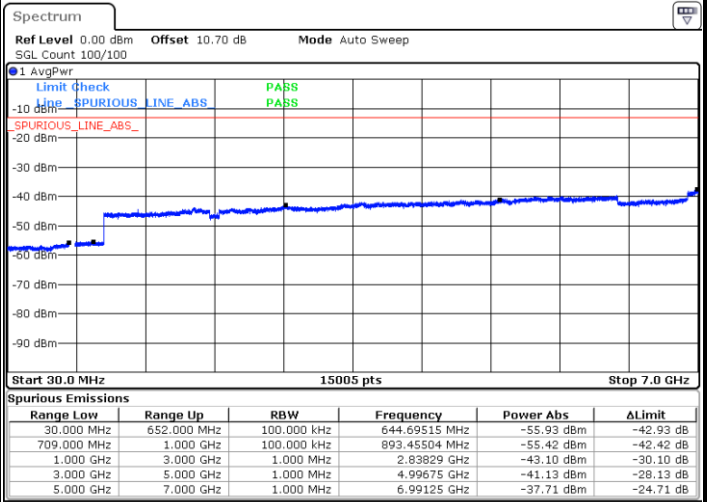
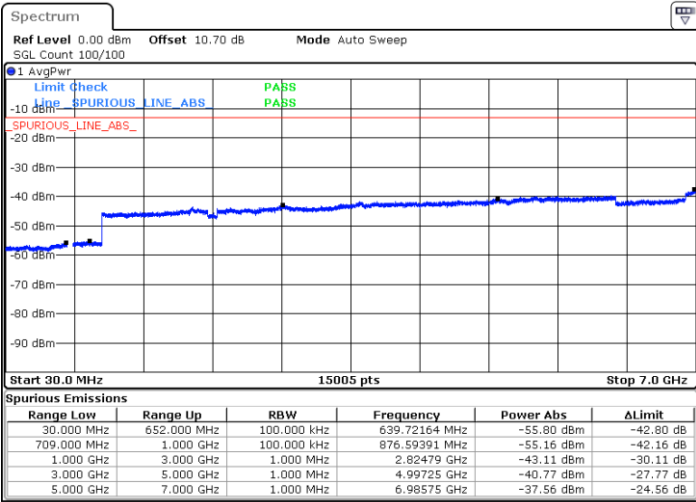




LTE Band 71 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

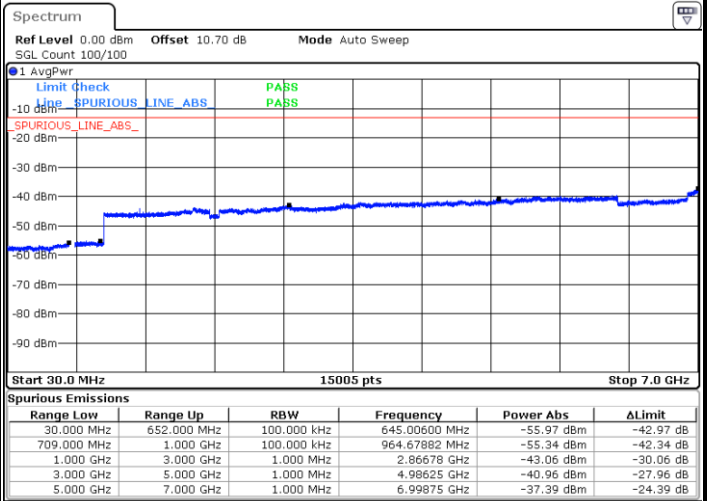
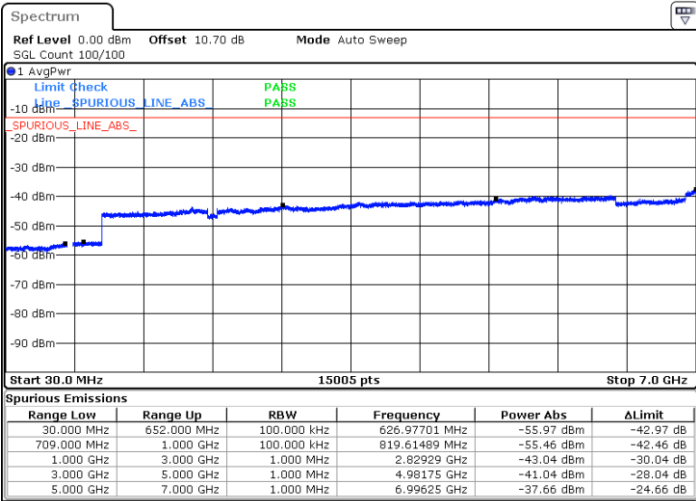


Date: 4.FEB.2020 15:34:06

Date: 4.FEB.2020 15:35:08

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 4.FEB.2020 15:36:09

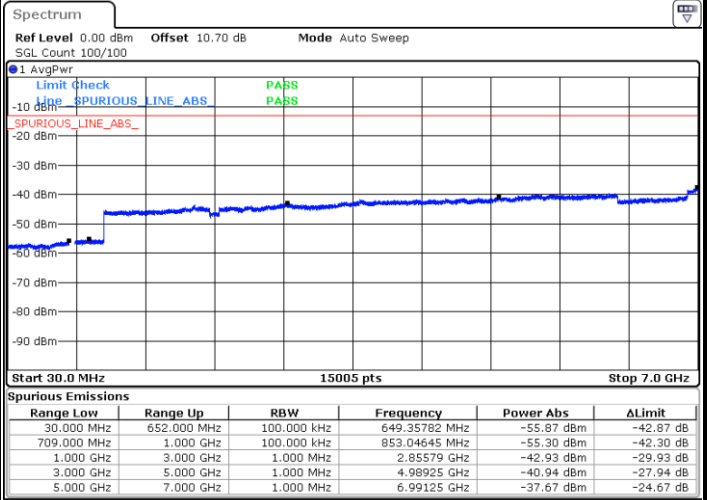
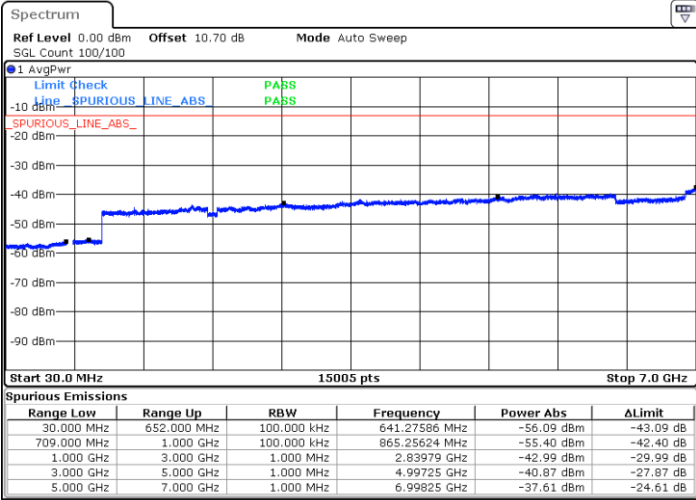
Date: 4.FEB.2020 15:37:11



LTE Band 71 / 5MHz

Lowest Channel / 64QAM

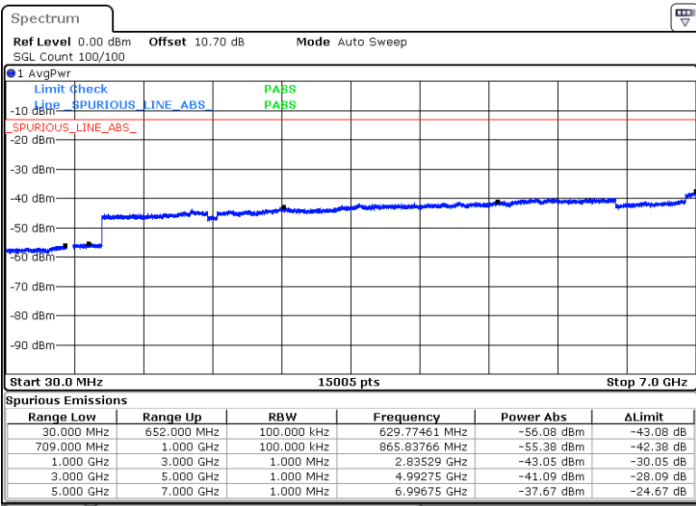
Middle Channel / 64QAM



Date: 4.FEB.2020 15:01:40

Date: 4.FEB.2020 15:02:42

Highest Channel / 64QAM



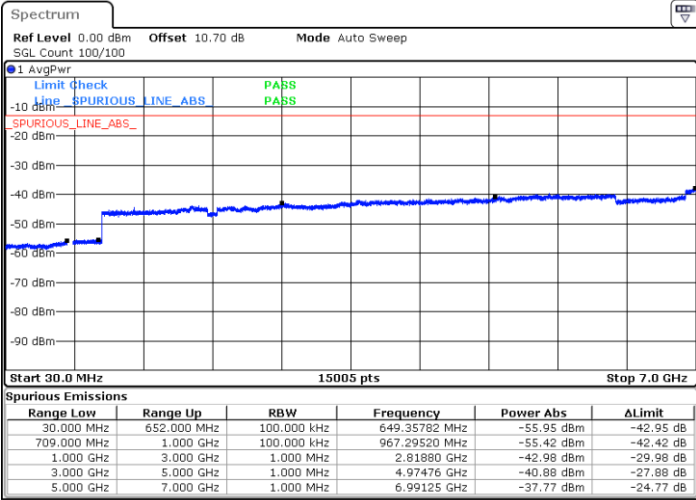
Date: 4.FEB.2020 15:03:43



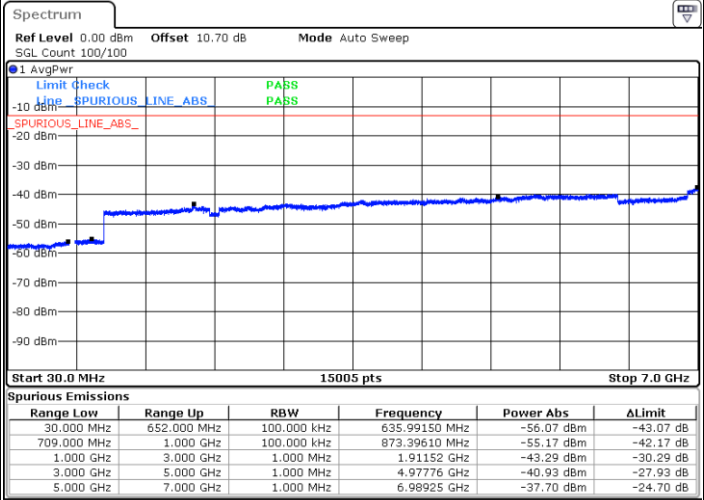
LTE Band 71 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

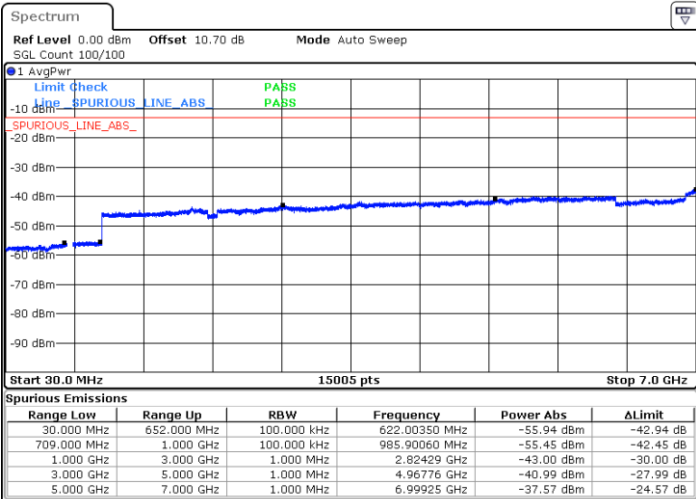


Date: 4.FEB.2020 15:10:56



Date: 4.FEB.2020 15:11:58

Highest Channel / 64QAM



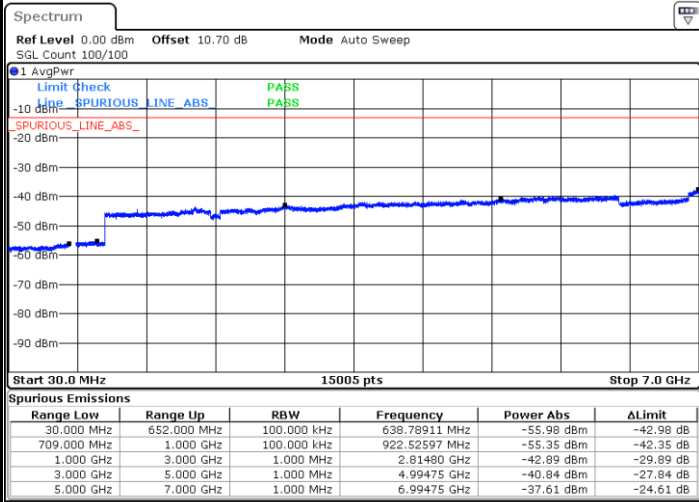
Date: 4.FEB.2020 15:12:59



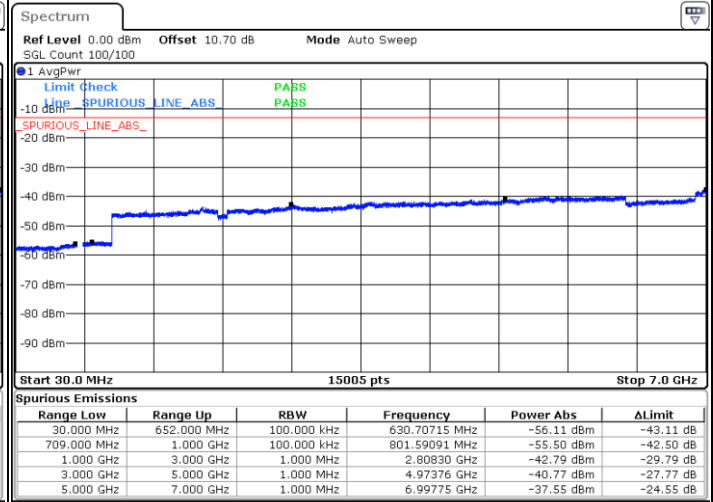
LTE Band 71 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

