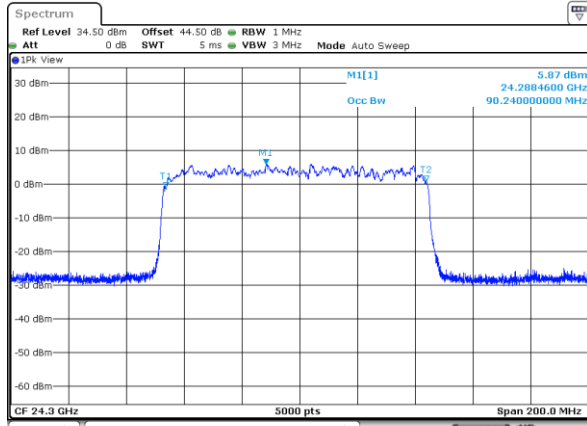




DFT-s-OFDM Module 1

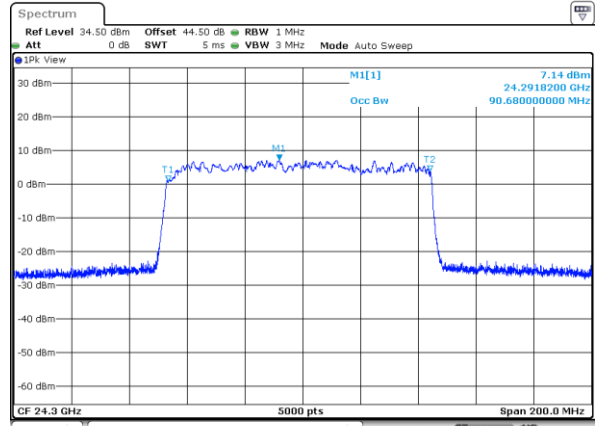
NR Band n258a

Lowest Channel / 100MHz / BPSK



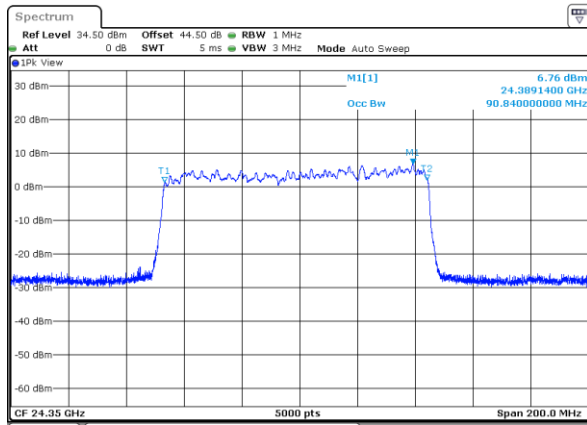
Date: 25.JUL.2020 05:00:27

Lowest Channel / 100MHz / QPSK



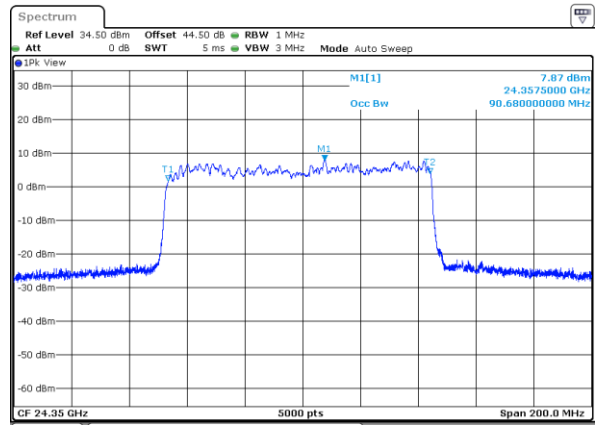
Date: 25.JUL.2020 04:56:23

Middle Channel / 100MHz / BPSK



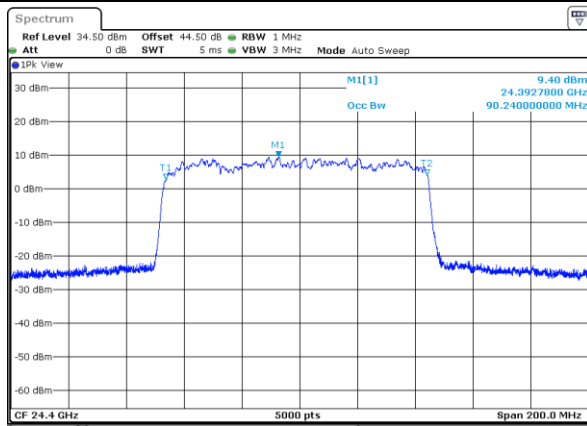
Date: 25.JUL.2020 06:17:26

Middle Channel / 100MHz / QPSK



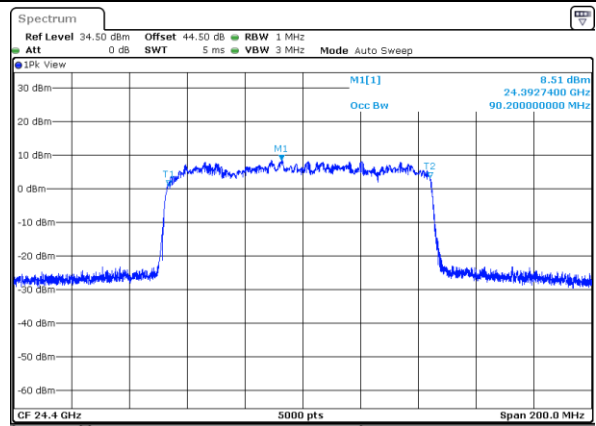
Date: 25.JUL.2020 06:14:31

Highest Channel / 100MHz / BPSK



Date: 25.JUL.2020 19:57:51

Highest Channel / 100MHz / QPSK



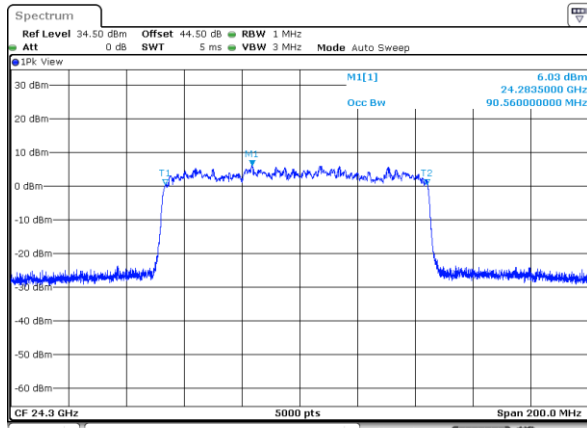
Date: 25.JUL.2020 14:20:03



DFT-s-OFDM Module 1

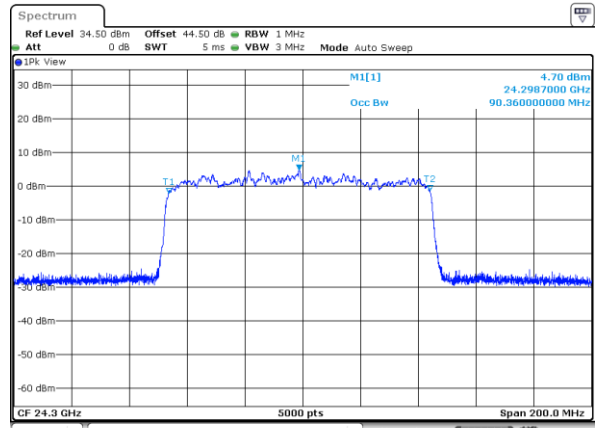
NR Band n258a

Lowest Channel / 100MHz / 16QAM



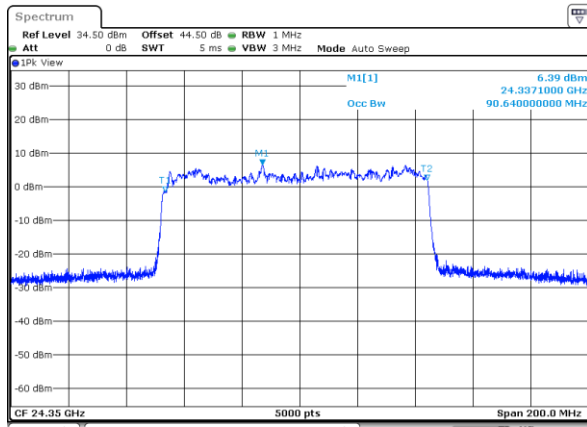
Date: 25.JUL.2020 04:57:40

Lowest Channel / 100MHz / 64QAM



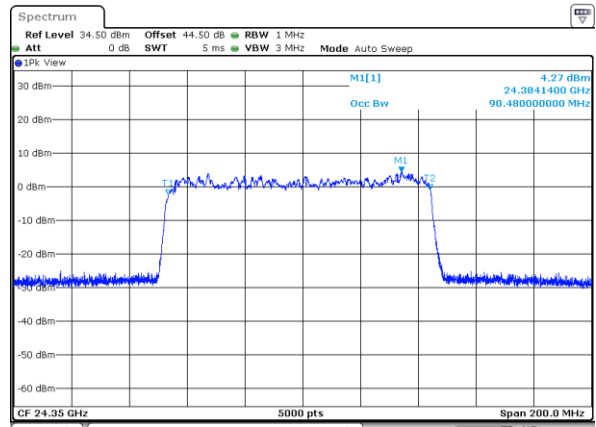
Date: 25.JUL.2020 04:59:03

Middle Channel / 100MHz / 16QAM



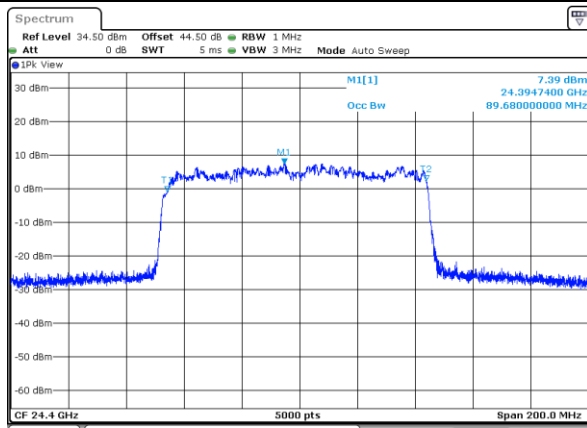
Date: 25.JUL.2020 06:35:19

Middle Channel / 100MHz / 64QAM



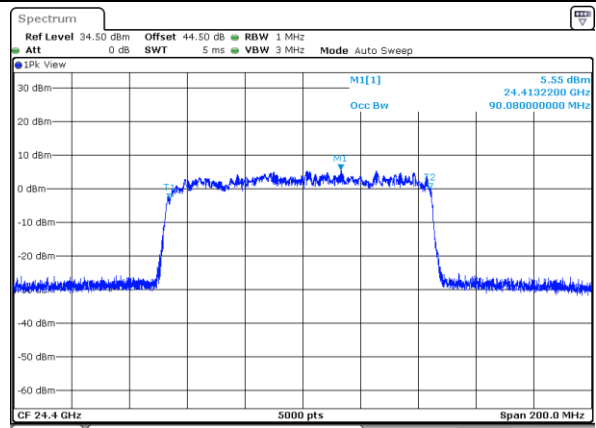
Date: 25.JUL.2020 06:36:03

Highest Channel / 100MHz / 16QAM



Date: 25.JUL.2020 14:19:01

Highest Channel / 100MHz / 64QAM



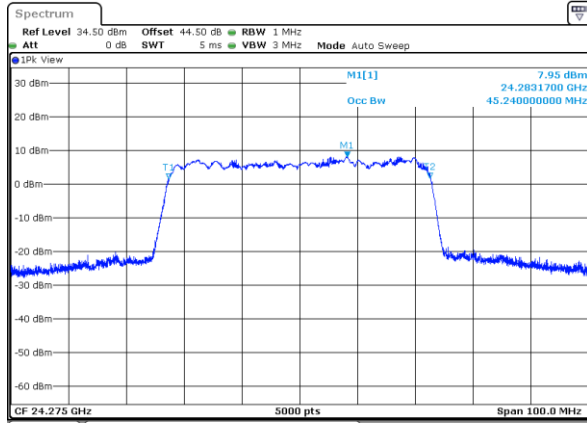
Date: 25.JUL.2020 14:14:33



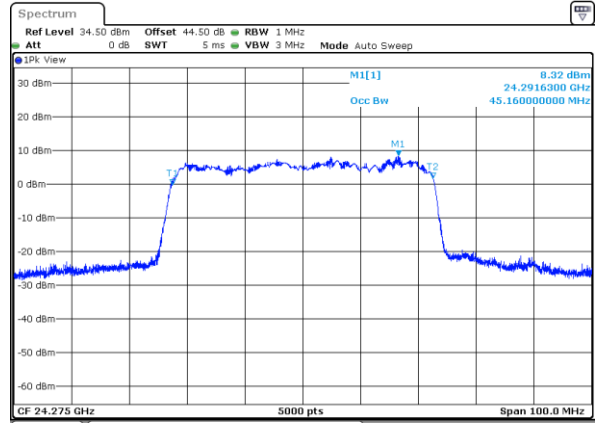
CP-OFDM Module 1

NR Band n258a

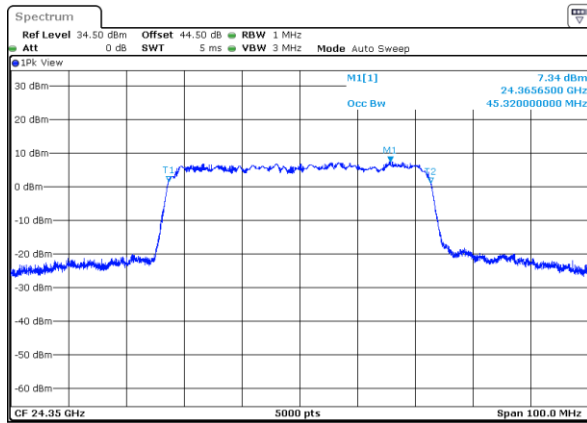
Lowest Channel / 50MHz / QPSK



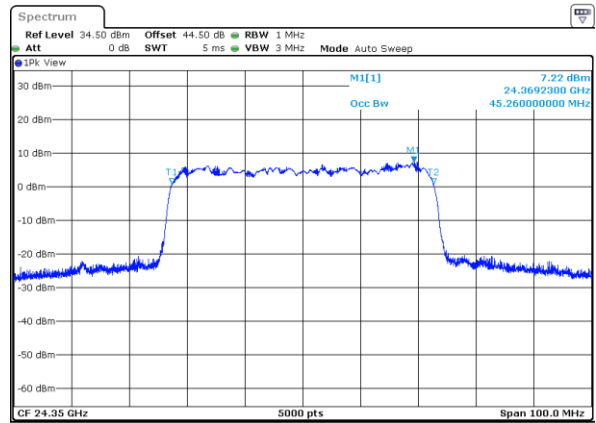
Lowest Channel / 50MHz / 16QAM



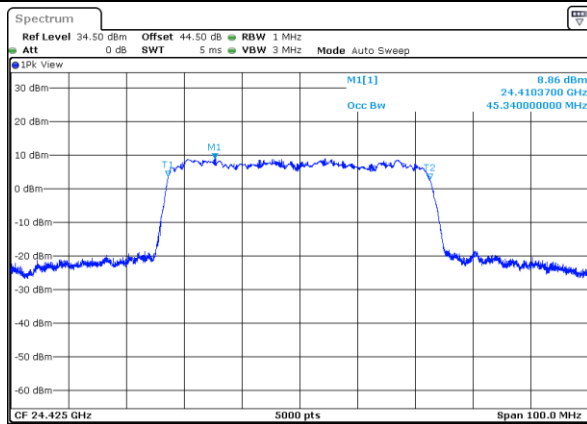
Middle Channel / 50MHz / QPSK



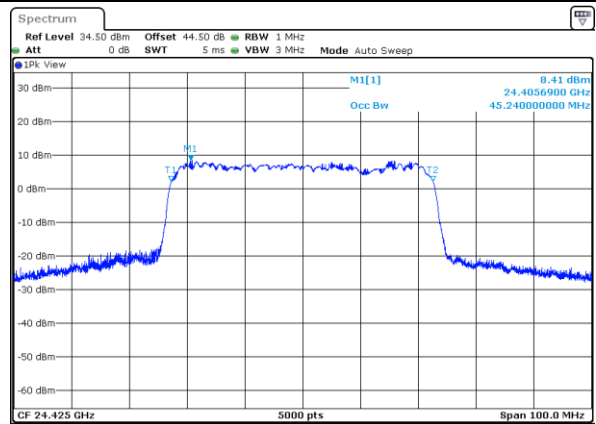
Middle Channel / 50MHz / 16QAM



Highest Channel / 50MHz / QPSK



Highest Channel / 50MHz / 16QAM

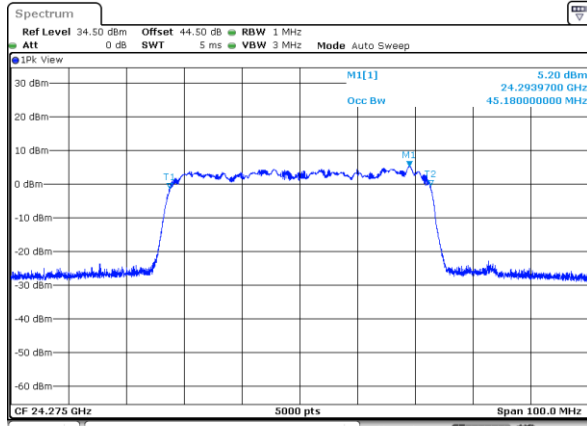




CP-OFDM Module 1

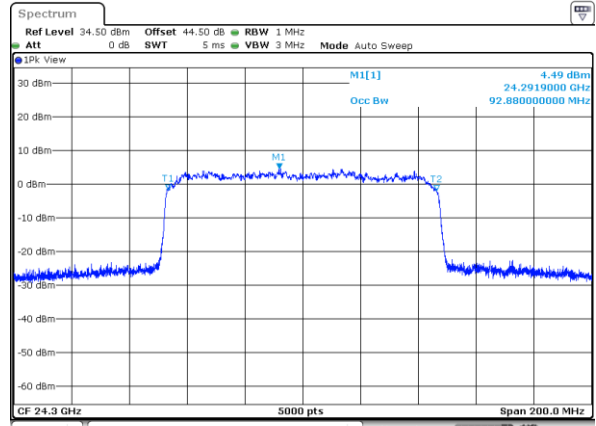
NR Band n258a

Lowest Channel / 50MHz / 64QAM



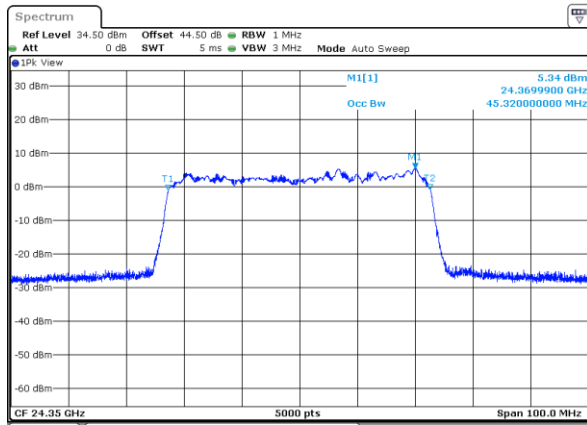
Date: 25.JUL.2020 04:28:47

Lowest Channel / 100MHz / QPSK



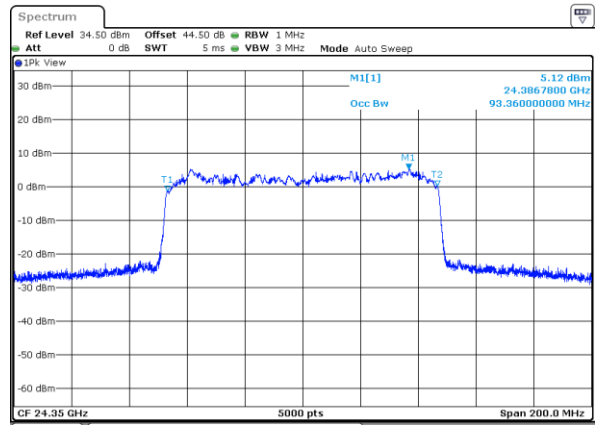
Date: 25.JUL.2020 05:13:06

Middle Channel / 50MHz / 64QAM



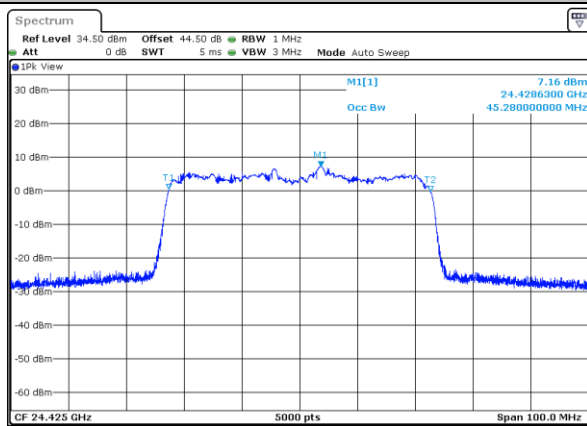
Date: 25.JUL.2020 06:16:20

Middle Channel / 100MHz / QPSK



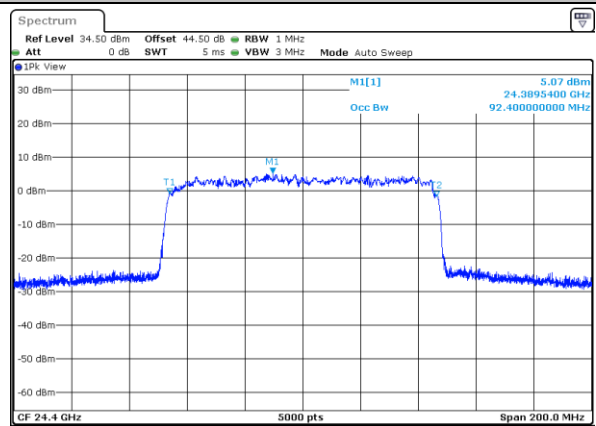
Date: 25.JUL.2020 06:46:26

Highest Channel / 50MHz / 64QAM



Date: 25.JUL.2020 13:35:39

Highest Channel / 100MHz / QPSK



