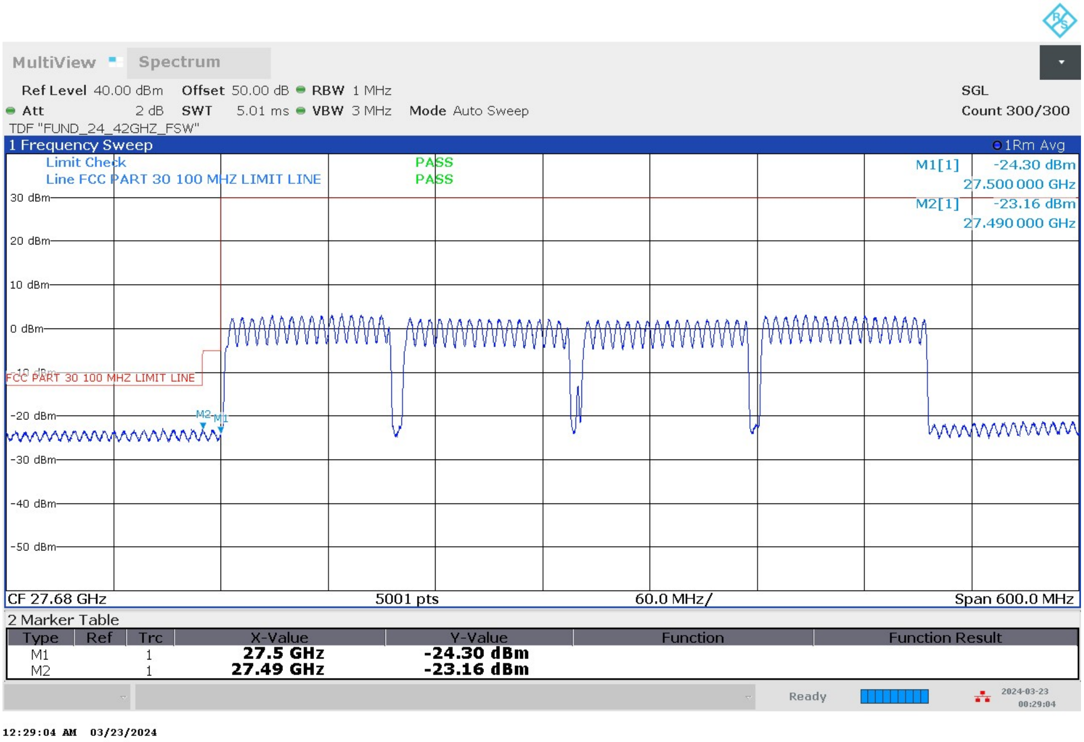
Ant J

n261

BW 100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS

M1[1] -24.30 dBm 27.500 000 GHz
M2[1] -23.16 dBm 27.490 000 GHz

CF 27.68 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	27.5 GHz	-24.30 dBm		
M2		1	27.49 GHz	-23.16 dBm		

Ready 2024-03-23 00:29:04

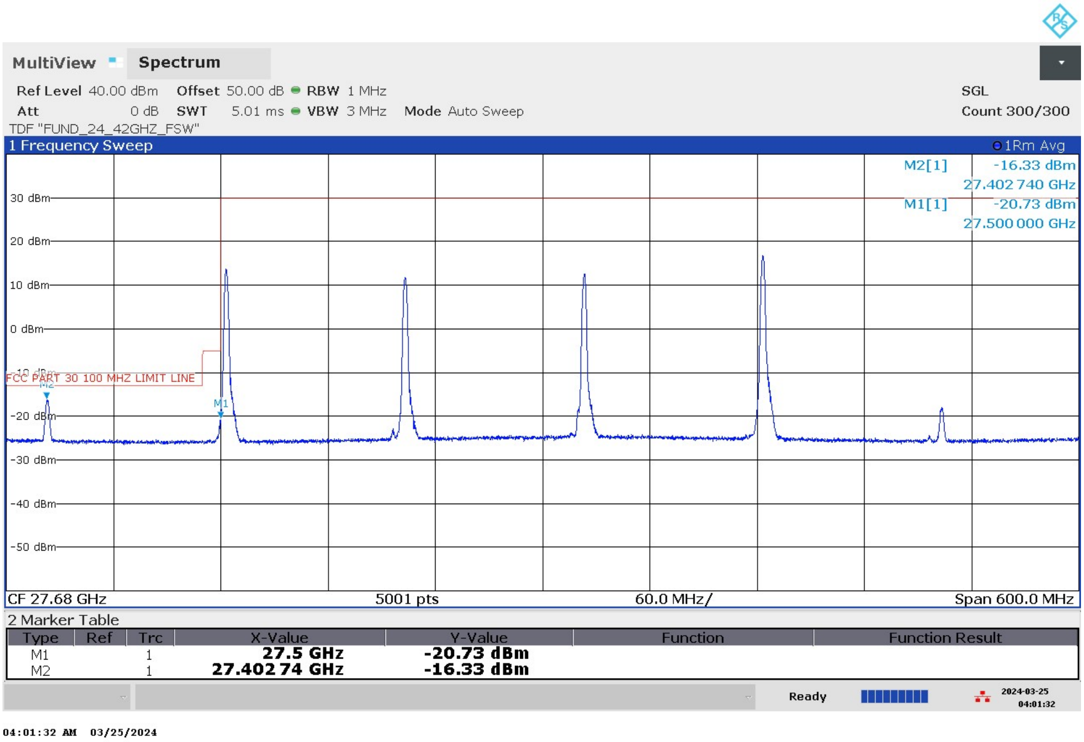
12:29:04 AM 03/23/2024

4CC / DFT-s / SISO-Dual / QPSK / Low channel / Full RB / Close

Ant J

n261

BW 100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 0 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

M2[1] -16.33 dBm 27.402 740 GHz
M1[1] -20.73 dBm 27.500 000 GHz

CF 27.68 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	27.5 GHz	-20.73 dBm		
M2		1	27.402 74 GHz	-16.33 dBm		

Ready 2024-03-25 04:01:32

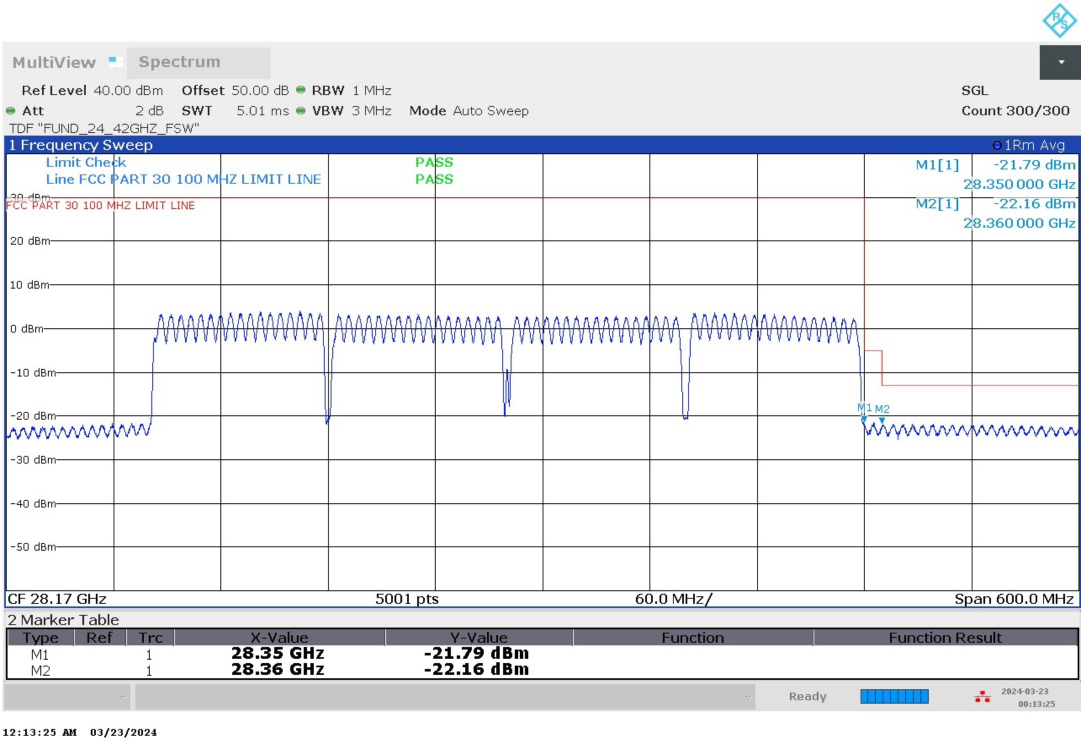
04:01:32 AM 03/25/2024

4CC / DFT-s / SISO-Dual / QPSK / Low channel / 1 RB / Close

Ant J

n261

BW 100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS

M1[1] -21.79 dBm 28.350 000 GHz
M2[1] -22.16 dBm 28.360 000 GHz

CF 28.17 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	28.35 GHz	-21.79 dBm		
M2		1	28.36 GHz	-22.16 dBm		

Ready 2024-03-23 00:13:25

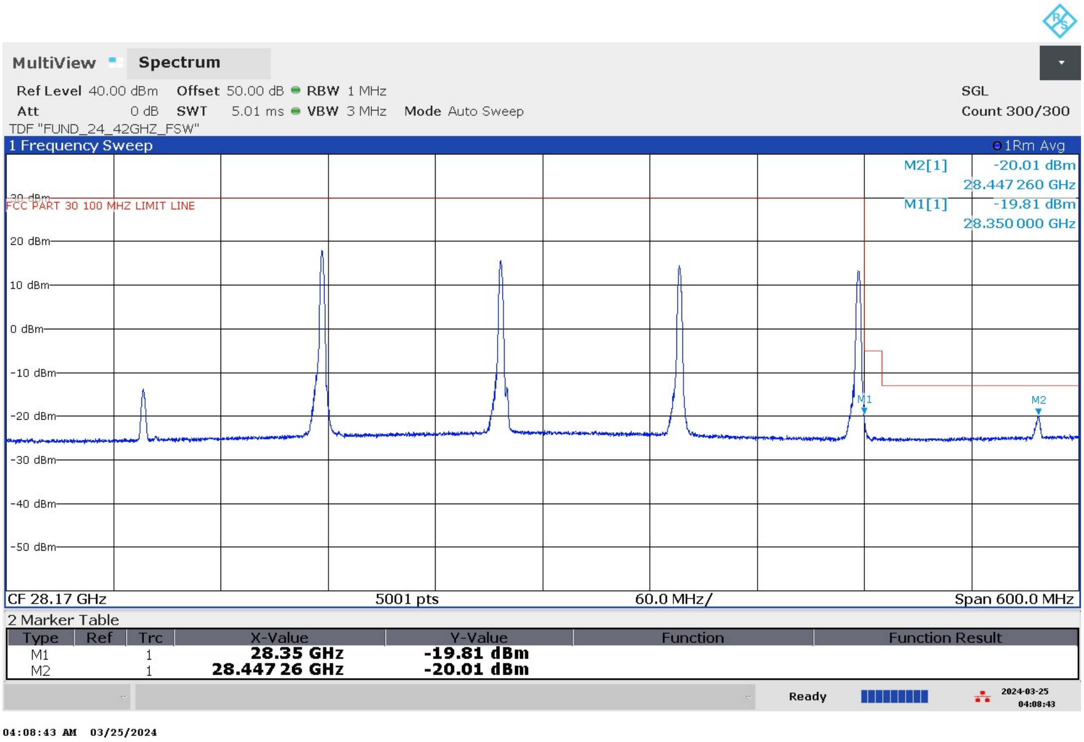
12:13:25 AM 03/23/2024

4CC / CP/ MIMO / QPSK / High channel / Full RB / Close

Ant J

n261

BW 100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 0 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

