

Appendix F: Frequency Stability

Test Result

LTE Band 2 part:

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 Frequency=1880.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	10.91	0.005803	Within authorized band for Band 2	Pass
	-20	-12.06	-0.006415		
	-10	-14.66	-0.007798		
	0	-6.29	-0.003346		
	10	9.18	0.004883		
	20	-7.74	-0.004117		
	30	4.91	0.002612		
	40	-9.43	-0.005016		
	50	-3.42	-0.001819		
16QAM					
3.85	-30	-10.99	-0.005846	Within authorized band for Band 2	Pass
	-20	-9.57	-0.005090		
	-10	-13.96	-0.007426		
	0	8.31	0.004420		
	10	-8.51	-0.004527		
	20	-7.94	-0.004223		
	30	-6.92	-0.003681		
	40	-9.80	-0.005213		
	50	9.06	0.004819		
64QAM					
3.85	-30	10.19	0.005420	Within authorized band for Band 2	Pass
	-20	7.35	0.003910		
	-10	-10.81	-0.005750		
	0	-11.26	-0.005989		
	10	8.43	0.004484		
	20	8.61	0.004580		
	30	-6.55	-0.003484		
	40	-8.00	-0.004255		
	50	-5.39	-0.002867		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-11.49	-0.006112	Within authorized band for Band 2	Pass
	3.85	-11.97	-0.006367		
	4.40	-14.61	-0.007771		
16QAM					
25	3.45	-9.20	-0.004894	Within authorized band for Band 2	Pass
	3.85	-3.50	-0.001862		
	4.40	-9.84	-0.005234		
64QAM					
25	3.45	-8.30	-0.004415	Within authorized band for Band 2	Pass
	3.85	-15.86	-0.008436		
	4.40	-9.50	-0.005053		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 Frequency=836.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-6.81	-0.008141	±2.5	Pass
	-20	-6.58	-0.007866		
	-10	-6.75	-0.008069		
	0	-5.74	-0.006862		
	10	-9.70	-0.011596		
	20	-2.26	-0.002702		
	30	-3.78	-0.004519		
	40	-4.53	-0.005415		
	50	-5.62	-0.006718		
16QAM					
3.85	-30	-7.34	-0.008775	±2.5	Pass
	-20	-4.32	-0.005164		
	-10	-6.64	-0.007938		
	0	-7.77	-0.009289		
	10	-9.21	-0.011010		
	20	-6.35	-0.007591		
	30	-8.75	-0.010460		
	40	-6.38	-0.007627		
	50	-5.29	-0.006324		
64QAM					
3.85	-30	-10.79	-0.012899	±2.5	Pass
	-20	-5.61	-0.006707		
	-10	-9.91	-0.011847		
	0	-9.54	-0.011405		
	10	-9.34	-0.011166		
	20	-6.61	-0.007902		
	30	-9.10	-0.010879		
	40	-5.54	-0.006623		
	50	-8.61	-0.010293		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-7.37	-0.008811	±2.5	Pass
	3.85	-5.72	-0.006838		
	4.40	-7.54	-0.009014		
16QAM					
25	3.45	-9.43	-0.011273	±2.5	Pass
	3.85	-7.61	-0.009097		
	4.40	-7.04	-0.008416		
64QAM					
25	3.45	-9.41	-0.011249	±2.5	Pass
	3.85	-9.14	-0.010926		
	4.40	-2.32	-0.002773		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	12.20	0.004813	Within authorized band for Band 7	Pass
	-20	-10.26	-0.004047		
	-10	11.13	0.004391		
	0	-10.93	-0.004312		
	10	-11.47	-0.004525		
	20	-8.87	-0.003499		
	30	-10.27	-0.004051		
	40	3.92	0.001546		
	50	-12.72	-0.005018		
16QAM					
3.85	-30	-17.14	-0.006761	Within authorized band for Band 7	Pass
	-20	-3.65	-0.001440		
	-10	12.45	0.004911		
	0	-10.87	-0.004288		
	10	-15.91	-0.006276		
	20	-15.51	-0.006118		
	30	14.61	0.005763		
	40	4.28	0.001688		
	50	10.00	0.003945		
64QAM					
3.85	-30	12.36	0.004876	Within authorized band for Band 7	Pass
	-20	-12.55	-0.004951		
	-10	-11.82	-0.004663		
	0	-14.76	-0.005822		
	10	9.90	0.003905		
	20	10.07	0.003972		
	30	-15.19	-0.005992		
	40	-14.19	-0.005598		
	50	-8.45	-0.003333		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-10.39	-0.039602	Within authorized band for Band 7	Pass
	3.85	8.94	0.003527		
	4.40	13.13	0.005179		
16QAM					
25	3.45	-13.69	-0.005400	Within authorized band for Band 7	Pass
	3.85	-13.36	-0.005270		
	4.40	-9.86	-0.003890		
64QAM					
25	3.45	-10.06	-0.003968	Within authorized band for Band 7	Pass
	3.85	-13.58	-0.005357		
	4.40	-5.02	-0.001980		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 Frequency=707.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-2.59	-0.003661	Within authorized band for Band 12	Pass
	-20	-2.92	-0.004127		
	-10	-4.55	-0.006431		
	0	3.55	0.005018		
	10	-1.73	-0.002445		
	20	-1.14	-0.001611		
	30	-5.35	-0.007562		
	40	-6.14	-0.008678		
	50	-4.75	-0.006714		
16QAM					
3.85	-30	-7.20	-0.010177	Within authorized band for Band 12	Pass
	-20	-6.45	-0.009117		
	-10	-4.18	-0.005908		
	0	-4.25	-0.006007		
	10	-6.64	-0.009385		
	20	-3.63	-0.005131		
	30	2.45	0.003463		
	40	-3.39	-0.004792		
	50	-4.29	-0.006064		
64QAM					
3.85	-30	-2.47	-0.003491	Within authorized band for Band 12	Pass
	-20	-4.65	-0.006572		
	-10	3.20	0.004523		
	0	-4.45	-0.006290		
	10	-2.69	-0.003802		
	20	-6.31	-0.008919		
	30	-4.89	-0.006912		
	40	-2.37	-0.003350		
	50	-6.59	-0.009314		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-4.36	-0.006163	Within authorized band for Band 12	Pass
	3.85	7.64	0.010799		
	4.40	-2.99	-0.004226		
16QAM					
25	3.45	-4.29	-0.006064	Within authorized band for Band 12	Pass
	3.85	-2.27	-0.003208		
	4.40	-4.23	-0.005979		
64QAM					
25	3.45	1.57	0.002219	Within authorized band for Band 12	Pass
	3.85	-3.86	-0.005456		
	4.40	-6.37	-0.009004		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 38 part:

Reference Frequency: LTE Band 38 (10MHz) Middle channel=38000 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-3.58	-0.001380	Within authorized band for Band 38	Pass
	-20	-7.72	-0.002975		
	-10	-8.77	-0.003380		
	0	3.91	0.001507		
	10	4.01	0.001545		
	20	-11.04	-0.004254		
	30	11.06	0.004262		
	40	3.48	0.001341		
	50	-5.06	-0.001950		
16QAM					
3.85	-30	3.53	0.001360	Within authorized band for Band 38	Pass
	-20	-5.84	-0.002250		
	-10	-4.55	-0.001753		
	0	8.50	0.003276		
	10	7.20	0.002775		
	20	2.89	0.001114		
	30	-7.10	-0.002736		
	40	-5.42	-0.002089		
	50	5.08	0.001958		
64QAM					
3.85	-30	4.45	0.001715	Within authorized band for Band 38	Pass
	-20	-8.04	-0.003098		
	-10	7.24	0.002790		
	0	-5.06	-0.001950		
	10	-3.20	-0.001233		
	20	-4.15	-0.001599		
	30	-8.10	-0.003121		
	40	-4.32	-0.001665		
	50	-7.07	-0.002724		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	7.17	0.002763	Within authorized band for Band 38	Pass
	3.85	-6.05	-0.002331		
	4.40	-2.69	-0.001037		
16QAM					
25	3.45	-6.24	-0.002405	Within authorized band for Band38	Pass
	3.85	3.20	0.001233		
	4.40	4.38	0.001688		
64QAM					
25	3.45	7.72	0.002975	Within authorized band for Band38	Pass
	3.85	-3.73	-0.001437		
	4.40	-11.49	-0.004428		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 41 part:

Reference Frequency: LTE Band 41 (10MHz) Middle channel=40620 Frequency=2593.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	2.05	0.000791	Within authorized band for Band 41	Pass
	-20	-5.52	-0.002129		
	-10	-4.91	-0.001894		
	0	-7.80	-0.003008		
	10	-3.65	-0.001408		
	20	-5.68	-0.002191		
	30	-7.88	-0.003039		
	40	-6.39	-0.002464		
	50	-7.38	-0.002846		
16QAM					
3.85	-30	-5.34	-0.002059	Within authorized band for Band 41	Pass
	-20	-5.04	-0.001944		
	-10	-7.87	-0.003035		
	0	6.08	0.002345		
	10	-6.17	-0.002379		
	20	-7.42	-0.002862		
	30	-6.67	-0.002572		
	40	-7.80	-0.003008		
	50	5.41	0.002086		
64QAM					
3.85	-30	5.56	0.002144	Within authorized band for Band 41	Pass
	-20	-6.28	-0.002422		
	-10	-5.97	-0.002302		
	0	-4.78	-0.001843		
	10	-3.12	-0.001203		
	20	7.27	0.002804		
	30	-10.17	-0.003922		
	40	-6.98	-0.002692		
	50	5.18	0.001998		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-6.81	-0.002626	Within authorized band for Band 41	Pass
	3.85	-5.02	-0.001936		
	4.40	9.80	0.003779		
16QAM					
25	3.45	-9.31	-0.003590	Within authorized band for Band41	Pass
	3.85	7.37	0.002842		
	4.40	-6.77	-0.002611		
64QAM					
25	3.45	-5.84	-0.002252	Within authorized band for Band41	Pass
	3.85	-7.47	-0.002881		
	4.40	-7.82	-0.003016		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 42 part:

Reference Frequency: LTE Band 42 (20MHz) Middle channel=42590 Frequency=3500.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-13.30	-0.003800	Within authorized band for Band 42	Pass
	-20	-12.97	-0.003706		
	-10	14.43	0.004123		
	0	-13.45	-0.003843		
	10	-15.64	-0.004469		
	20	-16.48	-0.004709		
	30	10.60	0.003029		
	40	-8.38	-0.002394		
	50	-13.55	-0.003871		
16QAM					
3.85	-30	-12.69	-0.003626	Within authorized band for Band 42	Pass
	-20	-13.98	-0.003994		
	-10	-14.95	-0.004271		
	0	11.94	0.003411		
	10	-14.86	-0.004246		
	20	-20.13	-0.005751		
	30	-12.62	-0.003606		
	40	-13.78	-0.003937		
	50	-10.19	-0.002911		
64QAM					
3.85	-30	-10.39	-0.002969	Within authorized band for Band 42	Pass
	-20	12.70	0.003629		
	-10	-12.23	-0.003494		
	0	-12.83	-0.003666		
	10	14.71	0.004203		
	20	12.40	0.003543		
	30	-13.55	-0.003871		
	40	-12.56	-0.003589		
	50	-16.24	-0.004640		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-22.14	-0.006326	Within authorized band for Band 42	Pass
	3.85	-15.46	-0.004417		
	4.40	-18.91	-0.005403		
16QAM					
25	3.45	-11.39	-0.003254	Within authorized band for Band 42	Pass
	3.85	12.86	0.003674		
	4.40	-17.14	-0.004897		
64QAM					
25	3.45	9.66	0.002760	Within authorized band for Band 42	Pass
	3.85	13.12	0.003749		
	4.40	-9.13	-0.002609		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 66 part:

Reference Frequency: LTE Band 66 (10MHz) Middle channel=132322 Frequency=1745.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	10.06	0.005765	Within authorized band for Band 66	Pass
	-20	-9.07	-0.005198		
	-10	-9.36	-0.005364		
	0	12.53	0.007181		
	10	10.71	0.006138		
	20	-5.35	-0.003066		
	30	-11.23	-0.006436		
	40	-12.72	-0.007289		
	50	5.29	0.003032		
16QAM					
3.85	-30	-7.95	-0.004556	Within authorized band for Band 66	Pass
	-20	-8.77	-0.005026		
	-10	1.99	0.001140		
	0	-8.31	-0.004762		
	10	8.93	0.005117		
	20	-5.01	-0.002871		
	30	-4.09	-0.002344		
	40	9.71	0.005564		
	50	-4.86	-0.002785		
64QAM					
3.85	-30	9.46	0.005421	Within authorized band for Band 66	Pass
	-20	9.28	0.005318		
	-10	8.58	0.004917		
	0	7.97	0.004567		
	10	-8.37	-0.004797		
	20	10.26	0.005880		
	30	9.44	0.005410		
	40	8.11	0.004648		
	50	10.66	0.006109		

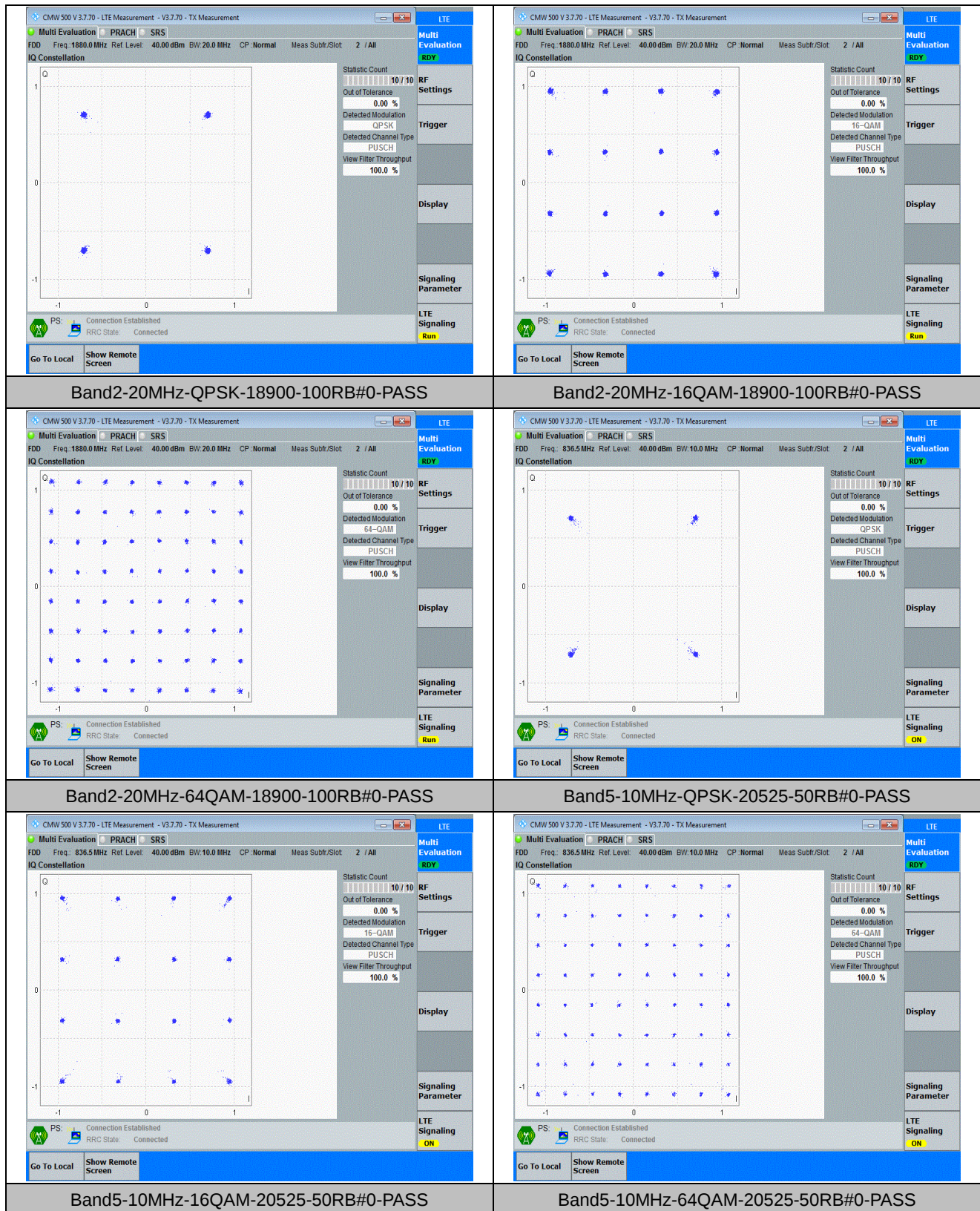
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	9.53	0.005461	Within authorized band for Band 66	Pass
	3.85	8.01	0.004590		
	4.40	7.68	0.004401		
16QAM					
25	3.45	8.03	0.004602	Within authorized band for Band 66	Pass
	3.85	-3.43	-0.001966		
	4.40	6.05	0.003467		
64QAM					
25	3.45	-8.14	-0.004665	Within authorized band for Band 66	Pass
	3.85	11.77	0.006745		
	4.40	-6.84	-0.003920		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

