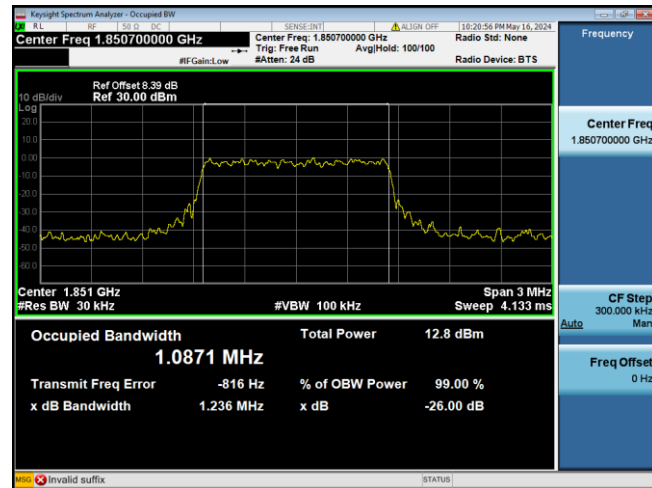


LTE Cat M Appendix-Bandwidth

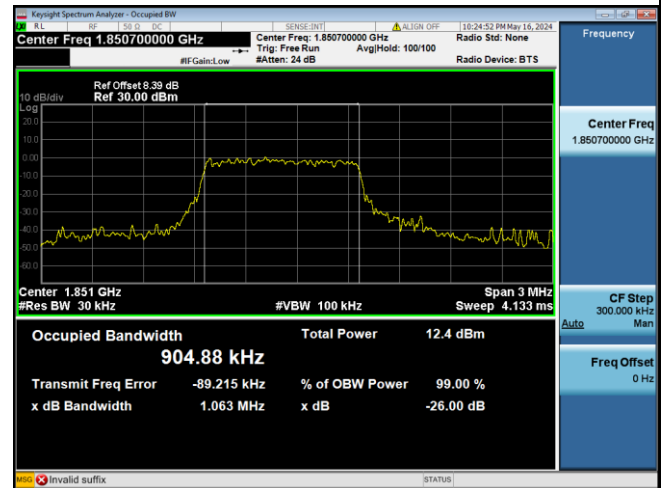
LTE Band 2					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0871	1.0860	1.0800
		26dB bandwidth	1.236	1.220	1.230
	16QAM	OBW	0.90488	0.90481	0.91665
		26dB bandwidth	1.063	1.080	1.065
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0844	1.0864	1.0845
		26dB bandwidth	1.222	1.211	1.234
	16QAM	OBW	0.90909	0.90973	0.90682
		26dB bandwidth	1.046	1.041	1.060
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0813	1.0862	1.0796
		26dB bandwidth	1.225	1.210	1.256
	16QAM	OBW	0.91576	0.91072	0.91576
		26dB bandwidth	1.109	1.075	1.070
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0849	1.0856	1.0845
		26dB bandwidth	1.243	1.235	1.235
	16QAM	OBW	0.91280	0.90941	0.91236
		26dB bandwidth	1.136	1.075	1.101
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0830	1.0905	1.0878
		26dB bandwidth	1.278	1.268	1.236
	16QAM	OBW	0.91327	0.91216	0.90973
		26dB bandwidth	1.079	1.072	1.073
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0853	1.0888	1.0756
		26dB bandwidth	1.267	1.315	1.210
	16QAM	OBW	0.91574	0.91275	0.90958
		26dB bandwidth	1.123	1.111	1.087

