



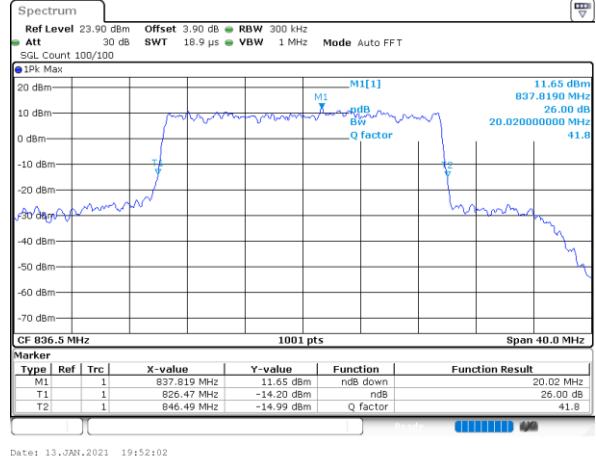
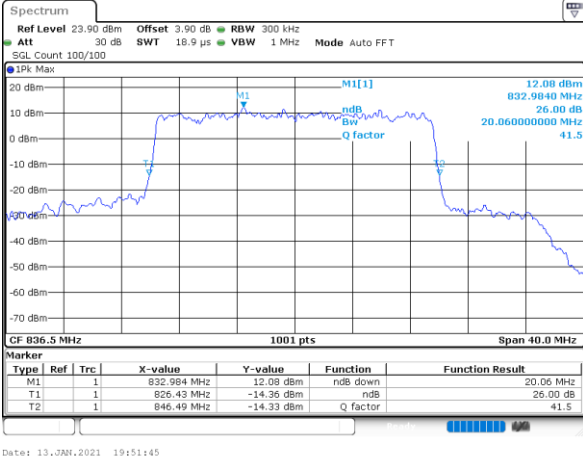
FR1 n5 / 20MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

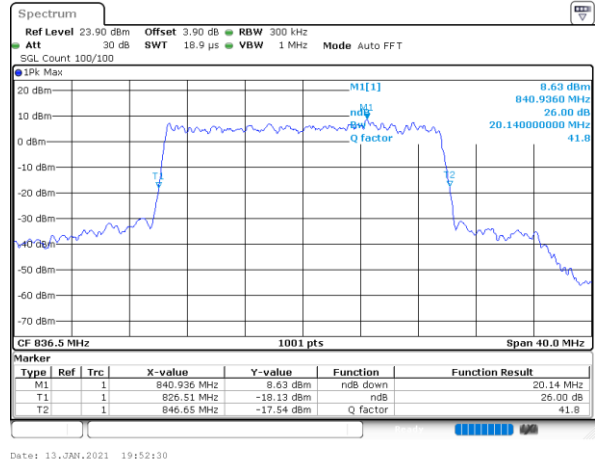
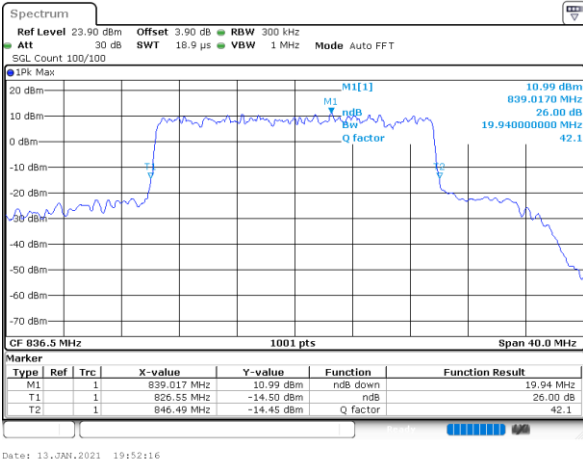


64QAM

256QAM

Middle Channel

Middle Channel





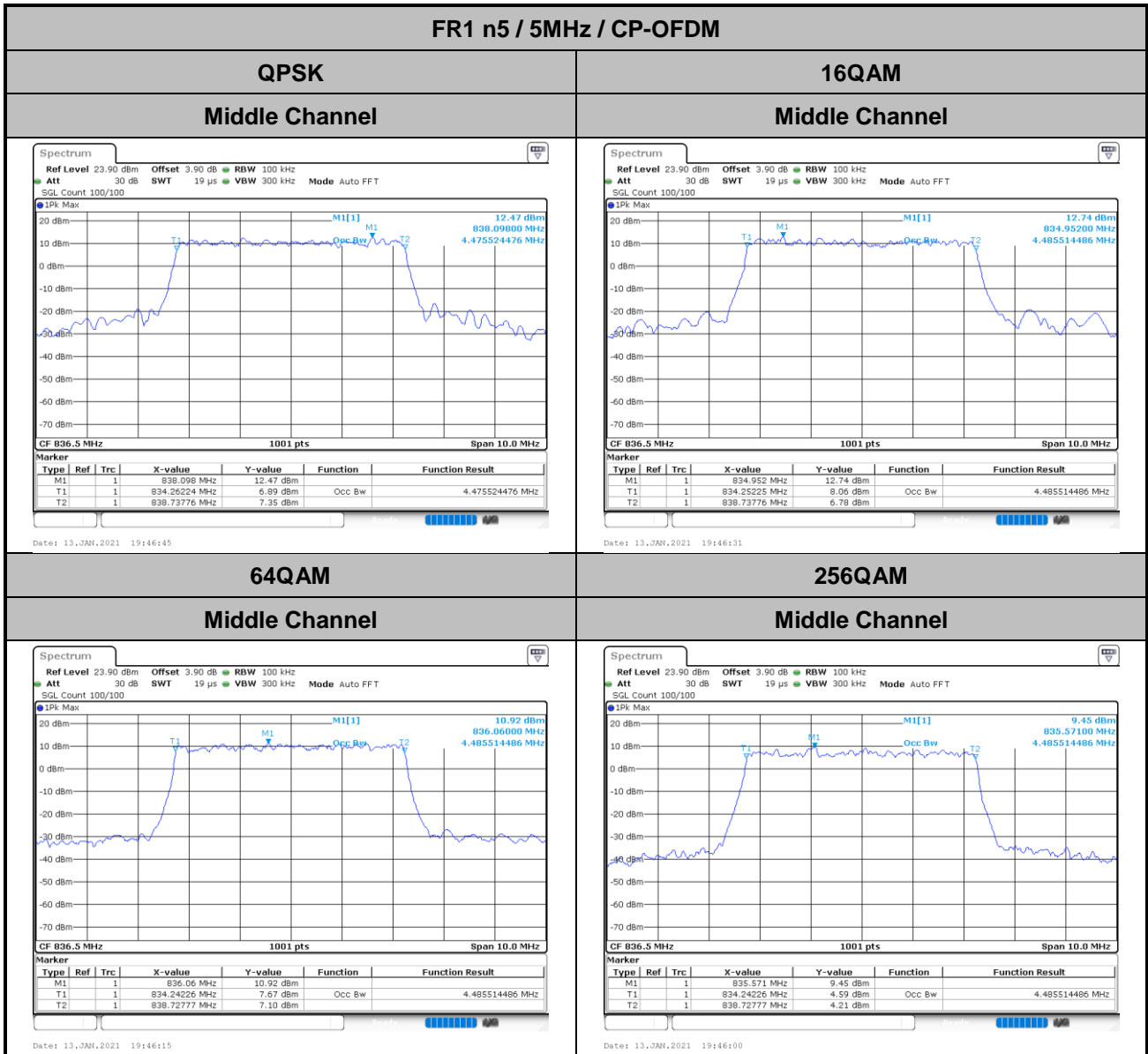
Occupied Bandwidth

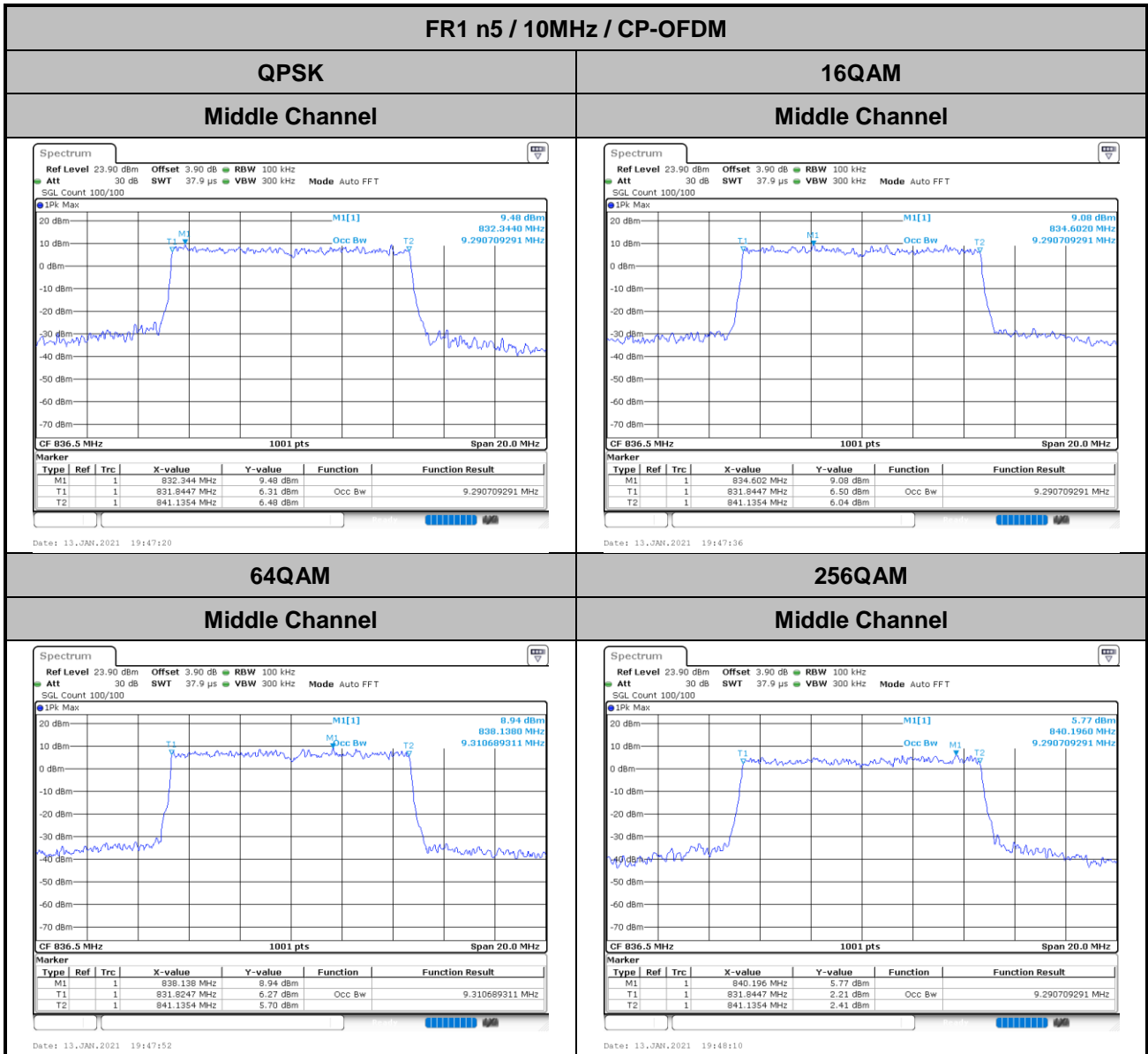
Mode	FR1 n5 : OBW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.48	4.49	4.49	4.49				

Mode	FR1 n5 : OBW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.29	9.29	9.31	9.29				

Mode	FR1 n5 : OBW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.21	14.15	14.18	14.12				

Mode	FR1 n5 : OBW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	18.90	19.02	18.98	19.02				







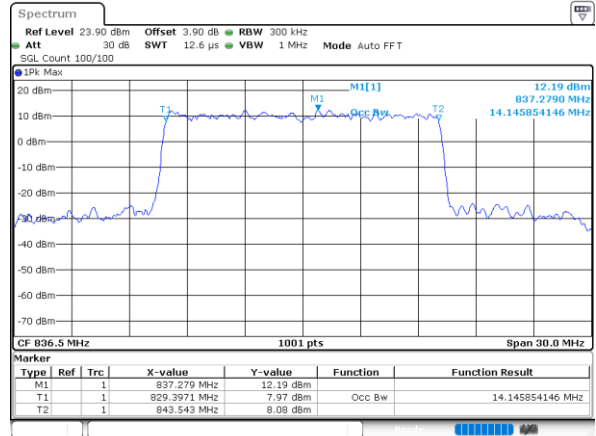
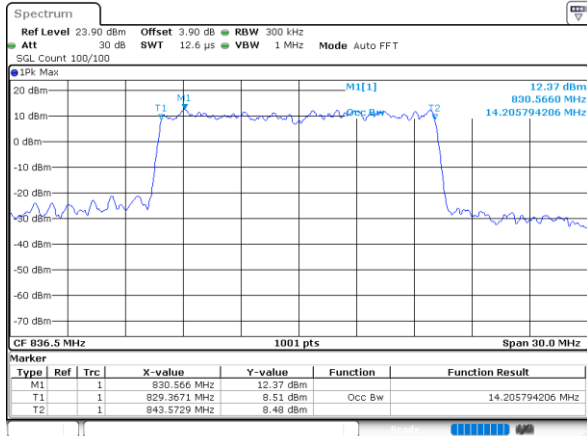
FR1 n5 / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 19:50:13

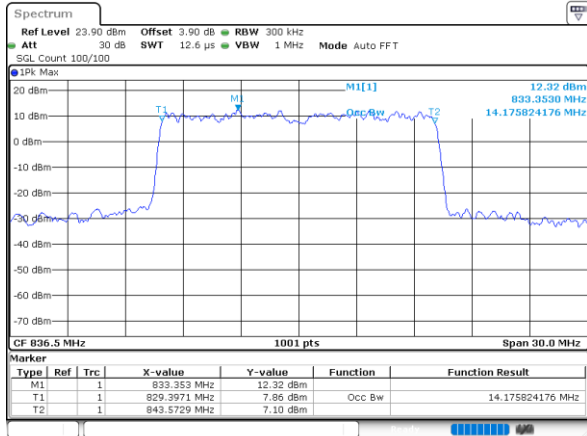
Date: 13.JAN.2021 19:49:34

64QAM

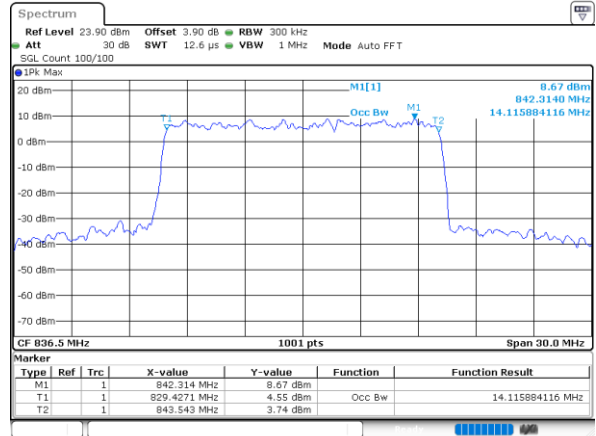
256QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 19:49:14



