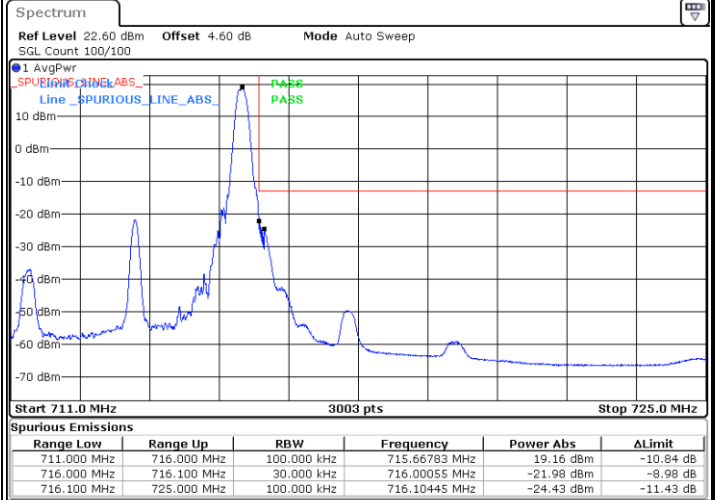
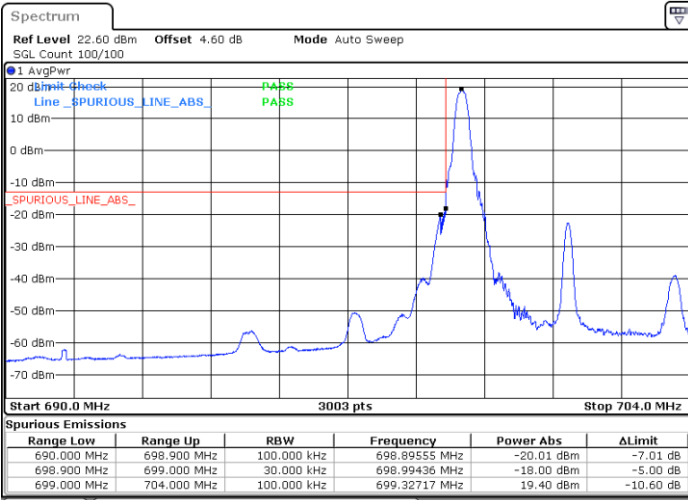




FR1 n12 / 5MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

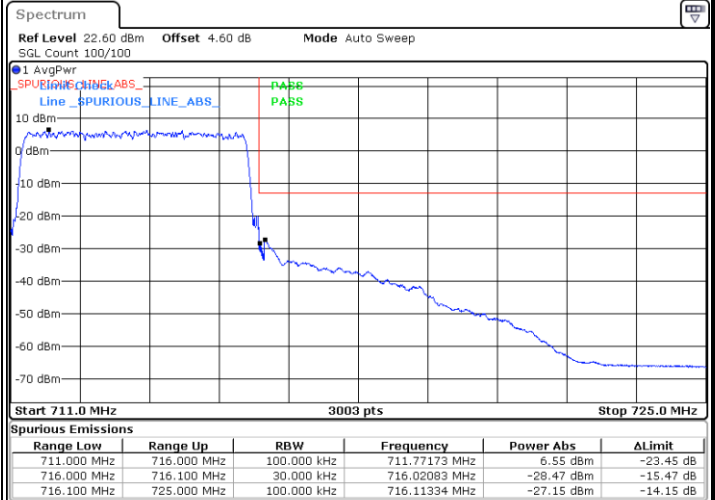
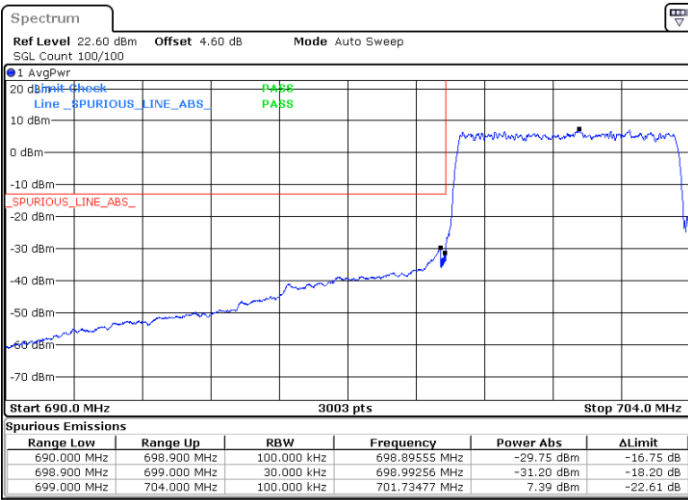


Date: 9.JUL.2020 15:58:07

Date: 9.JUL.2020 16:12:38

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 15:53:34

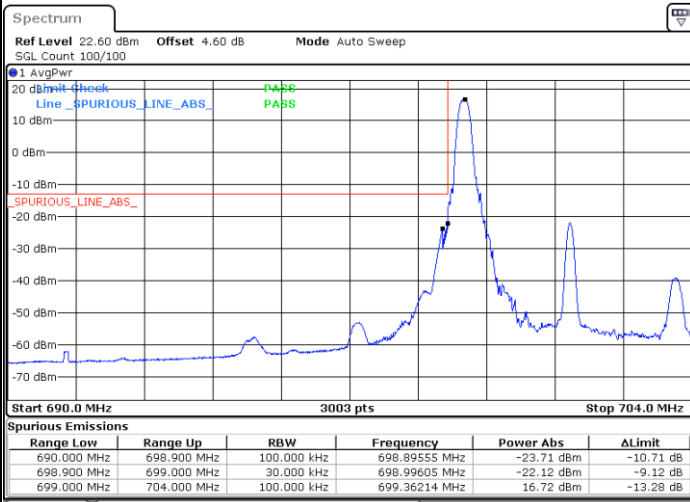
Date: 9.JUL.2020 16:13:21



FR1 n12 / 5MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

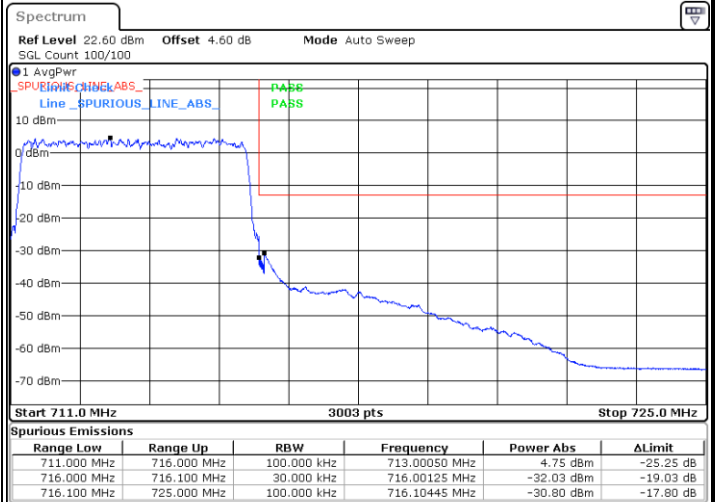
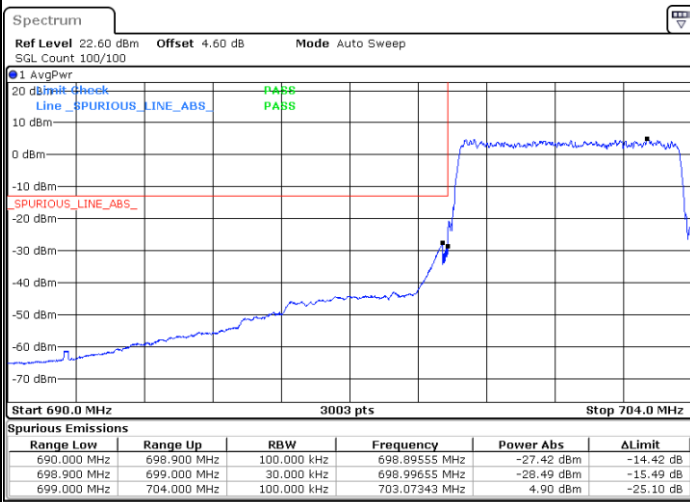


Date: 9.JUL.2020 15:58:52

Date: 9.JUL.2020 16:18:02

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 15:59:27

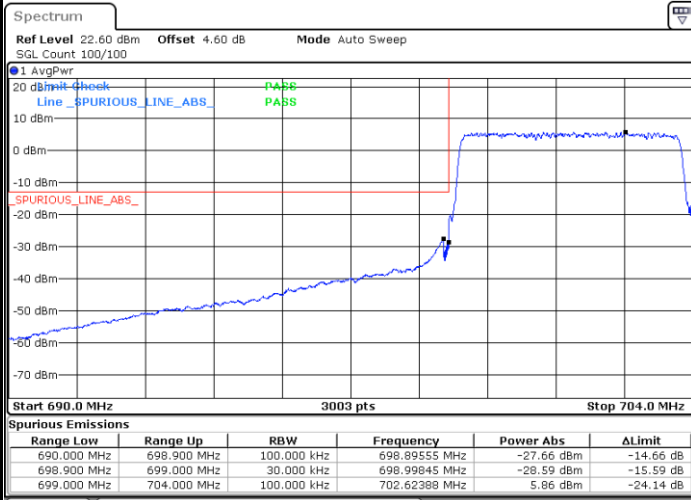
Date: 9.JUL.2020 16:17:19



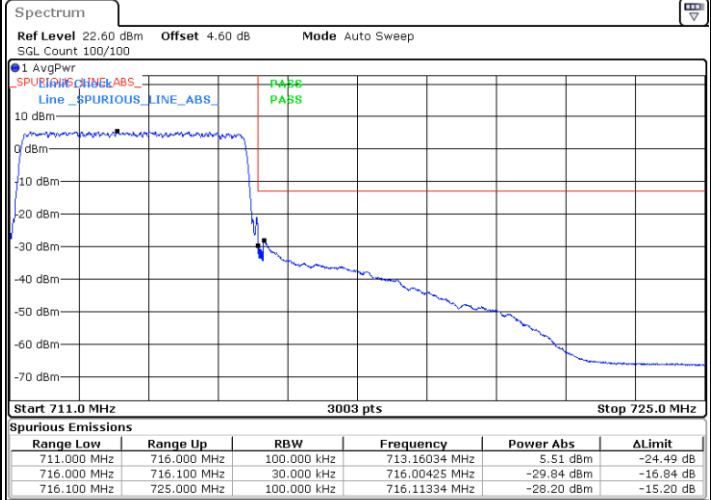
FR1 n12 / 5MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 16:02:45



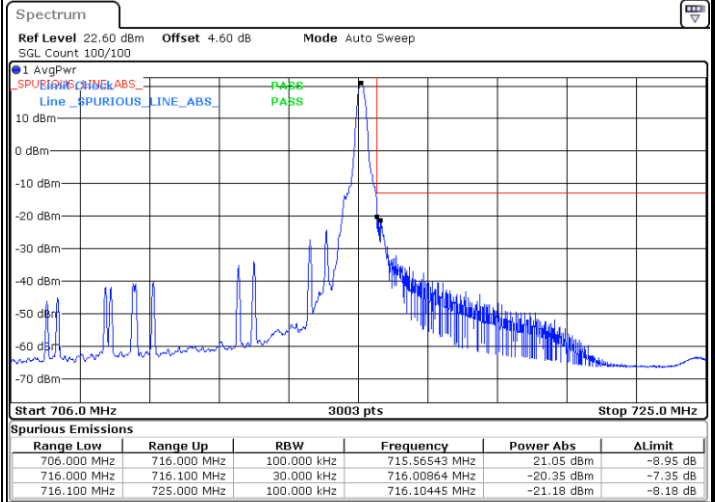
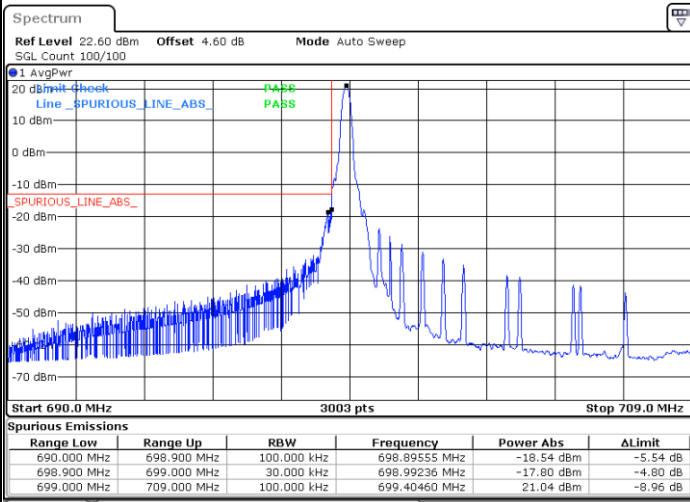
Date: 9.JUL.2020 16:20:49



FR1 n12 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

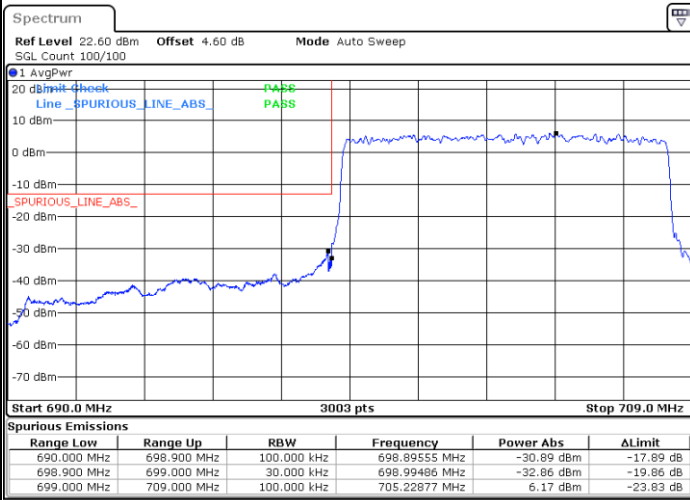


Date: 9.JUL.2020 14:35:07

Date: 9.JUL.2020 15:14:24

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 11:53:39

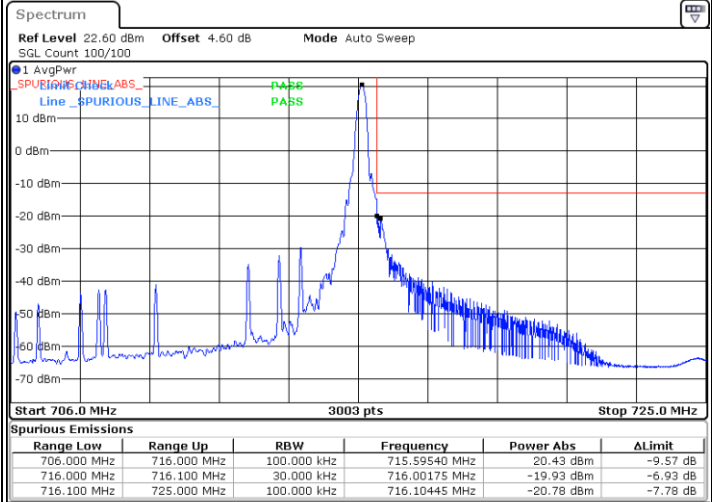
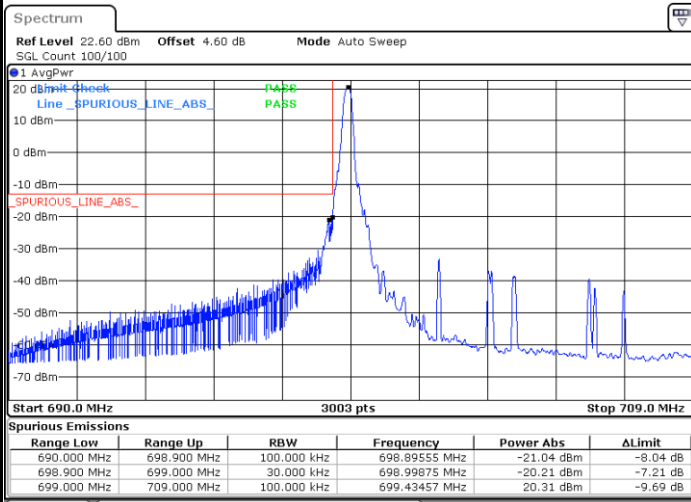
Date: 9.JUL.2020 15:05:18



