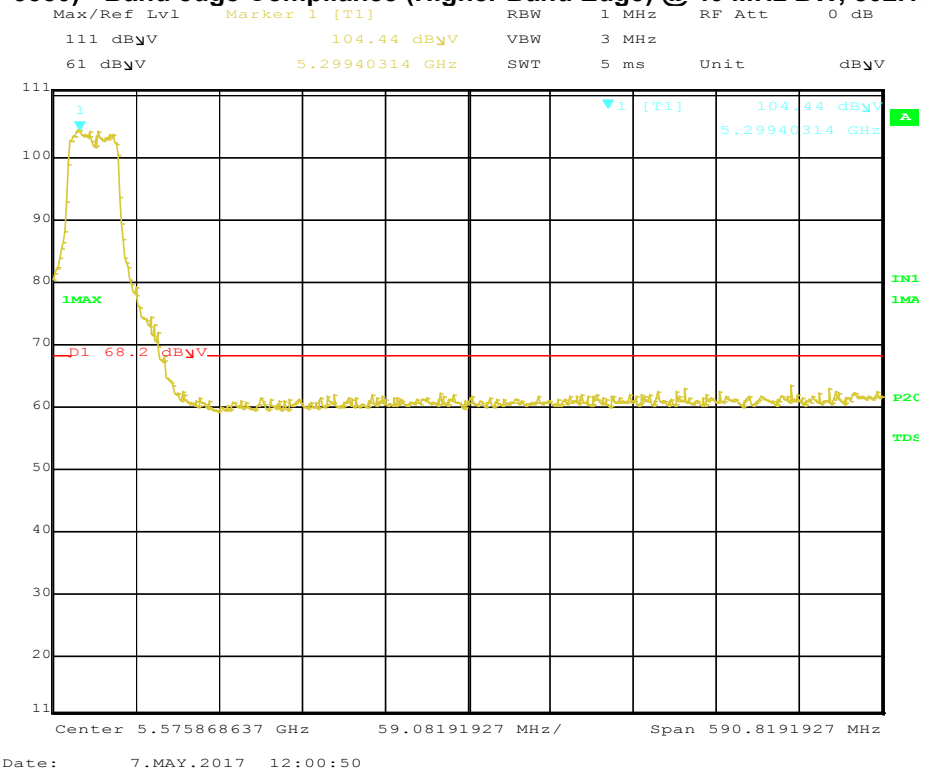
Band 2(5250-5350) - Band edge Compliance (Higher Band Edge) @ 20 MHz BW, 802.11n 6.5 Mbps



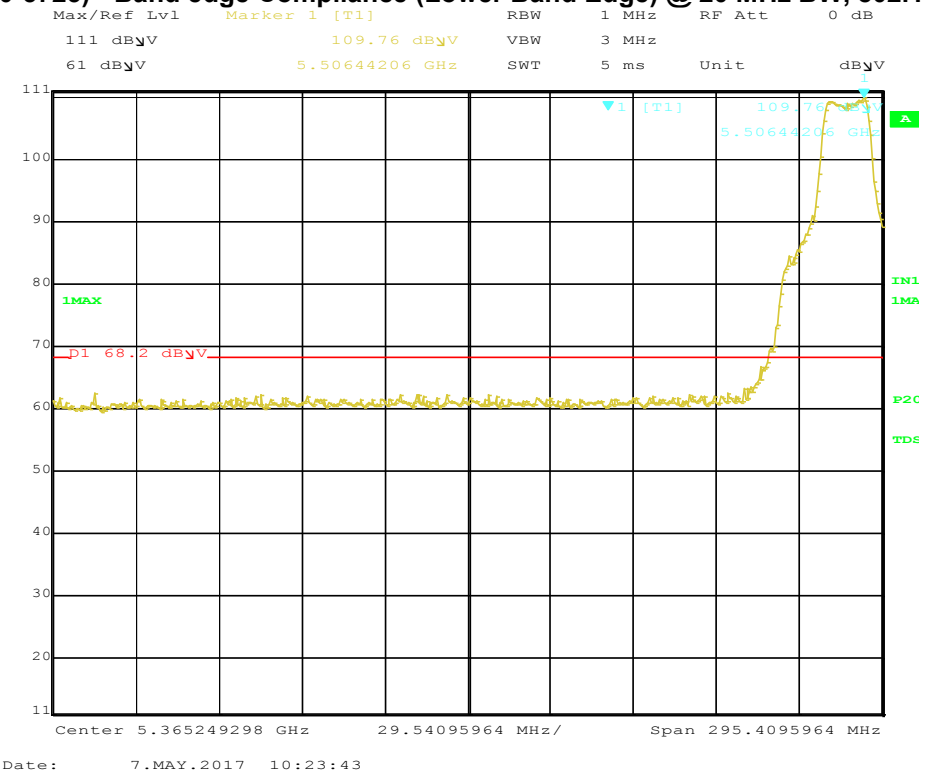
Band 2(5250-5350) - Band edge Compliance (Lower Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



