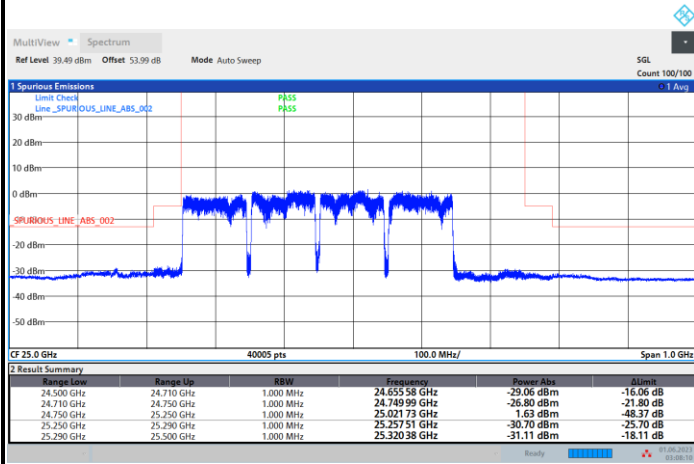




DFT-s-OFDM Module A

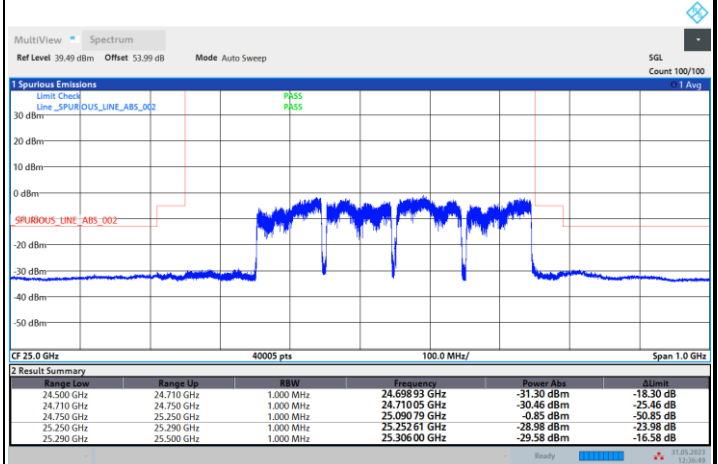
NR Band n258b / 400MHz / QPSK

Lowest Band Edge / Full RB



03:08:10 01.06.2023

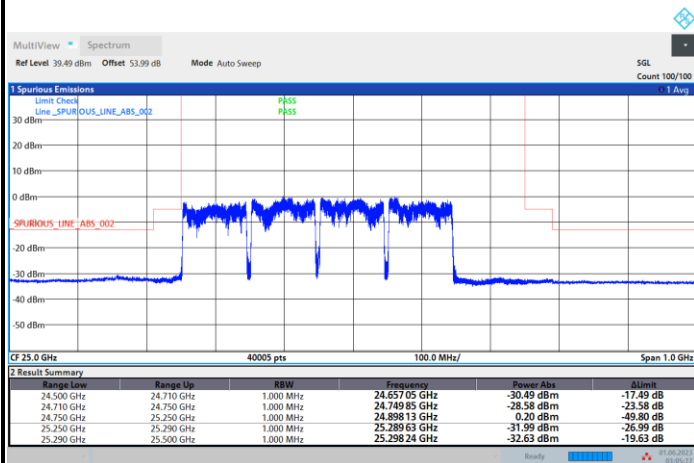
Highest Band Edge / Full RB



12:36:49 31.05.2023

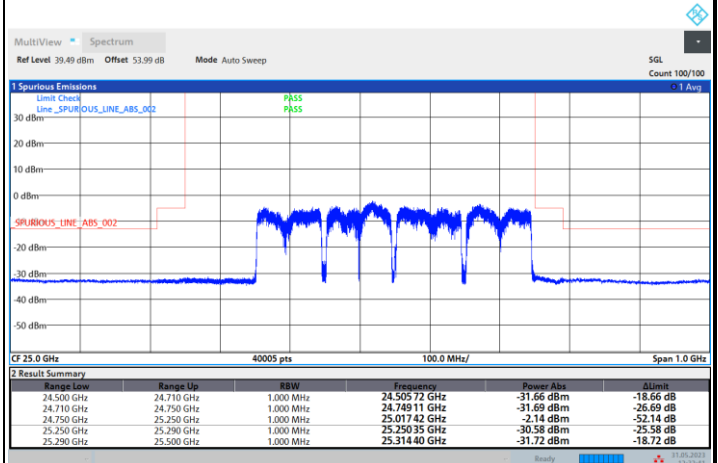
NR Band n258b / 400MHz / 16QAM

Lowest Band Edge / Full RB



03:05:17 01.06.2023

Highest Band Edge / Full RB



12:32:41 31.05.2023

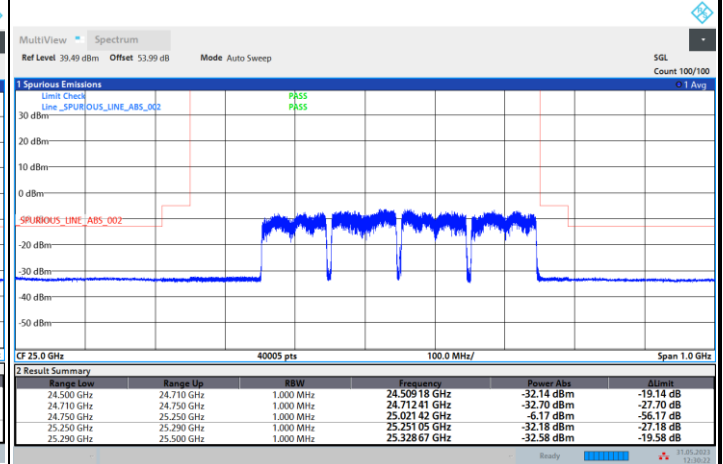
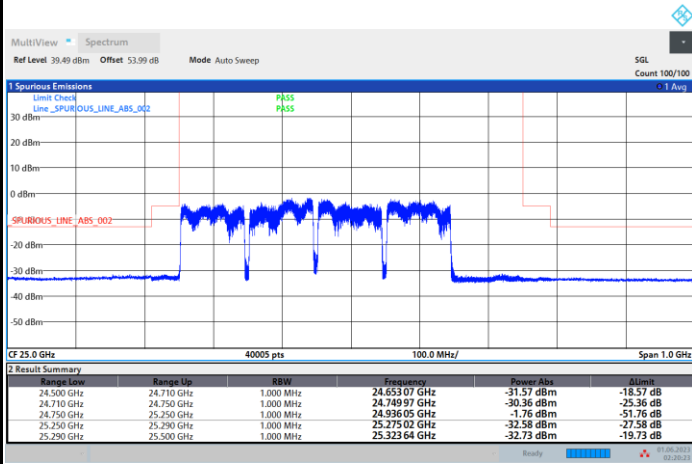


