



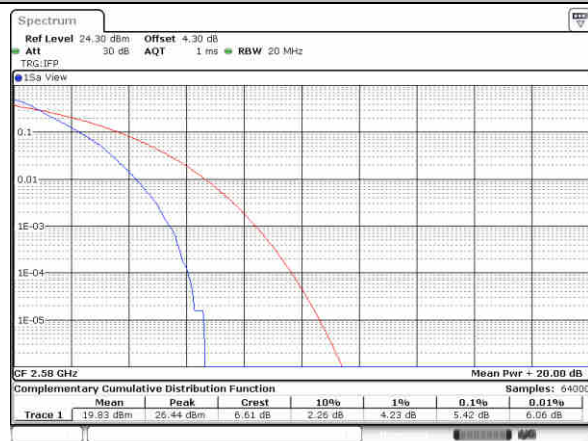
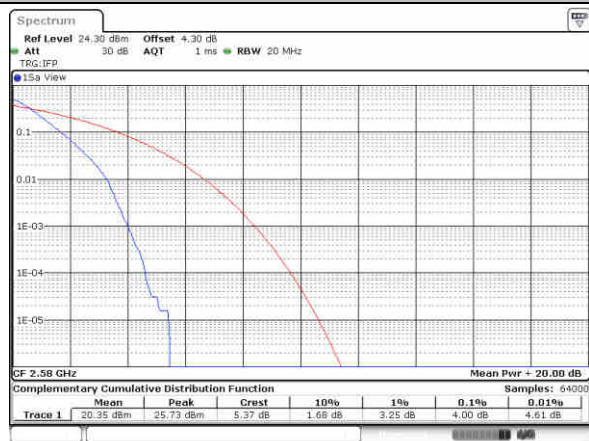
FR1 n38 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

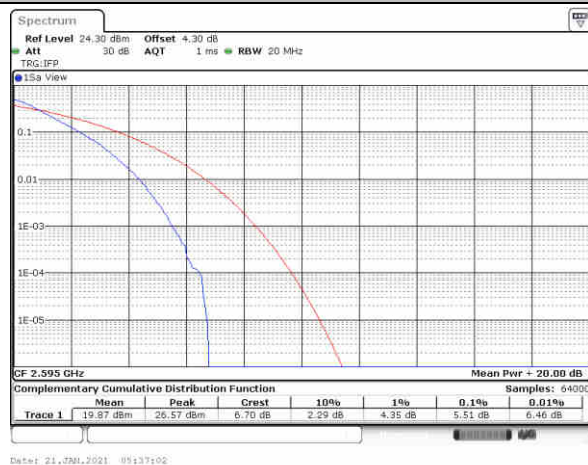
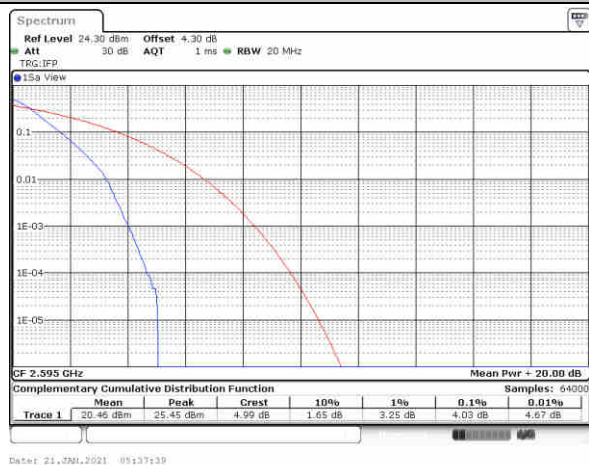
Lowest Channel / Full RB

Lowest Channel / Full RB



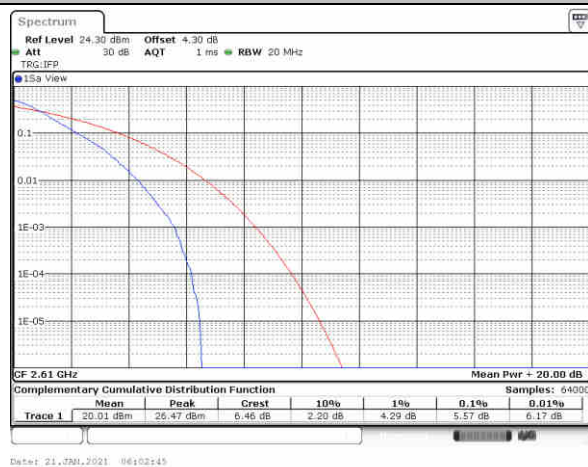
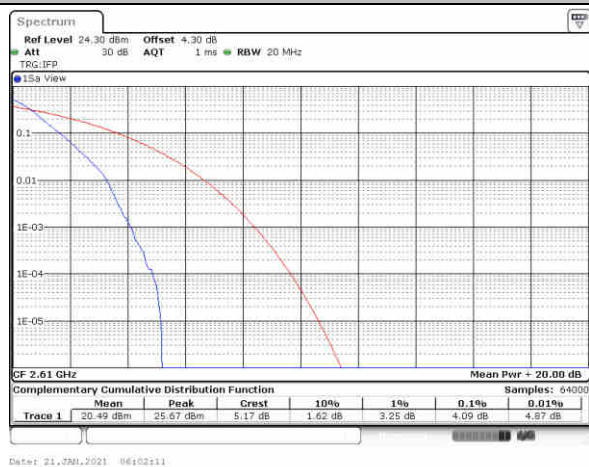
Middle Channel / Full RB

Middle Channel / Full RB



Highest Channel / Full RB

Highest Channel / Full RB



**26dB Bandwidth**

Mode	FR1 n38 : 26dB BW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.92	4.71	4.74	4.73				

Mode	FR1 n38 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.67	9.67	9.79	9.69				

Mode	FR1 n38 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.96	14.84	14.84	14.96				

Mode	FR1 n38 : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.82	19.74	20.06	19.98				



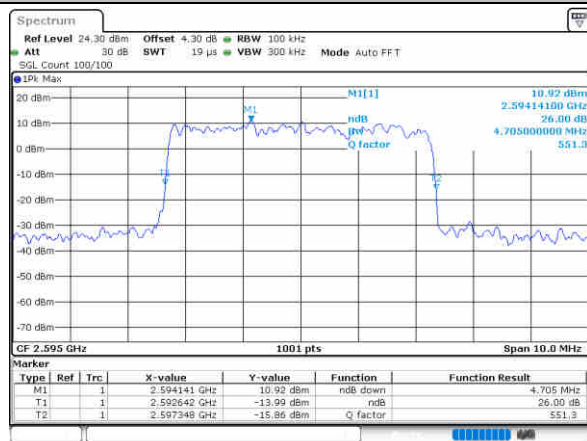
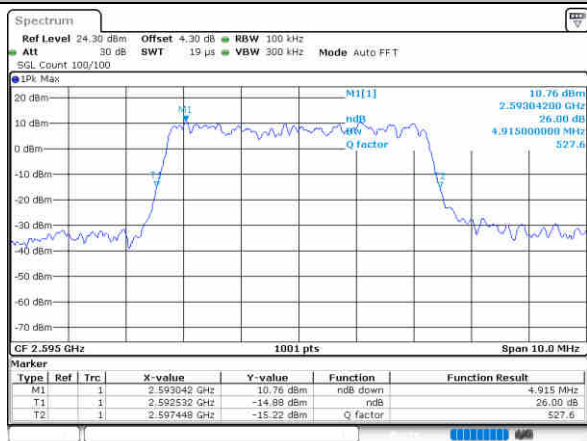
FR1 n38 / 5MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

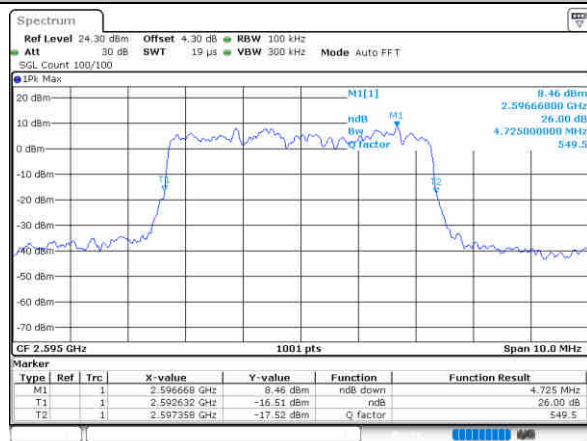
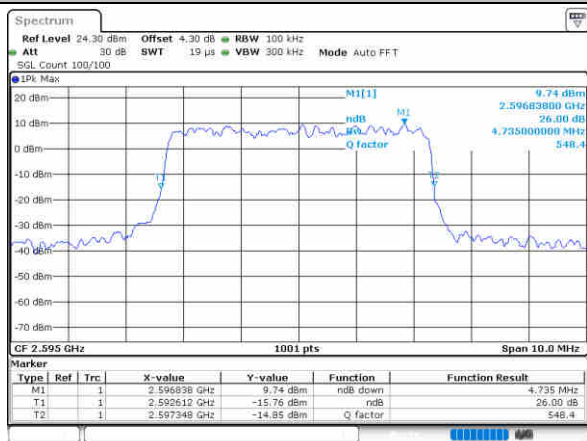


64QAM

256QAM

Middle Channel

Middle Channel





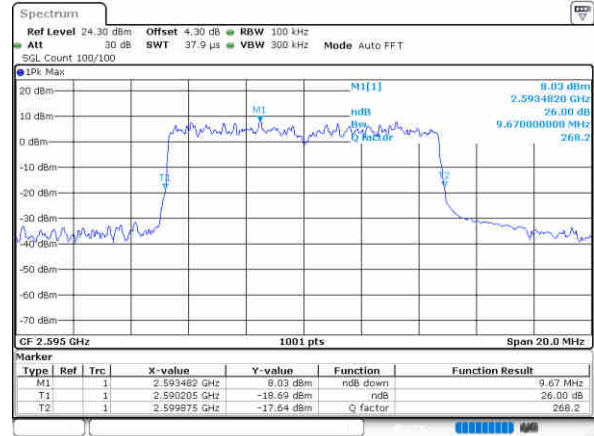
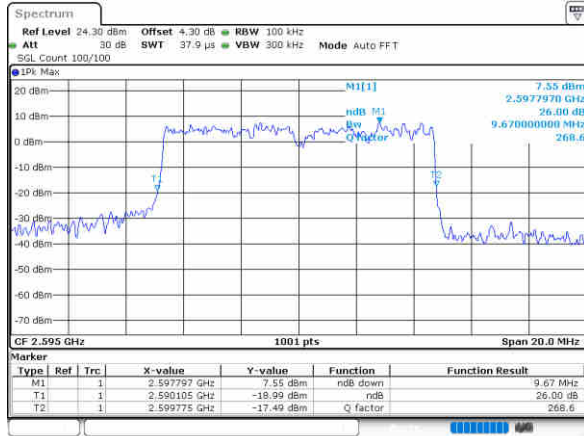
FR1 n38 / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

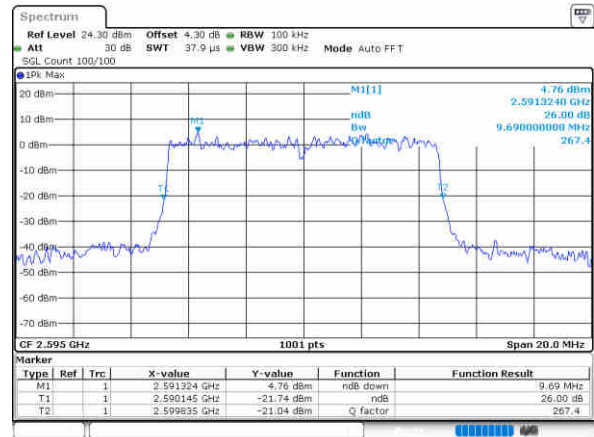
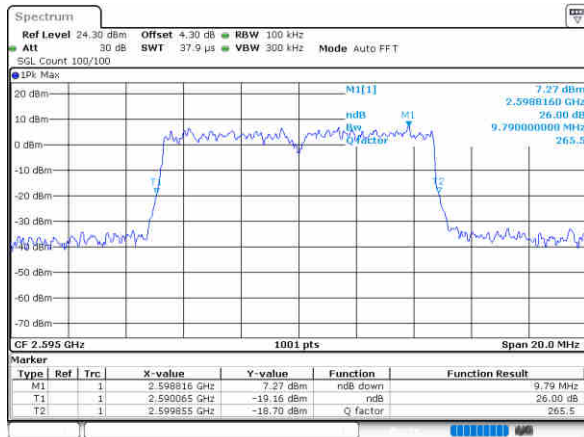


64QAM

256QAM

Middle Channel

Middle Channel

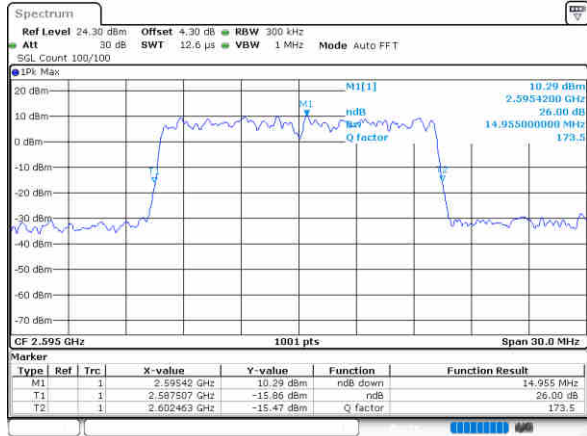




FR1 n38 / 15MHz / CP-OFDM

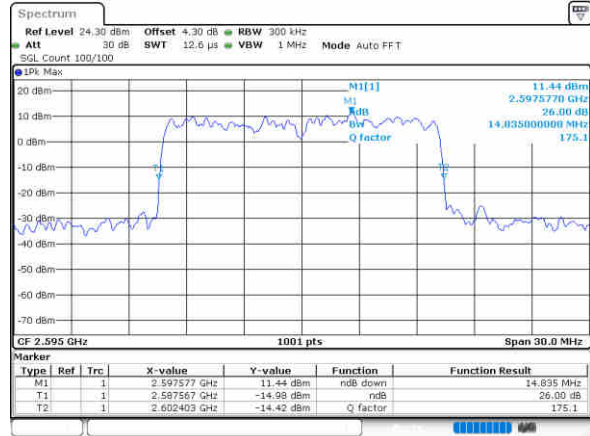
QPSK

Middle Channel



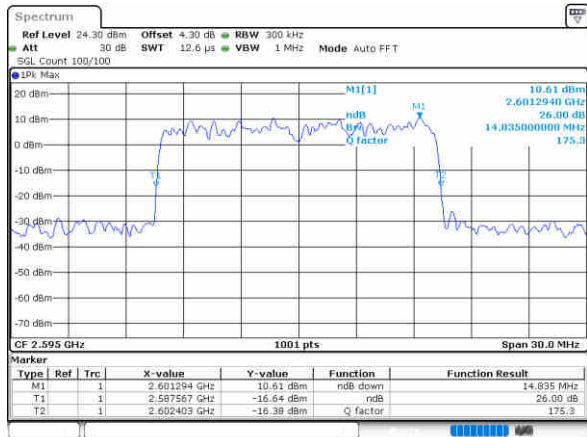
16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel

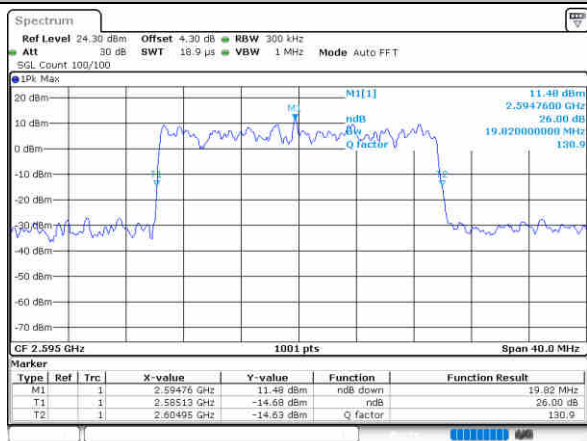




FR1 n38 / 20MHz / CP-OFDM

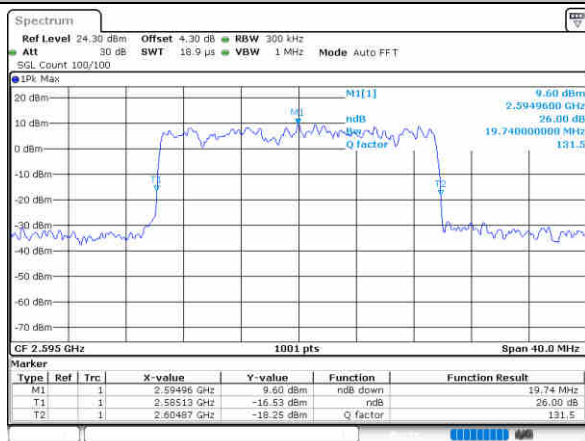
QPSK

Middle Channel



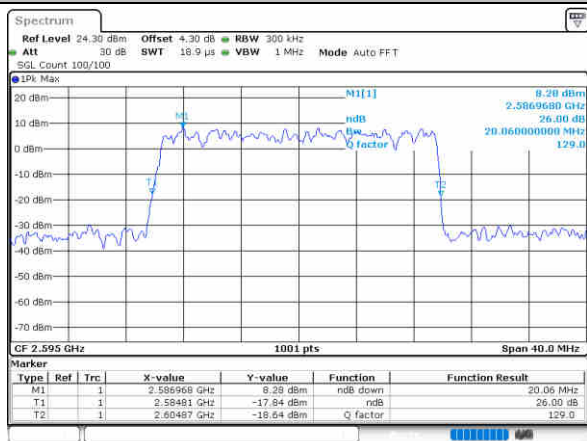
16QAM

Middle Channel



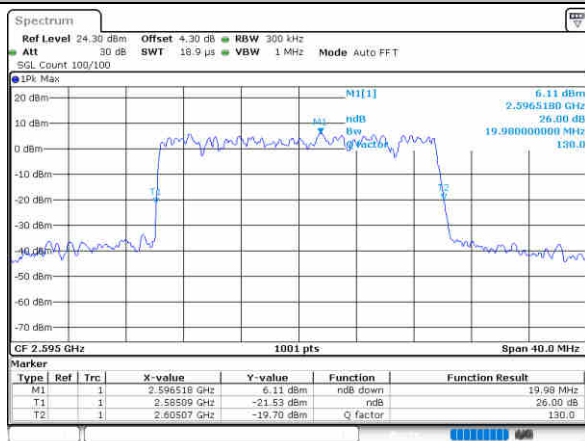
64QAM

Middle Channel



256QAM

Middle Channel



**Occupied Bandwidth**

Mode	FR1 n38 : OBW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.48	4.51	4.48	4.48				

