



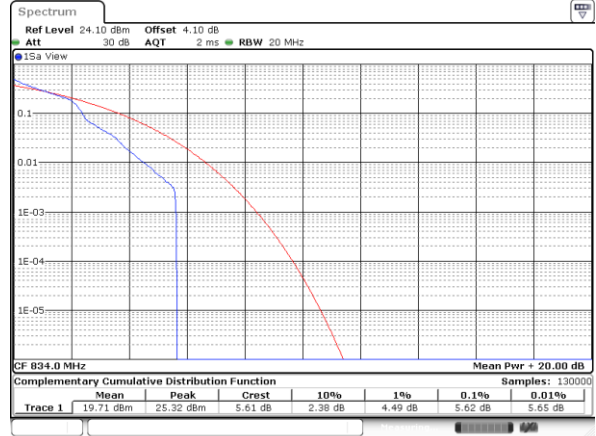
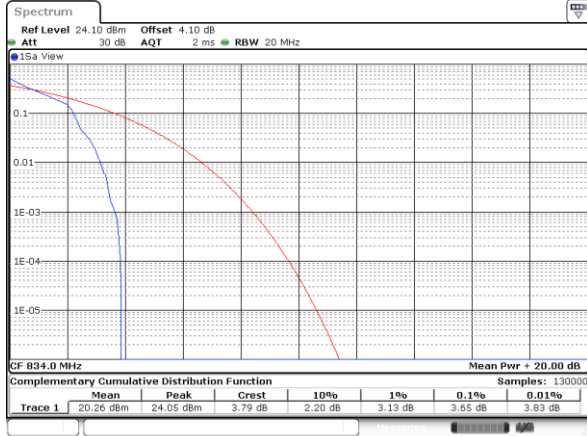
FR1 n5+2A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

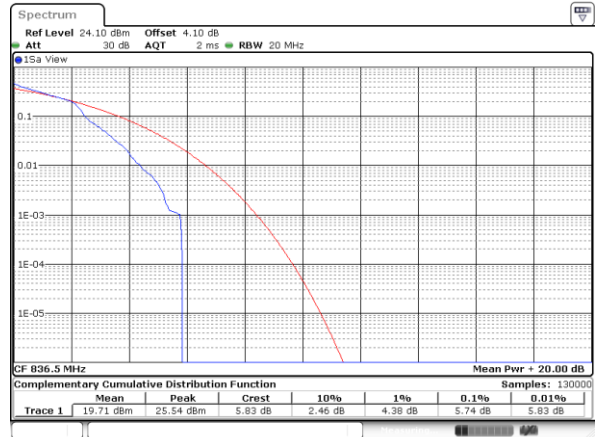
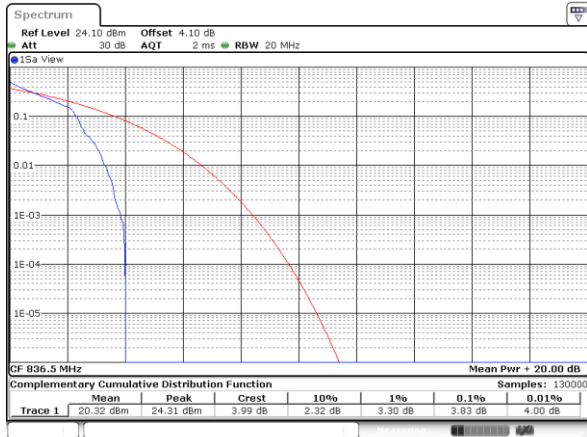


Date: 3.FEB.2021 00:36:29

Date: 3.FEB.2021 00:36:16

Middle Channel / 1 RB

Middle Channel / 1 RB

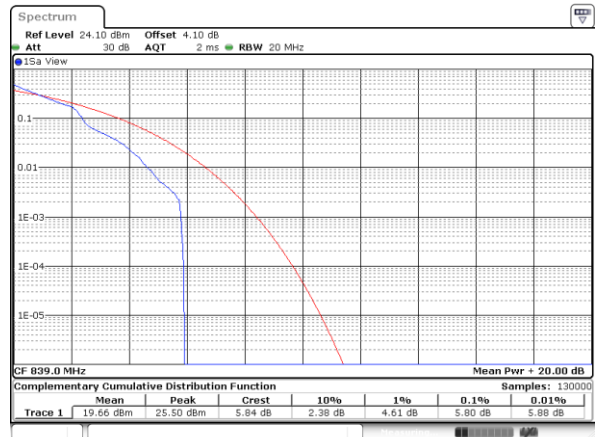
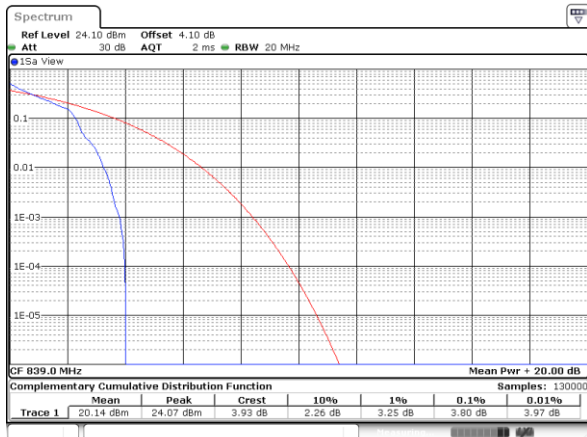


Date: 3.FEB.2021 00:37:01

Date: 3.FEB.2021 00:37:16

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 3.FEB.2021 00:39:20

Date: 3.FEB.2021 00:39:01



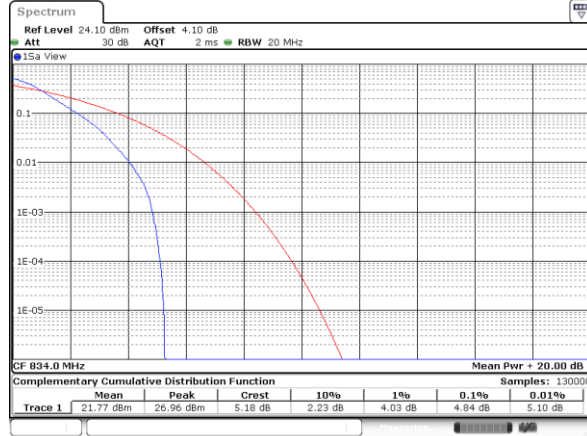
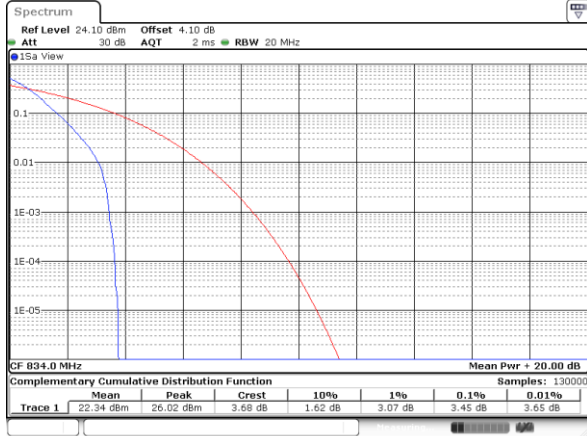
FR1 n5+2A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

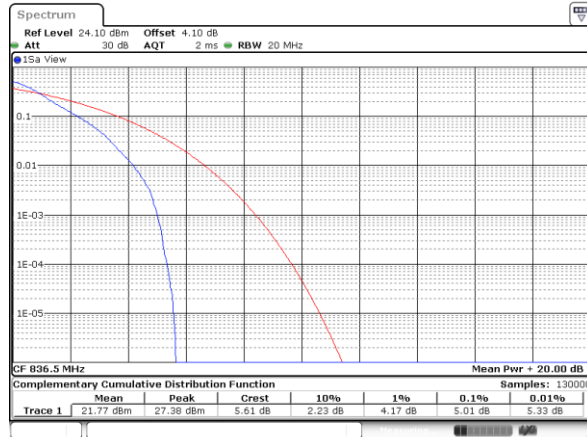
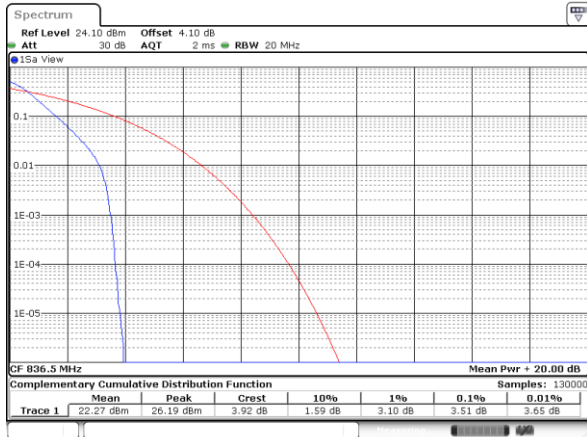


Date: 3.FEB.2021 00:35:44

Date: 3.FEB.2021 00:35:58

Middle Channel / Full RB

Middle Channel / Full RB

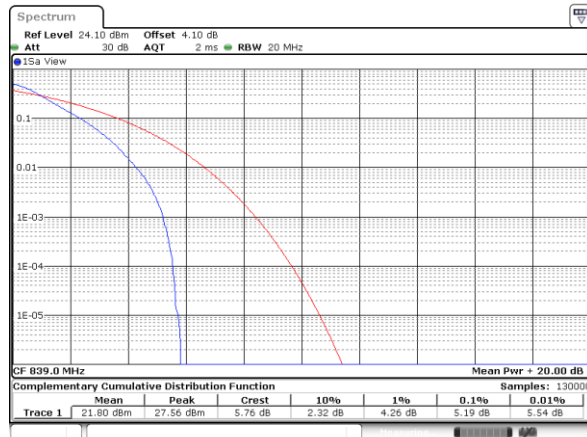
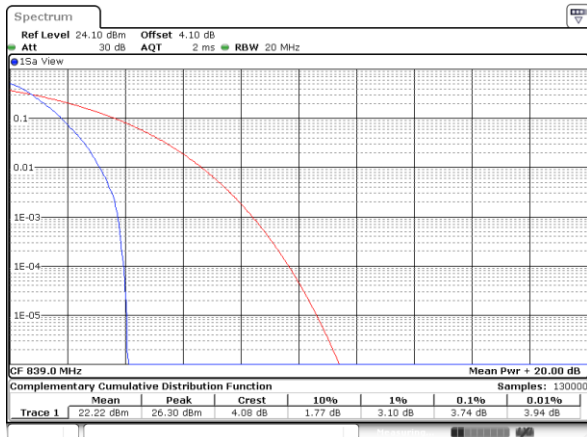


Date: 3.FEB.2021 00:37:51

Date: 3.FEB.2021 00:37:37

Highest Channel / Full RB

Highest Channel / Full RB



Date: 3.FEB.2021 00:38:22

Date: 3.FEB.2021 00:38:41



26dB Bandwidth

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM			
BW	5MHz	5MHz	5MHz	5MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	4.87	4.92	4.87	4.96

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM			
BW	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.71	9.91	9.81	9.79

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM			
BW	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	14.93	14.87	14.93	14.93

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM			
BW	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	19.90	19.90	19.78	19.82



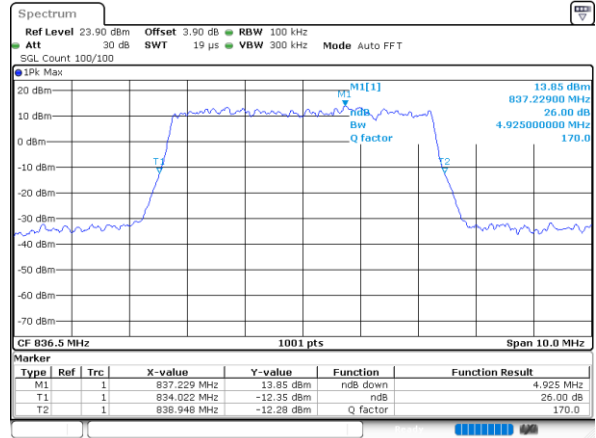
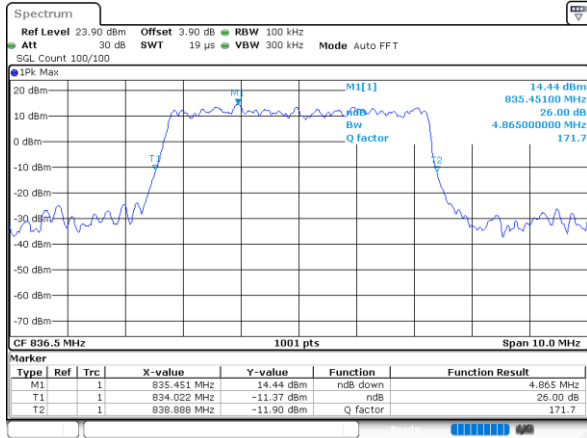
FR1 n5+2A / 5MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:42:54

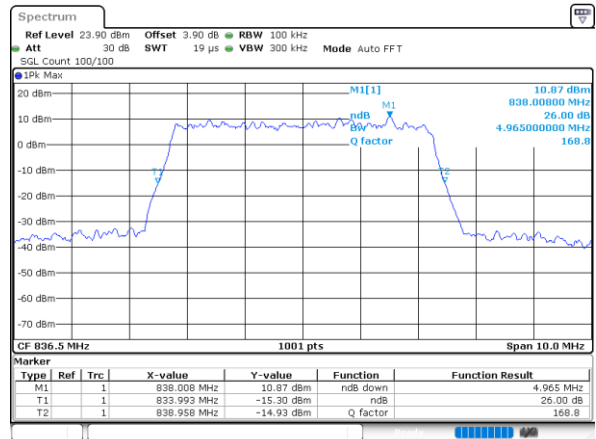
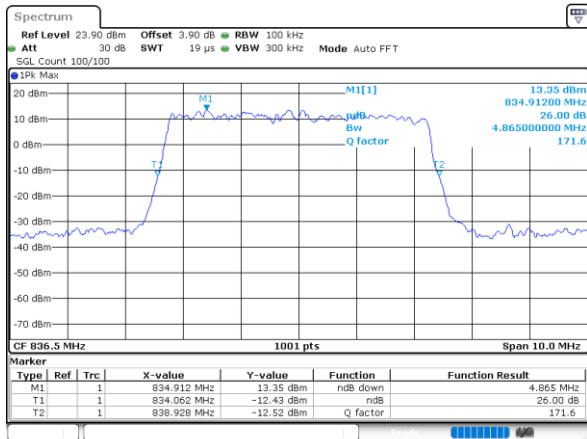
Date: 28_JAN.2021 03:43:13

