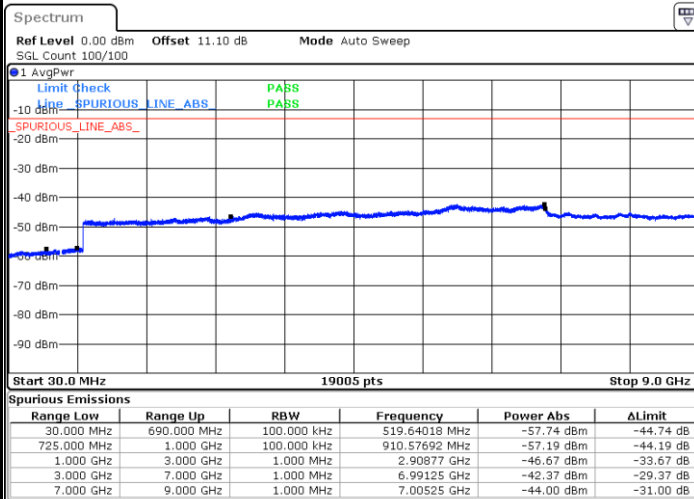




Conducted Spurious Emission

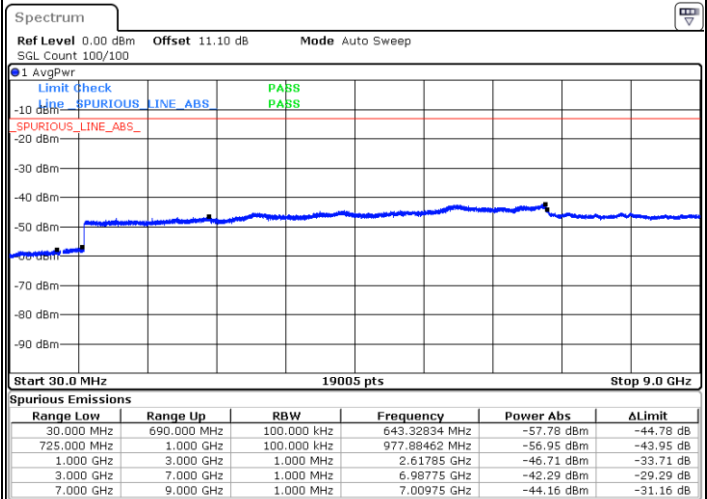
FR1 n12 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1



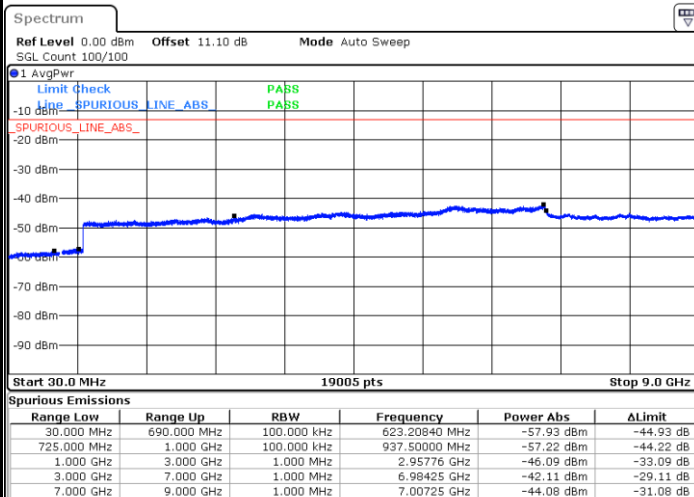
Date: 29.JUN.2020 11:13:42

Middle Channel / 1RB1



Date: 29.JUN.2020 11:08:58

Highest Channel / 1RB1

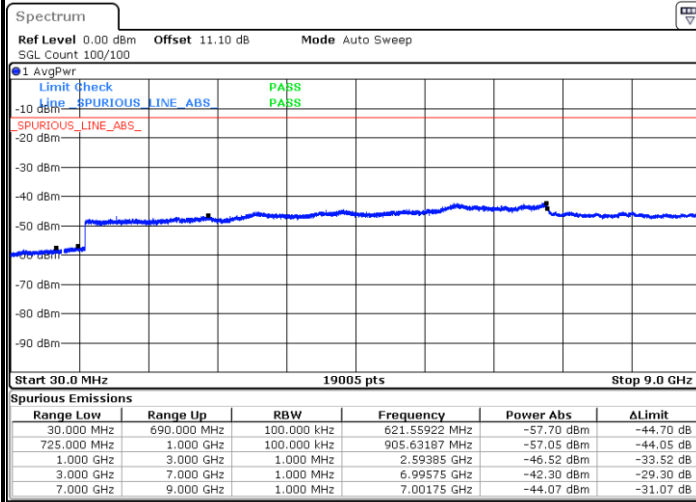


Date: 29.JUN.2020 11:08:21



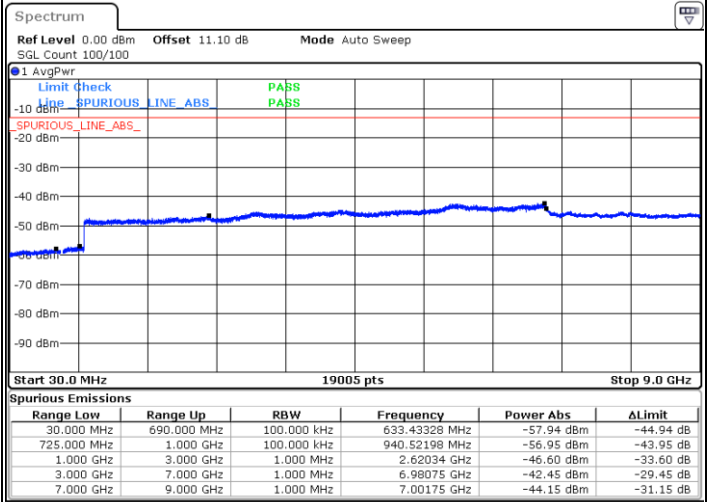
FR1 n12 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1



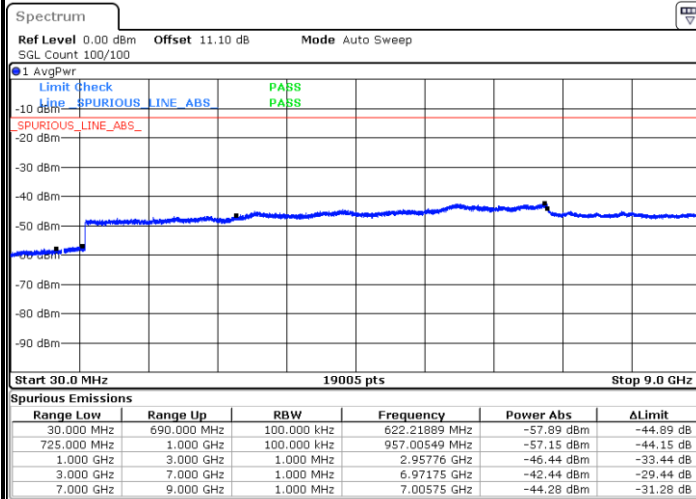
Date: 29.JUN.2020 10:52:29

Middle Channel / 1RB1



Date: 29.JUN.2020 10:51:17

Highest Channel / 1RB1

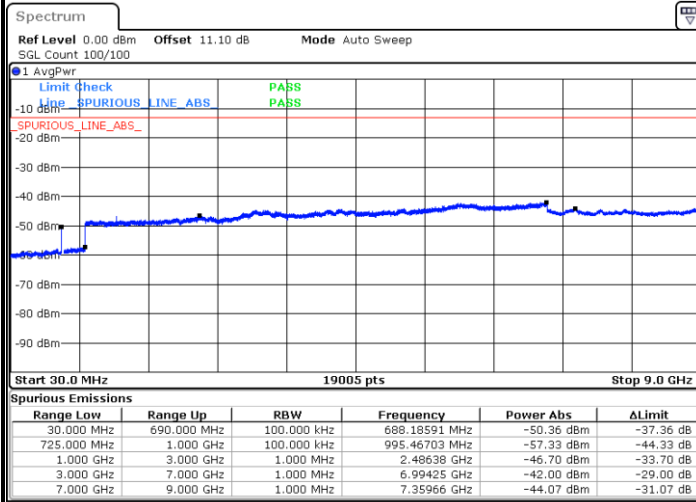


Date: 29.JUN.2020 10:50:25



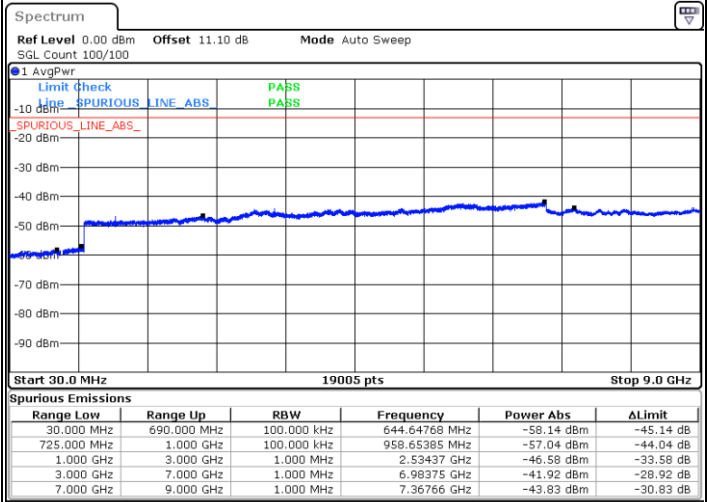
FR1 n12 / 15MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1



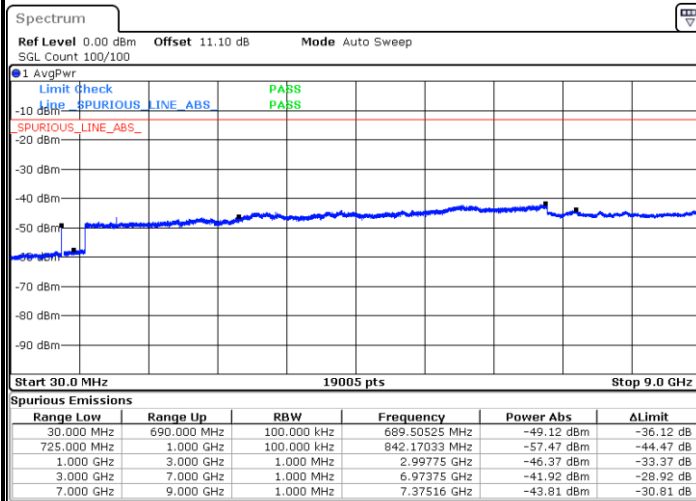
Date: 29.JUN.2020 13:40:34

Middle Channel / 1RB1



Date: 29.JUN.2020 11:54:56

Highest Channel / 1RB1



Date: 29.JUN.2020 13:47:40

Frequency Stability

Test Conditions		FR1 n12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0038	PASS
40	Normal Voltage	0.0068	
30	Normal Voltage	0.0021	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0045	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0034	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0038	
20	Normal Voltage	0.0047	
20	Battery End Point	0.0011	

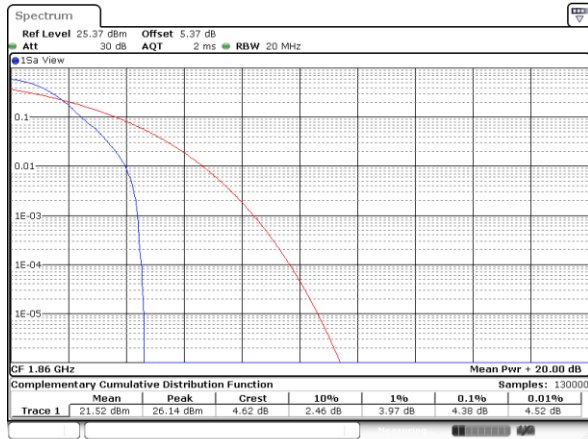
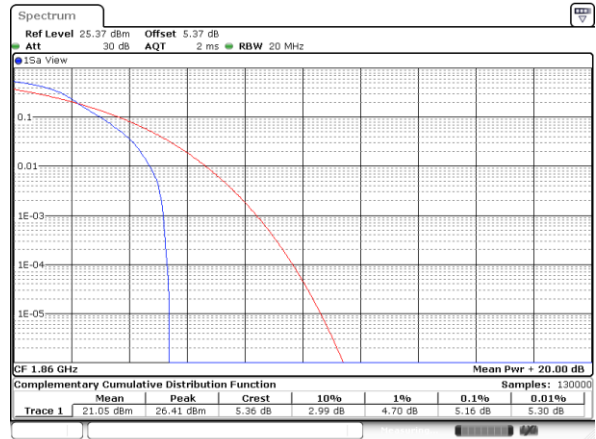
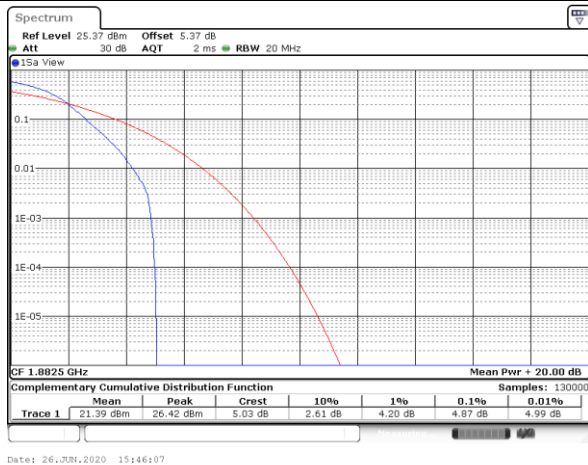
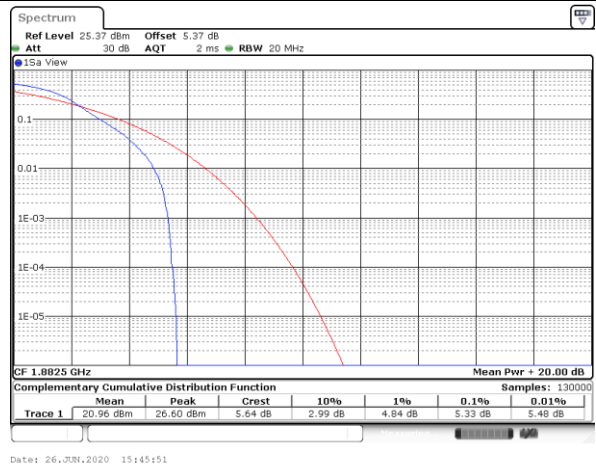
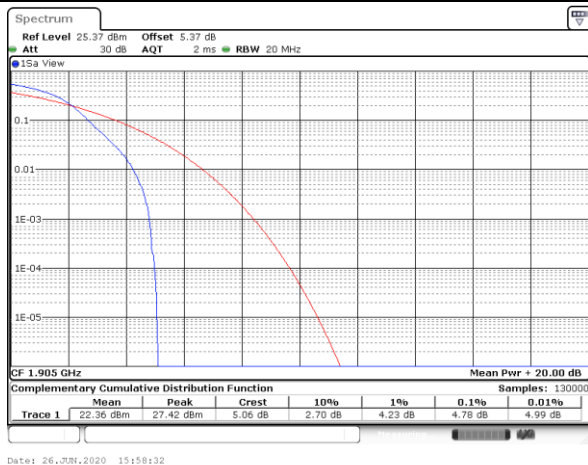
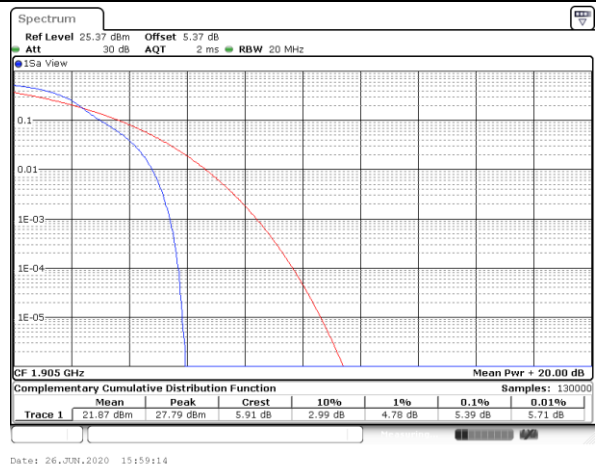
Note:

