



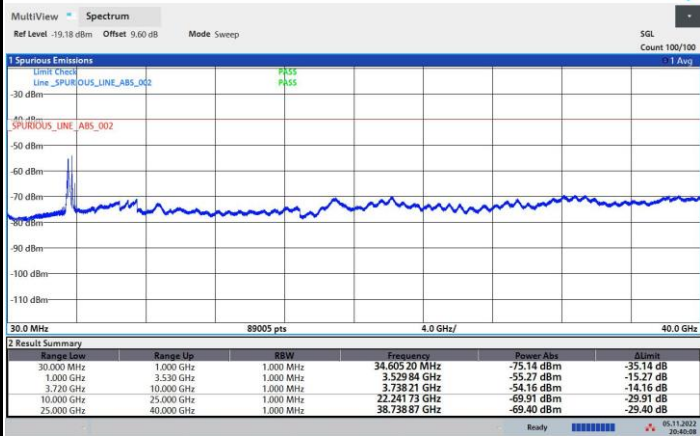
FR1 n48 / 80MHz / QPSK / CSE

Lowest Channel

Middle Channel



Highest Channel

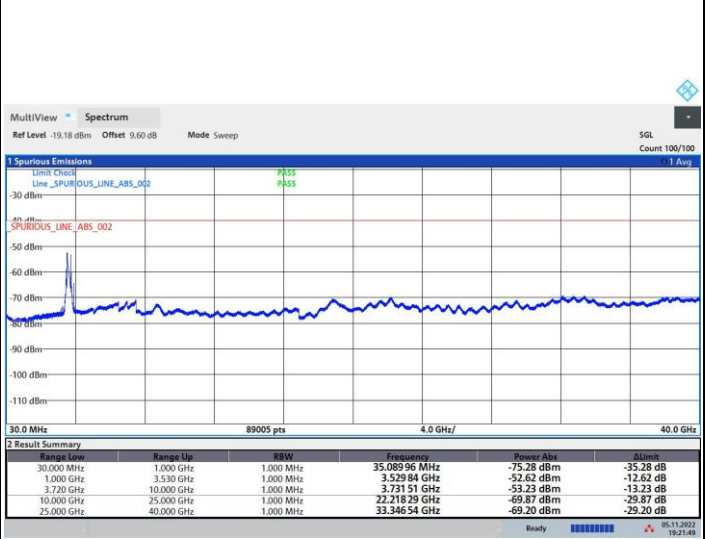
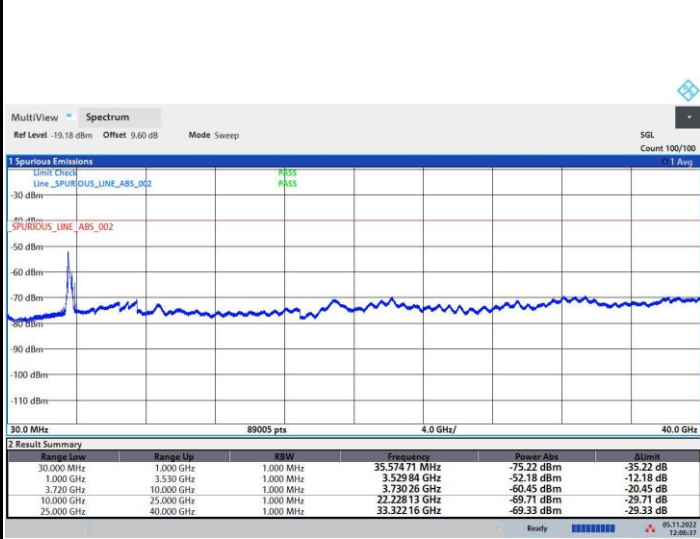




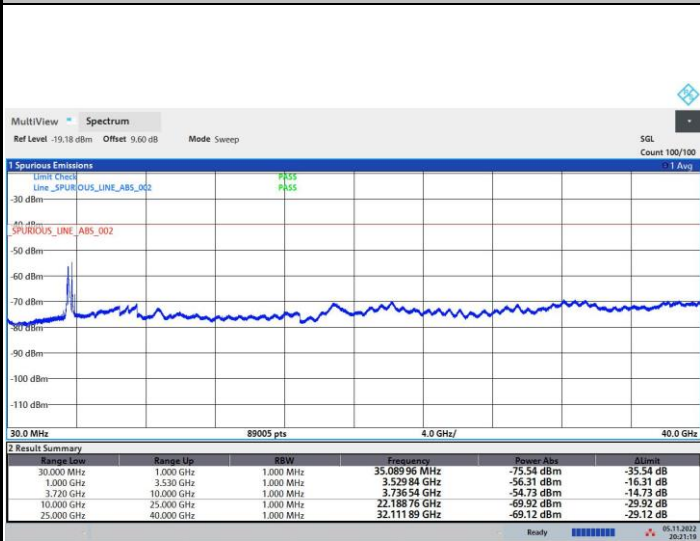
FR1 n48 / 90MHz / QPSK / CSE

Lowest Channel

Middle Channel



Highest Channel





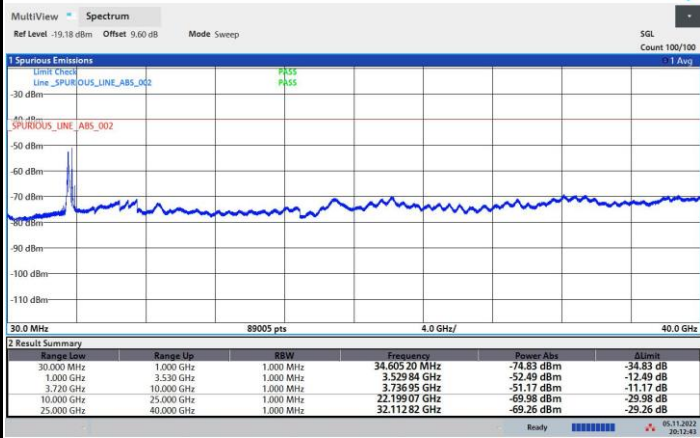
FR1 n48 / 100MHz / QPSK / CSE

Lowest Channel

Middle Channel



Highest Channel





### Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Frequency Offset (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0099	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0028	
-30	Normal Voltage	0.0097	
20	Maximum Voltage	0.0041	
20	Normal Voltage	0.0017	
20	Minimum Voltage	0.0086	

**Note:**

- 1. Normal Voltage = 110 V. ; Minimum Voltage = 100 V. ; Maximum Voltage = 240 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



<MIMO ANT 4>

**Maximum EIRP (dBm/10MHz)**

Mode	FR1 n48 : Conducted (dBm/10MHz) <SISO> Lowest Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	20.98	20.77	21.63	20.70	21.68	20.56	21.56	20.60
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	21.07	21.09	21.52	21.56	22.27	22.02	22.24	22.25
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	21.78	20.25	21.63	20.73	21.50	20.78	21.40	21.03
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	22.22	21.99	22.25	22.19	22.24	22.22	22.28	22.41

Mode	FR1 n48 : Maximum EIRP (dBm/10MHz) <MIMO 4TX> Lowest Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	45.00	44.79	45.65	44.72	45.70	44.58	45.58	44.62
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	45.09	45.11	45.54	45.58	46.29	46.04	46.26	46.27
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	45.8	44.27	45.65	44.75	45.52	44.8	45.42	45.05
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	46.24	46.01	46.27	46.21	46.26	46.24	46.3	46.43
Limit	47dBm/10MHz							
Result	PASS							

Note

1. The measured conducted result has included duty cycle offset factor.
2. The Maximum EIRP = conducted result + 6.02dB (4TX) + 18dBi MIMO antenna gain.



Mode	FR1 n48 : Conducted (dBm/10MHz) <SISO> Middle Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	20.85	20.89	21.57	20.73	21.55	20.65	21.59	20.62
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	20.73	20.93	21.22	21.40	22.27	22.24	22.27	22.03
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	21.61	20.59	21.50	20.88	21.42	21.00	21.24	20.61
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	22.19	22.05	22.40	22.34	22.35	22.21	21.85	22.33

Mode	FR1 n48 : Maximum EIRP (dBm/10MHz) <MIMO 4TX> Middle Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	PSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	44.87	44.91	45.59	44.75	45.57	44.67	45.61	44.64
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	44.75	44.95	45.24	45.42	46.29	46.26	46.29	46.05
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	45.63	44.61	45.52	44.90	45.44	45.02	45.26	44.63
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	46.21	46.07	46.42	46.36	46.37	46.23	45.87	46.35
Limit	<b>47dBm/10MHz</b>							
Result	<b>PASS</b>							

**Note**

1. The measured conducted result has included duty cycle offset factor.
2. The Maximum EIRP = conducted result + 6.02dB (4TX) + 18dBi MIMO antenna gain.



Mode	FR1 n48 : Conducted (dBm/10MHz) <SISO> Highest Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	20.74	20.81	21.41	20.65	21.48	20.71	21.45	20.62
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	20.64	20.93	21.47	21.27	22.34	22.21	22.26	22.15
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	21.6	20.17	21.5	20.86	21.42	20.5	21.35	20.35
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	22.38	22.14	22.46	22.17	22.11	22.22	21.83	22.41

Mode	FR1 n48 : Maximum EIRP (dBm/MHz) <MIMO 4TX> Highest Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	44.76	44.83	45.43	44.67	45.50	44.73	45.47	44.64
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	44.66	44.95	45.49	45.29	46.36	46.23	46.28	46.17
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	45.62	44.19	45.52	44.88	45.44	44.52	45.37	44.37
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	46.40	46.16	46.48	46.19	46.13	46.24	45.85	46.43
Limit	<b>47dBm/10MHz</b>							
Result	<b>PASS</b>							

**Note**

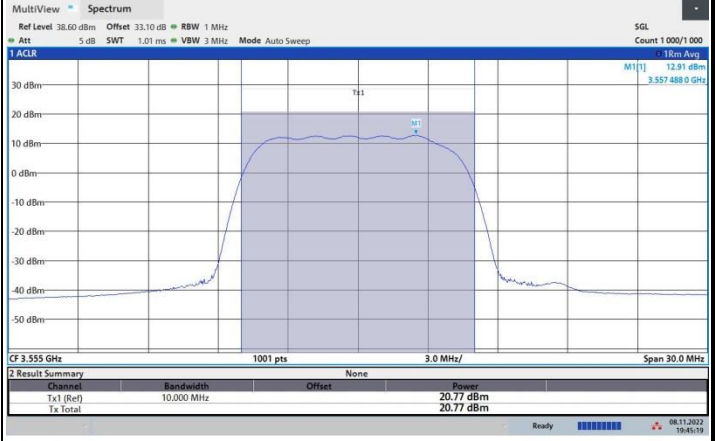
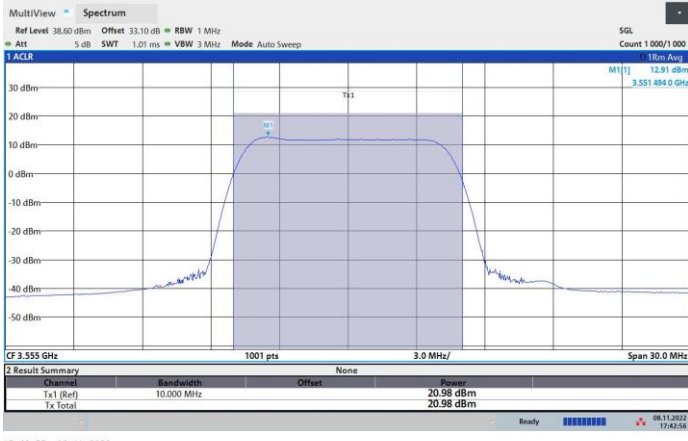
1. The measured conducted result has included duty cycle offset factor.
2. The Maximum EIRP = conducted result + 6.02dB (4TX) + 18dBi MIMO antenna gain.