64QAM

256QAM

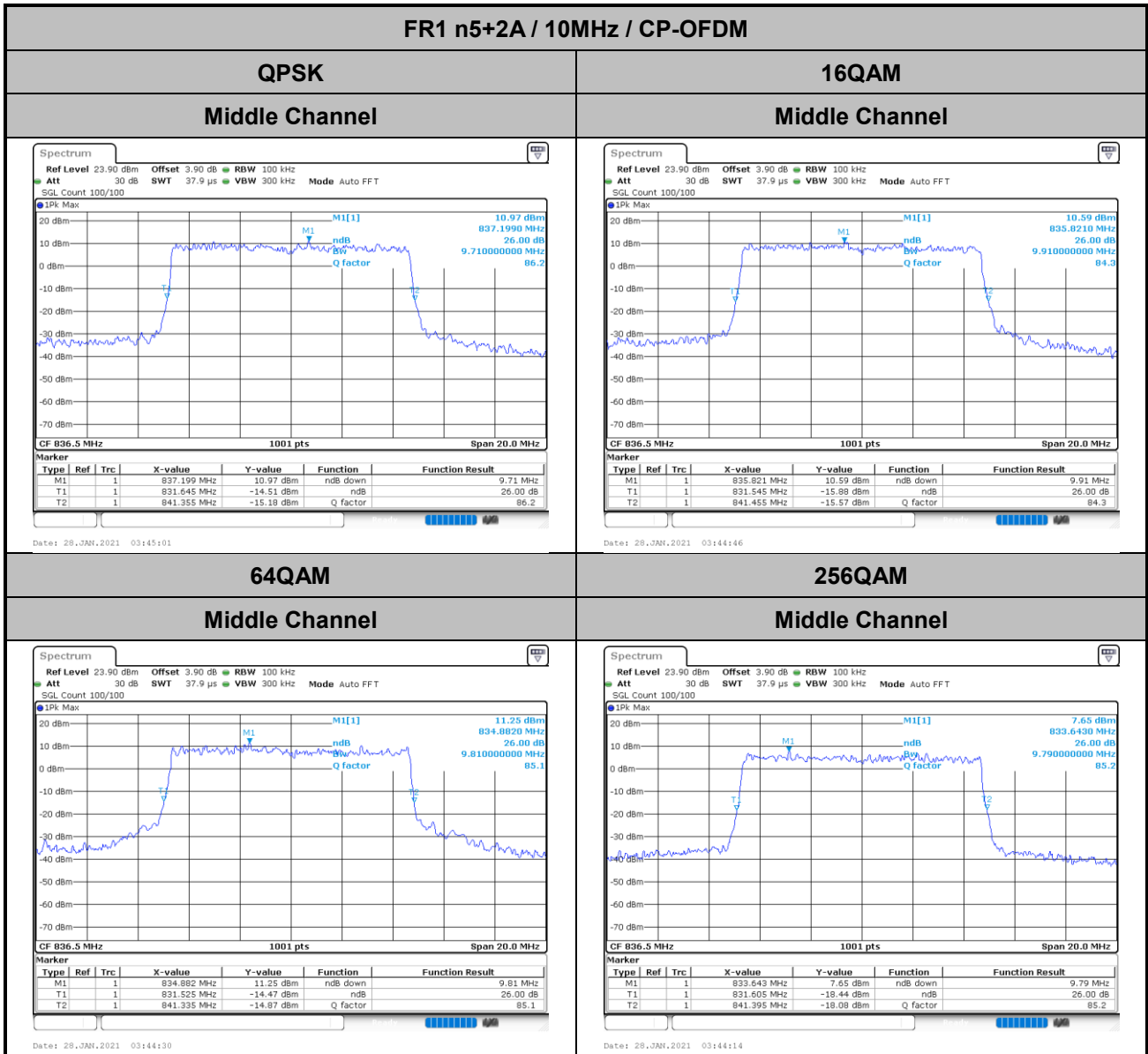
Middle Channel

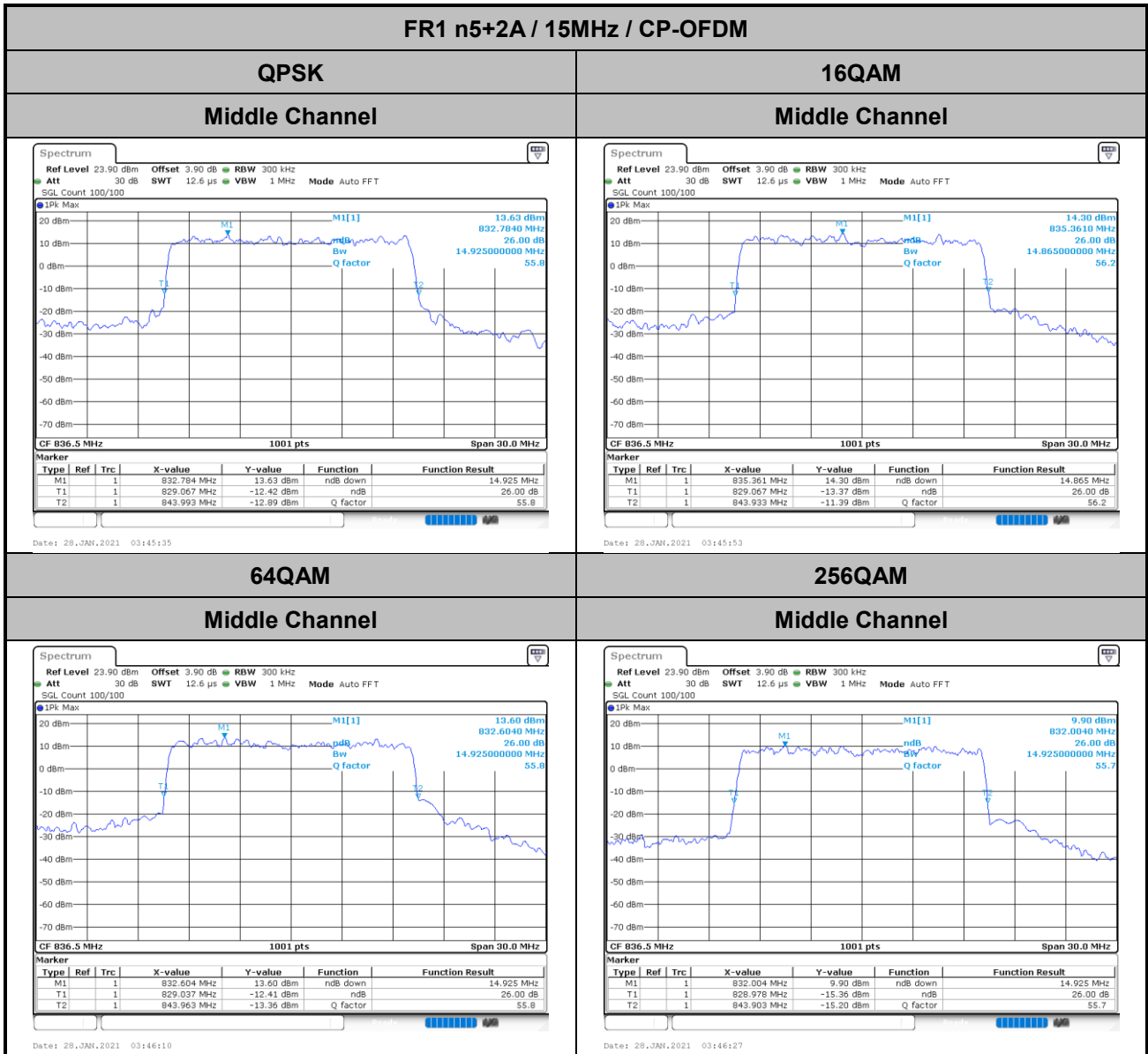
Middle Channel

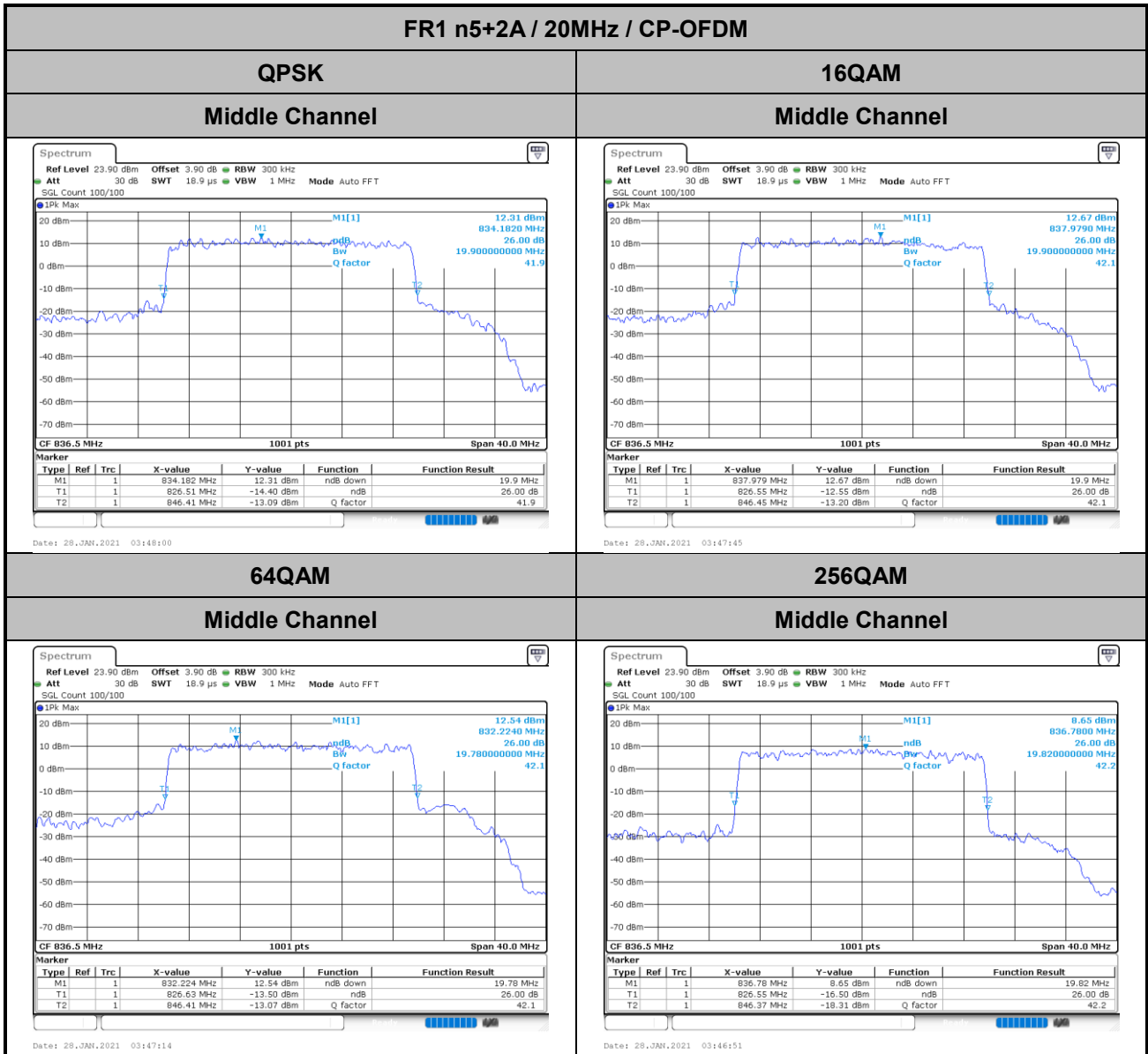


Date: 28_JAN.2021 03:43:31

Date: 28_JAN.2021 03:43:47









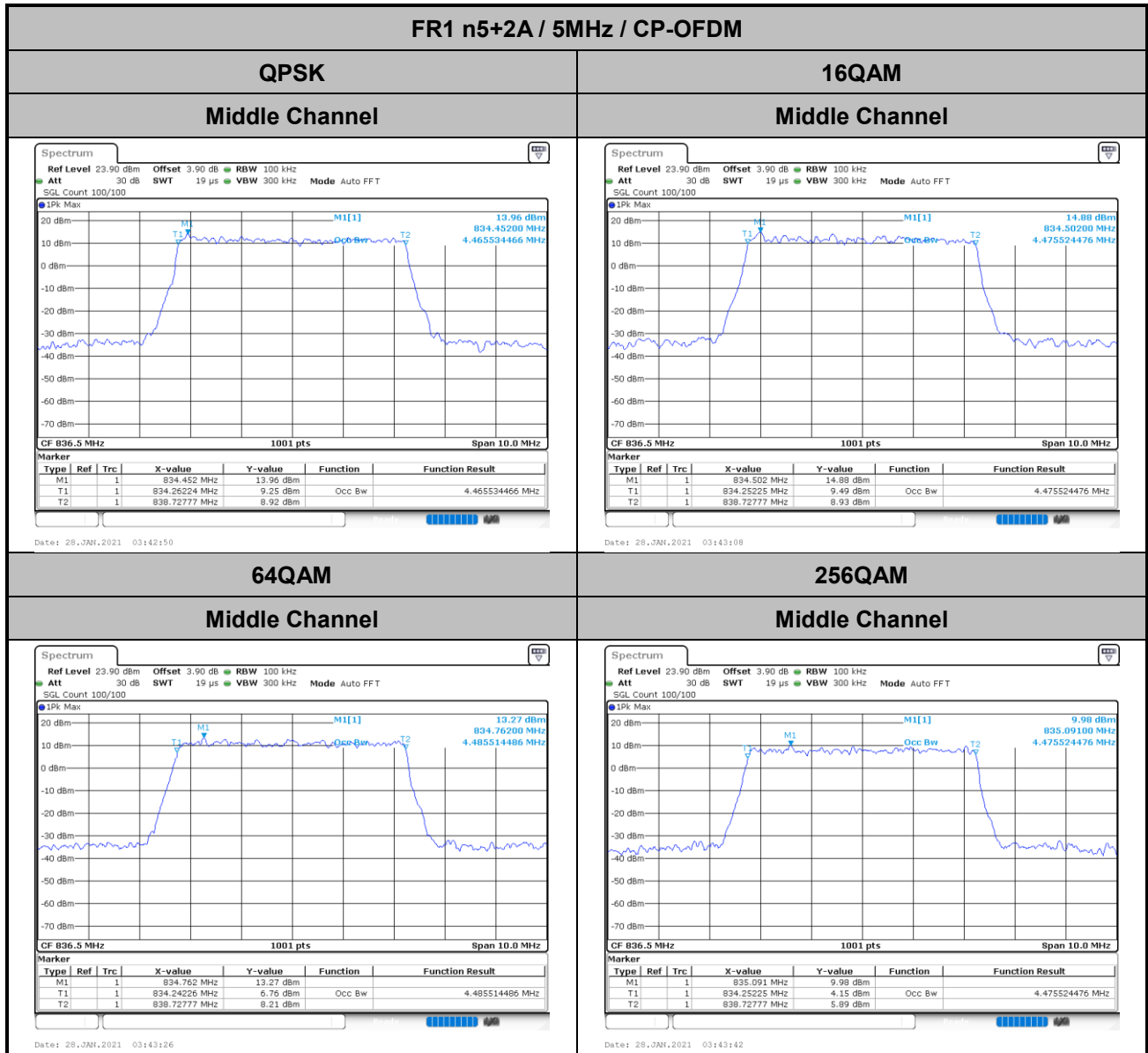
Occupied Bandwidth

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM			
BW	5MHz	5MHz	5MHz	5MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	4.47	4.48	4.49	4.48

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM			
BW	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.29	9.25	9.29	9.29

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM			
BW	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	14.09	14.12	14.12	14.18

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM			
BW	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	18.86	18.94	18.94	18.94