FR1 n12 / 10MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

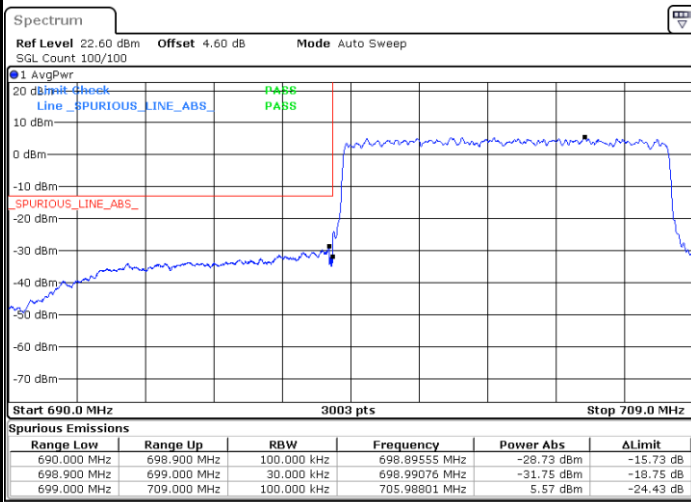


Date: 9.JUL.2020 14:34:11

Date: 9.JUL.2020 15:12:39

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 14:26:59

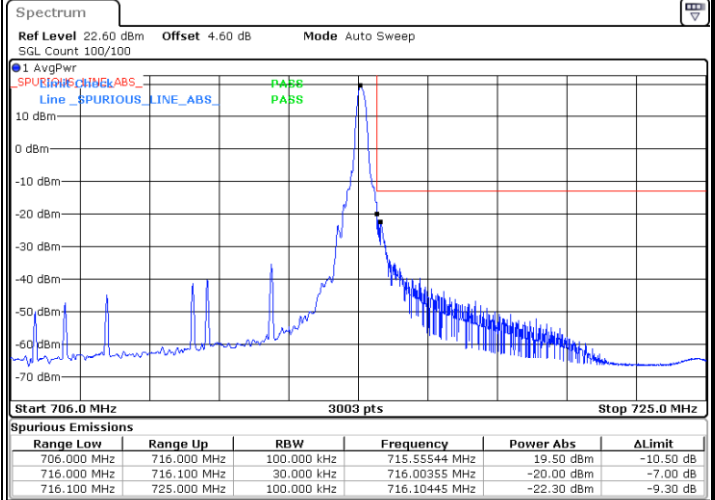
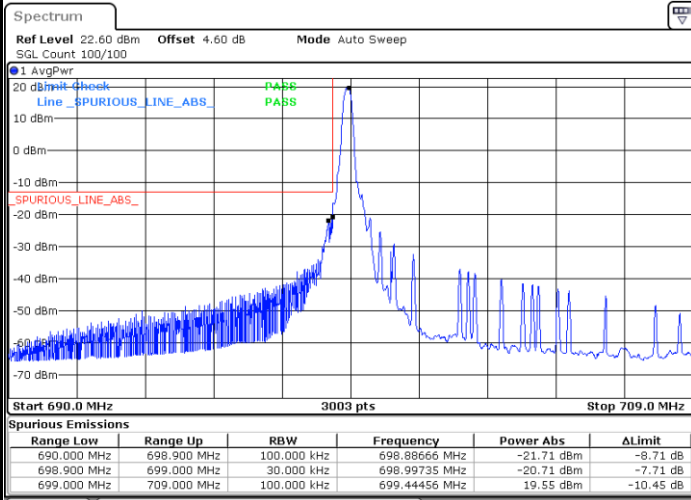
Date: 9.JUL.2020 15:07:31



FR1 n12 / 10MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

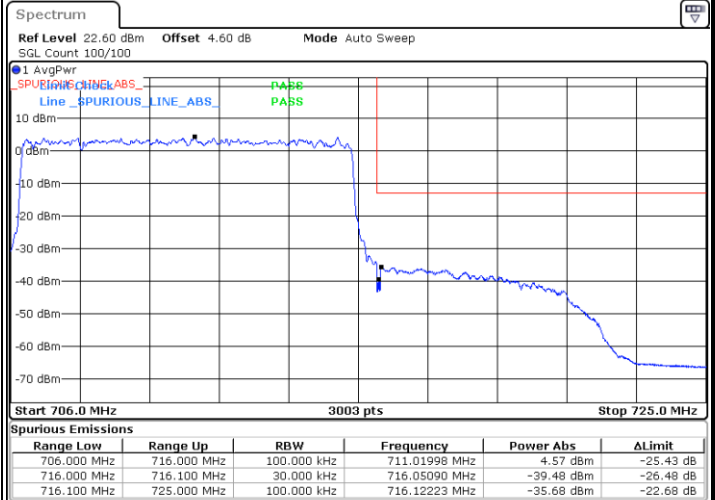
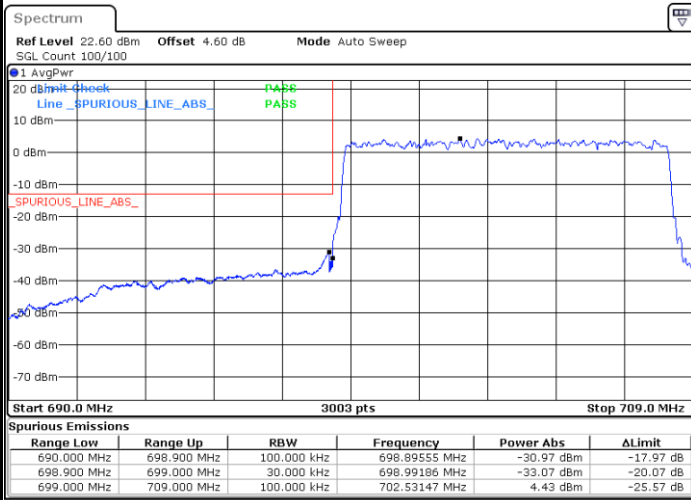


Date: 9.JUL.2020 14:32:38

Date: 9.JUL.2020 15:11:54

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 14:28:41

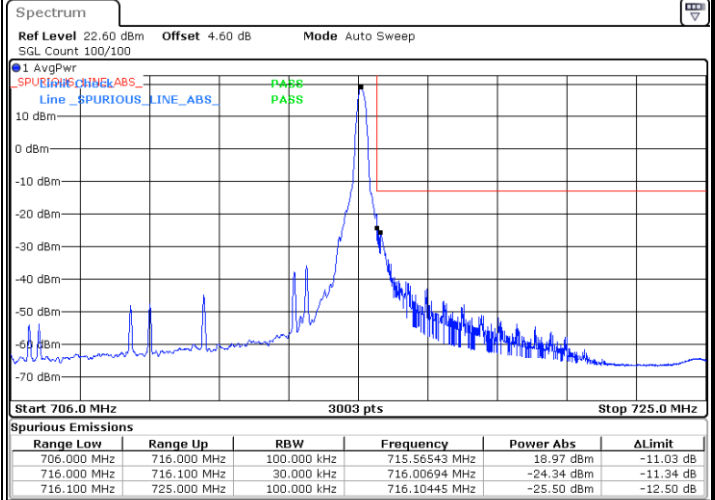
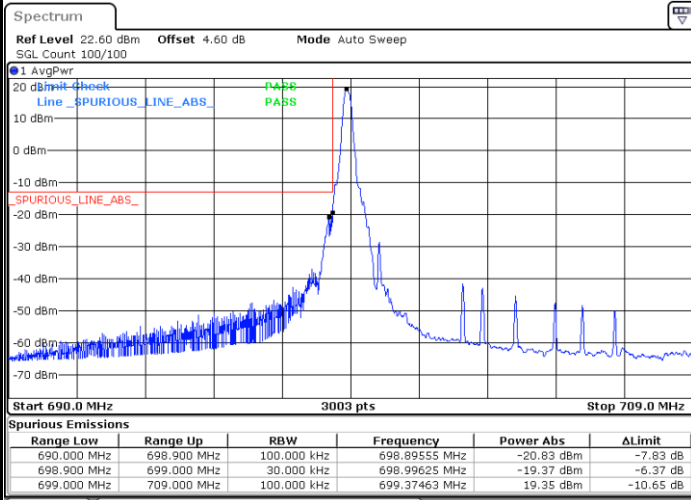
Date: 9.JUL.2020 15:09:24



FR1 n12 / 10MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

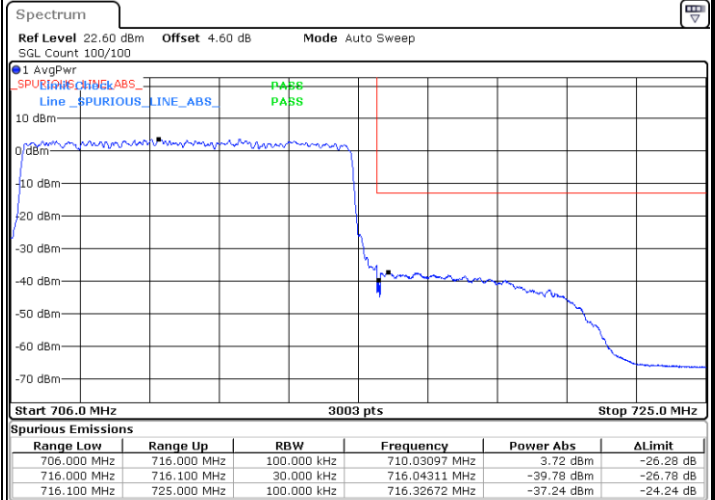
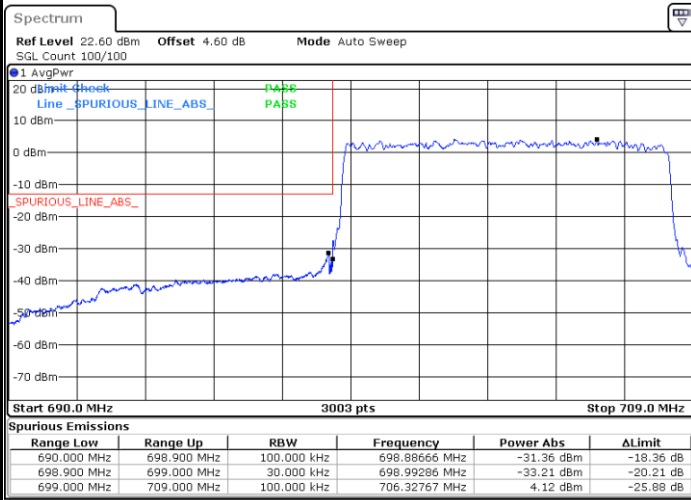


Date: 9.JUL.2020 14:31:49

Date: 9.JUL.2020 15:11:00

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 14:30:55

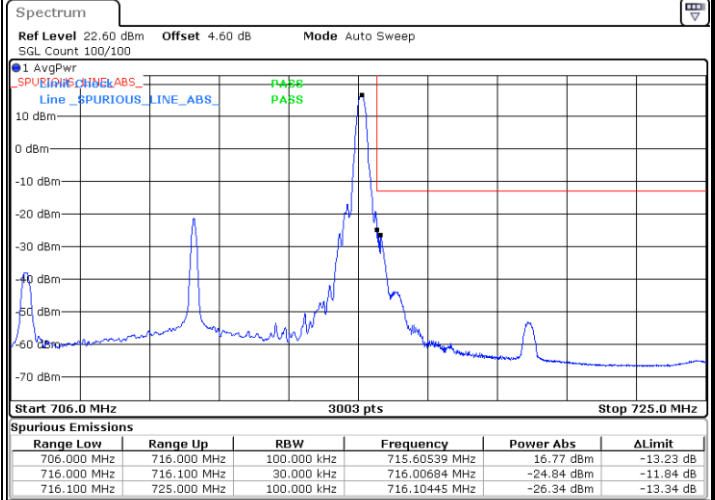
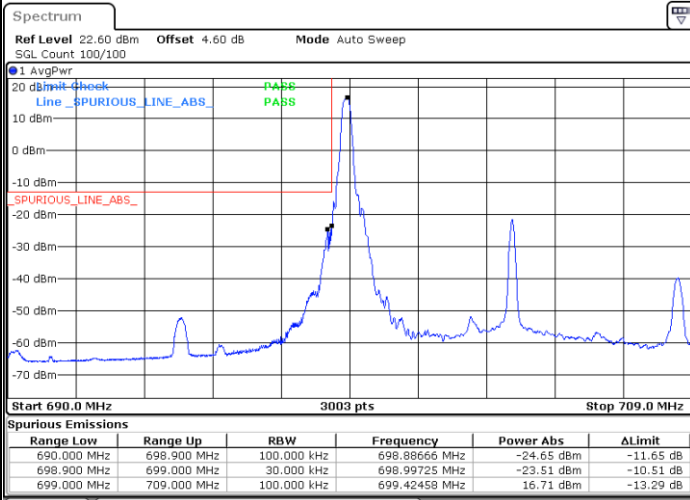
Date: 9.JUL.2020 15:10:12



