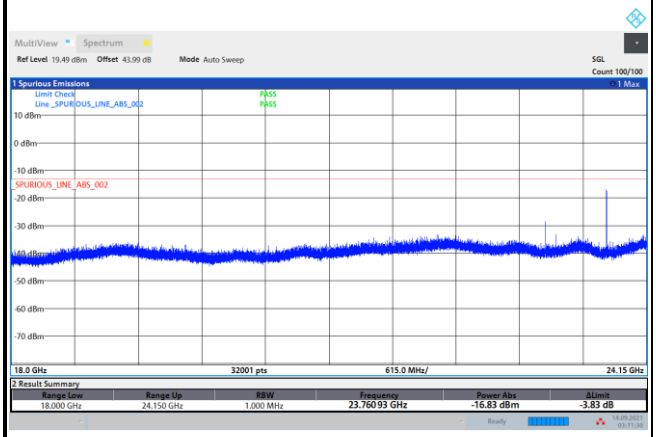
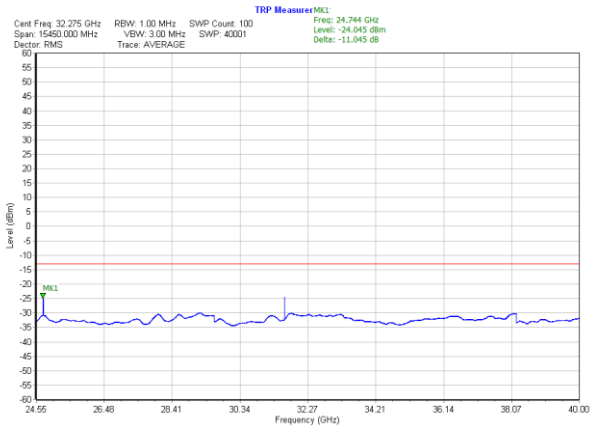
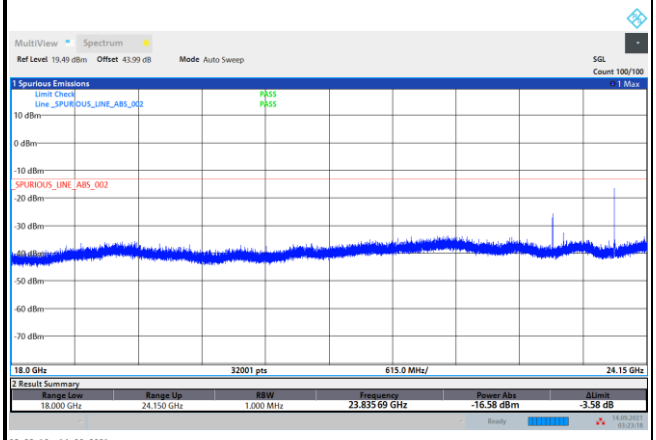
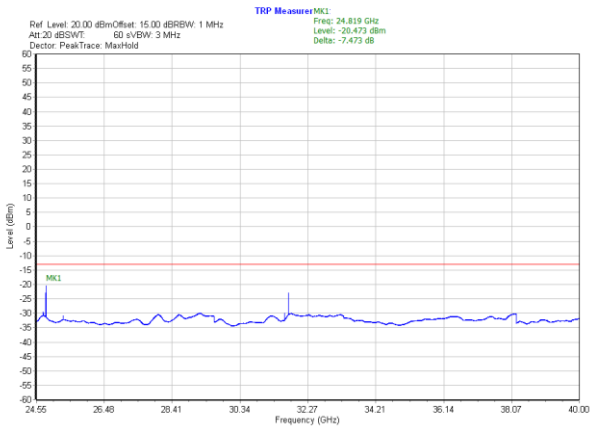
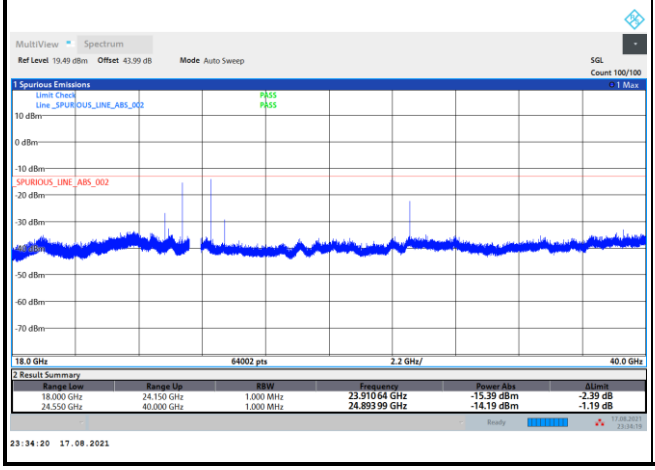
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module A

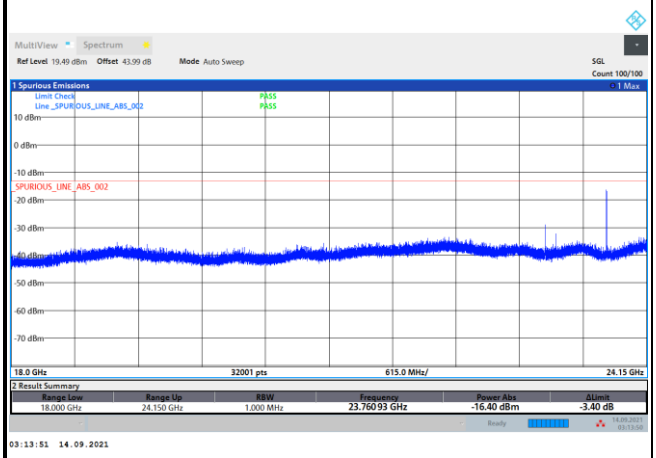
NR Band n258A QPSK (18-40GHz)	
Lowest Channel / 50MHz	
	
Middle Channel / 50MHz	
	
Highest Channel / 50MHz	
	**intentionally blank**

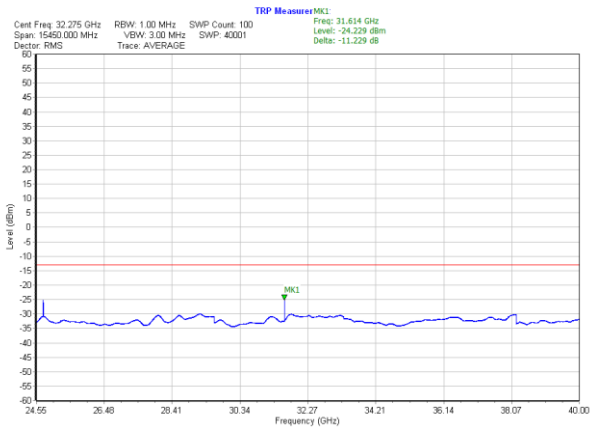
Remark: In band and out of band frequencies that has reported in previous results are omitted.

CP-OFDM Module A

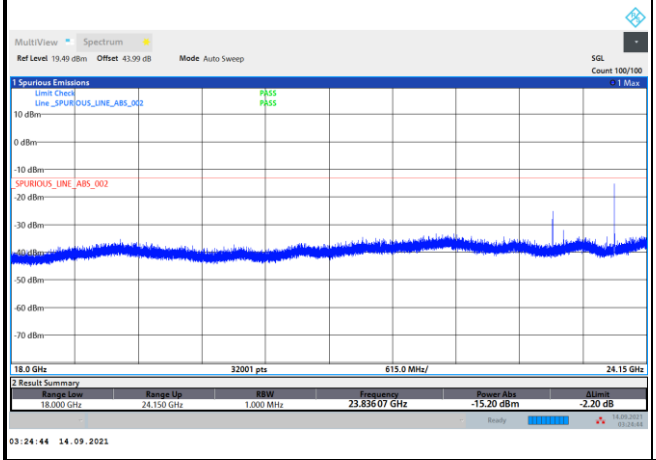
NR Band n258A QPSK (18-40GHz)

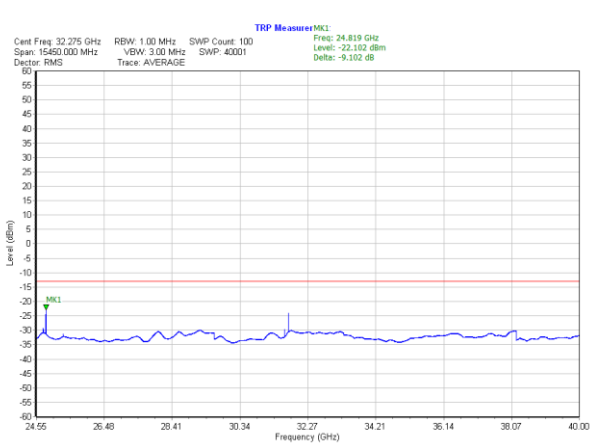
Lowest Channel / 50MHz



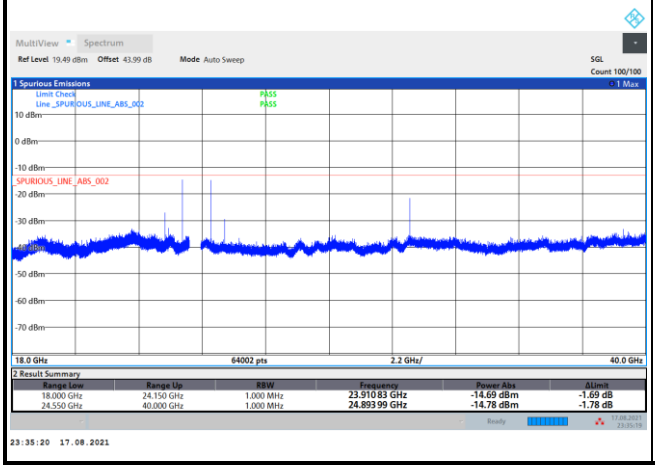


Middle Channel / 50MHz





Highest Channel / 50MHz



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Remark: In band and out of band frequencies that has reported in previous results are omitted.

NR Band n258A Module A Beam H+V

Occupied Bandwidth

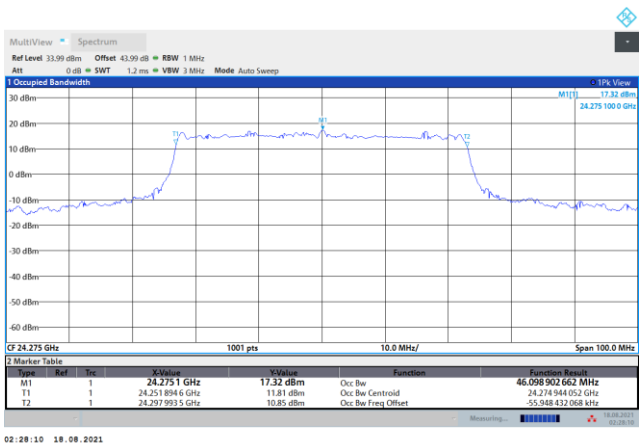
Mode	DFT-s-OFDM Module A NR Band n258A : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	46.09	46.31	46.22
Middle CH	46.10	46.29	46.21
Highest CH	46.08	46.37	46.23

Mode	CP-OFDM Module A NR Band n258A : 99%OBW(MHz)
BW	50MHz
Mod.	QPSK
Lowest CH	46.85
Middle CH	46.65
Highest CH	46.59