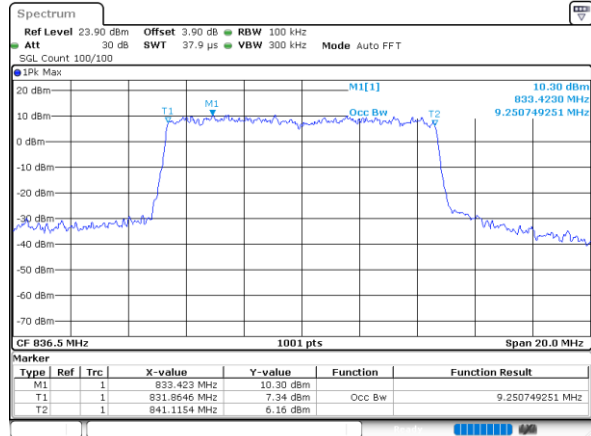
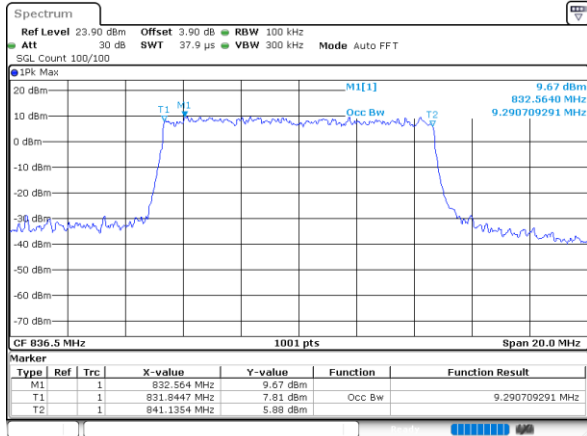
FR1 n5+2A / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 28_JAN_2021 03:44:56

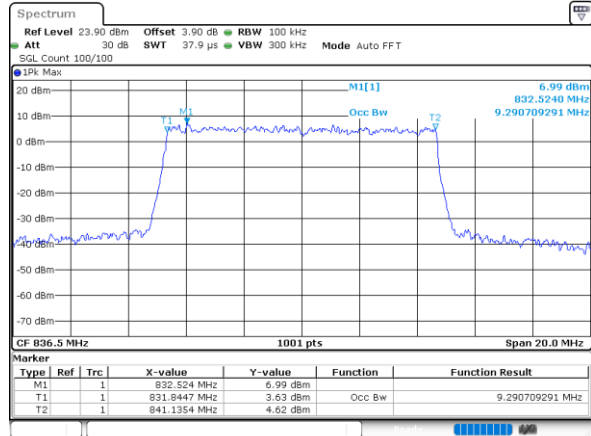
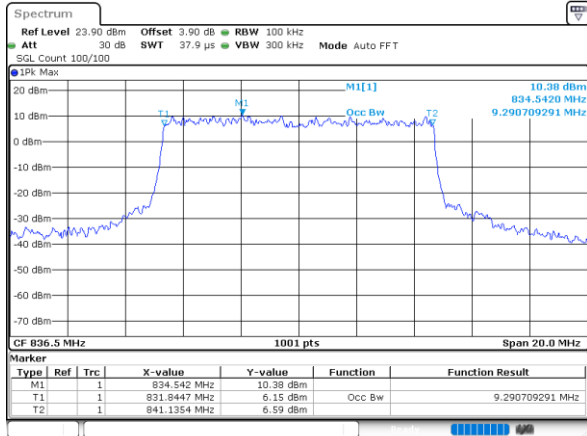
Date: 28_JAN_2021 03:44:41

64QAM

256QAM

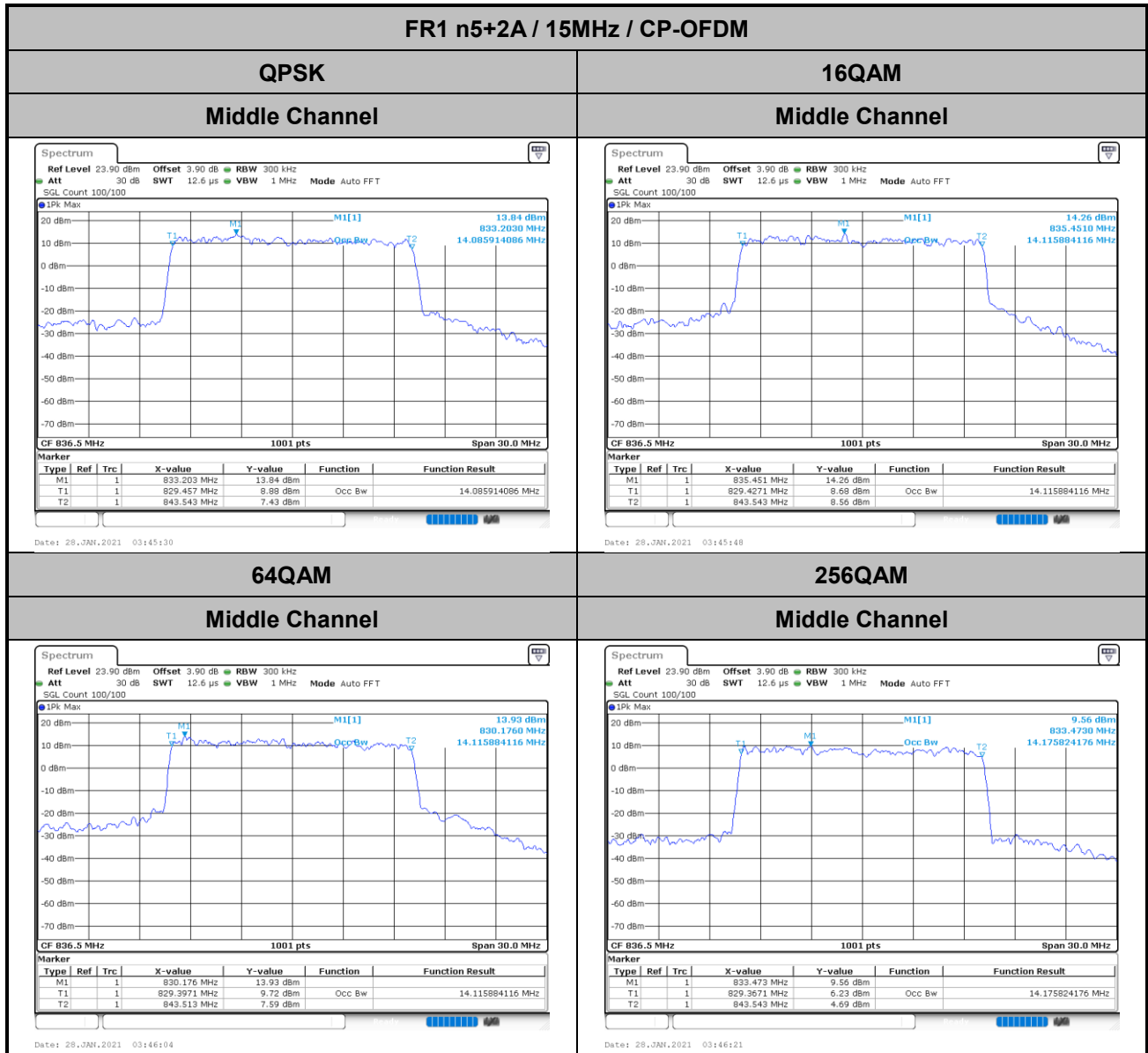
Middle Channel

Middle Channel



Date: 28_JAN_2021 03:44:25

Date: 28_JAN_2021 03:44:08





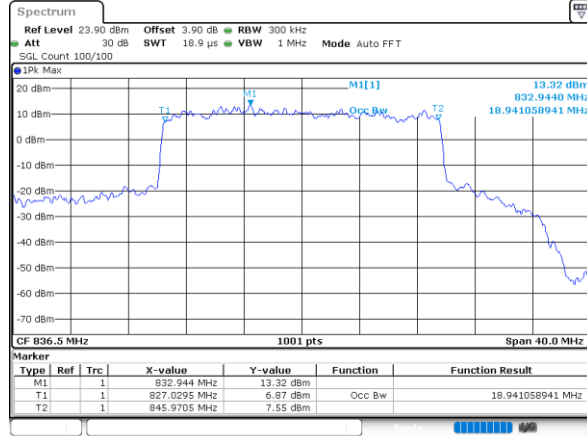
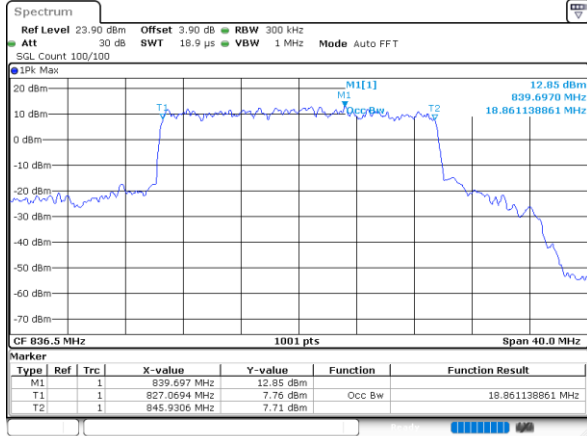
FR1 n5+2A / 20MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:47:56

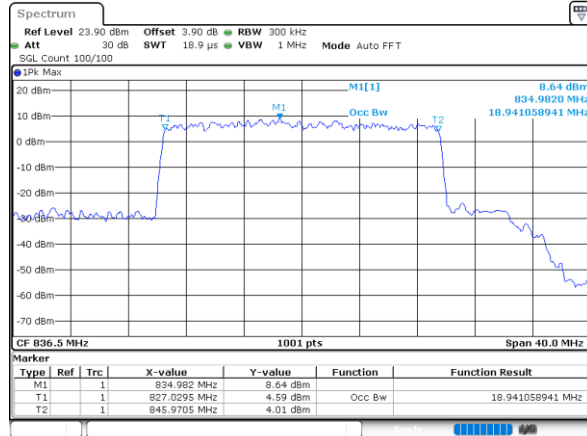
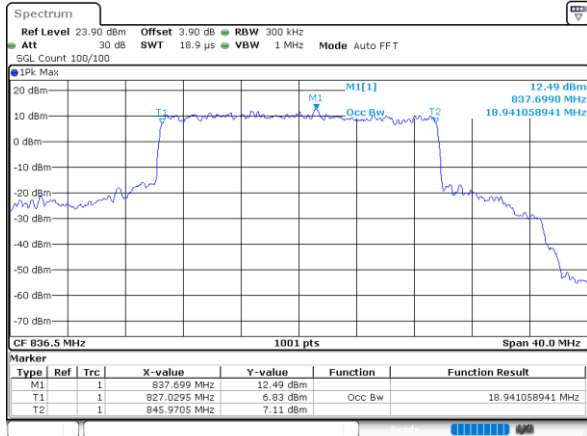
Date: 28_JAN.2021 03:47:38

64QAM

256QAM

Middle Channel

Middle Channel

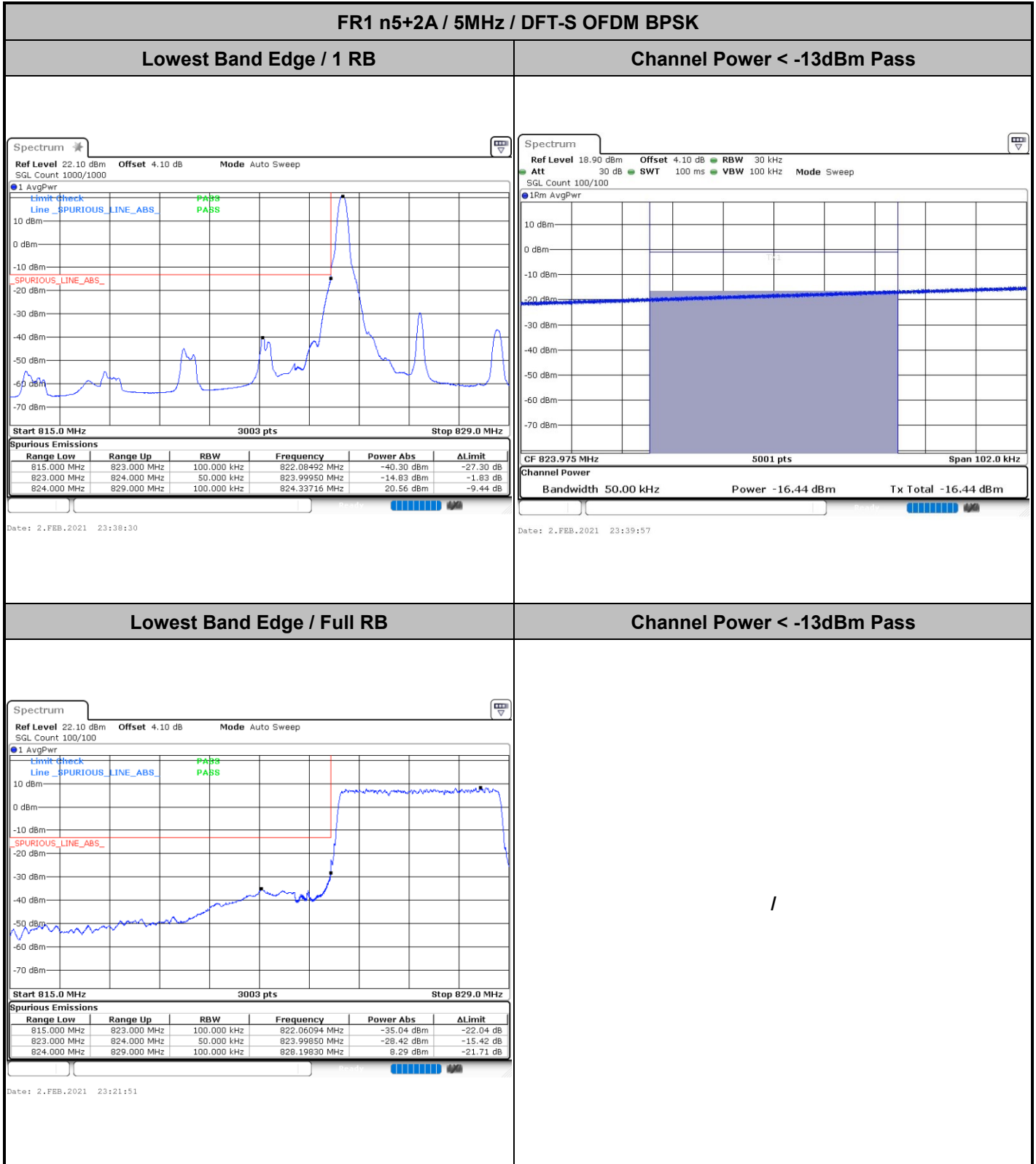


Date: 28_JAN.2021 03:47:02

Date: 28_JAN.2021 03:46:46



Conducted Band Edge

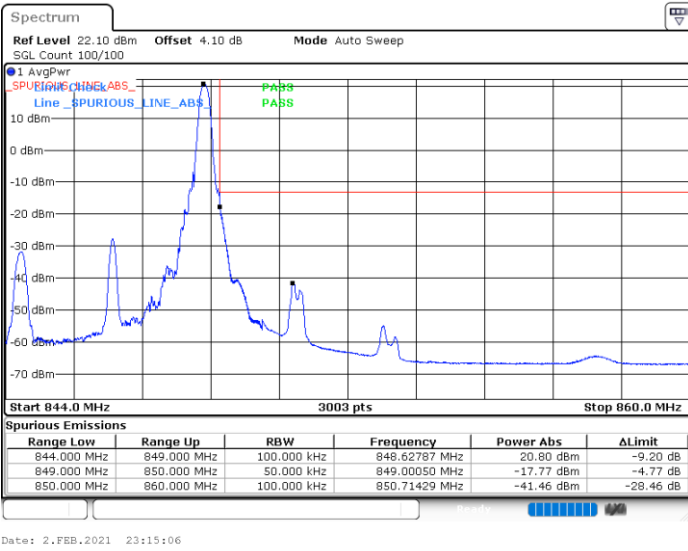




FR1 n5+2A / 5MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

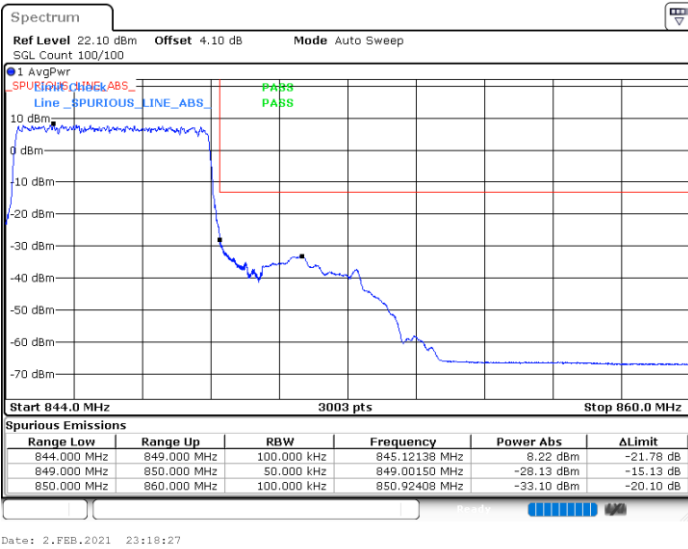
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



