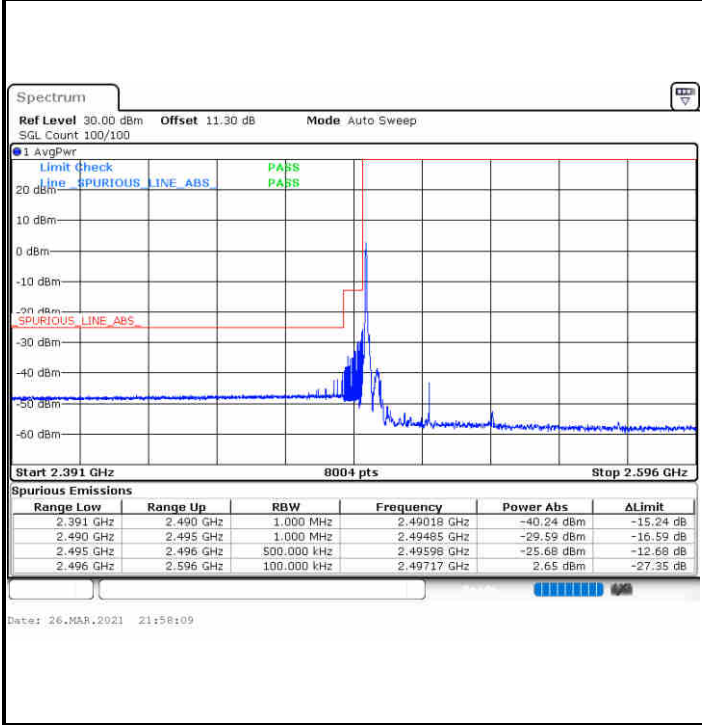




FR1 n41+41A / 40MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

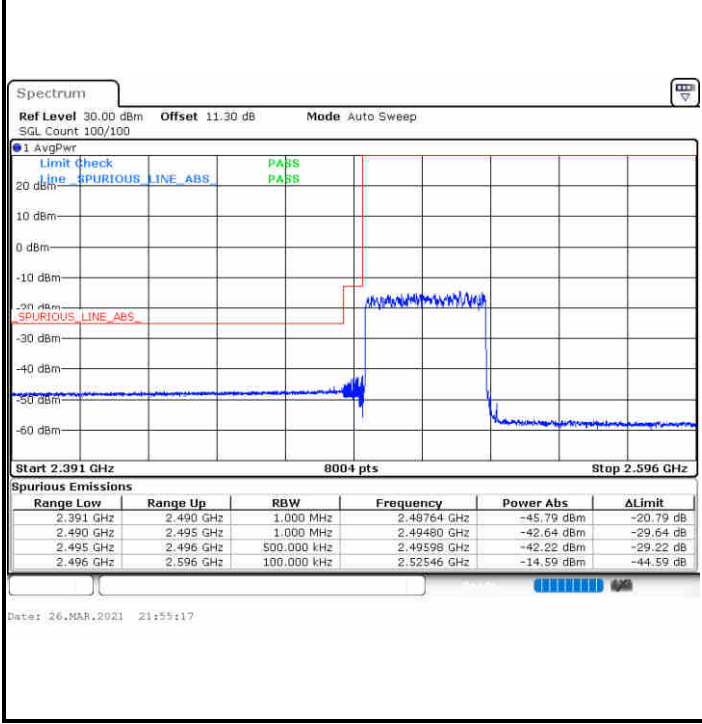
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



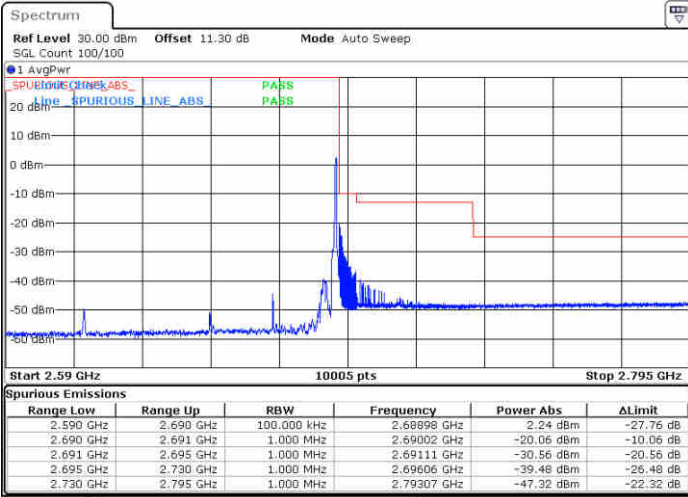
/



FR1 n41+41A / 40MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

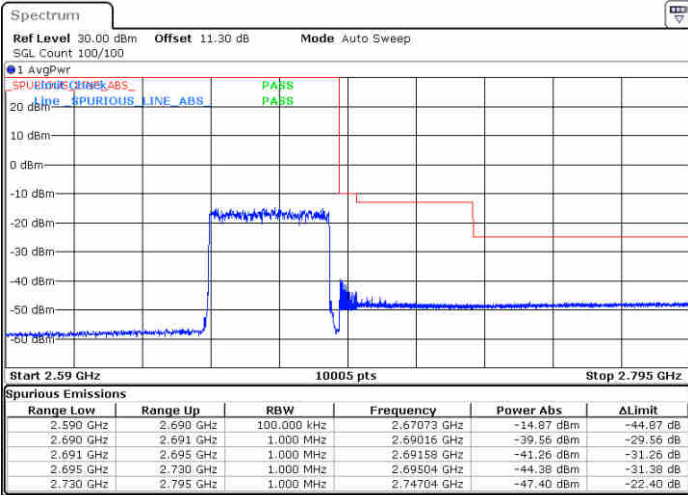
Channel Power < -13dBm Pass



Date: 26.MAR.2021 22:27:20

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



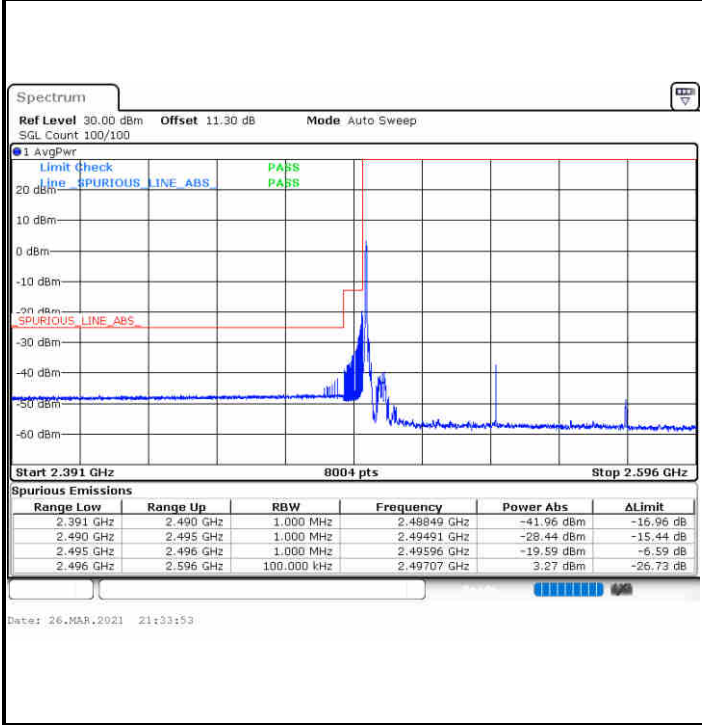
Date: 26.MAR.2021 22:28:16



FR1 n41+41A / 80MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

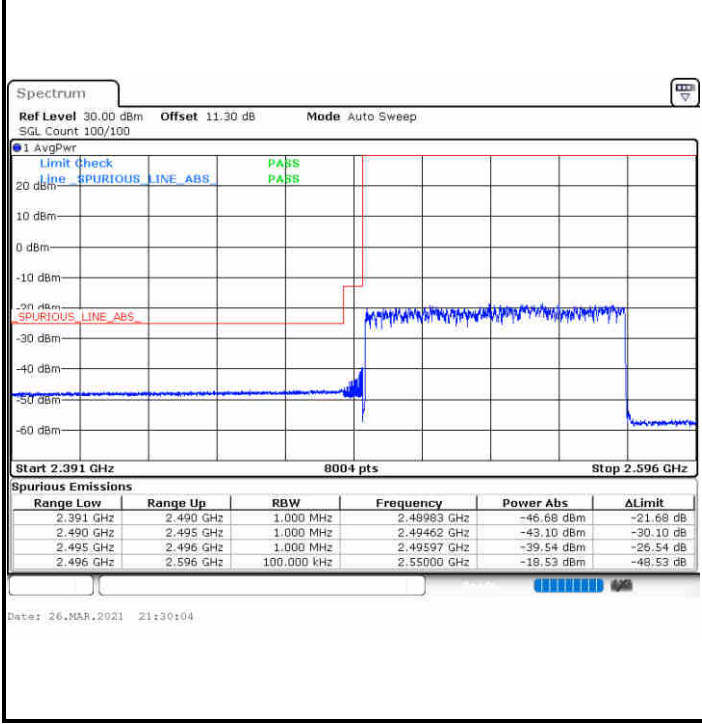
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



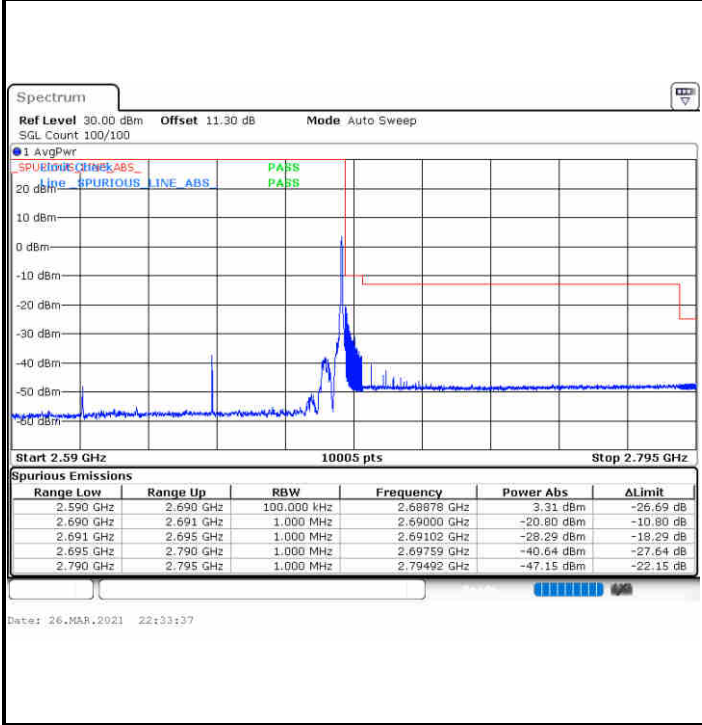
/



FR1 n41+41A / 80MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

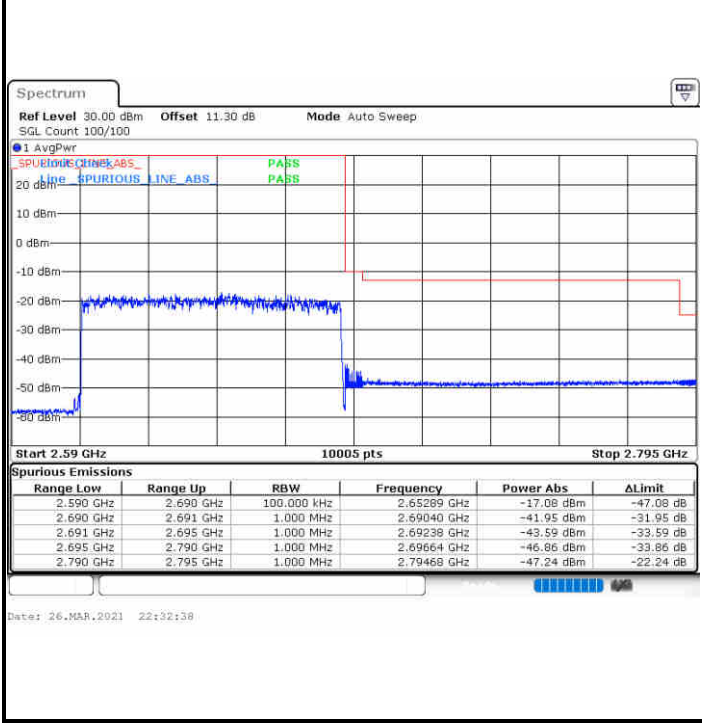
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



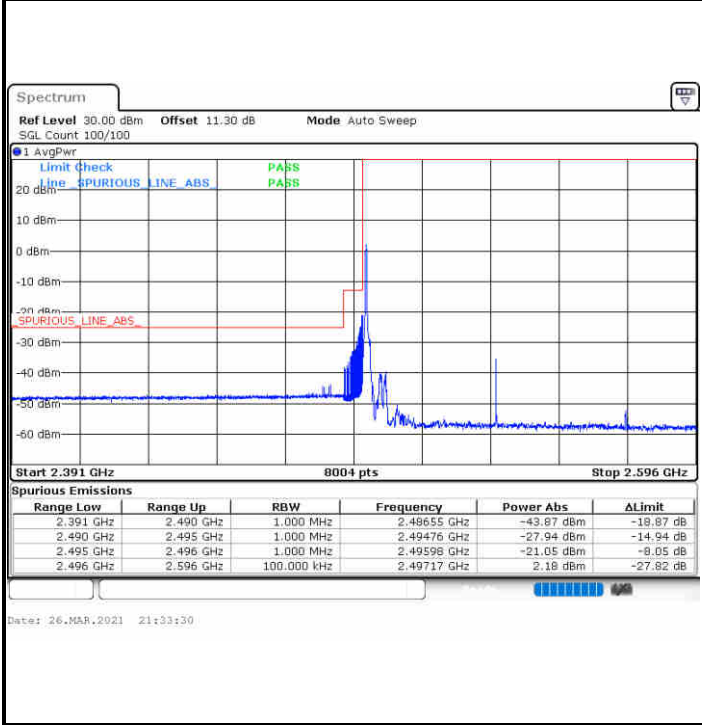
/



FR1 n41+41A / 80MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

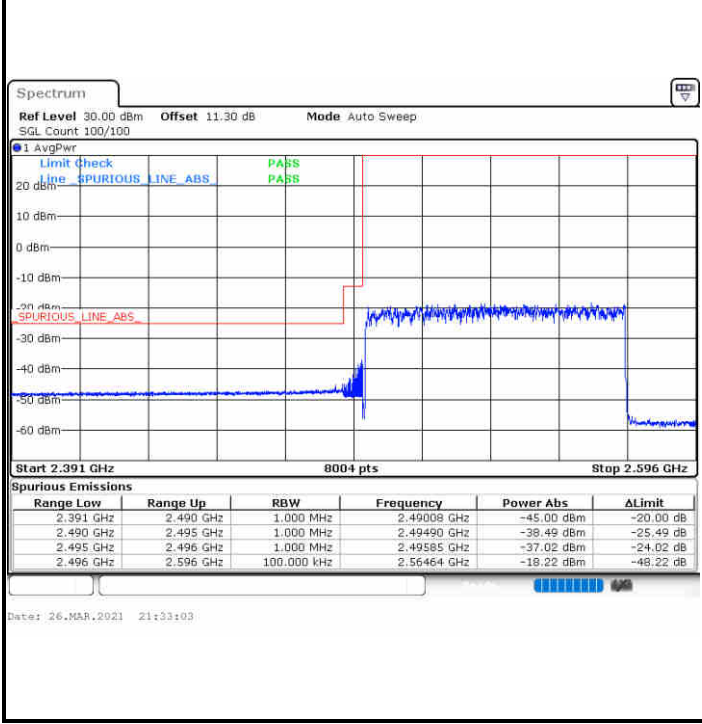
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



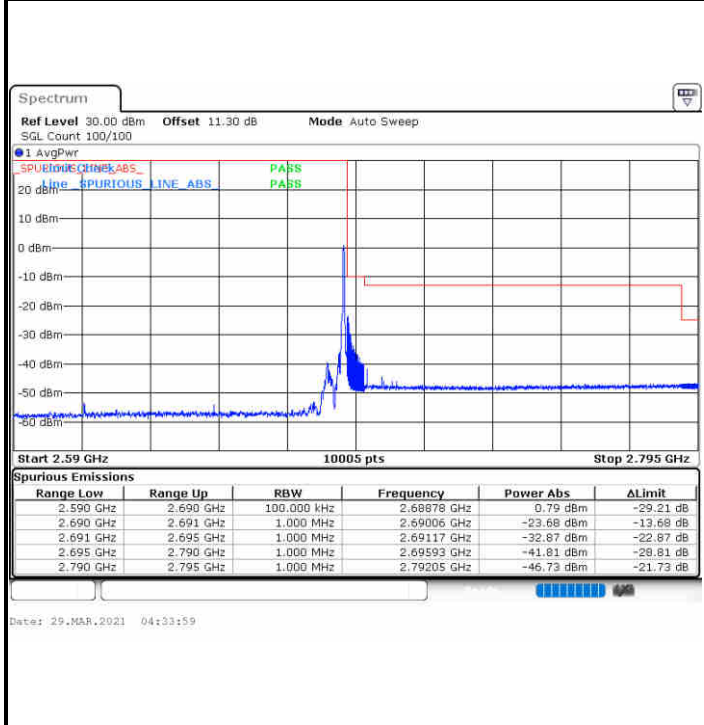
/



FR1 n41+41A / 80MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

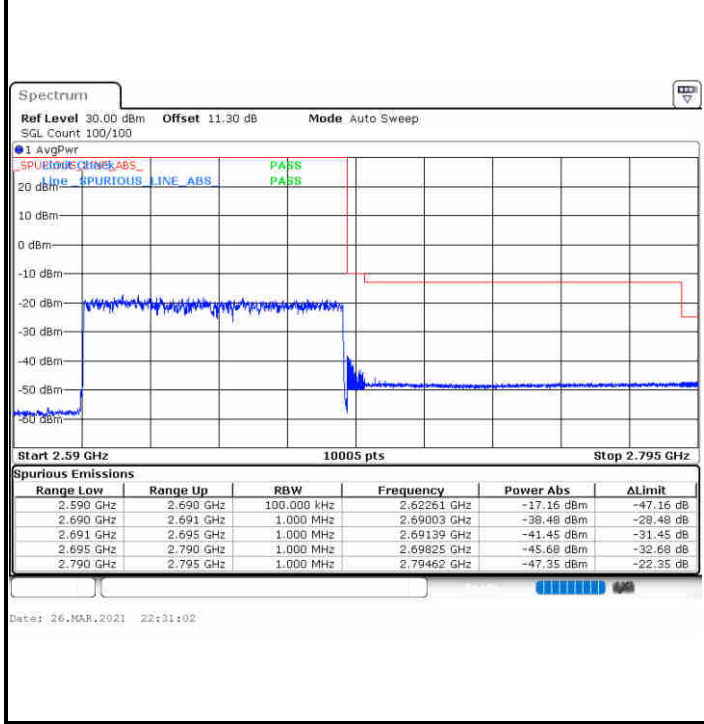
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

