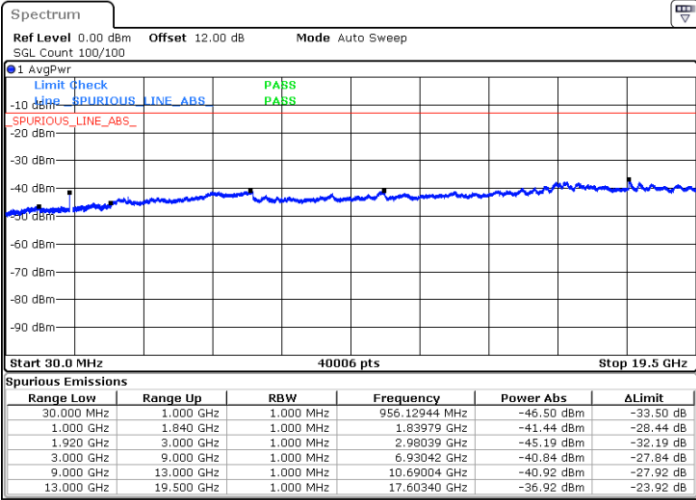




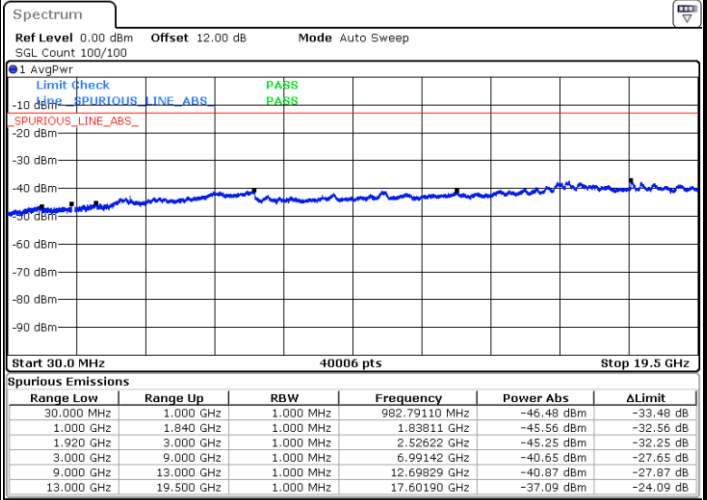
FR1 n25 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

Middle Channel / 1RB1

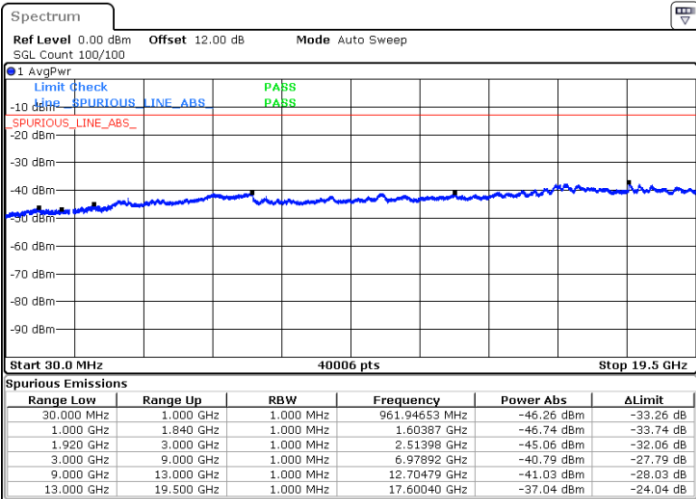


Date: 8 JUL 2020 20:53:49



Date: 8 JUL 2020 20:57:04

Highest Channel / 1RB1



Date: 8 JUL 2020 20:47:16



Frequency Stability

Test Conditions		FR1 n25 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0020	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0037	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0019	
20	Battery End Point	0.0010	

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 n66

Peak-to-Average Ratio

Mode	FR1 n66 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Lowest CH	3.88	4.26	5.57	6.00	PASS
Middle CH	3.97	4.43	5.59	5.94	
Highest CH	3.65	4.46	5.51	5.97	
Mode	FR1 n66 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Lowest CH	6.81				PASS
Middle CH	6.72				
Highest CH	6.64				



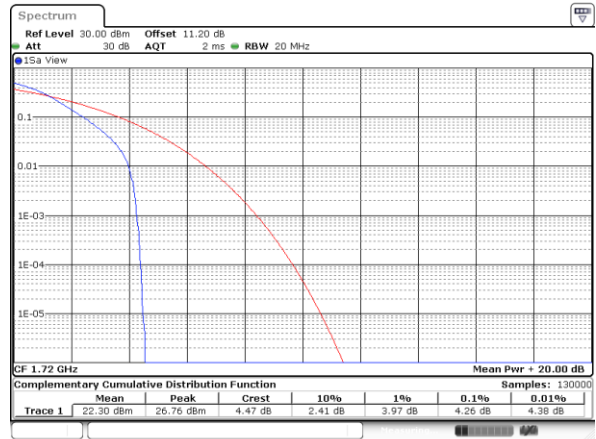
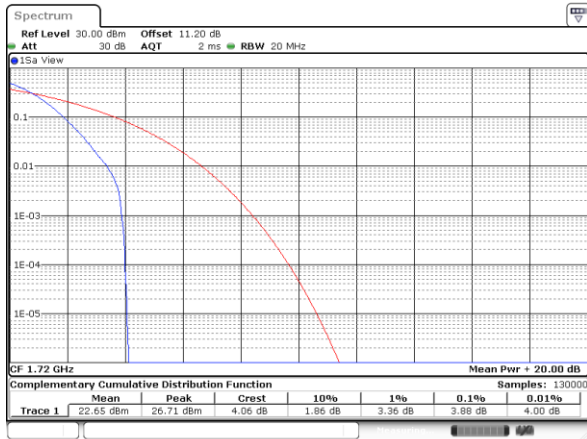
FR1 n66 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

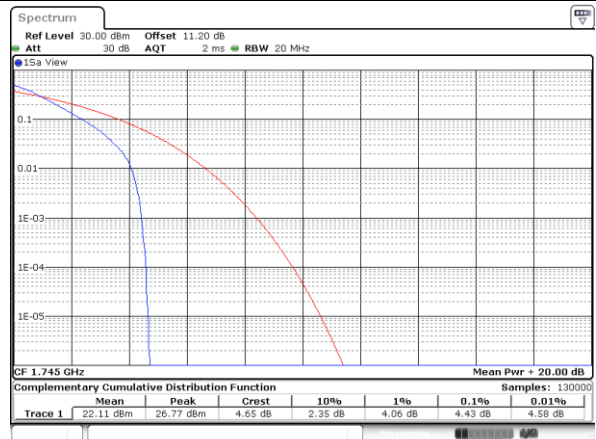
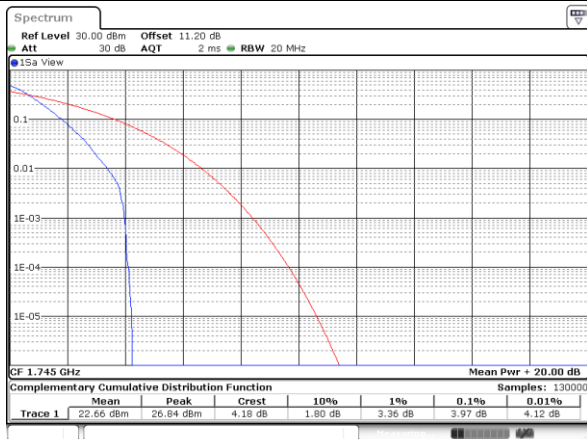


Date: 4.JUL.2020 10:02:36

Date: 4.JUL.2020 10:25:26

Middle Channel / Full RB

Middle Channel / Full RB

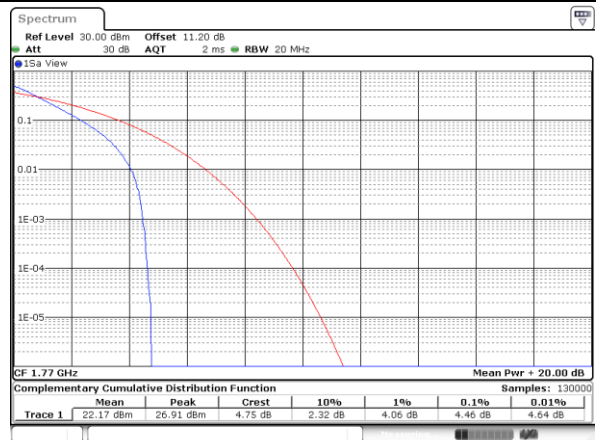
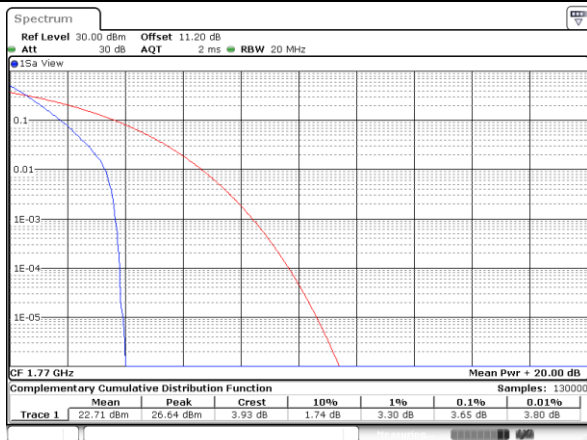


Date: 4.JUL.2020 10:07:36

Date: 4.JUL.2020 10:08:03

Highest Channel / Full RB

Highest Channel / Full RB



Date: 4.JUL.2020 10:10:29

Date: 4.JUL.2020 10:10:06



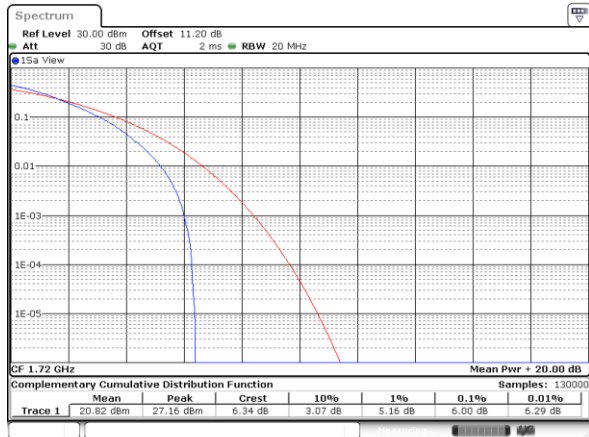
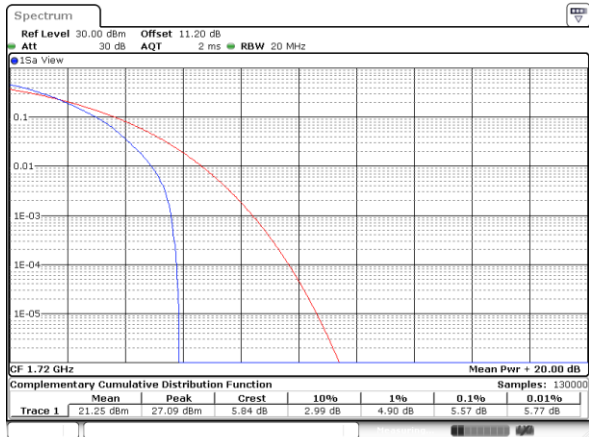
FR1 n66 / 20MHz / DFT-S OFDM

16QAM

64QAM

Lowest Channel / Full RB

Lowest Channel / Full RB

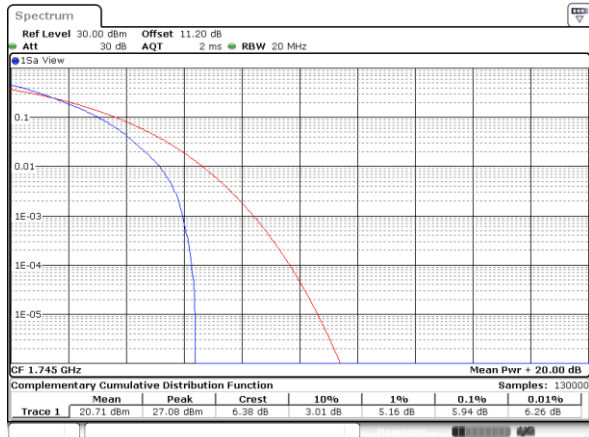
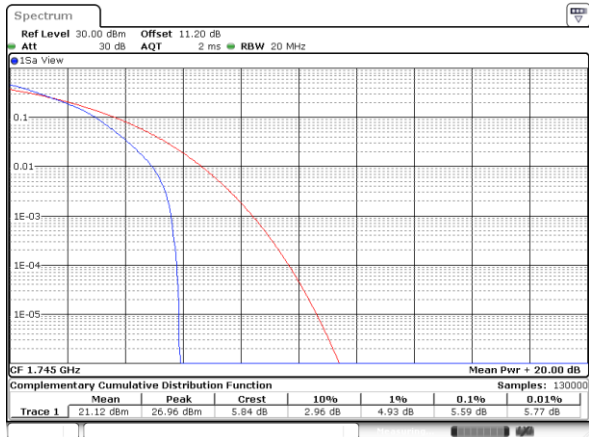


Date: 4.JUL.2020 10:25:36

Date: 4.JUL.2020 10:25:47

Middle Channel / Full RB

Middle Channel / Full RB

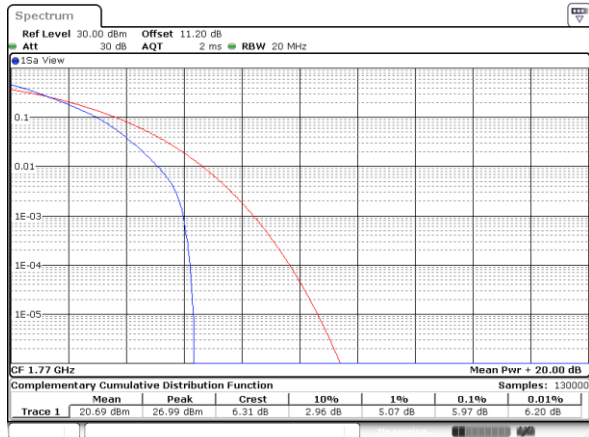
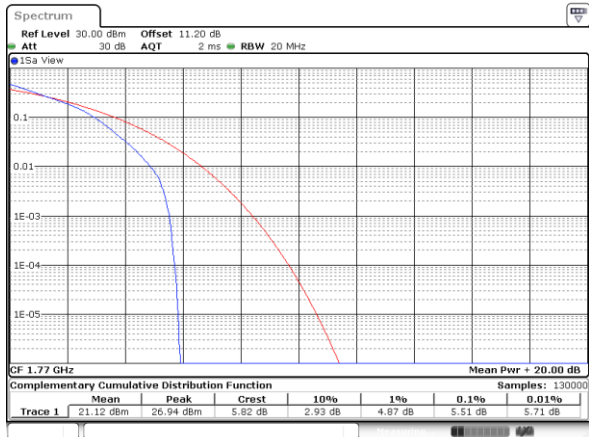