Mode	FR1 n38 : OBW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.29	9.27	9.31	9.27				

Mode	FR1 n38 : OBW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.12	14.18	14.24	14.15				

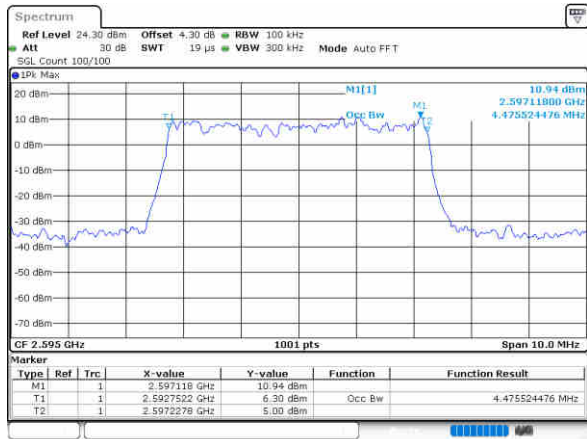
Mode	FR1 n38 : OBW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.06	18.98	18.94	18.98				



FR1 n38 / 5MHz / CP-OFDM

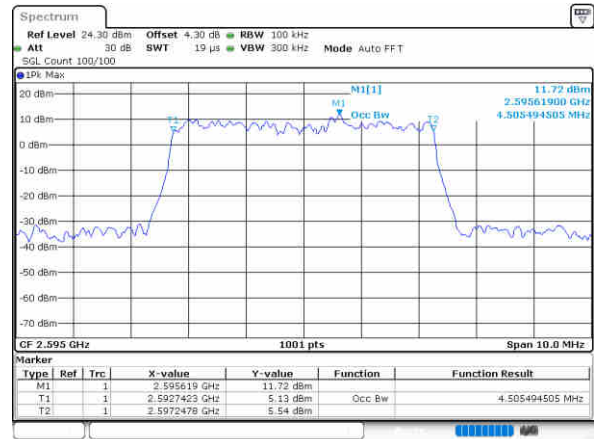
QPSK

Middle Channel



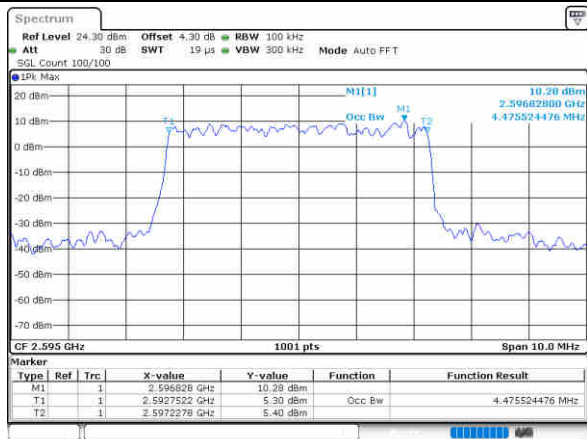
16QAM

Middle Channel



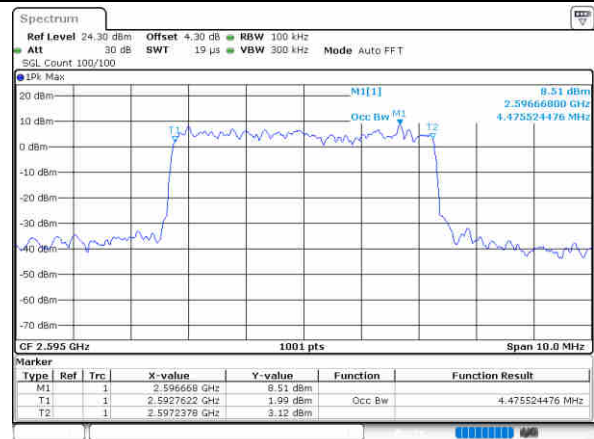
64QAM

Middle Channel



256QAM

Middle Channel





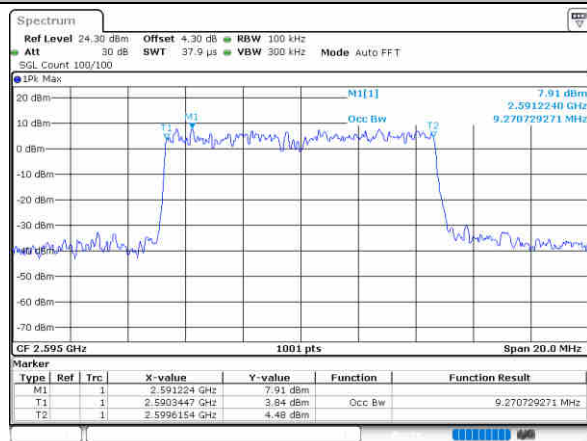
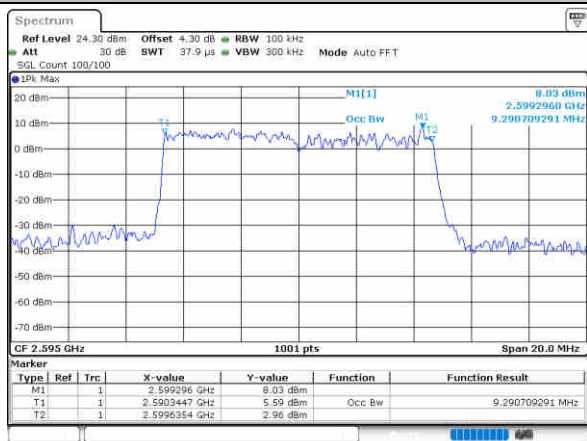
FR1 n38 / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

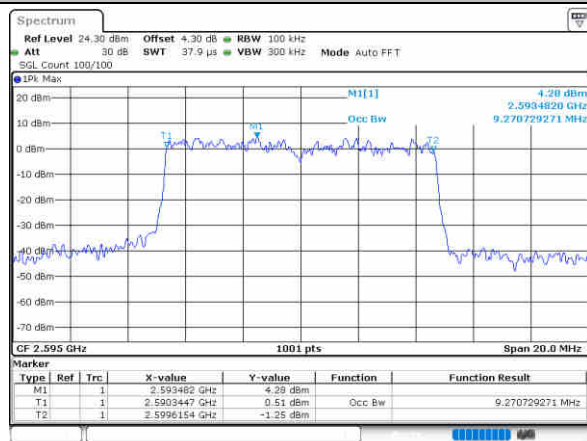
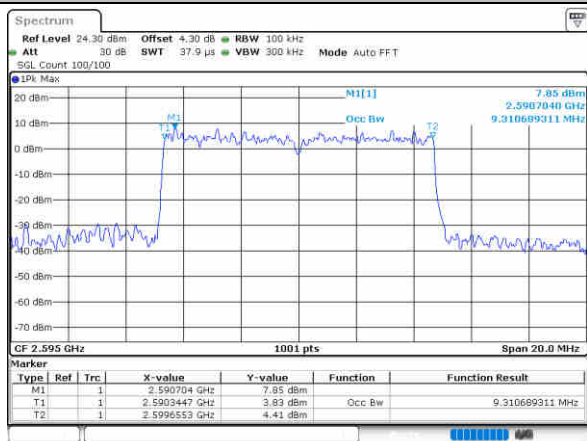


64QAM

256QAM

Middle Channel

Middle Channel

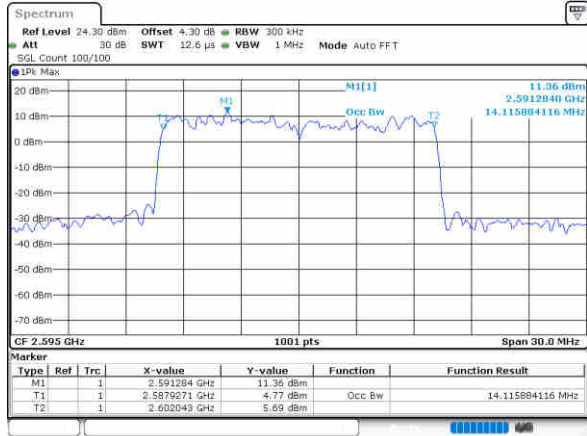




FR1 n38 / 15MHz / CP-OFDM

QPSK

Middle Channel



16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel

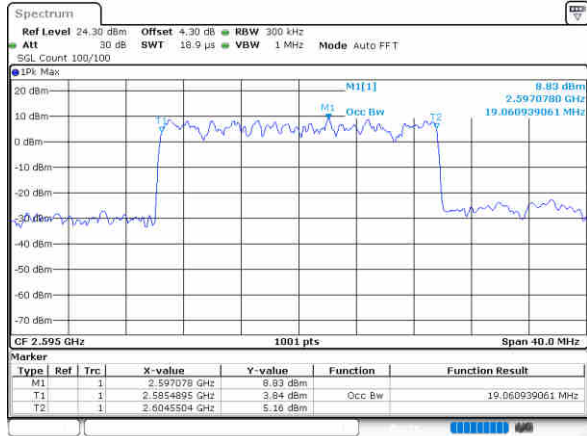




FR1 n38 / 20MHz / CP-OFDM

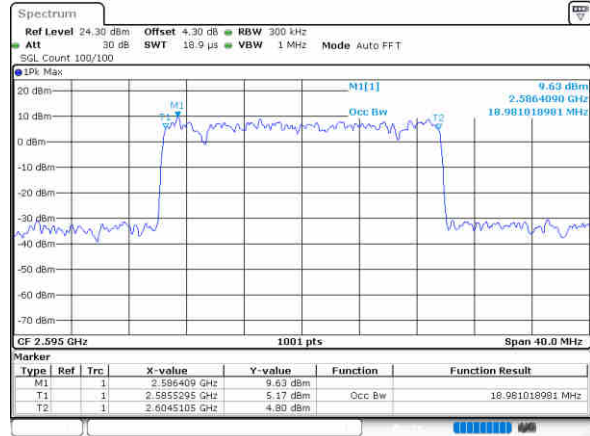
QPSK

Middle Channel



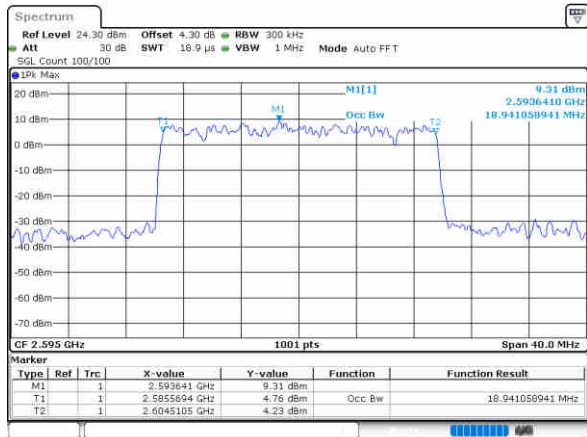
16QAM

Middle Channel



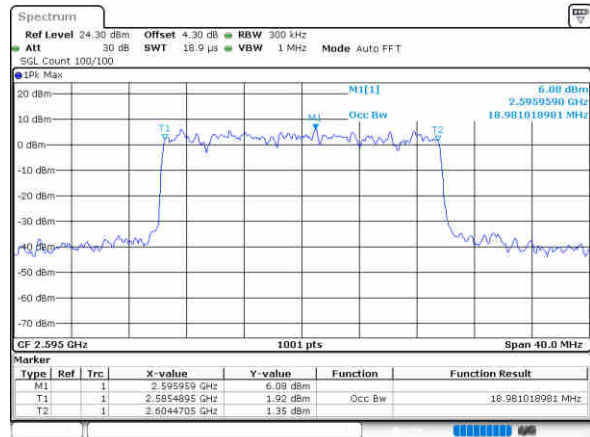
64QAM

Middle Channel



256QAM

Middle Channel



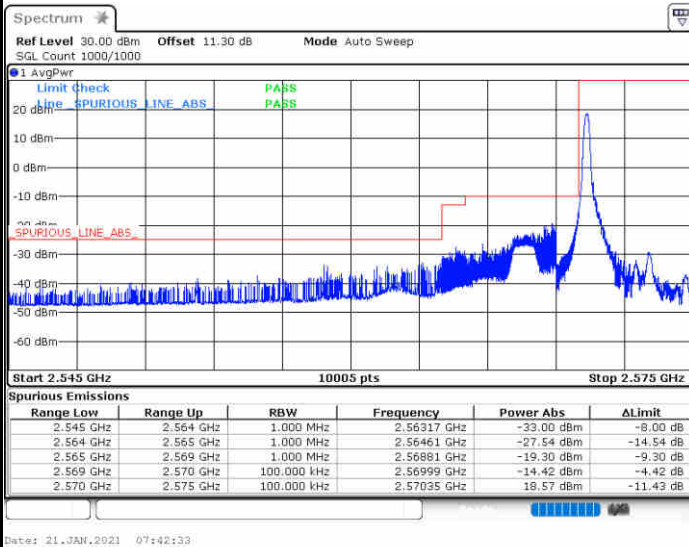


Conducted Band Edge

FR1 n38 / 5MHz / DFT-S OFDM BPSK

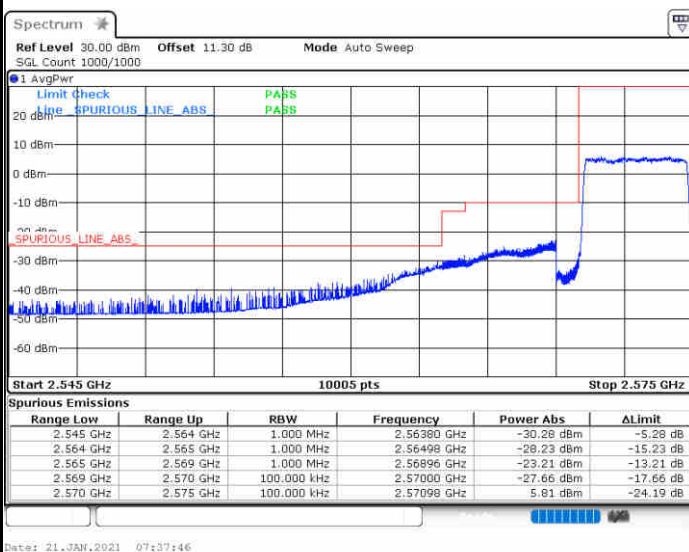
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

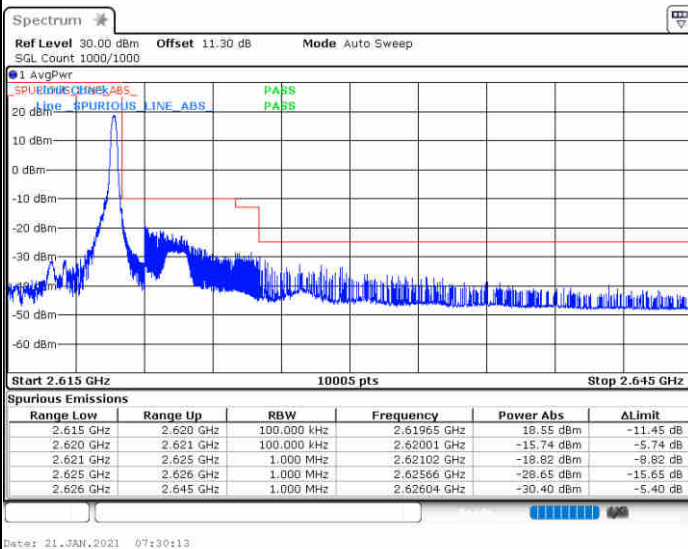




FR1 n38 / 5MHz / DFT-S OFDM BPSK

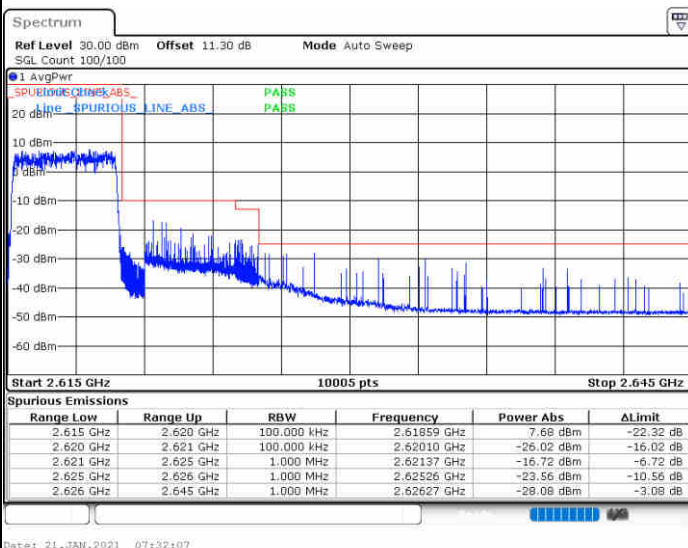
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