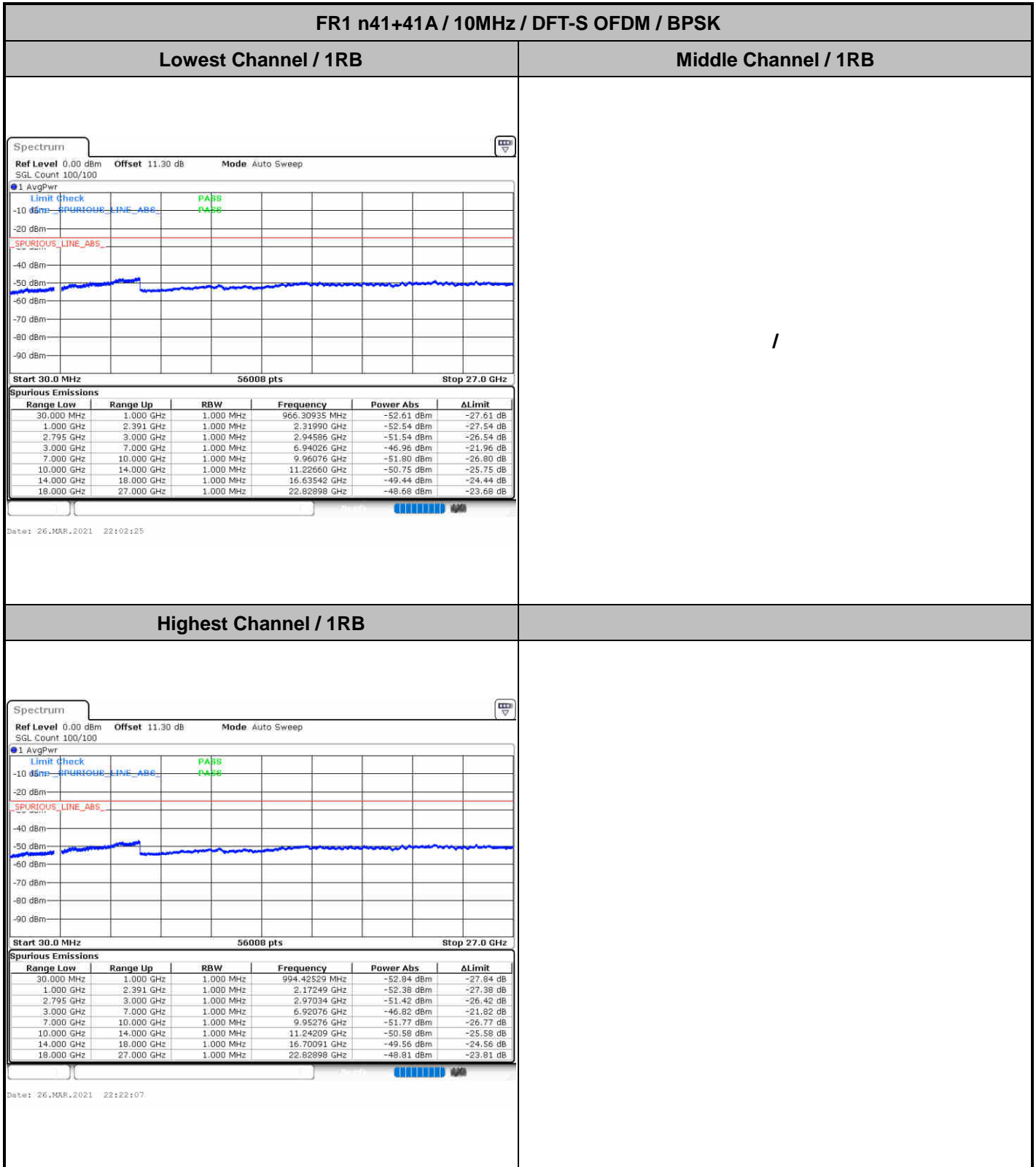
Channel Power < -13dBm Pass



/



Conducted Spurious Emission

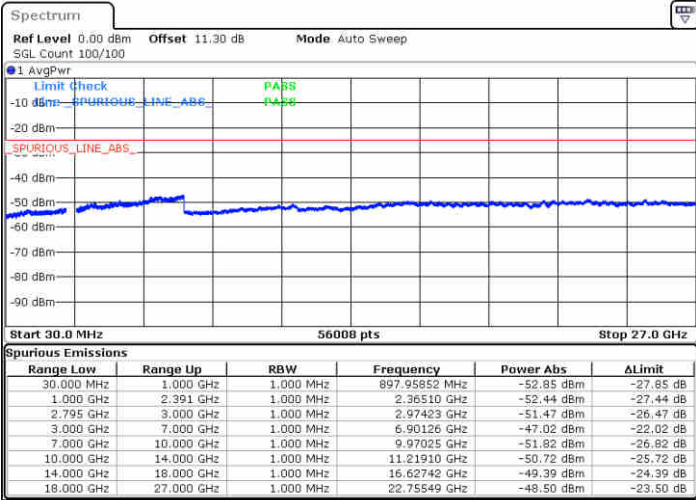




FR1 n41+41A / 10MHz / DFT-S OFDM / QPSK

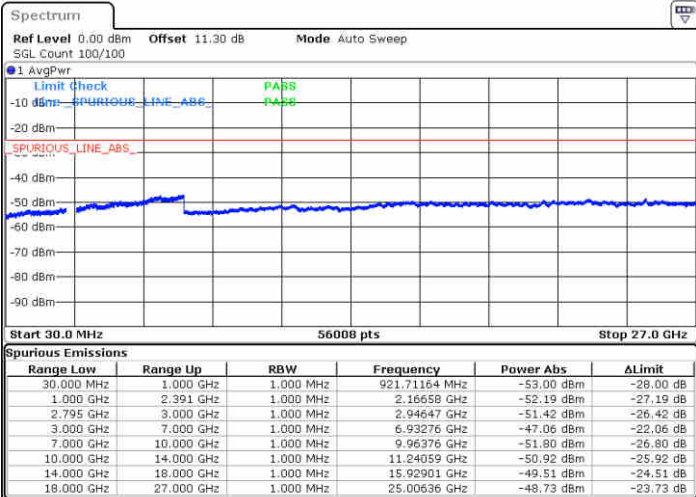
Lowest Channel / 1RB

Middle Channel / 1RB



Date: 26.MAR.2021 22:03:20

Highest Channel / 1RB



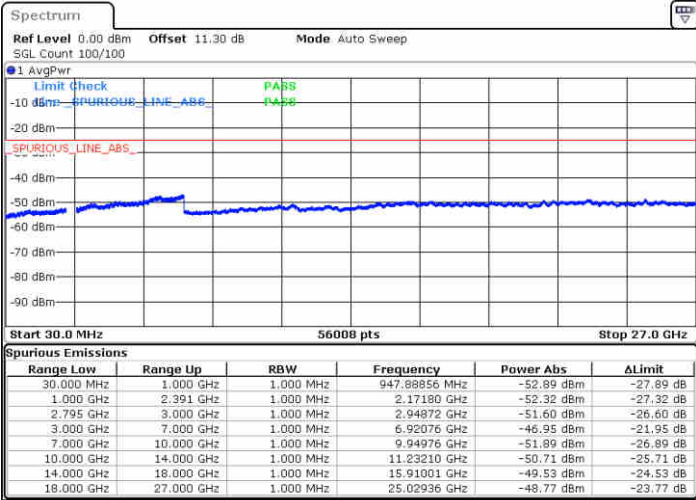
Date: 26.MAR.2021 22:20:54



FR1 n41+41A / 40MHz / DFT-S OFDM / BPSK

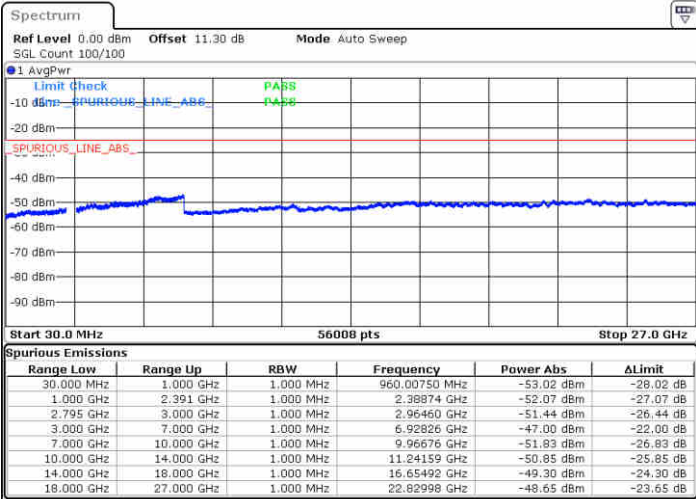
Lowest Channel / 1RB

Middle Channel / 1RB



Date: 26.MAR.2021 21:57:04

Highest Channel / 1RB



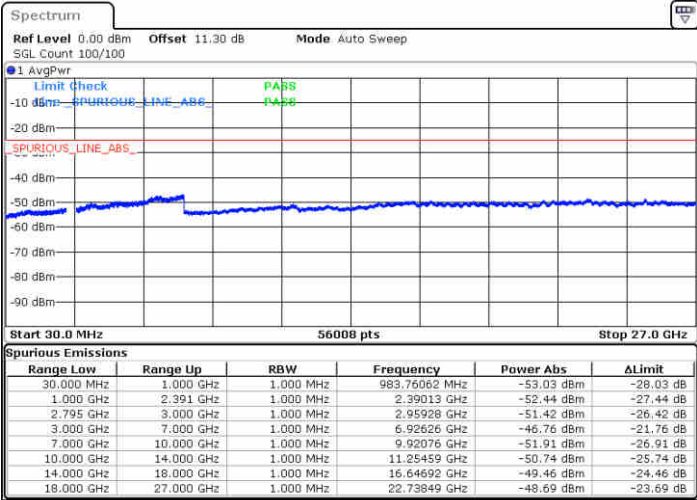
Date: 26.MAR.2021 22:23:40



FR1 n41+41A / 40MHz / DFT-S OFDM / QPSK

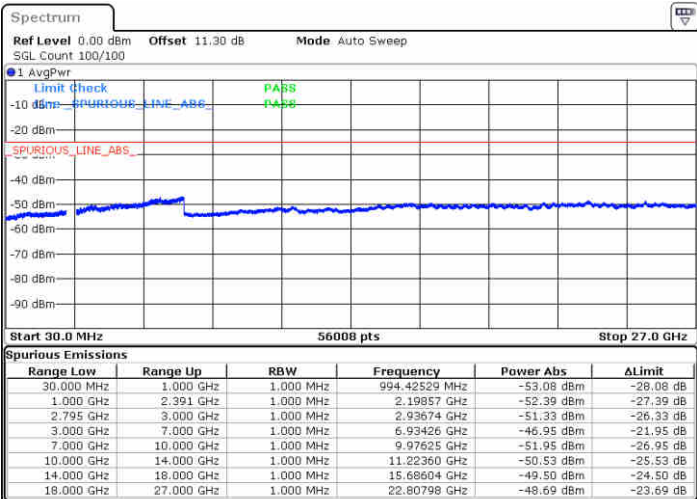
Lowest Channel / 1RB

Middle Channel / 1RB



Date: 26.MAR.2021 21:56:11

Highest Channel / 1RB



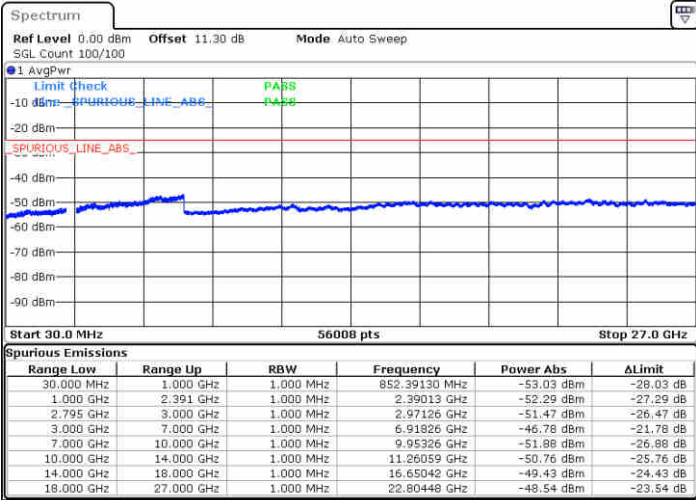
Date: 26.MAR.2021 22:26:42



FR1 n41+41A / 80MHz / DFT-S OFDM / BPSK

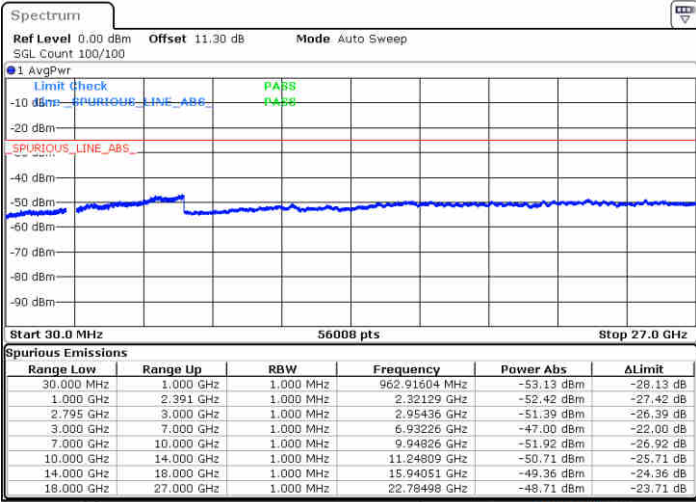
Lowest Channel / 1RB

Middle Channel / 1RB



Date: 26.MAR.2021 21:35:57

Highest Channel / 1RB

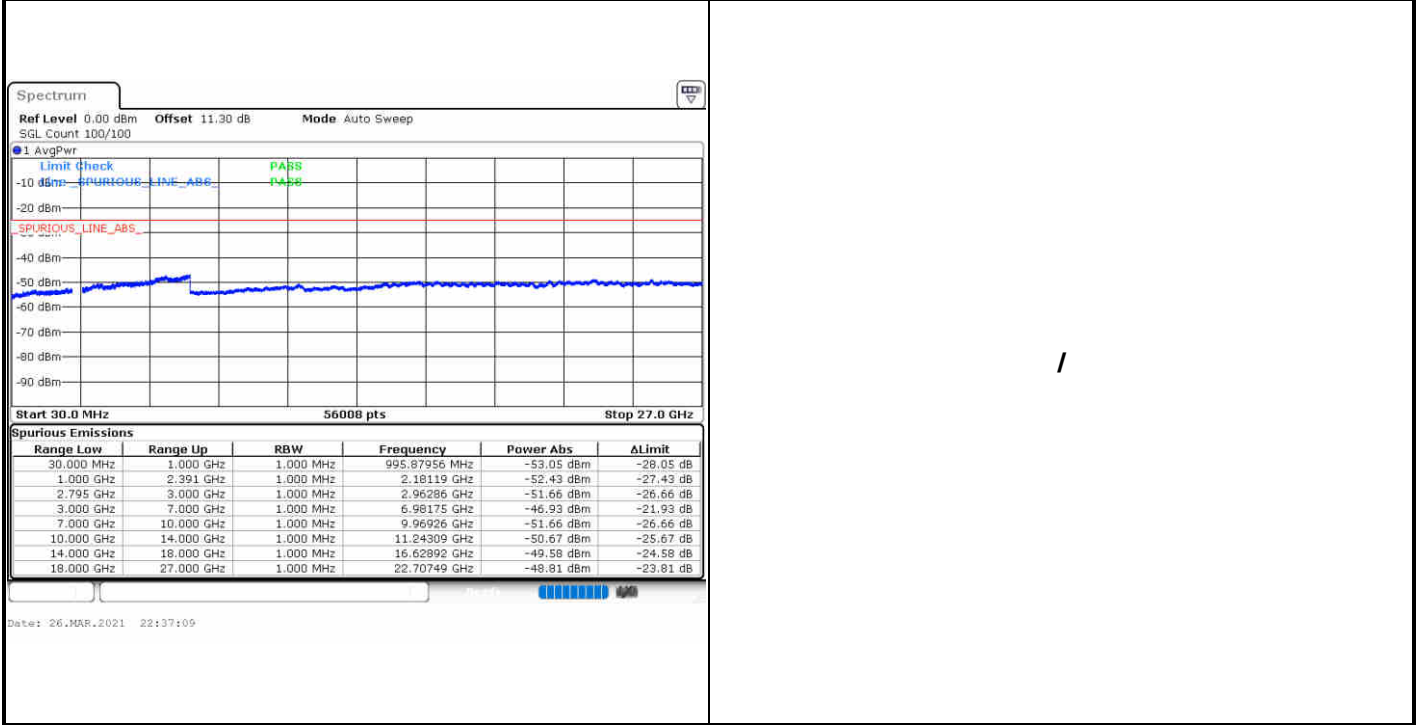


Date: 26.MAR.2021 22:04:52

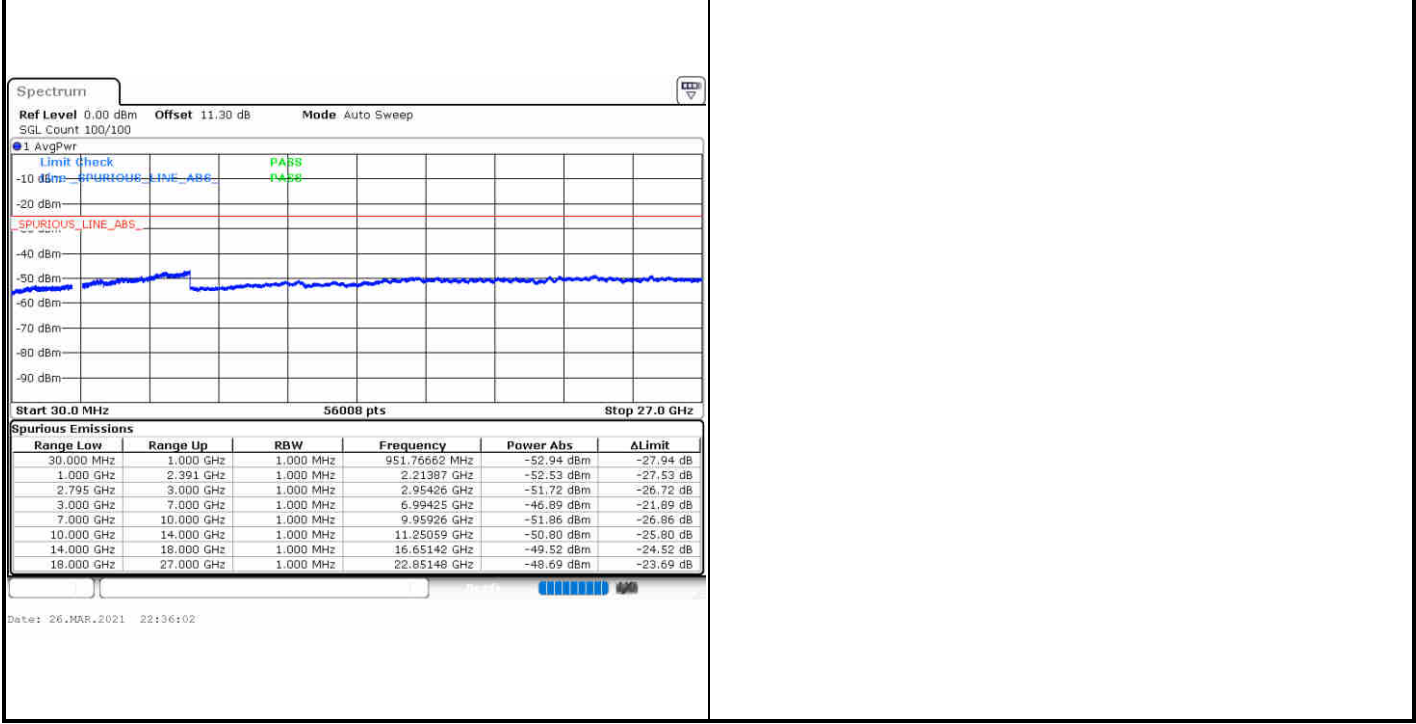


FR1 n41+41A / 80MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB	Middle Channel / 1RB
-----------------------------	-----------------------------



Highest Channel / 1RB





Frequency Stability

Test Conditions		NR n41+41A (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0015	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0006	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0014	

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.