FR1 n48 / 10MHz / Lowest Channel / Conducted (dBm/10MHz)

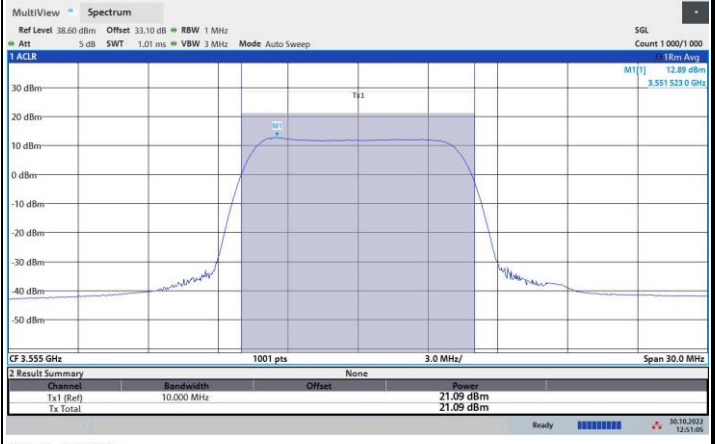
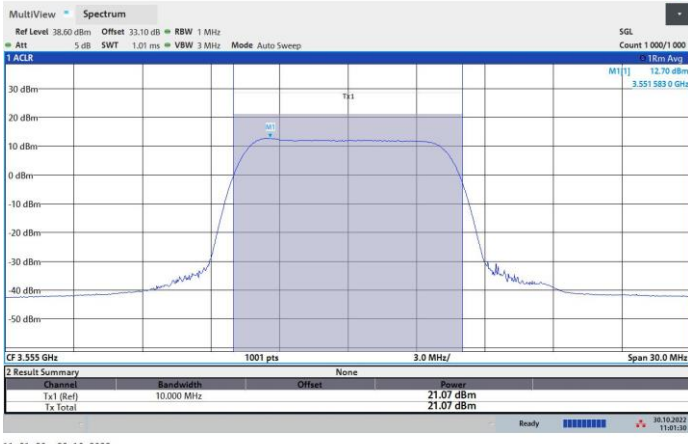
QPSK

16QAM



64QAM

256QAM



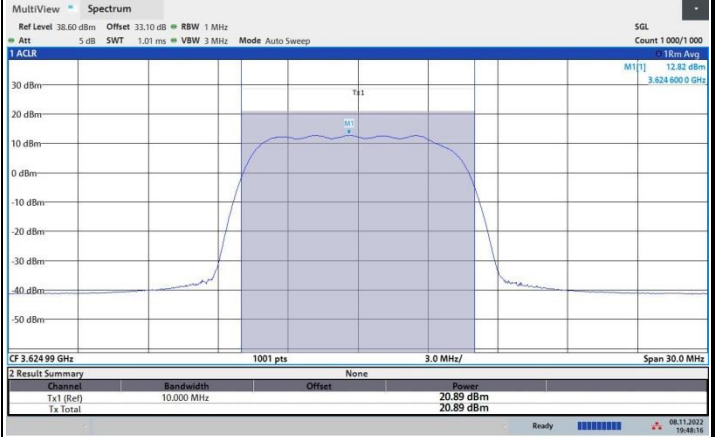
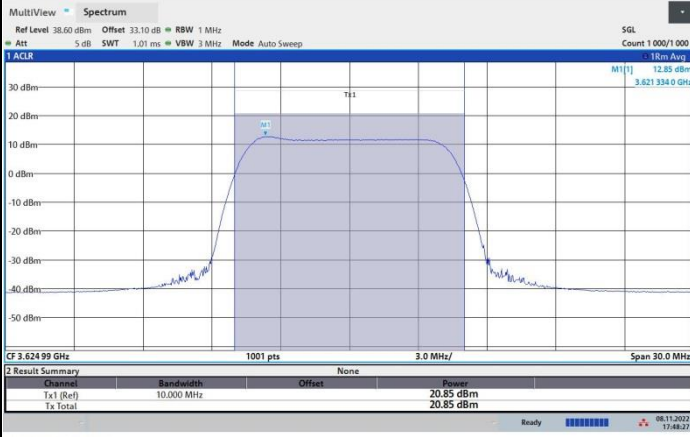




FR1 n48 / 10MHz / Middle Channel / Conducted (dBm/10MHz)

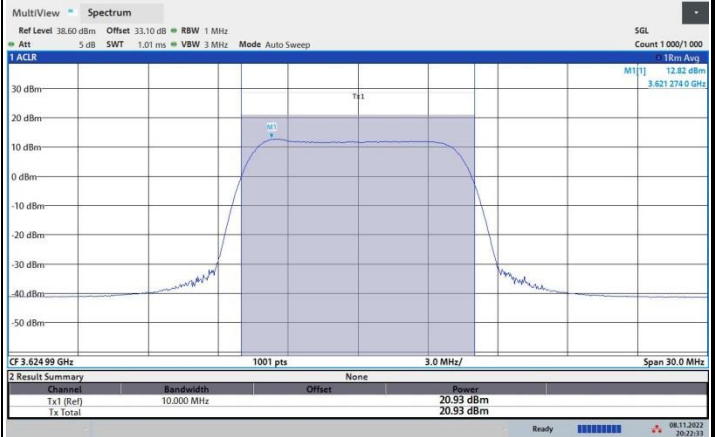
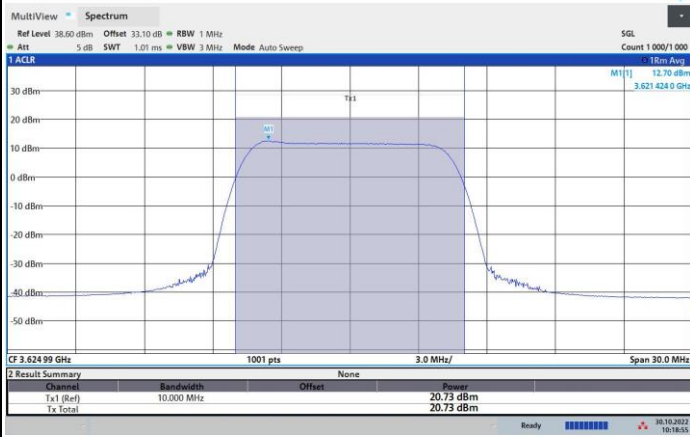
QPSK

16QAM



64QAM

256QAM

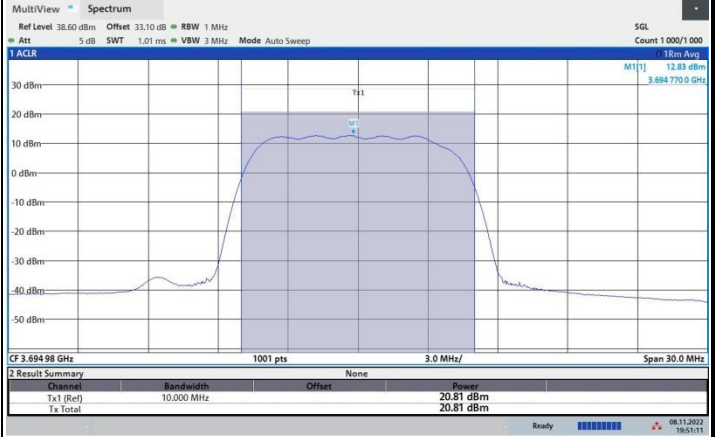
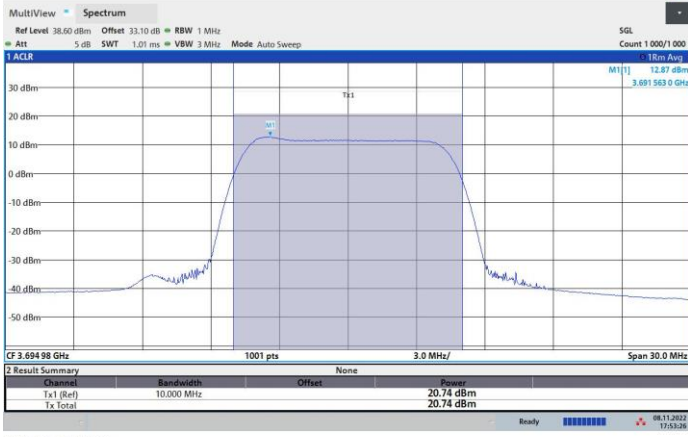




FR1 n48 / 10MHz / Highest Channel / Conducted (dBm/10MHz)

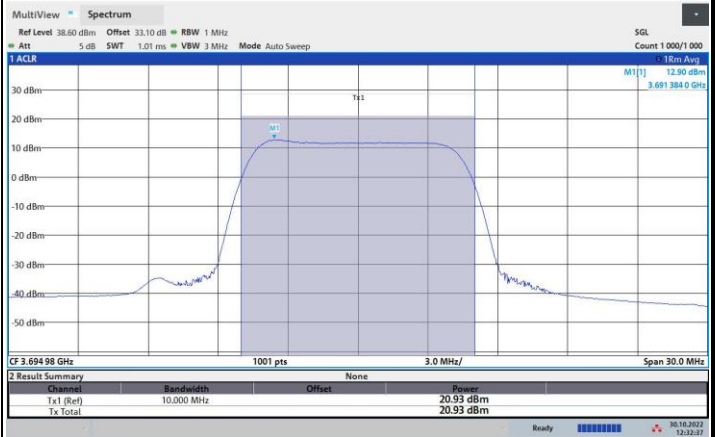
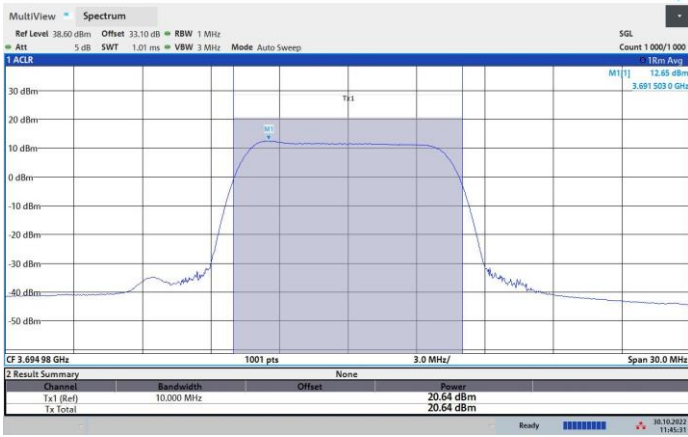
QPSK

16QAM



64QAM

256QAM

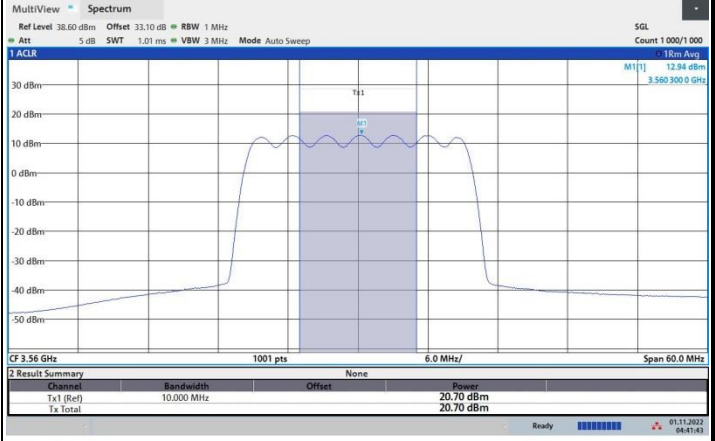
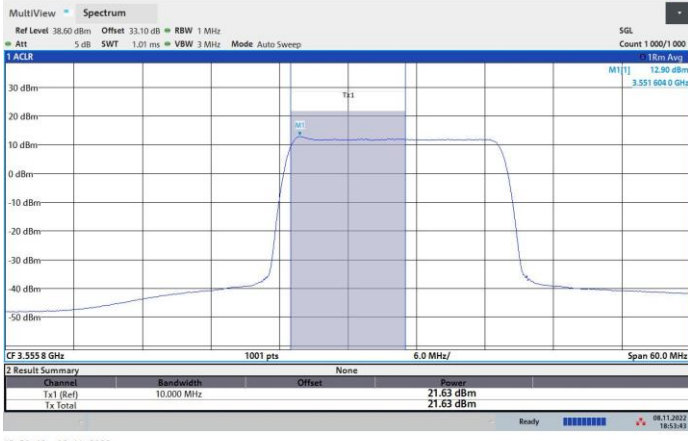




FR1 n48 / 20MHz / Lowest Channel / Conducted (dBm/10MHz)

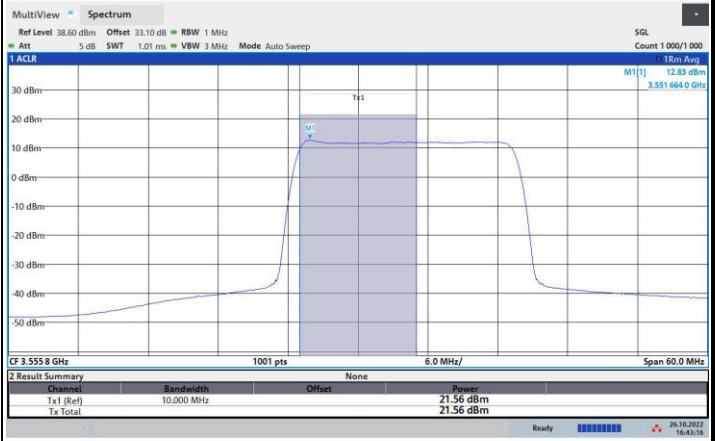
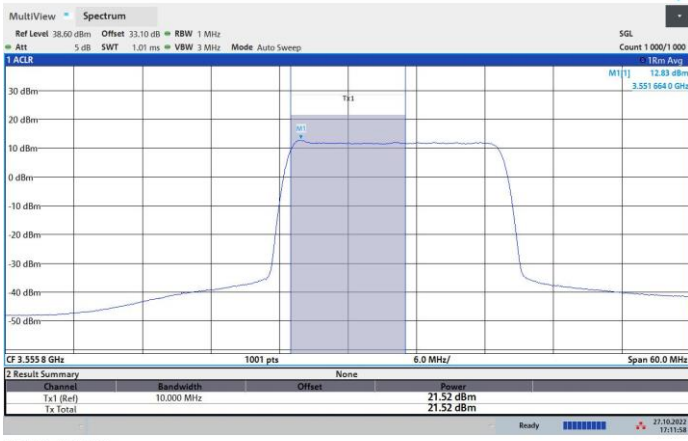
QPSK

