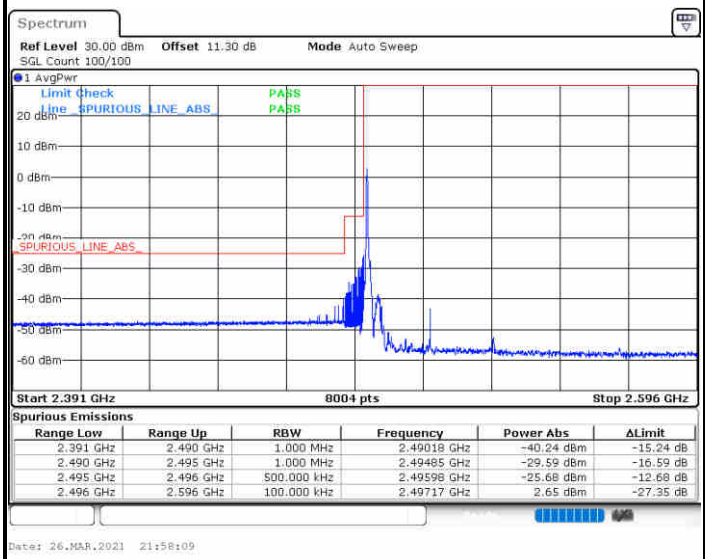
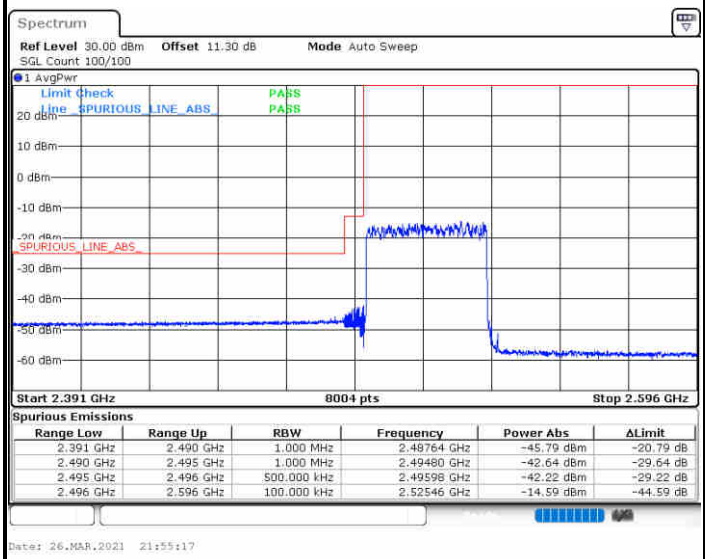
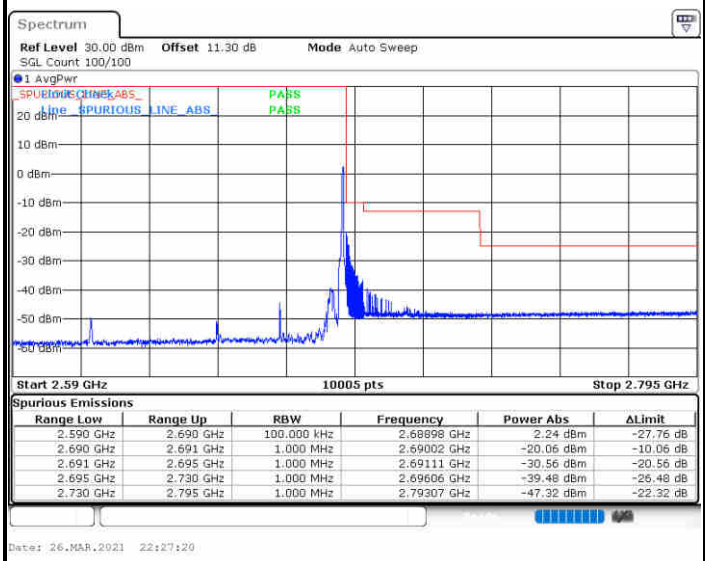
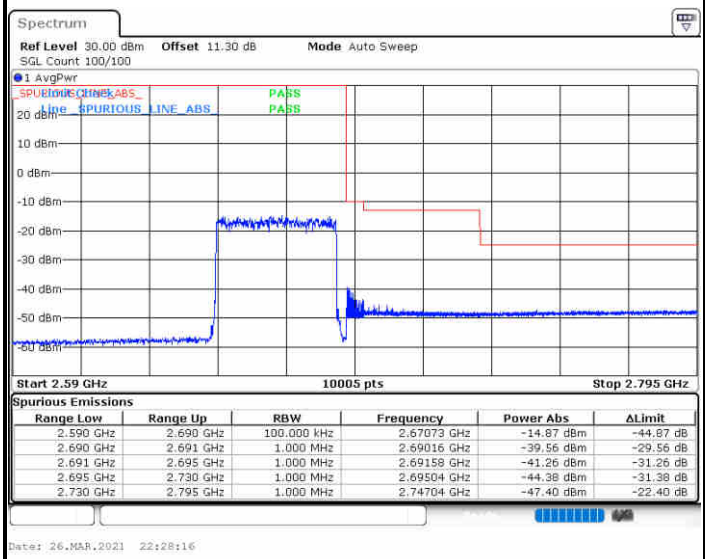
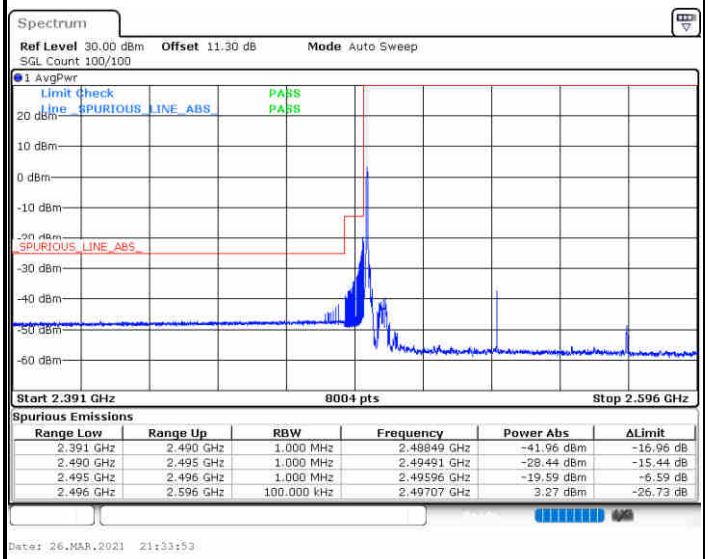
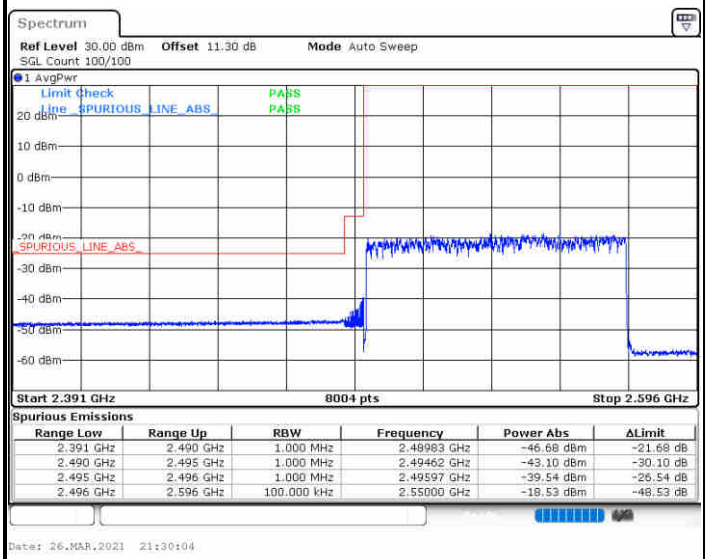
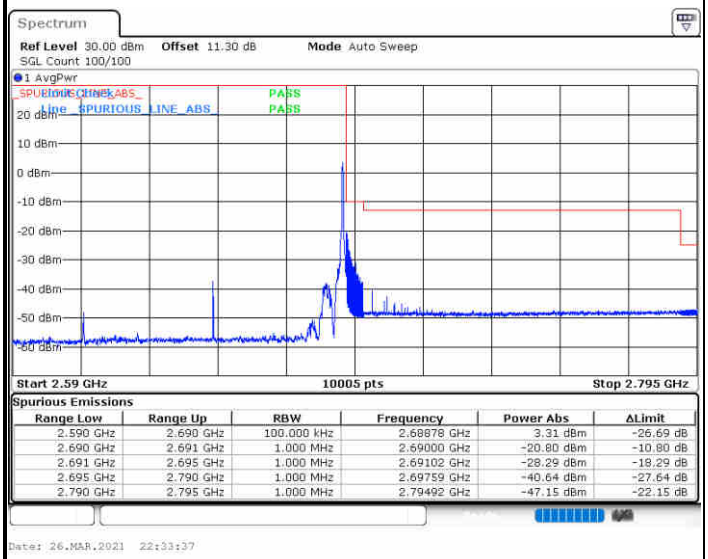
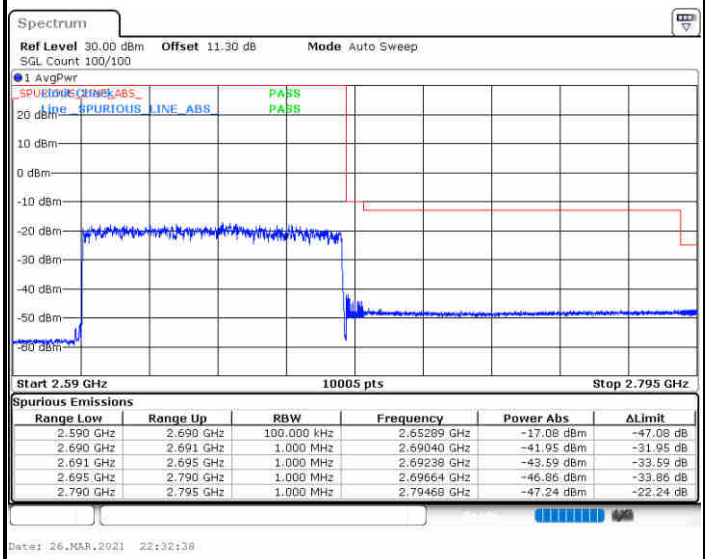
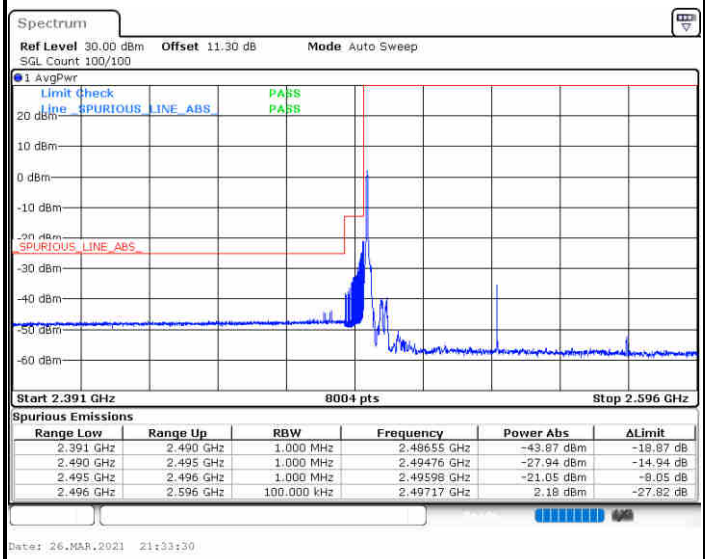
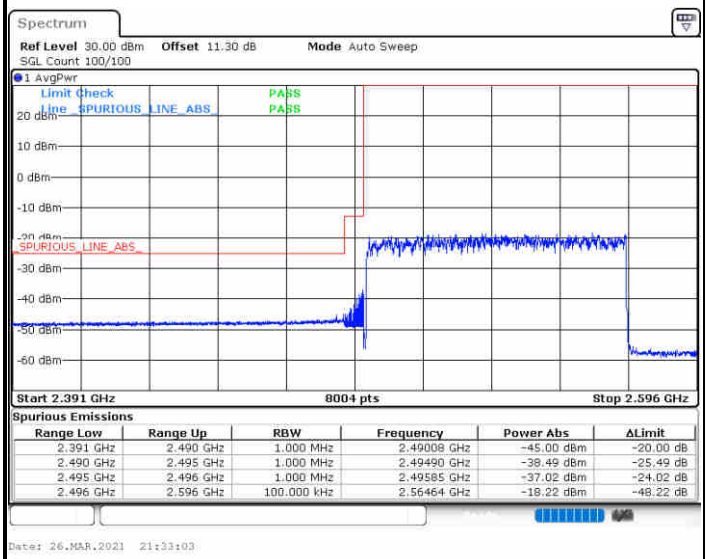
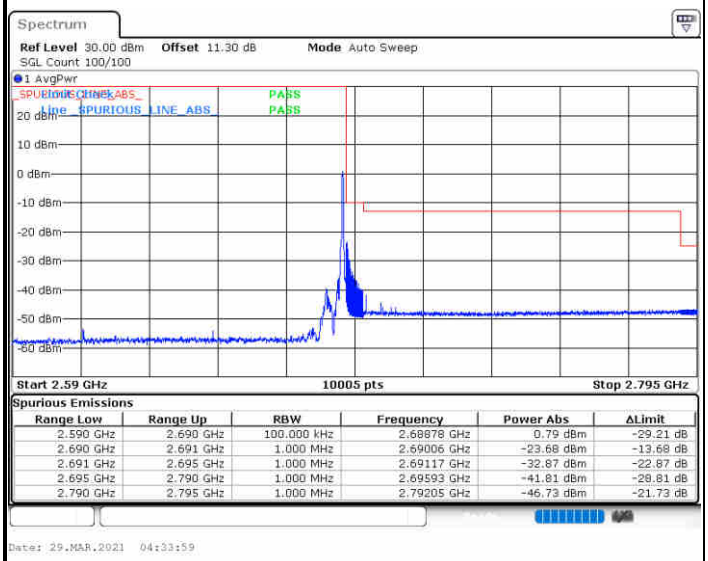
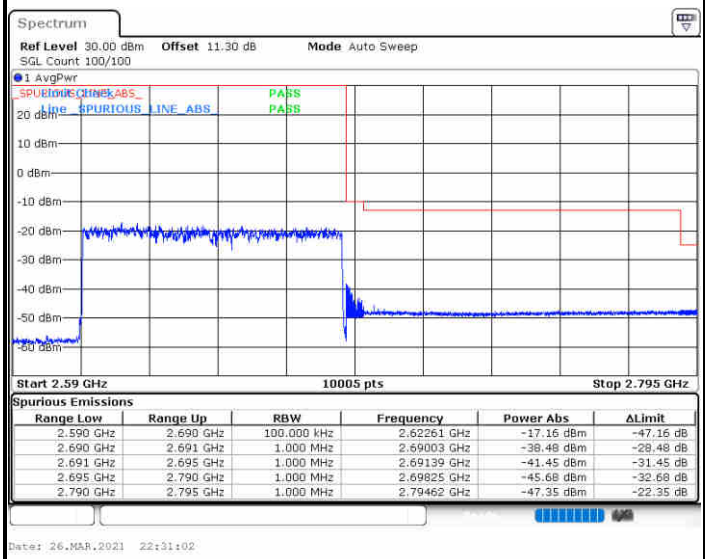
FR1 n41+41A / 40MHz / DFT-S OFDM QPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

FR1 n41+41A / 40MHz / DFT-S OFDM QPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

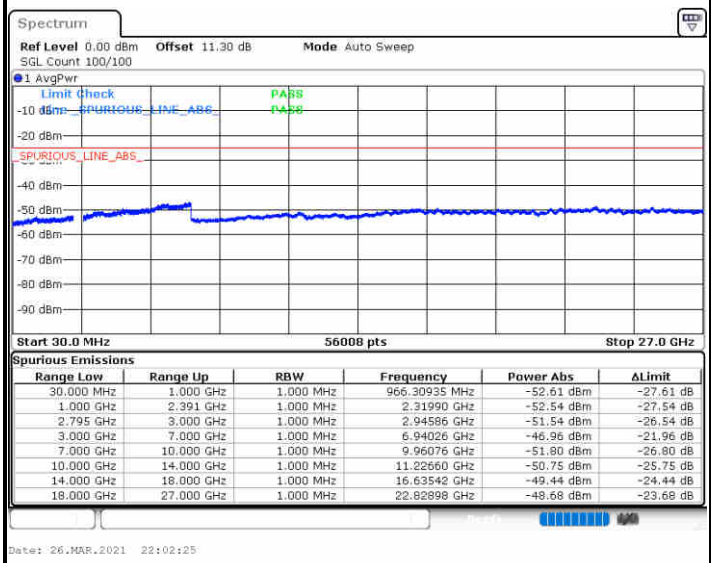
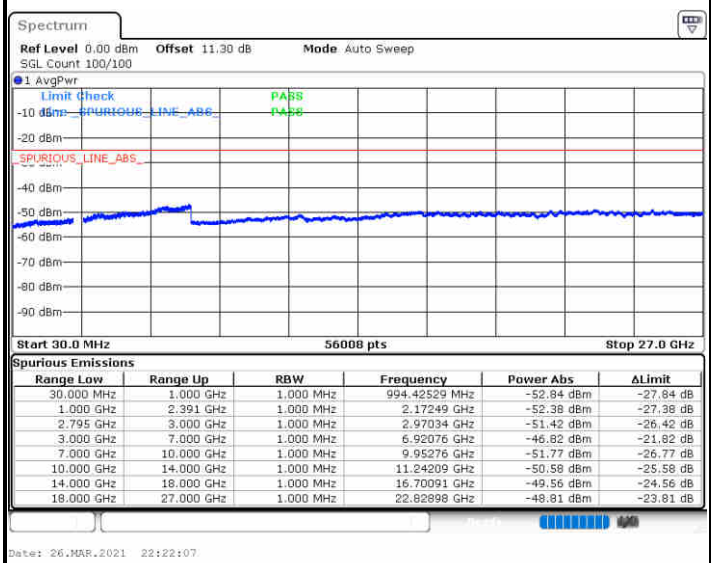
FR1 n41+41A / 80MHz / DFT-S OFDM BPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	**/**
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	**/**

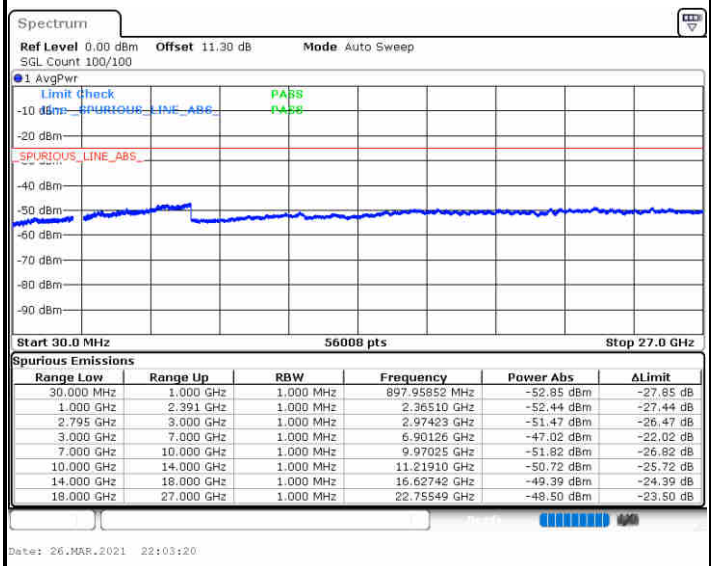
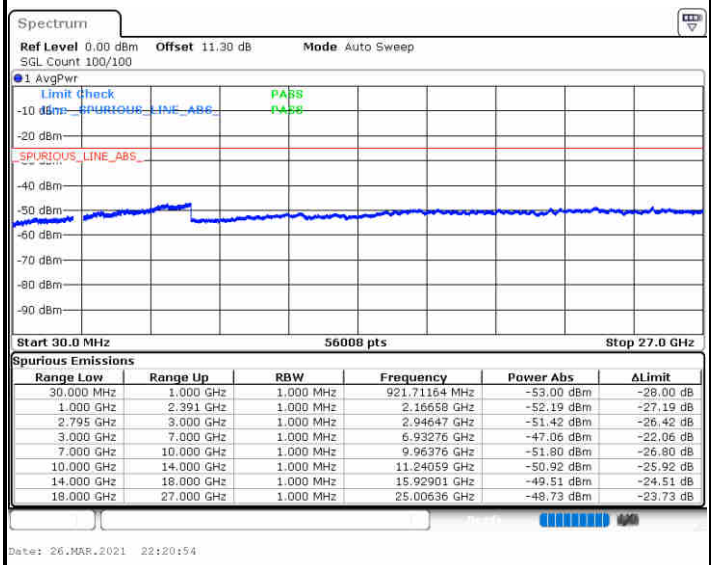
FR1 n41+41A / 80MHz / DFT-S OFDM BPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