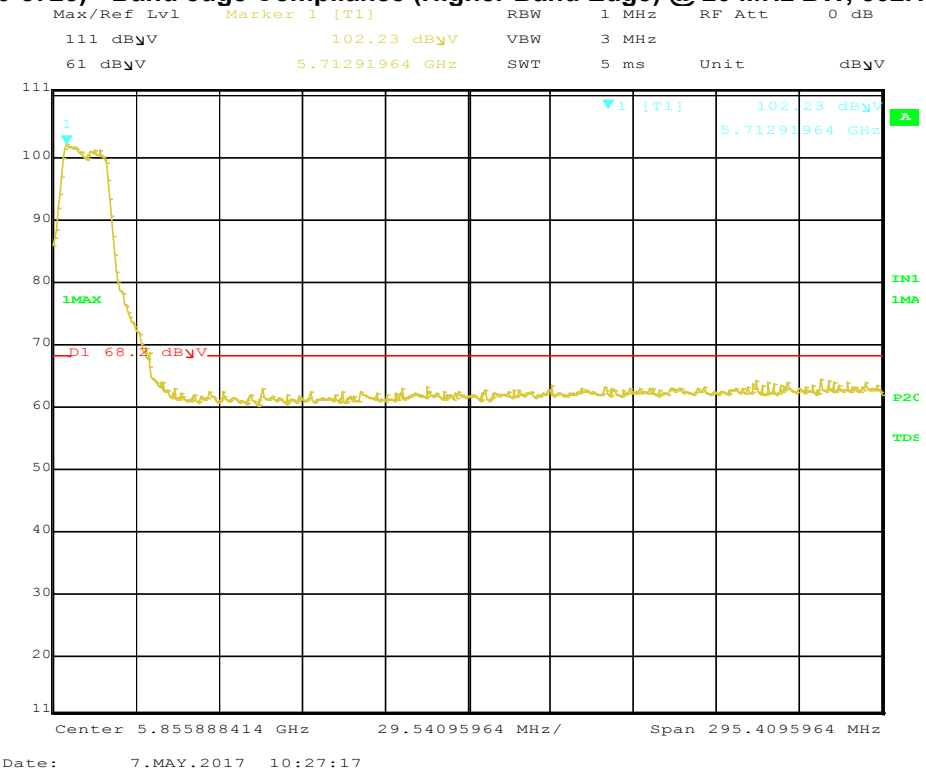
Band 2(5250-5350) - Band edge Compliance (Higher Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



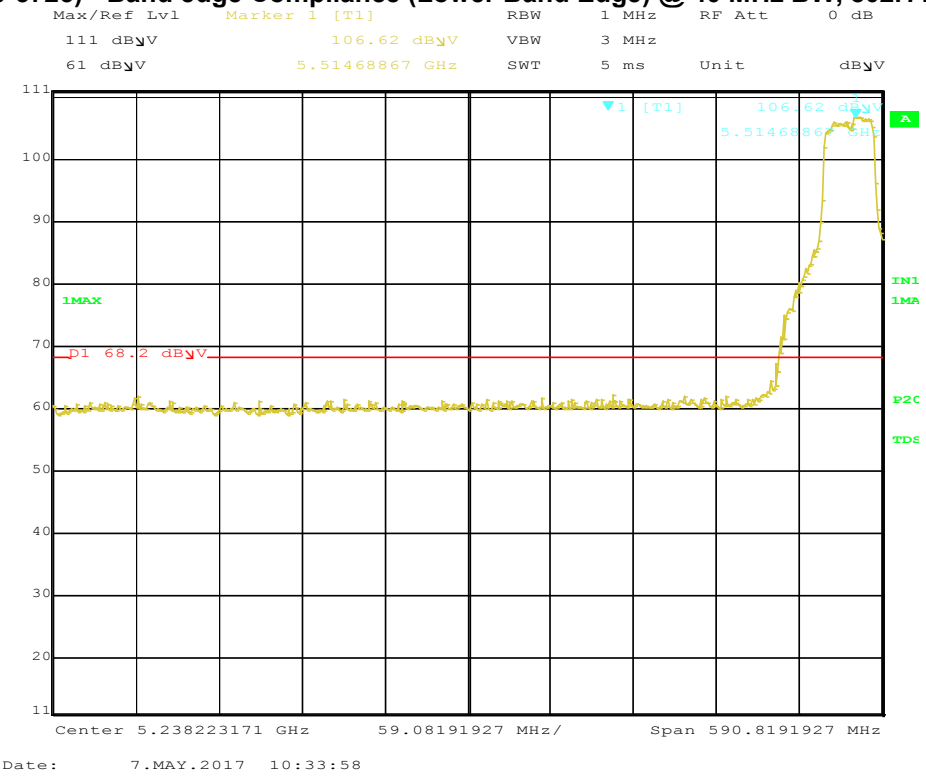
Band 3(5470-5725) - Band edge Compliance (Lower Band Edge) @ 20 MHz BW, 802.11g 6.0 Mbps



