

5G NR RF APPENDIX

N7

Peak-to-Average Ratio for SA

Peak-to-Average Ratio(CCDF)

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N7	15	20	DFT-QPSK	L	Outer_Full	5.61	≤13	PASS
N7	15	20	DFT-QPSK	L	Edge_1RB_Left	5.87	≤13	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	5.59	≤13	PASS
N7	15	20	DFT-QPSK	M	Edge_1RB_Left	5.17	≤13	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	5.57	≤13	PASS
N7	15	20	DFT-QPSK	H	Edge_1RB_Left	5.16	≤13	PASS



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Reference No.: W7L-P23120020RF09

Test Graphs



NTNV-N7-PC3-15-20-L-DFT-QPSK-Outer_Full-PASS



NTNV-N7-PC3-15-20-L-DFT-QPSK-Edge_1RB_Left-PASS



NTNV-N7-PC3-15-20-M-DFT-QPSK-Outer_Full-PASS



NTNV-N7-PC3-15-20-M-DFT-QPSK-Edge_1RB_Left-PASS



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Reference No.: W7L-P23120020RF09



**26dB Bandwidth and Occupied Bandwidth for SA****Test Result**

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N7	15	5	DFT-PI2BPSK	M	Outer_Full	4.4781	4.966	PASS
N7	15	5	DFT-QPSK	M	Outer_Full	4.4680	4.949	PASS
N7	15	5	DFT-16QAM	M	Outer_Full	4.4601	5.038	PASS
N7	15	5	DFT-64QAM	M	Outer_Full	4.4766	5.014	PASS
N7	15	5	DFT-256QAM	M	Outer_Full	4.4765	4.975	PASS
N7	15	10	DFT-PI2BPSK	M	Outer_Full	8.9230	9.898	PASS
N7	15	10	DFT-QPSK	M	Outer_Full	8.9208	9.714	PASS
N7	15	10	DFT-16QAM	M	Outer_Full	8.9290	9.511	PASS
N7	15	10	DFT-64QAM	M	Outer_Full	8.9190	9.544	PASS
N7	15	10	DFT-256QAM	M	Outer_Full	8.9167	9.408	PASS
N7	15	15	DFT-PI2BPSK	M	Outer_Full	13.407	14.26	PASS
N7	15	15	DFT-QPSK	M	Outer_Full	13.392	15.09	PASS
N7	15	15	DFT-16QAM	M	Outer_Full	13.416	14.42	PASS
N7	15	15	DFT-64QAM	M	Outer_Full	13.400	15.56	PASS
N7	15	15	DFT-256QAM	M	Outer_Full	13.399	14.50	PASS
N7	15	20	DFT-PI2BPSK	M	Outer_Full	17.887	19.87	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	17.879	20.55	PASS
N7	15	20	DFT-16QAM	M	Outer_Full	17.931	20.68	PASS
N7	15	20	DFT-64QAM	M	Outer_Full	17.881	18.77	PASS
N7	15	20	DFT-256QAM	M	Outer_Full	17.881	20.19	PASS
N7	15	25	DFT-PI2BPSK	M	Outer_Full	22.855	24.67	PASS
N7	15	25	DFT-QPSK	M	Outer_Full	22.833	25.30	PASS
N7	15	25	DFT-16QAM	M	Outer_Full	22.906	24.18	PASS
N7	15	25	DFT-64QAM	M	Outer_Full	22.843	23.97	PASS
N7	15	25	DFT-256QAM	M	Outer_Full	22.867	23.91	PASS
N7	15	30	DFT-PI2BPSK	M	Outer_Full	28.572	29.75	PASS
N7	15	30	DFT-QPSK	M	Outer_Full	28.619	29.83	PASS
N7	15	30	DFT-16QAM	M	Outer_Full	28.553	29.88	PASS
N7	15	30	DFT-64QAM	M	Outer_Full	28.588	29.74	PASS
N7	15	30	DFT-256QAM	M	Outer_Full	28.572	29.74	PASS
N7	15	40	DFT-PI2BPSK	M	Outer_Full	38.499	39.96	PASS
N7	15	40	DFT-QPSK	M	Outer_Full	38.572	39.90	PASS
N7	15	40	DFT-16QAM	M	Outer_Full	38.556	39.81	PASS



Reference No.: W7L-P23120020RF09

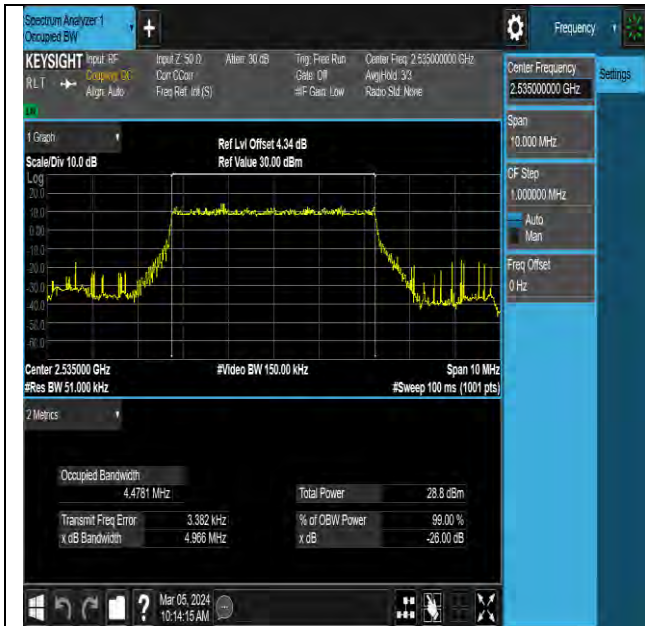
N7	15	40	DFT-64QAM	M	Outer_Full	38.552	40.04	PASS
N7	15	40	DFT-256QAM	M	Outer_Full	38.565	40.02	PASS



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Reference No.: W7L-P23120020RF09

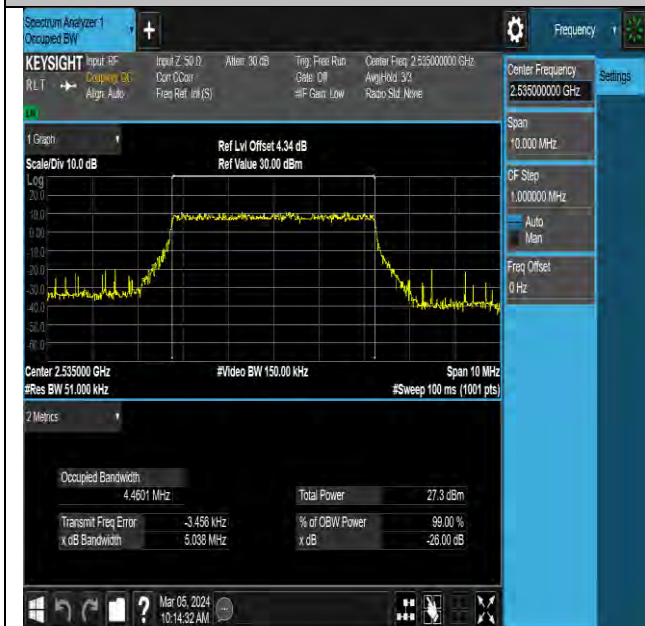
Test Graphs



NTNV-N7-PC3-15-5-M-DFT-PI2BPSK-Outer_Full-Ant1-PASS



NTNV-N7-PC3-15-5-M-DFT-QPSK-Outer_Full-Ant1-PASS



NTNV-N7-PC3-15-5-M-DFT-16QAM-Outer_Full-Ant1-PASS

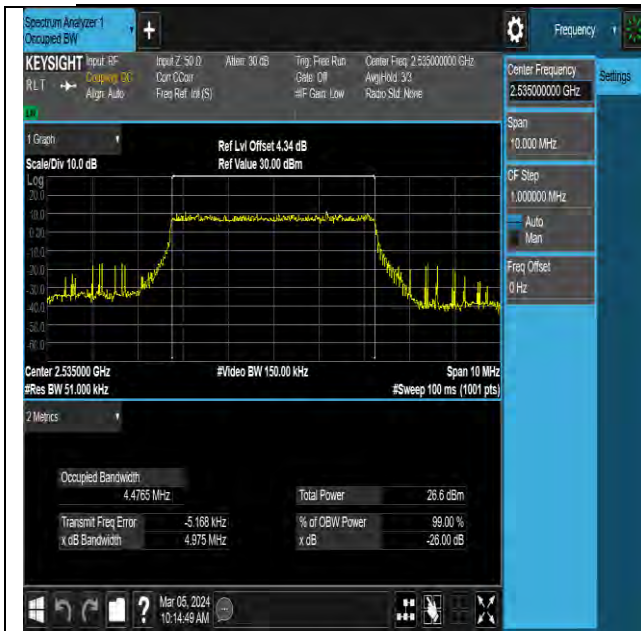


NTNV-N7-PC3-15-5-M-DFT-64QAM-Outer_Full-Ant1-PASS



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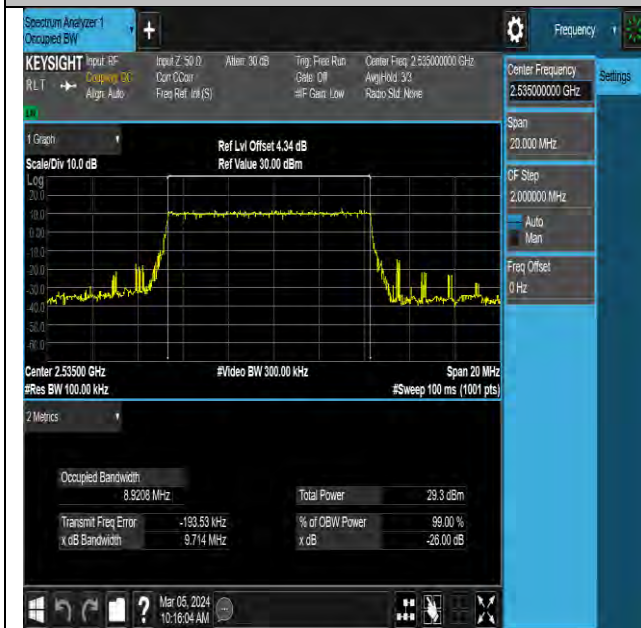
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NTNV-N7-PC3-15-10-M-DFT-PI2BPSK-Outer_Full-Ant1-
PASS



NTNV-N7-PC3-15-10-M-DFT-QPSK-Outer_Full-Ant1-PASS



NTNV-N7-PC3-15-10-M-DFT-16QAM-Outer_Full-Ant1-
PASS

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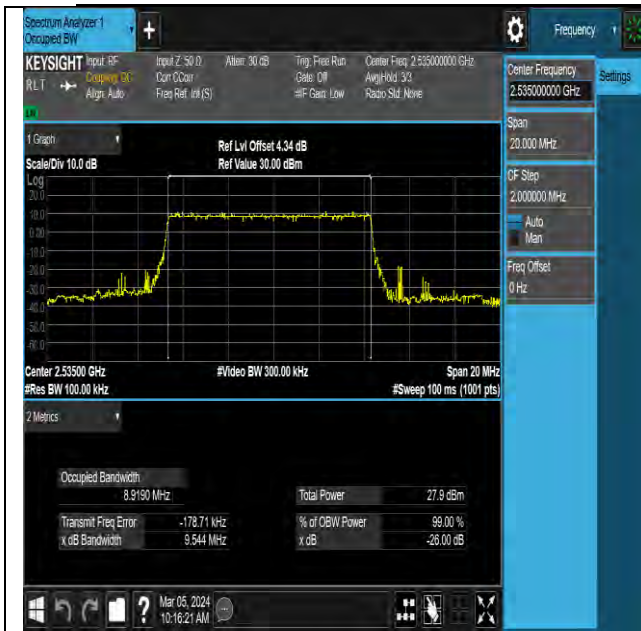
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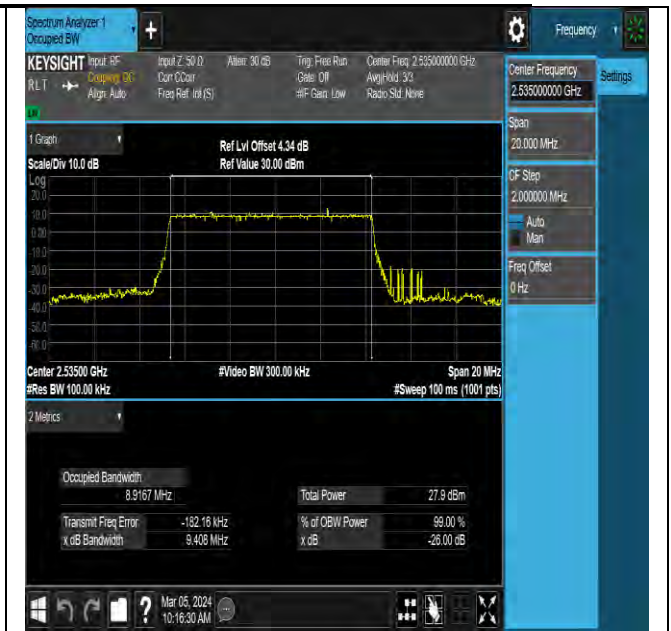


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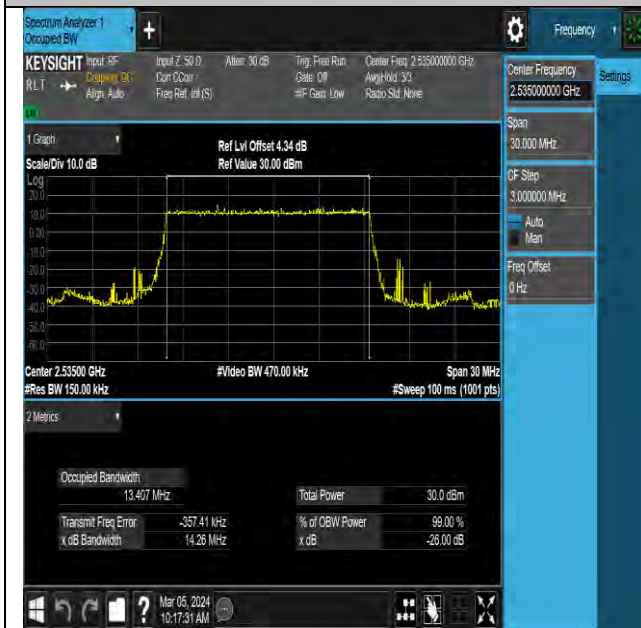
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PASS