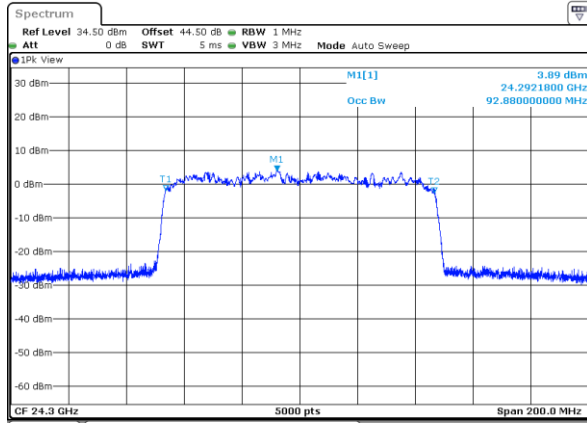
Date: 25.JUL.2020 19:06:27



CP-OFDM Module 1

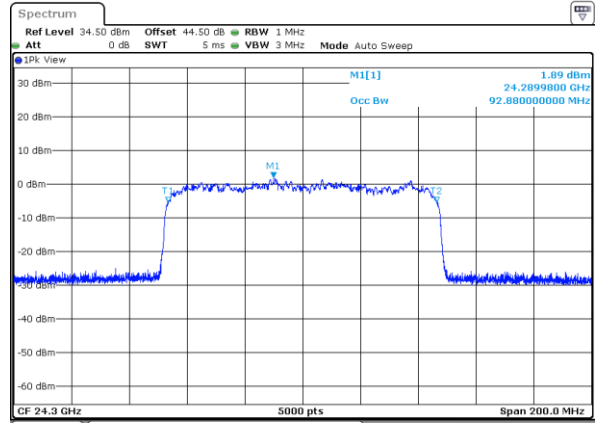
NR Band n258a

Lowest Channel / 100MHz / 16QAM



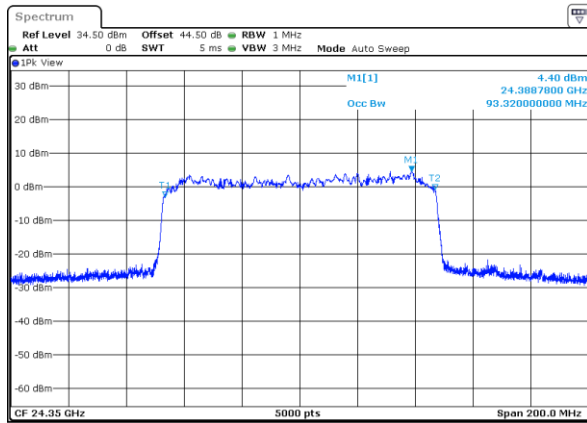
Date: 25.JUL.2020 05:14:33

Lowest Channel / 100MHz / 64QAM



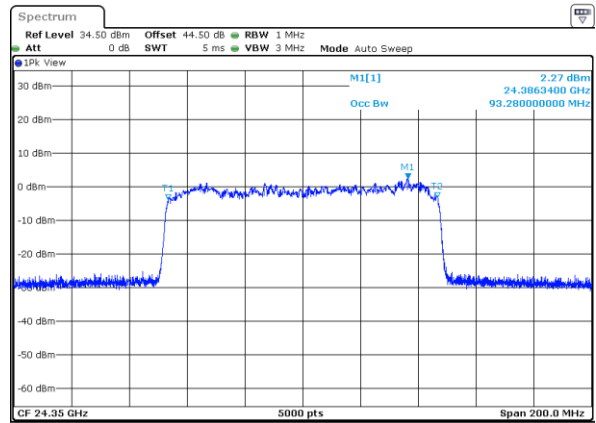
Date: 25.JUL.2020 05:16:02

Middle Channel / 100MHz / 16QAM



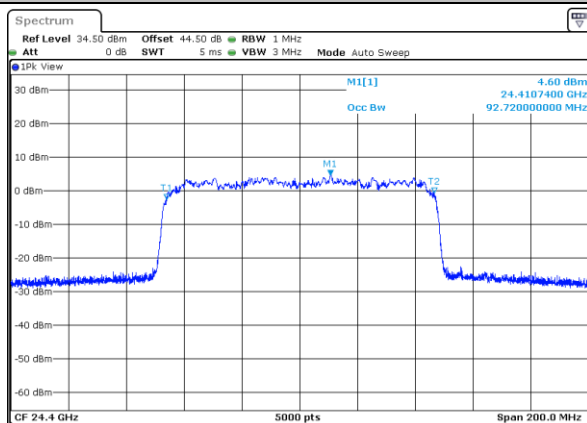
Date: 25.JUL.2020 06:47:30

Middle Channel / 100MHz / 64QAM



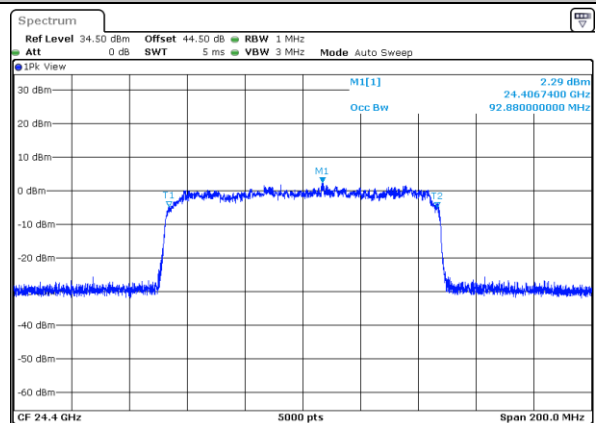
Date: 25.JUL.2020 06:48:20

Highest Channel / 100MHz / 16QAM



Date: 25.JUL.2020 19:10:48

Highest Channel / 100MHz / 64QAM



Date: 25.JUL.2020 19:12:04

Radiated Out of Band Emissions

Mode			DFT-s-OFDM Module 1 NR Band n258a: BE (dBm) 1 RB							
BW			50MHz				100MHz			
Limit (dBm)			BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-20.94	-22.2	-21.27	-24.52	-24.12	-23.57	-24.17	-25.96
	>10%OB	≤ -13	-34.38	-33.98	-34.32	-34.66	-34.5	-34.6	-34.73	-34.89
High CH	0~10%OB	≤ -5	-20.80	-19.06	-22.11	-23.50	-25.45	-23.73	-23.15	-26.74
	>10%OB	≤ -13	-34.58	-34.32	-34.76	-34.90	-35.07	-35.14	-35.21	-35.09
Result			Compliance							

Mode			CP-OFDM Module 1 NR Band n258a: BE (dBm) 1 RB					
BW			50MHz			100MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-22.6	-24.63	-26.43	-25.32	-24.6	-28.99
	>10%OB	≤ -13	-34.63	-34.76	-34.71	-34.75	-34.7	-34.79
High CH	0~10%OB	≤ -5	-21.57	-27.93	-27.08	-23.59	-24.99	-27.98
	>10%OB	≤ -13	-34.88	-34.96	-35.14	-35.09	-35.15	-35.20
Result			Compliance					

Mode			DFT-s-OFDM Module 1 NR Band n258a: BE (dBm) Full RB							
BW			50MHz				100MHz			
Limit (dBm)			BPSK	QPSK	16QAM	64QAM	BPSK	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-33.7	-31.93	-32.3	-33.41	-33.34	-31.1	-32.73	-34
	>10%OB	≤ -13	-33.46	-32.00	-32.84	-32.9	-34.4	-33.12	-33.28	-34.32
High CH	0~10%OB	≤ -5	-30.78	-28.40	-29.41	-31.68	-30.91	-31.43	-31.82	-33.73
	>10%OB	≤ -13	-33.7	-30.12	-30.9	-33.42	-31.81	-32.47	-32.83	-34.31
Result			Compliance							

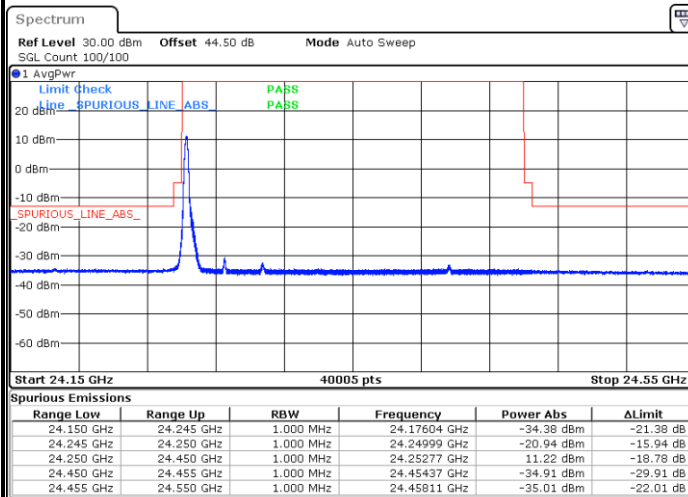
Mode			CP-OFDM Module 1 NR Band n258a: BE (dBm) Full RB					
BW			50MHz			100MHz		
Limit (dBm)			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Low CH	0~10%OB	≤ -5	-30.14	-31.23	-33.36	-32.5	-33.02	-34.36
	>10%OB	≤ -13	-31.60	-32.98	-34.39	-32.95	-33.77	-34.52
High CH	0~10%OB	≤ -5	-28.38	-29.98	-32.69	-31.86	-32.63	-34.48
	>10%OB	≤ -13	-30.09	-31.23	-33.84	-32.07	-33.44	-34.54
Result			Compliance					



