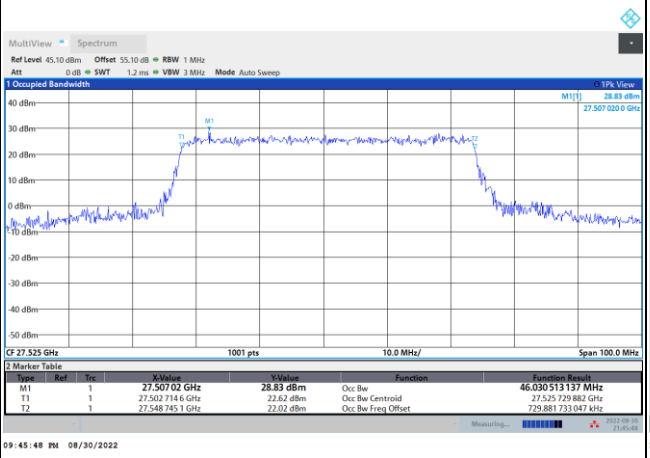
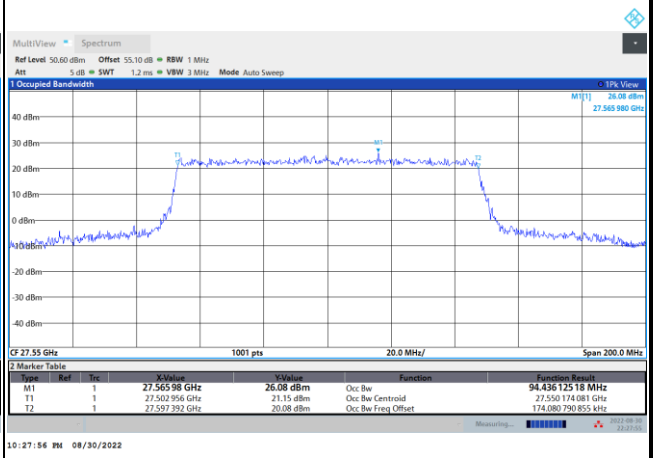
CP-OFDM Module A

NR Band n261

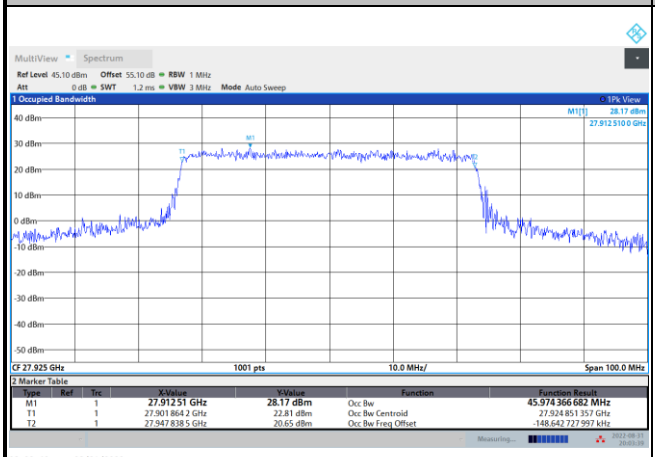
Lowest Channel / 50MHz / QPSK



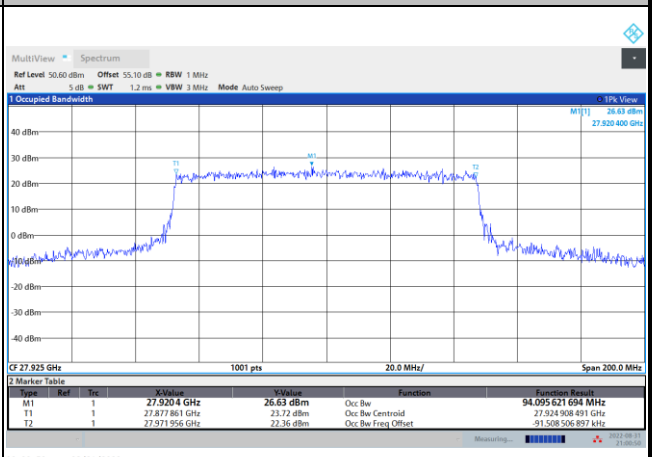
Lowest Channel / 100MHz / QPSK



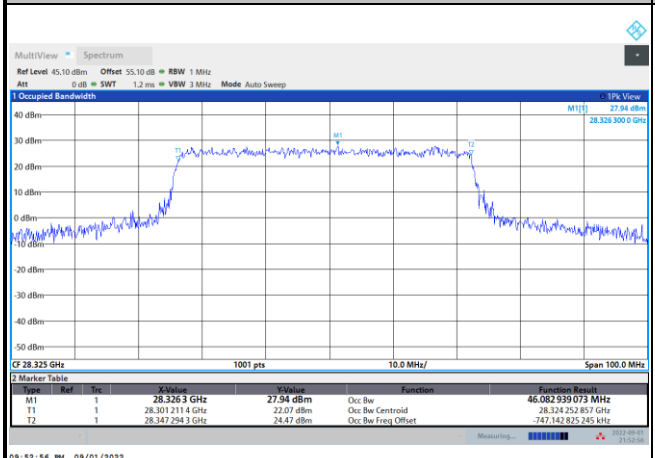
Middle Channel / 50MHz / QPSK



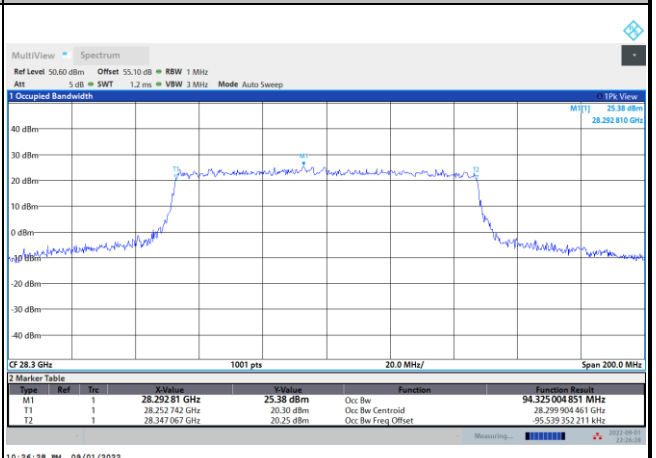
Middle Channel / 100MHz / QPSK



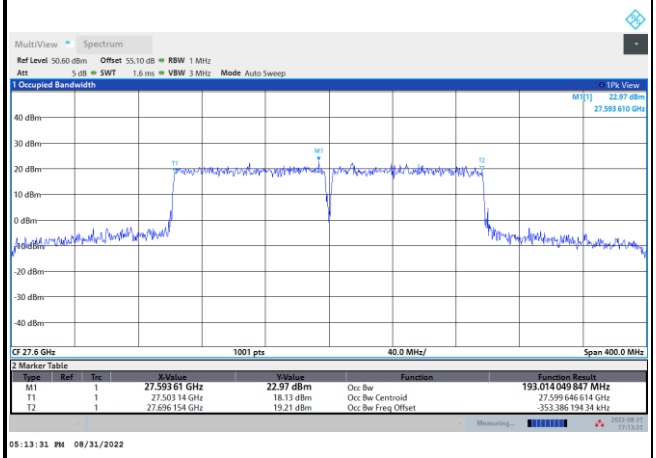
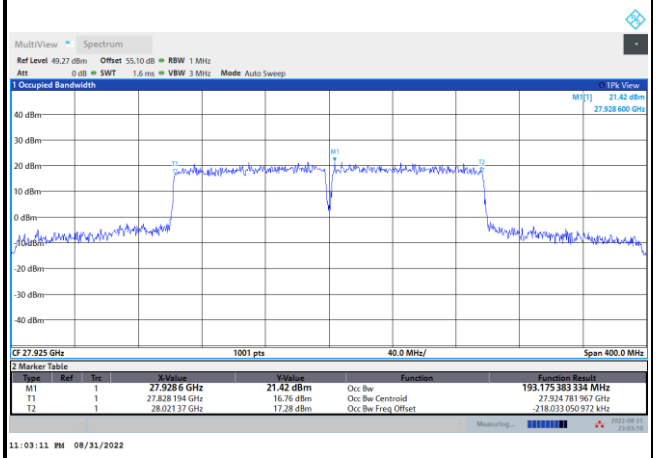
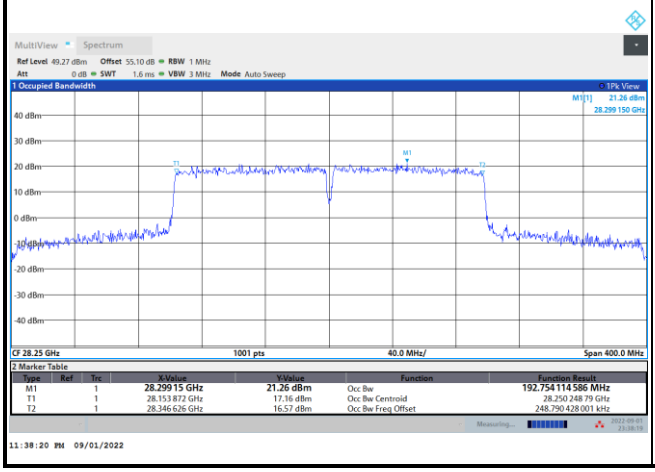
Highest Channel / 50MHz / QPSK



Highest Channel / 100MHz / QPSK



CP-OFDM Module A

NR Band n261	
Lowest Channel / 200MHz / QPSK	
	**intentionally blank**
Middle Channel / 200MHz / QPSK	
	**intentionally blank**
Highest Channel / 200MHz / QPSK	
	**intentionally blank**

Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module A NR Band n261 : BE (dBm) 1 RB								
BW			50MHz			100MHz			200MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-5.13	-5.64	-6.12	-5.14	-6.12	-7.84	-13.25	-10.11	-12.89
	>10%OB	≦-13	-20.77	-23.73	-25.65	-22.18	-25.76	-23.05	-14.73	-14.35	-15.42
High CH	0~10%OB	≦-5	-5.58	-5.74	-11.76	-5.77	-6.29	-10.49	-15.67	-15.61	-16.59
	>10%OB	≦-13	-16.58	-19.01	-18.62	-25.32	-25.41	-25.19	-18.62	-22.26	-23.33
Result			Compliance								

Mode			CP-OFDM Module A NR Band n261 : BE (dBm) 1 RB		
BW			50MHz	100MHz	200MHz
Limit (dBm)			QPSK	QPSK	QPSK
Low CH	0~10%OB	≦-5	-5.4	-5.86	-8.1
	>10%OB	≦-13	-21.71	-25.87	-13.67
High CH	0~10%OB	≦-5	-5.86	-6.26	-12.7
	>10%OB	≦-13	-19.72	-25.27	-18
Result			Compliance		

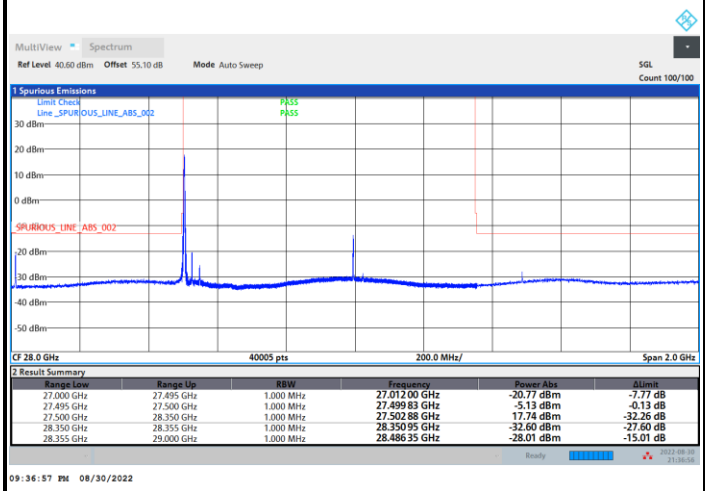
Mode			DFT-s-OFDM Module A NR Band n261 : BE (dBm) Full RB								
BW			50MHz			100MHz			200MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-11.89	-14.54	-15.61	-14.55	-15.32	-16.99	-20.7	-19.63	-22.21
	>10%OB	≦-13	-19.97	-22.67	-27.88	-21.89	-25.23	-25.44	-25.25	-25.29	-26.65
High CH	0~10%OB	≦-5	-11.69	-13.77	-18.45	-17.79	-21.77	-22.98	-24.33	-27.71	-27.89
	>10%OB	≦-13	-21.73	-23.85	-29.11	-22.61	-25.27	-25.25	-28.47	-29.53	-29.58
Result			Compliance								

Mode			CP-OFDM Module A NR Band n261 : BE (dBm) Full RB		
BW			50MHz	100MHz	200MHz
Limit (dBm)			QPSK	QPSK	QPSK
Low CH	0~10%OB	≦-5	-14.78	-16.18	-16.62
	>10%OB	≦-13	-19.08	-21.88	-19.54
High CH	0~10%OB	≦-5	-14.89	-16.07	-20.77
	>10%OB	≦-13	-21.58	-23.87	-23.33
Result			Compliance		