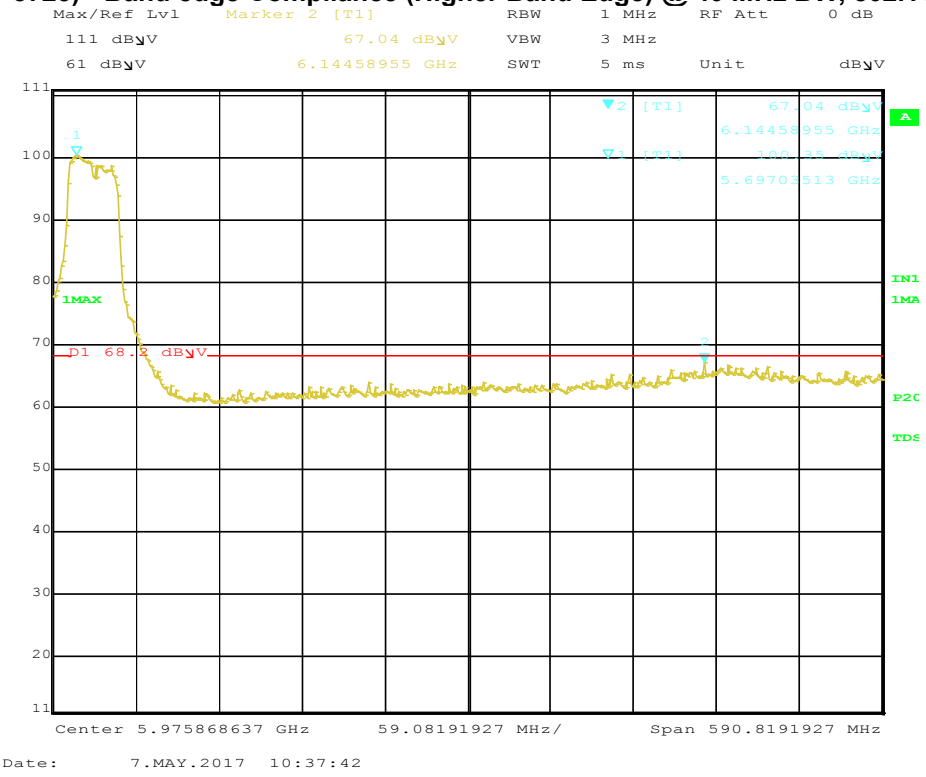
Band 3(5470-5725) - Band edge Compliance (Higher Band Edge) @ 20 MHz BW, 802.11g 6.0 Mbps



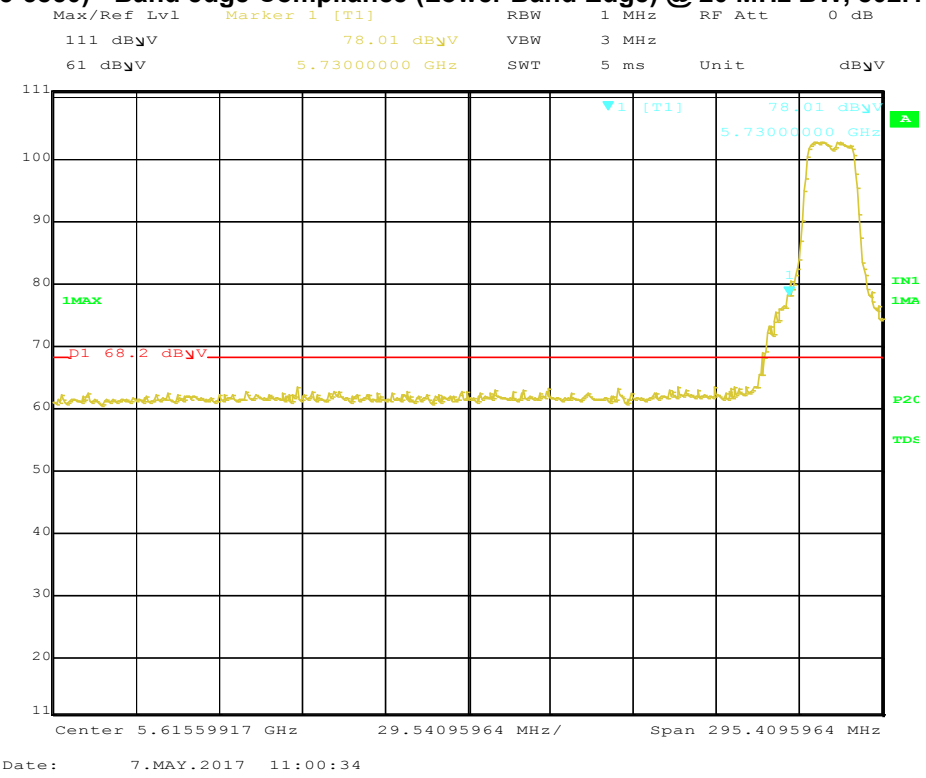
Band 3(5470-5725) - Band edge Compliance (Lower Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



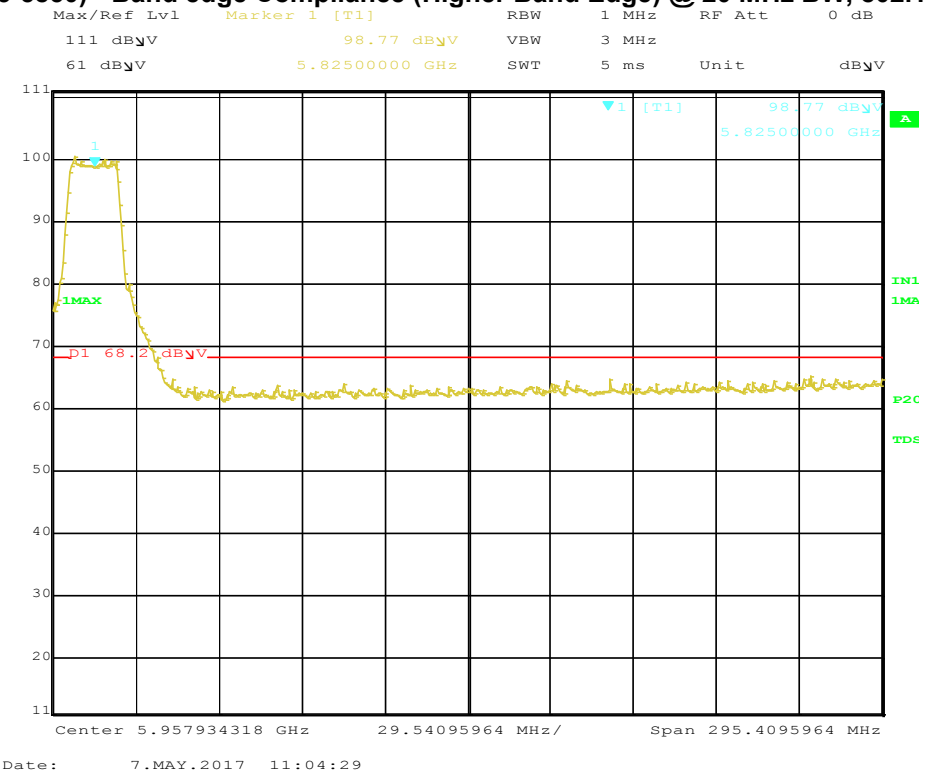
Band 3(5470-5725) - Band edge Compliance (Higher Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



