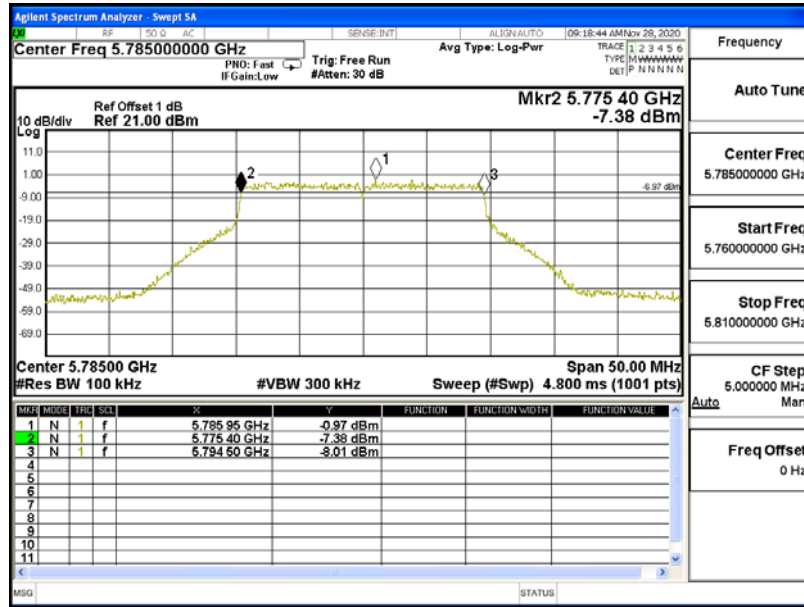


Product : Notebook Computers
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 23: MIMO: Transmit (802.11ax-20BW_17.2Mbps) (5785MHz)

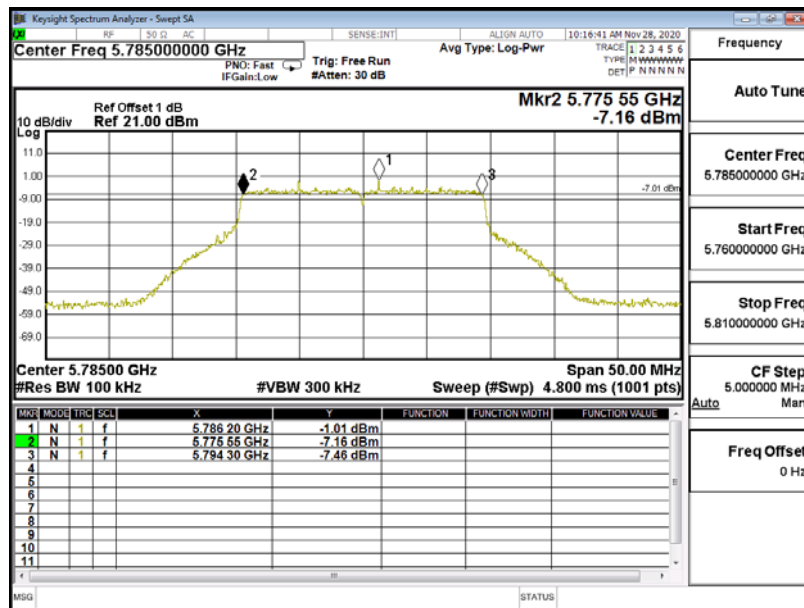
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785	19100	>500	Pass

Figure Channel 157: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785	18750	>500	Pass

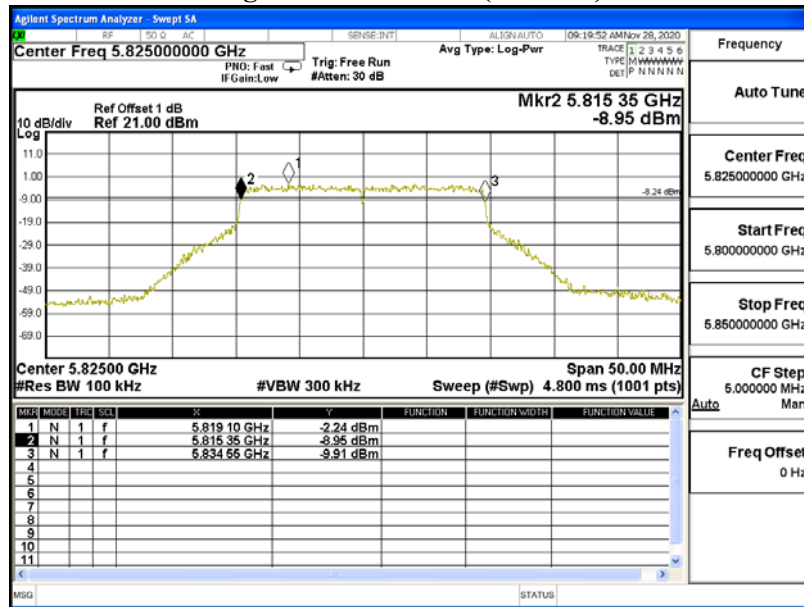
Figure Channel 157: (Chain B)



Product : Notebook Computers
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 23: MIMO: Transmit (802.11ax-20BW_17.2Mbps) (5825MHz)

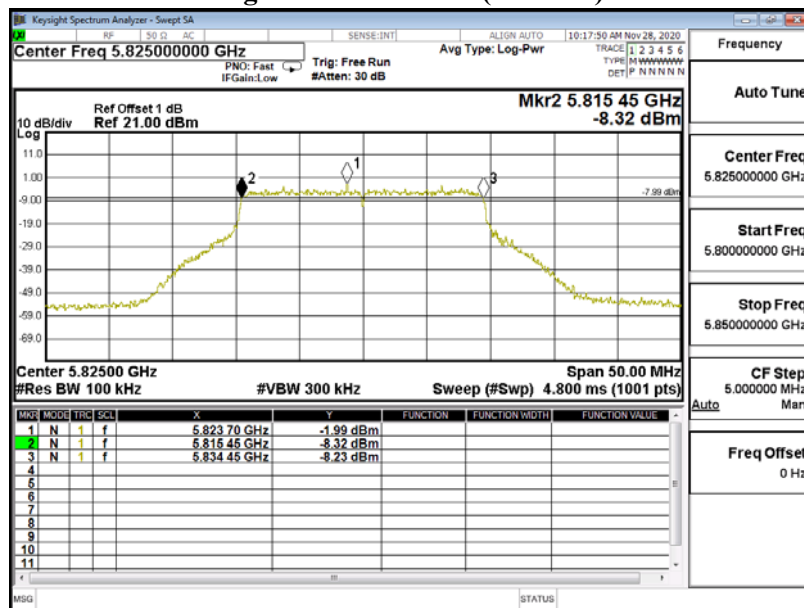
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825	19200	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825	19000	>500	Pass

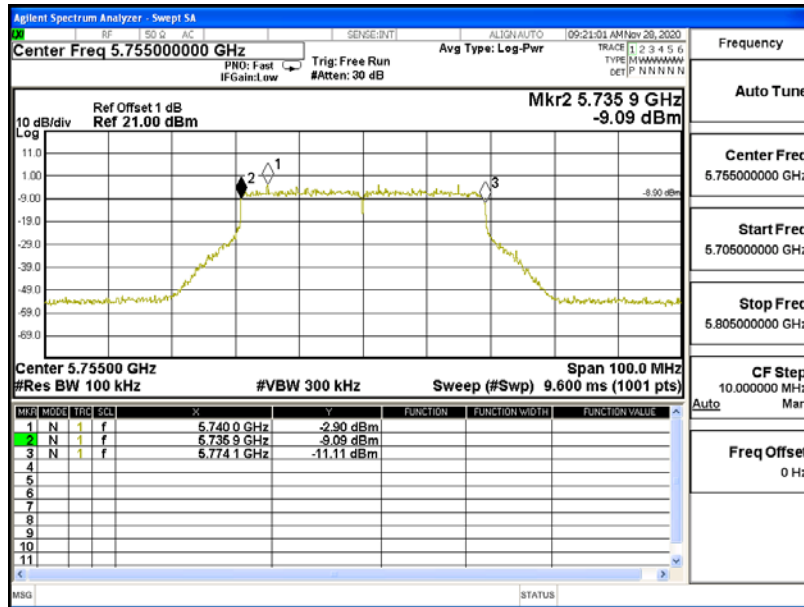
Figure Channel 165: (Chain B)



Product : Notebook Computers
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 24: MIMO: Transmit (802.11ax-40BW_34.4Mbps) (5755MHz)

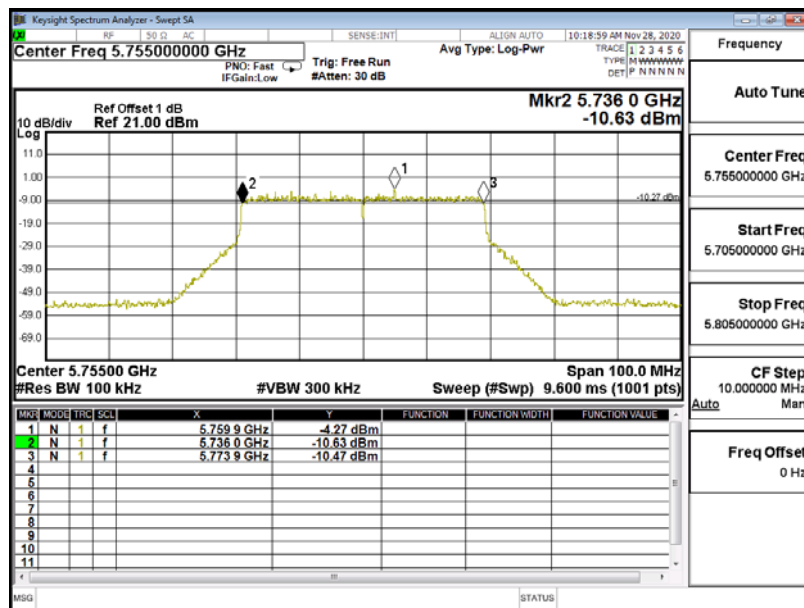
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	38200	>500	Pass

Figure Channel 151: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	37900	>500	Pass

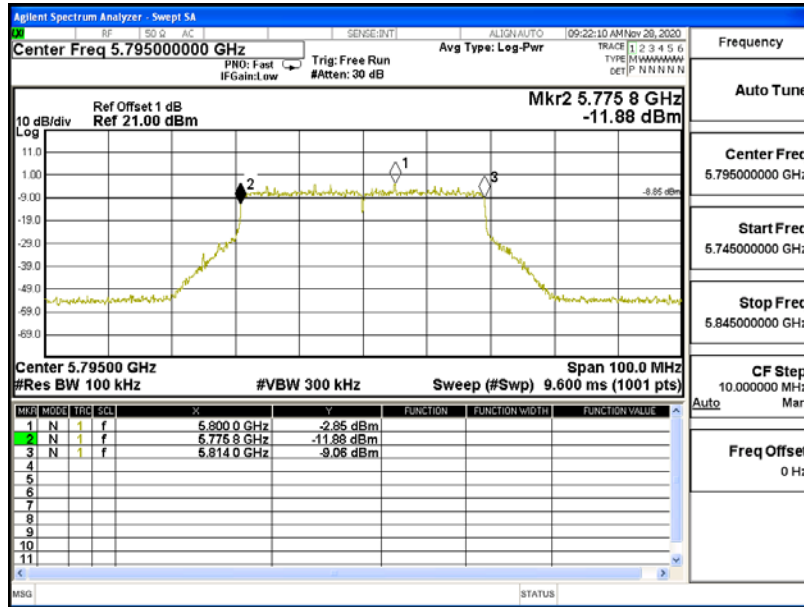
Figure Channel 151: (Chain B)



Product : Notebook Computers
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 24: MIMO: Transmit (802.11ax-40BW_34.4Mbps) (5795MHz)

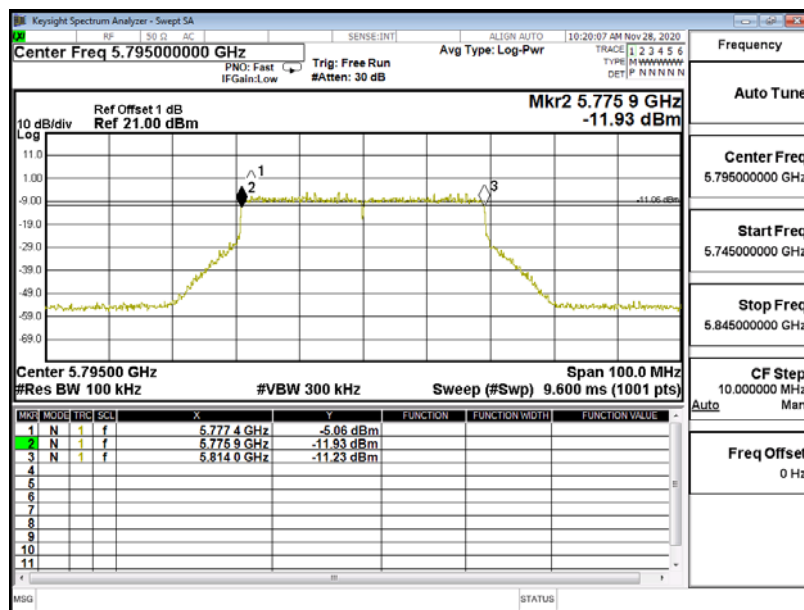
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795	38200	>500	Pass

Figure Channel 159: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795	38100	>500	Pass

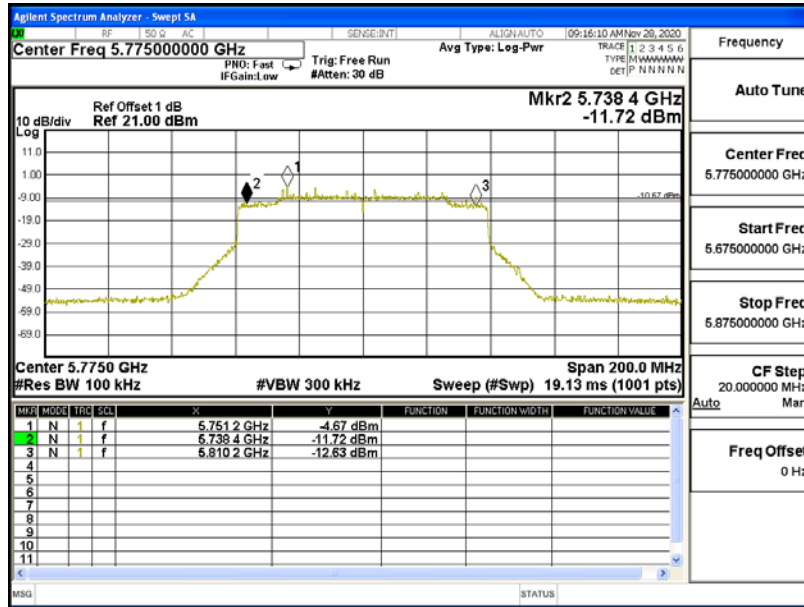
Figure Channel 159: (Chain B)