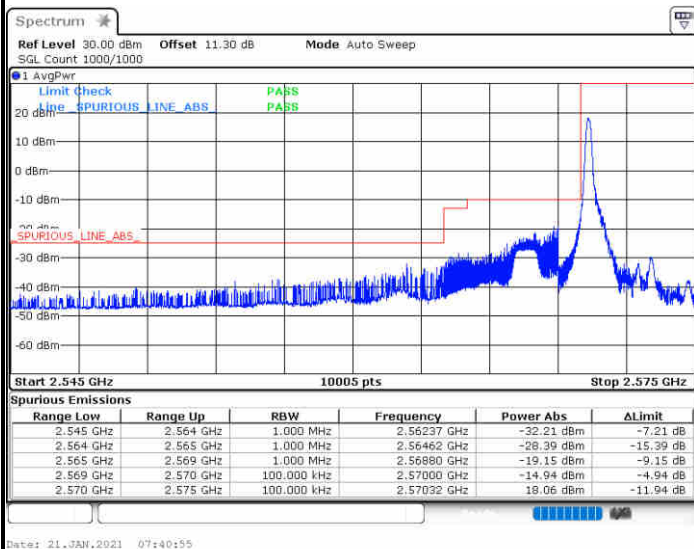




FR1 n38 / 5MHz / DFT-S OFDM QPSK

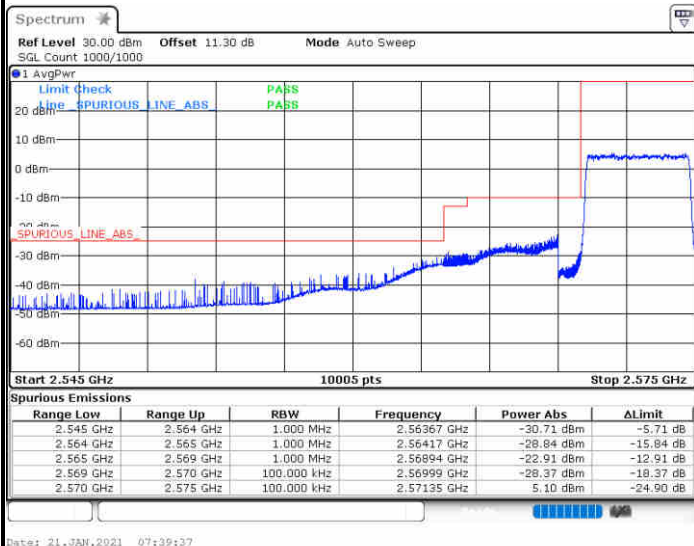
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

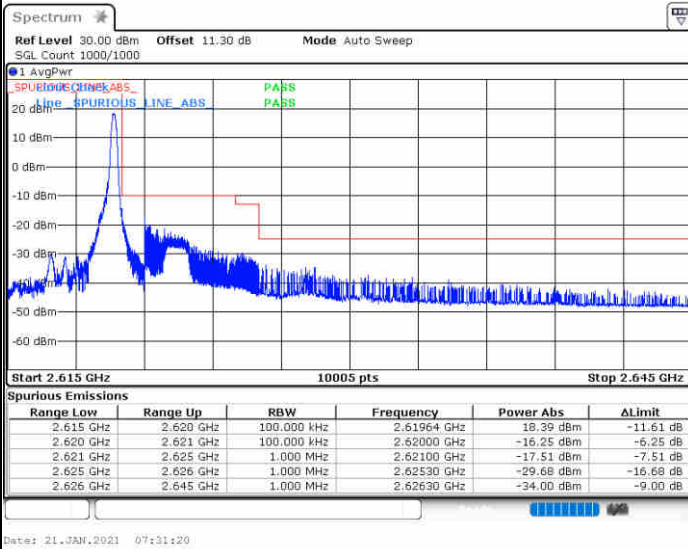




FR1 n38 / 5MHz / DFT-S OFDM QPSK

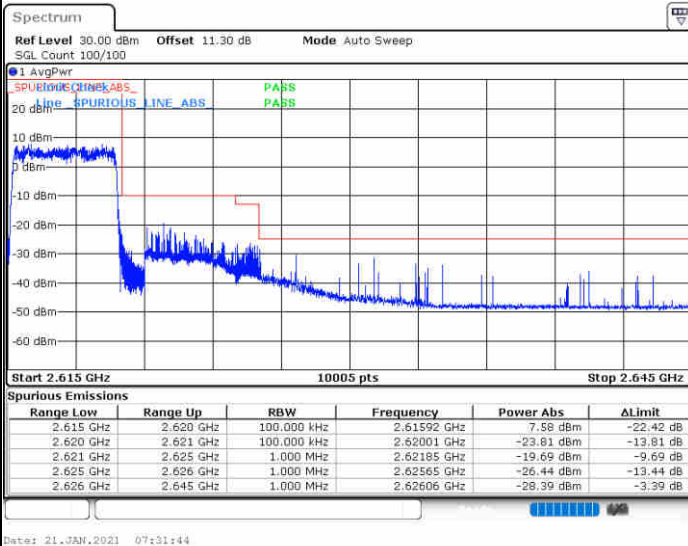
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

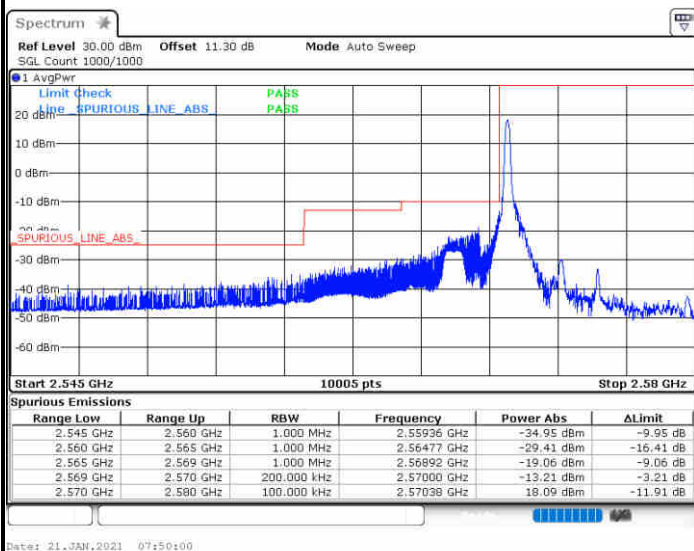




FR1 n38 / 10MHz / DFT-S OFDM BPSK

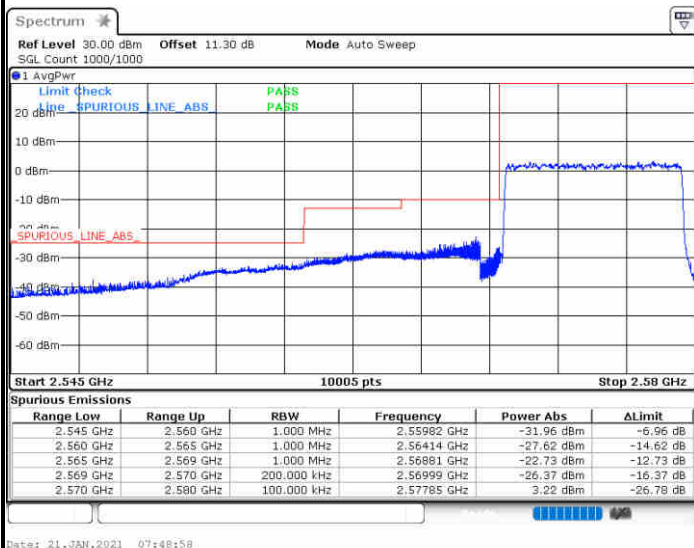
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

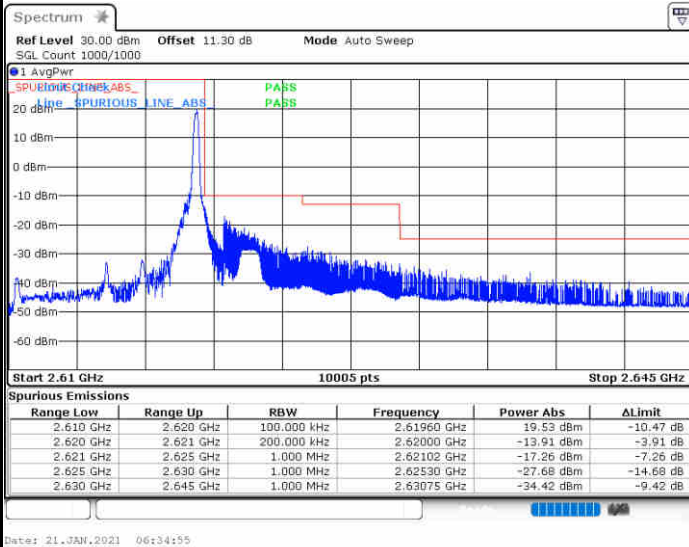




FR1 n38 / 10MHz / DFT-S OFDM BPSK

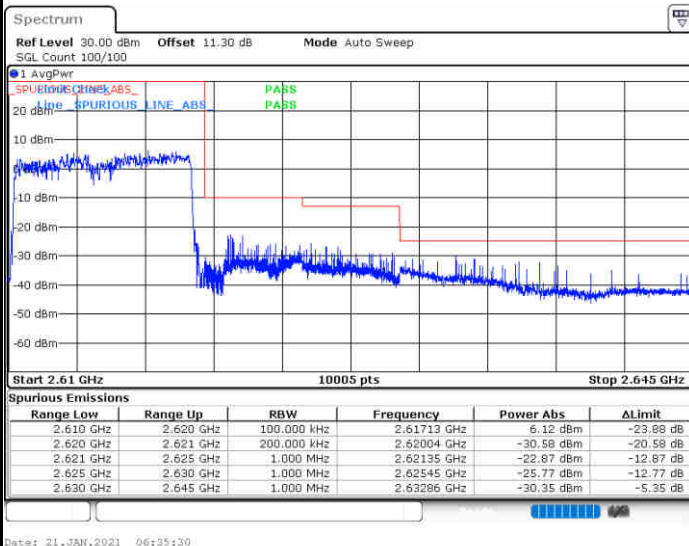
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

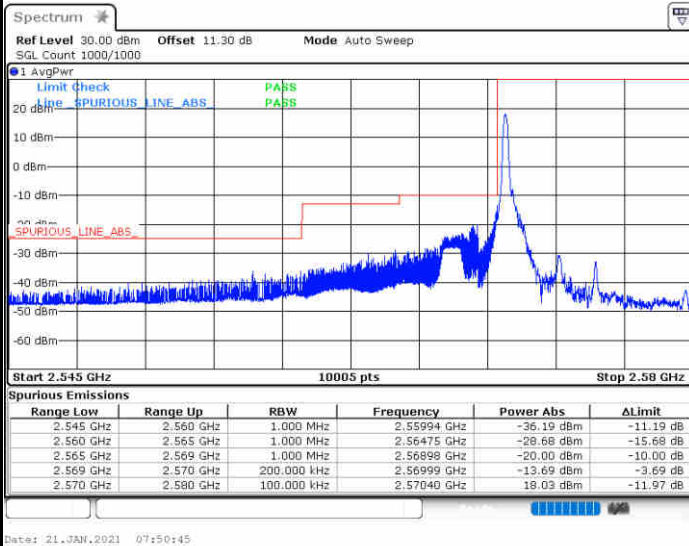




FR1 n38 / 10MHz / DFT-S OFDM QPSK

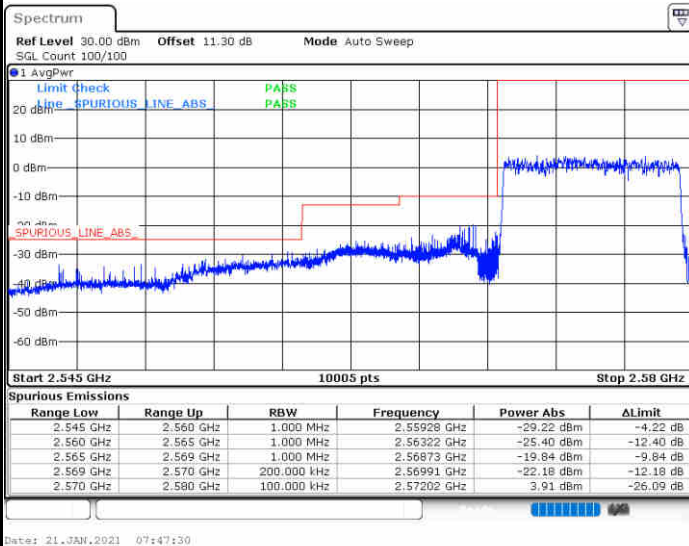
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

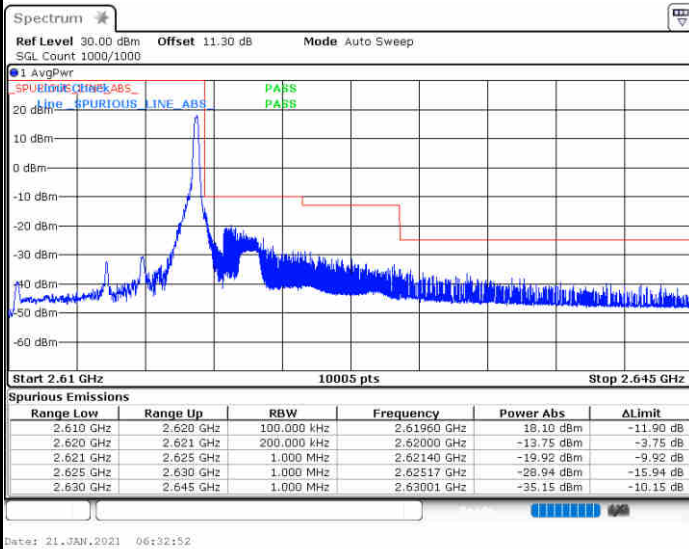




FR1 n38 / 10MHz / DFT-S OFDM QPSK

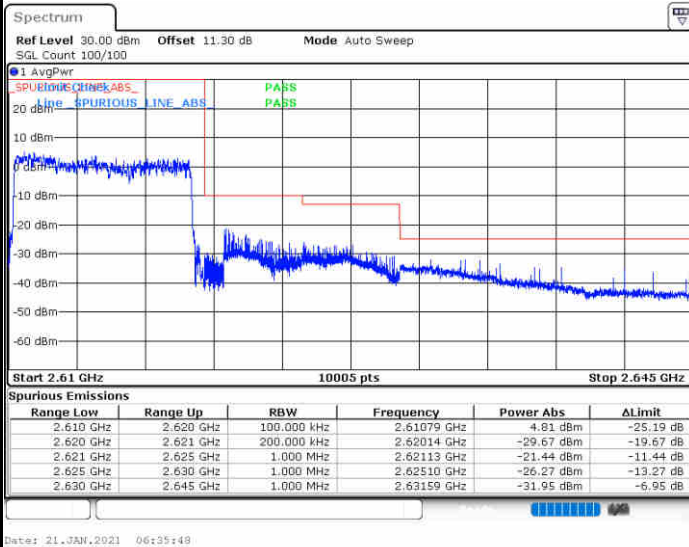
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

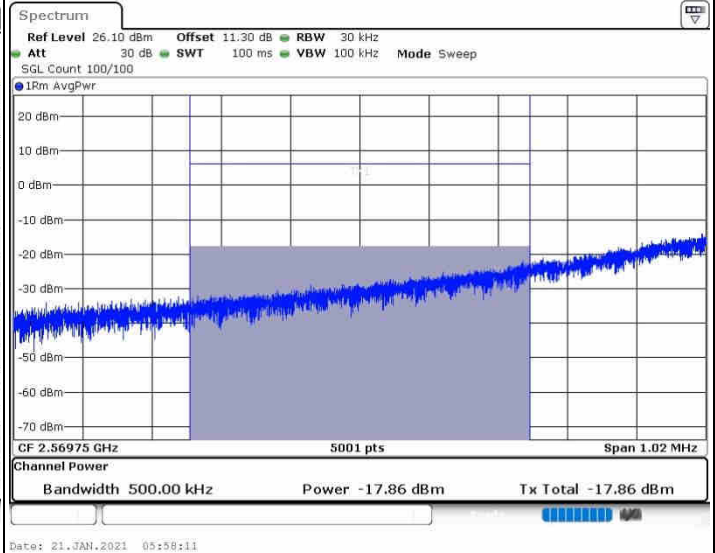
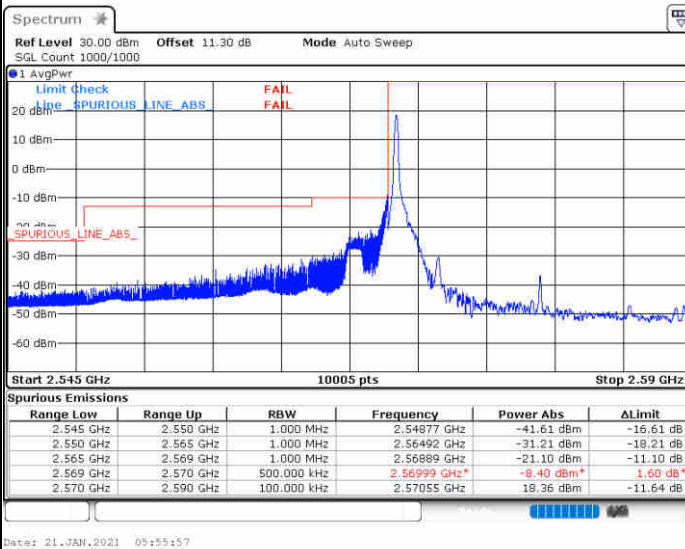