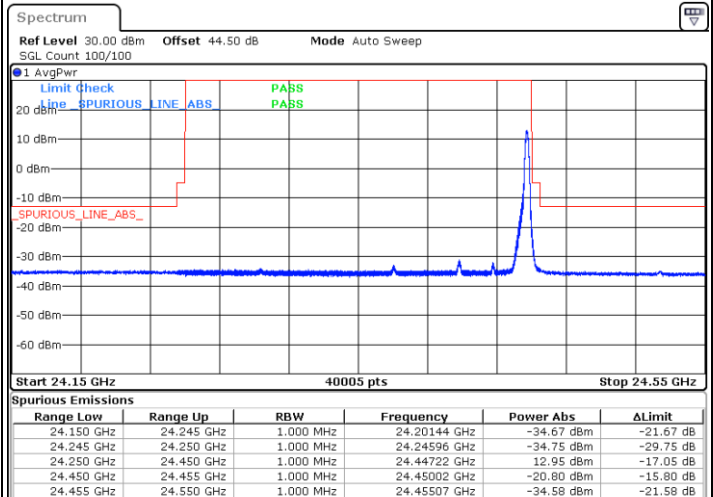
DFT-s-OFDM Module 1

NR Band n258a/ 50MHz / BPSK

Lowest Band Edge / 1 RB

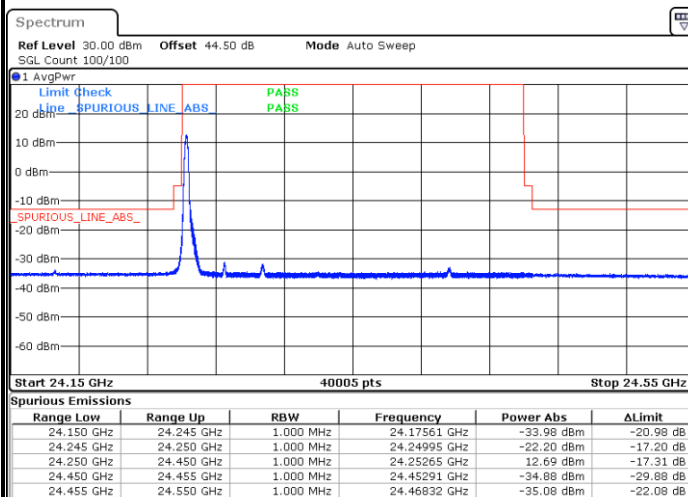


Highest Band Edge / 1 RB

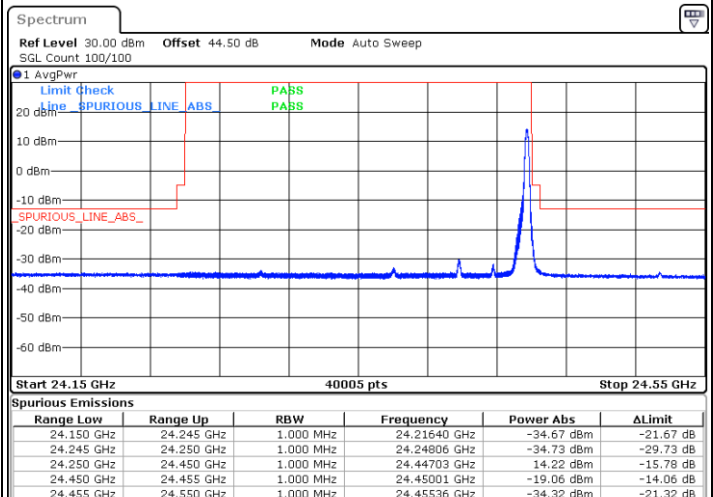


NR Band n258a/ 50MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

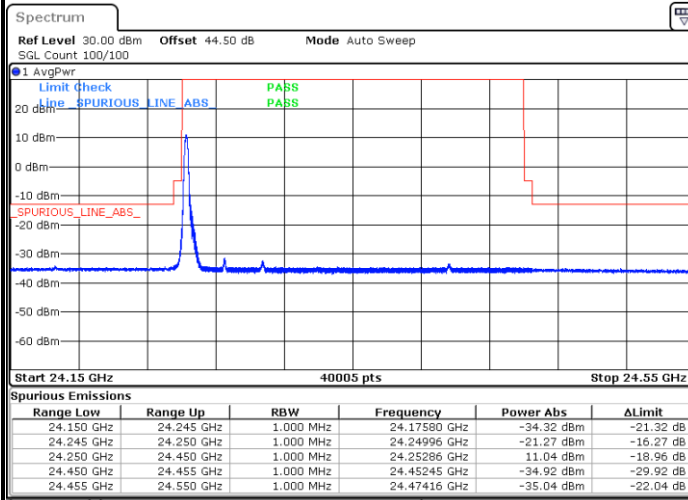




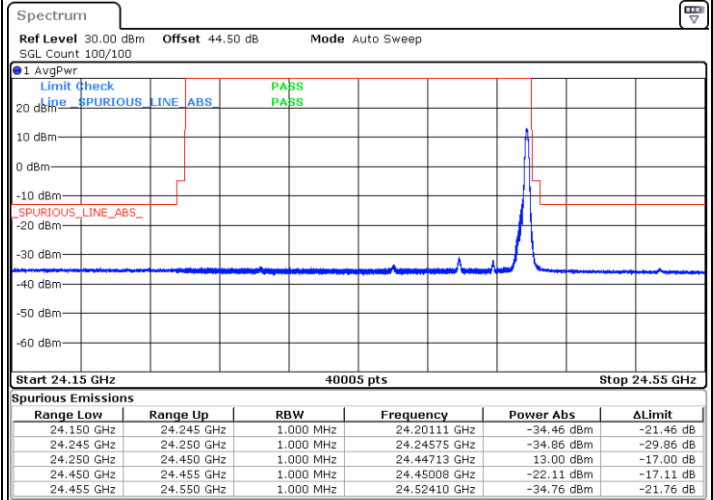
DFT-s-OFDM Module 1

NR Band n258a/ 50MHz / 16QAM

Lowest Band Edge / 1 RB

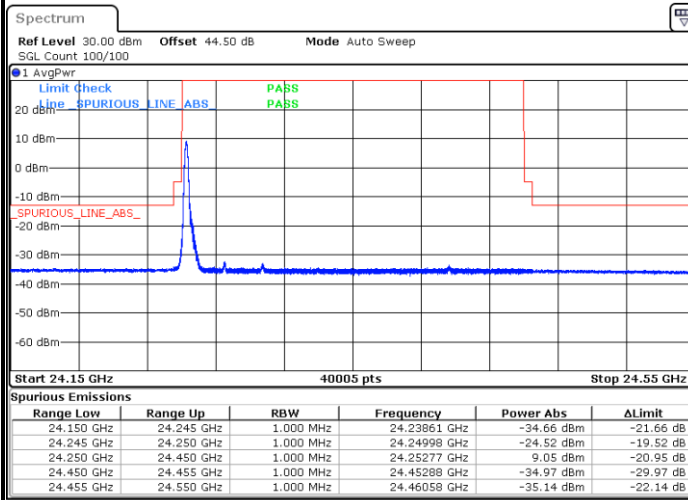


Highest Band Edge / 1 RB

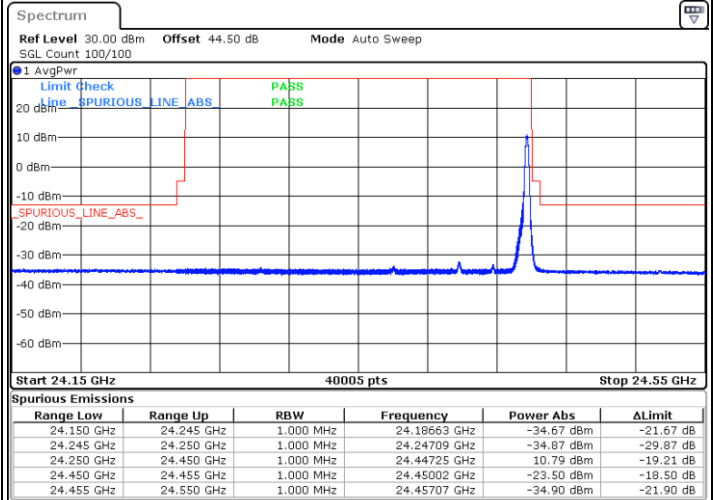


NR Band n258a/ 50MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

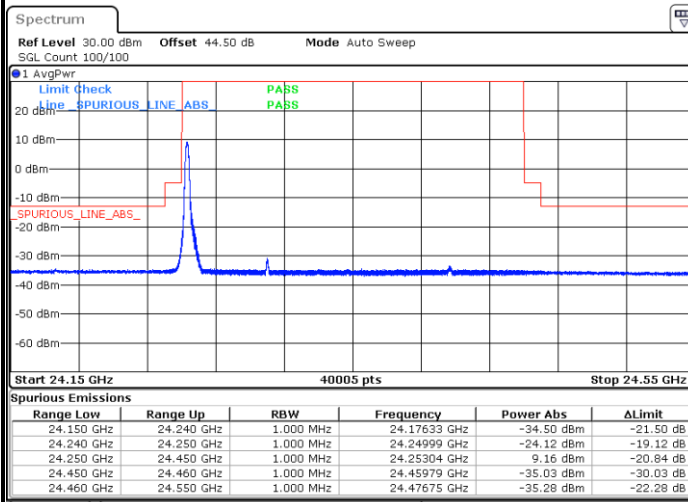




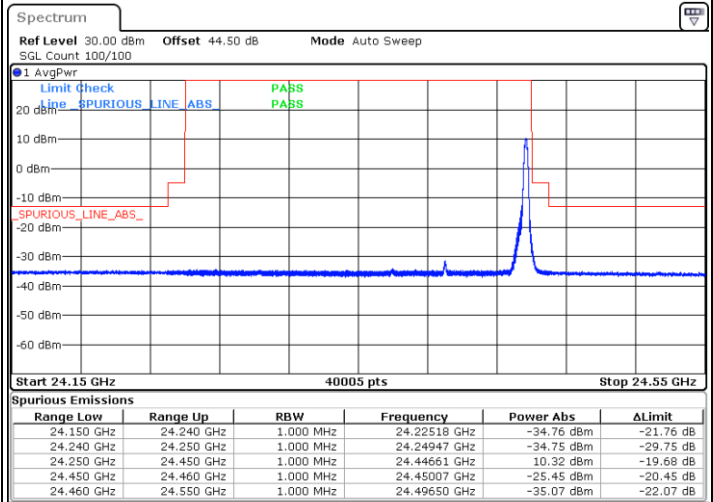
DFT-s-OFDM Module 1

NR Band n258a/ 100MHz / BPSK

Lowest Band Edge / 1 RB

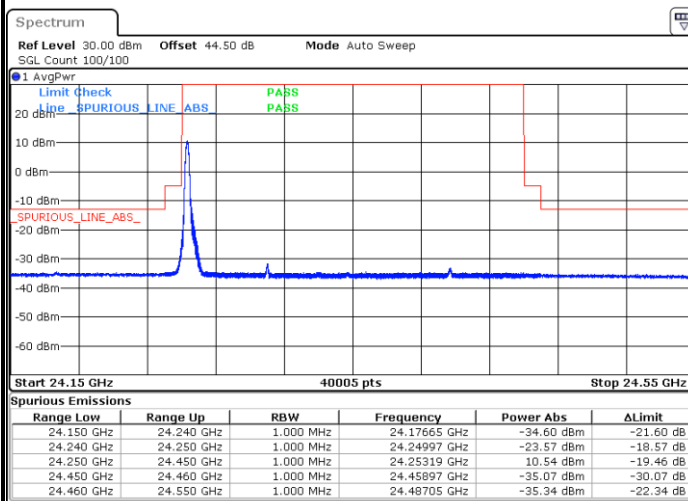


Highest Band Edge / 1 RB

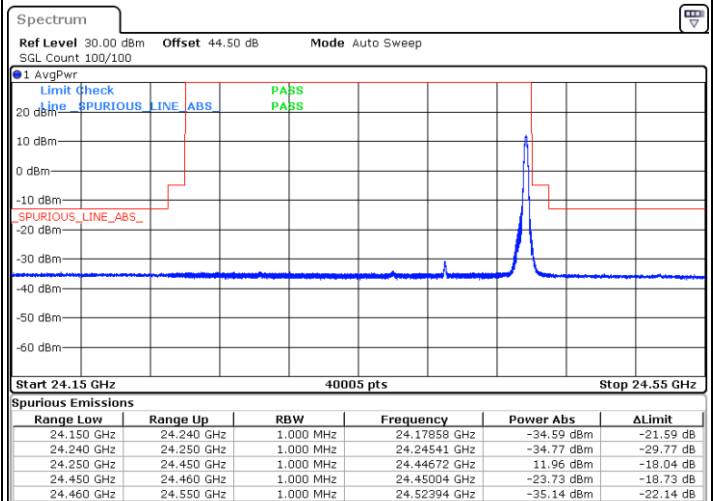


NR Band n258a/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

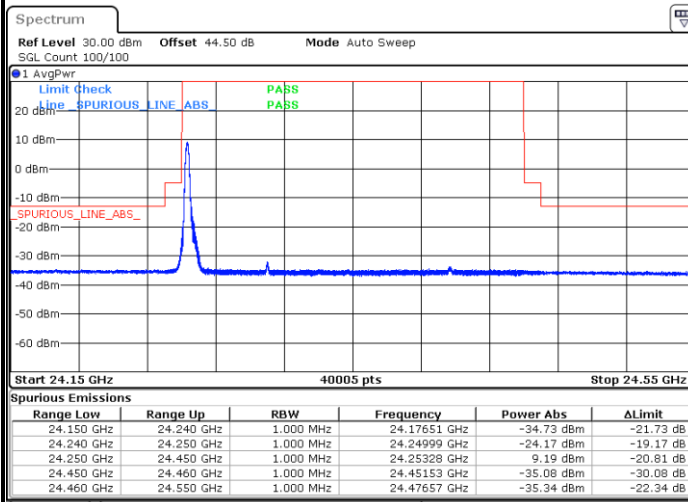




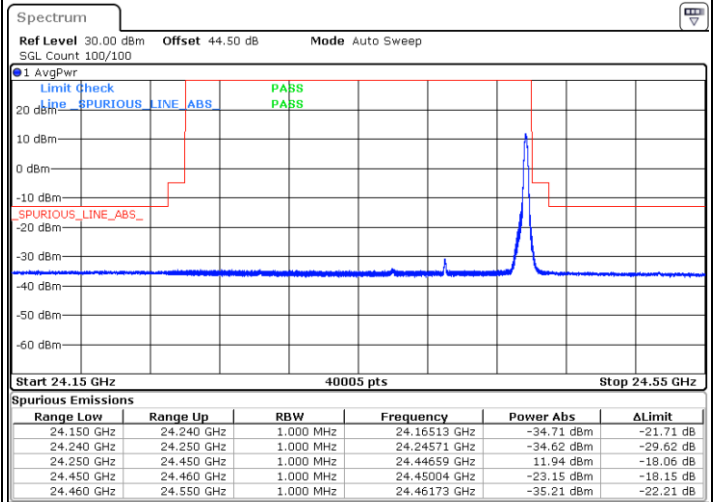
DFT-s-OFDM Module 1

NR Band n258a/ 100MHz / 16QAM

Lowest Band Edge / 1 RB

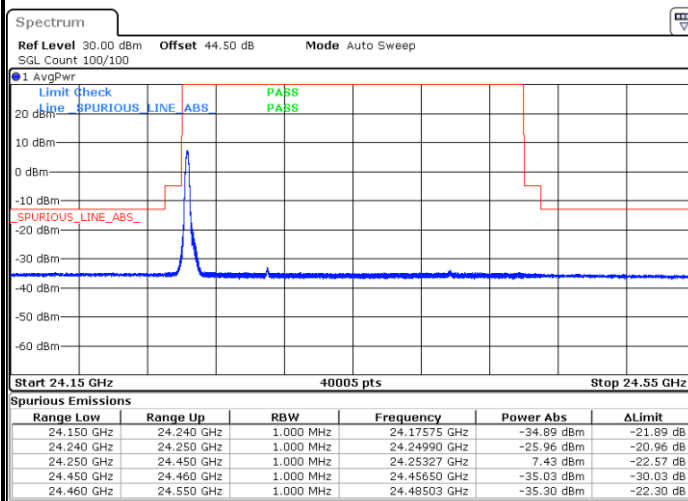


