

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

$$= 53.4 + 2 + 107 + 20\log(0.5) - 104.8 = 51.6 \text{ (dB)}$$



NR Band n260 Module 2 AG0+1

Occupied Bandwidth

Mode	DFT-s-OFDM Module 2 NR Band n260 : 99%OBW(MHz)					
BW	50MHz			100MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	45.25	-	-	90.37	-	-
Middle CH	45.29	45.35	45.42	90.48	90.54	90.52
Highest CH	45.23	-	-	90.39	-	-

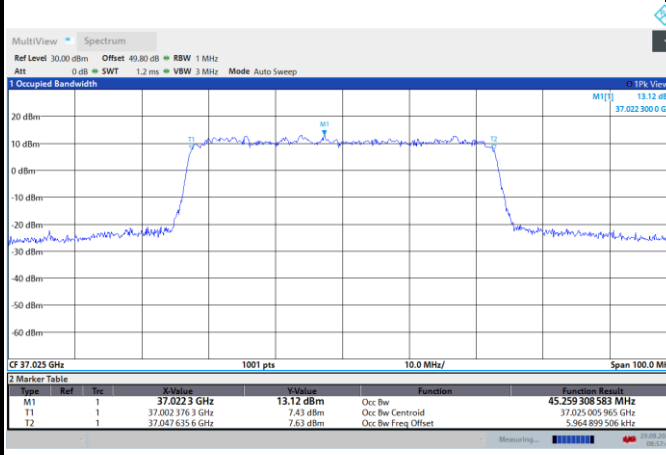
Mode	CP-OFDM Module 2 NR Band n260 : 99%OBW(MHz)					
BW	50MHz			100MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	45.23	-	-	93.04	-	-
Middle CH	45.37	45.58	45.30	90.07	92.72	92.80
Highest CH	45.43	-	-	93.05	-	-