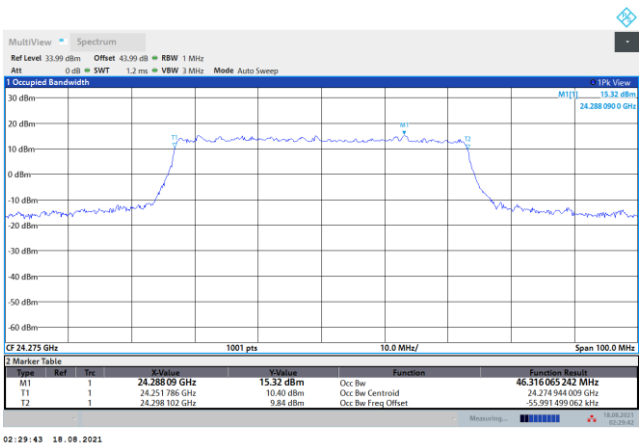
DFT-s-OFDM Module A

NR Band n258A

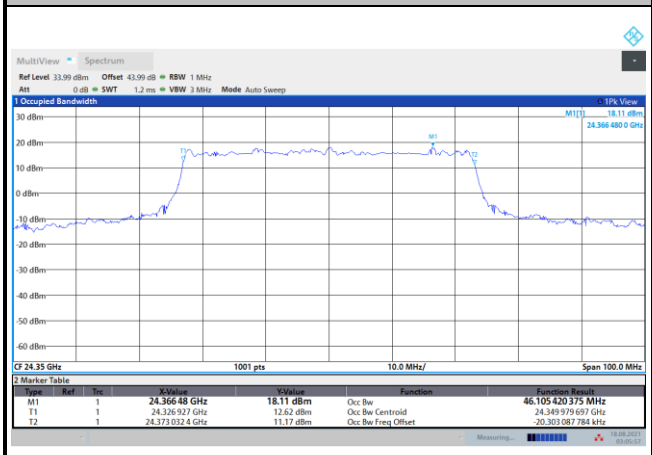
Lowest Channel / 50MHz / QPSK



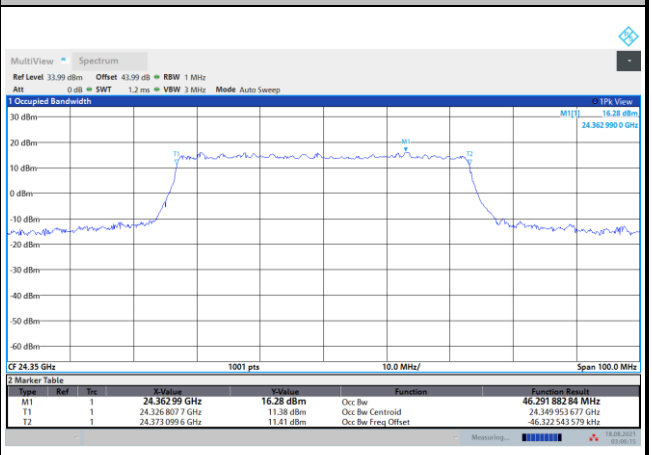
Lowest Channel / 50MHz / 16QAM



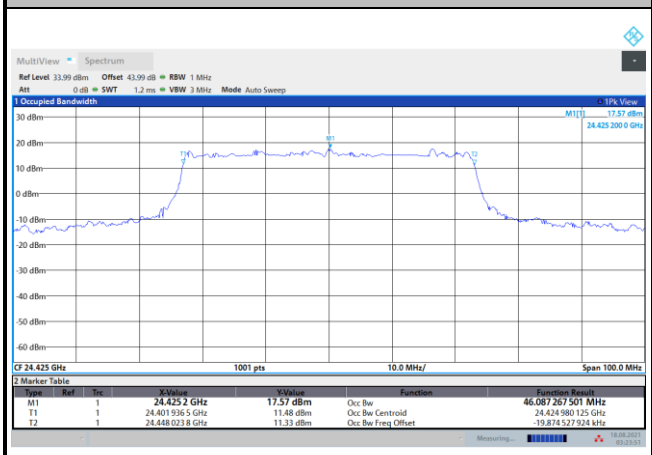
Middle Channel / 50MHz / QPSK



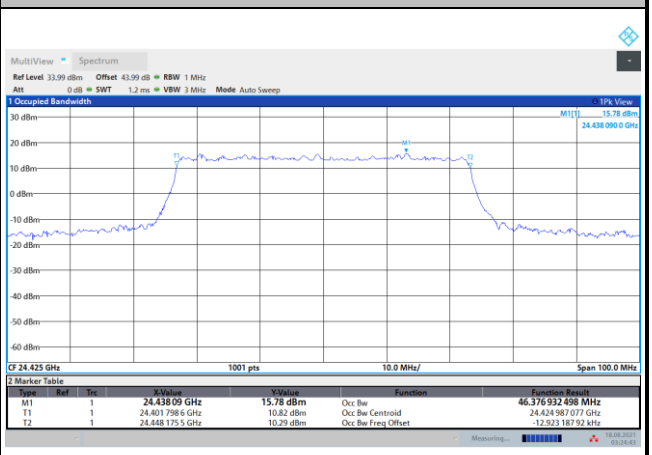
Middle Channel / 50MHz / 16QAM



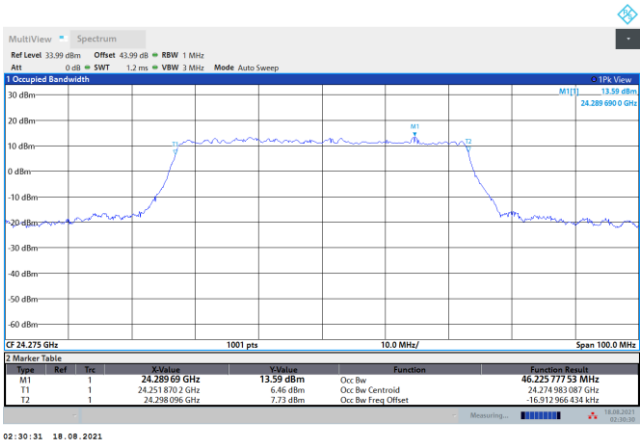
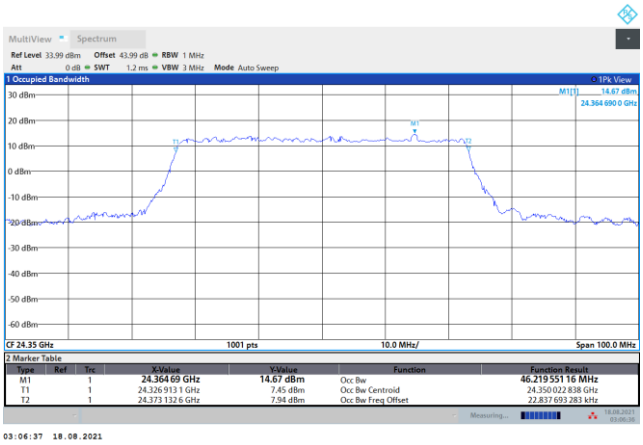
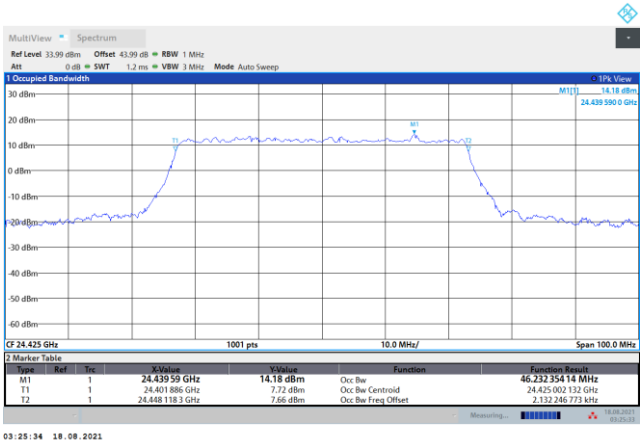
Highest Channel / 50MHz / QPSK



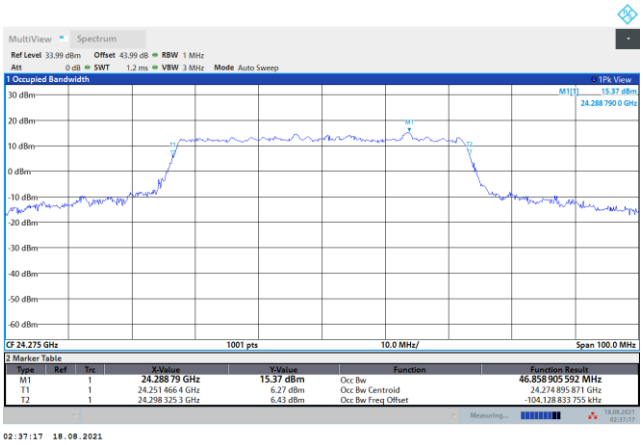
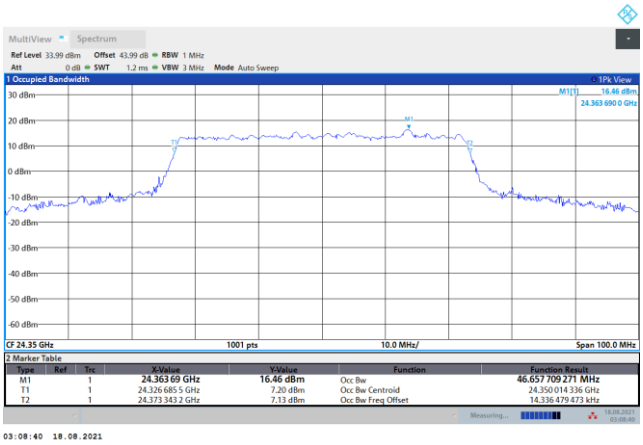
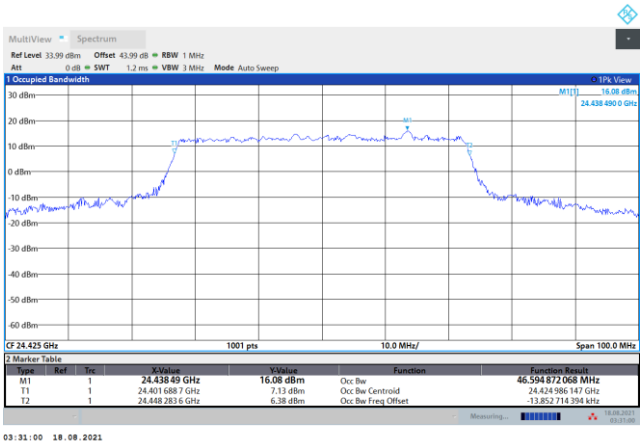
Highest Channel / 50MHz / 16QAM



DFT-s-OFDM Module A

NR Band n258A	
Lowest Channel / 50MHz / 64QAM	
	intentionally blank
Middle Channel / 50MHz / 64QAM	
	intentionally blank
Highest Channel / 50MHz / 64QAM	
	intentionally blank

CP-OFDM Module A

NR Band n258A	
Lowest Channel / 50MHz / QPSK	
	intentionally blank
Middle Channel / 50MHz / QPSK	
	intentionally blank
Highest Channel / 50MHz / QPSK	
	intentionally blank

Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module A NR Band n258A : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-7.29	-9.57	-10.88
	>10%OB	≦-13	-36.66	-37.97	-39.75
HighCH	0~10%OB	≦-5	-8.25	-10.70	-11.98
	>10%OB	≦-13	-36.43	-38.54	-39.62
Result			Compliance		

Mode			CP-OFDM Module A NR Band n258A : BE (dBm) 1 RB
BW			50MHz
Limit (dBm)			QPSK
Low CH	0~10%OB	≦-5	-9.69
	>10%OB	≦-13	-38.47
High CH	0~10%OB	≦-5	-9.66
	>10%OB	≦-13	-38.25
Result			Compliance

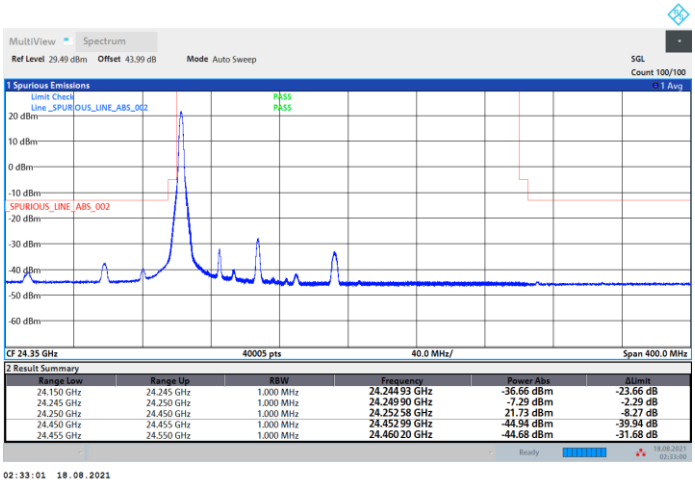
Mode			DFT-s-OFDM Module A NR Band n258A : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-15.40	-17.91	-20.14
	>10%OB	≦-13	-18.34	-21.00	-25.53
HighCH	0~10%OB	≦-5	-16.00	-17.64	-20.46
	>10%OB	≦-13	-18.53	-21.86	-26.13
Result			Compliance		

Mode			CP-OFDM Module A NR Band n258A : BE (dBm) Full RB
BW			50MHz
Limit (dBm)			QPSK
Low CH	0~10%OB	≦-5	-17.08
	>10%OB	≦-13	-19.22
High CH	0~10%OB	≦-5	-17.05
	>10%OB	≦-13	-19.82
Result			Compliance