Product : Notebook Computers
 Test Item : Occupied Bandwidth Data
 Test Mode : Mode 25: MIMO: Transmit (802.11ax-80BW_72.1Mbps) (5775MHz)

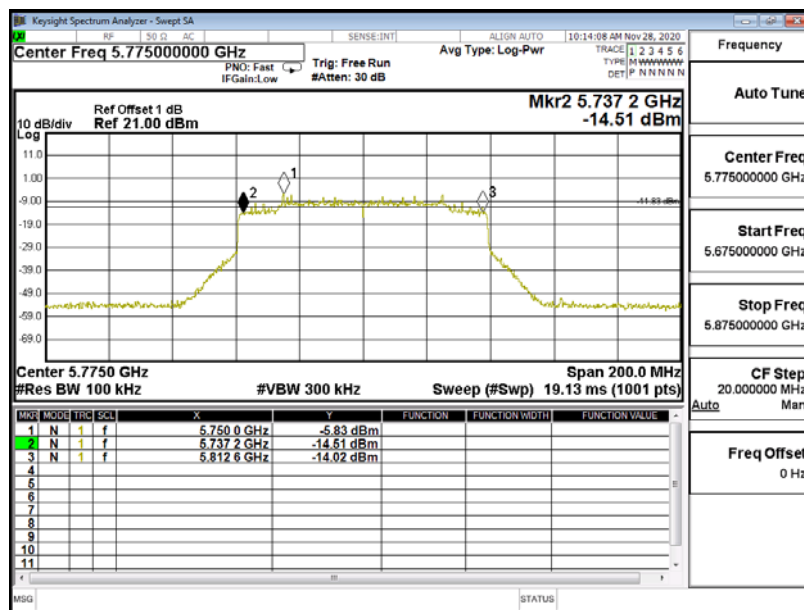
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775	71800	>500	Pass

Figure Channel 155: (Chain A)



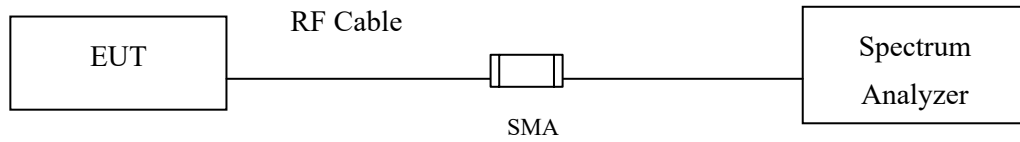
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775	75400	>500	Pass

Figure Channel 155: (Chain B)



8. Duty Cycle

8.1. Test Setup



8.2. Test Procedure

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

8.3. Test Result of Duty Cycle

Product : Notebook Computers
 Test Item : Duty Cycle
 Test Mode : Transmit

Duty Cycle Formula:

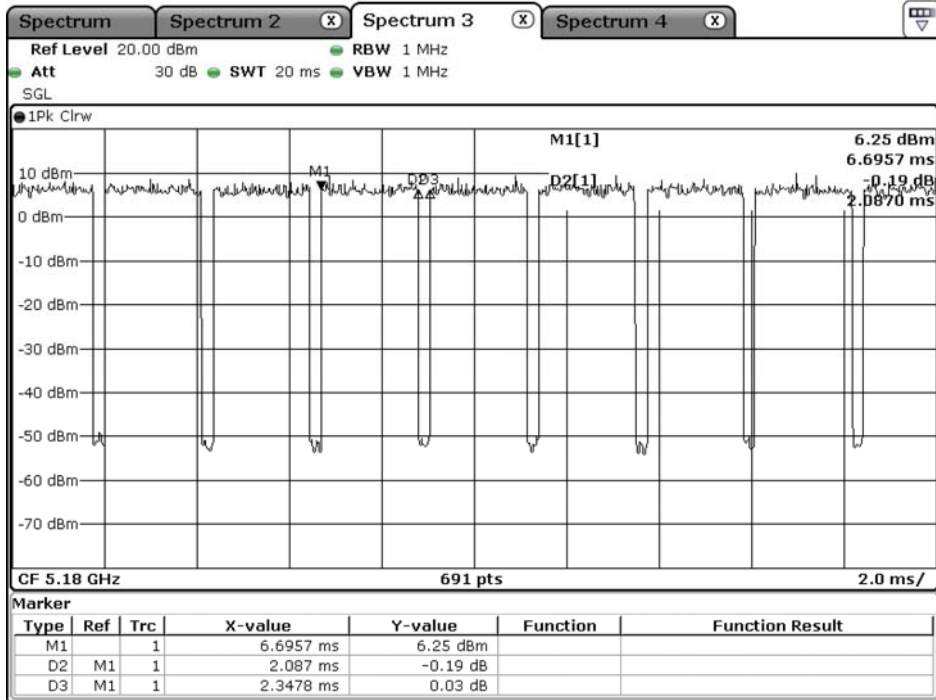
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results: SISO A

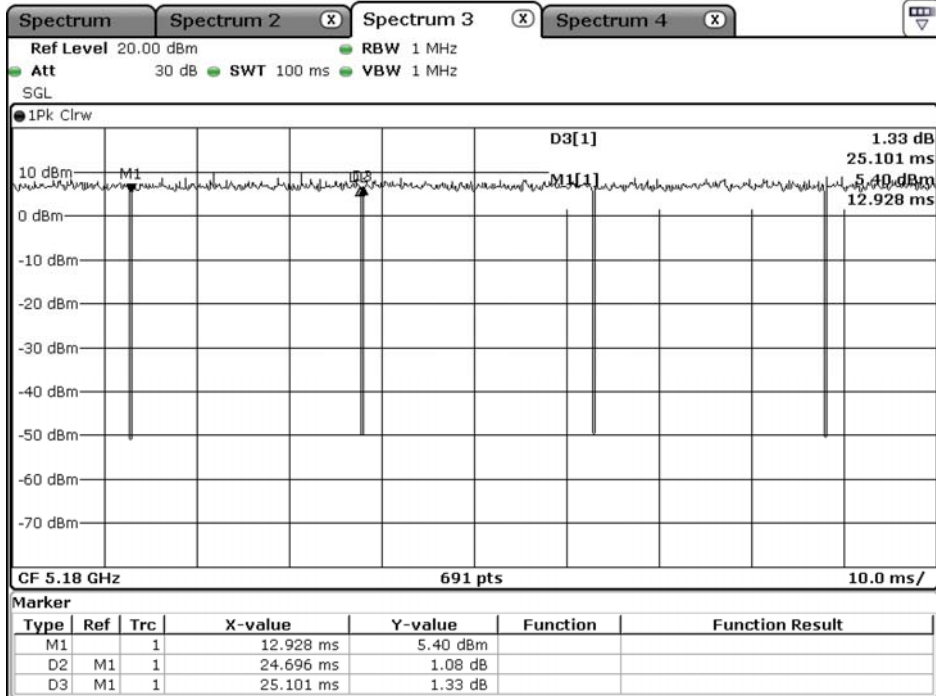
5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11 a	2.0870	2.3478	88.89	0.51
802.11 n20	24.6960	25.1010	98.39	0.07
802.11 n40	17.8480	18.1450	98.36	0.07
802.11 ac80	10.8913	11.2609	96.72	0.14
802.11 ac160	5.5362	5.7971	95.50	0.20
802.11 ax20	24.8040	25.1740	98.53	0.06
802.11 ax40	18.6160	18.8840	98.58	0.06
802.11 ax80	8.8333	9.2464	95.53	0.20
802.11 ax160	4.5217	4.7826	94.54	0.24
802.11 ax20-26/0-RU	3.9348	4.0652	96.79	0.14
802.11 ax20-52/37-RU	3.8913	4.0652	95.72	0.19
802.11 ax20-106/53-RU	3.9565	4.0870	96.81	0.14
802.11 ax40-242/61-RU	3.9565	4.0652	97.33	0.12
802.11 ax80-484/65-RU	3.9348	4.0652	96.79	0.14
802.11 ax160-996/67-RU	3.9783	4.0652	97.86	0.09