M2[1] -20.01 dBm 28.447 260 GHz
M1[1] -19.81 dBm 28.350 000 GHz

CF 28.17 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	28.35 GHz	-19.81 dBm		
M2		1	28.447 26 GHz	-20.01 dBm		

Ready 2024-03-25 04:08:43

04:08:43 AM 03/25/2024

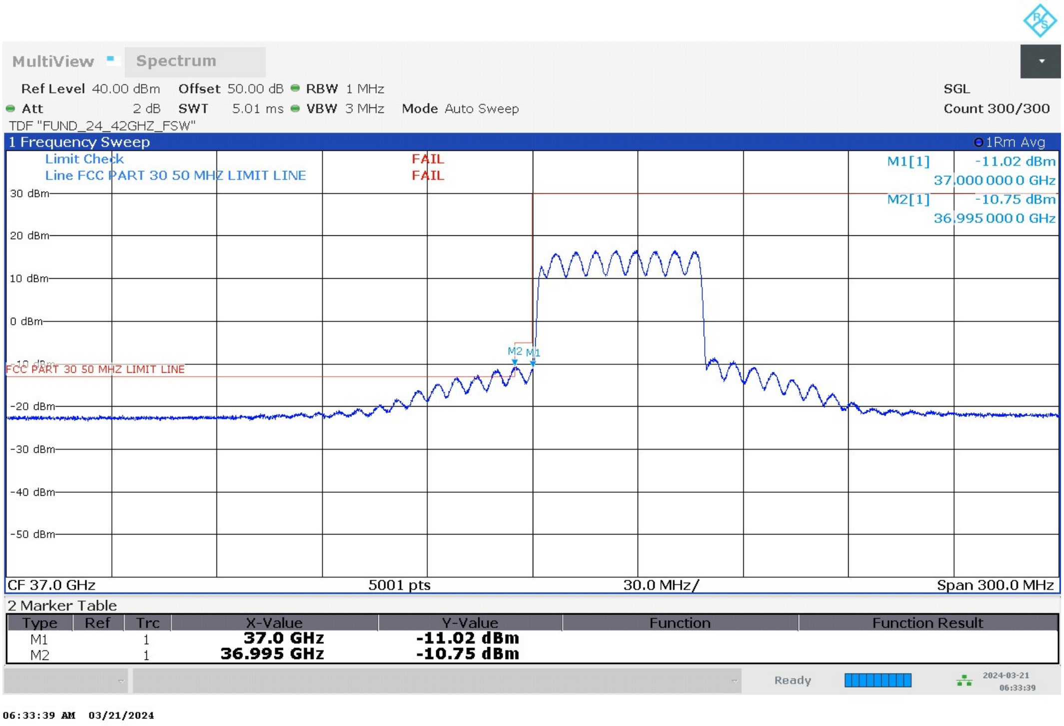
4CC / DFT-s / SISO-Dual / QPSK / High channel / 1 RB / Close

Antenna 1 / Ant J / Band n260

Ant J

n260

BW
50MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

Limit Check FAIL
Line FCC PART 30 50 MHZ LIMIT LINE FAIL

M1[1] -11.02 dBm 37.000 000 0 GHz
M2[1] -10.75 dBm 36.995 000 0 GHz

CF 37.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	37.0 GHz	-11.02 dBm		
M2		1	36.995 GHz	-10.75 dBm		

Ready 2024-03-21 06:33:39

06:33:39 AM 03/21/2024

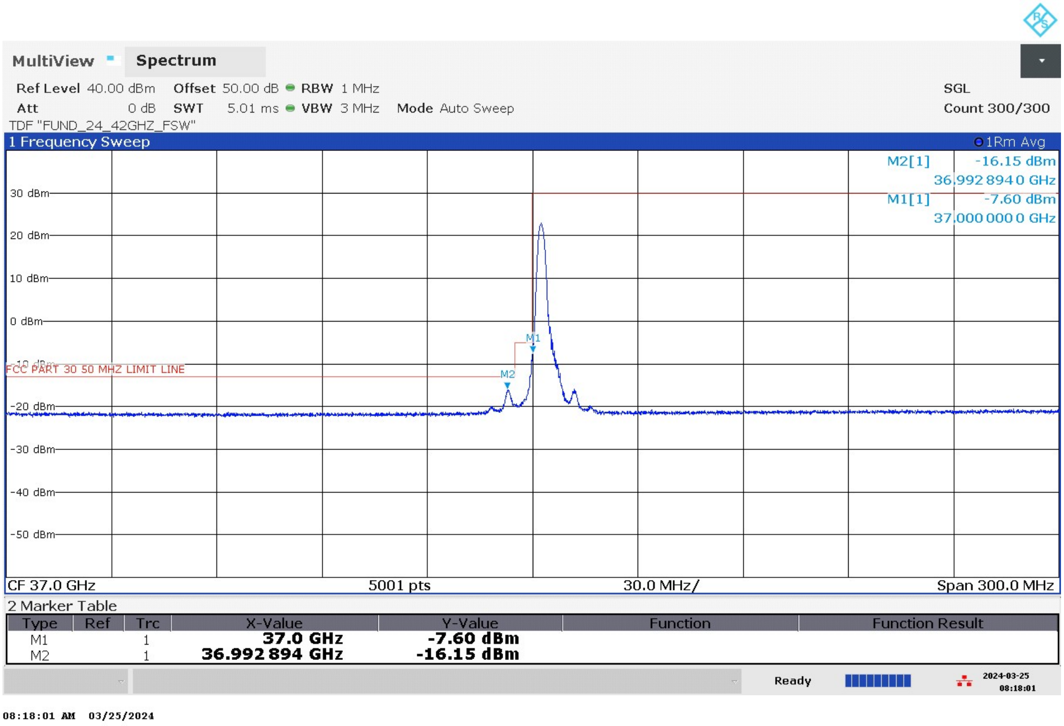
Frequency [GHz]	Beam ID	Beam Pol.	Antenna Gain[dBi]	EIRP Result [dBm]	Conductive power Result [dBm]	Margin	Limit
36.995	18+274	H+V	9.94	-10.75	-20.69	-7.69	-13dBm/MHz

1CC / DFT-s / SISO-Dual / 16QAM / Low channel / Full RB / Open

Ant J

n260

BW
50MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 0 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

M2[1] -16.15 dBm 36.992 894 0 GHz
M1[1] -7.60 dBm 37.000 000 0 GHz

CF 37.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	37.0 GHz	-7.60 dBm		
M2		1	36.992 894 GHz	-16.15 dBm		

Ready 2024-03-25 08:18:01

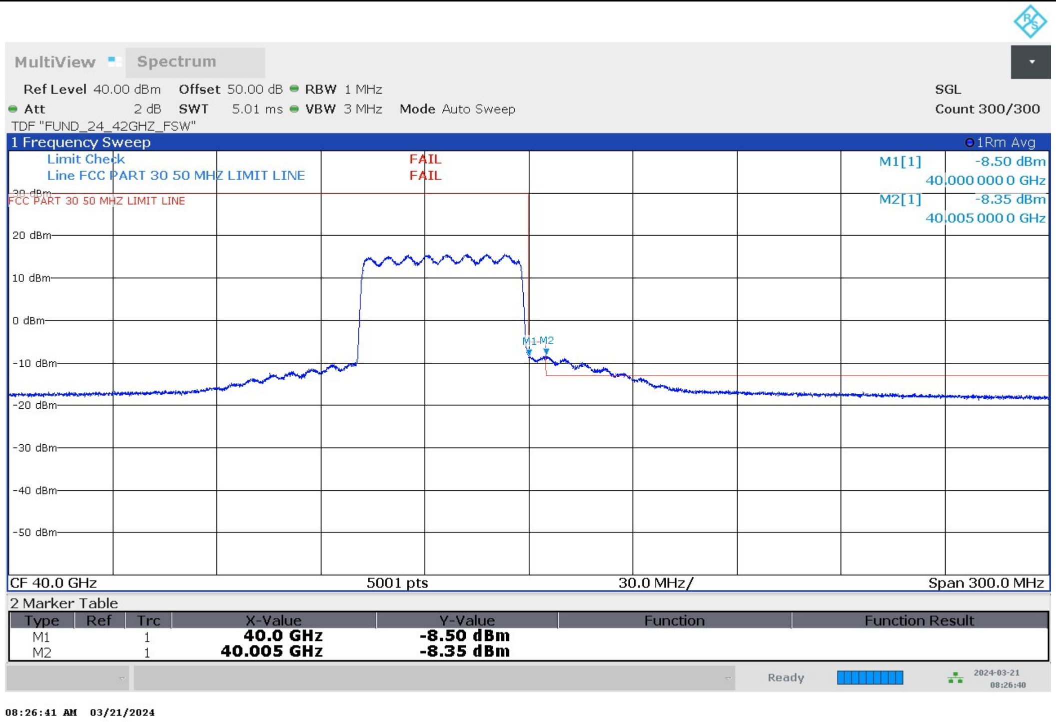
08:18:01 AM 03/25/2024

1CC / DFT-s / SISO-Dual / 16QAM / Low channel / 1 RB / Open

Ant J

n260

BW 50MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

Limit Check FAIL
Line FCC PART 30 50 MHZ LIMIT LINE FAIL

M1[1] -8.50 dBm 40.000 000 0 GHz
M2[1] -8.35 dBm 40.005 000 0 GHz

CF 40.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	40.0 GHz	-8.50 dBm		
M2		1	40.005 GHz	-8.35 dBm		

