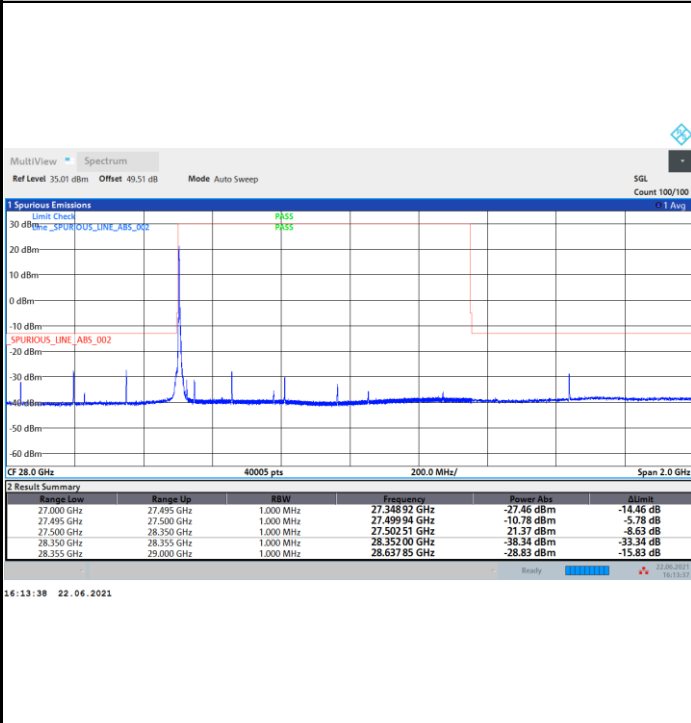




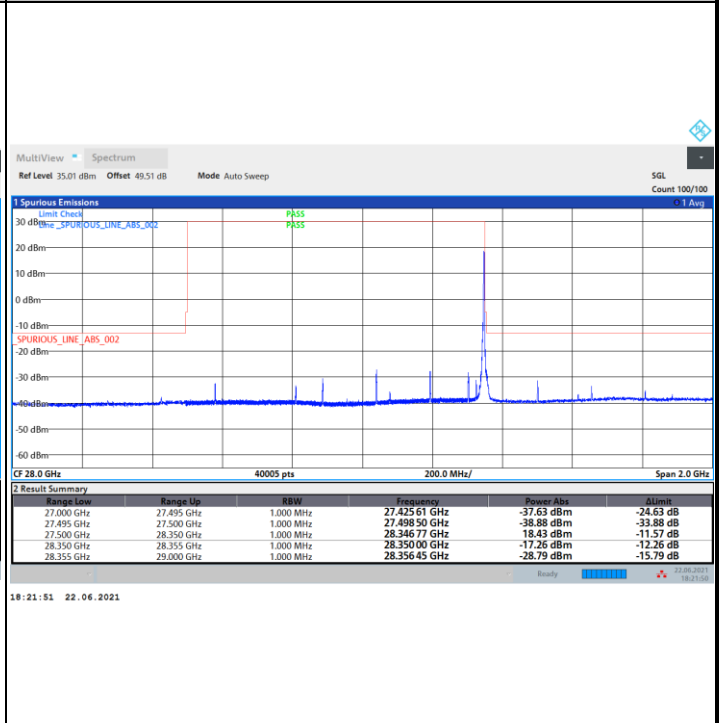
DFT-s-OFDM Module 1

NR Band n261 / 50MHz / BPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

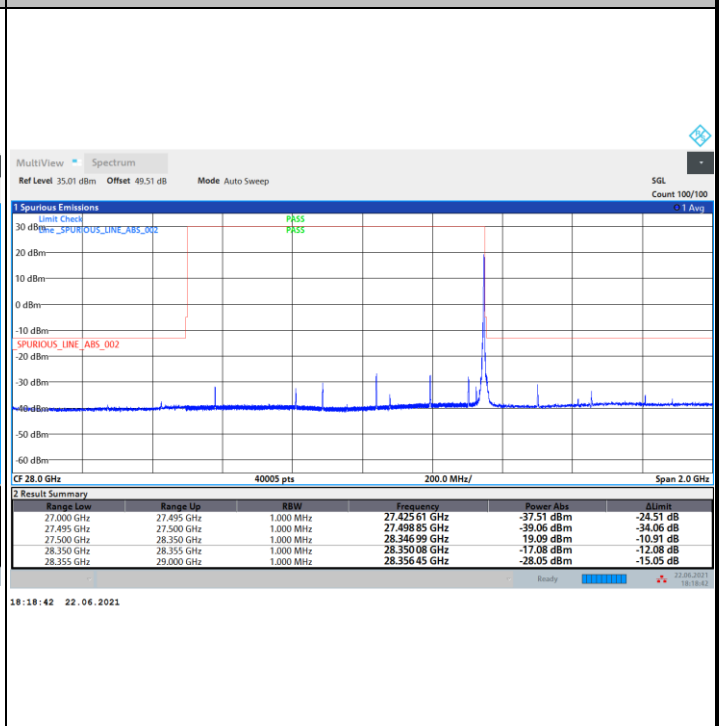


NR Band n261 / 50MHz / QPSK

Lowest Band Edge / 1 RB



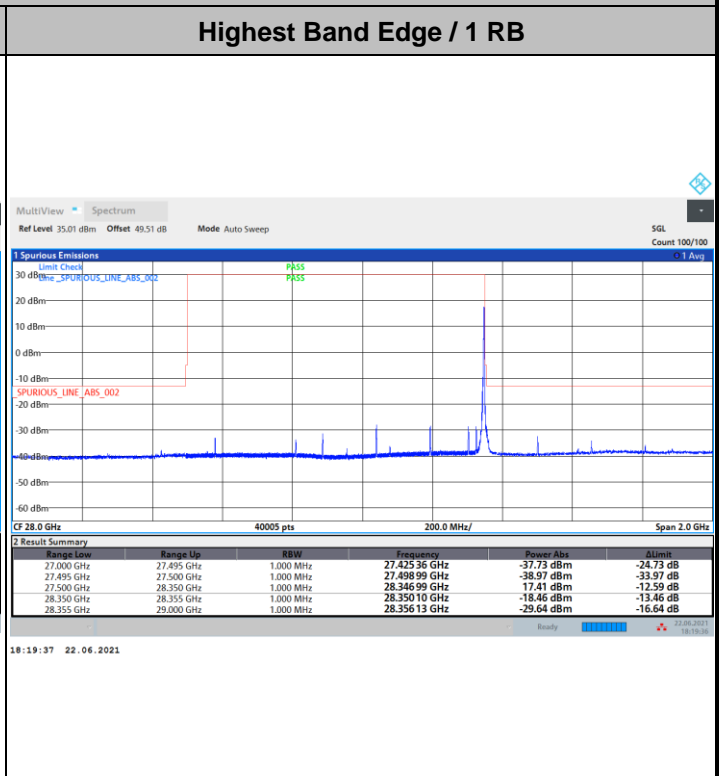
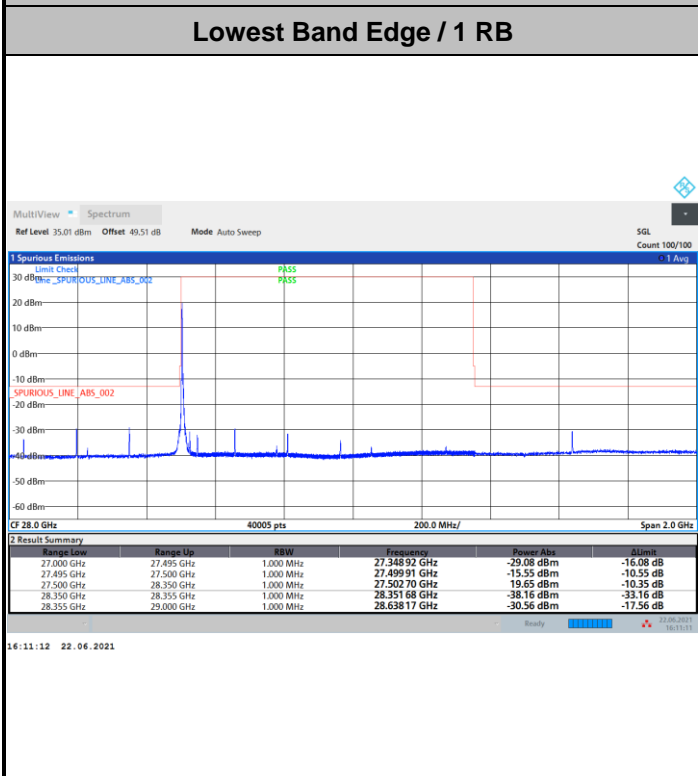
Highest Band Edge / 1 RB



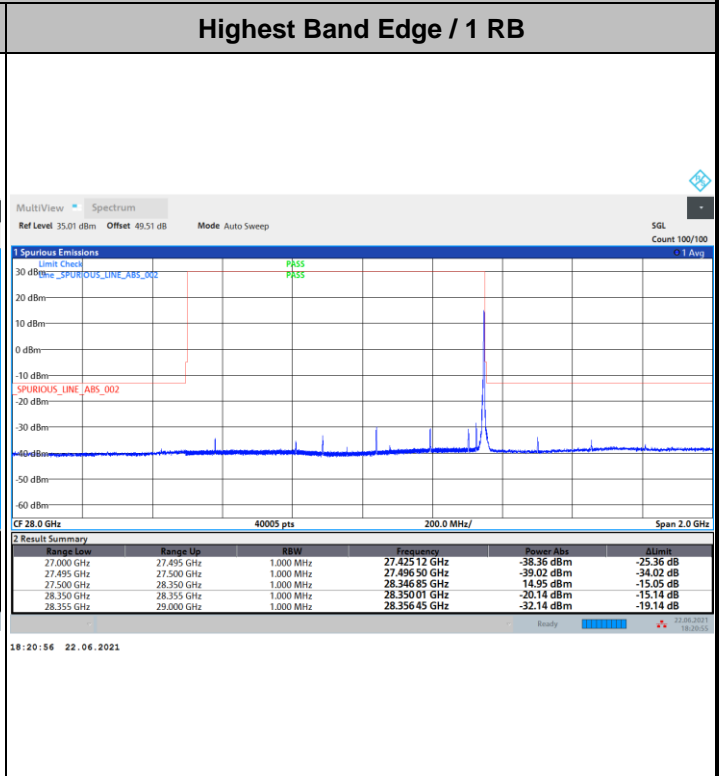
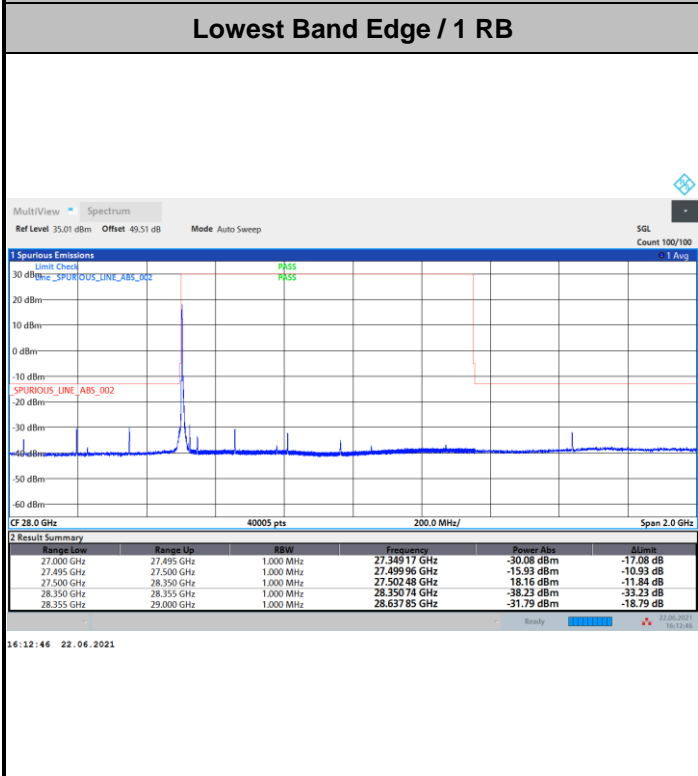


DFT-s-OFDM Module 1

NR Band n261 / 50MHz / 16QAM



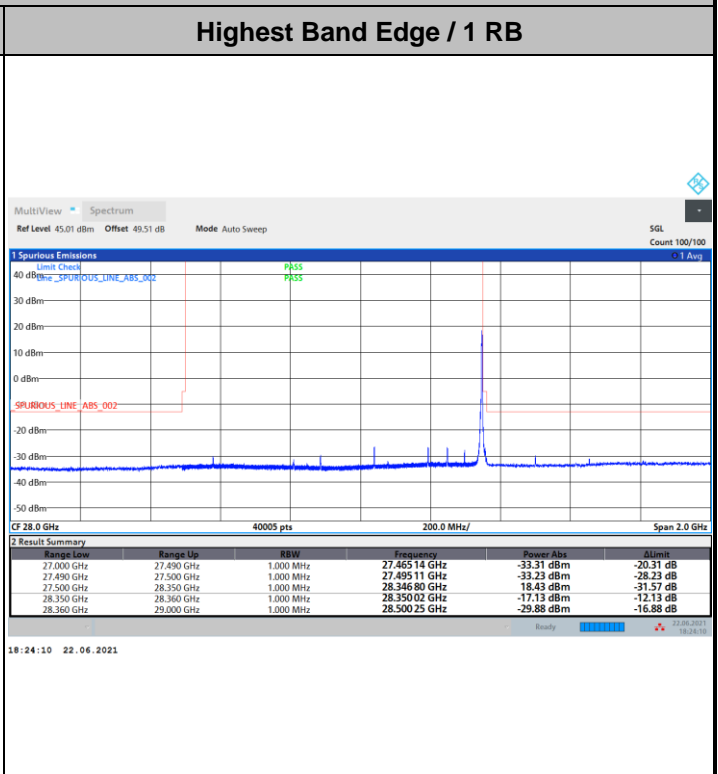
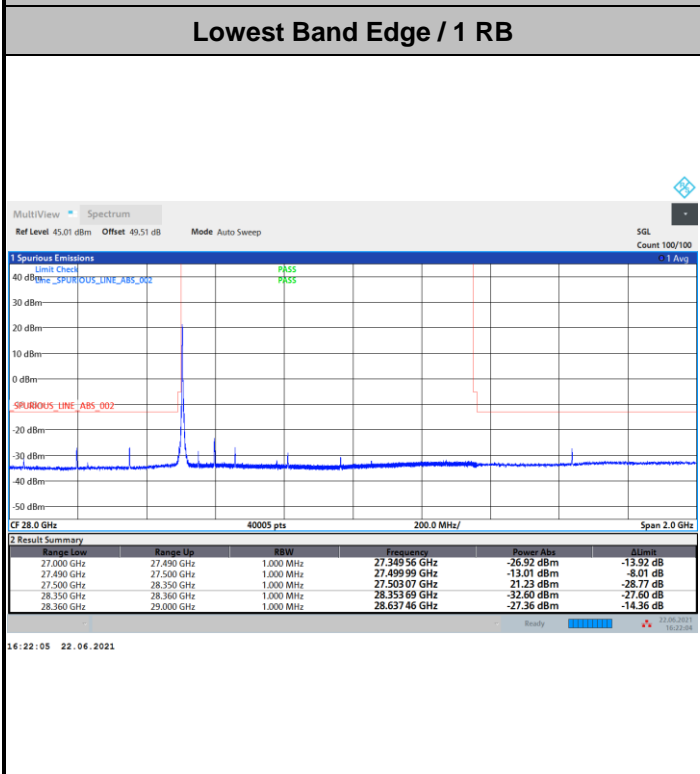
NR Band n261 / 50MHz / 64QAM



