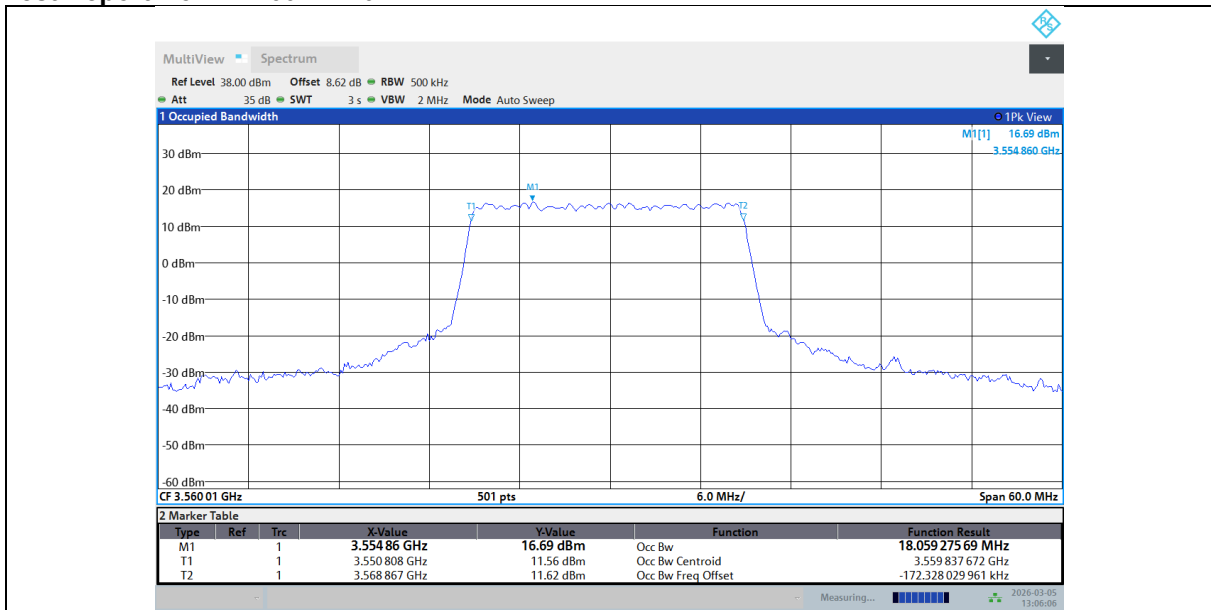
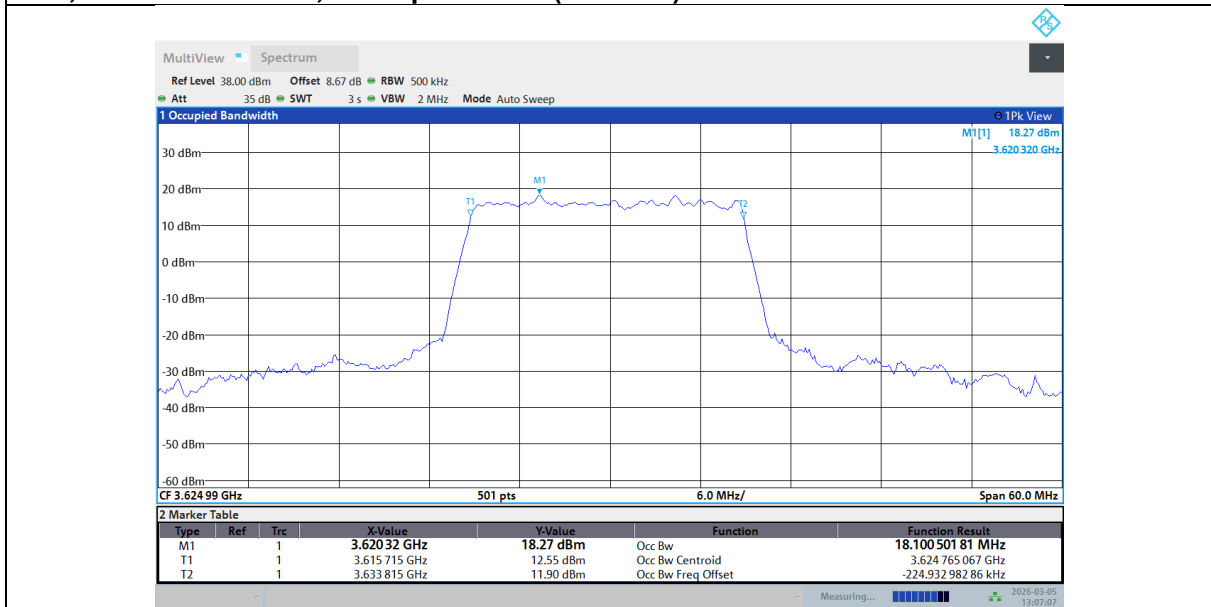




Test Report No.: RF260714B012



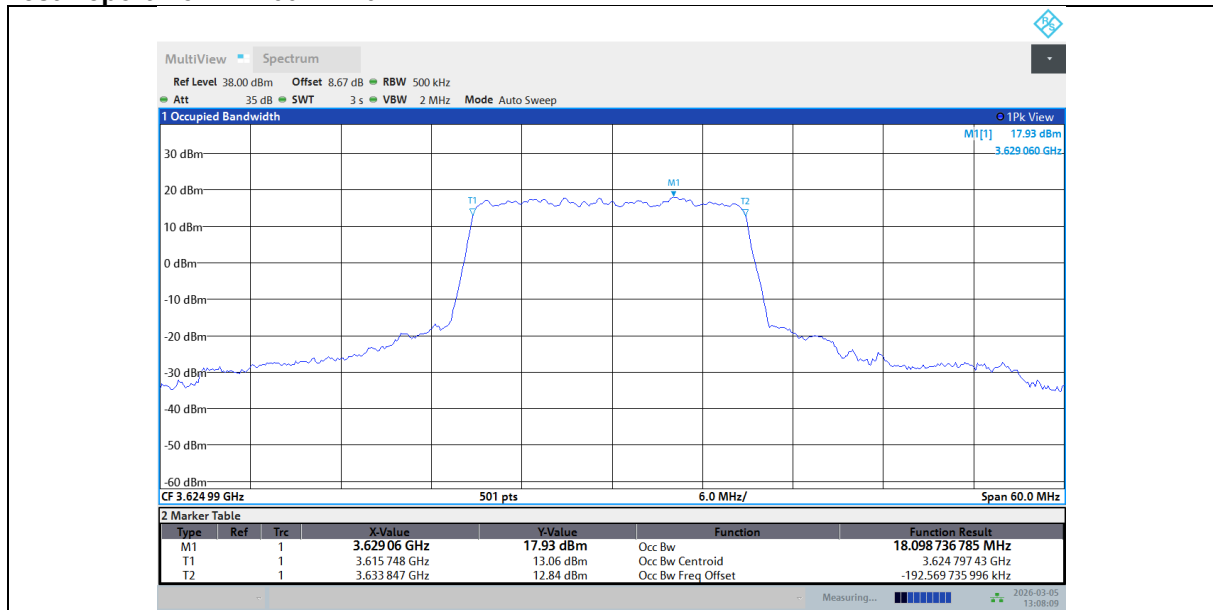
n48,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



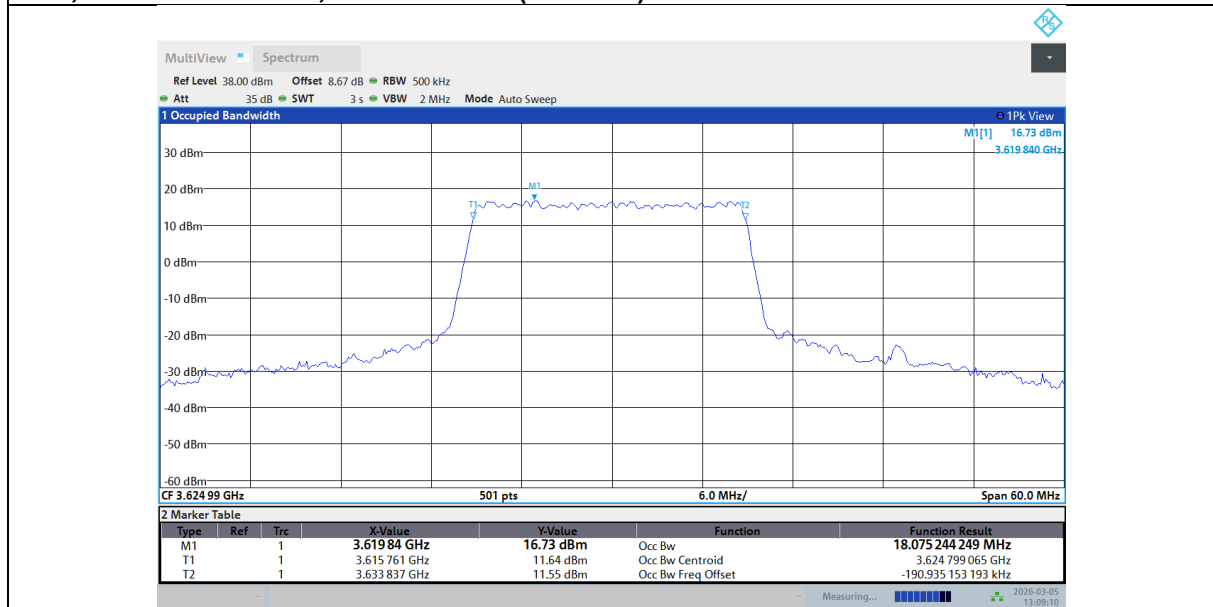
n48,20MHz Bandwidth,DFT-s-QPSK (99% BW)



Test Report No.: RF260714B012



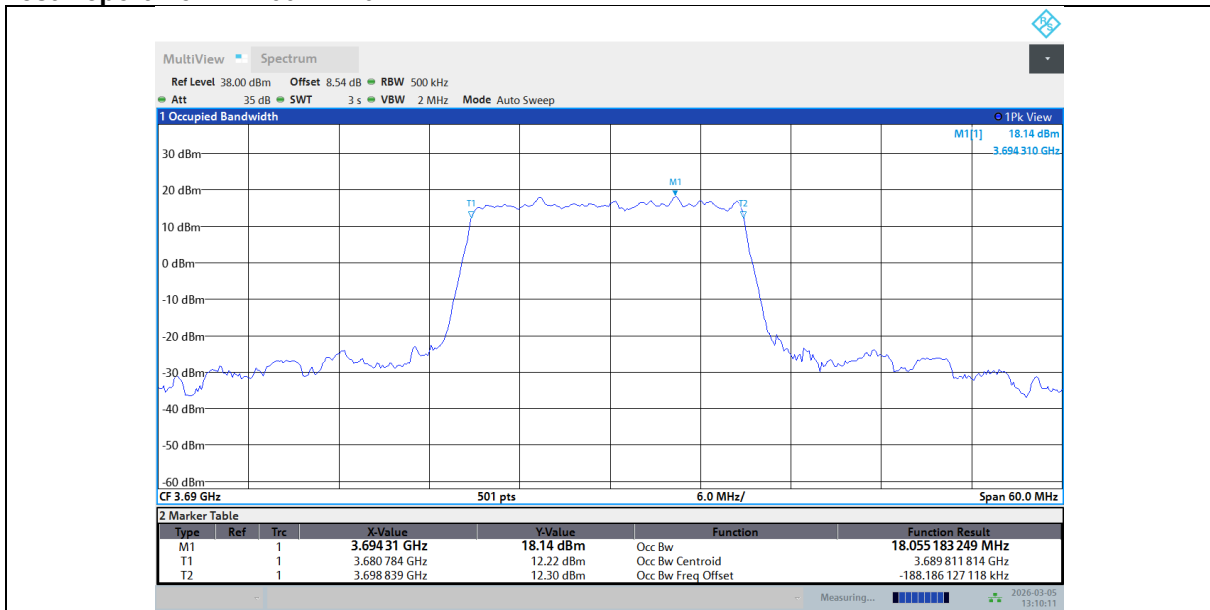
n48,20MHz Bandwidth,DFT-s-16QAM (99% BW)



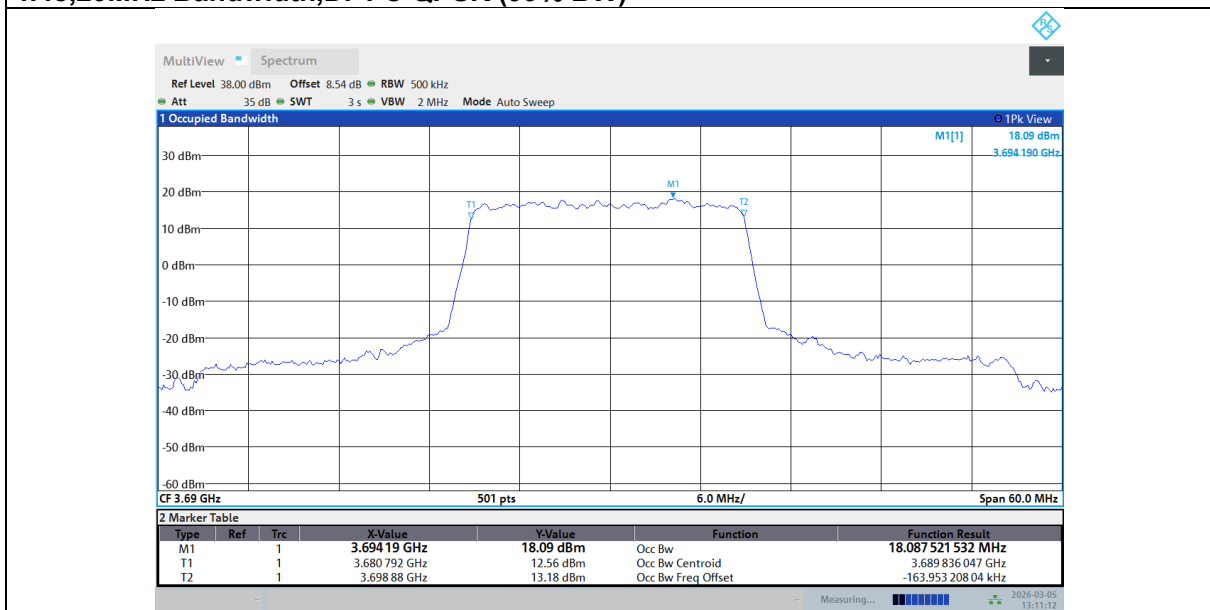
n48,20MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



Test Report No.: RF260714B012



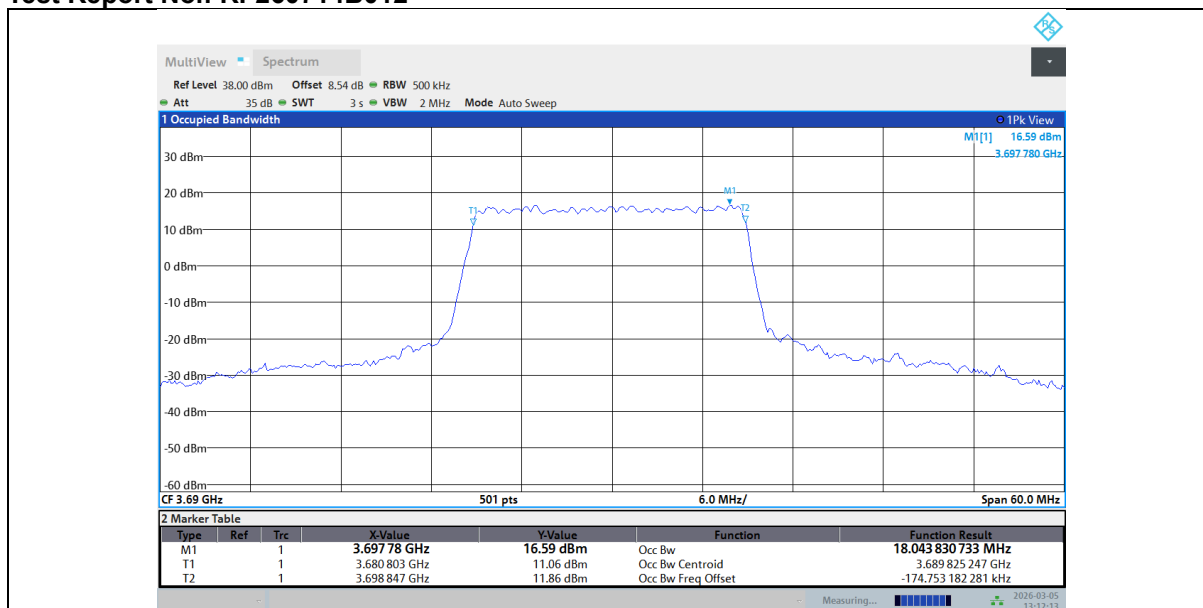
n48,20MHz Bandwidth,DFT-s-QPSK (99% BW)



n48,20MHz Bandwidth,DFT-s-16QAM (99% BW)



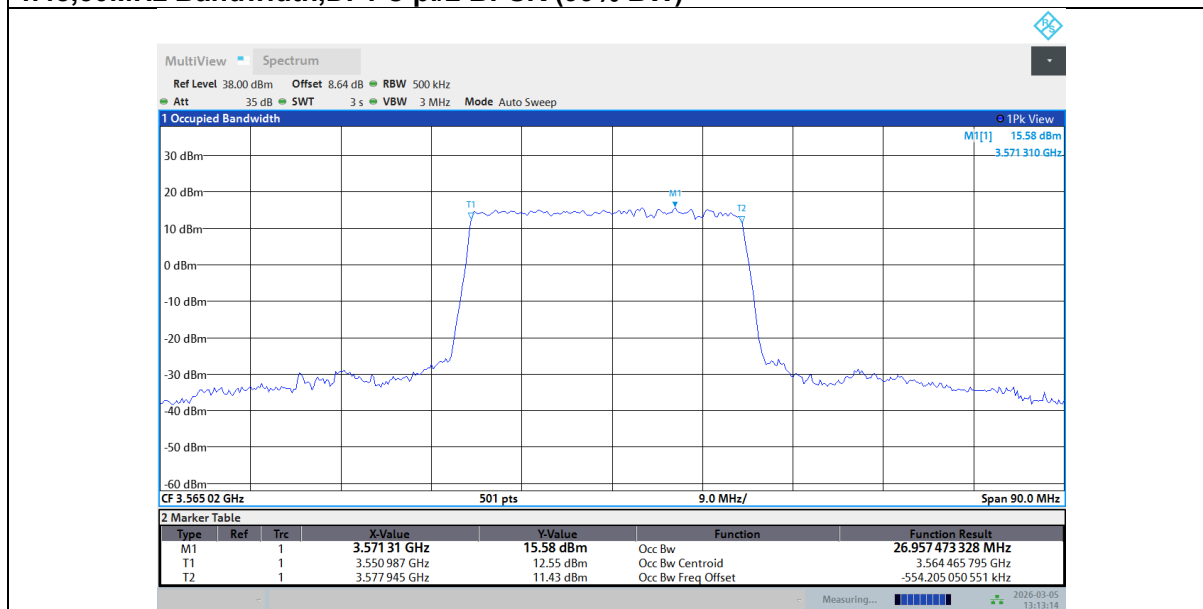
Test Report No.: RF260714B012



n48,30MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3565.02	26.957	26.995	26.957
3624.99	27.004	26.971	26.948
3684.99	26.983	26.975	26.955

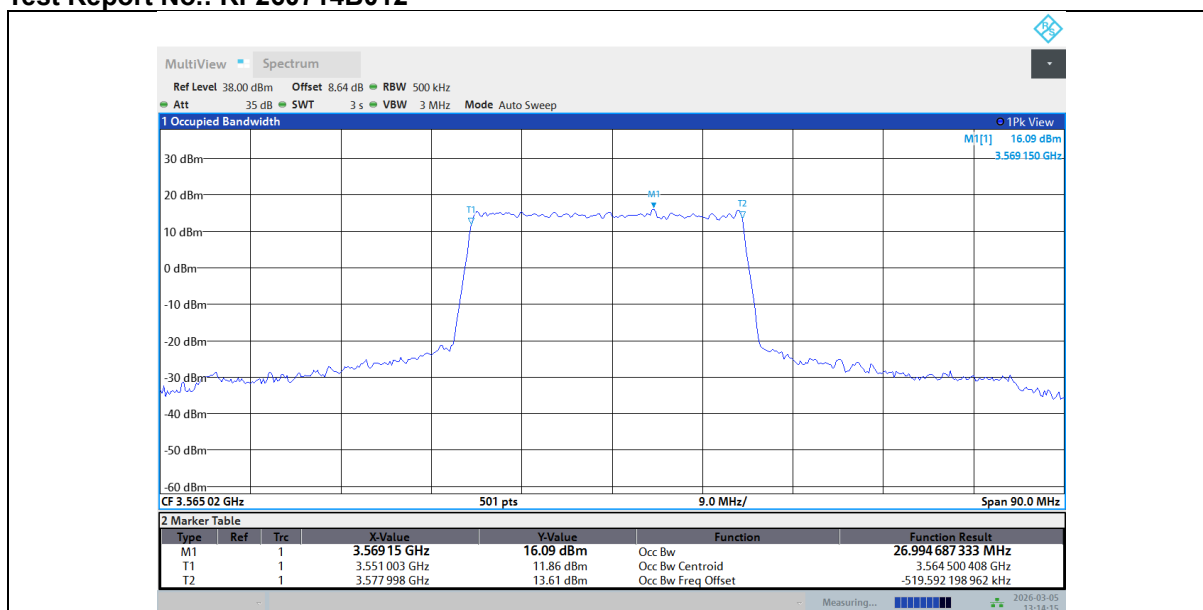
n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



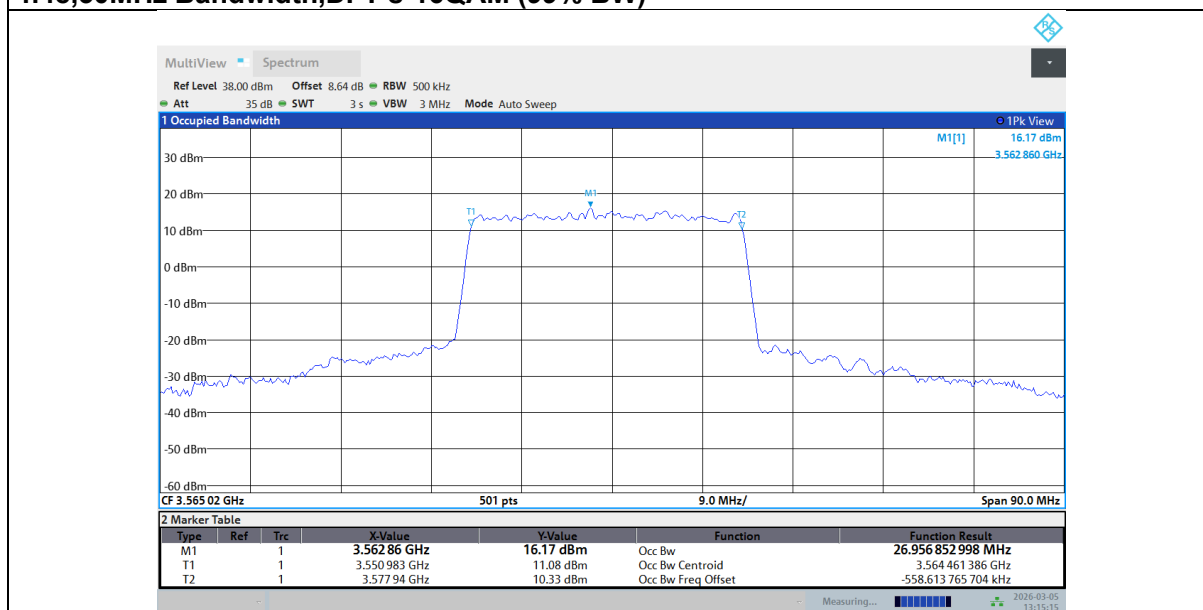
n48,30MHz Bandwidth,DFT-s-QPSK (99% BW)