Ready 2024-03-21 08:26:40

08:26:41 AM 03/21/2024

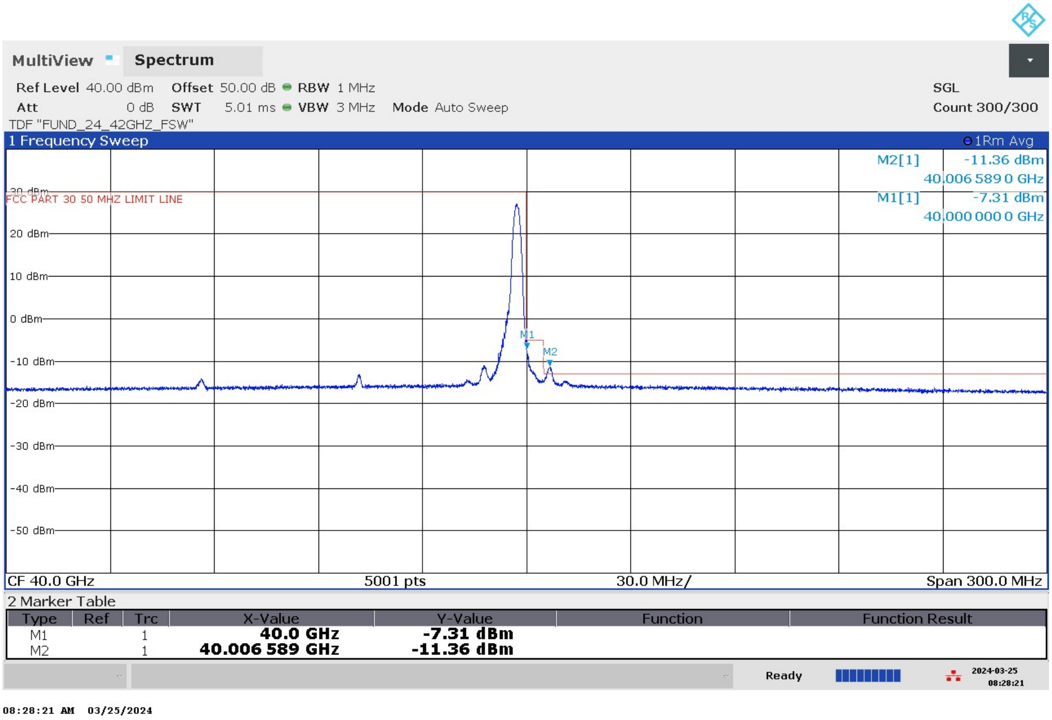
Frequency [GHz]	Beam ID	Beam Pol.	Antenna Gain[dBi]	EIRP Result [dBm]	Conductive power Result [dBm]	Margin	Limit
40.005	18+274	H+V	10.00	-8.35	-18.35	-5.35	-13dBm/MHz

1CC / DFT-s / SISO-Dual / 16QAM / High channel / Full RB / Open

Ant J

n260

BW 50MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 0 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg

M2[1] -11.36 dBm 40.006 589 0 GHz
M1[1] -7.31 dBm 40.000 000 0 GHz

CF 40.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	40.0 GHz	-7.31 dBm		
M2		1	40.006 589 GHz	-11.36 dBm		

Ready 2024-03-25 08:28:21

08:28:21 AM 03/25/2024

Frequency [GHz]	Beam ID	Beam Pol.	Antenna Gain[dBi]	EIRP Result [dBm]	Conductive power Result [dBm]	Margin	Limit
40.007	18+274	H+V	10.00	-11.36	-21.36	-8.36	-13dBm/MHz

1CC / DFT-s / SISO-Dual / 16QAM / High channel / 1 RB / Open

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n260

BW
100MHz</td>
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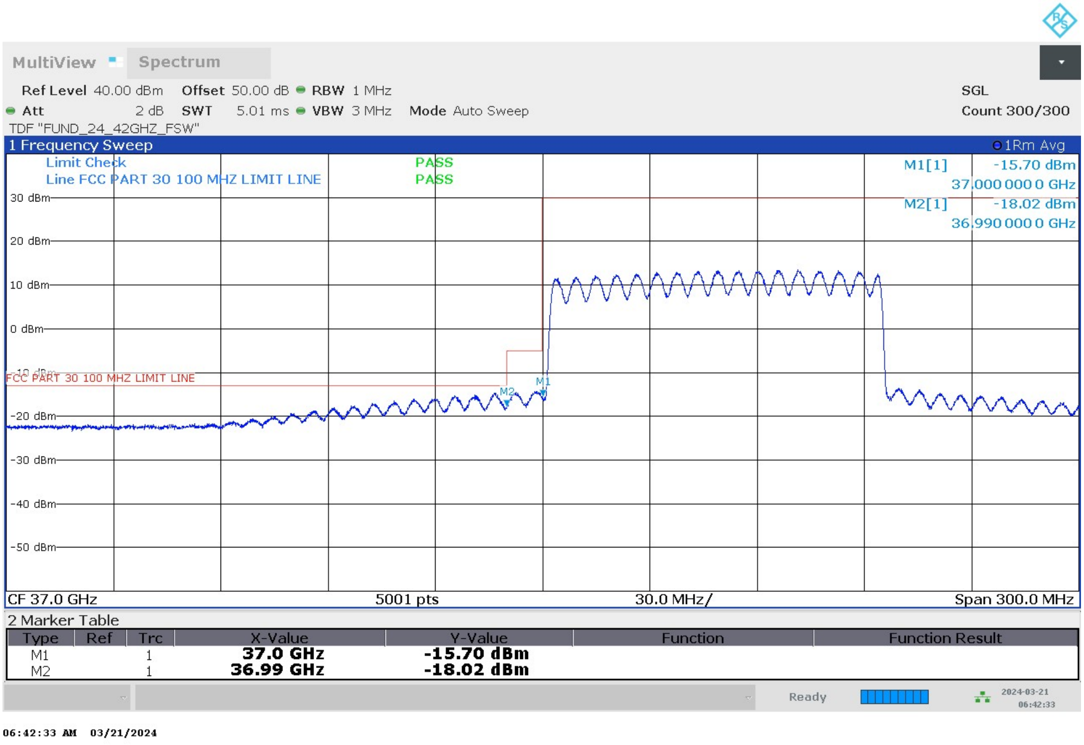

MultiView Spectrum
Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"
1 Frequency Sweep 1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -15.70 dBm 37.000 000 0 GHz
M2[1] -18.02 dBm 36.990 000 0 GHz
CF 37.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz
2 Marker Table
<table>
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<tr><td>M1</td><td></td><td>1</td><td>37.0 GHz</td><td>-15.70 dBm</td><td></td><td></td></tr>
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1CC / DFT-s / SISO-Dual / 16QAM / Low channel / Full RB / Open
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n260

BW
100MHz</td>
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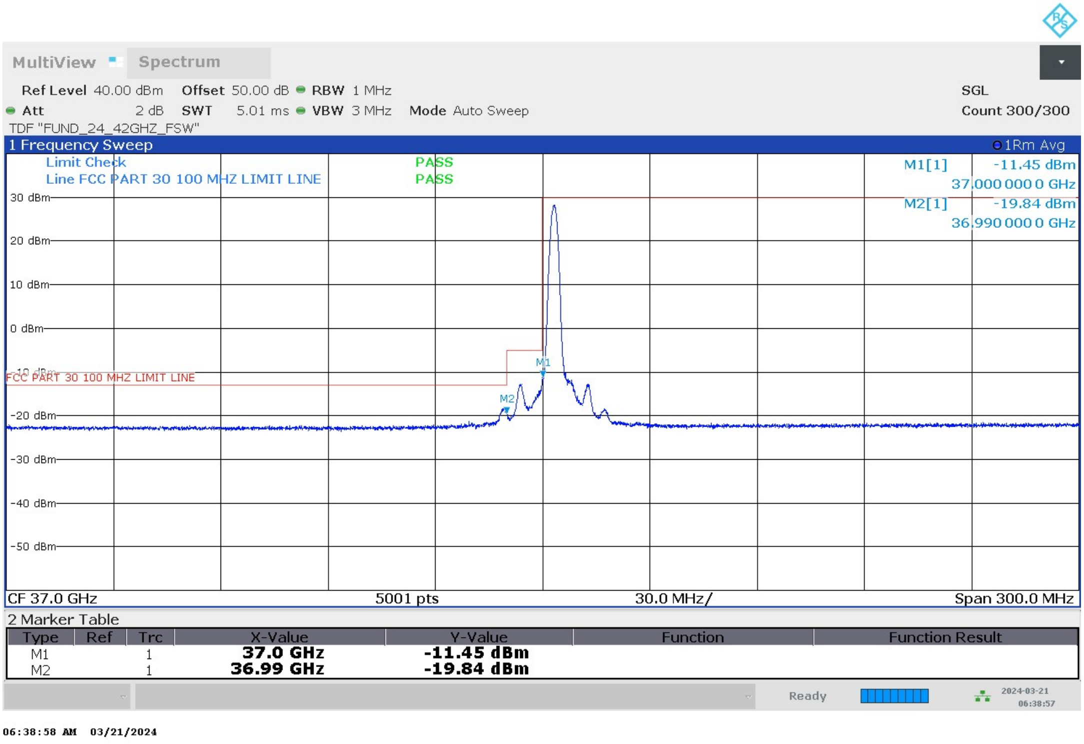

MultiView Spectrum
Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"
1 Frequency Sweep 1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -11.45 dBm 37.000 000 0 GHz
M2[1] -19.84 dBm 36.990 000 0 GHz
CF 37.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz
2 Marker Table
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<tr><td>M2</td><td></td><td>1</td><td>36.99 GHz</td><td>-19.84 dBm</td><td></td><td></td></tr>
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06:38:58 AM 03/21/2024
1CC / DFT-s / SISO-Dual / 16QAM / Low channel / 1 RB / Open
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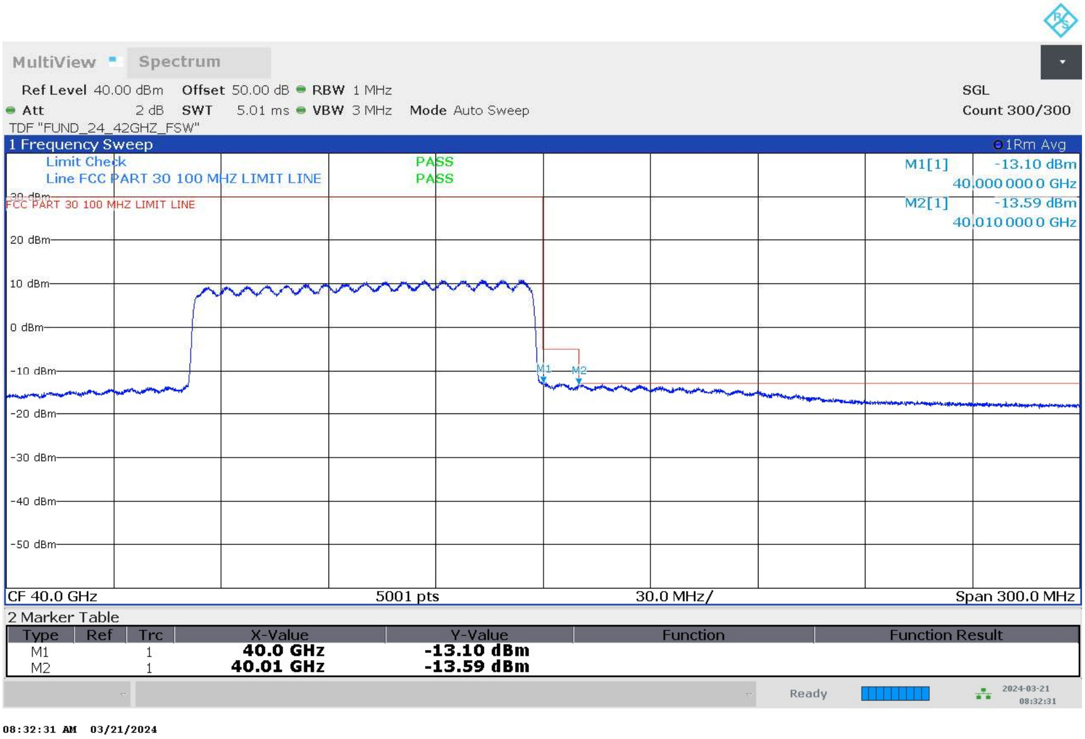
Ant J

n260

BW
100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -13.10 dBm 40.000 000 0 GHz
M2[1] -13.59 dBm 40.010 000 0 GHz