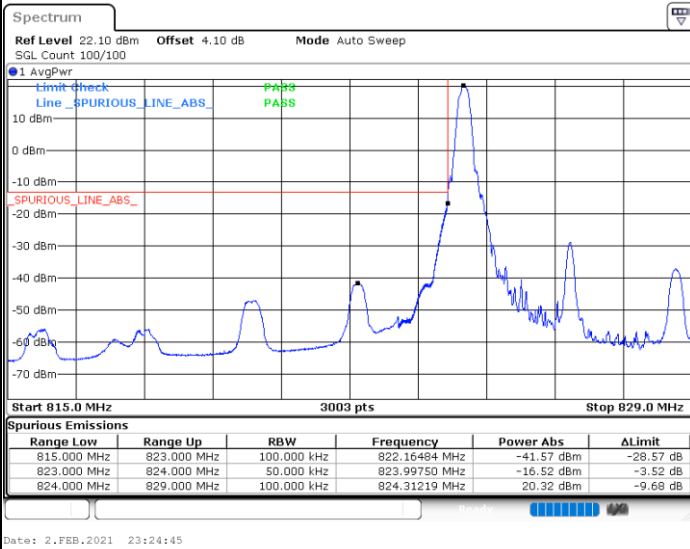
/



FR1 n5+2A / 5MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

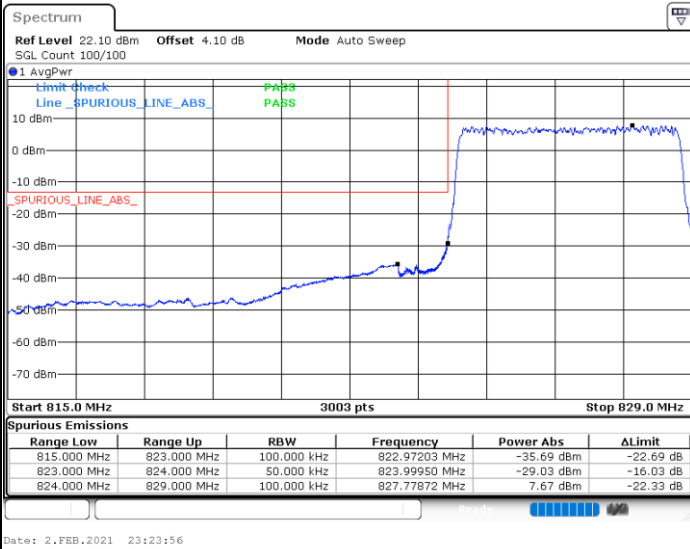
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



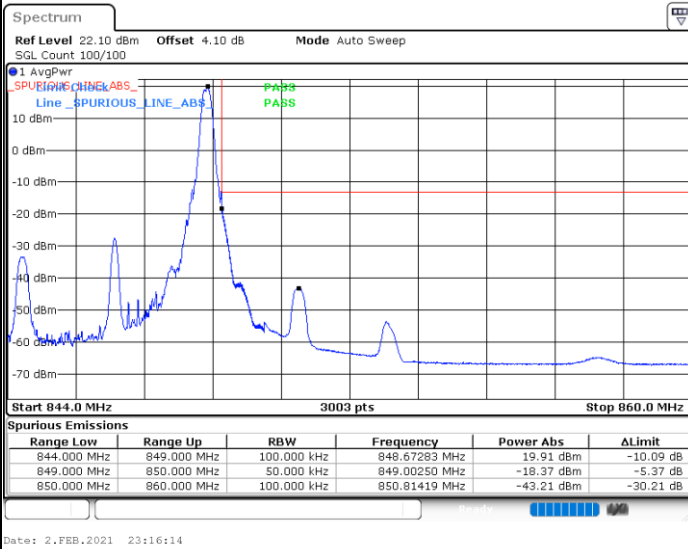
/



FR1 n5+2A / 5MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

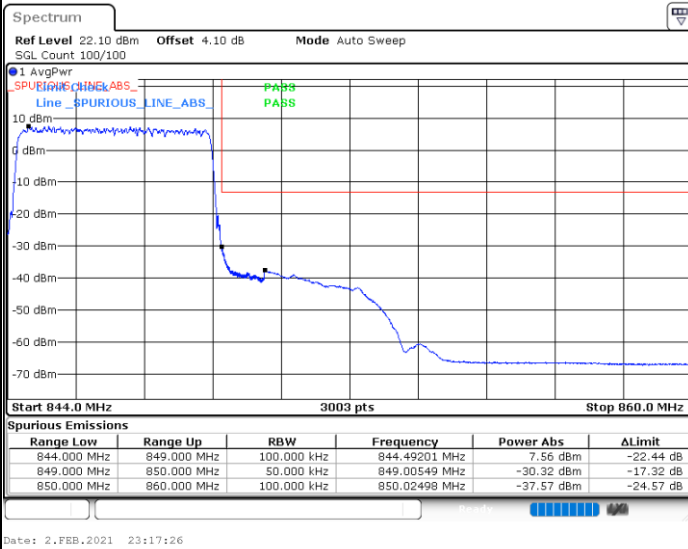
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

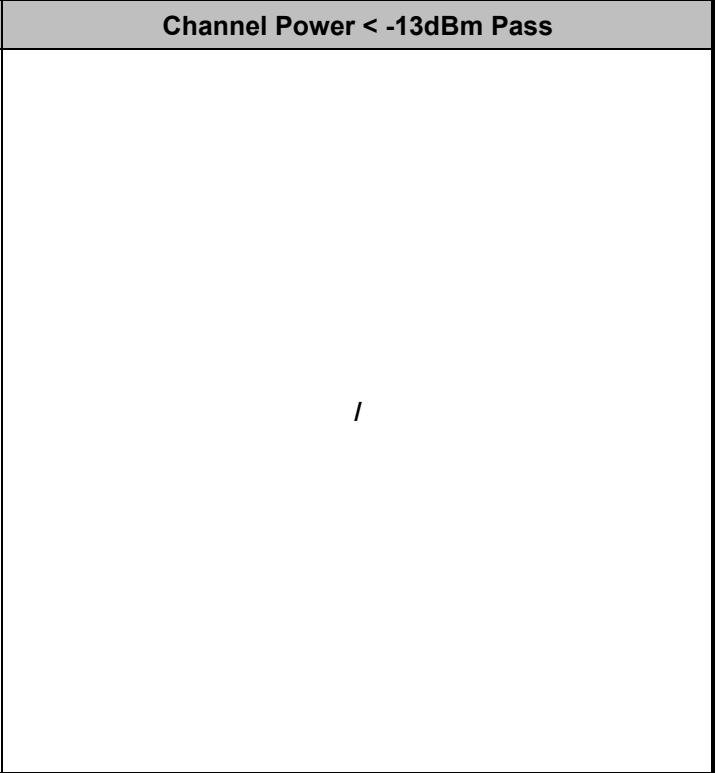
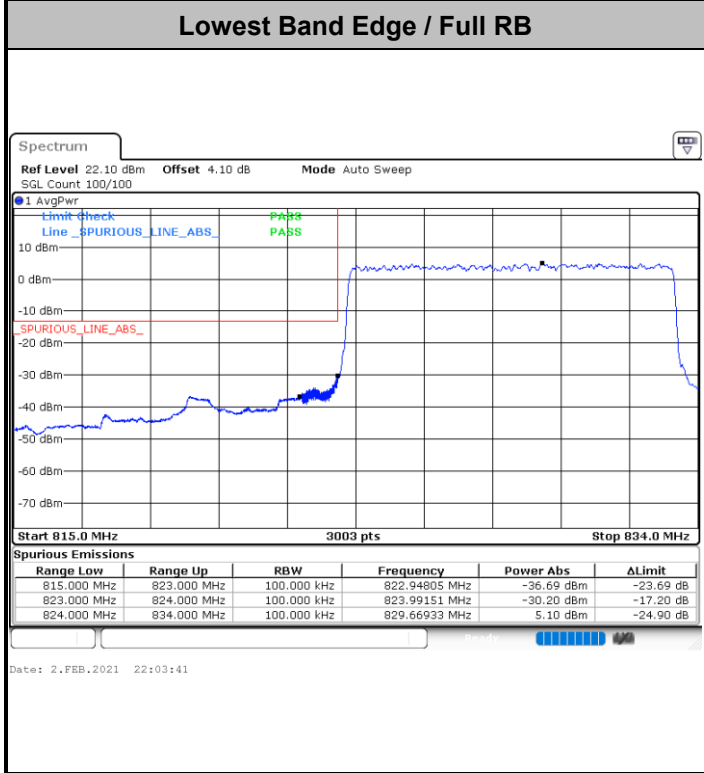
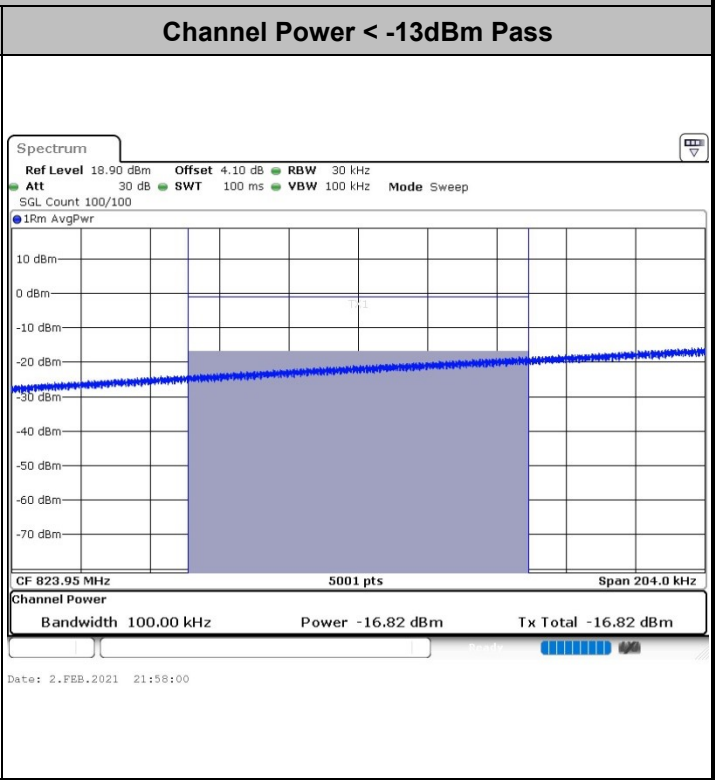
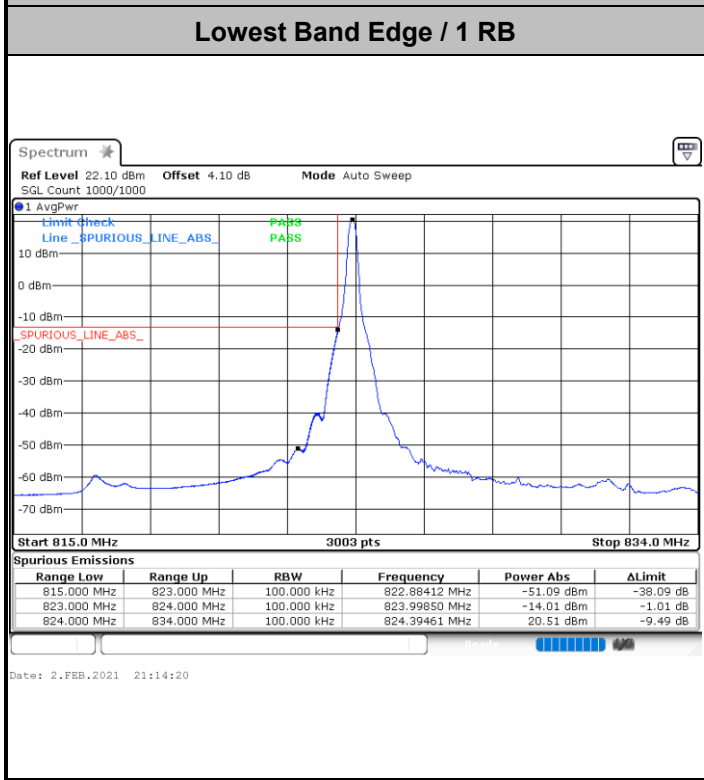
Channel Power < -13dBm Pass



/



FR1 n5+2A / 10MHz / DFT-S OFDM BPSK

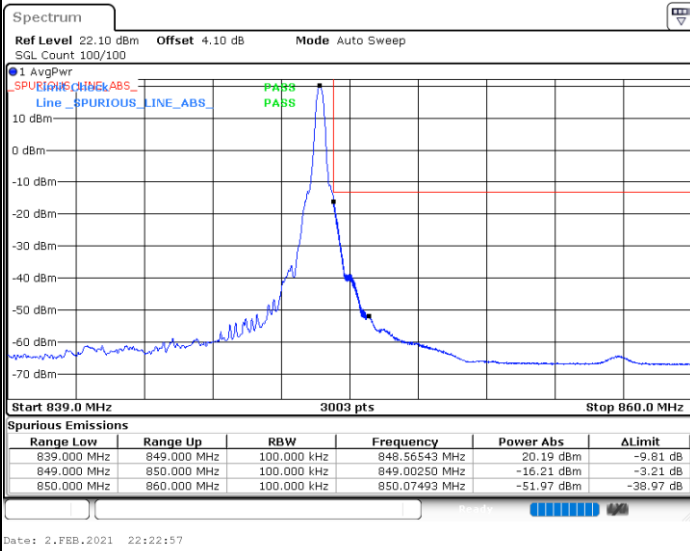




FR1 n5+2A / 10MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

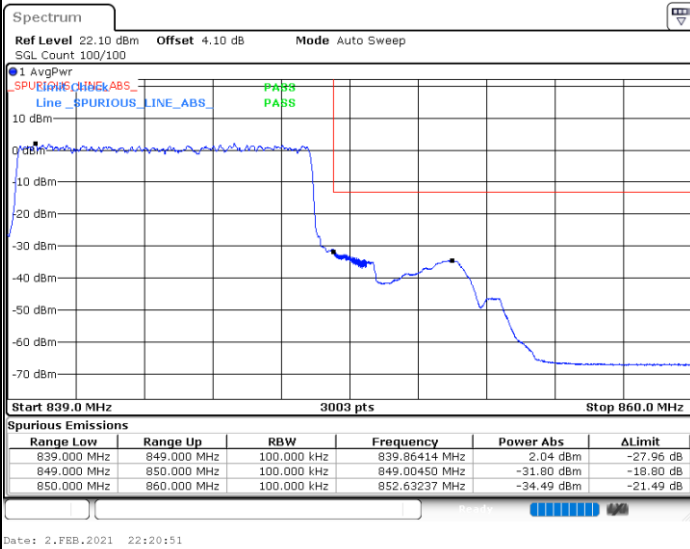
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