Date: 4.JUL.2020 10:08:13

Date: 4.JUL.2020 10:08:21

Highest Channel / Full RB

Highest Channel / Full RB



Date: 4.JUL.2020 10:09:44

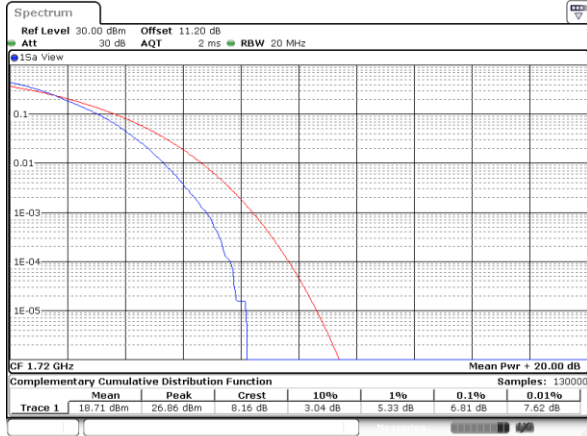
Date: 4.JUL.2020 10:09:26



FR1 n66 / 20MHz / DFT-S OFDM

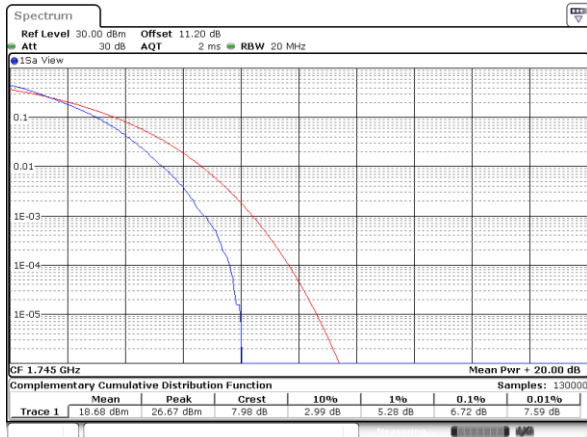
256QAM

Lowest Channel / Full RB



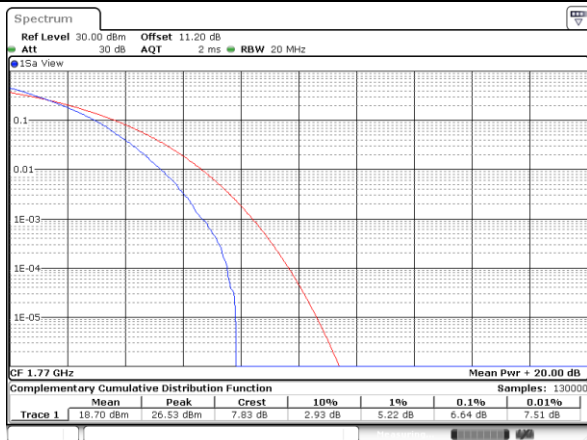
Date: 4.JUL.2020 10:26:01

Middle Channel / Full RB



Date: 4.JUL.2020 10:08:35

Highest Channel / Full RB



Date: 4.JUL.2020 10:09:04



26dB Bandwidth

Mode	FR1 n66 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Lowest CH	5.07		9.57		14.51		18.90	
Middle CH	4.92		9.45		14.45		18.94	
Highest CH	5.12		9.49		14.54		18.94	

Mode	FR1 n66 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.95	5.08	10.07	10.07	15.20	15.16	19.90	19.86
Middle CH	5.16	5.03	9.85	9.81	15.04	14.96	19.86	19.94
Highest CH	5.09	4.86	10.09	9.97	15.26	15.02	19.86	20.06

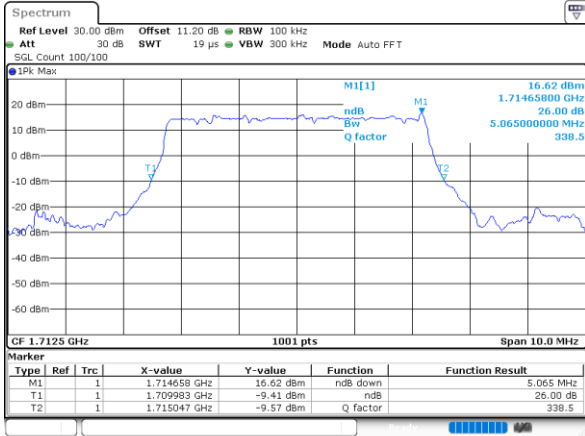
Mode	FR1 n66 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	5.17	5.14	9.99	9.97	14.89	14.96	19.82	20.06
Middle CH	5.07	4.89	9.91	10.05	14.96	15.04	19.82	20.22
Highest CH	5.21	5.18	9.91	9.97	15.04	14.87	19.74	19.98



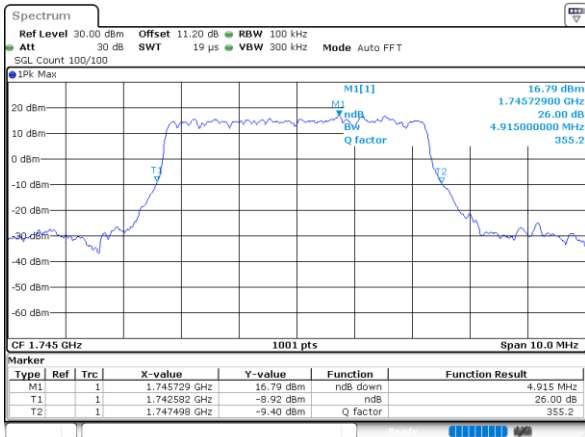
FR1 n66 / 5MHz / DFT-S OFDM

PI/2 BPSK

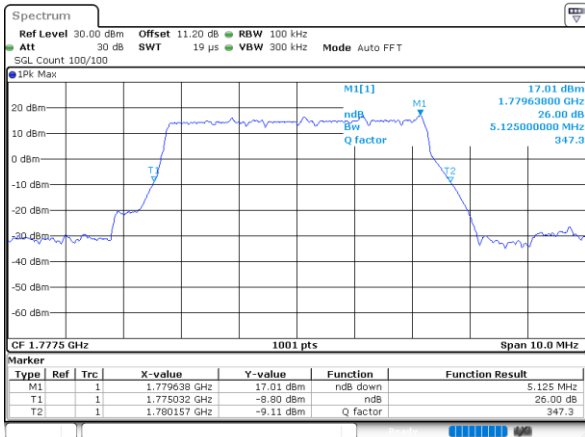
Lowest Channel



Middle Channel



Highest Channel





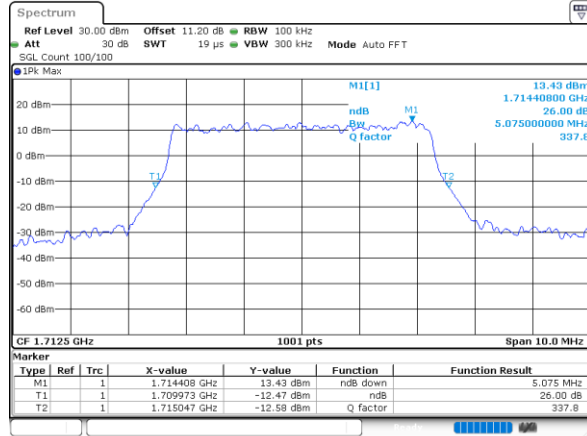
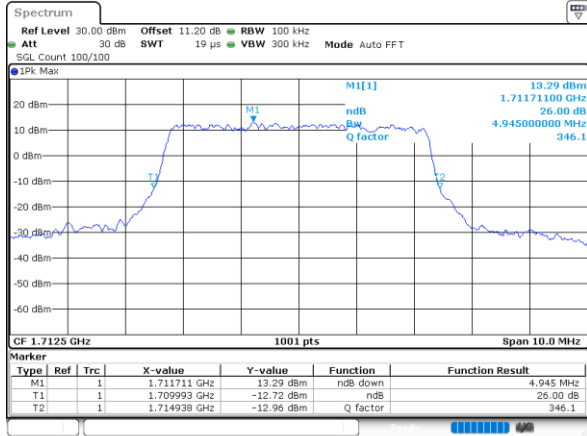
FR1 n66 / 5MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

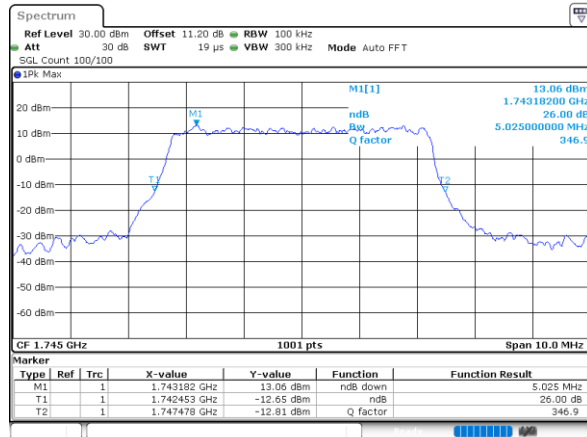
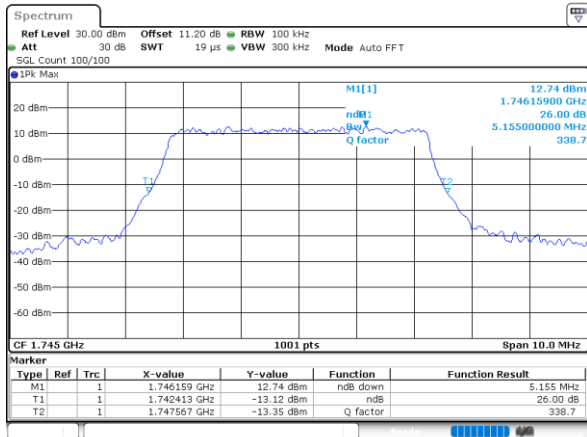


Date: 4.JUL.2020 11:21:19

Date: 4.JUL.2020 11:27:21

Middle Channel

Middle Channel

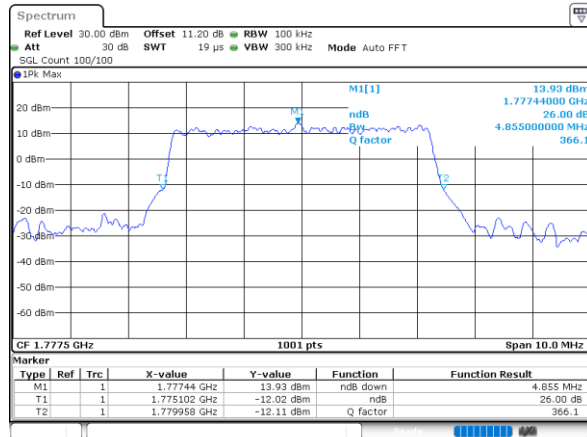
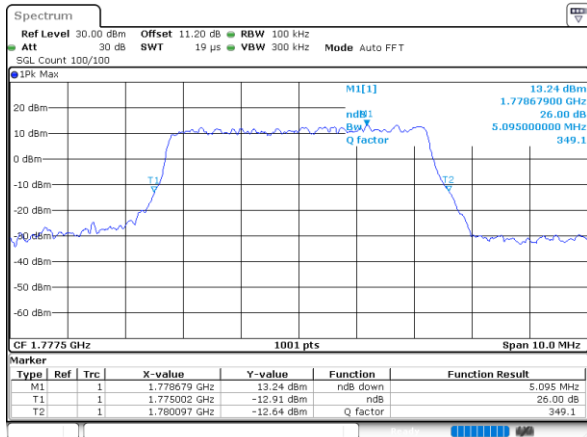


Date: 4.JUL.2020 11:29:08

Date: 4.JUL.2020 11:28:53

Highest Channel

Highest Channel



Date: 4.JUL.2020 11:29:36

Date: 4.JUL.2020 11:30:11



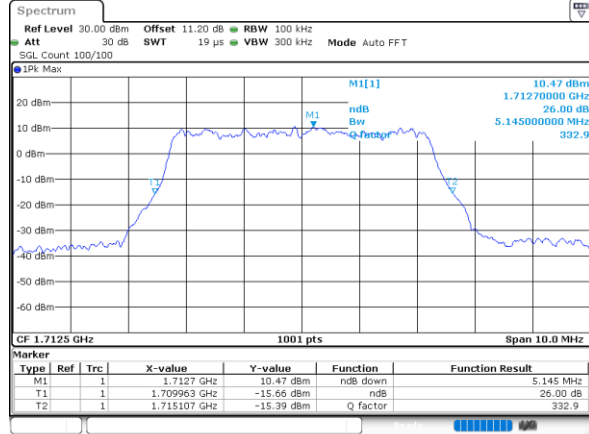
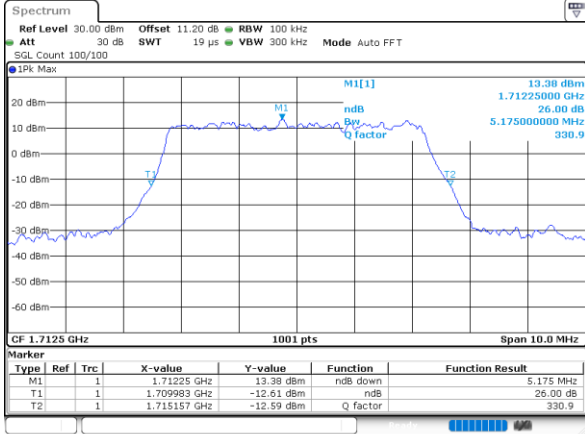
FR1 n66 / 5MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

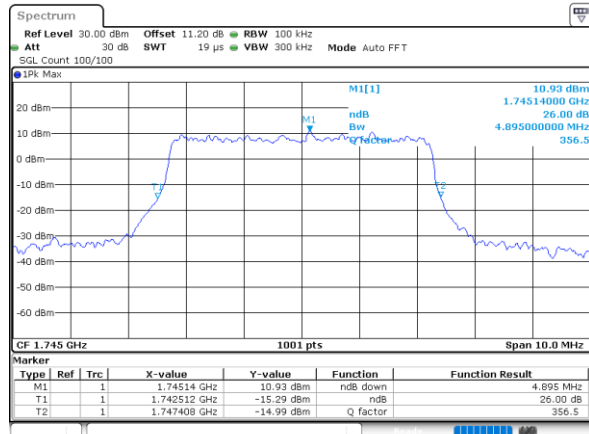
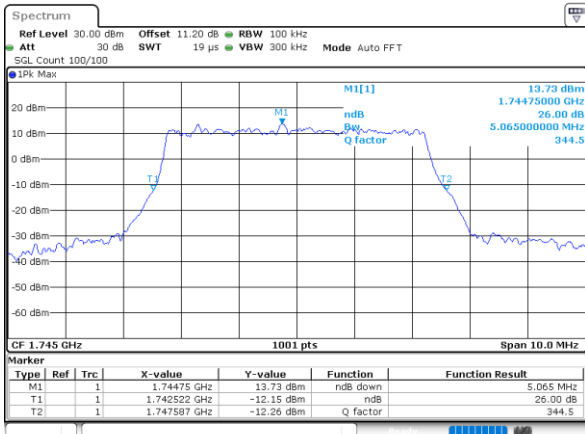


