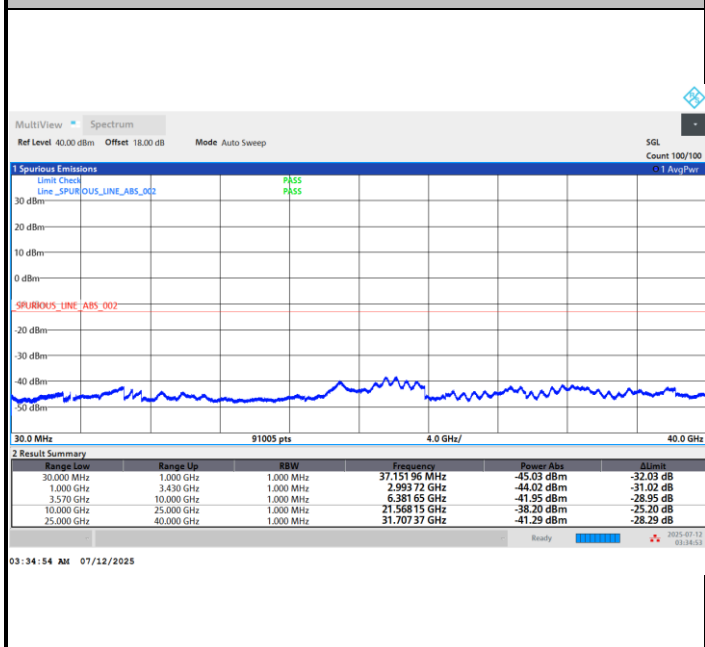




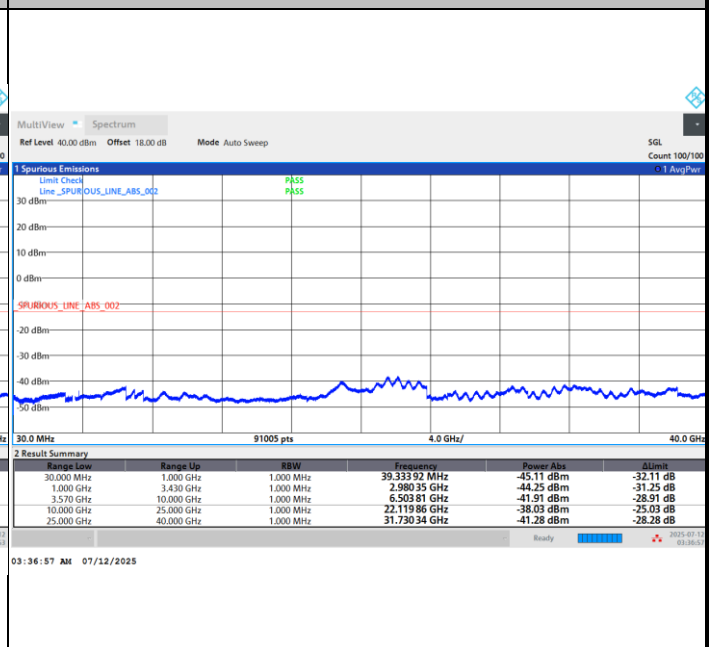
Conducted Spurious Emission

FR1 n77 / 10MHz / DFT-S OFDM / QPSK / 1RB1

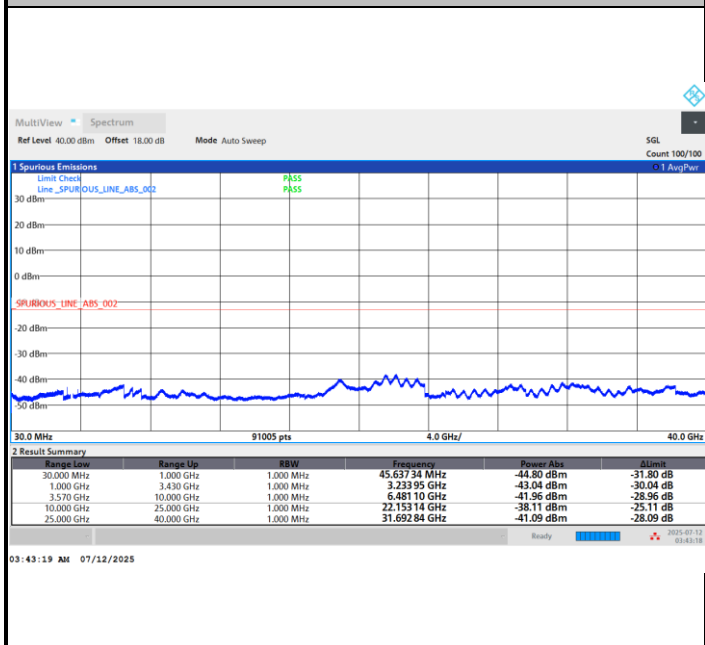
Lowest Channel



Middle Channel



Highest Channel



**Frequency Stability**

Test Conditions		FR1 n77 (BPSK) / Middle Channel 10M			
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Frequency Offset (Δf) (Hz)	Within Authorized Frequency Block(Hz)	Result
50	Normal Voltage	0.0000	0.1	Yes	PASS
40	Normal Voltage	0.0021	-7.5	Yes	
30	Normal Voltage	0.0004	-1.5	Yes	
20(Ref.)	Normal Voltage	0.0000	0	Yes	
10	Normal Voltage	0.0023	8.2	Yes	
0	Normal Voltage	0.0022	7.7	Yes	
-10	Normal Voltage	0.0009	3.1	Yes	
-20	Normal Voltage	0.0019	6.5	Yes	
-30	Normal Voltage	0.0023	-8.1	Yes	
20	Maximum Voltage	0.0001	0.4	Yes	
20	Normal Voltage	0.0000	0	Yes	
20	Minimum Voltage	0.0012	4.3	Yes	

Note:

1. Normal Voltage = 3.3 V. ; Minimum Voltage = 3.135 V. ; Maximum Voltage = 3.63 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

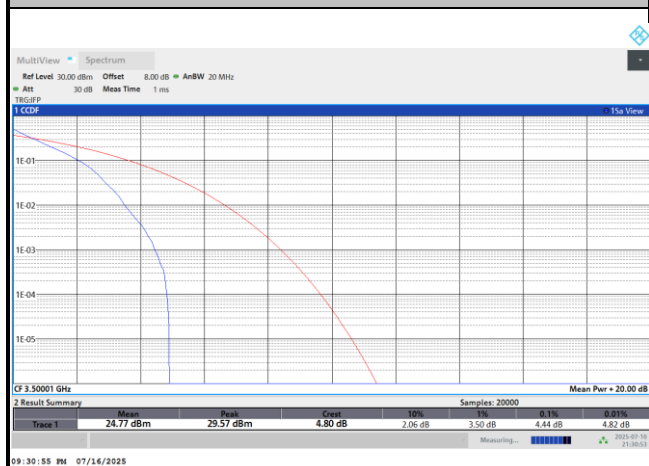
**FR1 n77_Part27O****MIMO <Ant. 0+2> (Ant. 2)****Peak-to-Average Ratio**

Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.44	5.16	6.14	6.32	PASS
Mode	FR1 n77 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.66				PASS

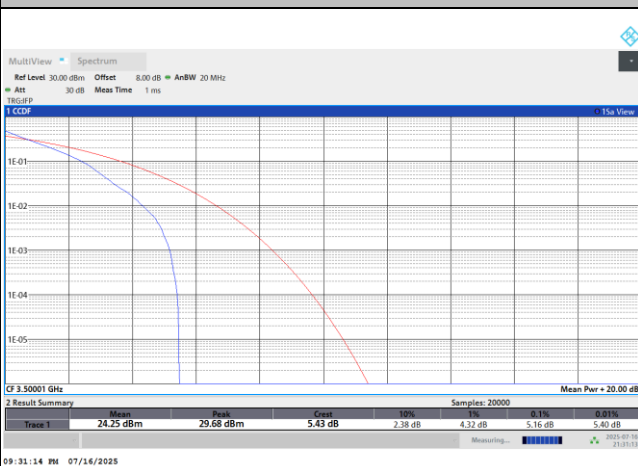


FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

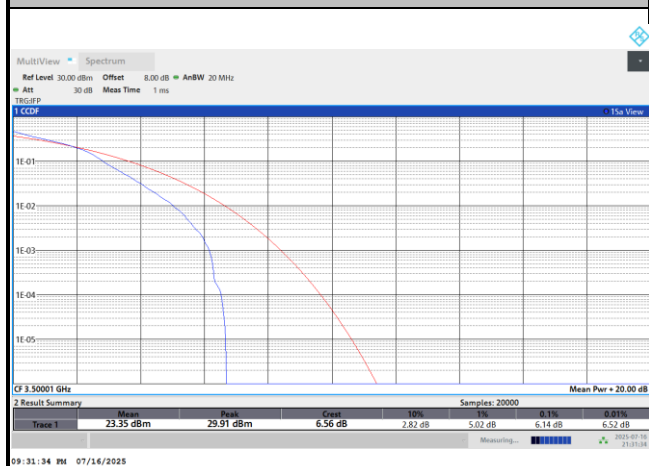
PI/2 BPSK



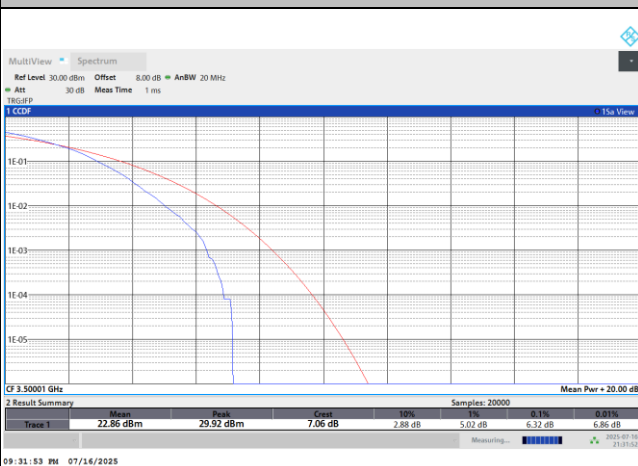
QPSK



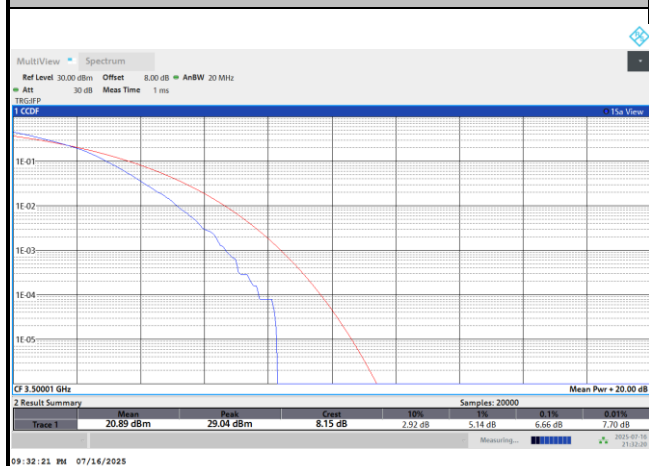
16QAM



64QAM



256QAM



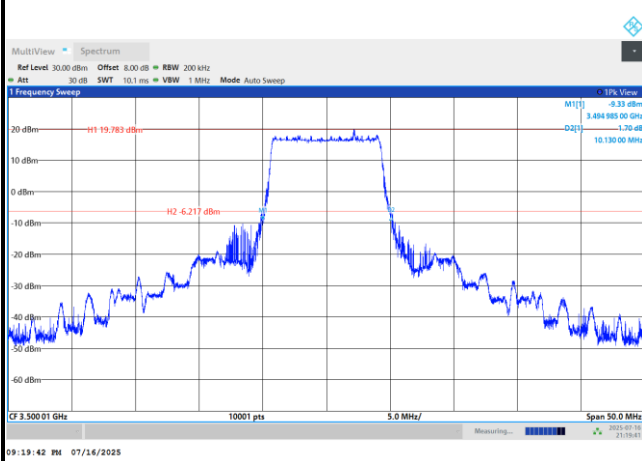
**26dB Bandwidth**

Mode	FR1 n77 : 26dB BW(MHz) / DFT-S OFDM							
BW	10MHz		15MHz		20MHz		30MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	10.13	10.26	14.50	14.58	22.15	22.28	31.30	30.33
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	10.05		17.73		22.59		30.05	
BW	40MHz		50MHz		60MHz		70MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	39.89	38.98	49.99	51.15	63.00	63.69	69.39	69.90
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	39.33		50.51		63.54		70.10	
BW	80MHz		90MHz		100MHz			
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Middle CH	82.13	82.51	92.06	92.44	101.86	101.77		
Mod.	16QAM		16QAM		16QAM			
Middle CH	82.19		92.12		104.39			