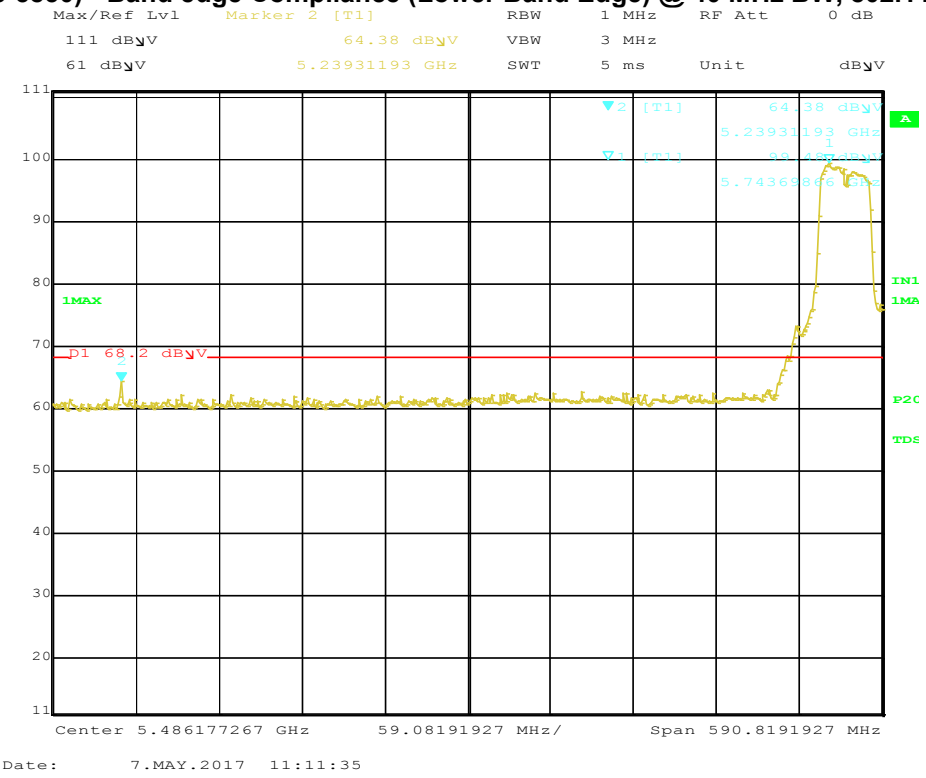
Band 4(5725-5850) - Band edge Compliance (Lower Band Edge) @ 20 MHz BW, 802.11n 6.5 Mbps



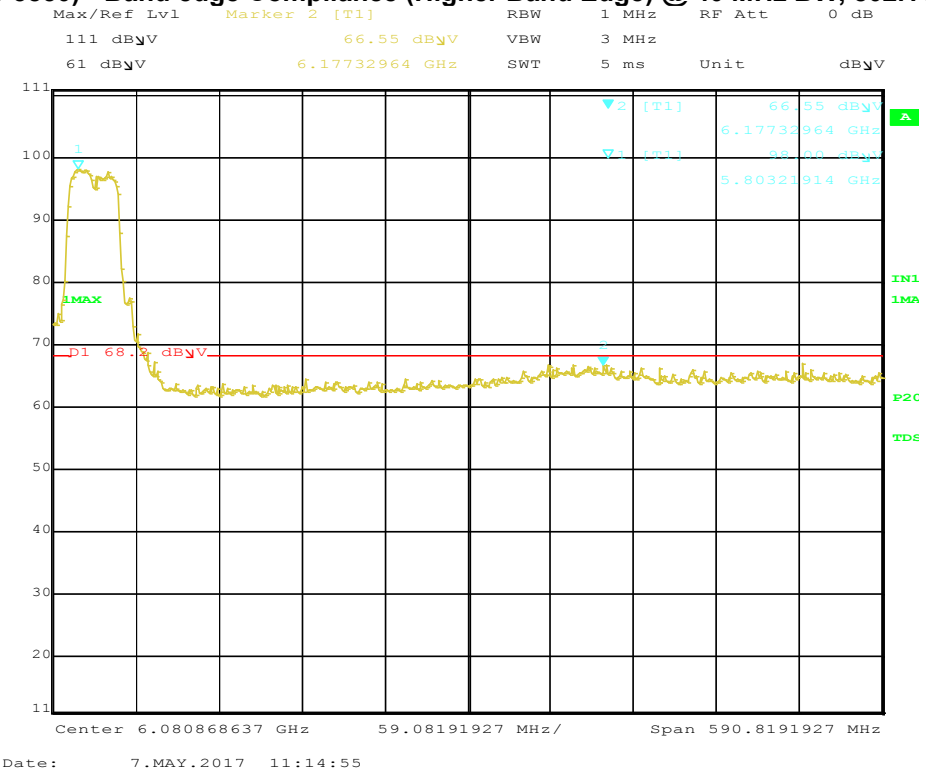
Band 4(5725-5850) - Band edge Compliance (Higher Band Edge) @ 20 MHz BW, 802.11n 6.5 Mbps