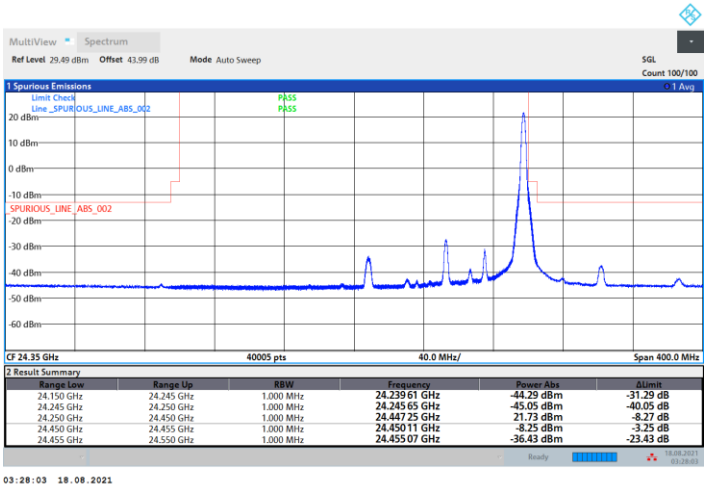
DFT-s-OFDM Module A

NR Band n258A / 50MHz / QPSK

Lowest Band Edge / 1 RB

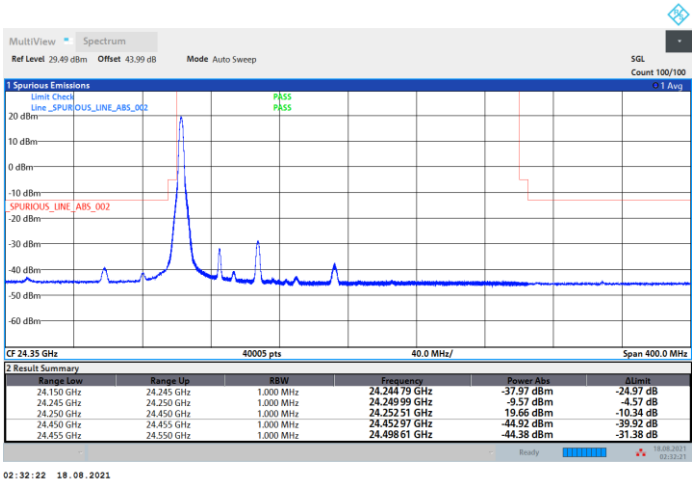


Highest Band Edge / 1 RB

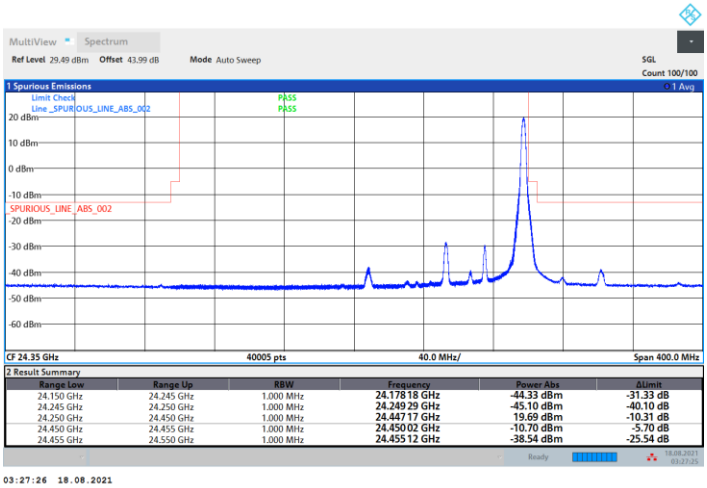


NR Band n258A / 50MHz / 16QAM

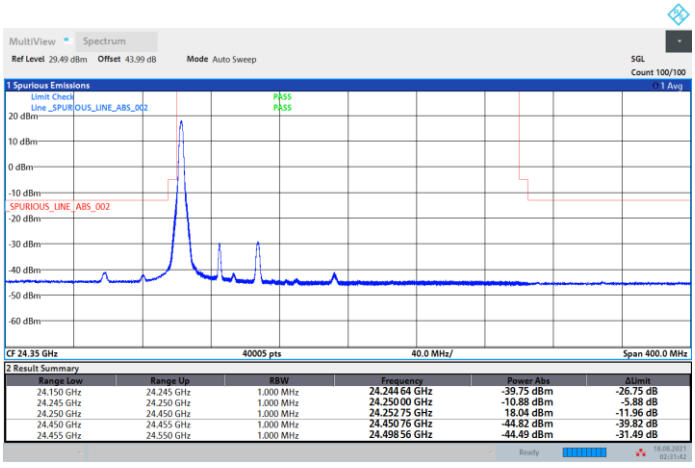
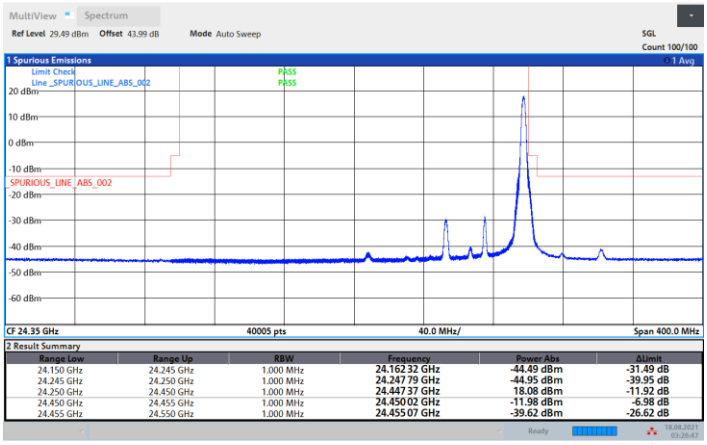
Lowest Band Edge / 1 RB



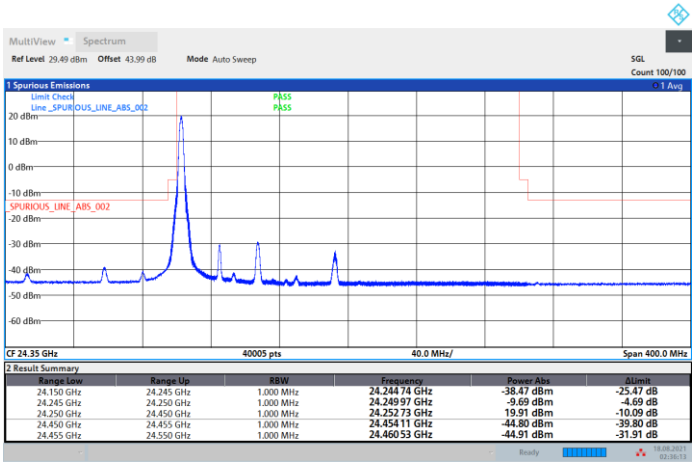
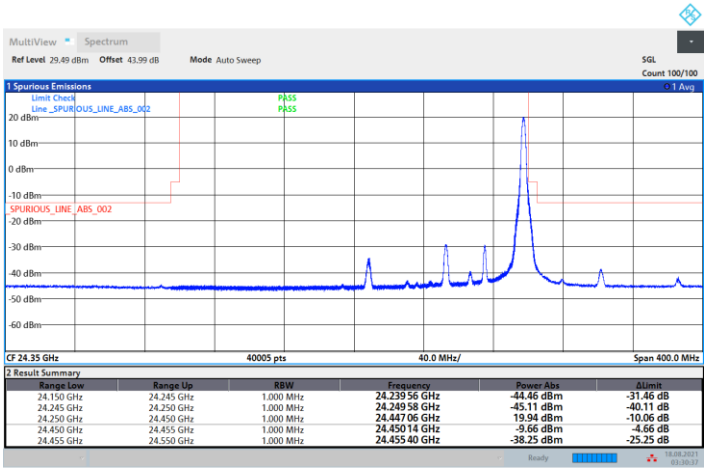
Highest Band Edge / 1 RB



DFT-s-OFDM Module A

NR Band n258A / 50MHz / 64QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

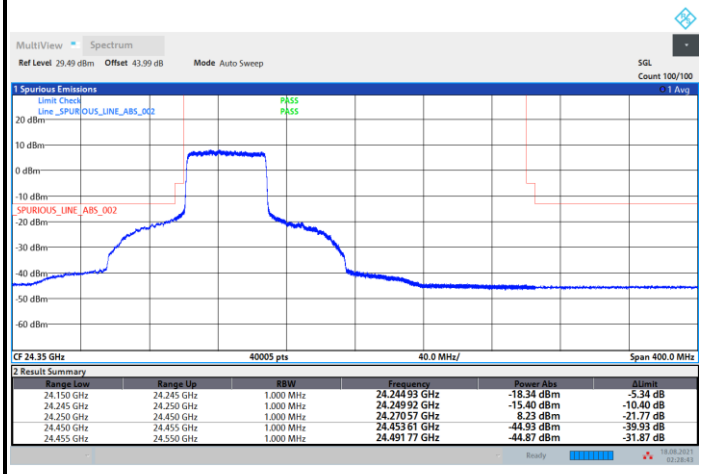
CP-OFDM Module A

NR Band n258A / 50MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

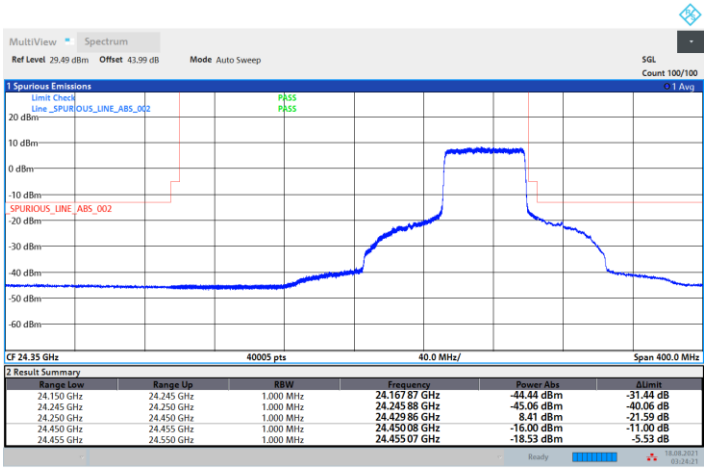
DFT-s-OFDM Module A

NR Band n258A / 50MHz / QPSK

Lowest Band Edge / Full RB

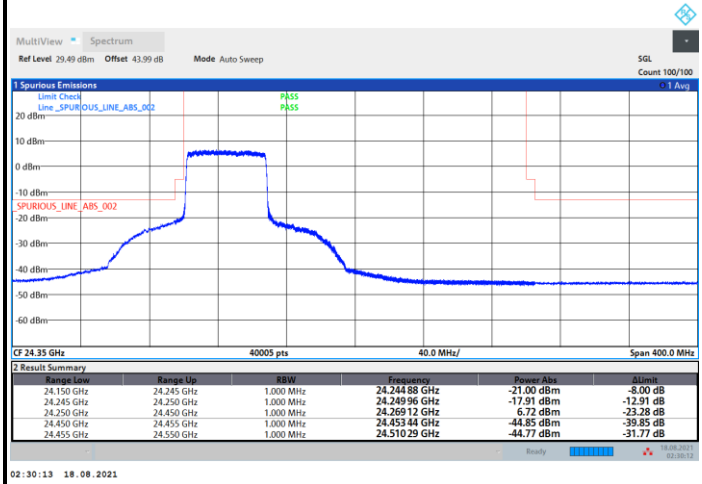


Highest Band Edge / Full RB

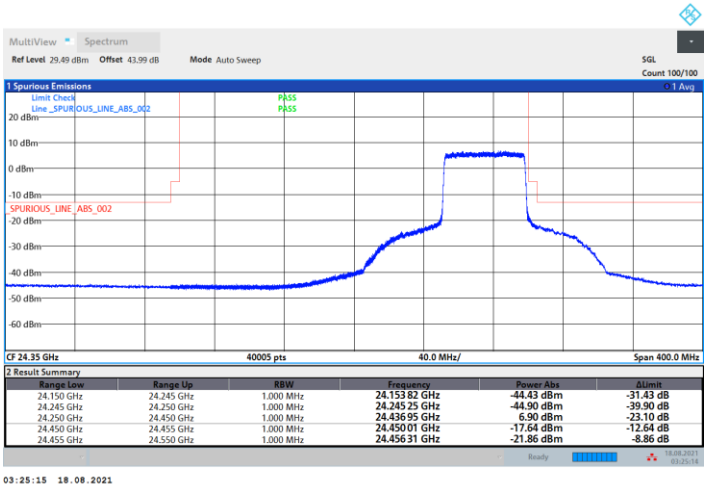


NR Band n258A / 50MHz / 16QAM

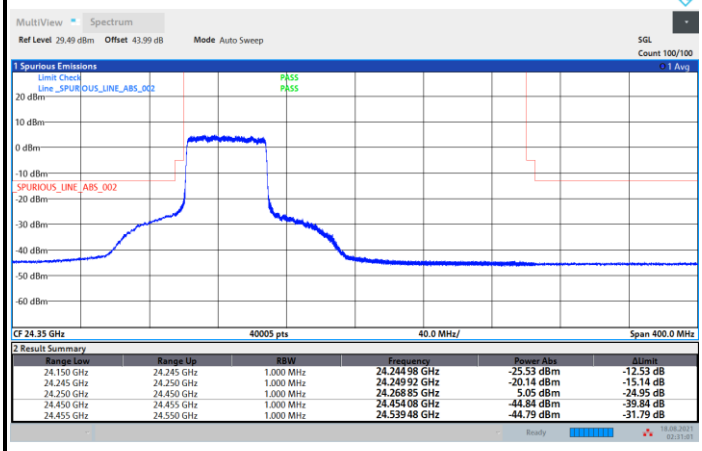
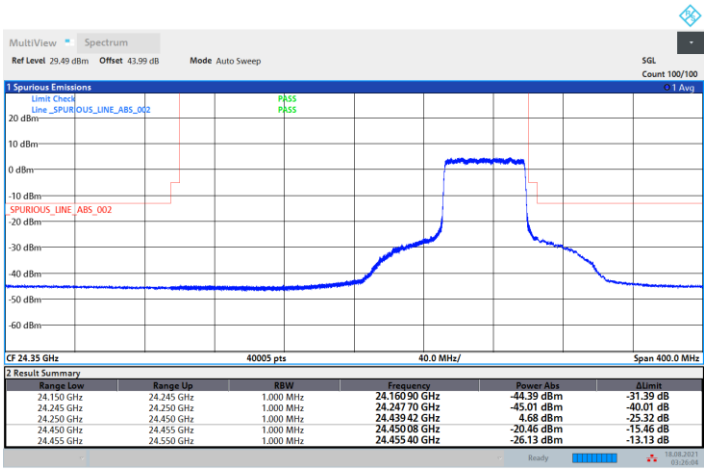
Lowest Band Edge / Full RB



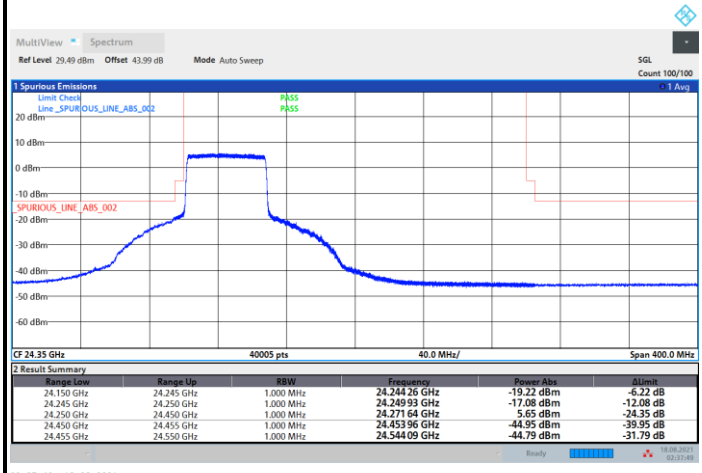
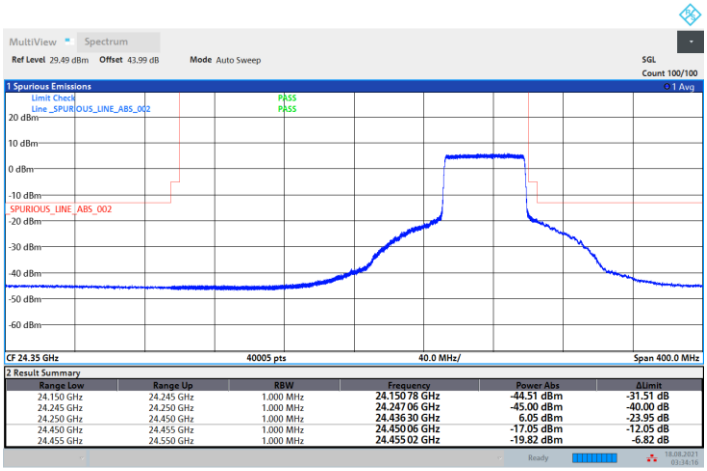
Highest Band Edge / Full RB



DFT-s-OFDM Module A

NR Band n258A / 50MHz / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

CP-OFDM Module A

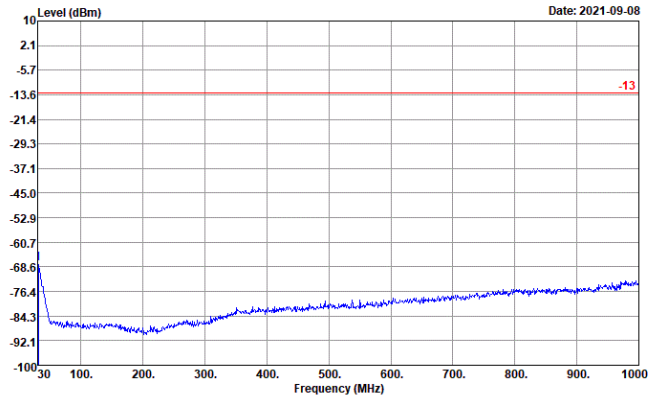
NR Band n258A / 50MHz / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

Spurious Emission

There is no significant spurious emission signal found for frequency started from 30MHz up to 18GHz.