Date: 4.JUL.2020 11:27:35

Date: 4.JUL.2020 11:27:49

Middle Channel

Middle Channel

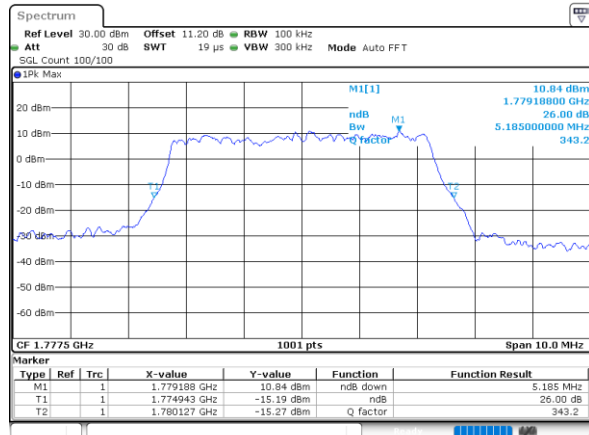
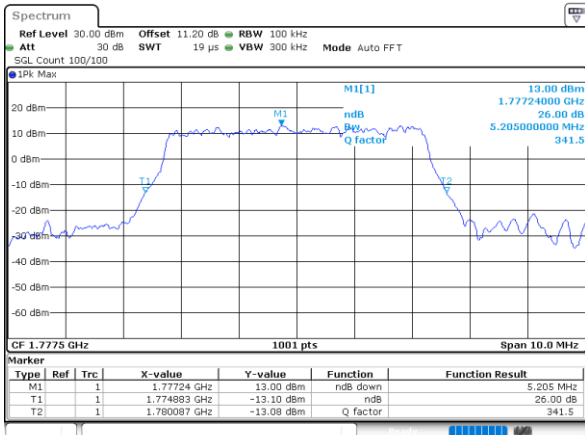


Date: 4.JUL.2020 11:28:35

Date: 4.JUL.2020 11:28:16

Highest Channel

Highest Channel



Date: 4.JUL.2020 11:30:26

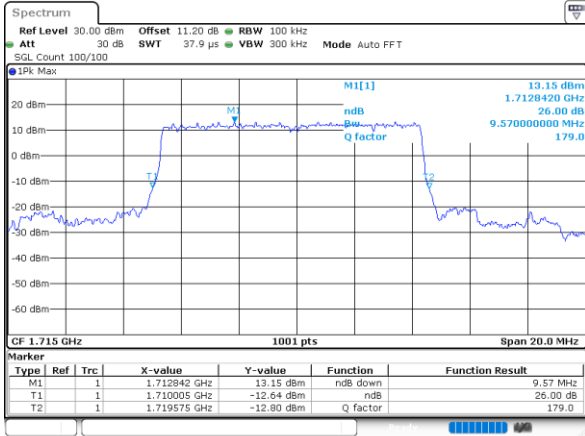
Date: 4.JUL.2020 11:30:44



FR1 n66 / 10MHz / DFT-S OFDM

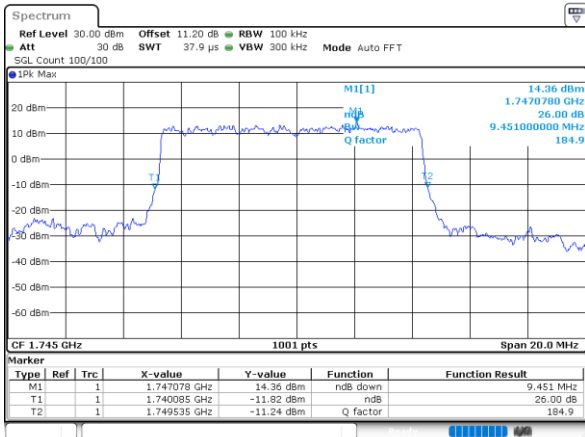
PI/2 BPSK

Lowest Channel



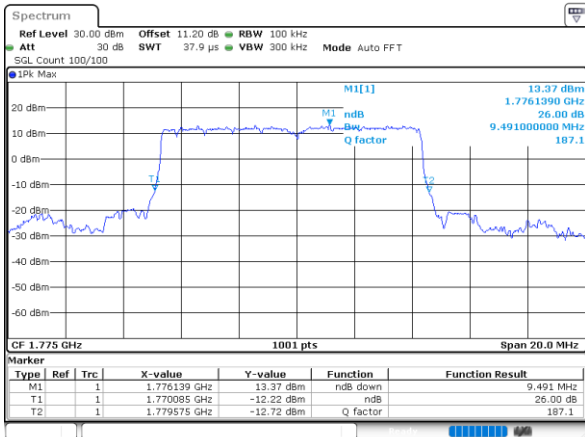
Date: 4.JUL.2020 10:39:20

Middle Channel



Date: 4.JUL.2020 10:46:38

Highest Channel



Date: 4.JUL.2020 10:47:06



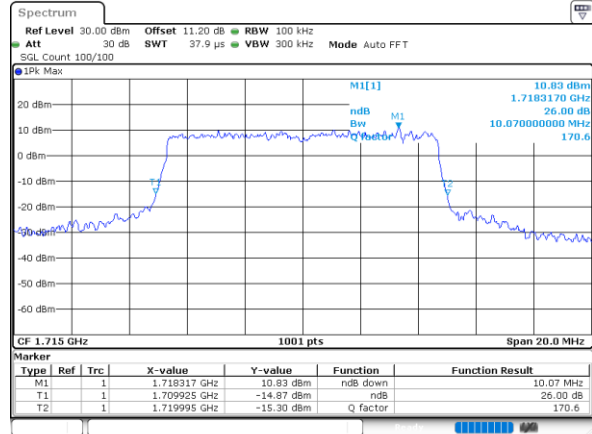
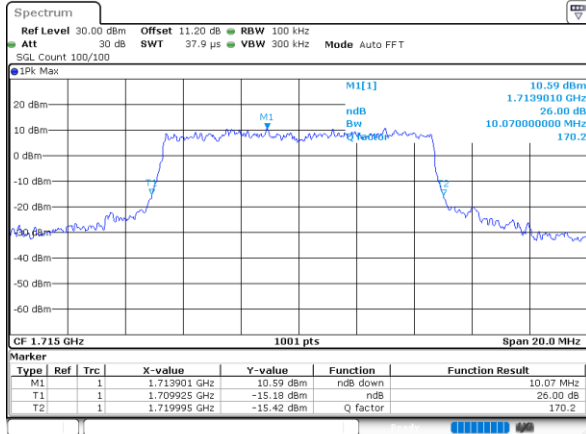
FR1 n66 / 10MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

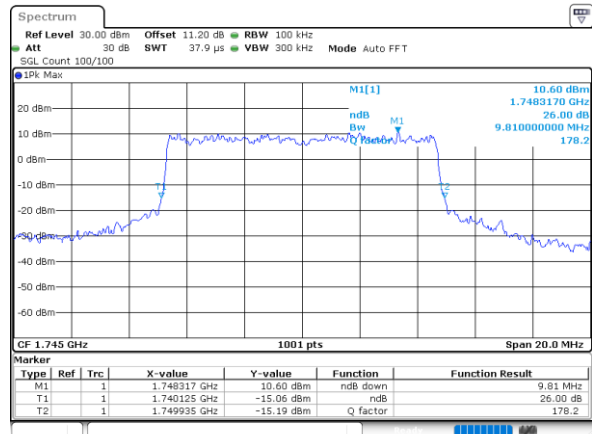
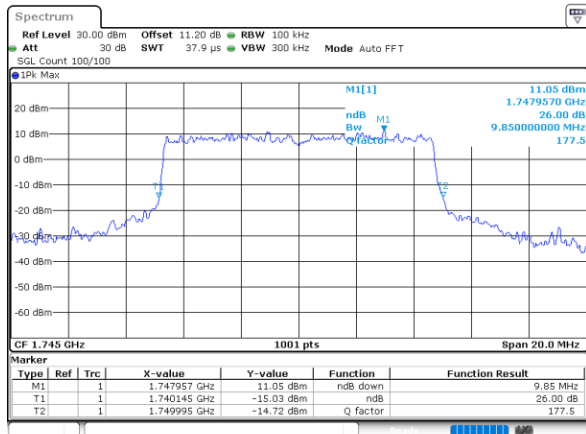


Date: 4.JUL.2020 10:53:59

Date: 4.JUL.2020 10:54:25

Middle Channel

Middle Channel

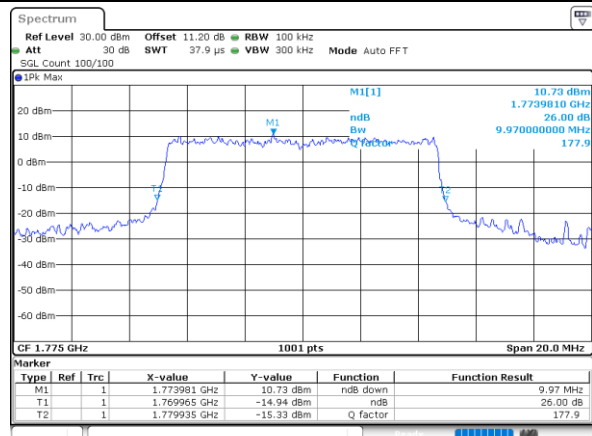
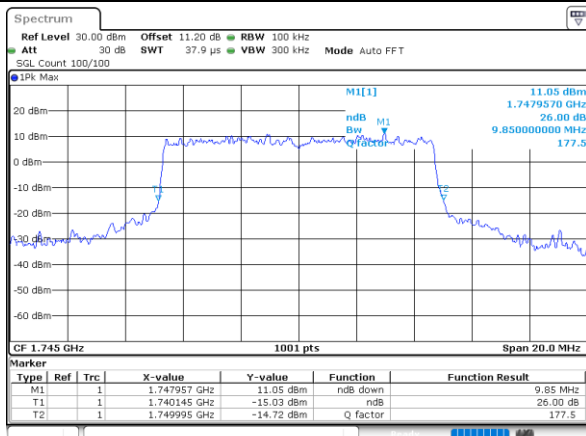


Date: 4.JUL.2020 10:53:38

Date: 4.JUL.2020 10:53:19

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:53:38

Date: 4.JUL.2020 10:51:25



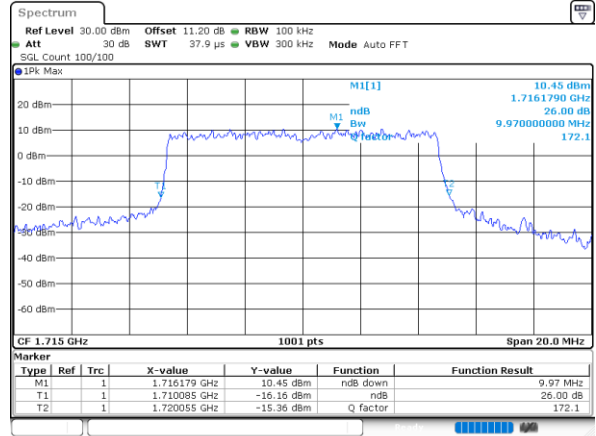
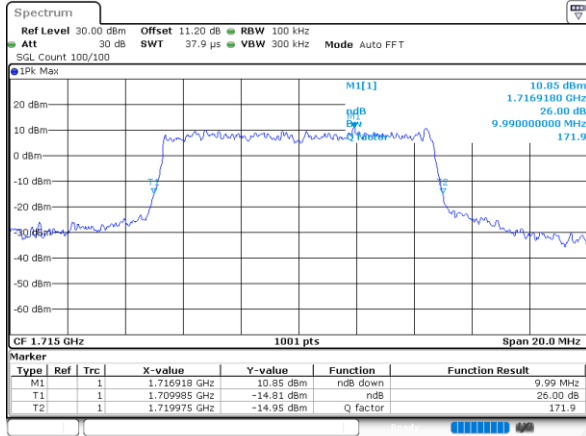
FR1 n66 / 10MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

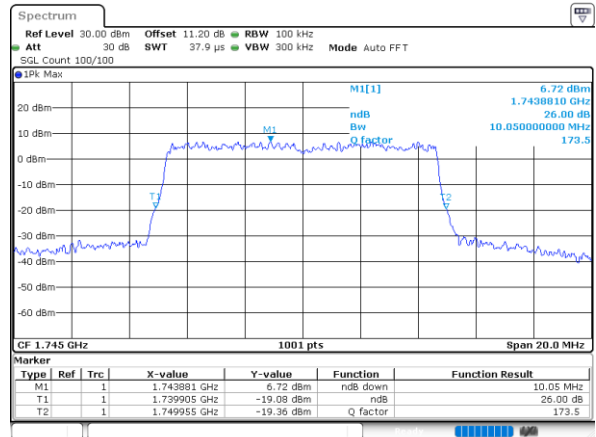
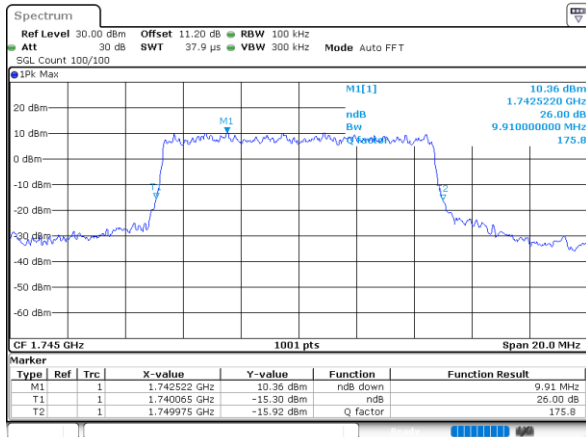


Date: 4.JUL.2020 10:54:38

Date: 8.JUL.2020 11:11:25

Middle Channel

Middle Channel

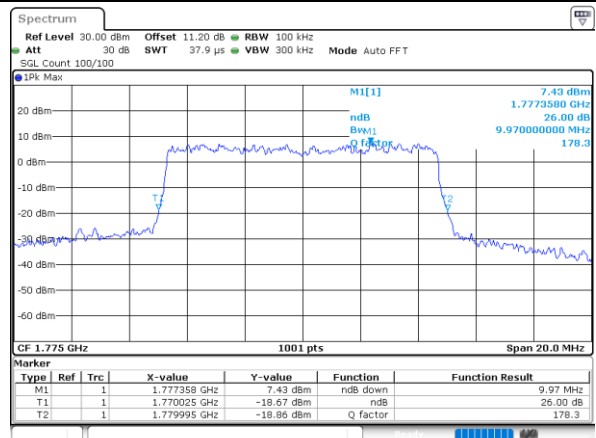
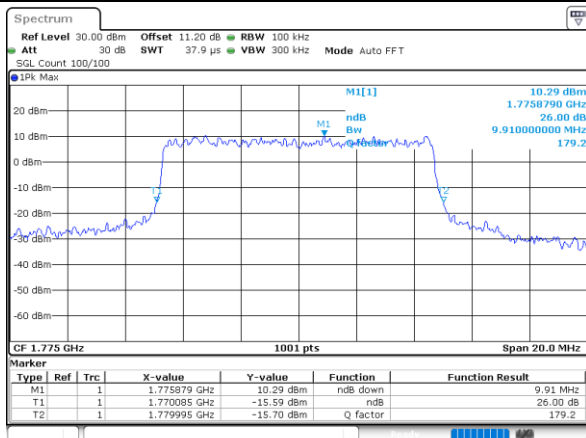