FR1 n12 / 10MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

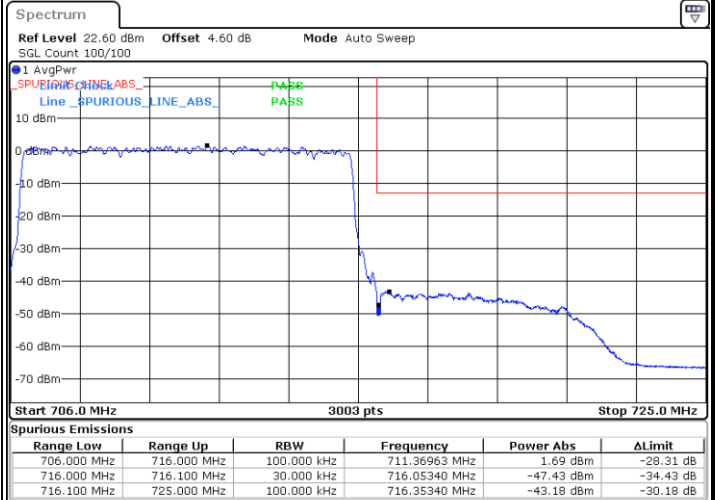
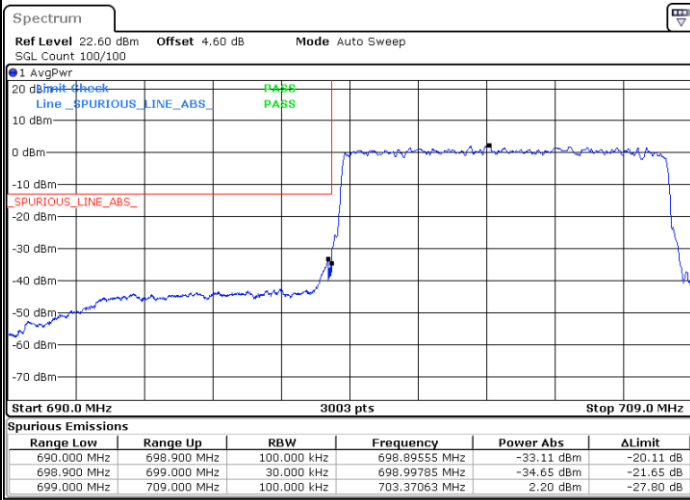


Date: 9.JUL.2020 14:43:25

Date: 9.JUL.2020 15:15:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 14:41:18

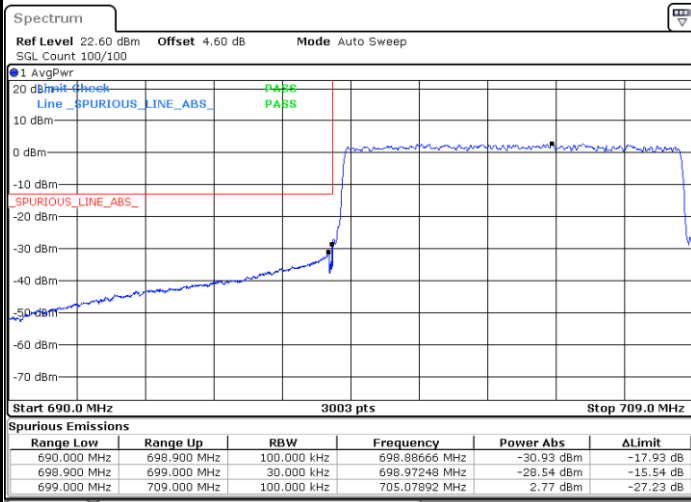
Date: 9.JUL.2020 15:16:22



FR1 n12 / 10MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 11:51:36



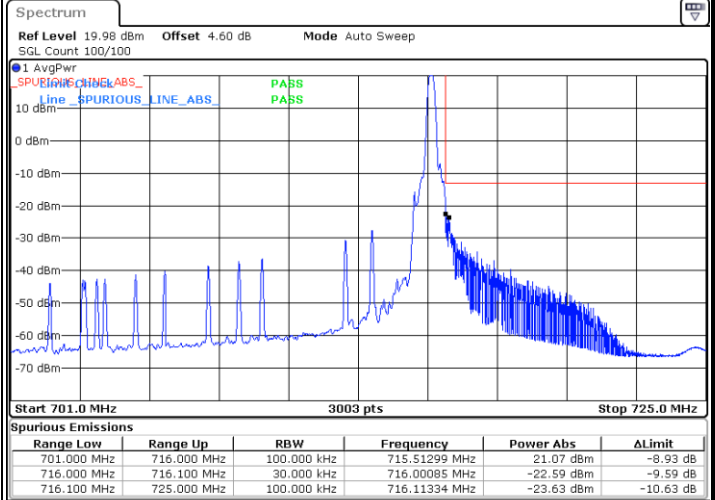
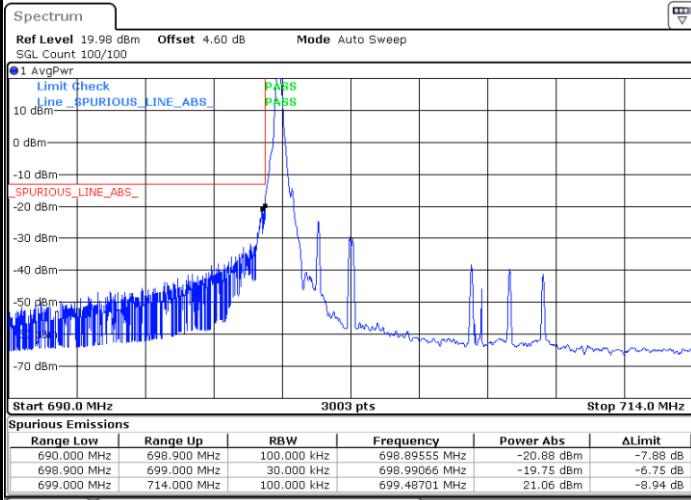
Date: 9.JUL.2020 15:03:14



FR1 n12 / 15MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

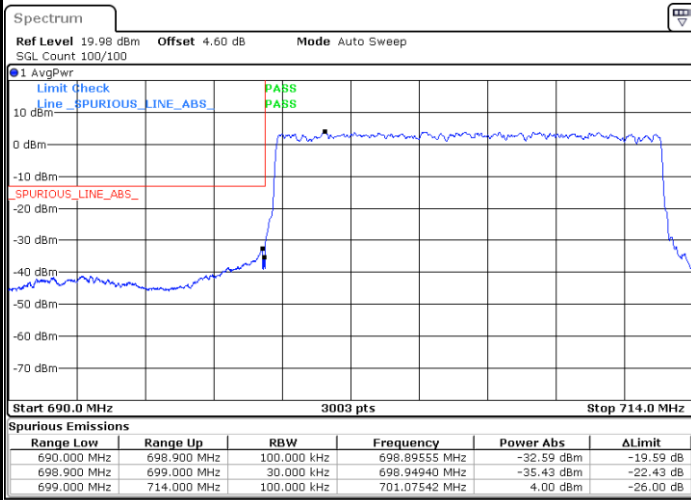


Date: 9.JUL.2020 09:43:25

Date: 9.JUL.2020 11:37:14

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 09:53:29

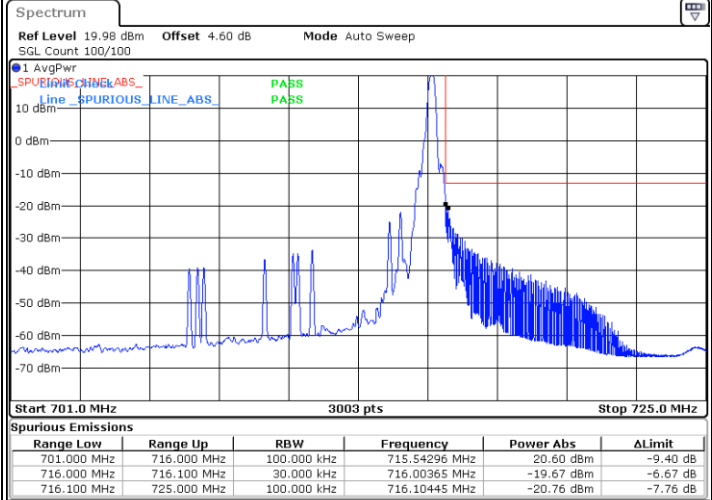
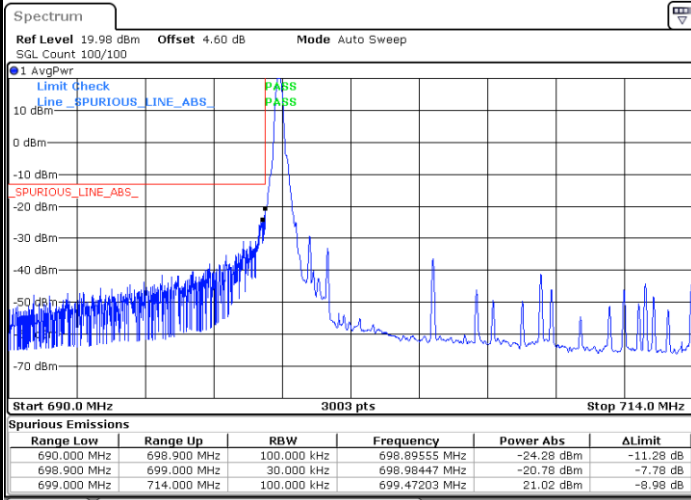
Date: 9.JUL.2020 11:38:46



FR1 n12 / 15MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

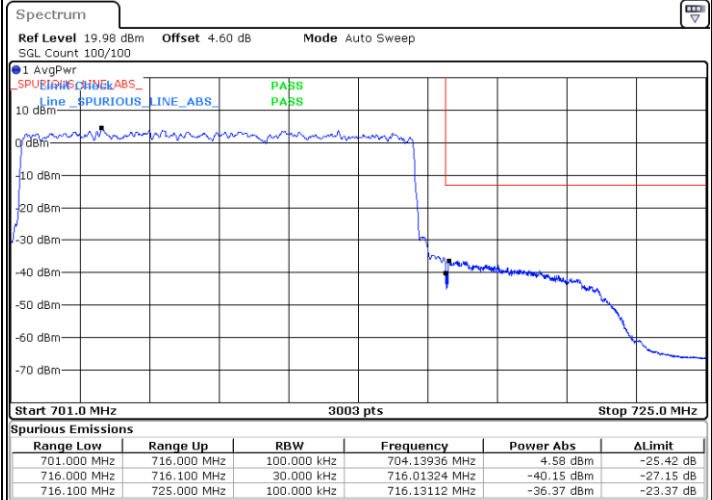
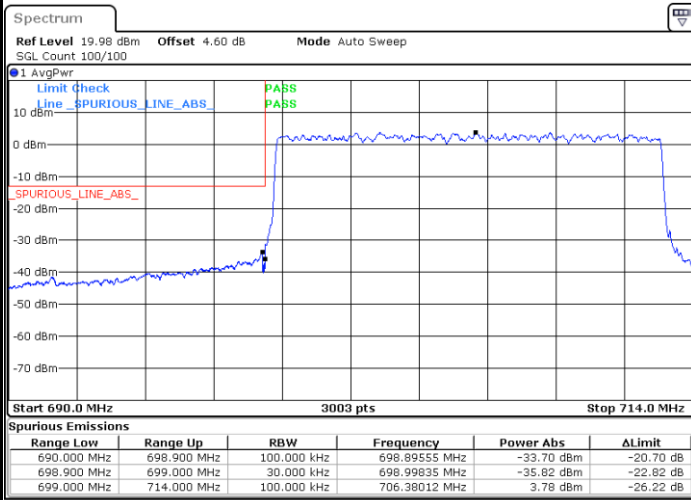


Date: 9.JUL.2020 09:44:49

Date: 9.JUL.2020 11:33:04

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 09:52:43

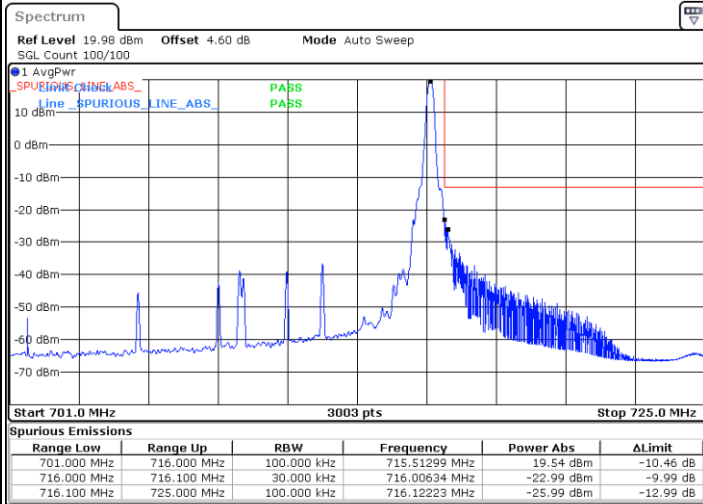
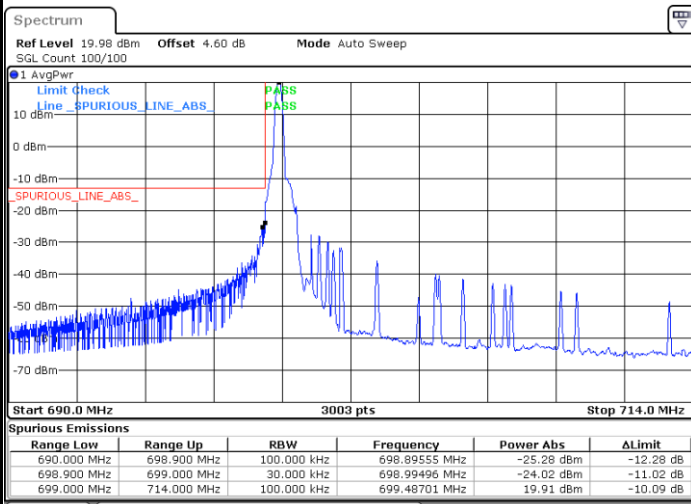
Date: 9.JUL.2020 11:31:06



