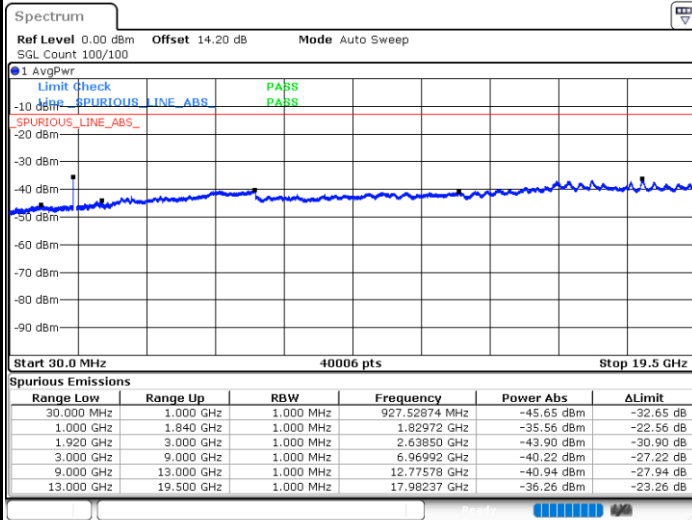




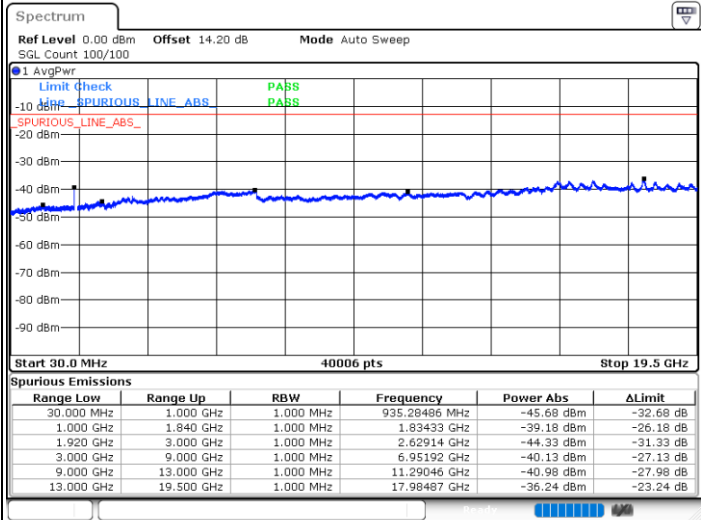
FR1 n2+5A / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



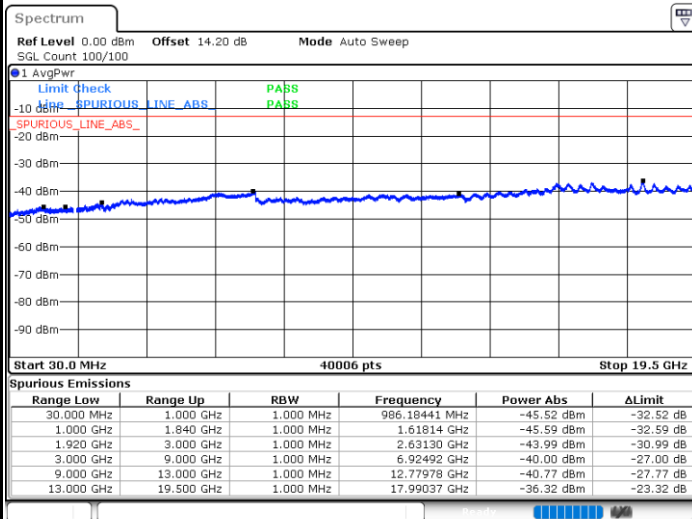
Date: 18.JUL.2020 06:30:39

Middle Channel / 1RB



Date: 18.JUL.2020 07:25:05

Highest Channel / 1RB

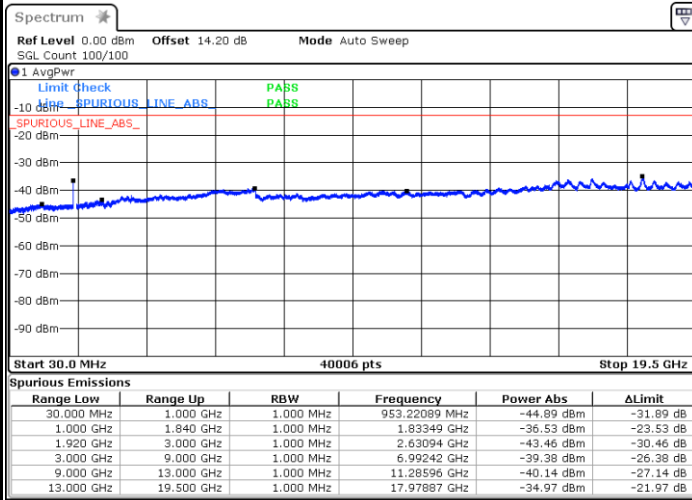


Date: 18.JUL.2020 08:05:38



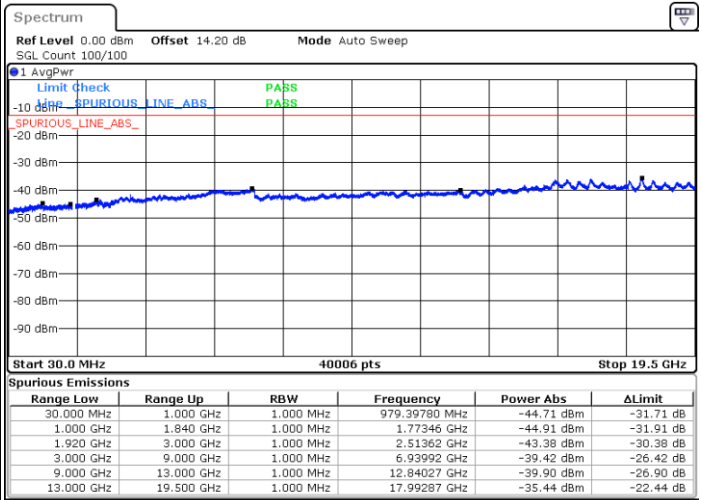
FR1 n2+5A / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



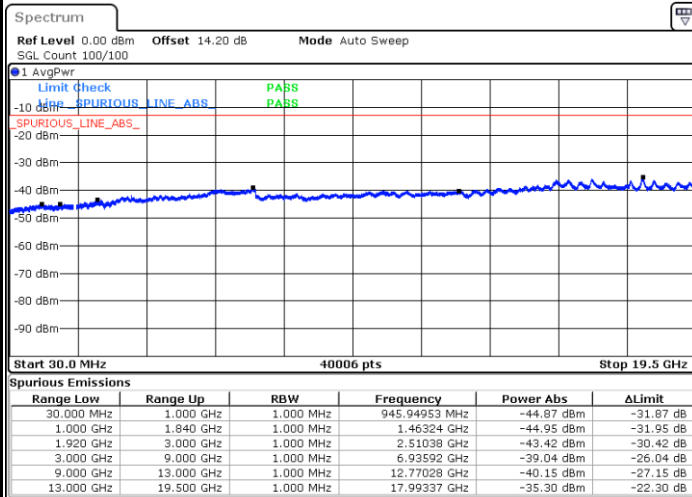
Date: 13.JUL.2020 17:27:01

Middle Channel / 1RB



Date: 13.JUL.2020 18:44:43

Highest Channel / 1RB

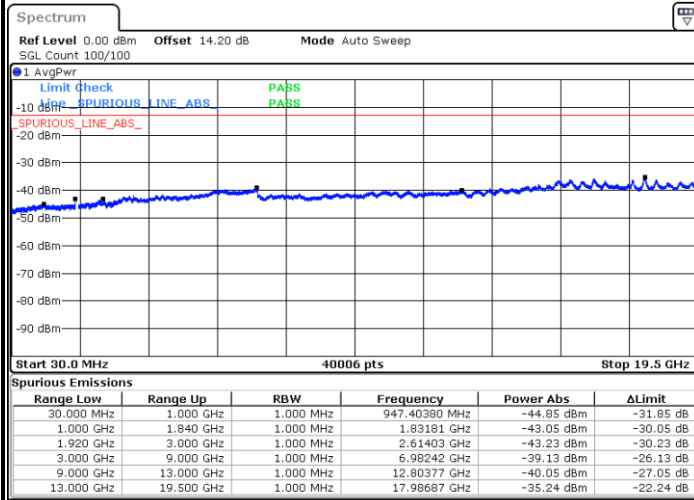


Date: 13.JUL.2020 19:19:12



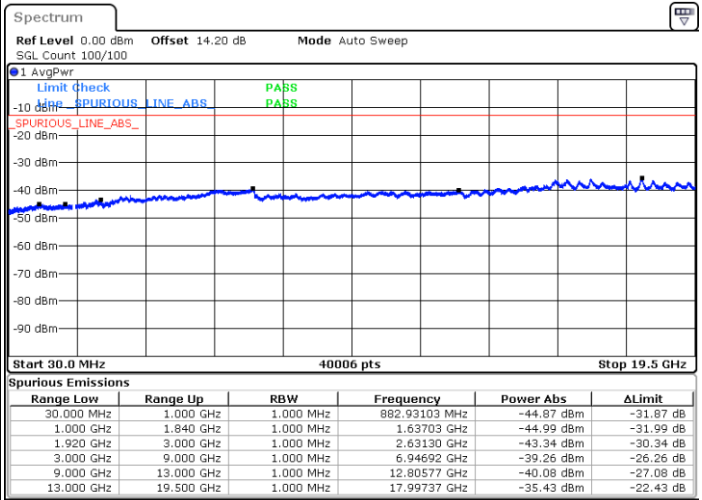
FR1 n2+5A / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



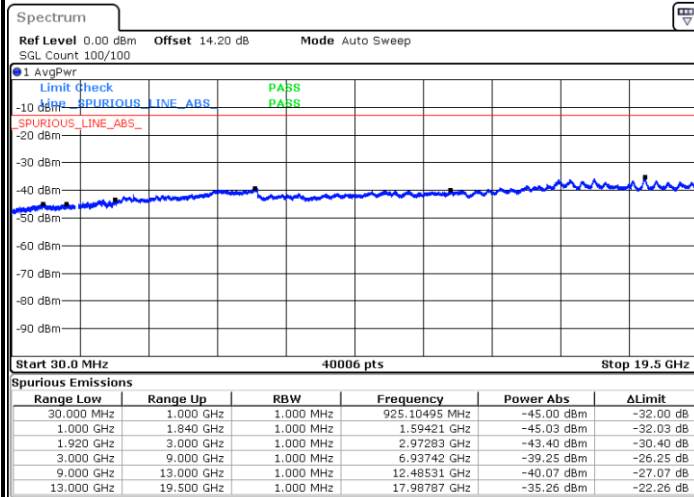
Date: 13.JUL.2020 17:37:10

Middle Channel / 1RB



Date: 13.JUL.2020 18:52:15

Highest Channel / 1RB



Date: 13.JUL.2020 19:22:11

**Frequency Stability**

Test Conditions		NR n2+5A (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0015	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0015	



SA

Peak-to-Average Ratio

Mode	FR1 n2 / 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	5.3	5.42	5.88	7.54	PASS
Middle CH	4.58	6.12	6	5.8	
Highest CH	5.19	5.94	5.65	6.38	



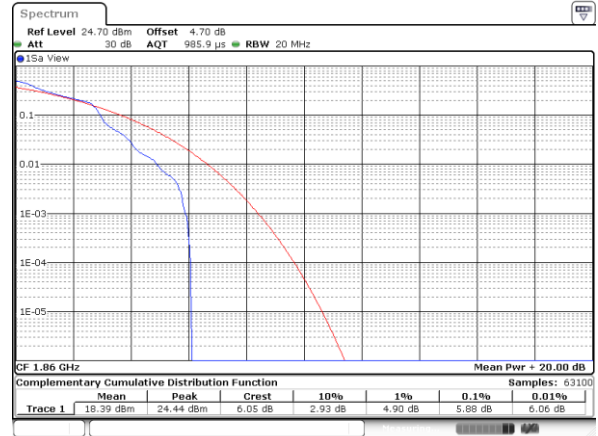
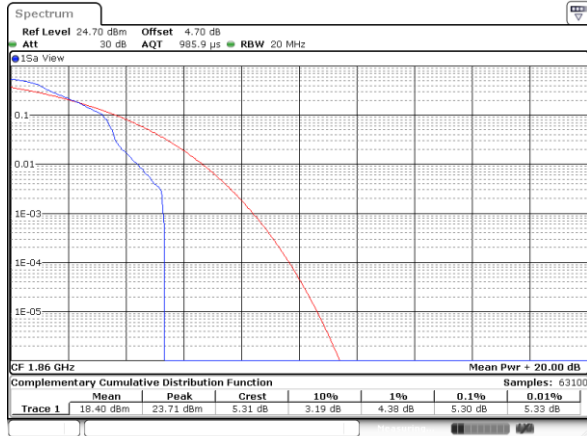
FR1 n2 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

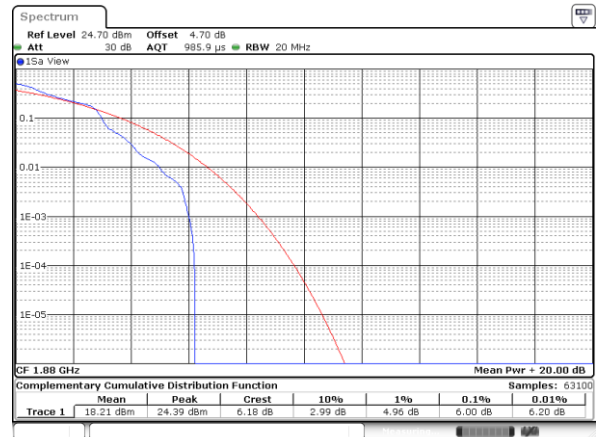
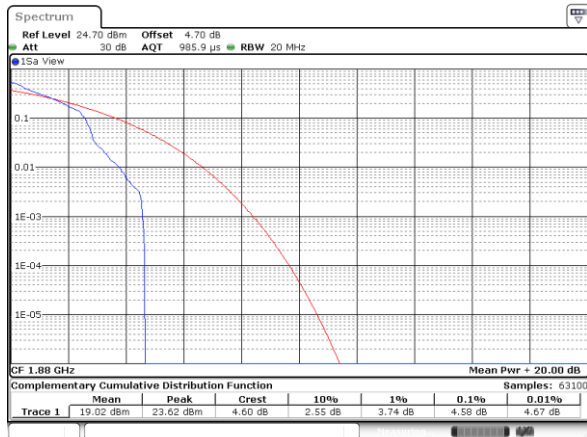
Lowest Channel / 1RB