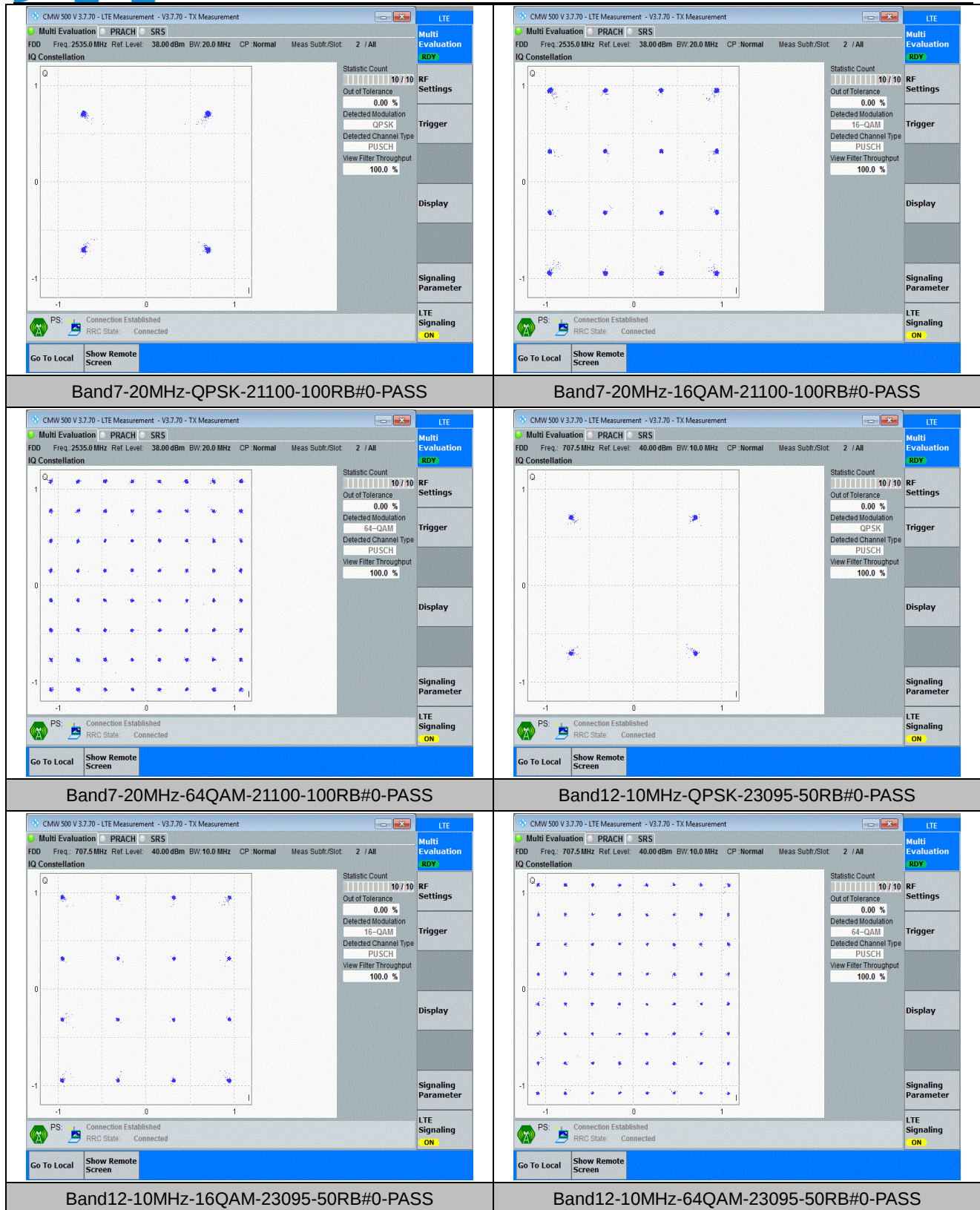
Appendix G: Modulation Characteristics

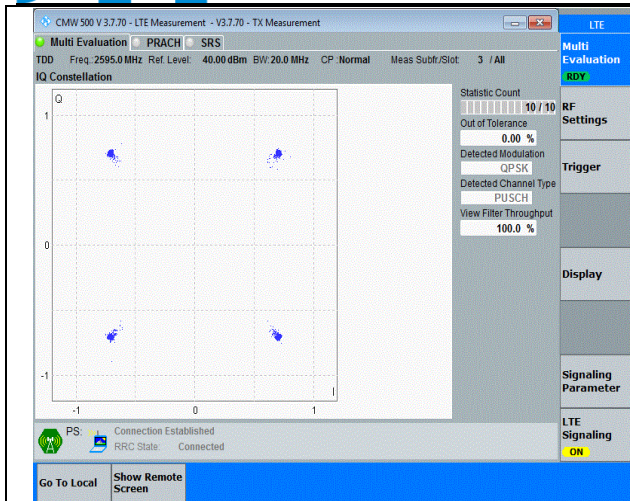
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Verdict
Band2	20MHz	QPSK	18900	100RB#0	PASS
Band2	20MHz	16QAM	18900	100RB#0	PASS
Band2	20MHz	64QAM	18900	100RB#0	PASS
Band5	10MHz	QPSK	20525	50RB#0	PASS
Band5	10MHz	16QAM	20525	50RB#0	PASS
Band5	10MHz	64QAM	20525	50RB#0	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS
Band7	20MHz	64QAM	21100	100RB#0	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS
Band12	10MHz	64QAM	23095	50RB#0	PASS
Band38	20MHz	QPSK	38000	100RB#0	PASS
Band38	20MHz	16QAM	38000	100RB#0	PASS
Band38	20MHz	64QAM	38000	100RB#0	PASS
Band41	20MHz	QPSK	40620	100RB#0	PASS
Band41	20MHz	16QAM	40620	100RB#0	PASS
Band41	20MHz	64QAM	40620	100RB#0	PASS
42(3450-3550)	20MHz	QPSK	42590	100RB#0	PASS
42(3450-3550)	20MHz	16QAM	42590	100RB#0	PASS
42(3450-3550)	20MHz	64QAM	42590	100RB#0	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS
Band66	20MHz	16QAM	132322	100RB#0	PASS
Band66	20MHz	64QAM	132322	100RB#0	PASS