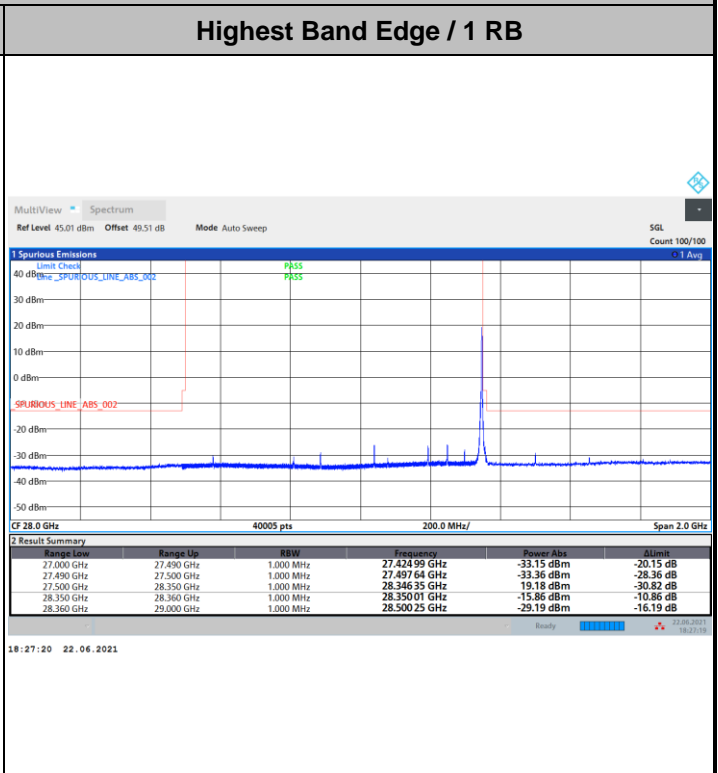
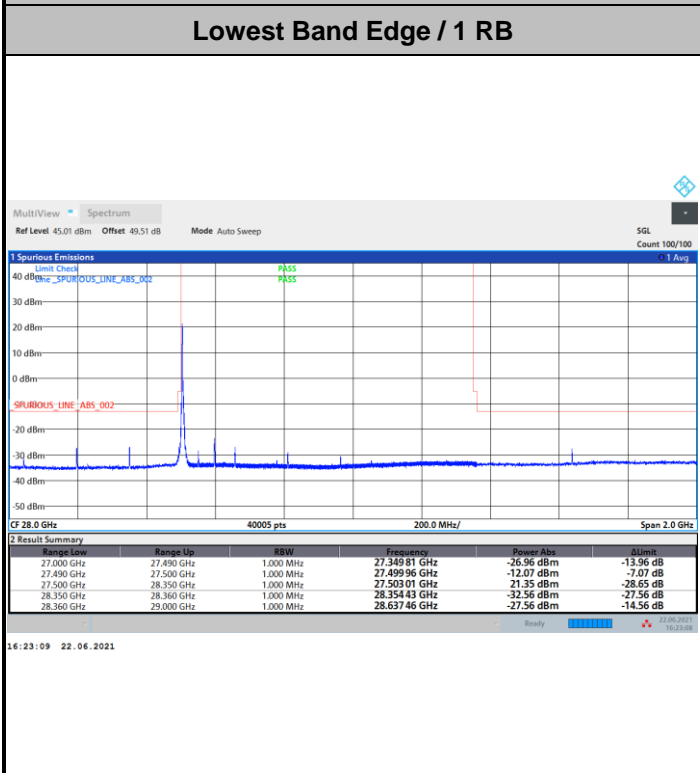


DFT-s-OFDM Module 1

NR Band n261 / 100MHz / BPSK

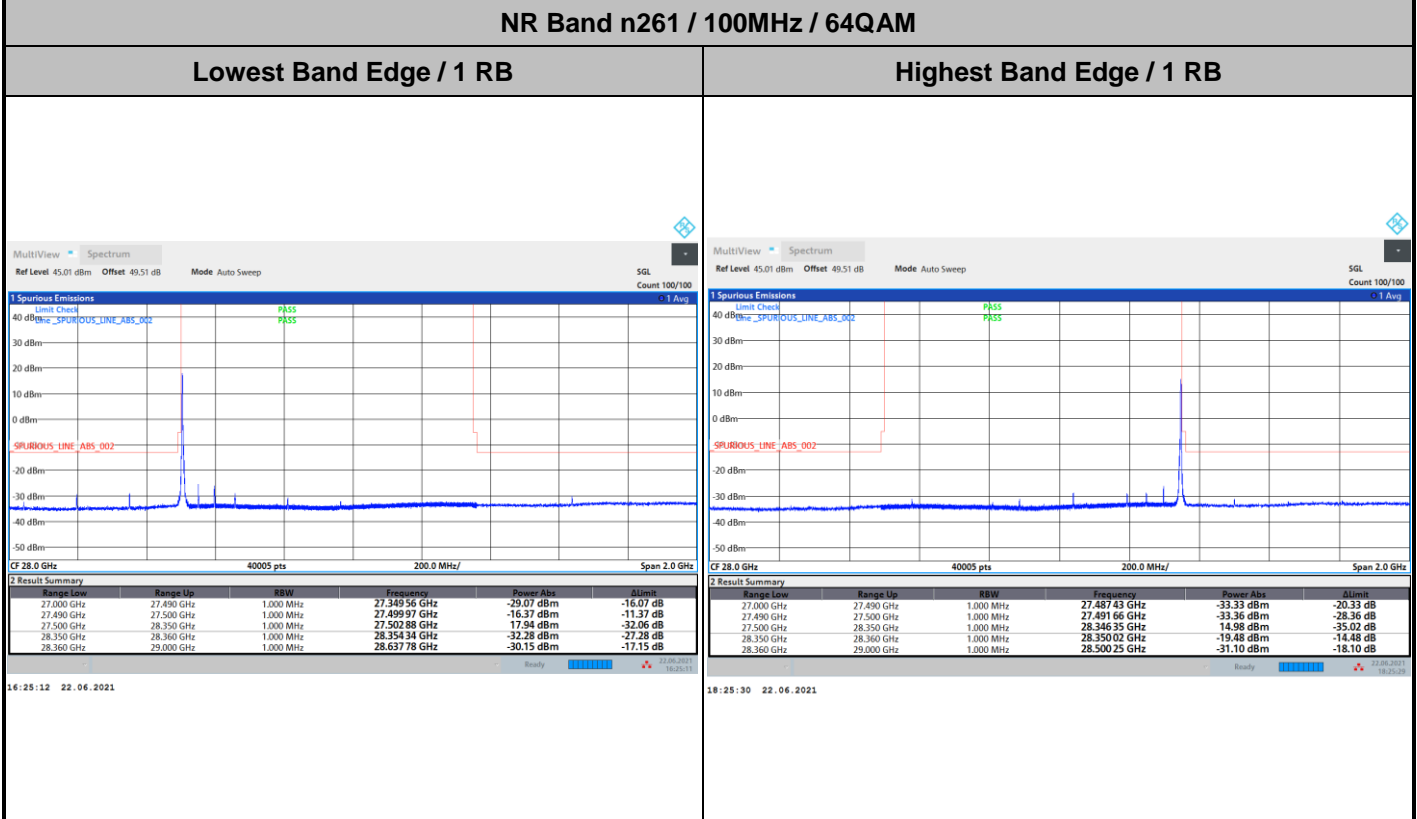
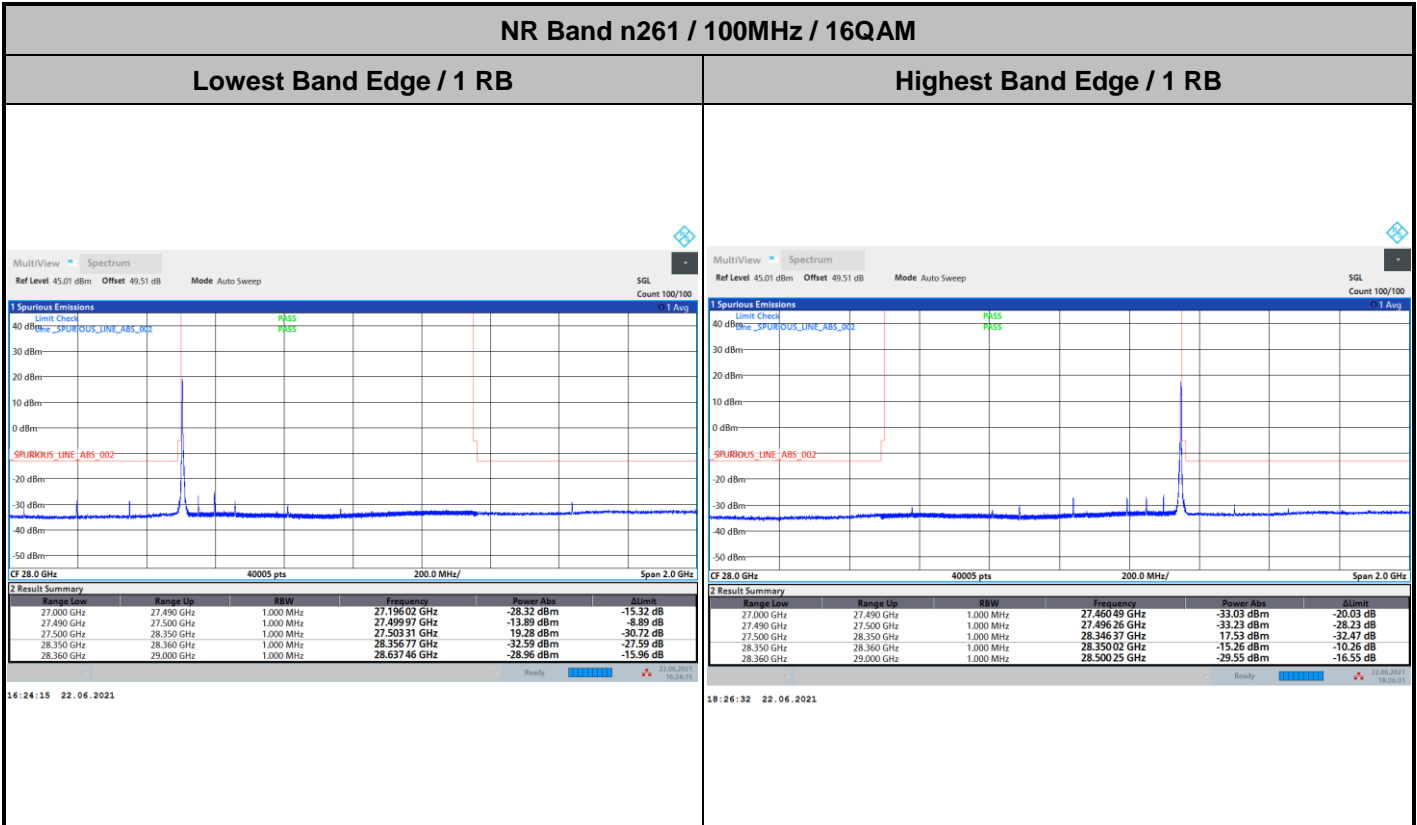


NR Band n261 / 100MHz / QPSK





DFT-s-OFDM Module 1



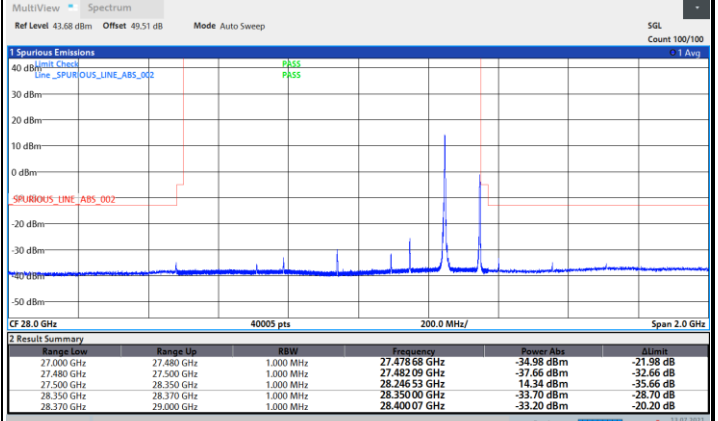
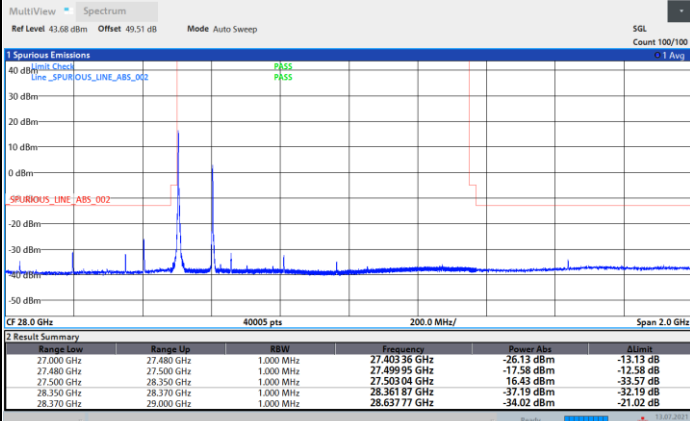


DFT-s-OFDM Module 1

NR Band n261 / 200MHz / BPSK

Lowest Band Edge / 1 RB

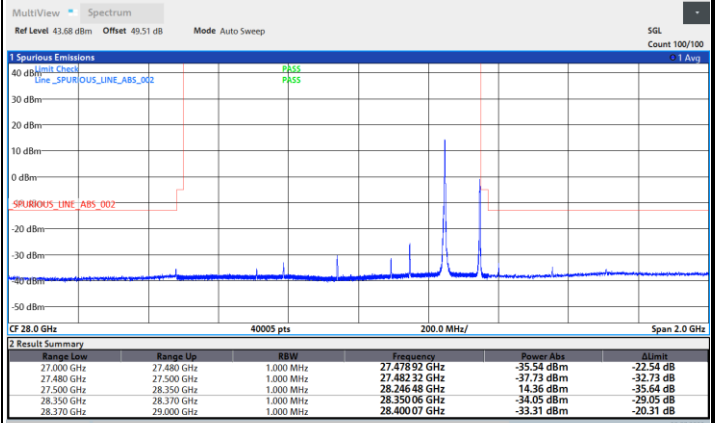
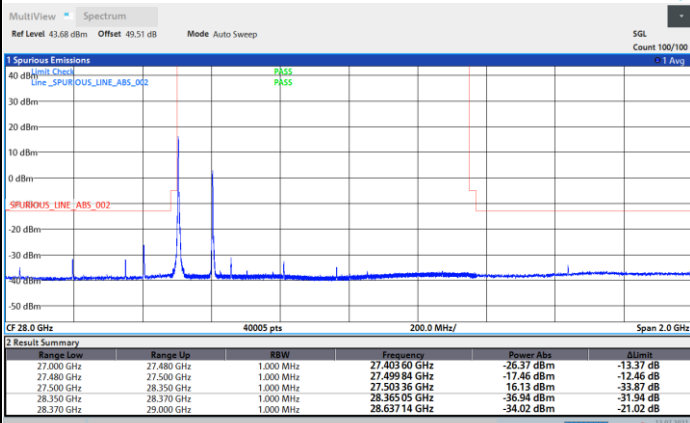
Highest Band Edge / 1 RB