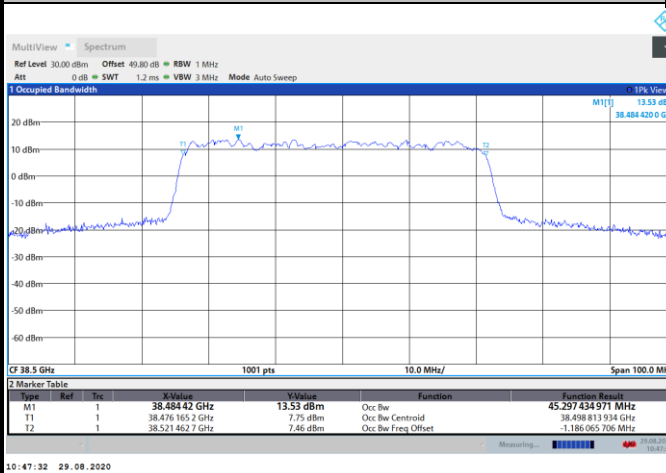
DFT-s-OFDM Module 2

NR Band n260

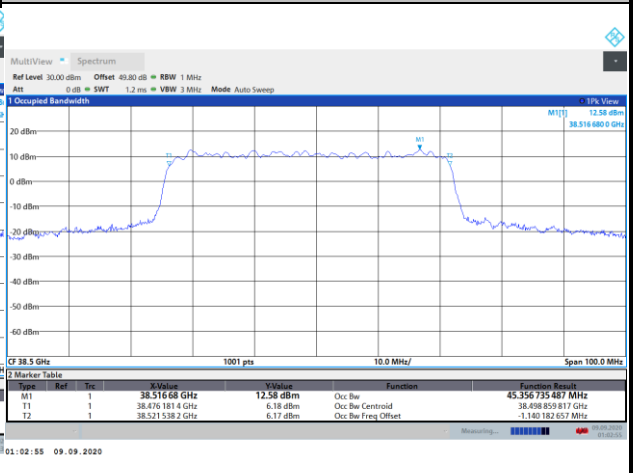
Lowest Channel / 50MHz / QPSK



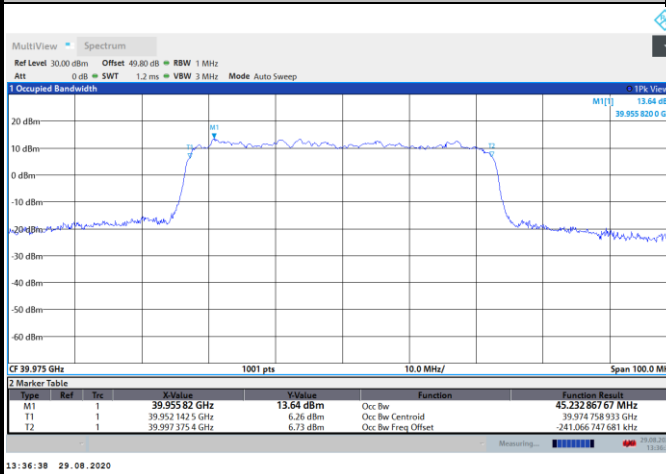
Middle Channel / 50MHz / QPSK



Middle Channel / 50MHz / 16QAM

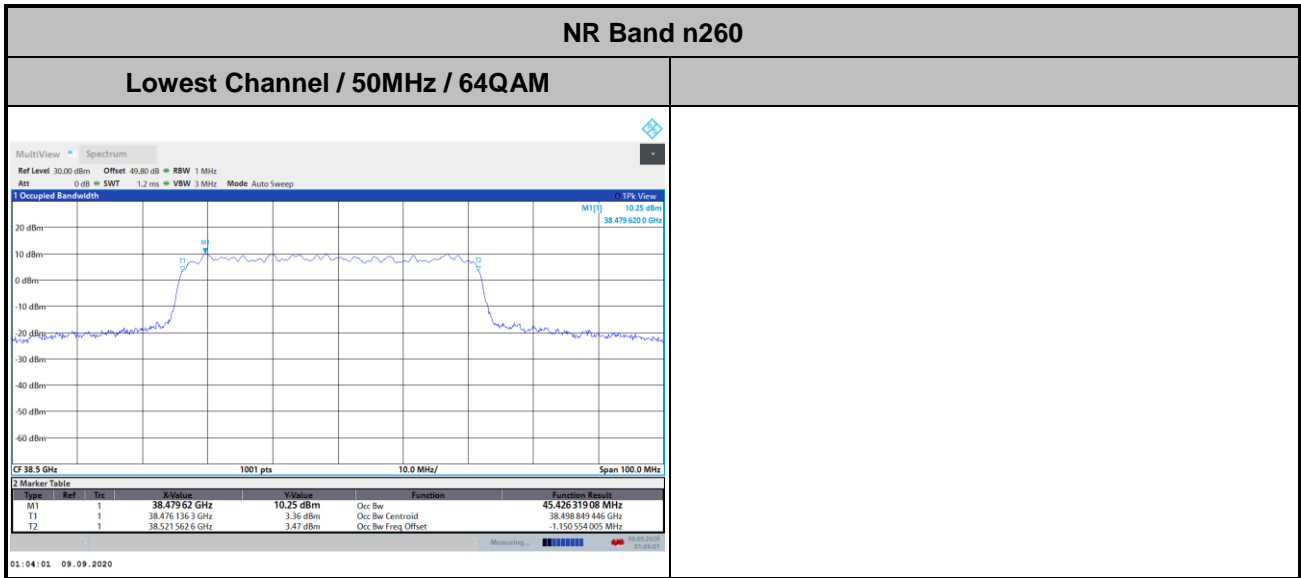


Highest Channel / 50MHz / QPSK





DFT-s-OFDM Module 2

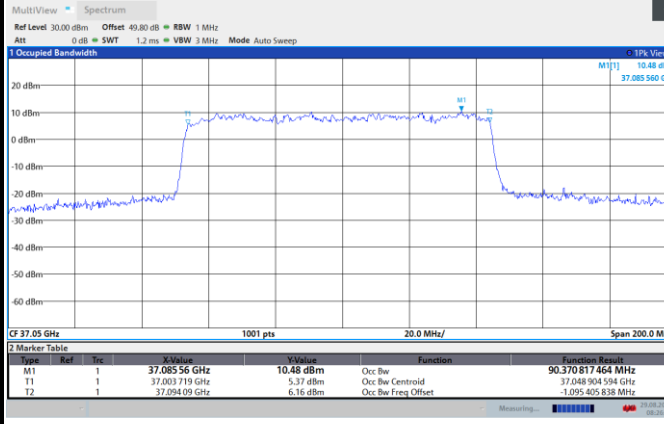




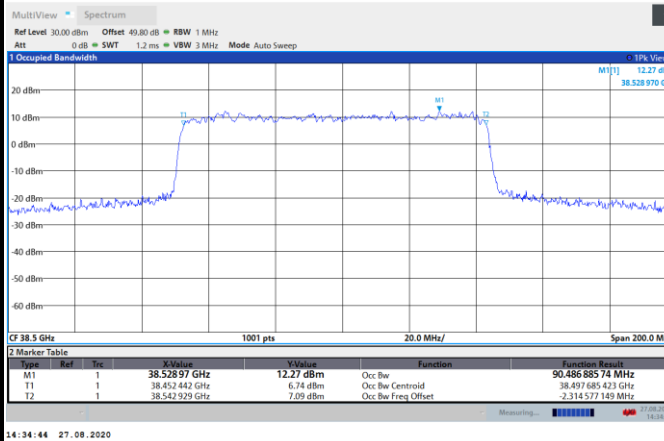
DFT-s-OFDM Module 2

NR Band n260

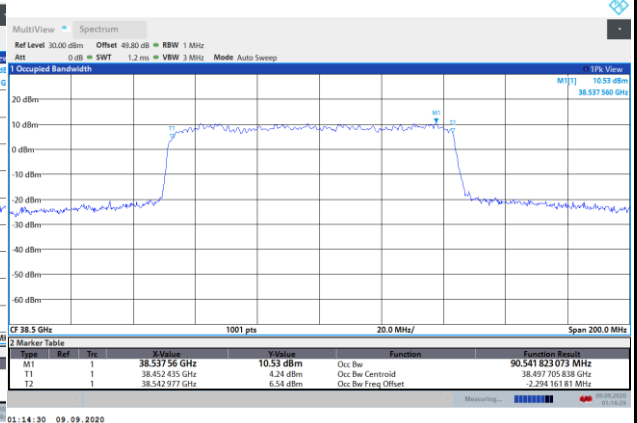
Lowest Channel / 100MHz / QPSK



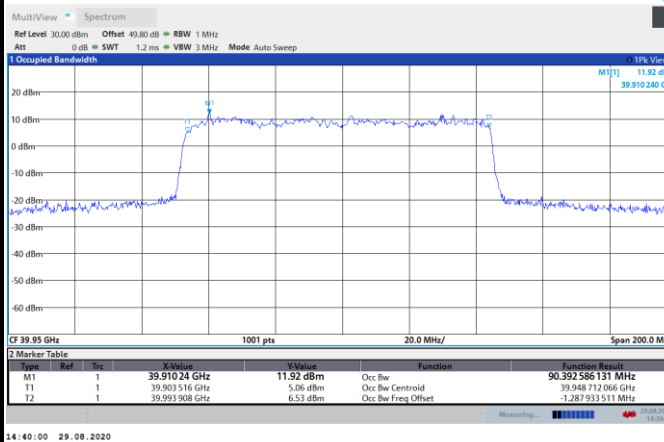
Middle Channel / 100MHz / QPSK



Middle Channel / 100MHz / 16QAM

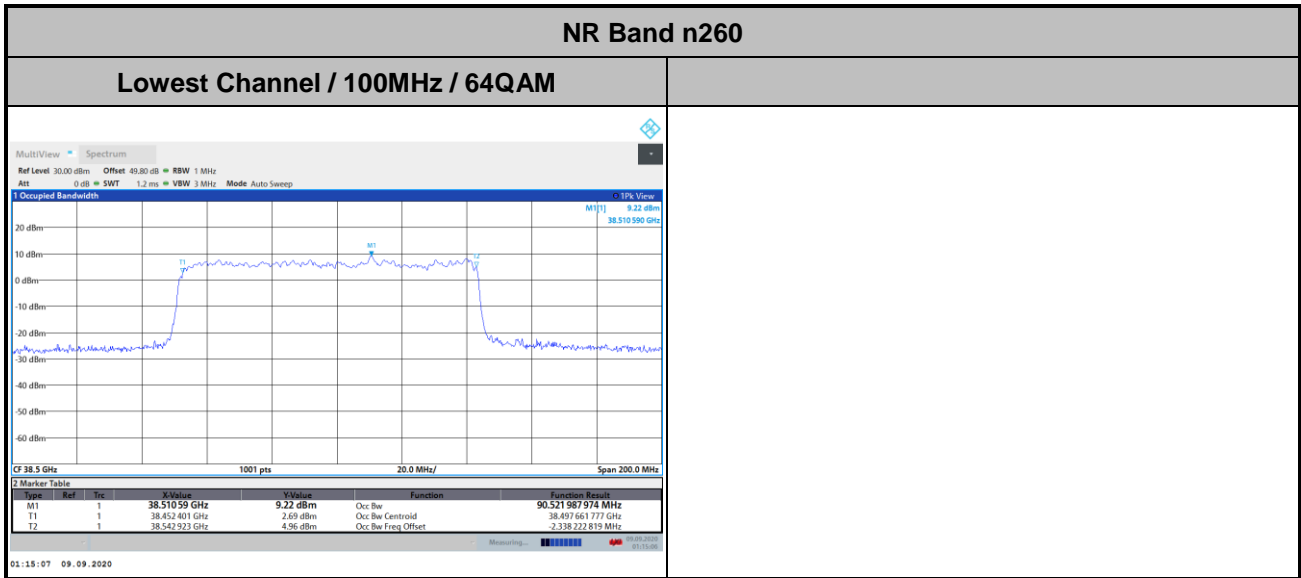


Highest Channel / 100MHz / QPSK





DFT-s-OFDM Module 2

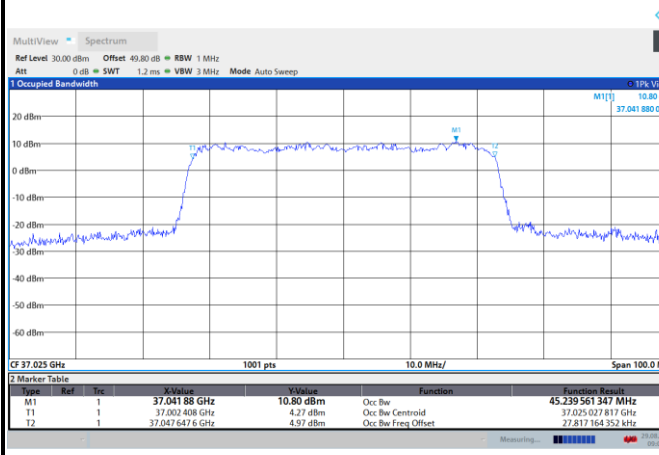




CP-OFDM Module 2

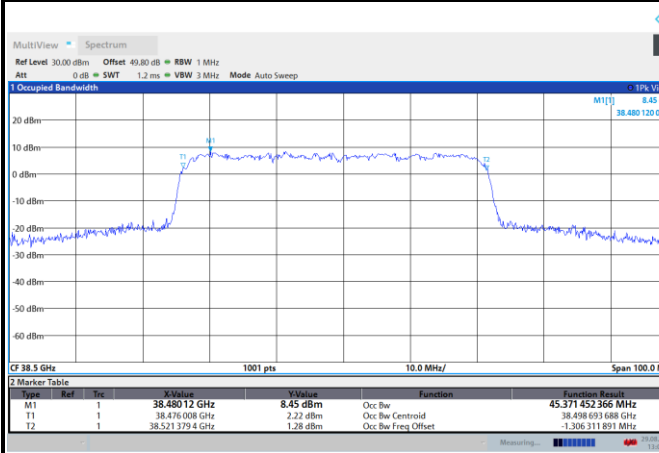
NR Band n260

Lowest Channel / 50MHz / QPSK



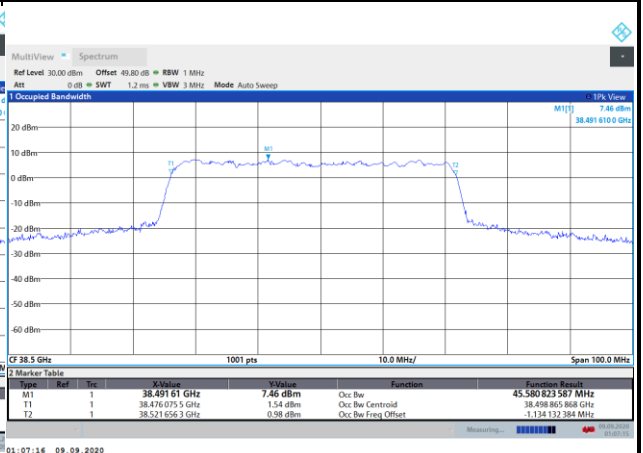
09:07:09 29.08.2020

Middle Channel / 50MHz / QPSK



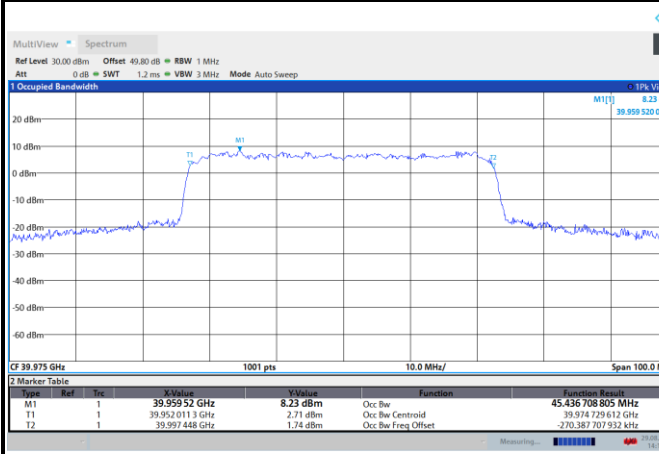
13:09:39 29.08.2020

Middle Channel / 50MHz / 16QAM



01:07:16 09.09.2020

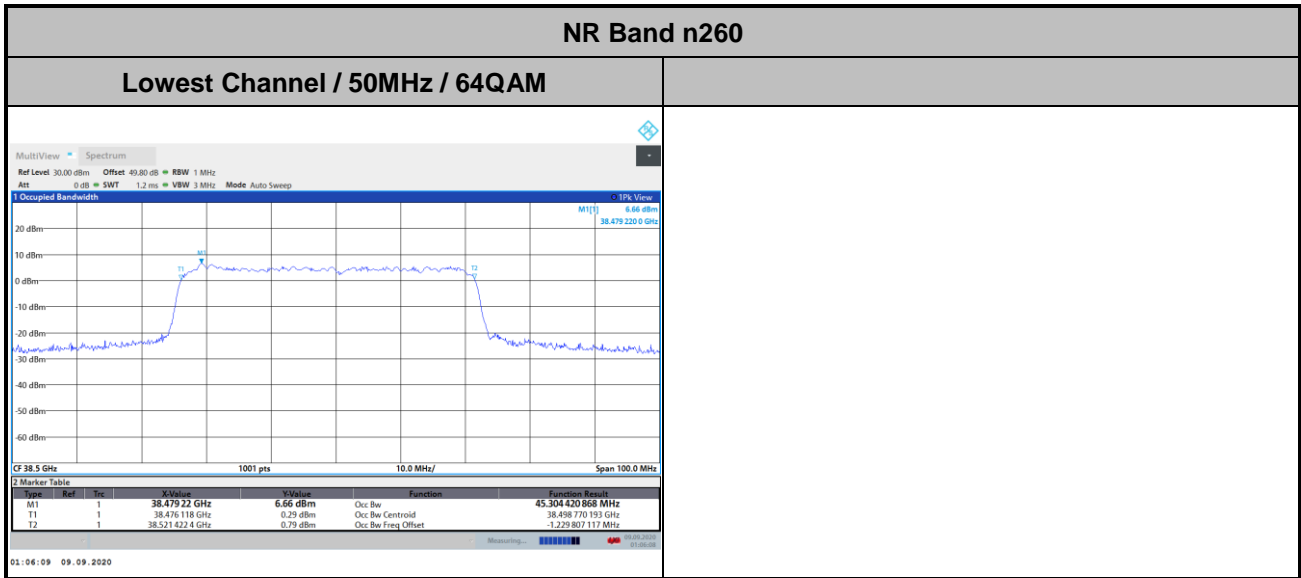
Highest Channel / 50MHz / QPSK



14:15:49 29.08.2020



CP-OFDM Module 2

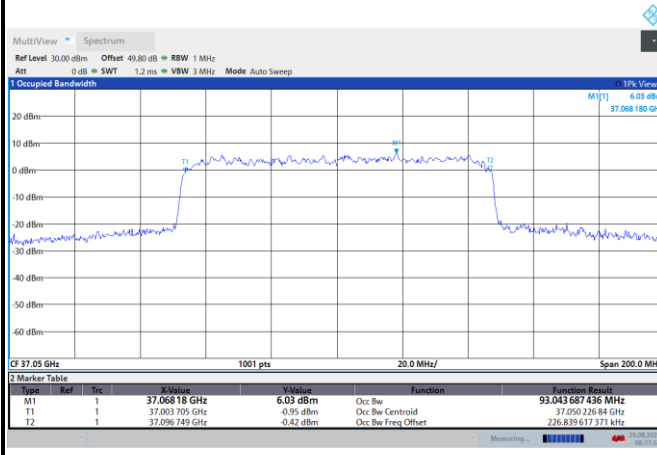




CP-OFDM Module 2

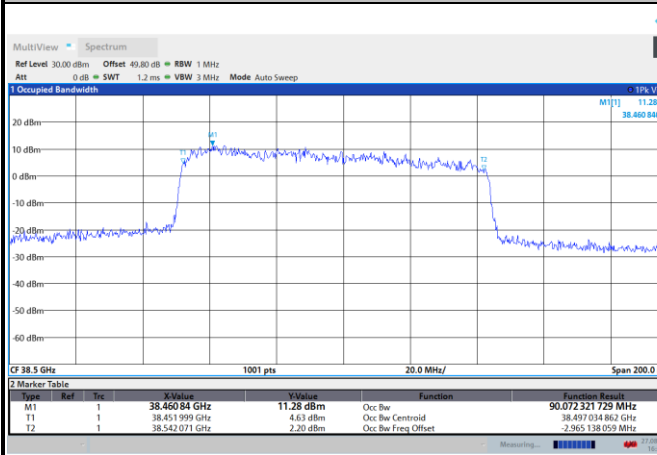
NR Band n260

Lowest Channel / 100MHz / QPSK



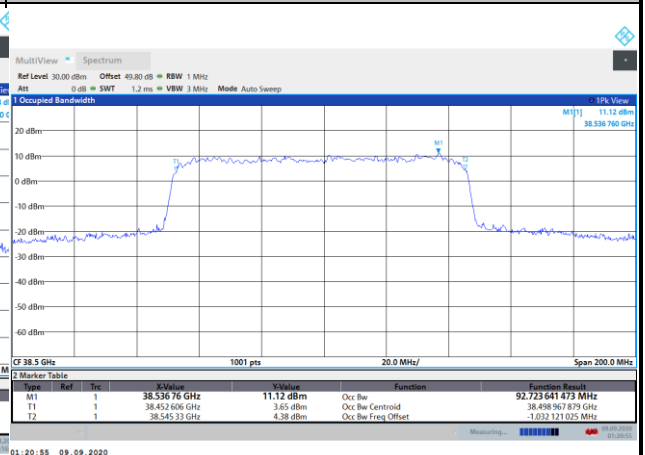
08:37:53 29.08.2020

Middle Channel / 100MHz / QPSK



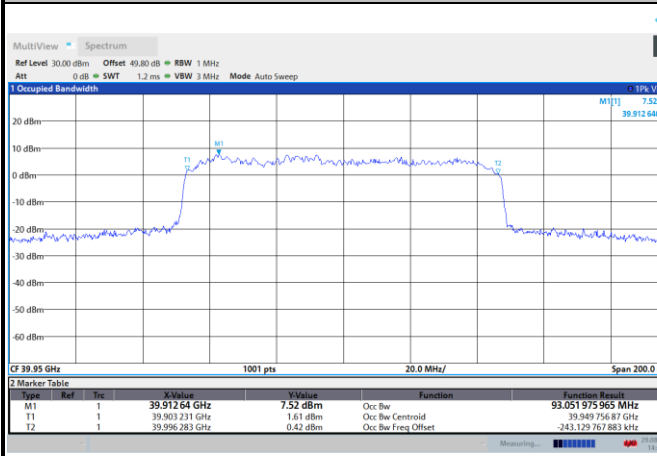
16:16:27 27.08.2020

Middle Channel / 100MHz / 16QAM



01:20:55 09.09.2020

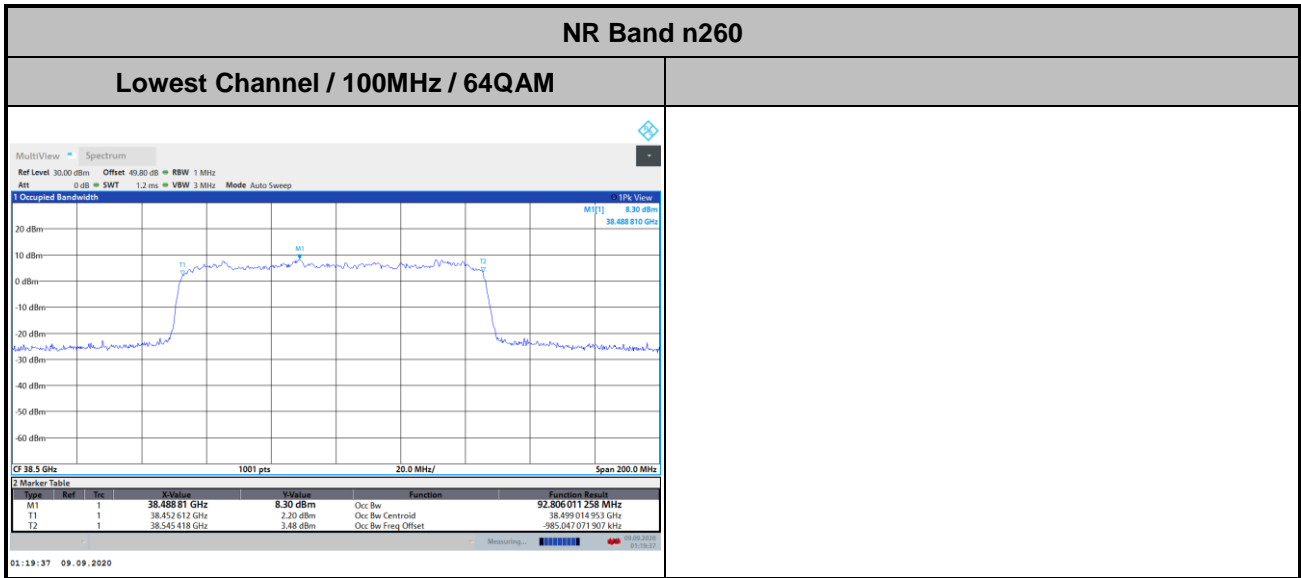
Highest Channel / 100MHz / QPSK



14:48:56 29.08.2020



CP-OFDM Module 2





Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module 2 NR Band n260 : BE (dBm) 1 RB	
BW			50MHz	100MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-16.77	-14.36
	>10%OB	≤-13	-33.19	-33.45
High CH	0~10%OB	≤-5	-16.51	-16.6
	>10%OB	≤-13	-27.13	-28.97
Result			Compliance	

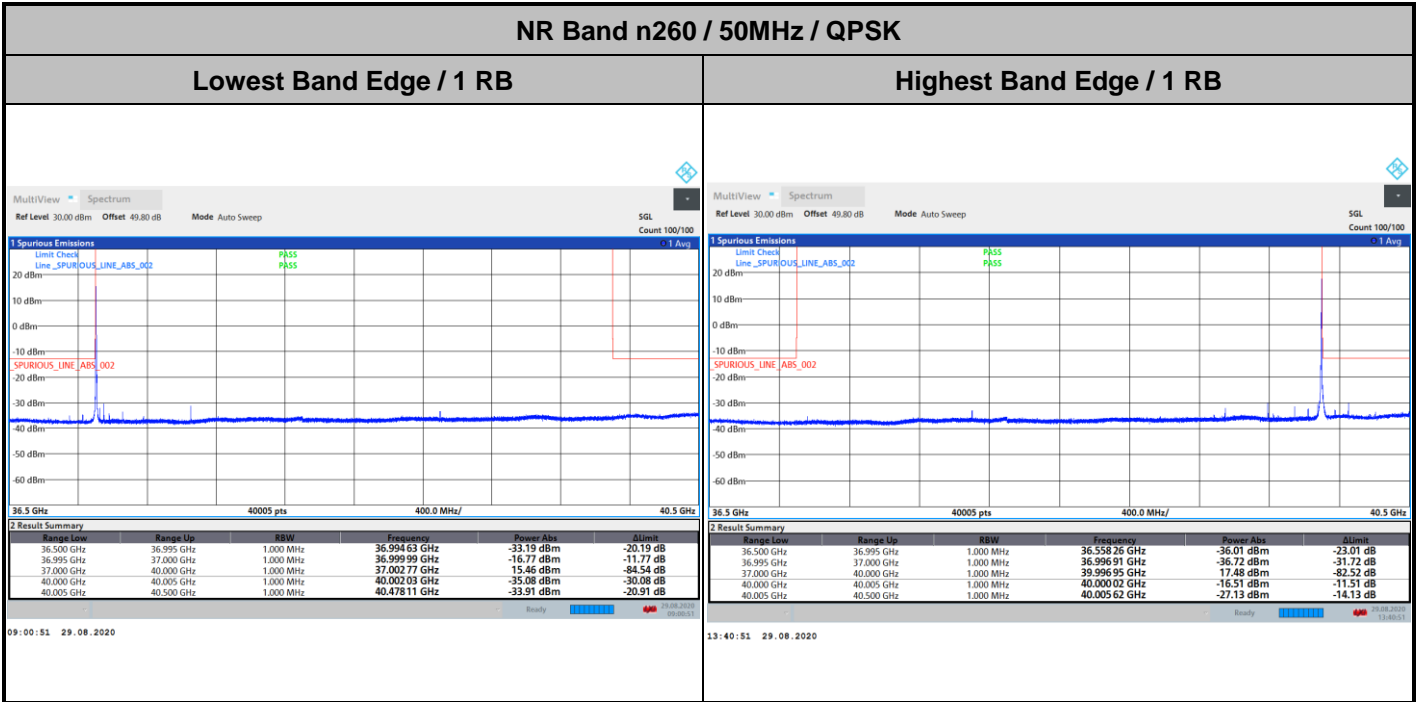
Mode			CP-OFDM Module 2 NR Band n260 : BE (dBm) 1 RB	
BW			50MHz	100MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-18.84	-21.6
	>10%OB	≤-13	-34.22	-35.25
High CH	0~10%OB	≤-5	-21.20	-19.47
	>10%OB	≤-13	-31.41	-31.86
Result			Compliance	

Mode			DFT-s-OFDM Module 2 NR Band n260 : BE (dBm) Full RB	
BW			50MHz	100MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-28.48	-28.3
	>10%OB	≤-13	-31.24	-31.04
High CH	0~10%OB	≤-5	-25.33	-28.3
	>10%OB	≤-13	-27.19	-29.05
Result			Compliance	

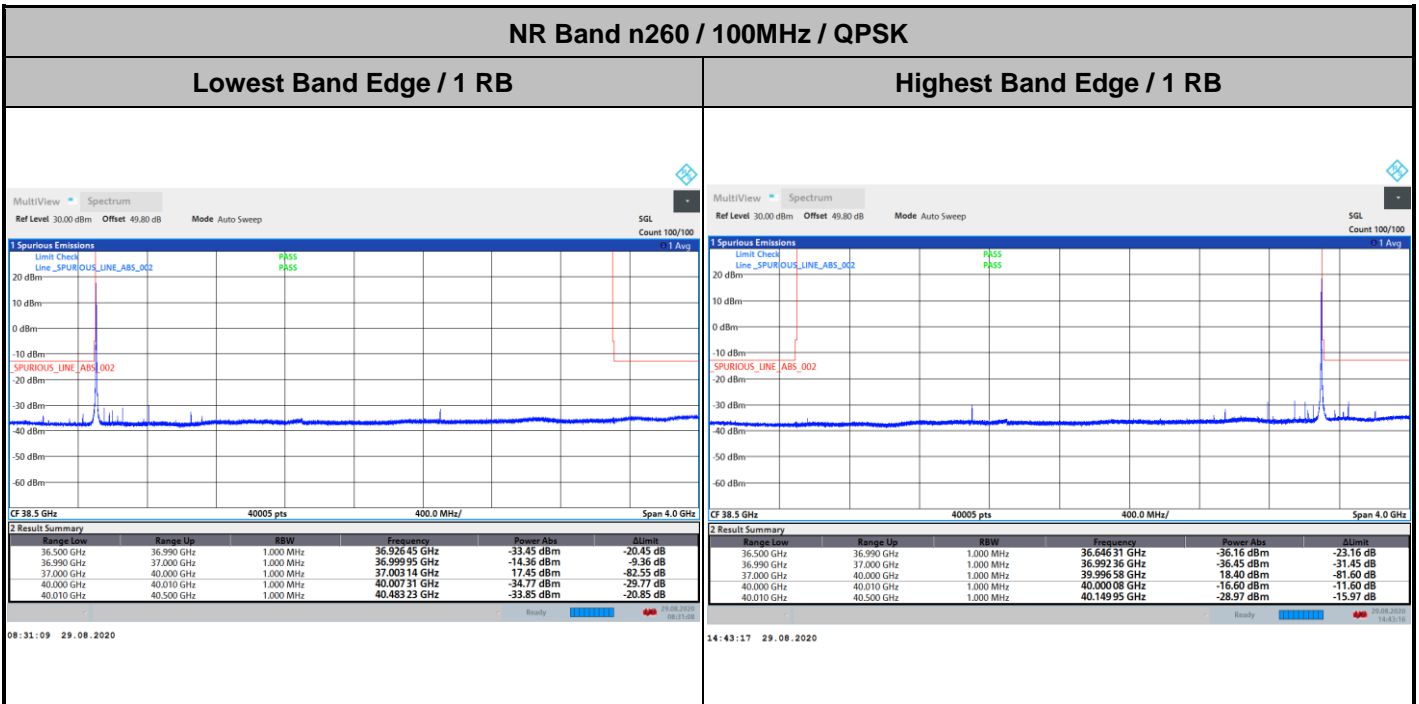
Mode			CP-OFDM Module 2 NR Band n260 : BE (dBm) Full RB	
BW			50MHz	100MHz
Limit (dBm)			QPSK	QPSK
Low CH	0~10%OB	≤-5	-29.7	-30.15
	>10%OB	≤-13	-31.93	-31.85
High CH	0~10%OB	≤-5	-27.38	-28.64
	>10%OB	≤-13	-29.03	-29.94
Result			Compliance	