5G NR n71 SA

Peak-to-Average Ratio

Mode	FR1 n71 / 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	3.45	4.12	5.68	5.39	PASS
Middle CH	3.28	3.80	4.84	4.99	
Highest CH	3.62	4.06	5.65	5.22	



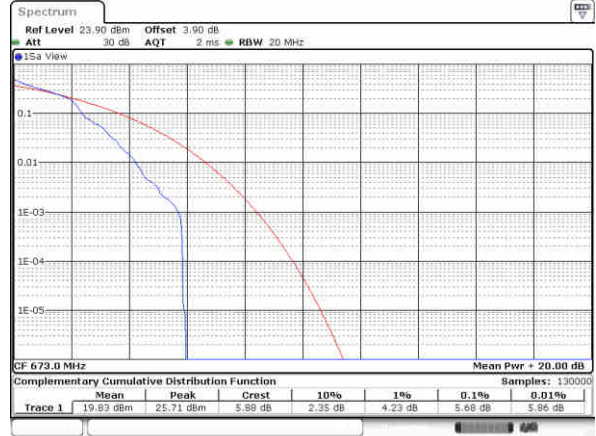
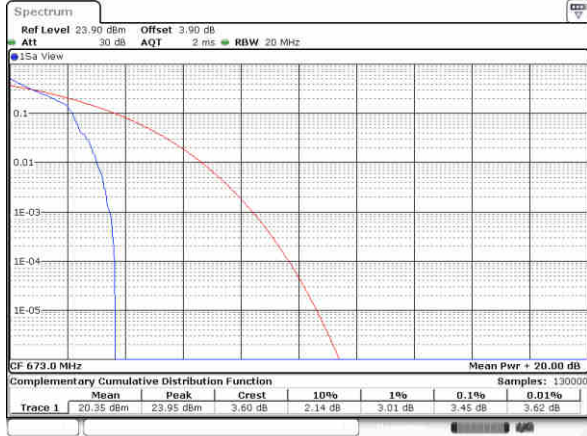
FR1 n71 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

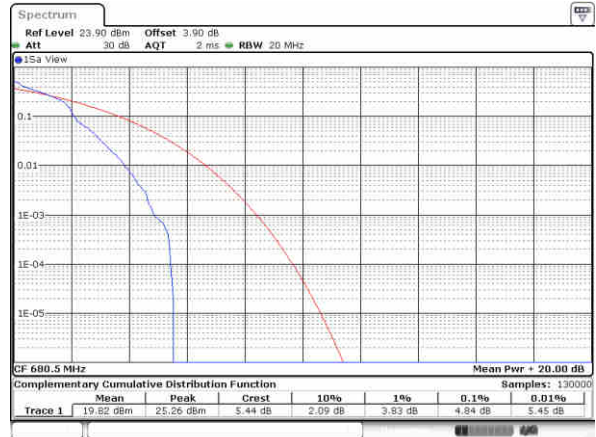
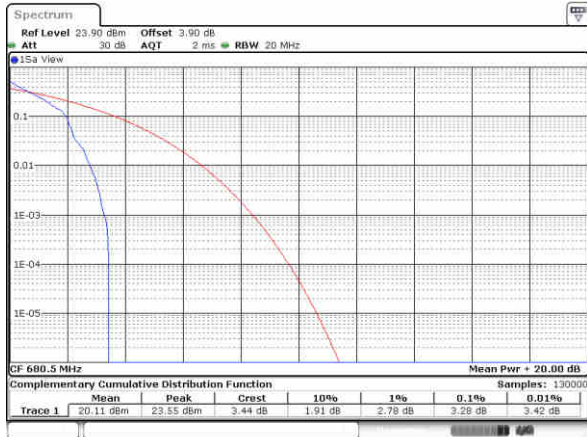


Date: 15_JAN_2021 00:07:57

Date: 15_JAN_2021 00:07:41

Middle Channel / 1 RB

Middle Channel / 1 RB

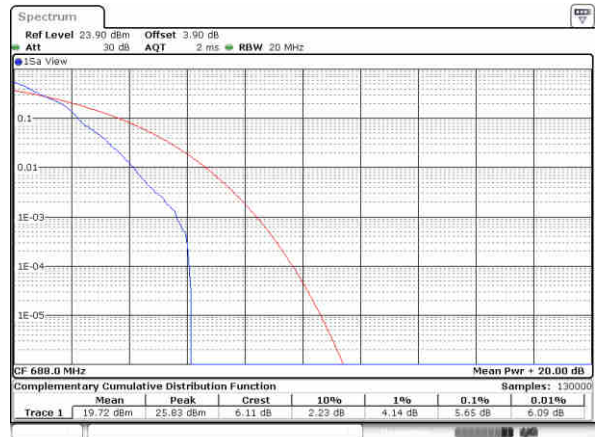
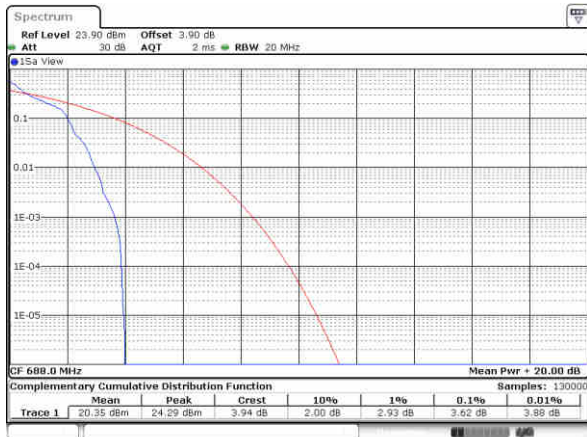


Date: 15_JAN_2021 00:10:14

Date: 15_JAN_2021 00:10:04

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 15_JAN_2021 00:09:12

Date: 15_JAN_2021 00:09:22



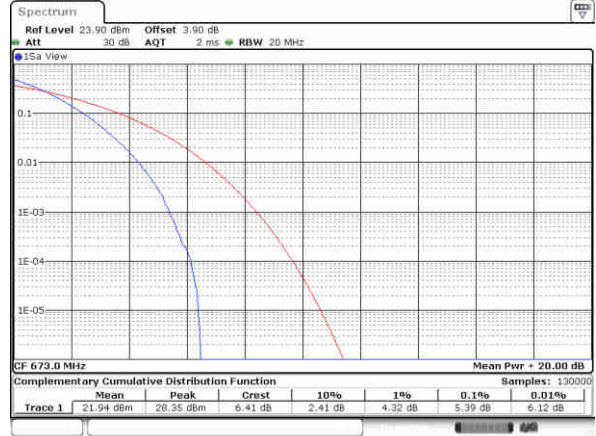
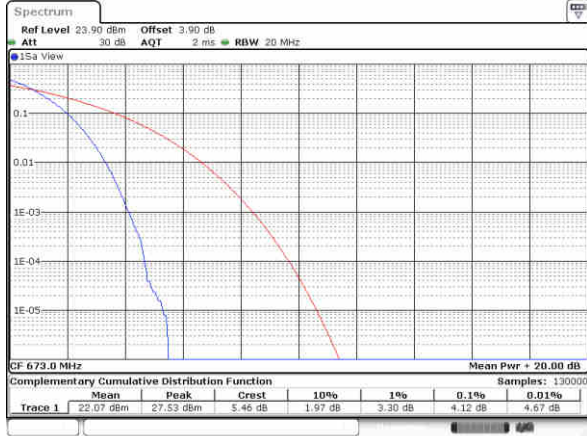
FR1 n71 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

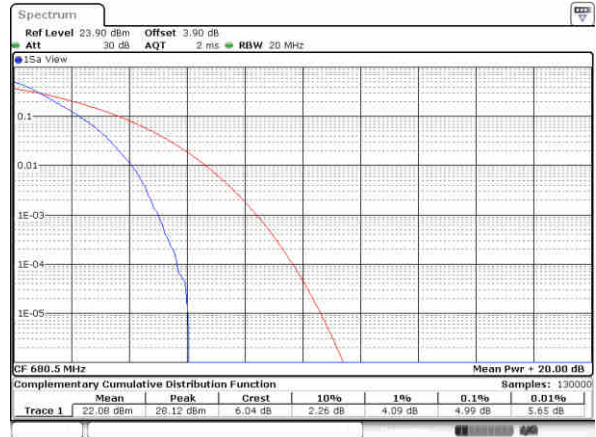
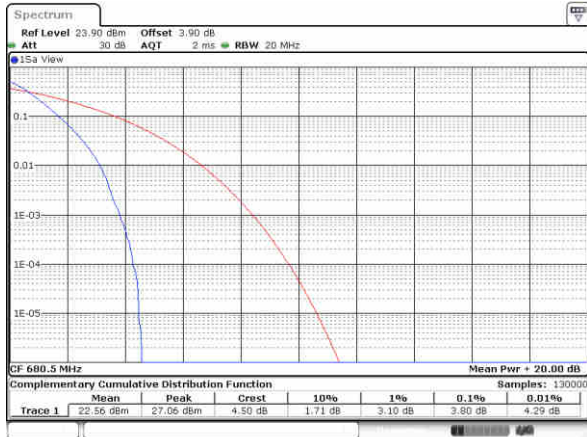


Date: 15_JAN_2021 00:08:11

Date: 15_JAN_2021 00:08:22

Middle Channel / Full RB

Middle Channel / Full RB

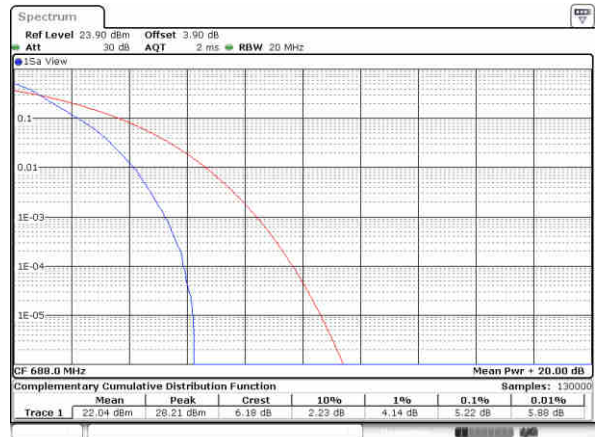
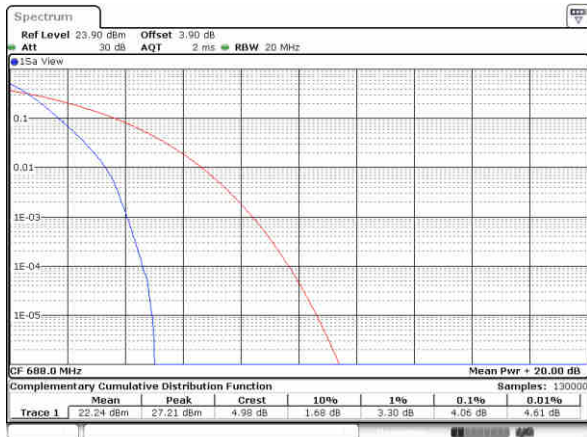


Date: 15_JAN_2021 00:10:26

Date: 15_JAN_2021 00:10:38

Highest Channel / Full RB

Highest Channel / Full RB



Date: 15_JAN_2021 00:09:01

Date: 15_JAN_2021 00:08:50



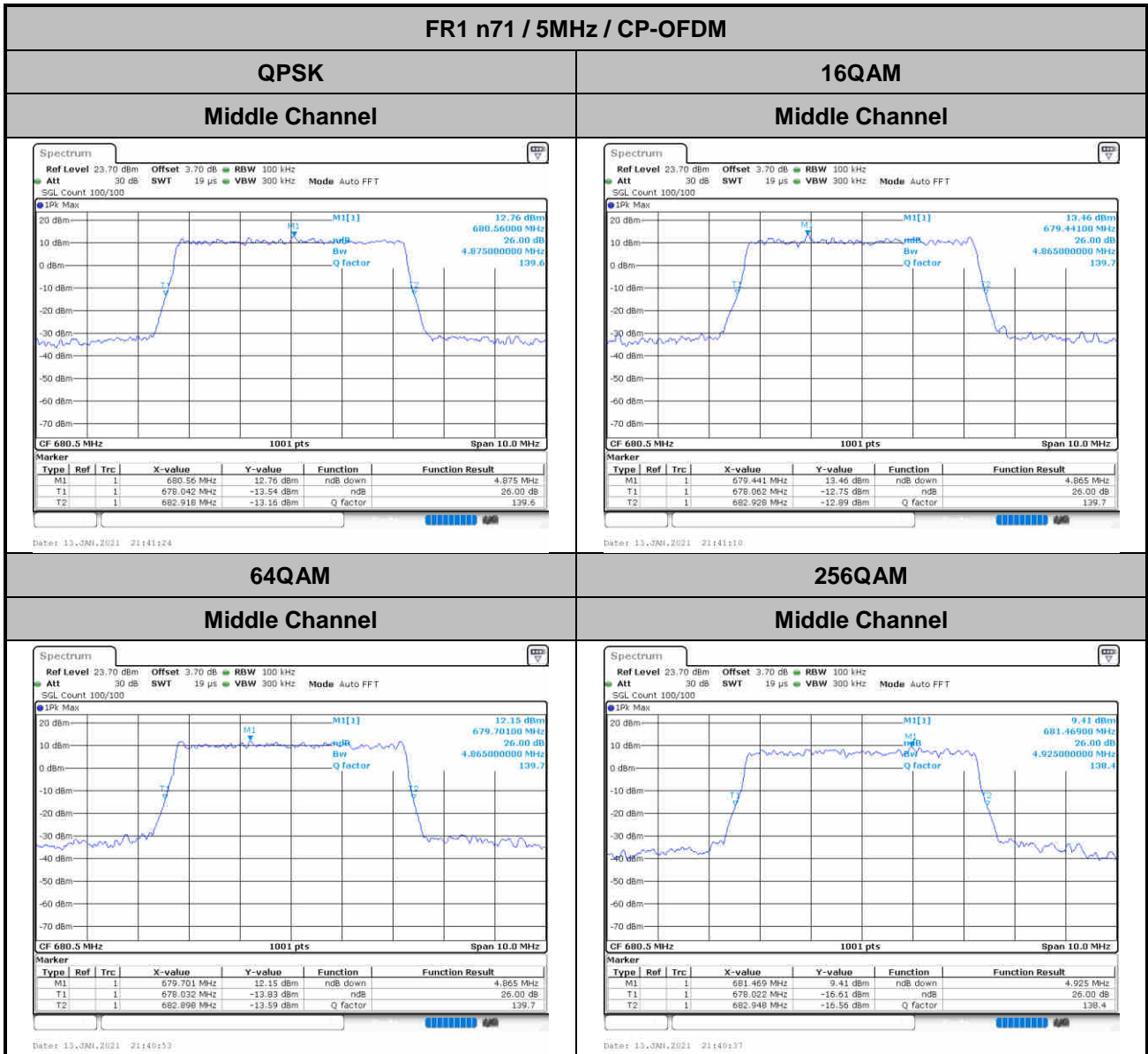
26dB Bandwidth

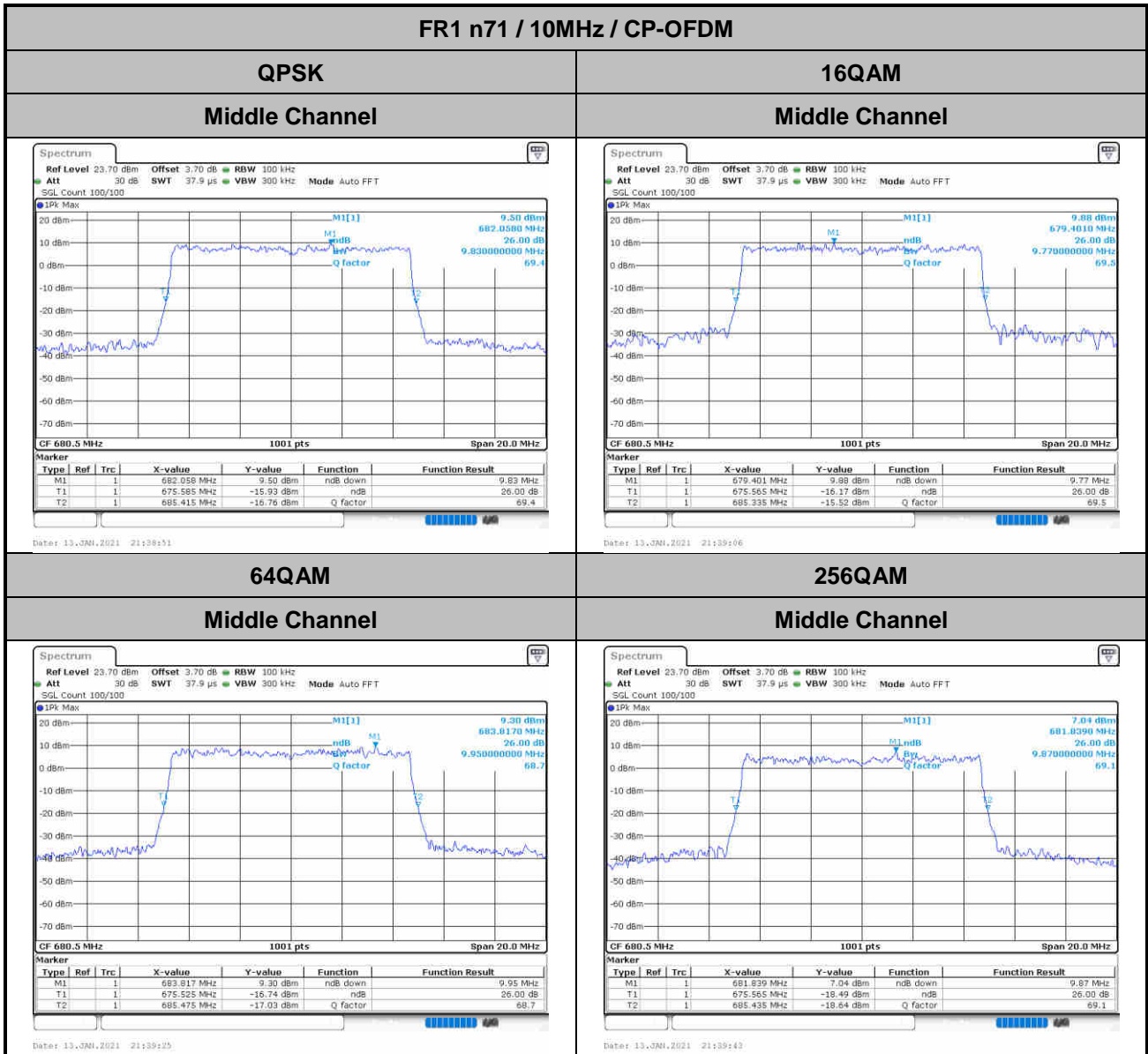
Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.88	4.87	4.87	4.92				