NR Band n261 / 200MHz / QPSK

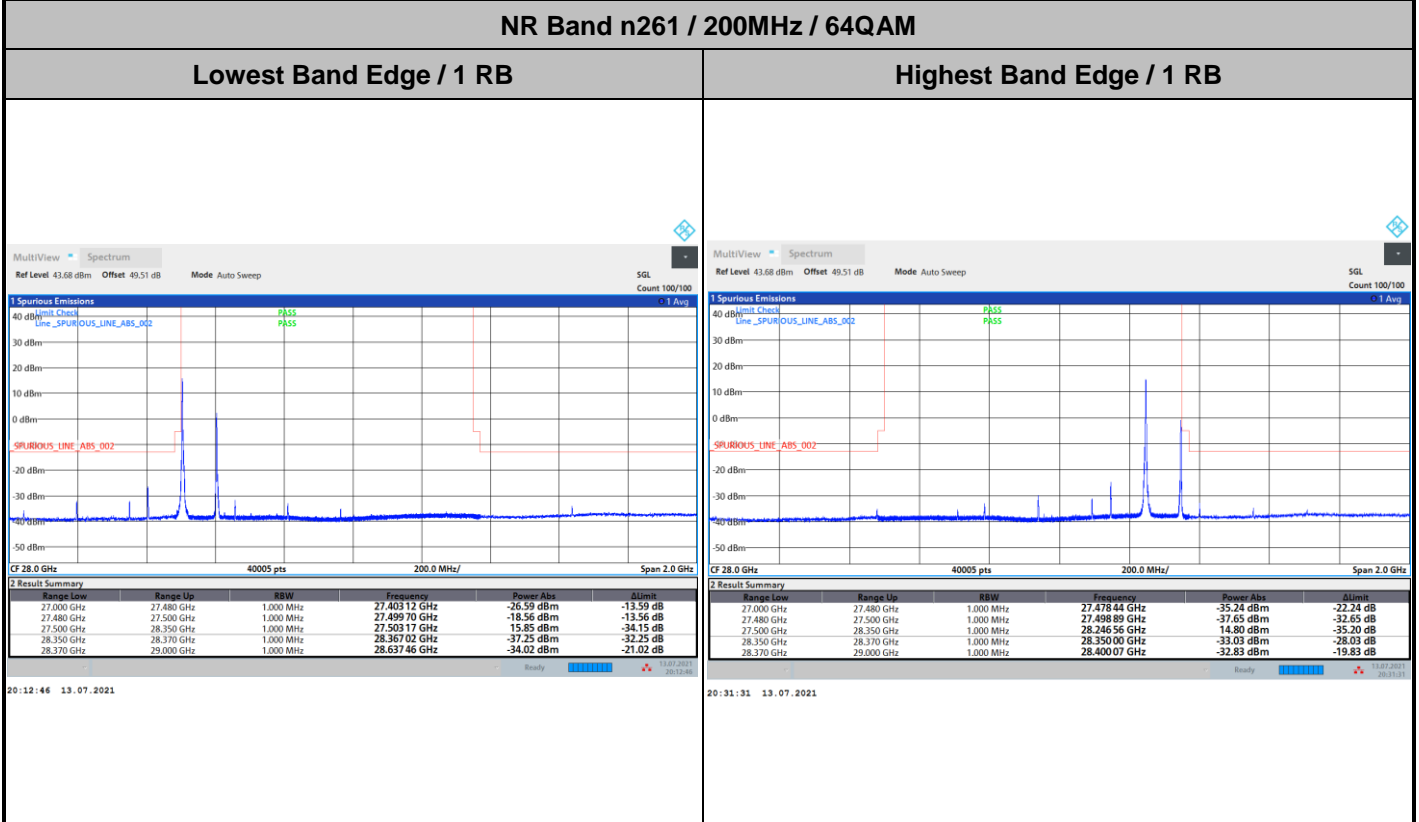
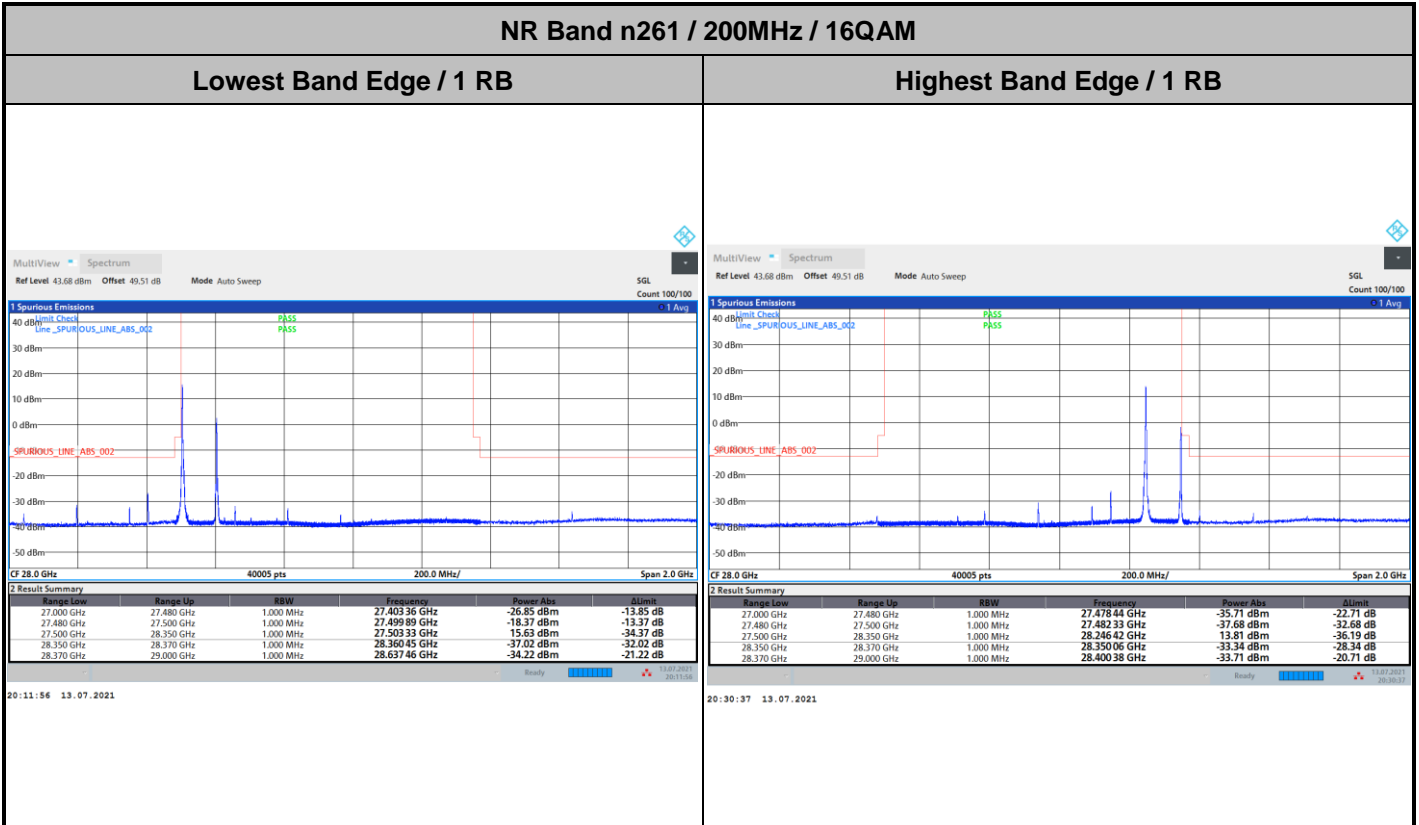
Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB





DFT-s-OFDM Module 1



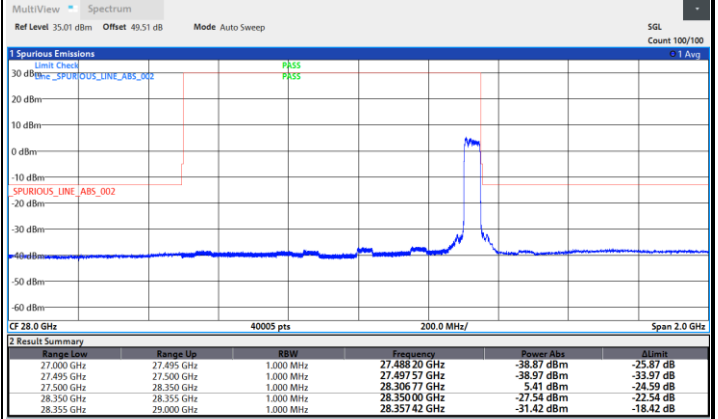
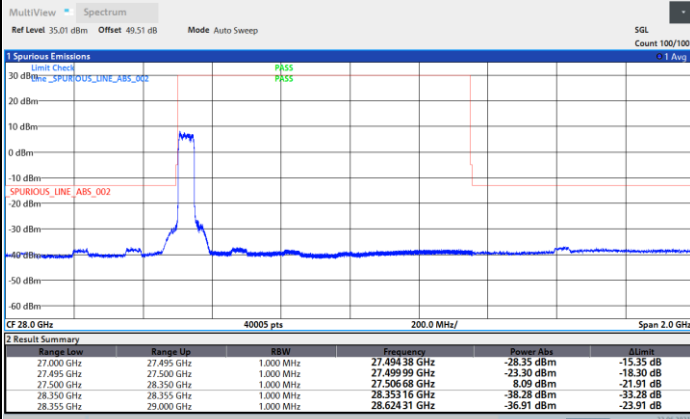


DFT-s-OFDM Module 1

NR Band n261 / 50MHz / BPSK

Lowest Band Edge / Full RB

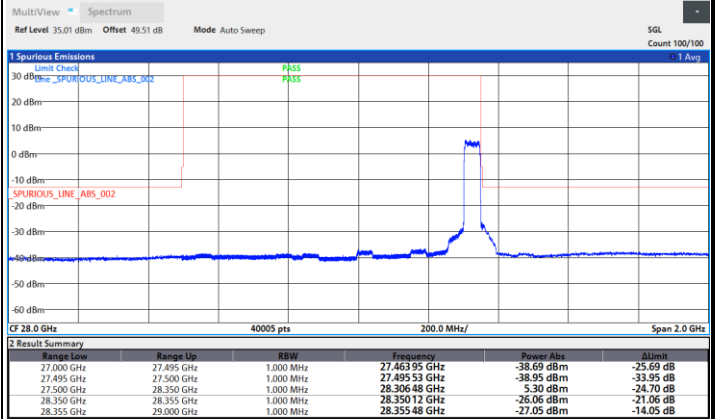
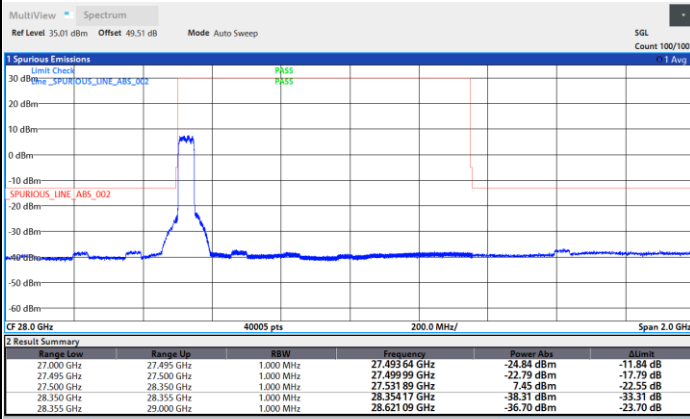
Highest Band Edge / Full RB



NR Band n261 / 50MHz / QPSK

Lowest Band Edge / Full RB

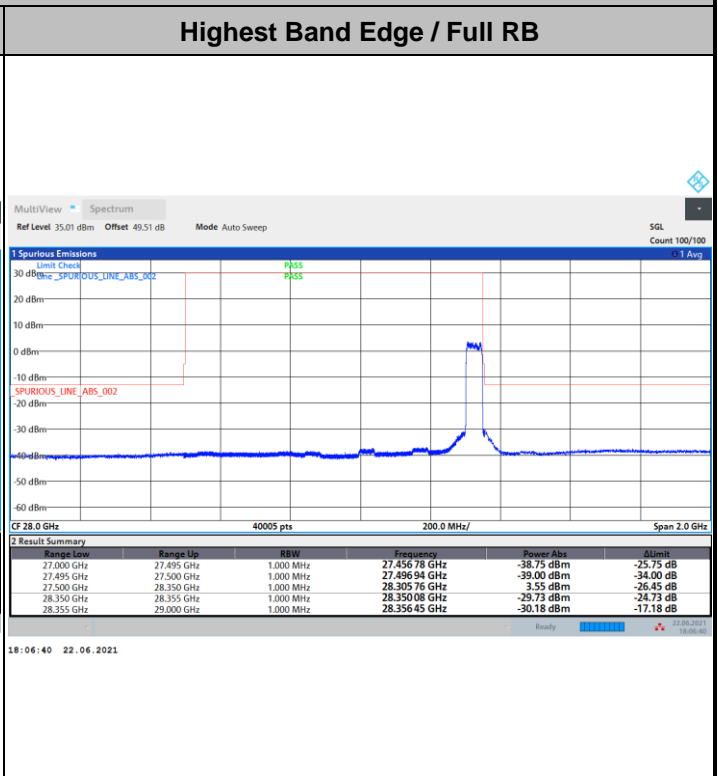
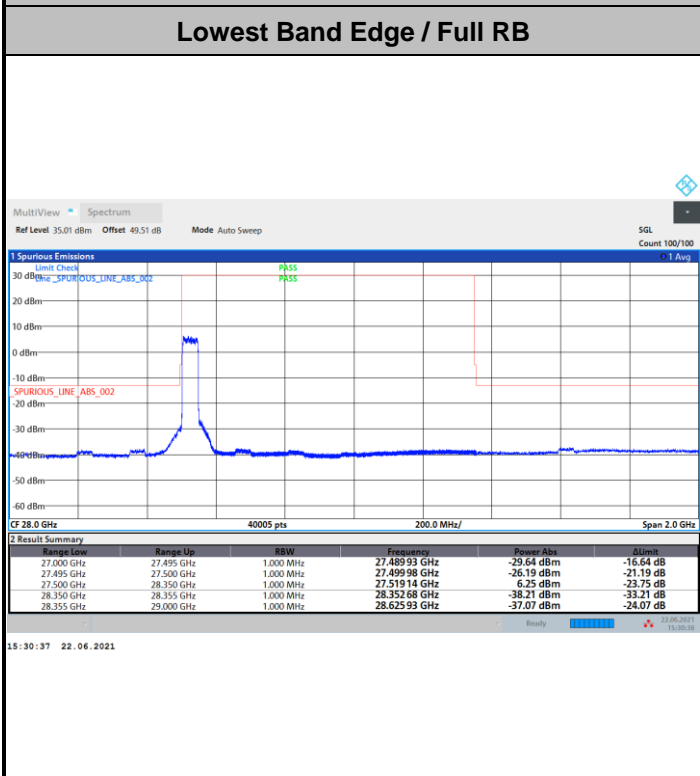
Highest Band Edge / Full RB



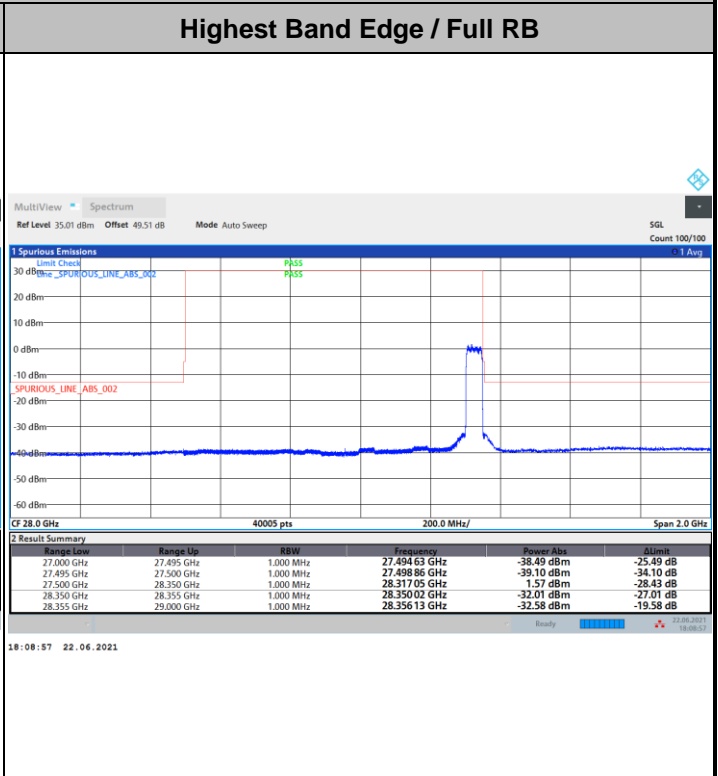
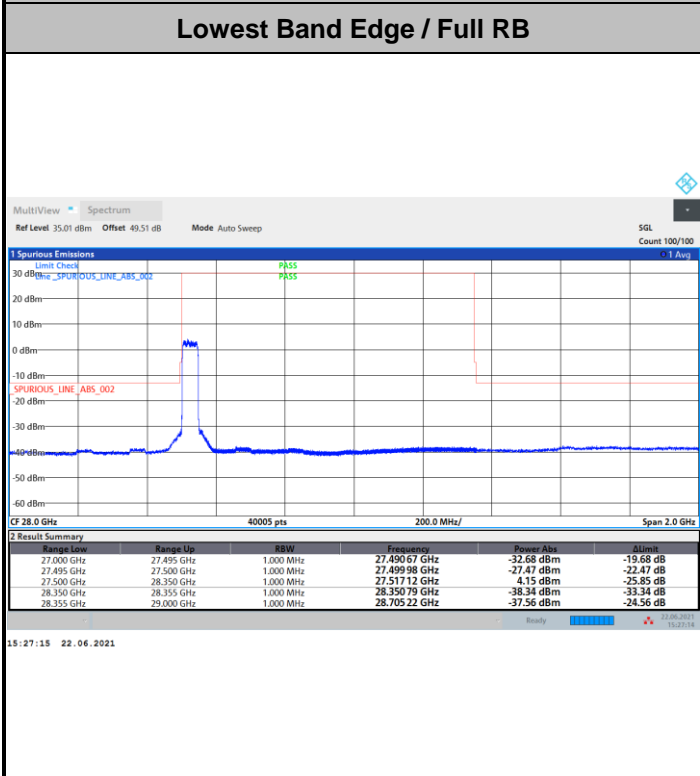