DFT-s-OFDM Module A

NR Band n258b / 400MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

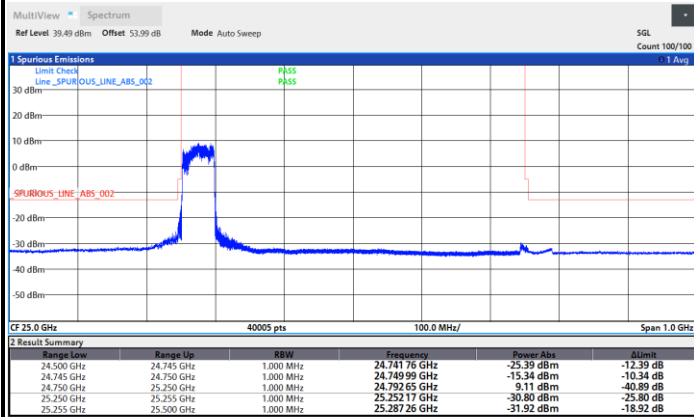




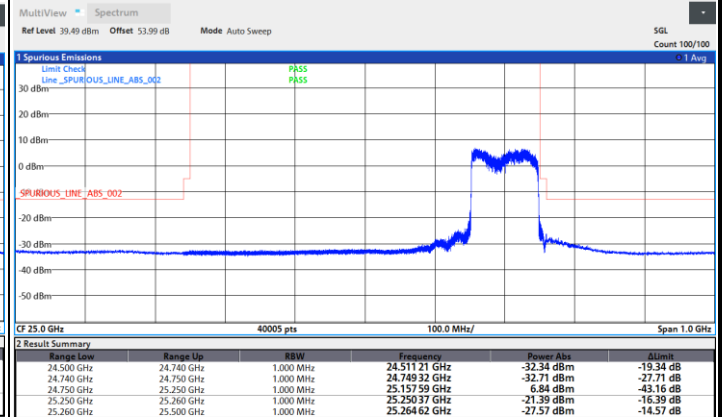
CP-OFDM Module A

NR Band n258b / 50MHz / QPSK

Lowest Band Edge / Full RB

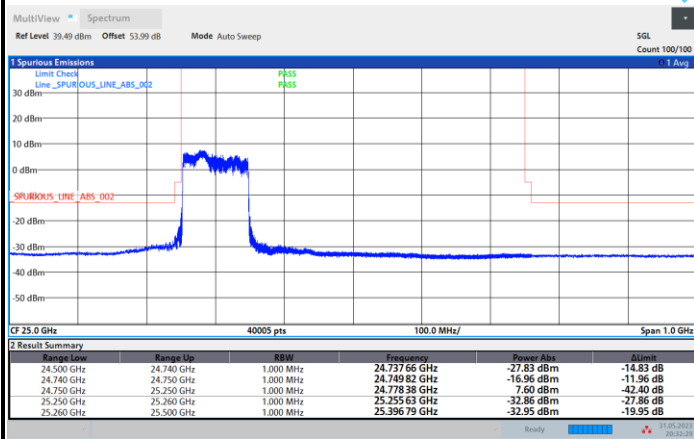


Highest Band Edge / Full RB

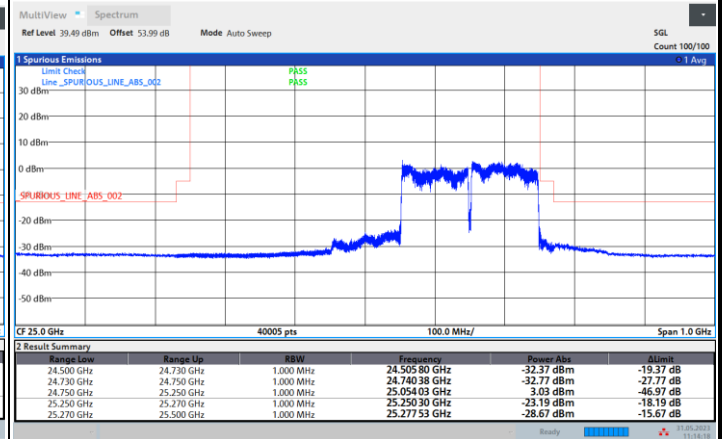


NR Band n258b / 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

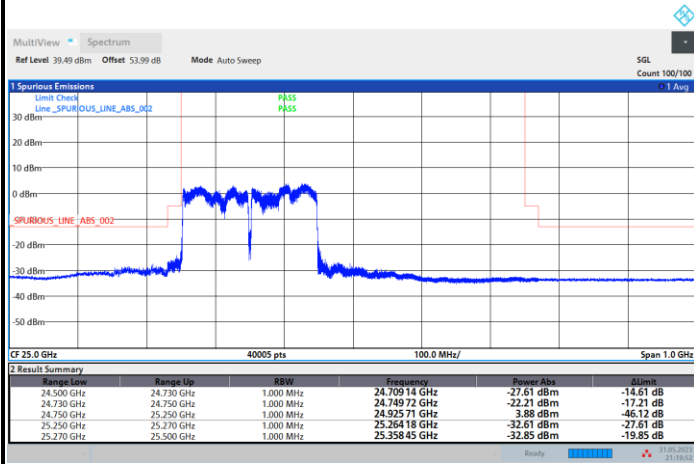




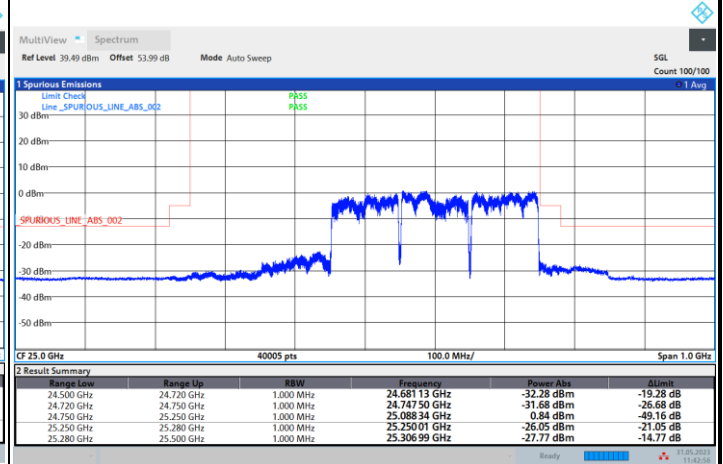
CP-OFDM Module A

NR Band n258b / 200MHz / QPSK

Lowest Band Edge / Full RB

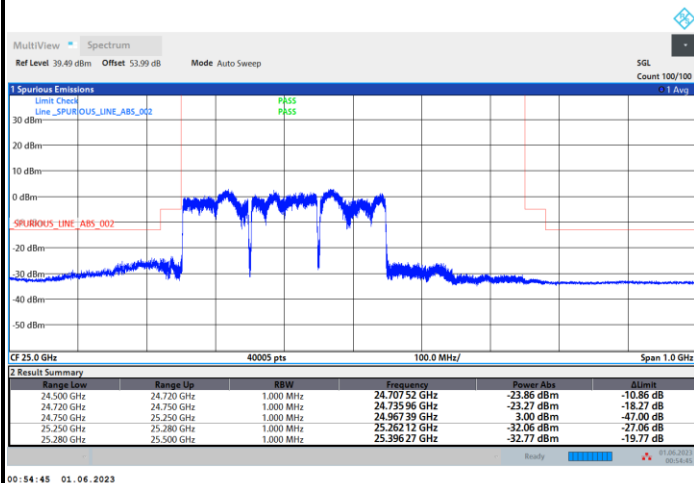


Highest Band Edge / Full RB

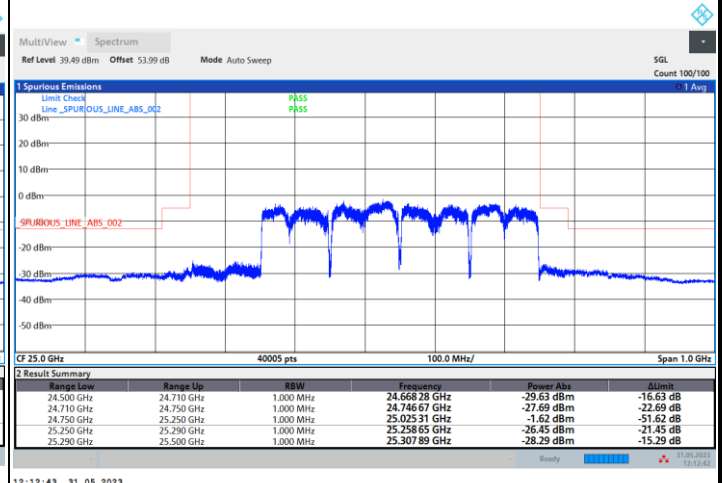


NR Band n258b / 300MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB



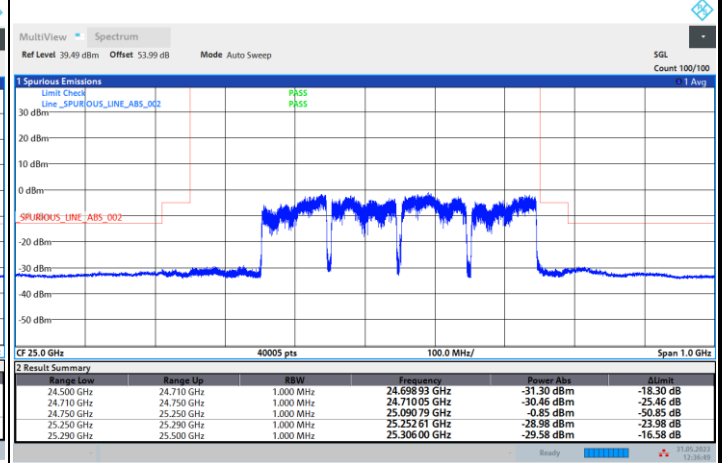
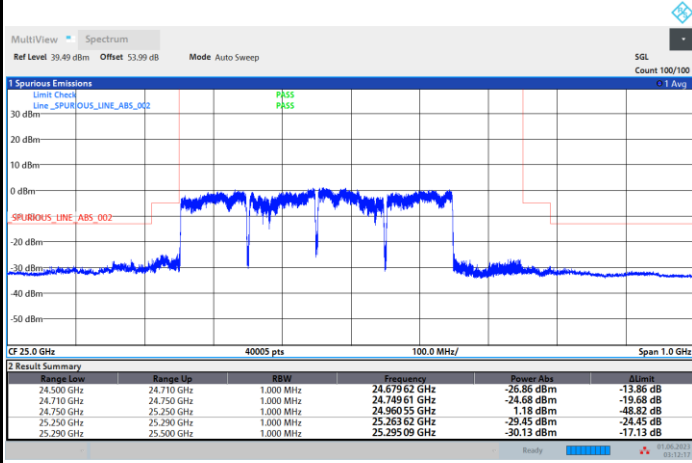


CP-OFDM Module A

NR Band n258b / 400MHz / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

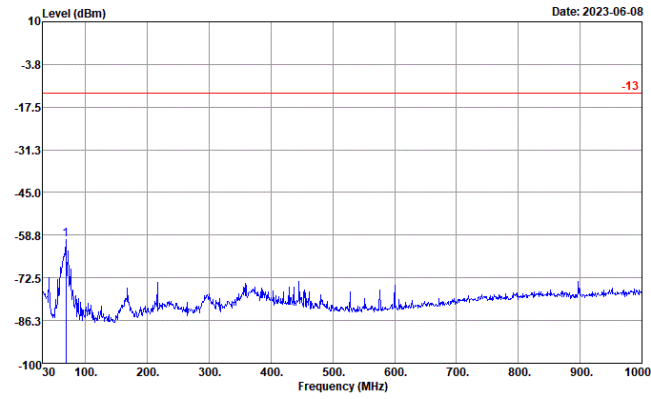




Spurious Emission

NR Band n258b (30MHz-1GHz)

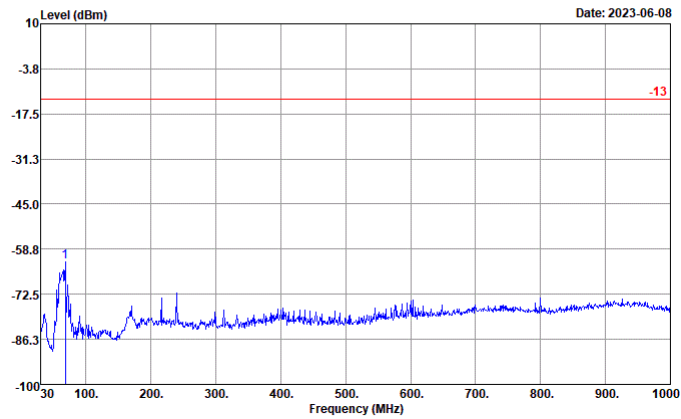
Horizontal



Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 2D0206-01
: n258b MA

Freq	Level	Over	Limit
		Limit	Line
MHz	dBm	dB	dBm
1	67.83	-60.17	-47.17 -13.00

Vertical



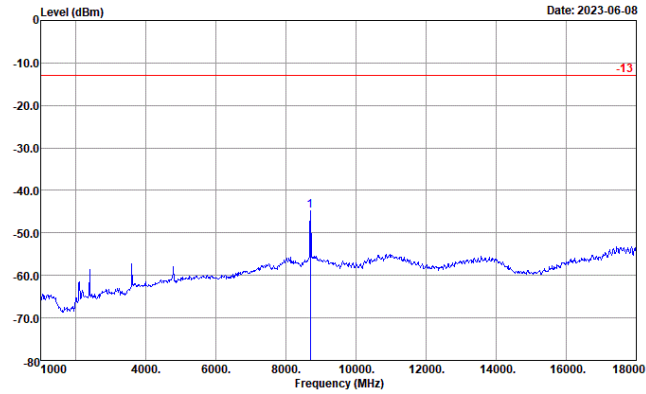
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 2D0206-01
: n258b MA

Freq	Level	Over	Limit
		Limit	Line
MHz	dBm	dB	dBm
1	67.83	-62.72	-49.72 -13.00



NR Band n258b (1GHz-18GHz)

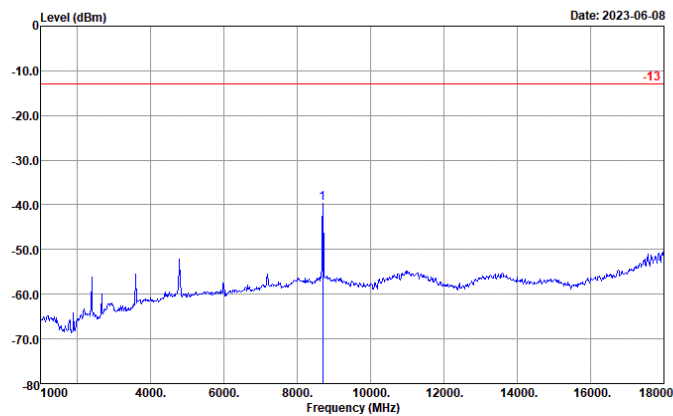
Horizontal



Site : 03CH10-HY
Condition : -13 EIRP_WO HORIZONTAL
Project : 2D0206-01
 : n258b MA