FR1 n12 / 15MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

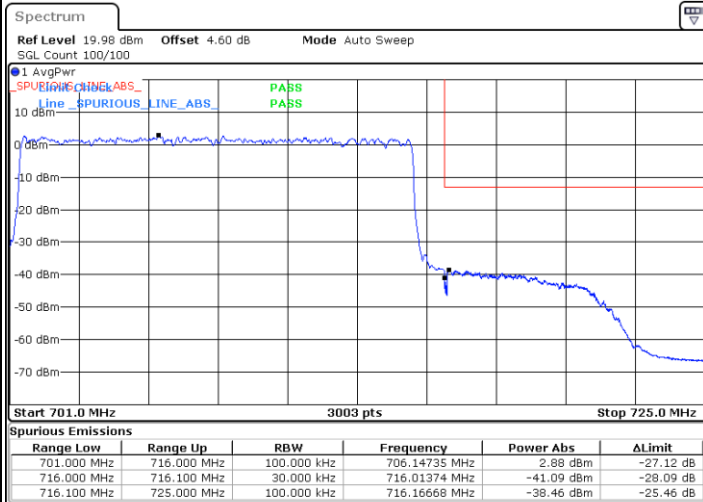
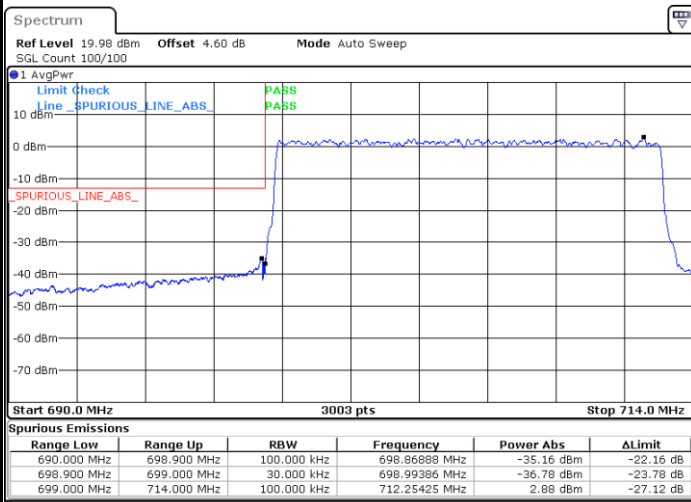


Date: 9.JUL.2020 09:48:34

Date: 9.JUL.2020 11:27:35

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 09:55:01

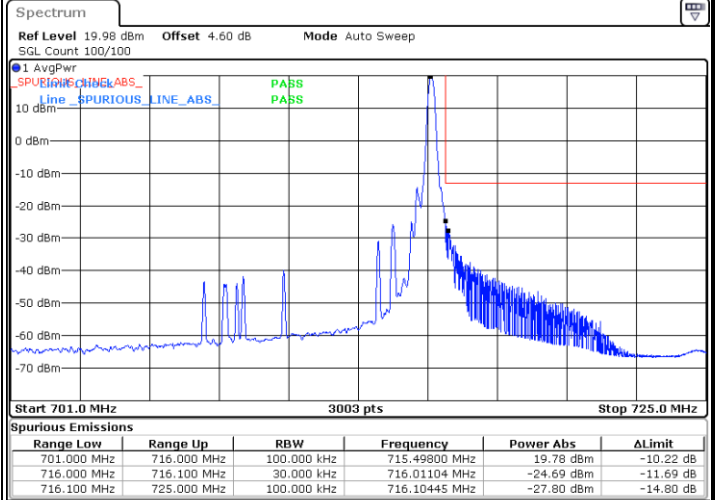
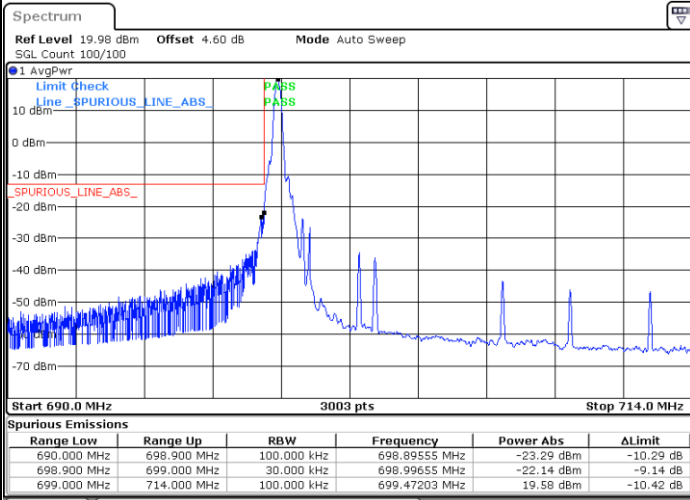
Date: 9.JUL.2020 11:29:28



FR1 n12 / 15MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

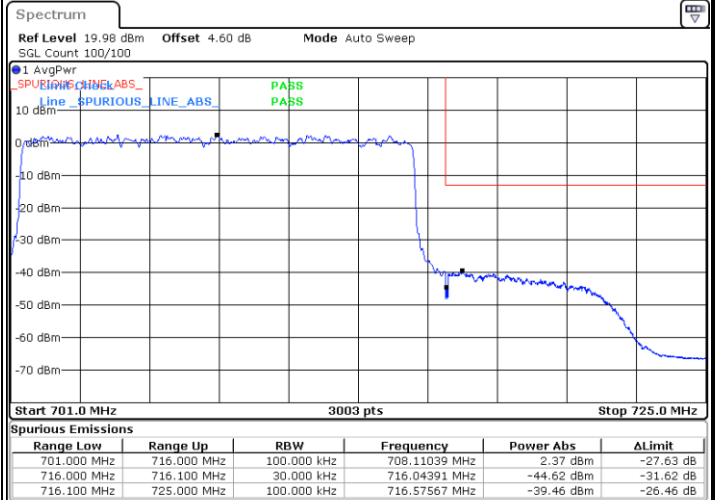
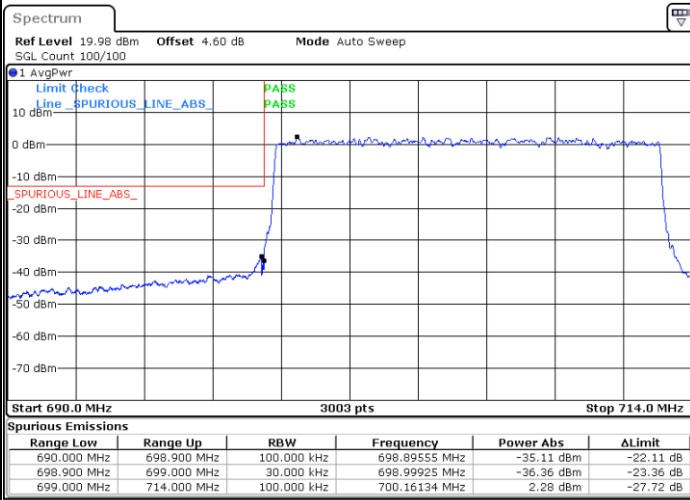


Date: 9.JUL.2020 09:50:09

Date: 9.JUL.2020 10:59:09

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 09:56:05

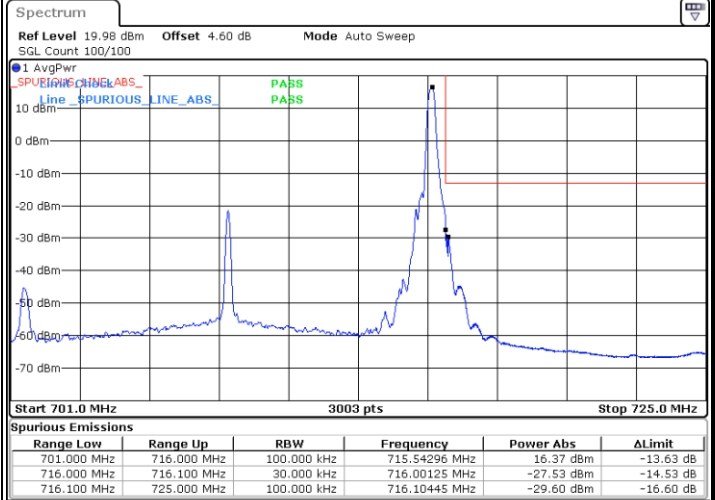
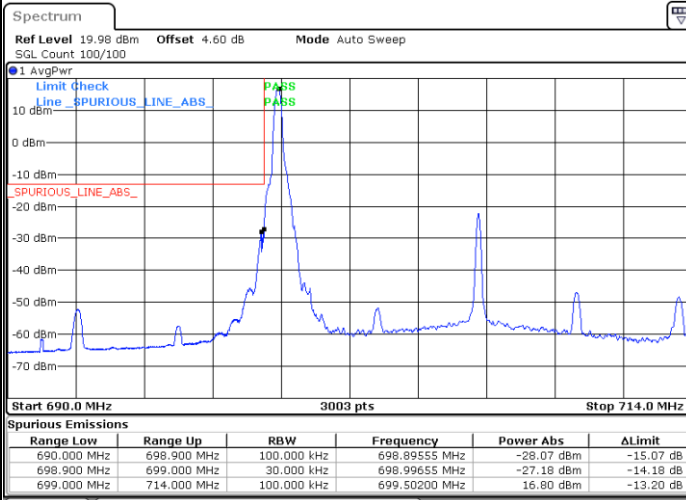
Date: 9.JUL.2020 11:03:38



FR1 n12 / 15MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

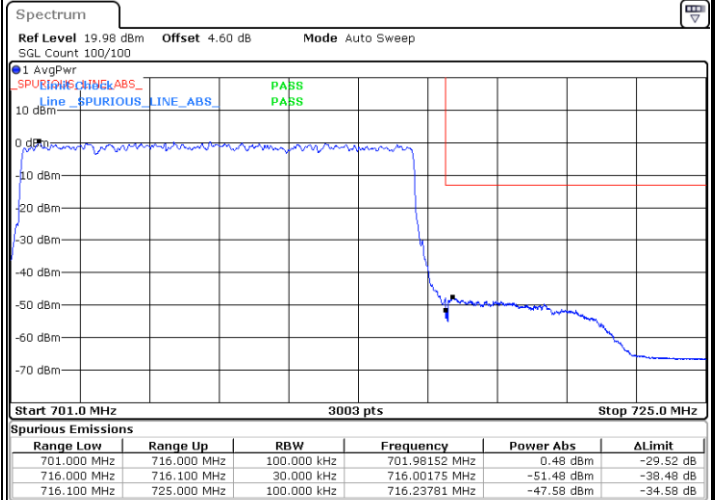
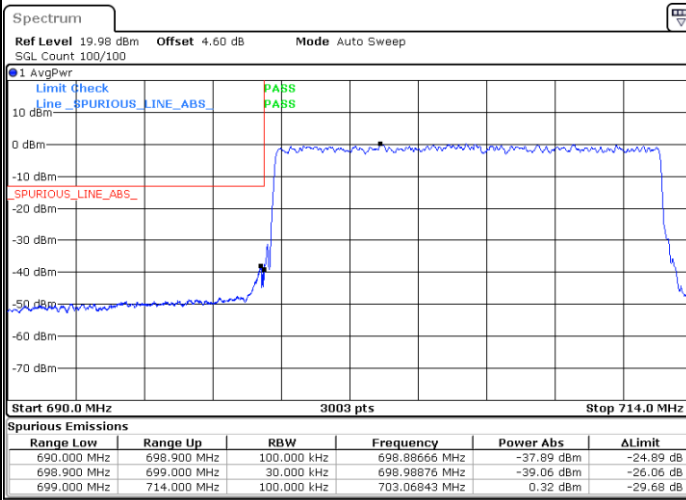


Date: 9.JUL.2020 10:00:29

Date: 9.JUL.2020 10:56:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 9.JUL.2020 09:59:30

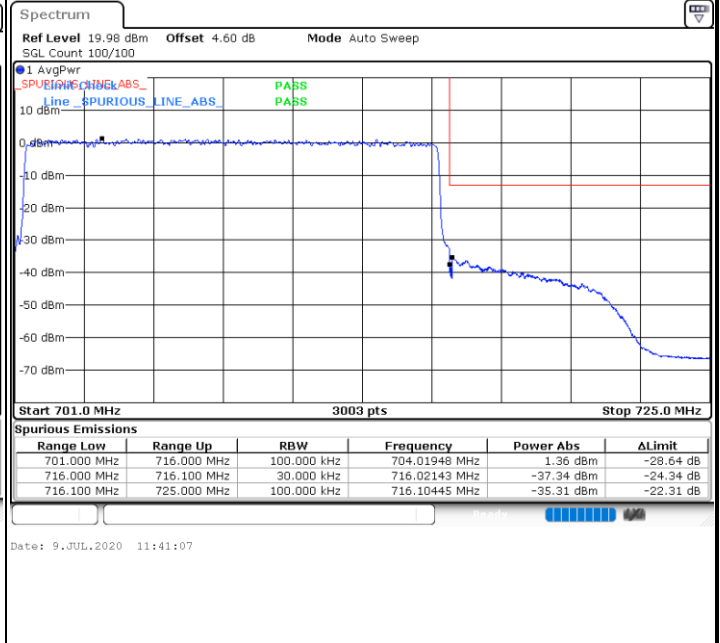
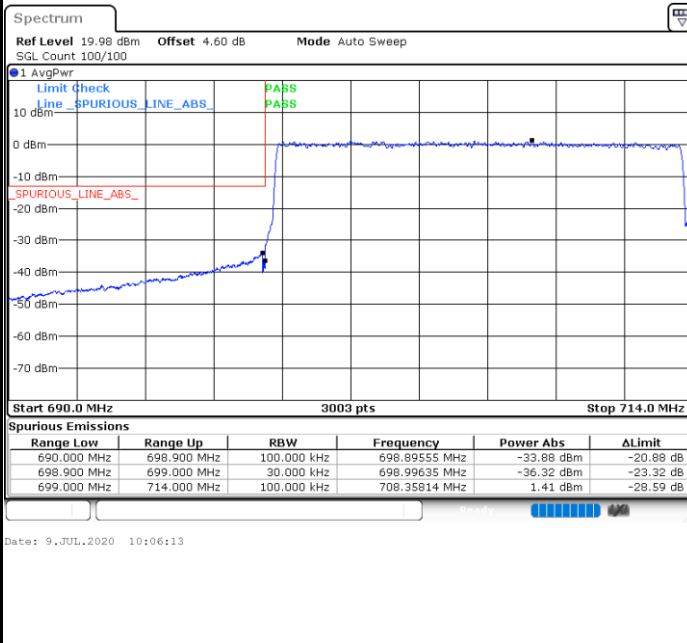
Date: 9.JUL.2020 10:54:01