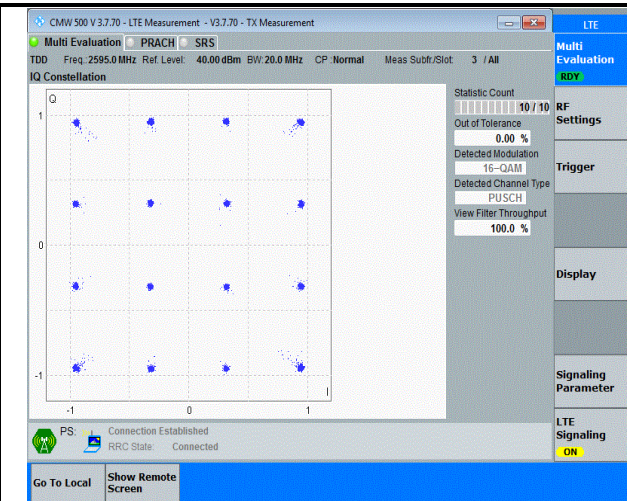
Test Graphs



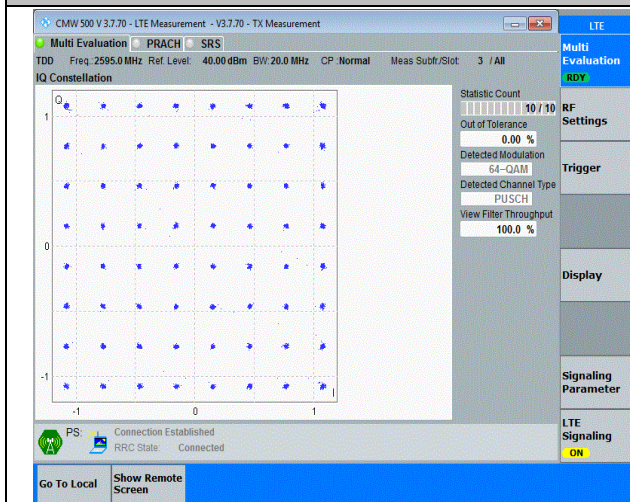




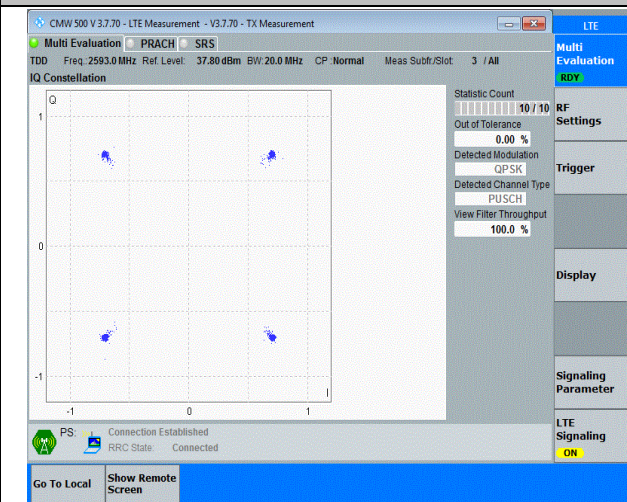
Band38-20MHz-QPSK-38000-100RB#0-PASS



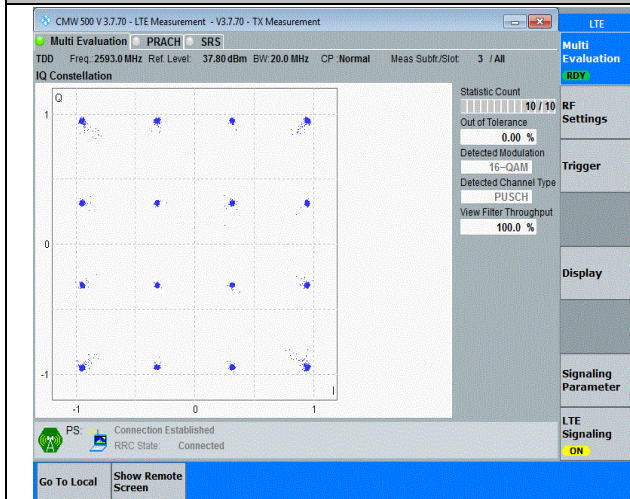
Band38-20MHz-16QAM-38000-100RB#0-PASS



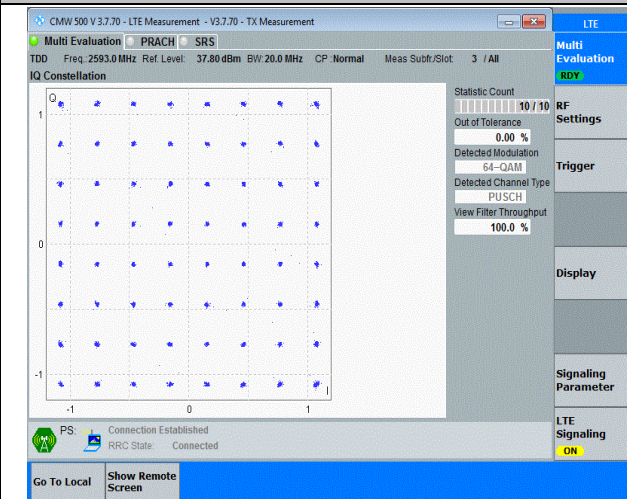
Band38-20MHz-64QAM-38000-100RB#0-PASS



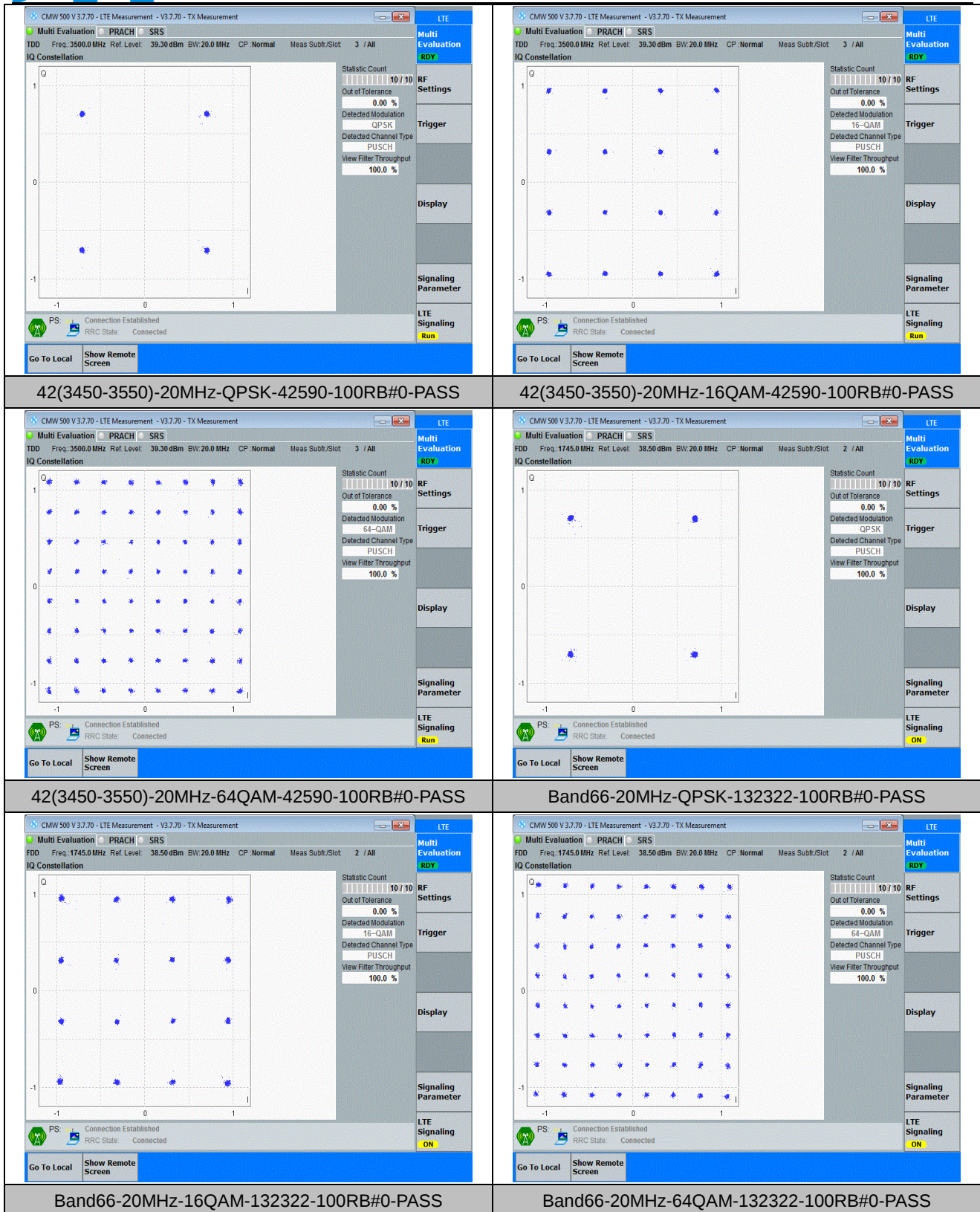
Band41-20MHz-QPSK-40620-100RB#0-PASS



Band41-20MHz-16QAM-40620-100RB#0-PASS



Band41-20MHz-64QAM-40620-100RB#0-PASS



Antenna 0 (LTE Band 41 TX ANT in ENDC mode)

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	20.70	20.75	33.01	PASS
Band41	5MHz	QPSK	39675	1RB#12	20.73	20.78	33.01	PASS
Band41	5MHz	QPSK	39675	1RB#24	20.78	20.83	33.01	PASS
Band41	5MHz	QPSK	39675	12RB#0	19.76	19.81	33.01	PASS
Band41	5MHz	QPSK	39675	12RB#6	19.74	19.79	33.01	PASS
Band41	5MHz	QPSK	39675	12RB#11	19.75	19.8	33.01	PASS
Band41	5MHz	QPSK	39675	25RB#0	19.77	19.82	33.01	PASS
Band41	5MHz	QPSK	40620	1RB#0	21.09	21.14	33.01	PASS
Band41	5MHz	QPSK	40620	1RB#12	21.07	21.12	33.01	PASS
Band41	5MHz	QPSK	40620	1RB#24	21.14	21.19	33.01	PASS
Band41	5MHz	QPSK	40620	12RB#0	19.88	19.93	33.01	PASS
Band41	5MHz	QPSK	40620	12RB#6	19.87	19.92	33.01	PASS
Band41	5MHz	QPSK	40620	12RB#11	19.86	19.91	33.01	PASS
Band41	5MHz	QPSK	40620	25RB#0	19.93	19.98	33.01	PASS
Band41	5MHz	QPSK	41565	1RB#0	20.83	20.88	33.01	PASS
Band41	5MHz	QPSK	41565	1RB#12	20.74	20.79	33.01	PASS
Band41	5MHz	QPSK	41565	1RB#24	20.72	20.77	33.01	PASS
Band41	5MHz	QPSK	41565	12RB#0	19.86	19.91	33.01	PASS
Band41	5MHz	QPSK	41565	12RB#6	19.85	19.9	33.01	PASS
Band41	5MHz	QPSK	41565	12RB#11	19.83	19.88	33.01	PASS
Band41	5MHz	QPSK	41565	25RB#0	19.90	19.95	33.01	PASS
Band41	5MHz	16QAM	39675	1RB#0	19.85	19.9	33.01	PASS
Band41	5MHz	16QAM	39675	1RB#12	19.89	19.94	33.01	PASS
Band41	5MHz	16QAM	39675	1RB#24	19.97	20.02	33.01	PASS
Band41	5MHz	16QAM	39675	12RB#0	18.73	18.78	33.01	PASS
Band41	5MHz	16QAM	39675	12RB#6	18.76	18.81	33.01	PASS
Band41	5MHz	16QAM	39675	12RB#11	18.75	18.8	33.01	PASS
Band41	5MHz	16QAM	39675	25RB#0	18.74	18.79	33.01	PASS
Band41	5MHz	16QAM	40620	1RB#0	20.20	20.25	33.01	PASS
Band41	5MHz	16QAM	40620	1RB#12	20.17	20.22	33.01	PASS
Band41	5MHz	16QAM	40620	1RB#24	20.19	20.24	33.01	PASS
Band41	5MHz	16QAM	40620	12RB#0	18.92	18.97	33.01	PASS
Band41	5MHz	16QAM	40620	12RB#6	18.88	18.93	33.01	PASS

