

LTE Cat M Appendix-Bandwidth

LTE Band 2					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0772	1.0759	1.0686
		26dB bandwidth	1.262	1.251	1.266
	16QAM	OBW	0.90443	0.90372	0.91365
		26dB bandwidth	1.163	1.204	1.207
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0761	1.075	1.0742
		26dB bandwidth	1.256	1.258	1.265
	16QAM	OBW	0.90307	0.90966	0.91031
		26dB bandwidth	1.226	1.195	1.235
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0705	1.0819	1.0731
		26dB bandwidth	1.254	1.246	1.241
	16QAM	OBW	0.90942	0.91002	0.91233
		26dB bandwidth	1.158	1.139	1.180
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0787	1.0729	1.0741
		26dB bandwidth	1.264	1.276	1.276
	16QAM	OBW	0.90641	0.90833	0.91327
		26dB bandwidth	1.223	1.172	1.204
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0726	1.0761	1.0765
		26dB bandwidth	1.257	1.255	1.247
	16QAM	OBW	0.90850	0.91388	0.91443
		26dB bandwidth	1.242	1.242	1.204
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0725	1.0846	1.0736
		26dB bandwidth	1.248	1.238	1.260
	16QAM	OBW	0.91058	0.91266	0.90961
		26dB bandwidth	1.218	1.231	1.202

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

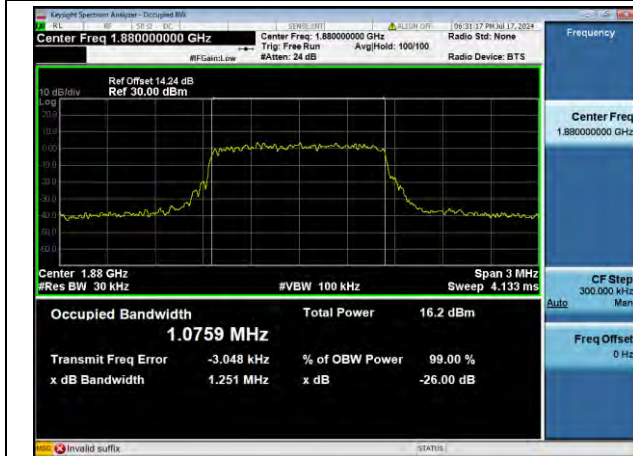
QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