DFT-s-OFDM Module 2

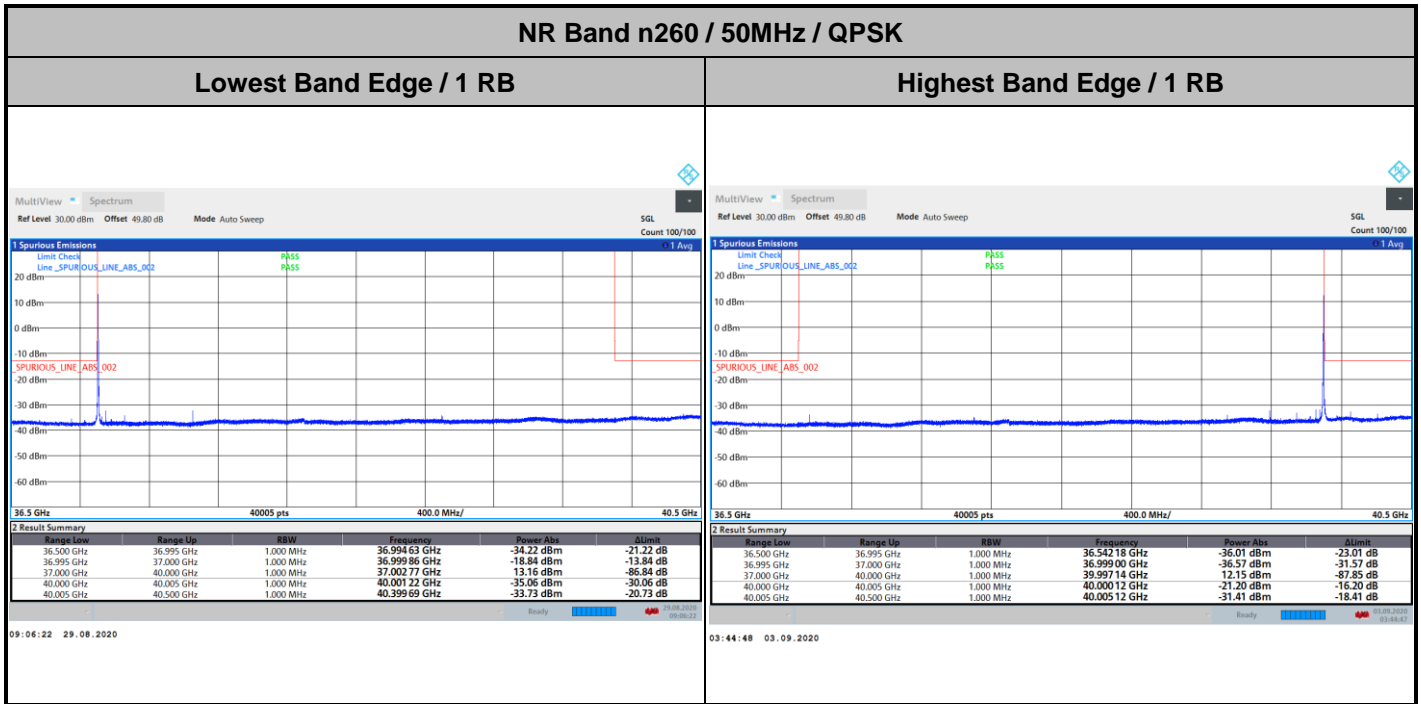


DFT-s-OFDM Module 2

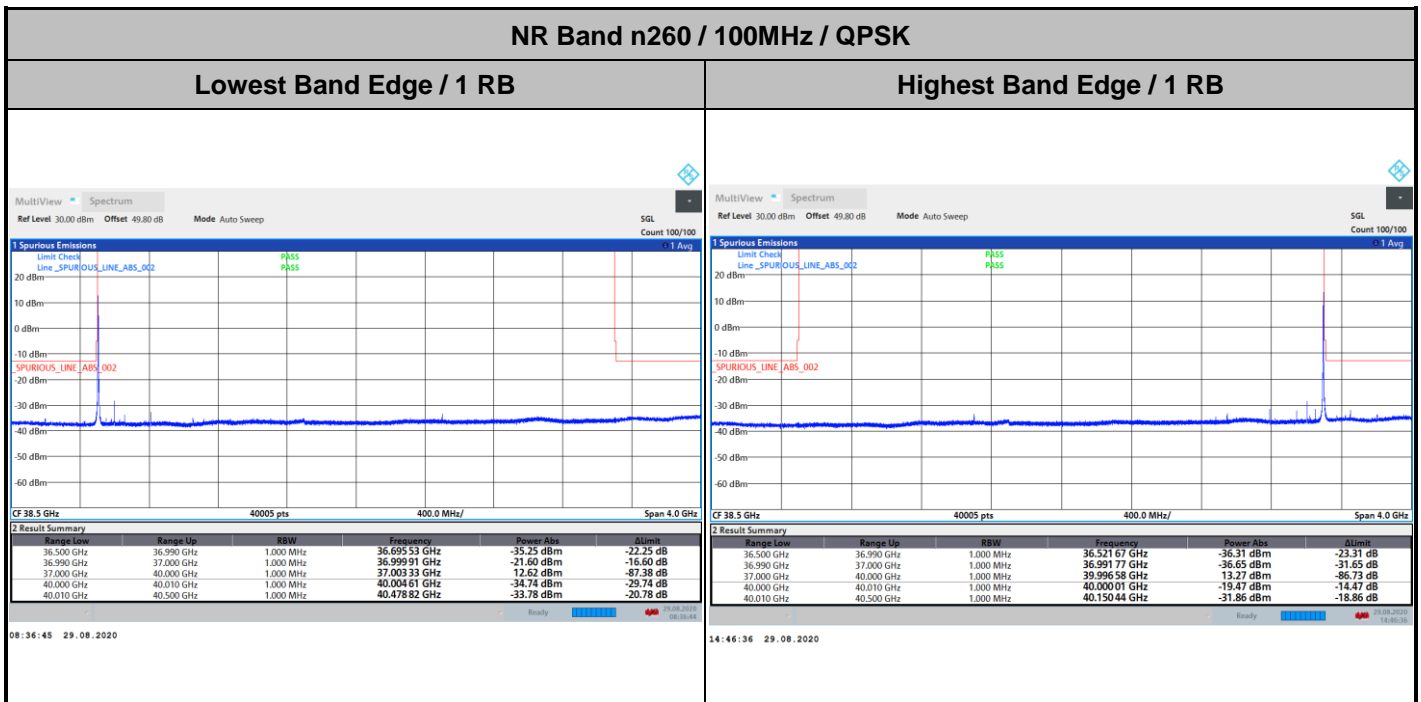




CP-OFDM Module 2

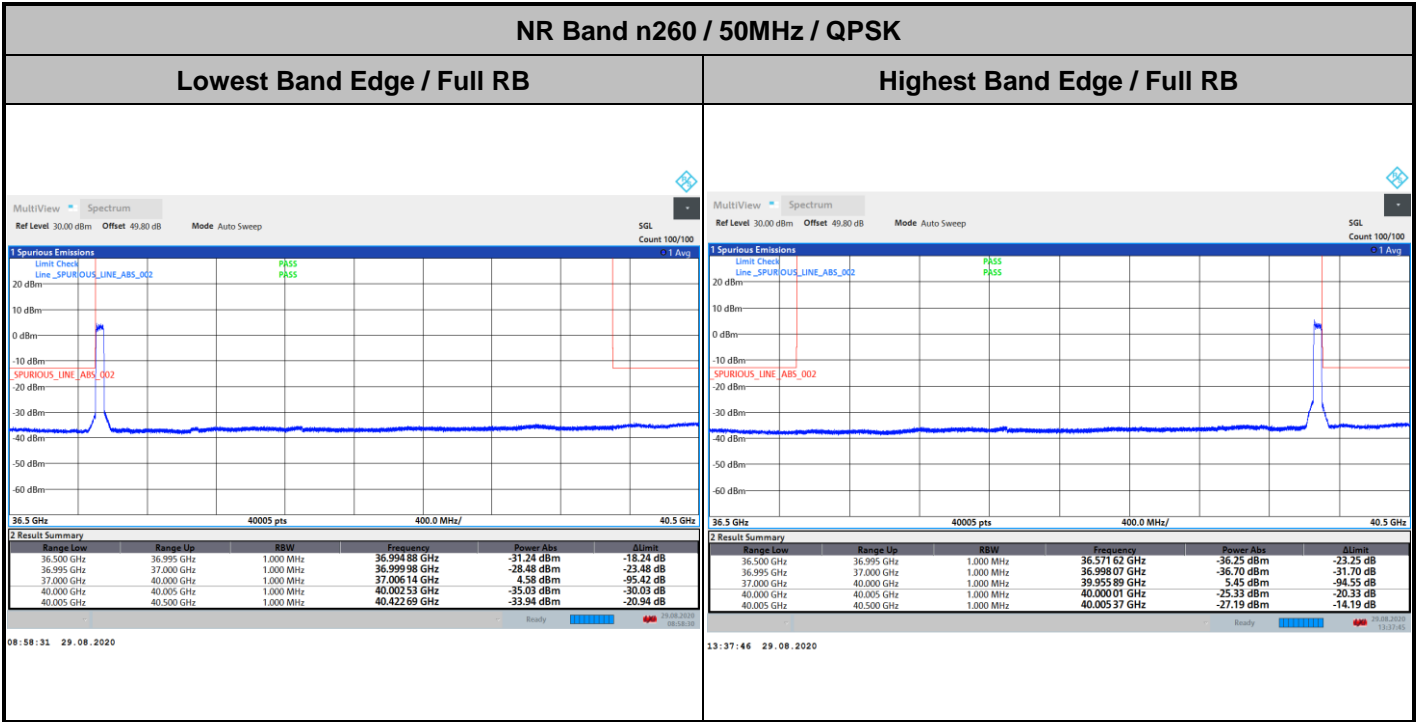


CP-OFDM Module 2

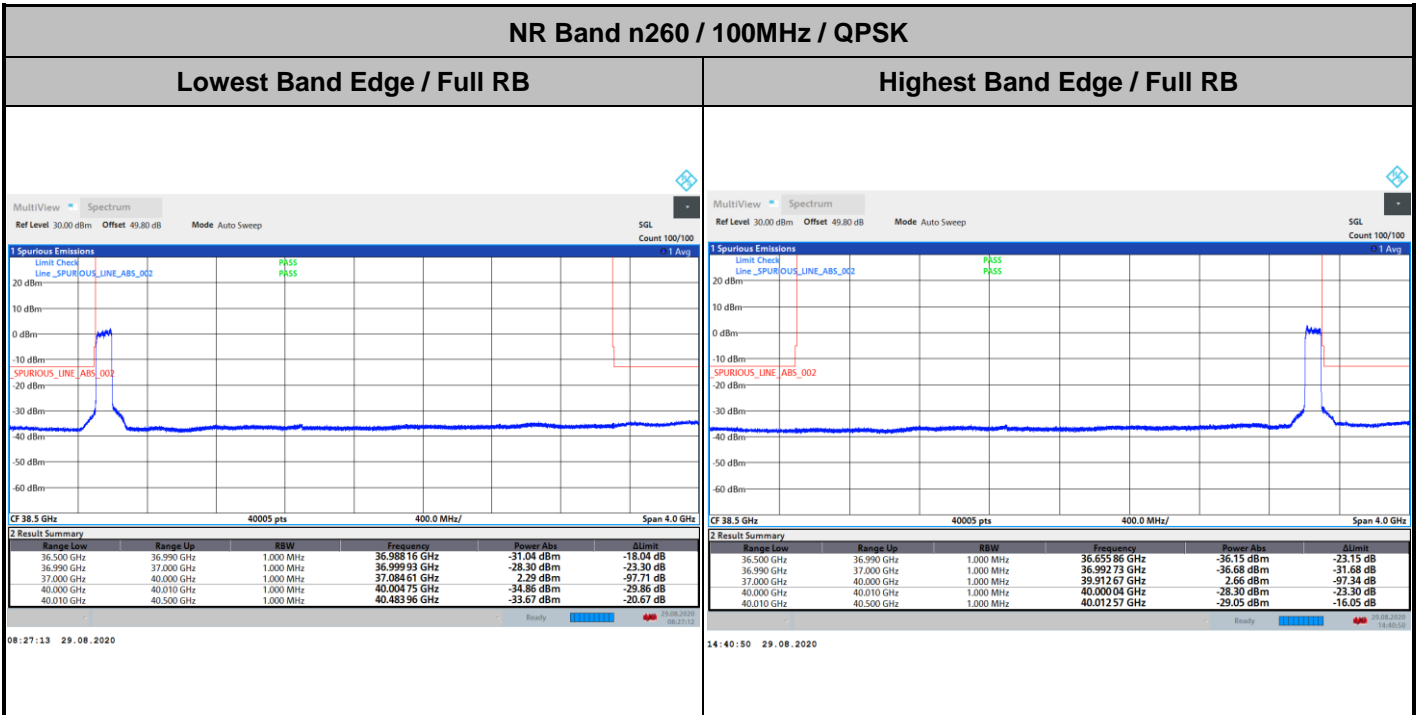




DFT-s-OFDM Module 2

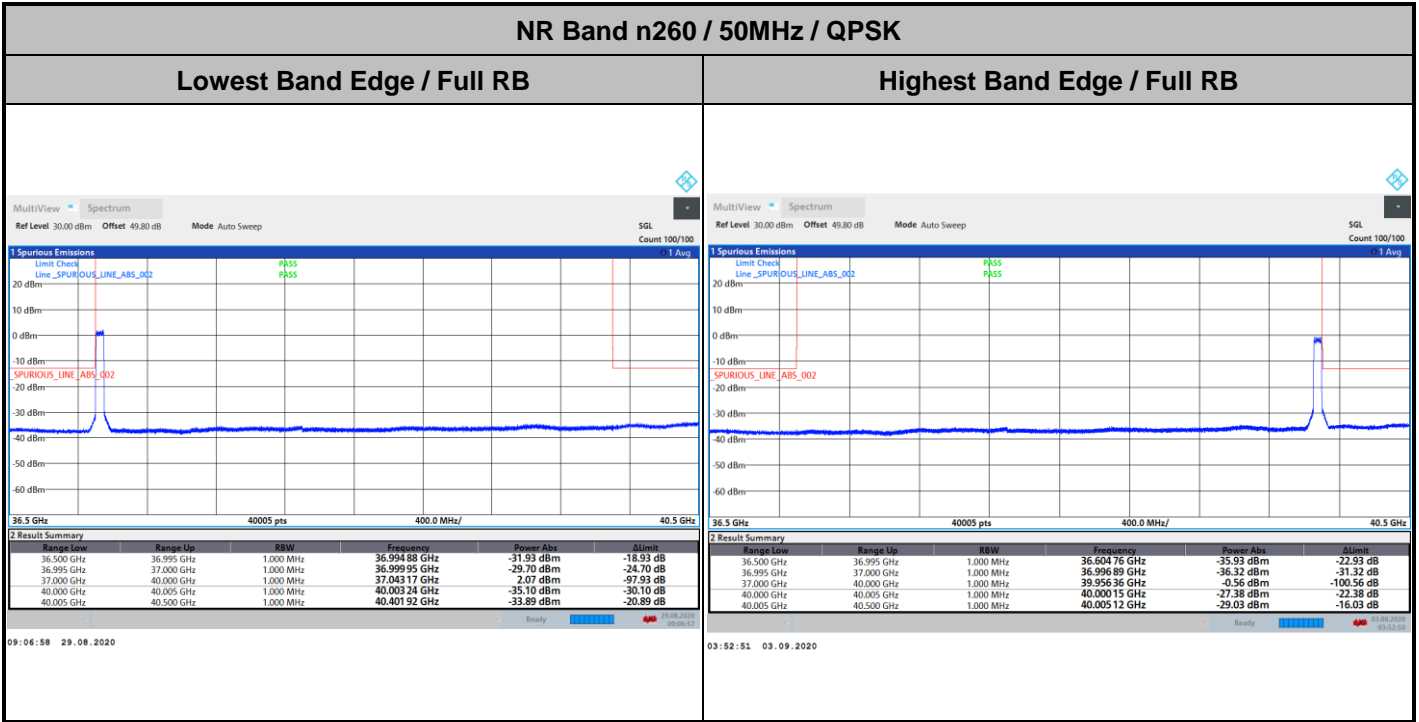


DFT-s-OFDM Module 2

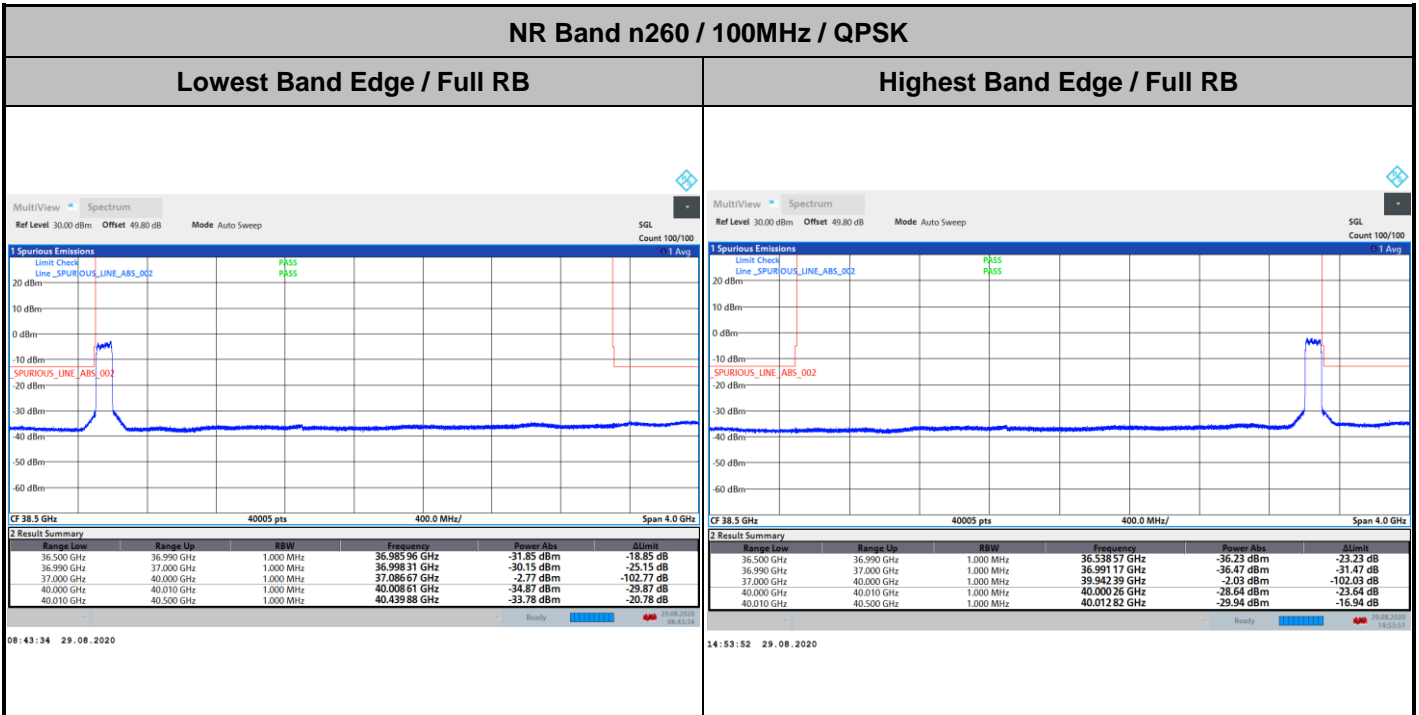




CP-OFDM Module 2



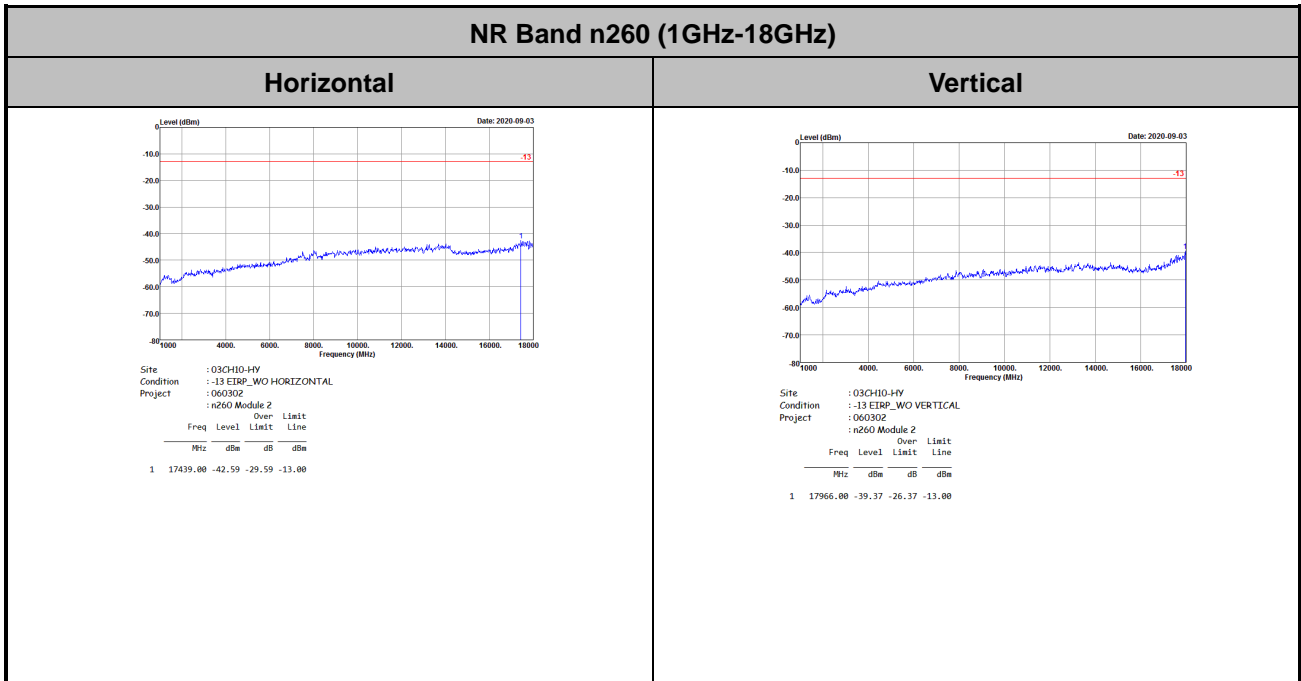
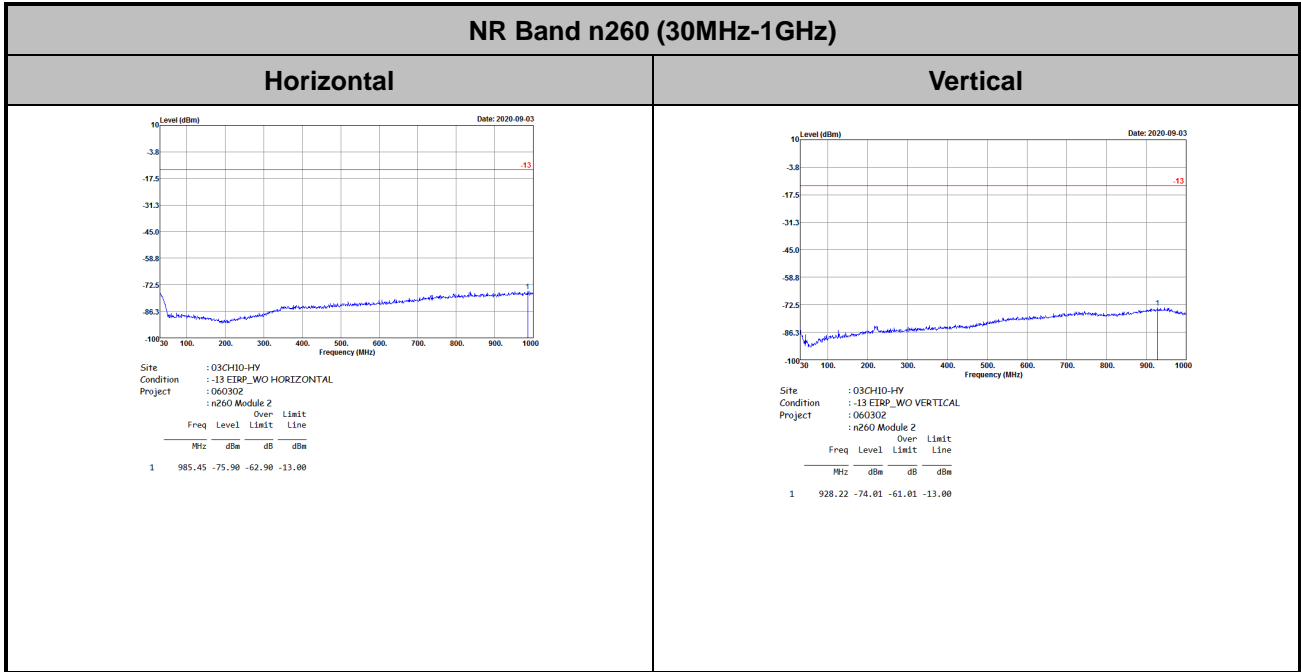
CP-OFDM Module 2





Spurious Emission

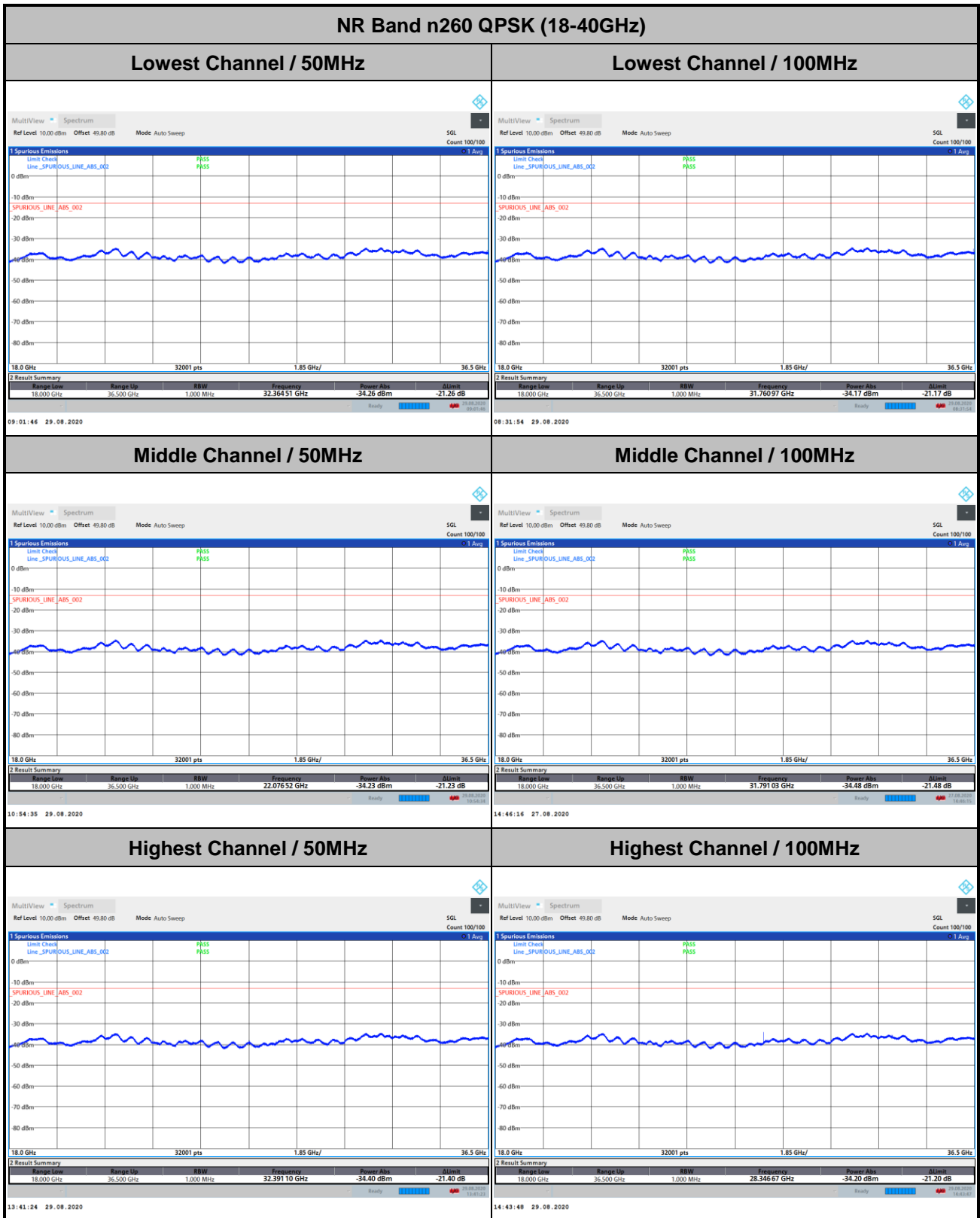
There is no significant spurious emission signal found for frequency started from 30MHz up to 18GHz. Only the noise floor is reported.