Highest Band Edge / 1 RB

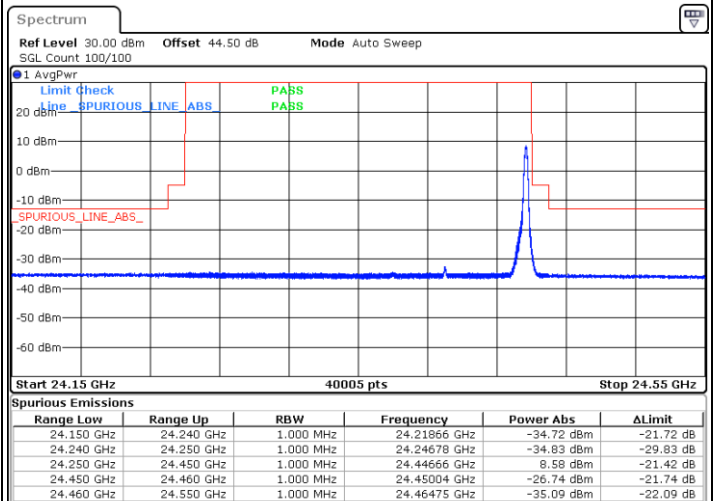


NR Band n258a/ 100MHz / 64QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

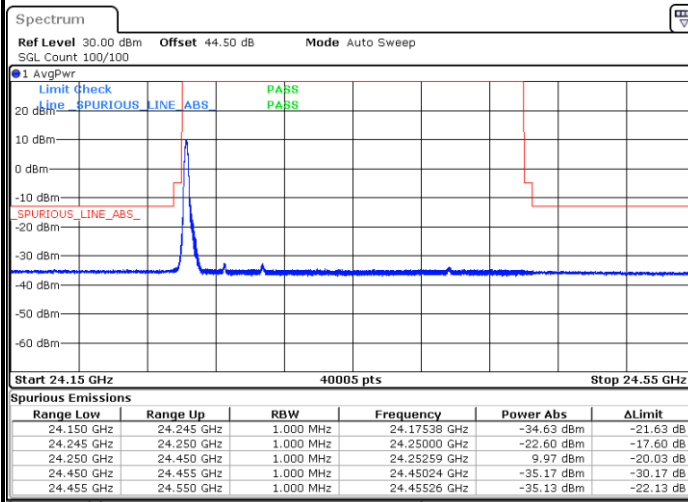




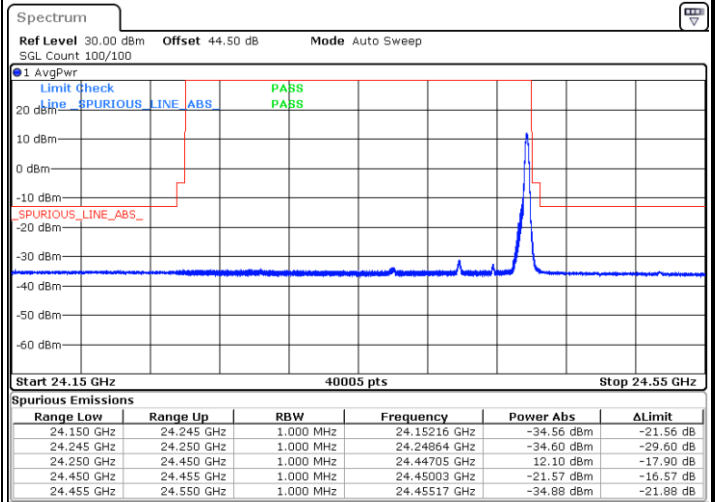
CP-OFDM Module 1

NR Band n258a/ 50MHz / QPSK

Lowest Band Edge / 1 RB

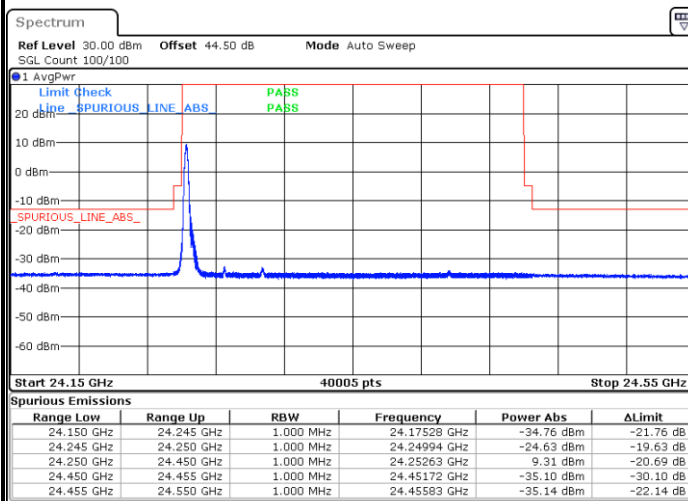


Highest Band Edge / 1 RB

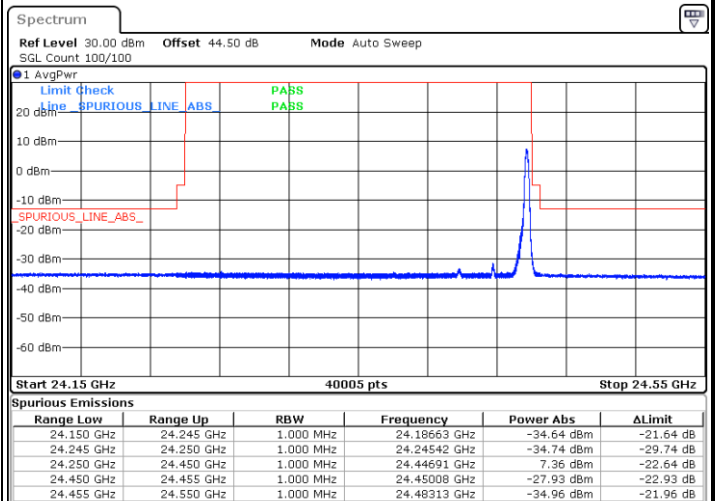


NR Band n258a/ 50MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB

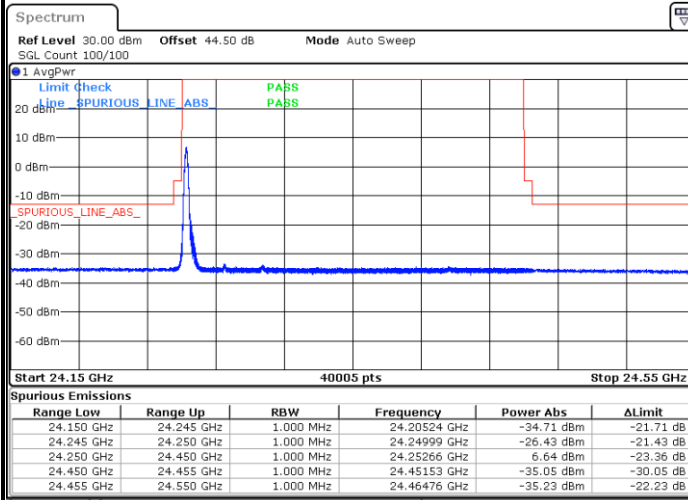




CP-OFDM Module 1

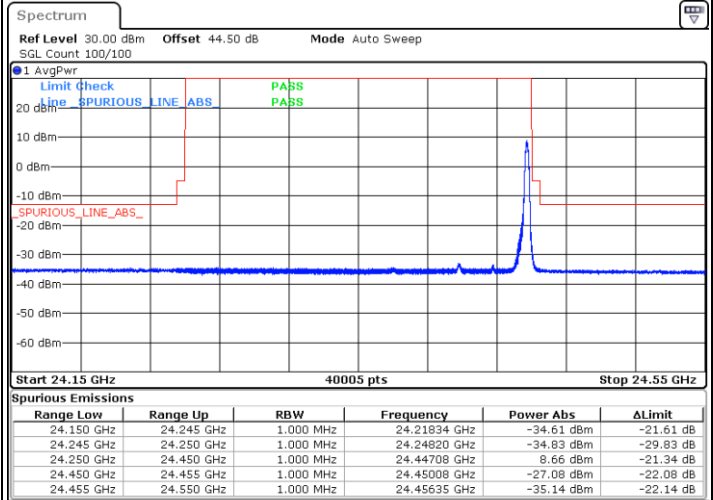
NR Band n258a/ 50MHz / 64QAM

Lowest Band Edge / 1 RB



Date: 25.JUL.2020 04:33:52

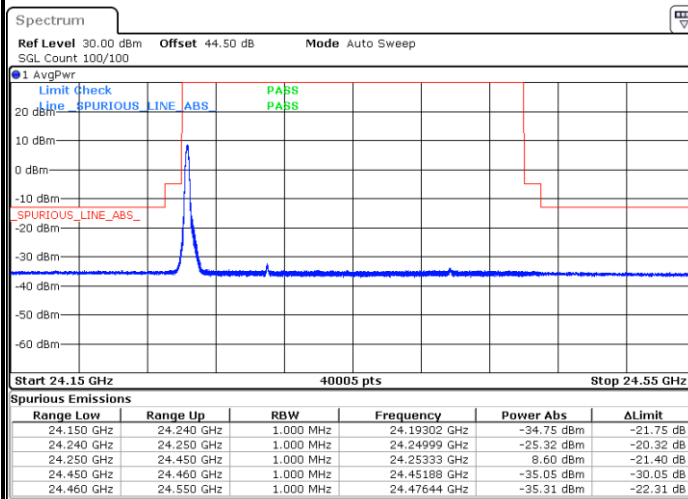
Highest Band Edge / 1 RB



Date: 25.JUL.2020 13:34:39

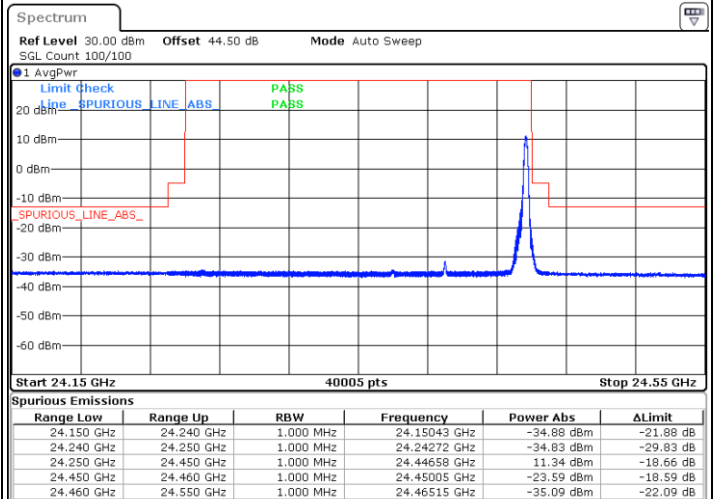
NR Band n258a/ 100MHz / QPSK

Lowest Band Edge / 1 RB



Date: 25.JUL.2020 05:20:07

Highest Band Edge / 1 RB



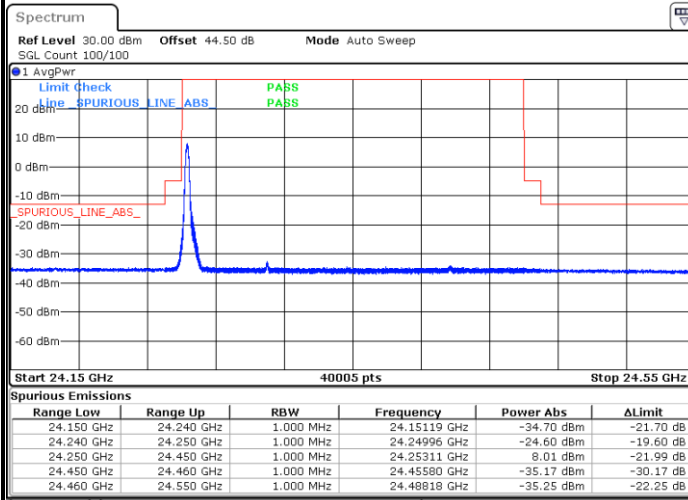
Date: 25.JUL.2020 19:36:16



CP-OFDM Module 1

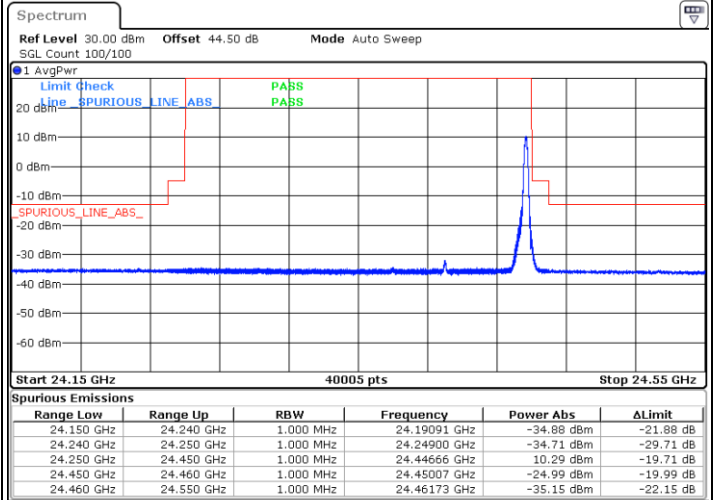
NR Band n258a/ 100MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 25.JUL.2020 05:18:39