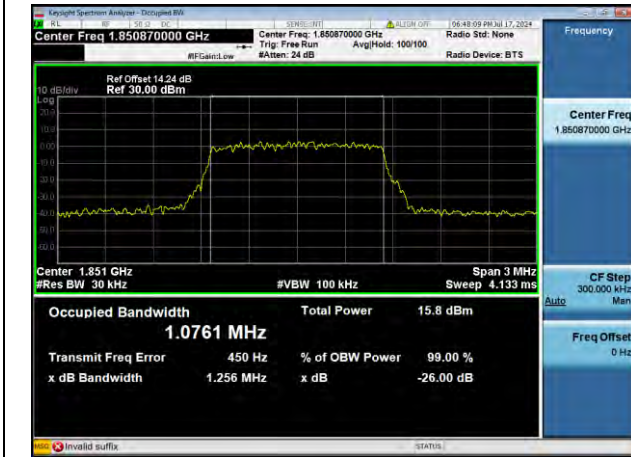


16QAM High channel



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

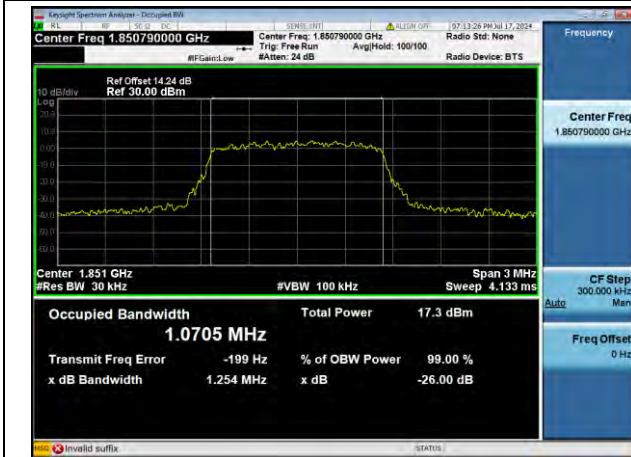


16QAM High channel



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

QPSK Low channel



16QAM Low channel



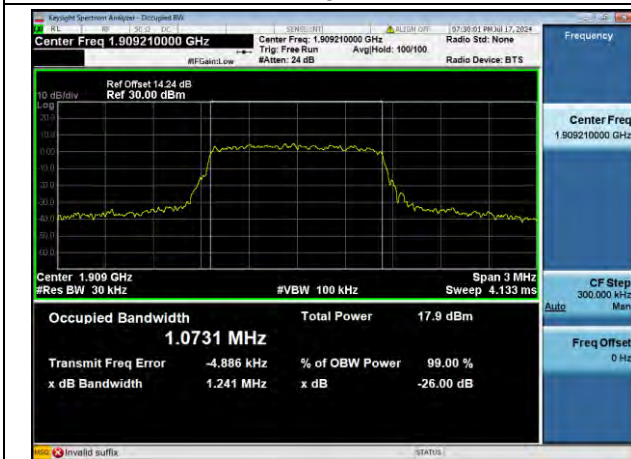
QPSK Middle channel



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

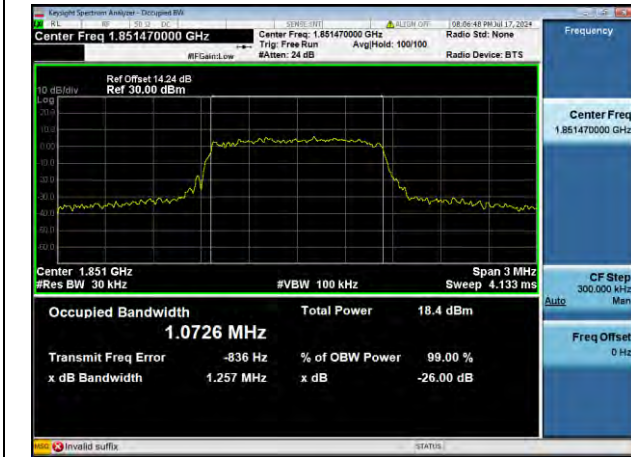


16QAM High channel



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

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

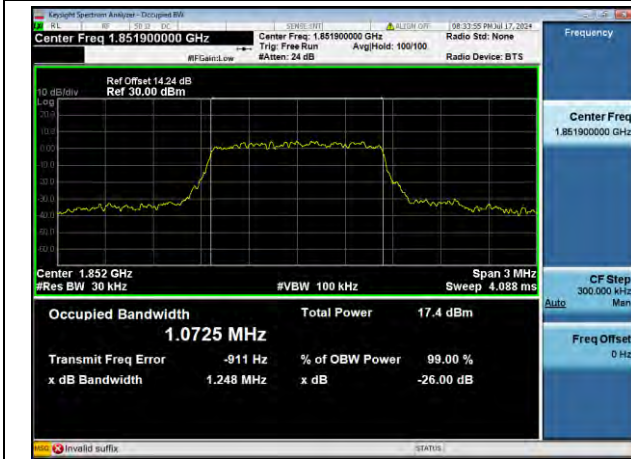


16QAM High channel



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

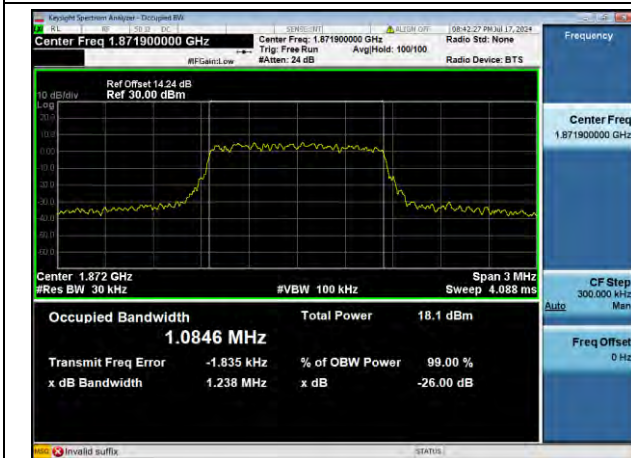
QPSK Low channel



16QAM Low channel



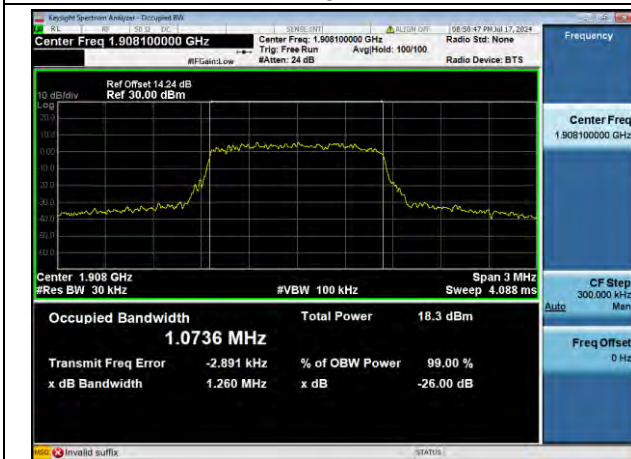
QPSK Middle channel



16QAM Middle channel



QPSK High channel



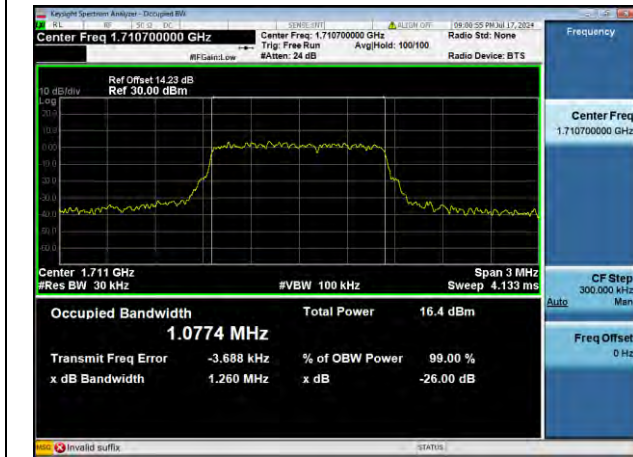
16QAM High channel



LTE Band 4					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0774	1.0796	1.0782
		26dB bandwidth	1.260	1.268	1.258
	16QAM	OBW	0.91090	0.90902	0.91321
		26dB bandwidth	1.195	1.208	1.203
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0788	1.0779	1.0762
		26dB bandwidth	1.283	1.275	1.279
	16QAM	OBW	0.91030	0.90937	0.91578
		26dB bandwidth	1.189	1.222	1.194
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0771	1.0703	1.0692
		26dB bandwidth	1.276	1.252	1.245
	16QAM	OBW	0.90979	0.90995	0.91463
		26dB bandwidth	1.210	1.191	1.226
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0720	1.0703	1.0733
		26dB bandwidth	1.261	1.247	1.264
	16QAM	OBW	0.90821	0.91054	0.91206
		26dB bandwidth	1.161	1.195	1.223
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0793	1.0778	1.0703
		26dB bandwidth	1.255	1.257	1.282
	16QAM	OBW	0.91653	0.91051	0.90580
		26dB bandwidth	1.233	1.228	1.190
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0654	1.0781	1.0663
		26dB bandwidth	1.237	1.251	1.249
	16QAM	OBW	0.91494	0.90974	0.91322
		26dB bandwidth	1.239	1.235	1.221