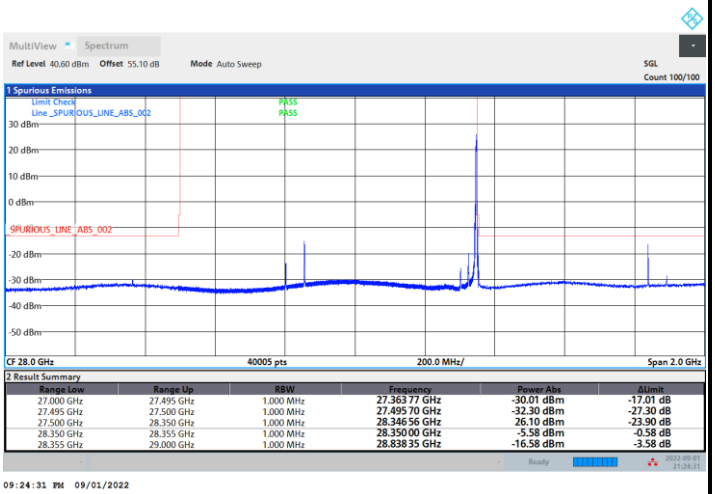
DFT-s-OFDM Module A

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / 1 RB

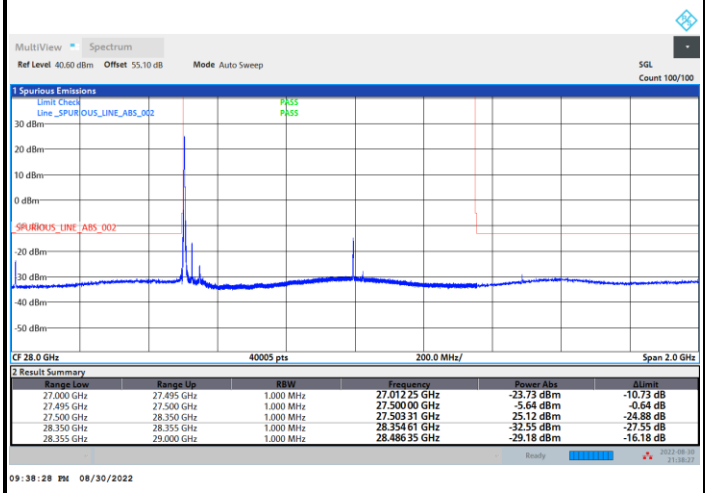


Highest Band Edge / 1 RB

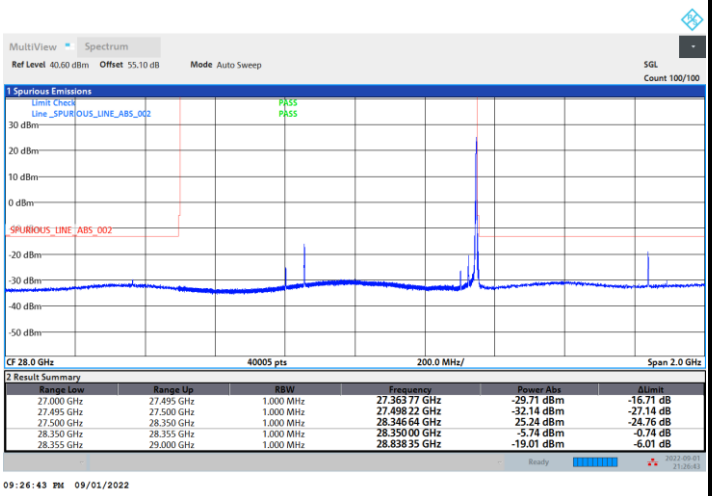


NR Band n261 / 50MHz / 16QAM

Lowest Band Edge / 1 RB



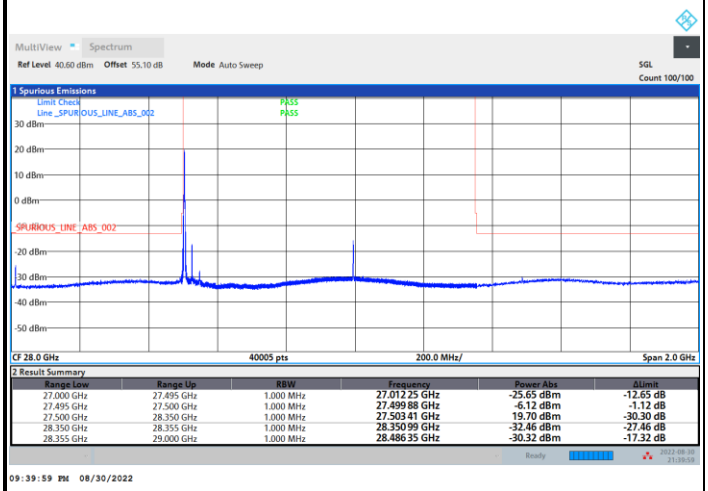
Highest Band Edge / 1 RB



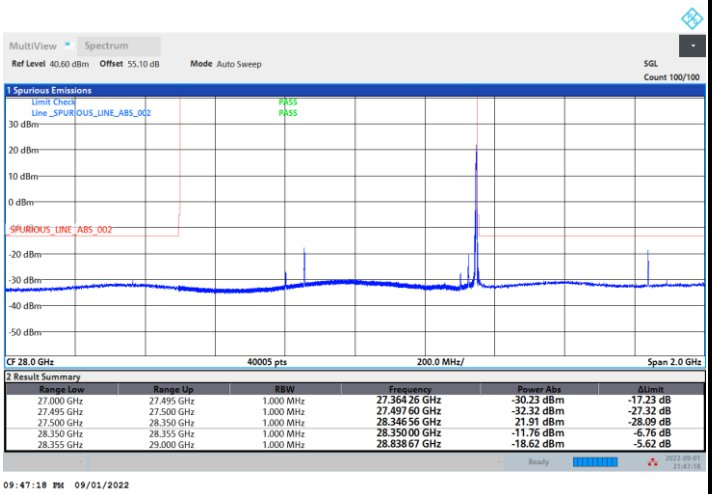
DFT-s-OFDM Module A

NR Band n261 / 50MHz / 64QAM

Lowest Band Edge / 1 RB

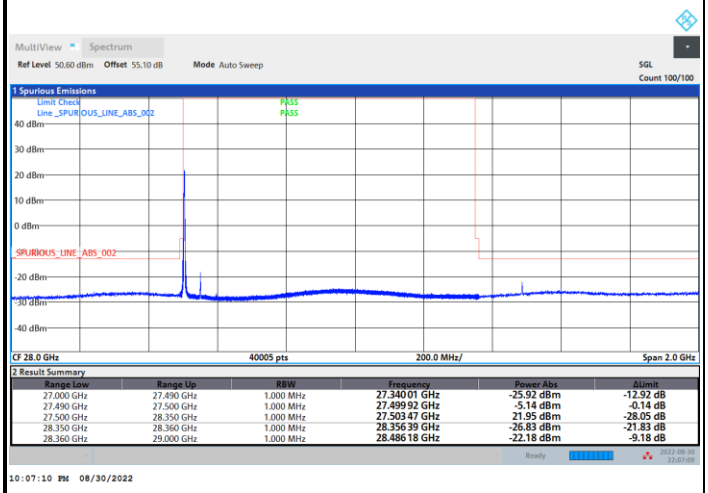


Highest Band Edge / 1 RB

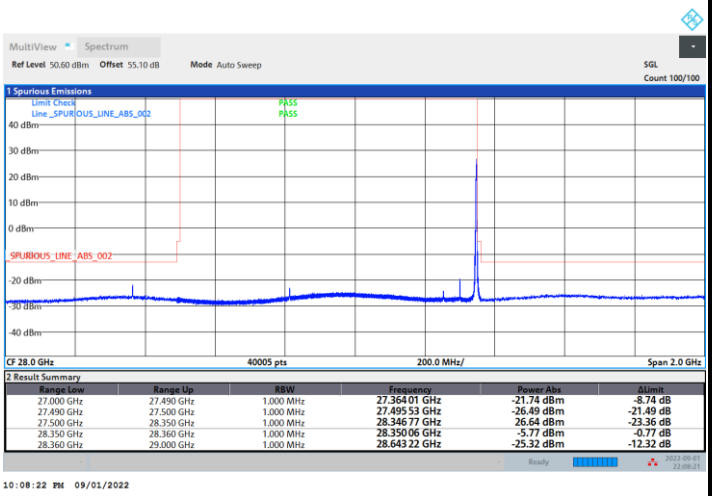


NR Band n261 / 100MHz / QPSK

Lowest Band Edge / 1 RB



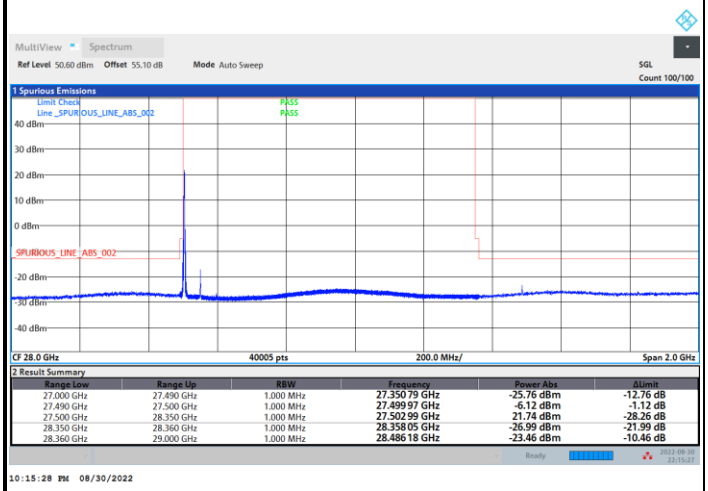
Highest Band Edge / 1 RB



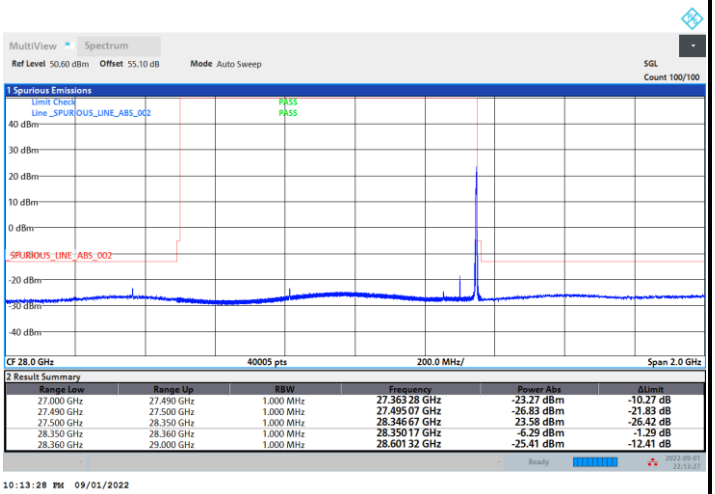
DFT-s-OFDM Module A

NR Band n261 / 100MHz / 16QAM

Lowest Band Edge / 1 RB

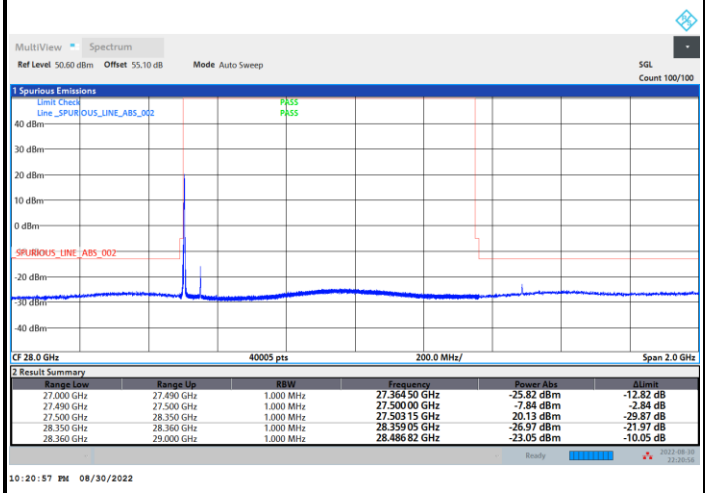


Highest Band Edge / 1 RB

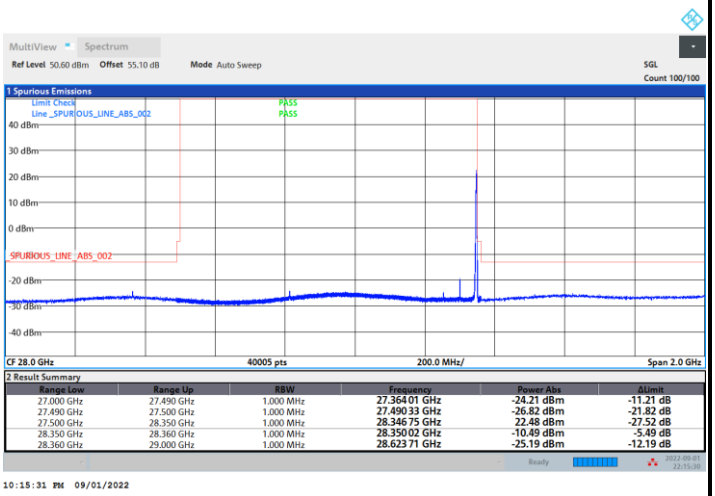


NR Band n261 / 100MHz / 64QAM

Lowest Band Edge / 1 RB