LTE Band 2, Nominal Bandwidth: 1.4MHz, OBW & 26dB Bandwidth

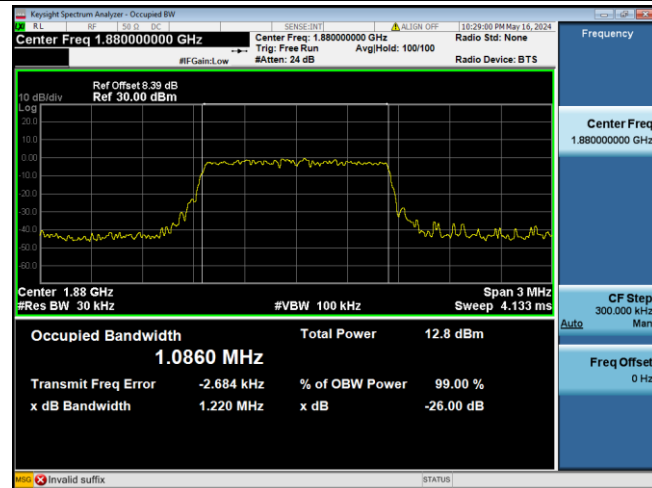
QPSK Low channel



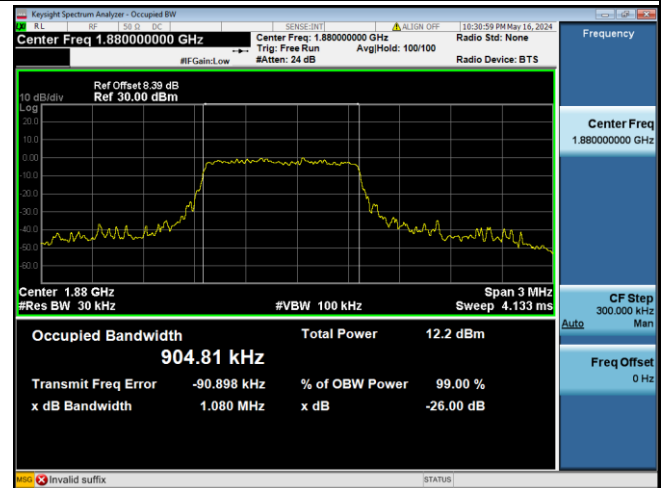
16QAM Low channel



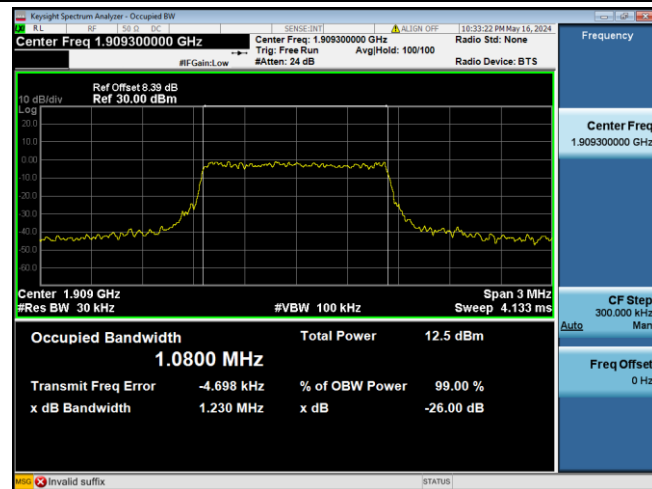
QPSK Middle channel



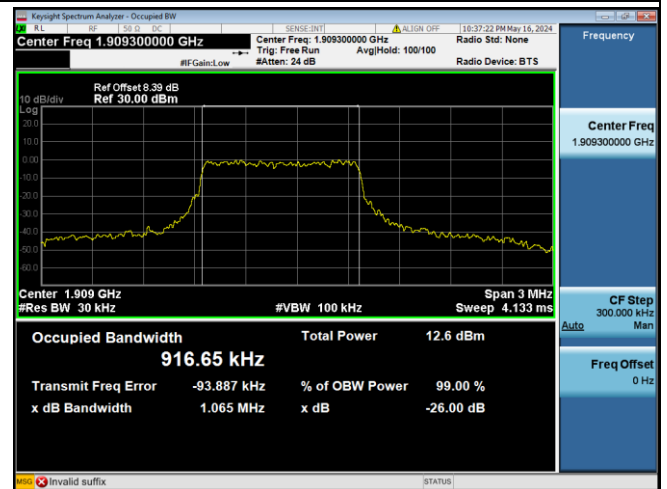
16QAM Middle channel



QPSK High channel

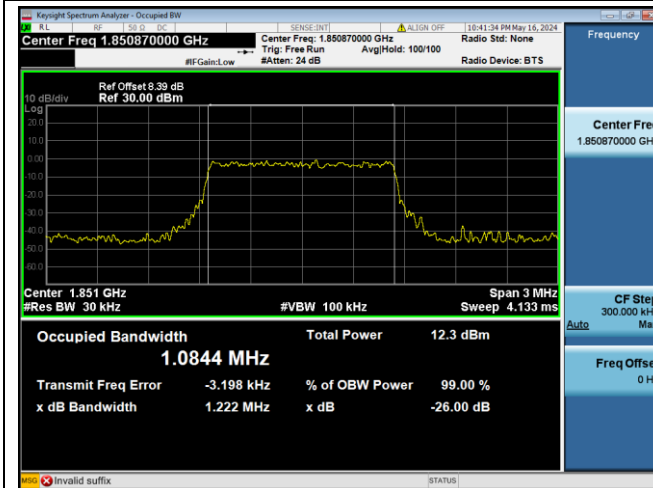


16QAM High channel

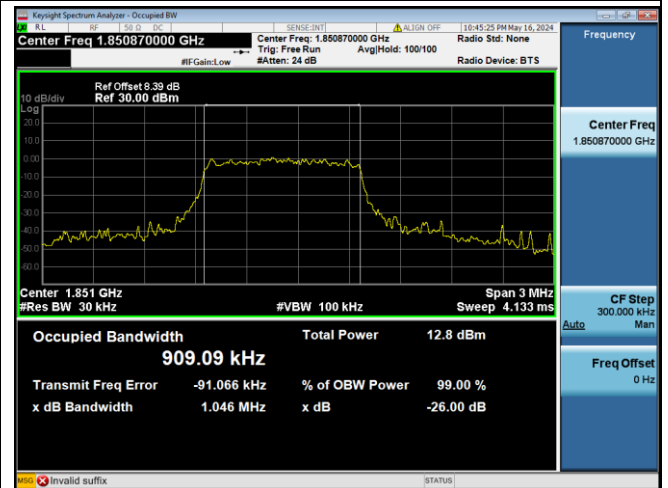


LTE Band 2, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

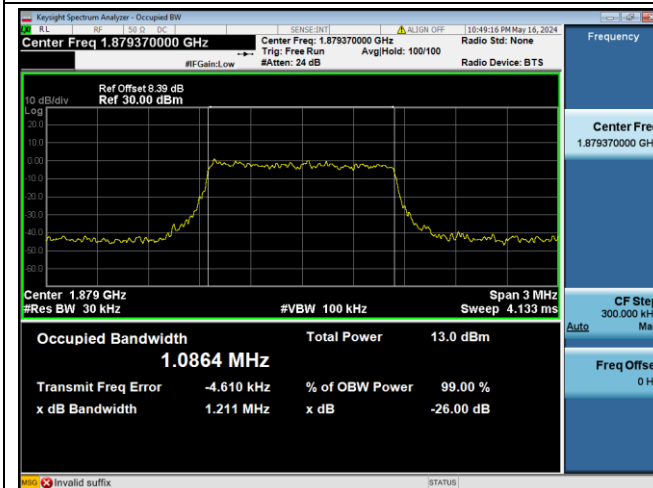
QPSK Low channel



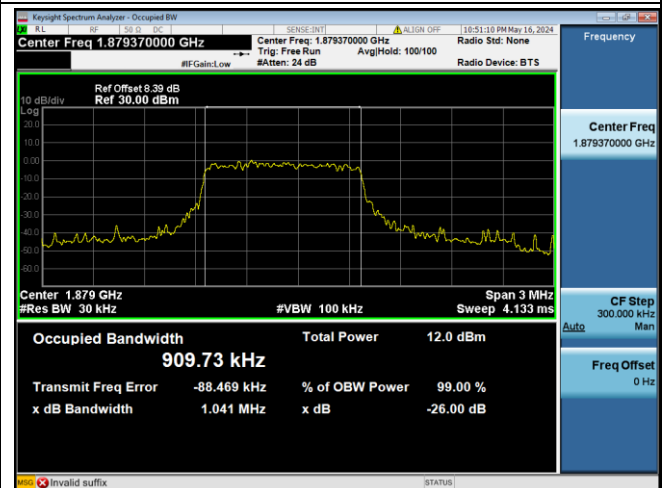
16QAM Low channel



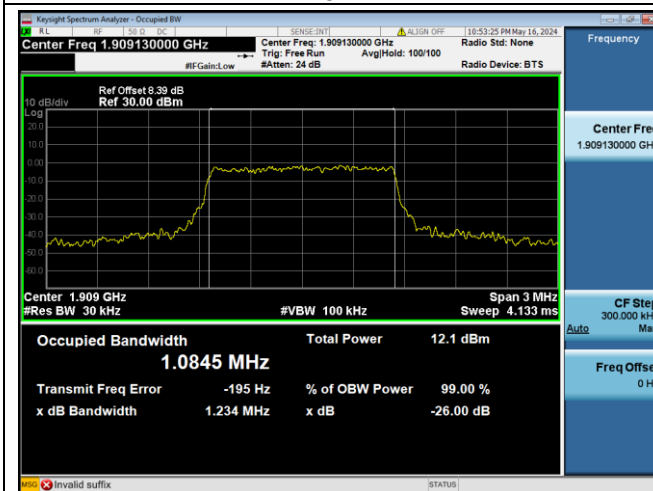
QPSK Middle channel



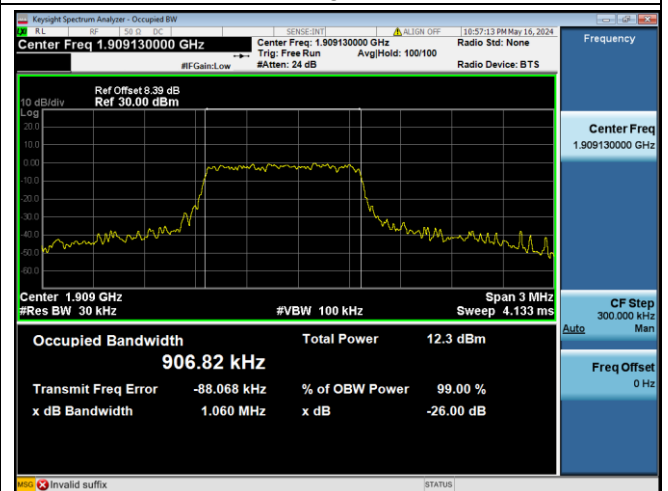
16QAM Middle channel



QPSK High channel

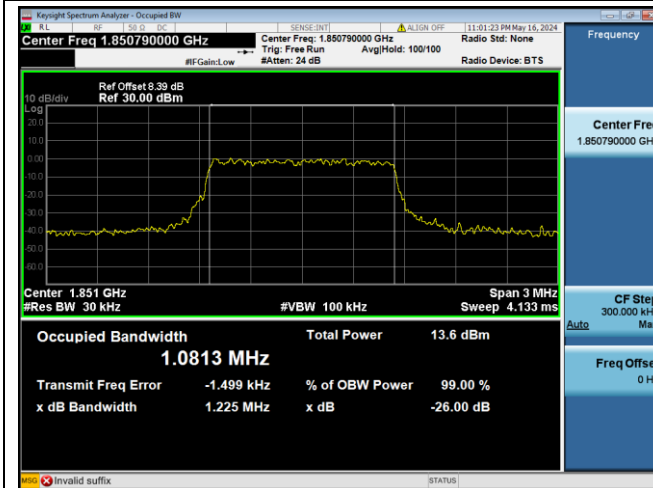


16QAM High channel

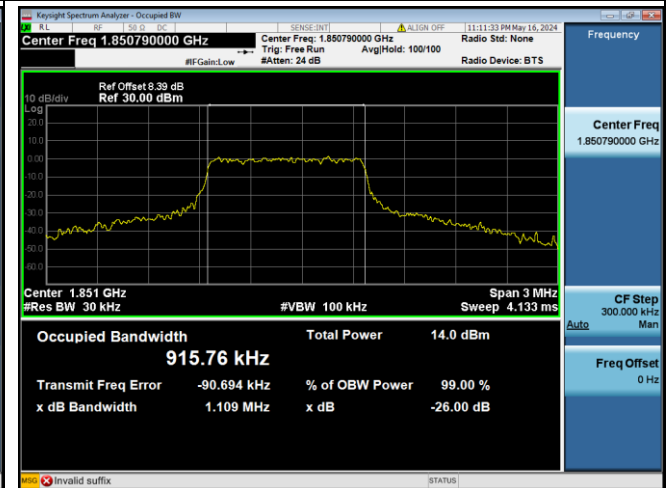


LTE Band 2, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

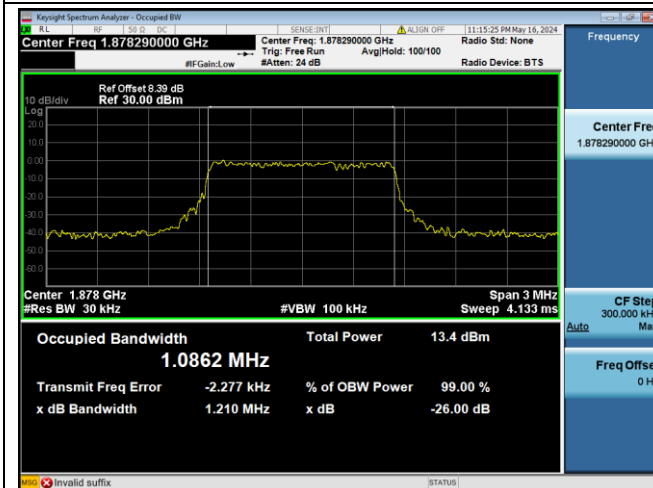
QPSK Low channel



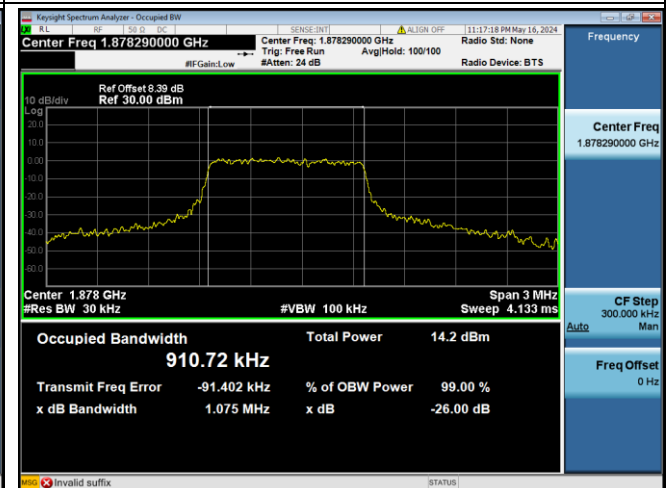
16QAM Low channel



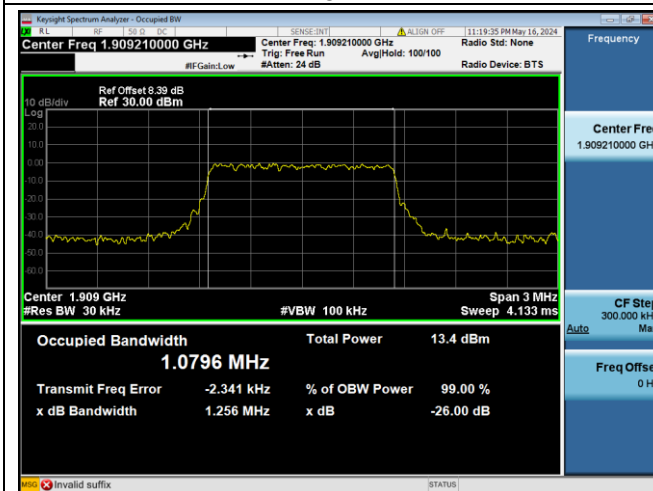
QPSK Middle channel