DFT-s-OFDM Module 1

NR Band n261 / 50MHz / 16QAM



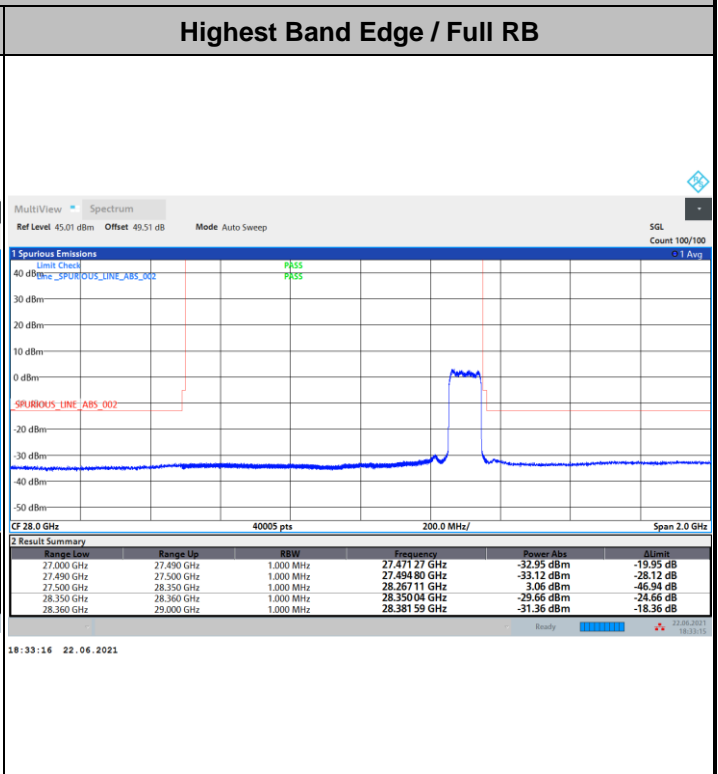
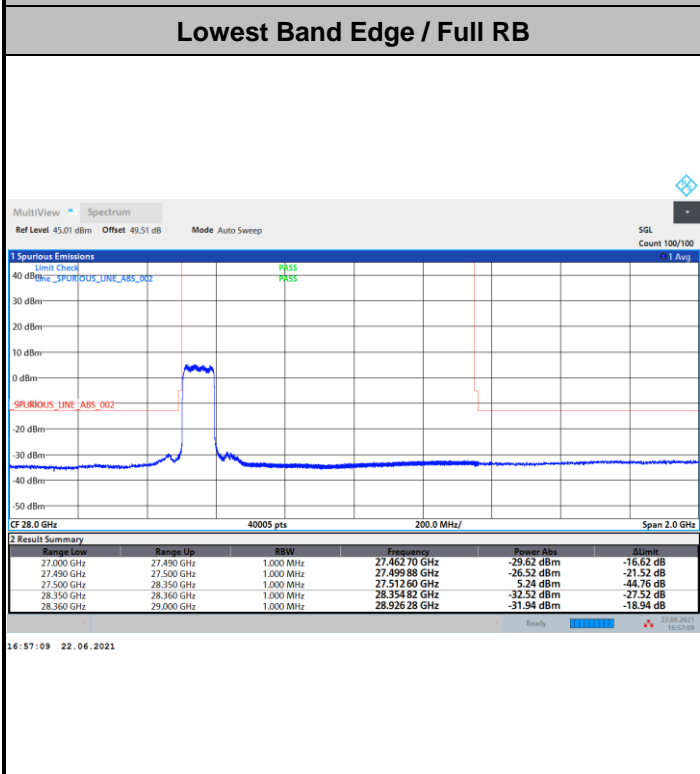
NR Band n261 / 50MHz / 64QAM



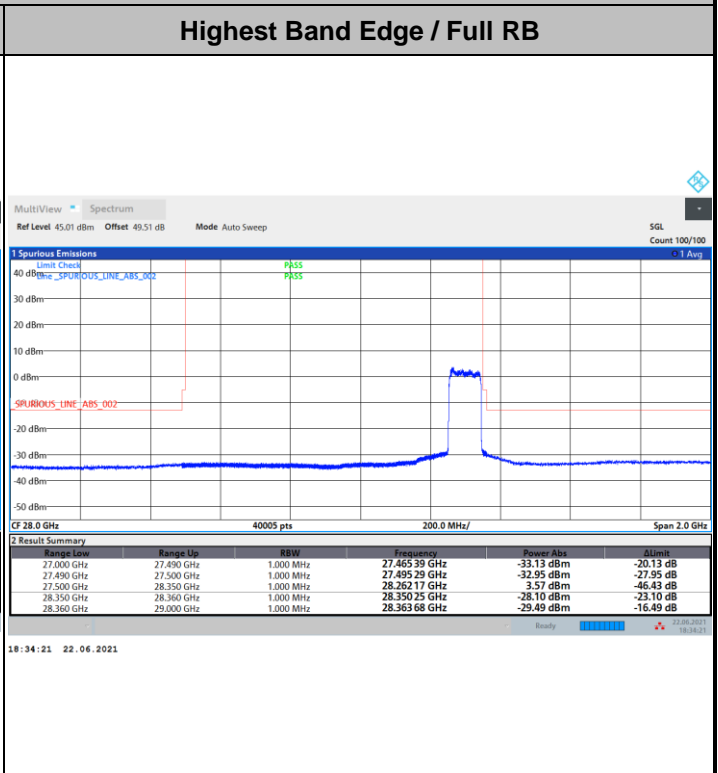
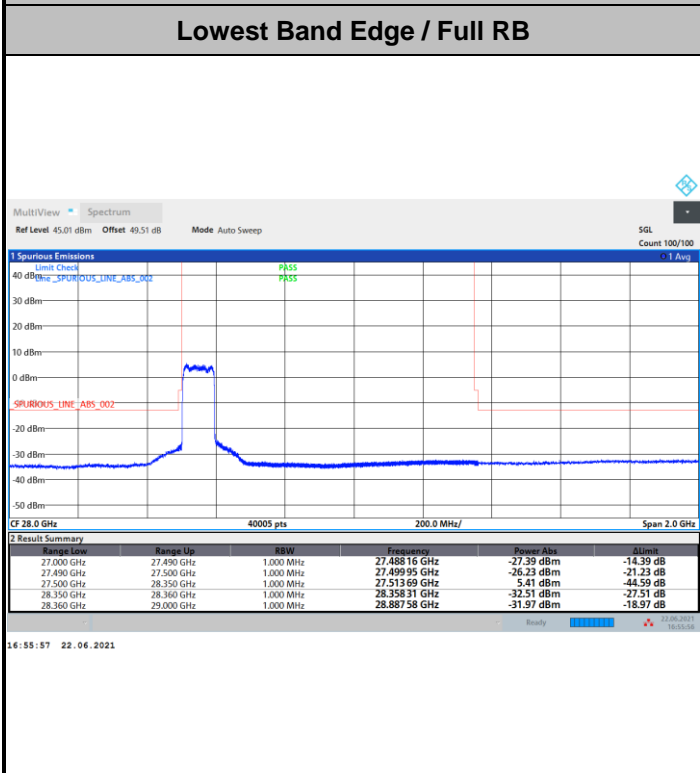


DFT-s-OFDM Module 1

NR Band n261 / 100MHz / BPSK



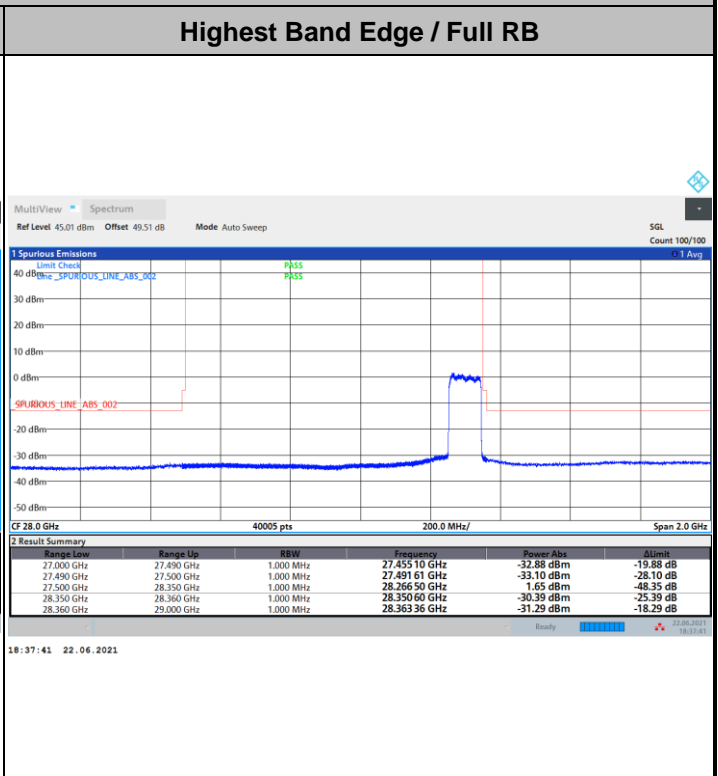
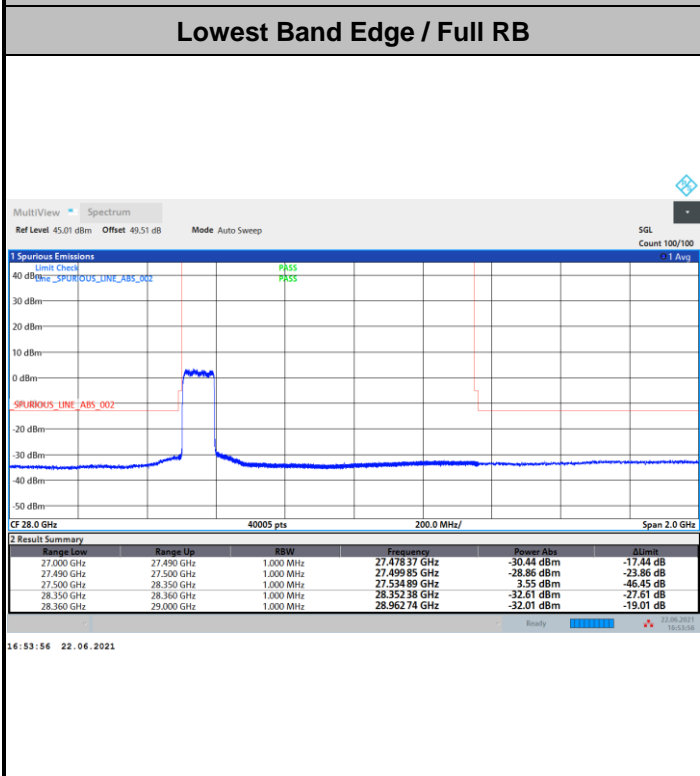
NR Band n261 / 100MHz / QPSK



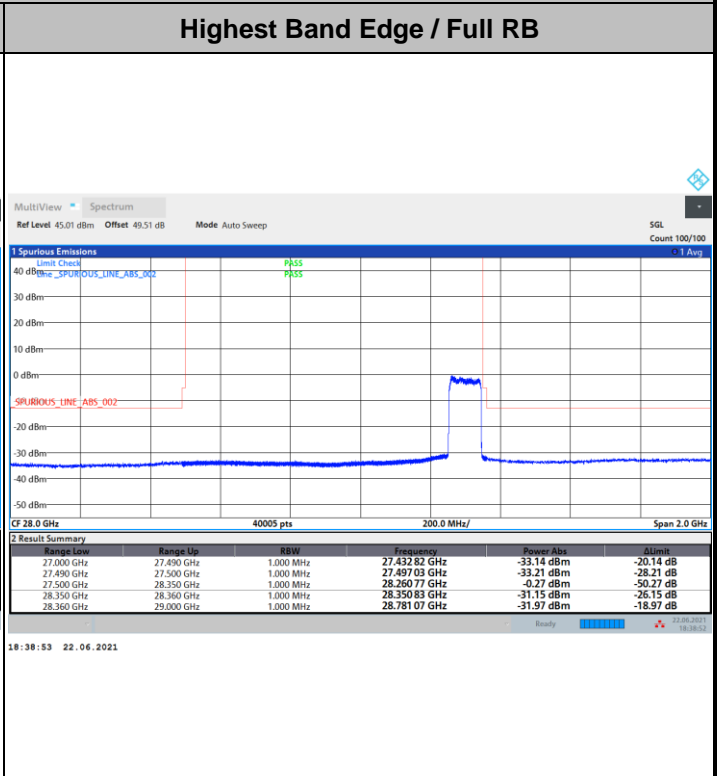
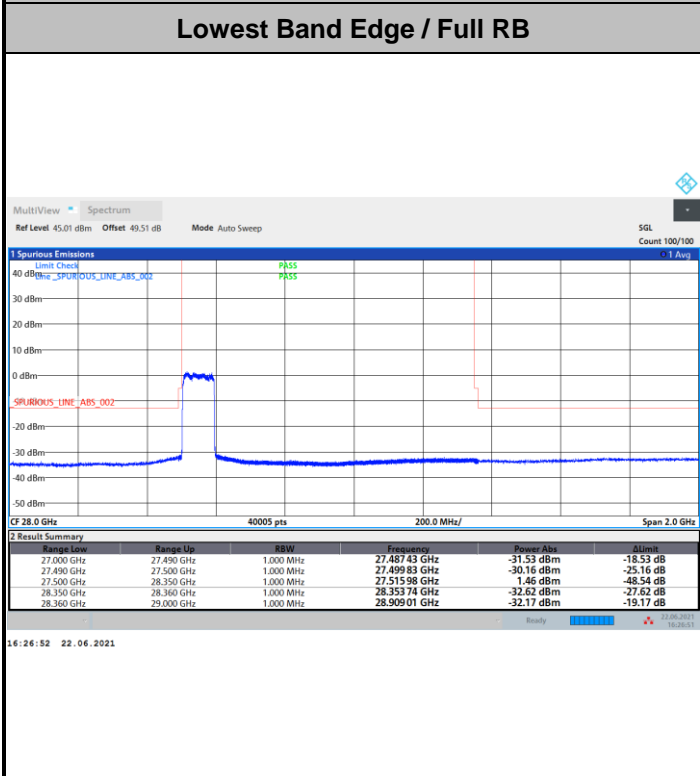


