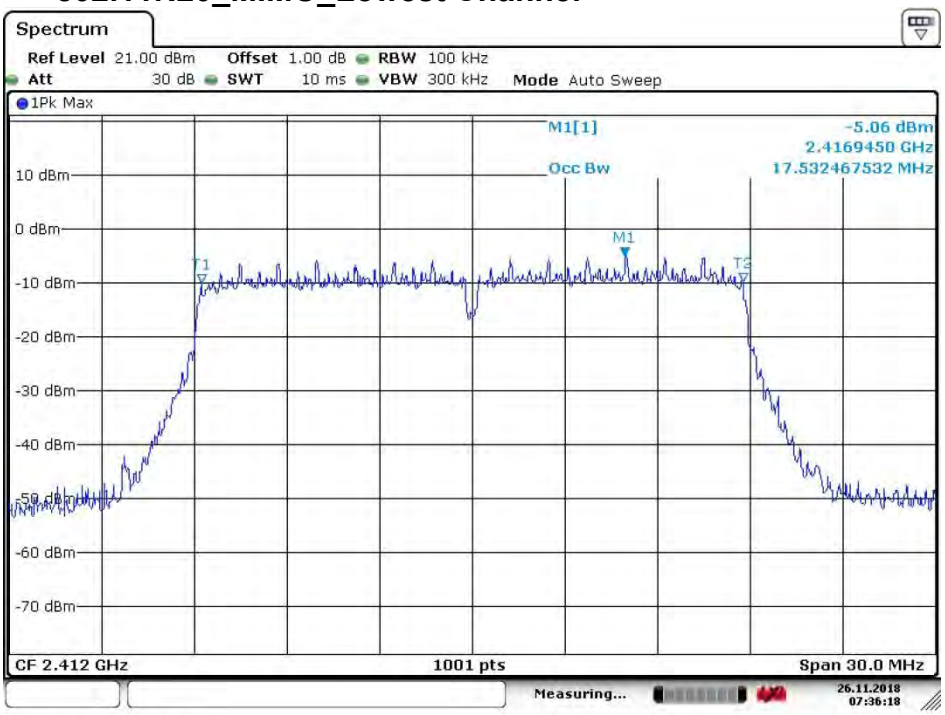
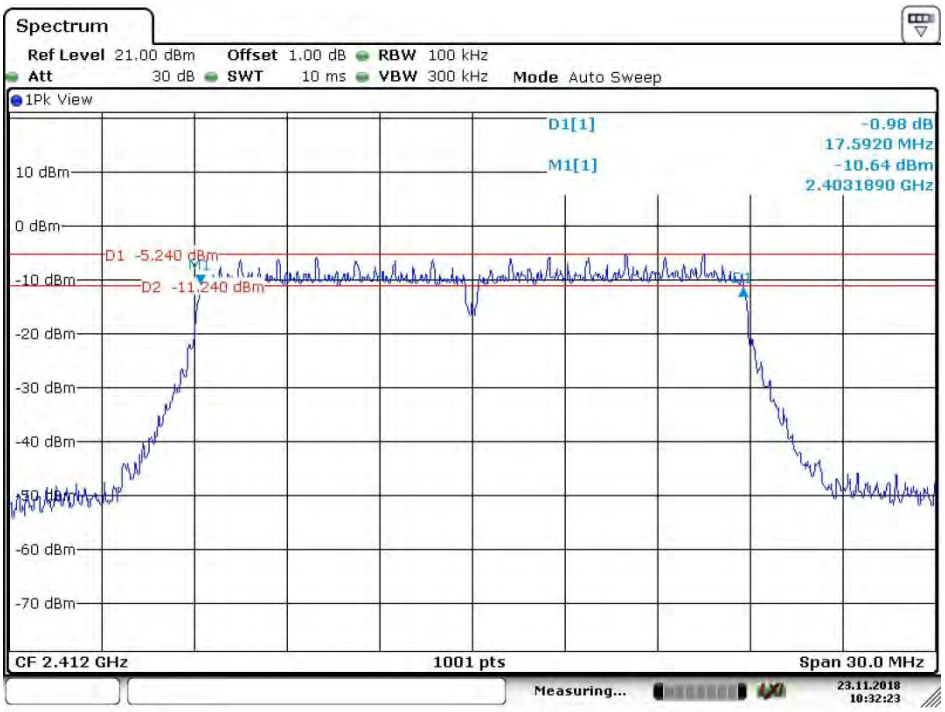
4.5.2.2.13 802.11N20_MIMO_Lowest Channel

