

Appendix for 4A_N71A

Product Name: 5G Indoor CPE

Model No: TITAN 5000

Appendix A: Average Power Output Data

Test Result

Band	SC S	Bandwidth h	Modulation	Channel	RB Config	Power (dBm)	Power Class	Verdict
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	22.62	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Inner_Full	23.69	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	22.84	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	22.91	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	21.60	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Inner_Full	22.61	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	21.94	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	21.48	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	22.78	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Inner_Full	23.78	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	22.57	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	22.53	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	21.71	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Inner_Full	22.64	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	21.54	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	21.63	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	22.30	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Inner_Full	23.26	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	22.35	PC3	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	22.31	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	21.22	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Inner_Full	22.38	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	21.58	PC3	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	21.32	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	22.57	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Inner_Full	23.53	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	22.92	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	22.78	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	21.73	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Inner_Full	22.75	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	22.28	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	21.87	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	22.78	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Inner_Full	23.79	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	23.07	PC3	PASS

DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	22.79	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	21.80	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Inner_Full	22.84	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	21.48	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	21.81	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	22.42	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Inner_Full	23.41	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	22.68	PC3	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	22.54	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	21.41	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Inner_Full	22.47	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	21.18	PC3	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	21.87	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	22.74	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Inner_Full	23.69	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	22.93	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	22.66	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	21.84	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Inner_Full	22.82	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	22.03	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	21.78	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	22.82	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Inner_Full	23.94	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	23.24	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	22.69	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	21.81	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Inner_Full	22.81	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	21.99	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	21.43	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Outer_Full	22.56	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Inner_Full	23.54	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Edge_1RB_Left	22.55	PC3	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Edge_1RB_Right	22.42	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+H	Outer_Full	21.63	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+H	Inner_Full	22.59	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+H	Edge_1RB_Left	22.10	PC3	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+H	Edge_1RB_Right	21.44	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Outer_Full	22.78	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Inner_Full	23.67	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Edge_1RB_Left	23.12	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Edge_1RB_Right	22.74	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+L	Outer_Full	21.75	PC3	PASS

DC_4A_n71A	15	5+20	DFT-16QAM	M+L	Inner_Full	22.73	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+L	Edge_1RB_Left	22.20	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+L	Edge_1RB_Right	22.16	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+M	Outer_Full	23.32	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+M	Inner_Full	24.37	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+M	Edge_1RB_Left	23.38	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+M	Edge_1RB_Right	22.75	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+M	Outer_Full	22.22	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+M	Inner_Full	23.43	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+M	Edge_1RB_Left	22.07	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+M	Edge_1RB_Right	21.88	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Outer_Full	23.15	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Inner_Full	24.02	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Edge_1RB_Left	23.37	PC3	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Edge_1RB_Right	22.88	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+H	Outer_Full	22.15	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+H	Inner_Full	23.10	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+H	Edge_1RB_Left	22.54	PC3	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+H	Edge_1RB_Right	22.04	PC3	PASS

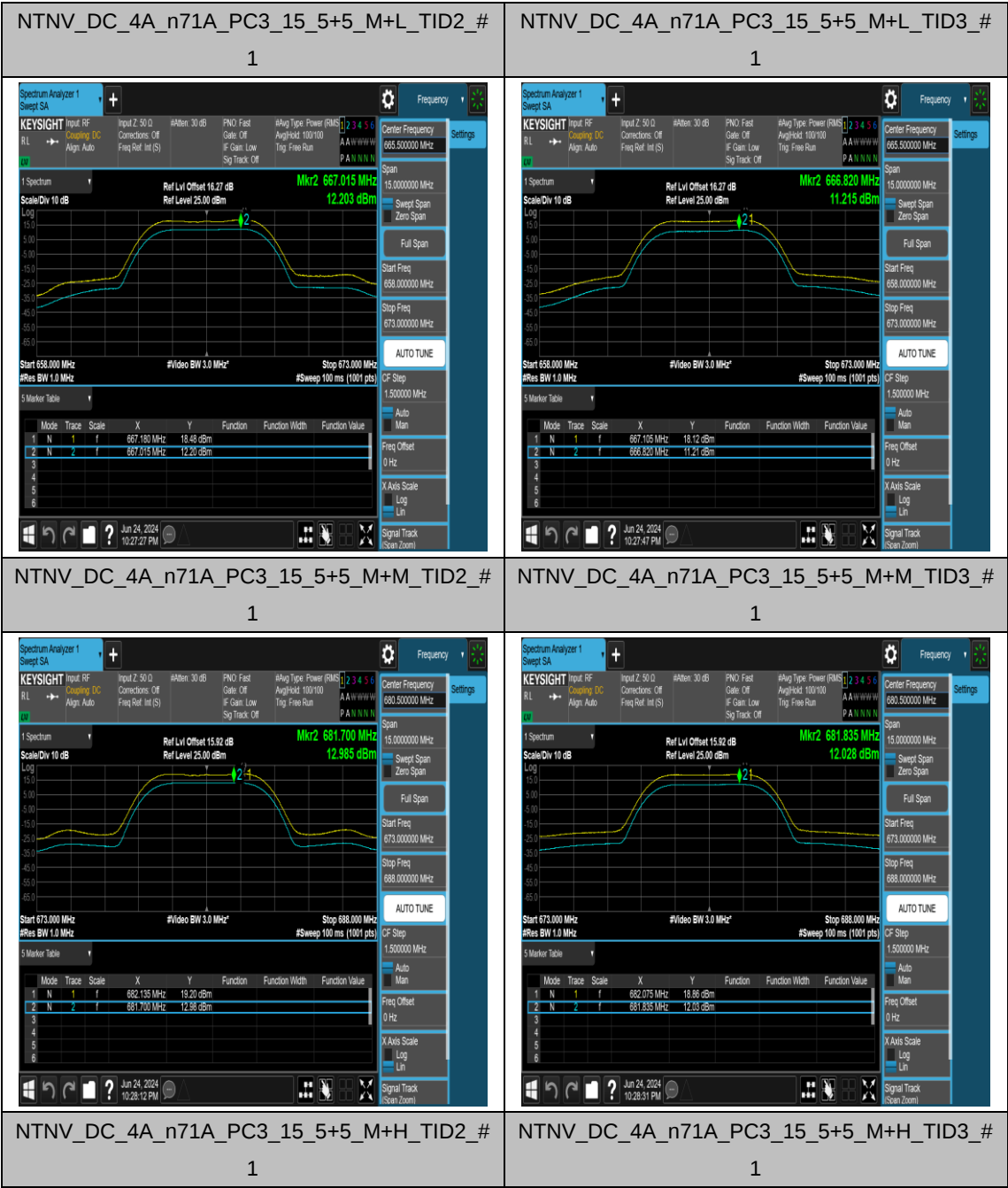
Appendix B: Peak-to-Average Ratio for NSA

Peak-to-Average Ratio(PAPR)

Test Result

Band	SCS	Bandwidth h	Modulation	Channel	RB Config	DutyCycle	Factor	Result	Limit	Verdict
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	100%	0.00	6.28	≤13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	100%	0.00	6.90	≤13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	100%	0.00	6.21	≤13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	100%	0.00	6.83	≤13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	100%	0.00	6.27	≤13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	100%	0.00	6.88	≤13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	100%	0.00	7.15	≤13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	100%	0.00	7.39	≤13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	100%	0.00	7.13	≤13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	100%	0.00	7.45	≤13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	100%	0.00	7.01	≤13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	100%	0.00	7.33	≤13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	100%	0.00	7.37	≤13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	100%	0.00	7.60	≤13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	100%	0.00	7.27	≤13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	100%	0.00	7.53	≤13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Outer_Full	100%	0.00	7.26	≤13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+H	Outer_Full	100%	0.00	7.63	≤13	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Outer_Full	100%	0.00	7.47	≤13	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+L	Outer_Full	100%	0.00	7.63	≤13	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+M	Outer_Full	100%	0.00	7.45	≤13	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+M	Outer_Full	100%	0.00	7.75	≤13	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Outer_Full	100%	0.00	7.52	≤13	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+H	Outer_Full	100%	0.00	7.61	≤13	PASS

Test Graphs



NTNV_DC_4A_n71A_PC3_15_5+5_M+M_TID2_#

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NTNV_DC_4A_n71A_PC3_15_5+5_M+M_TID3_#

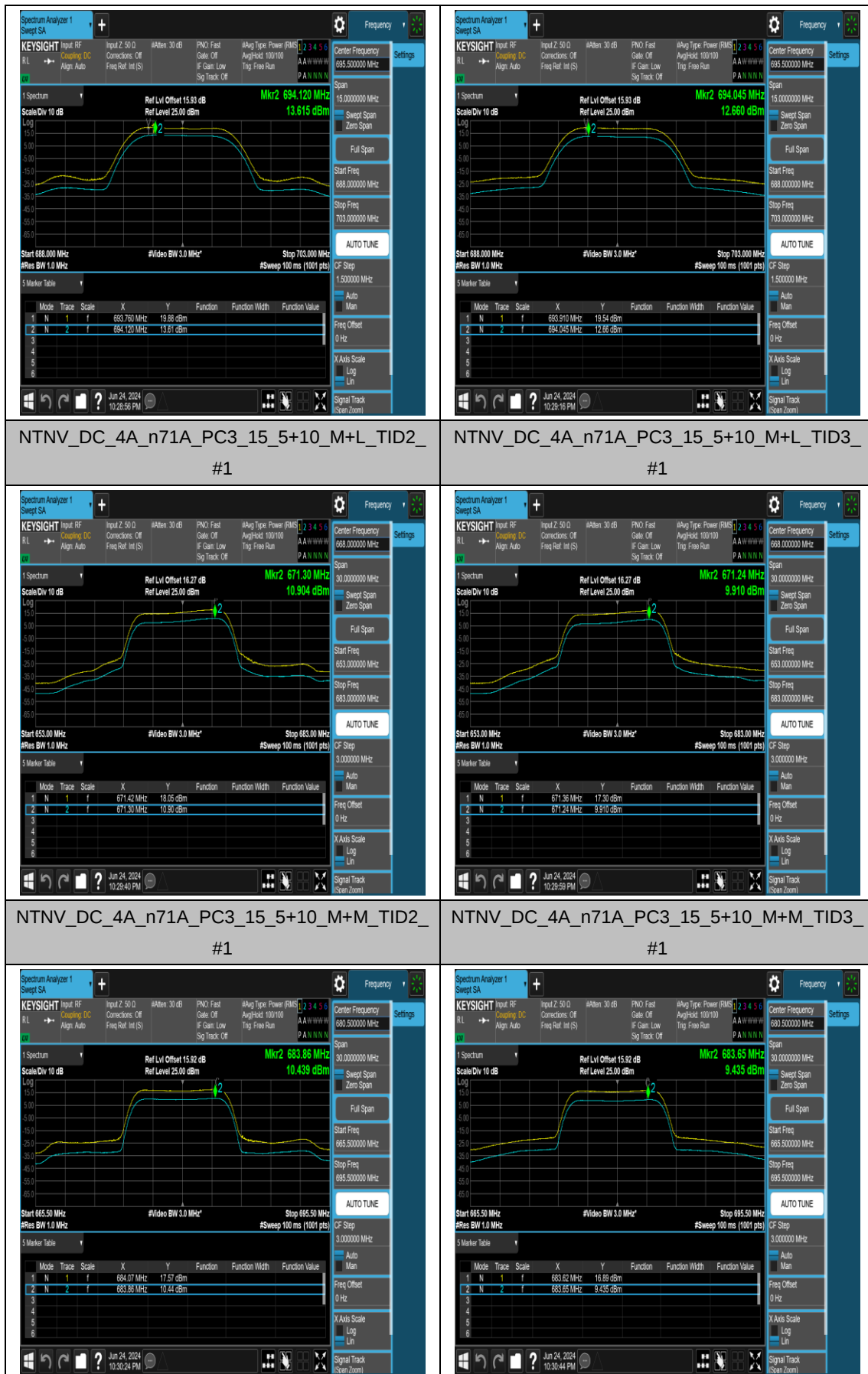
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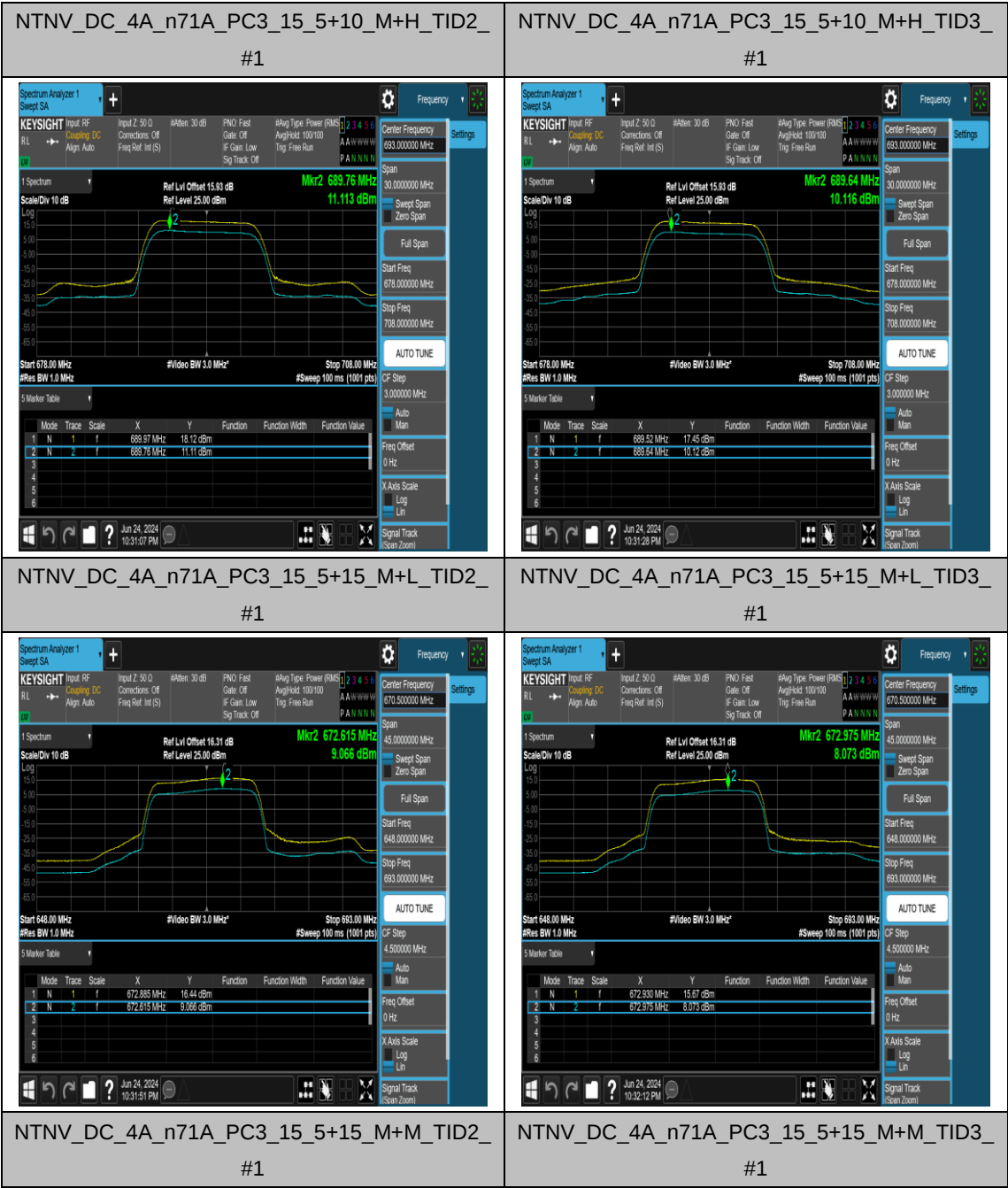
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NTNV_DC_4A_n71A_PC3_15_5+15_M+L_TID2_

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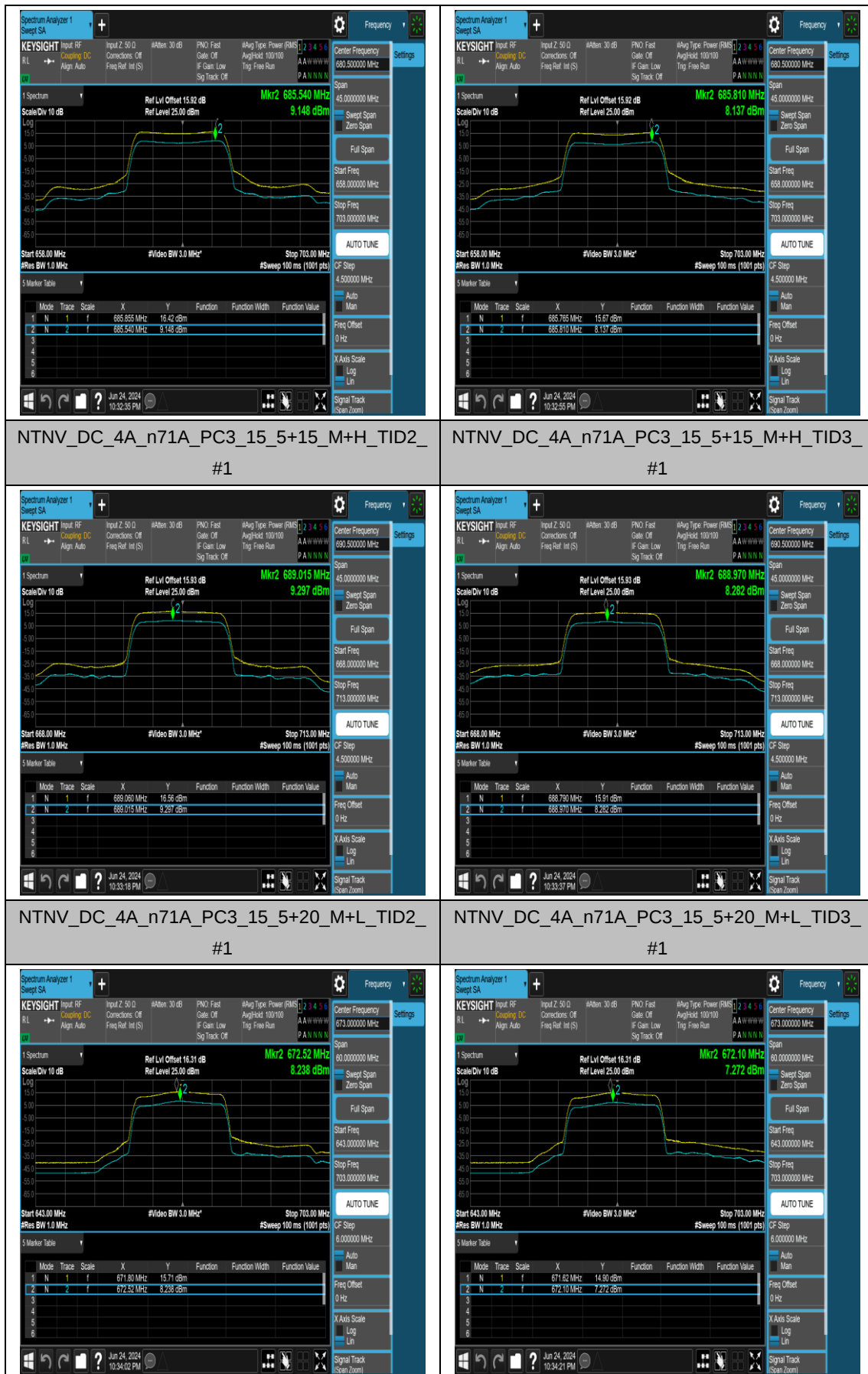
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#1





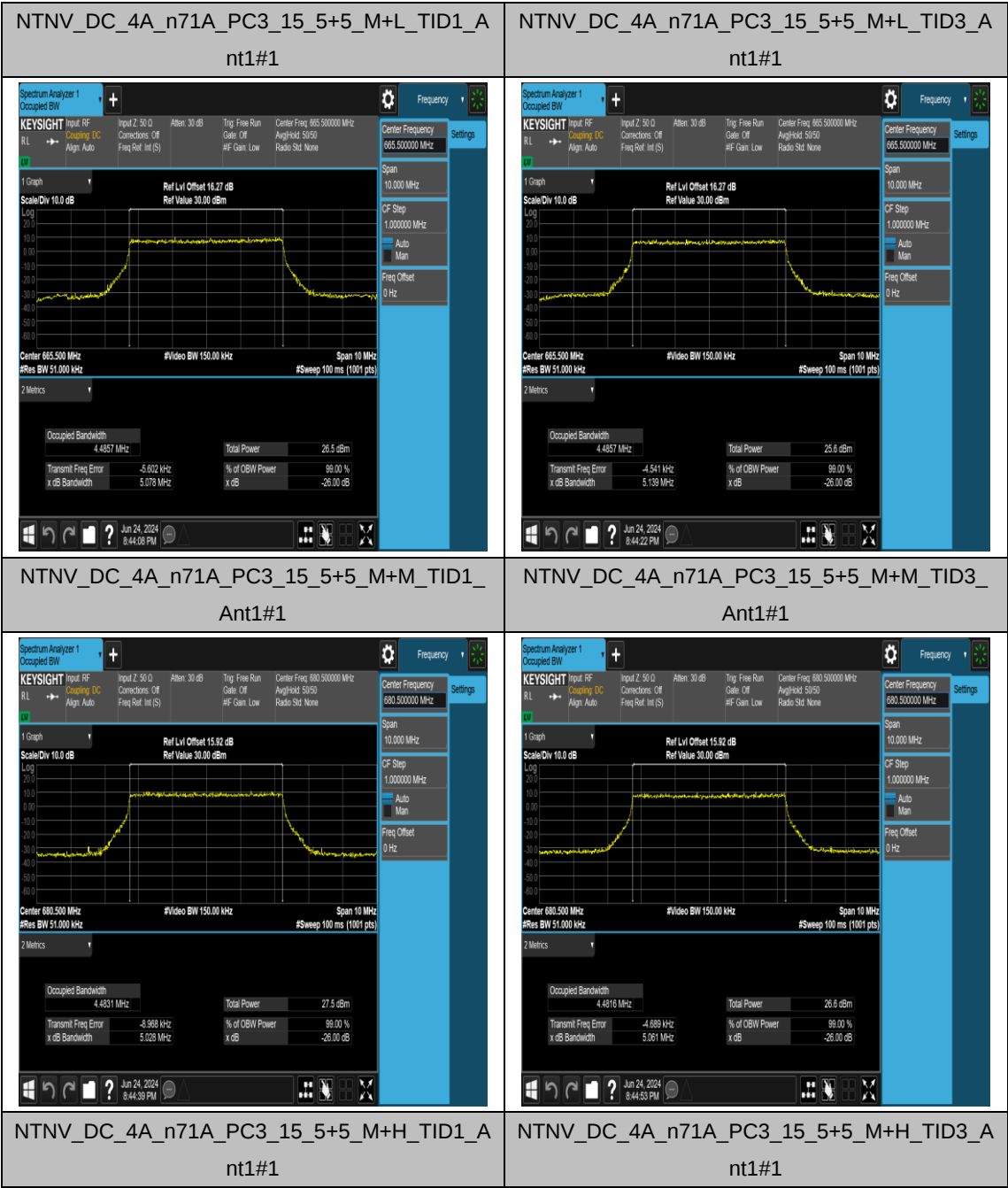
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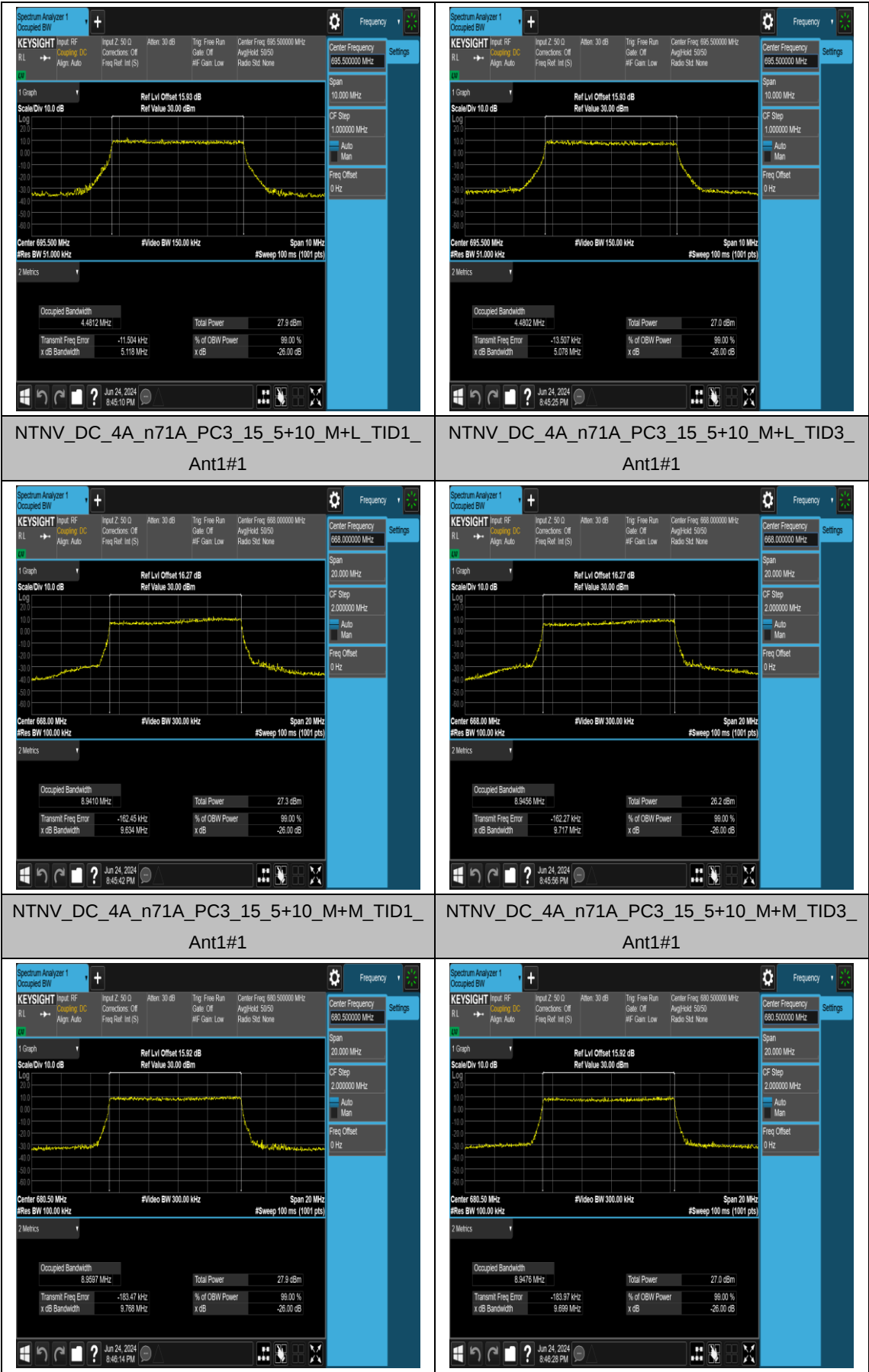
NSA

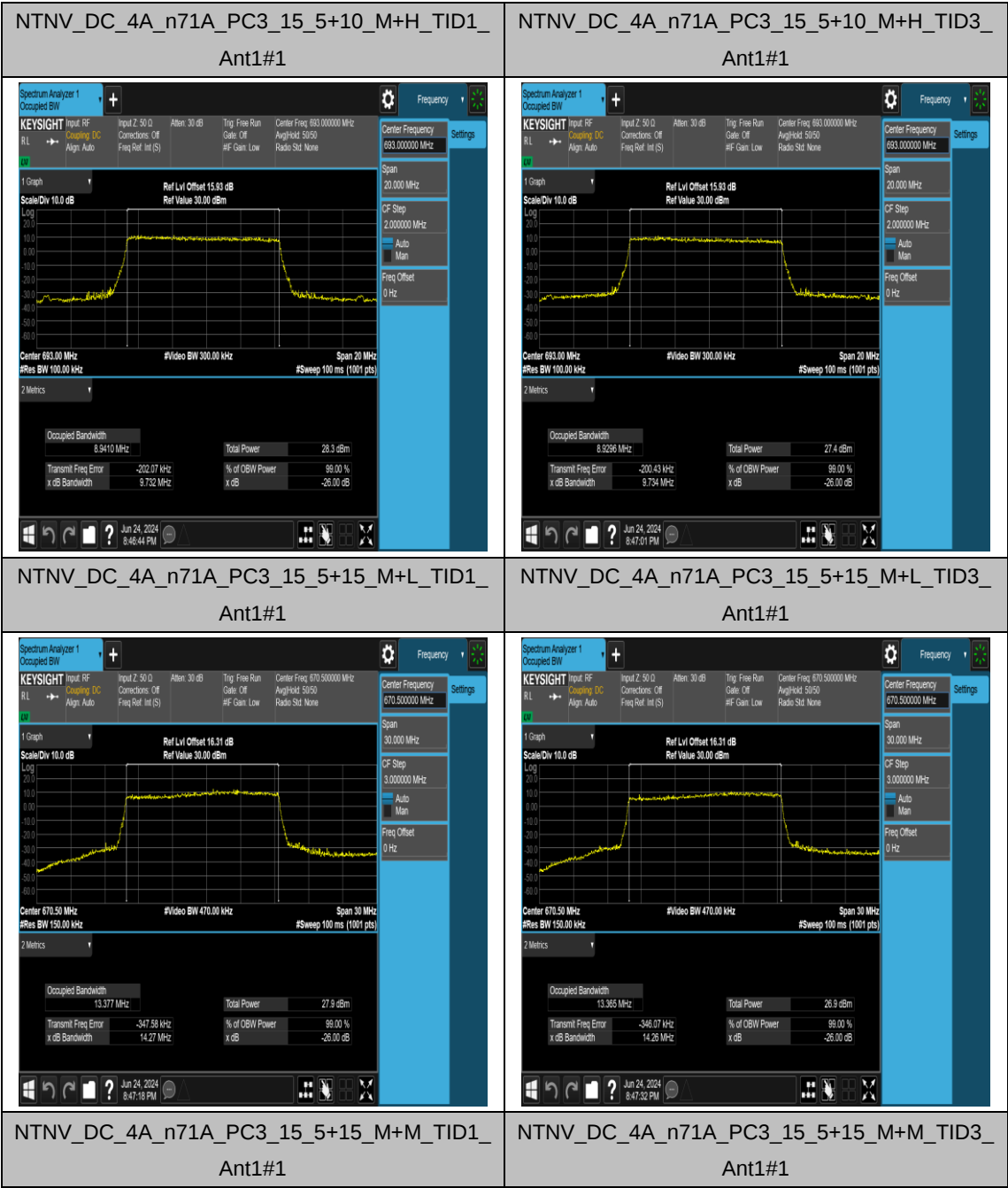
Test Result

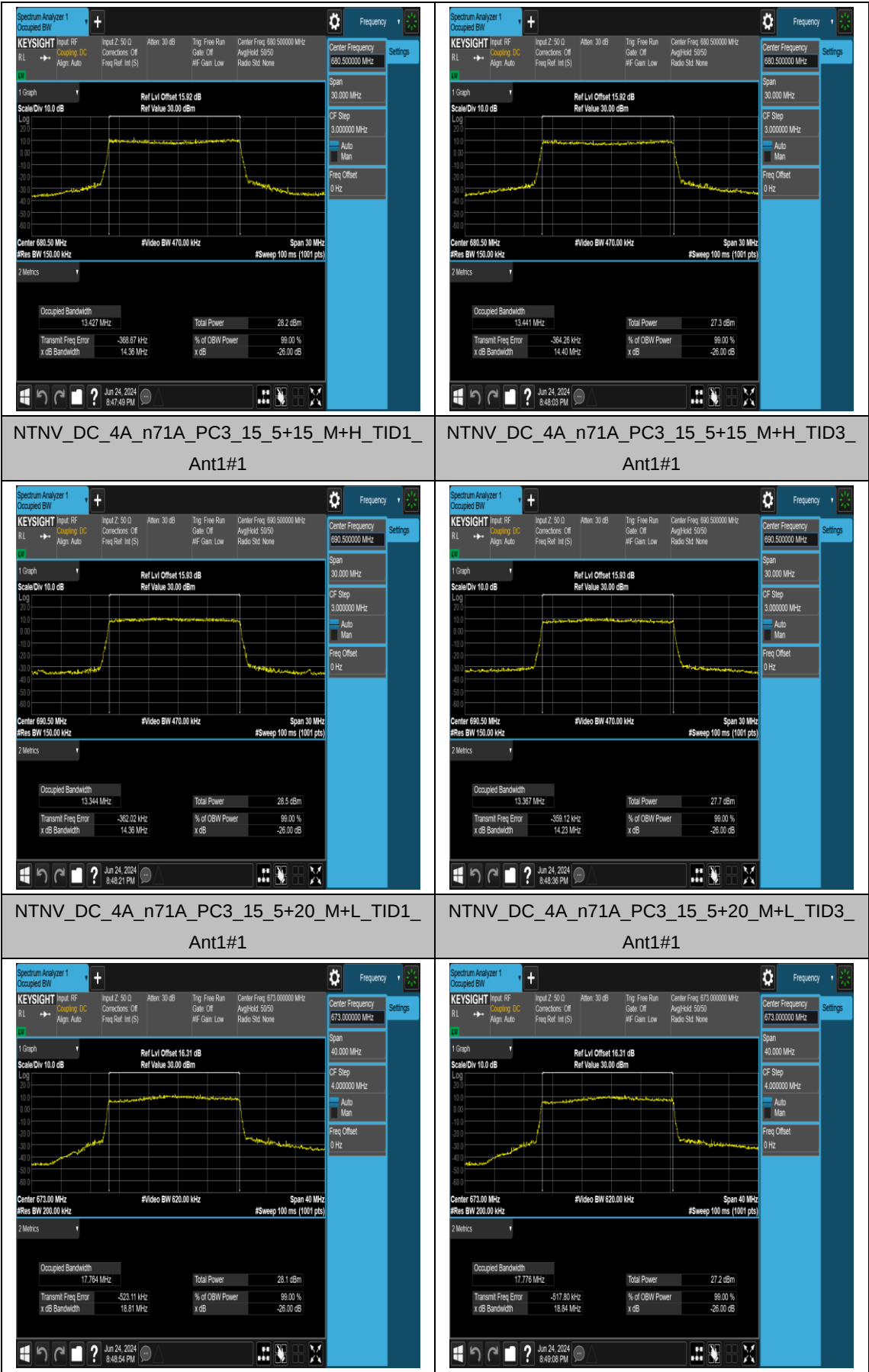
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	4.4857	5.078	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	4.4857	5.139	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	4.4831	5.028	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	4.4816	5.061	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	4.4812	5.118	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	4.4802	5.078	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	8.9410	9.634	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	8.9456	9.717	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	8.9597	9.768	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	8.9476	9.699	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	8.9410	9.732	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	8.9296	9.734	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	13.377	14.27	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	13.365	14.26	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	13.427	14.36	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	13.441	14.40	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Outer_Full	13.344	14.36	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+H	Outer_Full	13.367	14.23	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Outer_Full	17.764	18.81	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+L	Outer_Full	17.776	18.84	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+M	Outer_Full	17.909	18.87	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+M	Outer_Full	17.875	18.89	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Outer_Full	17.798	18.86	PASS
DC_4A_n71A	15	5+20	DFT-16QAM	M+H	Outer_Full	17.799	18.78	PASS

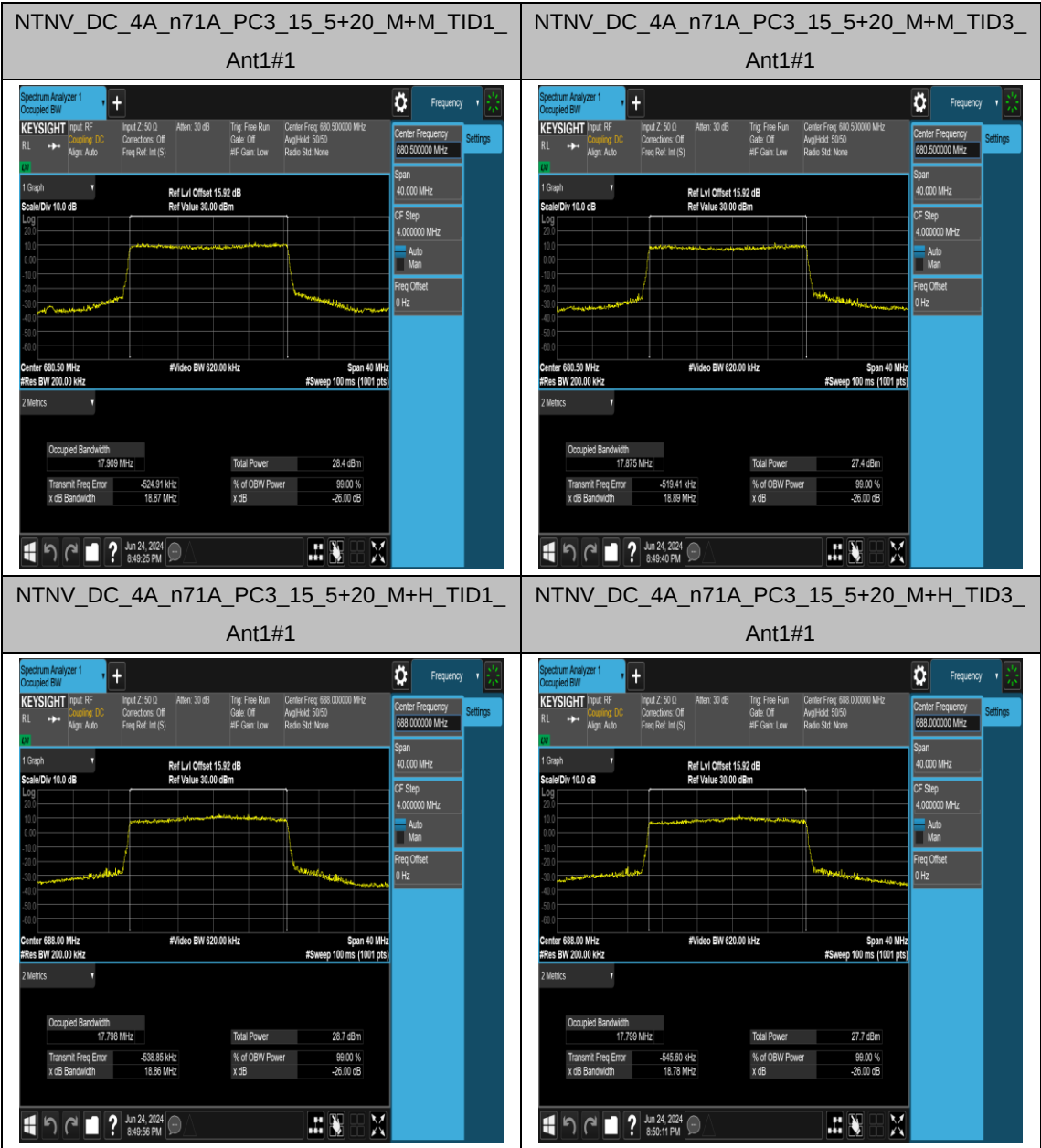
Test Graphs











Appendix D: Band Edge for NSA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Margin	Verdict
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	-36.78	23.78	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	-31.87	18.87	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	-36.23	23.23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	-28.89	15.89	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	-39.66	26.66	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	-32.02	19.02	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	-43.60	30.60	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	-30.93	17.93	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	-43.11	30.11	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	-32.59	19.59	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Outer_Full	-46.03	33.03	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+H	Edge_1RB_Right	-34.62	21.62	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Outer_Full	-45.31	32.31	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+L	Edge_1RB_Left	-39.52	26.52	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Outer_Full	-46.41	33.41	PASS
DC_4A_n71A	15	5+20	DFT-QPSK	M+H	Edge_1RB_Right	-38.45	25.45	PASS

NTNV_DC_4A_n71A_PC3_15_5+5_M+L_TID9_

#1

KEYSIGHT Spectrum Analyzer 1 Spurious Emissions

Input RF: Input RF, Corrections: Off, Freq Ref: Int (S), Att: 40 dB, Trig: Free Run, Gate: Off, IF Gain: Low, Center Freq: 22.005000000 GHz, AqHld: 10/10, Radio Std: None

Center Frequency: 22.005000000 GHz

CF Step: 4.399000000 GHz

Auto Man

Freq Offset: 0 Hz

3 All Range Graph

Scale/Div: 10.0 dB

Ref Lvl Offset: 16.27 dB

Ref Value: 25.00 dBm

Start: 658.000 MHz

Stop: 668.000 MHz

4 All Range Table

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	658.00 MHz	662.90 MHz	100.0 kHz	662.8314000 MHz	-36.78 dBm	-23.78 dB
2	2	662.90 MHz	663.00 MHz	30.00 kHz	662.8947000 MHz	-36.93 dBm	-23.93 dB
3	3	663.00 MHz	668.00 MHz	510.0 kHz	667.4150000 MHz	6.65z dBm	-23.35 dB

Measure Trace Trace 1

Trace Type Trace Average (Active)

Jun 24, 2024 10:36:17 PM

NTNV_DC_4A_n71A_PC3_15_5+5_M+L_TID7_

#1

KEYSIGHT Spectrum Analyzer 1 Spurious Emissions

Input RF: Input RF, Corrections: Off, Freq Ref: Int (S), Att: 40 dB, Trig: Free Run, Gate: Off, IF Gain: Low, Center Freq: 22.005000000 GHz, AqHld: 10/10, Radio Std: None

Center Frequency: 22.005000000 GHz

CF Step: 4.399000000 GHz

Auto Man

Freq Offset: 0 Hz

3 All Range Graph

Scale/Div: 10.0 dB

Ref Lvl Offset: 16.27 dB

Ref Value: 25.00 dBm

Start: 658.000 MHz

Stop: 668.000 MHz

4 All Range Table

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	658.00 MHz	662.90 MHz	100.0 kHz	662.9000000 MHz	-36.11 dBm	-26.11 dB
2	2	662.90 MHz	663.00 MHz	30.00 kHz	662.8832000 MHz	-31.87 dBm	-18.87 dB
3	3	663.00 MHz	668.00 MHz	510.0 kHz	663.3550000 MHz	17.05 dBm	-12.97 dB

Measure Trace Trace 1

Trace Type Trace Average (Active)

Jun 24, 2024 10:36:41 PM

NTNV_DC_4A_n71A_PC3_15_5+5_M+H_TID9_

#1

KEYSIGHT Spectrum Analyzer 1 Spurious Emissions

Input RF: Input RF, Corrections: Off, Freq Ref: Int (S), Att: 40 dB, Trig: Free Run, Gate: Off, IF Gain: Low, Center Freq: 22.005000000 GHz, AqHld: 10/10, Radio Std: None

Center Frequency: 22.005000000 GHz

CF Step: 4.399000000 GHz

Auto Man

Freq Offset: 0 Hz

3 All Range Graph

Scale/Div: 10.0 dB

Ref Lvl Offset: 15.93 dB

Ref Value: 25.00 dBm

Start: 663.000 MHz

Stop: 703.000 MHz

4 All Range Table

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	663.00 MHz	668.00 MHz	510.0 kHz	663.8800000 MHz	8.57z dBm	-21.42 dB
2	2	668.00 MHz	668.10 MHz	30.00 kHz	668.0090000 MHz	-36.23 dBm	-23.23 dB
3	3	668.10 MHz	703.00 MHz	100.0 kHz	668.1447000 MHz	-38.33 dBm	-25.33 dB

Measure Trace Trace 1

Trace Type Trace Average (Active)

Jun 24, 2024 10:37:06 PM

NTNV_DC_4A_n71A_PC3_15_5+5_M+H_TID8_

#1

KEYSIGHT Spectrum Analyzer 1 Spurious Emissions

Input RF: Input RF, Corrections: Off, Freq Ref: Int (S), Att: 40 dB, Trig: Free Run, Gate: Off, IF Gain: Low, Center Freq: 22.005000000 GHz, AqHld: 10/10, Radio Std: None

Center Frequency: 22.005000000 GHz

CF Step: 4.399000000 GHz

Auto Man

Freq Offset: 0 Hz

3 All Range Graph

Scale/Div: 10.0 dB

Ref Lvl Offset: 15.93 dB

Ref Value: 25.00 dBm

Start: 663.000 MHz

Stop: 703.000 MHz

4 All Range Table

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	663.00 MHz	668.00 MHz	510.0 kHz	667.6550000 MHz	18.28 dBm	-11.72 dB
2	2	668.00 MHz	668.10 MHz	30.00 kHz	668.0129000 MHz	-28.89 dBm	-15.89 dB
3	3	668.10 MHz	703.00 MHz	100.0 kHz	668.1000000 MHz	-36.05 dBm	-23.05 dB

Measure Trace Trace 1

Trace Type Trace Average (Active)

Jun 24, 2024 10:37:32 PM

NTNV_DC_4A_n71A_PC3_15_5+10_M+L_TID9_

#1

KEYSIGHT Spectrum Analyzer 1 Spurious Emissions

Input RF: Input RF, Corrections: Off, Freq Ref: Int (S), Att: 40 dB, Trig: Free Run, Gate: Off, IF Gain: Low, Center Freq: 22.005000000 GHz, AqHld: 10/10, Radio Std: None

Center Frequency: 22.005000000 GHz

CF Step: 4.399000000 GHz

Auto Man

Freq Offset: 0 Hz

3 All Range Graph

Scale/Div: 10.0 dB

Ref Lvl Offset: 15.93 dB

Ref Value: 25.00 dBm

Start: 663.000 MHz

Stop: 703.000 MHz

4 All Range Table

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	663.00 MHz	668.00 MHz	510.0 kHz	667.6550000 MHz	18.28 dBm	-11.72 dB
2	2	668.00 MHz	668.10 MHz	30.00 kHz	668.0129000 MHz	-28.89 dBm	-15.89 dB
3	3	668.10 MHz	703.00 MHz	100.0 kHz	668.1000000 MHz	-36.05 dBm	-23.05 dB

Measure Trace Trace 1

Trace Type Trace Average (Active)

Jun 24, 2024 10:37:32 PM

NTNV_DC_4A_n71A_PC3_15_5+10_M+L_TID7_

#1

KEYSIGHT Spectrum Analyzer 1 Spurious Emissions

Input RF: Input RF, Corrections: Off, Freq Ref: Int (S), Att: 40 dB, Trig: Free Run, Gate: Off, IF Gain: Low, Center Freq: 22.005000000 GHz, AqHld: 10/10, Radio Std: None

Center Frequency: 22.005000000 GHz

CF Step: 4.399000000 GHz

Auto Man

Freq Offset: 0 Hz

3 All Range Graph

Scale/Div: 10.0 dB

Ref Lvl Offset: 15.93 dB

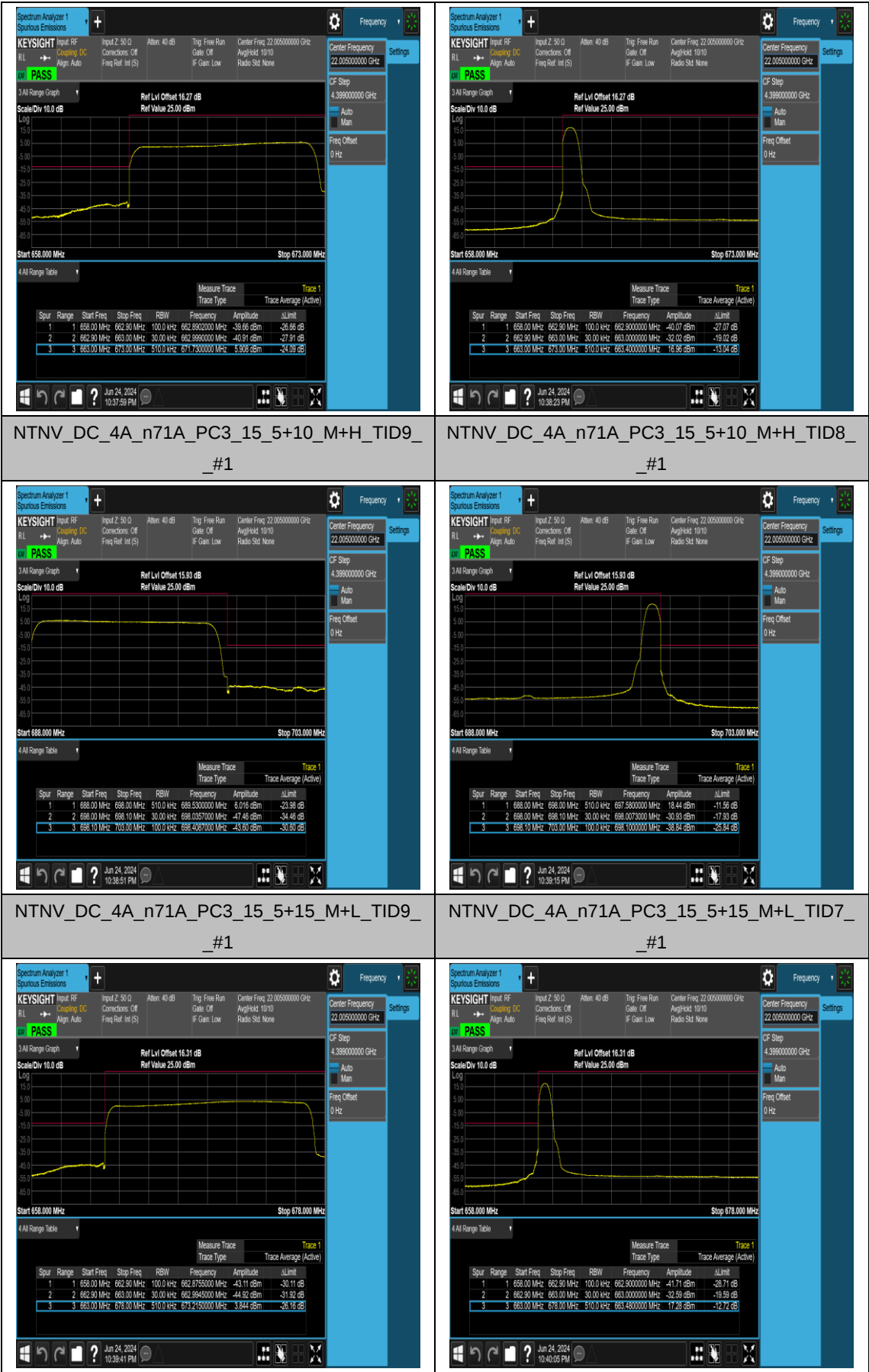
Ref Value: 25.00 dBm

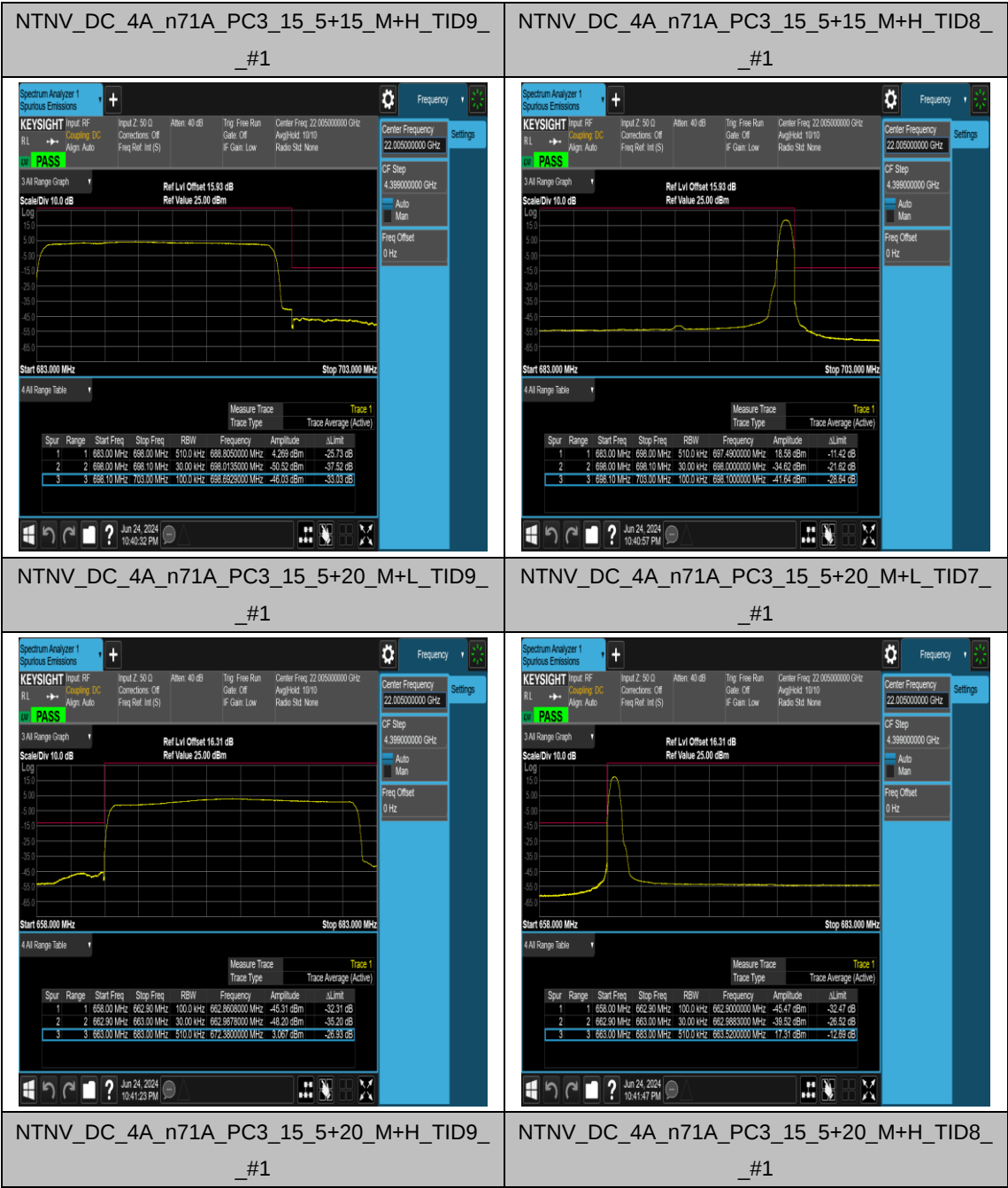
Start: 663.000 MHz

Stop: 703.000 MHz

4 All Range Table

Spur







Appendix E: Conducted Spurious Emission for NSA

Test Result

Band	SC S	Band width	Modulation	Chan nel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	0.009	0.15	-64.47	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	0.15	30	-69.64	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	30	1000	-50.00	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	1000	3000	-37.87	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	3000	12000	-46.44	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Outer_Full	12000	20000	-47.96	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	0.009	0.15	-65.80	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	0.15	30	-70.37	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	30	1000	-54.83	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	1000	3000	-38.57	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	3000	12000	-46.45	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	12000	20000	-47.66	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	0.009	0.15	-65.68	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	0.15	30	-67.44	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	30	1000	-54.51	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	1000	3000	-36.35	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	3000	12000	-46.36	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	12000	20000	-47.76	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	0.009	0.15	-64.13	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	0.15	30	-72.04	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	30	1000	-49.88	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	1000	3000	-37.13	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	3000	12000	-46.52	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Outer_Full	12000	20000	-47.82	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	0.009	0.15	-65.58	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	0.15	30	-71.57	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	30	1000	-54.97	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	1000	3000	-37.32	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	3000	12000	-46.49	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	12000	20000	-47.90	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	0.009	0.15	-64.89	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	0.15	30	-69.55	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	30	1000	-54.86	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	1000	3000	-38.99	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	3000	12000	-46.44	-13	PASS

DC_4A_n71A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	12000	20000	-47.77	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	0.009	0.15	-64.97	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	0.15	30	-70.88	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	30	1000	-52.93	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	1000	3000	-38.33	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	3000	12000	-46.52	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Outer_Full	12000	20000	-47.77	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	0.009	0.15	-65.88	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	0.15	30	-67.06	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	30	1000	-53.69	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	1000	3000	-37.74	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	3000	12000	-46.43	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	12000	20000	-47.69	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	0.009	0.15	-65.21	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	0.15	30	-67.30	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	30	1000	-54.36	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	1000	3000	-38.20	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	3000	12000	-46.50	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	12000	20000	-47.87	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	0.009	0.15	-64.38	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	0.15	30	-70.80	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	30	1000	-53.10	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	1000	3000	-37.56	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	3000	12000	-46.53	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Outer_Full	12000	20000	-47.70	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	0.009	0.15	-64.56	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	0.15	30	-67.80	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	30	1000	-52.80	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	1000	3000	-37.90	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	3000	12000	-46.59	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	12000	20000	-47.54	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	0.009	0.15	-64.31	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	0.15	30	-68.37	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	30	1000	-53.63	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	1000	3000	-37.22	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	3000	12000	-36.71	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	12000	20000	-47.70	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	0.009	0.15	-65.26	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	0.15	30	-72.97	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	30	1000	-44.55	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	1000	3000	-37.15	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	3000	12000	-36.54	-13	PASS

DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Outer_Full	12000	20000	-47.79	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	0.009	0.15	-65.08	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	0.15	30	-66.20	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	30	1000	-53.52	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	1000	3000	-35.98	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	3000	12000	-46.58	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	12000	20000	-47.73	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	0.009	0.15	-65.00	-33	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	0.15	30	-66.99	-23	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	30	1000	-51.58	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	1000	3000	-37.46	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	3000	12000	-46.52	-13	PASS
DC_4A_n71A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	12000	20000	-47.70	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	0.009	0.15	-65.37	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	0.15	30	-74.24	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	30	1000	-44.34	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	1000	3000	-36.04	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	3000	12000	-36.52	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Outer_Full	12000	20000	-47.87	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	0.009	0.15	-66.15	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	0.15	30	-70.25	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	30	1000	-53.30	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	1000	3000	-36.36	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	3000	12000	-46.47	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	12000	20000	-47.89	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	0.009	0.15	-64.01	-33	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	0.15	30	-68.43	-23	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	30	1000	-52.86	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	1000	3000	-37.74	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	3000	12000	-46.42	-13	PASS
DC_4A_n71A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	12000	20000	-47.87	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	0.009	0.15	-64.72	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	0.15	30	-68.07	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	30	1000	-47.86	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	1000	3000	-36.44	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	3000	12000	-36.16	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Outer_Full	12000	20000	-47.71	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	0.009	0.15	-65.24	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	0.15	30	-70.25	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	30	1000	-54.82	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	1000	3000	-37.54	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	3000	12000	-46.58	-13	PASS

DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	12000	20000	-47.86	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	0.009	0.15	-63.73	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	0.15	30	-67.75	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	30	1000	-54.70	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	1000	3000	-38.20	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	3000	12000	-46.62	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	12000	20000	-47.79	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	0.009	0.15	-65.17	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	0.15	30	-71.46	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	30	1000	-48.65	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	1000	3000	-14.77	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	3000	12000	-46.51	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Outer_Full	12000	20000	-47.79	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	0.009	0.15	-65.00	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	0.15	30	-71.27	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	30	1000	-54.85	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	1000	3000	-14.76	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	3000	12000	-46.63	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	12000	20000	-47.85	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	0.009	0.15	-65.26	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	0.15	30	-70.10	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	30	1000	-55.02	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	1000	3000	-38.30	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	3000	12000	-46.38	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	12000	20000	-47.89	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	0.009	0.15	-65.43	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	0.15	30	-69.58	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	30	1000	-53.35	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	1000	3000	-38.49	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	3000	12000	-46.49	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Outer_Full	12000	20000	-47.68	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	0.009	0.15	-64.88	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	0.15	30	-67.80	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	30	1000	-52.63	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	1000	3000	-14.42	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	3000	12000	-46.39	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	12000	20000	-47.77	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	0.009	0.15	-64.68	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	0.15	30	-68.23	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	30	1000	-53.31	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	1000	3000	-37.69	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	3000	12000	-46.48	-13	PASS

DC_4A_n71A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	12000	20000	-47.93	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	0.009	0.15	-64.79	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	0.15	30	-73.78	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	30	1000	-53.98	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	1000	3000	-36.88	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	3000	12000	-46.44	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Outer_Full	12000	20000	-47.96	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	0.009	0.15	-65.52	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	0.15	30	-68.72	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	30	1000	-52.83	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	1000	3000	-38.63	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	3000	12000	-46.47	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	12000	20000	-47.71	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	0.009	0.15	-64.67	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	0.15	30	-71.43	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	30	1000	-53.95	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	1000	3000	-36.68	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	3000	12000	-46.41	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	12000	20000	-47.92	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	0.009	0.15	-65.83	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	0.15	30	-68.08	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	30	1000	-40.39	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	1000	3000	-38.01	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	3000	12000	-46.47	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Outer_Full	12000	20000	-47.83	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	0.009	0.15	-64.91	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	0.15	30	-65.98	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	30	1000	-53.72	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	1000	3000	-39.02	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	3000	12000	-46.63	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	12000	20000	-47.91	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	0.009	0.15	-65.22	-33	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	0.15	30	-66.29	-23	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	30	1000	-54.25	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	1000	3000	-38.34	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	3000	12000	-46.62	-13	PASS
DC_4A_n71A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	12000	20000	-47.86	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	0.009	0.15	-64.69	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	0.15	30	-67.00	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	30	1000	-41.14	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	1000	3000	-37.47	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	3000	12000	-46.36	-13	PASS

DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Outer_Full	12000	20000	-47.65	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	0.009	0.15	-65.50	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	0.15	30	-70.77	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	30	1000	-53.63	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	1000	3000	-38.61	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	3000	12000	-46.47	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	12000	20000	-47.73	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	0.009	0.15	-65.97	-33	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	0.15	30	-70.23	-23	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	30	1000	-53.85	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	1000	3000	-38.08	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	3000	12000	-46.35	-13	PASS
DC_4A_n71A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	12000	20000	-47.75	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	0.009	0.15	-64.92	-33	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	0.15	30	-69.90	-23	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	30	1000	-50.43	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	1000	3000	-38.59	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	3000	12000	-46.32	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Outer_Full	12000	20000	-47.87	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	0.009	0.15	-64.14	-33	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	0.15	30	-68.87	-23	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	30	1000	-54.00	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	1000	3000	-38.08	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	3000	12000	-46.52	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	12000	20000	-47.98	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	0.009	0.15	-66.10	-33	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	0.15	30	-68.06	-23	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	30	1000	-54.58	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	1000	3000	-17.99	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	3000	12000	-46.64	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	12000	20000	-47.83	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	0.009	0.15	-64.66	-33	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	0.15	30	-70.37	-23	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	30	1000	-48.88	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	1000	3000	-37.75	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	3000	12000	-46.42	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Outer_Full	12000	20000	-47.86	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	0.009	0.15	-64.69	-33	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	0.15	30	-70.95	-23	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	30	1000	-54.97	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	1000	3000	-38.56	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	3000	12000	-46.43	-13	PASS

DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	12000	20000	-47.77	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	0.009	0.15	-64.42	-33	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	0.15	30	-69.22	-23	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	30	1000	-54.02	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	1000	3000	-37.76	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	3000	12000	-46.45	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	12000	20000	-47.86	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	0.009	0.15	-64.66	-33	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	0.15	30	-73.44	-23	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	30	1000	-49.56	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	1000	3000	-38.29	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	3000	12000	-36.71	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Outer_Full	12000	20000	-47.79	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	0.009	0.15	-64.49	-33	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	0.15	30	-69.58	-23	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	30	1000	-53.72	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	1000	3000	-16.92	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	3000	12000	-46.29	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	12000	20000	-47.65	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	0.009	0.15	-65.30	-33	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	0.15	30	-66.75	-23	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	30	1000	-52.93	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	1000	3000	-37.07	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	3000	12000	-46.39	-13	PASS
DC_4A_n71A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	12000	20000	-47.92	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	0.009	0.15	-64.78	-33	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	0.15	30	-73.65	-23	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	30	1000	-49.28	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	1000	3000	-39.27	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	3000	12000	-46.57	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Outer_Full	12000	20000	-47.79	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	0.009	0.15	-64.99	-33	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	0.15	30	-69.56	-23	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	30	1000	-53.87	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	1000	3000	-38.78	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	3000	12000	-46.41	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	12000	20000	-47.85	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	0.009	0.15	-65.21	-33	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	0.15	30	-70.60	-23	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	30	1000	-52.81	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	1000	3000	-38.08	-13	PASS
DC_4A_n71A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	3000	12000	-46.52	-13	PASS