802.11a - SISOA



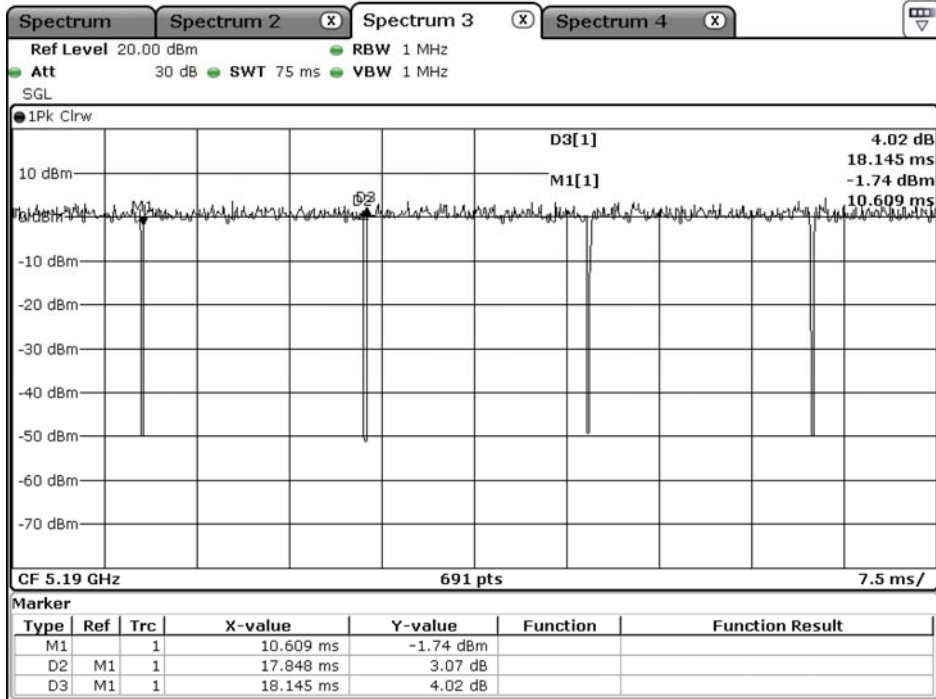
Date: 14.NOV.2020 15:32:26

802.11 n20 - SISOA



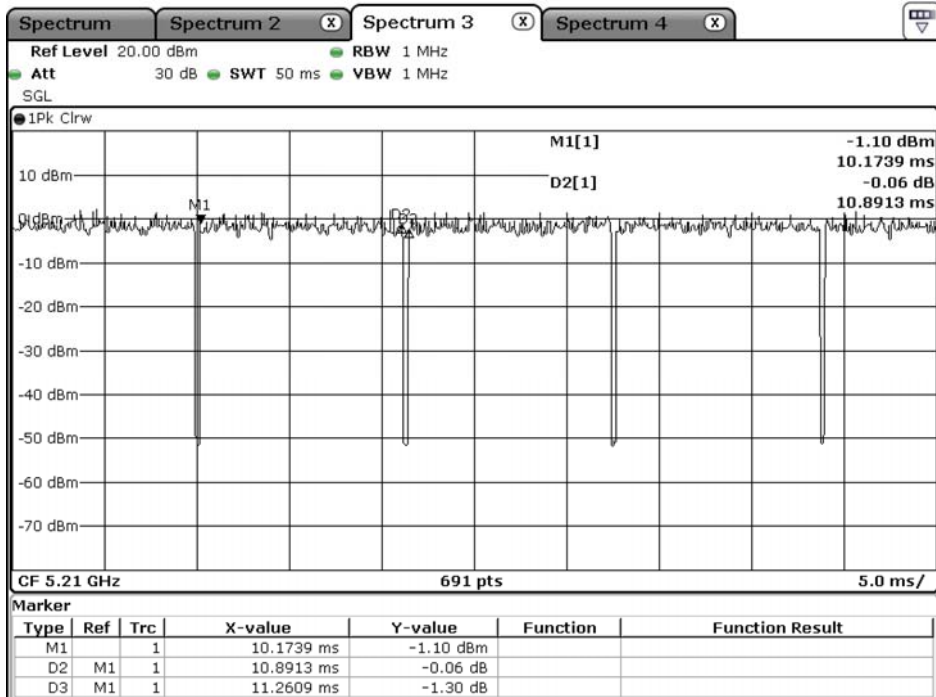
Date: 14.NOV.2020 15:33:37

802.11 n40 - SISOA



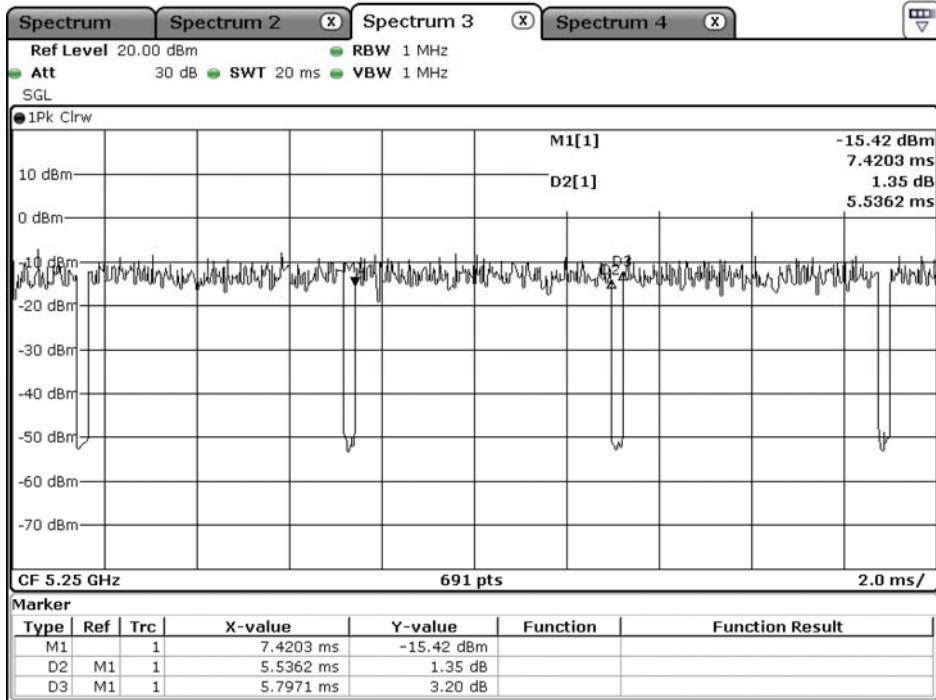
Date: 14.NOV.2020 15:34:38

802.11 ac80 - SISOA



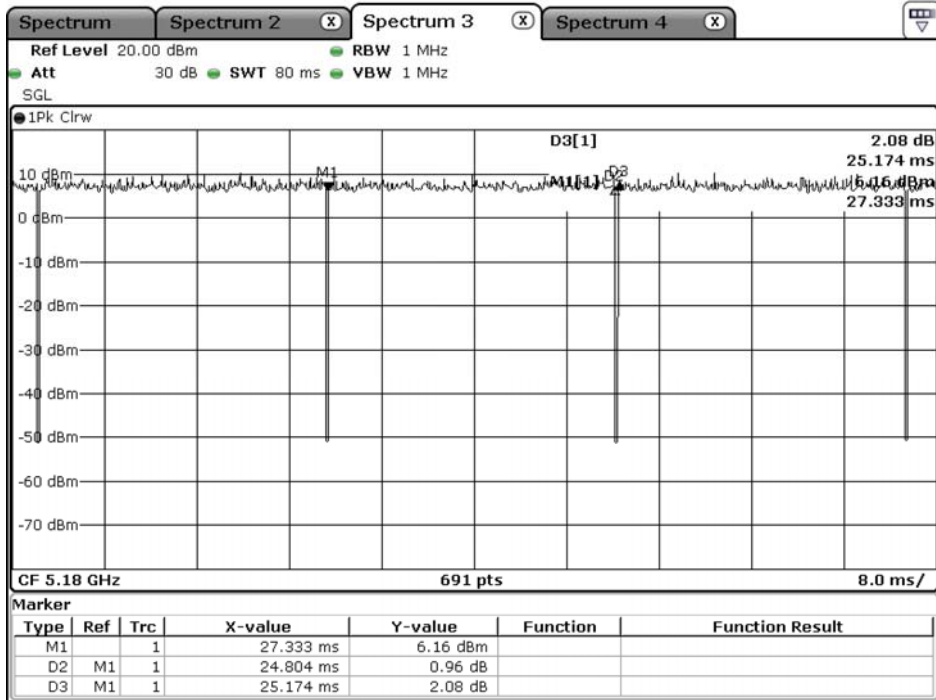
Date: 14.NOV.2020 15:35:21

802.11 ac160 - SISOA



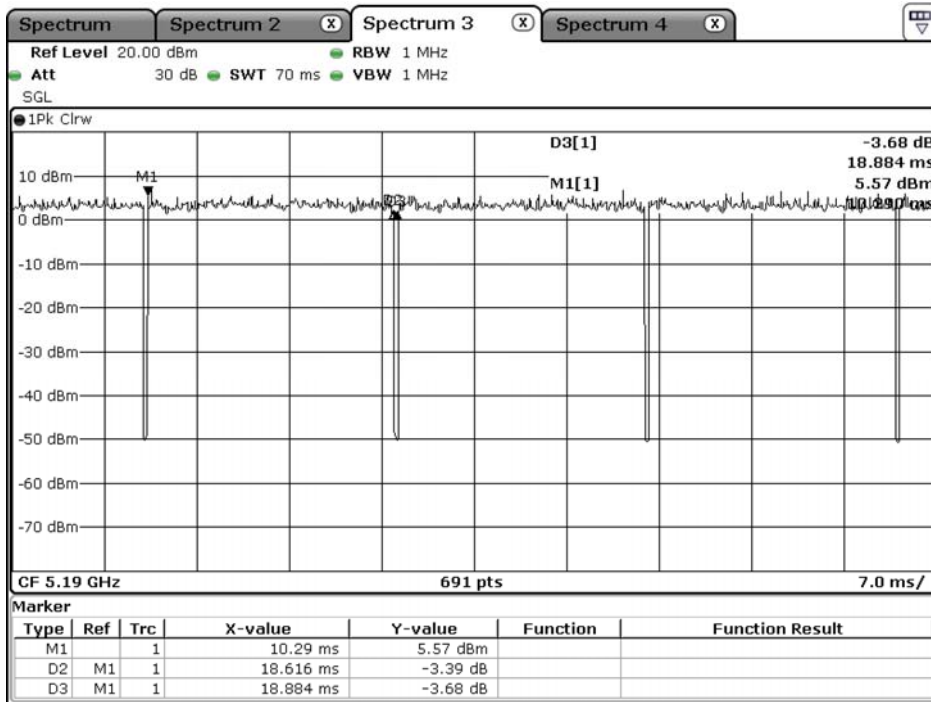
Date: 14.NOV.2020 15:42:29

802.11 ax20 - SISOA



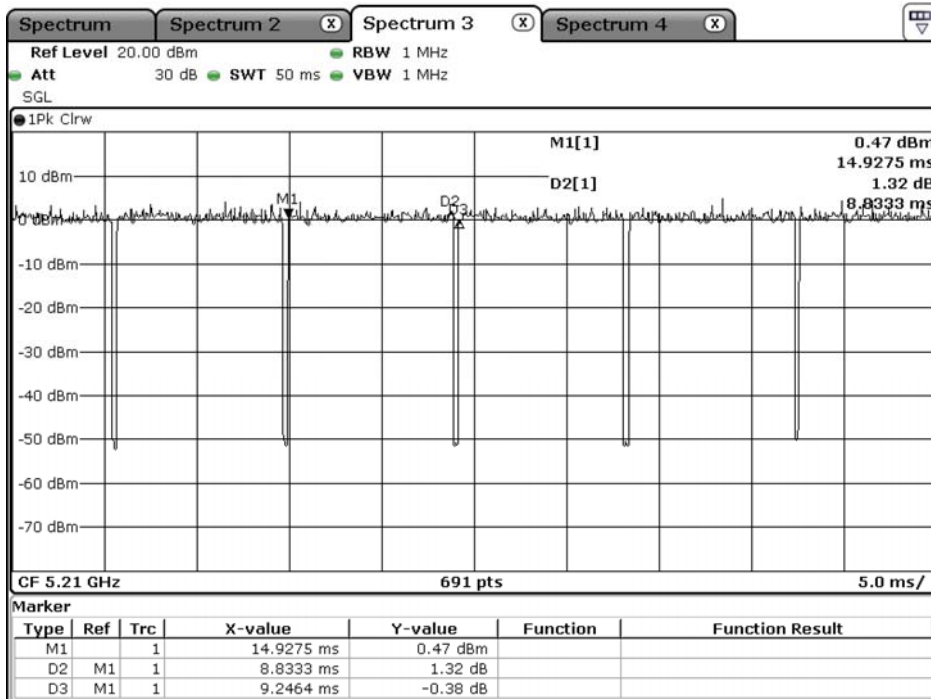
Date: 14.NOV.2020 15:36:38

802.11 ax40 - SISOA



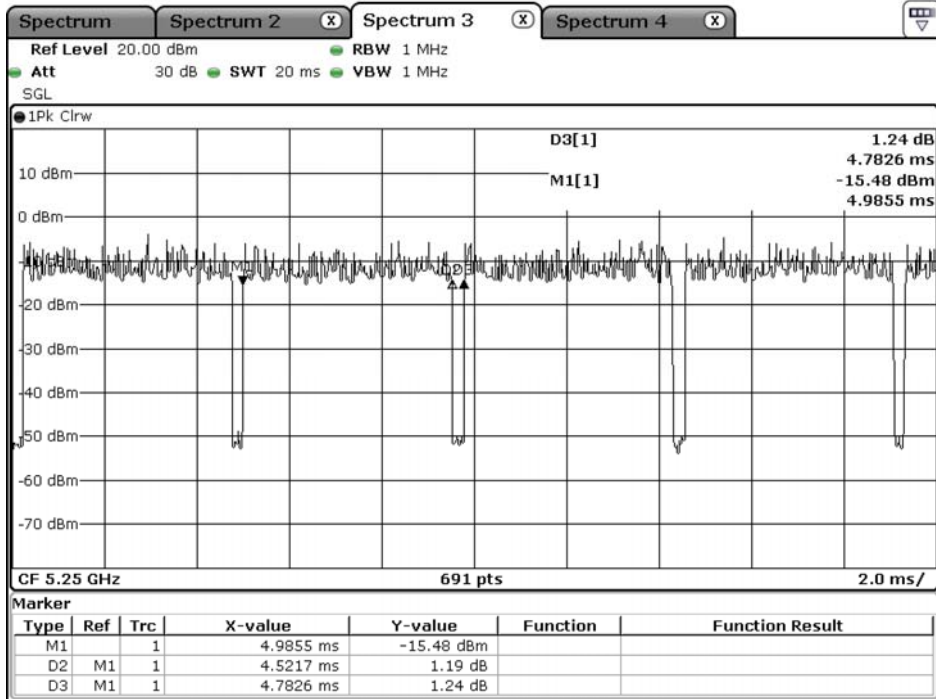
Date: 14.NOV.2020 15:39:15

802.11 ax80 - SISOA



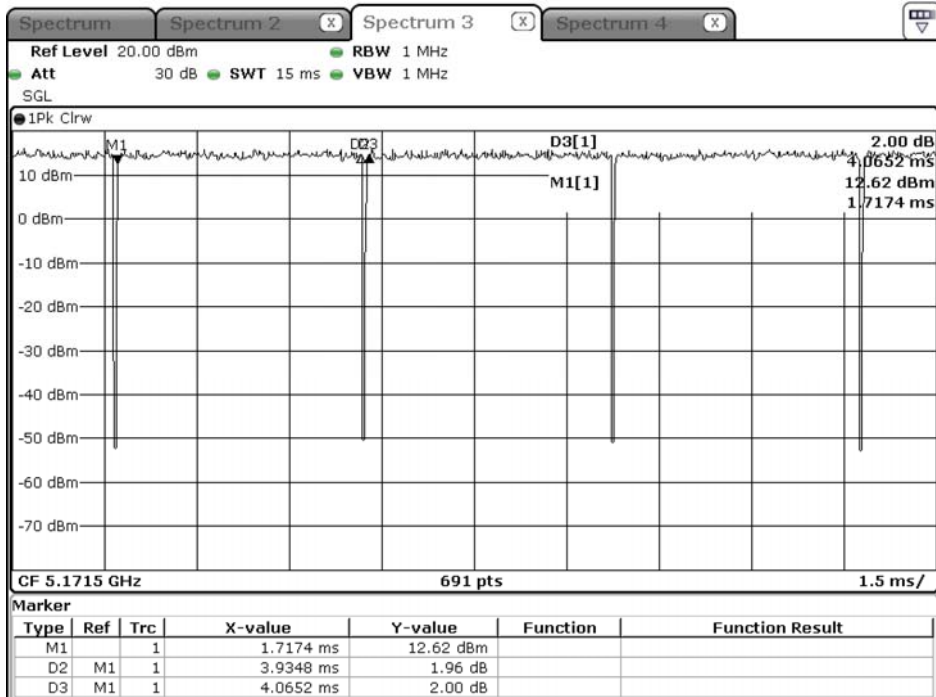
Date: 14.NOV.2020 15:40:40

802.11 ax160 - SISOA



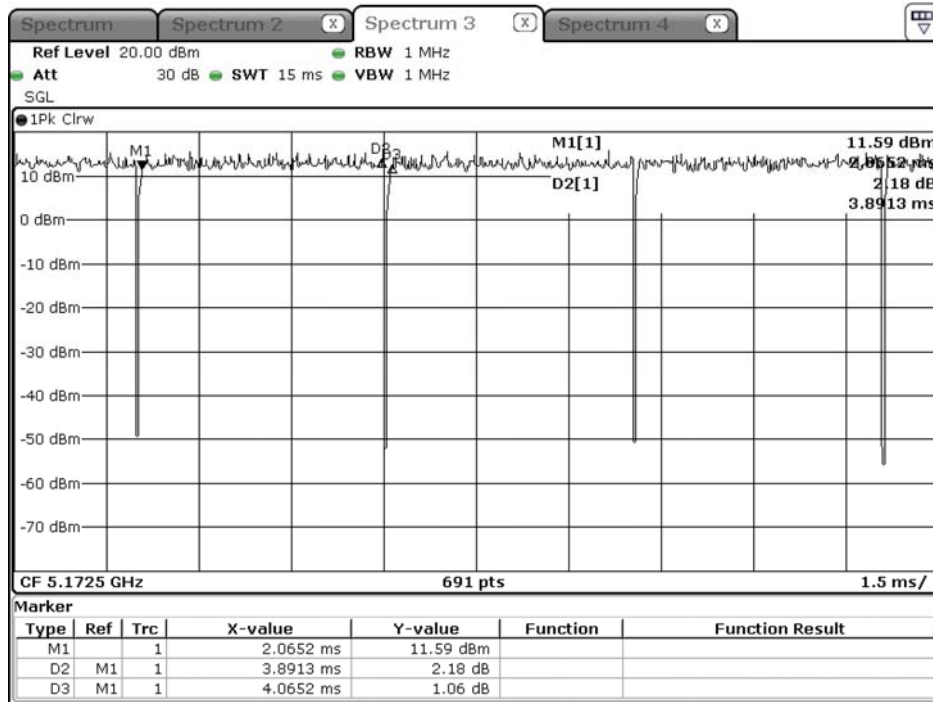
Date: 14.NOV.2020 15:41:44

802.11 ax20-26/0-RU - SISOA



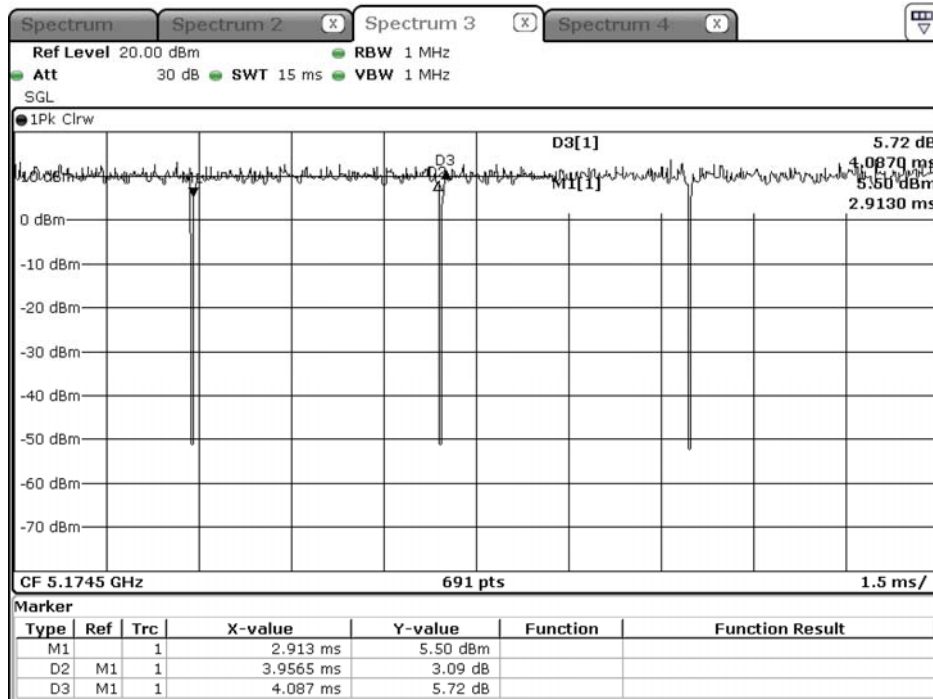
Date: 17.NOV.2020 13:36:36

802.11 ax20-52/37-RU - SISOA



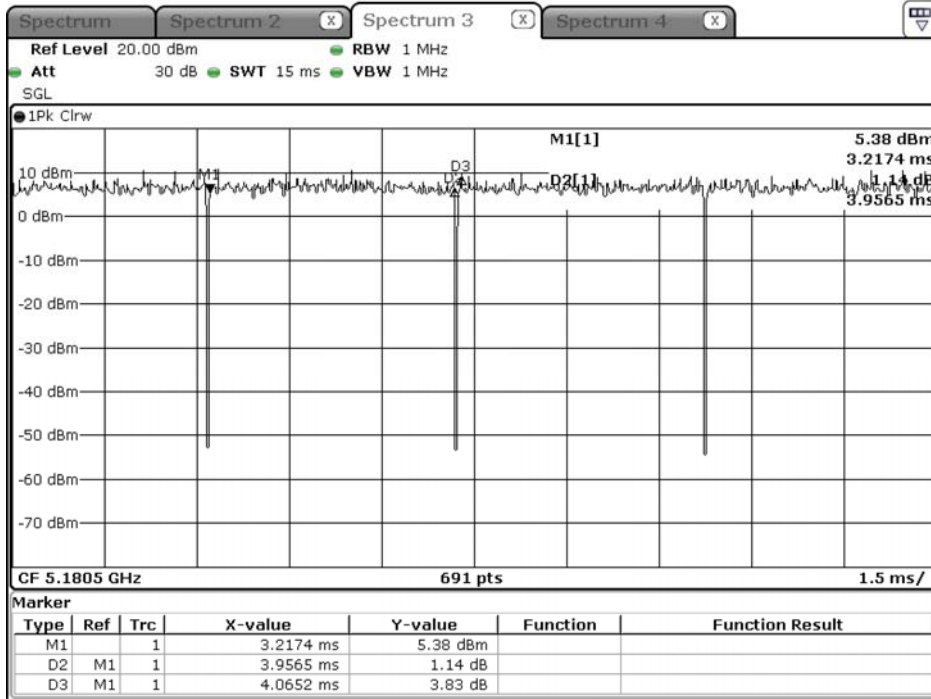
Date: 17.NOV.2020 13:35:21

802.11 ax20-106/53-RU - SISOA



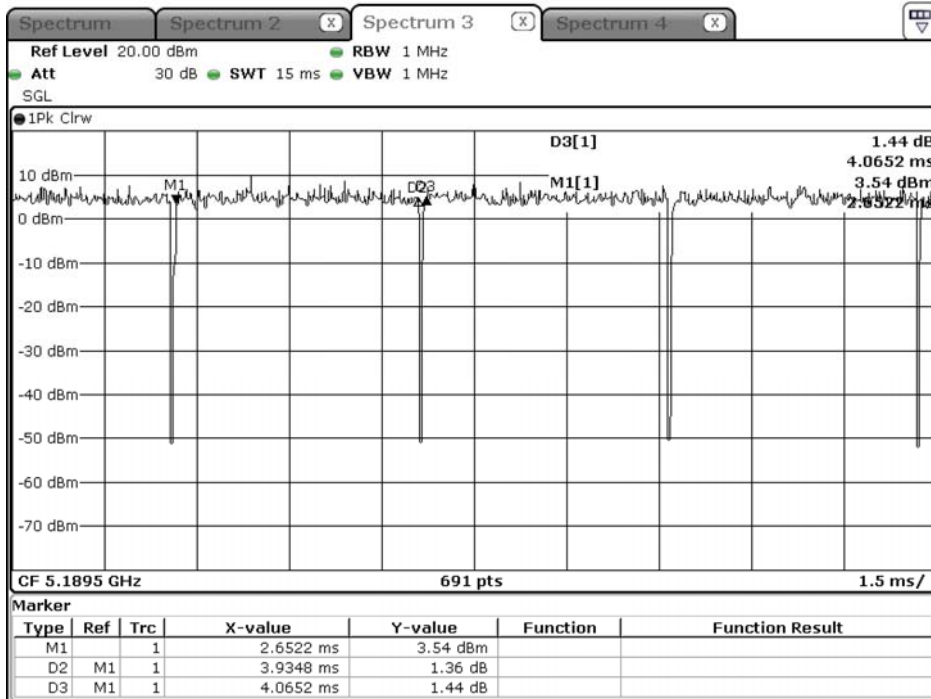
Date: 17.NOV.2020 13:34:30