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

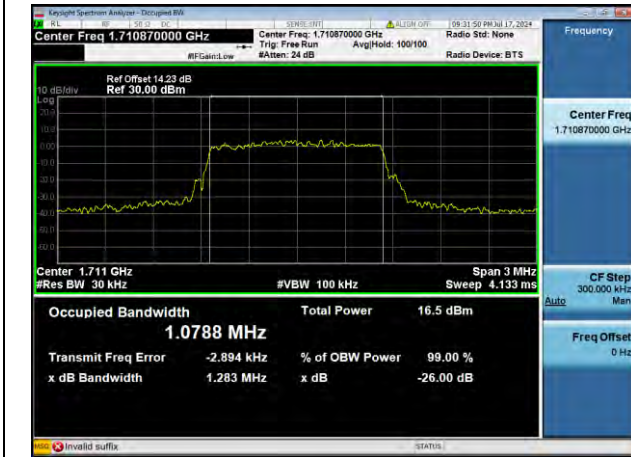


16QAM High channel



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

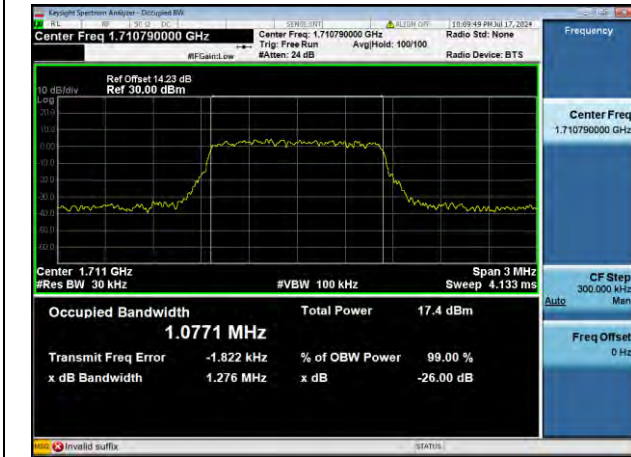


16QAM High channel



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

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

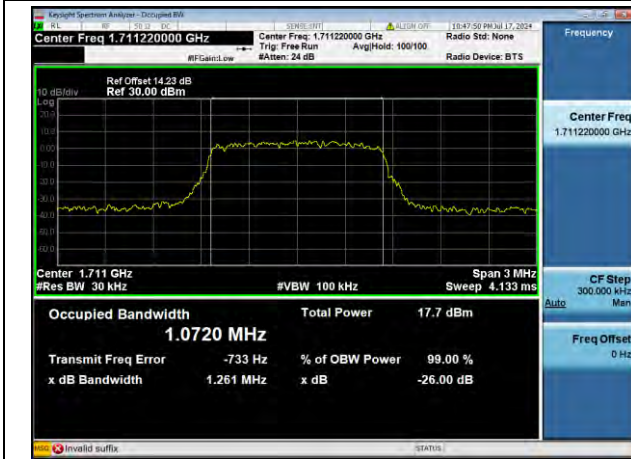


16QAM High channel



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

QPSK Low channel



16QAM Low channel



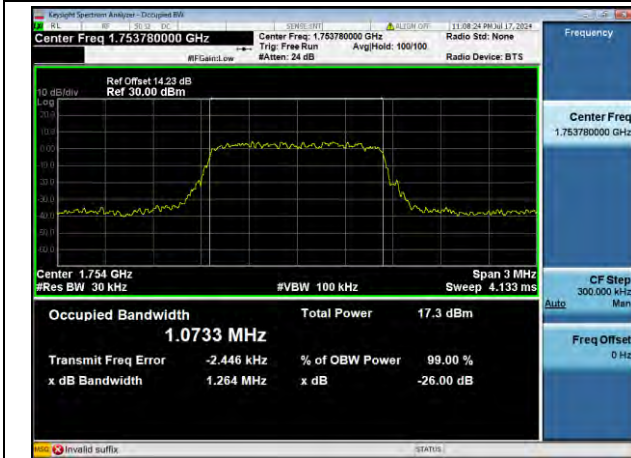
QPSK Middle channel



16QAM Middle channel



QPSK High channel

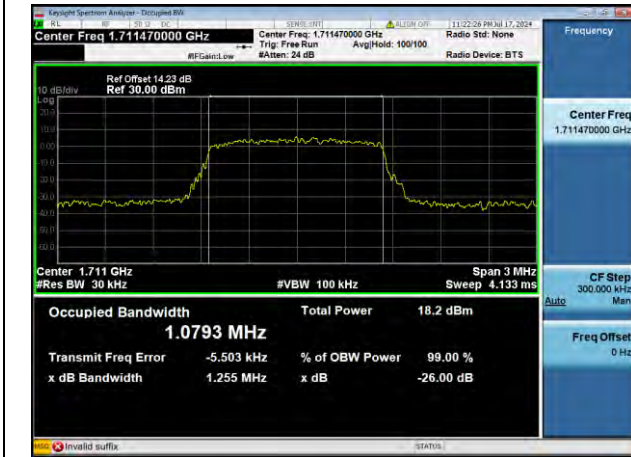


16QAM High channel



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	1.0723	1.0835	1.0742
		26dB bandwidth	1.260	1.261	1.247
	16QAM	OBW	0.90883	0.91292	0.90872
		26dB bandwidth	1.227	1.225	1.192
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0739	1.0802	1.0782
		26dB bandwidth	1.223	1.239	1.284
	16QAM	OBW	0.91085	0.91118	0.90616
		26dB bandwidth	1.225	1.197	1.189
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0771	1.0700	1.0761
		26dB bandwidth	1.265	1.275	1.228
	16QAM	OBW	0.91553	0.90449	0.91223
		26dB bandwidth	1.166	1.211	1.215
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0726	1.0723	1.0742
		26dB bandwidth	1.227	1.266	1.282
	16QAM	OBW	0.90239	0.90852	0.91341
		26dB bandwidth	1.179	1.201	1.180

LTE Band 5, Nominal Bandwidth: 1.4MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

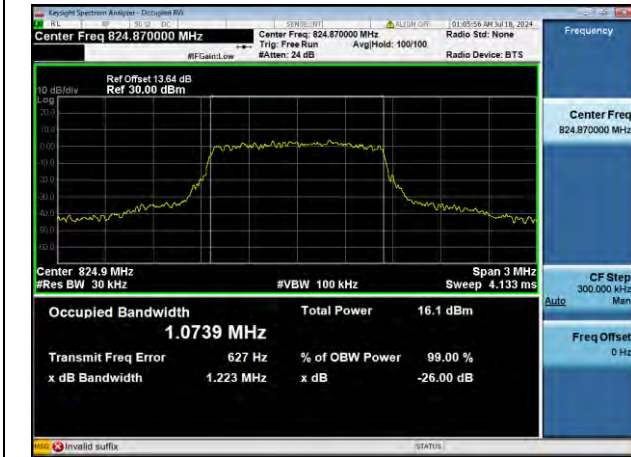


16QAM High channel



LTE Band 5, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



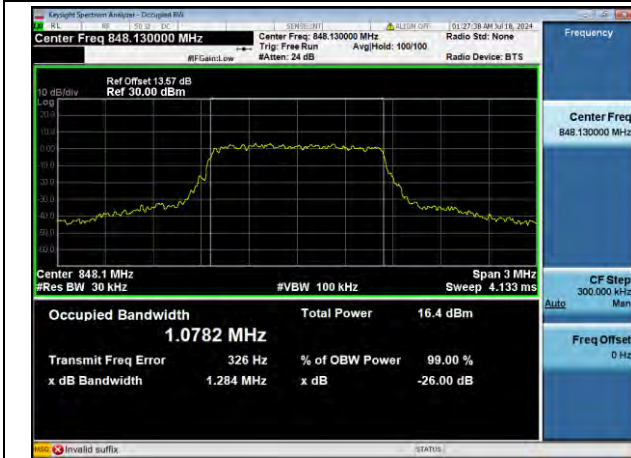
QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