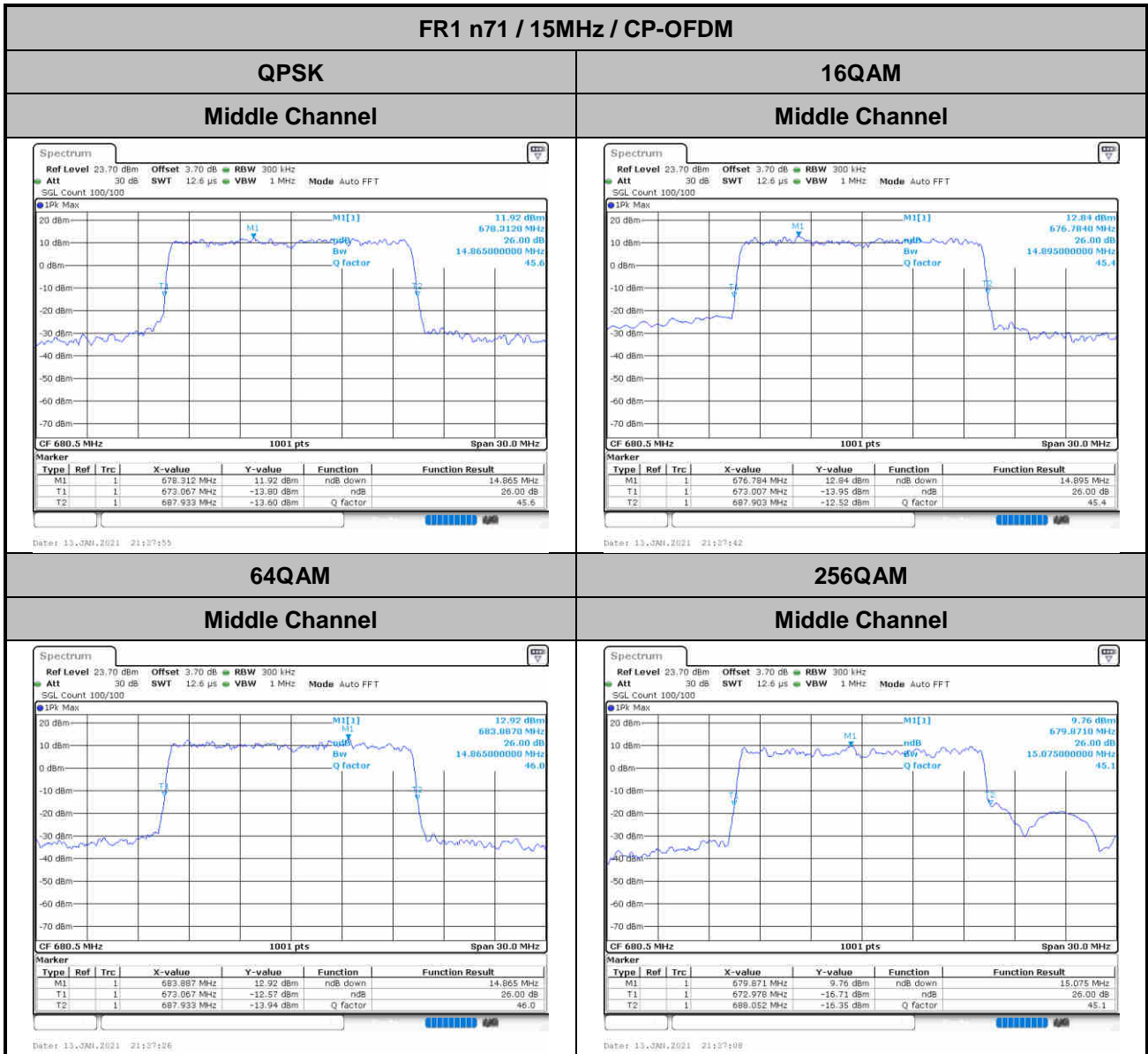
Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.83	9.77	9.95	9.87				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.87	14.89	14.87	15.07				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.82	19.90	19.94	19.86				









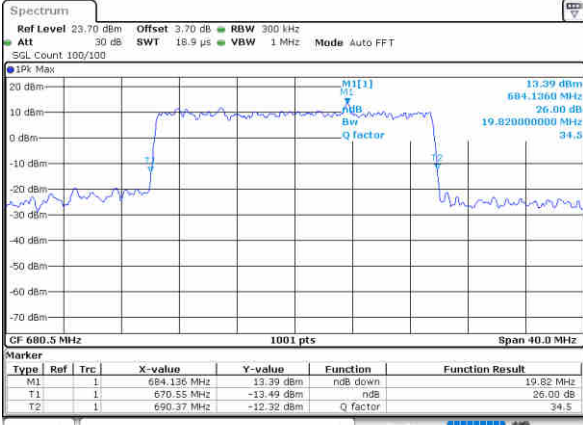
FR1 n71 / 20MHz / CP-OFDM

QPSK

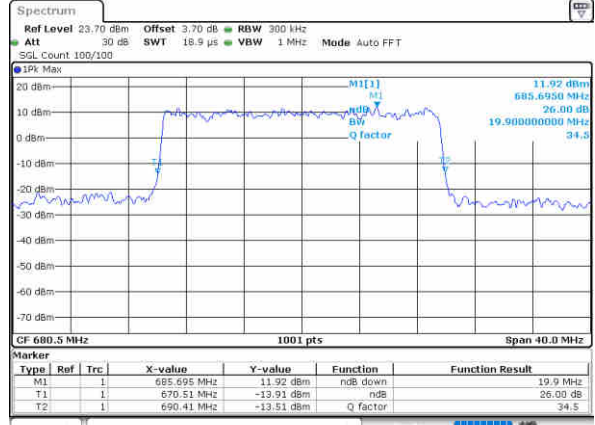
16QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 21:17:27



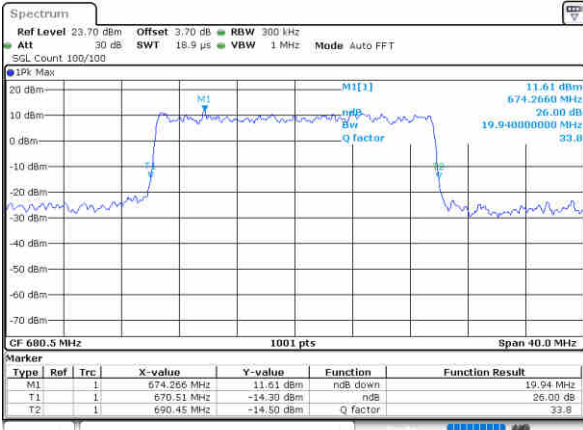
Date: 13_JAN_2021 21:17:43

64QAM

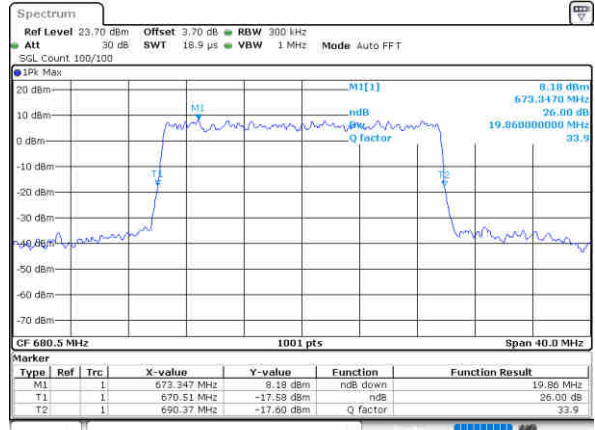
256QAM

Middle Channel

Middle Channel



Date: 13_JAN_2021 21:17:59



Date: 13_JAN_2021 21:18:13



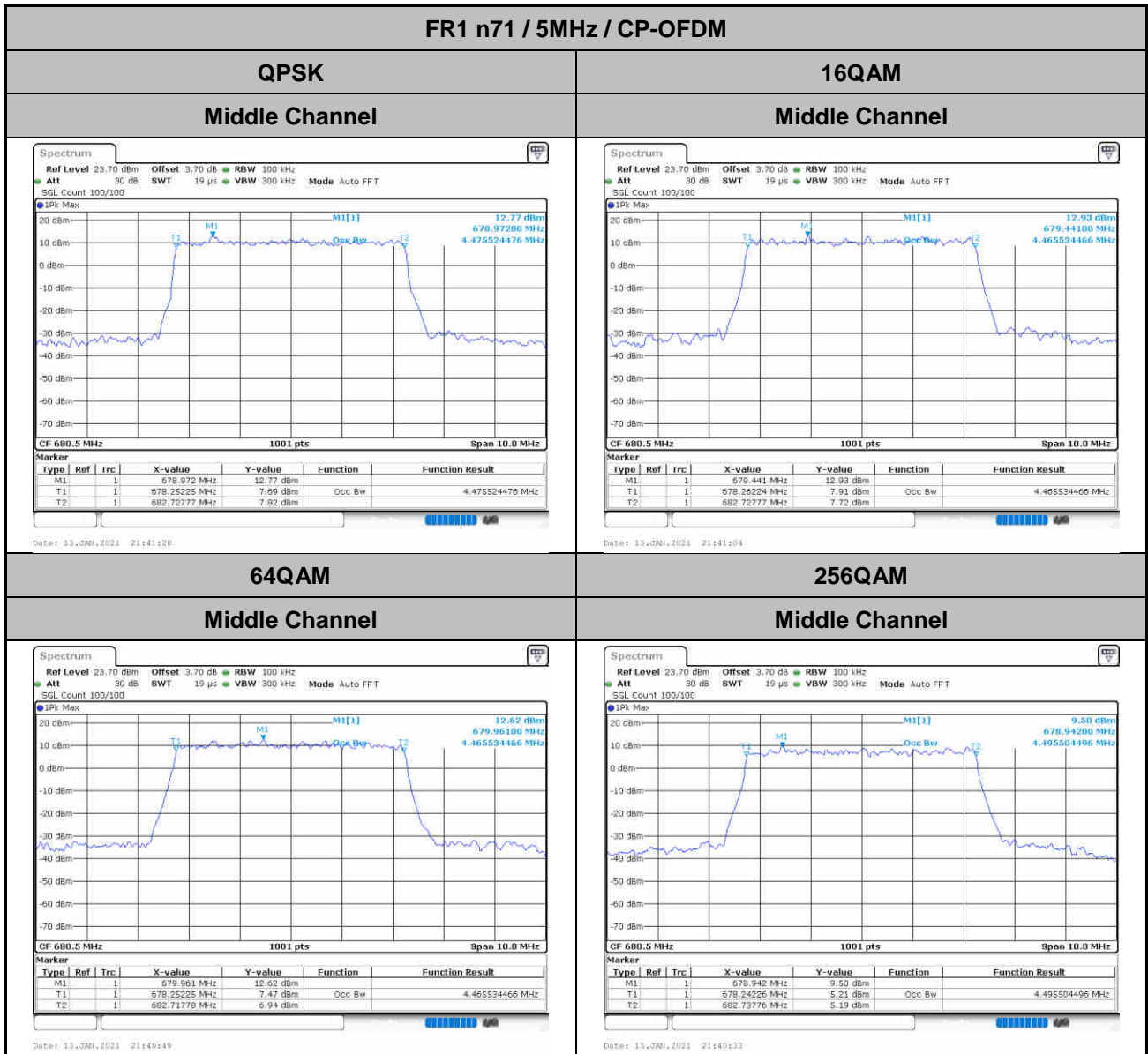
Occupied Bandwidth

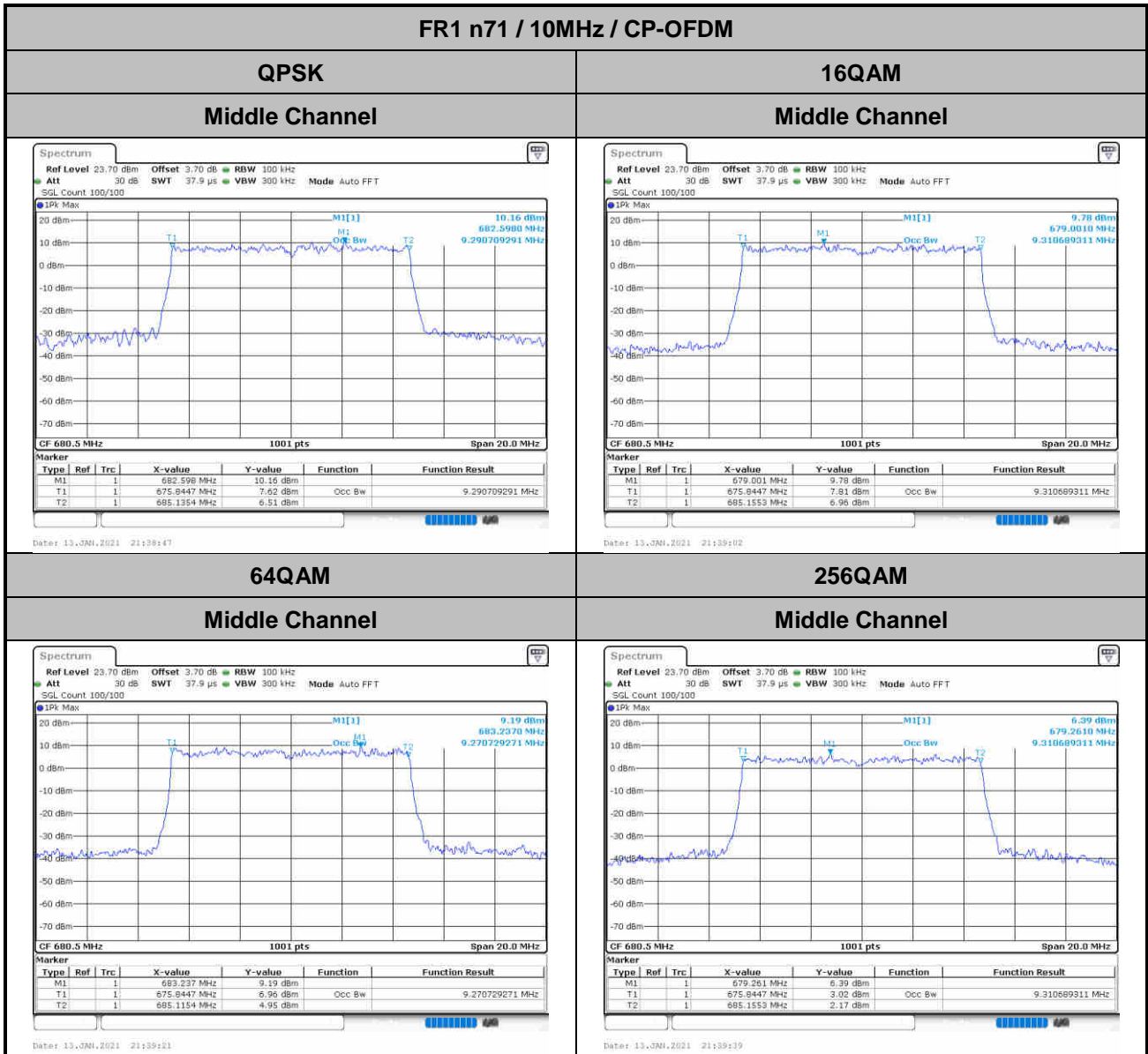
Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.48	4.47	4.47	4.50				

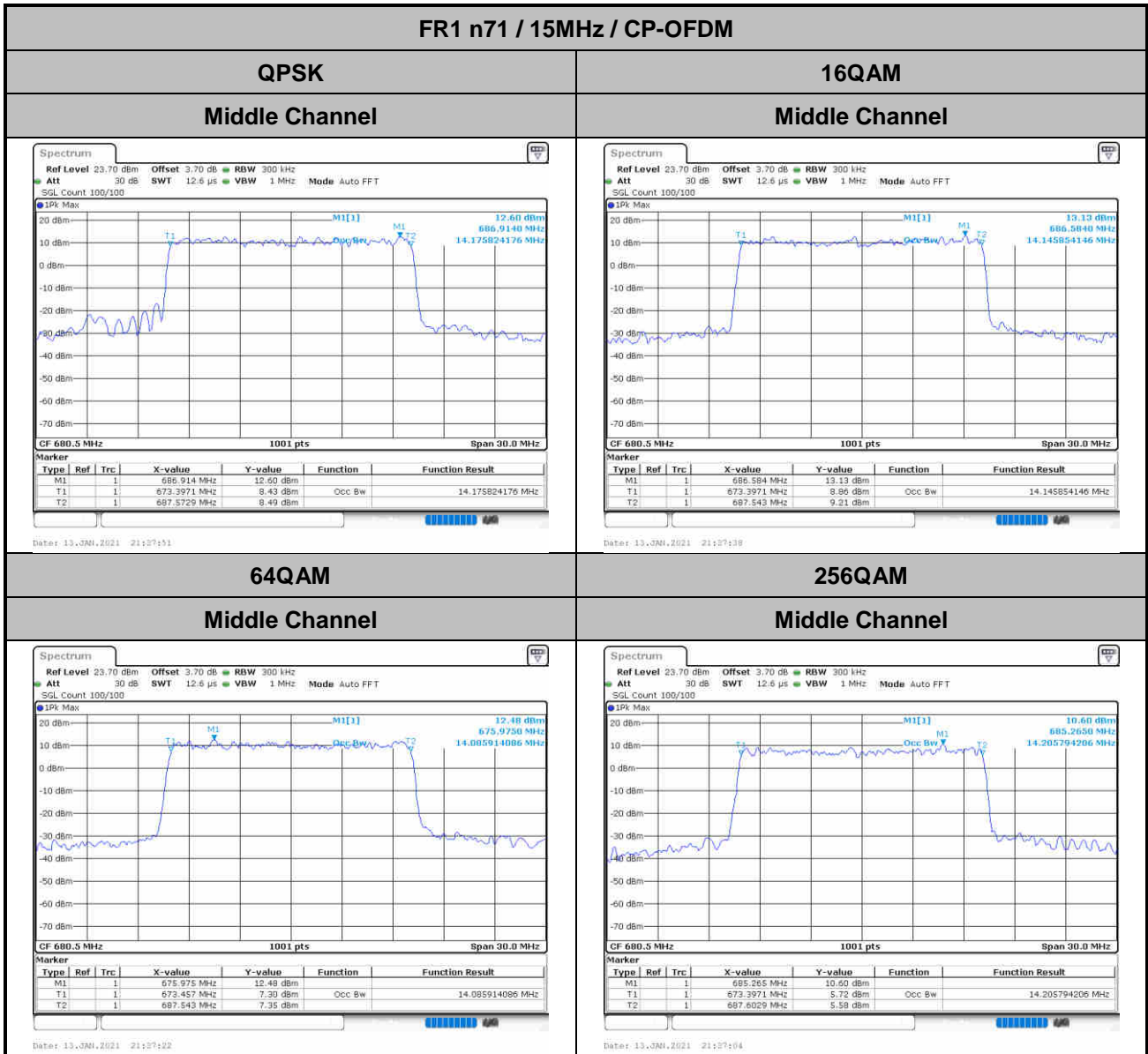
Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.29	9.31	9.27	9.31				

Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.18	14.15	14.09	14.21				

Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	18.98	18.98	18.98	18.94				









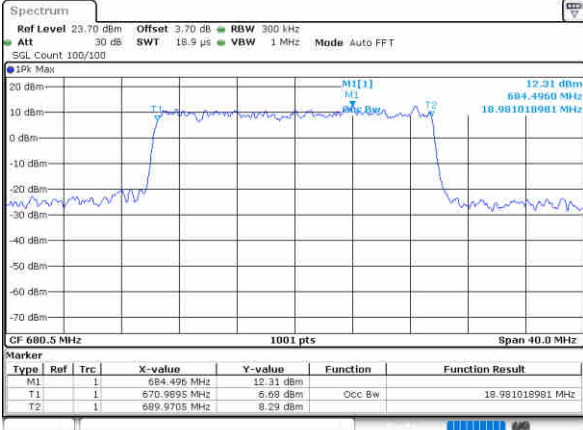
FR1 n71 / 20MHz / CP-OFDM

QPSK

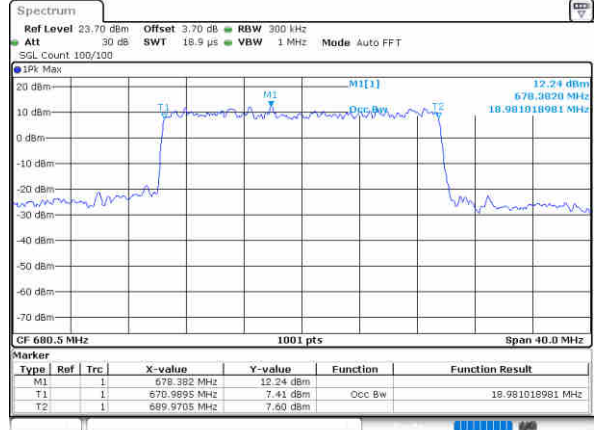
16QAM

Middle Channel

Middle Channel



Date: 13, JAN, 2021 21:17:23



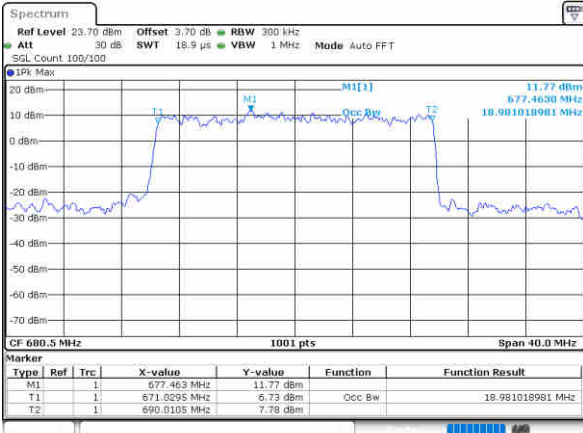
Date: 13, JAN, 2021 21:17:38

64QAM

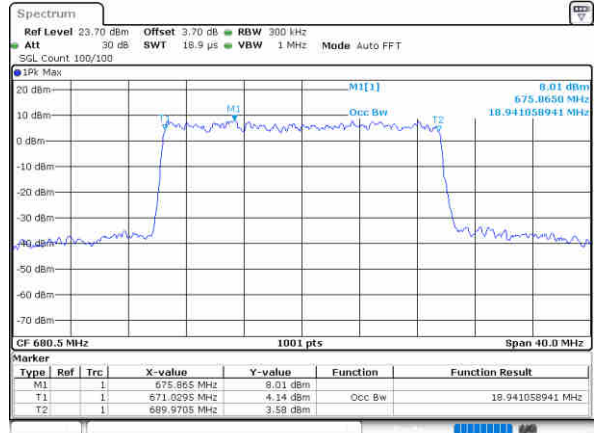
256QAM

Middle Channel

Middle Channel



Date: 13, JAN, 2021 21:17:54

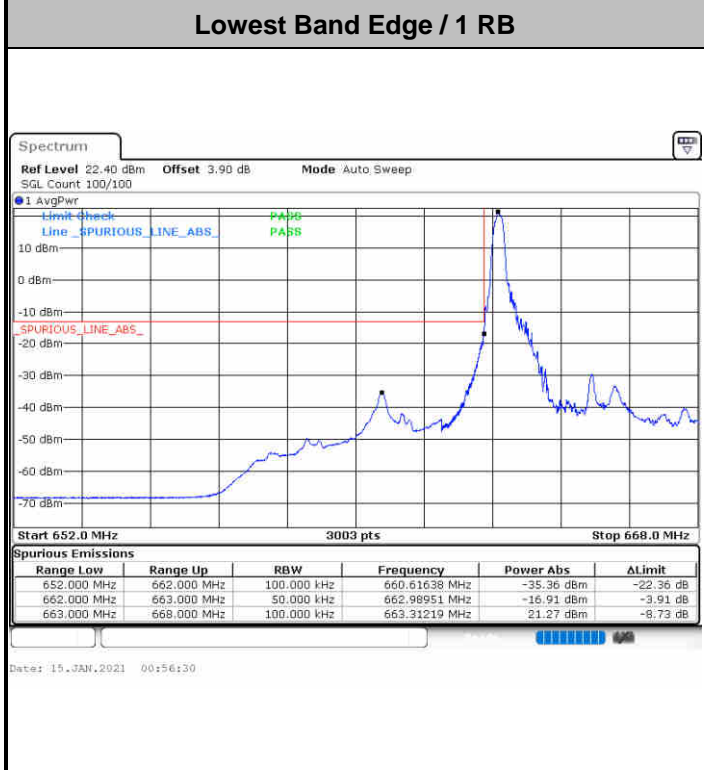


Date: 13, JAN, 2021 21:18:08

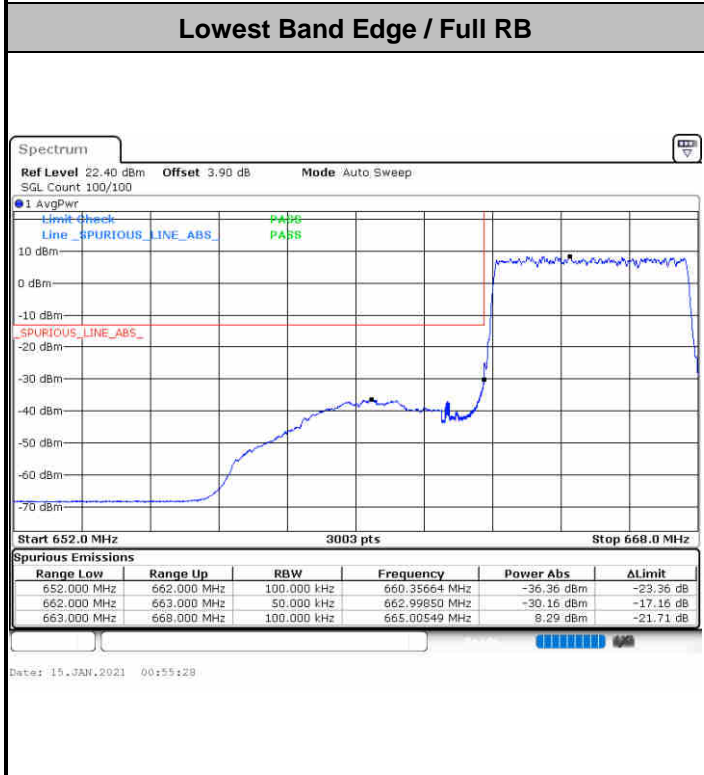


Conducted Band Edge

FR1 n71 / 5MHz / DFT-S OFDM BPSK



Channel Power < -13dBm Pass



Channel Power < -13dBm Pass



FR1 n71 / 5MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass

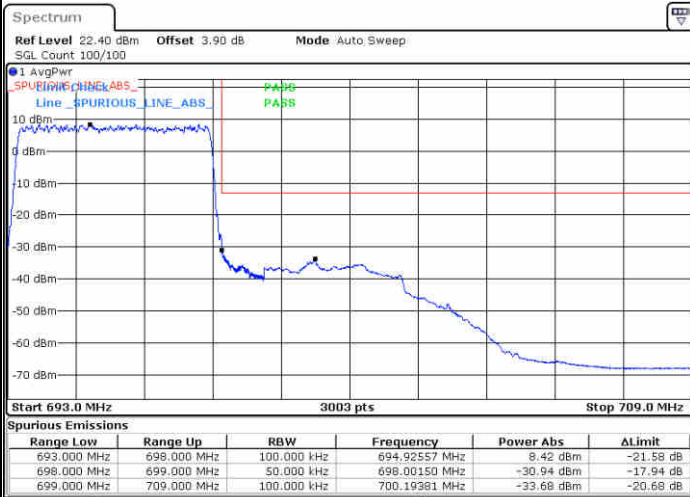


/

Date: 15 JAN 2021 01:19:52

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



/

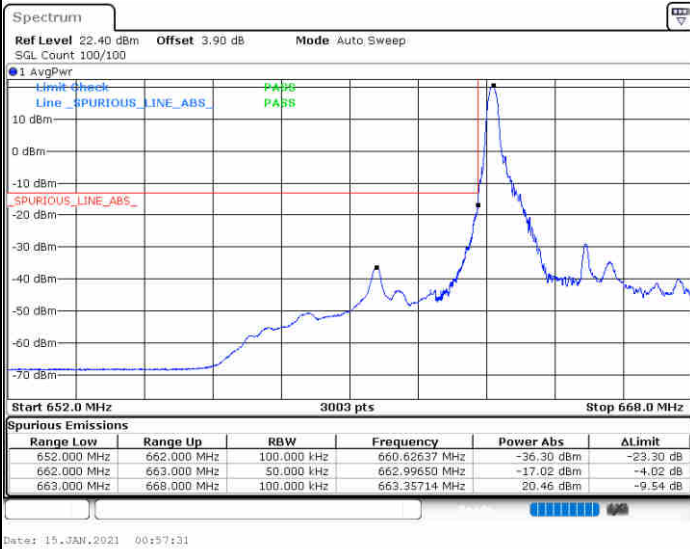
Date: 15 JAN 2021 01:12:19



FR1 n71 / 5MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

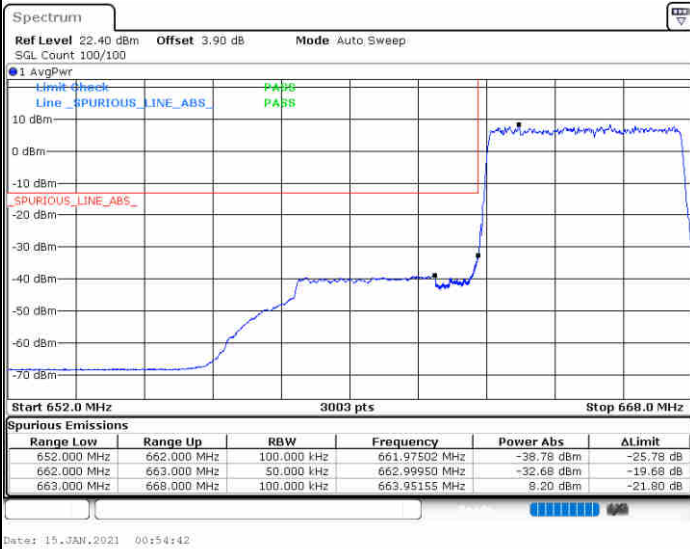
Channel Power < -13dBm Pass



/

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



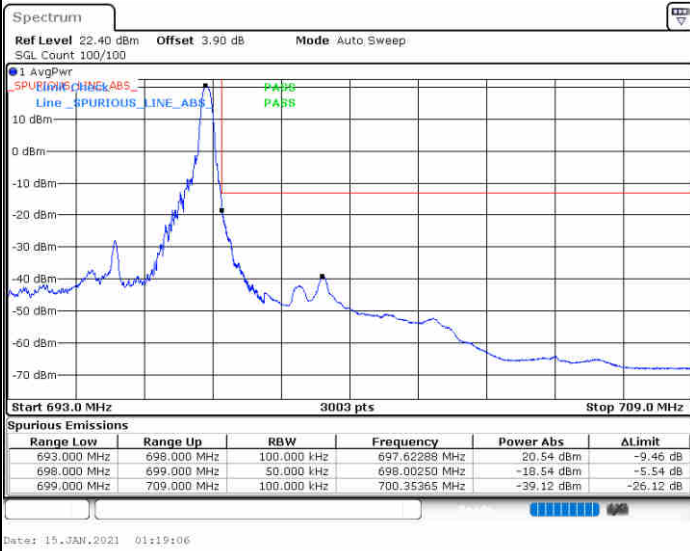
/



FR1 n71 / 5MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

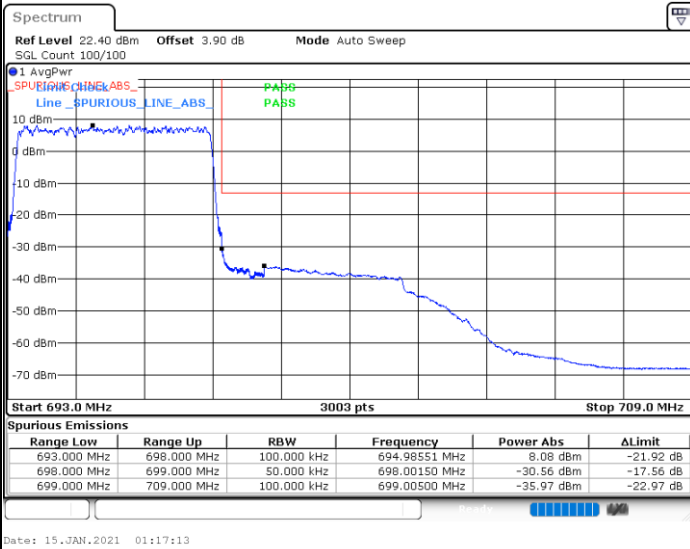
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



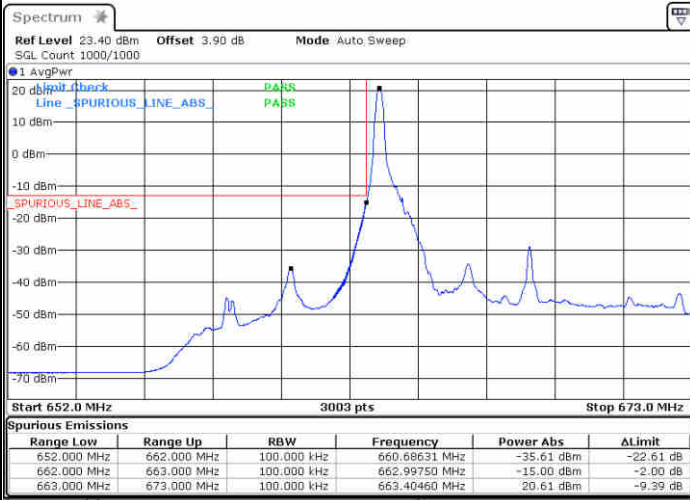
/



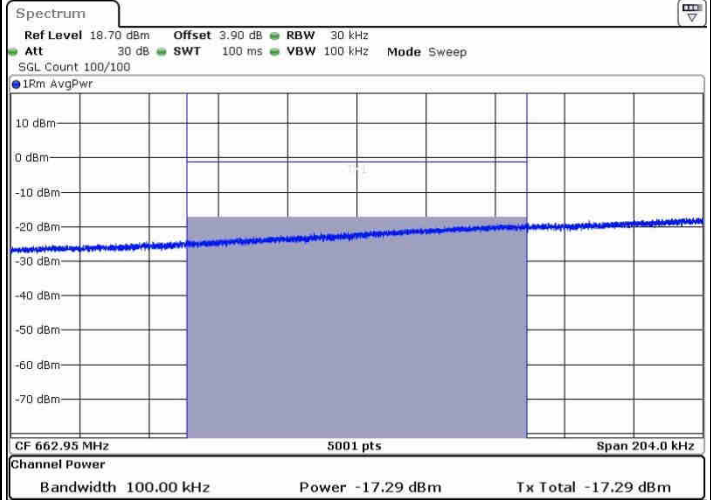
FR1 n71 / 10MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