NTNV-N7-PC3-15-10-M-DFT-256QAM-Outer_Full-Ant1-
PASS



NTNV-N7-PC3-15-15-M-DFT-PI2BPSK-Outer_Full-Ant1-
PASS



NTNV-N7-PC3-15-15-M-DFT-QPSK-Outer_Full-Ant1-PASS

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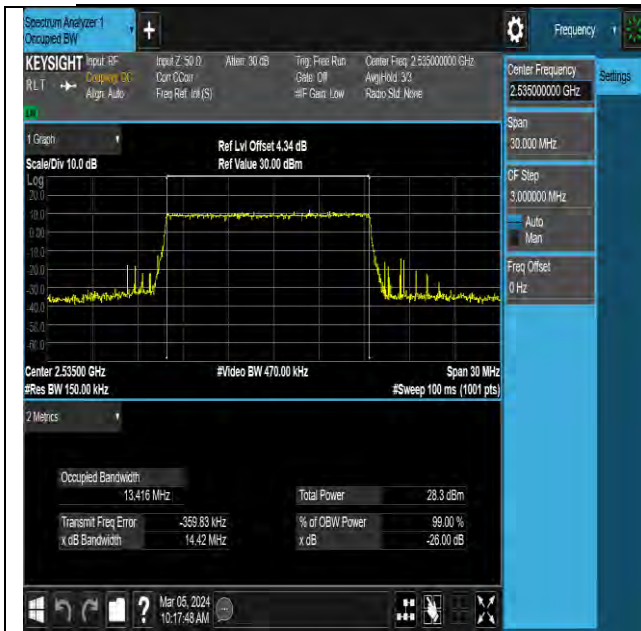
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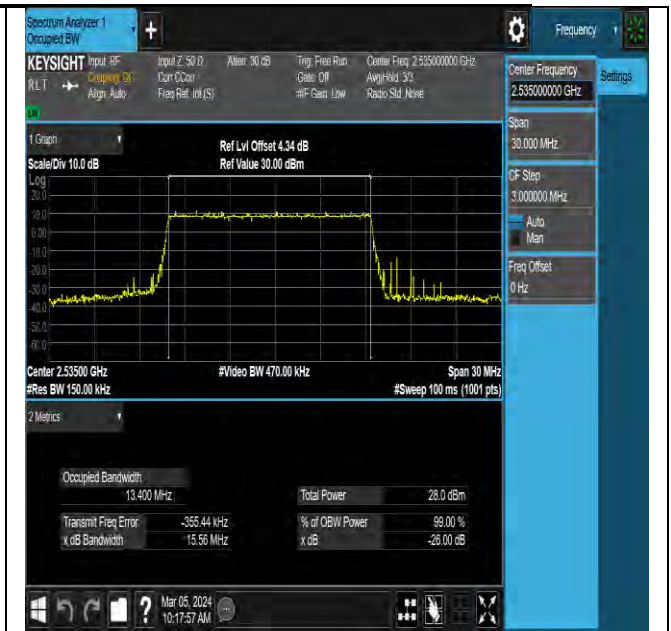


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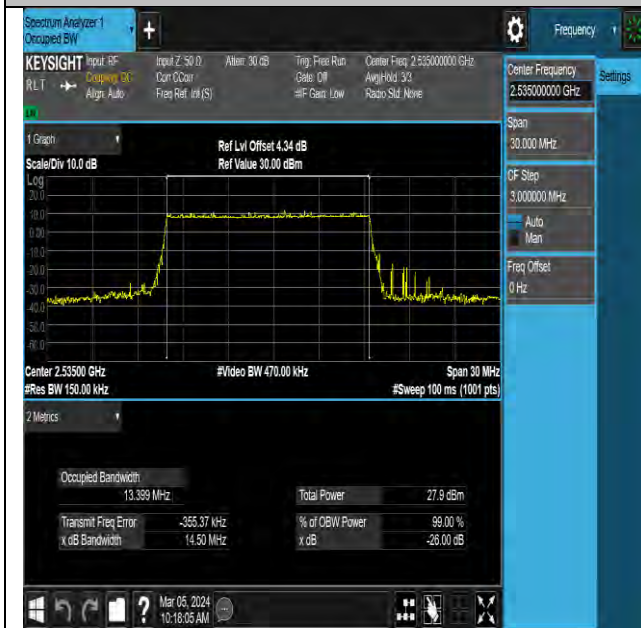
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NTNV-N7-PC3-15-15-M-DFT-64QAM-Outer_Full-Ant1-
PASS



NTNV-N7-PC3-15-15-M-DFT-256QAM-Outer_Full-Ant1-
PASS

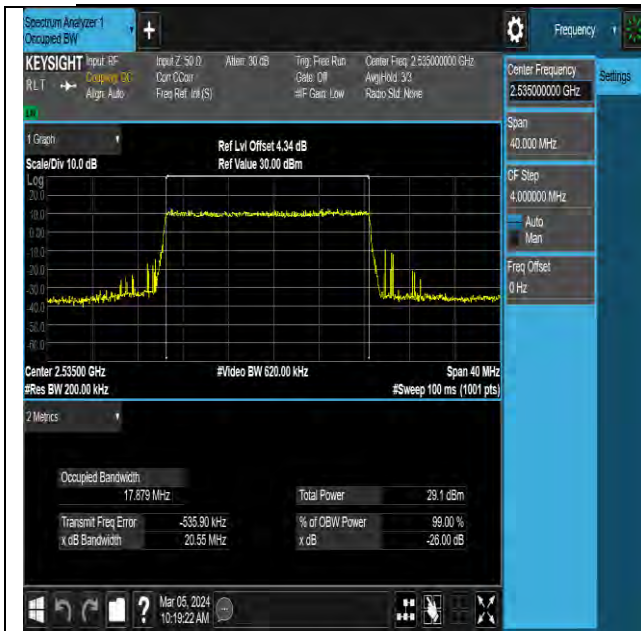


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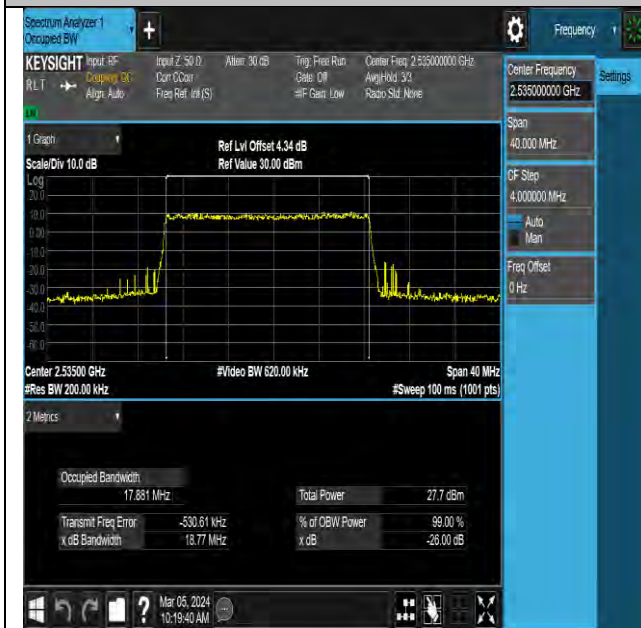
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NTNV-N7-PC3-15-20-M-DFT-QPSK-Outer_Full-Ant1-PASS



NTNV-N7-PC3-15-20-M-DFT-16QAM-Outer_Full-Ant1-PASS



NTNV-N7-PC3-15-20-M-DFT-64QAM-Outer_Full-Ant1-PASS

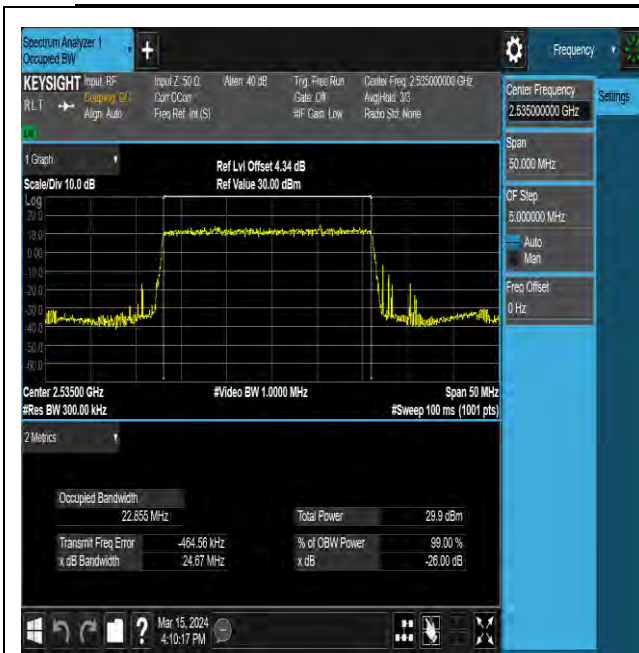


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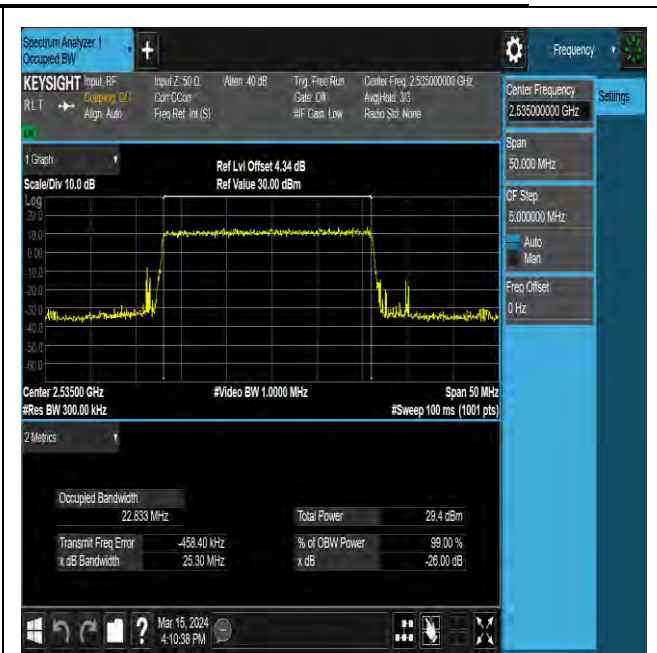


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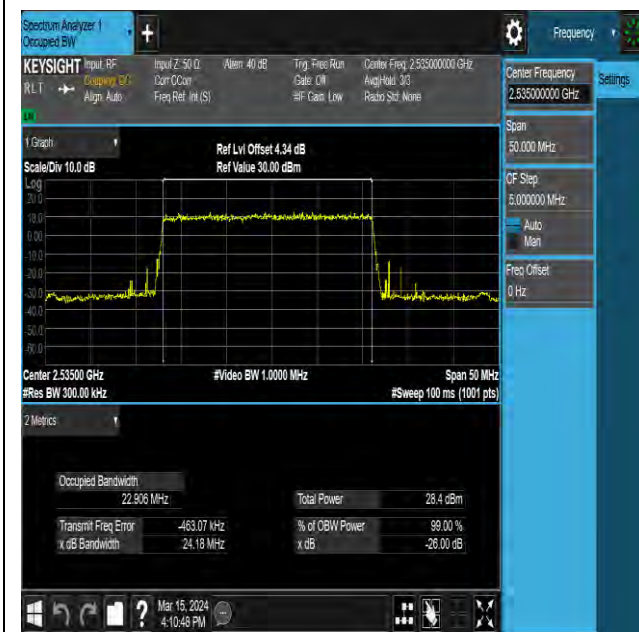
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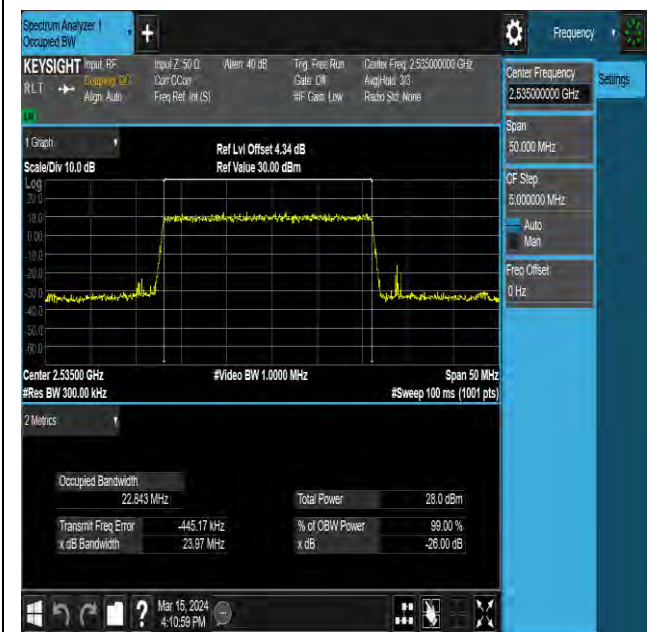
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NTNV-N7-PC3-15-25-M-DFT-16QAM-Outer_Full-Ant1-PASS