Test Report No.: RF260714B012



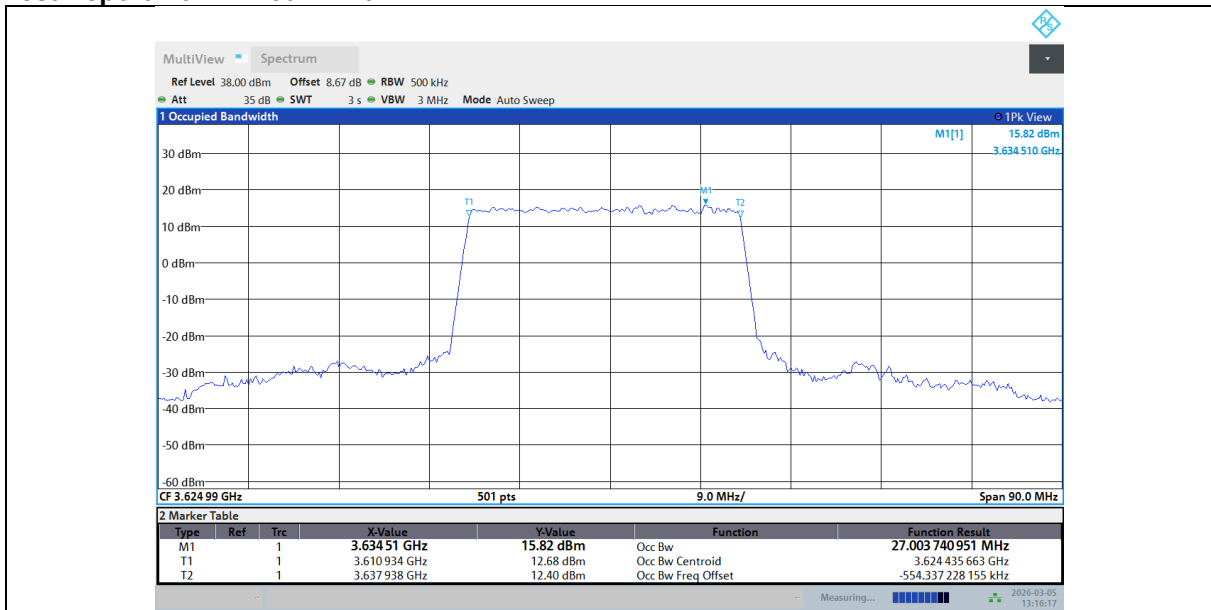
n48,30MHz Bandwidth,DFT-s-16QAM (99% BW)



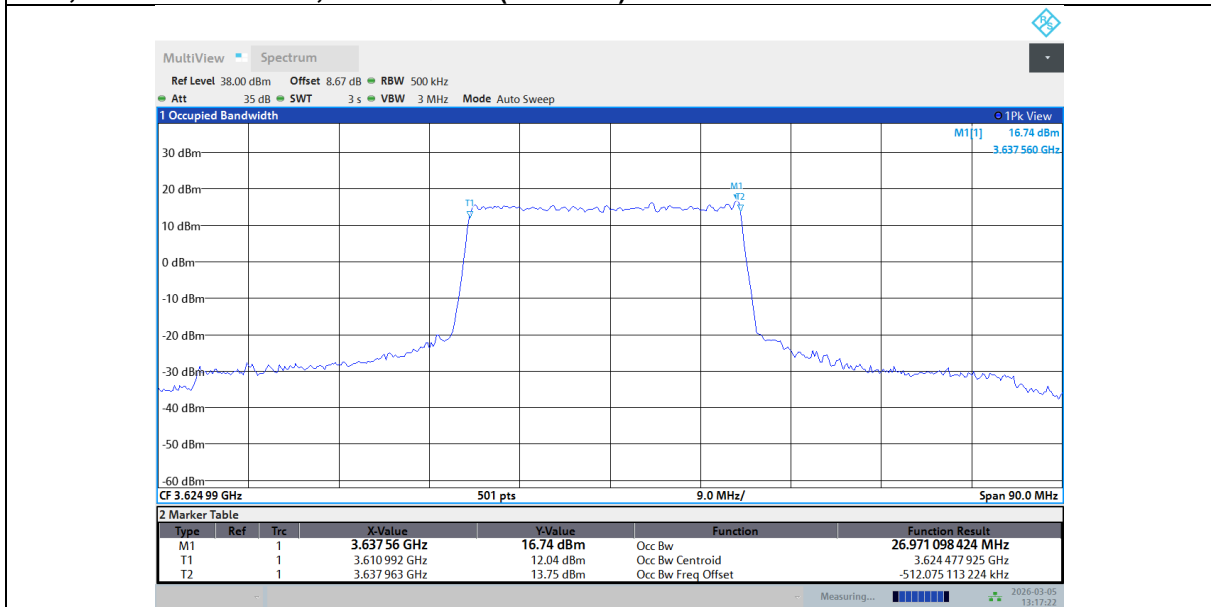
n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



Test Report No.: RF260714B012



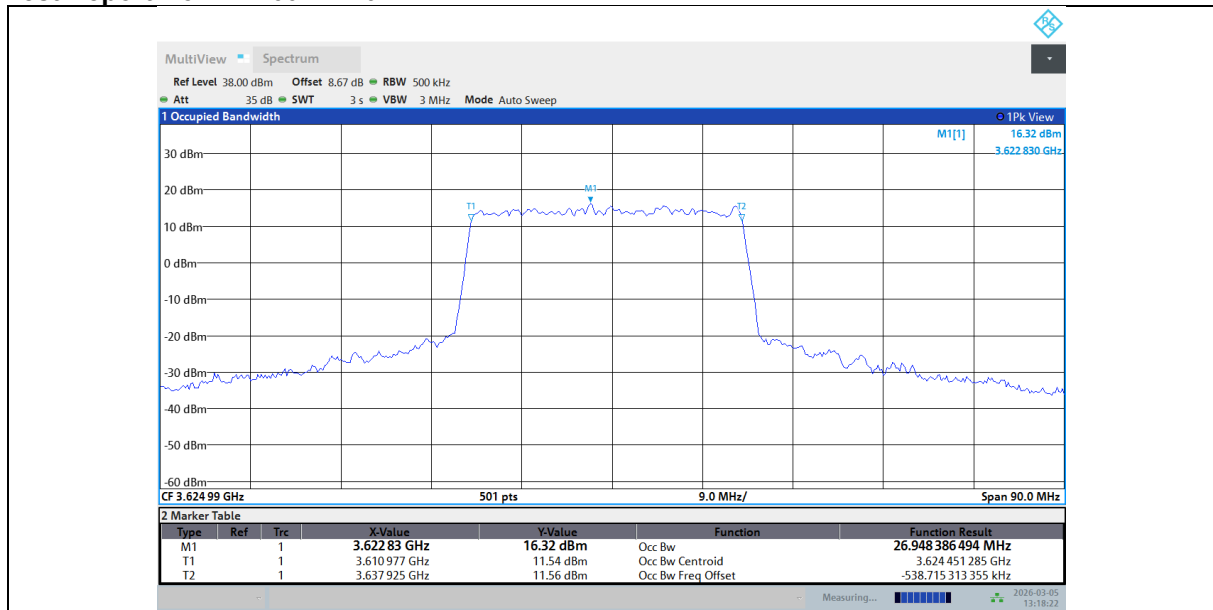
n48,30MHz Bandwidth,DFT-s-QPSK (99% BW)



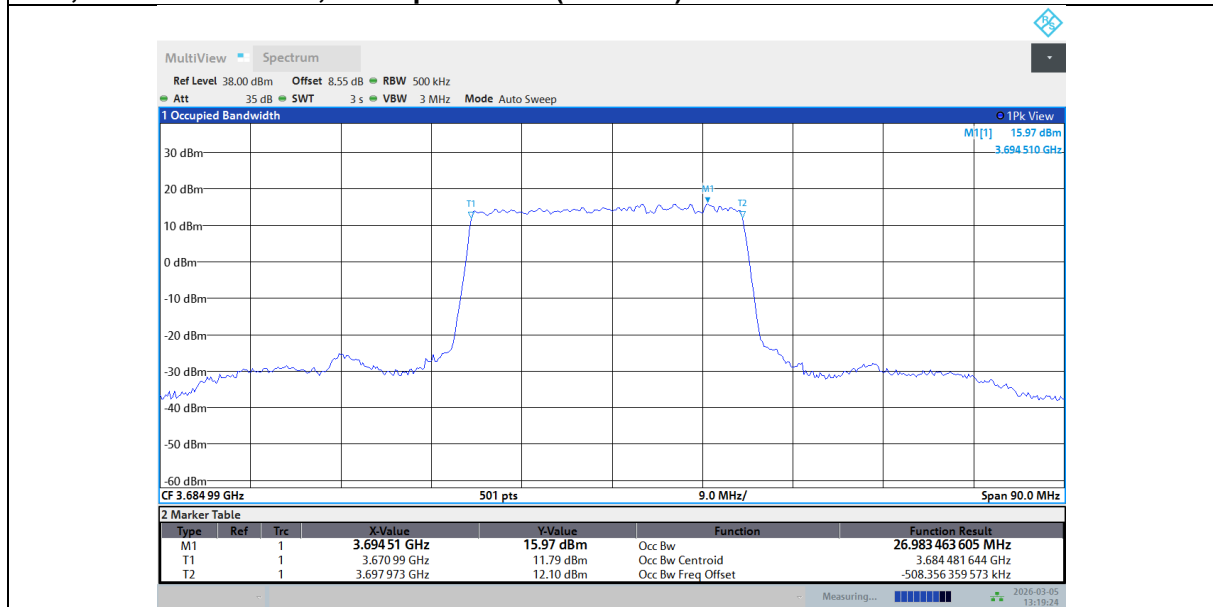
n48,30MHz Bandwidth,DFT-s-16QAM (99% BW)



Test Report No.: RF260714B012



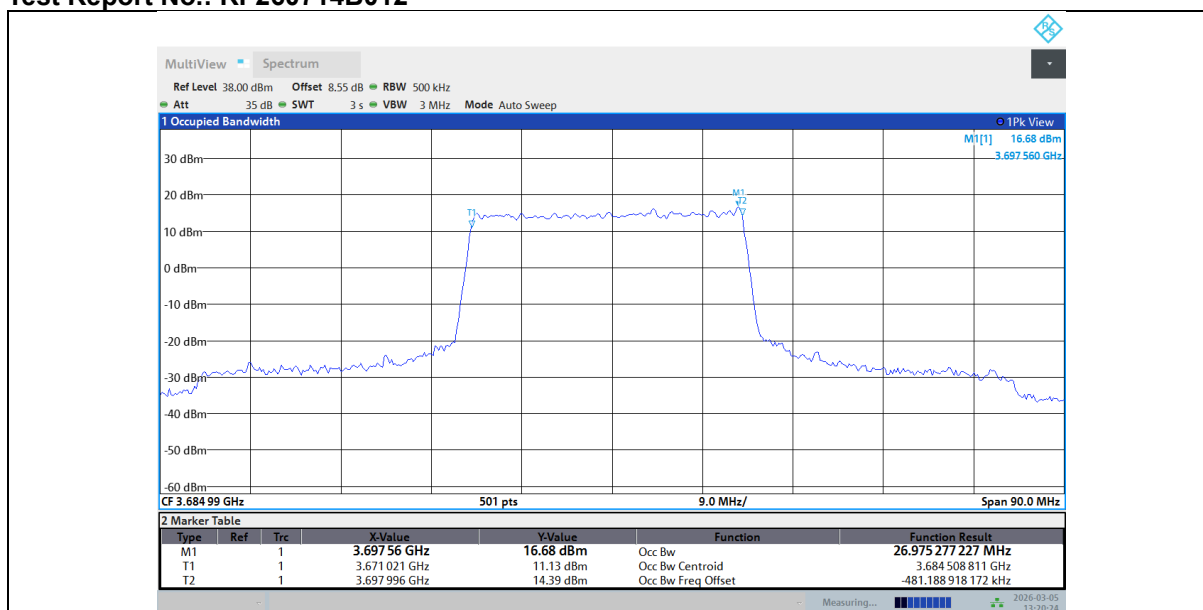
n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



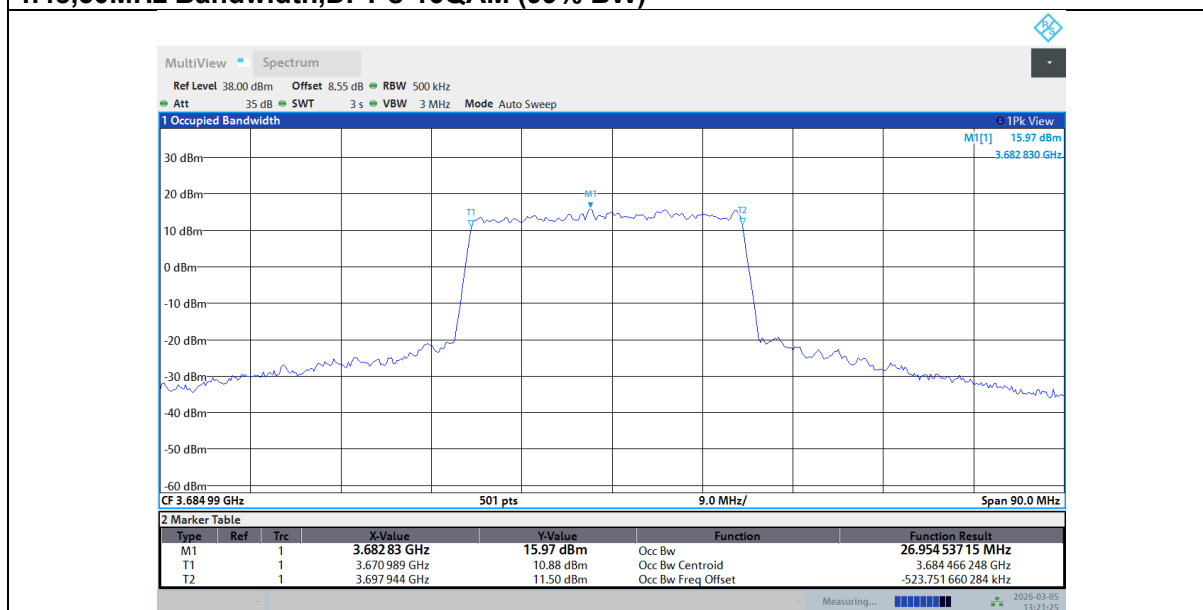
n48,30MHz Bandwidth,DFT-s-QPSK (99% BW)



Test Report No.: RF260714B012



n48,30MHz Bandwidth,DFT-s-16QAM (99% BW)



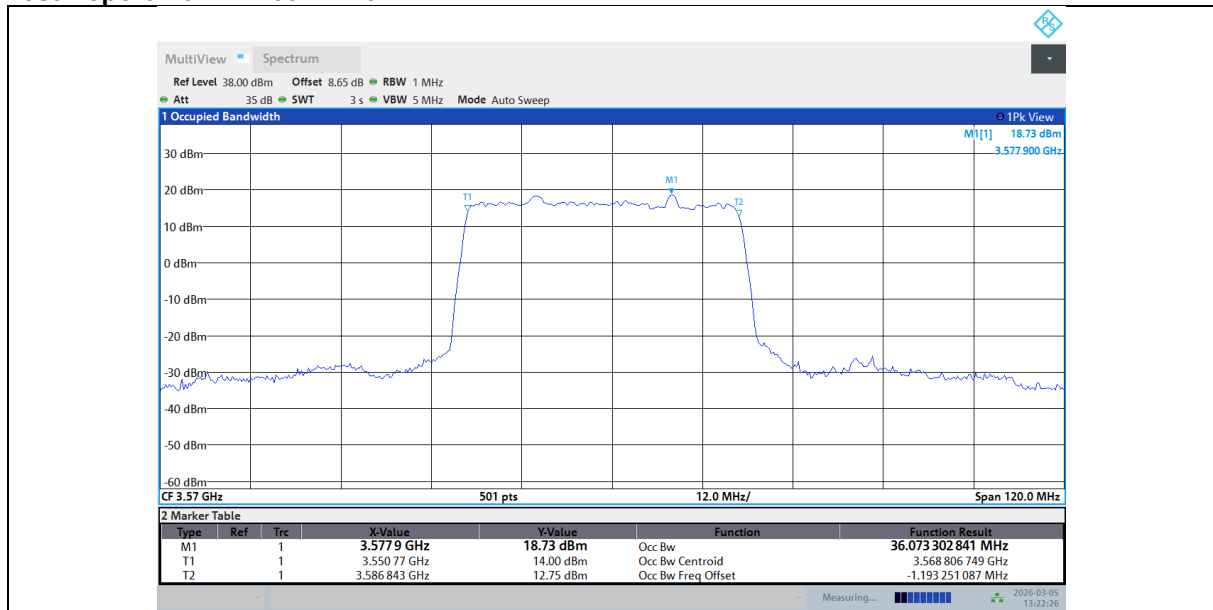
n48,40MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3570	36.073	36.039	36.006
3624.99	36.111	36.090	36.053
3679.98	36.152	36.161	36.036

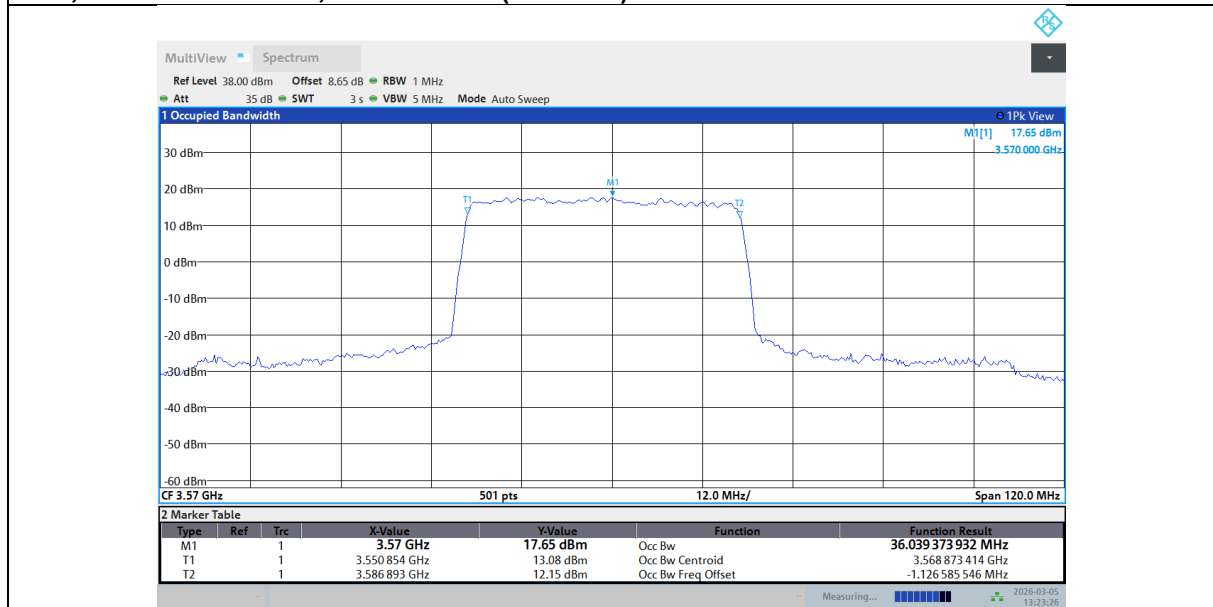
n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



Test Report No.: RF260714B012



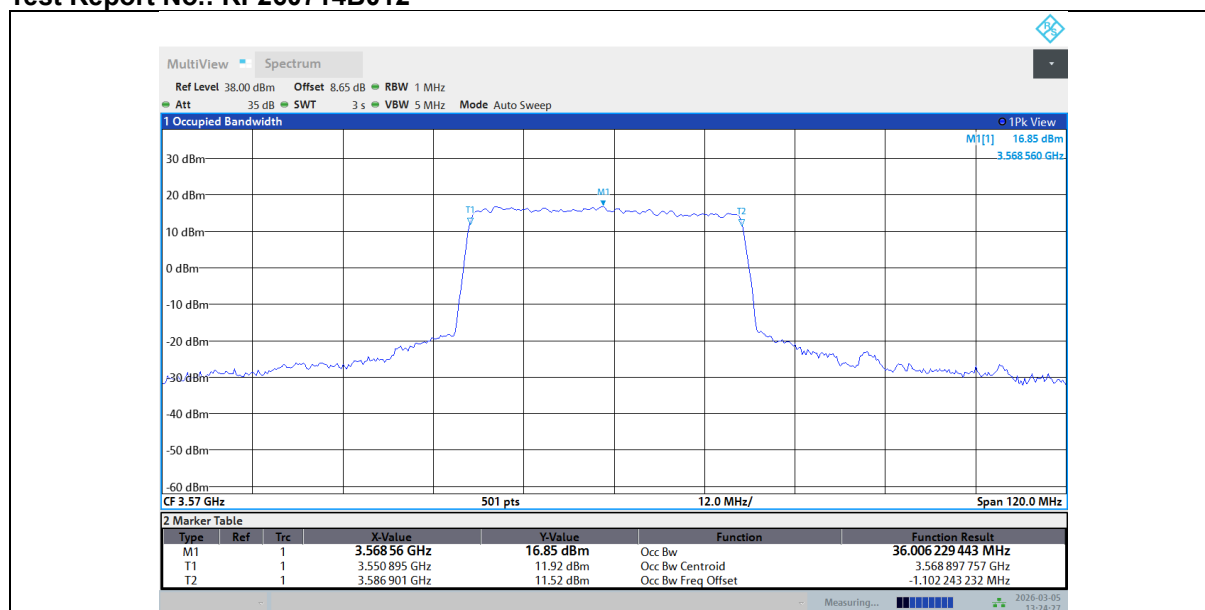
n48,40MHz Bandwidth,DFT-s-QPSK (99% BW)



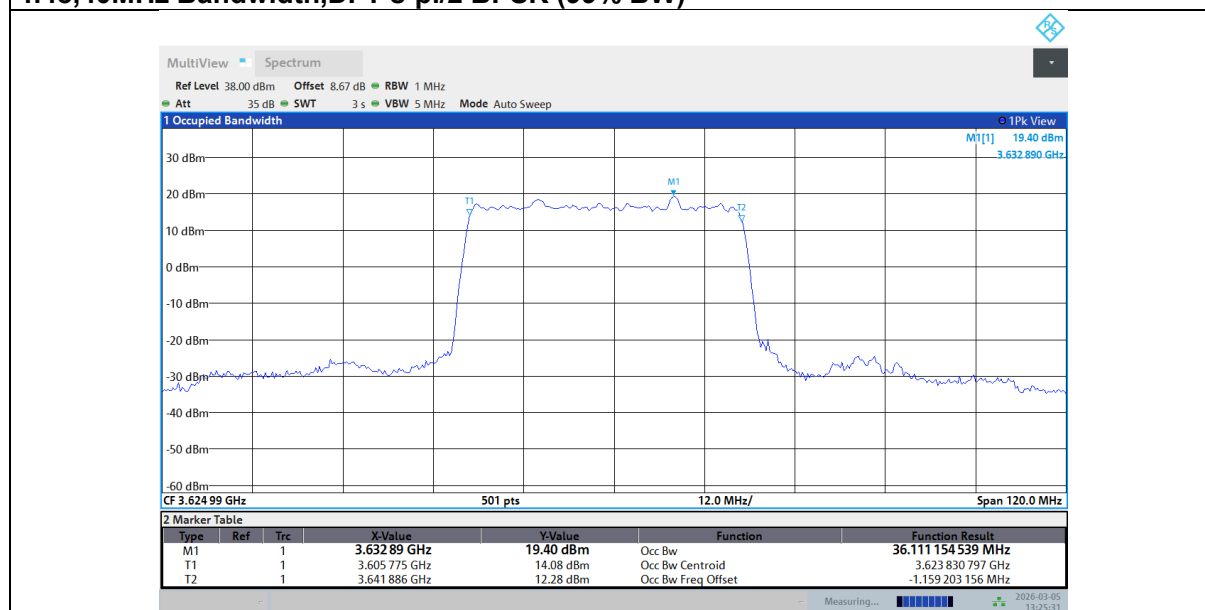
n48,40MHz Bandwidth,DFT-s-16QAM (99% BW)