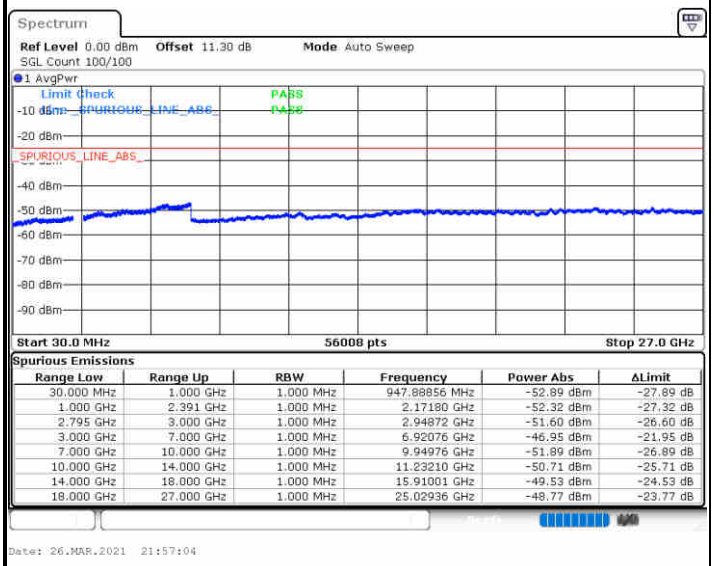
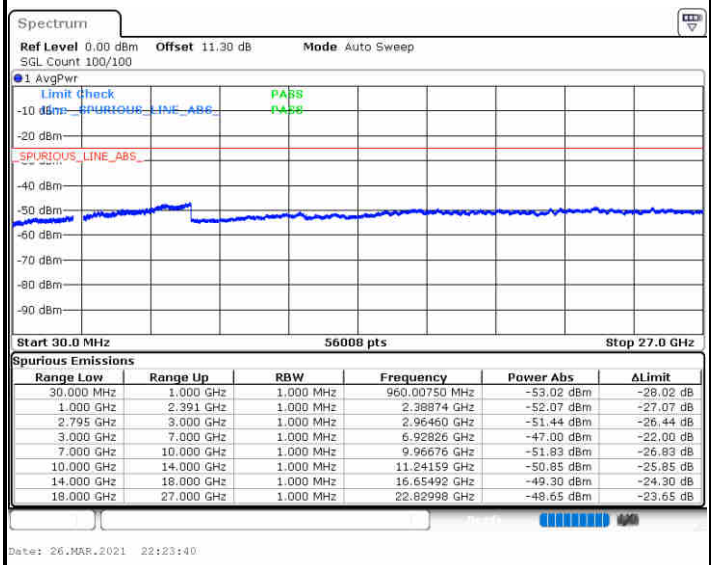
FR1 n41+41A / 80MHz / DFT-S OFDM QPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

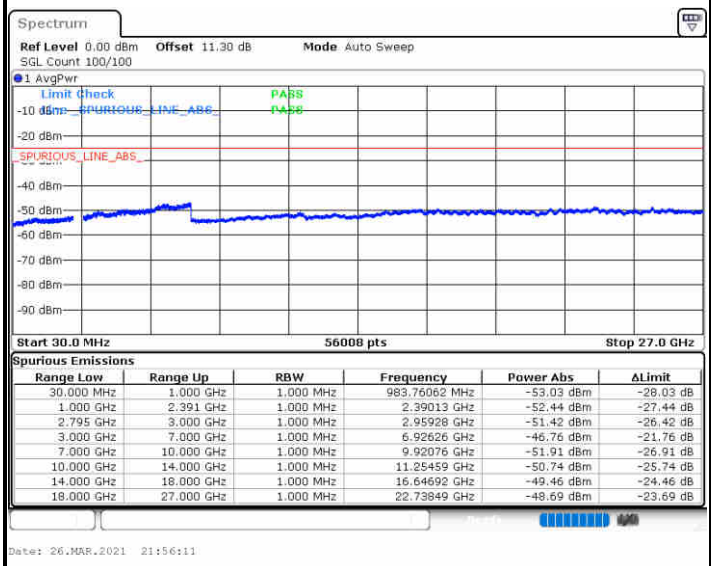
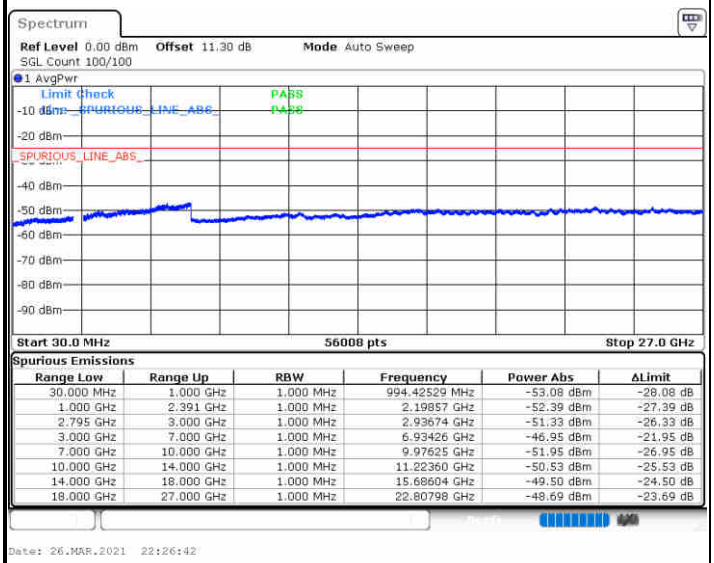
FR1 n41+41A / 80MHz / DFT-S OFDM QPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

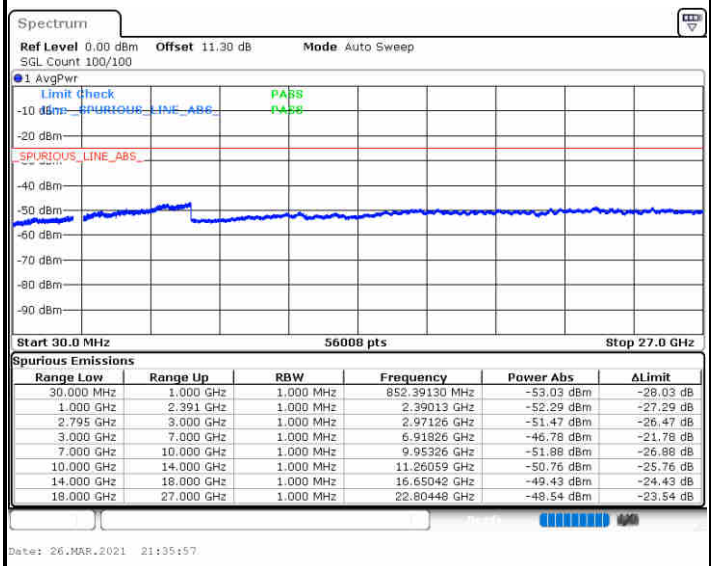
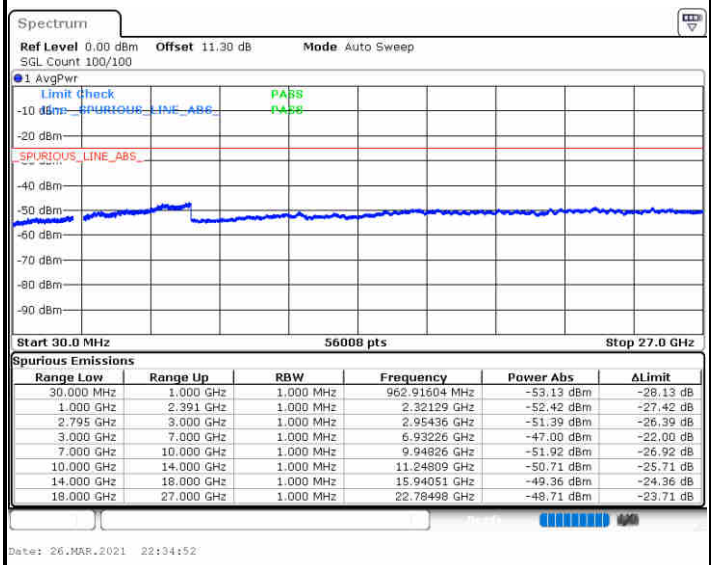
Conducted Spurious Emission

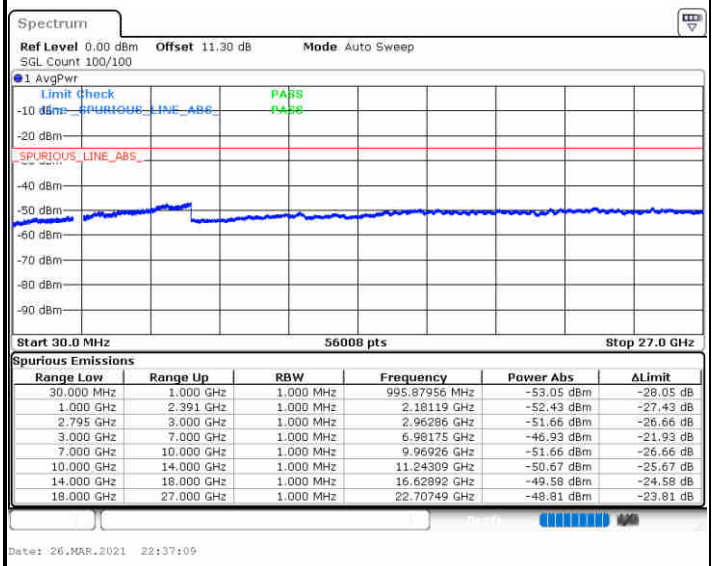
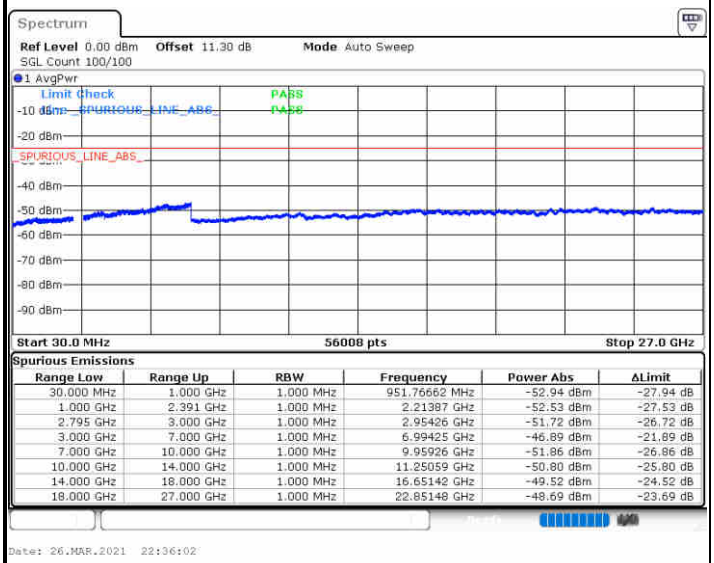
FR1 n41+41A / 10MHz / DFT-S OFDM / BPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	/
Highest Channel / 1RB	
	

FR1 n41+41A / 10MHz / DFT-S OFDM / QPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
 **Spurious Emissions** Range Low / Range Up / RBW / Frequency / Power Abs / ΔLimit 30.000 MHz / 1.000 GHz / 1.000 MHz / 897.95852 MHz / -52.85 dBm / -27.85 dB 1.000 GHz / 2.391 GHz / 1.000 MHz / 2.36510 GHz / -52.44 dBm / -27.44 dB 2.795 GHz / 3.000 GHz / 1.000 MHz / 2.97423 GHz / -51.47 dBm / -26.47 dB 3.000 GHz / 7.000 GHz / 1.000 MHz / 6.90126 GHz / -47.02 dBm / -22.02 dB 7.000 GHz / 10.000 GHz / 1.000 MHz / 9.97025 GHz / -51.82 dBm / -26.82 dB 10.000 GHz / 14.000 GHz / 1.000 MHz / 11.21910 GHz / -50.72 dBm / -25.72 dB 14.000 GHz / 18.000 GHz / 1.000 MHz / 16.62742 GHz / -49.39 dBm / -24.39 dB 18.000 GHz / 27.000 GHz / 1.000 MHz / 22.75549 GHz / -48.50 dBm / -23.50 dB Date: 26.MAR.2021 22:03:20	/
Highest Channel / 1RB	
 **Spurious Emissions** Range Low / Range Up / RBW / Frequency / Power Abs / ΔLimit 30.000 MHz / 1.000 GHz / 1.000 MHz / 921.71164 MHz / -53.00 dBm / -28.00 dB 1.000 GHz / 2.391 GHz / 1.000 MHz / 2.16658 GHz / -52.19 dBm / -27.19 dB 2.795 GHz / 3.000 GHz / 1.000 MHz / 2.94647 GHz / -51.42 dBm / -26.42 dB 3.000 GHz / 7.000 GHz / 1.000 MHz / 6.93276 GHz / -47.06 dBm / -22.06 dB 7.000 GHz / 10.000 GHz / 1.000 MHz / 9.96376 GHz / -51.80 dBm / -26.80 dB 10.000 GHz / 14.000 GHz / 1.000 MHz / 11.24059 GHz / -50.92 dBm / -25.92 dB 14.000 GHz / 18.000 GHz / 1.000 MHz / 15.92901 GHz / -49.51 dBm / -24.51 dB 18.000 GHz / 27.000 GHz / 1.000 MHz / 25.00636 GHz / -48.73 dBm / -23.73 dB Date: 26.MAR.2021 22:20:54	

FR1 n41+41A / 40MHz / DFT-S OFDM / BPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 947.88856 MHz | -52.89 dBm | -27.89 dB 1.000 GHz | 2.391 GHz | 1.000 MHz | 2.17180 GHz | -52.32 dBm | -27.32 dB 2.795 GHz | 3.000 GHz | 1.000 MHz | 2.94872 GHz | -51.60 dBm | -26.60 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.92076 GHz | -46.95 dBm | -21.95 dB 7.000 GHz | 10.000 GHz | 1.000 MHz | 9.94976 GHz | -51.89 dBm | -26.89 dB 10.000 GHz | 14.000 GHz | 1.000 MHz | 11.23210 GHz | -50.71 dBm | -25.71 dB 14.000 GHz | 18.000 GHz | 1.000 MHz | 15.91001 GHz | -49.53 dBm | -24.53 dB 18.000 GHz | 27.000 GHz | 1.000 MHz | 25.02936 GHz | -48.77 dBm | -23.77 dB Date: 26.MAR.2021 21:57:04	/
Highest Channel / 1RB	
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 960.00750 MHz | -53.02 dBm | -28.02 dB 1.000 GHz | 2.391 GHz | 1.000 MHz | 2.38874 GHz | -52.07 dBm | -27.07 dB 2.795 GHz | 3.000 GHz | 1.000 MHz | 2.96460 GHz | -51.44 dBm | -26.44 dB 3.000 GHz | 7.000 GHz | 1.000 MHz | 6.92826 GHz | -47.00 dBm | -22.00 dB 7.000 GHz | 10.000 GHz | 1.000 MHz | 9.96676 GHz | -51.83 dBm | -26.83 dB 10.000 GHz | 14.000 GHz | 1.000 MHz | 11.24159 GHz | -50.85 dBm | -25.85 dB 14.000 GHz | 18.000 GHz | 1.000 MHz | 16.65492 GHz | -49.30 dBm | -24.30 dB 18.000 GHz | 27.000 GHz | 1.000 MHz | 22.82998 GHz | -48.65 dBm | -23.65 dB Date: 26.MAR.2021 22:23:40	

FR1 n41+41A / 40MHz / DFT-S OFDM / QPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	/
Highest Channel / 1RB	
	

FR1 n41+41A / 80MHz / DFT-S OFDM / BPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	/
Highest Channel / 1RB	
	

FR1 n41+41A / 80MHz / DFT-S OFDM / QPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	/
Highest Channel / 1RB	
	

Frequency Stability

Test Conditions		NR n41+41A (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0015	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0006	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0014	

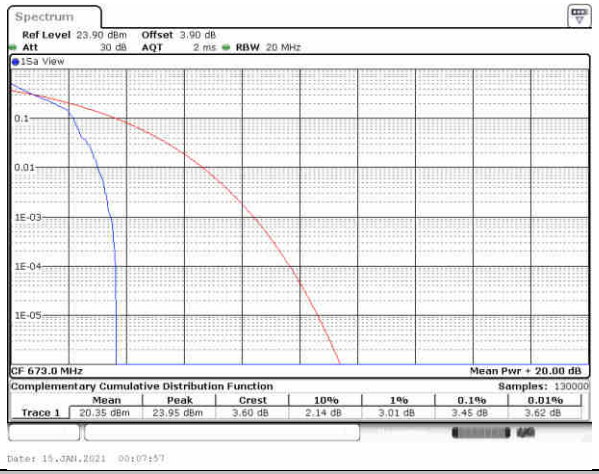
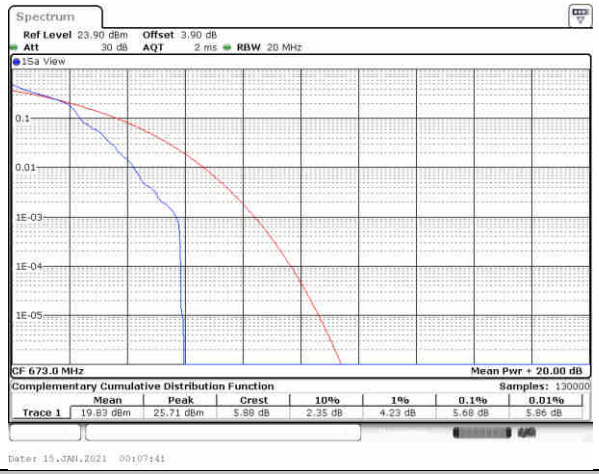
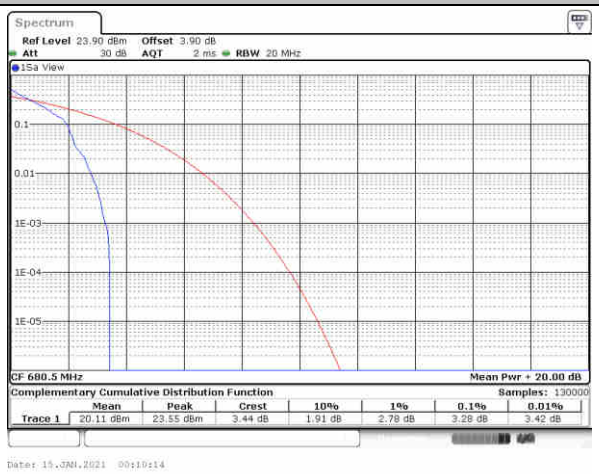
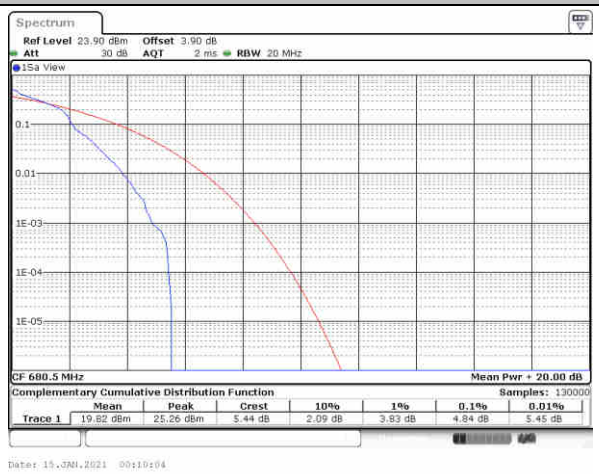
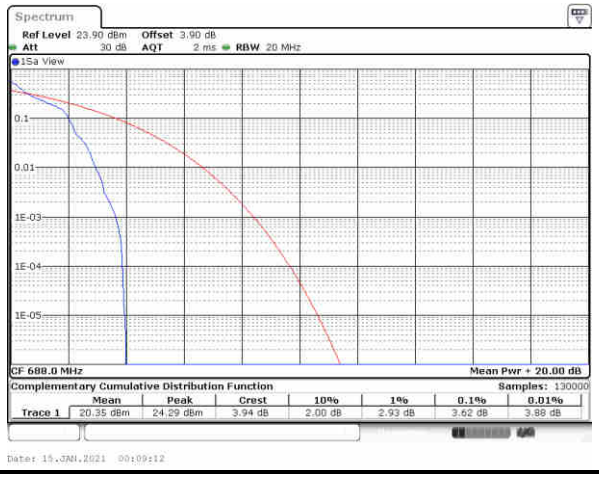
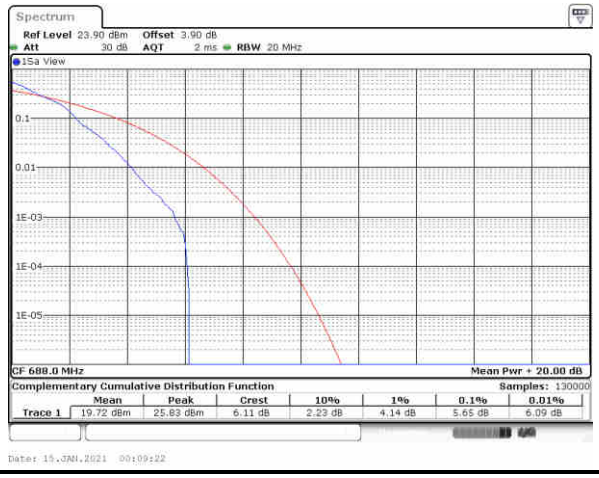
Note:

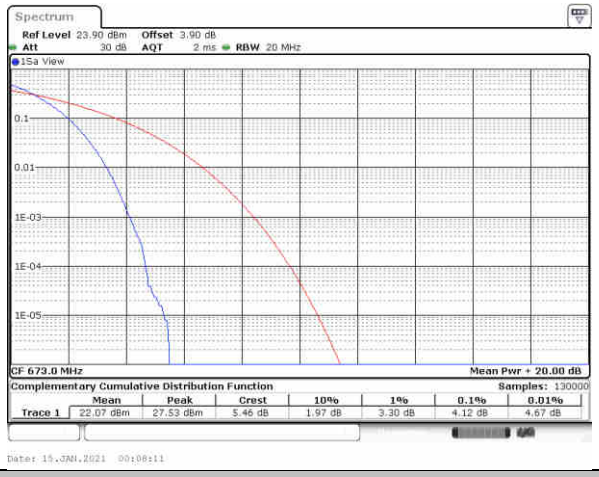
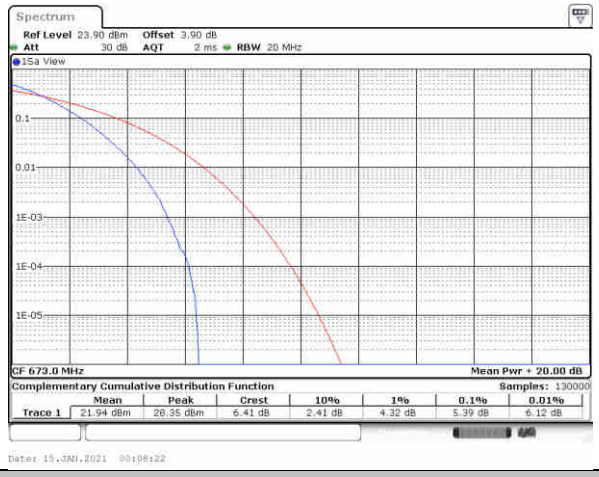
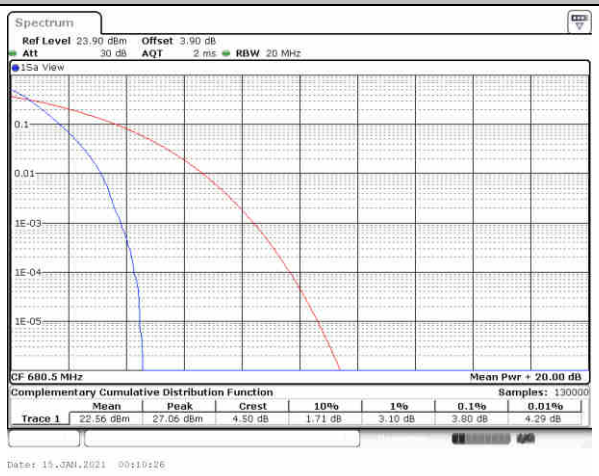
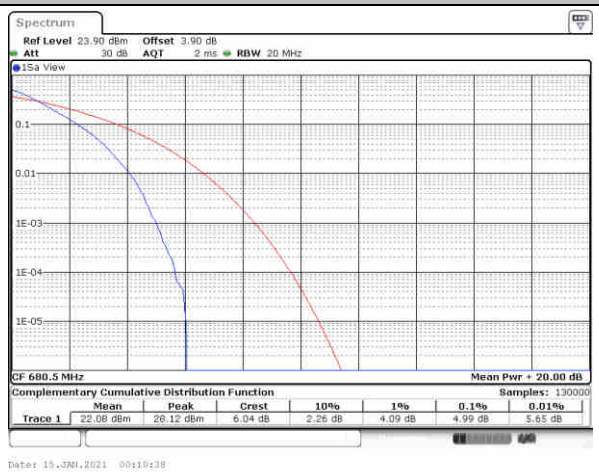
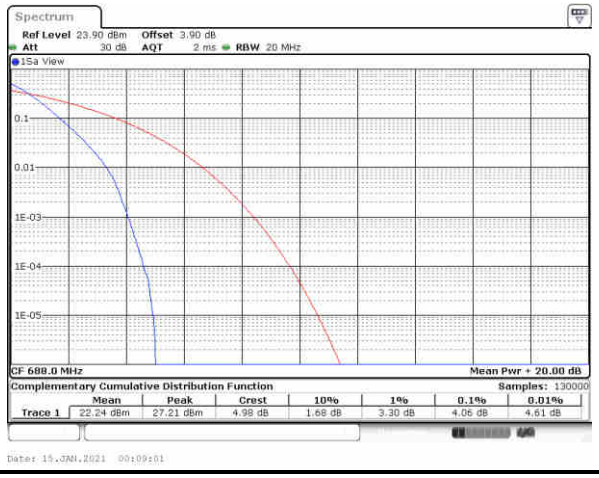
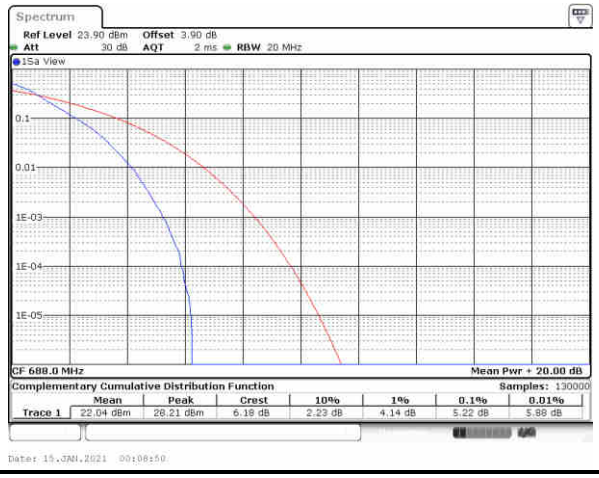
1. Normal Voltage =3.3 V.；Battery End Point (BEP) =3.14 V.；Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

5G NR n71 SA

Peak-to-Average Ratio

Mode	FR1 n71 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	PI/2 BPSK	QPSK	QPSK	Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.45	4.12	5.68	5.39	PASS
Middle CH	3.28	3.80	4.84	4.99	
Highest CH	3.62	4.06	5.65	5.22	

FR1 n71 / 20MHz / DFT-S OFDM	
PI/2 BPSK	**QPSK**
Lowest Channel / 1RB	**Lowest Channel / 1RB**
	
Middle Channel / 1 RB	**Middle Channel / 1 RB**
	
Highest Channel / 1 RB	**Highest Channel / 1 RB**
	

FR1 n71 / 20MHz / DFT-S OFDM	
PI/2 BPSK	**QPSK**
Lowest Channel / Full RB	**Lowest Channel / Full RB**
	
Middle Channel / Full RB	**Middle Channel / Full RB**
	
Highest Channel / Full RB	**Highest Channel / Full RB**
	

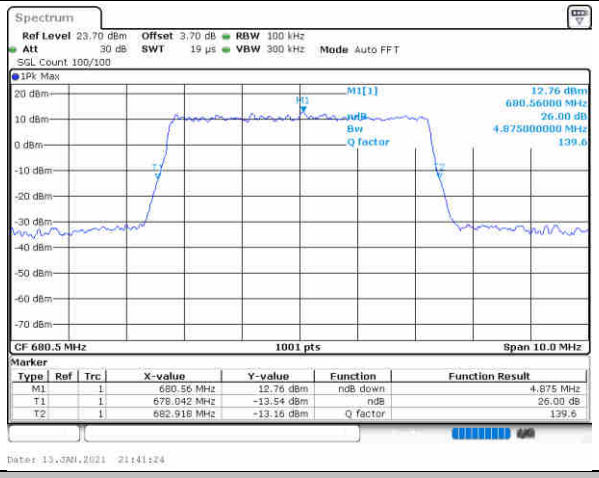
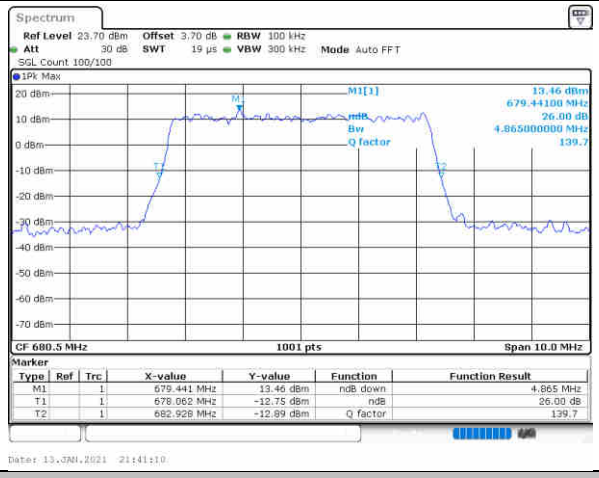
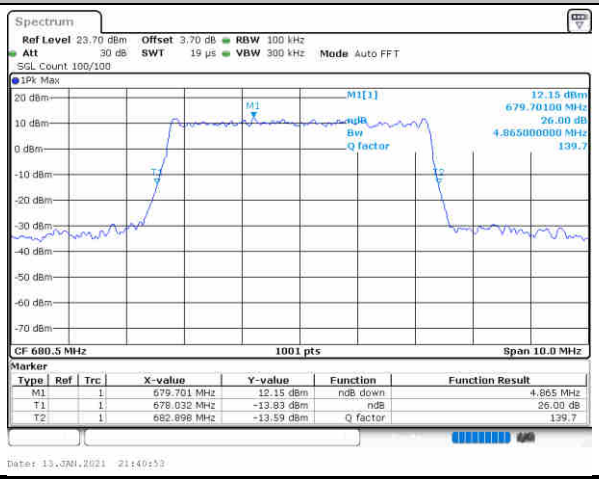
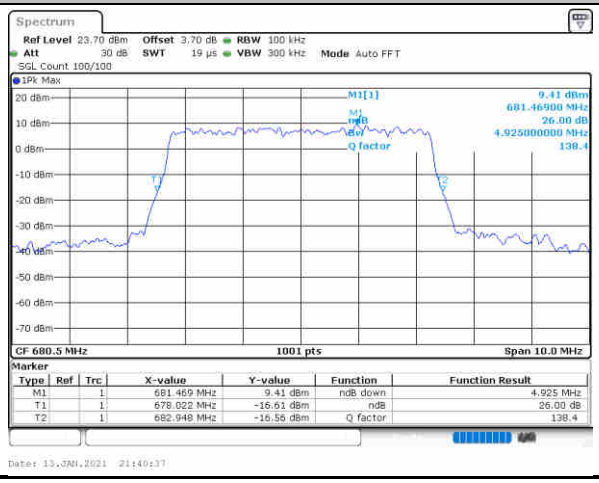
26dB Bandwidth

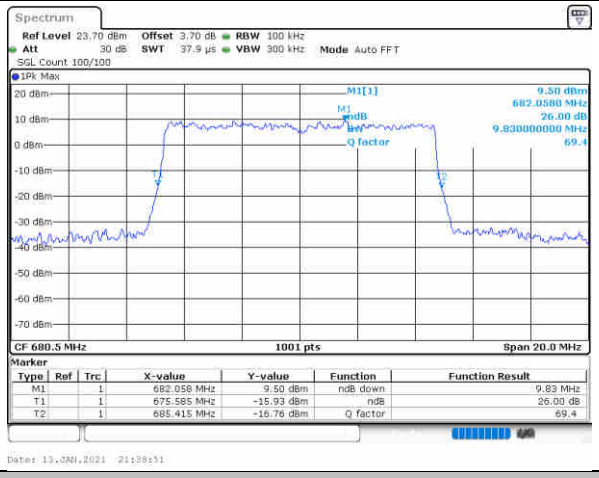
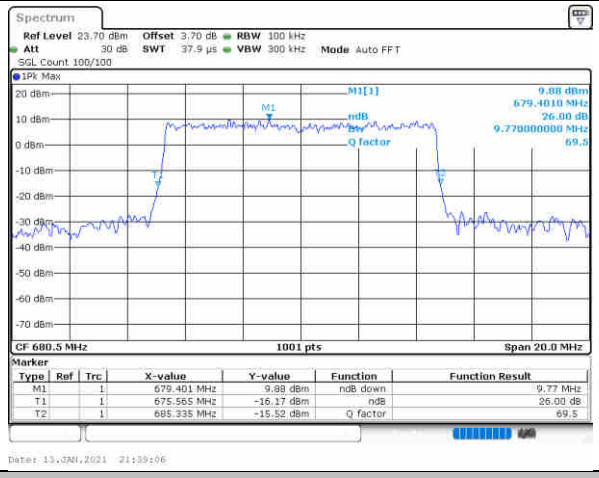
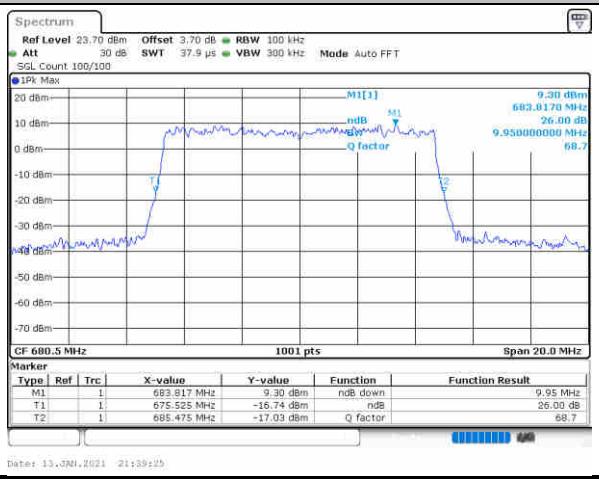
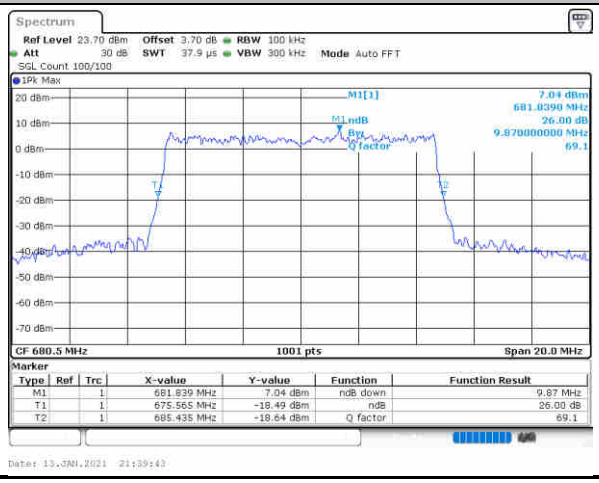
Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.88	4.87	4.87	4.92				

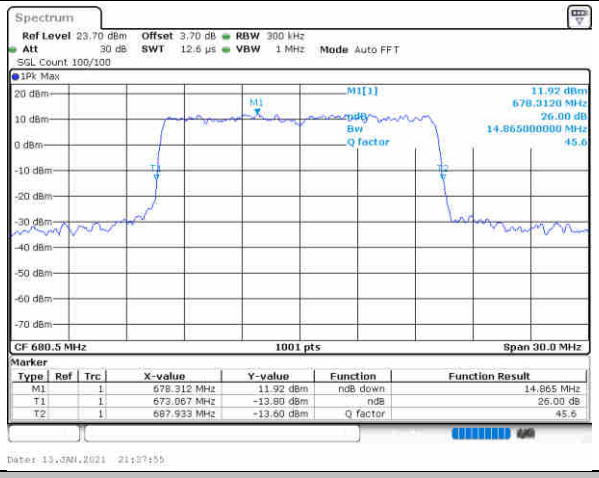
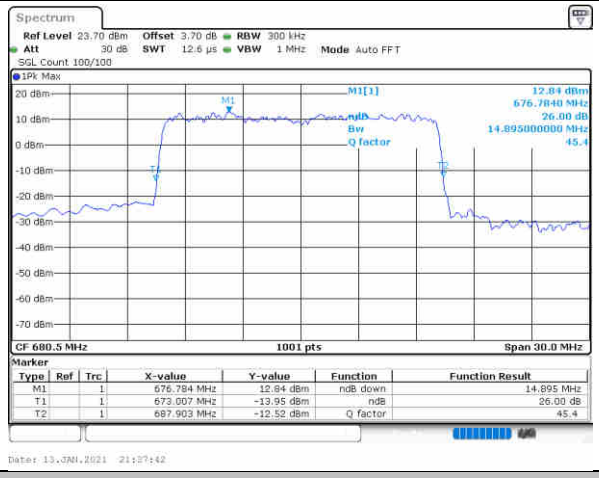
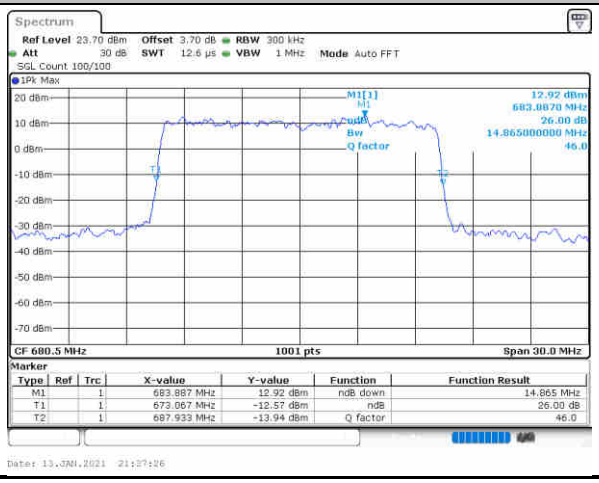
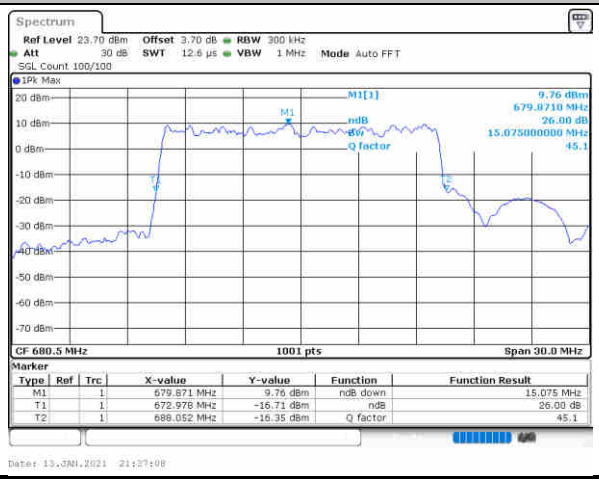
Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.83	9.77	9.95	9.87				

