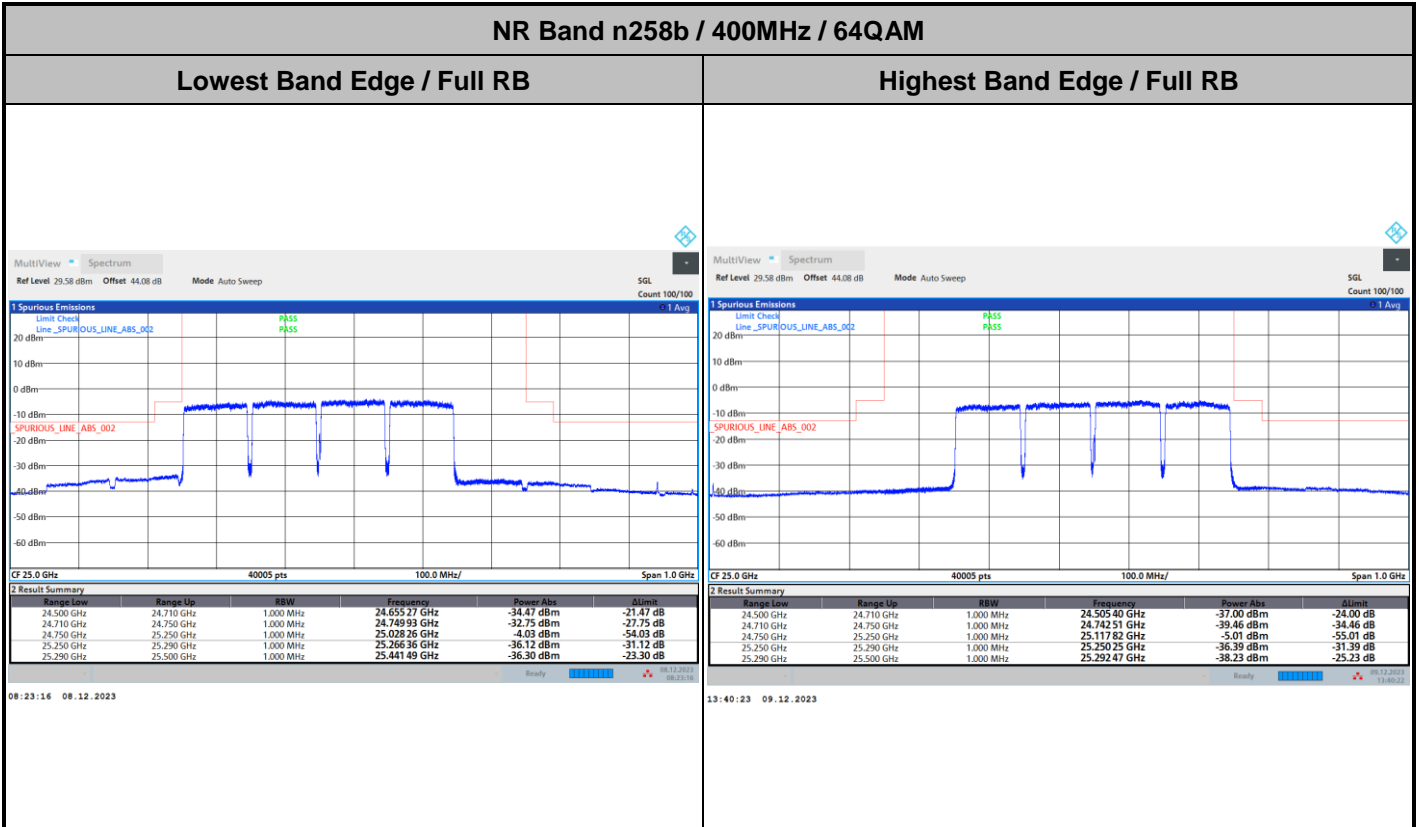


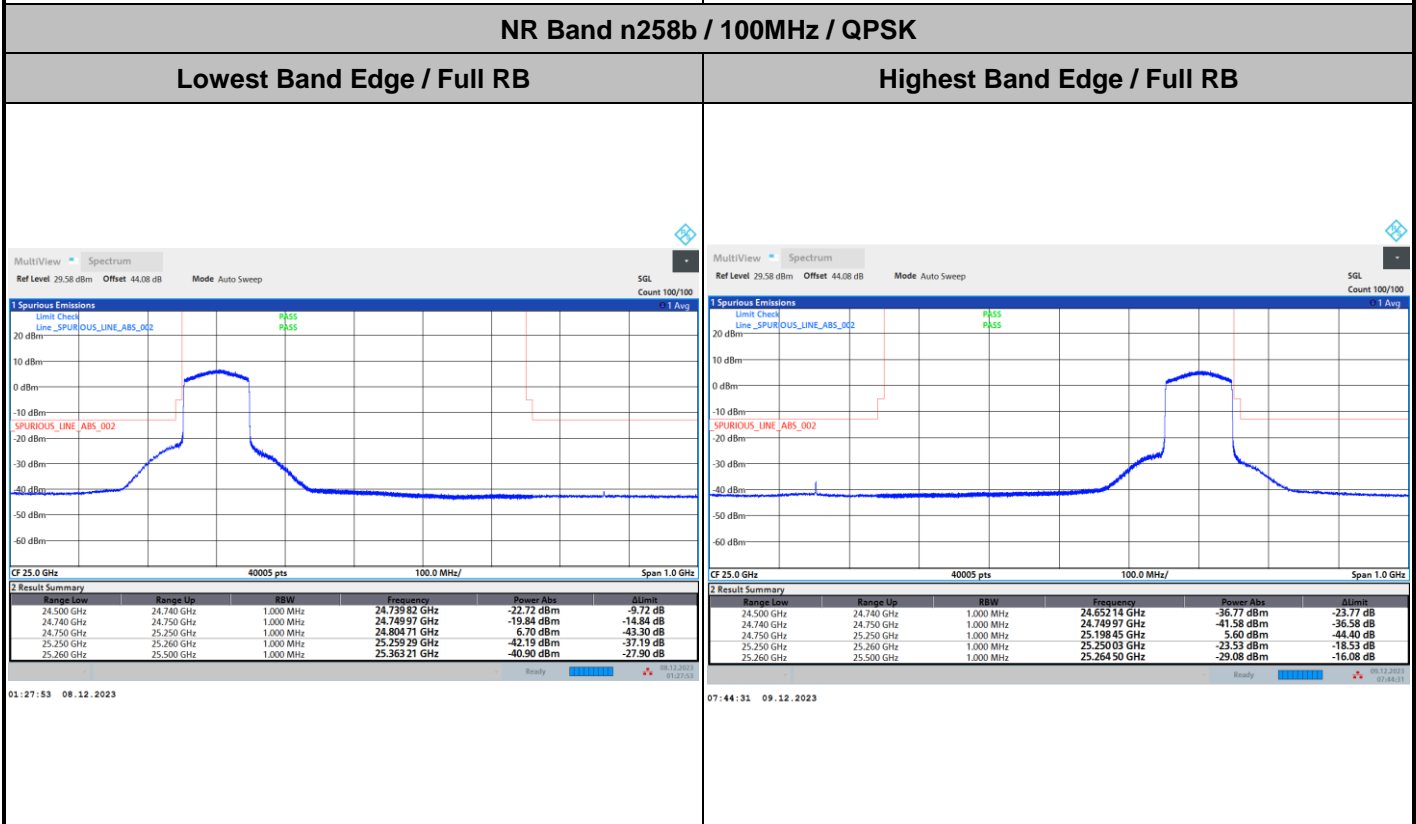
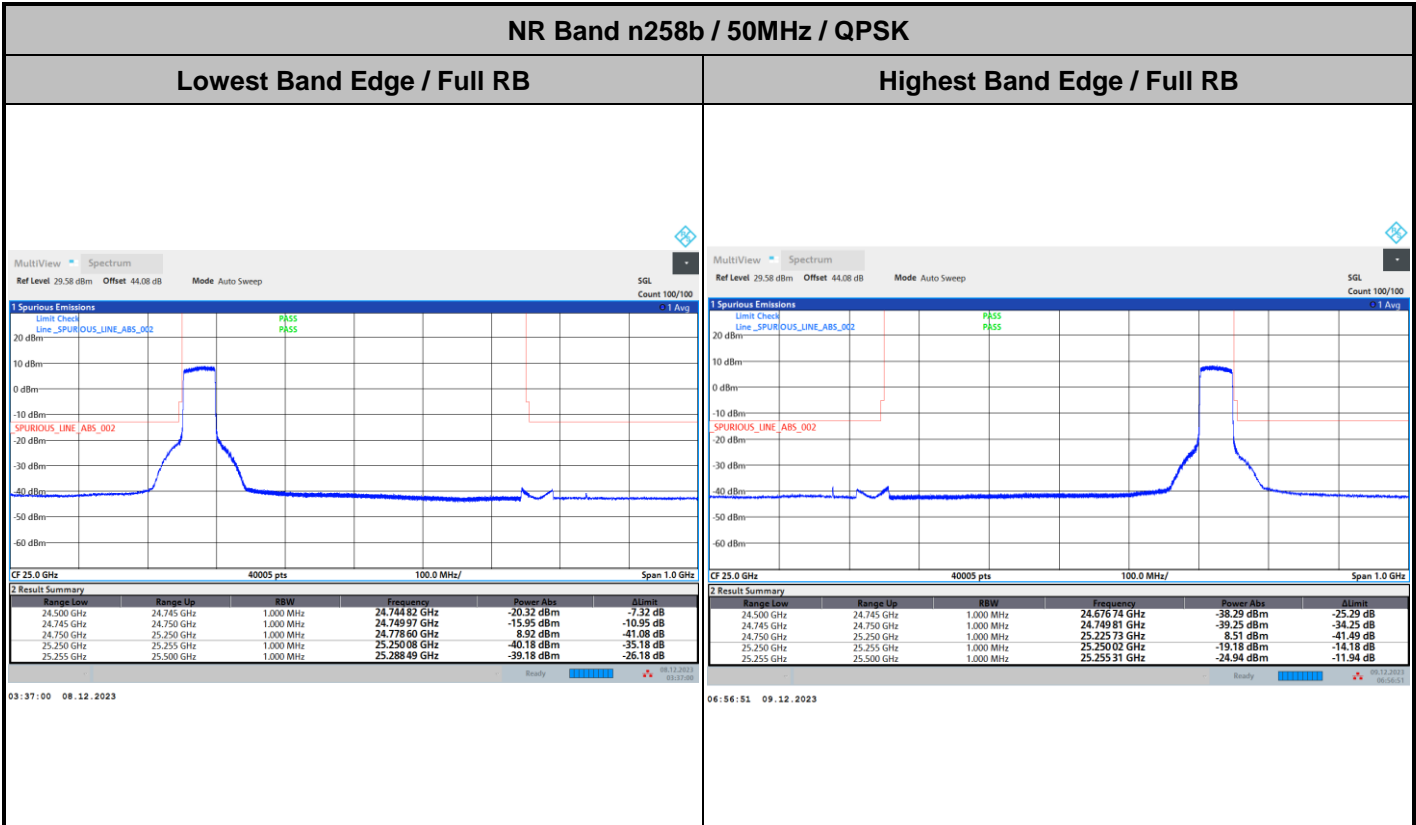