Test Report No.: RF260714B012



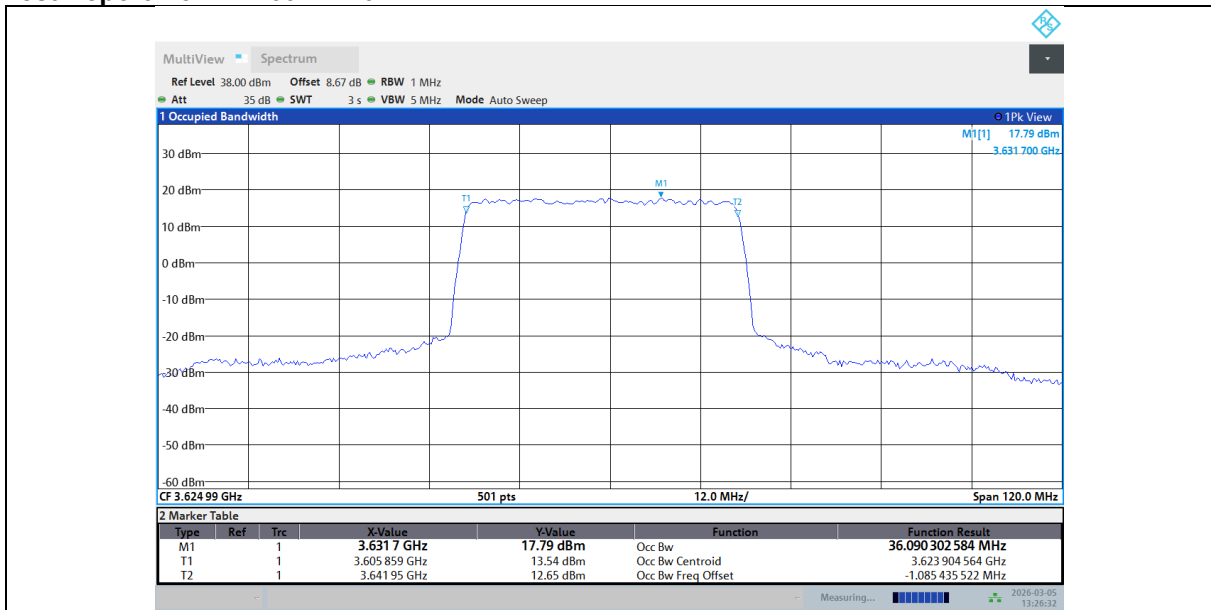
n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



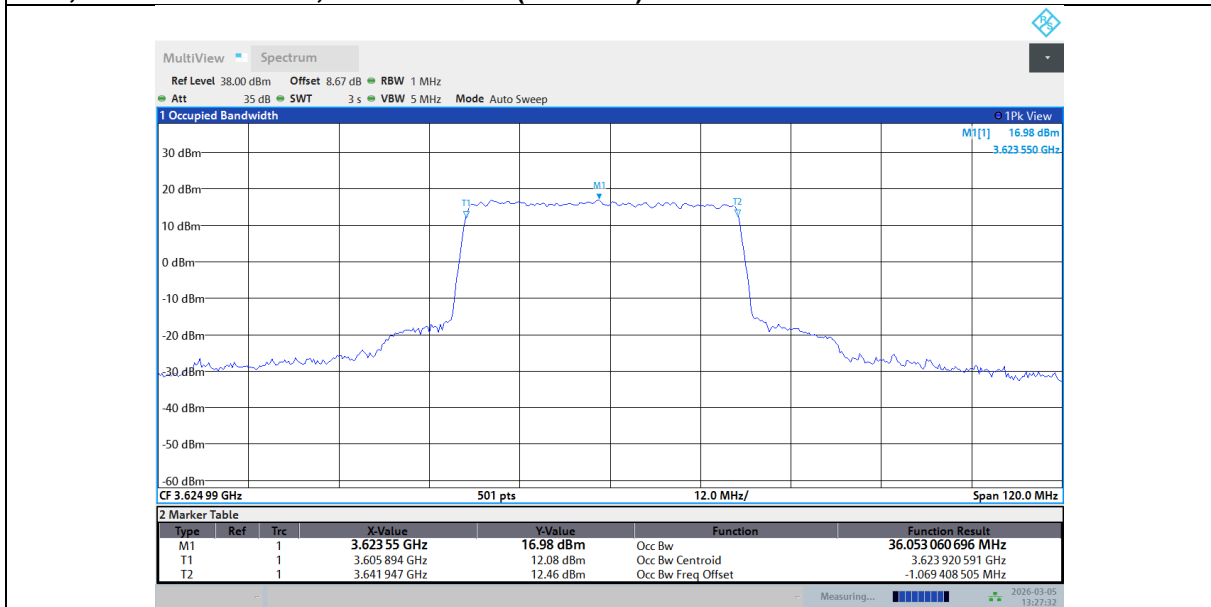
n48,40MHz Bandwidth,DFT-s-QPSK (99% BW)



Test Report No.: RF260714B012



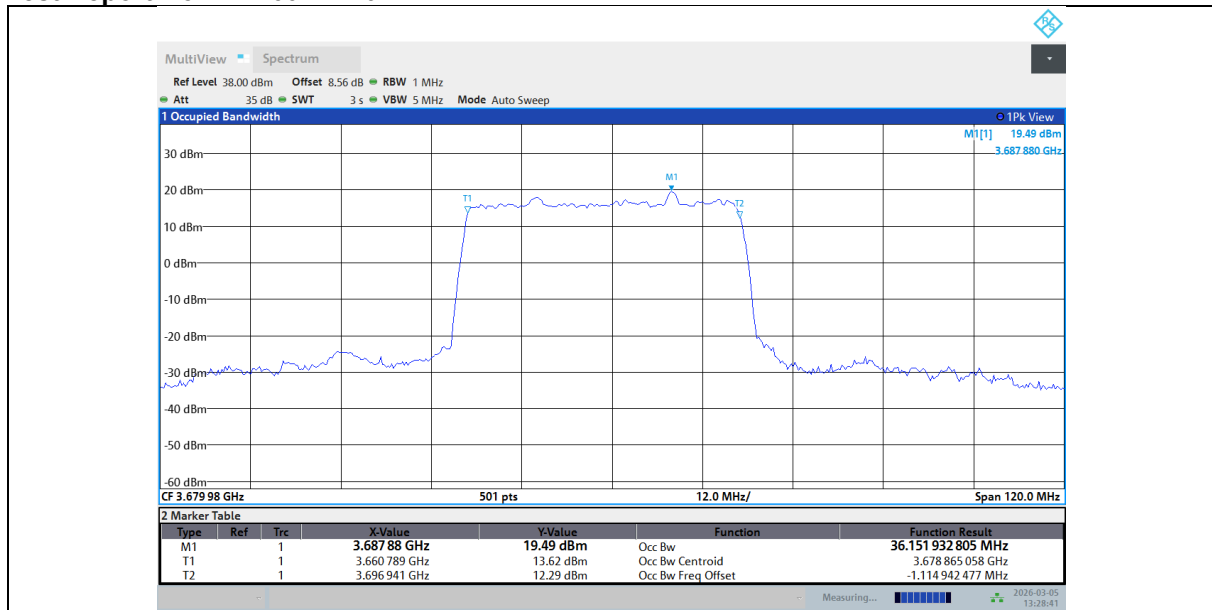
n48,40MHz Bandwidth,DFT-s-16QAM (99% BW)



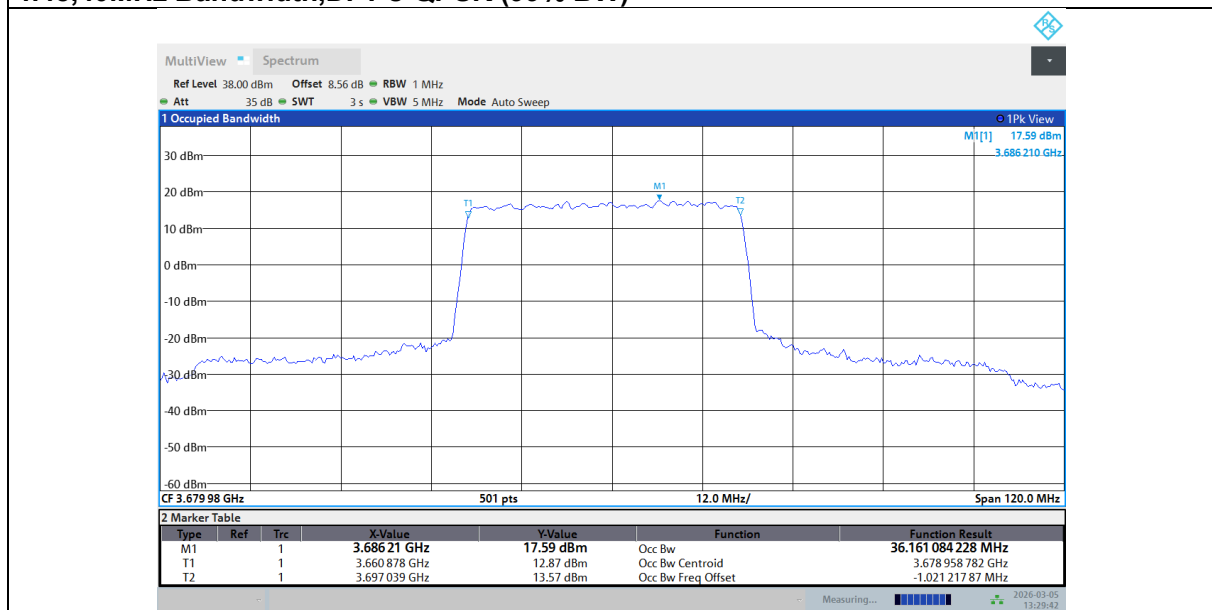
n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (99% BW)



Test Report No.: RF260714B012



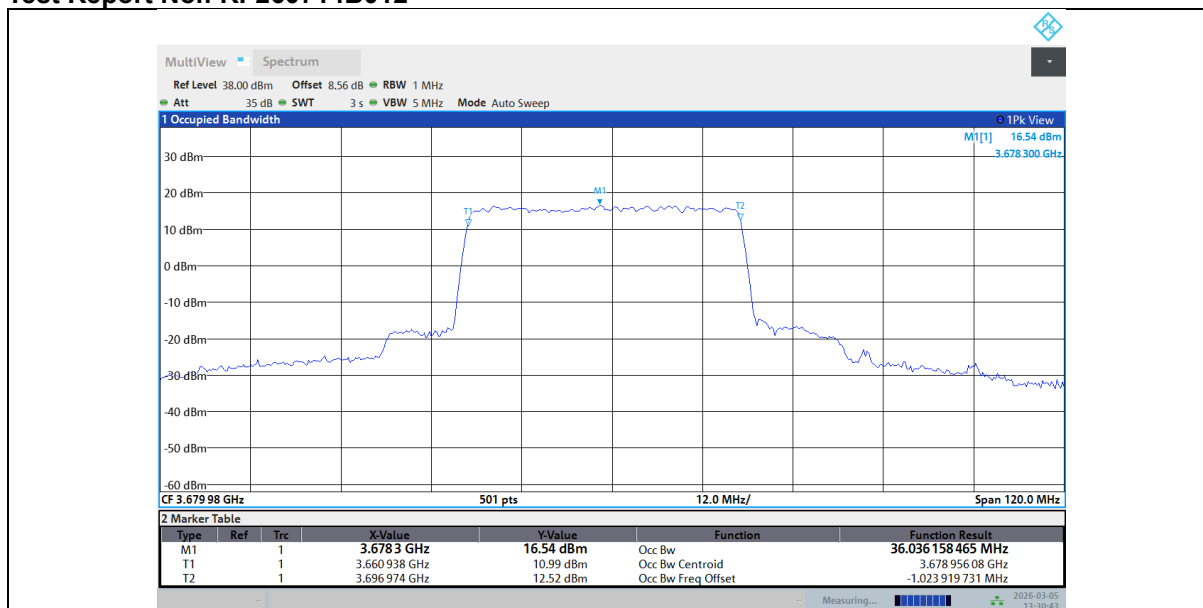
n48,40MHz Bandwidth,DFT-s-QPSK (99% BW)



n48,40MHz Bandwidth,DFT-s-16QAM (99% BW)



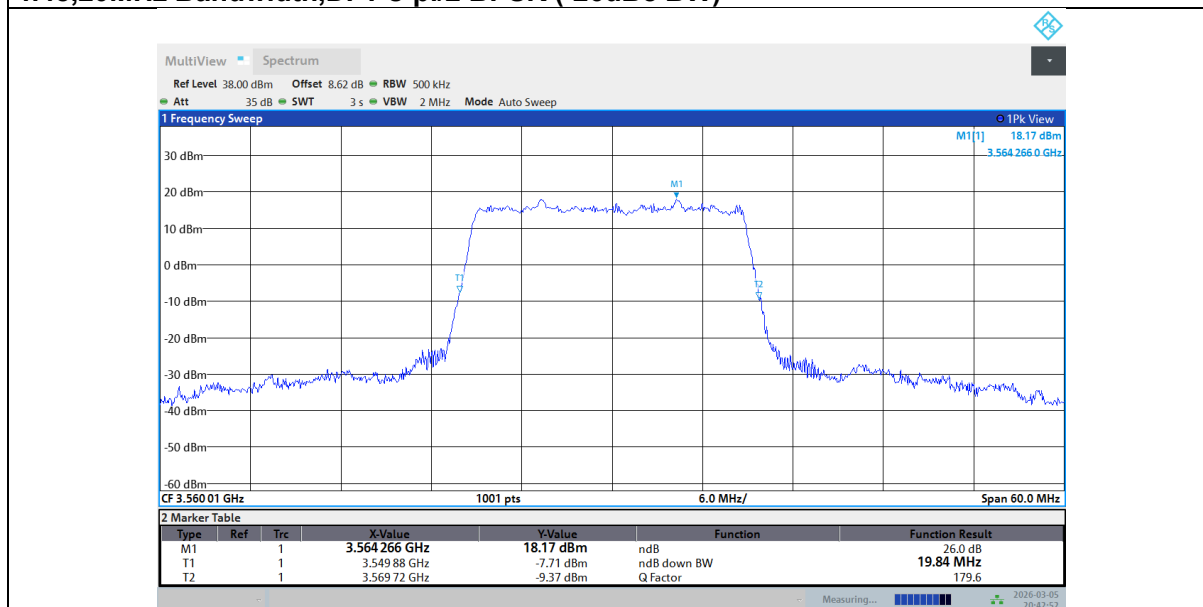
Test Report No.: RF260714B012



n48,20MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3560.01	19.84	19.84	19.90
3624.99	20.14	20.08	19.90
3690	19.84	19.96	20.08

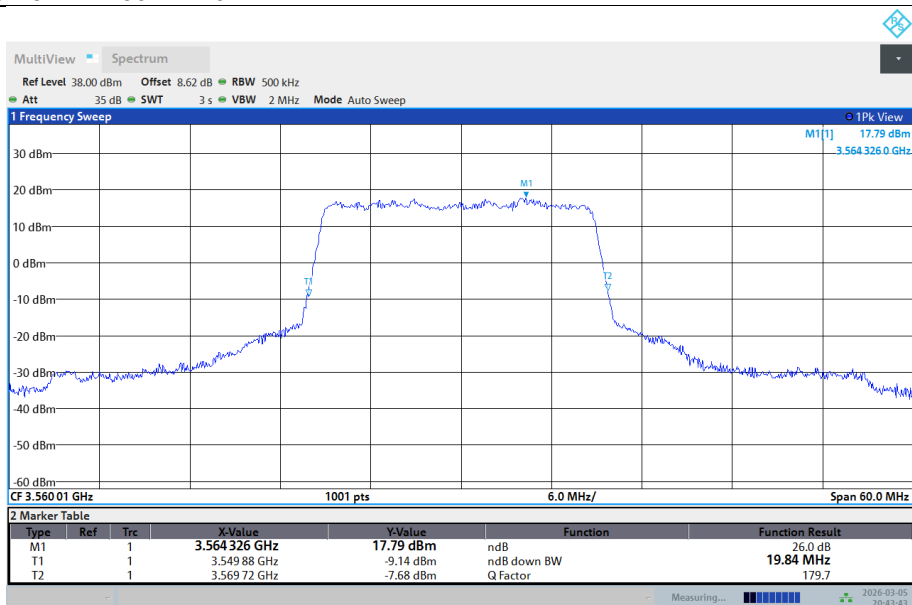
n48,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



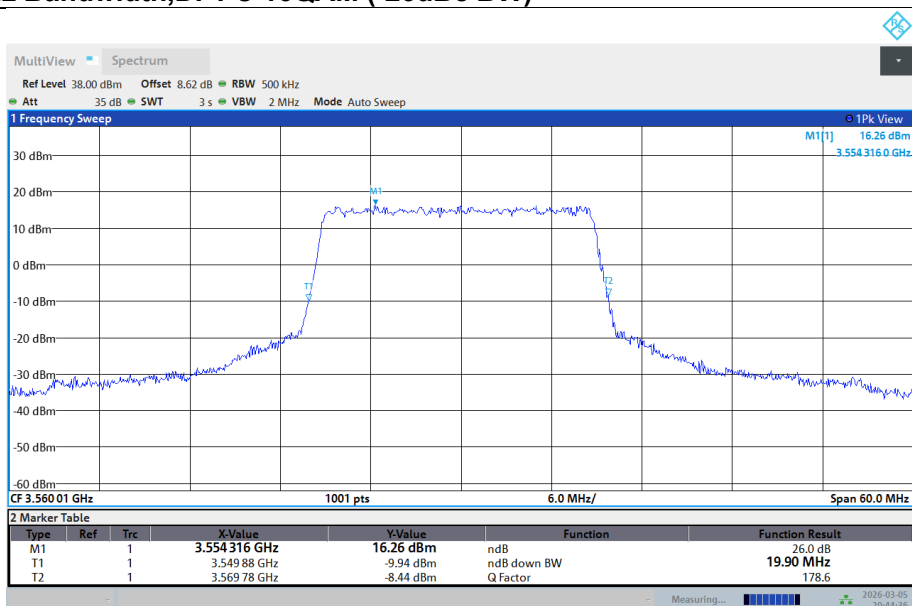
n48,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



Test Report No.: RF260714B012



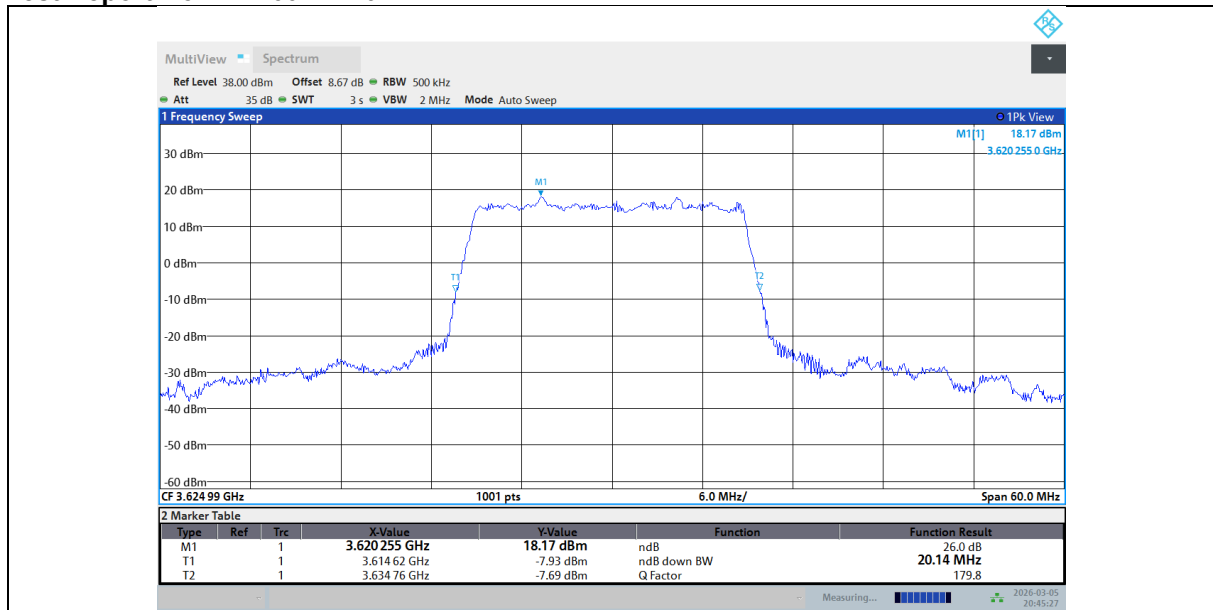
n48,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



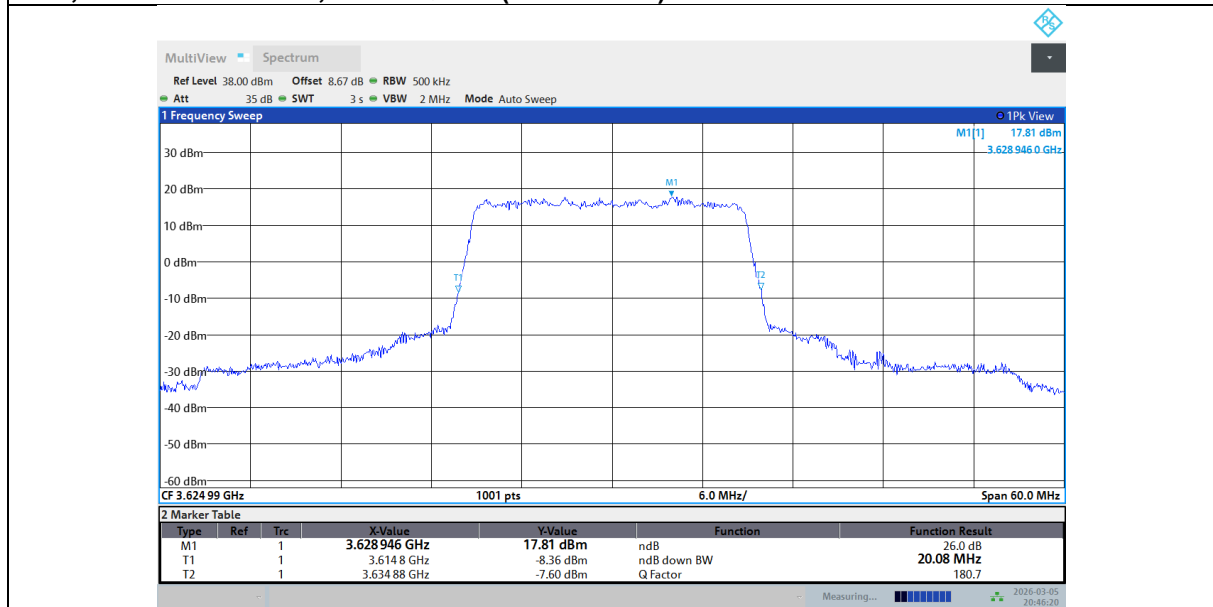
n48,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