Date: 4.JUL.2020 10:53:02

Date: 4.JUL.2020 11:19:06

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:51:42

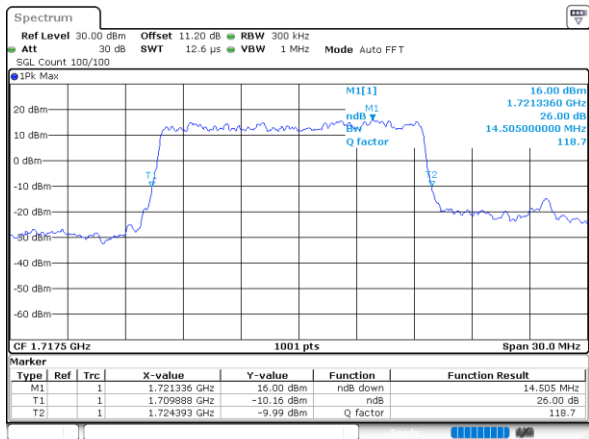
Date: 4.JUL.2020 10:51:57



FR1 n66 / 15MHz / DFT-S OFDM

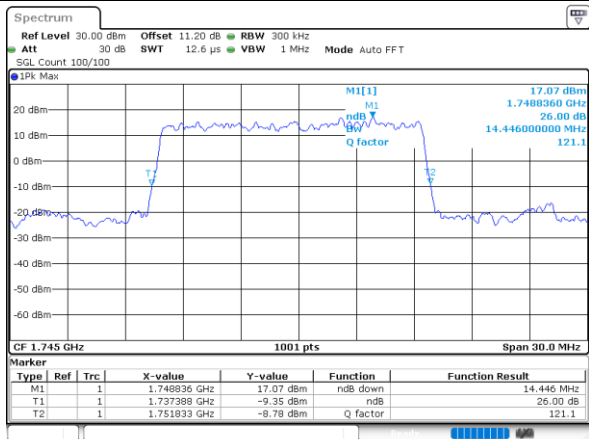
PI/2 BPSK

Lowest Channel



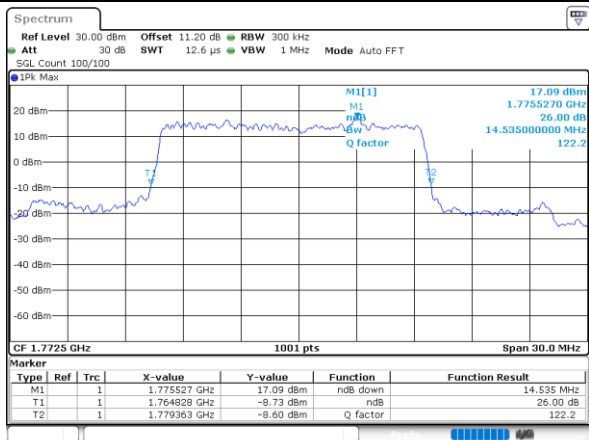
Date: 4.JUL.2020 10:30:57

Middle Channel



Date: 4.JUL.2020 10:33:14

Highest Channel



Date: 4.JUL.2020 10:37:49



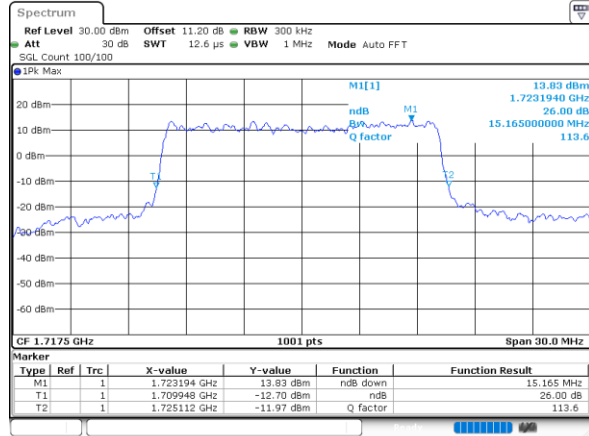
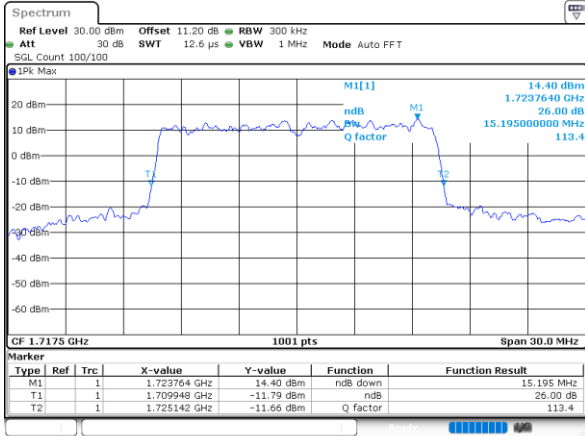
FR1 n66 / 15MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

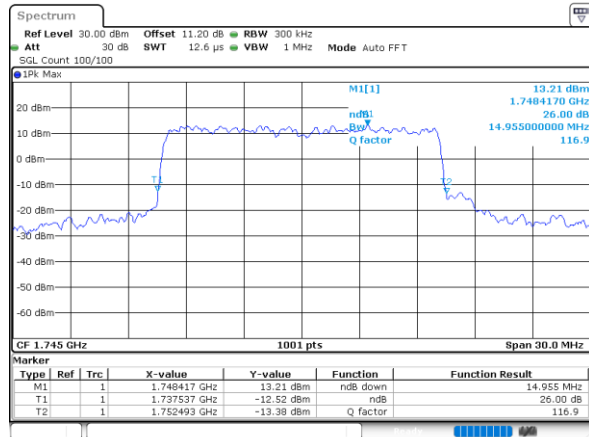
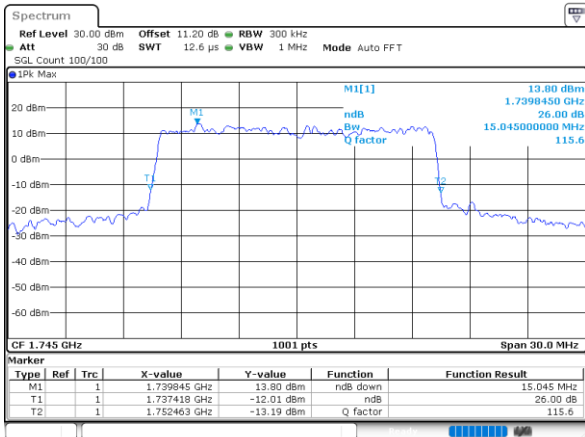


Date: 4.JUL.2020 10:19:03

Date: 4.JUL.2020 10:18:47

Middle Channel

Middle Channel

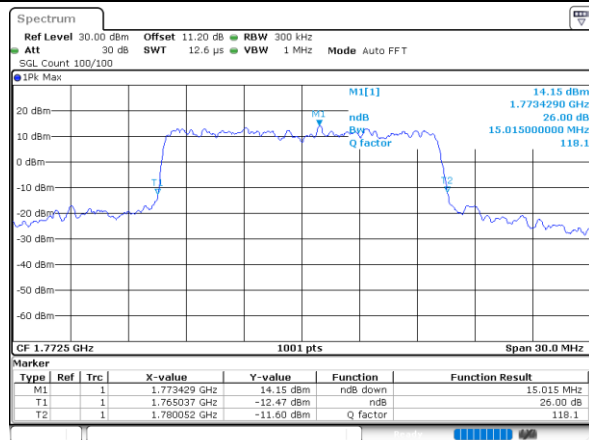
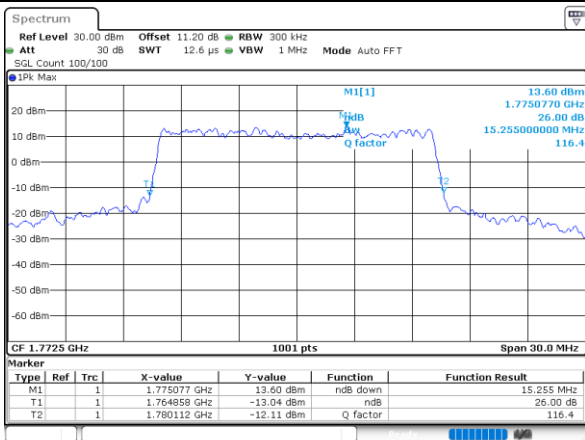


Date: 4.JUL.2020 10:19:35

Date: 4.JUL.2020 10:19:49

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:22:28

Date: 4.JUL.2020 10:22:15



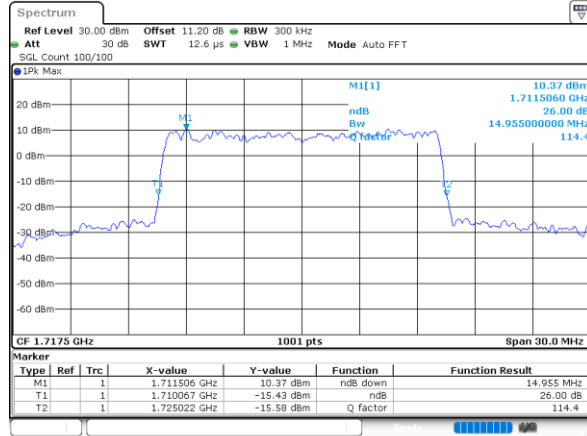
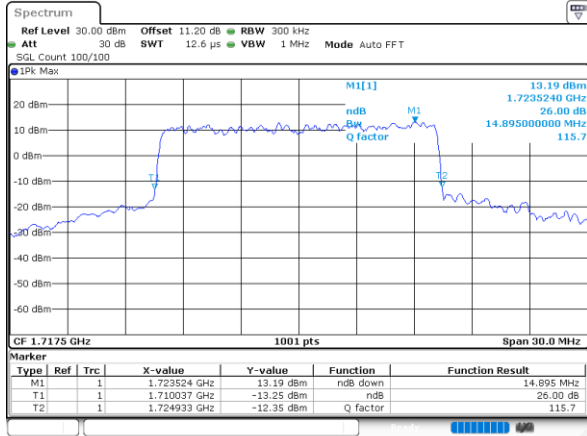
FR1 n66 / 15MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

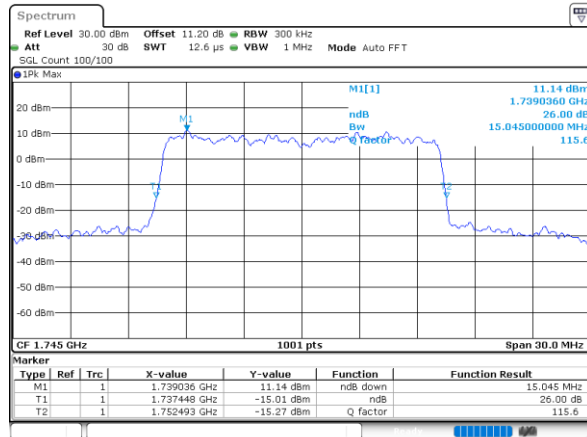
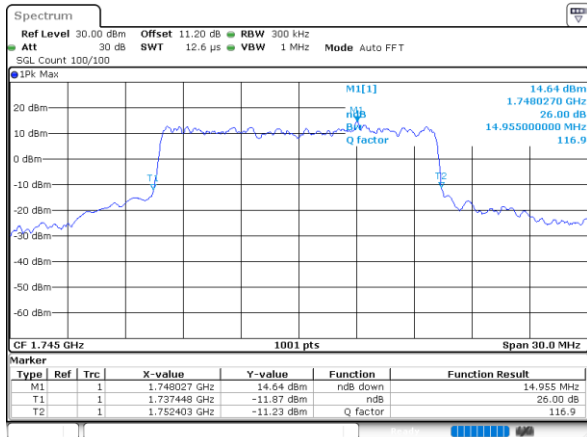


Date: 4.JUL.2020 10:18:30

Date: 4.JUL.2020 10:18:16

Middle Channel

Middle Channel

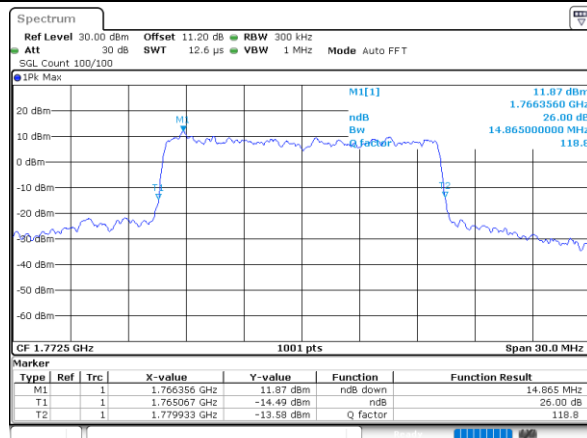
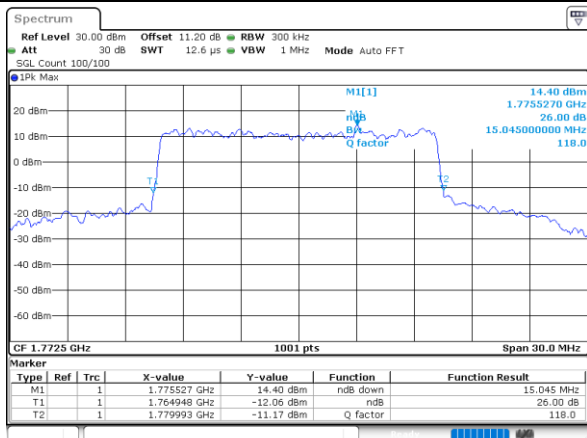