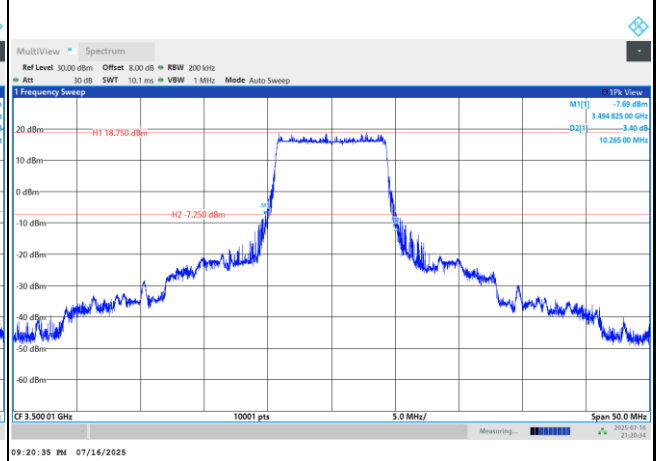


FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

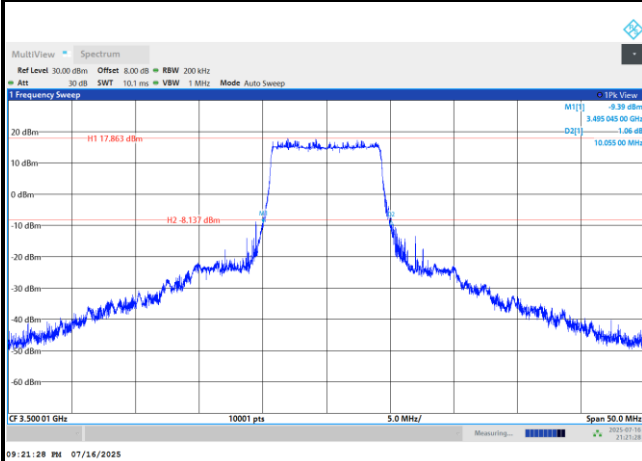
PI/2 BPSK



QPSK



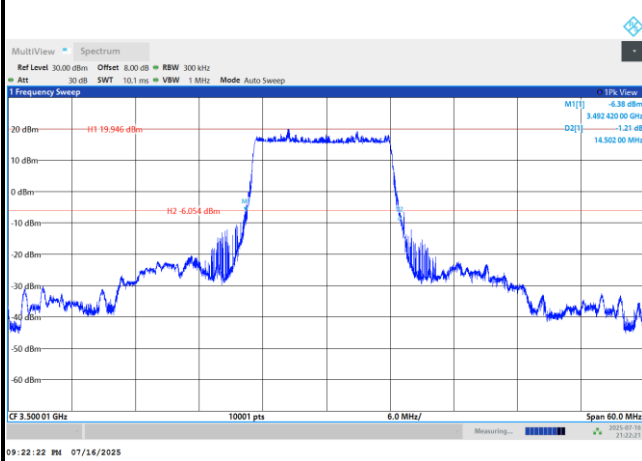
16QAM



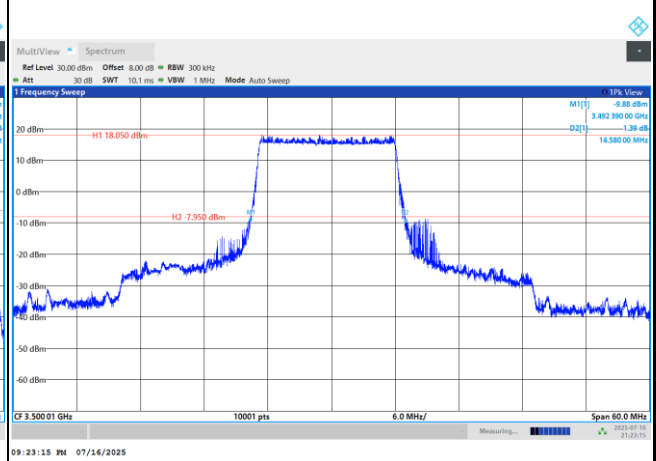


FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

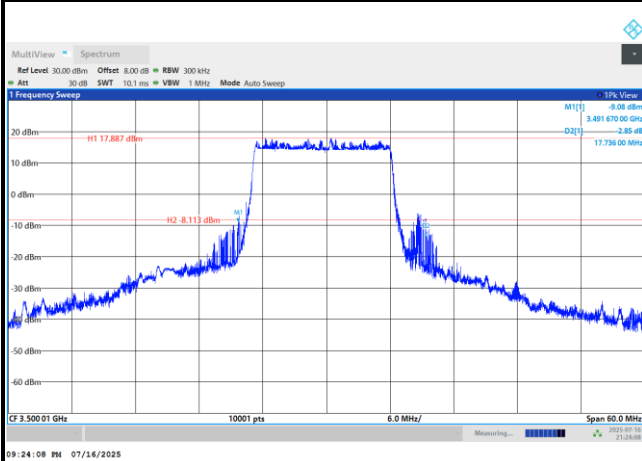
QPSK



QPSK



16QAM

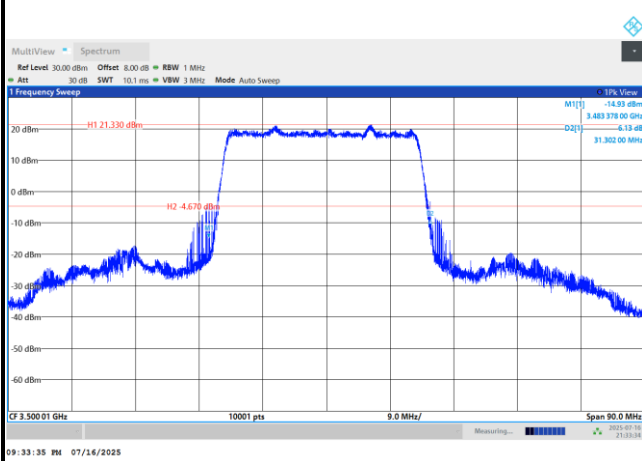




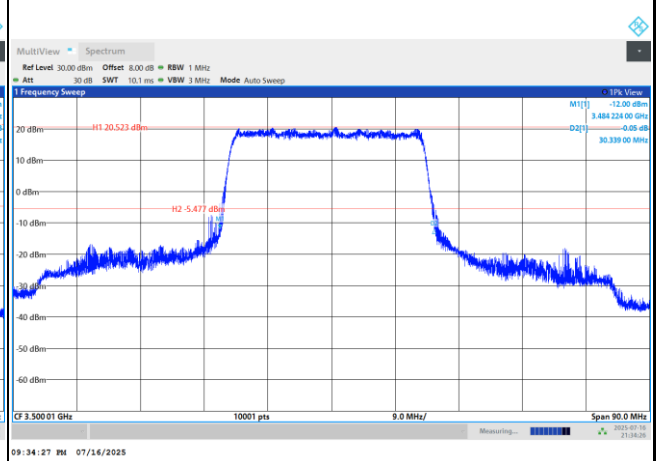


FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

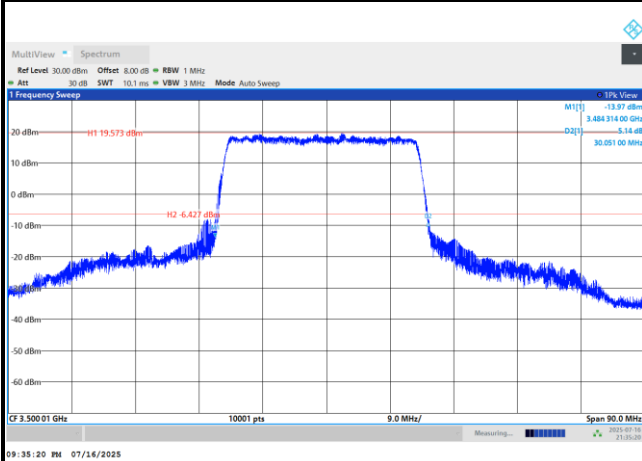
PI/2 BPSK



QPSK



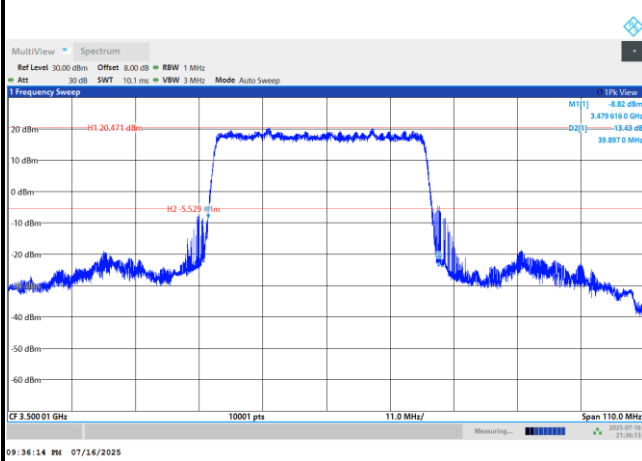
16QAM



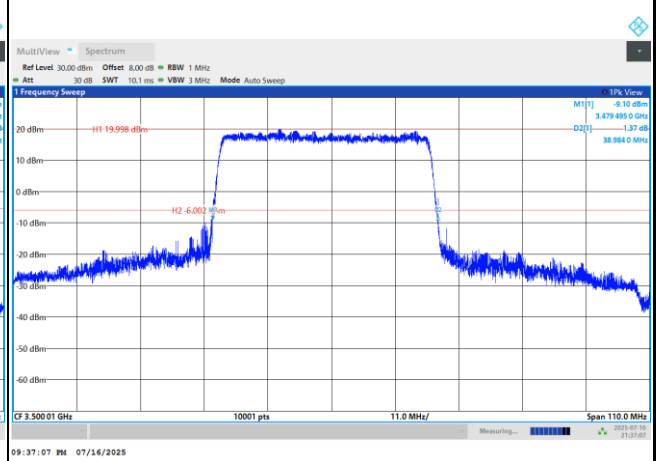


FR1 n77 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

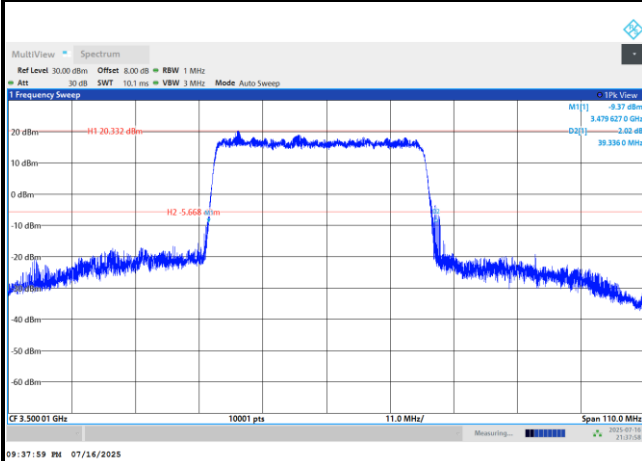
PI/2 BPSK



QPSK



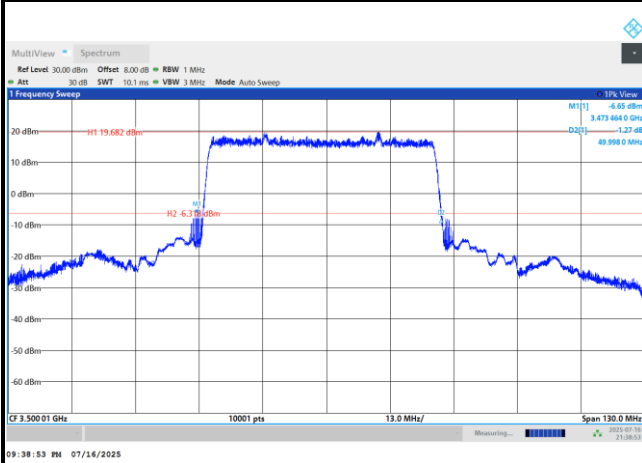
16QAM



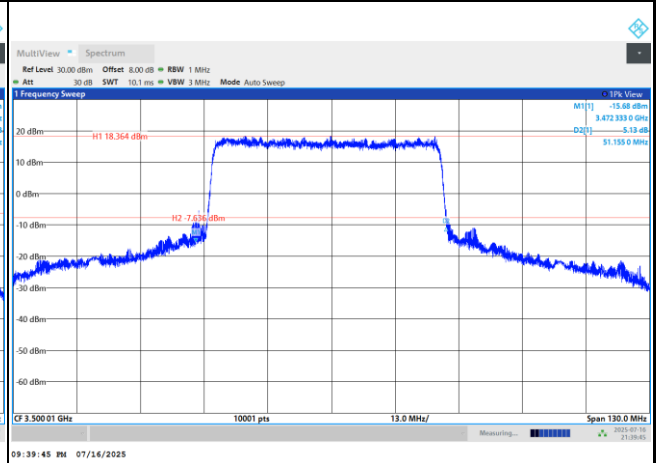


FR1 n77 / 50MHz / DFT-S OFDM / Middle Channel / Full RB

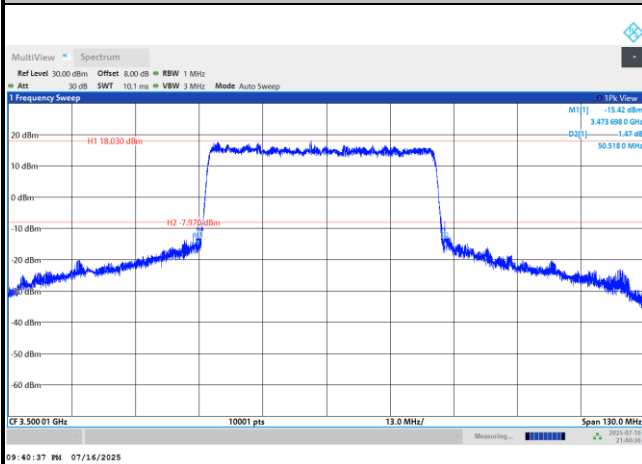
PI/2 BPSK



QPSK



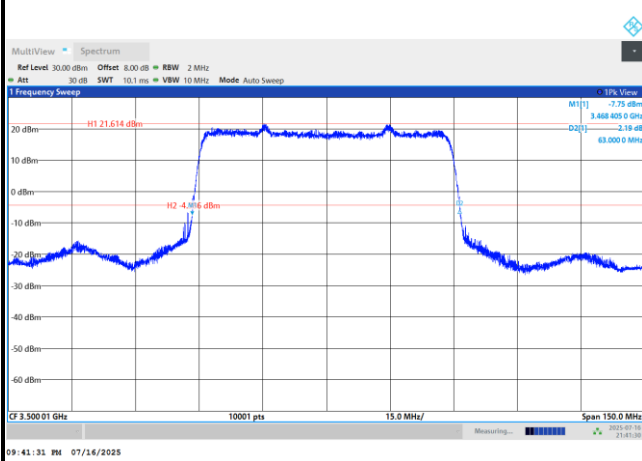
16QAM