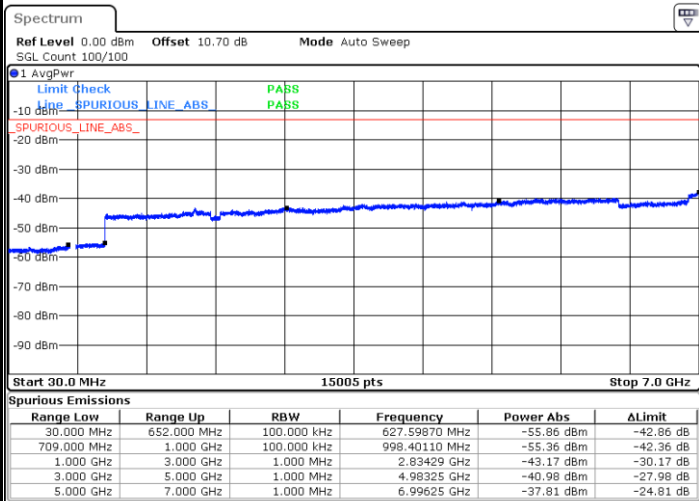


Date: 4.FEB.2020 15:20:12



Date: 4.FEB.2020 15:29:59

Highest Channel / 64QAM



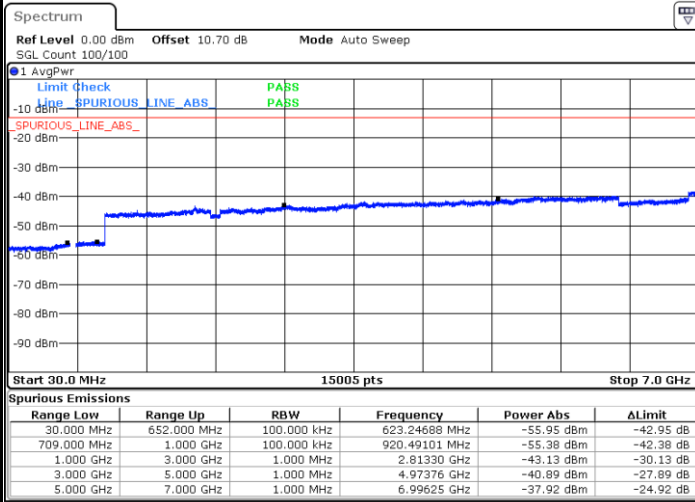
Date: 4.FEB.2020 15:31:01



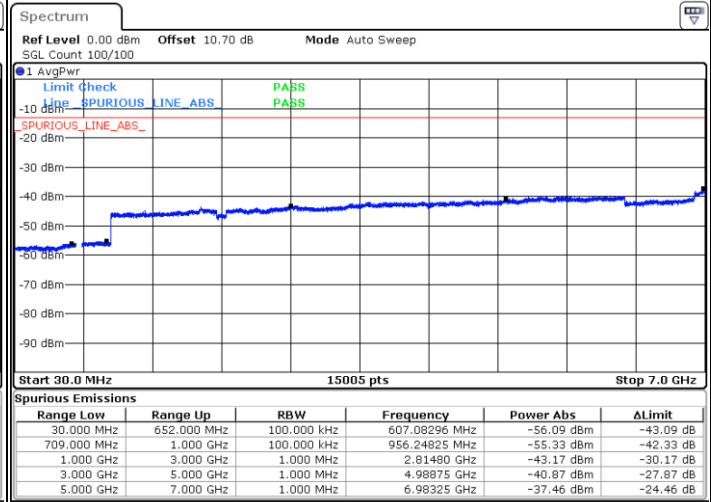
LTE Band 71 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

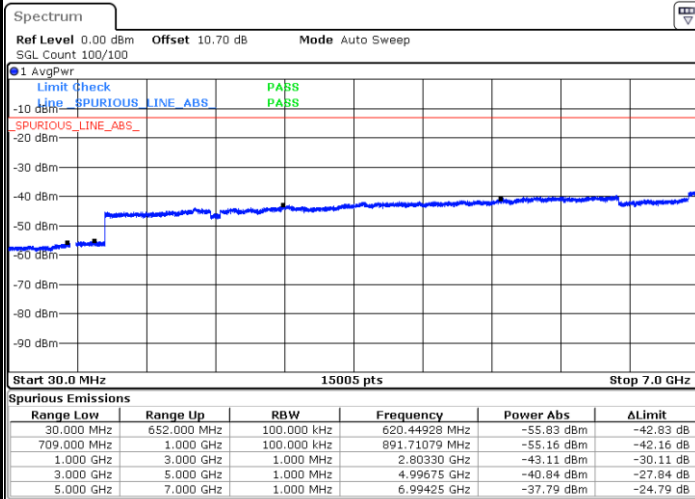


Date: 4.FEB.2020 15:38:13



Date: 4.FEB.2020 15:39:15

Highest Channel / 64QAM



Date: 4.FEB.2020 15:40:16



Frequency Stability

Test Conditions		LTE Band 71 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0053	PASS
40	Normal Voltage	0.0044	
30	Normal Voltage	0.0028	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0029	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0025	
-20	Normal Voltage	0.0106	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0179	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0216	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n5

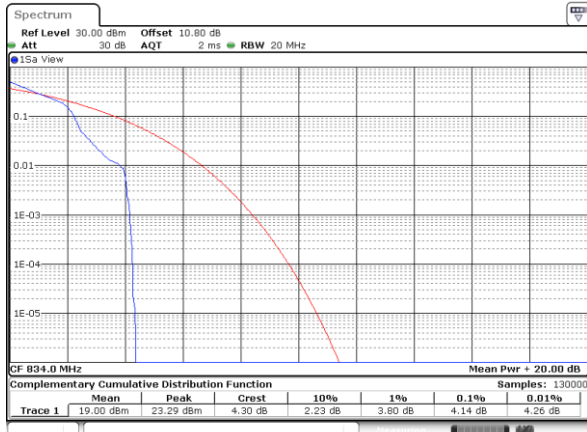
Peak-to-Average Ratio

Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK		QPSK		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.14	3.36	3.74	4.17	PASS
Middle CH	4.35	4.06	4.09	4.06	
Highest CH	4.03	3.28	3.86	4.12	
Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	16QAM		64QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.55	5.28	5.36	5.65	PASS
Middle CH	4.52	5.19	5.36	5.62	
Highest CH	4.64	5.19	5.33	5.59	
Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	256QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	7.62	7.48	-	-	PASS
Middle CH	7.54	7.51	-	-	
Highest CH	7.57	7.54	-	-	