802.11 ax40-242/61-RU - SISOA



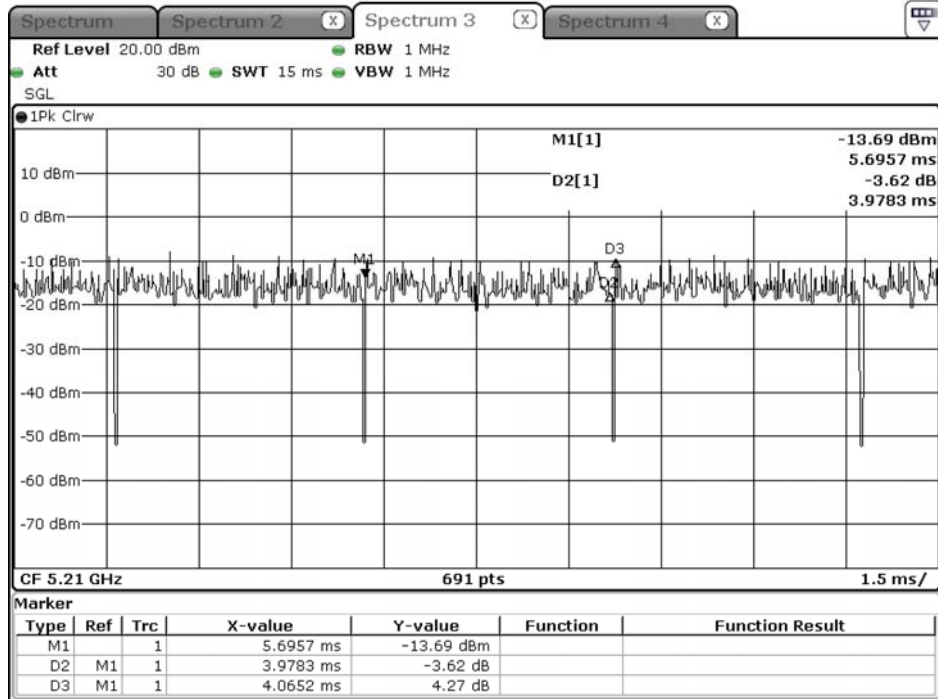
Date: 17.NOV.2020 13:33:36

802.11 ax80-484/65-RU - SISOA



Date: 17.NOV.2020 13:32:52

802.11 ax160-996/67-RU - SISOA



Date: 17.NOV.2020 13:31:03

Product : Notebook Computers
 Test Item : Duty Cycle
 Test Mode : Transmit

Duty Cycle Formula:

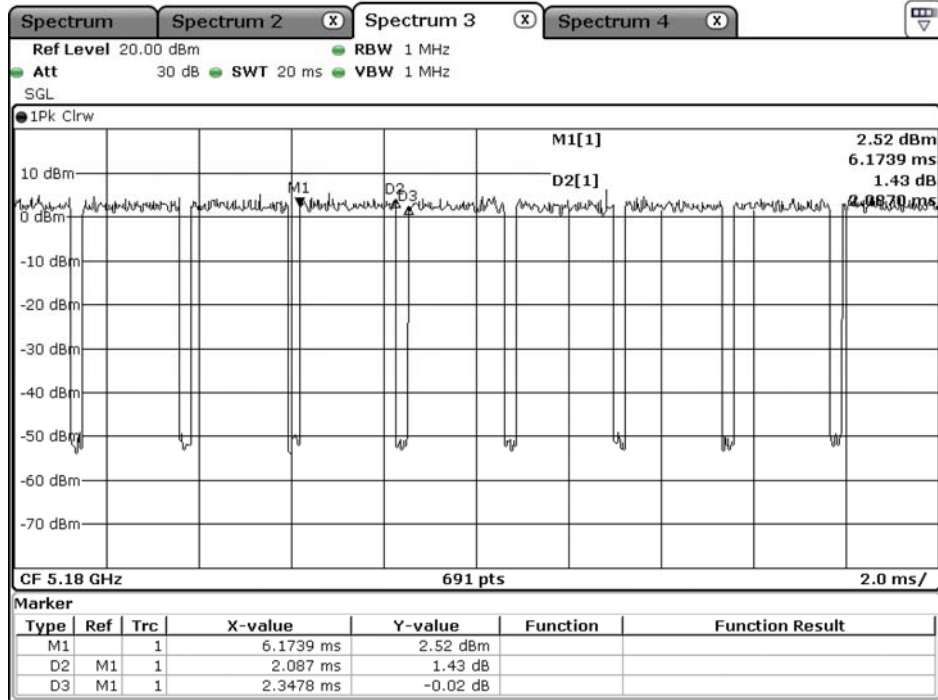
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results: SISO B

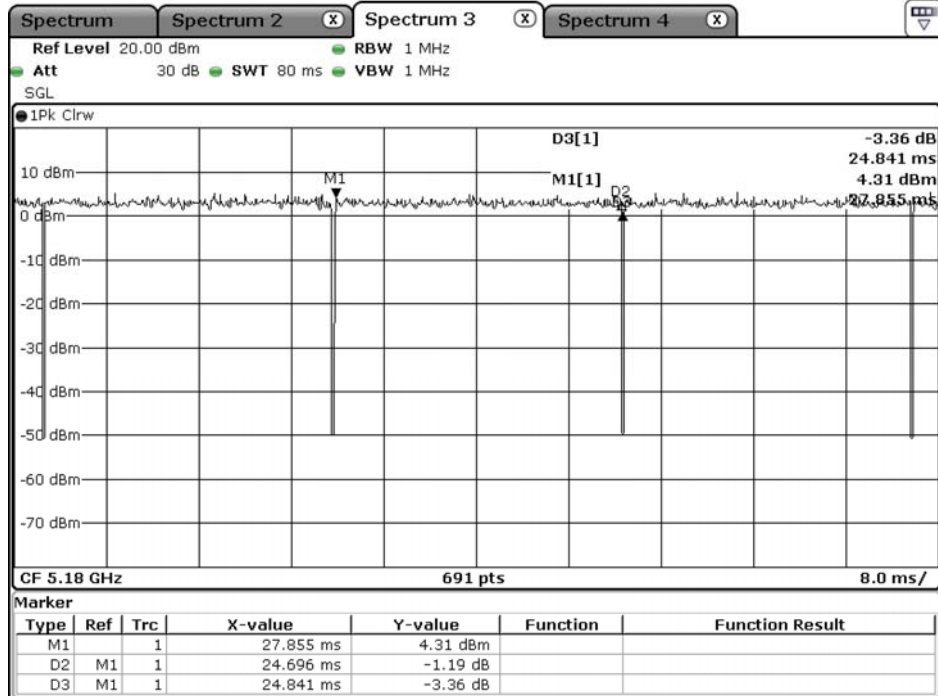
5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11 a	2.0870	2.3478	88.89	0.51
802.11 n20	24.6990	24.8410	99.43	0.02
802.11 n40	17.8990	18.3480	97.55	0.11
802.11 ac80	11.0145	11.3913	96.69	0.15
802.11 ac160	5.5652	5.8188	95.64	0.19
802.11 ax20	24.6090	25.1230	97.95	0.09
802.11 ax40	18.6090	18.9930	97.98	0.09
802.11 ax80	8.8188	9.2536	95.30	0.21
802.11 ax160	4.5217	4.7826	94.54	0.24
802.11 ax20-26/0-RU	3.9275	4.0580	96.78	0.14
802.11 ax20-52/37-RU	3.9275	4.0580	96.78	0.14
802.11 ax20-106/53-RU	3.9710	4.0580	97.86	0.09
802.11 ax40-242/61-RU	3.9275	4.0145	97.83	0.10
802.11 ax80-484/65-RU	3.9275	4.0580	96.78	0.14
802.11 ax160-996/67-RU	3.9058	4.0580	96.25	0.17