DFT-s-OFDM Module 1

NR Band n261 / 100MHz / 16QAM

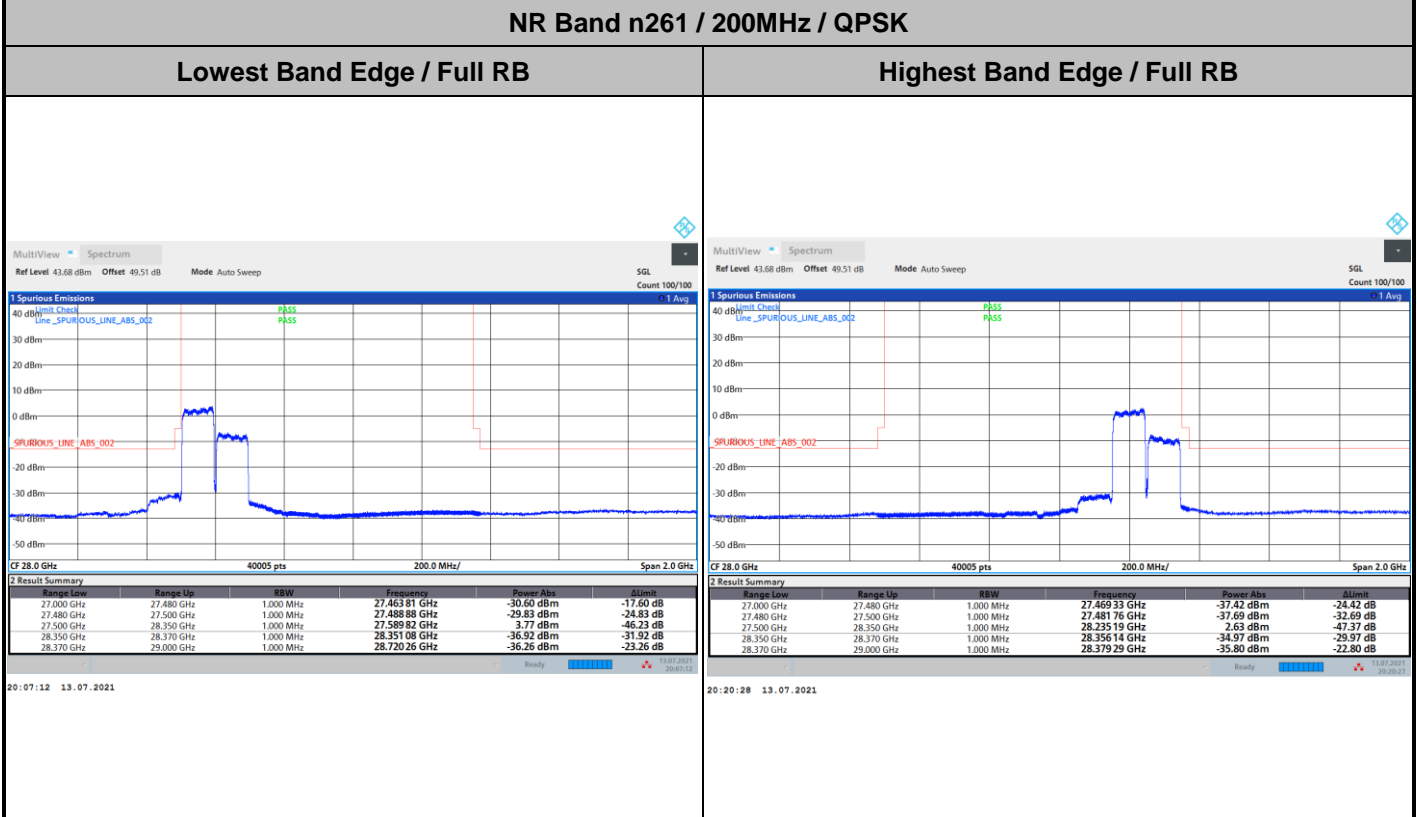
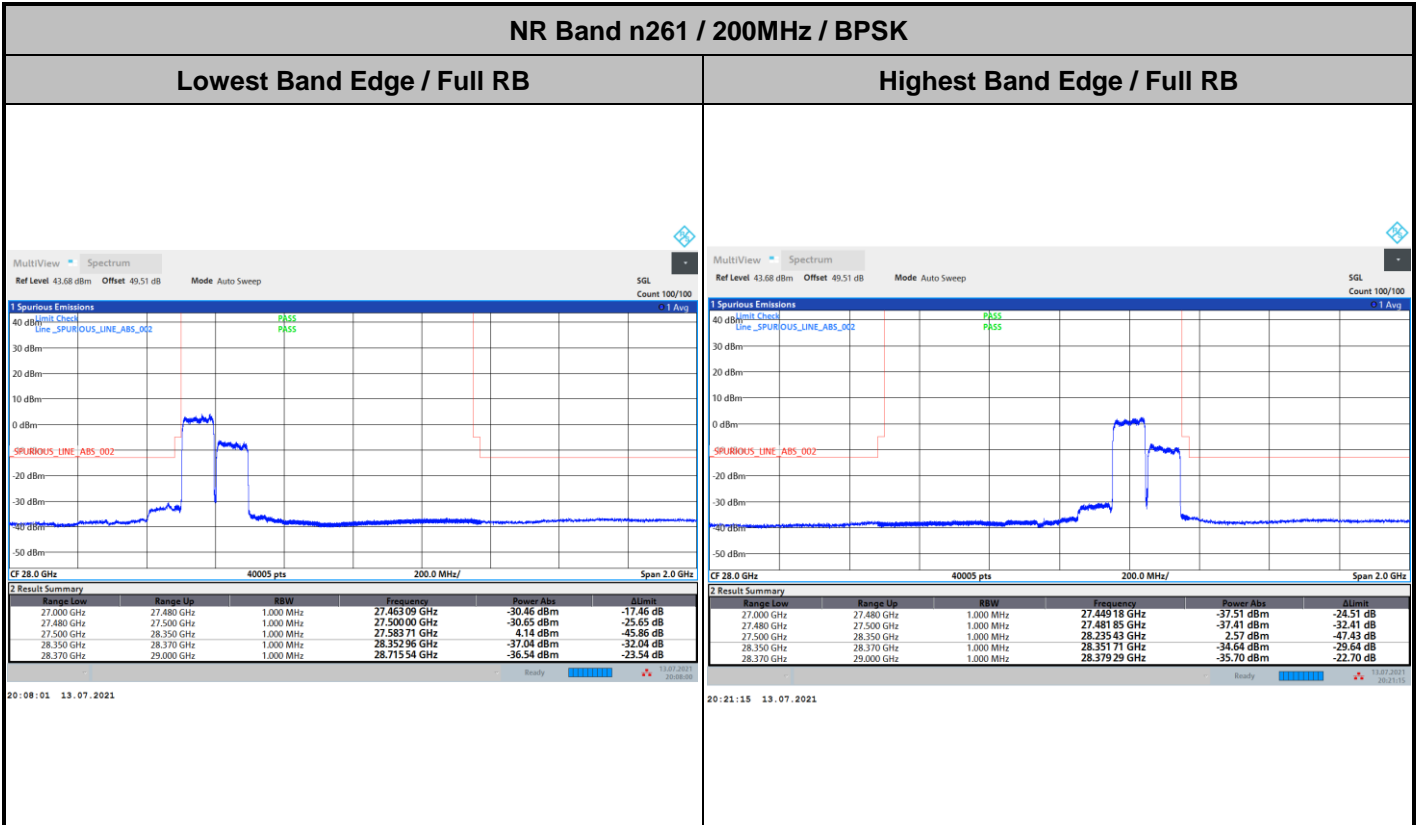


NR Band n261 / 100MHz / 64QAM



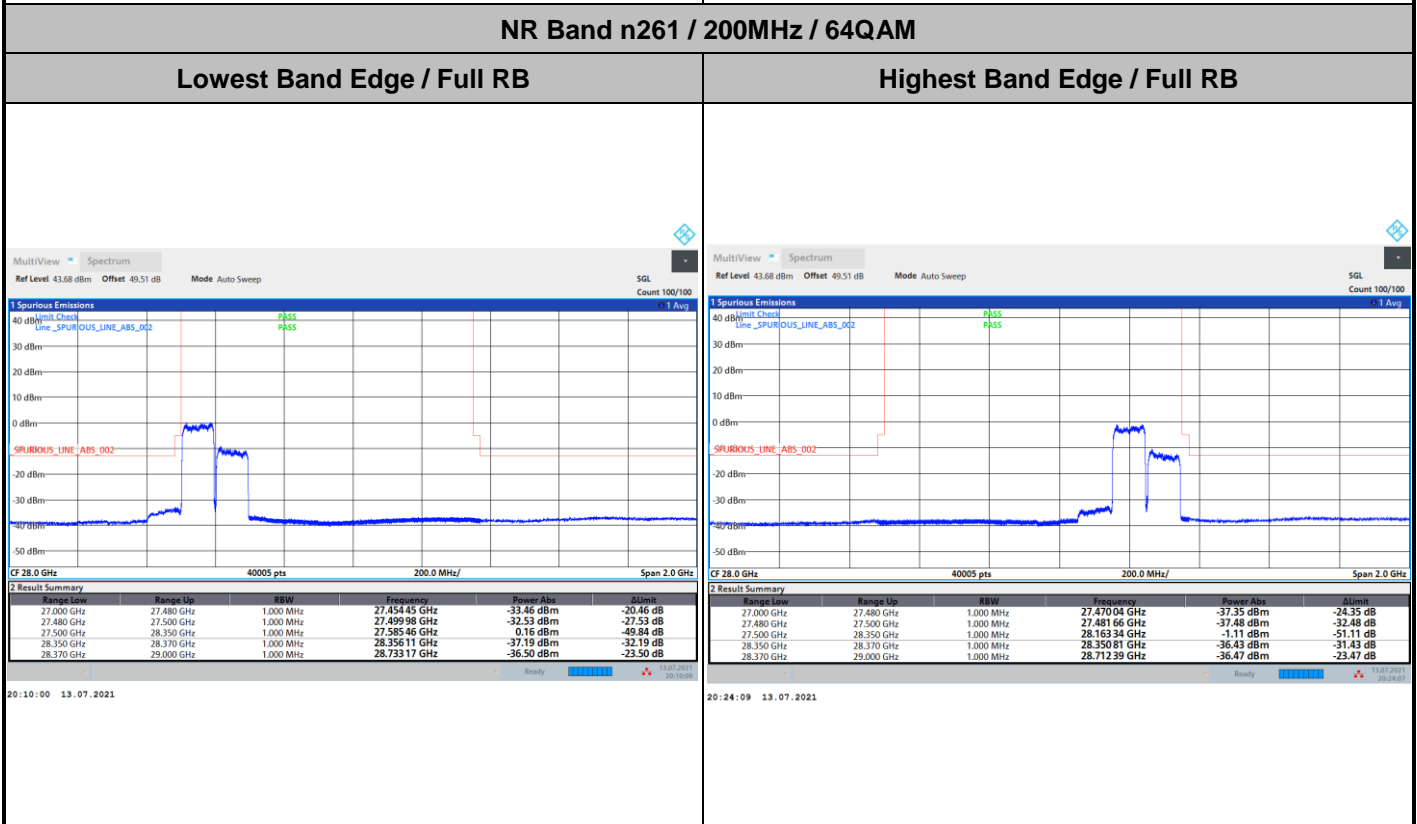
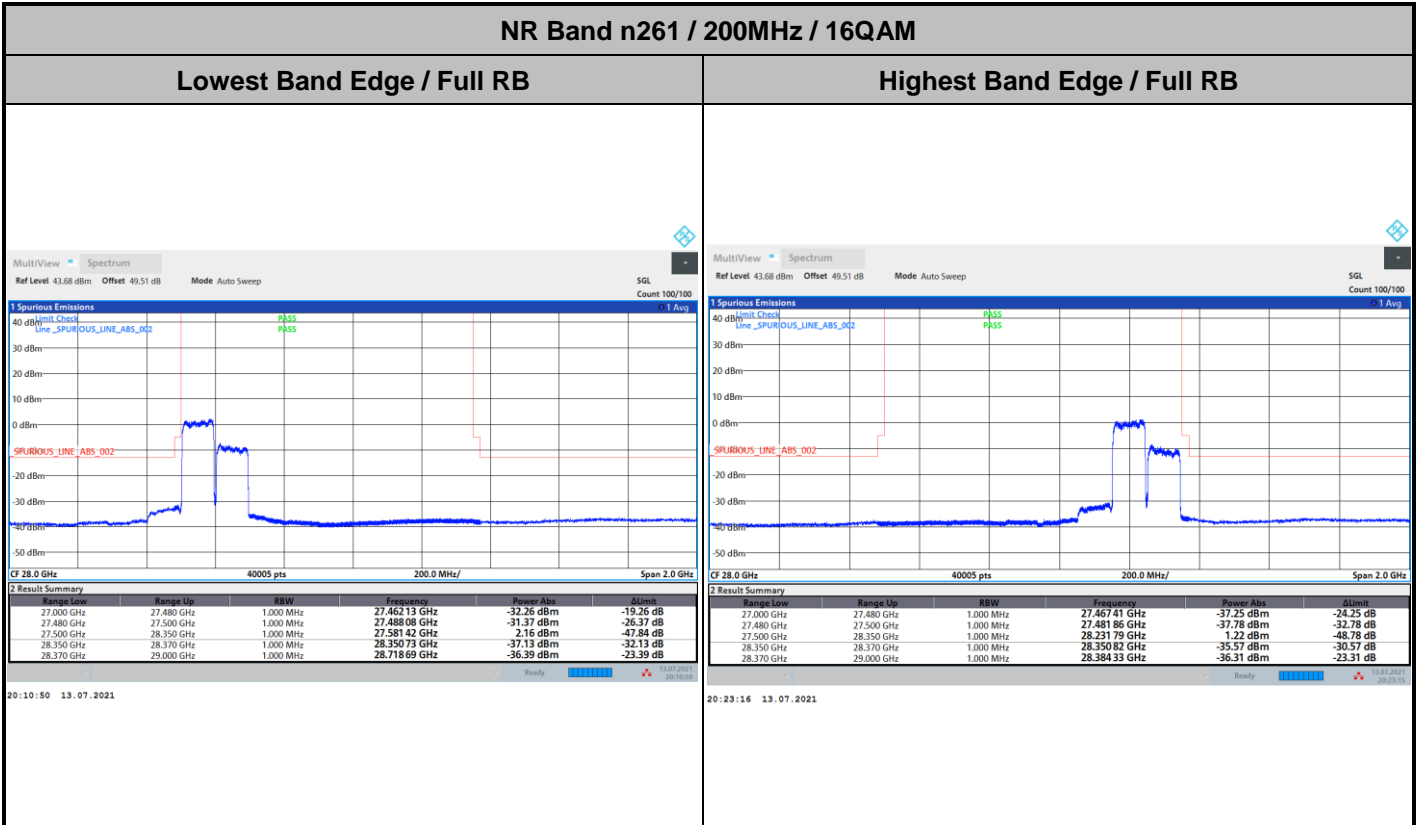