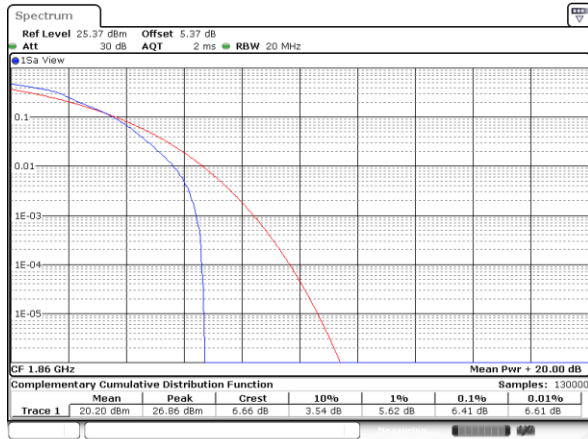
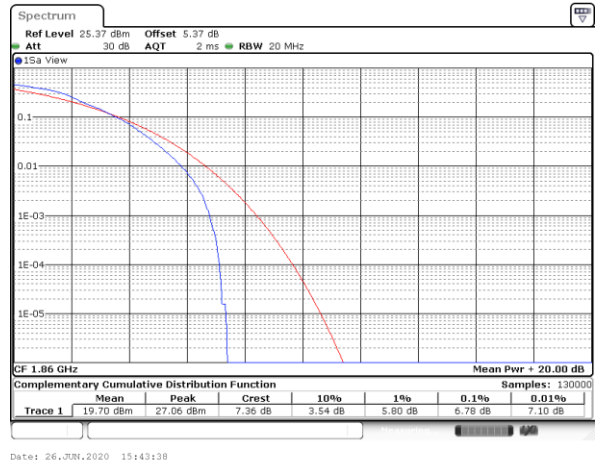
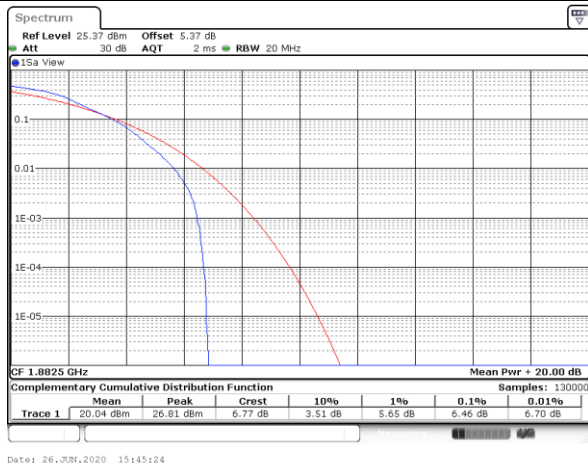
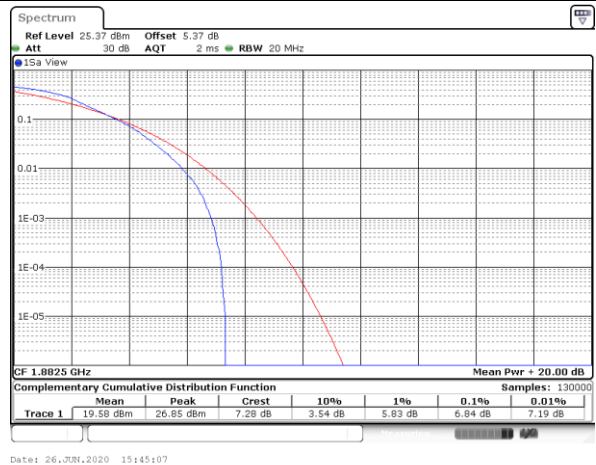
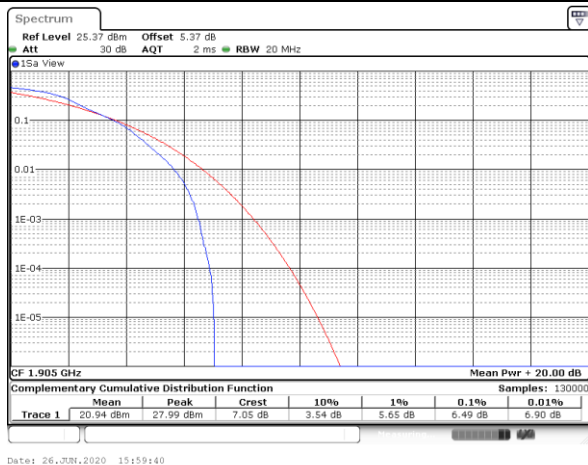
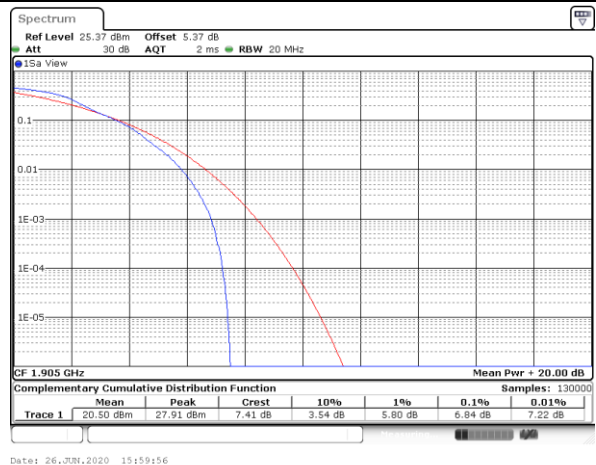
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.49 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

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
Lowest CH	4.38	5.16	6.41	6.78	PASS
Middle CH	4.87	5.33	6.46	6.84	
Highest CH	4.78	5.39	6.49	6.84	
Mode	FR1 n25 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Lowest CH	7.22				PASS
Middle CH	7.19				
Highest CH	7.19				

FR1 n25 / 20MHz / DFT-S OFDM
PI/2 BPSK
Lowest Channel / Full RB

QPSK
Lowest Channel / Full RB

Middle Channel / Full RB

Middle Channel / Full RB

Highest Channel / Full RB

Highest Channel / Full RB


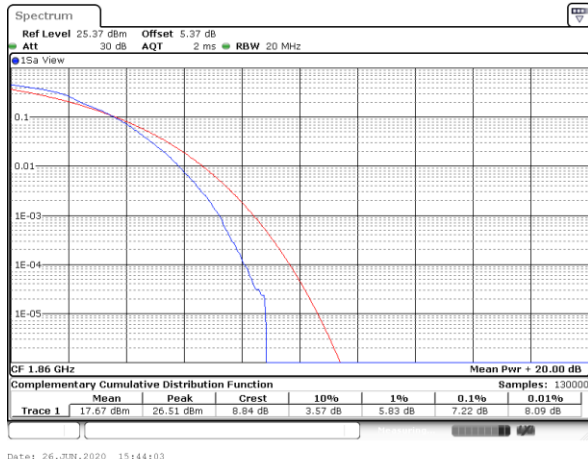
FR1 n25 / 20MHz / DFT-S OFDM
16QAM
Lowest Channel / Full RB

64QAM
Lowest Channel / Full RB

Middle Channel / Full RB

Middle Channel / Full RB

Highest Channel / Full RB

Highest Channel / Full RB




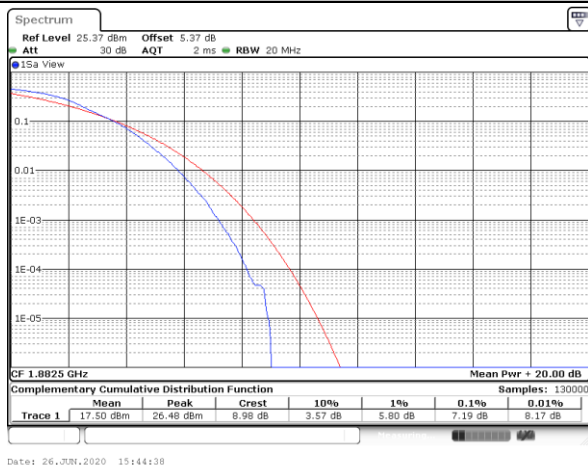
FR1 n25 / 20MHz / DFT-S OFDM

256QAM

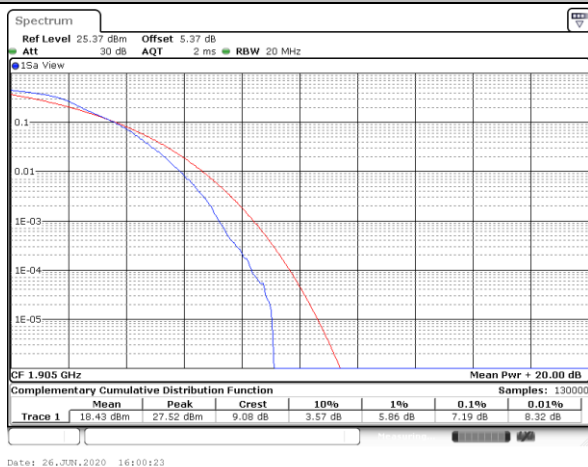
Lowest Channel / Full RB



Middle Channel / Full RB



Highest Channel / Full RB



**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	
Lowest CH	4.92		9.69		14.24		18.78	
Middle CH	5.28		9.51		14.24		19.02	
Highest CH	5.05		9.57		14.36		18.98	

Mode	FR1 n25 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	5.06	4.94	10.25	10.05	15.05	14.84	20.02	19.86
Middle CH	4.95	5.30	9.91	9.77	14.99	15.11	19.82	19.82
Highest CH	5.14	4.85	10.03	9.85	15.14	14.87	19.90	20.06

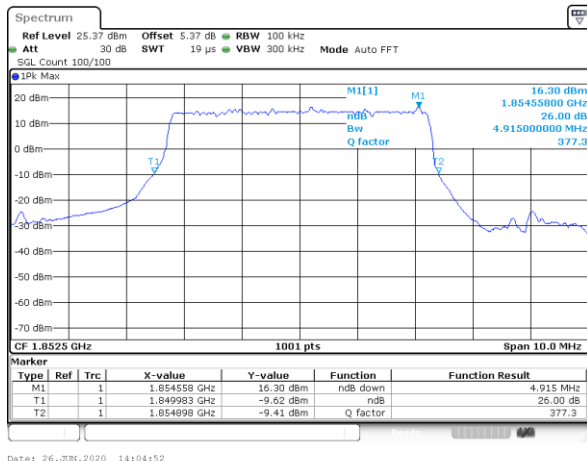
Mode	FR1 n25 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	5.10	5.19	9.83	9.75	14.90	15.14	20.02	20.02
Middle CH	4.90	5.25	9.99	9.93	14.93	15.05	19.94	19.90
Highest CH	5.00	5.15	9.93	10.09	14.96	14.90	20.10	20.10