802.11a - SISOB



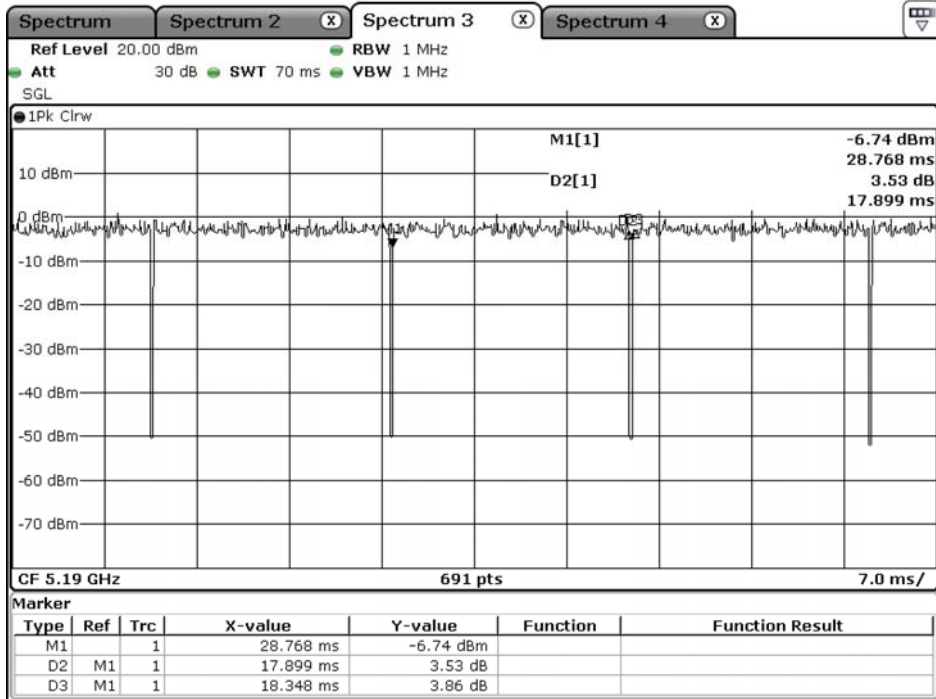
Date: 21.NOV.2020 06:21:35

802.11 n20 - SISOB



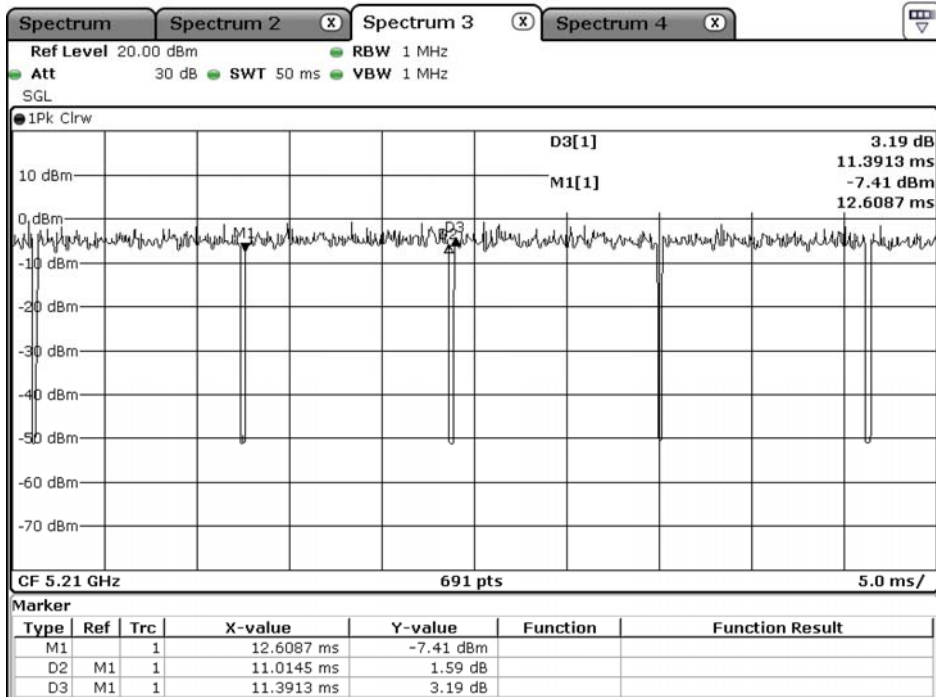
Date: 21.NOV.2020 06:22:52

802.11 n40 - SISOB



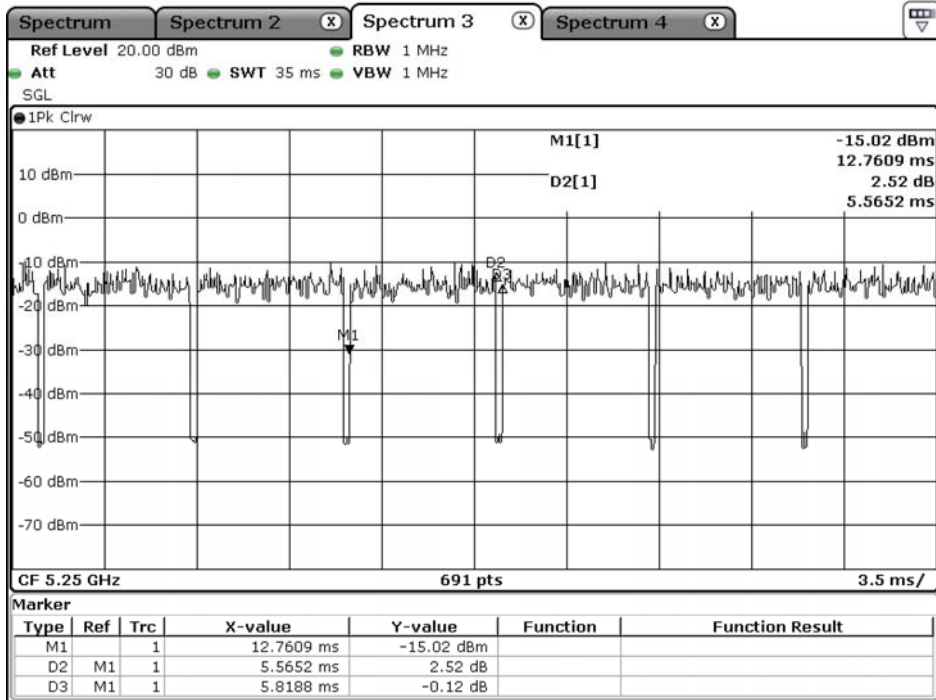
Date: 21.NOV.2020 06:23:36

802.11 ac80 - SISOB



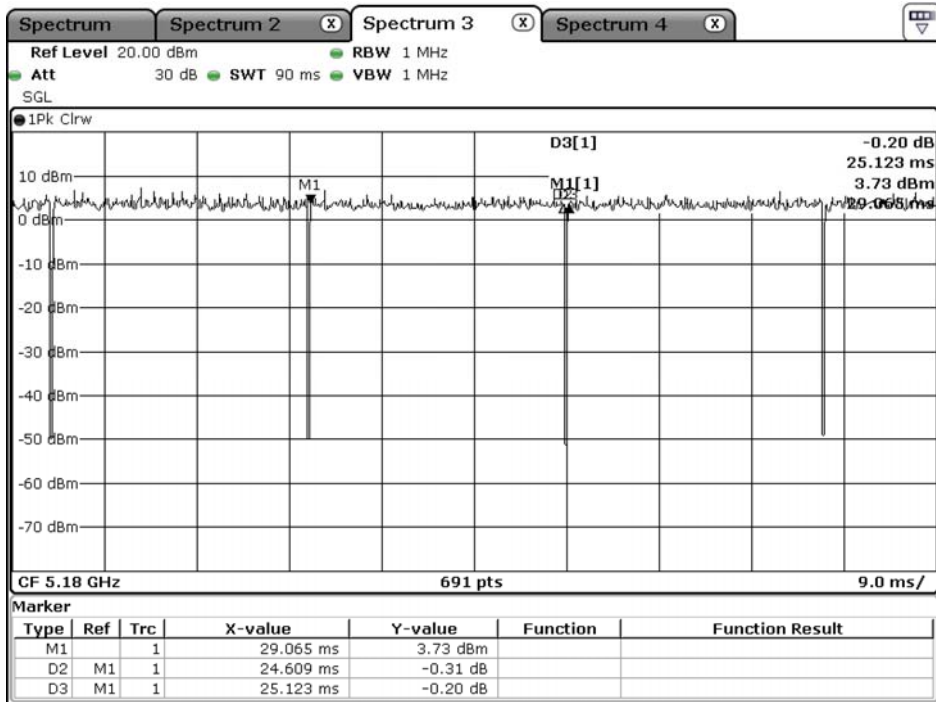
Date: 21.NOV.2020 06:24:18

802.11 ac160 - SISOB



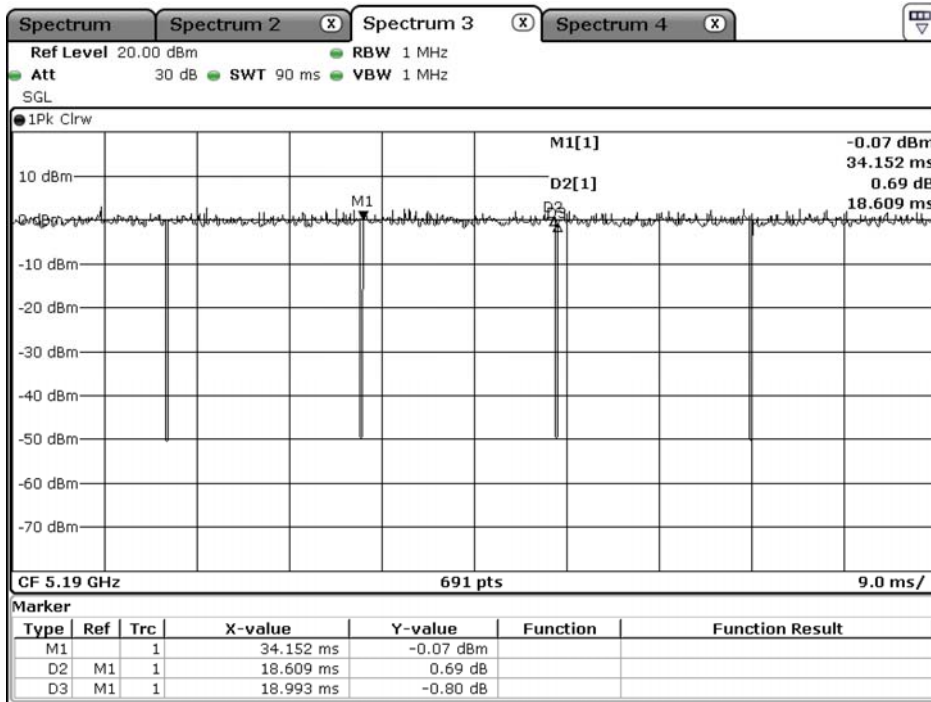
Date: 21.NOV.2020 06:24:57

802.11 ax20 - SISOB



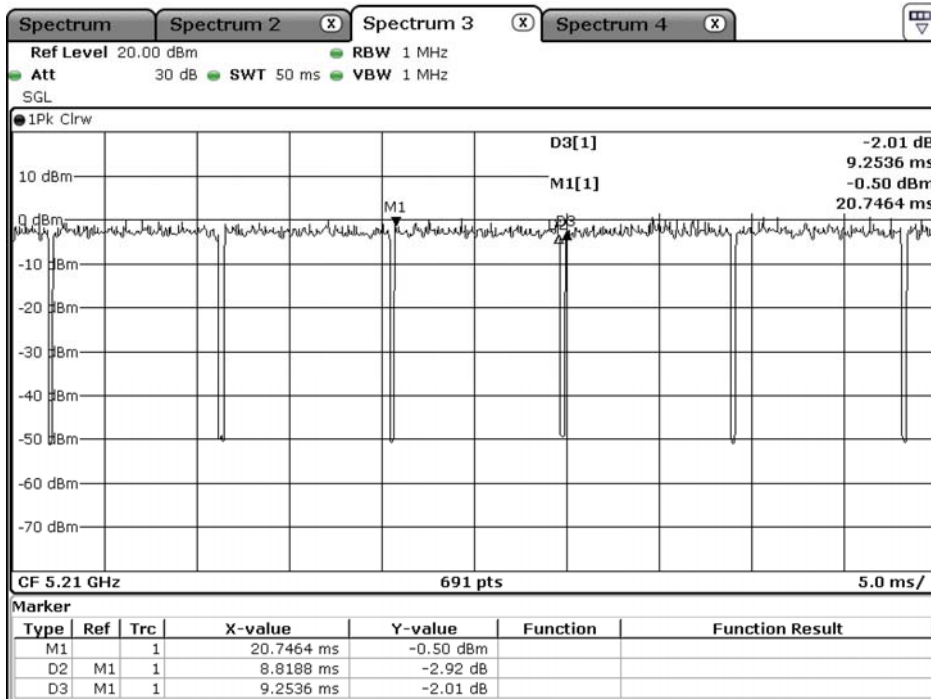
Date: 21.NOV.2020 06:26:16

802.11 ax40 - SISOB



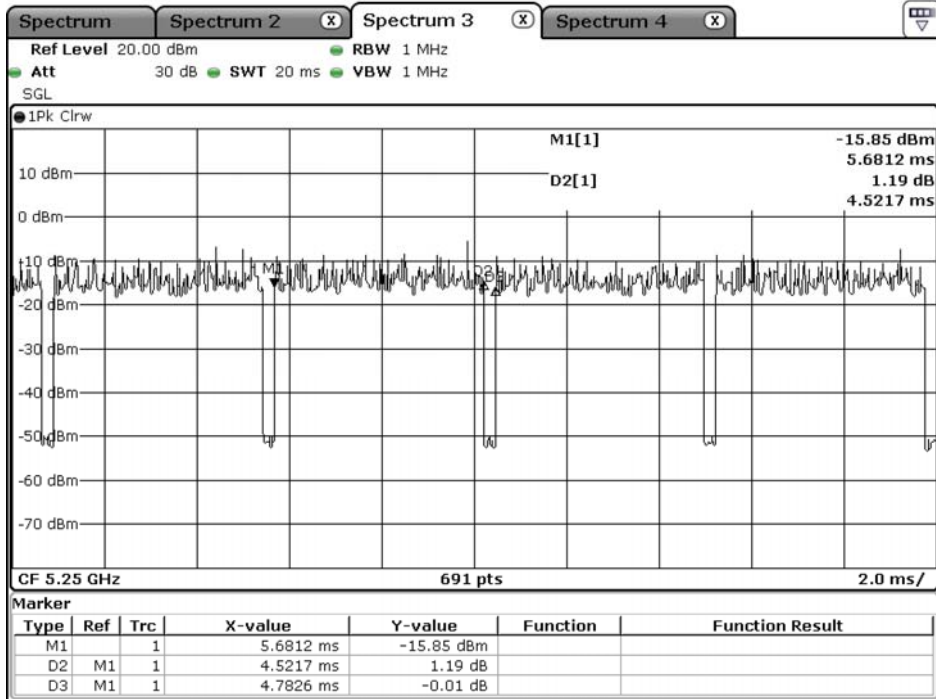
Date: 21.NOV.2020 06:26:51

802.11 ax80 - SISOB



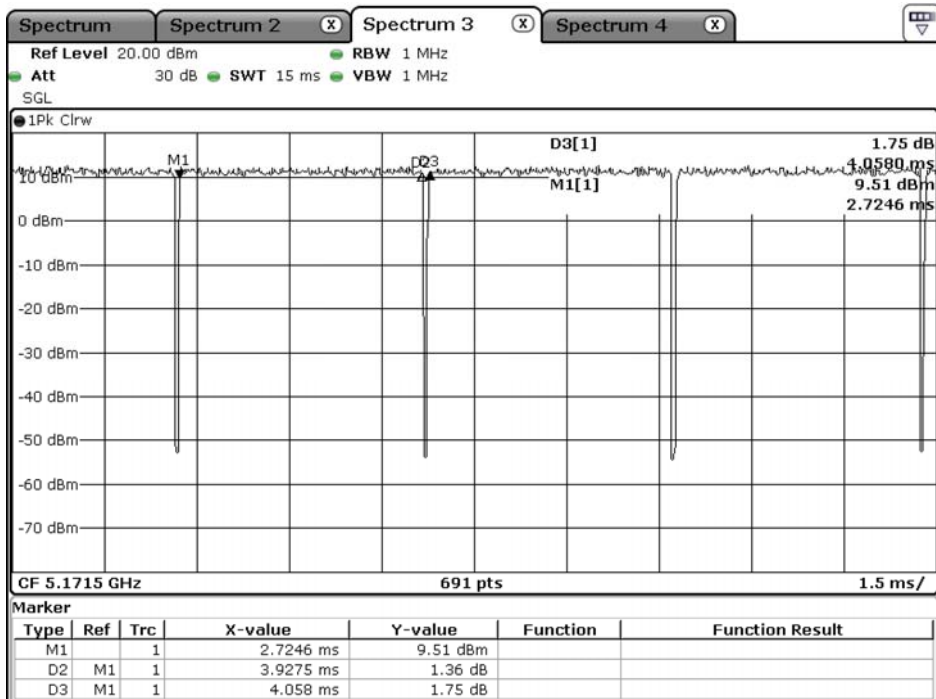
Date: 21.NOV.2020 06:27:30

802.11 ax160 - SISOB