DFT-s-OFDM Module B





CP-OFDM Module B

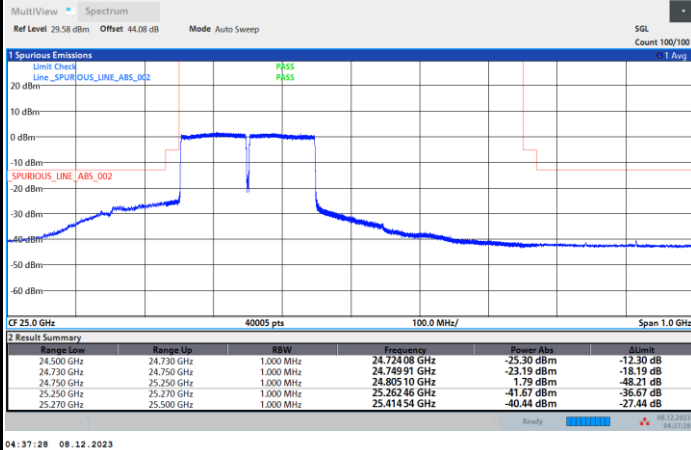




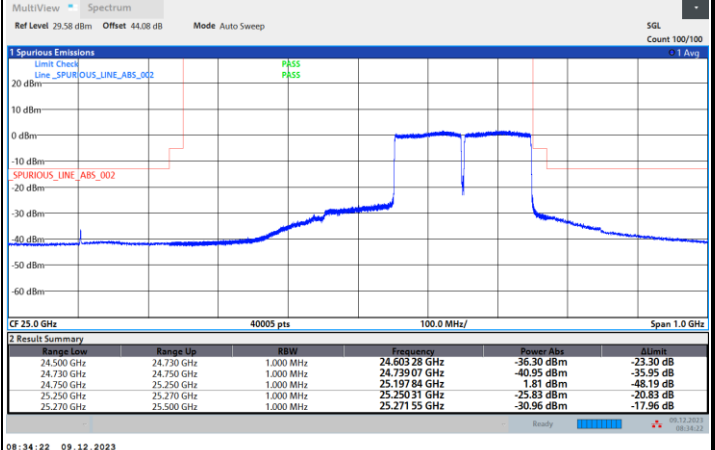
CP-OFDM Module B

NR Band n258b / 200MHz / QPSK

Lowest Band Edge / Full RB

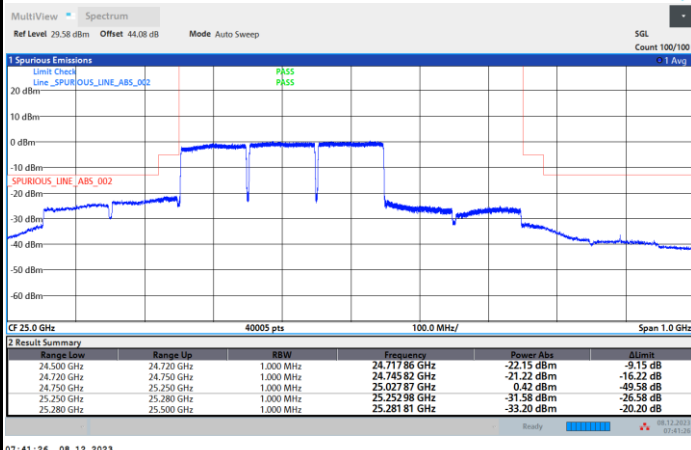


Highest Band Edge / Full RB

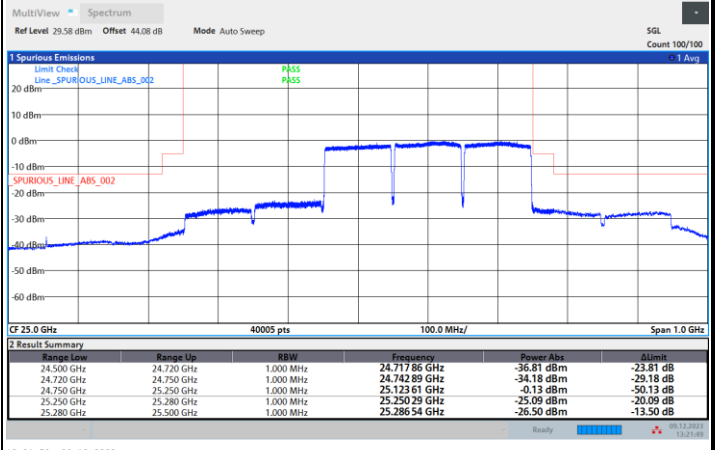


NR Band n258b / 300MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB



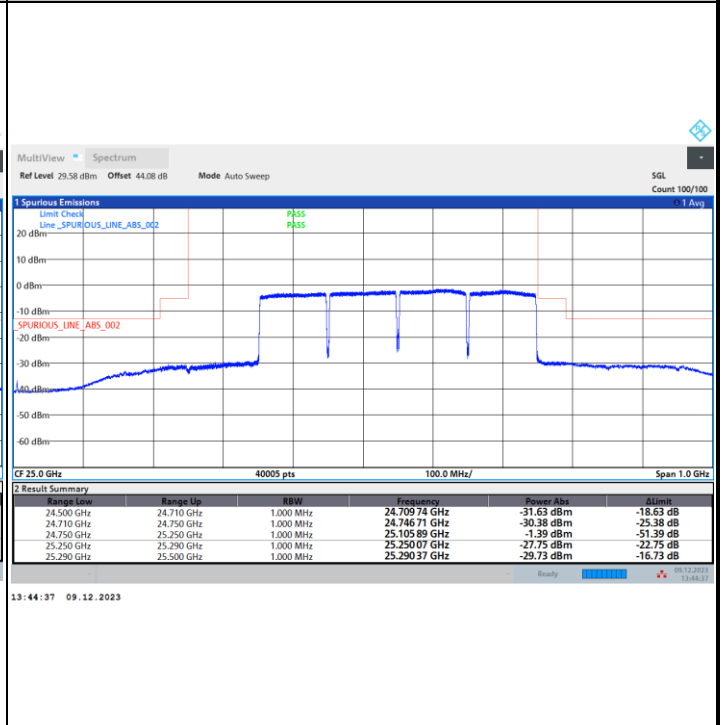
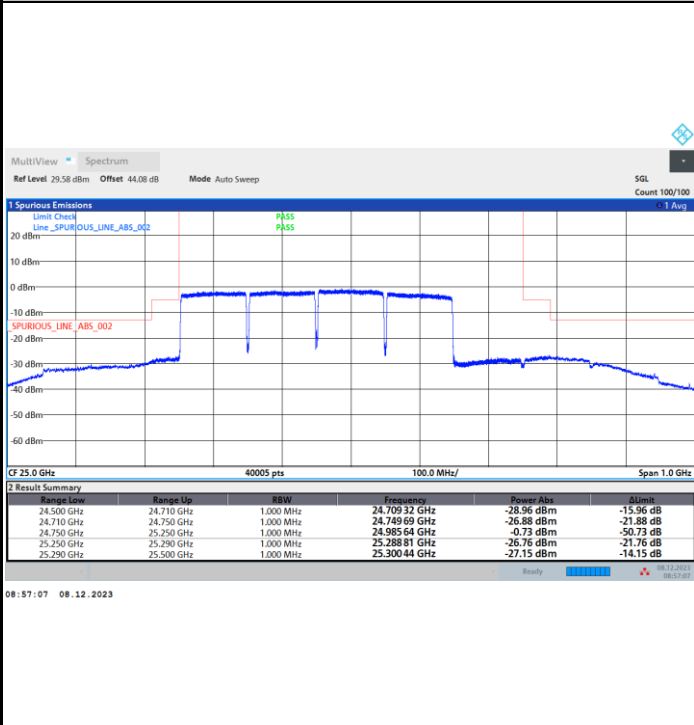


CP-OFDM Module B

NR Band n258b / 400MHz / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



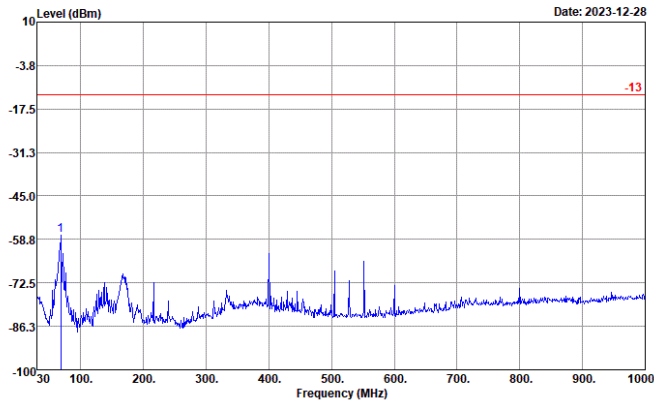


Spurious Emission

There is no significant spurious emission signal found for frequency started from 30MHz up to 18GHz. Only the noise floor is reported.

NR Band n258b (30MHz-1GHz)

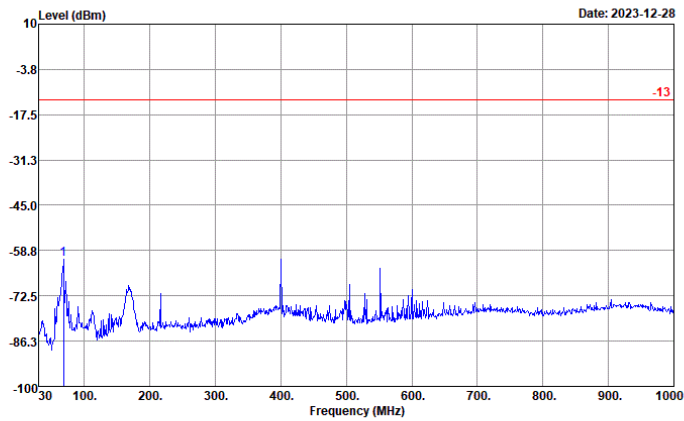
Horizontal



Site : 03CH10-HY
 Condition : -13 EIRP_WO HORIZONTAL
 Project : 3N2327
 : n258b MB

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1	67.83	-57.53	-44.53 -13.00

Vertical



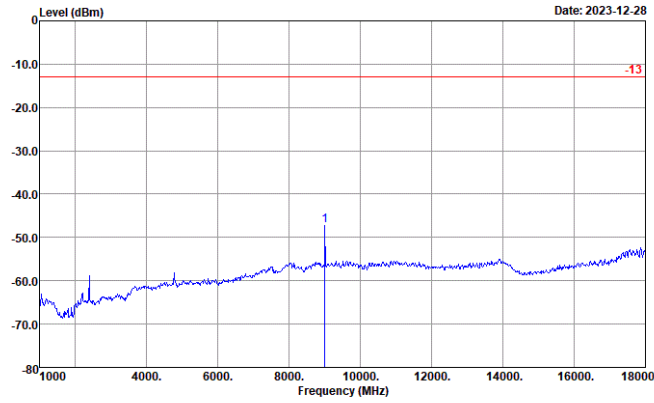
Site : 03CH10-HY
 Condition : -13 EIRP_WO VERTICAL
 Project : 3N2327
 : n258b MB

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1	67.83	-61.30	-48.30 -13.00



NR Band n258b (1GHz-18GHz)

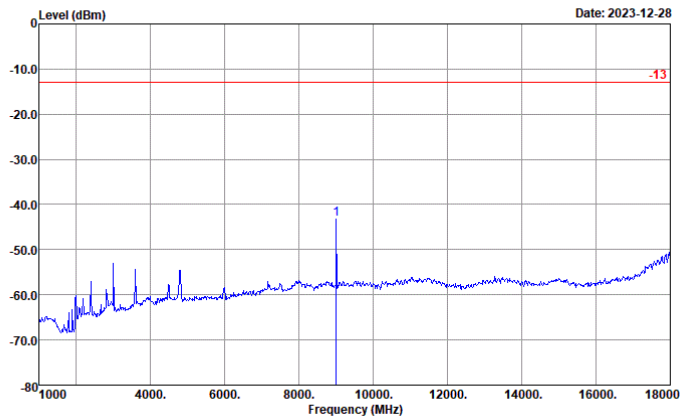
Horizontal



Site : 03CH10-HY
 Condition : -13 EIRP_WO HORIZONTAL
 Project : 3N2327
 : n258b MB

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1 9007.00	-47.34	-34.34	-13.00

Vertical



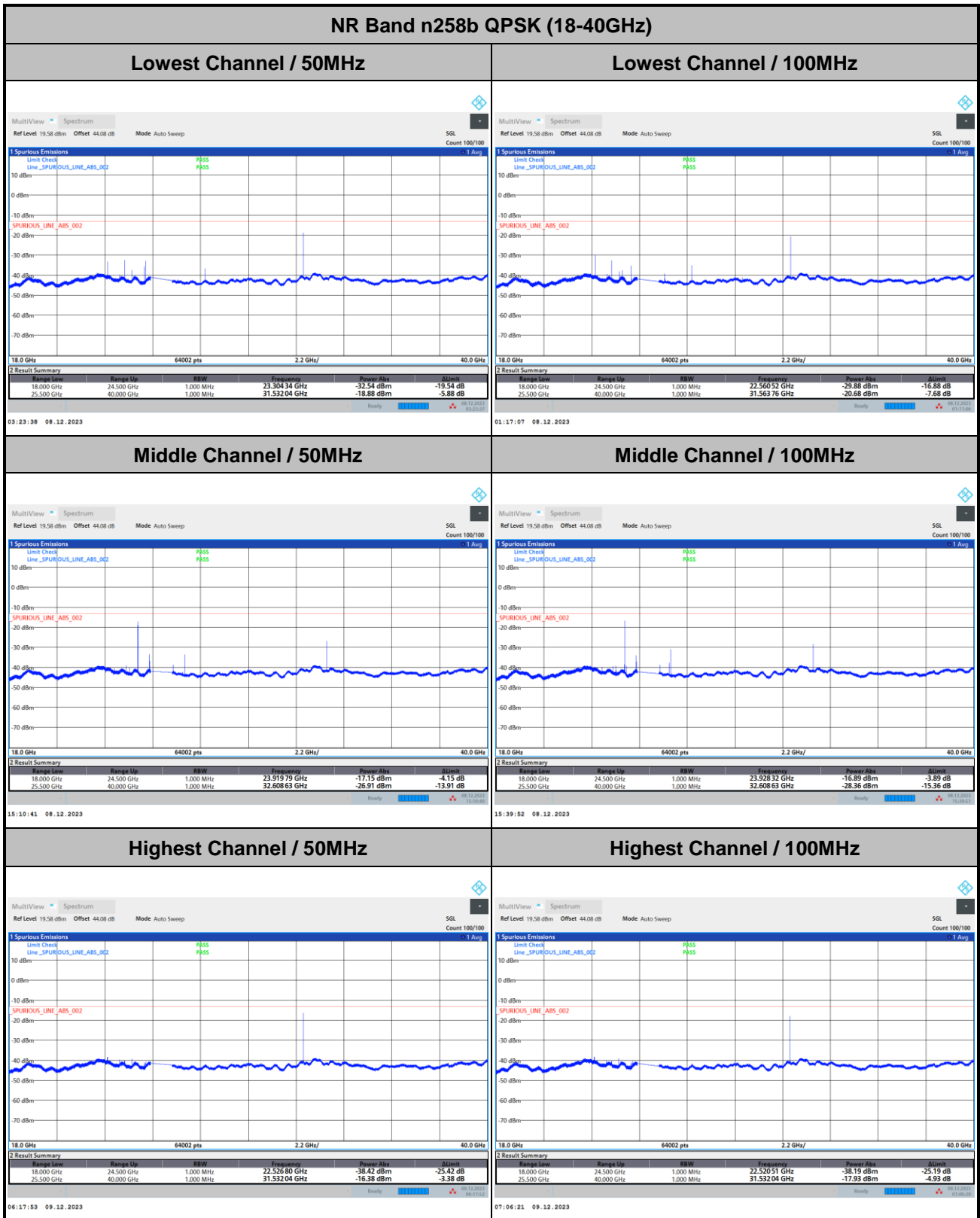
Site : 03CH10-HY
 Condition : -13 EIRP_WO VERTICAL
 Project : 3N2327
 : n258b MB

Freq	Level	Over	Limit
MHz	dBm	dB	dBm
1 9007.00	-43.24	-30.24	-13.00



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

DFT-s-OFDM Module B



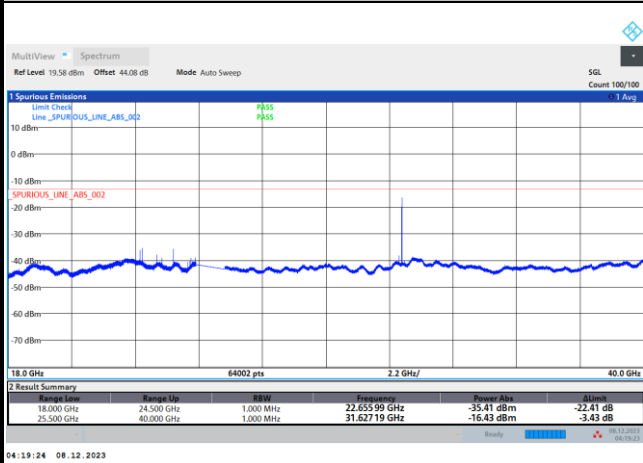
Remark: In band and out of band frequencies are omitted.