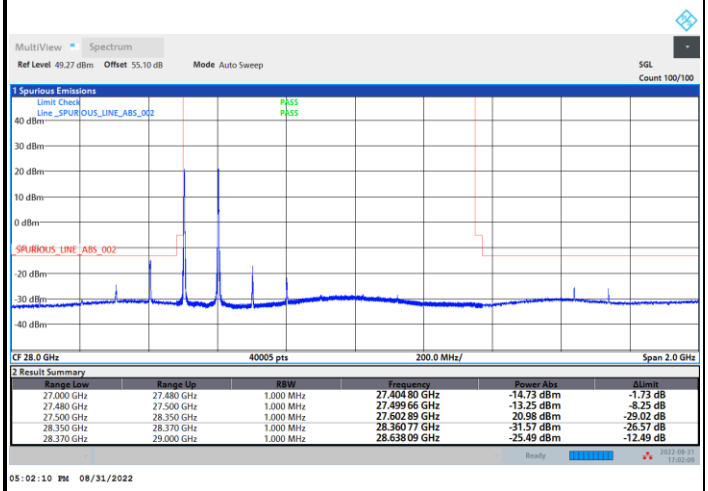
Highest Band Edge / 1 RB



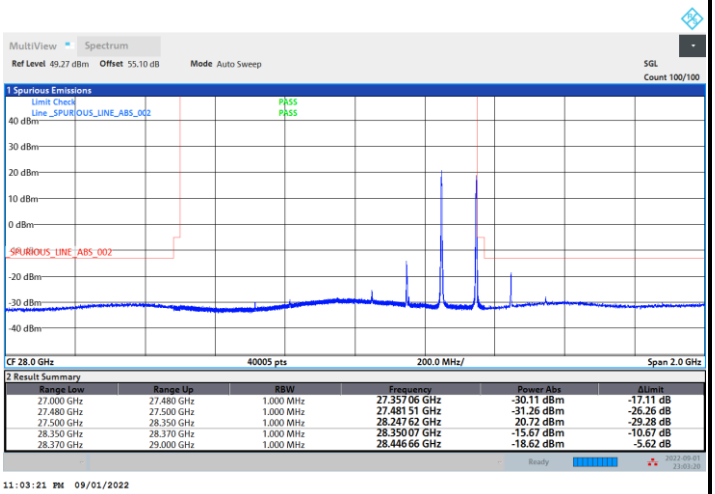
DFT-s-OFDM Module A

NR Band n261 / 200MHz / QPSK

Lowest Band Edge / 1 RB

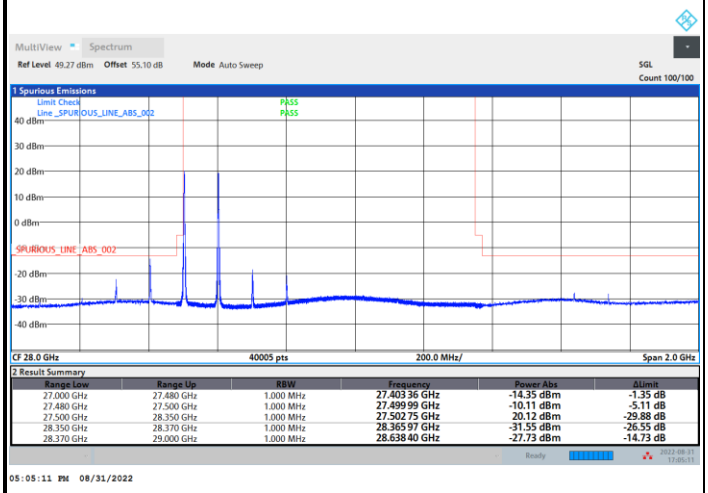


Highest Band Edge / 1 RB

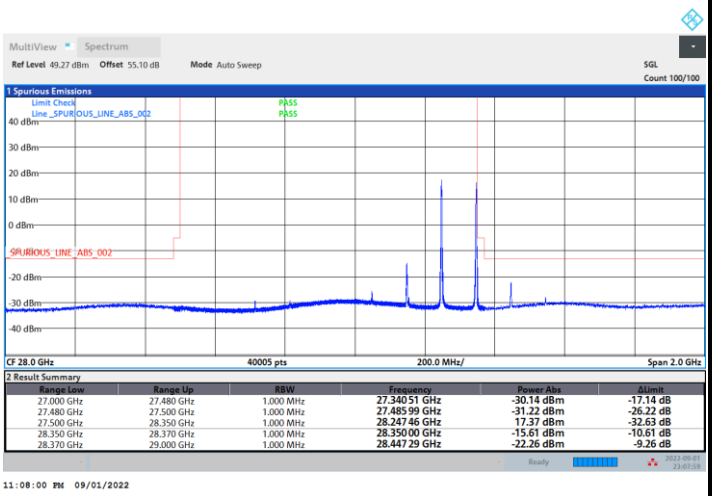


NR Band n261 / 200MHz / 16QAM

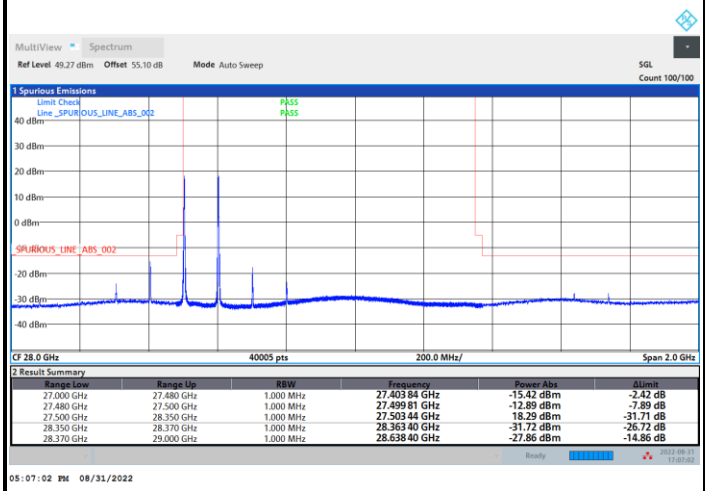
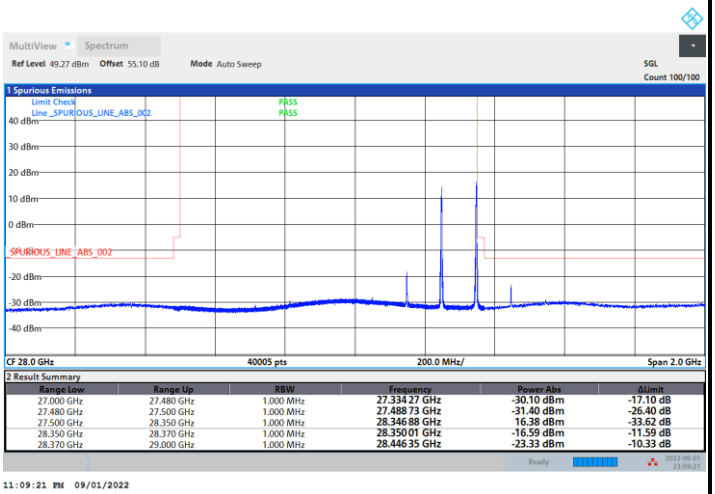
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



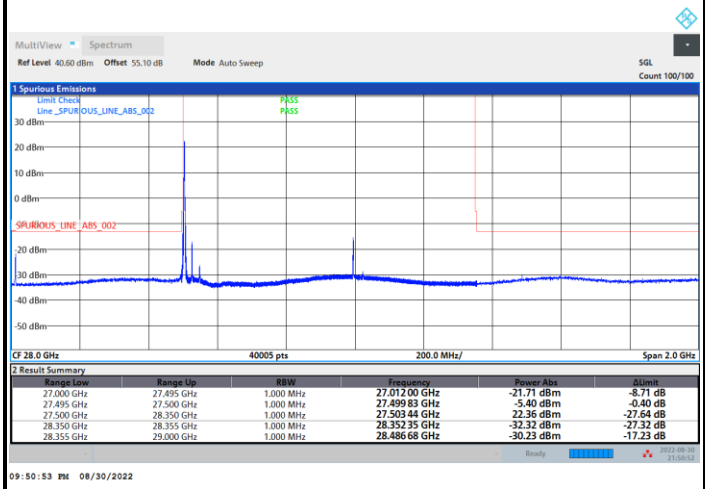
DFT-s-OFDM Module A

NR Band n261 / 200MHz / 64QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

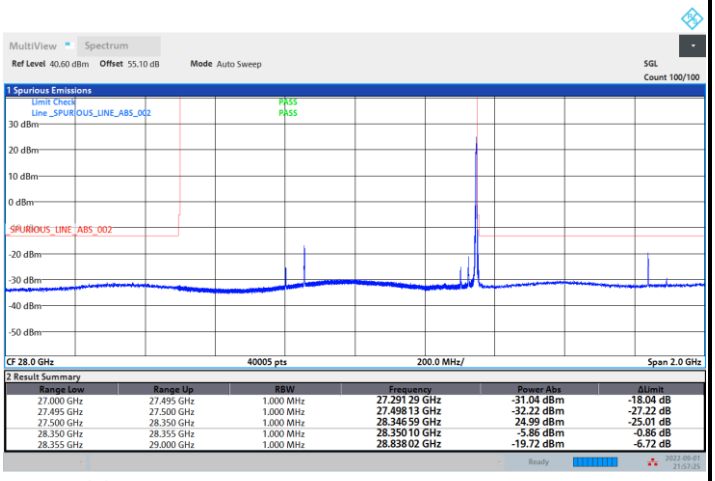
CP-OFDM Module A

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / 1 RB

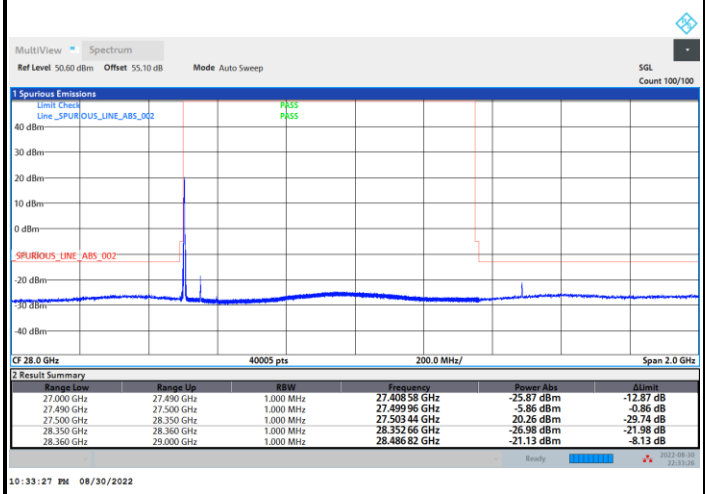


Highest Band Edge / 1 RB

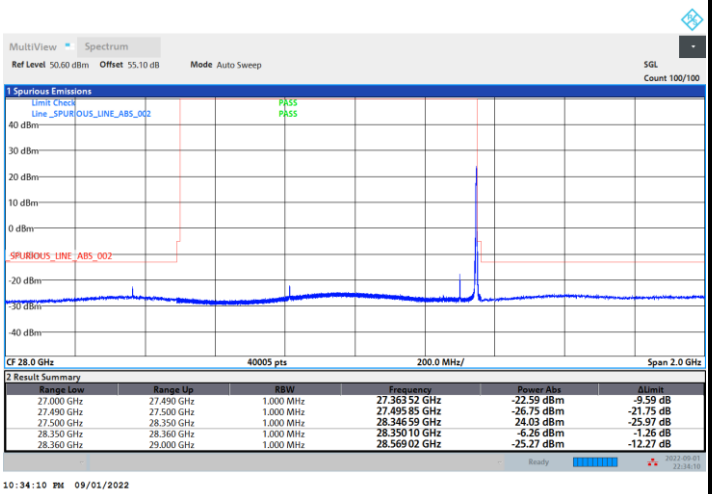


NR Band n261 / 100MHz / QPSK

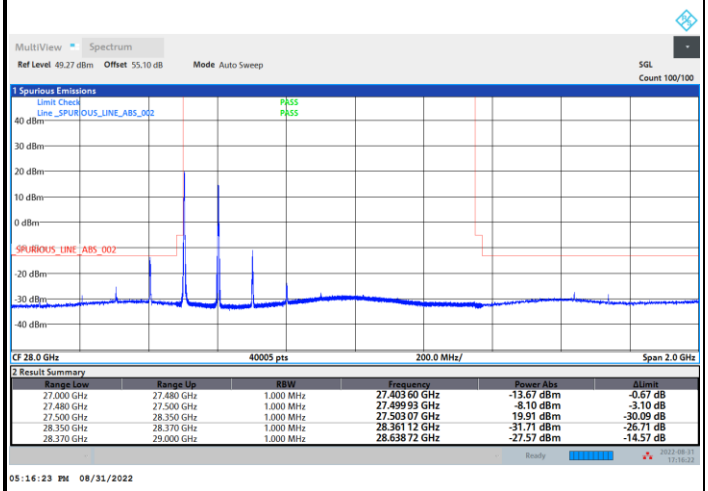
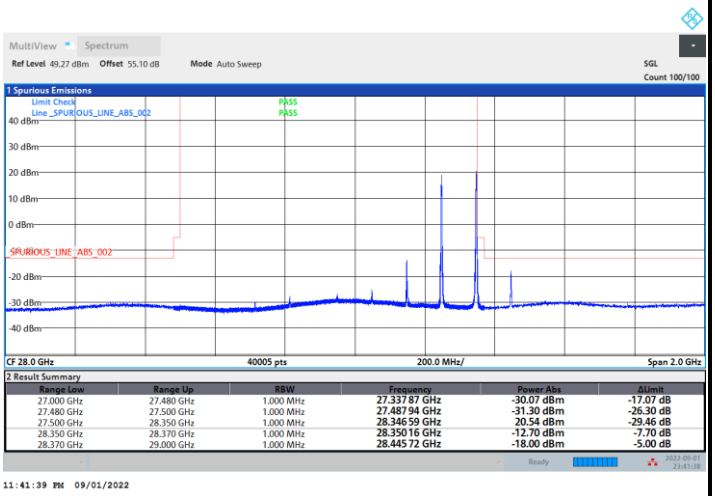
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