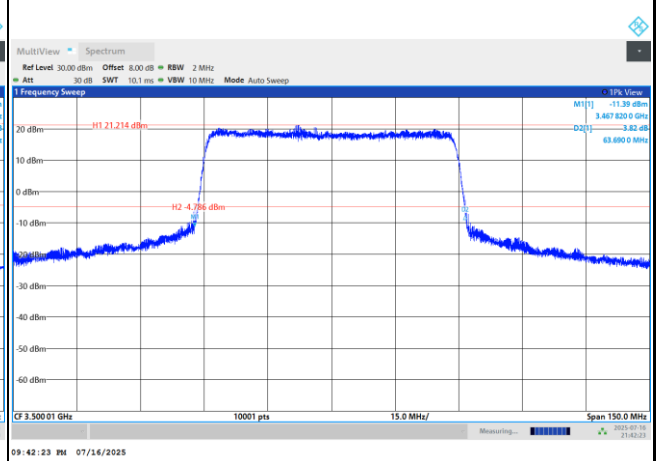


FR1 n77 / 60MHz / DFT-S OFDM / Middle Channel / Full RB

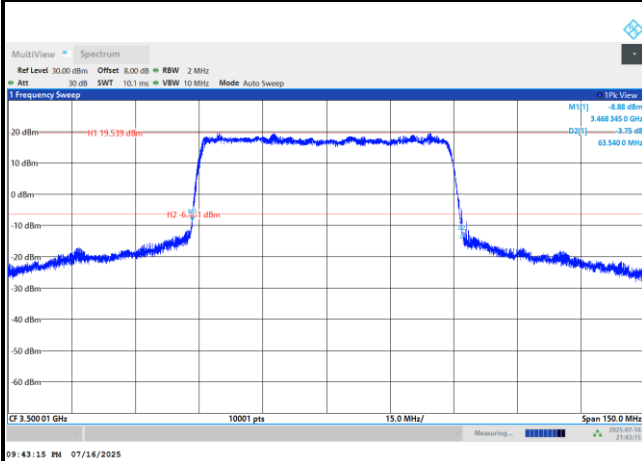
PI/2 BPSK



QPSK



16QAM

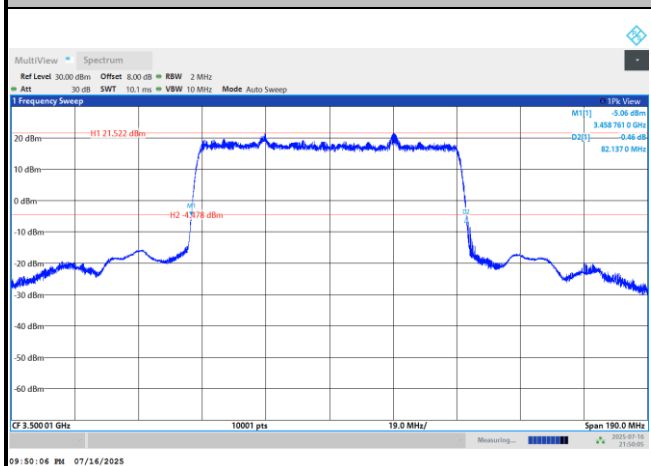




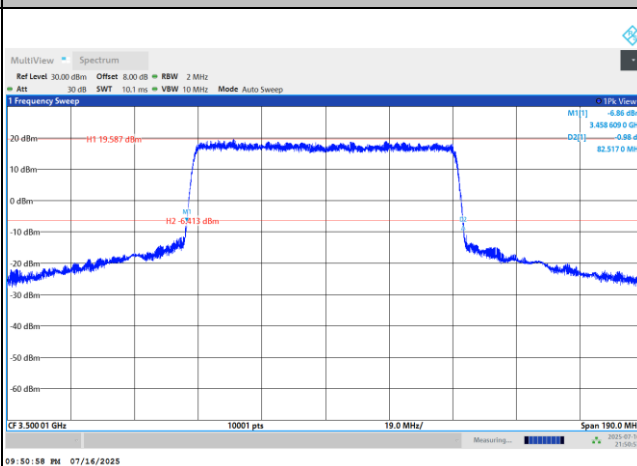


FR1 n77 / 80MHz / DFT-S OFDM / Middle Channel / Full RB

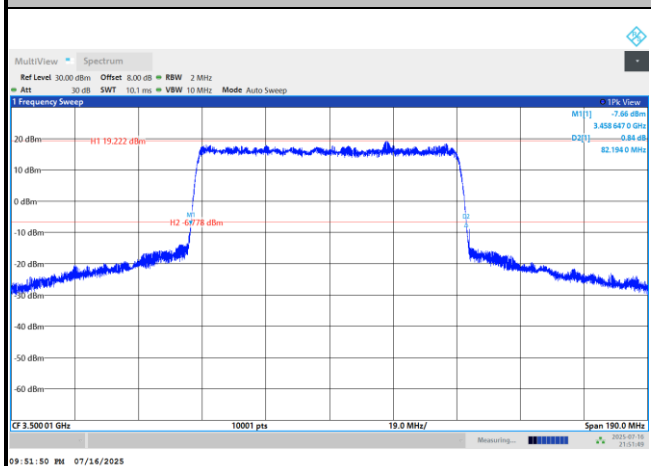
PI/2 BPSK



QPSK



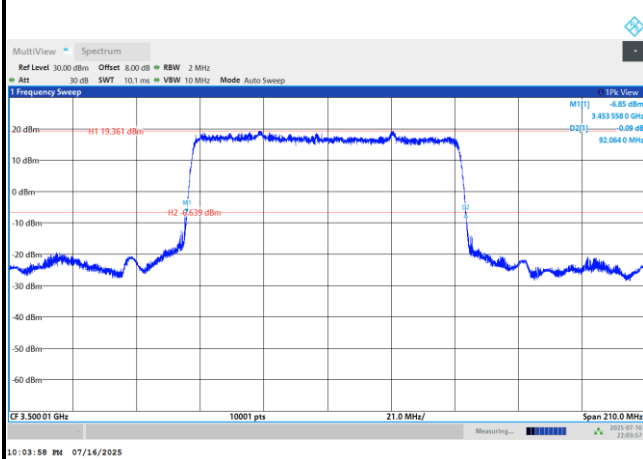
16QAM



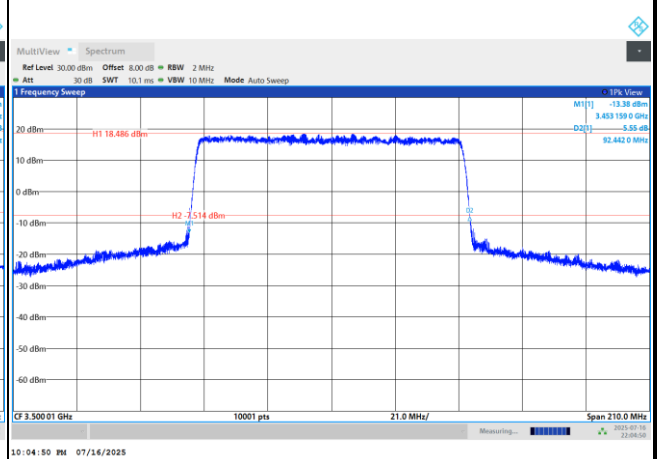


FR1 n77 / 90MHz / DFT-S OFDM / Middle Channel / Full RB

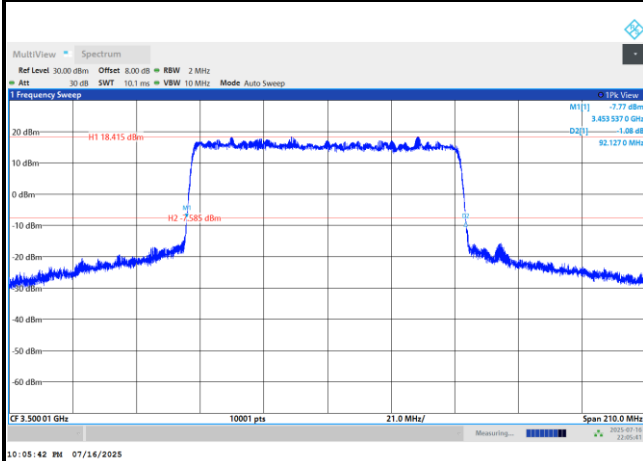
PI/2 BPSK



QPSK



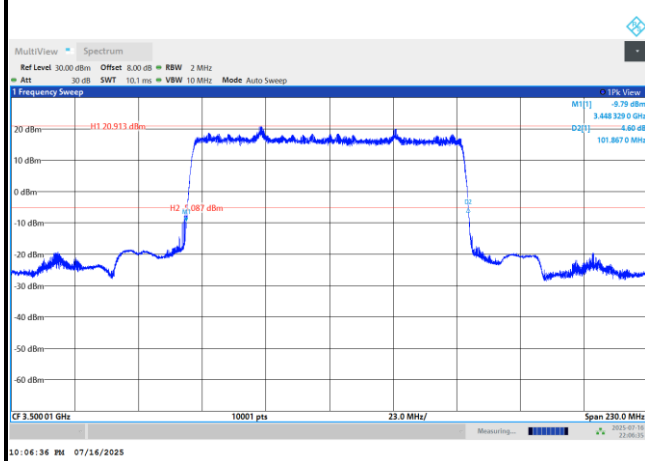
16QAM



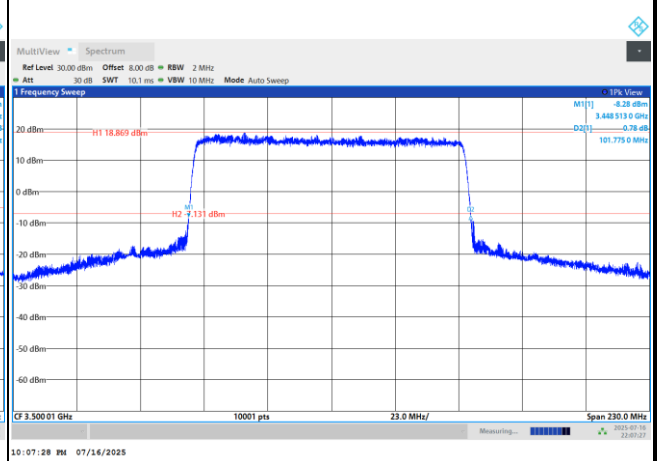


FR1 n77 / 100MHz / DFT-S OFDM / Middle Channel / Full RB

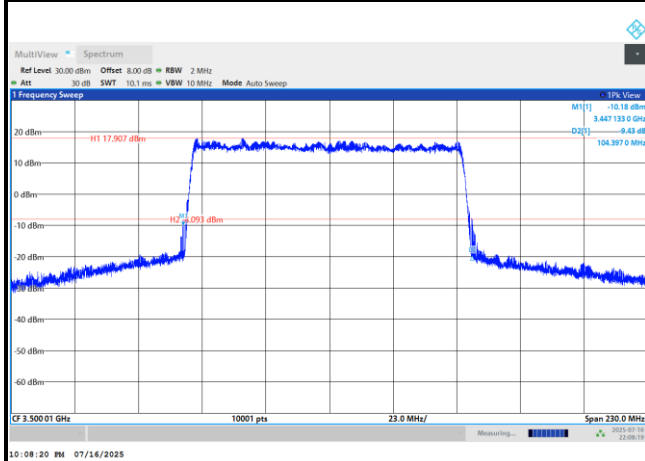
PI/2 BPSK



QPSK



16QAM



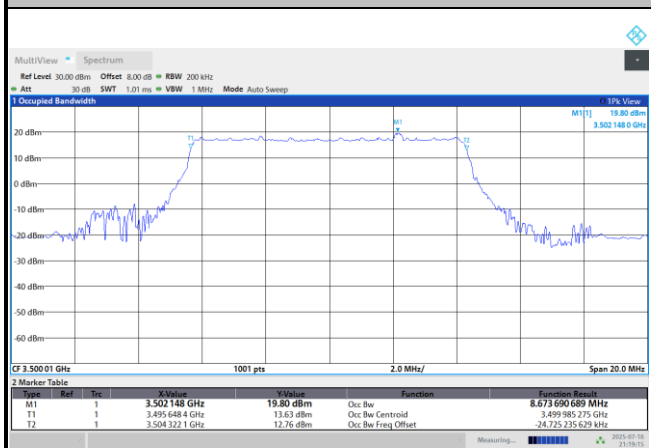
**Occupied Bandwidth**

Mode	FR1 n77 : 99%OBW(MHz) / DFT-S OFDM							
BW	10MHz		15MHz		20MHz		30MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	8.67	8.69	13.00	13.03	18.02	18.07	27.25	27.24