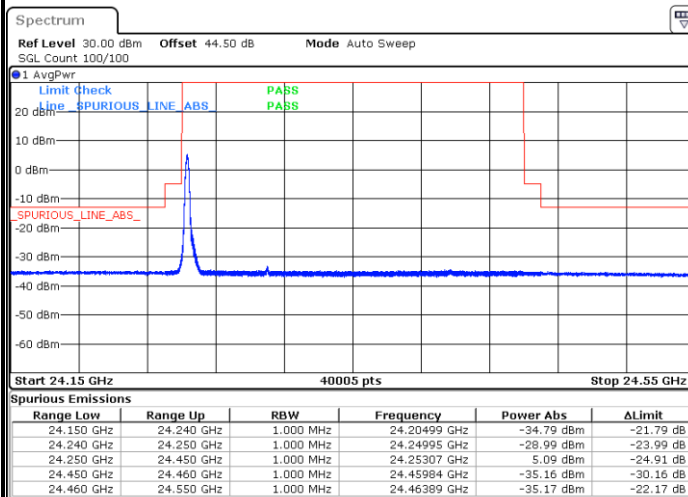
Highest Band Edge / 1 RB



Date: 25.JUL.2020 19:37:05

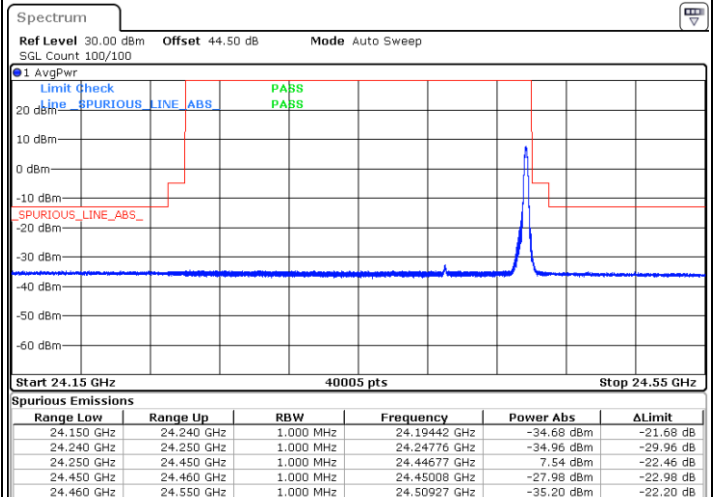
NR Band n258a/ 100MHz / 64QAM

Lowest Band Edge / 1 RB



Date: 25.JUL.2020 05:17:44

Highest Band Edge / 1 RB



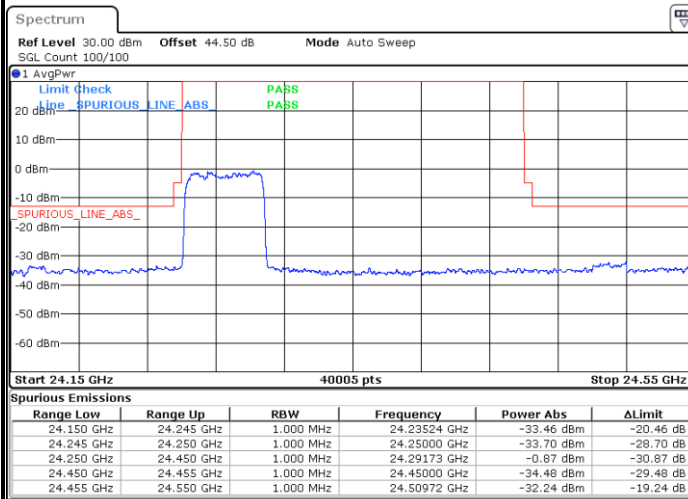
Date: 25.JUL.2020 19:38:12



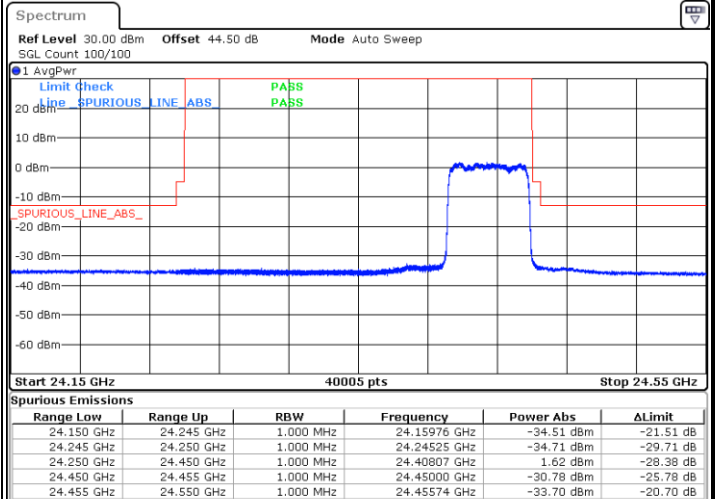
DFT-s-OFDM Module 1

NR Band n258a/ 50MHz / BPSK

Lowest Band Edge / Full RB

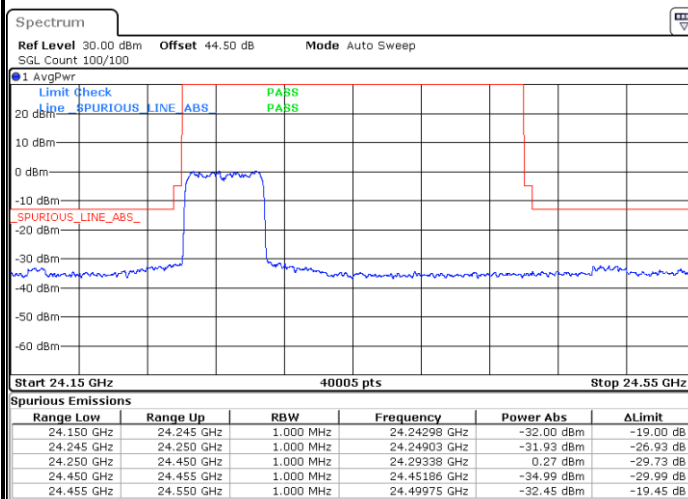


Highest Band Edge / Full RB

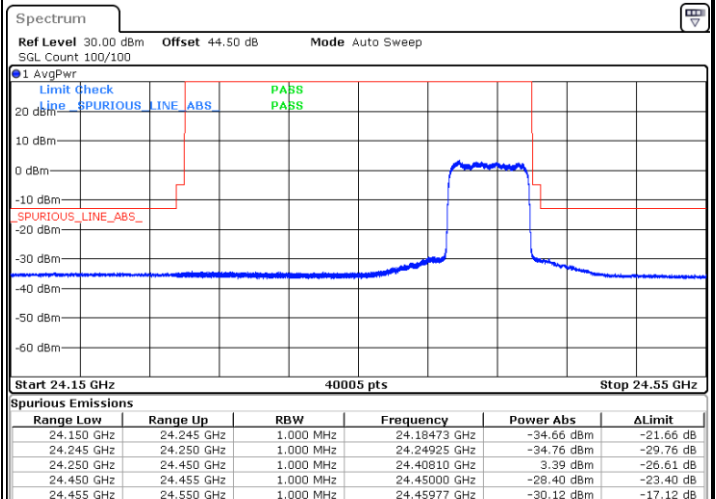


NR Band n258a/ 50MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

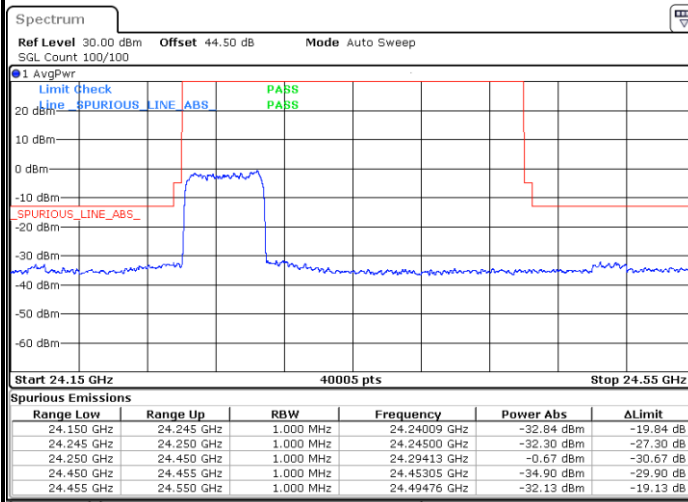




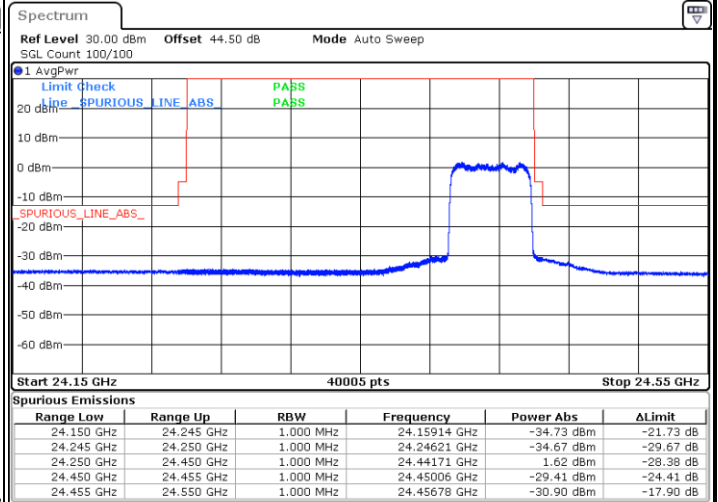
DFT-s-OFDM Module 1

NR Band n258a/ 50MHz / 16QAM

Lowest Band Edge / Full RB

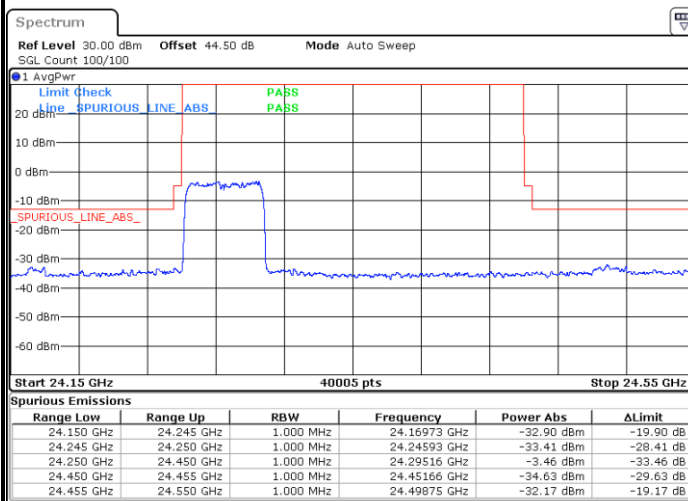


Highest Band Edge / Full RB

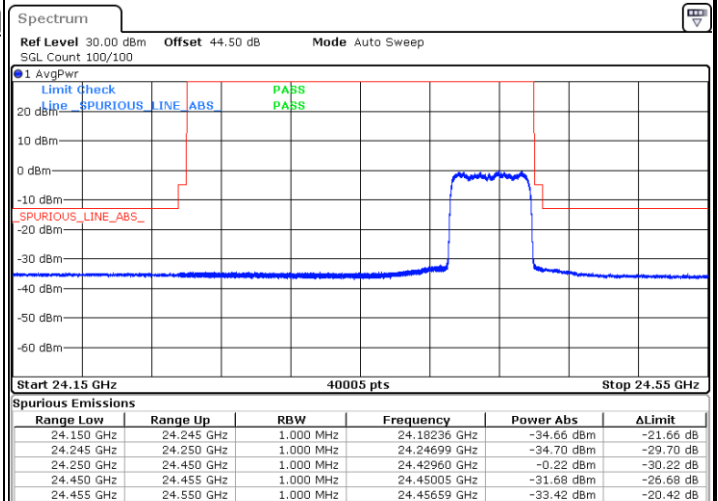


NR Band n258a/ 50MHz / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

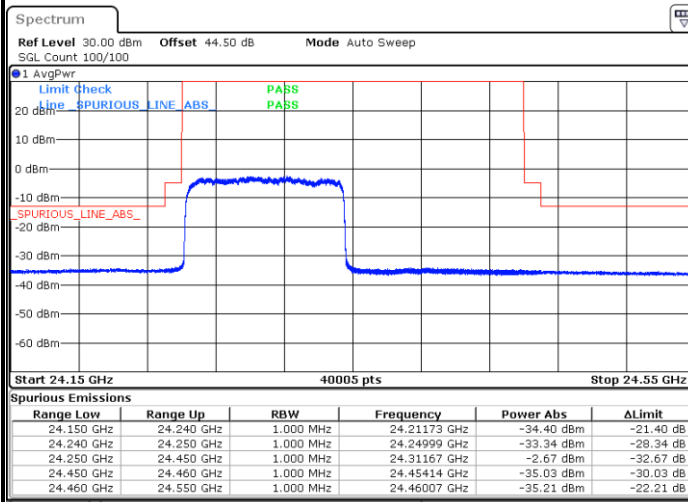




DFT-s-OFDM Module 1

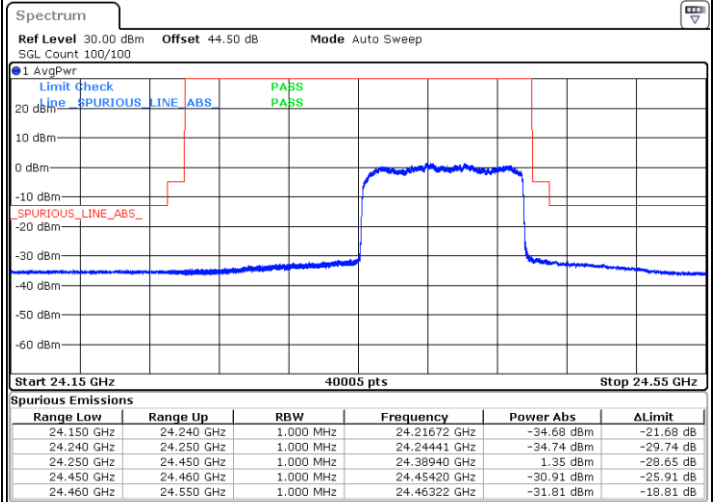
NR Band n258a/ 100MHz / BPSK

Lowest Band Edge / Full RB



Date: 25.JUL.2020 05:01:07

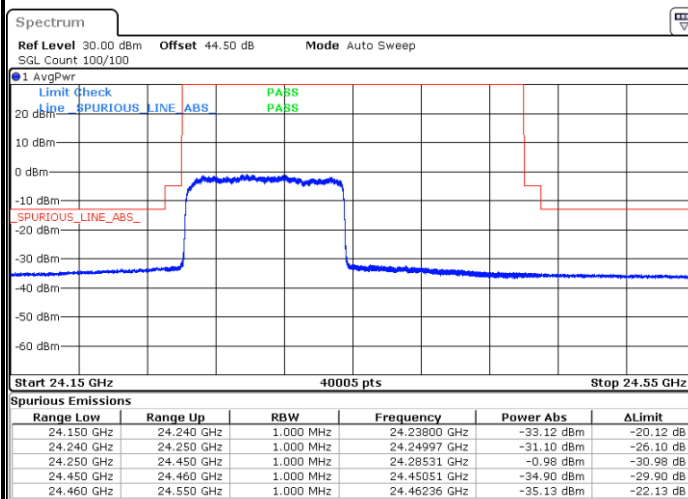
Highest Band Edge / Full RB



Date: 25.JUL.2020 19:58:31