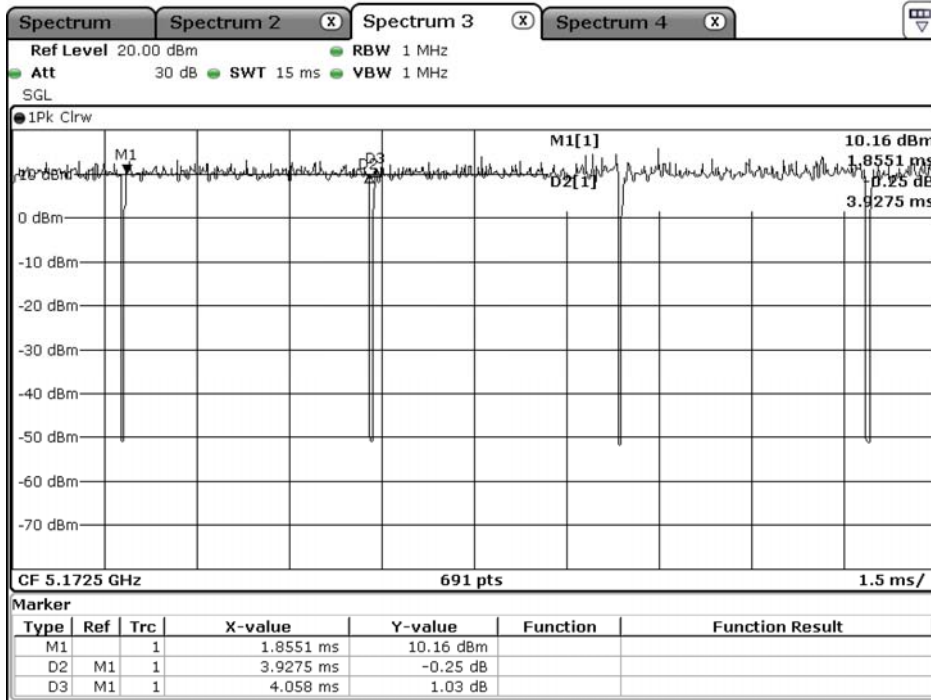
Date: 21.NOV.2020 06:28:12

802.11 ax20-26/0-RU - SISOB



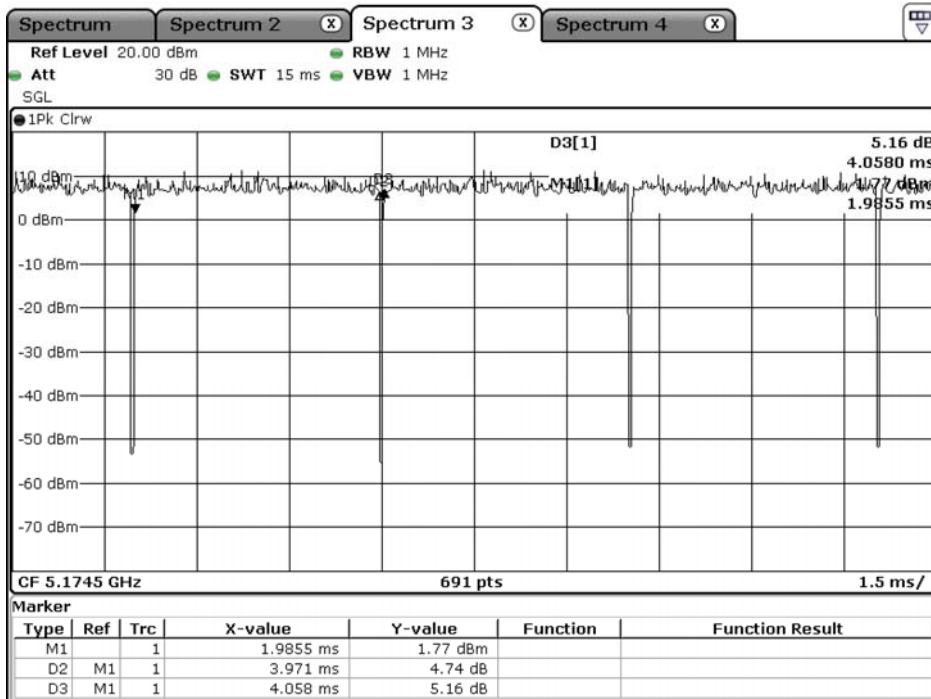
Date: 21.NOV.2020 06:33:07

802.11 ax20-52/37-RU - SISOB



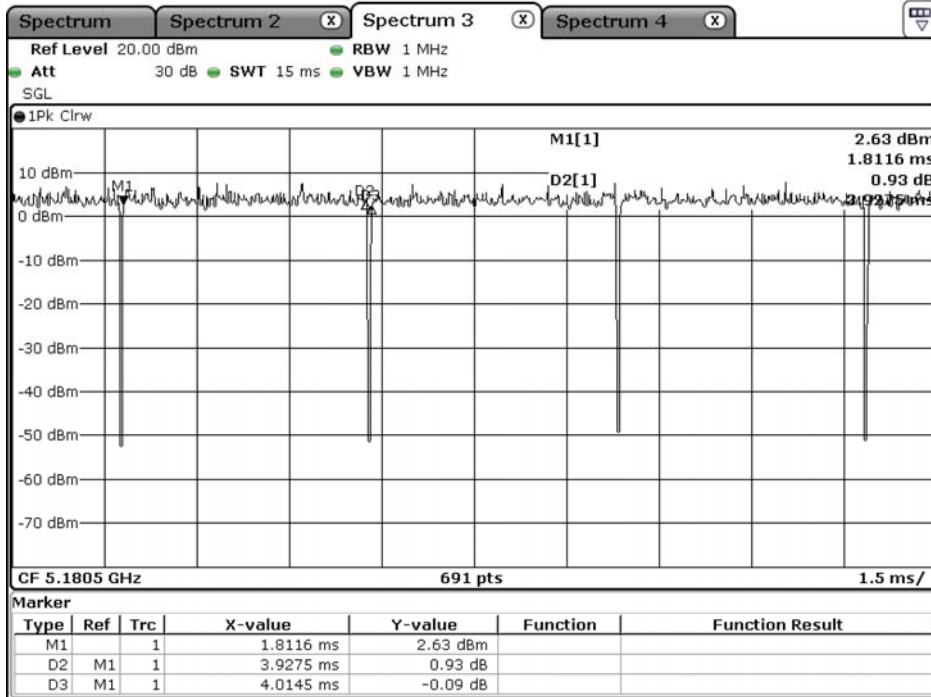
Date: 21.NOV.2020 06:33:52

802.11 ax20-106/53-RU - SISOB



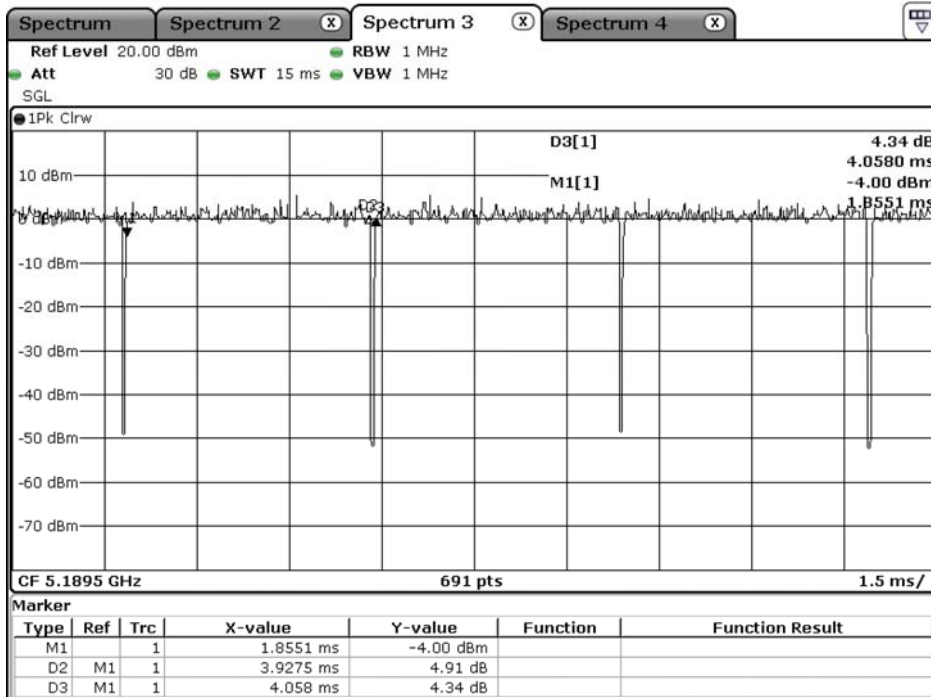
Date: 21.NOV.2020 06:34:36

802.11 ax40-242/61-RU - SISOB



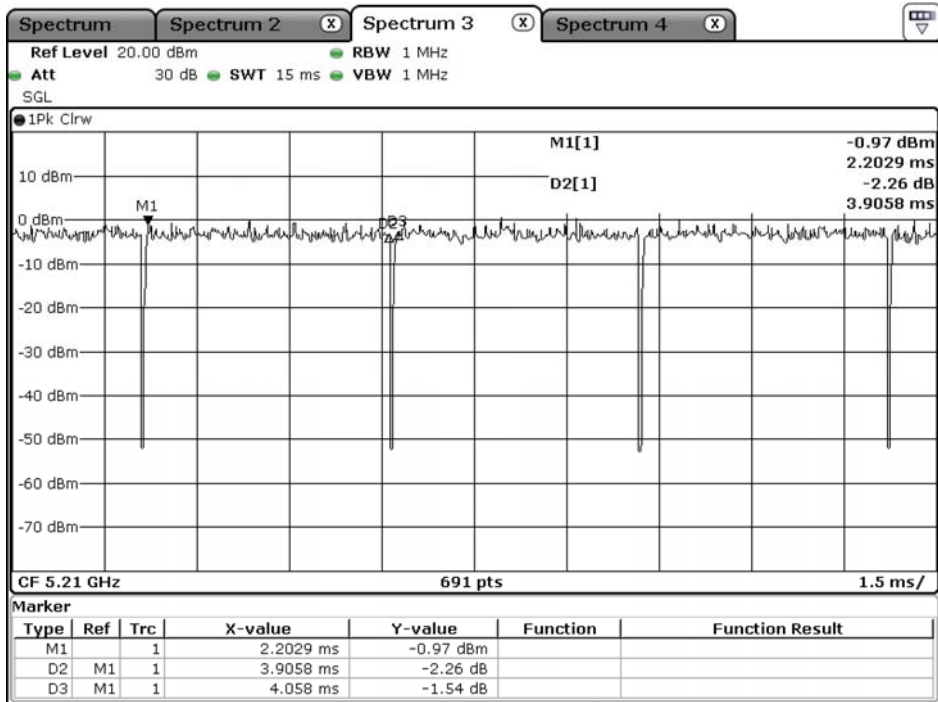
Date: 21.NOV.2020 06:31:27

802.11 ax80-484/65-RU - SISOB



Date: 21.NOV.2020 06:30:44

802.11 ax160-996/67-RU - SISOB



Date: 21.NOV.2020 06:29:35

Product : Notebook Computers
 Test Item : Duty Cycle
 Test Mode : Transmit

Duty Cycle Formula:

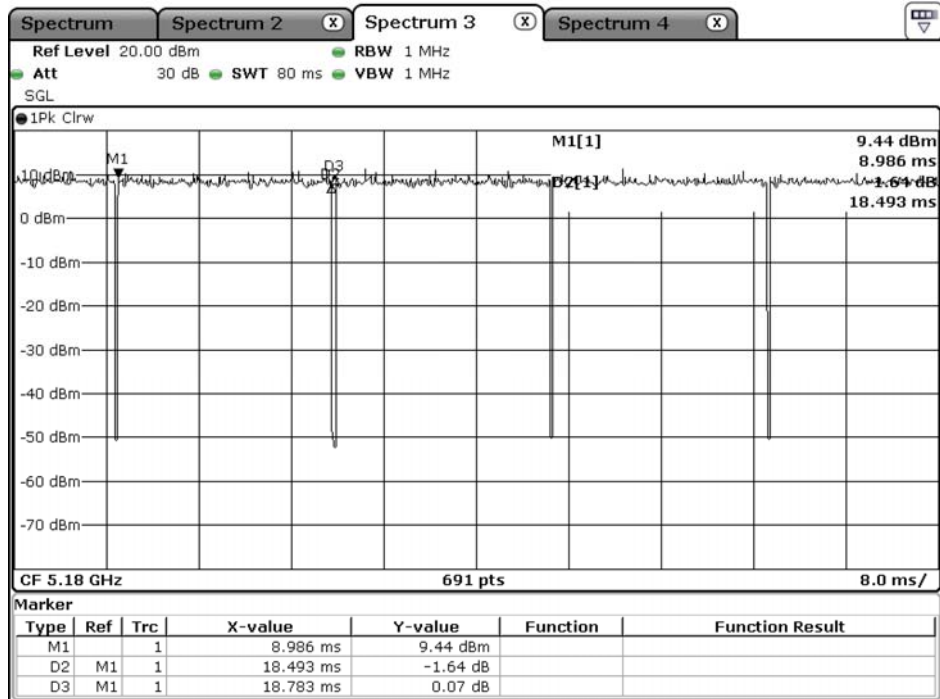
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