CF 40.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	40.0 GHz	-13.10 dBm		
M2		1	40.01 GHz	-13.59 dBm		

Ready 2024-03-21 08:32:31

08:32:31 AM 03/21/2024

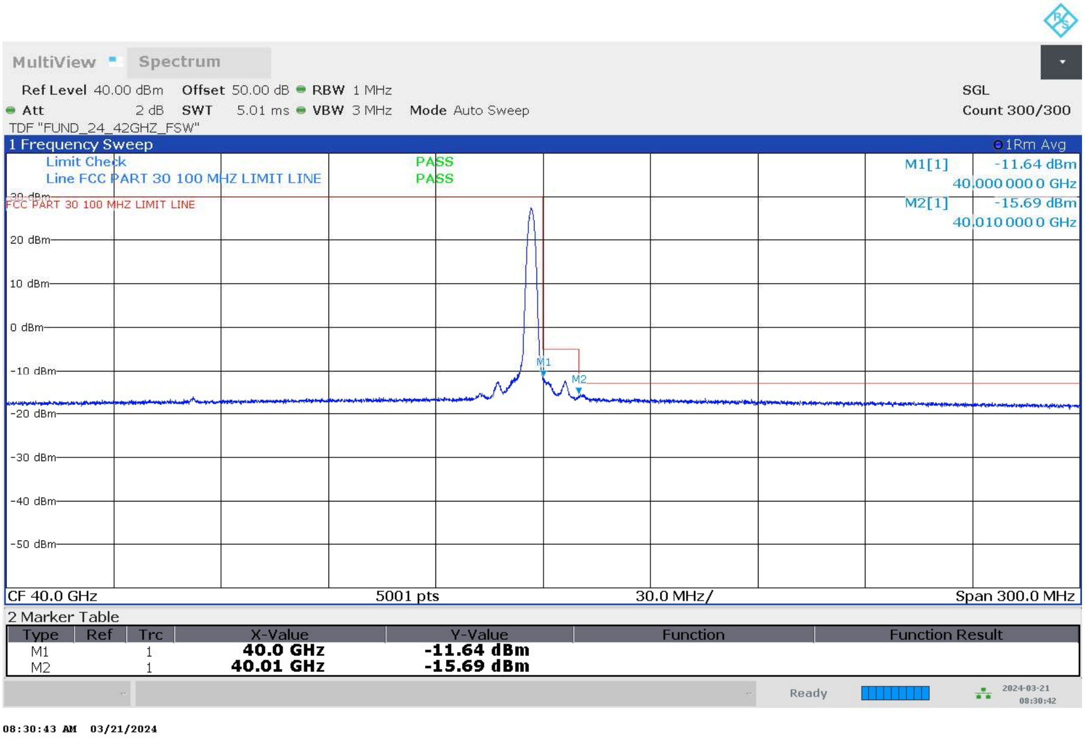
Frequency [GHz]	Beam ID	Beam Pol.	Antenna Gain[dBi]	EIRP Result [dBm]	Conductive power Result [dBm]	Margin	Limit
40.010	18+274	H+V	10.00	-13.59	-23.59	-10.59	-13dBm/MHz

1CC / CP / MIMO / 16QAM / High channel / Full RB / Open

Ant J

n260

BW
100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep 1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -11.64 dBm 40.000 000 0 GHz
M2[1] -15.69 dBm 40.010 000 0 GHz

CF 40.0 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	40.0 GHz	-11.64 dBm		
M2		1	40.01 GHz	-15.69 dBm		

Ready 2024-03-21 08:30:42

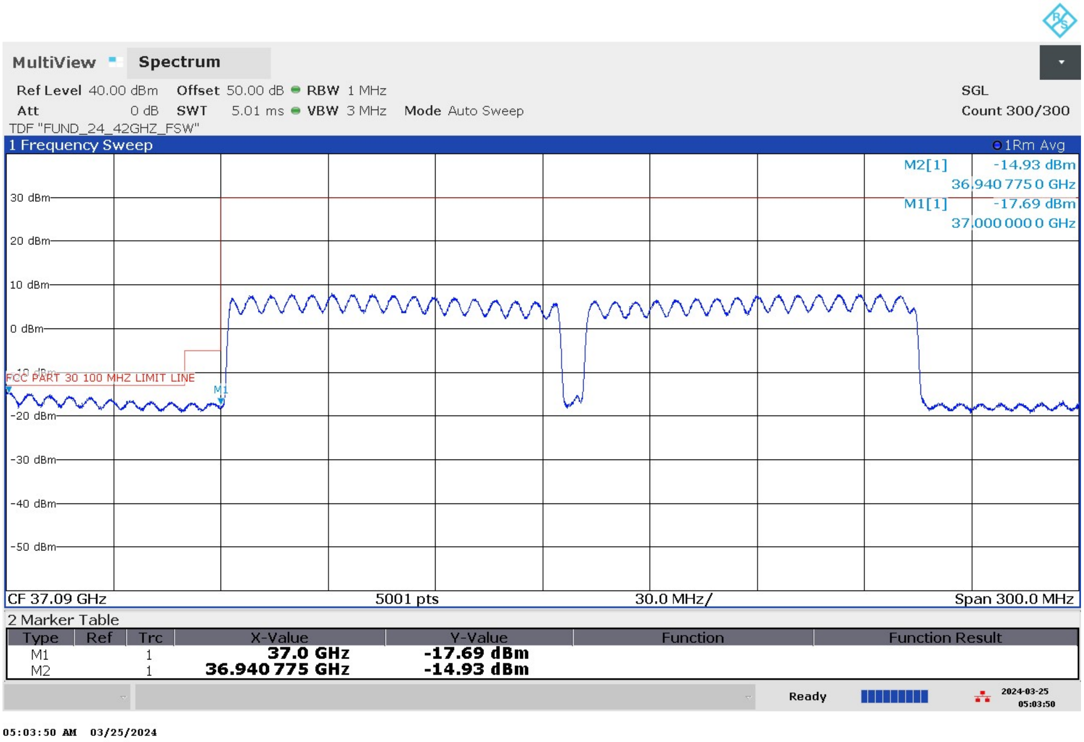
08:30:43 AM 03/21/2024

1CC / DFT-s / SISO-Dual / 16QAM / High channel / 1 RB / Open

Ant J

n260

BW
100MHz



Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 0 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

M2[1] -14.93 dBm
36.940 775 0 GHz
M1[1] -17.69 dBm
37.000 000 0 GHz

CF 37.09 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**37.0 GHz**	**-17.69 dBm**		
M2		1	**36.940 775 GHz**	**-14.93 dBm**		

2024-03-25
05:03:50

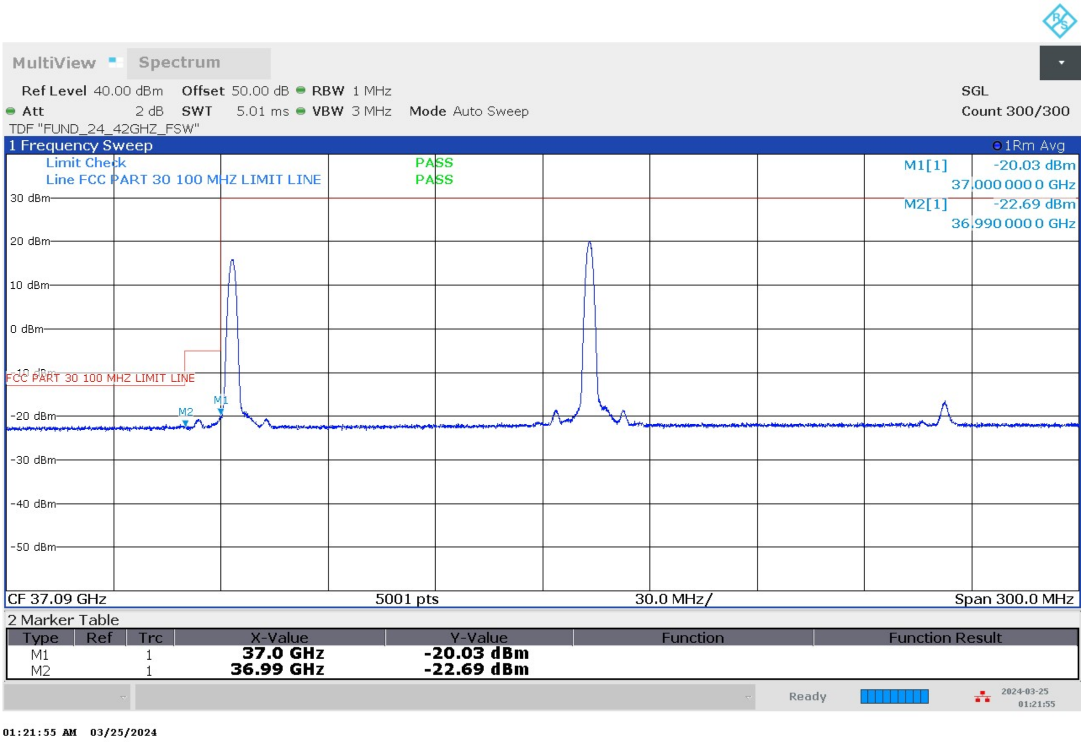
05:03:50 AM 03/25/2024

2CC / DFT-s / SISO-Dual / QPSK / Low channel / Full RB / Close

Ant J

n260

BW
100MHz



Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS

M1[1] -20.03 dBm
37.000 000 0 GHz
M2[1] -22.69 dBm
36.990 000 0 GHz

CF 37.09 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**37.0 GHz**	**-20.03 dBm**		
M2		1	**36.99 GHz**	**-22.69 dBm**		