16QAM



64QAM

256QAM

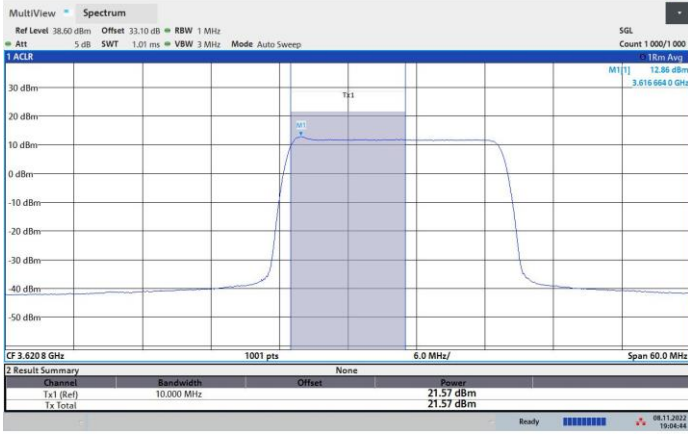




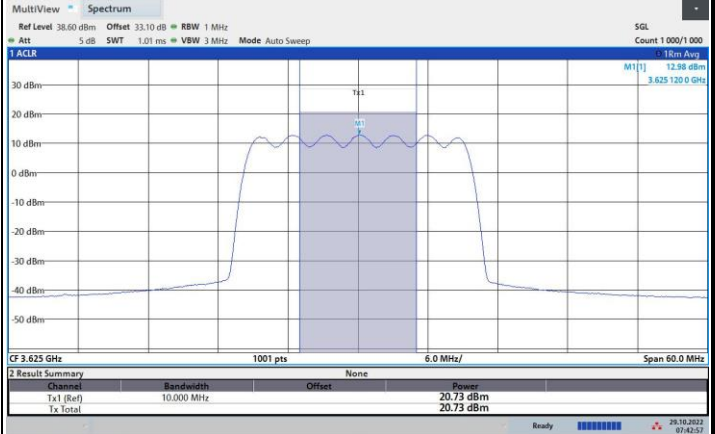
FR1 n48 / 20MHz / Middle Channel / Conducted (dBm/10MHz)

QPSK

16QAM



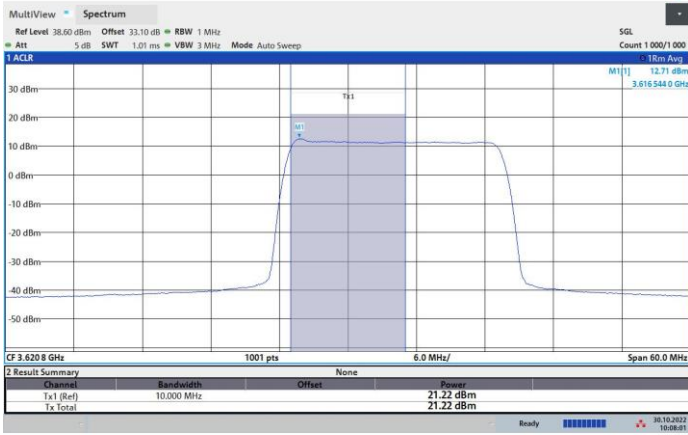
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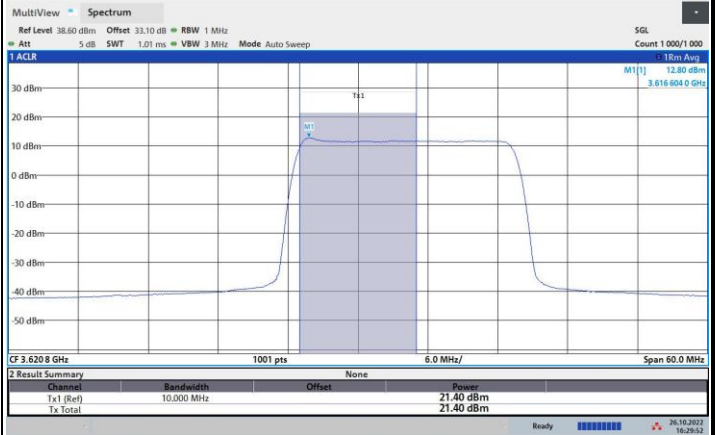
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64QAM

256QAM



10:08:02 30.10.2022



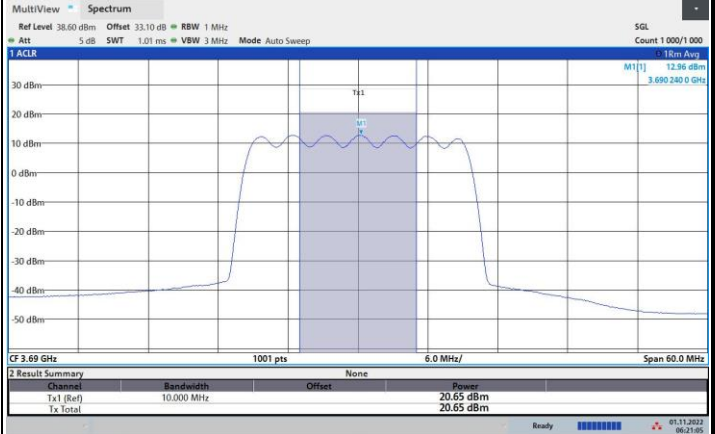
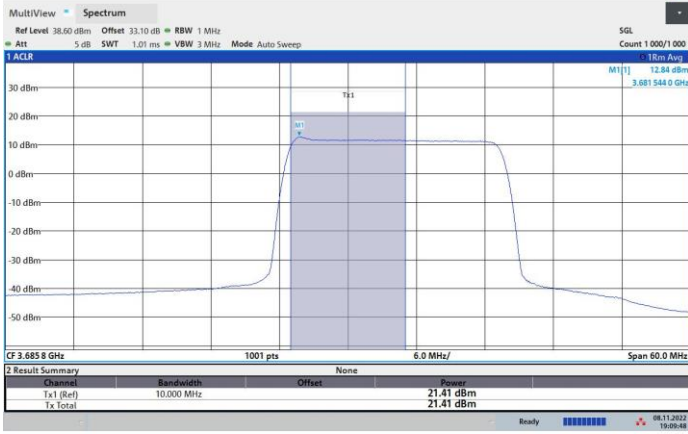
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FR1 n48 / 20MHz / Highest Channel / Conducted (dBm/10MHz)

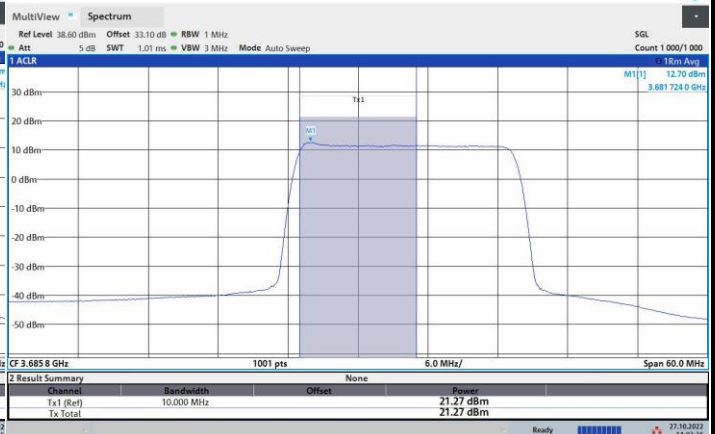
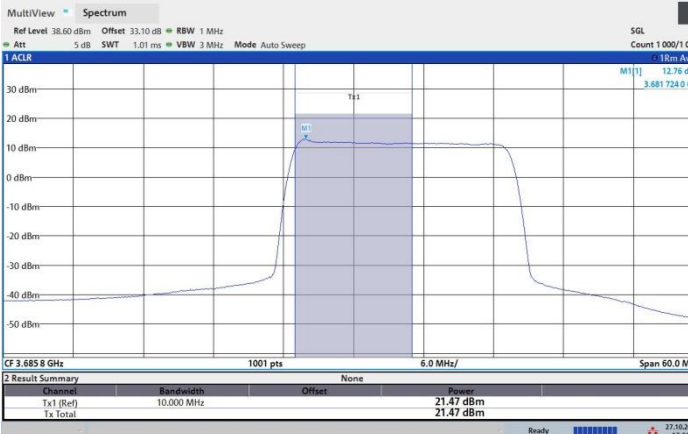
QPSK

16QAM



64QAM

256QAM

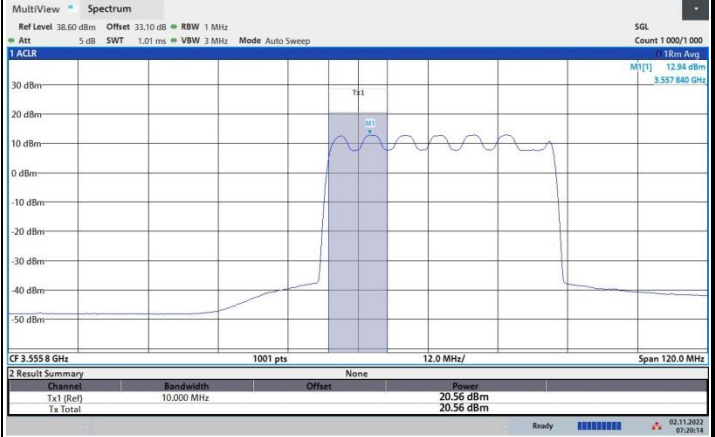
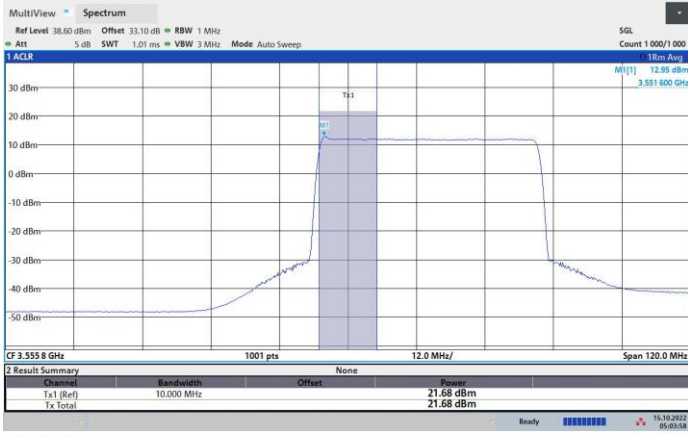




FR1 n48 / 40MHz / Lowest Channel / Conducted (dBm/10MHz)

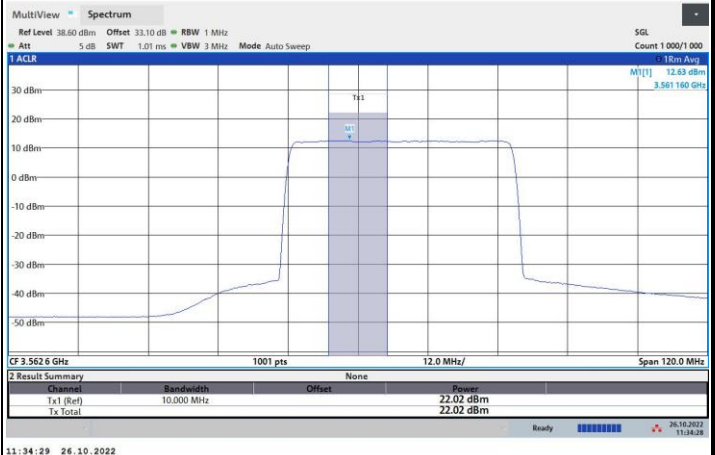
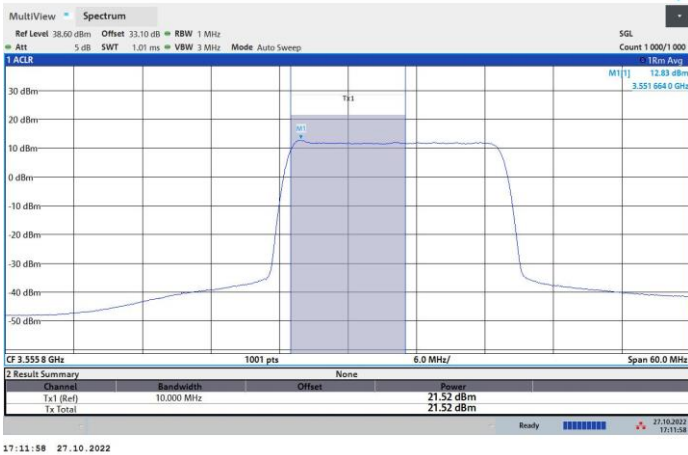
QPSK