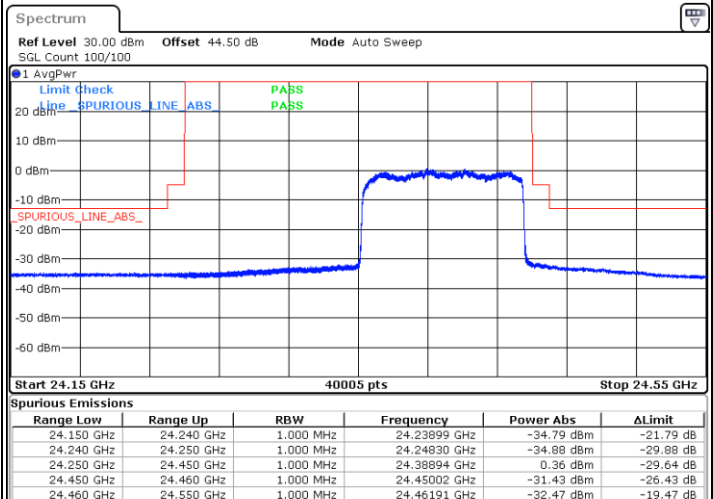
NR Band n258a/ 100MHz / QPSK

Lowest Band Edge / Full RB



Date: 25.JUL.2020 04:57:01

Highest Band Edge / Full RB



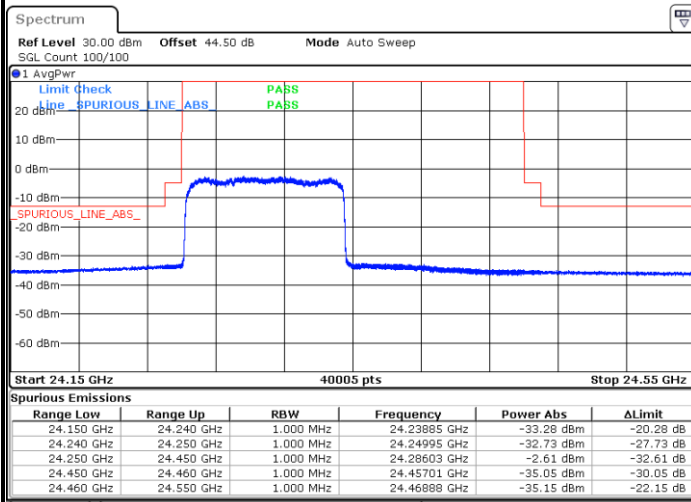
Date: 25.JUL.2020 14:21:17



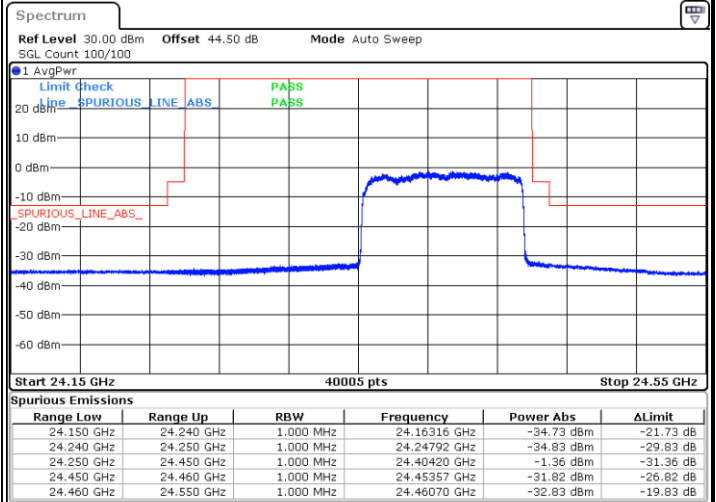
DFT-s-OFDM Module 1

NR Band n258a/ 100MHz / 16QAM

Lowest Band Edge / Full RB

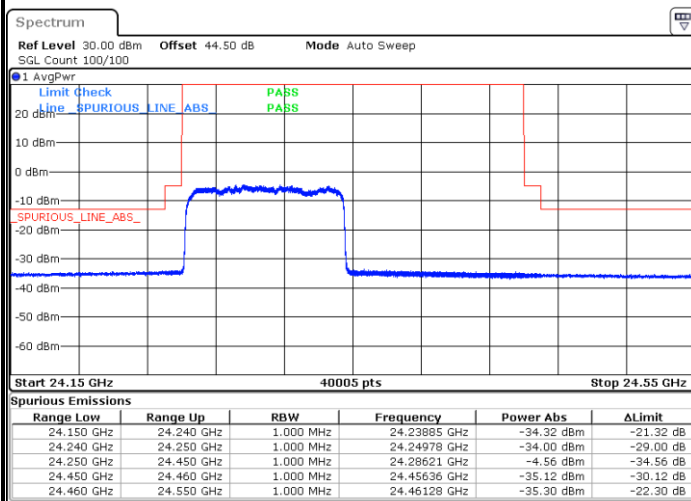


Highest Band Edge / Full RB

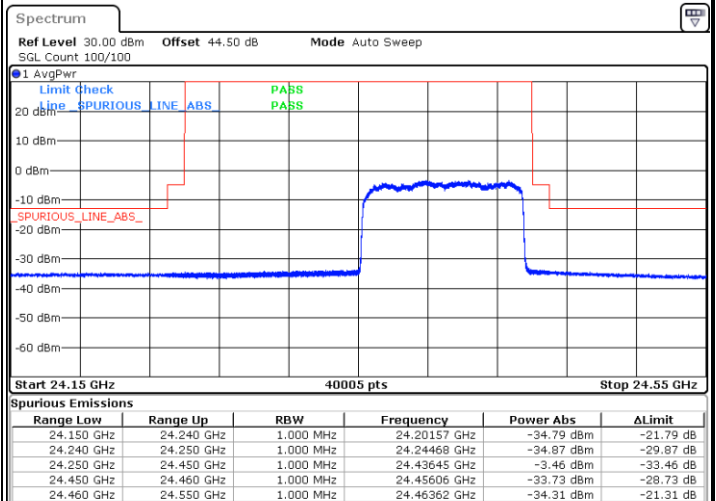


NR Band n258a/ 100MHz / 64QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

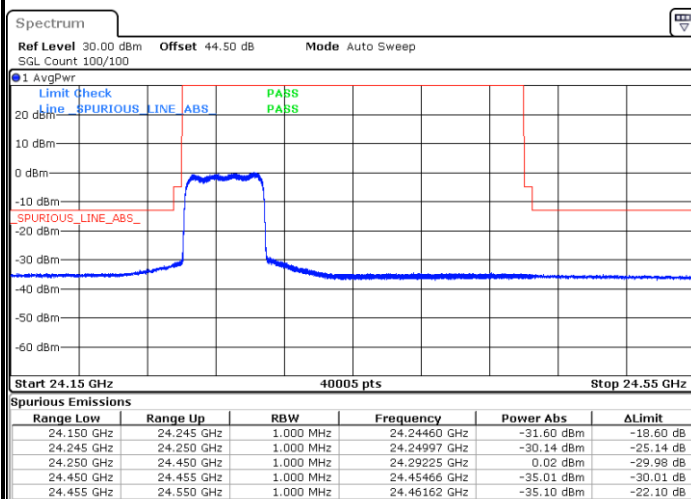




CP-OFDM Module 1

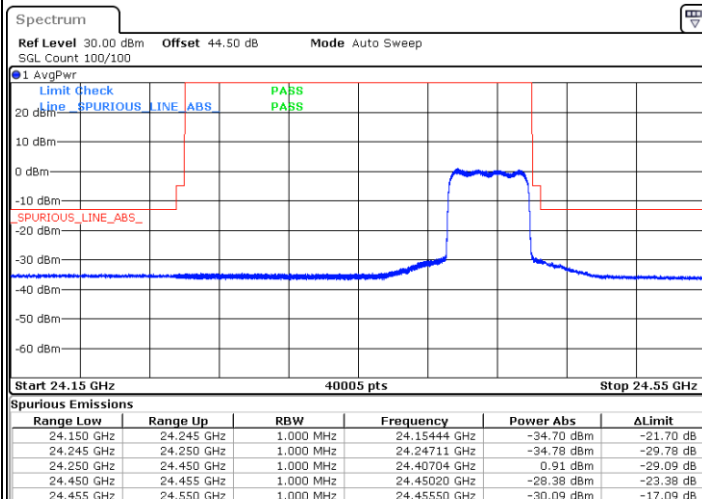
NR Band n258a/ 50MHz / QPSK

Lowest Band Edge / Full RB



Date: 25.JUL.2020 04:25:24

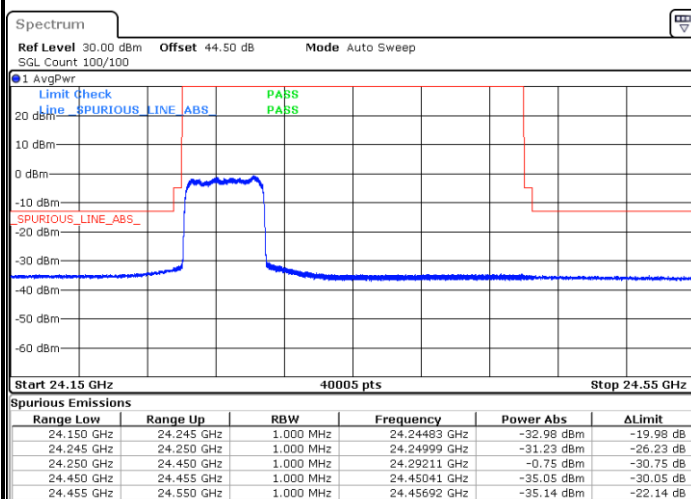
Highest Band Edge / Full RB



Date: 25.JUL.2020 13:51:40

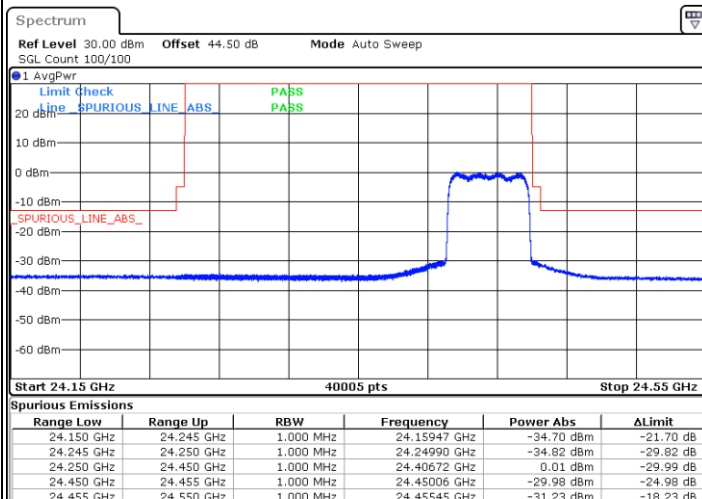
NR Band n258a/ 50MHz / 16QAM

Lowest Band Edge / Full RB



Date: 25.JUL.2020 04:26:32

Highest Band Edge / Full RB



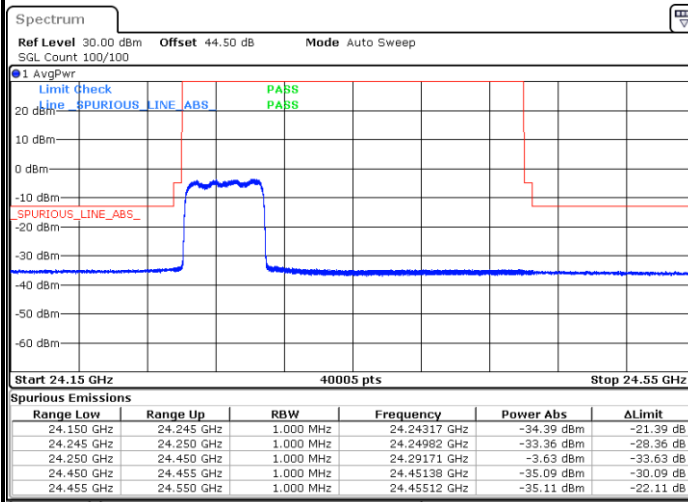
Date: 25.JUL.2020 13:50:05



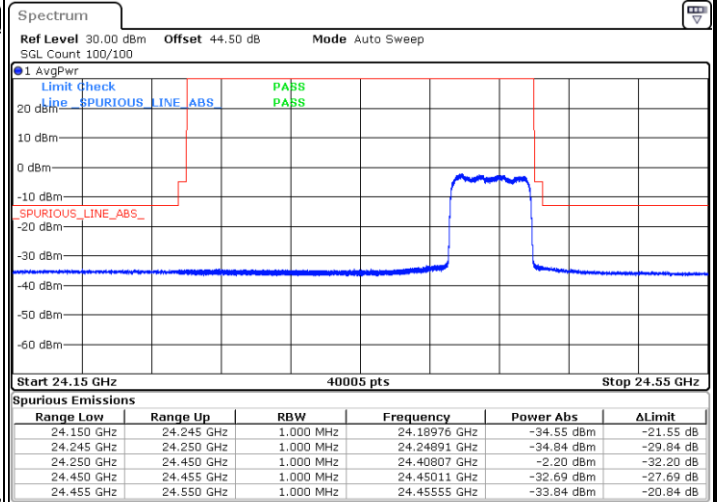
CP-OFDM Module 1

NR Band n258a/ 50MHz / 64QAM

Lowest Band Edge / Full RB

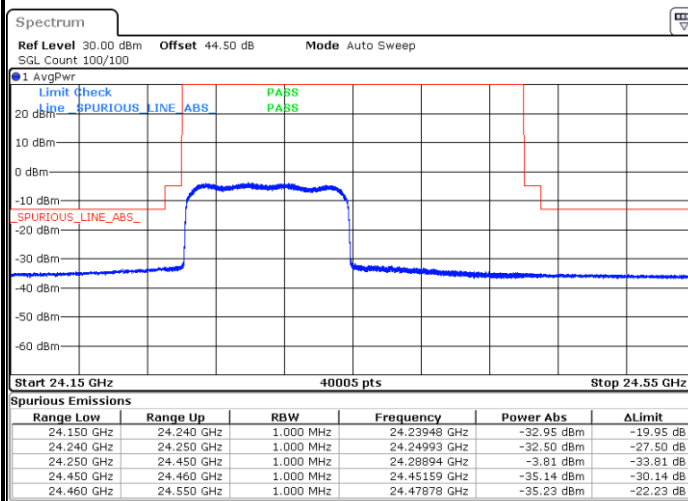


Highest Band Edge / Full RB

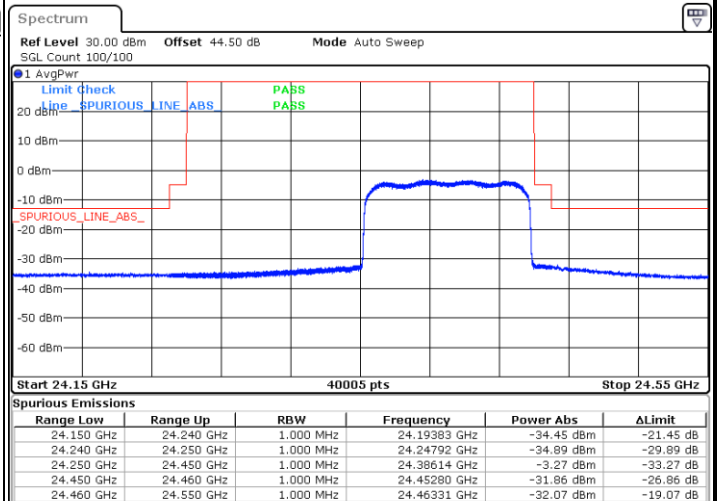


NR Band n258a/ 100MHz / QPSK