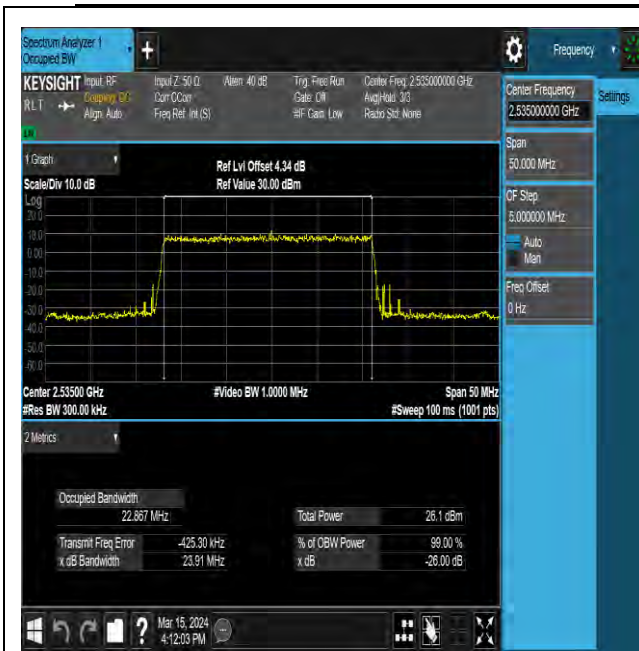


NTNV-N7-PC3-15-25-M-DFT-64QAM-Outer_Full-Ant1-PASS



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Reference No.: W7L-P23120020RF09



NTNV-N7-PC3-15-25-M-DFT-256QAM-Outer_Full-Ant1-
PASS



NTNV-N7-PC3-15-30-M-DFT-PI2BPSK-Outer_Full-Ant1-
PASS



NTNV-N7-PC3-15-30-M-DFT-QPSK-Outer_Full-Ant1-PASS



NTNV-N7-PC3-15-30-M-DFT-16QAM-Outer_Full-Ant1-
PASS

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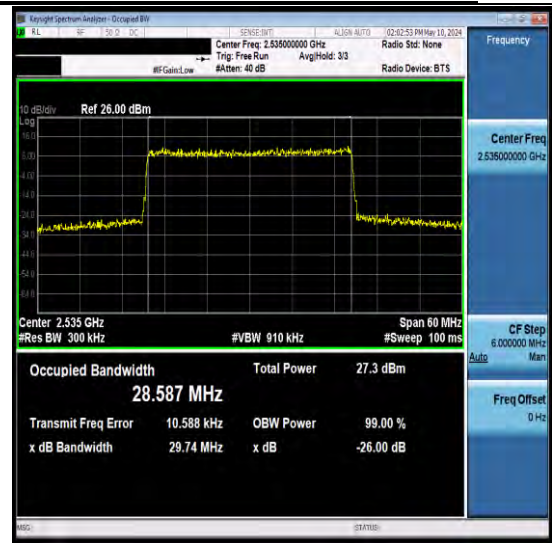
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Reference No.: W7L-P23120020RF09



NTN-N7-PC3-15-30-M-DFT-64QAM-Outer_Full-Ant1-

PASS



NTN-N7-PC3-15-30-M-DFT-256QAM-Outer_Full-Ant1-

PASS



NTN-N7-PC3-15-40-M-DFT-PI2BPSK-Outer_Full-Ant1-

PASS



NTN-N7-PC3-15-40-M-DFT-QPSK-Outer_Full-Ant1-PASS



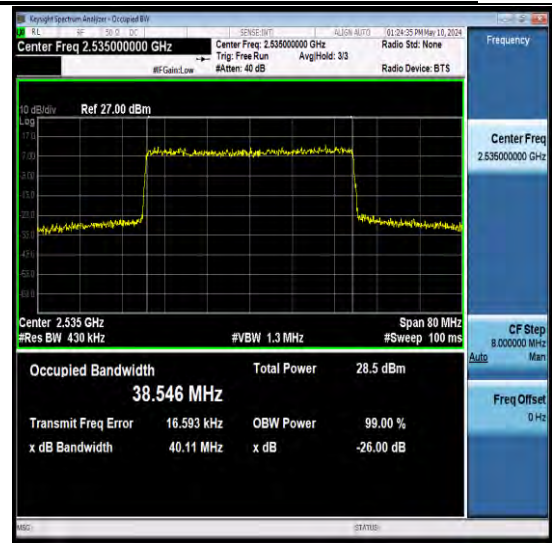
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PASS



NTNV-N7-PC3-15-40-M-DFT-64QAM-Outer_Full-Ant1-

PASS



NTNV-N7-PC3-15-40-M-DFT-256QAM-Outer_Full-Ant1-

PASS

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**Band Edge for SA****Test Result**

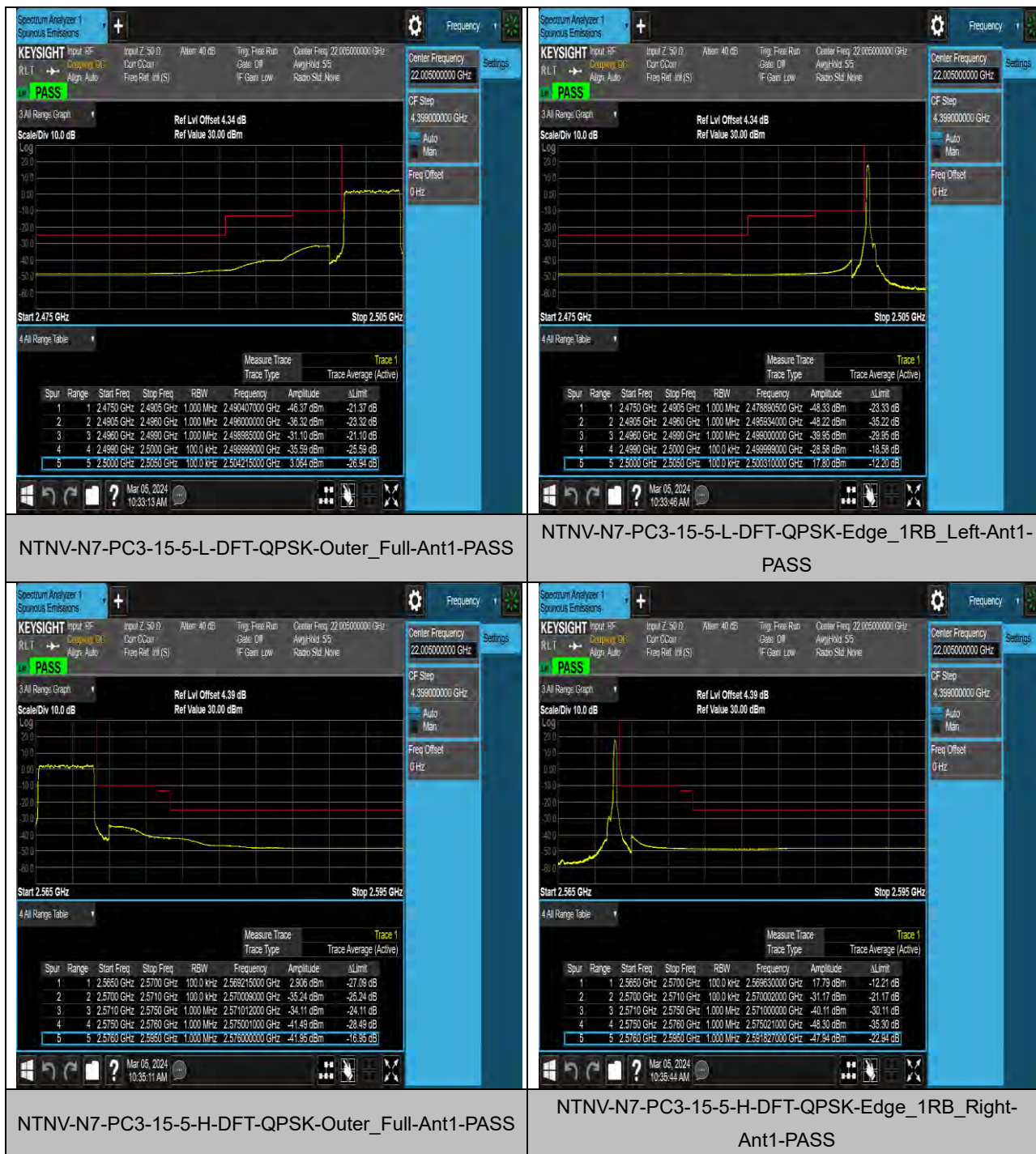
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N7	15	5	DFT-QPSK	L	Outer_Full	-31.10	PASS
N7	15	5	DFT-QPSK	L	Edge_1RB_Left	-28.58	PASS
N7	15	5	DFT-QPSK	H	Outer_Full	-41.95	PASS
N7	15	5	DFT-QPSK	H	Edge_1RB_Right	-31.17	PASS
N7	15	25	DFT-QPSK	L	Outer_Full	-40.89	PASS
N7	15	25	DFT-QPSK	L	Edge_1RB_Left	-48.28	PASS
N7	15	25	DFT-QPSK	H	Outer_Full	-47.43	PASS
N7	15	25	DFT-QPSK	H	Edge_1RB_Right	-47.95	PASS
N7	15	40	DFT-QPSK	L	Outer_Full	-9.93	SeeBelow
N7	15	40	DFT-QPSK	L	Outer_Full	-28.72	PASS
N7	15	40	DFT-QPSK	L	Edge_1RB_Left	-25.76	PASS
N7	15	40	DFT-QPSK	H	Edge_1RB_Right	-48.78	PASS
N7	15	40	DFT-QPSK	H	Outer_Full	-10.80	PASS



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Test Graphs



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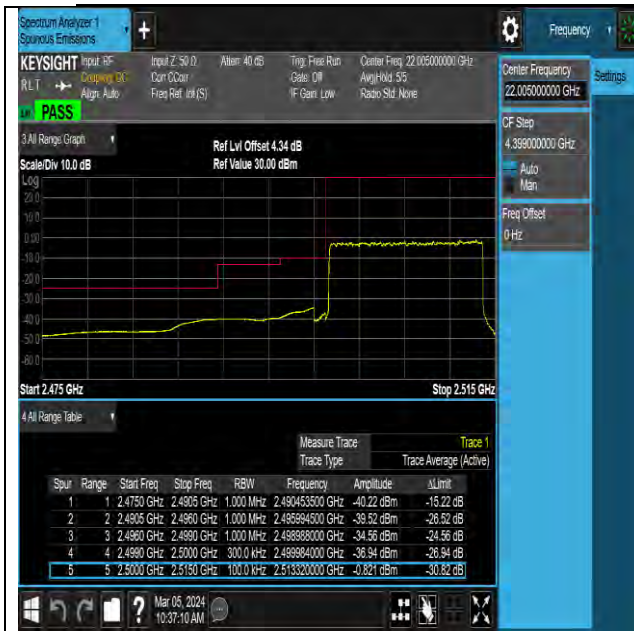
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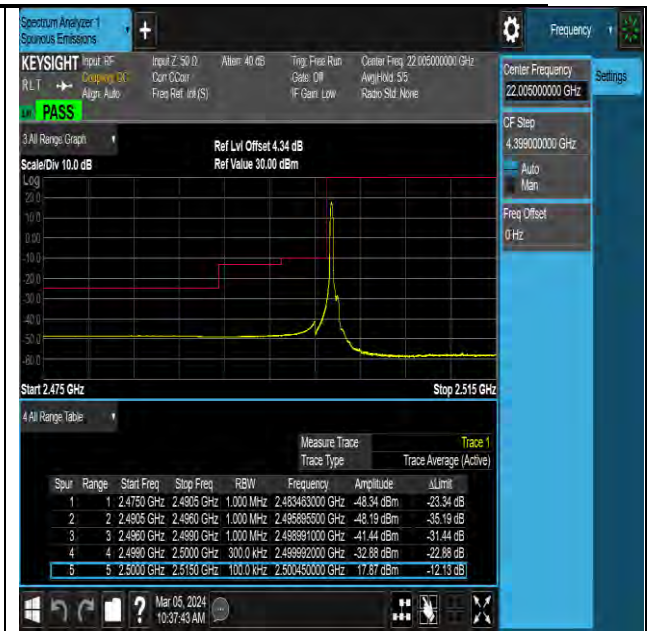


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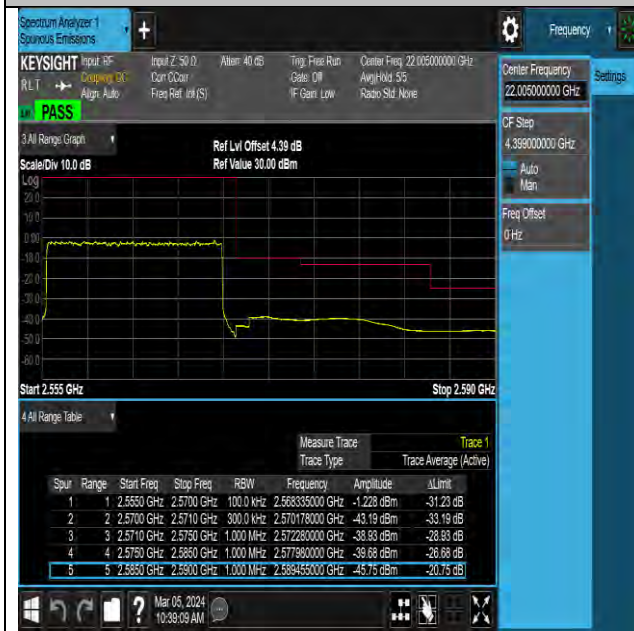
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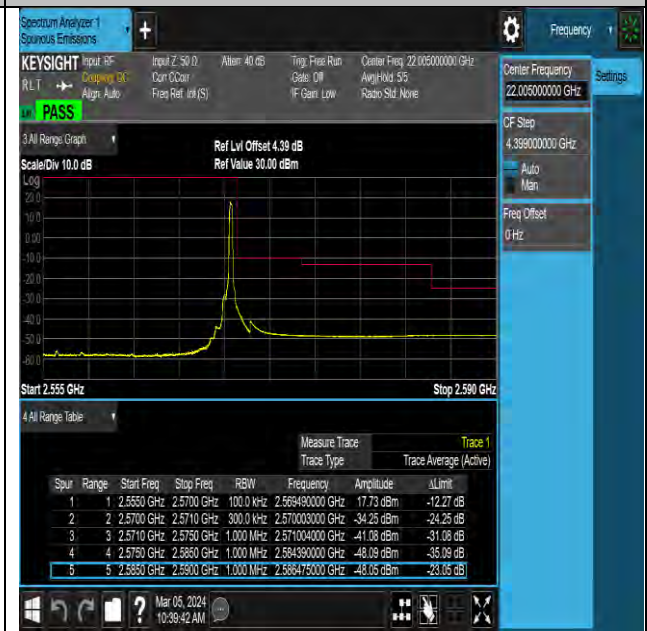
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PASS