Results: MIMO

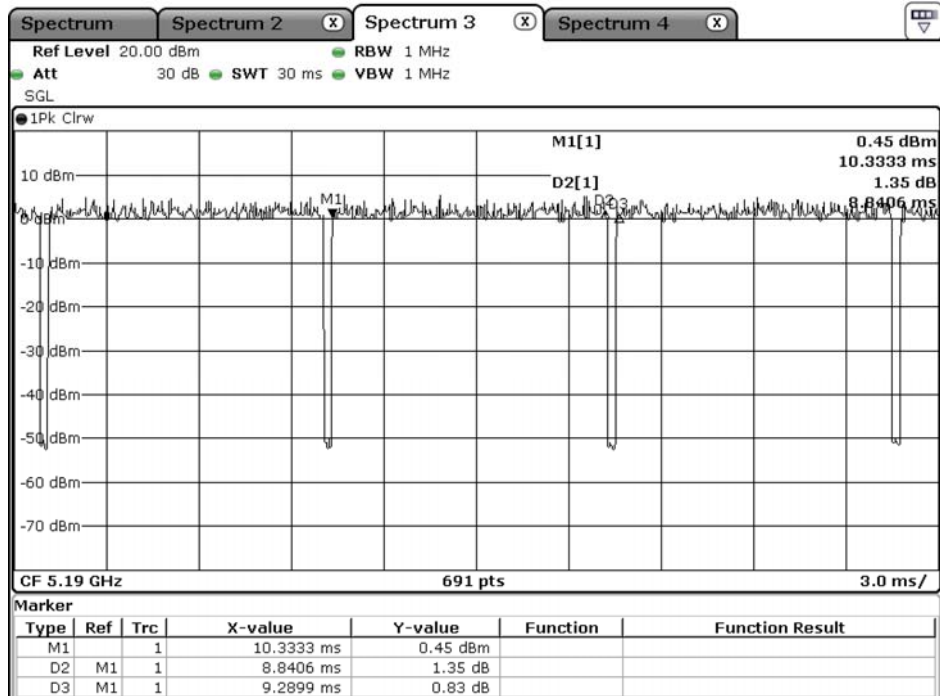
5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11 n20	18.4930	18.7830	98.46	0.07
802.11 n40	8.8406	9.2899	95.16	0.22
802.11 ac80	5.4493	5.8406	93.30	0.30
802.11 ac160	2.9657	3.0290	97.91	0.09
802.11 ax20	18.6960	19.0290	98.25	0.08
802.11 ax40	9.3333	9.6812	96.41	0.16
802.11 ax80	4.4638	4.8406	92.22	0.35
802.11 ax160	2.2319	2.5507	87.50	0.58
802.11 ax20-26/0-RU	3.9130	4.0217	97.30	0.12
802.11 ax20-52/37-RU	3.9348	4.0435	97.31	0.12
802.11 ax20-106/53-RU	3.9348	4.0435	97.31	0.12
802.11 ax40-242-61-RU	3.9565	4.0435	97.85	0.09
802.11 ax80-484-65-RU	3.9565	4.0652	97.33	0.12
802.11 ax160-996-67-RU	3.9565	4.0435	97.85	0.09