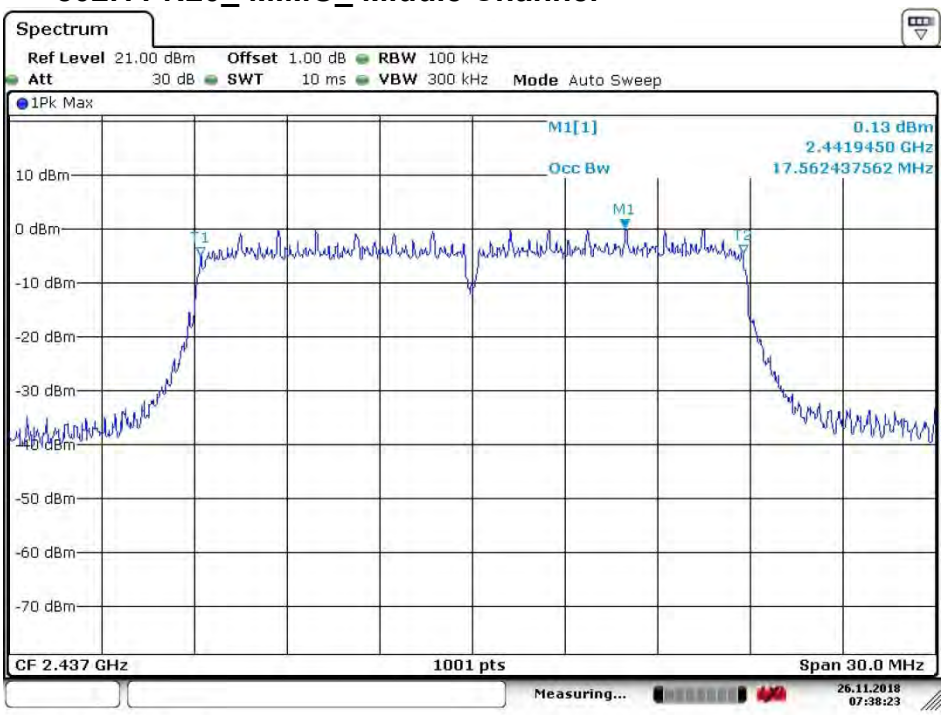


Date: 26.NOV.2018 07:36:18

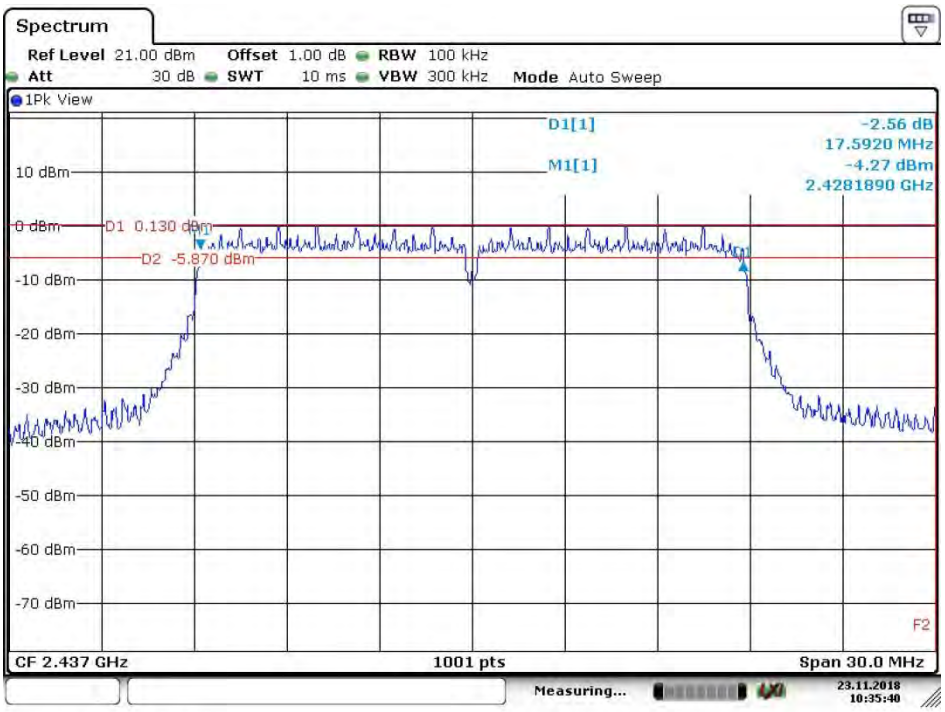


Date: 23.NOV.2018 10:32:23

4.5.2.2.14 802.11 N20_ MIMO_ Middle Channel

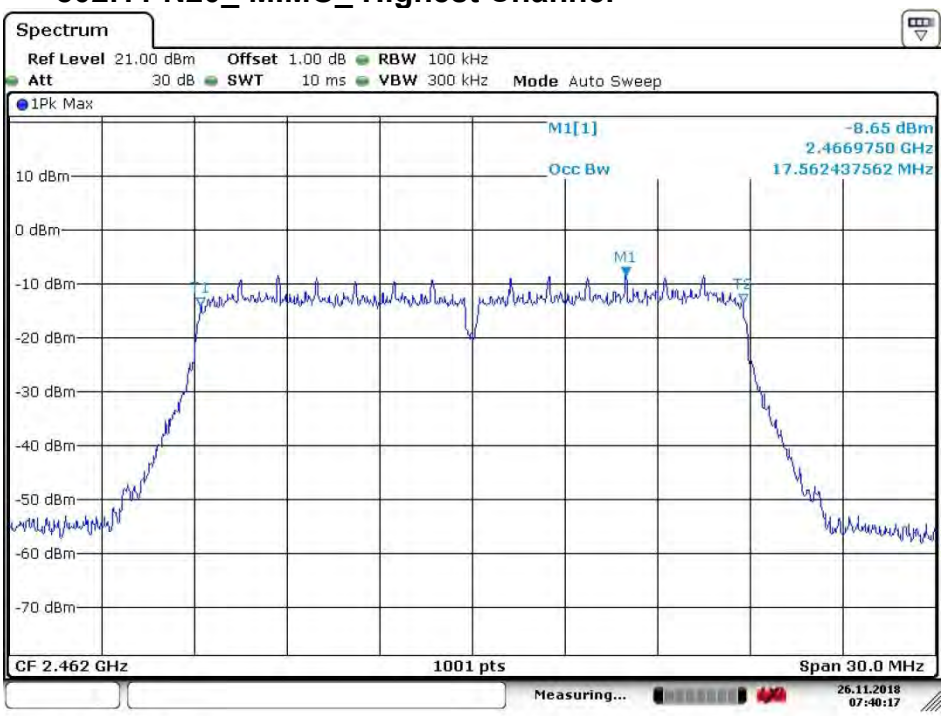


Date: 26.NOV.2018 07:38:24

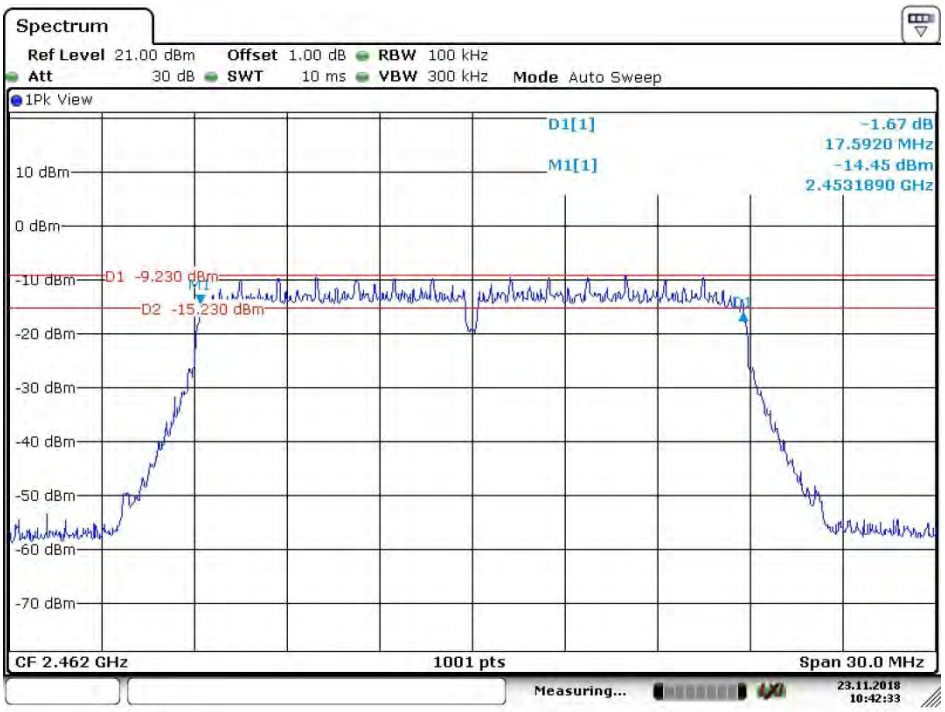


Date: 23.NOV.2018 10:35:41

4.5.2.2.15 802.11 N20_ MIMO_ Highest Channel

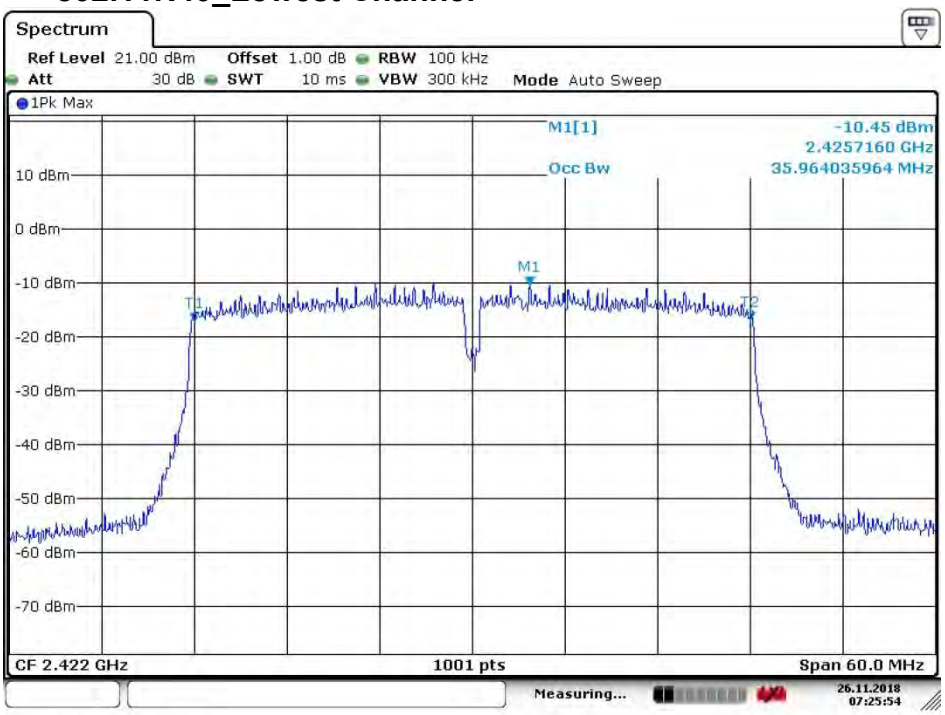


Date: 26.NOV.2018 07:40:17

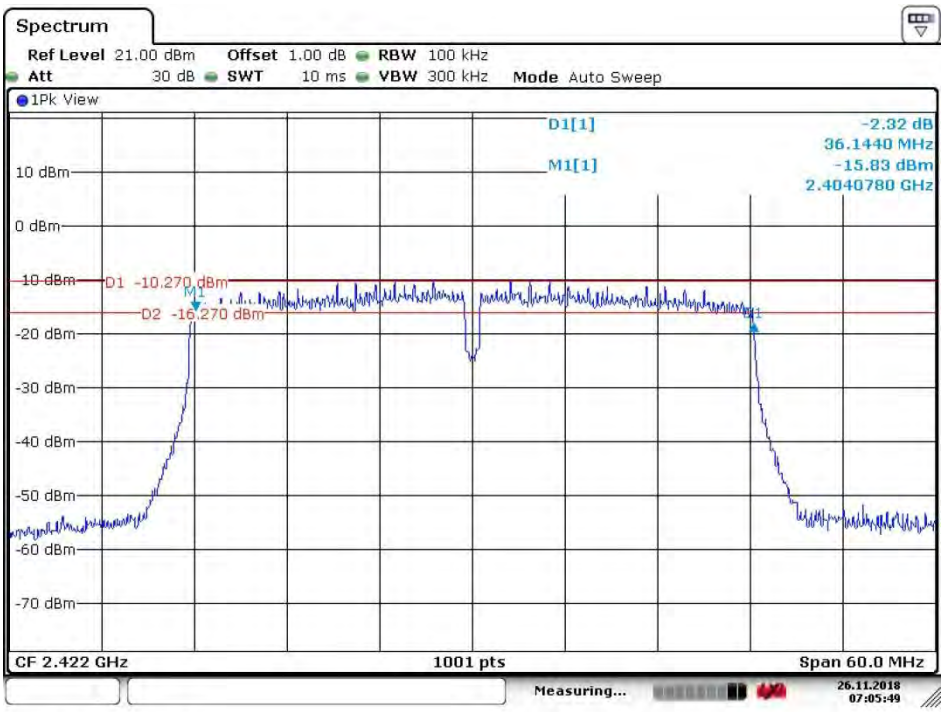


Date: 23.NOV.2018 10:42:33

4.5.2.2.16 802.11N40_Lowest Channel

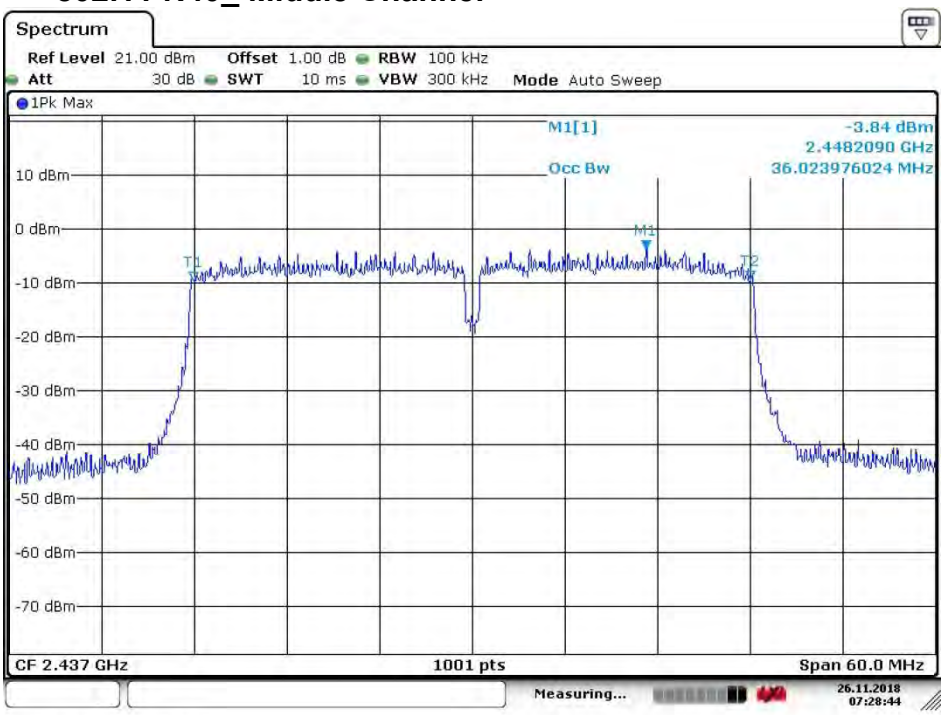


Date: 26.NOV.2018 07:25:55

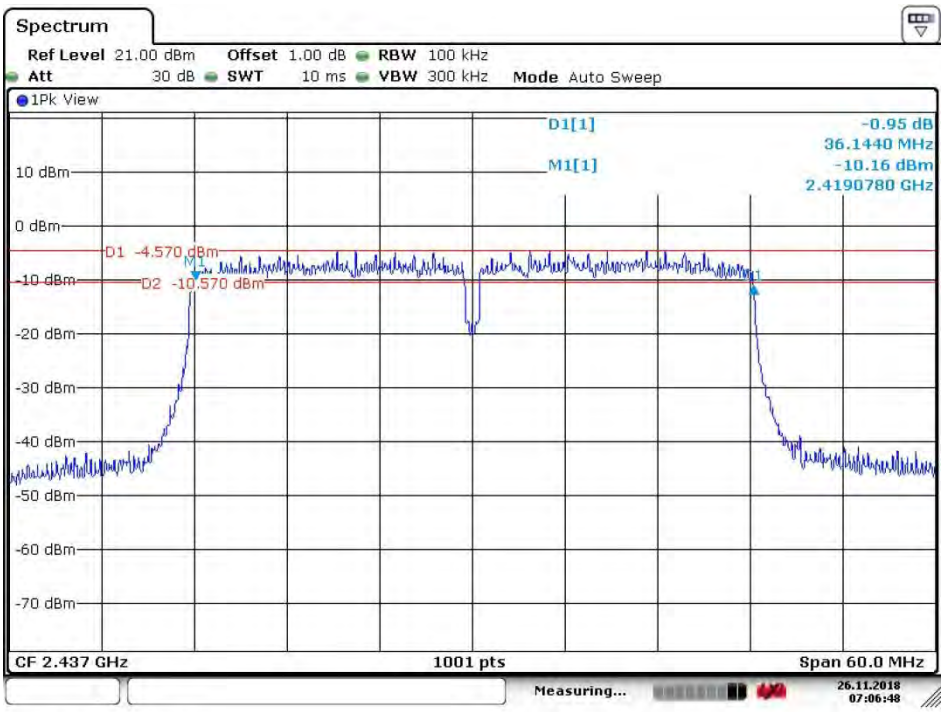


Date: 26.NOV.2018 07:05:49

4.5.2.2.17 802.11 N40_ Middle Channel

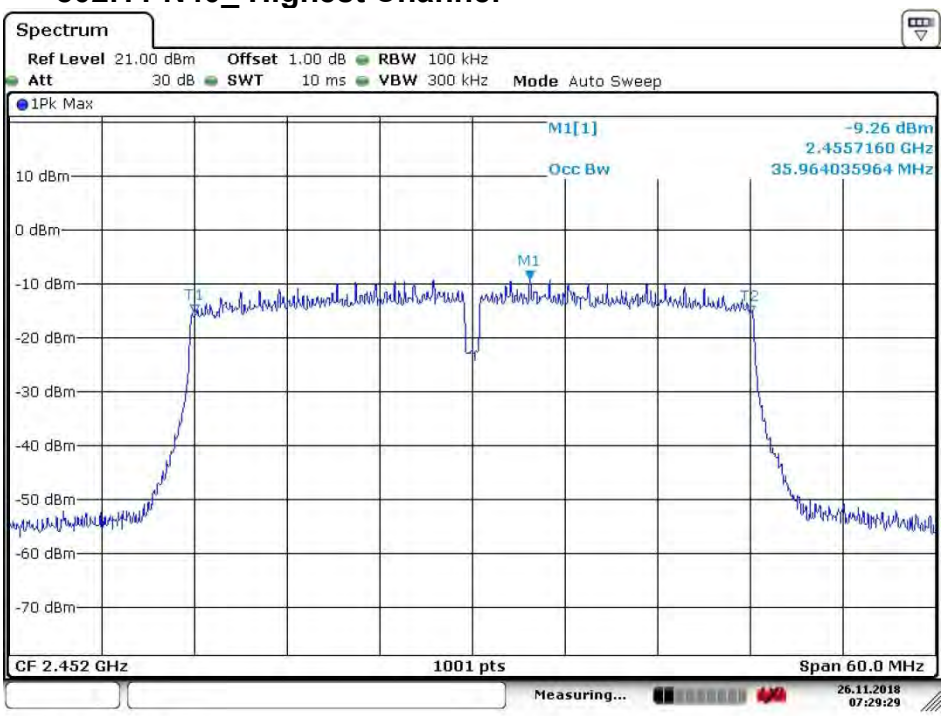


Date: 26.NOV.2018 07:28:45

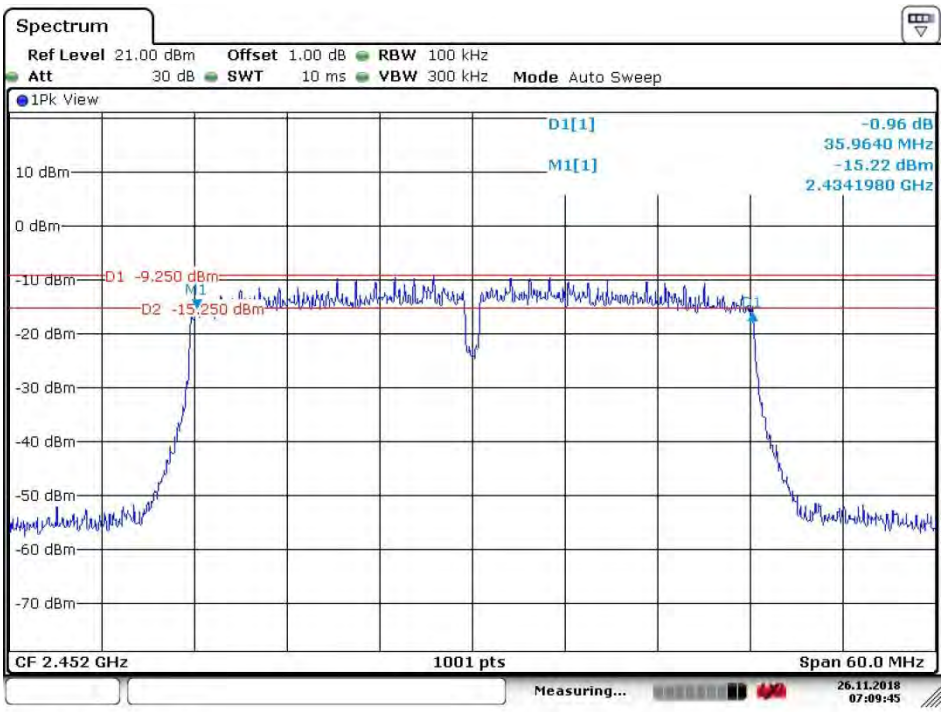


Date: 26.NOV.2018 07:06:48

4.5.2.2.18 802.11 N40_ Highest Channel

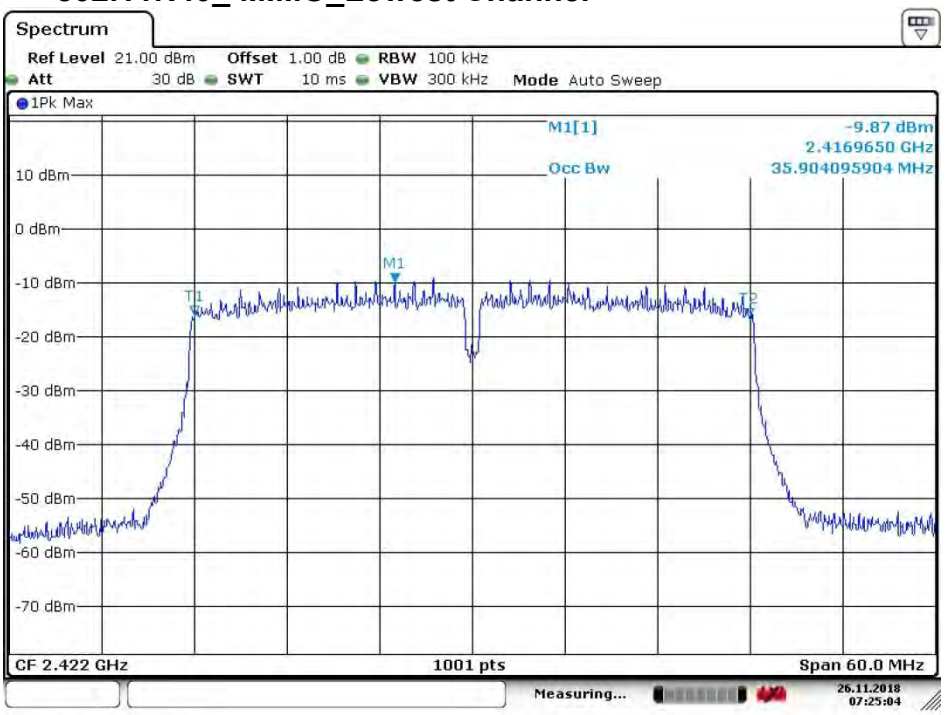


Date: 26.NOV.2018 07:29:29

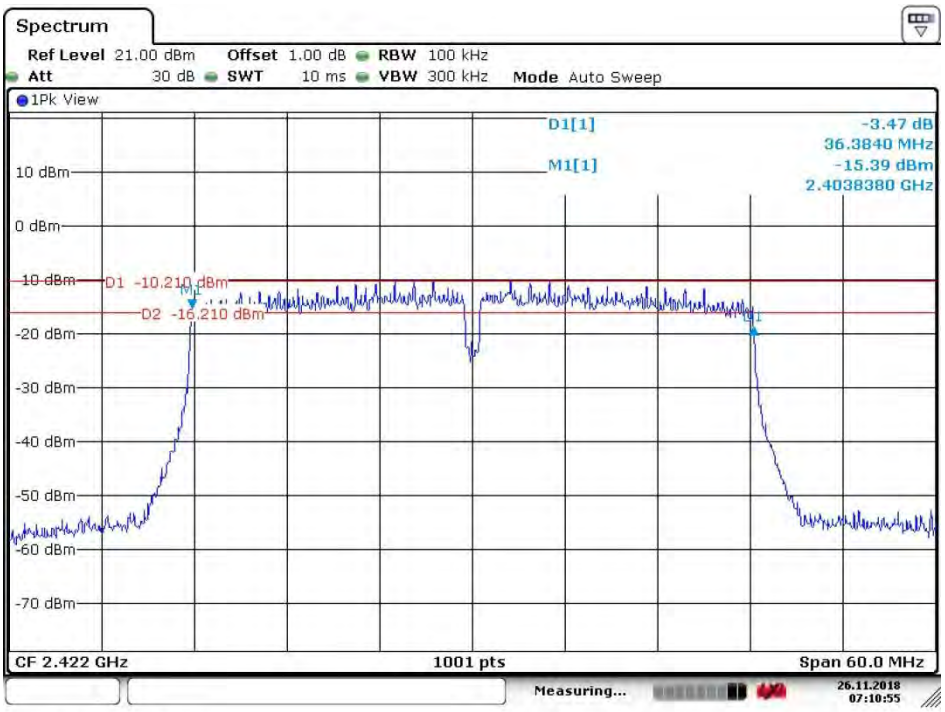


Date: 26.NOV.2018 07:09:46

4.5.2.2.19 802.11N40_ MIMO_Lowest Channel

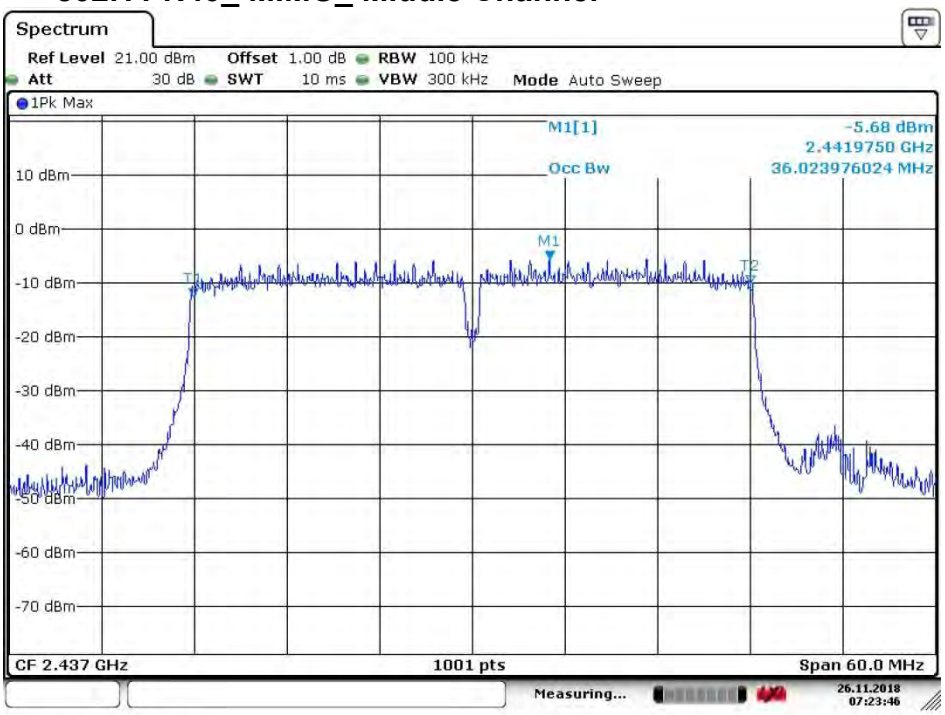


Date: 26.NOV.2018 07:25:05

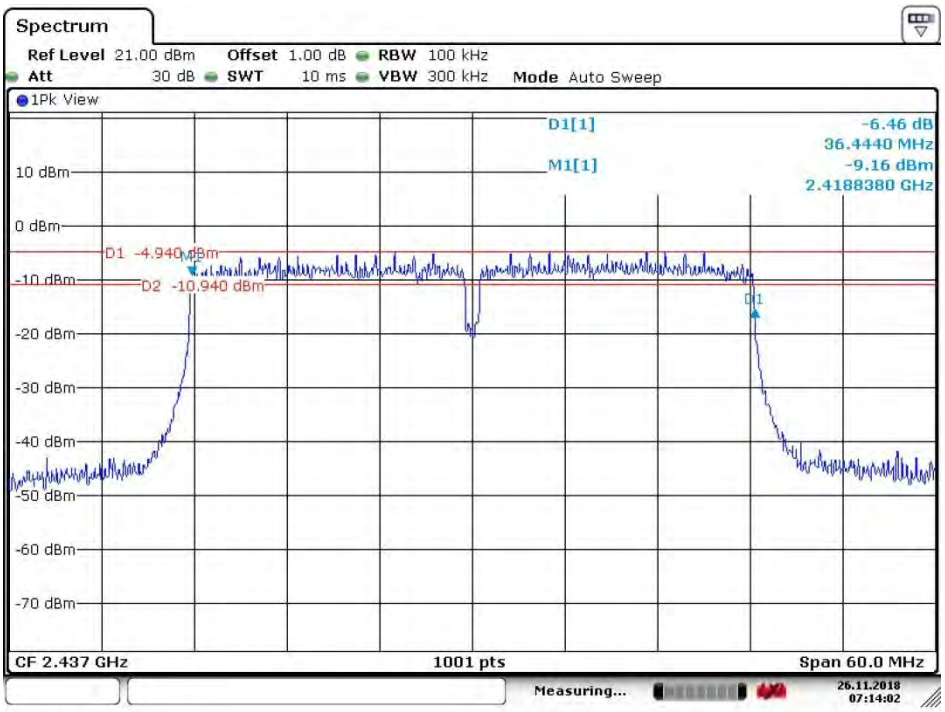


Date: 26.NOV.2018 07:10:55

4.5.2.2.20 802.11 N40_ MIMO_ Middle Channel

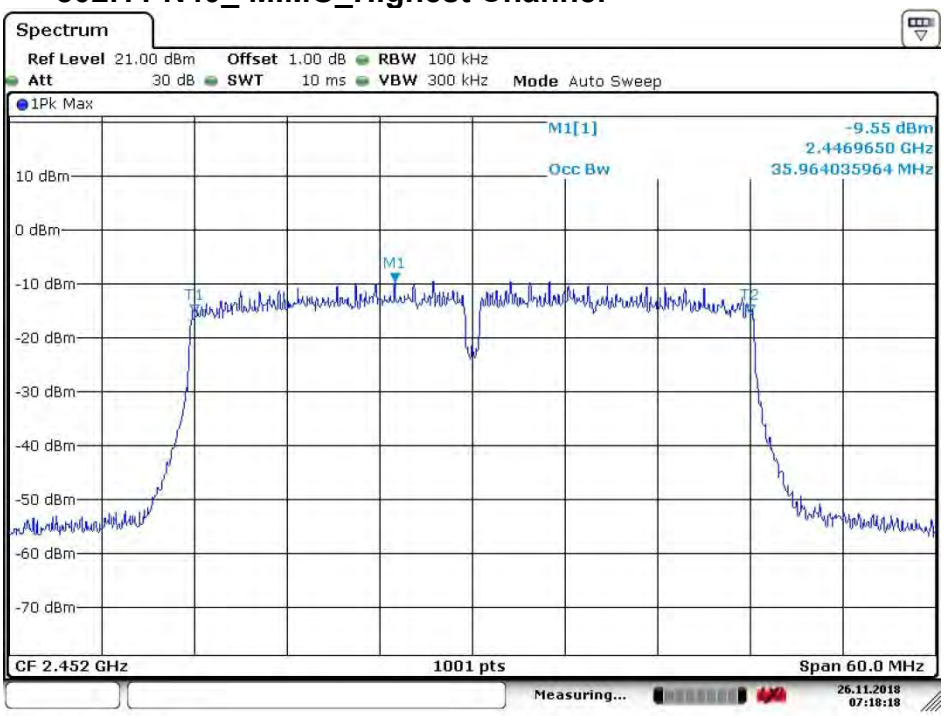


Date: 26.NOV.2018 07:23:47

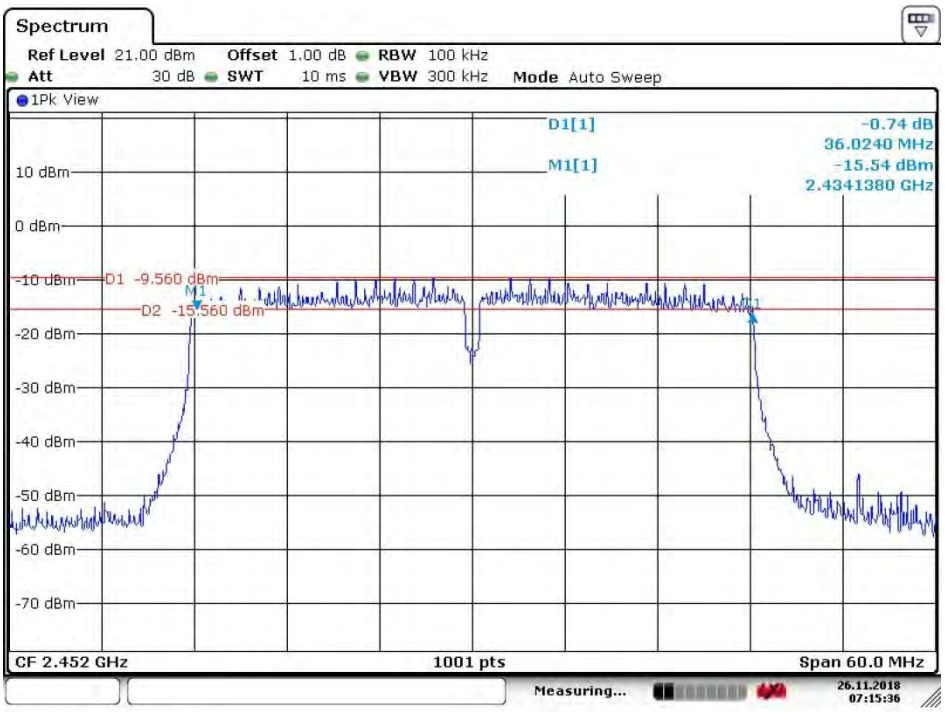


Date: 26.NOV.2018 07:14:02

4.5.2.2.21 802.11 N40_ MIMO_Highest Channel

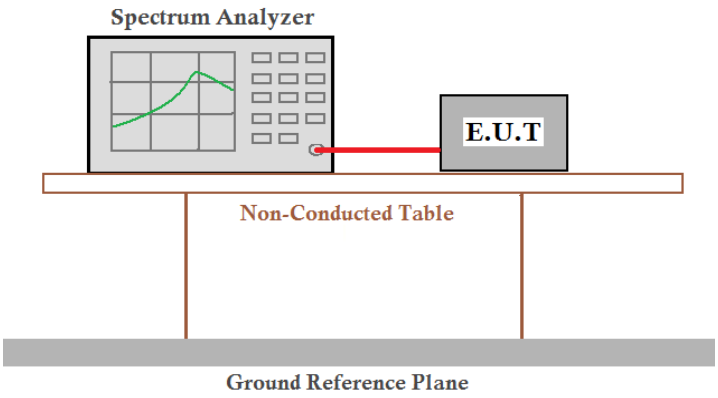


Date: 26.NOV.2018 07:18:18



Date: 26.NOV.2018 07:15:36

4.6 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)
Test Method:	ANSI C63.10 :2013 Section 11.10.2
Test Setup:	
Test Instruments:	Refer to section 5.10 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N(HT20); 13Mbps of rate is the worst case of 802.11N(HT20) MIMO; 13.5Mbps of rate is the worst case of 802.11N(HT40) ; 27Mbps of rate is the worst case of 802.11N(HT40) MIMO.
Limit:	≤8.00dBm/3kHz
Test Results:	Pass

4.6.1 Test Results

4.6.1.1 ANT1:

Mode	Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
802.11B	Lowest	-8.56	≤8.00	Pass
	Middle	-6.49	≤8.00	Pass
	Highest	-8.97	≤8.00	Pass
802.11G	Lowest	-16.54	≤8.00	Pass
	Middle	-12.00	≤8.00	Pass
	Highest	-19.53	≤8.00	Pass
802.11G_CDD	Lowest	-16.76	≤8.00	Pass
	Middle	-11.32	≤8.00	Pass
	Highest	-19.34	≤8.00	Pass
802.11N20	Lowest	-17.91	≤8.00	Pass
	Middle	-12.14	≤8.00	Pass
	Highest	-19.38	≤8.00	Pass
802.11N20_MIMO	Lowest	-17.66	≤8.00	Pass
	Middle	-10.84	≤8.00	Pass
	Highest	-11.62	≤8.00	Pass
802.11N40	Lowest	-24.19	≤8.00	Pass
	Middle	-19.15	≤8.00	Pass
	Highest	-22.47	≤8.00	Pass
802.11N40_MIMO	Lowest	-23.25	≤8.00	Pass
	Middle	-17.41	≤8.00	Pass
	Highest	-21.92	≤8.00	Pass

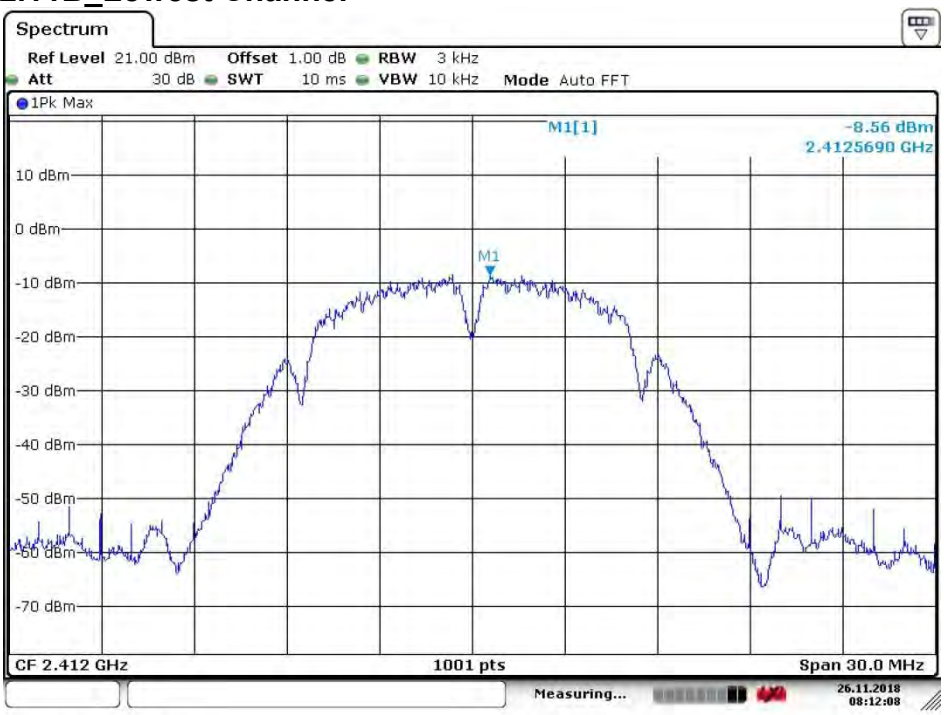
4.6.1.2 ANT2:

Mode	Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
802.11B	Lowest	-8.75	≤8.00	Pass
	Middle	-8.17	≤8.00	Pass
	Highest	-9.88	≤8.00	Pass
802.11G	Lowest	-16.74	≤8.00	Pass
	Middle	-11.93	≤8.00	Pass
	Highest	-19.86	≤8.00	Pass
802.11G_CDD	Lowest	-16.71	≤8.00	Pass
	Middle	-11.42	≤8.00	Pass
	Highest	-18.77	≤8.00	Pass
802.11N20	Lowest	-18.45	≤8.00	Pass
	Middle	-11.74	≤8.00	Pass
	Highest	-19.57	≤8.00	Pass
802.11N20_MIMO	Lowest	-18.03	≤8.00	Pass
	Middle	-12.97	≤8.00	Pass
	Highest	-12.44	≤8.00	Pass
802.11N40	Lowest	-23.10	≤8.00	Pass
	Middle	-16.91	≤8.00	Pass
	Highest	-22.06	≤8.00	Pass
802.11N40_MIMO	Lowest	-20.85	≤8.00	Pass
	Middle	-14.63	≤8.00	Pass
	Highest	-20.21	≤8.00	Pass