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	8.65		12.99		18.07		27.22	
BW	40MHz		50MHz		60MHz		70MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Middle CH	36.04	36.09	45.94	46.05	58.50	58.52	64.86	64.94
Mod.	16QAM		16QAM		16QAM		16QAM	
Middle CH	35.89		46.04		58.86		65.01	
BW	80MHz		90MHz		100MHz			
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK		
Middle CH	77.52	77.75	87.33	87.07	101.86	101.77		
Mod.	16QAM		16QAM		16QAM			
Middle CH	77.63		87.49		104.39			



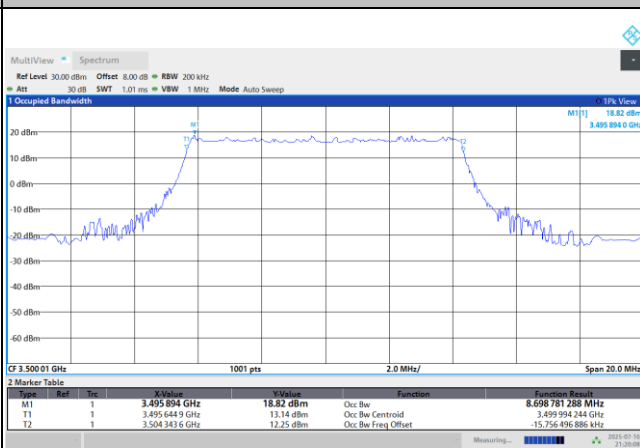
FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



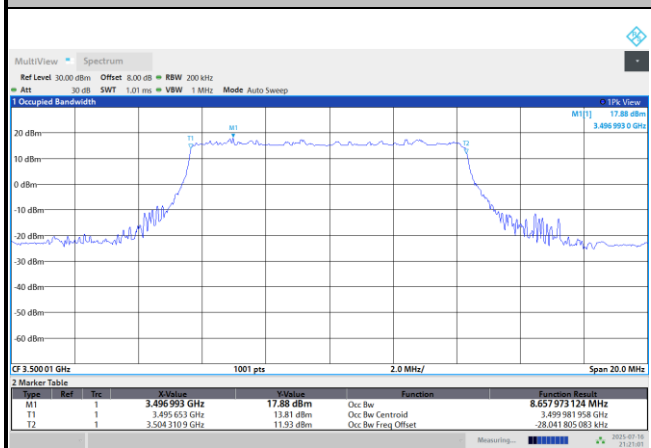
09:19:14 PM 07/14/2025

QPSK



09:20:09 PM 07/14/2025

16QAM

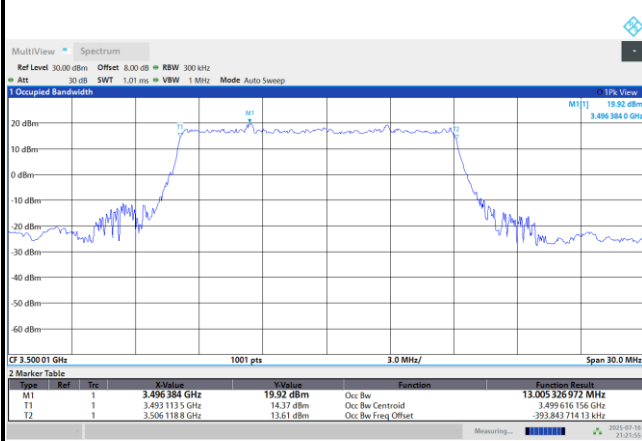


09:21:02 PM 07/14/2025

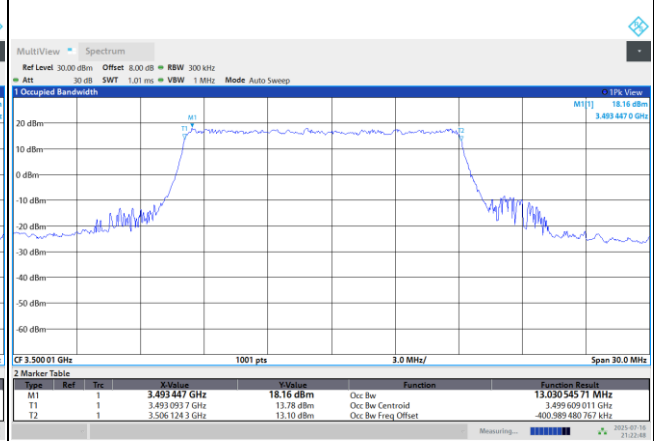


FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

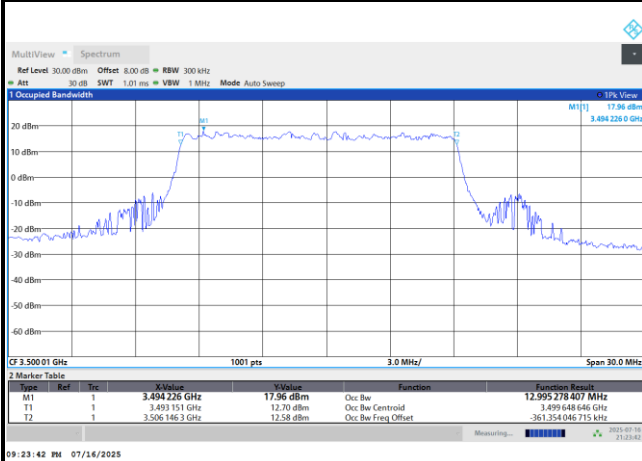
QPSK



QPSK



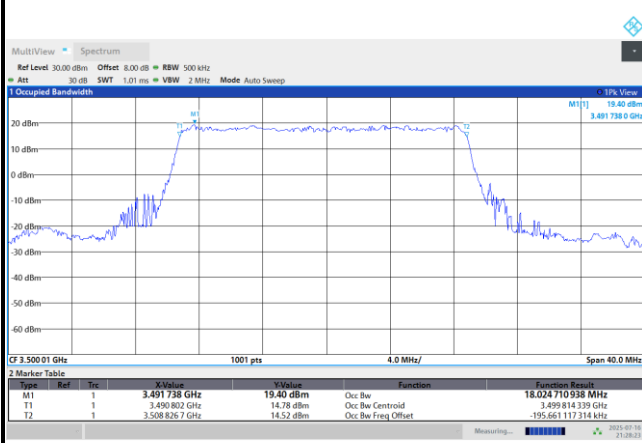
16QAM





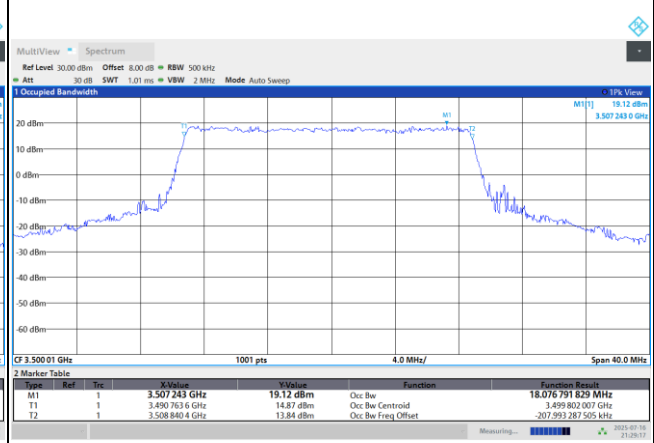
FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