16QAM



64QAM

256QAM



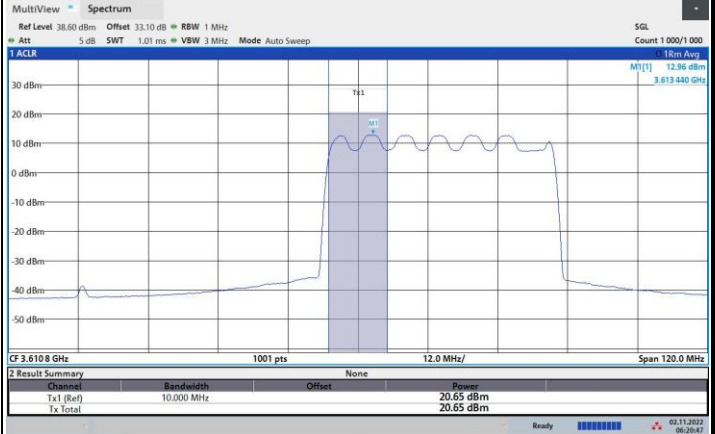
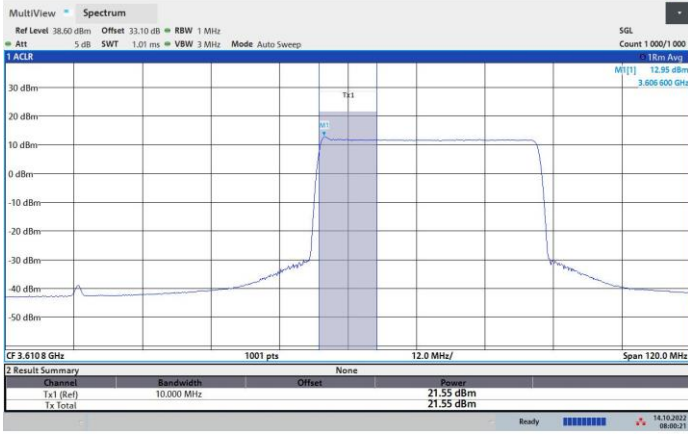




FR1 n48 / 40MHz / Middle Channel / Conducted (dBm/10MHz)

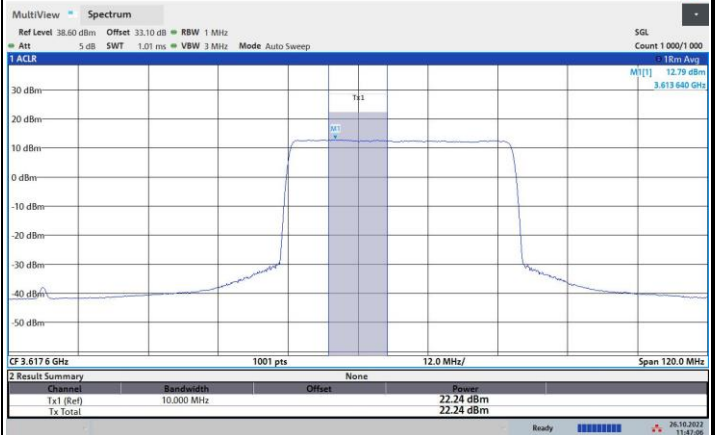
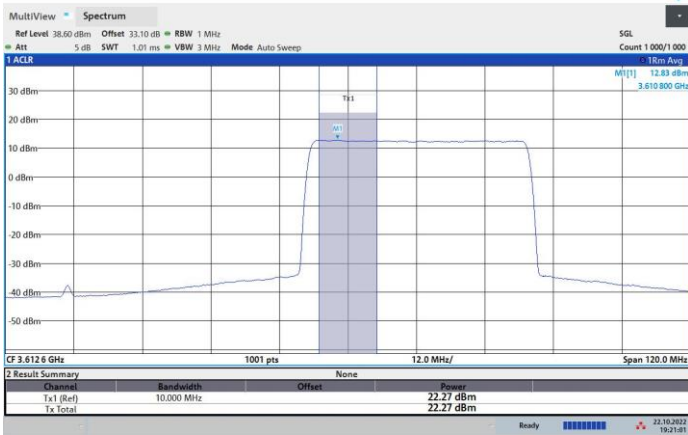
QPSK

16QAM



64QAM

256QAM

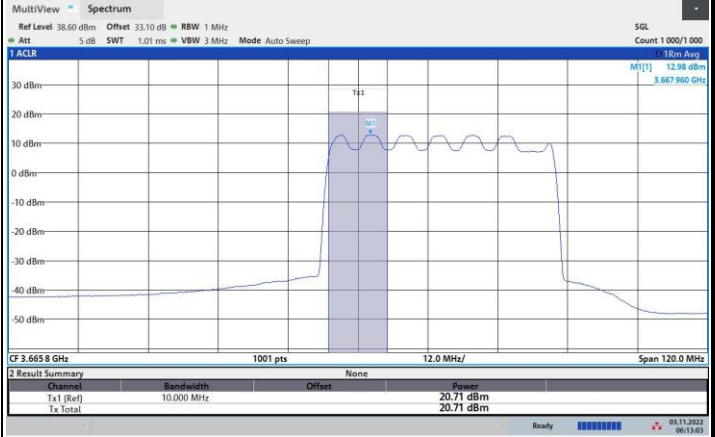
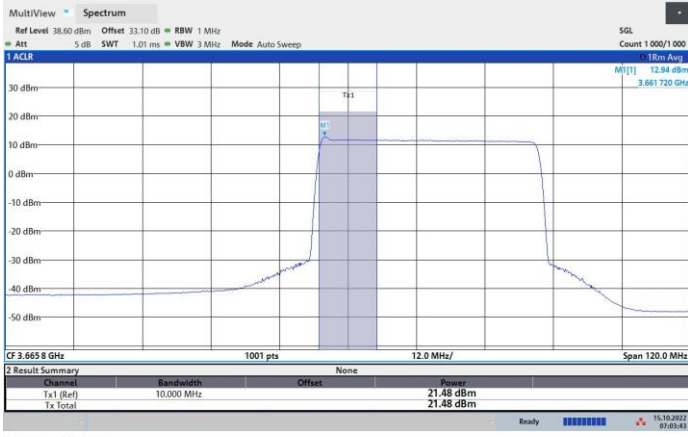




FR1 n48 / 40MHz / Highest Channel / Conducted (dBm/10MHz)

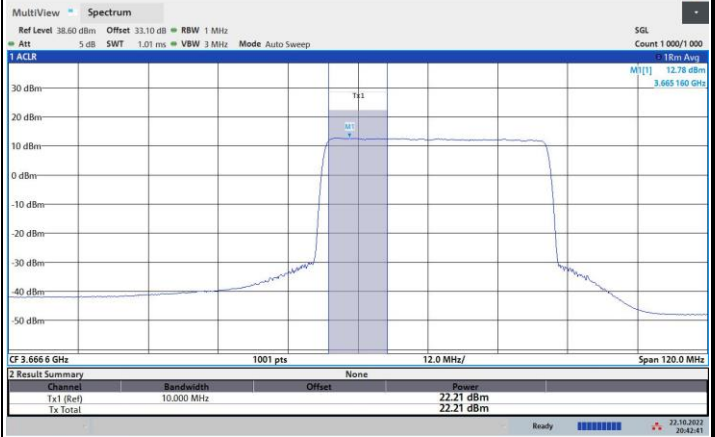
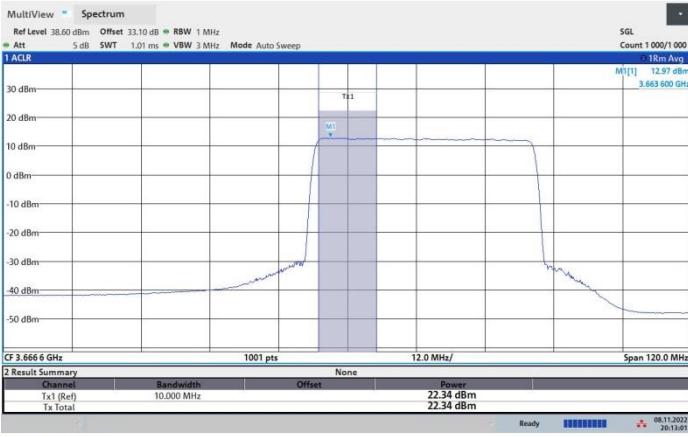
QPSK

16QAM



64QAM

256QAM



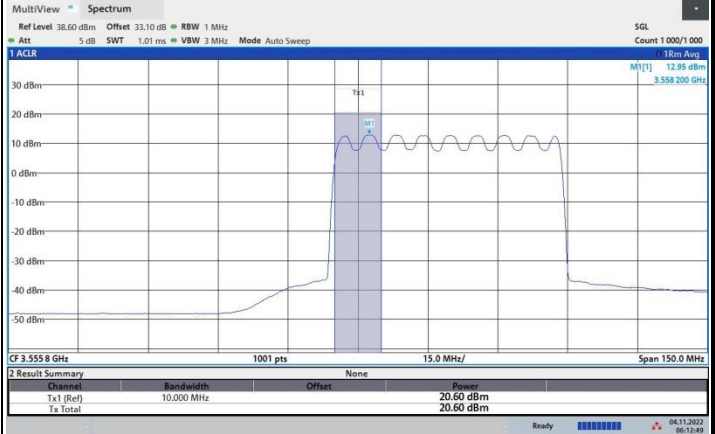
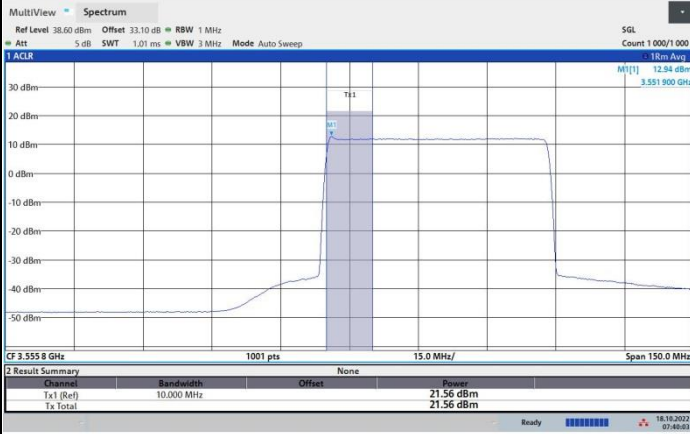




FR1 n48 / 50MHz / Lowest Channel / Conducted (dBm/10MHz)

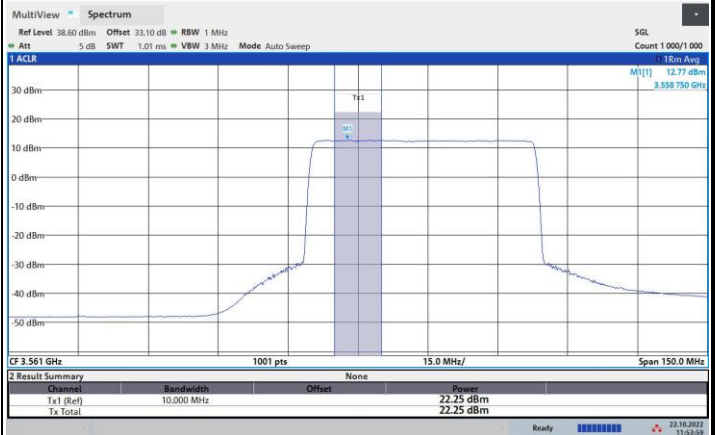
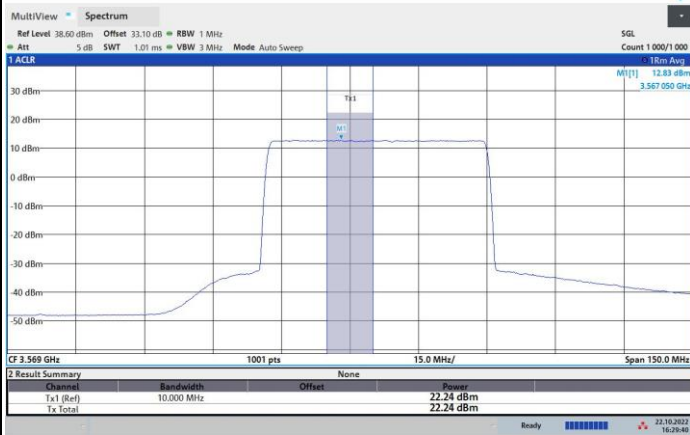
QPSK

16QAM



64QAM

256QAM

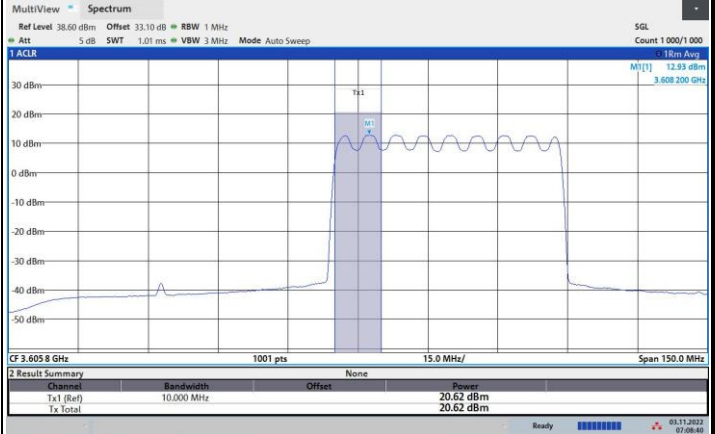




FR1 n48 / 50MHz / Middle Channel / Conducted (dBm/10MHz)