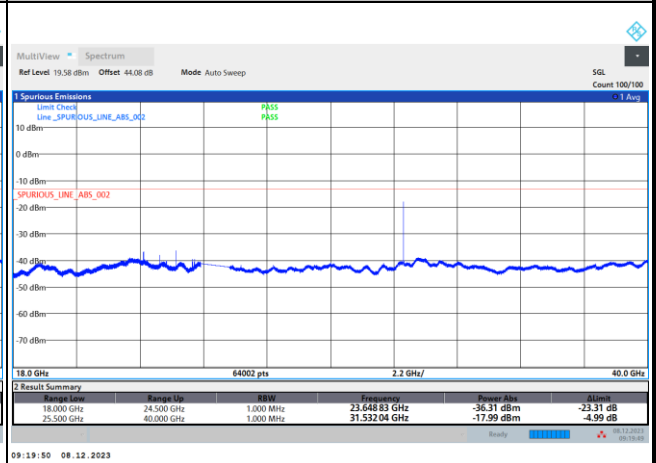
DFT-s-OFDM Module B

NR Band n258b QPSK (18-40GHz)

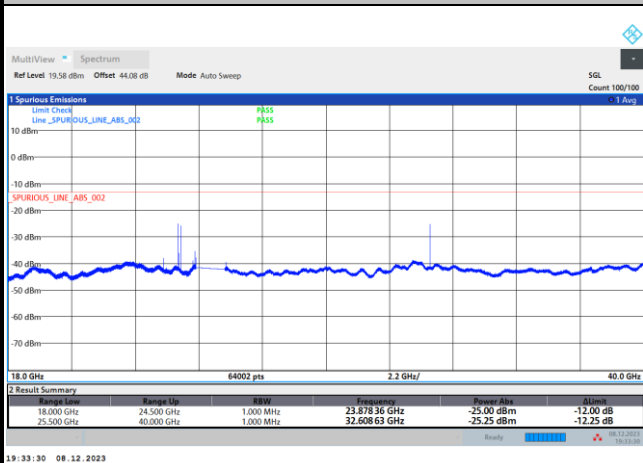
Lowest Channel / 200MHz



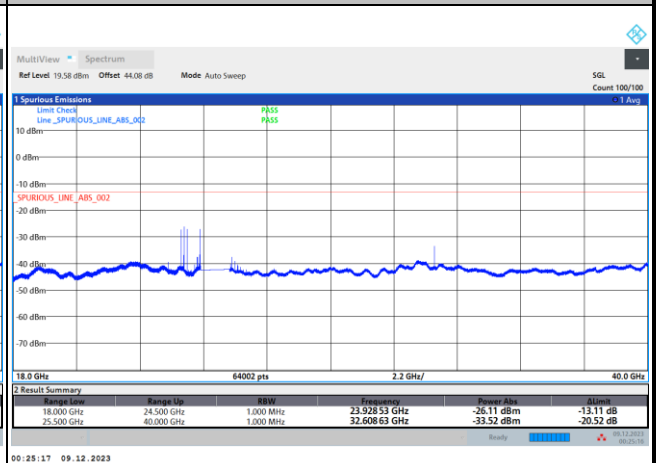
Lowest Channel / 300MHz



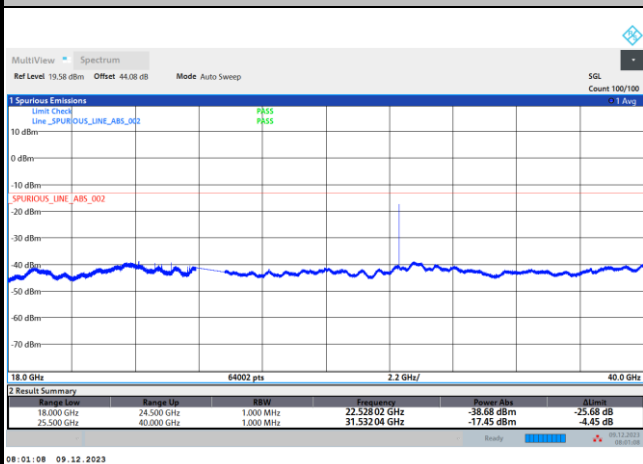
Middle Channel / 200MHz



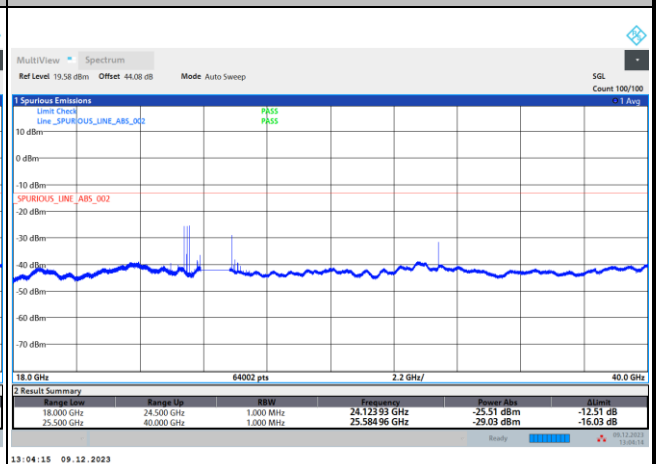
Middle Channel / 300MHz



Highest Channel / 200MHz



Highest Channel / 300MHz



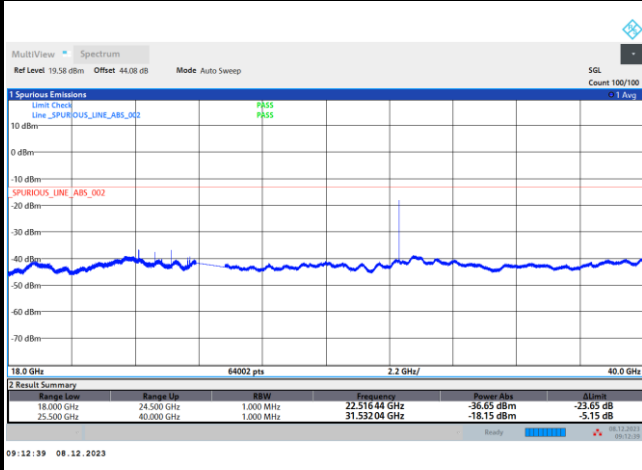
Remark: In band and out of band frequencies are omitted.



DFT-s-OFDM Module B

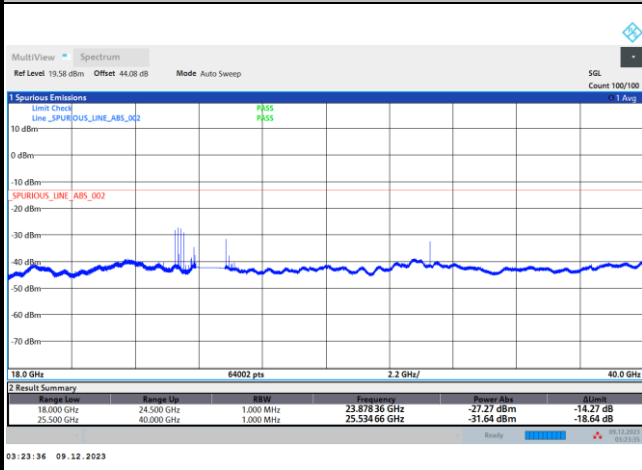
NR Band n258b QPSK (18-40GHz)

Lowest Channel / 400MHz



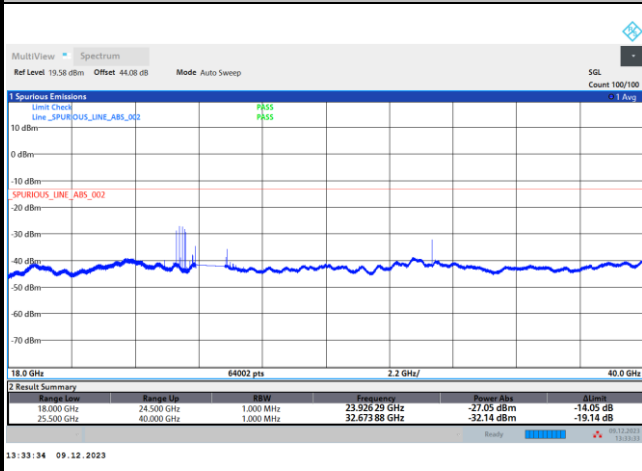
intentionally blank

Middle Channel / 400MHz



intentionally blank

Highest Channel / 400MHz



intentionally blank

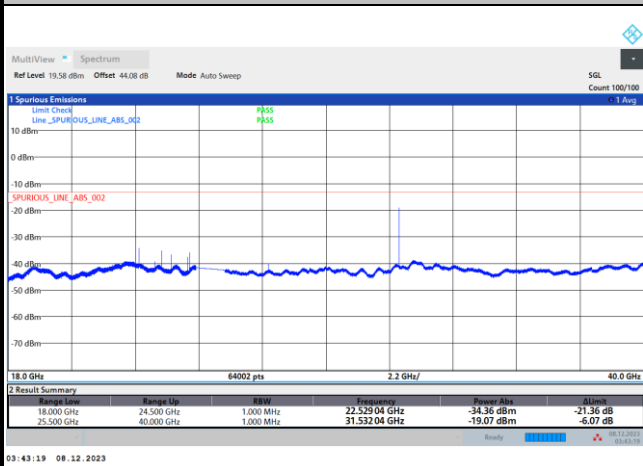
Remark: In band and out of band frequencies are omitted.



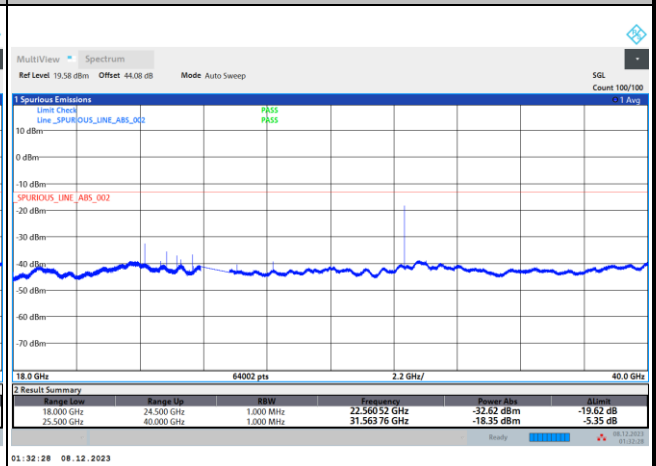
CP-OFDM Module B

NR Band n258b QPSK (18-40GHz)

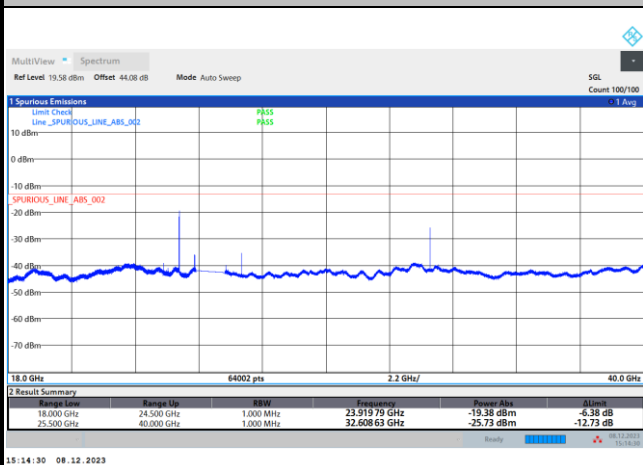
Lowest Channel / 50MHz



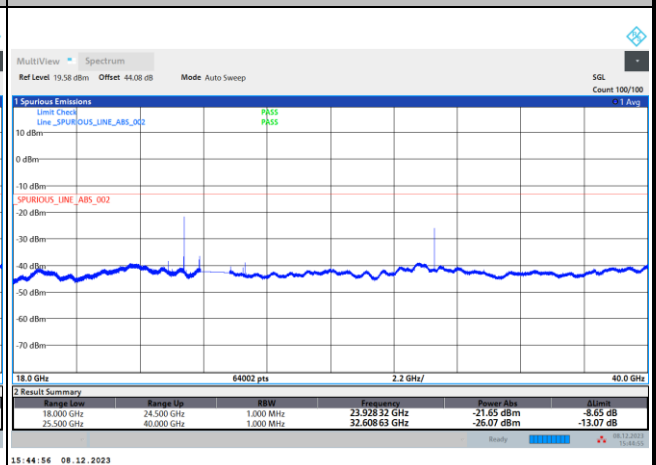
Lowest Channel / 100MHz



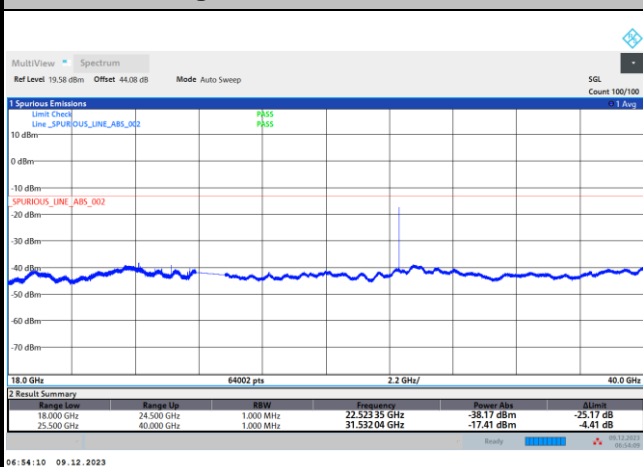
Middle Channel / 50MHz



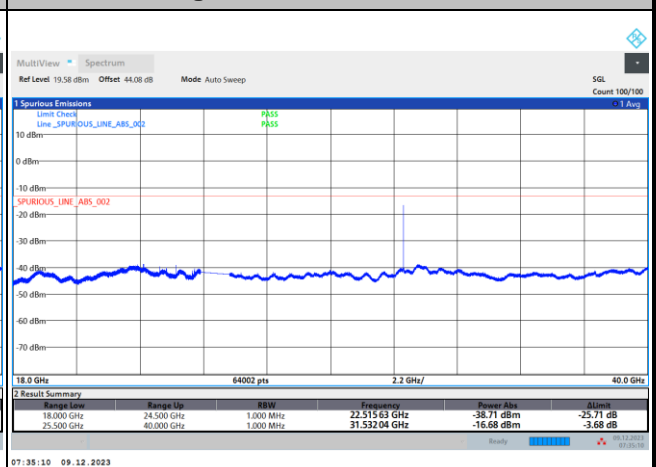
Middle Channel / 100MHz



Highest Channel / 50MHz



Highest Channel / 100MHz



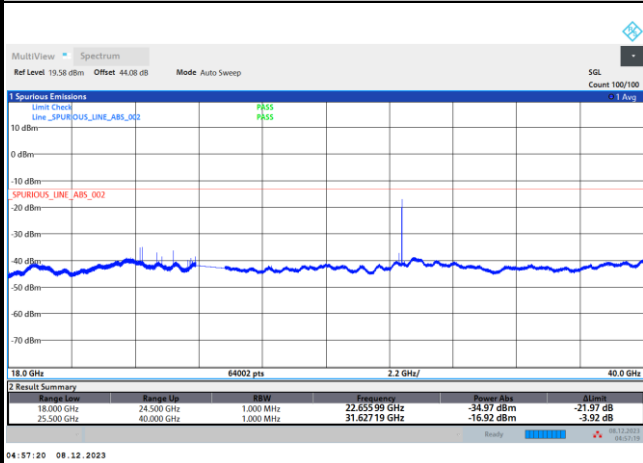
Remark: In band and out of band frequencies are omitted.