Lowest Channel / 1RB



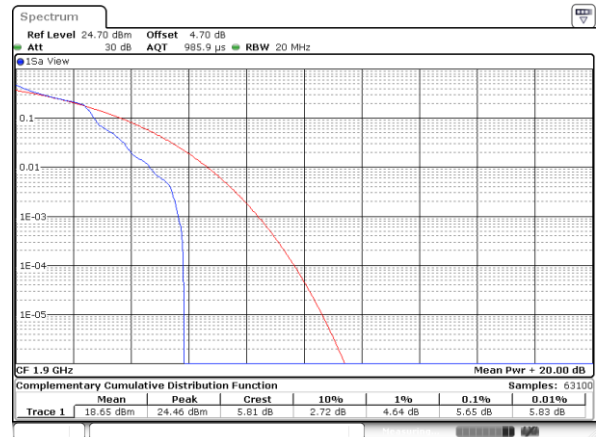
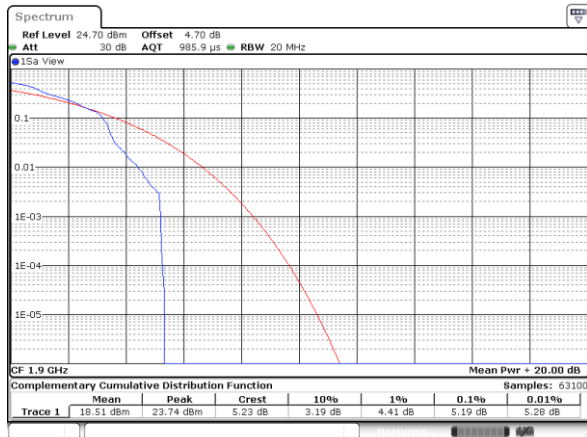
Middle Channel / 1 RB

Middle Channel / 1 RB



Highest Channel / 1 RB

Highest Channel / 1 RB





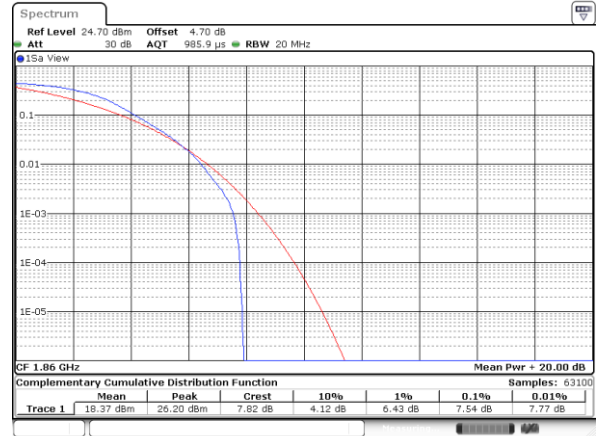
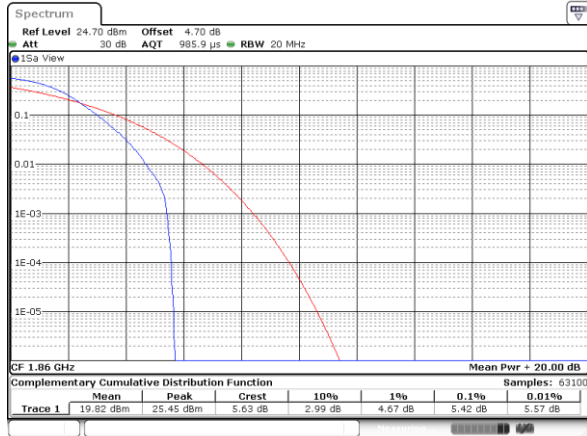
FR1 n2 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

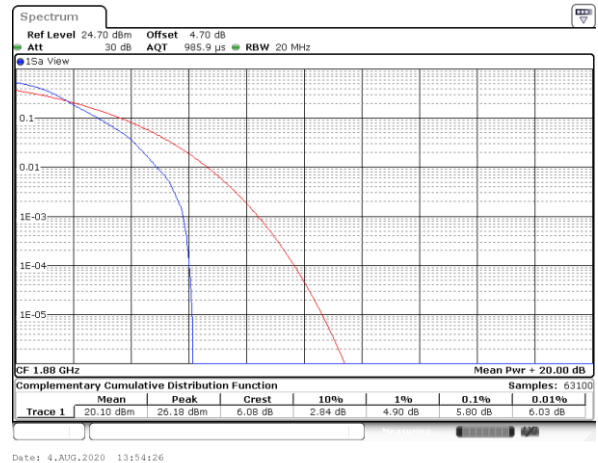
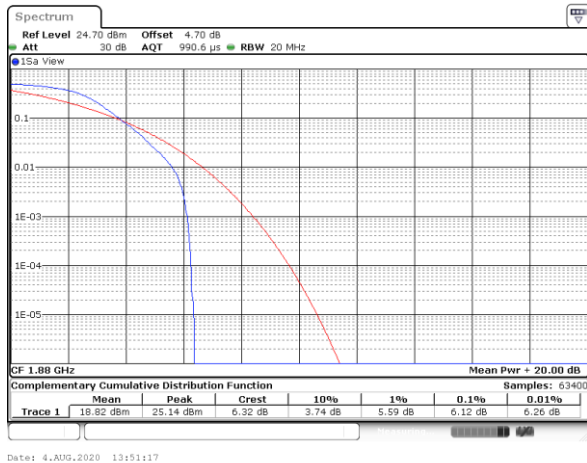
Lowest Channel / Full RB

Lowest Channel / Full RB



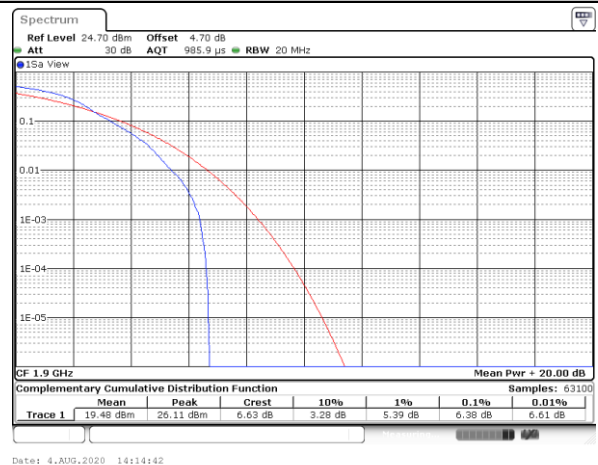
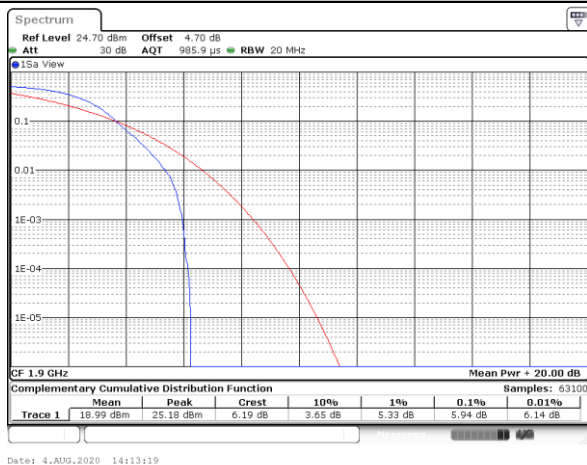
Middle Channel / Full RB

Middle Channel / Full RB



Highest Channel / Full RB

Highest Channel / Full RB



**26dB Bandwidth**

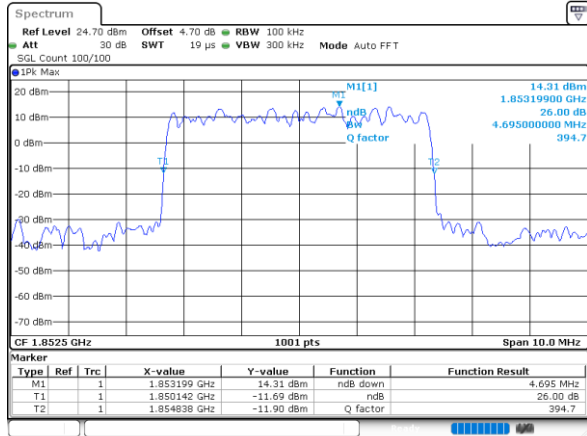
Mode	FR1 n2 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz	5MHz	10MHz	10MHz	20MHz	20MHz		
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Lowest CH	4.69	4.76	9.21	9.33	18.66	18.66		
Middle CH	4.91	4.69	9.23	9.41	18.66	18.66		
Highest CH	5	4.7	9.27	9.29	18.66	18.62		



FR1 n2 / 5MHz / DFT-S OFDM

PI/2 BPSK

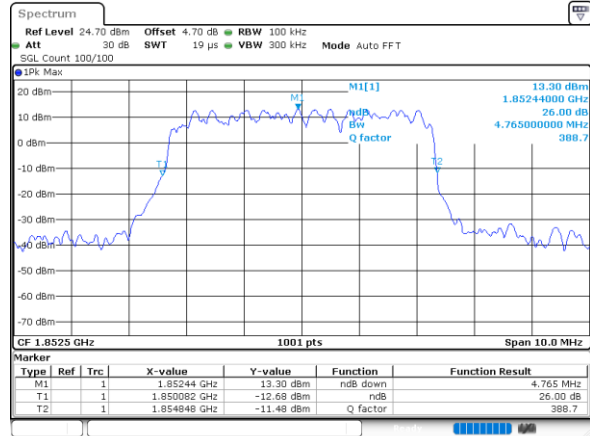
Lowest Channel



Date: 18_JUL_2020 17:07:13

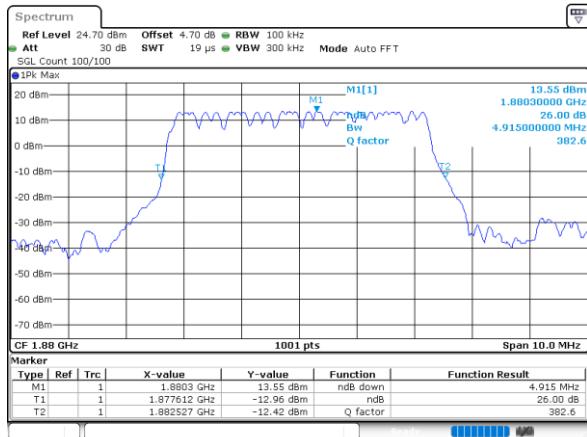
QPSK

Lowest Channel



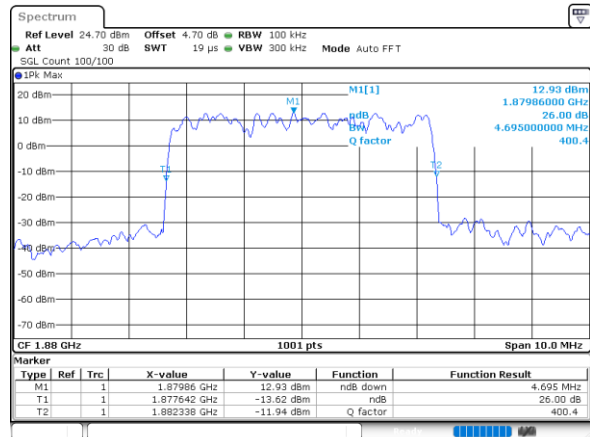
Date: 18_JUL_2020 17:10:38

Middle Channel



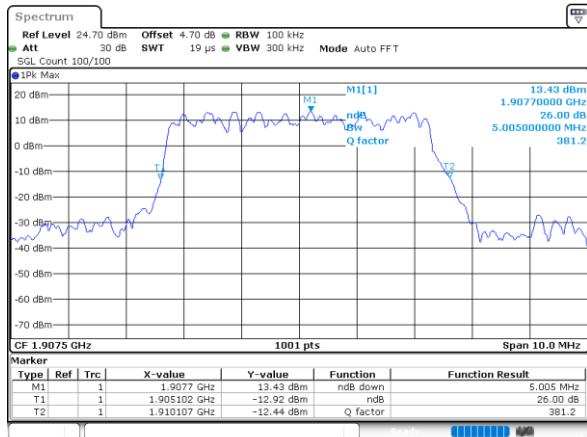
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Middle Channel