NR Band n258A (30MHz-1GHz)

Horizontal

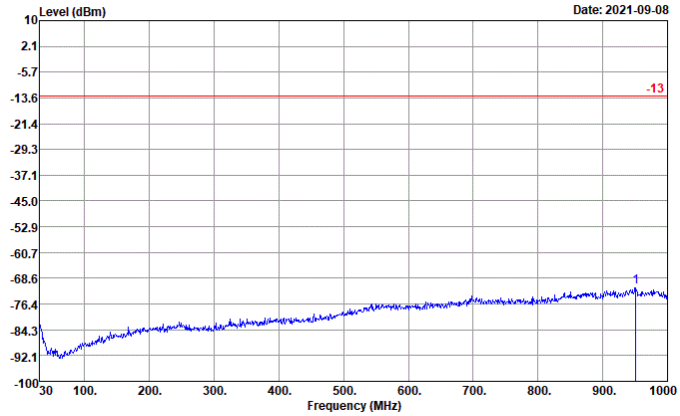


Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 HORIZONTAL

: n258a

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	30.99	-67.55	-54.55	-13.00	-78.41	46.59	0.00	35.73	---	---	Peak

Vertical



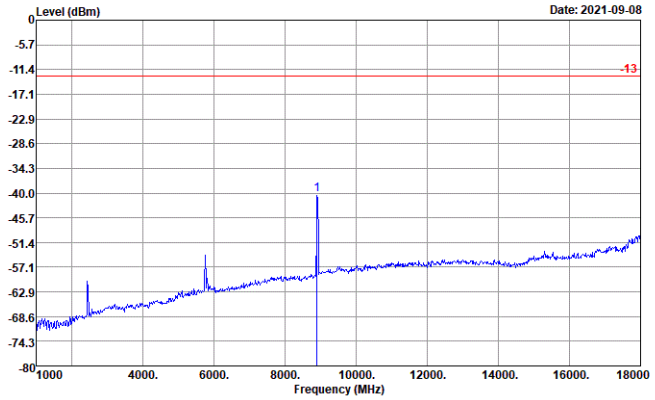
Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 VERTICAL

: n258a

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	951.30	-71.23	-58.23	-13.00	-81.01	42.94	0.00	33.16	---	---	Peak

NR Band n258A (1GHz-18GHz)

Horizontal

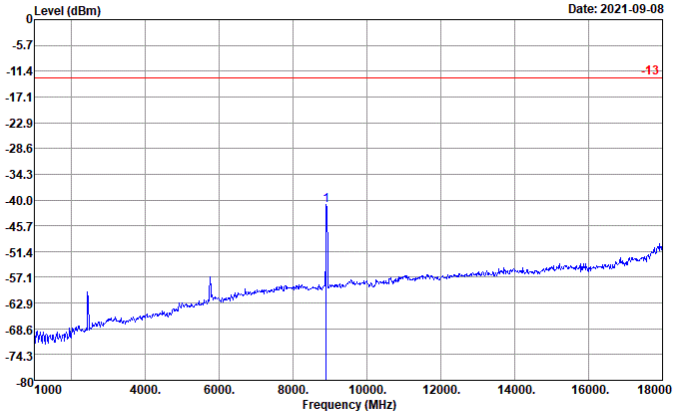


Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 HORIZONTAL

: n258a

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	8902.00	-40.35	-27.35	-13.00	-65.98	66.45	0.00	40.82	---	---	Peak

Vertical



Site : 03CH19-HY
Condition : -13 ERP EIRP_20210305 VERTICAL

: n258a

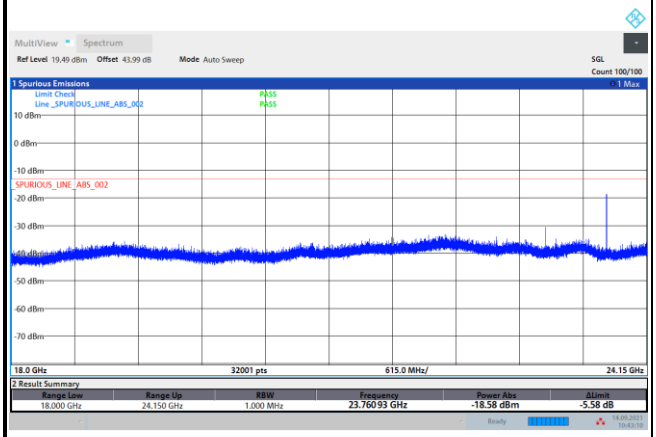
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBm	dB	dBm	dBm	dB	dB	dB	cm	deg	
1	8902.00	-41.24	-28.24	-13.00	-66.33	65.91	0.00	40.82	---	---	Peak

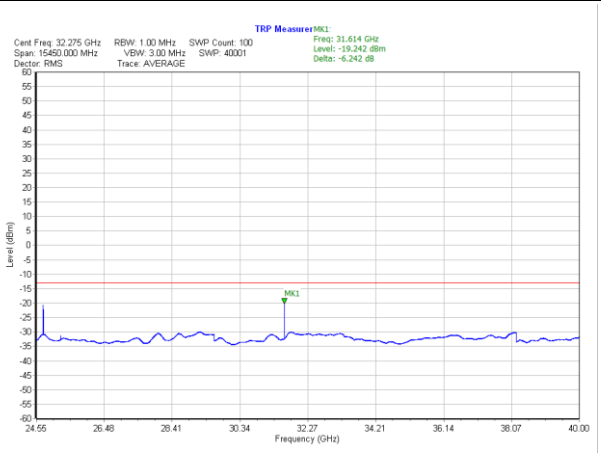
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module A

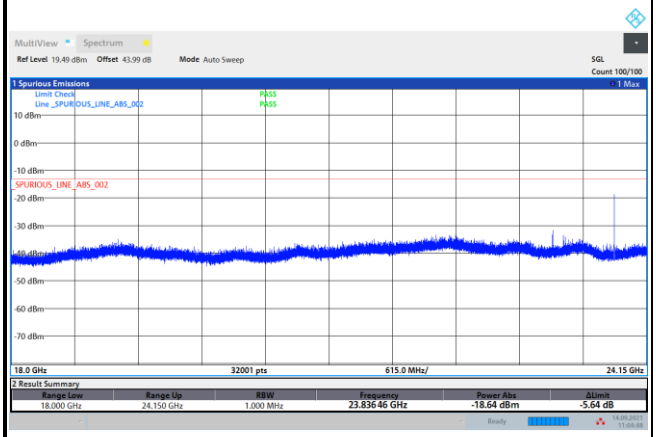
NR Band n258A QPSK (18-40GHz)

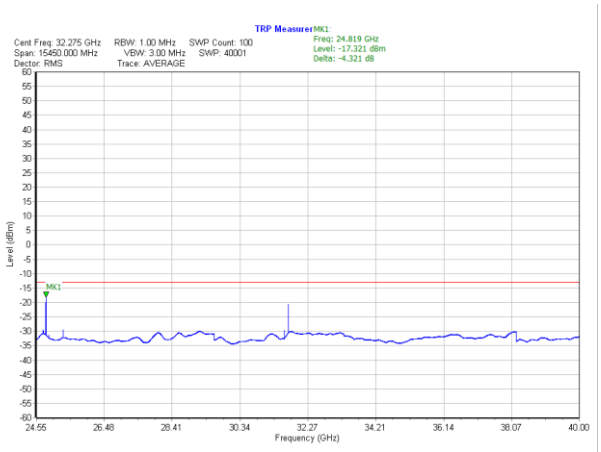
Lowest Channel / 50MHz



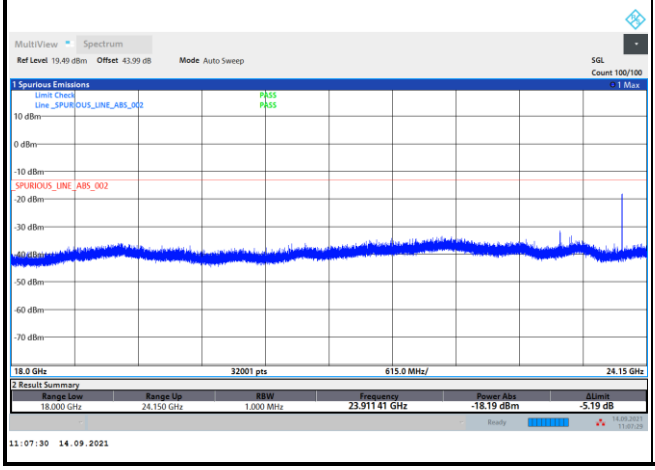


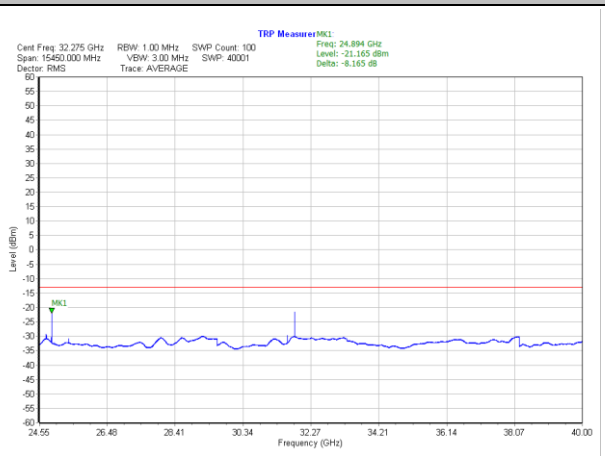
Middle Channel / 50MHz





Highest Channel / 50MHz



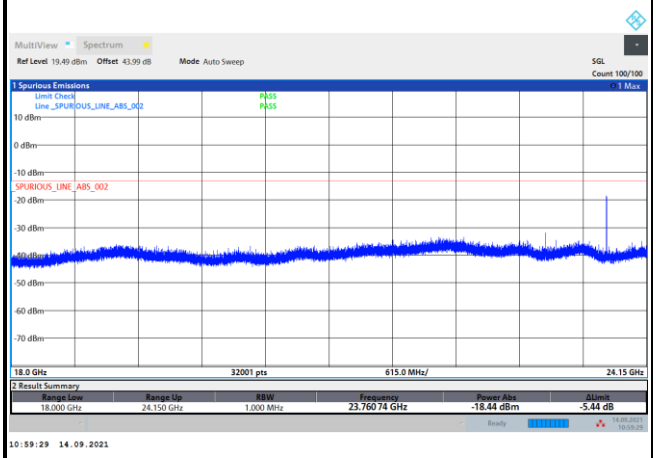


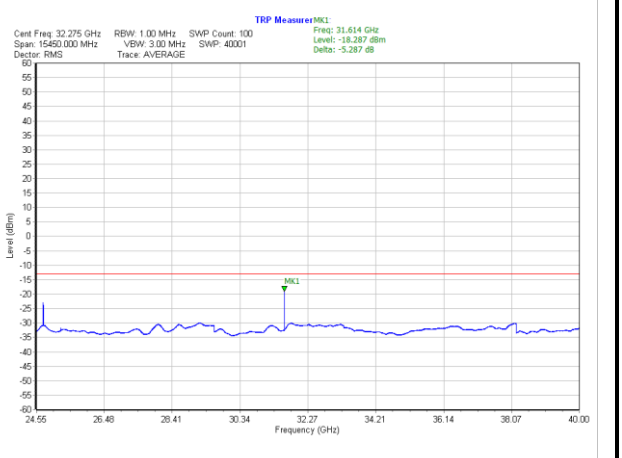
Remark: In band and out of band frequencies that has reported in previous results are omitted.