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

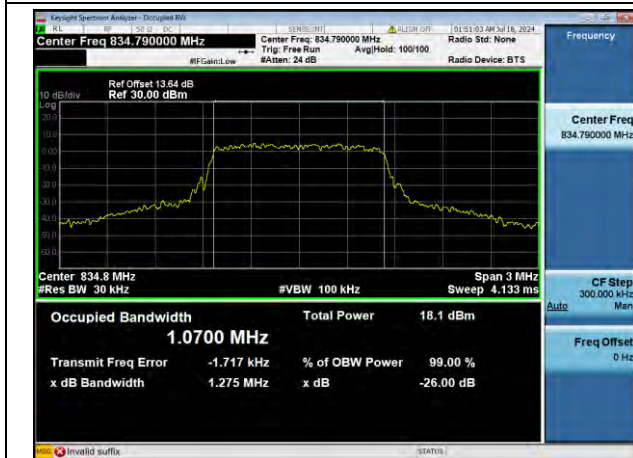
QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



LTE Band 5, 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 12					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0782	1.0812	1.0725
		26dB bandwidth	1.278	1.263	1.217
	16QAM	OBW	0.91314	0.91229	0.91146
		26dB bandwidth	1.227	1.204	1.229
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0812	1.0783	1.0763
		26dB bandwidth	1.272	1.246	1.281
	16QAM	OBW	0.91284	0.91226	0.90619
		26dB bandwidth	1.222	1.226	1.184
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0720	1.0713	1.0778
		26dB bandwidth	1.267	1.253	1.247
	16QAM	OBW	0.90978	0.90515	0.91004
		26dB bandwidth	1.254	1.204	1.210
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0732	1.0743	1.0687
		26dB bandwidth	1.242	1.270	1.257
	16QAM	OBW	0.90175	0.90866	0.90916
		26dB bandwidth	1.172	1.187	1.225

LTE Band 12, Nominal Bandwidth: 1.4MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

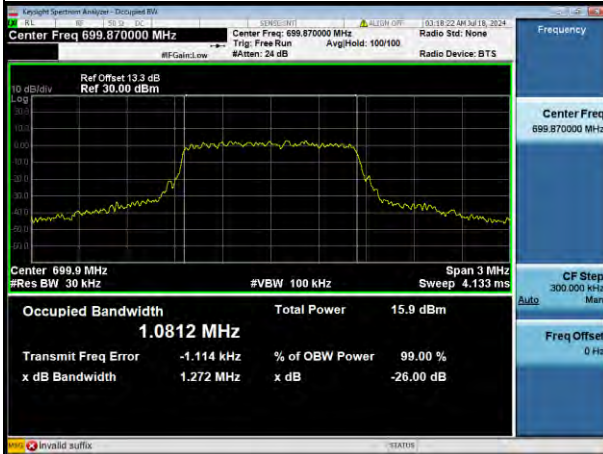


16QAM High channel



LTE Band 12, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



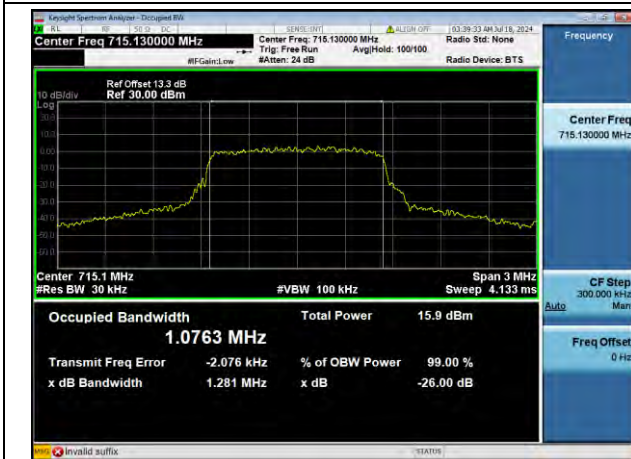
QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



LTE Band 12, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



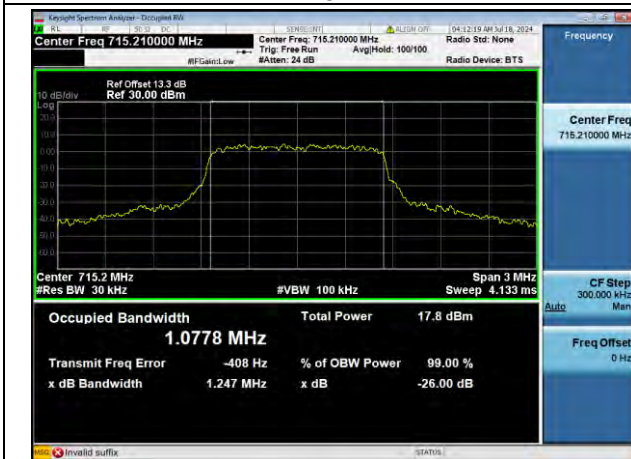
QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