4.6.2 Test plots

4.6.2.1 ANT1:

4.6.2.1.1 802.11B_Lowest Channel

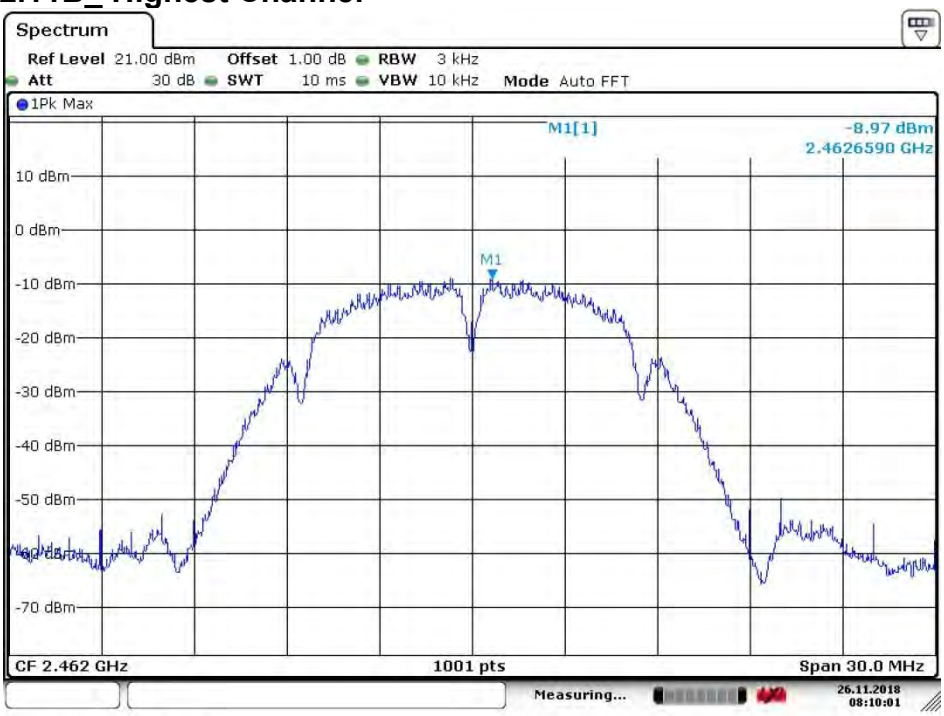


Date: 26.NOV.2018 08:12:09

4.6.2.1.2 802.11B_ Middle Channel

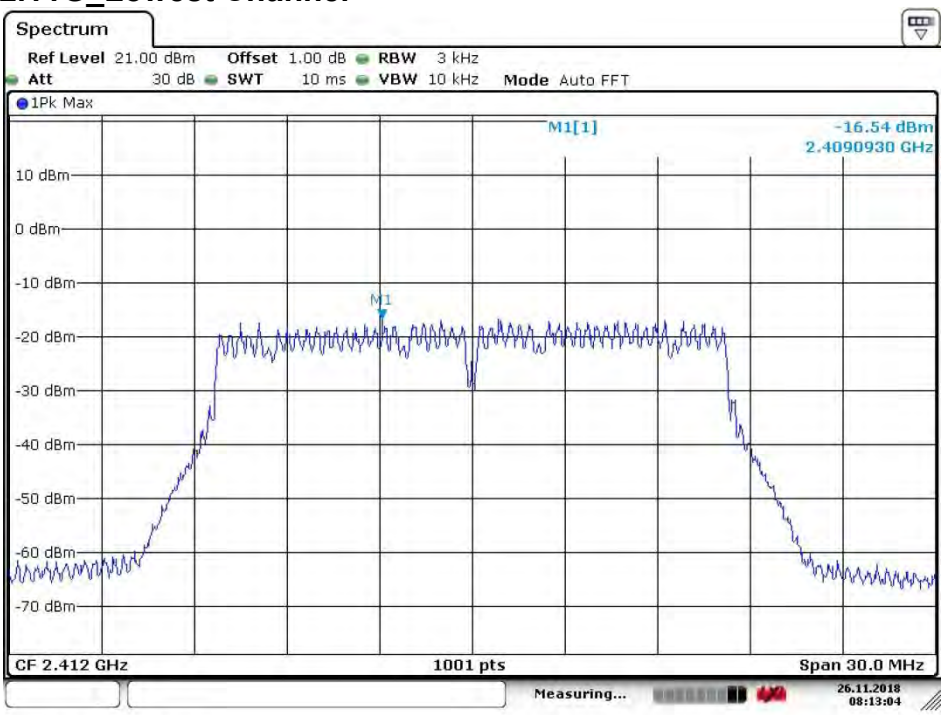
Date: 26.NOV.2018 08:10:42

4.6.2.1.3 802.11B_ Highest Channel



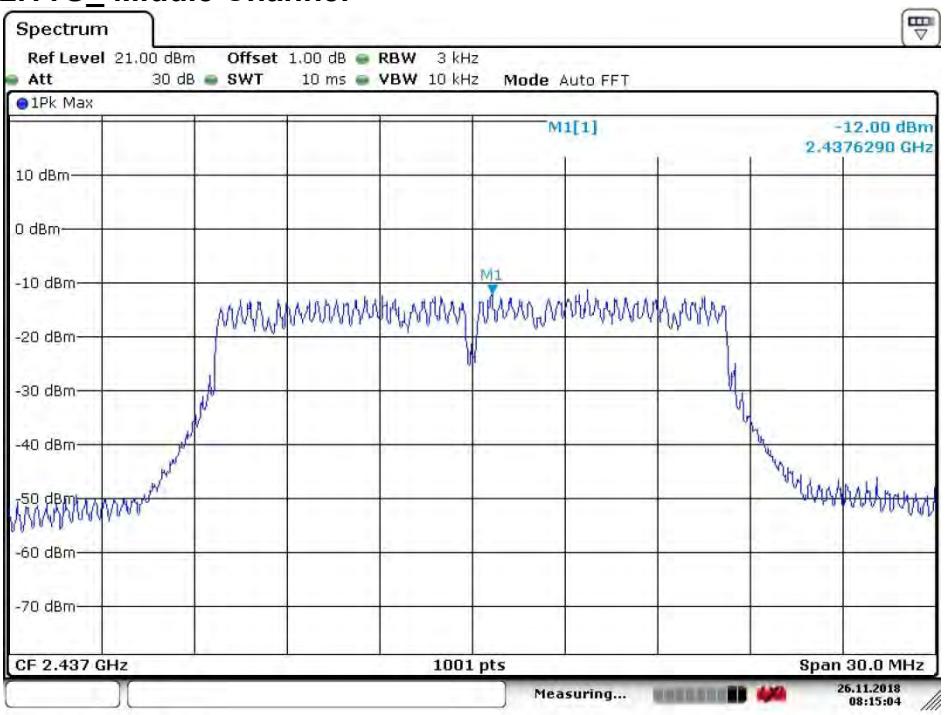
Date: 26.NOV.2018 08:10:01

4.6.2.1.4 802.11G_Lowest Channel



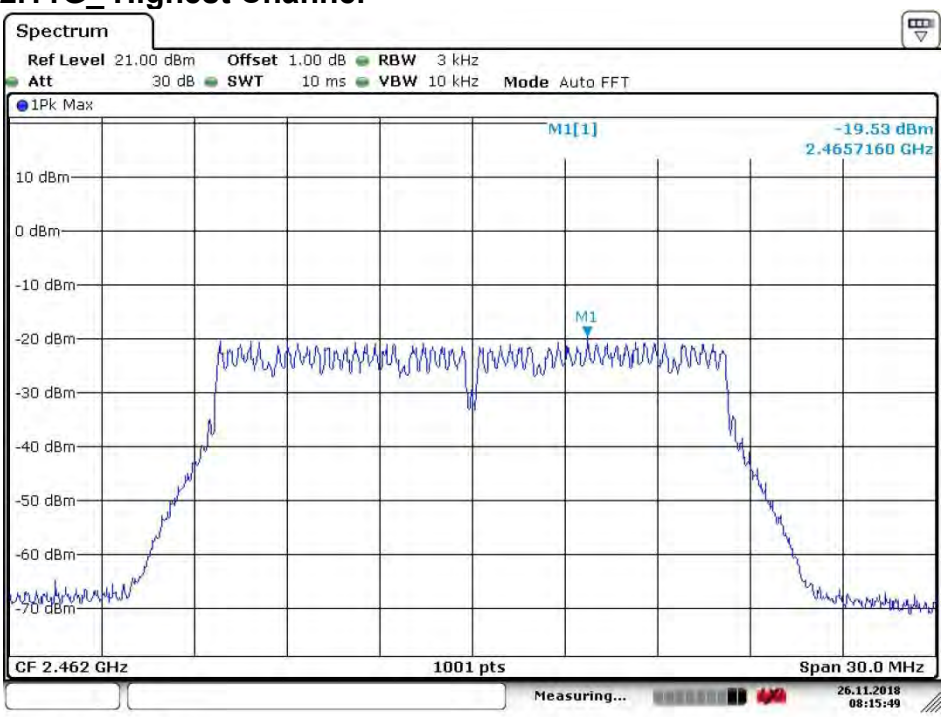
Date: 26.NOV.2018 08:13:05

4.6.2.1.5 802.11G_ Middle Channel



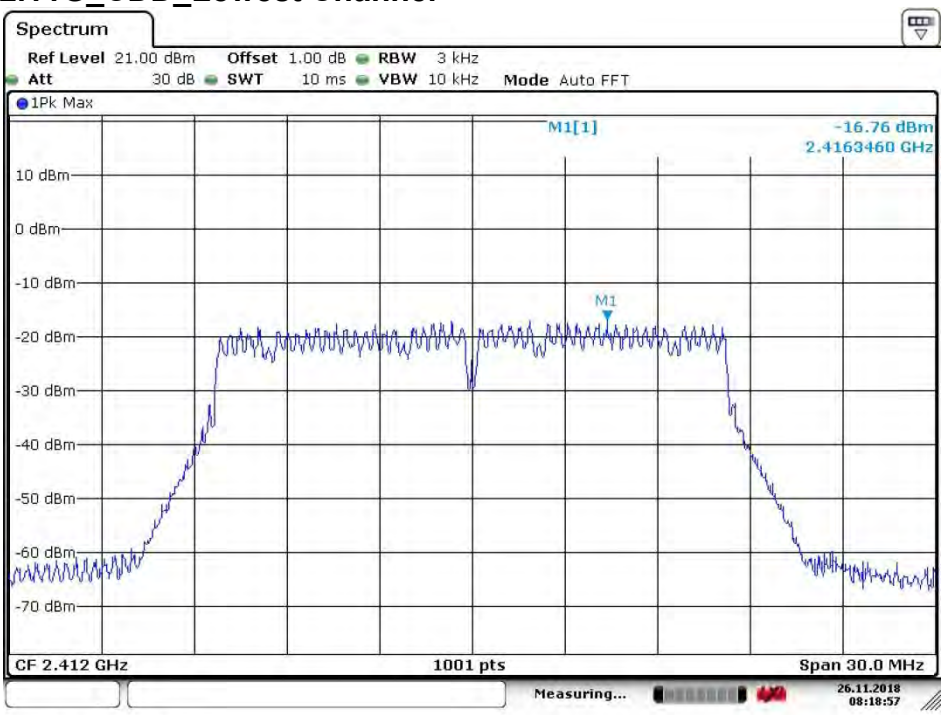
Date: 26.NOV.2018 08:15:04

4.6.2.1.6 802.11G_ Highest Channel



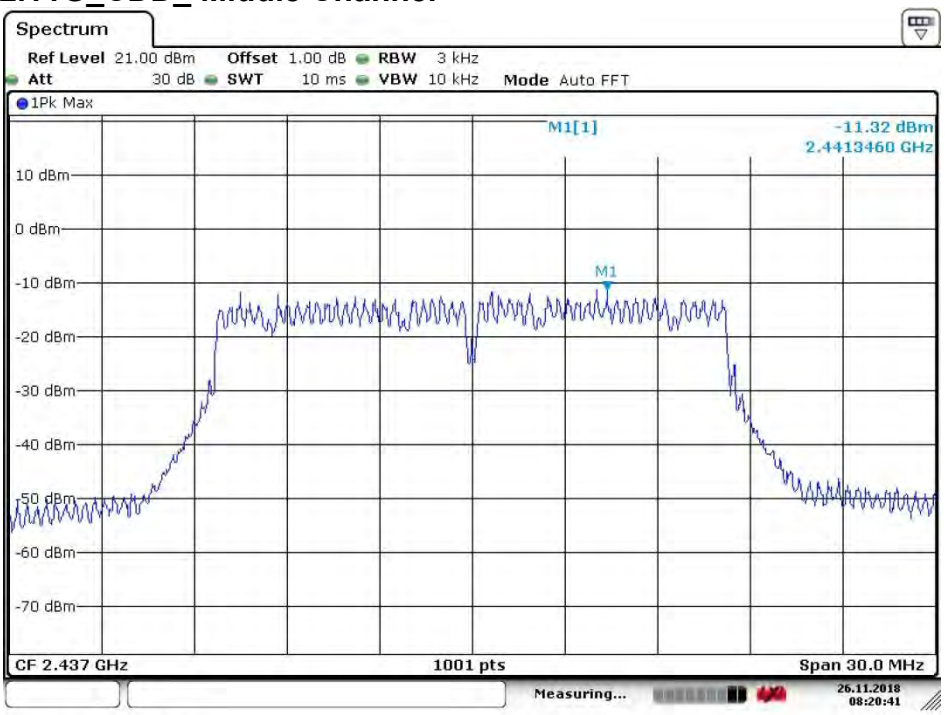
Date: 26.NOV.2018 08:15:50

4.6.2.1.7 802.11G_CDD_Lowest Channel



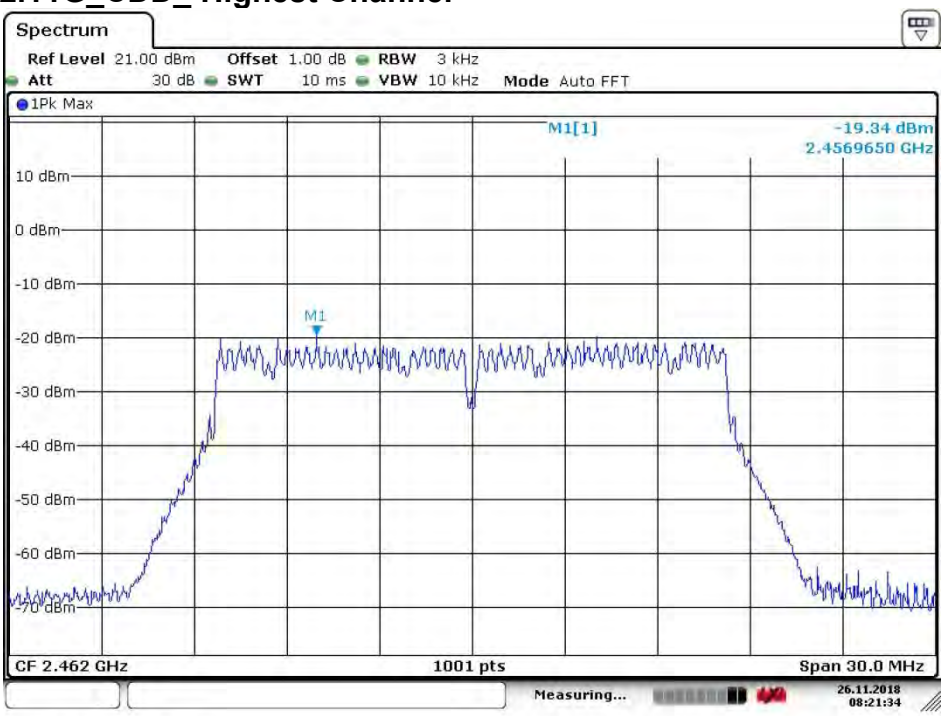
Date: 26.NOV.2018 08:18:58

4.6.2.1.8 802.11G_CDD_ Middle Channel



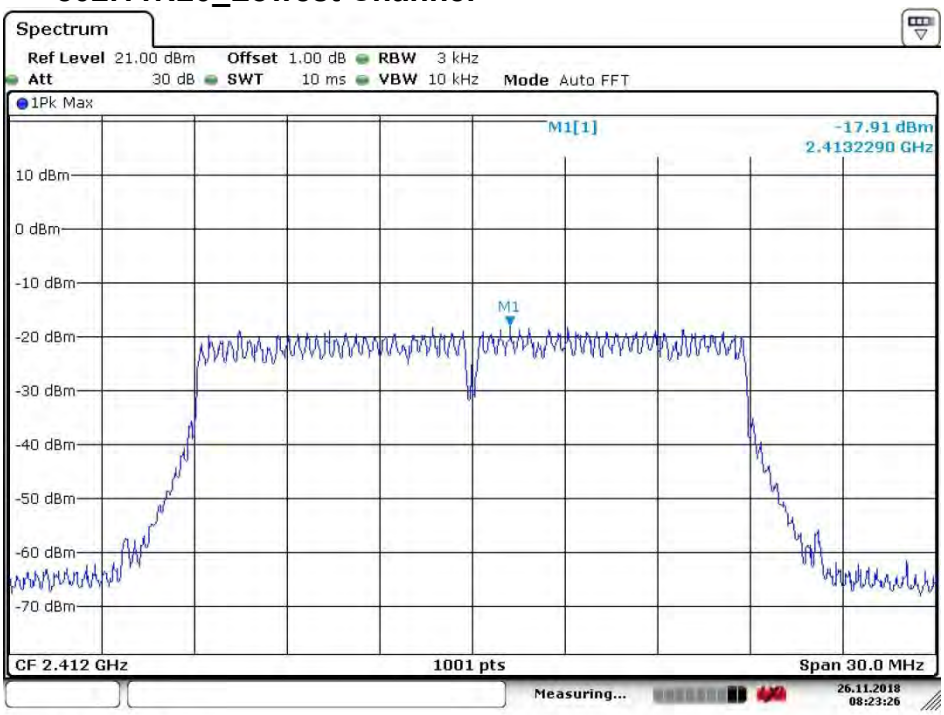
Date: 26.NOV.2018 08:20:42

4.6.2.1.9 802.11G_CDD_ Highest Channel



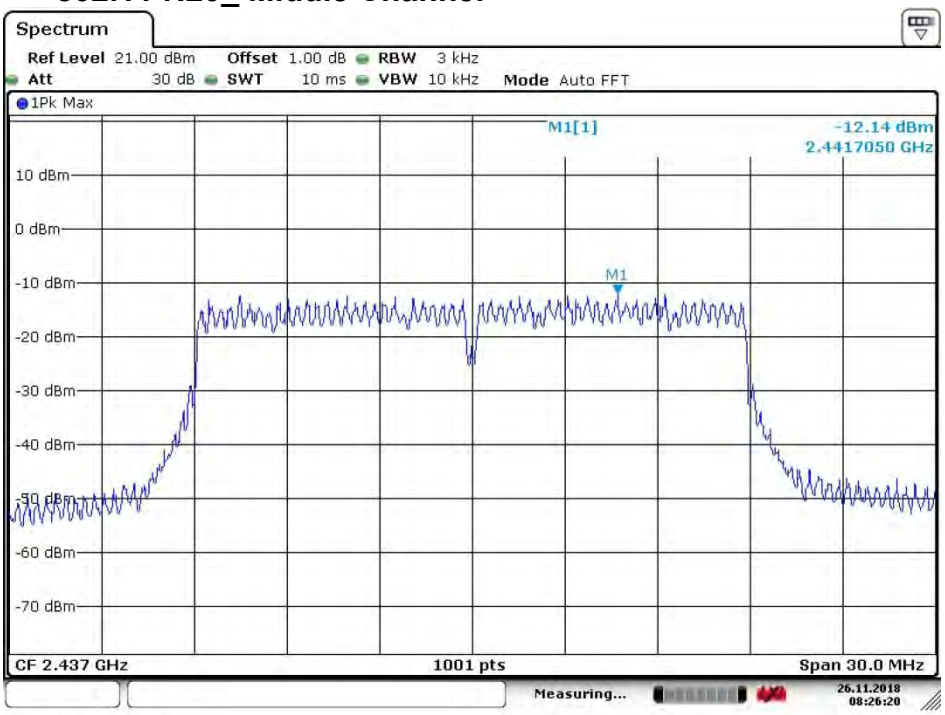
Date: 26.NOV.2018 08:21:35

4.6.2.1.10 802.11N20_Lowest Channel



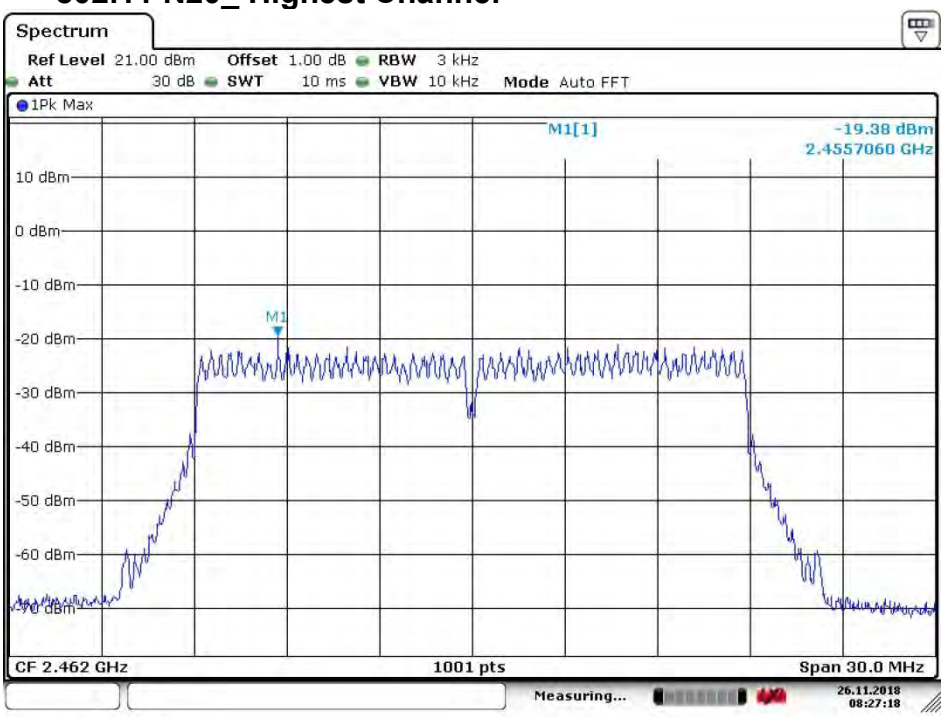
Date: 26.NOV.2018 08:23:26

4.6.2.1.11 802.11 N20_ Middle Channel



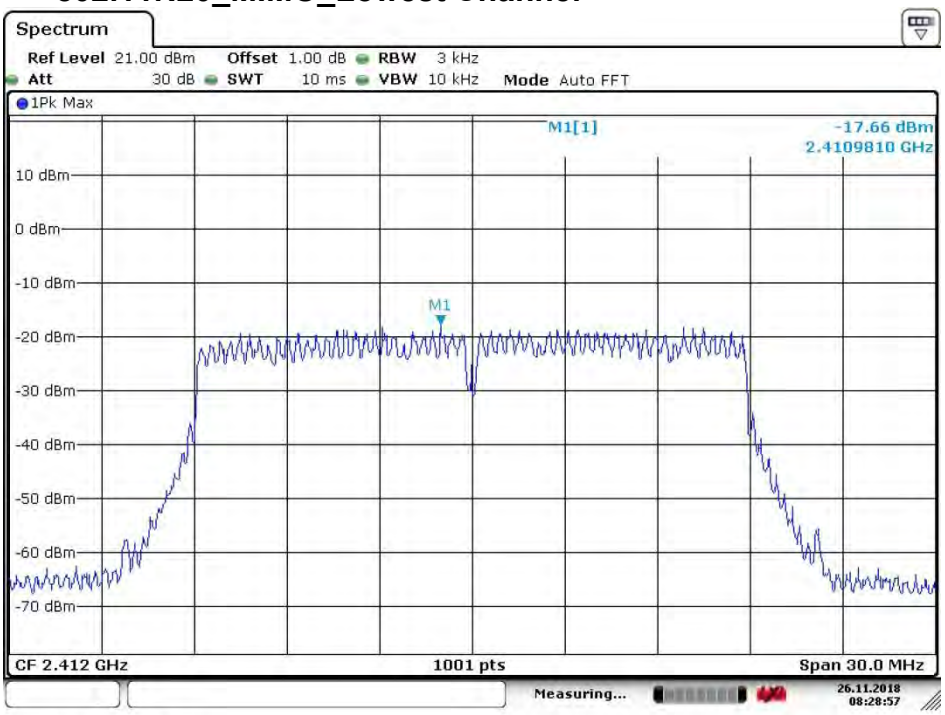
Date: 26.NOV.2018 08:26:20

4.6.2.1.12 802.11 N20_ Highest Channel