Freq	Level	Over	Limit
MHz	dBm	Limit	Line
1	8701.00	-44.71	-31.71 -13.00

Vertical



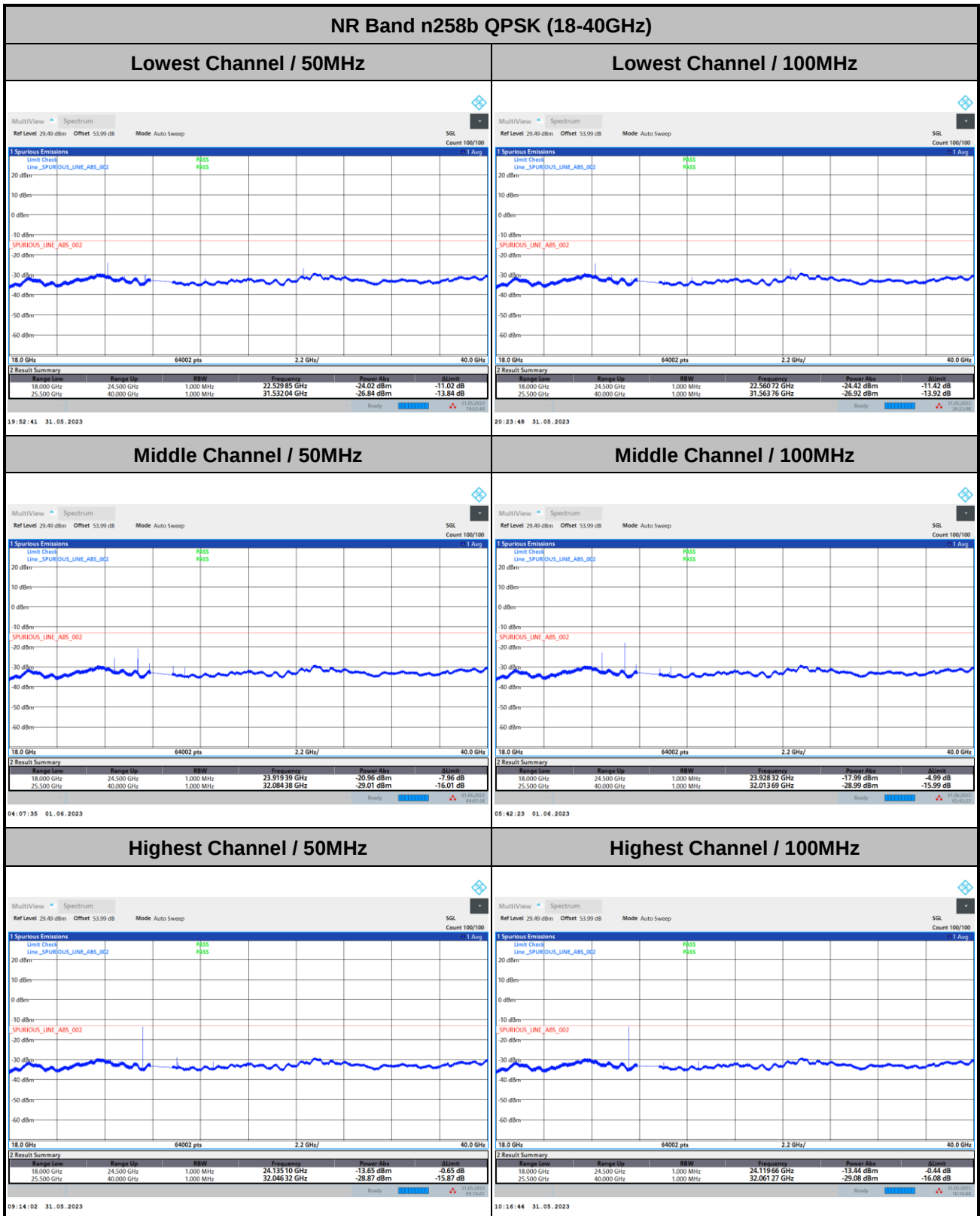
Site : 03CH10-HY
Condition : -13 EIRP_WO VERTICAL
Project : 2D0206-01
 : n258b MA