Date: 13.JAN.2021 19:48:58



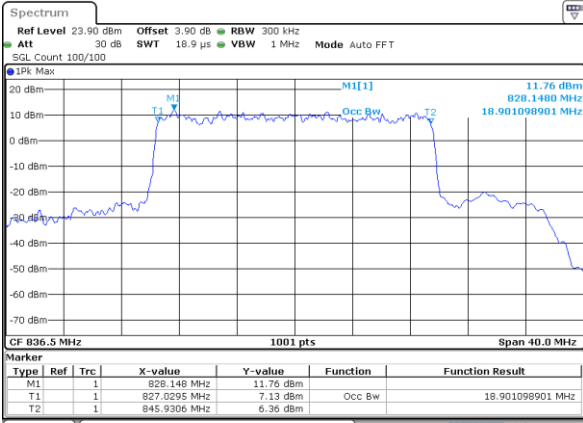
FR1 n5 / 20MHz / CP-OFDM

QPSK

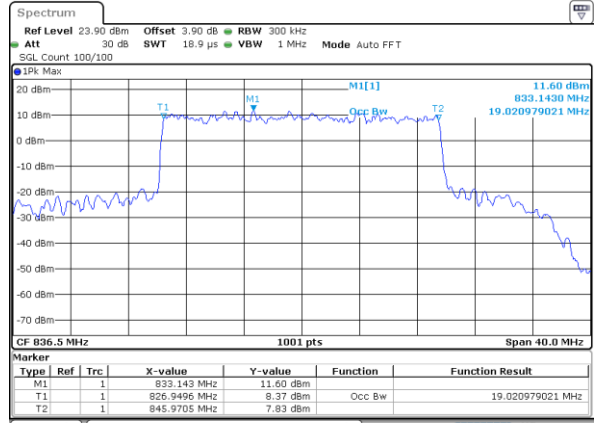
16QAM

Middle Channel

Middle Channel



Date: 13, JAN, 2021 19:51:40



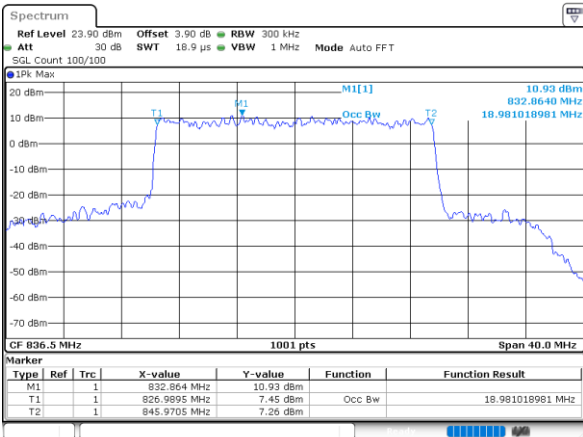
Date: 13, JAN, 2021 19:51:57

64QAM

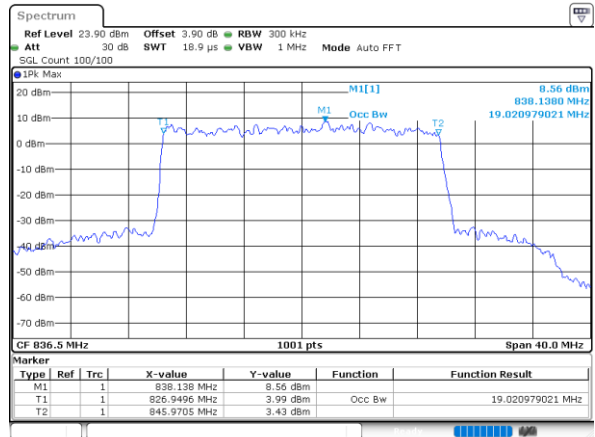
256QAM

Middle Channel

Middle Channel



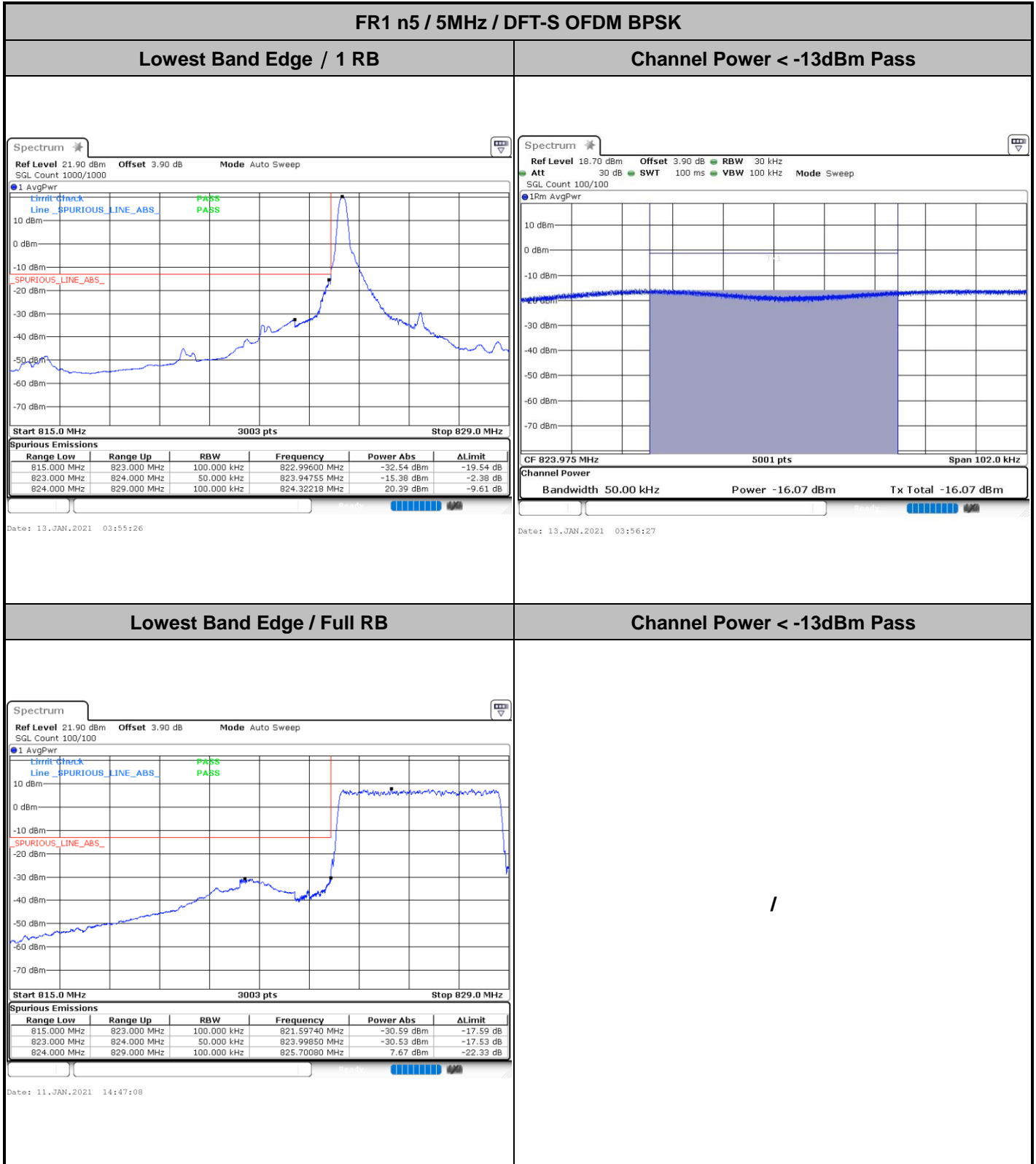
Date: 13, JAN, 2021 19:52:12



Date: 13, JAN, 2021 19:52:26

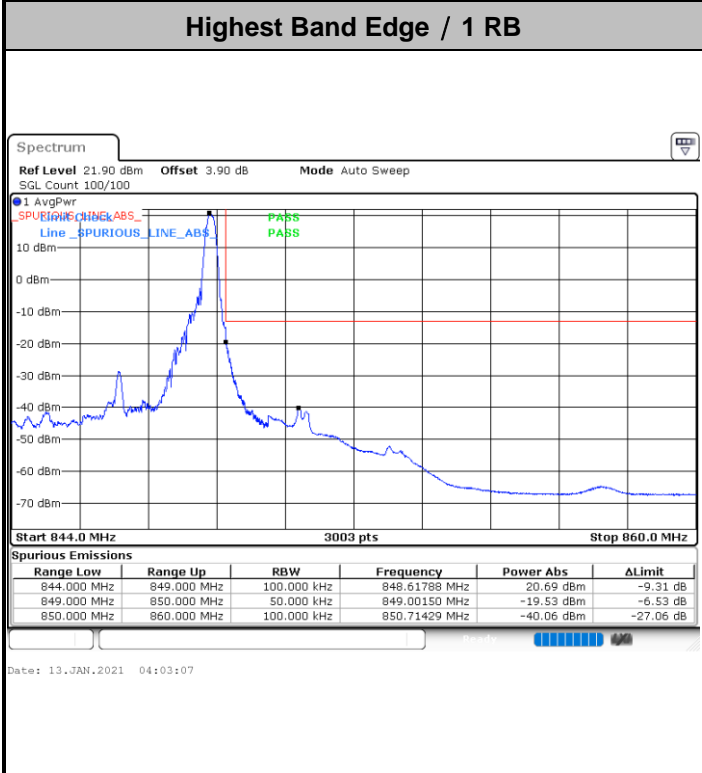


Conducted Band Edge



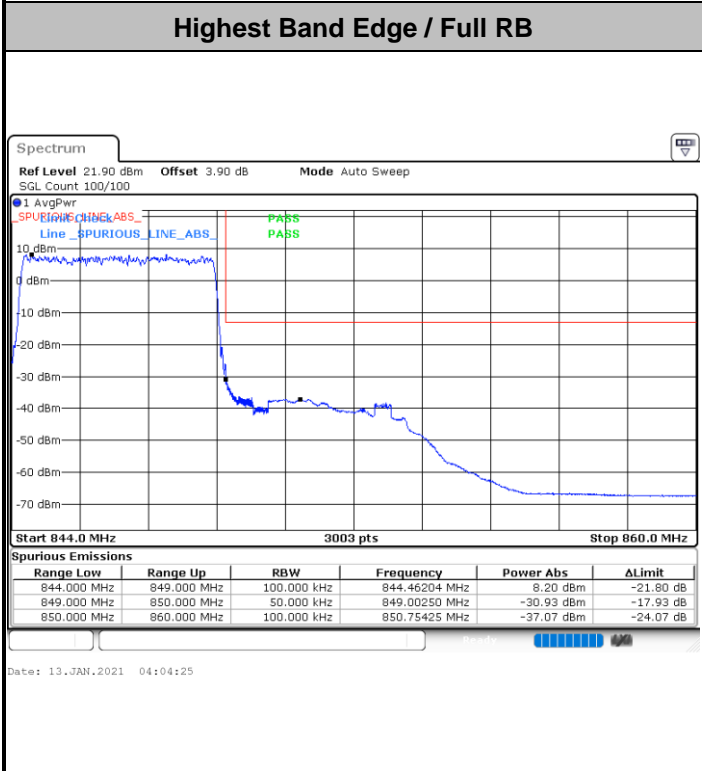


FR1 n5 / 5MHz / DFT-S OFDM BPSK



Channel Power < -13dBm Pass

/



Channel Power < -13dBm Pass

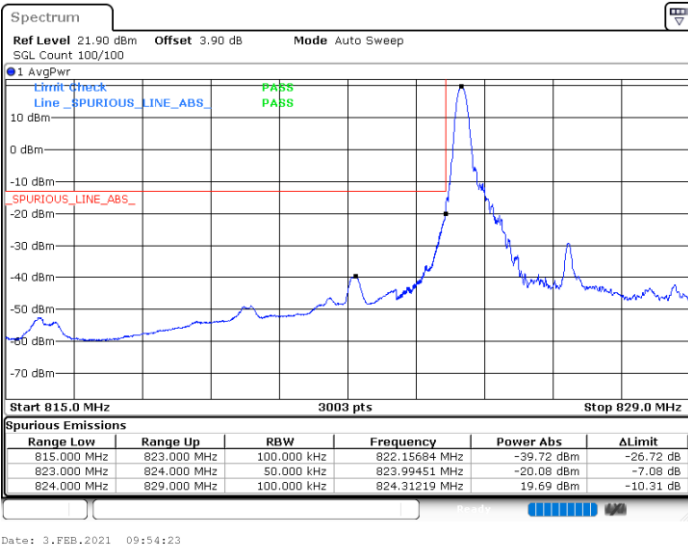
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FR1 n5 / 5MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

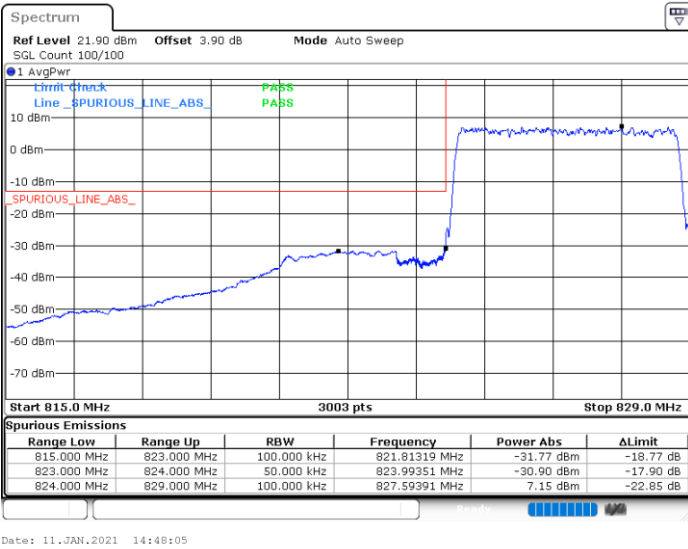
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



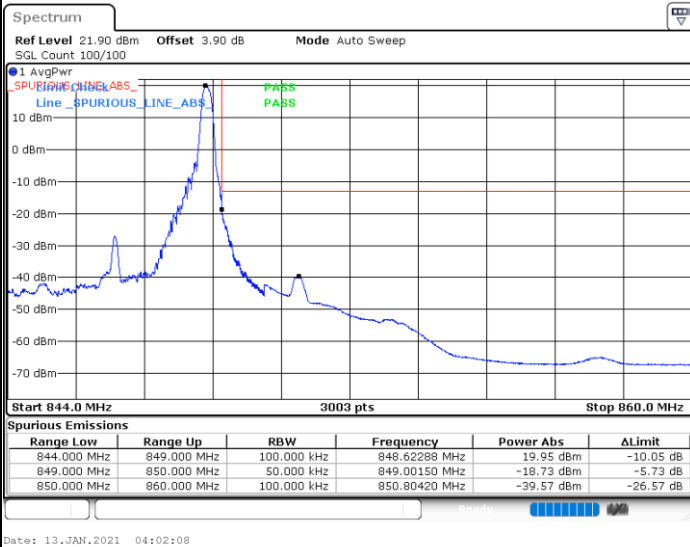
/



FR1 n5 / 5MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

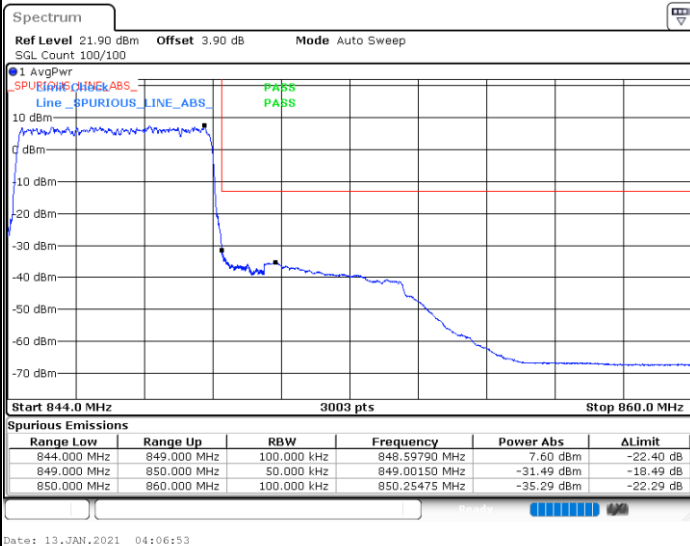
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