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

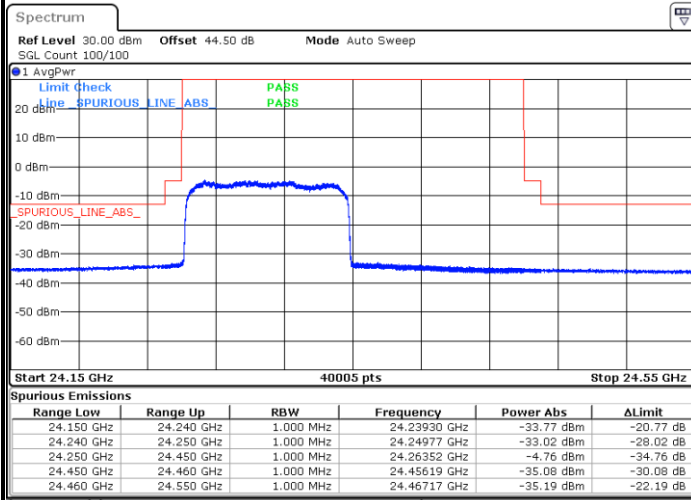




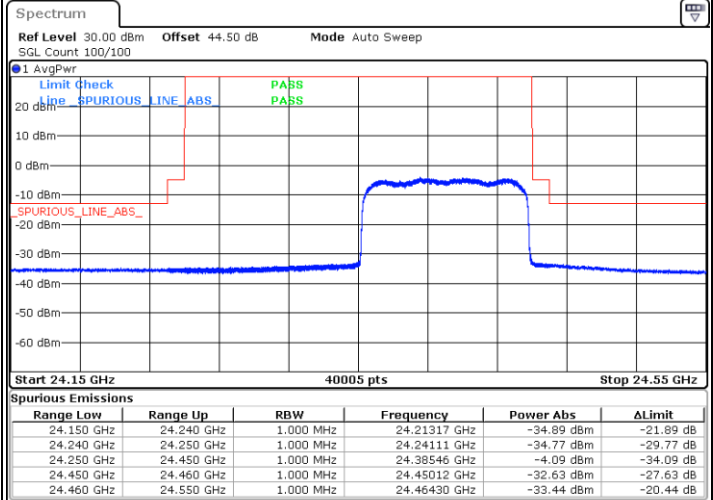
CP-OFDM Module 1

NR Band n258a/ 100MHz / 16QAM

Lowest Band Edge / Full RB

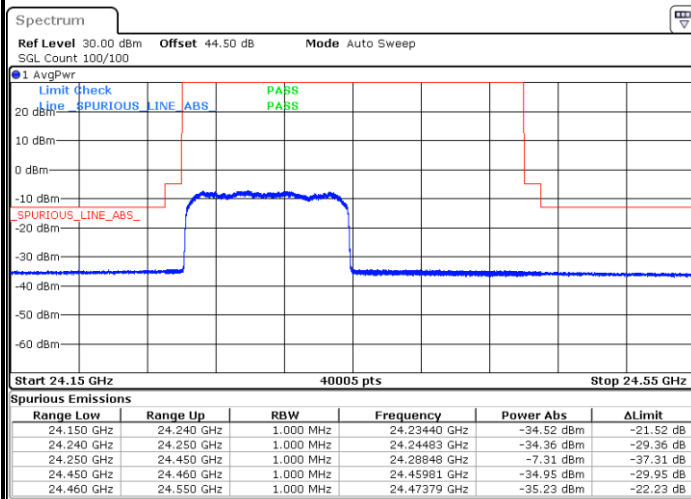


Highest Band Edge / Full RB

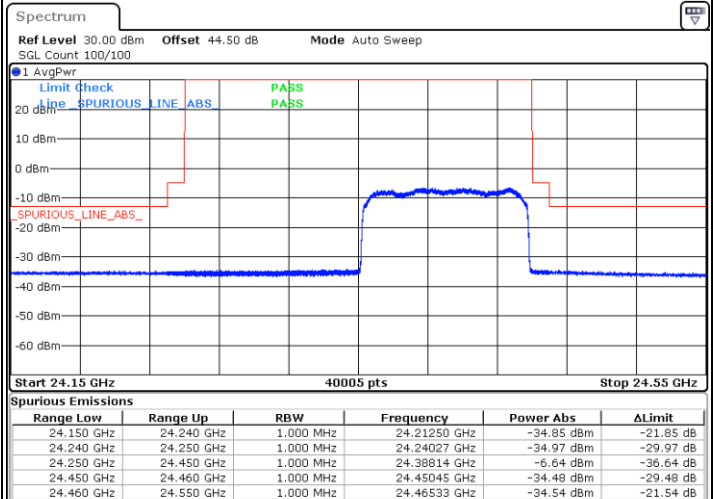


NR Band n258a/ 100MHz / 64QAM

Lowest Band Edge / Full RB



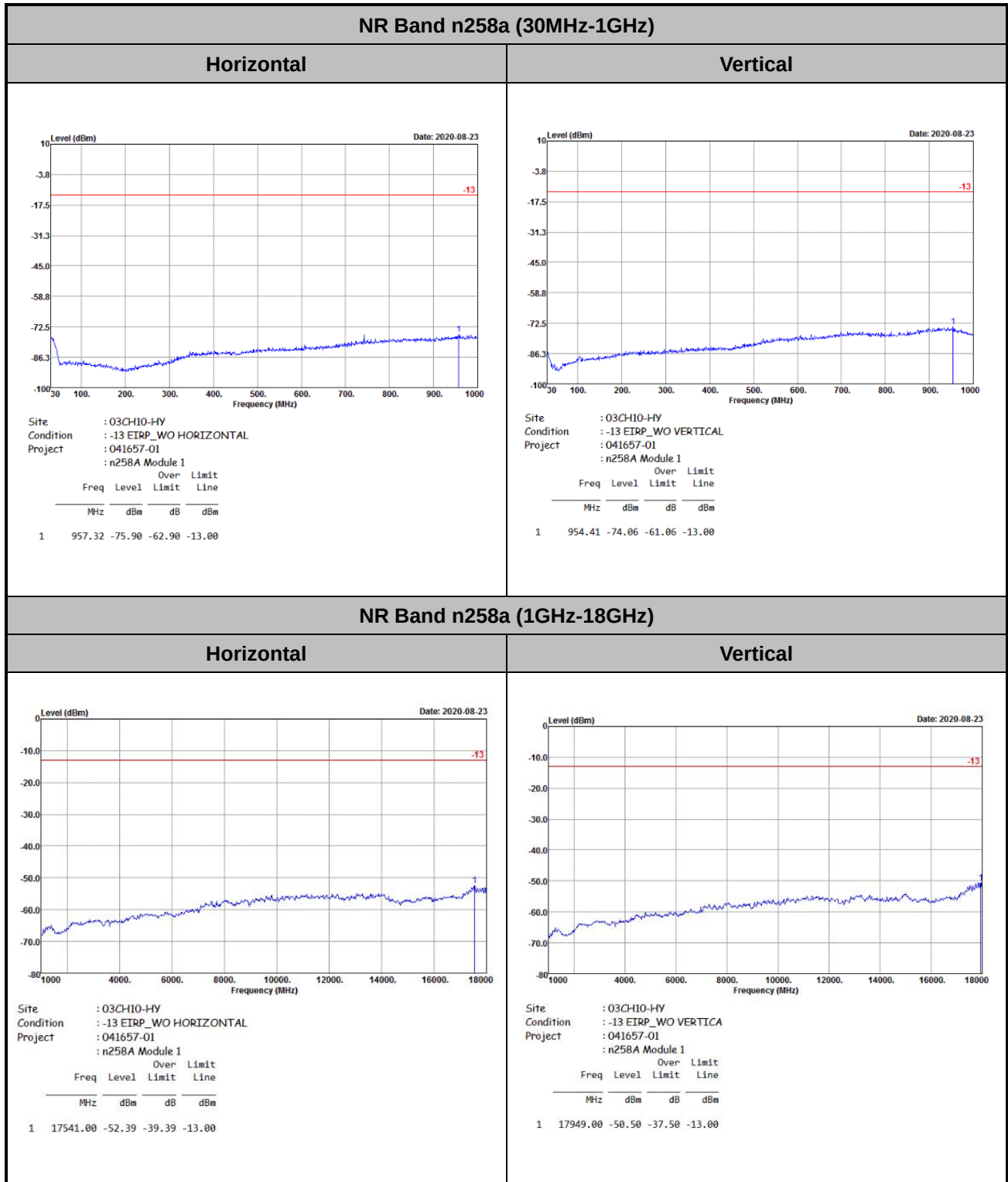
Highest Band Edge / Full RB



Spurious Emission

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

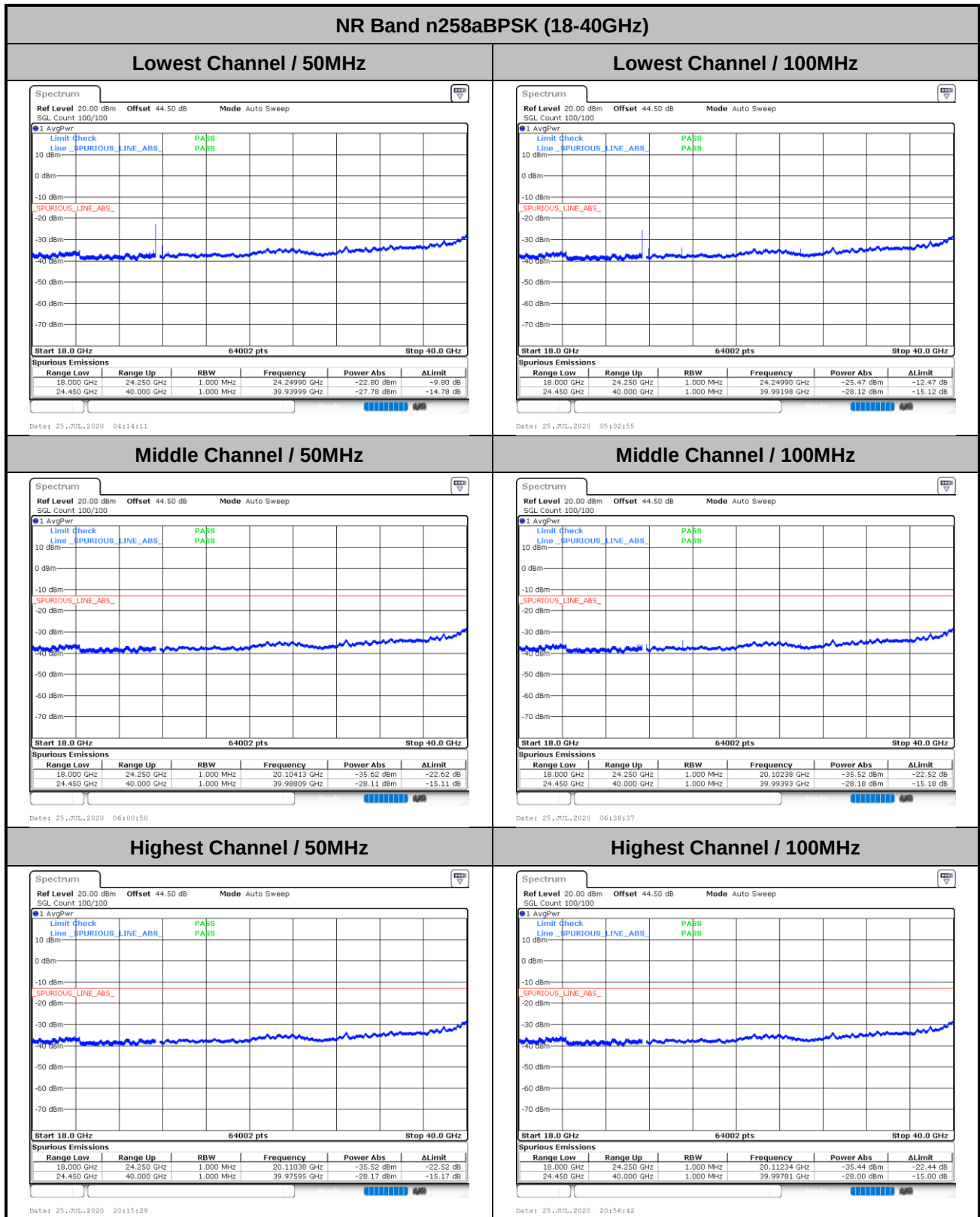
Only the noise floor is reported.





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

DFT-s-OFDM Module 1

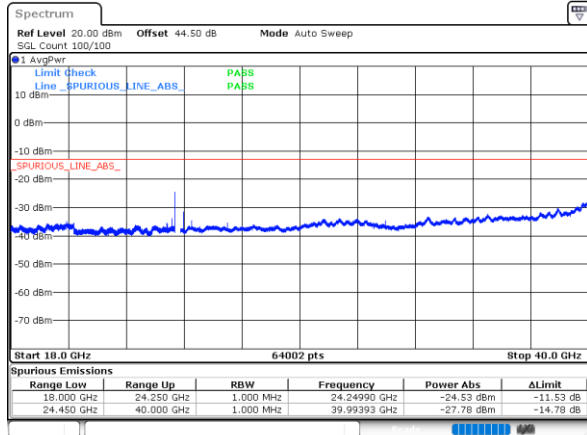




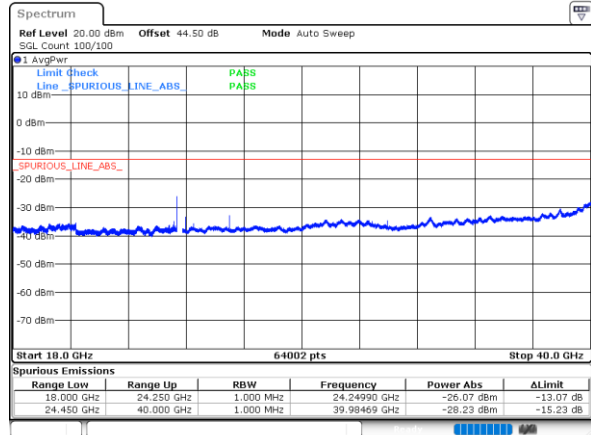
DFT-s-OFDM Module 1

NR Band n258aQPSK (18-40GHz)

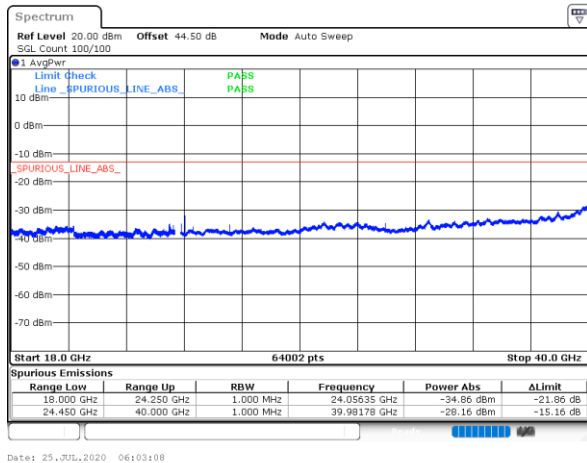
Lowest Channel / 50MHz



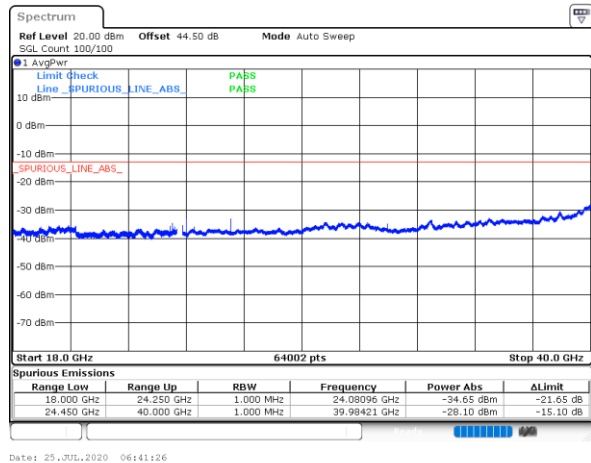
Lowest Channel / 100MHz



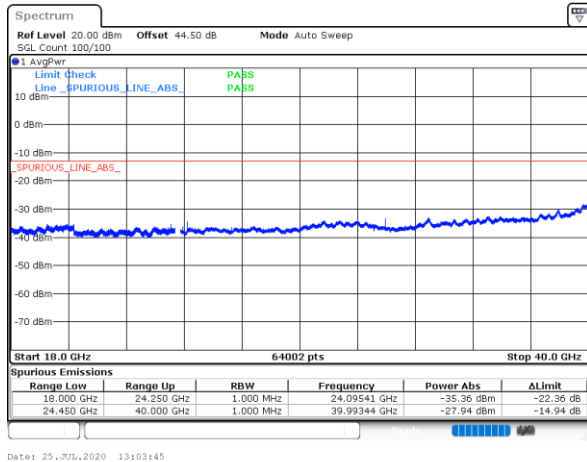
Middle Channel / 50MHz



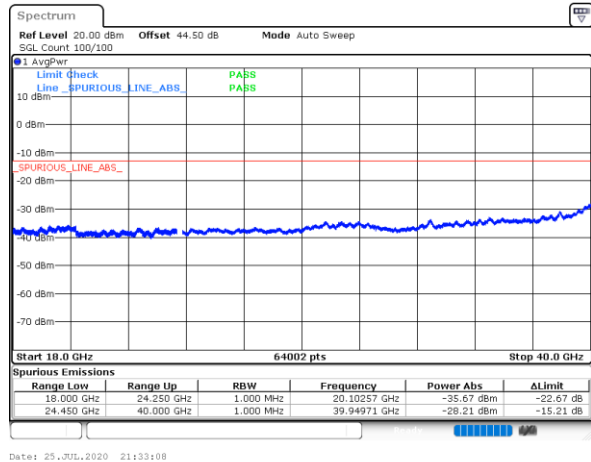
Middle Channel / 100MHz



Highest Channel / 50MHz



Highest Channel / 100MHz

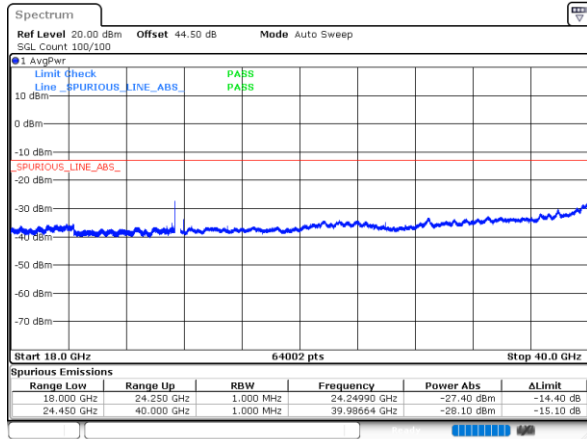




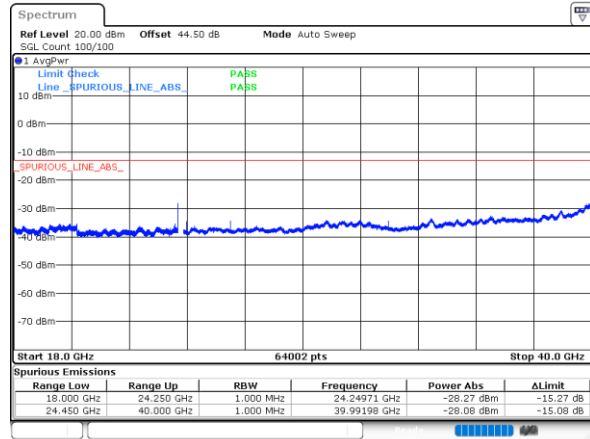
CP-OFDM Module 1

NR Band n258aQPSK (18-40GHz)