Band 4(5725-5850) - Band edge Compliance (Lower Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps



Band 4(5725-5850) - Band edge Compliance (Higher Band Edge) @ 40 MHz BW, 802.11n 13.5 Mbps

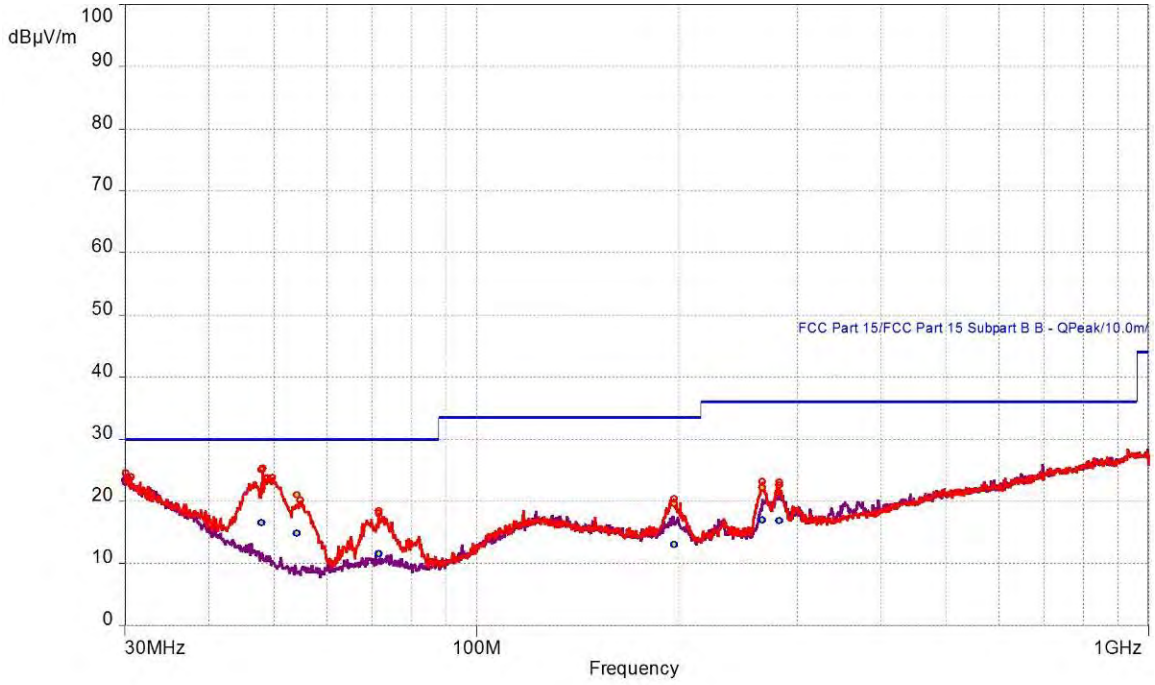


30-1000 MHz Rx mode

Test Information:

Date and Time	04/27/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	47%
Atmospheric Pressure	1003 mB
Comments	120VAC 60Hz, Rx mode

Graph:



Results:

QuasiPeak (PASS) (6)

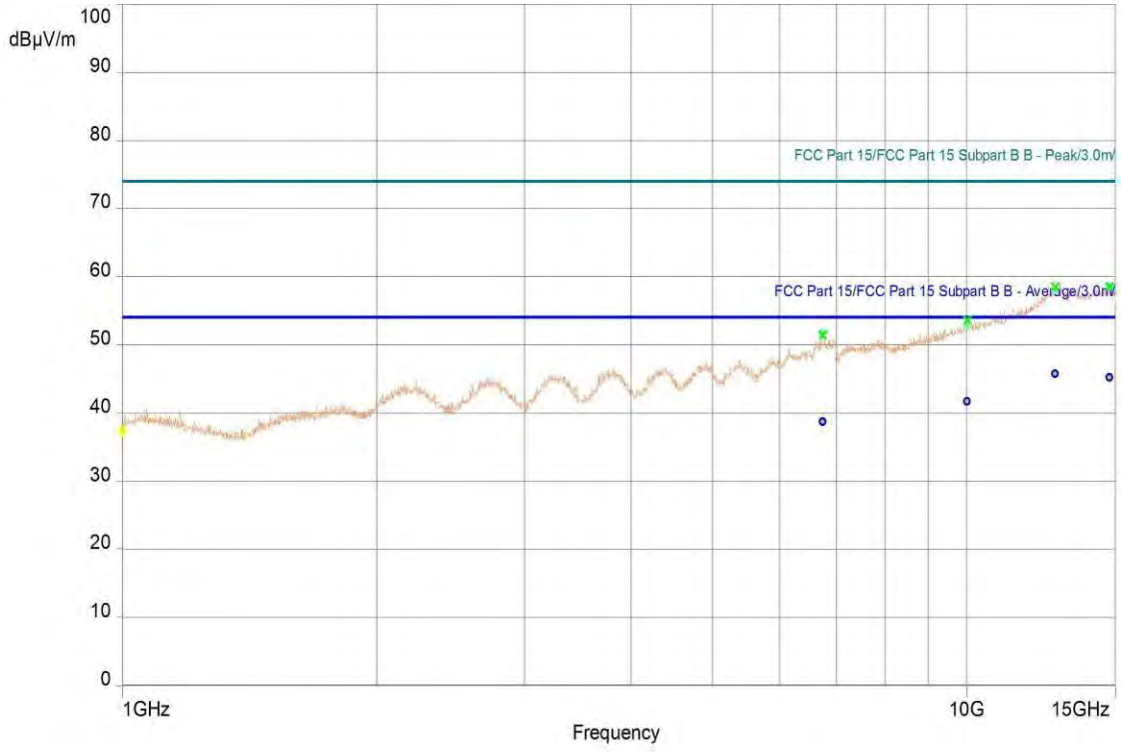
Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
47.94	1	16.57	30.00	-13.43	312.00	1.00	Vertical	0.10	-23.23
54.06	1	14.81	30.00	-15.19	210.00	1.34	Vertical	0.10	-25.19
71.58	1	11.54	30.00	-18.46	310.00	2.26	Vertical	0.10	-23.97
197.04	1	12.99	33.50	-20.51	114.00	1.52	Vertical	0.10	-18.76
266.16	1	16.93	36.00	-19.07	5.00	1.52	Vertical	0.10	-18.19
282.36	1	16.82	36.00	-19.18	169.00	1.50	Vertical	0.10	-17.36