FR1 n12 / 15MHz / CP OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



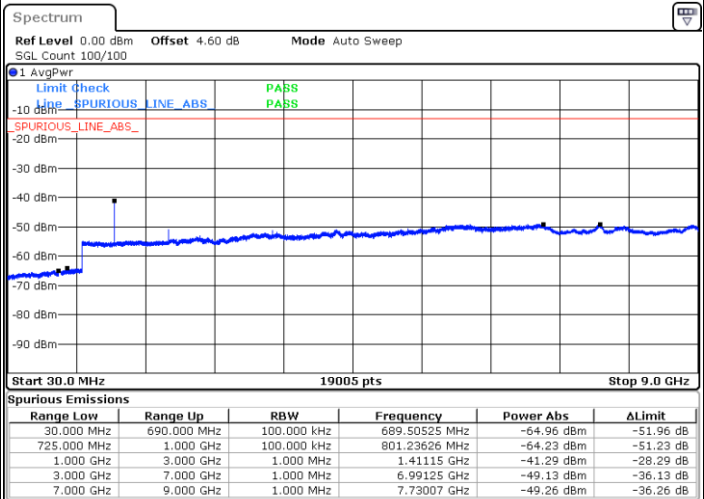
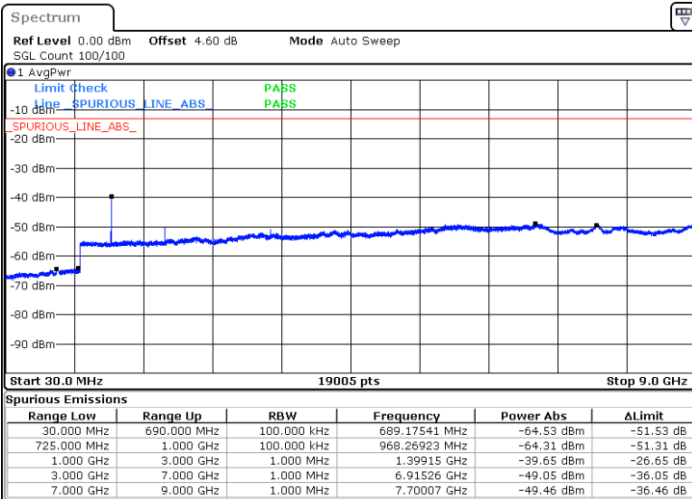


Conducted Spurious Emission

FR1 n12 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

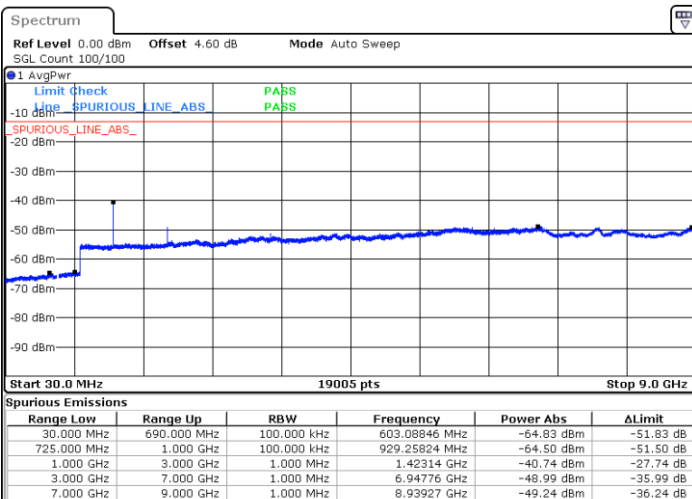
Middle Channel / 1RB1



Date: 9.JUL.2020 15:56:36

Date: 9.JUL.2020 16:05:51

Highest Channel / 1RB1



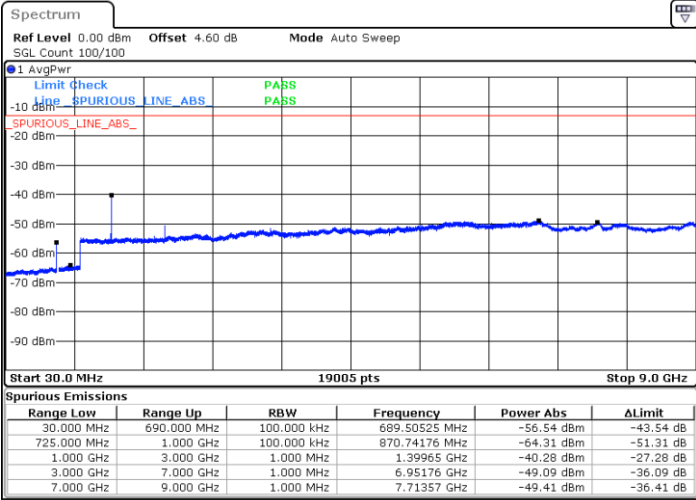
Date: 9.JUL.2020 16:07:12



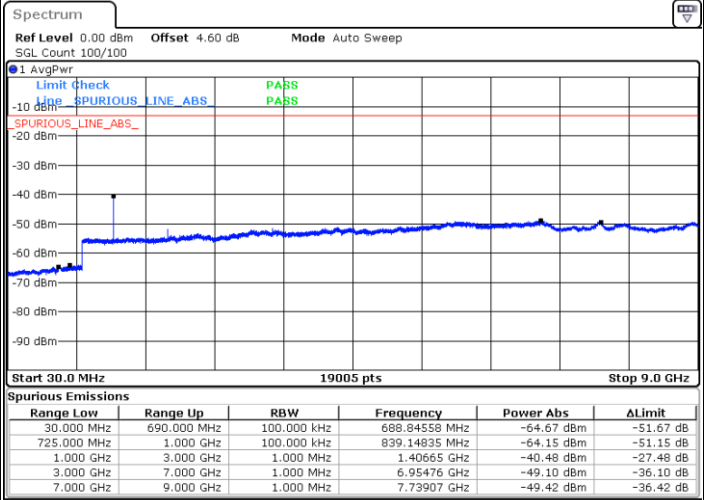
FR1 n12 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

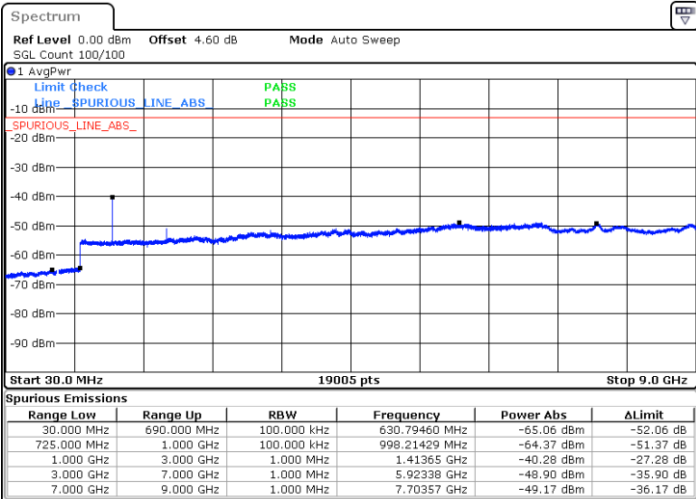


Date: 9.JUL.2020 14:35:42



Date: 9.JUL.2020 14:47:38

Highest Channel / 1RB1



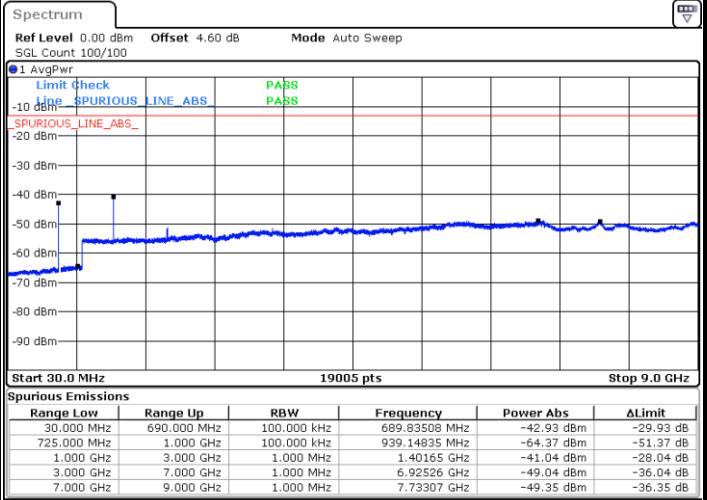
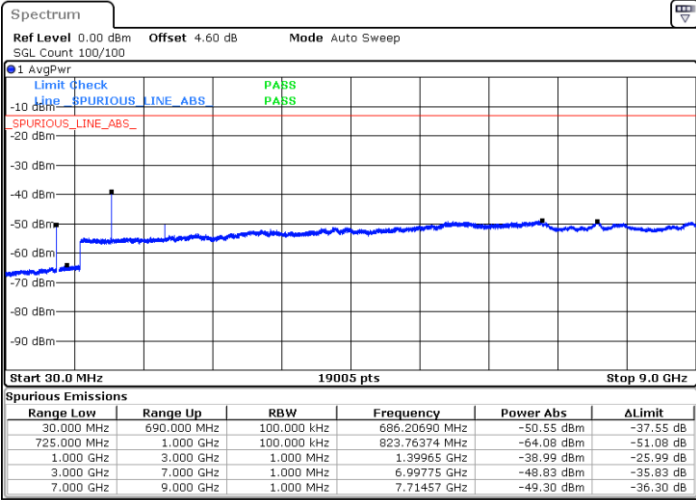
Date: 9.JUL.2020 15:13:13



FR1 n12 / 15MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

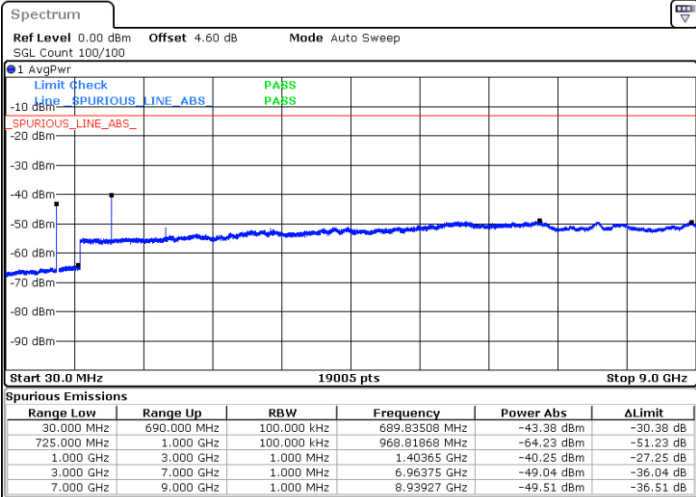
Middle Channel / 1RB1



Date: 9.JUL.2020 09:50:55

Date: 9.JUL.2020 10:50:33

Highest Channel / 1RB1



Date: 9.JUL.2020 11:34:51



Frequency Stability

Test Conditions		FR1 n12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0038	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0008	
20	Battery End Point	0.0014	

Note:

- 1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.60 V. ; Maximum Voltage =4.45 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n25

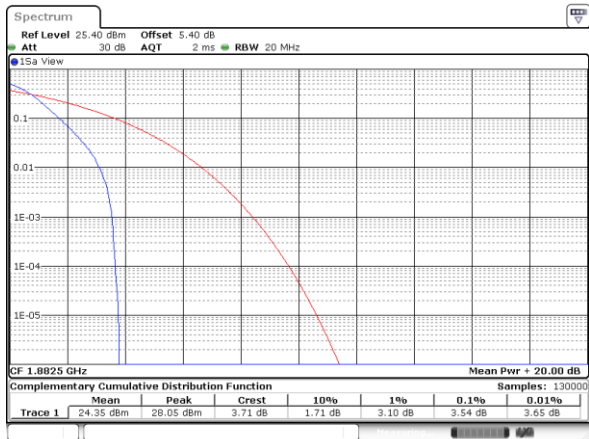
Peak-to-Average Ratio

Mode	FR1 n25 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.54	4.32	5.59	6.03	PASS
Mode	FR1 n25 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.78				PASS



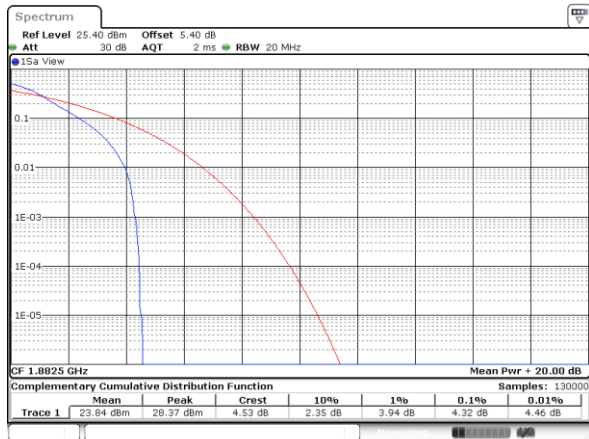
FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



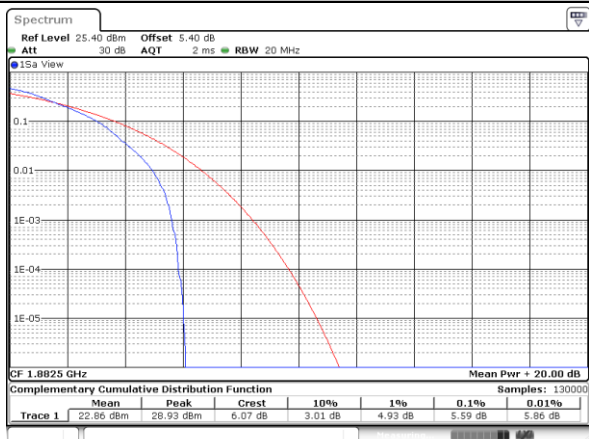
Date: 10_JUL_2020 11:48:03

QPSK



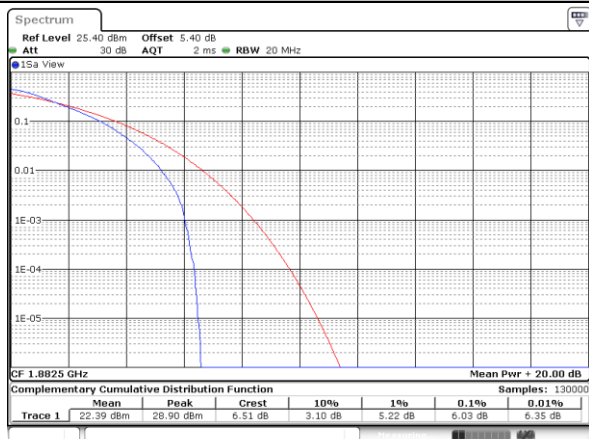
Date: 10_JUL_2020 11:48:16

16QAM



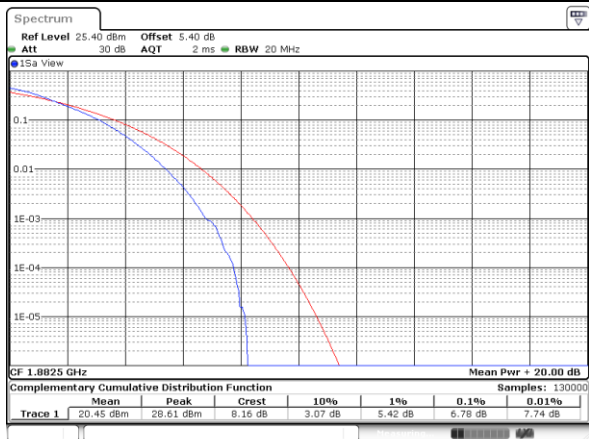
Date: 10_JUL_2020 11:48:28

64QAM



Date: 10_JUL_2020 11:48:41

256QAM



Date: 10_JUL_2020 11:49:02



26dB Bandwidth

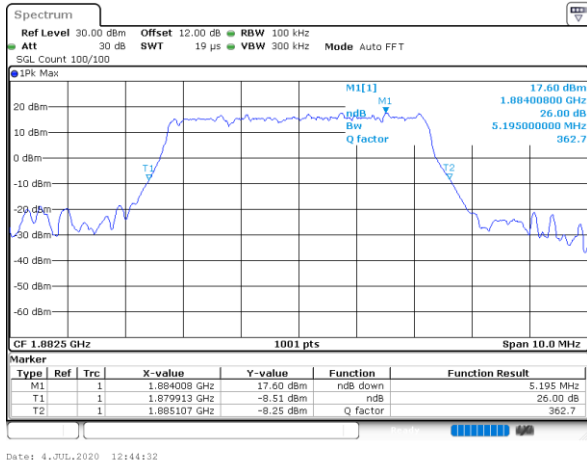
Mode	FR1 n25 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	5.20		9.57		14.48		18.94	