FR1 n38 / 20MHz / DFT-S OFDM BPSK

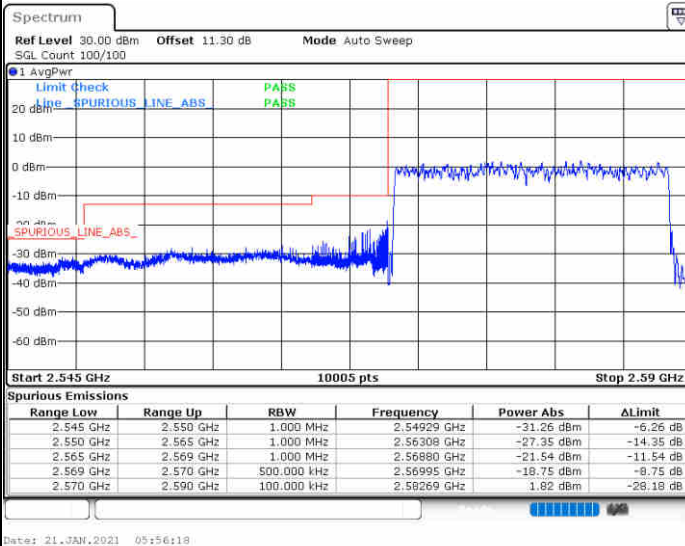
Lowest Band Edge / 1 RB

Channel Power < -10dBm Pass



Lowest Band Edge / Full RB

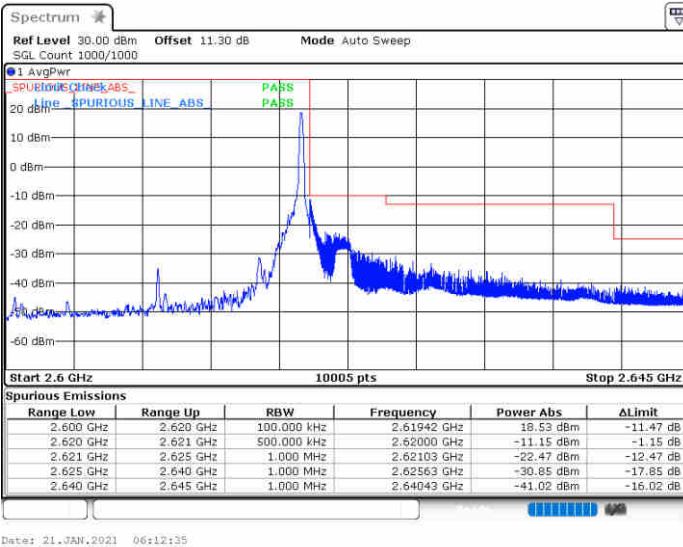
Channel Power < -10dBm Pass



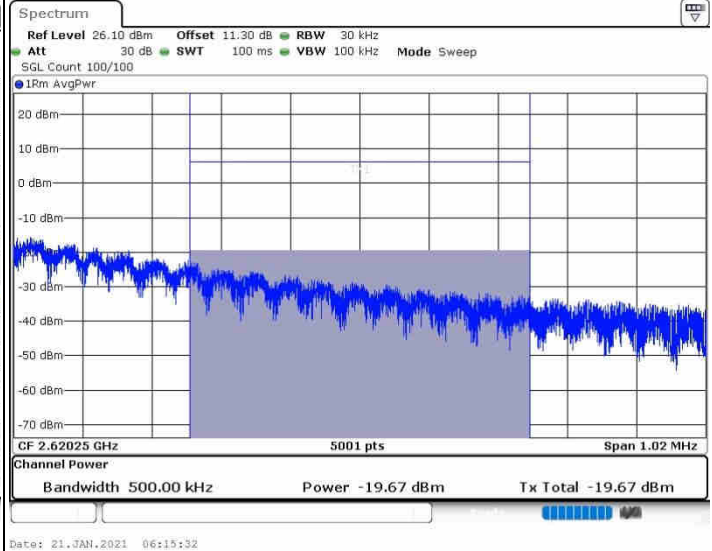


FR1 n38 / 20MHz / DFT-S OFDM BPSK

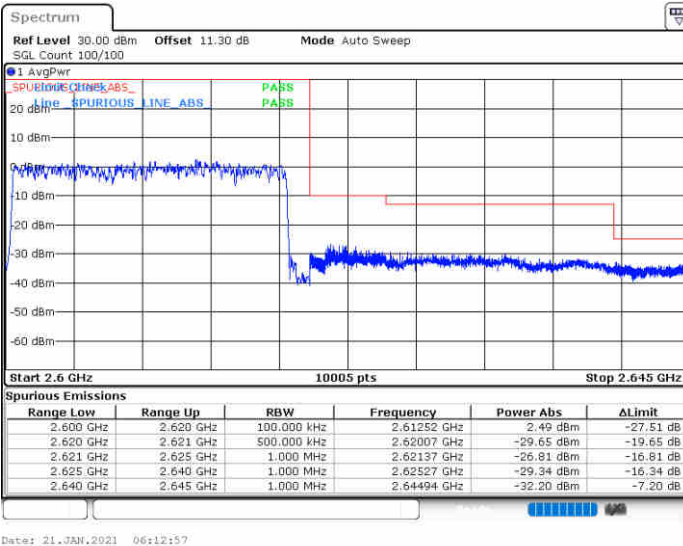
Highest Band Edge / 1 RB



Channel Power < -10dBm Pass



Highest Band Edge / Full RB



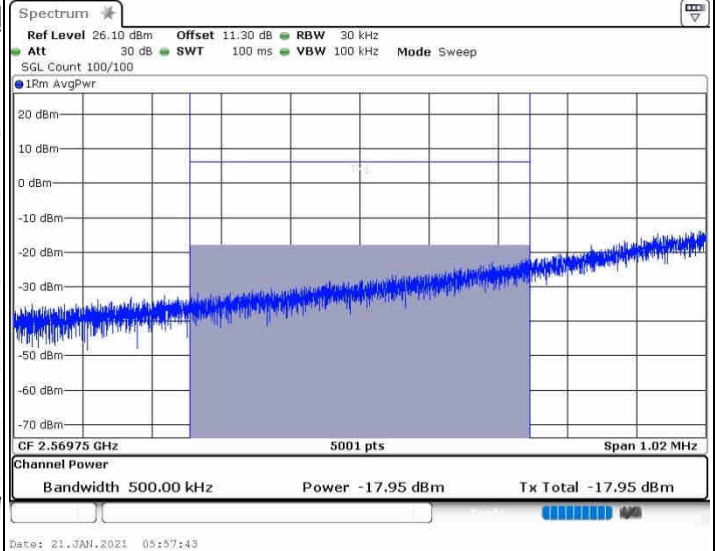
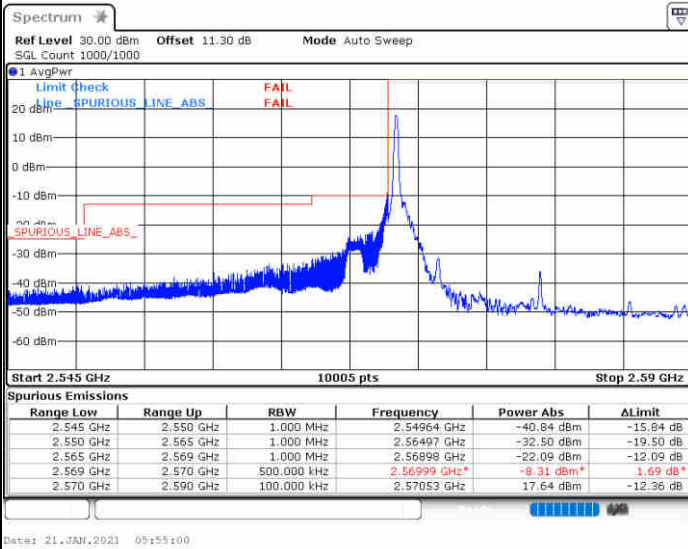
Channel Power < -10dBm Pass



FR1 n38 / 20MHz / DFT-S OFDM QPSK

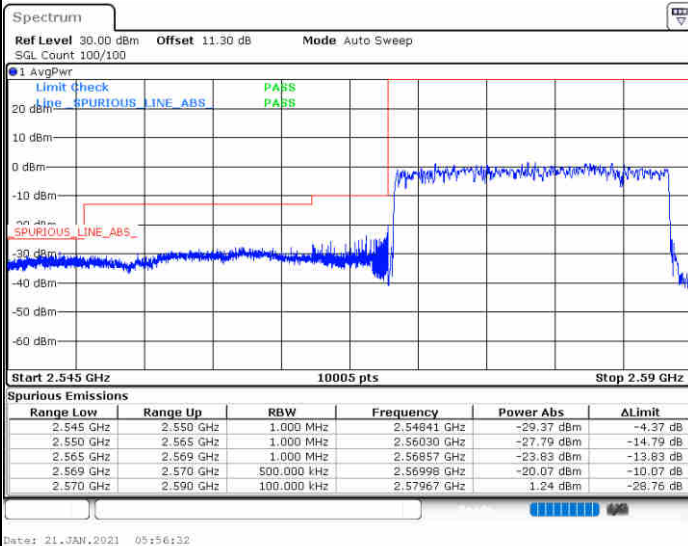
Lowest Band Edge / 1 RB

Channel Power < -10dBm Pass



Lowest Band Edge / Full RB

Channel Power < -10dBm Pass

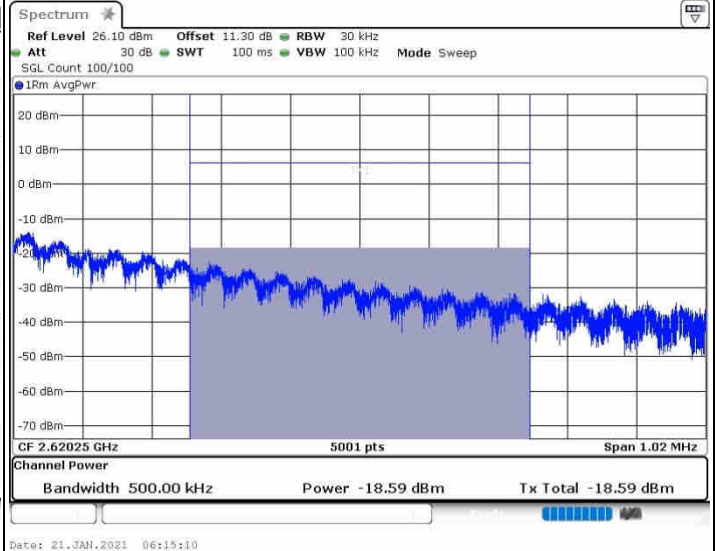
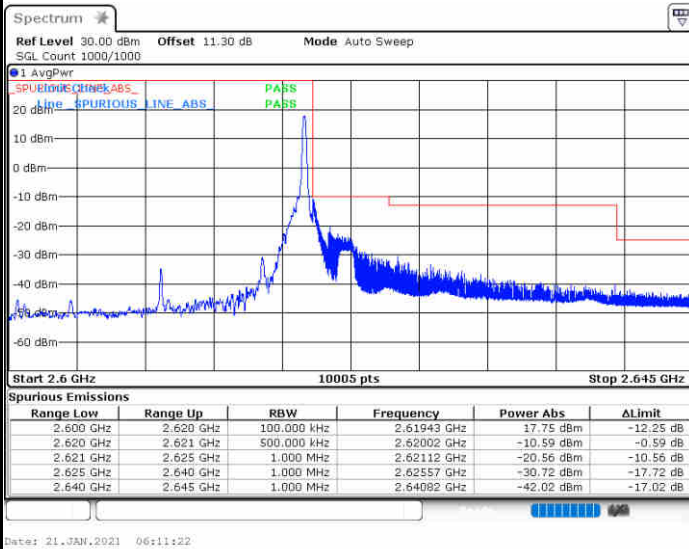




FR1 n38 / 20MHz / DFT-S OFDM QPSK

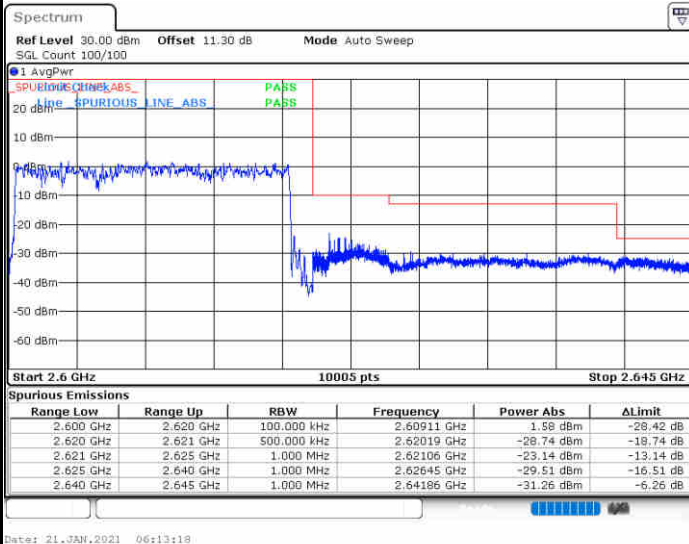
Highest Band Edge / 1 RB

Channel Power < -10dBm Pass



Highest Band Edge / Full RB

Channel Power < -10dBm Pass



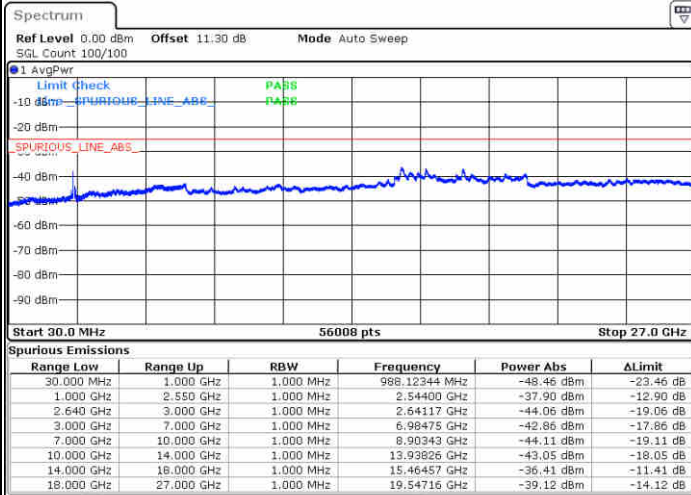


Conducted Spurious Emission

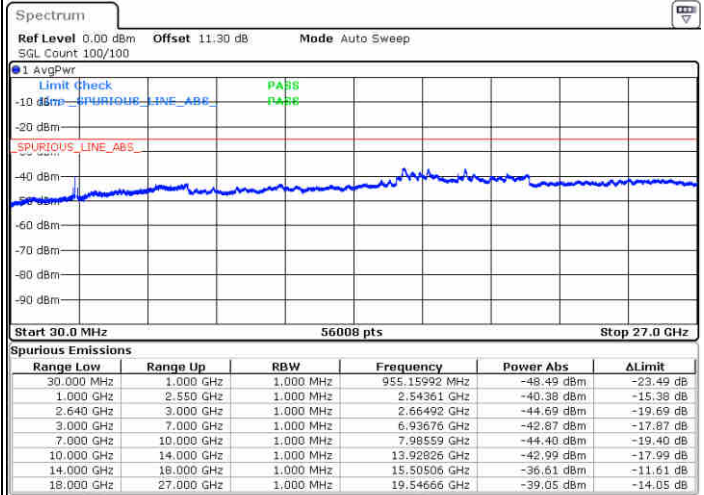
FR1 n38 / 5MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