Band41	5MHz	16QAM	40620	12RB#11	18.87	18.92	33.01	PASS
Band41	5MHz	16QAM	40620	25RB#0	18.91	18.96	33.01	PASS
Band41	5MHz	16QAM	41565	1RB#0	20.09	20.14	33.01	PASS
Band41	5MHz	16QAM	41565	1RB#12	20.02	20.07	33.01	PASS
Band41	5MHz	16QAM	41565	1RB#24	20.00	20.05	33.01	PASS
Band41	5MHz	16QAM	41565	12RB#0	18.83	18.88	33.01	PASS
Band41	5MHz	16QAM	41565	12RB#6	18.88	18.93	33.01	PASS
Band41	5MHz	16QAM	41565	12RB#11	18.84	18.89	33.01	PASS
Band41	5MHz	16QAM	41565	25RB#0	18.86	18.91	33.01	PASS
Band41	5MHz	64QAM	39675	1RB#0	18.86	18.91	33.01	PASS
Band41	5MHz	64QAM	39675	1RB#12	18.88	18.93	33.01	PASS
Band41	5MHz	64QAM	39675	1RB#24	18.93	18.98	33.01	PASS
Band41	5MHz	64QAM	39675	12RB#0	17.73	17.78	33.01	PASS
Band41	5MHz	64QAM	39675	12RB#6	17.76	17.81	33.01	PASS
Band41	5MHz	64QAM	39675	12RB#11	17.75	17.8	33.01	PASS
Band41	5MHz	64QAM	39675	25RB#0	17.73	17.78	33.01	PASS
Band41	5MHz	64QAM	40620	1RB#0	19.27	19.32	33.01	PASS
Band41	5MHz	64QAM	40620	1RB#12	19.27	19.32	33.01	PASS
Band41	5MHz	64QAM	40620	1RB#24	19.28	19.33	33.01	PASS
Band41	5MHz	64QAM	40620	12RB#0	17.91	17.96	33.01	PASS
Band41	5MHz	64QAM	40620	12RB#6	17.88	17.93	33.01	PASS
Band41	5MHz	64QAM	40620	12RB#11	17.90	17.95	33.01	PASS
Band41	5MHz	64QAM	40620	25RB#0	17.93	17.98	33.01	PASS
Band41	5MHz	64QAM	41565	1RB#0	19.37	19.42	33.01	PASS
Band41	5MHz	64QAM	41565	1RB#12	19.26	19.31	33.01	PASS
Band41	5MHz	64QAM	41565	1RB#24	18.96	19.01	33.01	PASS
Band41	5MHz	64QAM	41565	12RB#0	17.82	17.87	33.01	PASS
Band41	5MHz	64QAM	41565	12RB#6	17.83	17.88	33.01	PASS
Band41	5MHz	64QAM	41565	12RB#11	17.80	17.85	33.01	PASS
Band41	5MHz	64QAM	41565	25RB#0	17.89	17.94	33.01	PASS
Band41	10MHz	QPSK	39700	1RB#0	20.87	20.92	33.01	PASS
Band41	10MHz	QPSK	39700	1RB#24	20.79	20.84	33.01	PASS
Band41	10MHz	QPSK	39700	1RB#49	20.99	21.04	33.01	PASS
Band41	10MHz	QPSK	39700	25RB#0	19.75	19.8	33.01	PASS
Band41	10MHz	QPSK	39700	25RB#12	19.76	19.81	33.01	PASS
Band41	10MHz	QPSK	39700	25RB#24	19.74	19.79	33.01	PASS
Band41	10MHz	QPSK	39700	50RB#0	19.81	19.86	33.01	PASS
Band41	10MHz	QPSK	40620	1RB#0	21.02	21.07	33.01	PASS
Band41	10MHz	QPSK	40620	1RB#24	20.96	21.01	33.01	PASS
Band41	10MHz	QPSK	40620	1RB#49	21.02	21.07	33.01	PASS
Band41	10MHz	QPSK	40620	25RB#0	19.93	19.98	33.01	PASS
Band41	10MHz	QPSK	40620	25RB#12	19.94	19.99	33.01	PASS

Band41	10MHz	QPSK	40620	25RB#24	19.95	20	33.01	PASS
Band41	10MHz	QPSK	40620	50RB#0	19.91	19.96	33.01	PASS
Band41	10MHz	QPSK	41540	1RB#0	20.92	20.97	33.01	PASS
Band41	10MHz	QPSK	41540	1RB#24	20.79	20.84	33.01	PASS
Band41	10MHz	QPSK	41540	1RB#49	20.91	20.96	33.01	PASS
Band41	10MHz	QPSK	41540	25RB#0	19.86	19.91	33.01	PASS
Band41	10MHz	QPSK	41540	25RB#12	19.87	19.92	33.01	PASS
Band41	10MHz	QPSK	41540	25RB#24	19.85	19.9	33.01	PASS
Band41	10MHz	QPSK	41540	50RB#0	19.85	19.9	33.01	PASS
Band41	10MHz	16QAM	39700	1RB#0	20.12	20.17	33.01	PASS
Band41	10MHz	16QAM	39700	1RB#24	20.12	20.17	33.01	PASS
Band41	10MHz	16QAM	39700	1RB#49	20.24	20.29	33.01	PASS
Band41	10MHz	16QAM	39700	25RB#0	18.80	18.85	33.01	PASS
Band41	10MHz	16QAM	39700	25RB#12	18.80	18.85	33.01	PASS
Band41	10MHz	16QAM	39700	25RB#24	18.79	18.84	33.01	PASS
Band41	10MHz	16QAM	39700	50RB#0	18.80	18.85	33.01	PASS
Band41	10MHz	16QAM	40620	1RB#0	20.30	20.35	33.01	PASS
Band41	10MHz	16QAM	40620	1RB#24	20.26	20.31	33.01	PASS
Band41	10MHz	16QAM	40620	1RB#49	20.46	20.51	33.01	PASS
Band41	10MHz	16QAM	40620	25RB#0	18.98	19.03	33.01	PASS
Band41	10MHz	16QAM	40620	25RB#12	18.97	19.02	33.01	PASS
Band41	10MHz	16QAM	40620	25RB#24	18.97	19.02	33.01	PASS
Band41	10MHz	16QAM	40620	50RB#0	18.90	18.95	33.01	PASS
Band41	10MHz	16QAM	41540	1RB#0	19.89	19.94	33.01	PASS
Band41	10MHz	16QAM	41540	1RB#24	19.73	19.78	33.01	PASS
Band41	10MHz	16QAM	41540	1RB#49	19.82	19.87	33.01	PASS
Band41	10MHz	16QAM	41540	25RB#0	18.86	18.91	33.01	PASS
Band41	10MHz	16QAM	41540	25RB#12	18.87	18.92	33.01	PASS
Band41	10MHz	16QAM	41540	25RB#24	18.86	18.91	33.01	PASS
Band41	10MHz	16QAM	41540	50RB#0	18.86	18.91	33.01	PASS
Band41	10MHz	64QAM	39700	1RB#0	19.17	19.22	33.01	PASS
Band41	10MHz	64QAM	39700	1RB#24	19.12	19.17	33.01	PASS
Band41	10MHz	64QAM	39700	1RB#49	19.34	19.39	33.01	PASS
Band41	10MHz	64QAM	39700	25RB#0	17.74	17.79	33.01	PASS
Band41	10MHz	64QAM	39700	25RB#12	17.75	17.8	33.01	PASS
Band41	10MHz	64QAM	39700	25RB#24	17.75	17.8	33.01	PASS
Band41	10MHz	64QAM	39700	50RB#0	17.82	17.87	33.01	PASS
Band41	10MHz	64QAM	40620	1RB#0	19.37	19.42	33.01	PASS
Band41	10MHz	64QAM	40620	1RB#24	19.31	19.36	33.01	PASS
Band41	10MHz	64QAM	40620	1RB#49	19.39	19.44	33.01	PASS
Band41	10MHz	64QAM	40620	25RB#0	17.90	17.95	33.01	PASS
Band41	10MHz	64QAM	40620	25RB#12	17.90	17.95	33.01	PASS

Band41	10MHz	64QAM	40620	25RB#24	17.90	17.95	33.01	PASS
Band41	10MHz	64QAM	40620	50RB#0	17.91	17.96	33.01	PASS
Band41	10MHz	64QAM	41540	1RB#0	18.84	18.89	33.01	PASS
Band41	10MHz	64QAM	41540	1RB#24	18.73	18.78	33.01	PASS
Band41	10MHz	64QAM	41540	1RB#49	18.86	18.91	33.01	PASS
Band41	10MHz	64QAM	41540	25RB#0	17.76	17.81	33.01	PASS
Band41	10MHz	64QAM	41540	25RB#12	17.76	17.81	33.01	PASS
Band41	10MHz	64QAM	41540	25RB#24	17.75	17.8	33.01	PASS
Band41	10MHz	64QAM	41540	50RB#0	17.83	17.88	33.01	PASS
Band41	15MHz	QPSK	39725	1RB#0	20.85	20.9	33.01	PASS
Band41	15MHz	QPSK	39725	1RB#37	20.92	20.97	33.01	PASS
Band41	15MHz	QPSK	39725	1RB#74	21.07	21.12	33.01	PASS
Band41	15MHz	QPSK	39725	36RB#0	19.76	19.81	33.01	PASS
Band41	15MHz	QPSK	39725	36RB#16	19.75	19.8	33.01	PASS
Band41	15MHz	QPSK	39725	36RB#35	19.77	19.82	33.01	PASS
Band41	15MHz	QPSK	39725	75RB#0	19.81	19.86	33.01	PASS
Band41	15MHz	QPSK	40620	1RB#0	20.97	21.02	33.01	PASS
Band41	15MHz	QPSK	40620	1RB#37	21.04	21.09	33.01	PASS
Band41	15MHz	QPSK	40620	1RB#74	21.01	21.06	33.01	PASS
Band41	15MHz	QPSK	40620	36RB#0	19.85	19.9	33.01	PASS
Band41	15MHz	QPSK	40620	36RB#16	19.86	19.91	33.01	PASS
Band41	15MHz	QPSK	40620	36RB#35	19.87	19.92	33.01	PASS
Band41	15MHz	QPSK	40620	75RB#0	19.86	19.91	33.01	PASS
Band41	15MHz	QPSK	41515	1RB#0	21.10	21.15	33.01	PASS
Band41	15MHz	QPSK	41515	1RB#37	20.99	21.04	33.01	PASS
Band41	15MHz	QPSK	41515	1RB#74	20.97	21.02	33.01	PASS
Band41	15MHz	QPSK	41515	36RB#0	19.85	19.9	33.01	PASS
Band41	15MHz	QPSK	41515	36RB#16	19.89	19.94	33.01	PASS
Band41	15MHz	QPSK	41515	36RB#35	19.86	19.91	33.01	PASS
Band41	15MHz	QPSK	41515	75RB#0	19.89	19.94	33.01	PASS
Band41	15MHz	16QAM	39725	1RB#0	19.78	19.83	33.01	PASS
Band41	15MHz	16QAM	39725	1RB#37	19.86	19.91	33.01	PASS
Band41	15MHz	16QAM	39725	1RB#74	19.97	20.02	33.01	PASS
Band41	15MHz	16QAM	39725	36RB#0	18.76	18.81	33.01	PASS
Band41	15MHz	16QAM	39725	36RB#16	18.75	18.8	33.01	PASS
Band41	15MHz	16QAM	39725	36RB#35	18.77	18.82	33.01	PASS
Band41	15MHz	16QAM	39725	75RB#0	18.85	18.9	33.01	PASS
Band41	15MHz	16QAM	40620	1RB#0	20.21	20.26	33.01	PASS
Band41	15MHz	16QAM	40620	1RB#37	20.22	20.27	33.01	PASS
Band41	15MHz	16QAM	40620	1RB#74	20.25	20.3	33.01	PASS
Band41	15MHz	16QAM	40620	36RB#0	18.93	18.98	33.01	PASS
Band41	15MHz	16QAM	40620	36RB#16	18.94	18.99	33.01	PASS