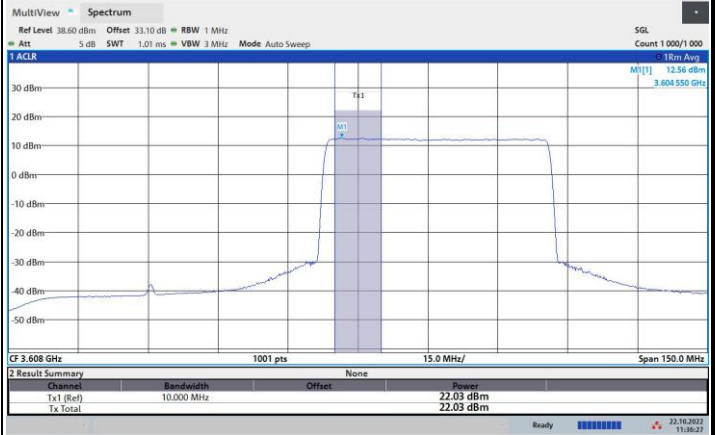
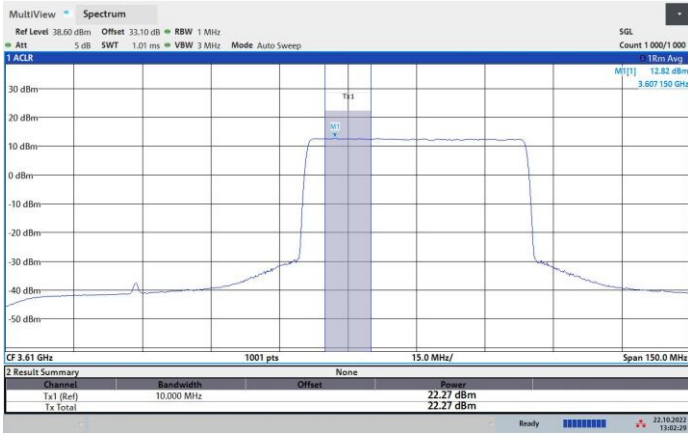
QPSK

16QAM



64QAM

256QAM

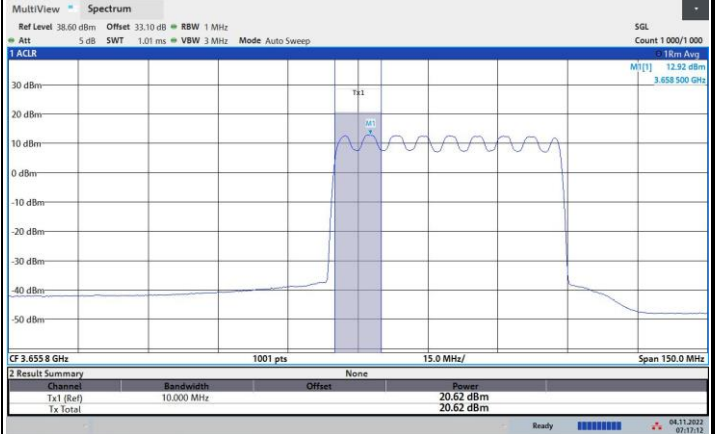
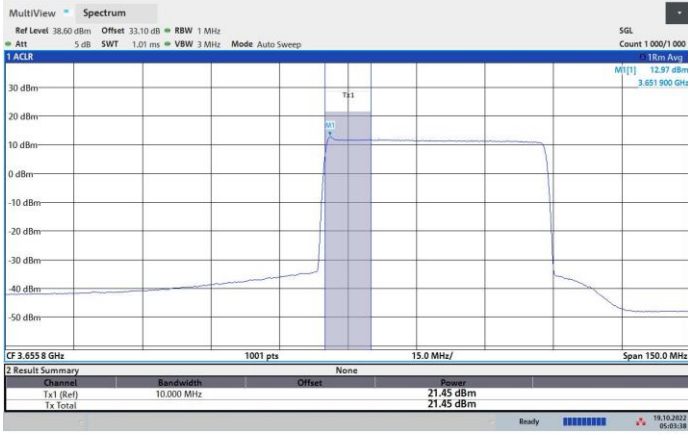




FR1 n48 / 50MHz / Highest Channel / Conducted (dBm/10MHz)

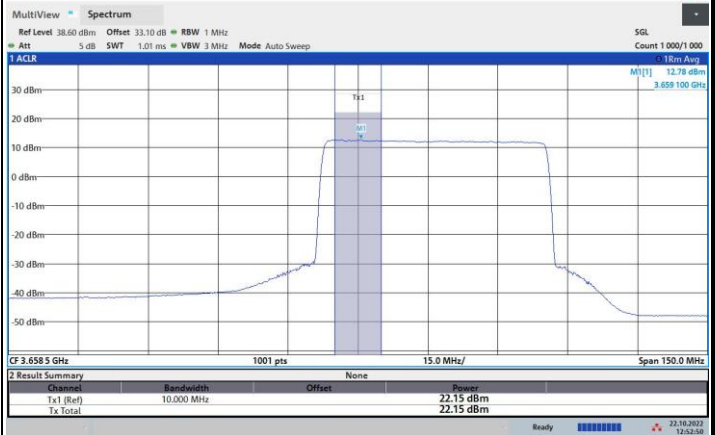
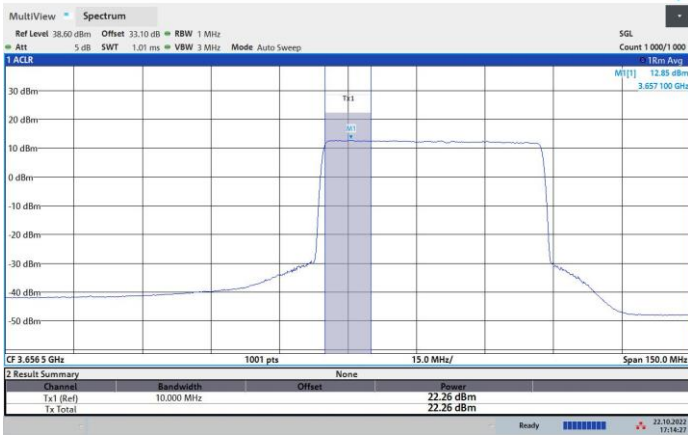
QPSK

16QAM



64QAM

256QAM

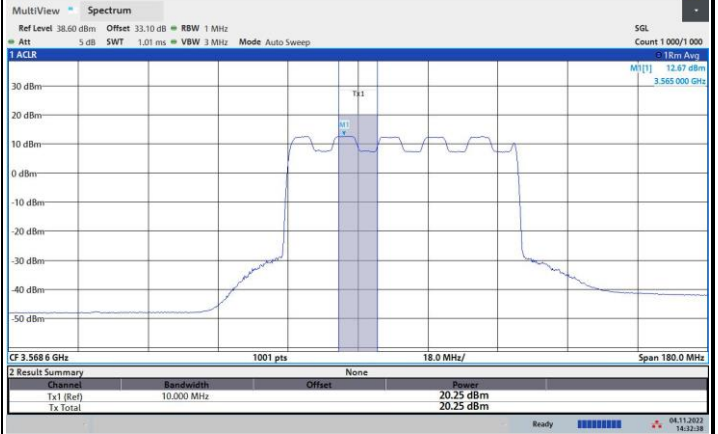
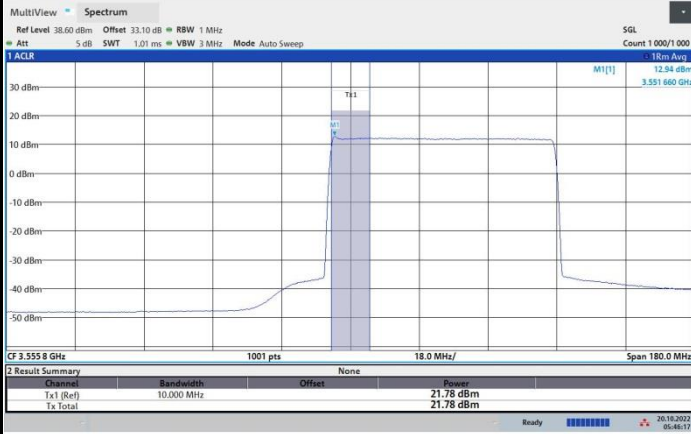




FR1 n48 / 60MHz / Lowest Channel / Conducted (dBm/10MHz)

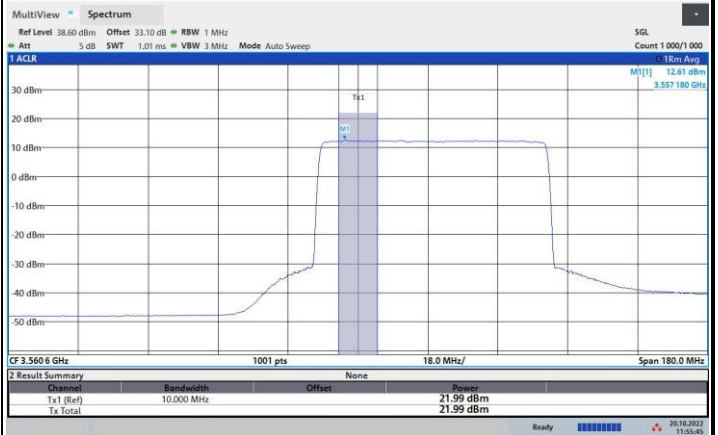
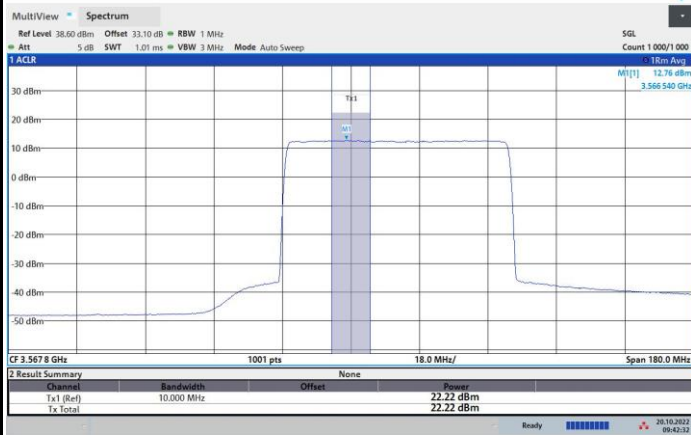
QPSK

16QAM



64QAM

256QAM

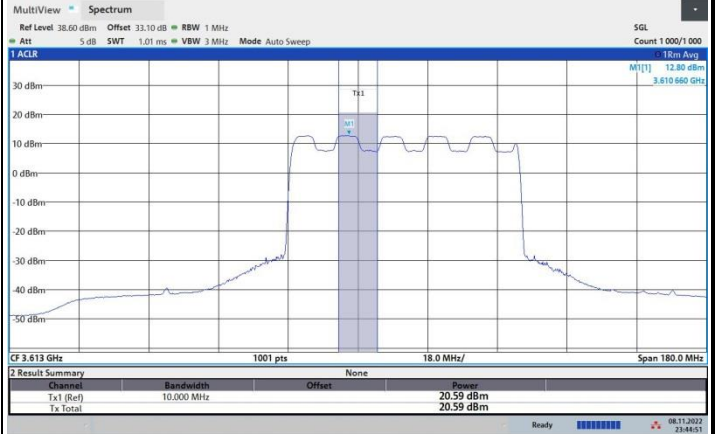
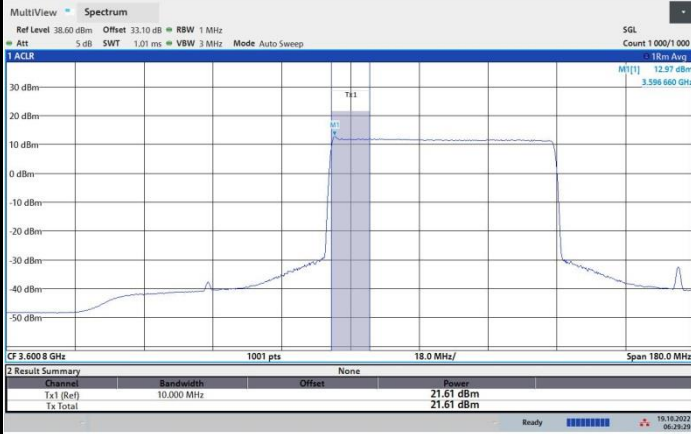




FR1 n48 / 60MHz / Middle Channel / Conducted (dBm/10MHz)