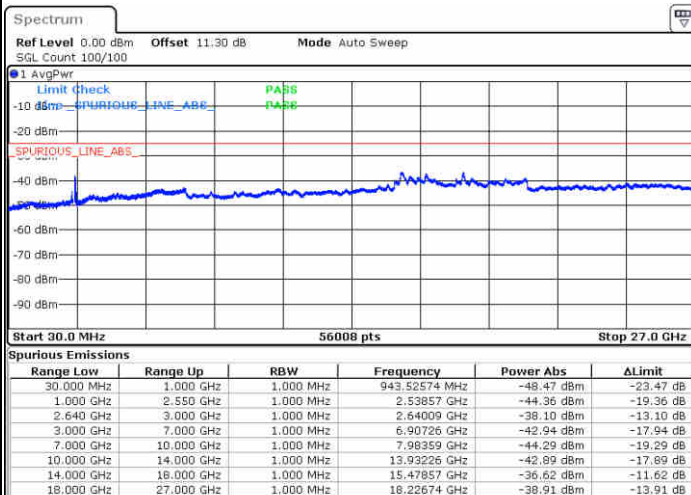


Date: 21.JAN.2021 07:43:56



Date: 21.JAN.2021 06:57:56

Highest Channel / 1RB

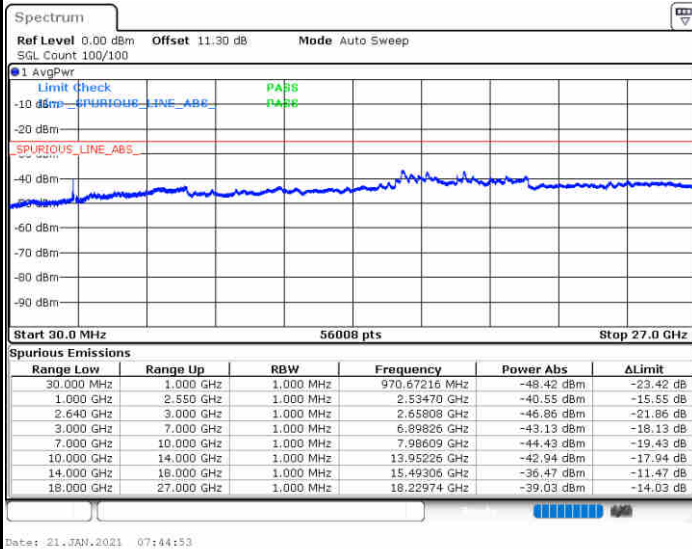


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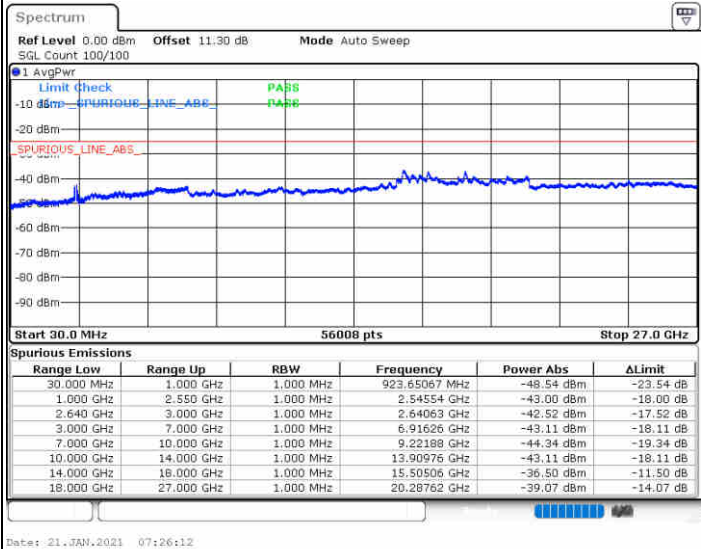


FR1 n38 / 5MHz / DFT-S OFDM / QPSK

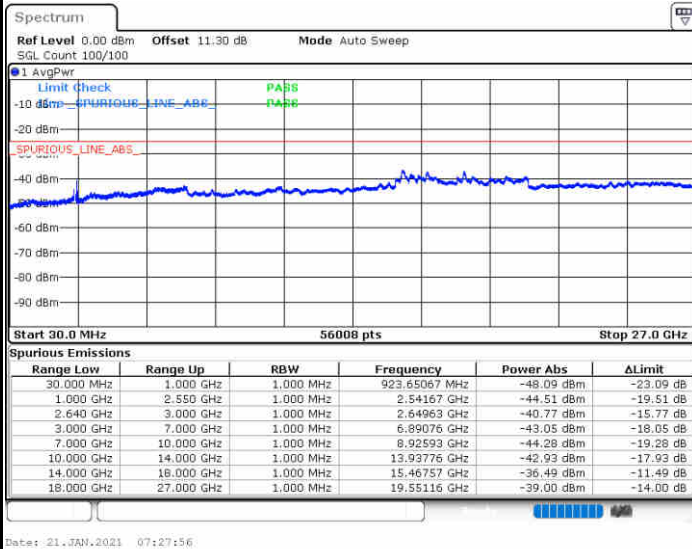
Lowest Channel / 1RB



Middle Channel / 1RB



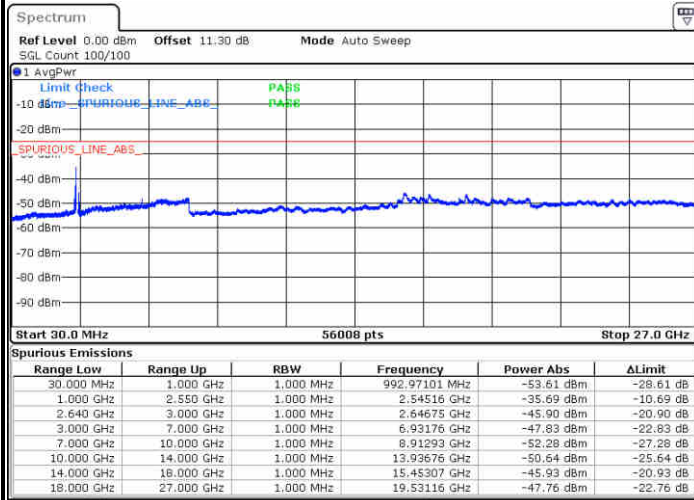
Highest Channel / 1RB





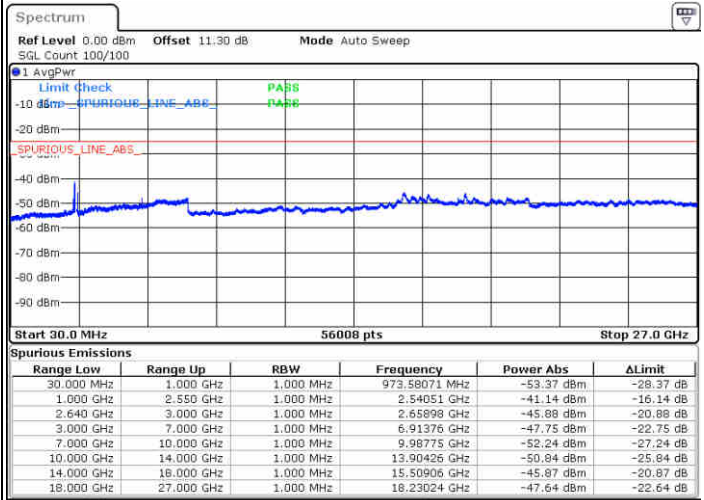
FR1 n38 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



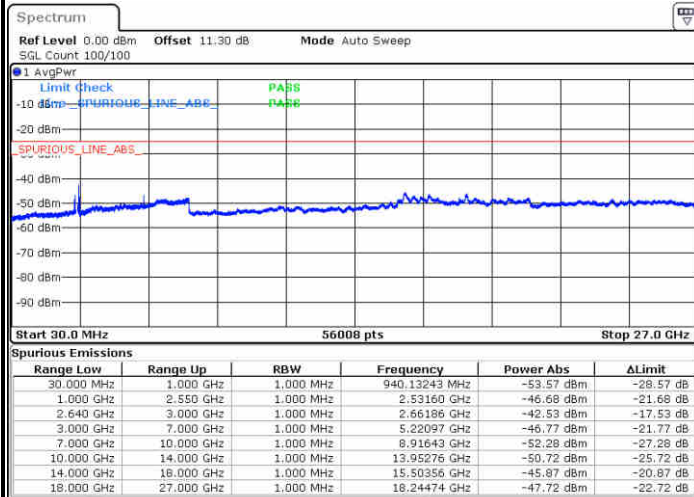
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Middle Channel / 1RB



Date: 21.JAN.2021 06:19:41

Highest Channel / 1RB



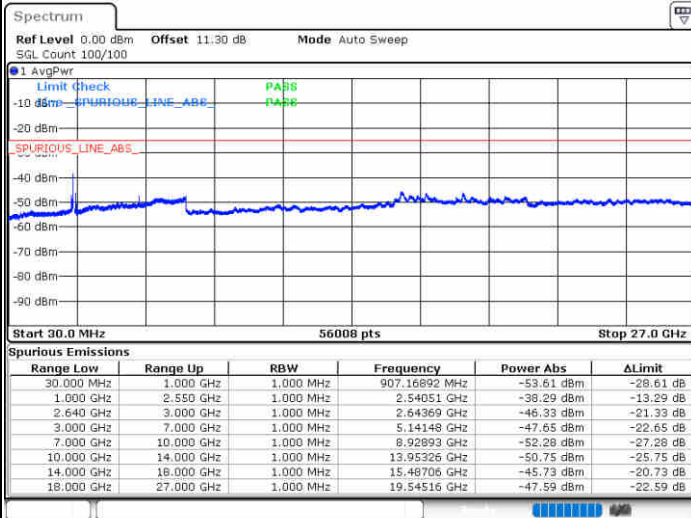
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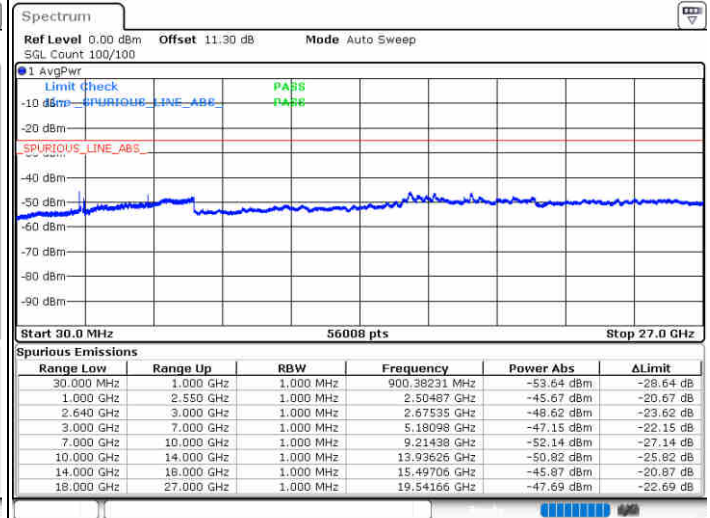
FR1 n38 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

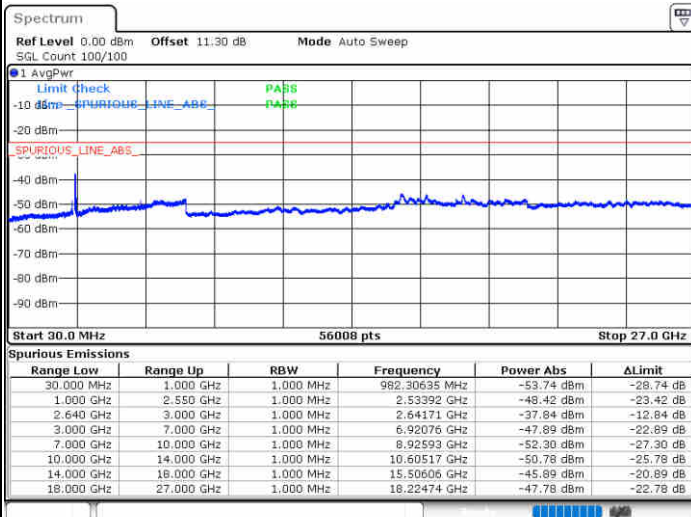


Date: 21.JAN.2021 07:51:38



Date: 21.JAN.2021 06:18:06

Highest Channel / 1RB

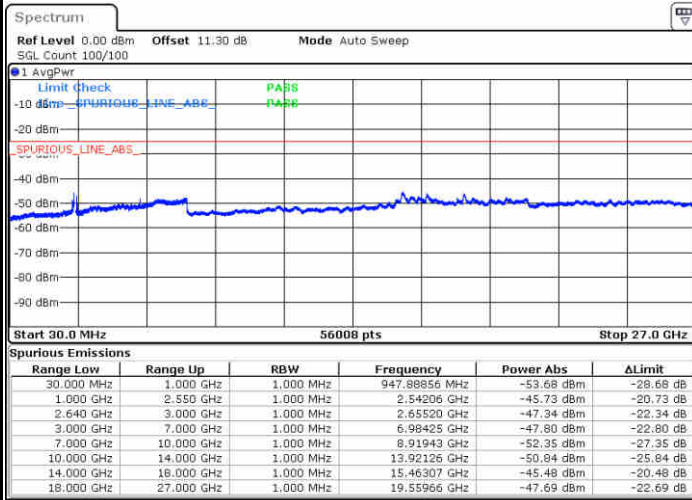


Date: 21.JAN.2021 06:31:01



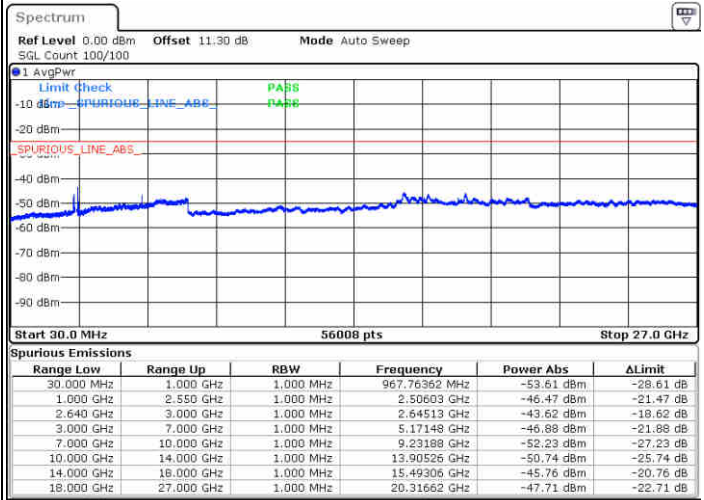
FR1 n38 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



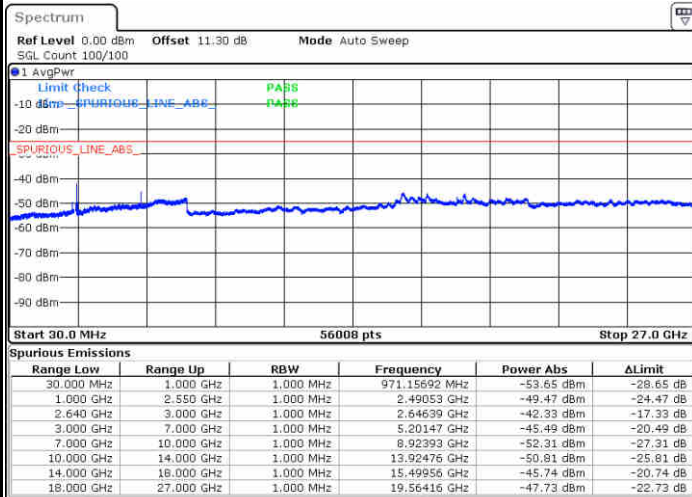
Date: 21.JAN.2021 05:53:13

Middle Channel / 1RB



Date: 21.JAN.2021 05:50:17

Highest Channel / 1RB

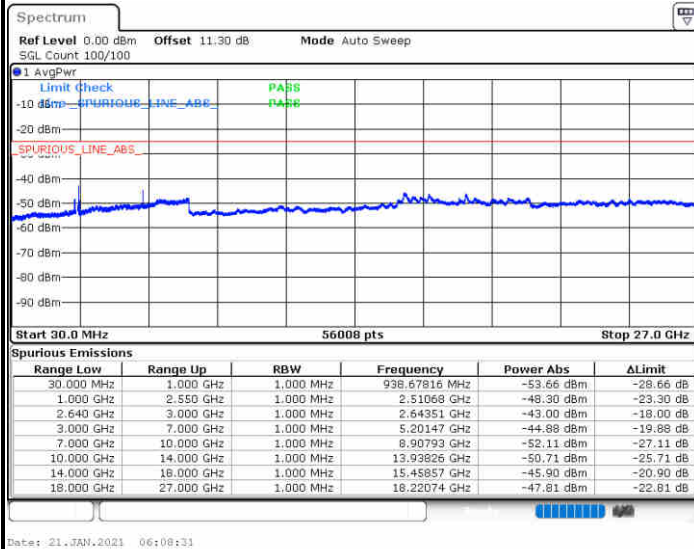


Date: 21.JAN.2021 06:04:54

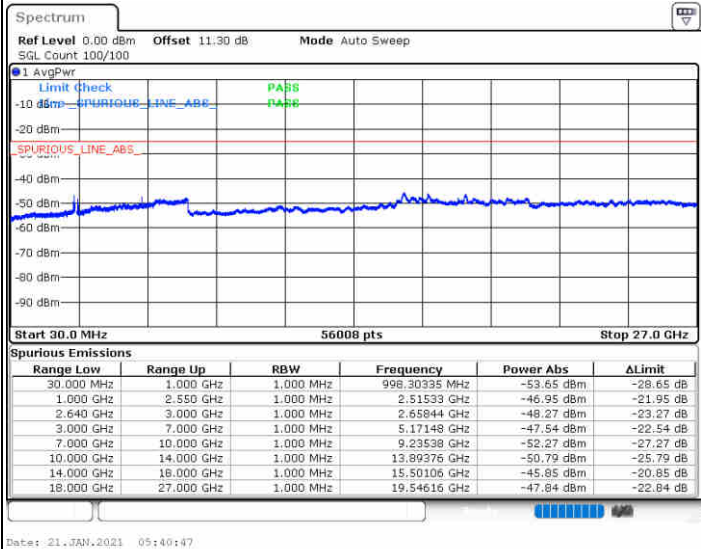


FR1 n38 / 20MHz / DFT-S OFDM / QPSK

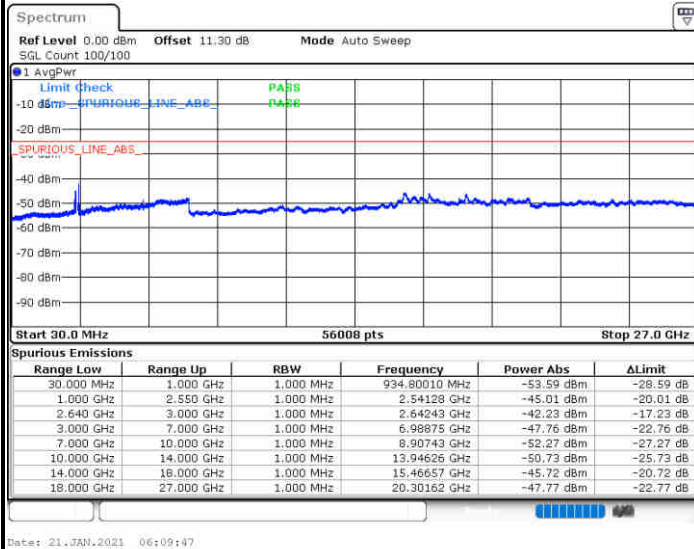
Lowest Channel / 1RB



Middle Channel / 1RB



Highest Channel / 1RB



Frequency Stability

Test Conditions		NR n38 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0001	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0004	