Band41	15MHz	16QAM	40620	36RB#35	18.93	18.98	33.01	PASS
Band41	15MHz	16QAM	40620	75RB#0	18.93	18.98	33.01	PASS
Band41	15MHz	16QAM	41515	1RB#0	19.97	20.02	33.01	PASS
Band41	15MHz	16QAM	41515	1RB#37	19.91	19.96	33.01	PASS
Band41	15MHz	16QAM	41515	1RB#74	19.89	19.94	33.01	PASS
Band41	15MHz	16QAM	41515	36RB#0	18.87	18.92	33.01	PASS
Band41	15MHz	16QAM	41515	36RB#16	18.85	18.9	33.01	PASS
Band41	15MHz	16QAM	41515	36RB#35	18.89	18.94	33.01	PASS
Band41	15MHz	16QAM	41515	75RB#0	18.89	18.94	33.01	PASS
Band41	15MHz	64QAM	39725	1RB#0	18.98	19.03	33.01	PASS
Band41	15MHz	64QAM	39725	1RB#37	19.04	19.09	33.01	PASS
Band41	15MHz	64QAM	39725	1RB#74	19.16	19.21	33.01	PASS
Band41	15MHz	64QAM	39725	36RB#0	17.80	17.85	33.01	PASS
Band41	15MHz	64QAM	39725	36RB#16	17.80	17.85	33.01	PASS
Band41	15MHz	64QAM	39725	36RB#35	17.81	17.86	33.01	PASS
Band41	15MHz	64QAM	39725	75RB#0	17.83	17.88	33.01	PASS
Band41	15MHz	64QAM	40620	1RB#0	19.30	19.35	33.01	PASS
Band41	15MHz	64QAM	40620	1RB#37	19.30	19.35	33.01	PASS
Band41	15MHz	64QAM	40620	1RB#74	19.36	19.41	33.01	PASS
Band41	15MHz	64QAM	40620	36RB#0	17.91	17.96	33.01	PASS
Band41	15MHz	64QAM	40620	36RB#16	17.92	17.97	33.01	PASS
Band41	15MHz	64QAM	40620	36RB#35	17.90	17.95	33.01	PASS
Band41	15MHz	64QAM	40620	75RB#0	17.95	18	33.01	PASS
Band41	15MHz	64QAM	41515	1RB#0	19.16	19.21	33.01	PASS
Band41	15MHz	64QAM	41515	1RB#37	19.13	19.18	33.01	PASS
Band41	15MHz	64QAM	41515	1RB#74	19.13	19.18	33.01	PASS
Band41	15MHz	64QAM	41515	36RB#0	17.91	17.96	33.01	PASS
Band41	15MHz	64QAM	41515	36RB#16	17.90	17.95	33.01	PASS
Band41	15MHz	64QAM	41515	36RB#35	17.94	17.99	33.01	PASS
Band41	15MHz	64QAM	41515	75RB#0	17.90	17.95	33.01	PASS
Band41	20MHz	QPSK	39750	1RB#0	20.75	20.8	33.01	PASS
Band41	20MHz	QPSK	39750	1RB#49	20.84	20.89	33.01	PASS
Band41	20MHz	QPSK	39750	1RB#99	20.91	20.96	33.01	PASS
Band41	20MHz	QPSK	39750	50RB#0	19.76	19.81	33.01	PASS
Band41	20MHz	QPSK	39750	50RB#24	19.78	19.83	33.01	PASS
Band41	20MHz	QPSK	39750	50RB#49	19.75	19.8	33.01	PASS
Band41	20MHz	QPSK	39750	100RB#0	19.85	19.9	33.01	PASS
Band41	20MHz	QPSK	40620	1RB#0	20.84	20.89	33.01	PASS
Band41	20MHz	QPSK	40620	1RB#49	20.90	20.95	33.01	PASS
Band41	20MHz	QPSK	40620	1RB#99	20.97	21.02	33.01	PASS
Band41	20MHz	QPSK	40620	50RB#0	19.95	20	33.01	PASS
Band41	20MHz	QPSK	40620	50RB#24	19.94	19.99	33.01	PASS

Band41	20MHz	QPSK	40620	50RB#49	19.92	19.97	33.01	PASS
Band41	20MHz	QPSK	40620	100RB#0	19.95	20	33.01	PASS
Band41	20MHz	QPSK	41490	1RB#0	20.84	20.89	33.01	PASS
Band41	20MHz	QPSK	41490	1RB#49	20.87	20.92	33.01	PASS
Band41	20MHz	QPSK	41490	1RB#99	20.88	20.93	33.01	PASS
Band41	20MHz	QPSK	41490	50RB#0	19.94	19.99	33.01	PASS
Band41	20MHz	QPSK	41490	50RB#24	19.94	19.99	33.01	PASS
Band41	20MHz	QPSK	41490	50RB#49	19.95	20	33.01	PASS
Band41	20MHz	QPSK	41490	100RB#0	19.90	19.95	33.01	PASS
Band41	20MHz	16QAM	39750	1RB#0	19.45	19.5	33.01	PASS
Band41	20MHz	16QAM	39750	1RB#49	19.51	19.56	33.01	PASS
Band41	20MHz	16QAM	39750	1RB#99	19.61	19.66	33.01	PASS
Band41	20MHz	16QAM	39750	50RB#0	18.79	18.84	33.01	PASS
Band41	20MHz	16QAM	39750	50RB#24	18.81	18.86	33.01	PASS
Band41	20MHz	16QAM	39750	50RB#49	18.81	18.86	33.01	PASS
Band41	20MHz	16QAM	39750	100RB#0	18.85	18.9	33.01	PASS
Band41	20MHz	16QAM	40620	1RB#0	20.05	20.1	33.01	PASS
Band41	20MHz	16QAM	40620	1RB#49	20.13	20.18	33.01	PASS
Band41	20MHz	16QAM	40620	1RB#99	20.13	20.18	33.01	PASS
Band41	20MHz	16QAM	40620	50RB#0	18.94	18.99	33.01	PASS
Band41	20MHz	16QAM	40620	50RB#24	18.95	19	33.01	PASS
Band41	20MHz	16QAM	40620	50RB#49	18.95	19	33.01	PASS
Band41	20MHz	16QAM	40620	100RB#0	18.92	18.97	33.01	PASS
Band41	20MHz	16QAM	41490	1RB#0	19.60	19.65	33.01	PASS
Band41	20MHz	16QAM	41490	1RB#49	19.57	19.62	33.01	PASS
Band41	20MHz	16QAM	41490	1RB#99	19.62	19.67	33.01	PASS
Band41	20MHz	16QAM	41490	50RB#0	18.97	19.02	33.01	PASS
Band41	20MHz	16QAM	41490	50RB#24	18.95	19	33.01	PASS
Band41	20MHz	16QAM	41490	50RB#49	18.96	19.01	33.01	PASS
Band41	20MHz	16QAM	41490	100RB#0	18.89	18.94	33.01	PASS
Band41	20MHz	64QAM	39750	1RB#0	18.88	18.93	33.01	PASS
Band41	20MHz	64QAM	39750	1RB#49	18.97	19.02	33.01	PASS
Band41	20MHz	64QAM	39750	1RB#99	19.02	19.07	33.01	PASS
Band41	20MHz	64QAM	39750	50RB#0	17.87	17.92	33.01	PASS
Band41	20MHz	64QAM	39750	50RB#24	17.89	17.94	33.01	PASS
Band41	20MHz	64QAM	39750	50RB#49	17.87	17.92	33.01	PASS
Band41	20MHz	64QAM	39750	100RB#0	17.89	17.94	33.01	PASS
Band41	20MHz	64QAM	40620	1RB#0	19.08	19.13	33.01	PASS
Band41	20MHz	64QAM	40620	1RB#49	19.09	19.14	33.01	PASS
Band41	20MHz	64QAM	40620	1RB#99	19.14	19.19	33.01	PASS
Band41	20MHz	64QAM	40620	50RB#0	17.91	17.96	33.01	PASS
Band41	20MHz	64QAM	40620	50RB#24	17.92	17.97	33.01	PASS