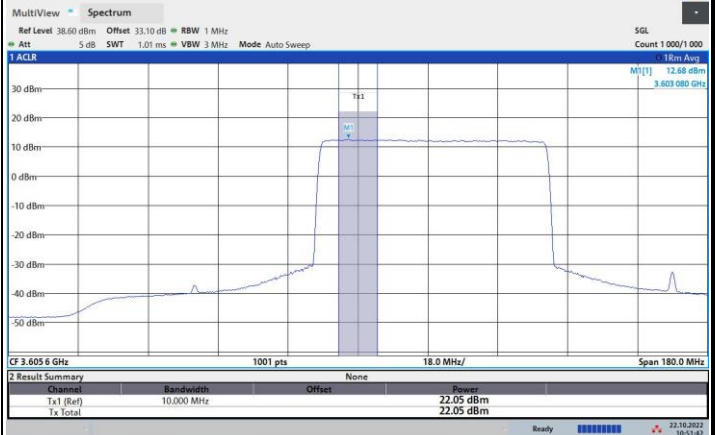
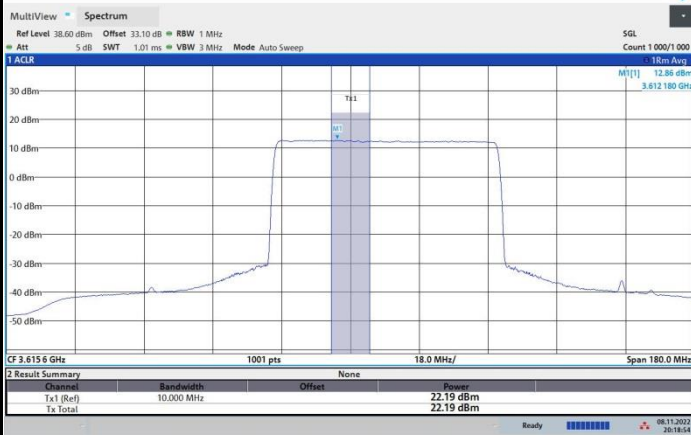
QPSK

16QAM



64QAM

256QAM

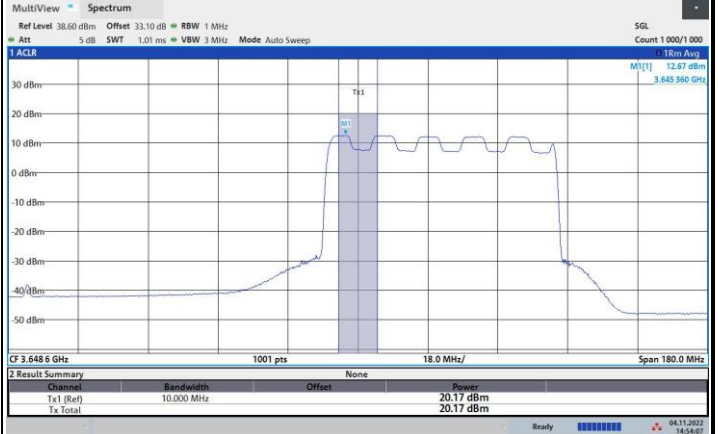
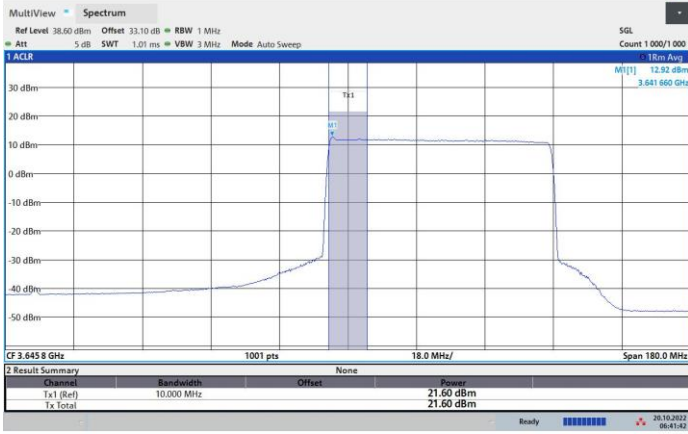




FR1 n48 / 60MHz / Highest Channel / Conducted (dBm/10MHz)

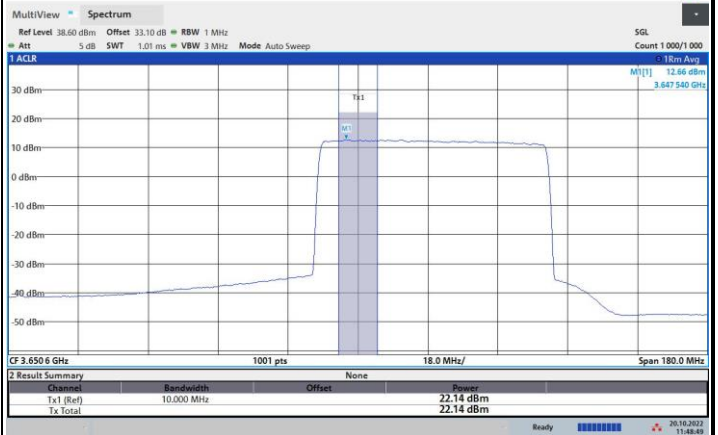
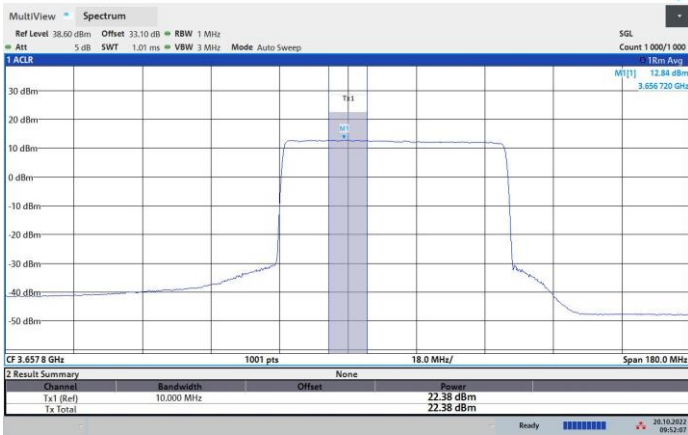
QPSK

16QAM



64QAM

256QAM



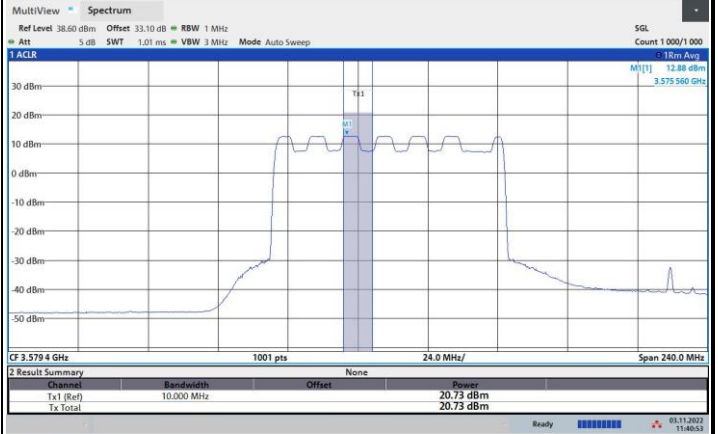
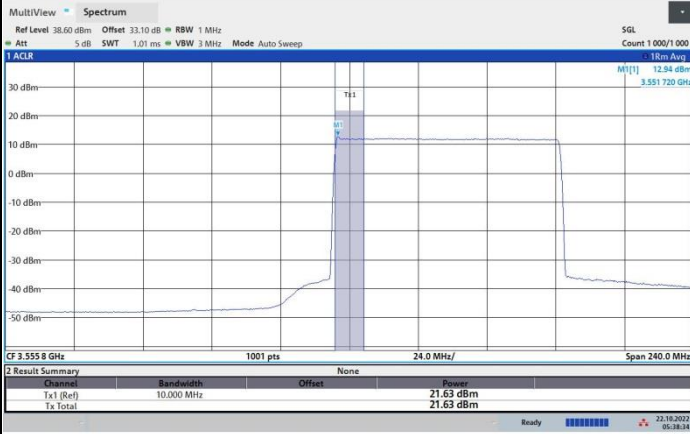




FR1 n48 / 80MHz / Lowest Channel / Conducted (dBm/10MHz)

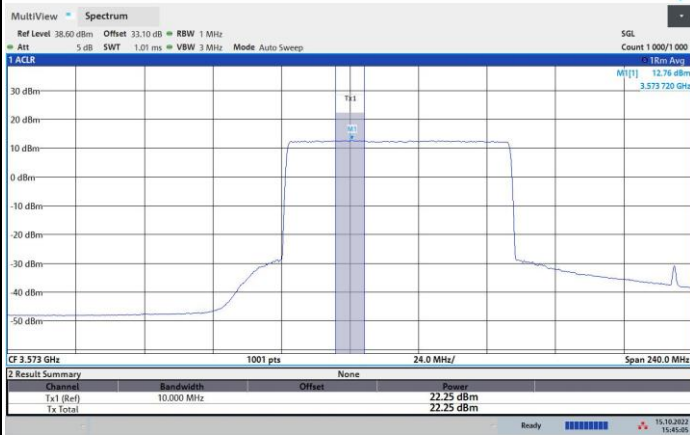
QPSK

16QAM



64QAM

256QAM

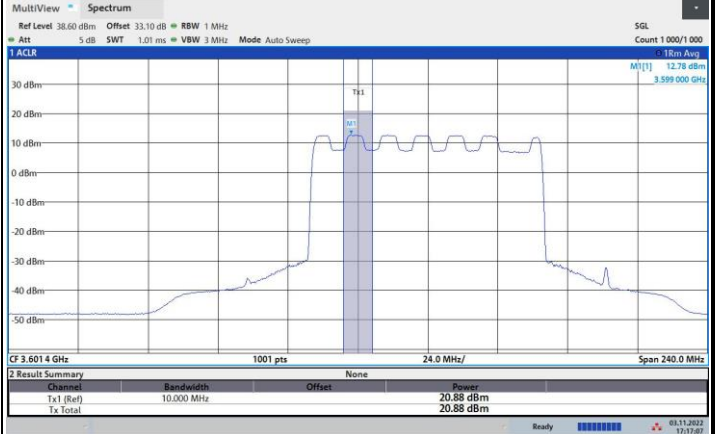
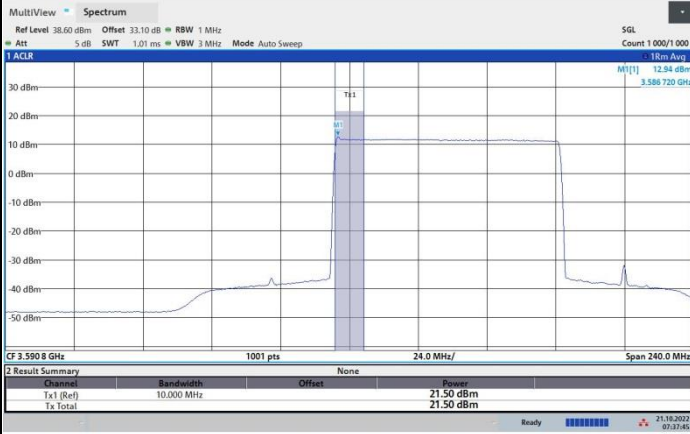




FR1 n48 / 80MHz / Middle Channel / Conducted (dBm/10MHz)

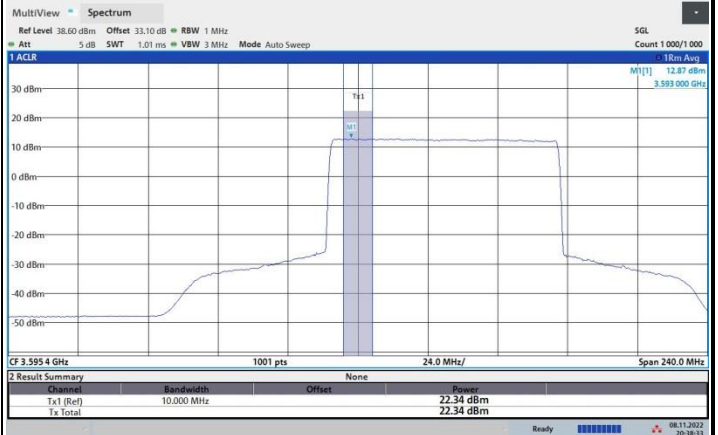
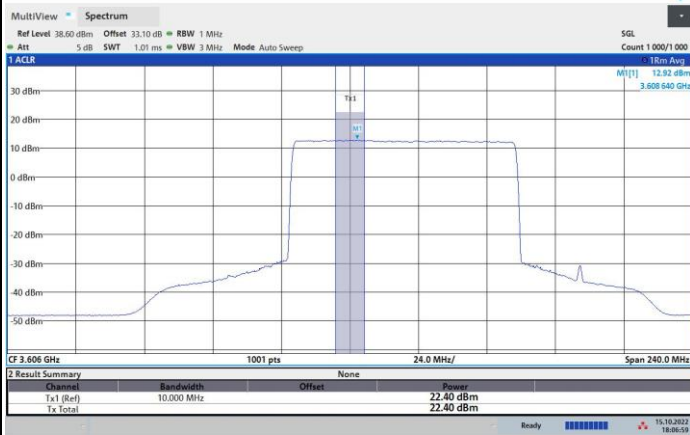
QPSK