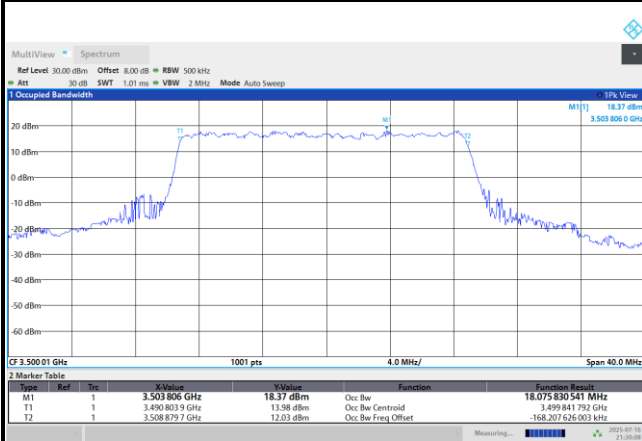
09:28:24 PM 07/14/2025

QPSK



09:29:17 PM 07/14/2025

16QAM

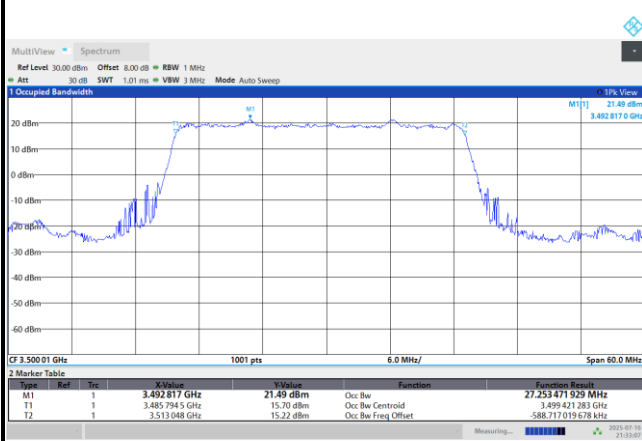


09:30:09 PM 07/14/2025



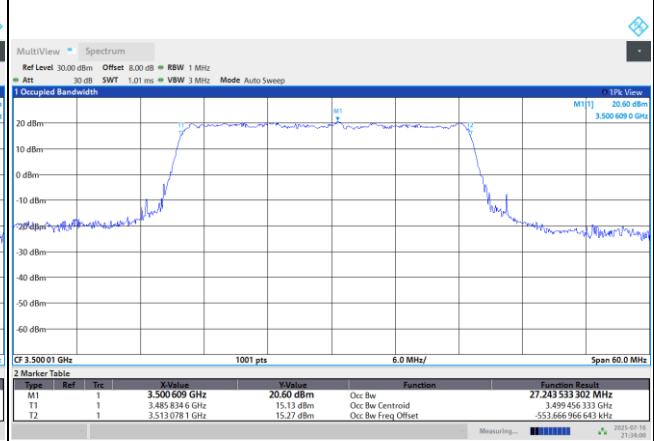
FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



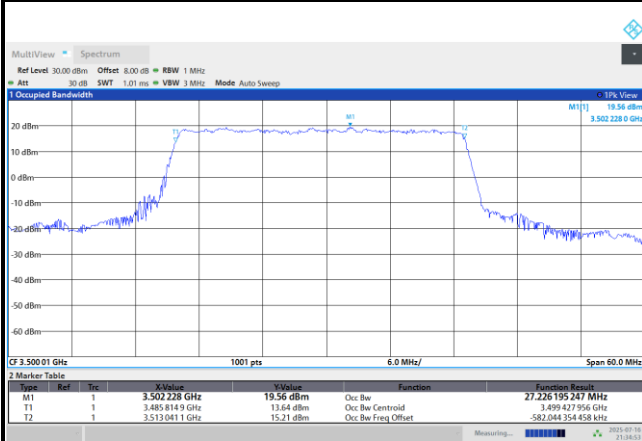
09:33:09 PM 07/14/2025

QPSK



09:34:01 PM 07/14/2025

16QAM

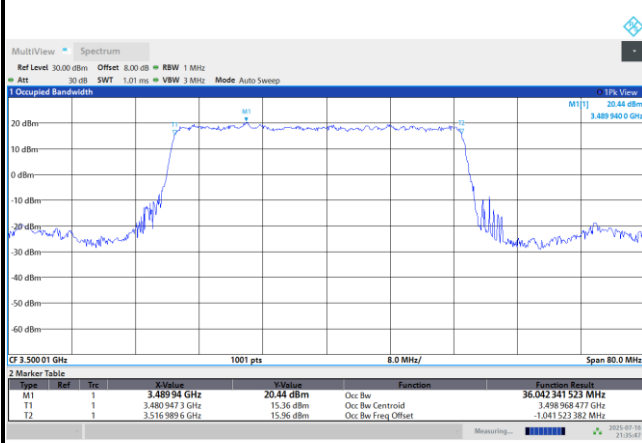


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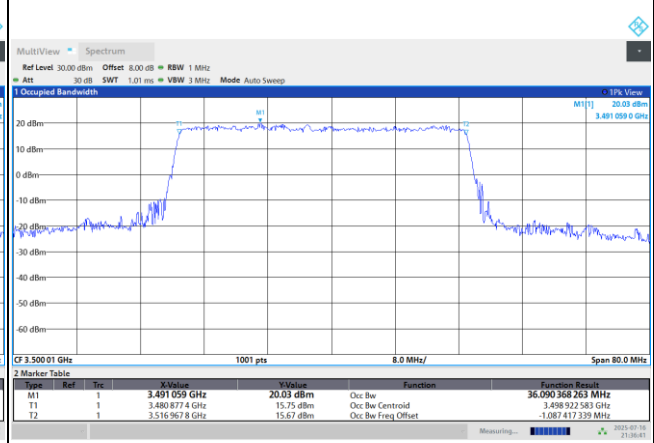
FR1 n77 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



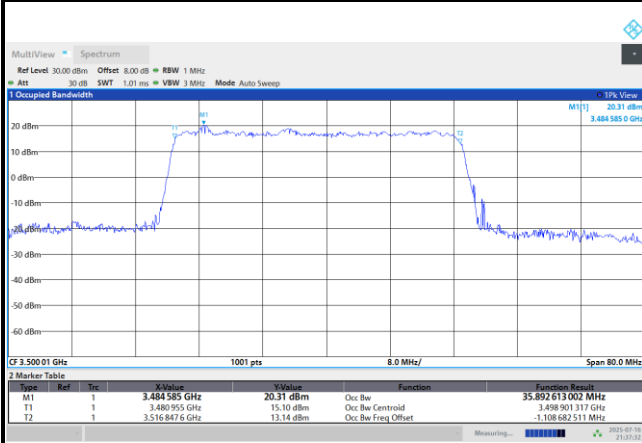
09:35:48 PM 07/16/2025

QPSK



09:36:41 PM 07/16/2025

16QAM

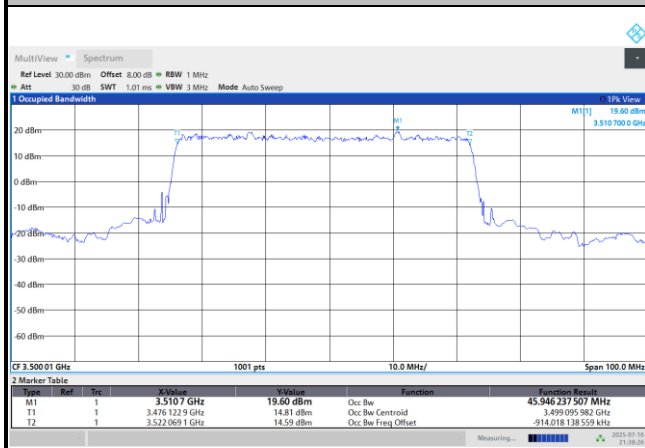


09:37:33 PM 07/16/2025



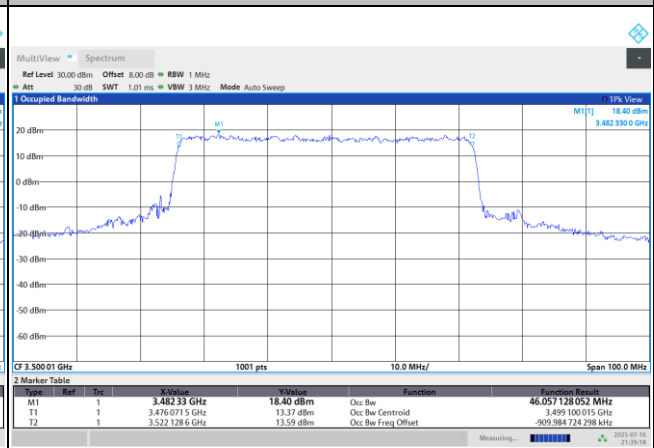
FR1 n77 / 50MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



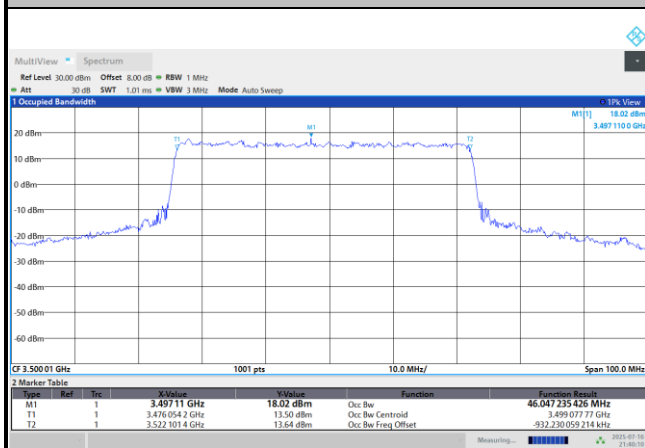
09:38:27 PM 07/14/2025

QPSK



09:39:19 PM 07/14/2025

16QAM

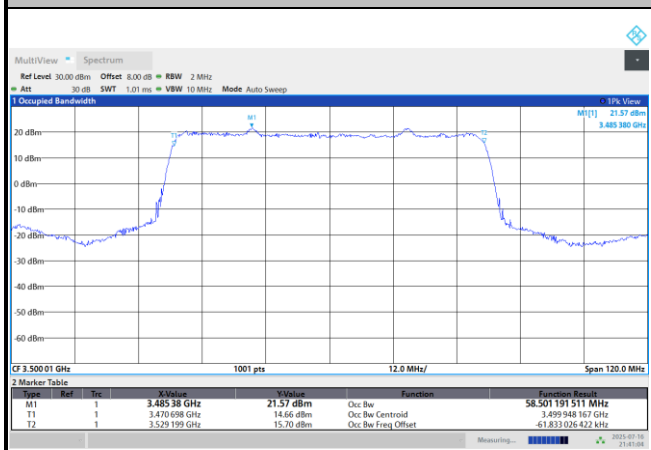


09:40:11 PM 07/14/2025



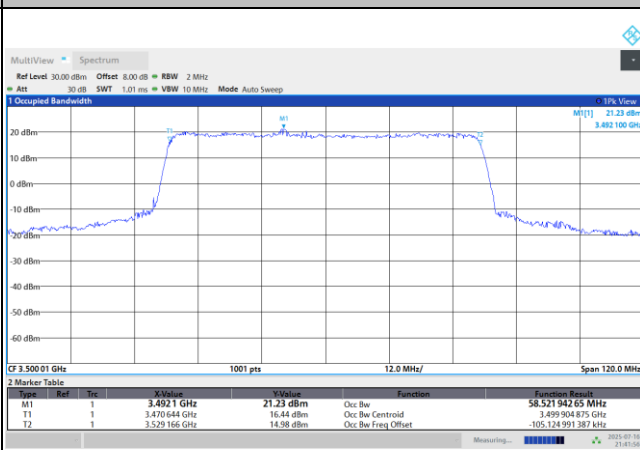
FR1 n77 / 60MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