2024-03-25
01:21:55

01:21:55 AM 03/25/2024

2CC / DFT-s / SISO-Dual / QPSK / Low channel / 1 RB / Close

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BW 100MHz</td>
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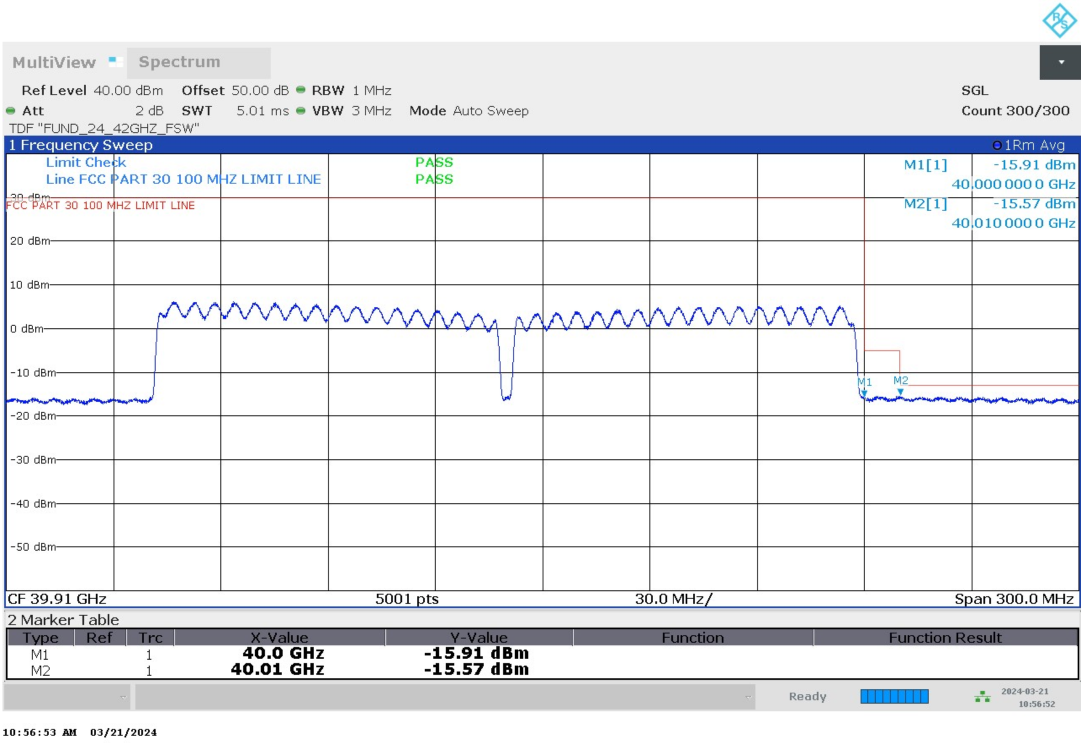

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"
1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -15.91 dBm 40.000 000 0 GHz
M2[1] -15.57 dBm 40.010 000 0 GHz
CF 39.91 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz
2 Marker Table
<table>
<tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr>
<tr><td>M1</td><td></td><td>1</td><td>40.0 GHz</td><td>-15.91 dBm</td><td></td><td></td></tr>
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n260
BW 100MHz</td>
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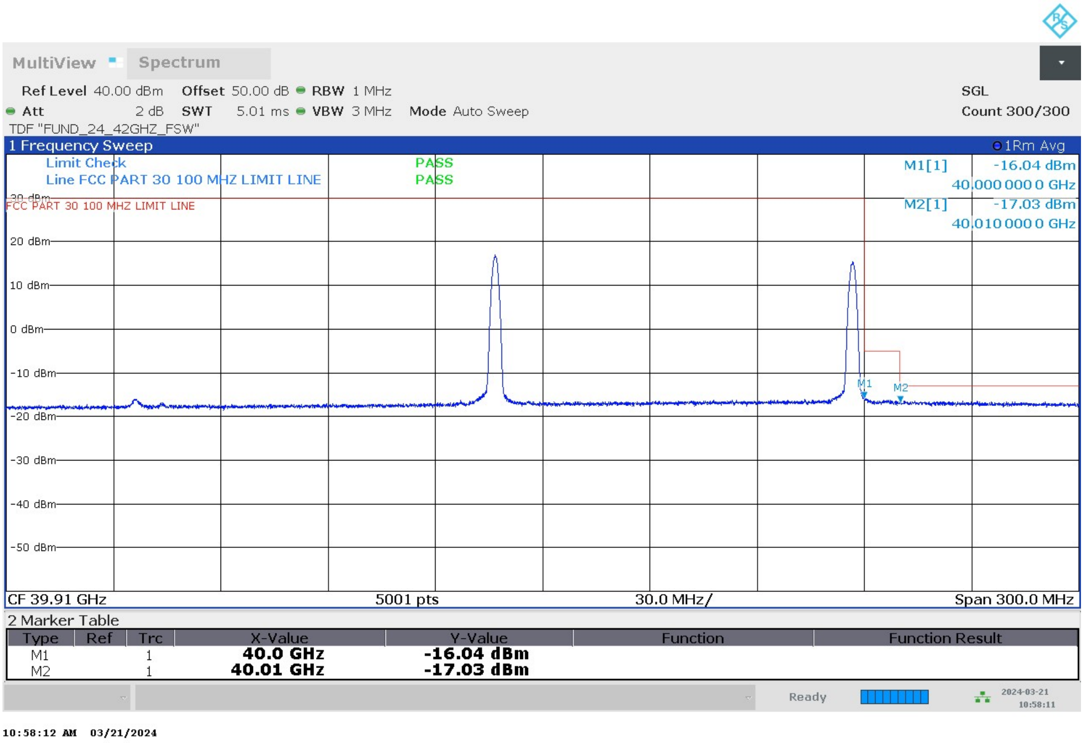

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"
1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -16.04 dBm 40.000 000 0 GHz
M2[1] -17.03 dBm 40.010 000 0 GHz
CF 39.91 GHz 5001 pts 30.0 MHz/ Span 300.0 MHz
2 Marker Table
<table>
<tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr>
<tr><td>M1</td><td></td><td>1</td><td>40.0 GHz</td><td>-16.04 dBm</td><td></td><td></td></tr>
<tr><td>M2</td><td></td><td>1</td><td>40.01 GHz</td><td>-17.03 dBm</td><td></td><td></td></tr>
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10:58:12 AM 03/21/2024
2CC / DFT-s / SISO-Dual / 16QAM / High channel / 1 RB / Open
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Ant J

n260

BW 100MHz

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

M1[1] -20.21 dBm 37.000 000 0 GHz
M2[1] -20.01 dBm 36.990 000 0 GHz

CF 37.12 GHz 5001 pts 40.0 MHz/ Span 400.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**37.0 GHz**	**-20.21 dBm**		
M2		1	**36.99 GHz**	**-20.01 dBm**		

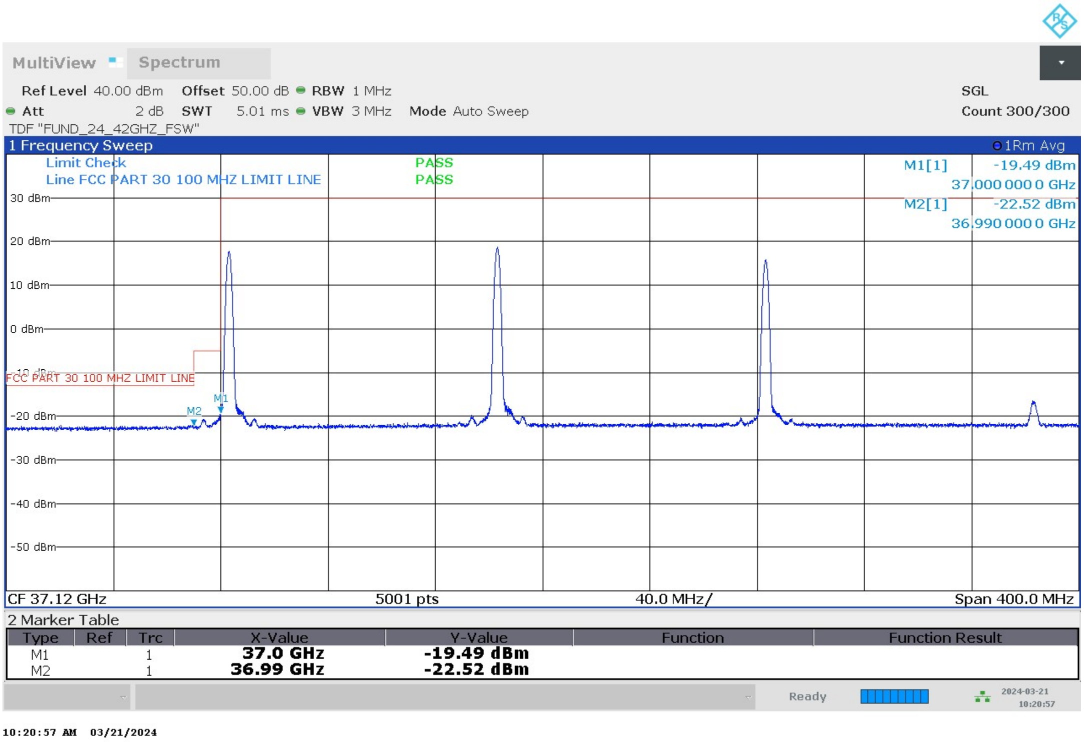
10:19:39 AM 03/21/2024

3CC / DFT-s / SISO-Dual / QPSK / Low channel / Full RB / Open

Ant J

n260

BW 100MHz



Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

M1[1] -19.49 dBm 37.000 000 0 GHz
M2[1] -22.52 dBm 36.990 000 0 GHz

CF 37.12 GHz 5001 pts 40.0 MHz/ Span 400.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**37.0 GHz**	**-19.49 dBm**		
M2		1	**36.99 GHz**	**-22.52 dBm**		

10:20:57 AM 03/21/2024

3CC / DFT-s / SISO-Dual / QPSK / Low channel / 1 RB / Open

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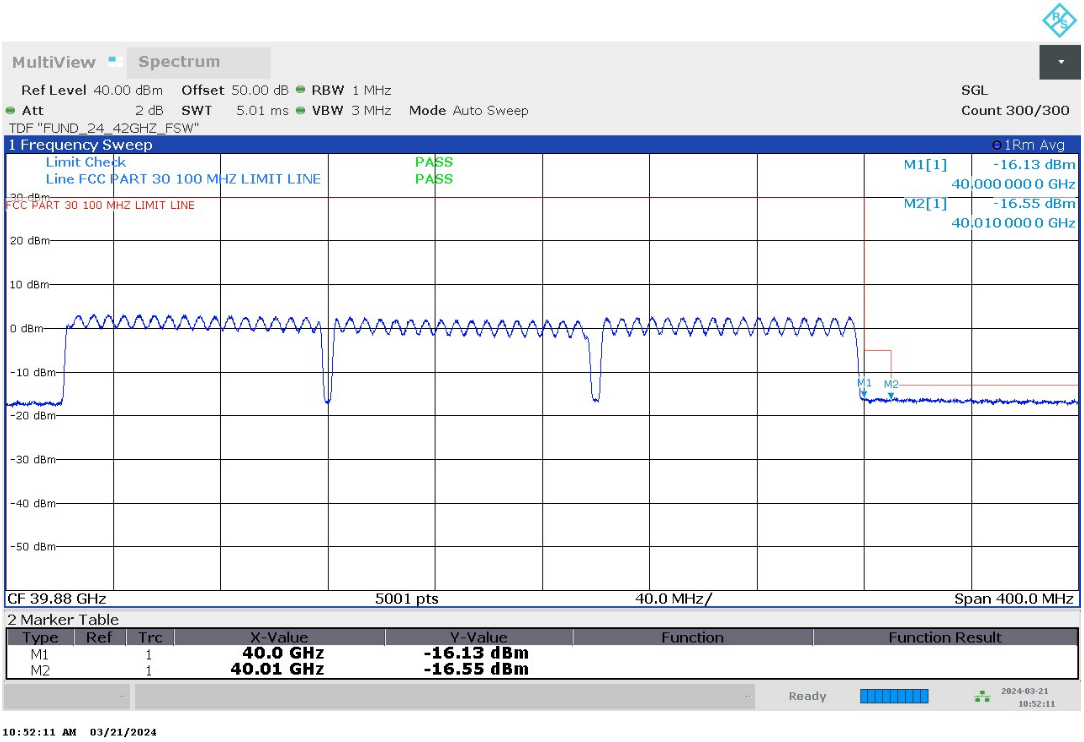