NTNV-N7-PC3-15-15-L-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS



NTNV-N7-PC3-15-15-H-DFT-QPSK-Outer_Full-Ant1-
PASS

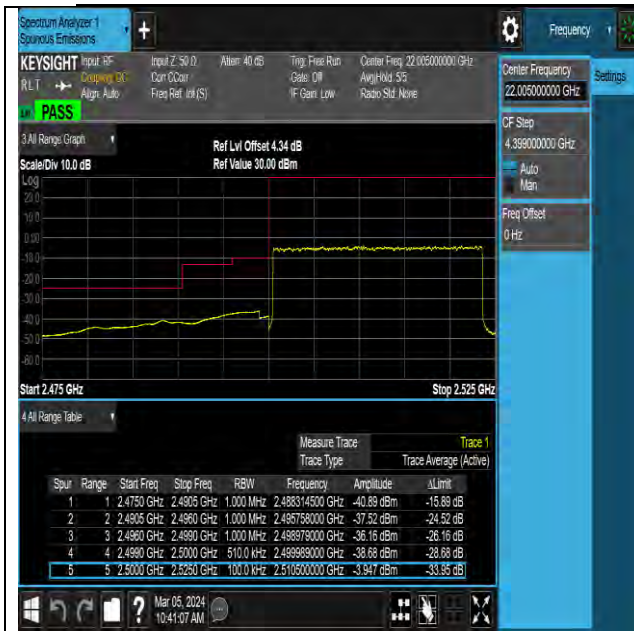


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Ant1-PASS

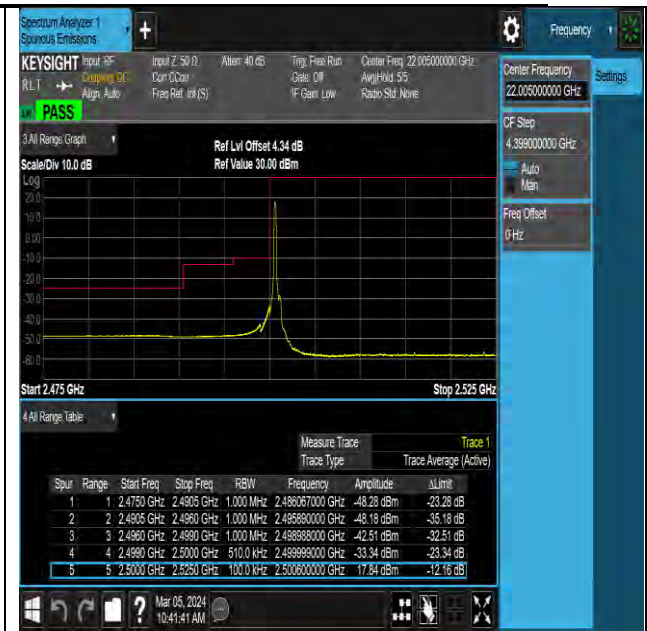


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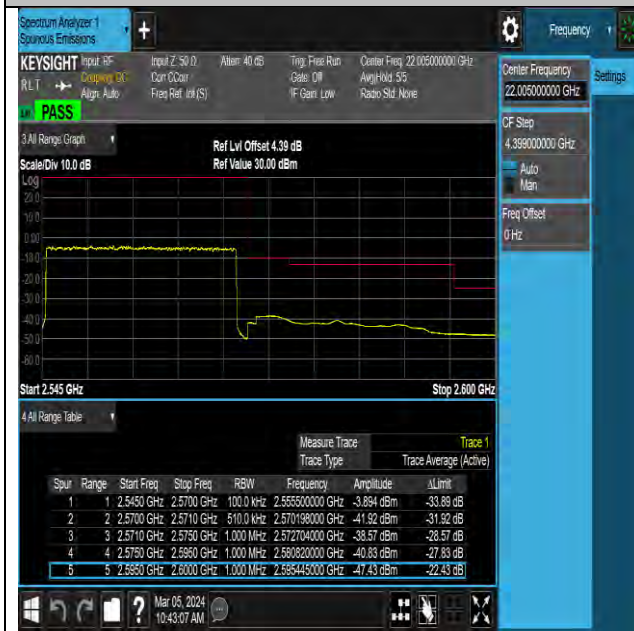
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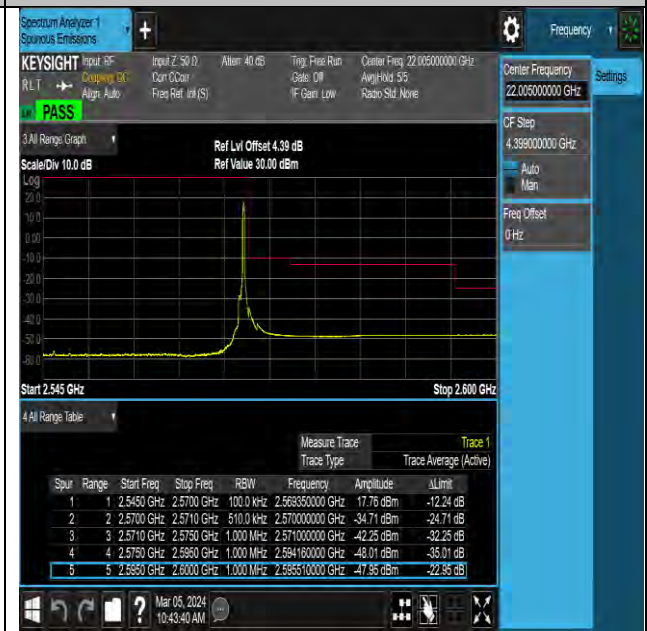
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PASS



NTNV-N7-PC3-15-25-L-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS



NTNV-N7-PC3-15-25-H-DFT-QPSK-Outter_Full-Ant1-
PASS

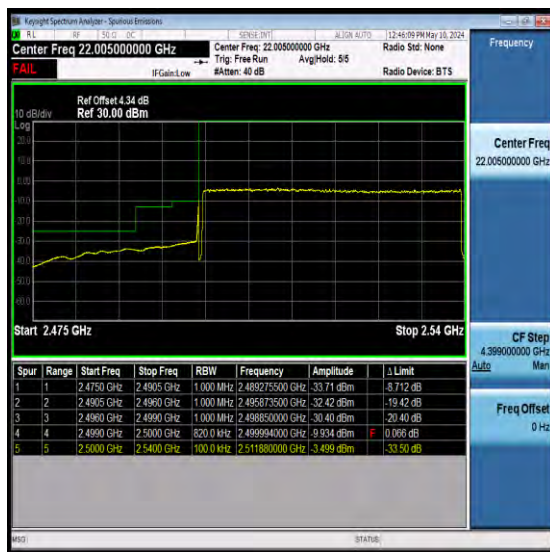


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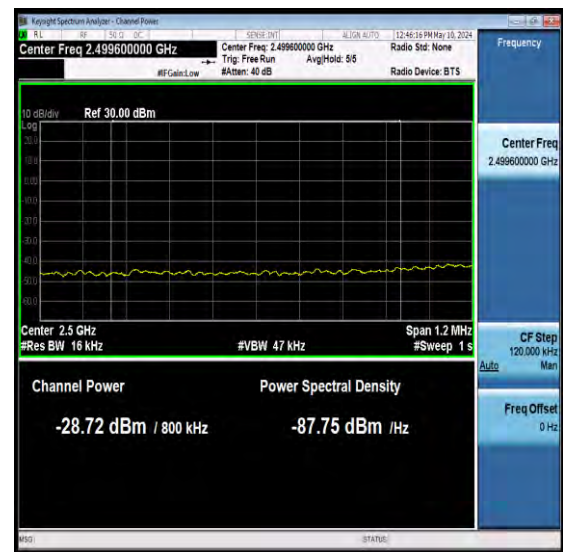


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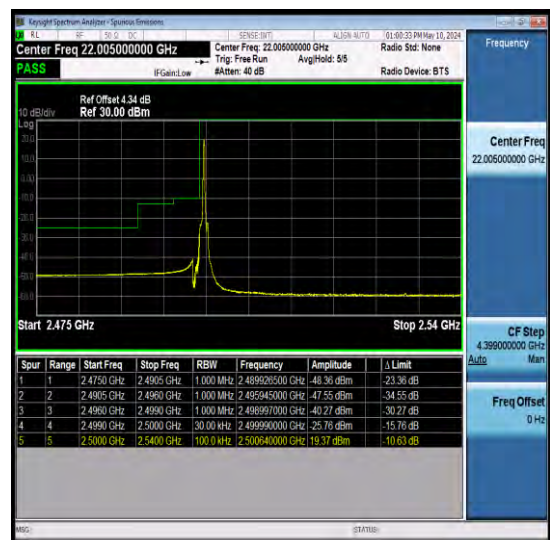
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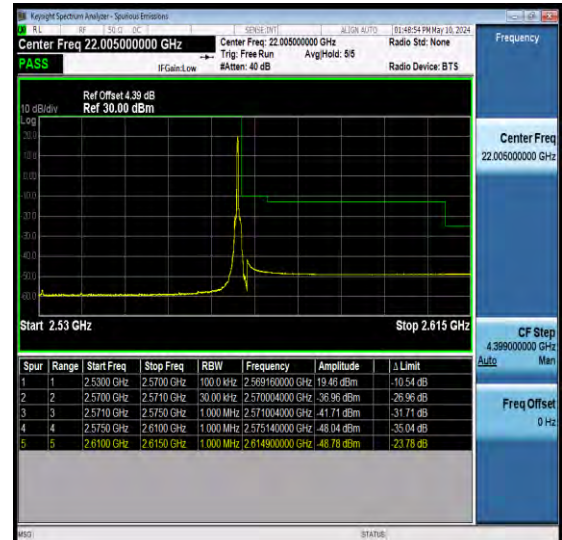
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NTNV-N7-PC3-15-40-L-DFT-QPSK-Outter_Full-Ant1-PASS



NTNV-N7-PC3-15-40-L-DFT-QPSK-Edge_1RB_Left-Ant1-PASS



NTNV-N7-PC3-15-40-H-DFT-QPSK-Edge_1RB_Right-Ant1-PASS

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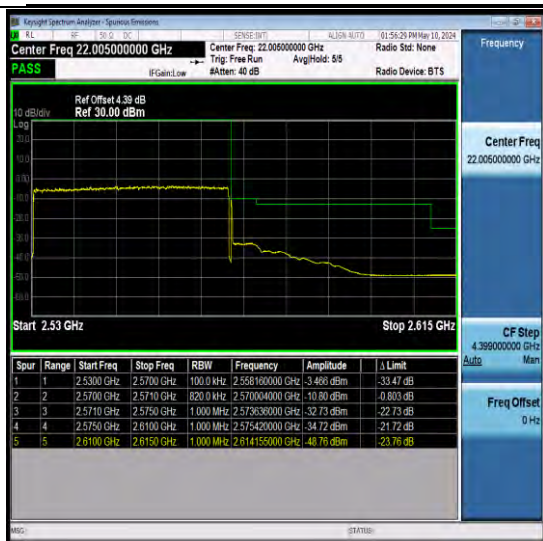
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Reference No.: W7L-P23120020RF09



NTNV-N7-PC3-15-40-H-DFT-QPSK-Outer_Full-Ant1-
PASS

**Conducted Spurious Emission for SA****Test Result**

Band	SCS	Bandwidth	Modulation	Channel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
N7	15	5	DFT-QPSK	L	Edge_1RB_Left	30	1000	-47.67	-25	PASS
N7	15	5	DFT-QPSK	L	Edge_1RB_Left	1000	27000	-31.93	-25	PASS
N7	15	5	DFT-QPSK	M	Edge_1RB_Left	30	1000	-48.22	-25	PASS
N7	15	5	DFT-QPSK	M	Edge_1RB_Left	1000	27000	-32.26	-25	PASS
N7	15	5	DFT-QPSK	H	Edge_1RB_Left	30	1000	-48.28	-25	PASS
N7	15	5	DFT-QPSK	H	Edge_1RB_Left	1000	27000	-32.16	-25	PASS
N7	15	25	DFT-QPSK	L	Edge_1RB_Left	30	1000	-48.40	-25	PASS
N7	15	25	DFT-QPSK	L	Edge_1RB_Left	1000	27000	-32.28	-25	PASS
N7	15	25	DFT-QPSK	M	Edge_1RB_Left	30	1000	-44.02	-25	PASS
N7	15	25	DFT-QPSK	M	Edge_1RB_Left	1000	27000	-32.24	-25	PASS
N7	15	25	DFT-QPSK	H	Edge_1RB_Left	30	1000	-48.32	-25	PASS
N7	15	25	DFT-QPSK	H	Edge_1RB_Left	1000	27000	-32.21	-25	PASS
N7	15	40	DFT-QPSK	L	Edge_1RB_Left	30	1000	-48.30	-25	PASS
N7	15	40	DFT-QPSK	L	Edge_1RB_Left	1000	27000	-32.19	-25	PASS
N7	15	40	DFT-QPSK	M	Edge_1RB_Left	30	1000	-48.36	-25	PASS
N7	15	40	DFT-QPSK	M	Edge_1RB_Left	1000	27000	-28.14	-25	PASS
N7	15	40	DFT-QPSK	H	Edge_1RB_Left	30	1000	-47.78	-25	PASS
N7	15	40	DFT-QPSK	H	Edge_1RB_Left	1000	27000	-32.14	-25	PASS



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Reference No.: W7L-P23120020RF09

Test Graphs



NTNV-N7-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-5-L-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-5-M-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-5-M-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS

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Reference No.: W7L-P23120020RF09



NTNV-N7-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-25-L-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-25-L-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS

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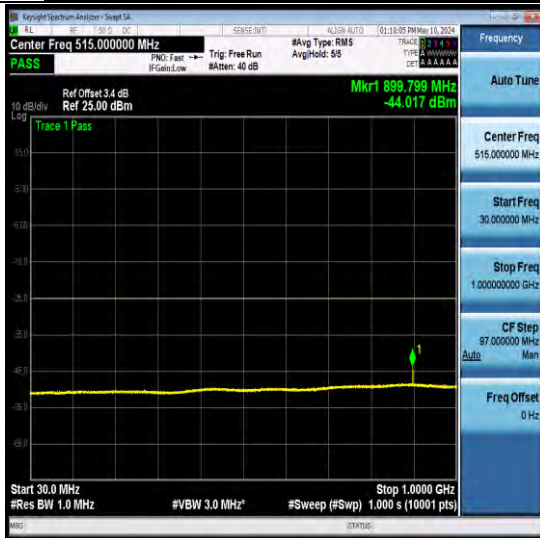
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
Zhaoshang Street, Nanshan District Shenzhen,
Guangdong, People's Republic of China
Page 23 of 293

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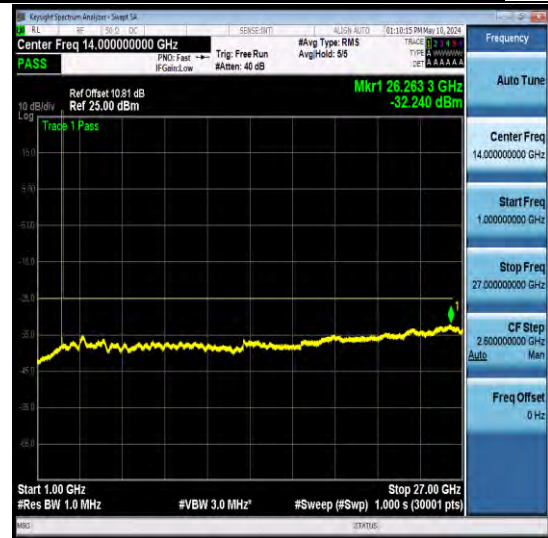


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VERITAS

Reference No.: W7L-P23120020RF09



NTNV-N7-PC3-15-25-M-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-25-M-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS



NTNV-N7-PC3-15-25-H-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-25-H-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS

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Reference No.: W7L-P23120020RF09



NTNV-N7-PC3-15-40-L-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-40-L-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS



NTNV-N7-PC3-15-40-M-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-40-M-DFT-QPSK-Edge_1RB_Left-
Ant1-PASS



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VERITAS

Reference No.: W7L-P23120020RF09



NTNV-N7-PC3-15-40-H-DFT-QPSK-Edge_1RB_Left-Ant1-
PASS



NTNV-N7-PC3-15-40-H-DFT-QPSK-Edge_1RB_Left-
Ant1-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
N7	15	20	DFT-QPSK	L	Outer_Full	VL	NT	8.000000	0.003187	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	VN	NT	1.000000	0.000398	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	VH	NT	4.000000	0.001594	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	VL	NT	6.000000	0.002367	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	VN	NT	12.000000	0.004734	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	VH	NT	14.000000	0.005523	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	VL	NT	9.000000	0.003516	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	VN	NT	3.000000	0.001172	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	VH	NT	9.000000	0.003516	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N7	15	20	DFT-QPSK	L	Outer_Full	NV	-30	16.000000	0.006375	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	-20	10.000000	0.003984	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	-10	13.000000	0.005179	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	0	13.000000	0.005179	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	10	16.000000	0.006375	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	20	9.000000	0.003586	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	30	19.000000	0.007570	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	40	5.000000	0.001992	PASS
N7	15	20	DFT-QPSK	L	Outer_Full	NV	50	3.000000	0.001195	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	-30	8.000000	0.003156	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	-20	1.000000	0.000394	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	-10	4.000000	0.001578	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	0	17.000000	0.006706	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	10	10.000000	0.003945	PASS



Reference No.: W7L-P23120020RF09

N7	15	20	DFT-QPSK	M	Outer_Full	NV	20	13.000000	0.005128	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	30	3.000000	0.001183	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	40	16.000000	0.006312	PASS
N7	15	20	DFT-QPSK	M	Outer_Full	NV	50	6.000000	0.002367	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	-30	14.000000	0.005469	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	-20	17.000000	0.006641	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	-10	18.000000	0.007031	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	0	1.000000	0.000391	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	10	7.000000	0.002734	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	20	1.000000	0.000391	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	30	13.000000	0.005078	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	40	16.000000	0.006250	PASS
N7	15	20	DFT-QPSK	H	Outer_Full	NV	50	9.000000	0.003516	PASS

**N12****Peak-to-Average Ratio(CCDF)****Test Result**

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N12	15	10	DFT-QPSK	L	Outer_Full	5.36	≤13	PASS
N12	15	10	DFT-QPSK	L	Edge_1RB_Left	5.50	≤13	PASS
N12	15	10	DFT-QPSK	M	Outer_Full	5.35	≤13	PASS
N12	15	10	DFT-QPSK	M	Edge_1RB_Left	5.35	≤13	PASS
N12	15	10	DFT-QPSK	H	Outer_Full	5.45	≤13	PASS
N12	15	10	DFT-QPSK	H	Edge_1RB_Left	5.00	≤13	PASS



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Reference No.: W7L-P23120020RF09

Test Graphs



NTNV-N12-PC3-15-10-L-DFT-QPSK-Outer_Full-PASS



NTNV-N12-PC3-15-10-L-DFT-QPSK-Edge_1RB_Left-PASS



NTNV-N12-PC3-15-10-M-DFT-QPSK-Outer_Full-PASS

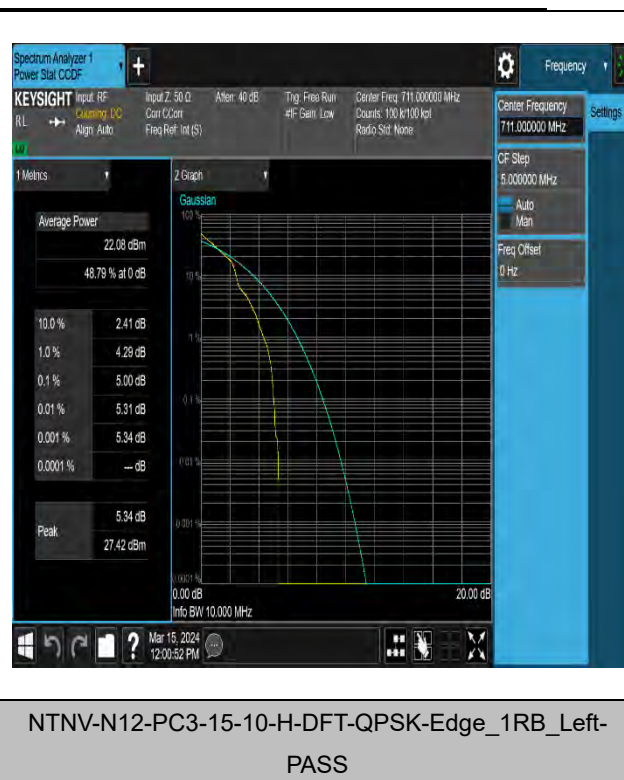
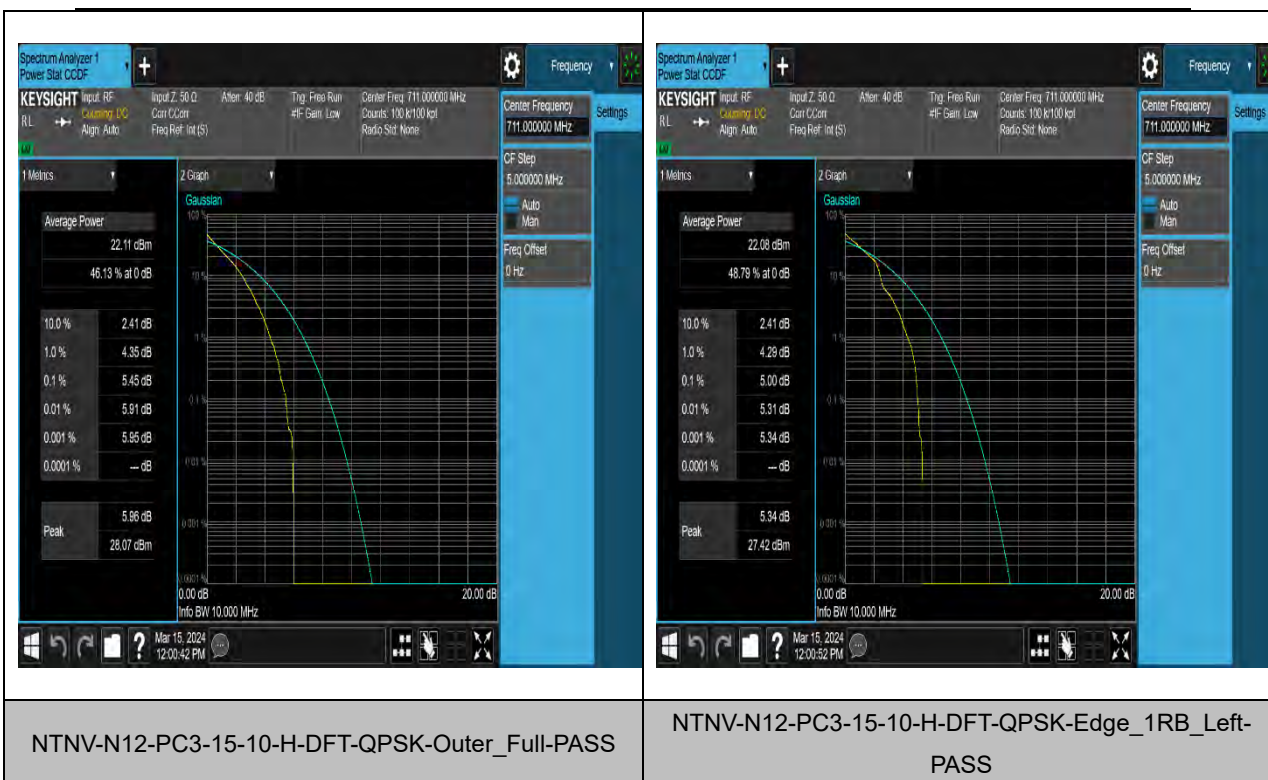


NTNV-N12-PC3-15-10-M-DFT-QPSK-Edge_1RB_Left-PASS



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Reference No.: W7L-P23120020RF09



26dB Bandwidth and Occupied Bandwidth for SA

Test Result

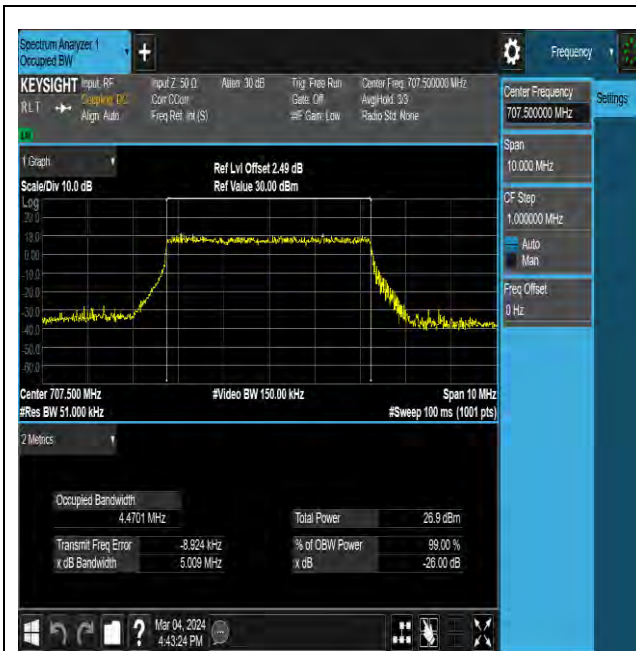
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N12	15	5	DFT-256QAM	M	Outer_Full	4.4701	5.009	PASS
N12	15	5	DFT-PI2BPSK	M	Outer_Full	4.4870	4.896	PASS
N12	15	5	DFT-QPSK	M	Outer_Full	4.4720	4.970	PASS
N12	15	5	DFT-16QAM	M	Outer_Full	4.4565	4.865	PASS
N12	15	5	DFT-64QAM	M	Outer_Full	4.4783	4.982	PASS
N12	15	10	DFT-PI2BPSK	M	Outer_Full	8.9013	9.673	PASS
N12	15	10	DFT-QPSK	M	Outer_Full	8.9098	9.627	PASS
N12	15	10	DFT-16QAM	M	Outer_Full	8.8988	9.560	PASS
N12	15	10	DFT-64QAM	M	Outer_Full	8.9118	9.621	PASS
N12	15	10	DFT-256QAM	M	Outer_Full	8.9047	9.456	PASS
N12	15	15	DFT-PI2BPSK	M	Outer_Full	13.394	14.28	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	13.370	14.19	PASS
N12	15	15	DFT-16QAM	M	Outer_Full	13.397	14.26	PASS
N12	15	15	DFT-64QAM	M	Outer_Full	13.381	14.22	PASS
N12	15	15	DFT-256QAM	M	Outer_Full	13.396	14.18	PASS



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Reference No.: W7L-P23120020RF09