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

DFT-s-OFDM Module 2





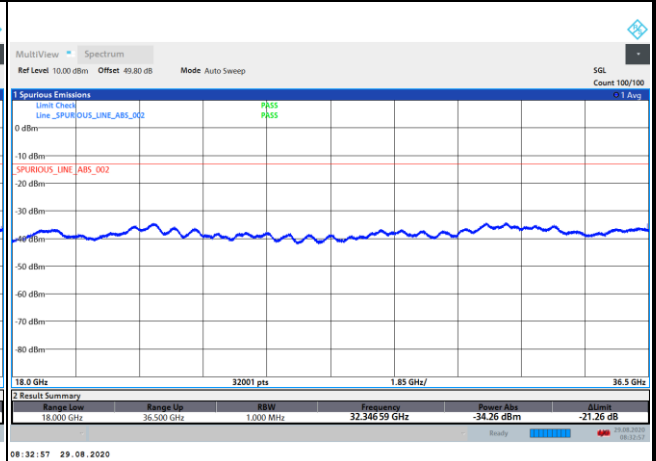
CP-OFDM Module 2

NR Band n260 QPSK (18-40GHz)

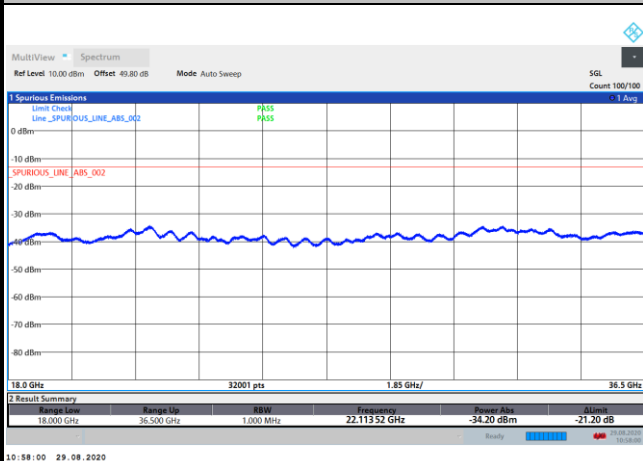
Lowest Channel / 50MHz



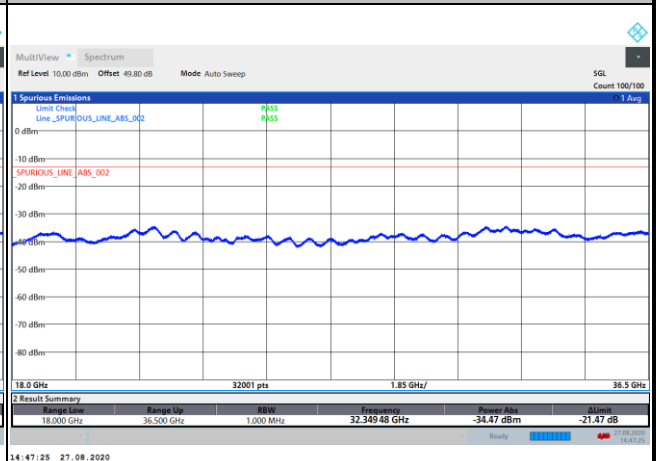
Lowest Channel / 100MHz



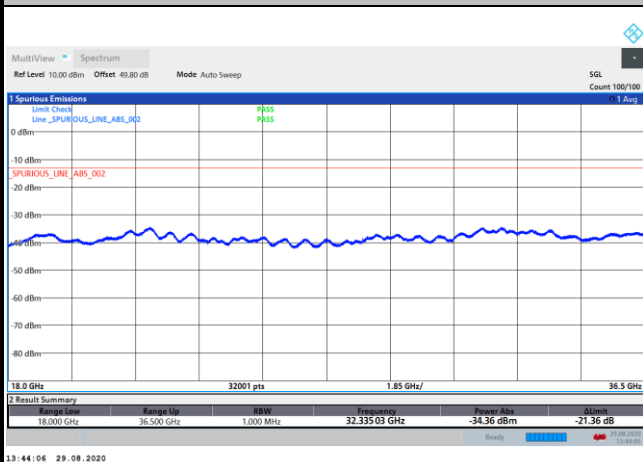
Middle Channel / 50MHz



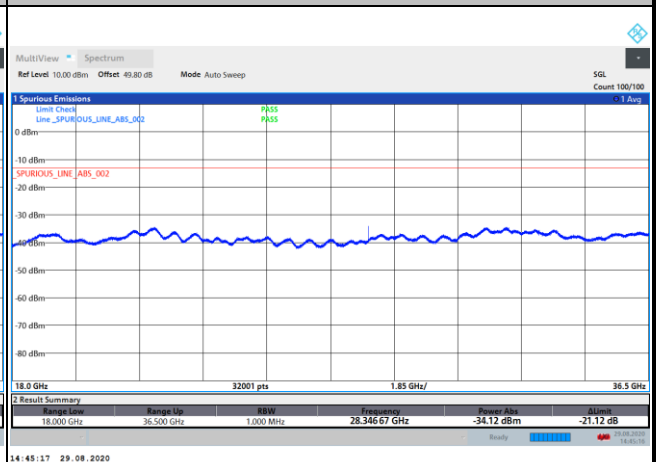
Middle Channel / 100MHz



Highest Channel / 50MHz

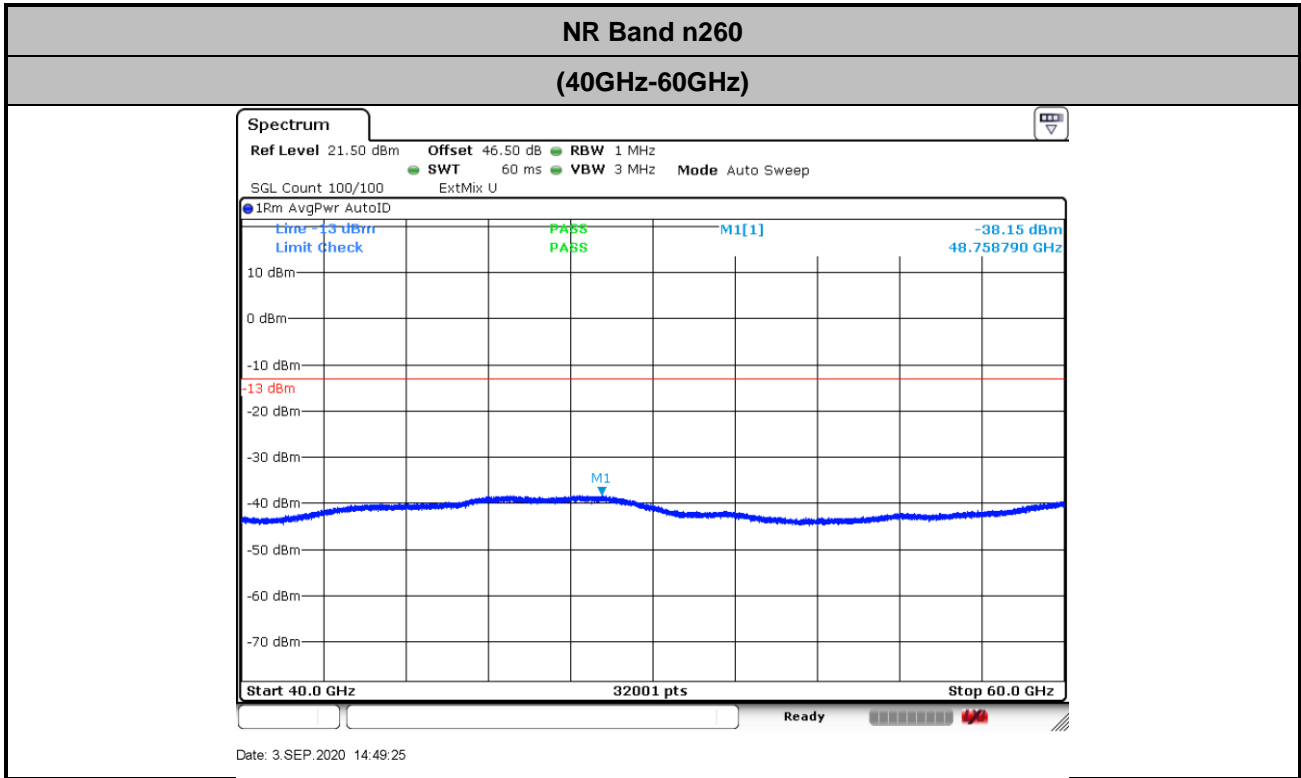


Highest Channel / 100MHz

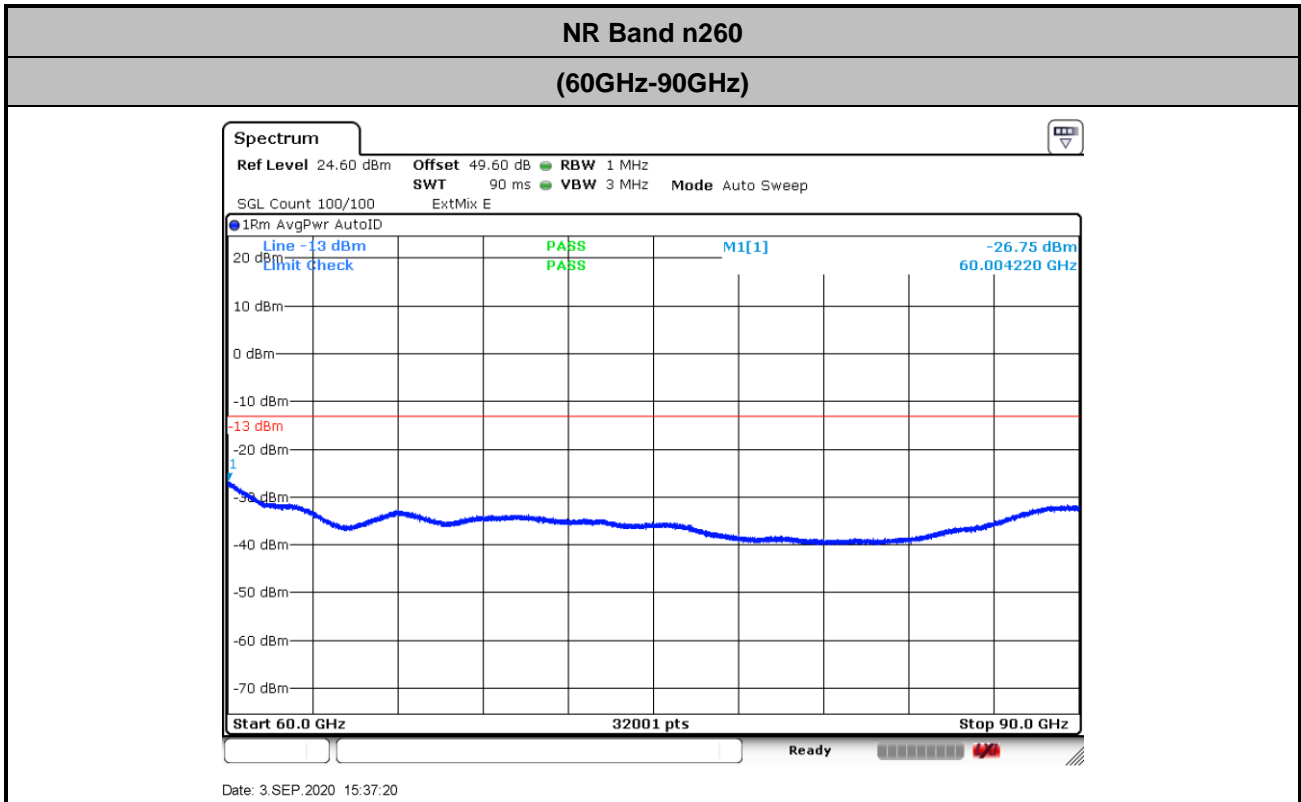




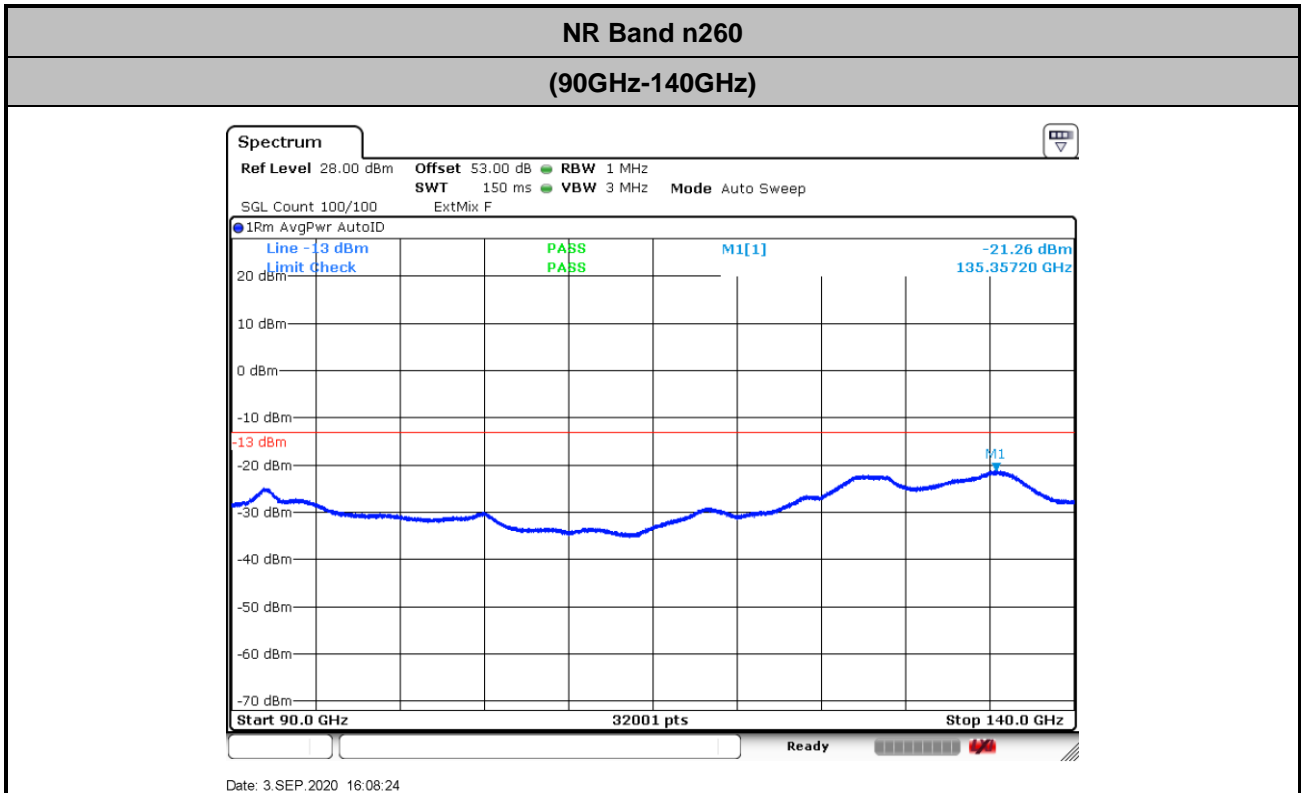
There is no significant spurious emission signal found for frequency started from 40GHz up to 200GHz. Only the noise floor is reported.