Date: 4.JUL.2020 10:20:19

Date: 4.JUL.2020 10:20:32

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:22:01

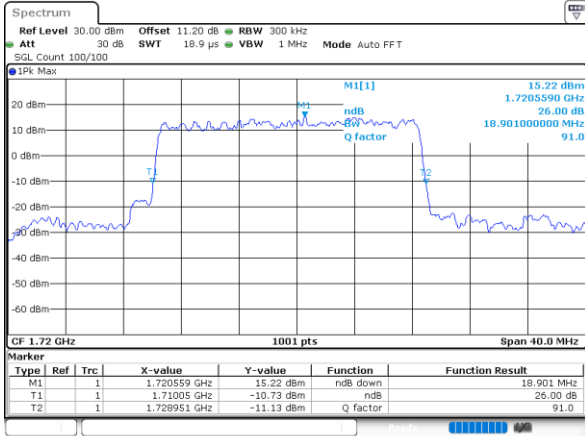
Date: 4.JUL.2020 10:21:47



FR1 n66 / 20MHz / DFT-S OFDM

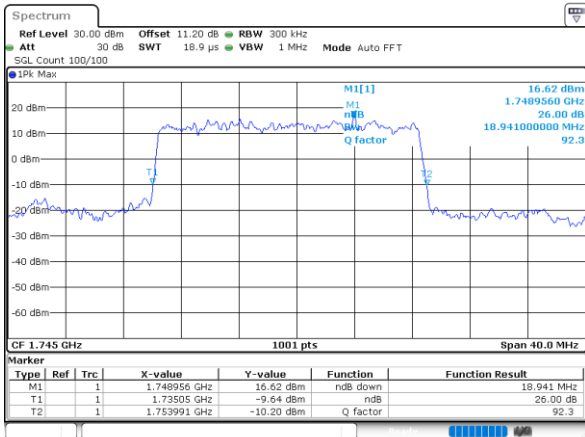
PI/2 BPSK

Lowest Channel



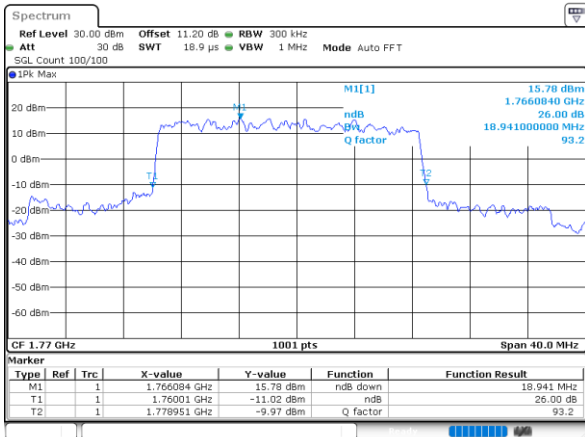
Date: 4.JUL.2020 10:02:52

Middle Channel



Date: 4.JUL.2020 10:07:49

Highest Channel



Date: 4.JUL.2020 10:24:24



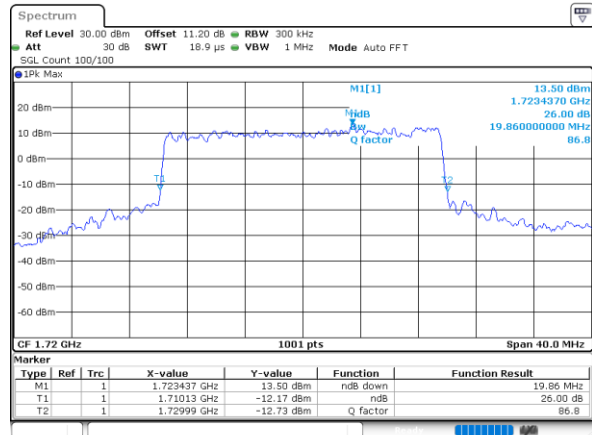
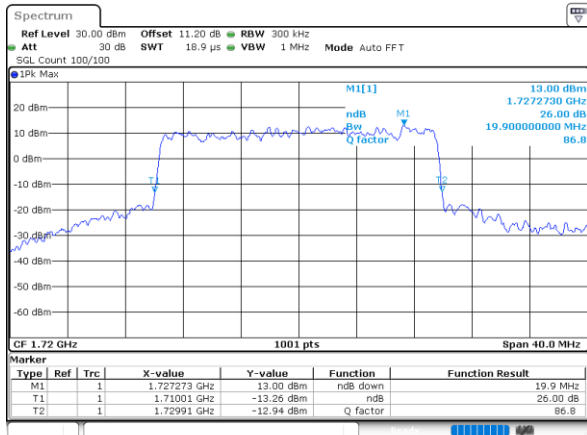
FR1 n66 / 20MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

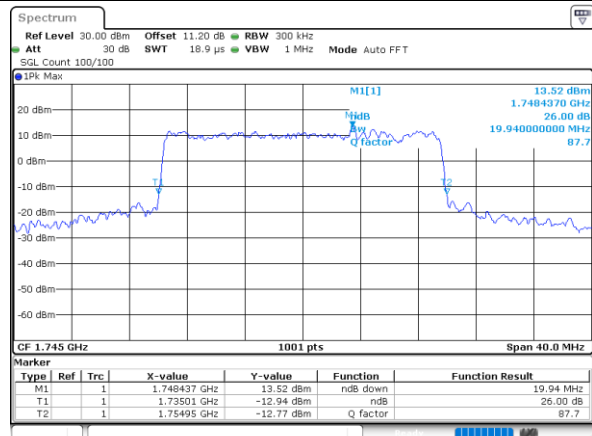
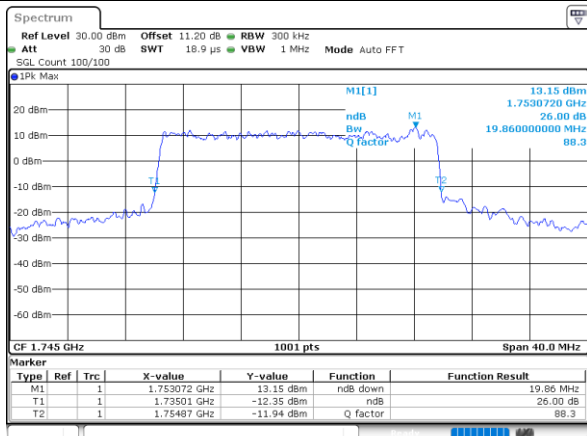


Date: 4.JUL.2020 10:16:38

Date: 4.JUL.2020 10:17:05

Middle Channel

Middle Channel

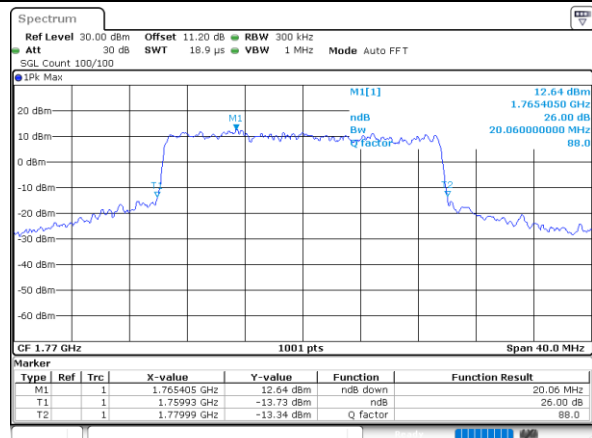
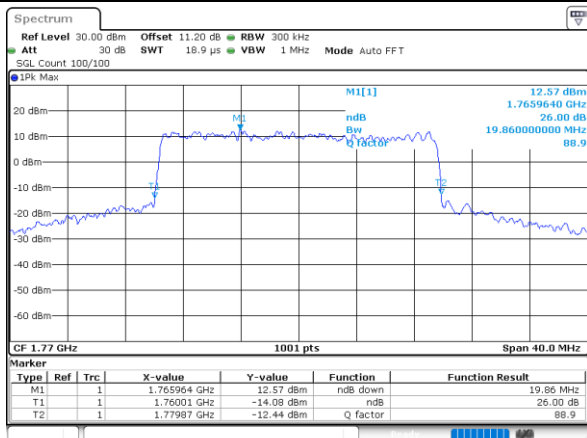


Date: 4.JUL.2020 10:16:07

Date: 4.JUL.2020 10:15:51

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:13:42

Date: 4.JUL.2020 10:14:06



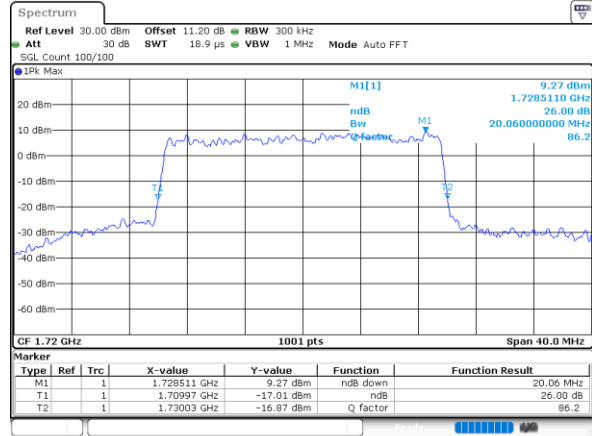
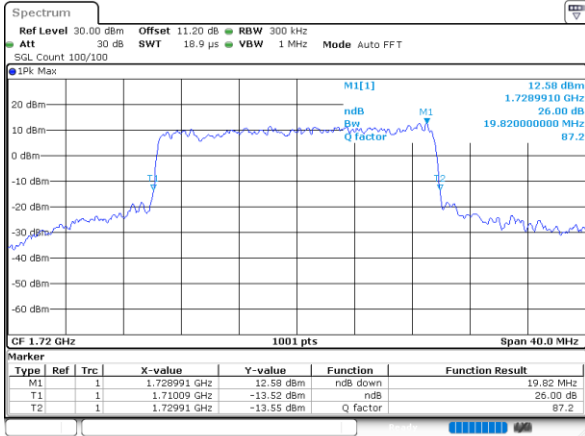
FR1 n66 / 20MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

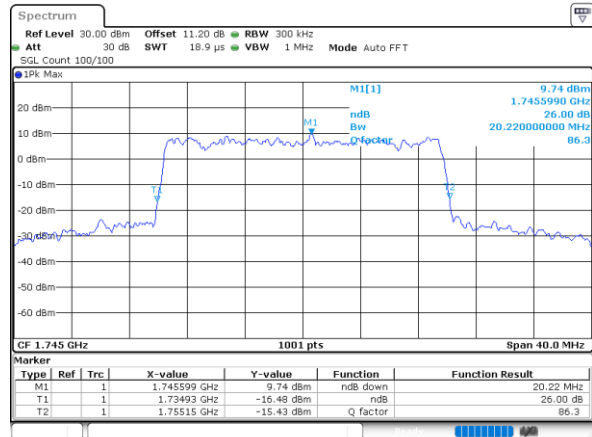
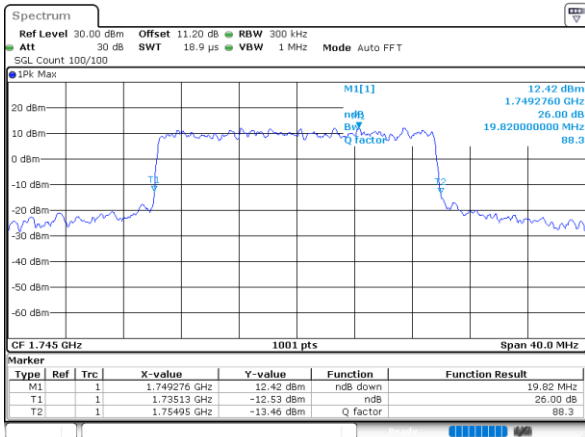


Date: 4.JUL.2020 10:17:21

Date: 4.JUL.2020 10:17:35

Middle Channel

Middle Channel

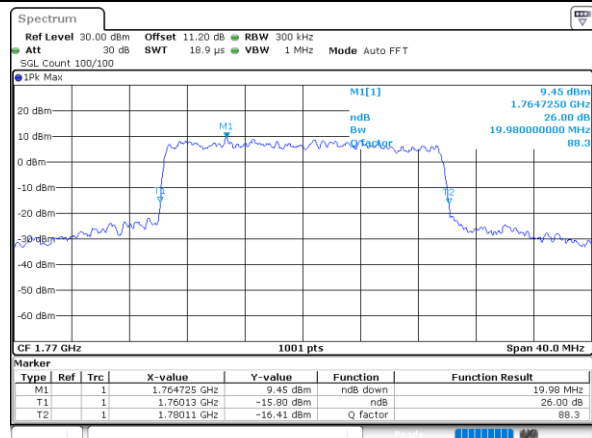
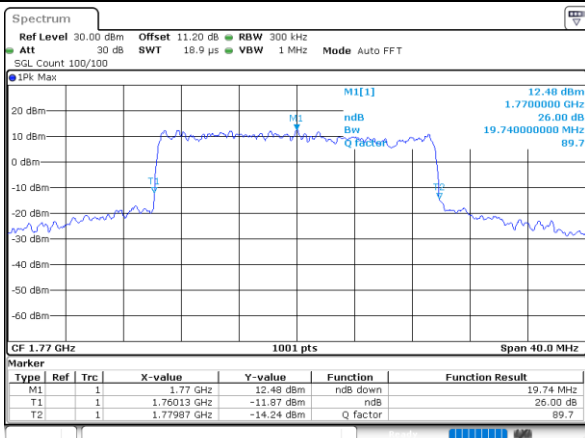


Date: 4.JUL.2020 10:15:36

Date: 4.JUL.2020 10:15:21

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:14:20

Date: 4.JUL.2020 10:14:37



Occupied Bandwidth

Mode	FR1 n66 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Lowest CH	4.51		8.89		13.49		17.90	
Middle CH	4.50		8.91		13.49		17.94	
Highest CH	4.52		8.91		13.52		17.90	

Mode	FR1 n66 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.50	4.50	9.27	9.29	14.15	14.15	18.90	18.94
Middle CH	4.49	4.51	9.27	9.27	14.18	14.12	18.90	19.06
Highest CH	4.51	4.49	9.27	9.29	14.18	14.21	18.98	18.98

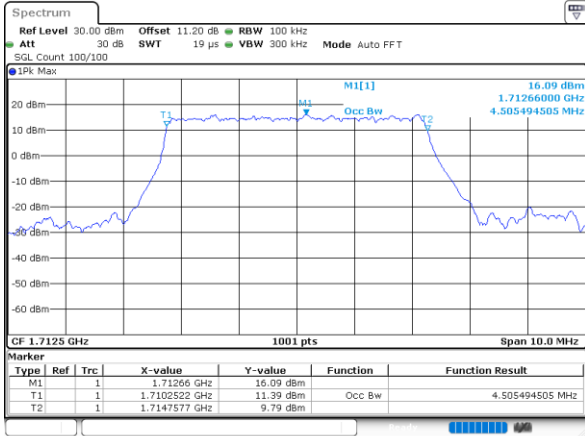
Mode	FR1 n66 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	4.50	4.53	9.29	9.27	14.18	14.12	18.86	18.94
Middle CH	4.49	4.53	9.25	9.29	14.21	14.18	18.98	19.06
Highest CH	4.49	4.48	9.27	9.29	14.21	14.18	18.98	19.06