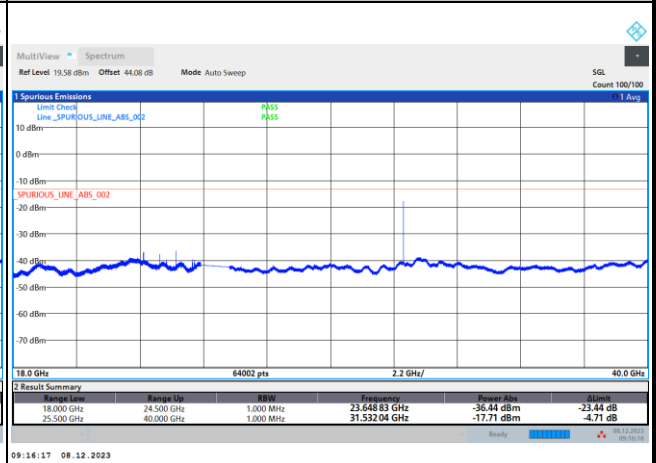
CP-OFDM Module B

NR Band n258b QPSK (18-40GHz)

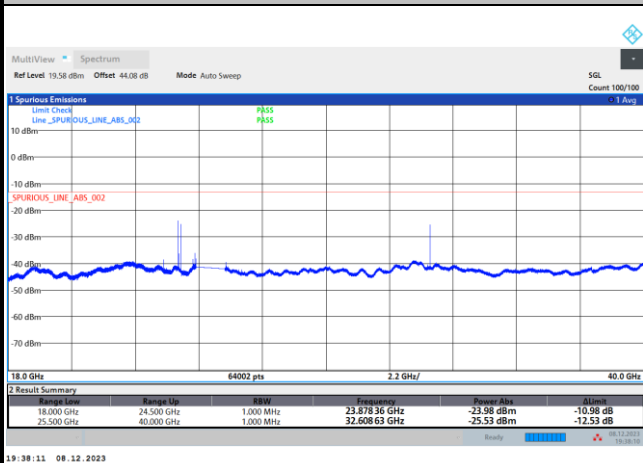
Lowest Channel / 200MHz



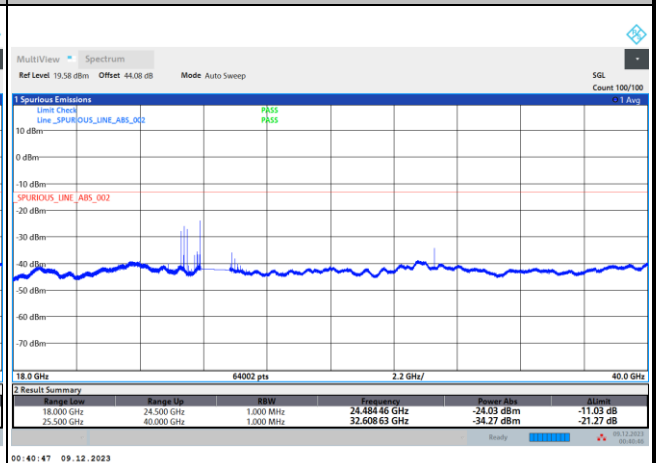
Lowest Channel / 300MHz



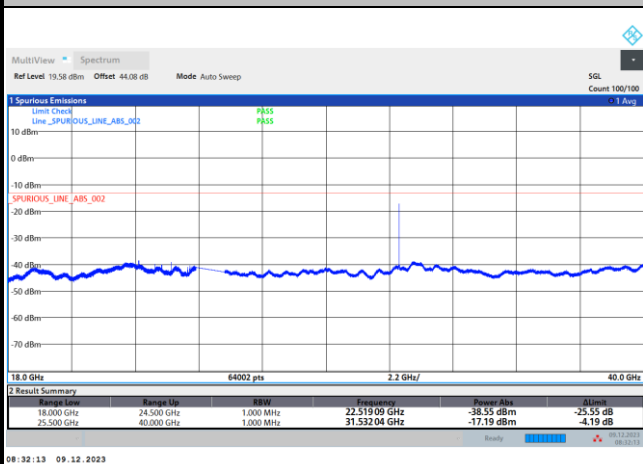
Middle Channel / 200MHz



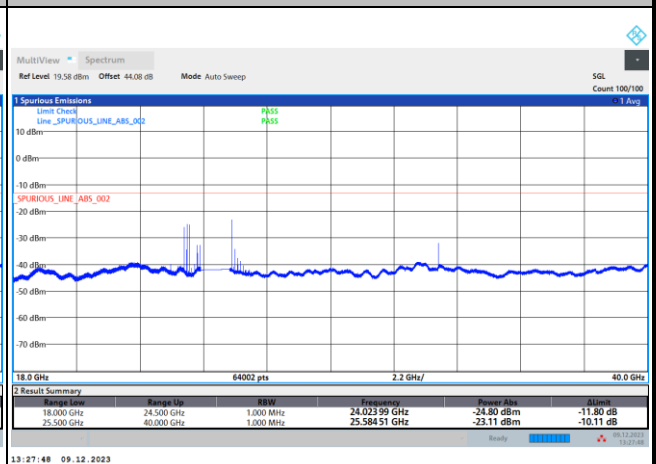
Middle Channel / 300MHz



Highest Channel / 200MHz



Highest Channel / 300MHz



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



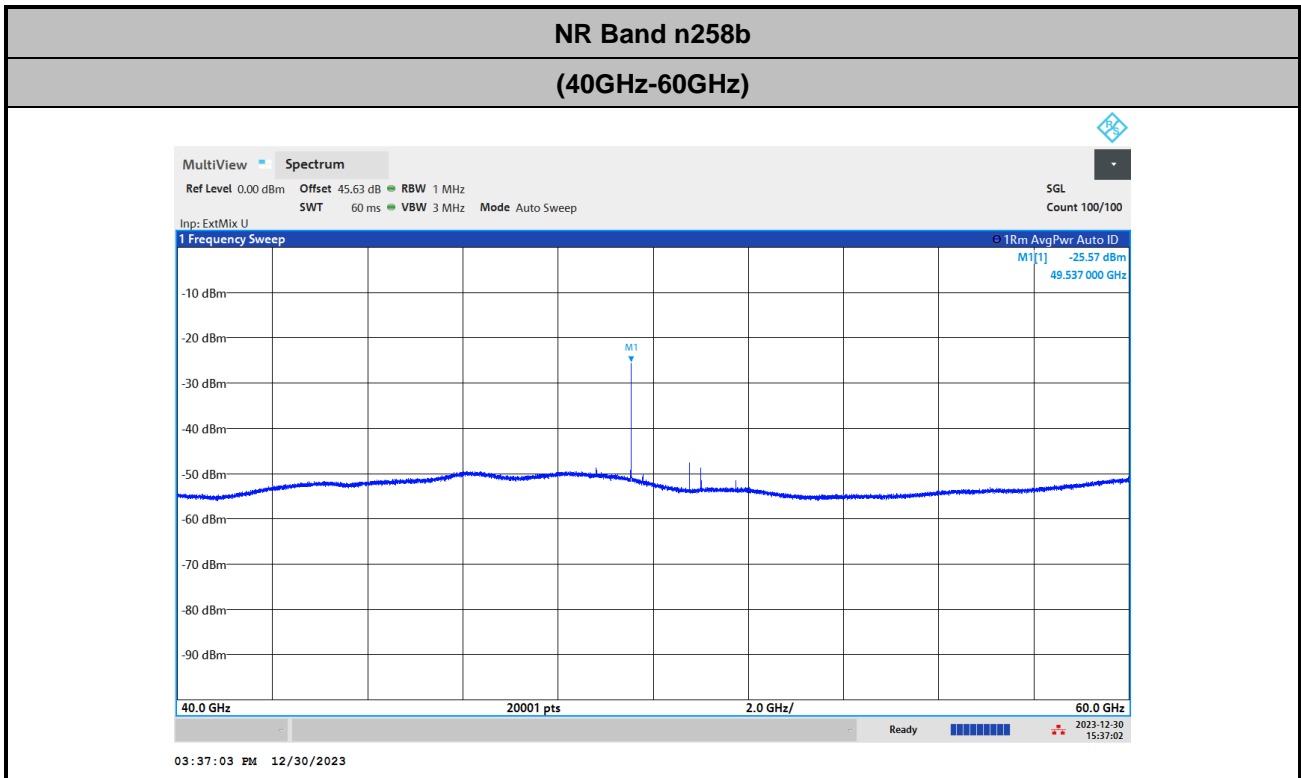
CP-OFDM Module B

NR Band n258b QPSK (18-40GHz)																			
<p>Lowest Channel / 400MHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range Up</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18.000 GHz</td> <td>24.500 GHz</td> <td>1.000 MHz</td> <td>22.523 55 GHz</td> <td>-36.64 dBm</td> <td>-23.64 dB</td> </tr> <tr> <td>25.500 GHz</td> <td>40.000 GHz</td> <td>1.000 MHz</td> <td>31.531 58 GHz</td> <td>-18.11 dBm</td> <td>-5.11 dB</td> </tr> </tbody> </table> <p>09:24:38 08.12.2023</p>	Range Low	Range Up	RBW	Frequency	Power Abs	Limit	18.000 GHz	24.500 GHz	1.000 MHz	22.523 55 GHz	-36.64 dBm	-23.64 dB	25.500 GHz	40.000 GHz	1.000 MHz	31.531 58 GHz	-18.11 dBm	-5.11 dB	<p>intentionally blank</p>
Range Low	Range Up	RBW	Frequency	Power Abs	Limit														
18.000 GHz	24.500 GHz	1.000 MHz	22.523 55 GHz	-36.64 dBm	-23.64 dB														
25.500 GHz	40.000 GHz	1.000 MHz	31.531 58 GHz	-18.11 dBm	-5.11 dB														
<p>Middle Channel / 400MHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range Up</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18.000 GHz</td> <td>24.500 GHz</td> <td>1.000 MHz</td> <td>23.878 56 GHz</td> <td>-36.32 dBm</td> <td>-13.32 dB</td> </tr> <tr> <td>25.500 GHz</td> <td>40.000 GHz</td> <td>1.000 MHz</td> <td>25.534 66 GHz</td> <td>-27.04 dBm</td> <td>-14.04 dB</td> </tr> </tbody> </table> <p>03:35:14 09.12.2023</p>	Range Low	Range Up	RBW	Frequency	Power Abs	Limit	18.000 GHz	24.500 GHz	1.000 MHz	23.878 56 GHz	-36.32 dBm	-13.32 dB	25.500 GHz	40.000 GHz	1.000 MHz	25.534 66 GHz	-27.04 dBm	-14.04 dB	<p>intentionally blank</p>
Range Low	Range Up	RBW	Frequency	Power Abs	Limit														
18.000 GHz	24.500 GHz	1.000 MHz	23.878 56 GHz	-36.32 dBm	-13.32 dB														
25.500 GHz	40.000 GHz	1.000 MHz	25.534 66 GHz	-27.04 dBm	-14.04 dB														
<p>Highest Channel / 400MHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range Up</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18.000 GHz</td> <td>24.500 GHz</td> <td>1.000 MHz</td> <td>24.484 87 GHz</td> <td>-25.57 dBm</td> <td>-12.57 dB</td> </tr> <tr> <td>25.500 GHz</td> <td>40.000 GHz</td> <td>1.000 MHz</td> <td>25.584 91 GHz</td> <td>-23.08 dBm</td> <td>-10.08 dB</td> </tr> </tbody> </table> <p>13:46:39 09.12.2023</p>	Range Low	Range Up	RBW	Frequency	Power Abs	Limit	18.000 GHz	24.500 GHz	1.000 MHz	24.484 87 GHz	-25.57 dBm	-12.57 dB	25.500 GHz	40.000 GHz	1.000 MHz	25.584 91 GHz	-23.08 dBm	-10.08 dB	<p>intentionally blank</p>
Range Low	Range Up	RBW	Frequency	Power Abs	Limit														
18.000 GHz	24.500 GHz	1.000 MHz	24.484 87 GHz	-25.57 dBm	-12.57 dB														
25.500 GHz	40.000 GHz	1.000 MHz	25.584 91 GHz	-23.08 dBm	-10.08 dB														

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



There is no significant spurious emission signal found for frequency started from 40GHz up to 200GHz.
Only the noise floor is reported.