Note:

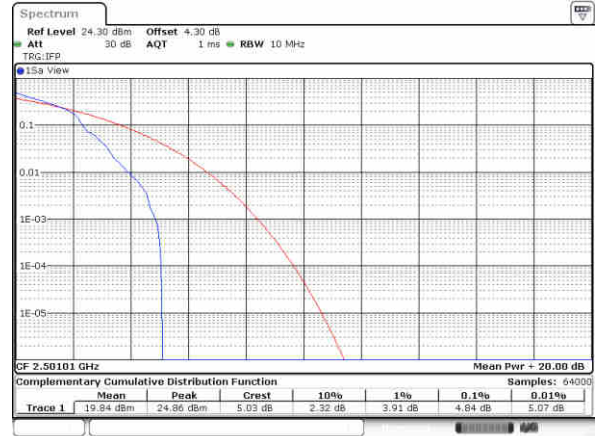
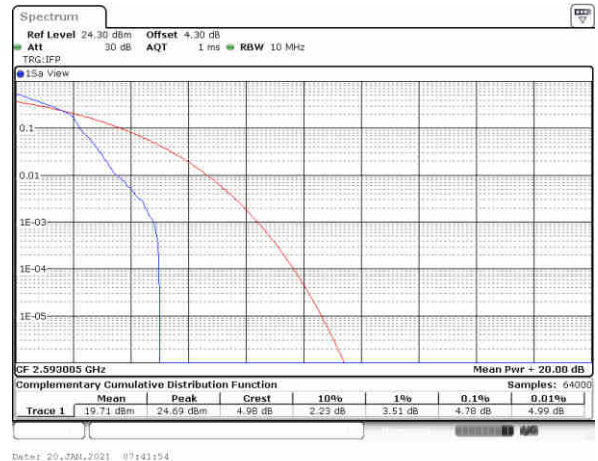
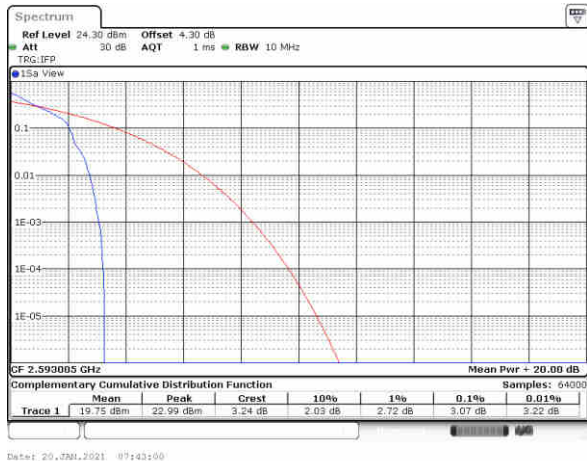
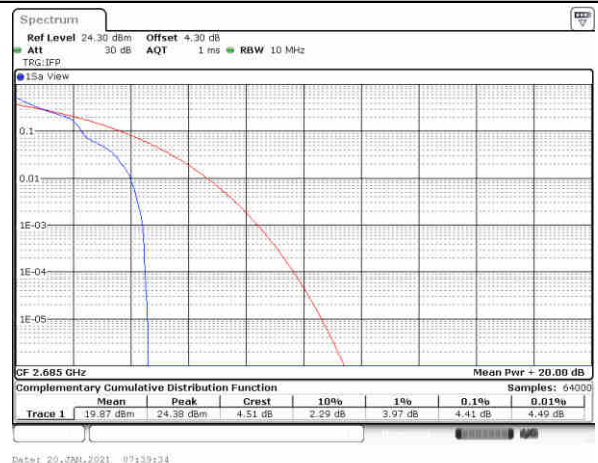
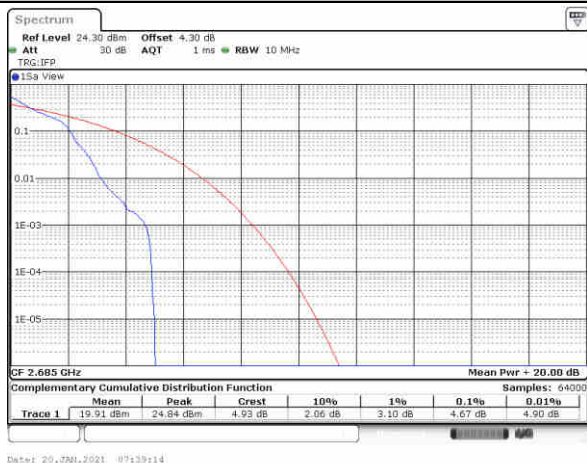
1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.14 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

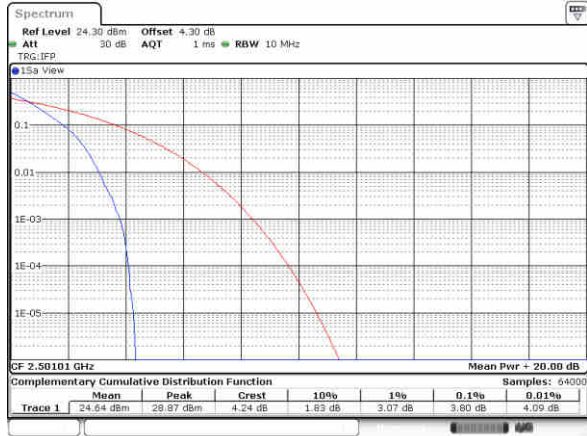


5G NR n41 SA-SCS 15K

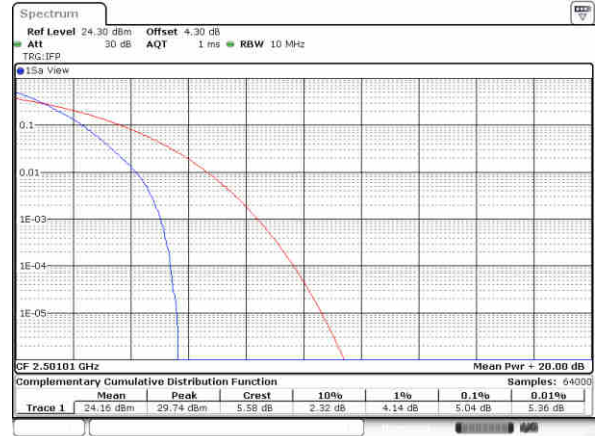
Peak-to-Average Ratio

Mode	FR1 n41 / 10MHz / 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	4.52	3.8	4.84	5.04	PASS
Middle CH	3.07	3.68	4.78	4.96	
Highest CH	4.67	3.74	4.41	5.22	

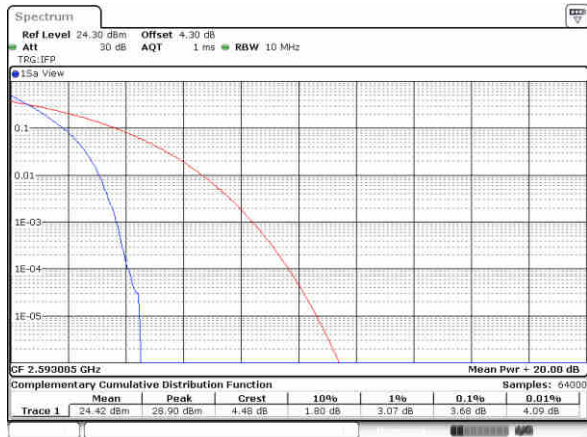
FR1 n41 / 10MHz / DFT-S OFDM
PI/2 BPSK
QPSK
Lowest Channel / 1RB
Lowest Channel / 1RB

Middle Channel / 1 RB
Middle Channel / 1 RB

Highest Channel / 1 RB
Highest Channel / 1 RB


FR1 n41 / 10MHz / DFT-S OFDM
PI/2 BPSK
QPSK
Lowest Channel / Full RB
Lowest Channel / Full RB


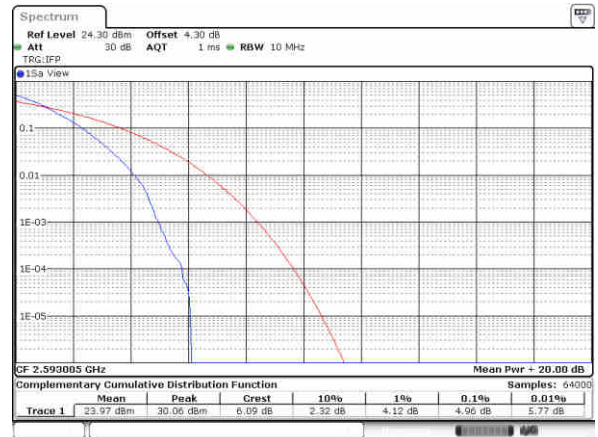
Date: 20, JAN, 2021 @ 9:13:12



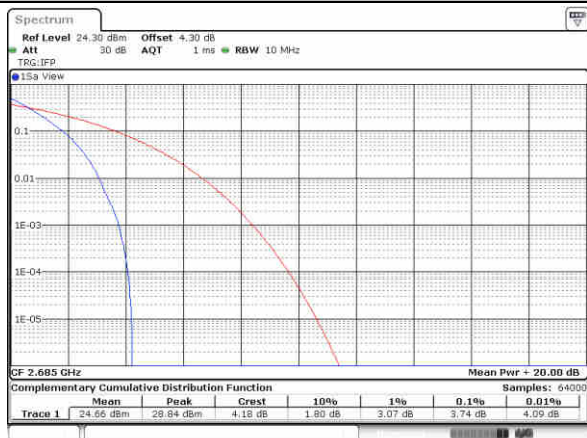
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Middle Channel / Full RB
Middle Channel / Full RB


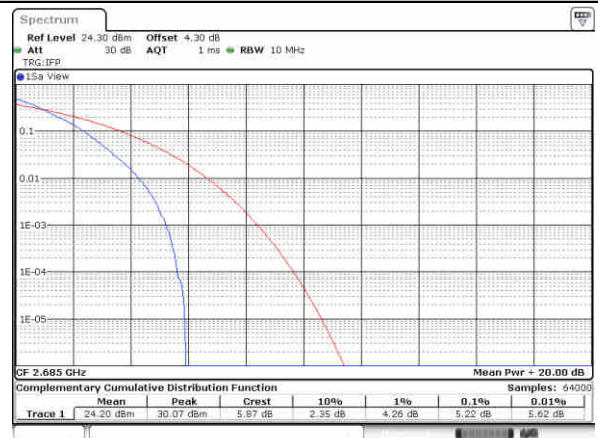
Date: 20, JAN, 2021 @ 9:13:13



Date: 20, JAN, 2021 @ 9:13:09

Highest Channel / Full RB
Highest Channel / Full RB


Date: 20, JAN, 2021 @ 9:13:16



Date: 20, JAN, 2021 @ 9:13:03

**26dB Bandwidth**

Mode	FR1 n41 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.85	9.61	9.67	9.67				

Mode	FR1 n41 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.83	14.86	14.89	14.83				

Mode	FR1 n41 : 26dB BW(MHz) / CP-OFDM							
BW	30MHz	30MHz	30MHz	30MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	29.37	29.49	29.43	29.67				

Mode	FR1 n41 : 26dB BW(MHz) / CP-OFDM							
BW	40MHz	40MHz	40MHz	40MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	40.83	40.91	40.91	40.83				



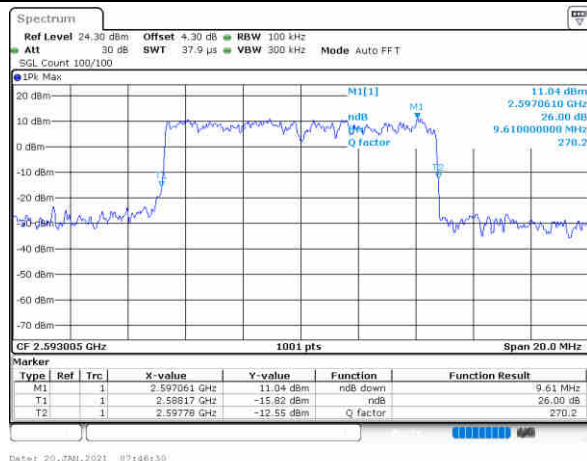
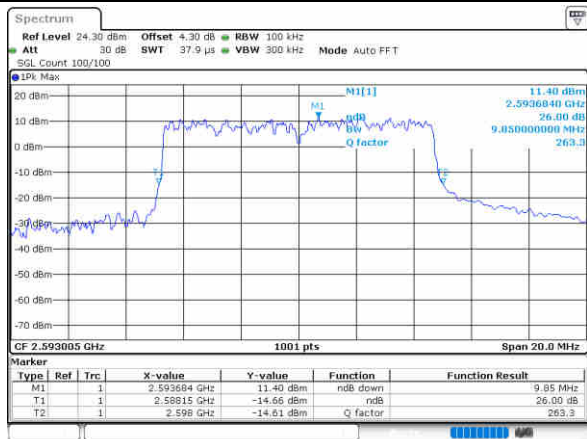
FR1 n41 / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

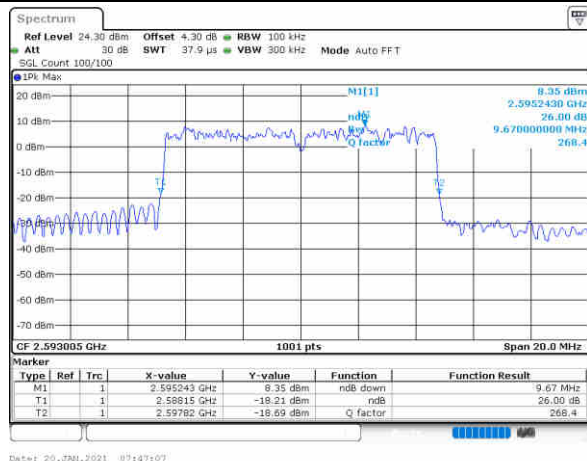
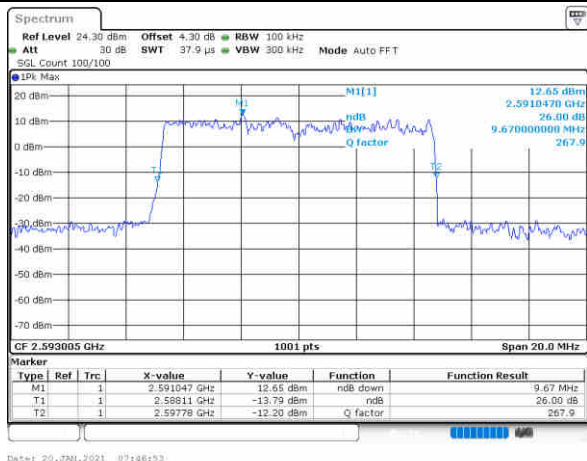


64QAM

256QAM

Middle Channel

Middle Channel





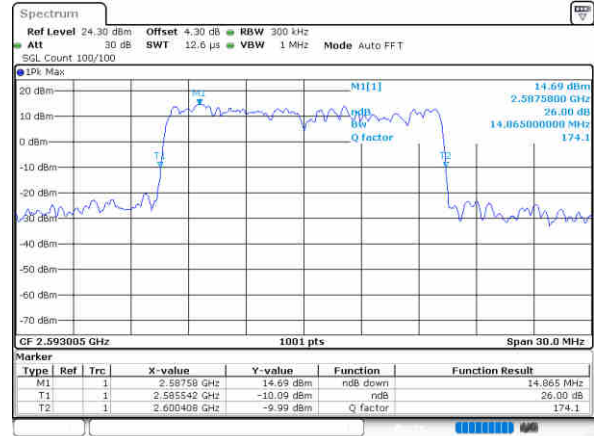
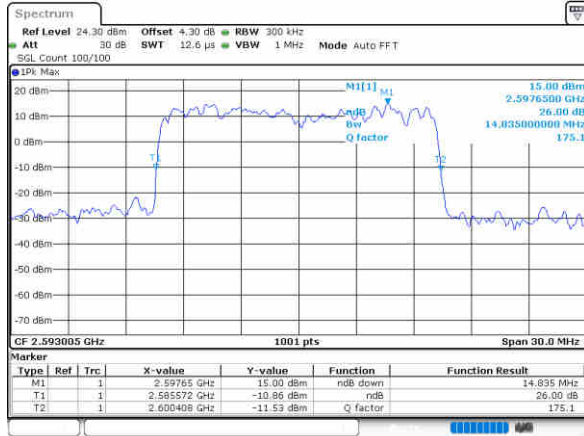
FR1 n41 / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