FR1 n66 / 5MHz / DFT-S OFDM

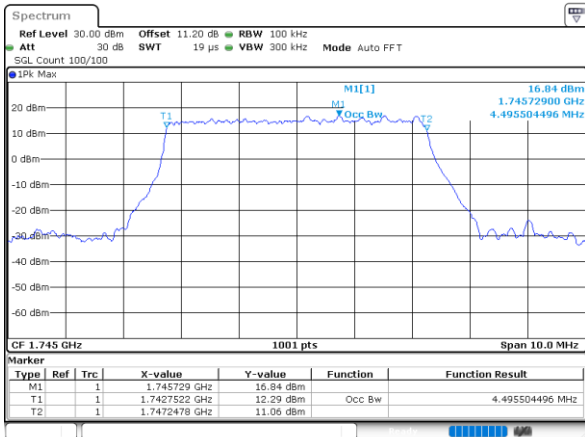
PI/2 BPSK

Lowest Channel



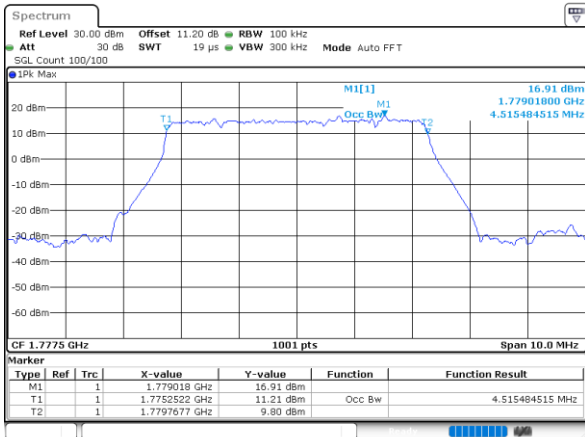
Date: 4.JUL.2020 11:56:38

Middle Channel



Date: 4.JUL.2020 11:56:08

Highest Channel



Date: 4.JUL.2020 11:49:02



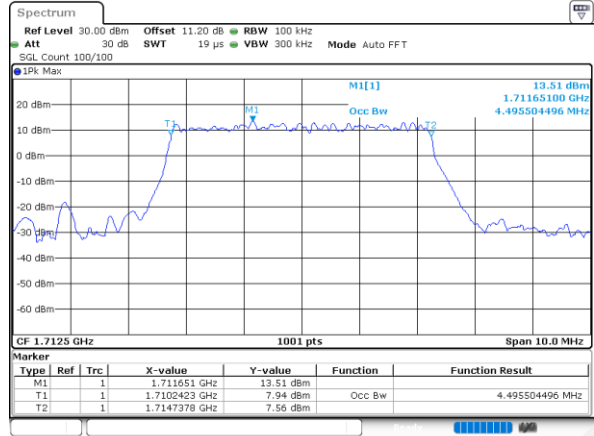
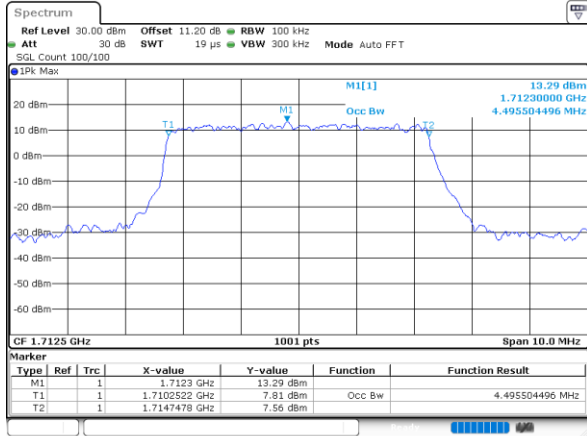
FR1 n66 / 5MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

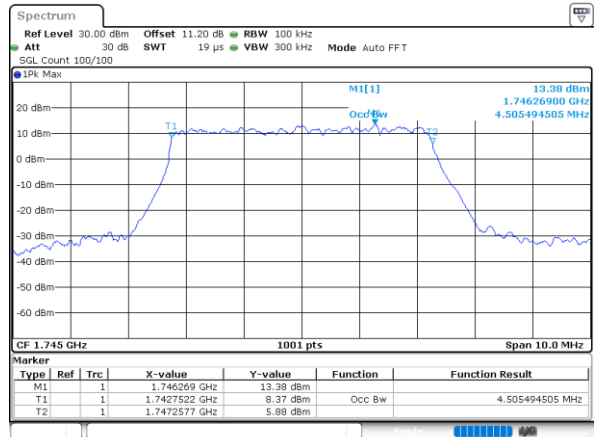
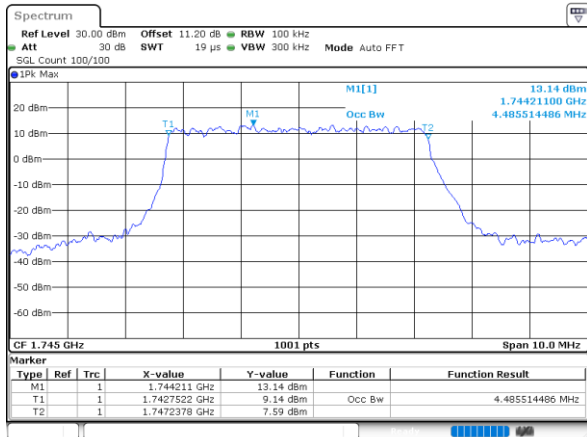


Date: 4.JUL.2020 11:21:13

Date: 4.JUL.2020 11:27:15

Middle Channel

Middle Channel

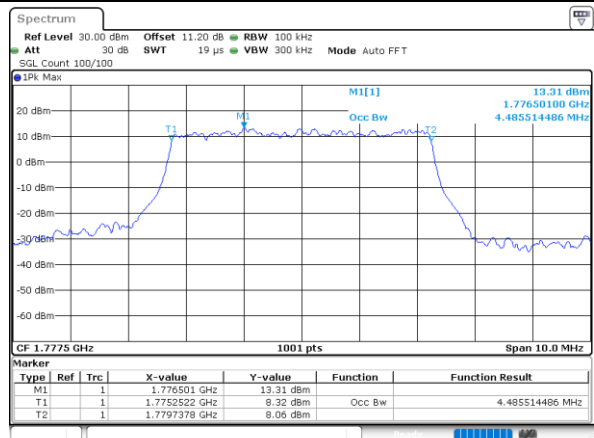
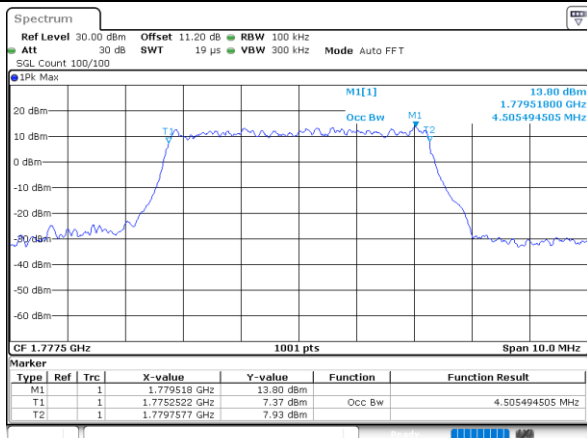


Date: 4.JUL.2020 11:29:01

Date: 4.JUL.2020 11:28:47

Highest Channel

Highest Channel



Date: 4.JUL.2020 11:29:30

Date: 4.JUL.2020 11:30:04



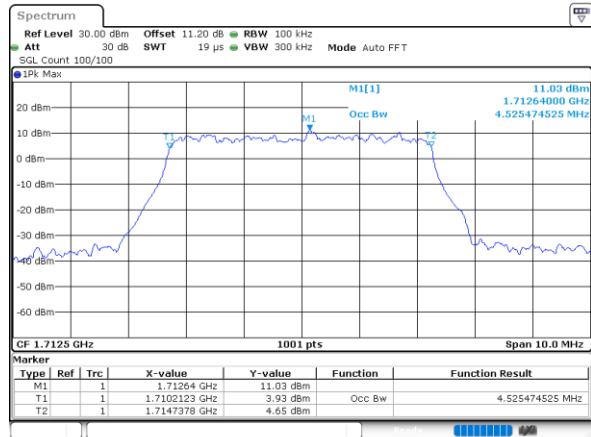
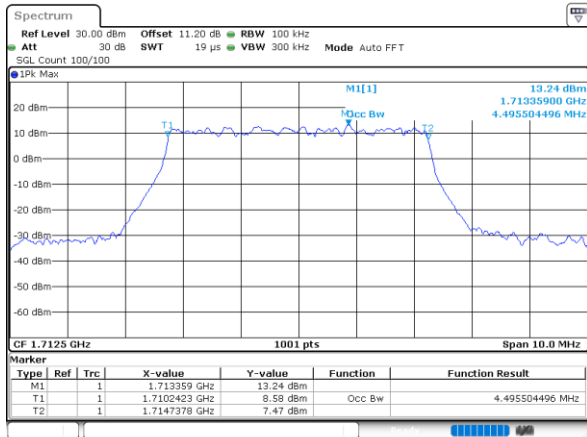
FR1 n66 / 5MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

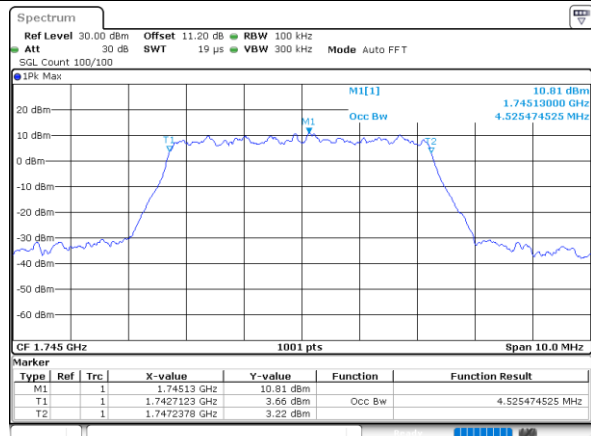
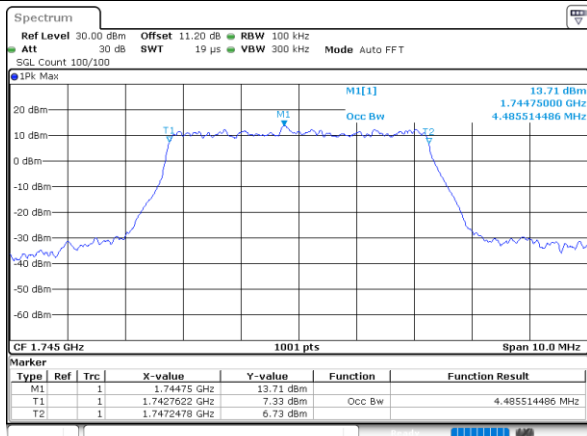


Date: 4.JUL.2020 11:27:29

Date: 4.JUL.2020 11:27:43

Middle Channel

Middle Channel

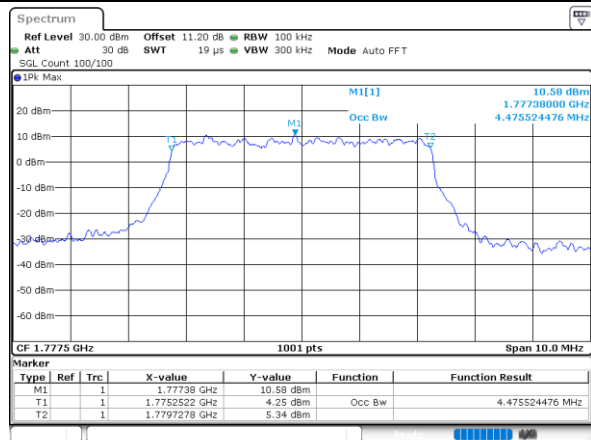
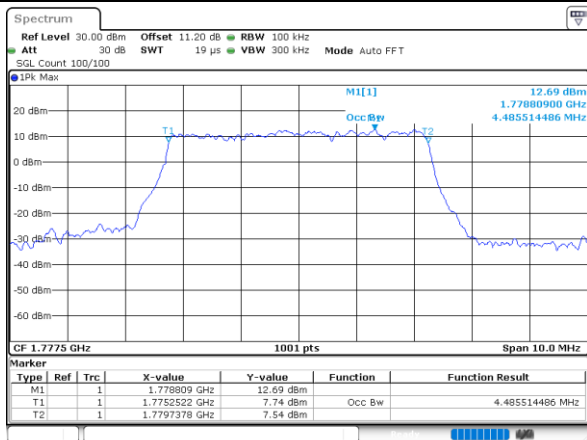