CP-OFDM Module A

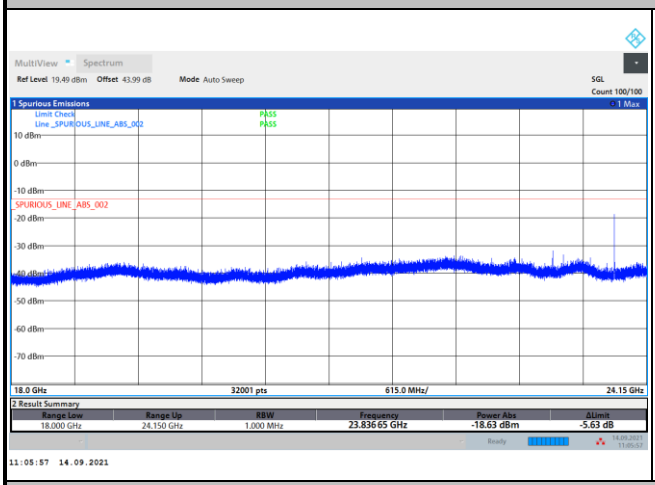
NR Band n258A QPSK (18-40GHz)

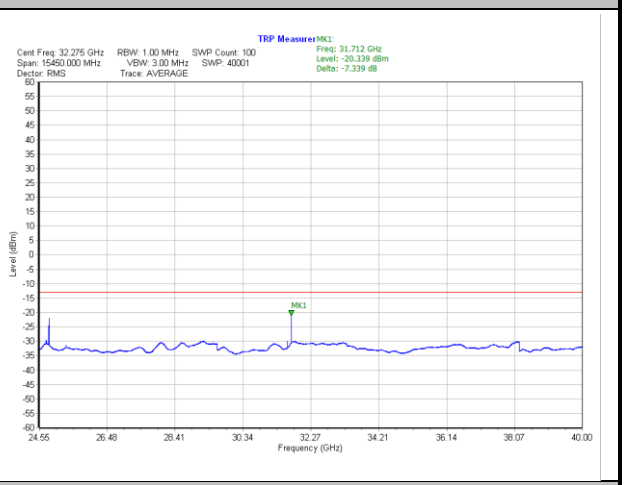
Lowest Channel / 50MHz



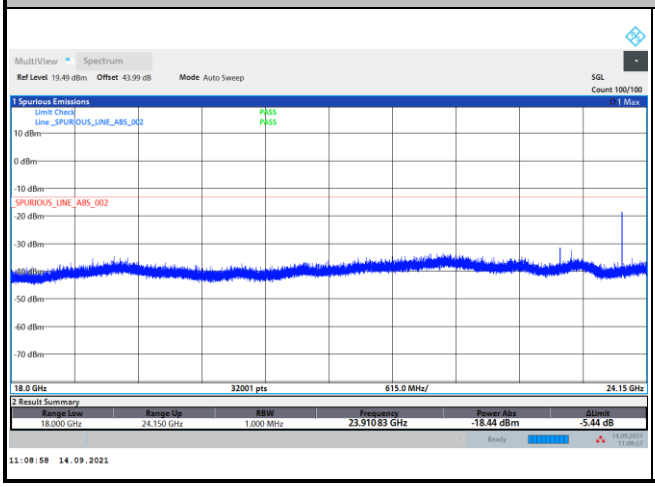


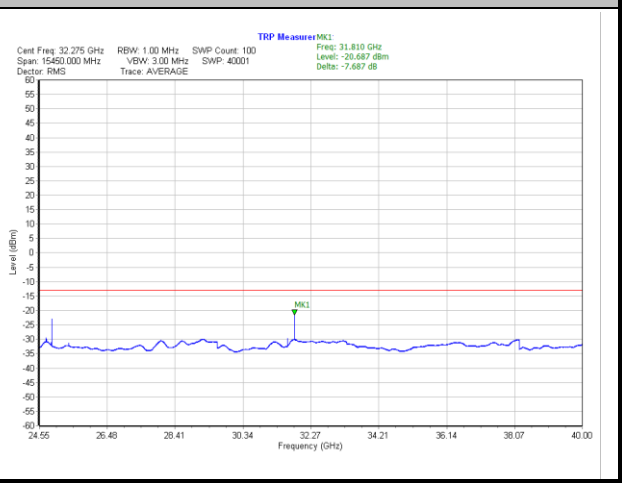
Middle Channel / 50MHz





Highest Channel / 50MHz

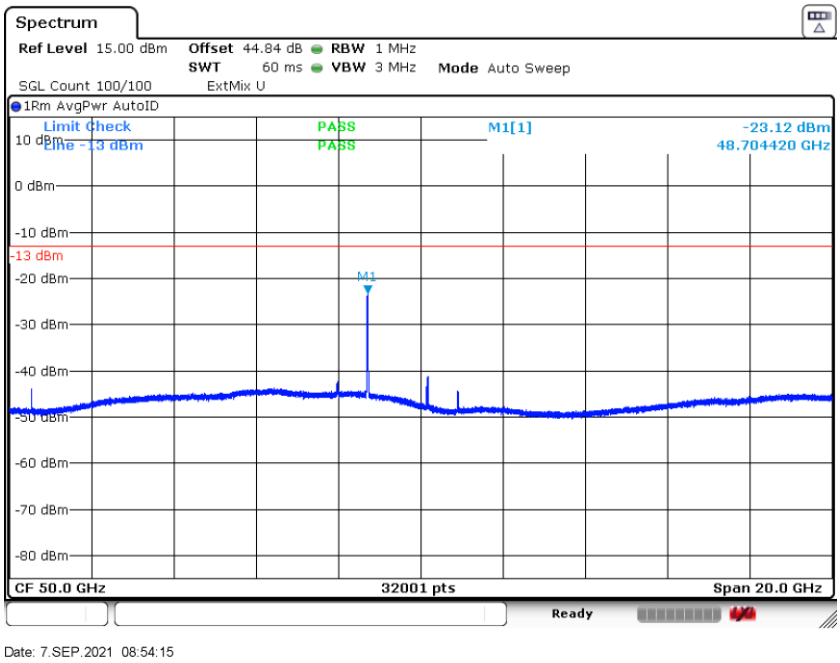




Remark: In band and out of band frequencies that has reported in previous results are omitted.

There is no significant spurious emission signal found for frequency started from 40GHz up to 100GHz.

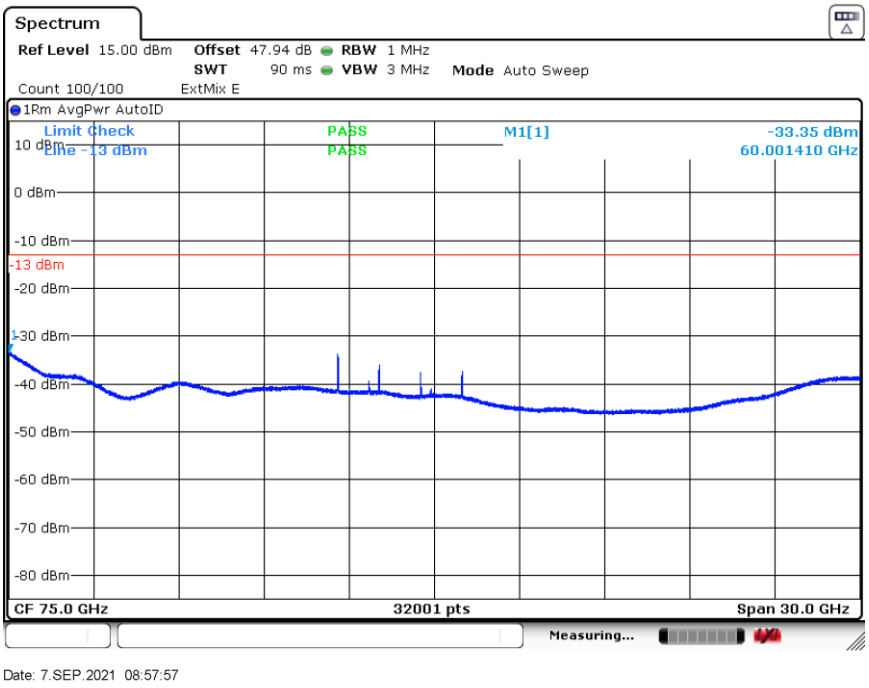
NR Band n258A
(40GHz-60GHz)



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

= 42.3 + 0.34 + 107 + 20log(1) – 104.8 = 44.84 (dB)

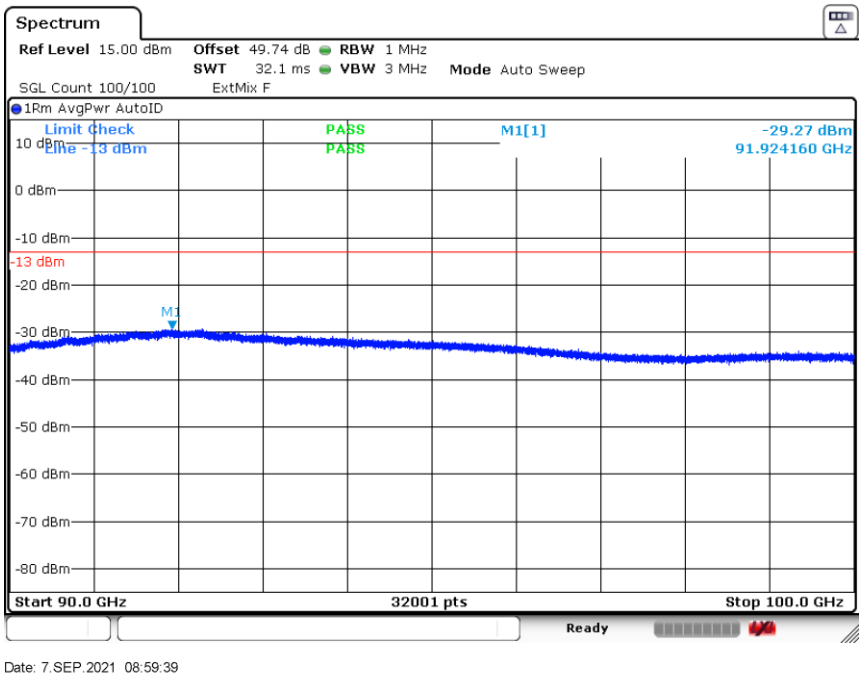
NR Band n258A
(60GHz-90GHz)



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

= 45.4 + 0.34 + 107 + 20log(1) – 104.8 = 47.94 (dB)

NR Band n258A
(90GHz-100GHz)



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

= 47.2 + 0.34 + 107 + 20log(1) – 104.8 = 49.74 (dB)

Frequency Stability

Test Conditions		NR Band n258A / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	24.35103295	0.250	0.010	Pass
40	Normal Voltage	24.3510332	0.000	0.000	
30	Normal Voltage	24.3510332	0.000	0.000	
20(Ref.)	Normal Voltage	24.3510332	0.000	0.000	
10	Normal Voltage	24.35103295	0.250	0.010	
0	Normal Voltage	24.35103295	0.250	0.010	
-10	Normal Voltage	24.35103295	0.250	0.010	
-20	Normal Voltage	24.35103295	0.250	0.010	
-30	Normal Voltage	24.35103295	0.250	0.010	
20	Maximum Voltage	24.3510332	0.000	0.000	
20	Normal Voltage	24.3510332	0.000	0.000	
20	Battery End Point	24.3510332	0.000	0.000	

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 authorized frequency block.

NR Band n258A Module B Beam H

Occupied Bandwidth

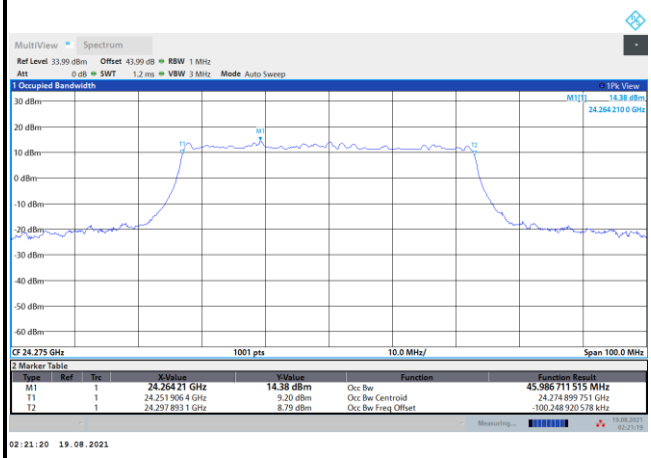
Mode	DFT-s-OFDM Module B NR Band n258A : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	45.98	46.26	46.35
Middle CH	45.96	46.24	46.38
Highest CH	45.96	46.25	46.41

Mode	CP-OFDM Module B NR Band n258A : 99%OBW(MHz)
BW	50MHz
Mod.	QPSK
Lowest CH	46.28
Middle CH	46.23
Highest CH	46.13