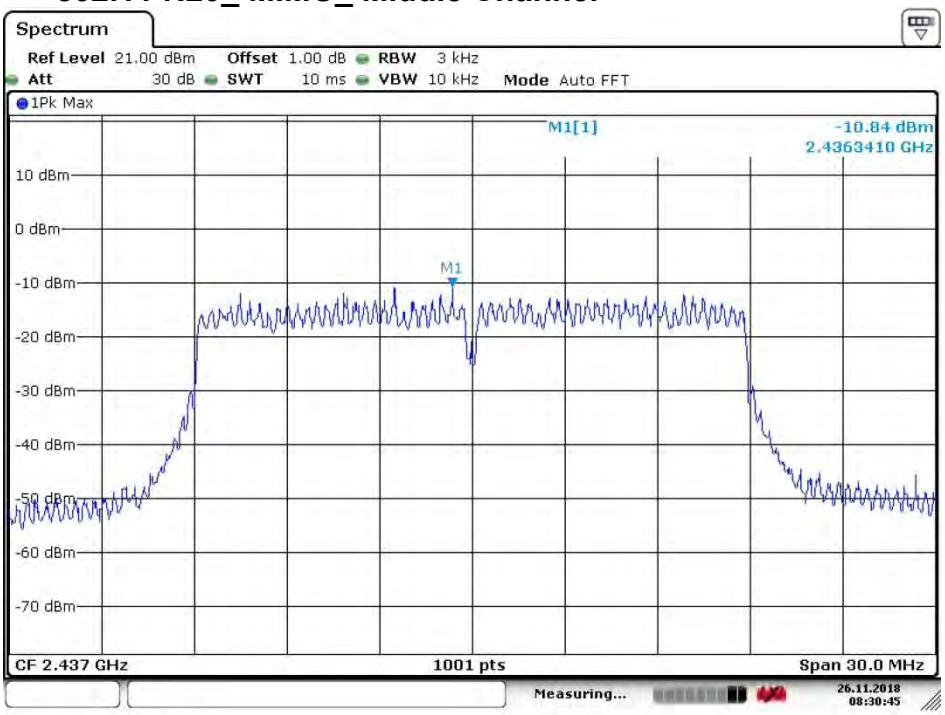
Date: 26.NOV.2018 08:27:18

4.6.2.1.13 802.11N20_MIMO_Lowest Channel



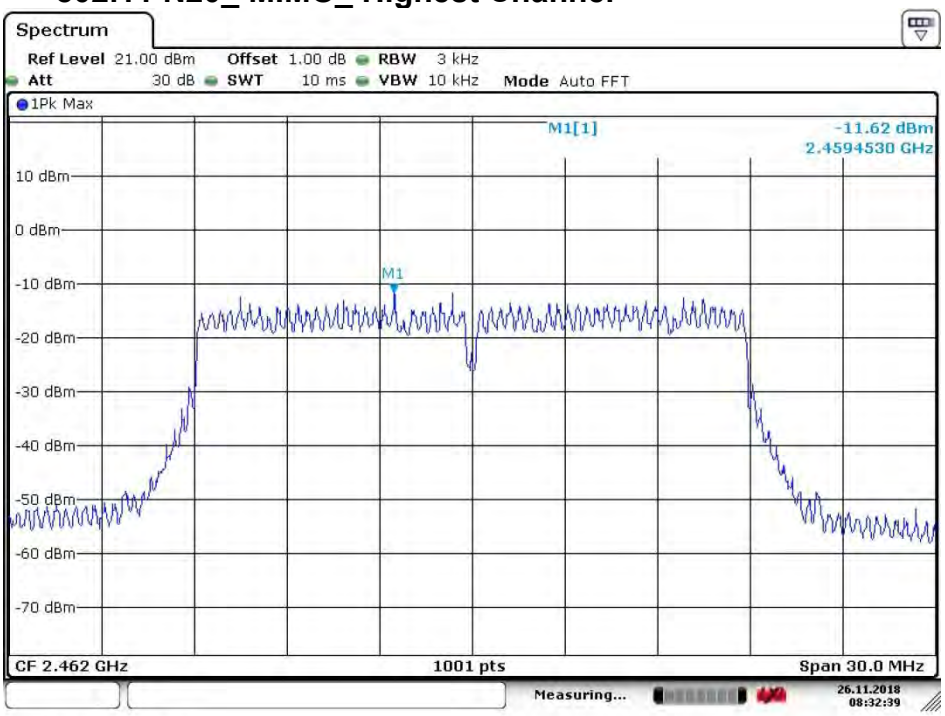
Date: 26.NOV.2018 08:28:57

4.6.2.1.14 802.11 N20_ MIMO_ Middle Channel



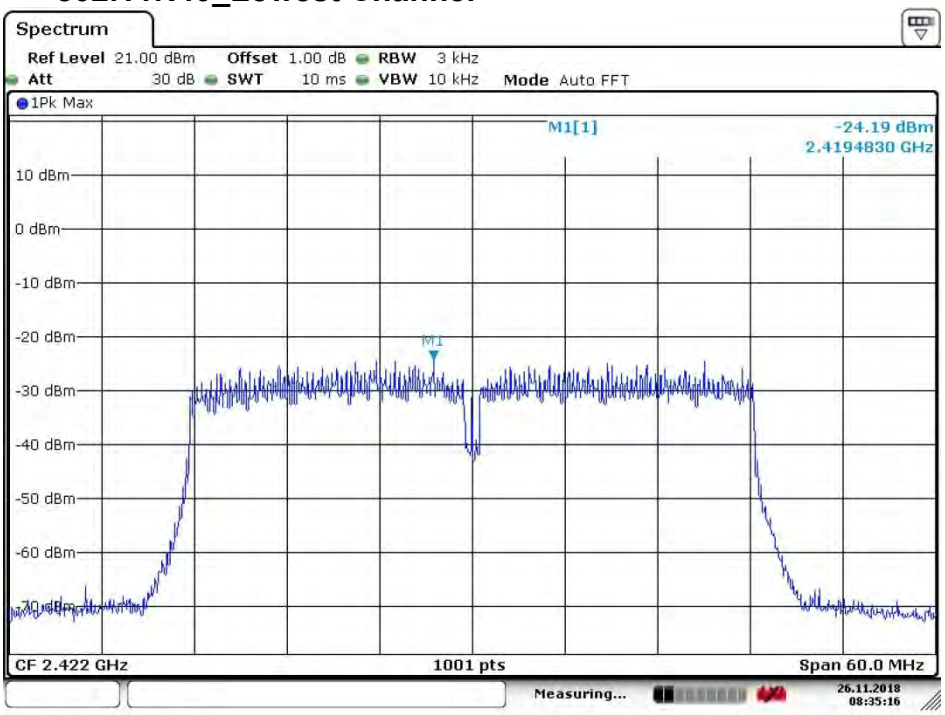
Date: 26.NOV.2018 08:30:45

4.6.2.1.15 802.11 N20_ MIMO_ Highest Channel



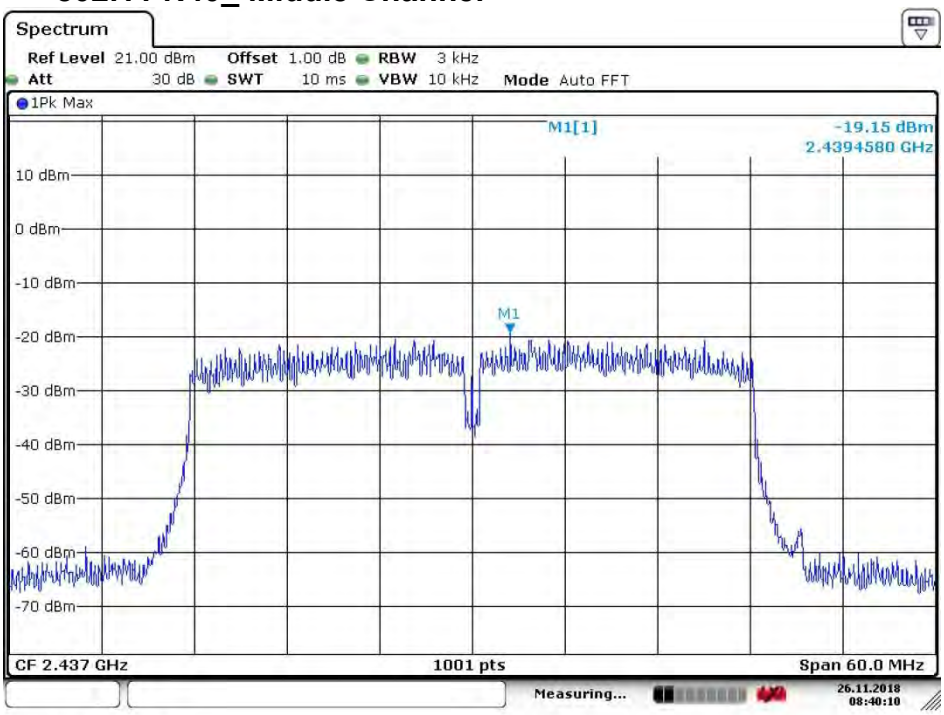
Date: 26.NOV.2018 08:32:40

4.6.2.1.16 802.11N40_Lowest Channel



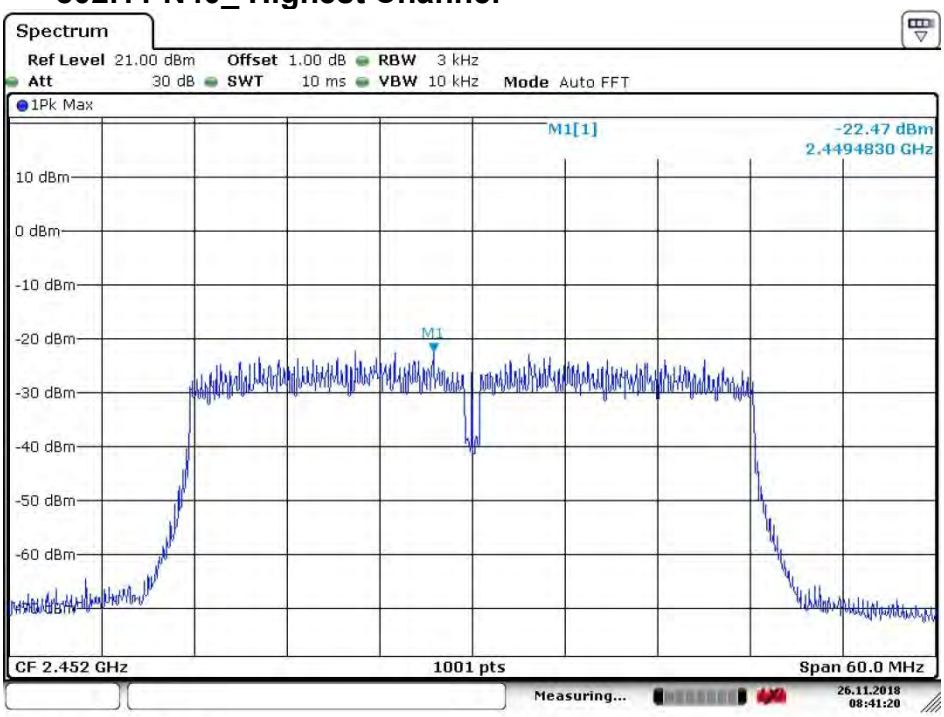
Date: 26.NOV.2018 08:35:17

4.6.2.1.17 802.11 N40_ Middle Channel



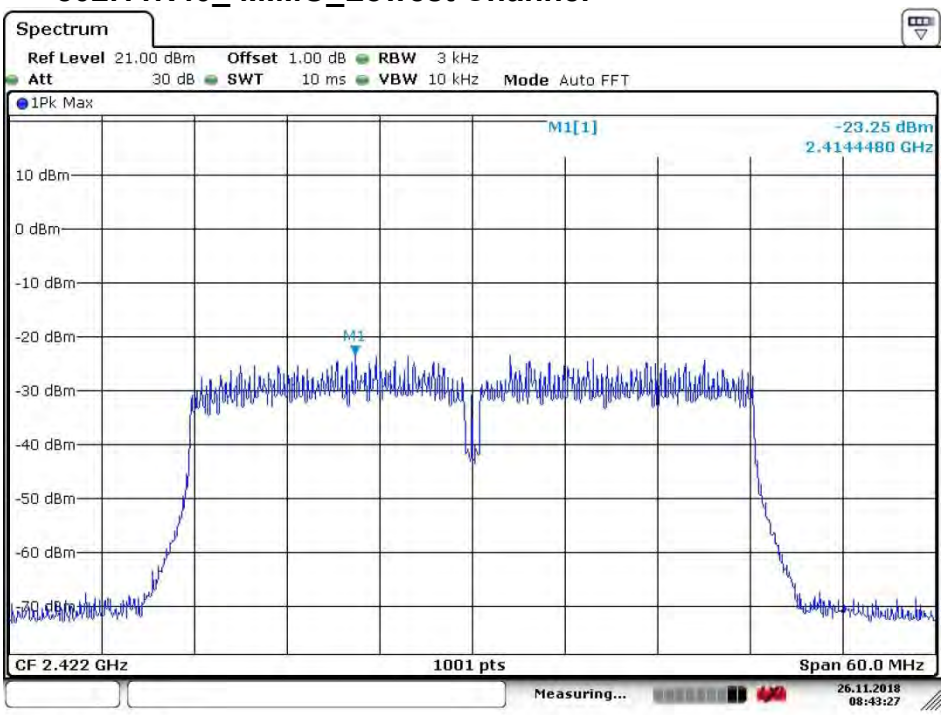
Date: 26.NOV.2018 08:40:11

4.6.2.1.18 802.11 N40_ Highest Channel



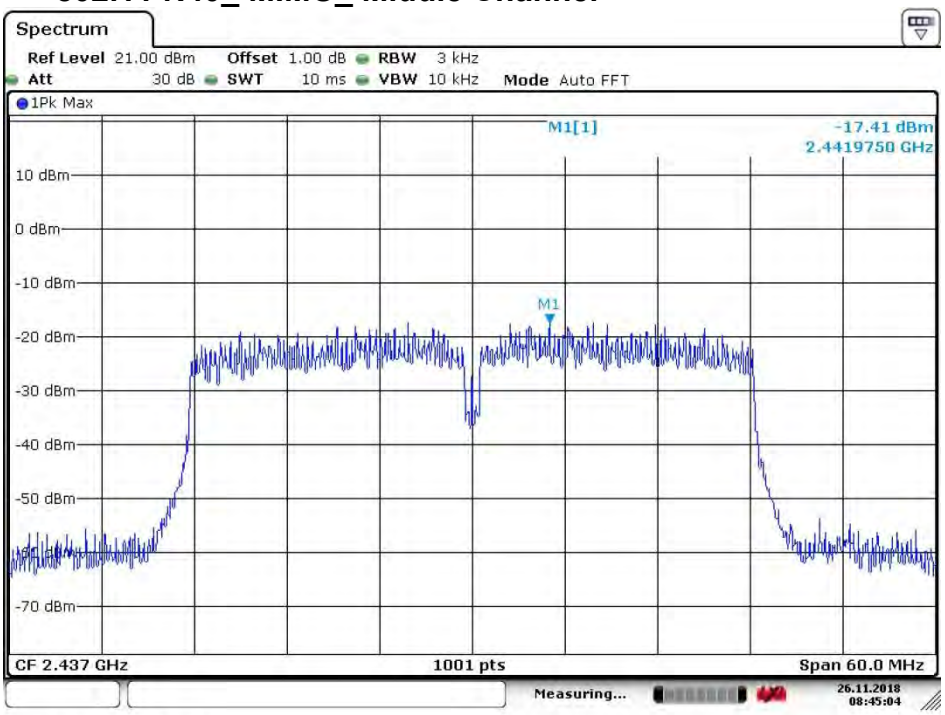
Date: 26.NOV.2018 08:41:21

4.6.2.1.19 802.11N40_ MIMO_Lowest Channel



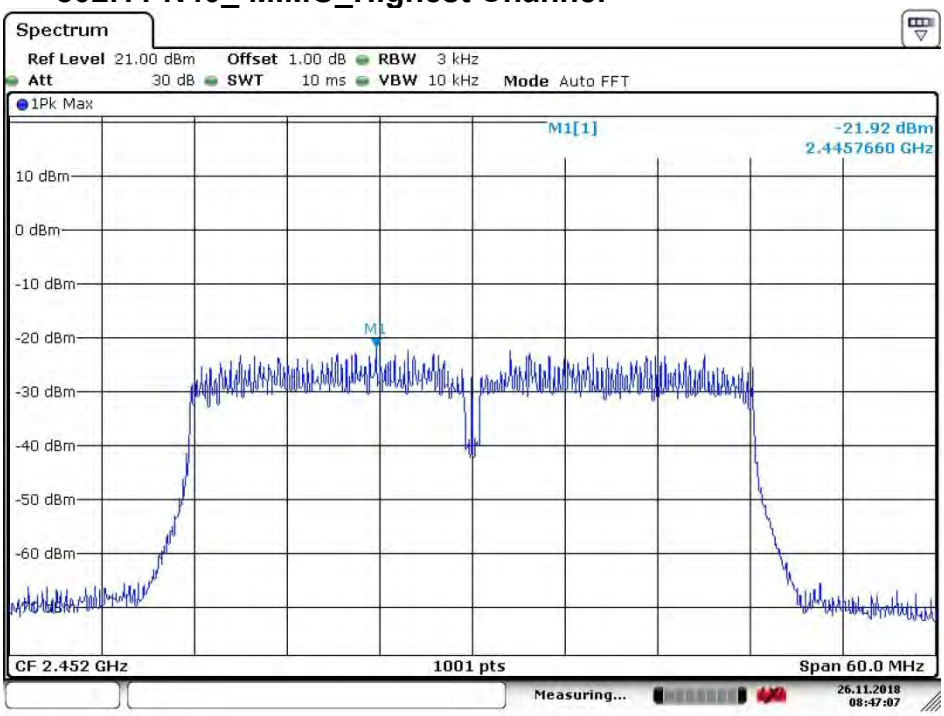
Date: 26.NOV.2018 08:43:28

4.6.2.1.20 802.11 N40_ MIMO_ Middle Channel



Date: 26.NOV.2018 08:45:04

4.6.2.1.21 802.11 N40_ MIMO_Highest Channel



Date: 26.NOV.2018 08:47:08

4.6.2.2 ANT2:

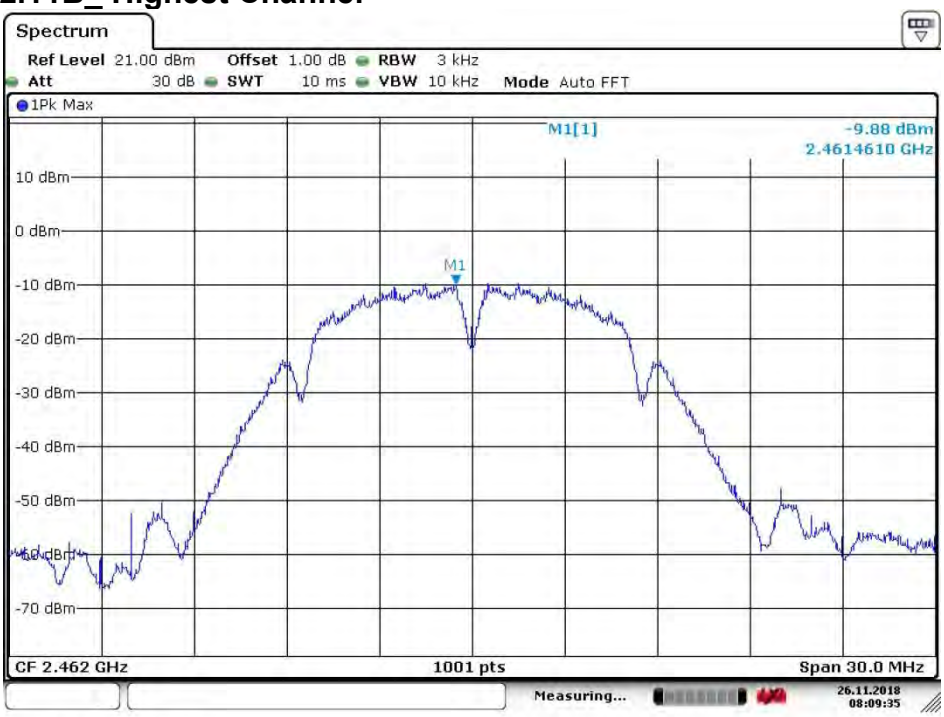
4.6.2.2.1 802.11B_Lowest Channel

Date: 26.NOV.2018 08:11:43

4.6.2.2.2 802.11B_ Middle Channel

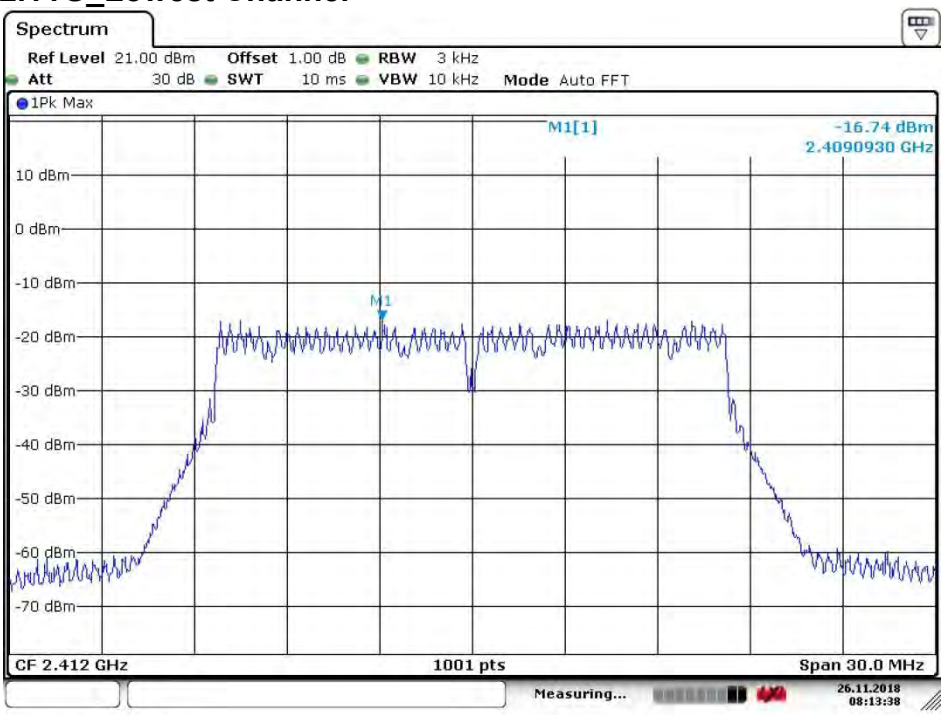
Date: 26.NOV.2018 08:11:12

4.6.2.2.3 802.11B_ Highest Channel