16QAM



64QAM

256QAM



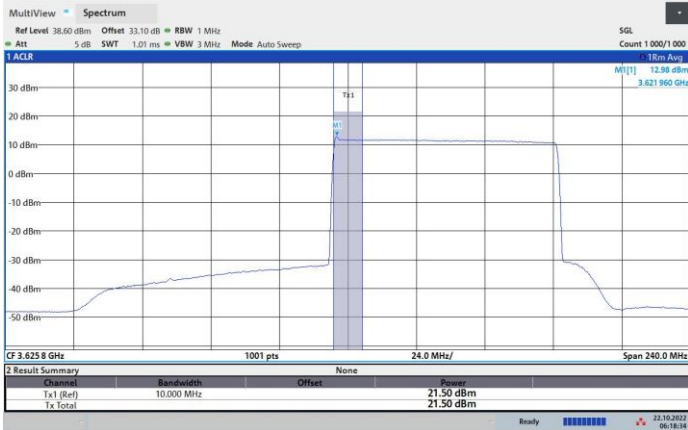




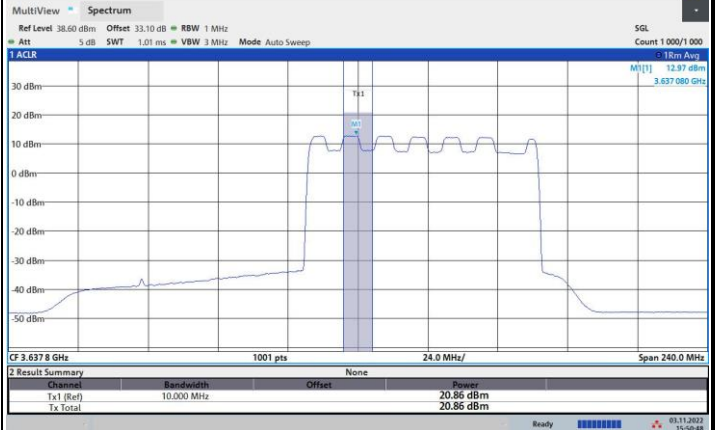
FR1 n48 / 80MHz / Highest Channel / Conducted (dBm/10MHz)

QPSK

16QAM



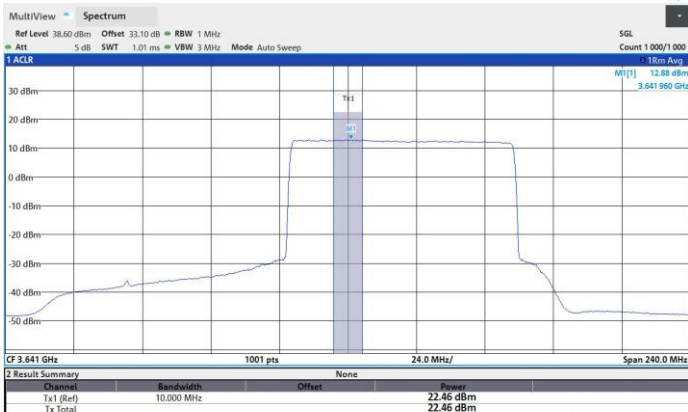
06:18:35 22.10.2022



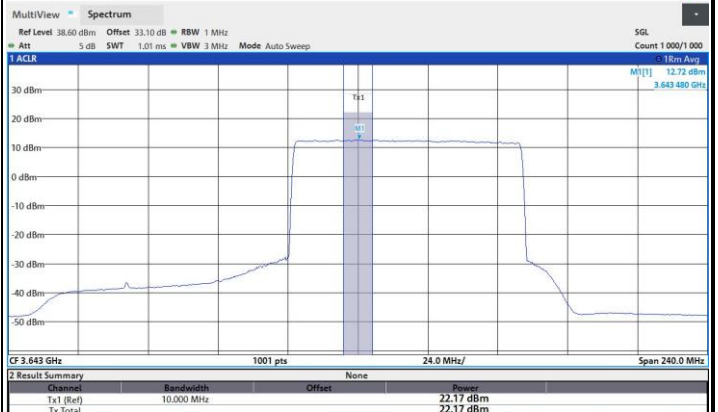
15:50:48 03.11.2022

64QAM

256QAM



18:18:09 15.10.2022



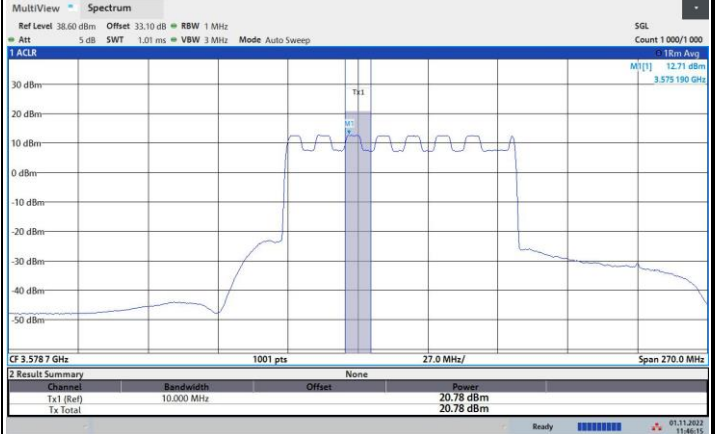
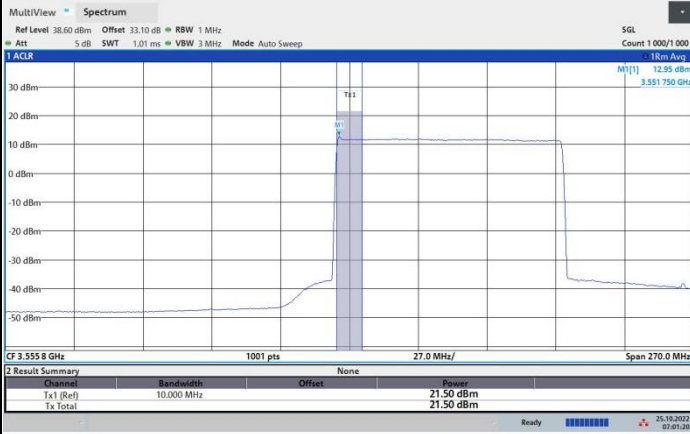
17:26:45 18.10.2022



FR1 n48 / 90MHz / Lowest Channel / Conducted (dBm/10MHz)

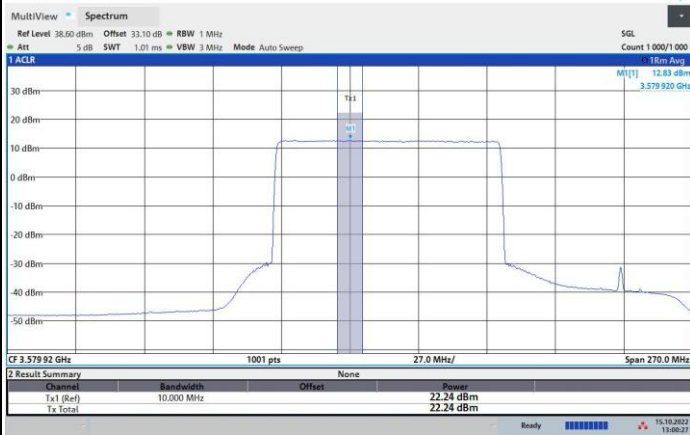
QPSK

16QAM



64QAM

256QAM

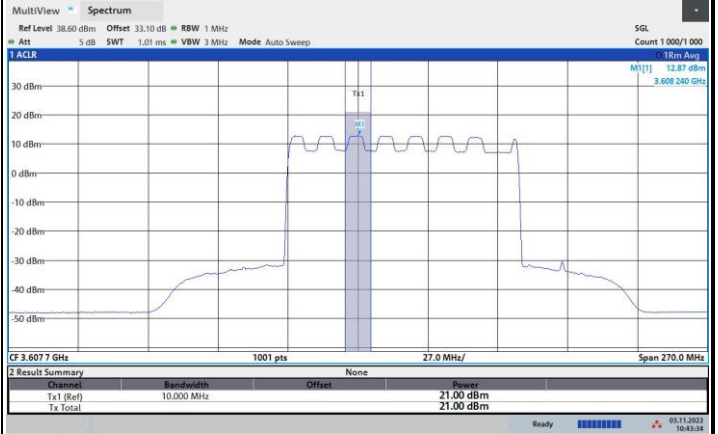
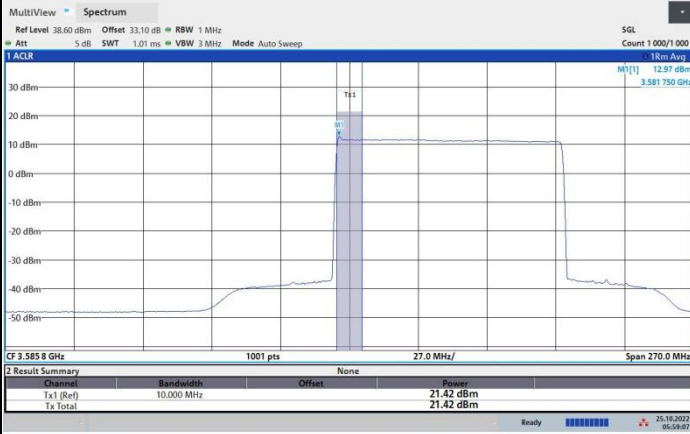




FR1 n48 / 90MHz / Middle Channel / Conducted (dBm/10MHz)

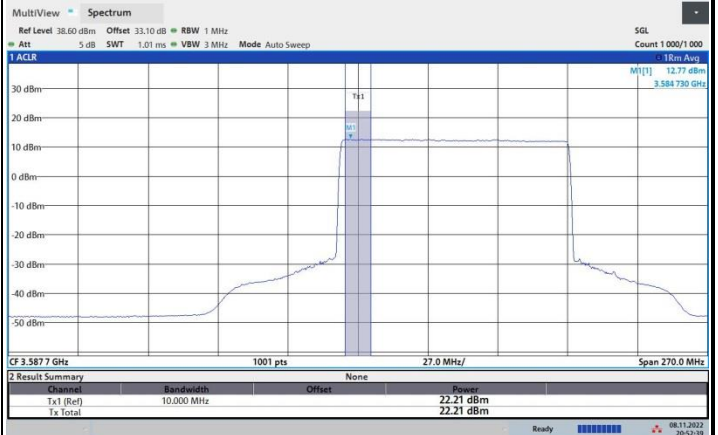
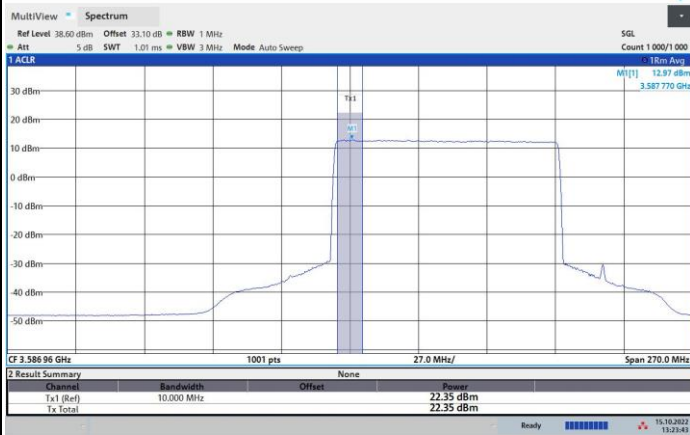
QPSK

16QAM



64QAM

256QAM

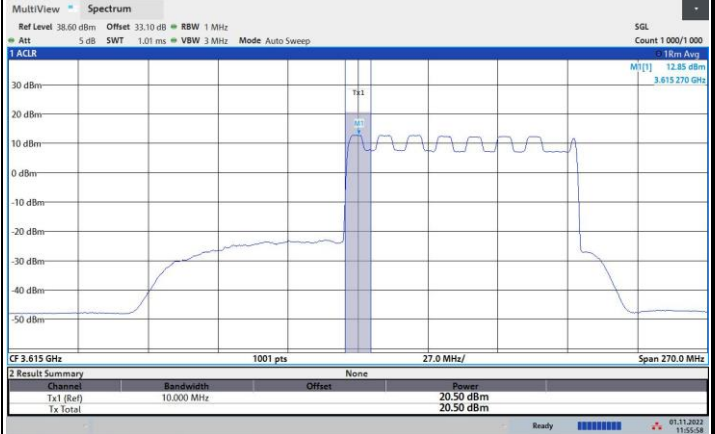
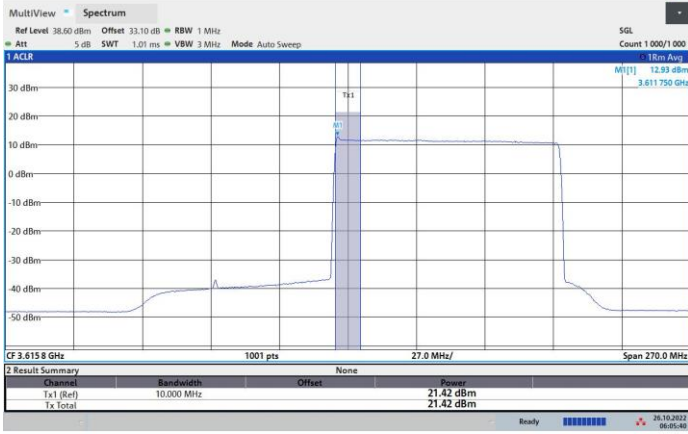