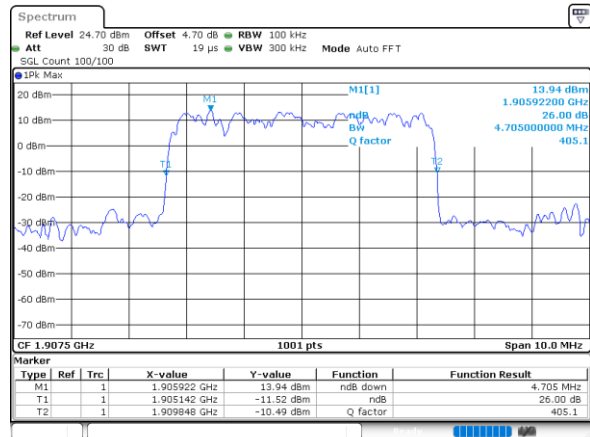
Date: 18_JUL_2020 16:43:57

Highest Channel



Date: 18_JUL_2020 16:57:25

Highest Channel



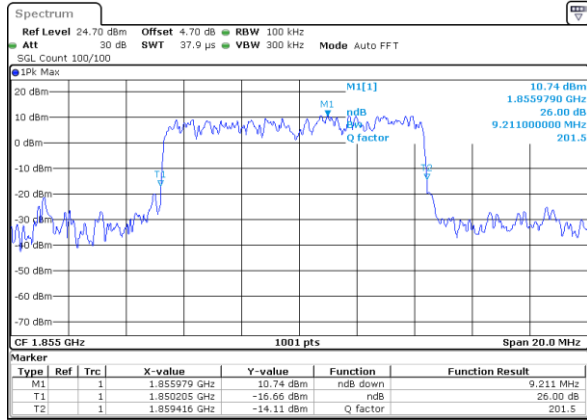
Date: 18_JUL_2020 16:57:07



FR1 n2 / 10MHz / DFT-S OFDM

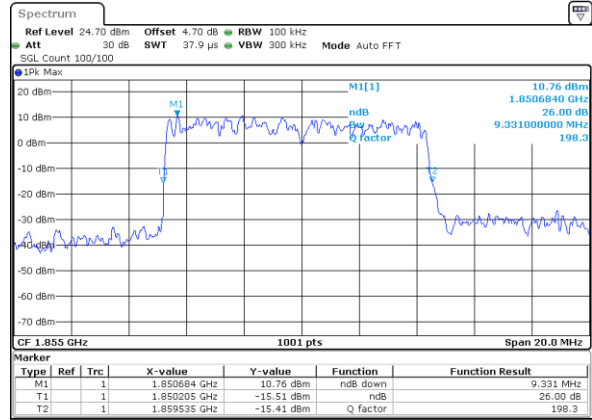
PI/2 BPSK

Lowest Channel

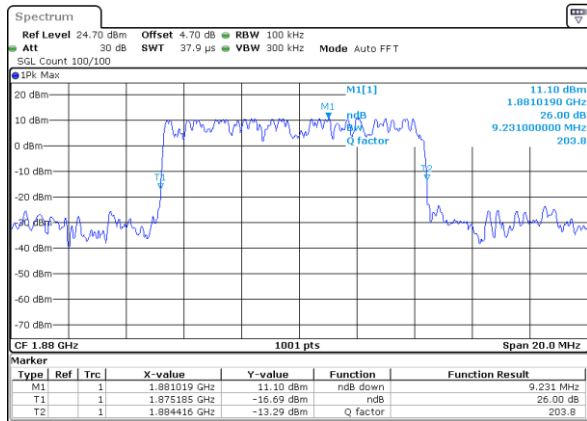


QPSK

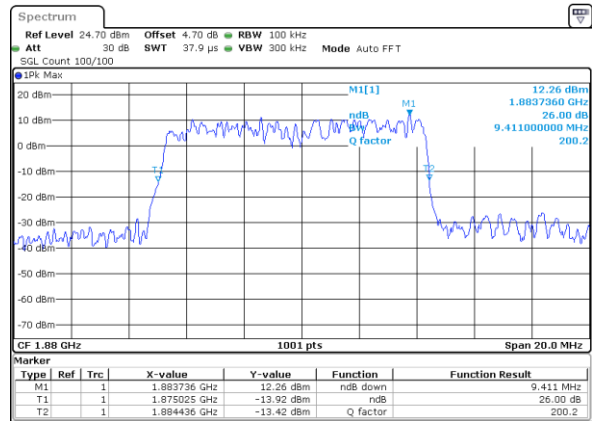
Lowest Channel



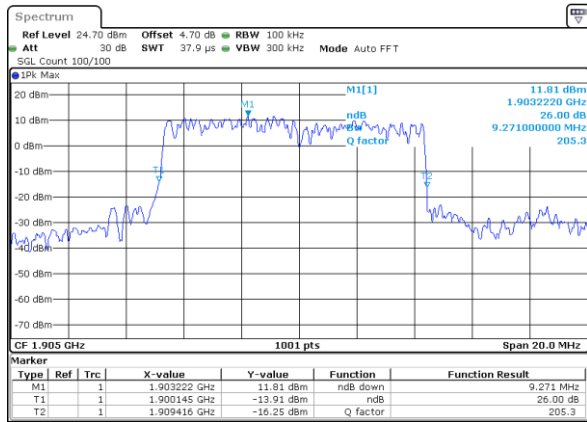
Middle Channel



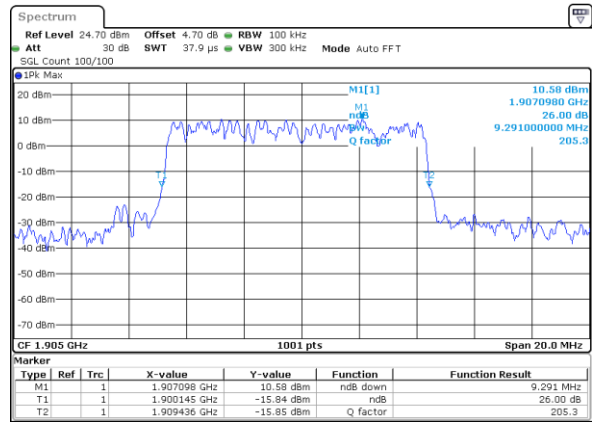
Middle Channel



Highest Channel



Highest Channel

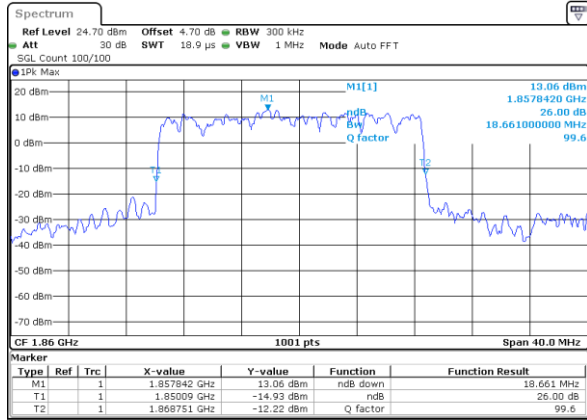




FR1 n2 / 20MHz / DFT-S OFDM

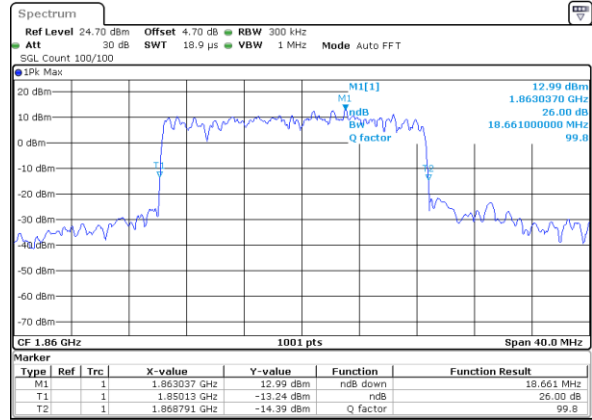
PI/2 BPSK

Lowest Channel

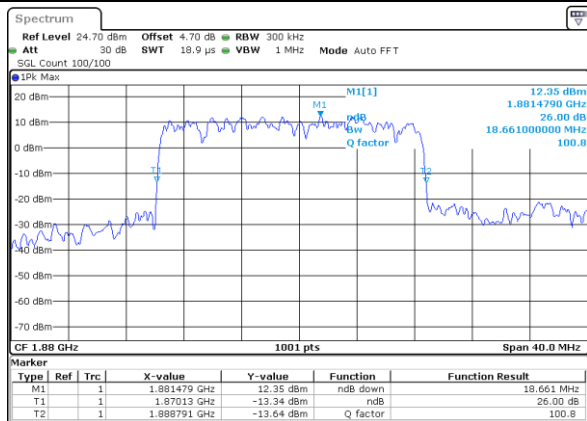


QPSK

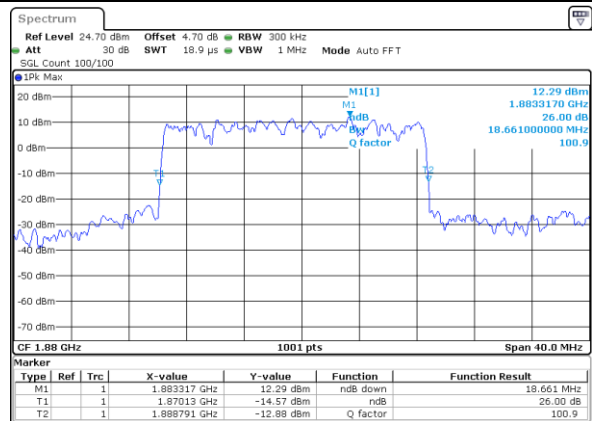
Lowest Channel



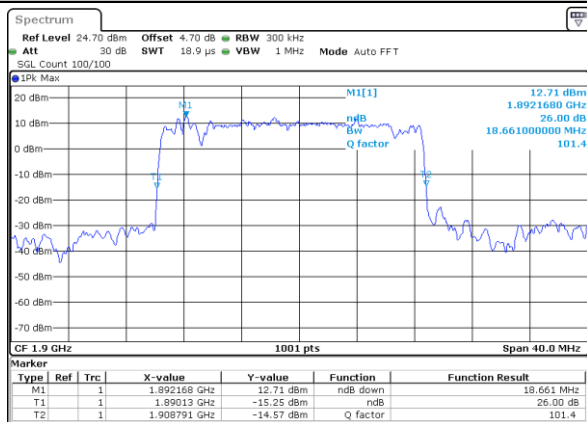
Middle Channel



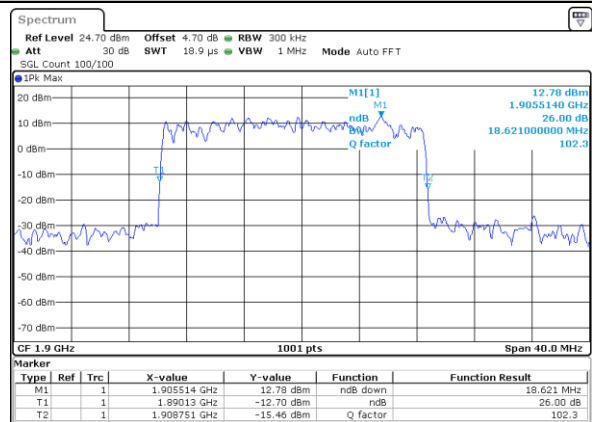
Middle Channel



Highest Channel



Highest Channel



**Occupied Bandwidth**

Mode	FR1 n2 : OB BW(MHz) / DFT-S OFDM							
BW	5MHz	5MHz	10MHz	10MHz	20MHz	20MHz		
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Lowest CH	4.45	4.49	8.87	8.89	17.86	17.74		
Middle CH	4.46	4.45	8.91	8.89	17.74	18.02		
Highest CH	4.47	4.44	8.89	8.91	17.78	17.9		



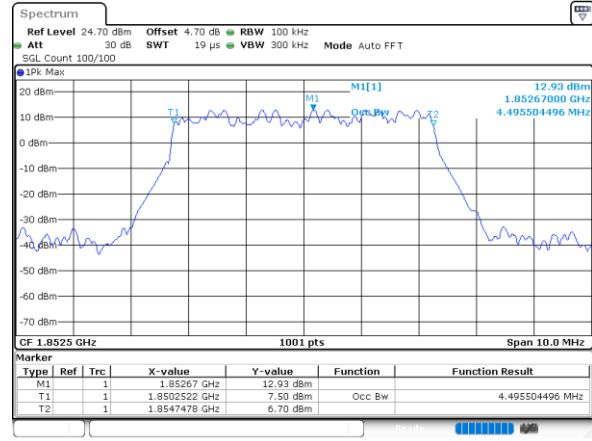
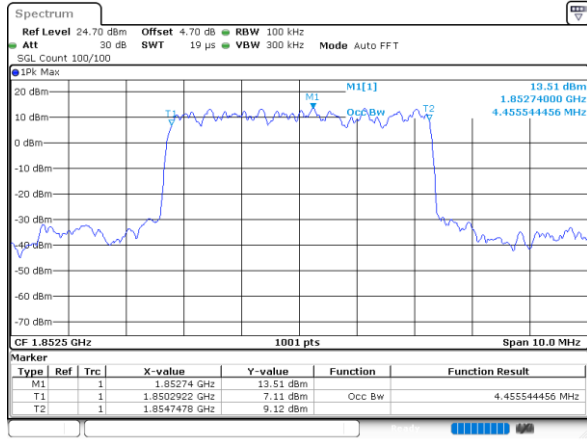
FR1 n2 / 5MHz / DFT-S OFDM

PI/2 BPSK

QPSK

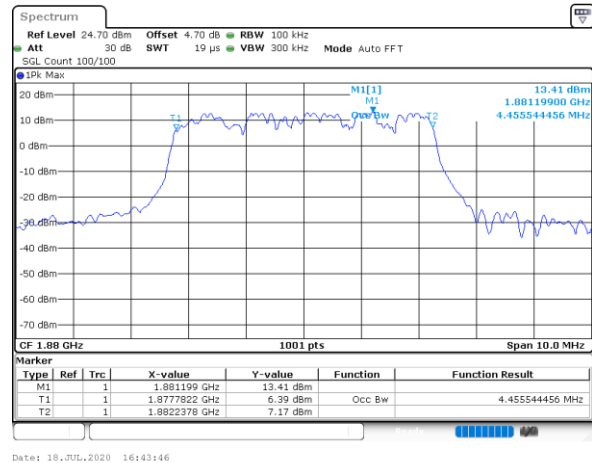
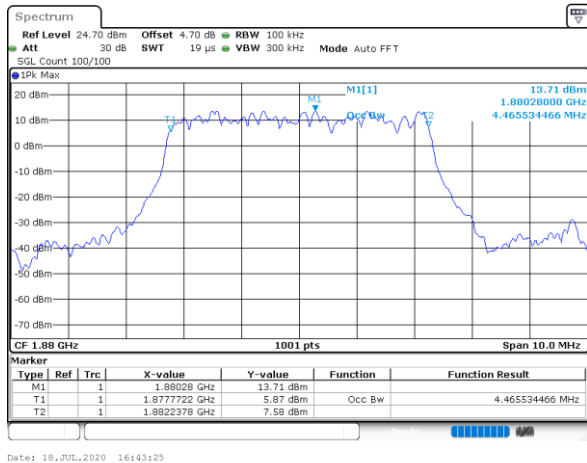
Lowest Channel