Mode	FR1 n25 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.25	5.18	9.93	10.03	14.99	15.14	20.02	20.18
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	5.10	5.09	9.93	9.81	14.99	15.08	20.02	19.78



FR1 n25 / 5MHz / DFT-S OFDM / Middle Channel

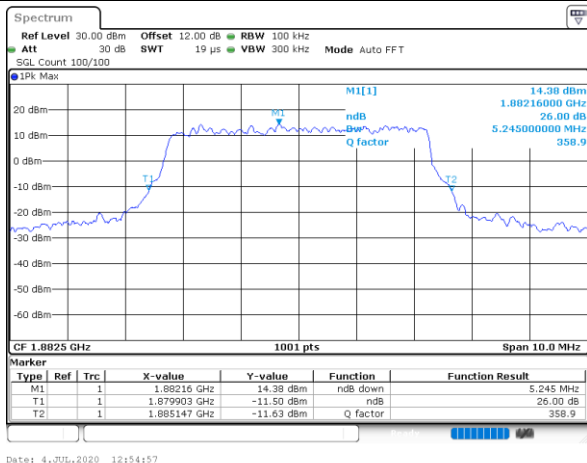
PI/2 BPSK



Date: 4.JUL.2020 12:44:32

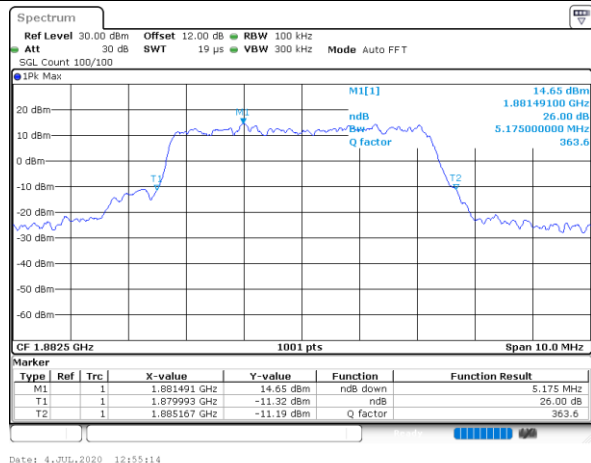
FR1 n25 / 5MHz / CP OFDM / Middle Channel

QPSK



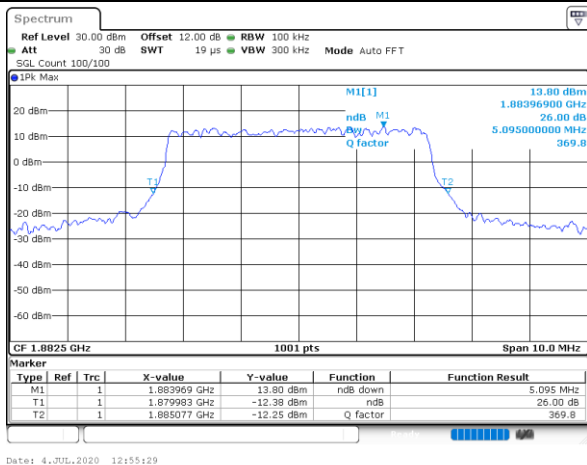
Date: 4.JUL.2020 12:54:57

16QAM



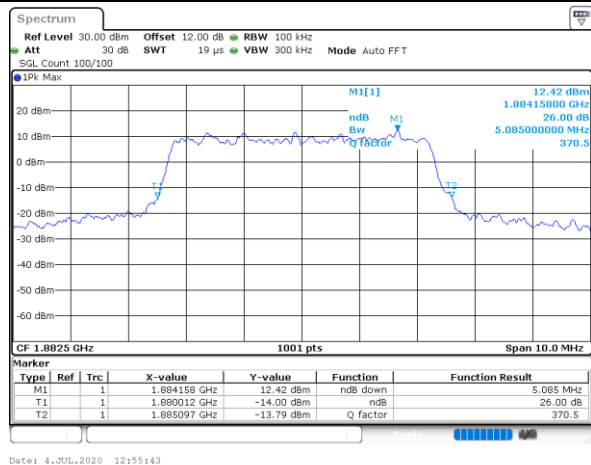
Date: 4.JUL.2020 12:55:14

64QAM



Date: 4.JUL.2020 12:55:29

256QAM

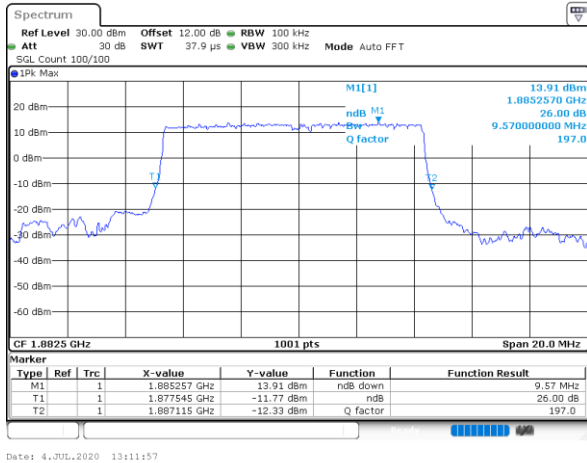


Date: 4.JUL.2020 12:55:43



FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel

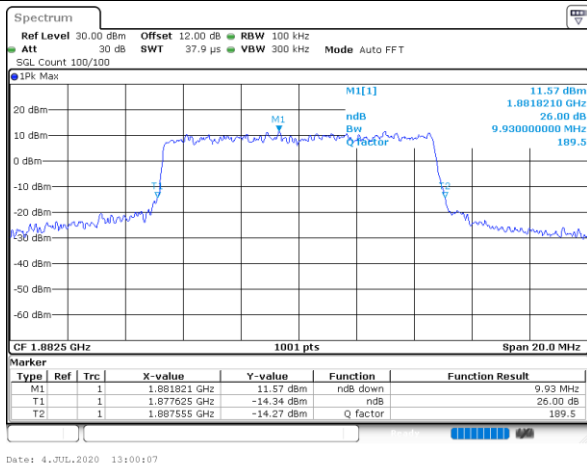
PI/2 BPSK



Date: 4.JUL.2020 13:11:57

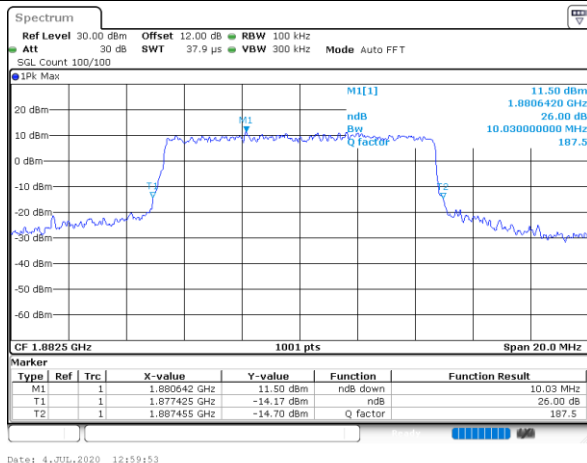
FR1 n25 / 10MHz / CP OFDM / Middle Channel

QPSK



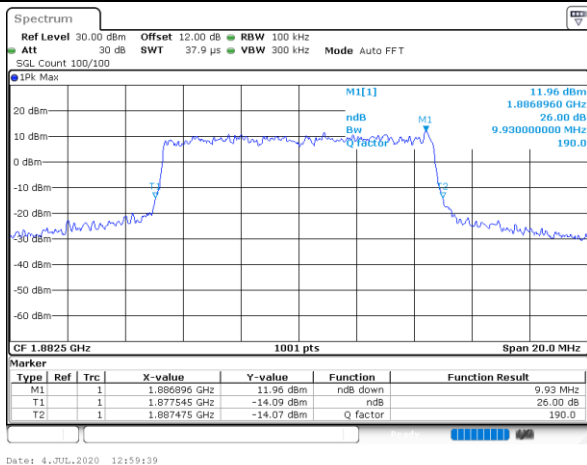
Date: 4.JUL.2020 13:10:07

16QAM



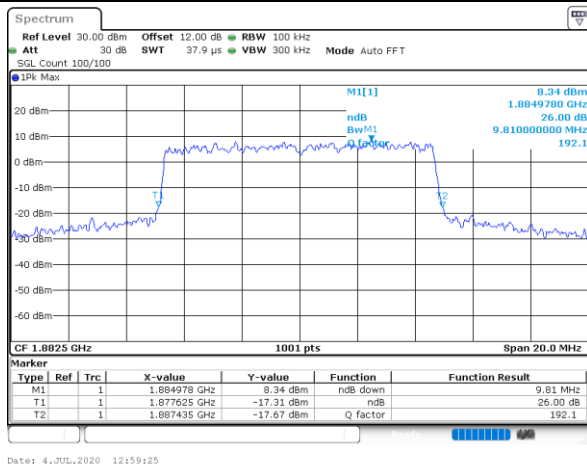
Date: 4.JUL.2020 12:59:53

64QAM



Date: 4.JUL.2020 12:59:39

256QAM

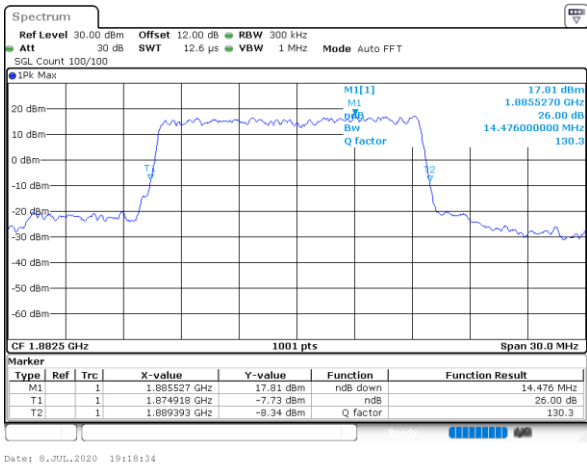


Date: 4.JUL.2020 12:59:25



FR1 n25 / 15MHz / DFT-S OFDM / Middle Channel

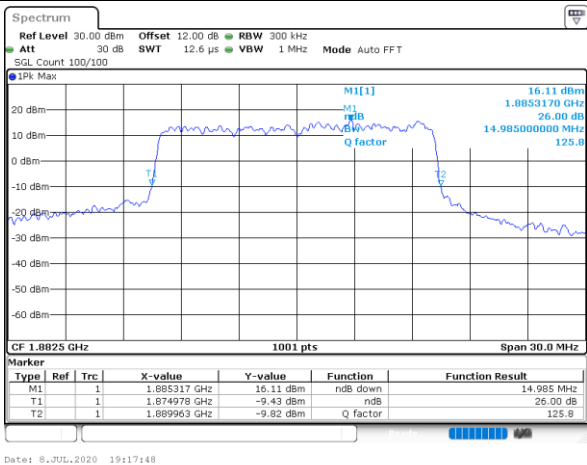
PI/2 BPSK



Date: 8 JUL 2020 19:18:34

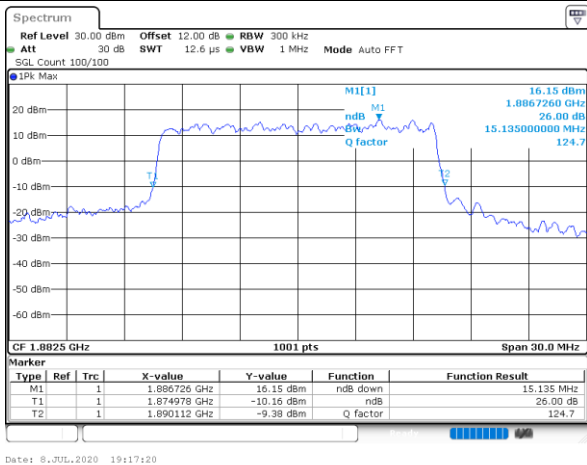
FR1 n25 / 15MHz / CP OFDM / Middle Channel