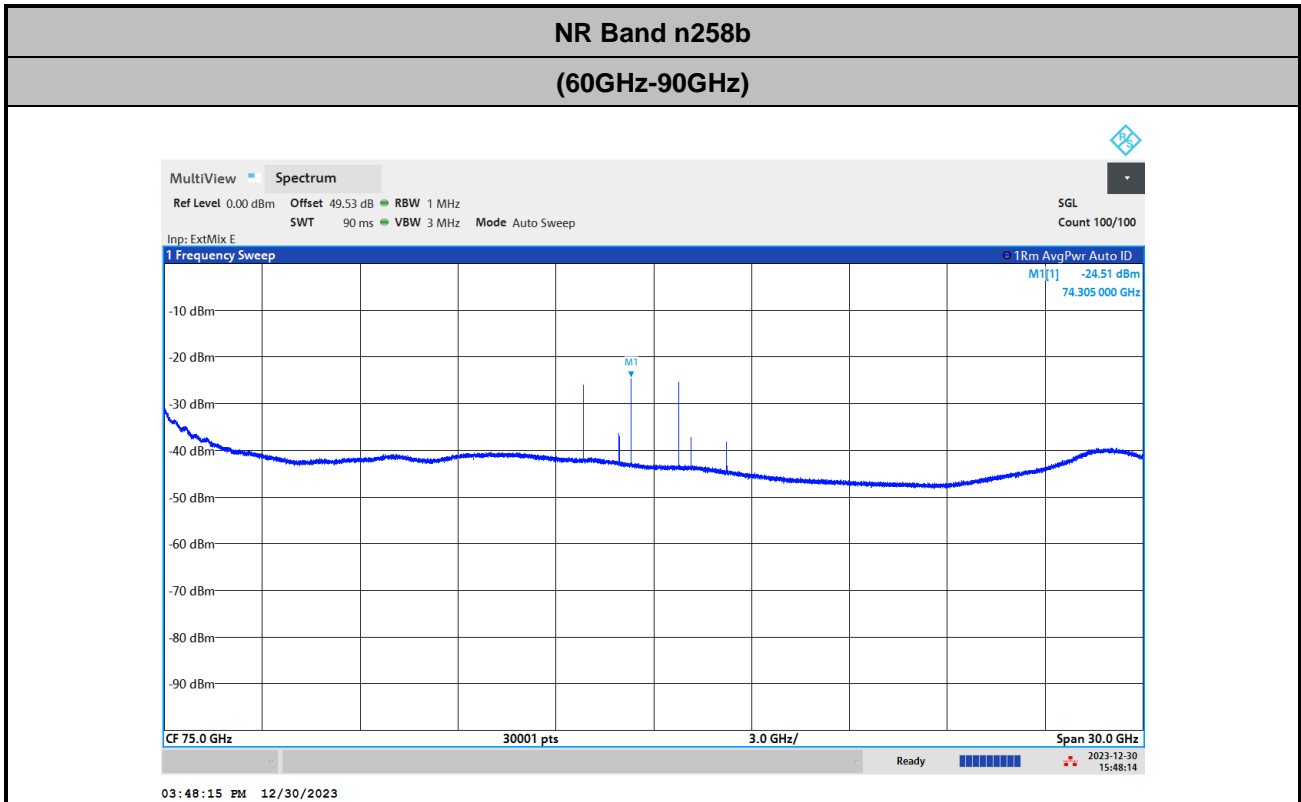


$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$
$$= 43 + 0.43 + 107 + 20\log(1) - 104.8 = 45.63(\text{dB})$$



NR Band n258b

(60GHz-90GHz)

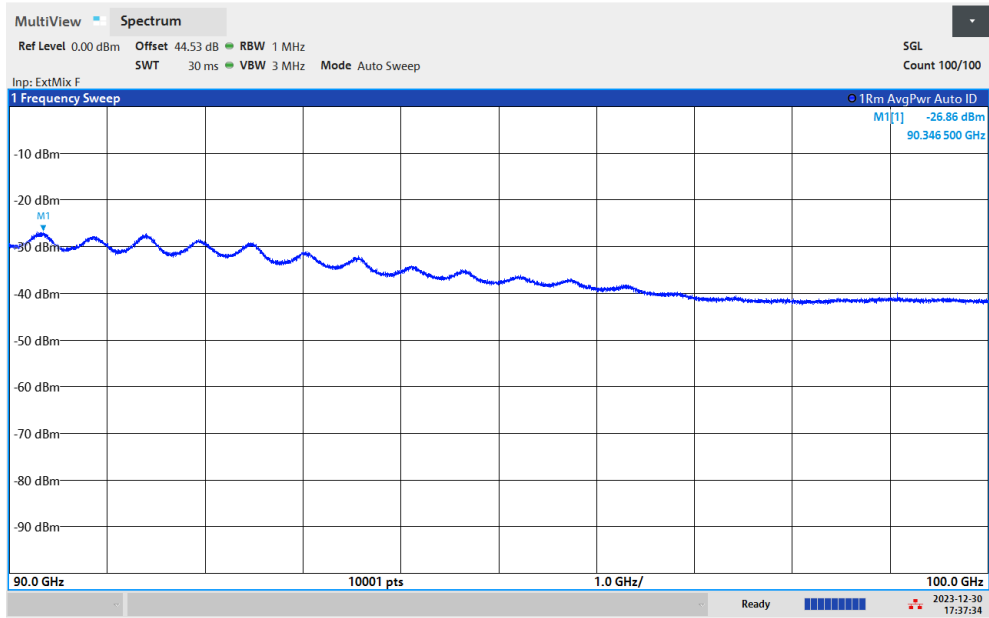


$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 46.9 + 0.43 + 107 + 20\log(1) - 104.8 = 49.53 \text{ (dB)} \end{aligned}$$



NR Band n258b

(90GHz-100GHz)



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



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	24.999979	41.000	1.640	Pass
40	Normal Voltage	24.999989	31.000	1.240	
30	Normal Voltage	25.000022	-2.000	0.080	
20(Ref.)	Normal Voltage	25.00002	0.000	0.000	
10	Normal Voltage	24.999977	43.000	1.720	
0	Normal Voltage	24.999976	44.000	1.760	
-10	Normal Voltage	24.999974	46.000	1.840	
-20	Normal Voltage	24.999974	46.000	1.840	
-30	Normal Voltage	24.999968	52.000	2.080	
20	Maximum Voltage	25.000024	-4.000	0.160	
20	Normal Voltage	25.000032	-12.000	0.480	
20	Battery End Point	25.000029	-9.000	0.360	

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 n260 Module A AGH+V

Occupied Bandwidth

Mode	DFT-s-OFDM Module A NR Band n260 : 99%OBW(MHz)								
BW	50MHz			100MHz			200MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	46.72	46.39	45.82	91.22	91.31	91.03	191.02	190.66	190.77
Middle CH	46.00	45.93	45.89	91.19	90.94	91.04	191.05	191.40	190.90
Highest CH	46.05	46.03	45.92	91.34	91.31	91.19	191.23	191.58	191.11

Mode	DFT-s-OFDM Module A NR Band n260 : 99%OBW(MHz)					
BW	300MHz			400MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	290.64	289.80	289.56	389.72	389.76	388.42
Middle CH	290.45	290.04	289.60	388.66	388.08	389.16
Highest CH	290.81	290.19	289.87	390.14	390.03	390.15

Mode	CP-OFDM Module A NR Band n260 : 99%OBW(MHz)		
BW	50MHz	100MHz	200MHz
Mod.	QPSK	QPSK	QPSK
Lowest CH	46.30	94.09	194.04
Middle CH	46.14	93.84	193.77
Highest CH	46.21	93.92	194.22

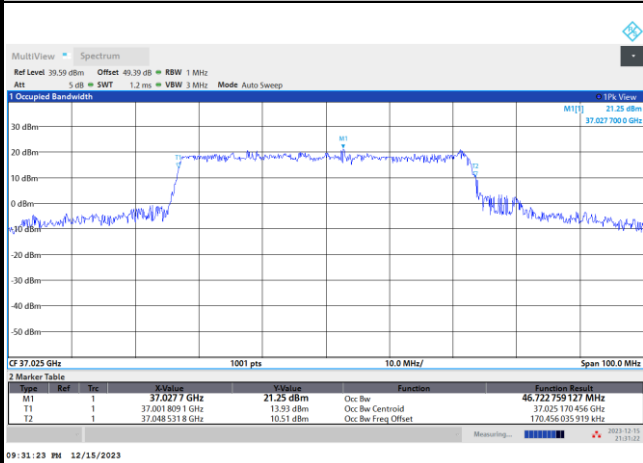
Mode	CP-OFDM Module A NR Band n260 : 99%OBW(MHz)	
BW	300MHz	400MHz
Mod.	QPSK	QPSK
Lowest CH	294.77	390.54
Middle CH	294.80	393.02
Highest CH	294.27	394.17



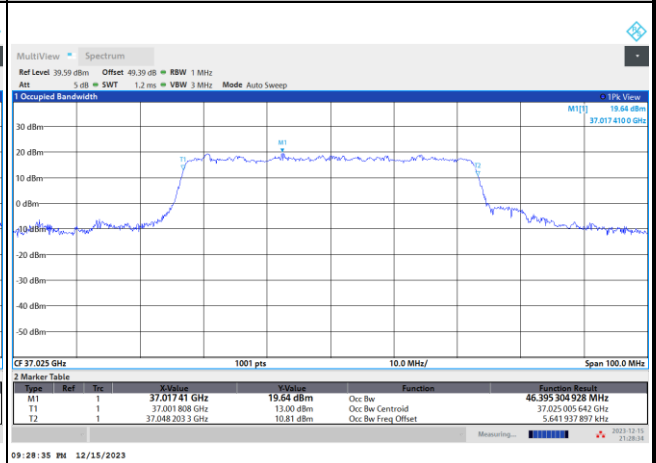
DFT-s-OFDM Module A

NR Band n260

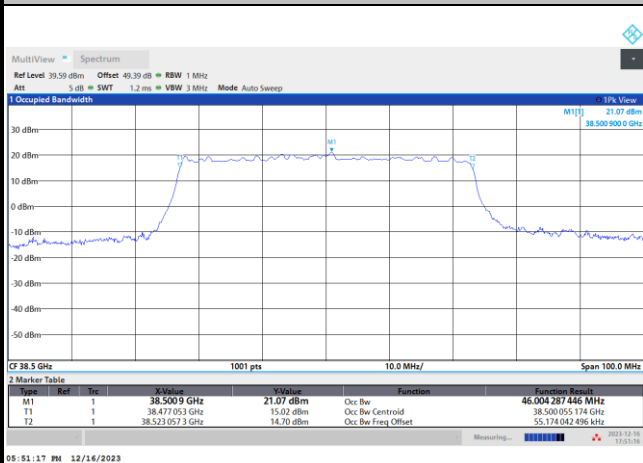
Lowest Channel / 50MHz / QPSK



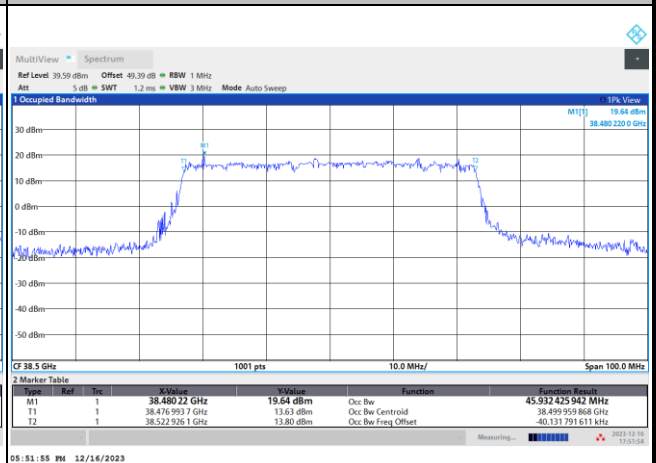
Lowest Channel / 50MHz / 16QAM



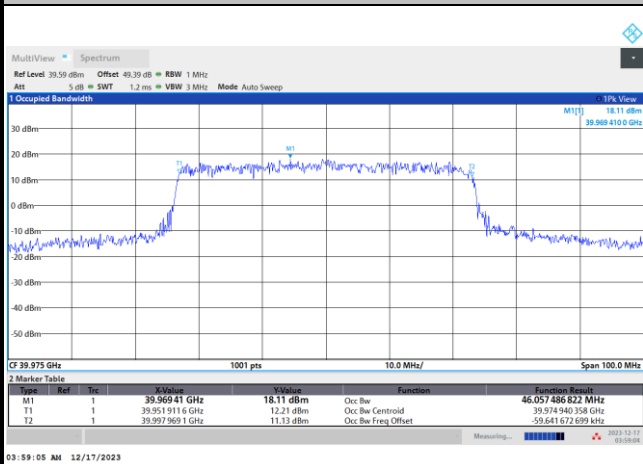
Middle Channel / 50MHz / QPSK



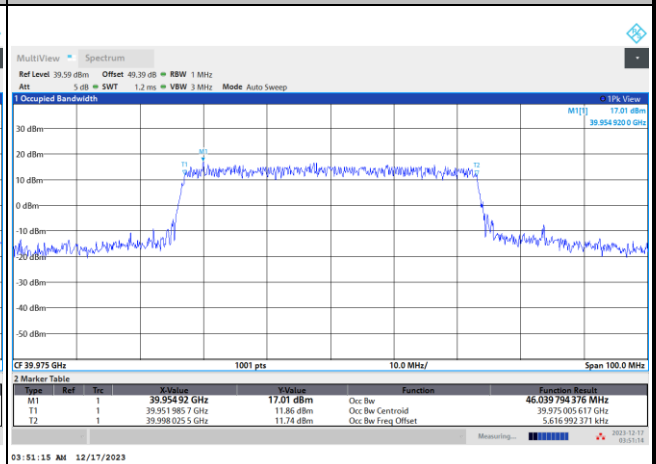
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