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"
1 Frequency Sweep 1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -16.13 dBm 40.000 000 0 GHz
M2[1] -16.55 dBm 40.010 000 0 GHz
CF 39.88 GHz 5001 pts 40.0 MHz/ Span 400.0 MHz
2 Marker Table
Type Ref Trc X-Value Y-Value Function Function Result
M1 1 40.0 GHz -16.13 dBm
M2 1 40.01 GHz -16.55 dBm
Ready 2024-03-21 10:52:11
10:52:11 AM 03/21/2024
3CC / CP / MIMO / QPSK / High channel / Full RB / Open
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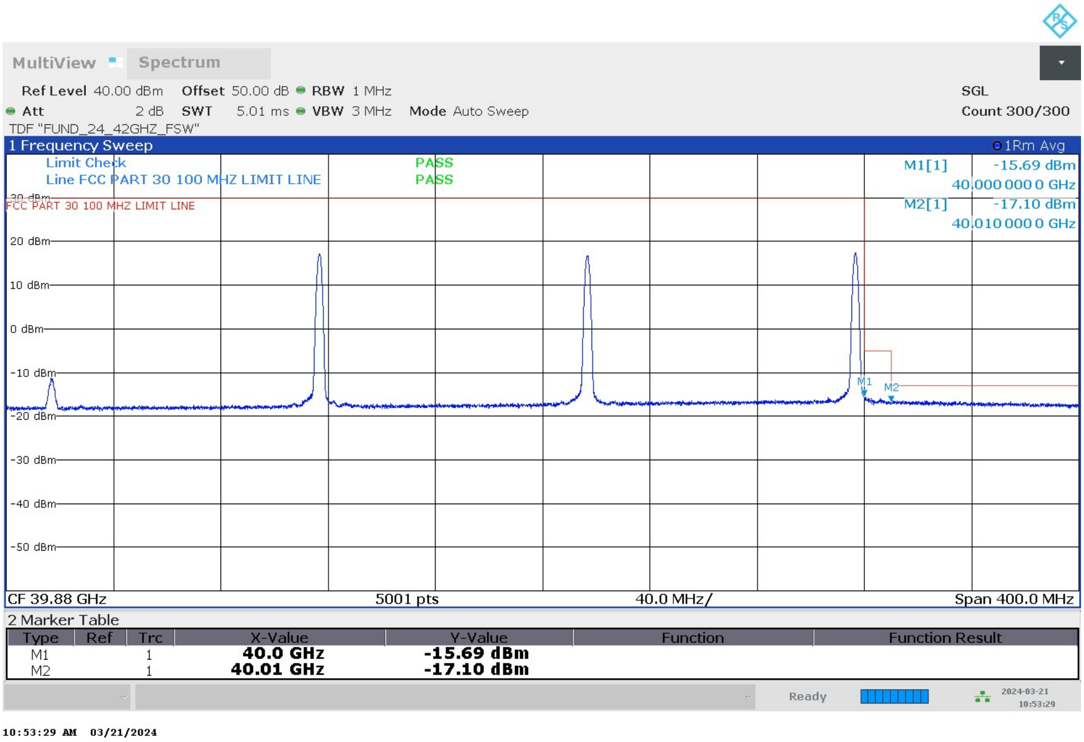
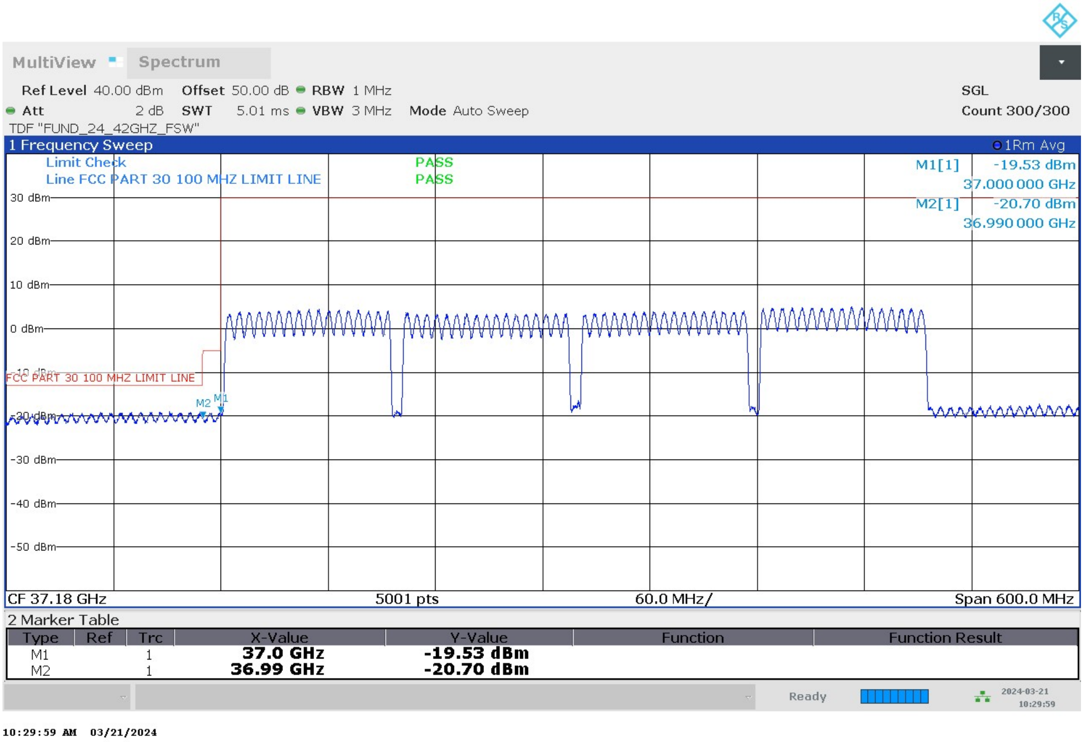
n260
BW
100MHz</td>
<td>


Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"
1 Frequency Sweep 1Rm Avg
Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS
M1[1] -15.69 dBm 40.000 000 0 GHz
M2[1] -17.10 dBm 40.010 000 0 GHz
CF 39.88 GHz 5001 pts 40.0 MHz/ Span 400.0 MHz
2 Marker Table
Type Ref Trc X-Value Y-Value Function Function Result
M1 1 40.0 GHz -15.69 dBm
M2 1 40.01 GHz -17.10 dBm
Ready 2024-03-21 10:53:29
10:53:29 AM 03/21/2024
3CC / DFT-s / SISO-Dual / QPSK / High channel / 1 RB / Open
</td>
</tr>
</table>

Ant J

n260

BW
100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 2 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep

Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS

M1[1] -19.53 dBm 37.000 000 GHz
M2[1] -20.70 dBm 36.990 000 GHz

CF 37.18 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	37.0 GHz	-19.53 dBm		
M2		1	36.99 GHz	-20.70 dBm		

Ready 2024-03-21 10:29:59

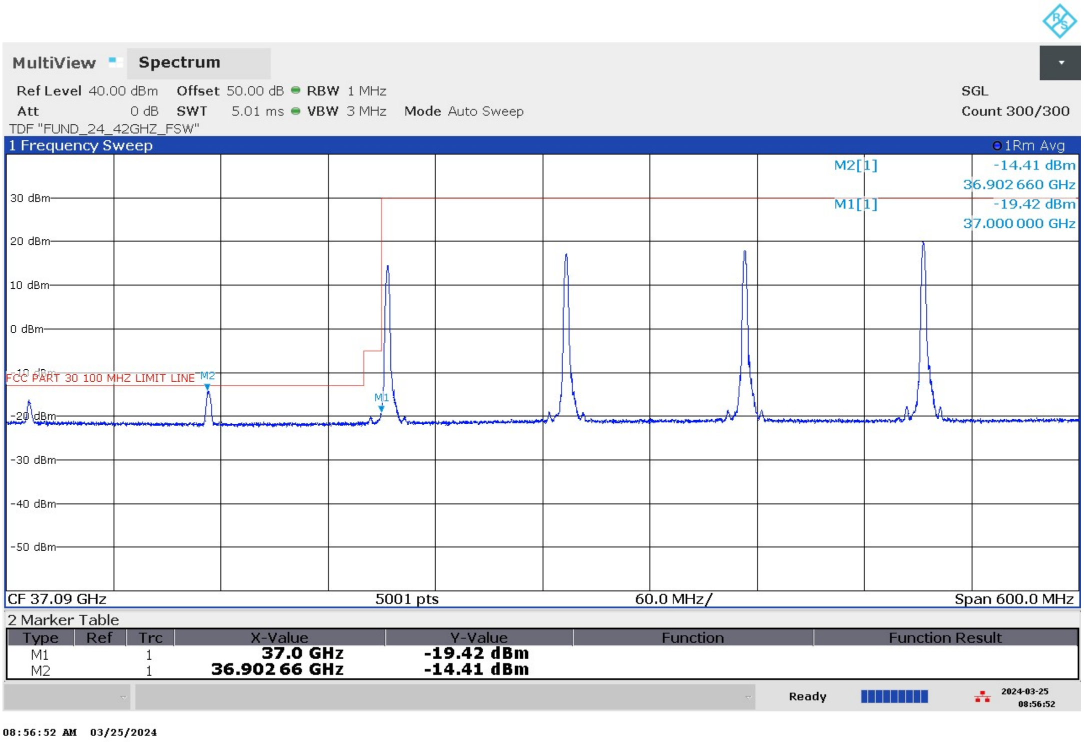
10:29:59 AM 03/21/2024

4CC / DFT-s / SISO-Dual / QPSK / Low channel / Full RB / Open

Ant J

n260

BW
100MHz



MultiView Spectrum

Ref Level 40.00 dBm Offset 50.00 dB RBW 1 MHz SGL
Att 0 dB SWT 5.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep

M2[1] -14.41 dBm 36.902 660 GHz
M1[1] -19.42 dBm 37.000 000 GHz

CF 37.09 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	37.0 GHz	-19.42 dBm		
M2		1	36.902 66 GHz	-14.41 dBm		

Ready 2024-03-25 08:56:52

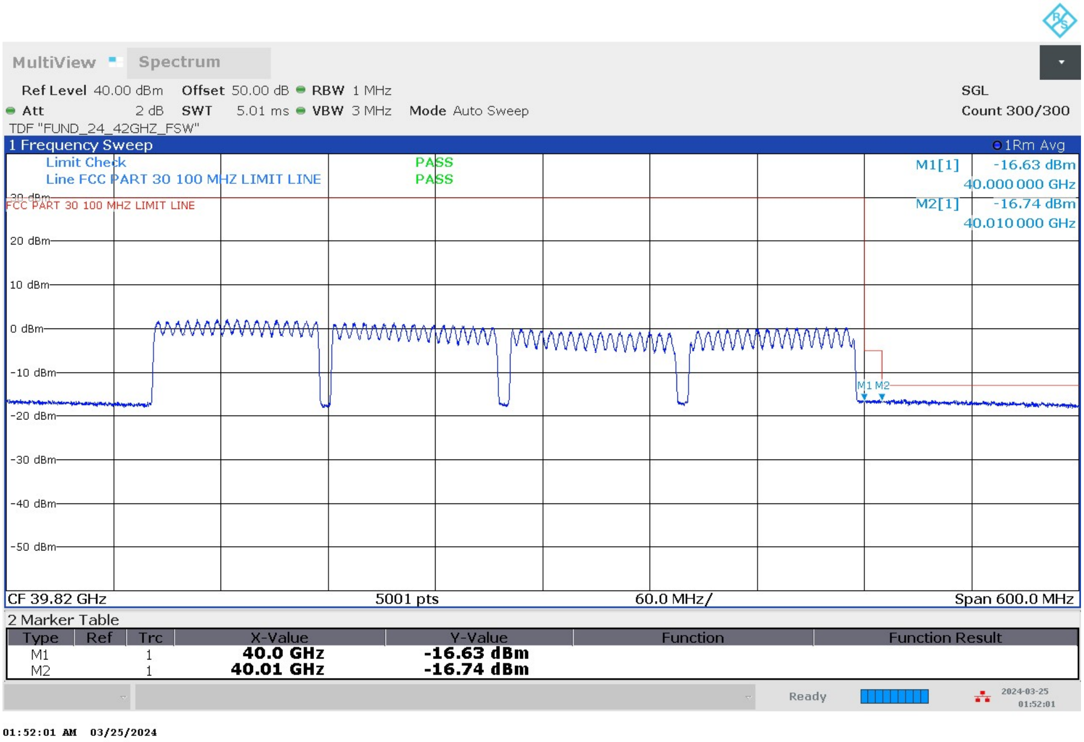
08:56:52 AM 03/25/2024

4CC / DFT-s / SISO-Dual / QPSK / Low channel / 1 RB / Open

Ant J

n260

BW 100MHz



MultiView **Spectrum**

Ref Level 40.00 dBm **Offset** 50.00 dB **RBW** 1 MHz **SGL**
Att 2 dB **SWT** 5.01 ms **VBW** 3 MHz **Mode** Auto Sweep **Count** 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep ○1Rm Avg

Limit Check PASS
Line FCC PART 30 100 MHZ LIMIT LINE PASS

M1[1] -16.63 dBm 40.000 000 GHz
M2[1] -16.74 dBm 40.010 000 GHz

CF 39.82 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**40.0 GHz**	**-16.63 dBm**		
M2		1	**40.01 GHz**	**-16.74 dBm**		

Ready 2024-03-25 01:52:01

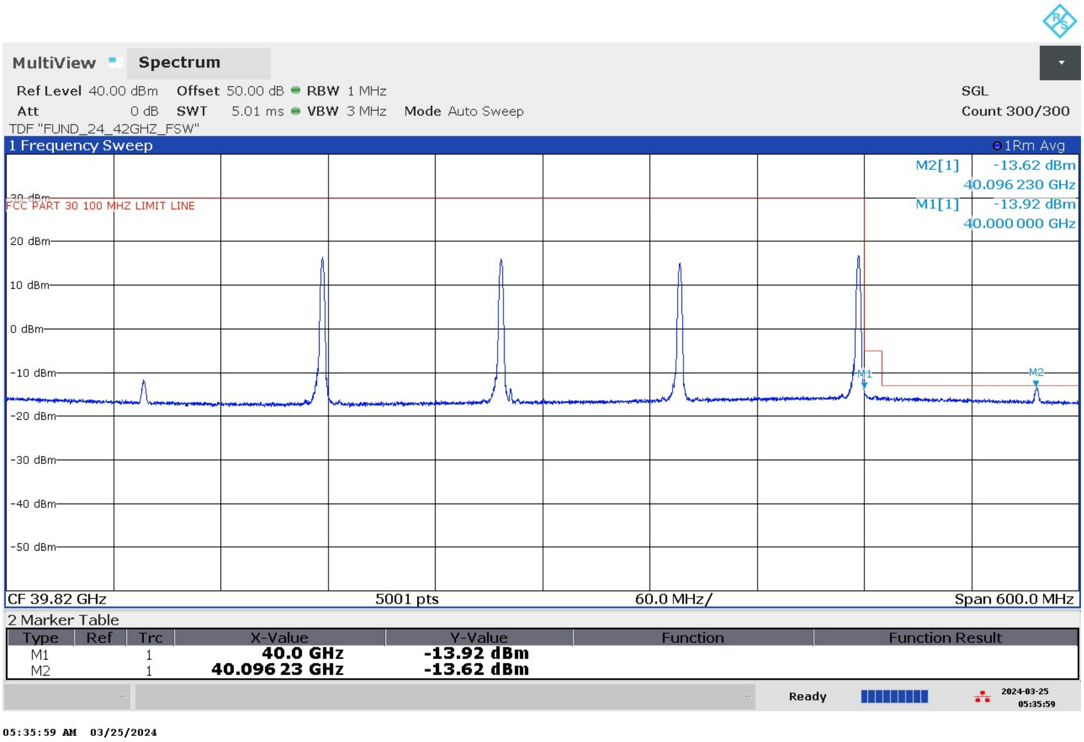
01:52:01 AM 03/25/2024

4CC / CP / MIMO / 16QAM / High channel / Full RB / Close

Ant J

n260

BW 100MHz



MultiView **Spectrum**

Ref Level 40.00 dBm **Offset** 50.00 dB **RBW** 1 MHz **SGL**
Att 0 dB **SWT** 5.01 ms **VBW** 3 MHz **Mode** Auto Sweep **Count** 300/300
TDF "FUND_24_42GHZ_FSW"

1 Frequency Sweep ○1Rm Avg

M2[1] -13.62 dBm 40.096 230 GHz
M1[1] -13.92 dBm 40.000 000 GHz

CF 39.82 GHz 5001 pts 60.0 MHz/ Span 600.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**40.0 GHz**	**-13.92 dBm**		
M2		1	**40.096 23 GHz**	**-13.62 dBm**		

Ready 2024-03-25 05:35:59

05:35:59 AM 03/25/2024

Frequency [GHz]	Beam ID	Beam Pol.	Antenna Gain[dBi]	EIRP Result [dBm]	Conductive power Result [dBm]	Margin	Limit
40.096	18+274	H+V	11.07	-13.62	-24.69	-11.69	-13dBm/MHz

4CC / DFT-s / SISO-Dual / 16QAM / High channel / 1 RB / Close

8.4. RADIATED SPURIOUS AND HARMONIC EMISSIONS

RULE PART(S)

FCC: §2.1051, §30.203

LIMITS

30.203 - (a) The conductive power or the total radiated power of any emission outside a licensee's frequency block shall be −13 dBm/MHz or lower.

TEST PROCEDURE

a) Start frequency was set to 30MHz and stop frequency was set to 100 GHz for n261 and 200GHz for n260.
b) Set the RBW = 100kHz for emission below 1GHz and 1MHz for emissions above 1GHz
c) Set VBW ≥ 3 × RBW;
d) Detector = RMS;
e) Trace mode = trace average;
f) Sweep time = auto couple;
g) Number of sweep points ≥ 2 x Span/RBW

(KDB 842590 D01 Upper Microwave Flexible Use Service v01r02 Section 4.4.2 and Section 4.4.3)
(ANSI C63.26-2015 Section 5.7.4)

NOTE

The EUT was tested in three orthogonal planes and in all possible test configurations and positioning.

Where the measured EIRP results exceed the TRP limit, a TRP measurement is made. Otherwise, the EIRP results are compared with the §30.203 TRP limit to demonstrate compliance.

The plots from 1-200GHz show corrected average EIRP levels. Plots below 1GHz are corrected field strength levels. The average EIRP reported below is calculated per section 5.2.7 of ANSI C63.26-2015 which states: EIRP (dBm) = E (dBμV/m) + 20log(D) − 104.8; where D is the measurement distance (in the far field region) in m. The field strength E is calculated E (dBμV/m) = Spectrum Analyzer Level (dBm) + Antenna Factor (dB/m) + Cable Loss (dB) + Harmonic Mixer Conversion Loss (dB) + 107. All appropriate Antenna Factor and Cable Loss have been applied in the spectrum analyzer for each measurement. For measurements > 50GHz, Harmonic Mixer Conversion Loss was also applied to the spectrum analyzer.

Sample Analyzer Offset Calculation (1 - 50GHz, test distance = 1m)
EIRP (dBm) = Spectrum Analyzer Level (dBm) + Antenna Factor (dB/m) + Cable Loss (dB) + 107 + 20log(D) − 104.8
All factors except spectrum analyzer level are applied as correction factors each band in the analyzer.

Sample Analyzer Offset Calculation (50 - 200GHz, test distance = 1m)
EIRP (dBm) = Spectrum Analyzer Level (dBm) + Antenna Factor (dB/m) + Cable Loss (dB) + Harmonic Mixer Conversion Loss (dB) + 107 + 20log(D) − 104.8
All factors except spectrum analyzer level are applied as correction factors each band in the analyzer.

Emissions below 18GHz were measured at a 3 meter test distance, while emissions above 18GHz were measured at the appropriate far field distance. The far field of the mmWave signal is based on formula: R > $2D^2$/wavelength, where D is the larger between the dimension of the measurement antenna and the transmitting antenna of the EUT. In this case, D is the largest dimension of the measurement antenna.

Frequency Range(GHz)	Wavelength(m)	Far Field Distance(m)	Measurement Distance(m)
18-40	0.008	0.54	1.00 (EIRP and Band Edge = 3.00)
40-50	0.006	1.05	1.50
50-75	0.004	0.69	1.00
75-110	0.003	0.46	1.00
110-175	0.002	0.34	1.00
175-200	0.002	0.16	1.00

All emissions from 18GHz - 50GHz were measured using a spectrum analyzer with an internal preamplifier. Emissions above 50GHz were measured using a harmonic mixer with the spectrum analyzer.