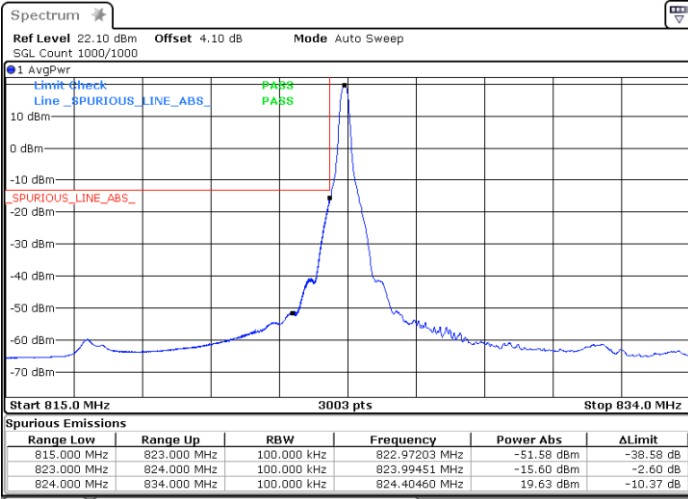
/



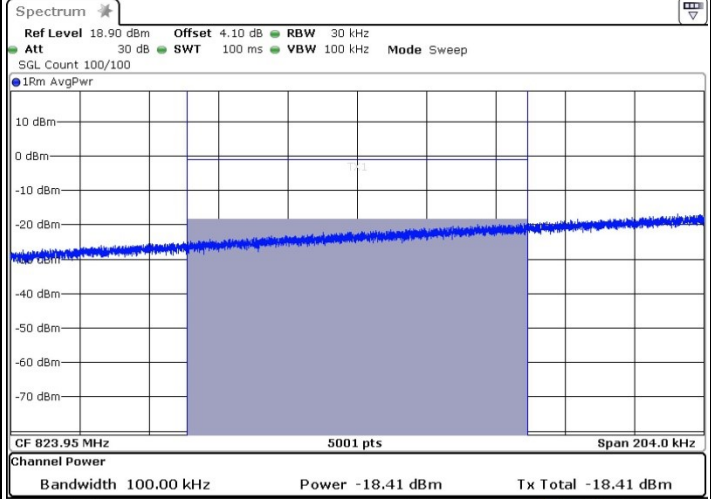
FR1 n5+2A / 10MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



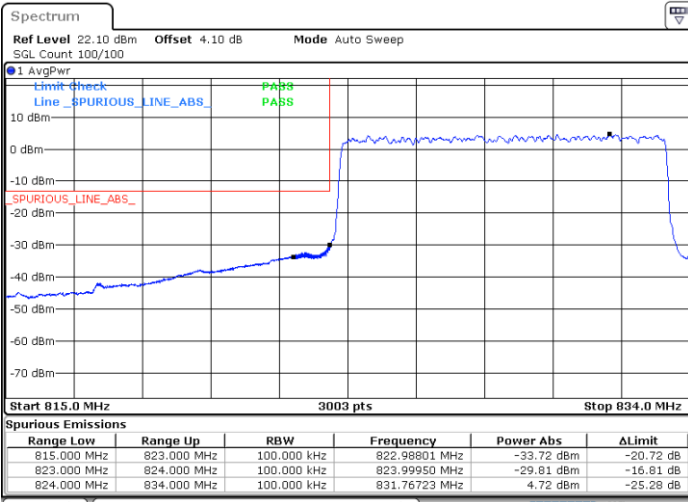
Date: 2.FEB.2021 21:30:07



Date: 2.FEB.2021 21:57:35

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 2.FEB.2021 22:10:31

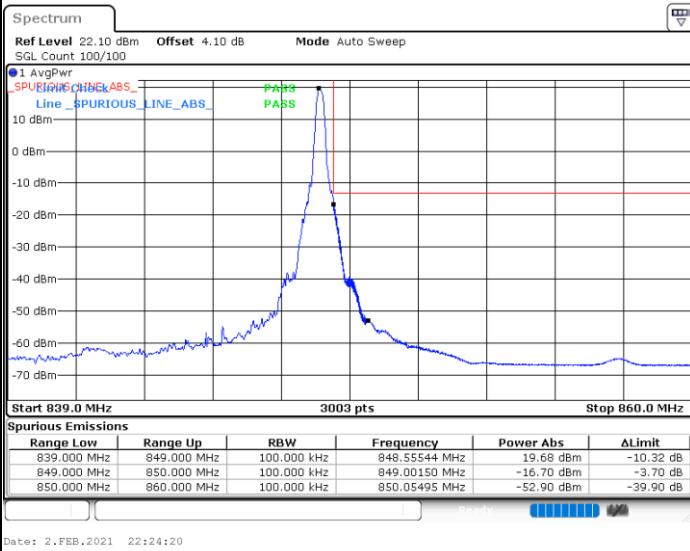
/



FR1 n5+2A / 10MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

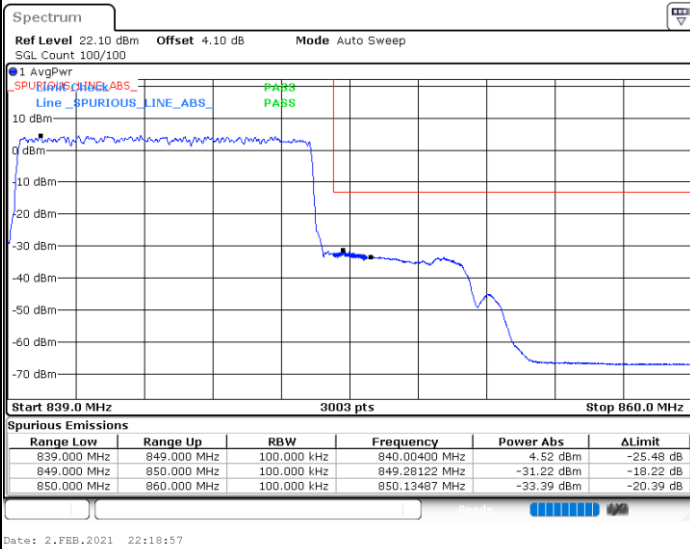
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



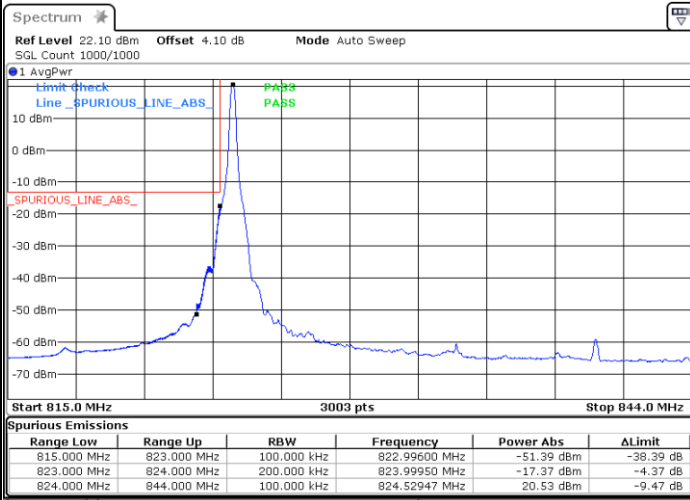
/



FR1 n5+2A / 20MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

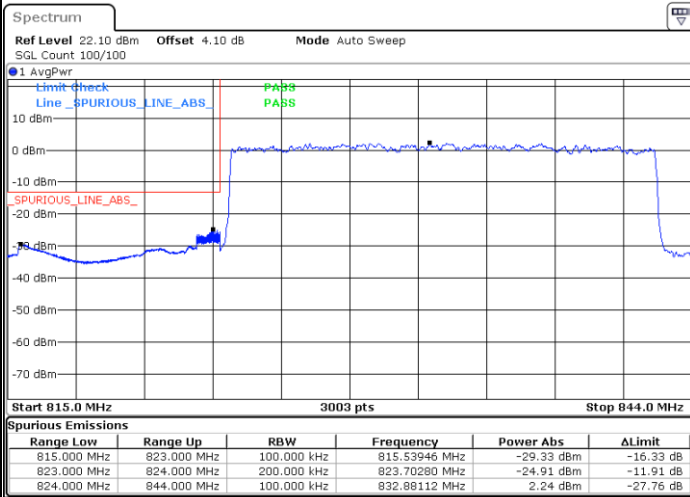
Channel Power < -13dBm Pass



Date: 2.FEB.2021 21:08:14

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



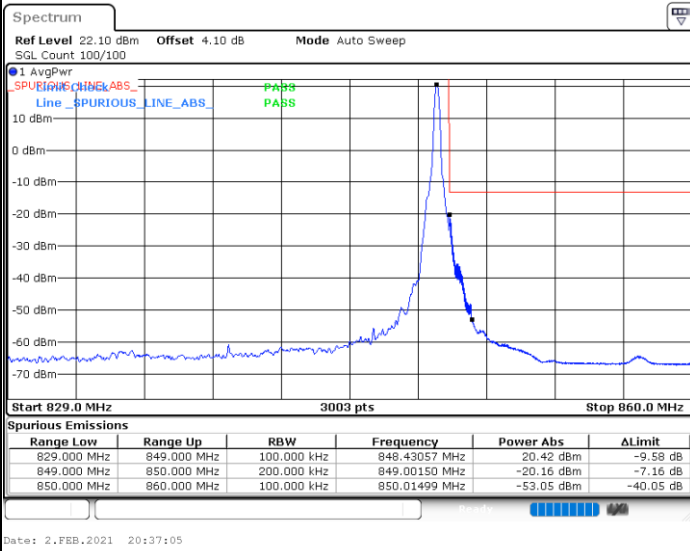
Date: 2.FEB.2021 20:51:49



FR1 n5+2A / 20MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

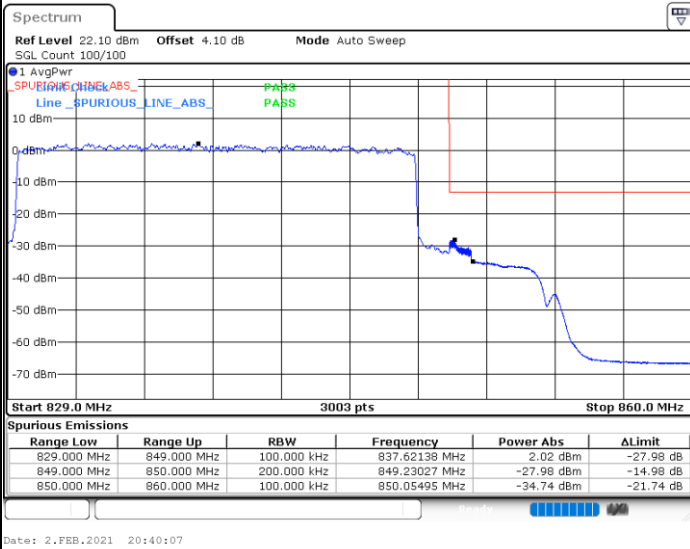
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



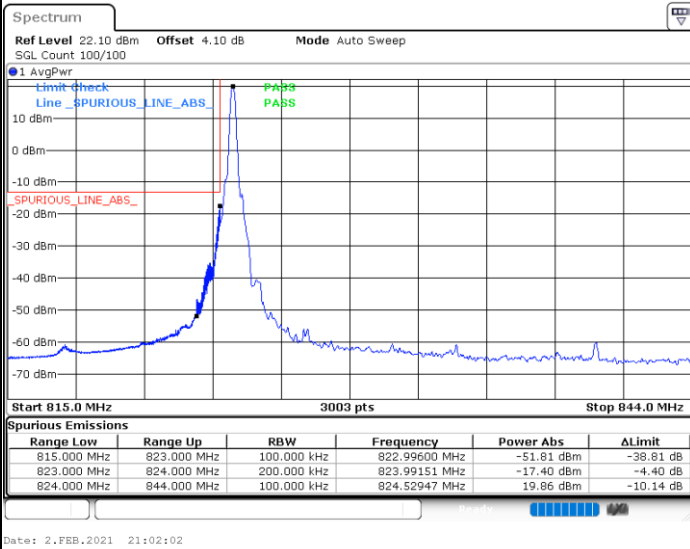
/



FR1 n5+2A / 20MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

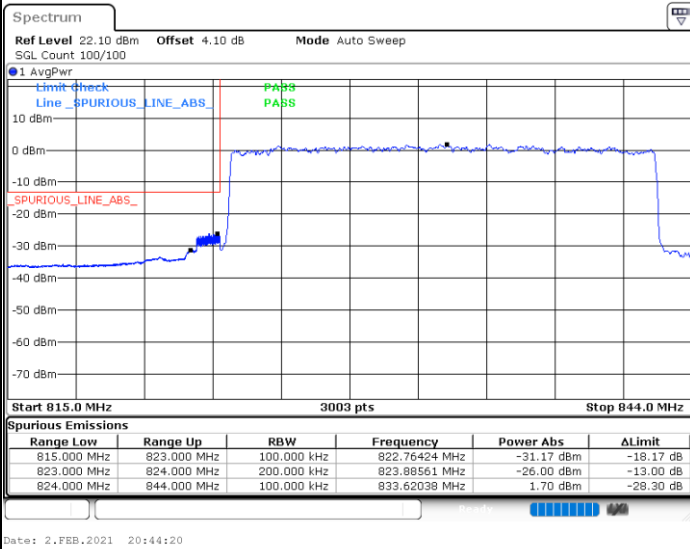
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