LTE Band 12, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



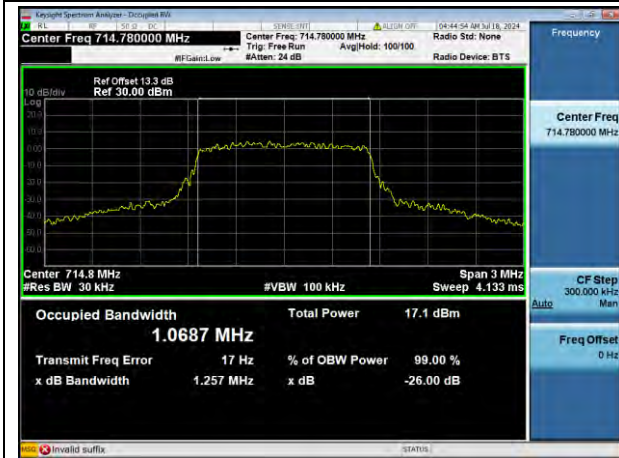
QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



LTE Band 13					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0659	1.0737	1.0776
		26dB bandwidth	1.221	1.259	1.244
	16QAM	OBW	0.90645	0.91059	0.90860
		26dB bandwidth	1.212	1.111	1.203
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	/	1.0783	/
		26dB bandwidth	/	1.283	/
	16QAM	OBW	/	0.90564	/
		26dB bandwidth	/	1.176	/

LTE Band 13, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

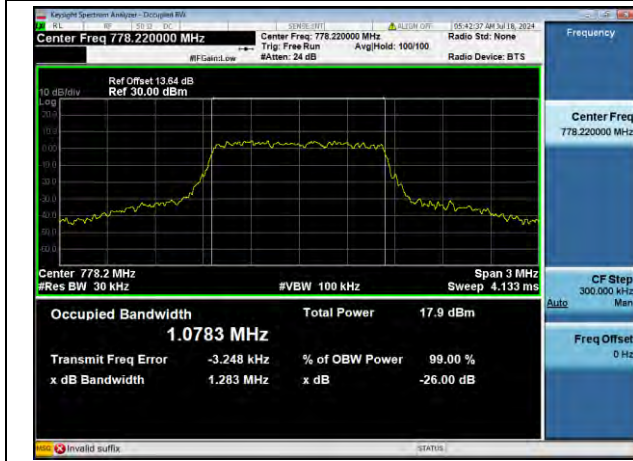


16QAM High channel

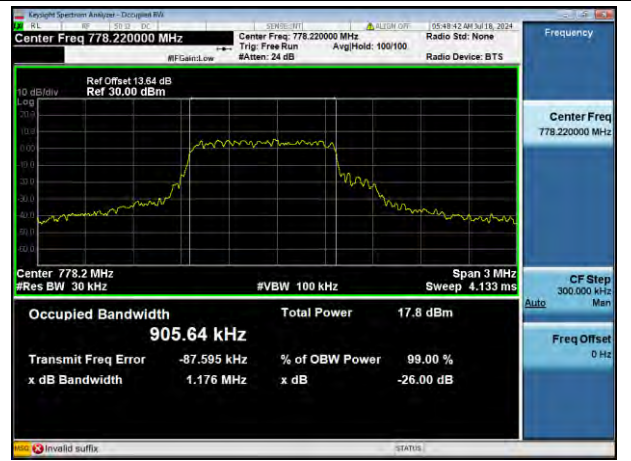


LTE Band 13, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

QPSK Middle channel



16QAM Middle channel



LTE Band 25					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0781	1.0794	1.0782
		26dB bandwidth	1.261	1.257	1.237
	16QAM	OBW	0.90764	0.91573	0.91107
		26dB bandwidth	1.199	1.167	1.172
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0754	1.0756	1.0760
		26dB bandwidth	1.234	1.226	1.256
	16QAM	OBW	0.91084	0.91042	0.90849
		26dB bandwidth	1.193	1.203	1.198
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0720	1.0756	1.0694
		26dB bandwidth	1.259	1.251	1.228
	16QAM	OBW	0.91268	0.90666	0.90134
		26dB bandwidth	1.147	1.220	1.171
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0817	1.0696	1.079
		26dB bandwidth	1.265	1.239	1.274
	16QAM	OBW	0.91399	0.91282	0.91047
		26dB bandwidth	1.219	1.142	1.246
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0849	1.0782	1.0779
		26dB bandwidth	1.265	1.238	1.271
	16QAM	OBW	0.91177	0.90799	0.90798
		26dB bandwidth	1.210	1.22	1.174
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0738	1.0748	1.0705
		26dB bandwidth	1.236	1.258	1.238
	16QAM	OBW	0.90807	0.90425	0.91389
		26dB bandwidth	1.179	1.091	1.232

LTE Band 25, Nominal Bandwidth: 1.4MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