16QAM Middle channel



QPSK High channel

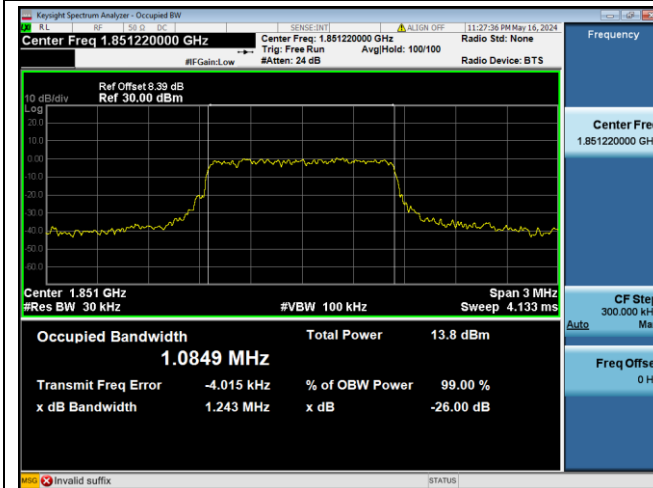


16QAM High channel



LTE Band 2, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

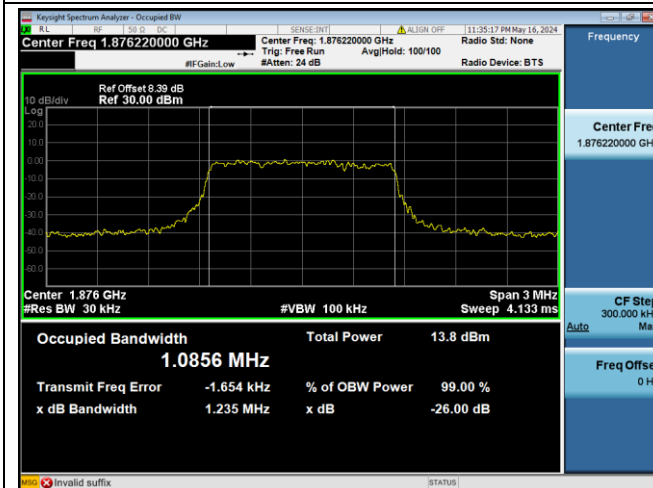
QPSK Low channel



16QAM Low channel



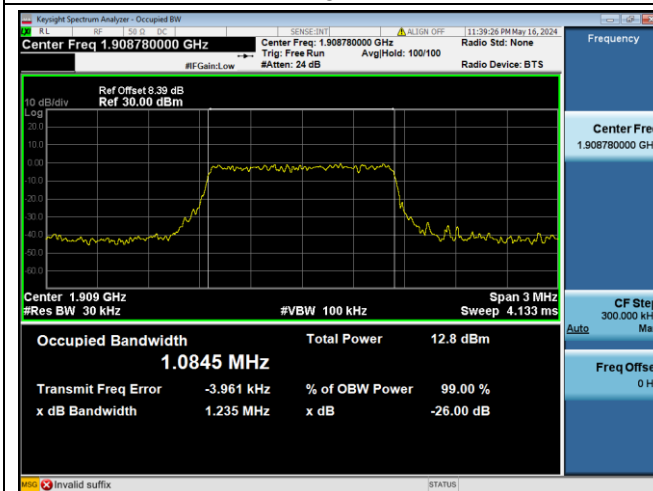
QPSK Middle channel



16QAM Middle channel



QPSK High channel

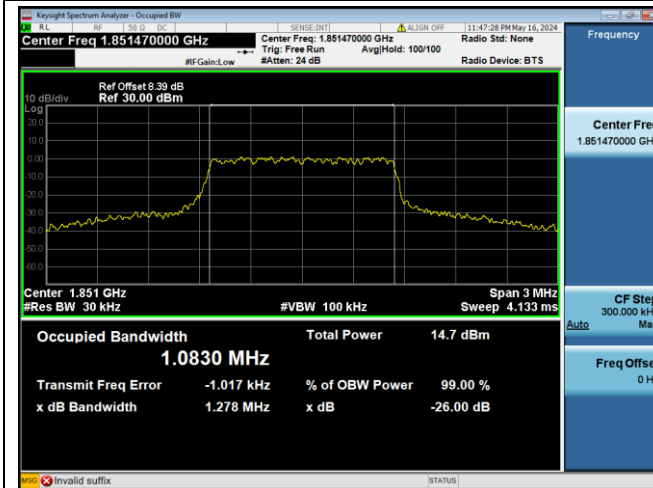


16QAM High channel



LTE Band 2, Nominal Bandwidth: 15MHz, OBW & 26dB Bandwidth

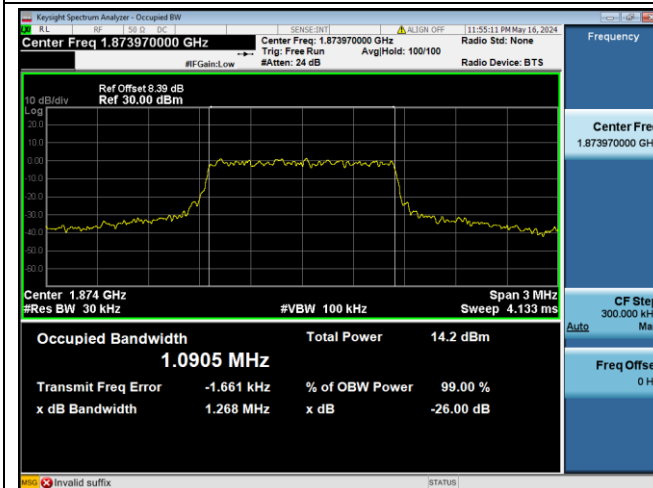
QPSK Low channel



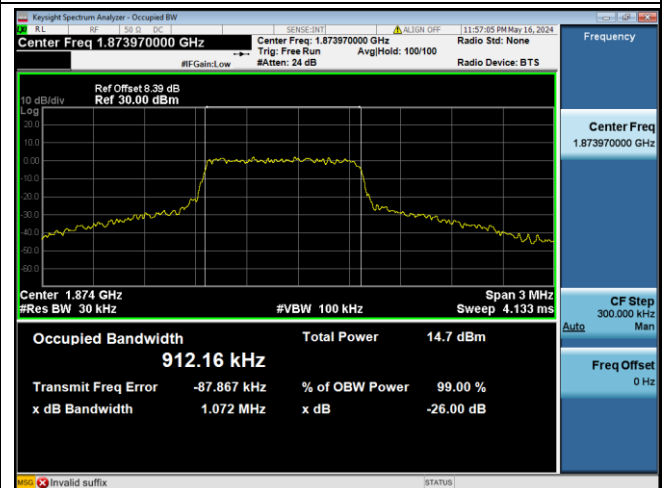
16QAM Low channel



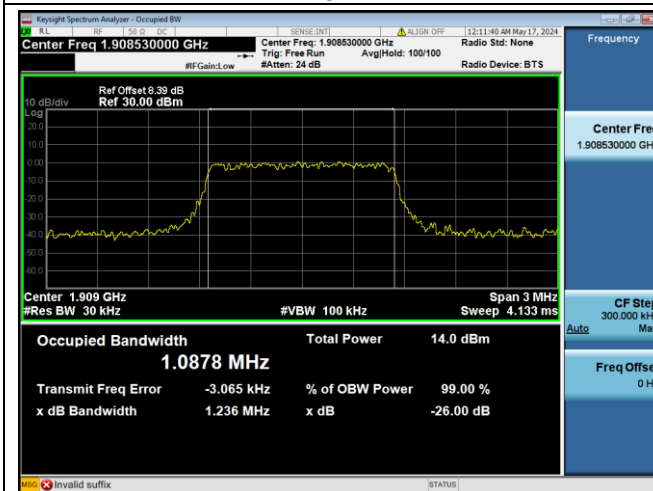
QPSK Middle channel



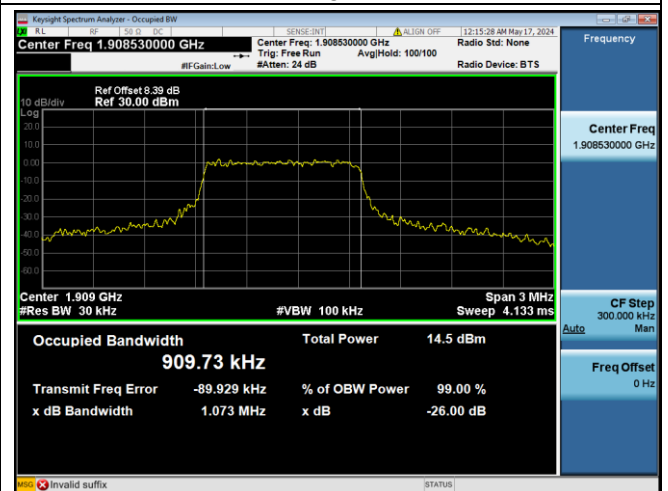
16QAM Middle channel



QPSK High channel

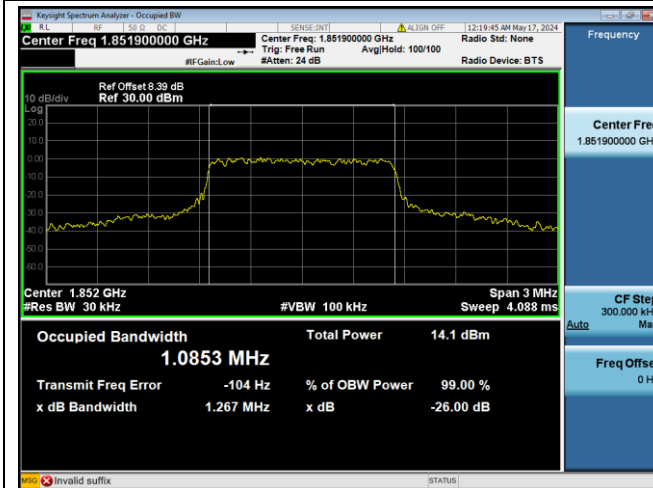


16QAM High channel



LTE Band 2, Nominal Bandwidth: 20MHz, OBW & 26dB Bandwidth

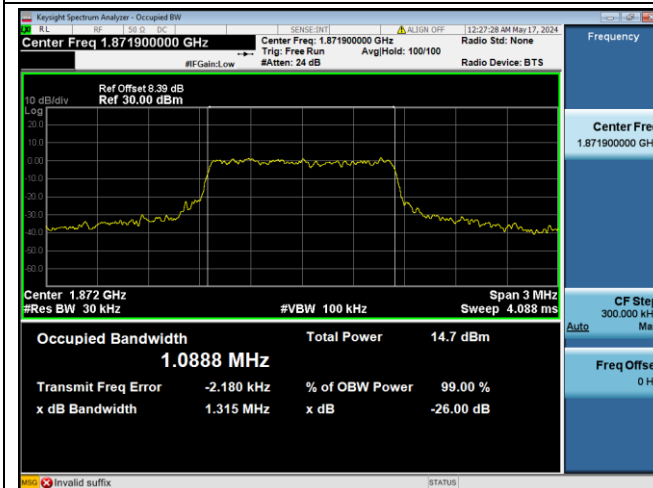
QPSK Low channel



16QAM Low channel



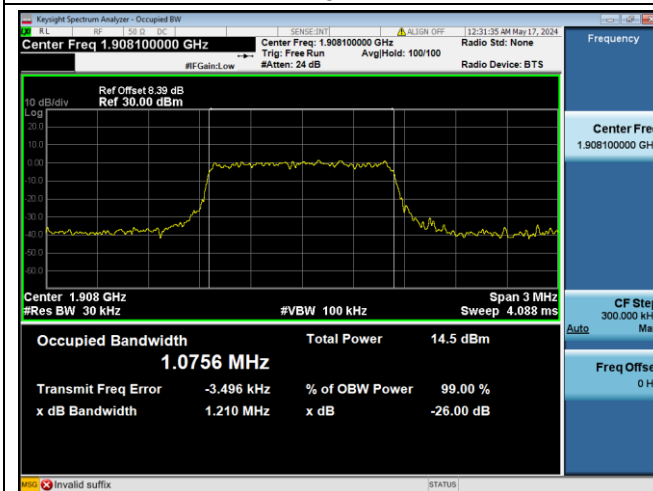
QPSK Middle channel



16QAM Middle channel



QPSK High channel



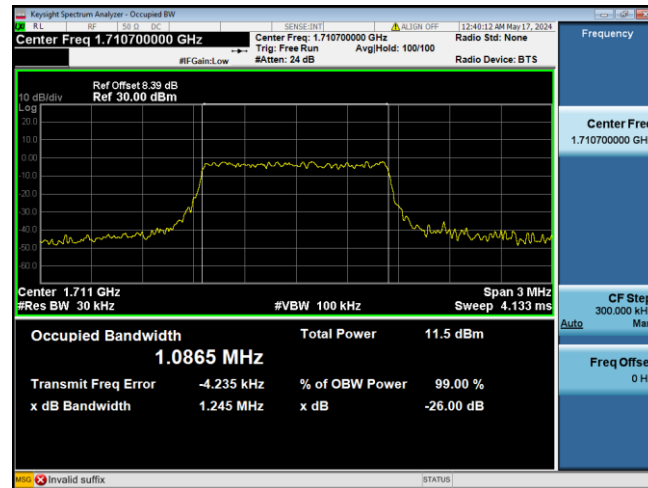