Test Report No.: RF260714B012



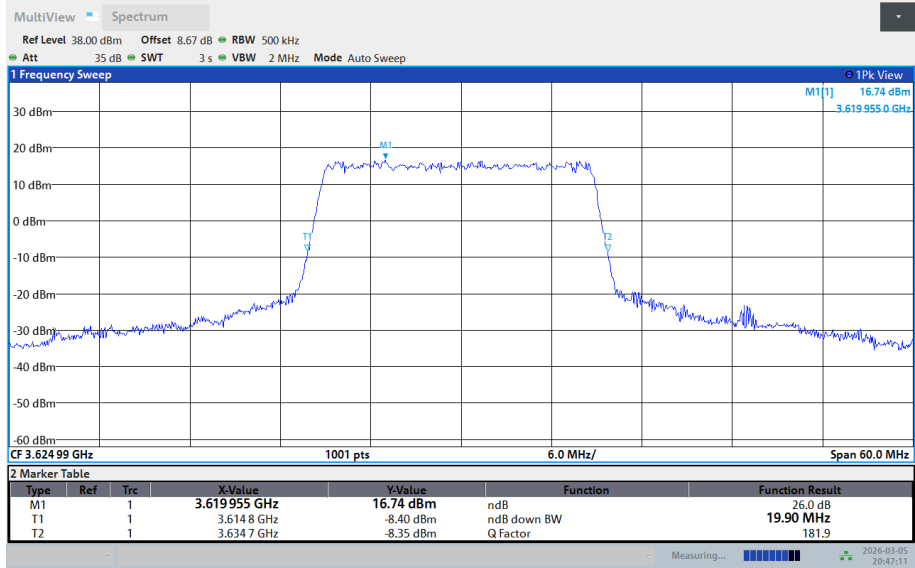
n48,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



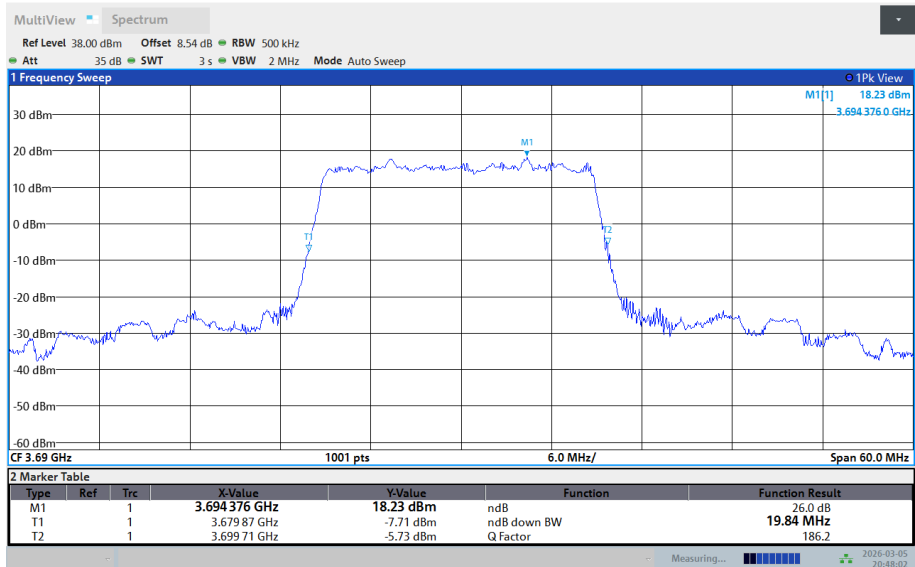
n48,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



Test Report No.: RF260714B012



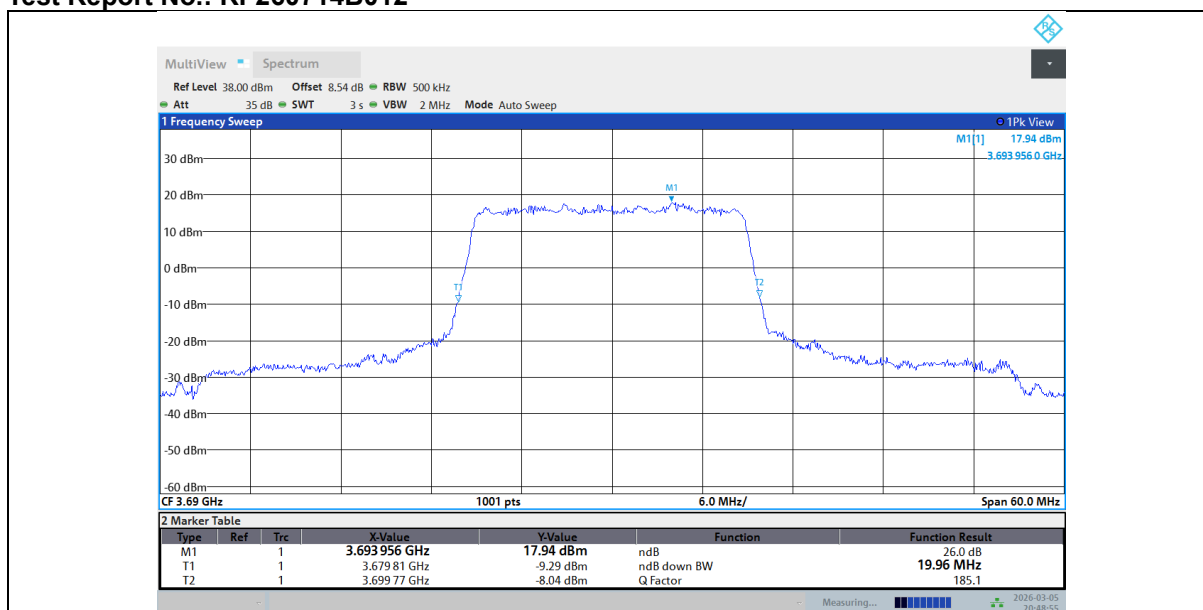
n48,20MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



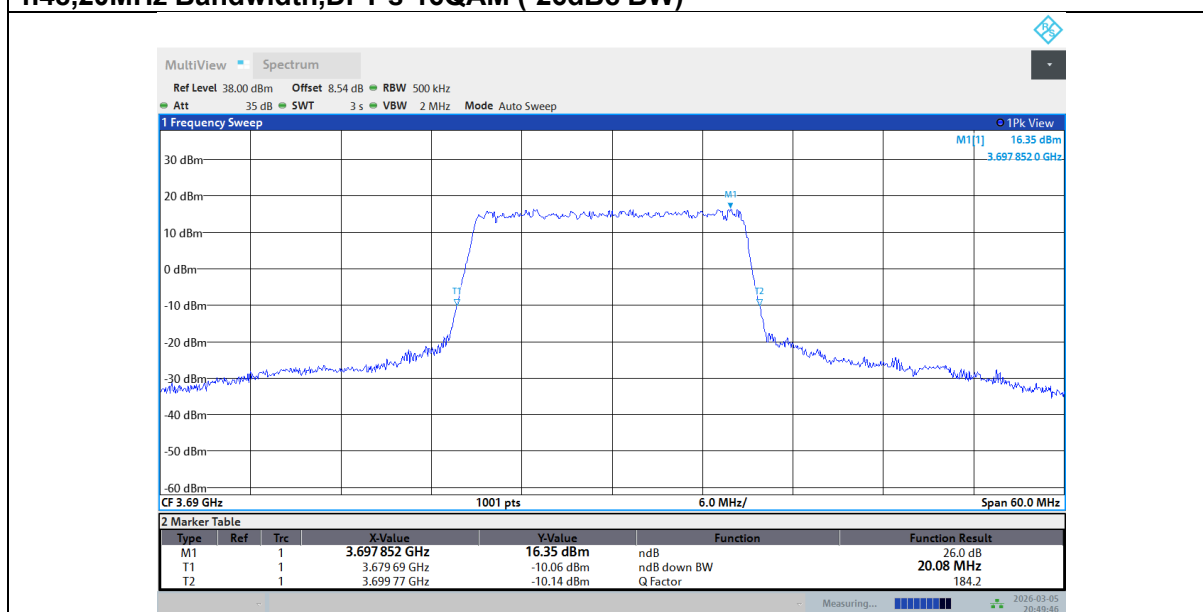
n48,20MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



Test Report No.: RF260714B012



n48,20MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



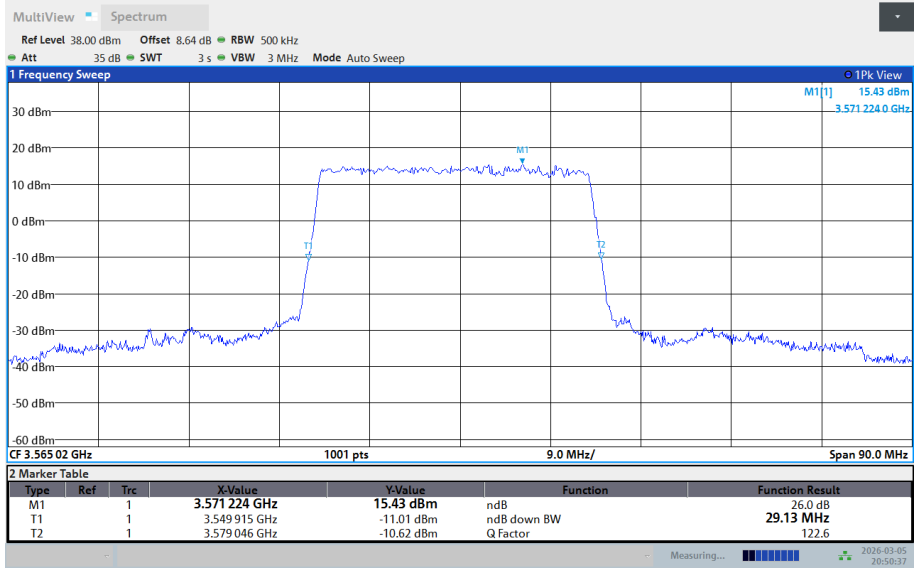
n48,30MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3565.02	29.13	29.13	28.95
3624.99	29.04	29.04	28.95
3684.99	29.04	28.86	29.04

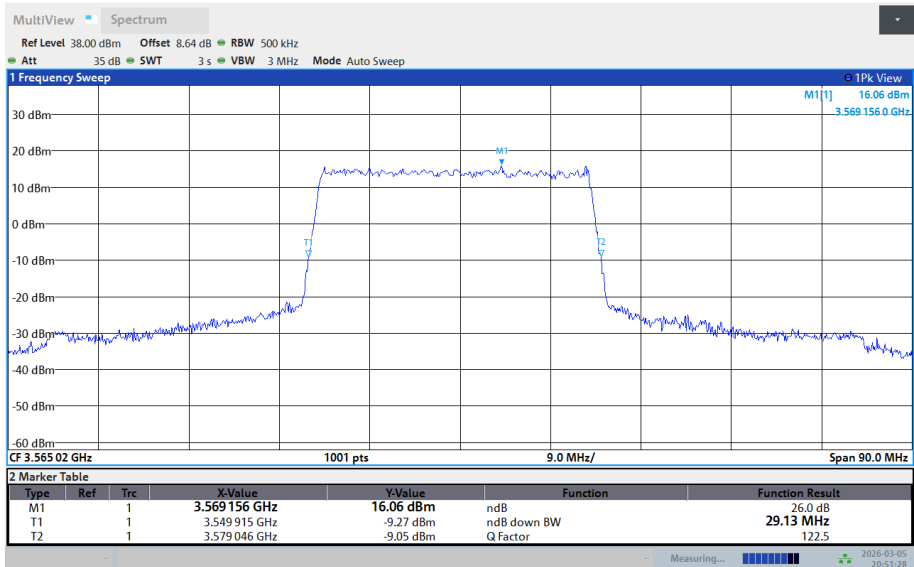
n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



Test Report No.: RF260714B012



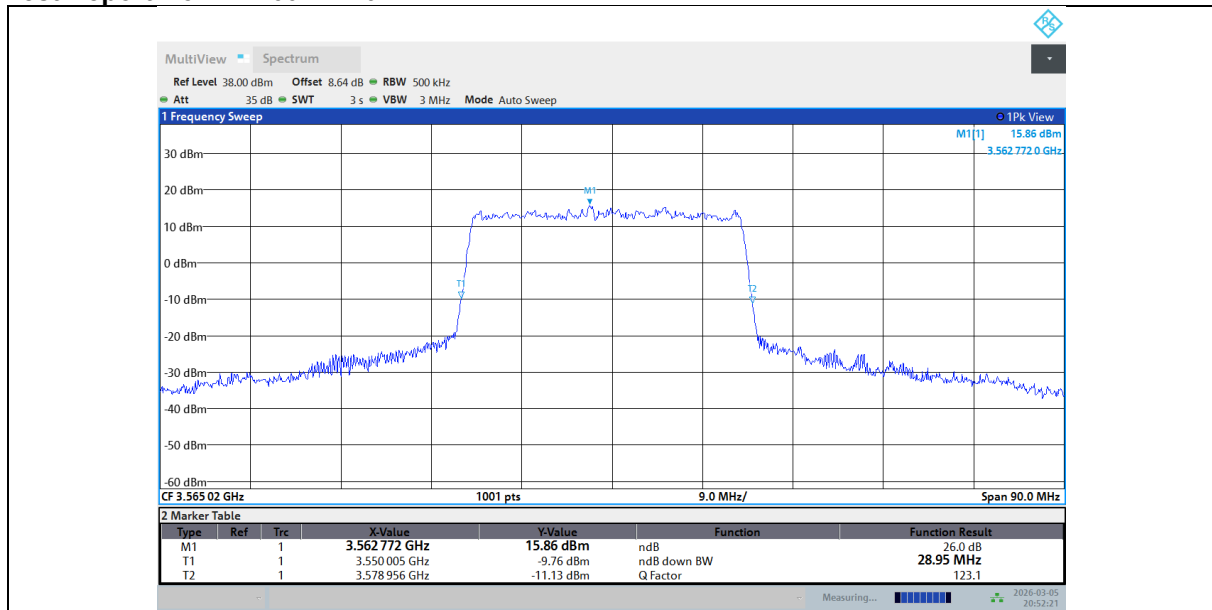
n48,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



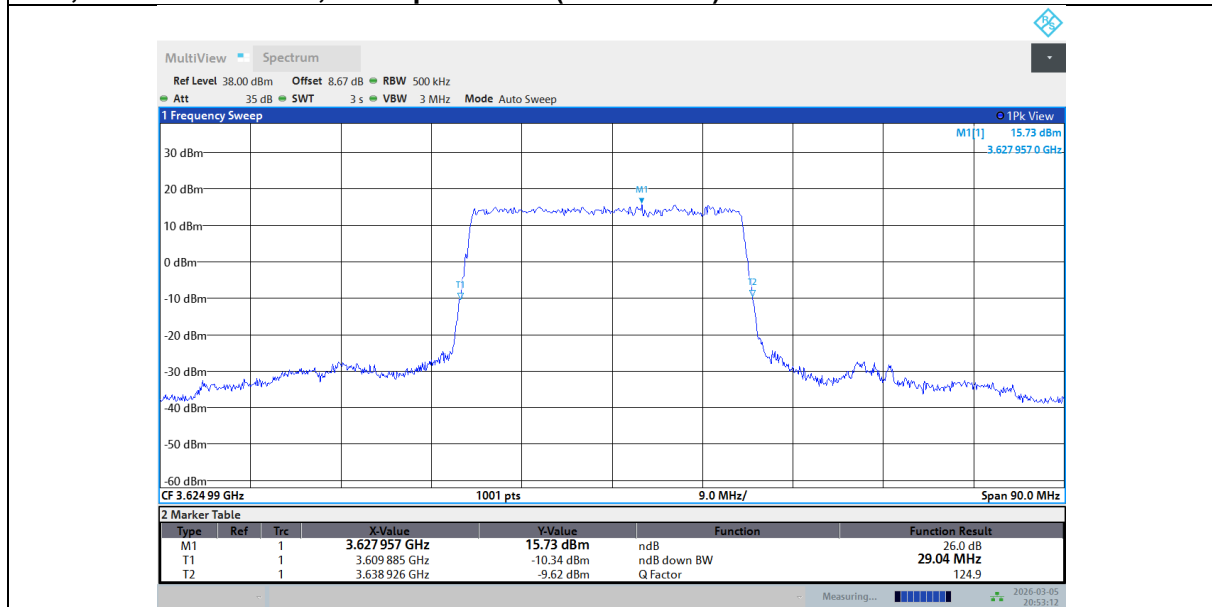
n48,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



Test Report No.: RF260714B012



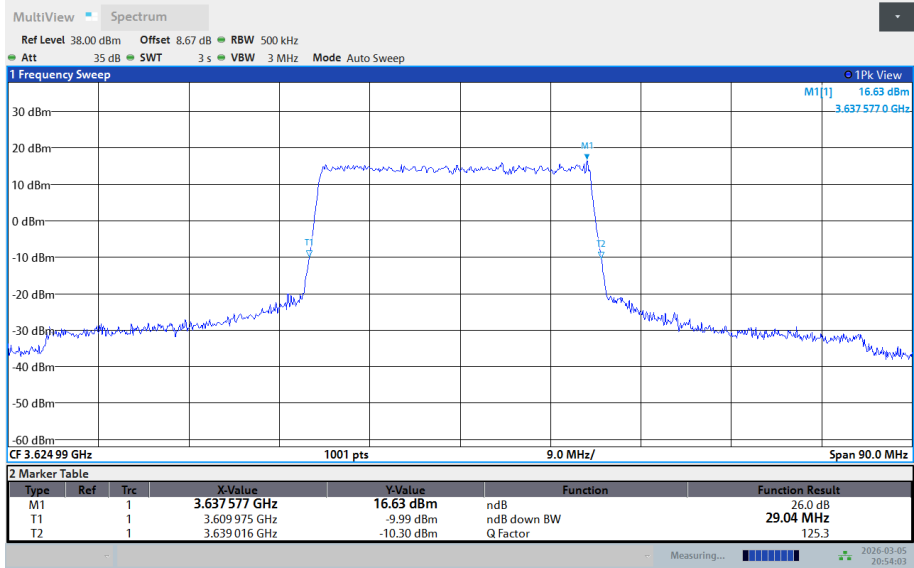
n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



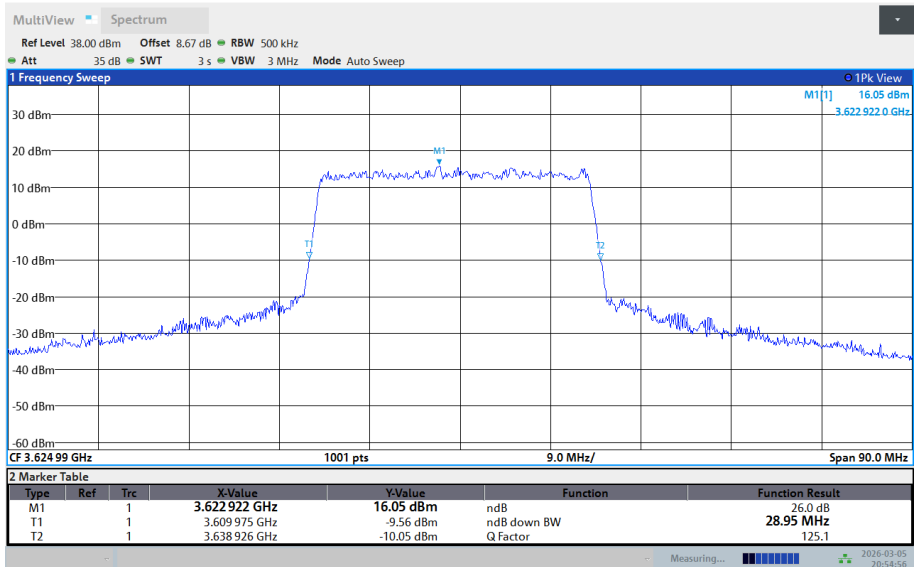
n48,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



Test Report No.: RF260714B012



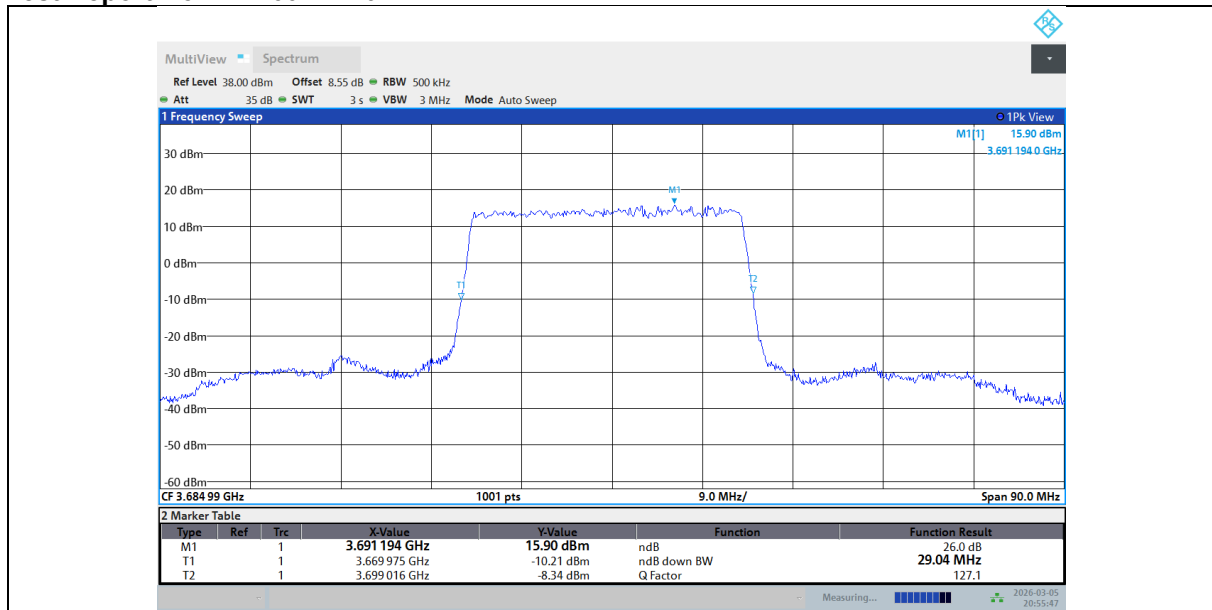
n48,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



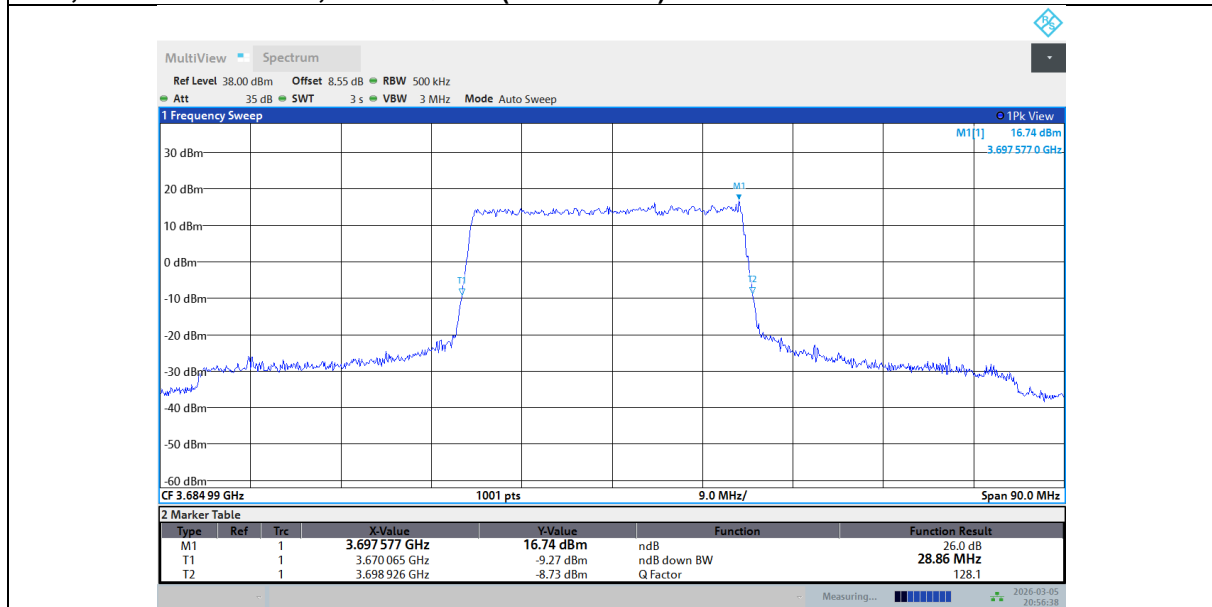
n48,30MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