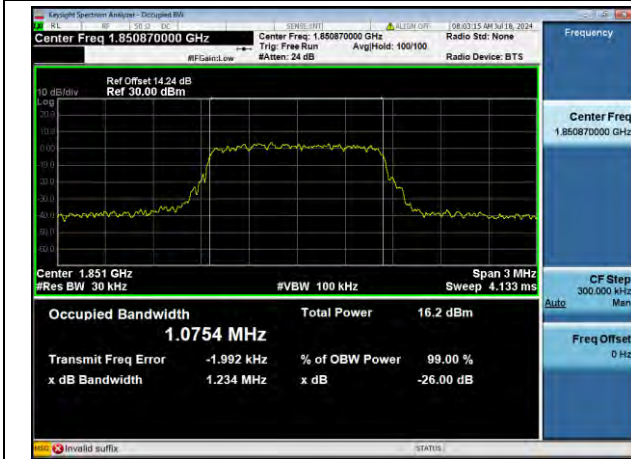


16QAM High channel



LTE Band 25, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

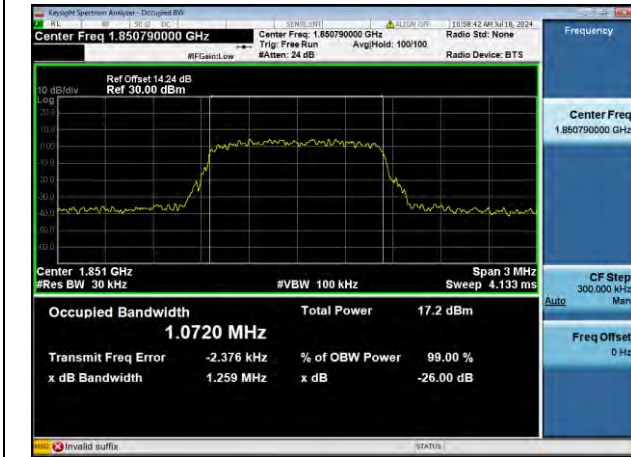


16QAM High channel



LTE Band 25, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

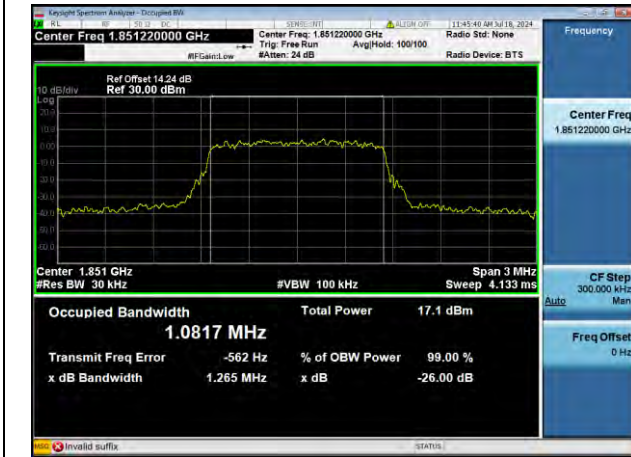


16QAM High channel



LTE Band 25, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

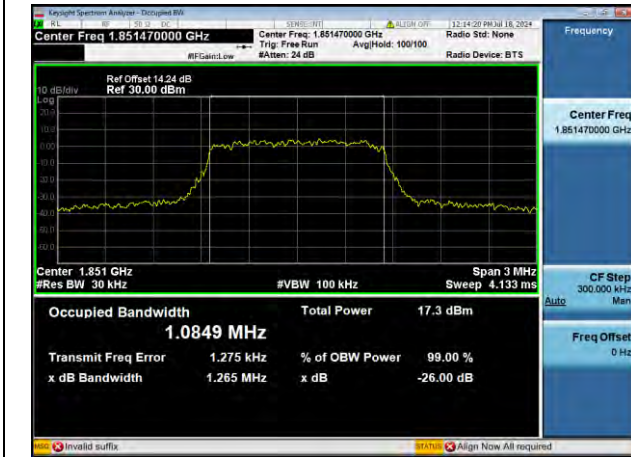


16QAM High channel



LTE Band 25, Nominal Bandwidth: 15MHz, OBW & 26dB Bandwidth

QPSK Low channel



16QAM Low channel



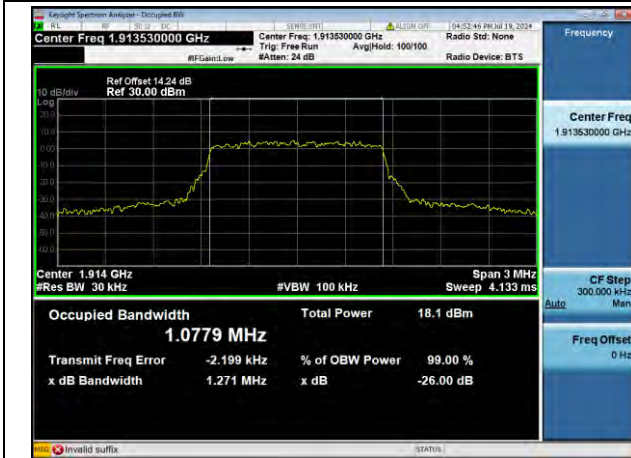
QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