$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 42.1 + 2.2 + 107 + 20\log(1) - 104.8 = 46.5 \text{ (dB)} \end{aligned}$$

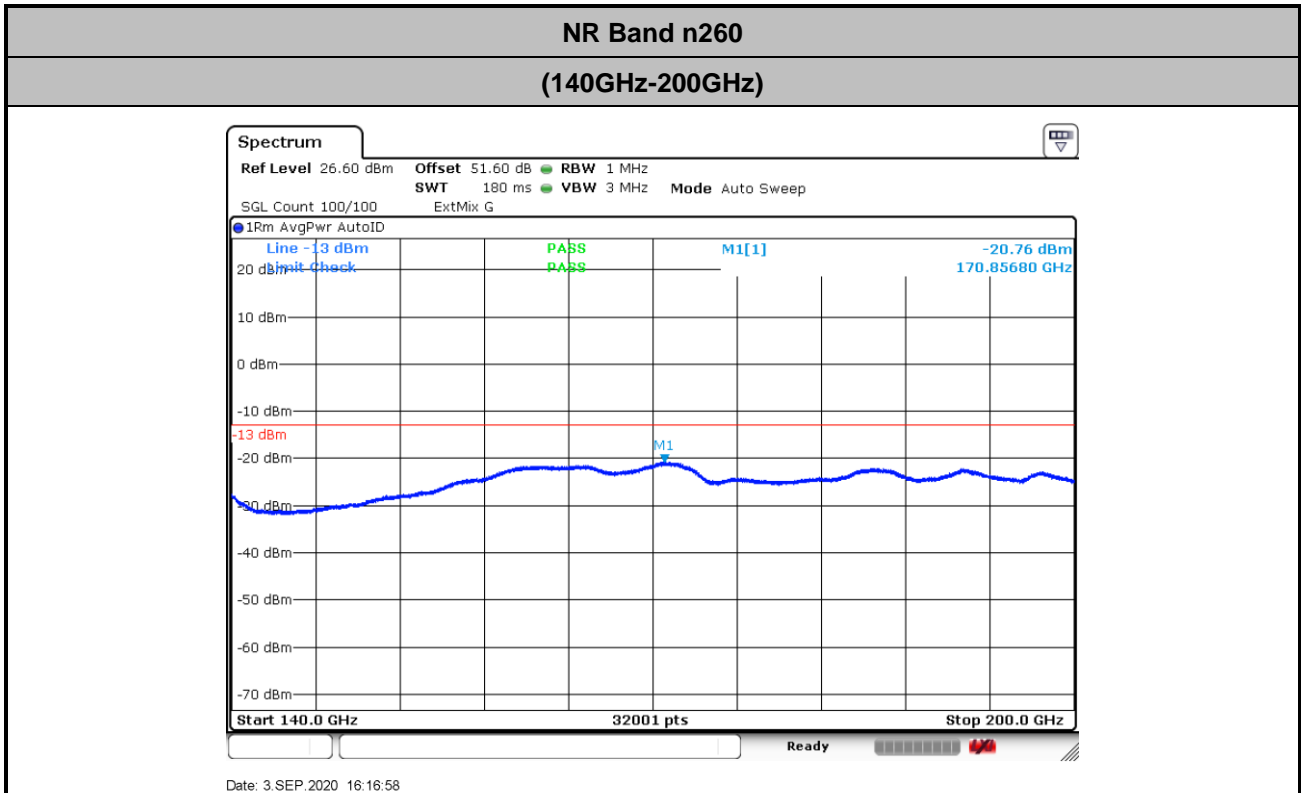


$$\begin{aligned}
 \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\
 &= 45.4 + 2 + 107 + 20\log(1) - 104.8 = 49.6 \text{ (dB)}
 \end{aligned}$$



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

$$= 48.8 + 2 + 107 + 20\log(1) - 104.8 = 53 \text{ (dB)}$$



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

$$= 53.4 + 2 + 107 + 20\log(0.5) - 104.8 = 51.6 \text{ (dB)}$$



NR Band n260

Frequency Stability

Test Conditions		NR Band n260 / Middle Channel			Limit
Temperature (°C)	Voltage (Volt)	CW tone			Note 2.
		Frequency (GHz)	Deviation (kHz)	Deviation (ppm)	Result
50	Normal Voltage	38.50027173	-271.728	7.058	PASS
40	Normal Voltage	38.50018282	-182.817	4.748	
30	Normal Voltage	38.50009191	-91.908	2.387	
20(Ref.)	Normal Voltage	38.5	0.000	0.000	
10	Normal Voltage	38.4999011	98.901	2.569	
0	Normal Voltage	38.49986114	138.861	3.607	
-10	Normal Voltage	38.49981119	188.811	4.904	
-20	Normal Voltage	38.49978022	219.780	5.709	
-30	Normal Voltage	38.49975025	249.750	6.487	
20	Maximum Voltage	38.50003097	-30.969	0.804	
20	Normal Voltage	38.49999201	7.992	0.208	
20	Battery End Point	38.49996603	33.966	0.882	

Note:

1. Normal Voltage =3.8 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 n261 Module 0 AG0

Occupied Bandwidth

Mode	DFT-s-OFDM Module 0 NR Band n261 : 99%OBW(MHz)								
BW	50MHz			100MHz			400MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	45.32	-	-	90.76	-	-	385.92	-	-
Middle CH	45.44	45.4	45.4	90.64	90.64	90.52	387.36	387.36	389.60
Highest CH	45.48	-	-	90.68	-	-	387.52	-	-

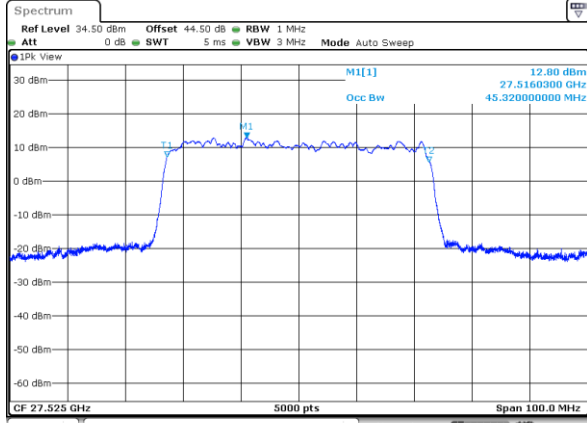
Mode	CP-OFDM Module 0 NR Band n261 : 99%OBW(MHz)								
BW	50MHz			100MHz			400MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	45.46	-	-	93.04	-	-	387.52	-	-
Middle CH	45.60	45.46	45.34	93.32	92.80	92.76	388.00	386.40	389.12
Highest CH	45.40	-	-	92.84	-	-	388.00	-	-