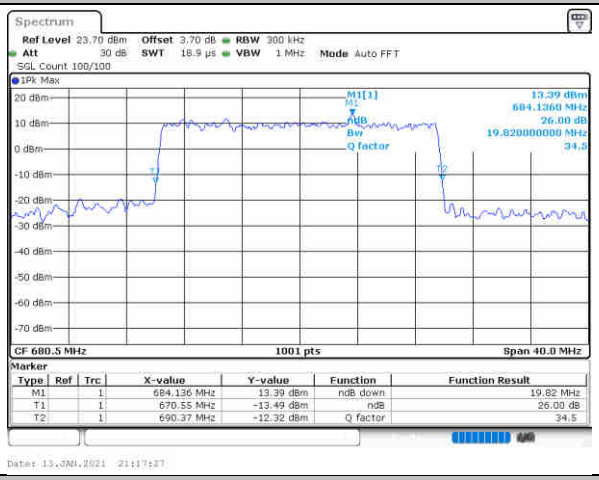
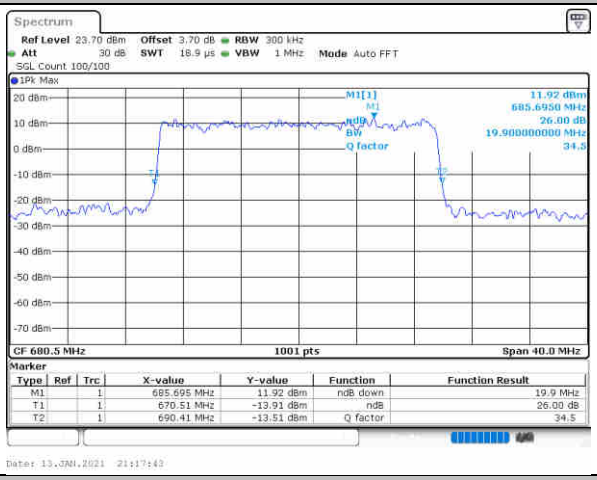
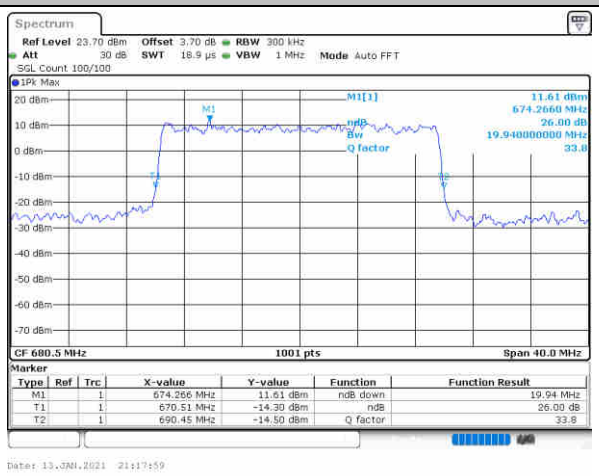
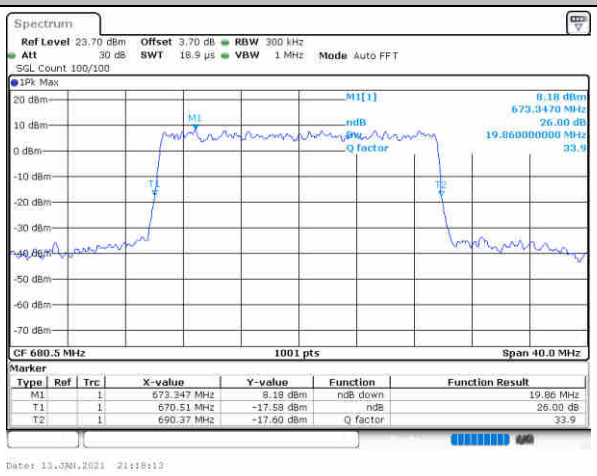
Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.87	14.89	14.87	15.07				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.82	19.90	19.94	19.86				

FR1 n71 / 5MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

FR1 n71 / 10MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

FR1 n71 / 15MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

FR1 n71 / 20MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

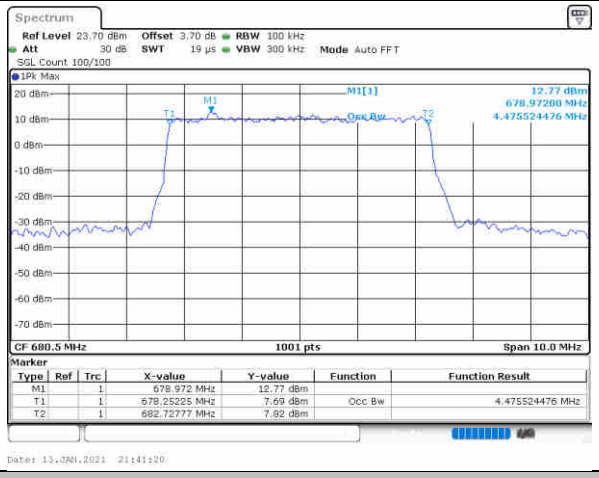
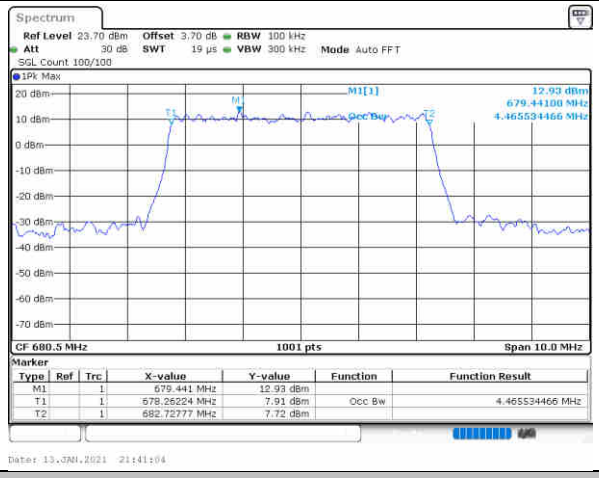
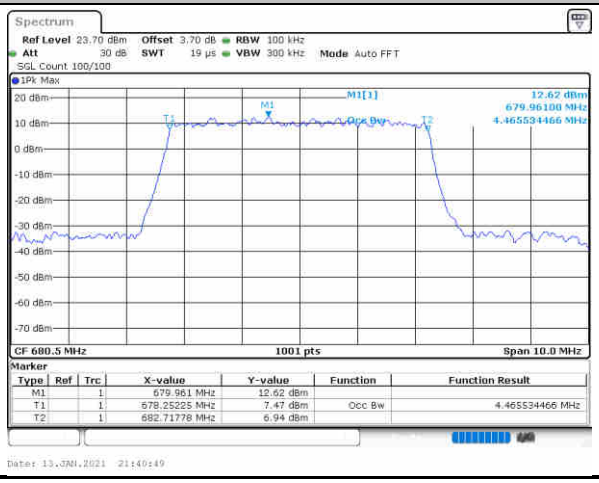
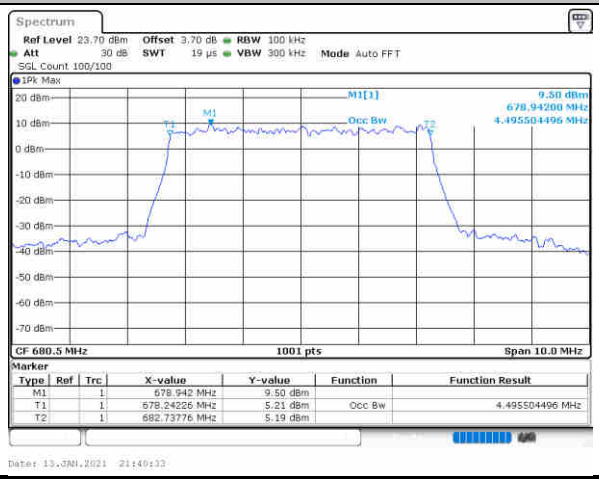
Occupied Bandwidth

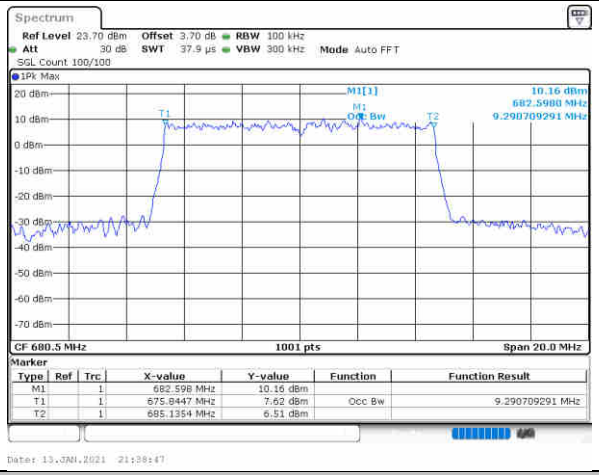
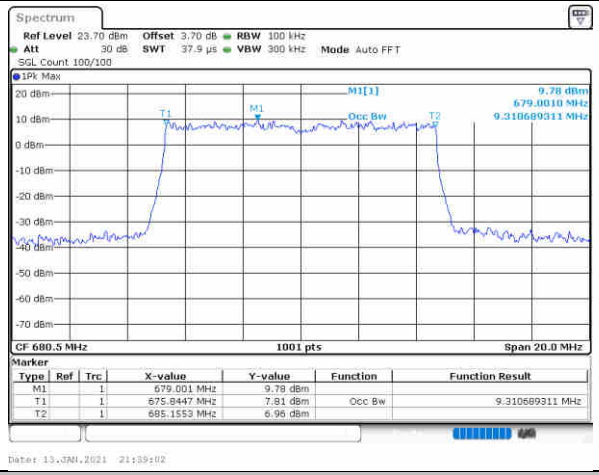
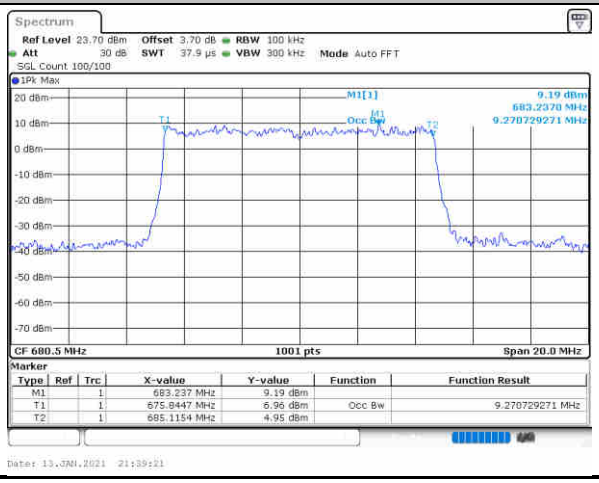
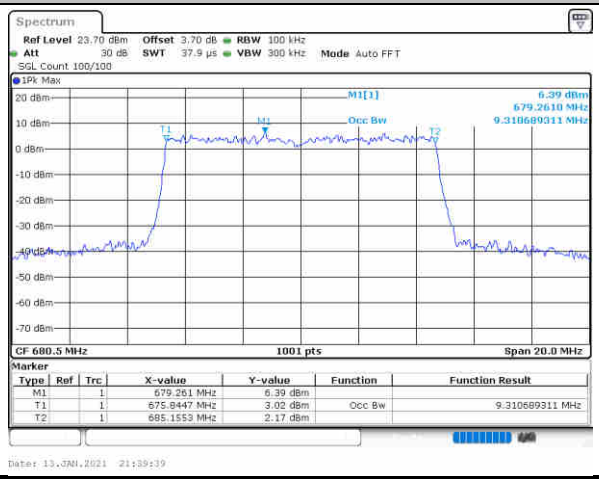
Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.48	4.47	4.47	4.50				

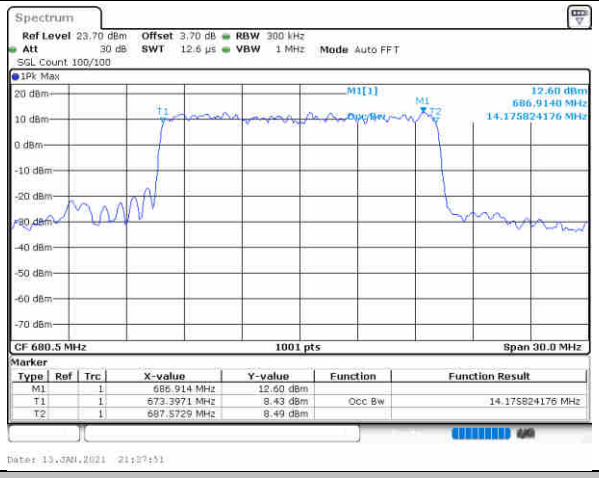
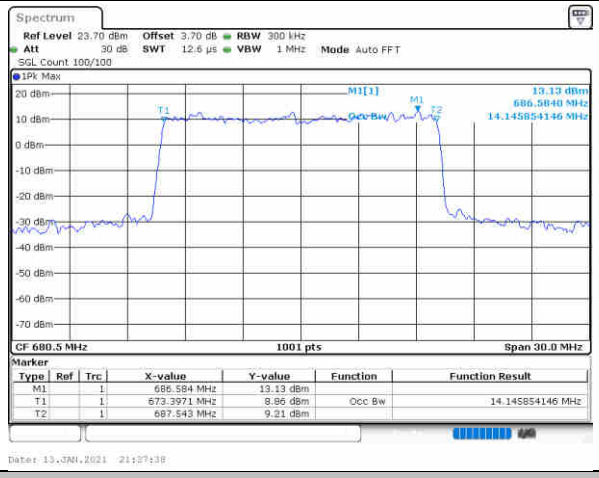
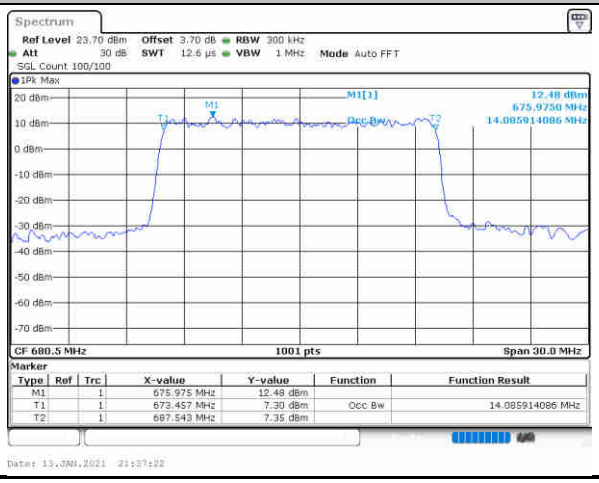
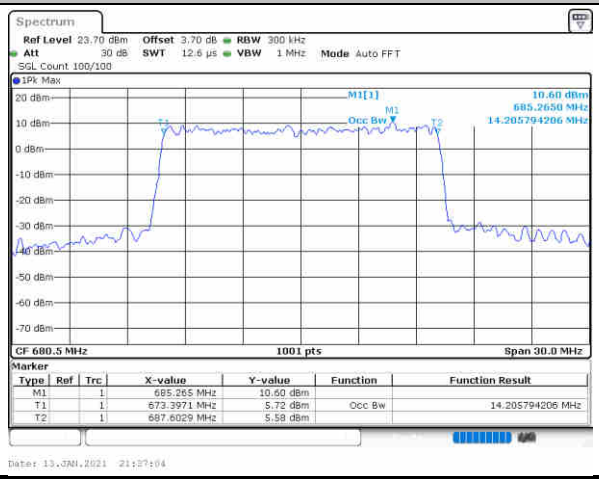
Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.29	9.31	9.27	9.31				

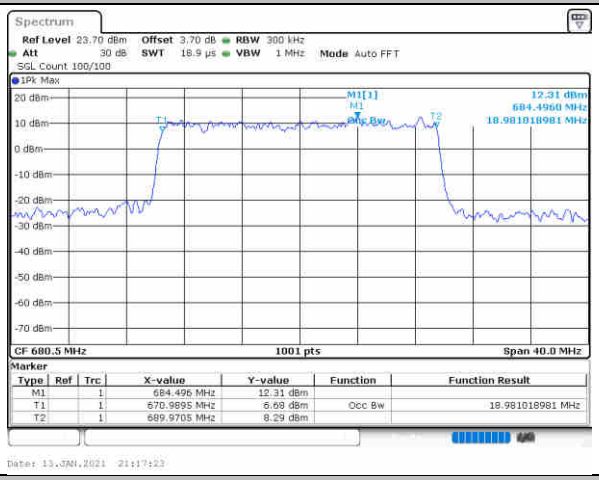
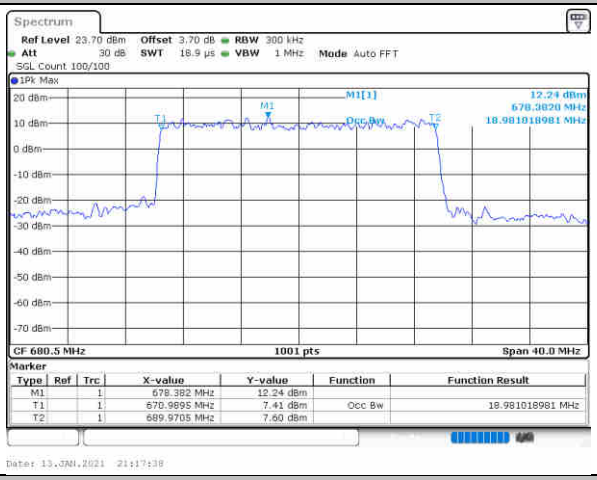
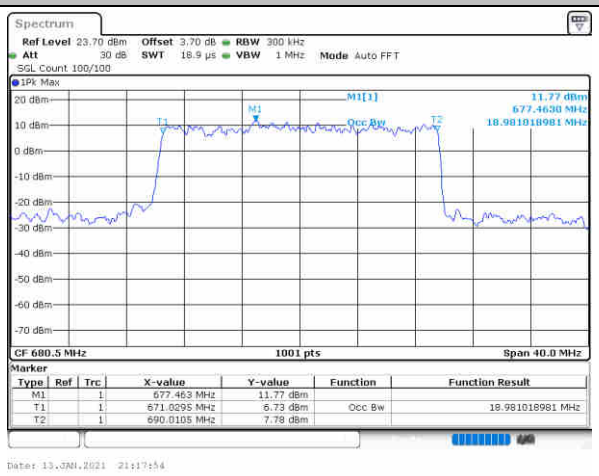
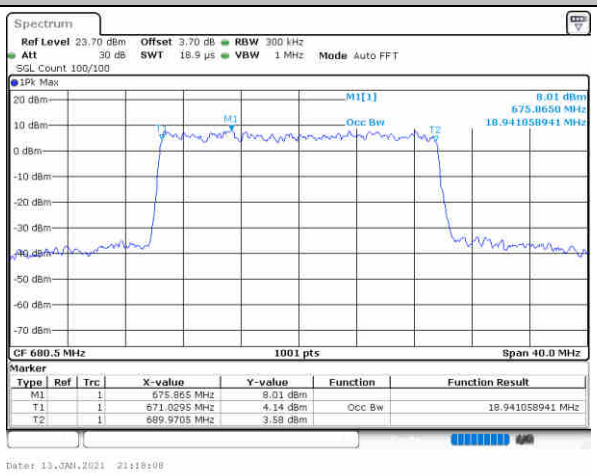
Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.18	14.15	14.09	14.21				

Mode	FR1 n71 : OBW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	18.98	18.98	18.98	18.94				

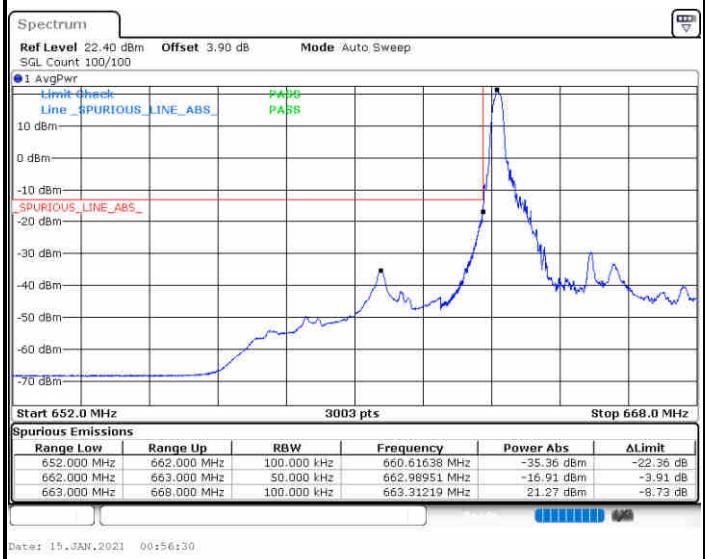
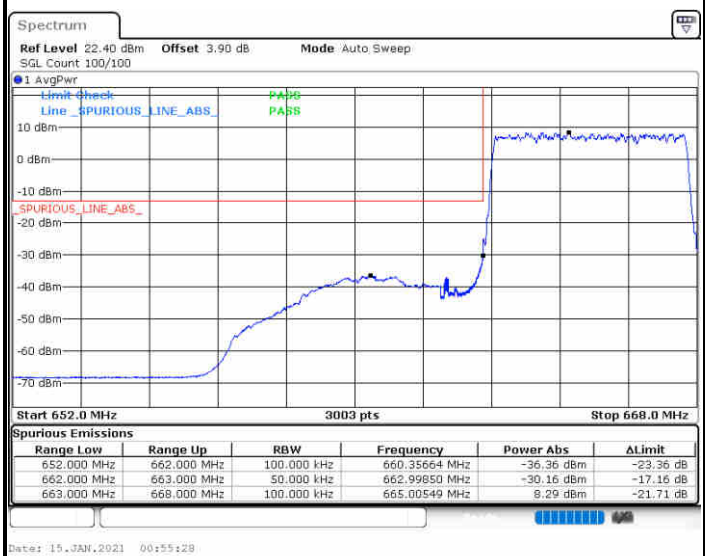
FR1 n71 / 5MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