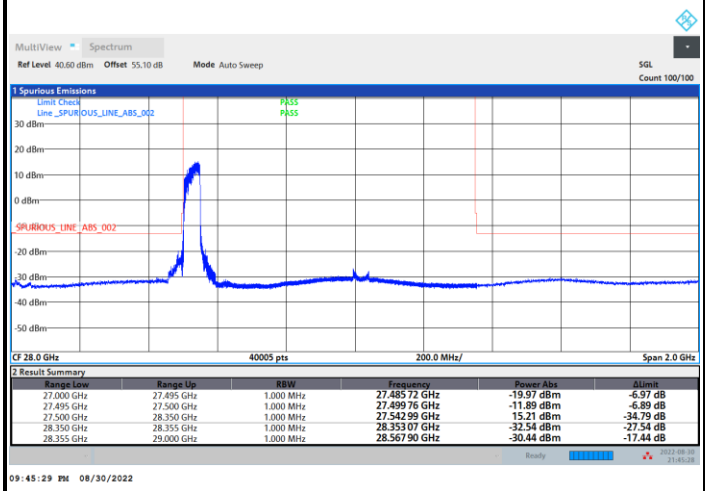
CP-OFDM Module A

NR Band n261 / 200MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

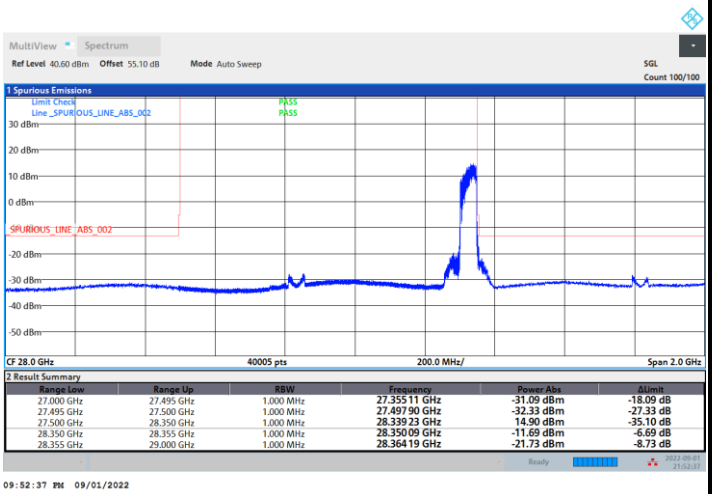
DFT-s-OFDM Module A

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / Full RB

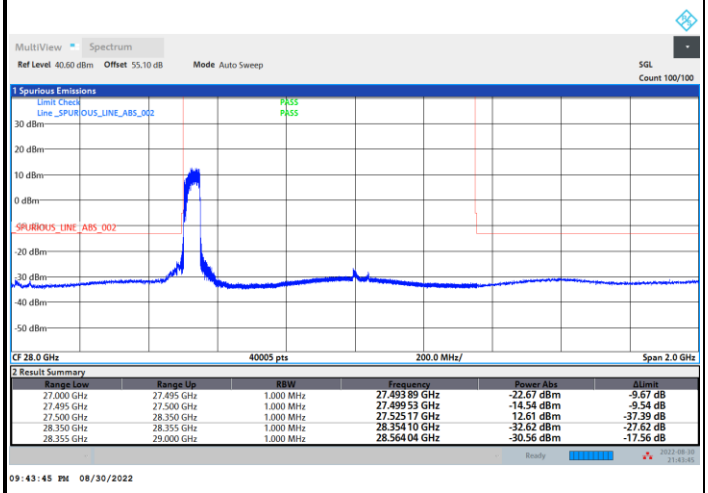


Highest Band Edge / Full RB

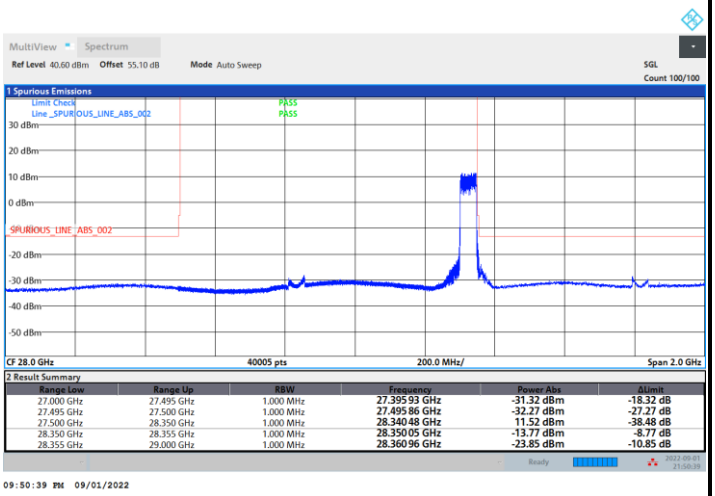


NR Band n261 / 50MHz / 16QAM

Lowest Band Edge / Full RB



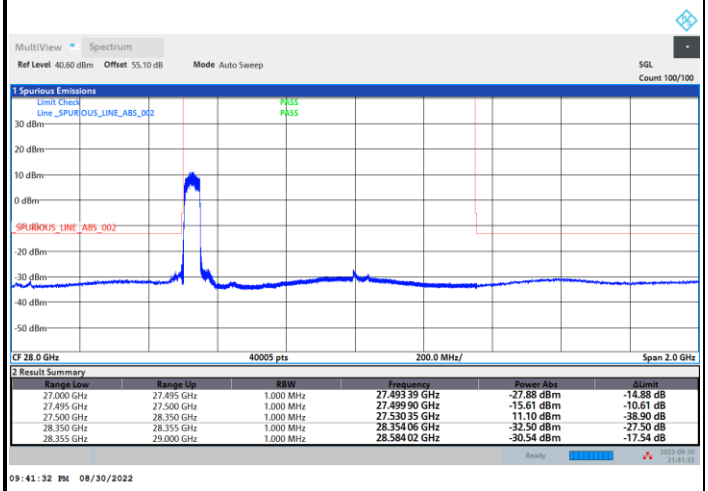
Highest Band Edge / Full RB



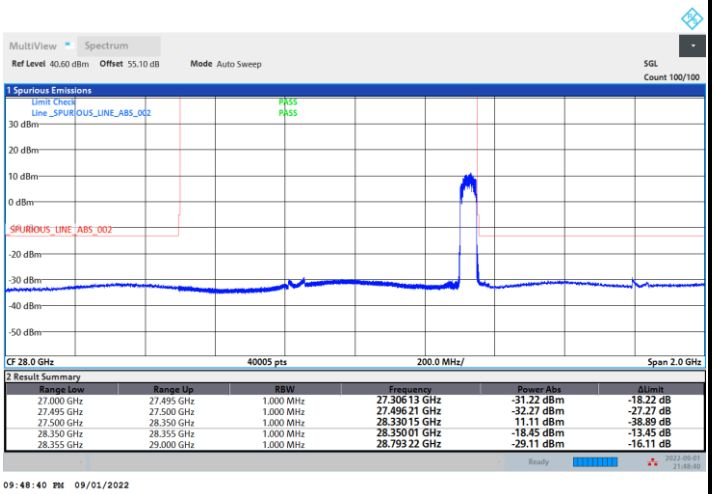
DFT-s-OFDM Module A

NR Band n261 / 50MHz / 64QAM

Lowest Band Edge / Full RB

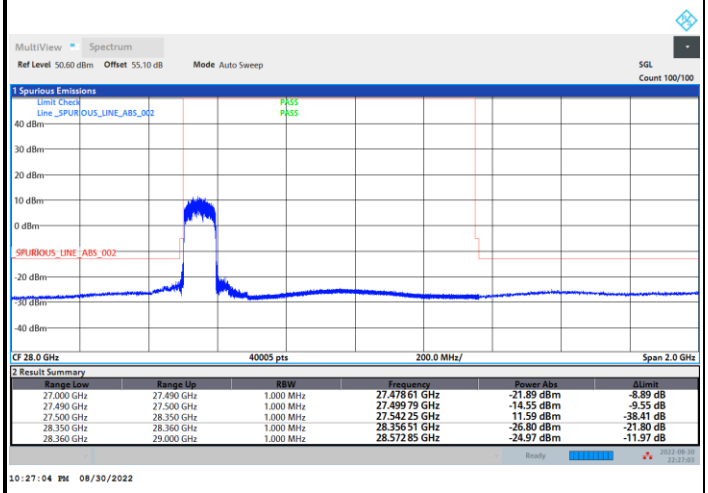


Highest Band Edge / Full RB

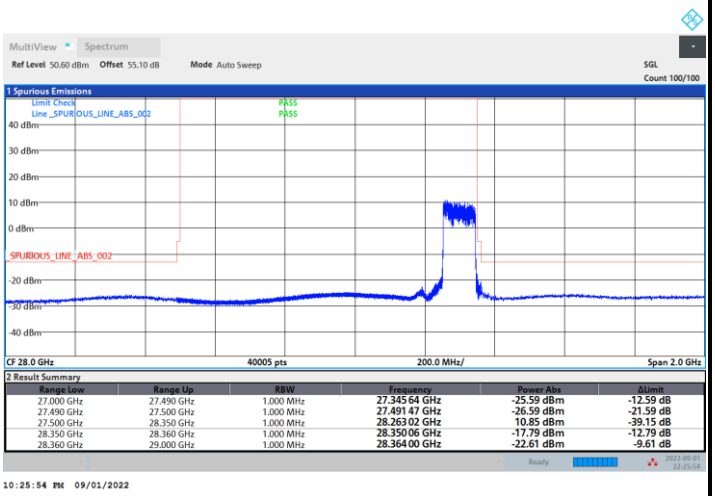


NR Band n261 / 100MHz / QPSK

Lowest Band Edge / Full RB



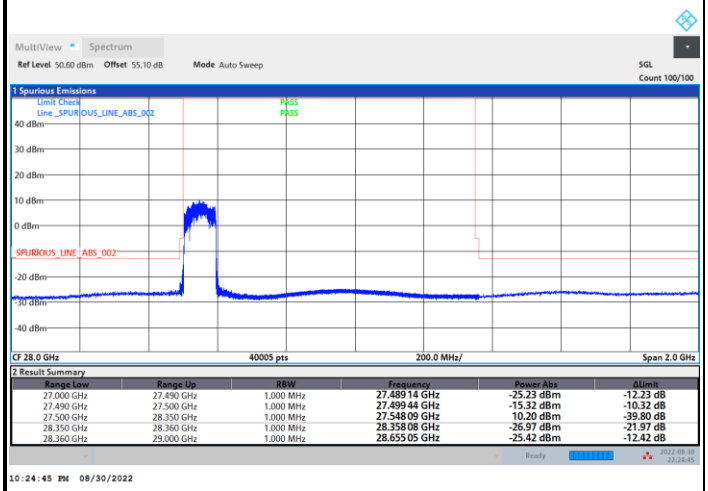
Highest Band Edge / Full RB



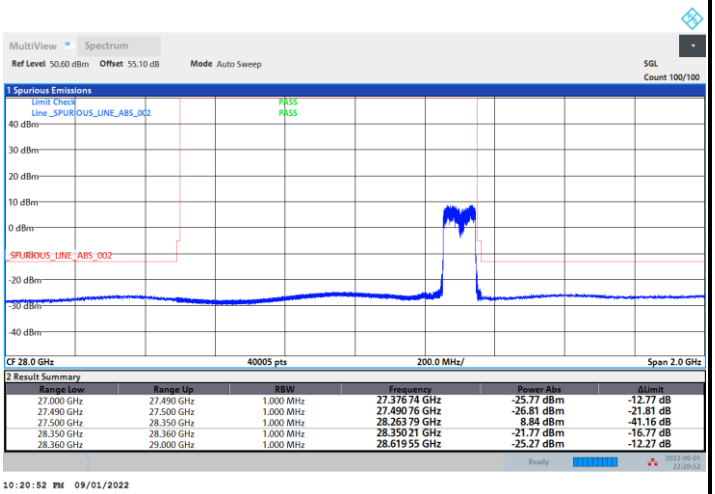
DFT-s-OFDM Module A

NR Band n261 / 100MHz / 16QAM

Lowest Band Edge / Full RB

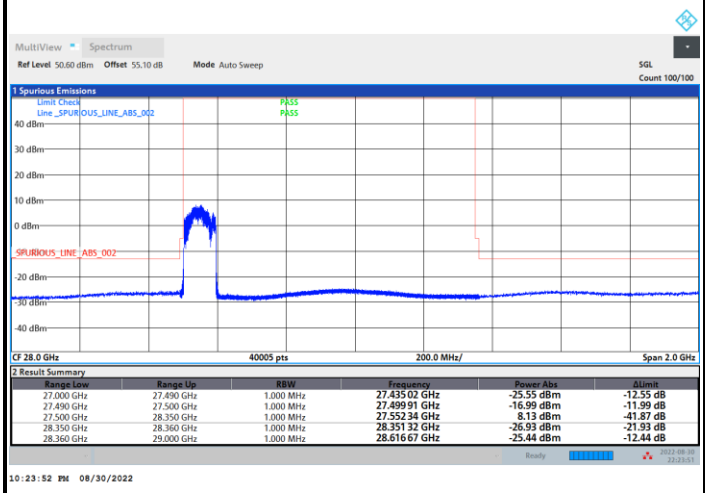


Highest Band Edge / Full RB