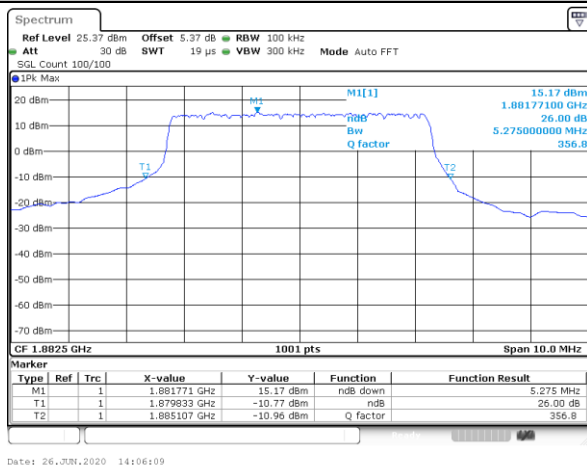
FR1 n25 / 5MHz / DFT-S OFDM

PI/2 BPSK

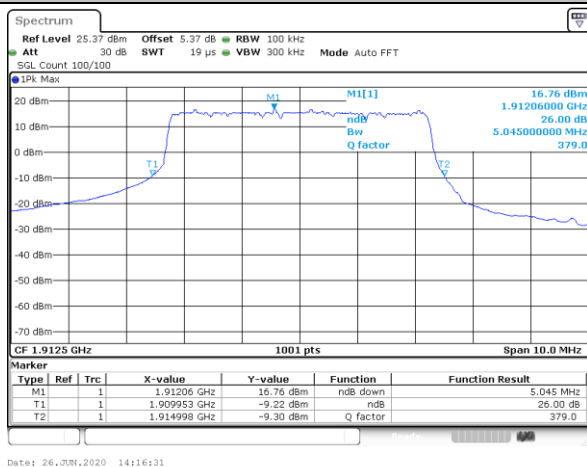
Lowest Channel



Middle Channel



Highest Channel

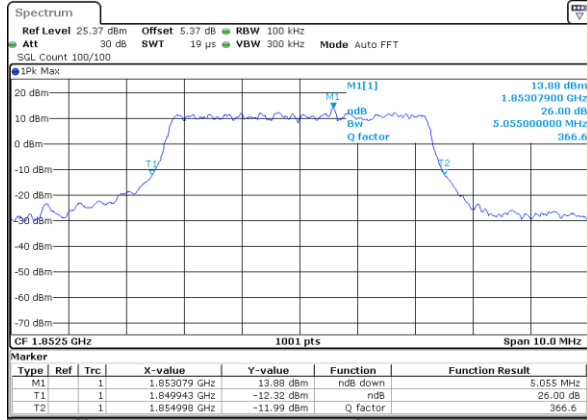




FR1 n25 / 5MHz / CP OFDM

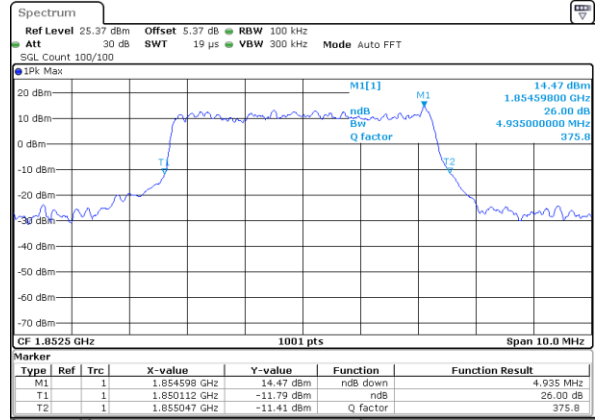
QPSK

Lowest Channel

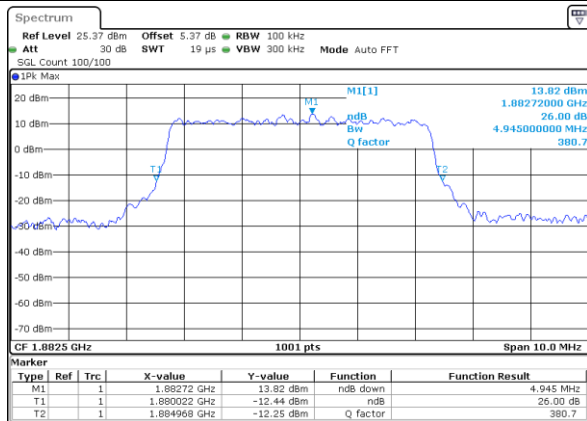


16QAM

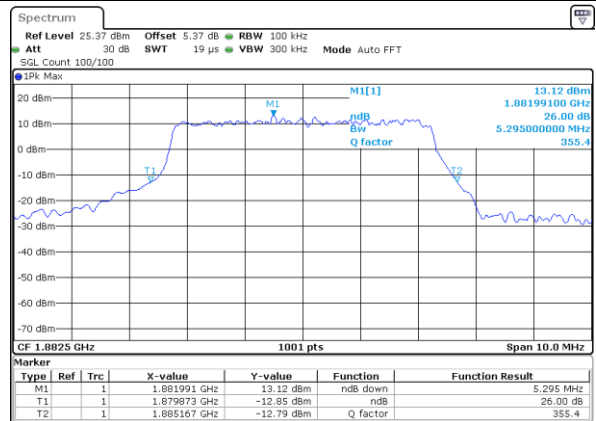
Lowest Channel



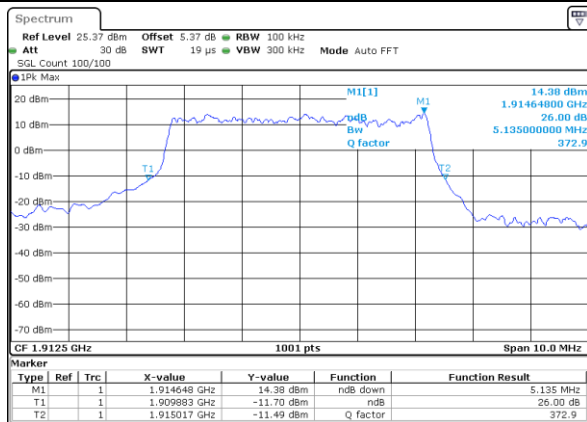
Middle Channel



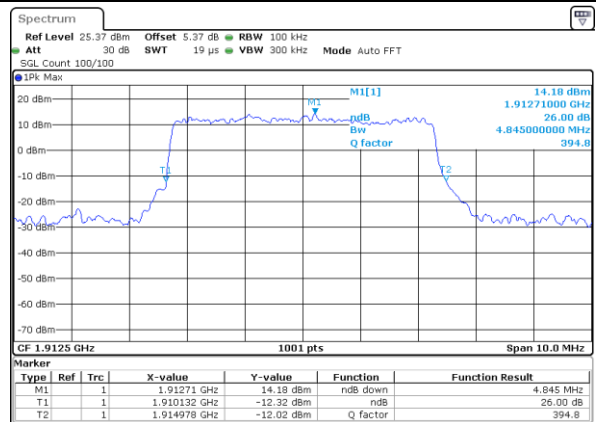
Middle Channel



Highest Channel



Highest Channel

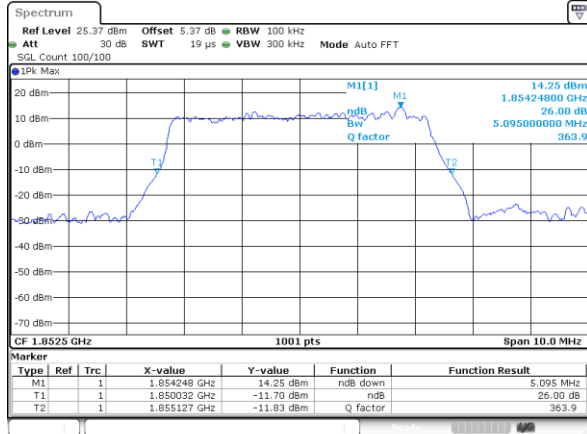




FR1 n25 / 5MHz / CP OFDM

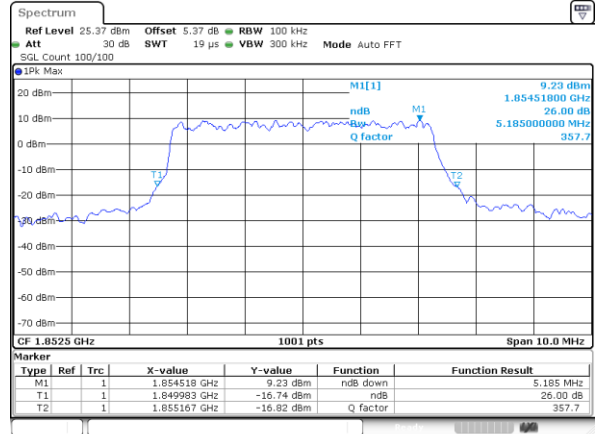
64QAM

Lowest Channel

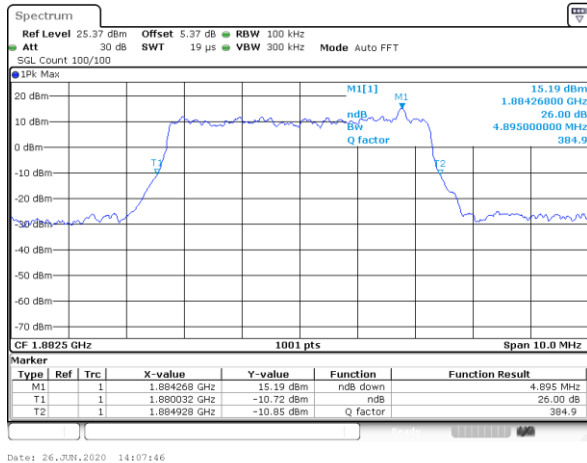


256QAM

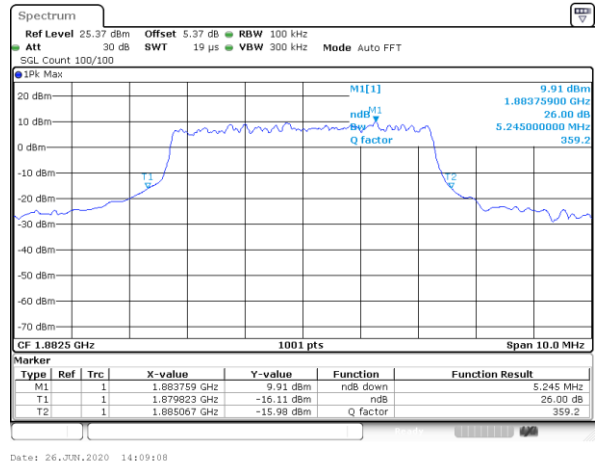
Lowest Channel



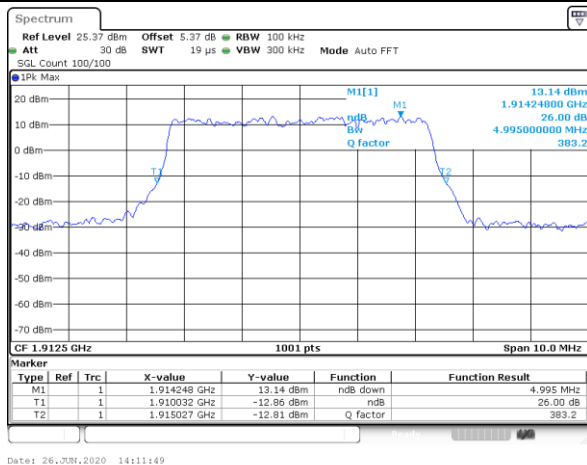
Middle Channel



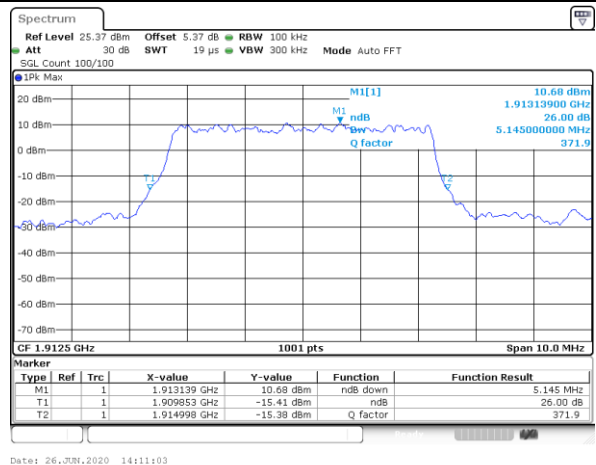
Middle Channel

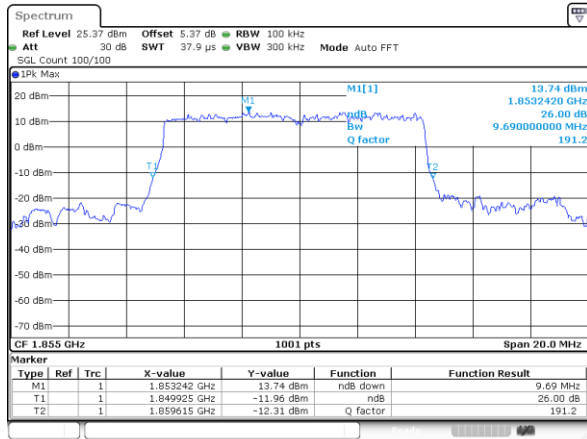
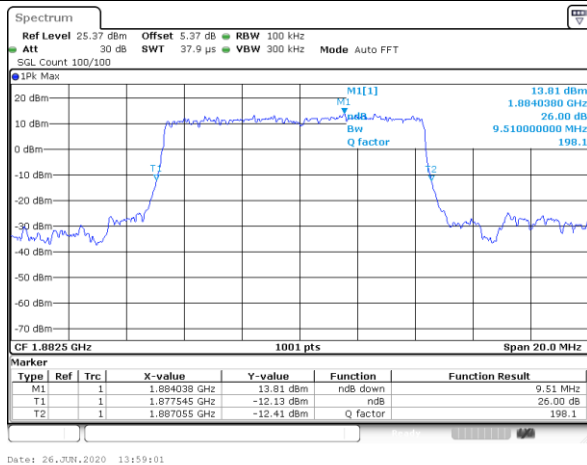
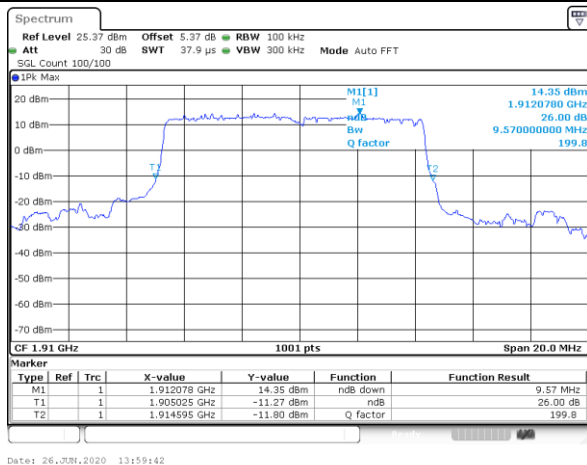


Highest Channel



Highest Channel



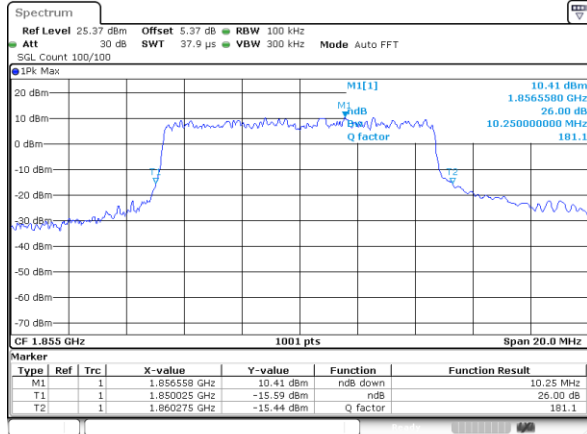
**FR1 n25 / 10MHz / DFT-S OFDM****PI/2 BPSK****Lowest Channel****Middle Channel****Highest Channel**