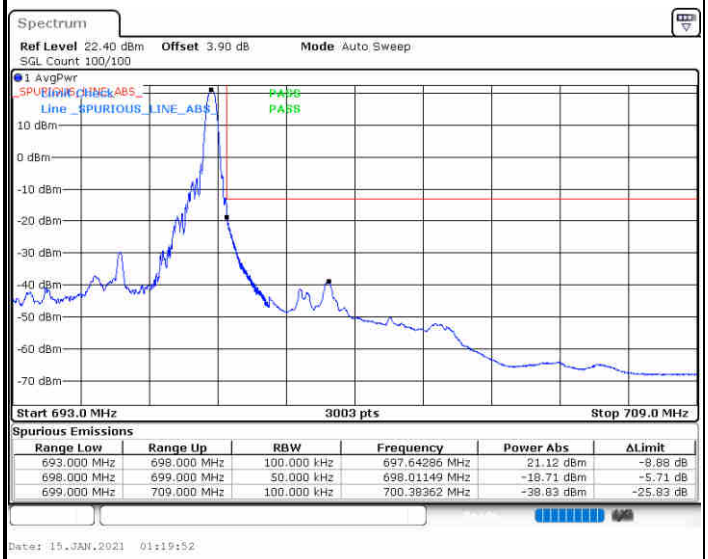
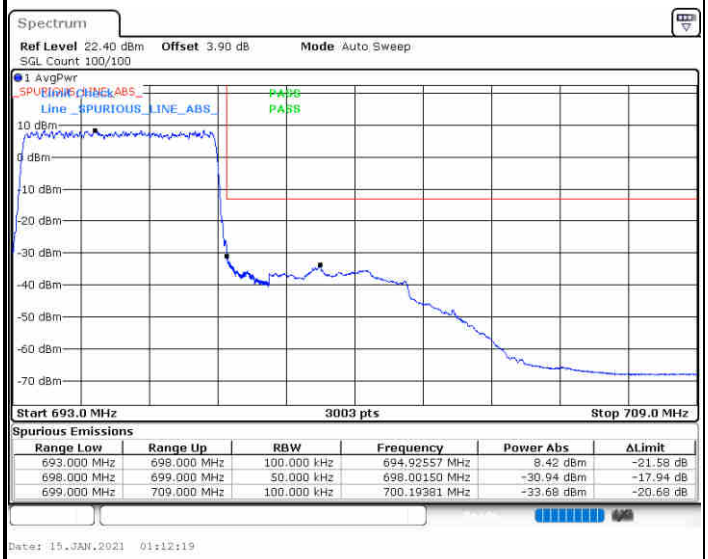
FR1 n71 / 10MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

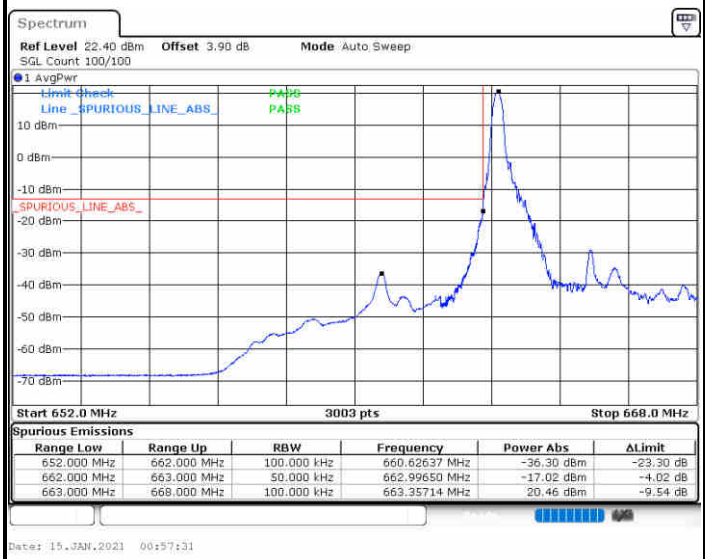
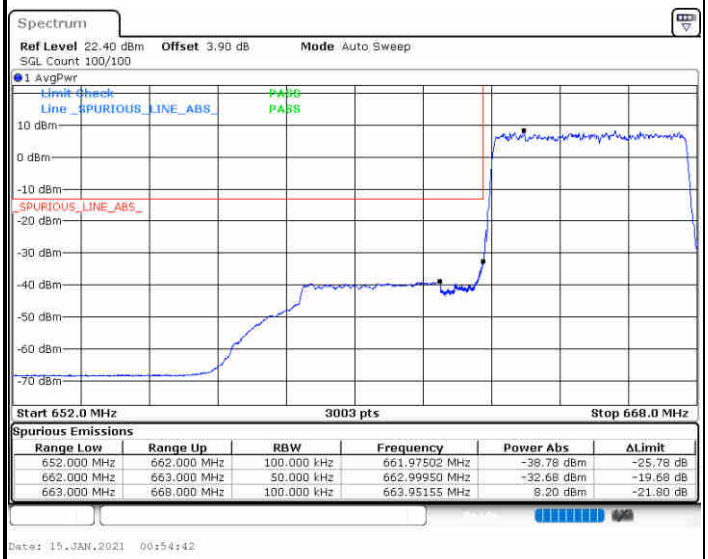
FR1 n71 / 15MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

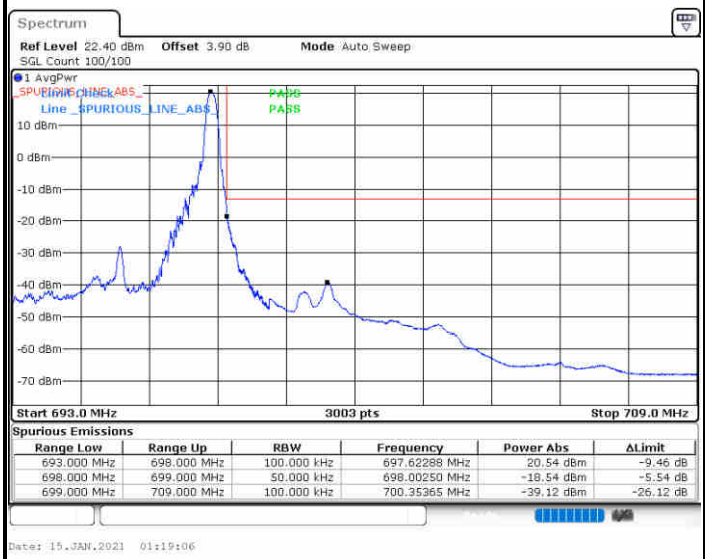
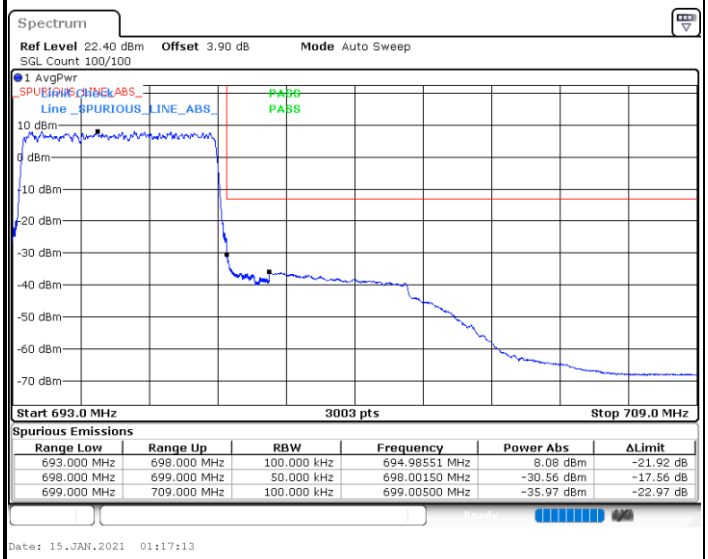
FR1 n71 / 20MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

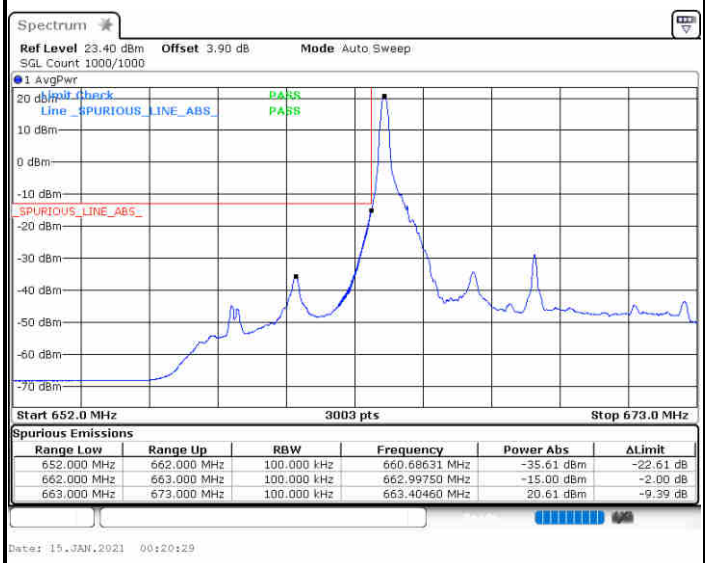
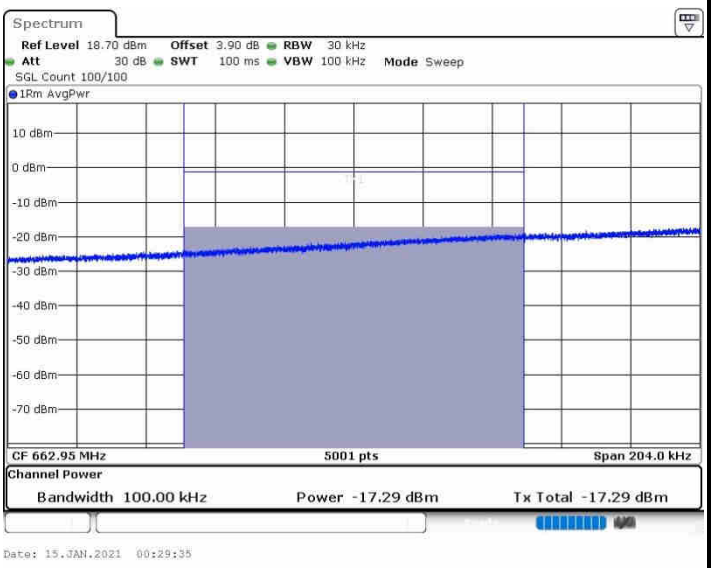
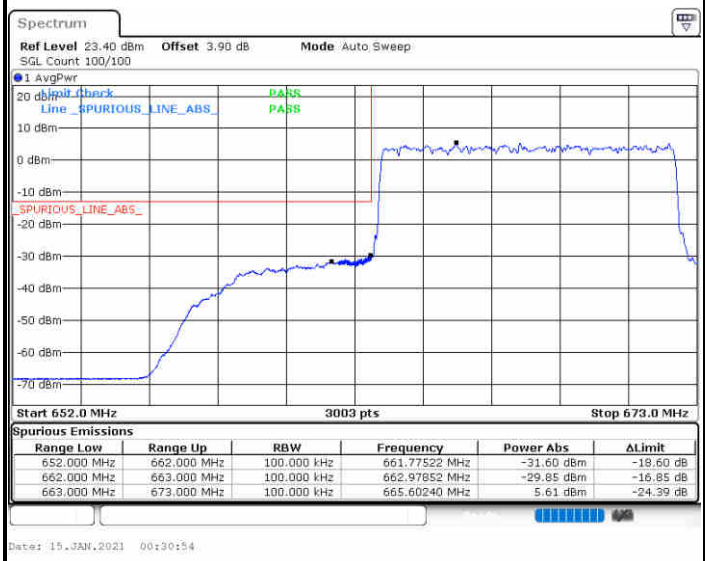
Conducted Band Edge

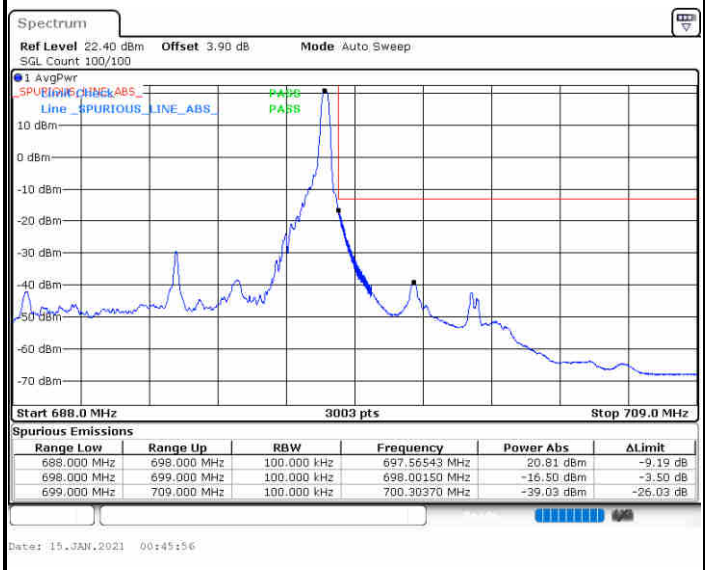
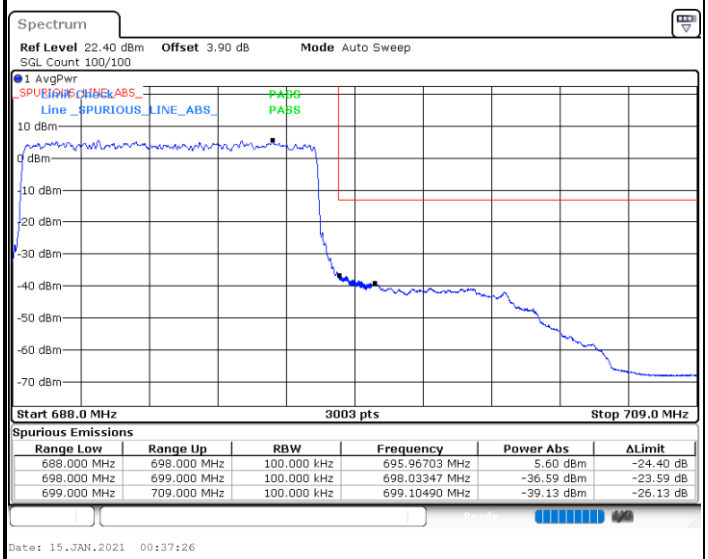
FR1 n71 / 5MHz / DFT-S OFDM BPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

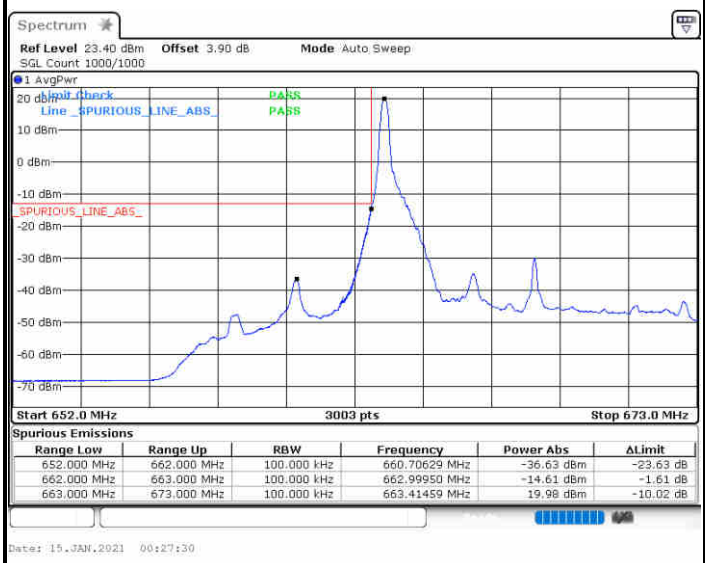
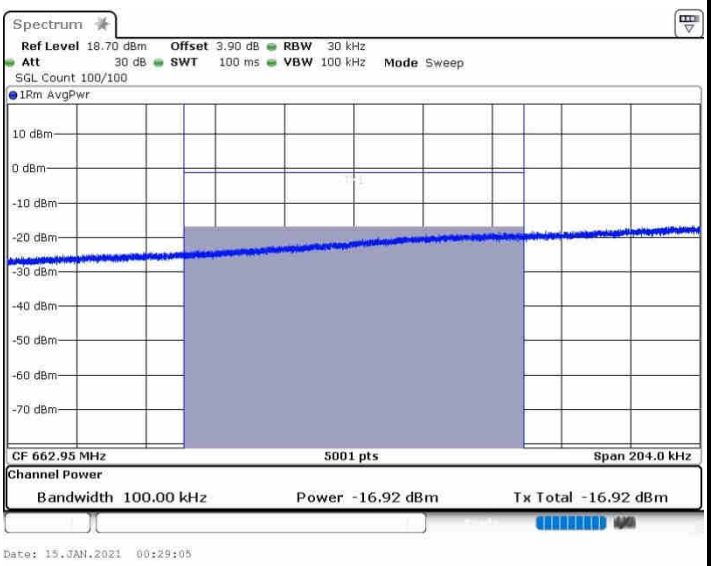
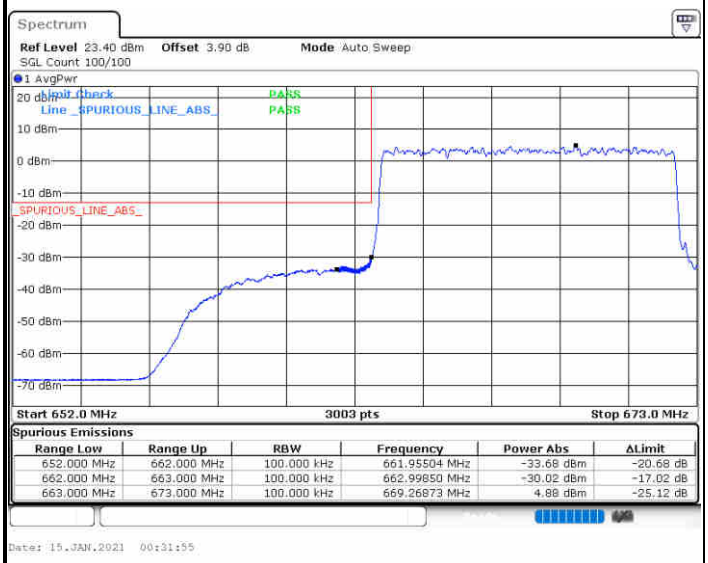
FR1 n71 / 5MHz / DFT-S OFDM BPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