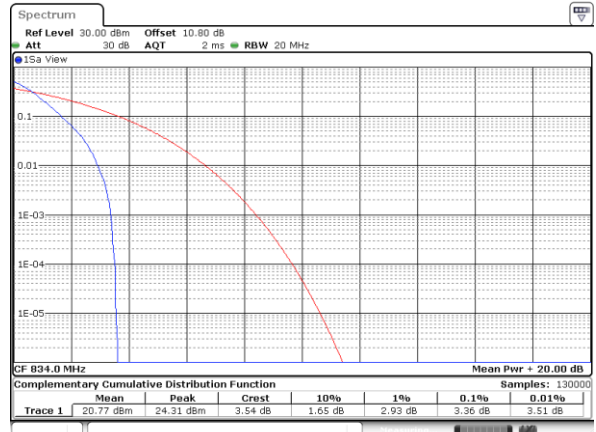
FR1 n5 / 20MHz / PI/2 BPSK / DFT-S OFDM

Lowest Channel / 1RB



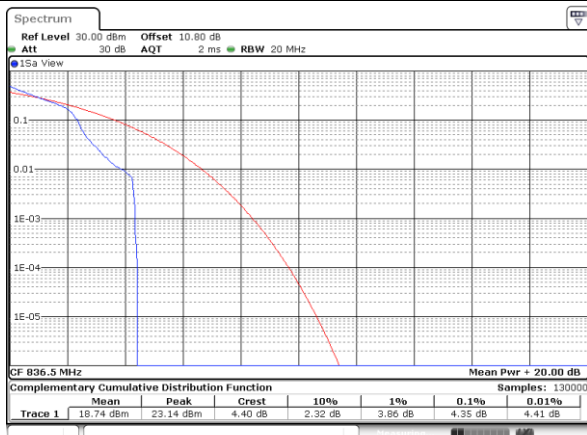
Date: 10.FEB.2020 14:43:00

Lowest Channel / Full RB



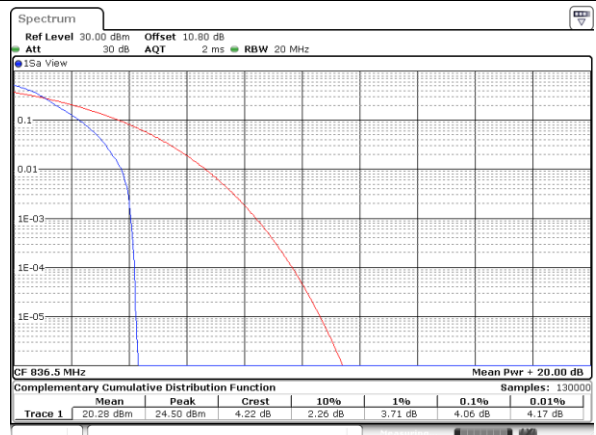
Date: 10.FEB.2020 14:42:41

Middle Channel / 1RB



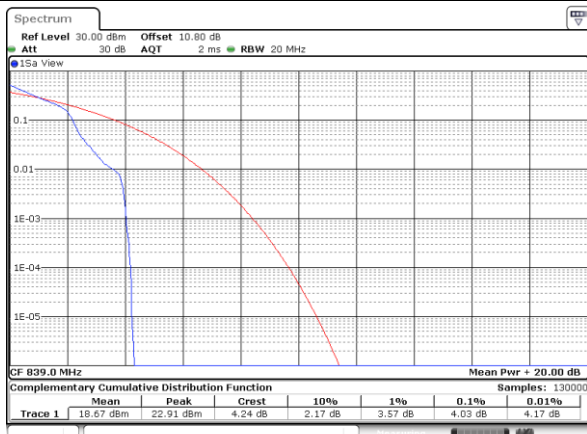
Date: 10.FEB.2020 14:43:24

Middle Channel / Full RB



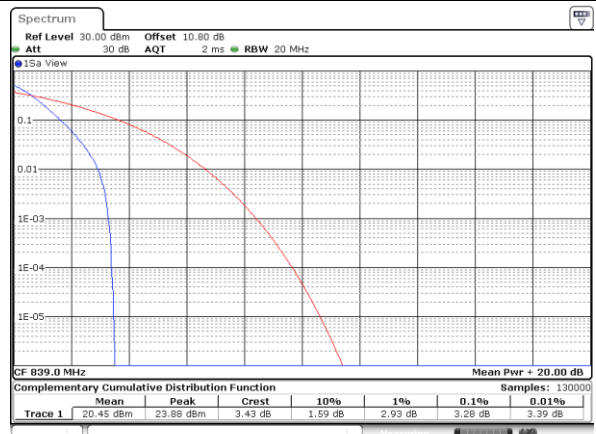
Date: 8.FEB.2020 11:43:22

Highest Channel / 1RB



Date: 10.FEB.2020 14:46:00

Highest Channel / Full RB

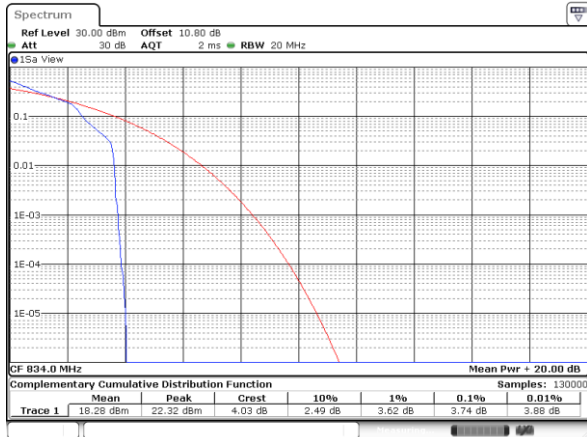


Date: 10.FEB.2020 14:45:35



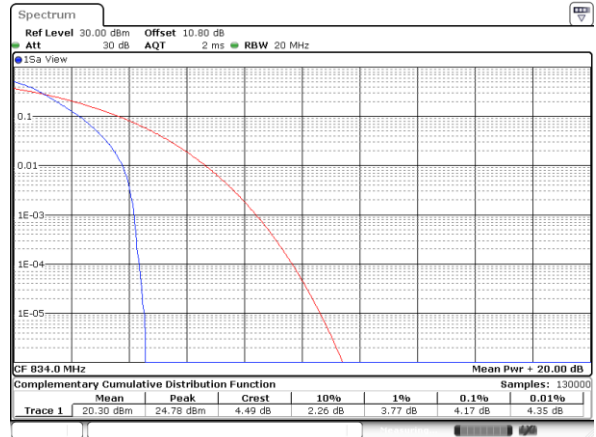
FR1 n5 / 20MHz / QPSK / DFT-S OFDM

Lowest Channel / 1RB



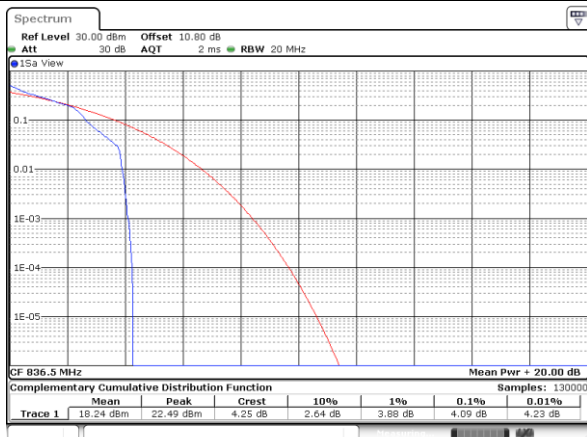
Date: 8.FEB.2020 11:38:47

Lowest Channel / Full RB



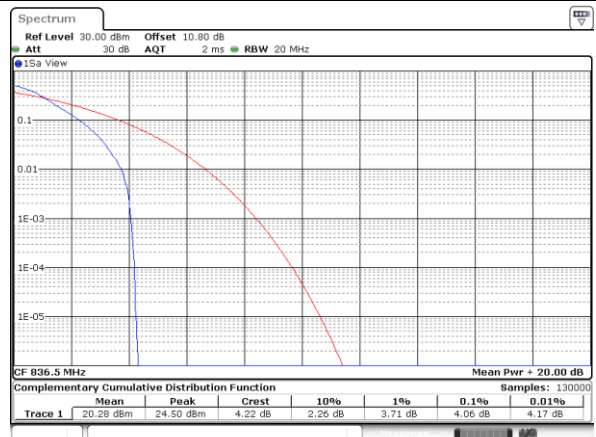
Date: 8.FEB.2020 11:38:26

Middle Channel / 1RB



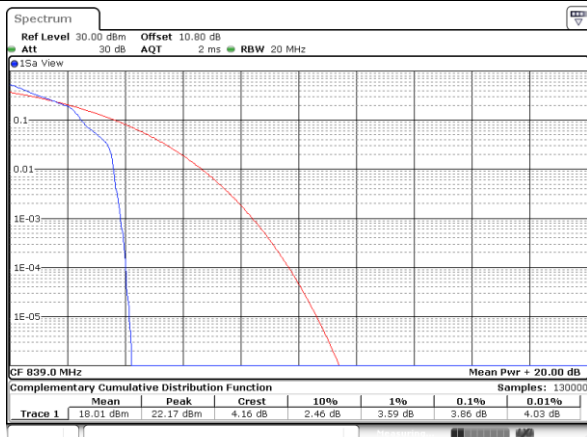
Date: 8.FEB.2020 11:42:14

Middle Channel / Full RB



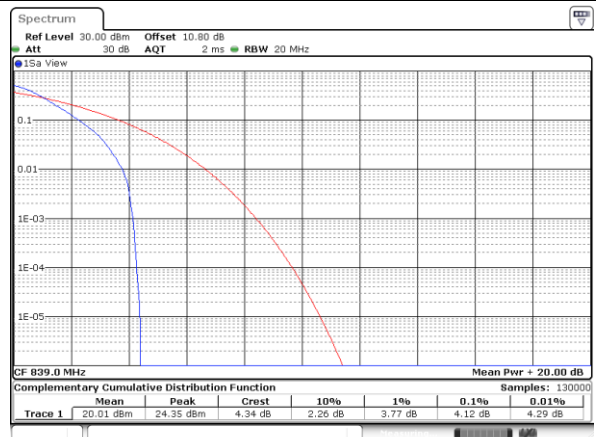
Date: 8.FEB.2020 11:43:22

Highest Channel / 1RB



Date: 8.FEB.2020 11:46:18

Highest Channel / Full RB

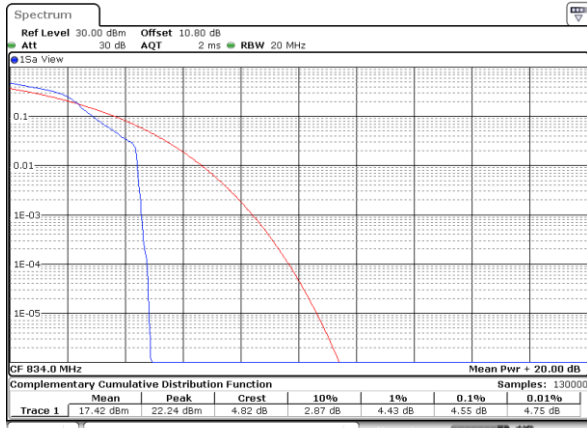


Date: 8.FEB.2020 11:46:13



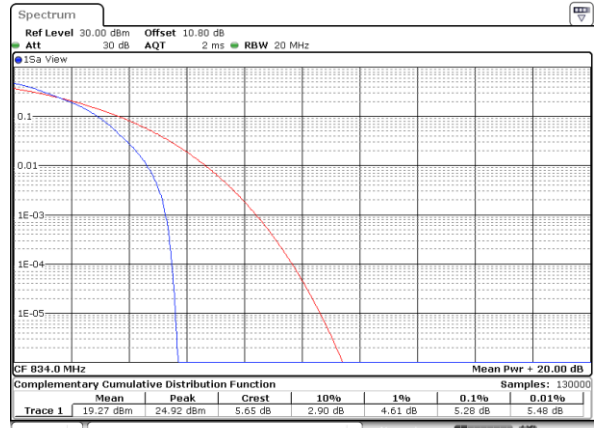
FR1 n5 / 20MHz / 16QAM / DFT-S OFDM

Lowest Channel / 1RB



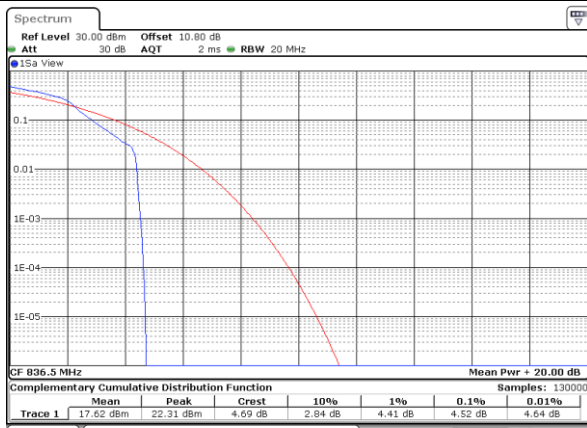
Date: 8.FEB.2020 11:39:08

Lowest Channel / Full RB



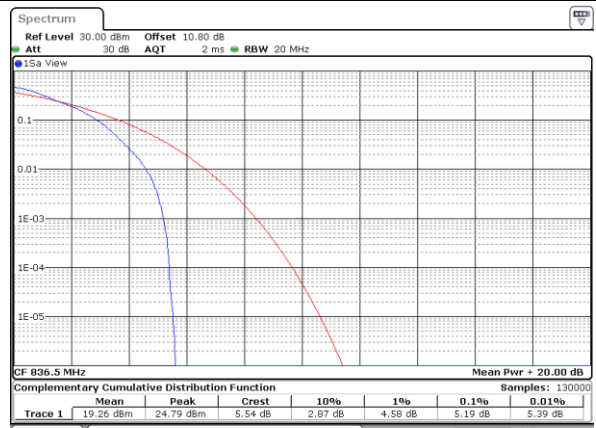
Date: 8.FEB.2020 11:39:31

Middle Channel / 1RB



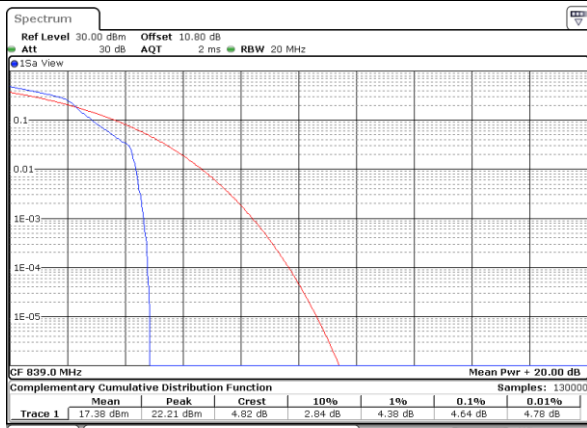
Date: 8.FEB.2020 11:44:09

Middle Channel / Full RB



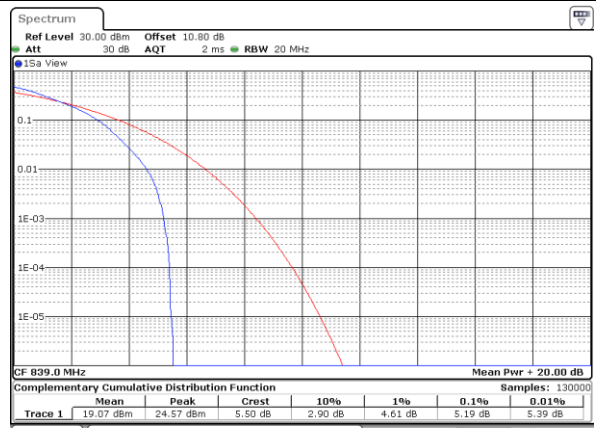
Date: 8.FEB.2020 11:43:43

Highest Channel / 1RB



Date: 8.FEB.2020 11:47:38

Highest Channel / Full RB

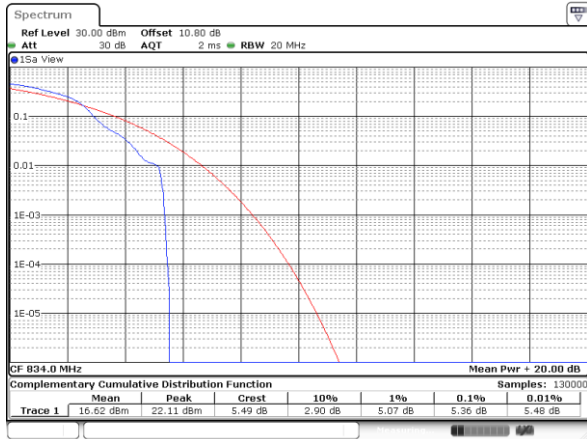


Date: 8.FEB.2020 11:48:41



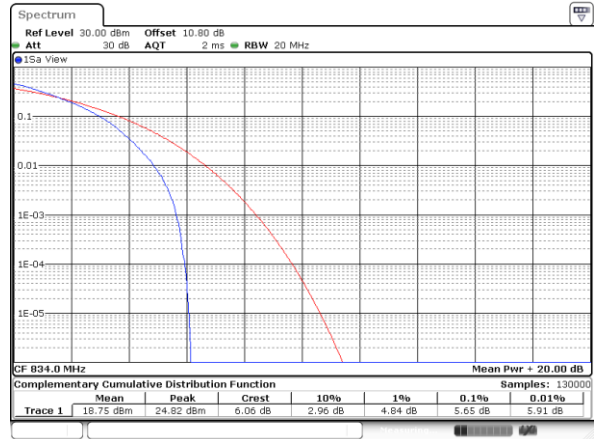
FR1 n5 / 20MHz / 64QAM / DFT-S OFDM

Lowest Channel / 1RB



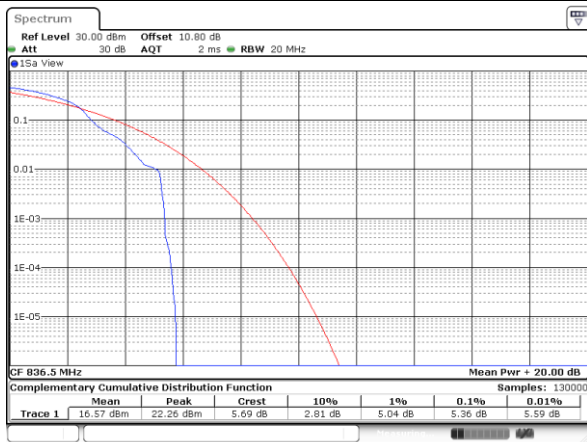
Date: 8.FEB.2020 11:41:27

Lowest Channel / Full RB



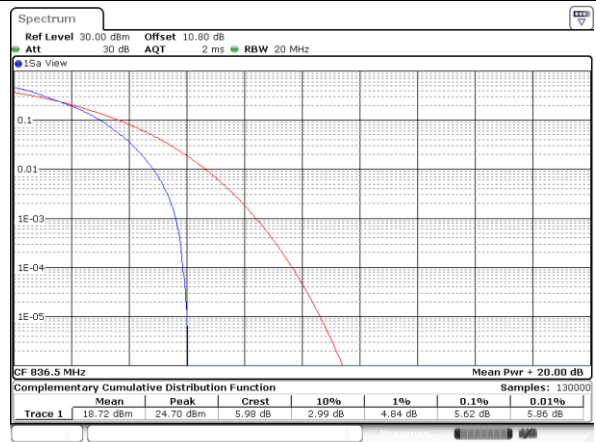
Date: 8.FEB.2020 11:40:50

Middle Channel / 1RB