FR1 n25 / 10MHz / CP OFDM

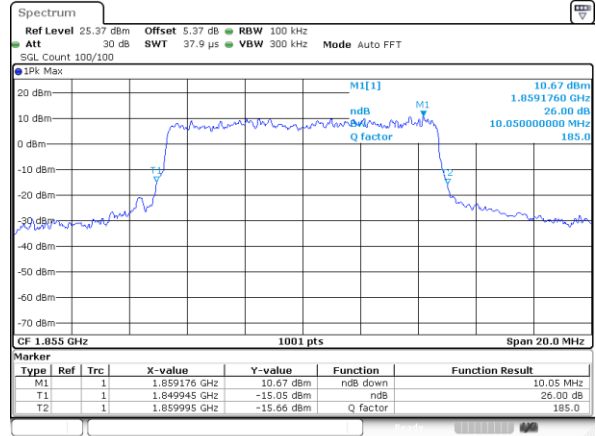
QPSK

Lowest Channel

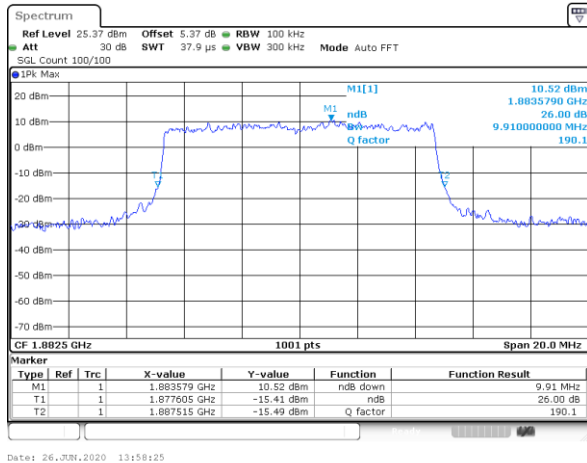


16QAM

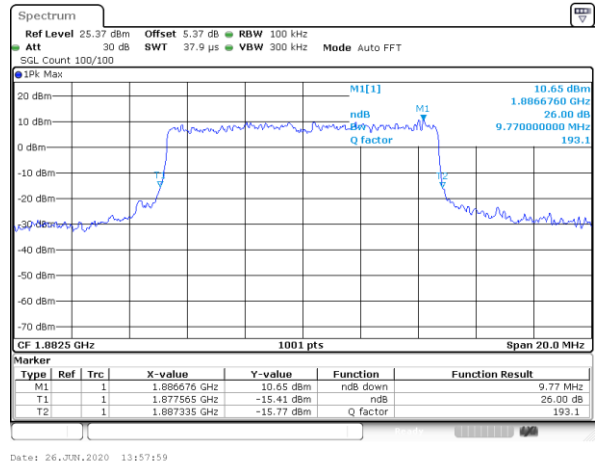
Lowest Channel



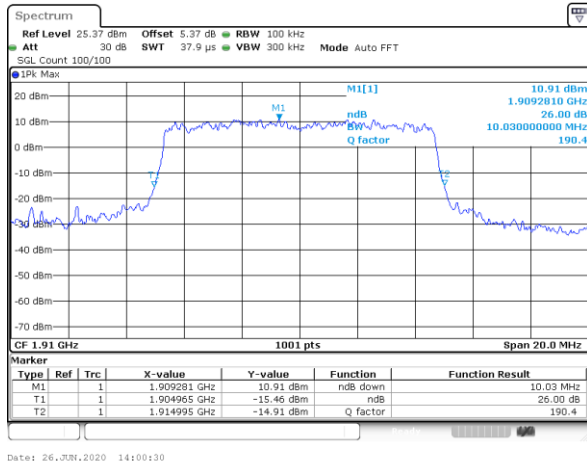
Middle Channel



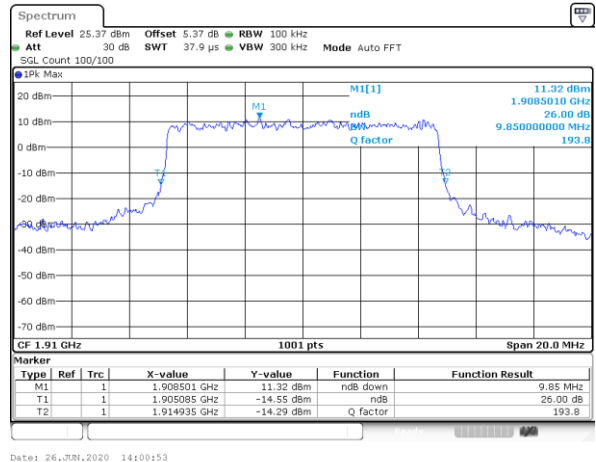
Middle Channel



Highest Channel



Highest Channel

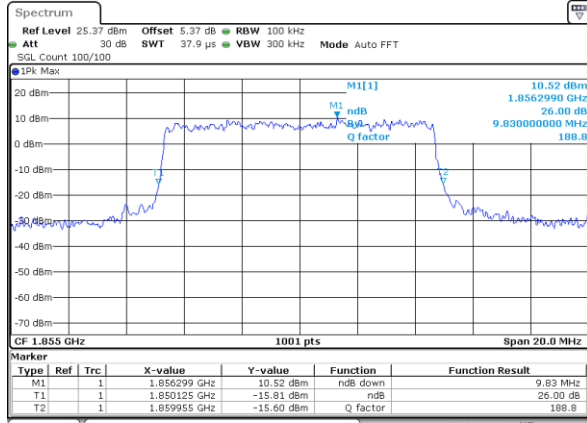




FR1 n25 / 10MHz / CP OFDM

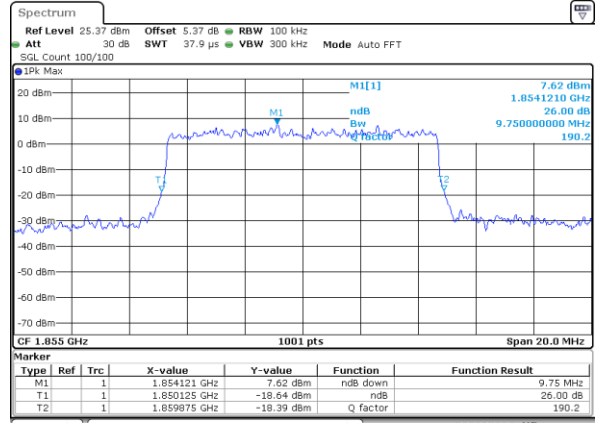
64QAM

Lowest Channel

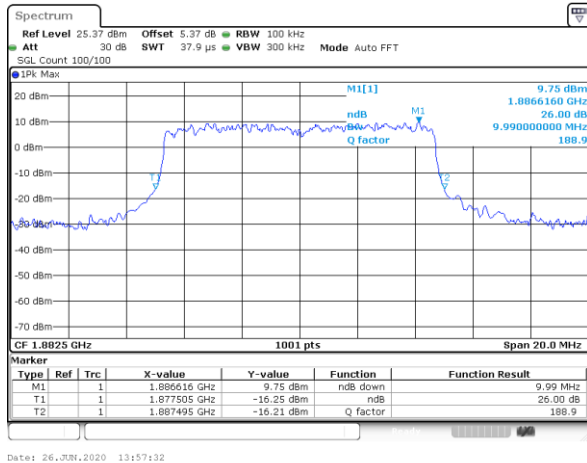


256QAM

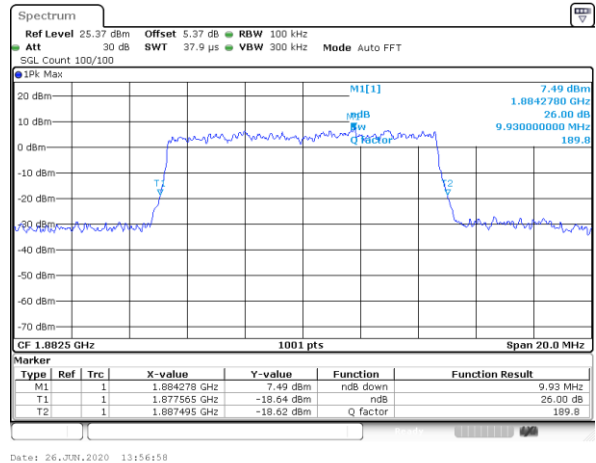
Lowest Channel



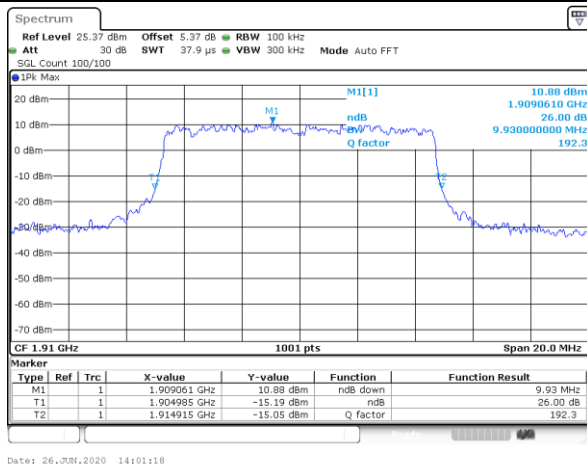
Middle Channel



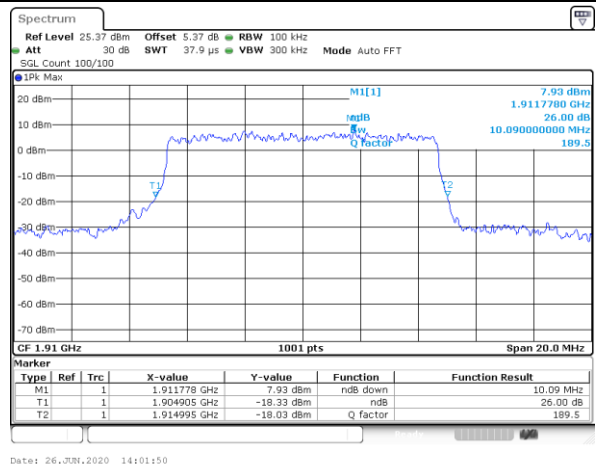
Middle Channel



Highest Channel



Highest Channel

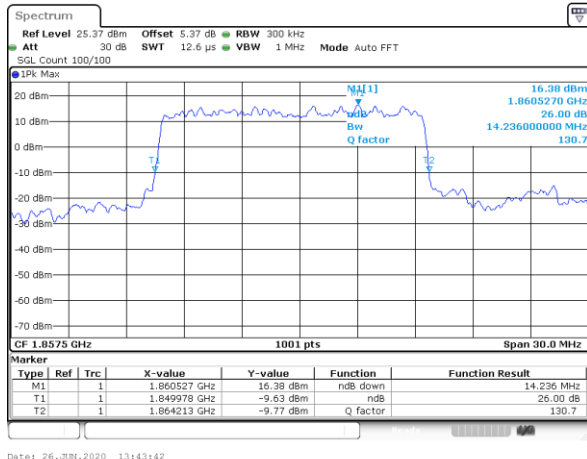




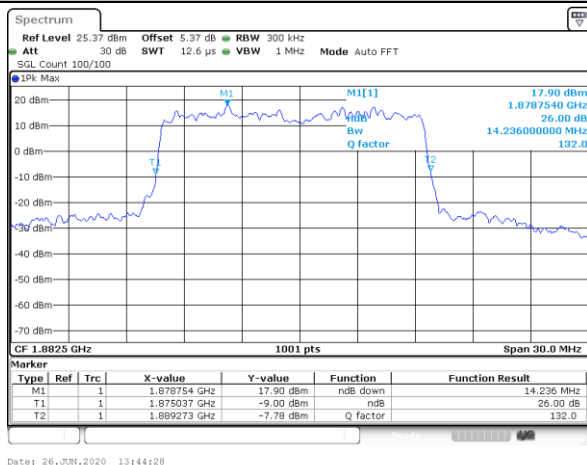
FR1 n25 / 15MHz / DFT-S OFDM

PI/2 BPSK

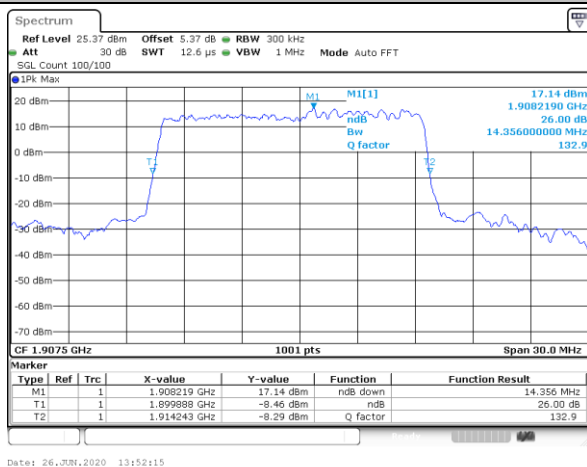
Lowest Channel



Middle Channel



Highest Channel

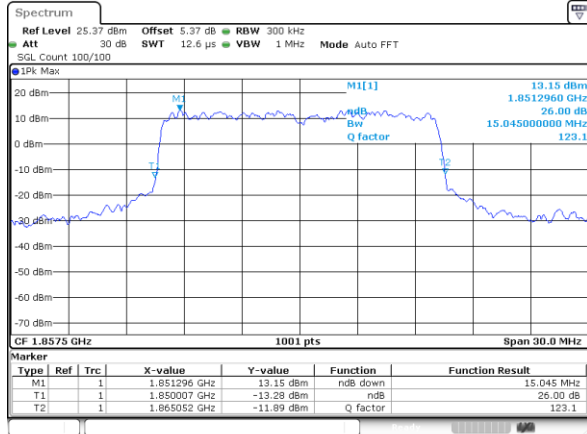




FR1 n25 / 15MHz / CP OFDM

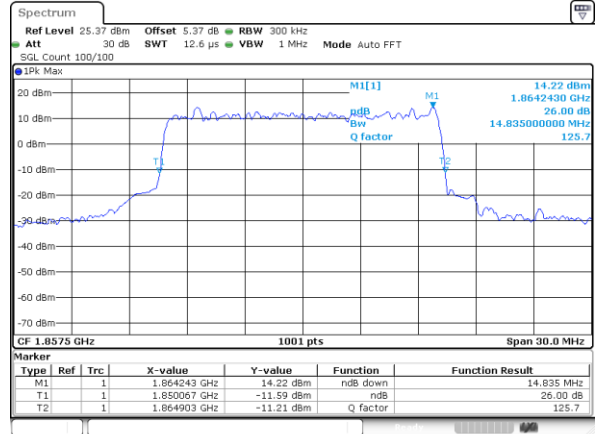
QPSK

Lowest Channel

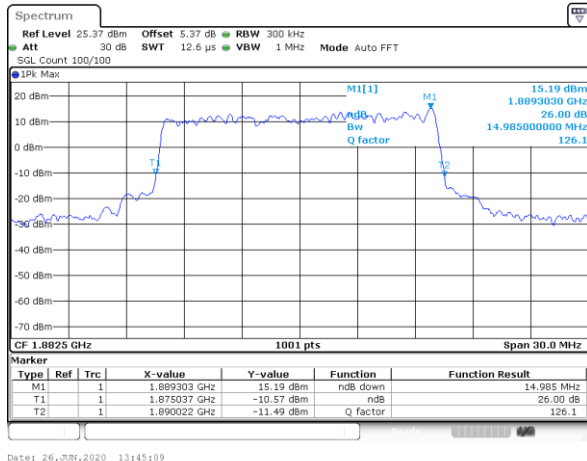