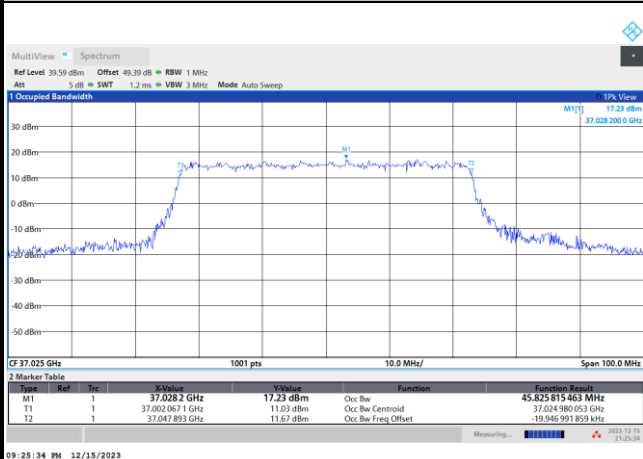




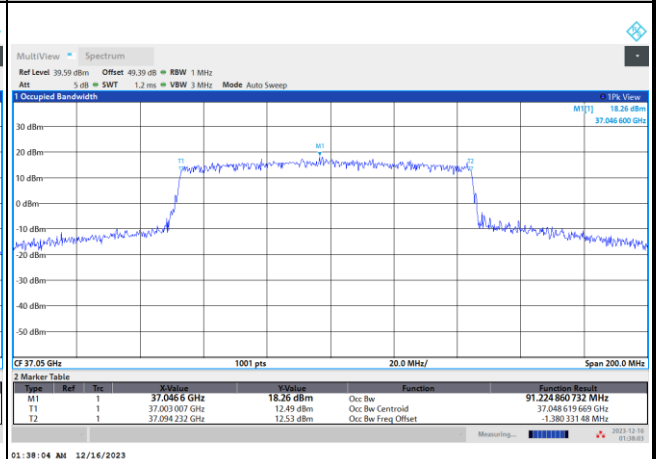
DFT-s-OFDM Module A

NR Band n260

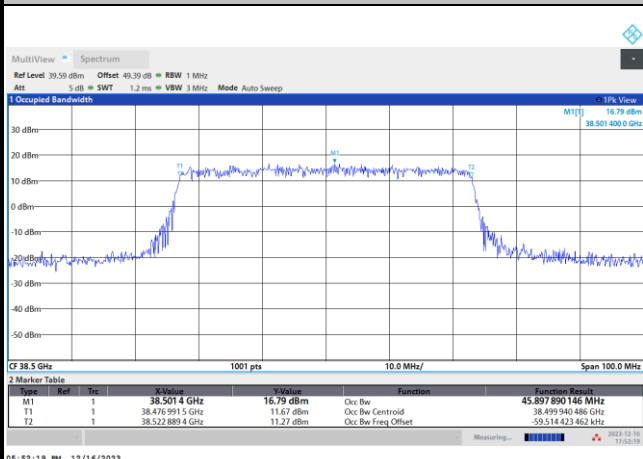
Lowest Channel / 50MHz / 64QAM



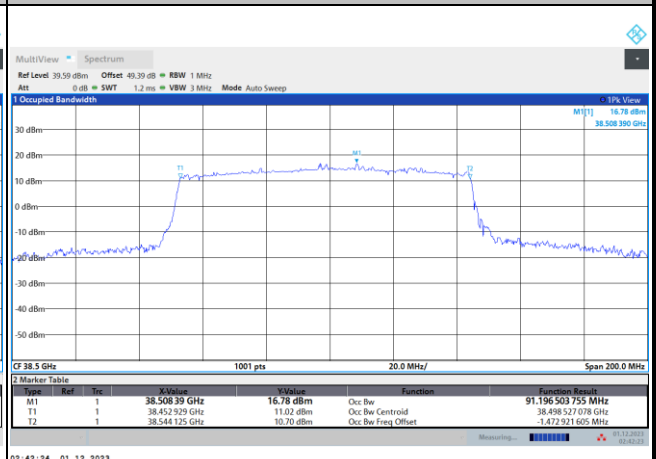
Lowest Channel / 100MHz / QPSK



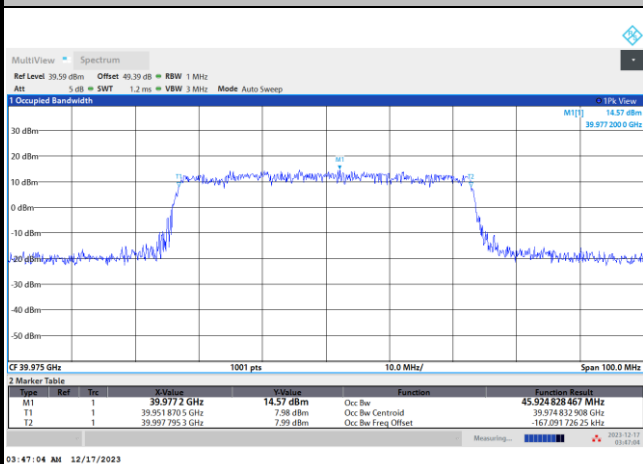
Middle Channel / 50MHz / 64QAM



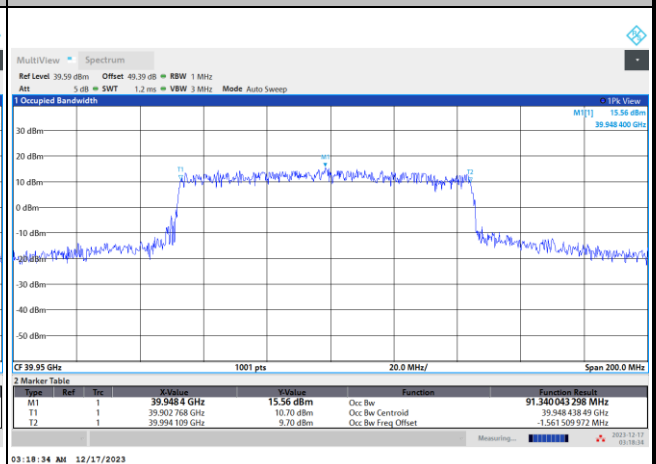
Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / 64QAM