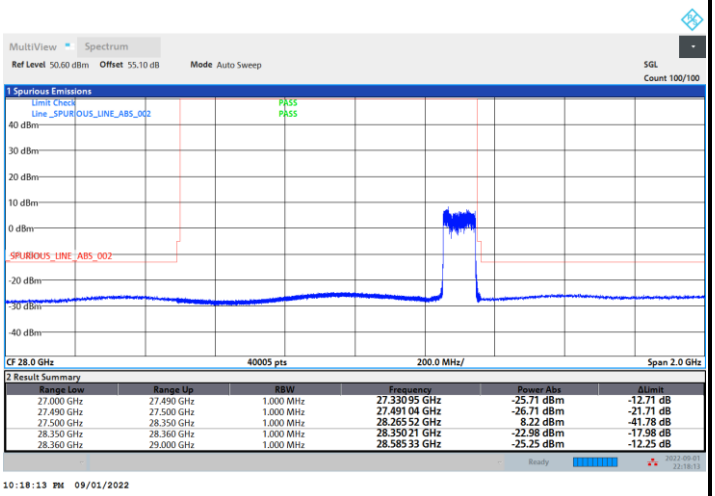


NR Band n261 / 100MHz / 64QAM

Lowest Band Edge / Full RB



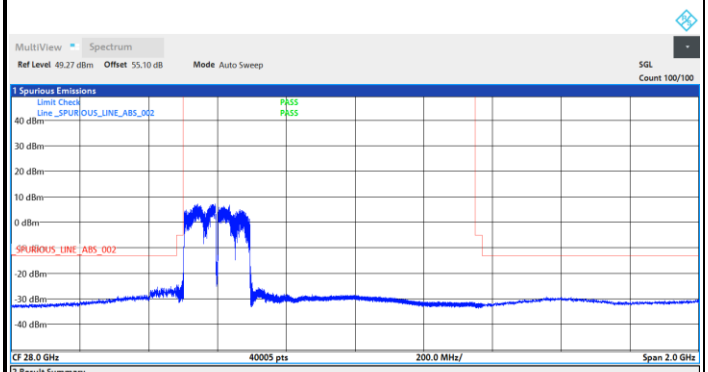
Highest Band Edge / Full RB



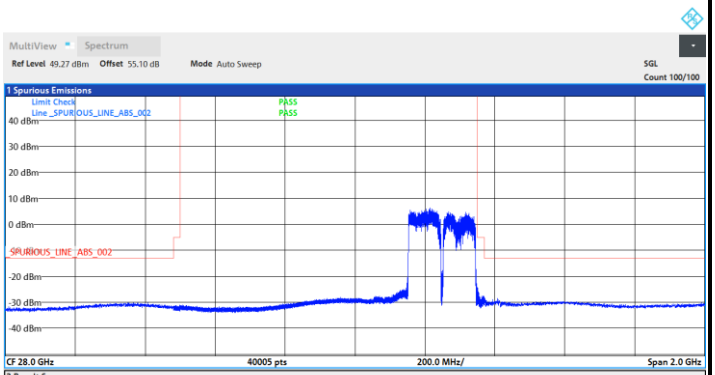
DFT-s-OFDM Module A

NR Band n261 / 200MHz / QPSK

Lowest Band Edge / Full RB

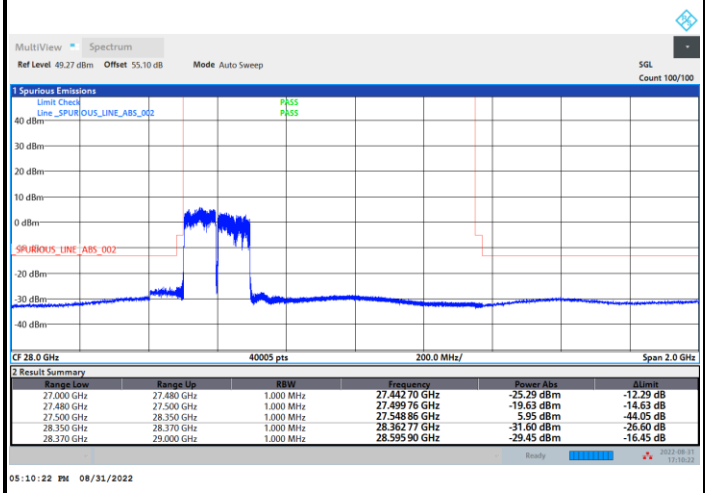


Highest Band Edge / Full RB

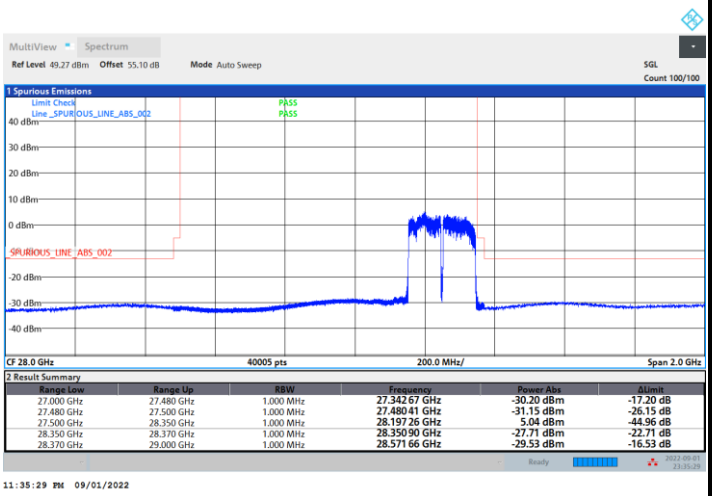


NR Band n261 / 200MHz / 16QAM

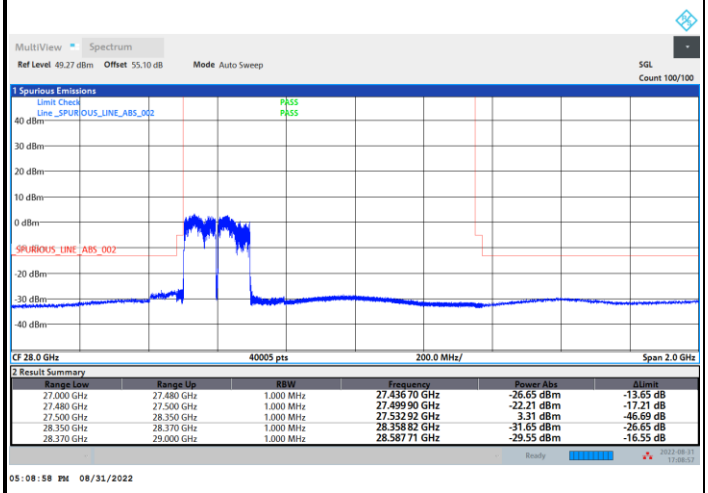
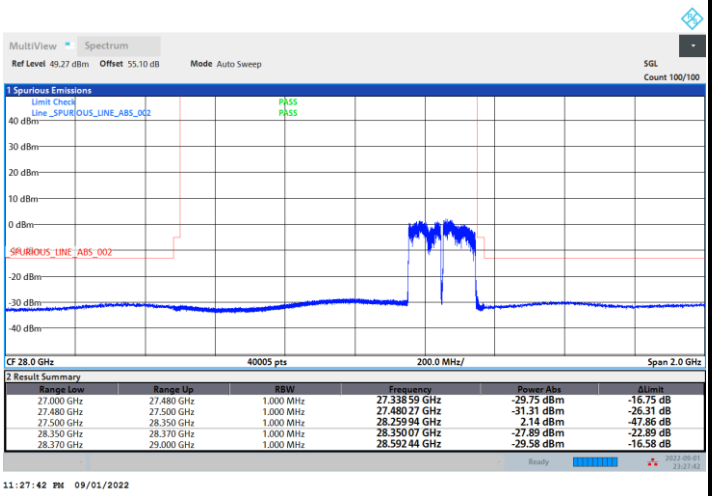
Lowest Band Edge / Full RB



Highest Band Edge / Full RB



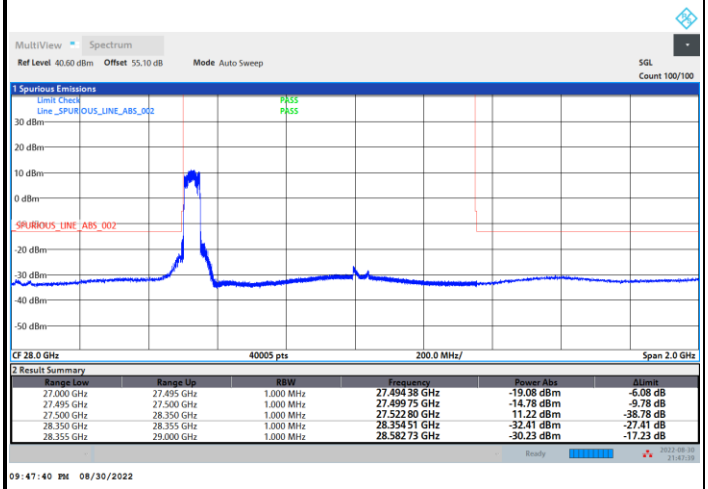
DFT-s-OFDM Module A

NR Band n261 / 200MHz / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

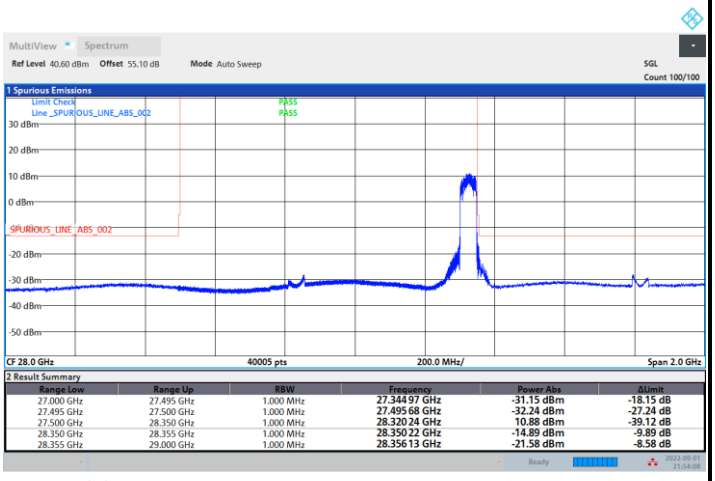
CP-OFDM Module A

NR Band n261 / 50MHz / QPSK

Lowest Band Edge / Full RB

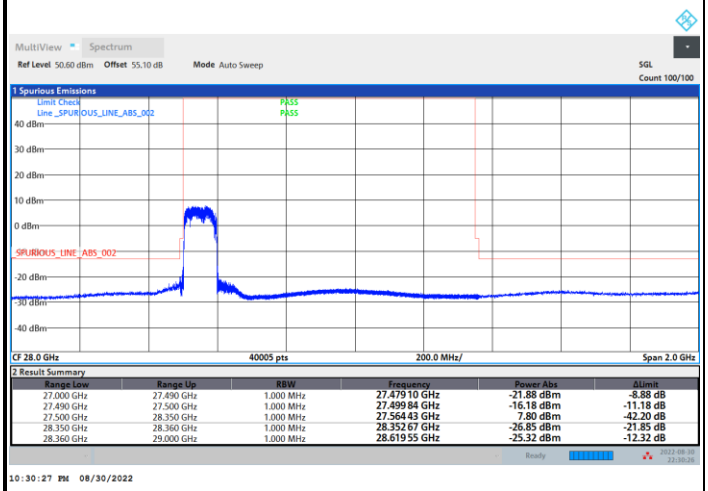


Highest Band Edge / Full RB

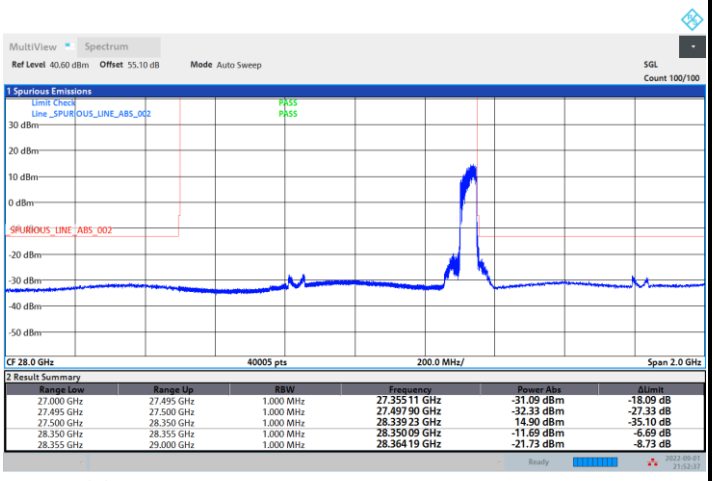


NR Band n261 / 100MHz / QPSK

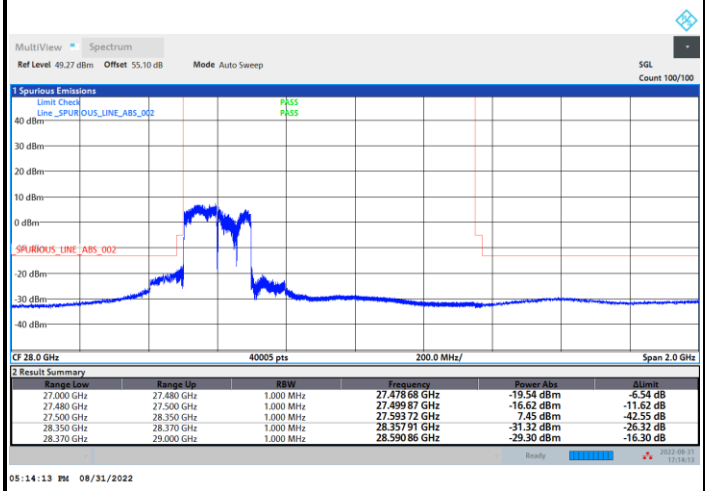
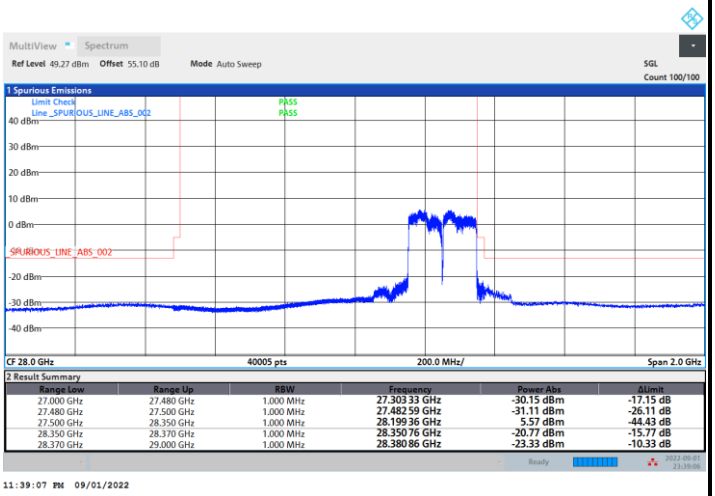
Lowest Band Edge / Full RB