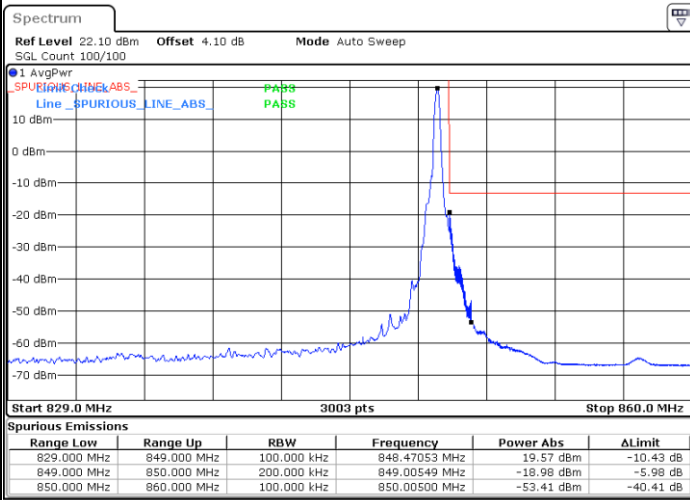
/



FR1 n5+2A / 20MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass

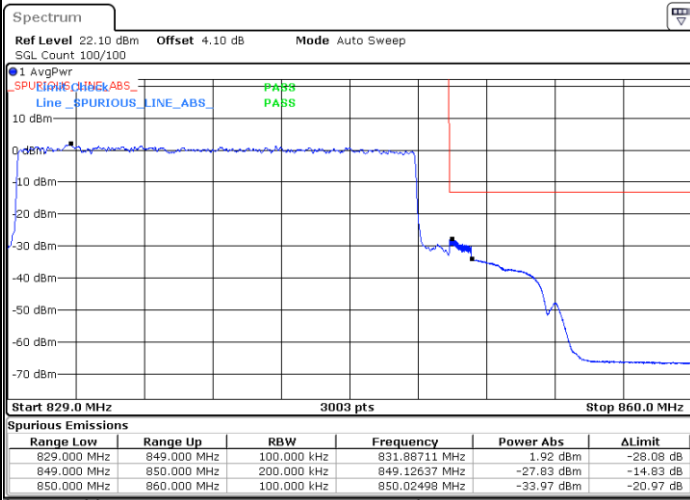


/

Date: 2.FEB.2021 20:35:09

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



/

Date: 2.FEB.2021 20:40:58

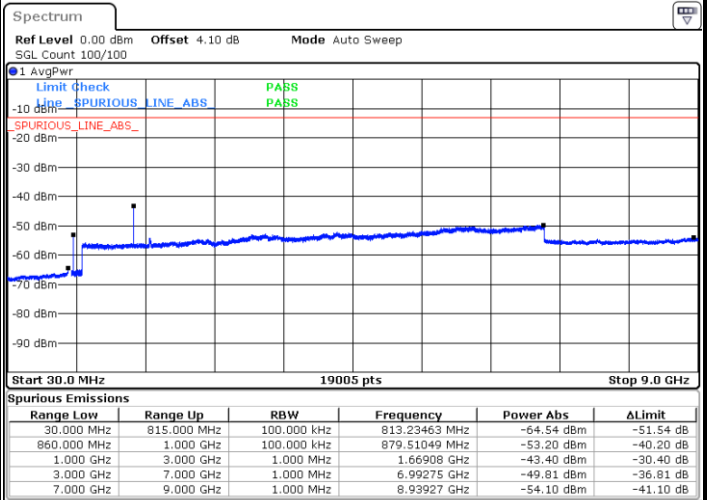
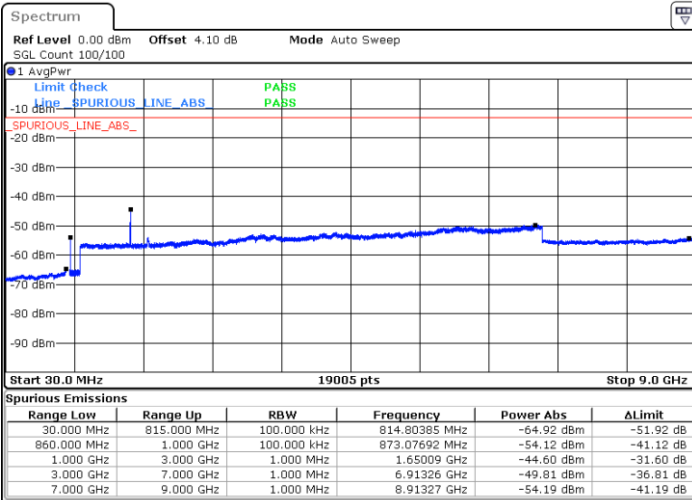


Conducted Spurious Emission

FR1 n5+2A / 5MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

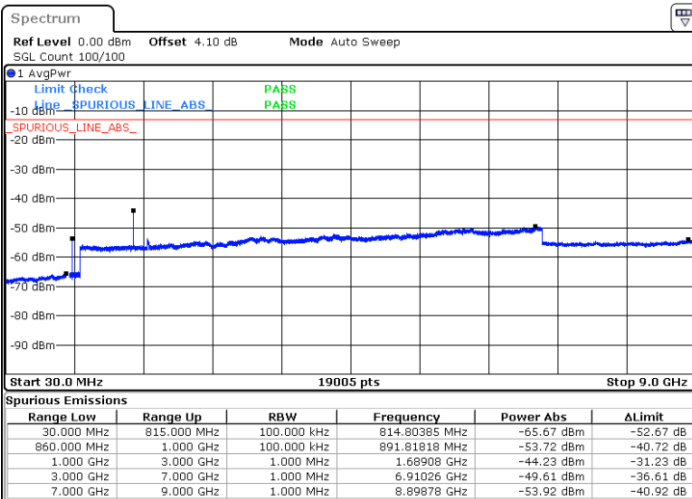
Middle Channel / 1RB



Date: 2.FEB.2021 23:03:32

Date: 2.FEB.2021 23:01:30

Highest Channel / 1RB



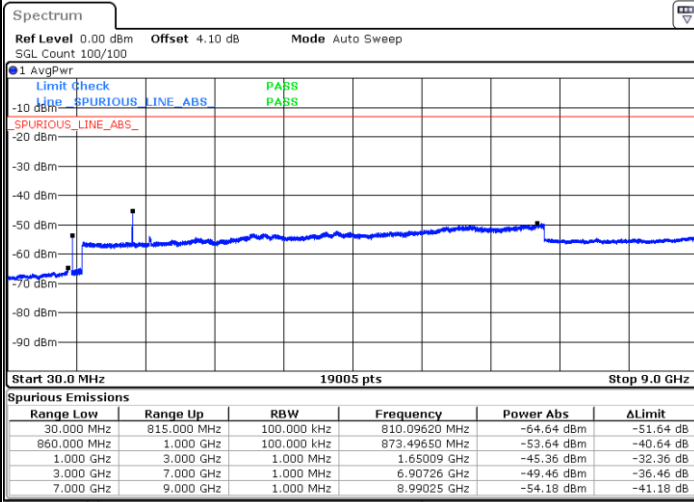
Date: 2.FEB.2021 23:09:31



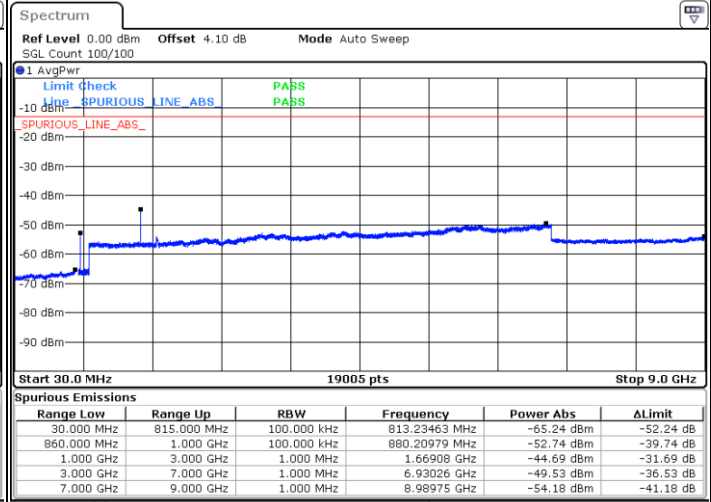
FR1 n5+2A / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

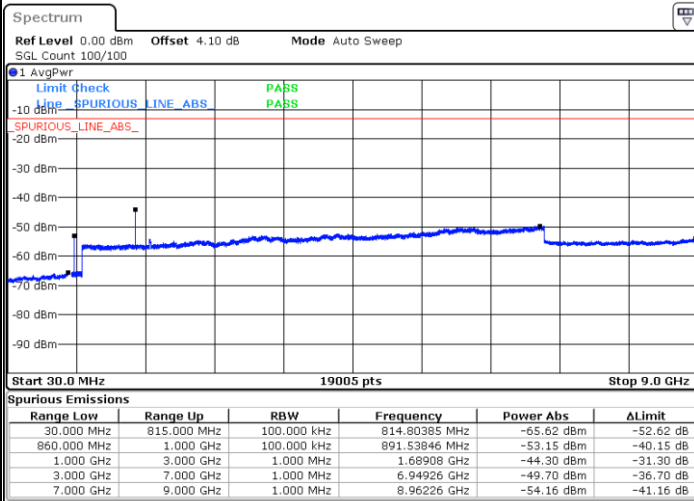


Date: 2.FEB.2021 23:05:04



Date: 2.FEB.2021 23:00:26

Highest Channel / 1RB



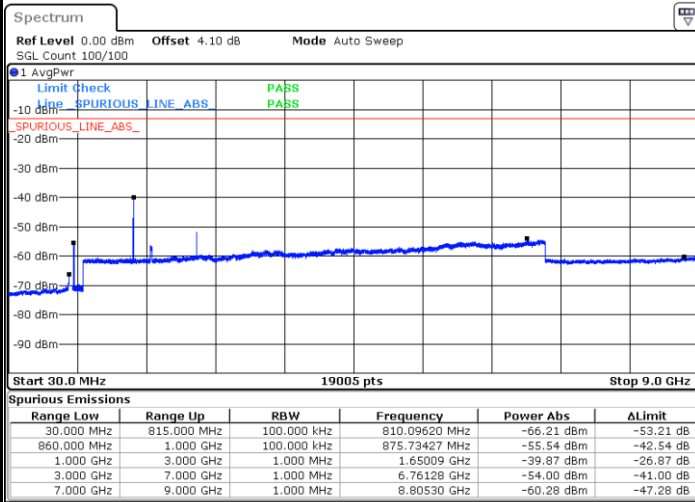
Date: 2.FEB.2021 23:05:46



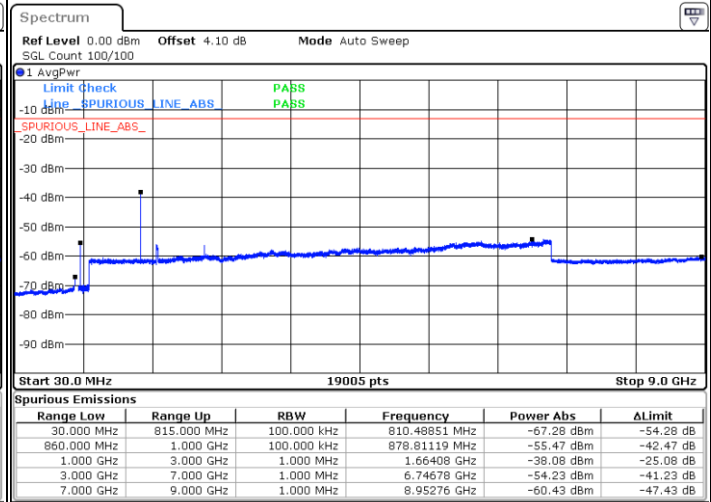
FR1 n5+2A / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

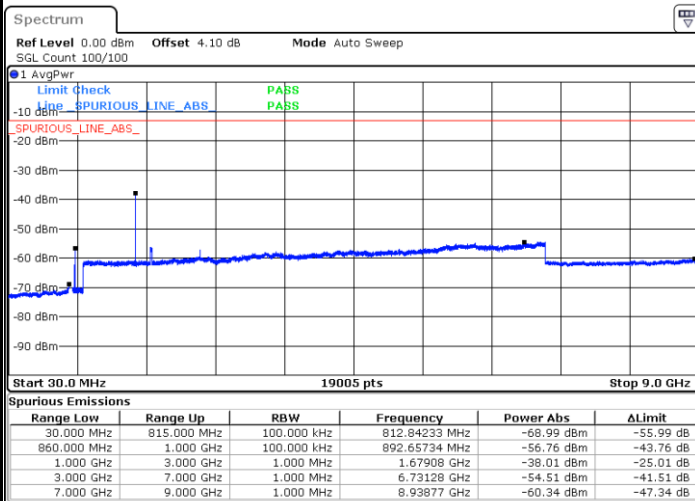


Date: 2.FEB.2021 22:30:42



Date: 2.FEB.2021 22:38:24

Highest Channel / 1RB



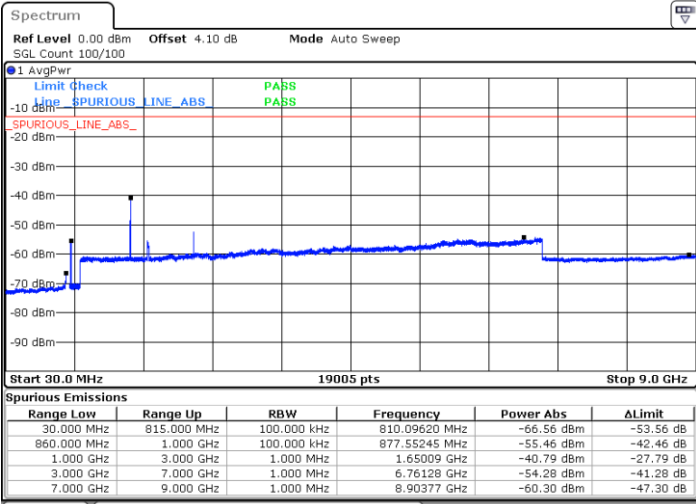
Date: 2.FEB.2021 22:29:19



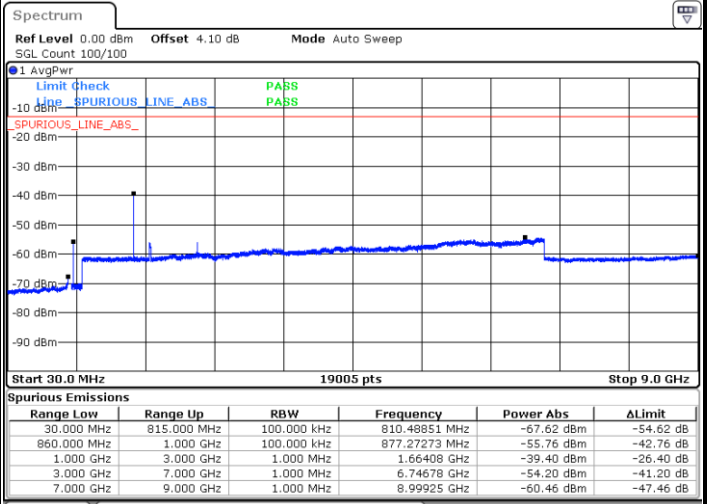
FR1 n5+2A / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