Freq	Level	Over	Limit
MHz	dBm	Limit	Line
1	8701.00	-39.69	-26.69 -13.00



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

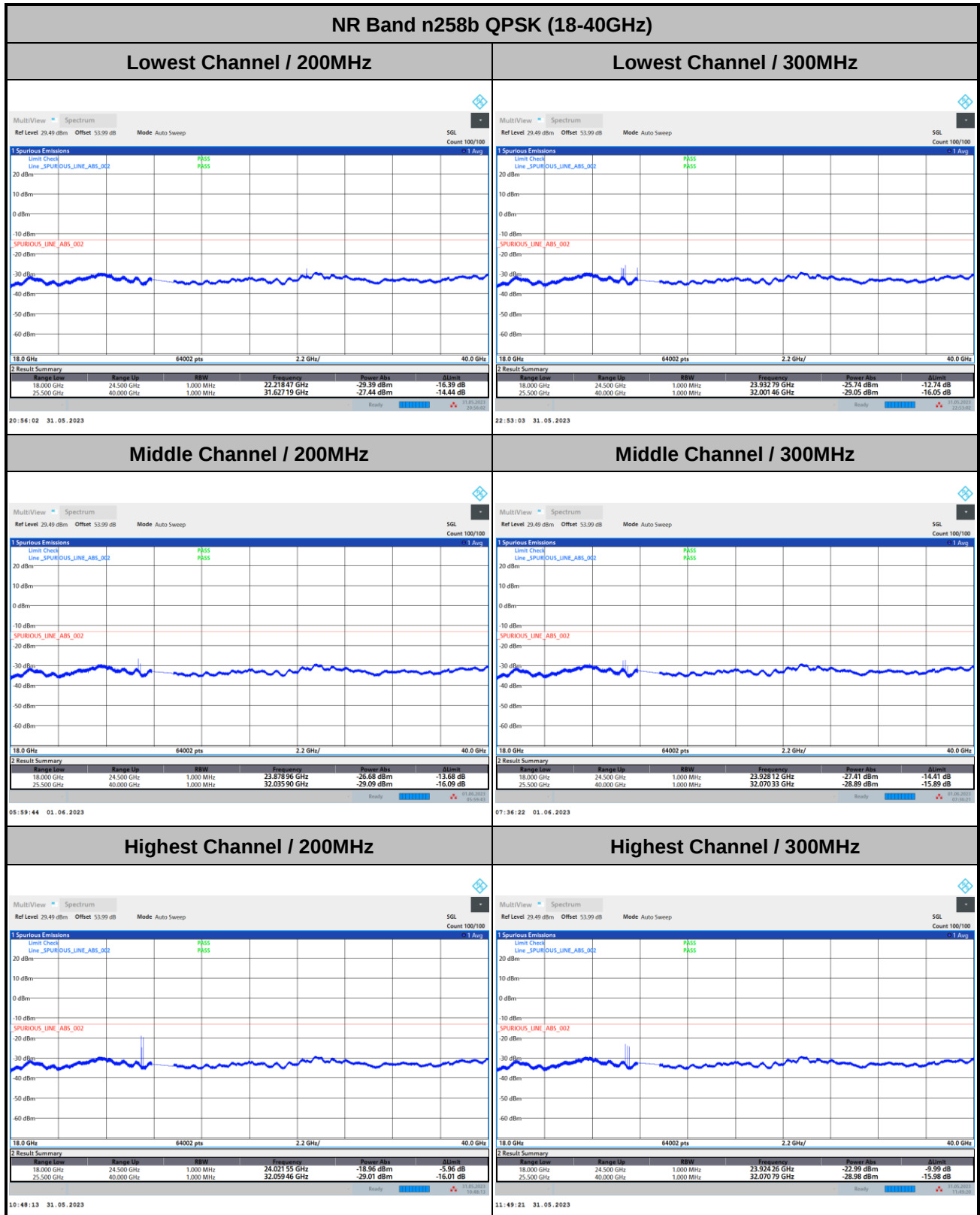
DFT-s-OFDM Module A



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



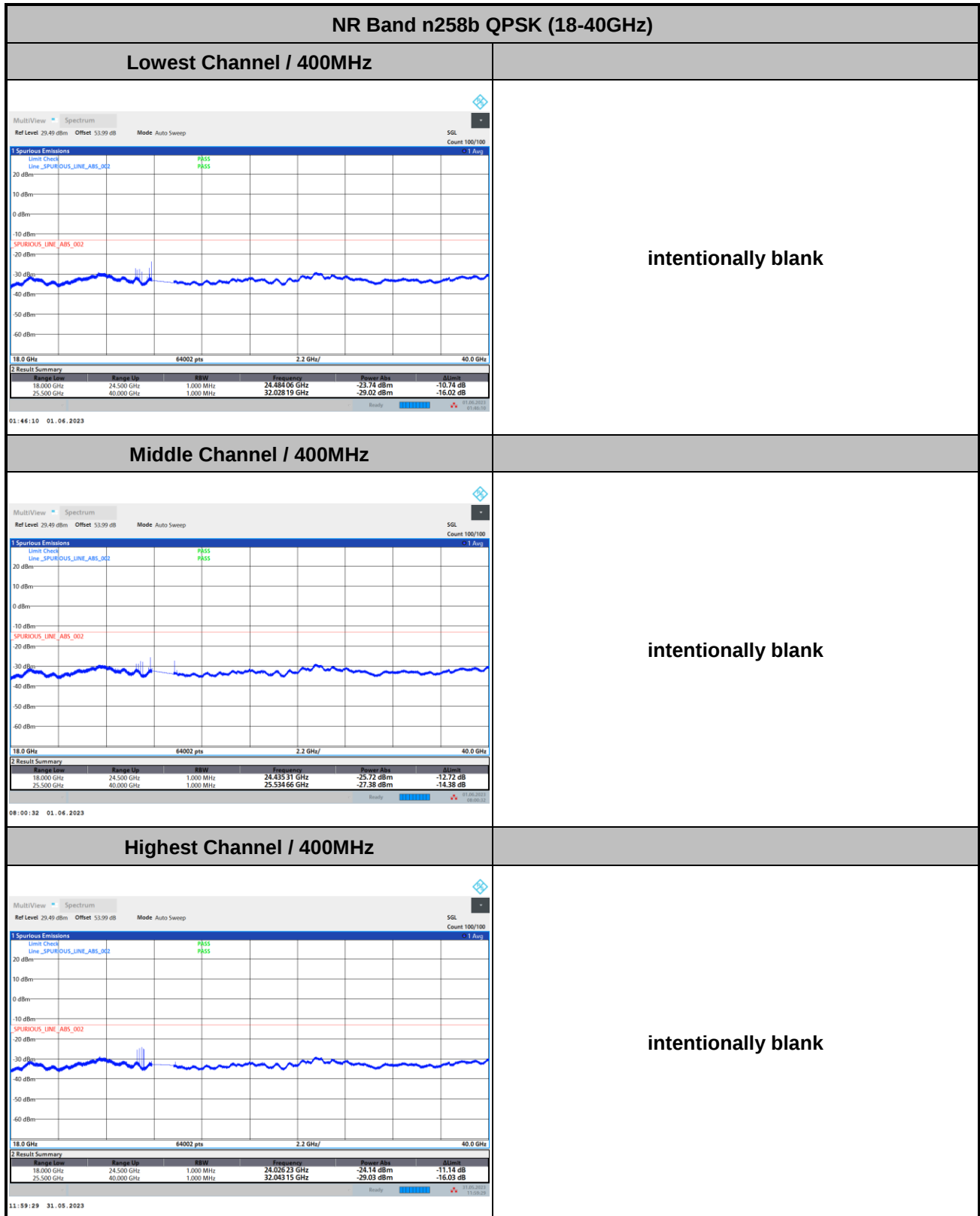
DFT-s-OFDM Module A



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



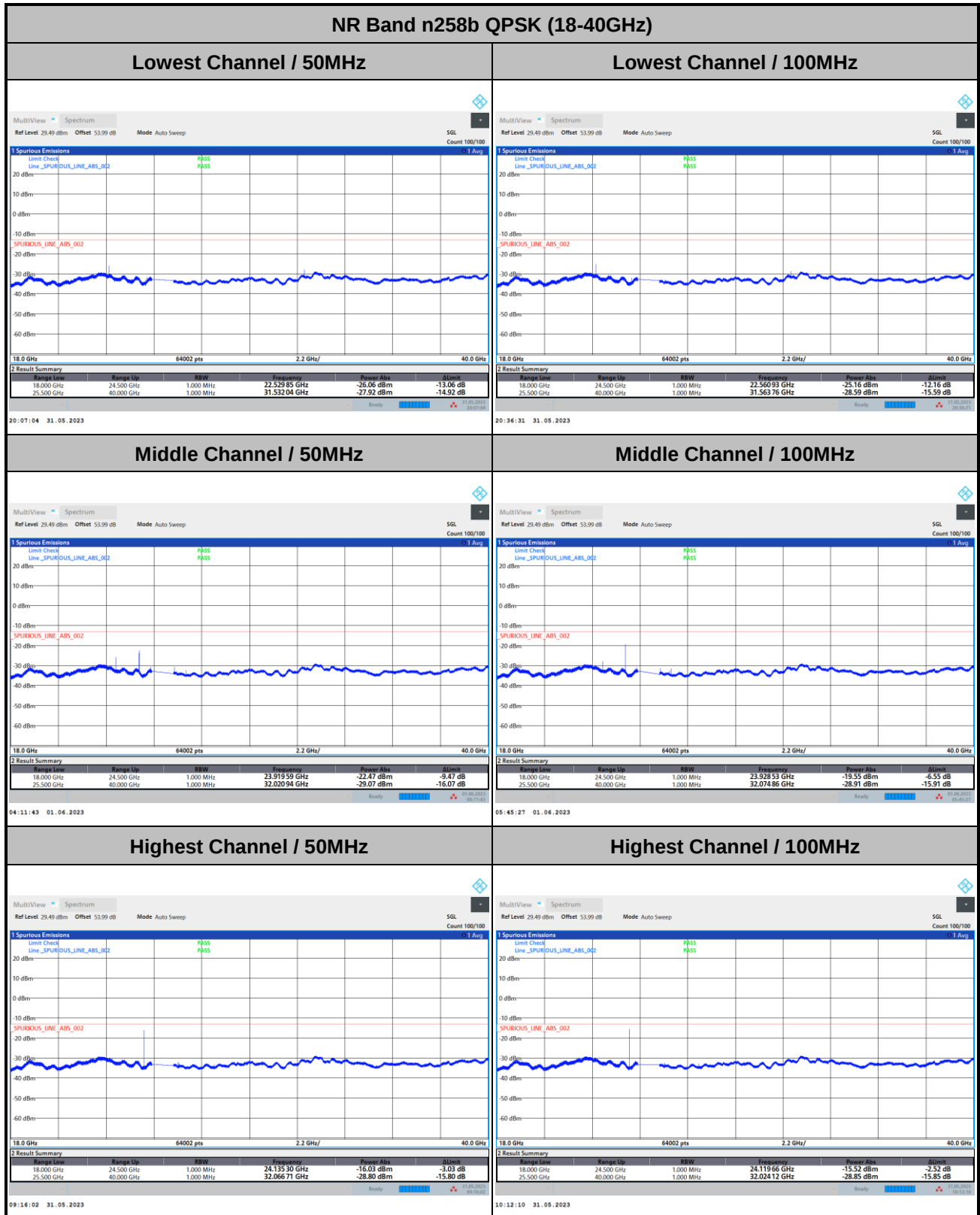
DFT-s-OFDM Module A



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



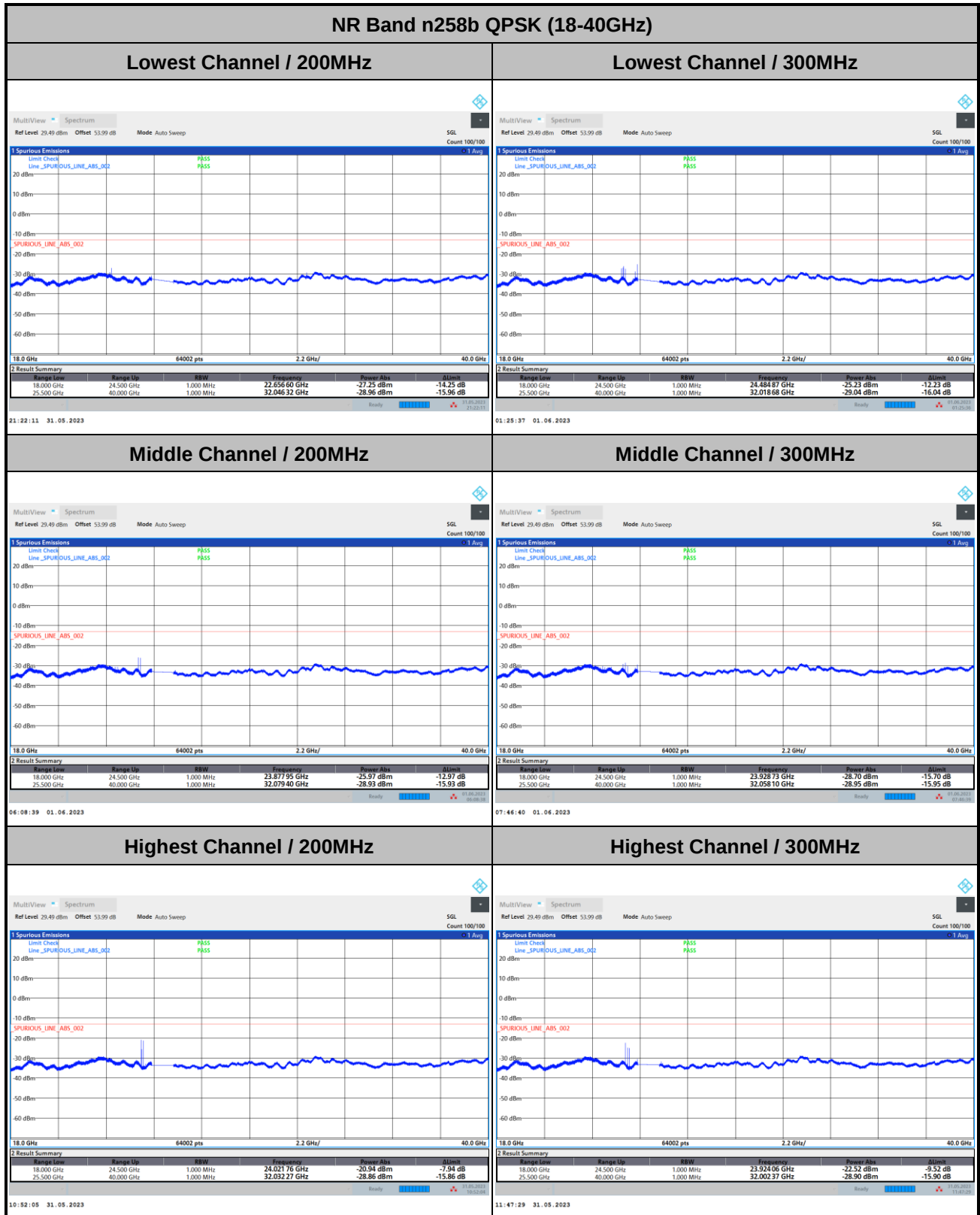
CP-OFDM Module A



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



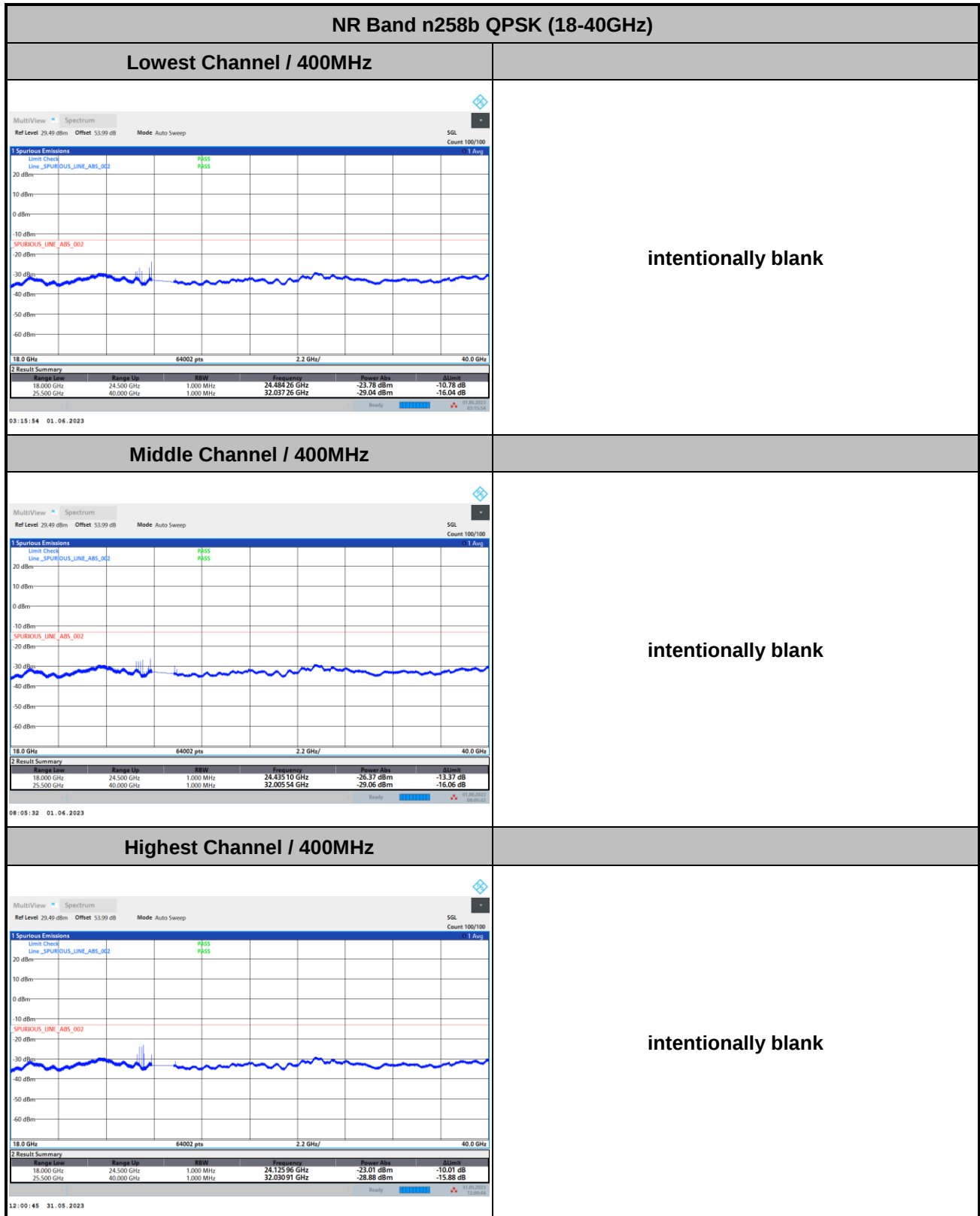
CP-OFDM Module A



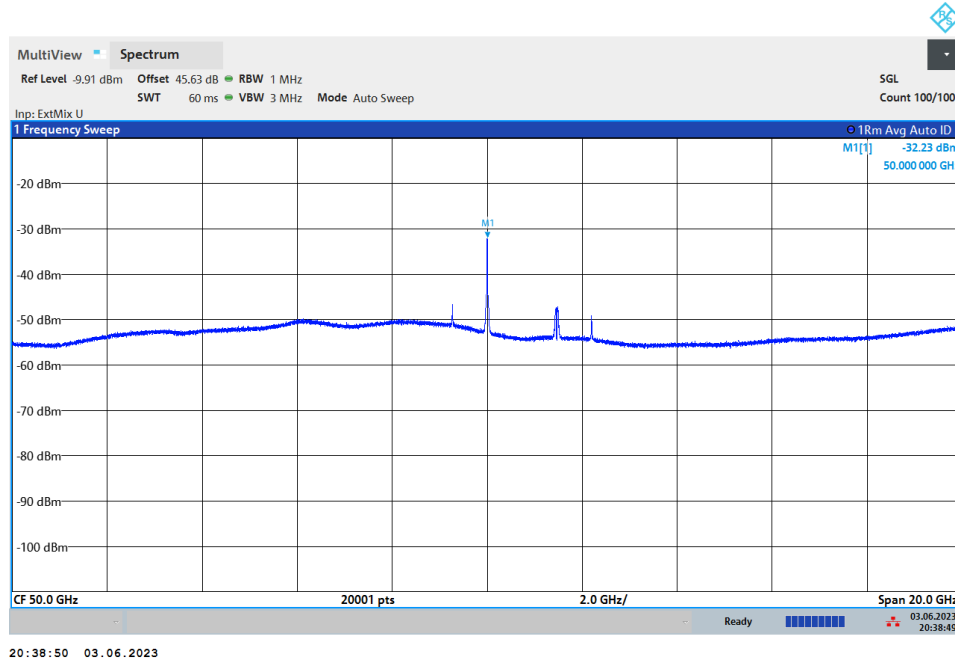
Remark: In band and out of band frequencies are omitted.