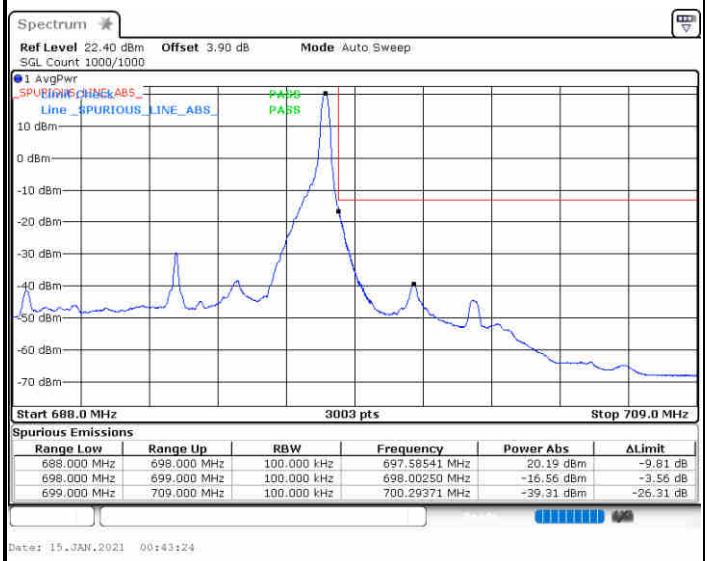
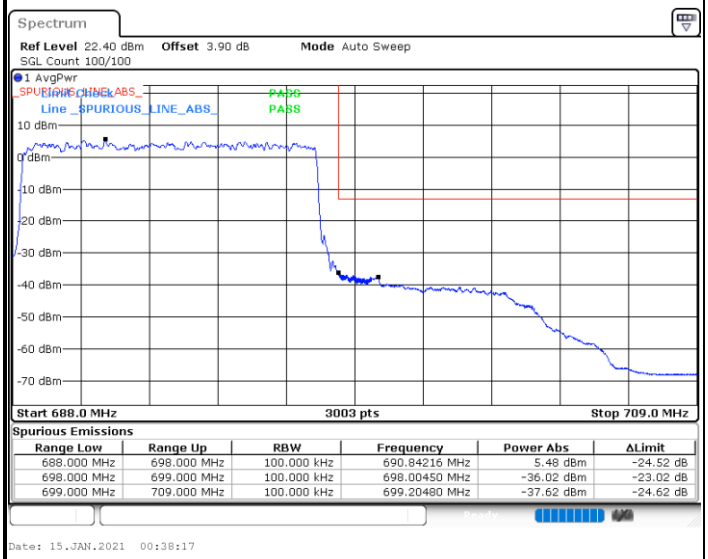
FR1 n71 / 5MHz / DFT-S OFDM QPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

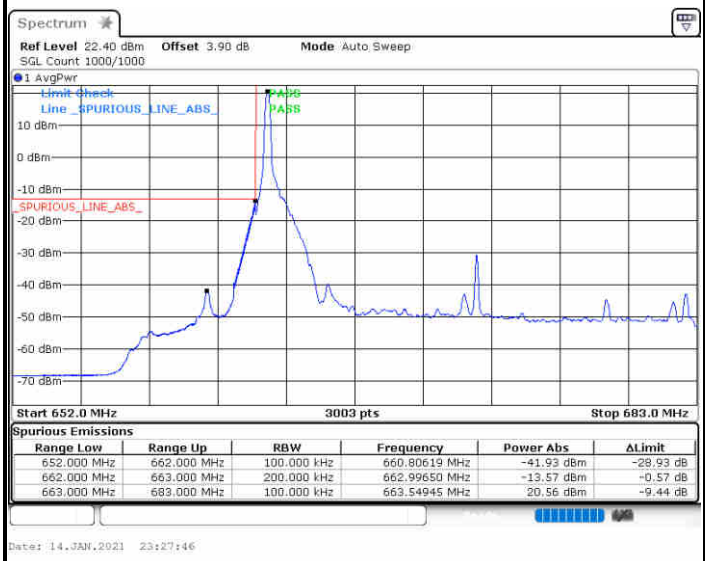
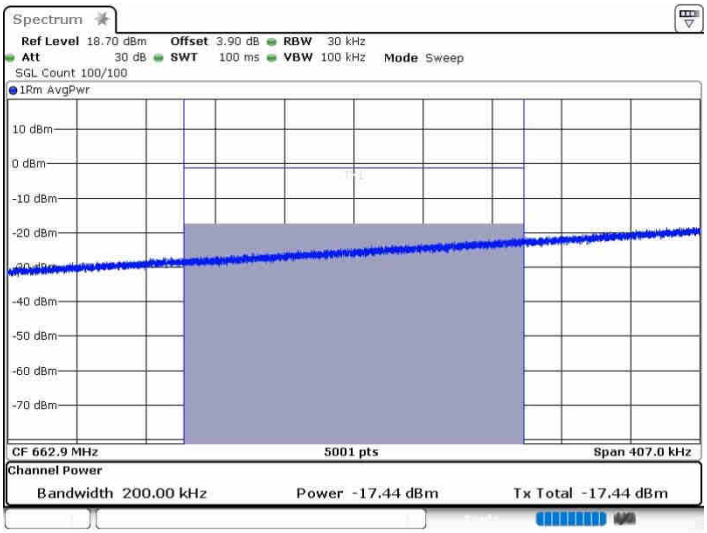
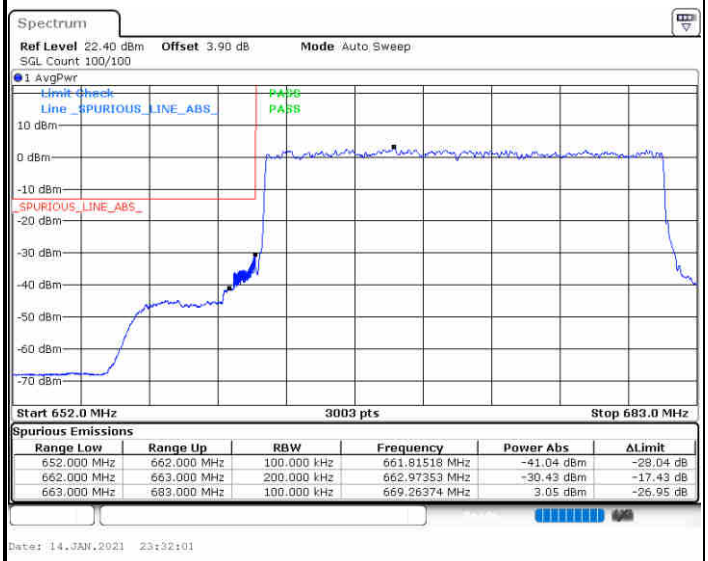
FR1 n71 / 5MHz / DFT-S OFDM QPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

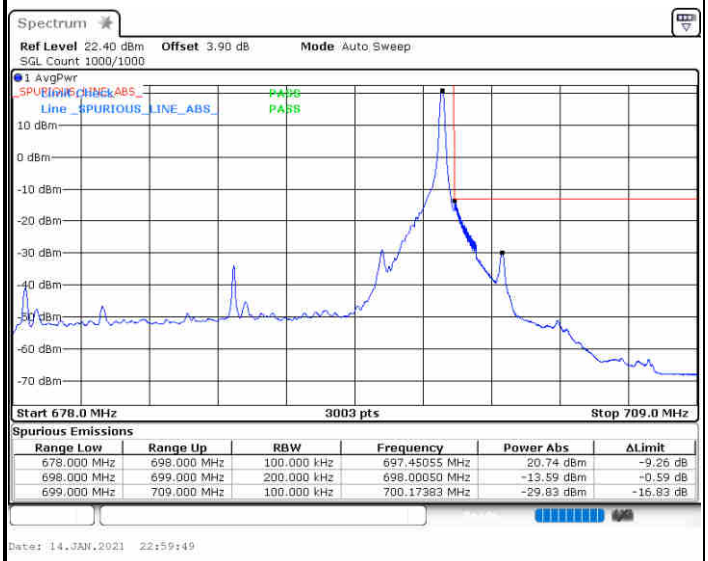
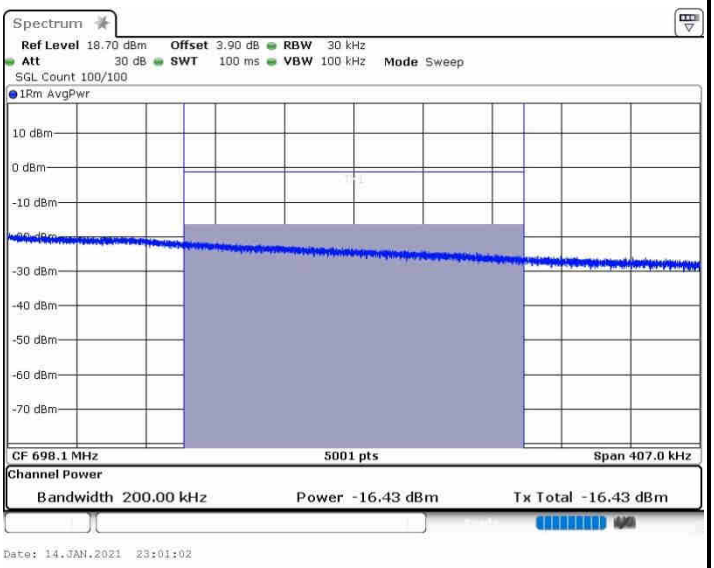
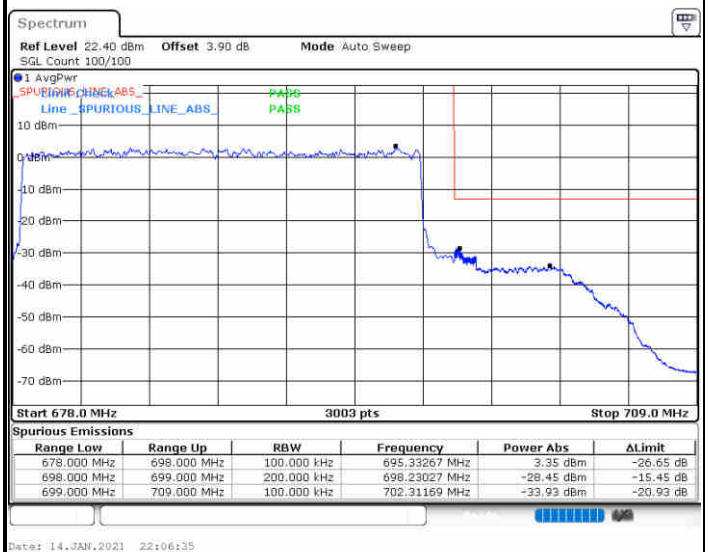
FR1 n71 / 10MHz / DFT-S OFDM BPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

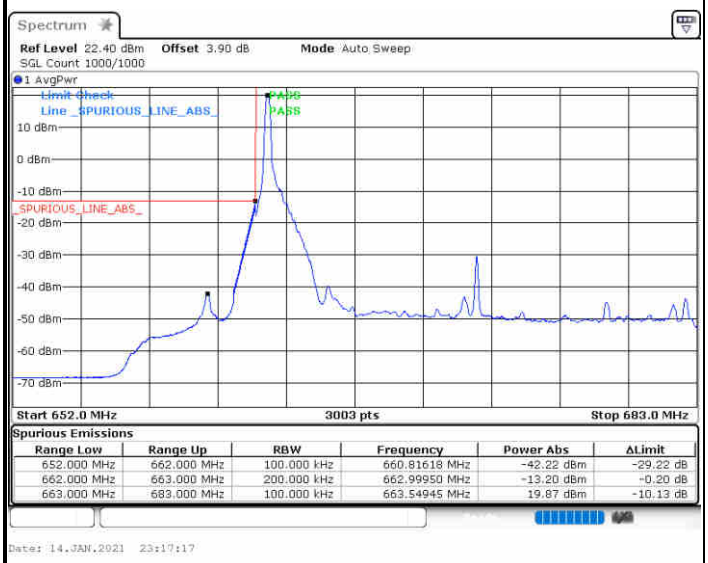
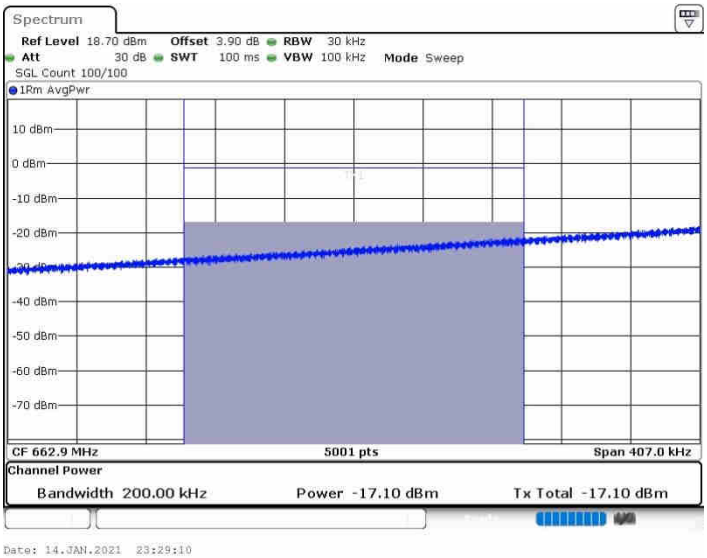
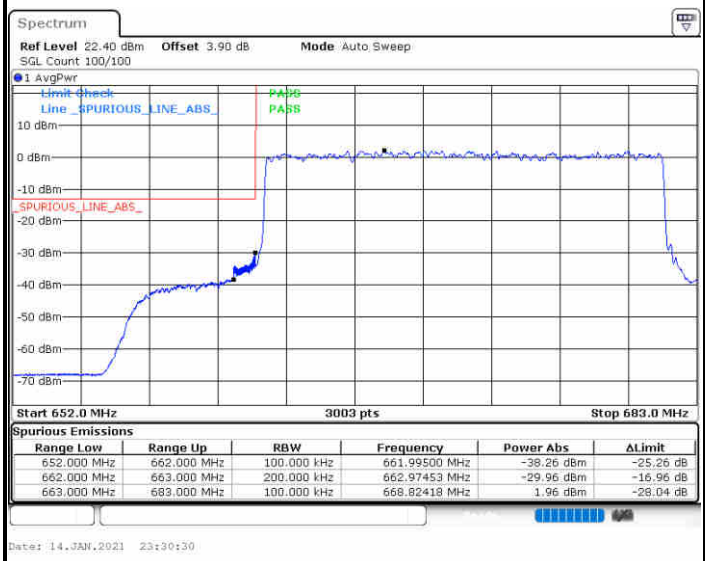
FR1 n71 / 10MHz / DFT-S OFDM BPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

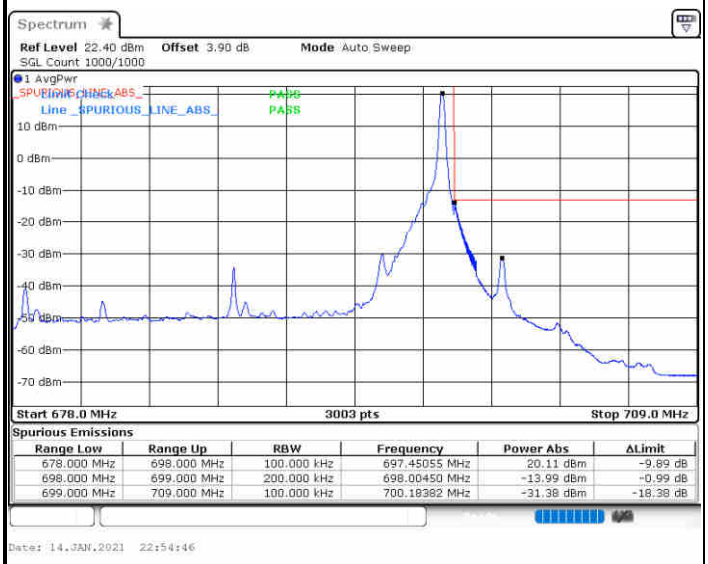
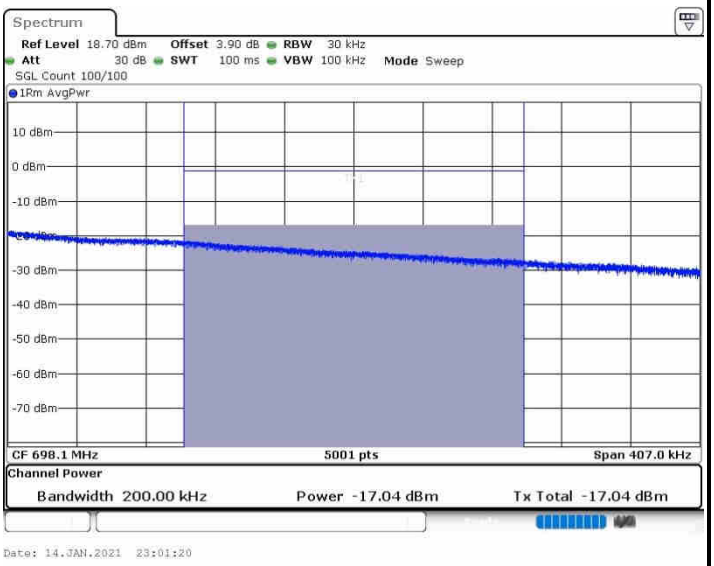
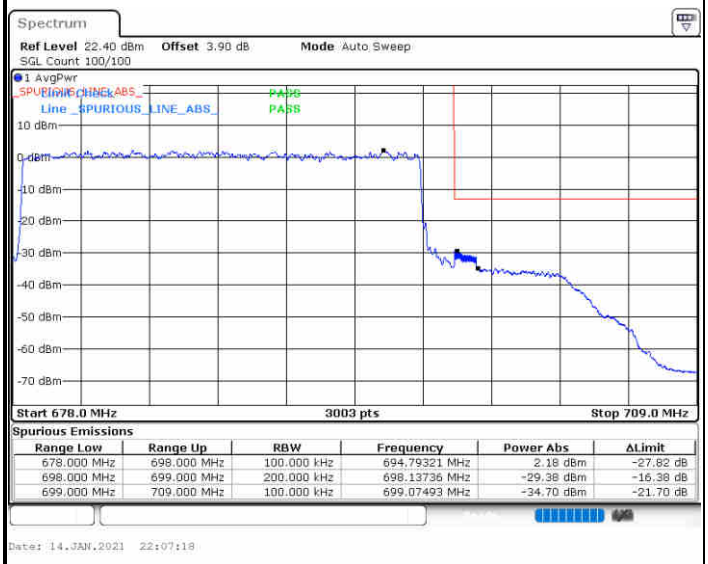
FR1 n71 / 10MHz / DFT-S OFDM QPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

FR1 n71 / 10MHz / DFT-S OFDM QPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	/
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

FR1 n71 / 20MHz / DFT-S OFDM BPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

FR1 n71 / 20MHz / DFT-S OFDM BPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

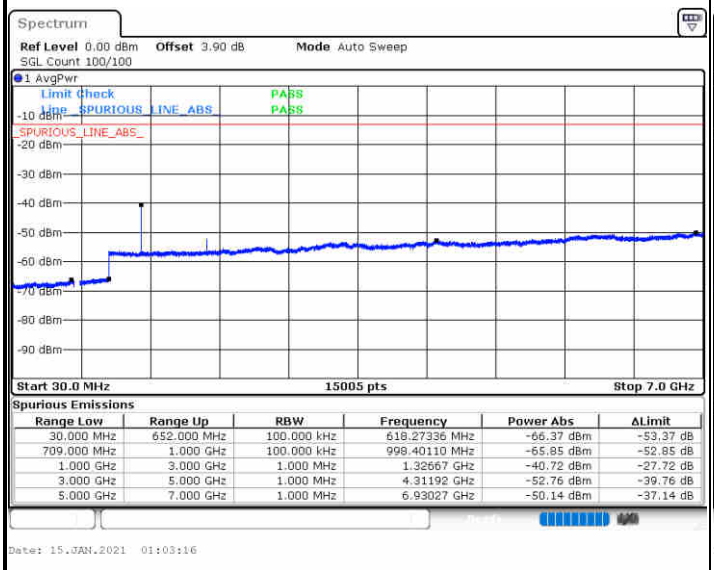
FR1 n71 / 20MHz / DFT-S OFDM QPSK	
Lowest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	
Lowest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

FR1 n71 / 20MHz / DFT-S OFDM QPSK	
Highest Band Edge / 1 RB	**Channel Power < -13dBm Pass**
	