Highest Channel / 100MHz / QPSK

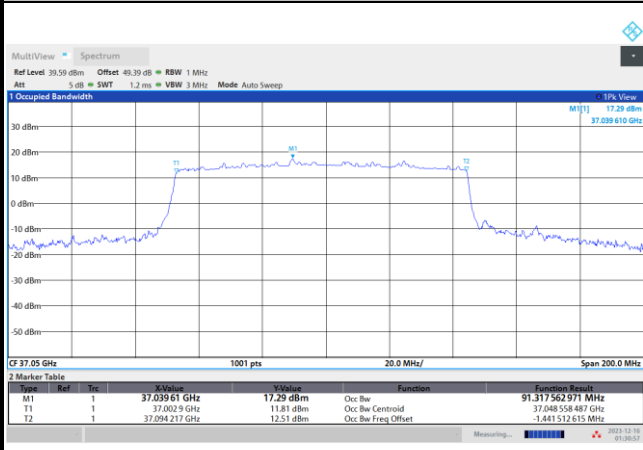




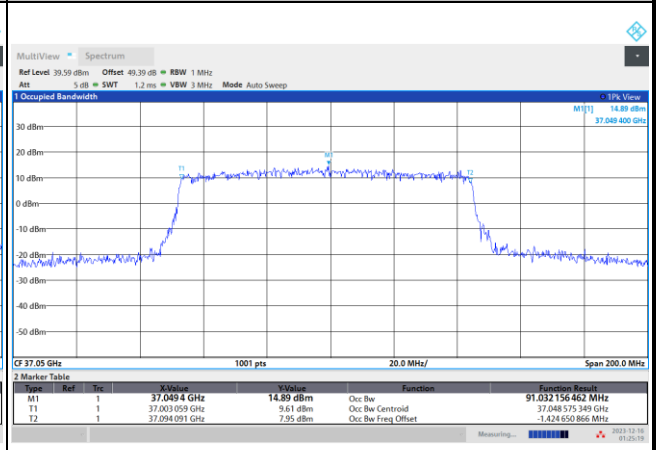
DFT-s-OFDM Module A

NR Band n260

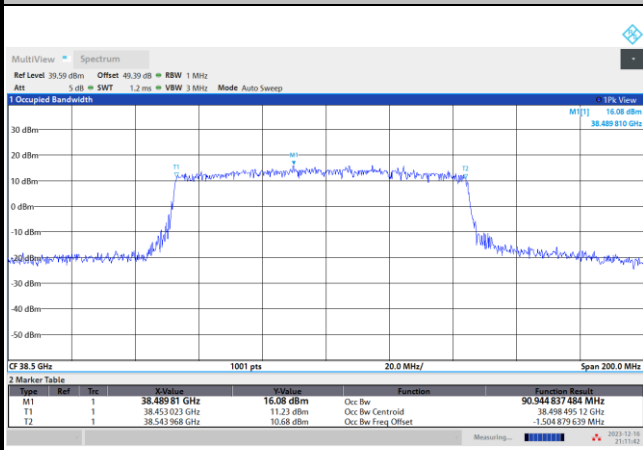
Lowest Channel / 100MHz / 16QAM



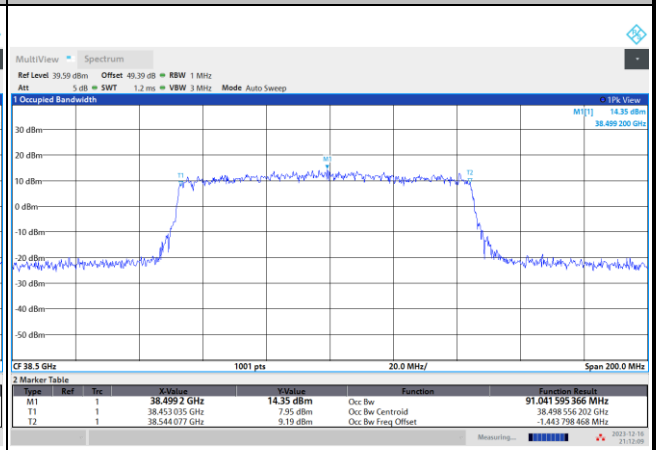
Lowest Channel / 100MHz / 64QAM



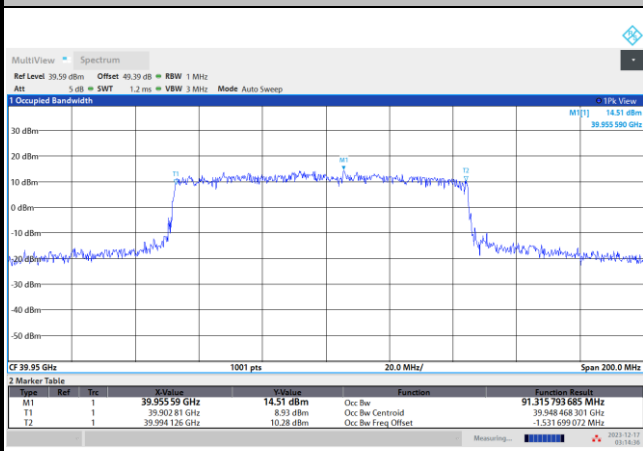
Middle Channel / 100MHz / 16QAM



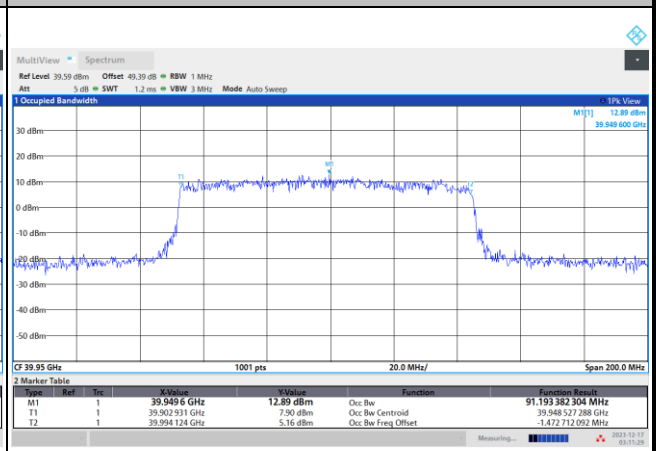
Middle Channel / 100MHz / 64QAM



Highest Channel / 100MHz / 16QAM



Highest Channel / 100MHz / 64QAM

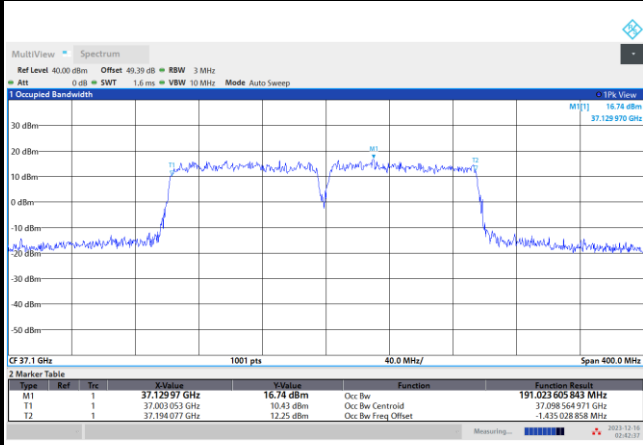




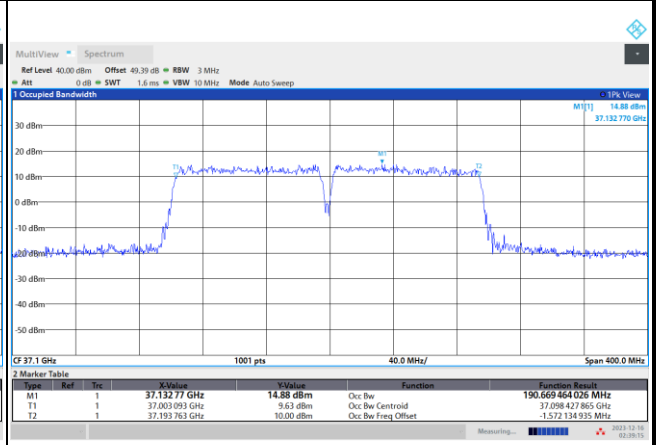
DFT-s-OFDM Module A

NR Band n260

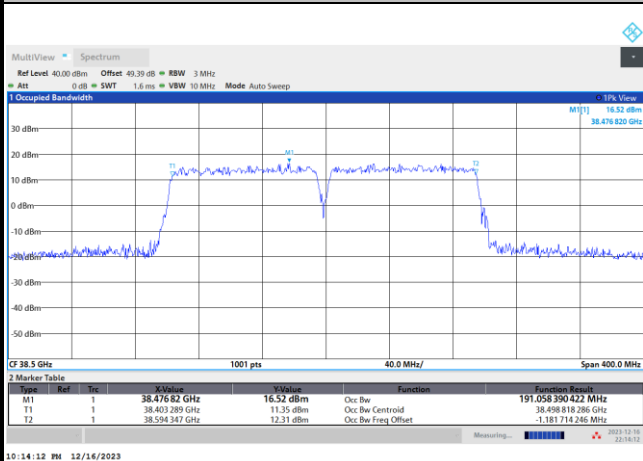
Lowest Channel / 200MHz / QPSK



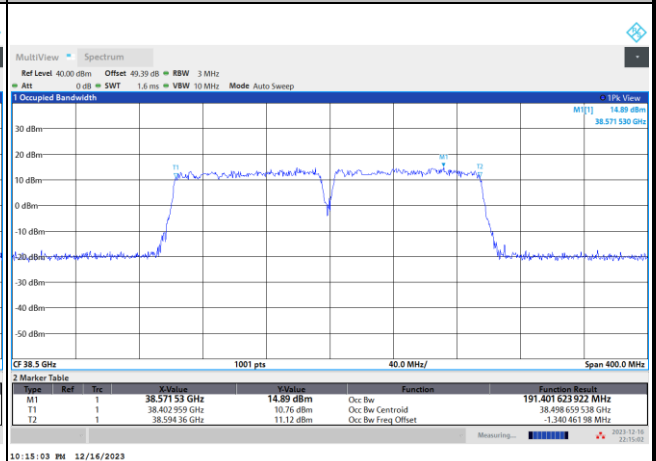
Lowest Channel / 200MHz / 16QAM



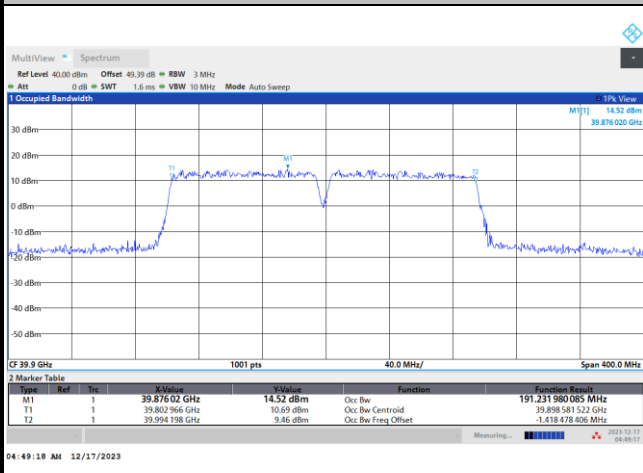
Middle Channel / 200MHz / QPSK



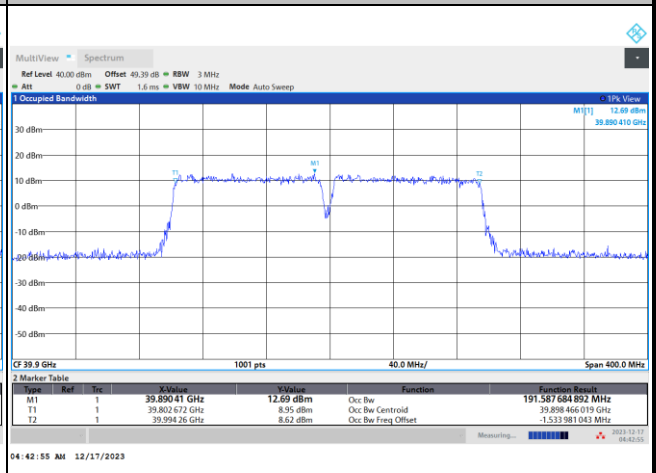
Middle Channel / 200MHz / 16QAM



Highest Channel / 200MHz / QPSK



Highest Channel / 200MHz / 16QAM

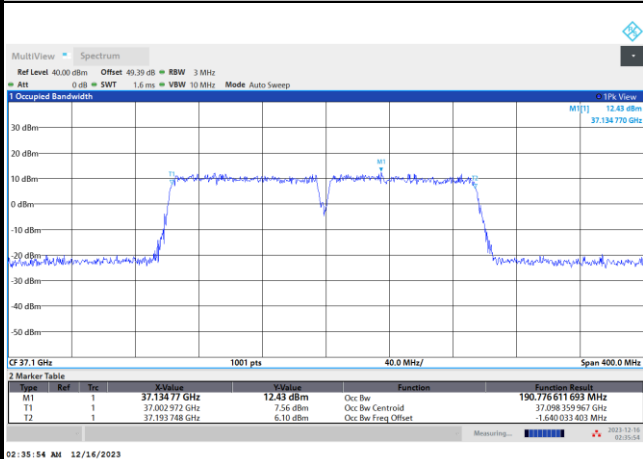




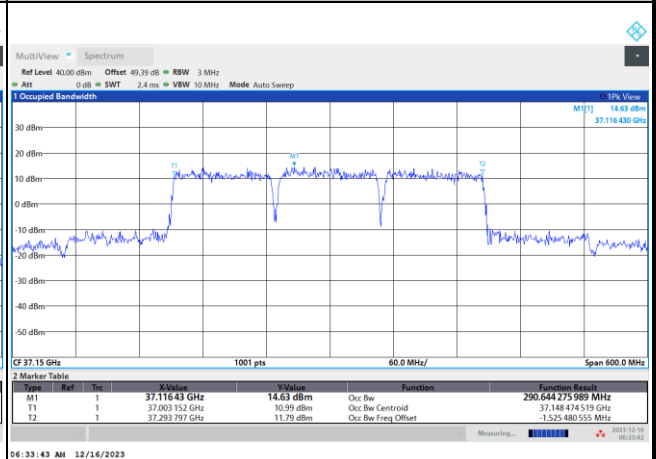
DFT-s-OFDM Module A

NR Band n260

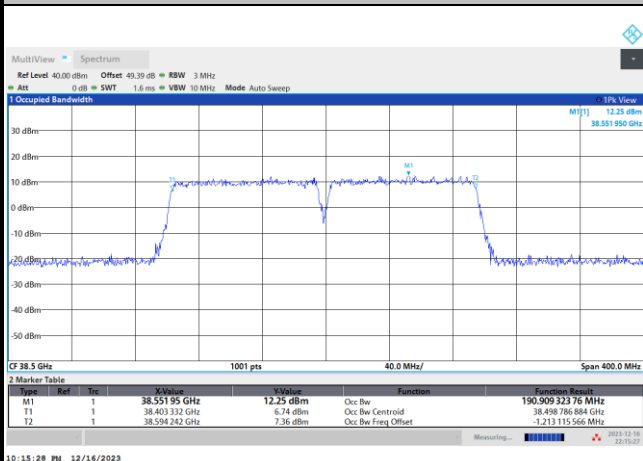
Lowest Channel / 200MHz / 64QAM



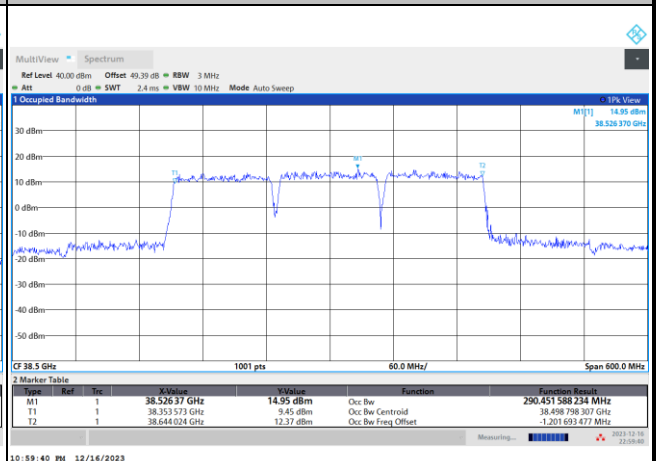
Lowest Channel / 300MHz / QPSK



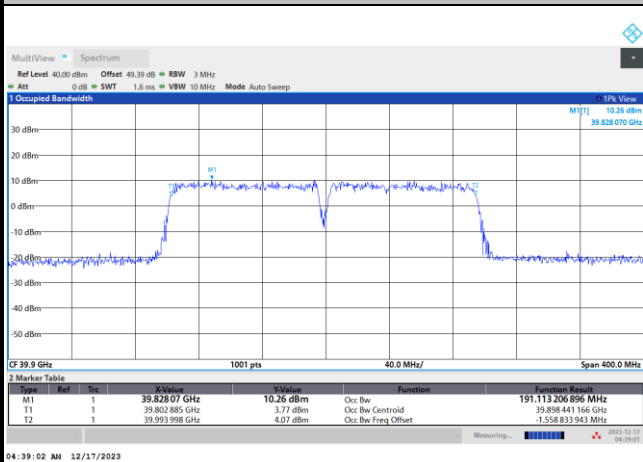
Middle Channel / 200MHz / 64QAM



Middle Channel / 300MHz / QPSK



Highest Channel / 200MHz / 64QAM



Highest Channel / 300MHz / QPSK

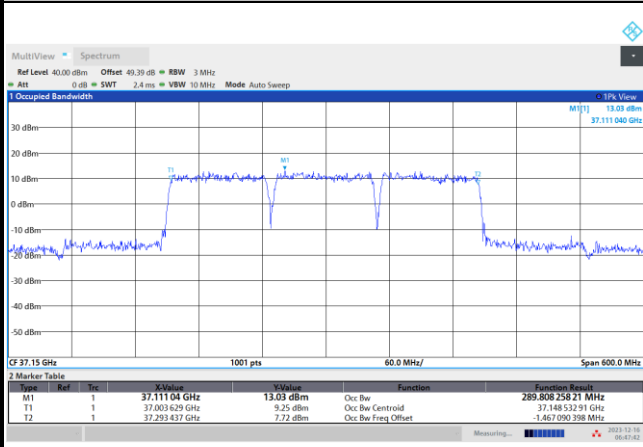




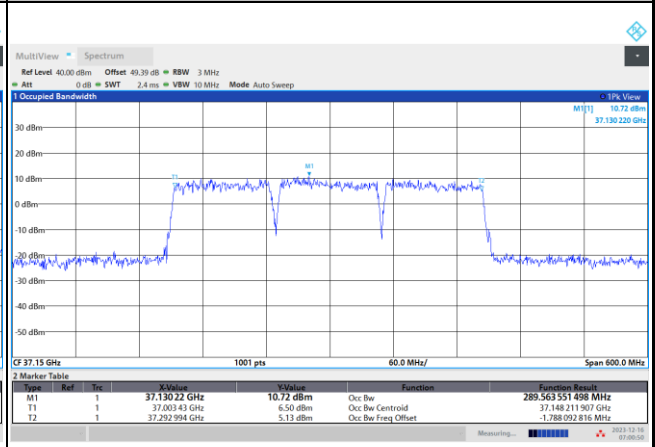
DFT-s-OFDM Module A