CP-OFDM Module A

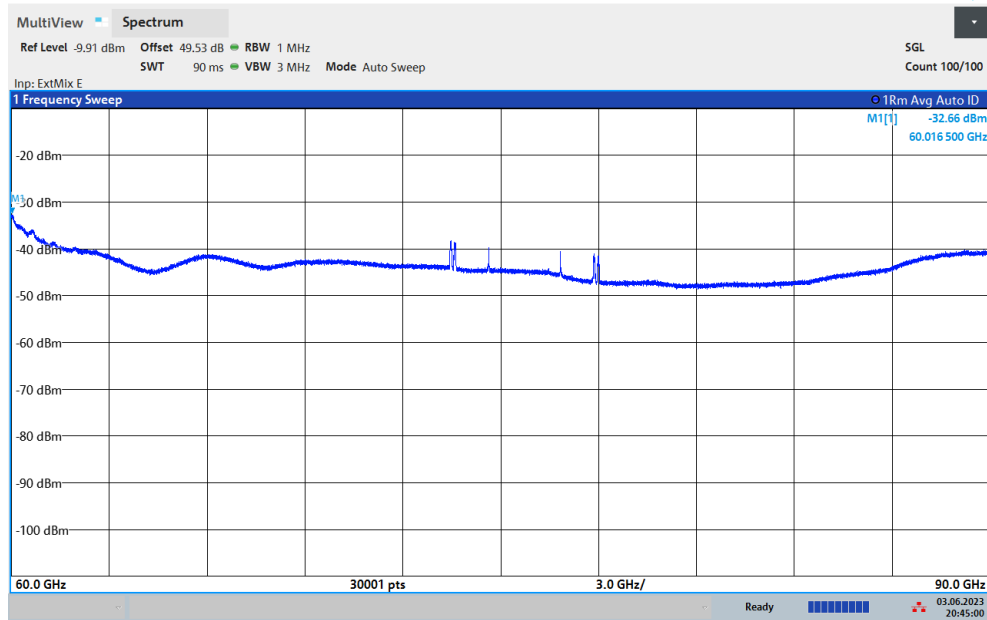


Remark: In band and out of band frequencies are omitted.

NR Band n258b
(40GHz-60GHz)


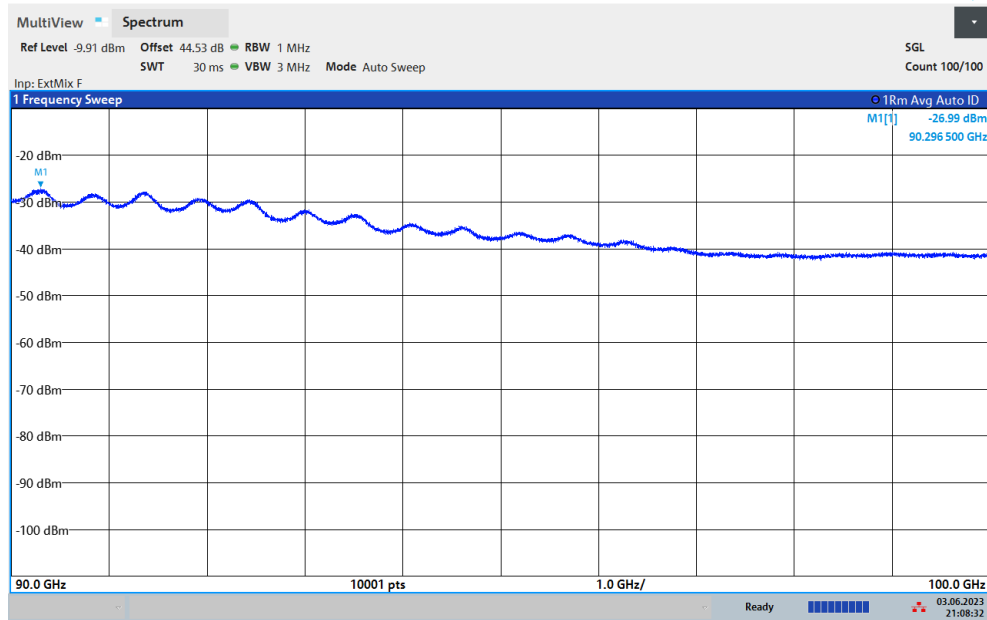
$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 + \text{Duty Factor}$$

$$= 43 + 0.43 + 107 + 20\log(1) - 104.8 = 45.63(\text{dB})$$

NR Band n258b
(60GHz-90GHz)


20:45:01 03.06.2023

$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 + \text{Duty Factor} \\ &= 46.9 + 0.43 + 107 + 20\log(1) - 104.8 = 49.53 \text{ (dB)} \end{aligned}$$

NR Band n258b
(90GHz-100GHz)


21:08:33 03.06.2023

$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 + \text{Duty Factor} \\ &= 47.92 + 0.43 + 107 + 20\log(0.5) - 104.8 = 44.53 \text{ (dB)} \end{aligned}$$

Frequency Stability

Test Conditions		NR Band n258b / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	25.00001	41.900	1.088	Pass
40	Normal Voltage	24.999994	57.900	1.504	
30	Normal Voltage	25.000017	34.900	0.906	
20(Ref.)	Normal Voltage	25.0000519	0.000	0.000	
10	Normal Voltage	25.0000709	-19.000	0.494	
0	Normal Voltage	25.0001239	-72.000	1.870	
-10	Normal Voltage	25.0001439	-92.000	2.390	
-20	Normal Voltage	25.0001439	-92.000	2.390	
-30	Normal Voltage	25.0001079	-56.000	1.455	
20	Maximum Voltage	24.999997	54.900	1.426	
20	Normal Voltage	25.000012	39.900	1.036	
20	Battery End Point	25.000027	24.900	0.647	

Note:

1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the operation band.

NR Band n258b Module B AGH+V

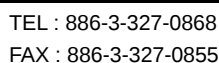
Occupied Bandwidth

Mode	DFT-s-OFDM Module B NR Band n258b : 99%OBW(MHz)								
BW	50MHz			100MHz			200MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	45.85	45.89	45.93	91.23	91.14	91.28	190.67	190.65	190.76
Middle CH	46.05	45.82	45.78	91.43	91.32	91.26	190.46	190.19	190.64
Highest CH	45.96	45.83	45.99	91.31	91.46	91.52	190.47	190.36	190.41

Mode	DFT-s-OFDM Module B NR Band n258b : 99%OBW(MHz)					
BW	300MHz			400MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	289.62	289.74	289.93	389.08	389.09	389.57
Middle CH	289.01	289.19	289.44	388.61	388.40	388.22
Highest CH	289.69	289.46	289.39	388.18	388.03	388.18

Mode	CP-OFDM Module B NR Band n258b : 99%OBW(MHz)		
BW	50MHz	100MHz	200MHz
Mod.	QPSK	QPSK	QPSK
Lowest CH	46.14	94.04	193.11
Middle CH	45.92	94.12	193.24
Highest CH	45.93	94.16	193.52

Mode	CP-OFDM Module B NR Band n258b : 99%OBW(MHz)	
BW	300MHz	400MHz
Mod.	QPSK	QPSK
Lowest CH	292.69	392.52
Middle CH	291.78	391.82
Highest CH	292.83	391.92