16QAM

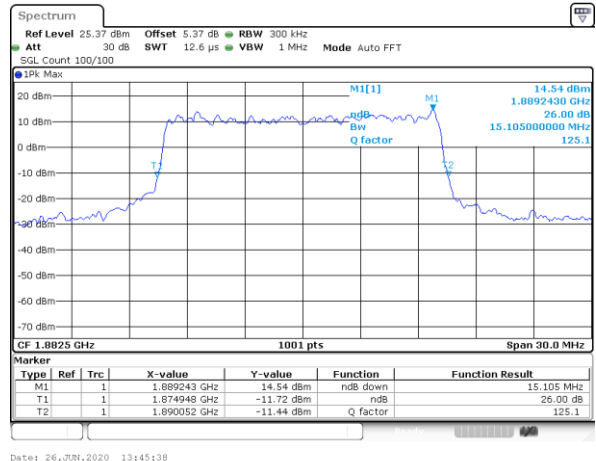
Lowest Channel



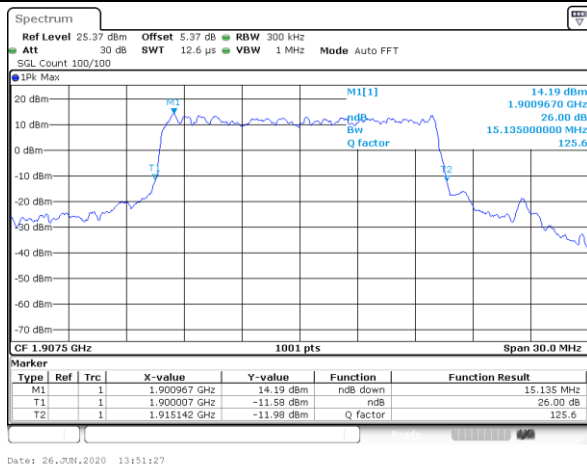
Middle Channel



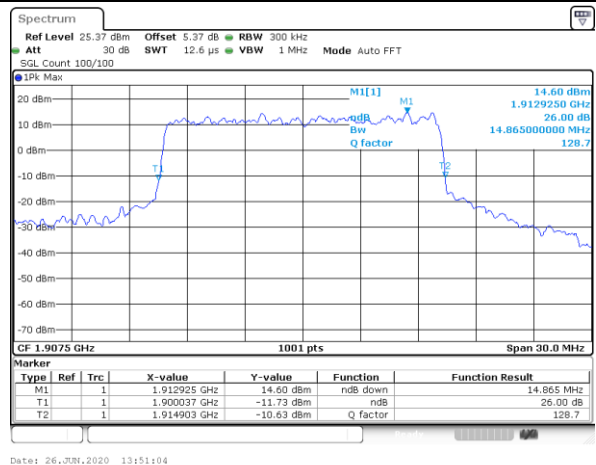
Middle Channel



Highest Channel



Highest Channel

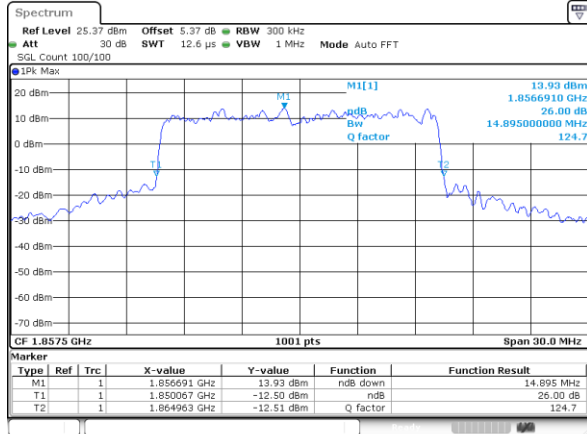




FR1 n25 / 15MHz / CP OFDM

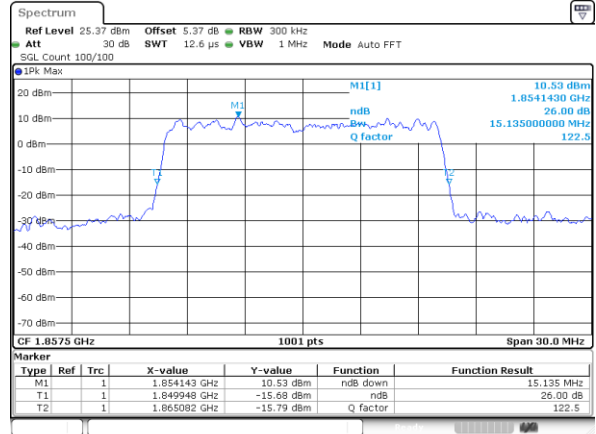
64QAM

Lowest Channel

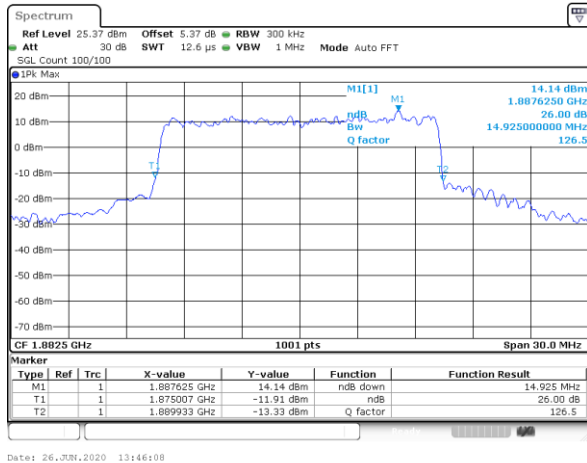


256QAM

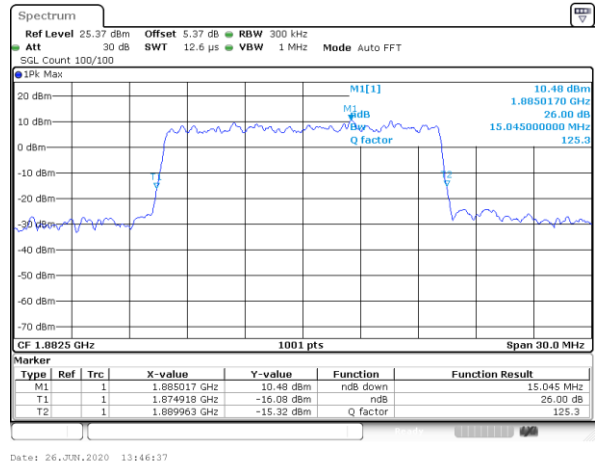
Lowest Channel



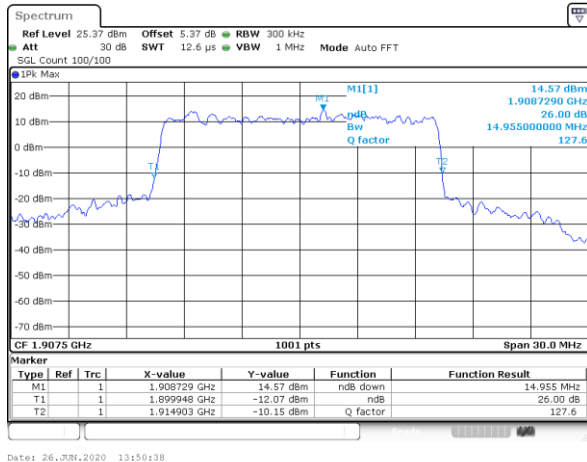
Middle Channel



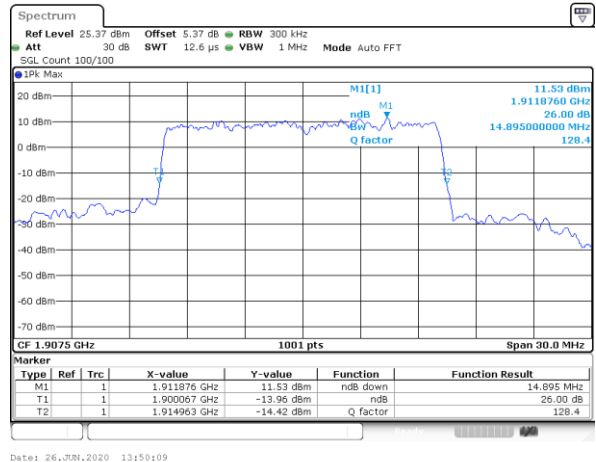
Middle Channel



Highest Channel



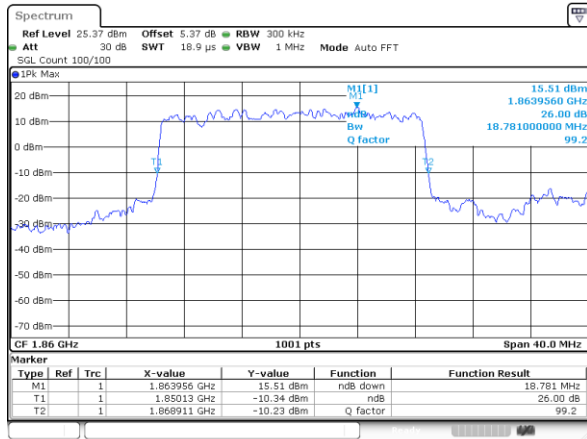
Highest Channel



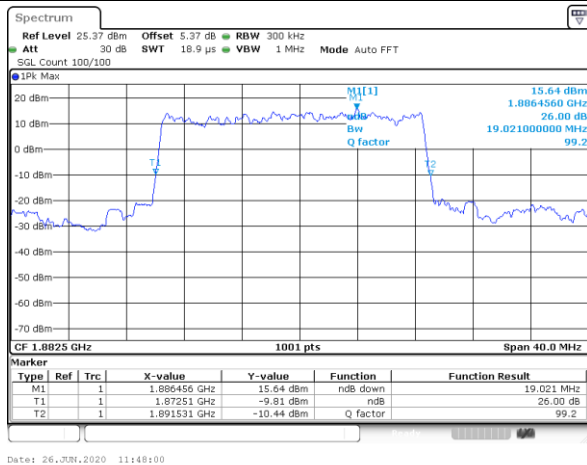
FR1 n25 / 20MHz / DFT-S OFDM

PI/2 BPSK

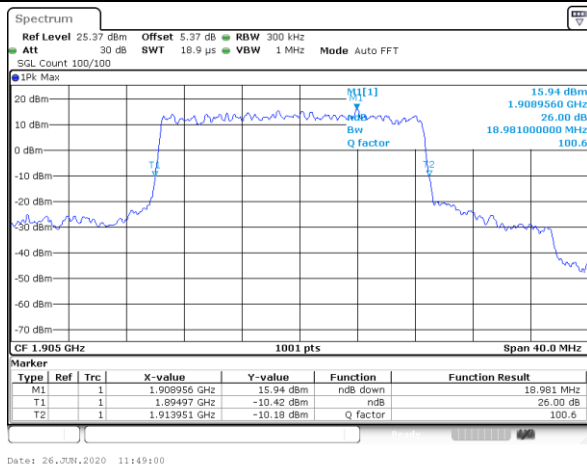
Lowest Channel



Middle Channel



Highest Channel

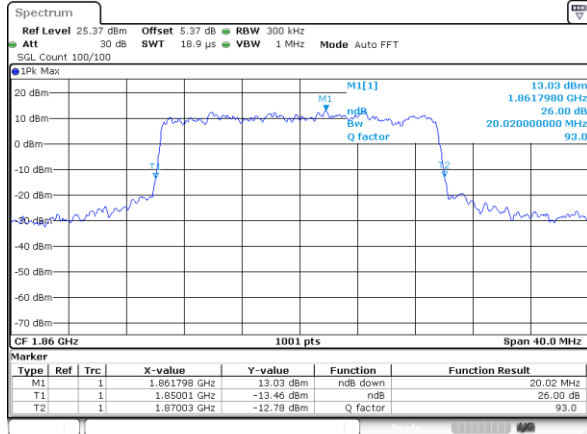




FR1 n25 / 20MHz / CP OFDM

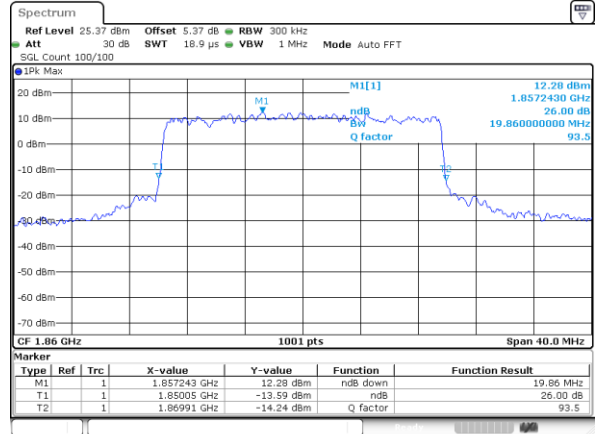
QPSK

Lowest Channel

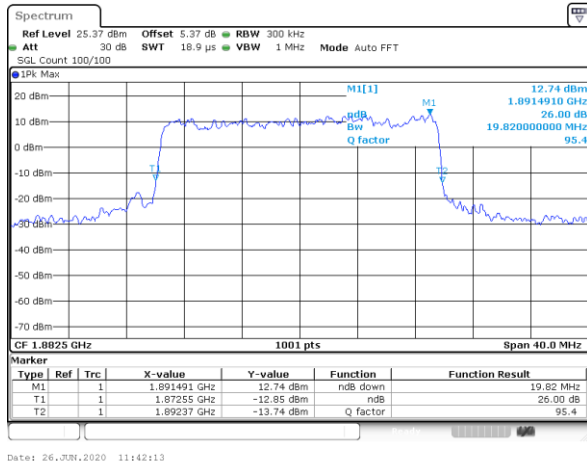


16QAM

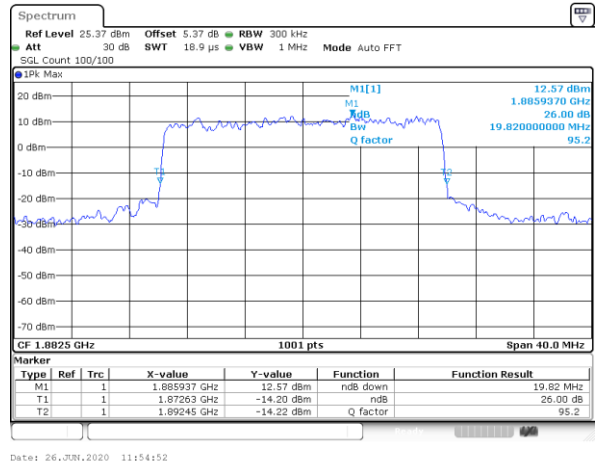
Lowest Channel



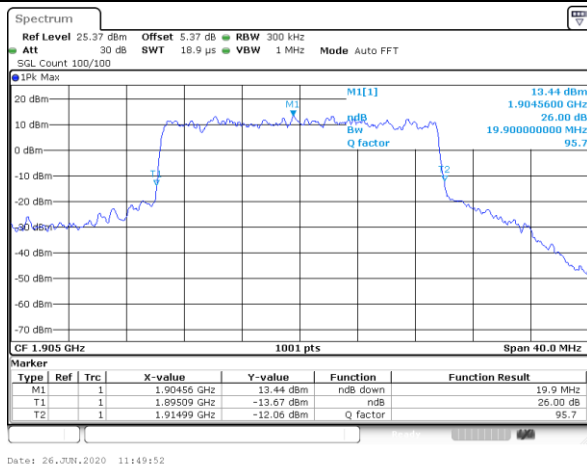
Middle Channel