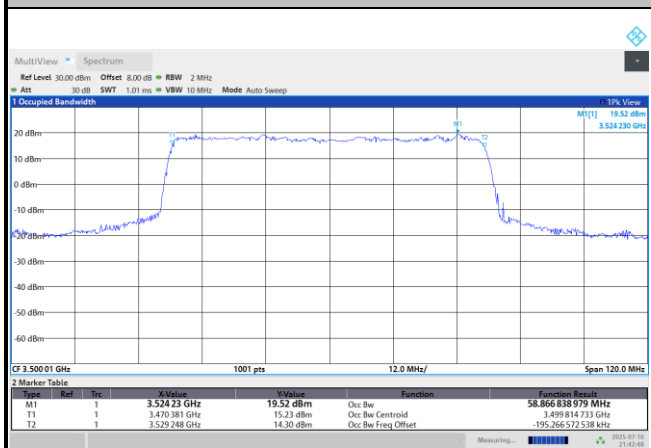
09:41:05 PM 07/14/2025

QPSK



09:41:57 PM 07/14/2025

16QAM

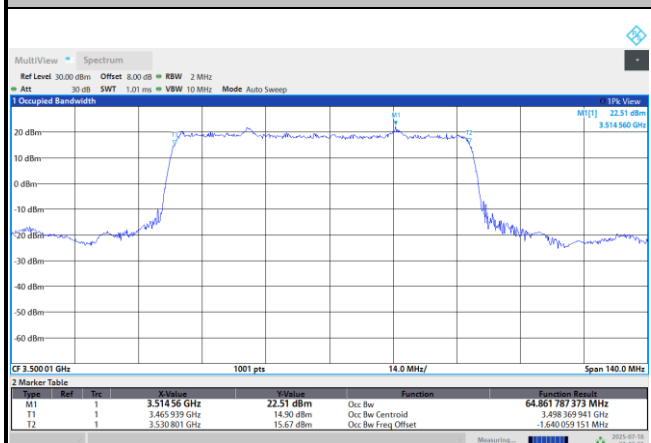


09:42:49 PM 07/14/2025



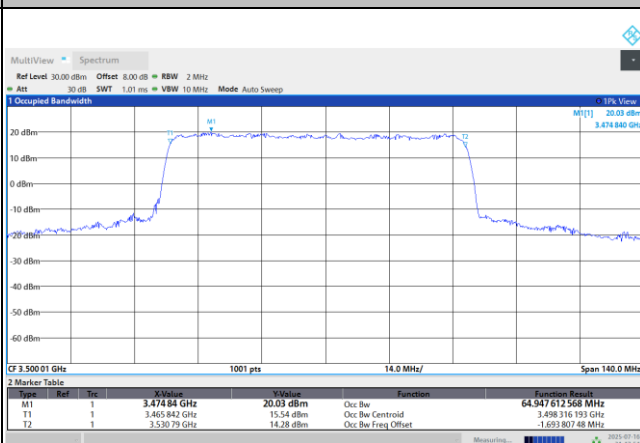
FR1 n77 / 70MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



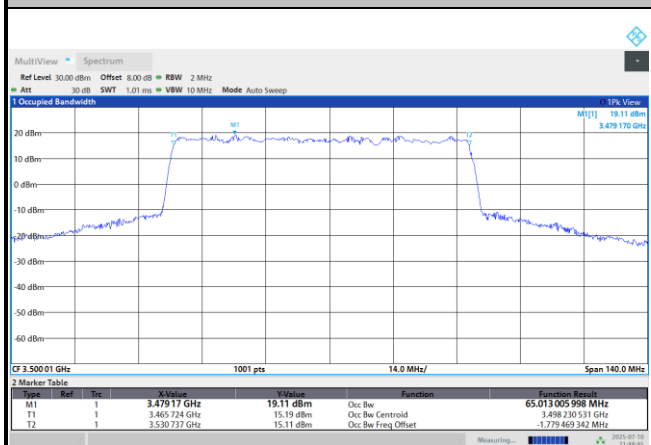
09:47:02 PM 07/16/2025

QPSK



09:47:54 PM 07/16/2025

16QAM

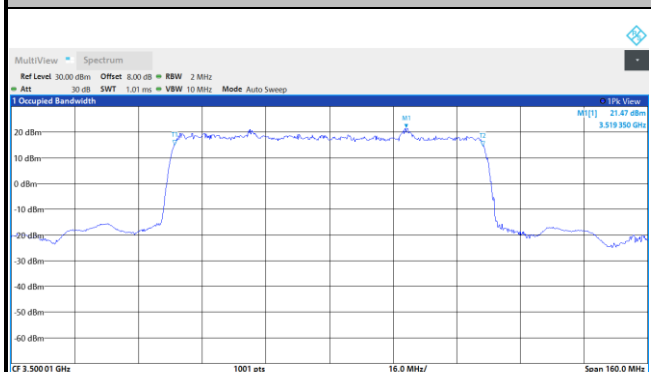


09:48:46 PM 07/16/2025



FR1 n77 / 80MHz / DFT-S OFDM / Middle Channel / Full RB

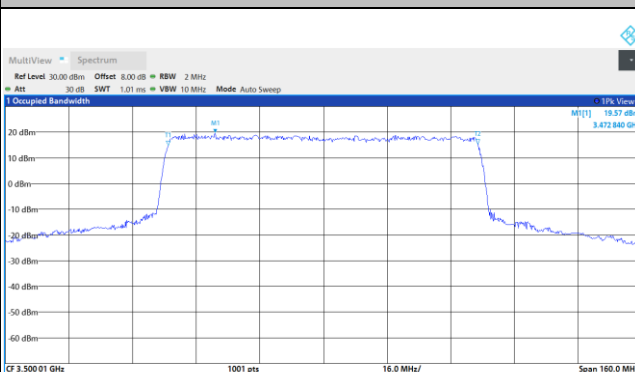
PI/2 BPSK



Type	Ref	Freq	Value	Function	Function Result
M1	1	3.51935 GHz	21.47 dBm	Occ Bw	77.527074101 MHz
T1	1	3.46106 GHz	15.03 dBm	Occ Bw Centroid	3.499823056 GHz
T2	1	3.53879 GHz	14.67 dBm	Occ Bw Freq Offset	-186.964535517 kHz

09:49:40 PM 07/14/2025

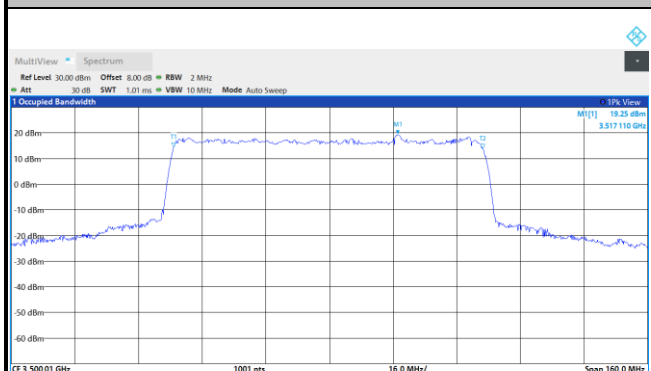
QPSK



Type	Ref	Freq	Value	Function	Function Result
M1	1	3.47284 GHz	19.57 dBm	Occ Bw	77.756445287 MHz
T1	1	3.461026 GHz	14.88 dBm	Occ Bw Centroid	3.499904712 GHz
T2	1	3.538783 GHz	15.40 dBm	Occ Bw Freq Offset	-105.287837395 kHz

09:50:32 PM 07/14/2025

16QAM



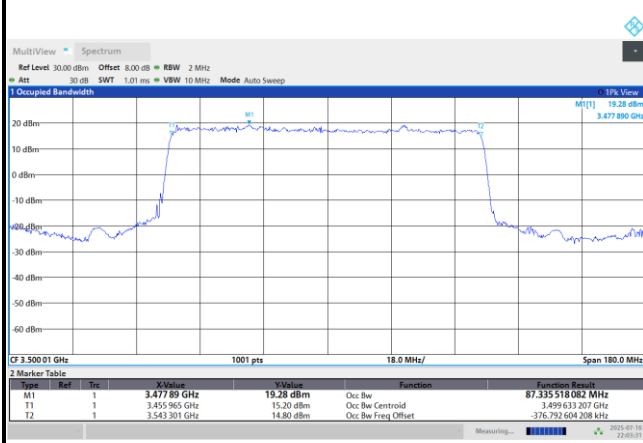
Type	Ref	Freq	Value	Function	Function Result
M1	1	3.51711 GHz	19.23 dBm	Occ Bw	77.633696137 MHz
T1	1	3.460909 GHz	14.48 dBm	Occ Bw Centroid	3.499726014 GHz
T2	1	3.538543 GHz	13.76 dBm	Occ Bw Freq Offset	-283.98552606 kHz

09:51:25 PM 07/14/2025



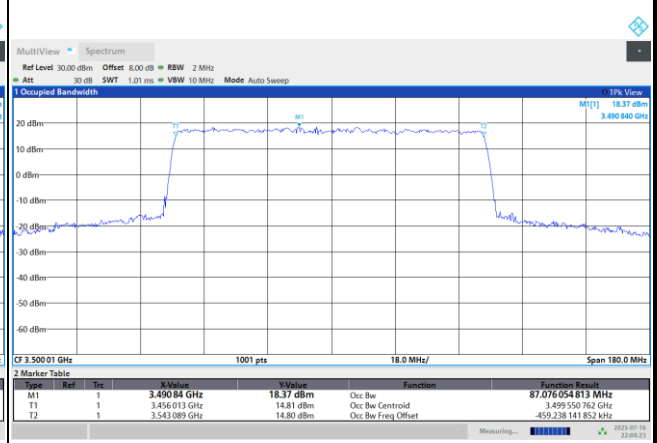
FR1 n77 / 90MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK



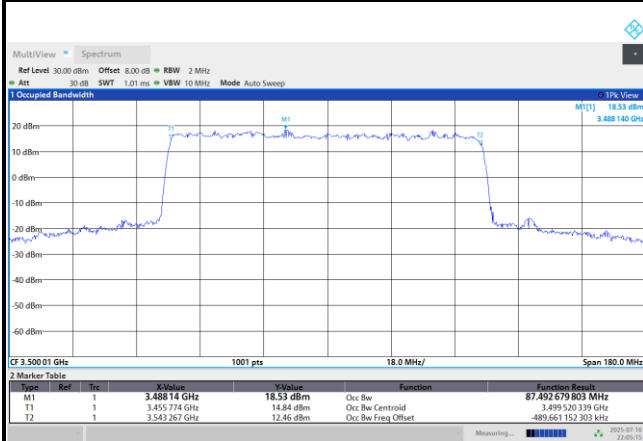
10:03:32 PM 07/16/2025

QPSK



10:04:24 PM 07/16/2025

16QAM

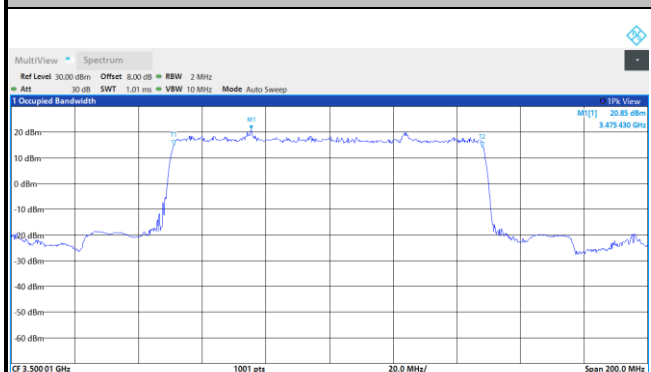


10:05:16 PM 07/16/2025



FR1 n77 / 100MHz / DFT-S OFDM / Middle Channel / Full RB

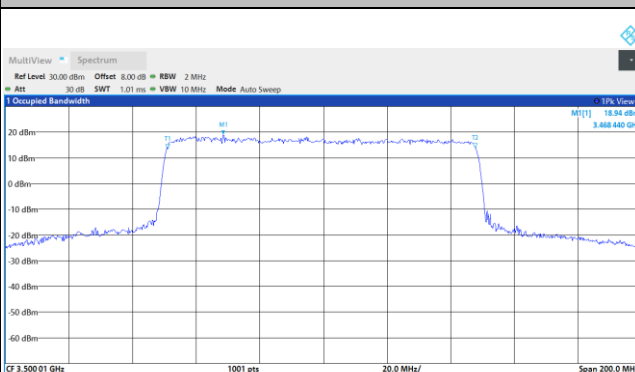
PI/2 BPSK



Type	Ref	Freq	Value	Function	Function Result
M1	1	3.47543 GHz	20.85 dBm	Occ Bw	96.89967597 MHz
T1	1	3.451079 GHz	14.90 dBm	Occ Bw Centroid	3.499528815 GHz
T2	1	3.547979 GHz	14.26 dBm	Occ Bw Freq Offset	481.385327232 kHz

10:04:10 PM 07/14/2025

QPSK



Type	Ref	Freq	Value	Function	Function Result
M1	1	3.46844 GHz	18.94 dBm	Occ Bw	96.6225458 MHz
T1	1	3.451075 GHz	13.44 dBm	Occ Bw Centroid	3.499386583 GHz
T2	1	3.547698 GHz	13.88 dBm	Occ Bw Freq Offset	623.41664523 kHz

10:07:02 PM 07/14/2025

16QAM



Type	Ref	Freq	Value	Function	Function Result
M1	1	3.45206 GHz	17.79 dBm	Occ Bw	96.597688894 MHz
T1	1	3.450817 GHz	13.35 dBm	Occ Bw Centroid	3.499315897 GHz
T2	1	3.547815 GHz	13.32 dBm	Occ Bw Freq Offset	494.10329484 kHz

10:07:55 PM 07/14/2025

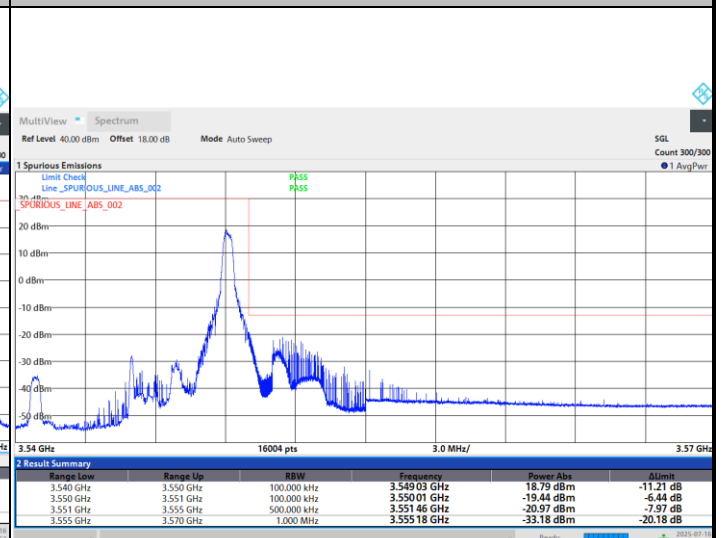
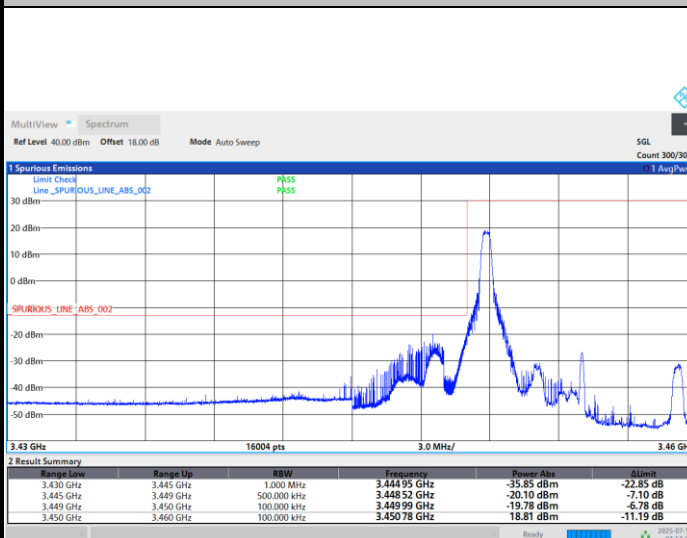


Conducted Band Edge

FR1 n77 / 10MHz / DFT-S OFDM / PI/2 BPSK

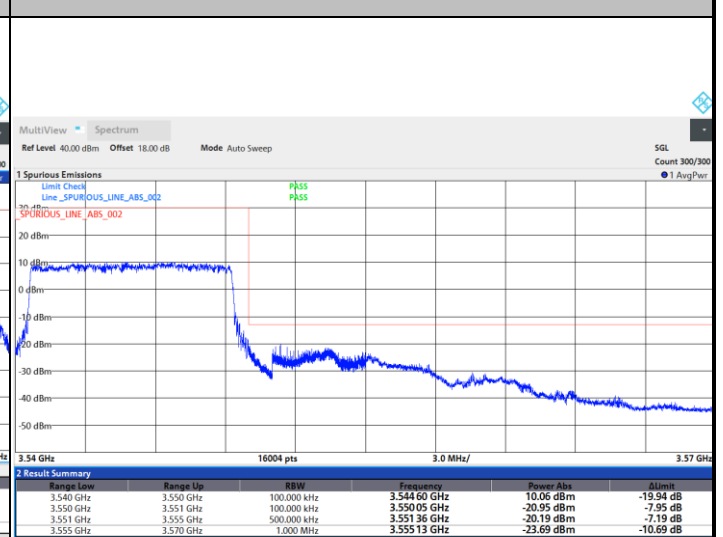
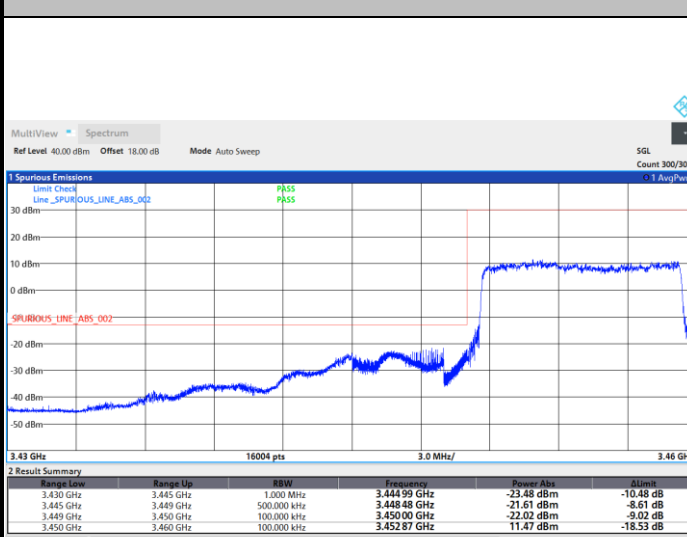
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

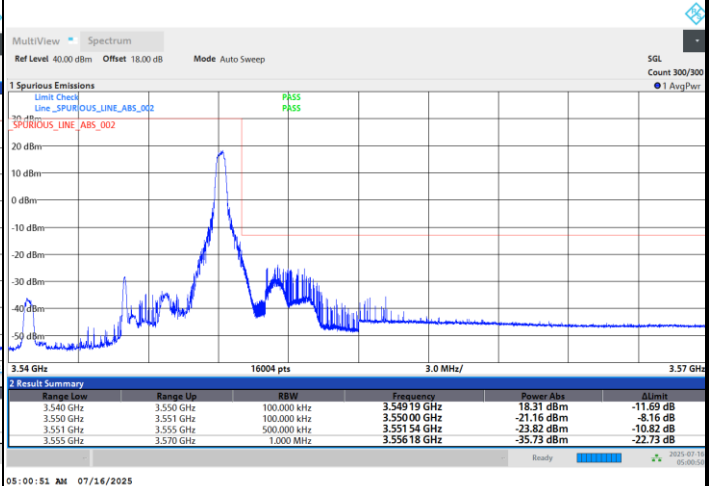
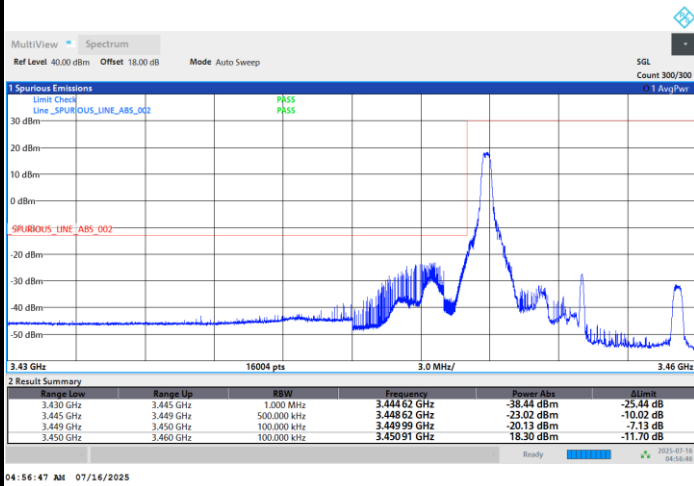




FR1 n77 / 10MHz / DFT-S OFDM / QPSK

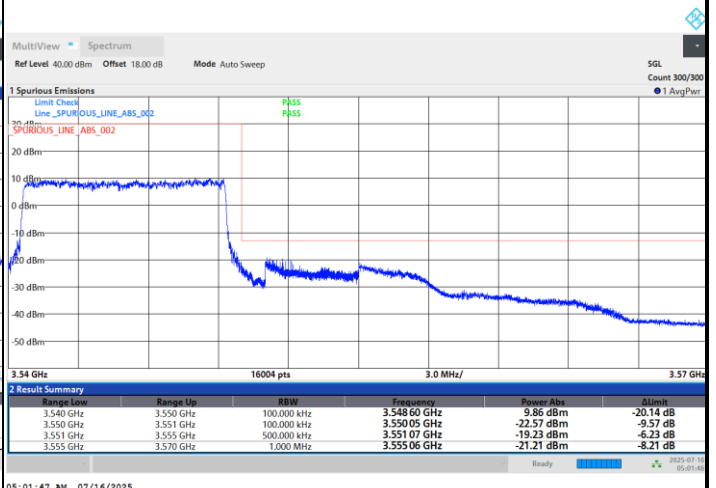
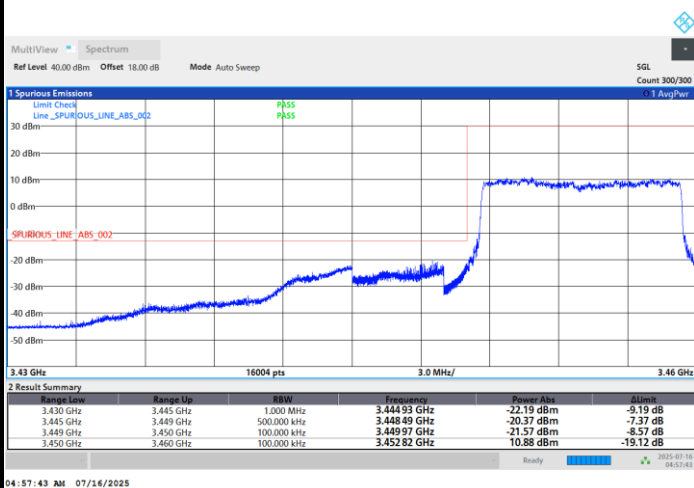
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