NR Band n260

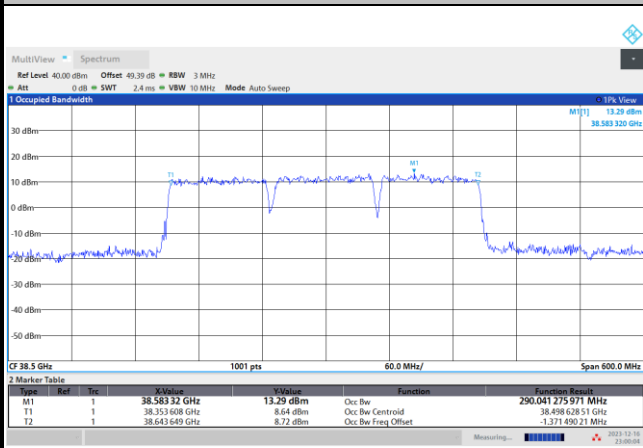
Lowest Channel / 300MHz / 16QAM



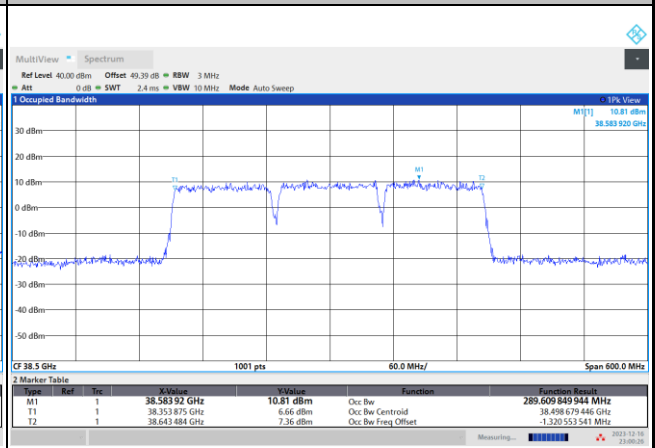
Lowest Channel / 300MHz / 64QAM



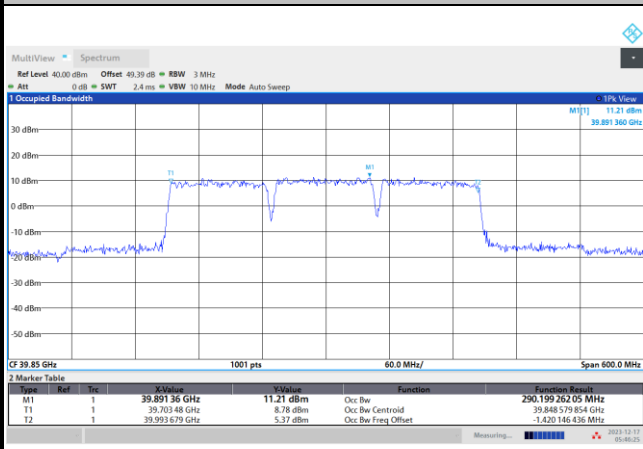
Middle Channel / 300MHz / 16QAM



Middle Channel / 300MHz / 64QAM



Highest Channel / 300MHz / 16QAM



Highest Channel / 300MHz / 64QAM

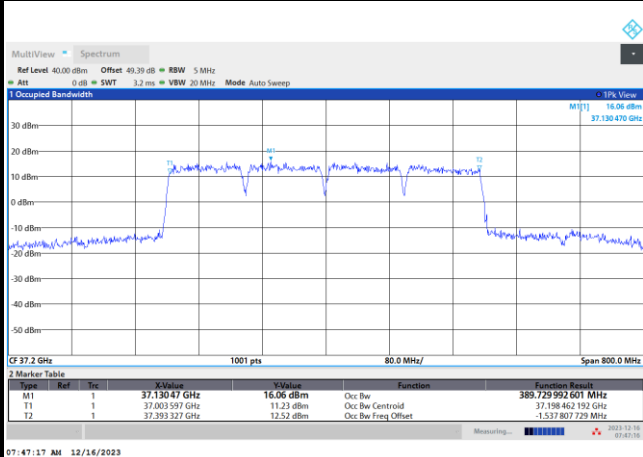




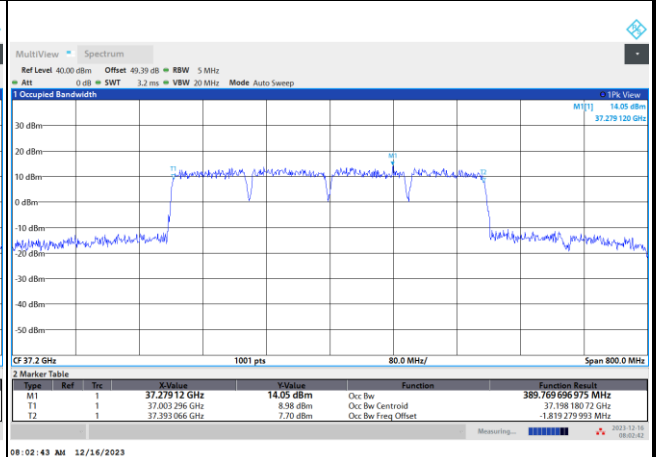
DFT-s-OFDM Module A

NR Band n260

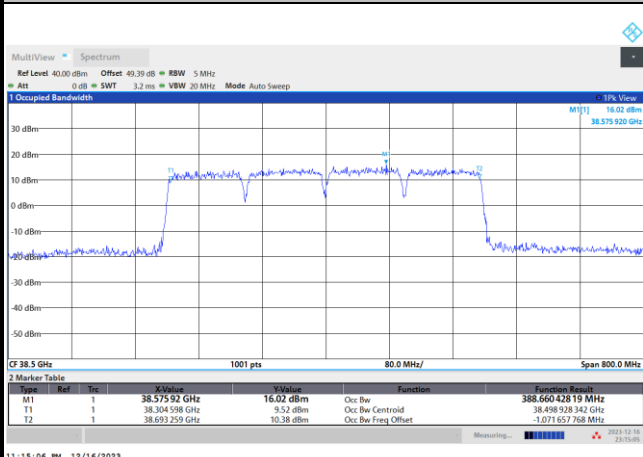
Lowest Channel / 400MHz / QPSK



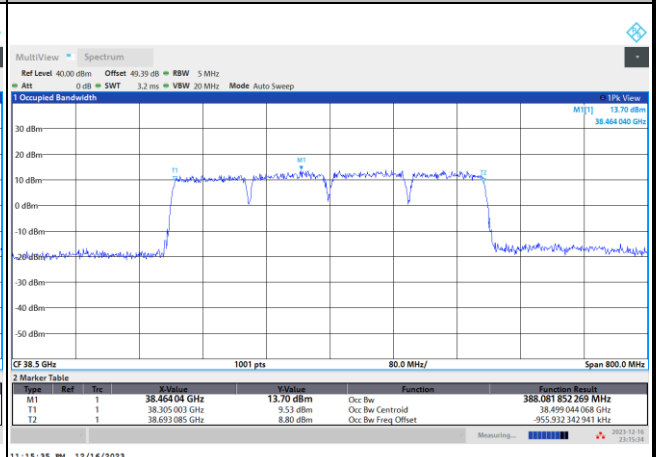
Lowest Channel / 400MHz / 16QAM



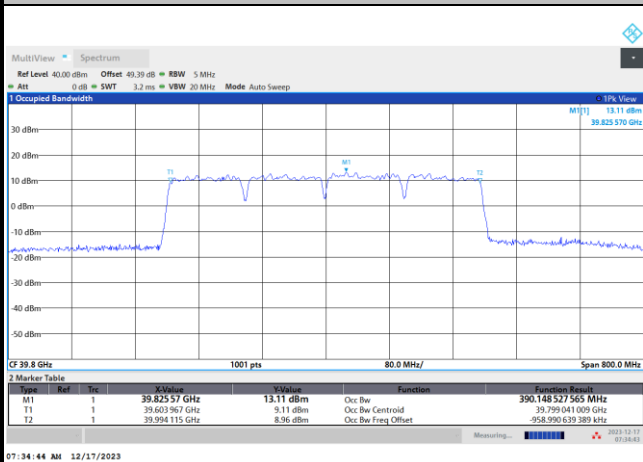
Middle Channel / 400MHz / QPSK



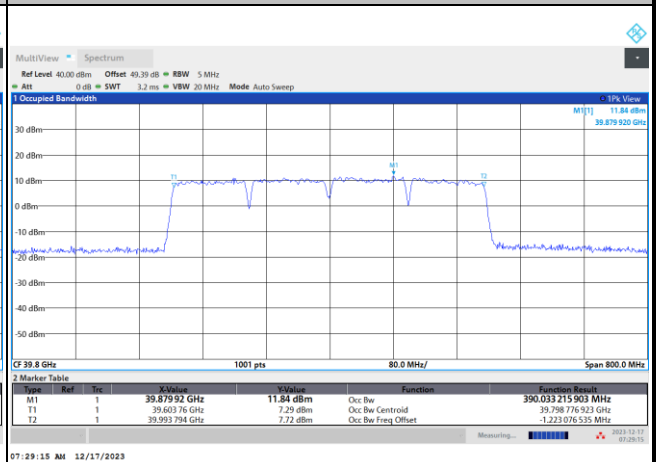
Middle Channel / 400MHz / 16QAM



Highest Channel / 400MHz / QPSK



Highest Channel / 400MHz / 16QAM

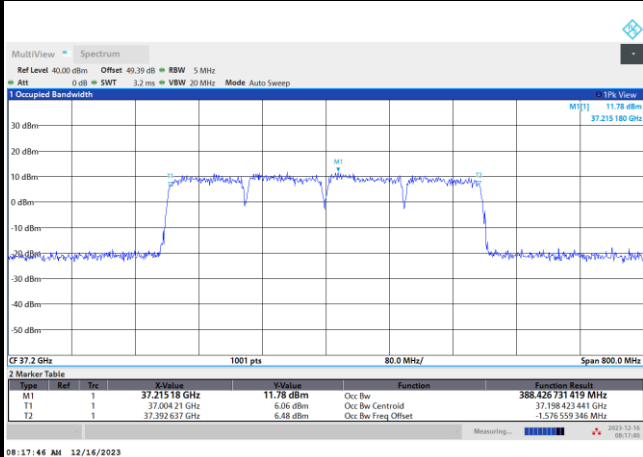




DFT-s-OFDM Module A

NR Band n260

Lowest Channel / 400MHz / 64QAM



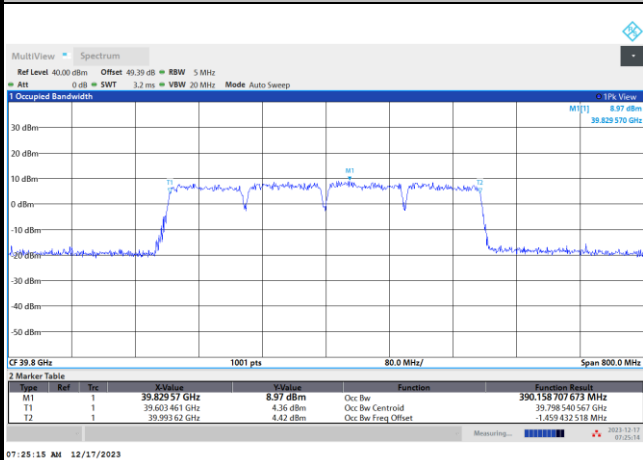
intentionally blank

Middle Channel / 400MHz / 64QAM



intentionally blank

Highest Channel / 400MHz / 64QAM



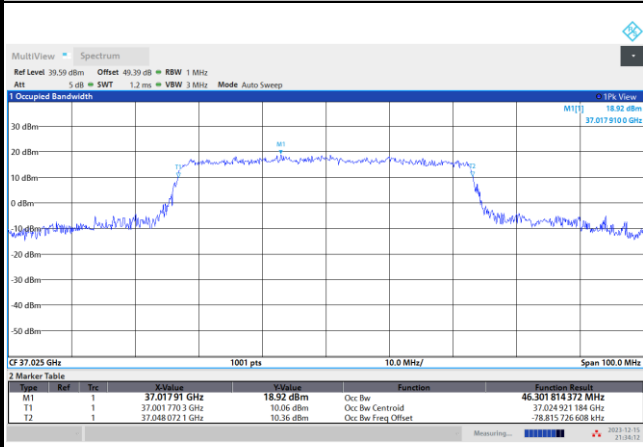
intentionally blank



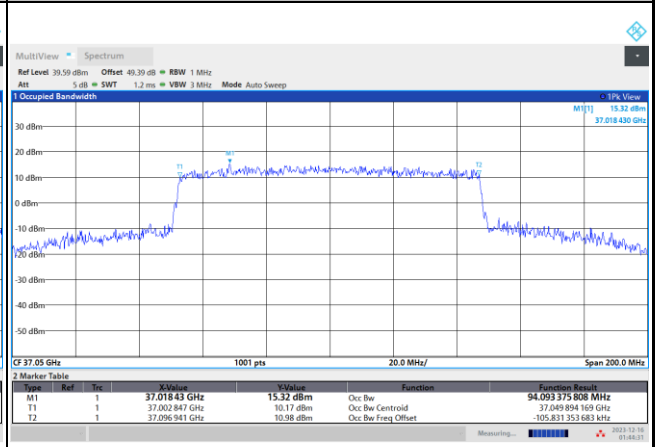
CP-OFDM Module A

NR Band n260

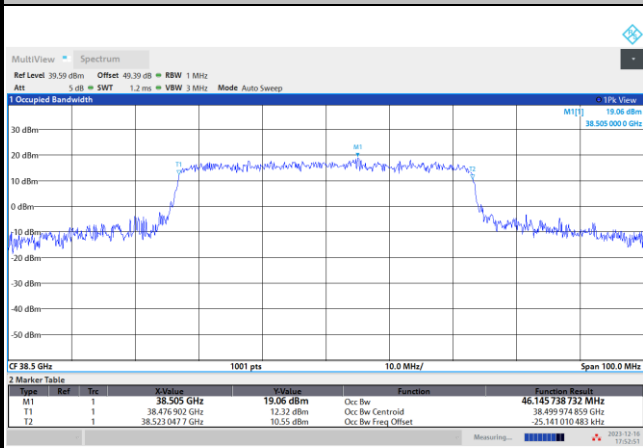
Lowest Channel / 50MHz / QPSK



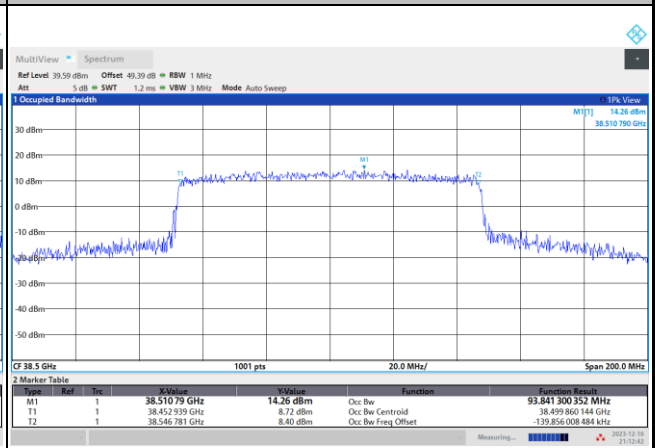
Lowest Channel / 100MHz / QPSK



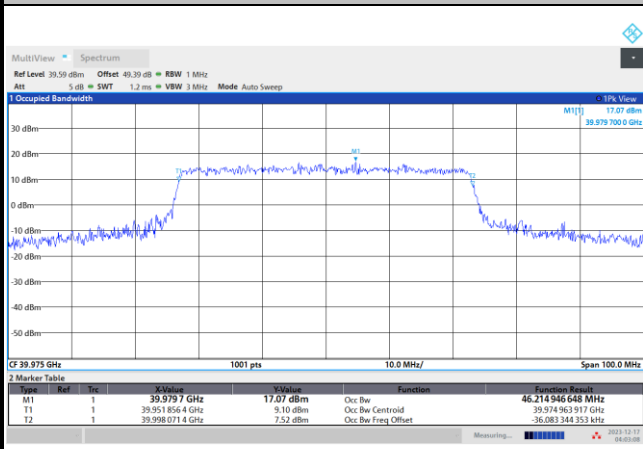
Middle Channel / 50MHz / QPSK



Middle Channel / 100MHz / QPSK



Highest Channel / 50MHz / QPSK



Highest Channel / 100MHz / QPSK