1-40 GHz Rx mode

Test Information:

Date and Time	04/27/2017
Client and Project Number	Owl Labs_G102966681
Engineer	Vathana Ven
Temperature	22 deg C
Humidity	47%
Atmospheric Pressure	1003 mB
Comments	120VAC 60Hz, Rx mode

Graph:



Results:

Avg (PASS) (4)

Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
6751.5	2	38.65	54.00	-15.35	58.00	2.74	Horizontal	0.10	11.67
10016	2	41.67	54.00	-12.33	306.00	1.34	Horizontal	0.10	15.51
12721	2	45.71	54.00	-8.29	299.00	1.24	Horizontal	0.10	22.00
14763.5	2	45.18	54.00	-8.82	39.00	2.29	Horizontal	0.10	22.69

Peak (PASS) (4)

Frequency (MHz)	SR	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	Meas. time (s)	Correction (dB)
6751.5	2	51.87	74.00	-22.13	58.00	2.74	Horizontal	0.10	11.67
10016	2	52.81	74.00	-21.19	306.00	1.34	Horizontal	0.10	15.51
12721	2	57.96	74.00	-16.04	299.00	1.24	Horizontal	0.10	22.00
14763.5	2	58.51	74.00	-15.49	39.00	2.29	Horizontal	0.10	22.69

Note: No emissions above noise floor were detected above 15 GHz

Test Personnel:	Vathana Ven VSV Kouma Sinn KPS	Test Date:	04/26/2017 05/01/2017 05/05/2017 05/07/2017
Supervising/Reviewing Engineer: (Where Applicable)	Vathana Ven VSV		
Product Standard:	FCC Part 15 Subpart E FCC Part 15 Subpart C FCC Part 15 Subpart B ICES 003 RSS 247	Limit Applied:	As specified in section 9.3 FCC 15.209
Input Voltage:	120VAC 60Hz		
Pretest Verification w/ Ambient Signals or BB Source:	BB Source	Ambient Temperature:	22, 23, 21, 22 ºC
		Relative Humidity:	28, 34, 45, 32 %
		Atmospheric Pressure:	1002, 1008, 998, 1003 mbars

Deviations, Additions, or Exclusions: None

10 AC Mains Conducted Emissions

10.1 Method

Tests are performed in accordance with FCC Part 15 Subpart C, FCC Part 15 Subpart B, RSS 247 and ICES 003.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

The 10m ALSE is 13m (Length) x 21m (Depth) x 10m (Height) with the effective size in terms of space from the tips of the absorber is 12m (Length) x 20m (Depth) x 8.5m (Height). This chamber achieves broadband performance using a unique arrangement of hybrid and ferrite tile absorber. This chamber has a built in 3m diameter turntable (Embedded type). The metal structure of the table makes electrical connection around the entire circumference of the turntable to the ground plane with a metal brush type connection. A Styrofoam table 80 cm high is used for table-top equipment.

Measurement Uncertainty

Measurement	Frequency Range	Expanded Uncertainty (k=2)	Ucispr
AC Line Conducted Emissions	150 kHz - 30 MHz	2.8dB	3.4dB
Telco Port Emissions	150 kHz - 30 MHz	3.2dB	5.0dB

As shown in the table above our conducted emissions U_{lab} is less than the corresponding U_{CISPR} reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required, based on CISPR 22 and CISPR 11 (for 2006 and later revisions) Clause 11.

Sample Calculations

The following is how net line-conducted readings were determined:

NF = RF + LF + CF + AF
Where NF = Net Reading in dBμV
RF = Reading from receiver in dBμV
LF = LISN or ISN Correction Factor in dB
CF = Cable Correction Factor in dB
AF = Attenuator Loss Factor in dB

To convert from dBμV to μV or mV the following was used:

$UF = 10^{(NF / 20)}$ where UF = Net Reading in μV
NF = Net Reading in dBμV

Example:

NF = RF + LF + CF + AF = 28.5 + 0.2 + 0.4 + 20.0 = 49.1 dBμV
$UF = 10^{(49.1\ dB\mu V / 20)}$ = 285.1 μV/m

Alternately, when C5 Software is used, the “Level” includes all losses and gains and is compared directly in the “Margin” column to the “Limit”. “TF” is the Transducer Factor; in this case LISN or ISN loss.