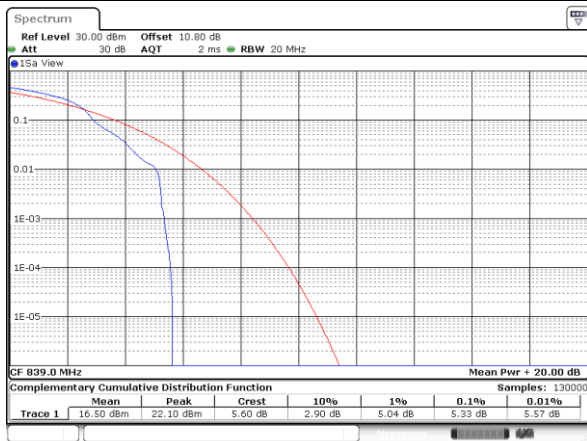
Date: 8.FEB.2020 11:44:41

Middle Channel / Full RB



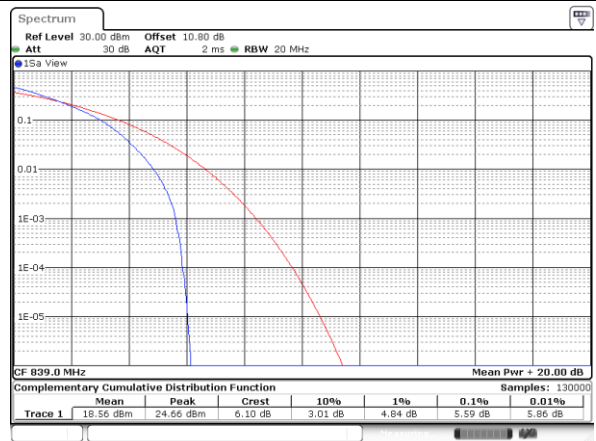
Date: 8.FEB.2020 11:45:08

Highest Channel / 1RB



Date: 8.FEB.2020 11:49:44

Highest Channel / Full RB

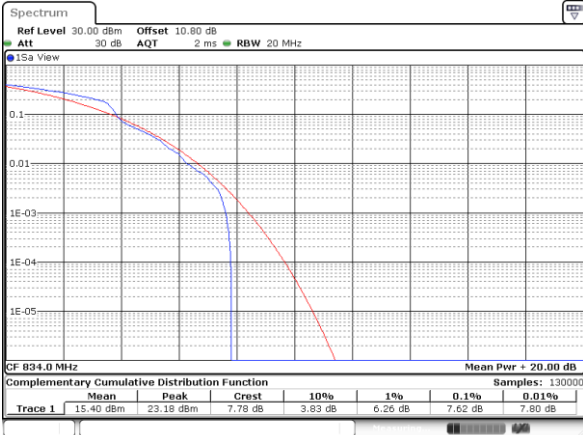


Date: 8.FEB.2020 11:49:15



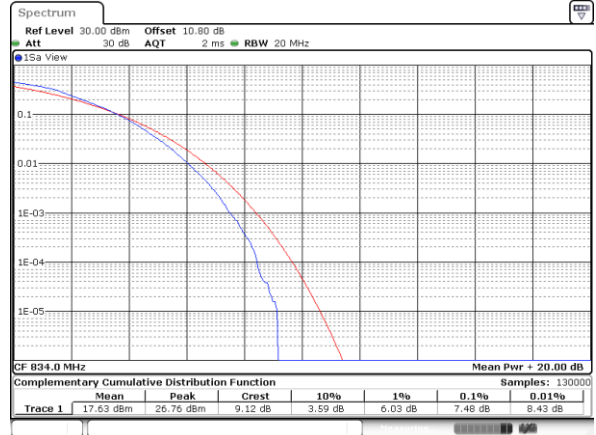
FR1 n5 / 20MHz / 256QAM / DFT-S OFDM

Lowest Channel / 1RB



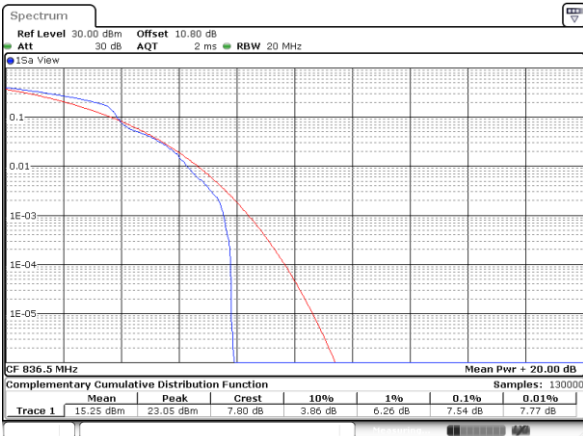
Date: 25 FEB 2020 11:54:58

Lowest Channel / Full RB



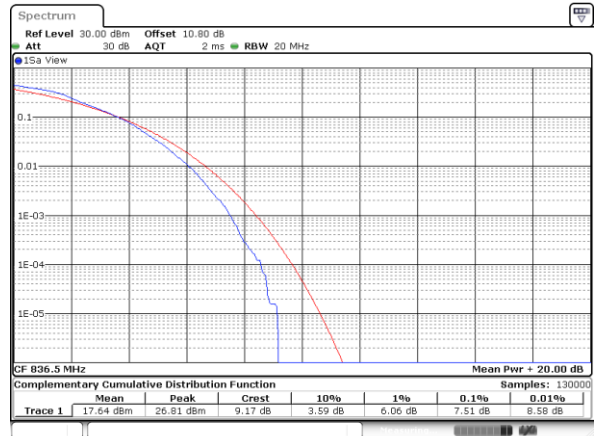
Date: 25 FEB 2020 11:54:42

Middle Channel / 1RB



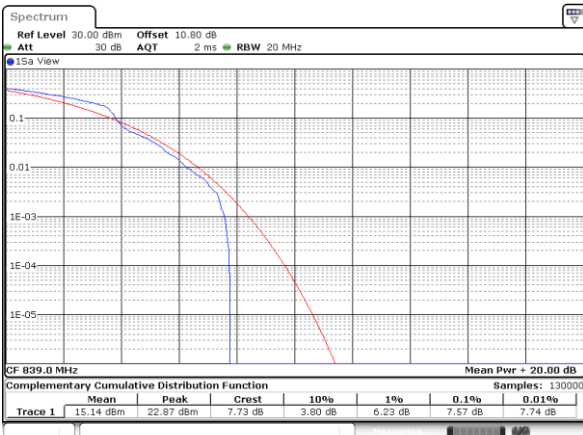
Date: 25 FEB 2020 11:55:23

Middle Channel / Full RB



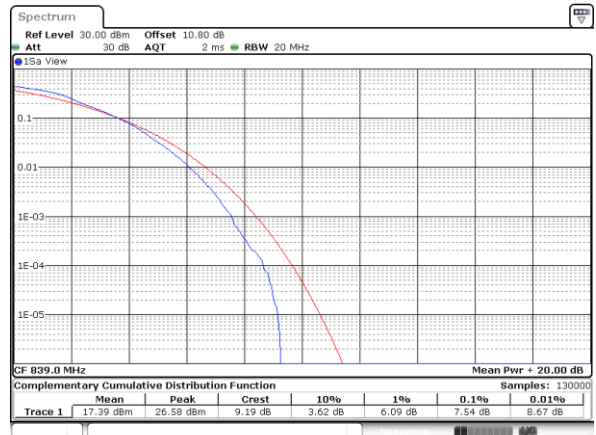
Date: 25 FEB 2020 11:55:38

Highest Channel / 1RB



Date: 25 FEB 2020 11:56:09

Highest Channel / Full RB



Date: 25 FEB 2020 11:55:54



26dB Bandwidth

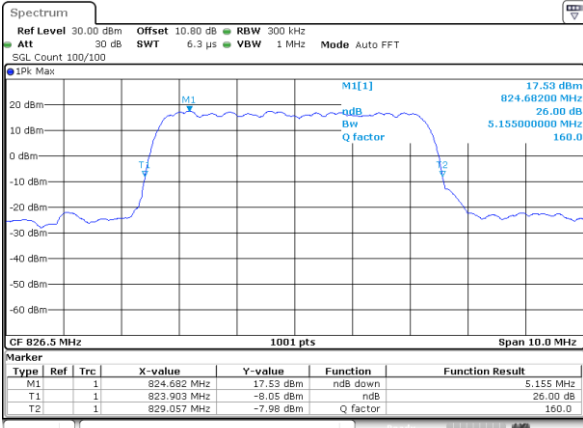
Mode	FR1 n5 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Lowest CH	5.16	5.33	9.67	9.77	14.15	14..24	18.78	18.70
Middle CH	5.18	4.98	9.71	9.73	14.24	14.33	18.86	18.70
Highest CH	5.36	5.34	9.97	9.87	14.30	14.36	18.74	18.90
Mode	FR1 n5 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	16QAM	64QAM	16QAM	64QAM	16QAM	64QAM	16QAM	64QAM
Lowest CH	5.43	5.40	9.75	9.67	14.33	14.15	18.78	18.66
Middle CH	5.07	4.99	9.79	9.77	14.39	14.21	18.70	18.74
Highest CH	5.20	5.35	9.69	9.01	14.27	14.24	18.78	18.74
Mode	FR1 n5 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	256QAM	-	256QAM	-	256QAM	-	256QAM	-
Lowest CH	5.26		9.73		14.30		18.74	
Middle CH	5.36		10.75		14.24		18.74	
Highest CH	5.32		9.79		14.30		18.66	

Mode	FR1 n5 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	5.40	5.22	10.01	10.09	14.96	14.99	19.90	19.78
Middle CH	5.26	5.36	10.07	10.09	15.08	14.84	19.90	19.82
Highest CH	5.25	5.19	10.11	10.19	14.99	14.99	19.78	19.90
Mode	FR1 n5 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	5.15	5.17	10.07	10.09	14.93	14.90	19.82	19.74
Middle CH	5.15	5.25	10.19	10.05	14.93	14.93	19.86	19.82
Highest CH	5.33	5.51	10.17	10.09	14.87	15.08	19.78	19.86