Test Report No.: RF260714B012



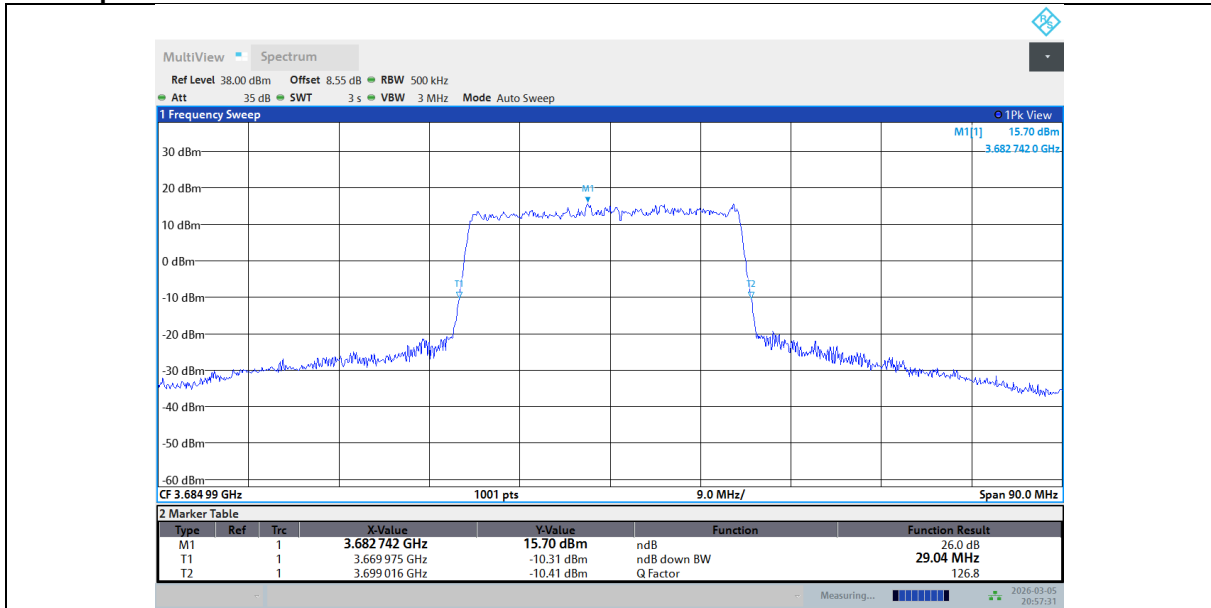
n48,30MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



n48,30MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



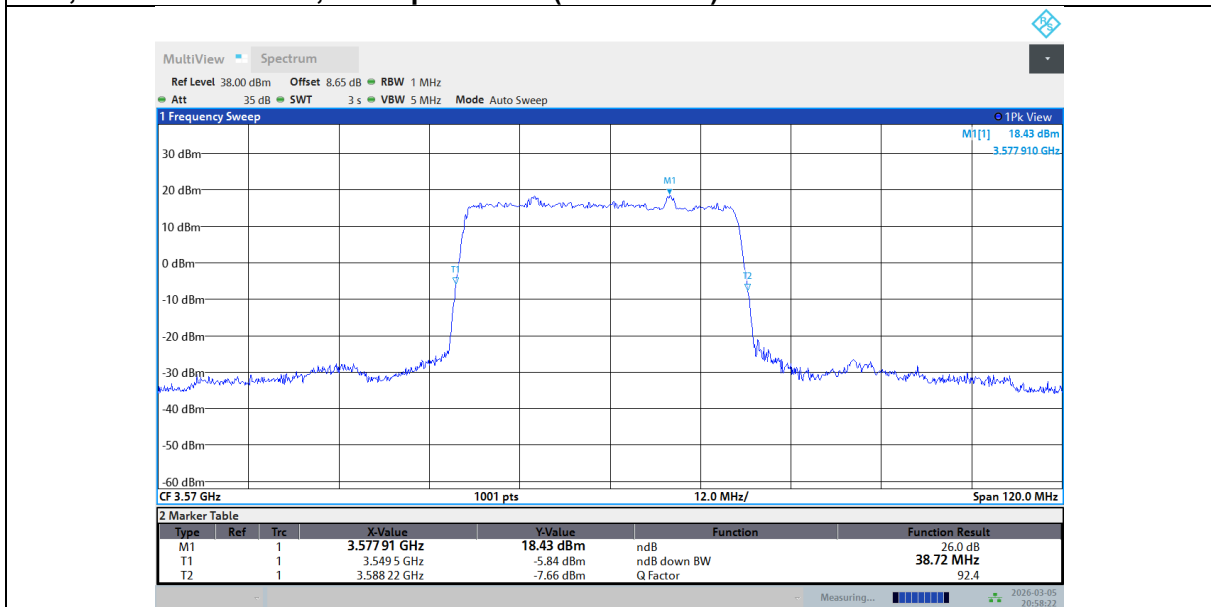
Test Report No.: RF260714B012



n48,40MHz(-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)		
	DFT-s-pi/2 BPSK	DFT-s-QPSK	DFT-s-16QAM
3570	38.72	38.84	38.84
3624.99	38.72	39.08	38.96
3679.98	38.72	38.96	38.72

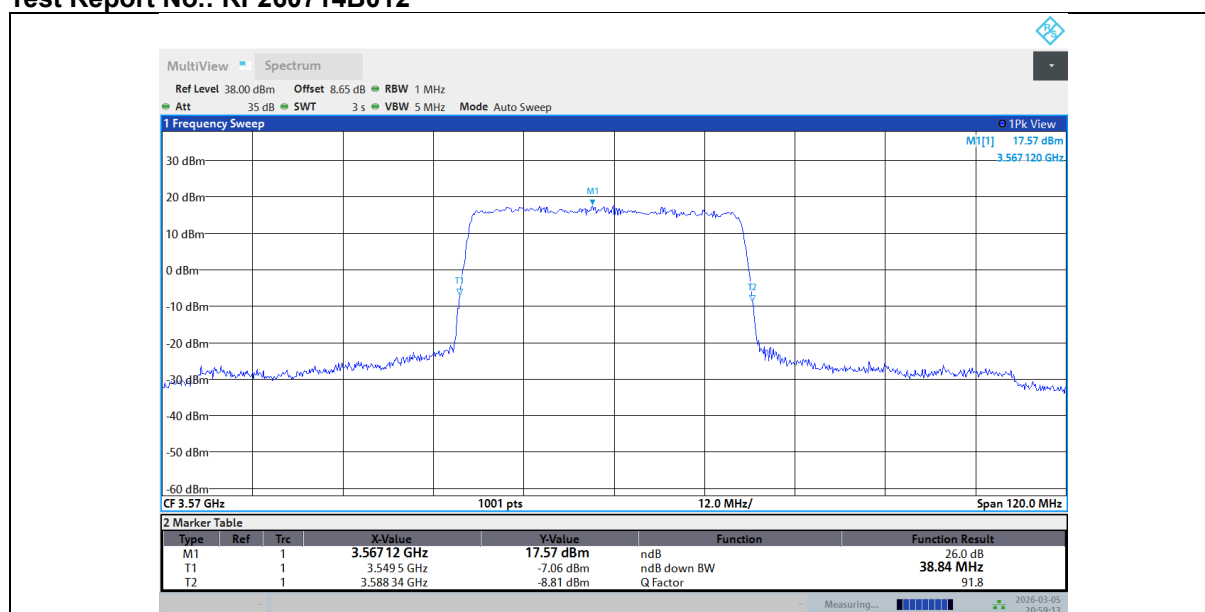
n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



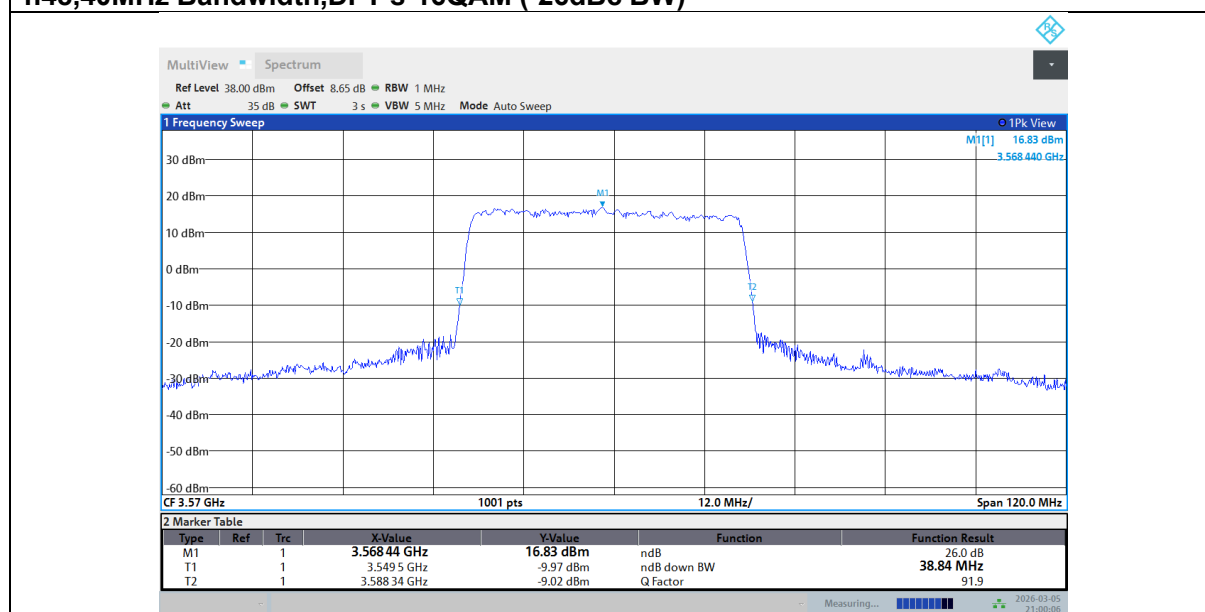
n48,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



Test Report No.: RF260714B012



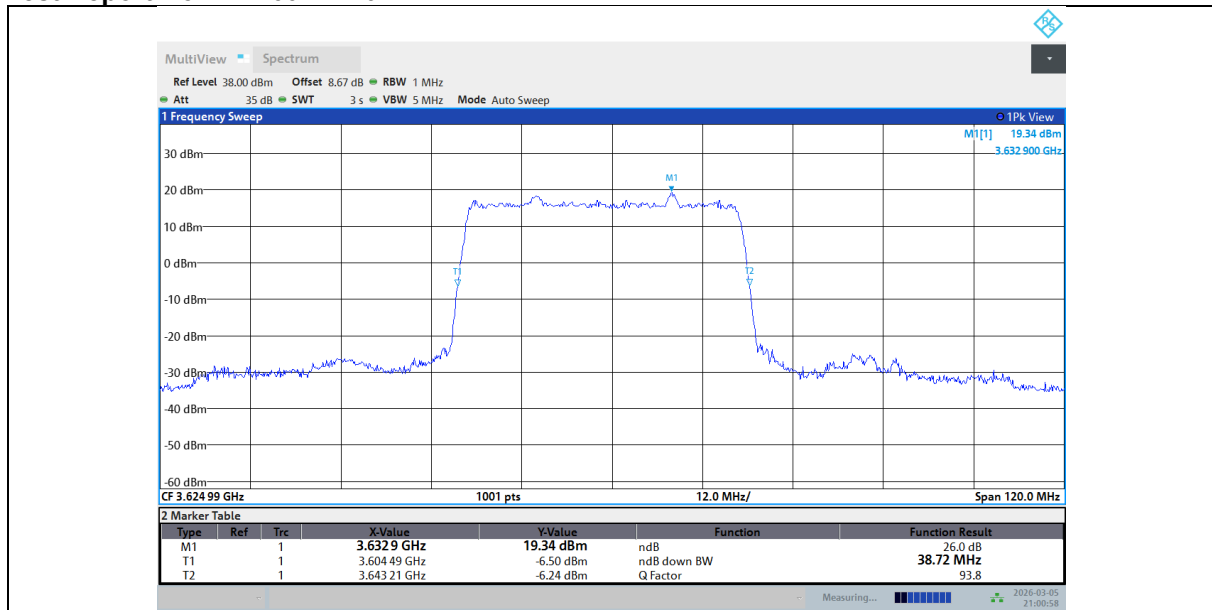
n48,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



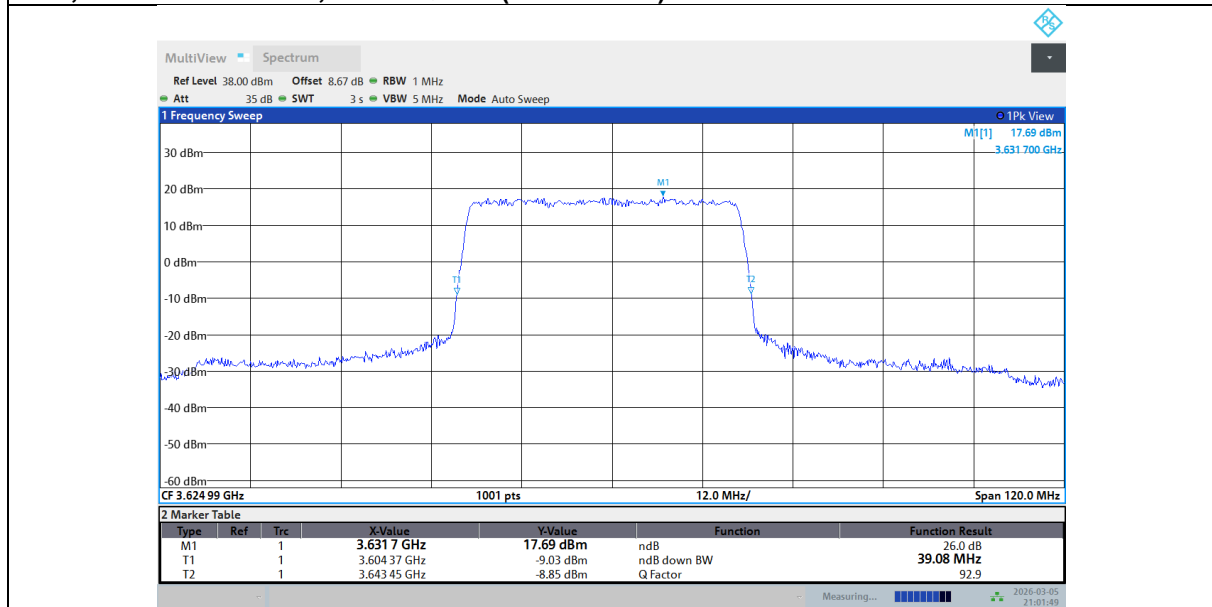
n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



Test Report No.: RF260714B012



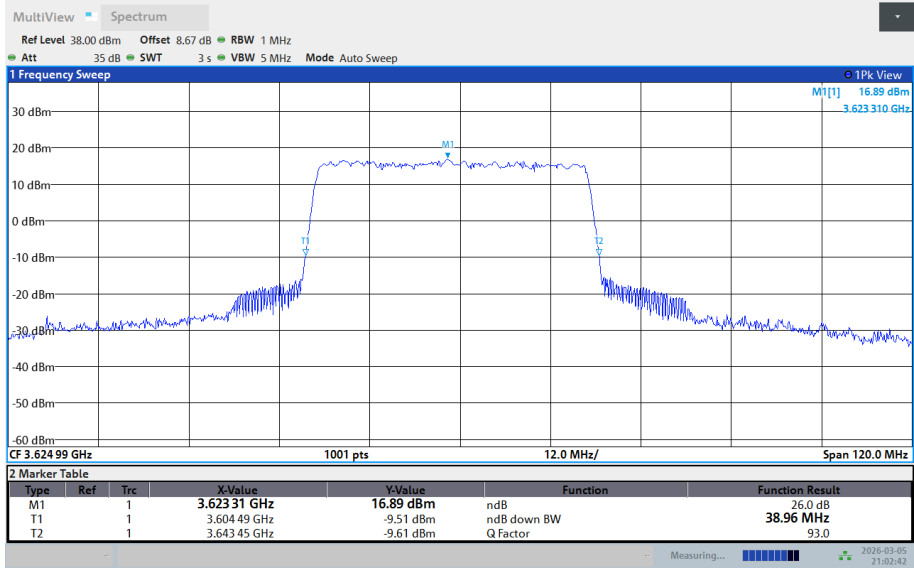
n48,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



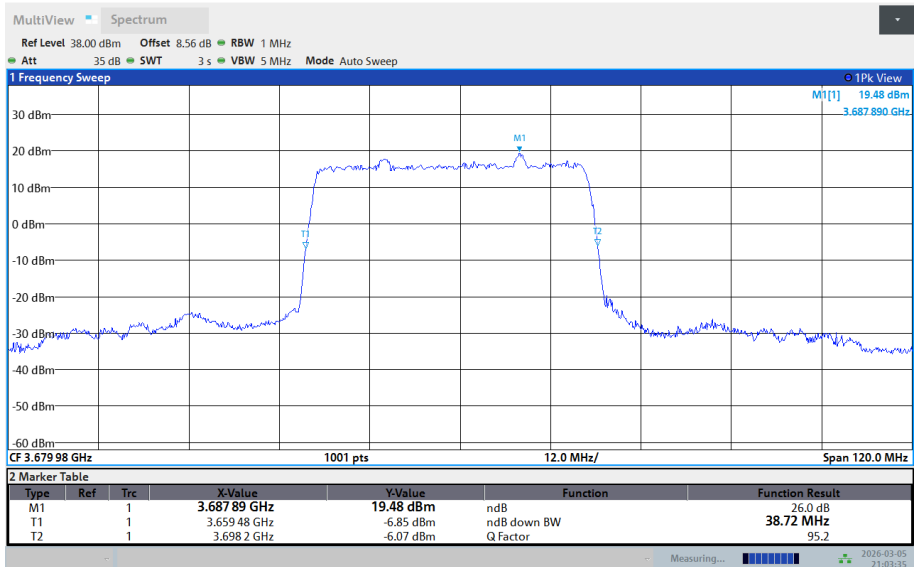
n48,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)



Test Report No.: RF260714B012



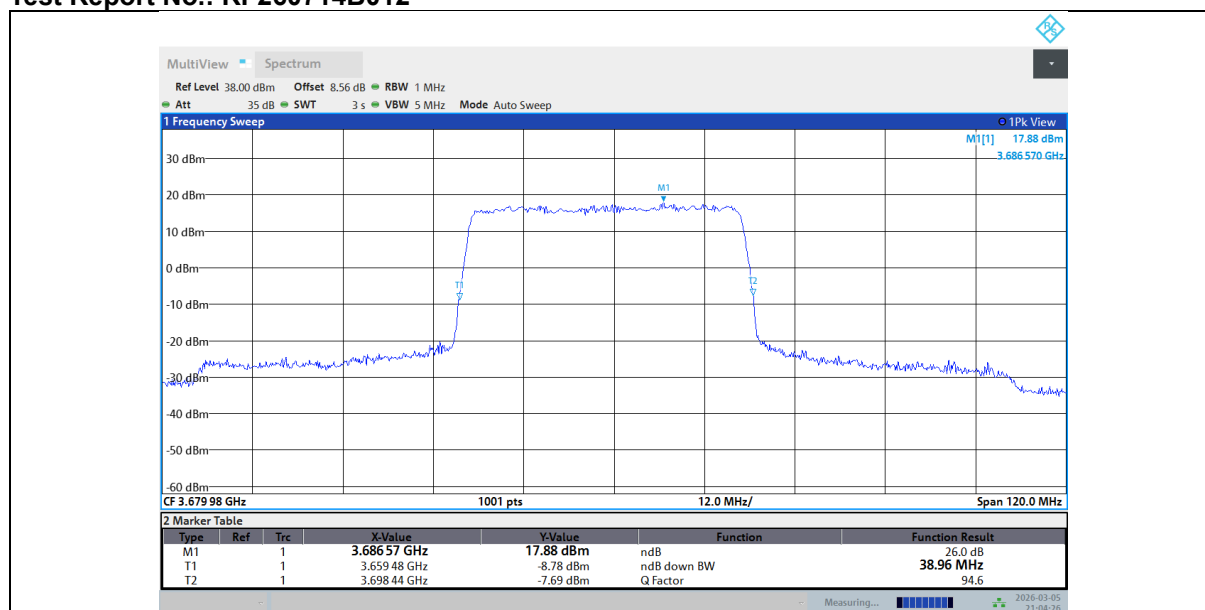
n48,40MHz Bandwidth,DFT-s-pi/2 BPSK (-26dBc BW)



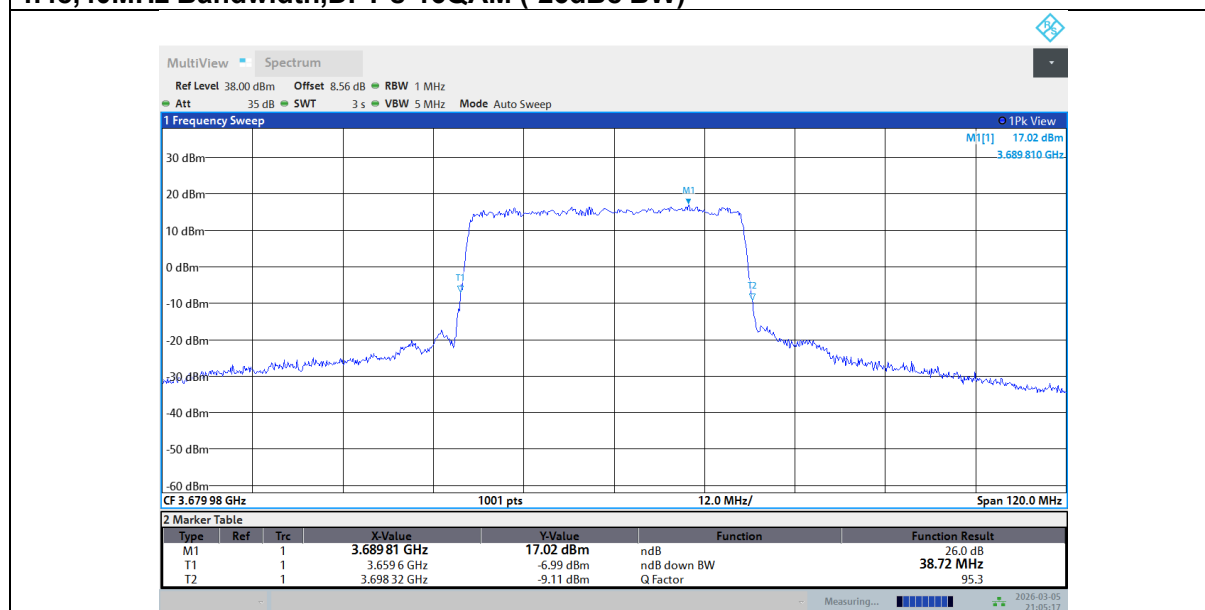
n48,40MHz Bandwidth,DFT-s-QPSK (-26dBc BW)