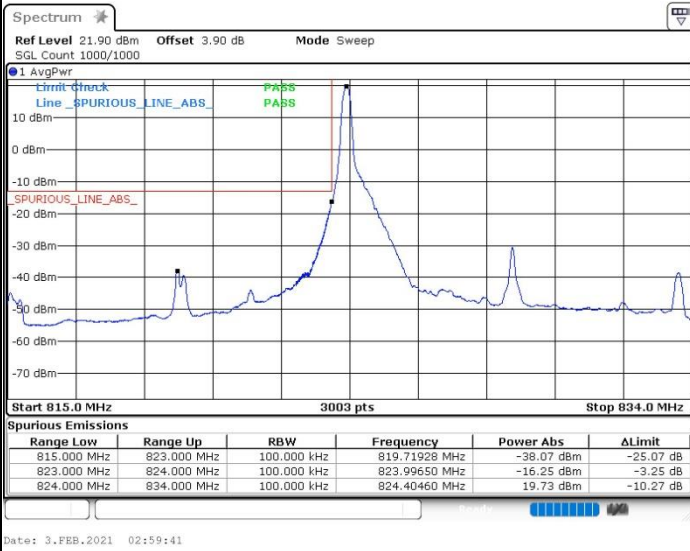
/



FR1 n5 / 10MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

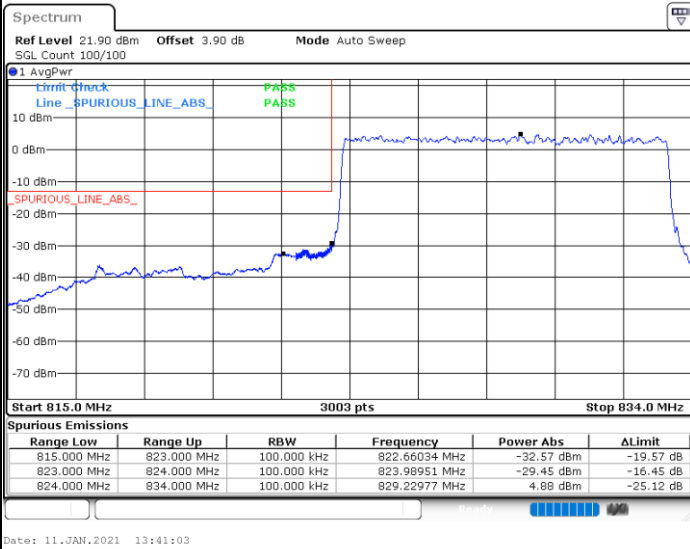
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



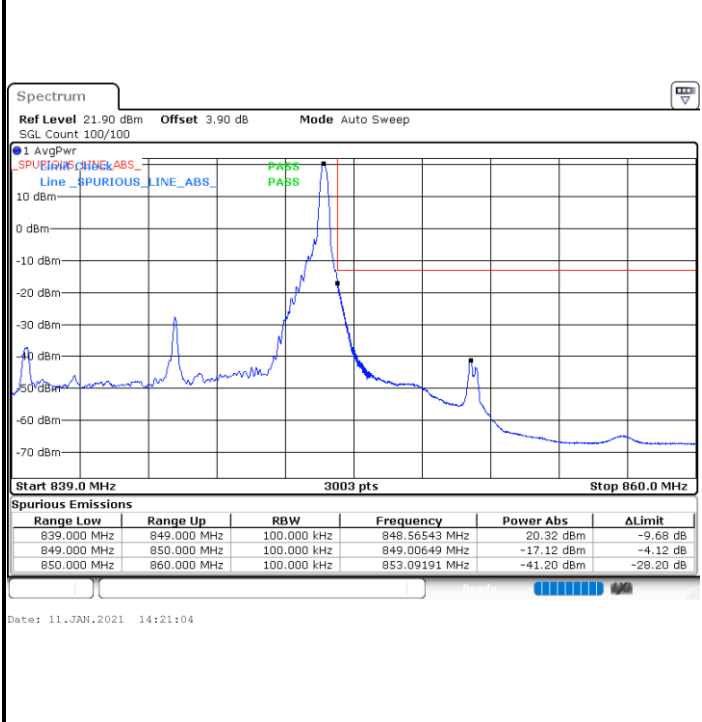
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FR1 n5 / 10MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

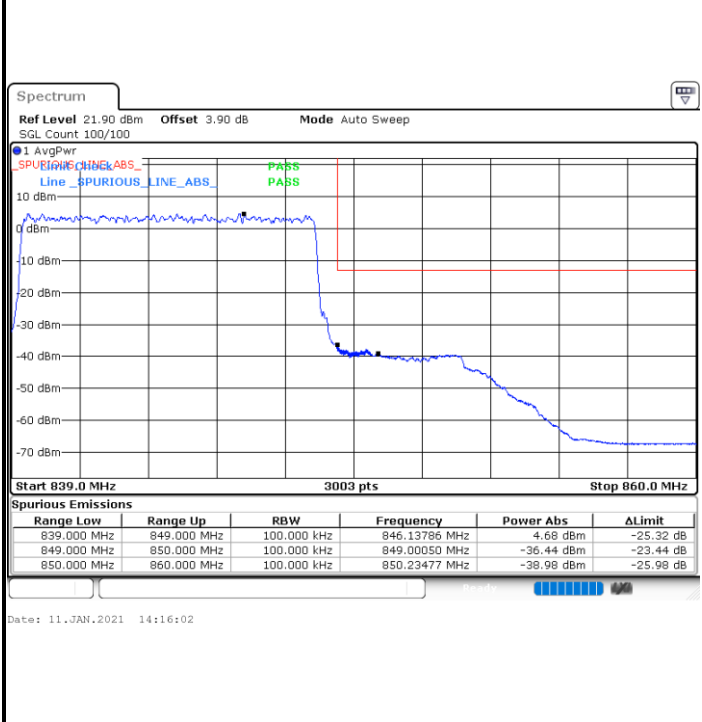
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



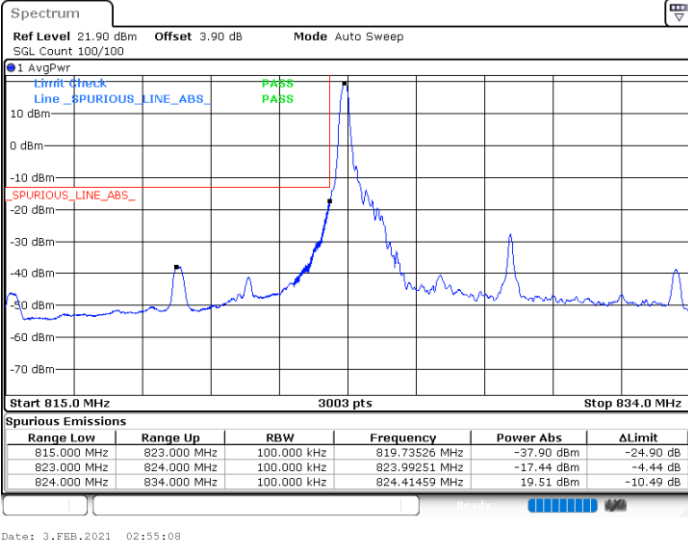
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FR1 n5 / 10MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

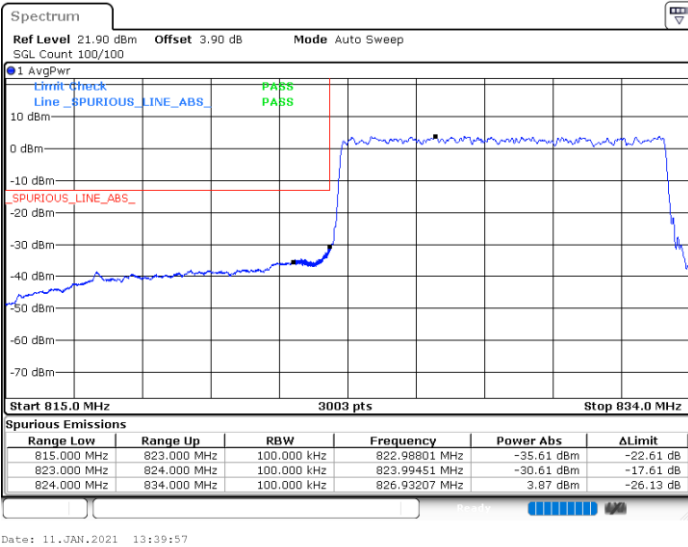
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



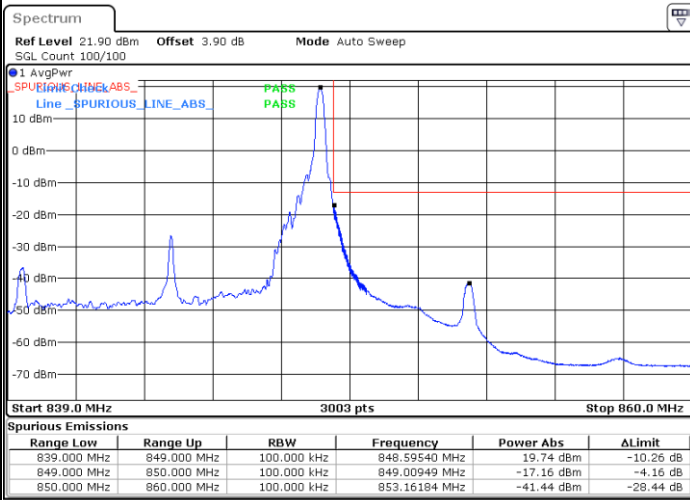
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FR1 n5 / 10MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

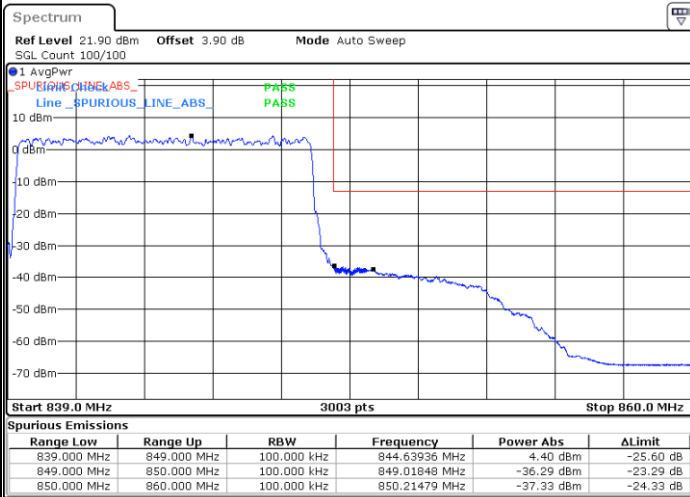
Channel Power < -13dBm Pass



Date: 11.JAN.2021 14:21:59

Highest Band Edge / Full RB

Channel Power < -13dBm Pass

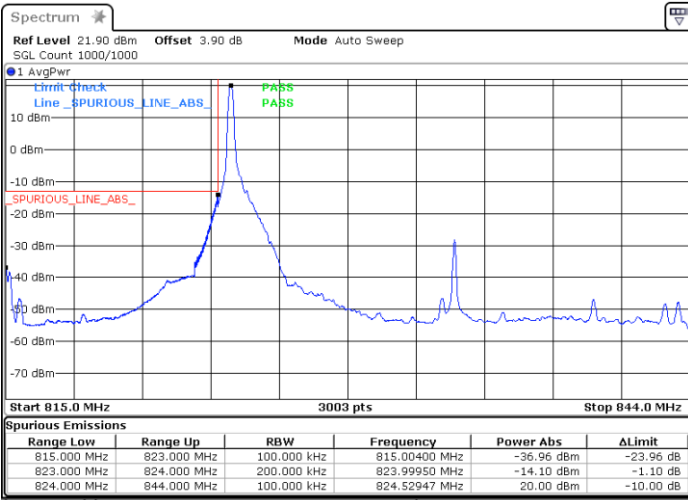


Date: 11.JAN.2021 14:16:56



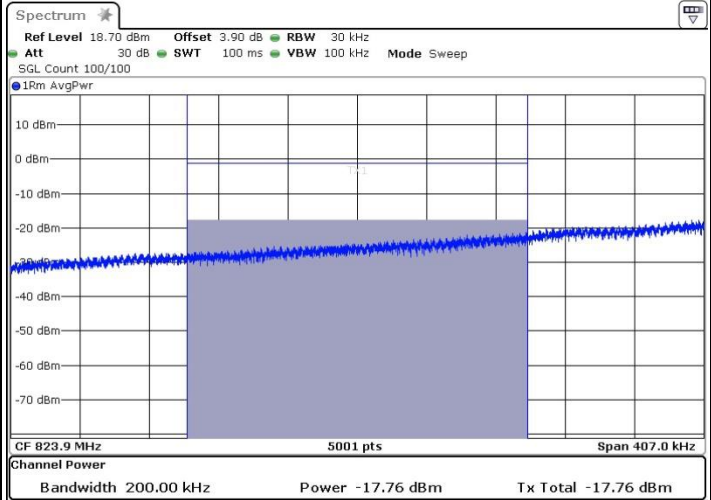
FR1 n5 / 20MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB



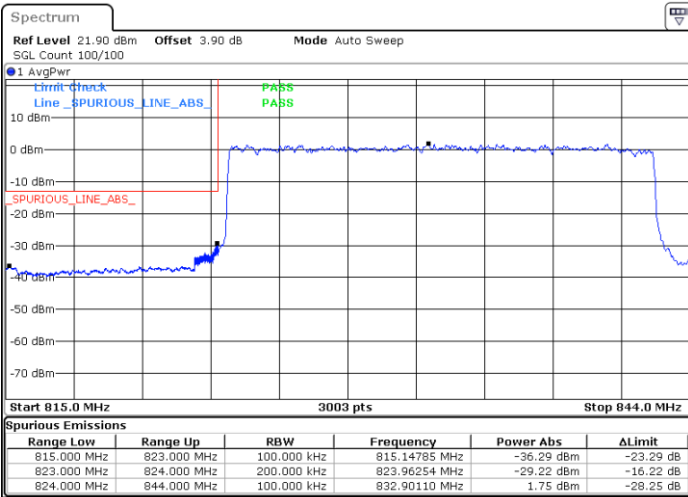
Date: 11.JAN.2021 11:17:45

Channel Power < -13dBm Pass



Date: 11.JAN.2021 11:18:27

Lowest Band Edge / Full RB



Date: 11.JAN.2021 11:20:22

Channel Power < -13dBm Pass

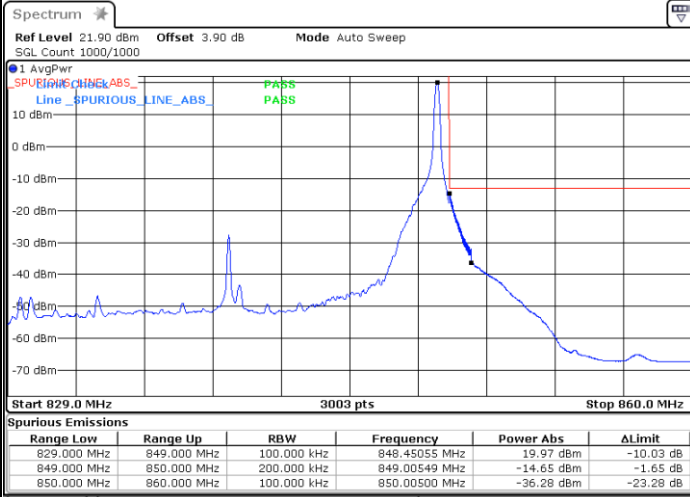
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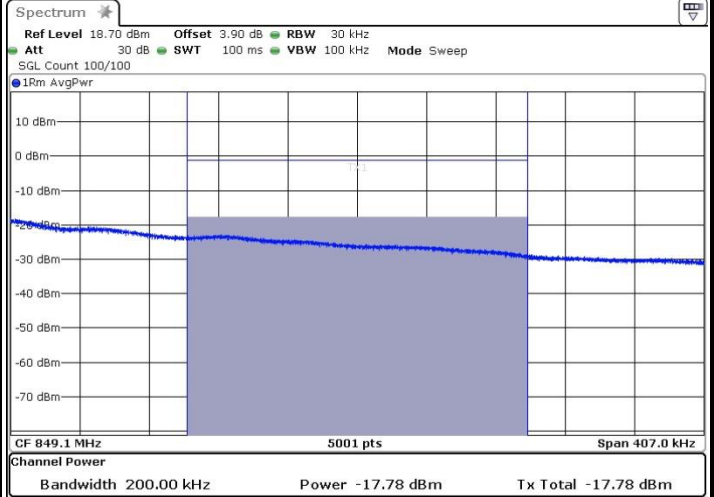
FR1 n5 / 20MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



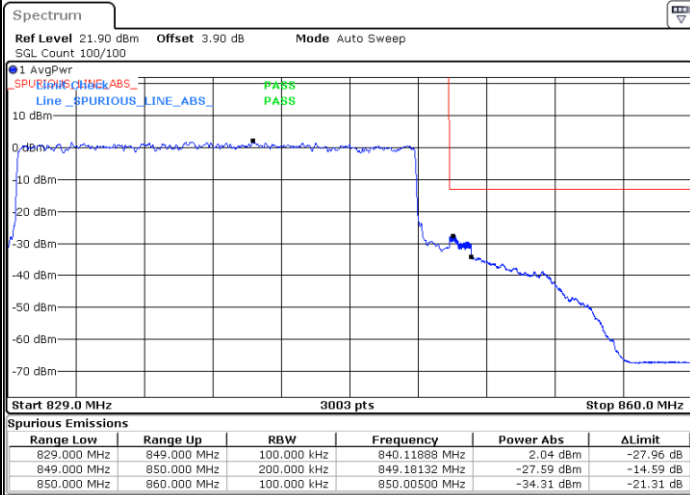
Date: 11.JAN.2021 08:37:00



Date: 11.JAN.2021 08:38:28

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



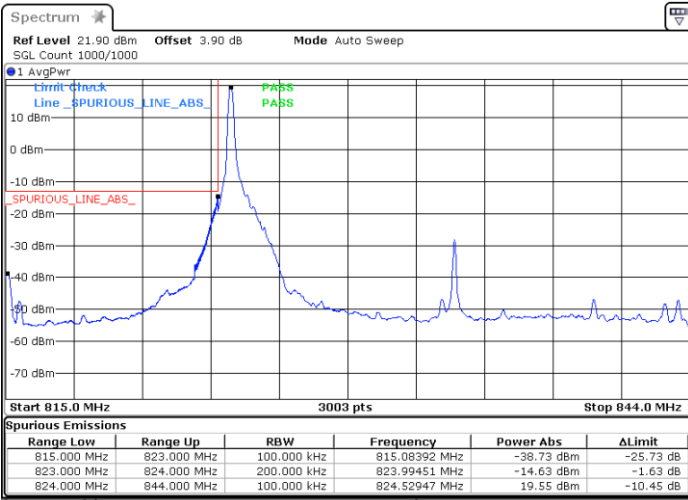
Date: 11.JAN.2021 11:25:07

/



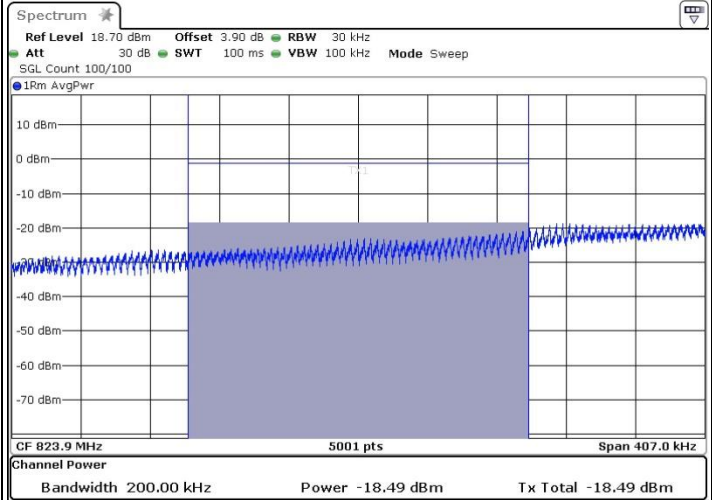
FR1 n5 / 20MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB



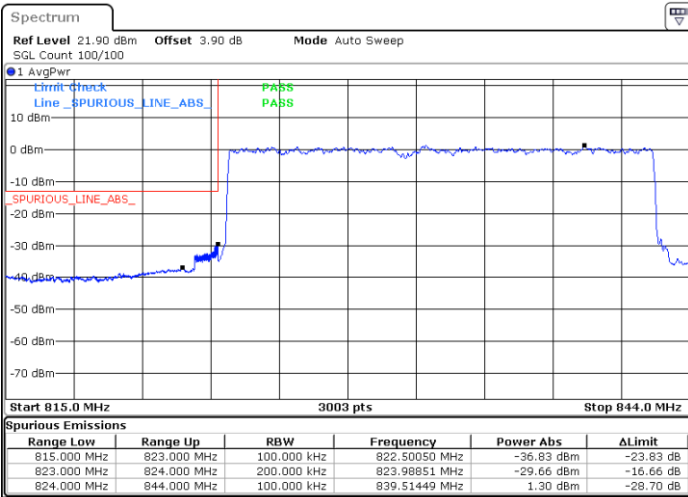
Date: 11.JAN.2021 11:10:41

Channel Power < -13dBm Pass



Date: 11.JAN.2021 11:11:49

Lowest Band Edge / Full RB



Date: 11.JAN.2021 11:21:13

Channel Power < -13dBm Pass

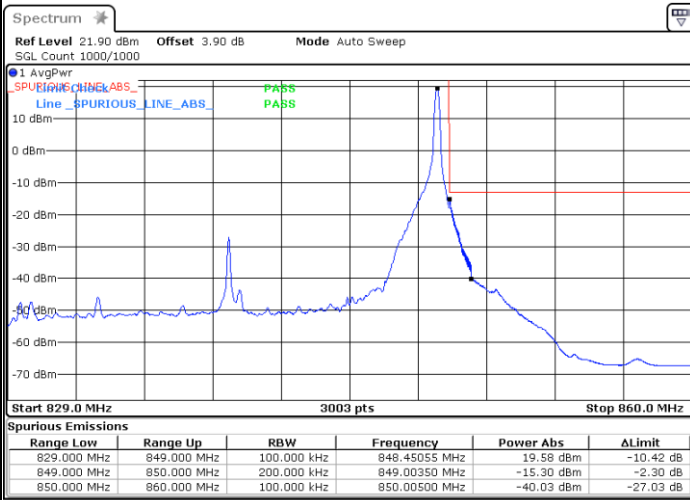
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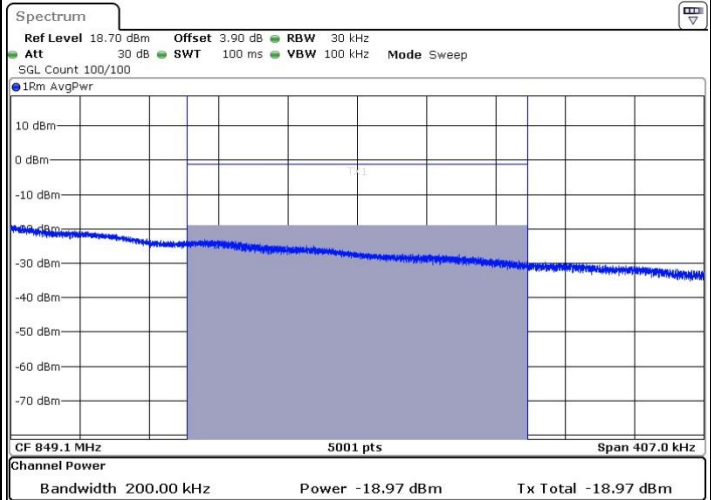
FR1 n5 / 20MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



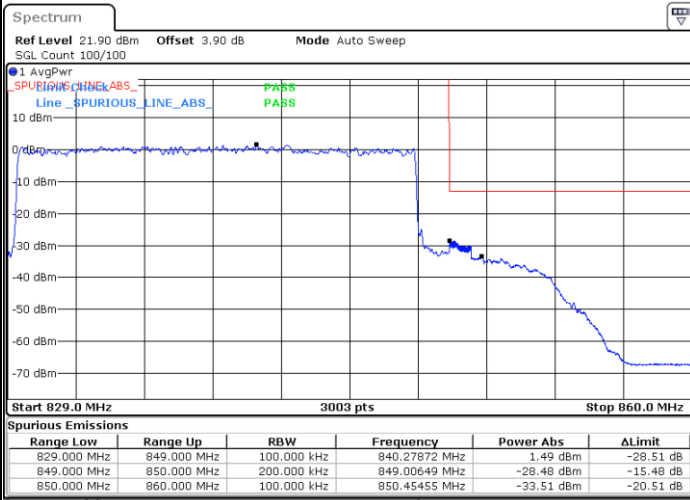
Date: 11.JAN.2021 08:44:17



Date: 11.JAN.2021 08:38:53

Highest Band Edge / Full RB

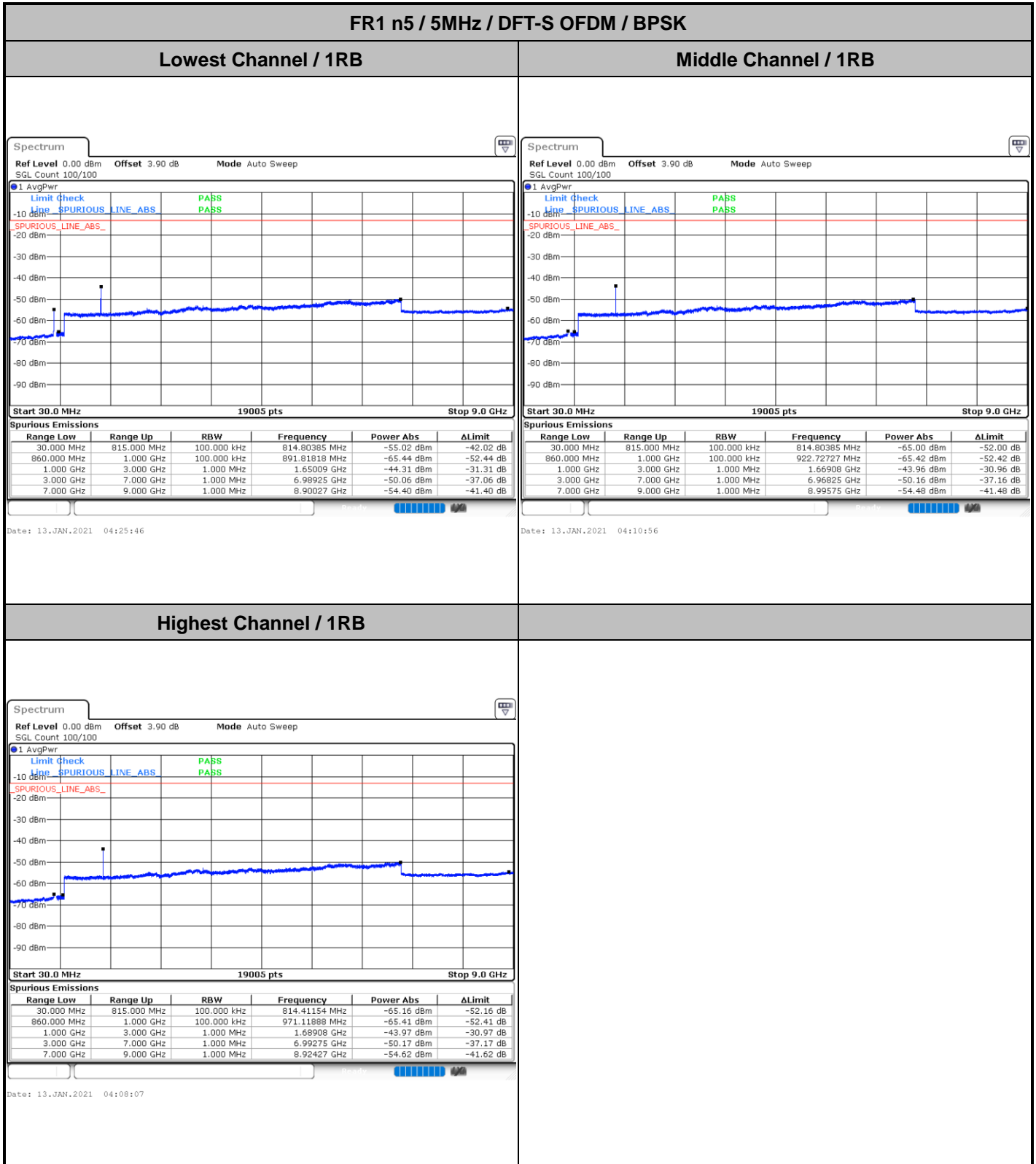
Channel Power < -13dBm Pass



Date: 11.JAN.2021 11:26:11



Conducted Spurious Emission

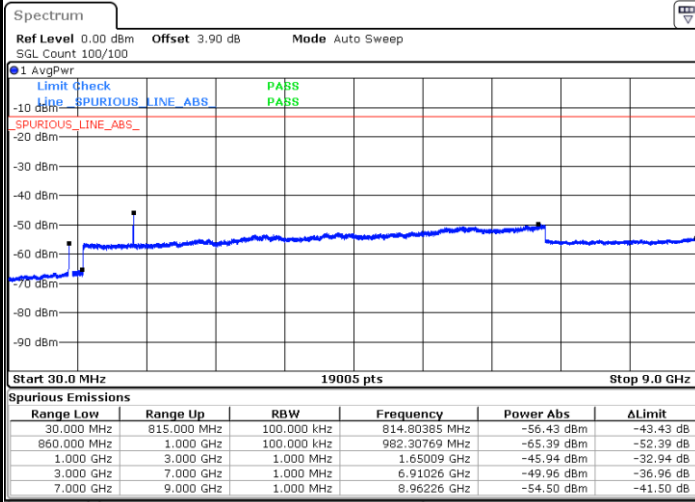




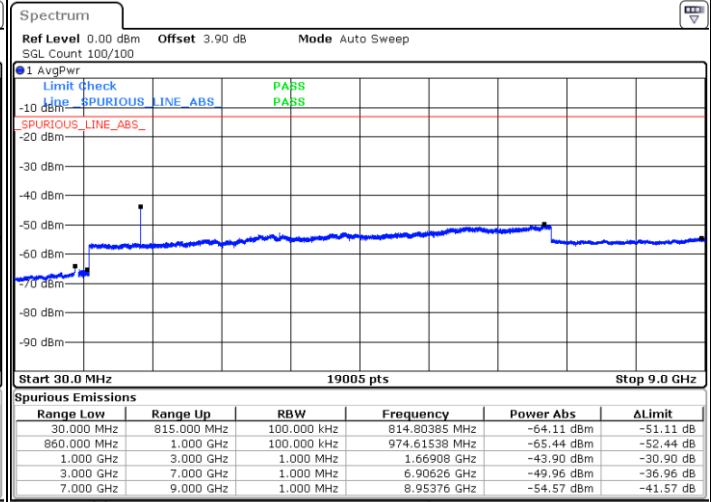
FR1 n5 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