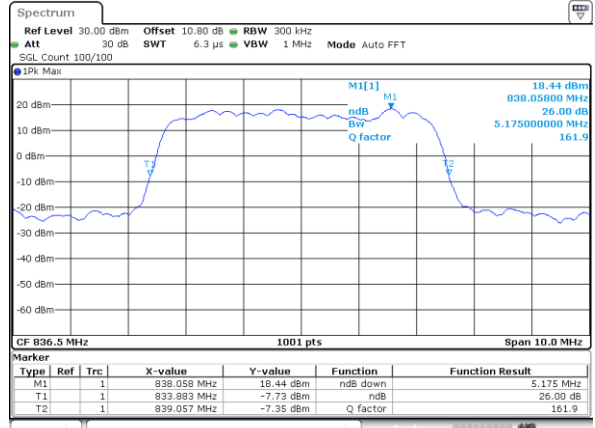
FR1 n5 / 5MHz / PI/2 BPSK

Lowest Channel / DFT-S OFDM



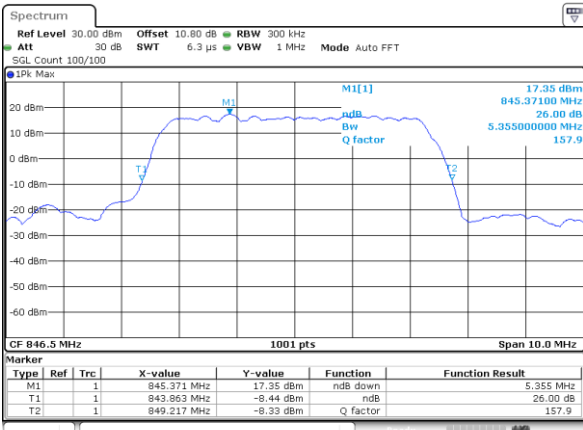
Date: 10.FEB.2020 14:30:59

Middle Channel / DFT-S OFDM



Date: 10.FEB.2020 14:29:47

Highest Channel / DFT-S OFDM

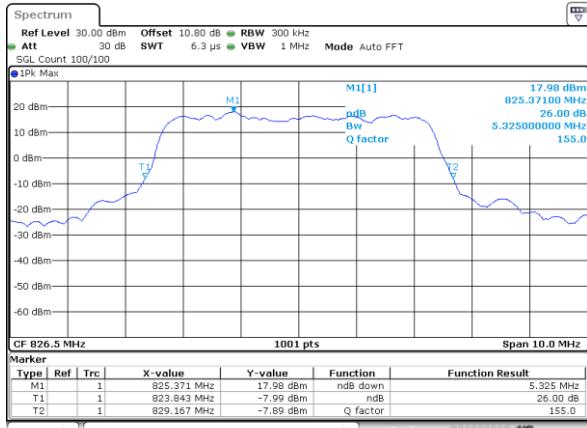


Date: 10.FEB.2020 14:35:14



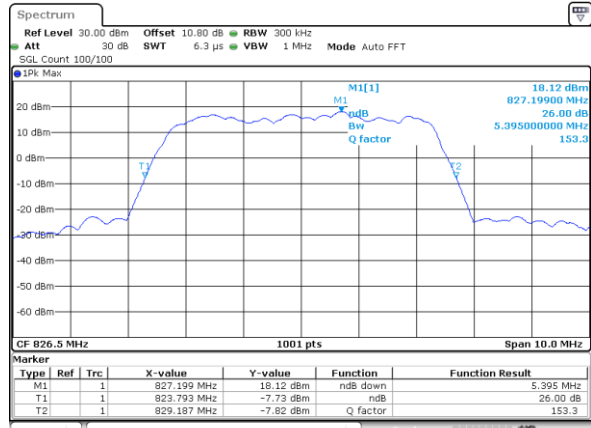
FR1 n5 / 5MHz / QPSK

Lowest Channel / DFT-S OFDM



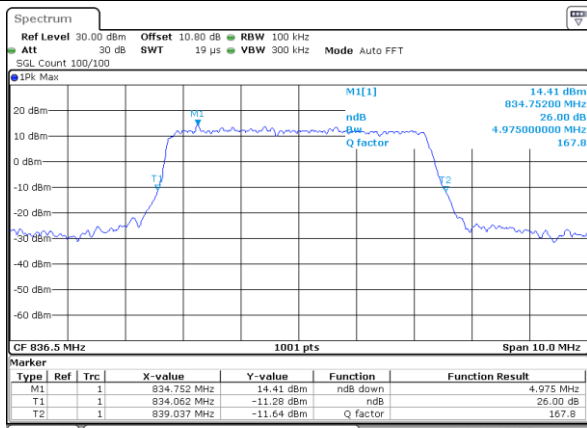
Date: 10.FEB.2020 14:31:25

Lowest Channel / CP OFDM



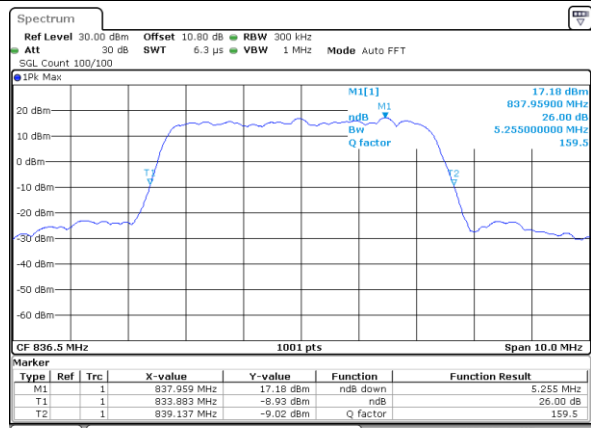
Date: 27.FEB.2020 18:58:26

Middle Channel / DFT-S OFDM



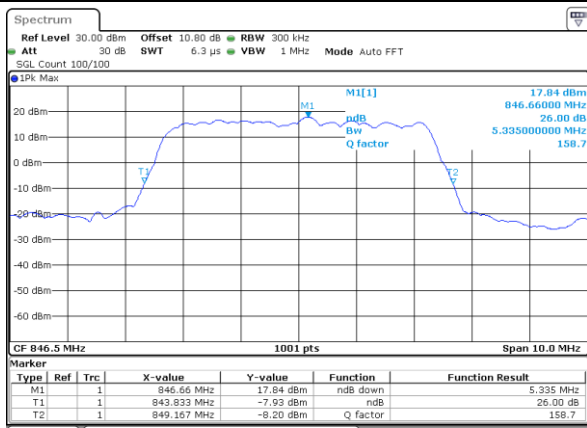
Date: 10.FEB.2020 14:17:29

Middle Channel / CP OFDM



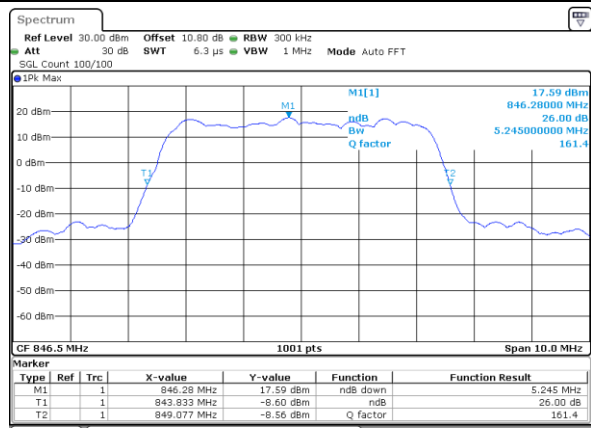
Date: 27.FEB.2020 19:03:21

Highest Channel / DFT-S OFDM



Date: 10.FEB.2020 14:34:44

Highest Channel / CP OFDM

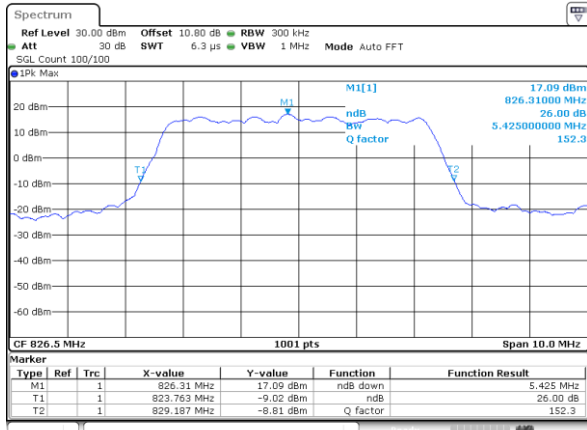


Date: 27.FEB.2020 19:04:35



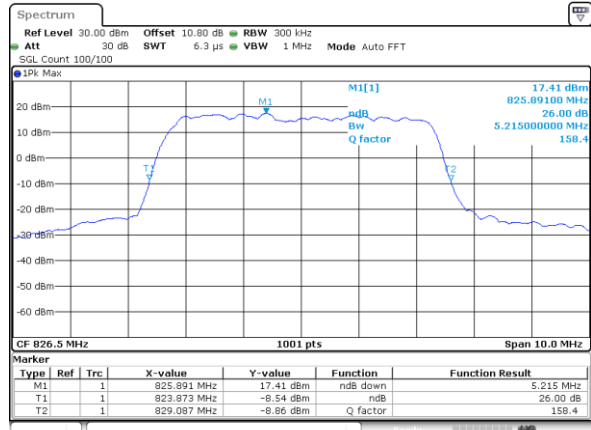
FR1 n5 / 5MHz / 16QAM

Lowest Channel / DFT-S OFDM



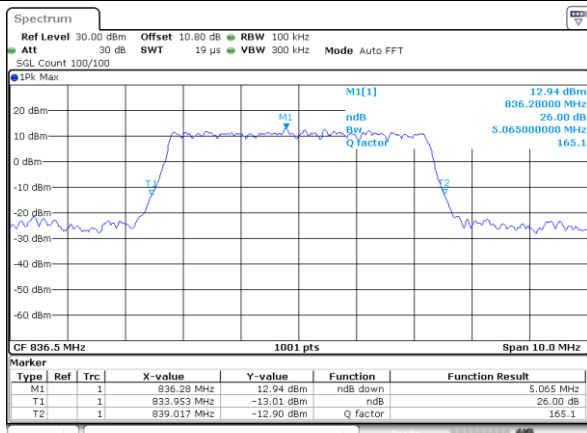
Date: 10.FEB.2020 14:31:52

Lowest Channel / CP OFDM



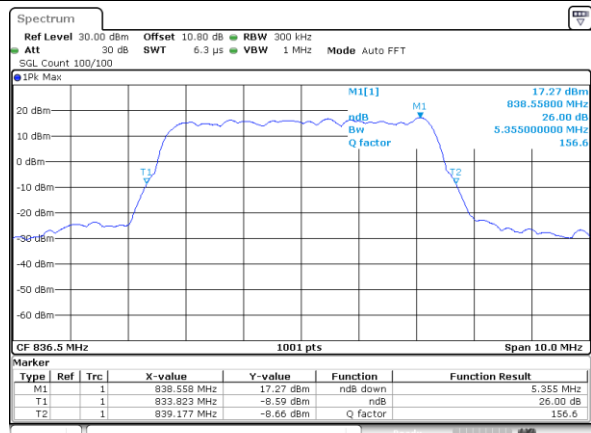
Date: 27.FEB.2020 18:58:43

Middle Channel / DFT-S OFDM



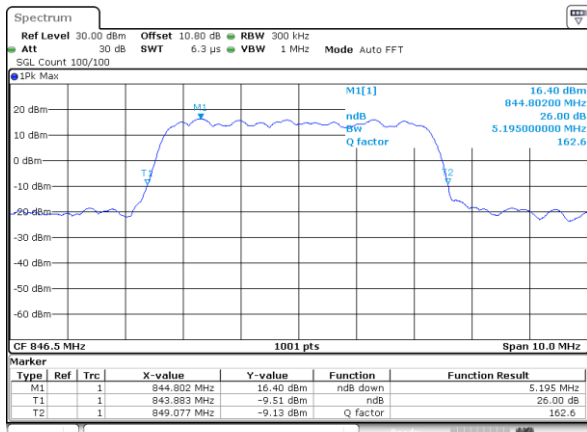
Date: 10.FEB.2020 14:22:23

Middle Channel / CP OFDM



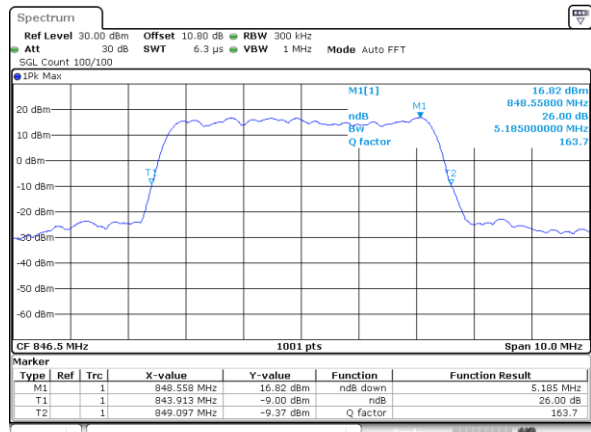
Date: 27.FEB.2020 19:02:39

Highest Channel / DFT-S OFDM