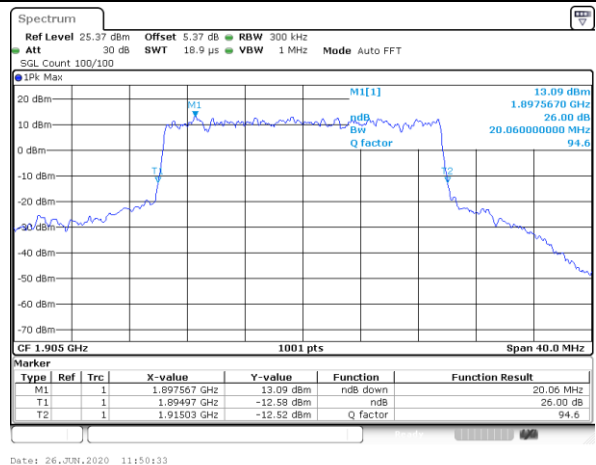
Middle Channel



Highest Channel



Highest Channel

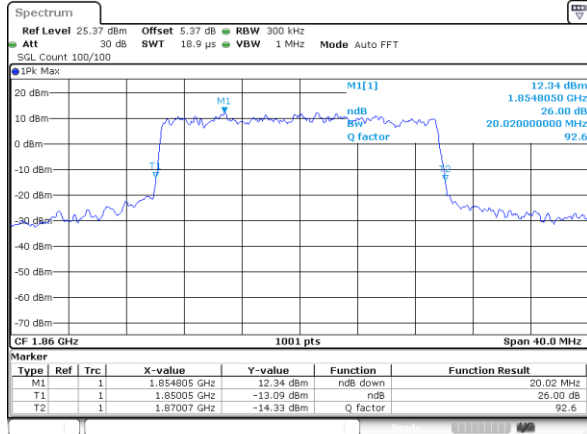




FR1 n25 / 20MHz / CP OFDM

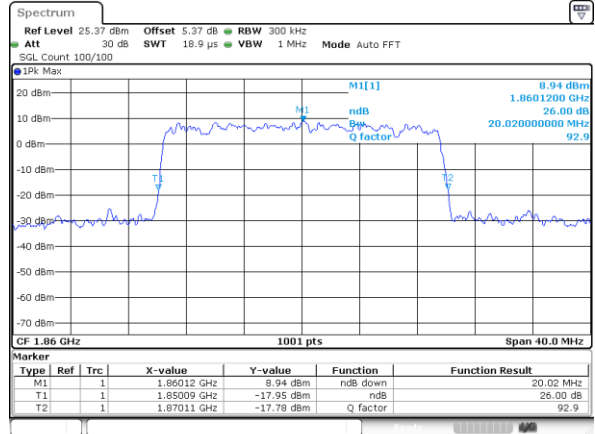
64QAM

Lowest Channel

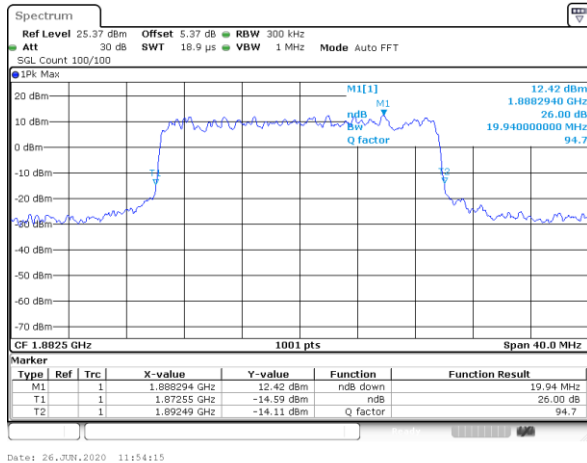


256QAM

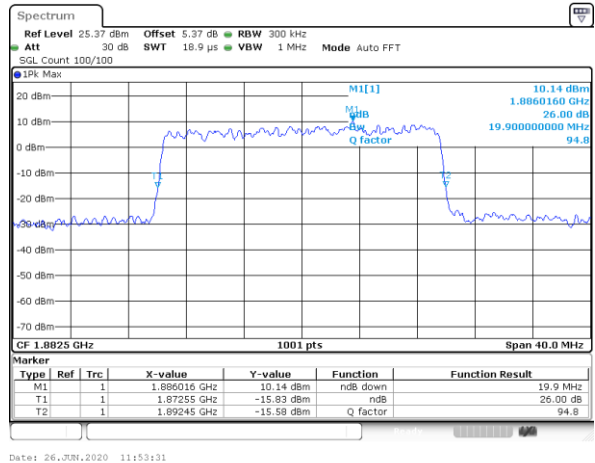
Lowest Channel



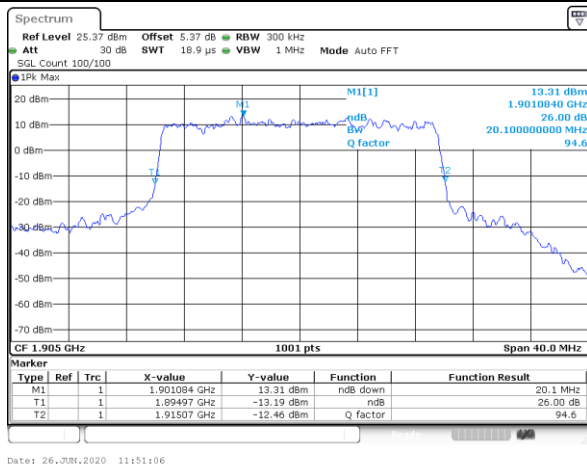
Middle Channel



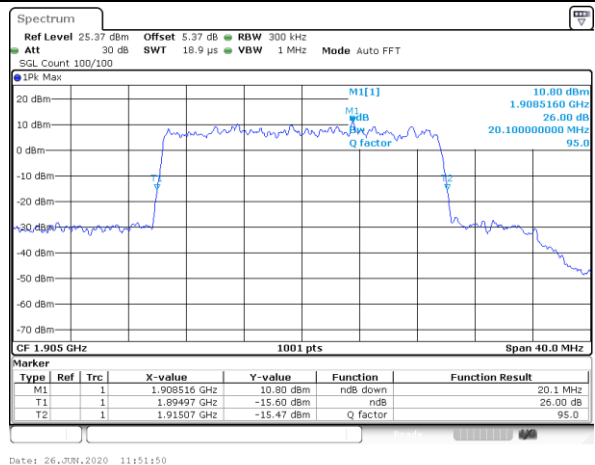
Middle Channel



Highest Channel



Highest Channel



**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	
Lowest CH	4.47		8.89		13.49		17.94	
Middle CH	4.47		8.91		13.49		17.94	
Highest CH	4.47		8.91		13.49		17.94	

Mode	FR1 n25 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.47	4.48	9.29	9.25	14.12	14.12	18.94	18.98
Middle CH	4.48	4.52	9.33	9.27	14.15	14.21	18.94	18.94
Highest CH	4.48	4.48	9.29	9.25	14.12	14.12	18.94	19.02

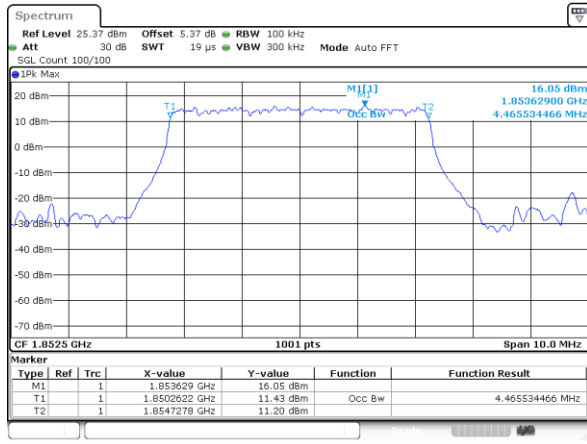
Mode	FR1 n25 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	4.49	4.49	9.27	9.25	14.12	14.09	18.90	18.86
Middle CH	4.50	4.52	9.25	9.27	14.21	14.15	18.90	18.98
Highest CH	4.51	4.49	9.23	9.25	14.12	14.12	18.94	18.98



