



Reference No.: W7L-240618W002RF12

FREQUENCY STABILITY FOR SA TEST RESULT

FREQUENCY ERROR VS. VOLTAGE

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation (Hz)	Deviation (ppm)	Verdict
N41	15	20	DFT-QPSK	L	Outer Full	VL	NT	23.000000	0.000035	PASS
N41	15	20	DFT-QPSK	L	Outer Full	VN	NT	16.000000	0.000024	PASS
N41	15	20	DFT-QPSK	L	Outer Full	VH	NT	28.000000	0.000042	PASS
N41	15	20	DFT-QPSK	M	Outer Full	VL	NT	3.000000	0.000005	PASS
N41	15	20	DFT-QPSK	M	Outer Full	VN	NT	-25.000000	-0.000038	PASS
N41	15	20	DFT-QPSK	M	Outer Full	VH	NT	35.000000	0.000053	PASS
N41	15	20	DFT-QPSK	H	Outer Full	VL	NT	15.000000	0.000023	PASS
N41	15	20	DFT-QPSK	H	Outer Full	VN	NT	31.000000	0.000047	PASS
N41	15	20	DFT-QPSK	H	Outer Full	VH	NT	-29.000000	-0.000044	PASS

FREQUENCY ERROR VS. TEMPERATURE

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation (Hz)	Deviation (ppm)	Verdict
N41	15	20	DFT-QPSK	L	Outer Full	NV	-30	15.000000	0.000023	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	-20	14.000000	0.000021	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	-10	-21.000000	-0.000032	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	0	0.000000	0.000000	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	10	-28.000000	-0.000042	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	20	6.000000	0.000009	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	30	-7.000000	-0.000011	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	40	8.000000	0.000012	PASS
N41	15	20	DFT-QPSK	L	Outer Full	NV	50	-32.000000	-0.000048	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	-30	-31.000000	-0.000047	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	-20	-1.000000	-0.000002	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	-10	22.000000	0.000033	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	0	32.000000	0.000048	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	10	-20.000000	-0.000030	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	20	-34.000000	-0.000051	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	30	34.000000	0.000051	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	40	-13.000000	-0.000020	PASS
N41	15	20	DFT-QPSK	M	Outer Full	NV	50	18.000000	0.000027	PASS
N41	15	20	DFT-QPSK	H	Outer Full	NV	-30	8.000000	0.000012	PASS
N41	15	20	DFT-QPSK	H	Outer Full	NV	-20	15.000000	0.000023	PASS
N41	15	20	DFT-QPSK	H	Outer Full	NV	-10	-29.000000	-0.000044	PASS
N41	15	20	DFT-QPSK	H	Outer Full	NV	0	-3.000000	-0.000005	PASS



Reference No.: W7L-240618W002RF12

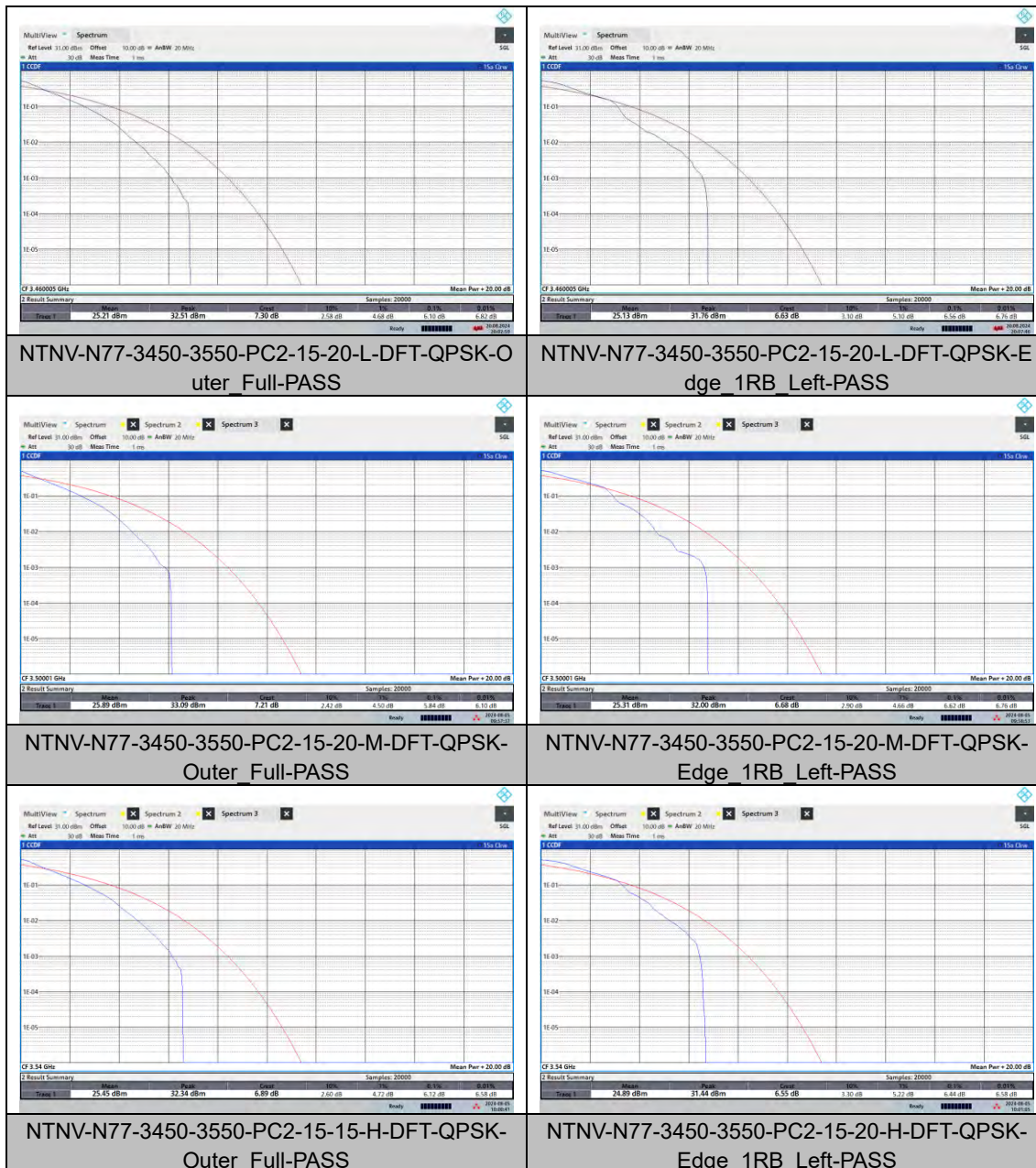
N41	15	20	DFT-QPSK	H	Outer_Full	NV	10	24.000000	0.000036	PASS
N41	15	20	DFT-QPSK	H	Outer_Full	NV	20	13.000000	0.000020	PASS
N41	15	20	DFT-QPSK	H	Outer_Full	NV	30	25.000000	0.000038	PASS
N41	15	20	DFT-QPSK	H	Outer_Full	NV	40	-8.000000	-0.000012	PASS
N41	15	20	DFT-QPSK	H	Outer_Full	NV	50	-34.000000	-0.000051	PASS

N77&N78-3450-3550

PEAK-TO-AVERAGE RATIO(CCDF) TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N77-3450-3550	15	20	DFT-QPSK	L	Outer_Full	6.10	≤13	PASS
N77-3450-3550	15	20	DFT-QPSK	L	Edge_1RB_Left	6.56	≤13	PASS
N77-3450-3550	15	20	DFT-QPSK	M	Outer_Full	5.84	≤13	PASS
N77-3450-3550	15	20	DFT-QPSK	M	Edge_1RB_Left	6.62	≤13	PASS
N77-3450-3550	15	20	DFT-QPSK	H	Outer_Full	6.12	≤13	PASS
N77-3450-3550	15	20	DFT-QPSK	H	Edge_1RB_Left	6.44	≤13	PASS

TEST GRAPHS





Reference No.: W7L-240618W002RF12

26DB BANDWIDTH AND OCCUPIED BANDWIDTH FOR SA TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N77-3450-3550	15	10	DFT-PI2BPSK	M	Outer_Full	8.912	9.59	PASS
N77-3450-3550	15	10	DFT-QPSK	M	Outer_Full	8.919	9.71	PASS
N77-3450-3550	15	10	DFT-16QAM	M	Outer_Full	8.914	9.55	PASS
N77-3450-3550	15	10	DFT-64QAM	M	Outer_Full	8.944	9.67	PASS
N77-3450-3550	15	10	DFT-256QAM	M	Outer_Full	8.920	9.65	PASS
N77-3450-3550	15	15	DFT-PI2BPSK	M	Outer_Full	13.409	14.42	PASS
N77-3450-3550	15	15	DFT-QPSK	M	Outer_Full	13.413	14.36	PASS
N77-3450-3550	15	15	DFT-16QAM	M	Outer_Full	13.410	14.24	PASS
N77-3450-3550	15	15	DFT-64QAM	M	Outer_Full	13.429	14.33	PASS
N77-3450-3550	15	15	DFT-256QAM	M	Outer_Full	13.402	14.42	PASS
N77-3450-3550	15	20	DFT-PI2BPSK	M	Outer_Full	17.849	19.06	PASS
N77-3450-3550	15	20	DFT-QPSK	M	Outer_Full	17.854	19.06	PASS
N77-3450-3550	15	20	DFT-16QAM	M	Outer_Full	17.881	18.98	PASS
N77-3450-3550	15	20	DFT-64QAM	M	Outer_Full	17.883	19.10	PASS
N77-3450-3550	15	20	DFT-256QAM	M	Outer_Full	17.865	18.98	PASS
N77-3450-3550	15	40	DFT-PI2BPSK	M	Outer_Full	38.570	40.44	PASS
N77-3450-3550	15	40	DFT-QPSK	M	Outer_Full	38.532	40.52	PASS
N77-3450-3550	15	40	DFT-16QAM	M	Outer_Full	38.503	40.92	PASS
N77-3450-3550	15	40	DFT-64QAM	M	Outer_Full	38.522	41.08	PASS
N77-3450-3550	15	40	DFT-256QAM	M	Outer_Full	38.437	40.52	PASS
N77-3450-3550	15	50	DFT-PI2BPSK	M	Outer_Full	48.152	50.05	PASS
N77-3450-3550	15	50	DFT-QPSK	M	Outer_Full	48.171	50.65	PASS
N77-3450-3550	15	50	DFT-16QAM	M	Outer_Full	48.211	50.05	PASS



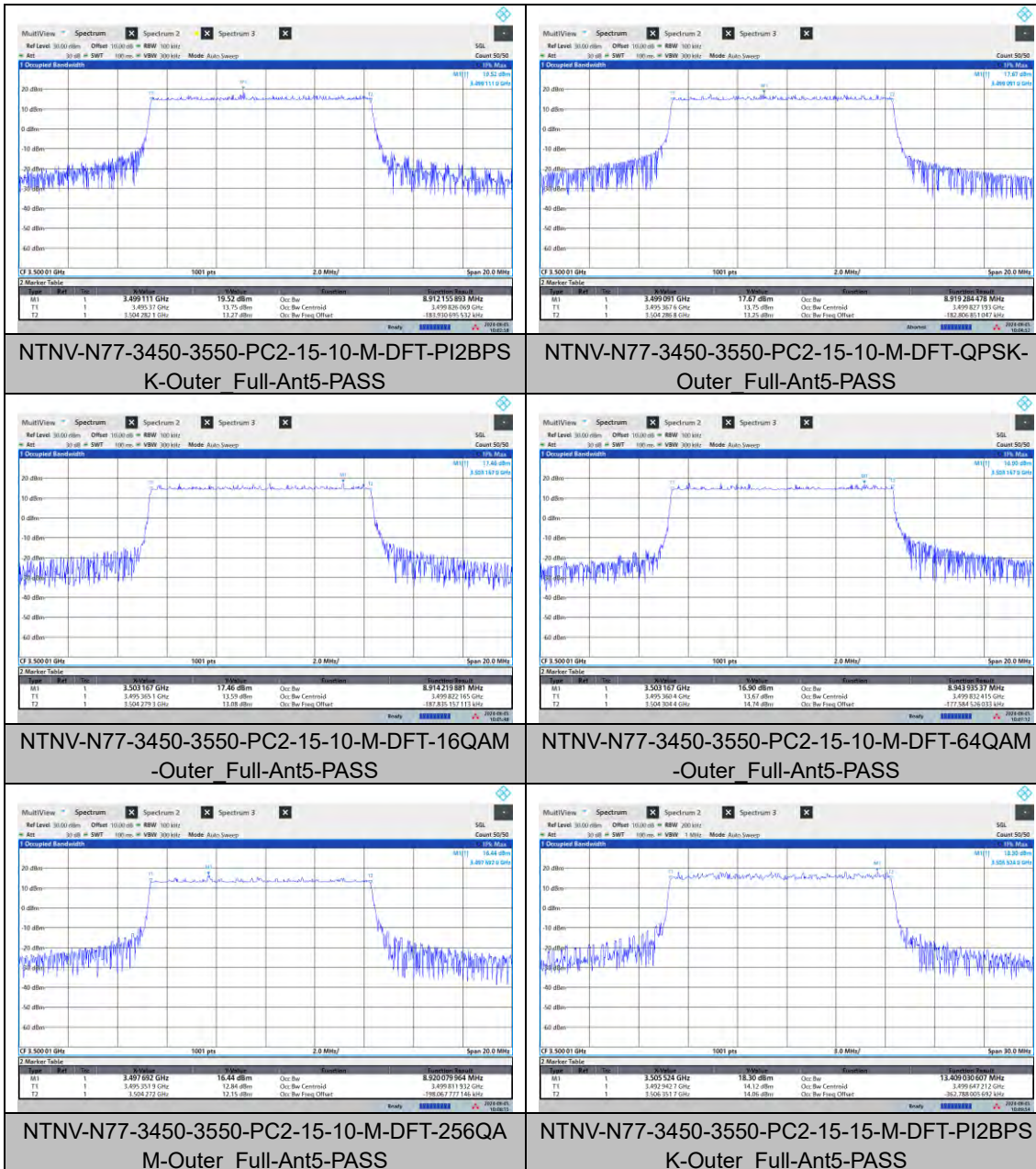
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VERITAS

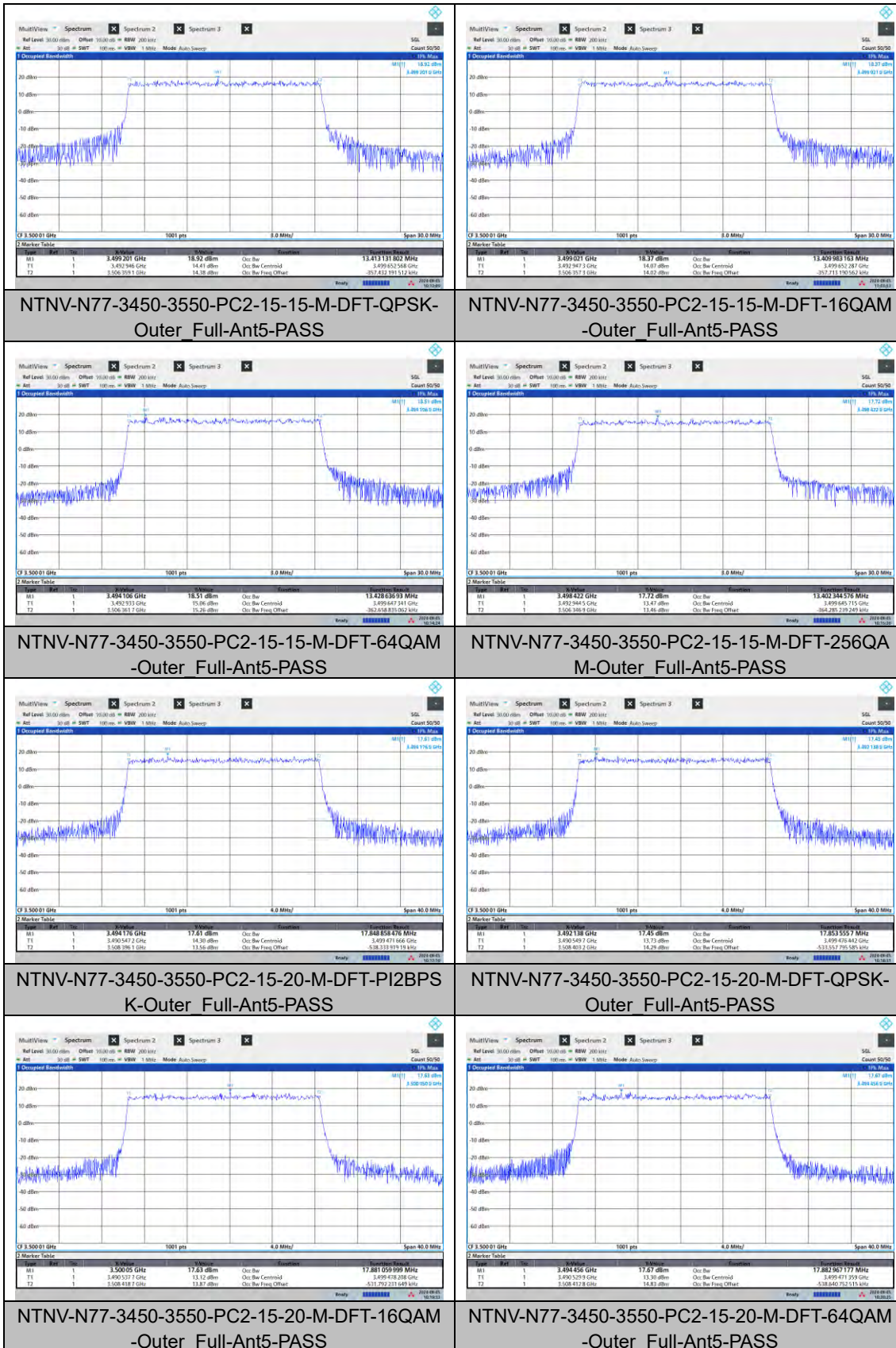
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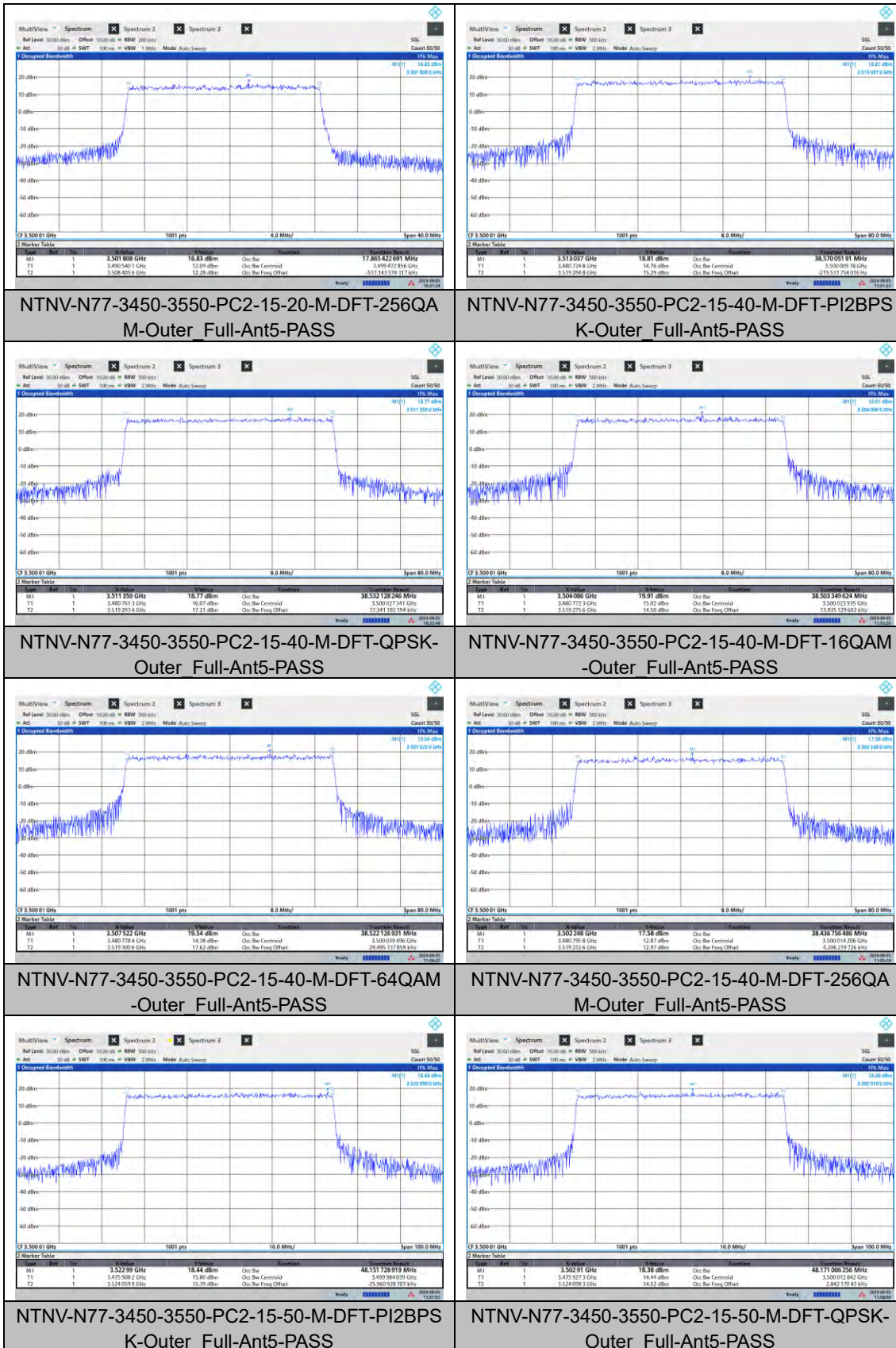
N77-3450 -3550	15	50	DFT-64QAM	M	Outer_Full	48.126	50.05	PASS
N77-3450 -3550	15	50	DFT-256QAM	M	Outer_Full	48.112	50.05	PASS

TEST GRAPHS

OCCUPIED BANDWIDTH









NTNV-N77-3450-3550-PC2-15-50-M-DFT-16QAM
-Outer Full-Ant5-PASS



NTNV-N77-3450-3550-PC2-15-50-M-DFT-64QAM
-Outer Full-Ant5-PASS



NTNV-N77-3450-3550-PC2-15-50-M-DFT-256QA
M-Outer Full-Ant5-PASS

26dB Bandwidth



NTNV-N77-3450-3550-PC2-15-10-M-DFT-PI2BPS
K-Outer Full-Ant5-PASS



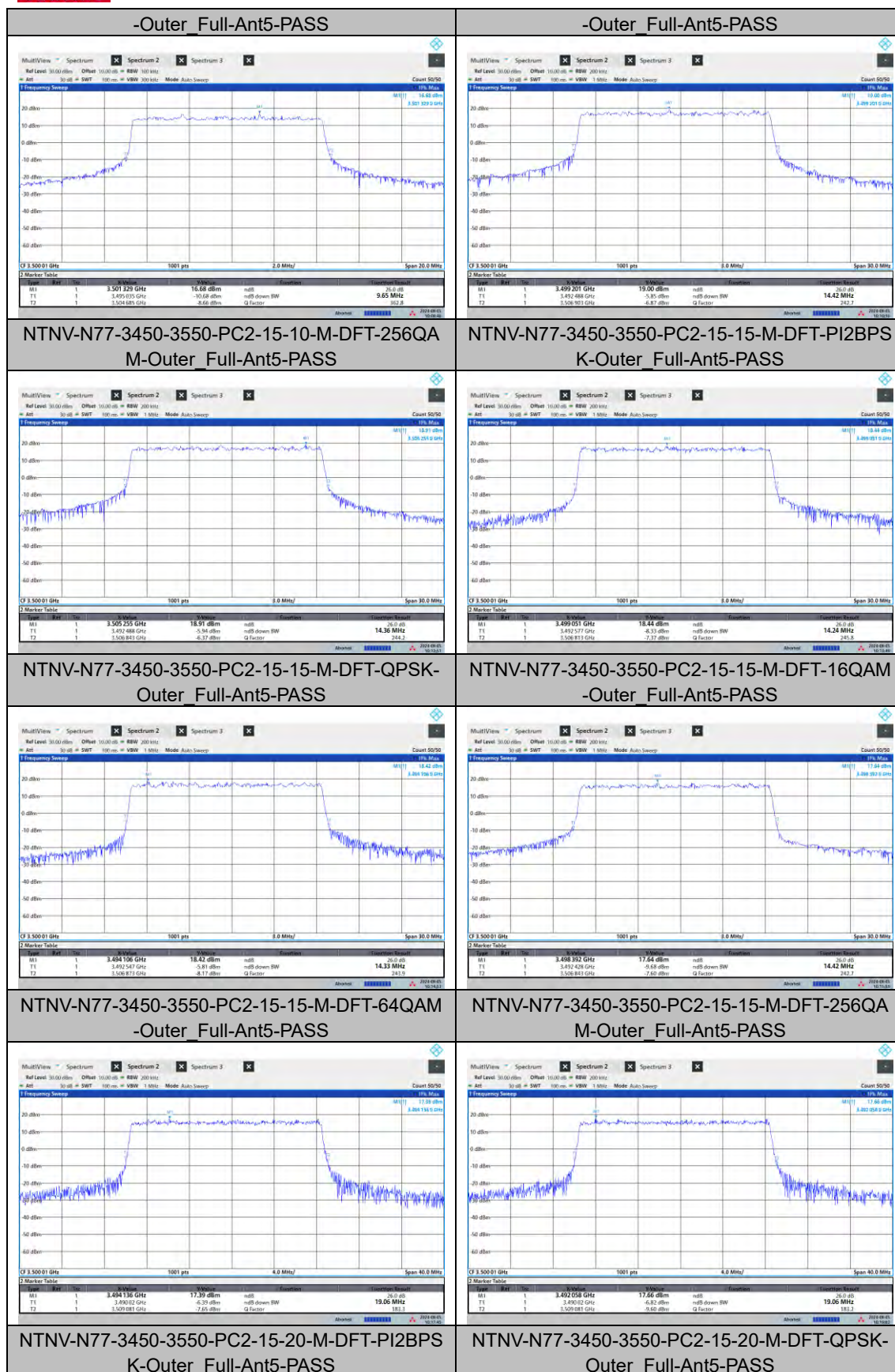
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Outer Full-Ant5-PASS

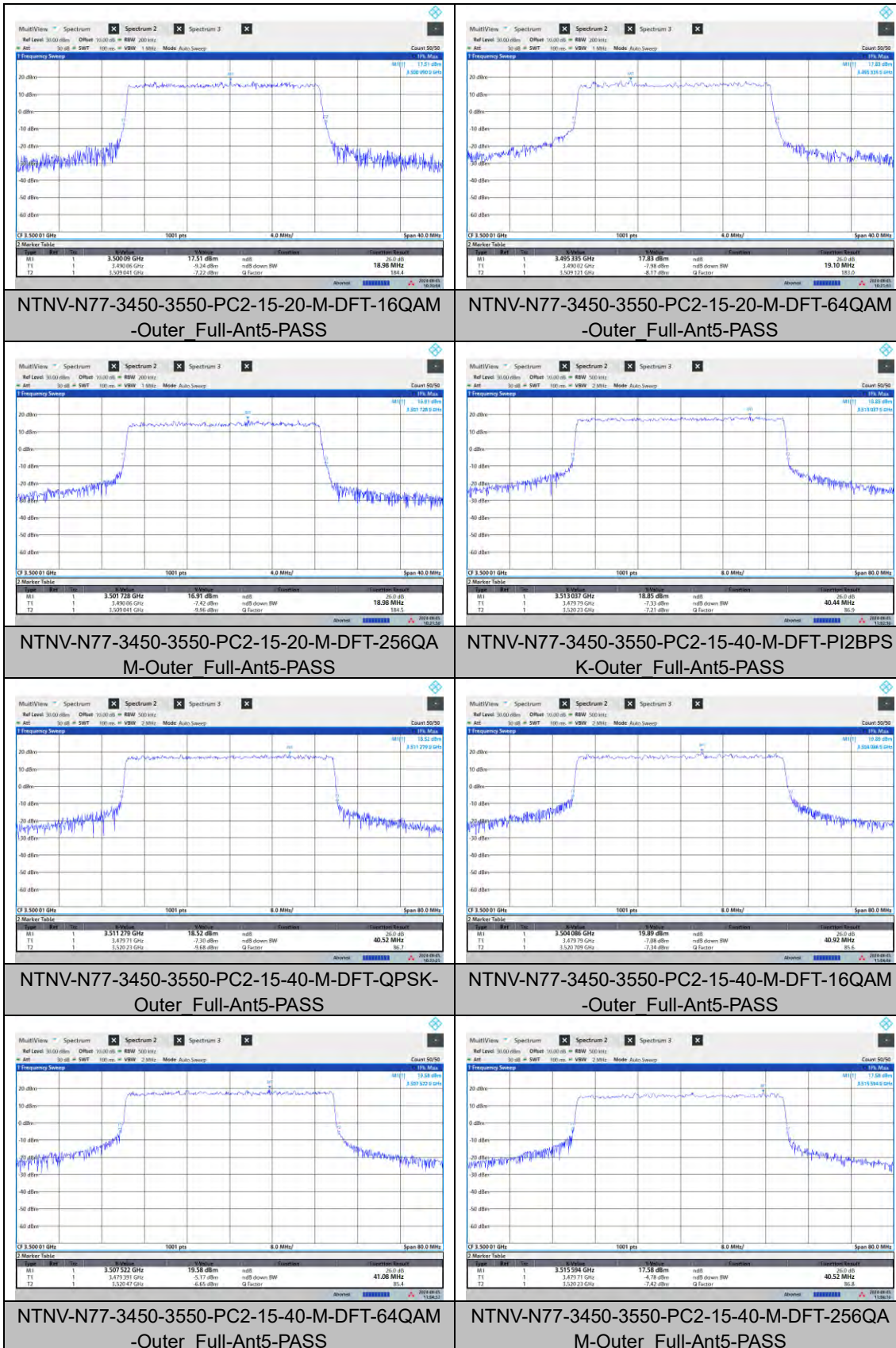


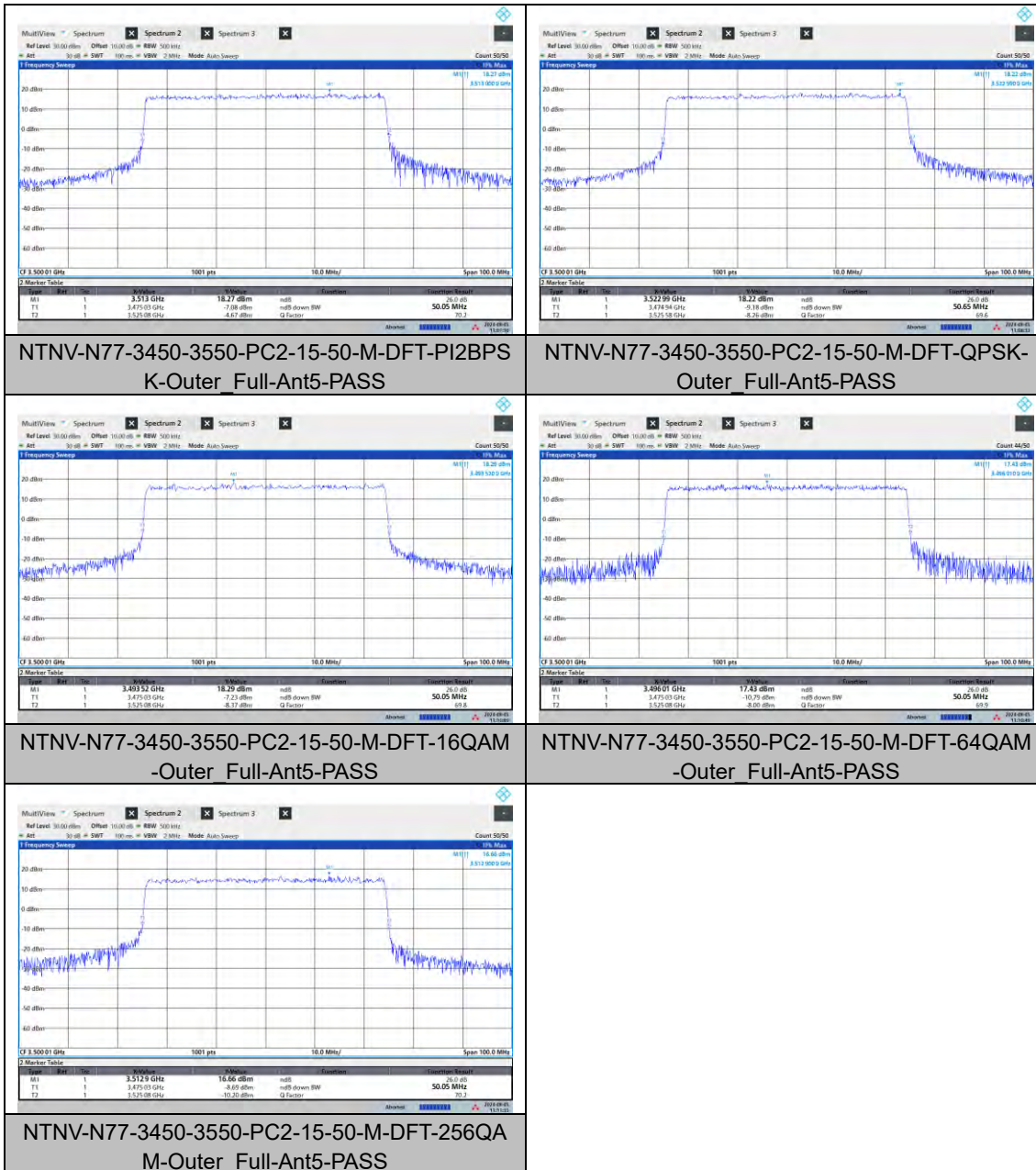
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NTNV-N77-3450-3550-PC2-15-10-M-DFT-64QAM



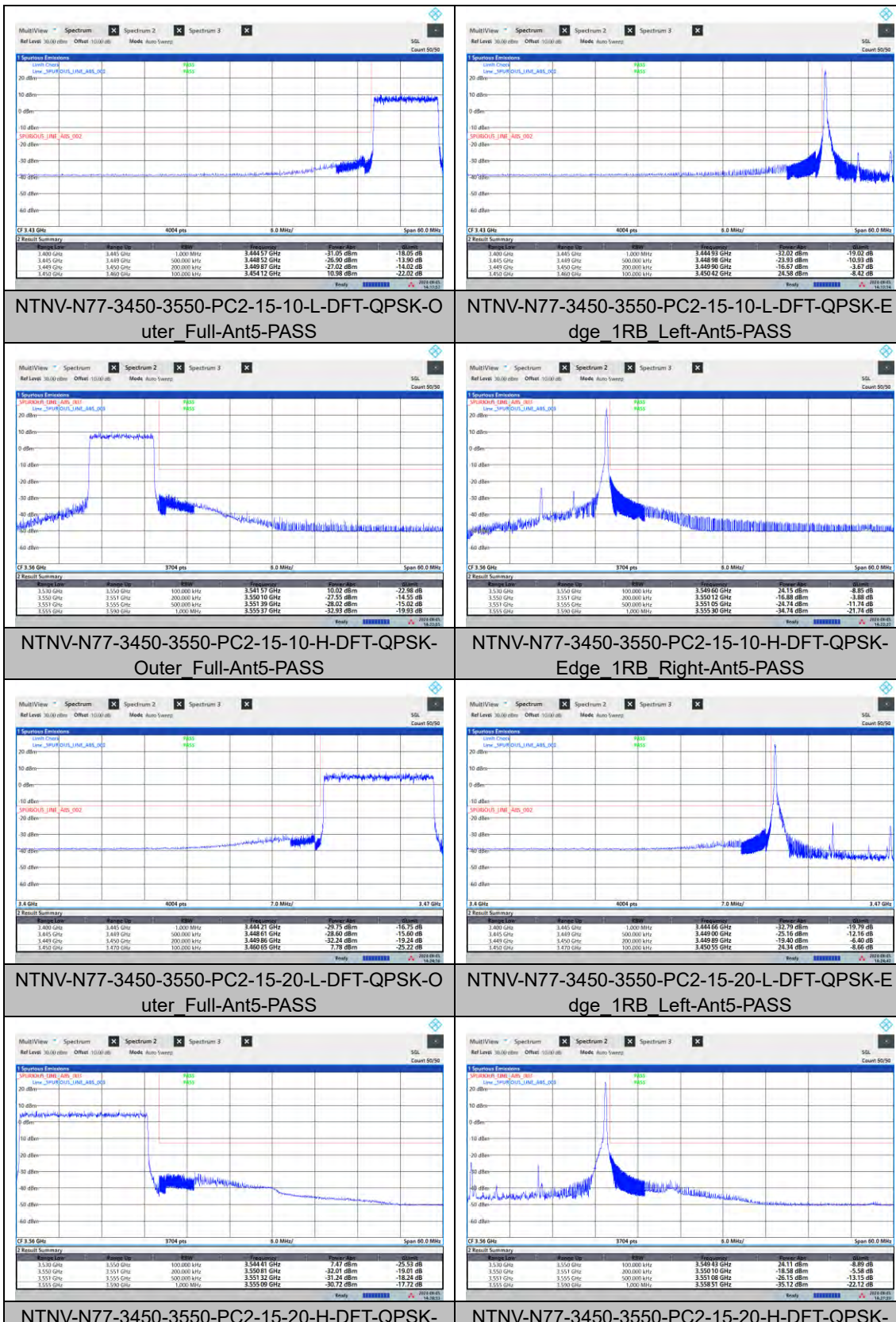




BAND EDGE FOR SA TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N77-3450-3550	15	10	DFT-QPSK	L	Outer_Full	See Graph	PASS
N77-3450-3550	15	10	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N77-3450-3550	15	10	DFT-QPSK	H	Outer_Full	See Graph	PASS
N77-3450-3550	15	10	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N77-3450-3550	15	20	DFT-QPSK	L	Outer_Full	See Graph	PASS
N77-3450-3550	15	20	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N77-3450-3550	15	20	DFT-QPSK	H	Outer_Full	See Graph	PASS
N77-3450-3550	15	20	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N77-3450-3550	15	50	DFT-QPSK	L	Outer_Full	See Graph	PASS
N77-3450-3550	15	50	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N77-3450-3550	15	50	DFT-QPSK	H	Outer_Full	See Graph	PASS
N77-3450-3550	15	50	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS

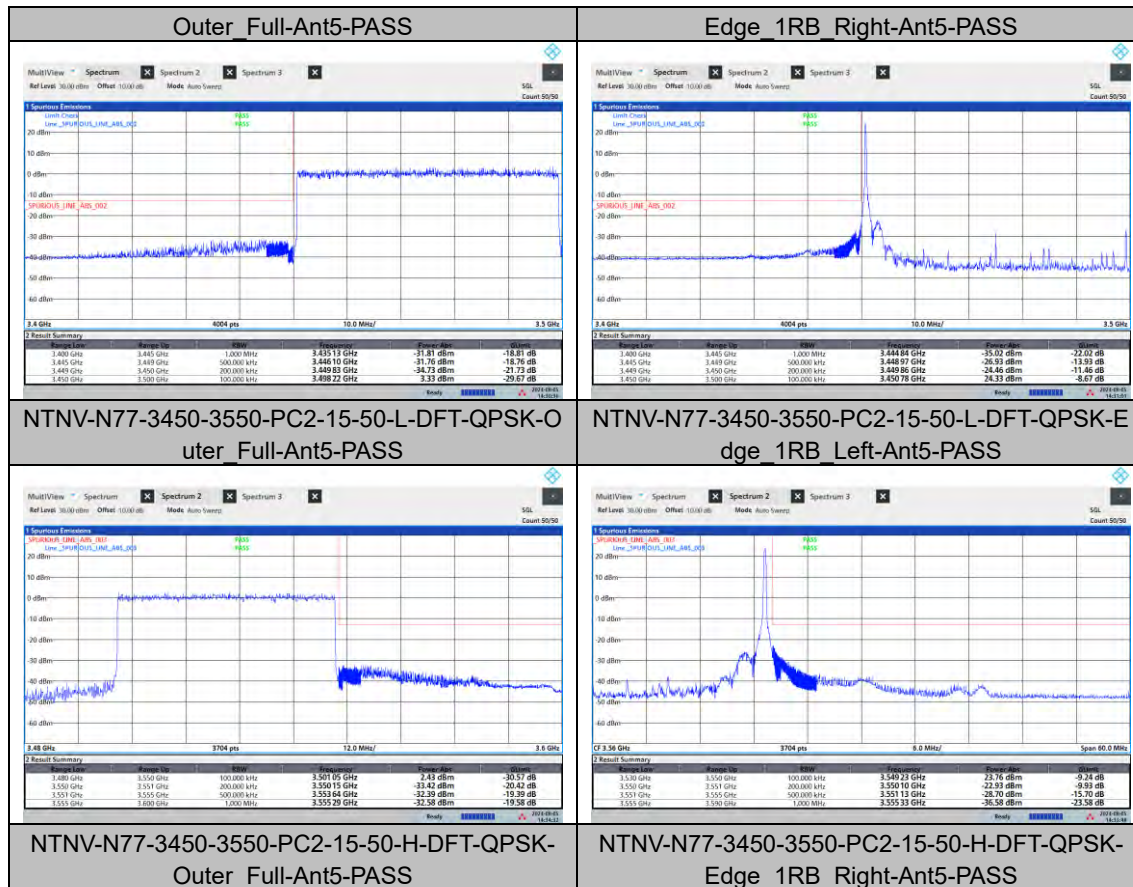
TEST GRAPHS





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VERITAS

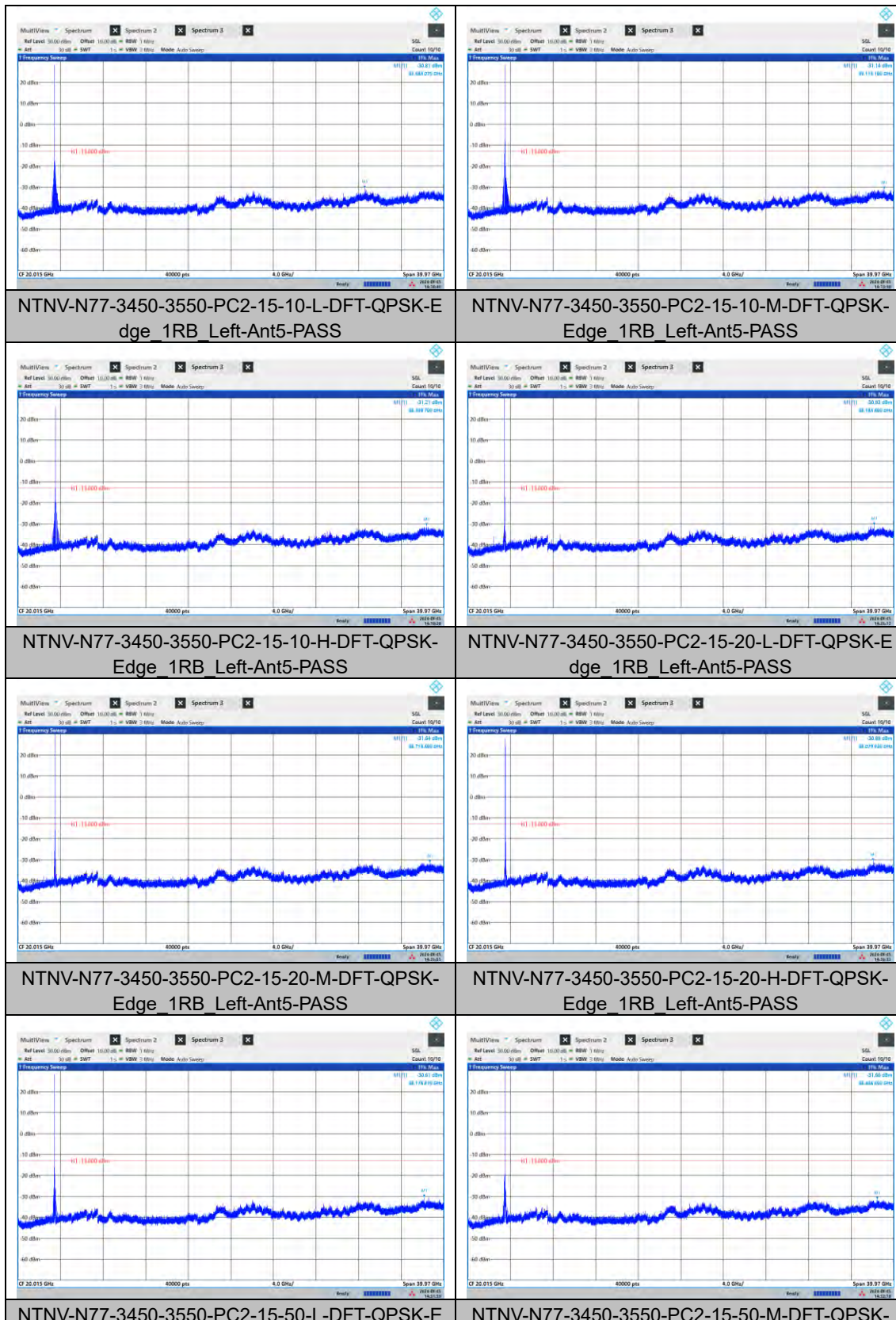
Reference No.: W7L-240618W002RF12



CONDUCTED SPURIOUS EMISSION FOR SA TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
N77-3 450-35 50	15	10	DFT-QPSK	L	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	10	DFT-QPSK	M	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	10	DFT-QPSK	H	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	20	DFT-QPSK	L	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	20	DFT-QPSK	M	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	20	DFT-QPSK	H	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	50	DFT-QPSK	L	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	50	DFT-QPSK	M	Edge_1RB_Left	30	40000	See Graph	-13	PASS
N77-3 450-35 50	15	50	DFT-QPSK	H	Edge_1RB_Left	30	40000	See Graph	-13	PASS

TEST GRAPHS



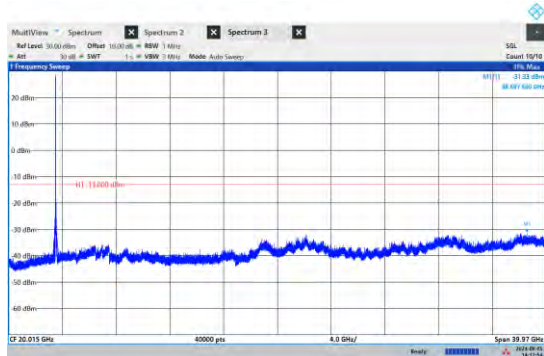


BUREAU
VERITAS

Reference No.: W7L-240618W002RF12

dge_1RB_Left-Ant5-PASS

Edge_1RB_Left-Ant5-PASS



NTNV-N77-3450-3550-PC2-15-50-H-DFT-QPSK-
Edge_1RB_Left-Ant5-PASS

FREQUENCY STABILITY FOR SA TEST RESULT

FREQUENCY ERROR VS. VOLTAGE

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	VL	NT	6.000000	0.000009	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	VN	NT	14.000000	0.000021	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	VH	NT	-22.000000	-0.000033	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	VL	NT	5.000000	0.000008	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	VN	NT	32.000000	0.000048	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	VH	NT	22.000000	0.000033	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	VL	NT	-14.000000	-0.000021	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	VN	NT	9.000000	0.000014	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	VH	NT	-32.000000	-0.000048	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	-30	-5.000000	-0.000008	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	-20	14.000000	0.000021	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	-10	35.000000	0.000053	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	0	-34.000000	-0.000051	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	10	28.000000	0.000042	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	20	-17.000000	-0.000026	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	30	-15.000000	-0.000023	PASS



Reference No.: W7L-240618W002RF12

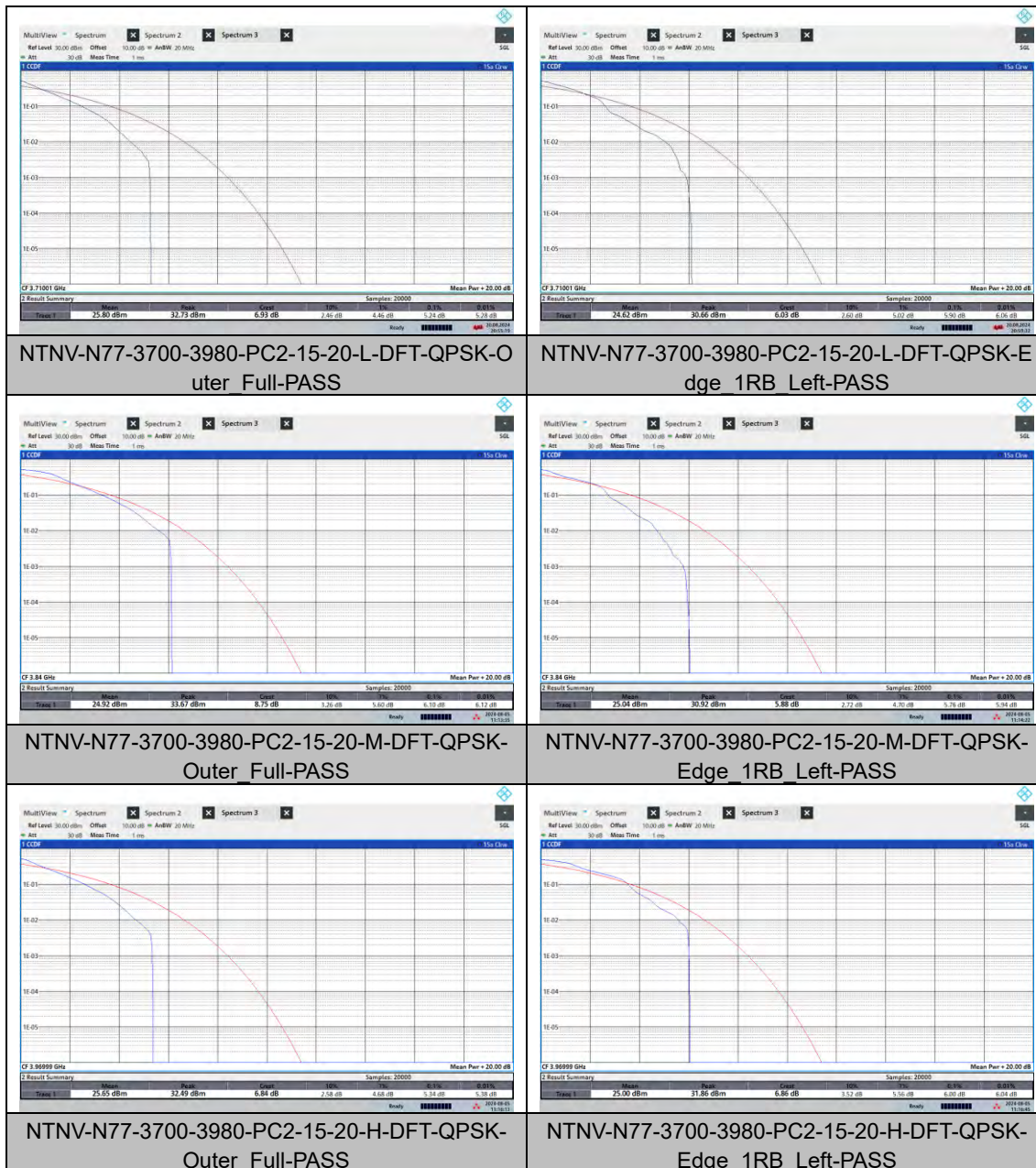
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	40	30.000000	0.000045	PASS
N77-345 0-3550	15	20	DFT-QPSK	L	Outer_Full	NV	50	-6.000000	-0.000009	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	-30	-26.000000	-0.000039	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	-20	-18.000000	-0.000027	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	-10	18.000000	0.000027	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	0	-19.000000	-0.000029	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	10	-10.000000	-0.000015	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	20	-13.000000	-0.000020	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	30	2.000000	0.000003	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	40	-20.000000	-0.000030	PASS
N77-345 0-3550	15	20	DFT-QPSK	M	Outer_Full	NV	50	-27.000000	-0.000041	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	-30	15.000000	0.000023	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	-20	-23.000000	-0.000035	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	-10	0.000000	0.000000	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	0	-18.000000	-0.000027	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	10	10.000000	0.000015	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	20	-30.000000	-0.000045	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	30	-14.000000	-0.000021	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	40	-21.000000	-0.000032	PASS
N77-345 0-3550	15	20	DFT-QPSK	H	Outer_Full	NV	50	32.000000	0.000048	PASS

N77-3700-3980

PEAK-TO-AVERAGE RATIO(CCDF) TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N77-3700-3980	15	20	DFT-QPSK	L	Outer_Full	5.24	≤13	PASS
N77-3700-3980	15	20	DFT-QPSK	L	Edge_1RB_Left	5.90	≤13	PASS
N77-3700-3980	15	20	DFT-QPSK	M	Outer_Full	6.10	≤13	PASS
N77-3700-3980	15	20	DFT-QPSK	M	Edge_1RB_Left	5.76	≤13	PASS
N77-3700-3980	15	20	DFT-QPSK	H	Outer_Full	5.34	≤13	PASS
N77-3700-3980	15	20	DFT-QPSK	H	Edge_1RB_Left	6.00	≤13	PASS

TEST GRAPHS





Reference No.: W7L-240618W002RF12

26DB BANDWIDTH AND OCCUPIED BANDWIDTH FOR SA TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N77-3700 -3980	15	10	DFT-PI2BPSK	M	Outer_Full	8.911	9.65	PASS
N77-3700 -3980	15	10	DFT-QPSK	M	Outer_Full	8.920	9.65	PASS
N77-3700 -3980	15	10	DFT-16QAM	M	Outer_Full	8.917	9.49	PASS
N77-3700 -3980	15	10	DFT-64QAM	M	Outer_Full	8.931	9.55	PASS
N77-3700 -3980	15	10	DFT-256QAM	M	Outer_Full	8.912	9.71	PASS
N77-3700 -3980	15	15	DFT-PI2BPSK	M	Outer_Full	13.398	14.36	PASS
N77-3700 -3980	15	15	DFT-QPSK	M	Outer_Full	13.404	14.42	PASS
N77-3700 -3980	15	15	DFT-16QAM	M	Outer_Full	13.409	14.30	PASS
N77-3700 -3980	15	15	DFT-64QAM	M	Outer_Full	13.441	14.30	PASS
N77-3700 -3980	15	15	DFT-256QAM	M	Outer_Full	13.394	14.45	PASS
N77-3700 -3980	15	20	DFT-PI2BPSK	M	Outer_Full	17.850	19.02	PASS
N77-3700 -3980	15	20	DFT-QPSK	M	Outer_Full	17.870	18.90	PASS
N77-3700 -3980	15	20	DFT-16QAM	M	Outer_Full	17.864	18.94	PASS
N77-3700 -3980	15	20	DFT-64QAM	M	Outer_Full	17.884	18.86	PASS
N77-3700 -3980	15	20	DFT-256QAM	M	Outer_Full	17.852	18.90	PASS
N77-3700 -3980	15	40	DFT-PI2BPSK	M	Outer_Full	38.542	40.36	PASS
N77-3700 -3980	15	40	DFT-QPSK	M	Outer_Full	38.552	40.44	PASS
N77-3700 -3980	15	40	DFT-16QAM	M	Outer_Full	38.514	41.08	PASS
N77-3700 -3980	15	40	DFT-64QAM	M	Outer_Full	38.558	41.56	PASS
N77-3700 -3980	15	40	DFT-256QAM	M	Outer_Full	38.456	40.36	PASS
N77-3700 -3980	15	50	DFT-PI2BPSK	M	Outer_Full	48.213	50.65	PASS
N77-3700 -3980	15	50	DFT-QPSK	M	Outer_Full	48.065	50.55	PASS
N77-3700 -3980	15	50	DFT-16QAM	M	Outer_Full	48.196	50.05	PASS



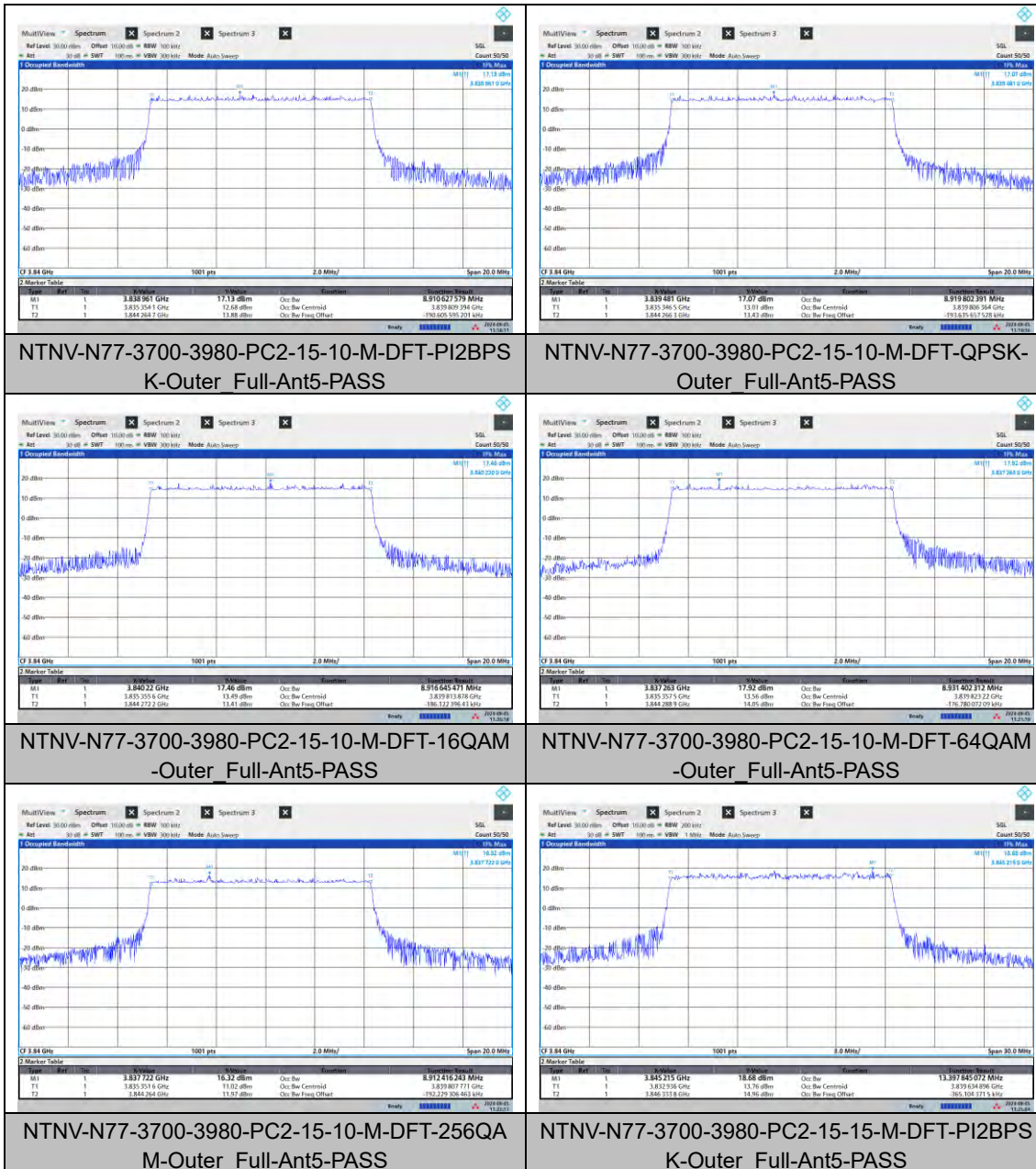
BUREAU
VERITAS

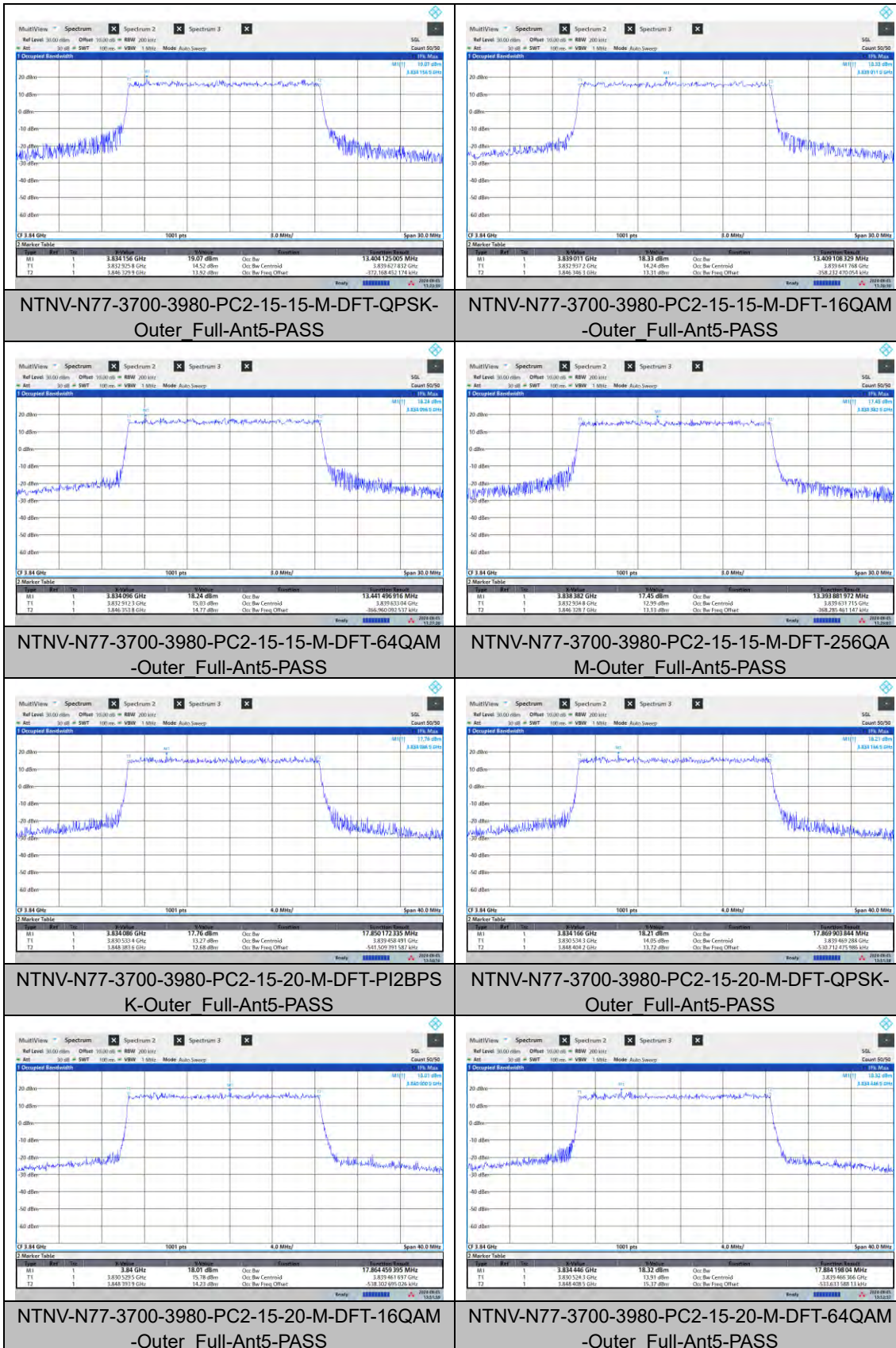
Reference No.: W7L-240618W002RF12

N77-3700 -3980	15	50	DFT-64QAM	M	Outer_Full	48.156	50.15	PASS
N77-3700 -3980	15	50	DFT-256QAM	M	Outer_Full	48.100	50.15	PASS

TEST GRAPHS

OCCUPIED BANDWIDTH

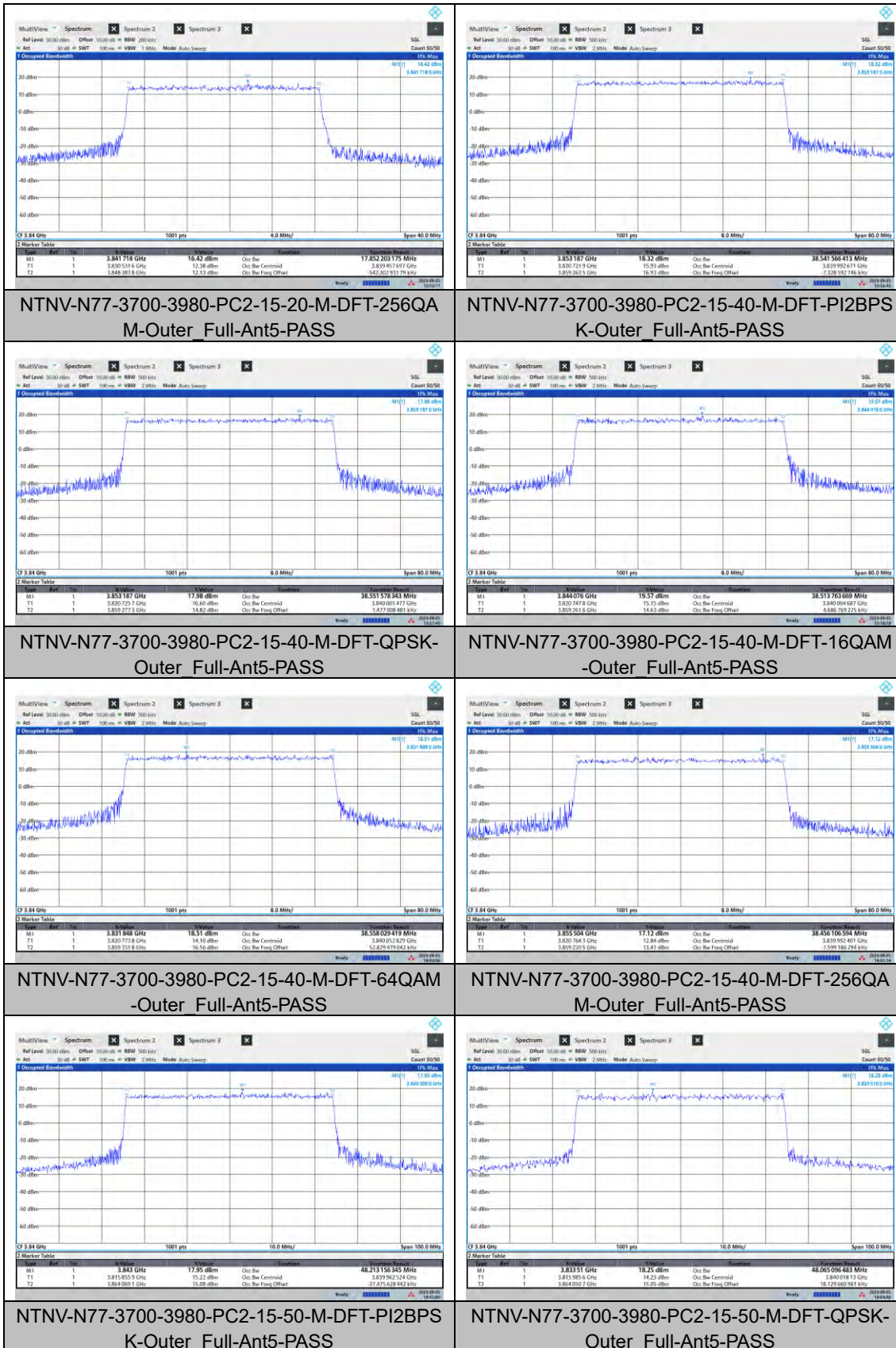






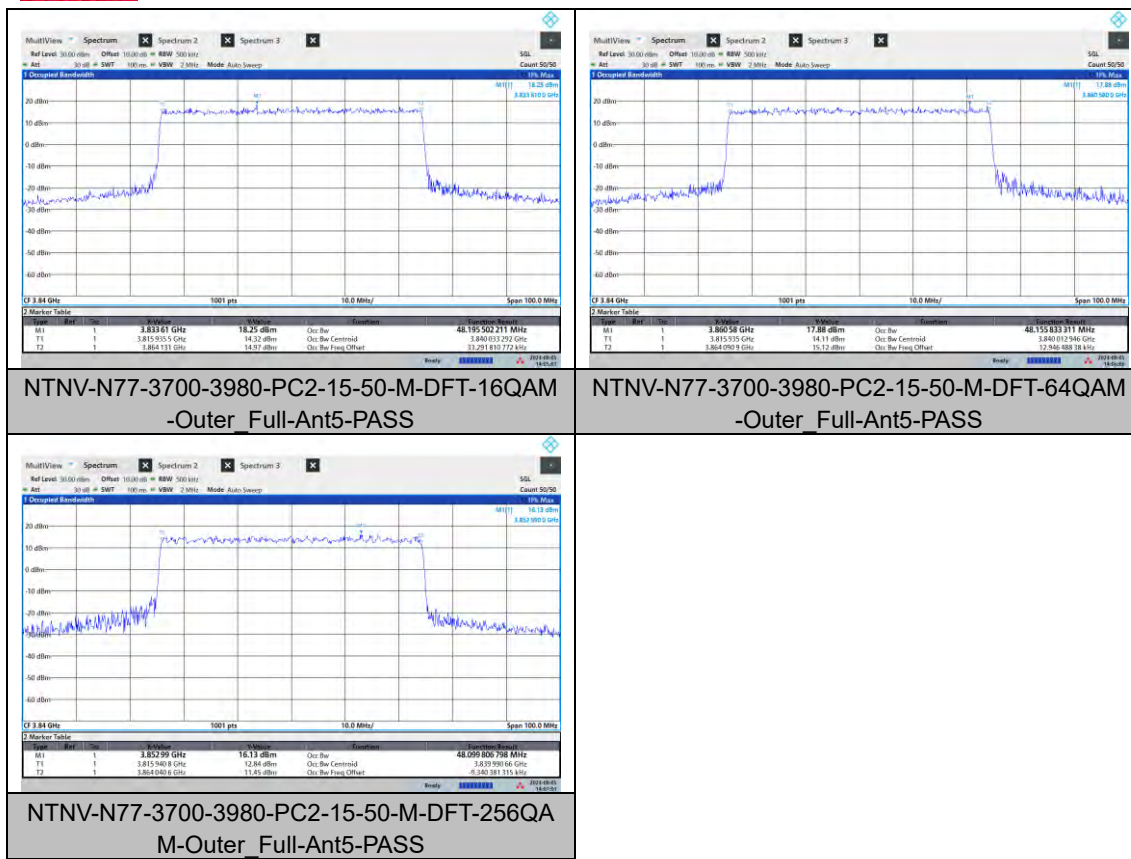
**BUREAU
VERITAS**

Reference No.: W7L-240618W002RF12

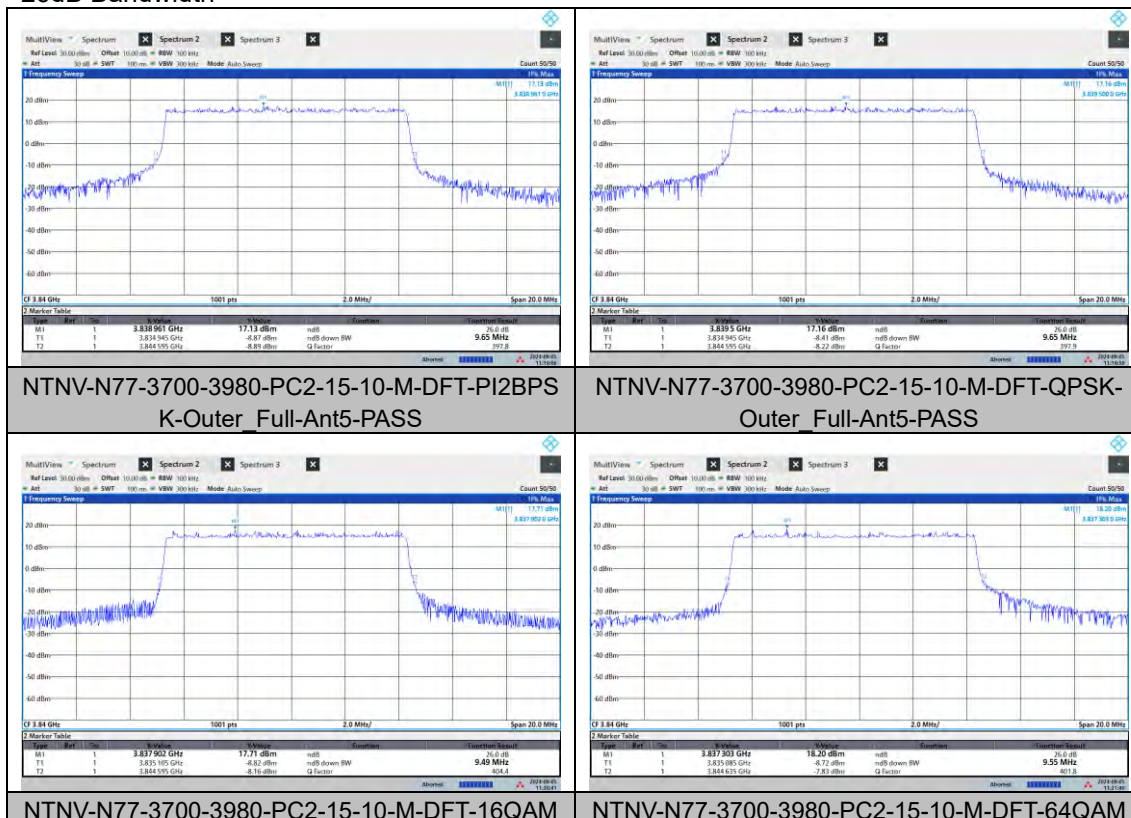


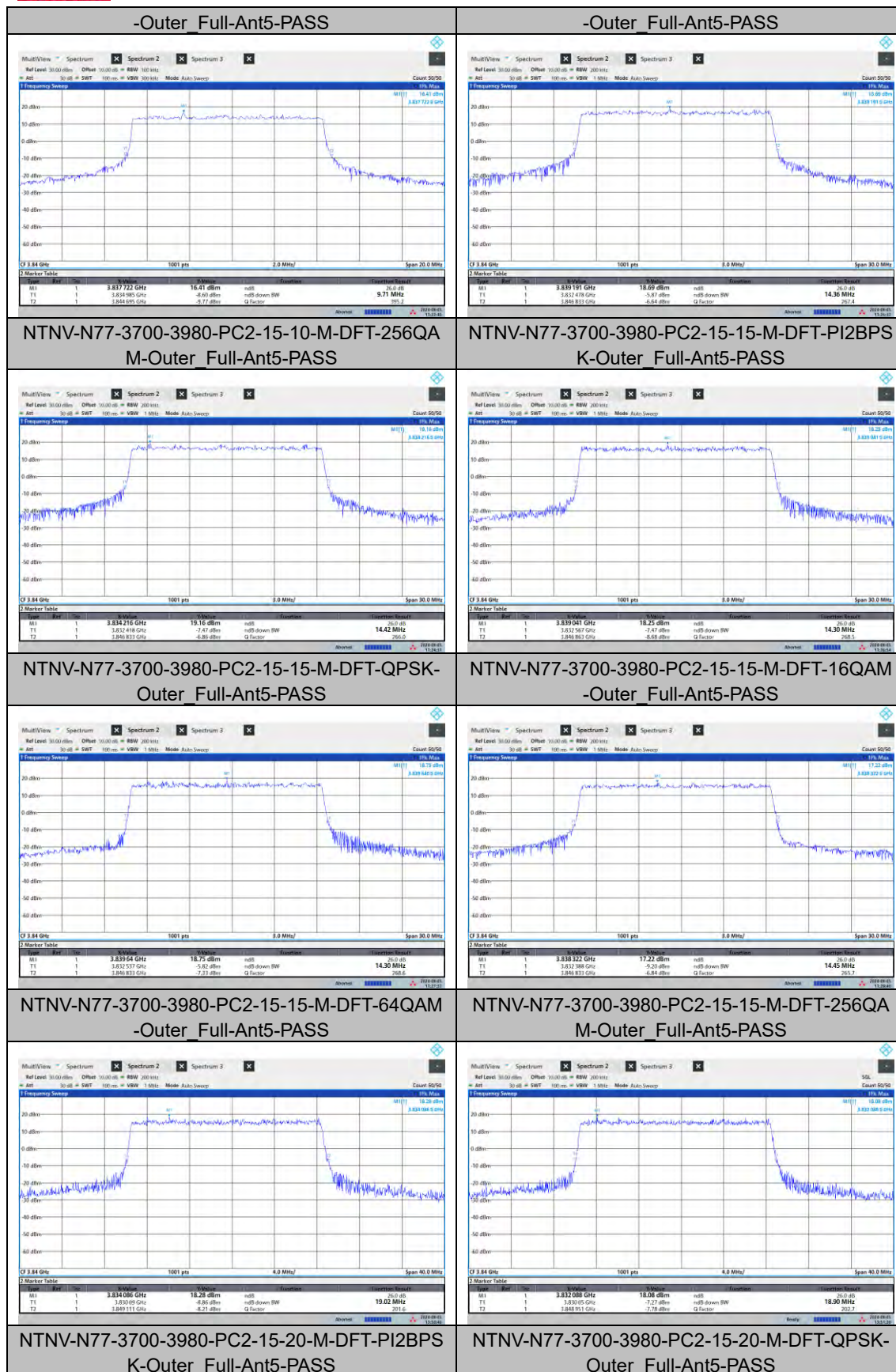


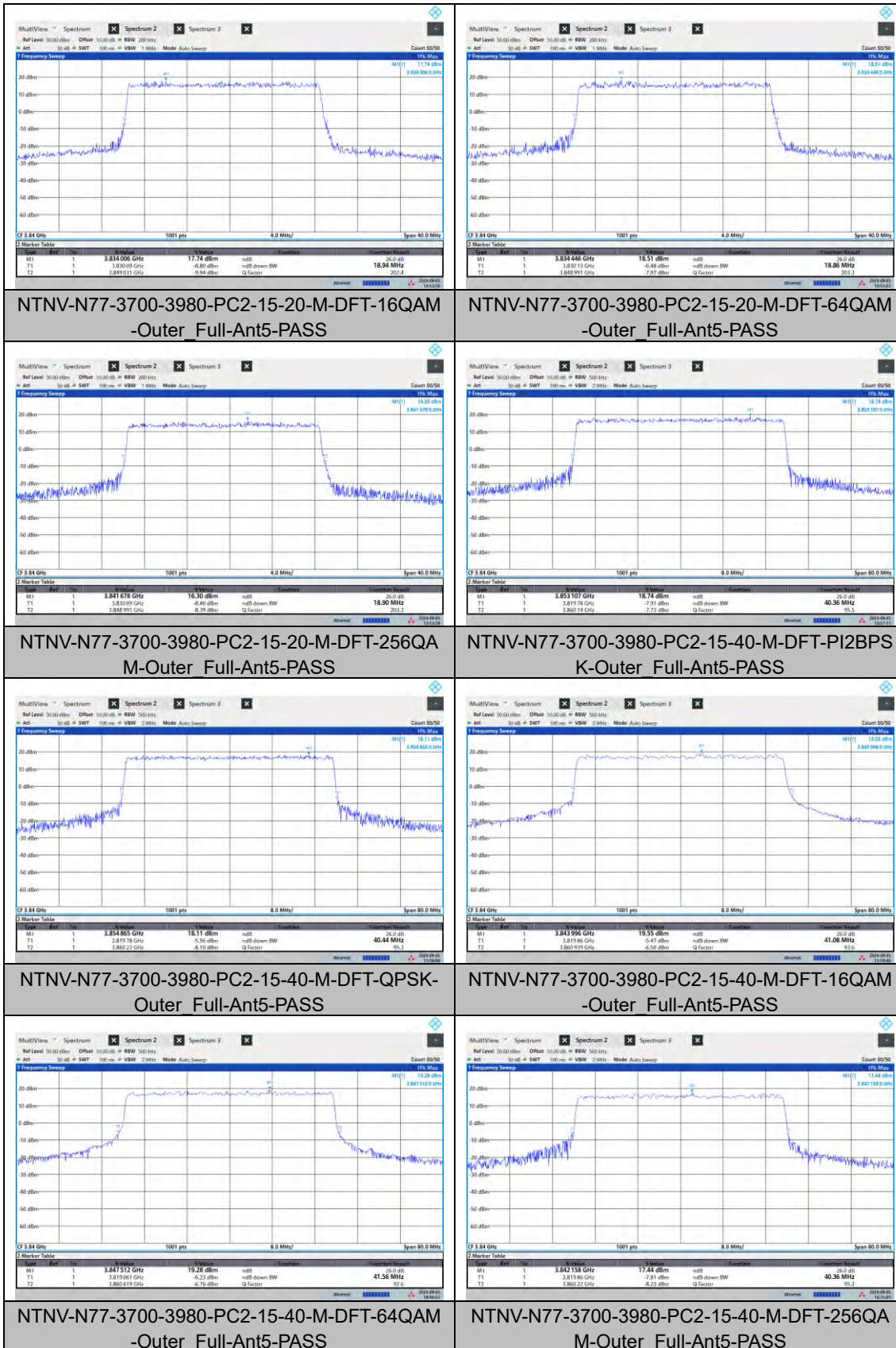
Reference No.: W7L-240618W002RF12

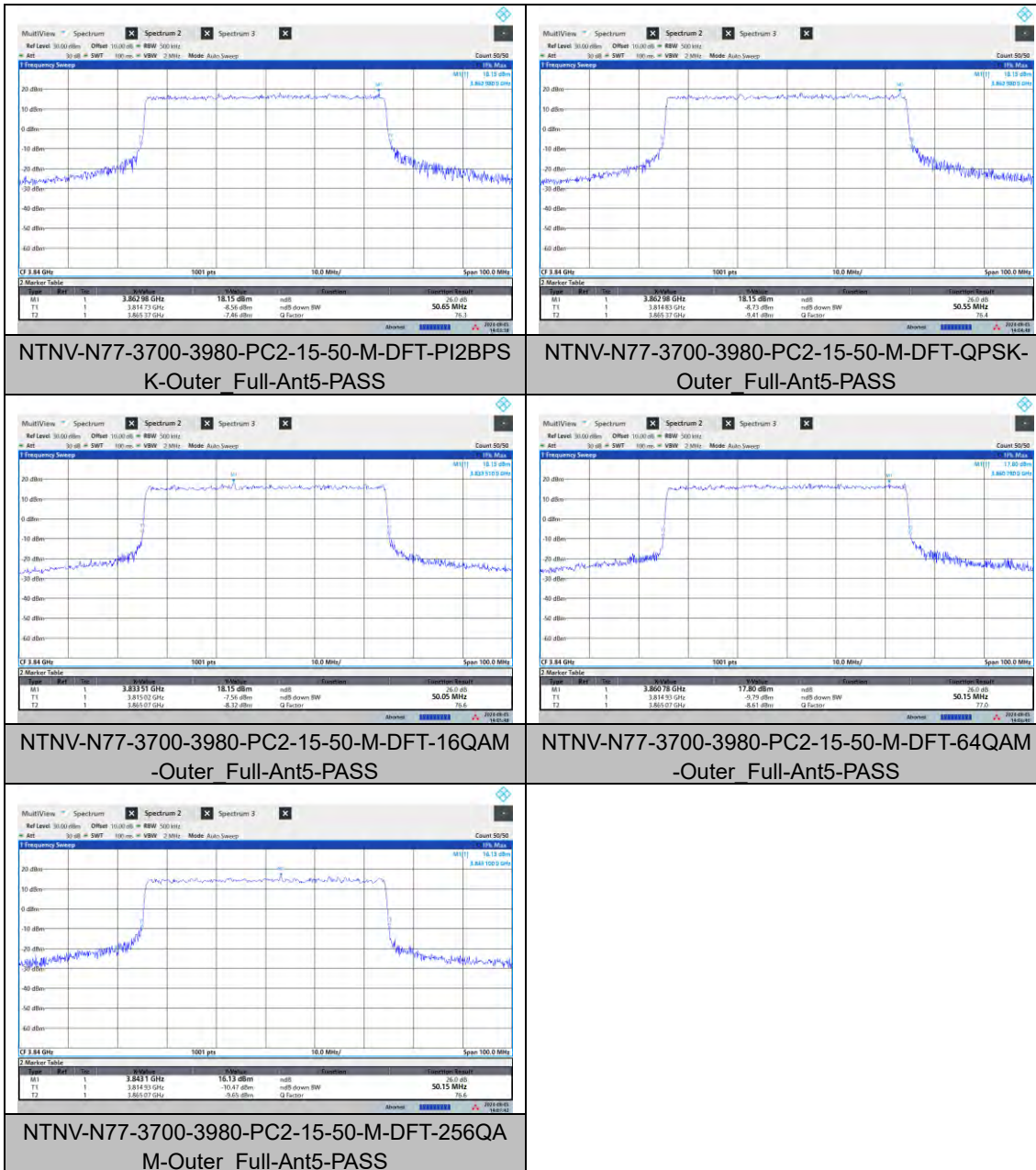


26dB Bandwidth





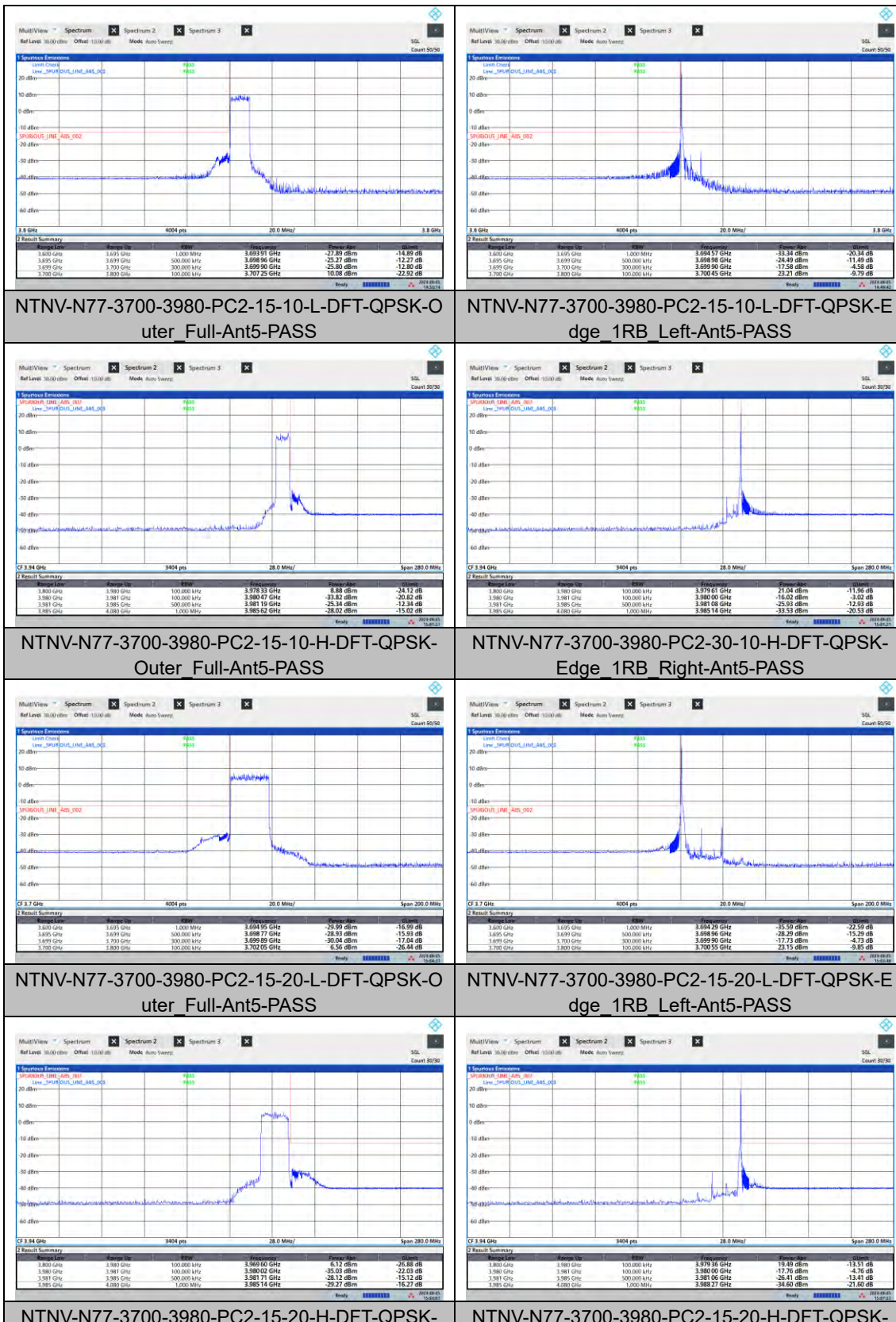




BAND EDGE FOR SA TEST RESULT

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N77-3700-3980	15	10	DFT-QPSK	L	Outer_Full	See Graph	PASS
N77-3700-3980	15	10	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N77-3700-3980	15	10	DFT-QPSK	H	Outer_Full	See Graph	PASS
N77-3700-3980	15	10	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N77-3700-3980	15	20	DFT-QPSK	L	Outer_Full	See Graph	PASS
N77-3700-3980	15	20	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N77-3700-3980	15	20	DFT-QPSK	H	Outer_Full	See Graph	PASS
N77-3700-3980	15	20	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS
N77-3700-3980	15	50	DFT-QPSK	L	Outer_Full	See Graph	PASS
N77-3700-3980	15	50	DFT-QPSK	L	Edge_1RB_Left	See Graph	PASS
N77-3700-3980	15	50	DFT-QPSK	H	Outer_Full	See Graph	PASS
N77-3700-3980	15	50	DFT-QPSK	H	Edge_1RB_Right	See Graph	PASS

TEST GRAPHS





BUREAU
VERITAS

Reference No.: W7L-240618W002RF12