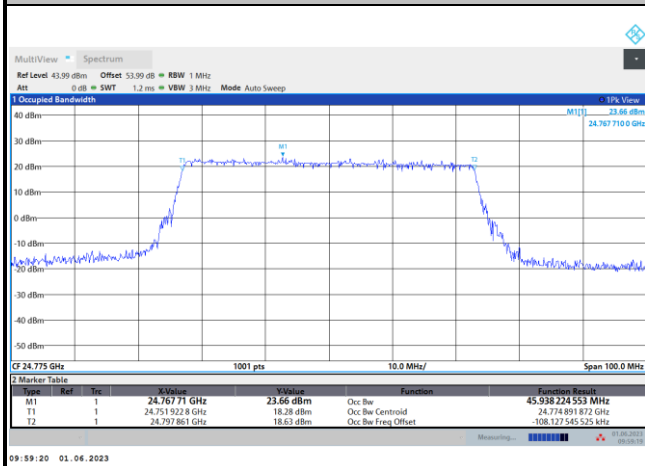




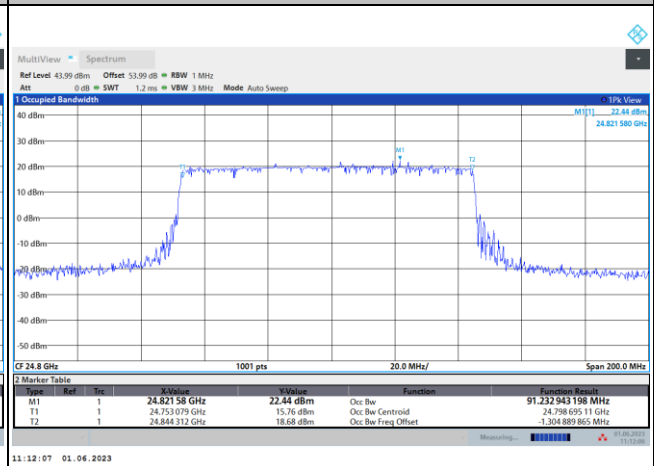
DFT-s-OFDM Module B

NR Band n258b

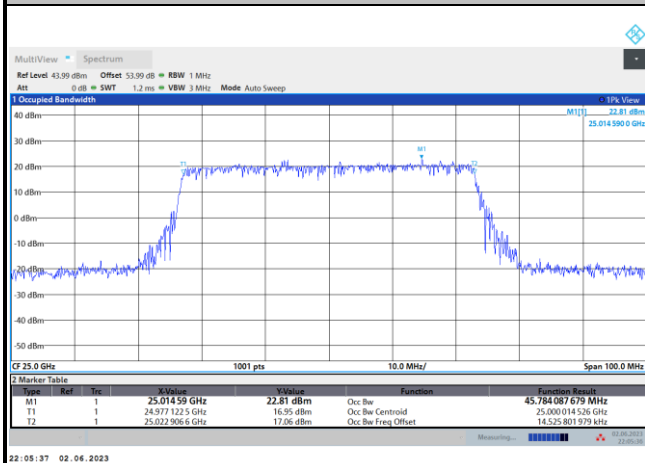
Lowest Channel / 50MHz / 64QAM



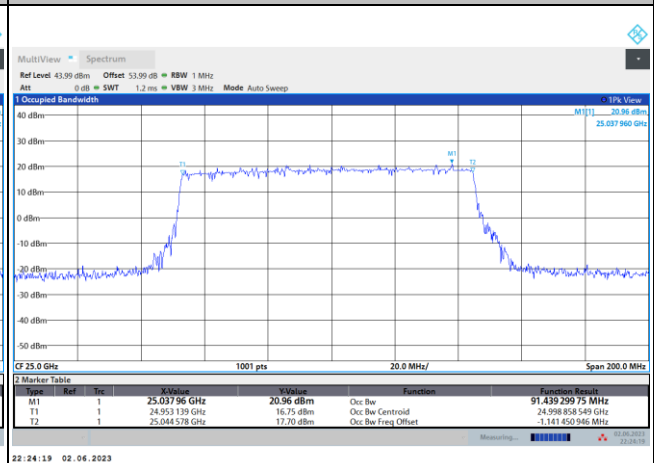
Lowest Channel / 100MHz / QPSK



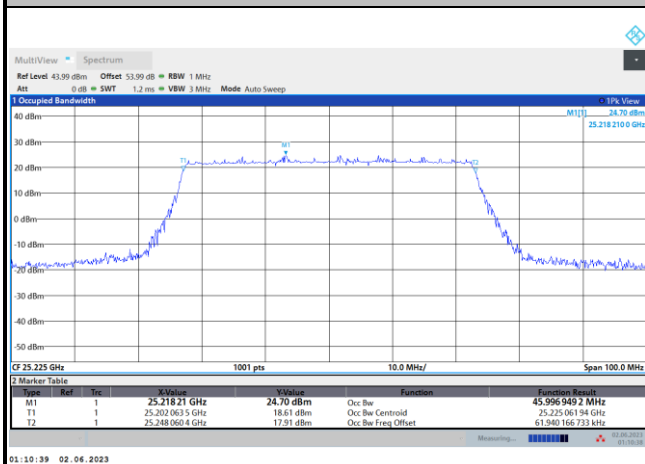
Middle Channel / 50MHz / 64QAM



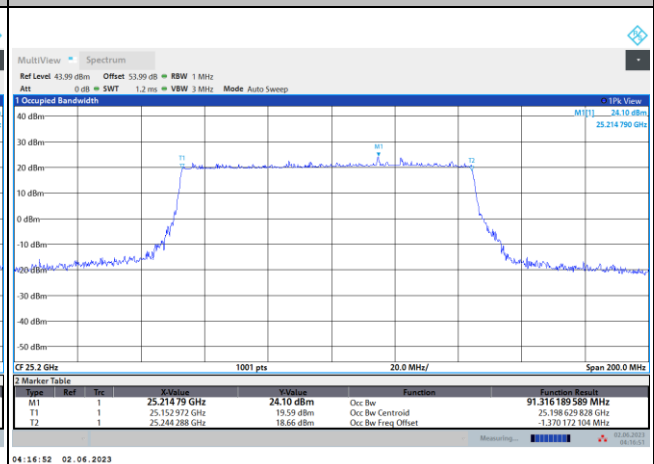
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / 64QAM