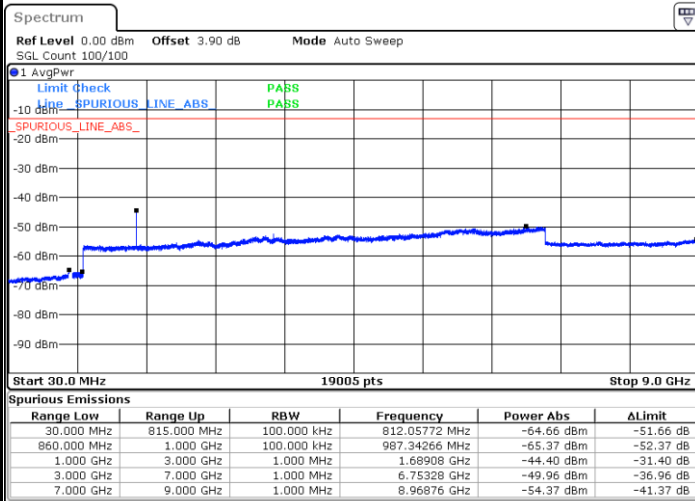


Date: 13.JAN.2021 04:22:52



Date: 13.JAN.2021 04:14:35

Highest Channel / 1RB



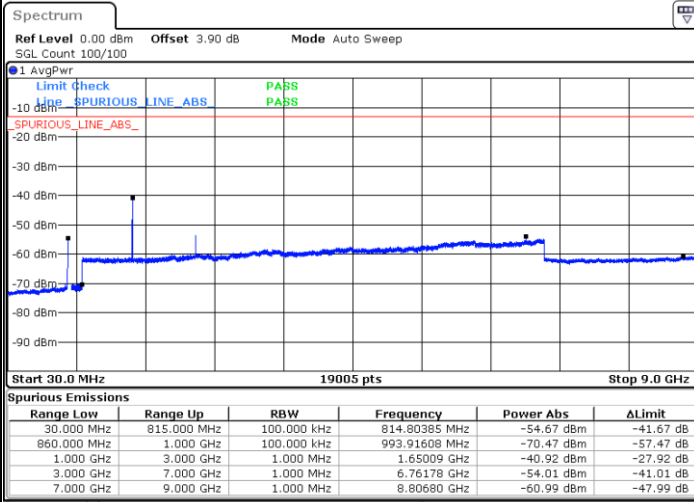
Date: 13.JAN.2021 04:07:34



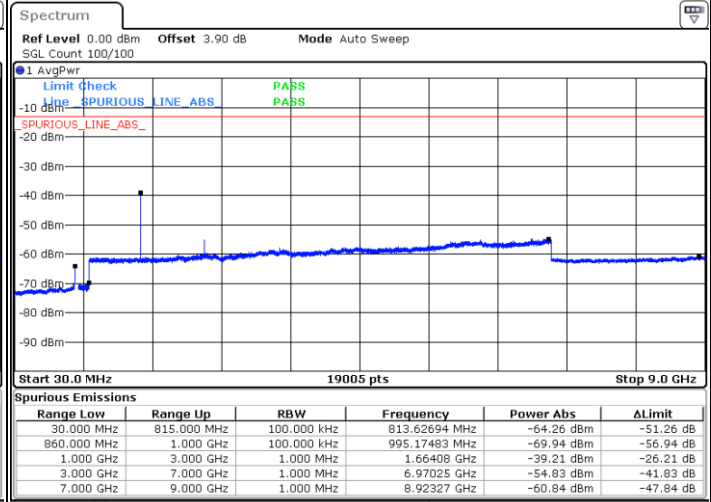
FR1 n5 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

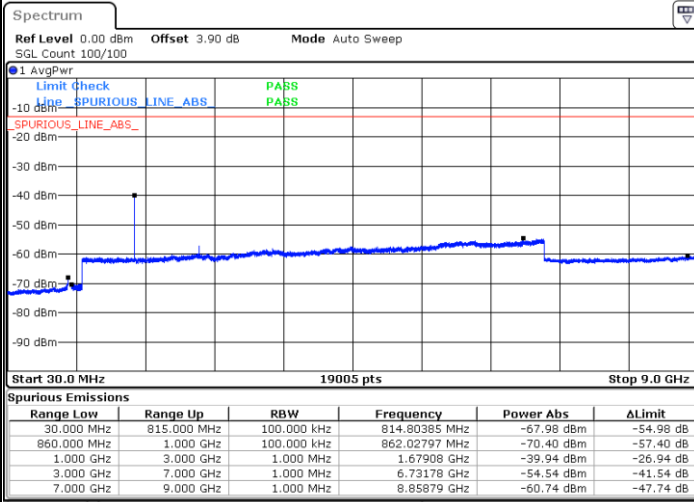


Date: 11.JAN.2021 14:00:03



Date: 11.JAN.2021 14:12:54

Highest Channel / 1RB



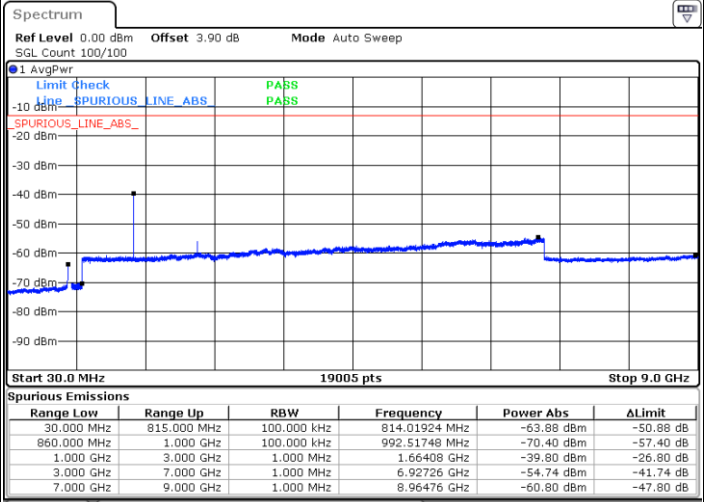
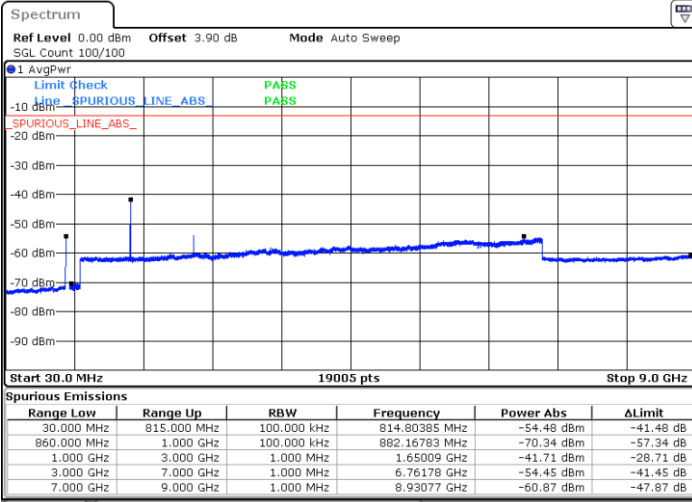
Date: 11.JAN.2021 14:19:20



FR1 n5 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

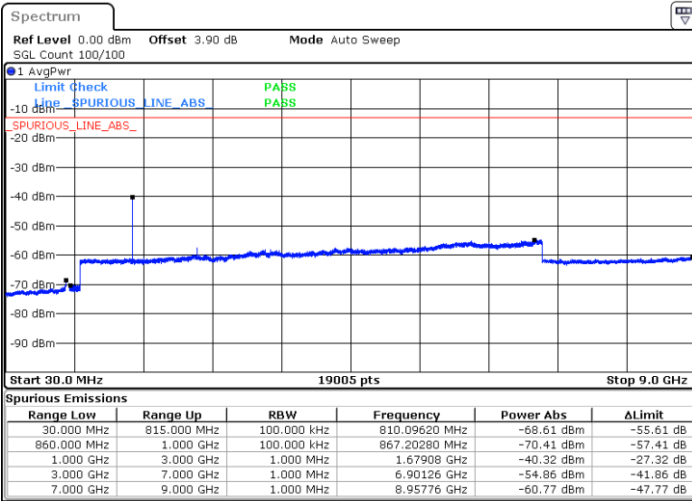
Middle Channel / 1RB



Date: 11.JAN.2021 14:02:03

Date: 11.JAN.2021 14:13:25

Highest Channel / 1RB



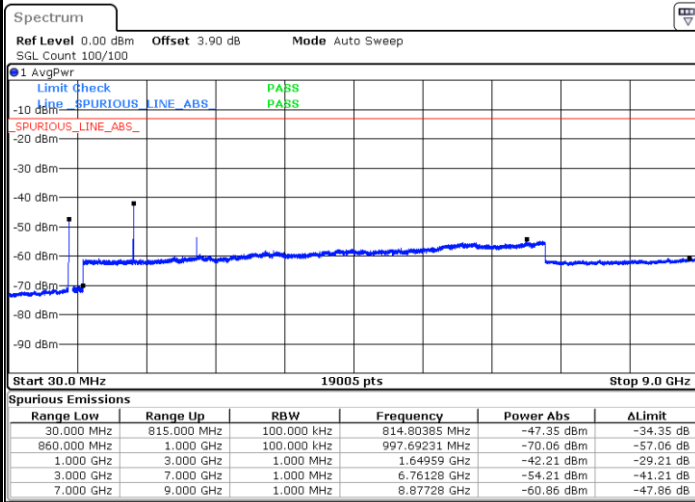
Date: 11.JAN.2021 14:17:28



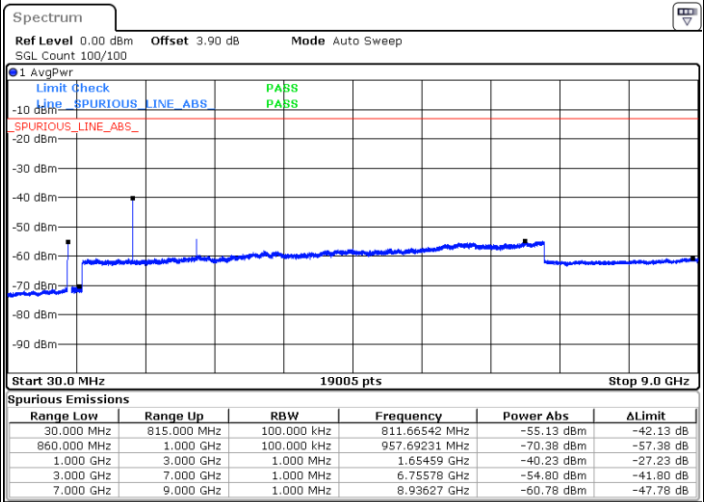
FR1 n5 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

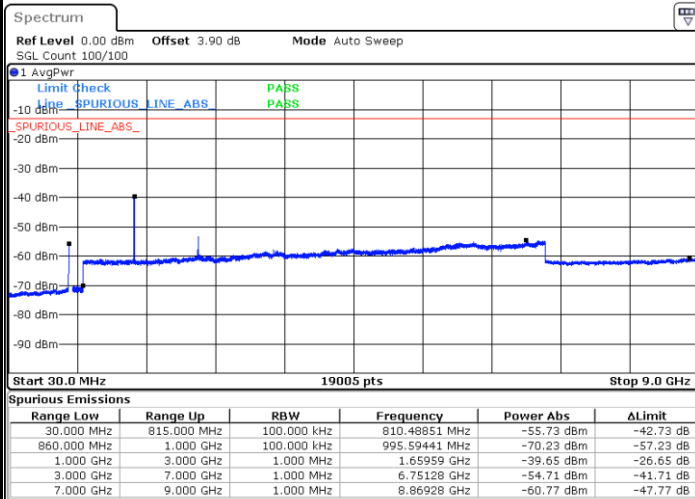


Date: 11.JAN.2021 08:29:31



Date: 11.JAN.2021 08:28:01

Highest Channel / 1RB

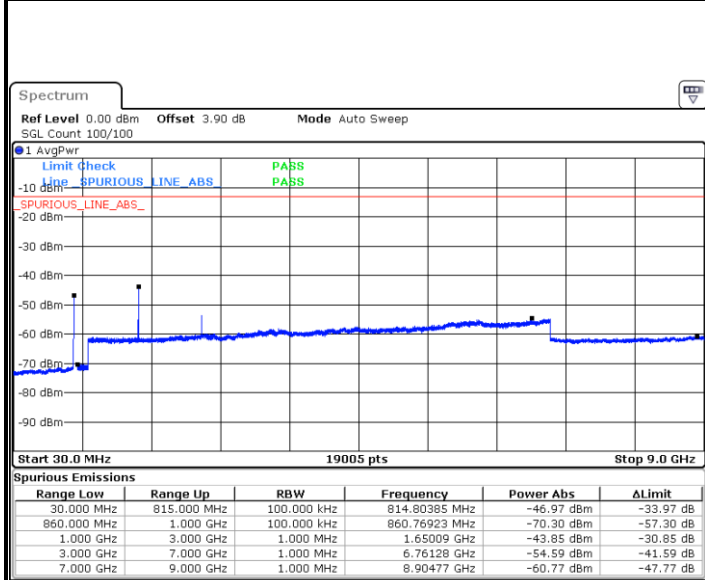


Date: 11.JAN.2021 08:32:06



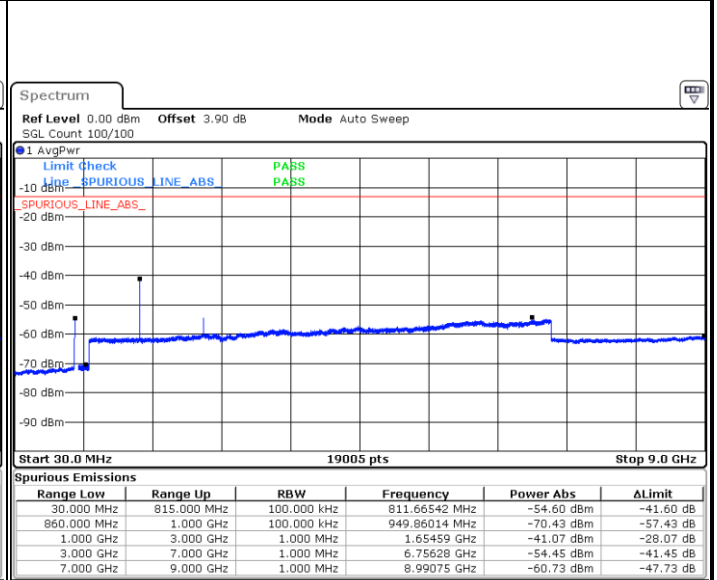
FR1 n5 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