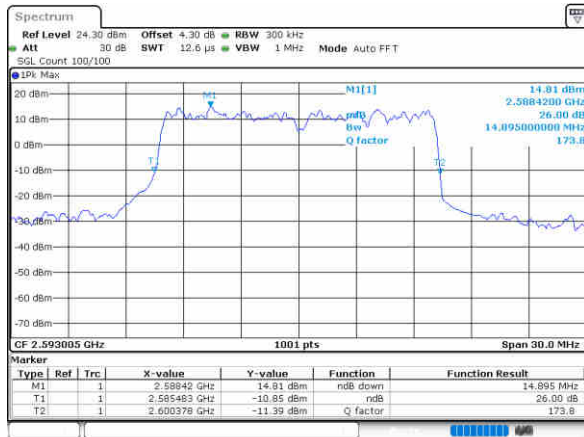


64QAM

256QAM

Middle Channel

Middle Channel





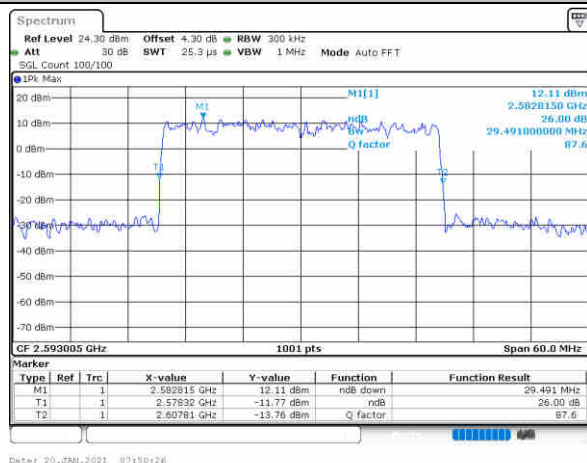
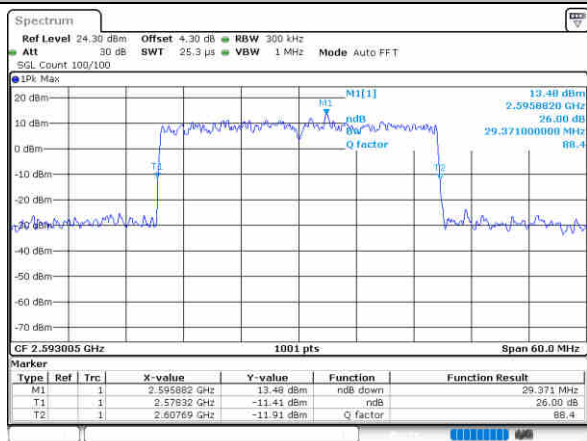
FR1 n41 / 30MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

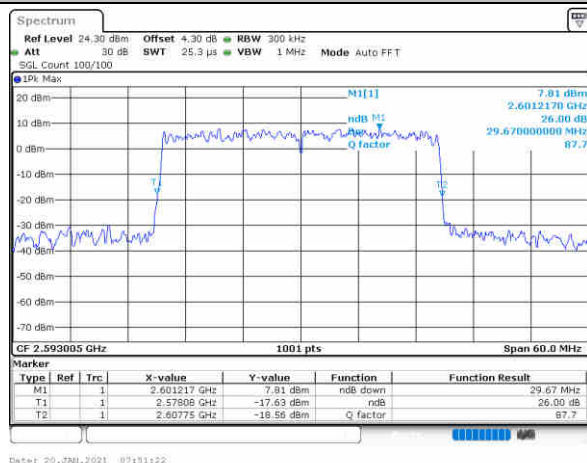
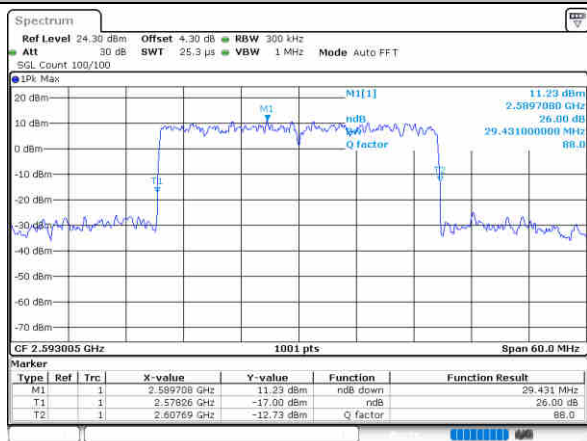


64QAM

256QAM

Middle Channel

Middle Channel





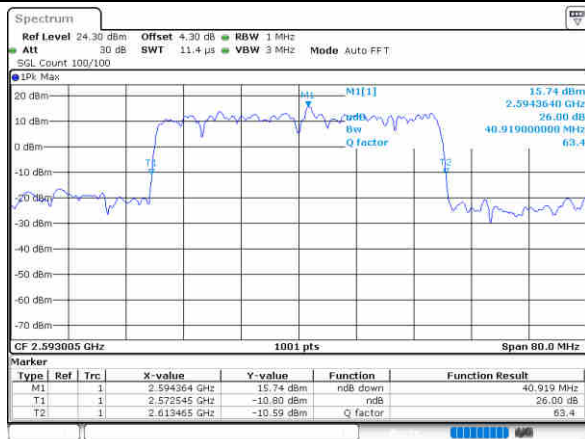
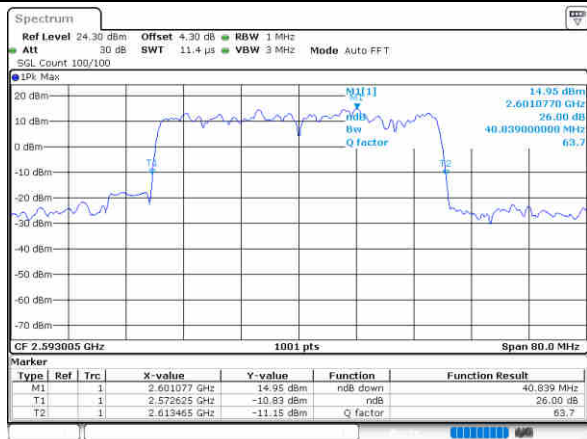
FR1 n41 / 40MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

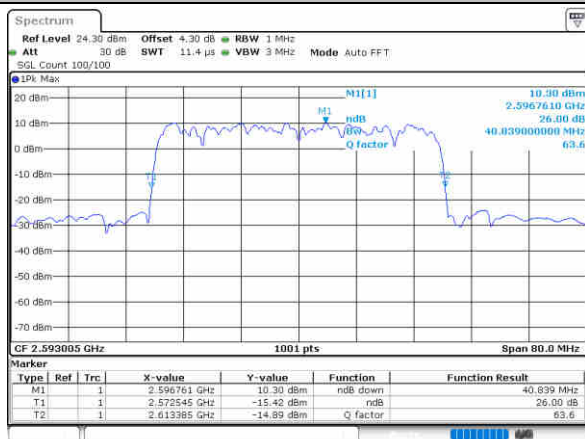
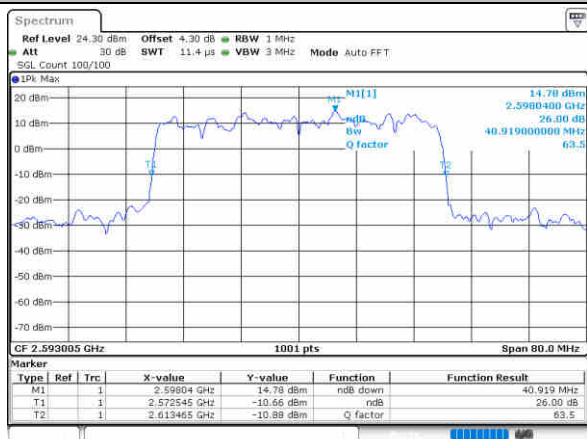


64QAM

256QAM

Middle Channel

Middle Channel



**Occupied Bandwidth**

Mode	FR1 n41 : OBW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.25	9.31	9.29	9.27				

Mode	FR1 n41 : OBW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.26	14.17	14.14	14.23				

Mode	FR1 n41 : OBW(MHz) / CP-OFDM							
BW	30MHz	30MHz	30MHz	30MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	28.59	28.47	28.53	28.47				

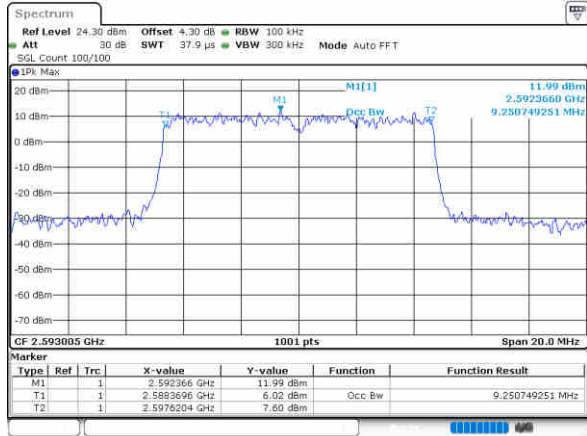
Mode	FR1 n41 : OBW(MHz) / CP-OFDM							
BW	40MHz	40MHz	40MHz	40MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	38.6	38.84	38.44	38.76				