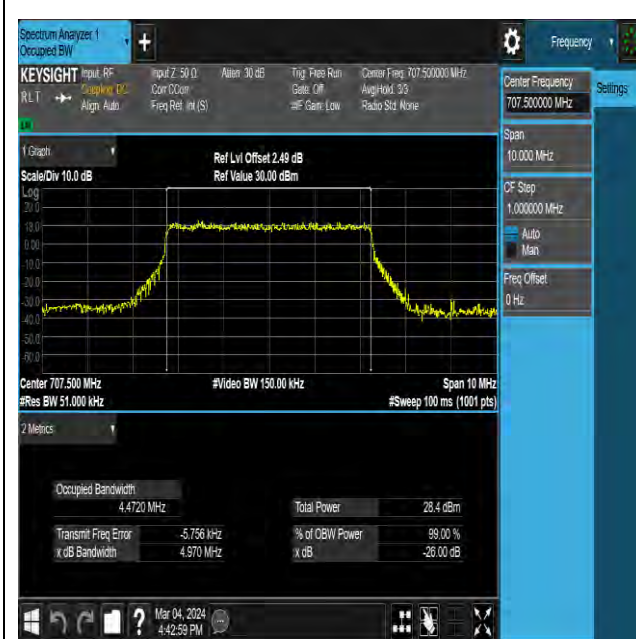
Test Graphs



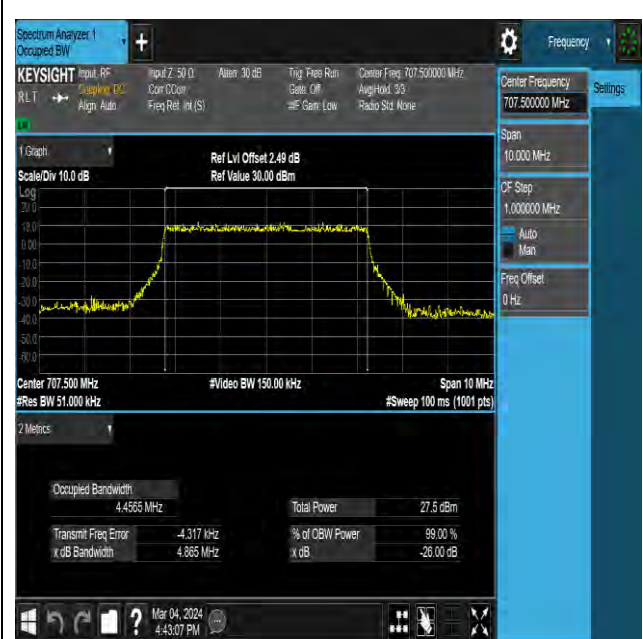
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PASS



NTNV-N12-PC3-15-5-M-DFT-PI2BPSK-Outer_Full-Ant0-
PASS



NTNV-N12-PC3-15-5-M-DFT-QPSK-Outer_Full-Ant0-
PASS

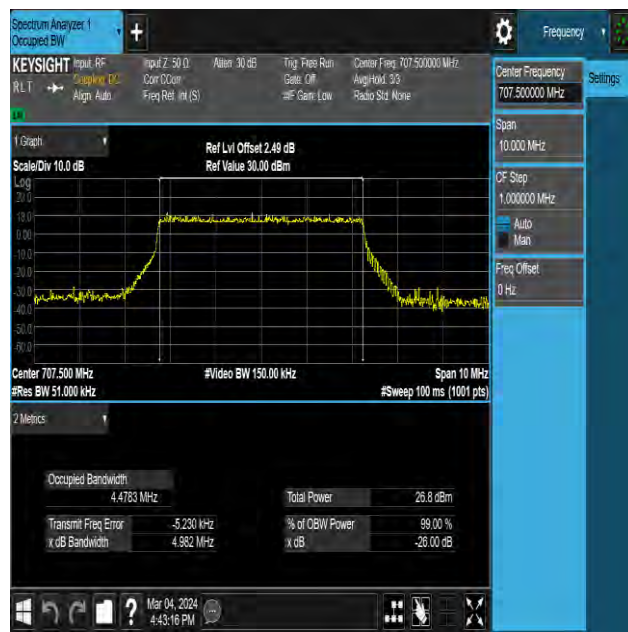


NTNV-N12-PC3-15-5-M-DFT-16QAM-Outer_Full-Ant0-
PASS



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VERITAS

Reference No.: W7L-P23120020RF09



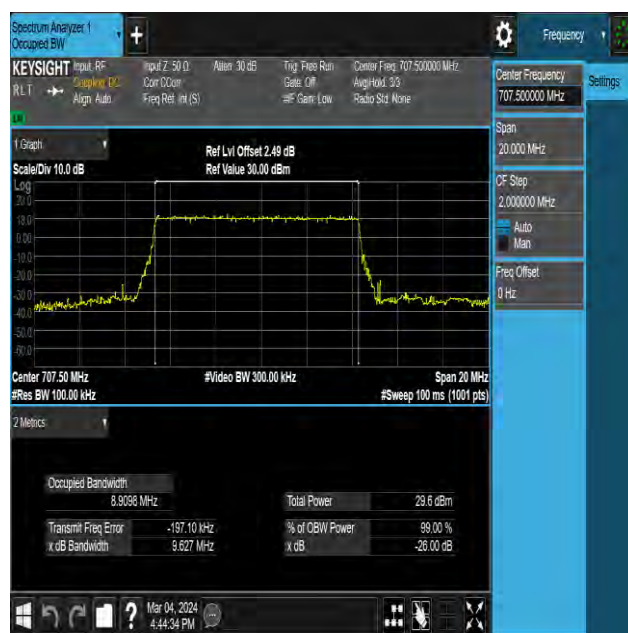
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PASS



NTNV-N12-PC3-15-10-M-DFT-PI2BPSK-Outer_Full-Ant0-

PASS



NTNV-N12-PC3-15-10-M-DFT-QPSK-Outer_Full-Ant0-

PASS



NTNV-N12-PC3-15-10-M-DFT-16QAM-Outer_Full-Ant0-

PASS



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VERITAS

Reference No.: W7L-P23120020RF09



NTNV-N12-PC3-15-10-M-DFT-64QAM-Outer_Full-Ant0-

PASS



NTNV-N12-PC3-15-10-M-DFT-256QAM-Outer_Full-Ant0-

PASS



NTNV-N12-PC3-15-15-M-DFT-PI2BPSK-Outer_Full-Ant0-

PASS



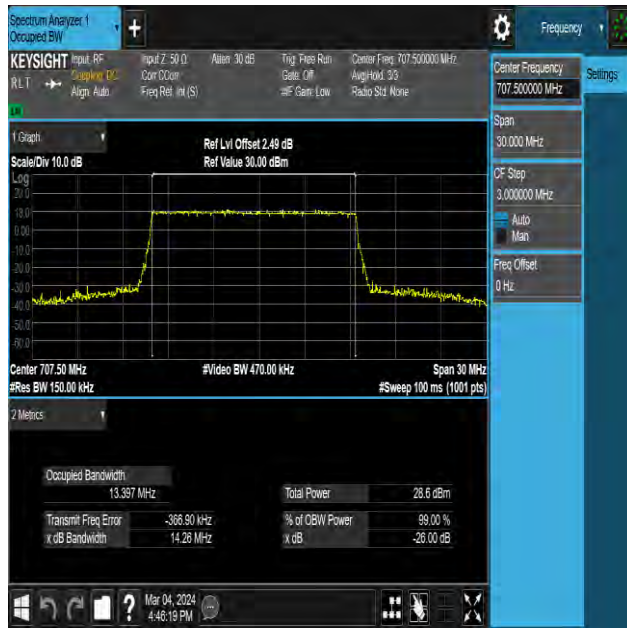
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PASS



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VERITAS

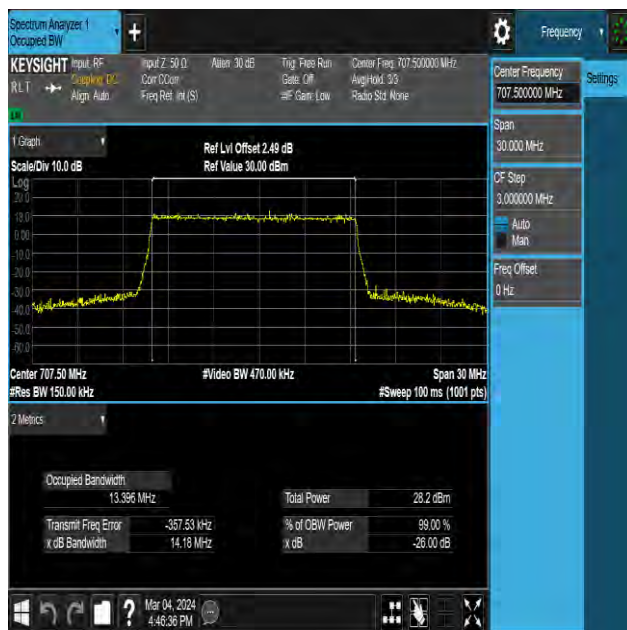
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NTNV-N12-PC3-15-15-M-DFT-16QAM-Outer_Full-Ant0-
PASS



NTNV-N12-PC3-15-15-M-DFT-64QAM-Outer_Full-Ant0-
PASS



NTNV-N12-PC3-15-15-M-DFT-256QAM-Outer_Full-Ant0-
PASS

**Band Edge for SA****Test Result**

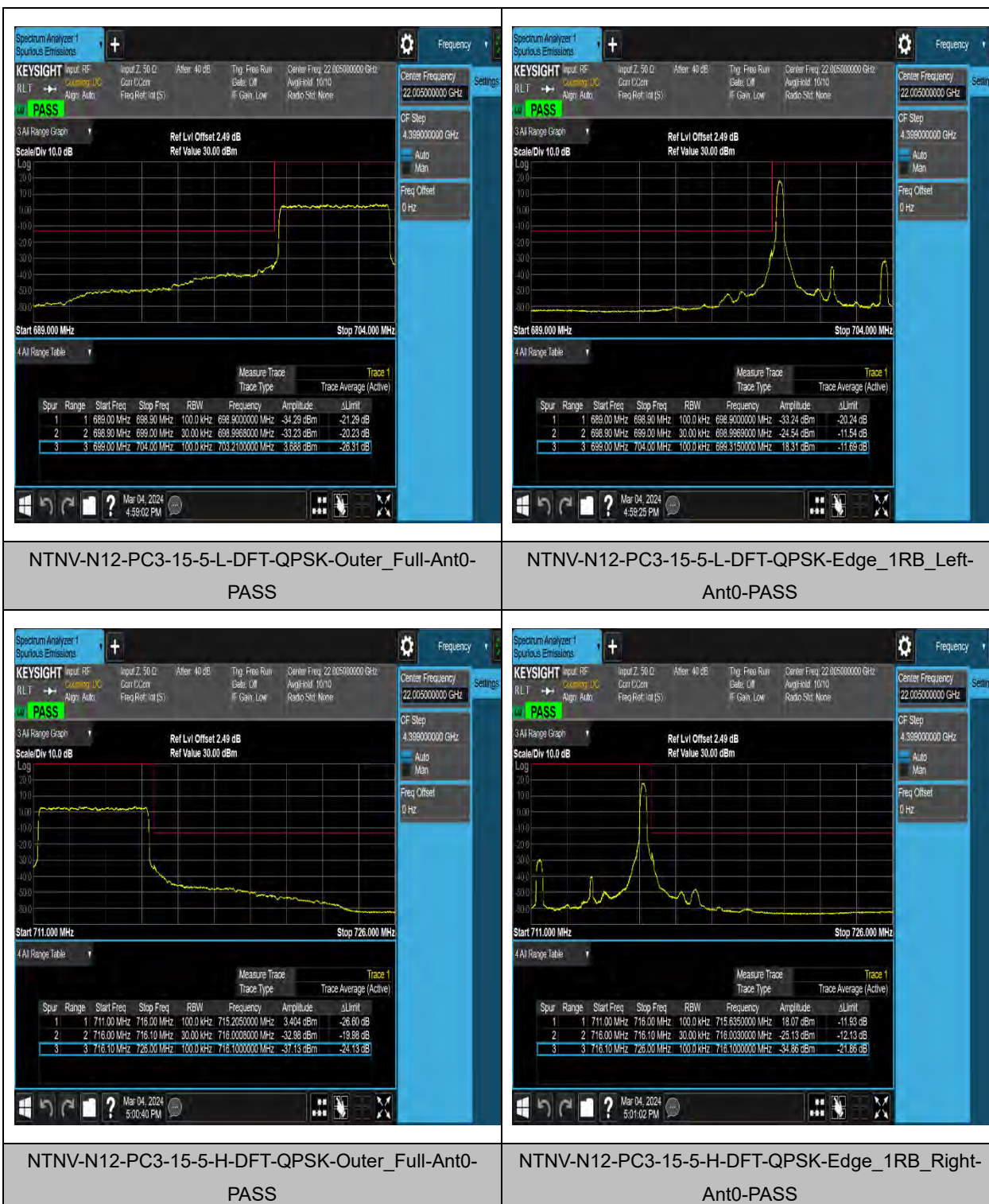
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N12	15	5	DFT-QPSK	L	Outer_Full	-33.23	PASS
N12	15	5	DFT-QPSK	L	Edge_1RB_Left	-24.54	PASS
N12	15	5	DFT-QPSK	H	Outer_Full	-32.98	PASS
N12	15	5	DFT-QPSK	H	Edge_1RB_Right	-25.13	PASS
N12	15	10	DFT-QPSK	L	Outer_Full	-38.30	PASS
N12	15	10	DFT-QPSK	L	Edge_1RB_Left	-26.06	PASS
N12	15	10	DFT-QPSK	H	Outer_Full	-43.82	PASS
N12	15	10	DFT-QPSK	H	Edge_1RB_Right	-28.23	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	-40.61	PASS
N12	15	15	DFT-QPSK	L	Edge_1RB_Left	-29.83	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	-44.70	PASS
N12	15	15	DFT-QPSK	H	Edge_1RB_Right	-30.75	PASS



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Reference No.: W7L-P23120020RF09