Highest Band Edge / Full RB	**Channel Power < -13dBm Pass**
	/

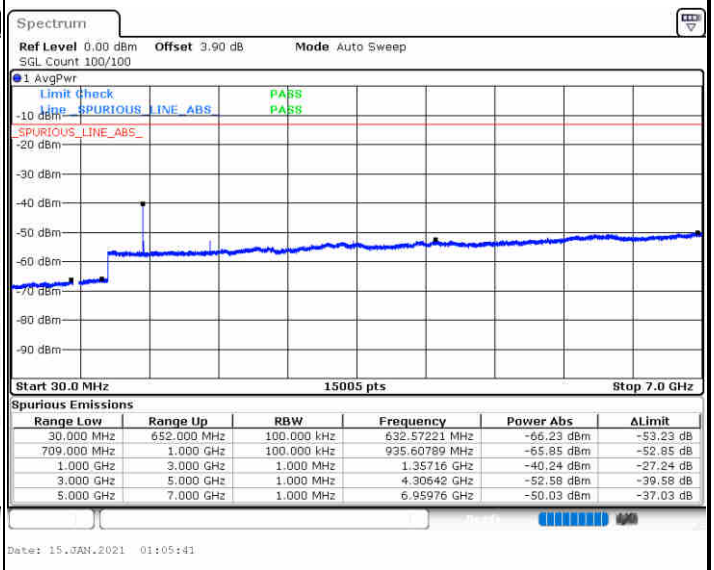
Conducted Spurious Emission

FR1 n71 / 5MHz / DFT-S OFDM / BPSK

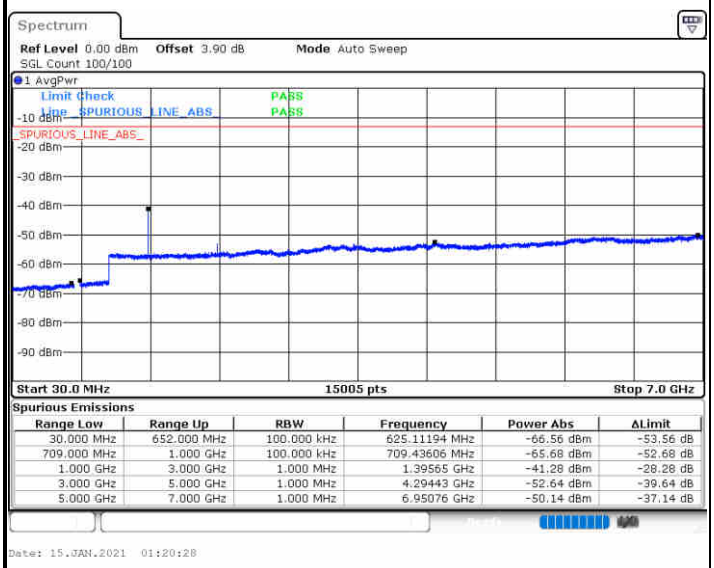
Lowest Channel / 1RB

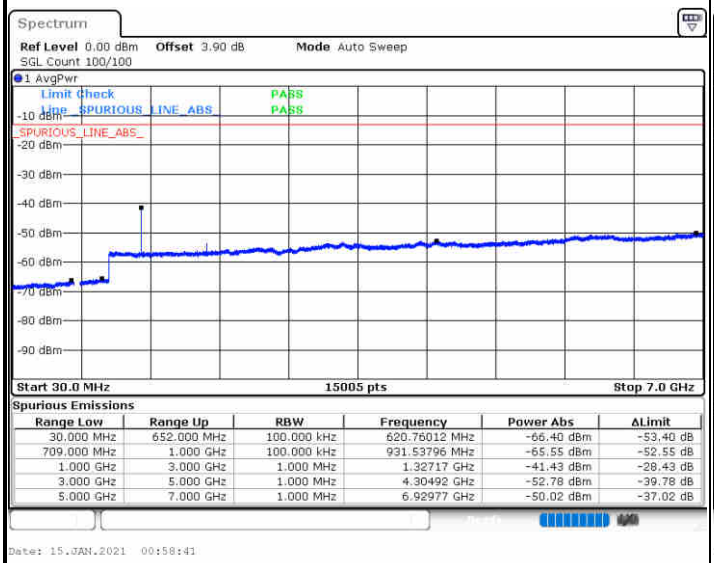
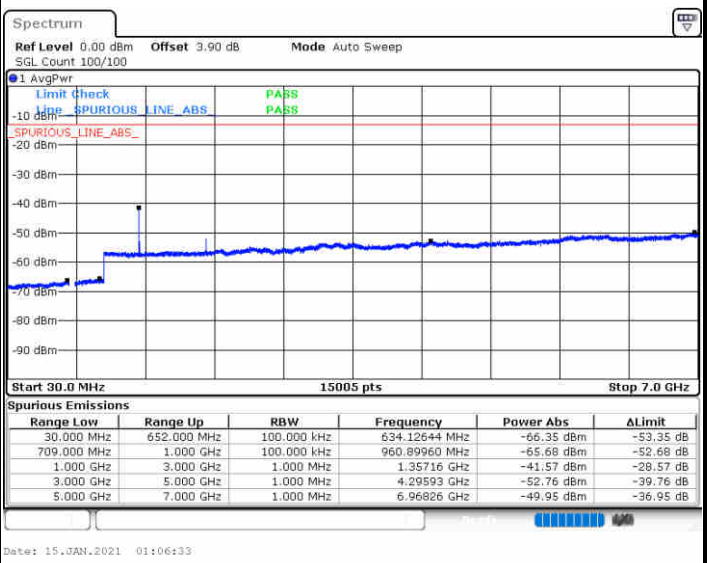
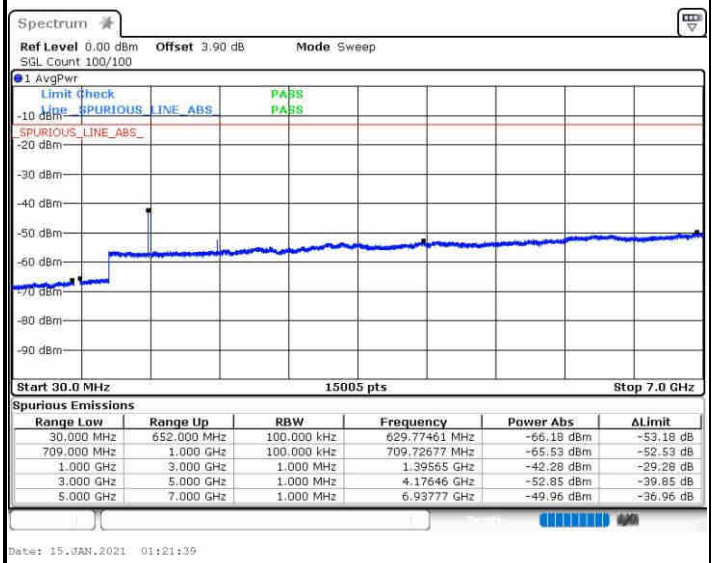


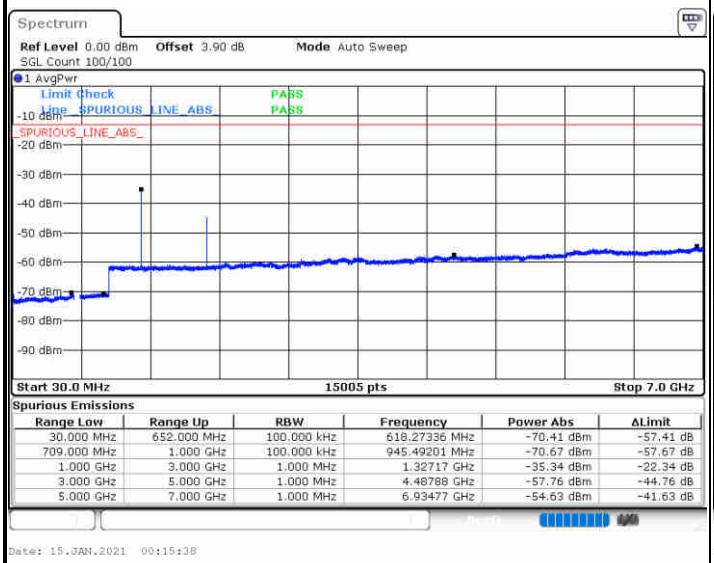
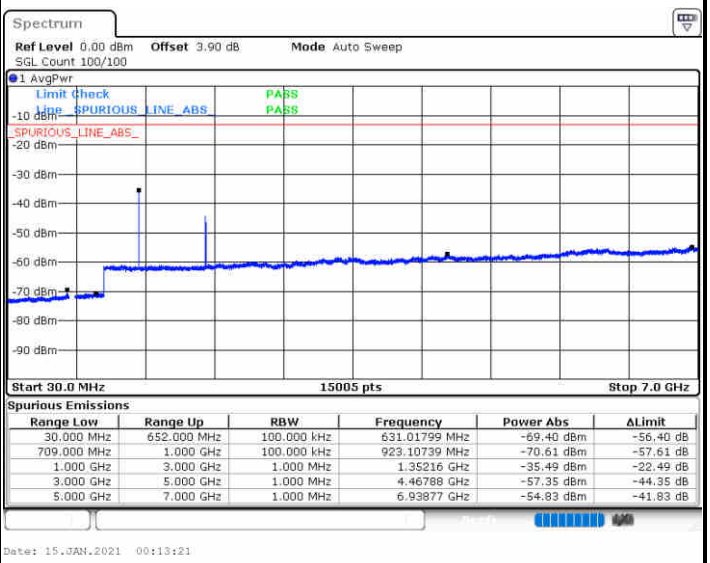
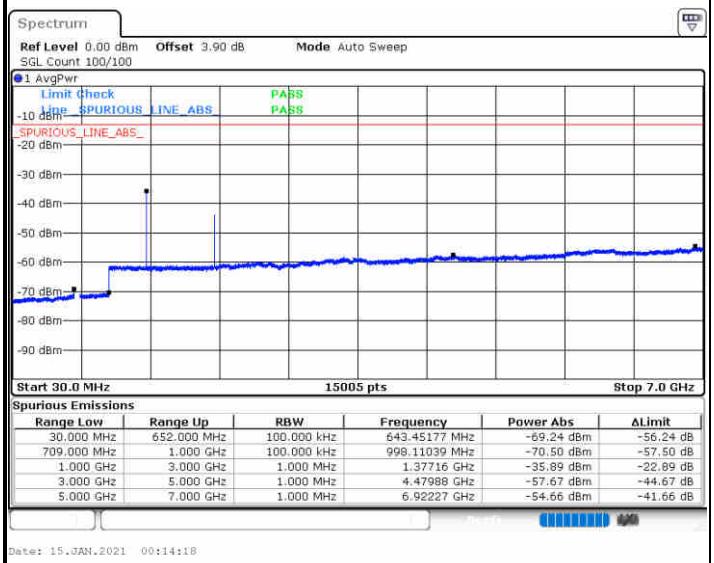
Middle Channel / 1RB

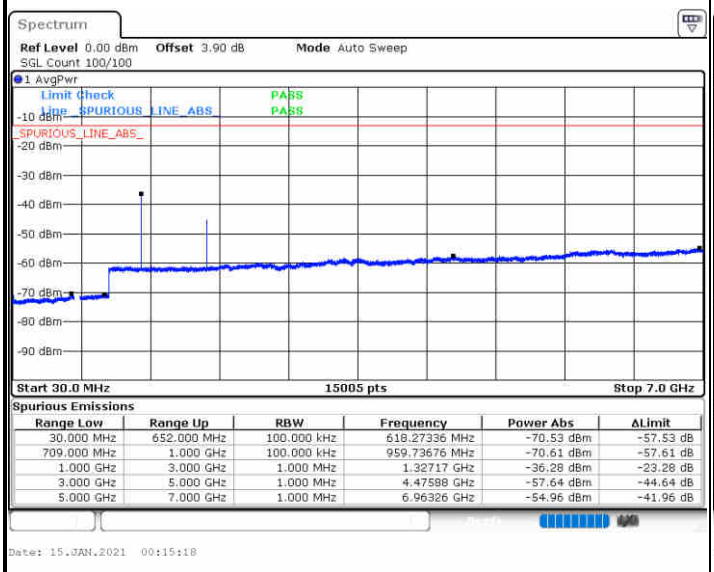
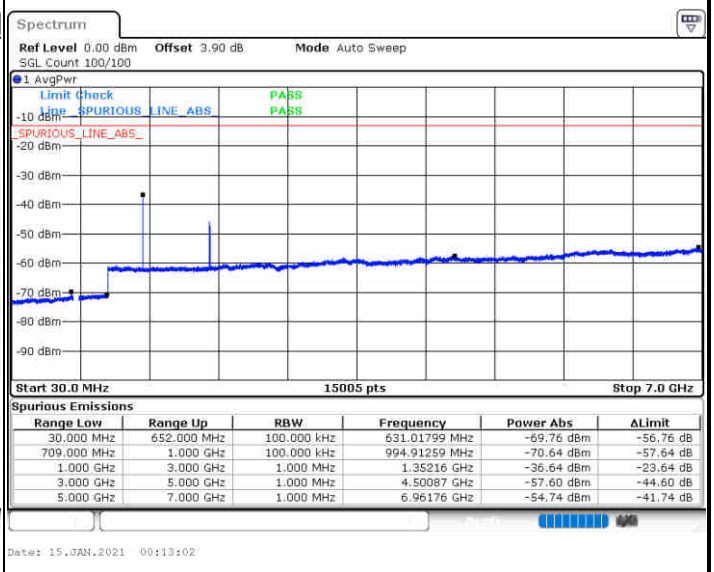
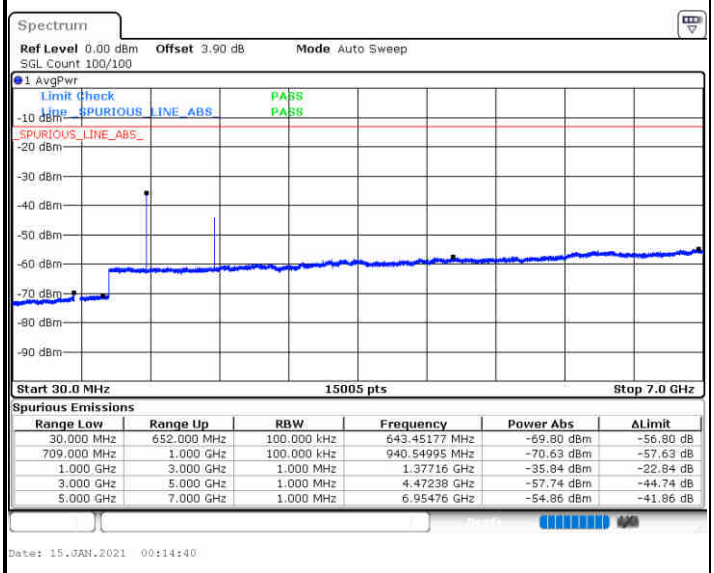


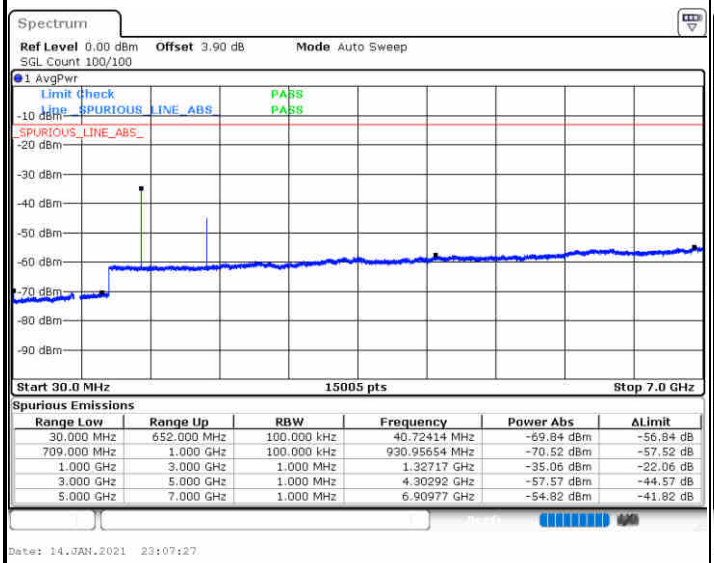
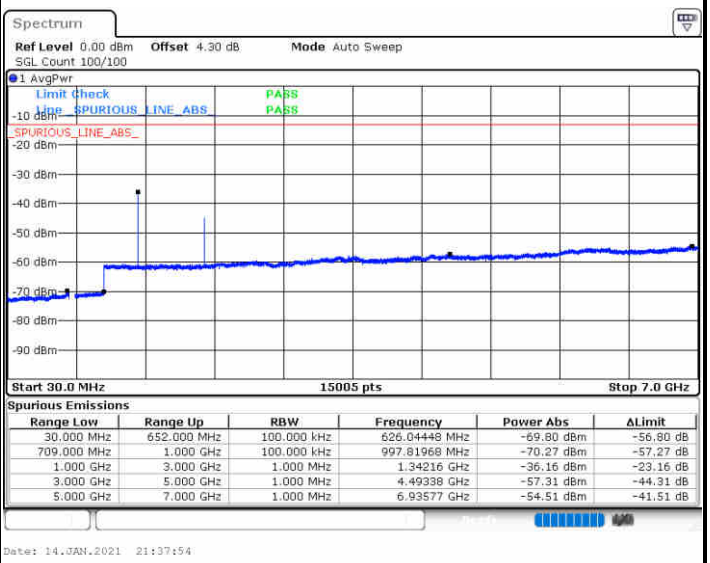
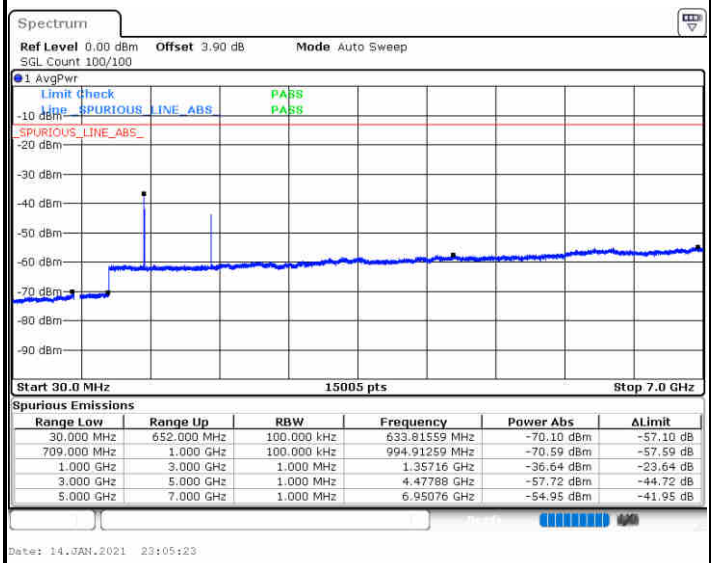
Highest Channel / 1RB

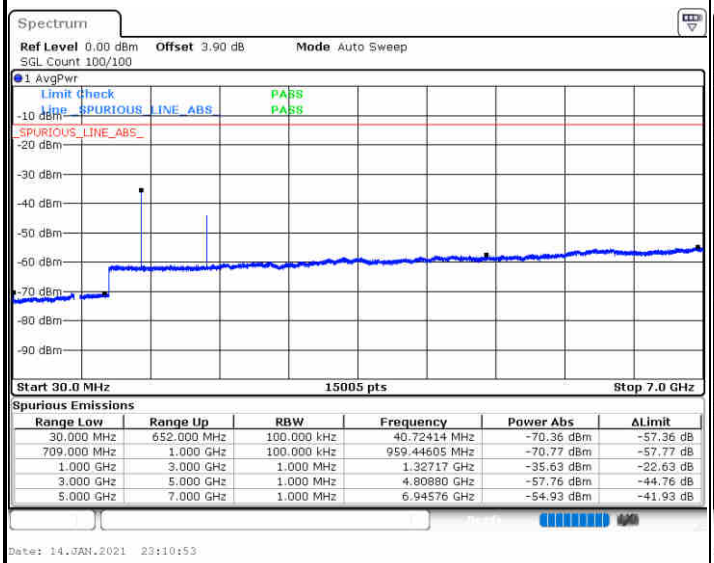
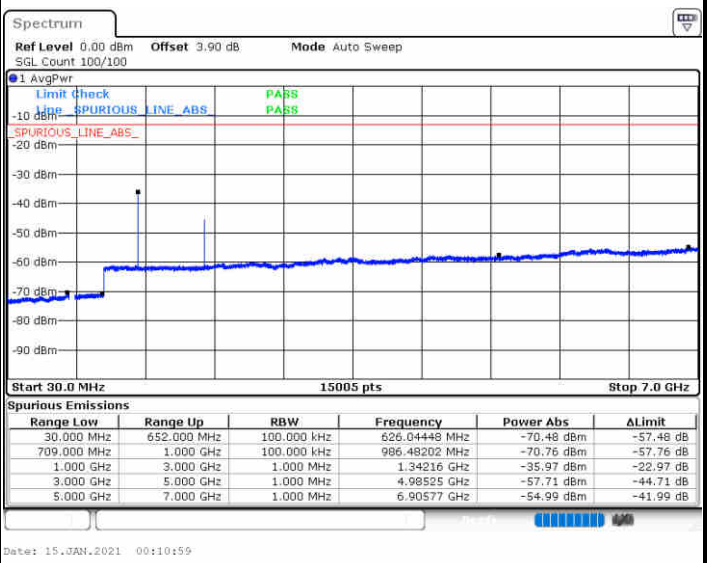
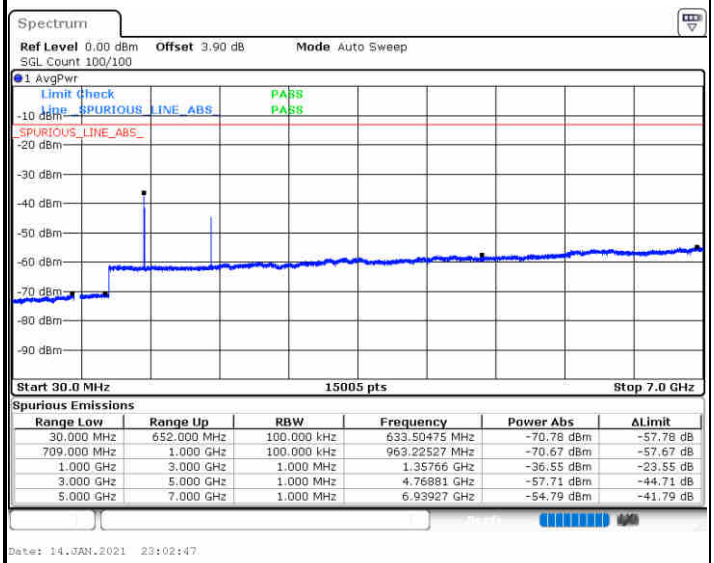