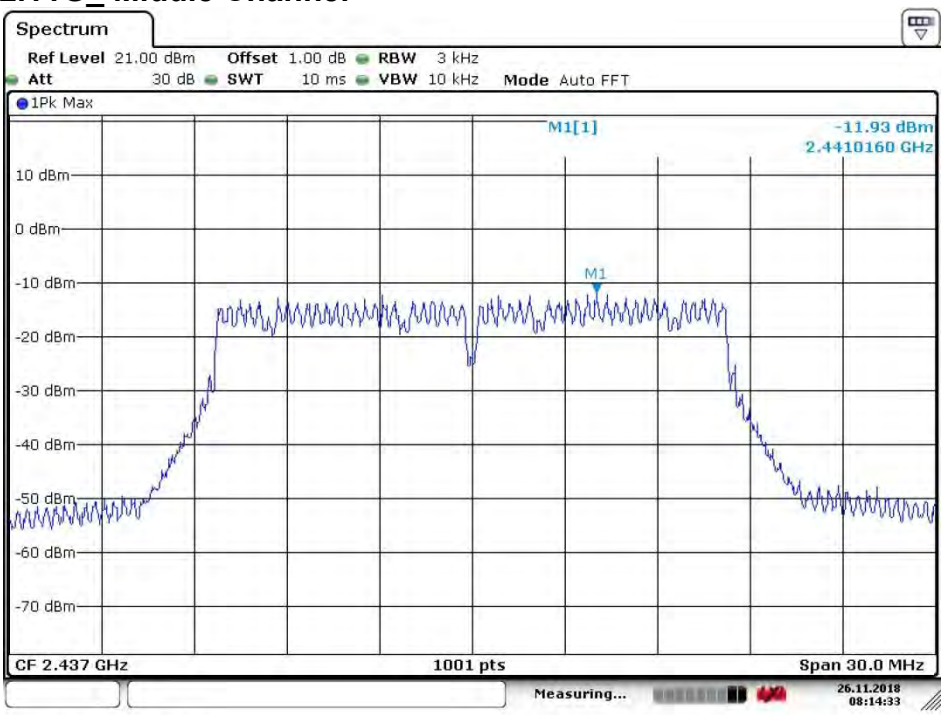
Date: 26.NOV.2018 08:09:35

4.6.2.2.4 802.11G_Lowest Channel



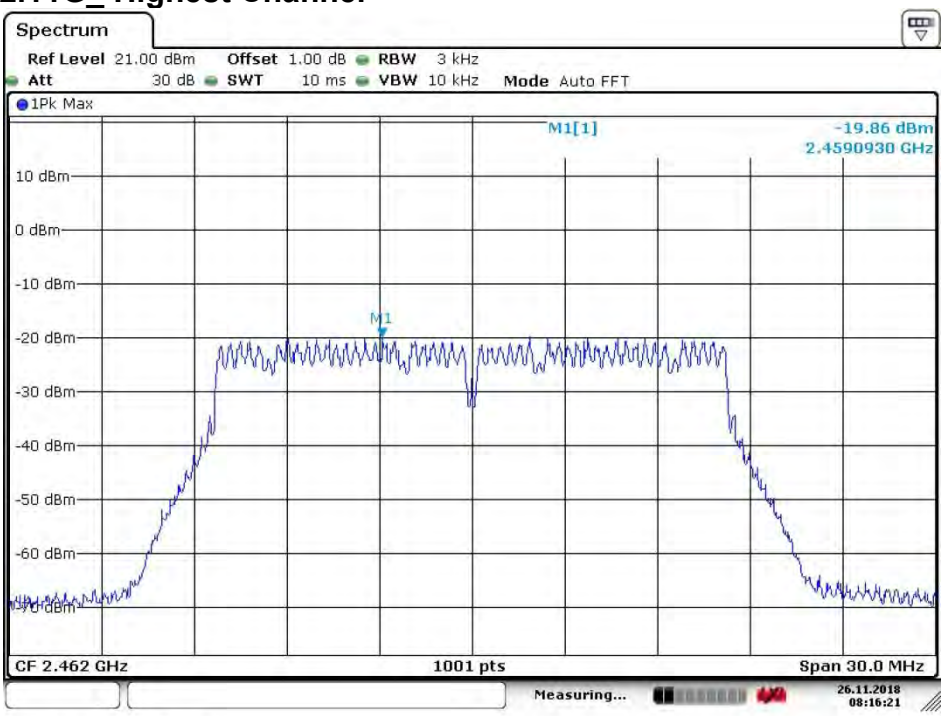
Date: 26.NOV.2018 08:13:38

4.6.2.2.5 802.11G_ Middle Channel



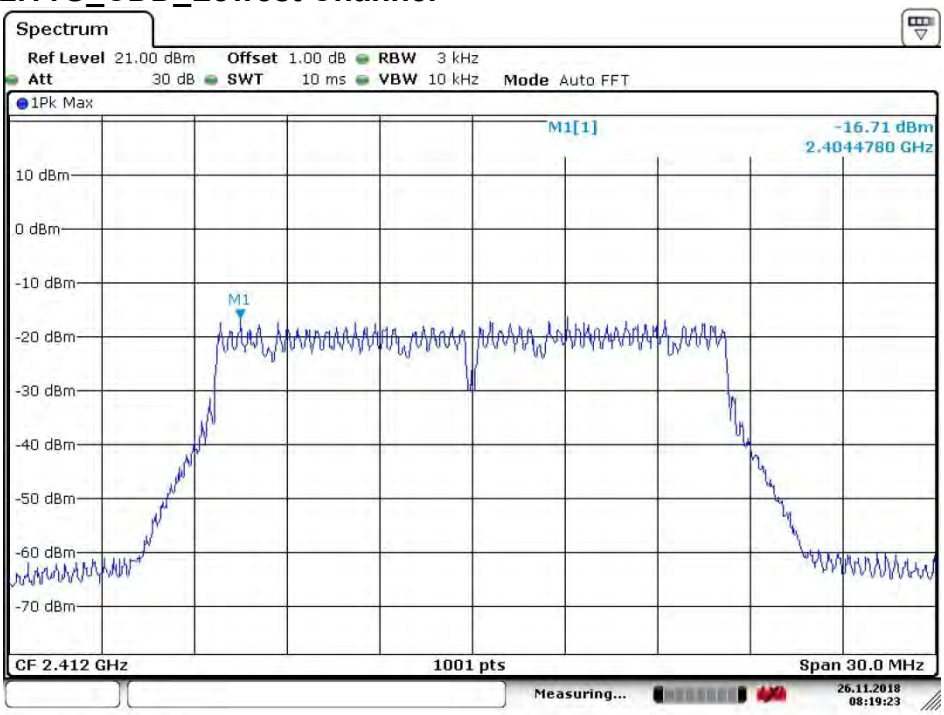
Date: 26.NOV.2018 08:14:34

4.6.2.2.6 802.11G_ Highest Channel



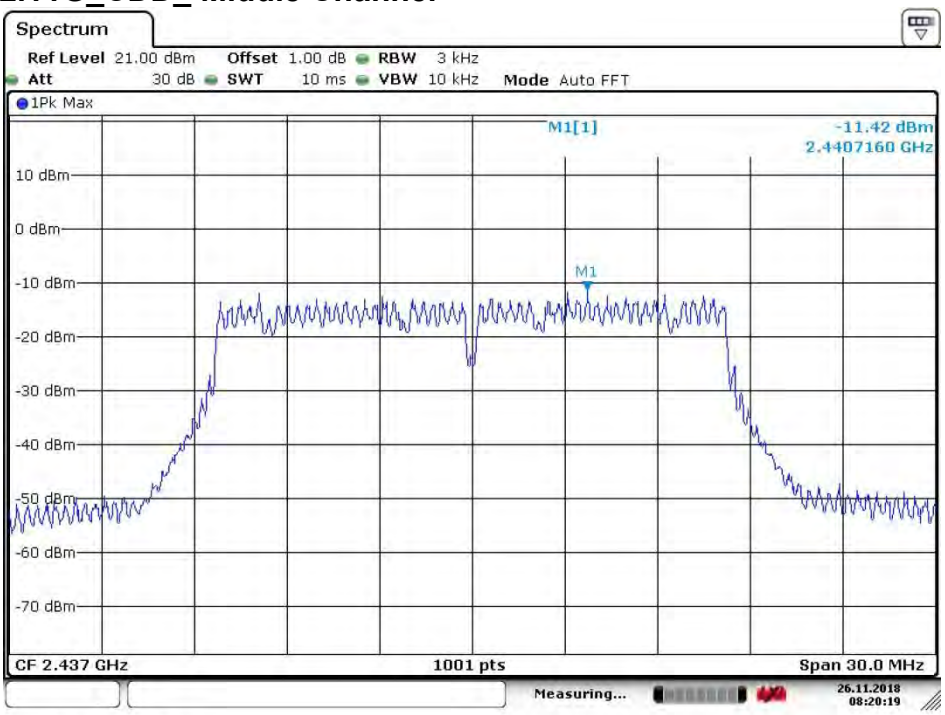
Date: 26.NOV.2018 08:16:21

4.6.2.2.7 802.11G_CDD_Lowest Channel



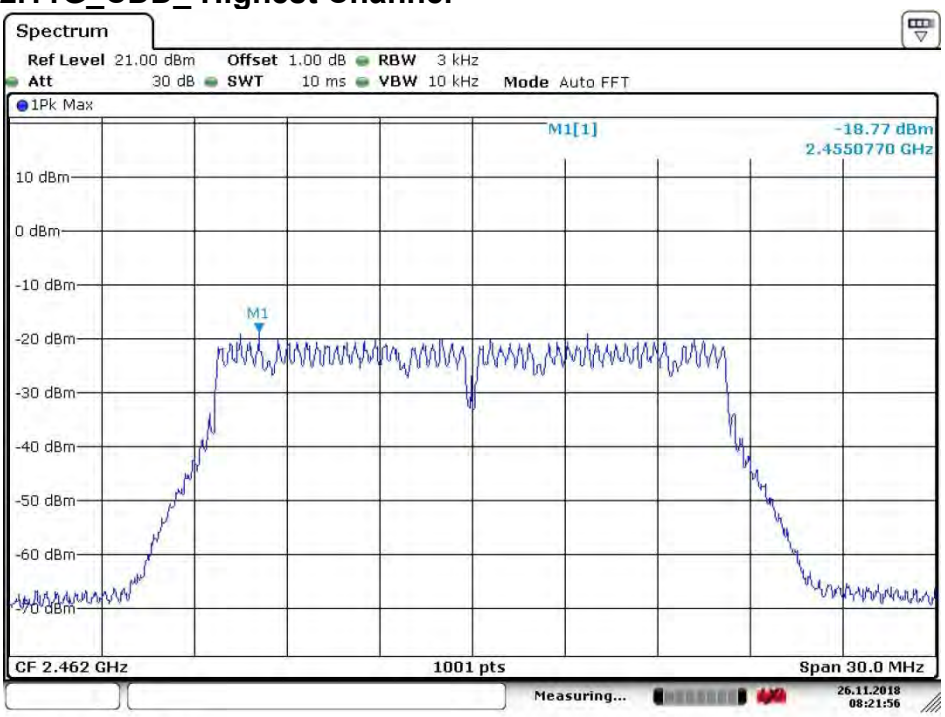
Date: 26.NOV.2018 08:19:23

4.6.2.2.8 802.11G_CDD_ Middle Channel



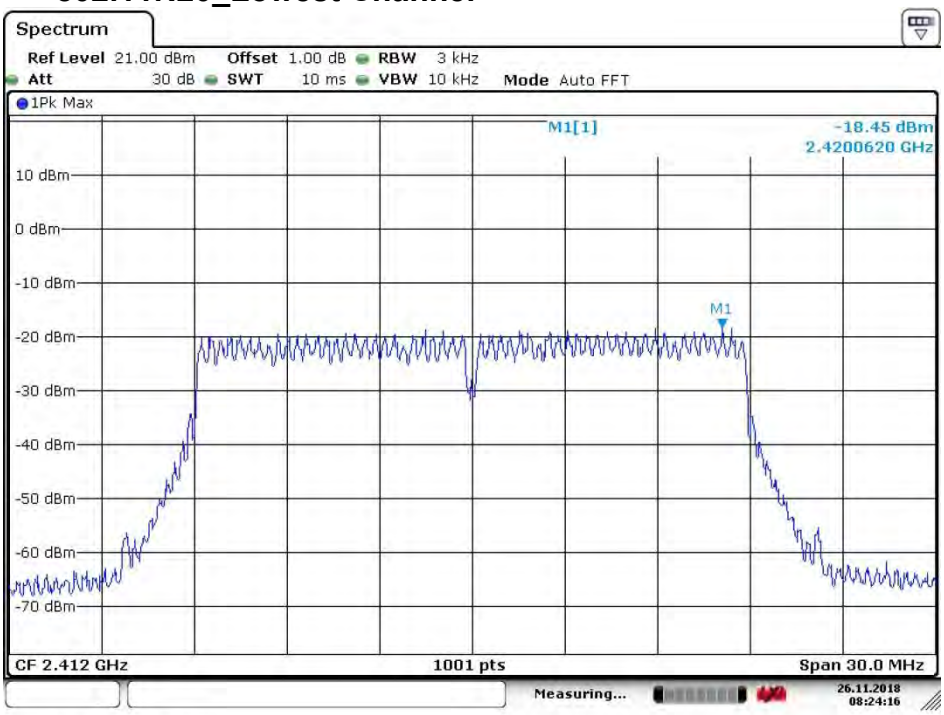
Date: 26.NOV.2018 08:20:19

4.6.2.2.9 802.11G_CDD_ Highest Channel



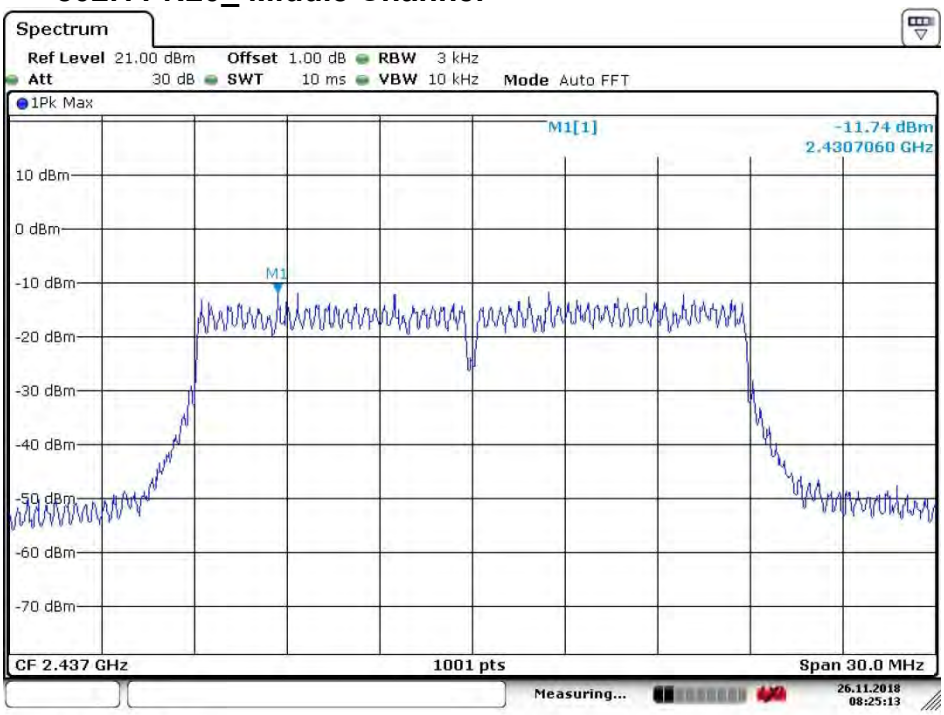
Date: 26.NOV.2018 08:21:57

4.6.2.2.10 802.11N20_Lowest Channel



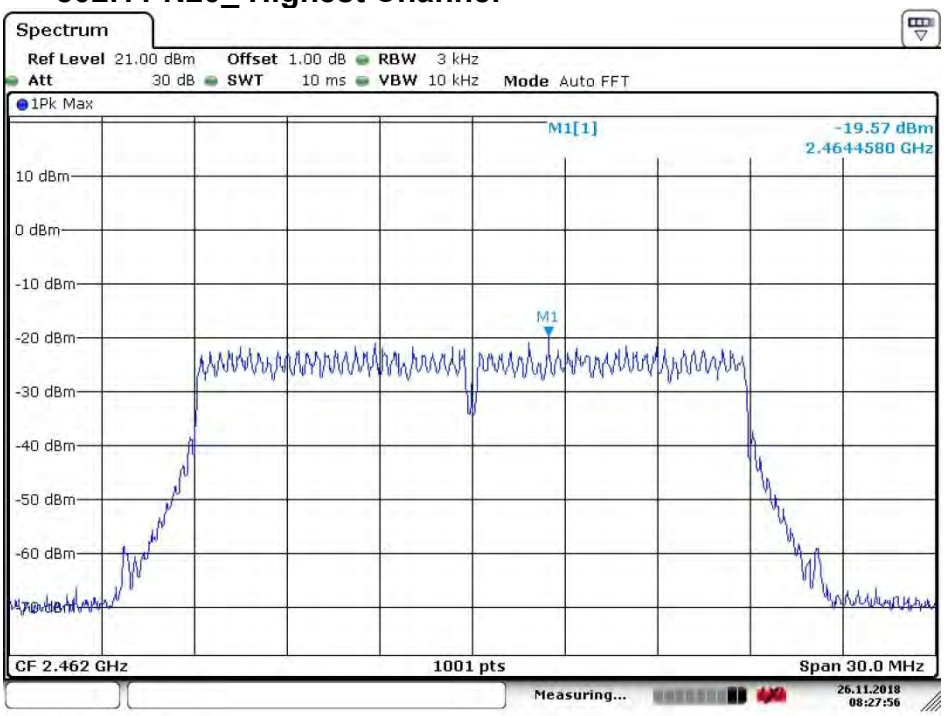
Date: 26.NOV.2018 08:24:16

4.6.2.2.11 802.11 N20_ Middle Channel



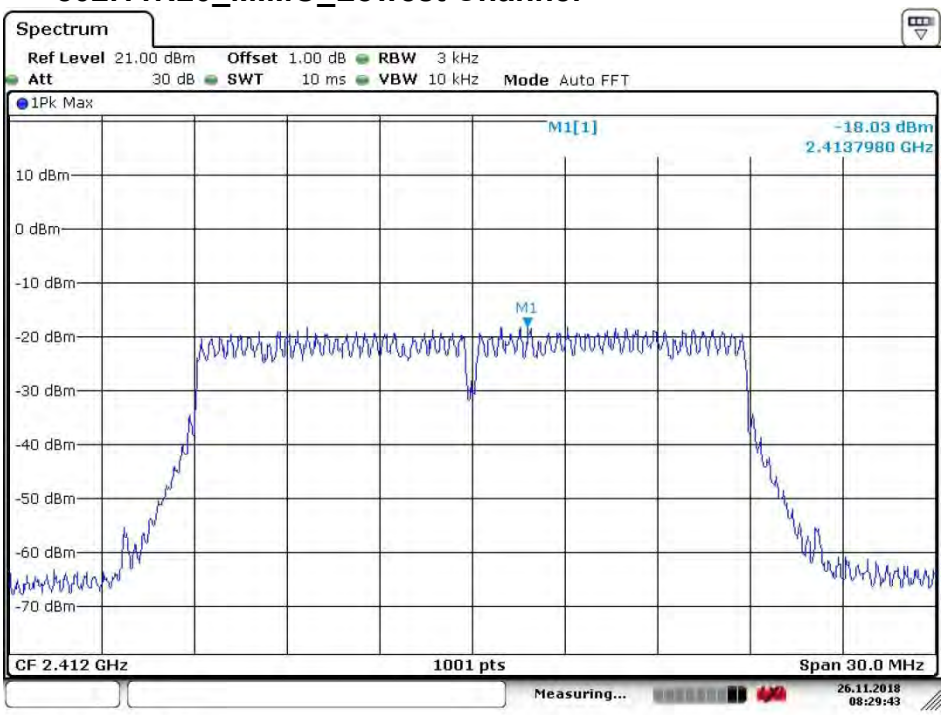
Date: 26.NOV.2018 08:25:14

4.6.2.2.12 802.11 N20_ Highest Channel



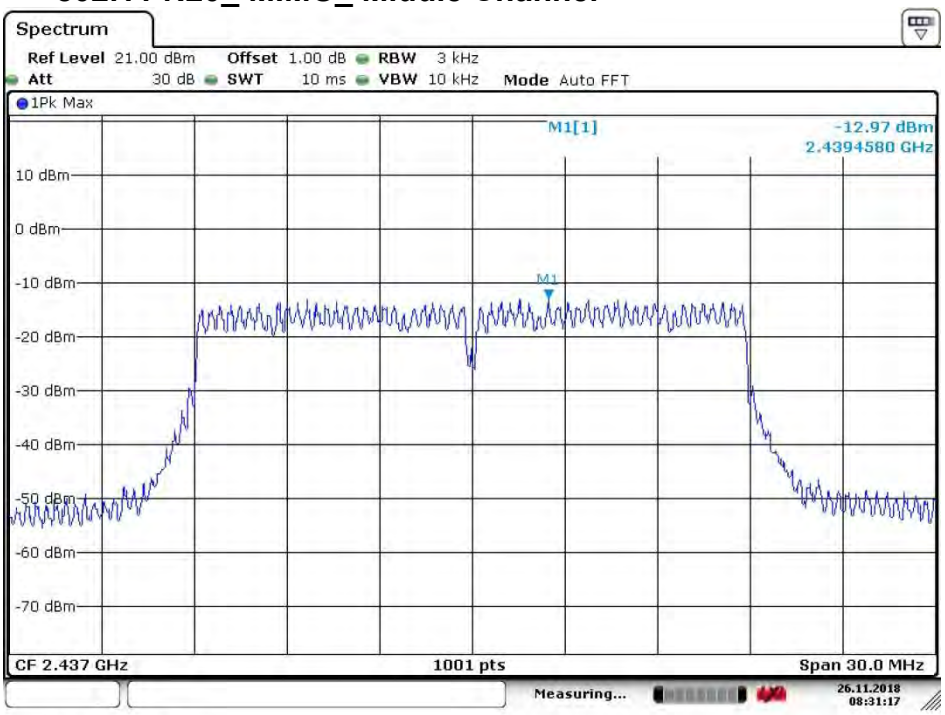
Date: 26.NOV.2018 08:27:57

4.6.2.2.13 802.11N20_MIMO_Lowest Channel



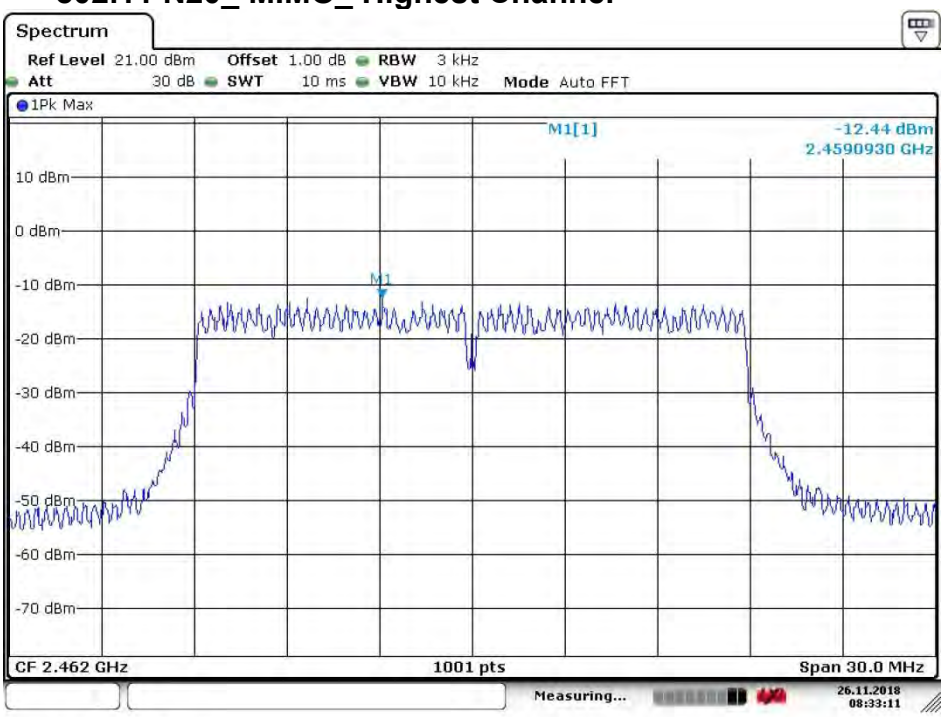
Date: 26.NOV.2018 08:29:43

4.6.2.2.14 802.11 N20_ MIMO_ Middle Channel



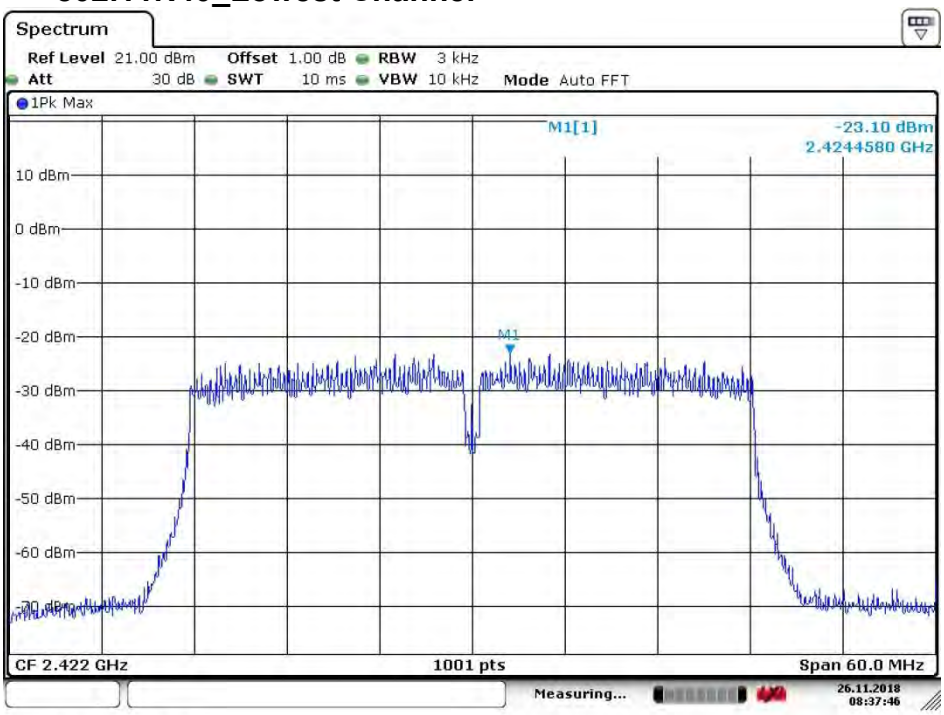
Date: 26.NOV.2018 08:31:18