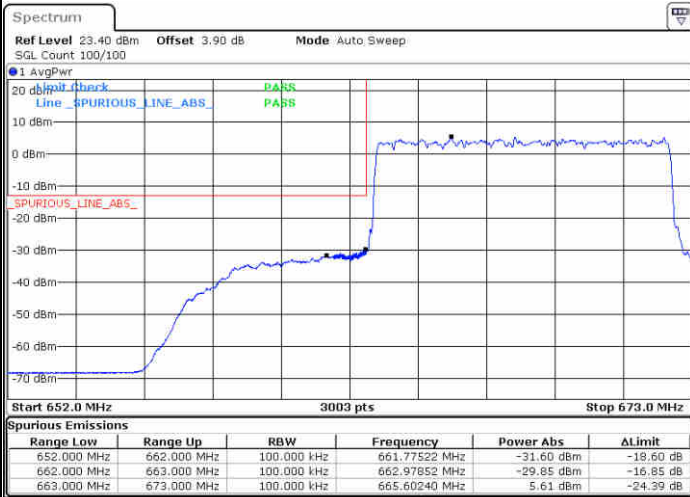
Date: 15 JAN 2021 00:20:29



Date: 15 JAN 2021 00:29:35

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

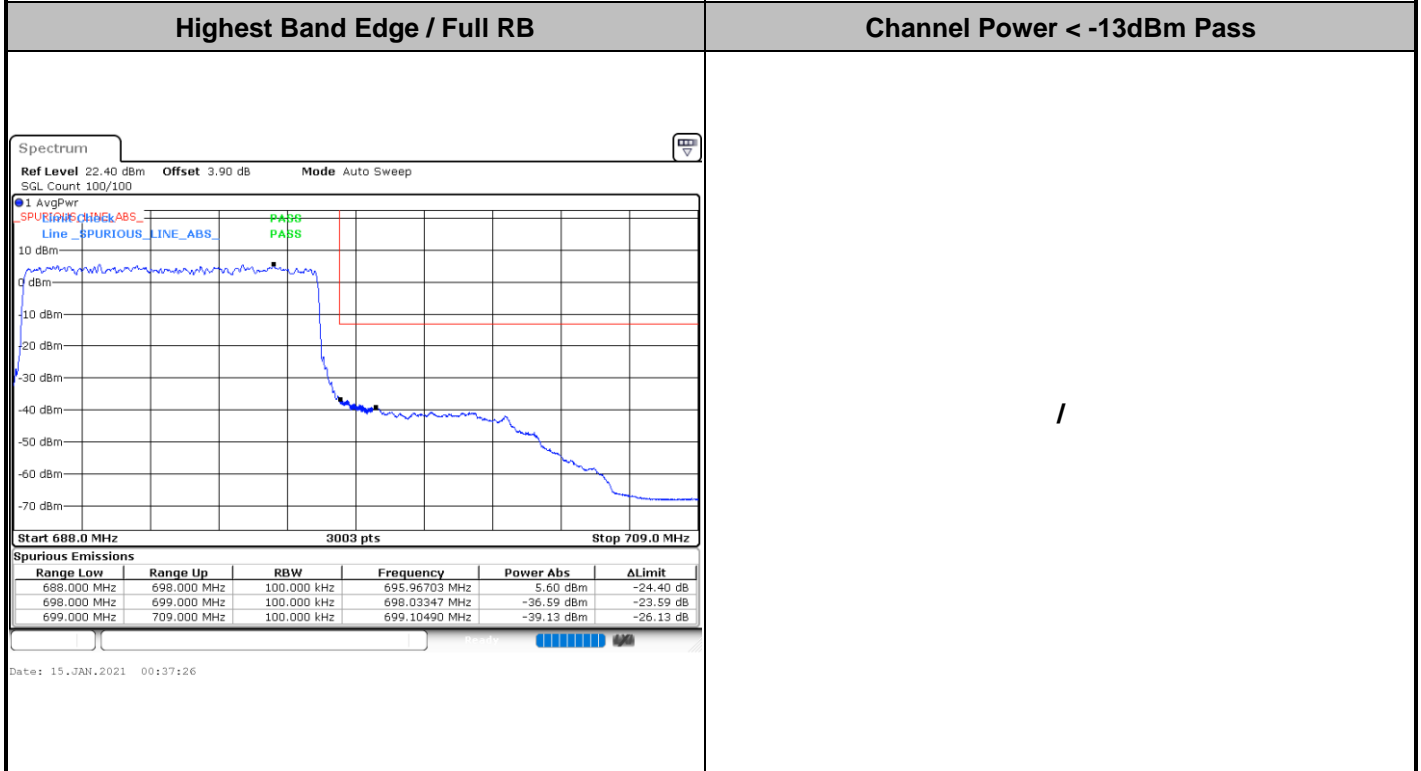
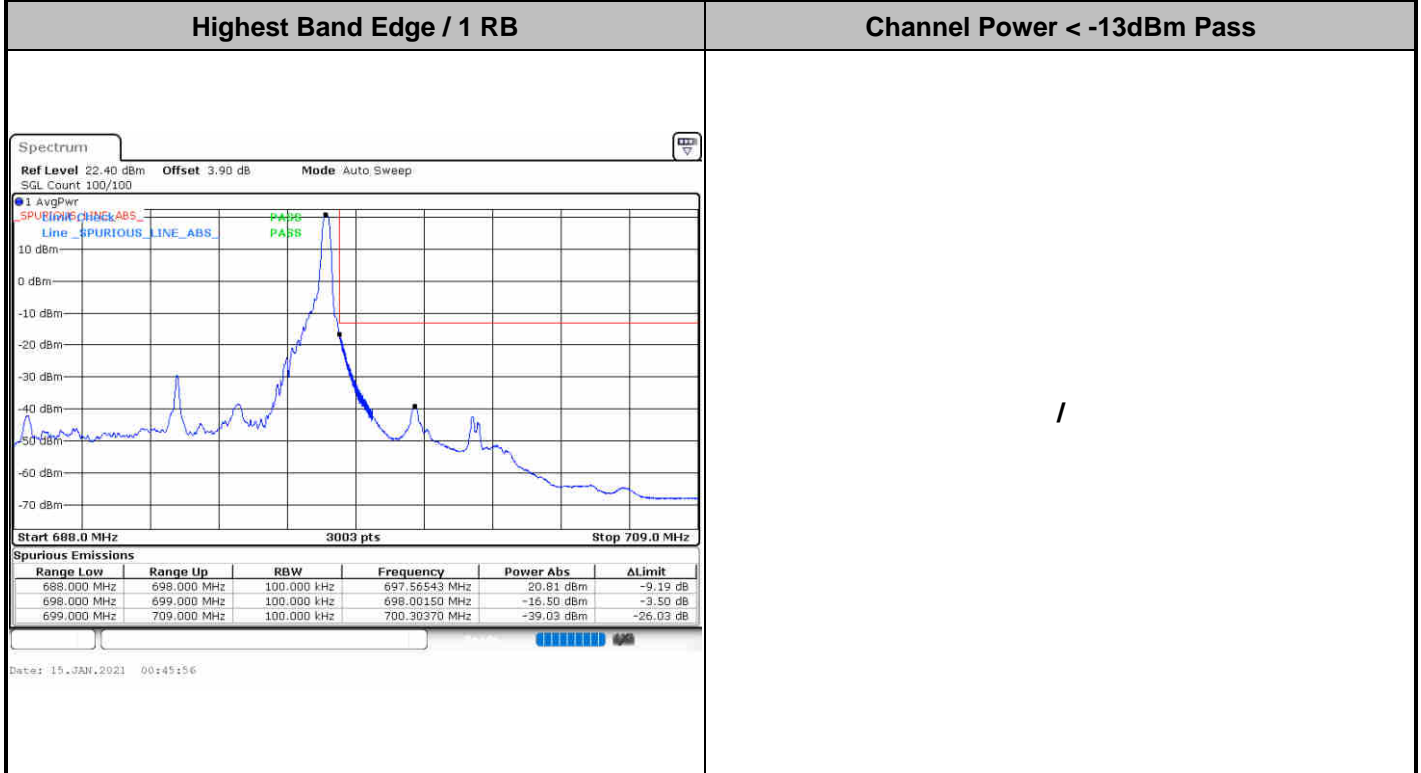


Date: 15 JAN 2021 00:30:54

/



FR1 n71 / 10MHz / DFT-S OFDM BPSK

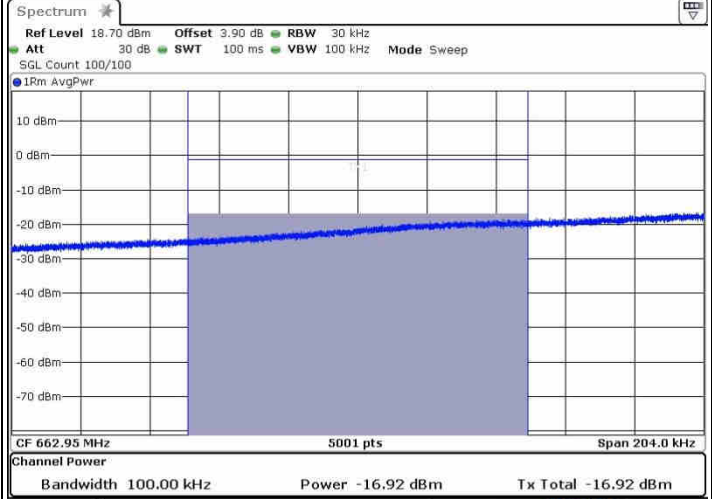
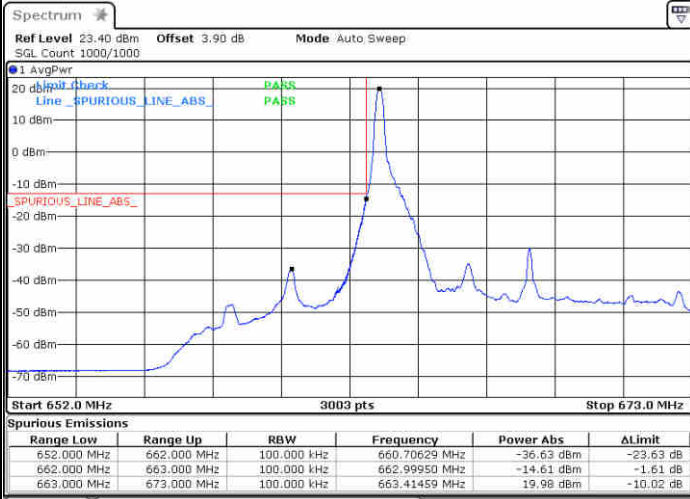




FR1 n71 / 10MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass

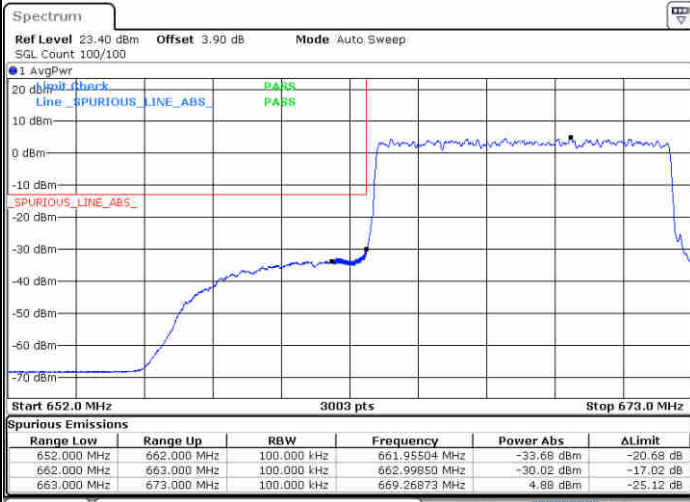


Date: 15 JAN 2021 00:27:30

Date: 15 JAN 2021 00:29:05

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 15 JAN 2021 00:31:55

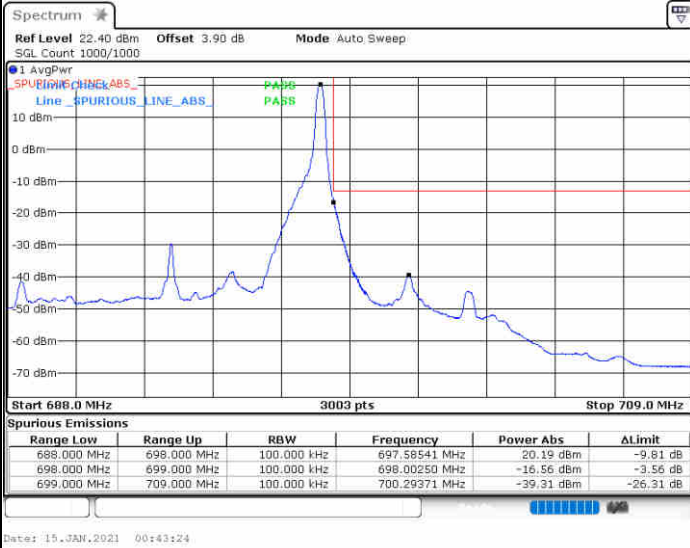
/



FR1 n71 / 10MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

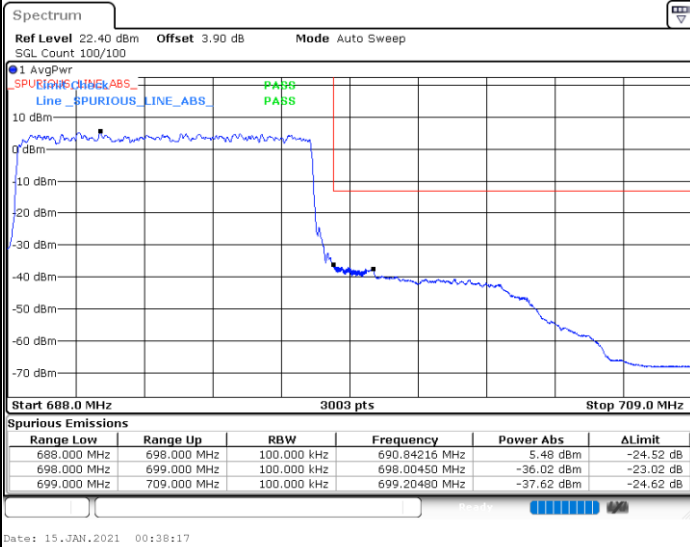
Channel Power < -13dBm Pass



/

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



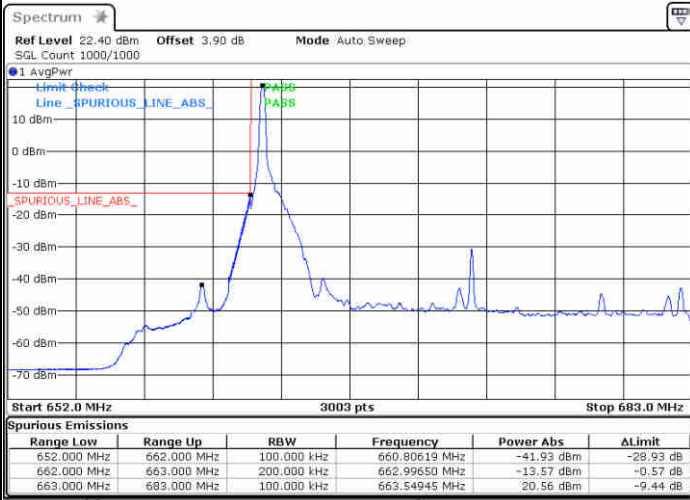
/



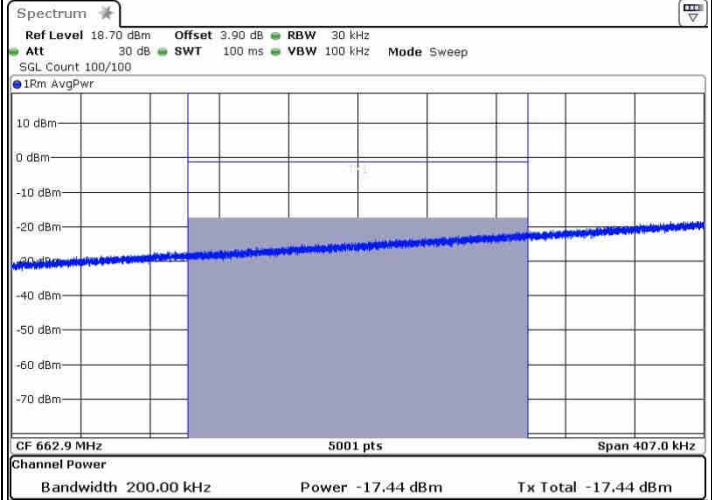
FR1 n71 / 20MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



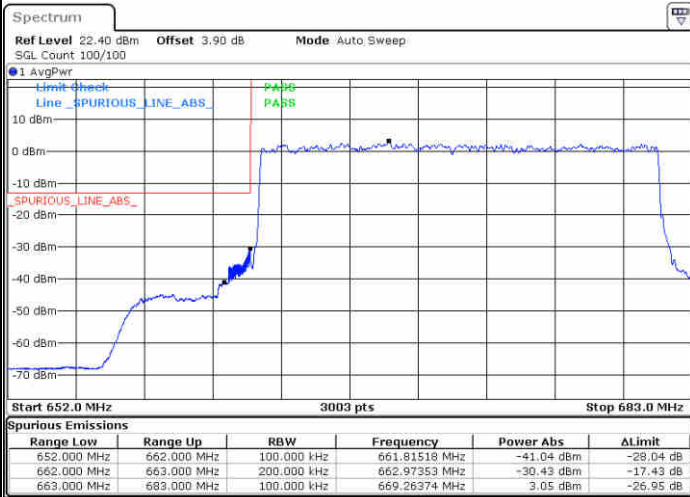
Date: 14. JAN. 2021 23:27:46



Date: 14. JAN. 2021 23:28:51

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 14. JAN. 2021 23:32:01

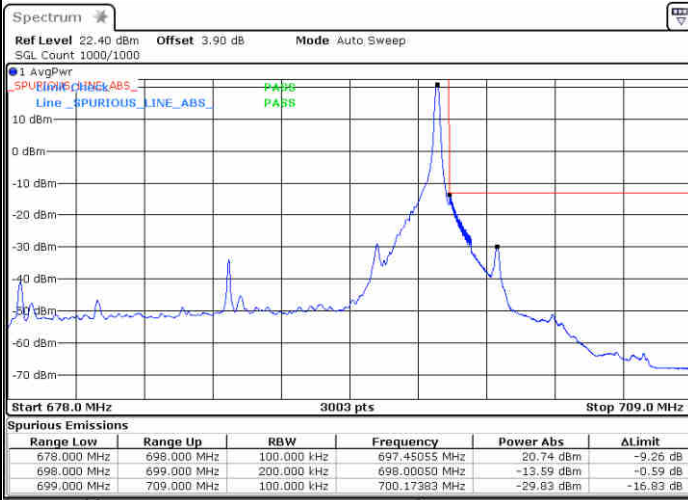
/



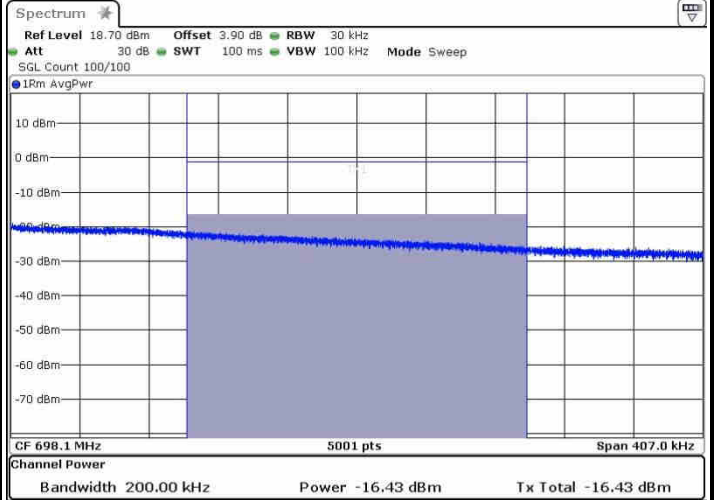
FR1 n71 / 20MHz / DFT-S OFDM BPSK

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Date: 14.JAN.2021 22:59:49



Date: 14.JAN.2021 23:01:02

Highest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 14.JAN.2021 22:06:35

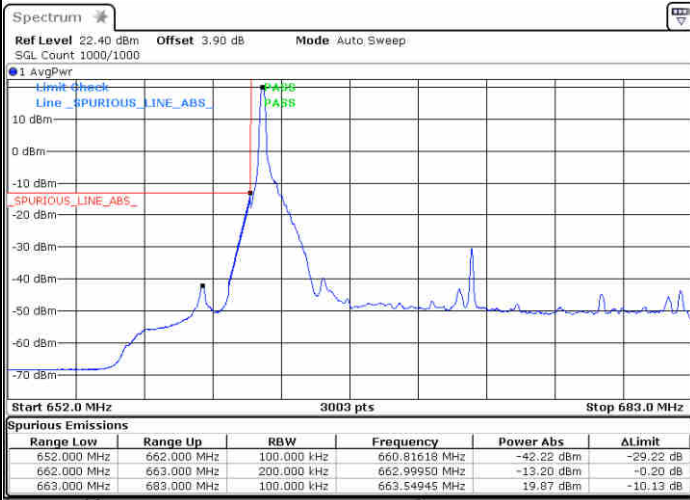
/



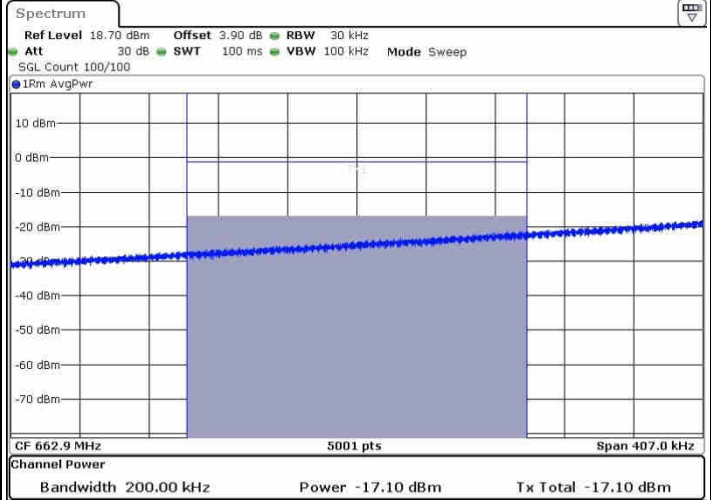
FR1 n71 / 20MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