DFT-s-OFDM Module 1





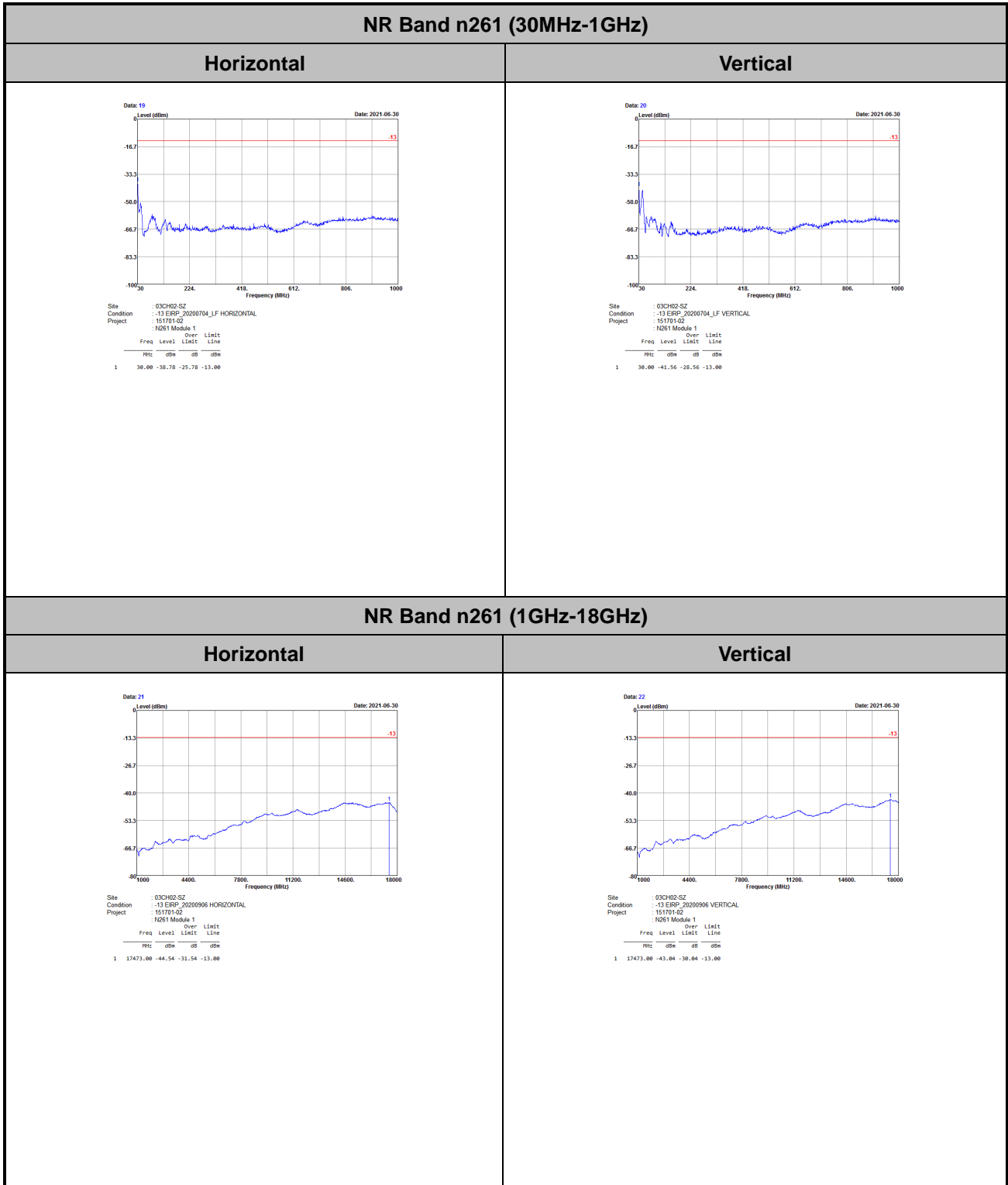
DFT-s-OFDM Module 1





Spurious Emission

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

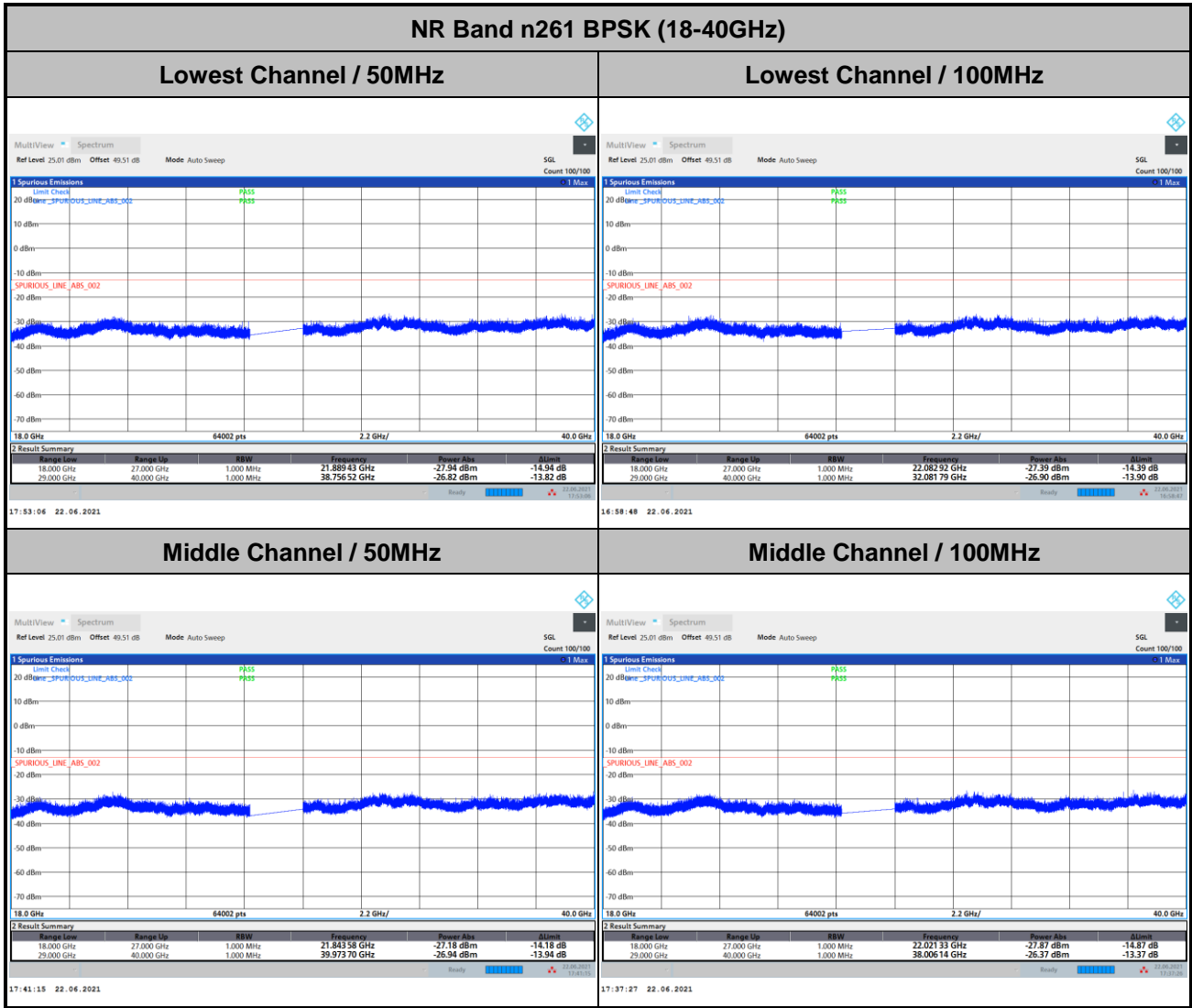


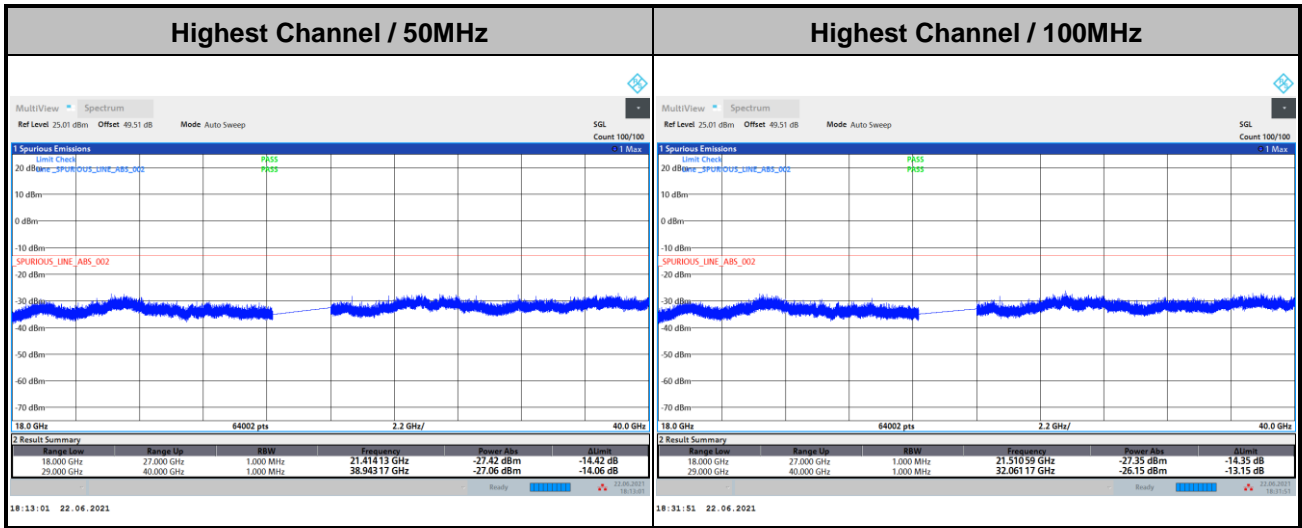


Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

Remark: Below plots, the spurious emissions were measured from 18GHz to 27GHz and 29GHz to 40GHz. The test results within the omitted frequency 27GHz to 29GHz were measured and reported in the section of Radiated Out of Band Emission with frequency range, 27GHz to 29GHz, and all spurious comply with limits.

DFT-s-OFDM Module 1





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



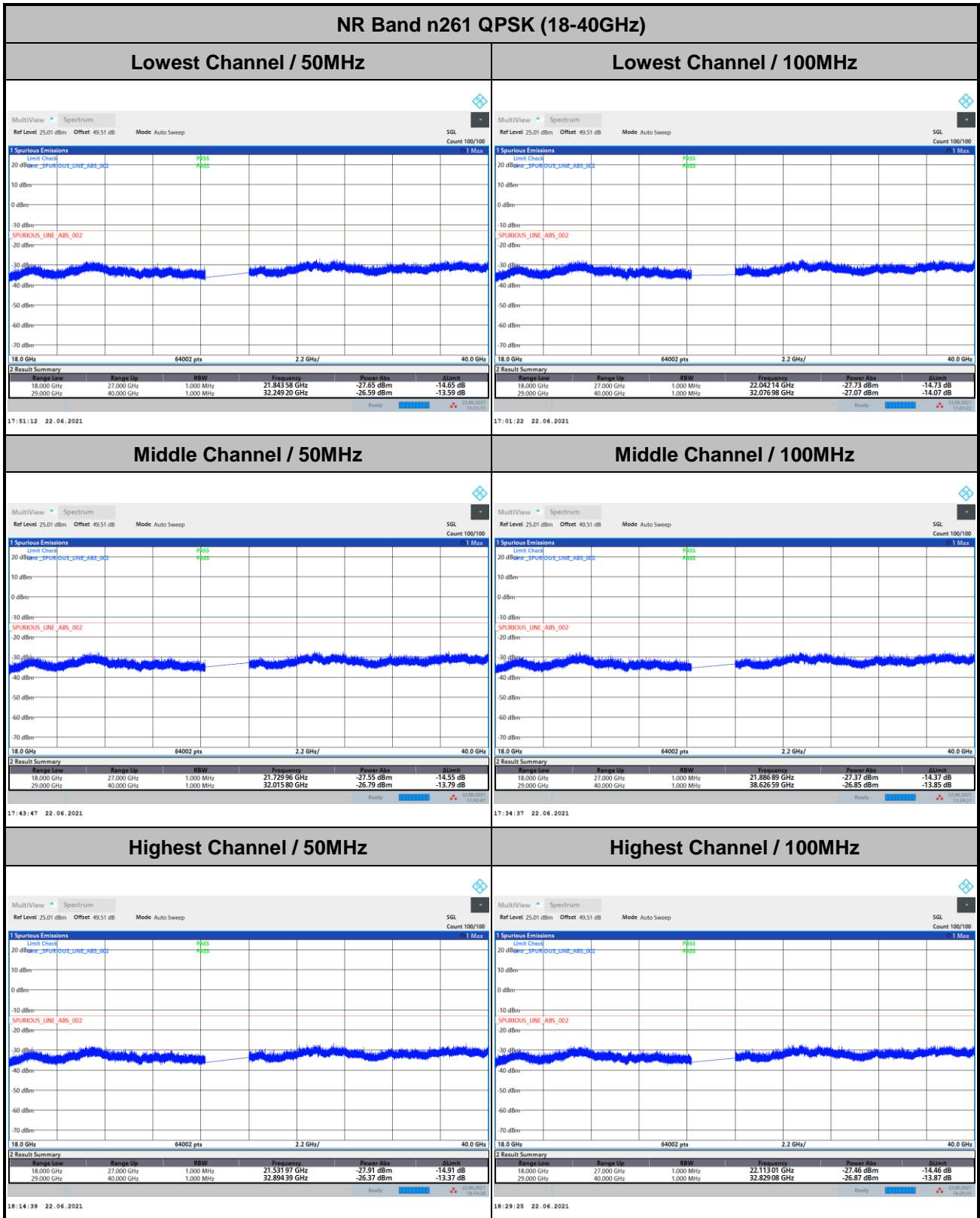
DFT-s-OFDM Module 1

NR Band n261 BPSK (18-40GHz)																			
<p>Lowest Channel / 200MHz</p> <p>MultiView Spectrum Ref Level 25.01 dBm Offset 49.51 dB Mode Auto Sweep SGL Count 100/100</p> <p>1 Spurious Emissions Limit Check 70 dBm SPURIOUS_OUT_LINE_ABS_001 PASS 10 dBm SPURIOUS_OUT_LINE_ABS_002 PASS -10 dBm SPURIOUS_OUT_LINE_ABS_003 PASS 20 dBm SPURIOUS_OUT_LINE_ABS_004 PASS 30 dBm SPURIOUS_OUT_LINE_ABS_005 PASS 40 dBm SPURIOUS_OUT_LINE_ABS_006 PASS 50 dBm SPURIOUS_OUT_LINE_ABS_007 PASS 60 dBm SPURIOUS_OUT_LINE_ABS_008 PASS 70 dBm SPURIOUS_OUT_LINE_ABS_009 PASS</p> <p>18.0 GHz 64002 pts 2.2 GHz/ 40.0 GHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range High</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18,000 GHz</td> <td>27,000 GHz</td> <td>1,000 MHz</td> <td>22,068 01 GHz</td> <td>-27,89 dBm</td> <td>-14,89 dB</td> </tr> <tr> <td>29,000 GHz</td> <td>40,000 GHz</td> <td>1,000 MHz</td> <td>33,189 67 GHz</td> <td>-27,05 dBm</td> <td>-14,05 dB</td> </tr> </tbody> </table> <p>20:14:37 13. 07. 2021</p>	Range Low	Range High	RBW	Frequency	Power Abs	Limit	18,000 GHz	27,000 GHz	1,000 MHz	22,068 01 GHz	-27,89 dBm	-14,89 dB	29,000 GHz	40,000 GHz	1,000 MHz	33,189 67 GHz	-27,05 dBm	-14,05 dB	<p>intentionally blank</p>
Range Low	Range High	RBW	Frequency	Power Abs	Limit														
18,000 GHz	27,000 GHz	1,000 MHz	22,068 01 GHz	-27,89 dBm	-14,89 dB														
29,000 GHz	40,000 GHz	1,000 MHz	33,189 67 GHz	-27,05 dBm	-14,05 dB														
<p>Middle Channel / 200MHz</p> <p>MultiView Spectrum Ref Level 25.01 dBm Offset 49.51 dB Mode Auto Sweep SGL Count 100/100</p> <p>1 Spurious Emissions Limit Check 70 dBm SPURIOUS_OUT_LINE_ABS_001 PASS 10 dBm SPURIOUS_OUT_LINE_ABS_002 PASS -10 dBm SPURIOUS_OUT_LINE_ABS_003 PASS 20 dBm SPURIOUS_OUT_LINE_ABS_004 PASS 30 dBm SPURIOUS_OUT_LINE_ABS_005 PASS 40 dBm SPURIOUS_OUT_LINE_ABS_006 PASS 50 dBm SPURIOUS_OUT_LINE_ABS_007 PASS 60 dBm SPURIOUS_OUT_LINE_ABS_008 PASS 70 dBm SPURIOUS_OUT_LINE_ABS_009 PASS</p> <p>18.0 GHz 64002 pts 2.2 GHz/ 40.0 GHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range High</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18,000 GHz</td> <td>27,000 GHz</td> <td>1,000 MHz</td> <td>21,433 25 GHz</td> <td>-27,96 dBm</td> <td>-14,96 dB</td> </tr> <tr> <td>29,000 GHz</td> <td>40,000 GHz</td> <td>1,000 MHz</td> <td>38,852 08 GHz</td> <td>-25,57 dBm</td> <td>-12,57 dB</td> </tr> </tbody> </table> <p>20:01:00 13. 07. 2021</p>	Range Low	Range High	RBW	Frequency	Power Abs	Limit	18,000 GHz	27,000 GHz	1,000 MHz	21,433 25 GHz	-27,96 dBm	-14,96 dB	29,000 GHz	40,000 GHz	1,000 MHz	38,852 08 GHz	-25,57 dBm	-12,57 dB	<p>intentionally blank</p>
Range Low	Range High	RBW	Frequency	Power Abs	Limit														
18,000 GHz	27,000 GHz	1,000 MHz	21,433 25 GHz	-27,96 dBm	-14,96 dB														
29,000 GHz	40,000 GHz	1,000 MHz	38,852 08 GHz	-25,57 dBm	-12,57 dB														
<p>Highest Channel / 200MHz</p> <p>MultiView Spectrum Ref Level 25.01 dBm Offset 49.51 dB Mode Auto Sweep SGL Count 100/100</p> <p>1 Spurious Emissions Limit Check 70 dBm SPURIOUS_OUT_LINE_ABS_001 PASS 10 dBm SPURIOUS_OUT_LINE_ABS_002 PASS -10 dBm SPURIOUS_OUT_LINE_ABS_003 PASS 20 dBm SPURIOUS_OUT_LINE_ABS_004 PASS 30 dBm SPURIOUS_OUT_LINE_ABS_005 PASS 40 dBm SPURIOUS_OUT_LINE_ABS_006 PASS 50 dBm SPURIOUS_OUT_LINE_ABS_007 PASS 60 dBm SPURIOUS_OUT_LINE_ABS_008 PASS 70 dBm SPURIOUS_OUT_LINE_ABS_009 PASS</p> <p>18.0 GHz 64002 pts 2.2 GHz/ 40.0 GHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range High</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18,000 GHz</td> <td>27,000 GHz</td> <td>1,000 MHz</td> <td>21,857 93 GHz</td> <td>-27,40 dBm</td> <td>-14,40 dB</td> </tr> <tr> <td>29,000 GHz</td> <td>40,000 GHz</td> <td>1,000 MHz</td> <td>31,964 58 GHz</td> <td>-26,70 dBm</td> <td>-13,70 dB</td> </tr> </tbody> </table> <p>20:27:48 13. 07. 2021</p>	Range Low	Range High	RBW	Frequency	Power Abs	Limit	18,000 GHz	27,000 GHz	1,000 MHz	21,857 93 GHz	-27,40 dBm	-14,40 dB	29,000 GHz	40,000 GHz	1,000 MHz	31,964 58 GHz	-26,70 dBm	-13,70 dB	<p>intentionally blank</p>
Range Low	Range High	RBW	Frequency	Power Abs	Limit														
18,000 GHz	27,000 GHz	1,000 MHz	21,857 93 GHz	-27,40 dBm	-14,40 dB														
29,000 GHz	40,000 GHz	1,000 MHz	31,964 58 GHz	-26,70 dBm	-13,70 dB														