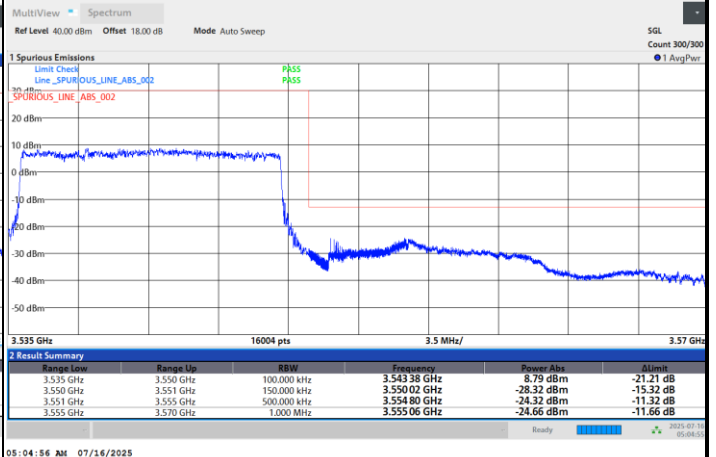
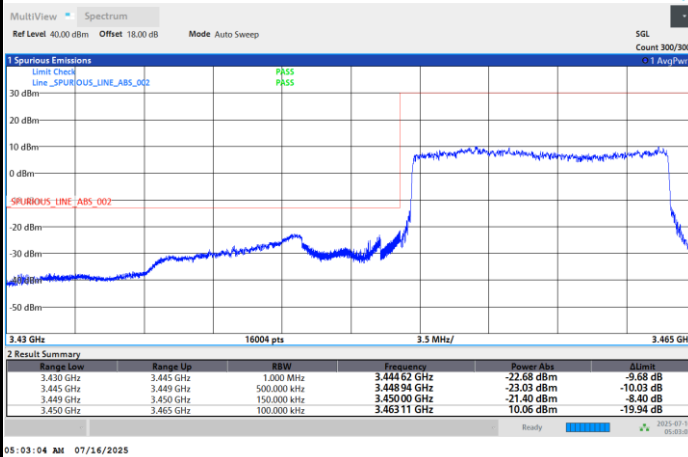




FR1 n77 / 15MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

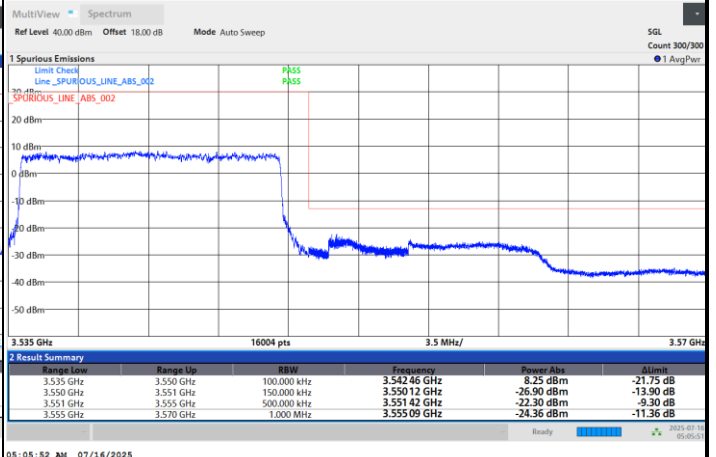
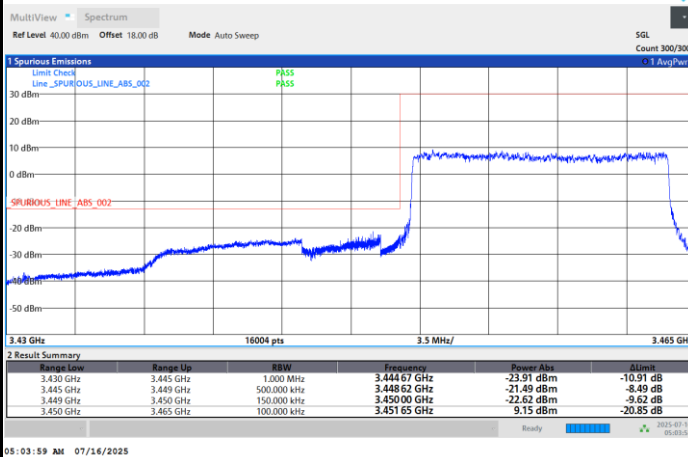
Highest Band Edge / Full RB



FR1 n77 / 15MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

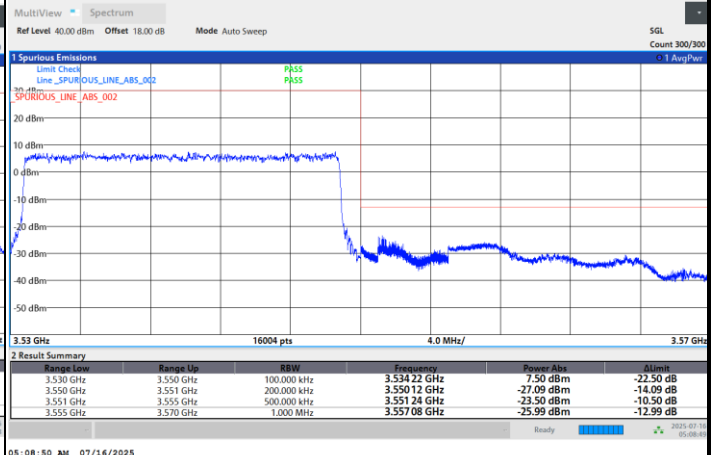
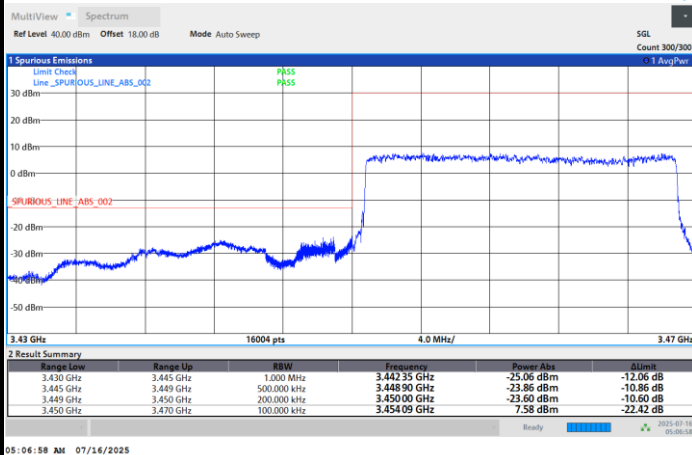




FR1 n77 / 20MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

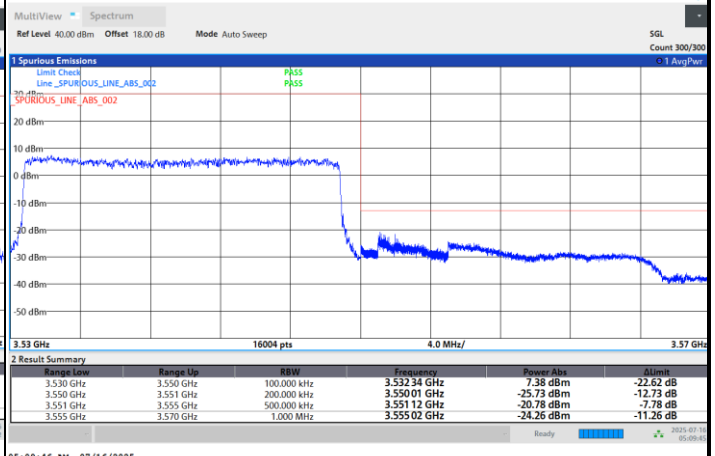
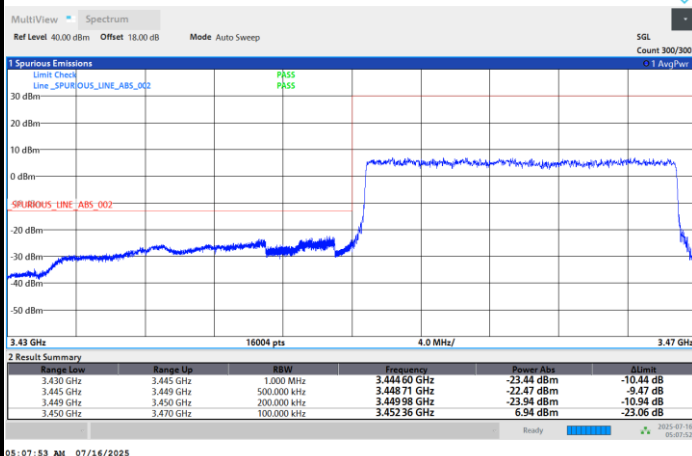
Highest Band Edge / Full RB



FR1 n77 / 20MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

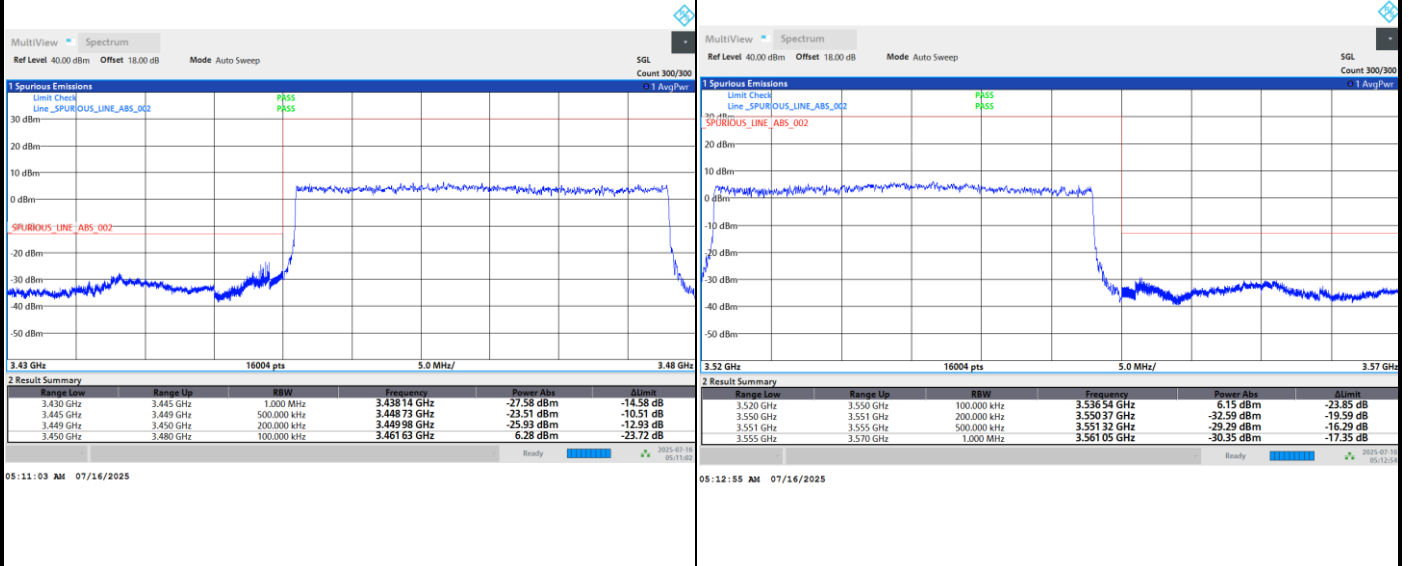




FR1 n77 / 30MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



FR1 n77 / 30MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