Date: 10.FEB.2020 14:34:12

Highest Channel / CP OFDM

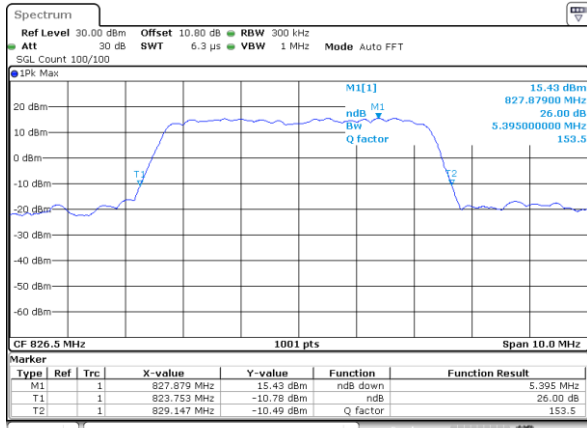


Date: 27.FEB.2020 19:04:51



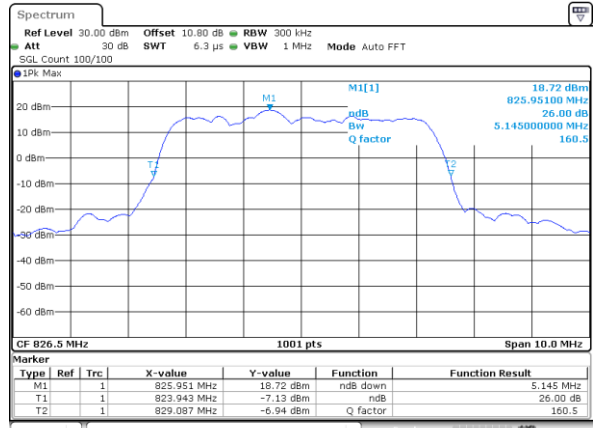
FR1 n5 / 5MHz / 64QAM

Lowest Channel / DFT-S OFDM



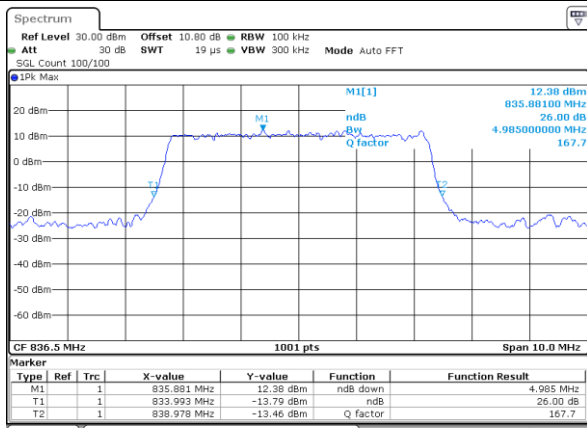
Date: 10.FEB.2020 14:32:18

Lowest Channel / CP OFDM



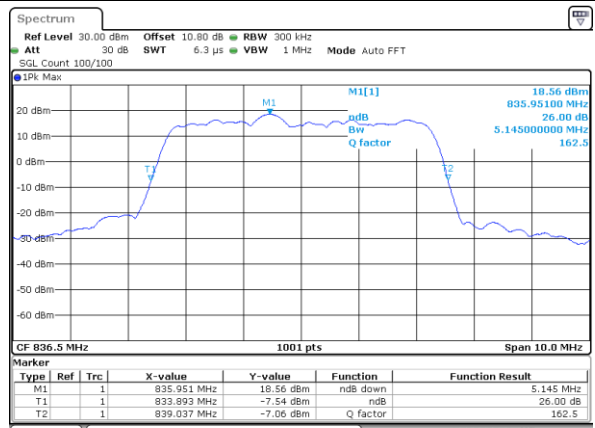
Date: 27.FEB.2020 18:59:25

Middle Channel / DFT-S OFDM



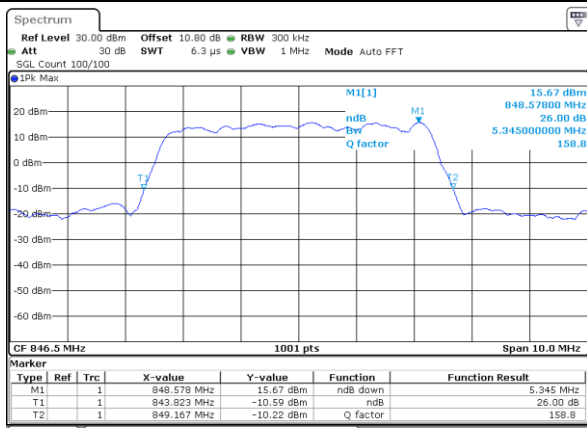
Date: 10.FEB.2020 14:21:20

Middle Channel / CP OFDM



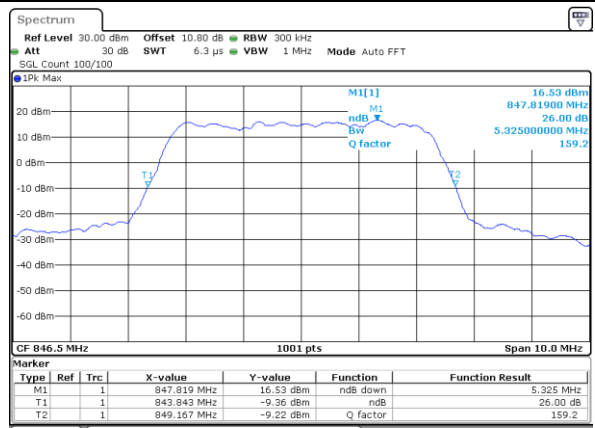
Date: 27.FEB.2020 19:01:48

Highest Channel / DFT-S OFDM



Date: 10.FEB.2020 14:33:43

Highest Channel / CP OFDM

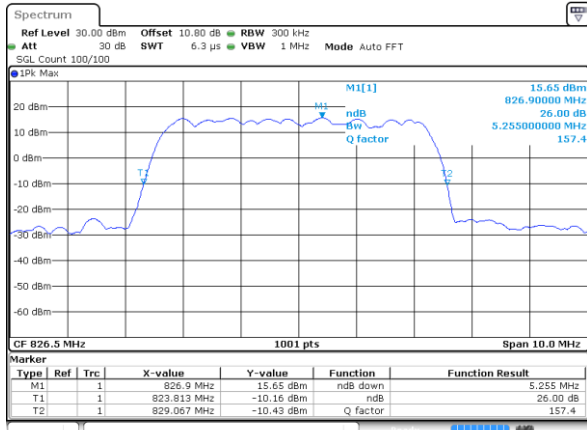


Date: 27.FEB.2020 19:05:38



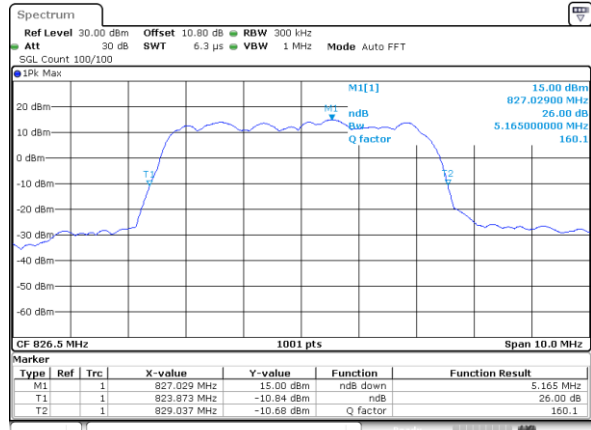
FR1 n5 / 5MHz / 256QAM

Lowest Channel / DFT-S OFDM



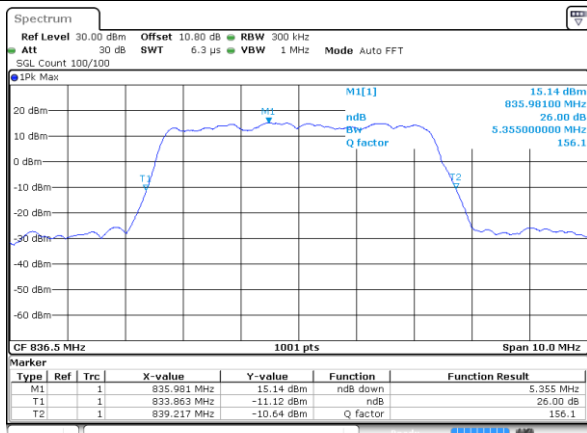
Date: 25.FEB.2020 11:44:49

Lowest Channel / CP OFDM



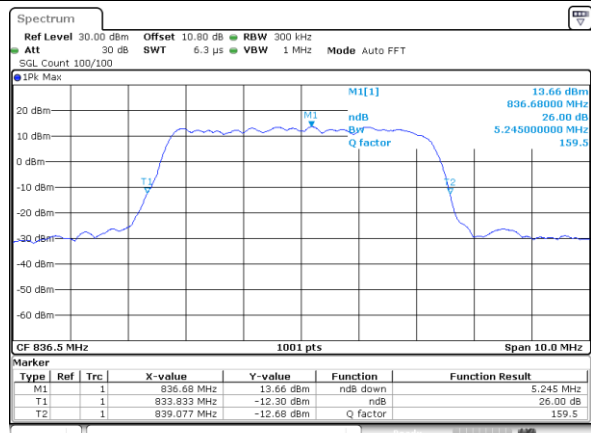
Date: 27.FEB.2020 19:00:27

Middle Channel / DFT-S OFDM



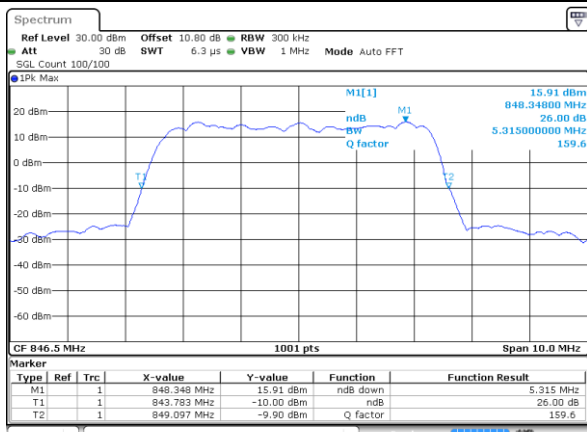
Date: 25.FEB.2020 11:45:17

Middle Channel / CP OFDM



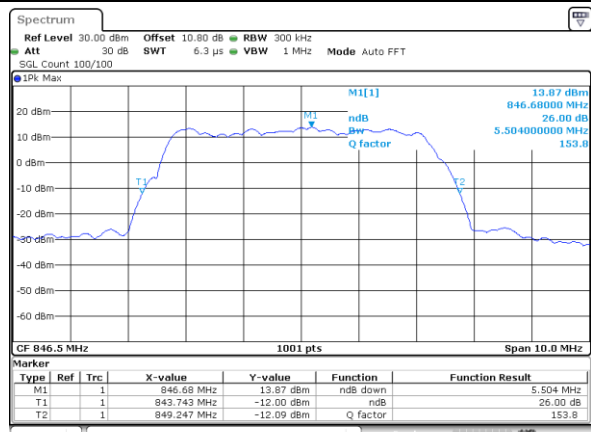
Date: 27.FEB.2020 19:00:29

Highest Channel / DFT-S OFDM



Date: 25.FEB.2020 11:46:00

Highest Channel / CP OFDM

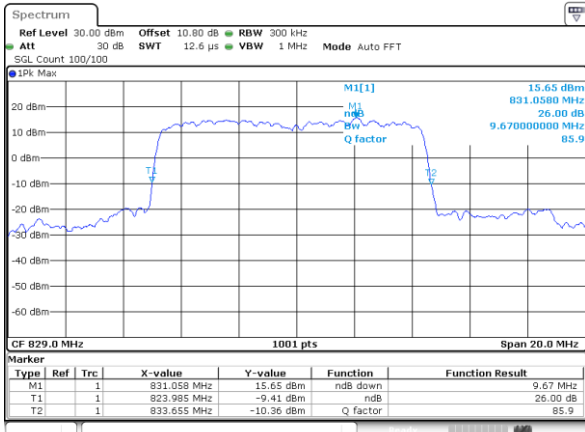


Date: 27.FEB.2020 19:00:55



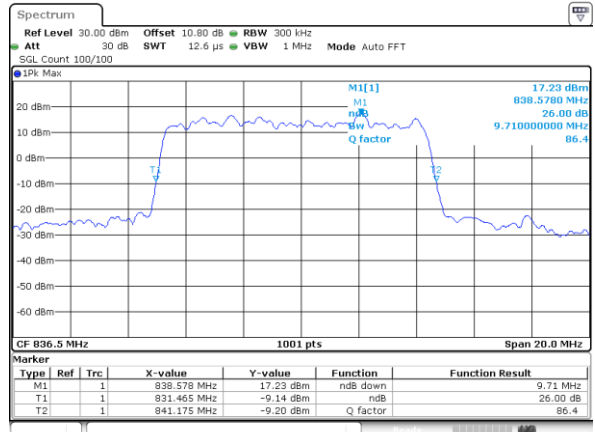
FR1 n5 / 10MHz / PI/2 BPSK