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



DFT-s-OFDM Module 1



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



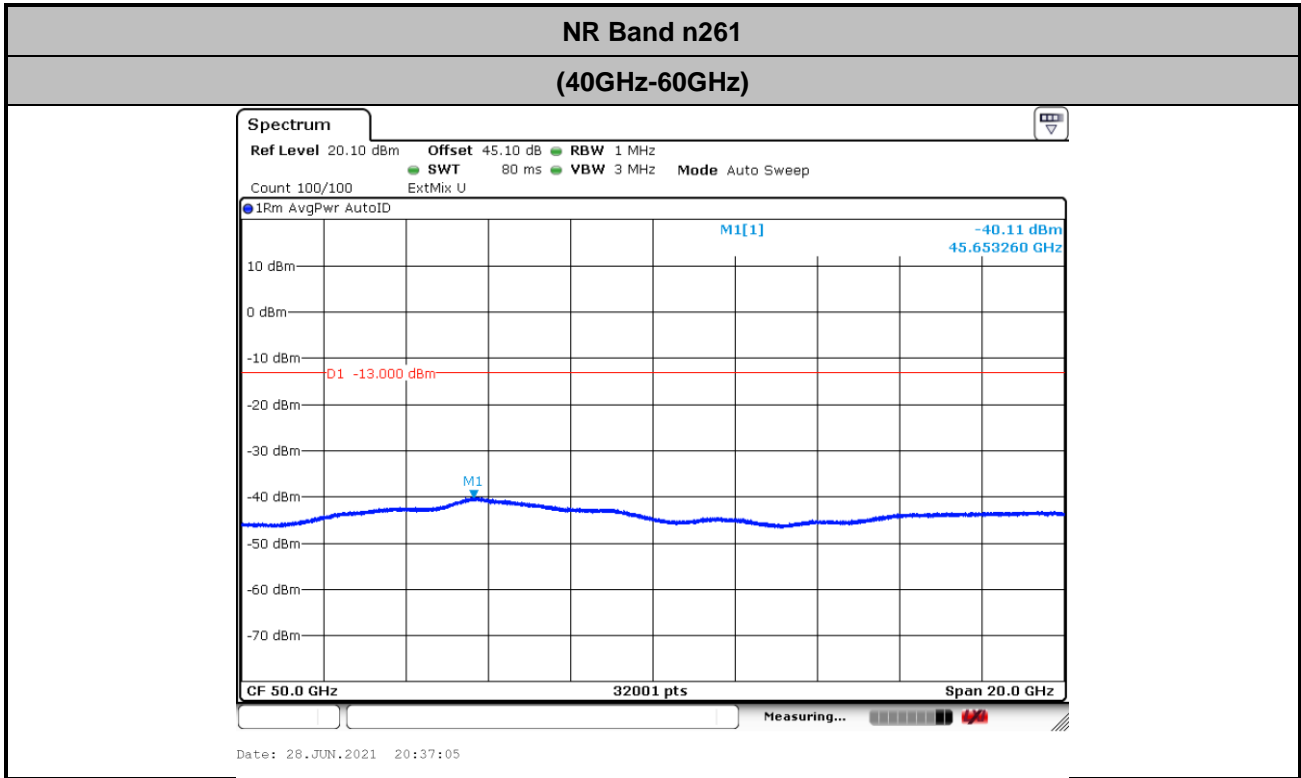
DFT-s-OFDM Module 1

NR Band n261 QPSK (18-40GHz)																			
<p>Lowest Channel / 200MHz</p> <p>MultiView Spectrum Ref Level 25.01 dBm Offset 49.51 dB Mode Auto Sweep SGL Count 100/100</p> <p>Spurious Emissions Limit Check 70 dBm SPURIOUS_OUTLINE_ABS_001 PASS 10 dBm -10 dBm 20 dBm SPURIOUS_LINE_ABS_002 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm</p> <p>18.0 GHz 64002 pts 2.2 GHz/ 40.0 GHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range High</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18.000 GHz</td> <td>27.000 GHz</td> <td>1.000 MHz</td> <td>21.865 80 GHz</td> <td>-27.02 dBm</td> <td>-14.02 dB</td> </tr> <tr> <td>29.000 GHz</td> <td>40.000 GHz</td> <td>1.000 MHz</td> <td>38.514 87 GHz</td> <td>-26.47 dBm</td> <td>-13.47 dB</td> </tr> </tbody> </table> <p>20:15:12 13. 07. 2021</p>	Range Low	Range High	RBW	Frequency	Power Abs	Limit	18.000 GHz	27.000 GHz	1.000 MHz	21.865 80 GHz	-27.02 dBm	-14.02 dB	29.000 GHz	40.000 GHz	1.000 MHz	38.514 87 GHz	-26.47 dBm	-13.47 dB	<p>intentionally blank</p>
Range Low	Range High	RBW	Frequency	Power Abs	Limit														
18.000 GHz	27.000 GHz	1.000 MHz	21.865 80 GHz	-27.02 dBm	-14.02 dB														
29.000 GHz	40.000 GHz	1.000 MHz	38.514 87 GHz	-26.47 dBm	-13.47 dB														
<p>Middle Channel / 200MHz</p> <p>MultiView Spectrum Ref Level 25.01 dBm Offset 49.51 dB Mode Auto Sweep SGL Count 100/100</p> <p>Spurious Emissions Limit Check 70 dBm SPURIOUS_OUTLINE_ABS_001 PASS 10 dBm -10 dBm 20 dBm SPURIOUS_LINE_ABS_002 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm</p> <p>18.0 GHz 64002 pts 2.2 GHz/ 40.0 GHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range High</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18.000 GHz</td> <td>27.000 GHz</td> <td>1.000 MHz</td> <td>21.977 74 GHz</td> <td>-27.53 dBm</td> <td>-14.53 dB</td> </tr> <tr> <td>29.000 GHz</td> <td>40.000 GHz</td> <td>1.000 MHz</td> <td>32.158 10 GHz</td> <td>-26.75 dBm</td> <td>-13.75 dB</td> </tr> </tbody> </table> <p>19:59:21 13. 07. 2021</p>	Range Low	Range High	RBW	Frequency	Power Abs	Limit	18.000 GHz	27.000 GHz	1.000 MHz	21.977 74 GHz	-27.53 dBm	-14.53 dB	29.000 GHz	40.000 GHz	1.000 MHz	32.158 10 GHz	-26.75 dBm	-13.75 dB	<p>intentionally blank</p>
Range Low	Range High	RBW	Frequency	Power Abs	Limit														
18.000 GHz	27.000 GHz	1.000 MHz	21.977 74 GHz	-27.53 dBm	-14.53 dB														
29.000 GHz	40.000 GHz	1.000 MHz	32.158 10 GHz	-26.75 dBm	-13.75 dB														
<p>Highest Channel / 200MHz</p> <p>MultiView Spectrum Ref Level 25.01 dBm Offset 49.51 dB Mode Auto Sweep SGL Count 100/100</p> <p>Spurious Emissions Limit Check 70 dBm SPURIOUS_OUTLINE_ABS_001 PASS 10 dBm -10 dBm 20 dBm SPURIOUS_LINE_ABS_002 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm</p> <p>18.0 GHz 64002 pts 2.2 GHz/ 40.0 GHz</p> <table border="1"> <thead> <tr> <th>Range Low</th> <th>Range High</th> <th>RBW</th> <th>Frequency</th> <th>Power Abs</th> <th>Limit</th> </tr> </thead> <tbody> <tr> <td>18.000 GHz</td> <td>27.000 GHz</td> <td>1.000 MHz</td> <td>21.692 28 GHz</td> <td>-27.68 dBm</td> <td>-14.68 dB</td> </tr> <tr> <td>29.000 GHz</td> <td>40.000 GHz</td> <td>1.000 MHz</td> <td>32.142 64 GHz</td> <td>-26.95 dBm</td> <td>-13.95 dB</td> </tr> </tbody> </table> <p>20:26:12 13. 07. 2021</p>	Range Low	Range High	RBW	Frequency	Power Abs	Limit	18.000 GHz	27.000 GHz	1.000 MHz	21.692 28 GHz	-27.68 dBm	-14.68 dB	29.000 GHz	40.000 GHz	1.000 MHz	32.142 64 GHz	-26.95 dBm	-13.95 dB	<p>intentionally blank</p>
Range Low	Range High	RBW	Frequency	Power Abs	Limit														
18.000 GHz	27.000 GHz	1.000 MHz	21.692 28 GHz	-27.68 dBm	-14.68 dB														
29.000 GHz	40.000 GHz	1.000 MHz	32.142 64 GHz	-26.95 dBm	-13.95 dB														

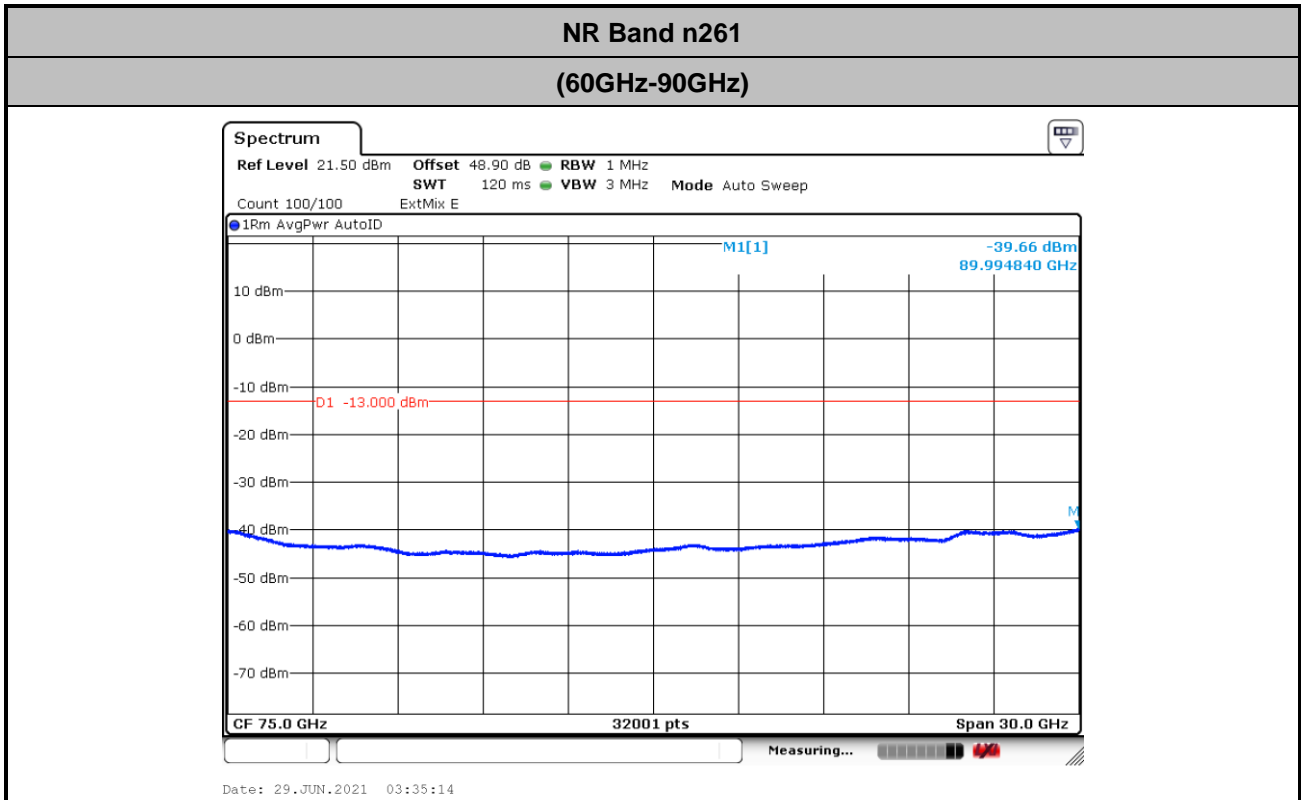
Remark: In band and out of band frequencies are omitted.



There is no significant spurious emission signal found for frequency started from 40GHz up to 100GHz. Only the noise floor is reported.

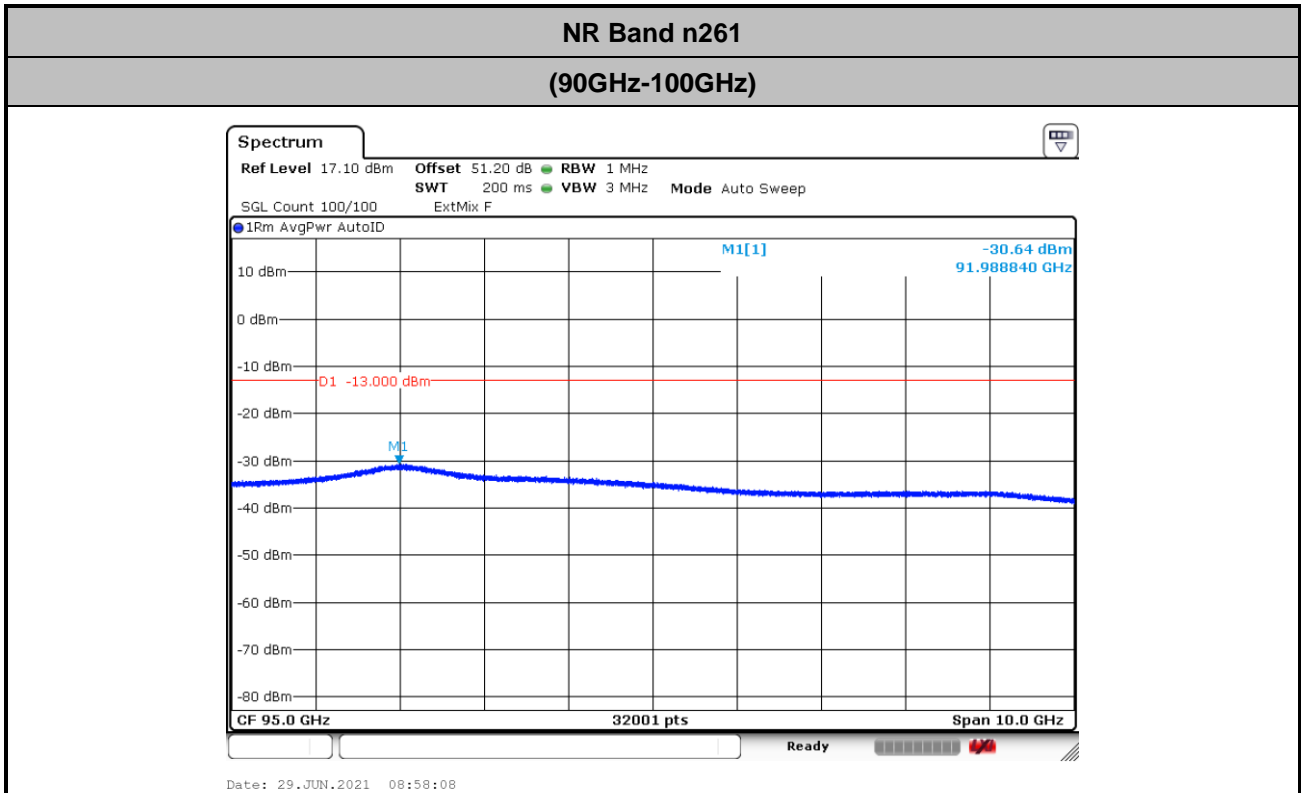


$$\begin{aligned}
 \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\
 &= 42.5 + 0.4 + 107 + 20\log(1) - 104.8 = 45.1 \text{ (dB)}
 \end{aligned}$$



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

$$= 46.3 + 0.4 + 107 + 20\log(1) - 104.8 = 48.9 (dB)$$



$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 48.6 + 0.4 + 107 + 20\log(1) - 104.8 = 51.2 \text{ (dB)} \end{aligned}$$



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	27.924941	59.000	2.113	PASS
40	Normal Voltage	27.9249537	46.300	1.658	
30	Normal Voltage	27.9249884	11.600	0.415	
20(Ref.)	Normal Voltage	27.925	0.000	0.000	
10	Normal Voltage	27.9250764	-76.400	2.736	
0	Normal Voltage	27.9251401	-140.100	5.017	
-10	Normal Voltage	27.9251493	-149.300	5.346	
-20	Normal Voltage	27.9251933	-193.300	6.922	
-30	Normal Voltage	27.9252524	-252.400	9.038	
20	Maximum Voltage	27.92500217	-2.170	0.078	
20	Normal Voltage	27.925	0.000	0.000	
20	Battery End Point	27.92499711	2.890	0.103	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the operation band.