Date: 4.JUL.2020 11:28:29

Date: 4.JUL.2020 11:28:11

Highest Channel

Highest Channel



Date: 4.JUL.2020 11:30:19

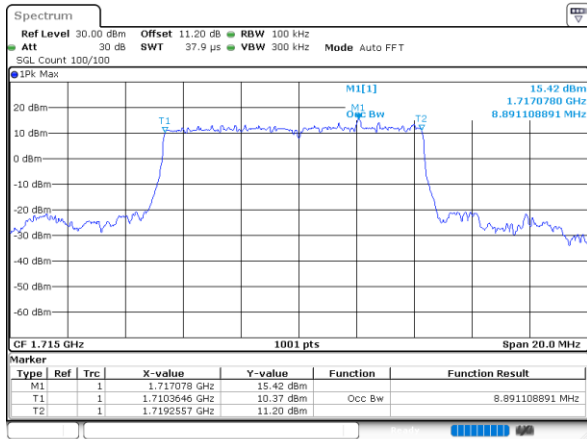
Date: 4.JUL.2020 11:30:37



FR1 n66 / 10MHz / DFT-S OFDM

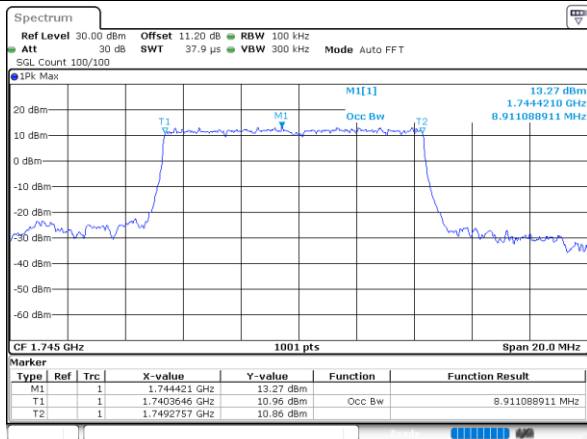
PI/2 BPSK

Lowest Channel



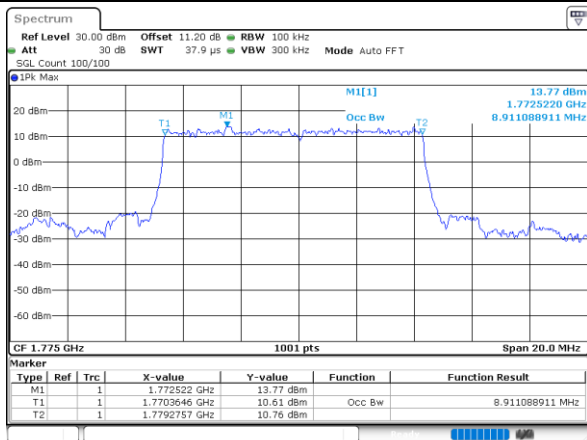
Date: 4.JUL.2020 10:39:13

Middle Channel

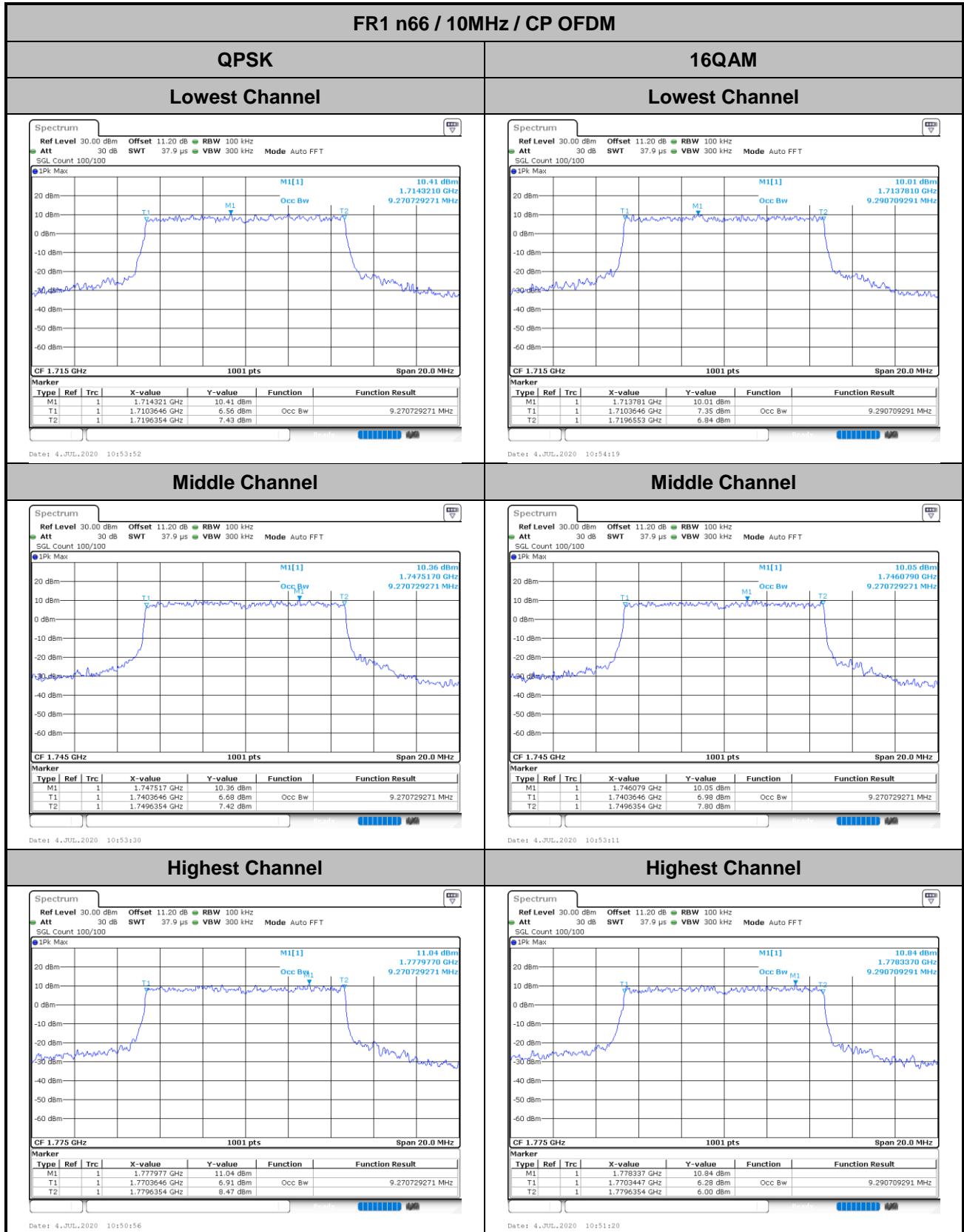


Date: 4.JUL.2020 10:46:31

Highest Channel



Date: 4.JUL.2020 10:46:58





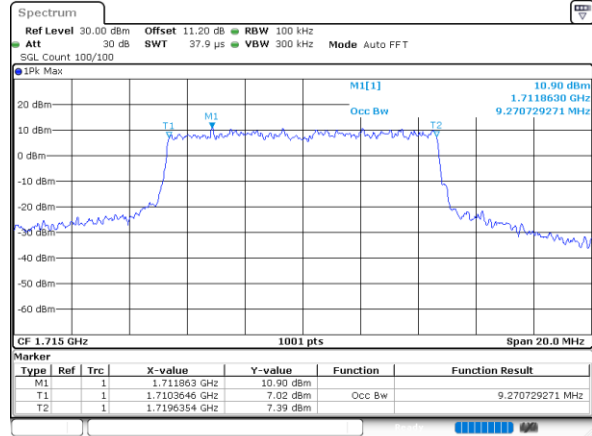
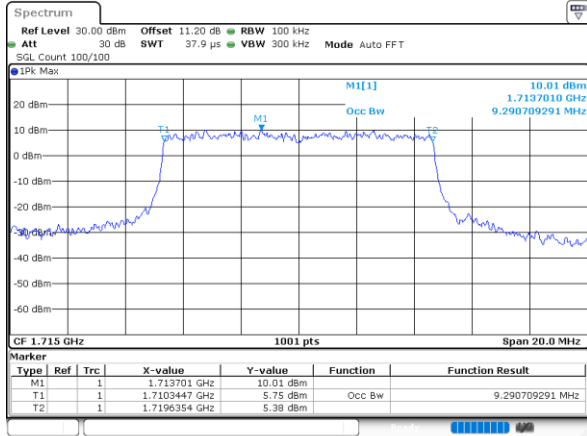
FR1 n66 / 10MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

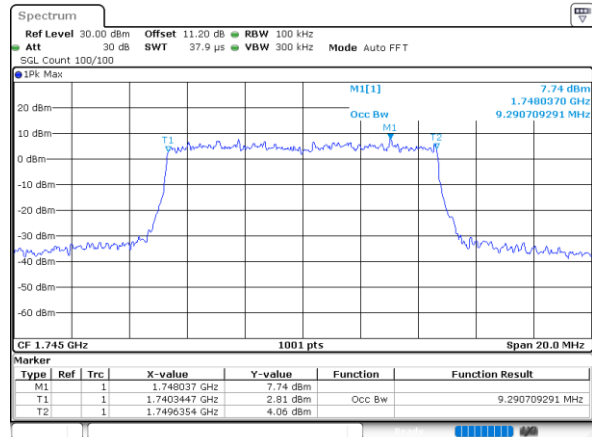
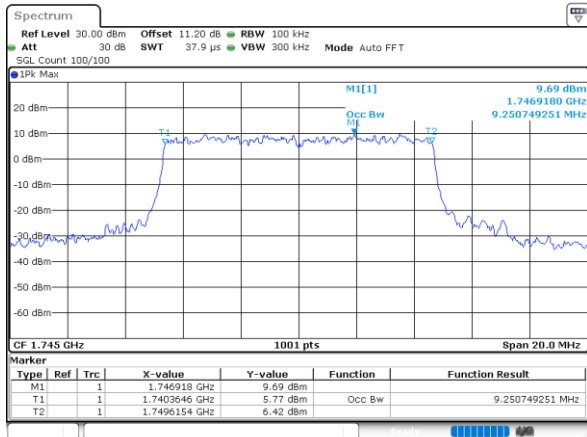


Date: 4.JUL.2020 10:54:32

Date: 8.JUL.2020 11:11:20

Middle Channel

Middle Channel

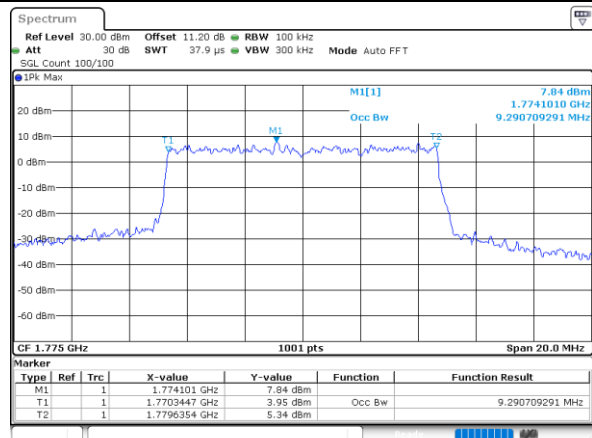
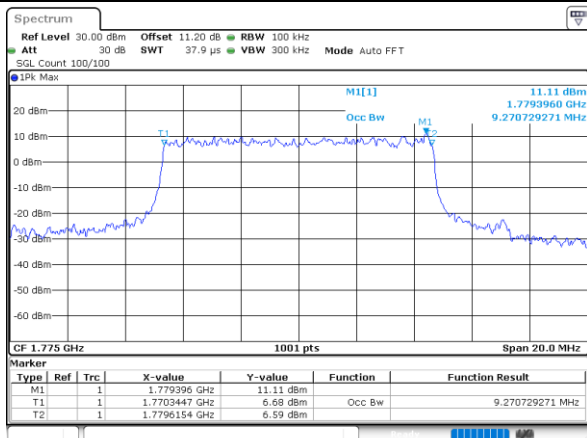


Date: 4.JUL.2020 10:52:56

Date: 4.JUL.2020 11:19:01

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:51:35

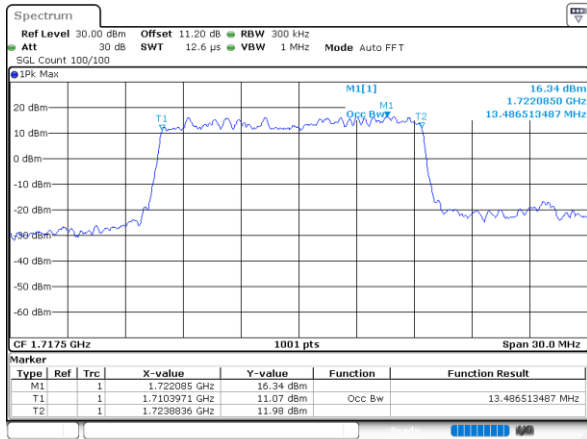
Date: 4.JUL.2020 10:51:49



FR1 n66 / 15MHz / DFT-S OFDM

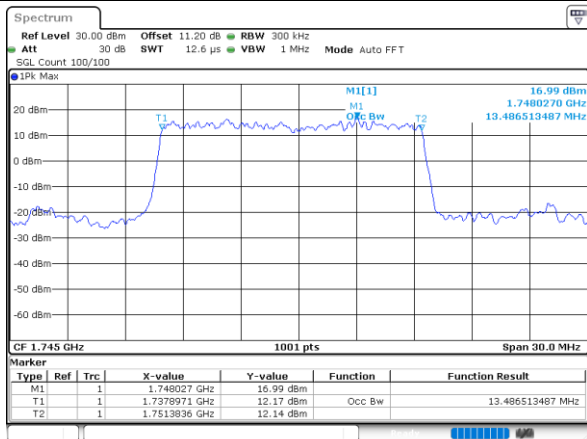
PI/2 BPSK

Lowest Channel



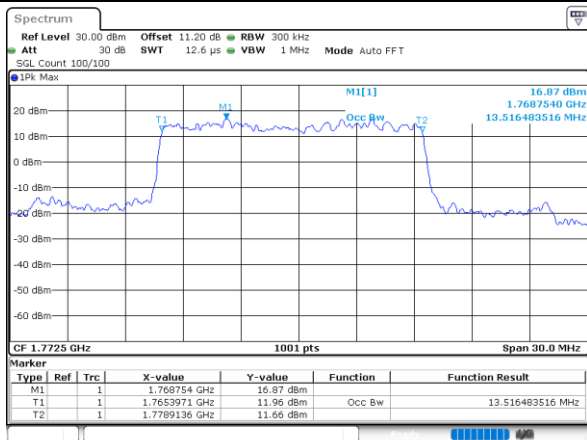
Date: 4.JUL.2020 10:30:50

Middle Channel



Date: 4.JUL.2020 10:33:07

Highest Channel



Date: 4.JUL.2020 10:37:43



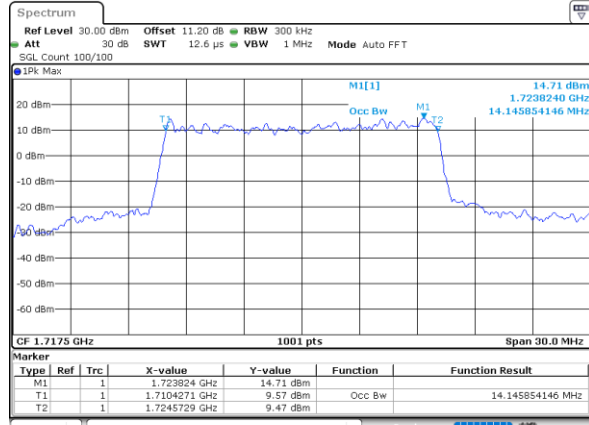
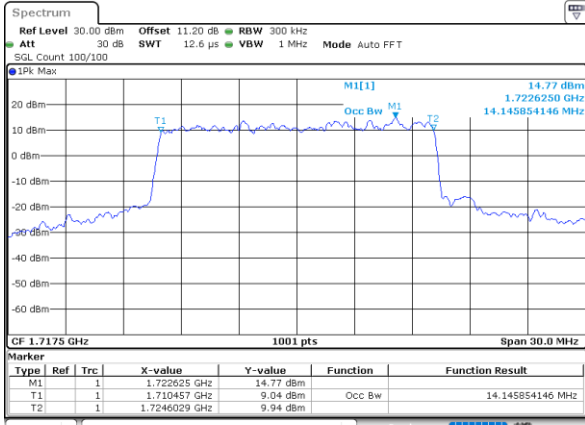
FR1 n66 / 15MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

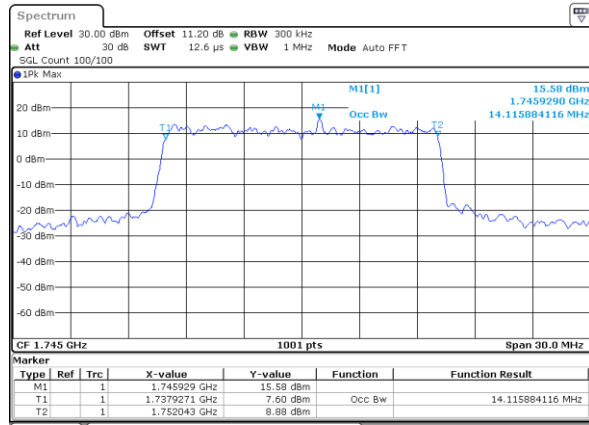
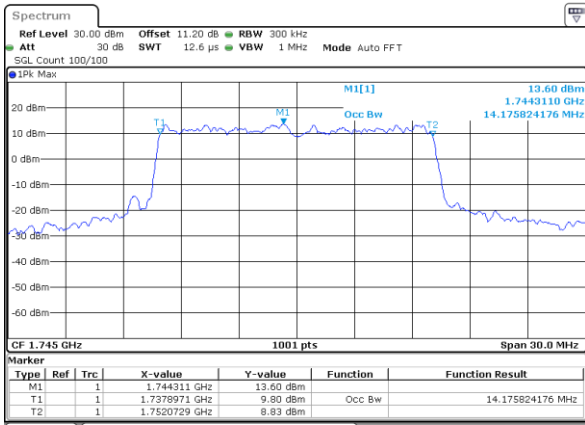