FR1 n41 / 10MHz / CP-OFDM

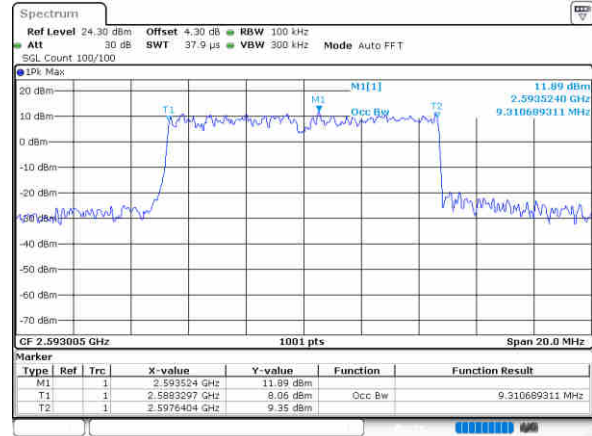
QPSK

Middle Channel



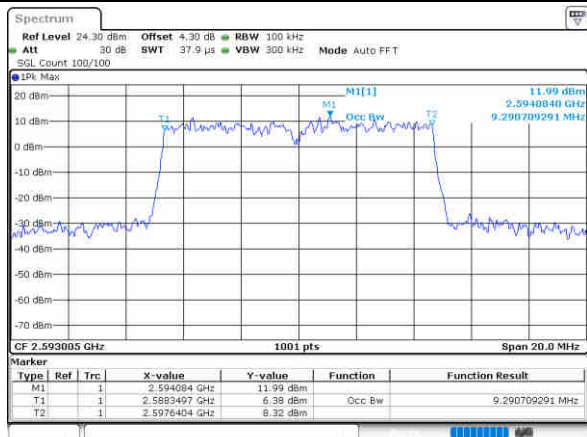
16QAM

Middle Channel



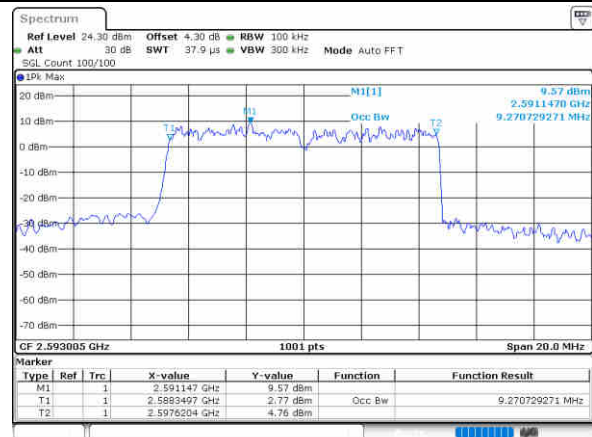
64QAM

Middle Channel



256QAM

Middle Channel

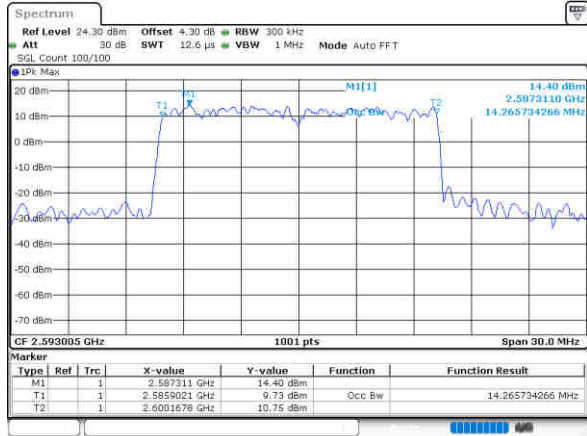




FR1 n41 / 15MHz / CP-OFDM

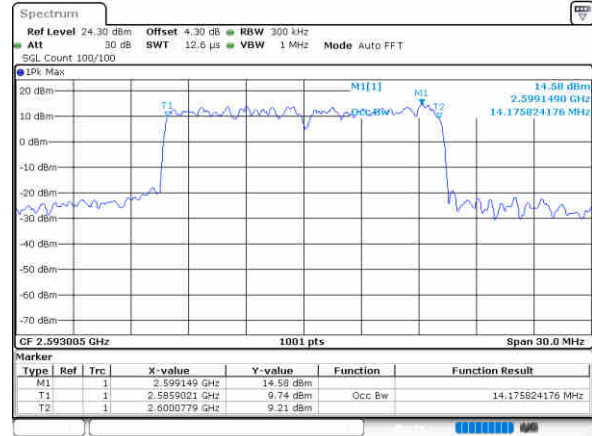
QPSK

Middle Channel



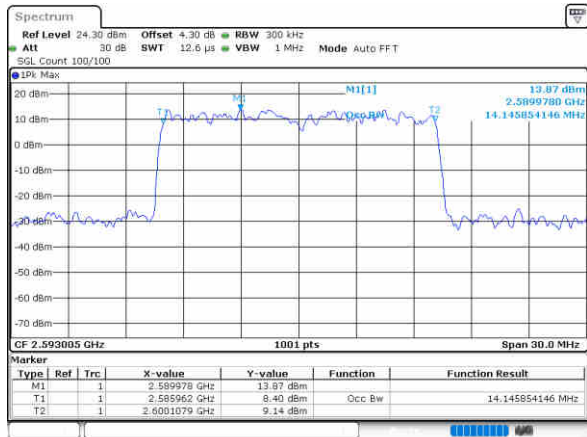
16QAM

Middle Channel



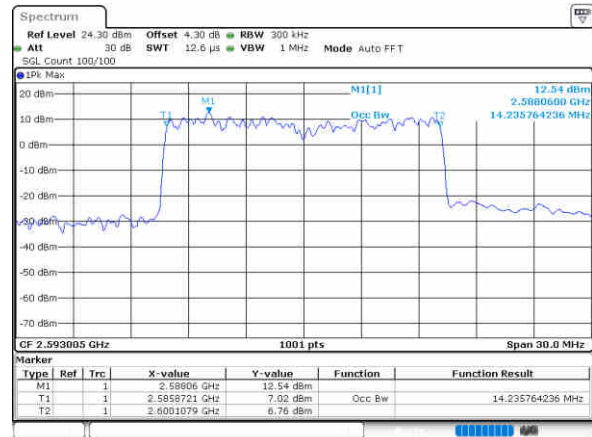
64QAM

Middle Channel



256QAM

Middle Channel

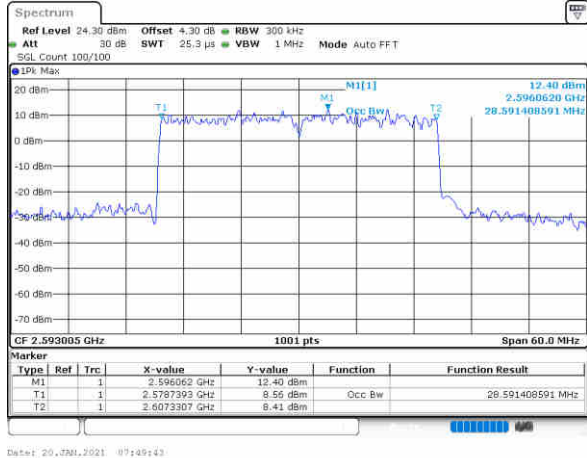




FR1 n41 / 30MHz / CP-OFDM

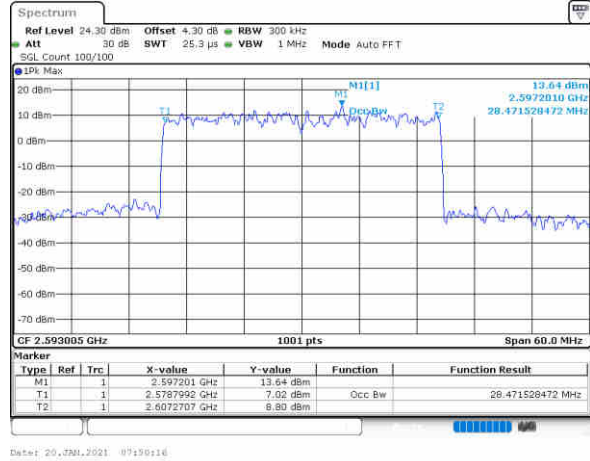
QPSK

Middle Channel



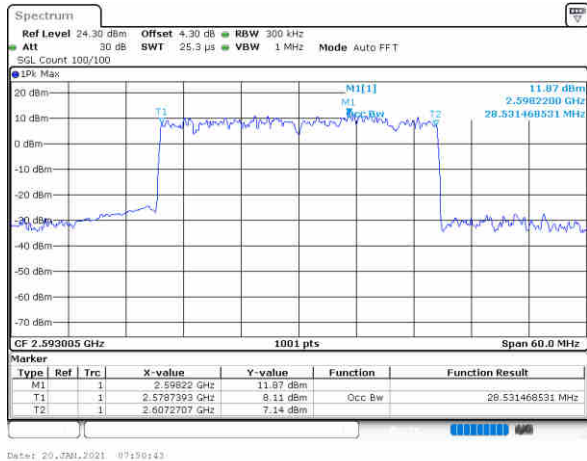
16QAM

Middle Channel



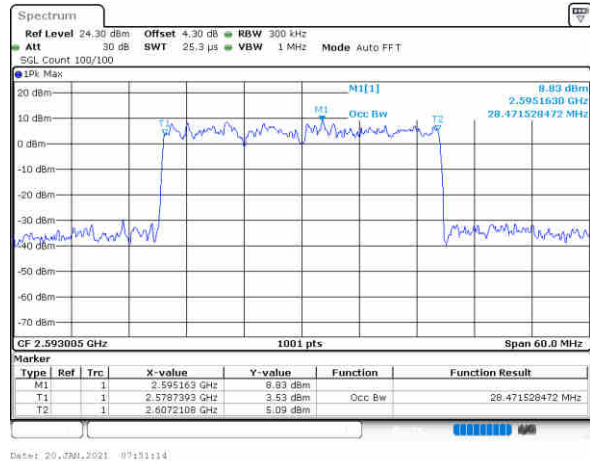
64QAM

Middle Channel



256QAM

Middle Channel

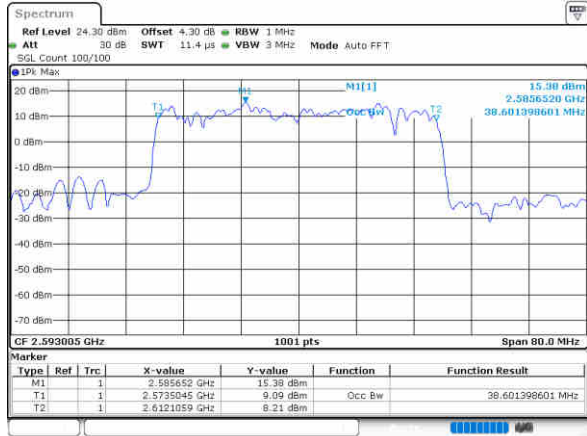




FR1 n41 / 40MHz / CP-OFDM

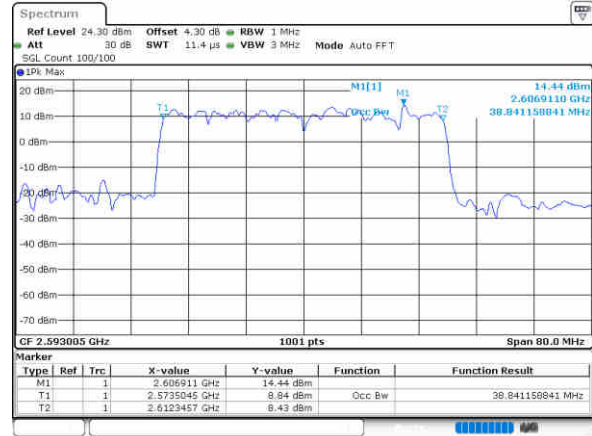
QPSK

Middle Channel



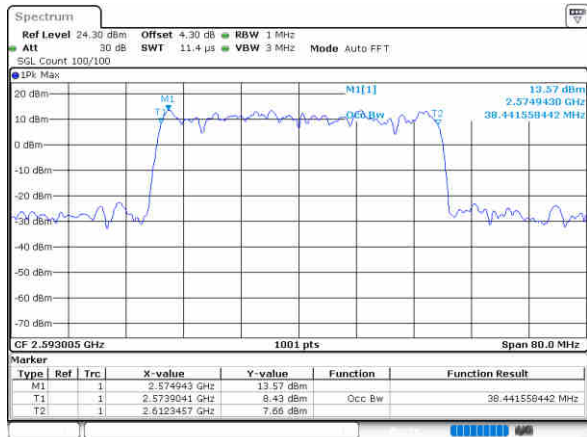
16QAM

Middle Channel



64QAM

Middle Channel



256QAM

Middle Channel



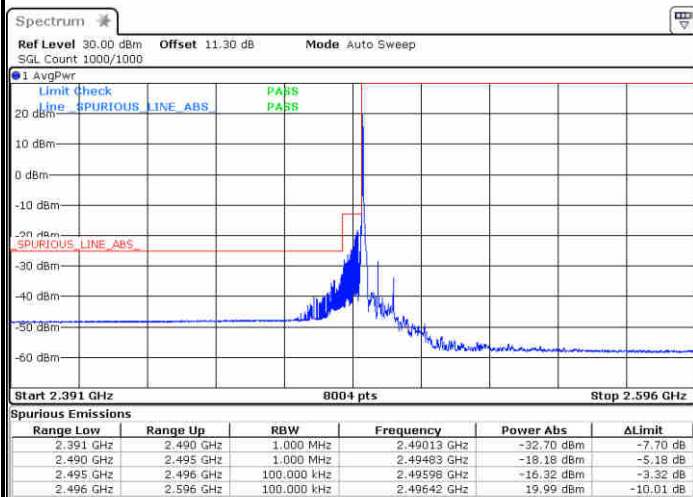


Conducted Band Edge

FR1 n41 / 10MHz / DFT-S OFDM BPSK

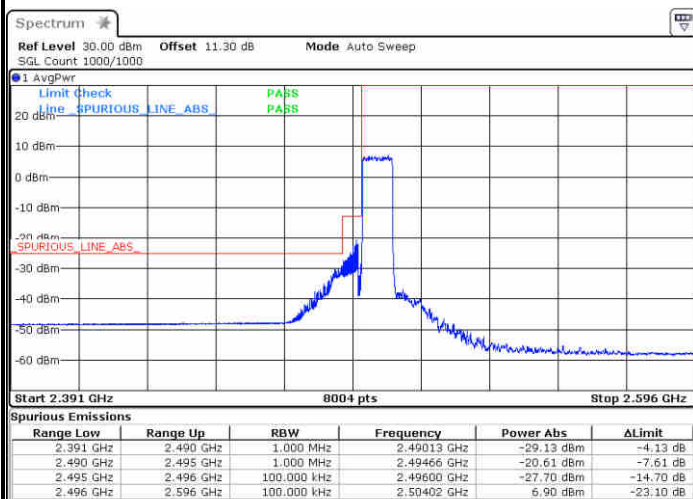
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

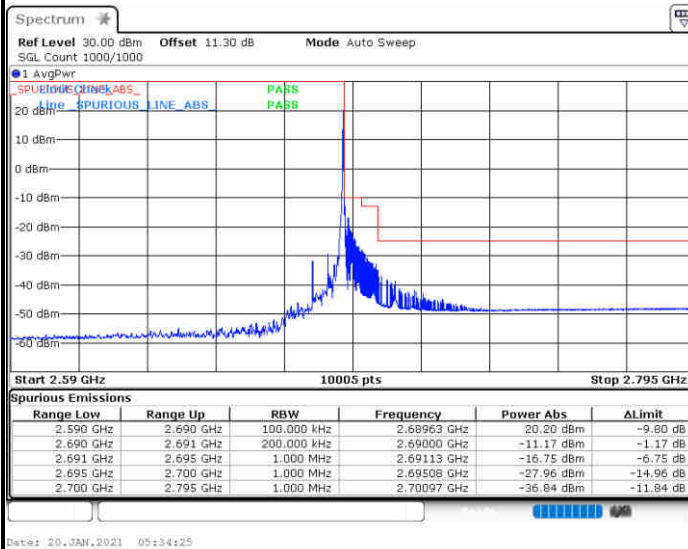
Channel Power < -13dBm Pass



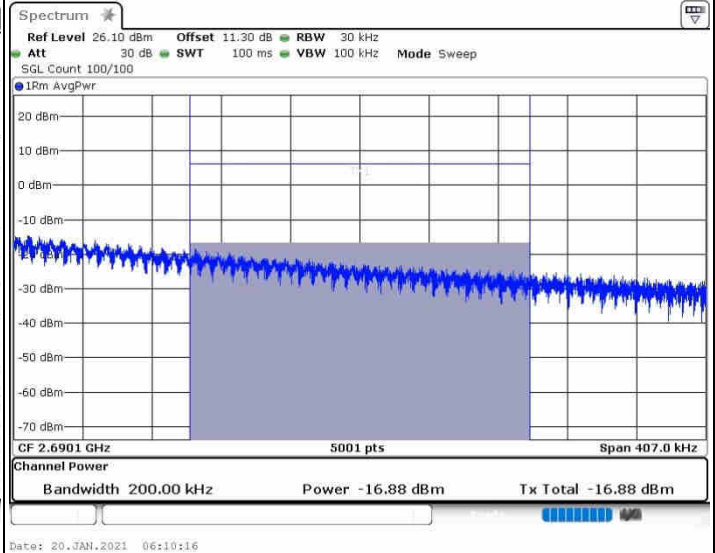


FR1 n41 / 10MHz / DFT-S OFDM BPSK

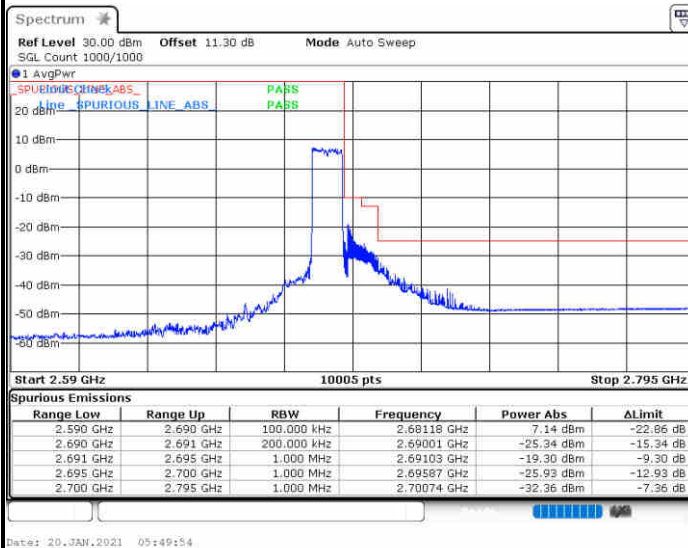
Highest Band Edge / 1 RB



Channel Power < -10dBm Pass



Highest Band Edge / Full RB



Channel Power < -10dBm Pass

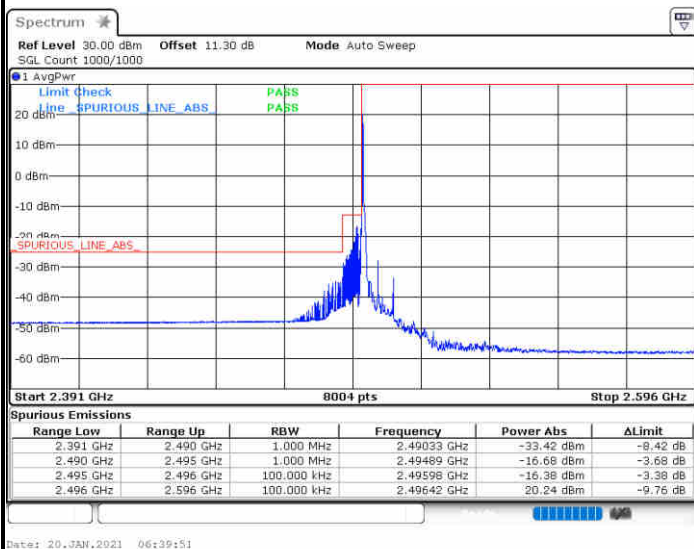
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FR1 n41 / 10MHz / DFT-S OFDM QPSK

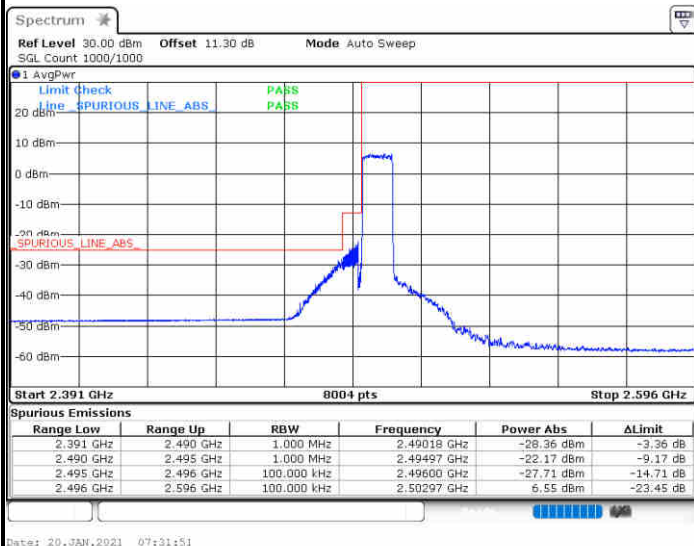
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

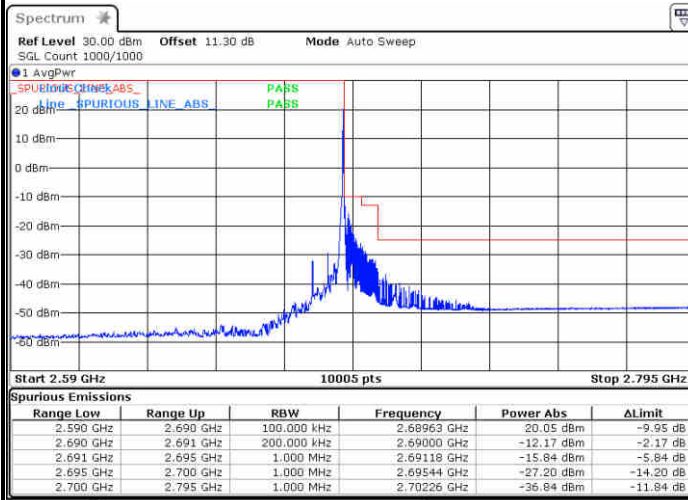
Channel Power < -13dBm Pass



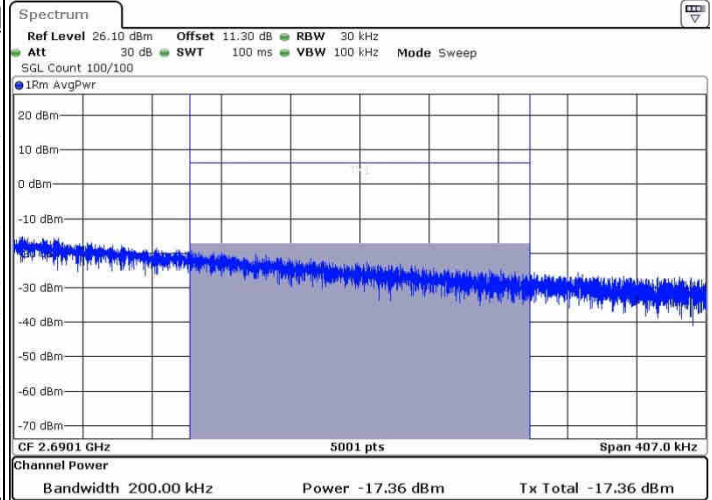


FR1 n41 / 10MHz / DFT-S OFDM QPSK

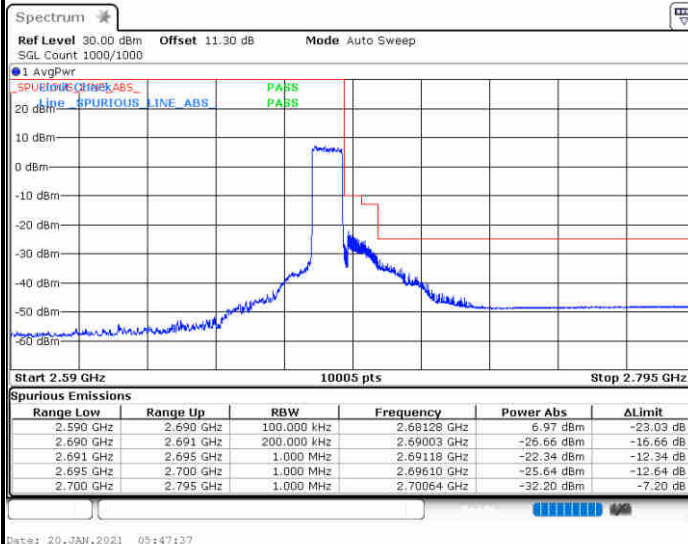
Highest Band Edge / 1 RB



Channel Power < -10dBm Pass



Highest Band Edge / Full RB



Channel Power < -10dBm Pass

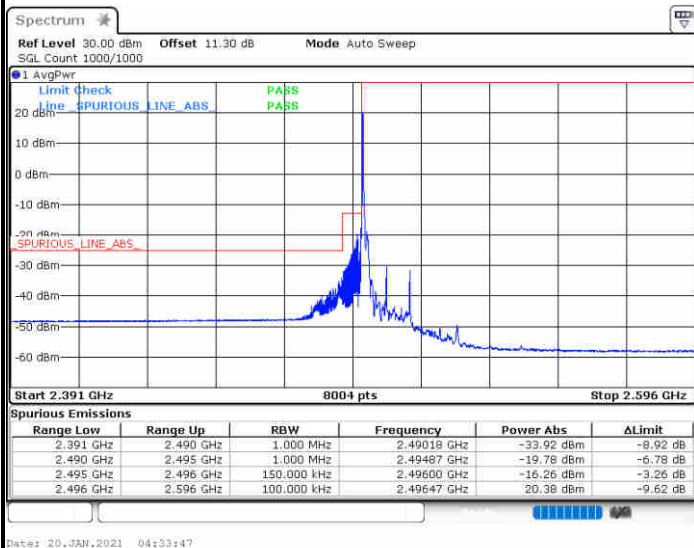
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FR1 n41 / 15MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