Lowest Channel



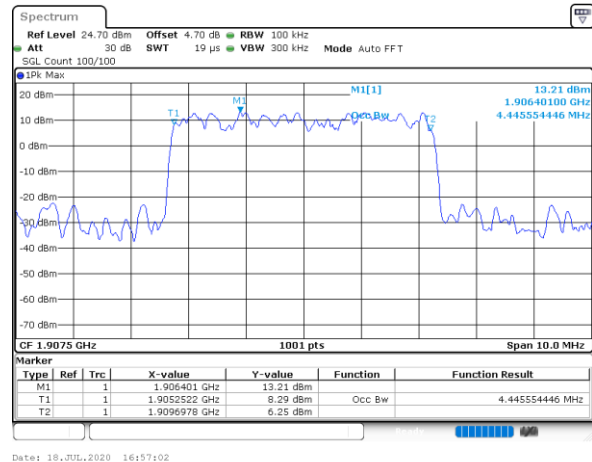
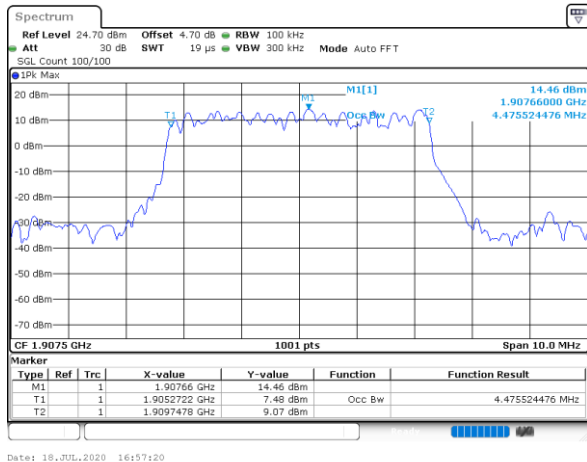
Middle Channel