Test Graphs



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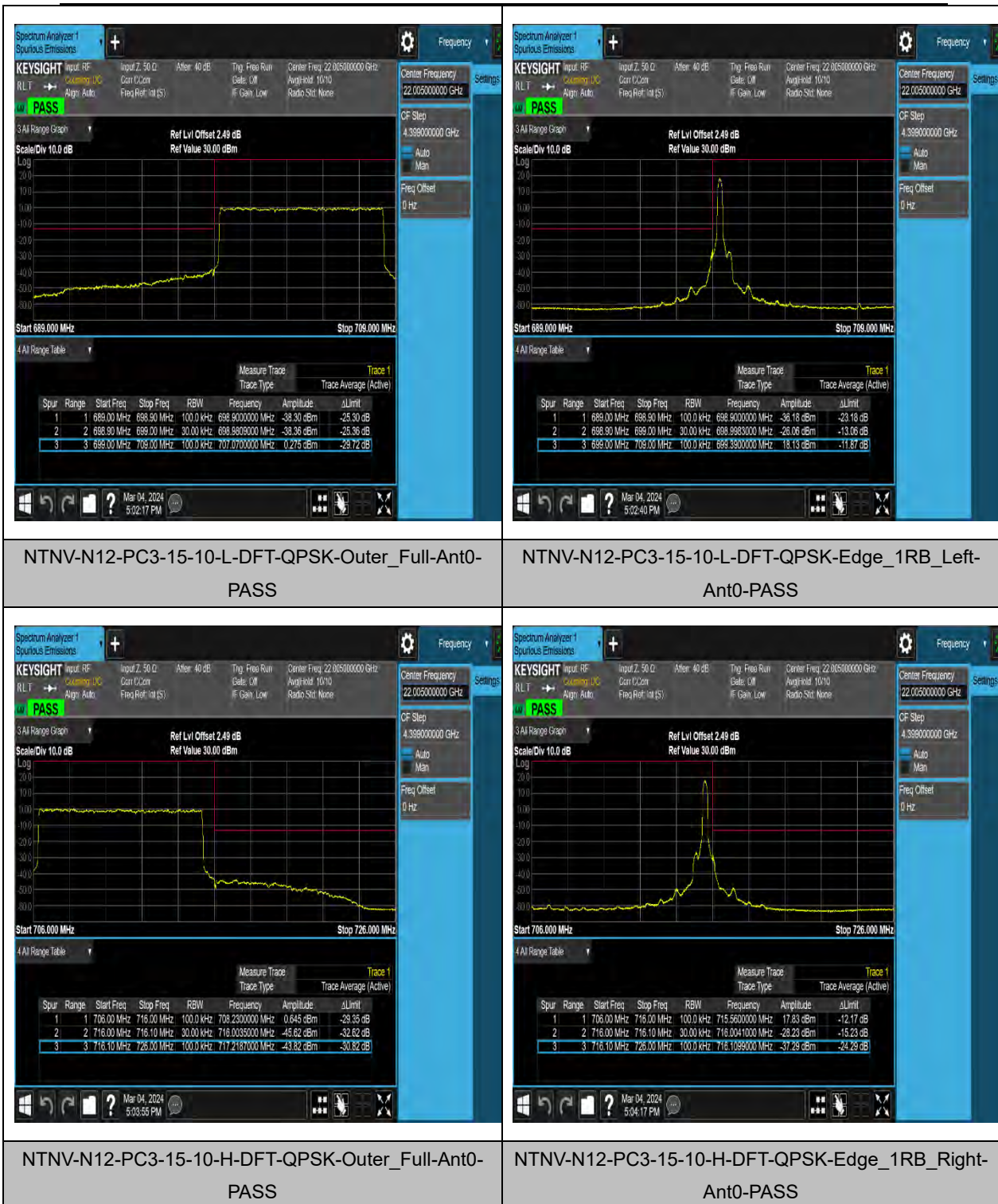
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
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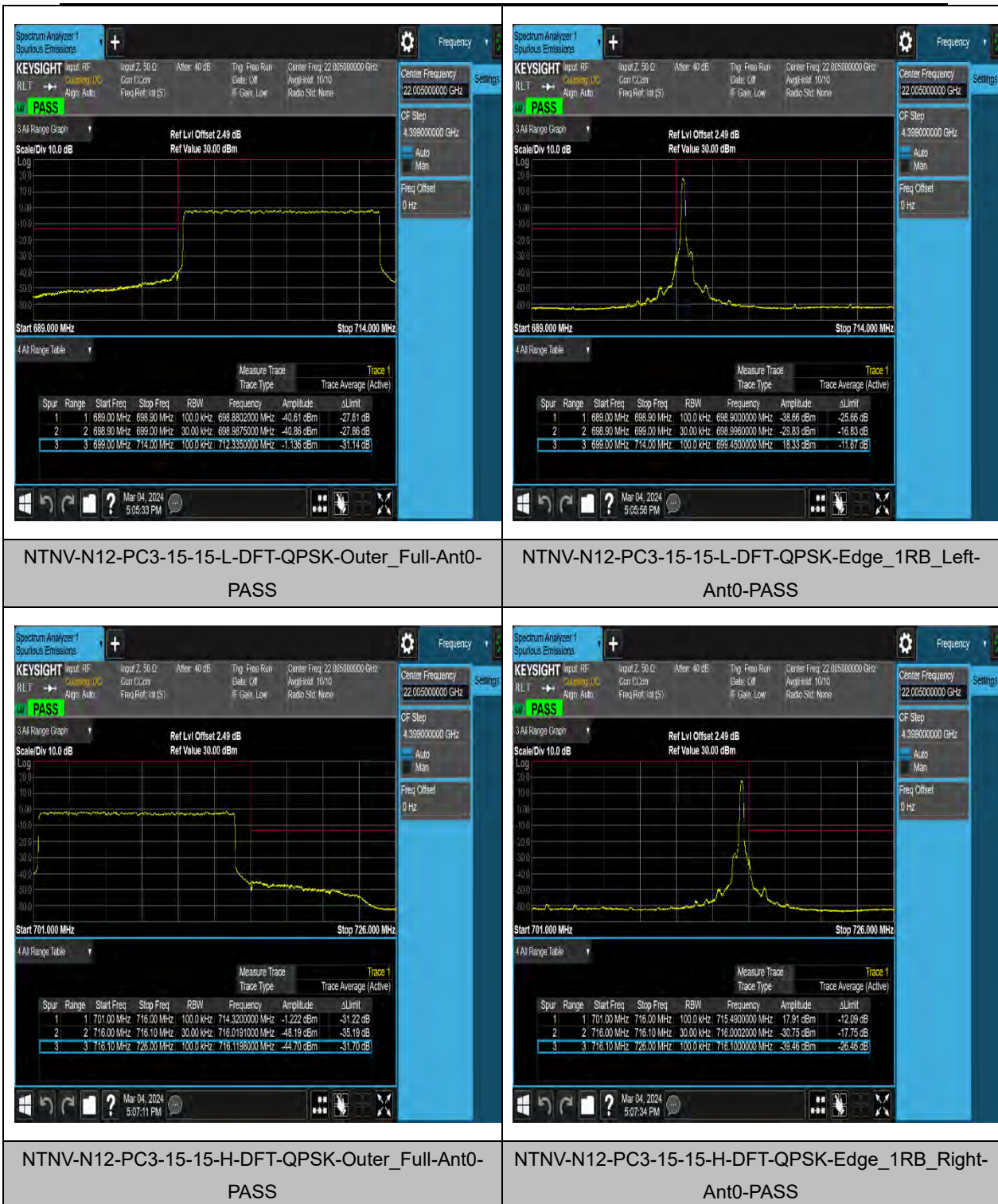
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Reference No.: W7L-P23120020RF09





Reference No.: W7L-P23120020RF09

Conducted Spurious Emission for SA

Test Result

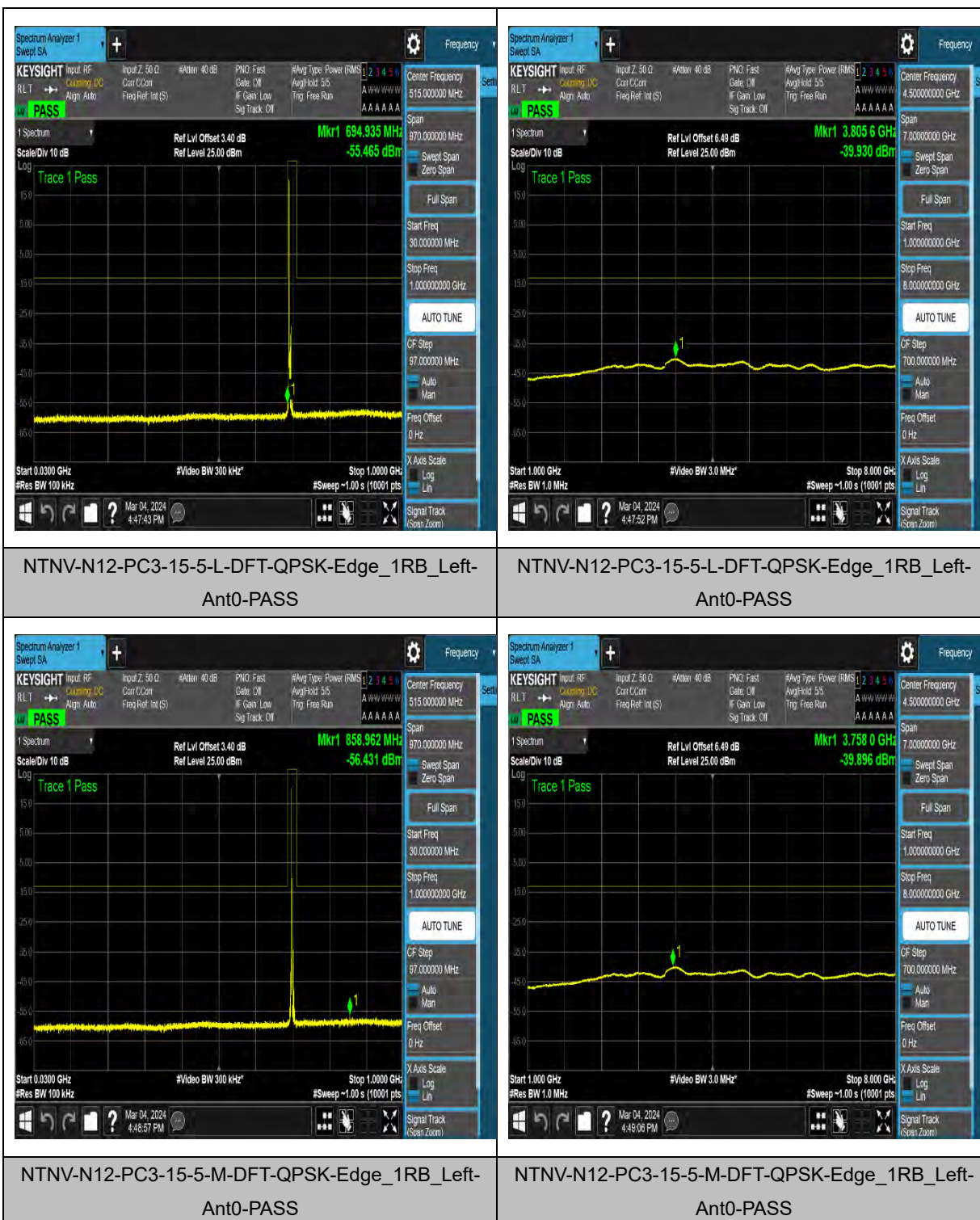
Band	SCS	Bandwidth	Modulation	Channel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
N12	15	5	DFT-QPSK	L	Edge_1RB_Left	30	1000	-55.47	-13	PASS
N12	15	5	DFT-QPSK	L	Edge_1RB_Left	1000	8000	-39.93	-13	PASS
N12	15	5	DFT-QPSK	M	Edge_1RB_Left	30	1000	-56.43	-13	PASS
N12	15	5	DFT-QPSK	M	Edge_1RB_Left	1000	8000	-39.90	-13	PASS
N12	15	5	DFT-QPSK	H	Edge_1RB_Left	30	1000	-56.88	-13	PASS
N12	15	5	DFT-QPSK	H	Edge_1RB_Left	1000	8000	-39.83	-13	PASS
N12	15	10	DFT-QPSK	L	Edge_1RB_Left	30	1000	-56.44	-13	PASS
N12	15	10	DFT-QPSK	L	Edge_1RB_Left	1000	8000	-39.98	-13	PASS
N12	15	10	DFT-QPSK	M	Edge_1RB_Left	30	1000	-56.91	-13	PASS
N12	15	10	DFT-QPSK	M	Edge_1RB_Left	1000	8000	-39.89	-13	PASS
N12	15	10	DFT-QPSK	H	Edge_1RB_Left	30	1000	-57.00	-13	PASS
N12	15	10	DFT-QPSK	H	Edge_1RB_Left	1000	8000	-39.93	-13	PASS
N12	15	15	DFT-QPSK	L	Edge_1RB_Left	30	1000	-56.27	-13	PASS
N12	15	15	DFT-QPSK	L	Edge_1RB_Left	1000	8000	-39.77	-13	PASS
N12	15	15	DFT-QPSK	M	Edge_1RB_Left	30	1000	-57.05	-13	PASS
N12	15	15	DFT-QPSK	M	Edge_1RB_Left	1000	8000	-39.81	-13	PASS
N12	15	15	DFT-QPSK	H	Edge_1RB_Left	30	1000	-56.93	-13	PASS
N12	15	15	DFT-QPSK	H	Edge_1RB_Left	1000	8000	-39.94	-13	PASS



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Test Graphs



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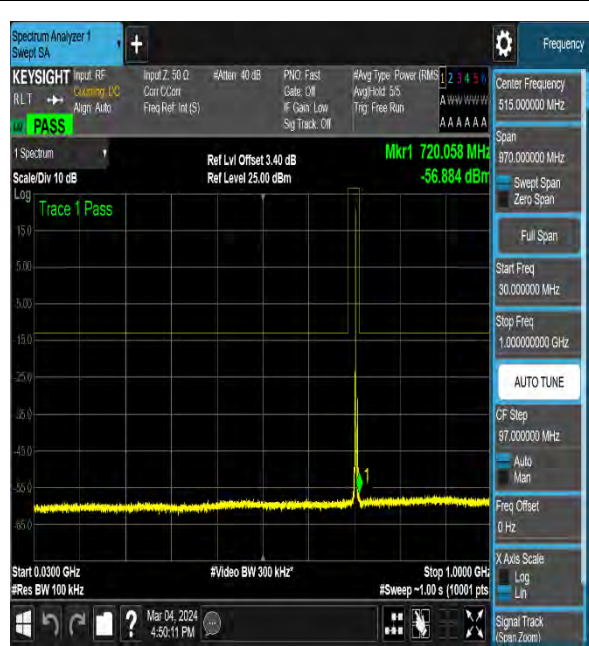
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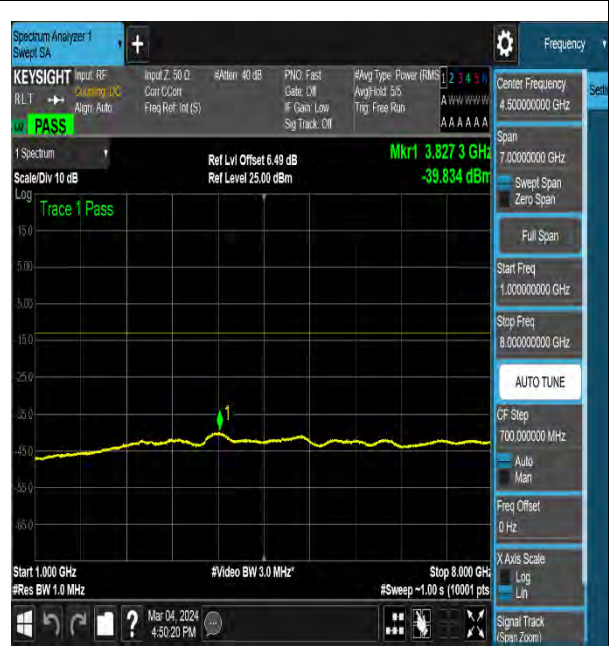