FR1 n71 / 5MHz / DFT-S OFDM / QPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	
Highest Channel / 1RB	
	

FR1 n71 / 10MHz / DFT-S OFDM / BPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	
Highest Channel / 1RB	
	

FR1 n71 / 10MHz / DFT-S OFDM / QPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	
Highest Channel / 1RB	
	

FR1 n71 / 20MHz / DFT-S OFDM / BPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	
Highest Channel / 1RB	
	

FR1 n71 / 20MHz / DFT-S OFDM / QPSK	
Lowest Channel / 1RB	**Middle Channel / 1RB**
	
Highest Channel / 1RB	
	

Frequency Stability

Test Conditions		NR n71 (BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Within Band
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0013	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0019	
20	Normal Voltage	0.0021	
20	Battery End Point	0.0011	

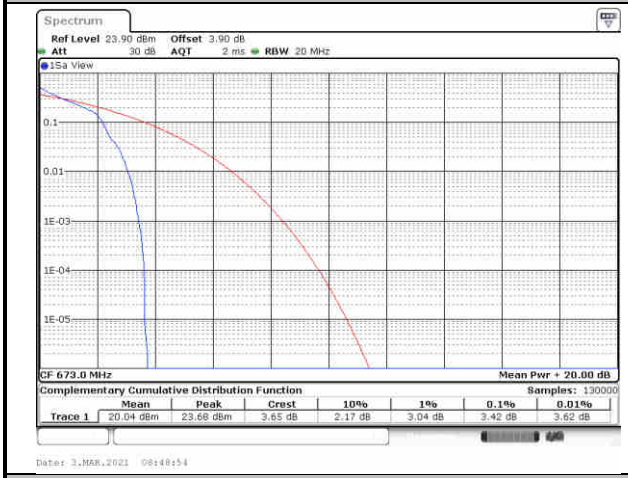
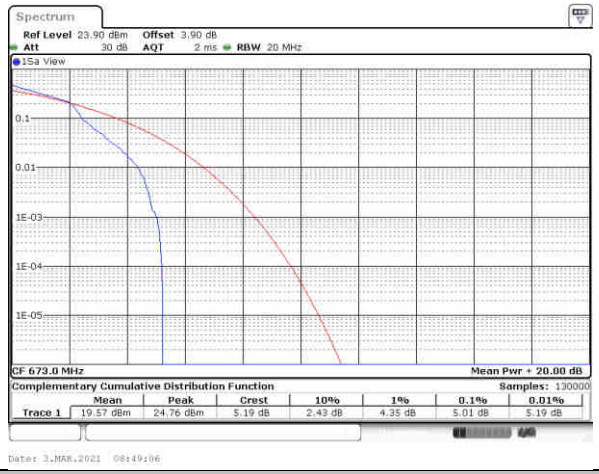
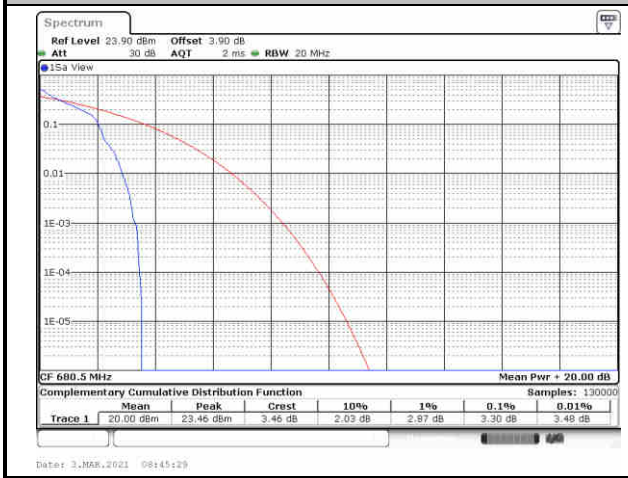
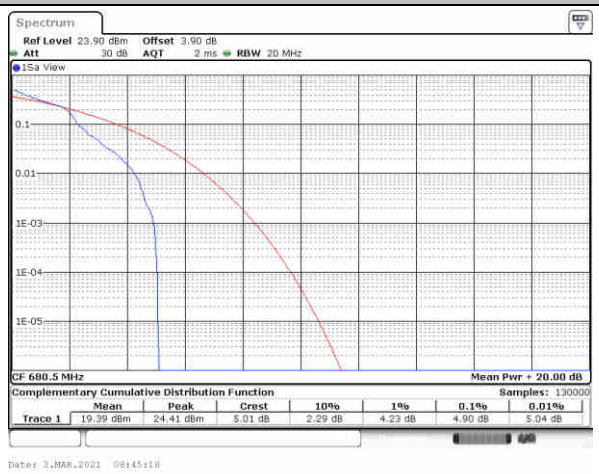
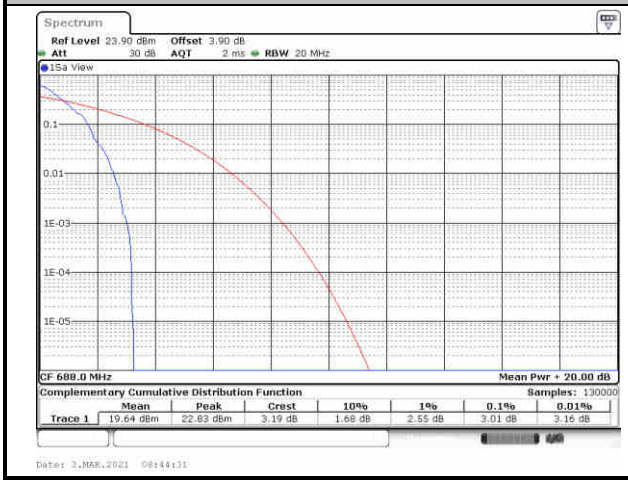
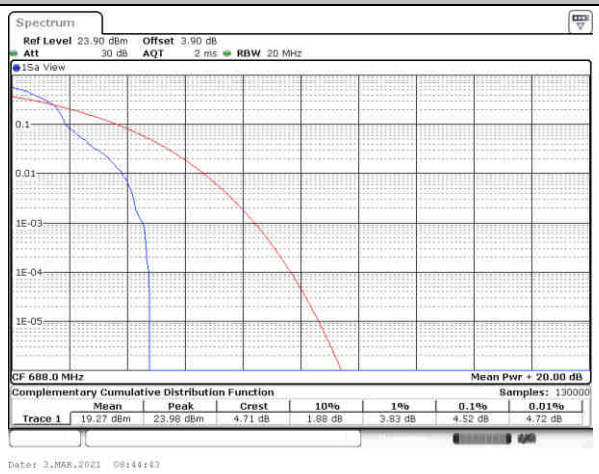
Note:

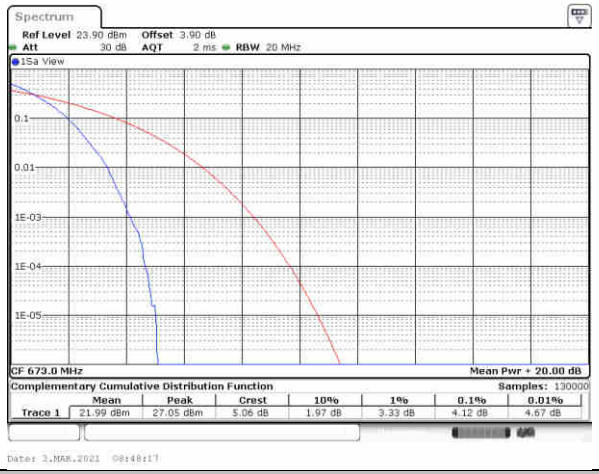
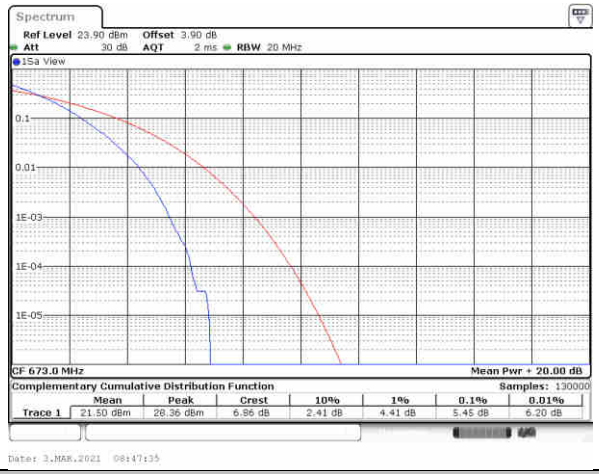
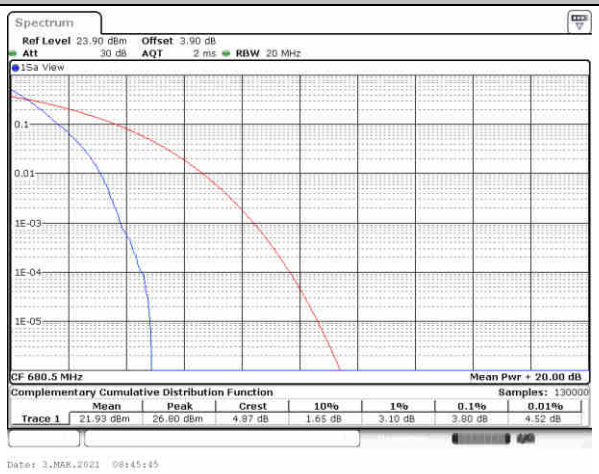
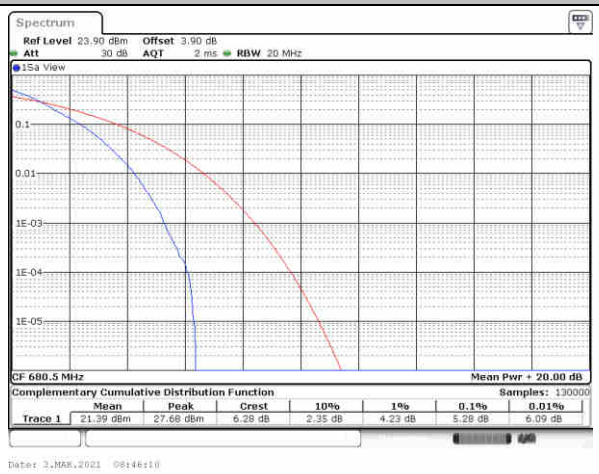
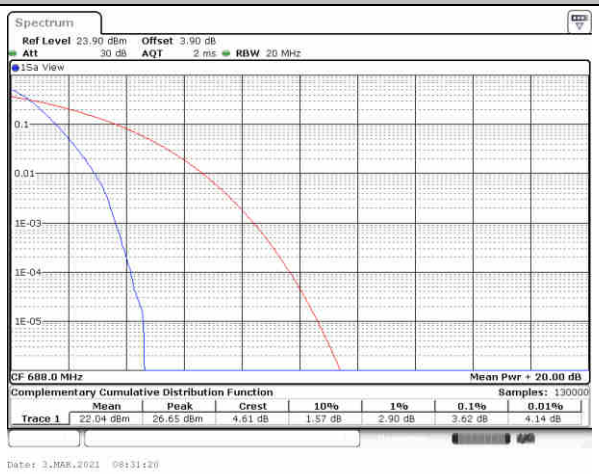
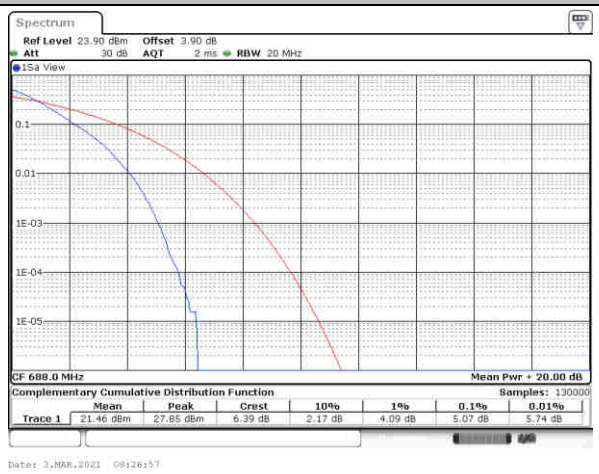
1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.14 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

5G NR n71 NSA

Peak-to-Average Ratio

Mode	FR1 n71 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	PI/2 BPSK	QPSK	QPSK	Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.42	4.12	5.01	5.45	PASS
Middle CH	3.30	3.80	4.90	5.28	
Highest CH	3.01	3.62	4.52	5.07	

FR1 n71 / 20MHz / DFT-S OFDM	
PI/2 BPSK	**QPSK**
Lowest Channel / 1RB	**Lowest Channel / 1RB**
	
Middle Channel / 1 RB	**Middle Channel / 1 RB**
	
Highest Channel / 1 RB	**Highest Channel / 1 RB**
	

FR1 n71 / 20MHz / DFT-S OFDM	
PI/2 BPSK	**QPSK**
Lowest Channel / Full RB	**Lowest Channel / Full RB**
	
Middle Channel / Full RB	**Middle Channel / Full RB**
	
Highest Channel / Full RB	**Highest Channel / Full RB**
	

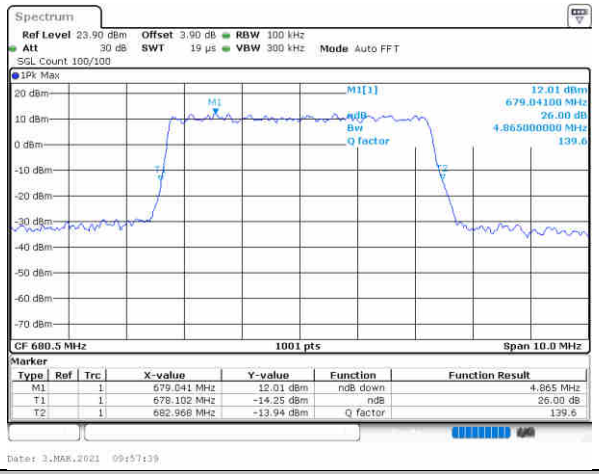
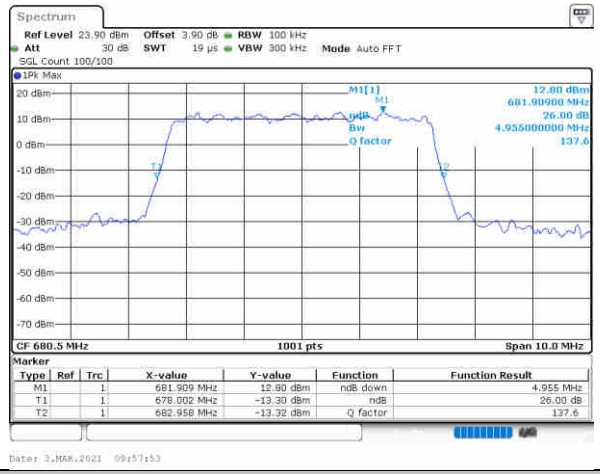
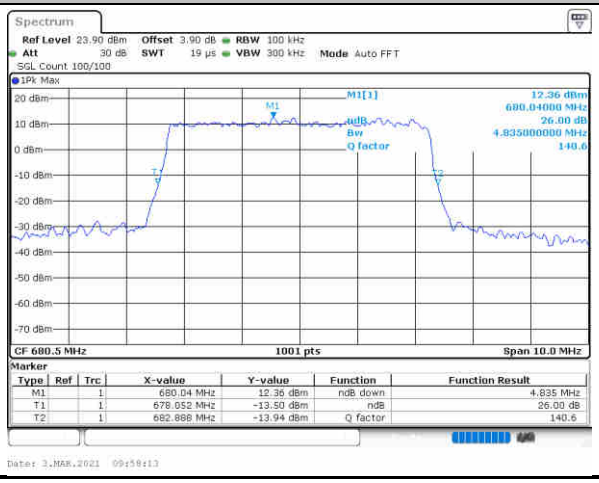
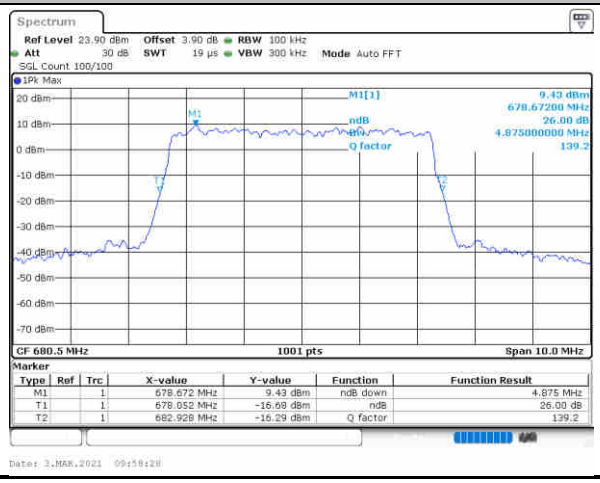
26dB Bandwidth

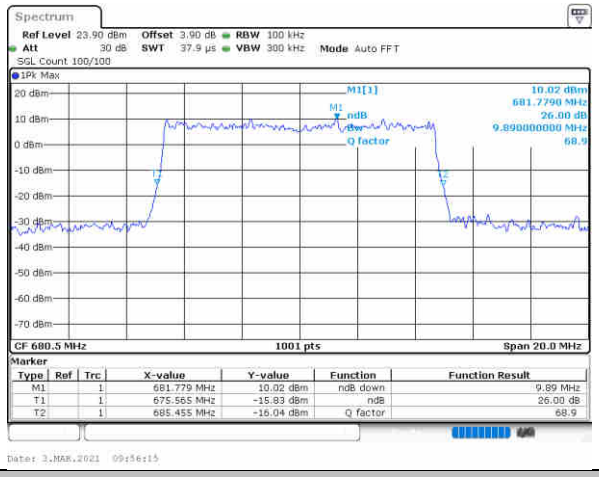
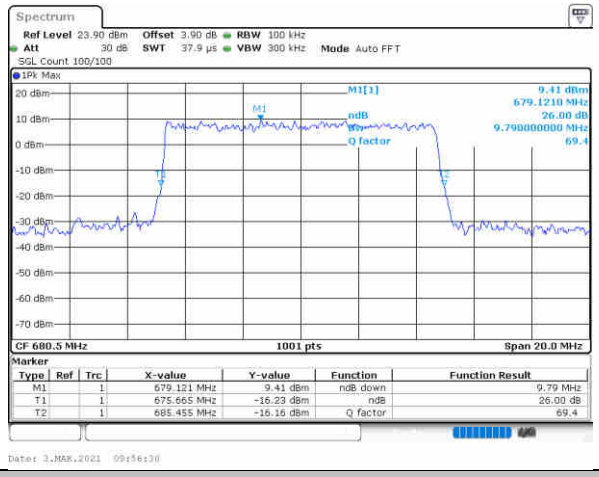
Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	5MHz	5MHz	5MHz	5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	4.87	4.96	4.83	4.88				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	10MHz	10MHz	10MHz	10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	9.89	9.79	9.77	9.67				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	15MHz	15MHz	15MHz	15MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	14.87	14.98	15.07	15.02				

Mode	FR1 n71 : 26dB BW(MHz) / CP-OFDM							
BW	20MHz	20MHz	20MHz	20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM				
Middle CH	19.82	19.94	19.94	19.86				

FR1 n71 / 5MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**
	

FR1 n71 / 10MHz / CP-OFDM	
QPSK	**16QAM**
Middle Channel	**Middle Channel**
	
64QAM	**256QAM**
Middle Channel	**Middle Channel**