Middle Channel



Highest Channel

Highest Channel

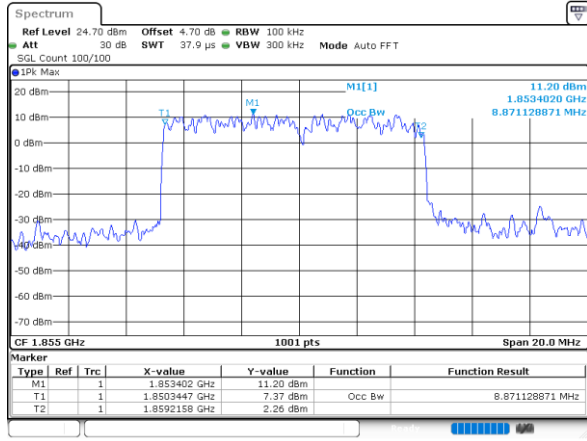




FR1 n2 / 10MHz / DFT-S OFDM

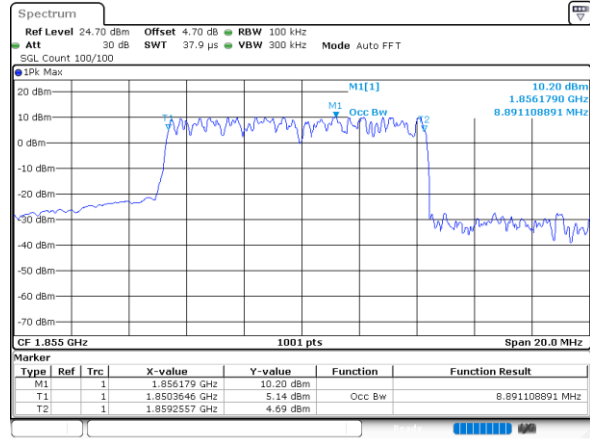
PI/2 BPSK

Lowest Channel

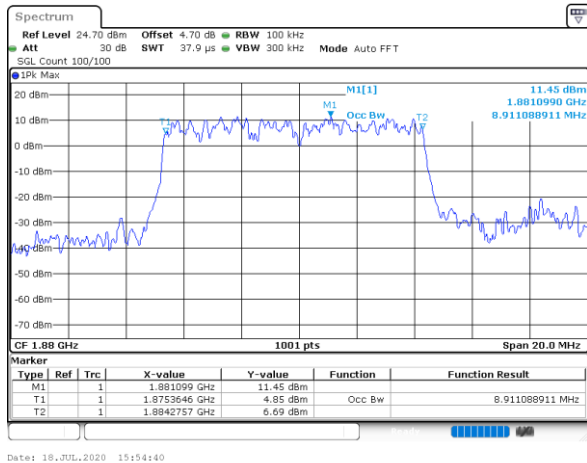


QPSK

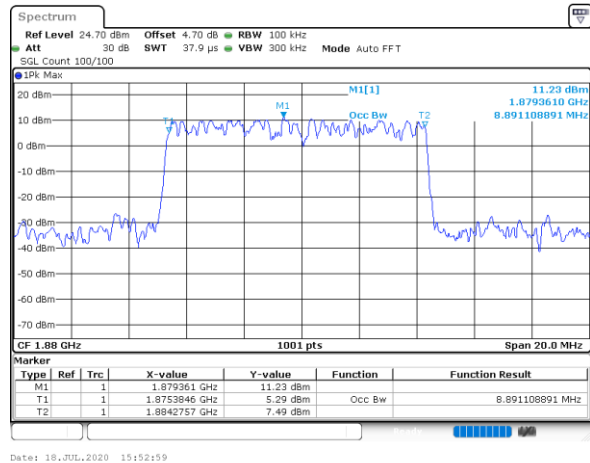
Lowest Channel



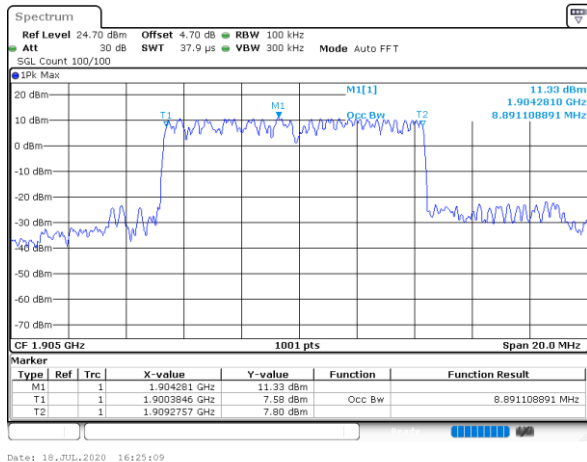
Middle Channel



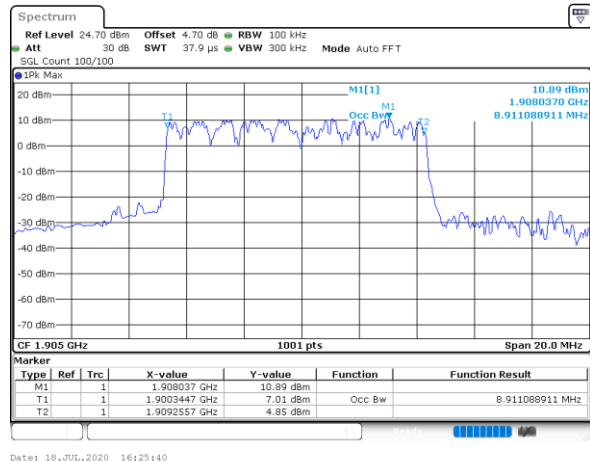
Middle Channel



Highest Channel



Highest Channel

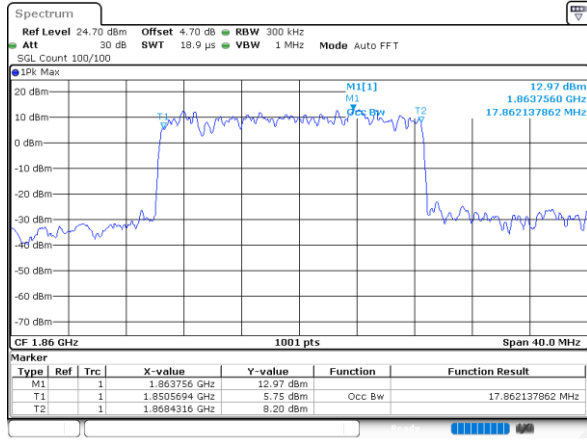




FR1 n2 / 20MHz / DFT-S OFDM

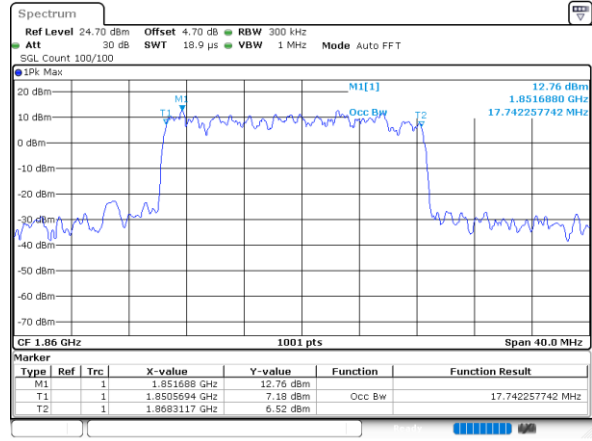
PI/2 BPSK

Lowest Channel

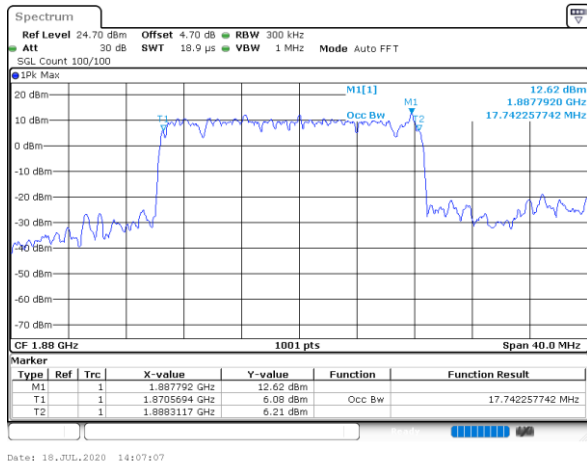


QPSK

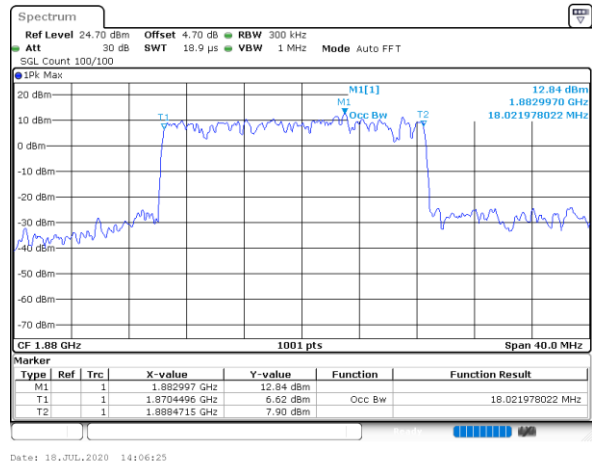
Lowest Channel



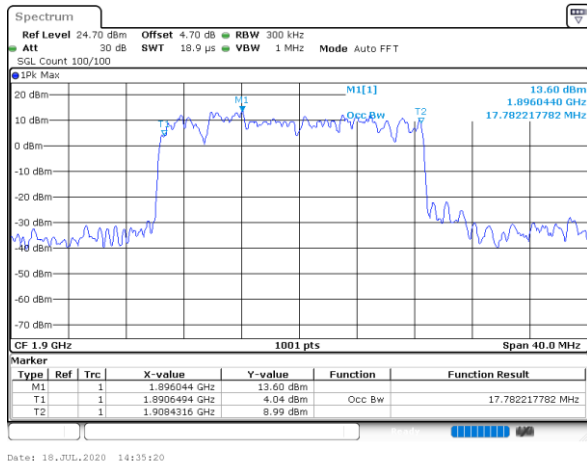
Middle Channel



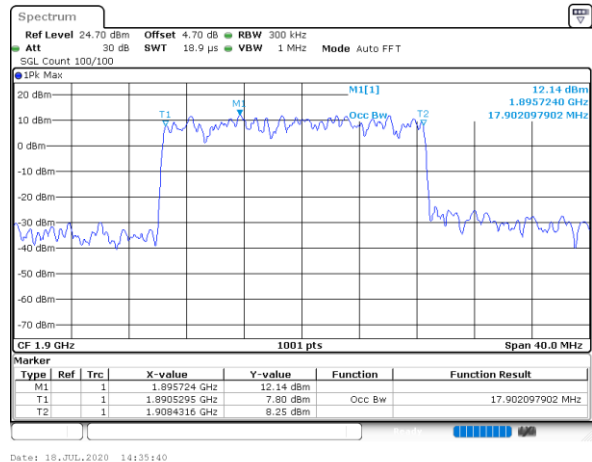
Middle Channel



Highest Channel



Highest Channel



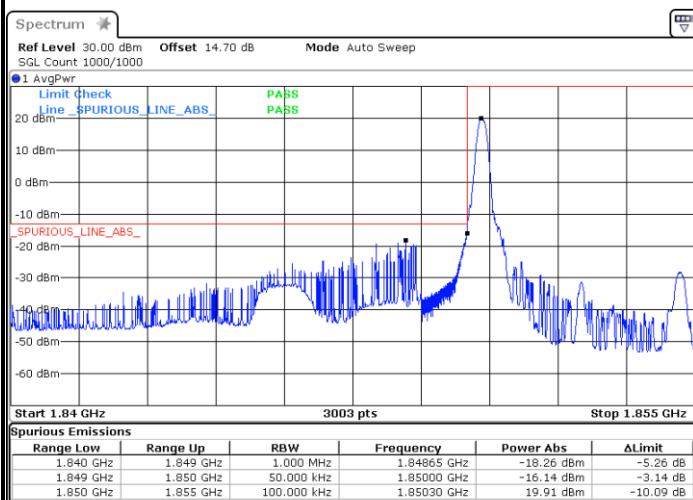


Conducted Band Edge

FR1 n2 / 5MHz / DFT-S OFDM BPSK

Lowest Band Edge / 1 RB

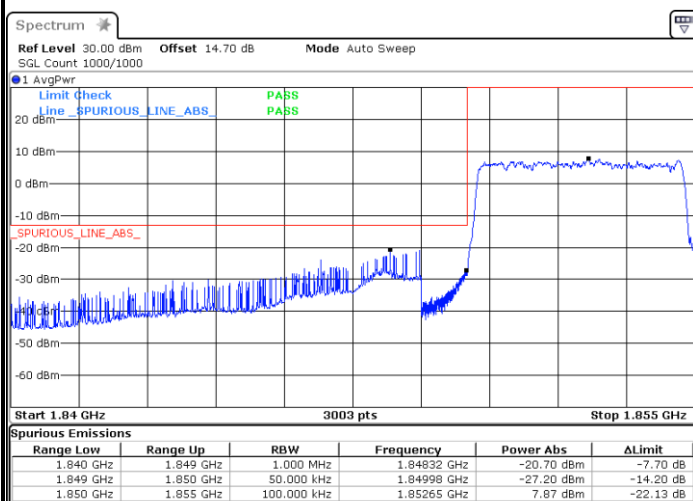
Channel Power < -13dBm Pass



Date: 18.JUL.2020 17:17:28

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



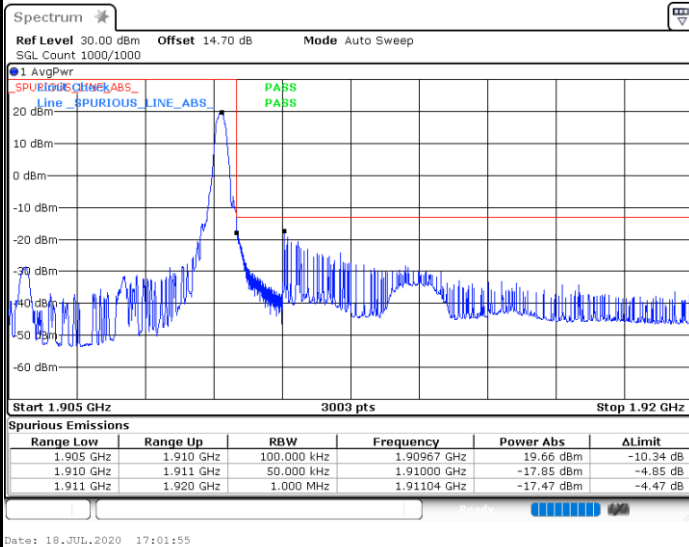
Date: 18.JUL.2020 17:13:35



FR1 n2 / 5MHz / DFT-S OFDM BPSK

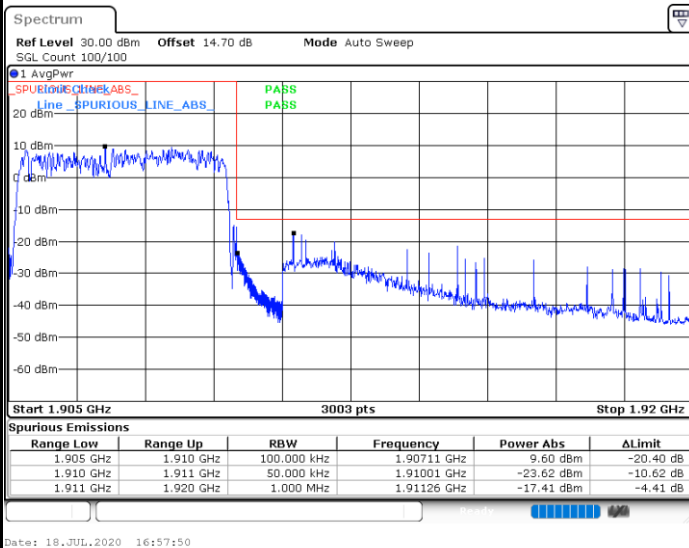
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

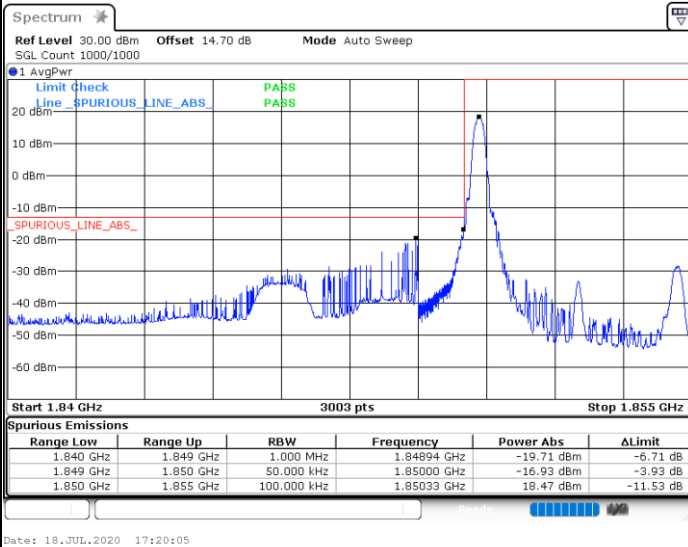




FR1 n2 / 5MHz / DFT-S OFDM QPSK

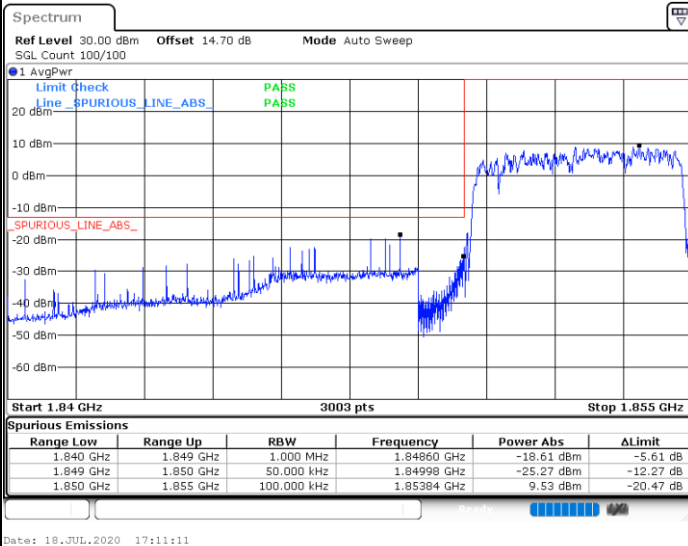
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

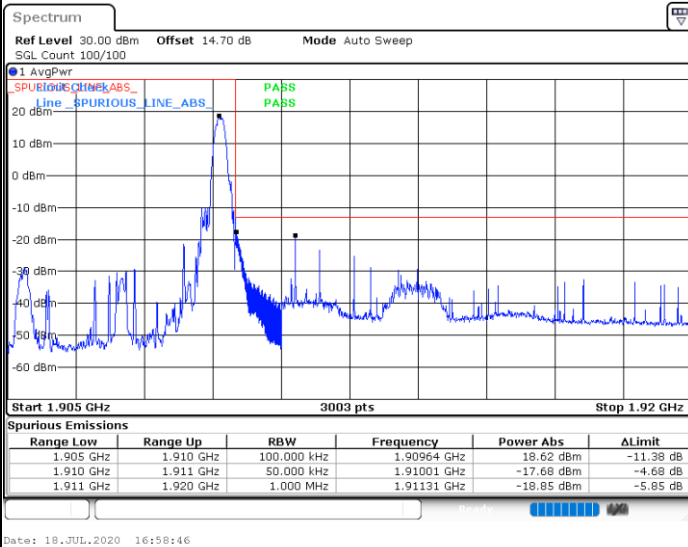




FR1 n2 / 5MHz / DFT-S OFDM QPSK

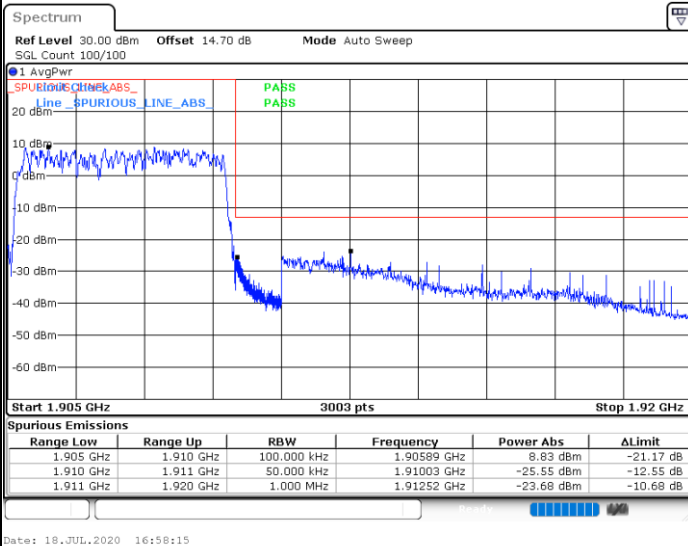
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

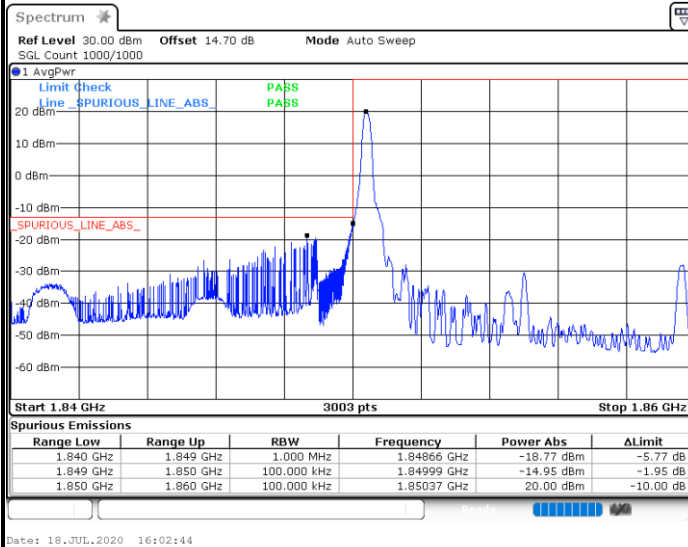
Channel Power < -13dBm Pass



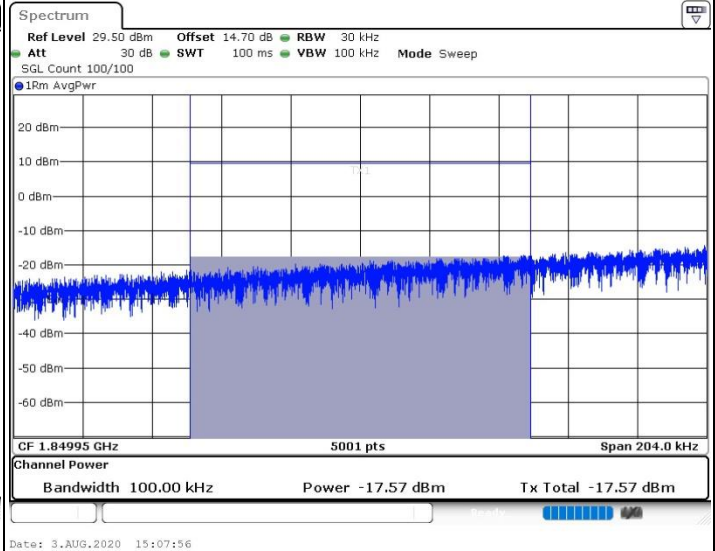


FR1 n2 / 10MHz / DFT-S OFDM BPSK

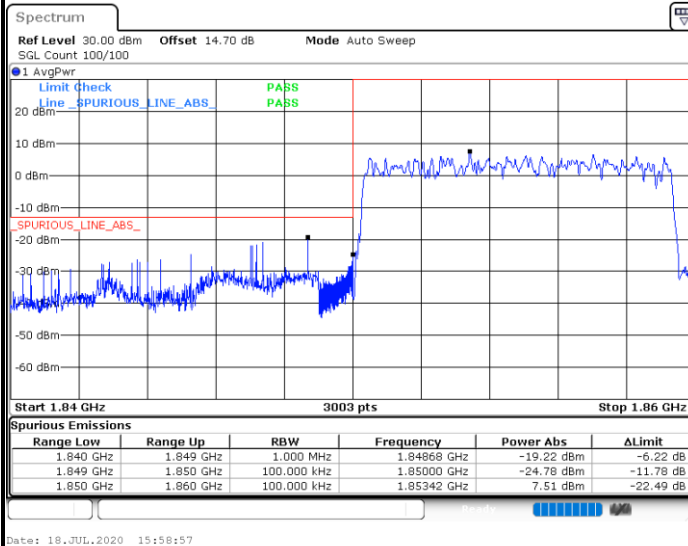
Lowest Band Edge / 1 RB



Channel Power < -13dBm Pass



Lowest Band Edge / Full RB



Channel Power < -13dBm Pass

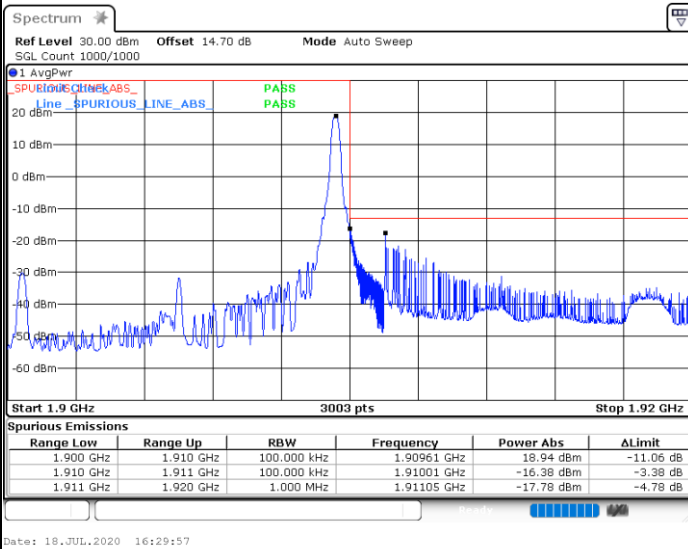
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FR1 n2 / 10MHz / DFT-S OFDM BPSK