QPSK



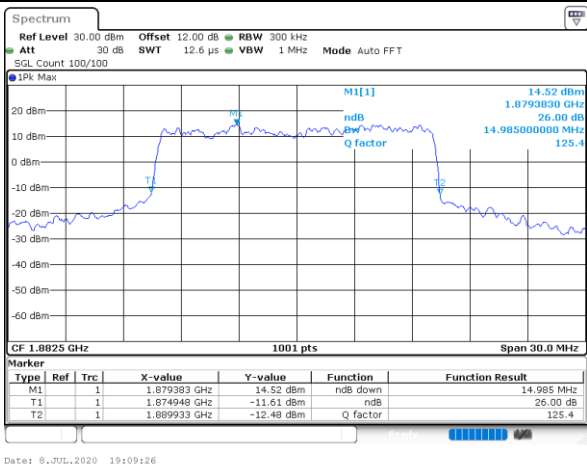
Date: 8 JUL 2020 19:17:48

16QAM



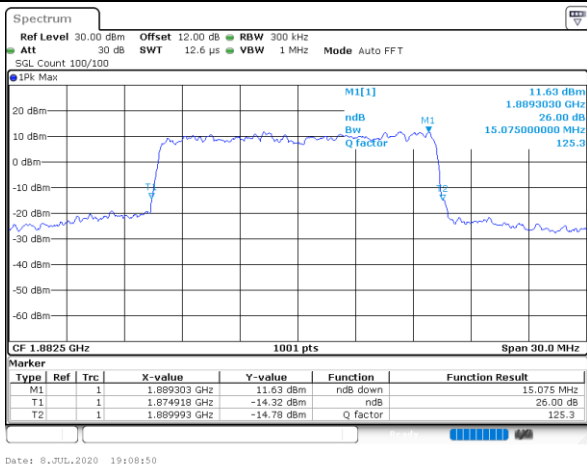
Date: 8 JUL 2020 19:17:50

64QAM



Date: 8 JUL 2020 19:10:26

256QAM

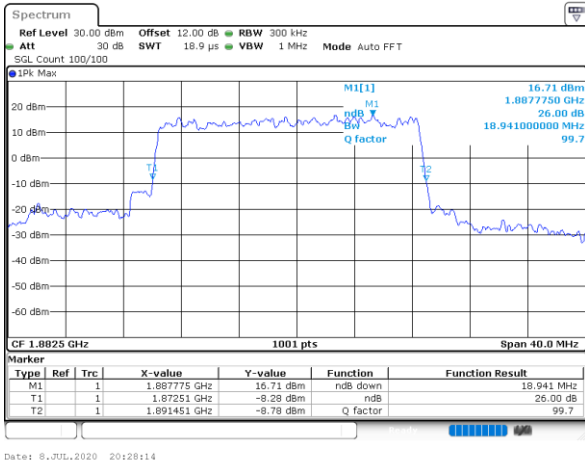


Date: 8 JUL 2020 19:08:50



FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel

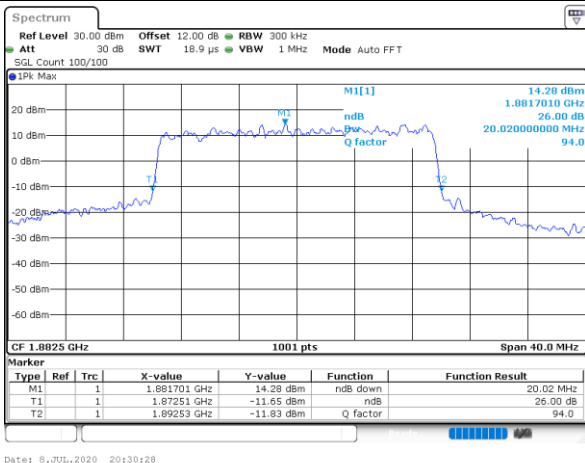
PI/2 BPSK



Date: 8 JUL 2020 20:28:14

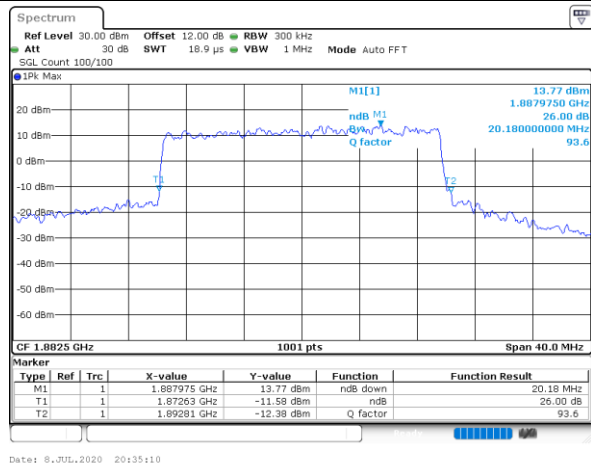
FR1 n25 / 20MHz / CP OFDM

QPSK



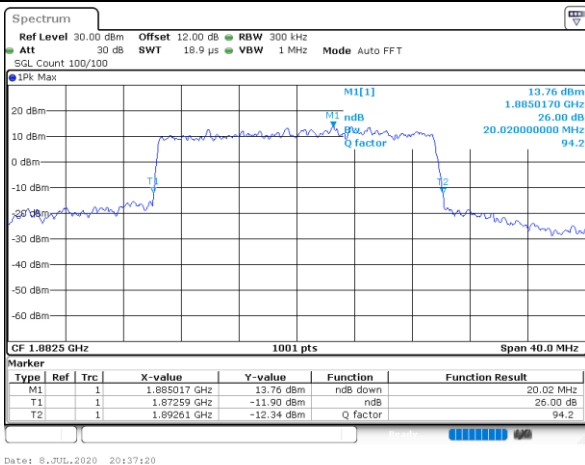
Date: 8 JUL 2020 20:30:28

16QAM



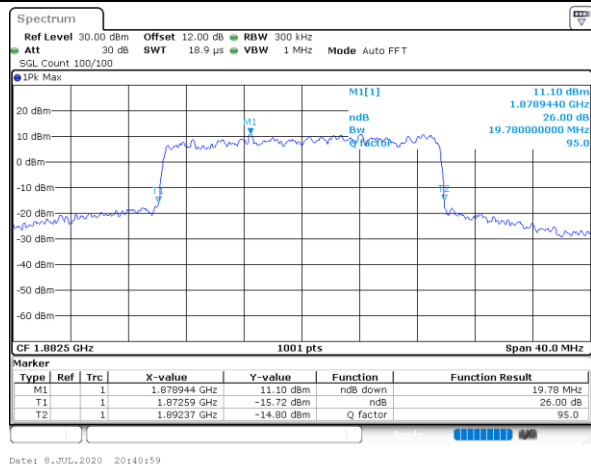
Date: 8 JUL 2020 20:35:10

64QAM



Date: 8 JUL 2020 20:37:20

256QAM



Date: 8 JUL 2020 20:40:59



Occupied Bandwidth

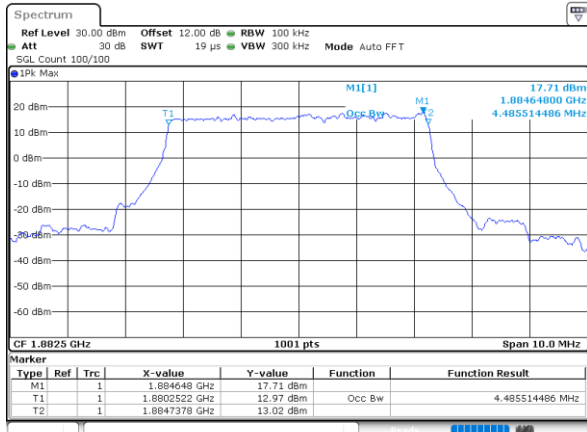
Mode	FR1 n25 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.49		8.89		13.49		17.90	

Mode	FR1 n25 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.51	4.47	9.27	9.27	14.09	14.15	18.98	18.94
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.47	4.56	9.27	9.27	14.15	14.15	18.90	18.98



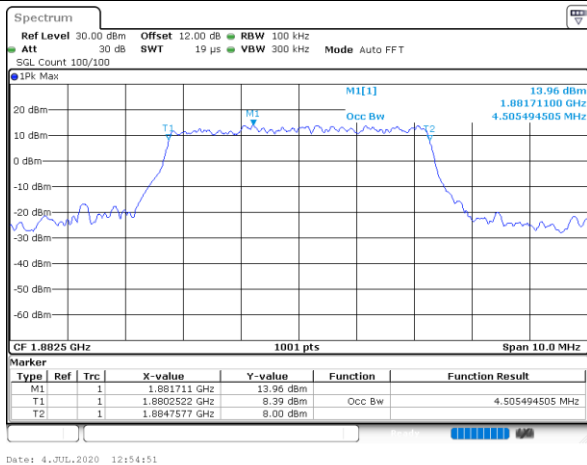
FR1 n25 / 5MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