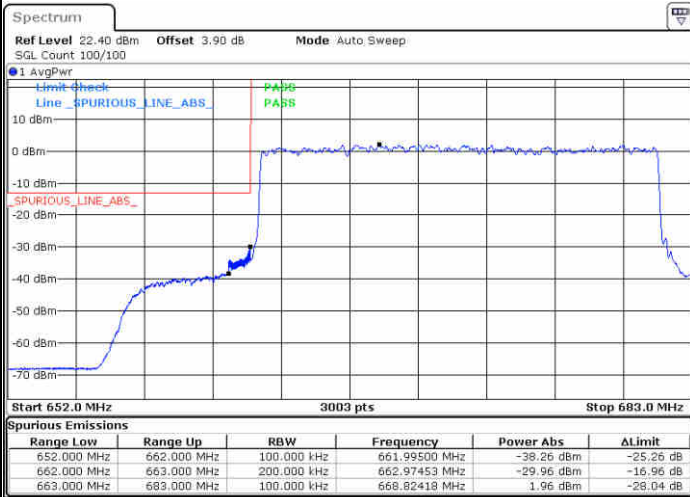
Date: 14.JAN.2021 23:17:17



Date: 14.JAN.2021 23:29:10

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 14.JAN.2021 23:30:30

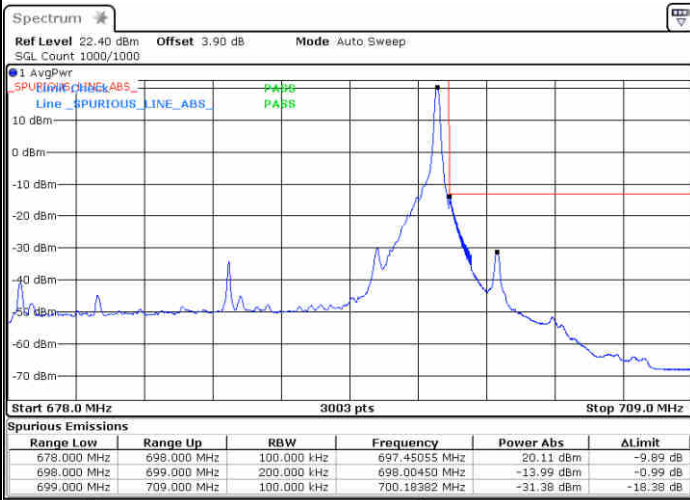
/



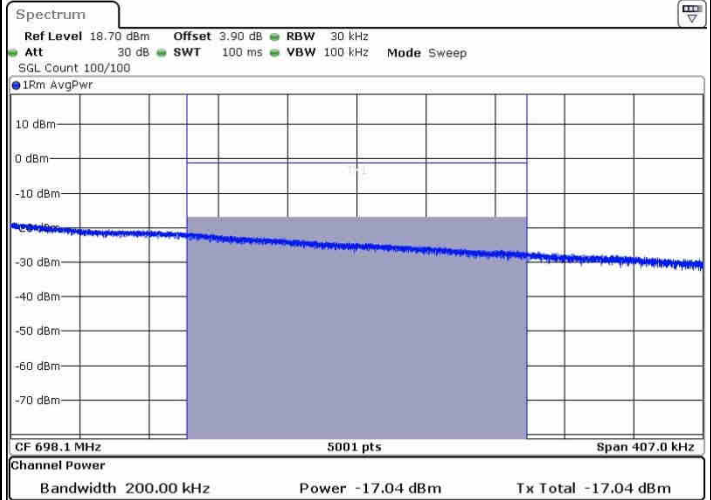
FR1 n71 / 20MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



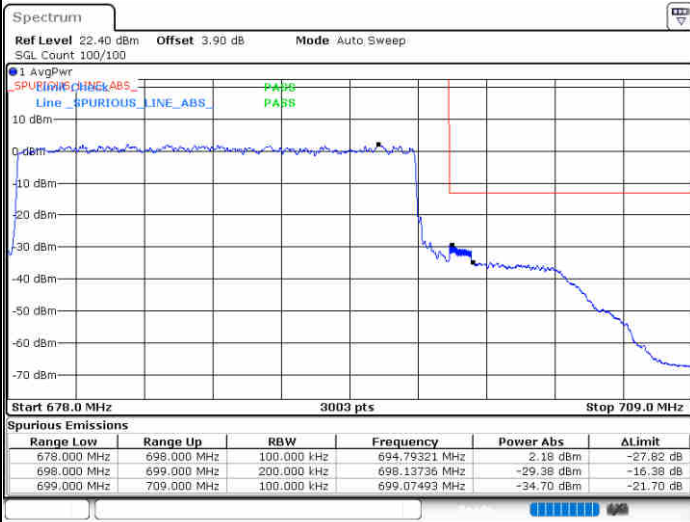
Date: 14.JAN.2021 22:54:46



Date: 14.JAN.2021 23:01:20

Highest Band Edge / Full RB

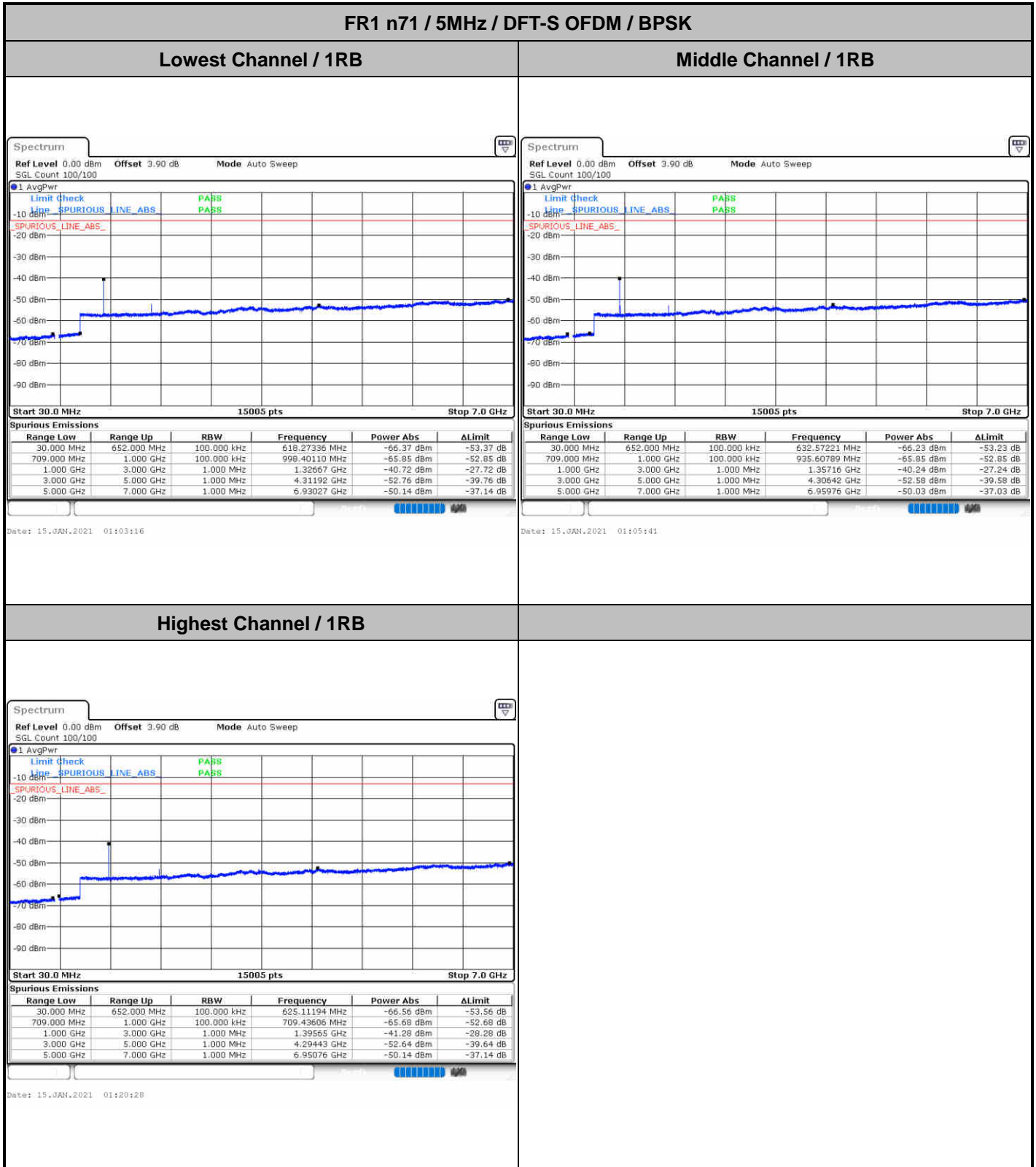
Channel Power < -13dBm Pass



Date: 14.JAN.2021 22:07:18



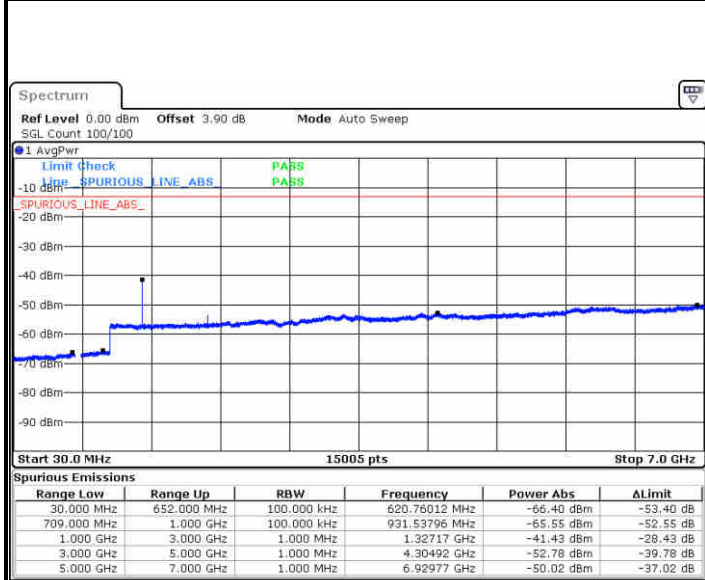
Conducted Spurious Emission





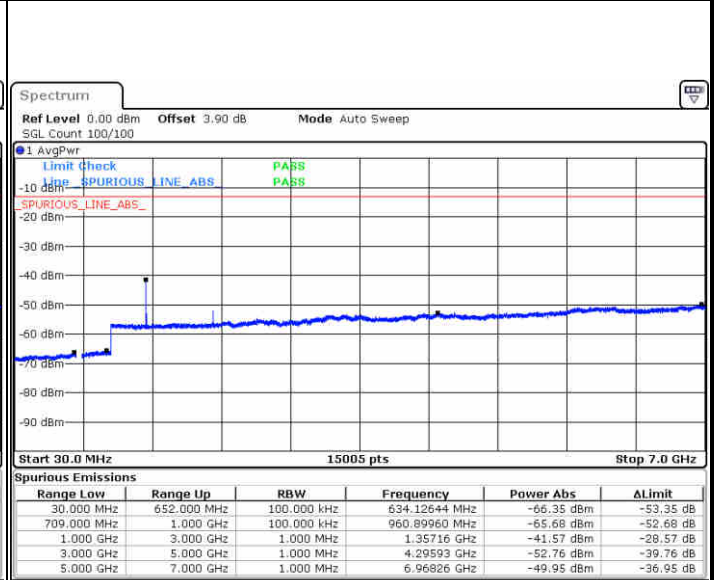
FR1 n71 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



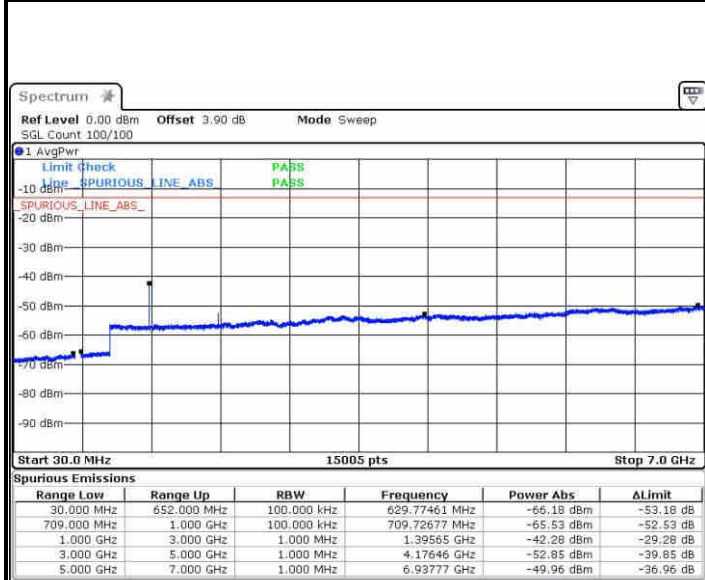
Date: 15.JAN.2021 00:58:41

Middle Channel / 1RB



Date: 15.JAN.2021 01:06:33

Highest Channel / 1RB



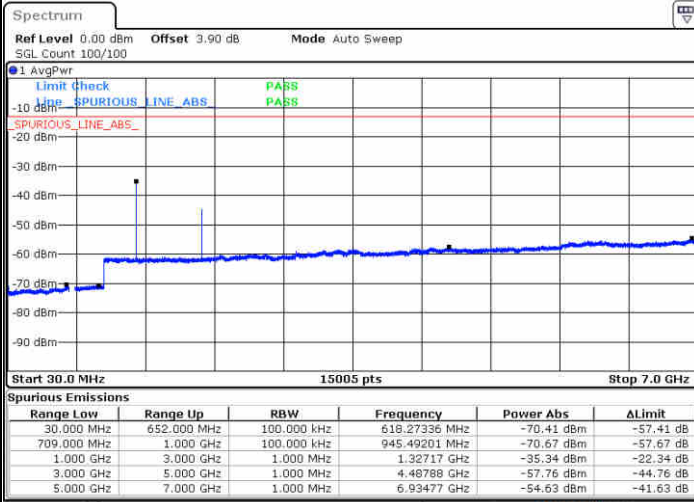
Date: 15.JAN.2021 01:21:39



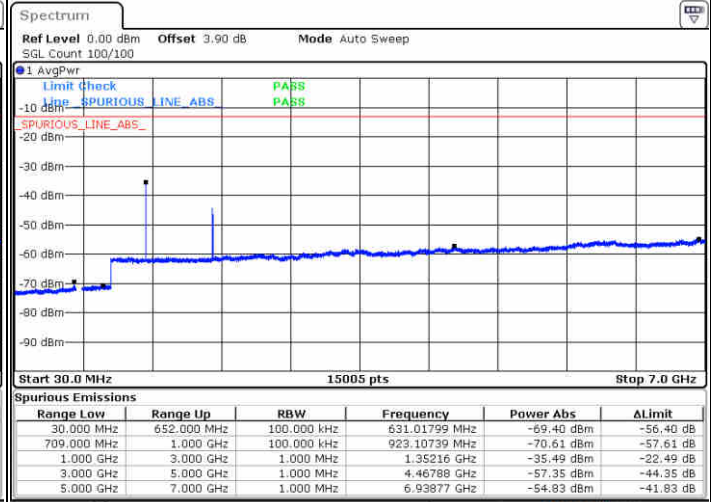
FR1 n71 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

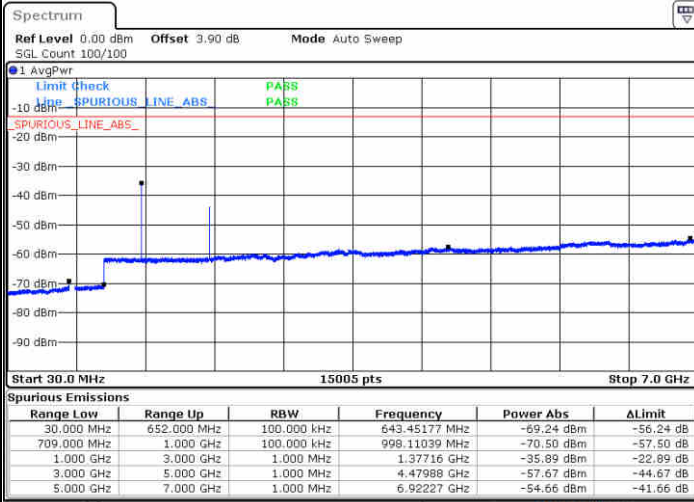


Date: 15.JAN.2021 00:15:38



Date: 15.JAN.2021 00:13:21

Highest Channel / 1RB



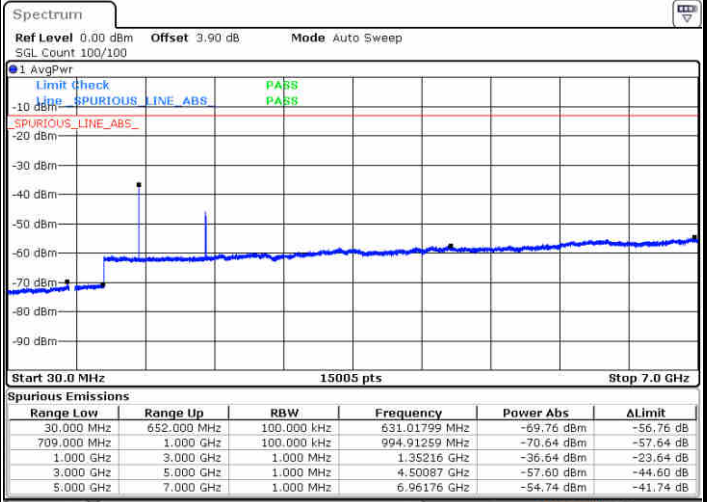
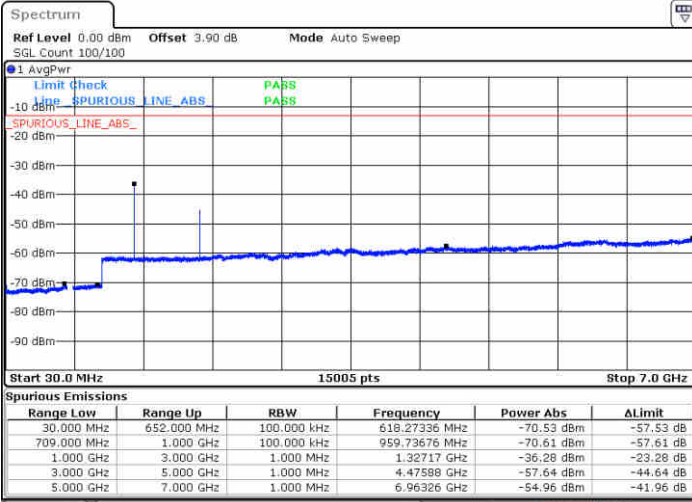
Date: 15.JAN.2021 00:14:18



