

LTE Band 26 part 90S:

Reference Frequency: LTE Band 26 (10MHz) Middle channel=26740 Frequency=819.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-4.63	-0.005653	Within authorized band for Band 26	Pass
	-20	1.36	0.001661		
	-10	-8.73	-0.010659		
	0	-1.59	-0.001941		
	10	-3.09	-0.003773		
	20	-4.29	-0.005238		
	30	-8.90	-0.010867		
	40	-7.81	-0.009536		
	50	-3.76	-0.004591		
16QAM					
3.85	-30	-6.37	-0.007778	Within authorized band for Band 26	Pass
	-20	-6.11	-0.007460		
	-10	-9.03	-0.011026		
	0	-8.97	-0.010952		
	10	-5.95	-0.007265		
	20	-2.16	-0.002637		
	30	-10.70	-0.013065		
	40	-5.65	-0.006899		
	50	-5.19	-0.006337		
64QAM					
3.85	-30	-9.98	-0.012186	Within authorized band for Band 26	Pass
	-20	-6.12	-0.007473		
	-10	-9.88	-0.012063		
	0	-7.75	-0.009463		
	10	-8.81	-0.010757		
	20	-8.01	-0.009780		
	30	-6.59	-0.008046		
	40	-5.65	-0.006899		
	50	-6.25	-0.007631		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					

25	3.50	-12.26	-0.014969	Within authorized band for Band 26	Pass
	3.85	-11.66	-0.014237		
	4.40	-9.71	-0.011856		
16QAM					
25	3.50	-6.47	-0.007900	Within authorized band for Band 26	Pass
	3.85	-3.28	-0.004005		
	4.40	-12.04	-0.014701		
64QAM					
25	3.50	-6.21	-0.007582	Within authorized band for Band 26	Pass
	3.85	-5.89	-0.007192		
	4.40	-6.65	-0.008120		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 26 part 22:

Reference Frequency: LTE Band 26 (10MHz) Middle channel=26915 Frequency=836.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-7.95	-0.009504	Within authorized band for Band 26	Pass
	-20	-5.38	-0.006432		
	-10	-10.40	-0.012433		
	0	-11.13	-0.013305		
	10	-9.27	-0.011082		
	20	-13.55	-0.016198		
	30	-10.03	-0.011990		
	40	-10.76	-0.012863		
	50	-4.52	-0.005403		
16QAM					
3.85	-30	-9.81	-0.011727	Within authorized band for Band 26	Pass
	-20	-4.59	-0.005487		
	-10	-12.36	-0.014776		
	0	-10.03	-0.011990		
	10	-9.64	-0.011524		
	20	-8.90	-0.010640		
	30	-7.93	-0.009480		
	40	-12.37	-0.014788		
	50	-8.24	-0.009851		
64QAM					
3.85	-30	-2.86	-0.003419	Within authorized band for Band 26	Pass
	-20	-7.24	-0.008655		
	-10	-6.95	-0.008308		
	0	-6.51	-0.007782		
	10	-17.51	-0.020932		
	20	-12.39	-0.014812		
	30	-13.02	-0.015565		
	40	-8.23	-0.009839		
	50	-11.47	-0.013712		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					

25	3.50	-7.35	-0.008787	Within authorized band for Band 26	Pass
	3.85	-11.93	-0.014262		
	4.40	-7.64	-0.009133		
16QAM					
25	3.50	-6.47	-0.007735	Within authorized band for Band 26	Pass
	3.85	-6.95	-0.008308		
	4.40	-4.82	-0.005762		
64QAM					
25	3.50	-2.88	-0.003443	Within authorized band for Band 26	Pass
	3.85	-7.27	-0.008691		
	4.40	-10.79	-0.012899		
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=40640 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-18.34	-0.007067	Within authorized band for Band 41	Pass
	-20	-7.98	-0.003075		
	-10	-15.03	-0.005792		
	0	-17.95	-0.006917		
	10	-11.01	-0.004243		
	20	-23.05	-0.008882		
	30	-14.19	-0.005468		
	40	-17.41	-0.006709		
	50	-15.91	-0.006131		
16QAM					
3.85	-30	-16.09	-0.006200	Within authorized band for Band 41	Pass
	-20	-19.38	-0.007468		
	-10	13.30	0.005125		
	0	-16.88	-0.006505		
	10	-12.22	-0.004709		
	20	-15.38	-0.005927		
	30	-7.22	-0.002782		
	40	6.12	0.002358		
	50	-16.26	-0.006266		
64QAM					
3.85	-30	17.85	0.006879	Within authorized band for Band 41	Pass
	-20	18.05	0.006956		
	-10	1.70	0.000655		
	0	-14.91	-0.005746		
	10	10.56	0.004069		
	20	-12.93	-0.004983		
	30	8.98	0.003461		
	40	-18.10	-0.006975		
	50	16.01	0.006170		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					

25	3.50	-15.55	-0.005992	Within authorized band for Band 41	Pass
	3.85	8.05	0.003102		
	4.40	6.25	0.002408		
16QAM					
25	3.50	7.62	0.002936	Within authorized band for Band41	Pass
	3.85	-9.10	-0.003507		
	4.40	-17.68	-0.006813		
64QAM					
25	3.50	-7.78	-0.002998	Within authorized band for Band41	Pass
	3.85	-15.03	-0.005792		
	4.40	8.40	0.003237		
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	-17.42	-0.009983	Within authorized band for Band 66	Pass
	-20	-14.12	-0.008092		
	-10	-10.60	-0.006074		
	0	-2.60	-0.001490		
	10	-2.50	-0.001433		
	20	2.45	0.001404		
	30	-10.14	-0.005811		
	40	-7.24	-0.004149		
	50	-9.38	-0.005375		
16QAM					
3.85	-30	-10.70	-0.006132	Within authorized band for Band 66	Pass
	-20	-7.47	-0.004281		
	-10	-8.34	-0.004779		
	0	-10.00	-0.005731		
	10	-9.54	-0.005467		
	20	-14.19	-0.008132		
	30	-12.67	-0.007261		
	40	-11.06	-0.006338		
	50	-16.79	-0.009622		
64QAM					
3.85	-30	-16.54	-0.009479	Within authorized band for Band 66	Pass
	-20	-6.81	-0.003903		
	-10	-5.31	-0.003043		
	0	-3.99	-0.002287		
	10	-18.28	-0.010476		
	20	-10.90	-0.006246		
	30	-19.57	-0.011215		
	40	-14.63	-0.008384		
	50	-20.18	-0.011564		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					

25	3.50	13.15	0.007536	Within authorized band for Band 66	Pass
	3.85	2.15	0.001232		
	4.40	-7.18	-0.004115		
16QAM					
25	3.50	-8.96	-0.005135	Within authorized band for Band 66	Pass
	3.85	-3.12	-0.001788		
	4.40	-8.75	-0.005014		
64QAM					
25	3.50	-4.86	-0.002785	Within authorized band for Band 66	Pass
	3.85	-12.76	-0.007312		
	4.40	-17.87	-0.010241		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

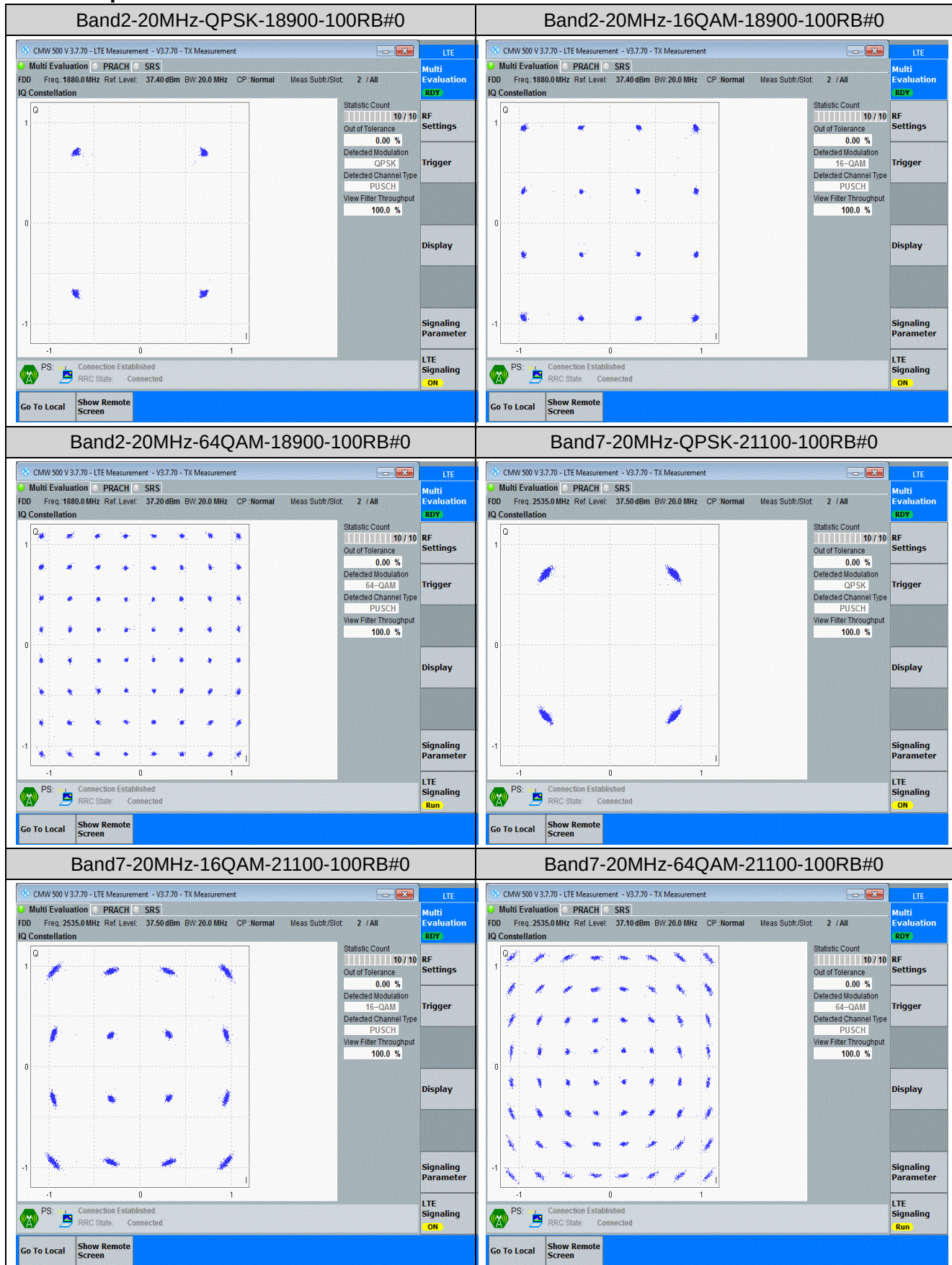
Appendix G: Modulation Characteristics

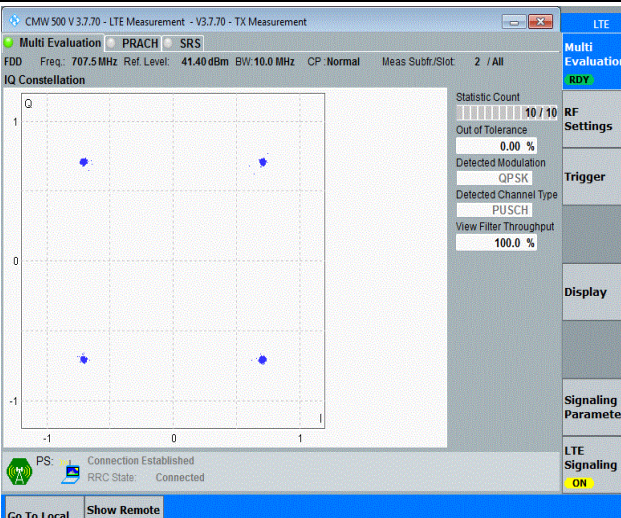
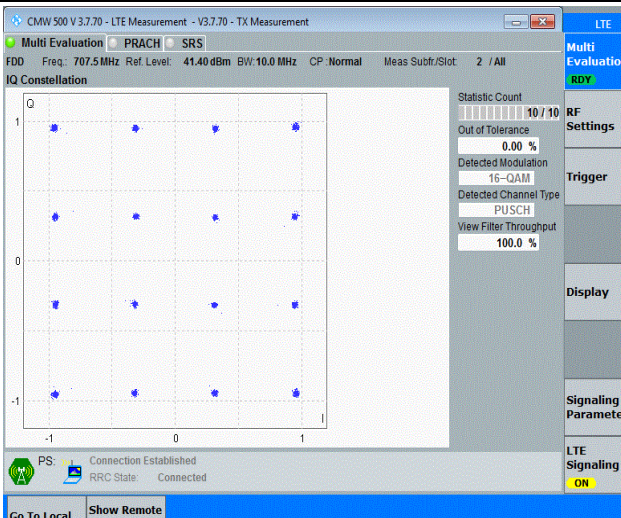
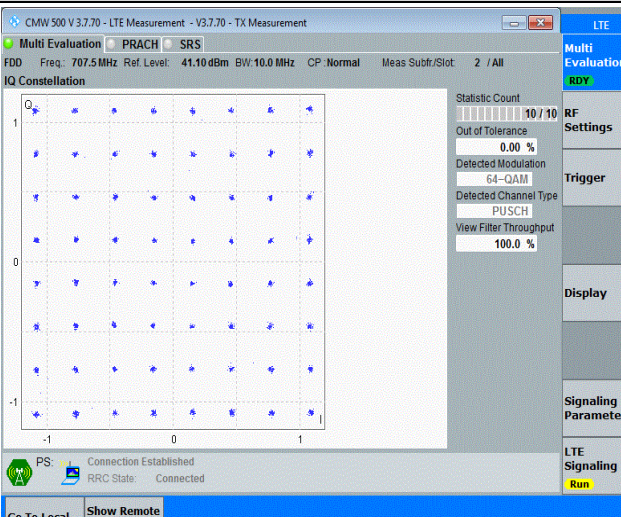
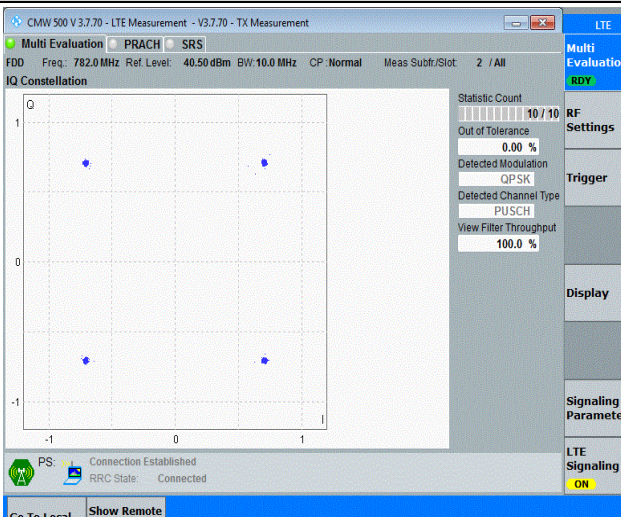
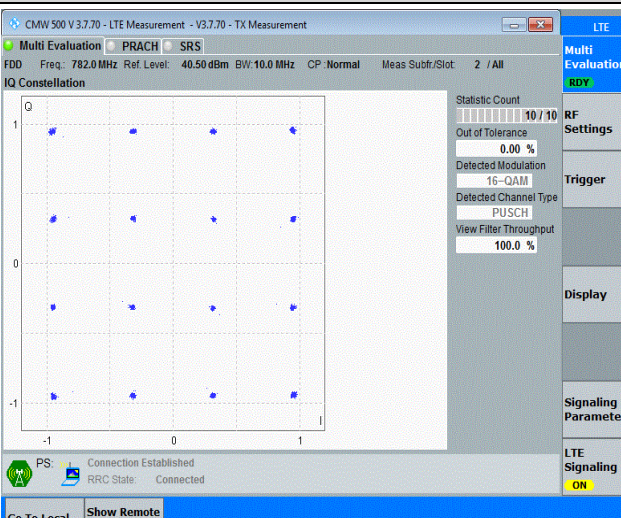
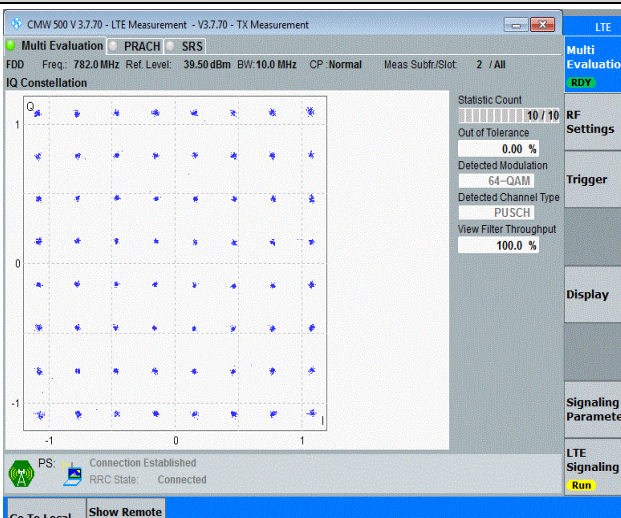
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band2	20MHz	QPSK	18900	100RB#0	PASS	PASS
Band2	20MHz	16QAM	18900	100RB#0	PASS	PASS
Band2	20MHz	64QAM	18900	100RB#0	PASS	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS
Band7	20MHz	64QAM	21100	100RB#0	PASS	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS
Band12	10MHz	64QAM	23095	50RB#0	PASS	PASS
Band13	10MHz	QPSK	23230	50RB#0	PASS	PASS
Band13	10MHz	16QAM	23230	50RB#0	PASS	PASS
Band13	10MHz	64QAM	23230	50RB#0	PASS	PASS
Band17	10MHz	QPSK	23790	50RB#0	PASS	PASS
Band17	10MHz	16QAM	23790	50RB#0	PASS	PASS
Band17	10MHz	64QAM	23790	50RB#0	PASS	PASS
Band25	20MHz	QPSK	26365	100RB#0	PASS	PASS
Band25	20MHz	16QAM	26365	100RB#0	PASS	PASS
Band25	20MHz	64QAM	26365	100RB#0	PASS	PASS
Band26	10MHz	QPSK	26740	50RB#0	PASS	PASS
Band26	10MHz	16QAM	26740	50RB#0	PASS	PASS
Band26	10MHz	64QAM	26740	50RB#0	PASS	PASS
Band26	15MHz	QPSK	26915	75RB#0	PASS	PASS
Band26	15MHz	16QAM	26915	75RB#0	PASS	PASS
Band26	15MHz	64QAM	26915	75RB#0	PASS	PASS
Band41	20MHz	QPSK	40640	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40640	100RB#0	PASS	PASS
Band41	20MHz	64QAM	40640	100RB#0	PASS	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS	PASS
Band66	20MHz	16QAM	132322	100RB#0	PASS	PASS
Band66	20MHz	64QAM	132322	100RB#0	PASS	PASS

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

Test Graphs



Band12-10MHz-QPSK-23095-50RB#0 	Band12-10MHz-16QAM-23095-50RB#0 
Band12-10MHz-64QAM-23095-50RB#0 	Band13-10MHz-QPSK-23230-50RB#0 
Band13-10MHz-16QAM-23230-50RB#0 	Band13-10MHz-64QAM-23230-50RB#0 
Band17-10MHz-QPSK-23790-50RB#0	Band17-10MHz-16QAM-23790-50RB#0