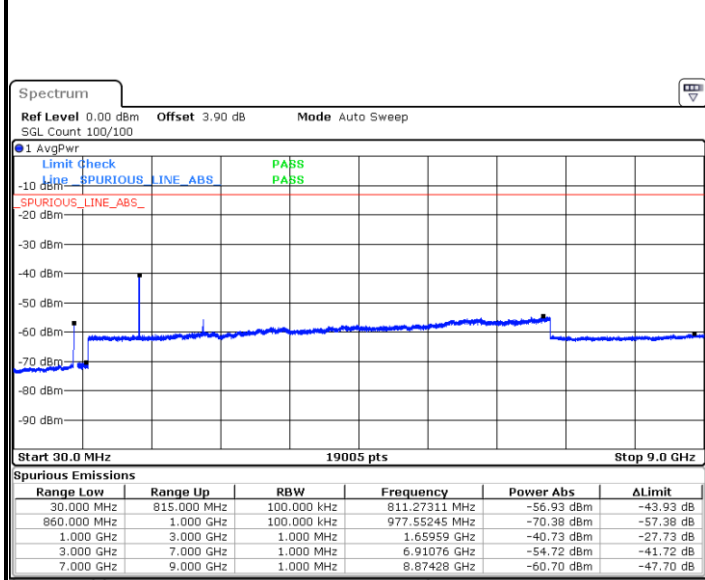
Date: 11.JAN.2021 08:29:58

Middle Channel / 1RB



Date: 11.JAN.2021 08:26:56

Highest Channel / 1RB



Date: 11.JAN.2021 08:31:16



Frequency Stability

Test Conditions		NR n5 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0013	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0029	

Note:

1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.14 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



FR1 n5 NSA

Peak-to-Average Ratio

Mode	FR1 n5+2A / 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	3.48	3.77	5.33	5.16	PASS
Middle CH	3.48	3.83	5.19	5.39	
Highest CH	3.65	3.88	5.45	5.36	



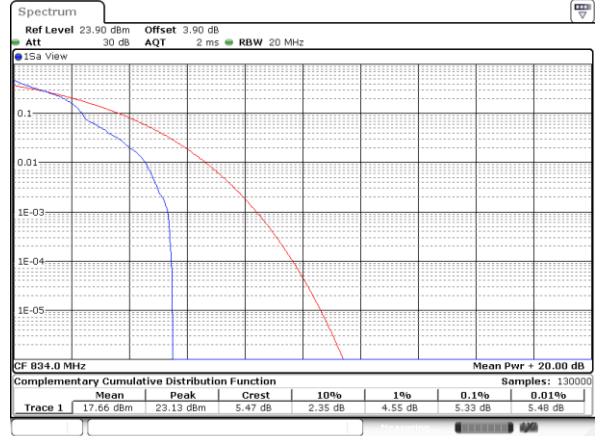
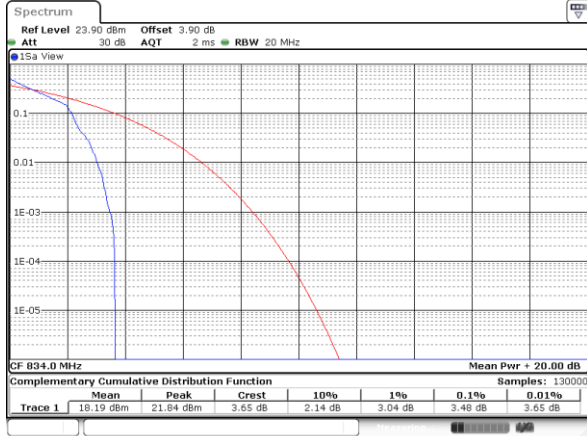
FR1 n5+2A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

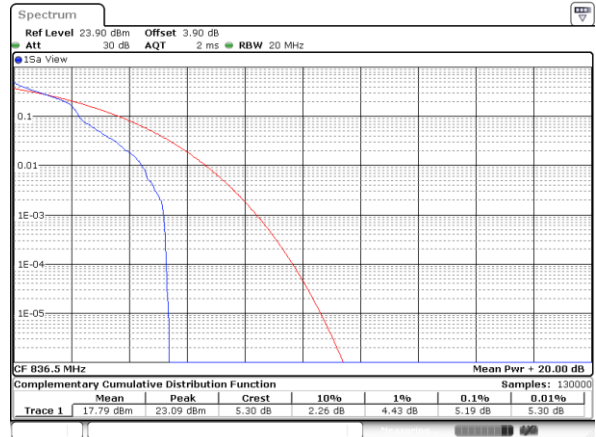
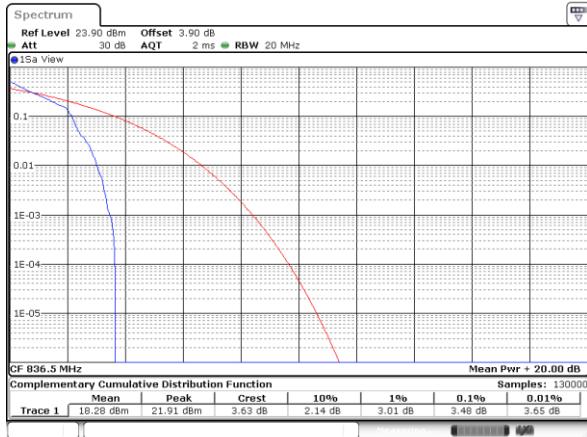


Date: 14_JAN_2021 02:41:19

Date: 14_JAN_2021 02:40:36

Middle Channel / 1 RB

Middle Channel / 1 RB

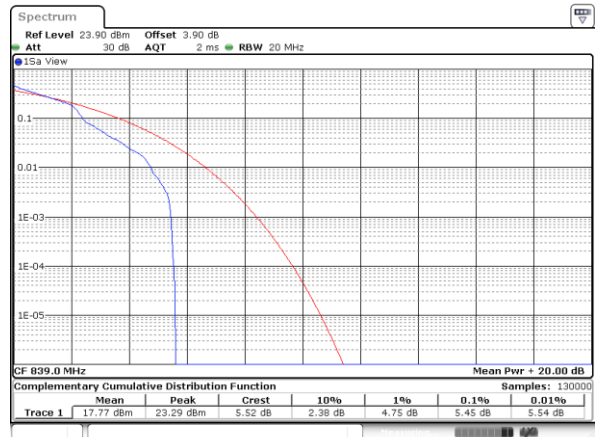
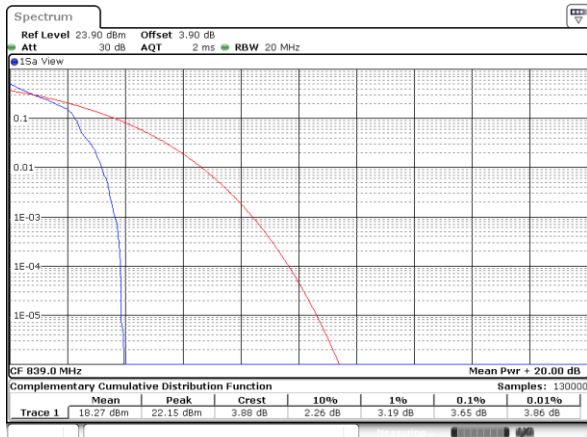


Date: 14_JAN_2021 02:43:33

Date: 14_JAN_2021 02:43:45

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 14_JAN_2021 02:57:56

Date: 14_JAN_2021 02:58:10



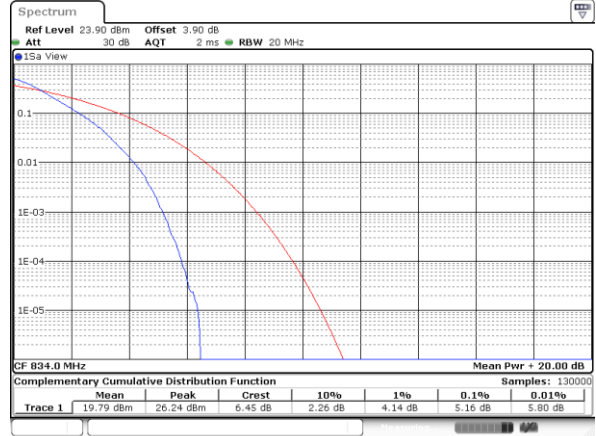
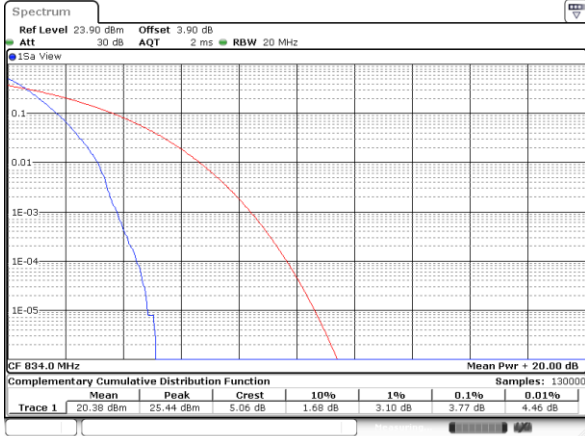
FR1 n5+2A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

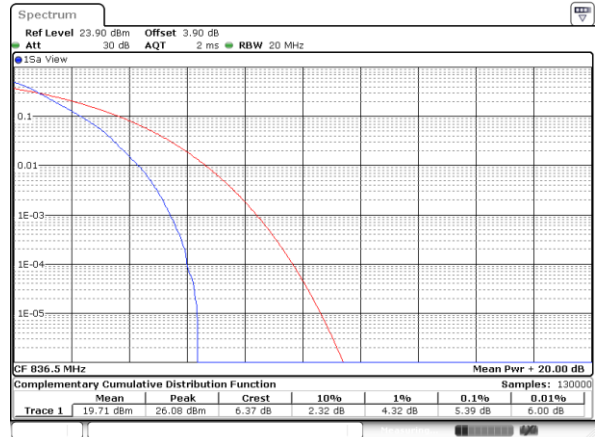
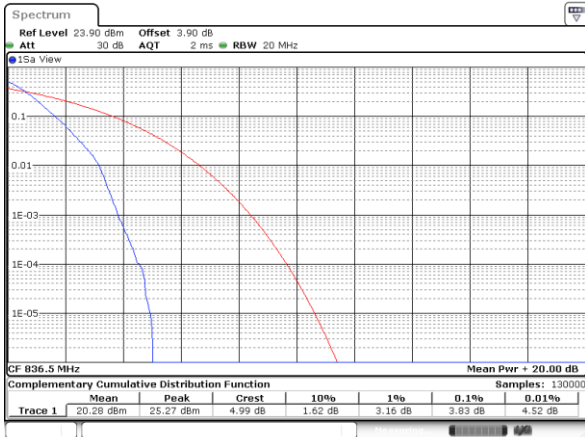


Date: 14_JAN.2021 02:41:43

Date: 14_JAN.2021 02:42:07

Middle Channel / Full RB

Middle Channel / Full RB

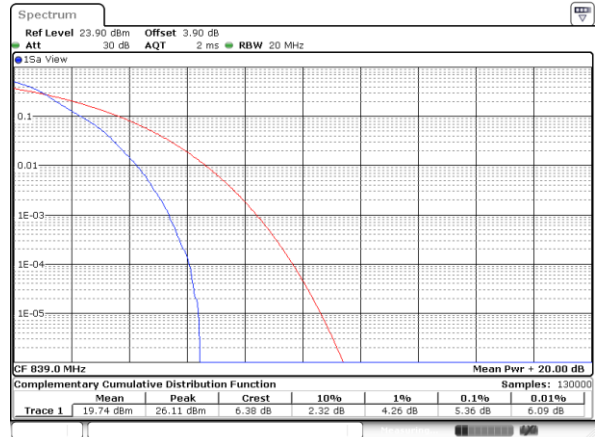
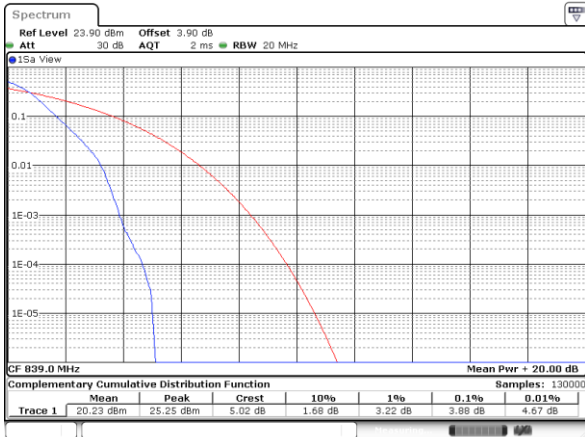


Date: 14_JAN.2021 02:43:09

Date: 14_JAN.2021 02:42:45

Highest Channel / Full RB

Highest Channel / Full RB



Date: 14_JAN.2021 02:58:56

Date: 14_JAN.2021 02:58:23



26dB Bandwidth

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.82	4.84	4.84	4.82				

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.79	9.91	9.83	9.69				

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.96	14.93	14.98	14.89				

Mode	FR1 n5+2A : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.74	20.02	20.22	19.98				



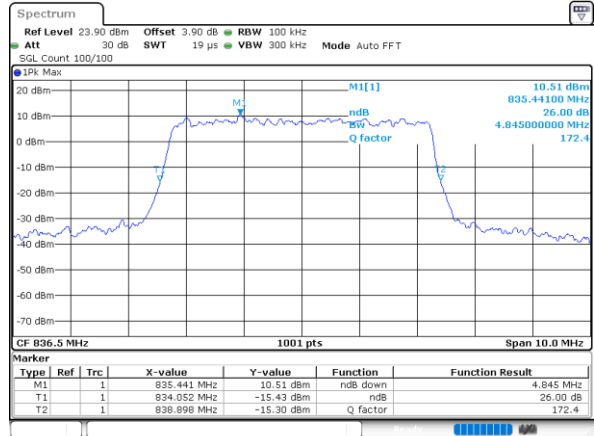
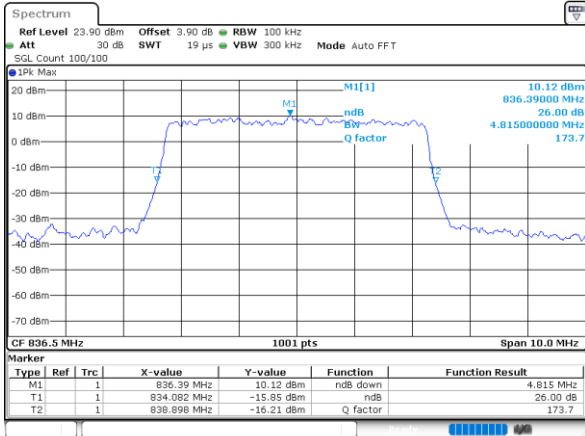
FR1 n5+2A / 5MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 22:44:28