Highest Channel / 100MHz / QPSK

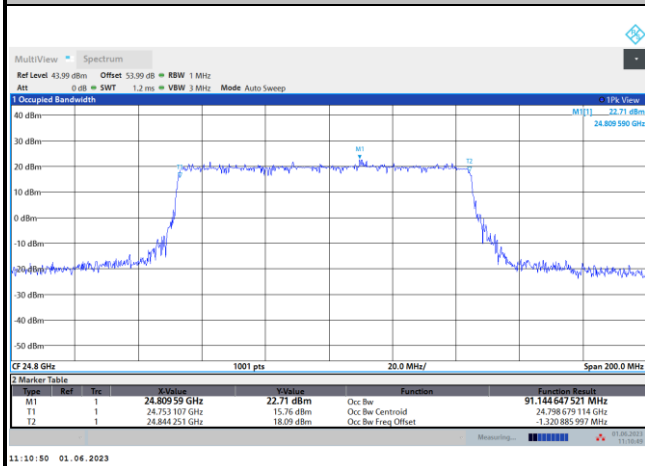




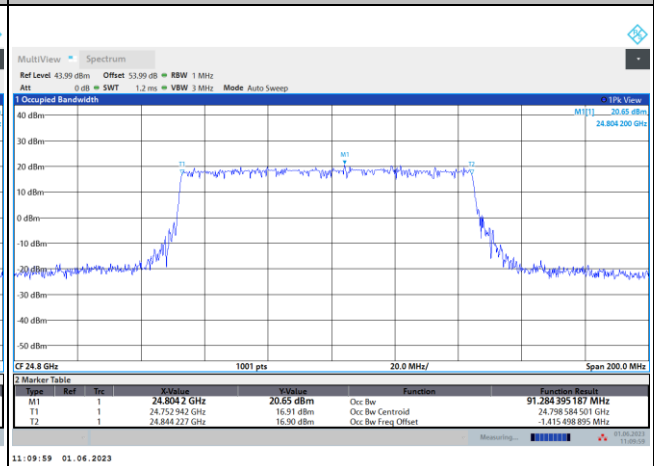
DFT-s-OFDM Module B

NR Band n258b

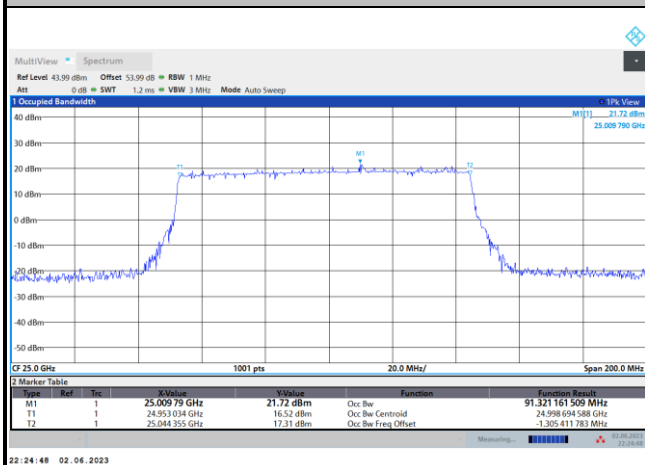
Lowest Channel / 100MHz / 16QAM



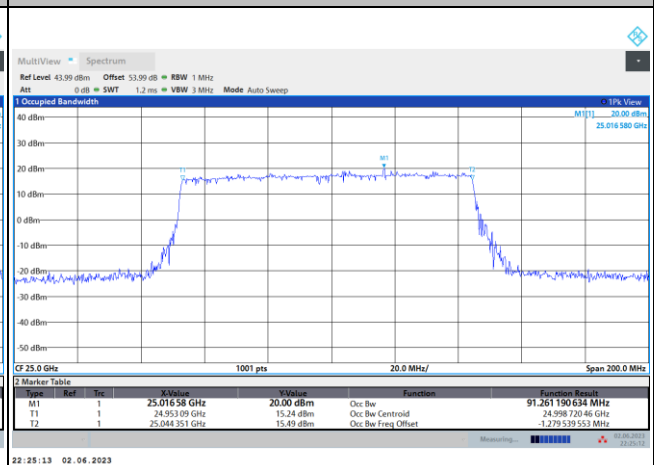
Lowest Channel / 100MHz / 64QAM



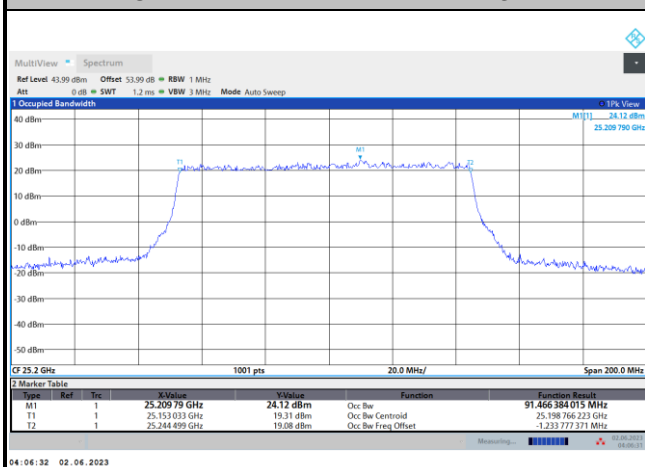
Middle Channel / 100MHz / 16QAM



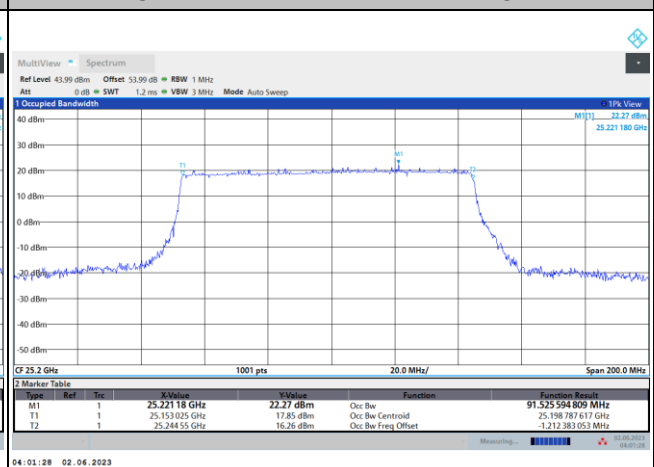
Middle Channel / 100MHz / 64QAM



Highest Channel / 100MHz / 16QAM



Highest Channel / 100MHz / 64QAM

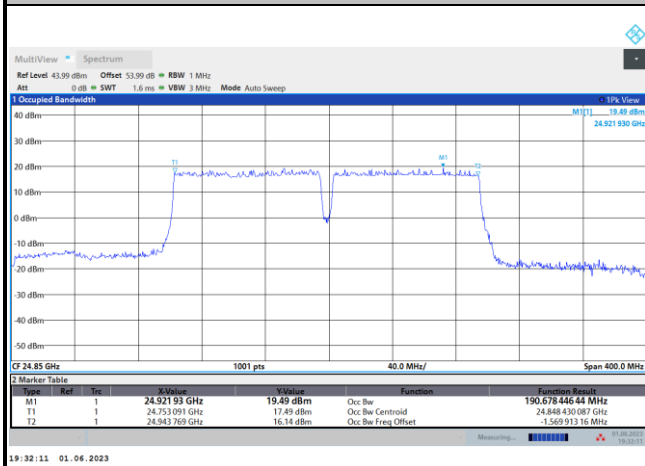




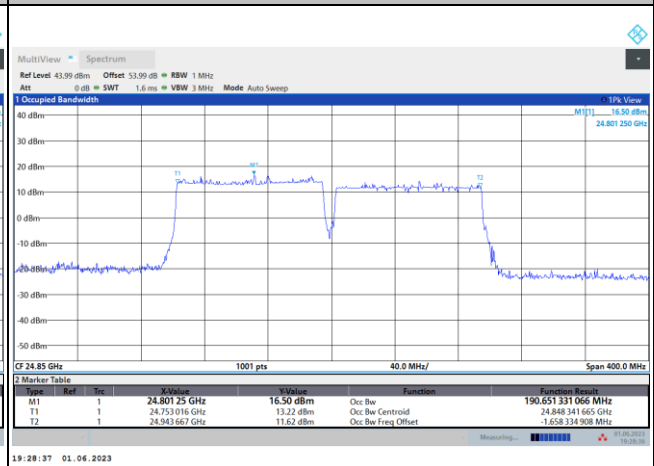
DFT-s-OFDM Module B

NR Band n258b

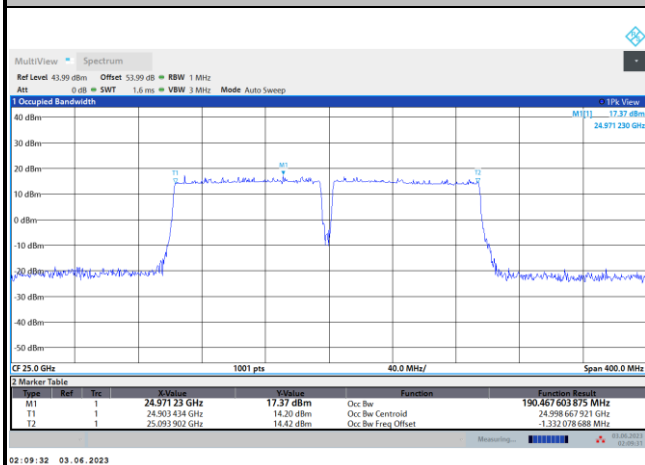
Lowest Channel / 200MHz / QPSK



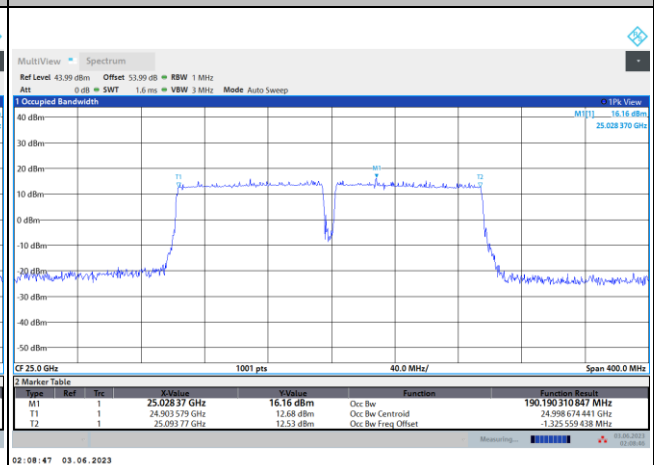
Lowest Channel / 200MHz / 16QAM



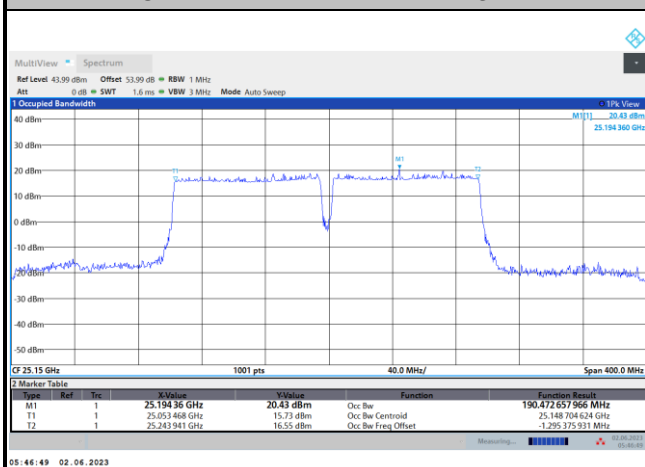
Middle Channel / 200MHz / QPSK



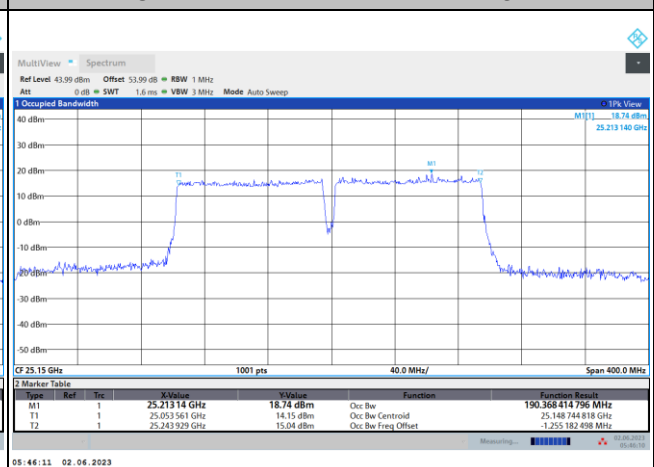
Middle Channel / 200MHz / 16QAM



Highest Channel / 200MHz / QPSK



Highest Channel / 200MHz / 16QAM

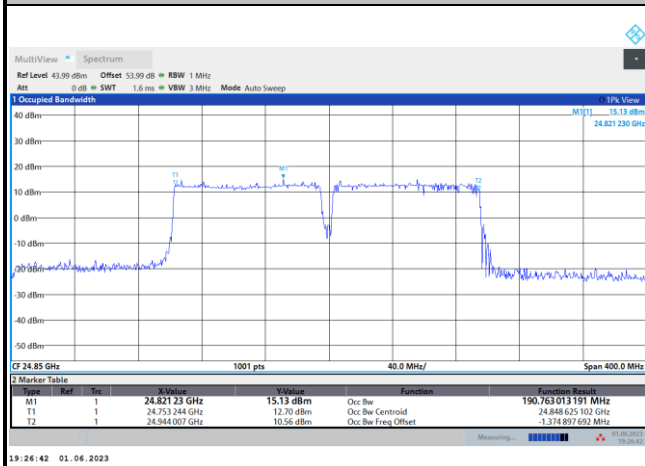




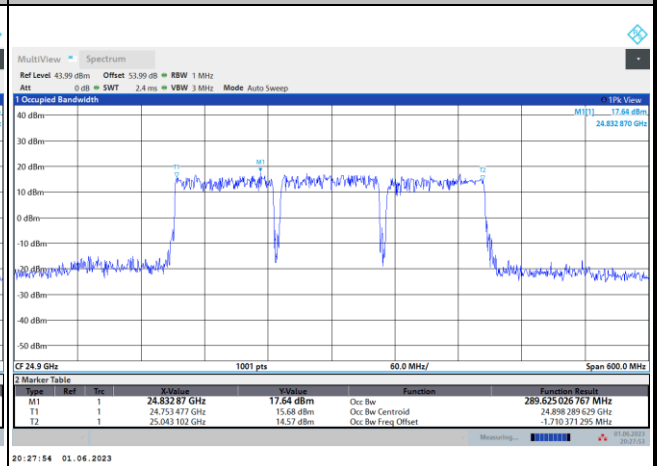
DFT-s-OFDM Module B

NR Band n258b

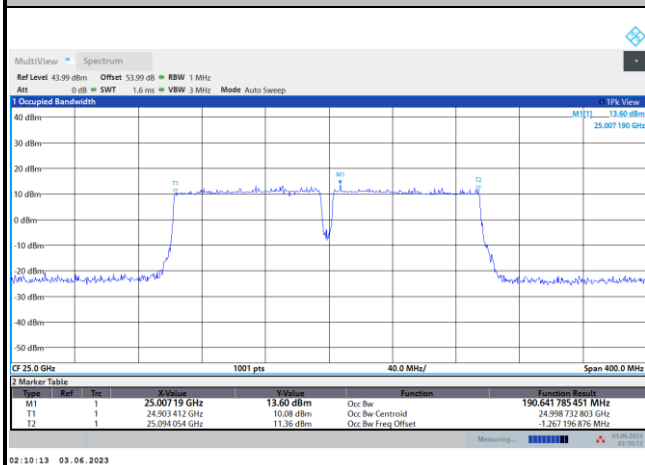
Lowest Channel / 200MHz / 64QAM



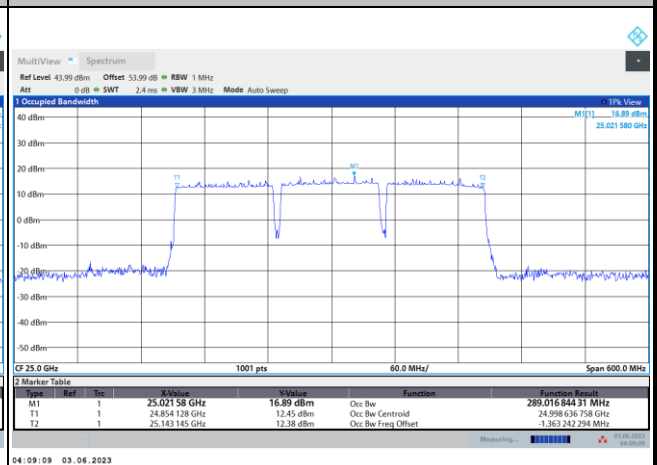