All RSE's were measured with for n258, n261 and n260 band by Low, Mid and High Channel with 1CC. It was determined that adding more CC's causes the overall amplitude of just 1CC to decrease, therefore, 1CC is the worst case for the purposes of spurious emissions measurements.

pi/2-BPSK, QPSK, 16QAM and 64QAM modulations were all investigated in SISO, SISO-Dual and MIMO configurations, QPSK was set for final test as the worst-case modulation. The highest spurious emissions were for the SISO-Dual antenna configuration consistent with this also being the configuration with the highest EIRP. The SISO-Dual configuration was, therefore, use for the final emission measurements.

All Waveforms (CP-OFDM vs DFT-s OFDM) were investigated and DFT-s OFDM was determined as the worst-case used for test.

All RSE's were investigated in each frequency range of all supported Band(n258, n261 and n 260) and reported for the worst channel data. where no significant emissions were observed the EUT, mid channel is reported.

RSE emissions were investigated on all EUT configurations, and the worst configuration on each band is as the below.

- n258 SB1 band : Half open
- n258 SB2 band : Close
- n261 band : Close
- n260 band : Open

All RSE’s were investigated in EN-DC mode and with 802.11 chipset active. It was determined that there is no new emission introduced by EN-DC mode or the 802.11 chipset.
For EN-DC mode n258 band uses LTE B2, B5, B12, B66 and B71, n261 band uses LTE B2, B5, B12, B13, B48 and B66. And n260 band uses LTE B2, B5, B12, B13, B14, B30, B48 and B66.

LTE and FR1 anchor bands supports default configuration and TX hopping configuration. Both configurations were investigated. There was no discernible difference in the spurious emission levels when using different LTE and FR1 anchor bands. Thus, LTE Band 66 was used as a representative anchor band for EN-DC and NR-DC investigations.

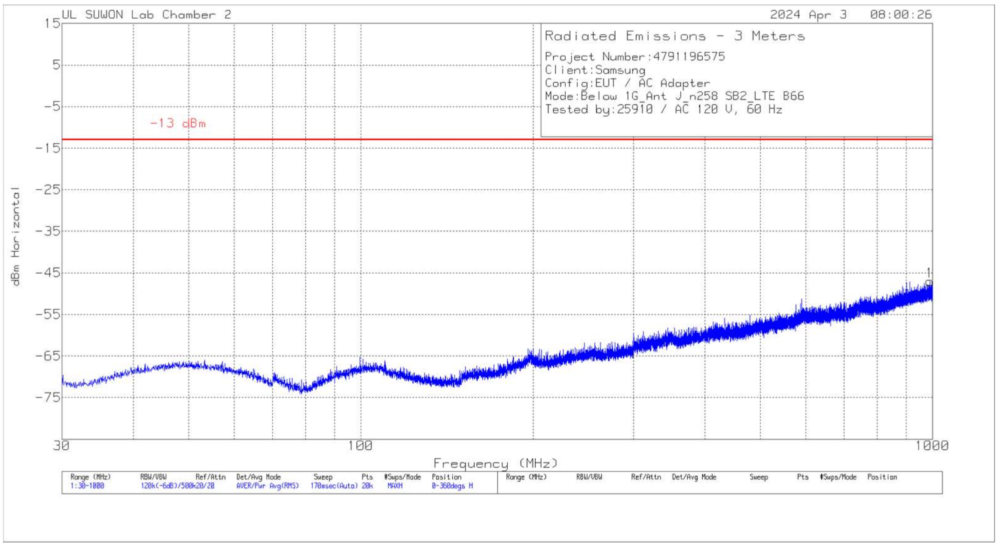
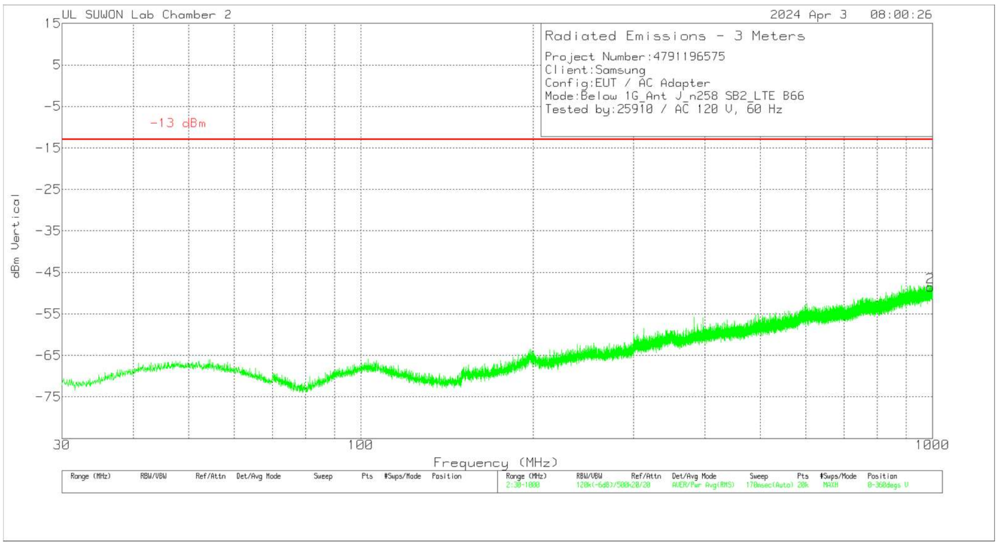
RESULTS

See the following pages.

8.4.1. RADIATED SPURIOUS AND HARMONIC EMISSIONS RESULT

Antenna 1 / Ant J / n258 SB1

30 – 1000 MHz Result

Ant J n258 SB1	 Mid Channel / Horizontal / Half open
Ant J n258 SB1	 Mid Channel / Vertical / Half open

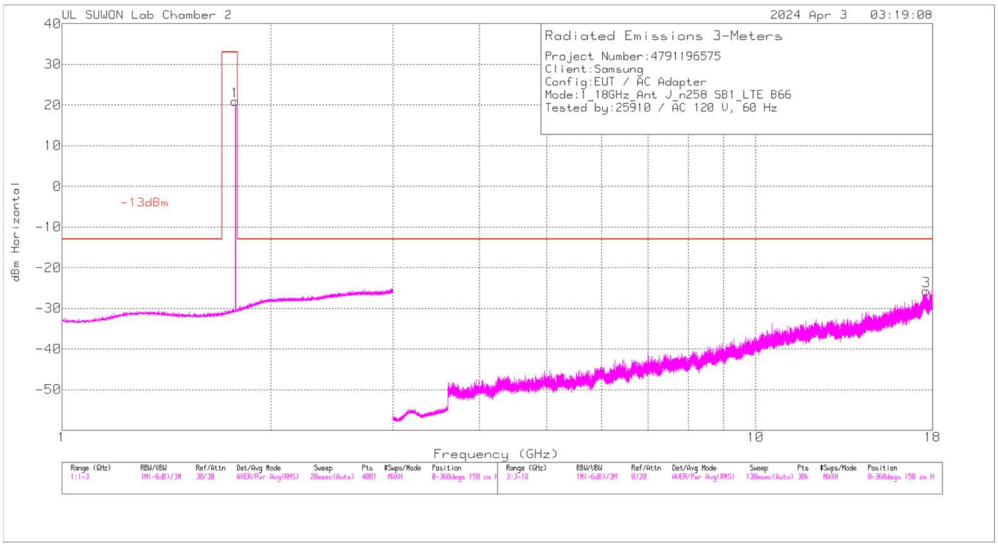
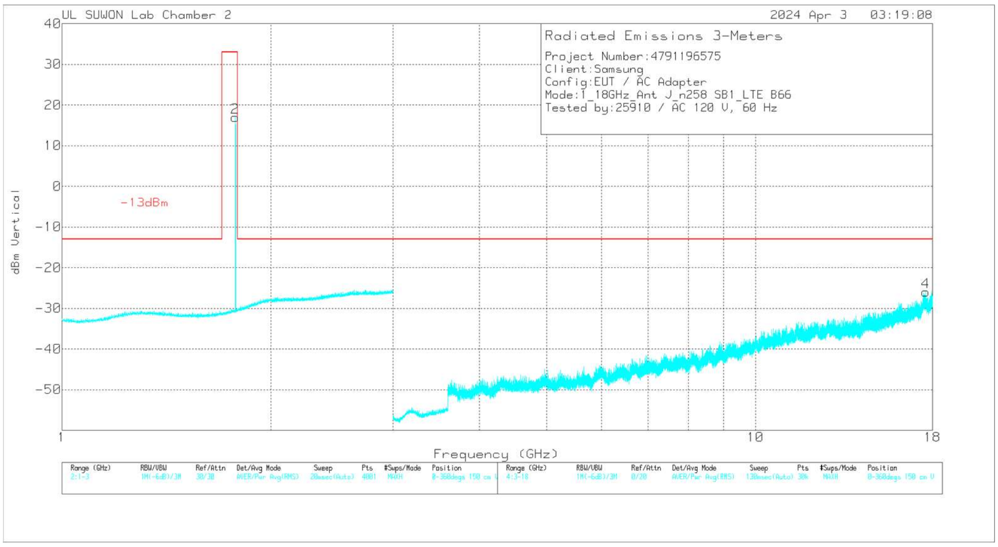
Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	Antenna Correction Factor(dB)	Loss(dB)	Conversion Factor[dB]	Corrected Reading dBm	Limit [dBm]	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	989.2904	-59.78	RMS	27.7	-26.7	11.8	-46.98	-13	-33.98	0-360	100	H
2	990.7454	-61.44	RMS	27.7	-26.6	11.8	-48.54	-13	-35.54	0-360	200	V

RMS - RMS detection

No emissions were detected above noise floor this antenna and band.

1 – 18 GHz Result

Ant J n258 SB1	 Mid Channel / Horizontal / Half open
Ant J n258 SB1	 Mid Channel / Vertical / Half open

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBm)	Det	Antenna Correction Factor(dB)	Loss(dB)	Conversion Factor[dB]	Corrected Reading dBm	Limit [dBm]	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.7785	.27	RMS	29.4	-20.5	11.8	20.97	33	-12.03	0-360	150	H
2	1.7785	-3.77	RMS	29.4	-20.5	11.8	16.93	33	-16.07	0-360	150	V
3	17.633	-62.76	RMS	41.6	-16.4	11.8	-25.76	-13	-12.76	0-360	150	H
4	17.594	-62.89	RMS	41.6	-16.5	11.8	-25.99	-13	-12.99	0-360	150	V

RMS - RMS detection

** Marker 1 and 2 were the fundamental signal of LTE Band 66 that was used as a representative anchor band for EN-DC investigations.
No emissions were detected above the noise floor which was at least 20dB below the specification limit.