4.6.2.2.15 802.11 N20_ MIMO_ Highest Channel



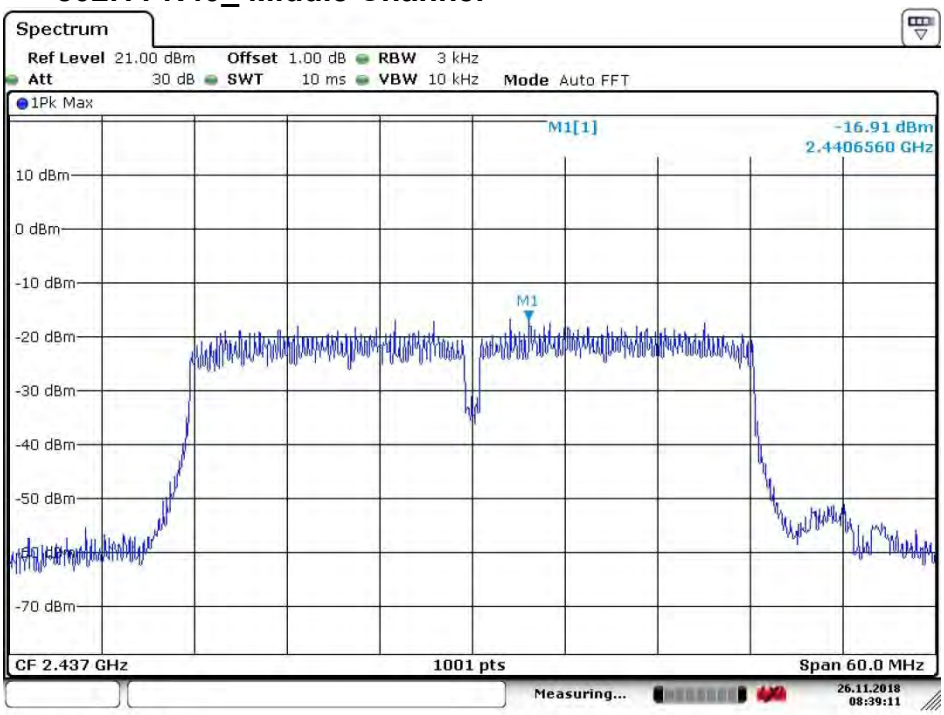
Date: 26.NOV.2018 08:33:11

4.6.2.2.16 802.11N40_Lowest Channel



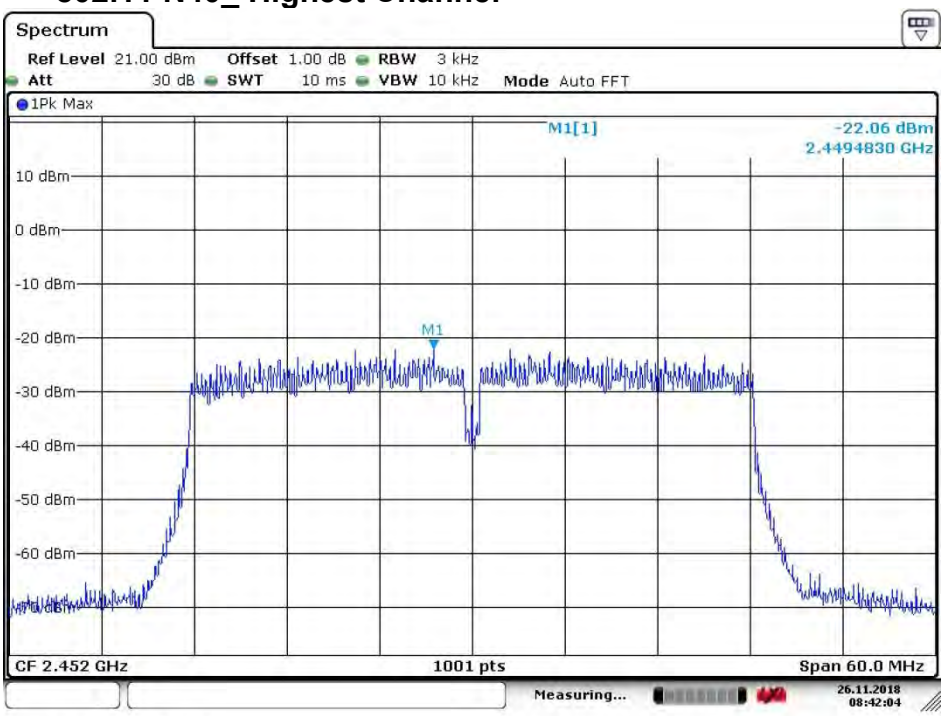
Date: 26.NOV.2018 08:37:46

4.6.2.2.17 802.11 N40_ Middle Channel



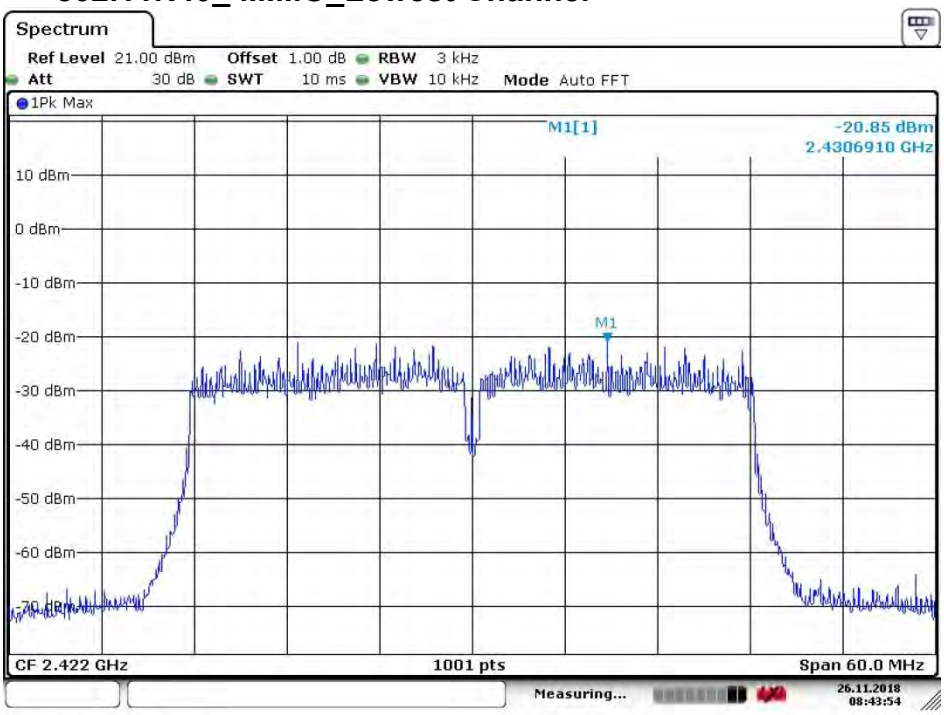
Date: 26.NOV.2018 08:39:11

4.6.2.2.18 802.11 N40_ Highest Channel



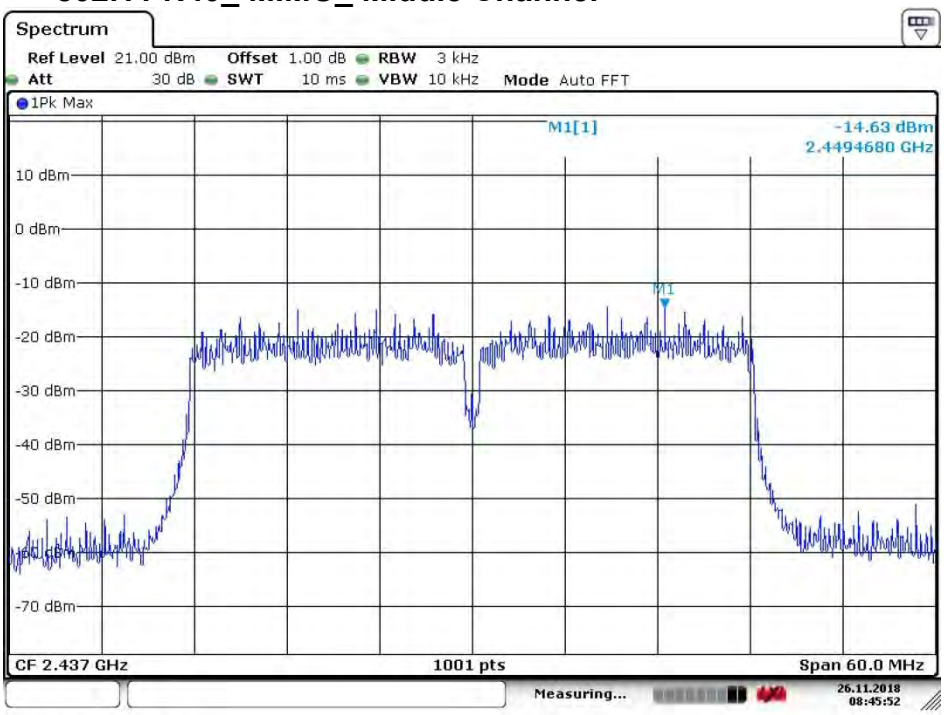
Date: 26.NOV.2018 08:42:04

4.6.2.2.19 802.11N40_ MIMO_Lowest Channel



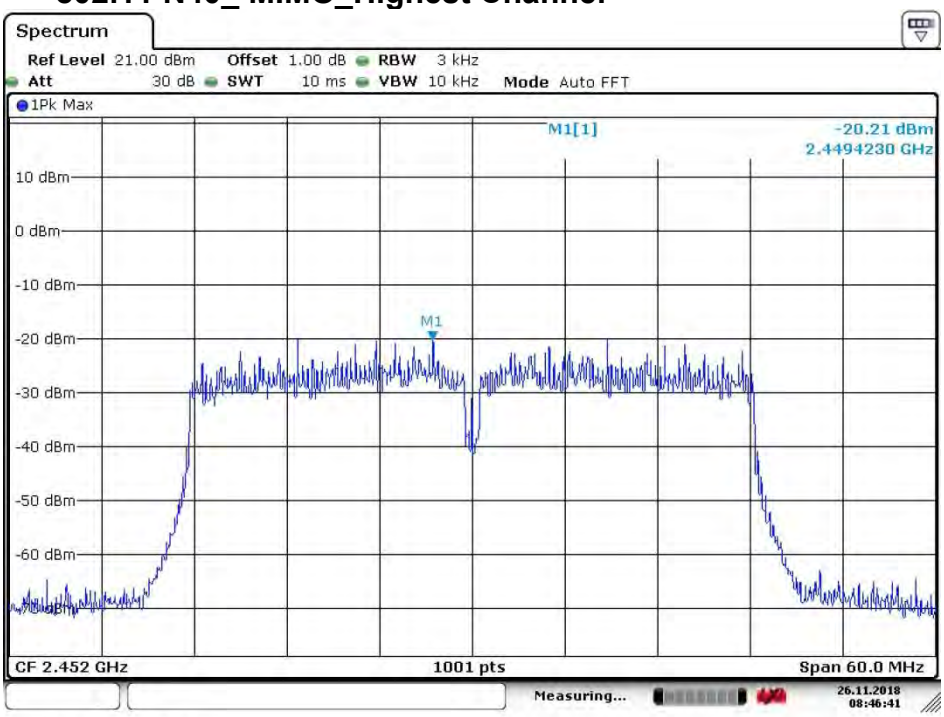
Date: 26.NOV.2018 08:43:54

4.6.2.2.20 802.11 N40_ MIMO_ Middle Channel



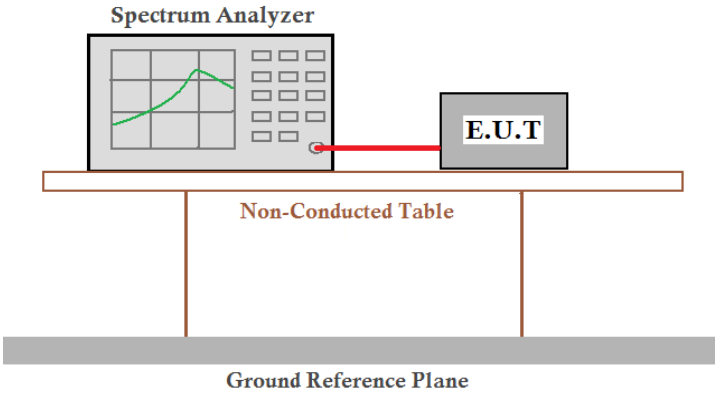
Date: 26.NOV.2018 08:45:53

4.6.2.2.21 802.11 N40_ MIMO_Highest Channel



Date: 26.NOV.2018 08:46:41

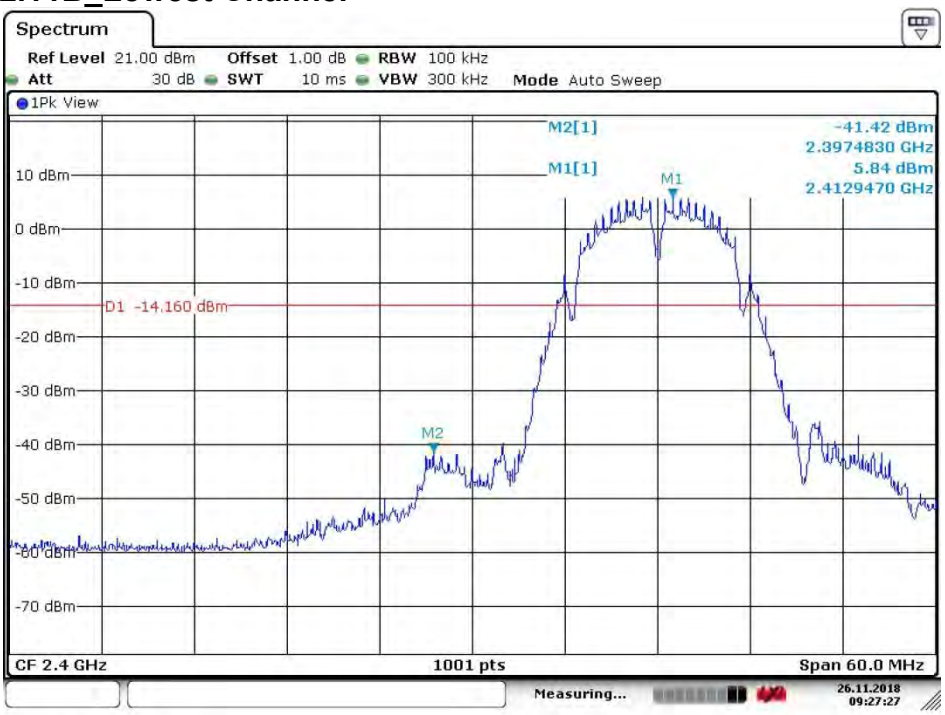
4.7 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10: 2013 Section 11.13
Test Setup:	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G ; 6.5Mbps of rate is the worst case of 802.11N(HT20); 13Mbps of rate is the worst case of 802.11N(HT20) MIMO; 13.5Mbps of rate is the worst case of 802.11N(HT40) ; 27Mbps of rate is the worst case of 802.11N(HT40) MIMO.
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

4.7.1 Test plots

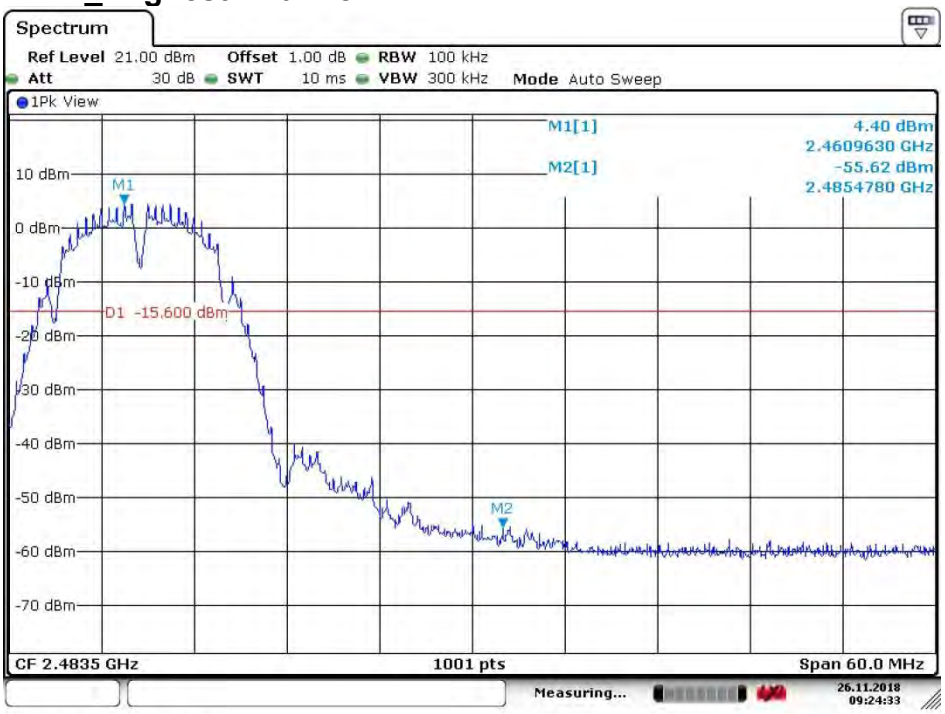
4.7.1.1 ANT1:

4.7.1.1.1 802.11B_Lowest Channel



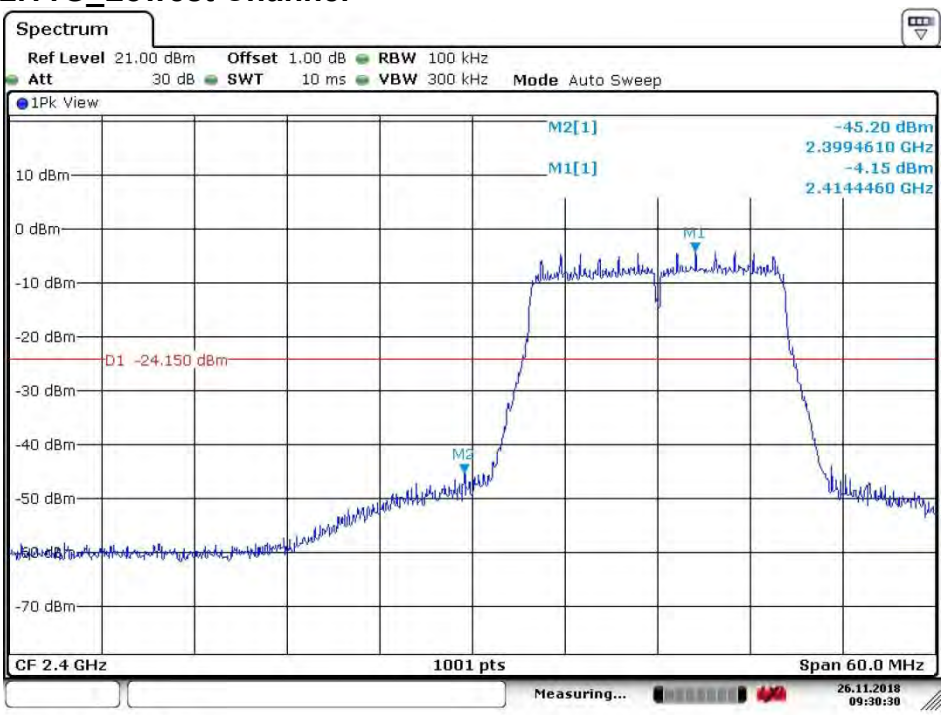
Date: 26.NOV.2018 09:27:27

4.7.1.1.2 802.11B_ Highest Channel



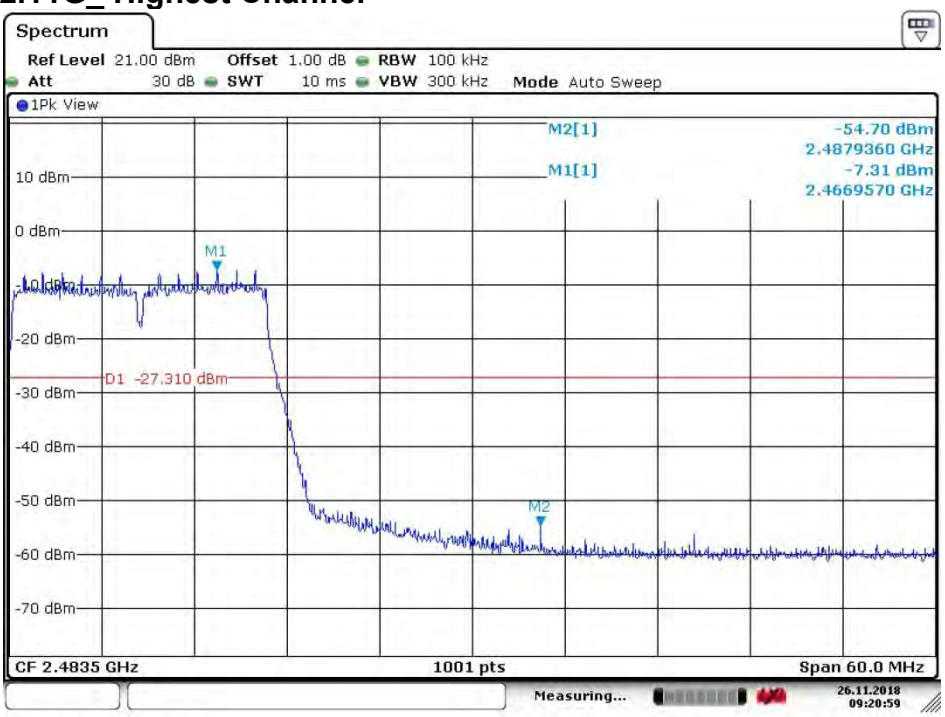
Date: 26.NOV.2018 09:24:34

4.7.1.1.3 802.11G_Lowest Channel



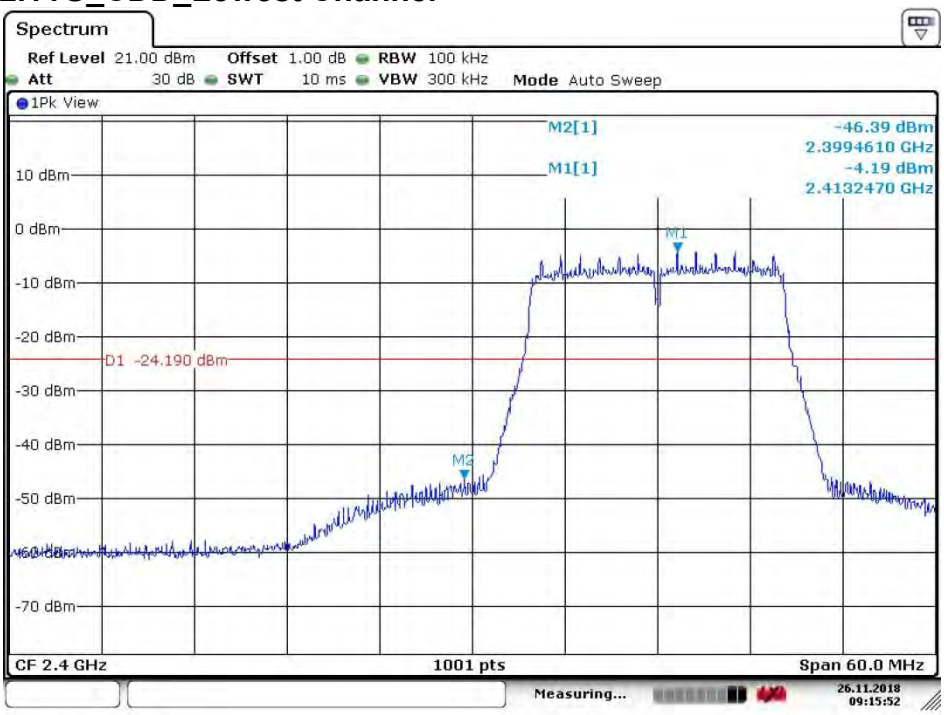
Date: 26.NOV.2018 09:30:30

4.7.1.1.4 802.11G_ Highest Channel



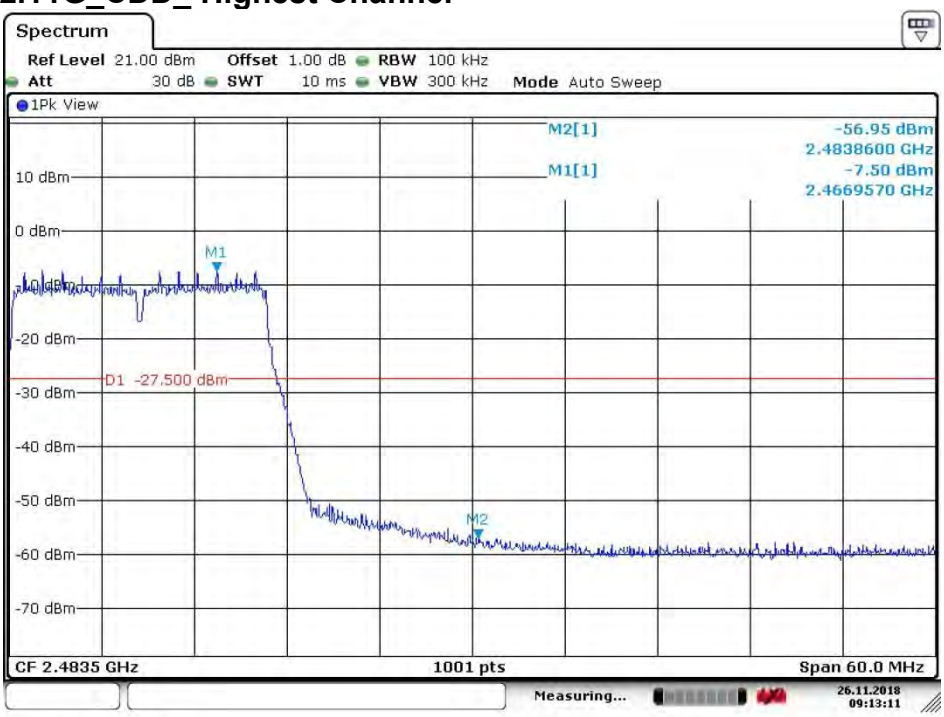
Date: 26.NOV.2018 09:21:00

4.7.1.1.5 802.11G_CDD_Lowest Channel



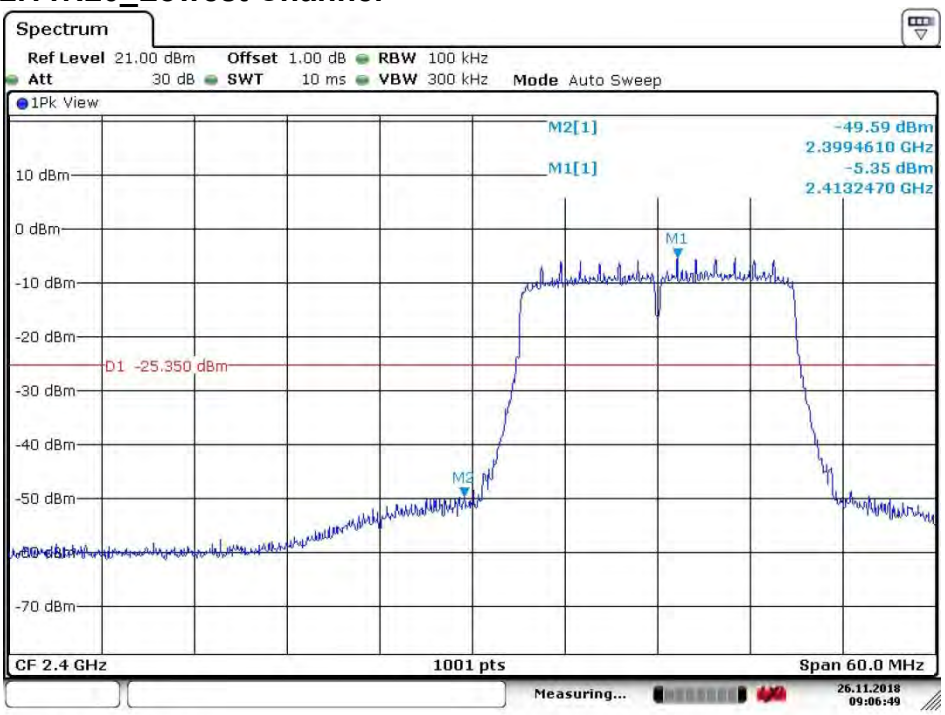
Date: 26.NOV.2018 09:15:52

4.7.1.1.6 802.11G_CDD_ Highest Channel



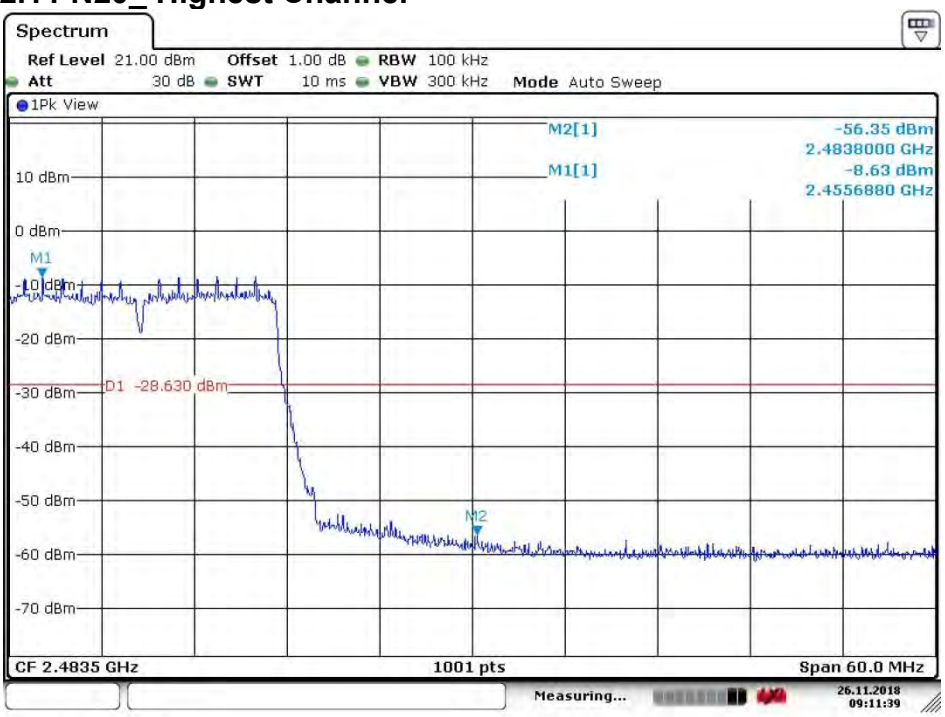
Date: 26.NOV.2018 09:13:11

4.7.1.1.7 802.11N20_Lowest Channel



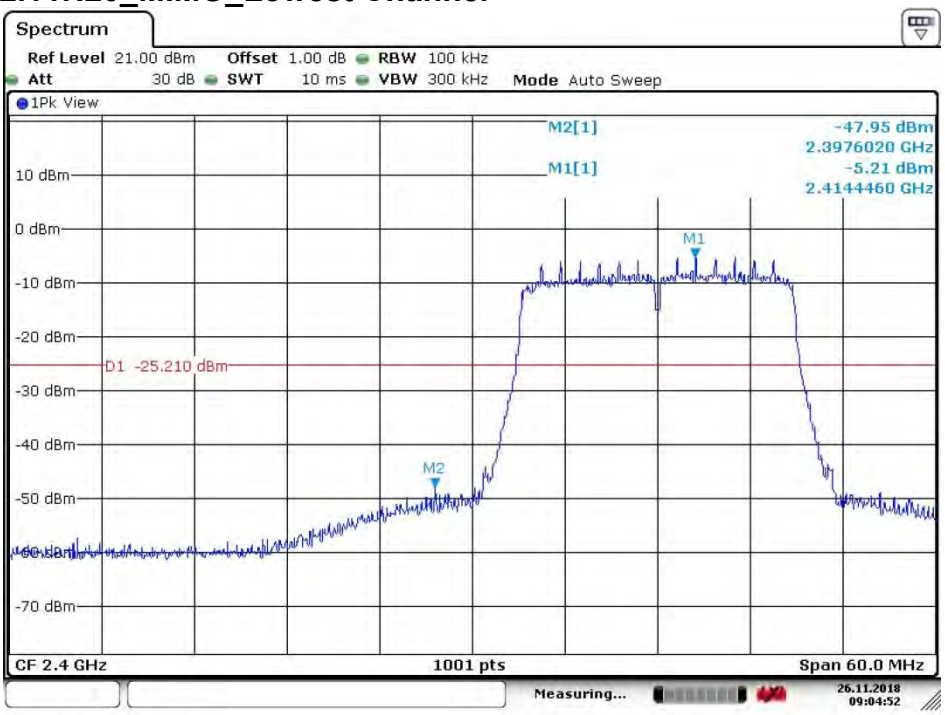
Date: 26.NOV.2018 09:06:48

4.7.1.1.8 802.11 N20_ Highest Channel



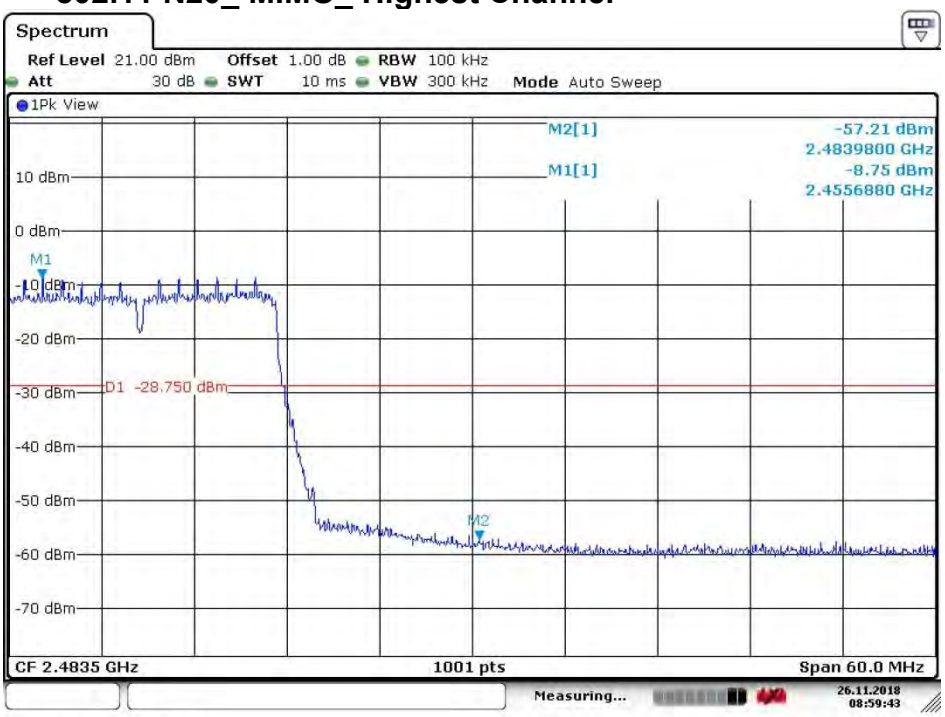
Date: 26.NOV.2018 09:11:39

4.7.1.1.9 802.11N20_MIMO_Lowest Channel



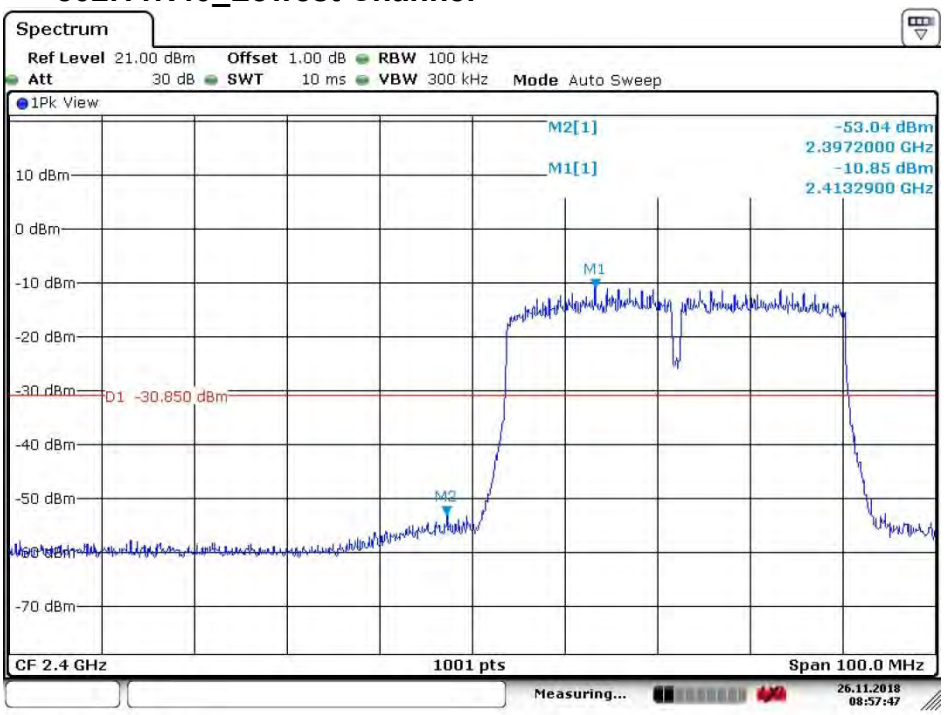
Date: 26.NOV.2018 09:04:53

4.7.1.1.10 802.11 N20_ MIMO_ Highest Channel



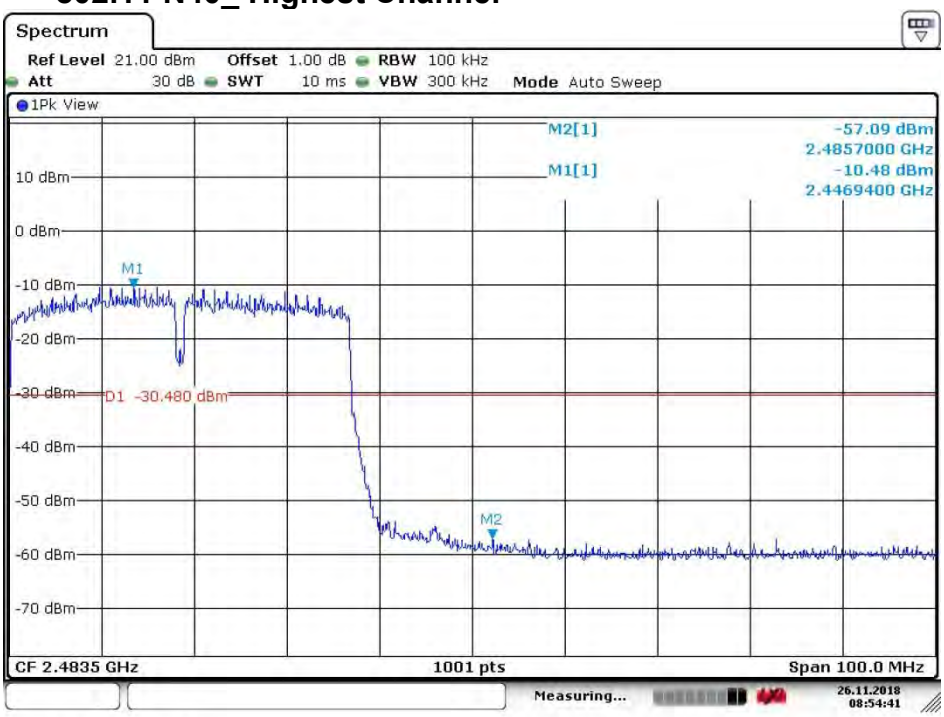
Date: 26.NOV.2018 08:59:43

4.7.1.1.11 802.11N40_Lowest Channel



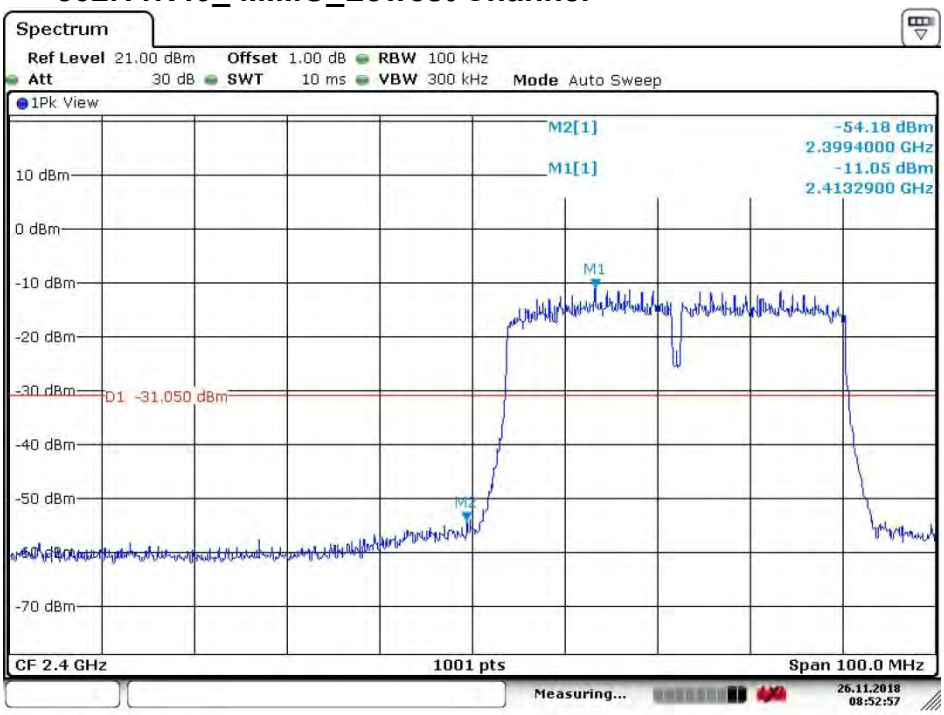
Date: 26.NOV.2018 08:57:47

4.7.1.1.12 802.11 N40_ Highest Channel



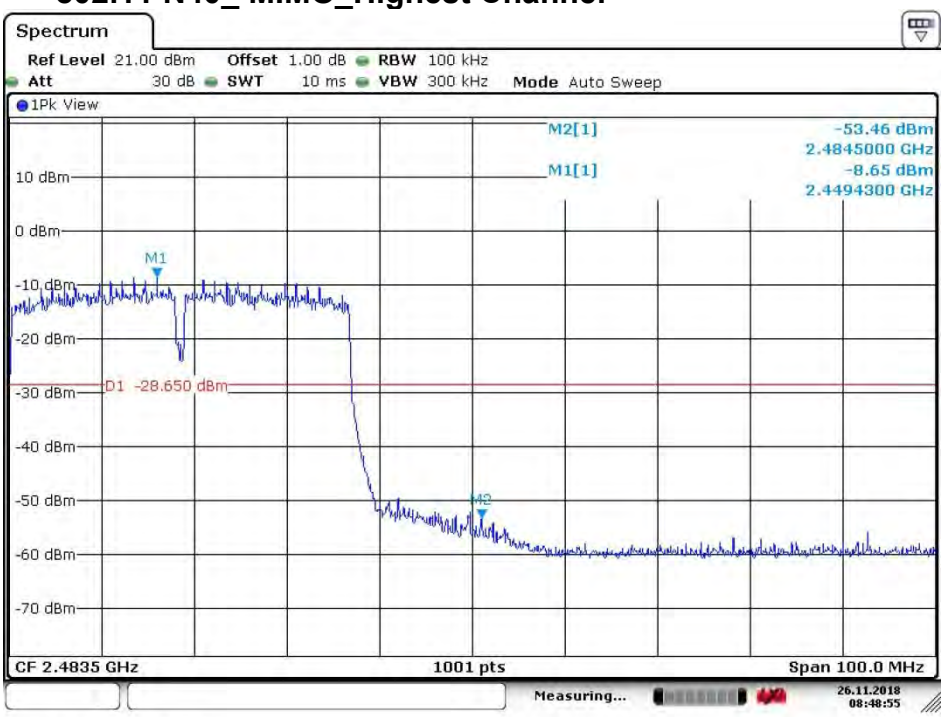
Date: 26.NOV.2018 08:54:42

4.7.1.1.13 802.11N40_ MIMO_Lowest Channel



Date: 26.NOV.2018 08:52:57

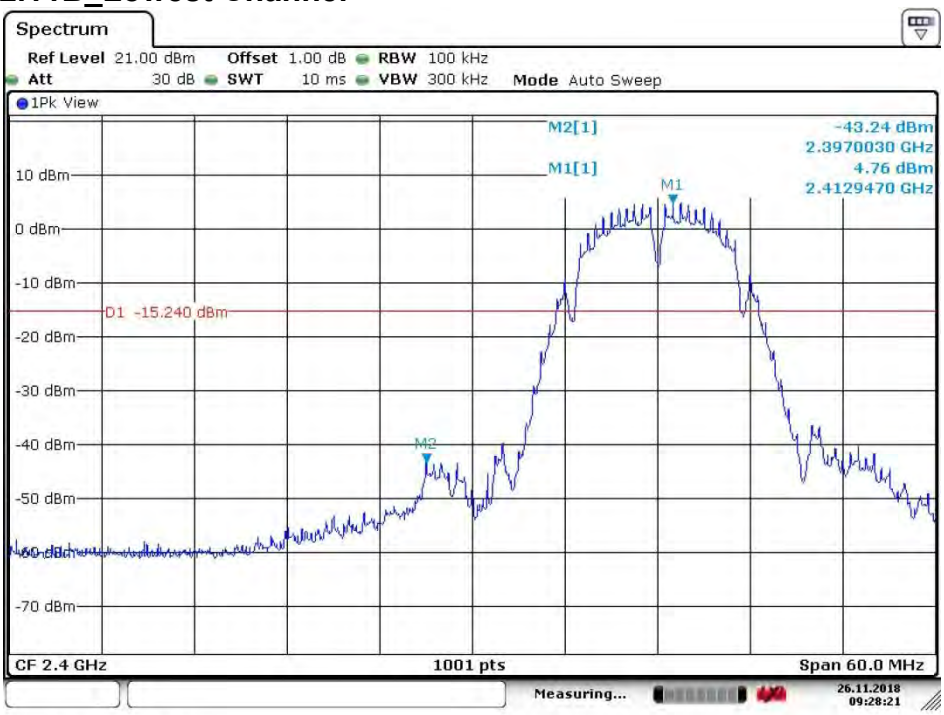
4.7.1.1.14 802.11 N40_ MIMO_Highest Channel