16QAM High channel



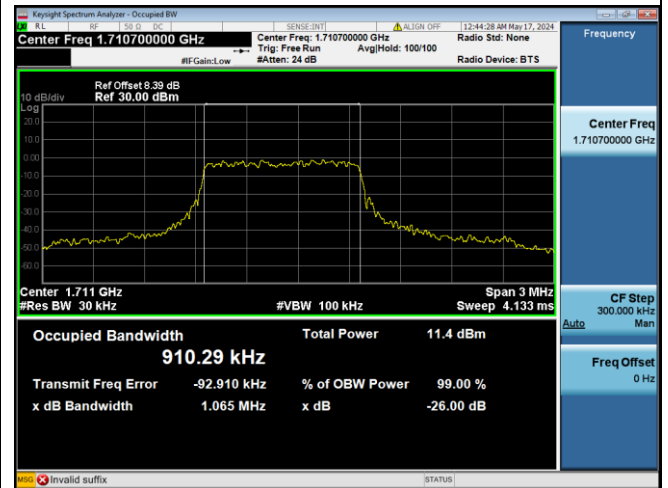
LTE Band 4					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0865	1.0872	1.0857
		26dB bandwidth	1.245	1.222	1.251
	16QAM	OBW	0.91029	0.91054	0.90898
		26dB bandwidth	1.065	1.071	1.055
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0869	1.0817	1.0844
		26dB bandwidth	1.233	1.238	1.210
	16QAM	OBW	0.91059	0.91601	0.91071
		26dB bandwidth	1.059	1.061	1.051
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0797	1.0863	1.0743
		26dB bandwidth	1.228	1.243	1.206
	16QAM	OBW	0.91281	0.90638	0.91267
		26dB bandwidth	1.058	1.056	1.079
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0791	1.0893	1.0849
		26dB bandwidth	1.236	1.242	1.252
	16QAM	OBW	0.90992	0.90856	0.91082
		26dB bandwidth	1.085	1.088	1.084
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0818	1.0868	1.0789
		26dB bandwidth	1.250	1.222	1.253
	16QAM	OBW	0.91479	0.91725	0.91009
		26dB bandwidth	1.094	1.075	1.077
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0831	1.0875	1.0809
		26dB bandwidth	1.227	1.234	1.240
	16QAM	OBW	0.90623	0.90854	0.91402
		26dB bandwidth	1.061	1.077	1.086