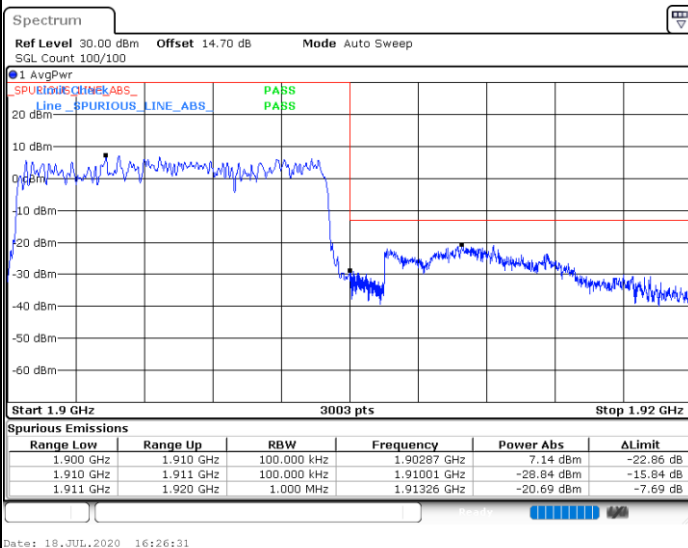
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

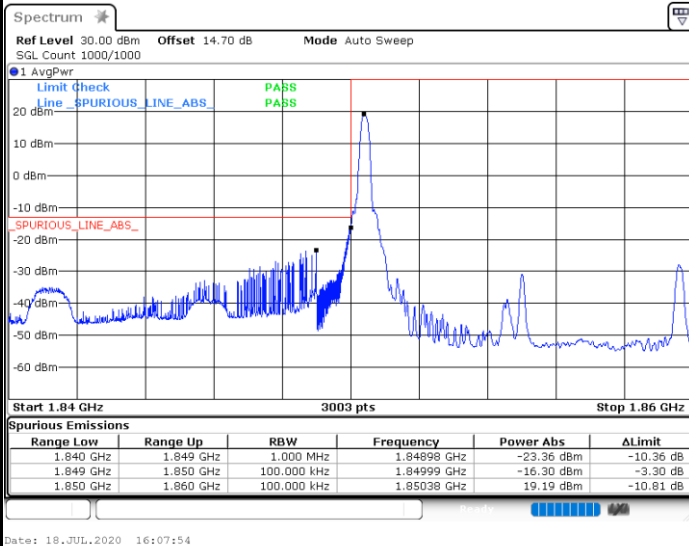




FR1 n2 / 10MHz / DFT-S OFDM QPSK

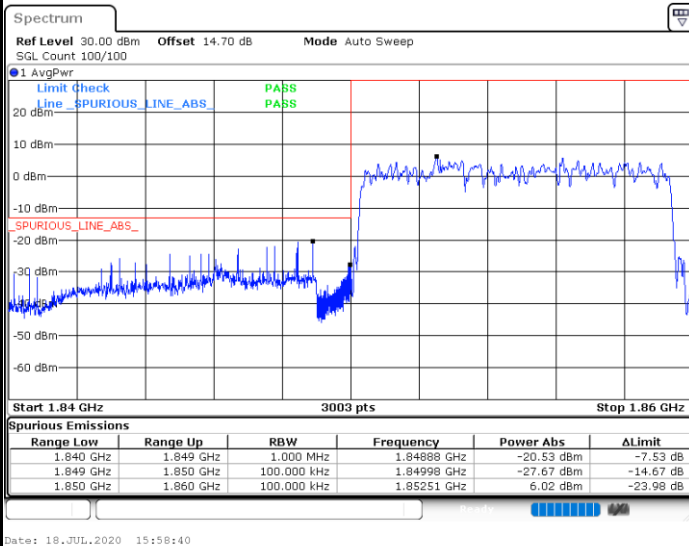
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

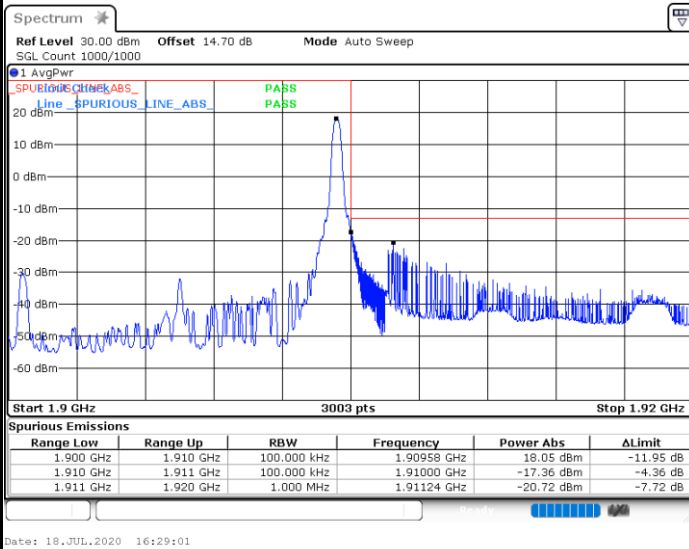




FR1 n2 / 10MHz / DFT-S OFDM QPSK

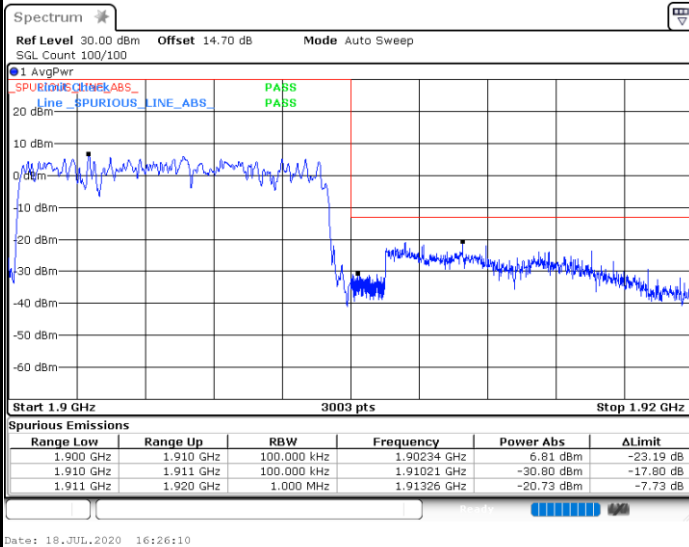
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

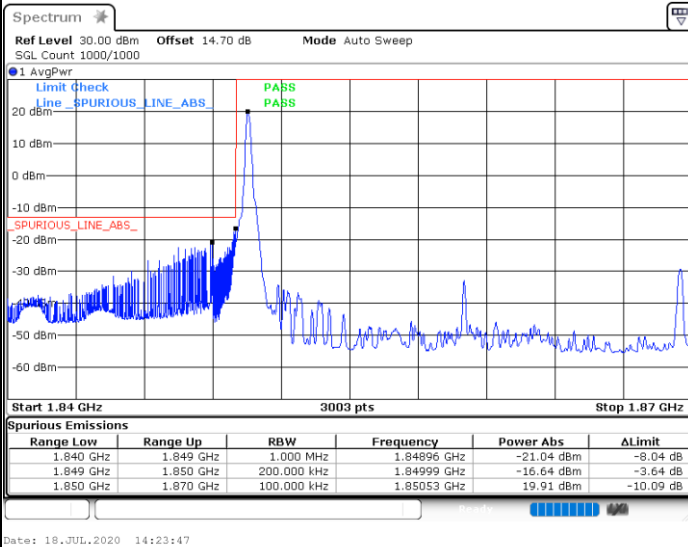




FR1 n2 / 20MHz / DFT-S OFDM BPSK

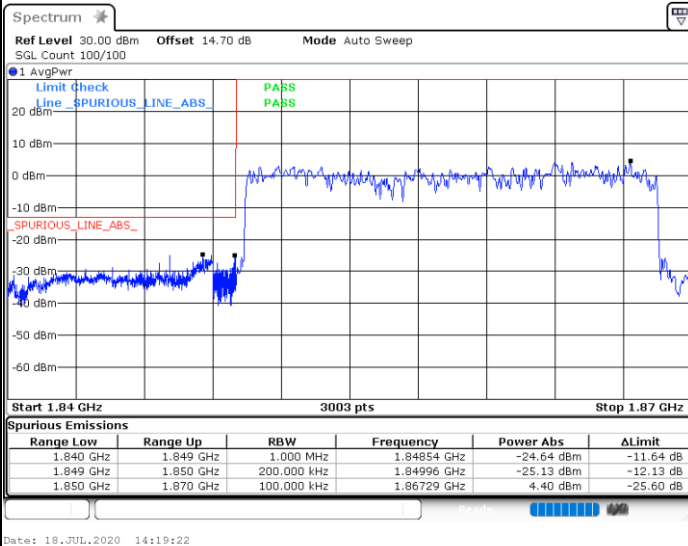
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

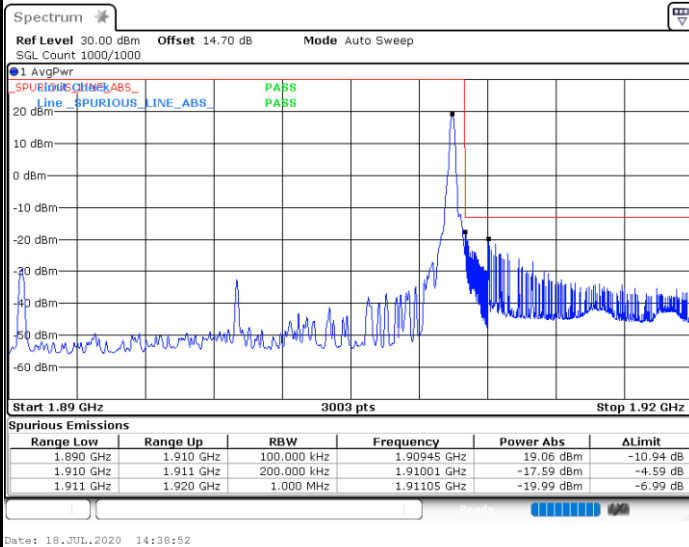




FR1 n2 / 20MHz / DFT-S OFDM BPSK

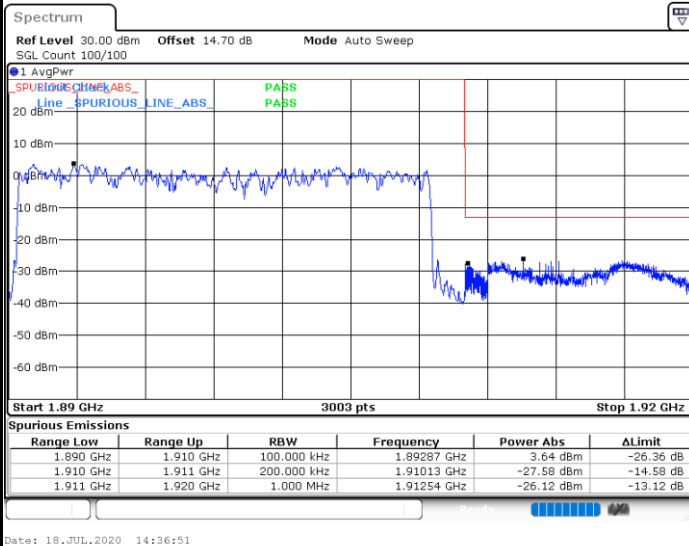
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass

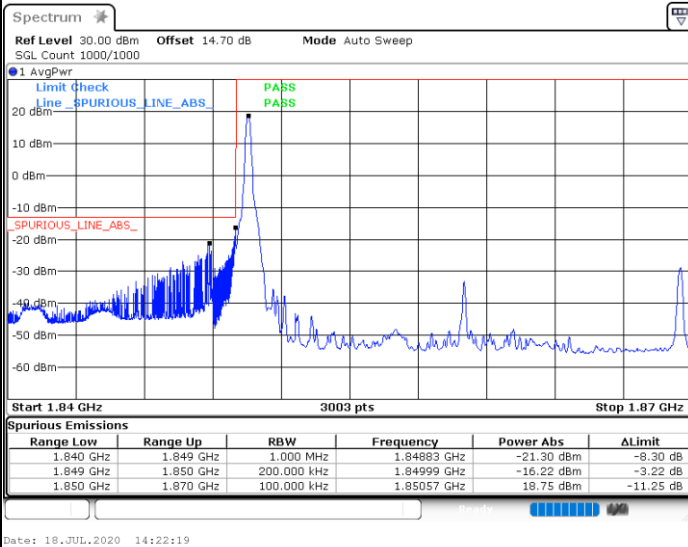




FR1 n2 / 20MHz / DFT-S OFDM QPSK

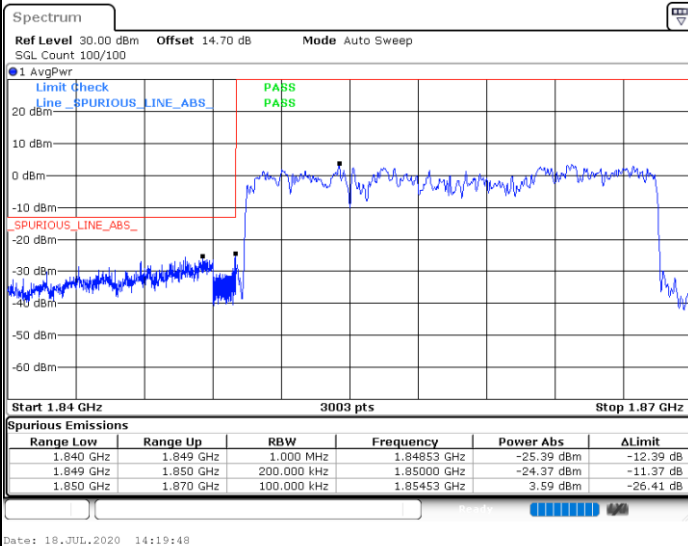
Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