10.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV002'	Weather Station	Davis Instruments	7400	PE80519A93	06/01/2016	06/01/2017
ROS002'	9kHz to 3GHz EMI Test Receiver	Rohde & Schwartz	ESCI 1166.5950K03	100067	07/29/2016	07/29/2017
DS22'	Attenuator, 20dB	Mini Circuits	20dB, 50 ohm	DS22	09/08/2016	09/08/2017
CBLBNC7'	30 ft 50 ohm coax, BNC - BNC	ITT Pomona	RG 58 C/U	CBLBNC7	01/10/2017	01/10/2018
LISN34'	LISN - CISPR16 Compliant 9kHz-30MHz	Com-Power	LI-215A	191956	06/27/2016	06/27/2017

Software Utilized:

Name	Manufacturer	Version
Compliance 5	Teseq	5.26.46.46

10.3 Results:

The sample tested was found to Comply.

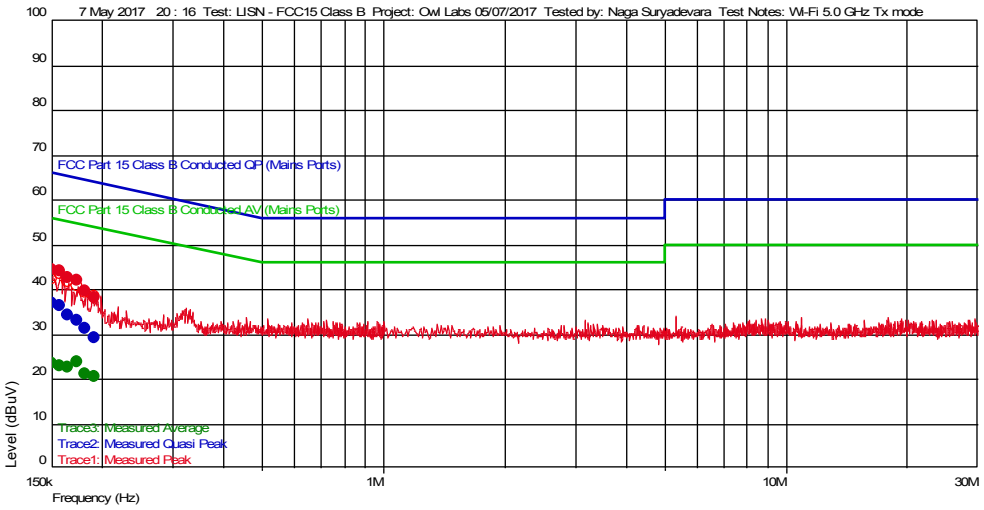
10.4 Plots/Data:

Tx mode

Test Information

Test Details	User Entry	Additional Information
Test:	LISN - FCC15 Class B	
Project:	Owl Labs 05/07/2017	
Test Notes:	Wi-Fi 5.0 GHz Tx mode	
Temperature:	22 C	
Humidity:	29% 992 mbars	
Tested by:	Naga Suryadevara	
Test Started:	7 May 2017 20 : 16	

Prescan Emission Graph



- Measured Peak Value
- Measured Quasi Peak Value
- Measured Average Value
- Maximum Value of Mast and Turntable

- Swept Peak Data
- Swept Quasi Peak Data
- Swept Average Data

Emissions Test Data

Trace2: Measured Quasi Peak

Frequency(Hz)	Level(dBuV)	TF	PA+CL	Limit(dBuV)	Margin(dBuV)	RBW(Hz)	Comment	LINE
192.5 k	29.14	1.536	20.039	63.928	-34.79	9 k		L1
182.3 k	31.08	1.830	20.038	64.380	-33.30	9 k		N
173.8 k	32.95	2.075	20.037	64.777	-31.82	9 k		N
164.45 k	34.11	2.344	20.037	65.236	-31.13	9 k		N
157.65 k	36.40	2.540	20.036	65.587	-29.19	9 k		L1
150.85 k	36.77	2.736	20.035	65.953	-29.18	9 k		L1