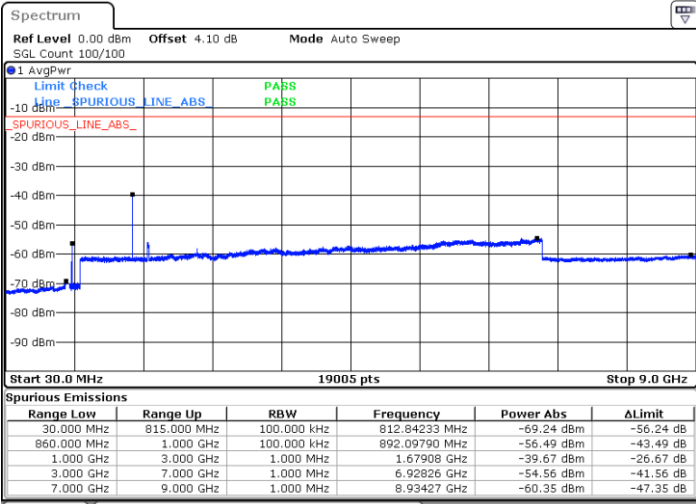


Date: 2.FEB.2021 22:35:46



Date: 2.FEB.2021 22:37:47

Highest Channel / 1RB



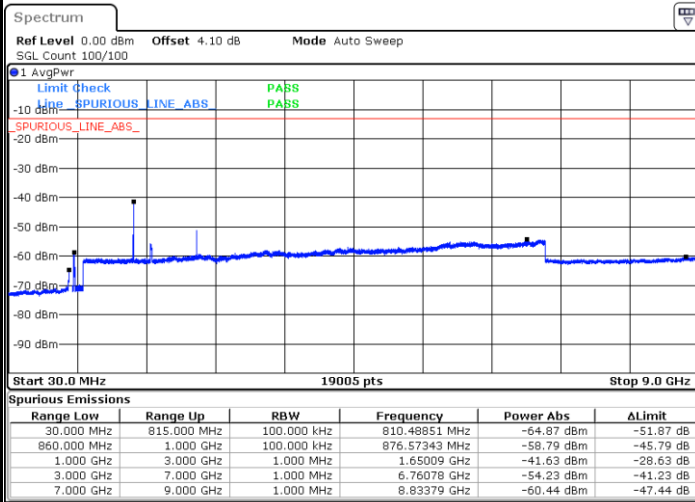
Date: 2.FEB.2021 22:25:51



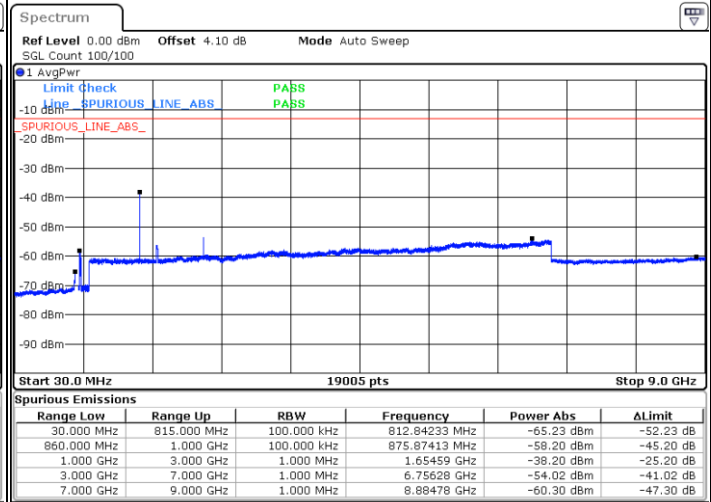
FR1 n5+2A / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

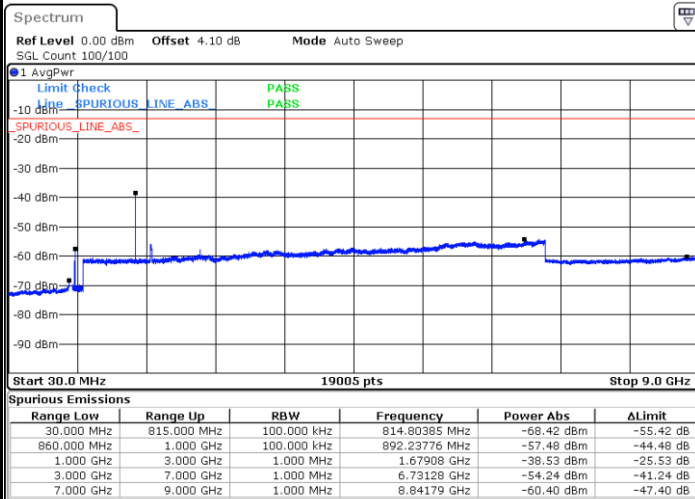


Date: 2.FEB.2021 20:22:04



Date: 2.FEB.2021 20:26:16

Highest Channel / 1RB



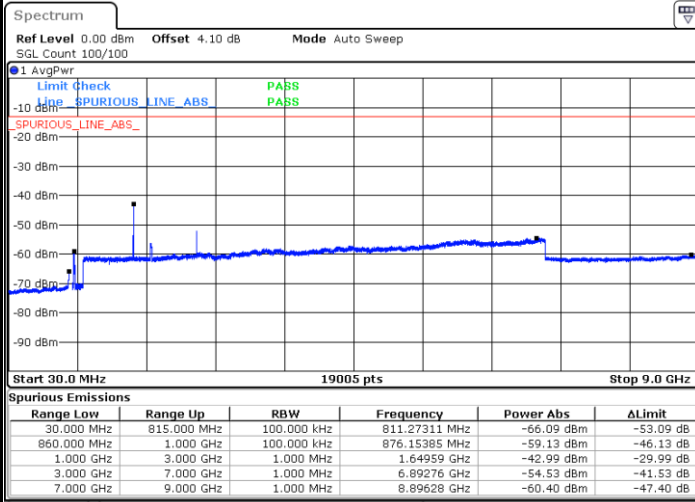
Date: 2.FEB.2021 22:28:28



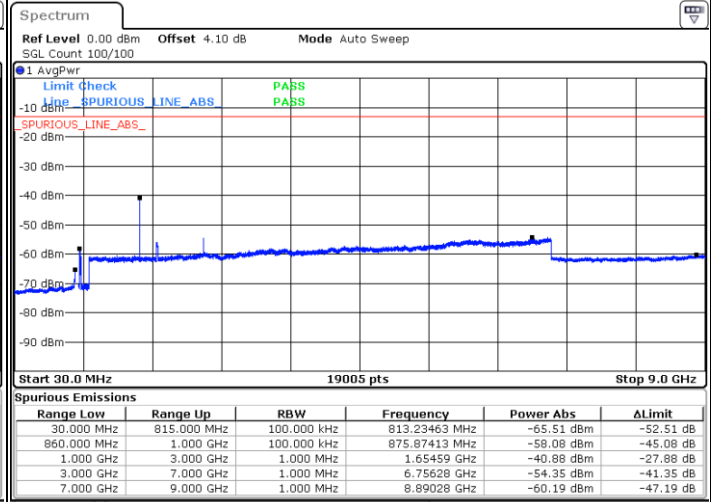
FR1 n5+2A / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

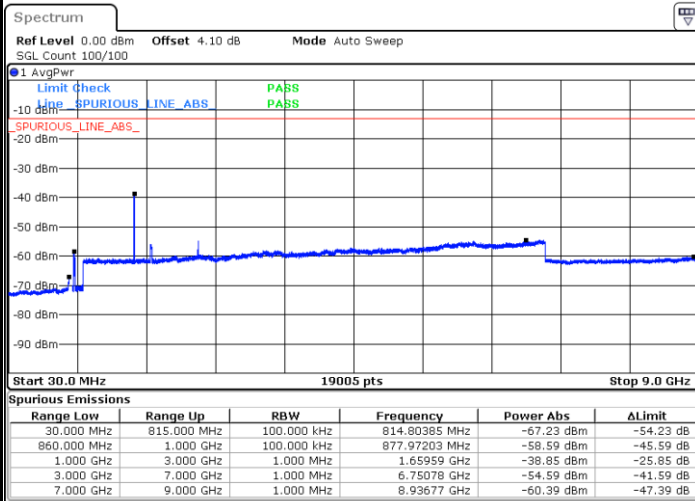


Date: 2.FEB.2021 20:22:41



Date: 2.FEB.2021 20:25:03

Highest Channel / 1RB



Date: 2.FEB.2021 20:33:23



Frequency Stability

Test Conditions		NR n5+2A (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0029	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0018	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0042	
20	Battery End Point	0.0011	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.45 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



5G NR n25

NSA

Peak-to-Average Ratio

Mode	FR1 n25+12A / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	PI/2 BPSK	QPSK	QPSK	Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.68	3.59	5.62	5.10	PASS
Middle CH	3.83	3.54	5.88	5.13	
Highest CH	3.94	3.65	6.03	5.22	



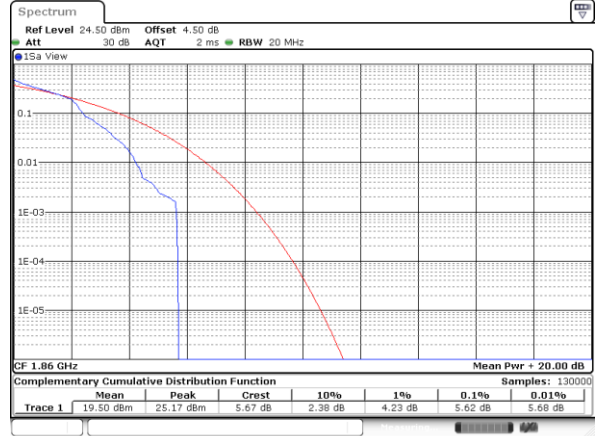
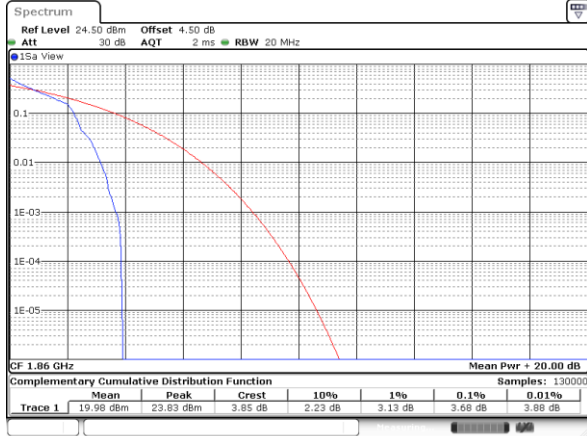
FR1 n25+12A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

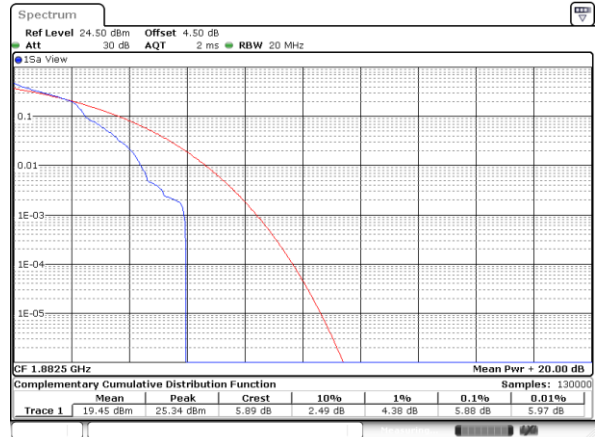
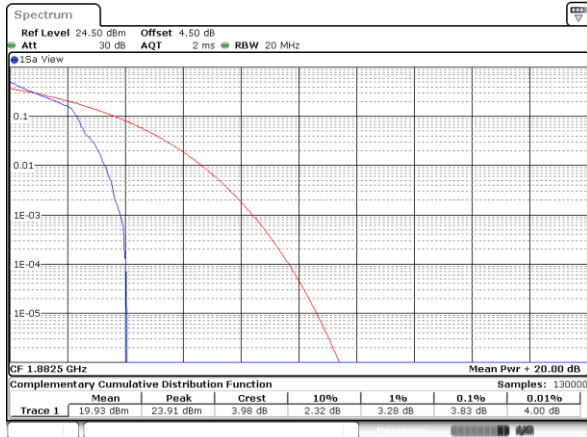


Date: 4.FEB.2021 07:33:58

Date: 4.FEB.2021 07:33:43

Middle Channel / 1 RB

Middle Channel / 1 RB

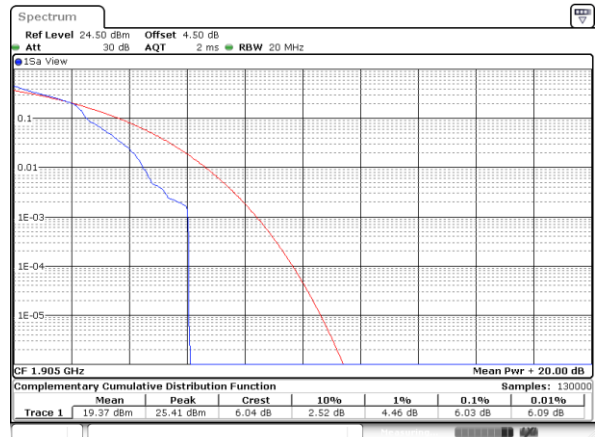
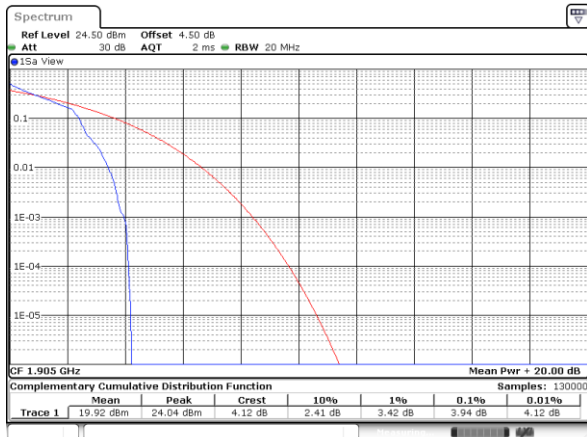


Date: 4.FEB.2021 07:35:47

Date: 4.FEB.2021 07:35:42

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 4.FEB.2021 07:36:10

Date: 4.FEB.2021 07:36:16



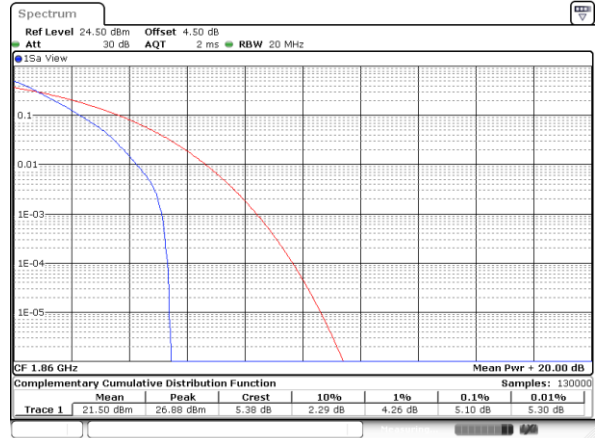
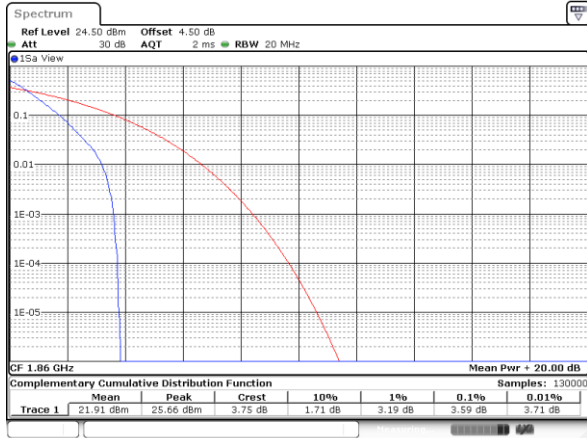
FR1 n25+12A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