Date: 4.JUL.2020 10:18:56

Date: 4.JUL.2020 10:18:41

Middle Channel

Middle Channel

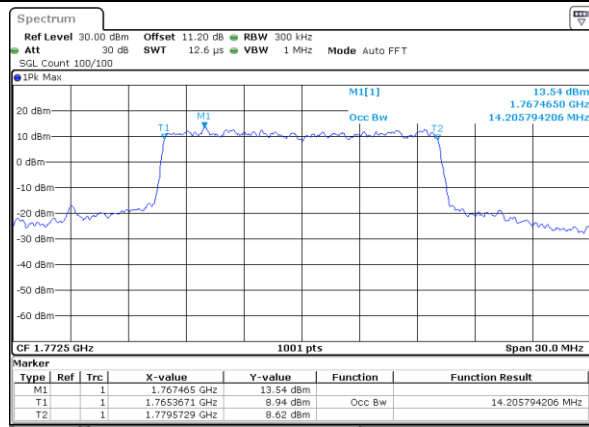
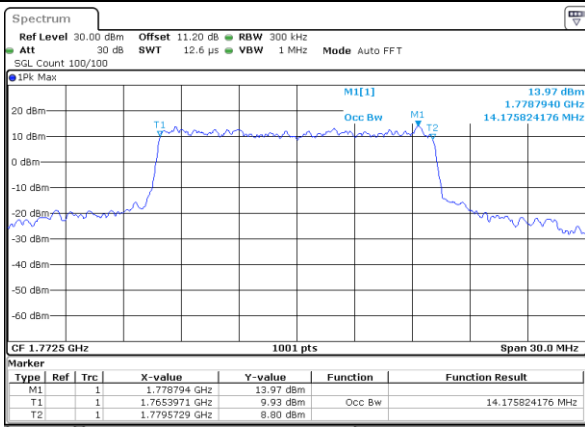


Date: 4.JUL.2020 10:19:30

Date: 4.JUL.2020 10:19:43

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:22:22

Date: 4.JUL.2020 10:22:09



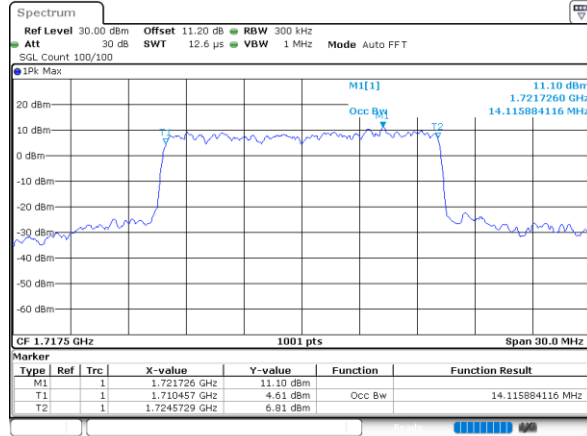
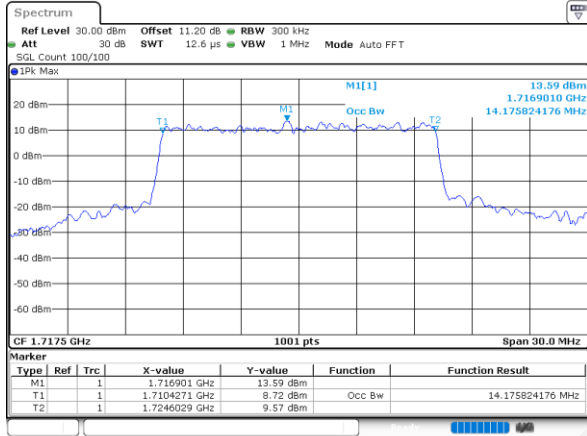
FR1 n66 / 15MHz / CP OFDM

64QAM

256QAM

Lowest Channel

Lowest Channel

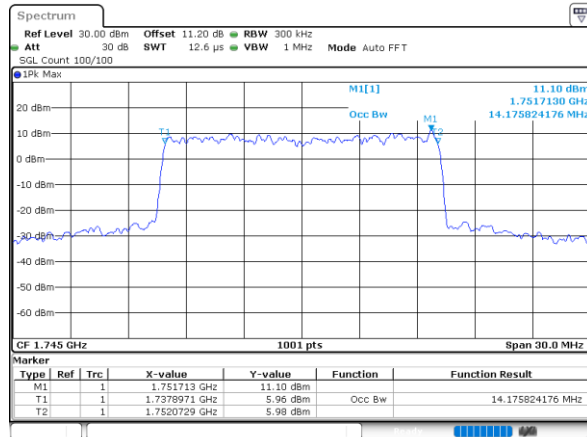
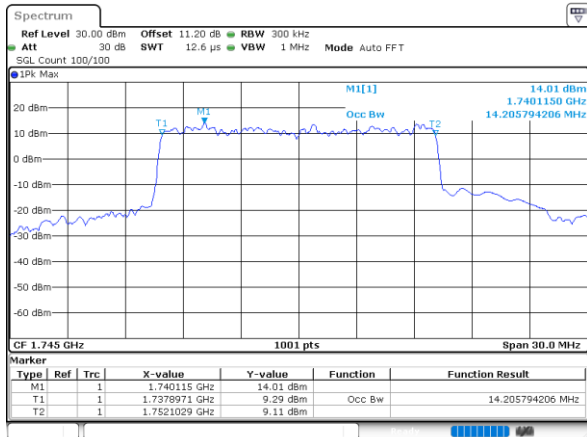


Date: 4.JUL.2020 10:18:24

Date: 4.JUL.2020 10:18:10

Middle Channel

Middle Channel

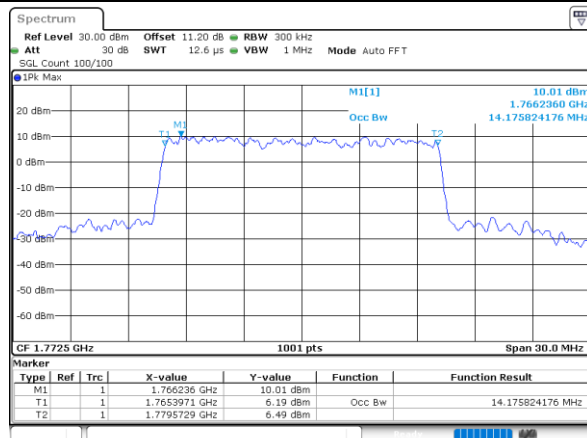
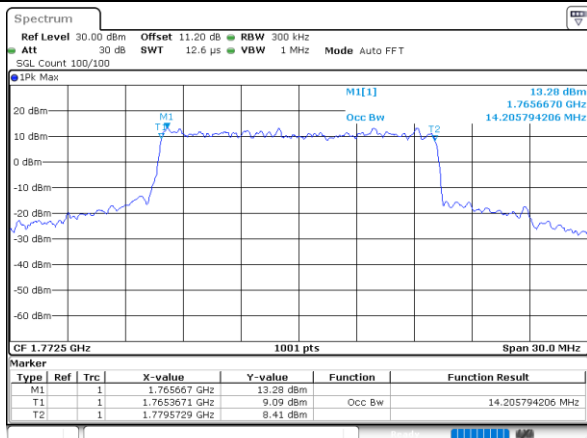


Date: 4.JUL.2020 10:19:56

Date: 4.JUL.2020 10:20:26

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:21:54

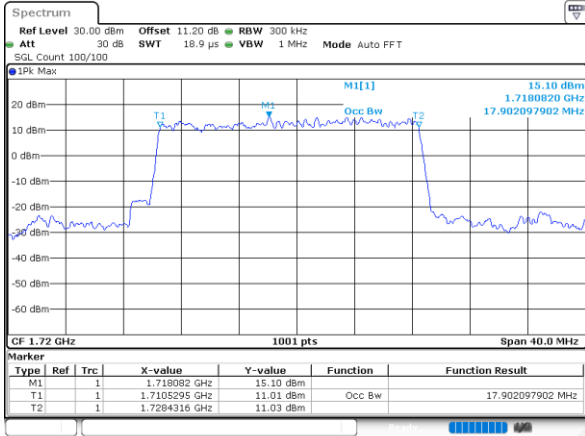
Date: 4.JUL.2020 10:21:41



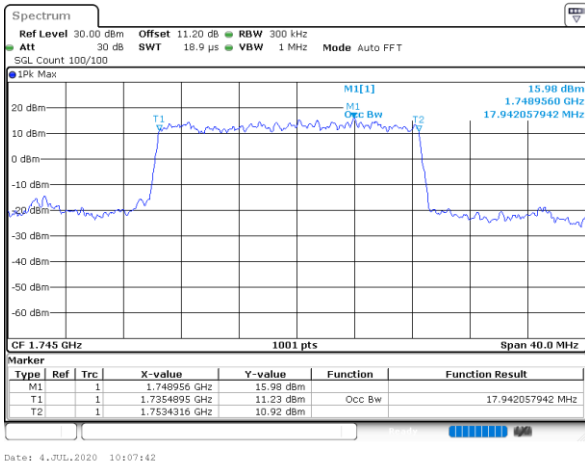
FR1 n66 / 20MHz / DFT-S OFDM

PI/2 BPSK

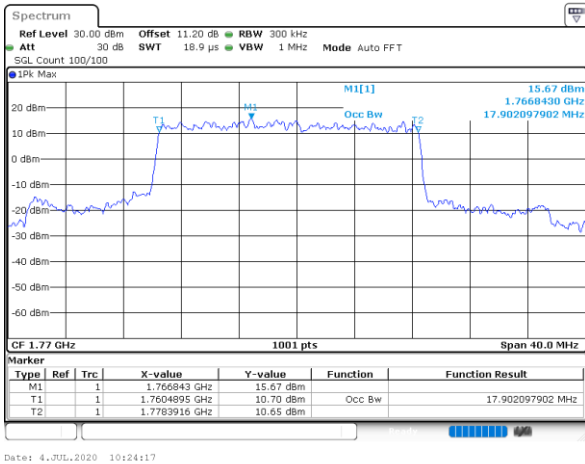
Lowest Channel



Middle Channel



Highest Channel





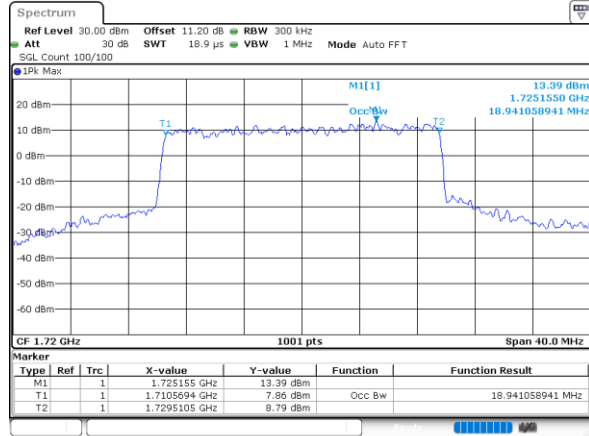
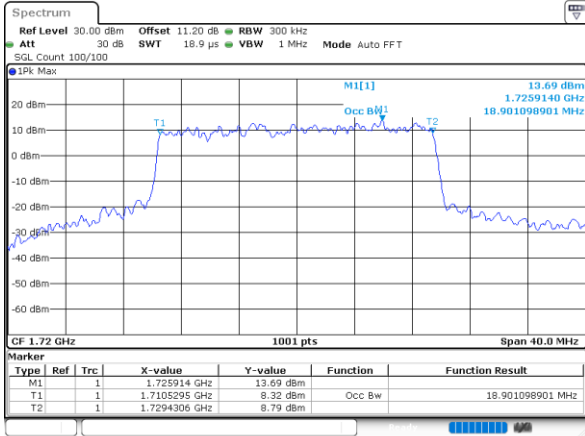
FR1 n66 / 20MHz / CP OFDM

QPSK

16QAM

Lowest Channel

Lowest Channel

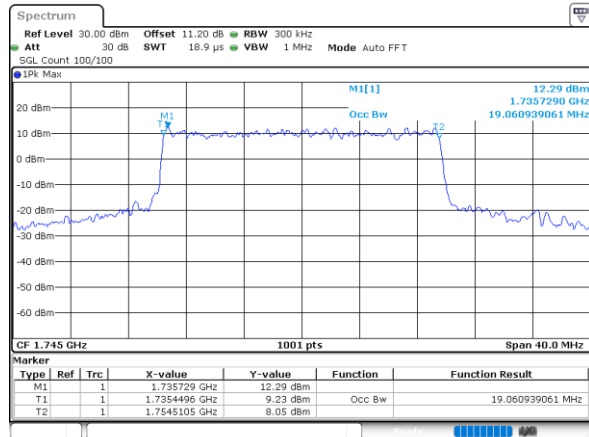
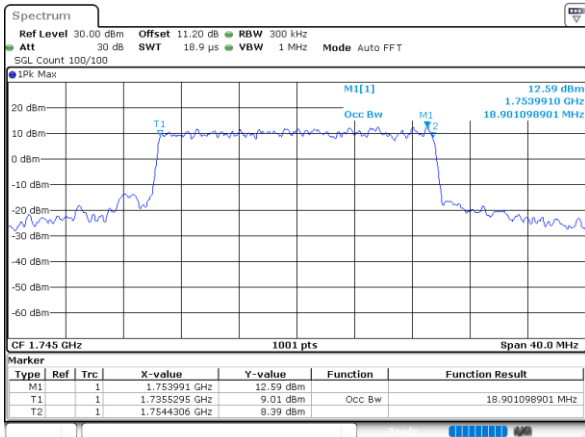


Date: 4.JUL.2020 10:16:32

Date: 4.JUL.2020 10:16:58

Middle Channel

Middle Channel

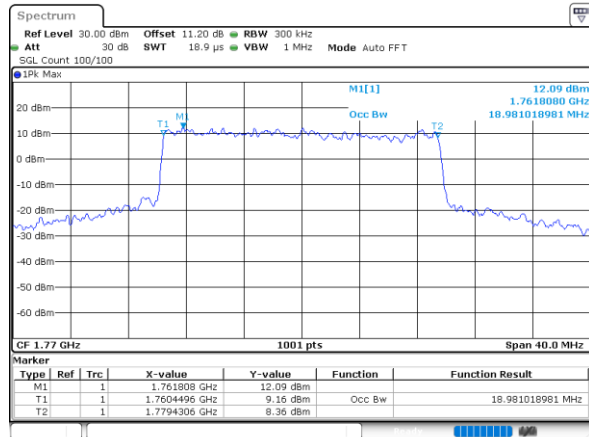
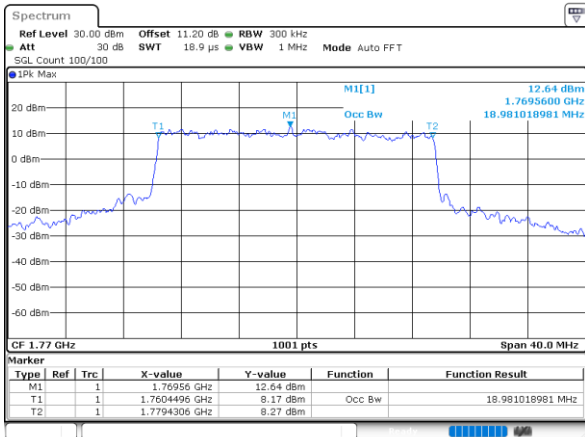


Date: 4.JUL.2020 10:16:00

Date: 4.JUL.2020 10:15:45

Highest Channel

Highest Channel



Date: 4.JUL.2020 10:13:36

Date: 4.JUL.2020 10:13:59