Trace3: Measured Average

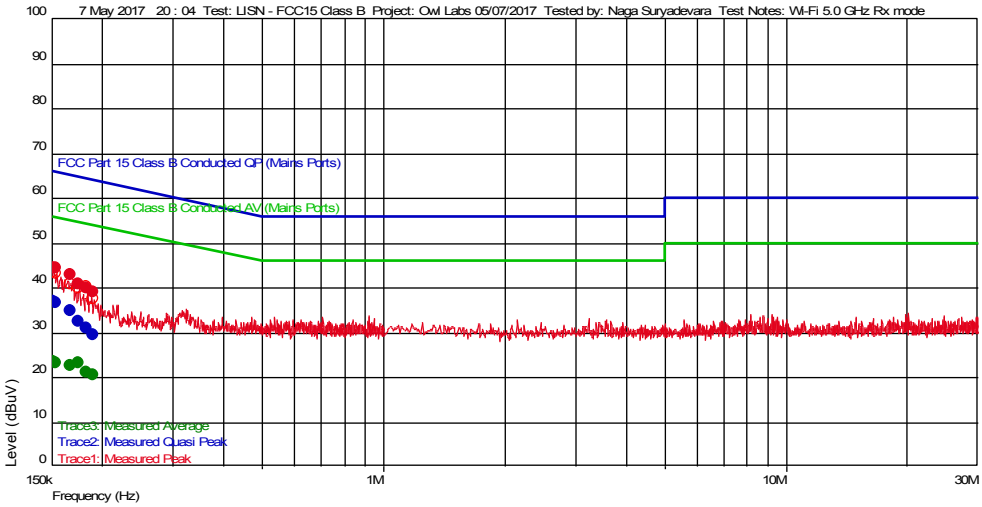
Frequency(Hz)	Level(dBuV)	TF	PA+CL	Limit(dBuV)	Margin(dBuV)	RBW(Hz)	Comment	LINE
192.5 k	20.55	1.536	20.039	53.928	-33.38	9 k		L1
182.3 k	21.12	1.830	20.038	54.380	-33.26	9 k		N
164.45 k	22.45	2.344	20.037	55.236	-32.79	9 k		N
157.65 k	22.87	2.540	20.036	55.587	-32.72	9 k		L1
150.85 k	23.35	2.736	20.035	55.953	-32.60	9 k		L1
173.8 k	23.70	2.075	20.037	54.777	-31.08	9 k		N

Rx mode

Test Information

Test Details	User Entry	Additional Information
Test:	LISN - FCC15 Class B	
Project:	Owl Labs 05/07/2017	
Test Notes:	Wi-Fi 5.0 GHz Rx mode	
Temperature:	22 C	
Humidity:	29% 992 mbars	
Tested by:	Naga Suryadevara	
Test Started:	7 May 2017 20 : 04	

Prescan Emission Graph



- Measured Peak Value
- Measured Quasi Peak Value
- Measured Average Value
- Maximum Value of Mast and Turntable

- Swept Peak Data
- Swept Quasi Peak Data
- Swept Average Data

Emissions Test Data

Trace2: Measured Quasi Peak

Frequency(Hz)	Level(dBuV)	TF	PA+CL	Limit(dBuV)	Margin(dBuV)	RBW(Hz)	Comment	LINE
190.8 k	29.37	1.585	20.039	64.002	-34.63	9 k		L1
184.0 k	31.04	1.781	20.039	64.303	-33.27	9 k		L1
175.5 k	32.36	2.026	20.038	64.696	-32.34	9 k		N
167.0 k	34.68	2.270	20.037	65.108	-30.43	9 k		N
154.25 k	36.51	2.638	20.036	65.768	-29.26	9 k		L1
151.7 k	36.87	2.711	20.035	65.906	-29.04	9 k		L1

Trace3: Measured Average

Frequency(Hz)	Level(dBuV)	TF	PA+CL	Limit(dBuV)	Margin(dBuV)	RBW(Hz)	Comment	LINE
190.8 k	20.56	1.585	20.039	54.002	-33.44	9 k		L1
184.0 k	21.08	1.781	20.039	54.303	-33.23	9 k		L1
154.25 k	23.14	2.638	20.036	55.768	-32.63	9 k		L1
151.7 k	23.39	2.711	20.035	55.906	-32.52	9 k		L1
167.0 k	22.66	2.270	20.037	55.108	-32.45	9 k		N
175.5 k	23.09	2.026	20.038	54.696	-31.60	9 k		N

Test Personnel:	Naga Suryadevara N.S	Test Date:	05/07/2017
Supervising/Reviewing Engineer: (Where Applicable)	N/A		
Product Standard:	FCC Part 15 Subpart B ICES 003	Limit Applied:	All Class B
Input Voltage:	120VAC 60Hz		
Pretest Verification w/ Ambient Signals or BB Source:	Yes	Ambient Temperature:	22 ºC
		Relative Humidity:	29 %
		Atmospheric Pressure:	992 mbars

Deviations, Additions, or Exclusions: None

11 Frequency Stability

11.1 Method

Tests are performed in accordance with FCC Part 15 Subpart E and RSS 247.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

11.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV002'	Weather Station	Davis Instruments	7400	PE80519A93	06/01/2016	06/01/2017
ROS005'	ETSI Test System	Rhode & Schwartz	TS8997	N/A	09/15/2016	09/15/2017
WEI8'	Attenuator	Weinschel Corp	47-10-34	BD8309	04/08/2017	04/08/2018
CBLHF2012-2M-1'	2m 9kHz-40GHz Coaxial Cable - SET1	Huber & Suhner	SF102	252675001	02/08/2017	02/08/2018

Software Utilized:

Name	Manufacturer	Version
None		

11.3 Results:

The sample tested was found to Comply. Test was performed from -30 C to 50 C and the fundamental emission was found with in the band which meets the requirements of FCC 15.407 and the deviation during the measurement was less than +/- 10 ppm.

Test Personnel:	Vathana Ven VSV	Test Date:	05/08/2017
Supervising/Reviewing Engineer: (Where Applicable)	N/A		
Product Standard:	FCC Part 15 Subpart E RSS 247	Limit Applied:	As specified in 11.3
Input Voltage:	120VAC 60Hz		
Pretest Verification w/ Ambient Signals or BB Source:	Yes	Ambient Temperature:	22 ºC
		Relative Humidity:	44%
		Atmospheric Pressure:	1008 mbars

Deviations, Additions, or Exclusions: None

12 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	06/18/2017	102966681BOX-003	NS	KPS KPS	Original Issue
1	06/24/2017	102966681BOX-003	NS	KPS KPS	Fixed typographical errors on page 280 and 283