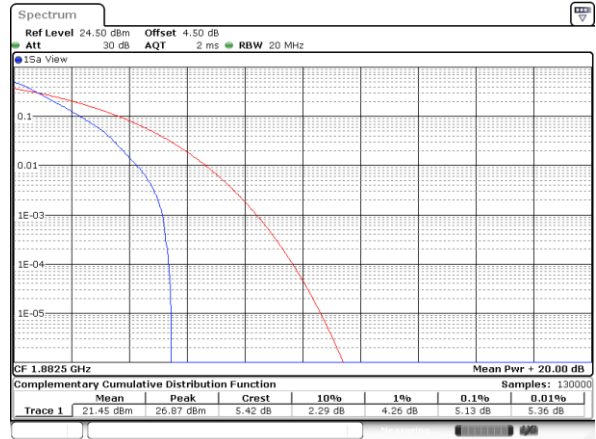
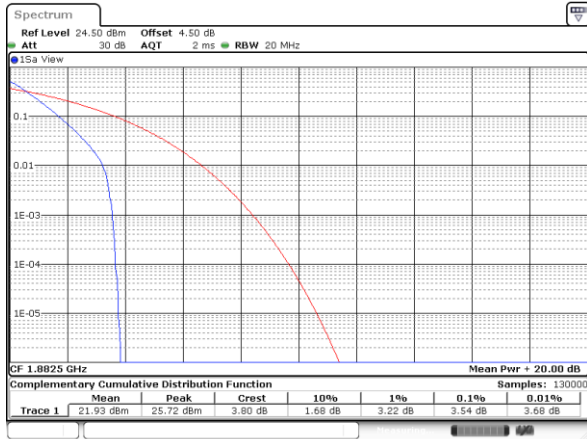


Date: 4.FEB.2021 07:34:15

Date: 4.FEB.2021 07:34:36

Middle Channel / Full RB

Middle Channel / Full RB

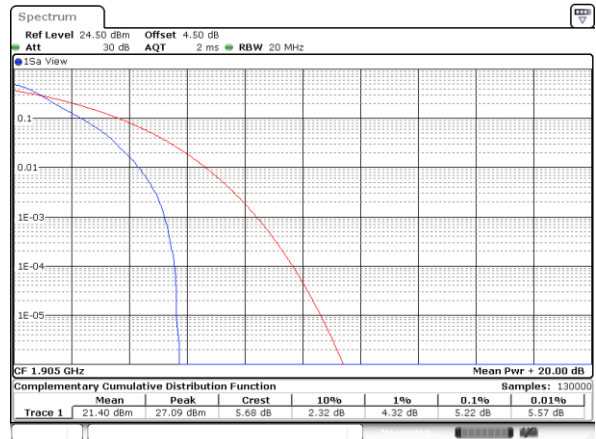
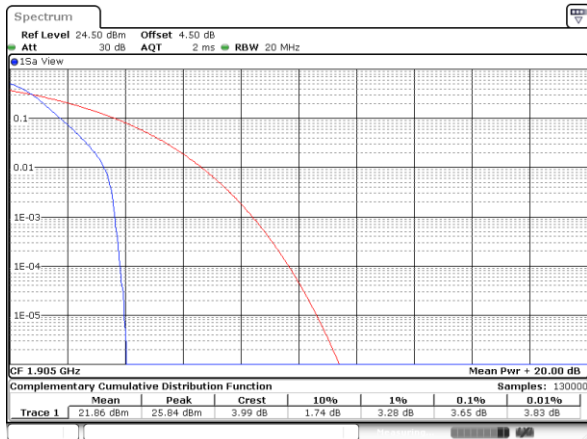


Date: 4.FEB.2021 07:35:28

Date: 4.FEB.2021 07:35:35

Highest Channel / Full RB

Highest Channel / Full RB



Date: 4.FEB.2021 07:38:51

Date: 4.FEB.2021 07:39:38



26dB Bandwidth

Mode	FR1 n25+12A : 26dB BW(MHz) / CP-OFDM			
BW	5MHz	5MHz	5MHz	5MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	4.93	4.95	4.99	4.87

Mode	FR1 n25+12A : 26dB BW(MHz) / CP-OFDM			
BW	10MHz	10MHz	10MHz	10MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.93	9.81	9.73	9.81

Mode	FR1 n25+12A : 26dB BW(MHz) / CP-OFDM			
BW	15MHz	15MHz	15MHz	15MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	15.04	14.98	14.96	15.02

Mode	FR1 n25+12A : 26dB BW(MHz) / CP-OFDM			
BW	20MHz	20MHz	20MHz	20MHz
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	19.86	19.90	20.02	19.82



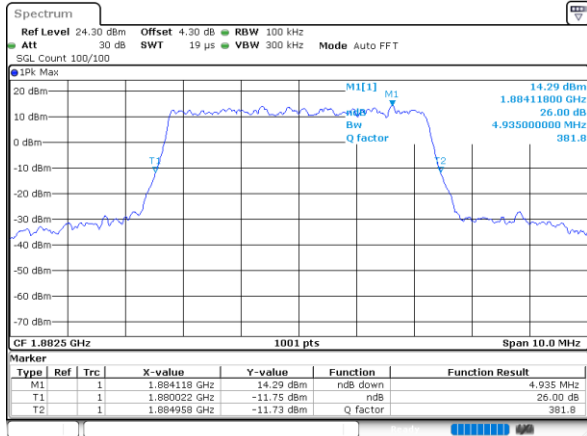
FR1 n25+12A / 5MHz / CP-OFDM

QPSK

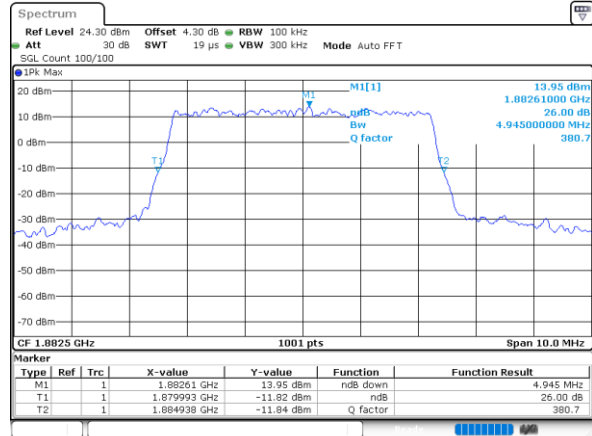
16QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:23:19



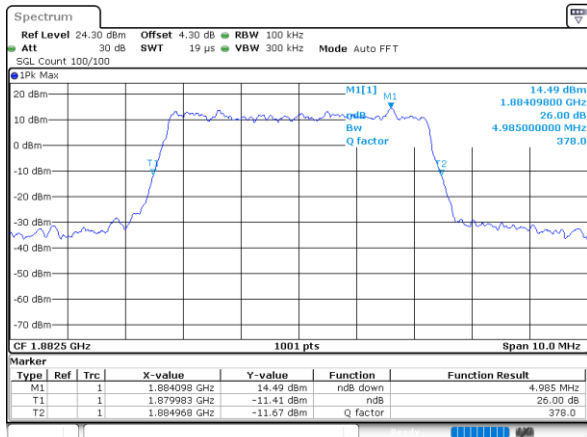
Date: 28_JAN.2021 03:23:33

64QAM

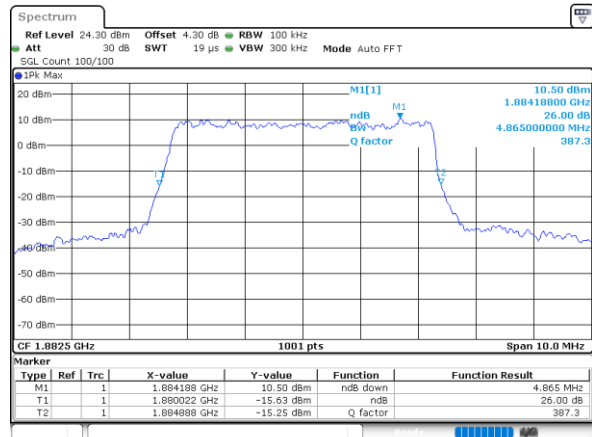
256QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:23:50



Date: 28_JAN.2021 03:24:04



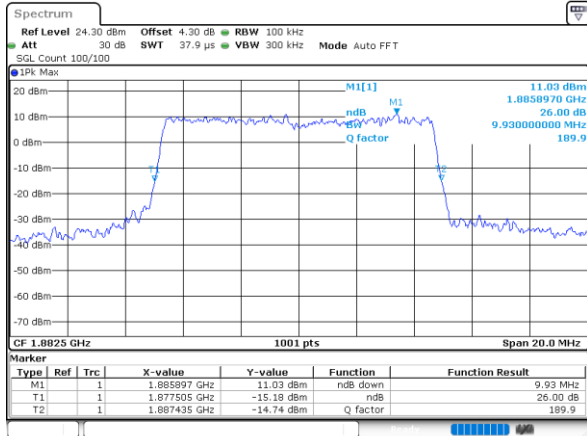
FR1 n25+12A / 10MHz / CP-OFDM

QPSK

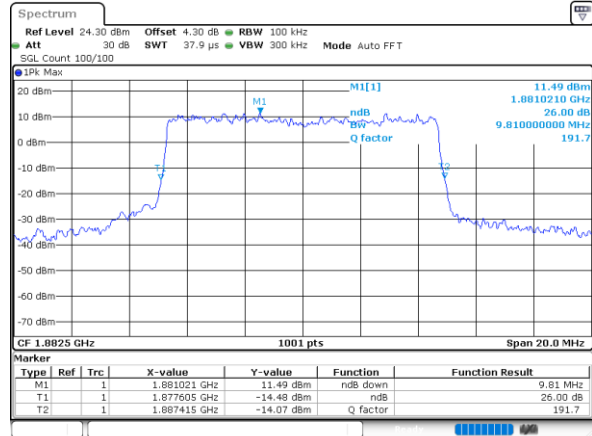
16QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:25:12



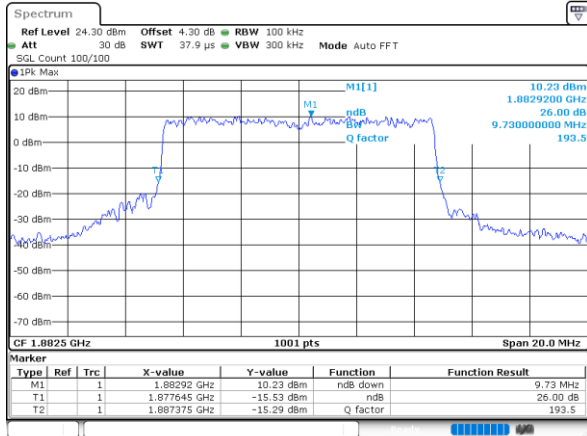
Date: 28_JAN.2021 03:24:56

64QAM

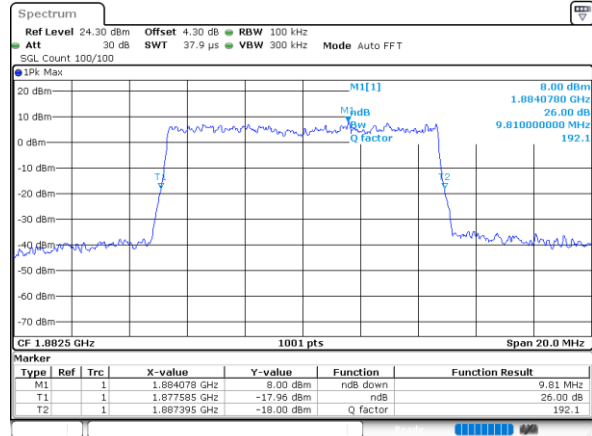
256QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:24:41



Date: 28_JAN.2021 03:24:25



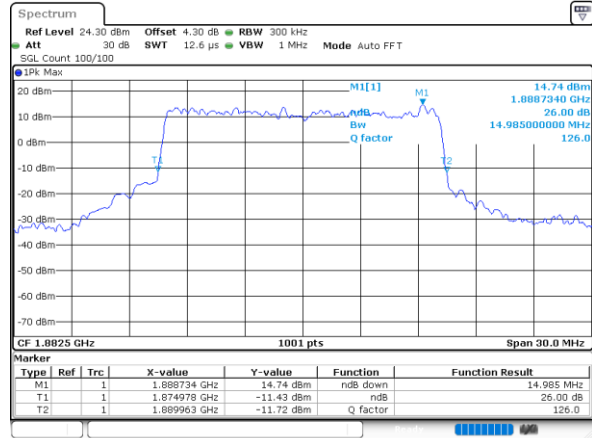
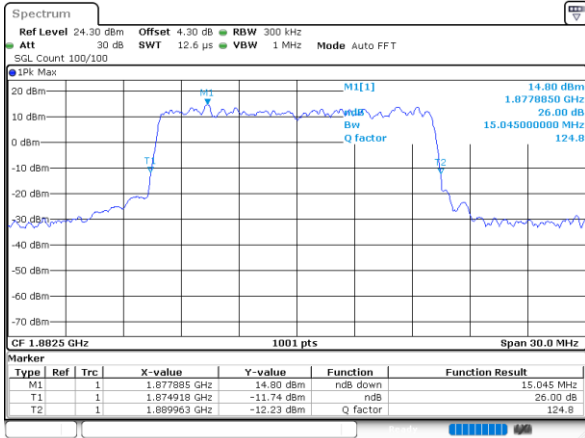
FR1 n25+12A / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:25:36

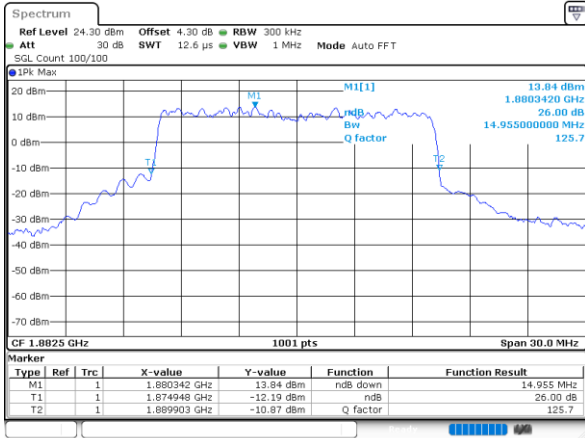
Date: 28_JAN.2021 03:25:54

64QAM

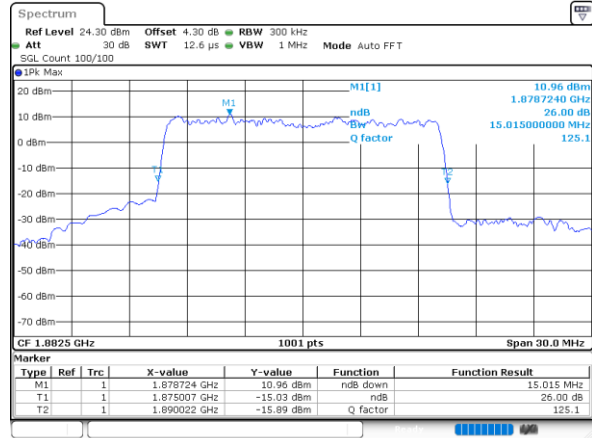
256QAM

Middle Channel

Middle Channel



Date: 28_JAN.2021 03:26:13



Date: 28_JAN.2021 03:26:29