Band41	20MHz	64QAM	40620	50RB#49	17.91	17.96	33.01	PASS
Band41	20MHz	64QAM	40620	100RB#0	17.94	17.99	33.01	PASS
Band41	20MHz	64QAM	41490	1RB#0	19.02	19.07	33.01	PASS
Band41	20MHz	64QAM	41490	1RB#49	18.96	19.01	33.01	PASS
Band41	20MHz	64QAM	41490	1RB#99	19.03	19.08	33.01	PASS
Band41	20MHz	64QAM	41490	50RB#0	18.01	18.06	33.01	PASS
Band41	20MHz	64QAM	41490	50RB#24	17.99	18.04	33.01	PASS
Band41	20MHz	64QAM	41490	50RB#49	18.00	18.05	33.01	PASS
Band41	20MHz	64QAM	41490	100RB#0	17.91	17.96	33.01	PASS

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For Band 2 & 4 & 7 & 38 & 41 & 66)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For Band 5 & 12 & 17 & 71)

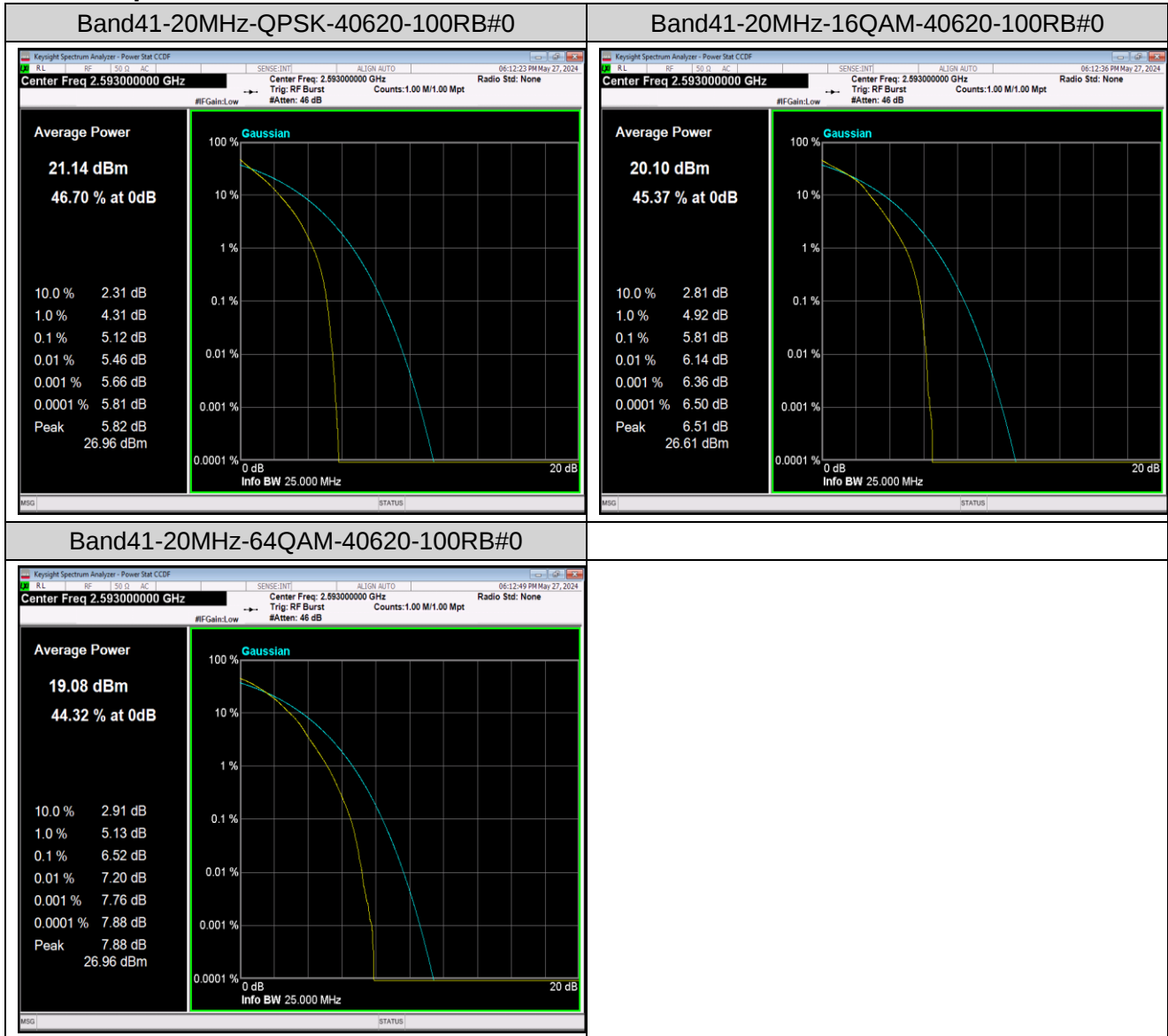
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	20MHz	QPSK	40620	100RB#0	5.12	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	5.81	13	PASS
Band41	20MHz	64QAM	40620	100RB#0	6.52	13	PASS

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs



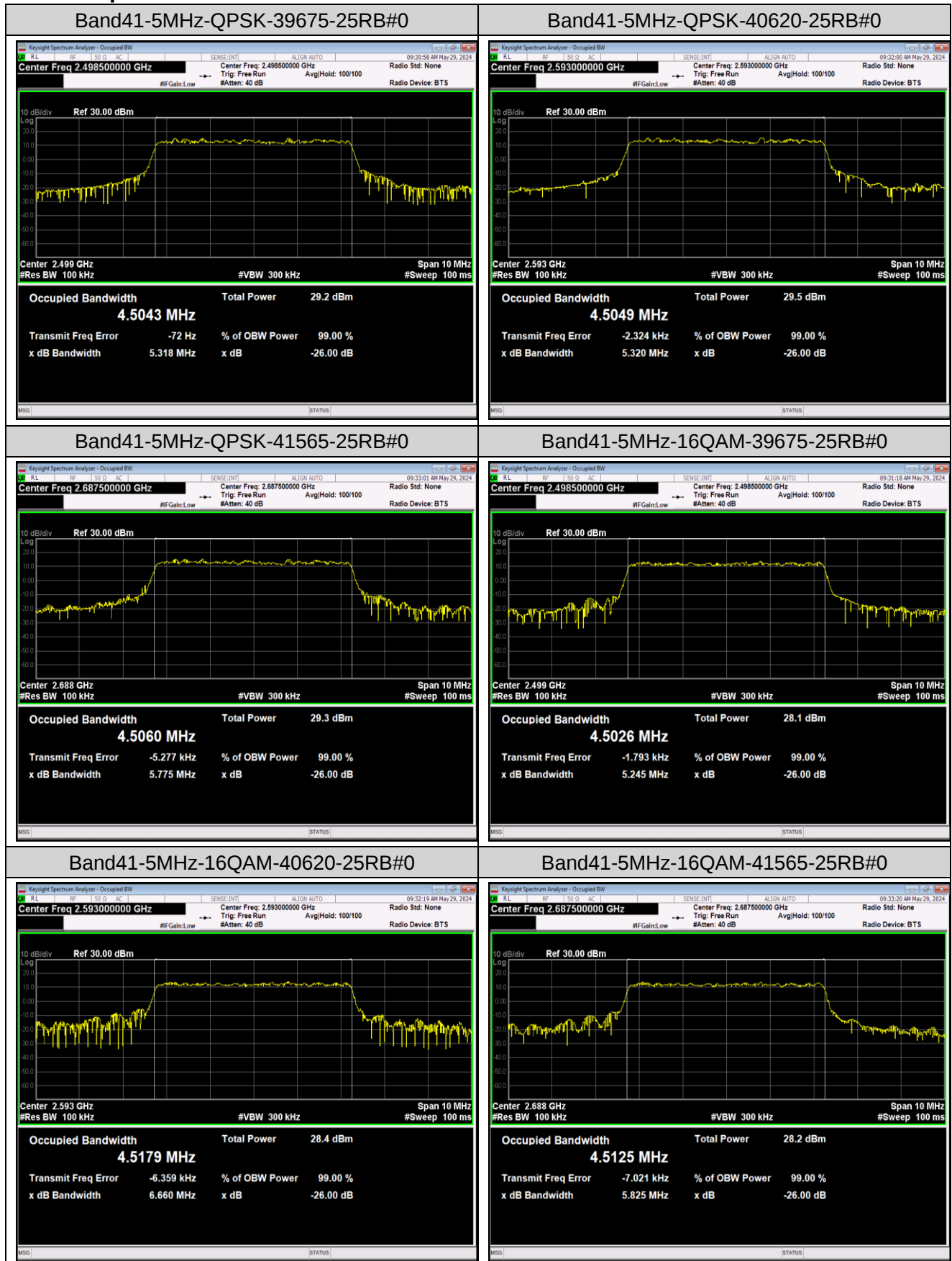
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