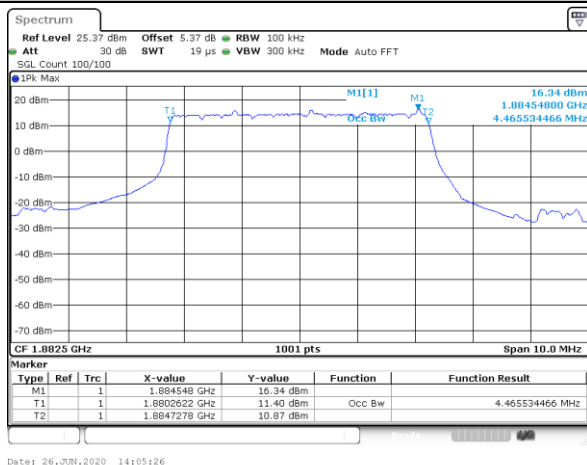
FR1 n25 / 5MHz / DFT-S OFDM

PI/2 BPSK

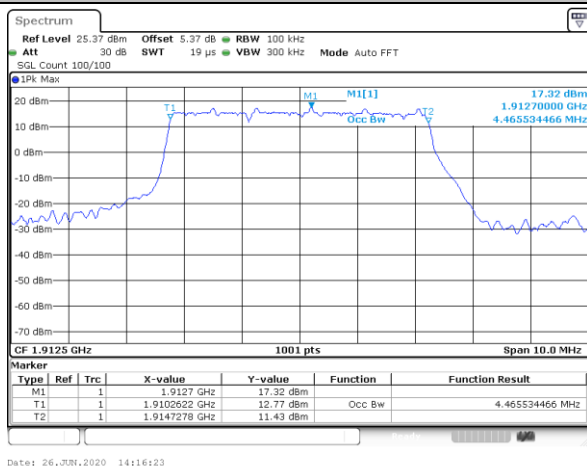
Lowest Channel



Middle Channel



Highest Channel

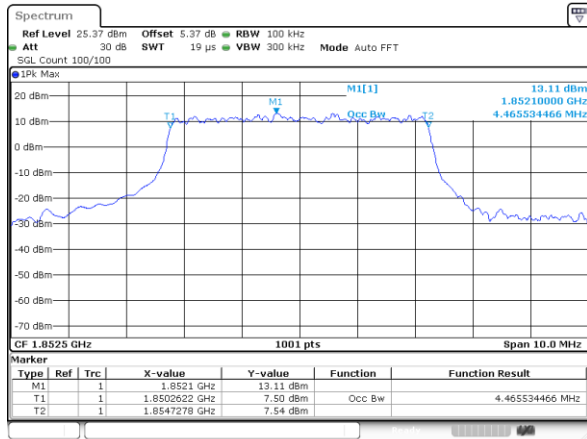




FR1 n25 / 5MHz / CP OFDM

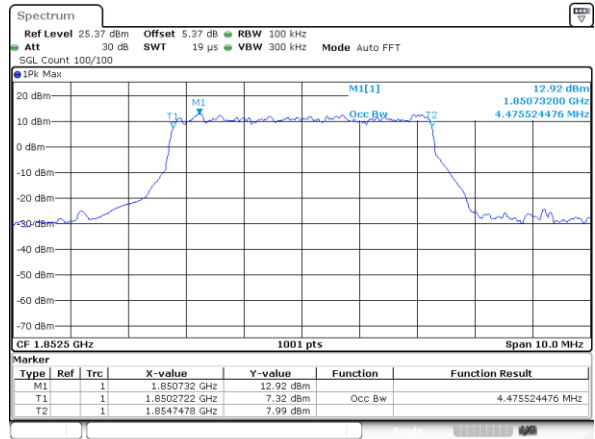
QPSK

Lowest Channel

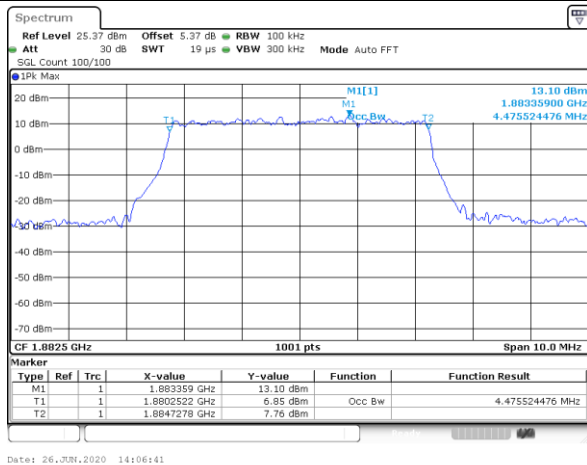


16QAM

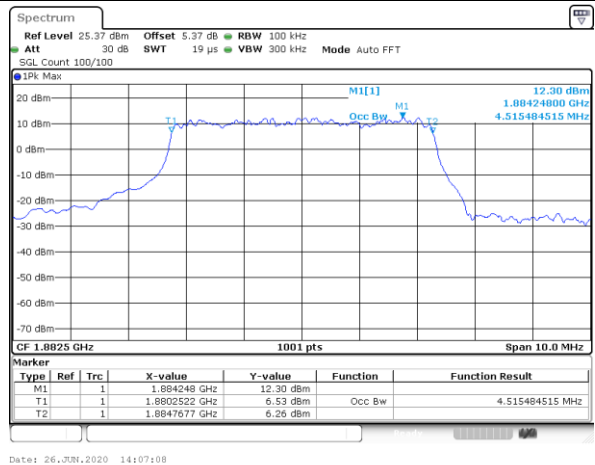
Lowest Channel



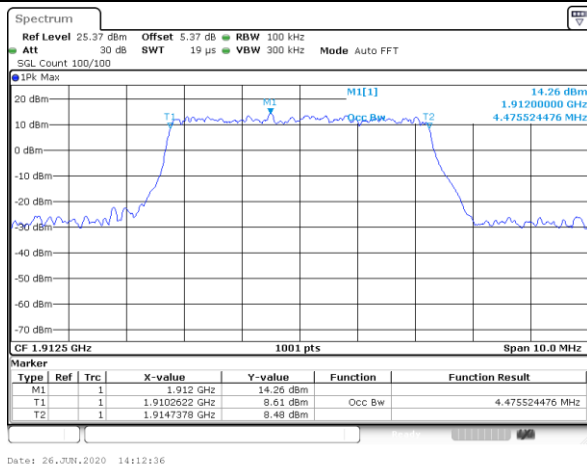
Middle Channel



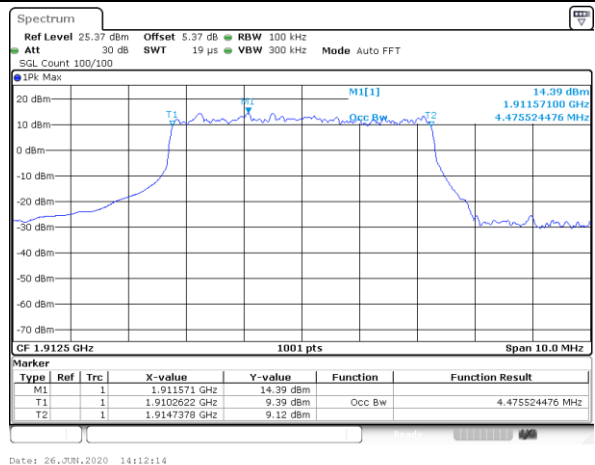
Middle Channel



Highest Channel



Highest Channel

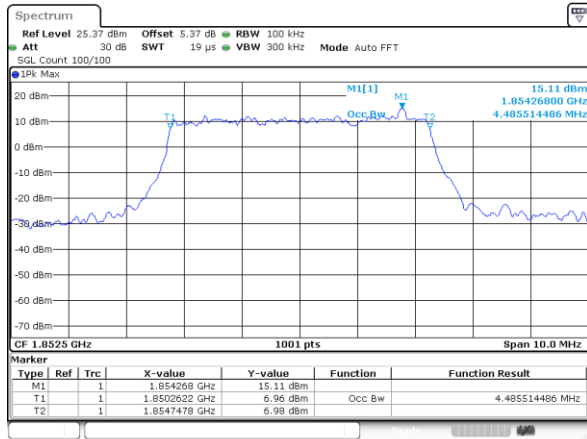




FR1 n25 / 5MHz / CP OFDM

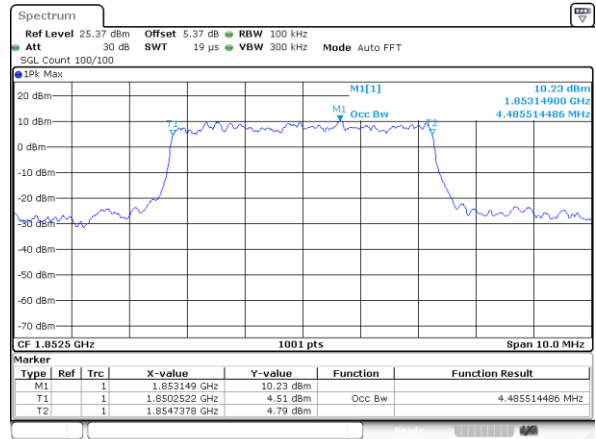
64QAM

Lowest Channel

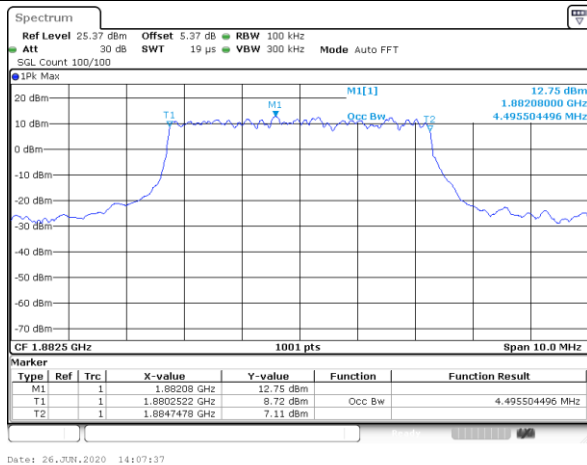


256QAM

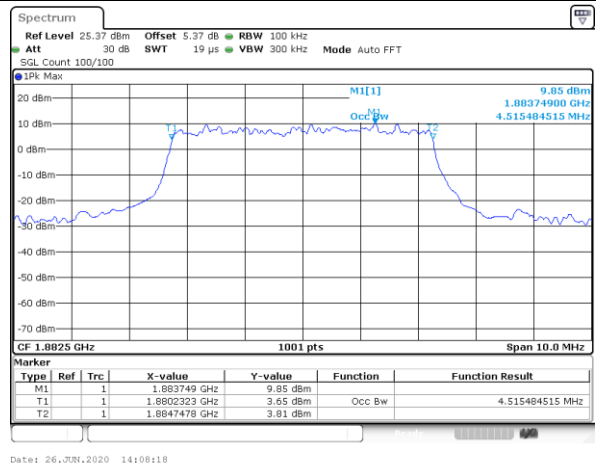
Lowest Channel



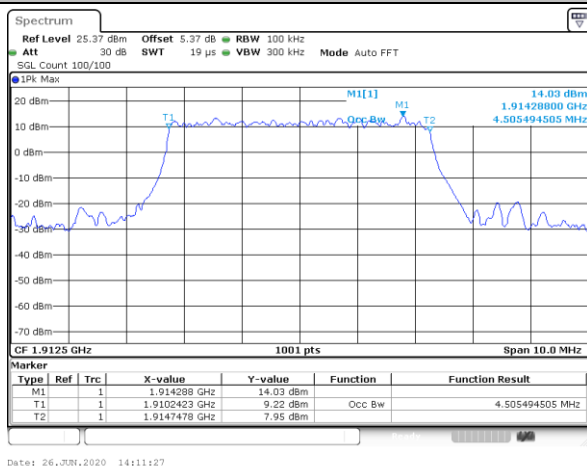
Middle Channel



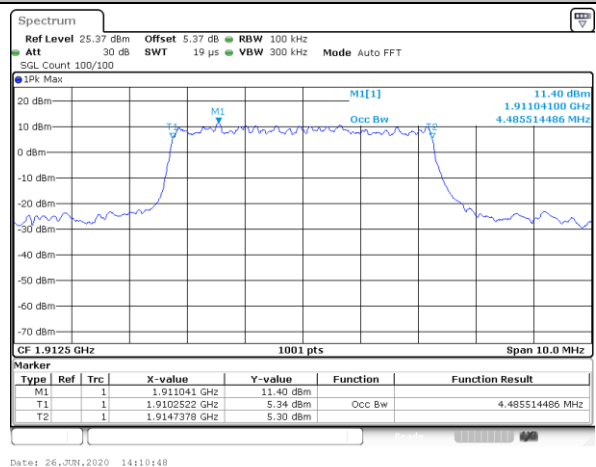
Middle Channel



Highest Channel



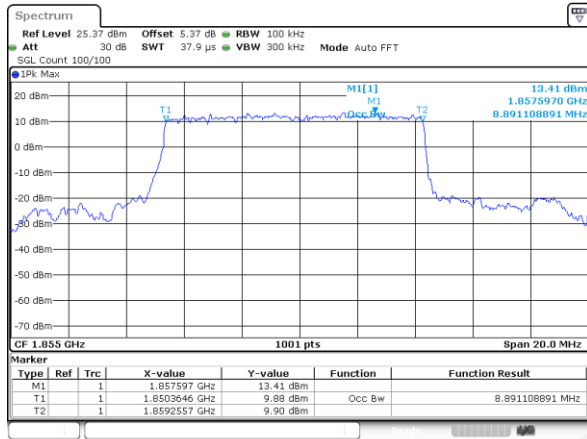
Highest Channel



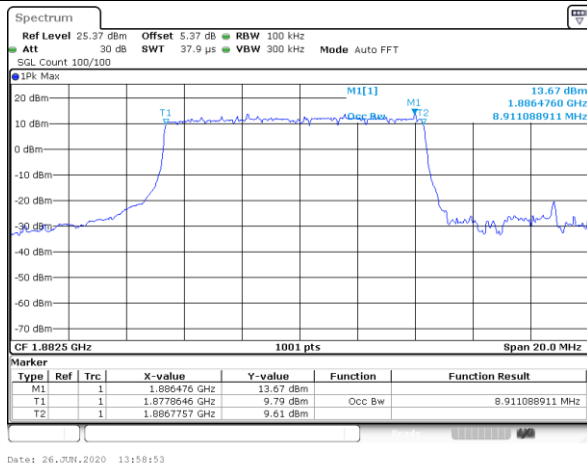
FR1 n25 / 10MHz / DFT-S OFDM

PI/2 BPSK

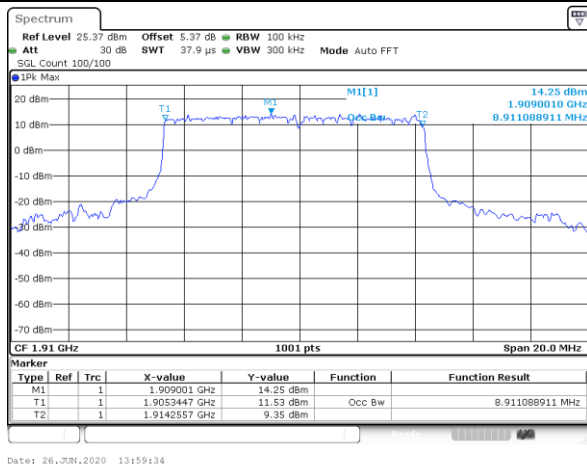
Lowest Channel



Middle Channel



Highest Channel

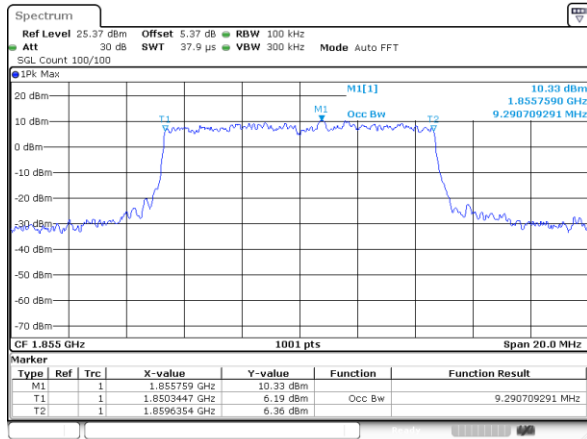




FR1 n25 / 10MHz / CP OFDM