Highest Band Edge / Full RB



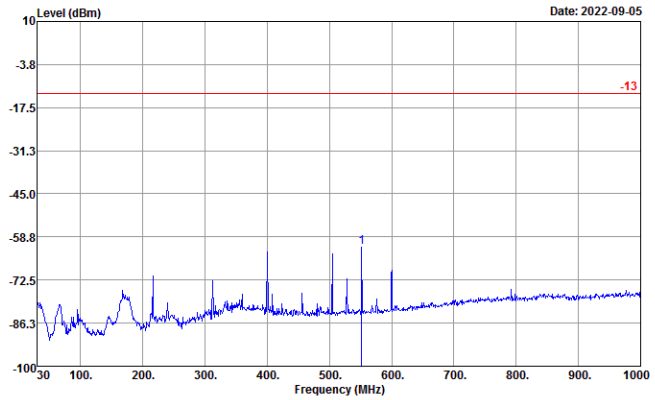
CP-OFDM Module A

NR Band n261 / 200MHz / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

Spurious Emission

NR Band n261 (30MHz-1GHz)

Horizontal

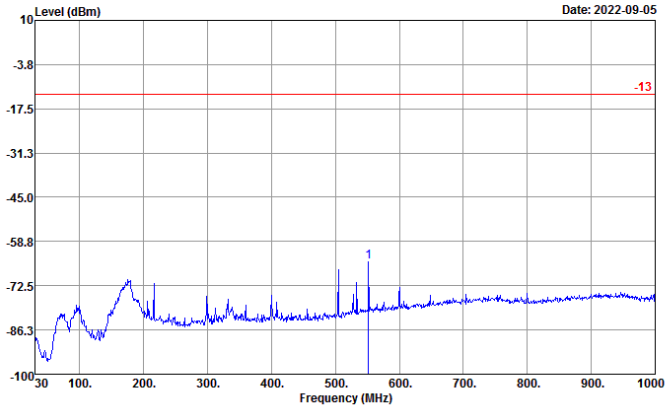


Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL

: n261 MA

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	cm	deg	
1	551.86	-61.93	-48.93	-13.00	-63.52	1.59	---	---	Peak

Vertical



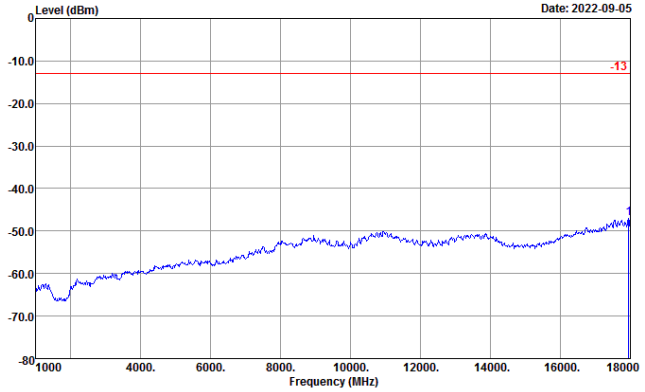
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL

: n261 MA

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	cm	deg	
1	551.86	-64.98	-51.98	-13.00	-69.29	4.31	---	---	Peak

NR Band n261 (1GHz-18GHz)

Horizontal

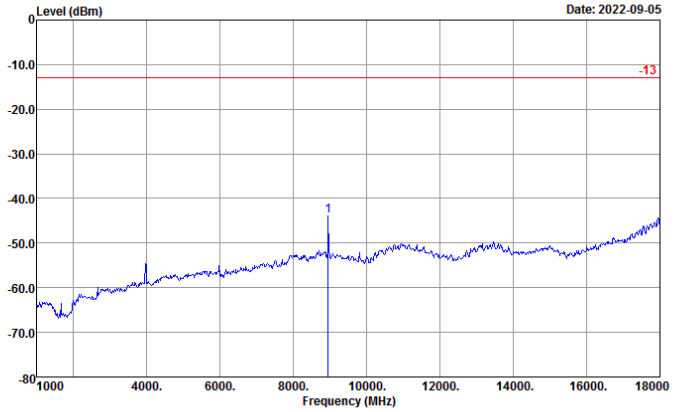


Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL

: n261 MA

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	cm	deg	
1	17949.00	-47.11	-34.11	-13.00	-61.28	14.17	---	---	Peak

Vertical



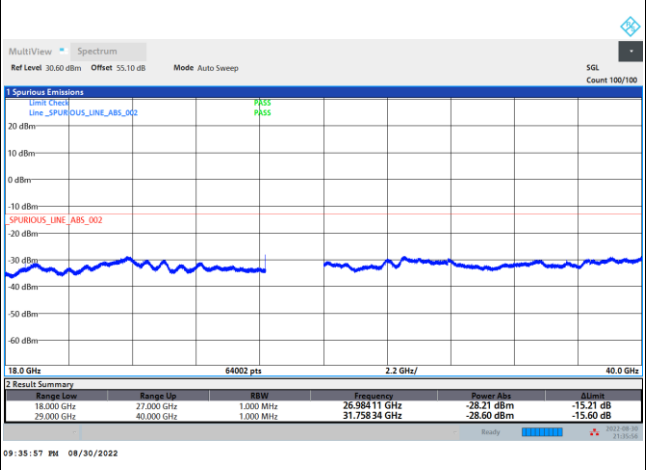
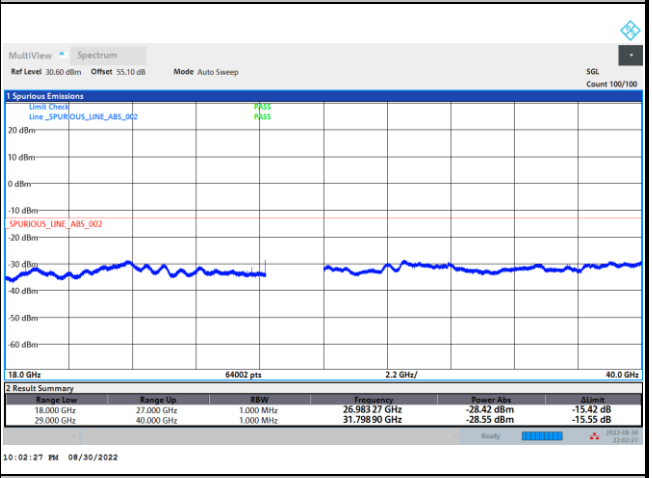
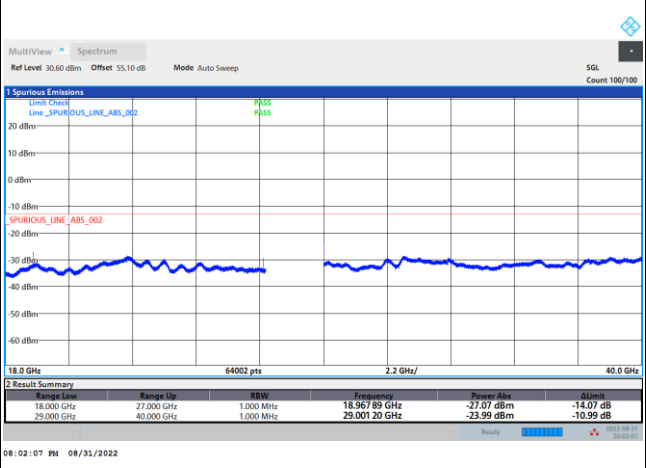
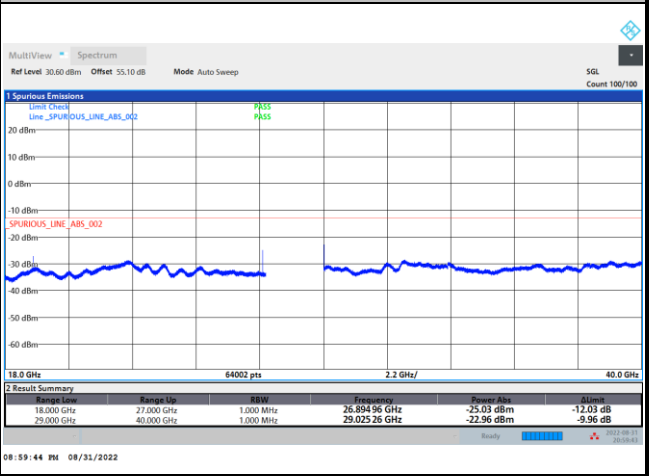
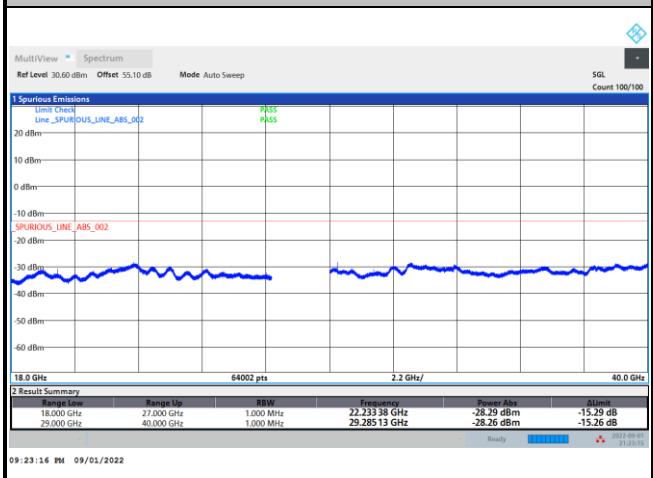
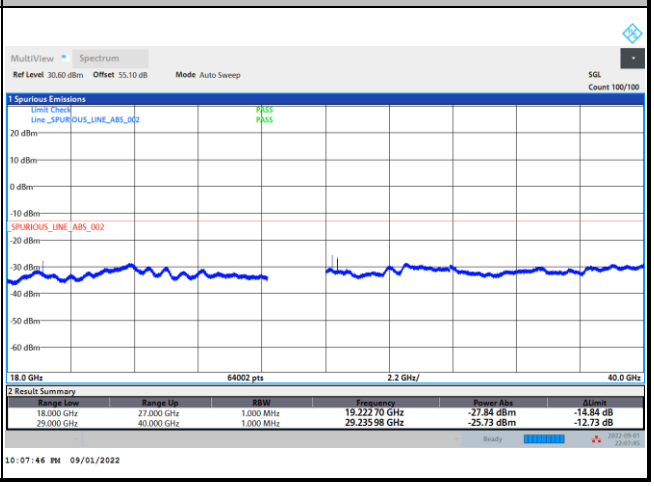
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL

: n261 MA

	Freq	Level	Over Limit	Limit Line	Read Level	Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	cm	deg	
1	8956.00	-43.82	-30.82	-13.00	-43.75	-0.07	---	---	Peak