FR1 n48 / 90MHz / Highest Channel / Conducted (dBm/10MHz)

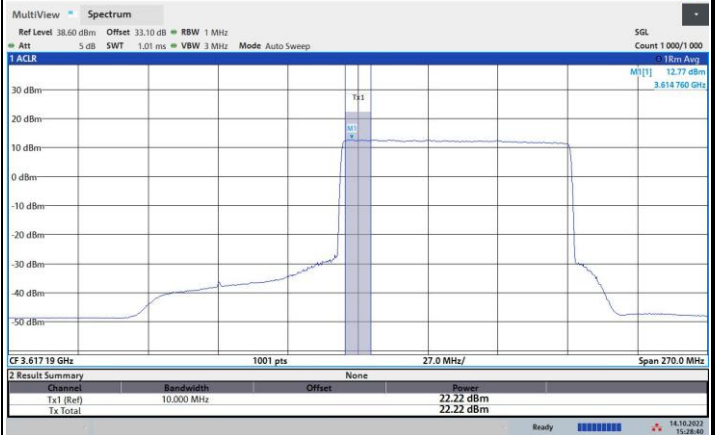
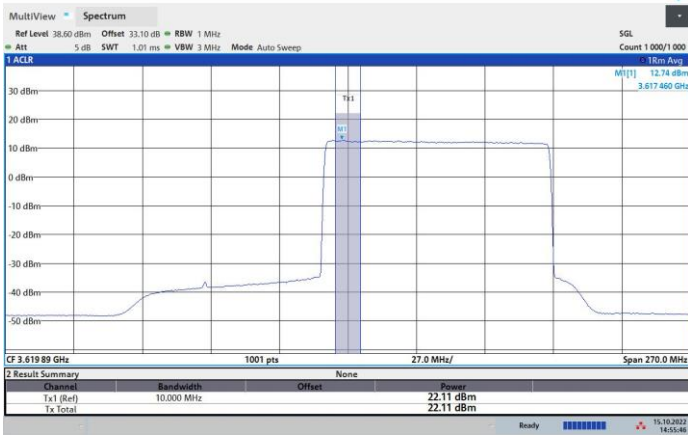
QPSK

16QAM



64QAM

256QAM

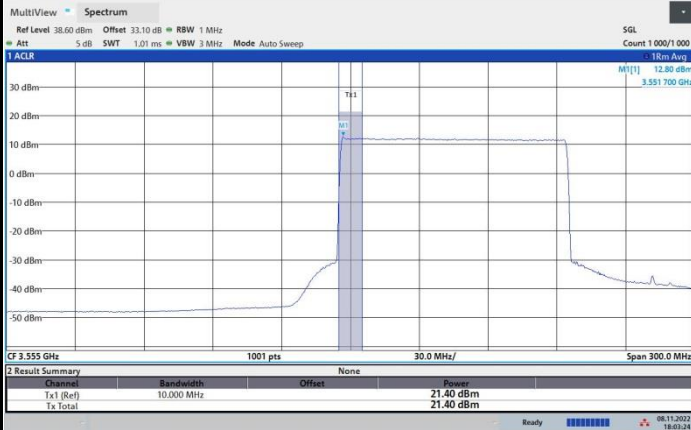




FR1 n48 / 100MHz / Lowest Channel / Conducted (dBm/10MHz)

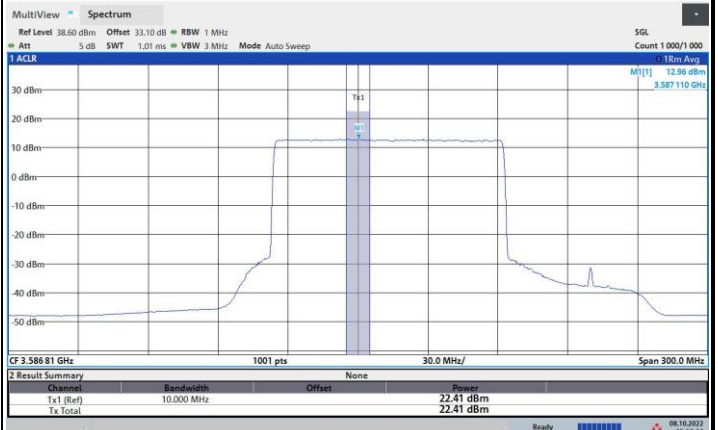
QPSK

16QAM



64QAM

256QAM

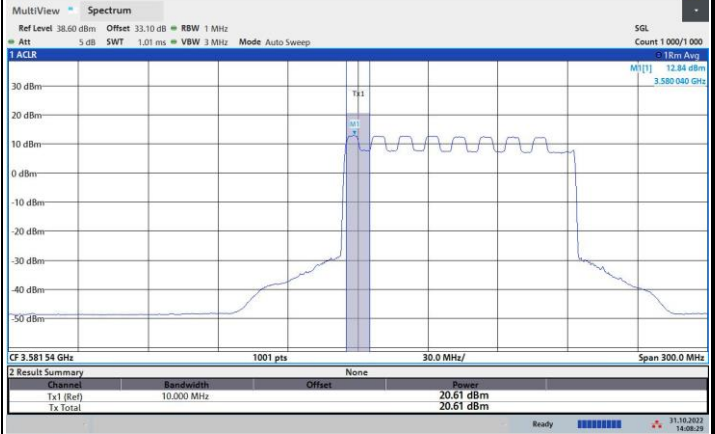
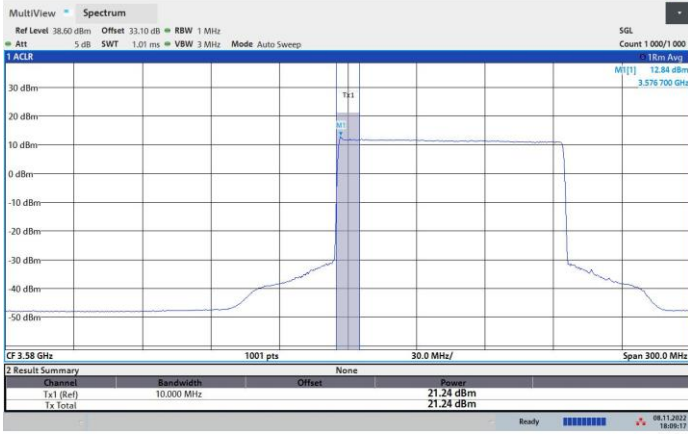




FR1 n48 / 100MHz / Middle Channel / Conducted (dBm/10MHz)

QPSK

16QAM



64QAM

256QAM



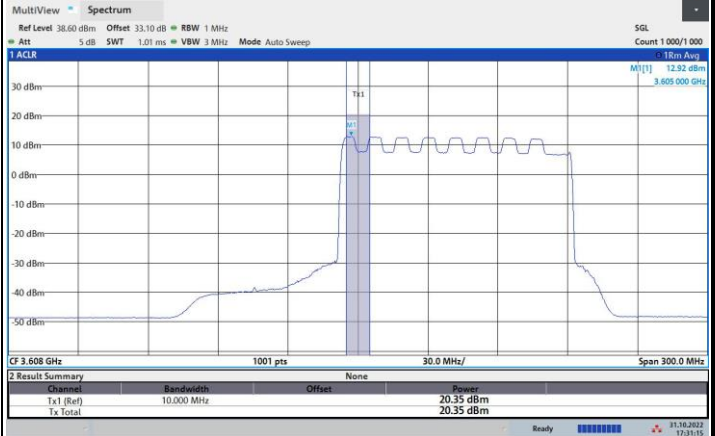
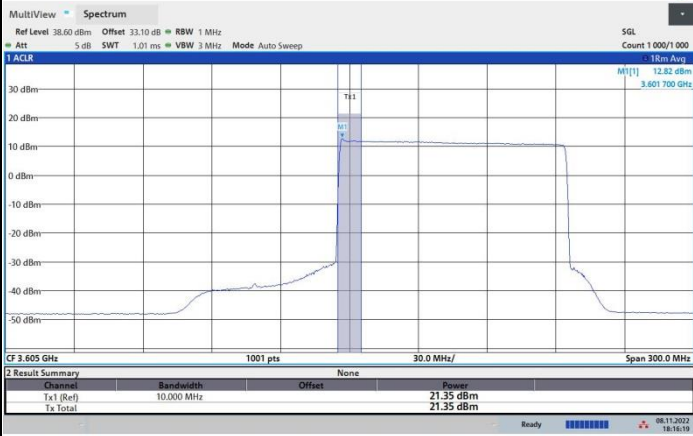




FR1 n48 / 100MHz / Highest Channel / Conducted (dBm/10MHz)

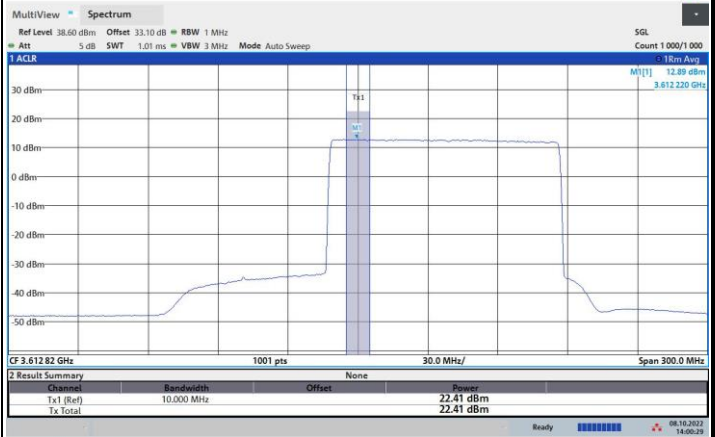
QPSK

16QAM



64QAM

256QAM





**Power Spectral Density**

Mode	FR1 n48 : Conducted PSD (dBm/MHz) <SISO> Lowest Channel							
	10MHz		20MHz		40MHz		50MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	12.95	12.94	12.93	12.93	12.97	12.93	12.93	12.94
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	12.97	12.94	12.92	12.94	12.95	12.86	12.86	12.98
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	12.96	12.98	12.94	12.91	12.97	12.85	12.94	12.88
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	12.82	12.88	12.94	12.92	12.88	12.91	12.87	12.85

Mode	FR1 n48 : EIRP PSD (dBm/MHz) <MIMO 4TX> Lowest Channel							
	10MHz		20MHz		40MHz		50MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	36.97	36.96	36.95	36.95	36.99	36.95	36.95	36.96
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	36.99	36.96	36.94	36.96	36.97	36.88	36.88	37.00
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	36.98	37.00	36.96	36.93	36.99	36.87	36.96	36.90
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	36.84	36.90	36.96	36.94	36.90	36.93	36.89	36.87
Limit	37dBm/MHz							
Result	PASS							

**Note**

1. The measured conducted PSD result has included duty cycle offset factor.
2. The EIRP PSD = conducted PSD result + 6.02dB (4TX) + 18dBi MIMO antenna gain.





Mode	FR1 n48 : Conducted PSD (dBm/MHz) <SISO> Middle Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	12.92	12.96	12.97	12.97	12.93	12.98	12.93	12.94
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	12.96	12.94	12.95	12.98	12.96	12.86	12.95	12.83
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	12.93	12.95	12.95	12.83	12.95	12.93	12.98	12.92
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	12.87	12.92	12.92	12.90	12.87	12.91	12.92	12.92

Mode	FR1 n48 : EIRP PSD (dBm/MHz) <MIMO 4TX> Middle Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	36.94	36.94	36.99	36.99	36.95	37.00	36.95	36.96
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	36.98	36.96	36.97	37.00	36.98	36.88	36.97	36.85
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	36.95	36.97	36.97	36.85	36.97	36.95	37.00	36.94
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	36.89	36.94	36.94	36.92	36.89	36.93	36.94	36.94
Limit	<b>37dBm/MHz</b>							
Result	<b>PASS</b>							

**Note**

1. The measured conducted PSD result has included duty cycle offset factor.
2. The EIRP PSD = conducted PSD result + 6.02dB (4TX) + 18dBi MIMO antenna gain.



Mode	FR1 n48 : Conducted PSD (dBm/MHz) <SISO> Highest Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	12.93	12.95	12.94	12.96	12.93	12.95	12.96	12.94
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	12.98	12.98	12.95	12.93	12.96	12.93	12.85	12.98
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	12.95	12.84	12.97	12.89	12.95	12.94	12.97	12.91
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	12.85	12.85	12.91	12.90	12.93	12.85	12.89	12.85

Mode	FR1 n48 : EIRP PSD (dBm/MHz) <MIMO 4TX> Highest Channel							
	10MHz		20MHz		40MHz		50MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	36.95	36.97	36.96	36.98	36.95	36.97	36.98	36.96
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	37.00	37.00	36.97	36.95	36.98	36.95	36.87	37.00
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Highest CH	36.97	36.86	36.99	36.91	36.97	36.96	36.99	36.93
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Highest CH	36.87	36.87	36.93	36.92	36.95	36.87	36.91	36.87
Limit	<b>37dBm/MHz</b>							
Result	<b>PASS</b>							

**Note**

1. The measured conducted PSD result has included duty cycle offset factor.
2. The EIRP PSD = conducted PSD result + 6.02dB (4TX) + 18dBi MIMO antenna gain.