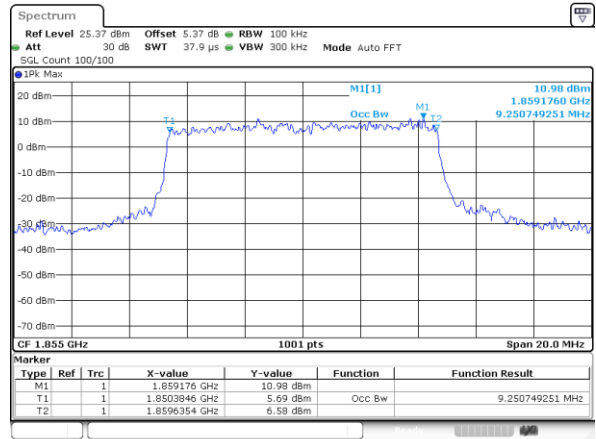
QPSK

Lowest Channel

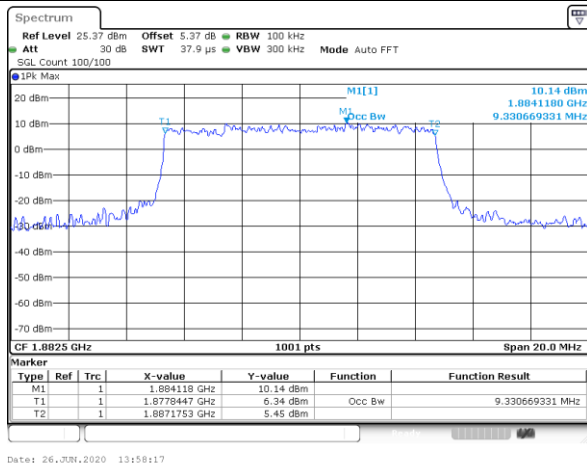


16QAM

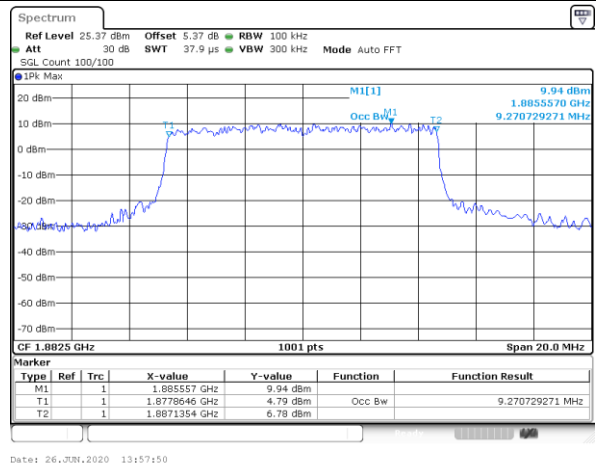
Lowest Channel



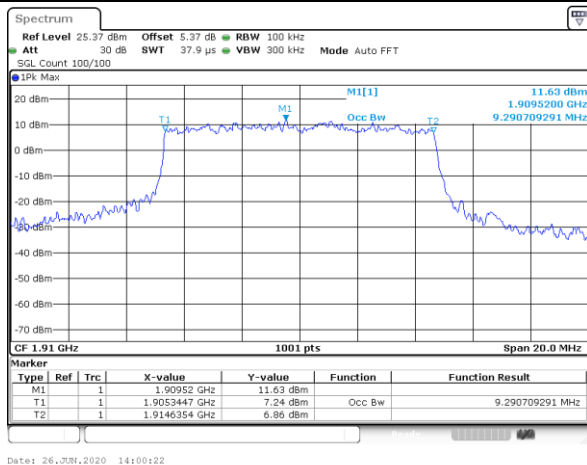
Middle Channel



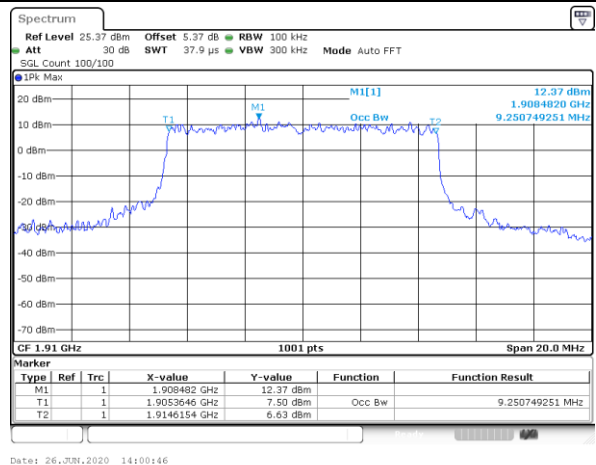
Middle Channel



Highest Channel



Highest Channel

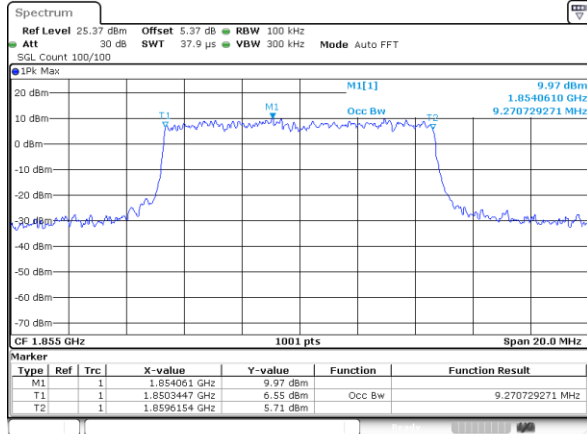




FR1 n25 / 10MHz / CP OFDM

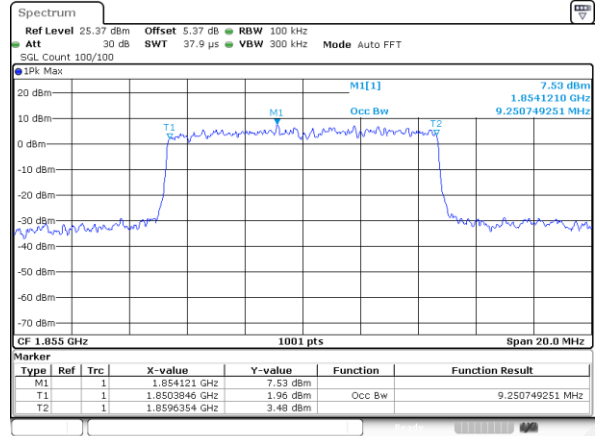
64QAM

Lowest Channel

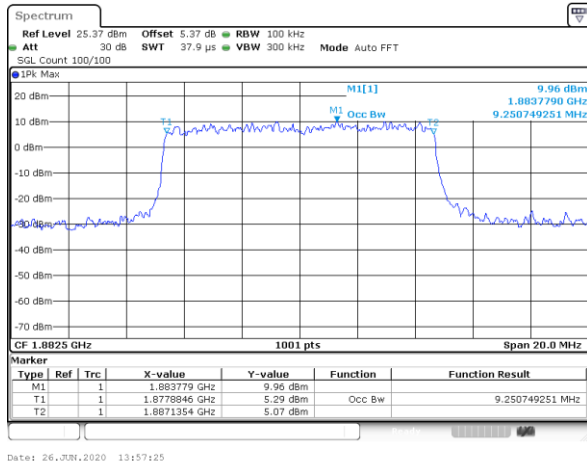


256QAM

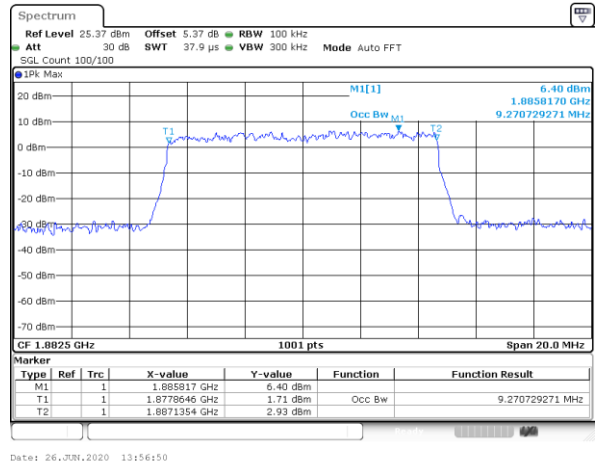
Lowest Channel



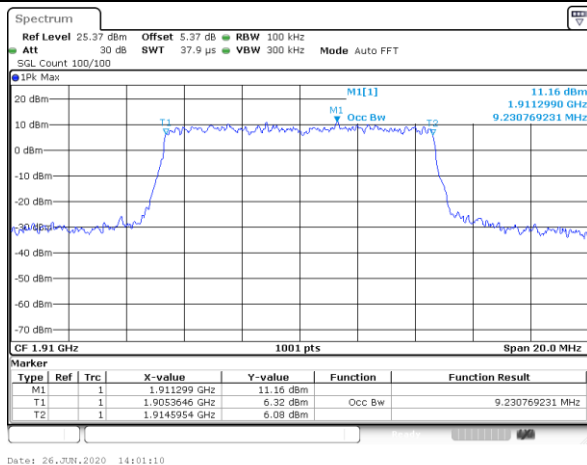
Middle Channel



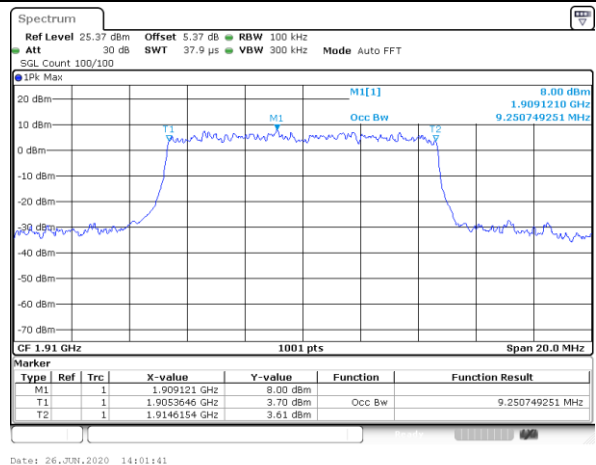
Middle Channel



Highest Channel



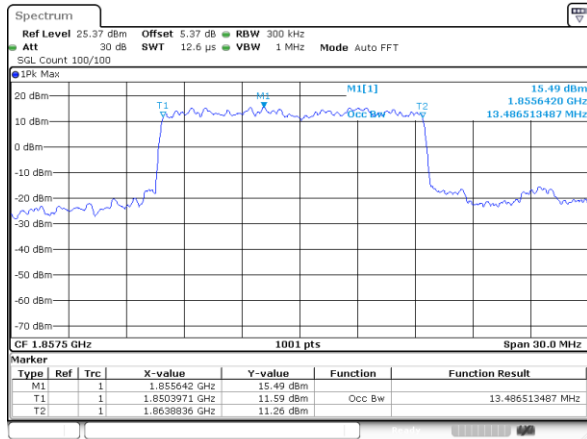
Highest Channel



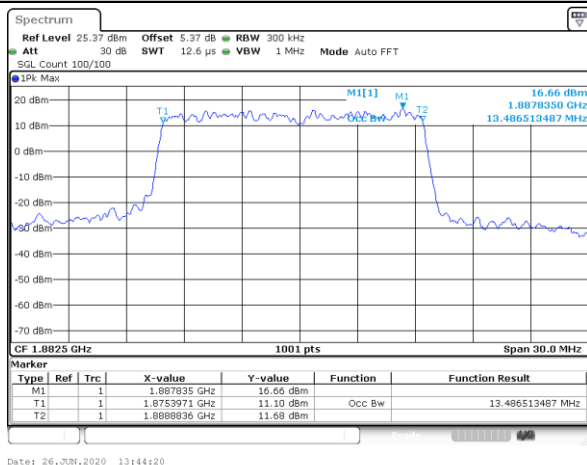
FR1 n25 / 15MHz / DFT-S OFDM

PI/2 BPSK

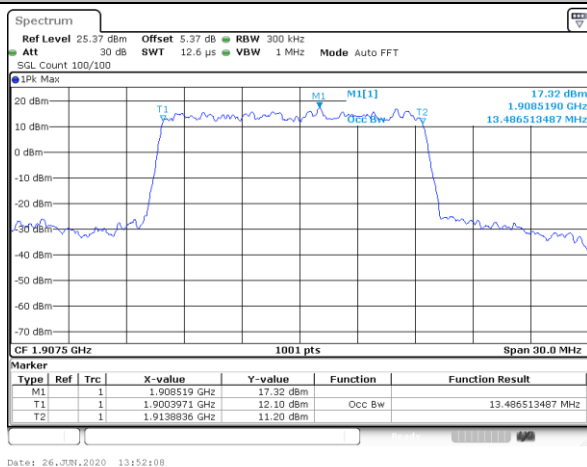
Lowest Channel



Middle Channel



Highest Channel

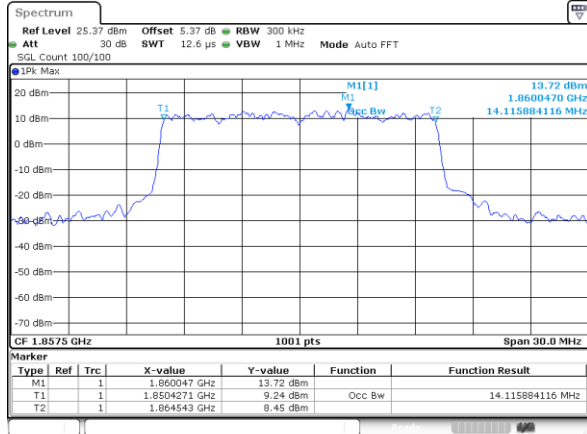




FR1 n25 / 15MHz / CP OFDM

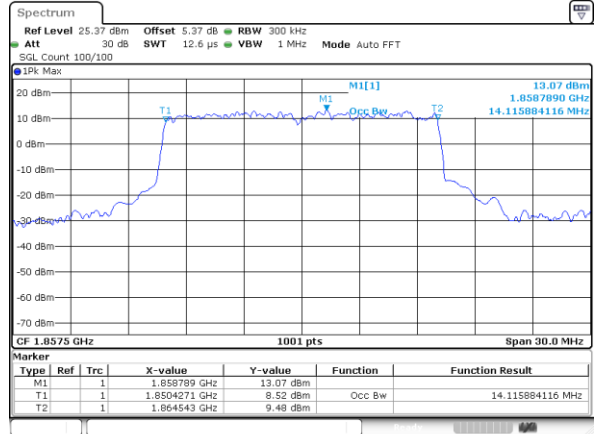
QPSK

Lowest Channel

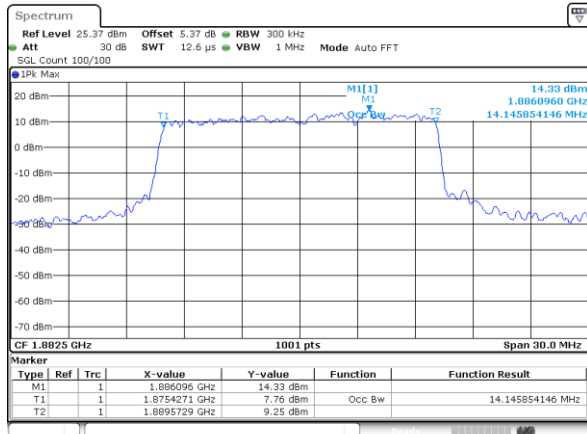


16QAM

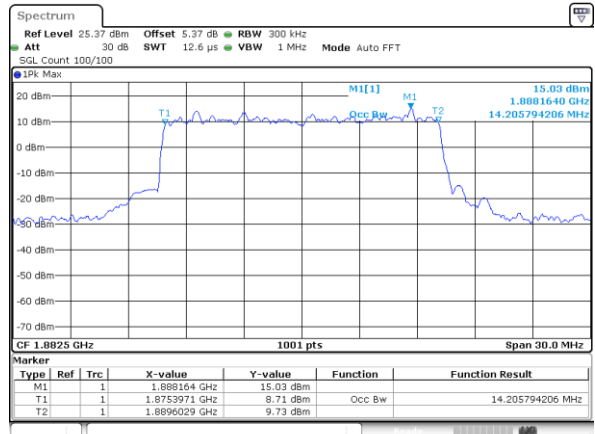
Lowest Channel



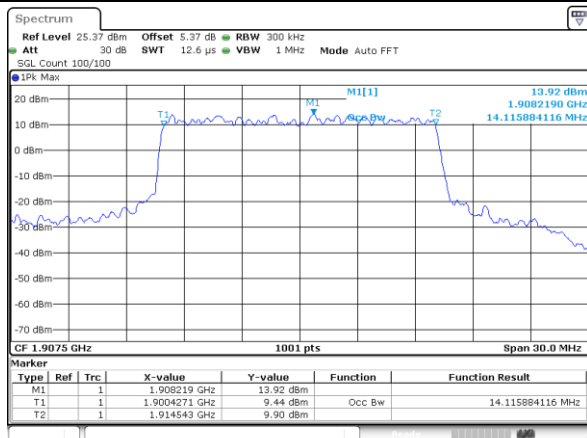
Middle Channel



Middle Channel



Highest Channel



Highest Channel