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n48,40MHz Bandwidth,DFT-s-16QAM (-26dBc BW)





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TEST GRAPHS

NTNV-N48-PC2-30-20-M-DFT-PI2BPSK-Outer_Full-Ant1-PASS	NTNV-N48-PC2-30-20-M-DFT-QPSK-Outer_Full-Ant1-PASS
NTNV-N48-PC2-30-20-M-DFT-16QAM-Outer_Full-Ant1-PASS	NTNV-N48-PC2-30-20-M-DFT-64QAM-Outer_Full-Ant1-PASS
NTNV-N48-PC2-30-20-M-DFT-256QAM-Outer_Full-Ant1-PASS	NTNV-N48-PC2-30-40-M-DFT-PI2BPSK-Outer_Full-Ant1-PASS
NTNV-N48-PC2-30-40-M-DFT-QPSK-Outer_Full-Ant1-PASS	NTNV-N48-PC2-30-40-M-DFT-16QAM-Outer_Full-Ant1-PASS
NTNV-N48-PC2-30-40-M-DFT-64QAM-Outer_Full-Ant1-PASS	NTNV-N48-PC2-30-40-M-DFT-256QAM-Outer_Full-Ant1-PASS



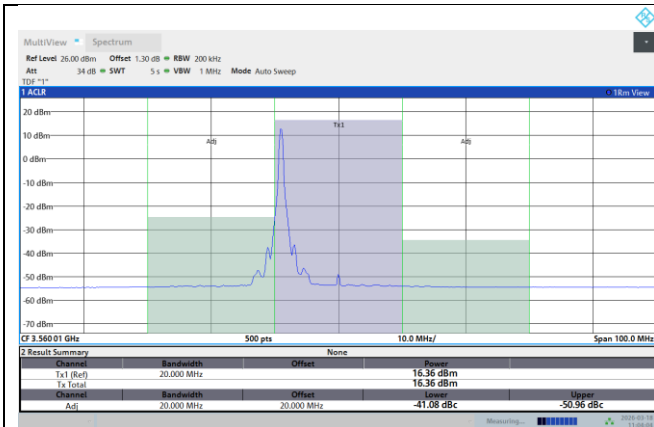
Test Report No.: RF260714B012

ACLR FOR SA TEST RESULT

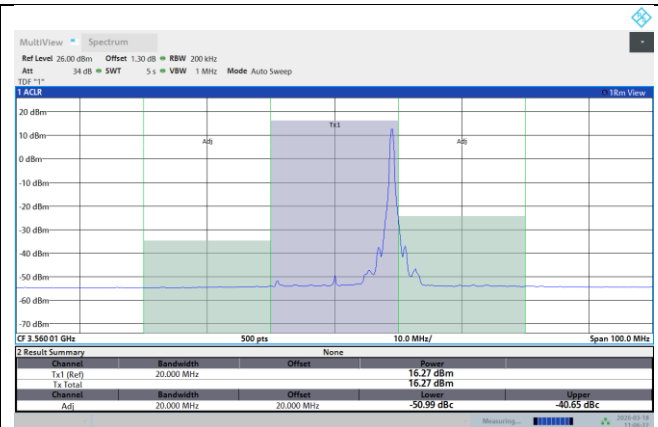
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N48	30	20	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N48	30	20	DFT-QPSK	L	Edge_1RB_Right	See Graph	PASS
N48	30	20	DFT-QPSK	L	Outer_Full	See Graph	PASS
N48	30	20	DFT-QPSK	M	Edge_1RB_Left	See Graph	PASS
N48	30	20	DFT-QPSK	M	Edge_1RB_Right	See Graph	PASS
N48	30	20	DFT-QPSK	M	Outer_Full	See Graph	PASS
N48	30	20	DFT-QPSK	H	Edge_1RB_Left	See Graph	PASS
N48	30	20	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N48	30	20	DFT-QPSK	H	Outer_Full	See Graph	PASS
N48	30	30	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N48	30	30	DFT-QPSK	L	Edge_1RB_Right	See Graph	PASS
N48	30	30	DFT-QPSK	L	Outer_Full	See Graph	PASS
N48	30	30	DFT-QPSK	M	Edge_1RB_Left	See Graph	PASS
N48	30	30	DFT-QPSK	M	Edge_1RB_Right	See Graph	PASS
N48	30	30	DFT-QPSK	M	Outer_Full	See Graph	PASS
N48	30	30	DFT-QPSK	H	Edge_1RB_Left	See Graph	PASS
N48	30	30	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N48	30	30	DFT-QPSK	H	Outer_Full	See Graph	PASS
N48	30	40	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N48	30	40	DFT-QPSK	L	Edge_1RB_Right	See Graph	PASS
N48	30	40	DFT-QPSK	L	Outer_Full	See Graph	PASS
N48	30	40	DFT-QPSK	M	Edge_1RB_Left	See Graph	PASS
N48	30	40	DFT-QPSK	M	Edge_1RB_Right	See Graph	PASS
N48	30	40	DFT-QPSK	M	Outer_Full	See Graph	PASS
N48	30	40	DFT-QPSK	H	Edge_1RB_Left	See Graph	PASS
N48	30	40	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N48	30	40	DFT-QPSK	H	Outer_Full	See Graph	PASS



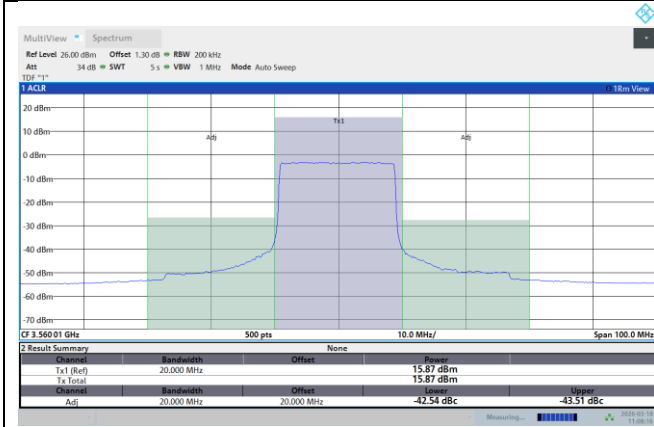
Test Report No.: RF260714B012
TEST GRAPHS



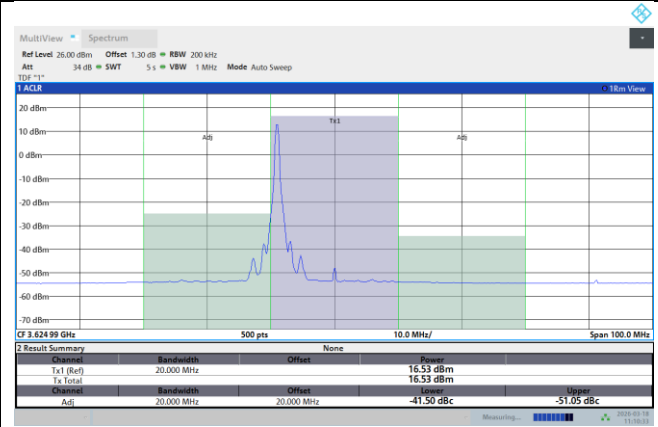
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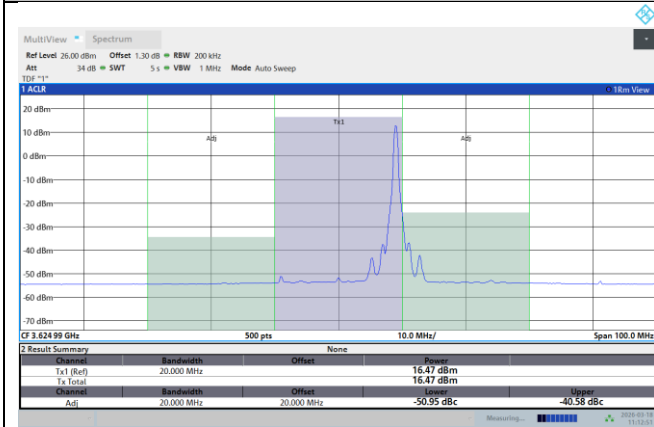
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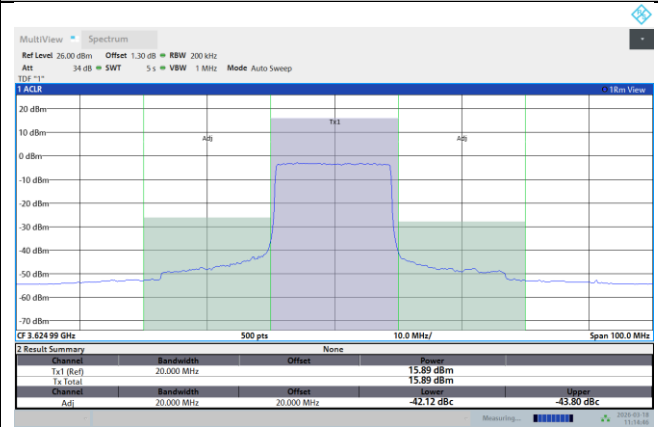
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NTVN-N48-PC2-30-20-M-DFT-QPSK-Edge_1RB_Left-Ant1-PASS



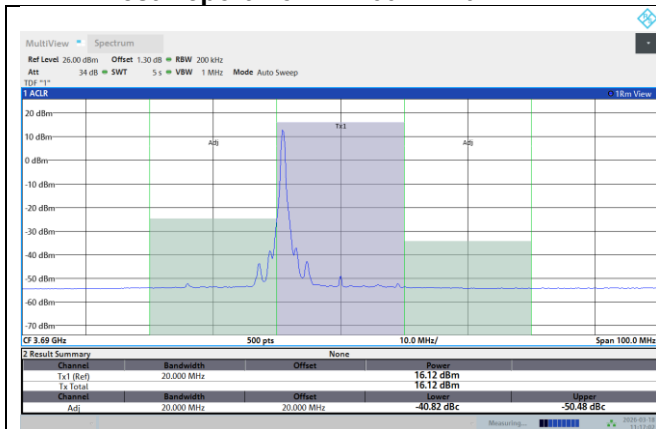
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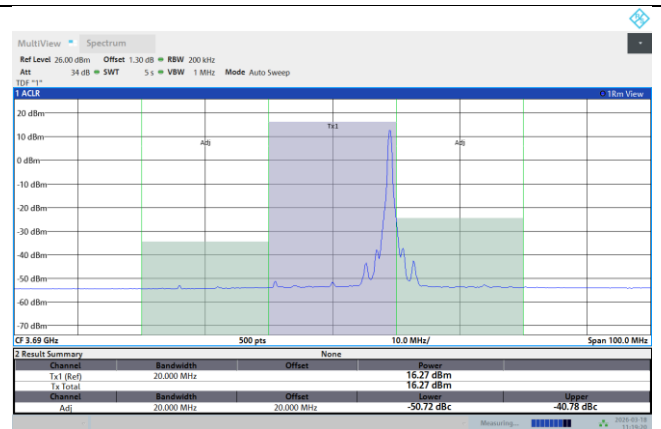
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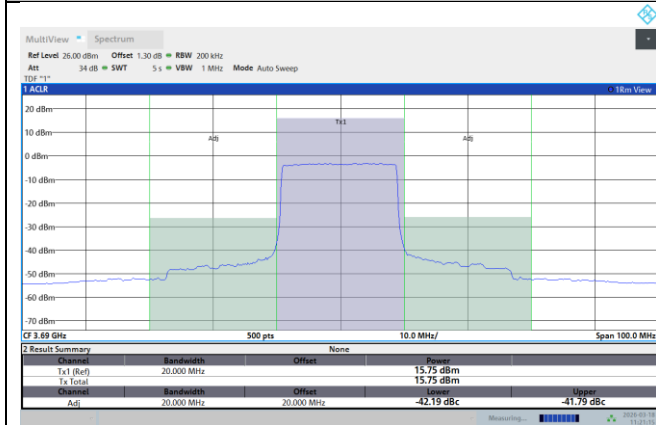
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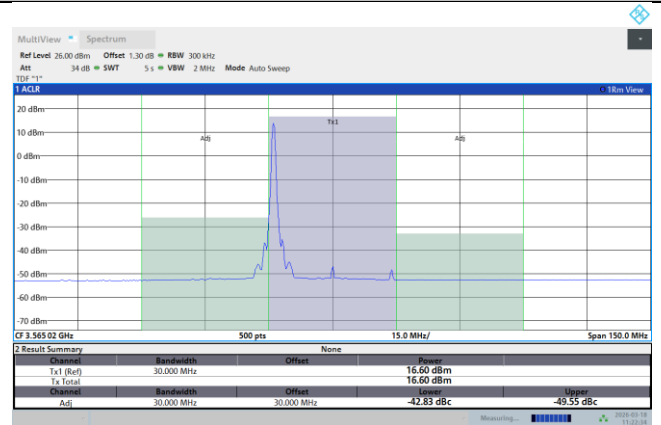
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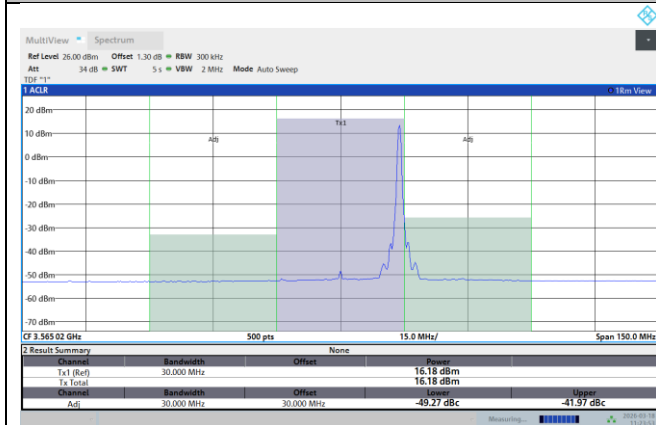
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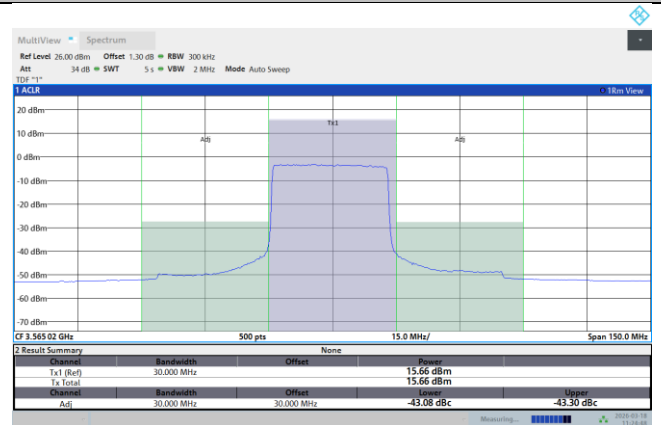
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NTVN-N48-PC2-30-30-L-DFT-QPSK-Edge_1RB_Left-Ant1-PASS



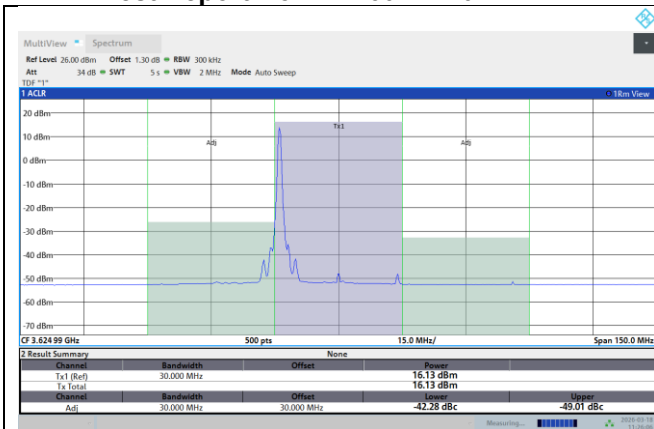
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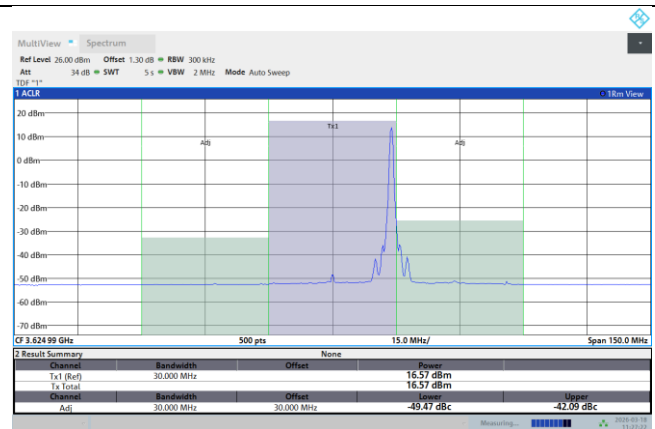
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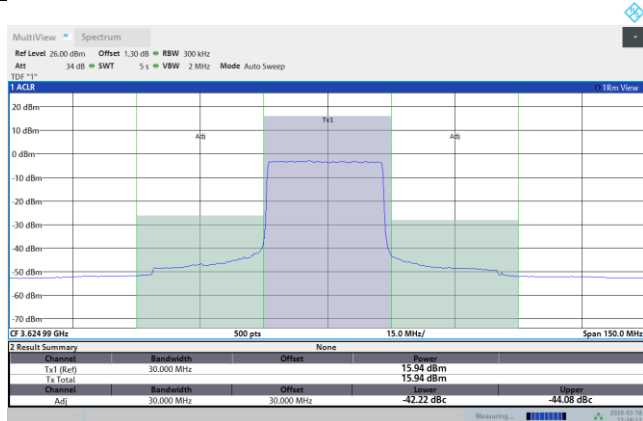
Test Report No.: RF260714B012



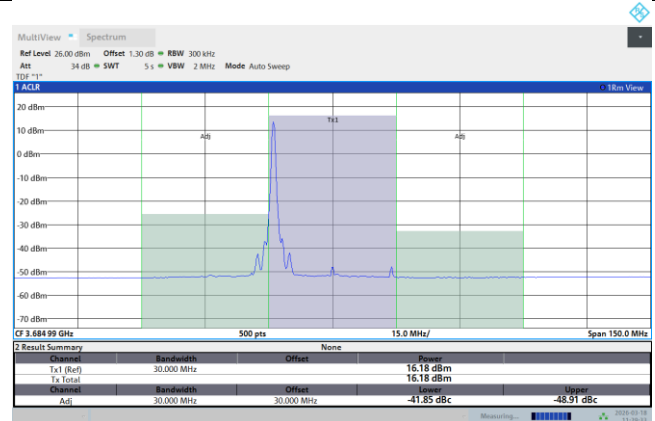
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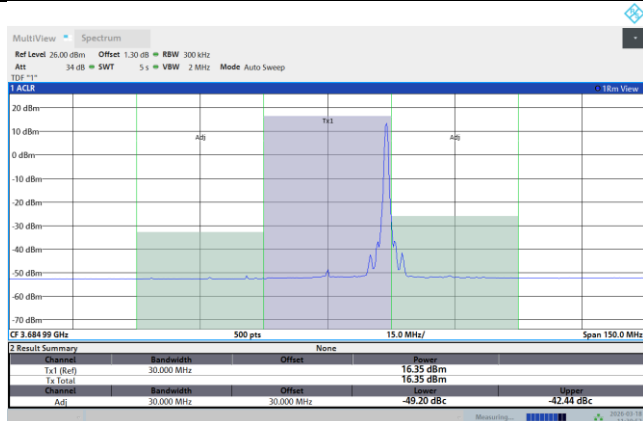
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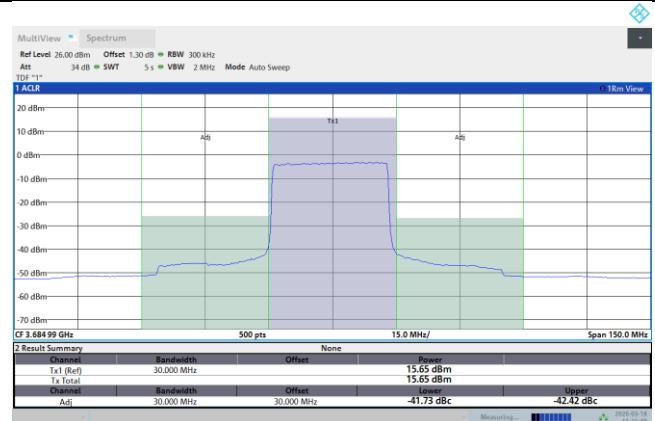
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NTNV-N48-PC2-30-30-H-DFT-QPSK-Edge_1RB_Left-Ant1-PASS



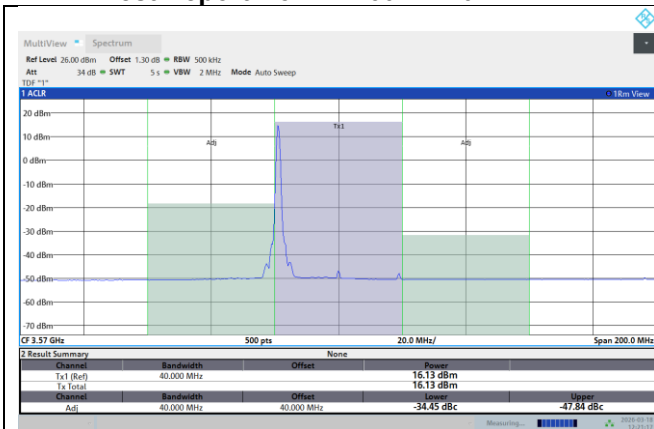
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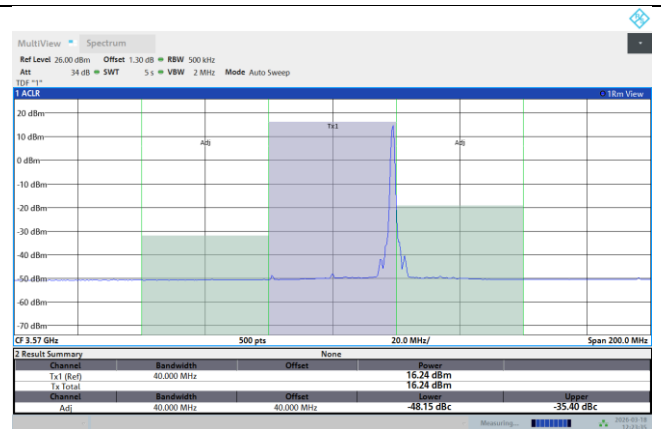
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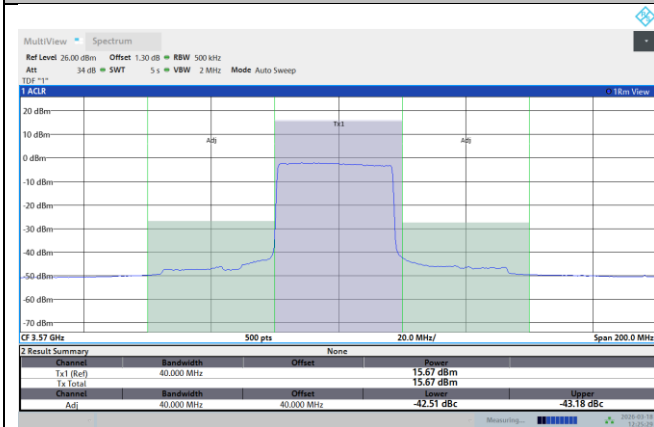
Test Report No.: RF260714B012



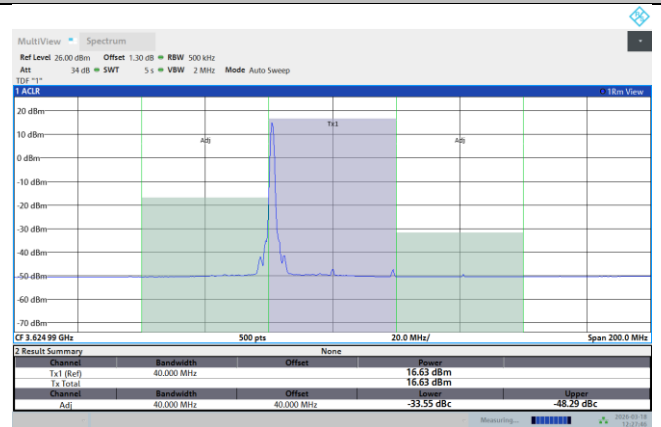
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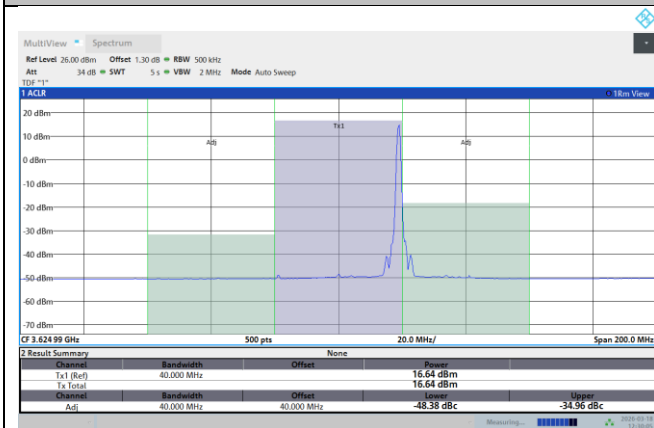
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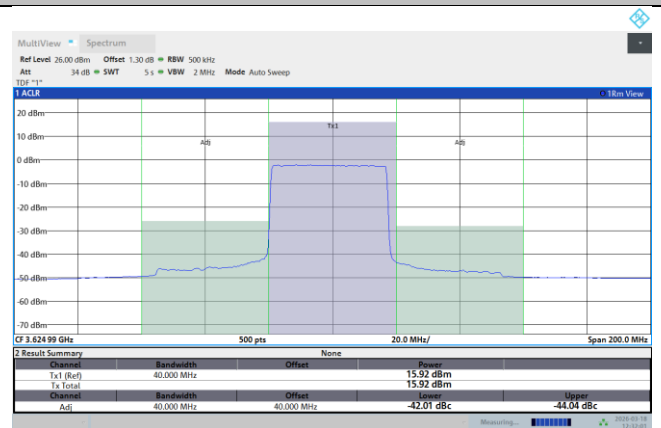
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NTNV-N48-PC2-30-40-M-DFT-QPSK-Edge_1RB_Left-Ant1-PASS



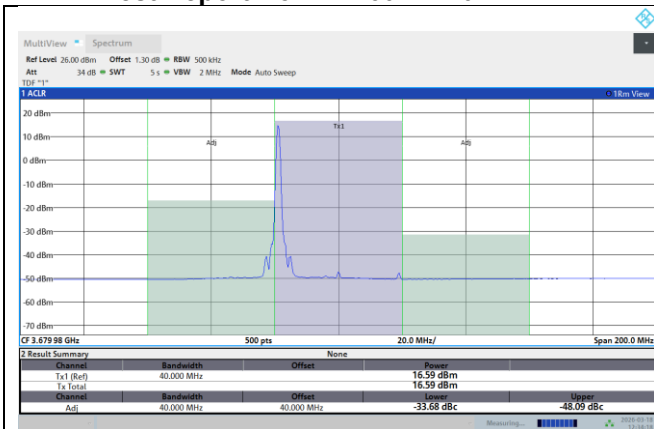
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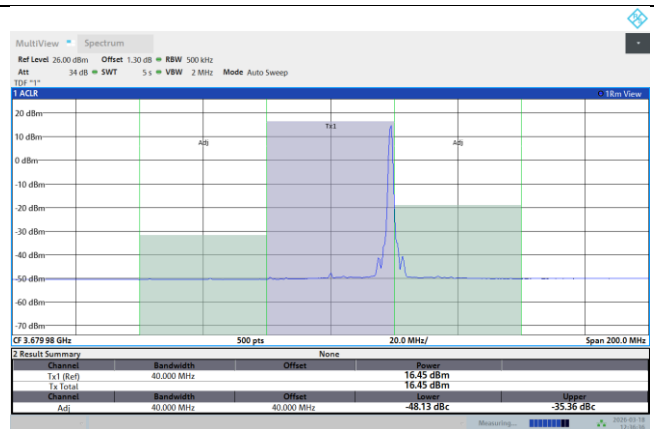
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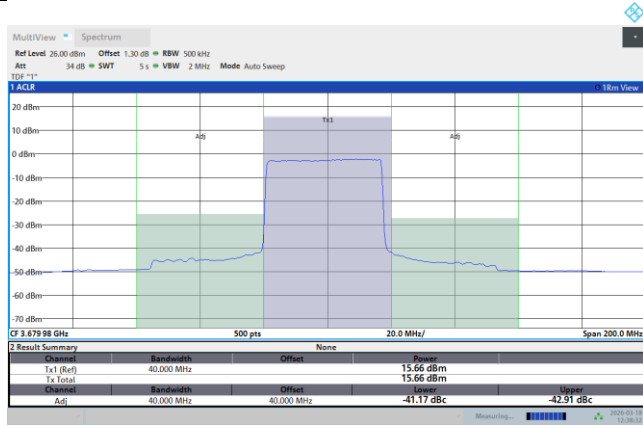
Test Report No.: RF260714B012



NTNV-N48-PC2-30-40-H-DFT-QPSK-Edge_1RB_Left-Ant1-PASS



NTNV-N48-PC2-30-40-H-DFT-QPSK-Edge_1RB_Right-Ant1-PASS



NTNV-N48-PC2-30-40-H-DFT-QPSK-Edge_Outer_Full-Ant1-PASS



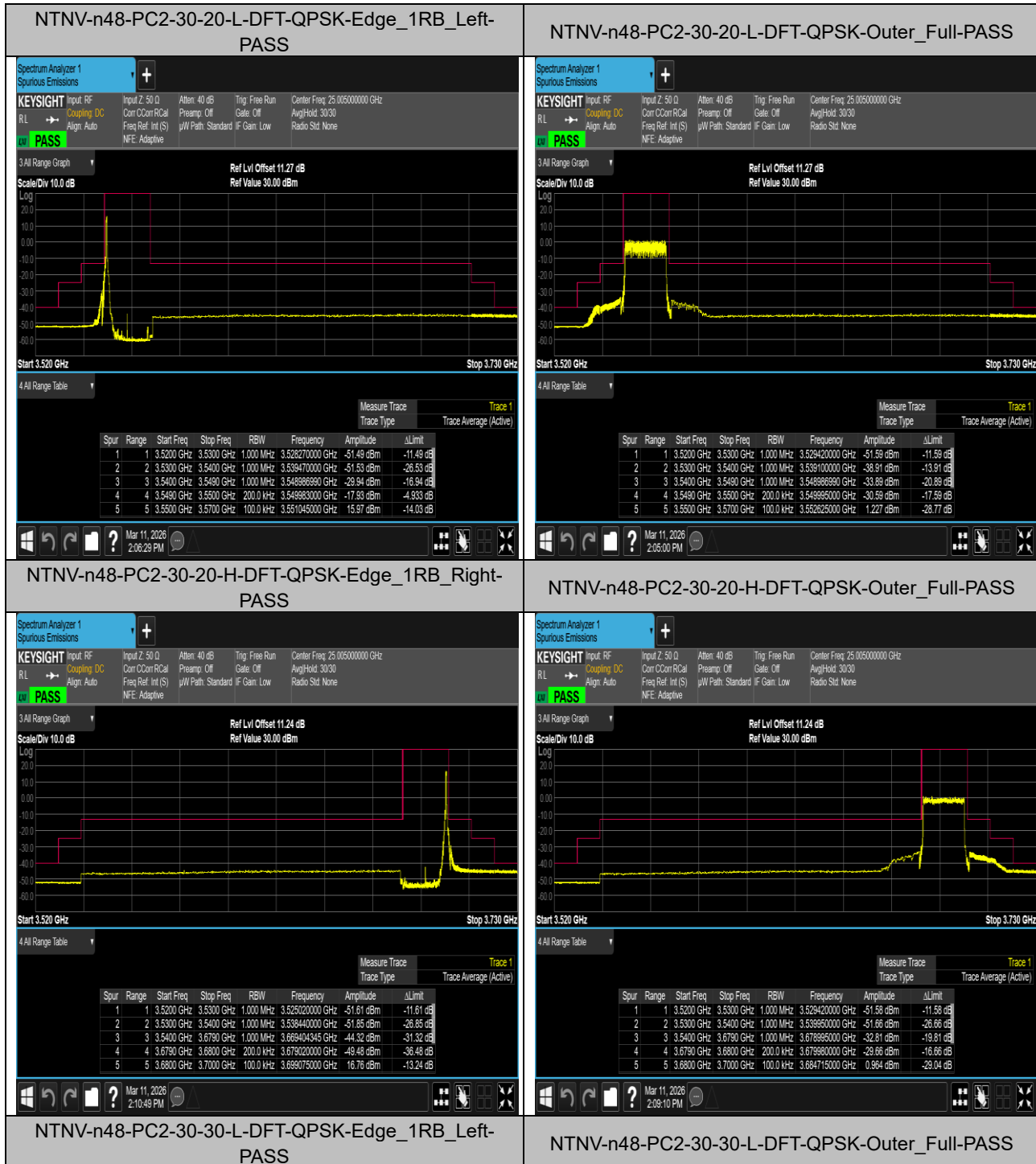
Test Report No.: RF260714B012

BAND EDGE FOR SA TEST RESULT

Band	SCS (kHz)	Bandwidth (MHz)	Modulation	Channel	RB Config	Result (dBm)	Verdict
n48	30	20	DFT-QPSK	L	Edge_1RB_Left	-44.32	PASS
n48	30	20	DFT-QPSK	L	Outer_Full	-43.81	PASS
n48	30	20	DFT-QPSK	H	Edge_1RB_Right	-43.92	PASS
n48	30	20	DFT-QPSK	H	Outer_Full	-43.97	PASS
n48	30	30	DFT-QPSK	L	Edge_1RB_Left	-44.25	PASS
n48	30	30	DFT-QPSK	L	Outer_Full	-43.76	PASS
n48	30	30	DFT-QPSK	H	Edge_1RB_Right	-44.39	PASS
n48	30	30	DFT-QPSK	H	Outer_Full	-47.59	PASS
n48	30	40	DFT-QPSK	L	Edge_1RB_Left	-44.22	PASS
n48	30	40	DFT-QPSK	L	Outer_Full	-42.28	PASS
n48	30	40	DFT-QPSK	H	Edge_1RB_Right	-44.28	PASS
n48	30	40	DFT-QPSK	H	Outer_Full	-45.03	PASS

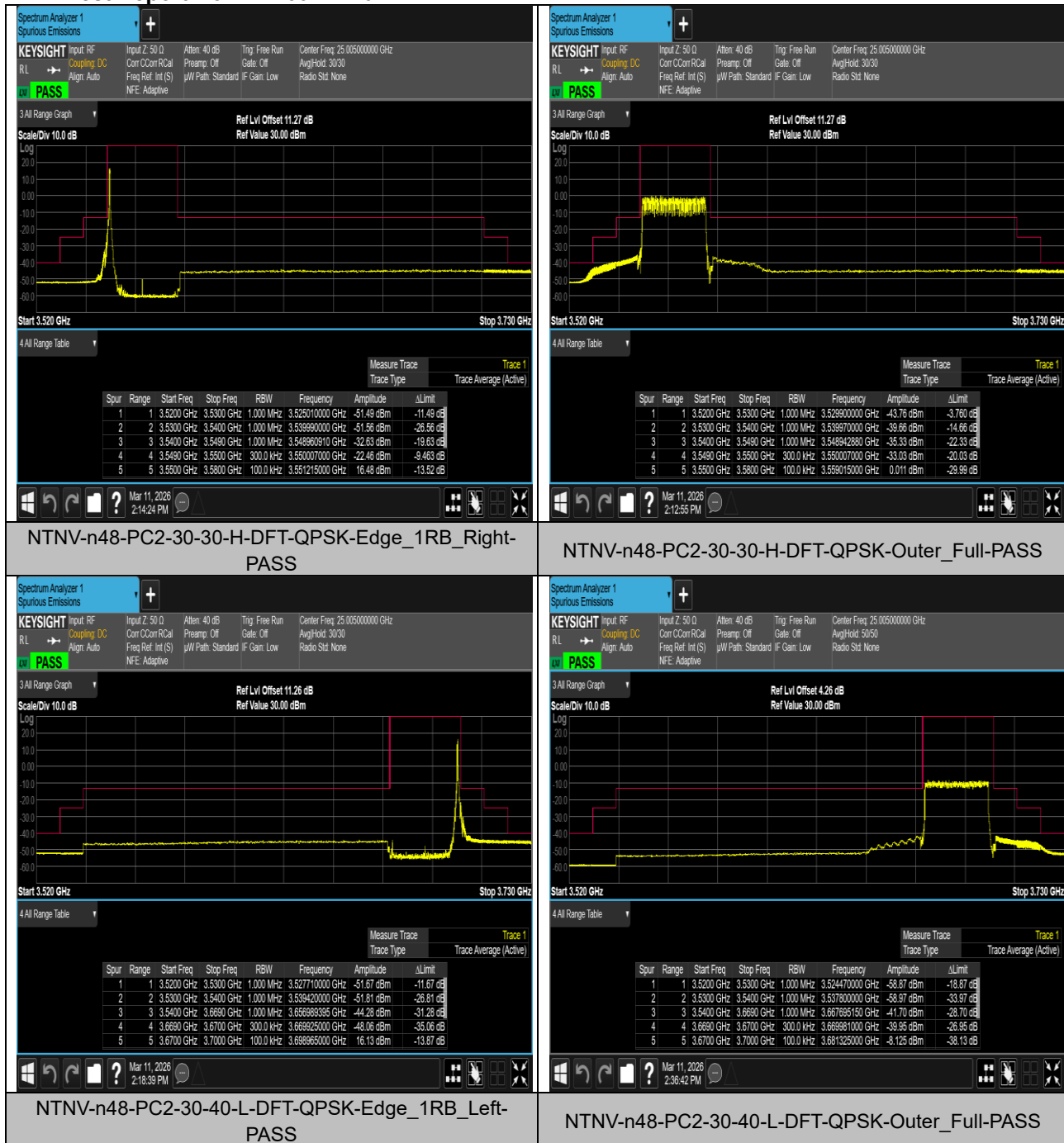


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TEST GRAPHS



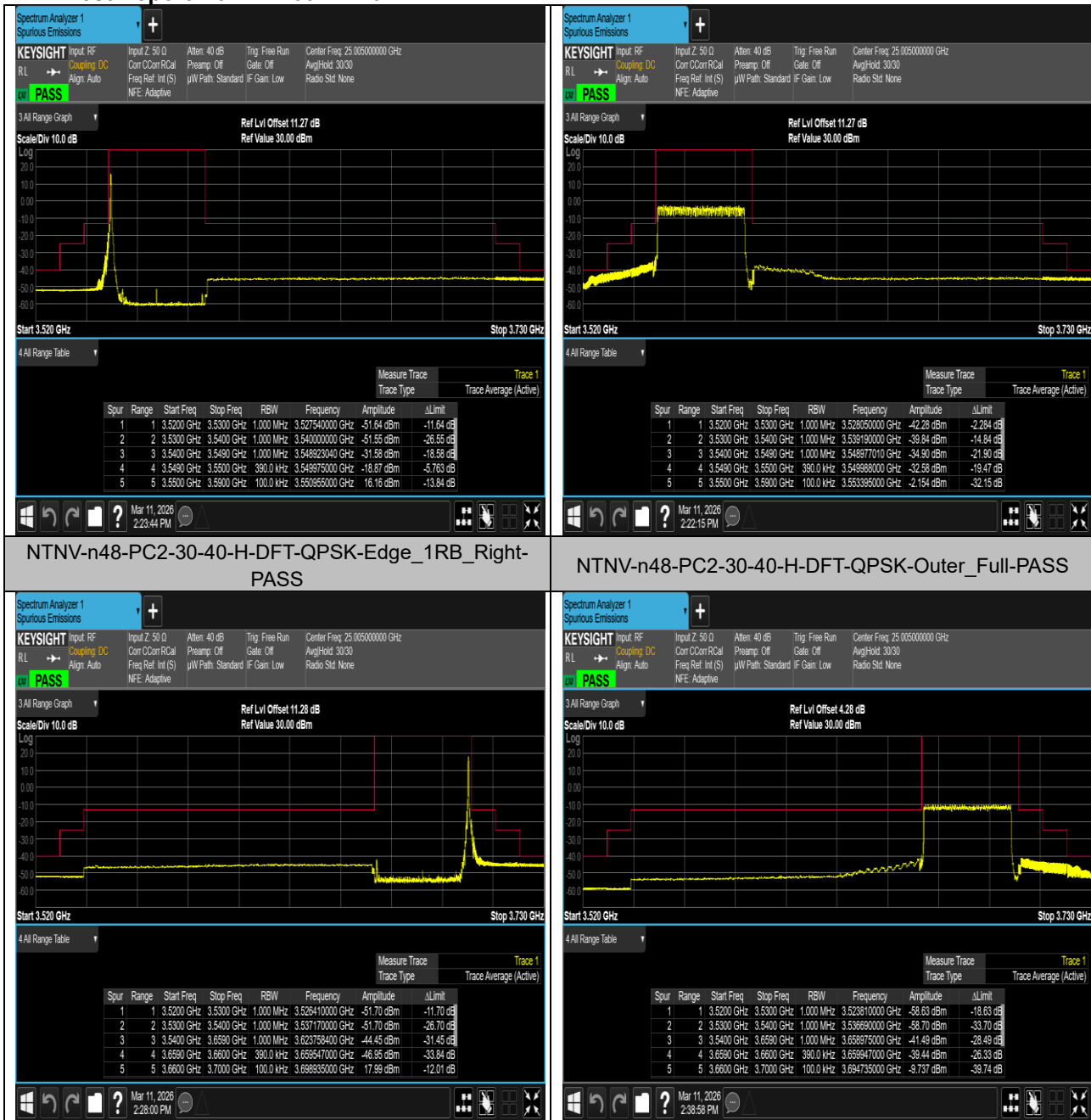


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CONDUCTED SPURIOUS EMISSION FOR SA TEST RESULT

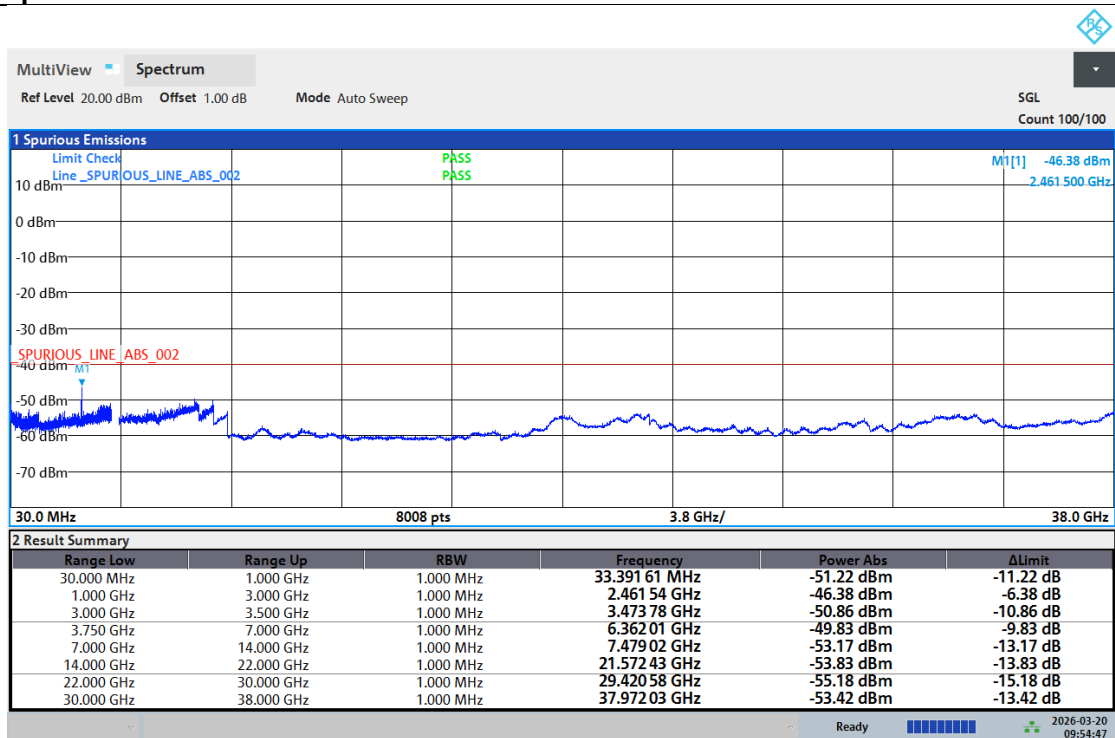
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result(dBm)	Verdict
N48	30	20	DFT-QPSK	L	Edge 1RB Left	See Graph1	PASS
N48	30	20	DFT-QPSK	M	Edge 1RB Left	See Graph2	PASS
N48	30	20	DFT-QPSK	H	Edge 1RB Left	See Graph3	PASS
N48	30	30	DFT-QPSK	L	Edge 1RB Left	See Graph4	PASS
N48	30	30	DFT-QPSK	M	Edge 1RB Left	See Graph5	PASS
N48	30	30	DFT-QPSK	H	Edge 1RB Left	See Graph6	PASS
N48	30	40	DFT-QPSK	L	Edge 1RB Left	See Graph7	PASS
N48	30	40	DFT-QPSK	M	Edge 1RB Left	See Graph8	PASS
N48	30	40	DFT-QPSK	H	Edge 1RB Left	See Graph9	PASS



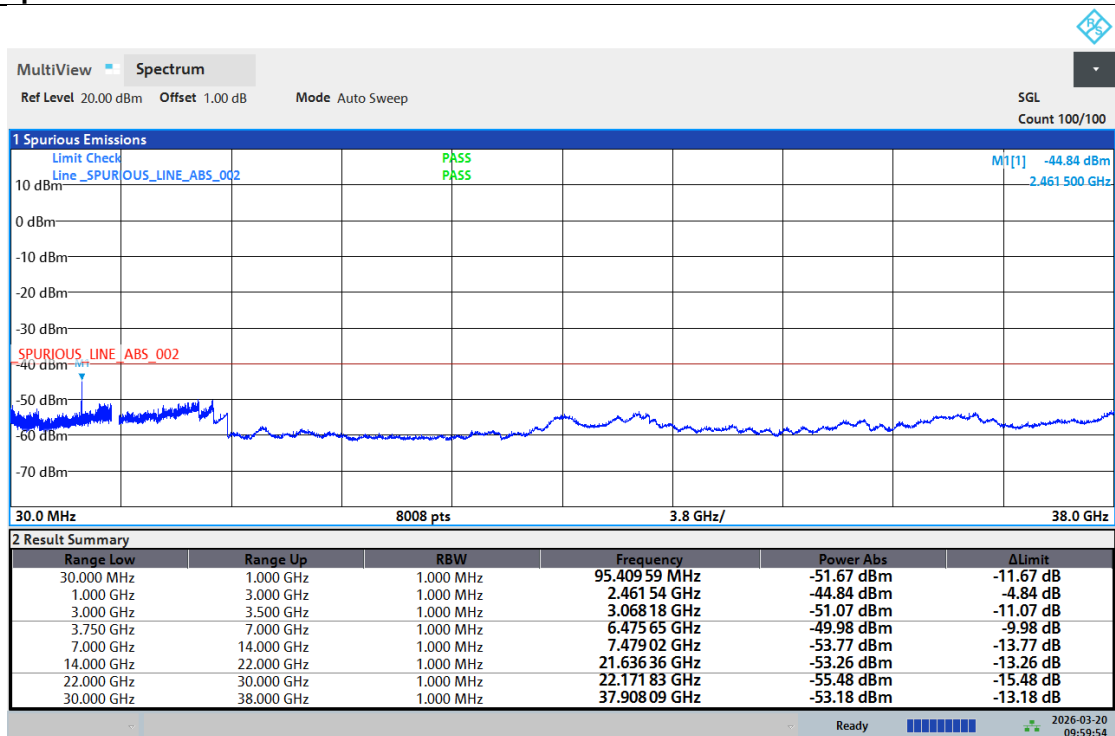
Test Report No.: RF260714B012

TEST GRAPHS

Graph1



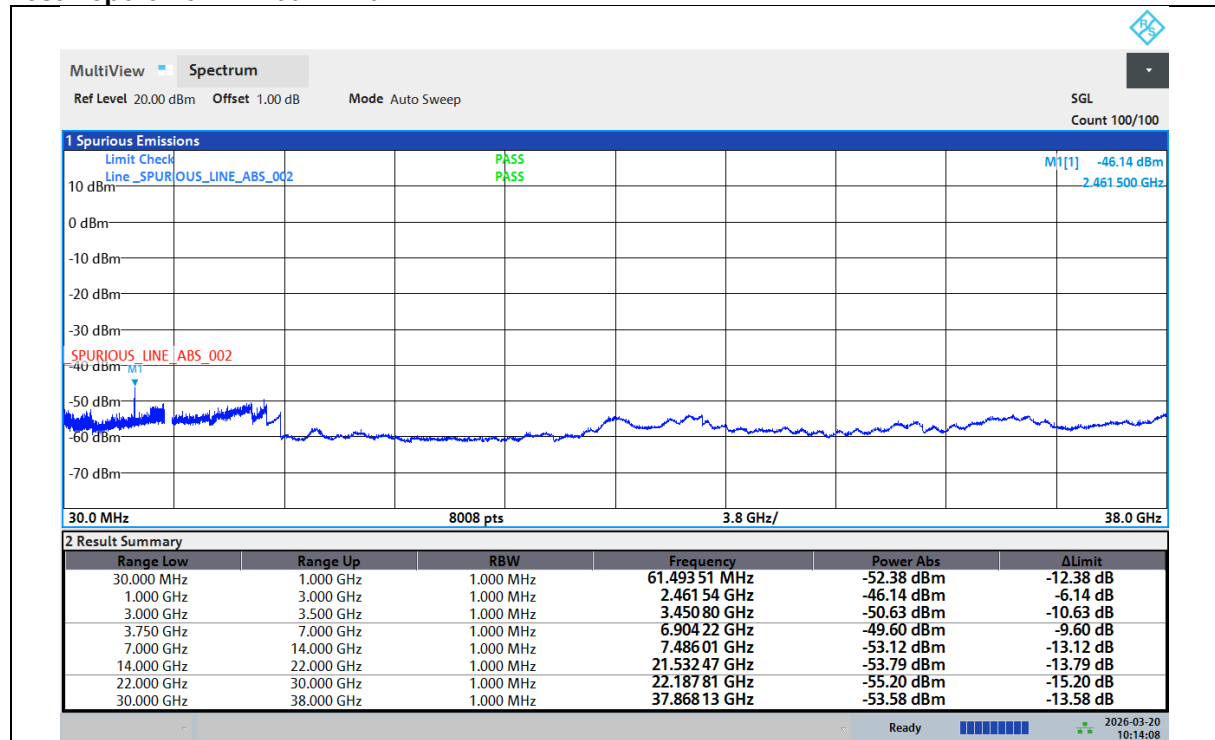
Graph2



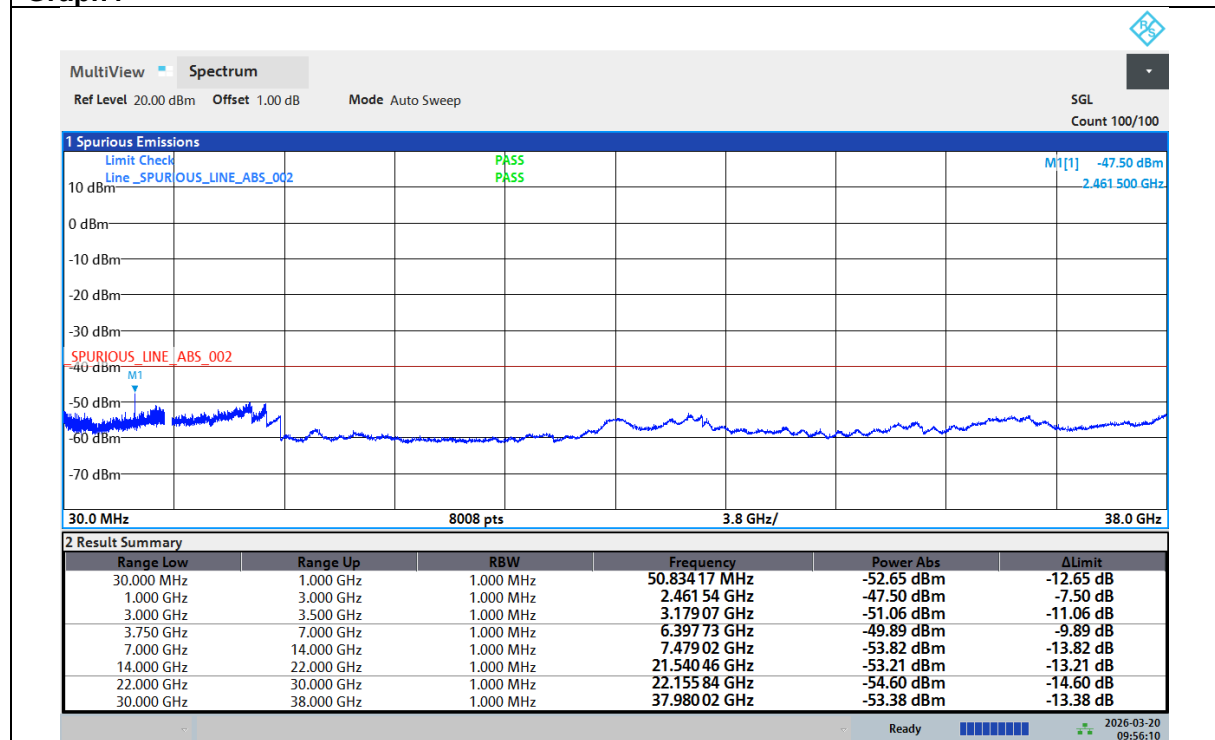
Graph3



Test Report No.: RF260714B012



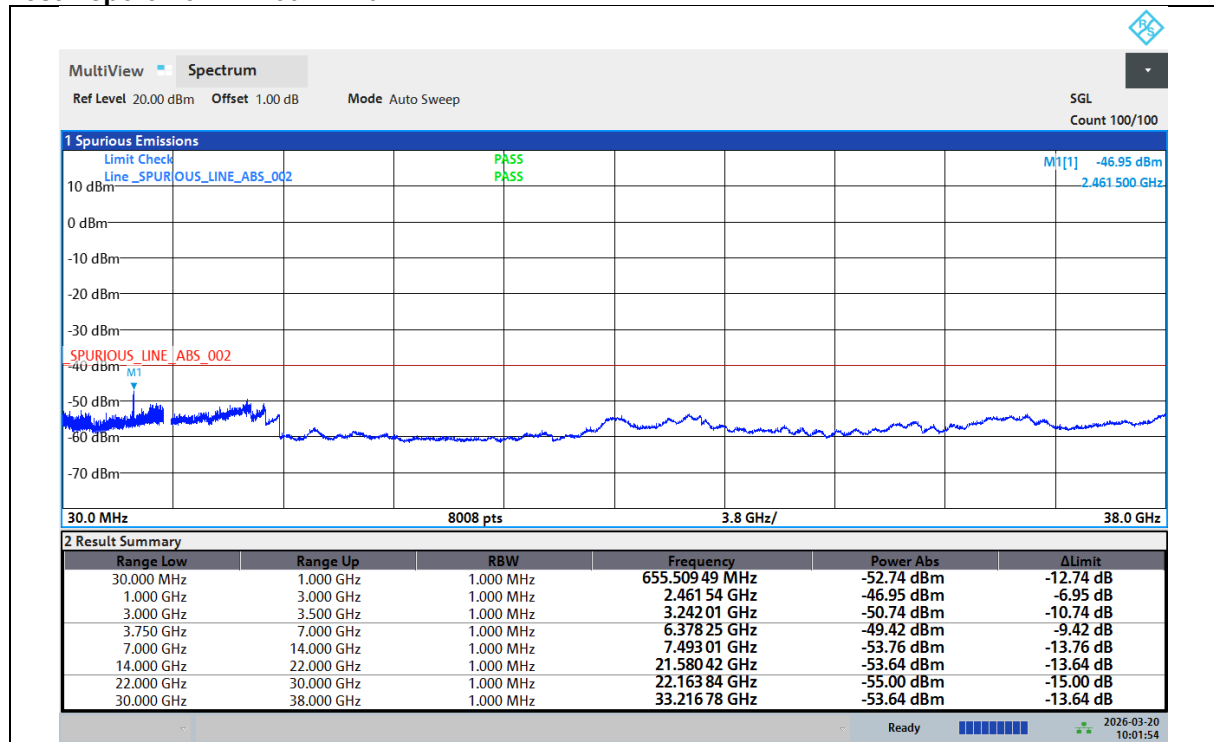
Graph4



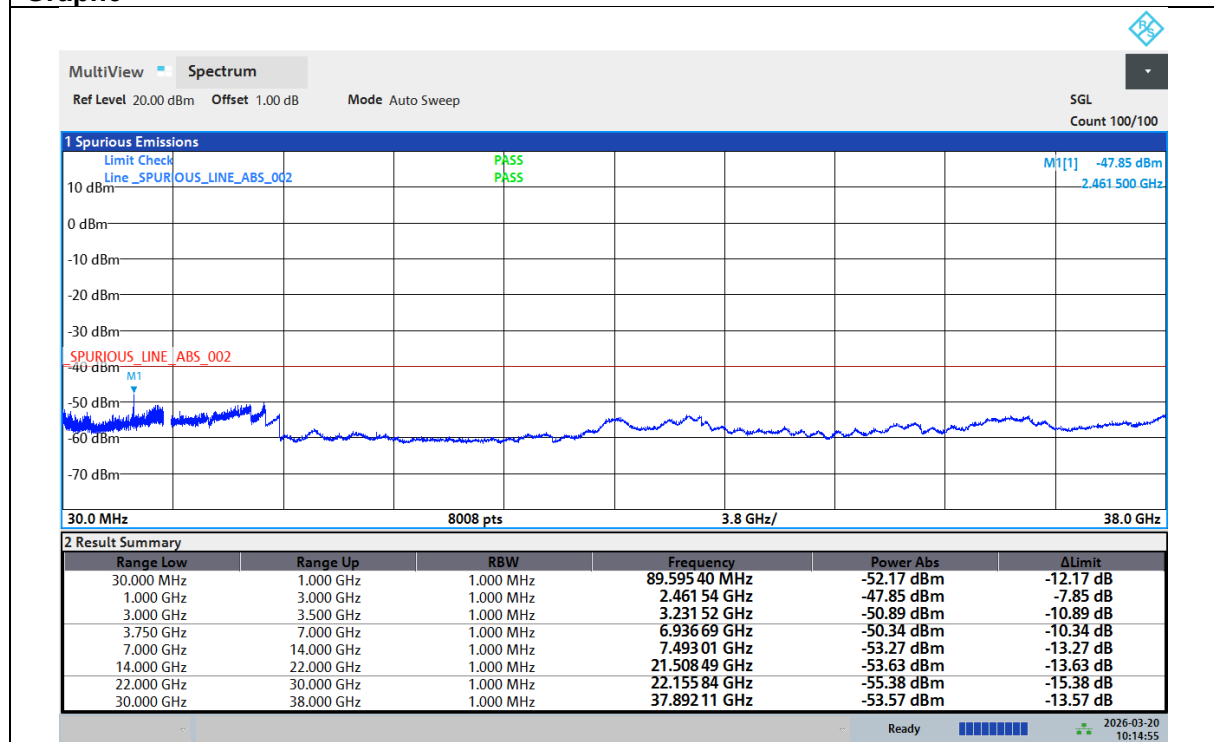
Graph5



Test Report No.: RF260714B012



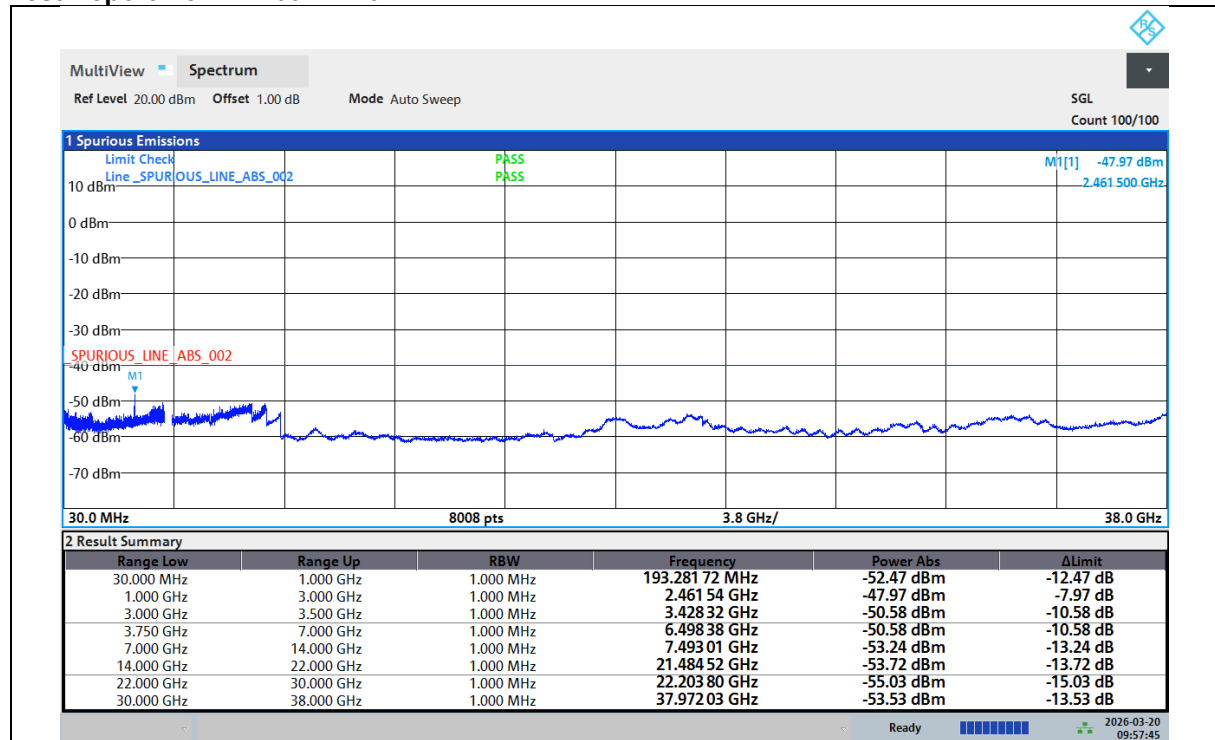
Graph6



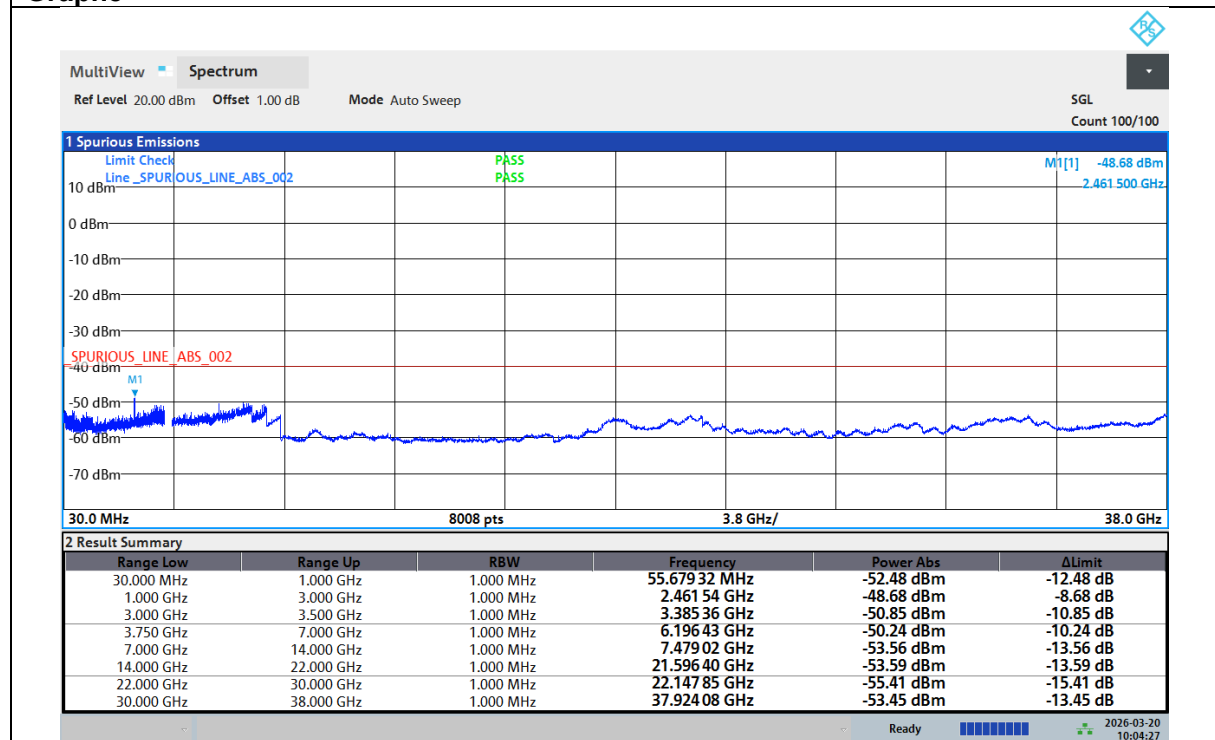
Graph7



Test Report No.: RF260714B012



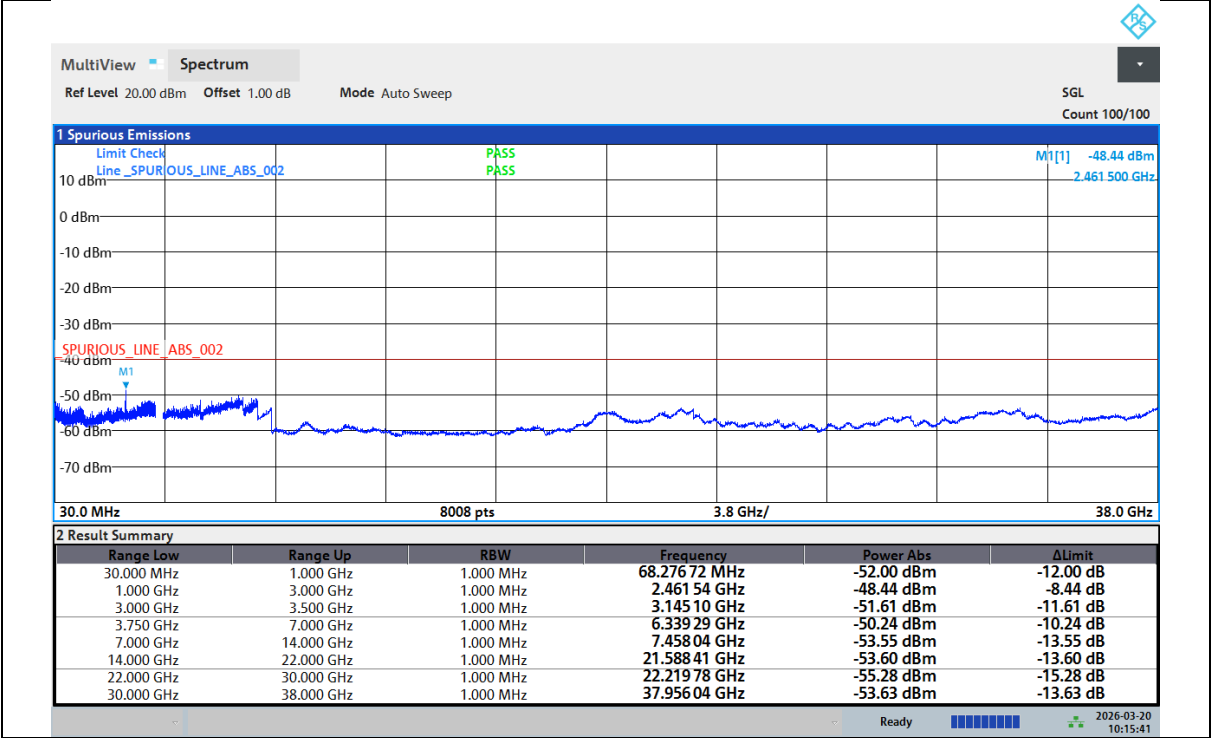
Graph8



Graph9



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FREQUENCY STABILITY FOR SA
TEST RESULT

Frequency Error VS. Voltage

Voltage												
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage[Vdc]	Temperature(°C)	Deviation (Hz)	Deviation(ppm)	FL(MHz)	FH(MHz)	Limit (MHz)	Verdict
N48	20MHz	QPSK	637334	Outer_Full	VL	NT	-26.85	-0.0075	3550.963473	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	VN	NT	-12.97	-0.0036	3550.963487	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	VH	NT	12.03	0.0034	3550.963512	---	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	VL	NT	-3.27	-0.0009	---	3699.043973	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	VN	NT	-34.62	-0.0094	---	3699.043987	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	VH	NT	-0.33	-0.0001	---	3699.044012	3550-3700	PASS

Frequency Error VS. Temperature

Temperature												
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage[Vdc]	Temperature(°C)	Deviation (Hz)	Deviation(ppm)	FL(MHz)	FH(MHz)	Limit (MHz)	Verdict
N48	20MHz	QPSK	637334	Outer_Full	NV	-30	-27.59	-0.0078	3550.963472	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	-20	24.19	0.0068	3550.963524	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	-10	-20.35	-0.0057	3550.963480	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	0	0.16	0.0000	3550.963500	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	10	15.2	0.0043	3550.963515	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	20	-22.21	-0.0062	3550.963478	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	30	18.57	0.0052	3550.963519	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	40	17.5	0.0049	3550.963518	---	3550-3700	PASS
N48	20MHz	QPSK	637334	Outer_Full	NV	50	19.17	0.0054	3550.963519	---	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	-30	-24.84	-0.0067	---	3699.043975	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	-20	1.62	0.0004	---	3699.044002	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	-10	1.61	0.0004	---	3699.044002	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	0	10.7	0.0029	---	3699.044011	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	10	4.61	0.0012	---	3699.044005	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	20	-30.58	-0.0083	---	3699.043969	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	30	11.67	0.0032	---	3699.044012	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	40	-19.86	-0.0054	---	3699.043980	3550-3700	PASS
N48	20MHz	QPSK	646000	Outer_Full	NV	50	7.25	0.0020	---	3699.044007	3550-3700	PASS

---END---