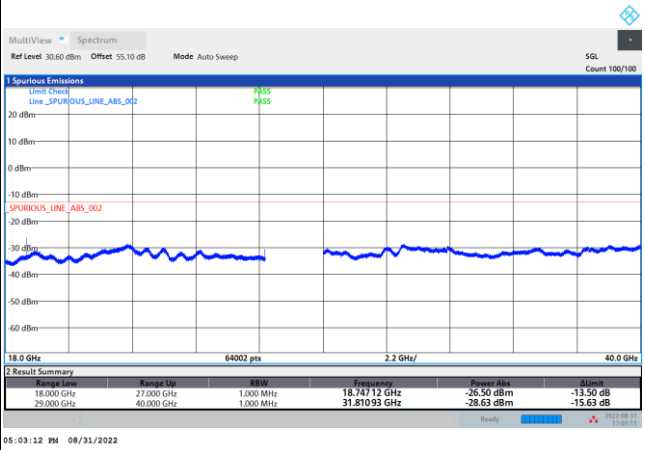
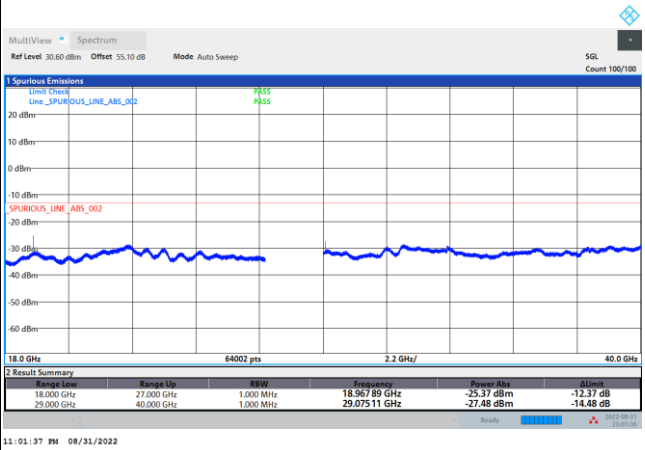
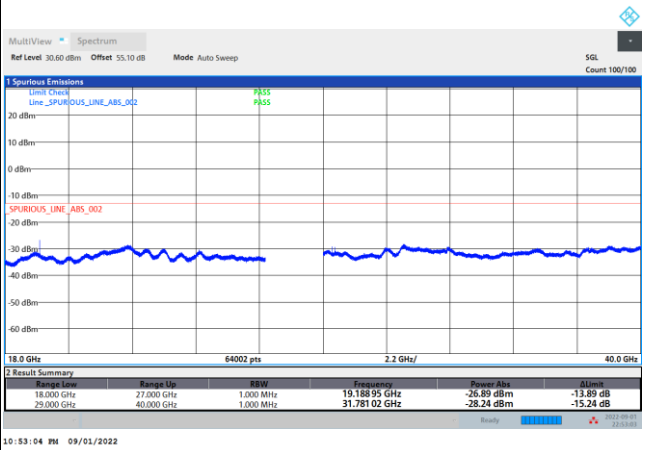
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module A

NR Band n261 QPSK (18-40GHz)	
Lowest Channel / 50MHz	**Lowest Channel / 100MHz**
	
Middle Channel / 50MHz	**Middle Channel / 100MHz**
	
Highest Channel / 50MHz	**Highest Channel / 100MHz**
	

Remark: In band and out of band frequencies are omitted.

DFT-s-OFDM Module A

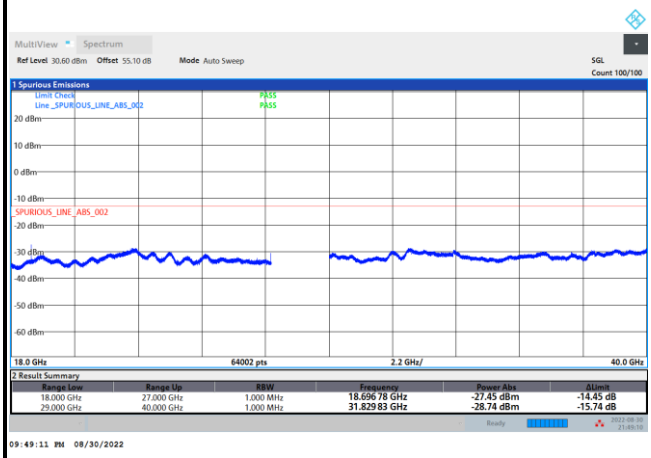
NR Band n261 QPSK (18-40GHz)	
Lowest Channel / 200MHz	
	**intentionally blank**
Middle Channel / 200MHz	
	**intentionally blank**
Highest Channel / 200MHz	
	**intentionally blank**

Remark: In band and out of band frequencies are omitted.

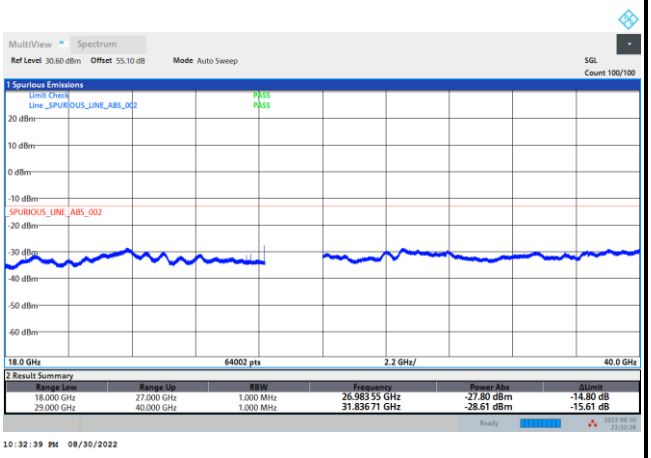
CP-OFDM Module A

NR Band n261 QPSK (18-40GHz)

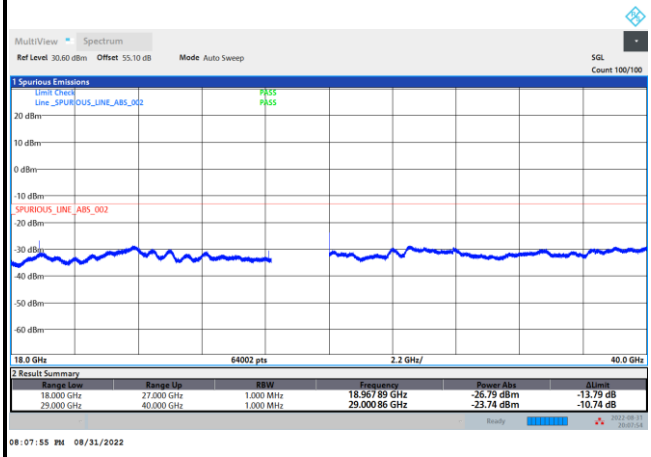
Lowest Channel / 50MHz



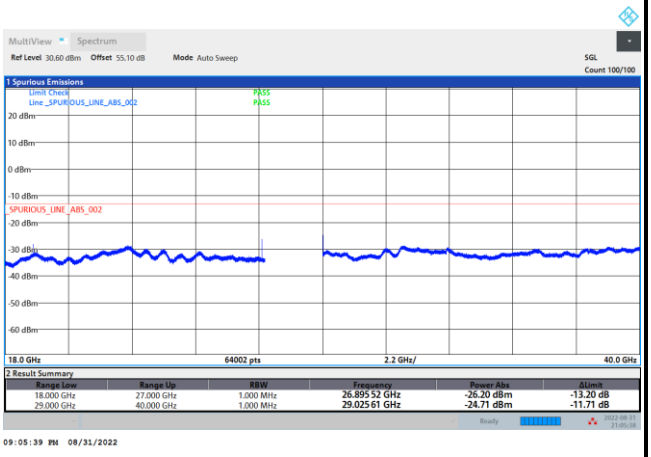
Lowest Channel / 100MHz



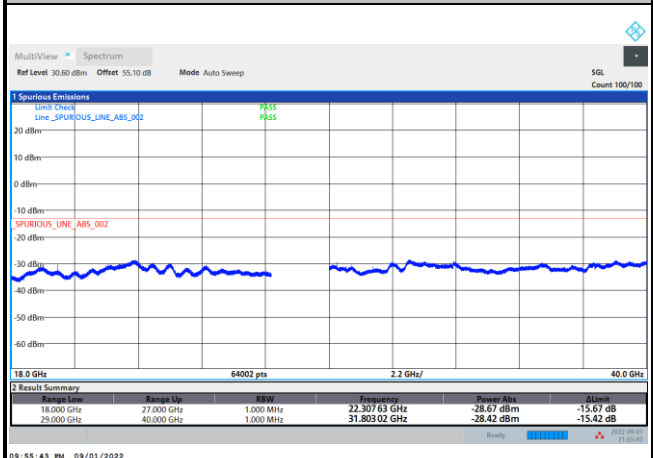
Middle Channel / 50MHz



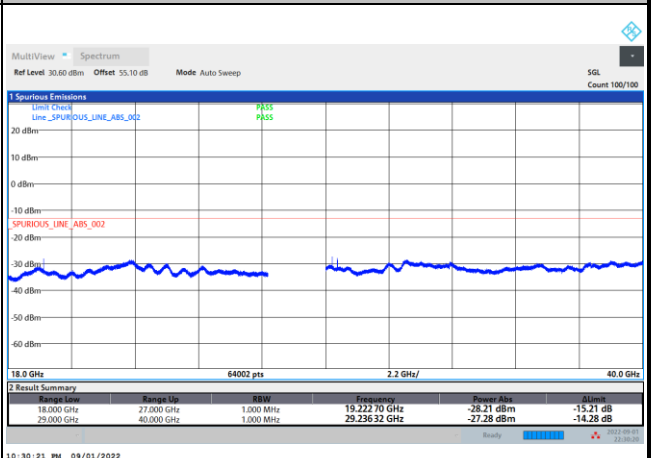
Middle Channel / 100MHz



Highest Channel / 50MHz

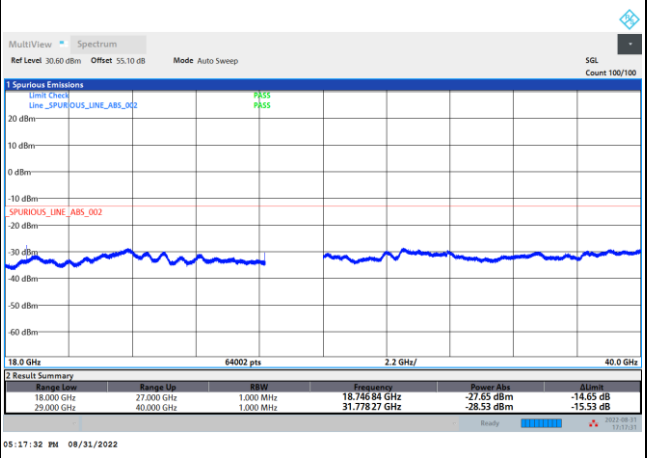
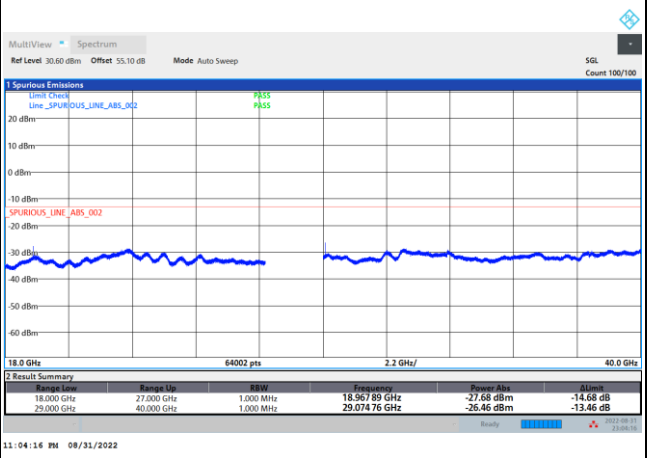
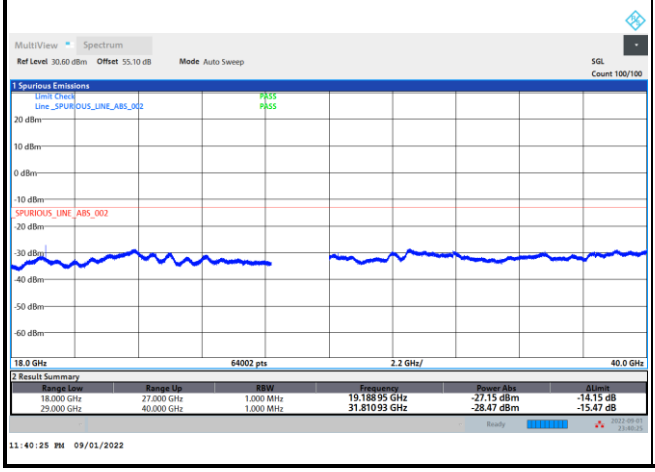


Highest Channel / 100MHz



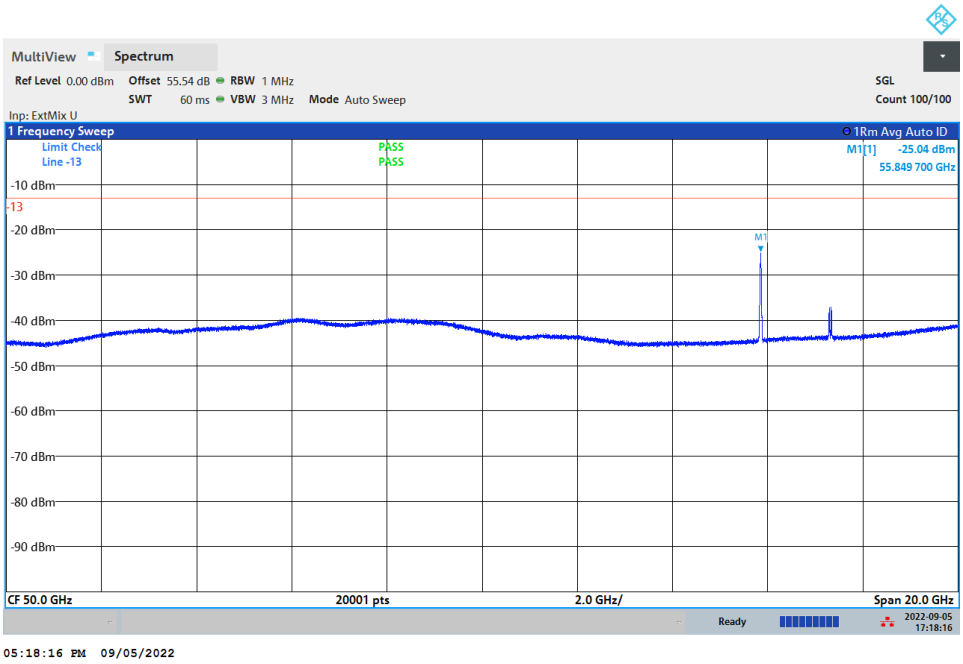
Remark: In band and out of band frequencies are omitted.