FR1 n71 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

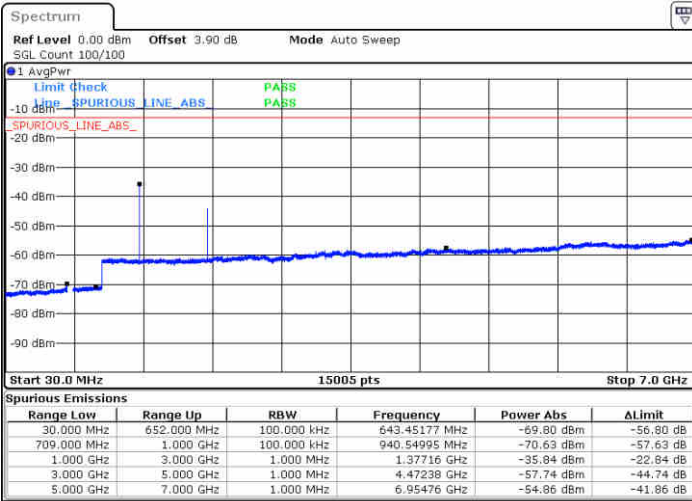
Middle Channel / 1RB



Date: 15.JAN.2021 00:15:18

Date: 15.JAN.2021 00:13:02

Highest Channel / 1RB



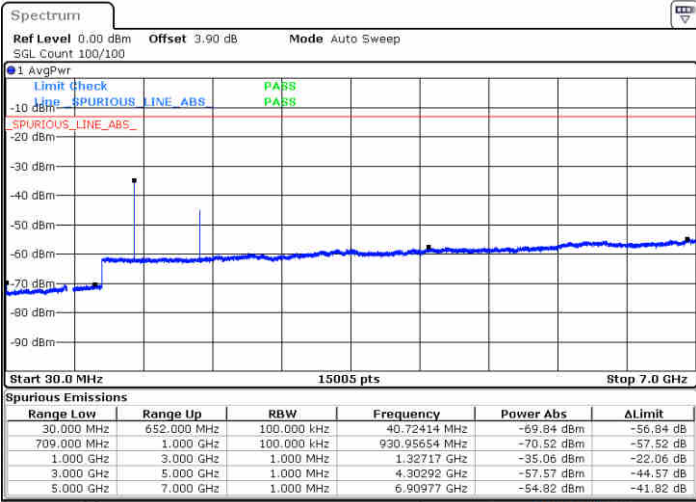
Date: 15.JAN.2021 00:14:40



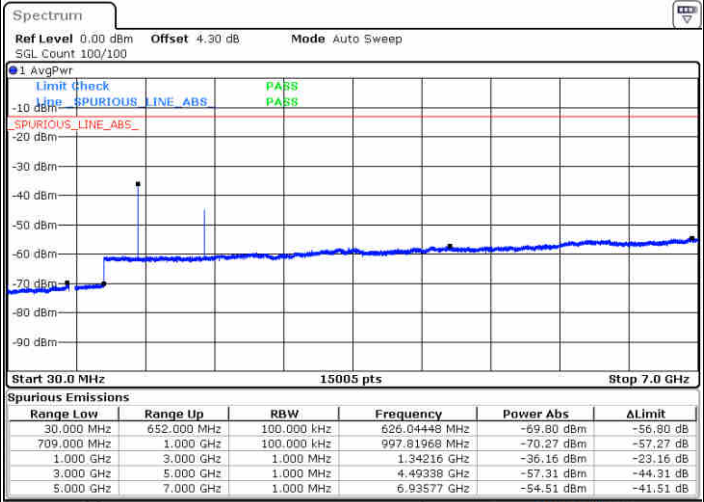
FR1 n71 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

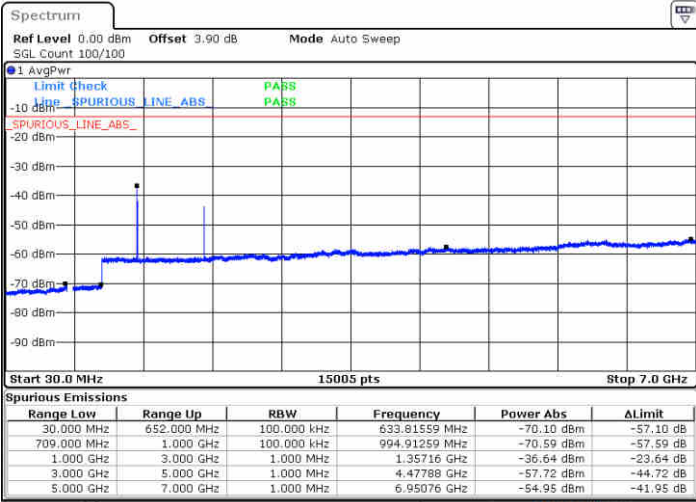


Date: 14.JAN.2021 23:07:27



Date: 14.JAN.2021 21:37:54

Highest Channel / 1RB



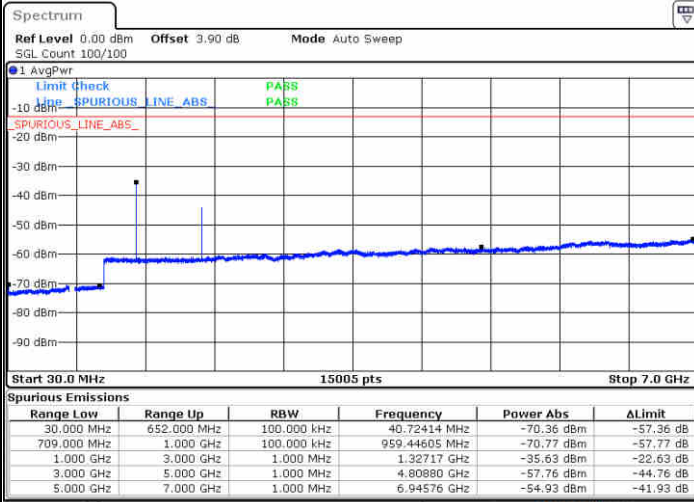
Date: 14.JAN.2021 23:05:23



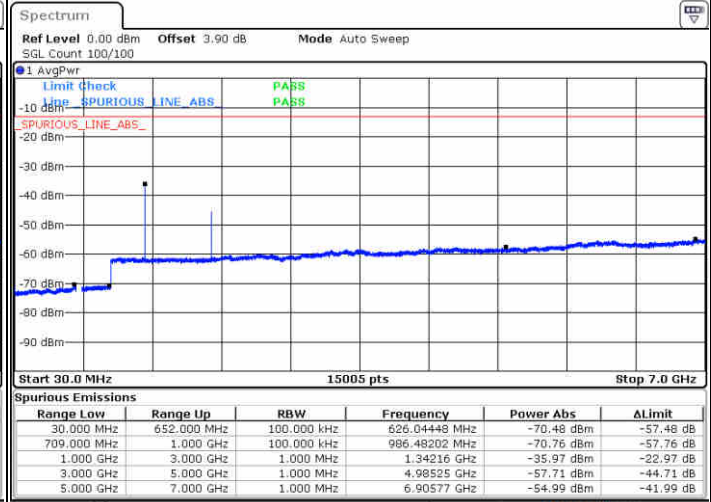
FR1 n71 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

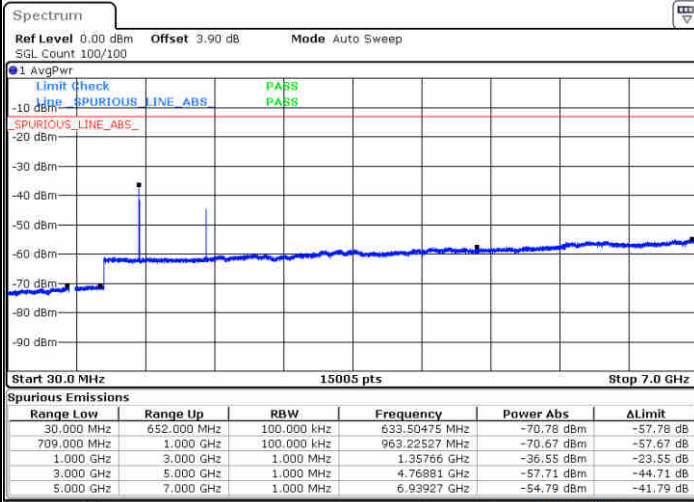


Date: 14.JAN.2021 23:10:53



Date: 15.JAN.2021 00:10:59

Highest Channel / 1RB



Date: 14.JAN.2021 23:02:47



Frequency Stability

Test Conditions		NR n71 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0013	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0021	
20	Battery End Point	0.0011	

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.



5G NR n71 NSA

Peak-to-Average Ratio

Mode	FR1 n71 / 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	3.42	4.12	5.01	5.45	PASS
Middle CH	3.30	3.80	4.90	5.28	
Highest CH	3.01	3.62	4.52	5.07	



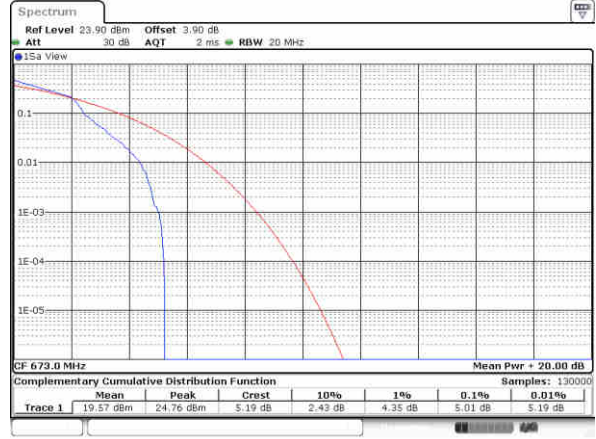
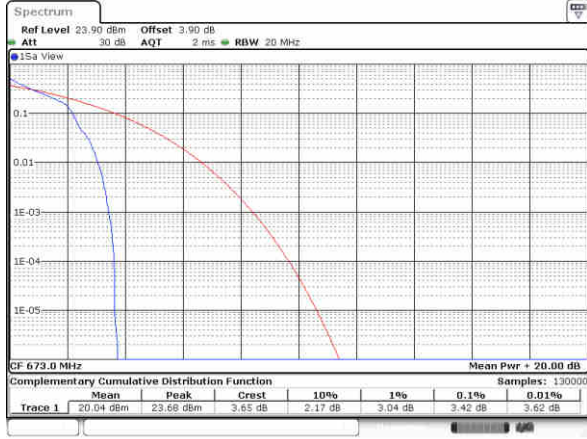
FR1 n71 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

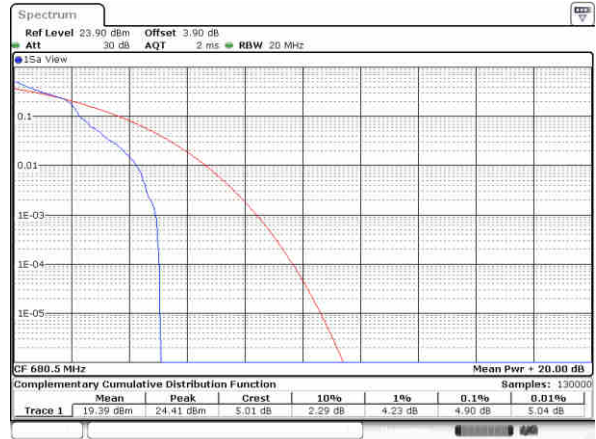
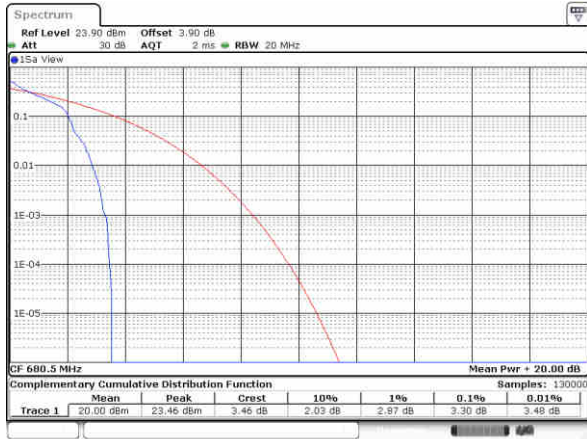


Date: 3_MAR_2021 08:48:54

Date: 3_MAR_2021 08:49:06

Middle Channel / 1 RB

Middle Channel / 1 RB

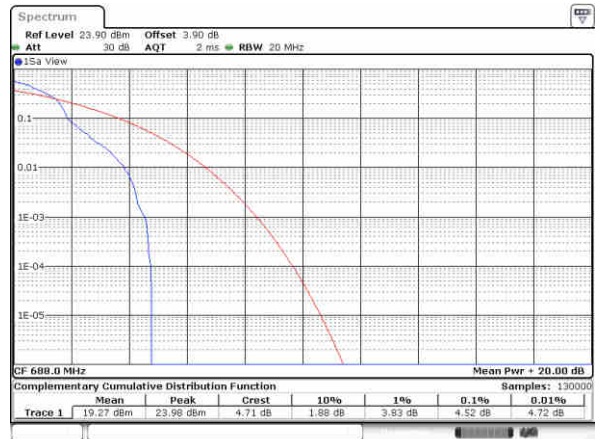
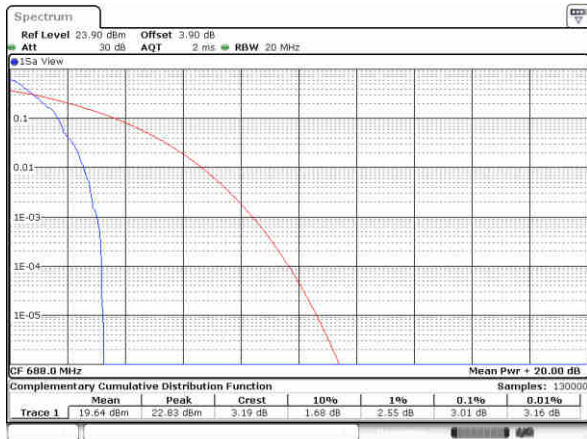


Date: 3_MAR_2021 08:45:29

Date: 3_MAR_2021 08:45:18

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 3_MAR_2021 08:44:31

Date: 3_MAR_2021 08:44:43



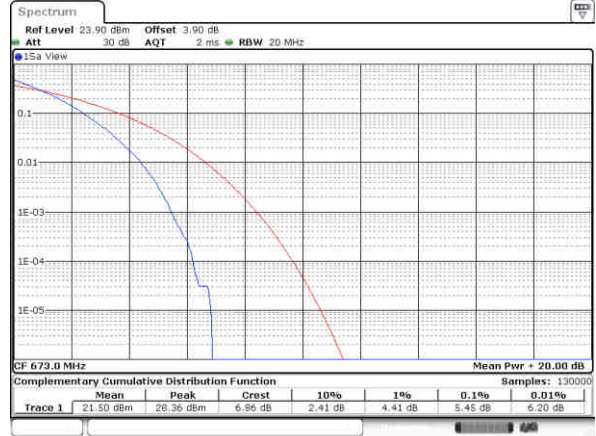
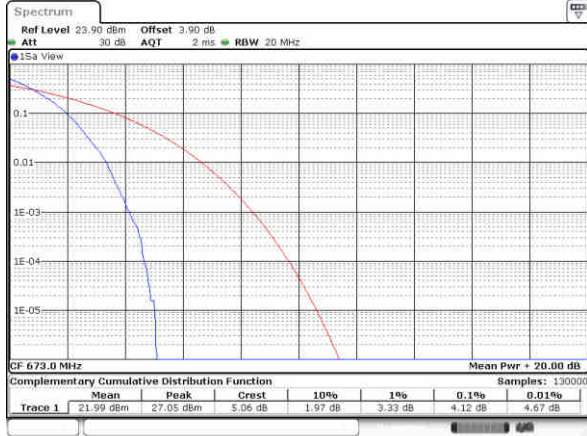
FR1 n71 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

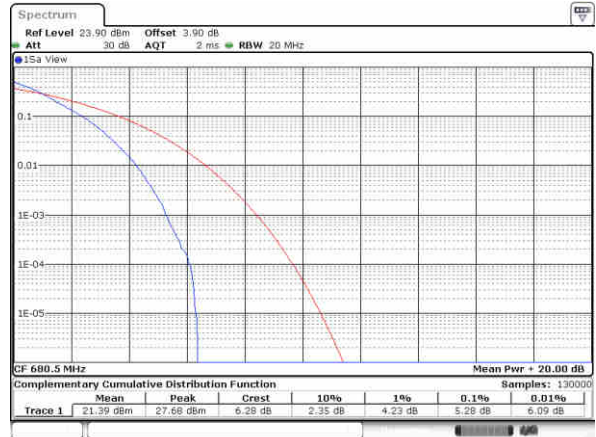
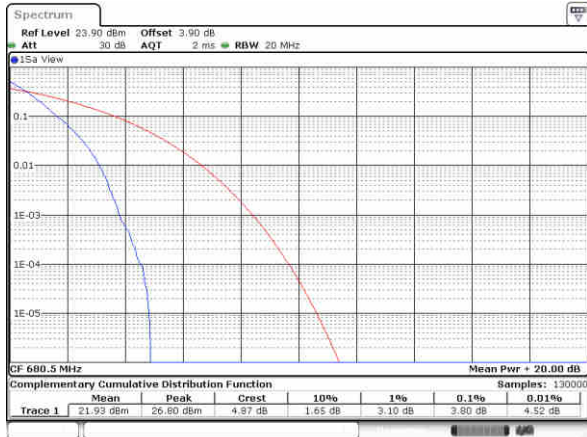


Date: 3.MAR.2021 08:48:17

Date: 3.MAR.2021 08:47:35

Middle Channel / Full RB

Middle Channel / Full RB

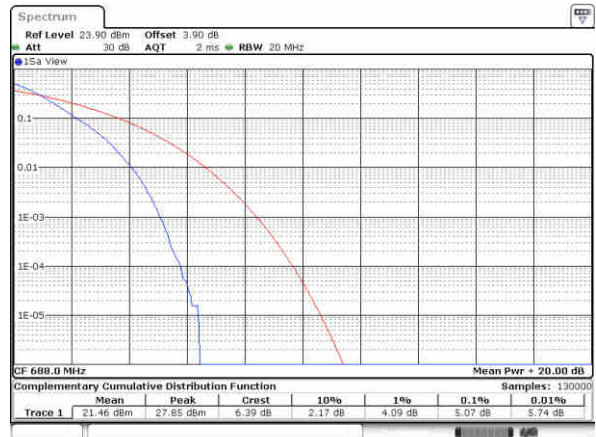
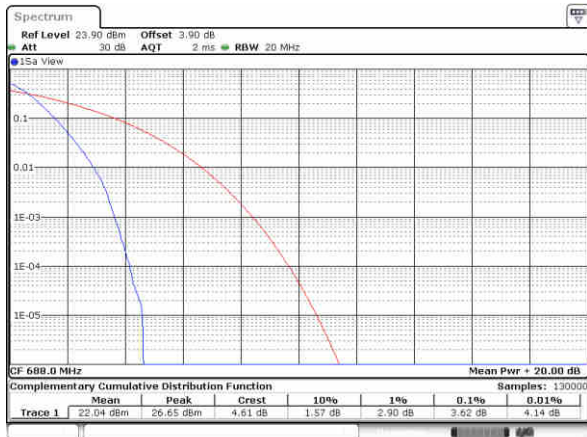


Date: 3.MAR.2021 08:45:45

Date: 3.MAR.2021 08:46:10

Highest Channel / Full RB

Highest Channel / Full RB



Date: 3.MAR.2021 08:31:20

Date: 3.MAR.2021 08:26:57



26dB Bandwidth

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.87	4.96	4.83	4.88				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.89	9.79	9.77	9.67				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.87	14.98	15.07	15.02				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.82	19.94	19.94	19.86				