802.11 n20 - MIMO



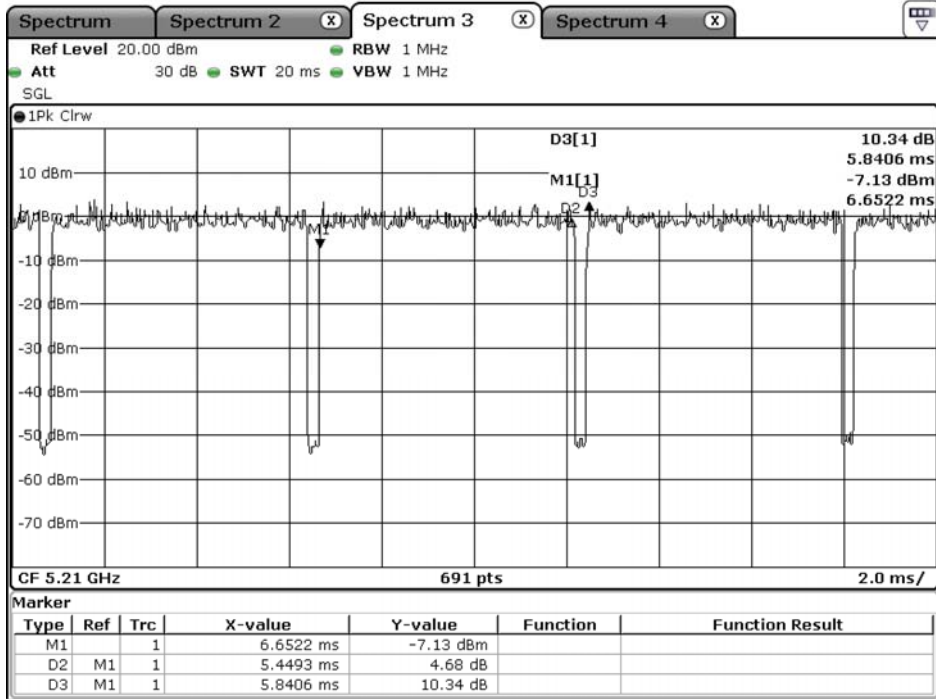
Date: 14.NOV.2020 19:33:54

802.11 n40 - MIMO



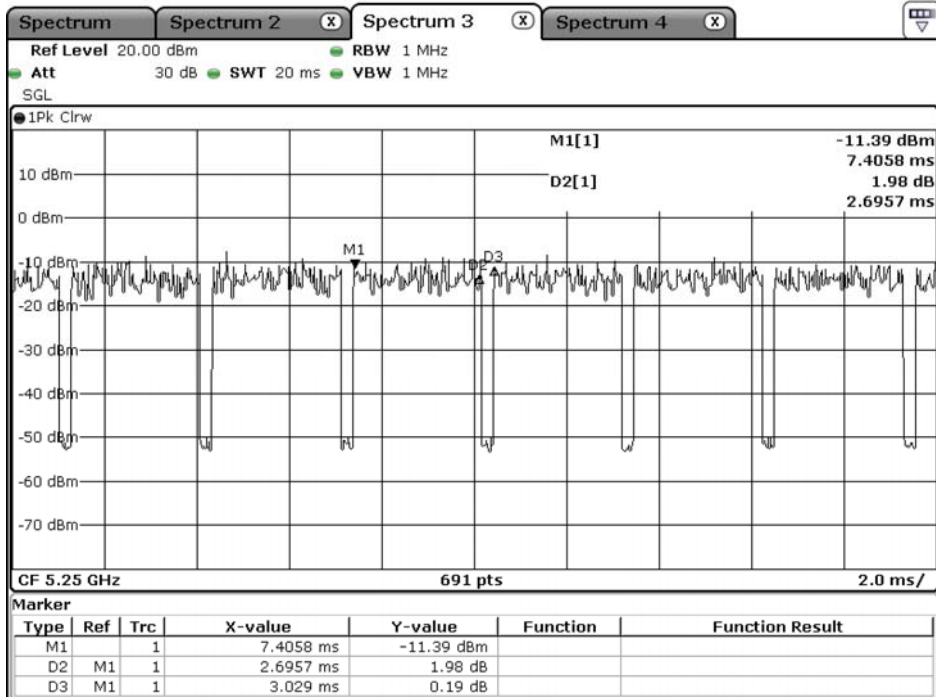
Date: 14.NOV.2020 19:35:17

802.11 ac80 - MIMO



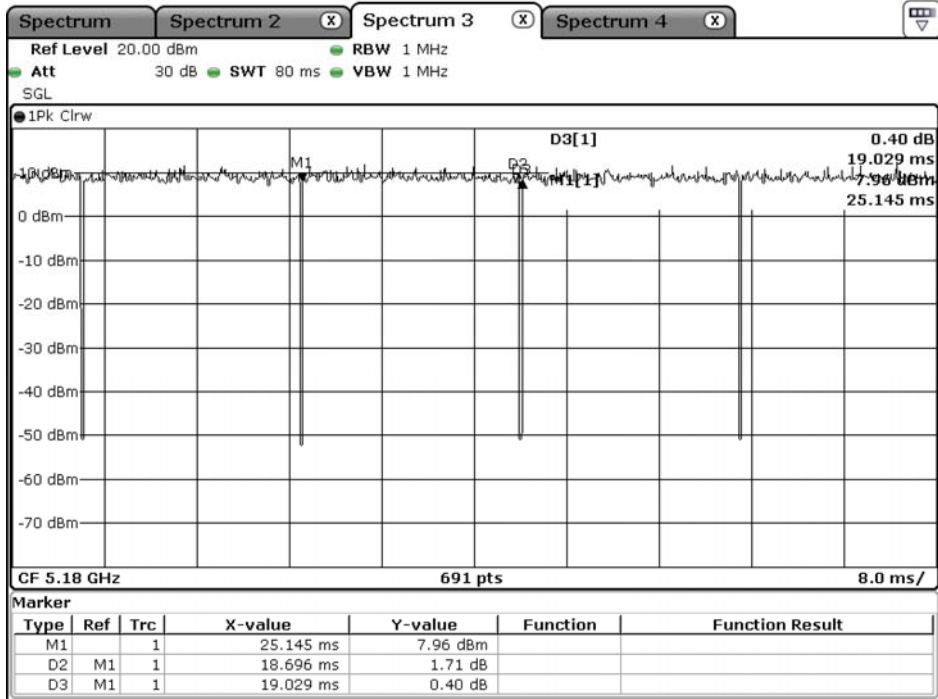
Date: 14.NOV.2020 19:36:04

802.11 ac160 - MIMO



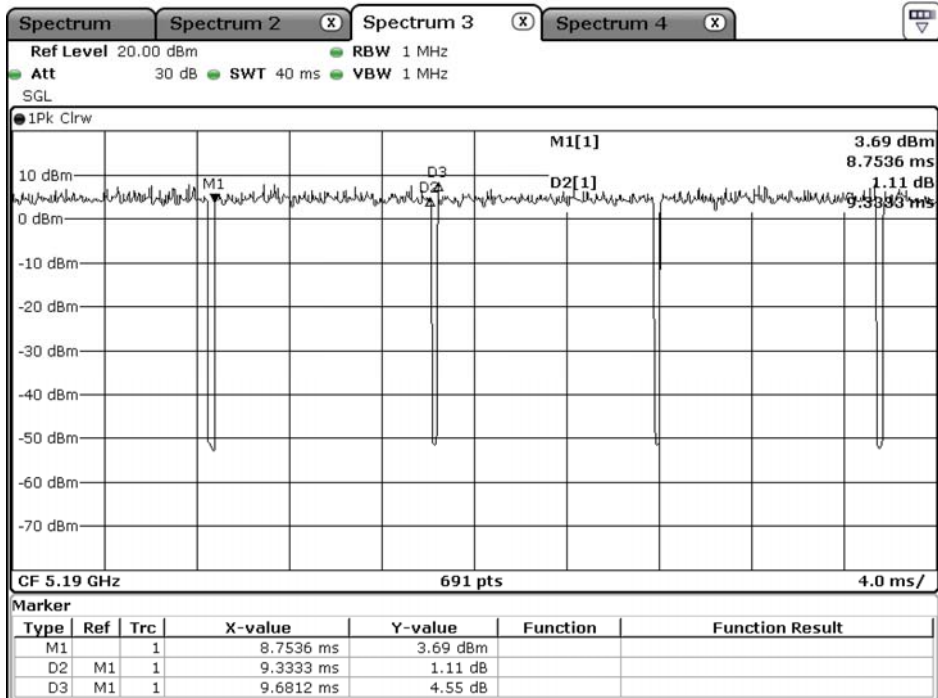
Date: 14.NOV.2020 19:36:53

802.11 ax20 - MIMO



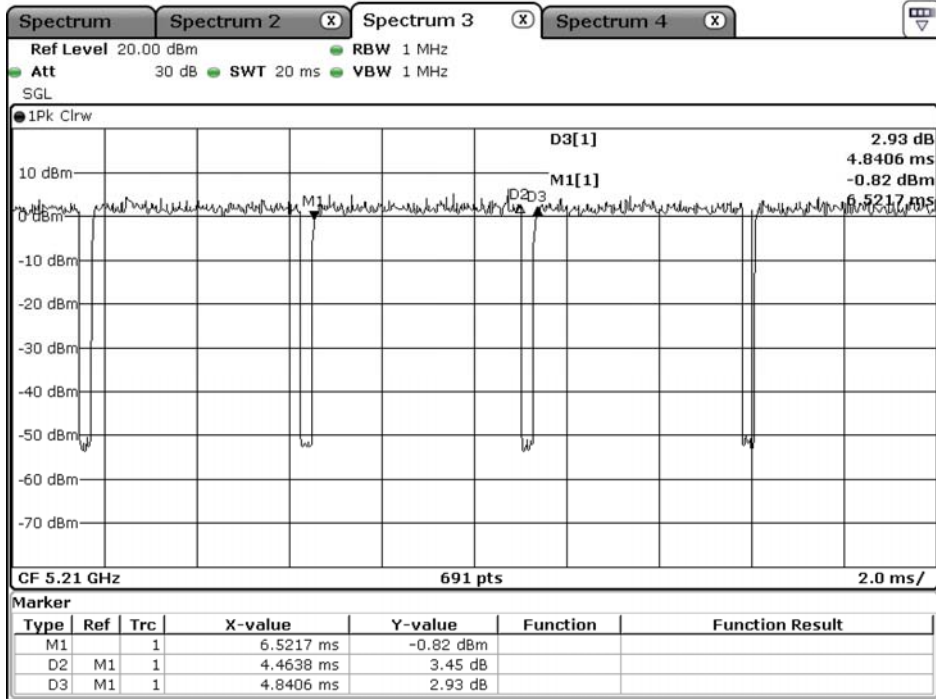
Date: 14.NOV.2020 19:37:41

802.11 ax40 - MIMO



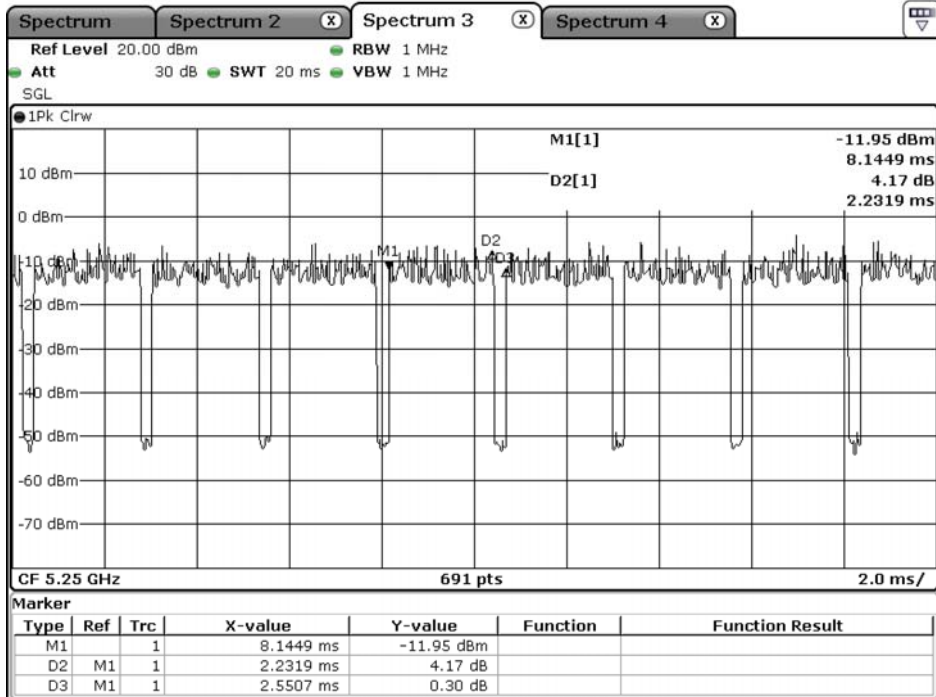
Date: 14.NOV.2020 19:38:32

802.11 ax80 - MIMO



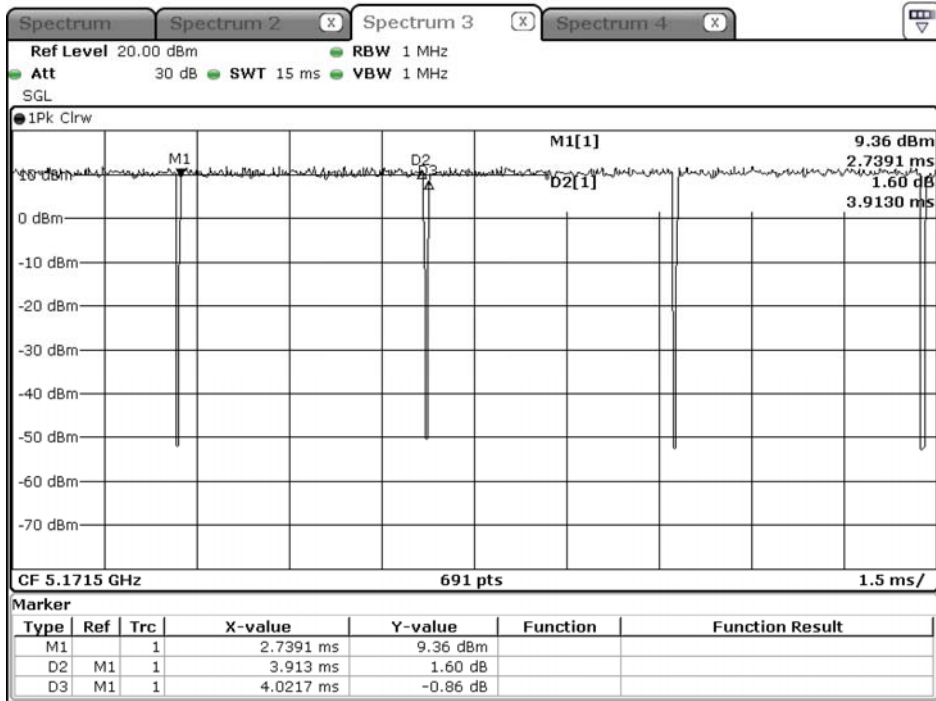
Date: 14.NOV.2020 19:39:14

802.11 ax160 - MIMO



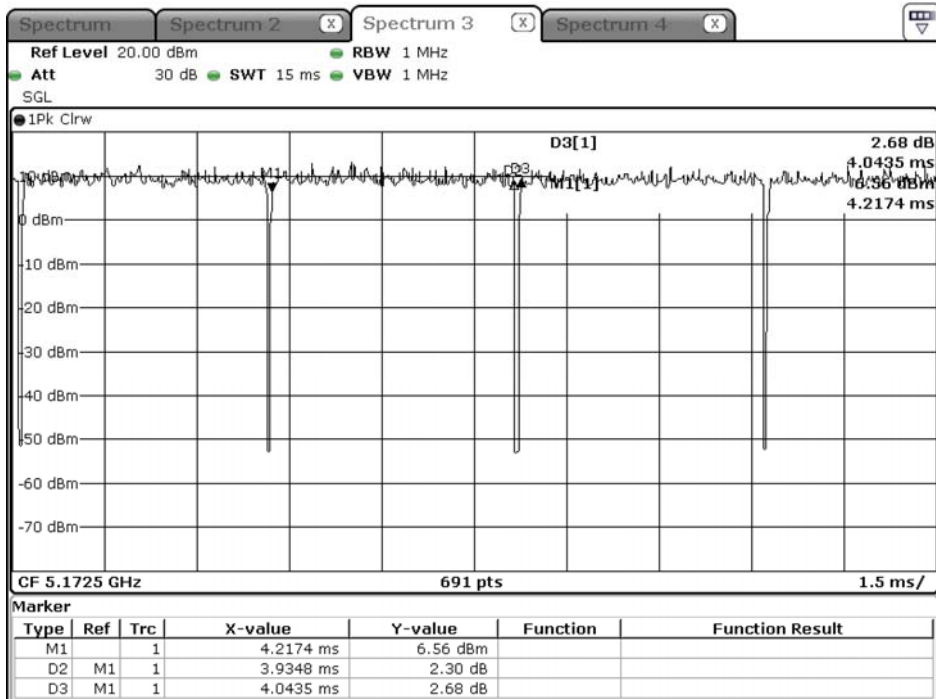
Date: 14.NOV.2020 19:39:50

802.11 ax20-26/0-RU - MIMO



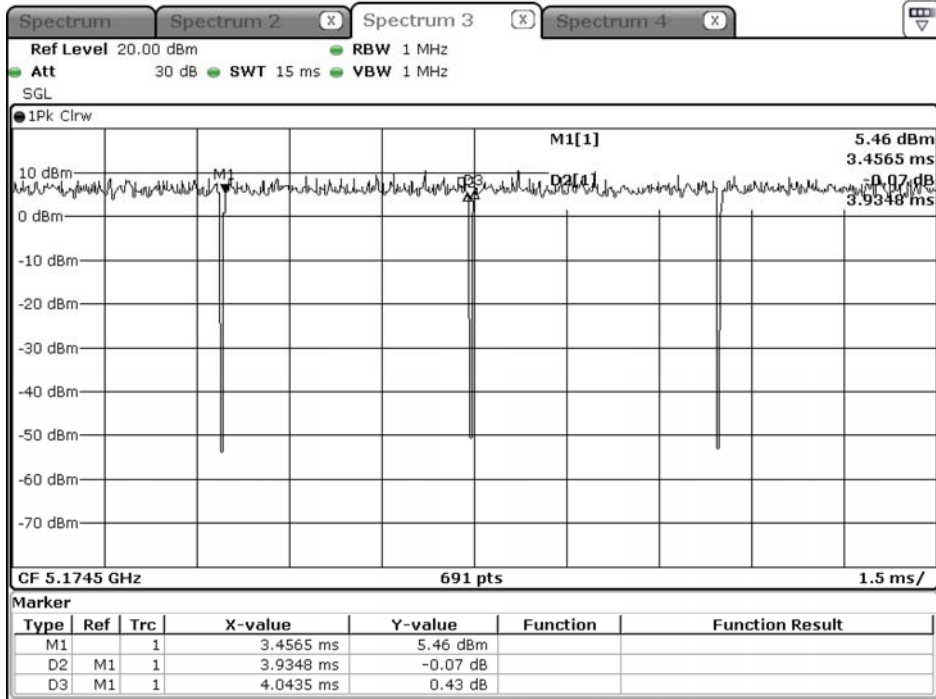
Date: 17.NOV.2020 13:21:38

802.11 ax20-52/37-RU - MIMO



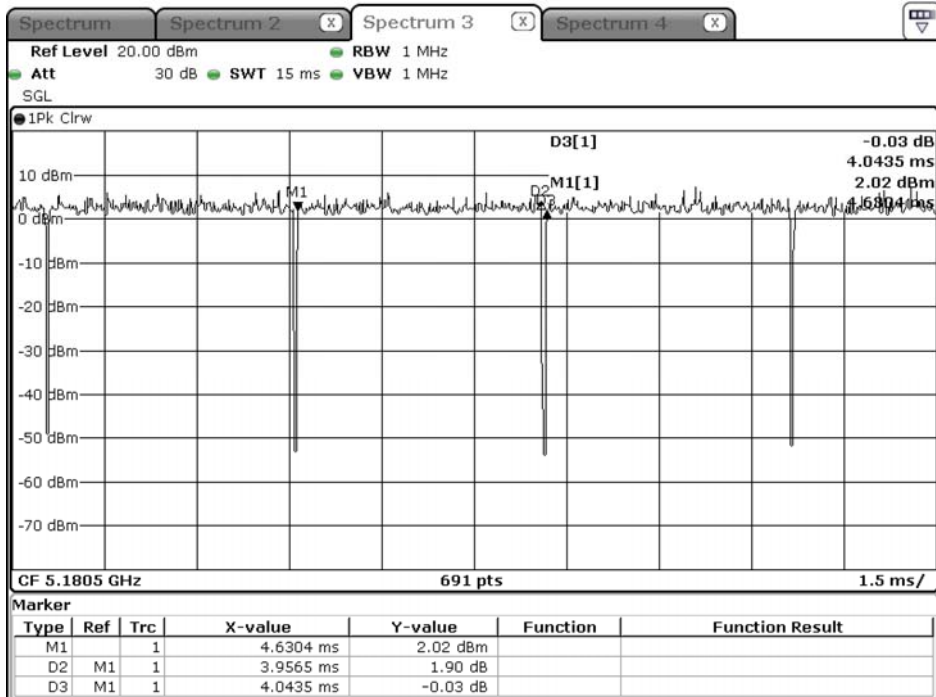
Date: 17.NOV.2020 13:22:35

802.11 ax20-106/53-RU - MIMO



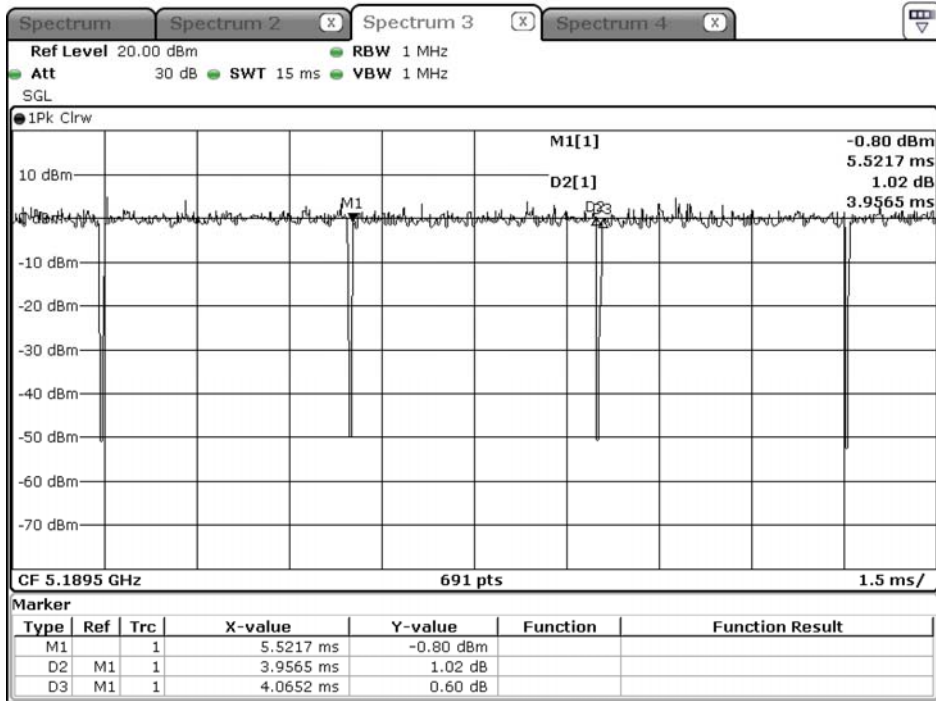
Date: 17.NOV.2020 13:23:41

802.11 ax40-242/61-RU - MIMO



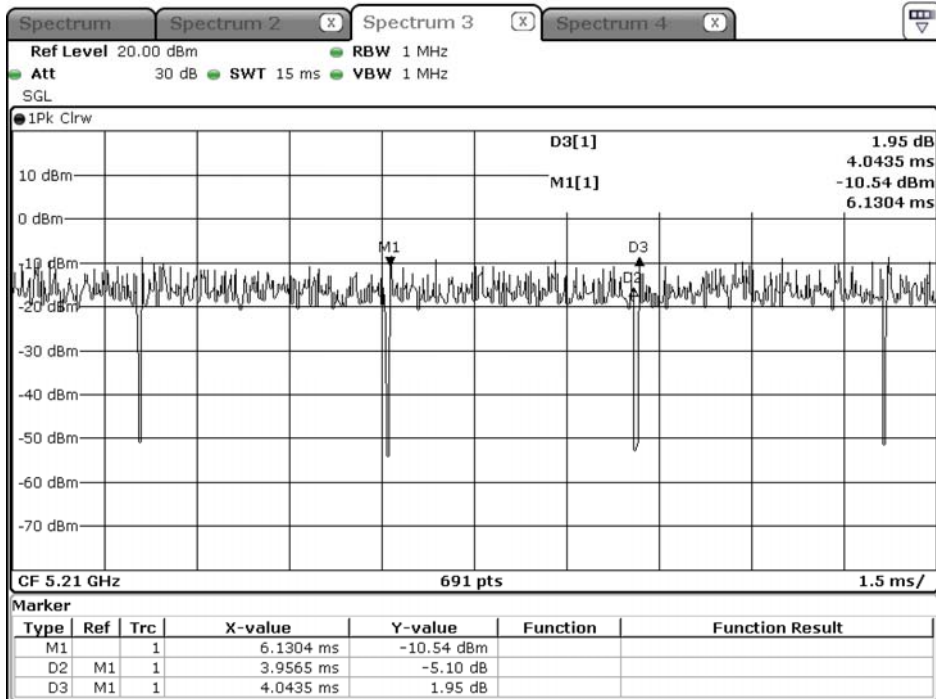
Date: 17.NOV.2020 13:24:28

802.11 ax80-484/65-RU - MIMO



Date: 17.NOV.2020 13:26:07

802.11 ax160-996/67-RU - MIMO



Date: 17.NOV.2020 13:29:20

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.