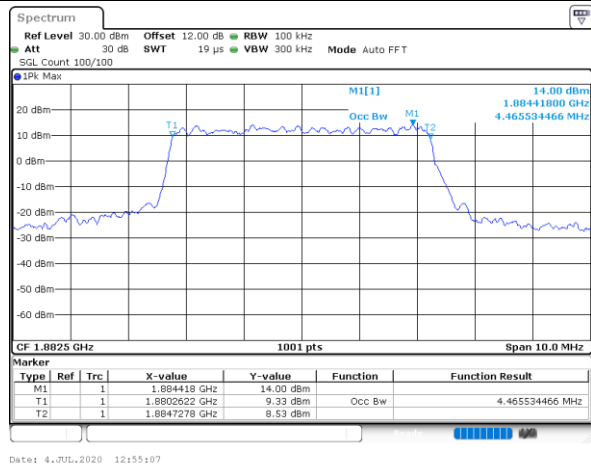


FR1 n25 / 5MHz / CP OFDM

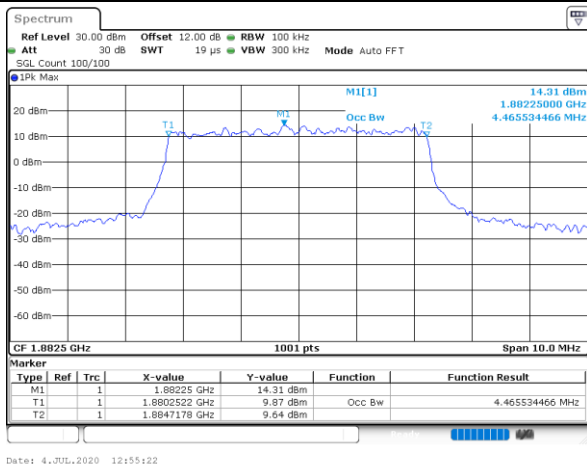
QPSK



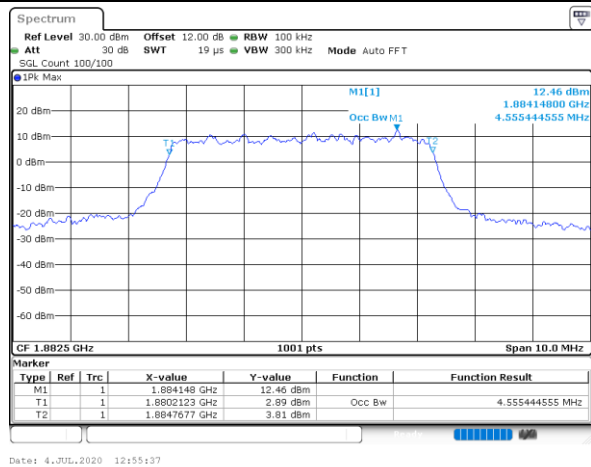
16QAM



64QAM



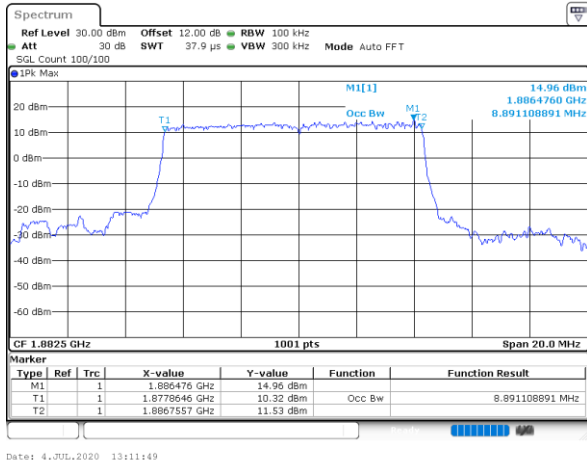
256QAM





FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel

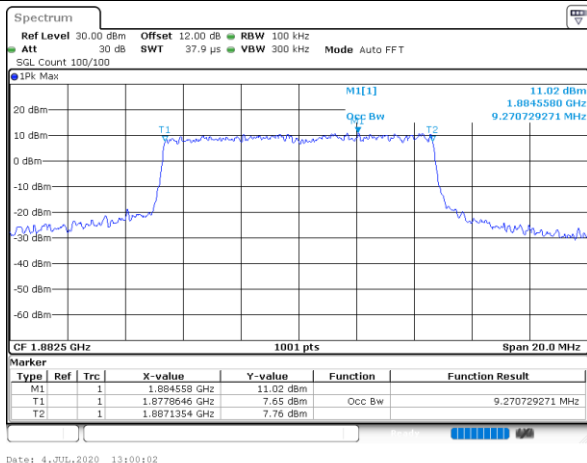
PI/2 BPSK



Date: 4.JUL.2020 13:11:49

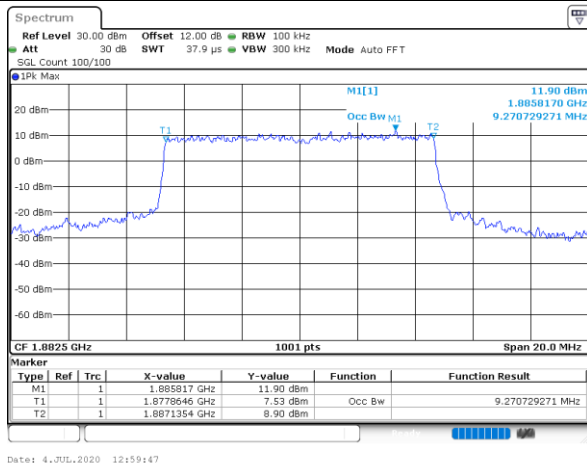
FR1 n25 / 10MHz / CP OFDM

QPSK



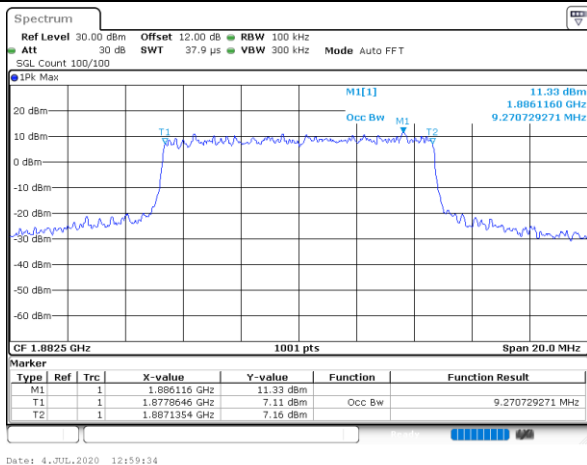
Date: 4.JUL.2020 13:00:02

16QAM



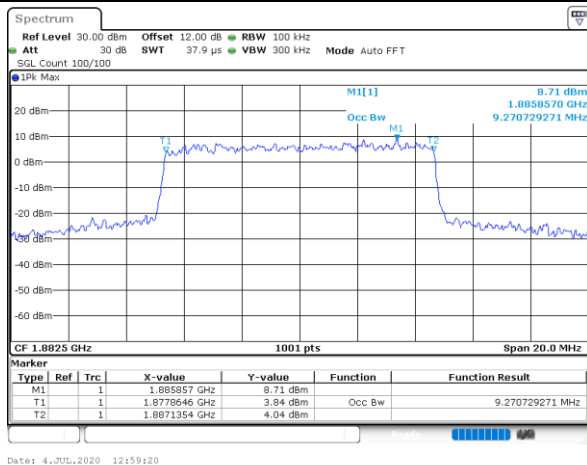
Date: 4.JUL.2020 12:59:47

64QAM



Date: 4.JUL.2020 12:59:34

256QAM

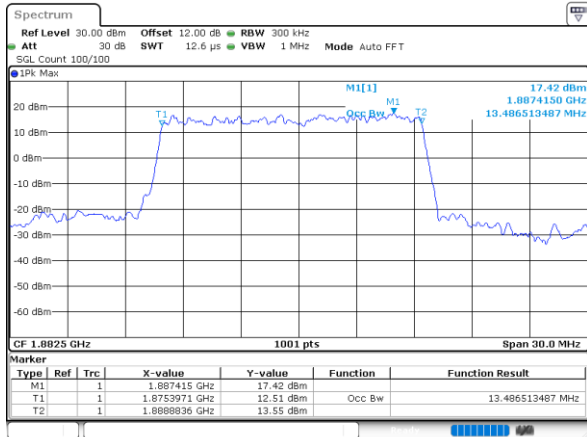


Date: 4.JUL.2020 12:59:20



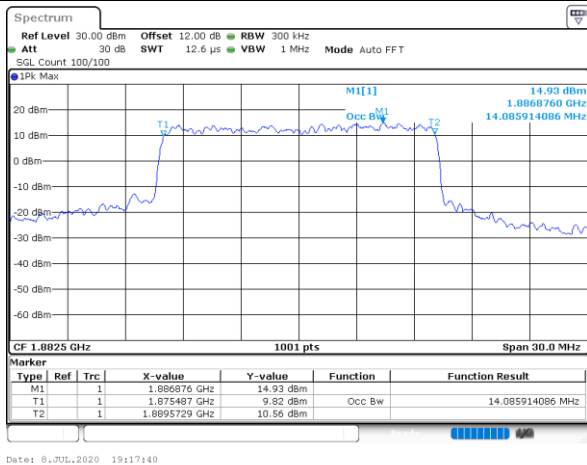
FR1 n25 / 15MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

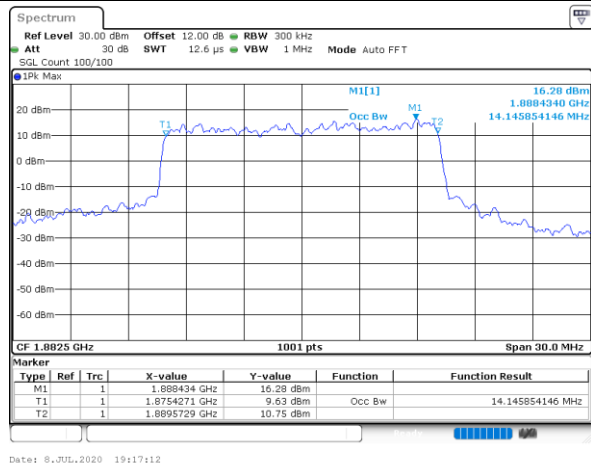


FR1 n25 / 15MHz / CP OFDM

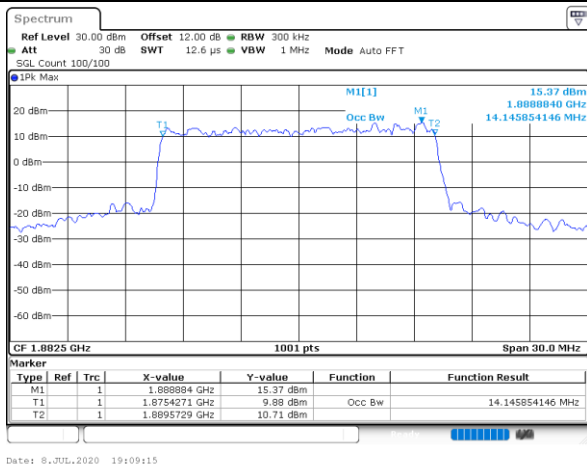
QPSK



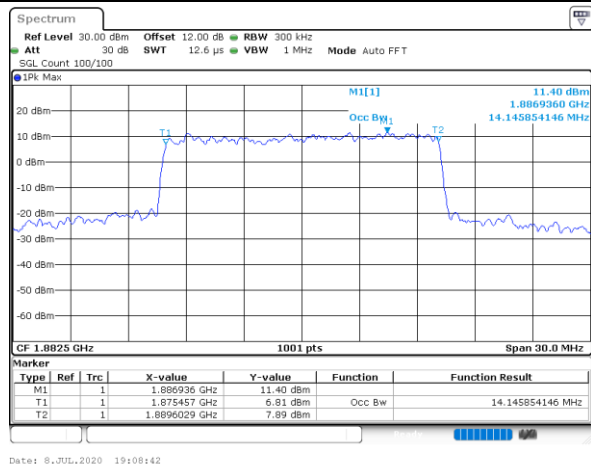
16QAM



64QAM



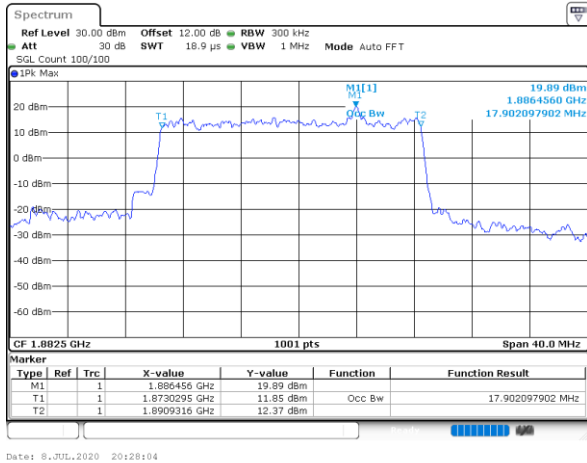
256QAM





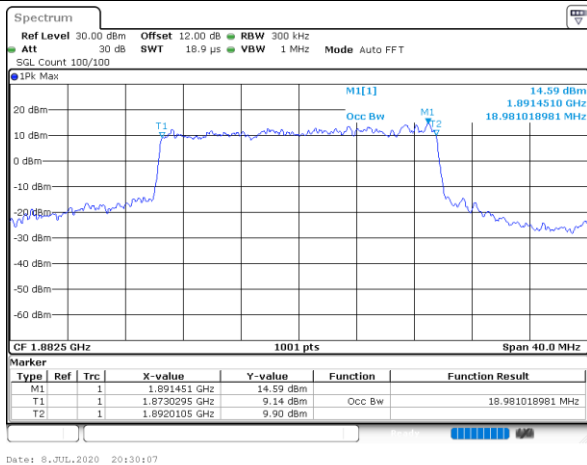
FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

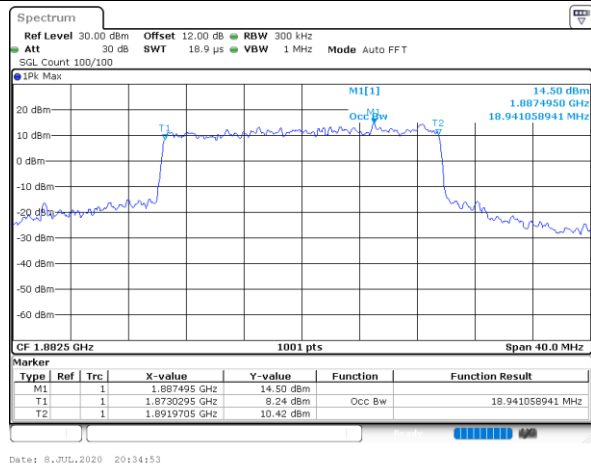


FR1 n25 / 20MHz / CP OFDM

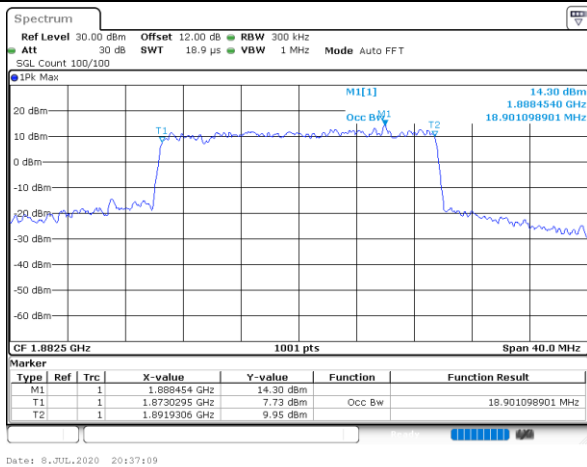
QPSK



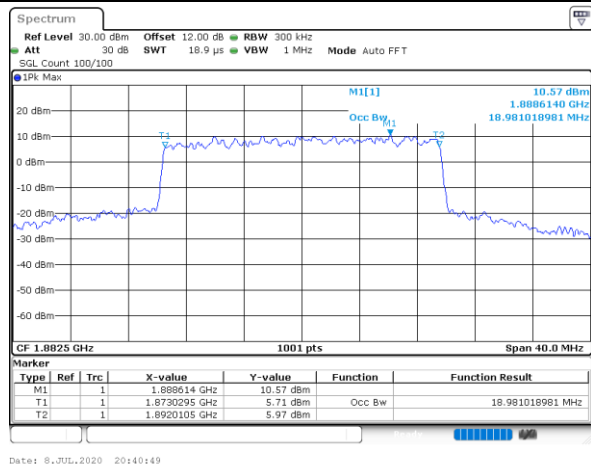
16QAM



64QAM



256QAM



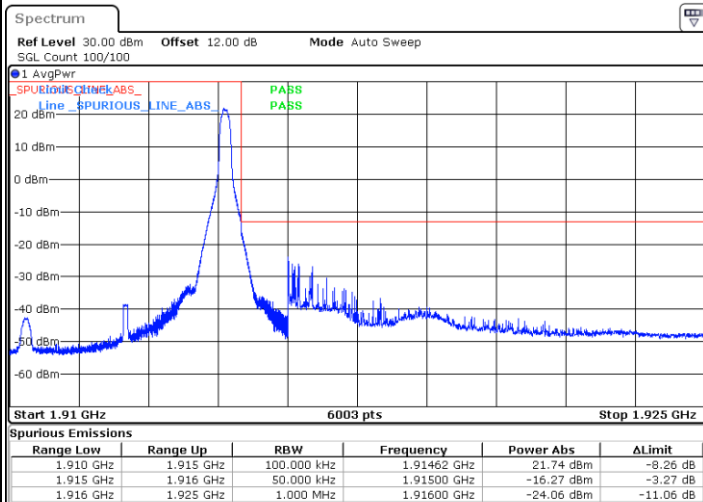
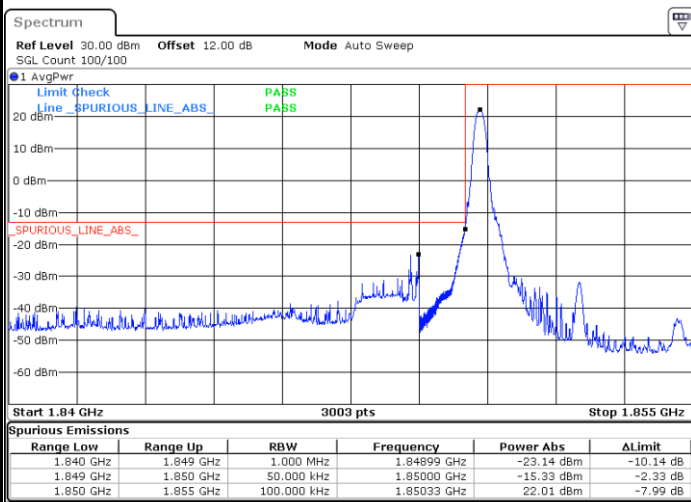


Conducted Band Edge

FR1 n25 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

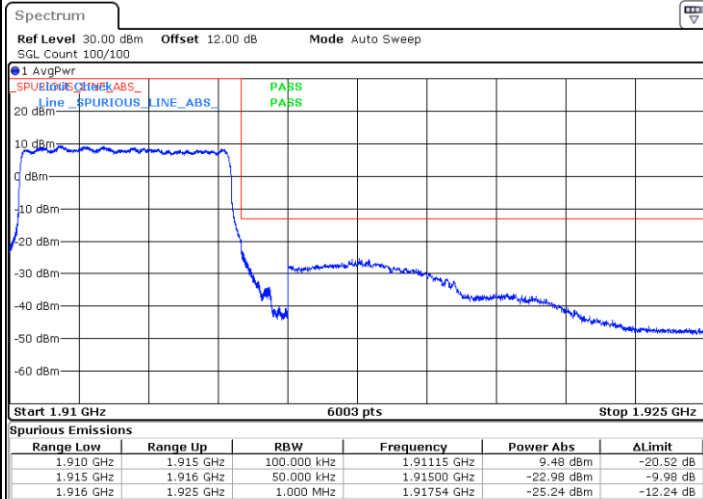
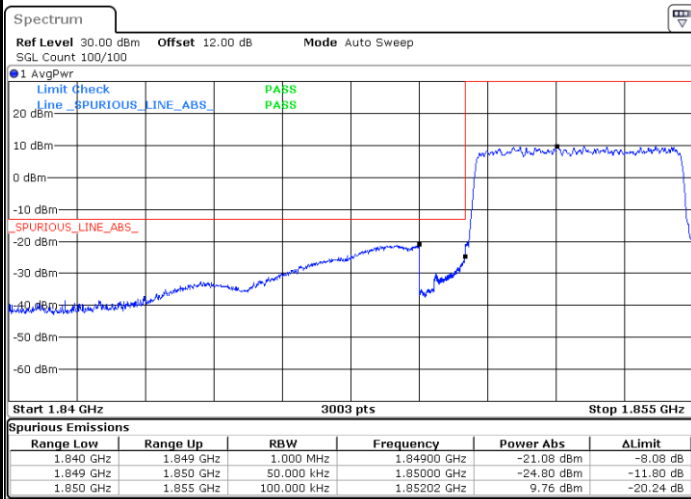


Date: 4.JUL.2020 12:40:31

Date: 4.JUL.2020 12:49:46

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 4.JUL.2020 12:43:54

Date: 4.JUL.2020 12:50:36