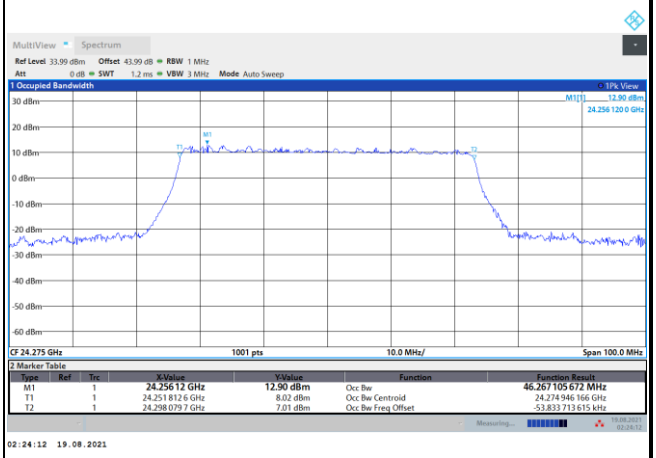
DFT-s-OFDM Module B

NR Band n258A

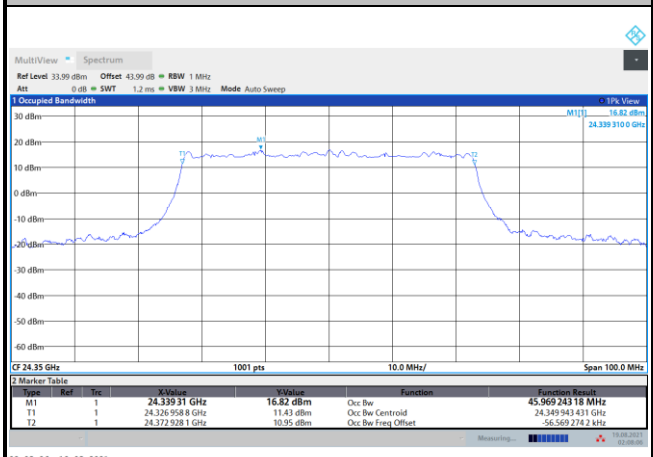
Lowest Channel / 50MHz / QPSK



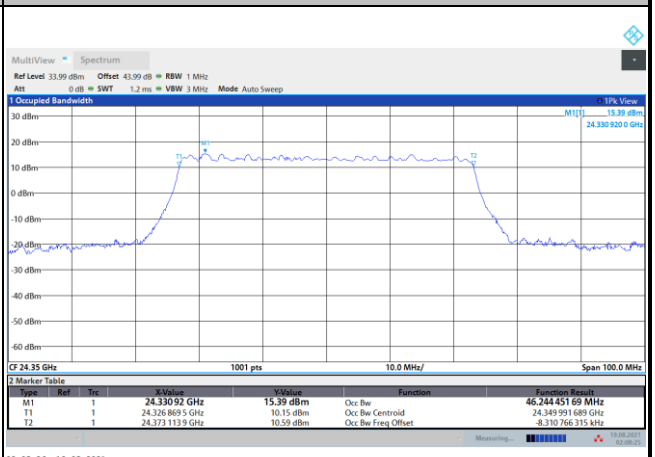
Lowest Channel / 50MHz / 16QAM



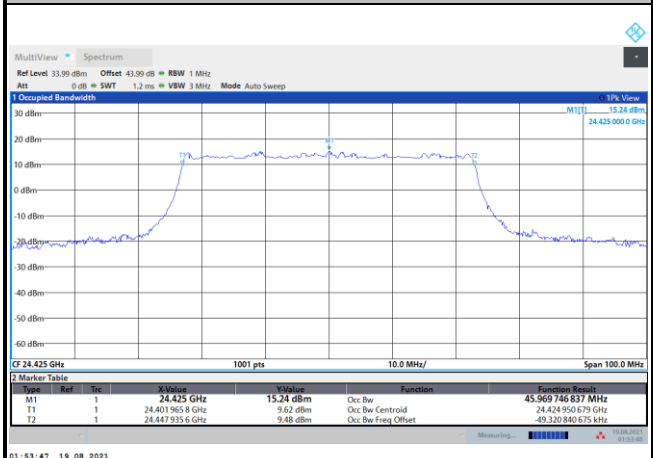
Middle Channel / 50MHz / QPSK



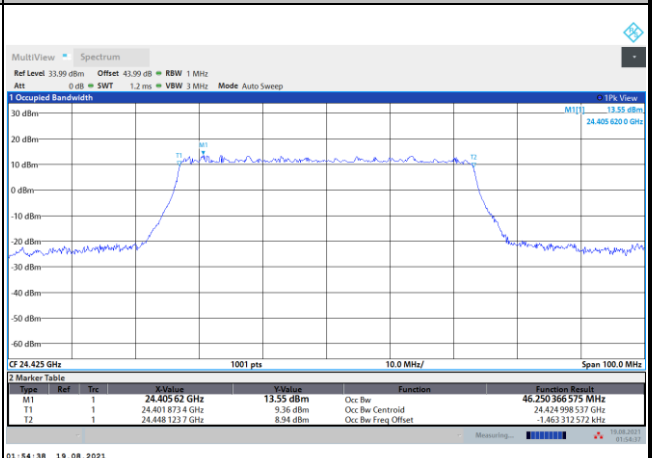
Middle Channel / 50MHz / 16QAM



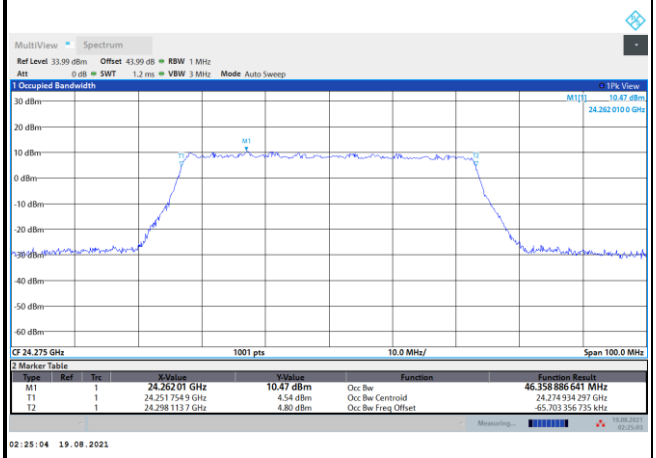
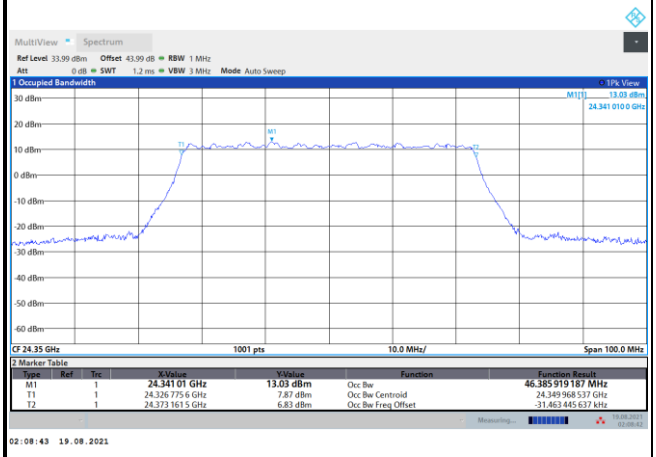
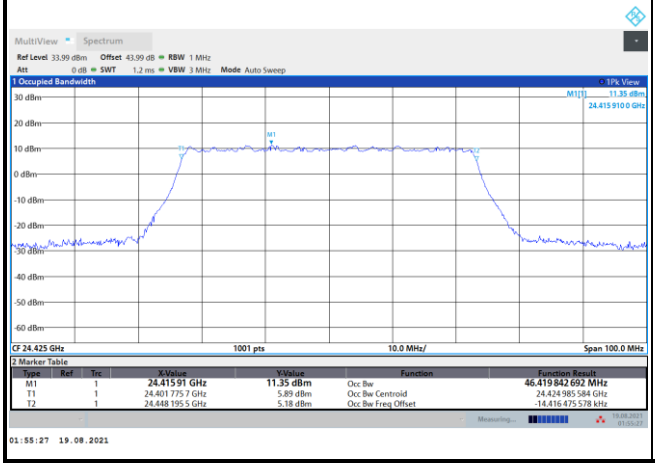
Highest Channel / 50MHz / QPSK



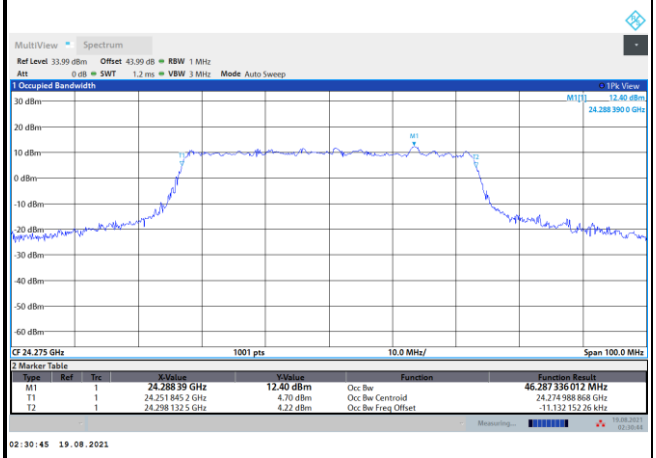
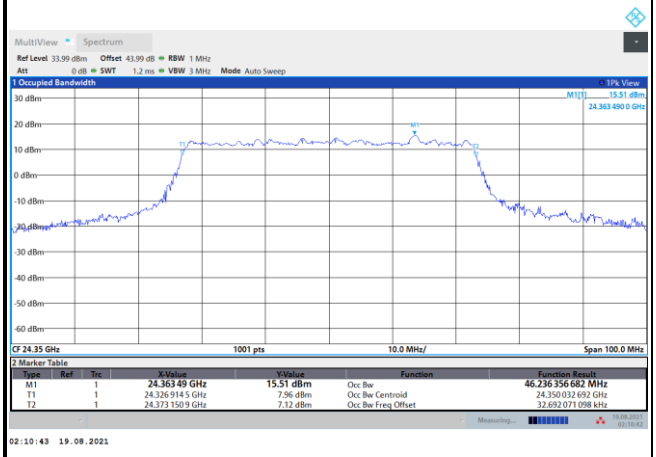
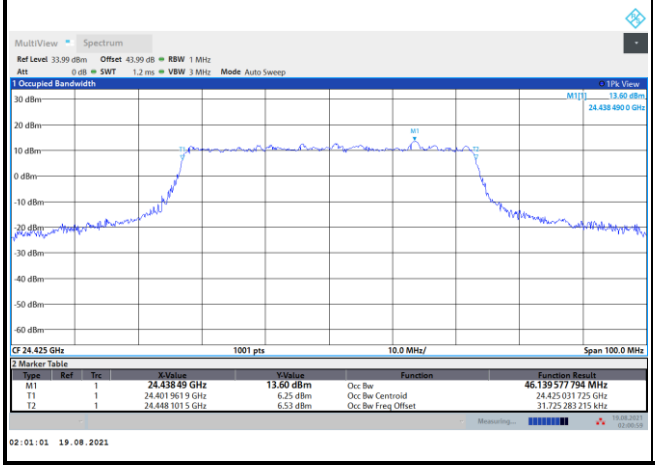
Highest Channel / 50MHz / 16QAM



DFT-s-OFDM Module B

NR Band n258A	
Lowest Channel / 50MHz / 64QAM	
	intentionally blank
Middle Channel / 50MHz / 64QAM	
	intentionally blank
Highest Channel / 50MHz / 64QAM	
	intentionally blank

CP-OFDM Module B

NR Band n258A	
Lowest Channel / 50MHz / QPSK	
	**intentionally blank**
Middle Channel / 50MHz / QPSK	
	**intentionally blank**
Highest Channel / 50MHz / QPSK	
	**intentionally blank**

Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module B NR Band n258A : BE (dBm) 1 RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-10.96	-10.62	-14.65
	>10%OB	≦-13	-38.84	-38.94	-40.66
HighCH	0~10%OB	≦-5	-11.49	-12.26	-14.31
	>10%OB	≦-13	-37.59	-37.78	-39.55
Result			Compliance		

Mode			CP-OFDM Module B NR Band n258A : BE (dBm) 1 RB
BW			50MHz
Limit (dBm)			QPSK
Low CH	0~10%OB	≦-5	-12.51
	>10%OB	≦-13	-40.28
High CH	0~10%OB	≦-5	-13.22
	>10%OB	≦-13	-38.82
Result			Compliance

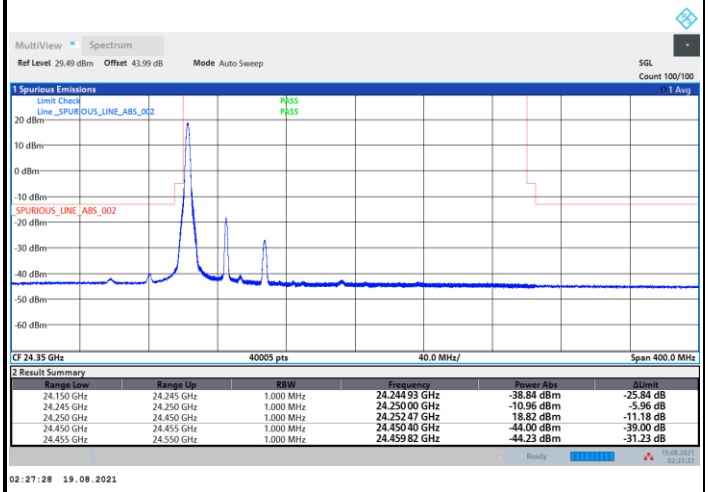
Mode			DFT-s-OFDM Module B NR Band n258A : BE (dBm) Full RB		
BW			50MHz		
Limit (dBm)			QPSK	16QAM	64QAM
Low CH	0~10%OB	≦-5	-20.74	-22.12	-23.85
	>10%OB	≦-13	-27.90	-31.21	-35.44
HighCH	0~10%OB	≦-5	-20.41	-21.21	-23.00
	>10%OB	≦-13	-25.73	-30.24	-34.29
Result			Compliance		

Mode			CP-OFDM Module B NR Band n258A : BE (dBm) Full RB
BW			50MHz
Limit (dBm)			QPSK
Low CH	0~10%OB	≦-5	-22.10
	>10%OB	≦-13	-28.10
High CH	0~10%OB	≦-5	-21.15
	>10%OB	≦-13	-26.46
Result			Compliance