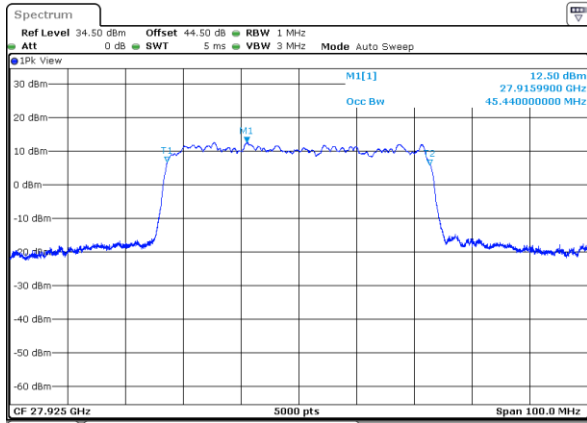
DFT-s-OFDM Module 0

NR Band n261

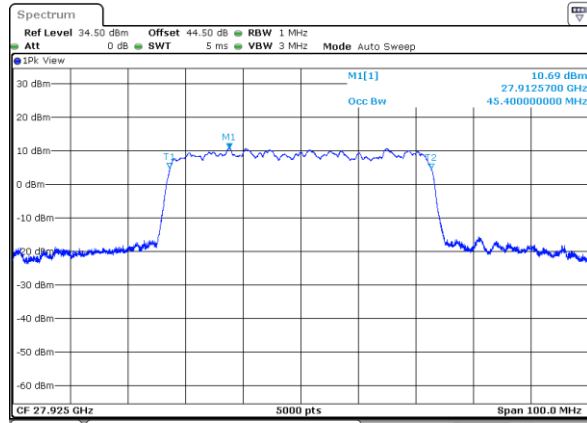
Lowest Channel / 50MHz / QPSK



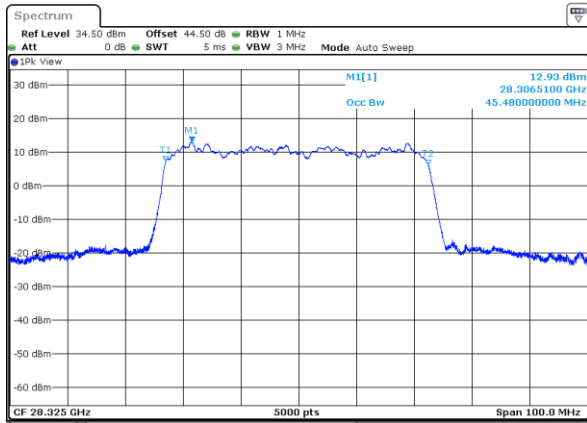
Middle Channel / 50MHz / QPSK



Middle Channel / 50MHz / 16QAM

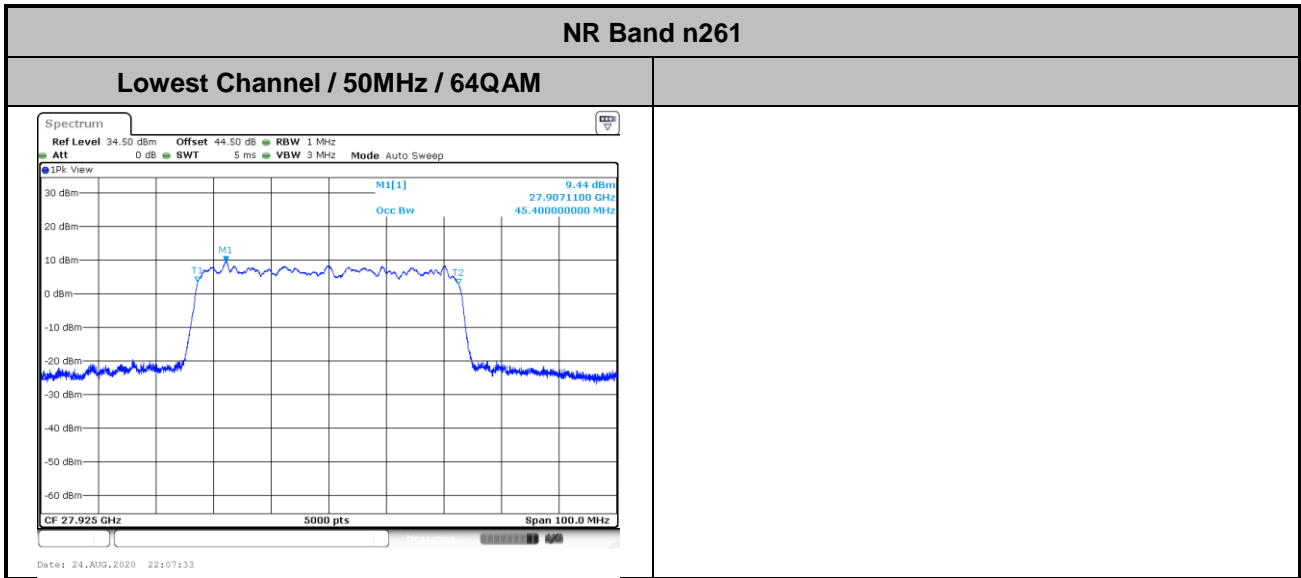


Highest Channel / 50MHz / QPSK





DFT-s-OFDM Module 0

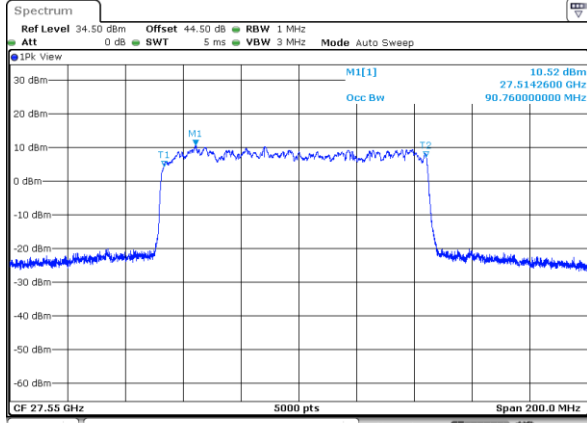




DFT-s-OFDM Module 0

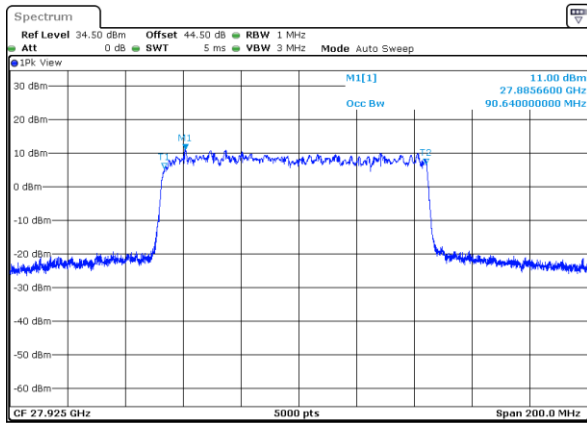
NR Band n261

Lowest Channel / 100MHz / QPSK



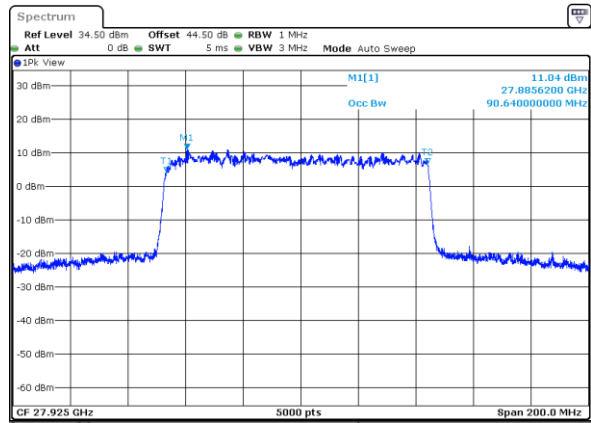
Date: 24_AUG.2020 23:55:41

Middle Channel / 100MHz / QPSK



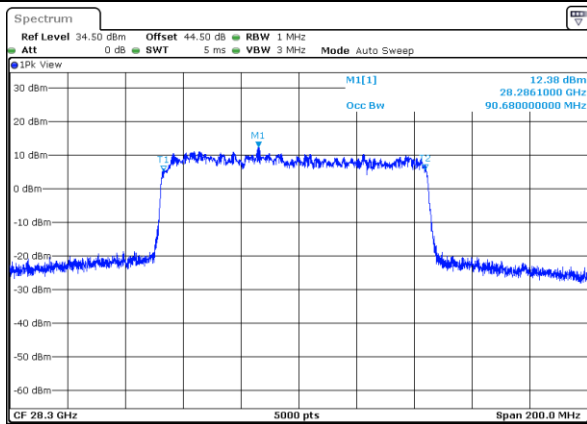
Date: 24_AUG.2020 21:44:46

Middle Channel / 100MHz / 16QAM



Date: 24_AUG.2020 21:43:54

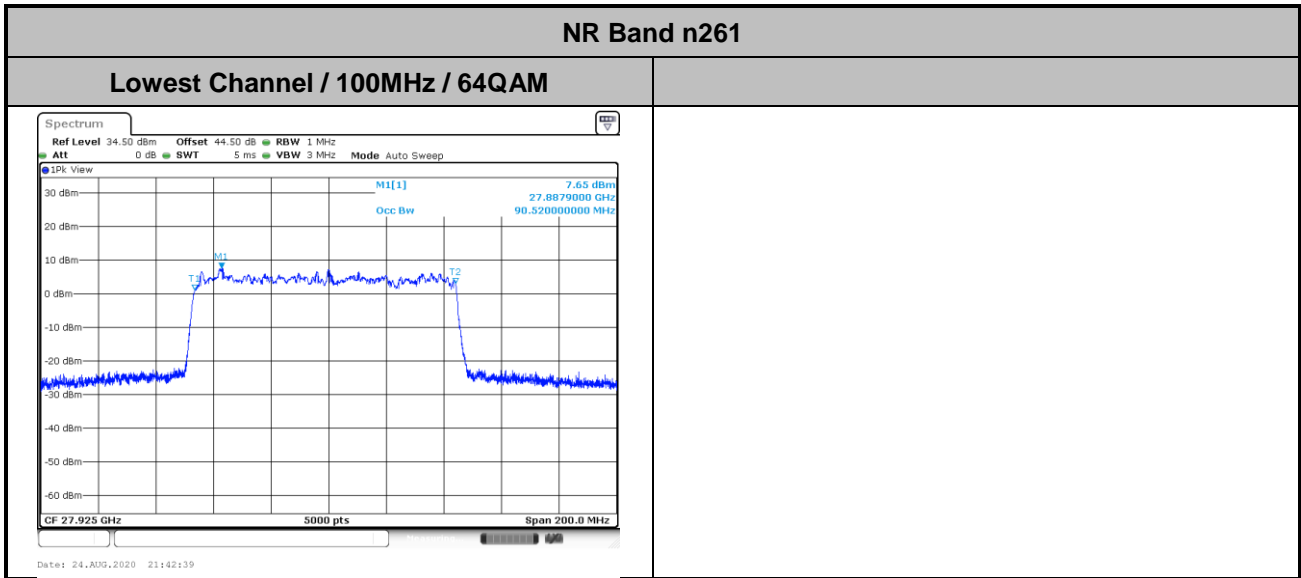
Highest Channel / 100MHz / QPSK



Date: 25_AUG.2020 03:33:10



DFT-s-OFDM Module 0

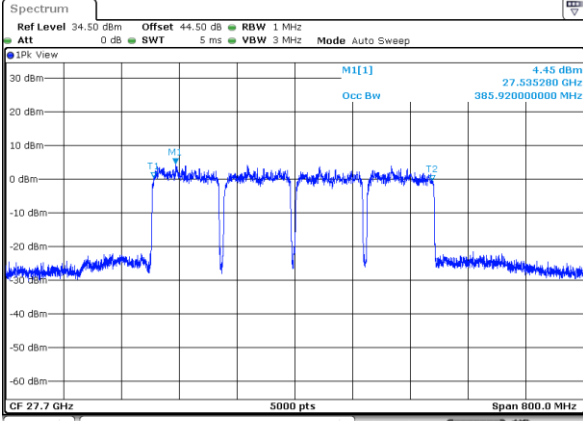




DFT-s-OFDM Module 0

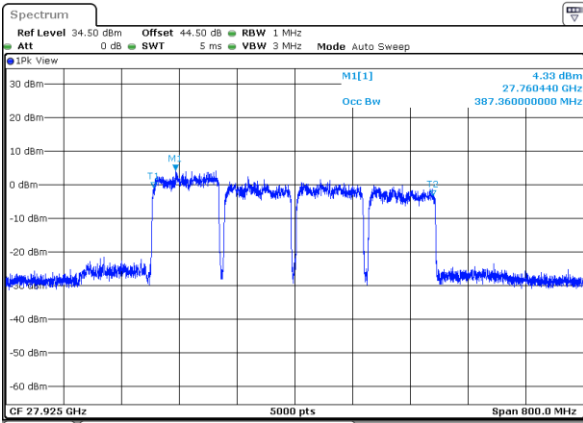
NR Band n261

Lowest Channel / 400MHz / QPSK



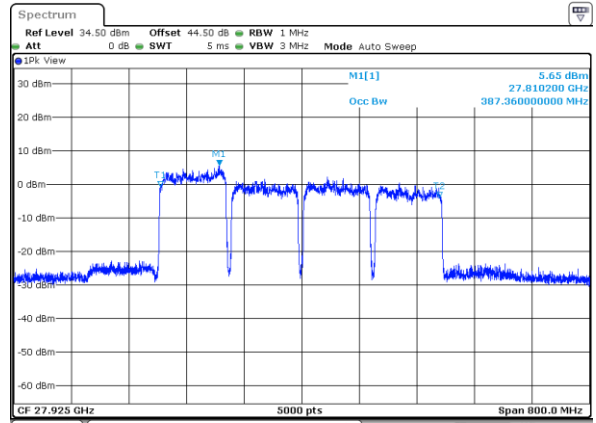
Date: 31.AUG.2020 15:50:14

Middle Channel / 400MHz / QPSK



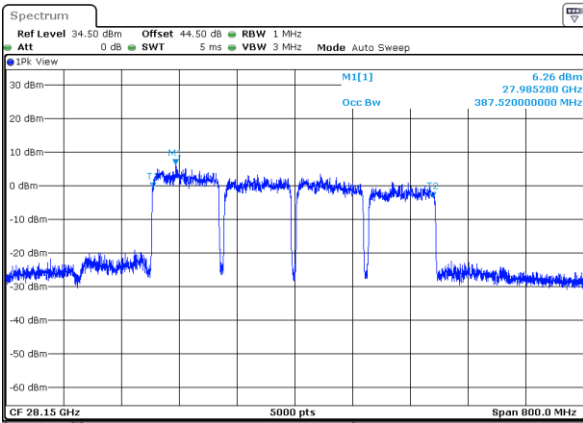
Date: 31.AUG.2020 16:56:06

Middle Channel / 400MHz / 16QAM



Date: 31.AUG.2020 16:56:22

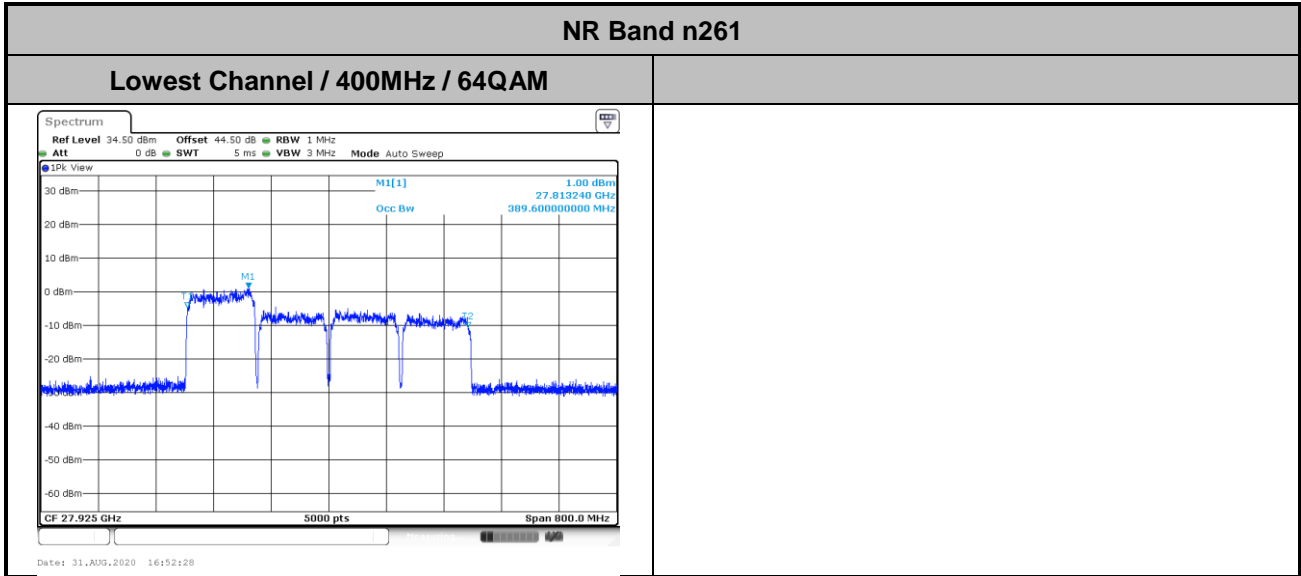
Highest Channel / 400MHz / QPSK



Date: 31.AUG.2020 17:57:01



DFT-s-OFDM Module 0

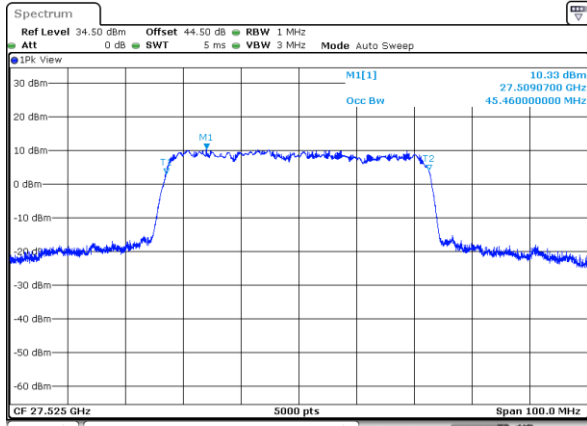




CP-OFDM Module 0

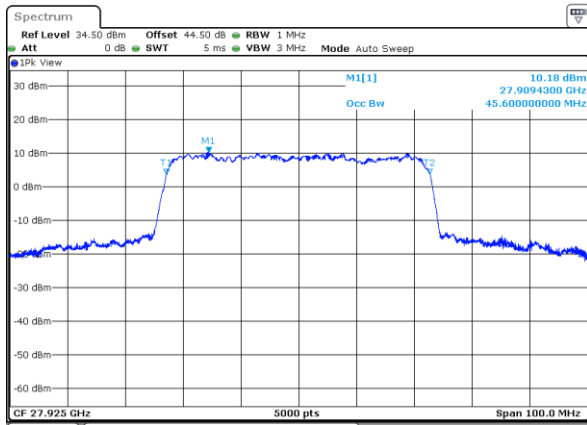
NR Band n261

Lowest Channel / 50MHz / QPSK



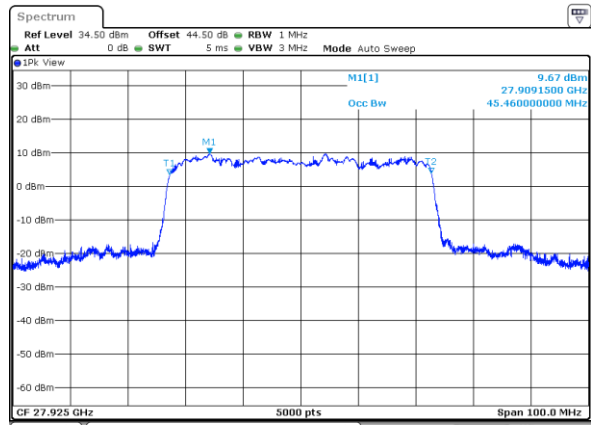
Date: 24.AUG.2020 22:56:11

Middle Channel / 50MHz / QPSK



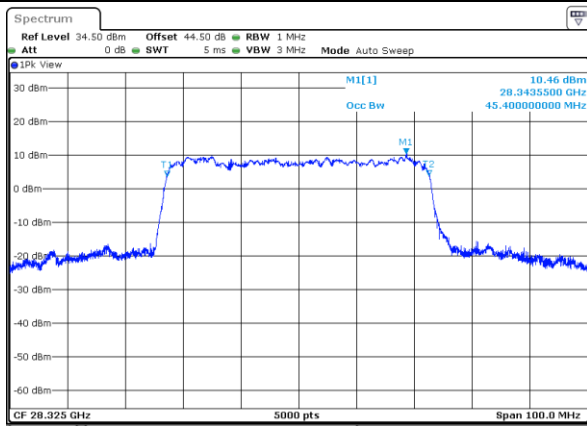
Date: 24.AUG.2020 22:23:45

Middle Channel / 50MHz / 16QAM



Date: 24.AUG.2020 22:19:50

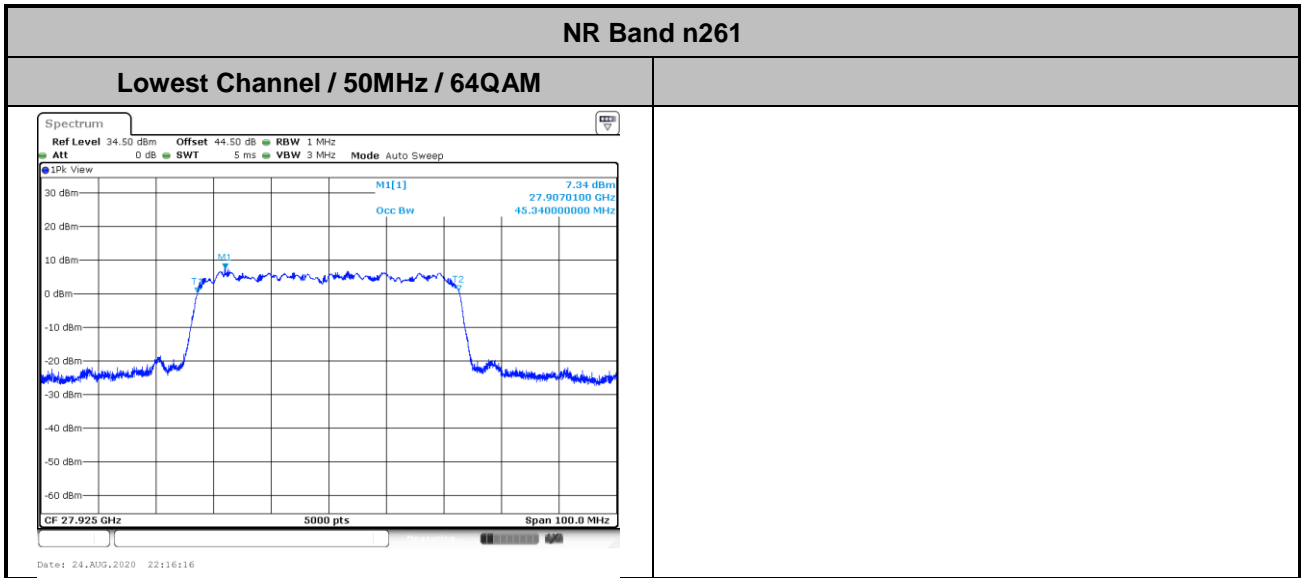
Highest Channel / 50MHz / QPSK



Date: 25.AUG.2020 03:02:43



CP-OFDM Module 0

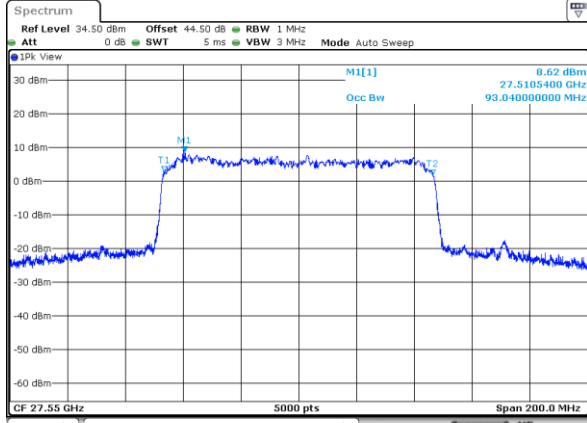




CP-OFDM Module 0

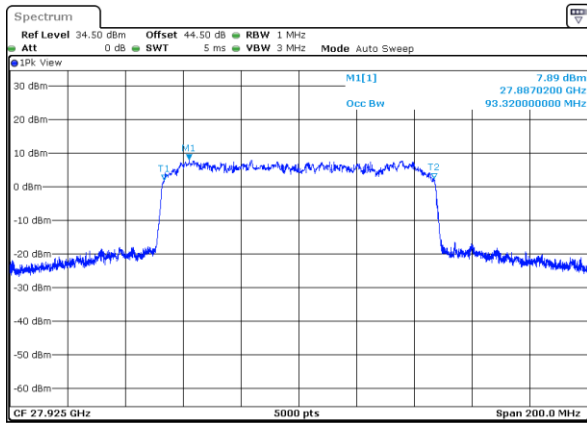
NR Band n261

Lowest Channel / 100MHz / QPSK



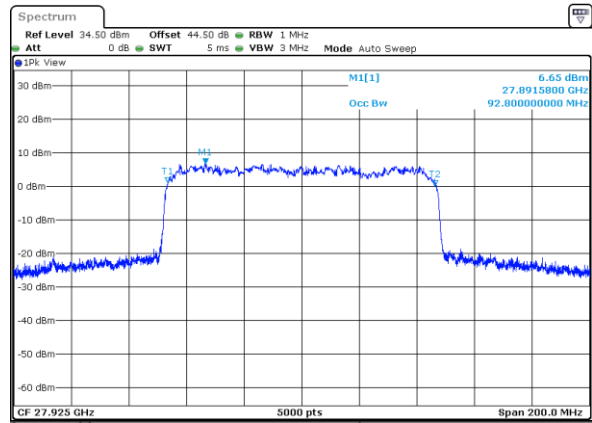
Date: 25_AUG.2020 00:43:35

Middle Channel / 100MHz / QPSK



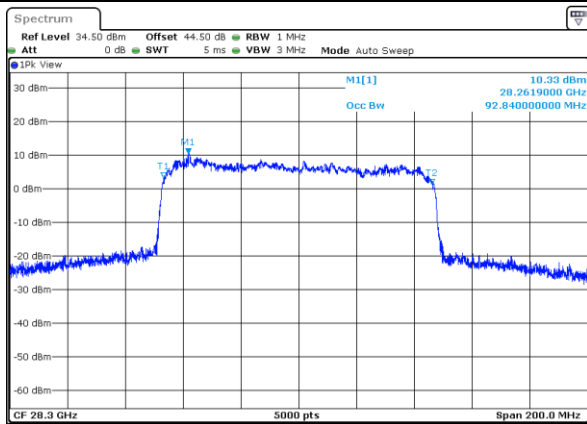
Date: 24_AUG.2020 21:54:43

Middle Channel / 100MHz / 16QAM



Date: 24_AUG.2020 21:53:55

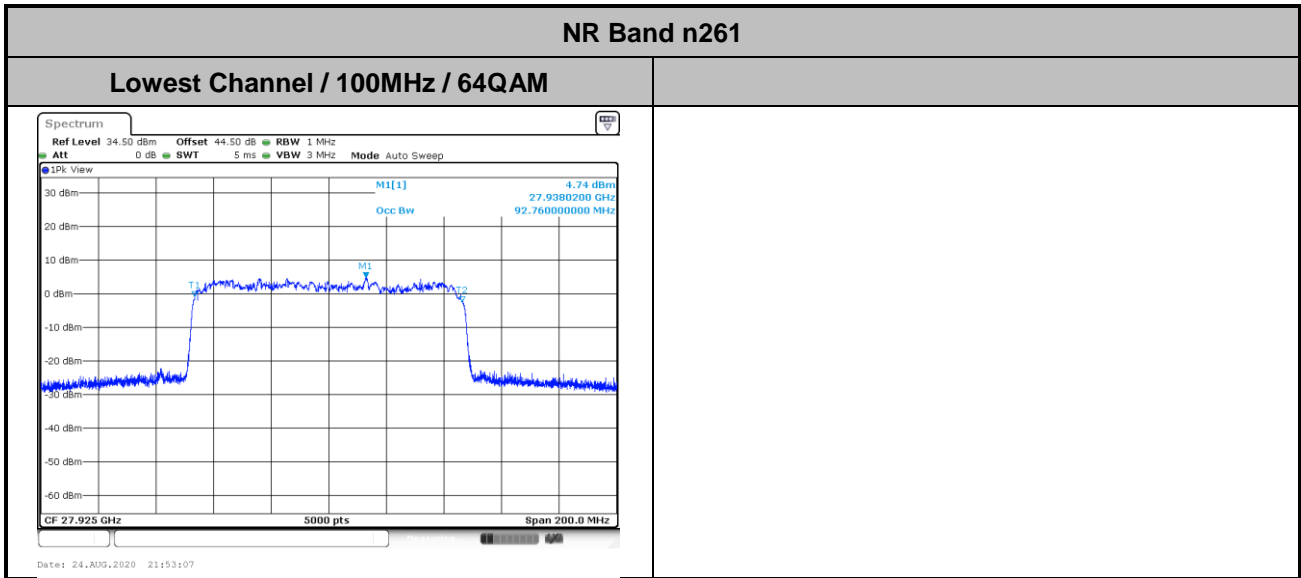
Highest Channel / 50MHz / QPSK



Date: 25_AUG.2020 03:51:18



CP-OFDM Module 0

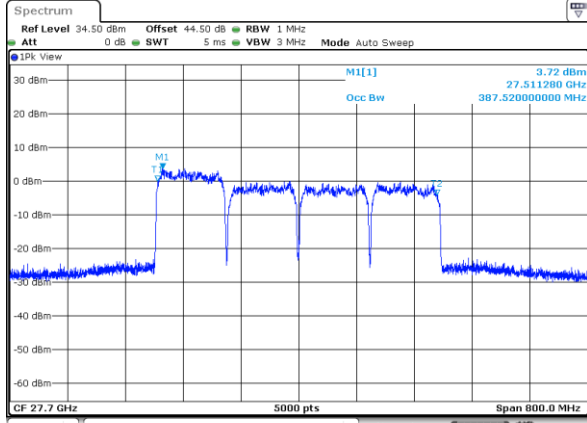




CP-OFDM Module 0

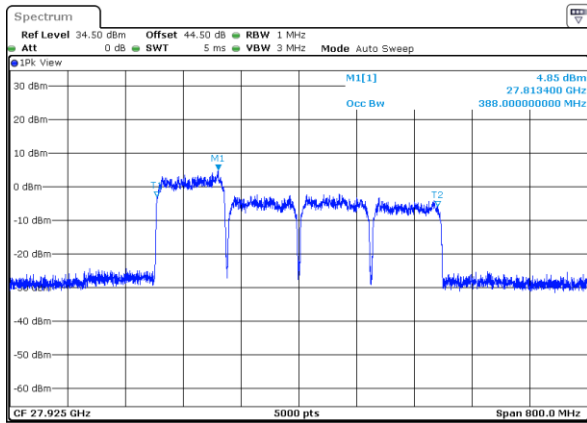
NR Band n261

Lowest Channel / 400MHz / QPSK



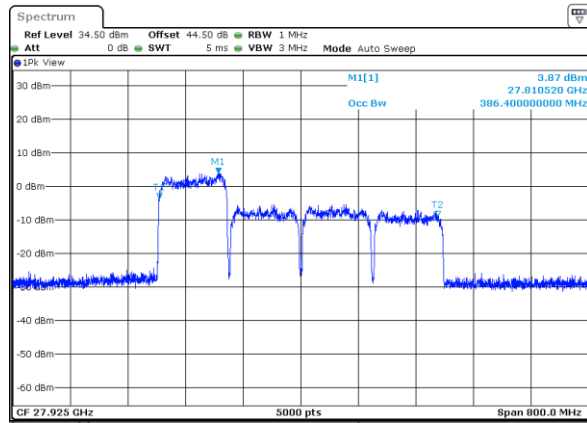
Date: 31.AUG.2020 15:48:46

Middle Channel / 400MHz / QPSK



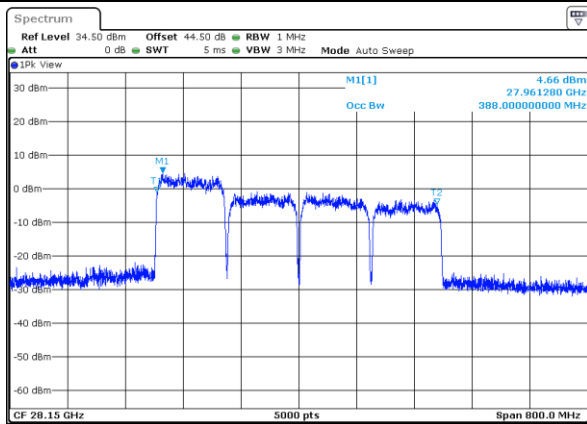
Date: 31.AUG.2020 16:47:09

Middle Channel / 400MHz / 16QAM



Date: 31.AUG.2020 16:49:16

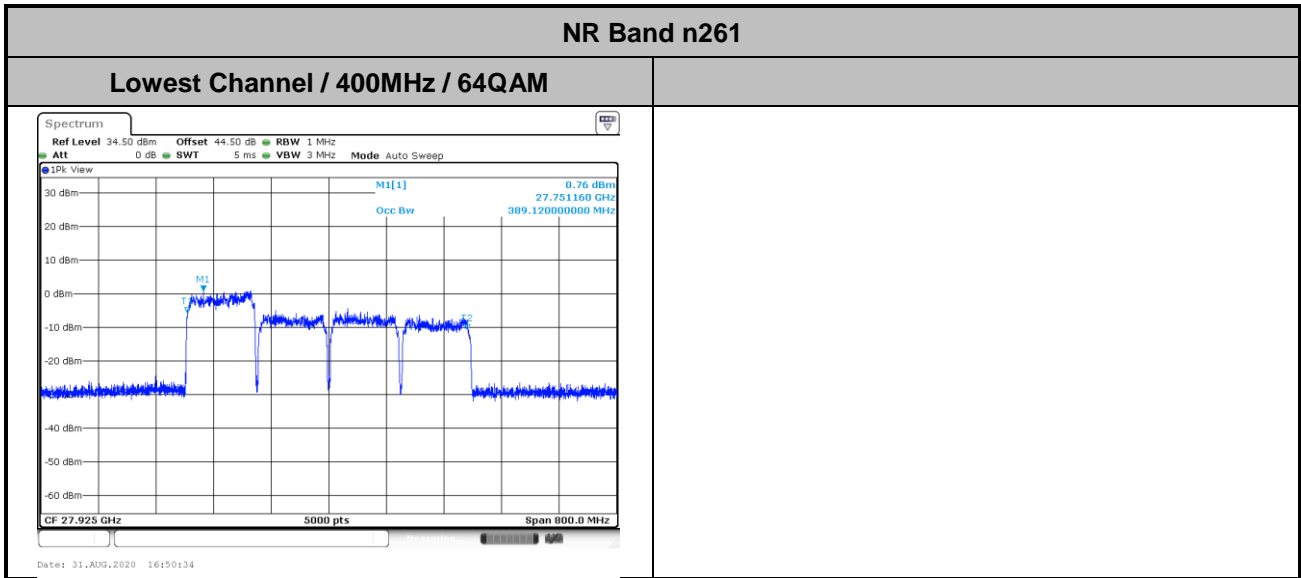
Highest Channel / 400MHz / QPSK



Date: 31.AUG.2020 18:01:04



CP-OFDM Module 0





Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module 0 NR Band n261 : BE (dBm) 1 RB		
BW			50MHz	100MHz	400MHz
Limit (dBm)			QPSK	QPSK	QPSK
Low CH	0~10%OB	≤ -5	-12.94	-15.32	-22.79
	>10%OB	≤ -13	-30.52	-30.88	-26.14
High CH	0~10%OB	≤ -5	-15.37	-15.3	-32.64
	>10%OB	≤ -13	-33.51	-33.78	-31.46
Result			Compliance		