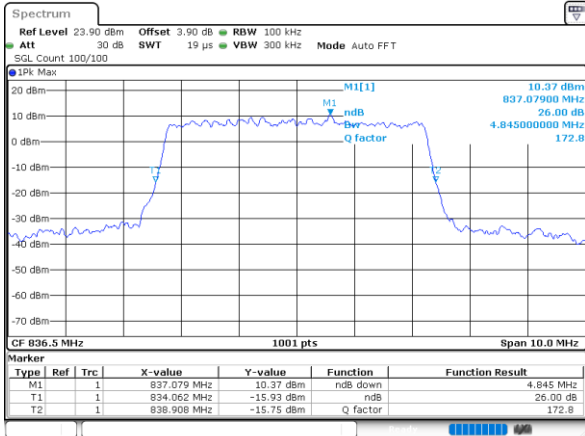
Date: 13_JAN_2021 22:44:15

64QAM

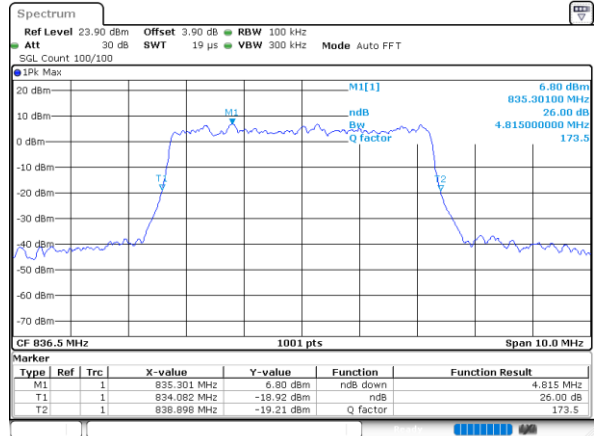
256QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 22:44:00



Date: 13_JAN_2021 22:43:42



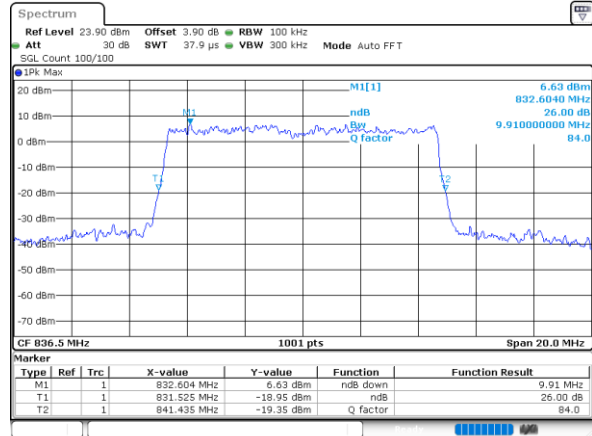
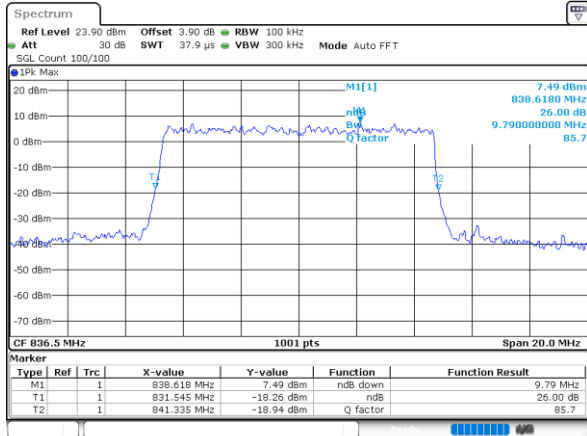
FR1 n5+2A / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 22:41:36

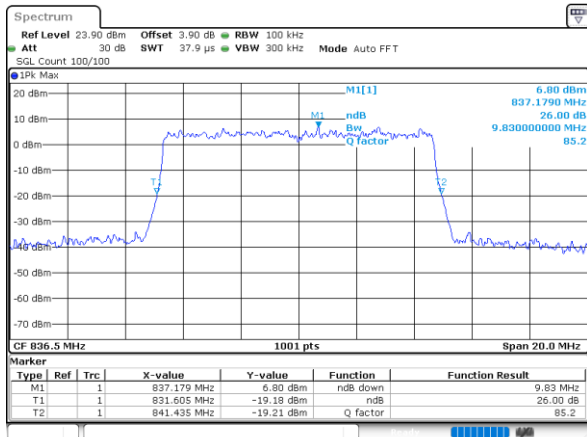
Date: 13_JAN_2021 22:42:02

64QAM

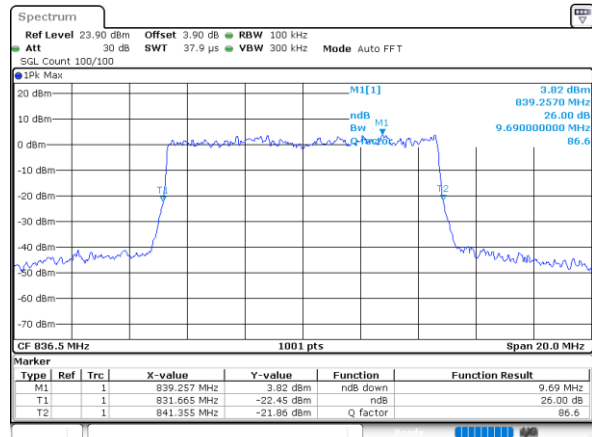
256QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 22:42:20



Date: 13_JAN_2021 22:42:40



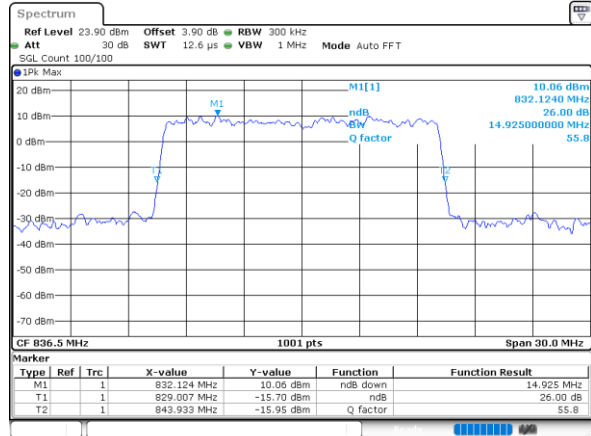
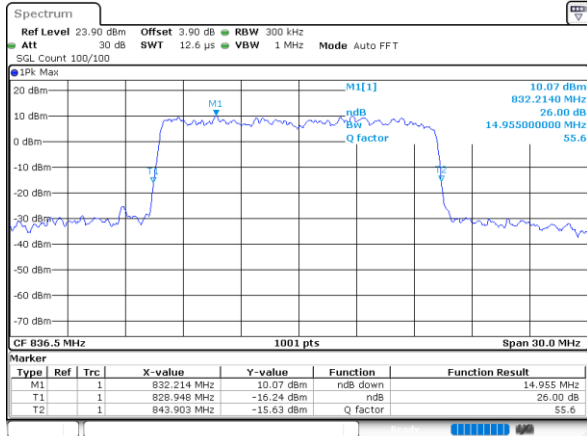
FR1 n5+2A / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 22:40:55

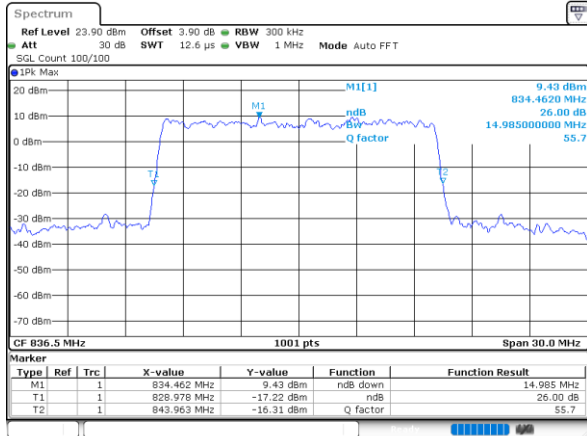
Date: 13_JAN_2021 22:39:57

64QAM

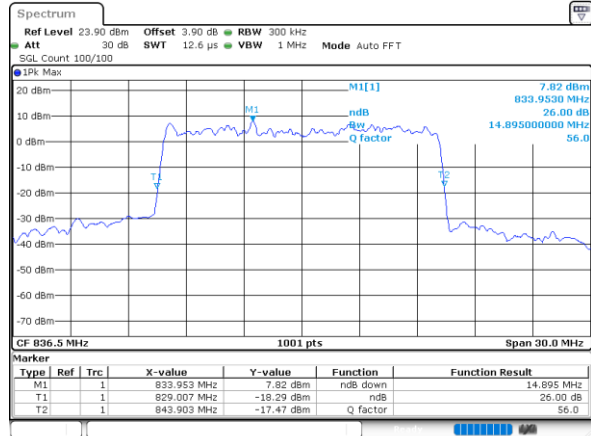
256QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 22:39:42



Date: 13_JAN_2021 22:39:29



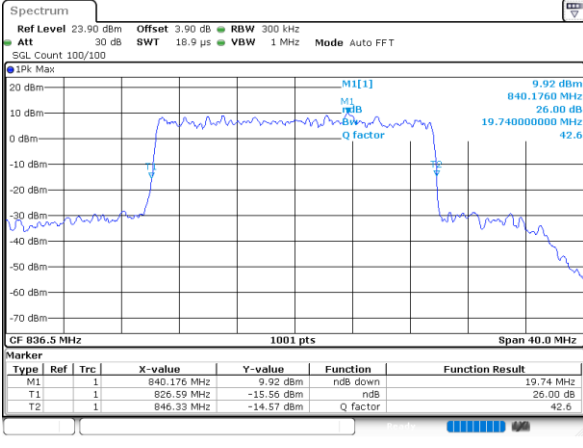
FR1 n5+2A / 20MHz / CP-OFDM

QPSK

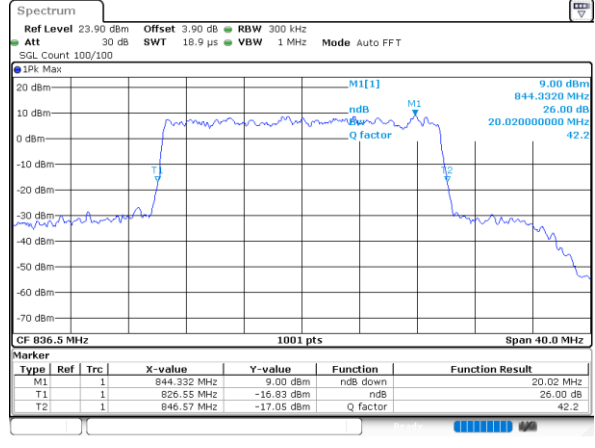
16QAM

Middle Channel

Middle Channel



Date: 13, JAN, 2021 22:37:50



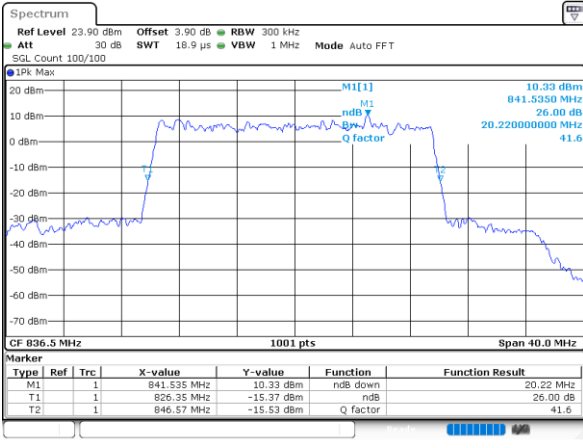
Date: 13, JAN, 2021 22:38:11

64QAM

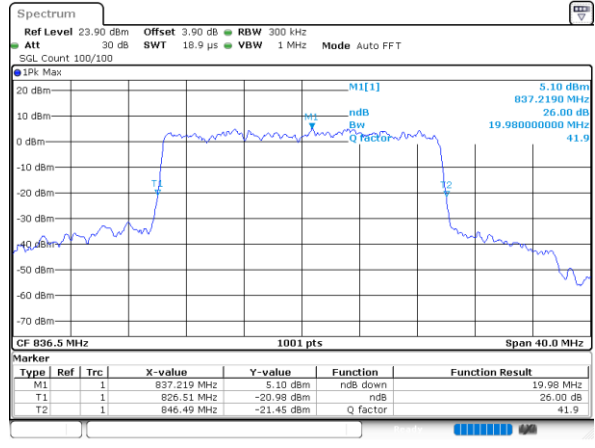
256QAM

Middle Channel

Middle Channel



Date: 13, JAN, 2021 22:38:28



Date: 13, JAN, 2021 22:38:43



Occupied Bandwidth

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

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.27	9.29	9.27	9.31				

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.15	14.15	14.12	14.15				

Mode	FR1 n5+2A : OBW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	18.98	19.02	18.98	18.98				



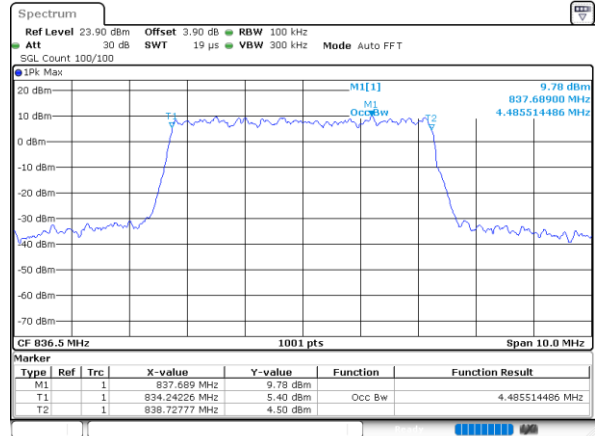
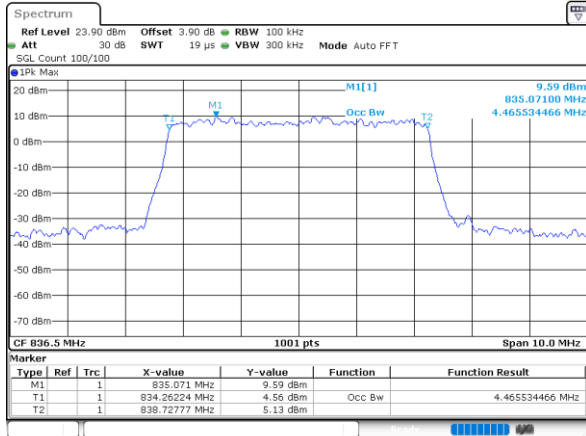
FR1 n5+2A / 5MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 22:44:23