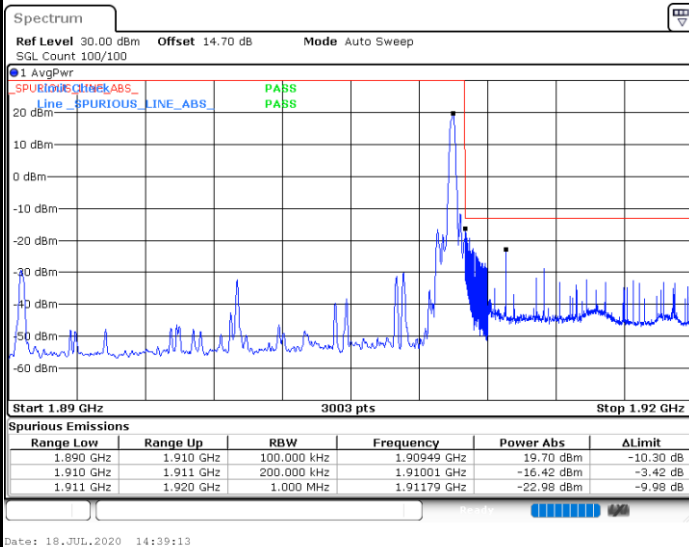




FR1 n2 / 20MHz / DFT-S OFDM QPSK

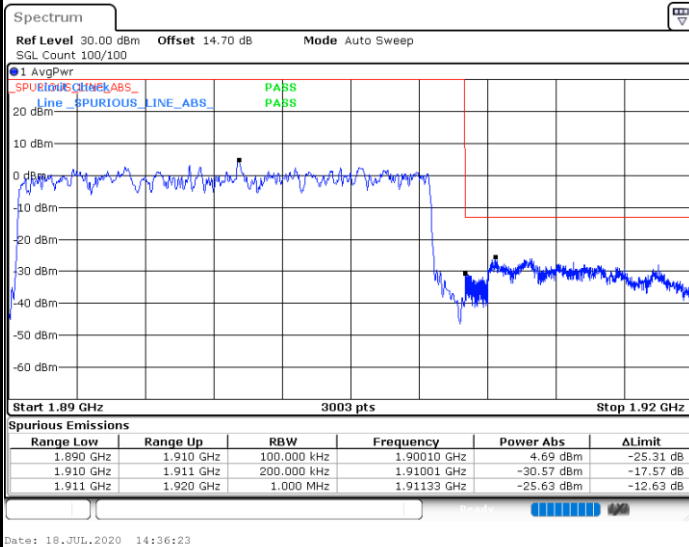
Highest Band Edge / 1 RB

Channel Power < -13dBm Pass



Highest Band Edge / Full RB

Channel Power < -13dBm Pass



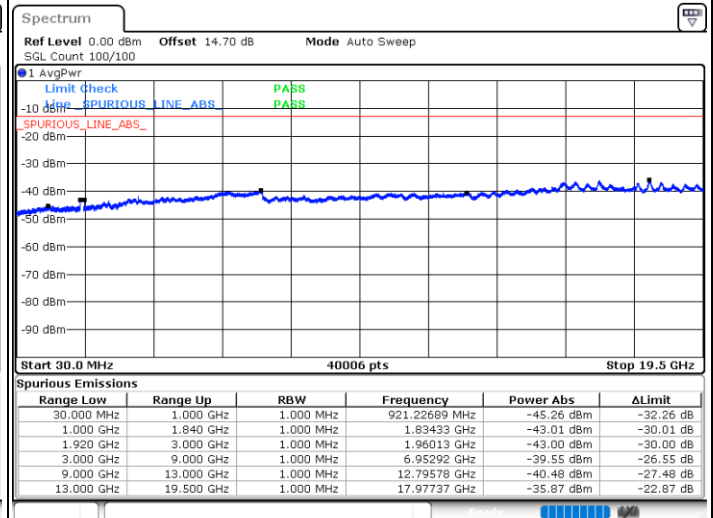
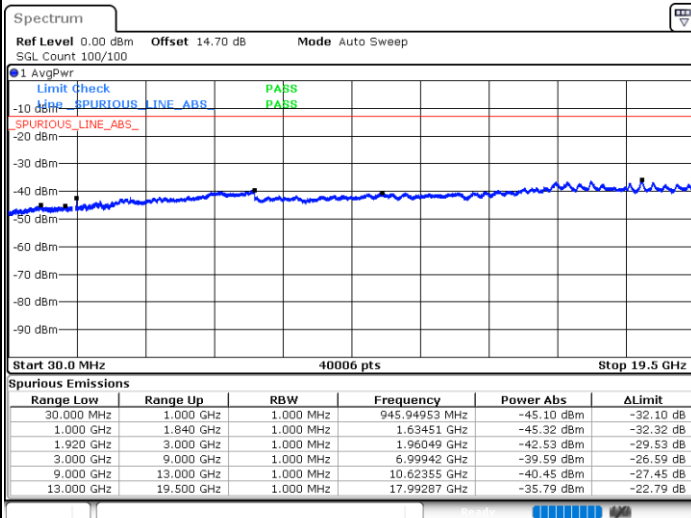


Conducted Spurious Emission

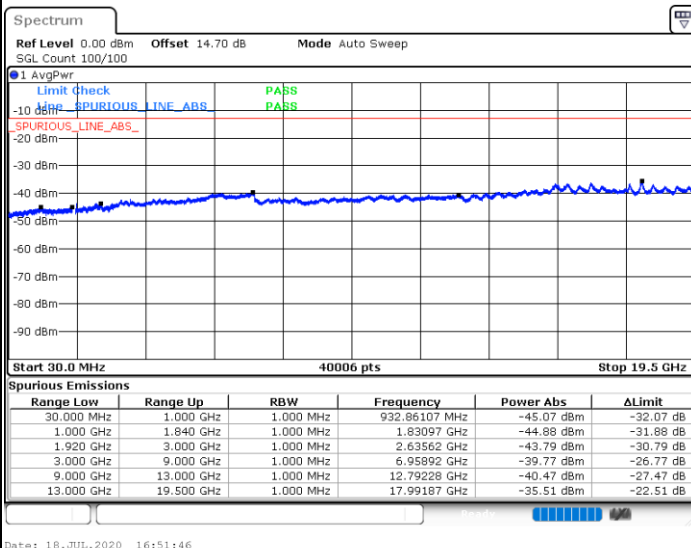
FR1 n2 / 5MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB



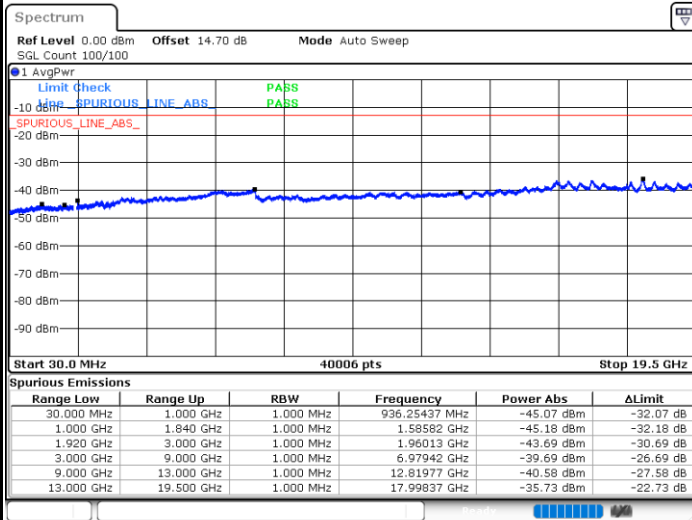
Highest Channel / 1RB





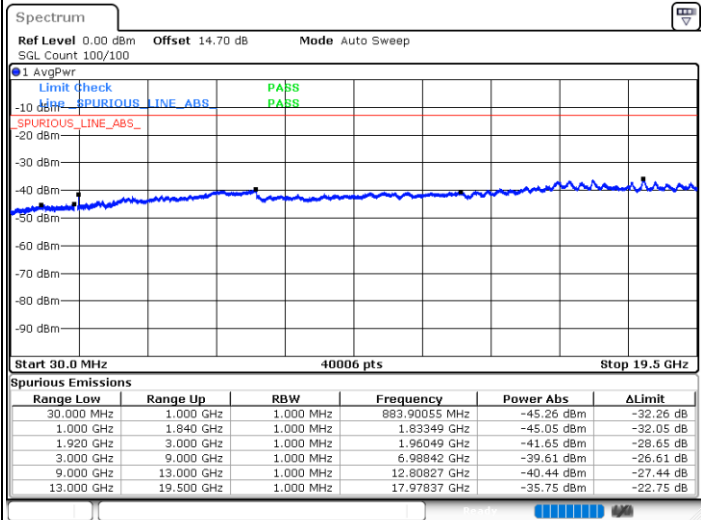
FR1 n2 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