NR Band n261 Module 1

AG0+1

Occupied Bandwidth

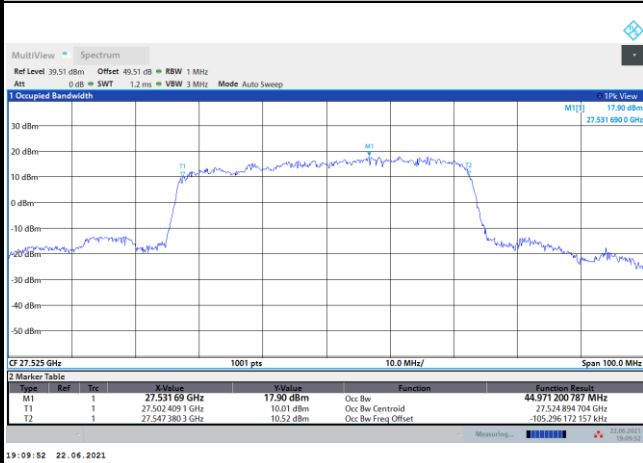
Mode	DFT-s-OFDM Module 1 NR Band n261 : 99%OBW(MHz)											
BW	50MHz				100MHz				200MHz			
Mod.	BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM
Lowest CH	44.97	44.95	44.90	44.92	89.51	90.30	90.15	89.95	183.31	183.52	184.24	184.79
Middle CH	45.18	45.07	44.93	44.98	89.46	90.52	89.51	89.67	184.69	184.56	184.86	184.73
Highest CH	45.47	45.43	45.47	45.45	90.40	91.16	90.87	90.93	184.00	184.01	184.17	185.28



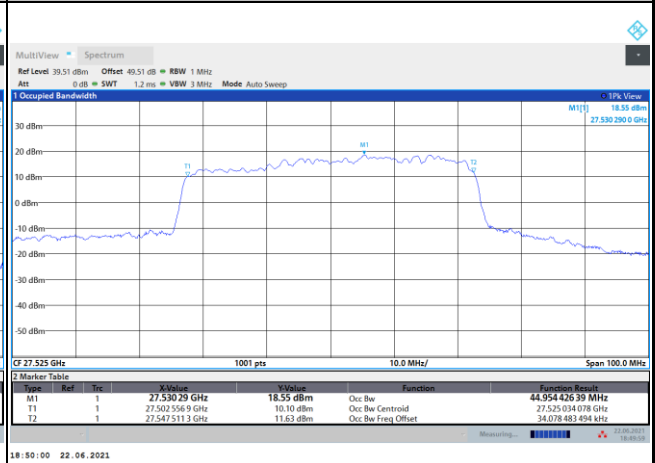
DFT-s-OFDM Module 1

NR Band n261

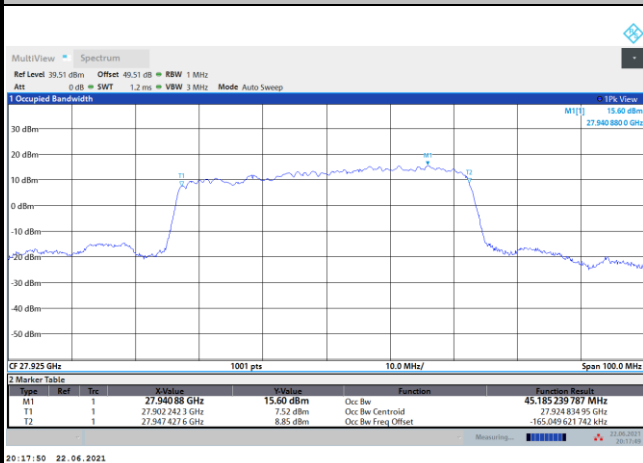
Lowest Channel / 50MHz / BPSK



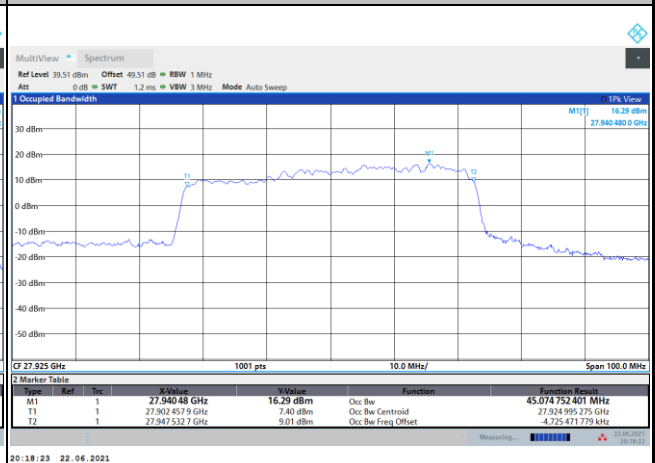
Lowest Channel / 50MHz / QPSK



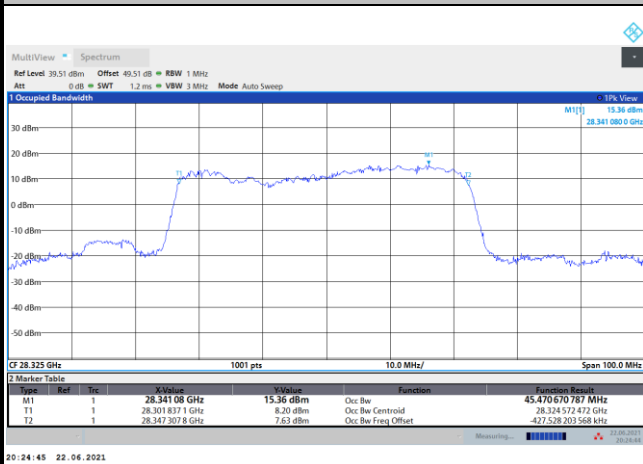
Middle Channel / 50MHz / BPSK



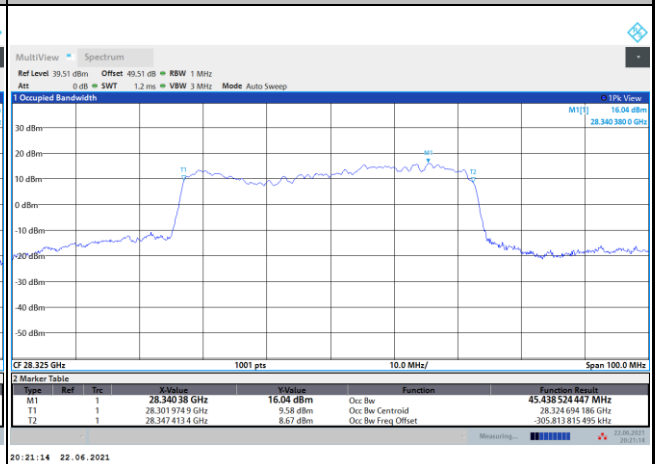
Middle Channel / 50MHz / QPSK



Highest Channel / 50MHz / BPSK



Highest Channel / 50MHz / QPSK

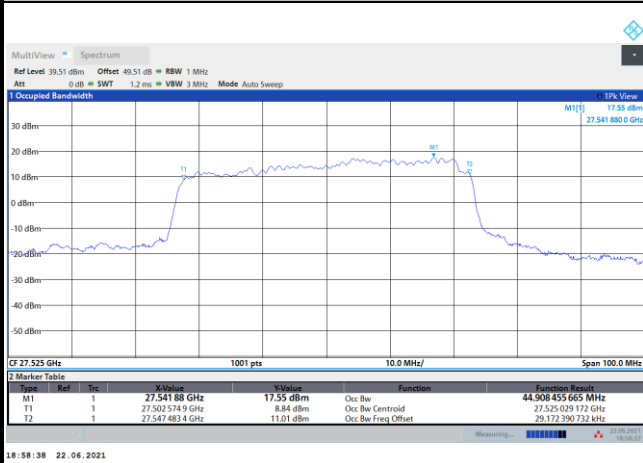




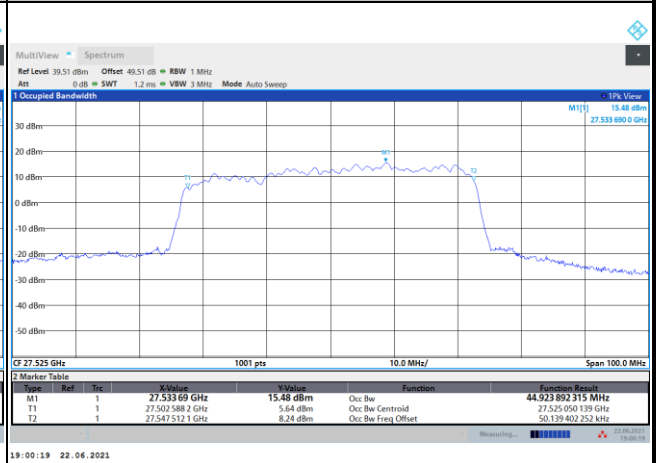
DFT-s-OFDM Module 1

NR Band n261

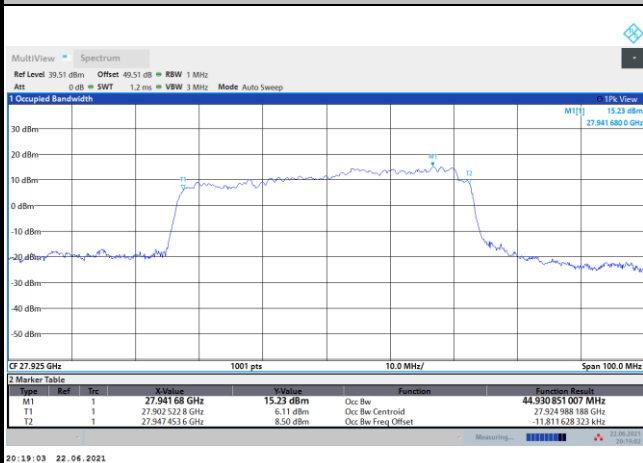
Lowest Channel / 50MHz / 16QAM



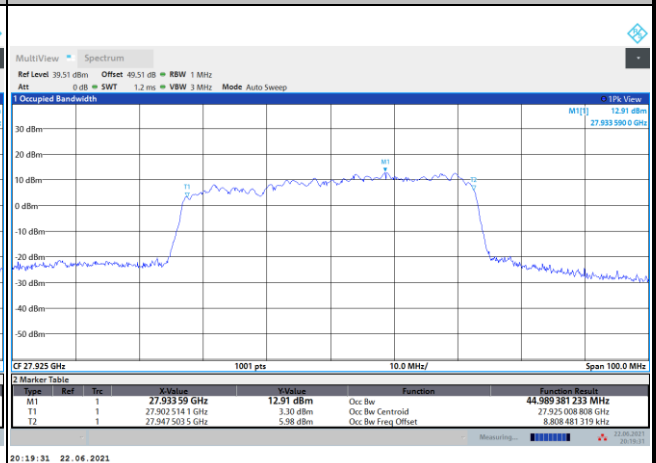
Lowest Channel / 50MHz / 64QAM



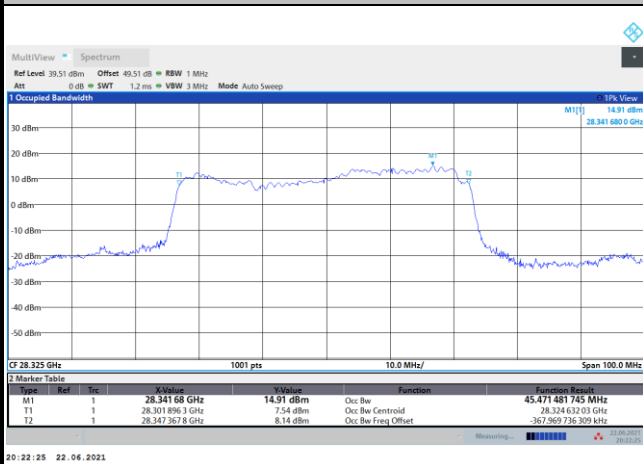
Middle Channel / 50MHz / 16QAM



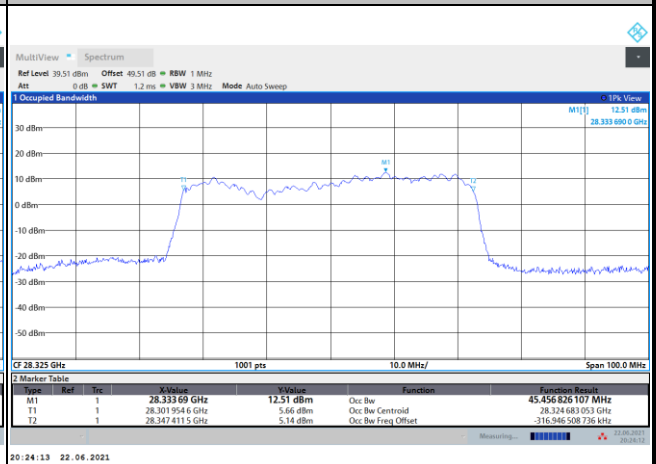
Middle Channel / 50MHz / 64QAM



Highest Channel / 50MHz / 16QAM



Highest Channel / 50MHz / 64QAM

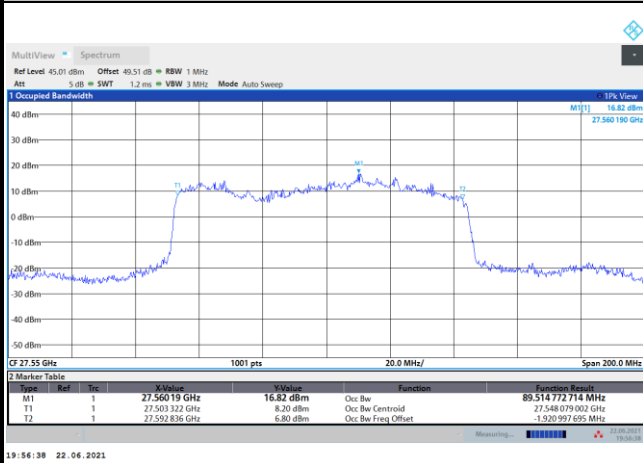




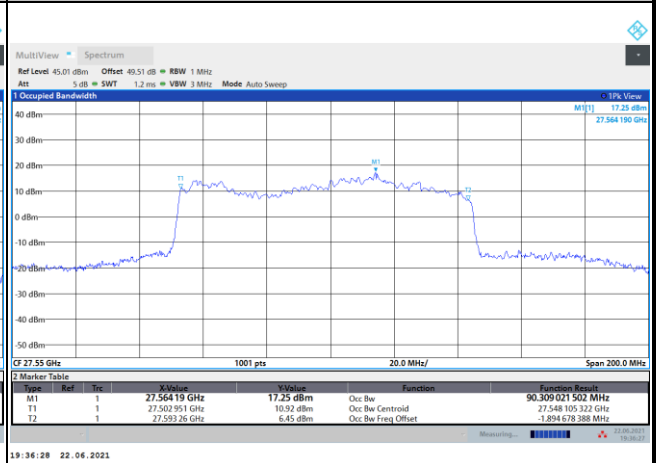
DFT-s-OFDM Module 1

NR Band n261

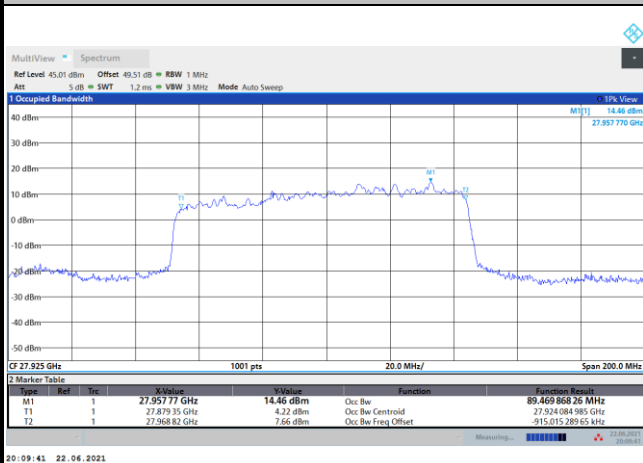
Lowest Channel / 100MHz / BPSK



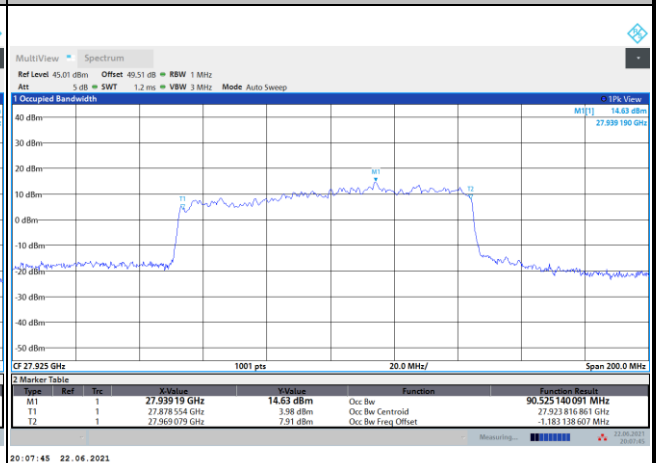
Lowest Channel / 100MHz / QPSK



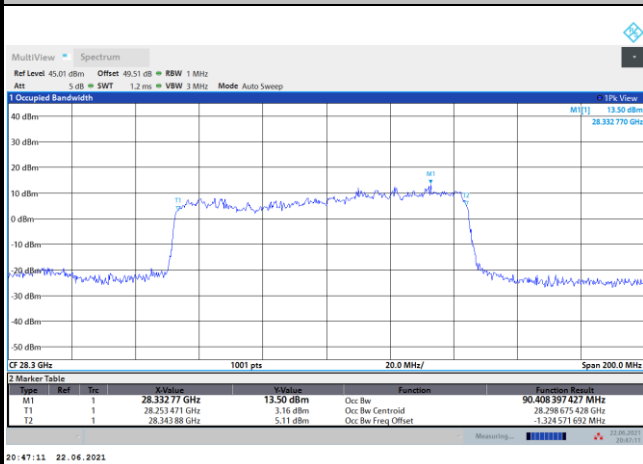
Middle Channel / 100MHz / BPSK



Middle Channel / 100MHz / QPSK



Highest Channel / 100MHz / BPSK



Highest Channel / 100MHz / QPSK