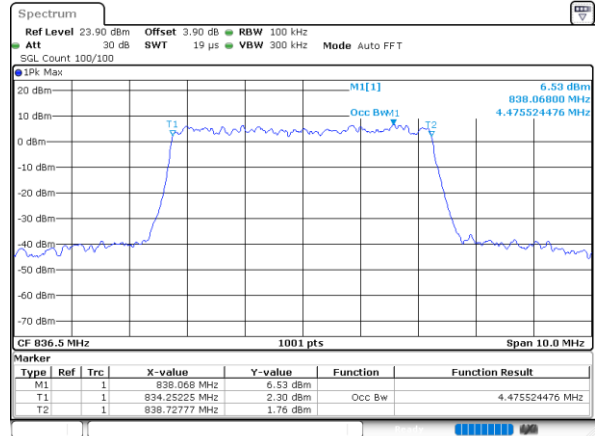
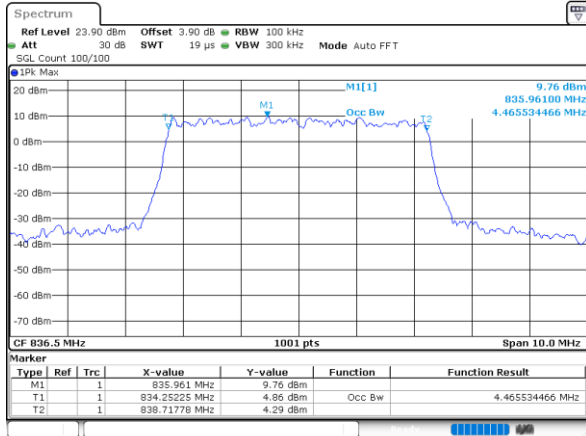
Date: 13.JAN.2021 22:44:11

64QAM

256QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 22:43:51

Date: 13.JAN.2021 22:43:38



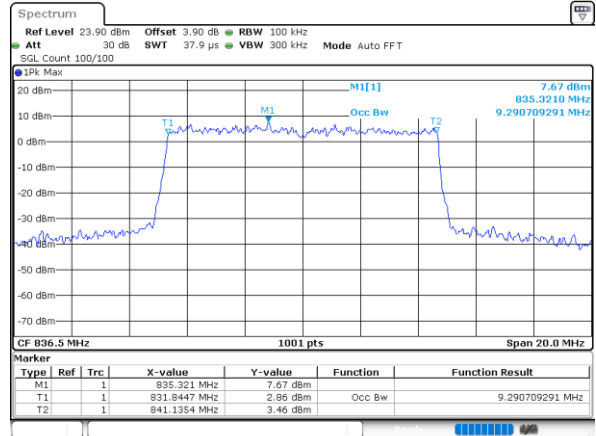
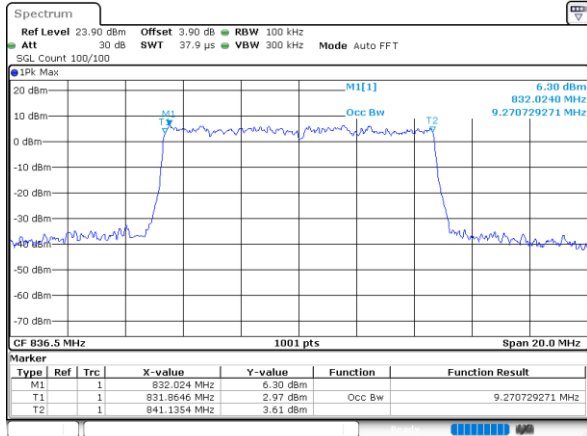
FR1 n5+2A / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 22:41:32

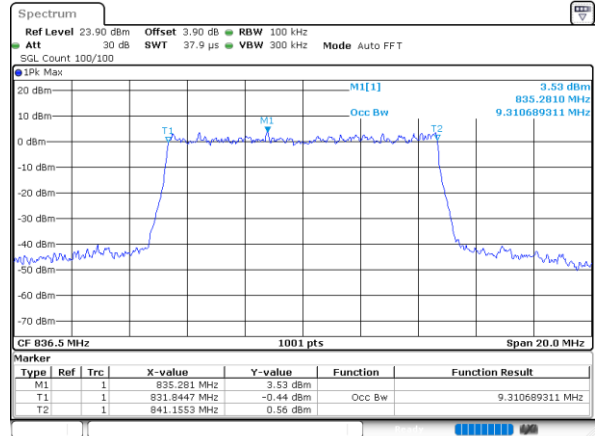
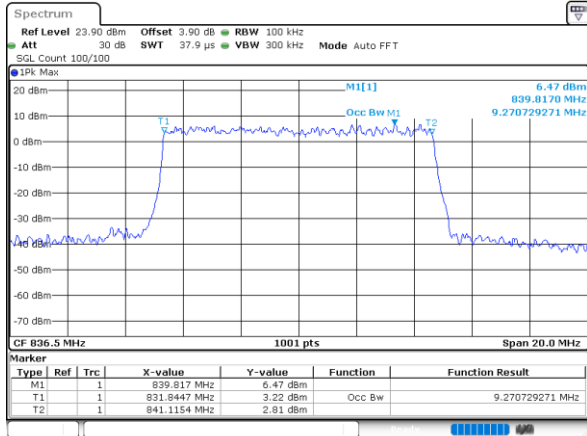
Date: 13.JAN.2021 22:41:53

64QAM

256QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 22:42:16

Date: 13.JAN.2021 22:42:36



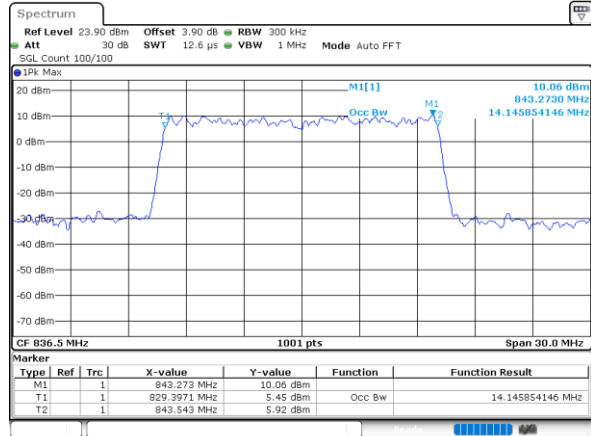
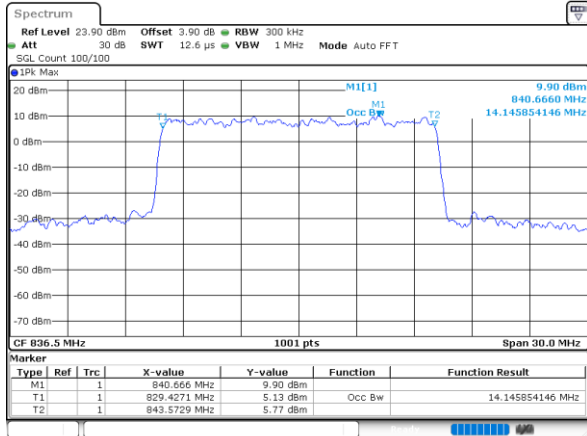
FR1 n5+2A / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

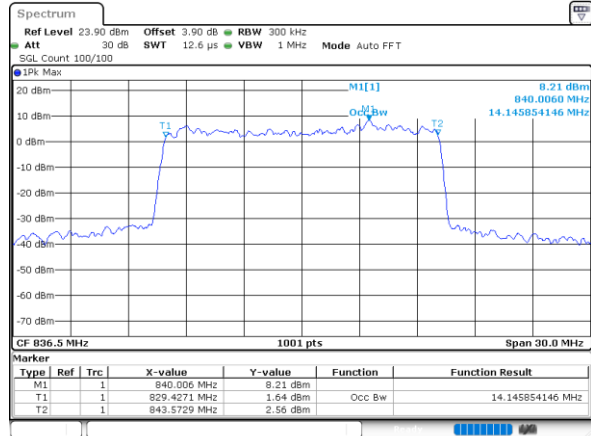
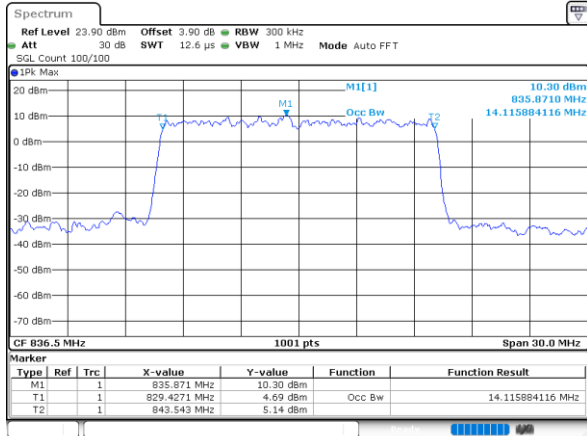


64QAM

256QAM

Middle Channel

Middle Channel





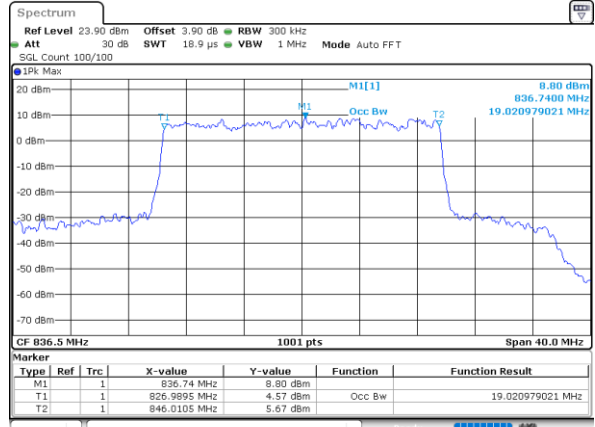
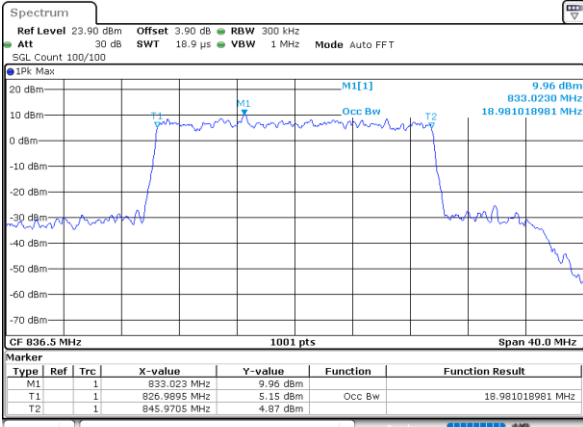
FR1 n5+2A / 20MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 13.JAN.2021 22:37:45

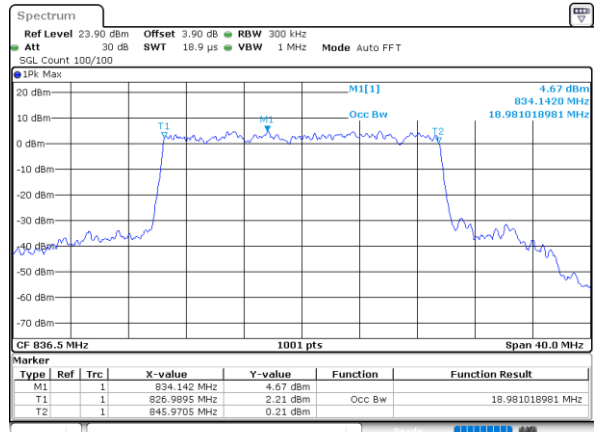
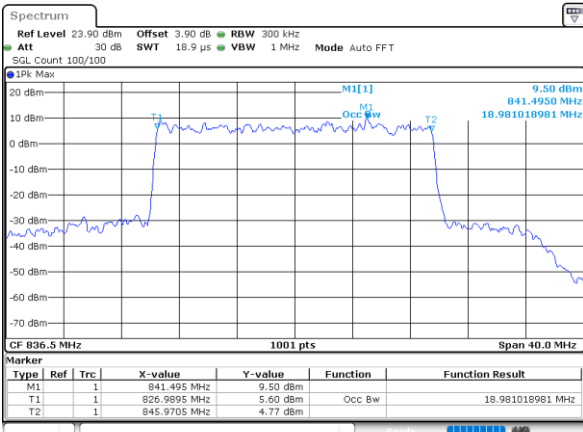
Date: 13.JAN.2021 22:38:07

64QAM

256QAM

Middle Channel

Middle Channel



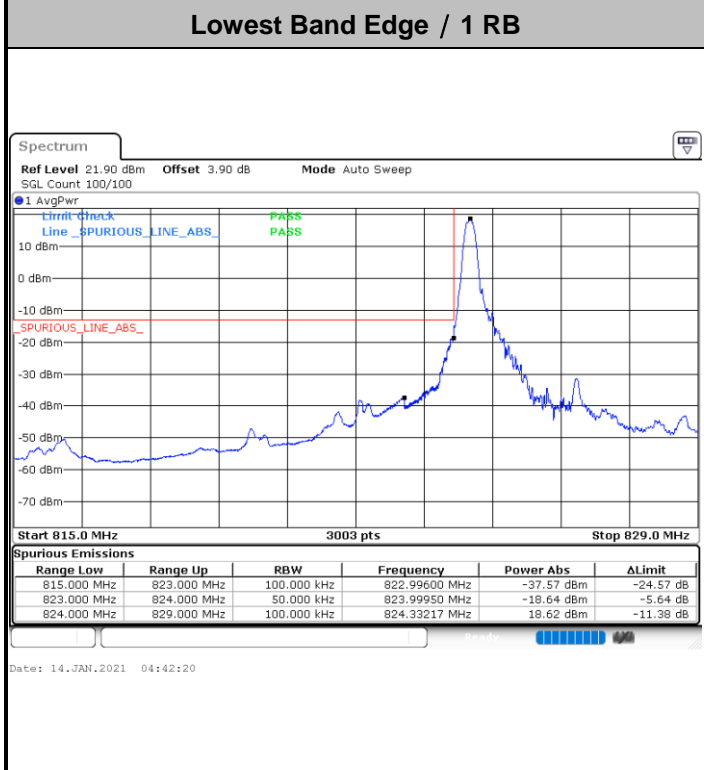
Date: 13.JAN.2021 22:38:23

Date: 13.JAN.2021 22:38:39

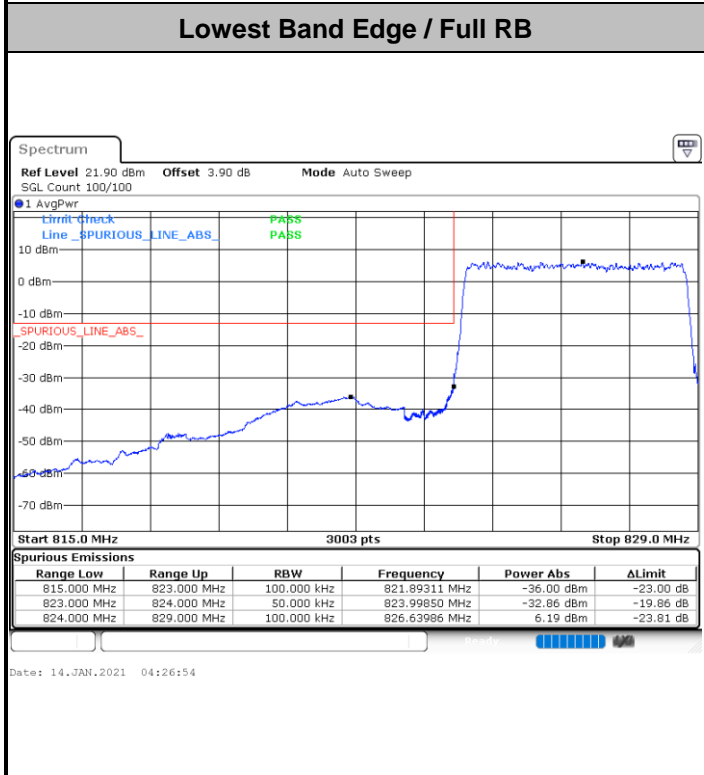


Conducted Band Edge

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



Channel Power < -13dBm Pass



Channel Power < -13dBm Pass