Date: 26.NOV.2018 08:48:55

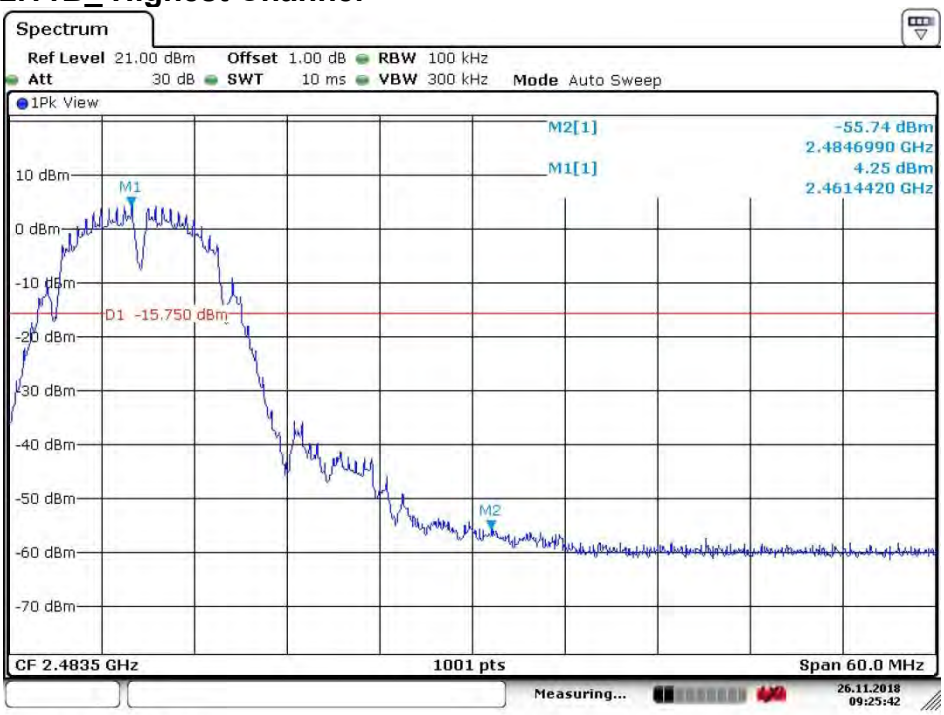
4.7.1.2 ANT2:

4.7.1.2.1 802.11B_Lowest Channel



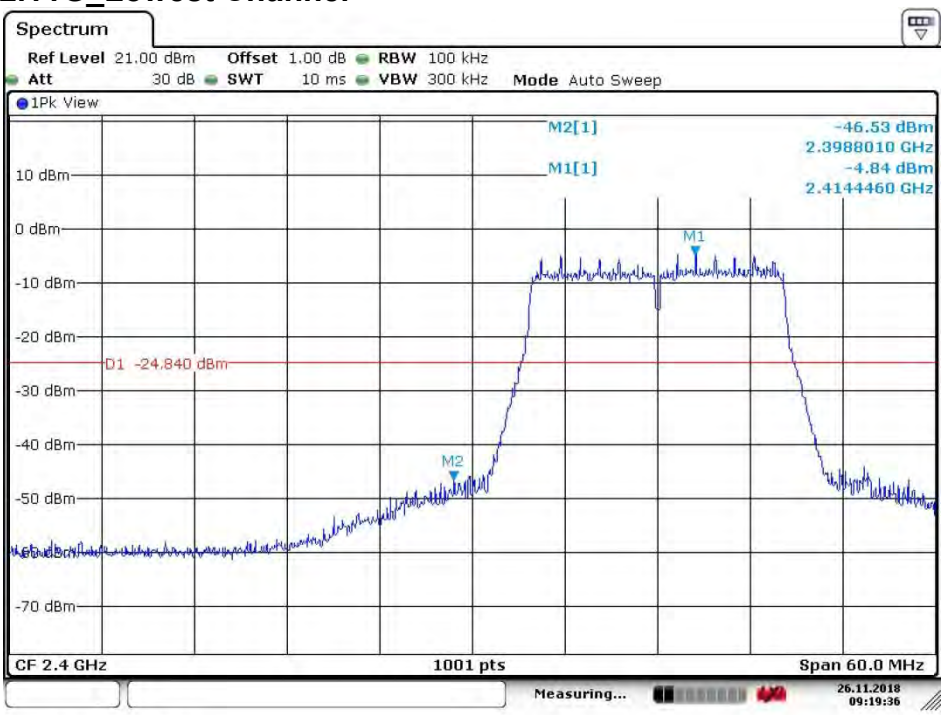
Date: 26.NOV.2018 09:28:22

4.7.1.2.2 802.11B_ Highest Channel



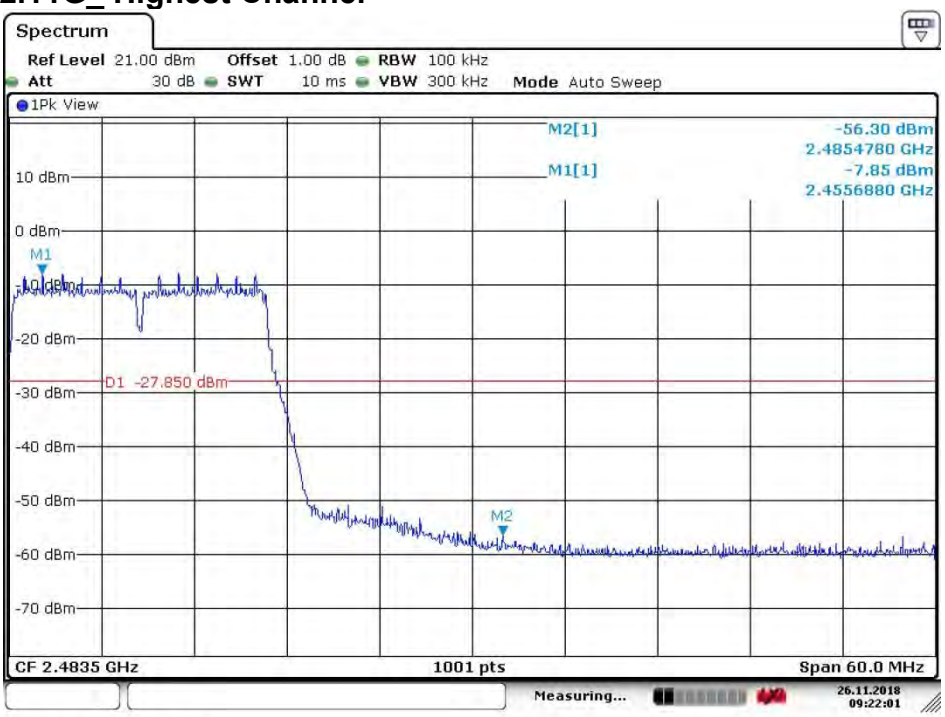
Date: 26.NOV.2018 09:25:43

4.7.1.2.3 802.11G_Lowest Channel



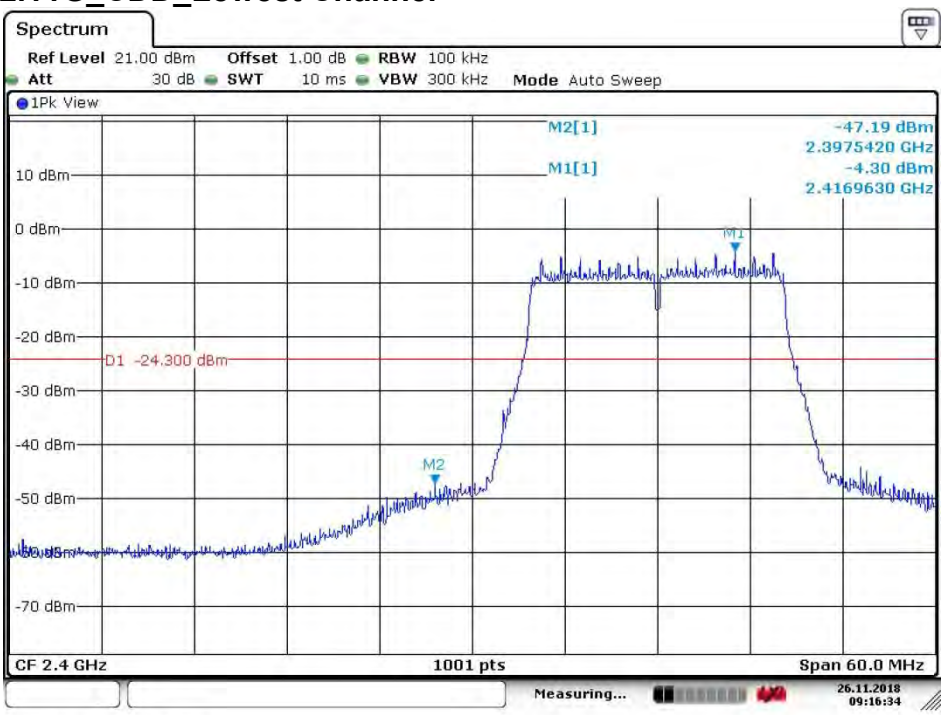
Date: 26.NOV.2018 09:19:37

4.7.1.2.4 802.11G_ Highest Channel



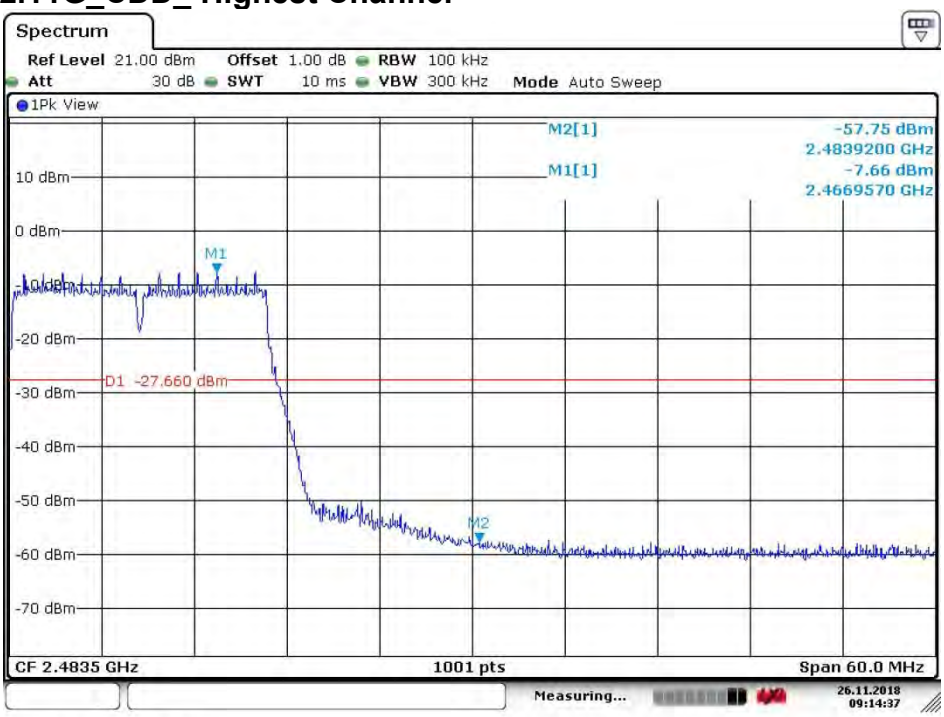
Date: 26.NOV.2018 09:22:01

4.7.1.2.5 802.11G_CDD_Lowest Channel



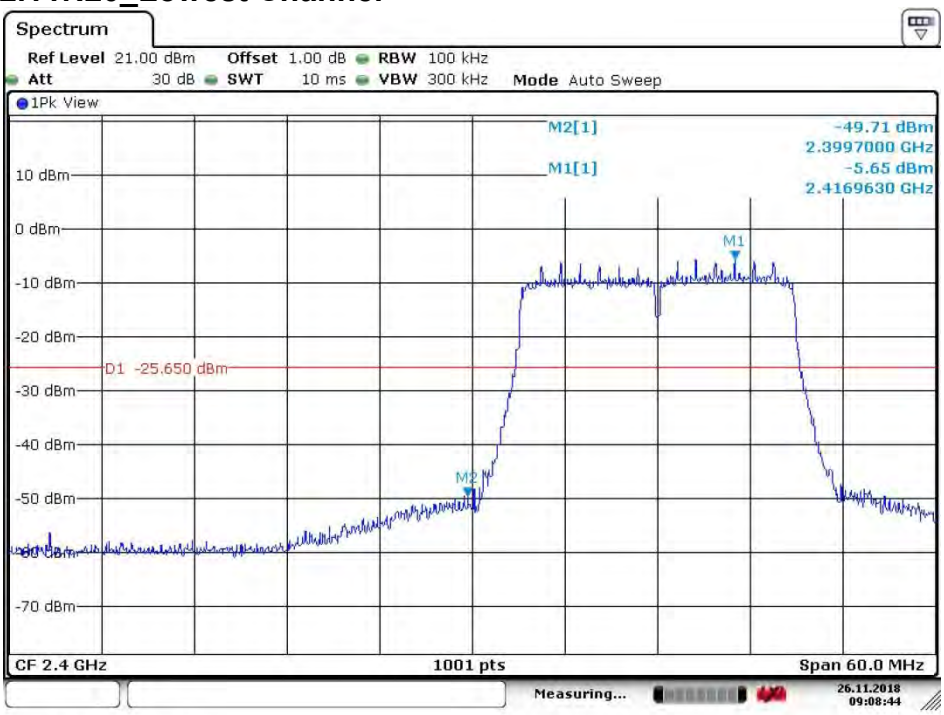
Date: 26.NOV.2018 09:16:34

4.7.1.2.6 802.11G_CDD_ Highest Channel



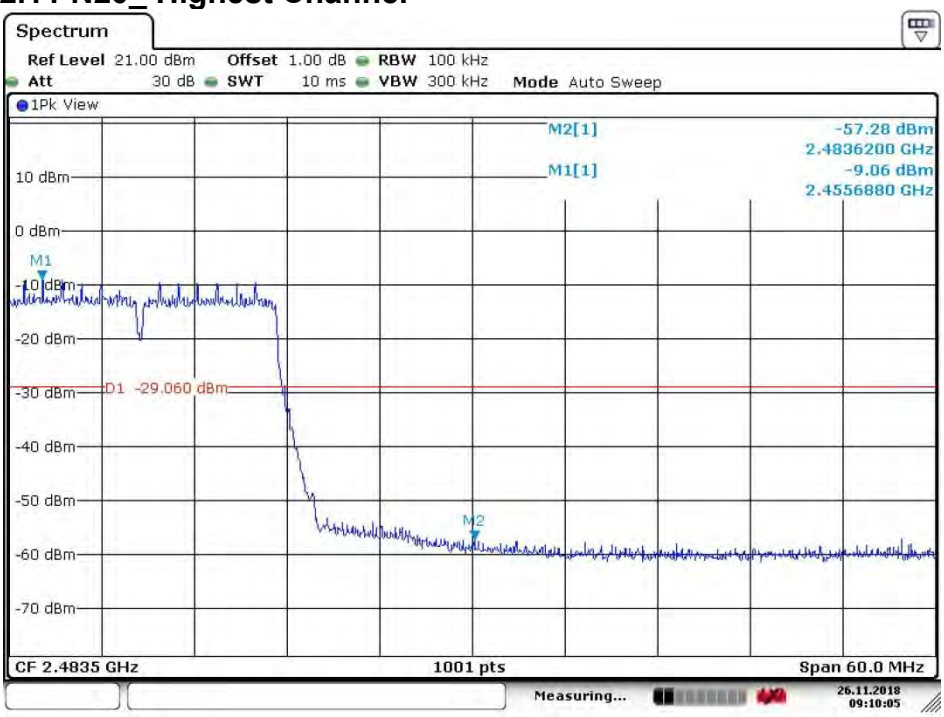
Date: 26.NOV.2018 09:14:37

4.7.1.2.7 802.11N20_Lowest Channel



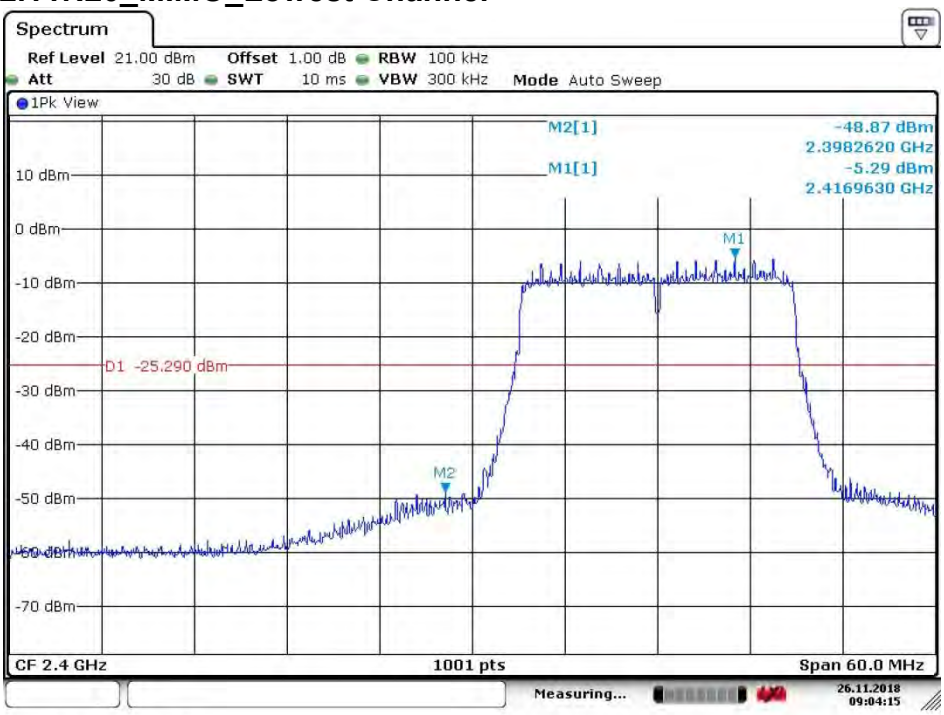
Date: 26.NOV.2018 09:08:44

4.7.1.2.8 802.11 N20_ Highest Channel



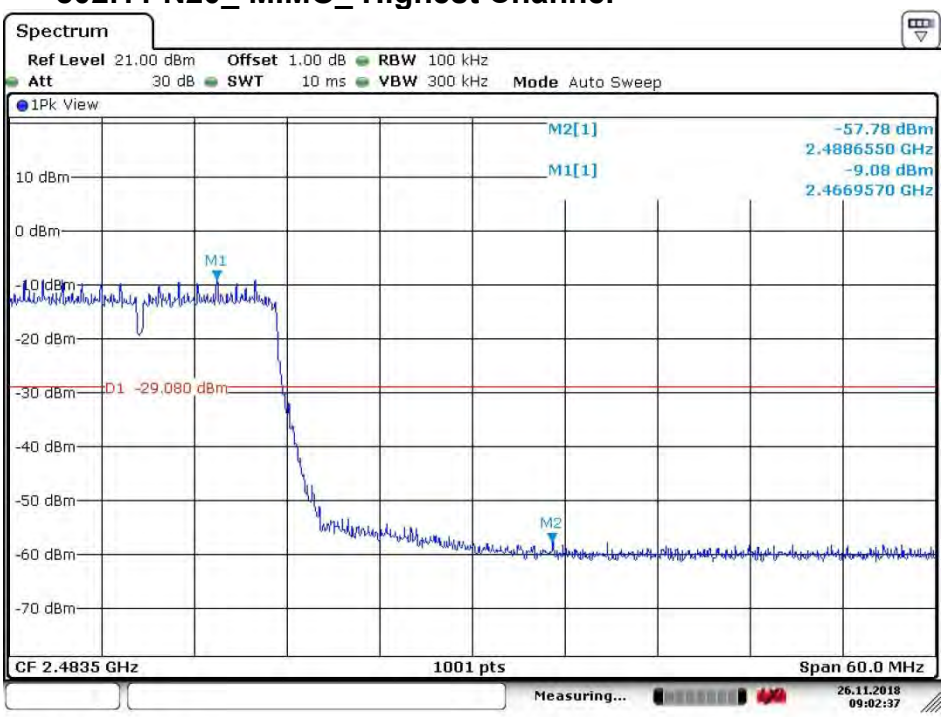
Date: 26.NOV.2018 09:10:05

4.7.1.2.9 802.11N20_MIMO_Lowest Channel



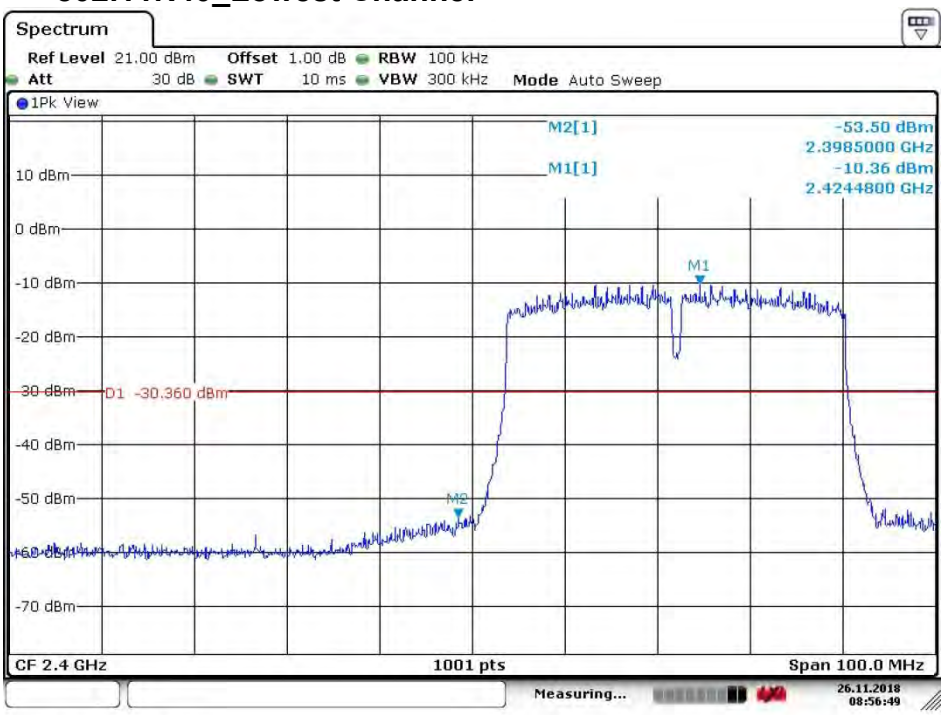
Date: 26.NOV.2018 09:04:16

4.7.1.2.10 802.11 N20_ MIMO_ Highest Channel



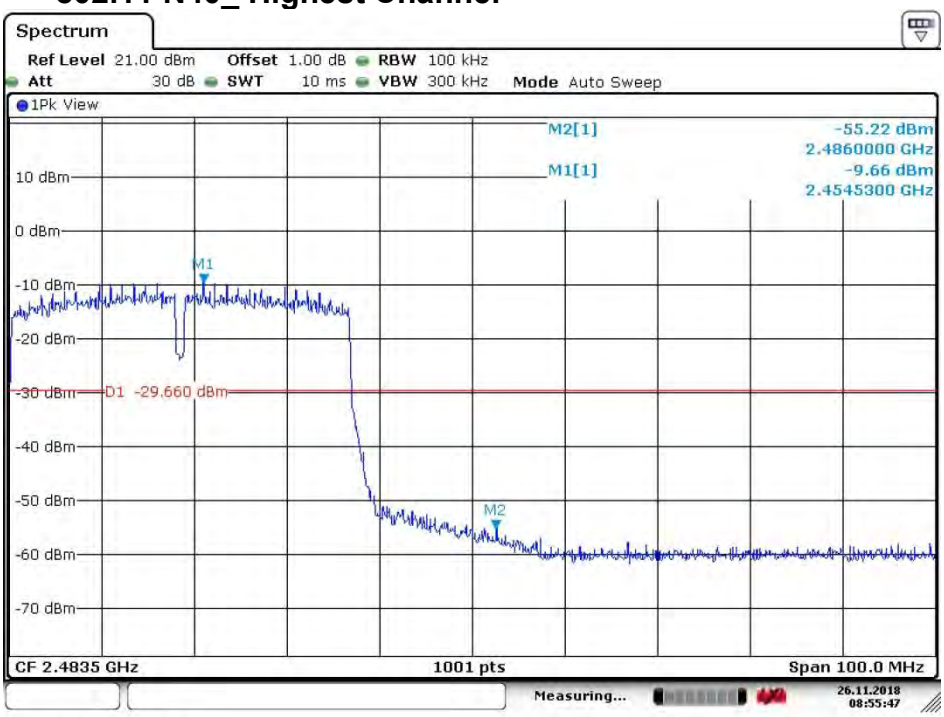
Date: 26.NOV.2018 09:02:38

4.7.1.2.11 802.11N40_Lowest Channel



Date: 26.NOV.2018 08:56:50

4.7.1.2.12 802.11 N40_ Highest Channel



Date: 26.NOV.2018 08:55:48