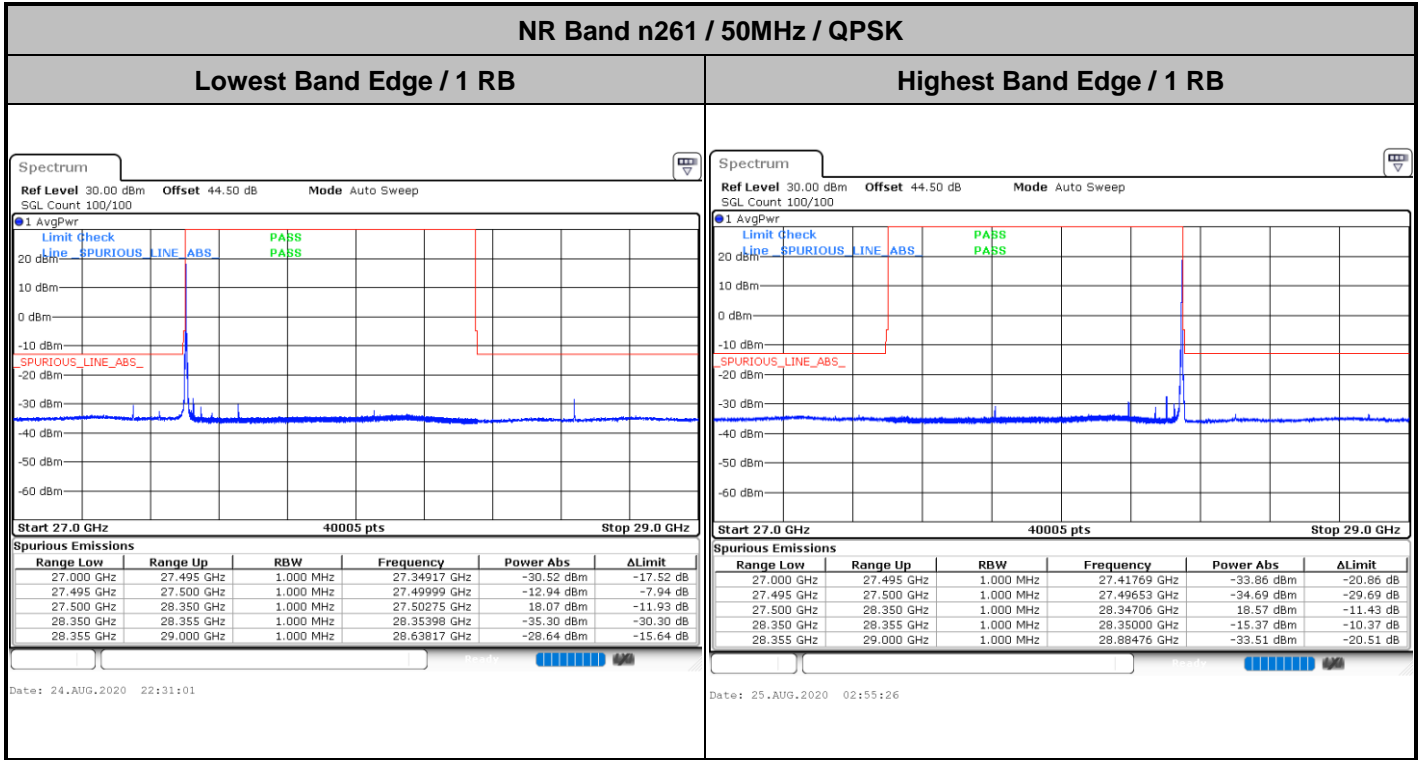
Mode			CP-OFDM Module 0 NR Band n261 : BE (dBm) 1 RB		
BW			50MHz	100MHz	400MHz
Limit (dBm)			QPSK	QPSK	QPSK
Low CH	0~10%OB	≤ -5	-15.1	-18.16	-23.02
	>10%OB	≤ -13	-32.11	-31.77	-24.96
High CH	0~10%OB	≤ -5	-18.71	-17.26	-32.81
	>10%OB	≤ -13	-34	-34.08	-32.29
Result			Compliance		

Mode			DFT-s-OFDM Module 0 NR Band n261 : BE (dBm) Full RB		
BW			50MHz	100MHz	400MHz
Limit (dBm)			QPSK	QPSK	QPSK
Low CH	0~10%OB	≤ -5	-25.05	-29.16	-30.64
	>10%OB	≤ -13	-27.62	-30.39	-31.02
High CH	0~10%OB	≤ -5	-25.43	-29.22	-32.05
	>10%OB	≤ -13	-32.28	-34.36	-33.00
Result			Compliance		

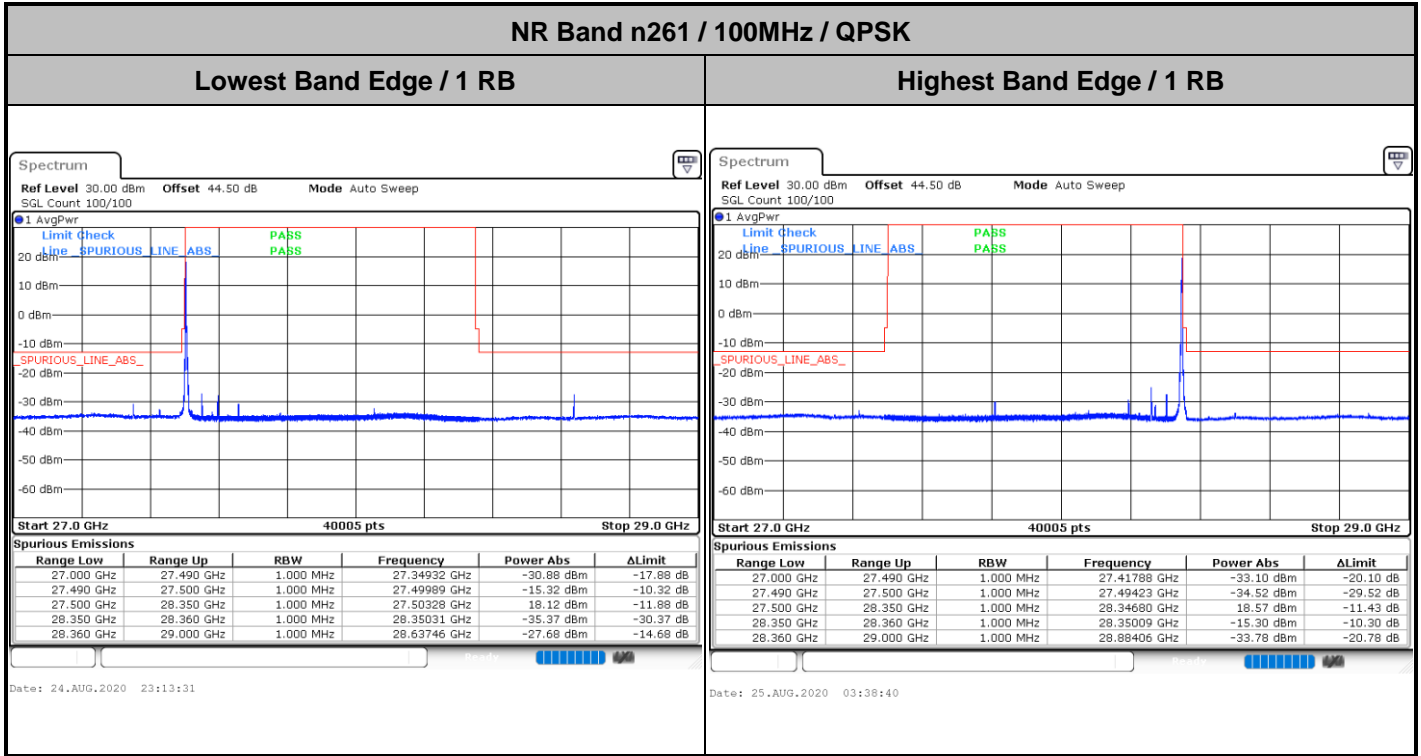
Mode			CP-OFDM Module 0 NR Band n261 : BE (dBm) Full RB		
BW			50MHz	100MHz	400MHz
Limit (dBm)			QPSK	QPSK	QPSK
Low CH	0~10%OB	≤ -5	-25.25	-28.52	-32.08
	>10%OB	≤ -13	-27.59	-29.94	-32.66
High CH	0~10%OB	≤ -5	-24.75	-28.35	-33.96
	>10%OB	≤ -13	-32.82	-34.36	-33.05
Result			Compliance		