CP-OFDM Module A

NR Band n261 QPSK (18-40GHz)	
Lowest Channel / 200MHz	
	**intentionally blank**
Middle Channel / 200MHz	
	**intentionally blank**
Highest Channel / 200MHz	
	

Remark: In band and out of band frequencies are omitted.

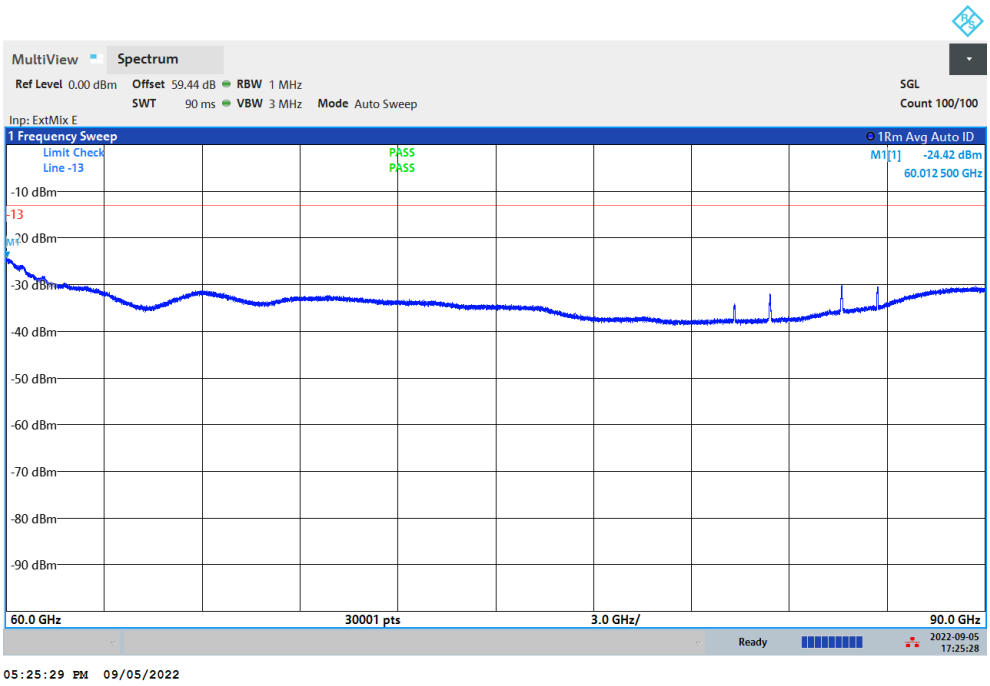
NR Band n261
(40GHz-60GHz)



Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log (D) – 104.8 + *Duty Factor*

= 43 + 0.43 + 107 + 20log(1) – 104.8 + 9.91 = 55.54 (dB)

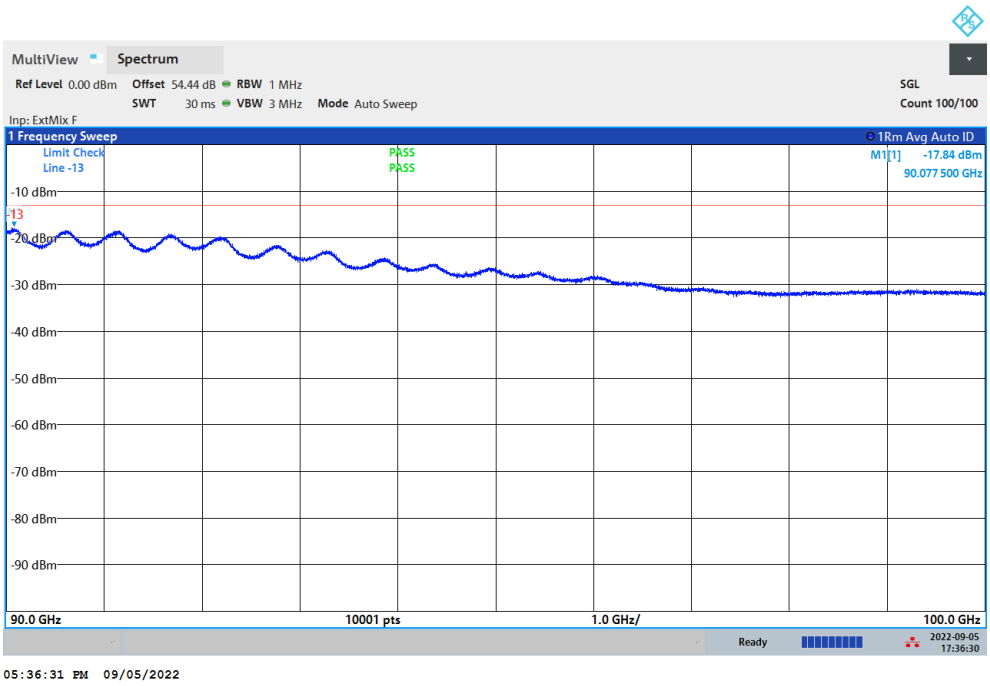
NR Band n261
(60GHz-90GHz)



Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log (D) – 104.8 + *Duty Factor*

= 46.9 + 0.43 + 107 + 20log(1) – 104.8 + 9.91 = 59.44 (dB)

NR Band n261
(90GHz-100GHz)



Offset = Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log (D) – 104.8 + *Duty Factor*

= 47.92 + 0.43 + 107 + 20log(0.5) – 104.8 + 9.91 = 54.44 (dB)

Frequency Stability

Test Conditions		NR Band n261 / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	27.9260345	-0.500	0.018	Pass
40	Normal Voltage	27.9260345	-0.500	0.018	
30	Normal Voltage	27.9260345	-0.500	0.018	
20(Ref.)	Normal Voltage	27.926034	0.000	0.000	
10	Normal Voltage	27.9260345	-0.500	0.018	
0	Normal Voltage	27.9260345	-0.500	0.018	
-10	Normal Voltage	27.9260345	-0.500	0.018	
-20	Normal Voltage	27.926035	-1.000	0.036	
-30	Normal Voltage	27.926035	-1.000	0.036	
20	Maximum Voltage	27.926034	0.000	0.000	
20	Normal Voltage	27.926034	0.000	0.000	
20	Battery End Point	27.9260345	-0.500	0.018	

Note:

1. Normal Voltage =3.85 V.；Battery End Point (BEP) =3.60 V.；Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the operation band.

NR Band n261 Module B AGH+V

Occupied Bandwidth

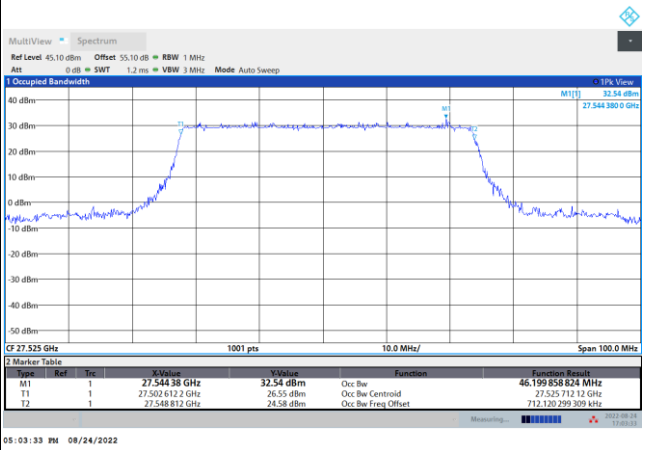
Mode	DFT-s-OFDM Module A NR Band n261 : 99%OBW(MHz)								
BW	50MHz			100MHz			200MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	46.19	46.06	46.06	91.32	91.51	91.29	189.77	189.83	189.64
Middle CH	45.89	46.18	45.52	91.21	91.21	91.39	189.80	189.49	189.35
Highest CH	45.86	45.97	45.76	91.43	91.16	91.17	189.88	189.44	189.58

Mode	CP-OFDM Module A NR Band n261 : 99%OBW(MHz)		
BW	50MHz	100MHz	200MHz
Mod.	QPSK	QPSK	QPSK
Lowest CH	46.09	94.34	192.53
Middle CH	46.05	94.37	193.09
Highest CH	45.98	94.24	192.79

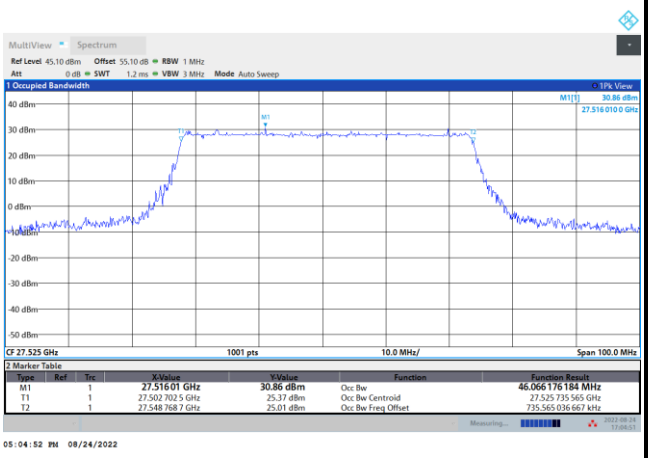
DFT-s-OFDM Module A

NR Band n261

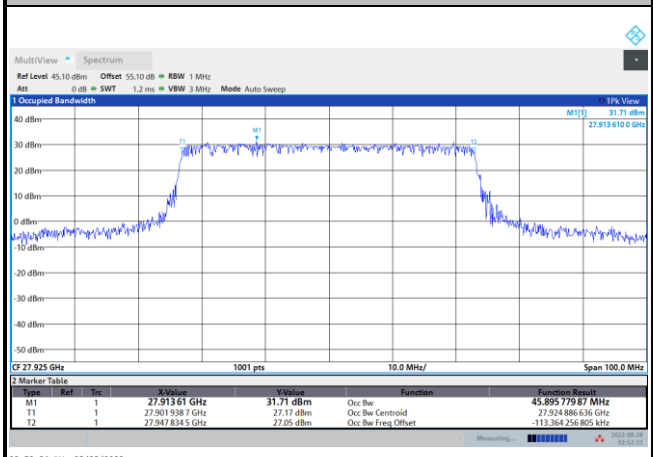
Lowest Channel / 50MHz / QPSK



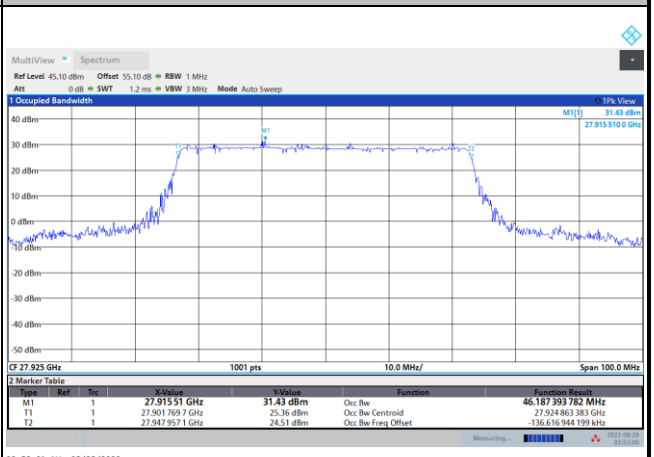
Lowest Channel / 50MHz / 16QAM



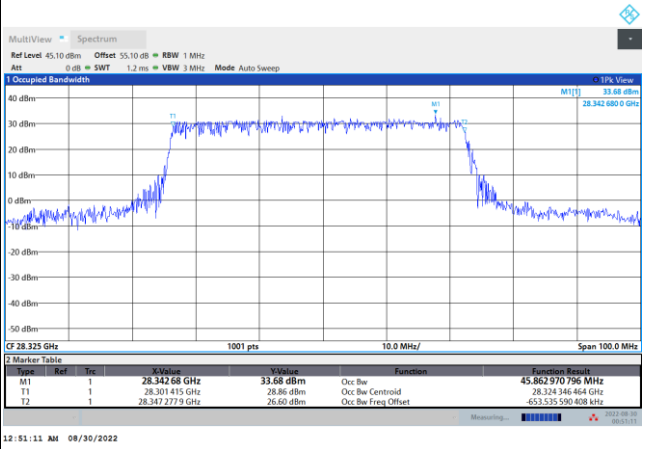
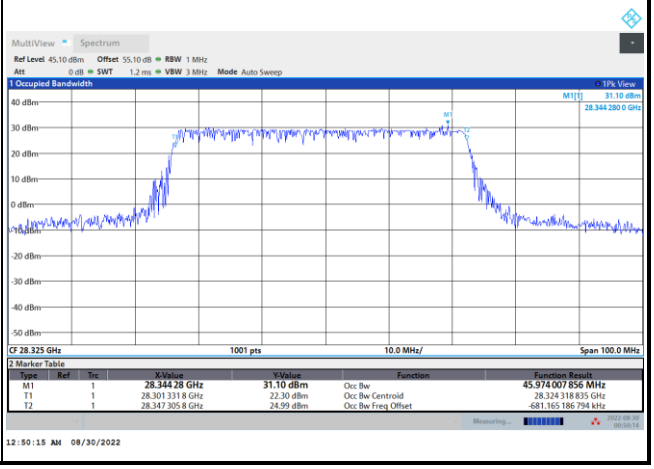
Middle Channel / 50MHz / QPSK



Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM