

Appendix E: Test Data for LTE Band 4

Product Name: TD0301 LTE Wi-Fi Hotspot

Test Model: TD0301

E1. Effective (Isotropic) Radiated Power Output Data

E1.1 Test Result

Test Band: 4 1.4MHz Bandwidth													
Modulation	RB Allocation		Conducted Power (dBm)			Antenna gain		EIRP(dBm)			Limit (dBm)	Verdict	
	Size	Offset	LCH	MCH	HCH	(dBd)	(dBi)	LCH	MCH	HCH			
QPSK	1	0	23.69	23.45	24.41	/	1.00	24.69	24.45	25.41	30.00	PASS	
		2	23.77	23.38	24.37	/	1.00	24.77	24.38	25.37	30.00	PASS	
		5	23.91	23.21	24.35	/	1.00	24.91	24.21	25.35	30.00	PASS	
	3	0	23.66	23.47	24.31	/	1.00	24.66	24.47	25.31	30.00	PASS	
		2	23.81	23.40	24.35	/	1.00	24.81	24.40	25.35	30.00	PASS	
		3	23.72	23.31	24.31	/	1.00	24.72	24.31	25.31	30.00	PASS	
	6	0	22.66	22.46	23.45	/	1.00	23.66	23.46	24.45	30.00	PASS	
	22.95		22.43	23.59	/	1.00	23.95	23.43	24.59	30.00	PASS		
	2		23.23	22.46	23.76	/	1.00	24.23	23.46	24.76	30.00	PASS	
16QAM	1	5	23.07	22.34	23.60	/	1.00	24.07	23.34	24.60	30.00	PASS	
		3	0	22.56	22.36	23.15	/	1.00	23.56	23.36	24.15	30.00	PASS
			2	22.64	22.45	23.19	/	1.00	23.64	23.45	24.19	30.00	PASS
	3		22.57	22.36	23.15	/	1.00	23.57	23.36	24.15	30.00	PASS	
	6	0	21.62	21.63	22.31	/	1.00	22.62	22.63	23.31	30.00	PASS	
	Note: 1) dBd = dBi - 2.15 2) EIRP = Conducted output power + Antenna gain (dBi)												

Test Band: 4 3MHz Bandwidth												
Modulation	RB Allocation		Conducted Power (dBm)			Antenna gain		EIRP(dBm)			Limit (dBm)	Verdict
	Size	Offset	LCH	MCH	HCH	(dBd)	(dBi)	LCH	MCH	HCH		
QPSK	1	0	23.57	23.67	24.39	/	1.00	24.57	24.67	25.39	30.00	PASS
		7	24.00	23.44	24.56	/	1.00	25.00	24.44	25.56	30.00	PASS
		14	24.01	23.20	24.40	/	1.00	25.01	24.20	25.40	30.00	PASS
	8	0	22.76	22.63	23.46	/	1.00	23.76	23.63	24.46	30.00	PASS
		4	22.88	22.50	23.44	/	1.00	23.88	23.50	24.44	30.00	PASS
		7	22.91	22.36	23.34	/	1.00	23.91	23.36	24.34	30.00	PASS
	15	0	22.72	22.58	23.41	/	1.00	23.72	23.58	24.41	30.00	PASS
22.87	22.54		23.29	/	1.00	23.87	23.54	24.29	30.00	PASS		
16QAM	1	7	23.21	22.44	23.51	/	1.00	24.21	23.44	24.51	30.00	PASS
		14	23.25	22.18	23.28	/	1.00	24.25	23.18	24.28	30.00	PASS
		0	21.73	21.69	22.13	/	1.00	22.73	22.69	23.13	30.00	PASS
	8	4	21.89	21.57	22.13	/	1.00	22.89	22.57	23.13	30.00	PASS
		7	22.01	21.52	22.16	/	1.00	23.01	22.52	23.16	30.00	PASS
		15	0	21.72	21.65	22.29	/	1.00	22.72	22.65	23.29	30.00
	Note: 1) dBd = dBi - 2.15 2) EIRP = Conducted output power + Antenna gain (dBi)											

Test Band: 4 5MHz Bandwidth													
Modulation	RB Allocation		Conducted Power (dBm)			Antenna gain		EIRP(dBm)			Limit (dBm)	Verdict	
	Size	Offset	LCH	MCH	HCH	(dBd)	(dBi)	LCH	MCH	HCH			
QPSK	1	0	23.42	23.70	24.30	/	1.00	24.42	24.70	25.30	30.00	PASS	
		13	23.86	23.25	24.44	/	1.00	24.86	24.25	25.44	30.00	PASS	
		24	23.94	22.95	24.37	/	1.00	24.94	23.95	25.37	30.00	PASS	
	12	0	22.74	22.63	23.61	/	1.00	23.74	23.63	24.61	30.00	PASS	
		6	23.06	22.55	23.68	/	1.00	24.06	23.55	24.68	30.00	PASS	
		13	22.87	22.36	23.59	/	1.00	23.87	23.36	24.59	30.00	PASS	
	25	0	22.84	22.59	23.56	/	1.00	23.84	23.59	24.56	30.00	PASS	
	22.50		22.99	23.33	/	1.00	23.50	23.99	24.33	30.00	PASS		
16QAM	1	13	23.04	22.86	23.40	/	1.00	24.04	23.86	24.40	30.00	PASS	
		24	23.25	22.54	23.28	/	1.00	24.25	23.54	24.28	30.00	PASS	
		0	21.68	21.60	22.49	/	1.00	22.68	22.60	23.49	30.00	PASS	
	12	6	21.81	21.42	22.63	/	1.00	22.81	22.42	23.63	30.00	PASS	
		13	21.97	21.28	22.61	/	1.00	22.97	22.28	23.61	30.00	PASS	
		25	0	21.81	21.59	22.59	/	1.00	22.81	22.59	23.59	30.00	PASS
	Note: 1) dBd = dBi - 2.15 2) EIRP = Conducted output power + Antenna gain (dBi)												

Test Band: 4 10MHz Bandwidth												
Modulation	RB Allocation		Conducted Power (dBm)			Antenna gain		EIRP(dBm)			Limit (dBm)	Verdict
	Size	Offset	LCH	MCH	HCH	(dBd)	(dBi)	LCH	MCH	HCH		
QPSK	1	0	23.69	23.89	24.08	/	1.00	24.69	24.89	25.08	30.00	PASS
		25	24.31	23.83	24.85	/	1.00	25.31	24.83	25.85	30.00	PASS
		49	24.24	22.98	24.35	/	1.00	25.24	23.98	25.35	30.00	PASS
	25	0	22.88	22.81	23.42	/	1.00	23.88	23.81	24.42	30.00	PASS
		13	23.12	22.55	23.58	/	1.00	24.12	23.55	24.58	30.00	PASS
		25	23.24	22.27	23.55	/	1.00	24.24	23.27	24.55	30.00	PASS
	50	0	23.07	22.68	23.53	/	1.00	24.07	23.68	24.53	30.00	PASS
	22.72		23.28	22.64	/	1.00	23.72	24.28	23.64	30.00	PASS	
16QAM	1	25	23.98	22.74	23.78	/	1.00	24.98	23.74	24.78	30.00	PASS
		49	23.37	22.61	23.10	/	1.00	24.37	23.61	24.10	30.00	PASS
		0	22.00	21.87	22.19	/	1.00	23.00	22.87	23.19	30.00	PASS
	25	13	22.22	21.62	22.63	/	1.00	23.22	22.62	23.63	30.00	PASS
		25	22.20	21.17	22.56	/	1.00	23.20	22.17	23.56	30.00	PASS
		50	0	22.04	21.56	22.37	/	1.00	23.04	22.56	23.37	30.00
	Note: 1) dBd = dBi - 2.15 2) EIRP = Conducted output power + Antenna gain (dBi)											

Test Band: 4 15MHz Bandwidth												
Modulation	RB Allocation		Conducted Power (dBm)			Antenna gain		EIRP(dBm)			Limit (dBm)	Verdict
	Size	Offset	LCH	MCH	HCH	(dBd)	(dBi)	LCH	MCH	HCH		
QPSK	1	0	23.69	24.19	23.39	/	1.00	24.69	25.19	24.39	30.00	PASS
		38	24.44	23.42	24.43	/	1.00	25.44	24.42	25.43	30.00	PASS
		74	24.22	23.09	24.14	/	1.00	25.22	24.09	25.14	30.00	PASS
	36	0	23.09	23.00	22.96	/	1.00	24.09	24.00	23.96	30.00	PASS
		18	23.31	22.56	23.47	/	1.00	24.31	23.56	24.47	30.00	PASS
		39	23.34	22.25	23.58	/	1.00	24.34	23.25	24.58	30.00	PASS
	75	0	23.17	22.67	23.31	/	1.00	24.17	23.67	24.31	30.00	PASS
23.10	23.17		22.38	/	1.00	24.10	24.17	23.38	30.00	PASS		
16QAM	1	38	23.65	22.49	23.36	/	1.00	24.65	23.49	24.36	30.00	PASS
		74	23.78	22.19	23.16	/	1.00	24.78	23.19	24.16	30.00	PASS
		0	22.06	21.89	21.80	/	1.00	23.06	22.89	22.80	30.00	PASS
	36	18	22.37	21.57	22.55	/	1.00	23.37	22.57	23.55	30.00	PASS
		39	22.18	21.17	22.63	/	1.00	23.18	22.17	23.63	30.00	PASS
		75	0	22.23	21.56	22.41	/	1.00	23.23	22.56	23.41	30.00
	Note: 1) dBd = dBi - 2.15 2) EIRP = Conducted output power + Antenna gain (dBi)											

Test Band: 4 20MHz Bandwidth													
Modulation	RB Allocation		Conducted Power (dBm)			Antenna gain		EIRP(dBm)			Limit (dBm)	Verdict	
	Size	Offset	LCH	MCH	HCH	(dBd)	(dBi)	LCH	MCH	HCH			
QPSK	1	0	23.55	24.32	23.20	/	1.00	24.55	25.32	24.20	30.00	PASS	
		50	24.55	23.36	24.44	/	1.00	25.55	24.36	25.44	30.00	PASS	
		99	23.81	23.31	24.36	/	1.00	24.81	24.31	25.36	30.00	PASS	
	50	0	23.17	23.06	22.68	/	1.00	24.17	24.06	23.68	30.00	PASS	
		25	23.51	22.52	23.16	/	1.00	24.51	23.52	24.16	30.00	PASS	
		50	23.41	22.29	23.47	/	1.00	24.41	23.29	24.47	30.00	PASS	
	100	0	23.33	22.77	23.04	/	1.00	24.33	23.77	24.04	30.00	PASS	
	22.70		23.77	22.75	/	1.00	23.70	24.77	23.75	30.00	PASS		
	23.28		22.92	24.12	/	1.00	24.28	23.92	25.12	30.00	PASS		
16QAM	1	99	22.17	22.26	23.87	/	1.00	23.17	23.26	24.87	30.00	PASS	
		50	0	22.27	22.03	21.61	/	1.00	23.27	23.03	22.61	30.00	PASS
			25	22.58	21.60	22.22	/	1.00	23.58	22.60	23.22	30.00	PASS
	50		22.43	21.30	22.46	/	1.00	23.43	22.30	23.46	30.00	PASS	
		100	0	22.42	21.65	22.00	/	1.00	23.42	22.65	23.00	30.00	PASS
	Note: 1) dBd = dBi - 2.15 2) EIRP = Conducted output power + Antenna gain (dBi)												

E2. Frequency stability

E2.1 Test Result

Test Band: 4 1.4MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	6	0	NT	LV	2.503 4	0.457 8	- 1.230 2	0.0015	0.0003	-0.0007	2.50	PASS
				NV	1.187 3	1.773 8	- 3.476 1	0.0007	0.0010	-0.0020	2.50	PASS
				HV	1.831 1	1.573 6	- 2.846 7	0.0011	0.0009	-0.0016	2.50	PASS
16QAM	6	0	NT	LV	0.557 9	1.888 3	- 2.546 3	0.0003	0.0011	-0.0015	2.50	PASS
				NV	0.958 4	0.557 9	- 3.919 6	0.0006	0.0003	-0.0022	2.50	PASS
				HV	1.959 8	0.386 2	- 2.574 9	0.0011	0.0002	-0.0015	2.50	PASS

Test Band: 4 1.4MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	6	0	NV	-30.00	0.643 7	0.815 4	- 2.946 9	0.0004	0.0005	-0.0017	2.50	PASS
				-20.00	2.474 8	1.115 8	- 1.831 1	0.0014	0.0006	-0.0010	2.50	PASS
				-10.00	1.974 1	1.015 7	- 1.816 8	0.0012	0.0006	-0.0010	2.50	PASS
				0.00	1.058 6	1.902 6	- 2.832 4	0.0006	0.0011	-0.0016	2.50	PASS
				10.00	2.131 5	0.171 7	- 3.061 3	0.0012	0.0001	-0.0017	2.50	PASS
				20.00	0.701 0	0.100 1	- 1.158 7	0.0004	0.0001	-0.0007	2.50	PASS
				30.00	3.290 2	2.317 4	- 2.389 0	0.0019	0.0013	-0.0014	2.50	PASS
				40.00	2.760 9	1.602 2	- 1.988 4	0.0016	0.0009	-0.0011	2.50	PASS
				50.00	1.144 4	1.759 5	- 3.576 3	0.0007	0.0010	-0.0020	2.50	PASS

16QAM	6	0	NV	-30.00	1.187 3	0.672 3	- 1.959 8	0.0007	0.0004	-0.0011	2.50	PASS
				-20.00	0.143 1	0.014 3	- 2.374 6	0.0001	0.0000	-0.0014	2.50	PASS
				-10.00	0.901 2	- 1.416 2	- 3.161 4	0.0005	-0.0008	-0.0018	2.50	PASS
				0.00	0.457 8	- 0.529 3	- 1.630 8	0.0003	-0.0003	-0.0009	2.50	PASS
				10.00	- 0.028 6	- 0.443 5	- 2.188 7	0.0000	-0.0003	-0.0012	2.50	PASS
				20.00	1.087 2	0.314 7	- 3.733 6	0.0006	0.0002	-0.0021	2.50	PASS
				30.00	1.344 7	0.615 1	- 3.047 0	0.0008	0.0004	-0.0017	2.50	PASS
				40.00	1.087 2	1.173 0	- 3.047 0	0.0006	0.0007	-0.0017	2.50	PASS
				50.00	1.258 8	0.257 5	- 3.504 8	0.0007	0.0001	-0.0020	2.50	PASS

Test Band: 4_3MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	15	0	NT	LV	- 1.001 4	- 0.042 9	- 0.343 3	-0.0006	0.0000	-0.0002	2.50	PASS
				NV	0.686 6	- 0.300 4	- 0.400 5	0.0004	-0.0002	-0.0002	2.50	PASS
				HV	- 0.801 1	0.100 1	- 0.429 2	-0.0005	0.0001	-0.0002	2.50	PASS
16QAM	15	0	NT	LV	- 0.314 7	- 0.371 9	- 0.901 2	-0.0002	-0.0002	-0.0005	2.50	PASS
				NV	- 0.028 6	1.072 9	- 0.057 2	0.0000	0.0006	0.0000	2.50	PASS
				HV	0.414 8	1.316 1	0.114 4	0.0002	0.0008	0.0001	2.50	PASS

Test Band: 4 3MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	15	0	NV	-30.00	0.214 6	- 0.972 7	- 1.287 5	0.0001	-0.0006	-0.0007	2.50	PASS
				-20.00	0.414 8	0.557 9	0.929 8	0.0002	0.0003	0.0005	2.50	PASS
				-10.00	0.071 5	0.500 7	- 1.215 9	0.0000	0.0003	-0.0007	2.50	PASS
				0.00	0.300 4	- 0.100 1	0.228 9	0.0002	-0.0001	0.0001	2.50	PASS
				10.00	0.958 4	0.057 2	0.572 2	0.0006	0.0000	0.0003	2.50	PASS
				20.00	0.343 3	1.115 8	- 0.672 3	0.0002	0.0006	-0.0004	2.50	PASS
				30.00	0.901 2	0.743 9	- 0.658 0	0.0005	0.0004	-0.0004	2.50	PASS
				40.00	0.271 8	0.014 3	- 1.502 0	0.0002	0.0000	-0.0009	2.50	PASS
				50.00	0.658 0	- 0.057 2	- 0.886 9	0.0004	0.0000	-0.0005	2.50	PASS
16QAM	15	0	NV	-30.00	- 1.058 6	1.330 4	- 0.386 2	-0.0006	0.0008	-0.0002	2.50	PASS
				-20.00	- 1.258 8	0.901 2	0.500 7	-0.0007	0.0005	0.0003	2.50	PASS
				-10.00	- 1.502 0	0.643 7	1.015 7	-0.0009	0.0004	0.0006	2.50	PASS
				0.00	1.087 2	1.201 6	- 0.300 4	0.0006	0.0007	-0.0002	2.50	PASS
				10.00	1.072 9	0.186 0	0.143 1	0.0006	0.0001	0.0001	2.50	PASS
				20.00	1.316 1	0.915 5	- 0.357 6	0.0008	0.0005	-0.0002	2.50	PASS
				30.00	- 0.901 2	0.629 4	0.200 3	-0.0005	0.0004	0.0001	2.50	PASS
				40.00	0.057 2	0.457 8	0.414 8	0.0000	0.0003	0.0002	2.50	PASS
				50.00	1.244 5	- 0.329 0	0.257 5	0.0007	-0.0002	0.0001	2.50	PASS

Test Band: 4 5MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	25	0	NT	LV	2.675 1	1.359 0	- 1.502 0	0.0016	0.0008	-0.0009	2.50	PASS
				NV	3.233 0	0.515 0	- 1.816 8	0.0019	0.0003	-0.0010	2.50	PASS
				HV	1.602 2	0.357 6	- 2.574 9	0.0009	0.0002	-0.0015	2.50	PASS
16QAM	25	0	NT	LV	1.573 6	0.000 0	- 3.032 7	0.0009	0.0000	-0.0017	2.50	PASS
				NV	2.632 1	0.085 8	- 3.376 0	0.0015	0.0000	-0.0019	2.50	PASS
				HV	1.316 1	0.271 8	- 3.590 6	0.0008	0.0002	-0.0020	2.50	PASS

Test Band: 4 5MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	25	0	NV	-30.00	0.901 2	0.515 0	- 1.587 9	0.0005	0.0003	-0.0009	2.50	PASS
				-20.00	0.858 3	0.743 9	- 2.260 2	0.0005	0.0004	-0.0013	2.50	PASS
				-10.00	1.802 4	0.543 6	- 2.946 9	0.0011	0.0003	-0.0017	2.50	PASS
				0.00	1.087 2	- 0.987 1	- 1.430 5	0.0006	-0.0006	-0.0008	2.50	PASS
				10.00	1.301 8	0.257 5	- 2.589 2	0.0008	0.0001	-0.0015	2.50	PASS
				20.00	1.730 9	- 0.228 9	- 2.932 5	0.0010	-0.0001	-0.0017	2.50	PASS
				30.00	2.102 9	1.015 7	- 2.102 9	0.0012	0.0006	-0.0012	2.50	PASS
				40.00	1.215 9	- 0.786 8	- 2.031 3	0.0007	-0.0005	-0.0012	2.50	PASS
				50.00	1.831 1	0.944 1	- 2.389 0	0.0011	0.0005	-0.0014	2.50	PASS
16QAM	25	0	NV	-30.00	1.802 4	0.586 5	- 3.304 5	0.0011	0.0003	-0.0019	2.50	PASS
				-20.00	2.188 7	- 0.157	- 2.989	0.0013	-0.0001	-0.0017	2.50	PASS

						4	8					
				-10.00	1.173 0	1.602 2	- 2.746 6	0.0007	0.0009	-0.0016	2.50	PASS
				0.00	0.972 7	- 0.414 8	- 2.617 8	0.0006	-0.0002	-0.0015	2.50	PASS
				10.00	1.673 7	0.114 4	- 3.290 2	0.0010	0.0001	-0.0019	2.50	PASS
				20.00	1.730 9	0.100 1	- 3.562 0	0.0010	0.0001	-0.0020	2.50	PASS
				30.00	0.929 8	0.929 8	- 2.417 6	0.0005	0.0005	-0.0014	2.50	PASS
				40.00	1.916 9	1.044 3	- 2.989 8	0.0011	0.0006	-0.0017	2.50	PASS
				50.00	1.530 6	0.686 6	- 3.747 9	0.0009	0.0004	-0.0021	2.50	PASS

Test Band: 4 10MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	50	0	NT	LV	- 3.018 4	0.801 1	0.443 5	-0.0018	0.0005	0.0003	2.50	PASS
				NV	- 2.718 0	0.586 5	0.572 2	-0.0016	0.0003	0.0003	2.50	PASS
				HV	- 3.490 4	- 0.429 2	0.844 0	-0.0020	-0.0002	0.0005	2.50	PASS
16QAM	50	0	NT	LV	- 2.546 3	0.000 0	- 0.658 0	-0.0015	0.0000	-0.0004	2.50	PASS
				NV	- 2.546 3	1.115 8	- 0.114 4	-0.0015	0.0006	-0.0001	2.50	PASS
				HV	- 2.617 8	- 1.101 5	- 0.743 9	-0.0015	-0.0006	-0.0004	2.50	PASS

Test Band: 4 10MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	50	0	NV	-30.00	- 2.789 5	- 0.801 1	0.829 7	-0.0016	-0.0005	0.0005	2.50	PASS
				-20.00	- 2.203 0	0.014 3	0.858 3	-0.0013	0.0000	0.0005	2.50	PASS
				-10.00	- 2.346 0	0.000 0	0.829 7	-0.0014	0.0000	0.0005	2.50	PASS
				0.00	- 1.859 7	- 0.472 1	0.557 9	-0.0011	-0.0003	0.0003	2.50	PASS
				10.00	- 2.245 9	- 0.329 0	0.858 3	-0.0013	-0.0002	0.0005	2.50	PASS
				20.00	- 2.560 6	- 0.214 6	0.085 8	-0.0015	-0.0001	0.0000	2.50	PASS
				30.00	- 3.218 7	0.343 3	- 0.128 7	-0.0019	0.0002	-0.0001	2.50	PASS
				40.00	- 1.130 1	- 0.557 9	- 0.257 5	-0.0007	-0.0003	-0.0001	2.50	PASS
				50.00	- 3.290 2	0.686 6	0.028 6	-0.0019	0.0004	0.0000	2.50	PASS
16QAM	50	0	NV	-30.00	- 2.074 2	0.085 8	0.629 4	-0.0012	0.0000	0.0004	2.50	PASS
				-20.00	- 2.603 5	0.529 3	1.330 4	-0.0015	0.0003	0.0008	2.50	PASS
				-10.00	- 2.803 8	- 0.057 2	0.443 5	-0.0016	0.0000	0.0003	2.50	PASS
				0.00	- 2.775 2	- 0.186 0	0.228 9	-0.0016	-0.0001	0.0001	2.50	PASS
				10.00	- 3.290 2	0.658 0	0.200 3	-0.0019	0.0004	0.0001	2.50	PASS
				20.00	- 3.032 7	- 0.615 1	1.087 2	-0.0018	-0.0004	0.0006	2.50	PASS
				30.00	- 3.032 7	0.786 8	- 0.772 5	-0.0018	0.0005	-0.0004	2.50	PASS
				40.00	- 3.304 5	0.929 8	- 0.472 1	-0.0019	0.0005	-0.0003	2.50	PASS
				50.00	- 3.290 2	1.058 6	1.230 2	-0.0019	0.0006	-0.0007	2.50	PASS

Test Band: 4 15MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	75	0	NT	LV	1.001 4	- 1.001 4	0.958 4	0.0006	-0.0006	0.0005	2.50	PASS
				NV	- 0.801 1	0.643 7	0.729 6	-0.0005	0.0004	0.0004	2.50	PASS
				HV	- 0.658 0	0.386 2	0.729 6	-0.0004	0.0002	0.0004	2.50	PASS
16QAM	75	0	NT	LV	- 0.200 3	- 0.815 4	1.959 8	-0.0001	-0.0005	0.0011	2.50	PASS
				NV	0.271 8	- 0.286 1	0.100 1	0.0002	-0.0002	0.0001	2.50	PASS
				HV	0.042 9	0.343 3	0.543 6	0.0000	0.0002	0.0003	2.50	PASS

Test Band: 4 15MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	75	0	NV	-30.00	0.772 5	- 0.171 7	0.801 1	0.0004	-0.0001	0.0005	2.50	PASS
				-20.00	0.457 8	- 0.600 8	0.214 6	0.0003	-0.0003	0.0001	2.50	PASS
				-10.00	0.100 1	0.386 2	0.400 5	0.0001	0.0002	0.0002	2.50	PASS
				0.00	0.057 2	1.287 5	- 0.701 0	0.0000	0.0007	-0.0004	2.50	PASS
				10.00	- 0.400 5	0.457 8	1.173 0	-0.0002	0.0003	0.0007	2.50	PASS
				20.00	- 0.186 0	0.286 1	- 1.001 4	-0.0001	0.0002	-0.0006	2.50	PASS
				30.00	- 0.658 0	0.200 3	- 0.114 4	-0.0004	0.0001	-0.0001	2.50	PASS
				40.00	0.457 8	- 0.257 5	0.629 4	0.0003	-0.0001	0.0004	2.50	PASS
				50.00	0.701 0	0.014 3	0.128 7	0.0004	0.0000	0.0001	2.50	PASS
16QAM	75	0	NV	-30.00	- 0.171 7	0.214 6	- 0.200 3	-0.0001	0.0001	-0.0001	2.50	PASS
				-20.00	0.686 6	- 0.042 9	0.057 2	0.0004	0.0000	0.0000	2.50	PASS
				-10.00	0.157 4	- 0.543 6	0.228 9	0.0001	-0.0003	0.0001	2.50	PASS
				0.00	0.557	0.228	0.085	0.0003	0.0001	0.0000	2.50	PASS

					9	9	8					
				10.00	1.001 4	- 0.128 7	0.214 6	0.0006	-0.0001	0.0001	2.50	PASS
				20.00	0.486 4	0.071 5	- 0.643 7	0.0003	0.0000	-0.0004	2.50	PASS
				30.00	0.228 9	0.114 4	0.200 3	0.0001	0.0001	0.0001	2.50	PASS
				40.00	- 0.543 6	- 0.157 4	- 0.128 7	-0.0003	-0.0001	-0.0001	2.50	PASS
				50.00	- 0.400 5	1.001 4	0.343 3	-0.0002	0.0006	0.0002	2.50	PASS

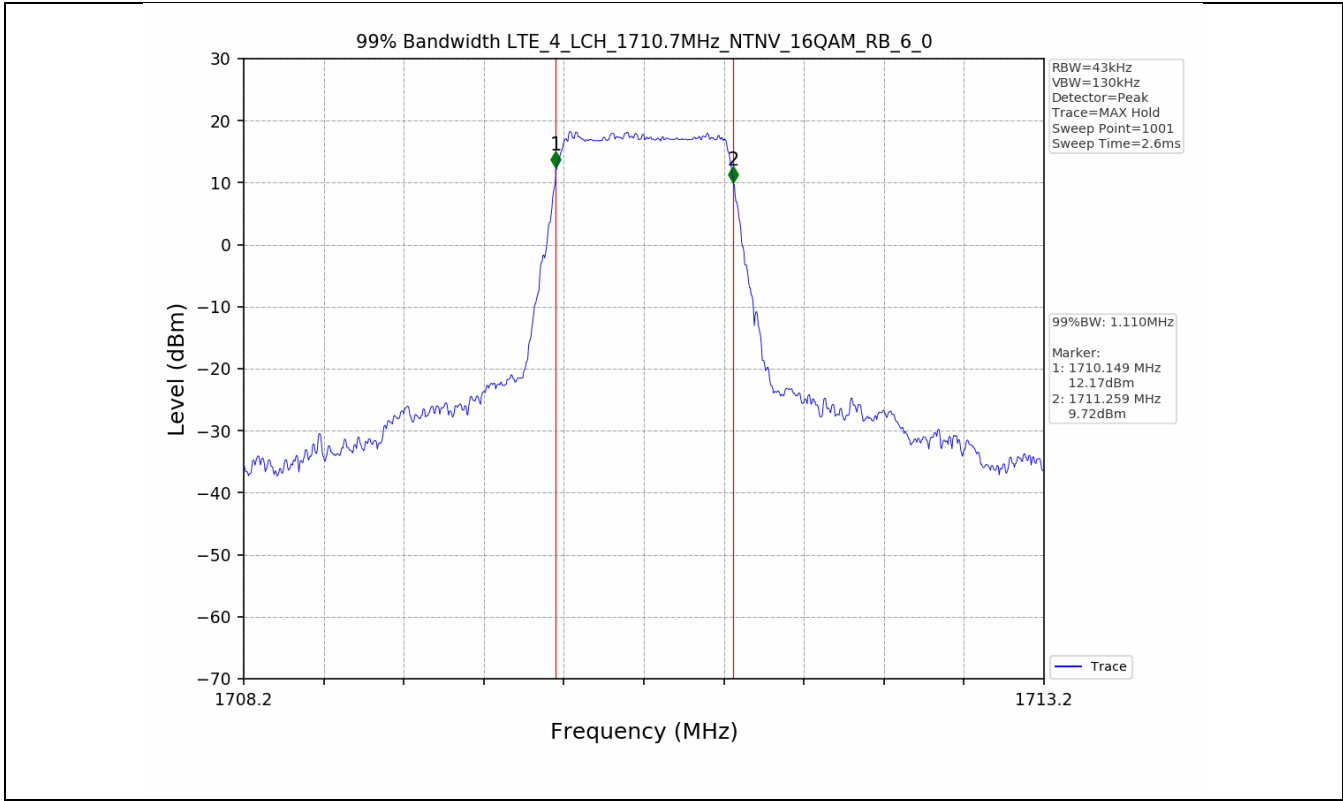
Test Band: 4 20MHz Bandwidth (Frequency Error VS. Voltage)												
Test Mode	RB Allocation		Test Temp.	Test Volt.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	100	0	NT	LV	1.044 3	- 0.157 4	- 2.961 2	0.0006	-0.0001	-0.0017	2.50	PASS
				NV	1.630 8	0.414 8	- 2.732 3	0.0009	0.0002	-0.0016	2.50	PASS
				HV	1.945 5	0.143 1	- 2.603 5	0.0011	0.0001	-0.0015	2.50	PASS
16QAM	100	0	NT	LV	1.645 1	0.629 4	- 2.818 1	0.0010	0.0004	-0.0016	2.50	PASS
				NV	1.058 6	0.557 9	- 2.732 3	0.0006	0.0003	-0.0016	2.50	PASS
				HV	1.645 1	0.329 0	- 3.190 0	0.0010	0.0002	-0.0018	2.50	PASS

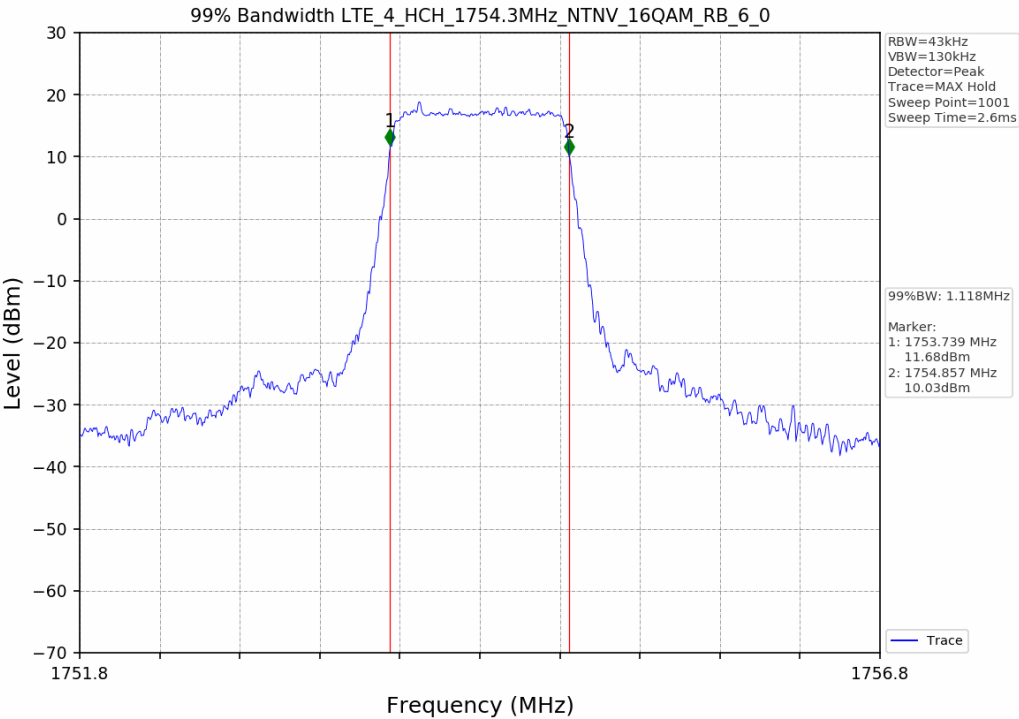
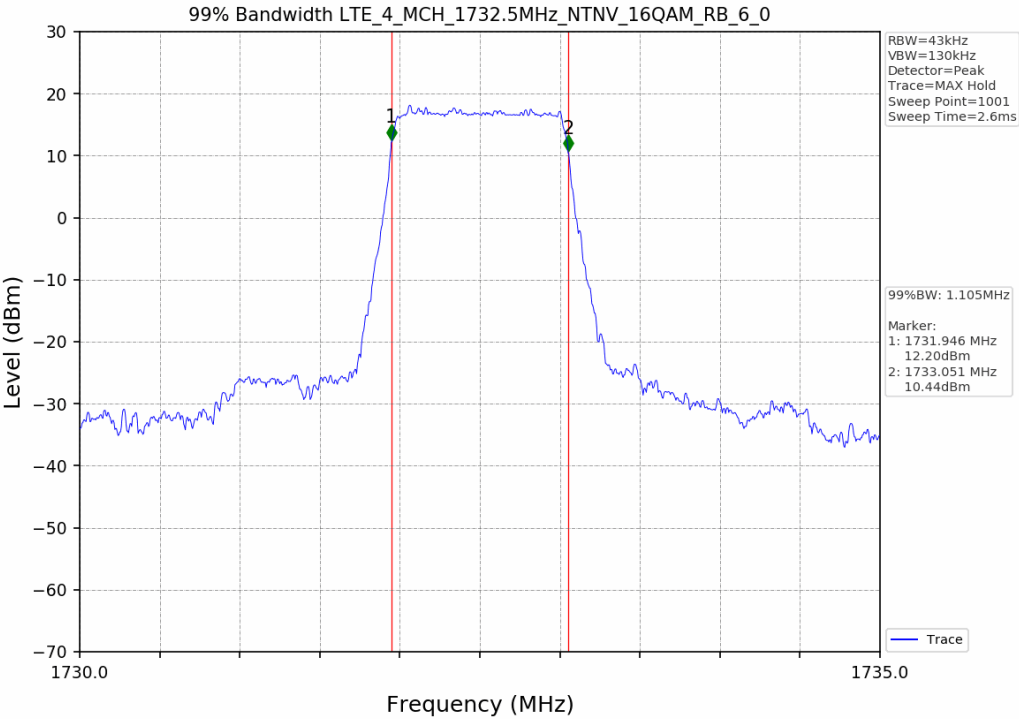
Test Band: 4 20MHz Bandwidth (Frequency Error VS. Temperature)												
Test Mode	RB Allocation		Test Volt.	Test Temp.	Freq. Error (Hz)			Freq. vs. rated (ppm)			Limit (ppm)	Verdict
	Size	Offset			LCH	MCH	HCH	LCH	MCH	HCH		
QPSK	100	0	NV	-30.00	1.559 3	0.128 7	- 2.660 8	0.0009	0.0001	-0.0015	2.50	PASS
				-20.00	1.430 5	0.515 0	- 3.275 9	0.0008	0.0003	-0.0019	2.50	PASS
				-10.00	1.258 8	0.815 4	- 3.032 7	0.0007	0.0005	-0.0017	2.50	PASS
				0.00	2.102 9	0.143 1	- 2.718 0	0.0012	0.0001	-0.0016	2.50	PASS
				10.00	2.574 9	- 0.400 5	- 3.404 6	0.0015	-0.0002	-0.0020	2.50	PASS
				20.00	1.373 3	- 0.743 9	- 2.474 8	0.0008	-0.0004	-0.0014	2.50	PASS
				30.00	1.473 4	0.014 3	- 3.762 2	0.0009	0.0000	-0.0022	2.50	PASS
				40.00	1.974 1	- 0.314 7	- 2.961 2	0.0011	-0.0002	-0.0017	2.50	PASS
				50.00	1.502 0	0.028 6	- 3.461 8	0.0009	0.0000	-0.0020	2.50	PASS
16QAM	100	0	NV	-30.00	1.144 4	1.030 0	- 3.690 7	0.0007	0.0006	-0.0021	2.50	PASS
				-20.00	0.543 6	0.171 7	- 2.317 4	0.0003	0.0001	-0.0013	2.50	PASS
				-10.00	1.716 6	0.257 5	- 2.918 2	0.0010	0.0001	-0.0017	2.50	PASS
				0.00	1.559 3	0.286 1	- 1.401 9	0.0009	0.0002	-0.0008	2.50	PASS
				10.00	0.314 7	- 0.214 6	- 2.760 9	0.0002	-0.0001	-0.0016	2.50	PASS
				20.00	1.874 0	0.200 3	- 1.974 1	0.0011	0.0001	-0.0011	2.50	PASS
				30.00	2.574 9	1.072 9	- 2.718 0	0.0015	0.0006	-0.0016	2.50	PASS
				40.00	2.217 3	0.615 1	- 2.117 2	0.0013	0.0004	-0.0012	2.50	PASS
				50.00	0.472 1	0.572 2	- 2.117 2	0.0003	0.0003	-0.0012	2.50	PASS

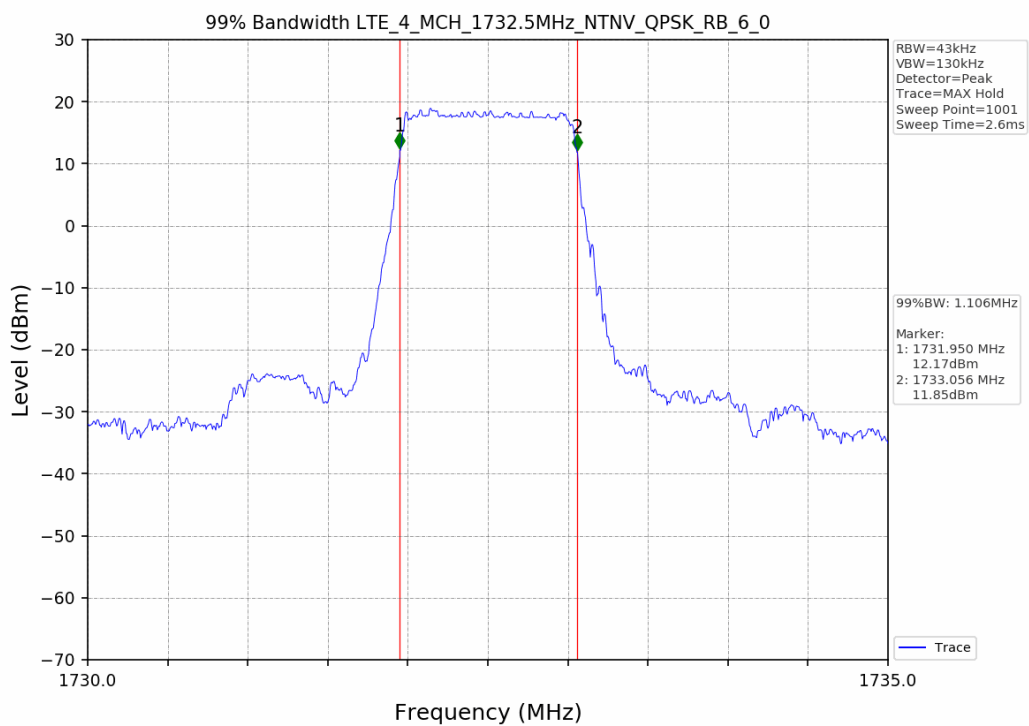
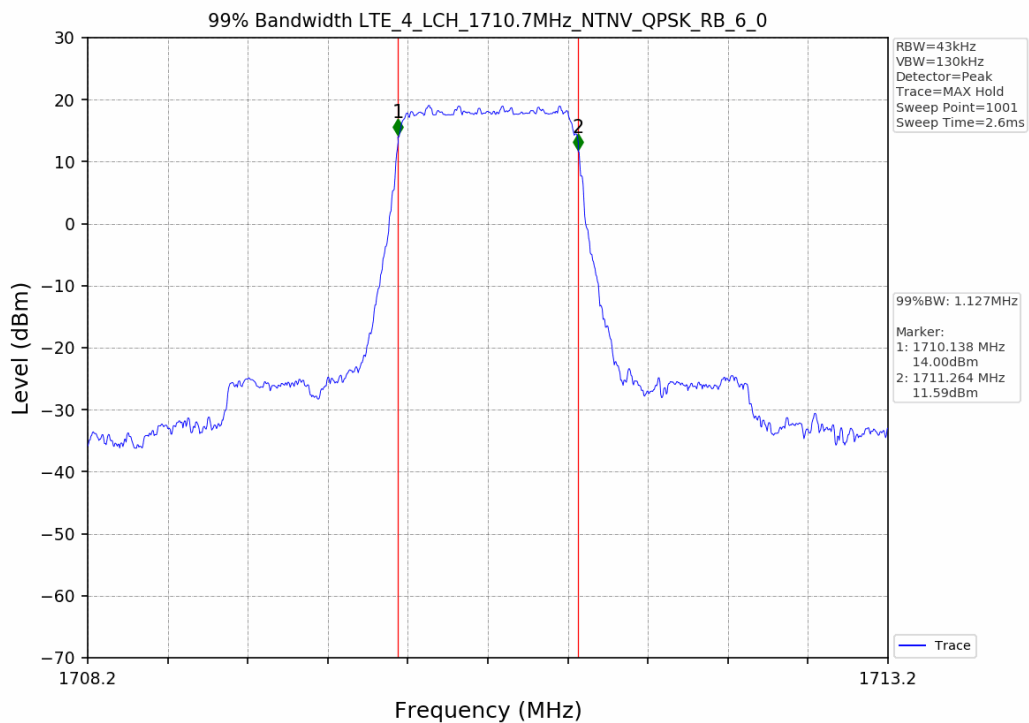
E3. 99% & 26dB Bandwidth

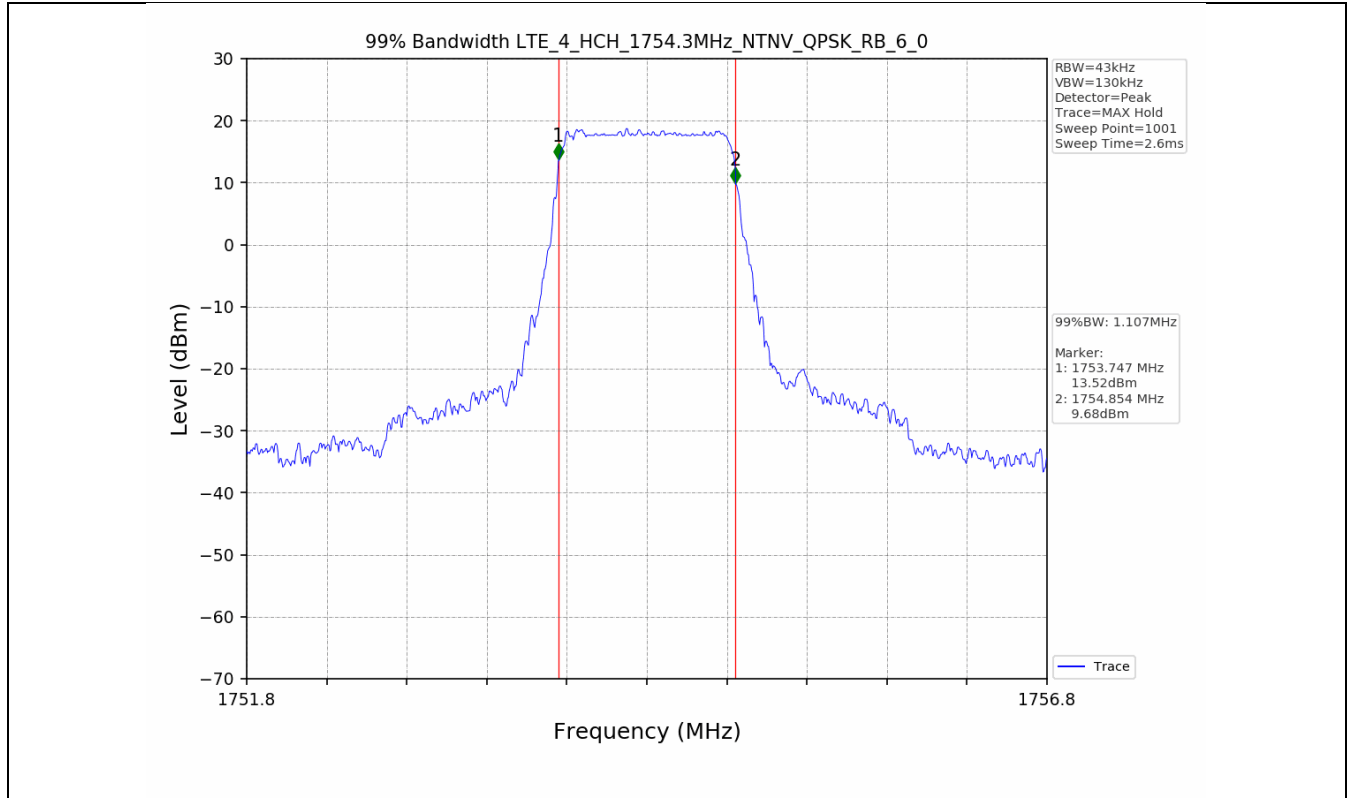
E3.1 Test Result

Test Band: 4_1.4MHz Bandwidth							
Test Mode	RB Allocation		99% Occupied Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	6	0	1.127	1.106	1.107	N/A	PASS
16QAM	6	0	1.110	1.105	1.118	N/A	PASS

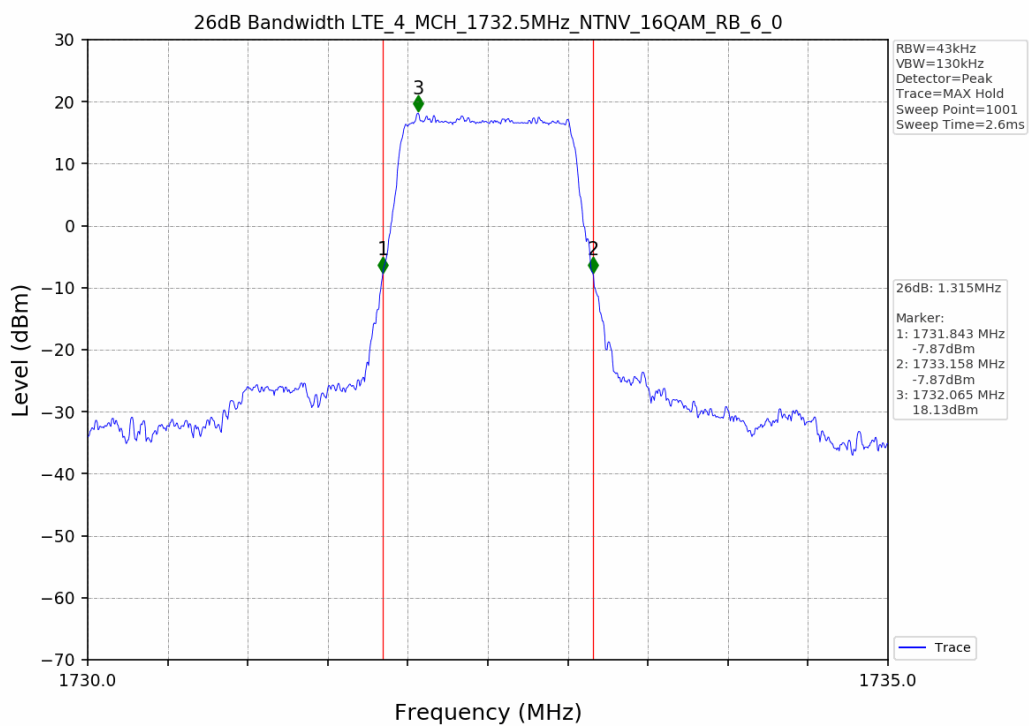
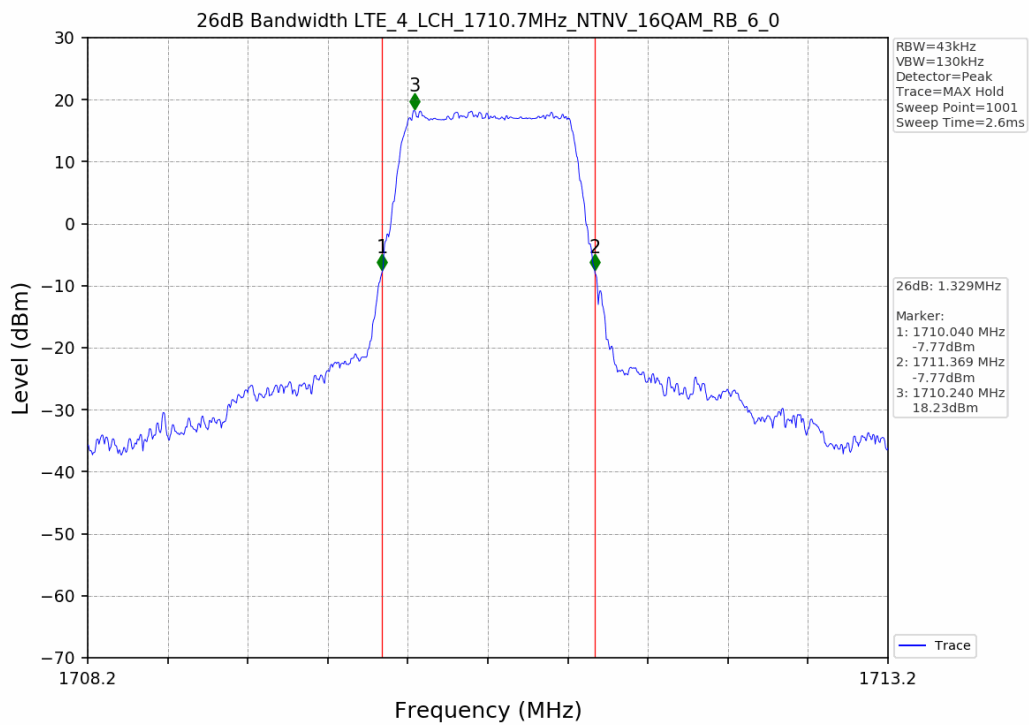


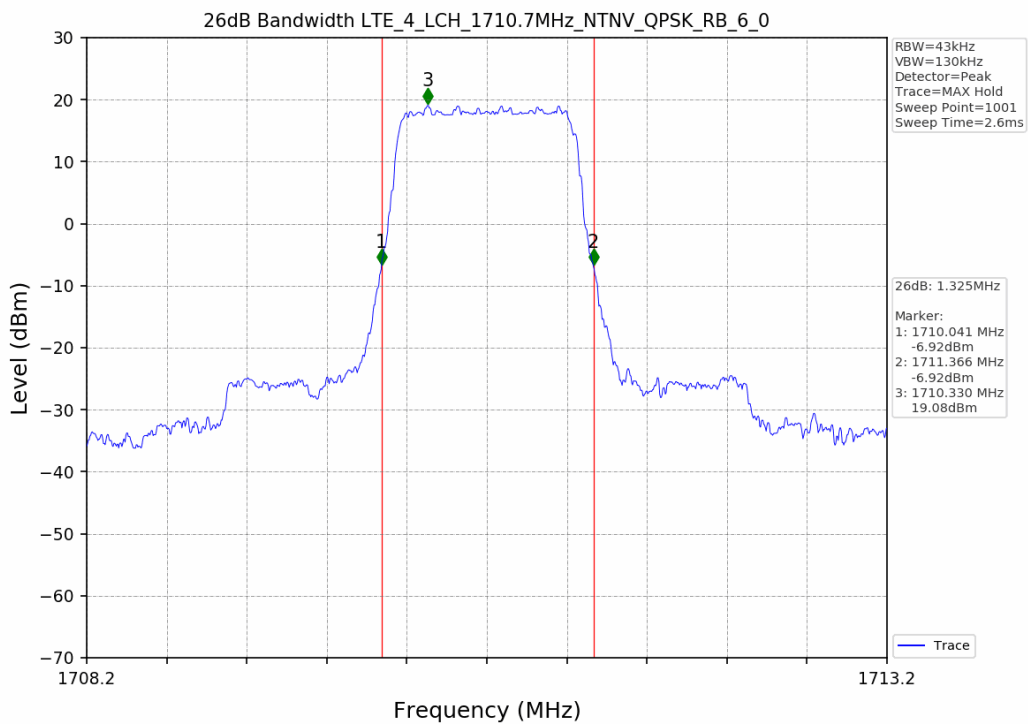
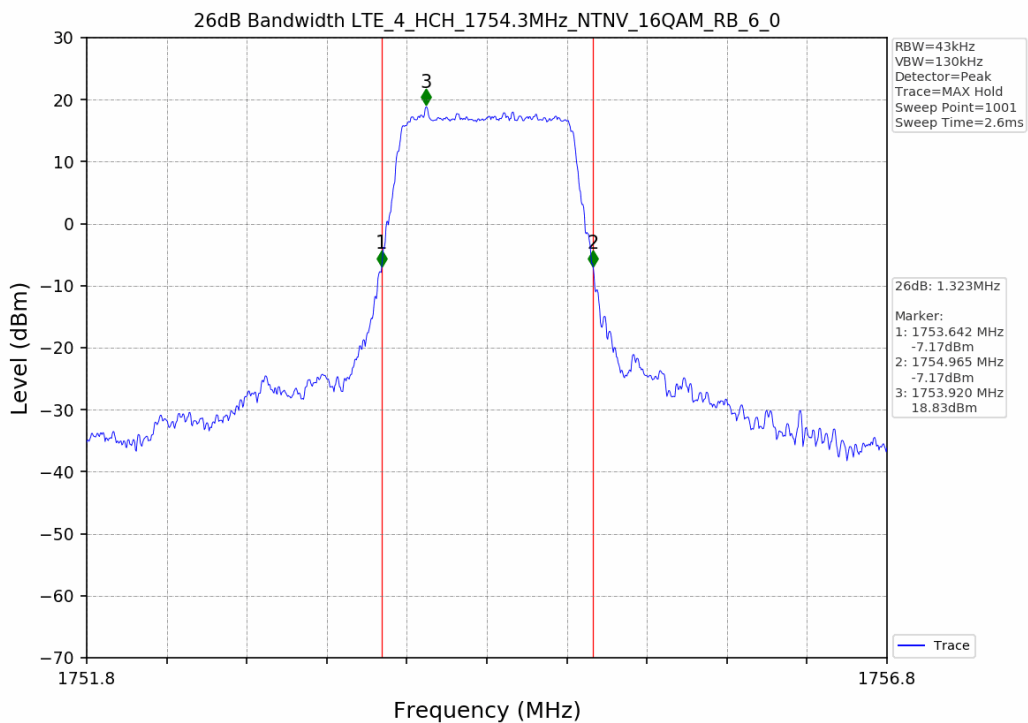


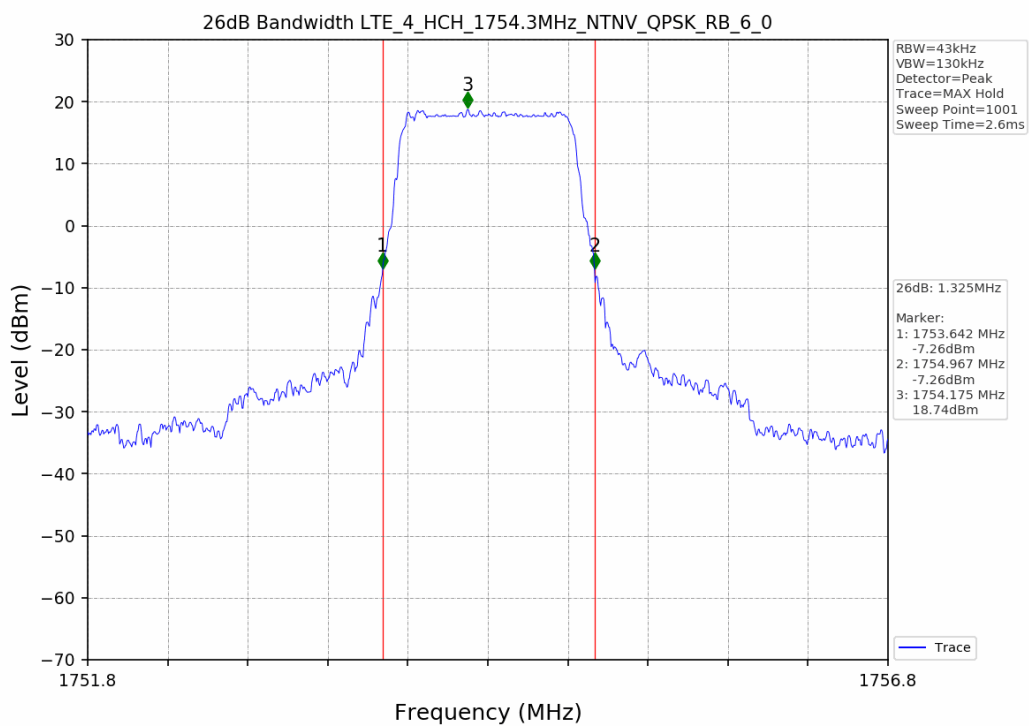
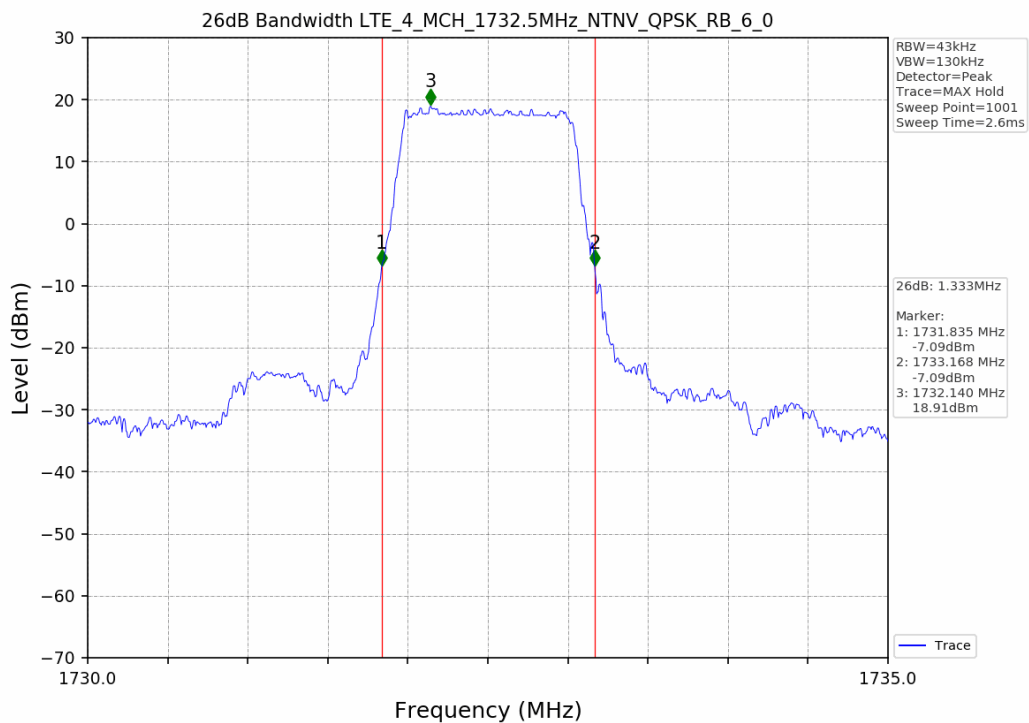




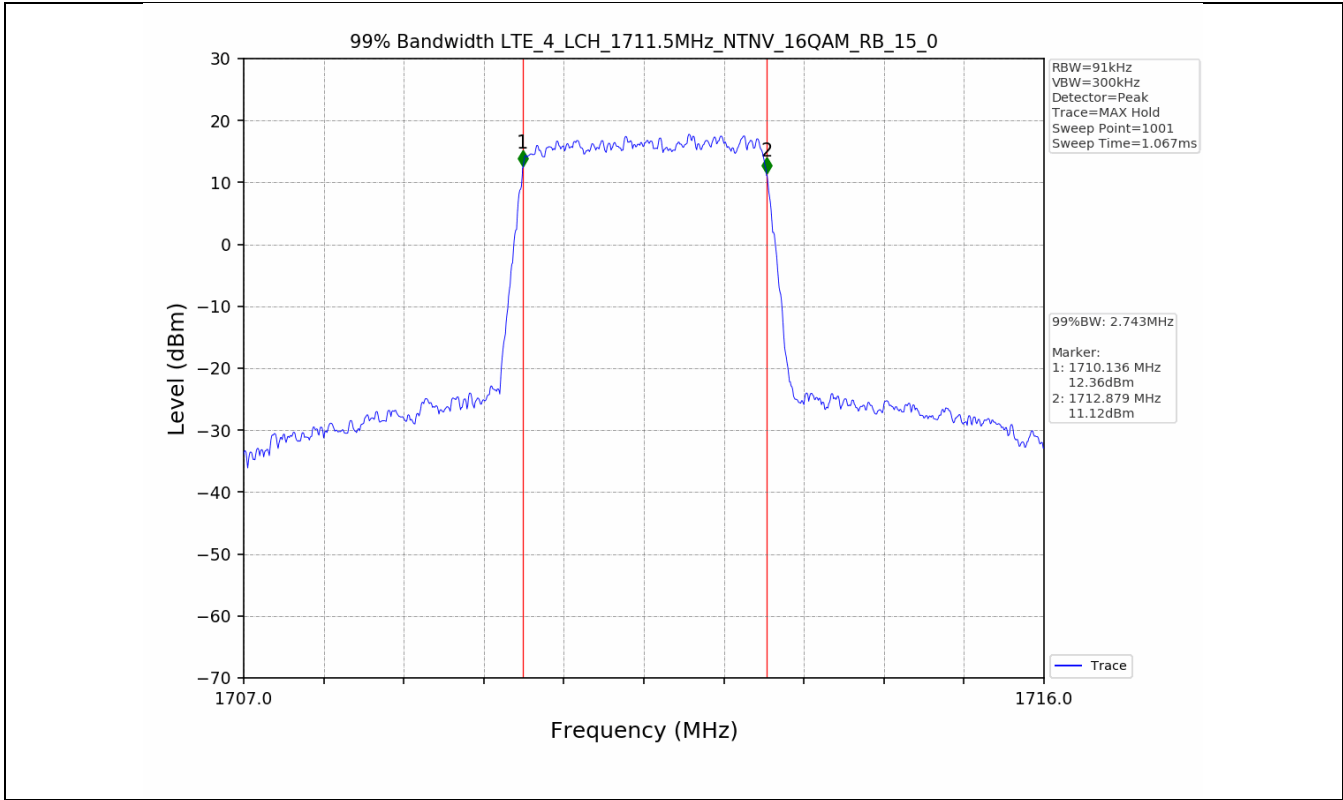
Test Band: 4 _ 1.4MHz Bandwidth							
Test Mode	RB Allocation		26dB Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	6	0	1.325	1.333	1.325	N/A	PASS
16QAM	6	0	1.329	1.315	1.323	N/A	PASS

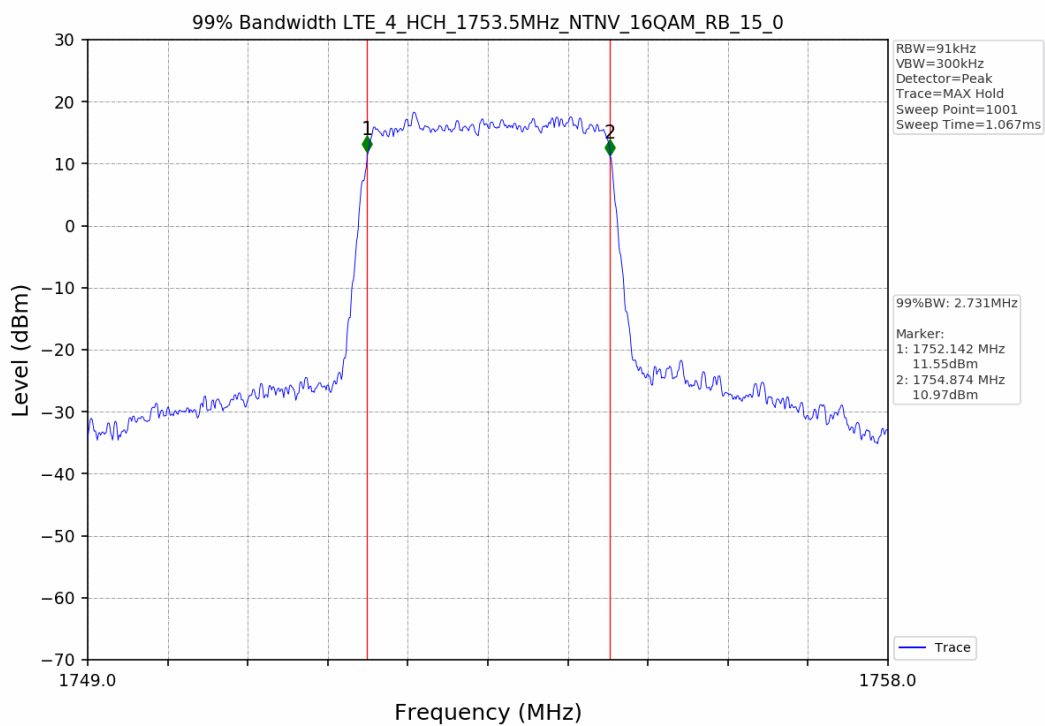
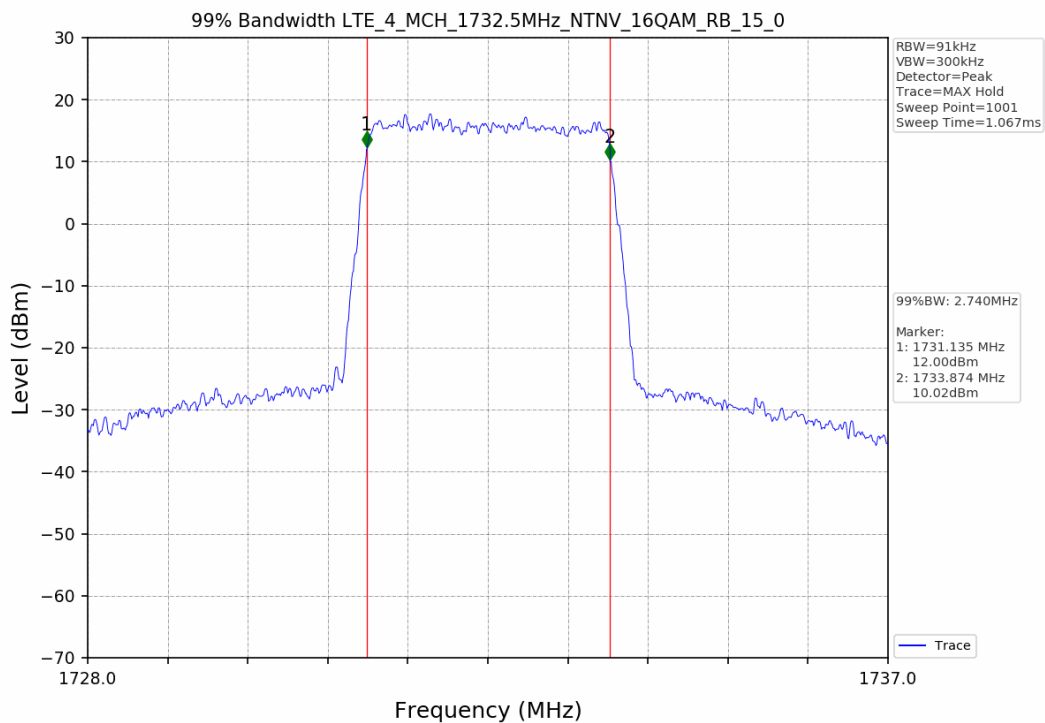


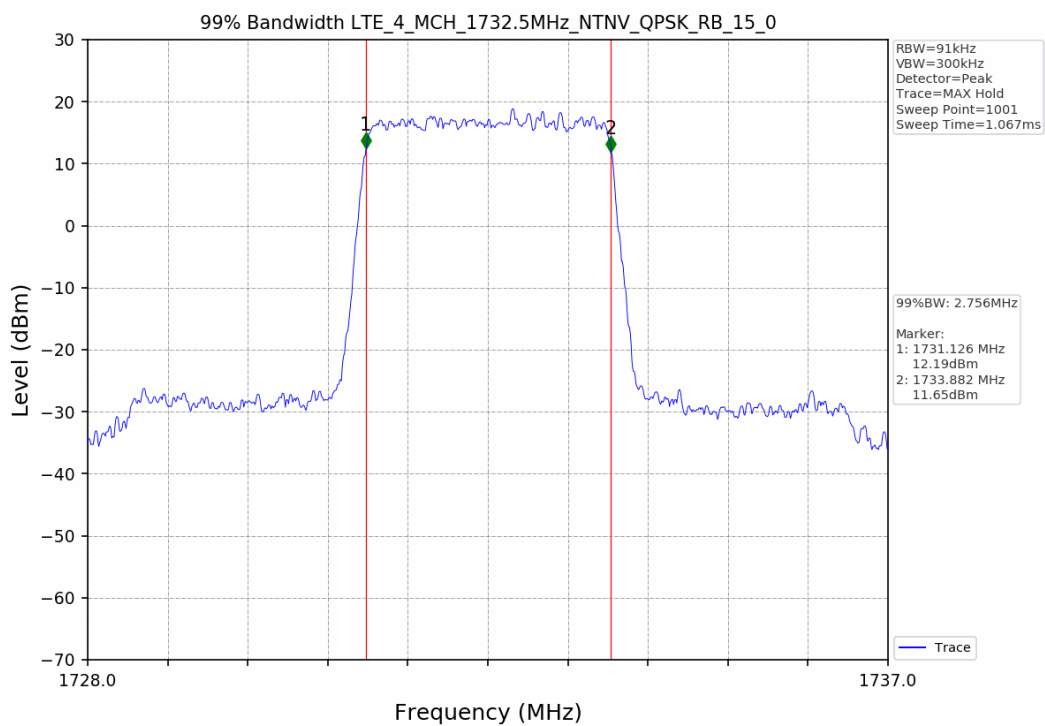
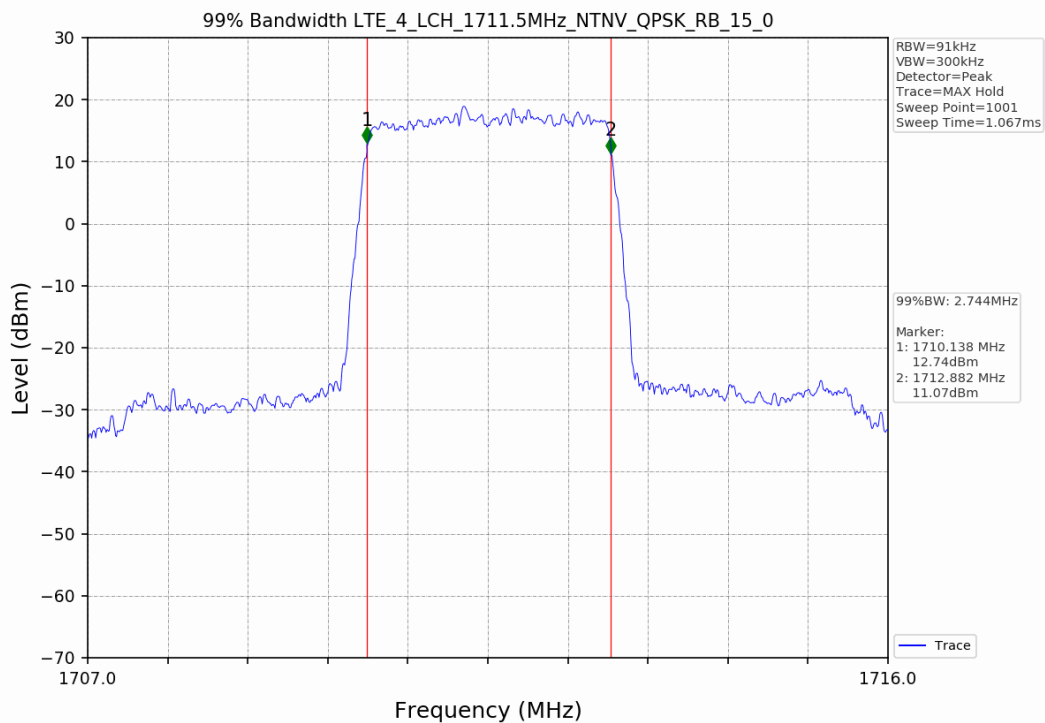


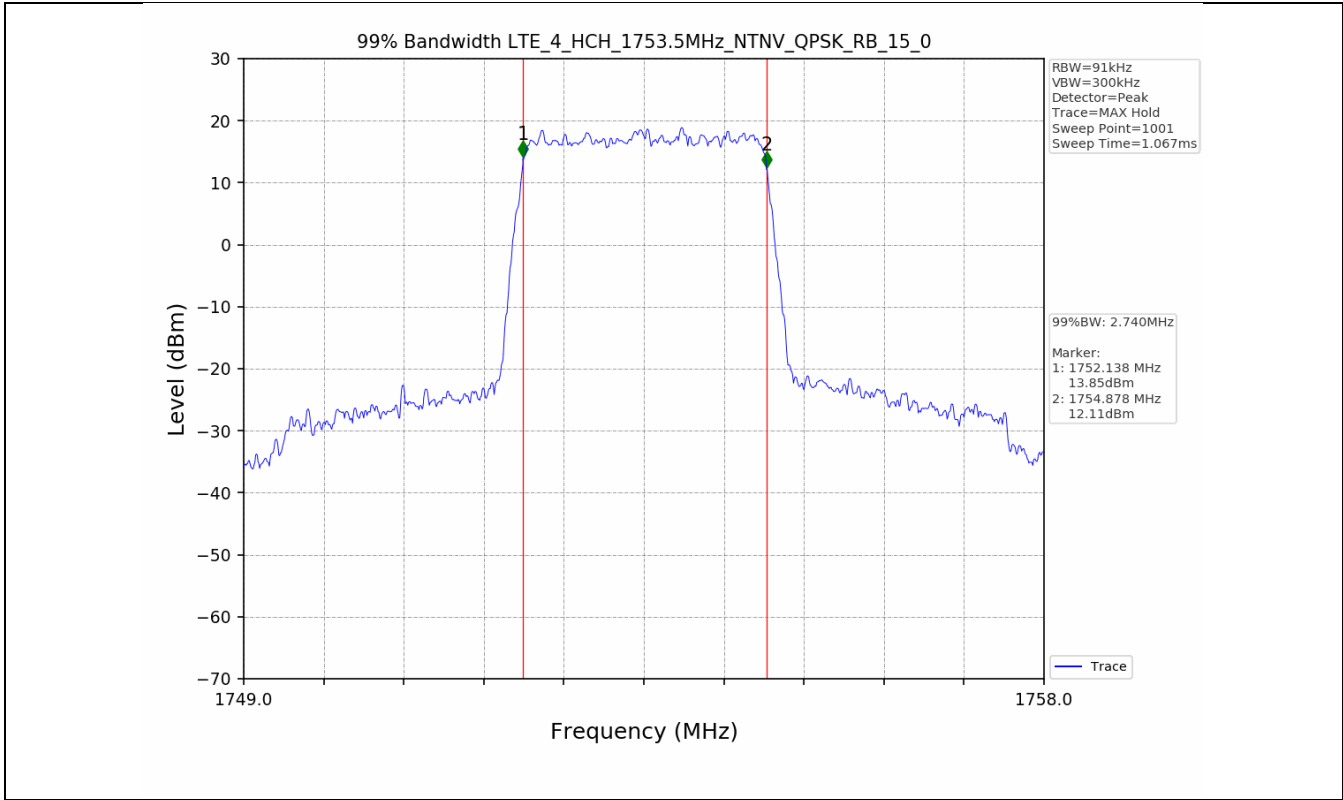


Test Band: 4_3MHz Bandwidth							
Test Mode	RB Allocation		99% Occupied Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	15	0	2.744	2.756	2.740	N/A	PASS
16QAM	15	0	2.743	2.740	2.731	N/A	PASS

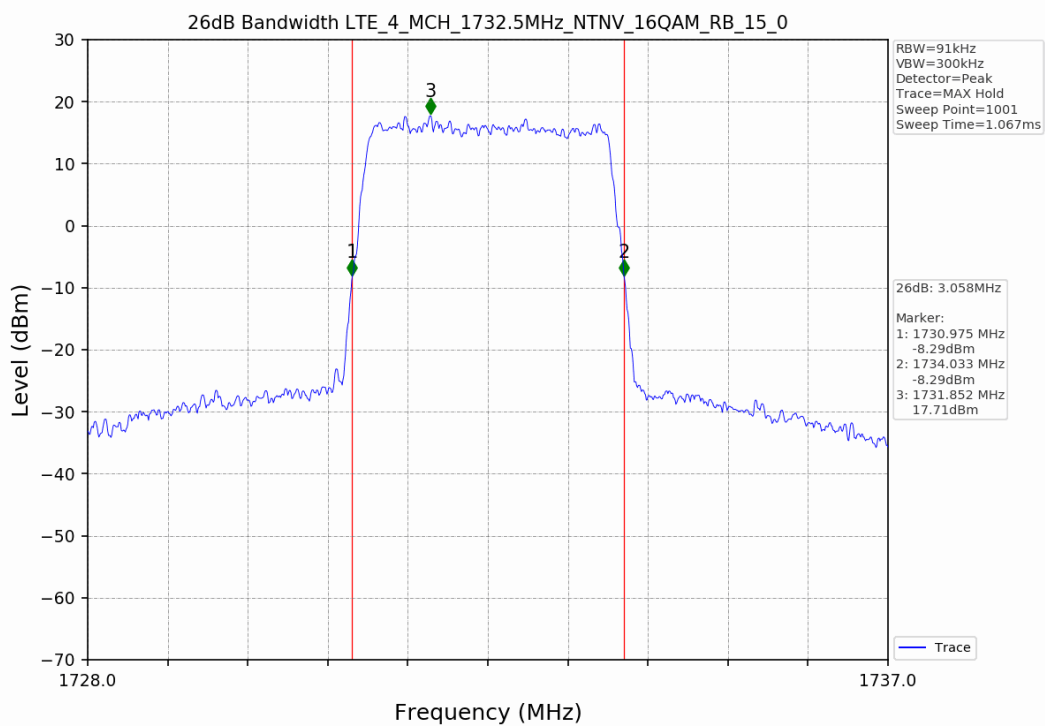
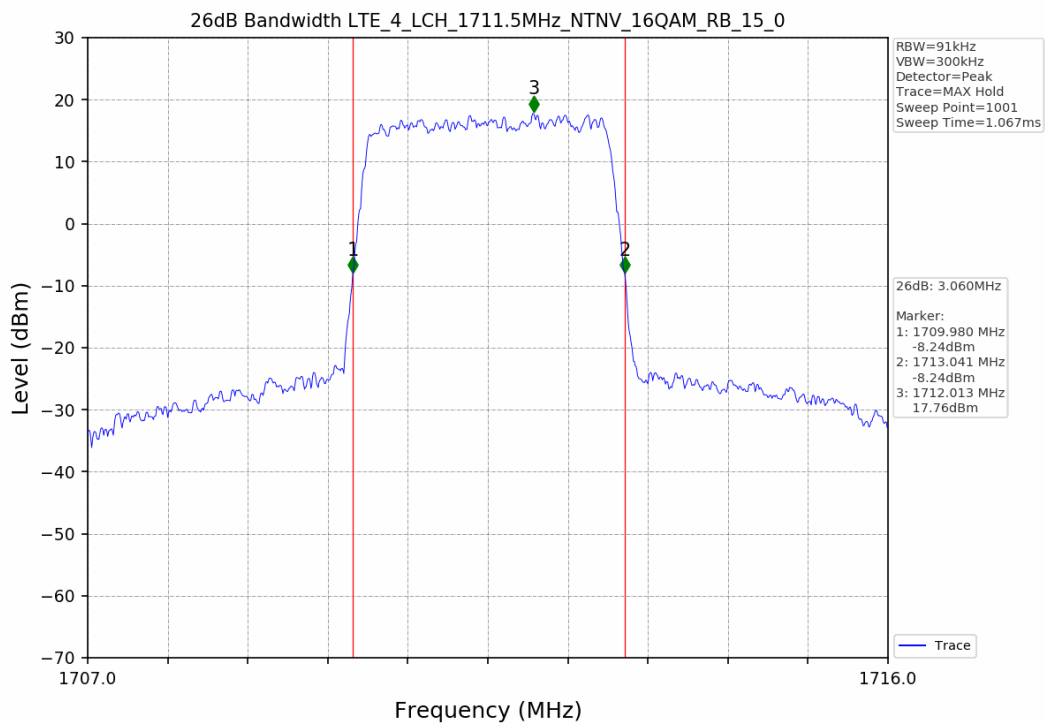


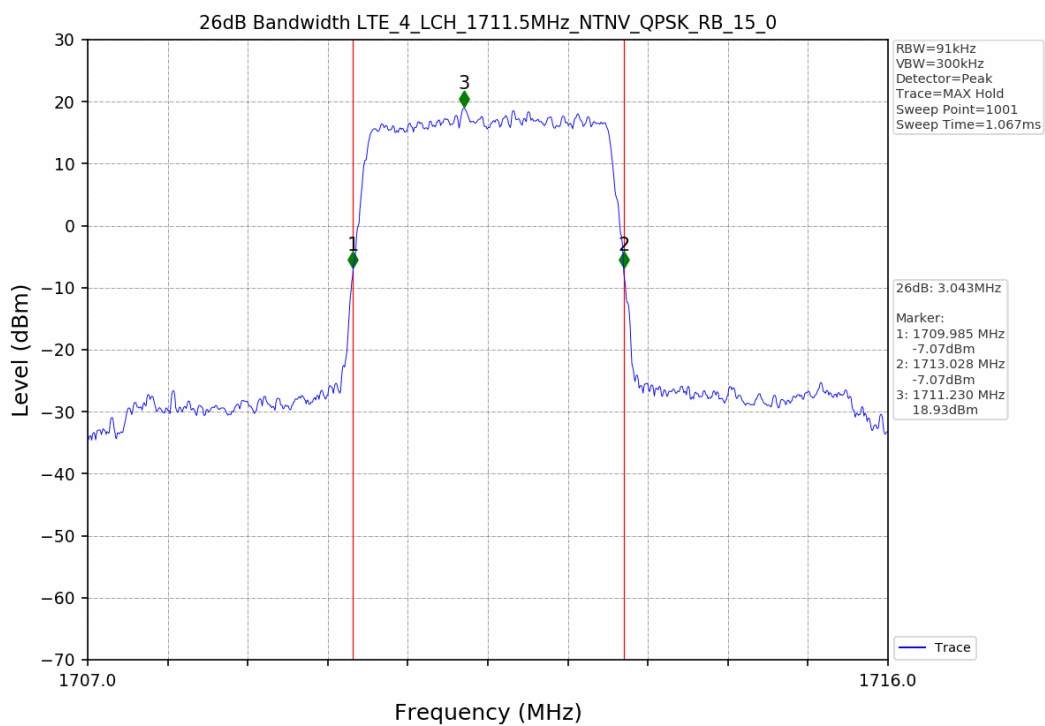
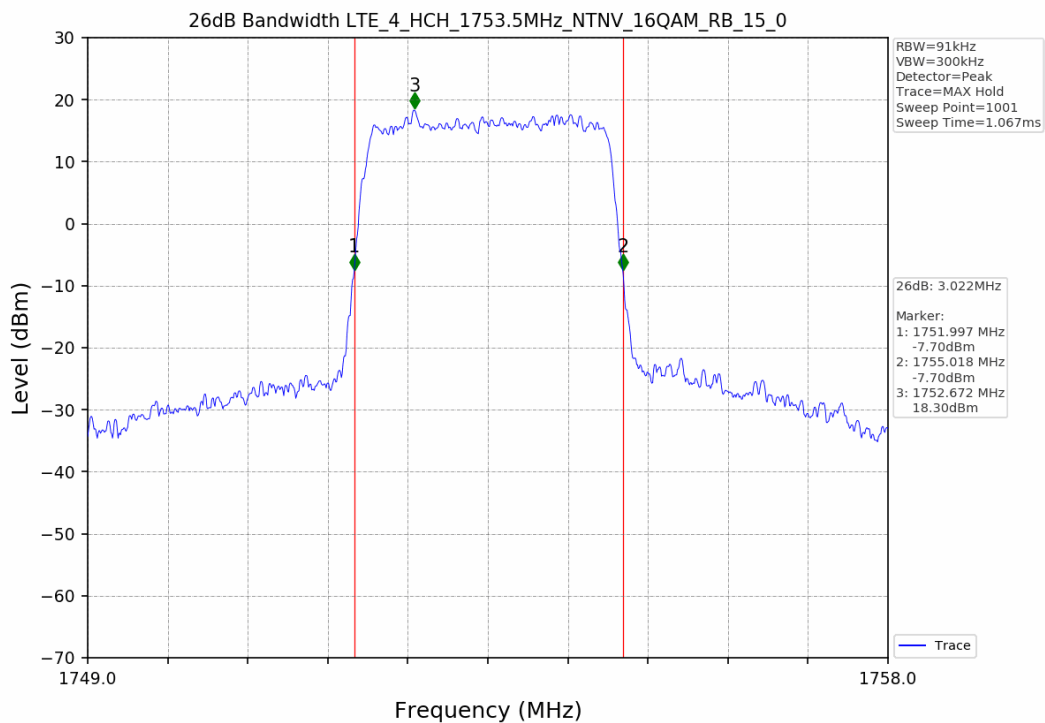


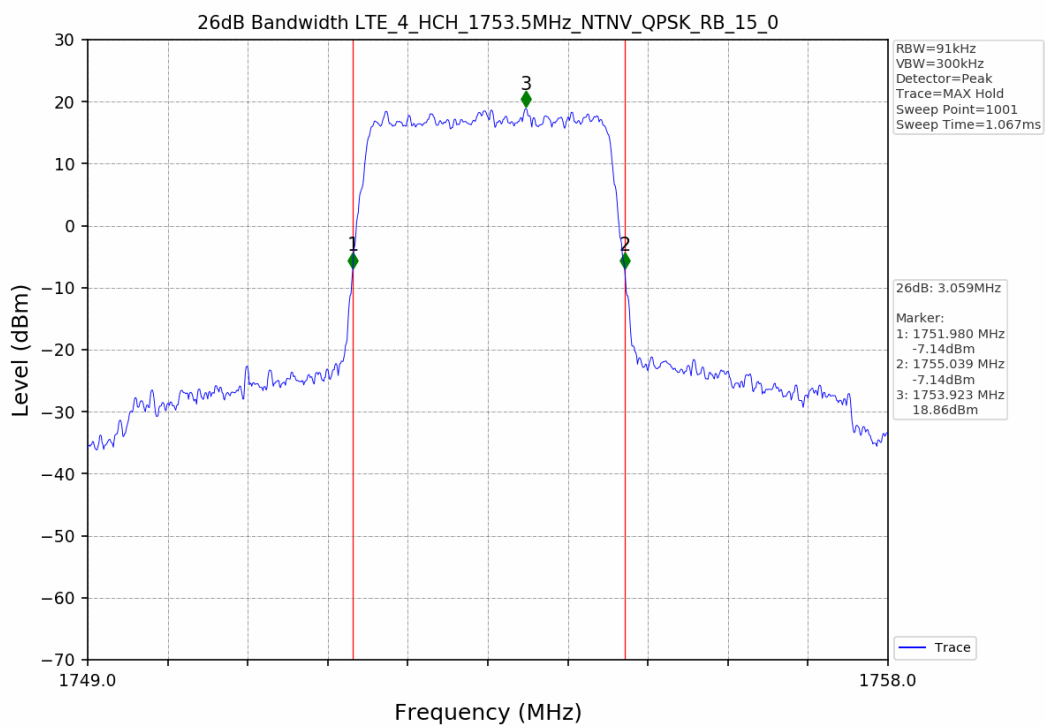
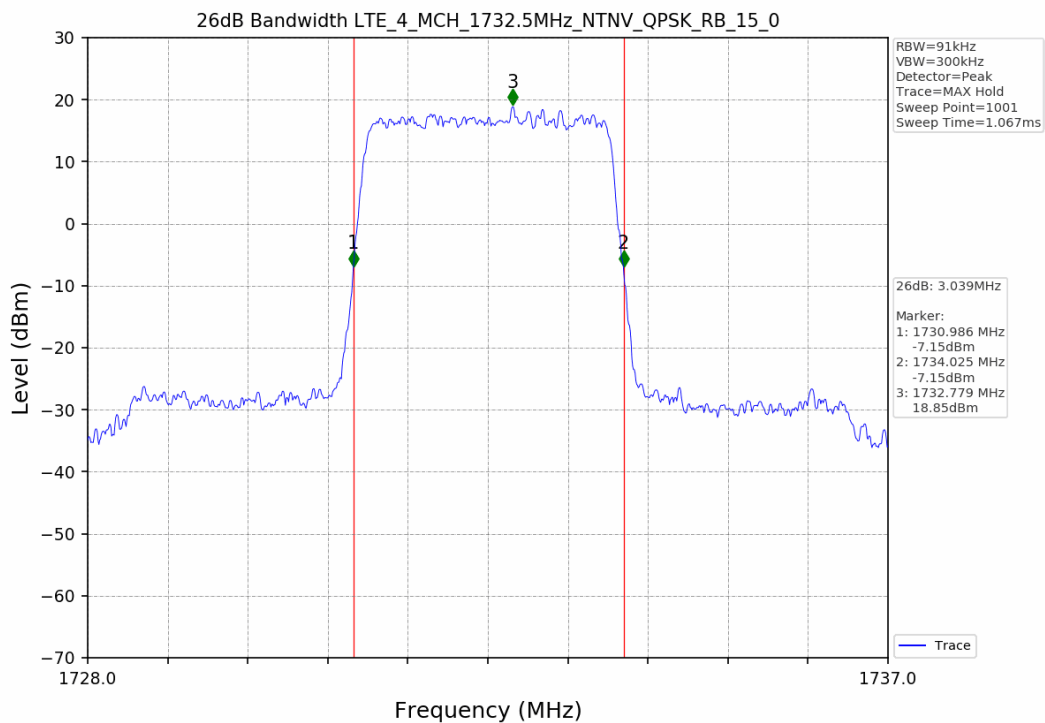




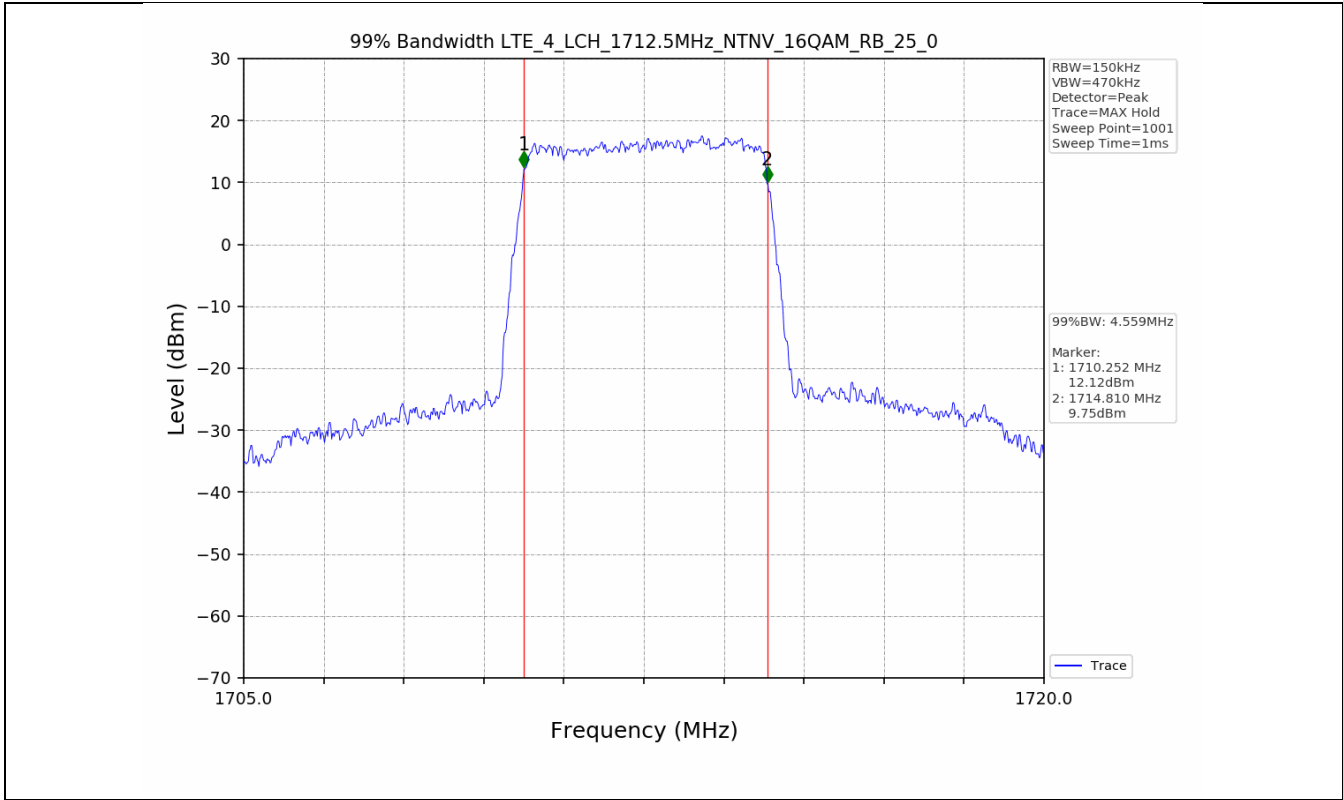
Test Band: 4_3MHz Bandwidth							
Test Mode	RB Allocation		26dB Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	15	0	3.043	3.039	3.059	N/A	PASS
16QAM	15	0	3.060	3.058	3.022	N/A	PASS

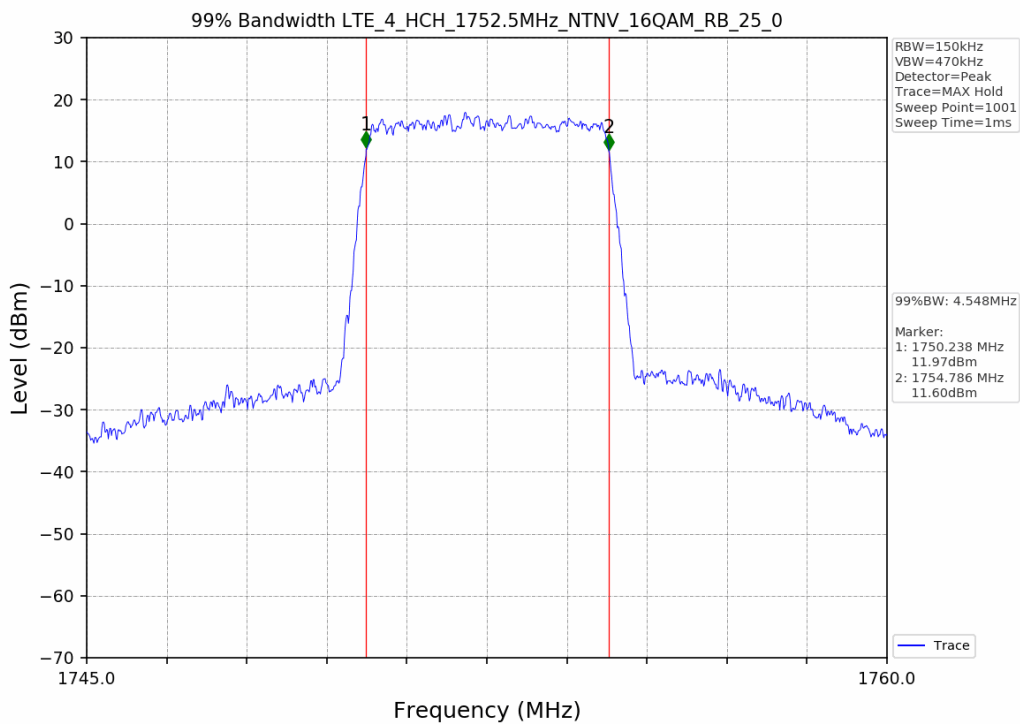
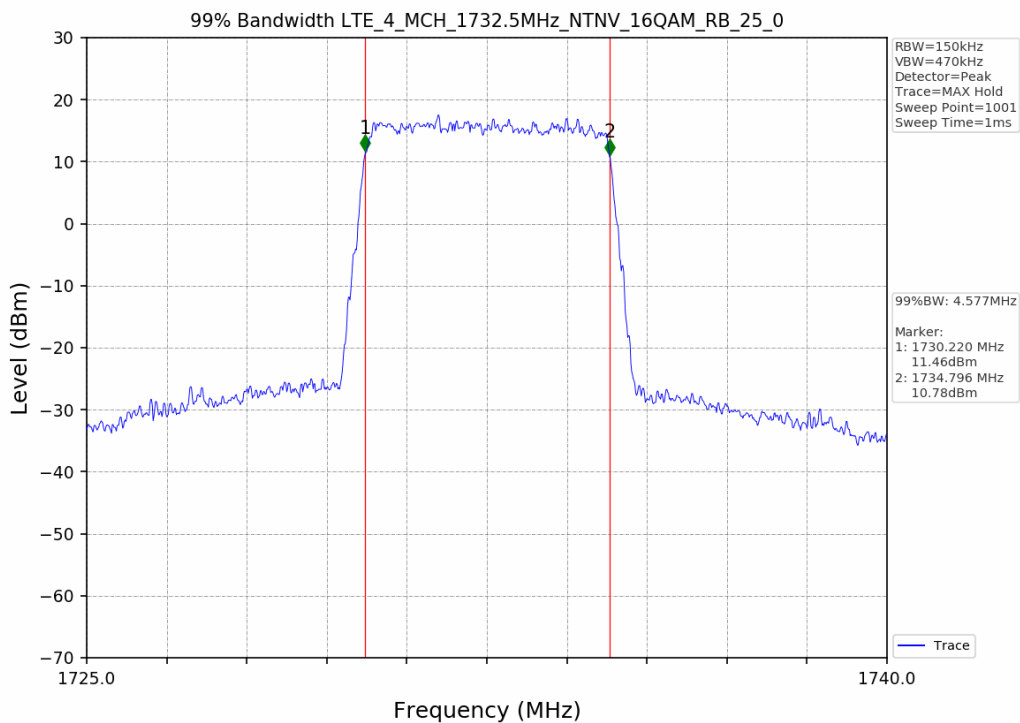


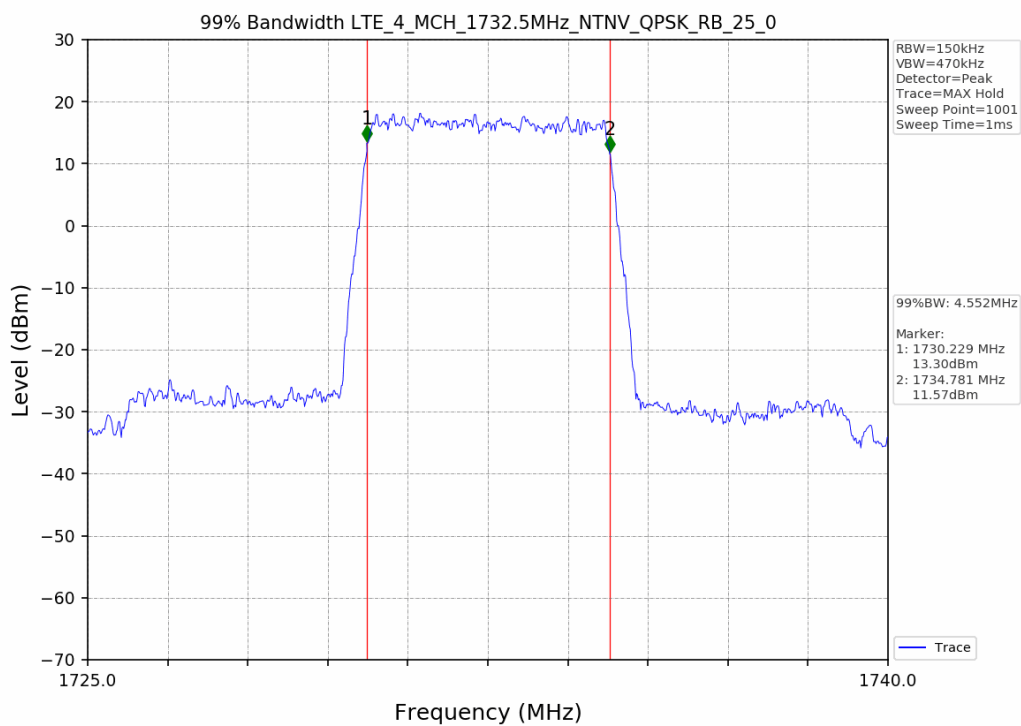
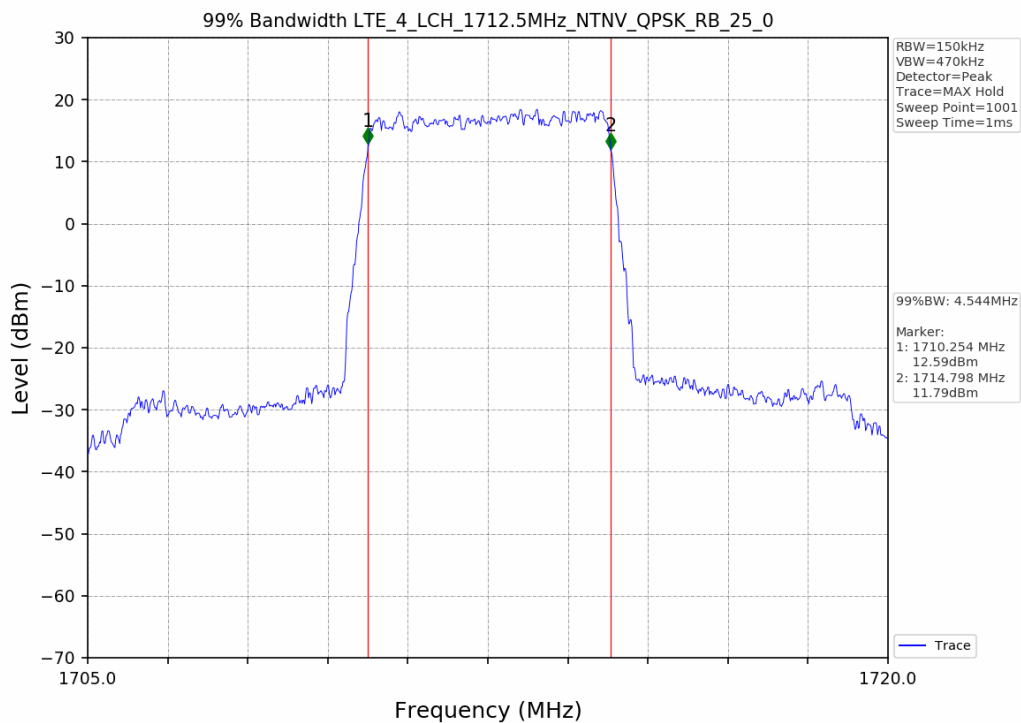


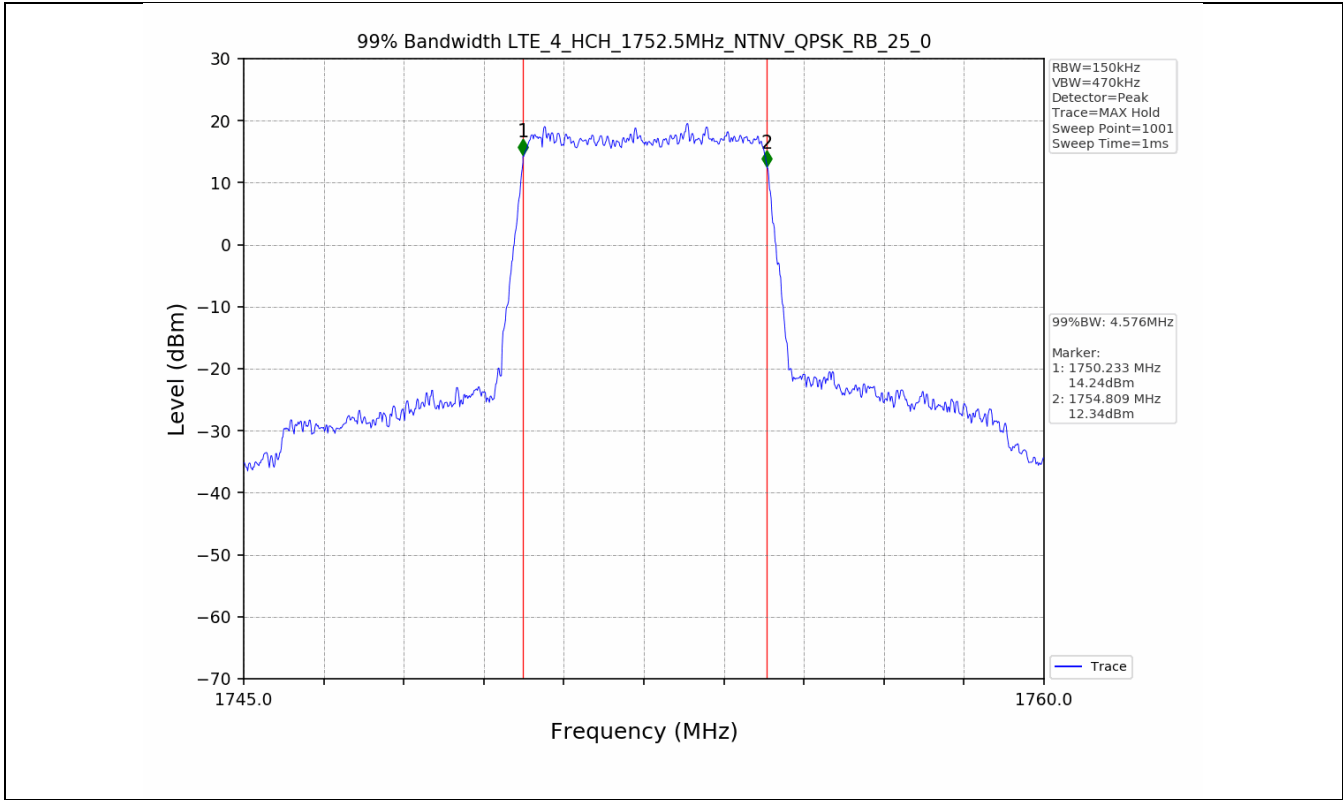


Test Band: 4_5MHz Bandwidth							
Test Mode	RB Allocation		99% Occupied Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	25	0	4.544	4.552	4.576	N/A	PASS
16QAM	25	0	4.559	4.577	4.548	N/A	PASS

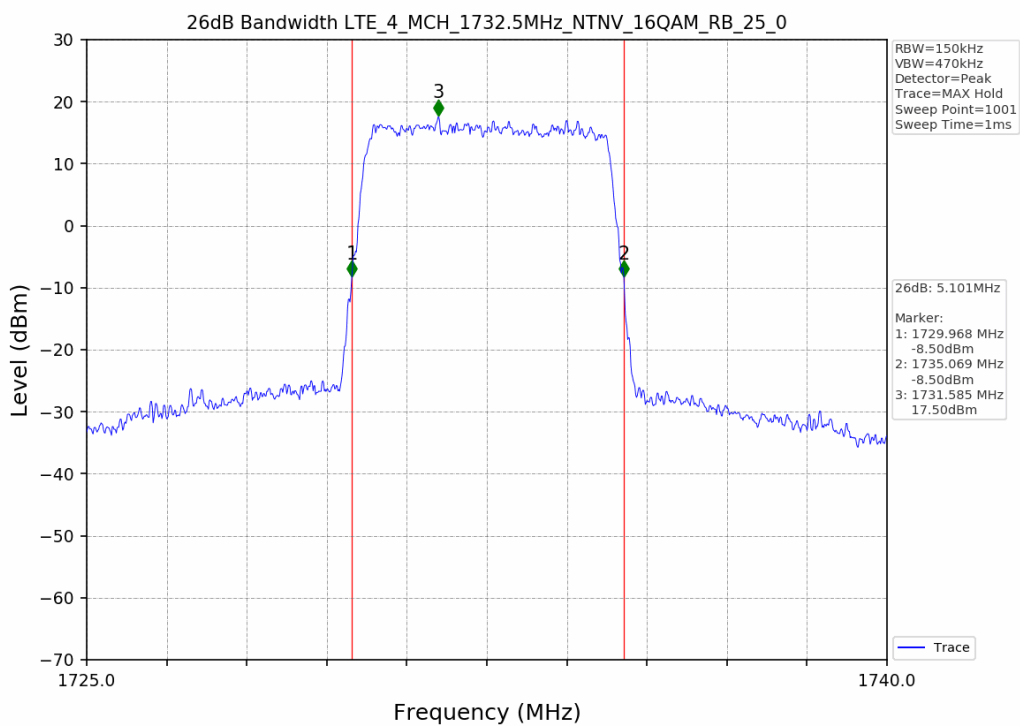
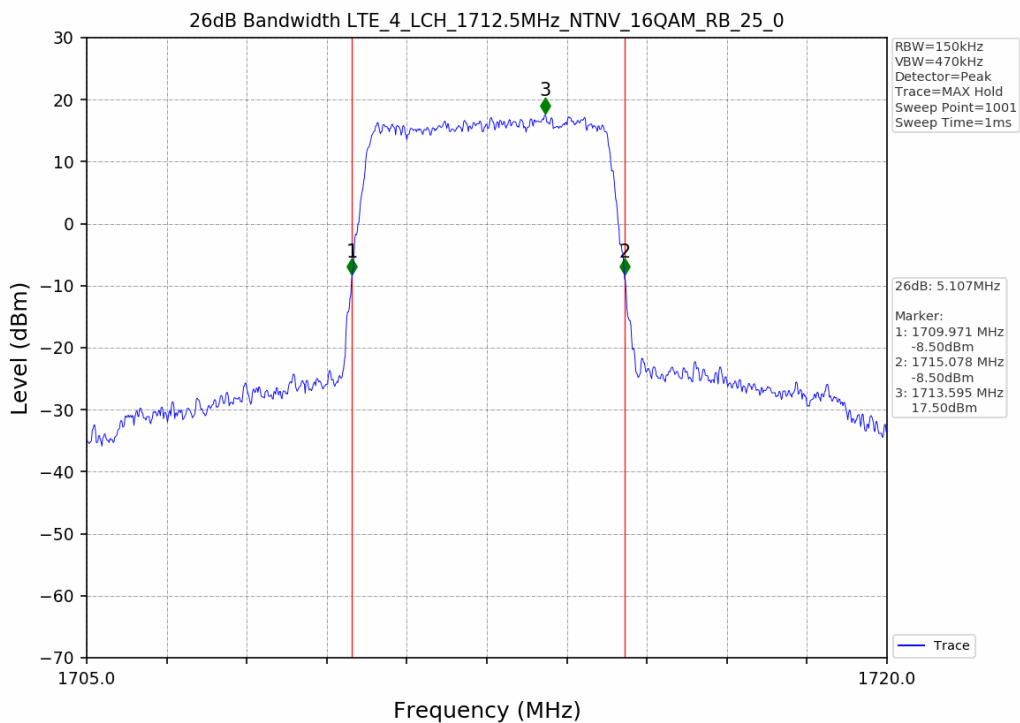


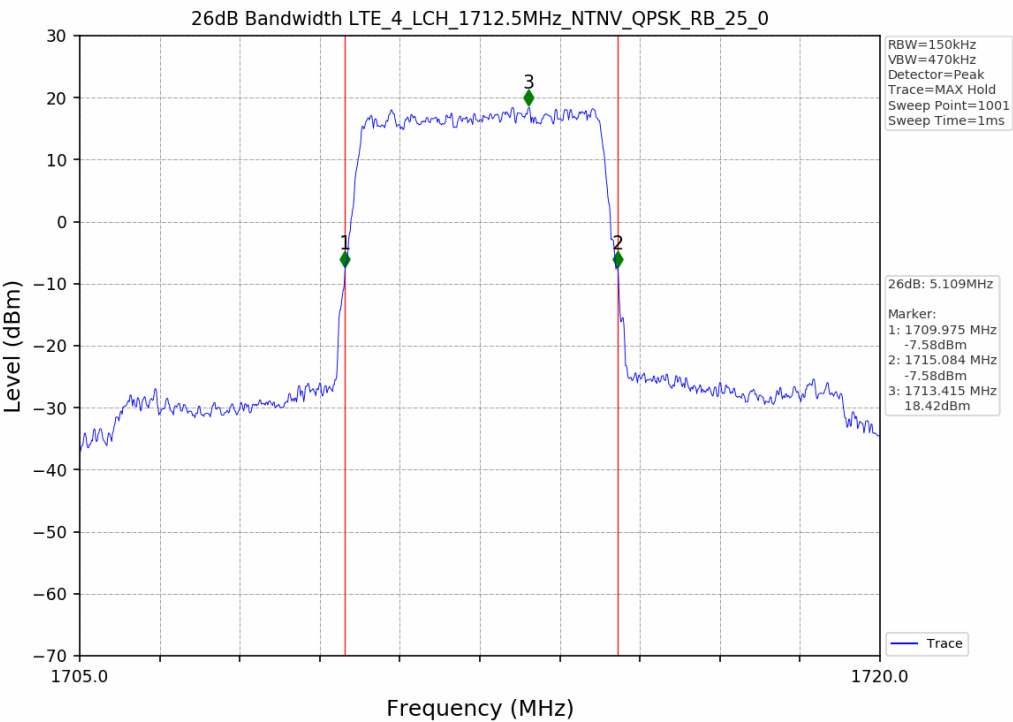
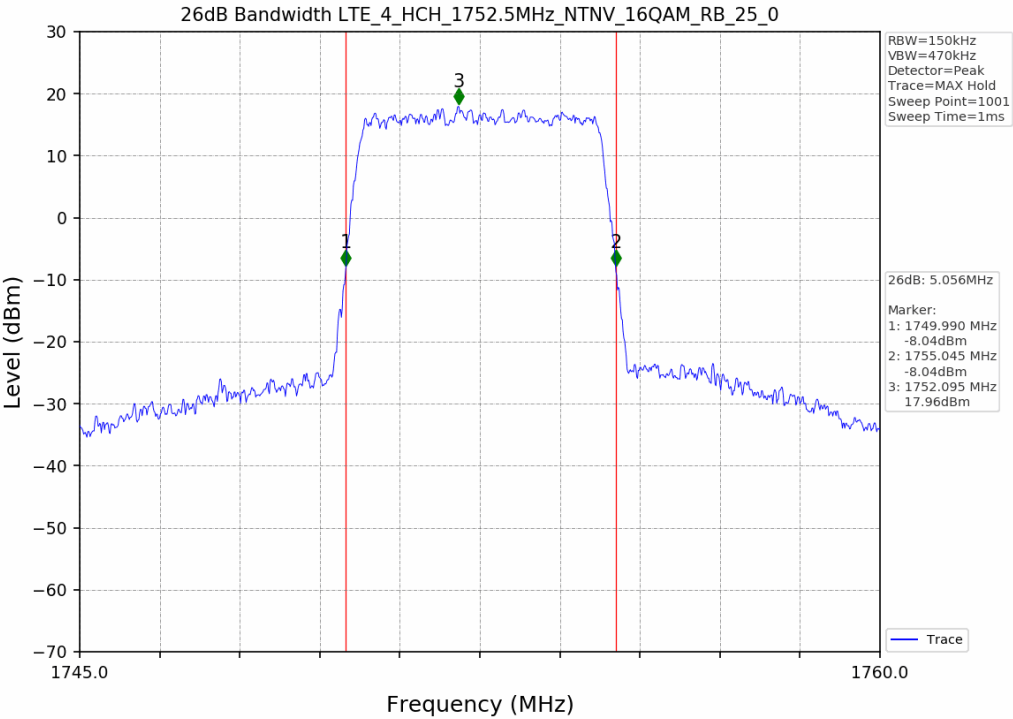


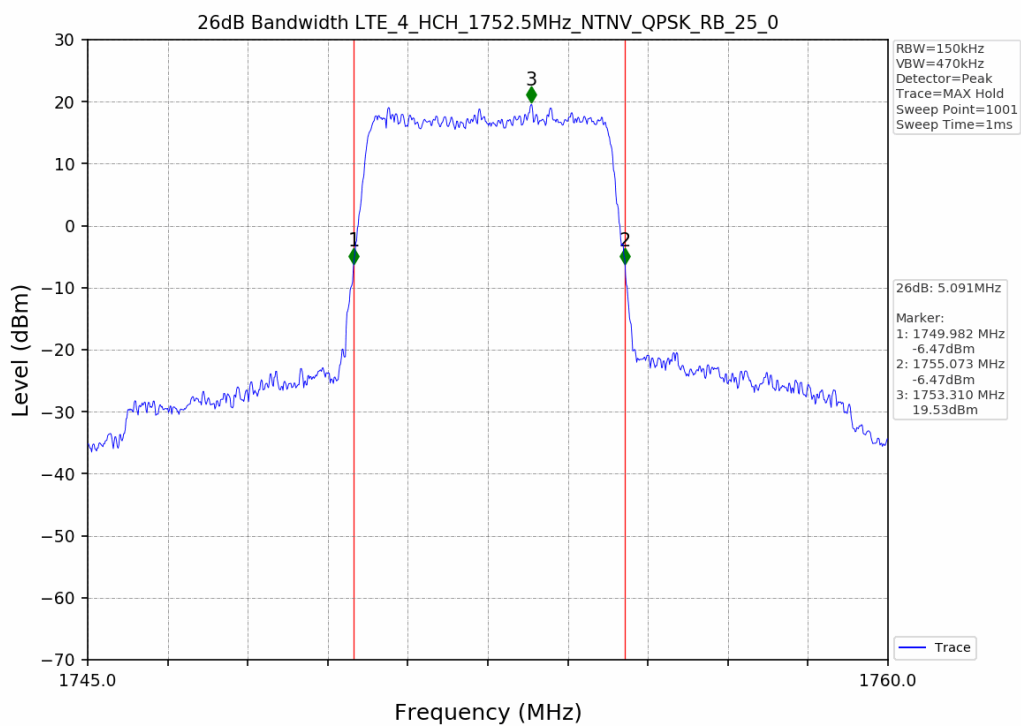
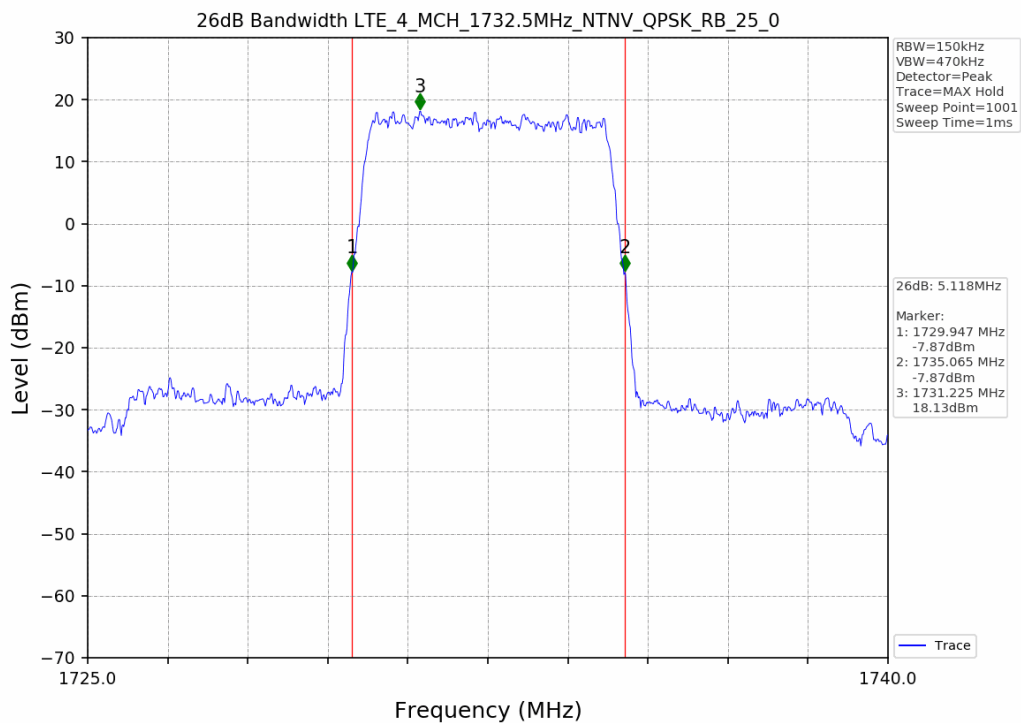




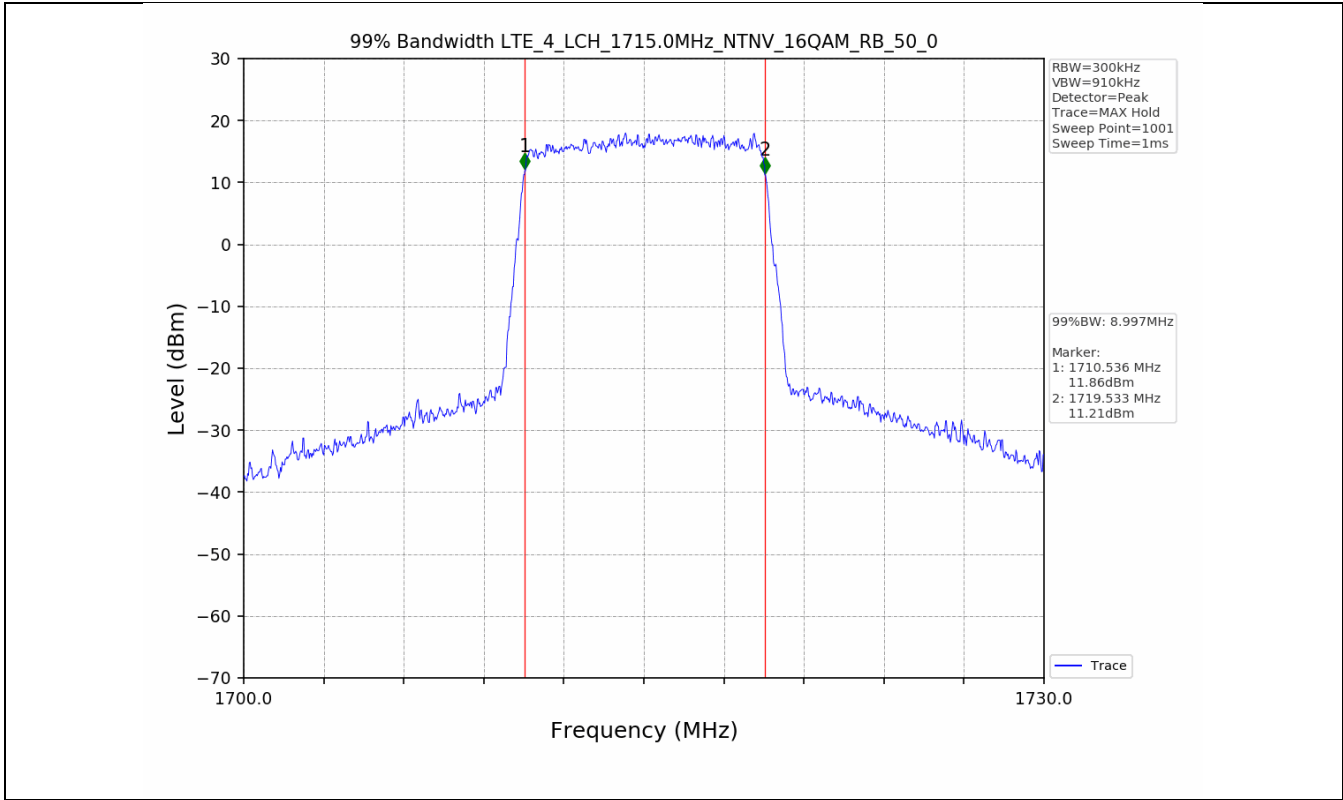
Test Band: 4_5MHz Bandwidth							
Test Mode	RB Allocation		26dB Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	25	0	5.109	5.118	5.091	N/A	PASS
16QAM	25	0	5.107	5.101	5.056	N/A	PASS

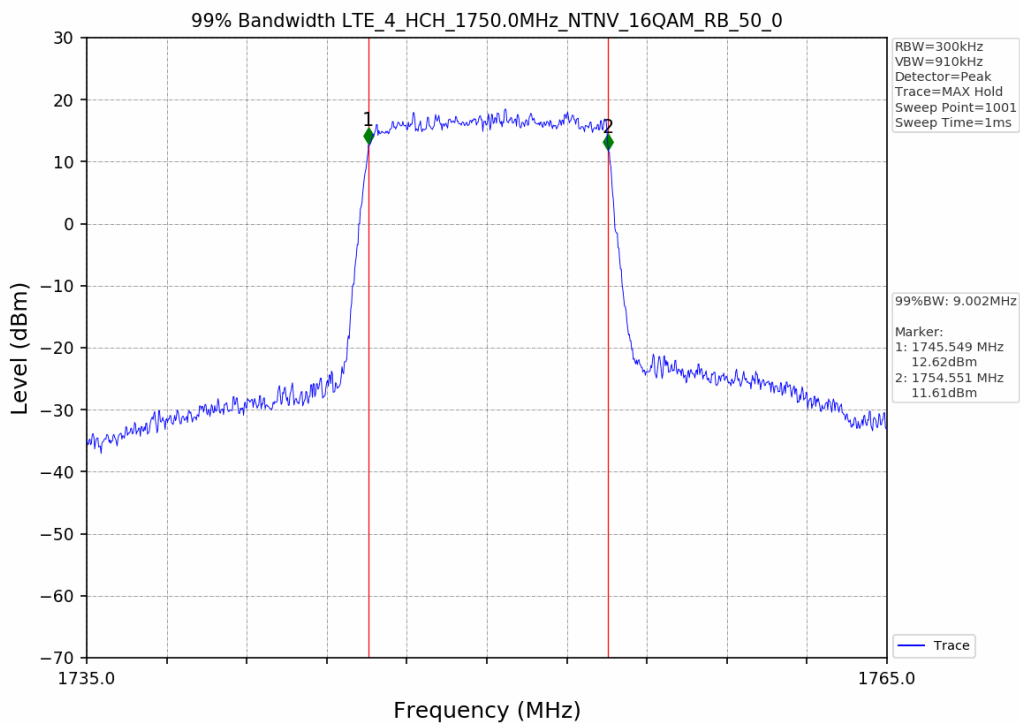
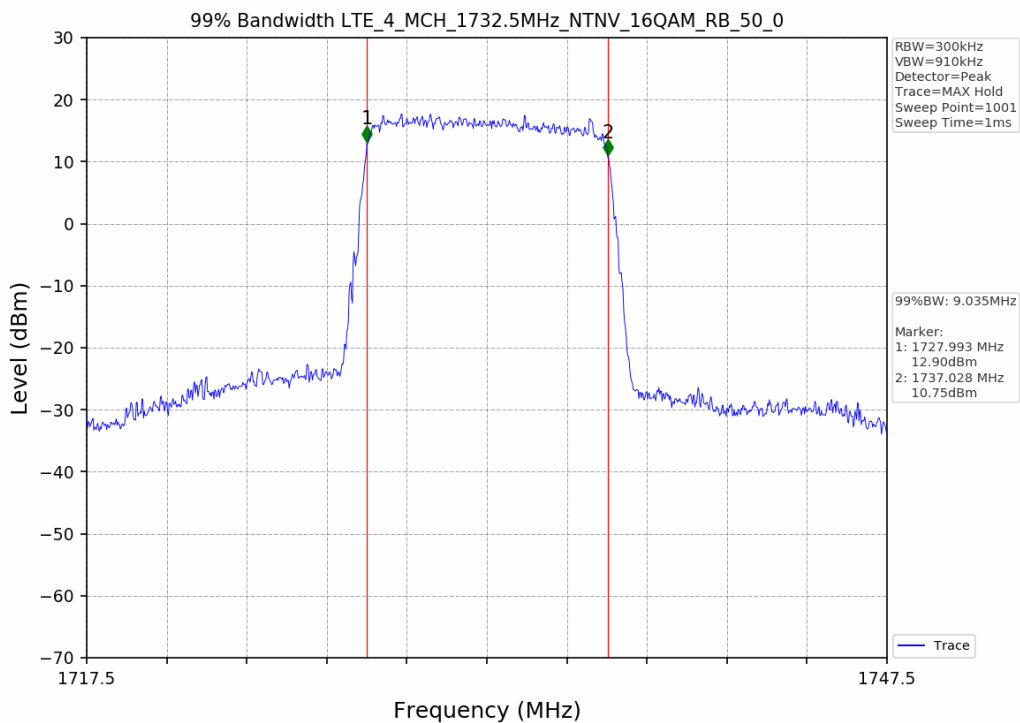


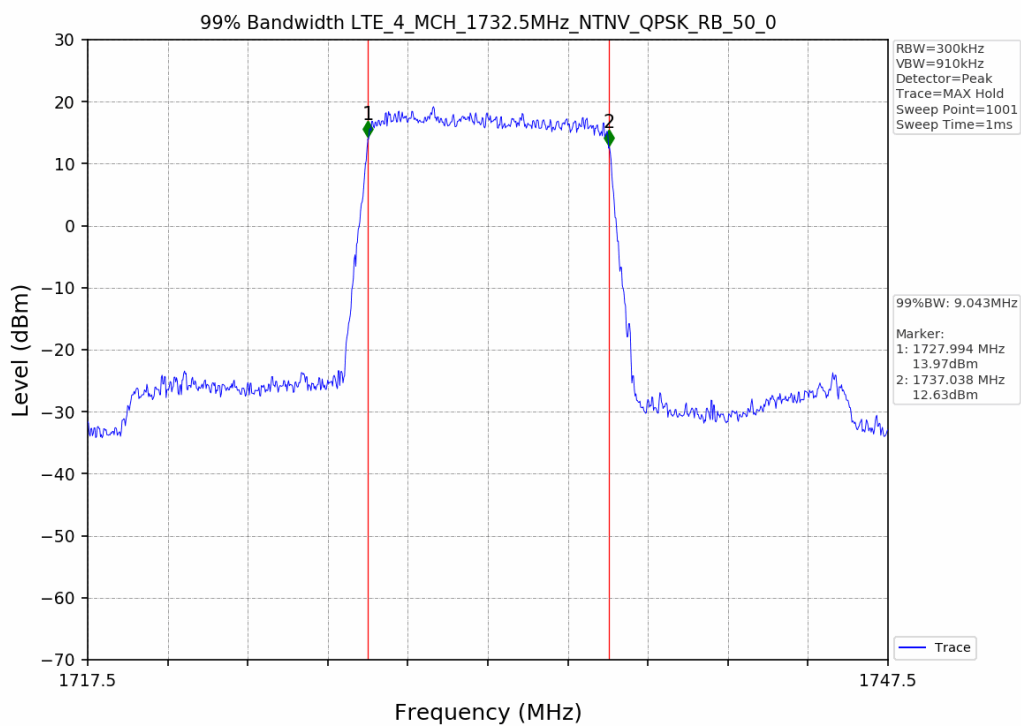
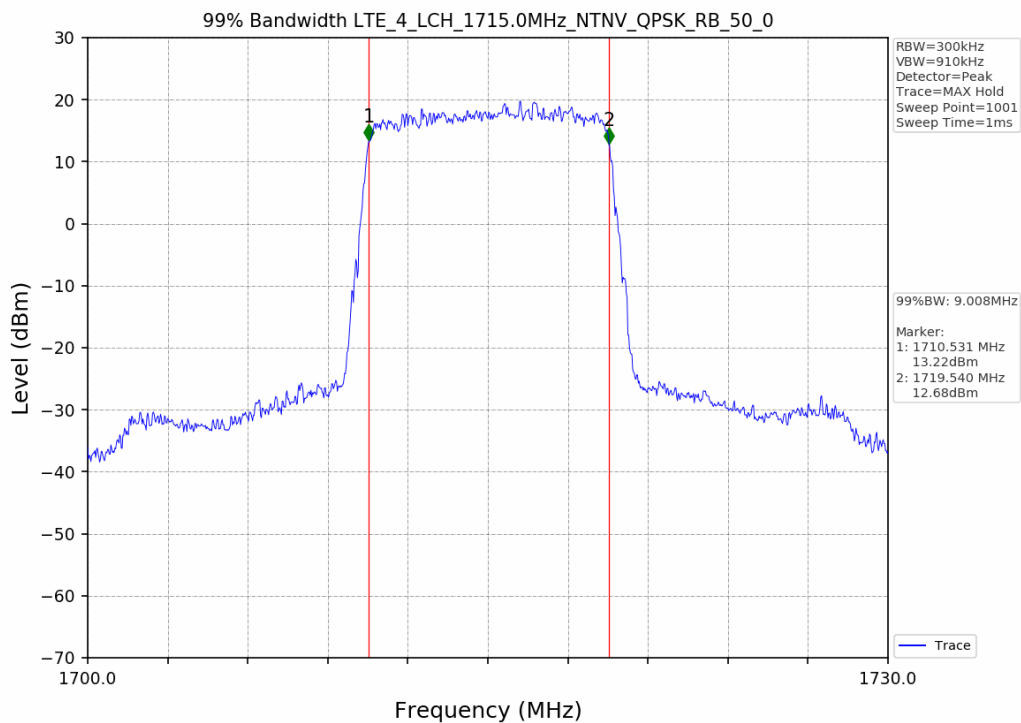


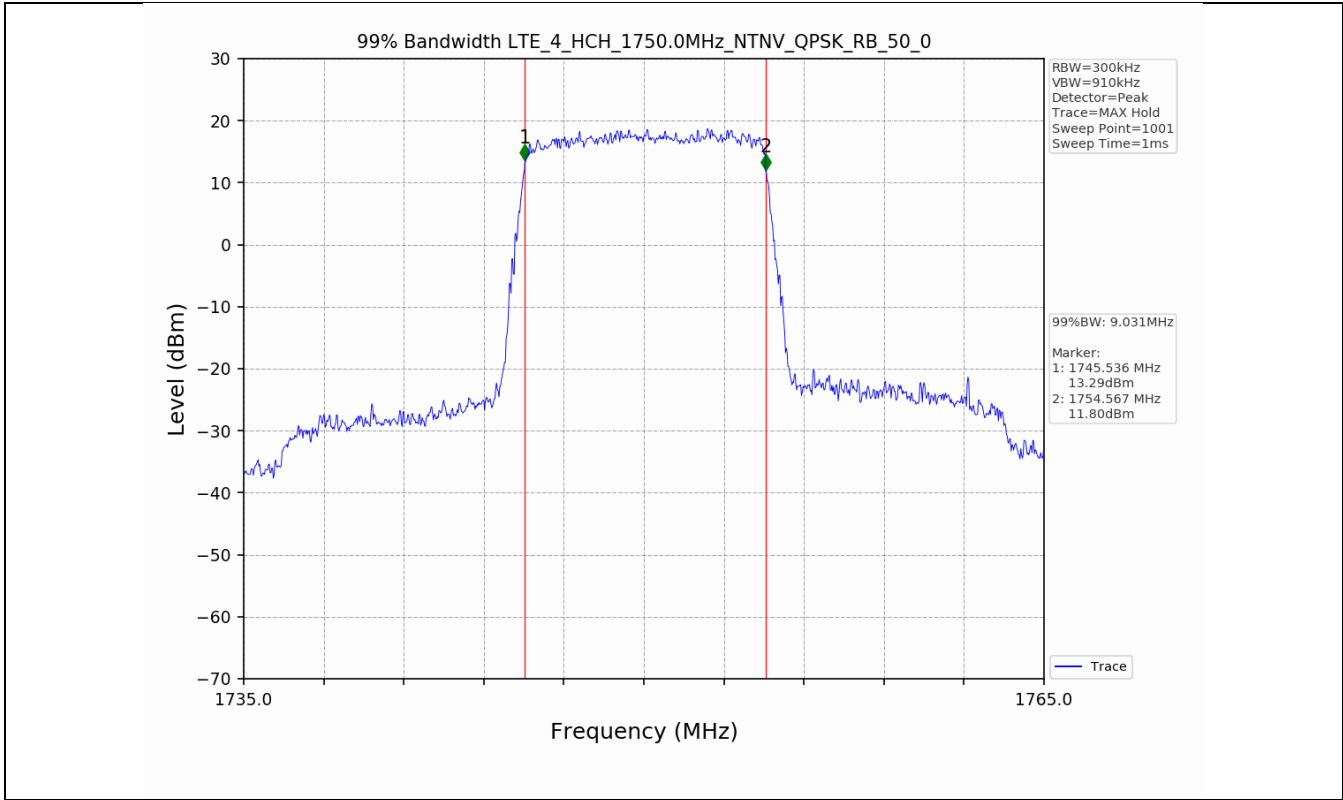


Test Band: 4_10MHz Bandwidth							
Test Mode	RB Allocation		99% Occupied Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	50	0	9.008	9.043	9.031	N/A	PASS
16QAM	50	0	8.997	9.035	9.002	N/A	PASS

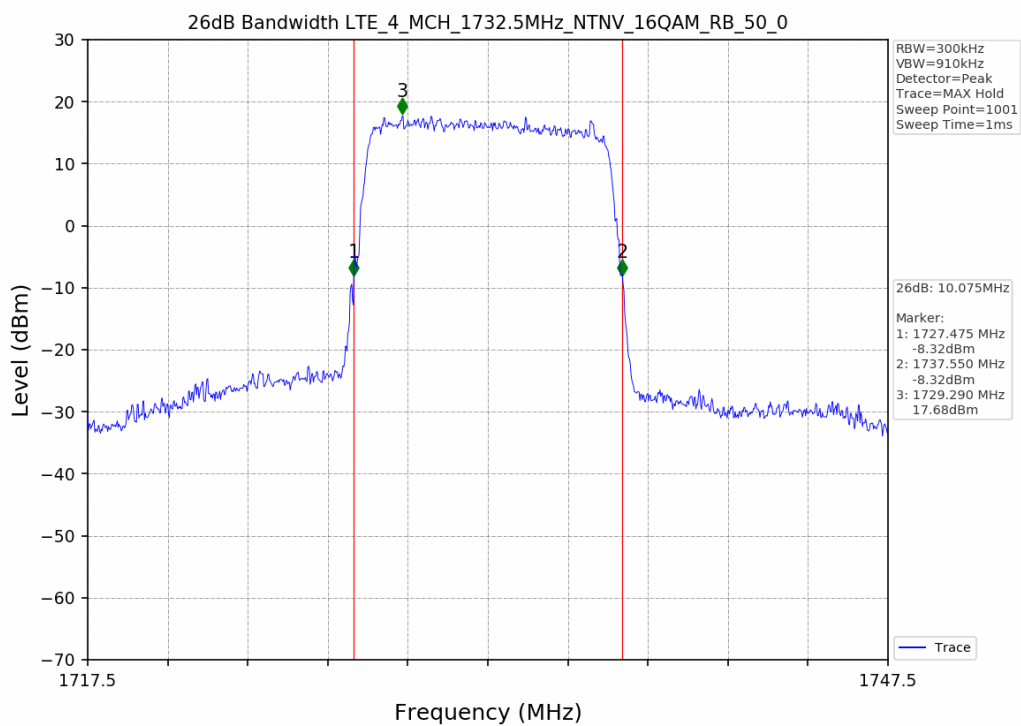
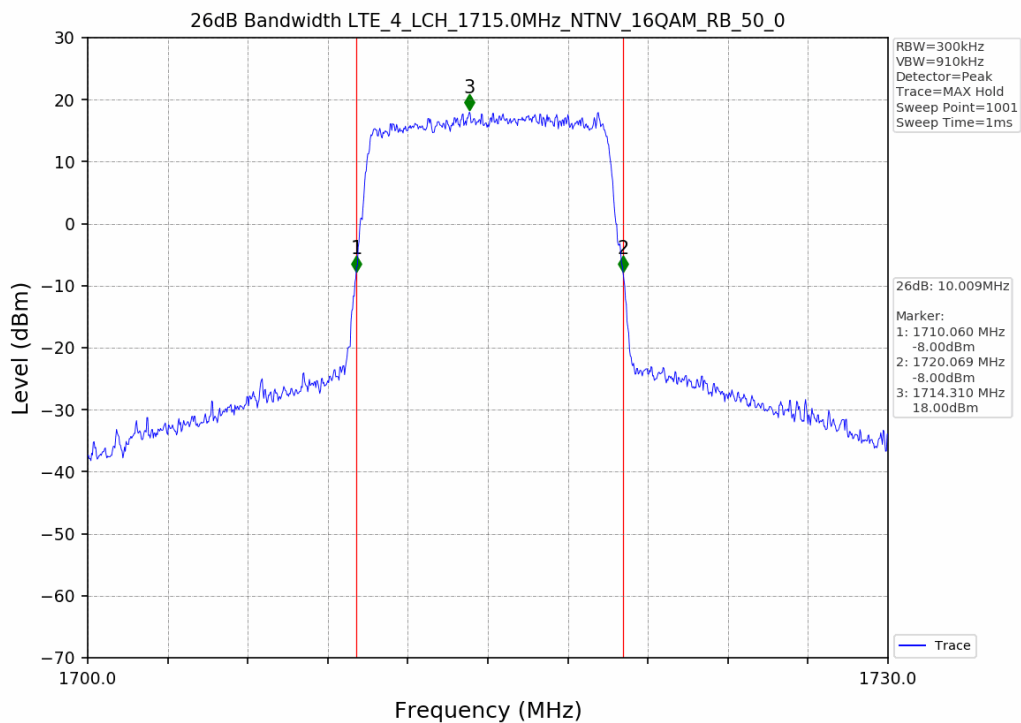


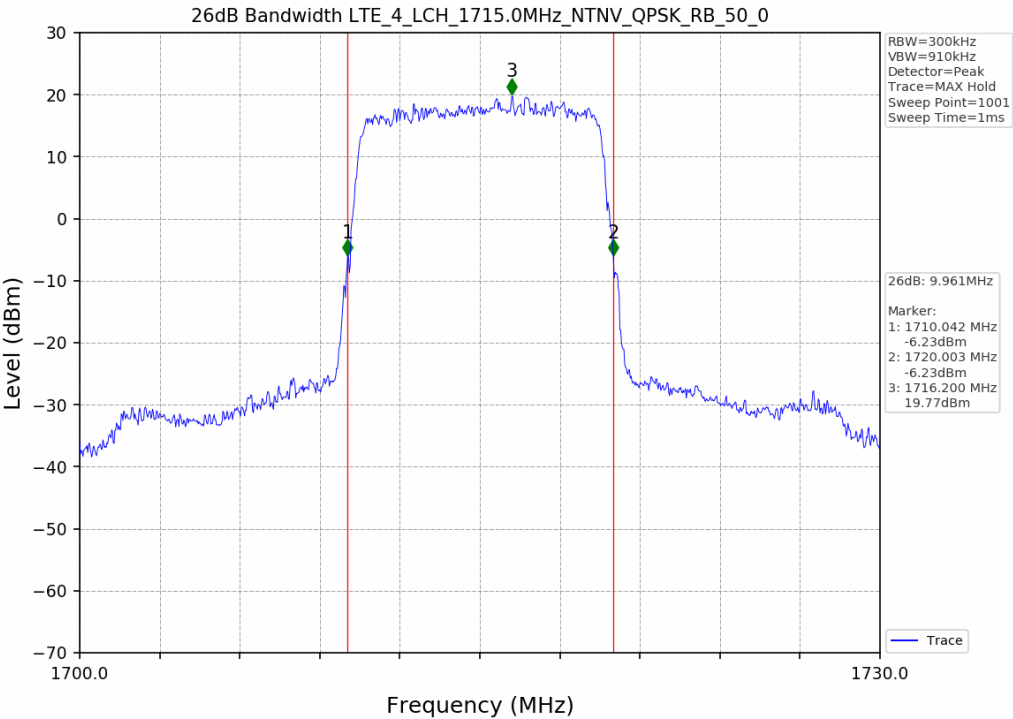
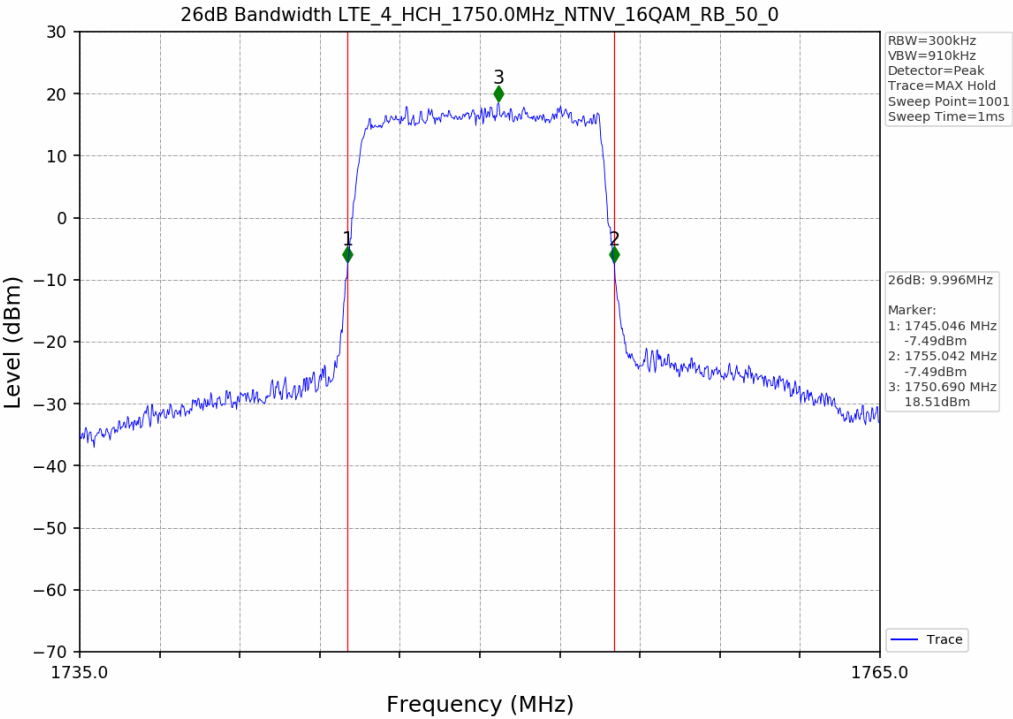


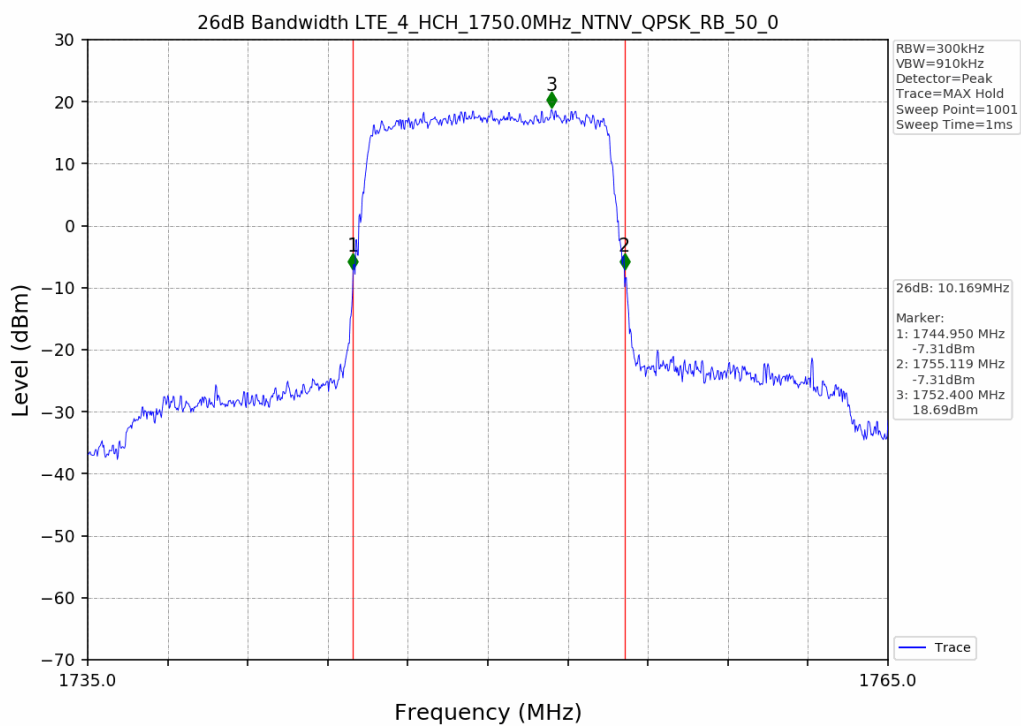
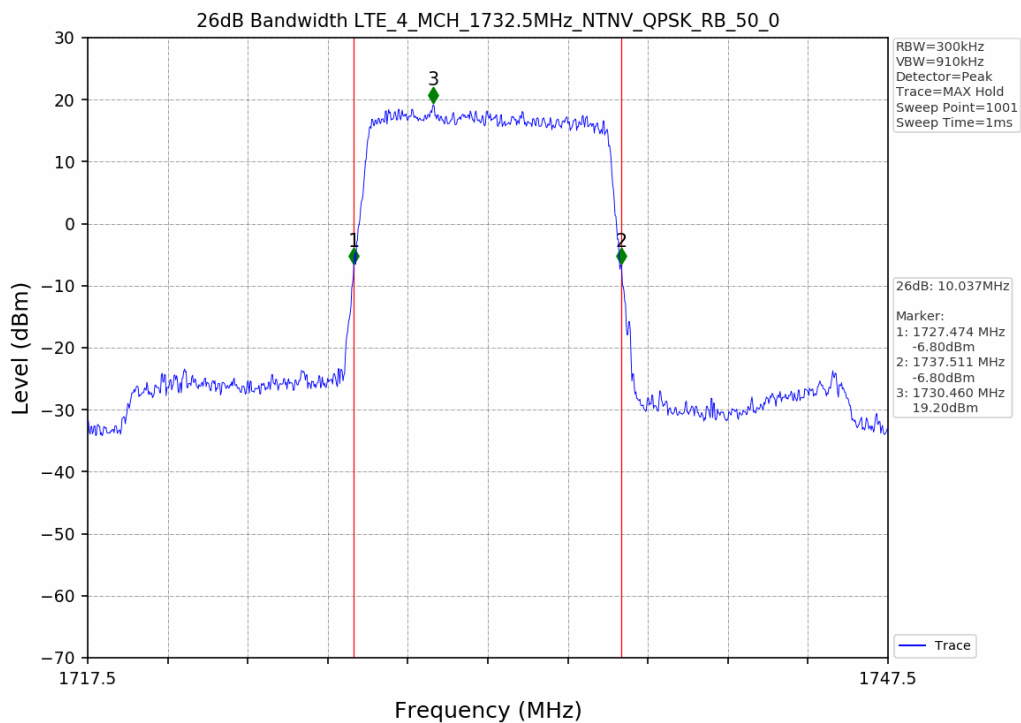




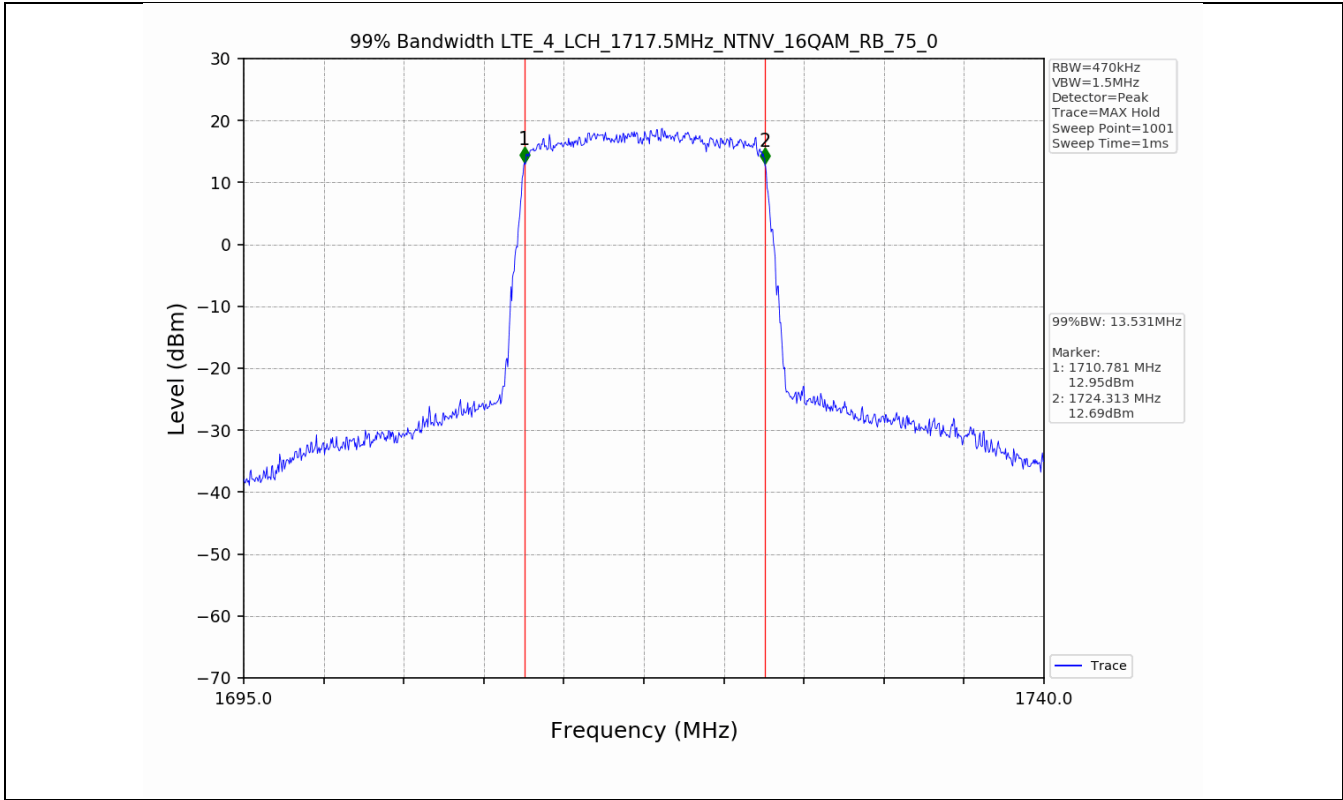
Test Band: 4_10MHz Bandwidth							
Test Mode	RB Allocation		26dB Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	50	0	9.961	10.037	10.169	N/A	PASS
16QAM	50	0	10.009	10.075	9.996	N/A	PASS

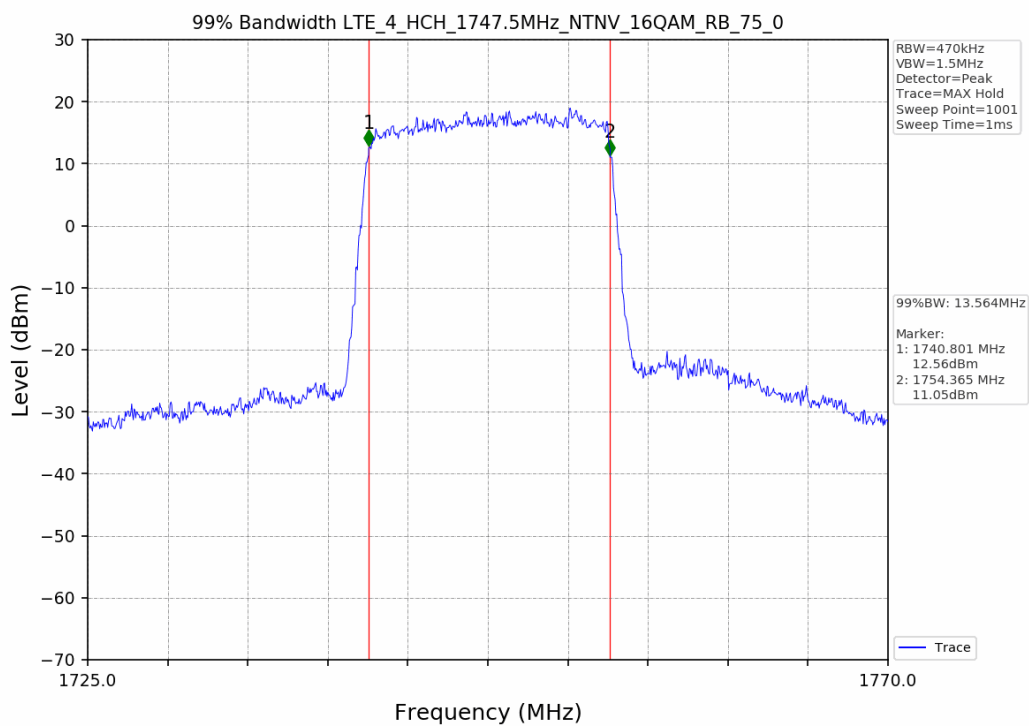
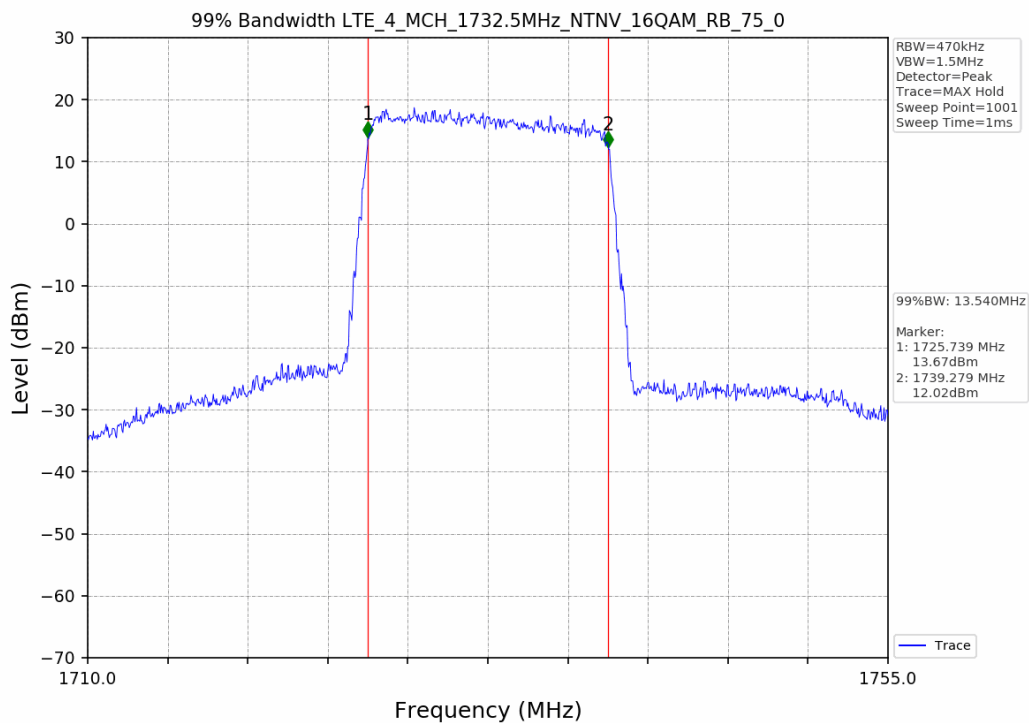


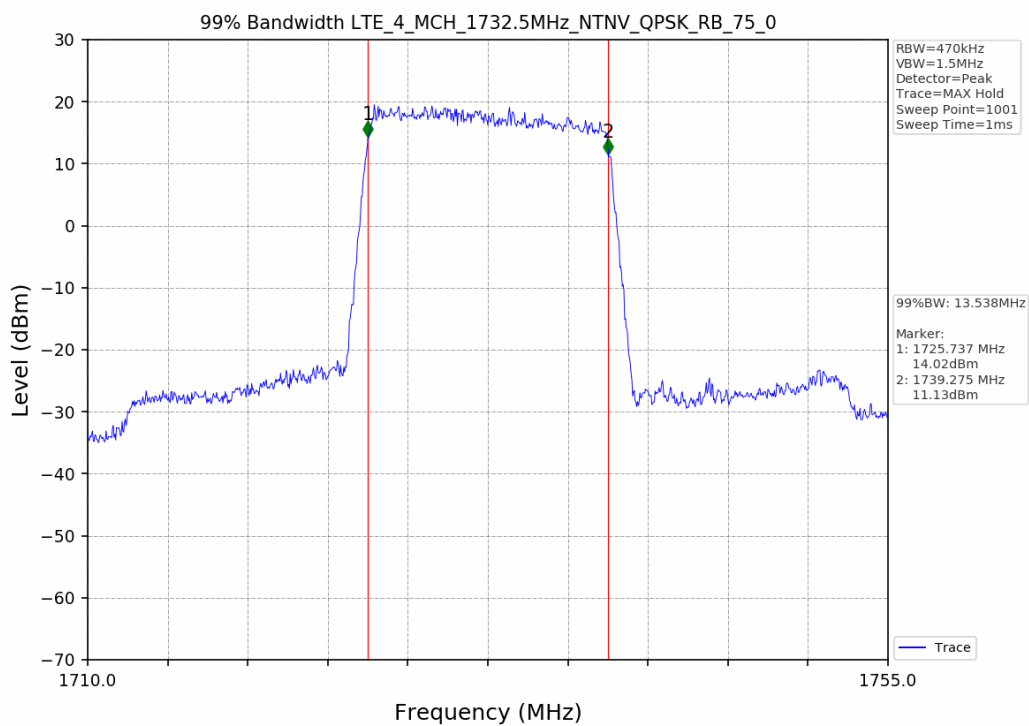
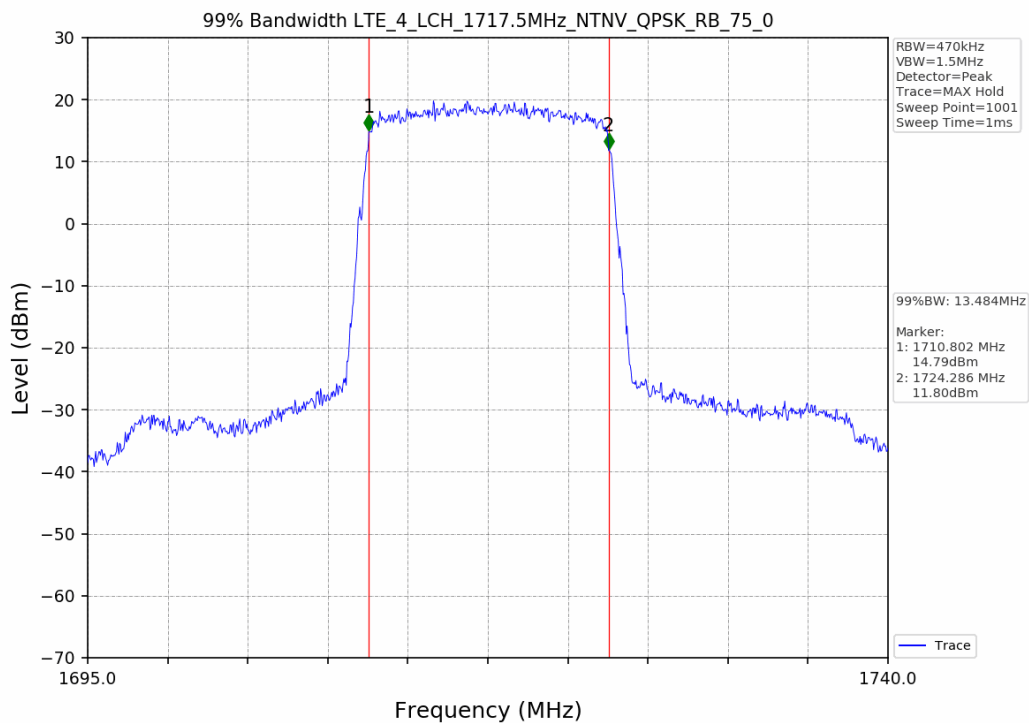


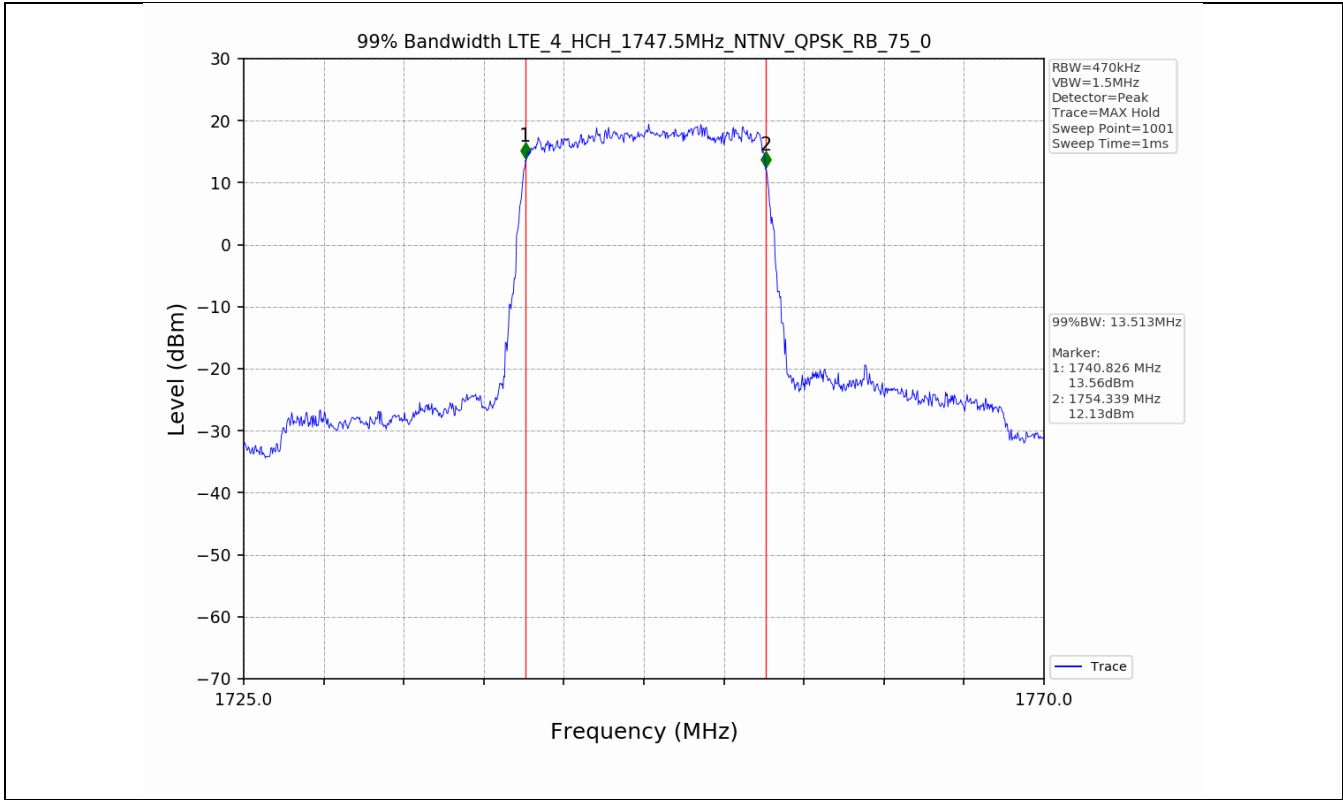


Test Band: 4_15MHz Bandwidth							
Test Mode	RB Allocation		99% Occupied Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	75	0	13.484	13.538	13.513	N/A	PASS
16QAM	75	0	13.531	13.540	13.564	N/A	PASS

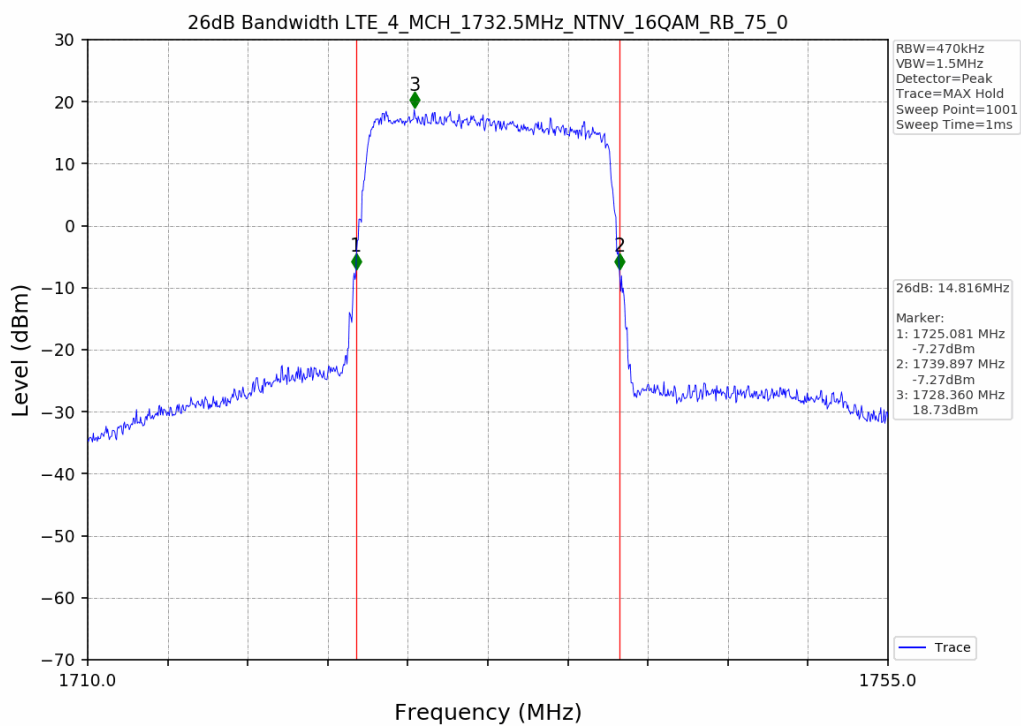
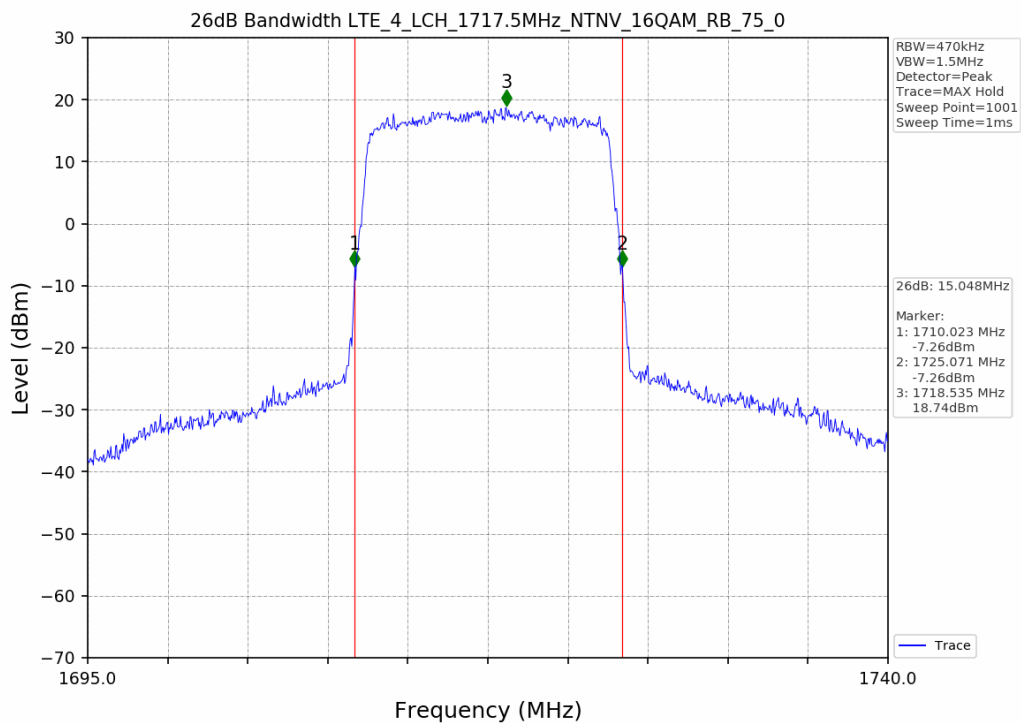


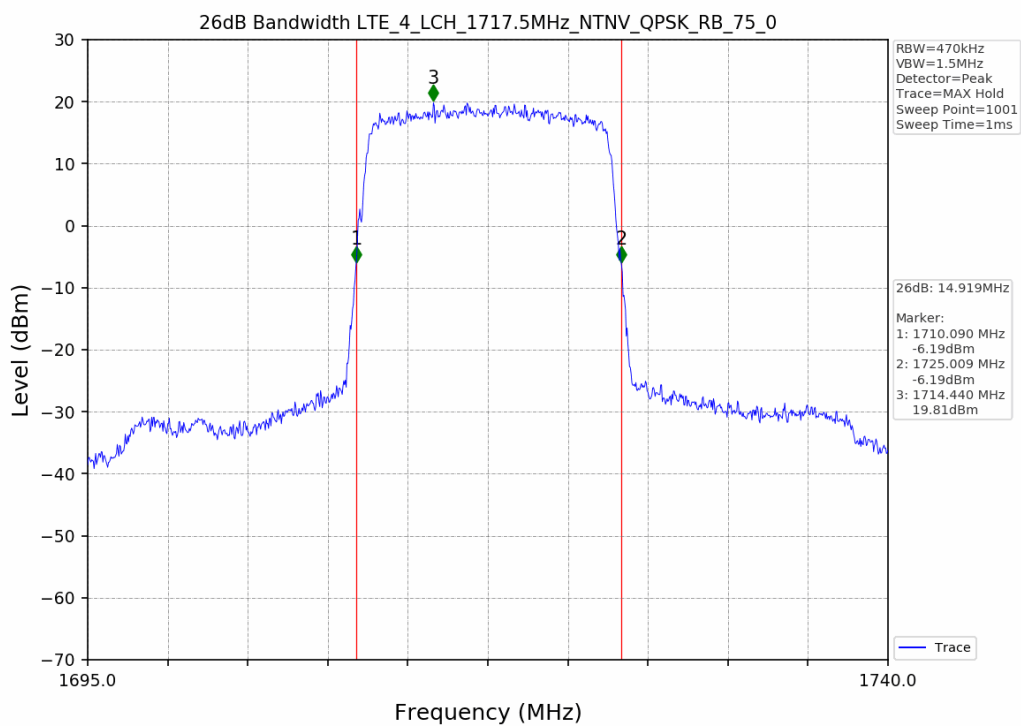
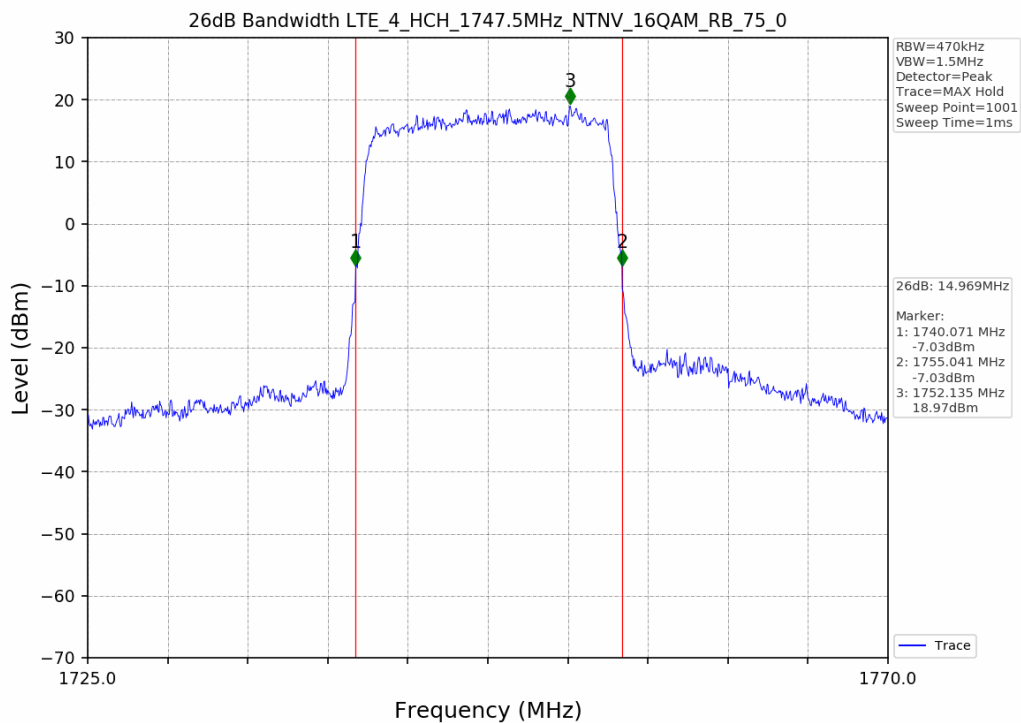


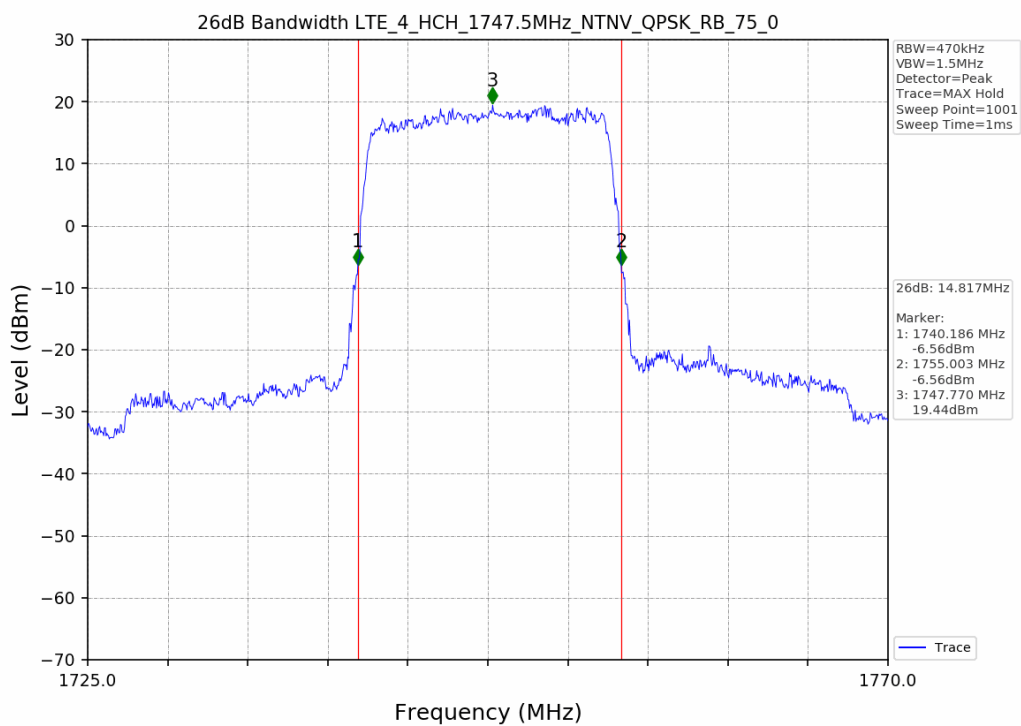
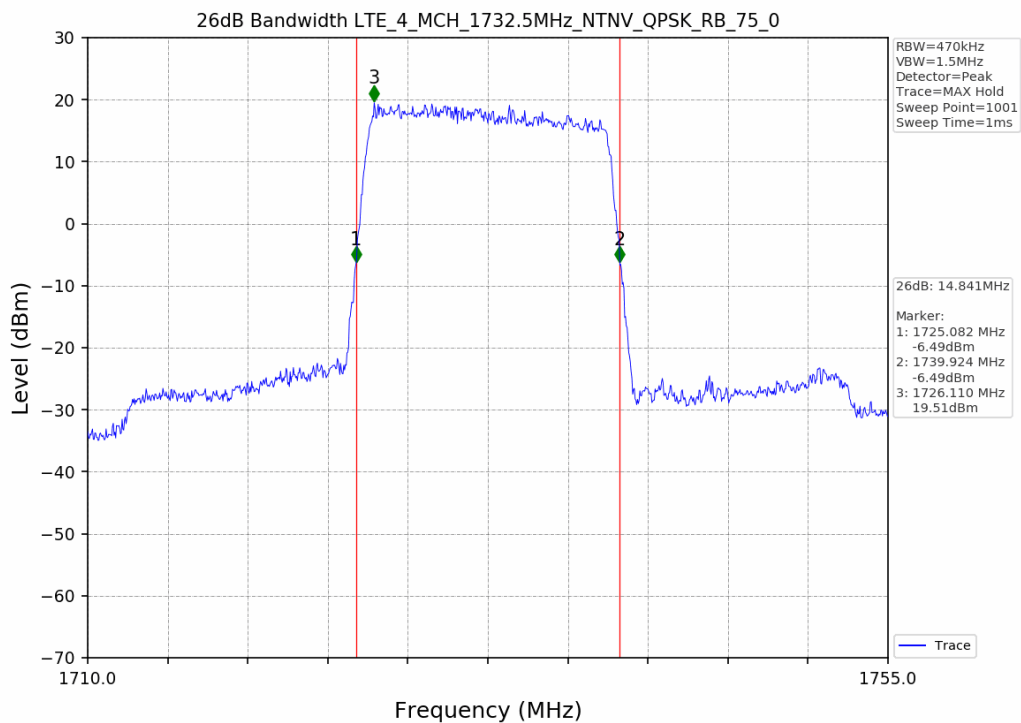




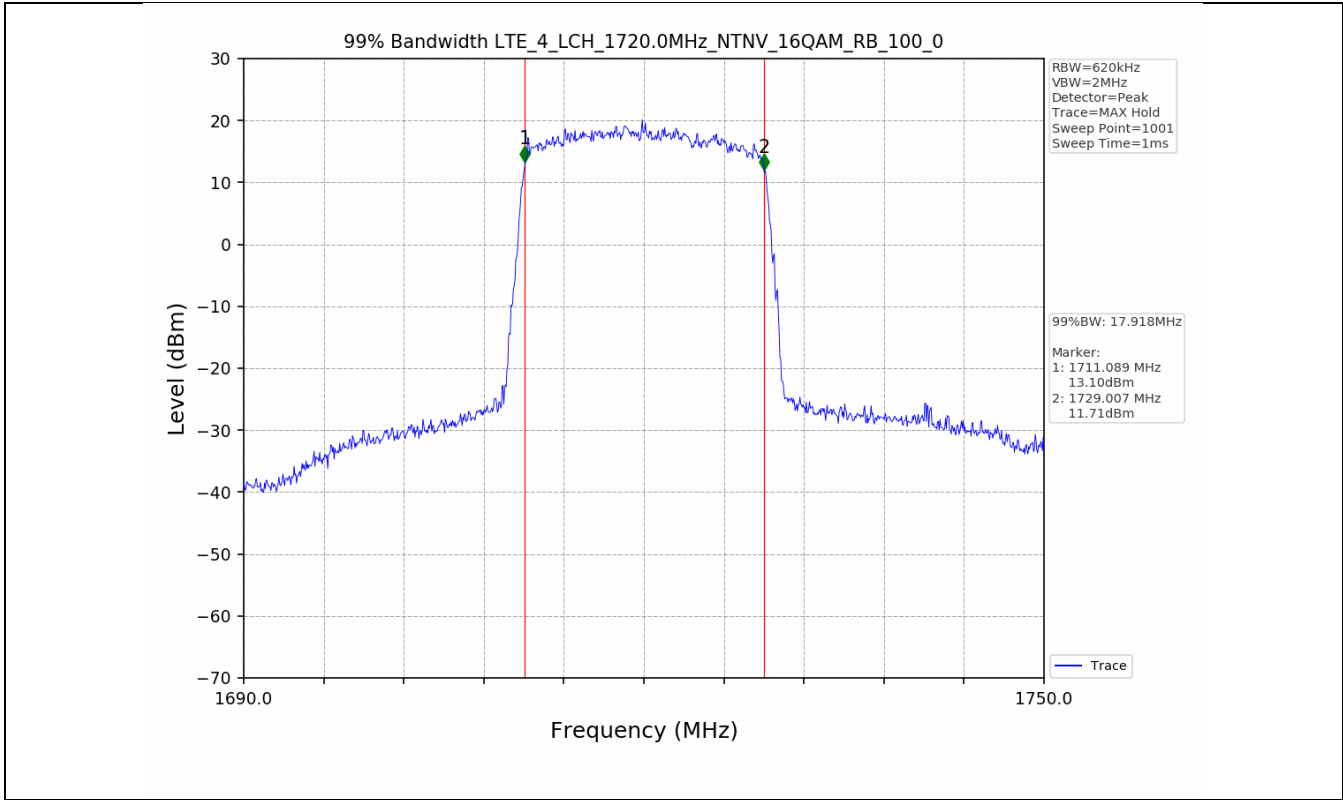
Test Band: 4_15MHz Bandwidth							
Test Mode	RB Allocation		26dB Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	75	0	14.919	14.841	14.817	N/A	PASS
16QAM	75	0	15.048	14.816	14.969	N/A	PASS

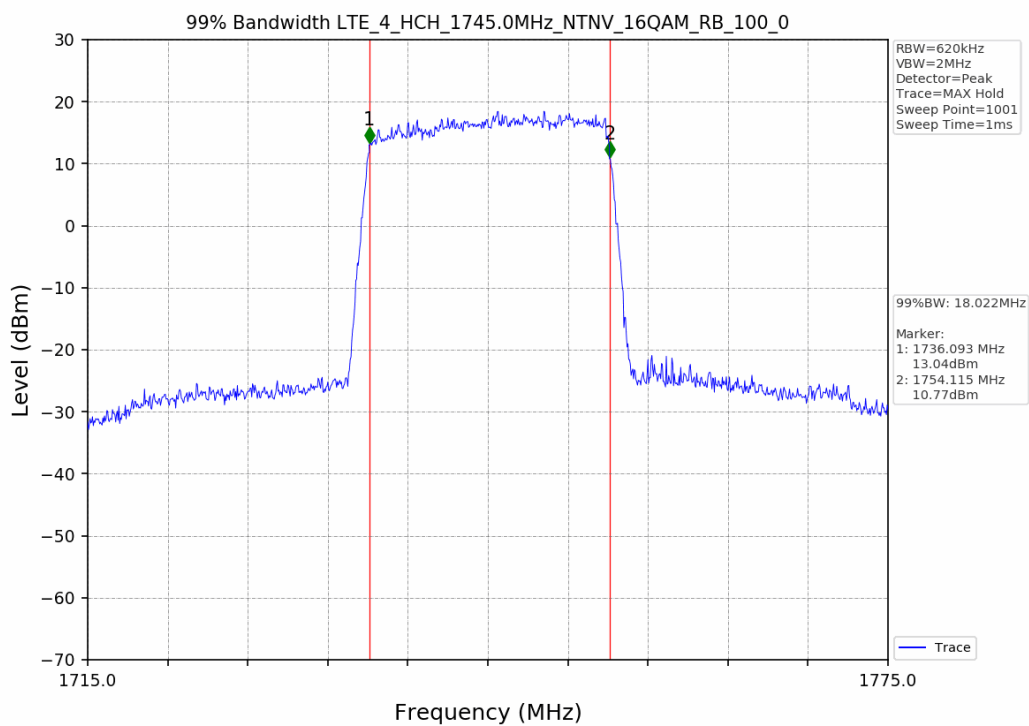
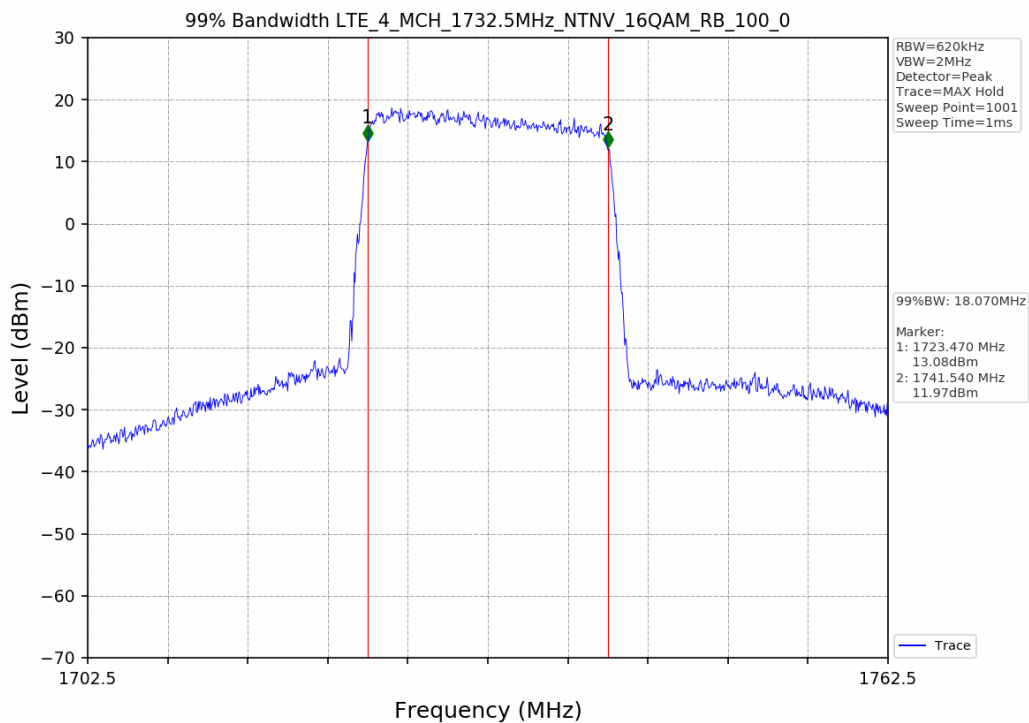


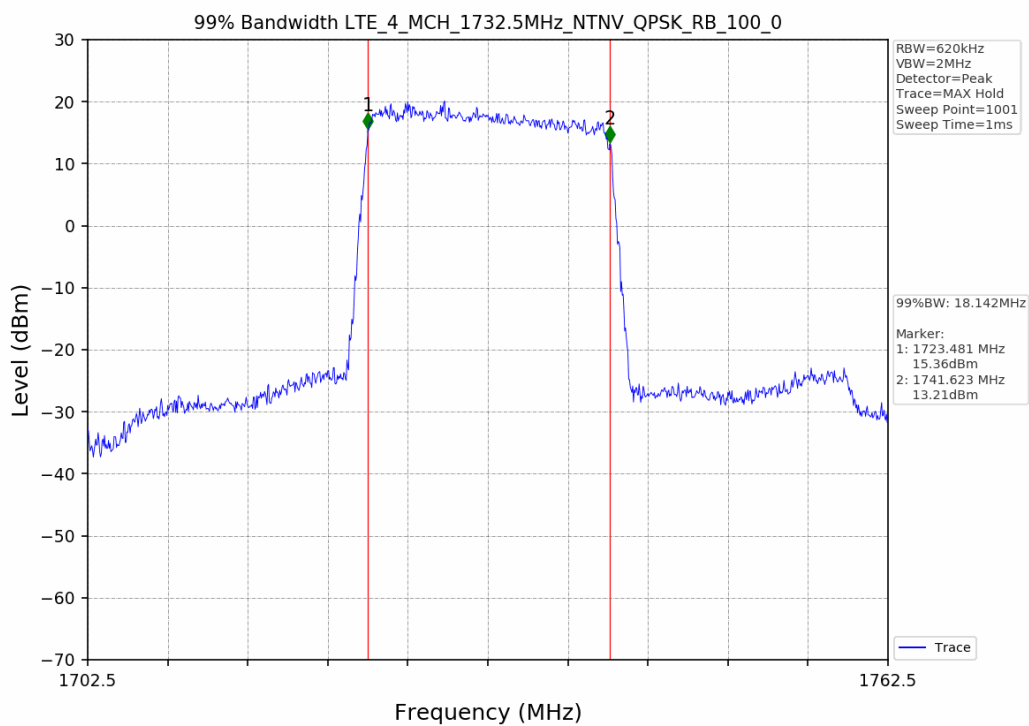
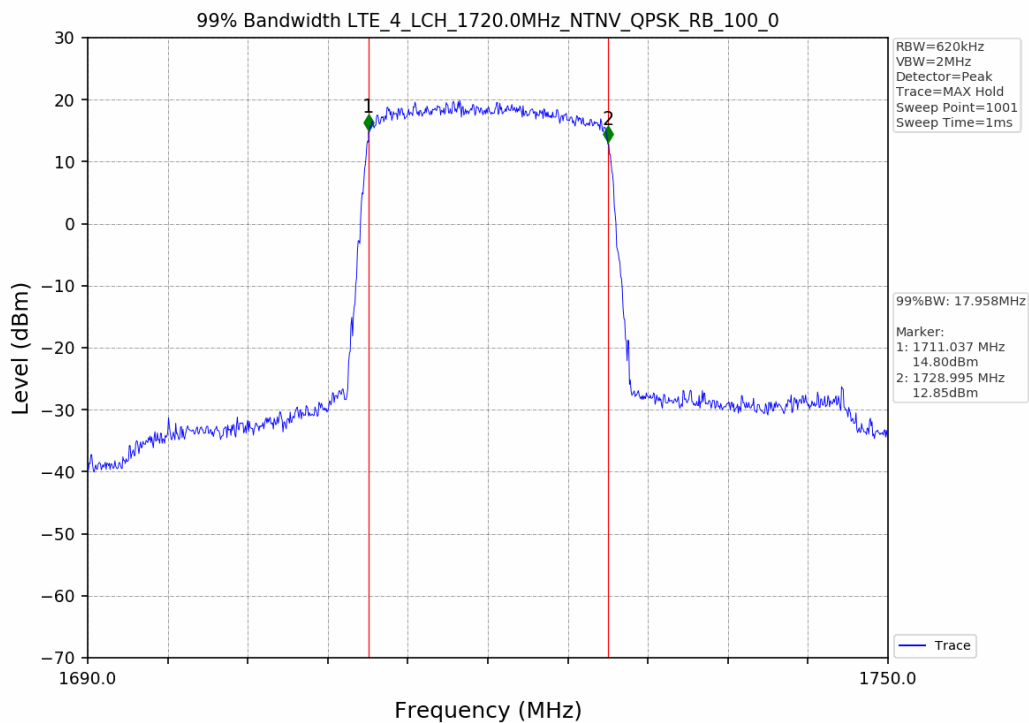


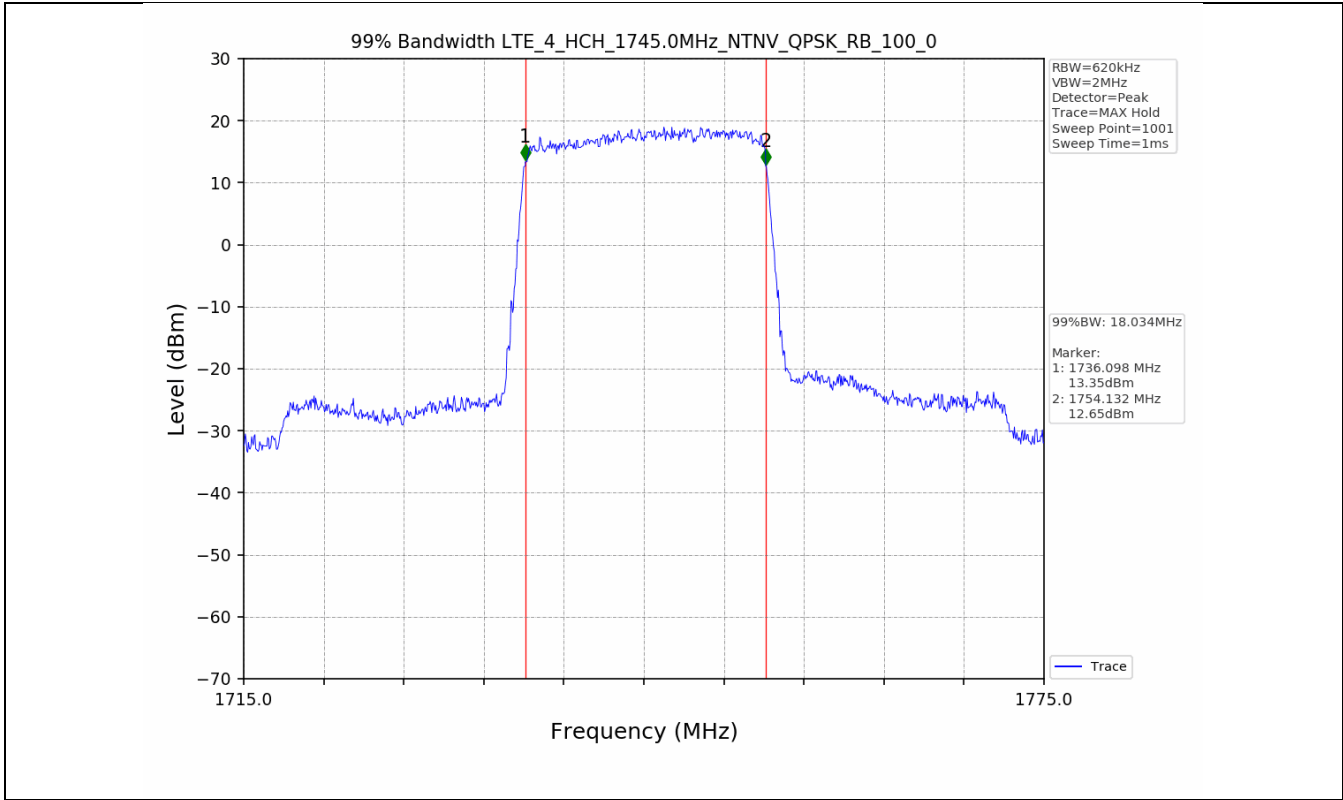


Test Band: 4_20MHz Bandwidth							
Test Mode	RB Allocation		99% Occupied Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	100	0	17.958	18.142	18.034	N/A	PASS
16QAM	100	0	17.918	18.070	18.022	N/A	PASS

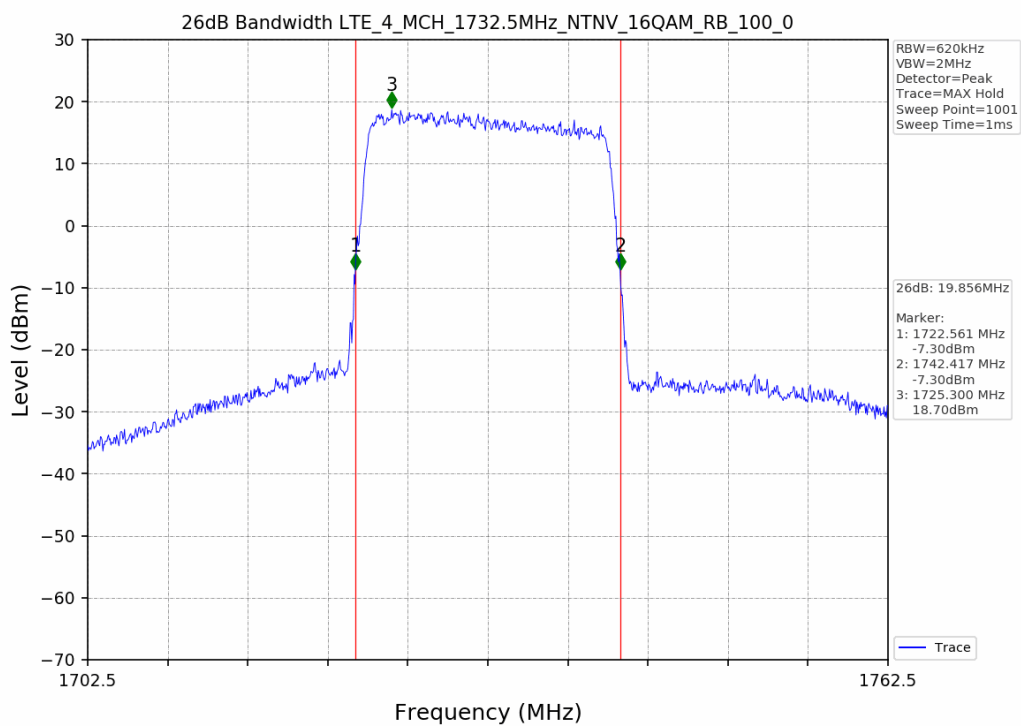
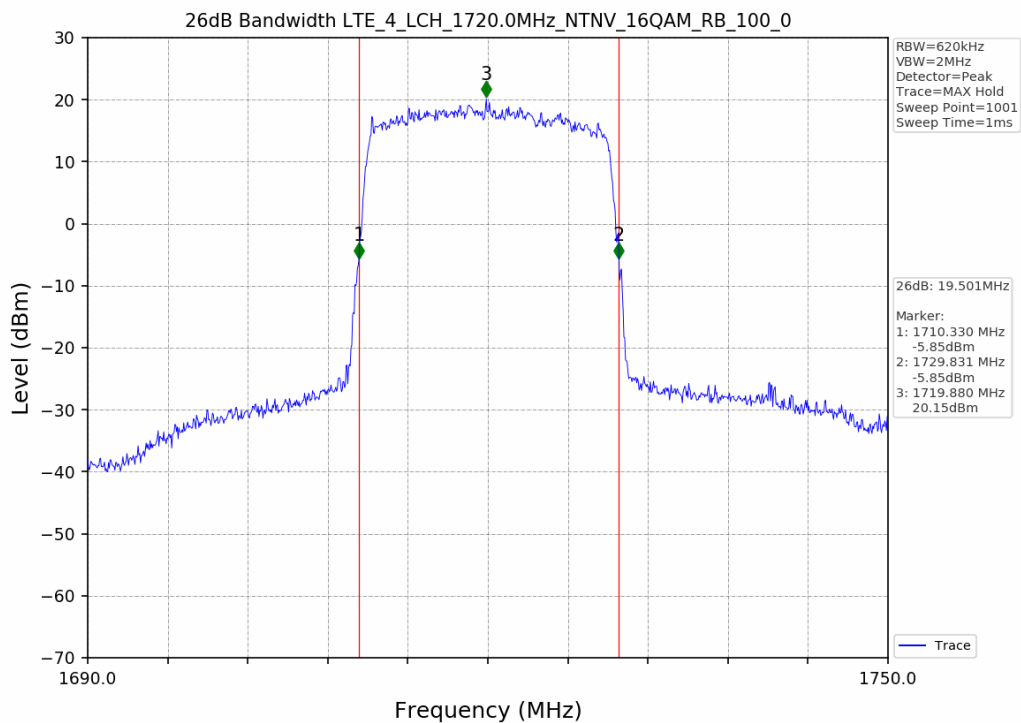


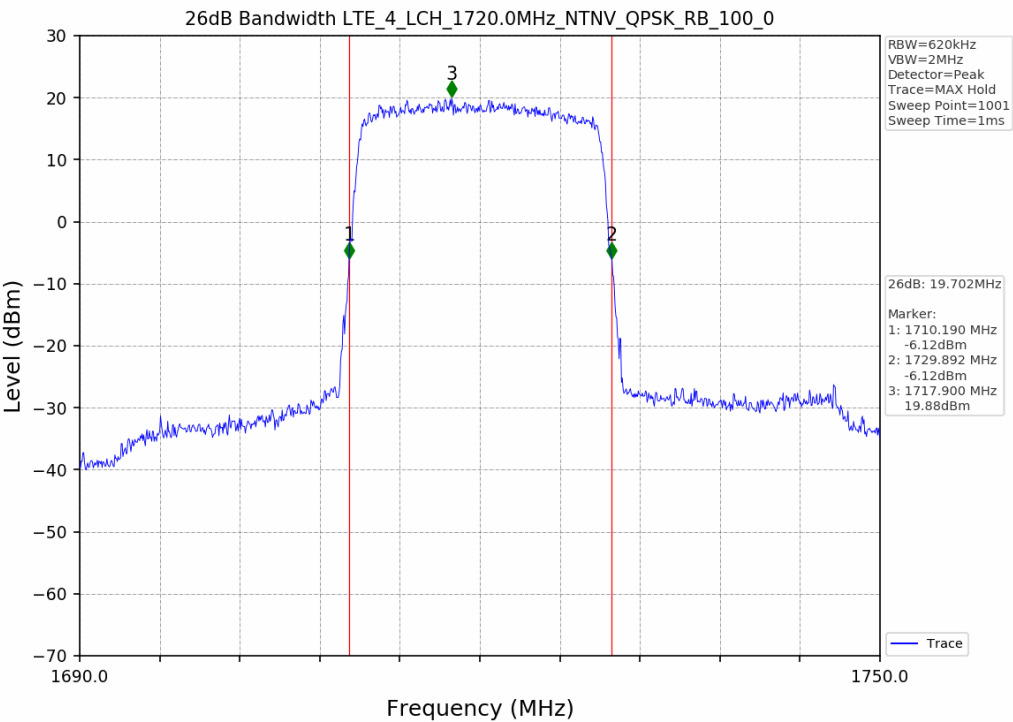
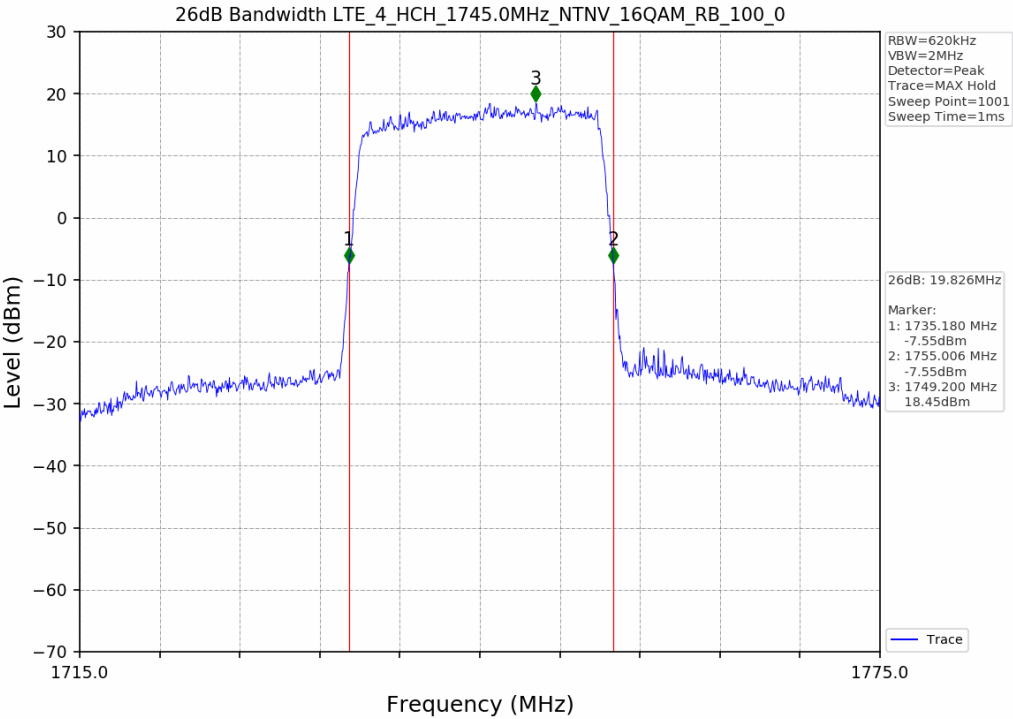


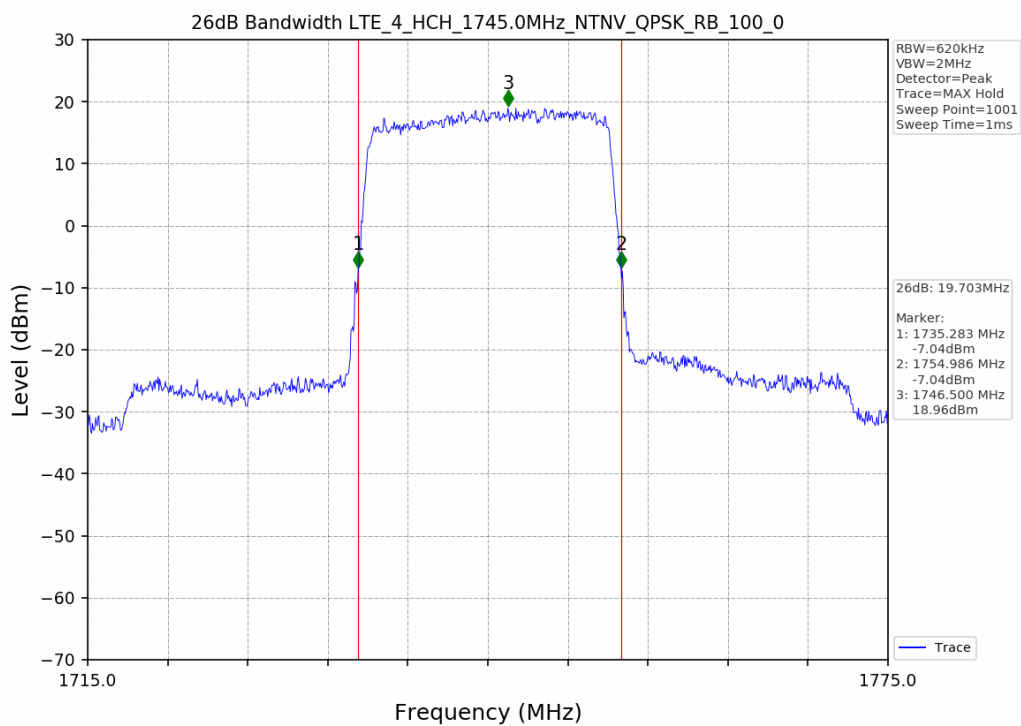
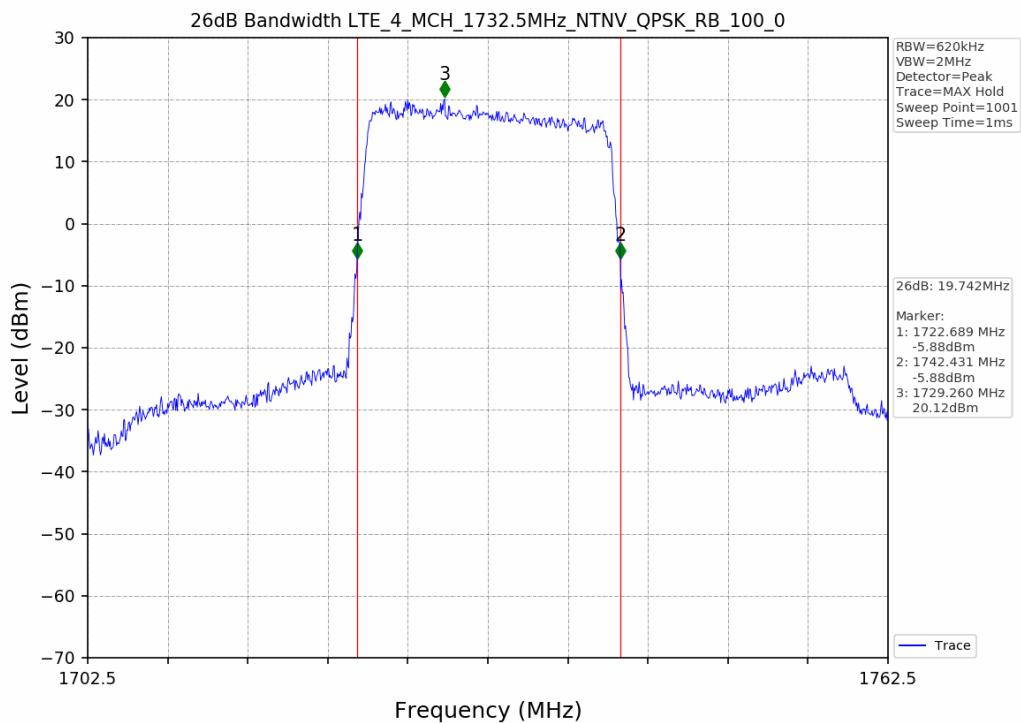




Test Band: 4_20MHz Bandwidth							
Test Mode	RB Allocation		26dB Bandwidth (MHz)			Limit	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	100	0	19.702	19.742	19.703	N/A	PASS
16QAM	100	0	19.501	19.856	19.826	N/A	PASS



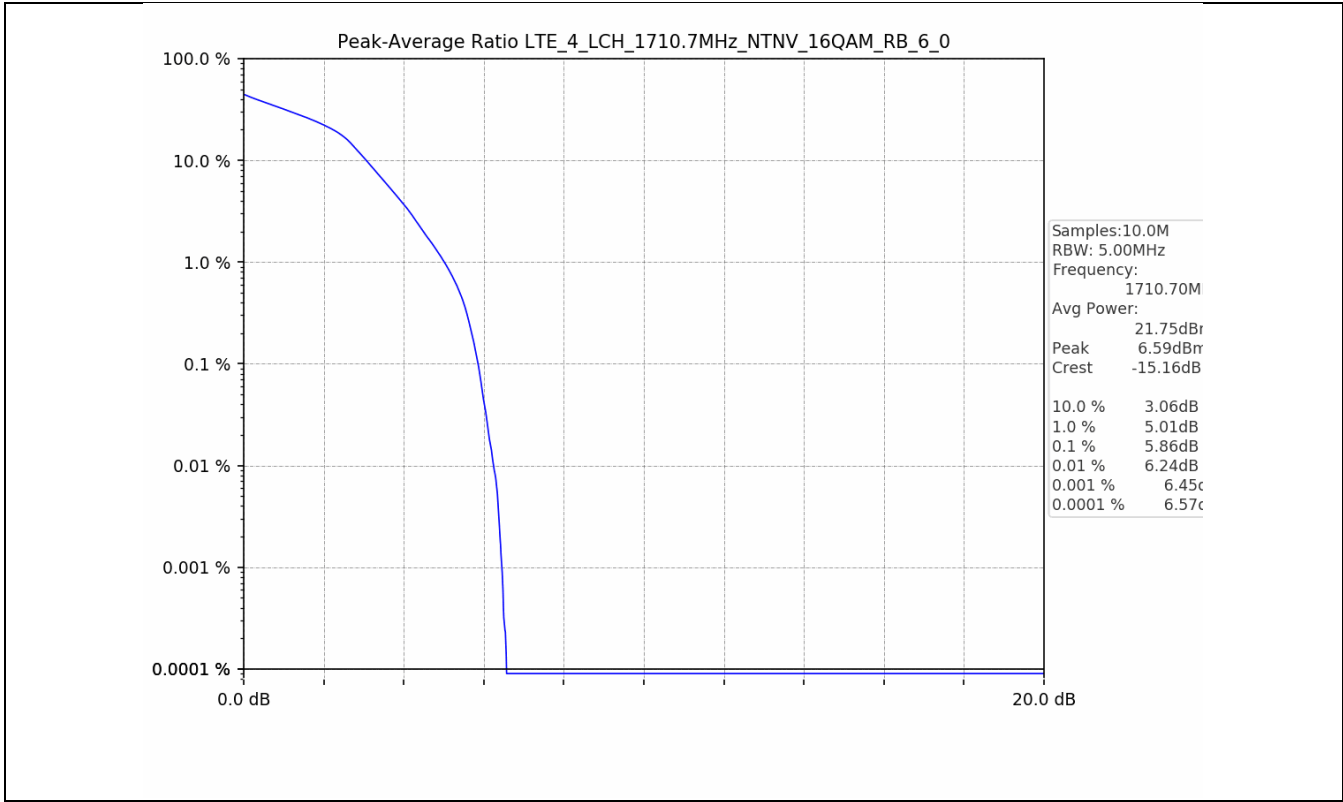


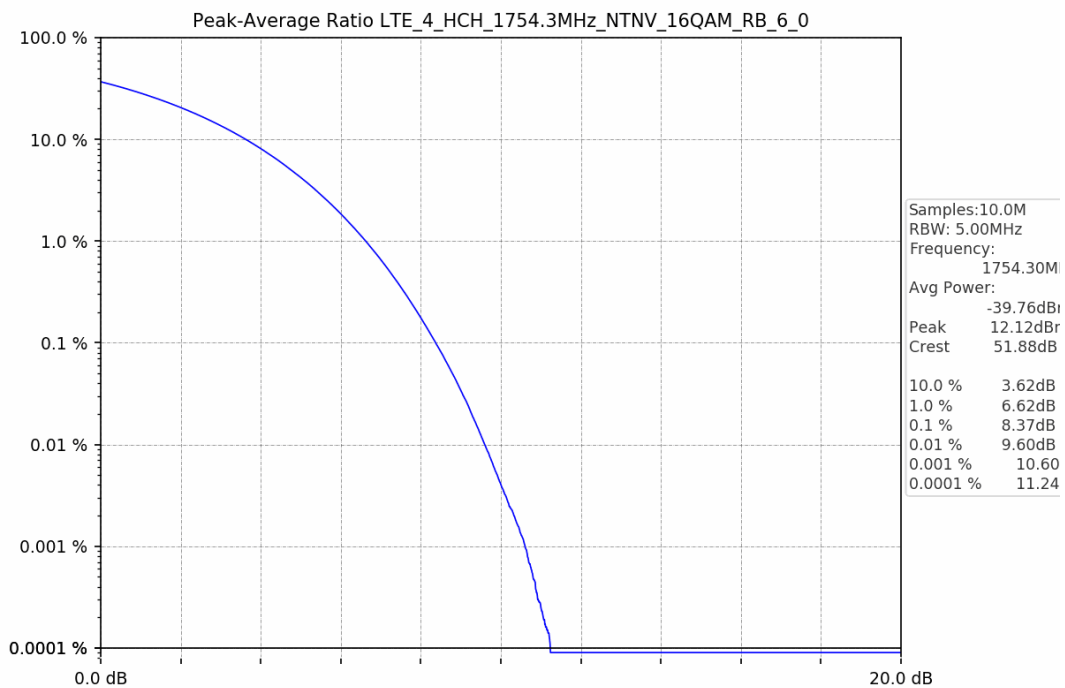
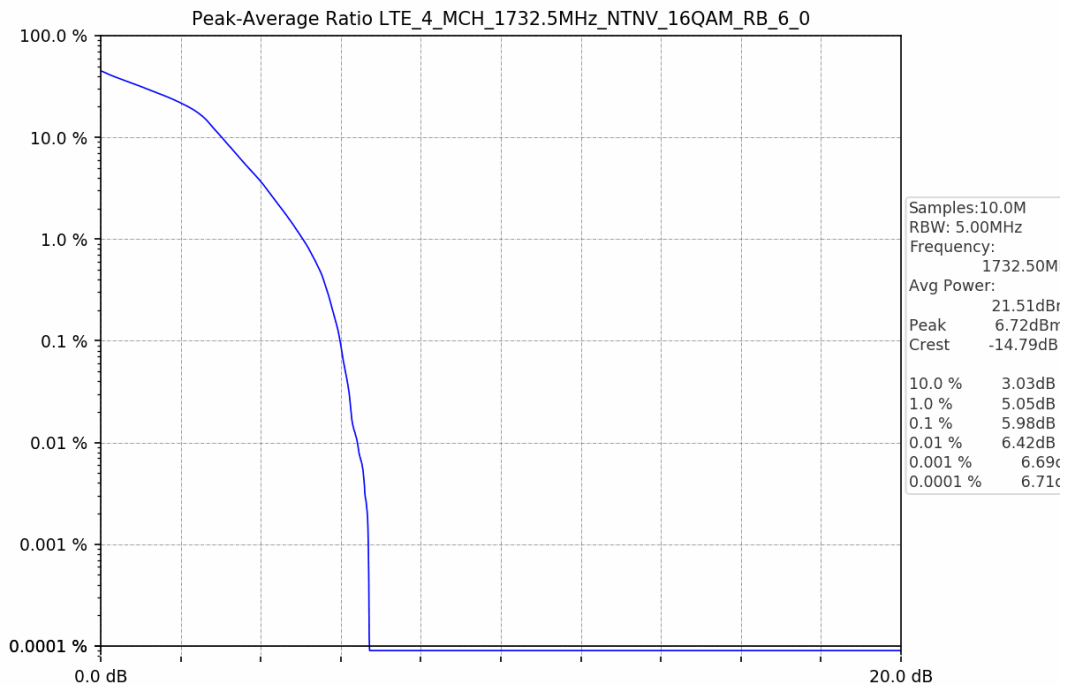


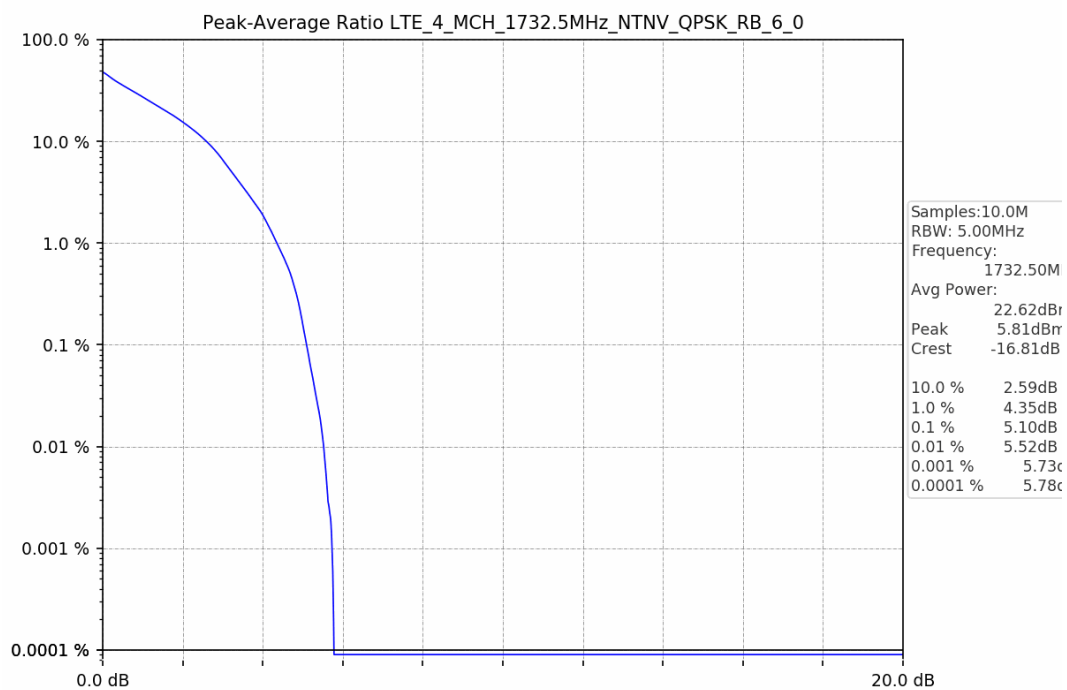
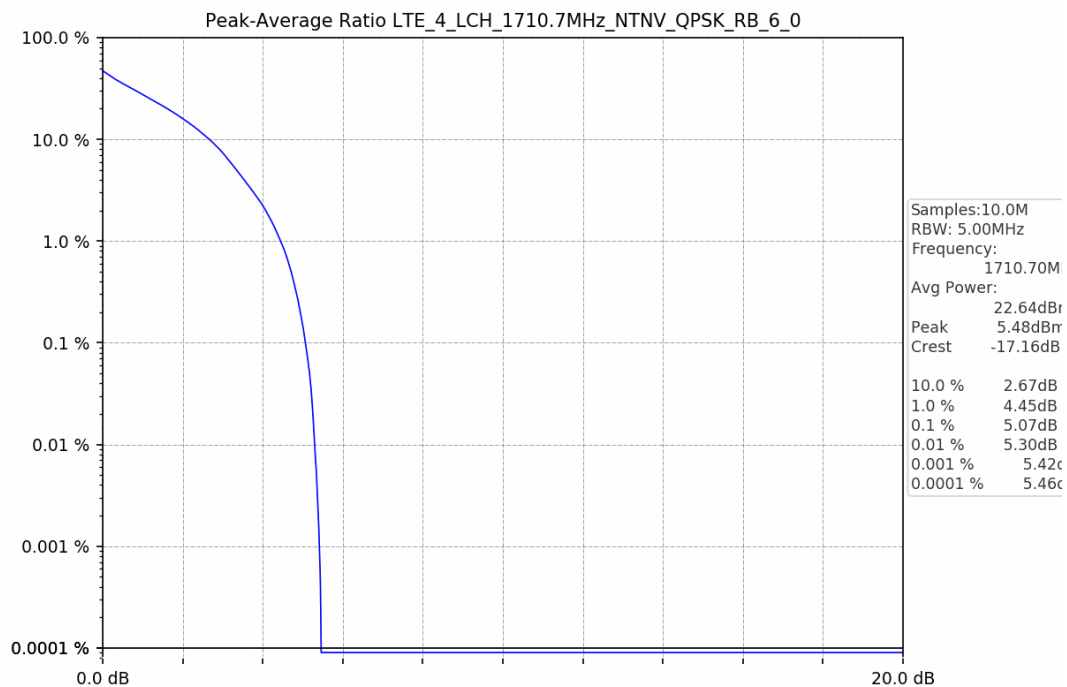
E4. Peak-Average Ratio

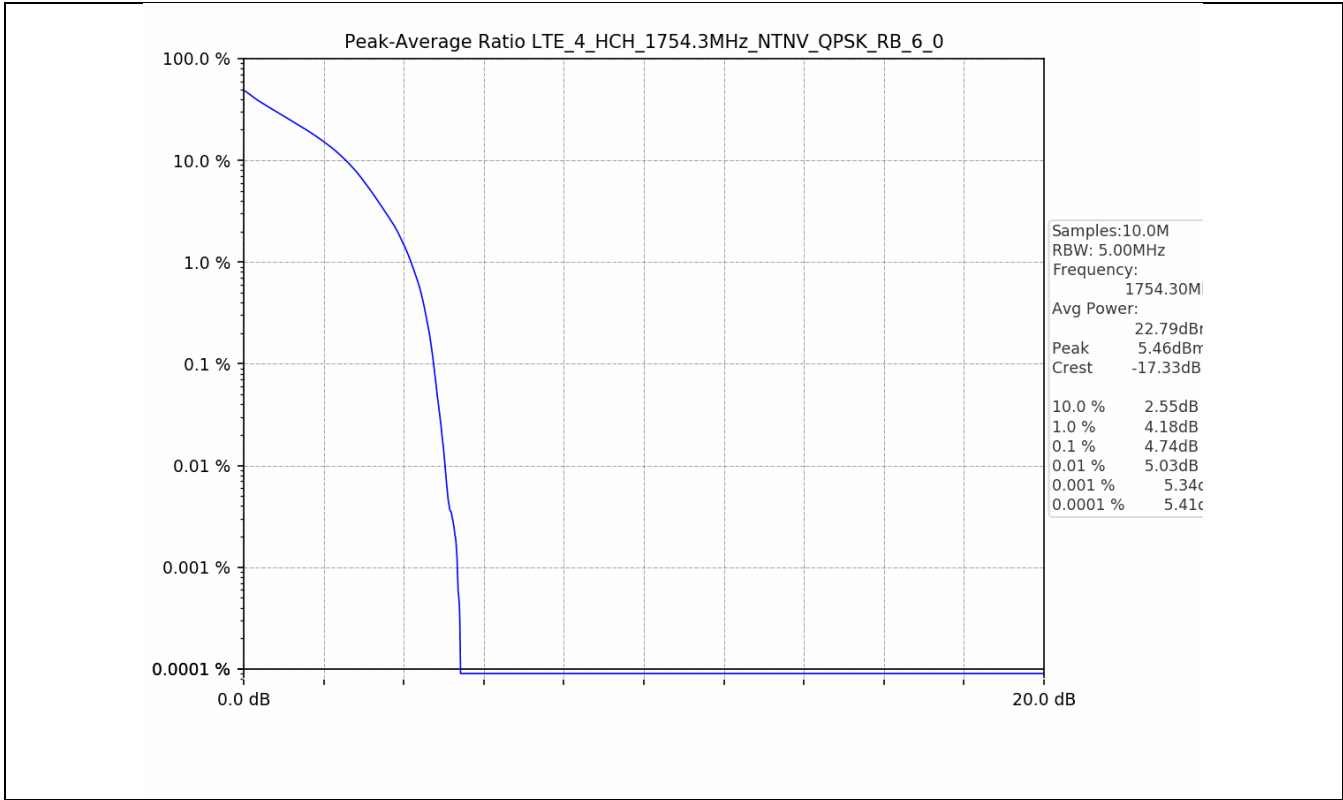
E4.1 Test Result

Test Band: 4 1.4MHz Bandwidth							
Test Mode	RB Allocation		Test result (dB)			Limit (dB)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	6	0	5.07	5.10	4.74	13	PASS
16QAM	6	0	5.86	5.98	8.37	13	PASS

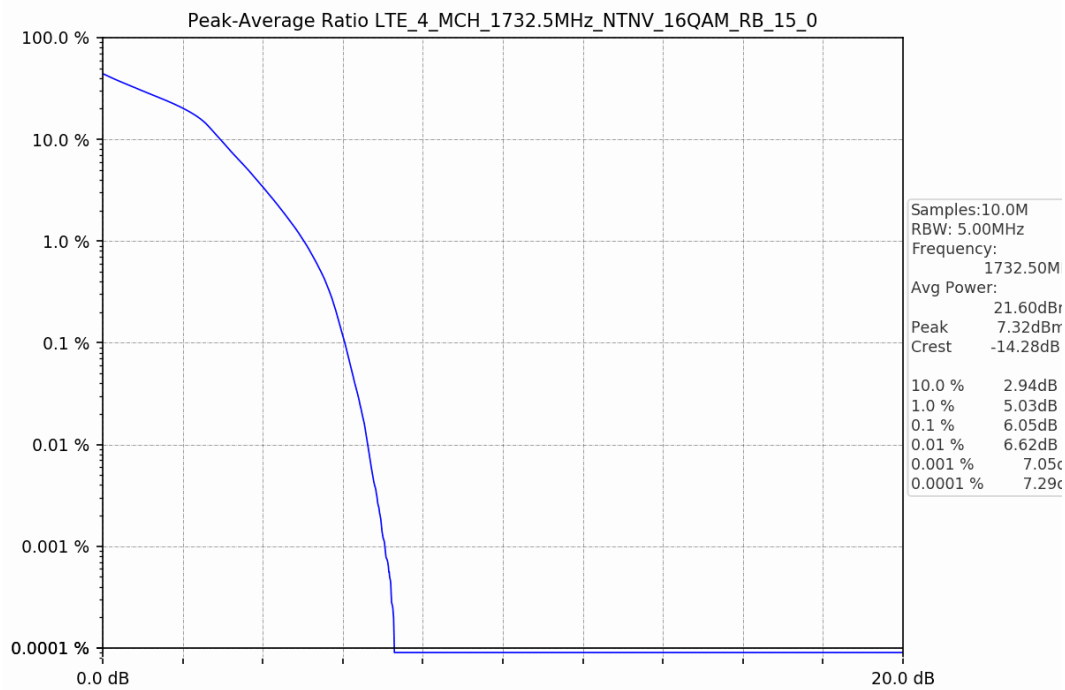
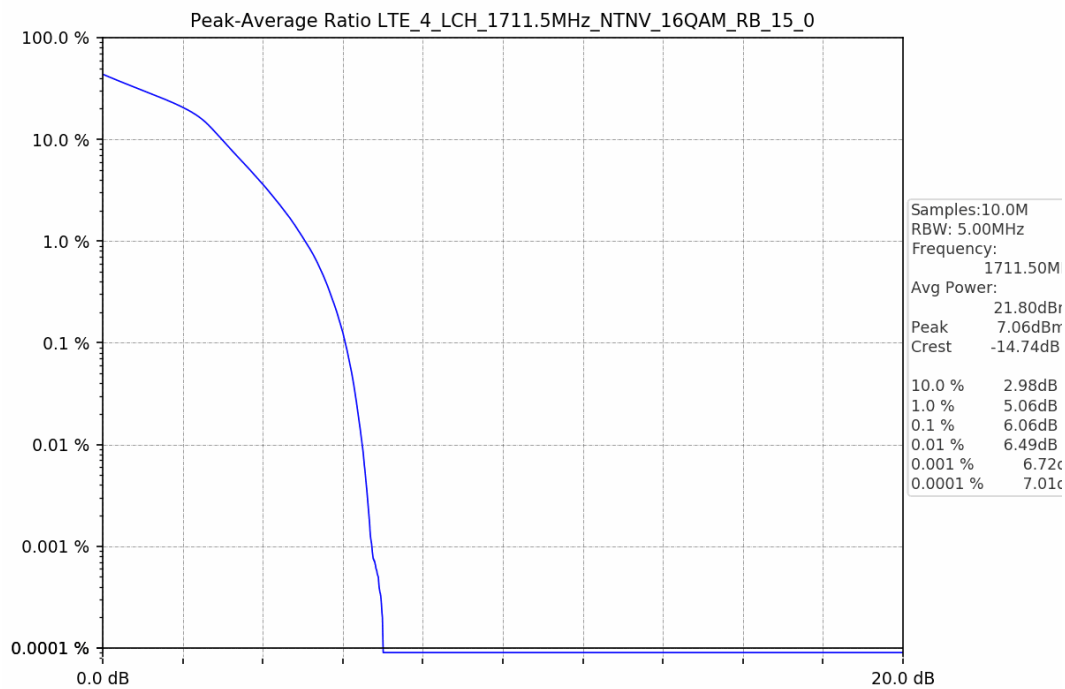


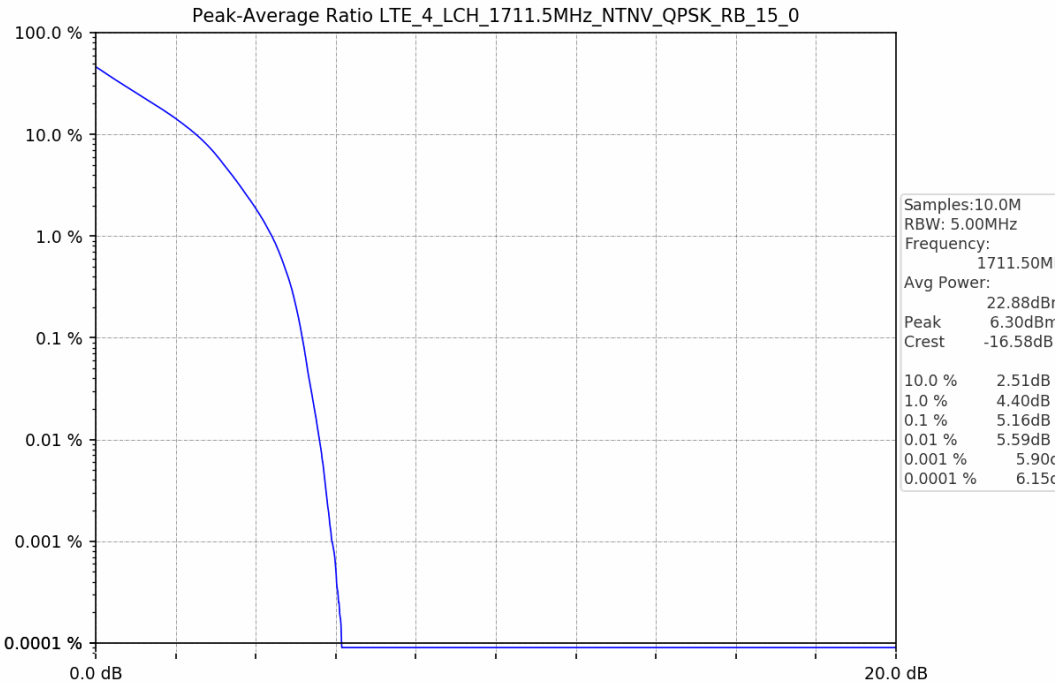
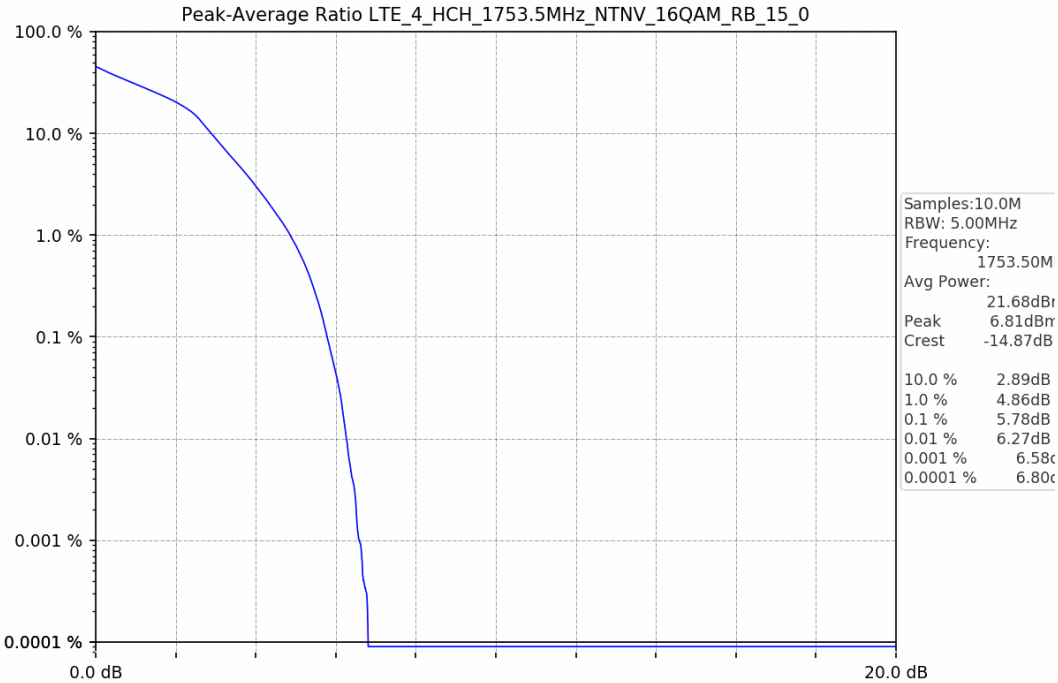


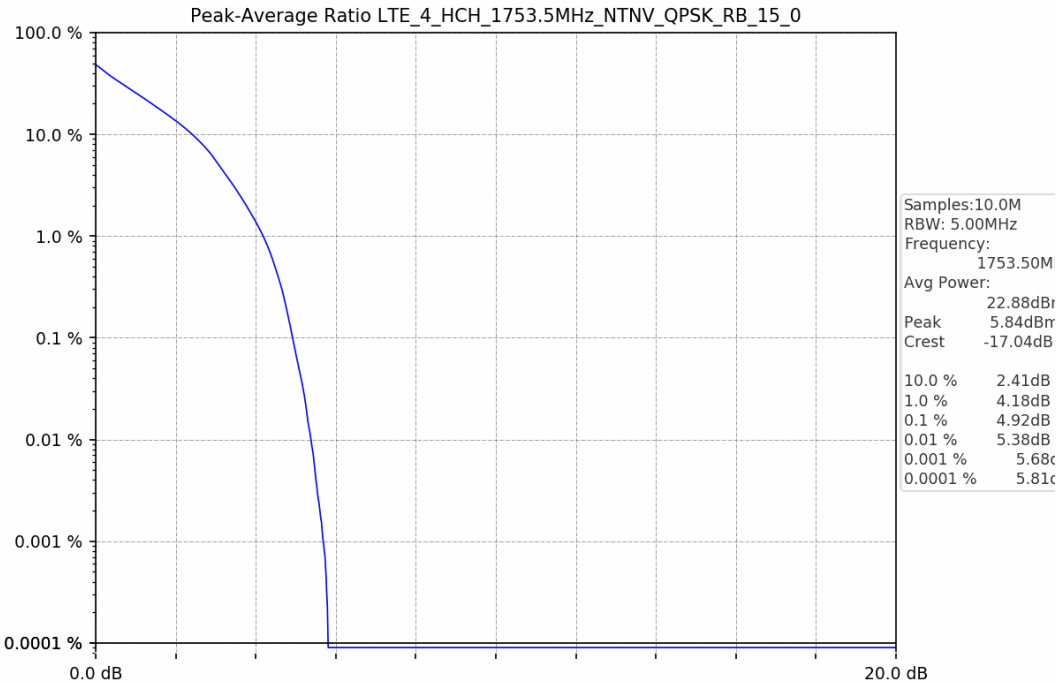
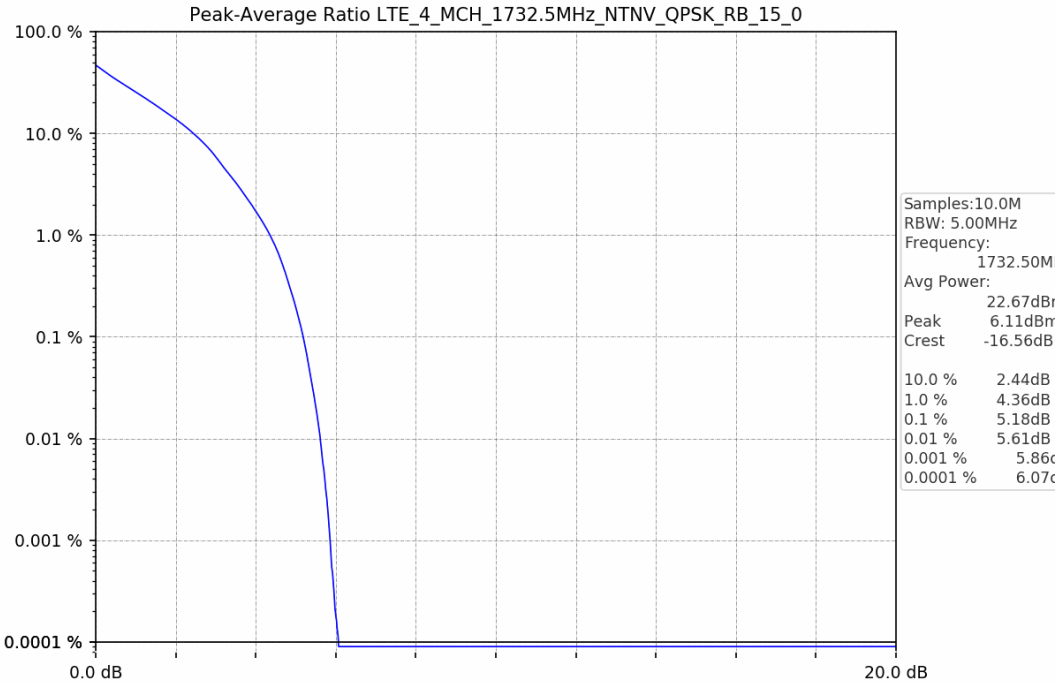




Test Band: 4_3MHz Bandwidth							
Test Mode	RB Allocation		Test result (dB)			Limit (dB)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	15	0	5.16	5.18	4.92	13	PASS
16QAM	15	0	6.06	6.05	5.78	13	PASS







Test Band: 4_5MHz Bandwidth							
Test Mode	RB Allocation		Test result (dB)			Limit (dB)	Verdict
	Size	Offset	LCH	MCH	HCH		
QPSK	25	0	5.21	5.26	5.06	13	PASS
16QAM	25	0	6.06	6.05	5.82	13	PASS