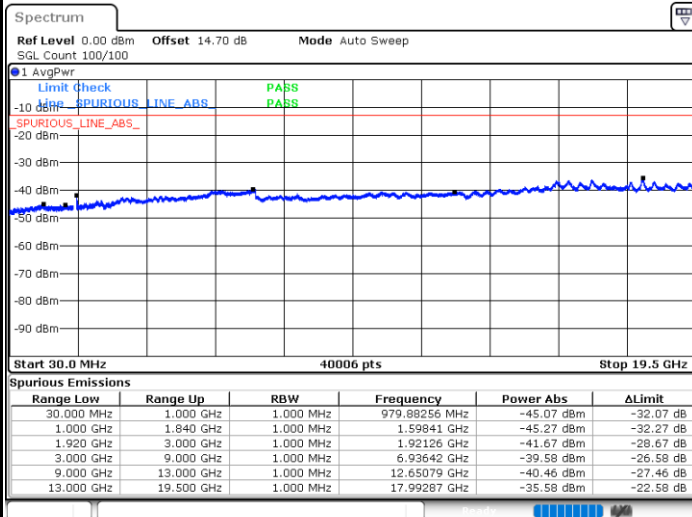
Date: 18.JUL.2020 16:49:54

Middle Channel / 1RB



Date: 18.JUL.2020 16:45:00

Highest Channel / 1RB

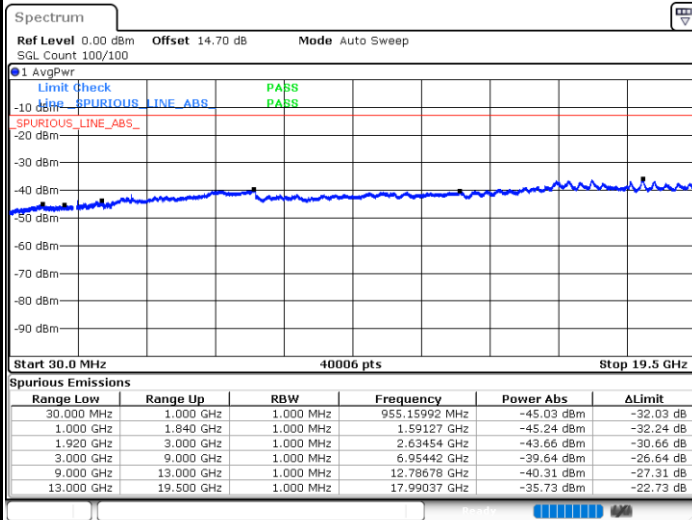


Date: 18.JUL.2020 16:51:02

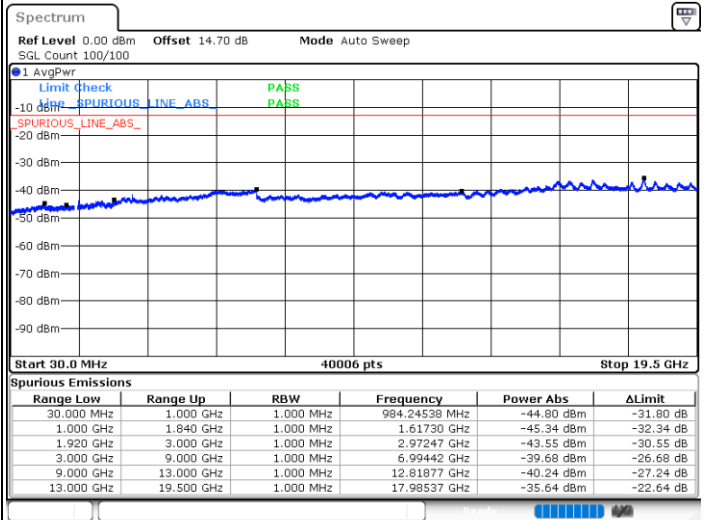


FR1 n2 / 10MHz / DFT-S OFDM / BPSK

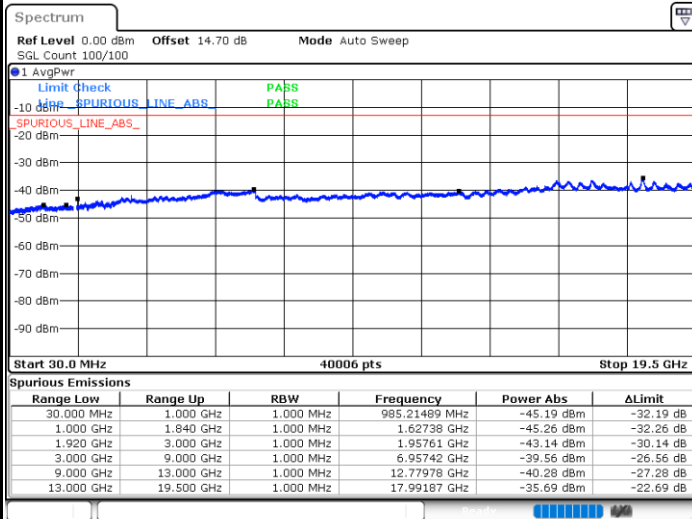
Lowest Channel / 1RB



Middle Channel / 1RB



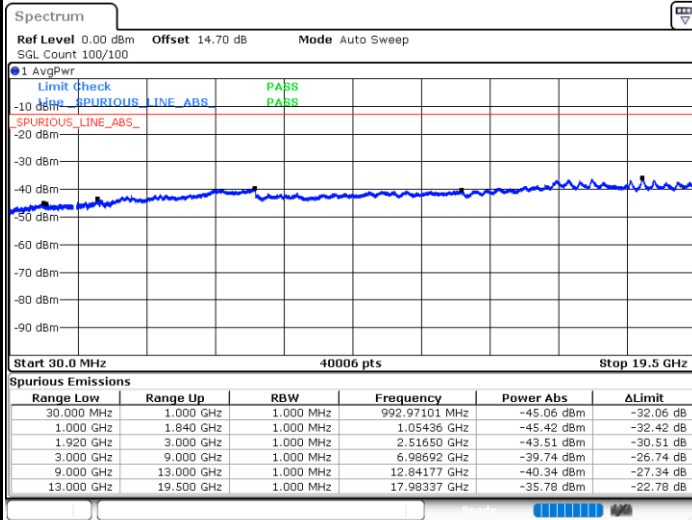
Highest Channel / 1RB



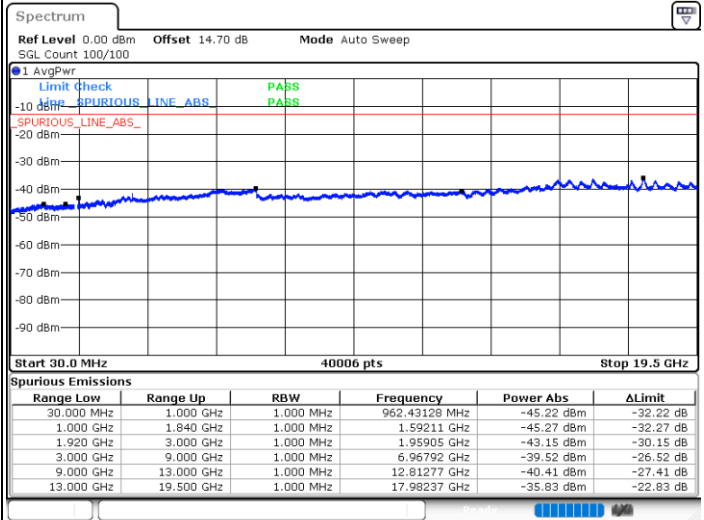


FR1 n2 / 10MHz / DFT-S OFDM / QPSK

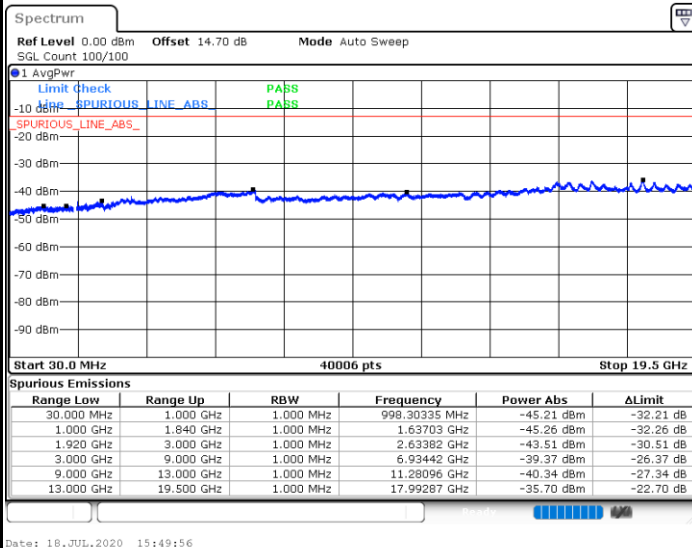
Lowest Channel / 1RB



Middle Channel / 1RB



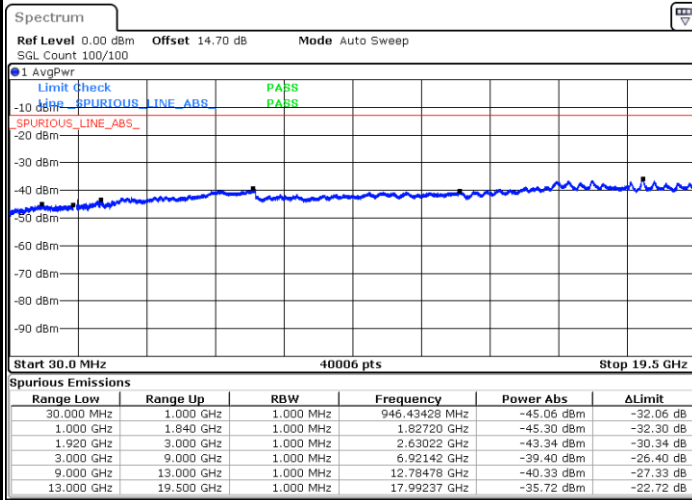
Highest Channel / 1RB





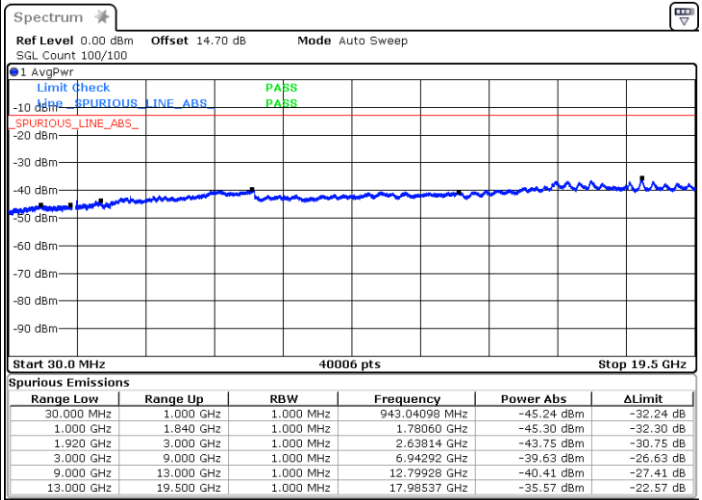
FR1 n2 / 20MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB



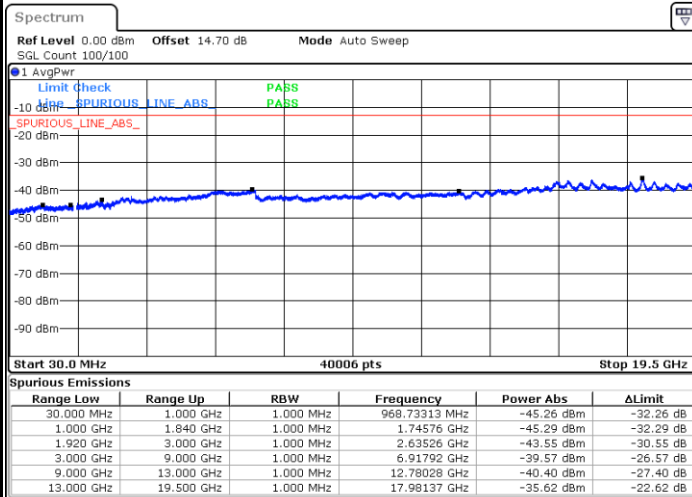
Date: 18.JUL.2020 13:59:03

Middle Channel / 1RB



Date: 18.JUL.2020 13:53:18

Highest Channel / 1RB

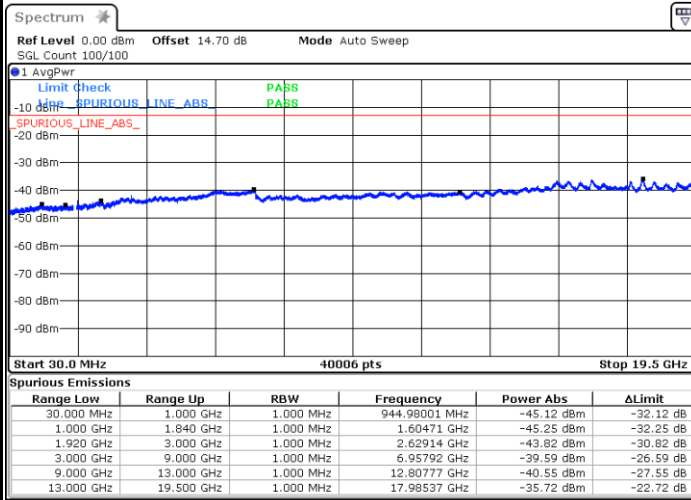


Date: 18.JUL.2020 14:00:45



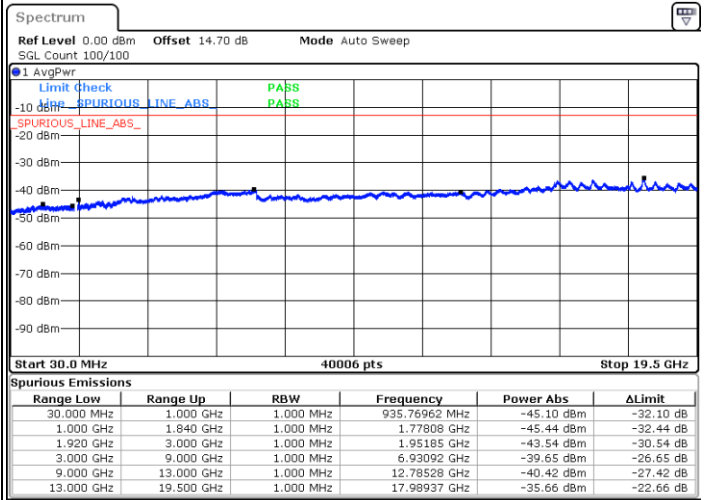
FR1 n2 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB



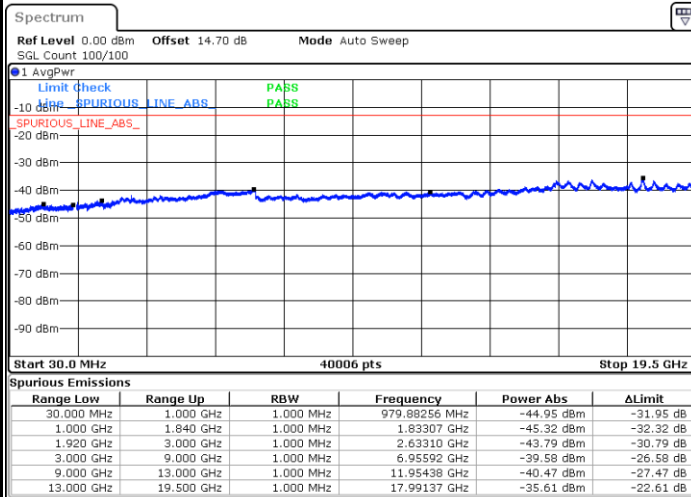
Date: 18.JUL.2020 13:58:15

Middle Channel / 1RB



Date: 18.JUL.2020 13:54:25

Highest Channel / 1RB



Date: 18.JUL.2020 14:01:35

**Frequency Stability**

Test Conditions		NR n2 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0015	PASS
40	Normal Voltage	0.0022	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0015	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0015	



5G NR n5

NSA

Peak-to-Average Ratio

Mode	FR1 n5+66A / 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	4.41	3.8	5.94	5.74	PASS
Middle CH	4.29	4.38	5.62	5.39	
Highest CH	4.52	4.7	5.91	4.58	



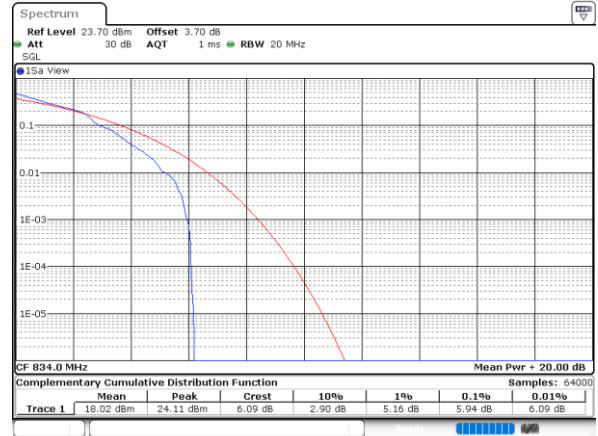
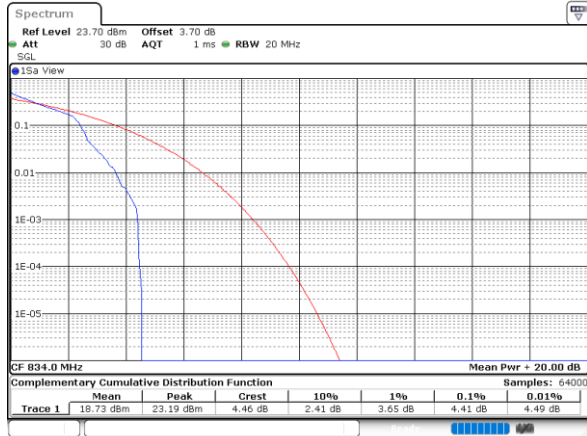
FR1 n5+66A / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

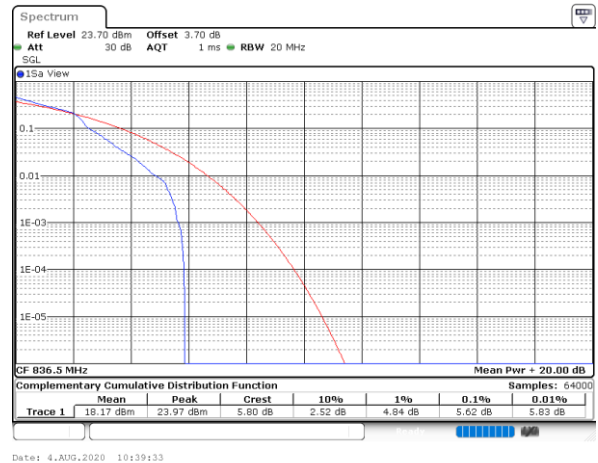
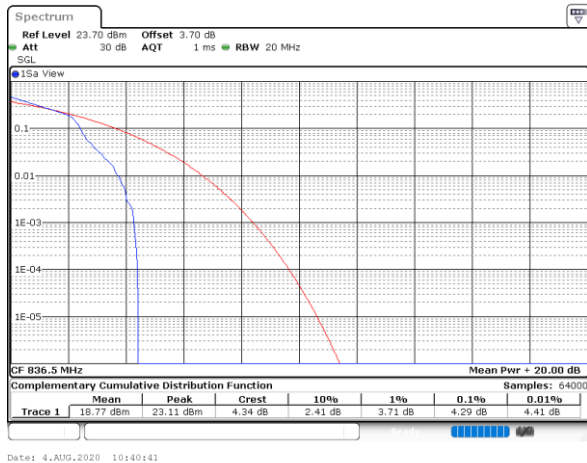
Lowest Channel / 1RB

Lowest Channel / 1RB



Middle Channel / 1 RB

Middle Channel / 1 RB



Highest Channel / 1 RB

Highest Channel / 1 RB