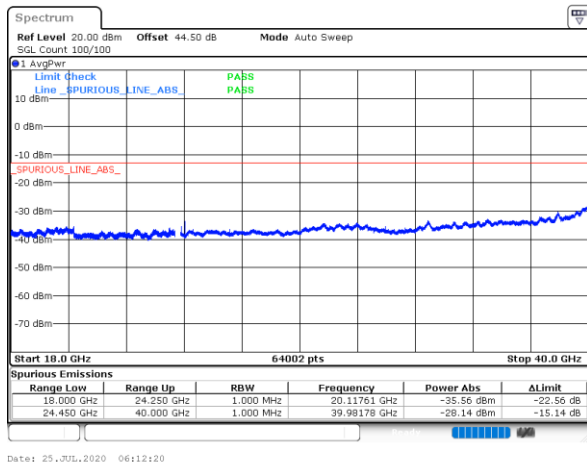
Lowest Channel / 50MHz



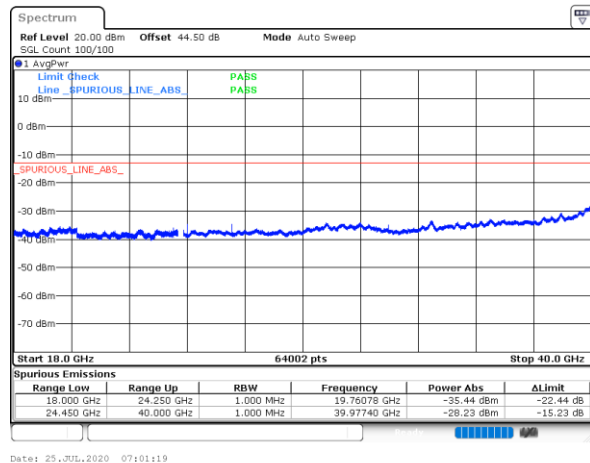
Lowest Channel / 100MHz



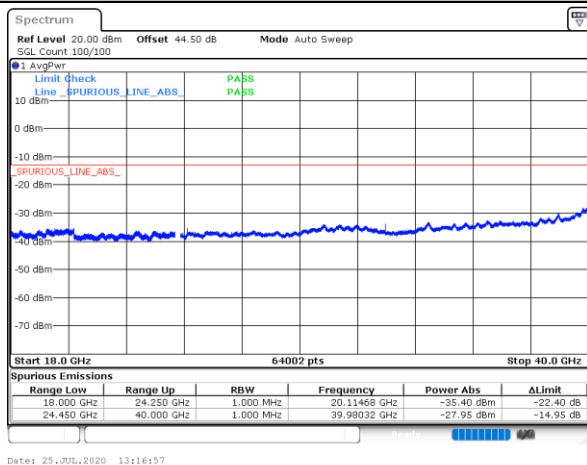
Middle Channel / 50MHz



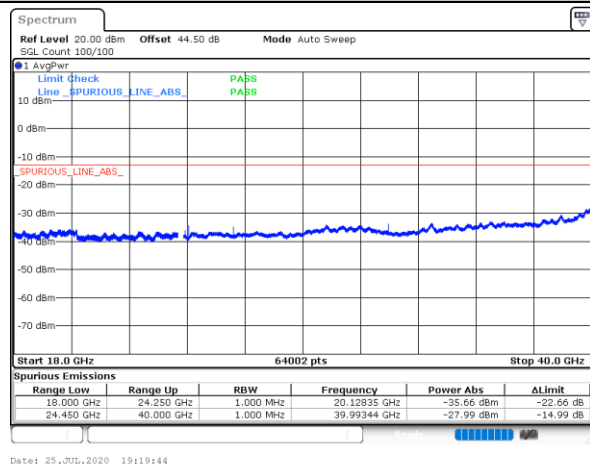
Middle Channel / 100MHz



Highest Channel / 50MHz

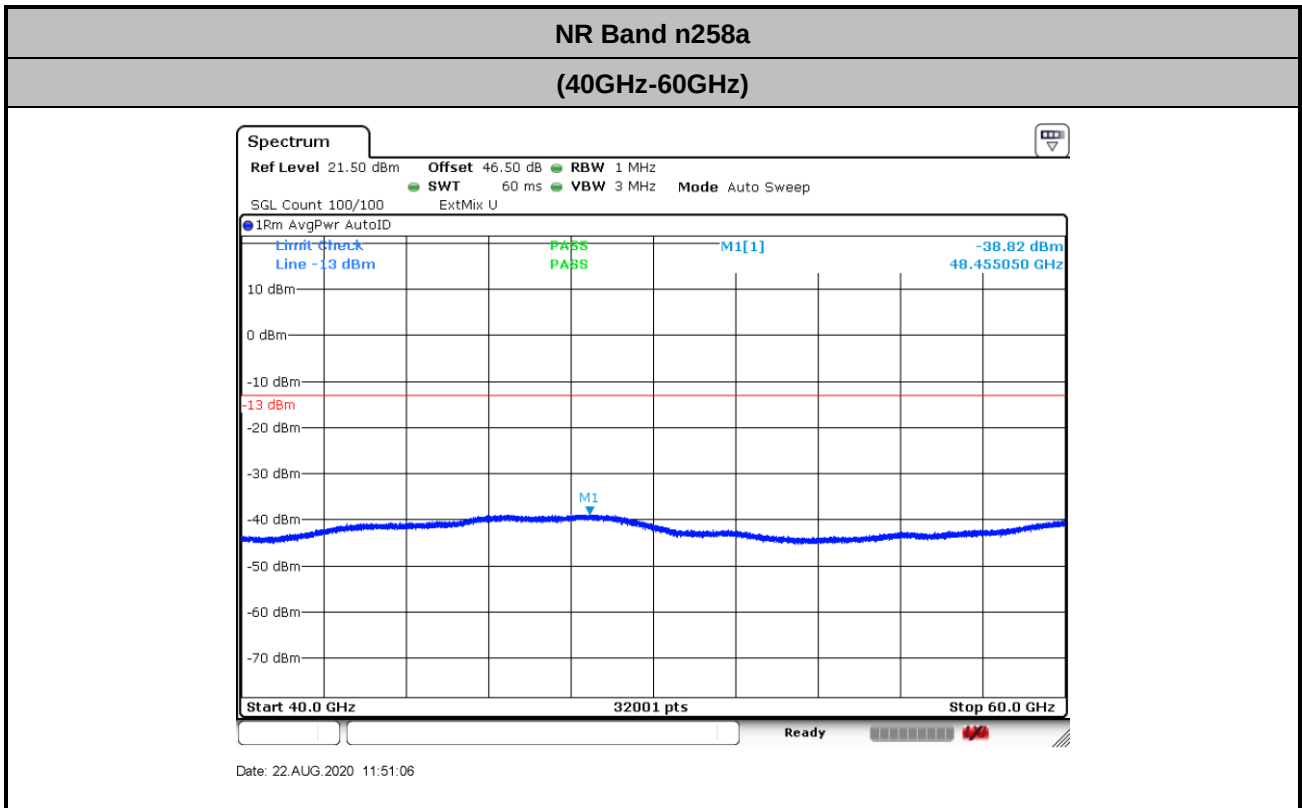


Highest Channel / 100MHz

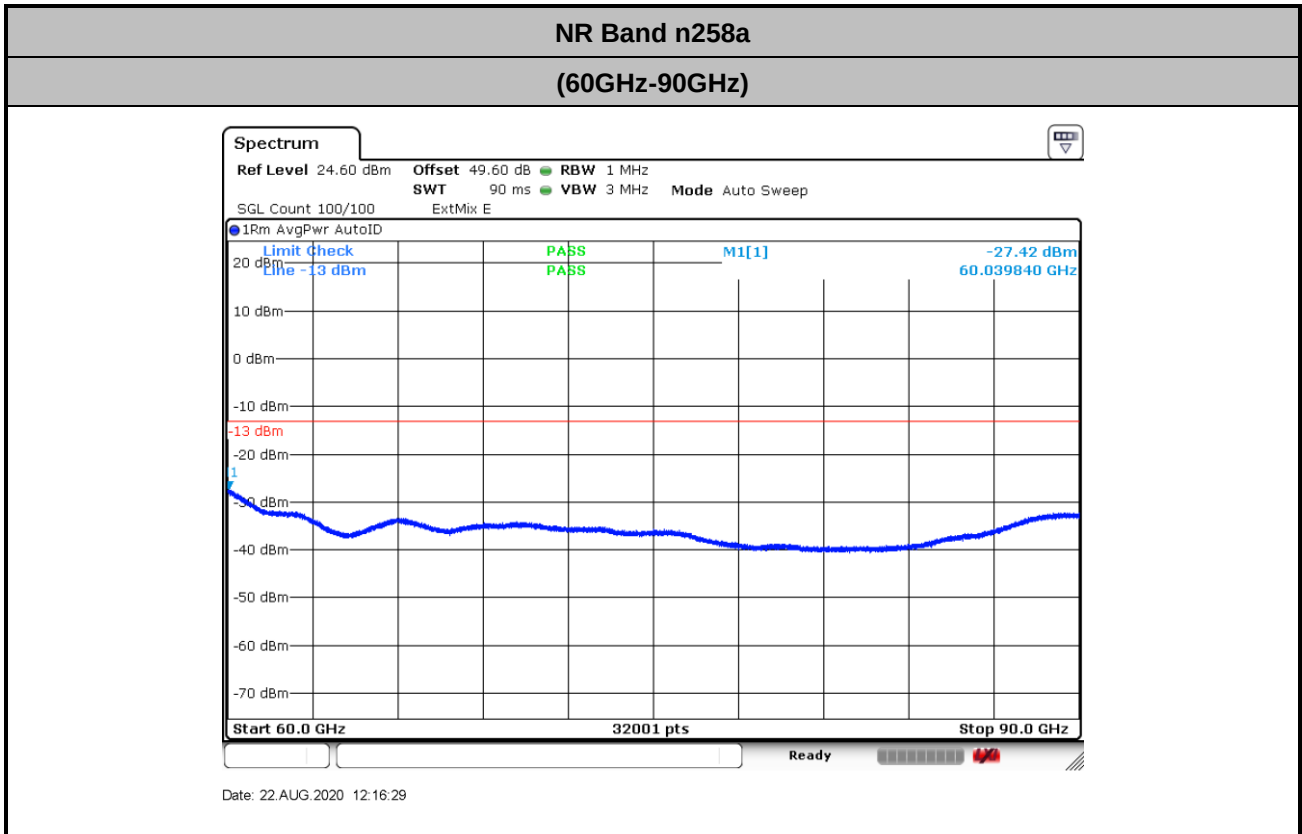




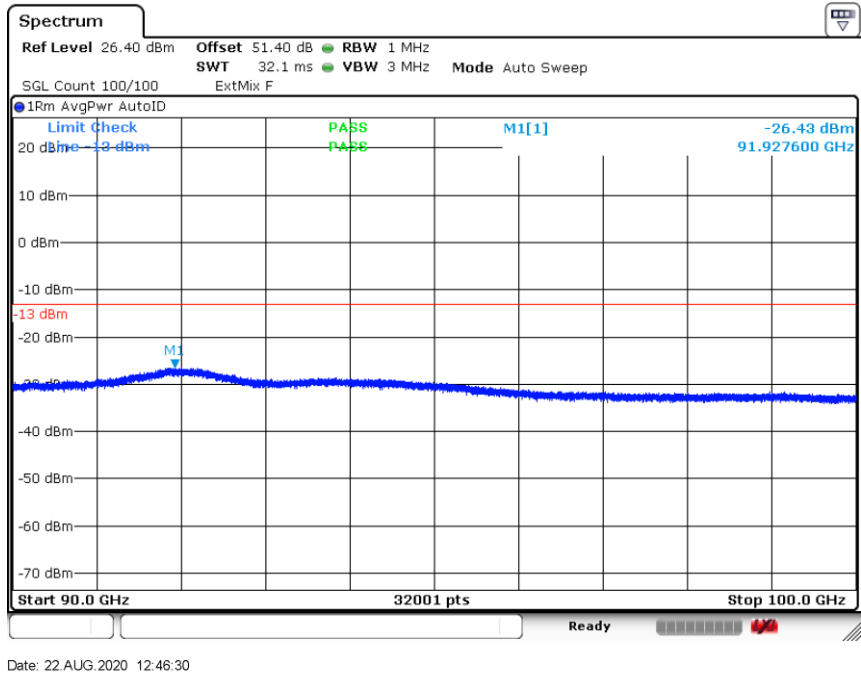
There is no significant spurious emission signal found for frequency started from 40GHz up to 100GHz.
Only the noise floor is reported.



$$\begin{aligned}\text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 42.3 + 2 + 107 + 20\log(1) - 104.8 = 46.5 \text{ (dB)}\end{aligned}$$



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

NR Band n258a
(90GHz-100GHz)


$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 47.2 + 2 + 107 + 20\log(1) - 104.8 = 51.4 \text{ (dB)} \end{aligned}$$



NR Band n258a Module 1 AG0+1

Occupied Bandwidth

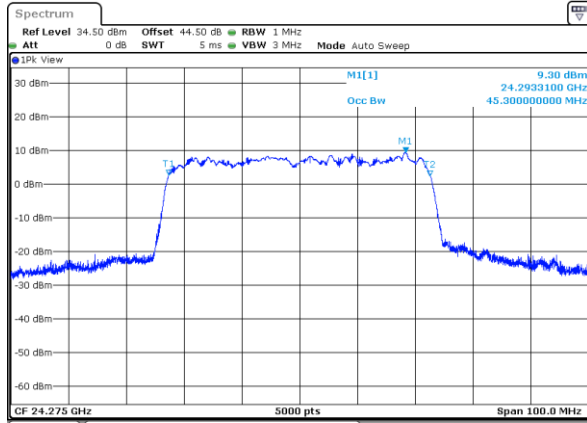
Mode	CP-OFDM Module 1 NR Band n258a: 99%OBW(MHz)					
BW	50MHz			100MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	45.30	45.18	45.14	92.68	93.04	92.44
Middle CH	45.44	45.30	45.16	93.00	93.28	92.72
Highest CH	45.34	45.12	45.02	92.56	93.04	92.28



CP-OFDM Module 1

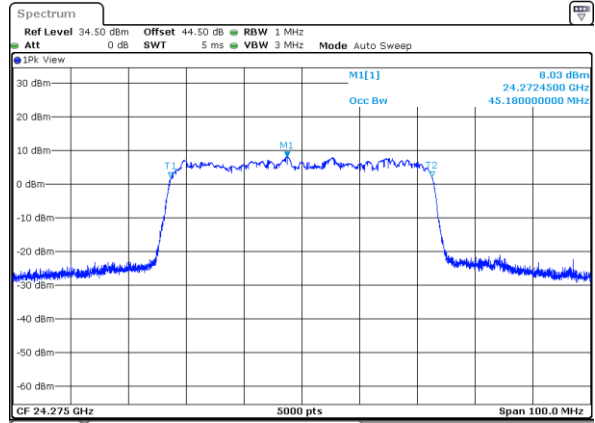
NR Band n258a

Lowest Channel / 50MHz / QPSK



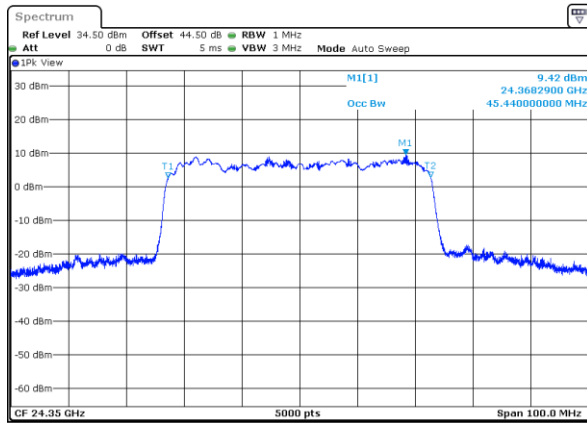
Date: 26.JUL.2020 09:05:15

Lowest Channel / 50MHz / 16QAM



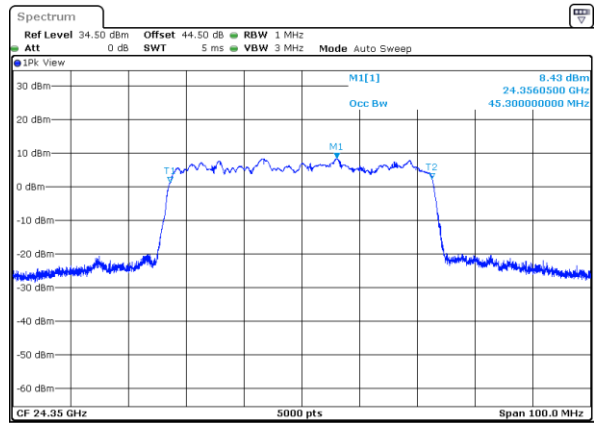
Date: 26.JUL.2020 09:06:12

Middle Channel / 50MHz / QPSK



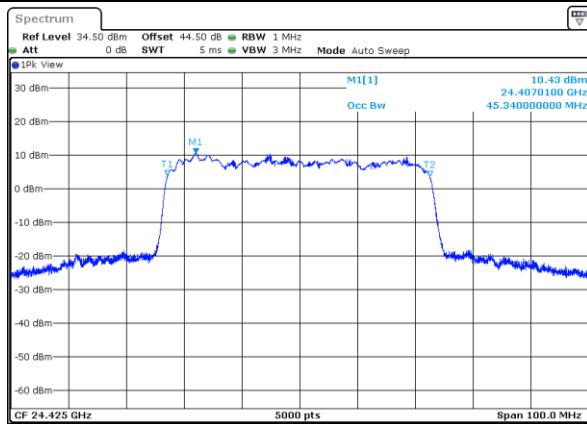
Date: 26.JUL.2020 10:05:23

Middle Channel / 50MHz / 16QAM



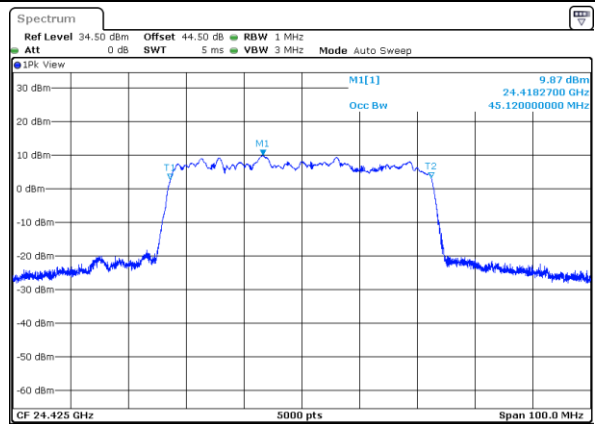
Date: 26.JUL.2020 10:06:19

Highest Channel / 50MHz / QPSK



Date: 26.JUL.2020 10:36:32

Highest Channel / 50MHz / 16QAM



Date: 26.JUL.2020 10:37:41