Lowest Channel / 300MHz / QPSK



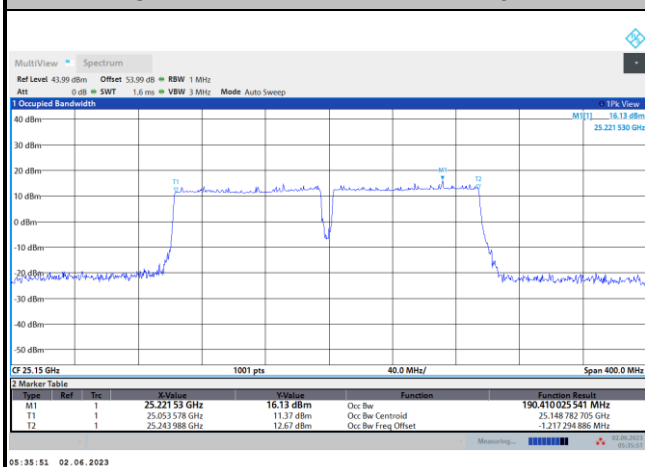
Middle Channel / 200MHz / 64QAM



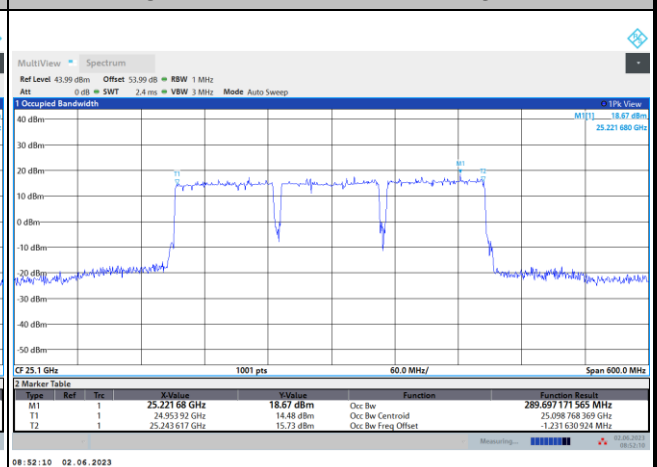
Middle Channel / 300MHz / QPSK



Highest Channel / 200MHz / 64QAM



Highest Channel / 300MHz / QPSK

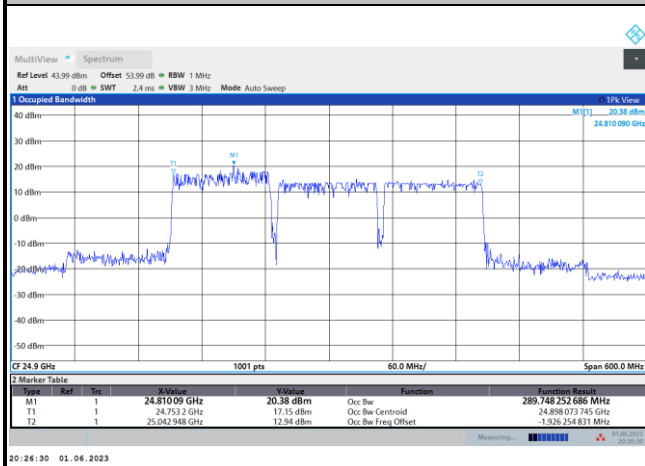




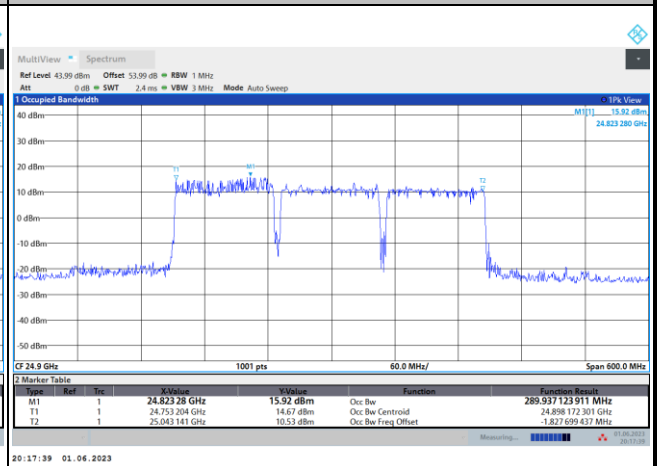
DFT-s-OFDM Module B

NR Band n258b

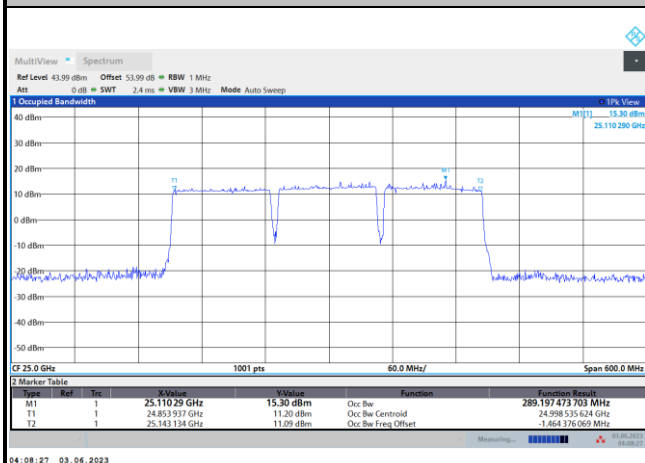
Lowest Channel / 300MHz / 16QAM



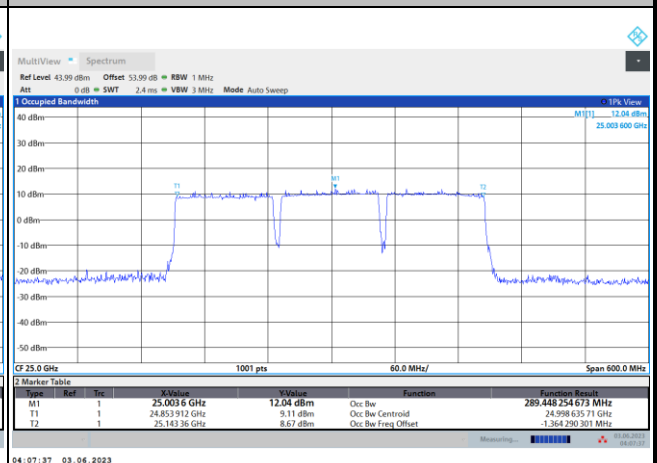
Lowest Channel / 300MHz / 64QAM



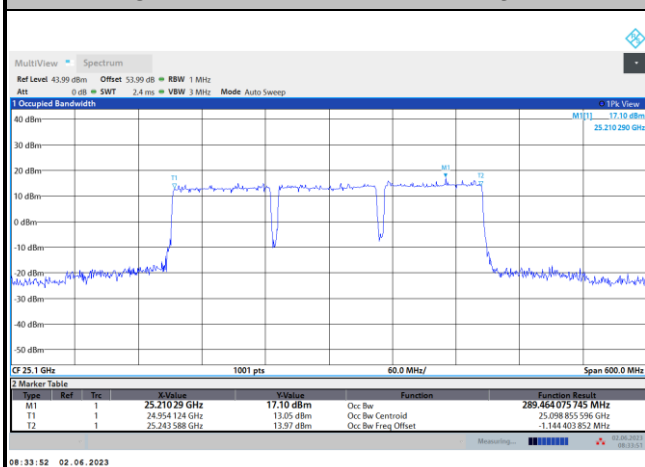
Middle Channel / 300MHz / 16QAM



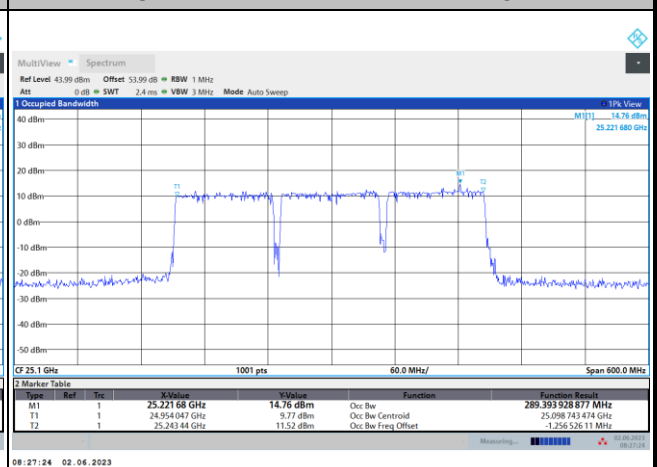
Middle Channel / 300MHz / 64QAM



Highest Channel / 300MHz / 16QAM



Highest Channel / 300MHz / 64QAM

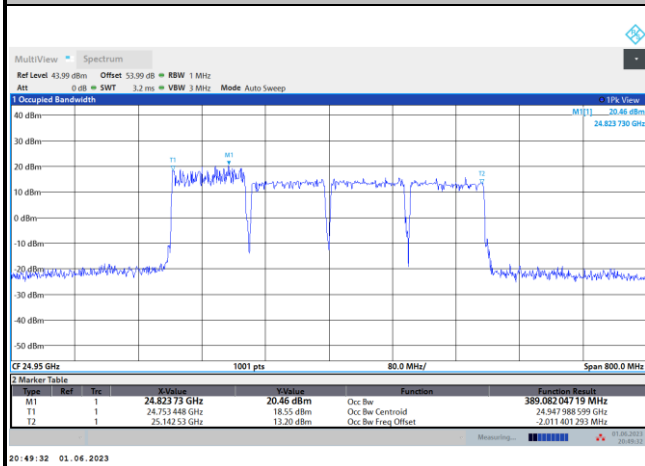




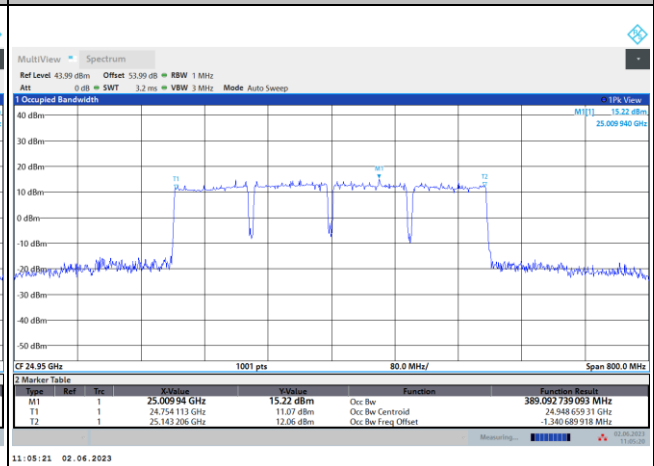
DFT-s-OFDM Module B

NR Band n258b

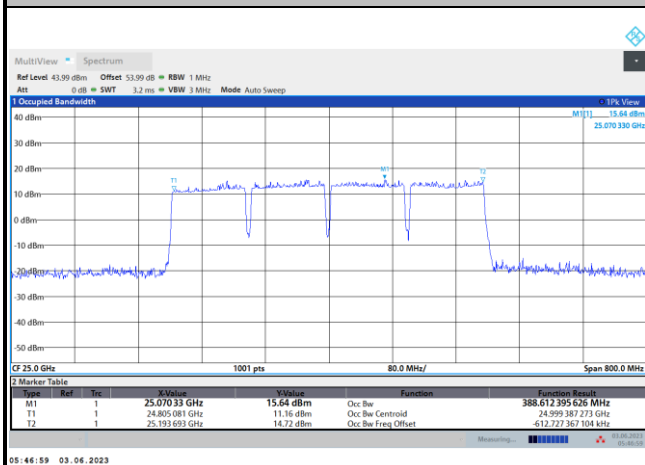
Lowest Channel / 400MHz / QPSK



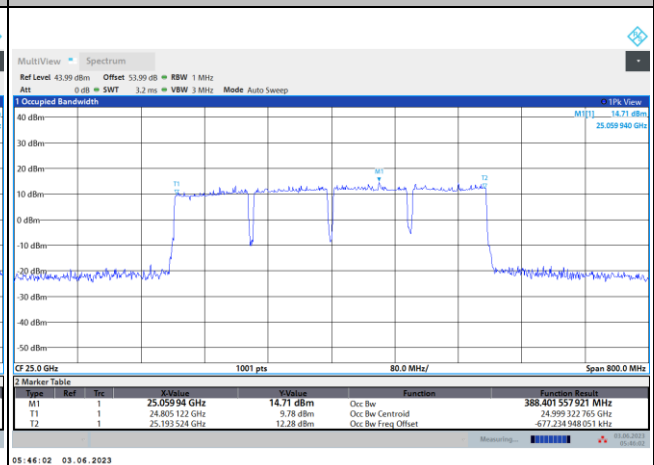
Lowest Channel / 400MHz / 16QAM



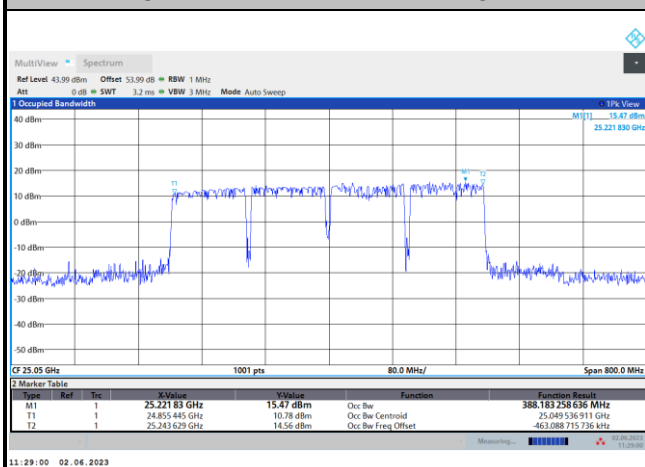
Middle Channel / 400MHz / QPSK



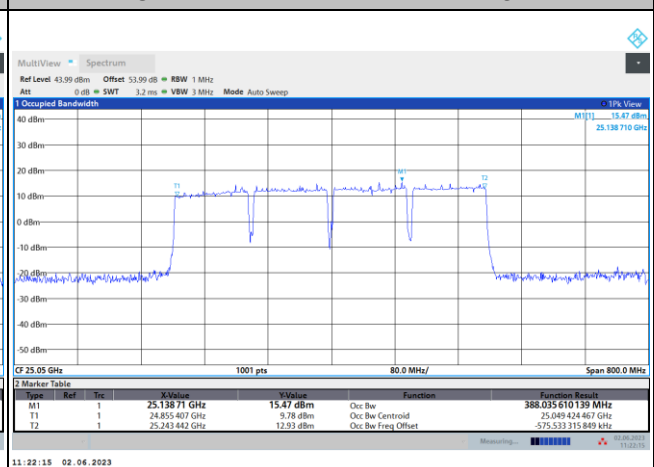
Middle Channel / 400MHz / 16QAM



Highest Channel / 400MHz / QPSK



Highest Channel / 400MHz / 16QAM





DFT-s-OFDM Module B