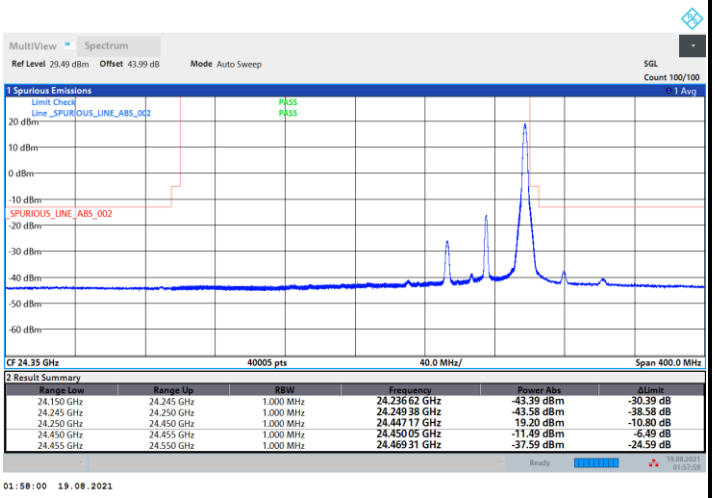
DFT-s-OFDM Module B

NR Band n258A / 50MHz / QPSK

Lowest Band Edge / 1 RB

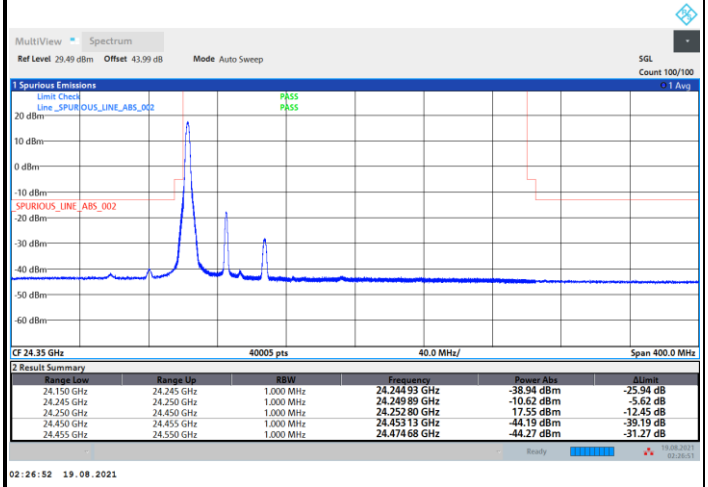


Highest Band Edge / 1 RB

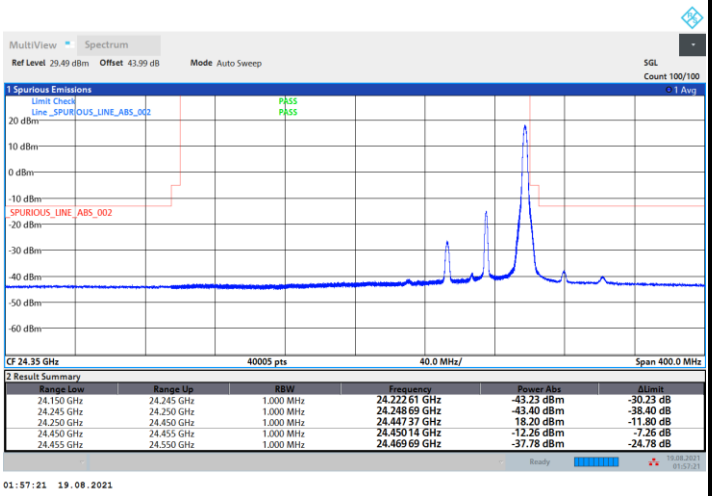


NR Band n258A / 50MHz / 16QAM

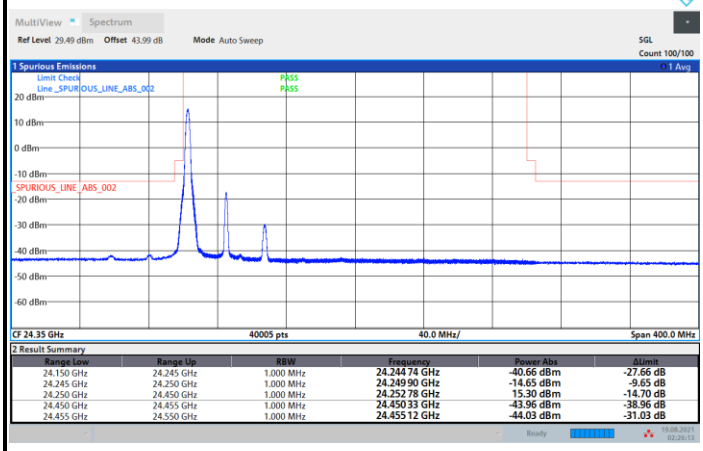
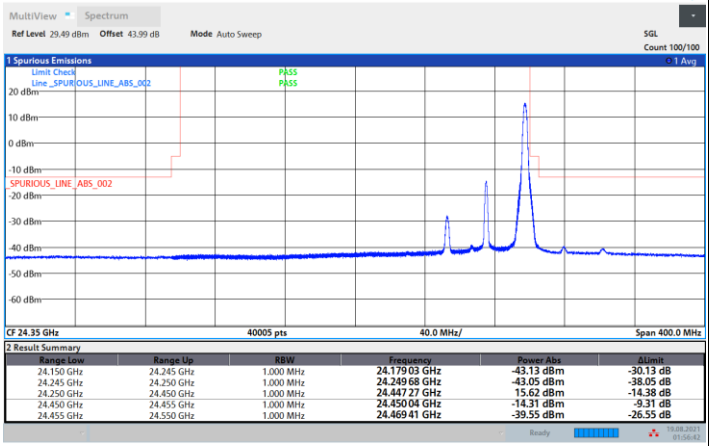
Lowest Band Edge / 1 RB



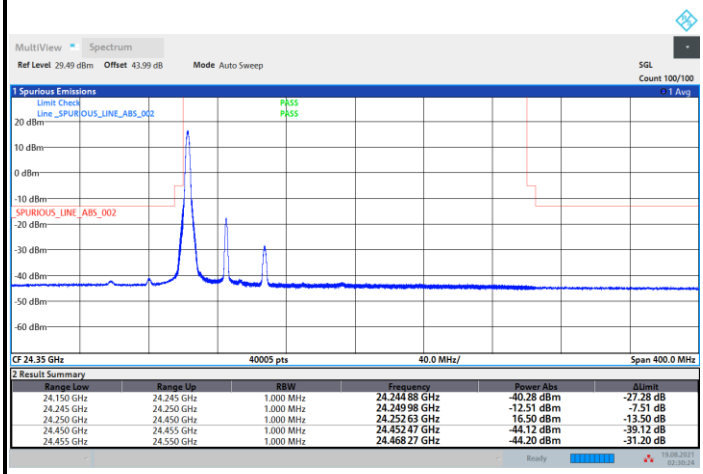
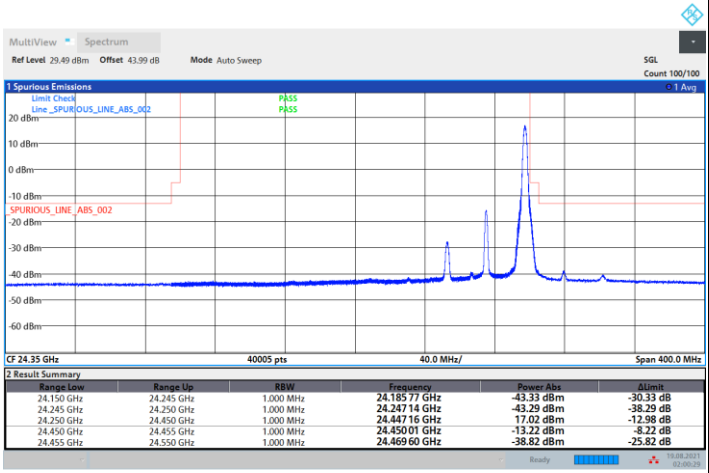
Highest Band Edge / 1 RB



DFT-s-OFDM Module B

NR Band n258A / 50MHz / 64QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

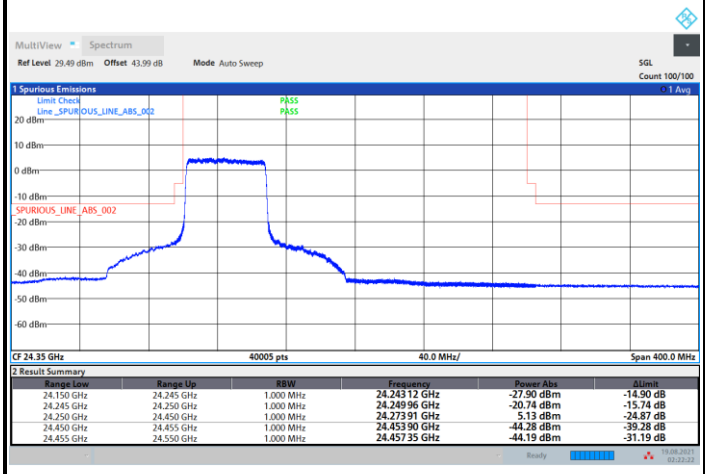
CP-OFDM Module B

NR Band n258A / 50MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	

DFT-s-OFDM Module B

NR Band n258A / 50MHz / QPSK

Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
24.150 GHz	24.245 GHz	1.000 MHz	24.243 12 GHz	-27.90 dBm	-14.90 dB
24.245 GHz	24.250 GHz	1.000 MHz	24.249 96 GHz	-20.74 dBm	-15.74 dB
24.250 GHz	24.450 GHz	1.000 MHz	24.273 91 GHz	5.13 dBm	-24.87 dB
24.450 GHz	24.455 GHz	1.000 MHz	24.453 90 GHz	-44.28 dBm	-39.28 dB
24.455 GHz	24.550 GHz	1.000 MHz	24.457 35 GHz	-44.19 dBm	-31.19 dB

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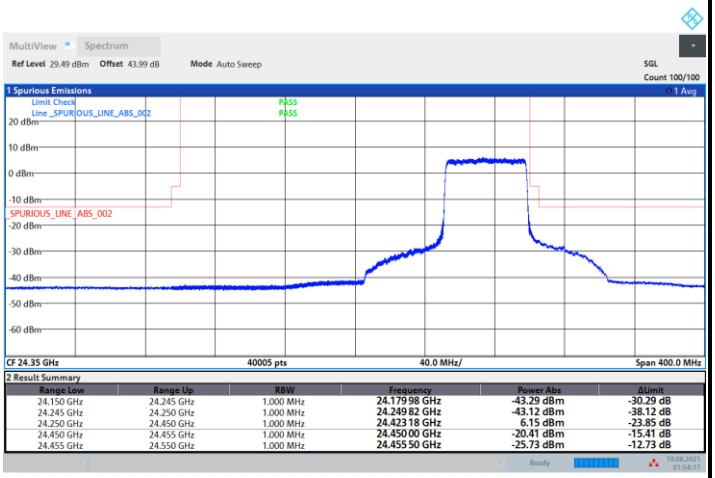
Highest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
24.150 GHz	24.245 GHz	1.000 MHz	24.179 98 GHz	-43.29 dBm	-30.29 dB
24.245 GHz	24.250 GHz	1.000 MHz	24.249 82 GHz	-43.12 dBm	-38.12 dB
24.250 GHz	24.450 GHz	1.000 MHz	24.423 18 GHz	6.15 dBm	-23.85 dB
24.450 GHz	24.455 GHz	1.000 MHz	24.450 00 GHz	-20.41 dBm	-15.41 dB
24.455 GHz	24.550 GHz	1.000 MHz	24.455 50 GHz	-25.73 dBm	-12.73 dB

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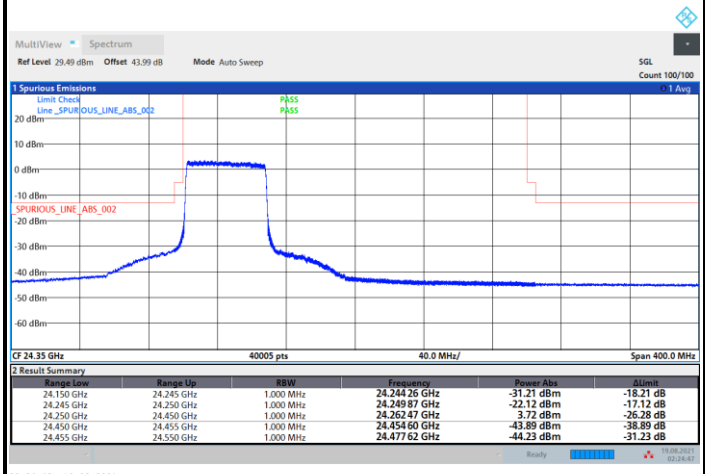
NR Band n258A / 50MHz / 16QAM

Lowest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
24.150 GHz	24.245 GHz	1.000 MHz	24.244 26 GHz	-31.21 dBm	-18.21 dB
24.245 GHz	24.250 GHz	1.000 MHz	24.249 87 GHz	-22.12 dBm	-17.12 dB
24.250 GHz	24.450 GHz	1.000 MHz	24.262 47 GHz	3.72 dBm	-26.28 dB
24.450 GHz	24.455 GHz	1.000 MHz	24.454 60 GHz	-43.89 dBm	-38.89 dB
24.455 GHz	24.550 GHz	1.000 MHz	24.477 62 GHz	-44.23 dBm	-31.23 dB

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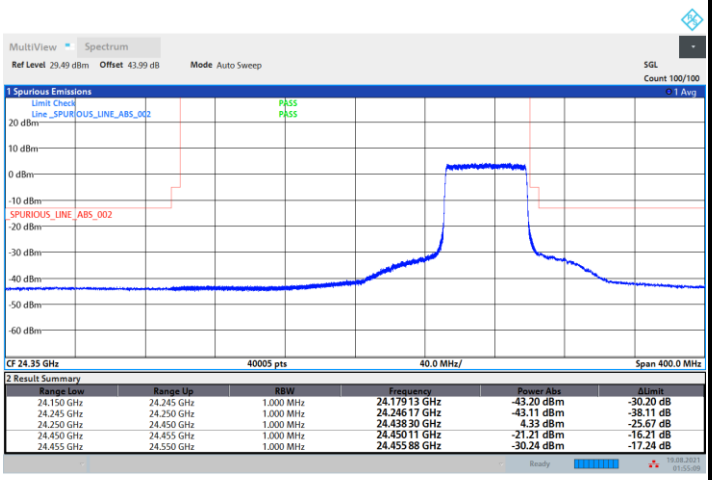
Highest Band Edge / Full RB



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
24.150 GHz	24.245 GHz	1.000 MHz	24.179 13 GHz	-43.20 dBm	-30.20 dB
24.245 GHz	24.250 GHz	1.000 MHz	24.246 17 GHz	-43.11 dBm	-38.11 dB
24.250 GHz	24.450 GHz	1.000 MHz	24.438 30 GHz	4.33 dBm	-25.67 dB
24.450 GHz	24.455 GHz	1.000 MHz	24.450 11 GHz	-21.21 dBm	-16.21 dB
24.455 GHz	24.550 GHz	1.000 MHz	24.455 88 GHz	-30.24 dBm	-17.24 dB