LTE Band 4, Nominal Bandwidth: 1.4MHz, OBW & 26dB Bandwidth

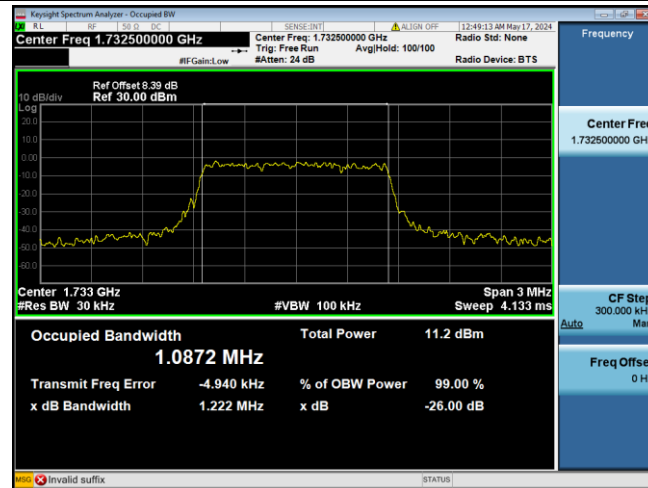
QPSK Low channel



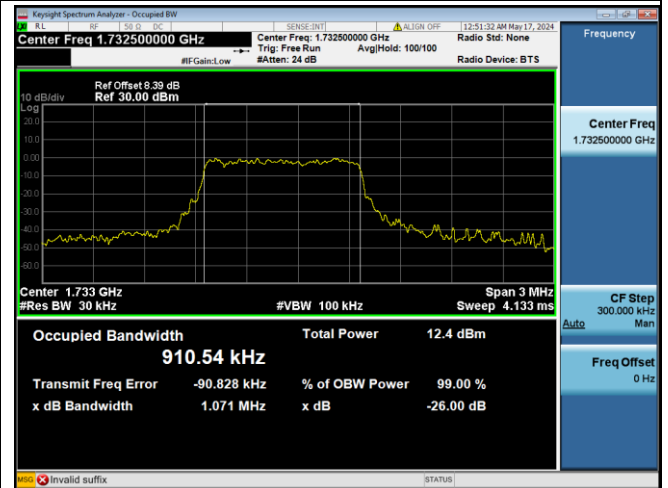
16QAM Low channel



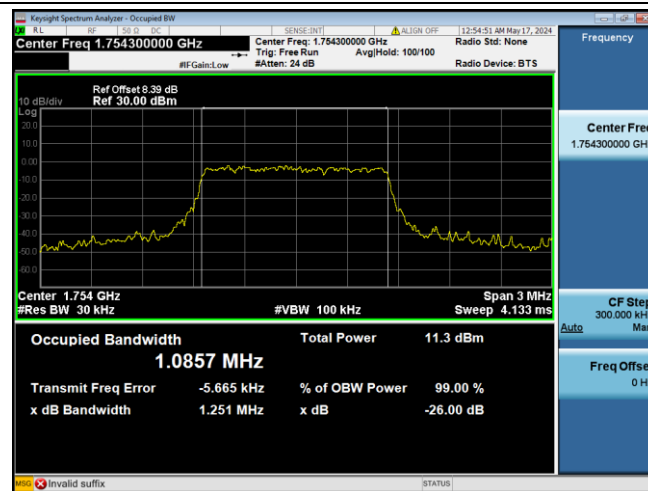
QPSK Middle channel



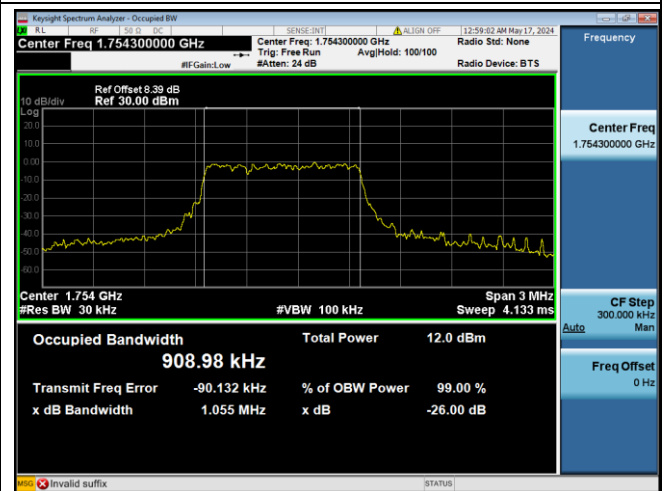
16QAM Middle channel



QPSK High channel

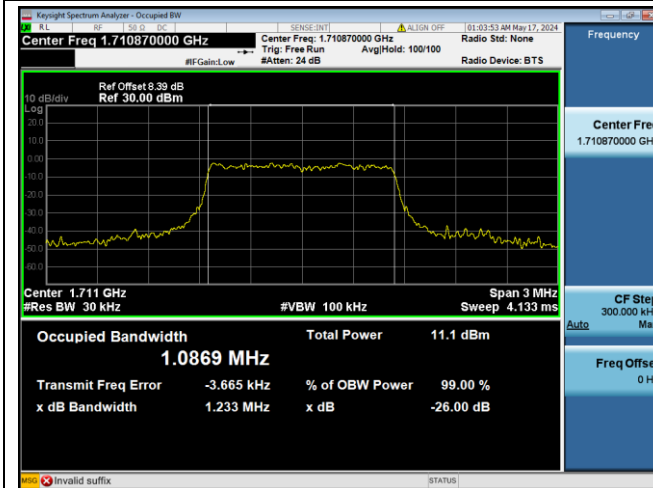


16QAM High channel

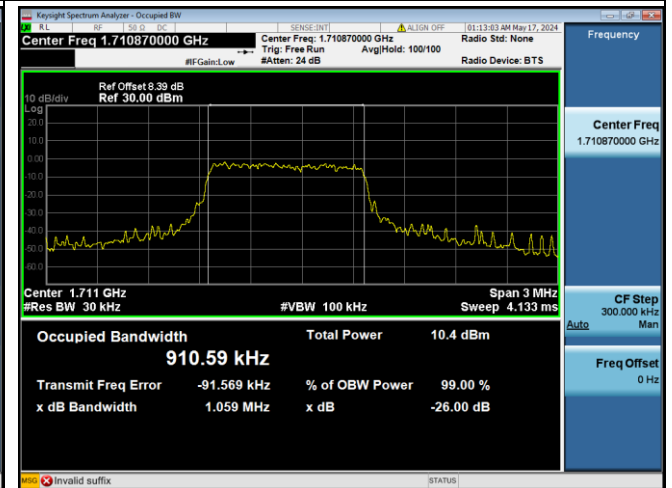


LTE Band 4, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

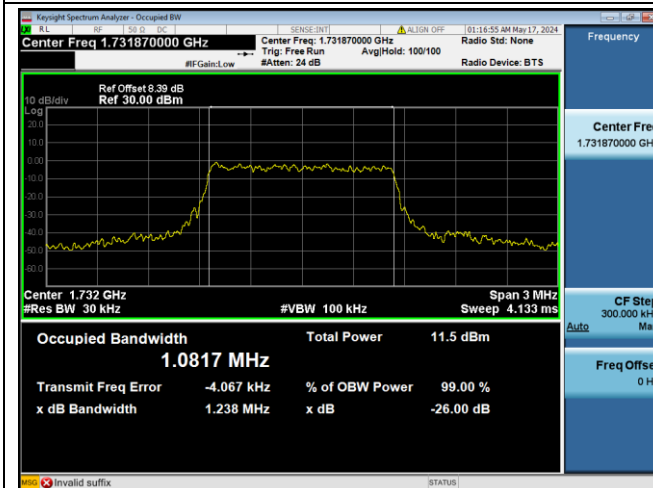
QPSK Low channel



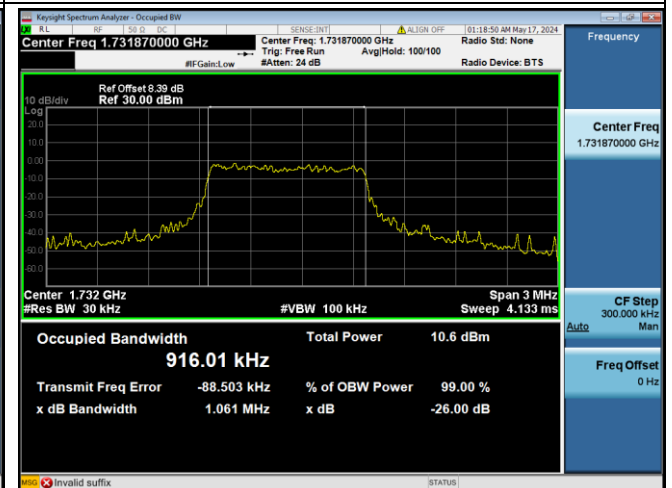
16QAM Low channel



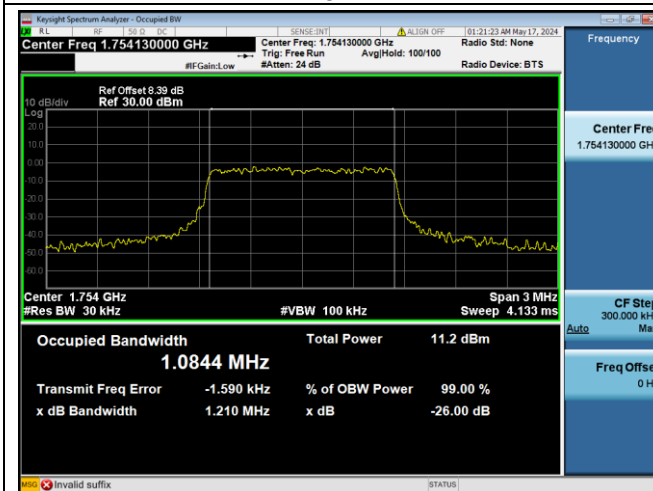
QPSK Middle channel



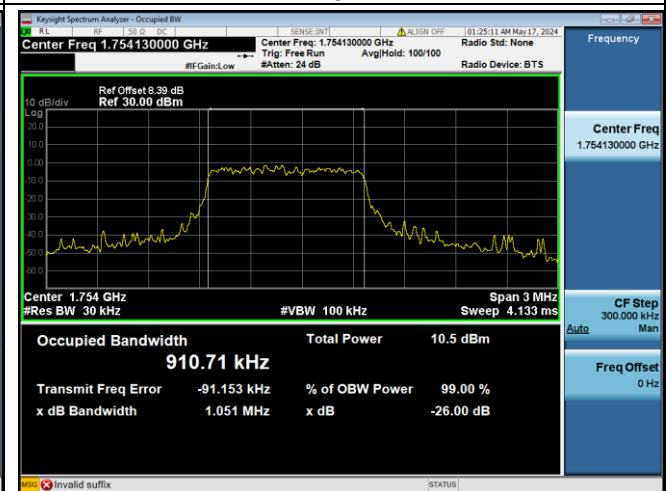
16QAM Middle channel



QPSK High channel

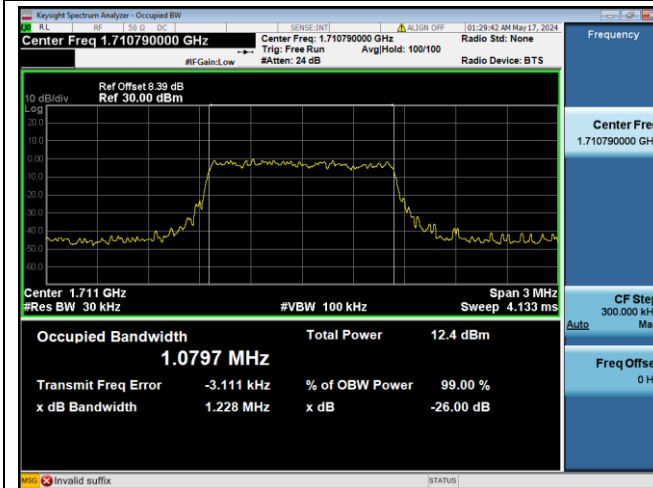