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Reference No.: W7L-P23120020RF09



NTNV-N12-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



NTNV-N12-PC3-15-5-H-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



NTNV-N12-PC3-15-10-L-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS

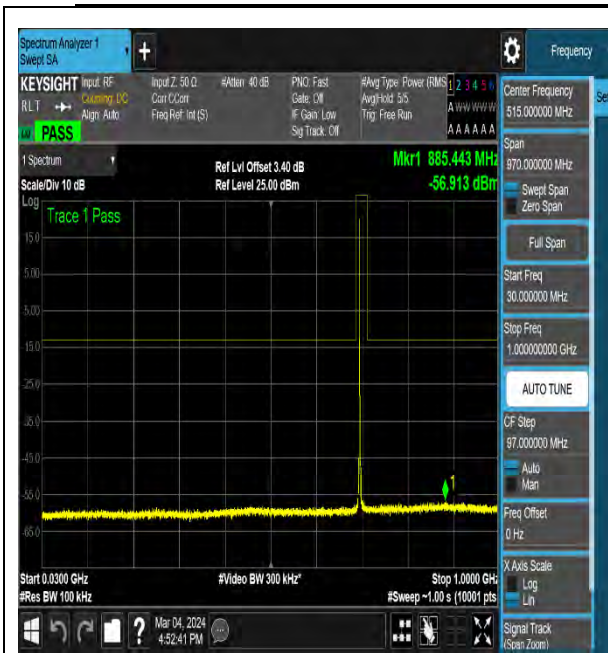


NTNV-N12-PC3-15-10-L-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS

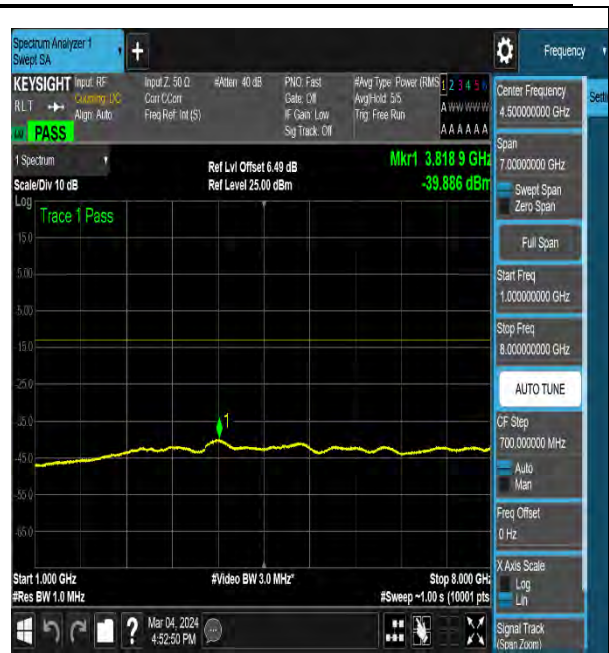


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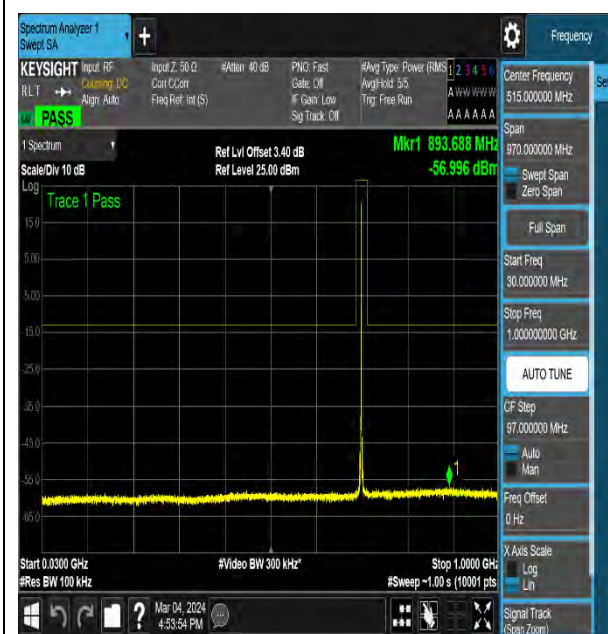
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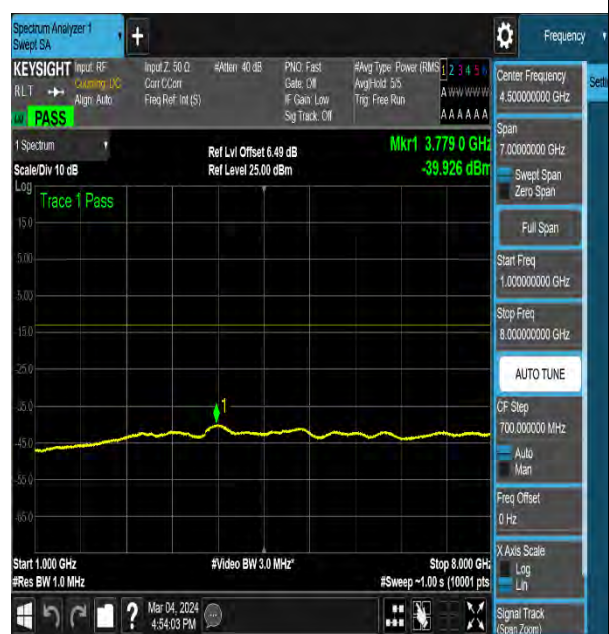
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Ant0-PASS



NTNV-N12-PC3-15-10-M-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



NTNV-N12-PC3-15-10-H-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



NTNV-N12-PC3-15-10-H-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS

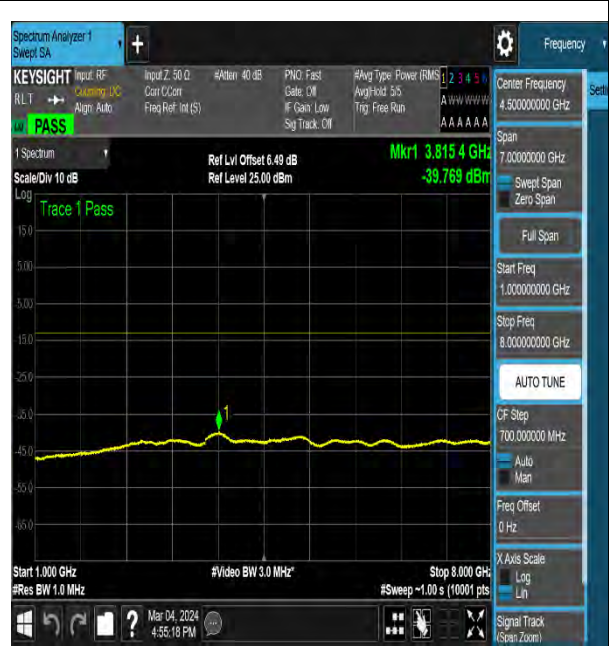


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Reference No.: W7L-P23120020RF09



NTNV-N12-PC3-15-15-L-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



NTNV-N12-PC3-15-15-L-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



NTNV-N12-PC3-15-15-M-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS

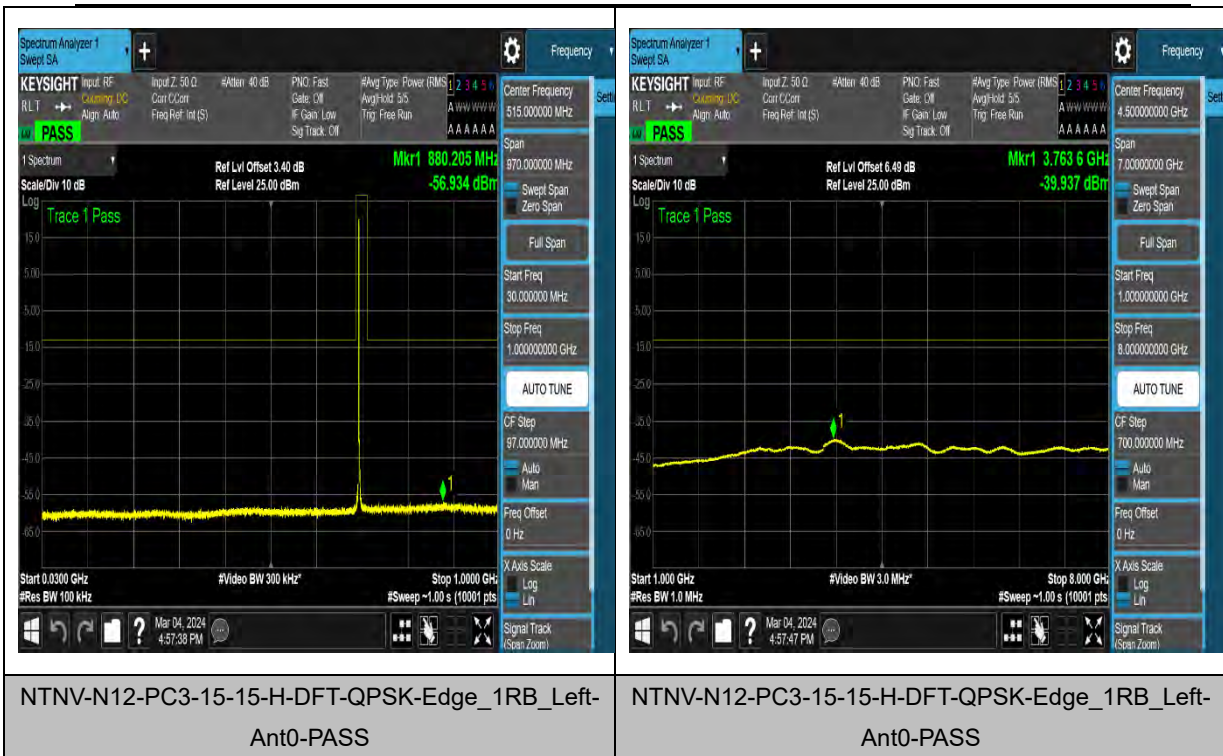


NTNV-N12-PC3-15-15-M-DFT-QPSK-Edge_1RB_Left-
Ant0-PASS



BUREAU
VERITAS

Reference No.: W7L-P23120020RF09



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**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
N12	15	15	DFT-QPSK	L	Outer_Full	VL	NT	8.000000	0.011323	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	VN	NT	10.000000	0.014154	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	VH	NT	4.000000	0.005662	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	VL	NT	2.000000	0.002827	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	VN	NT	14.000000	0.019788	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	VH	NT	1.000000	0.001413	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	VL	NT	14.000000	0.019760	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	VN	NT	14.000000	0.019760	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	VH	NT	17.000000	0.023994	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation (Hz)	Deviation (ppm)	Verdict
N12	15	15	DFT-QPSK	L	Outer_Full	NV	-30	6.000000	0.008493	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	-20	19.000000	0.026893	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	-10	13.000000	0.018401	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	0	15.000000	0.021231	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	10	9.000000	0.012739	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	20	3.000000	0.004246	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	30	16.000000	0.022647	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	40	6.000000	0.008493	PASS
N12	15	15	DFT-QPSK	L	Outer_Full	NV	50	19.000000	0.026893	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	-30	4.000000	0.005654	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	-20	4.000000	0.005654	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	-10	7.000000	0.009894	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	0	19.000000	0.026855	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	10	10.000000	0.014134	PASS



Reference No.: W7L-P23120020RF09

N12	15	15	DFT-QPSK	M	Outer_Full	NV	20	19.000000	0.026855	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	30	1.000000	0.001413	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	40	3.000000	0.004240	PASS
N12	15	15	DFT-QPSK	M	Outer_Full	NV	50	16.000000	0.022615	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	-30	17.000000	0.023994	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	-20	8.000000	0.011291	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	-10	17.000000	0.023994	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	0	8.000000	0.011291	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	10	1.000000	0.001411	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	20	14.000000	0.019760	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	30	4.000000	0.005646	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	40	14.000000	0.019760	PASS
N12	15	15	DFT-QPSK	H	Outer_Full	NV	50	7.000000	0.009880	PASS

**N13****Peak-to-Average Ratio(CCDF)****Test Result**

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N13	15	5	DFT-QPSK	M	Edge_1RB_Left	5.46	≤13	PASS
N13	15	5	DFT-QPSK	L	Outer_Full	5.07	≤13	PASS
N13	15	5	DFT-QPSK	L	Edge_1RB_Left	4.27	≤13	PASS
N13	15	5	DFT-QPSK	M	Outer_Full	5.41	≤13	PASS
N13	15	5	DFT-QPSK	H	Outer_Full	5.50	≤13	PASS
N13	15	5	DFT-QPSK	H	Edge_1RB_Left	5.32	≤13	PASS
N13	15	10	DFT-QPSK	M	Edge_1RB_Left	4.76	≤13	PASS
N13	15	10	DFT-QPSK	M	Outer_Full	5.46	≤13	PASS