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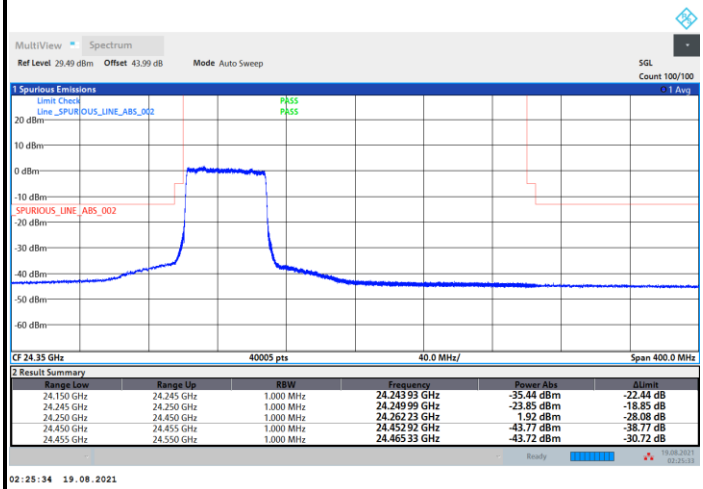
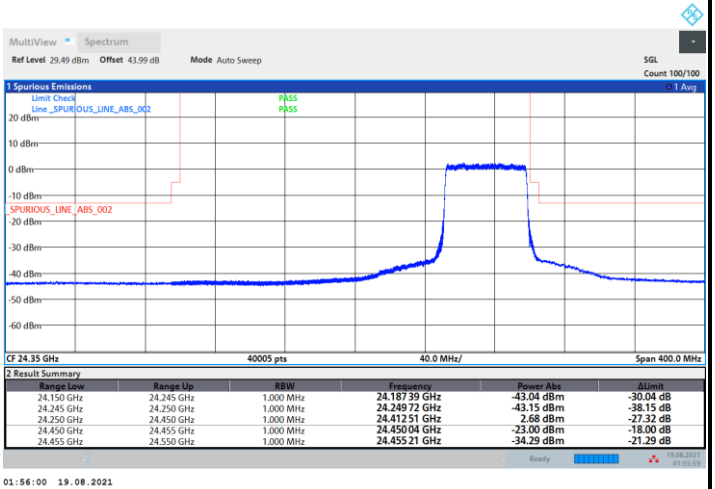
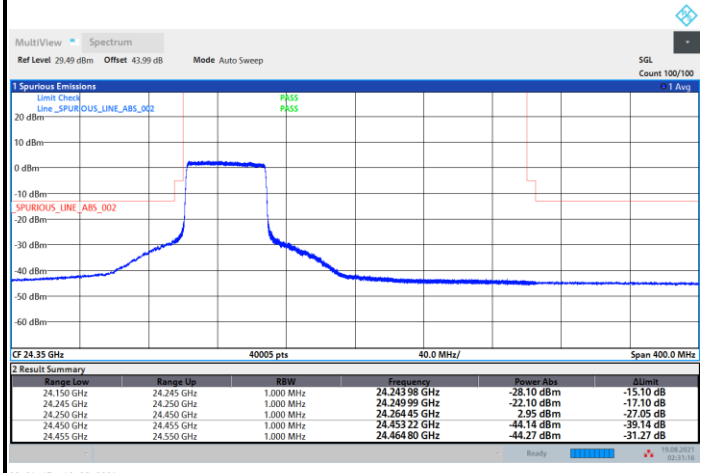
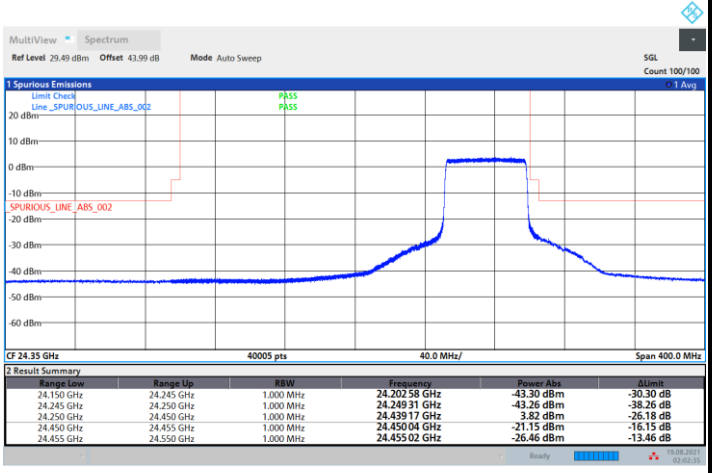
DFT-s-OFDM Module B

NR Band n258A / 50MHz / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

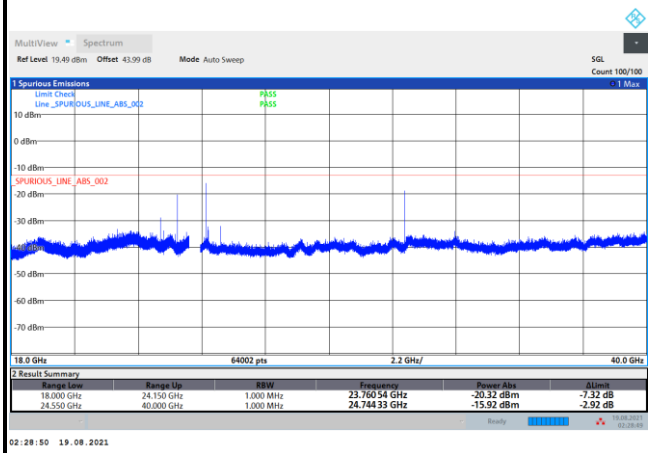
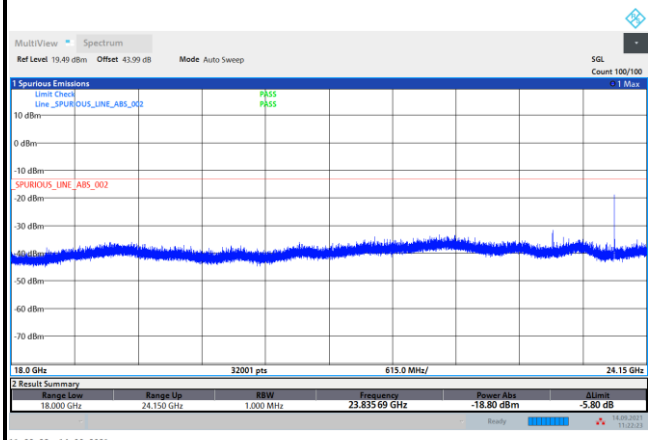
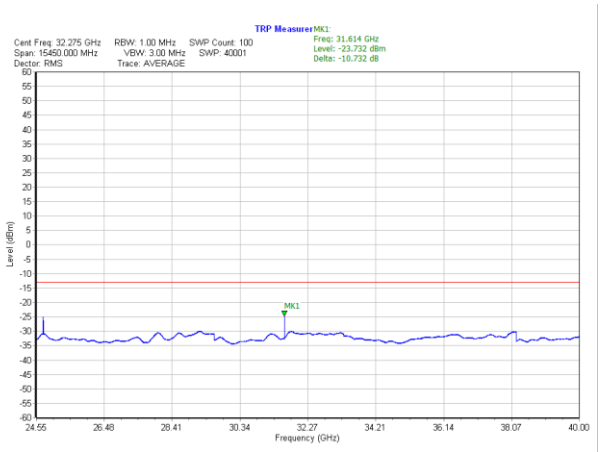
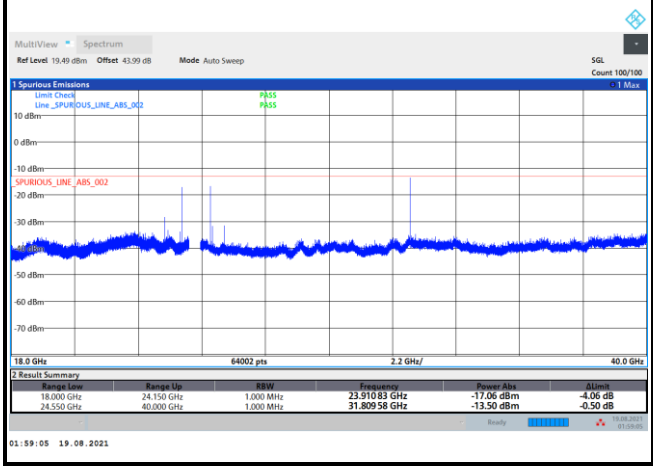
CP-OFDM Module B

NR Band n258A / 50MHz / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

Spurious Emission

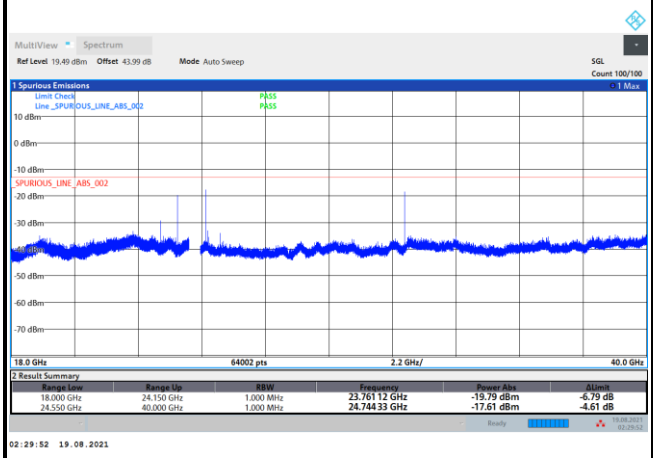
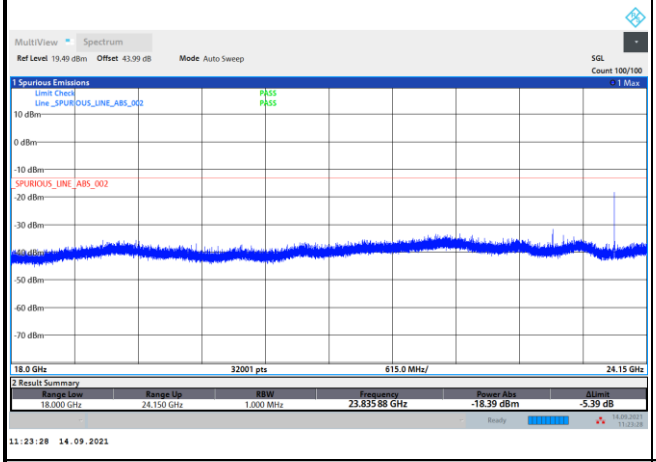
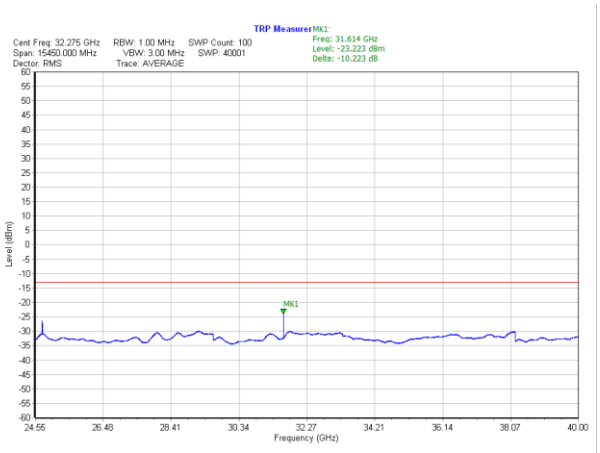
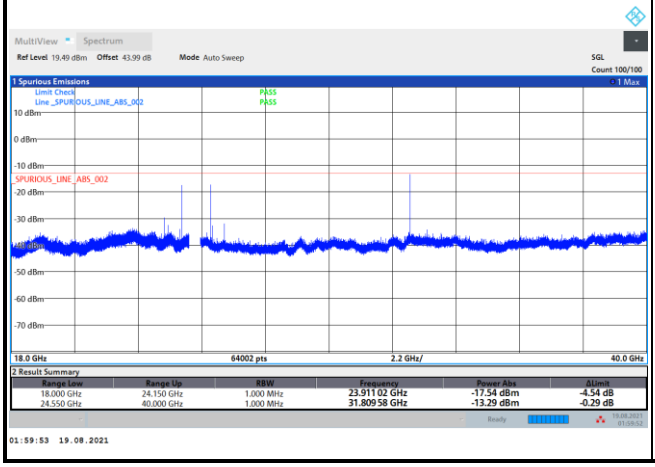
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module B

NR Band n258A QPSK (18-40GHz)	
Lowest Channel / 50MHz	
	**intentionally blank**
Middle Channel / 50MHz	
	
Highest Channel / 50MHz	
	**intentionally blank**

Remark: In band and out of band frequencies that has reported in previous results are omitted.

CP-OFDM Module B

NR Band n258A QPSK (18-40GHz)	
Lowest Channel / 50MHz	
	**intentionally blank**
Middle Channel / 50MHz	
	
Highest Channel / 50MHz	
	**intentionally blank**

Remark: In band and out of band frequencies that has reported in previous results are omitted.

NR Band n258A Module B Beam V

Occupied Bandwidth

Mode	DFT-s-OFDM Module B NR Band n258A : 99%OBW(MHz)		
BW	50MHz		
Mod.	QPSK	16QAM	64QAM
Lowest CH	45.94	46.27	46.35
Middle CH	45.97	46.27	46.35
Highest CH	46.00	46.27	46.36

Mode	CP-OFDM Module B NR Band n258A : 99%OBW(MHz)
BW	50MHz
Mod.	QPSK
Lowest CH	46.18
Middle CH	46.26
Highest CH	46.26