16QAM High channel

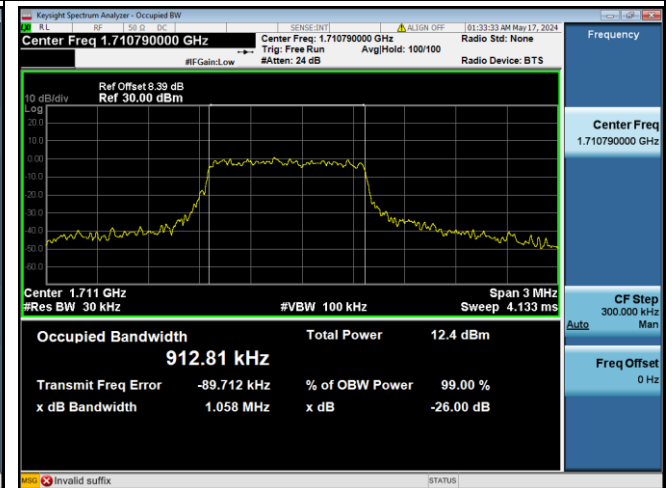


LTE Band 4, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

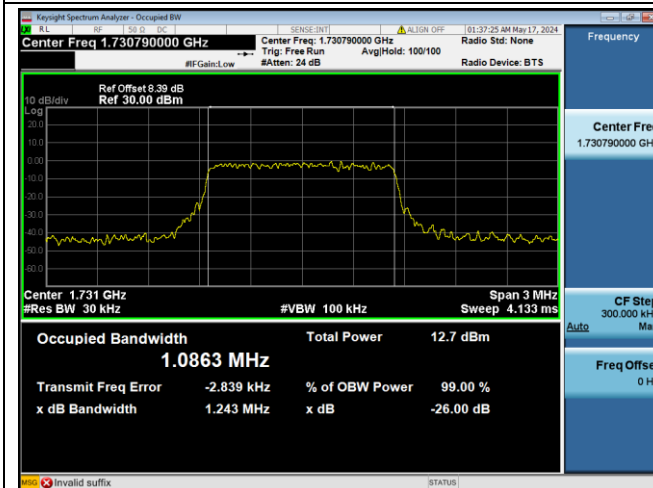
QPSK Low channel



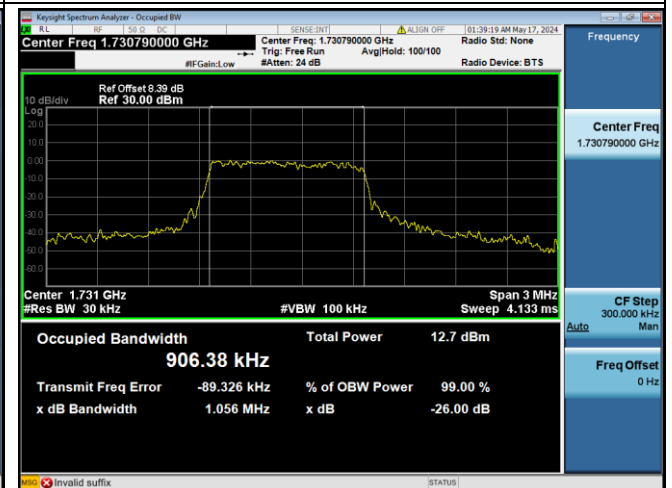
16QAM Low channel



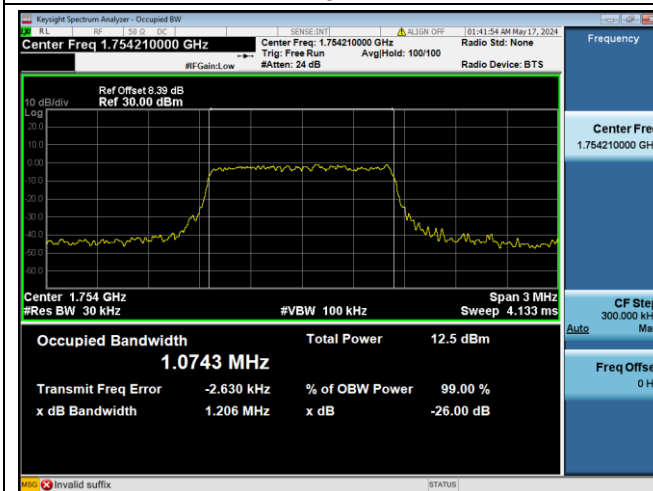
QPSK Middle channel



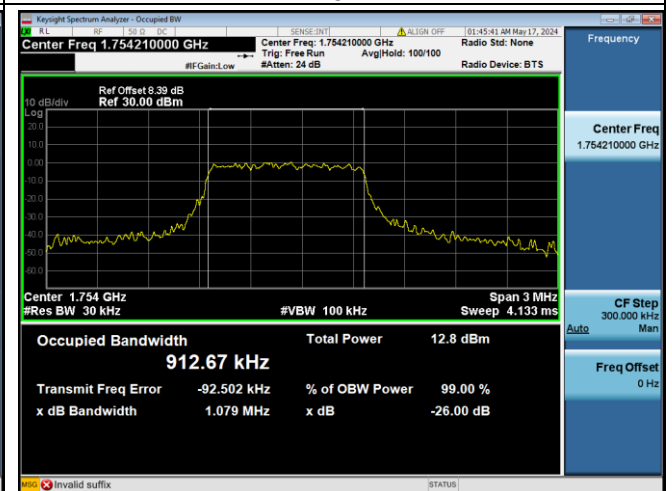
16QAM Middle channel



QPSK High channel

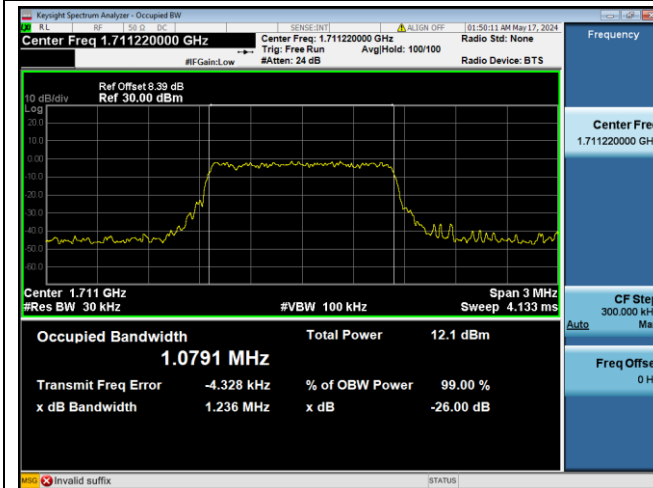


16QAM High channel



LTE Band 4, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

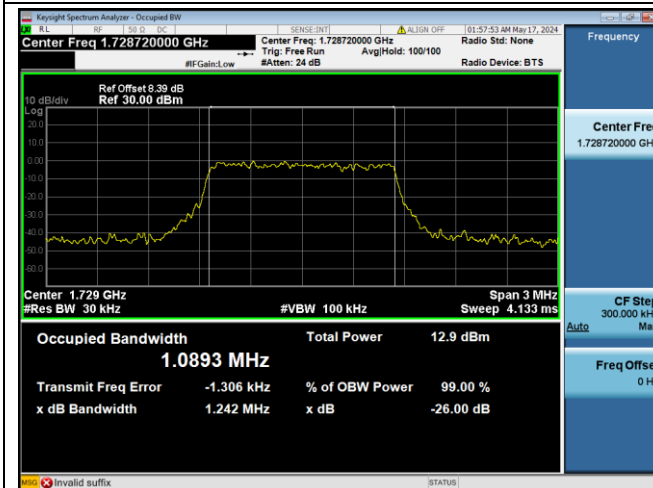
QPSK Low channel



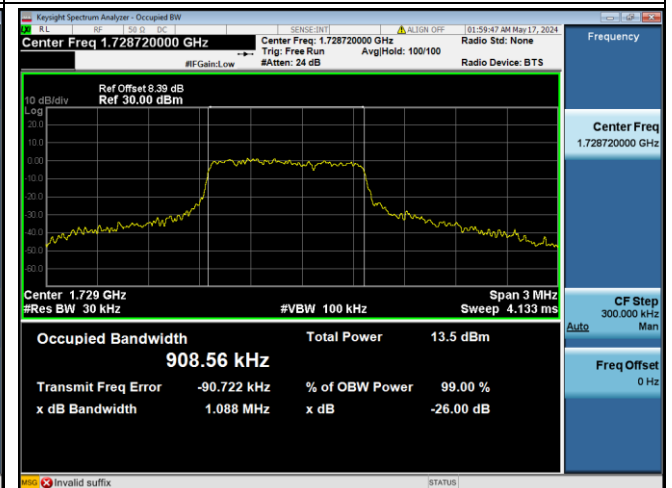
16QAM Low channel



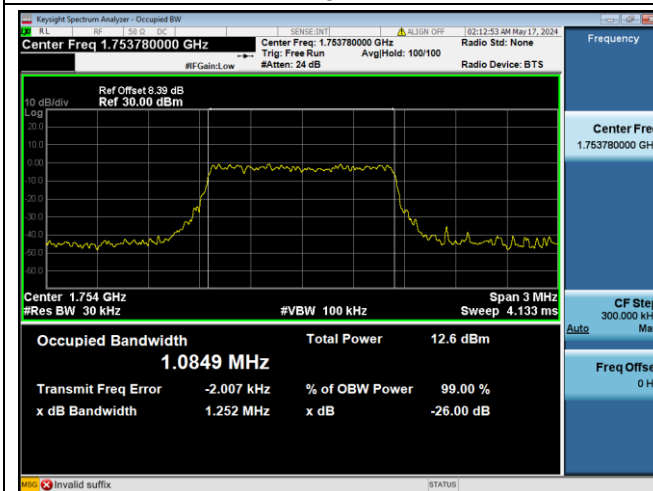
QPSK Middle channel



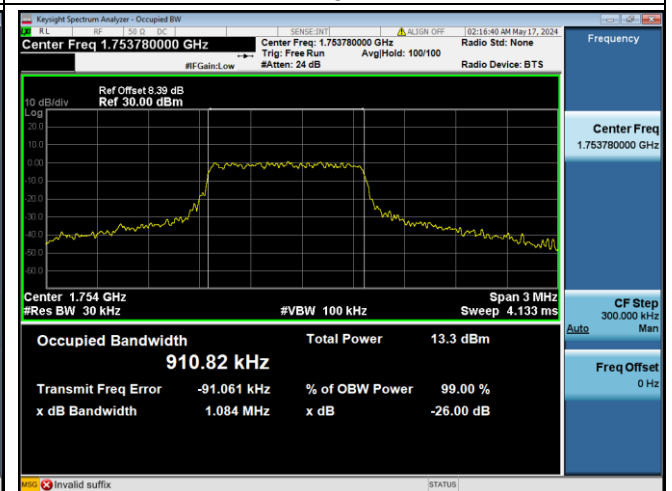
16QAM Middle channel