DFT-s-OFDM Module 0

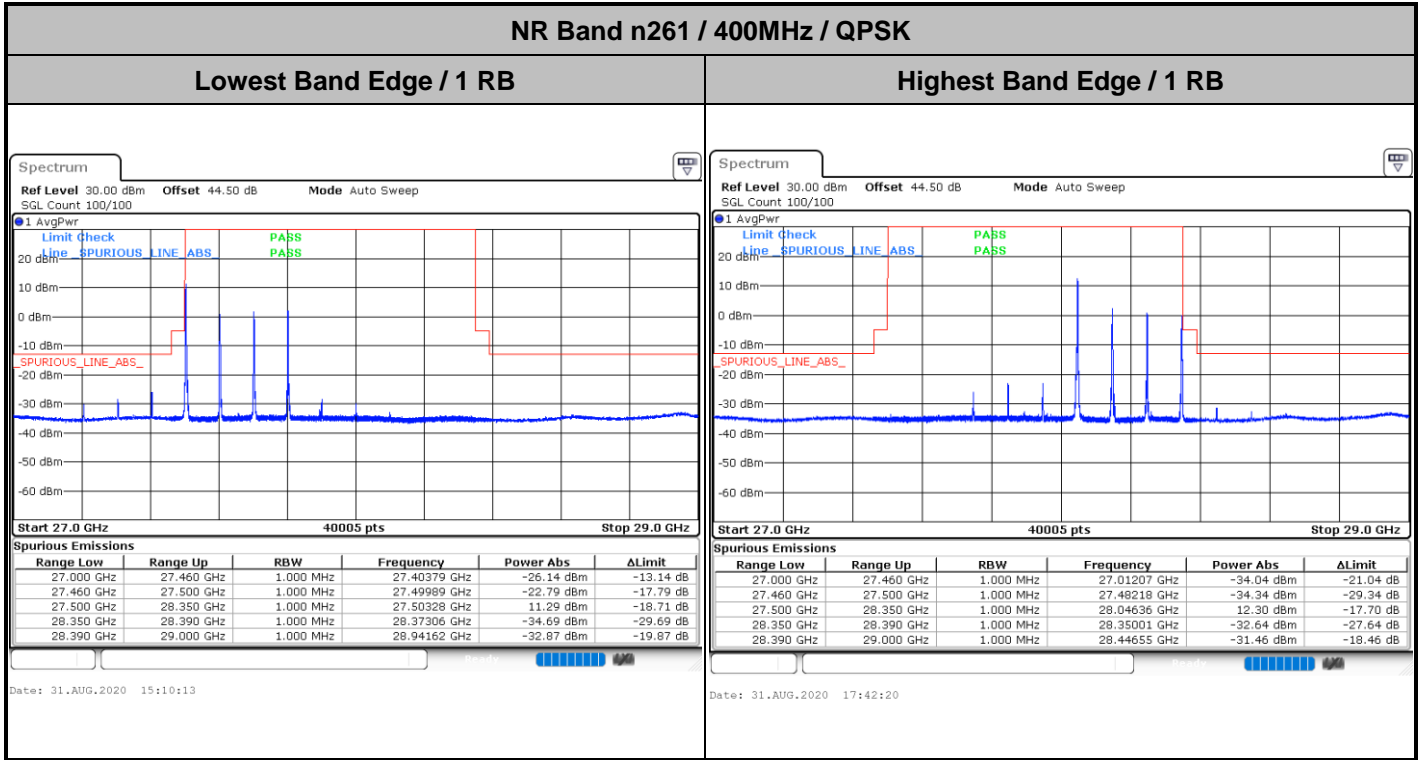


DFT-s-OFDM Module 0

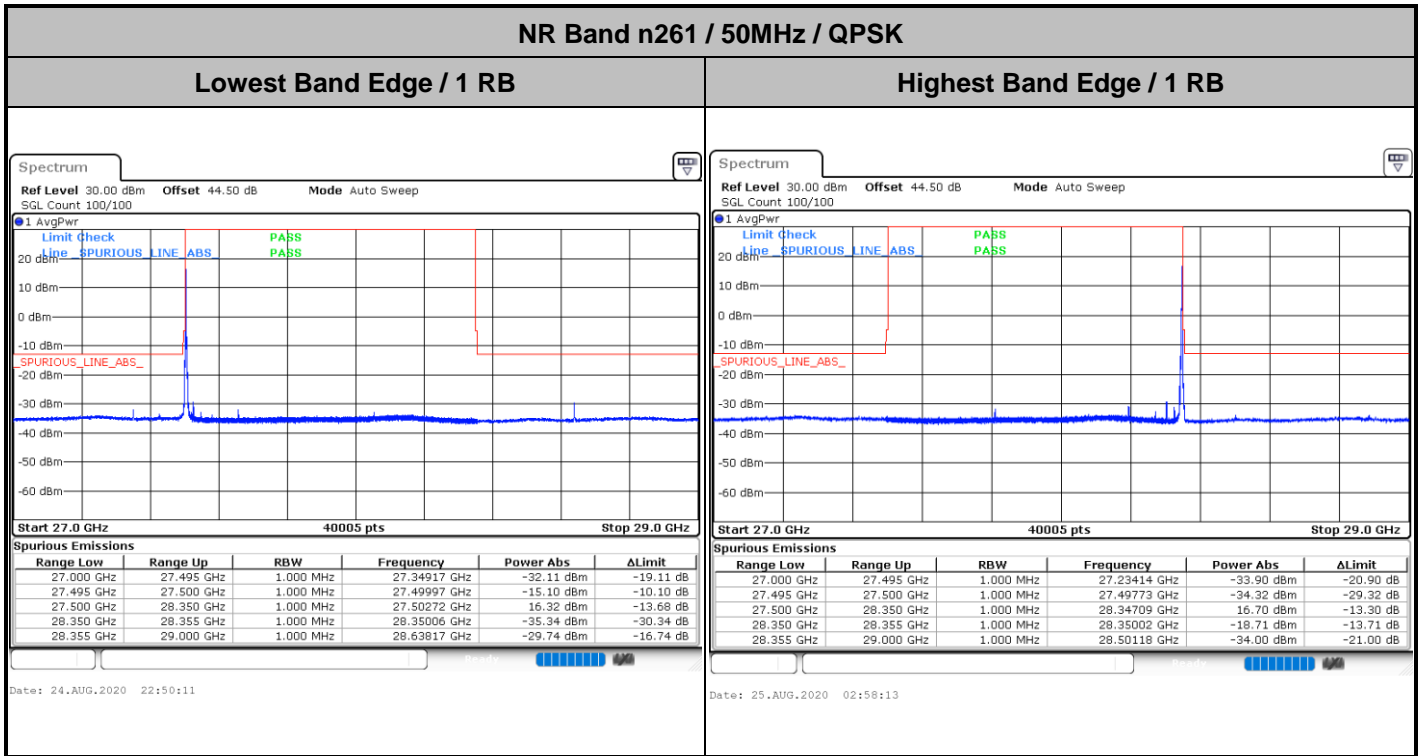




DFT-s-OFDM Module 0

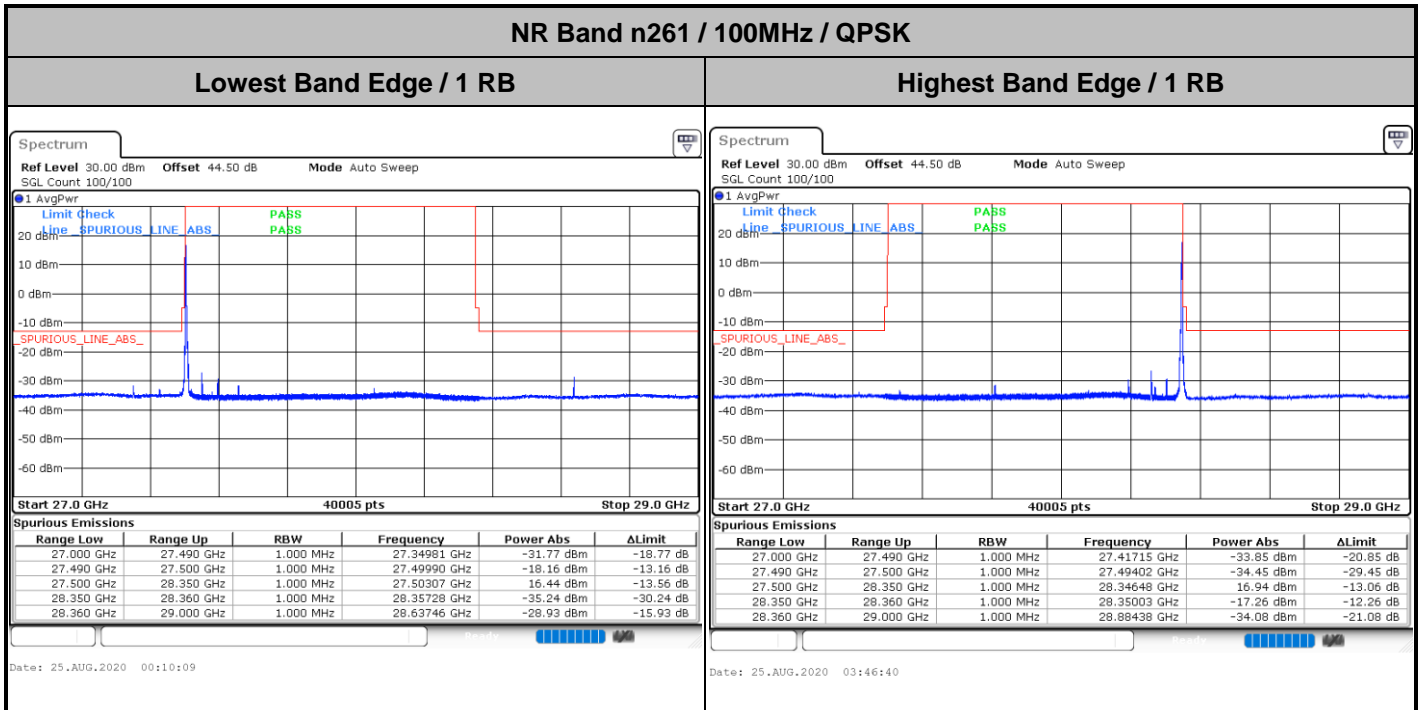


CP-OFDM Module 0

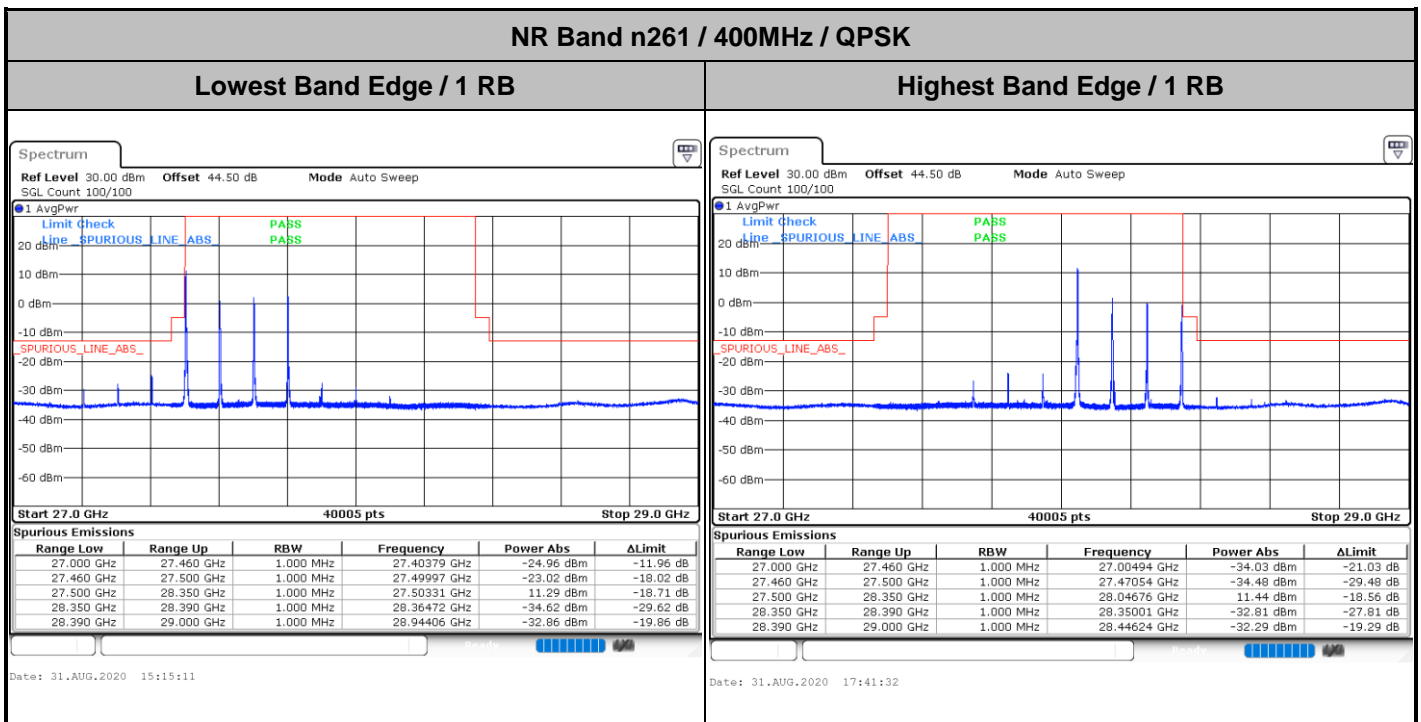




CP-OFDM Module 0

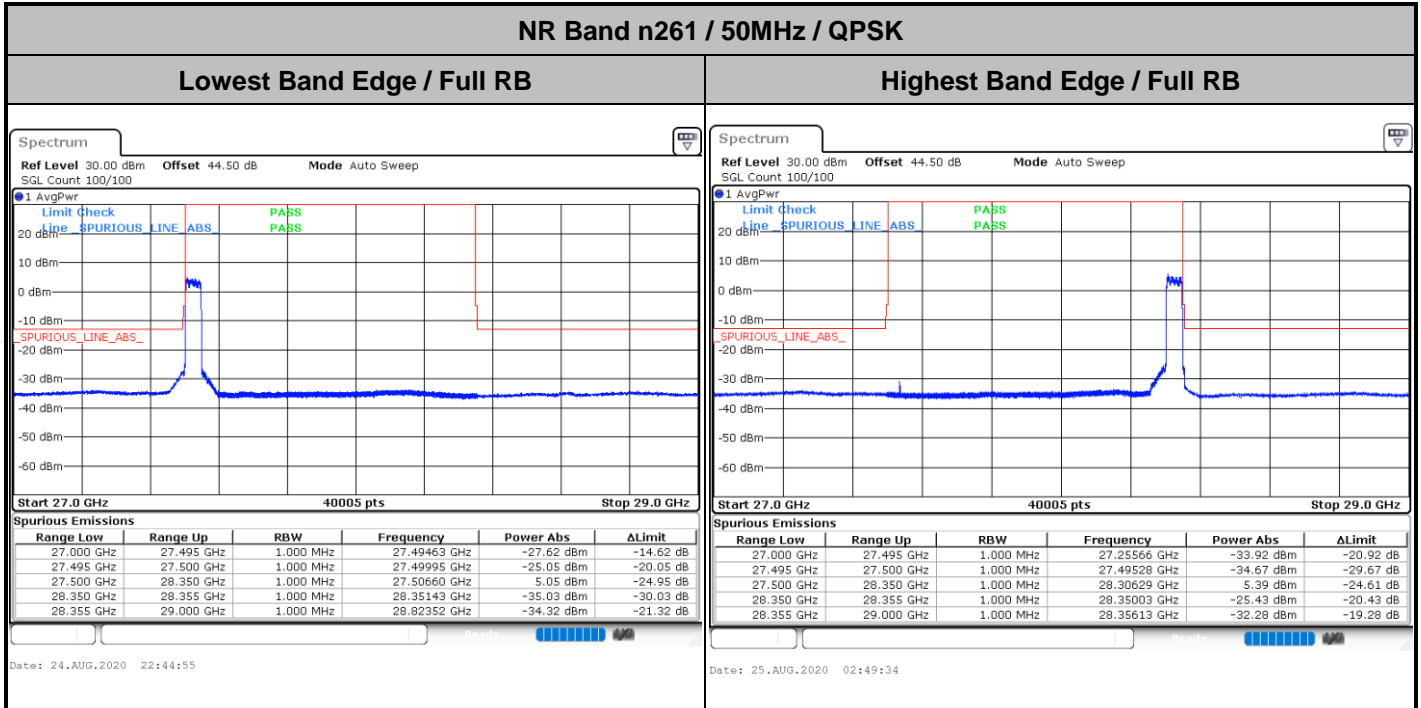


CP-OFDM Module 0

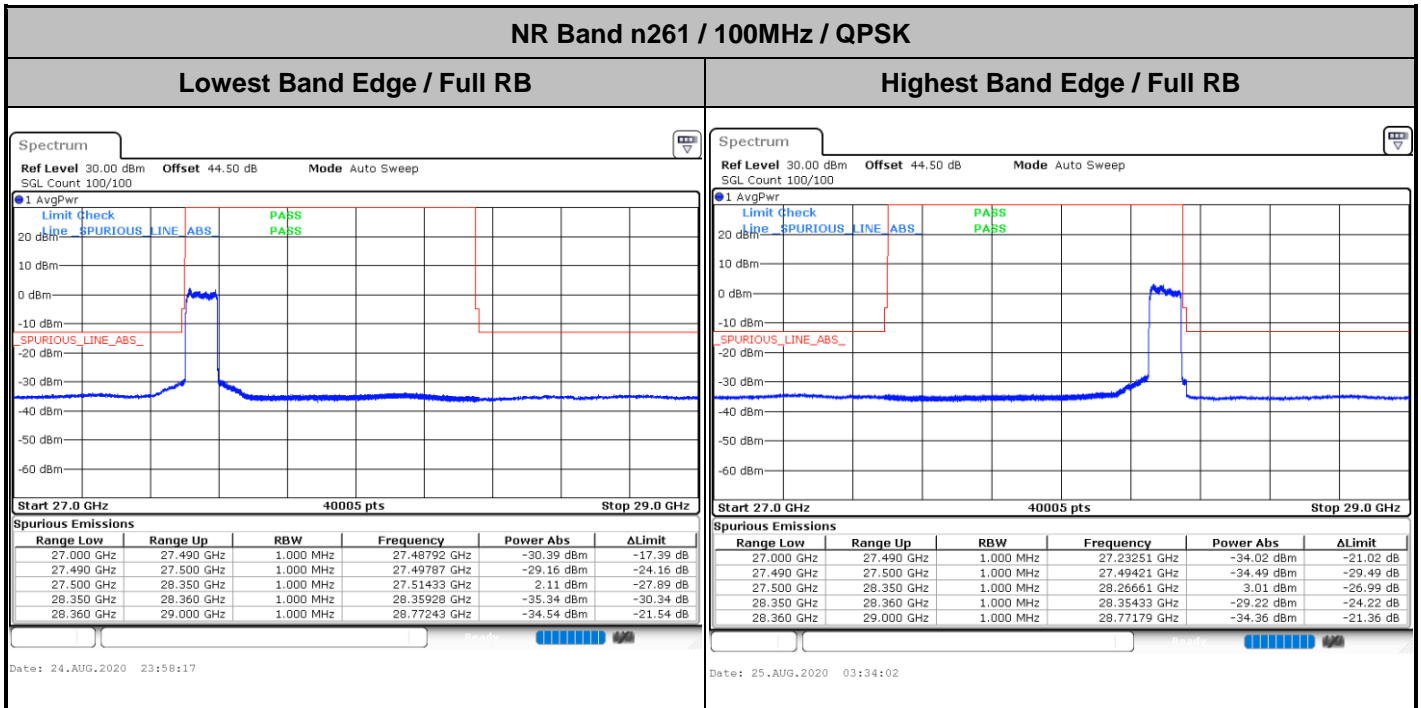




DFT-s-OFDM Module 0

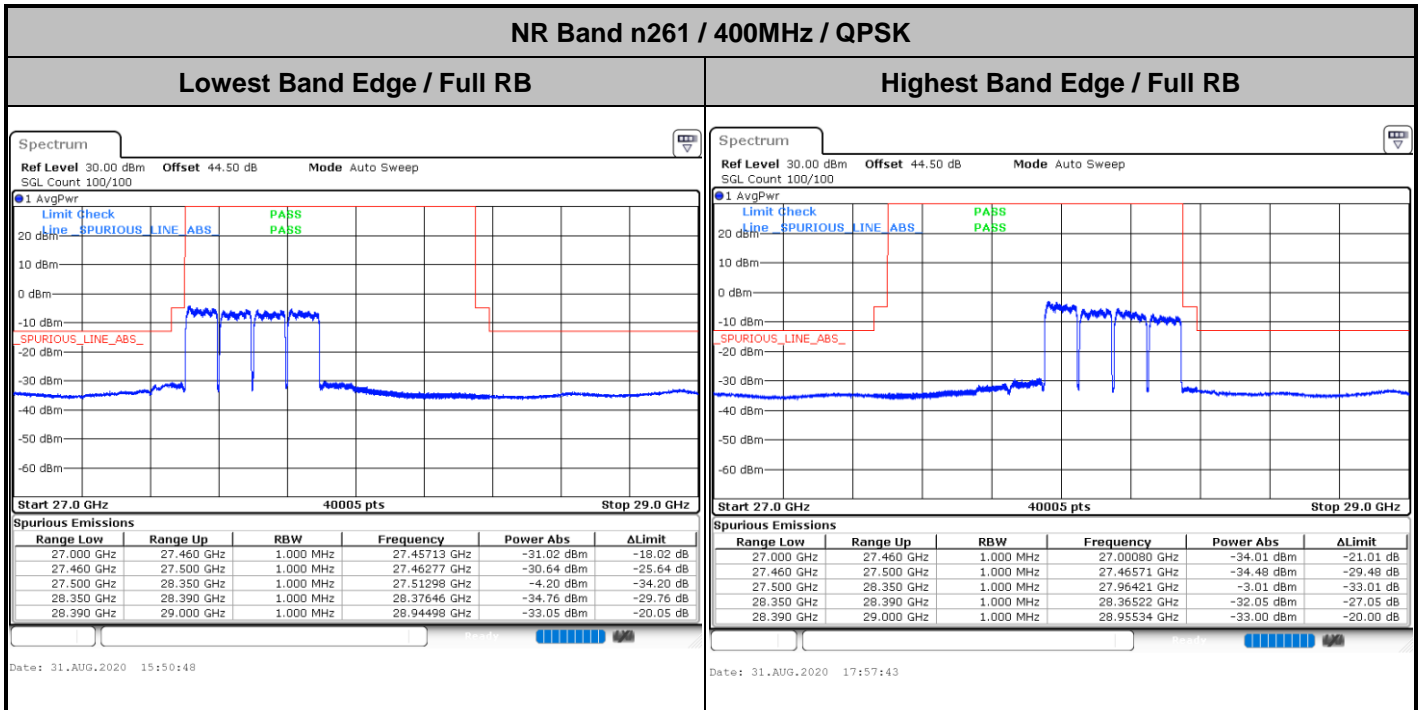


DFT-s-OFDM Module 0

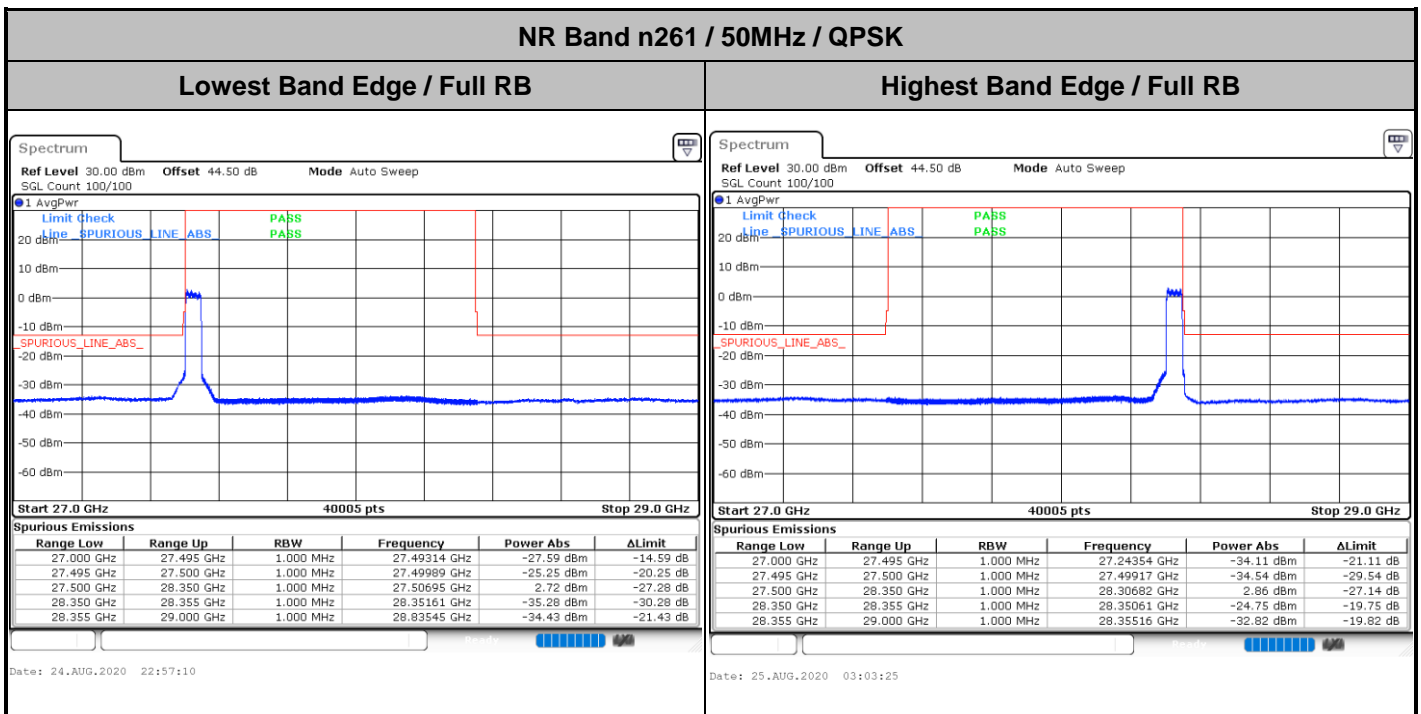




DFT-s-OFDM Module 0

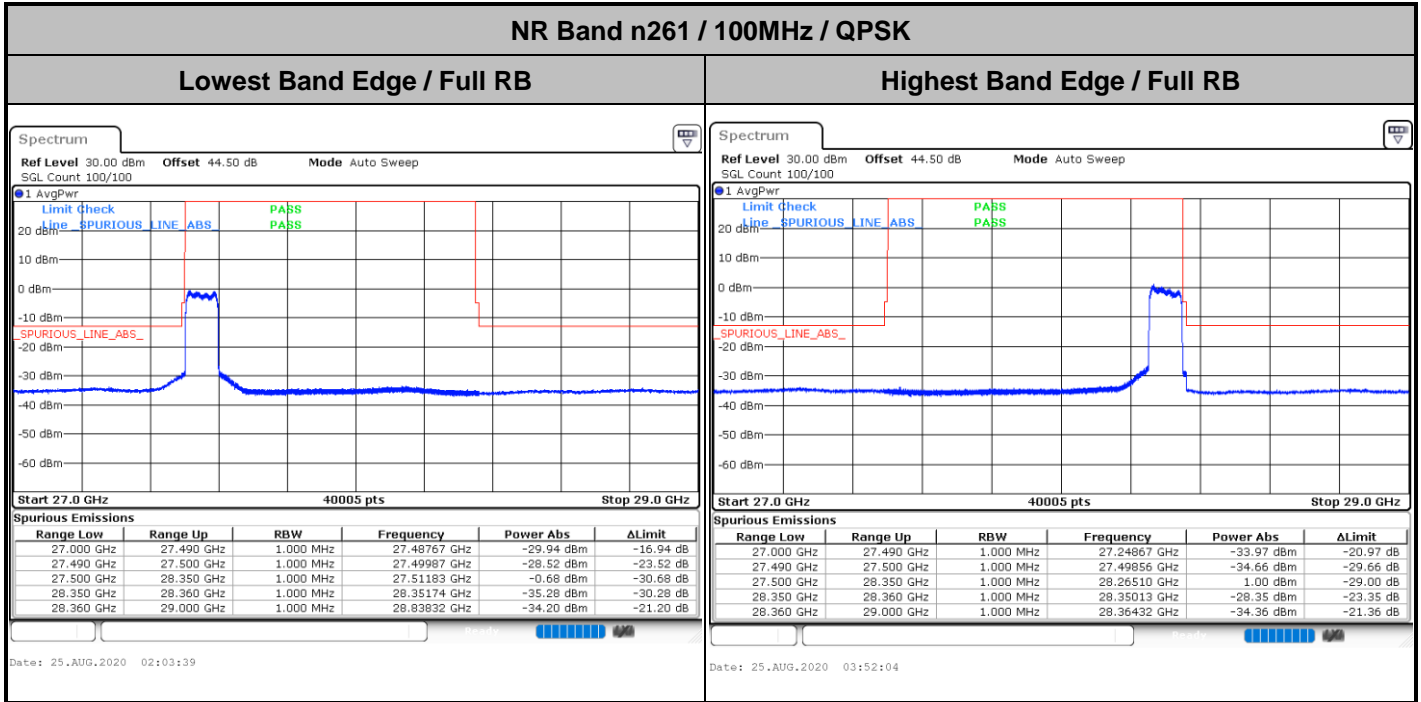


CP-OFDM Module 0

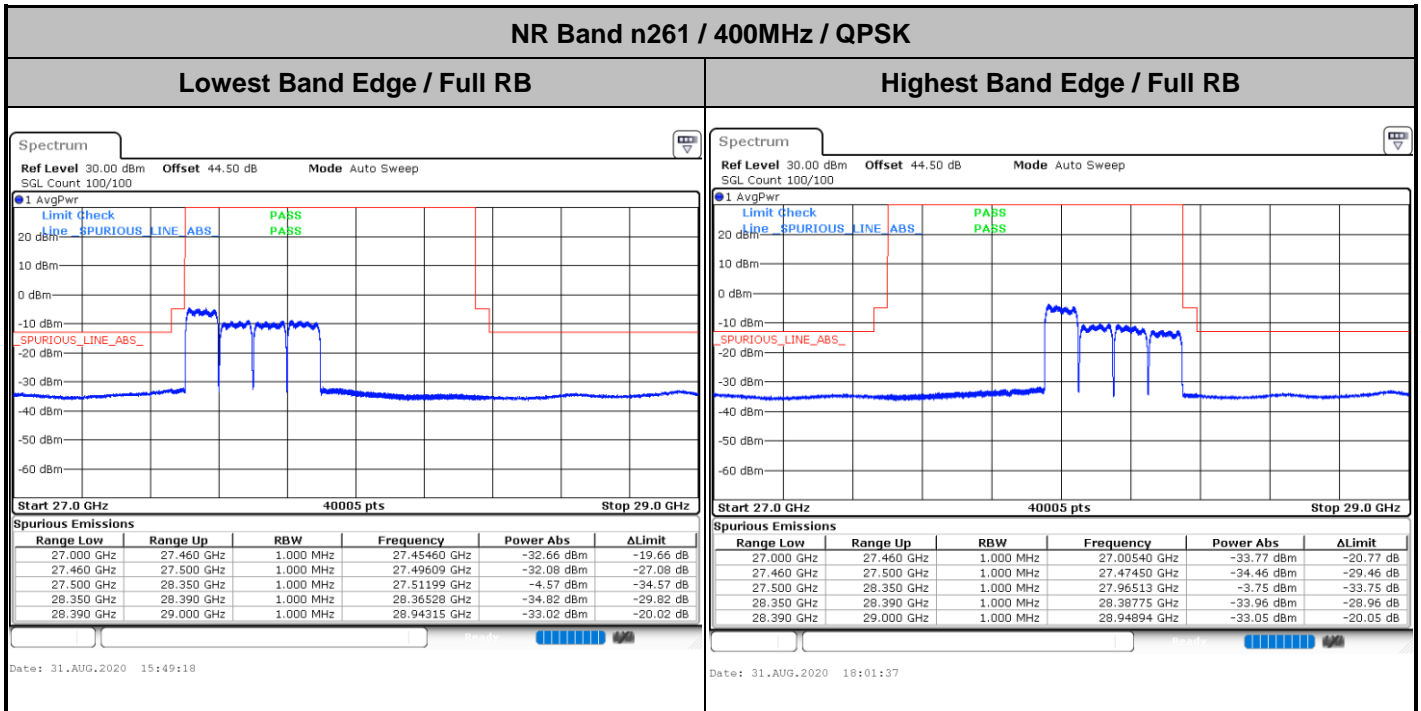




CP-OFDM Module 0



CP-OFDM Module 0





Spurious Emission

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