Lowest Channel / DFT-S OFDM



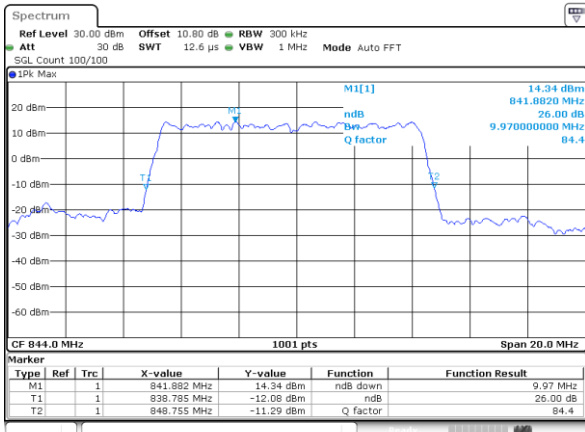
Date: 10.FEB.2020 14:36:46

Middle Channel / DFT-S OFDM



Date: 10.FEB.2020 14:37:20

Highest Channel / DFT-S OFDM

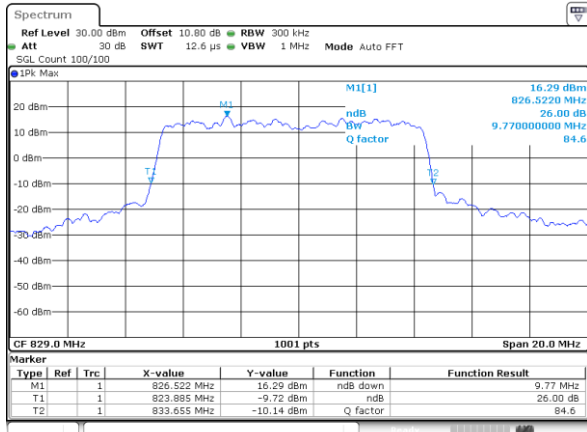


Date: 10.FEB.2020 14:37:51



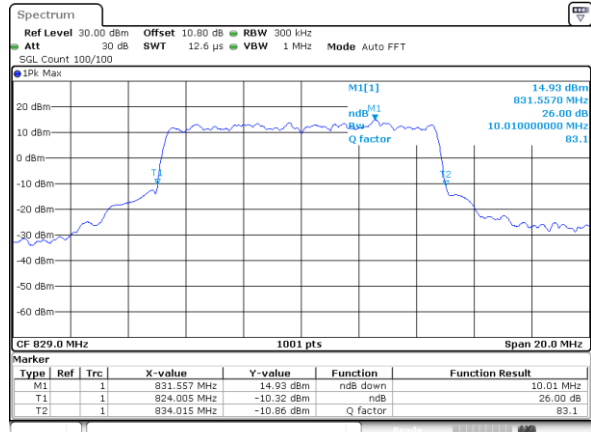
FR1 n5 / 10MHz / QPSK

Lowest Channel / DFT-S OFDM



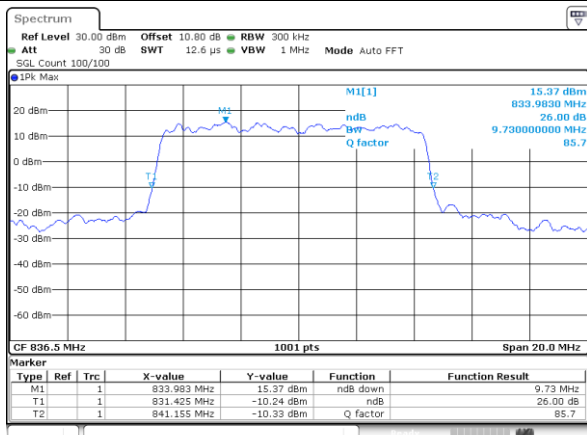
Date: 8.FEB.2020 10:43:36

Lowest Channel / CP OFDM



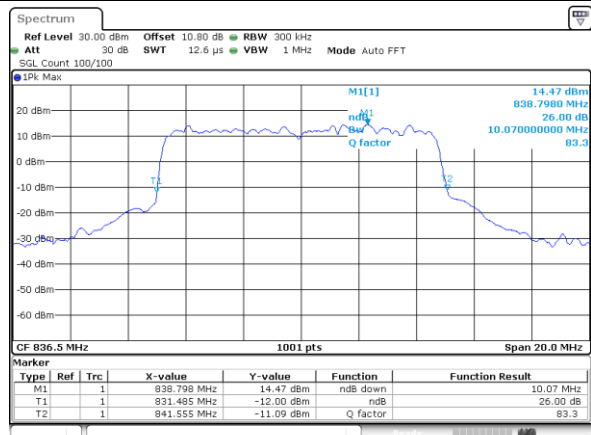
Date: 27.FEB.2020 19:10:52

Middle Channel / DFT-S OFDM



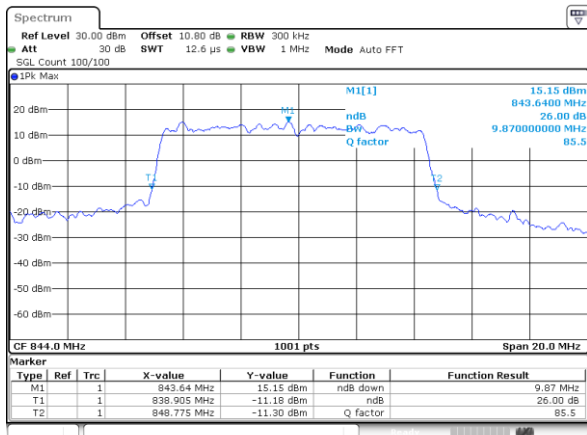
Date: 8.FEB.2020 10:46:52

Middle Channel / CP OFDM



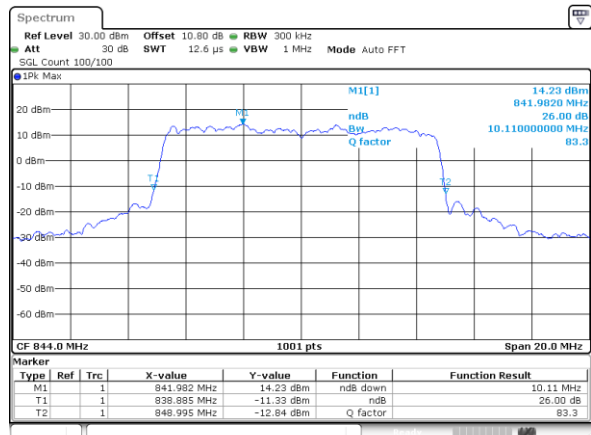
Date: 27.FEB.2020 19:11:46

Highest Channel / DFT-S OFDM



Date: 8.FEB.2020 10:50:20

Highest Channel / CP OFDM

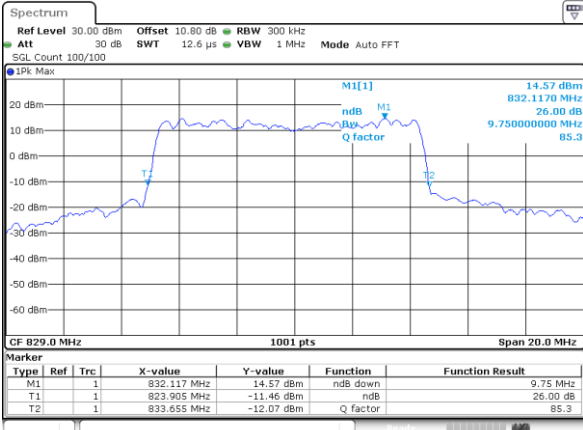


Date: 27.FEB.2020 19:12:29

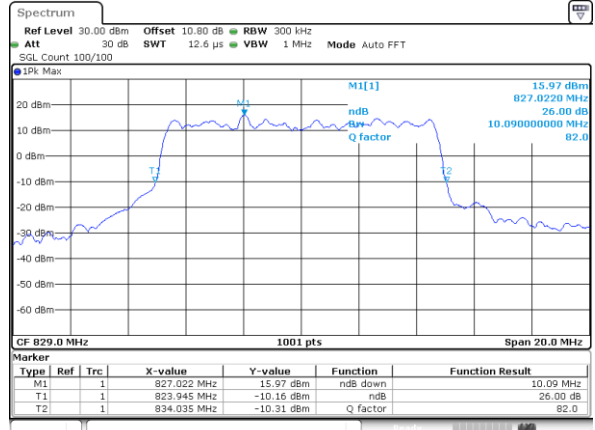


FR1 n5 / 10MHz / 16QAM

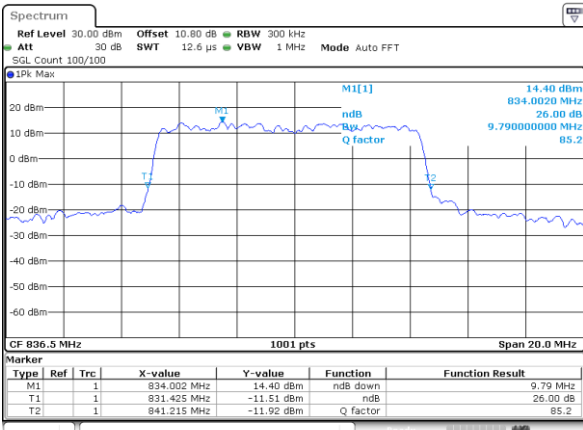
Lowest Channel / DFT-S OFDM



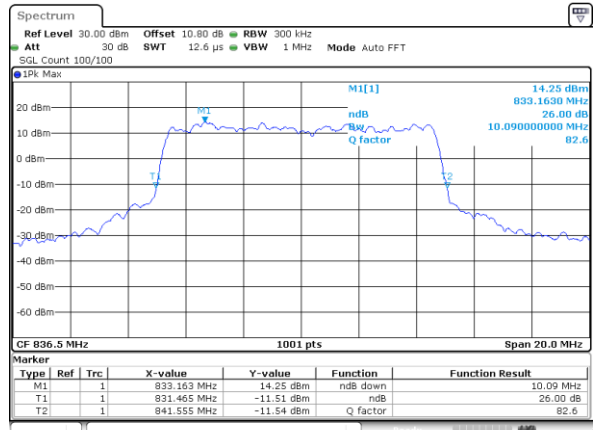
Lowest Channel / CP OFDM



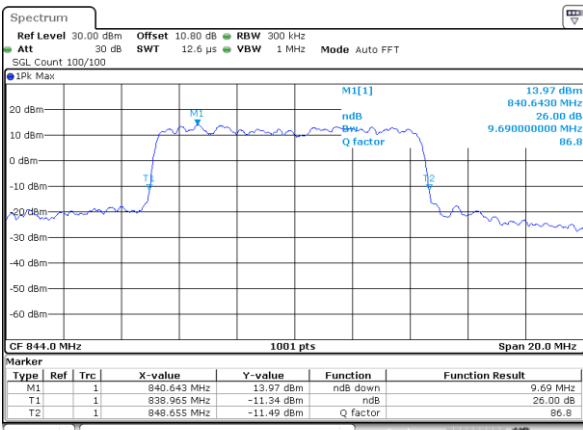
Middle Channel / DFT-S OFDM



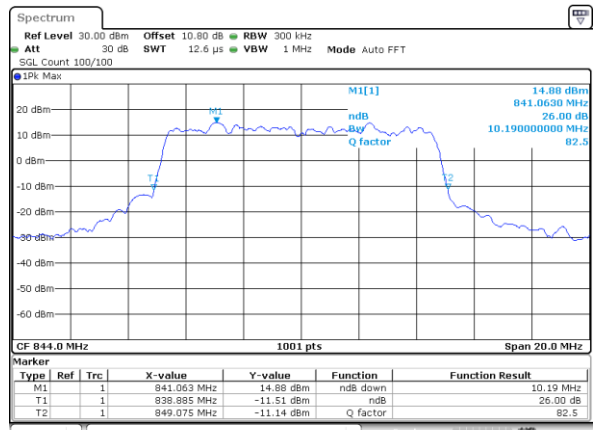
Middle Channel / CP OFDM



Highest Channel / DFT-S OFDM



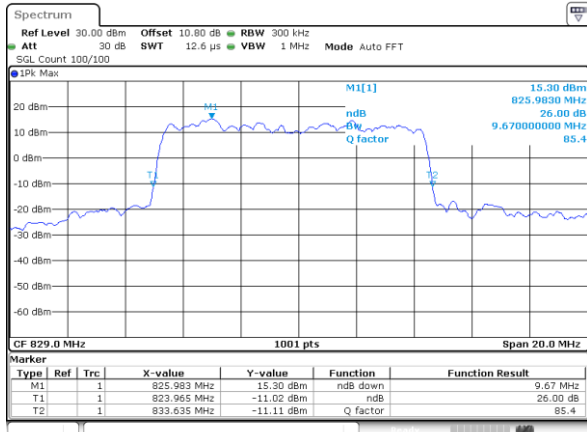
Highest Channel / CP OFDM





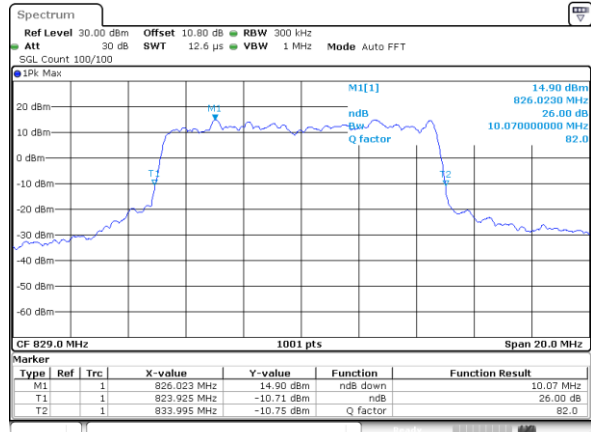
FR1 n5 / 10MHz / 64QAM

Lowest Channel / DFT-S OFDM