QPSK High channel

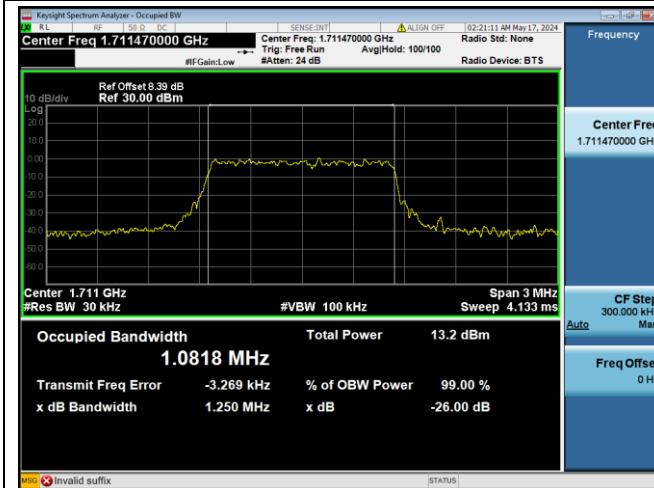


16QAM High channel

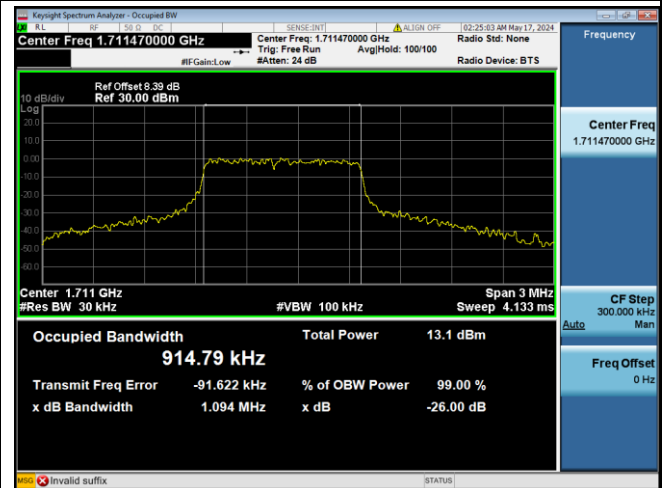


LTE Band 4, Nominal Bandwidth: 15MHz, OBW & 26dB Bandwidth

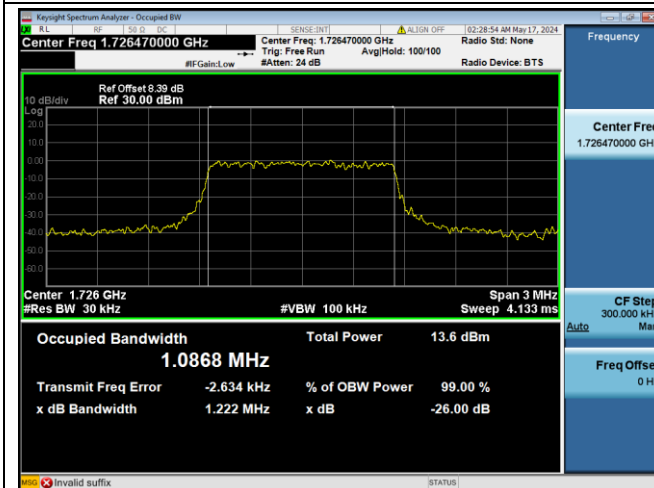
QPSK Low channel



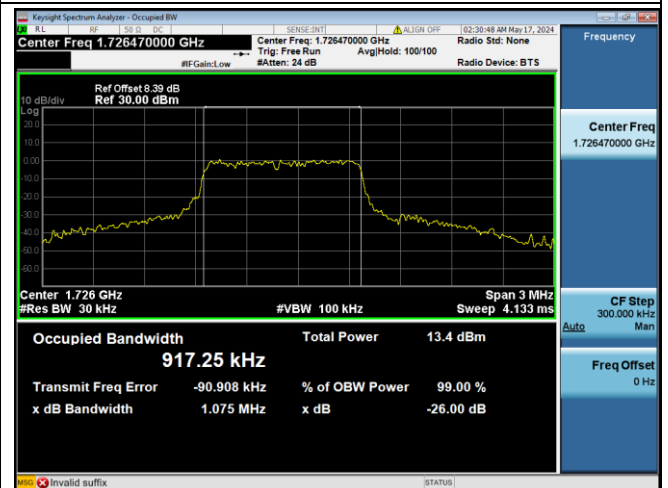
16QAM Low channel



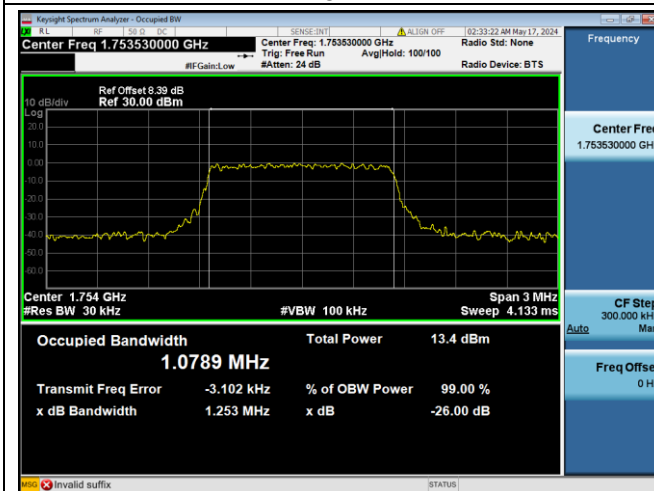
QPSK Middle channel



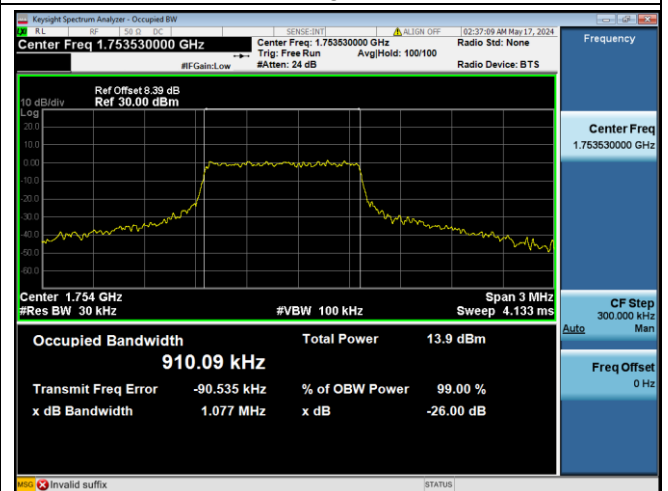
16QAM Middle channel



QPSK High channel

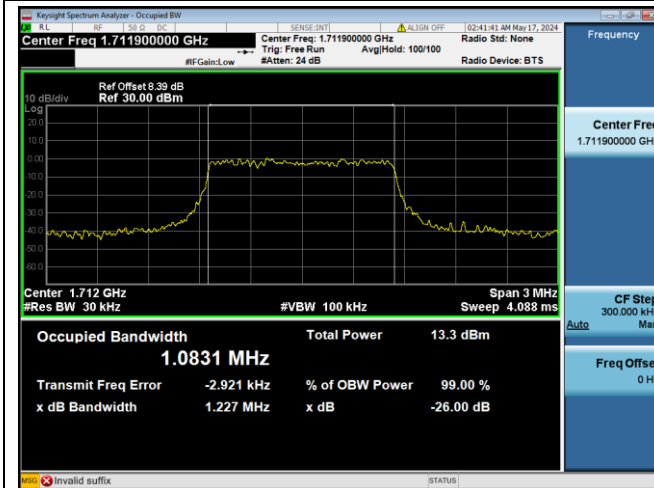


16QAM High channel

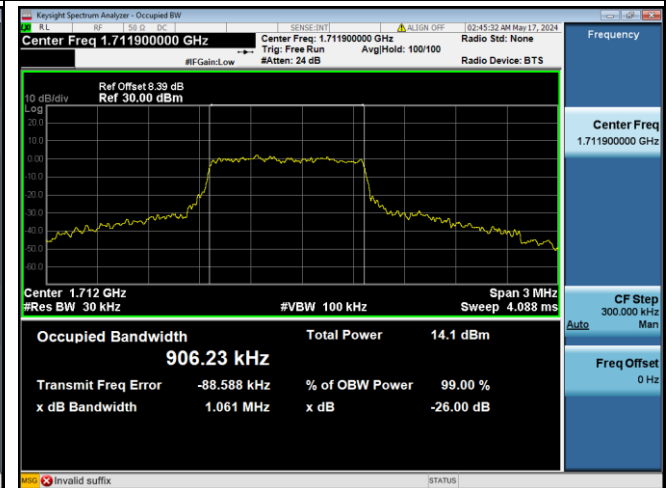


LTE Band 4, Nominal Bandwidth: 20MHz, OBW & 26dB Bandwidth

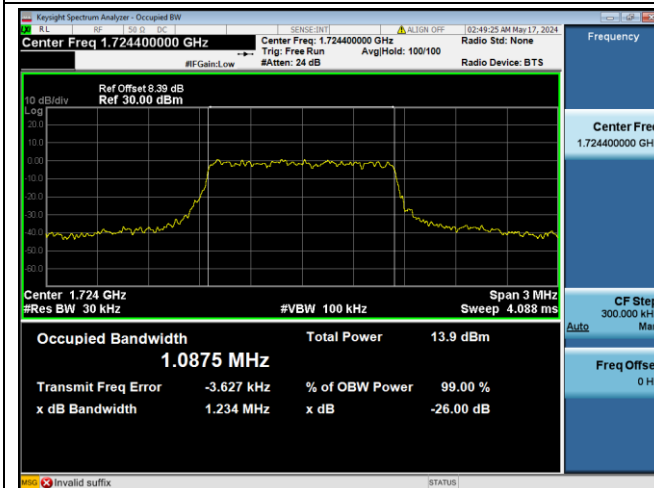
QPSK Low channel



16QAM Low channel



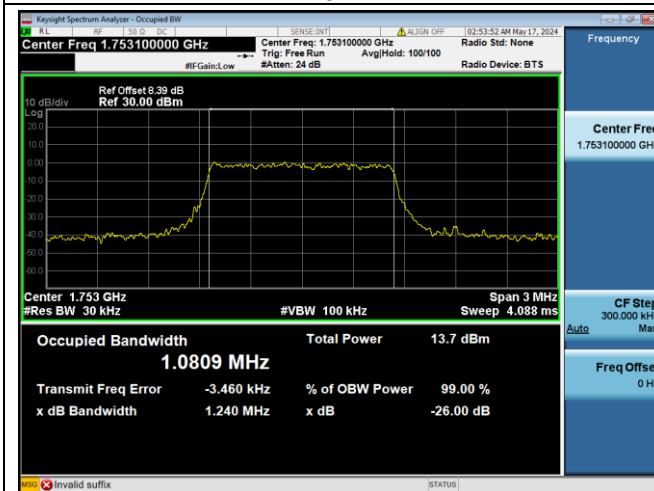
QPSK Middle channel



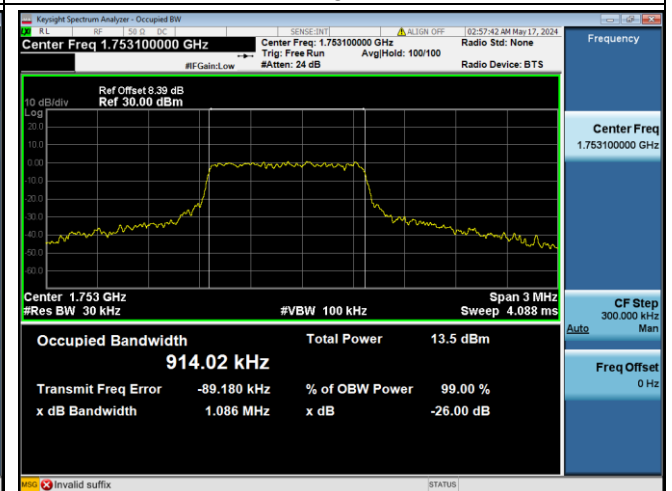
16QAM Middle channel



QPSK High channel



16QAM High channel



LTE Band 5					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0840	1.0870	1.0831
		26dB bandwidth	1.246	1.230	1.250
	16QAM	OBW	0.91286	0.90808	0.90967
		26dB bandwidth	1.096	1.080	1.091
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0826	1.0826	1.0864
		26dB bandwidth	1.201	1.255	1.255
	16QAM	OBW	0.90757	0.91169	0.91308
		26dB bandwidth	1.056	1.050	1.096
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0841	1.0797	1.0827
		26dB bandwidth	1.248	1.224	1.246
	16QAM	OBW	0.90697	0.91358	0.91300
		26dB bandwidth	1.071	1.116	1.096
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0859	1.0849	1.0808
		26dB bandwidth	1.269	1.254	1.247
	16QAM	OBW	0.91643	0.90883	0.91569
		26dB bandwidth	1.088	1.088	1.140