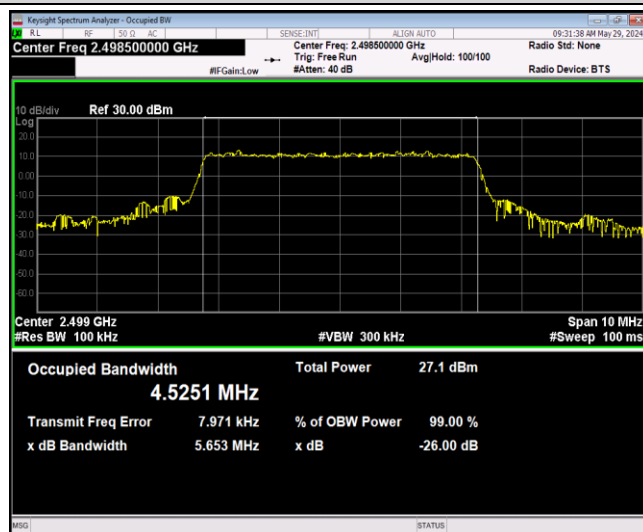
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.5043	5.318	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.5049	5.320	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.5060	5.775	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.5026	5.245	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.5179	6.660	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.5125	5.825	PASS
Band41	5MHz	64QAM	39675	25RB#0	4.5251	5.653	PASS
Band41	5MHz	64QAM	40620	25RB#0	4.5753	6.766	PASS
Band41	5MHz	64QAM	41565	25RB#0	4.5235	5.670	PASS
Band41	10MHz	QPSK	39700	50RB#0	9.0532	11.76	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.9773	10.16	PASS
Band41	10MHz	QPSK	41540	50RB#0	9.0109	11.92	PASS
Band41	10MHz	16QAM	39700	50RB#0	9.0102	13.75	PASS
Band41	10MHz	16QAM	40620	50RB#0	9.0039	10.34	PASS
Band41	10MHz	16QAM	41540	50RB#0	9.0664	15.19	PASS
Band41	10MHz	64QAM	39700	50RB#0	9.0843	14.81	PASS
Band41	10MHz	64QAM	40620	50RB#0	8.9925	9.838	PASS
Band41	10MHz	64QAM	41540	50RB#0	9.0594	14.64	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.537	19.01	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.533	17.63	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.486	14.96	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.710	21.33	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.620	23.27	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.490	16.18	PASS
Band41	15MHz	64QAM	39725	75RB#0	13.535	20.76	PASS
Band41	15MHz	64QAM	40620	75RB#0	13.534	20.24	PASS
Band41	15MHz	64QAM	41515	75RB#0	13.447	14.85	PASS
Band41	20MHz	QPSK	39750	100RB#0	18.106	23.49	PASS
Band41	20MHz	QPSK	40620	100RB#0	18.248	26.96	PASS
Band41	20MHz	QPSK	41490	100RB#0	18.110	26.44	PASS
Band41	20MHz	16QAM	39750	100RB#0	18.126	32.55	PASS
Band41	20MHz	16QAM	40620	100RB#0	18.177	35.50	PASS
Band41	20MHz	16QAM	41490	100RB#0	18.201	30.21	PASS
Band41	20MHz	64QAM	39750	100RB#0	18.185	36.10	PASS
Band41	20MHz	64QAM	40620	100RB#0	18.224	37.94	PASS

Band41	20MHz	64QAM	41490	100RB#0	18.396	37.95	PASS
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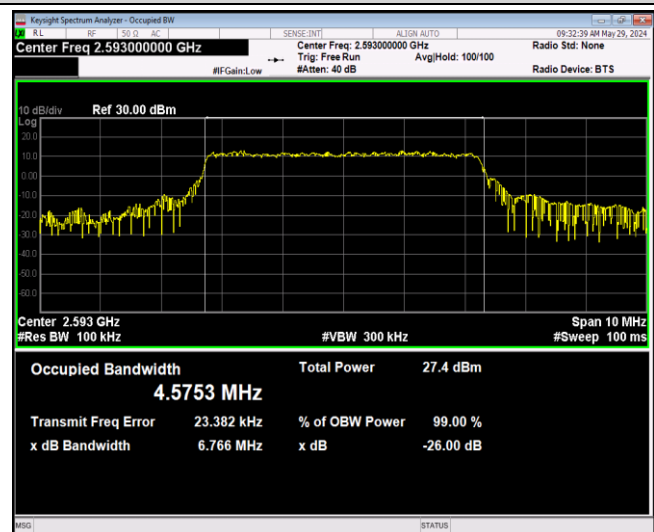
Test Graphs



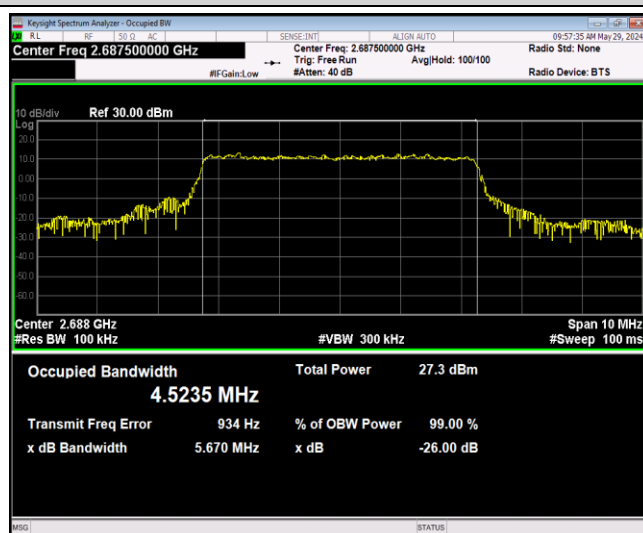
Band41-5MHz-64QAM-39675-25RB#0



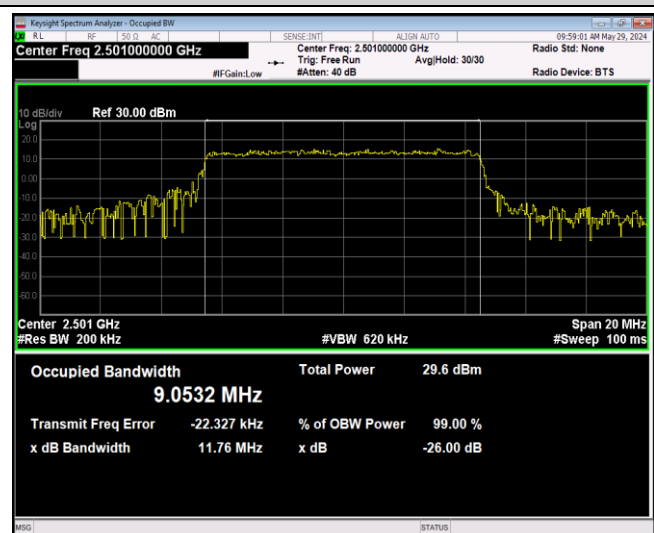
Band41-5MHz-64QAM-40620-25RB#0



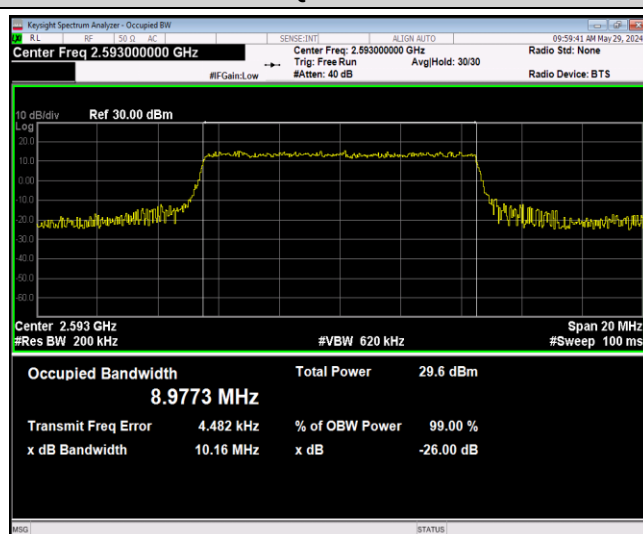
Band41-5MHz-64QAM-41565-25RB#0



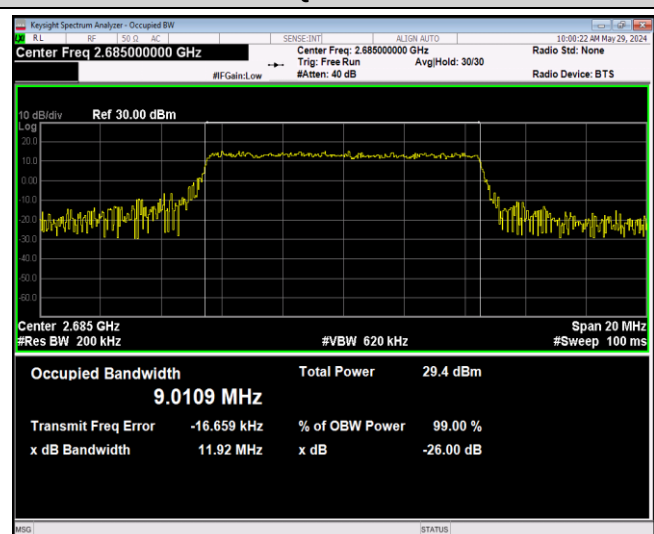
Band41-10MHz-QPSK-39700-50RB#0



Band41-10MHz-QPSK-40620-50RB#0



Band41-10MHz-QPSK-41540-50RB#0



Band41-10MHz-16QAM-39700-50RB#0

JianYan Testing Group Shenzhen Co., Ltd.
No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community,
Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366

Band41-10MHz-16QAM-40620-50RB#0

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