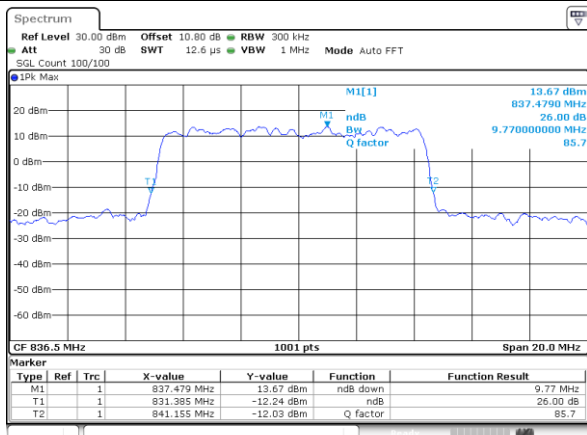
Date: 8.FEB.2020 10:46:04

Lowest Channel / CP OFDM



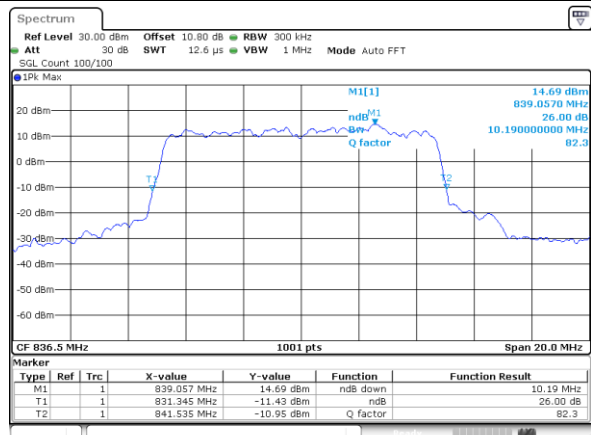
Date: 27.FEB.2020 19:07:59

Middle Channel / DFT-S OFDM



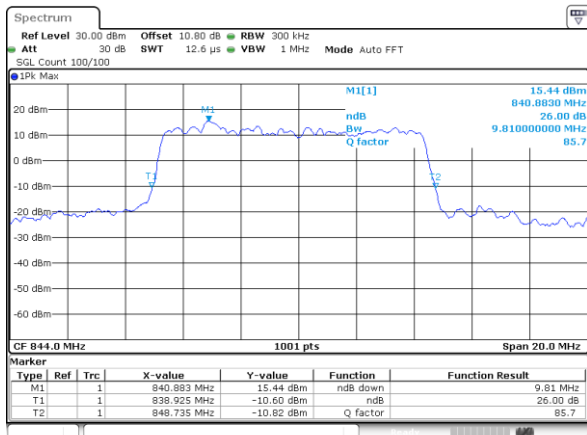
Date: 8.FEB.2020 10:48:52

Middle Channel / CP OFDM



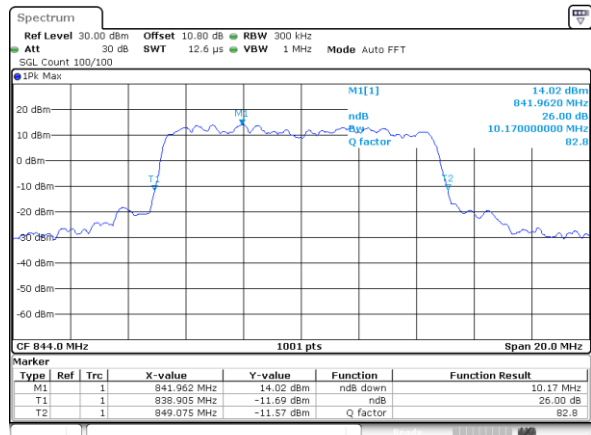
Date: 27.FEB.2020 19:10:38

Highest Channel / DFT-S OFDM



Date: 8.FEB.2020 10:52:17

Highest Channel / CP OFDM

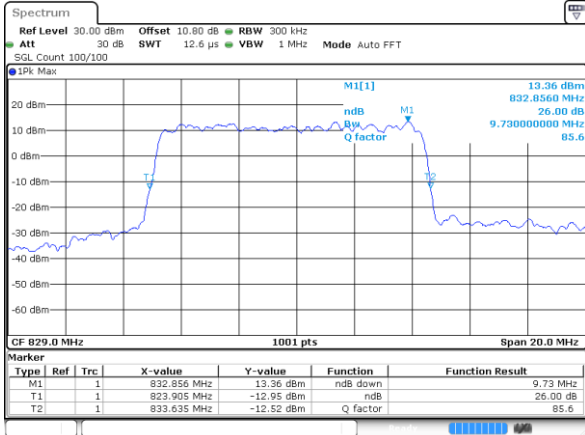


Date: 27.FEB.2020 19:13:39



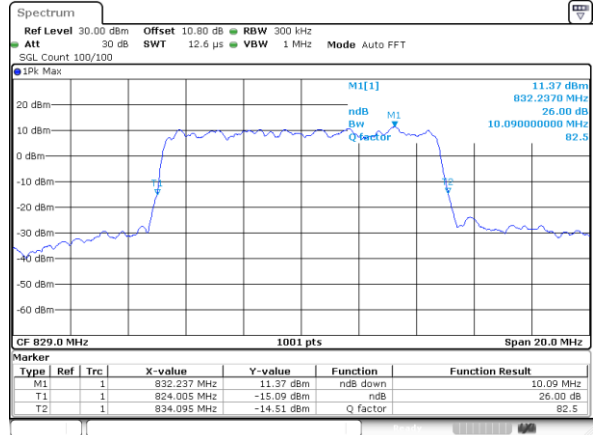
FR1 n5 / 10MHz / 256QAM

Lowest Channel / DFT-S OFDM



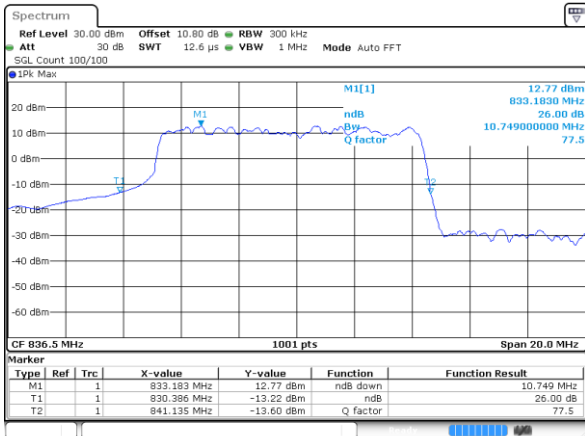
Date: 25.FEB.2020 11:46:31

Lowest Channel / CP OFDM



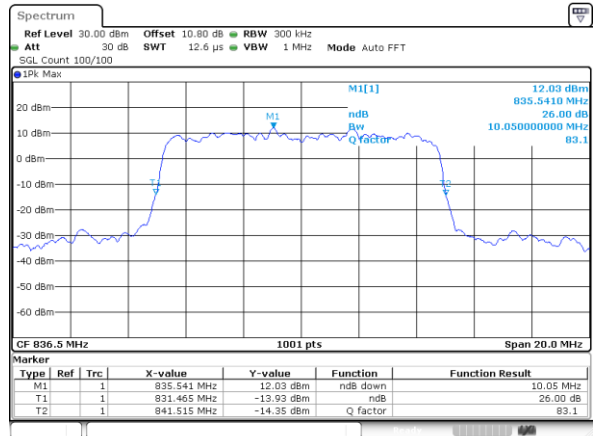
Date: 27.FEB.2020 19:08:56

Middle Channel / DFT-S OFDM



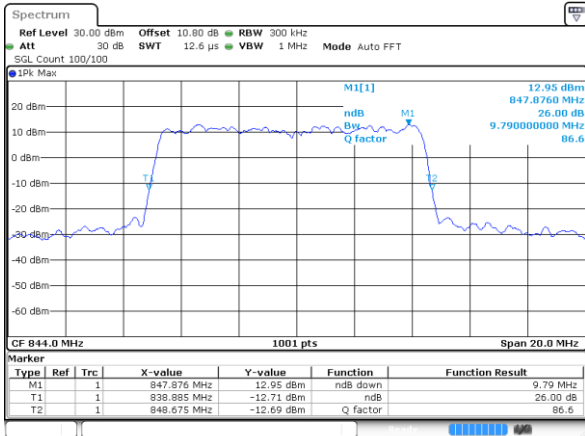
Date: 25.FEB.2020 11:47:22

Middle Channel / CP OFDM



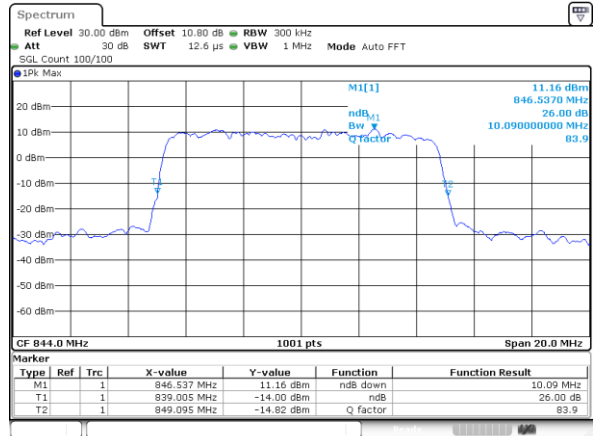
Date: 27.FEB.2020 19:09:22

Highest Channel / DFT-S OFDM



Date: 25.FEB.2020 11:47:41

Highest Channel / CP OFDM

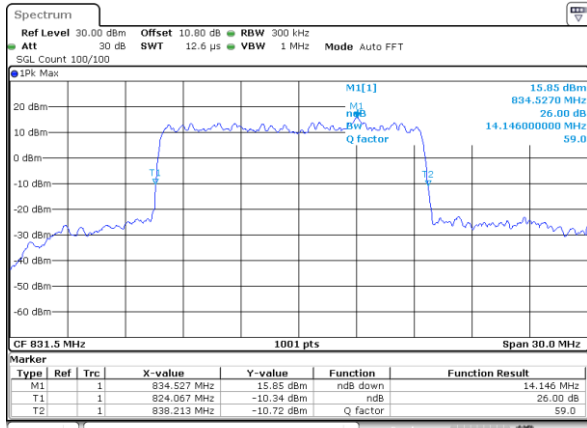


Date: 27.FEB.2020 19:11:56



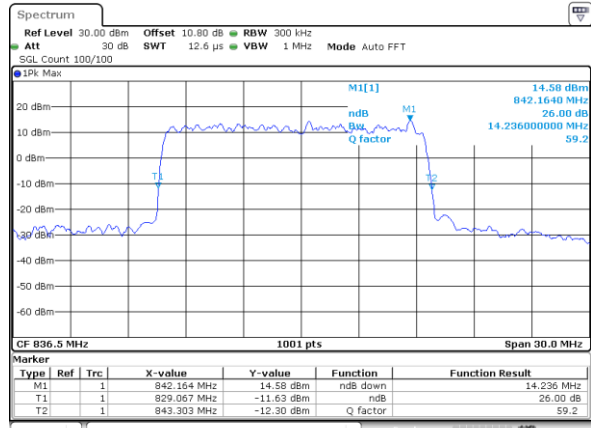
FR1 n5 / 15MHz / PI/2 BPSK

Lowest Channel / DFT-S OFDM



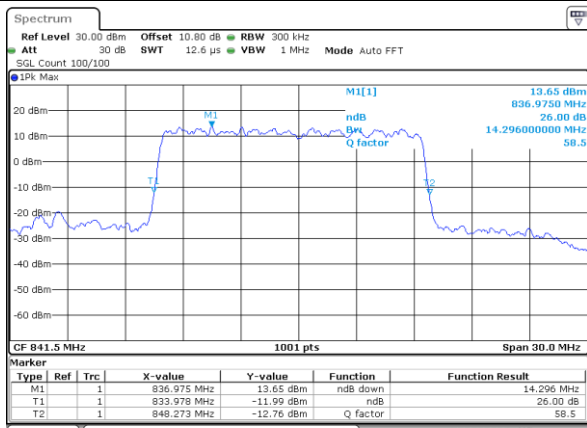
Date: 10.FEB.2020 14:39:27

Middle Channel / DFT-S OFDM



Date: 10.FEB.2020 14:40:01

Highest Channel / DFT-S OFDM



Date: 10.FEB.2020 14:40:33