LTE Band 25, 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 26a					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0782	1.0746	1.0794
		26dB bandwidth	1.282	1.253	1.245
	16QAM	OBW	0.90883	0.90906	0.91374
		26dB bandwidth	1.207	1.191	1.211
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0778	1.0759	1.0788
		26dB bandwidth	1.265	1.262	1.265
	16QAM	OBW	0.91104	0.91348	0.91262
		26dB bandwidth	1.184	1.221	1.229
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0736	1.0794	1.0650
		26dB bandwidth	1.251	1.236	1.226
	16QAM	OBW	0.90878	0.91020	0.91240
		26dB bandwidth	1.196	1.124	1.231
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	/	1.0756	/
		26dB bandwidth	/	1.229	/
	16QAM	OBW	/	0.90878	/
		26dB bandwidth	/	1.190	/

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

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

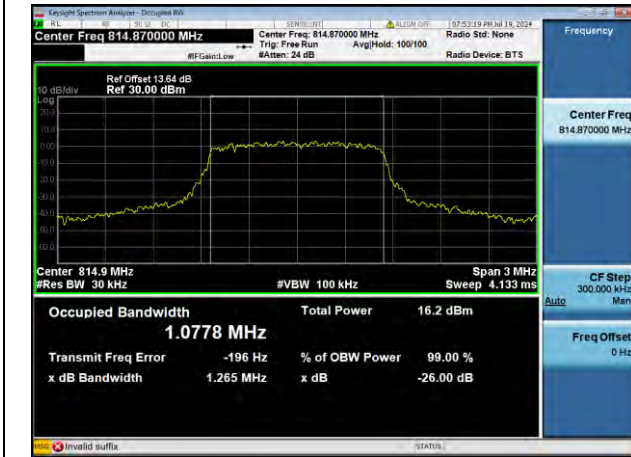


16QAM High channel



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

QPSK Low channel



16QAM Low channel



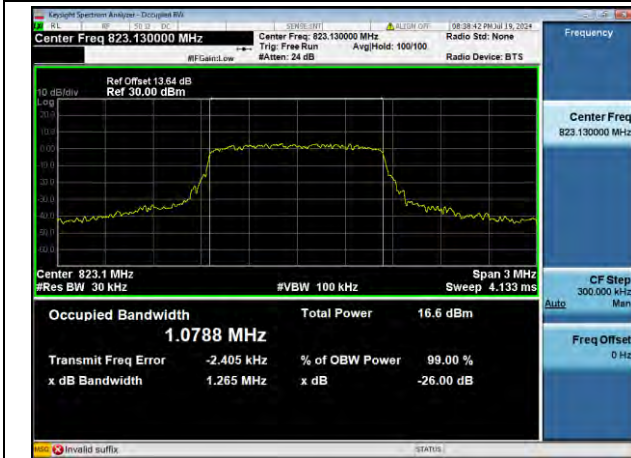
QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel



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

QPSK Low channel



16QAM Low channel



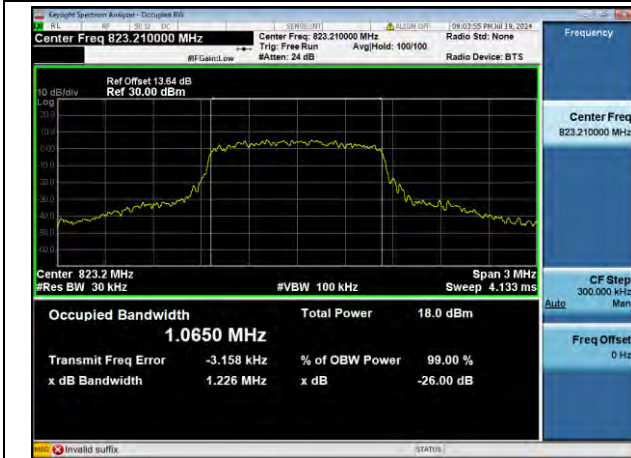
QPSK Middle channel



16QAM Middle channel



QPSK High channel

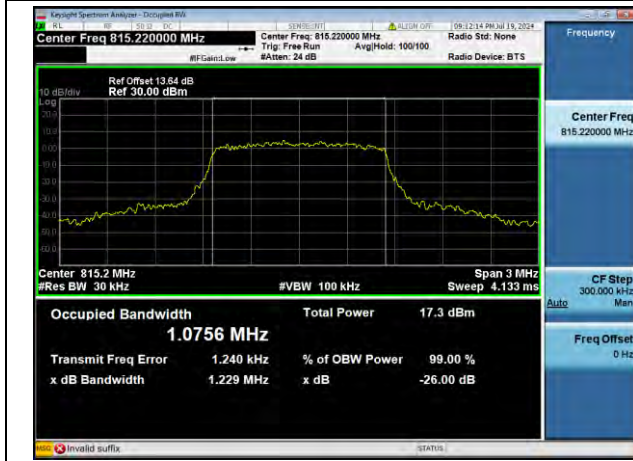


16QAM High channel

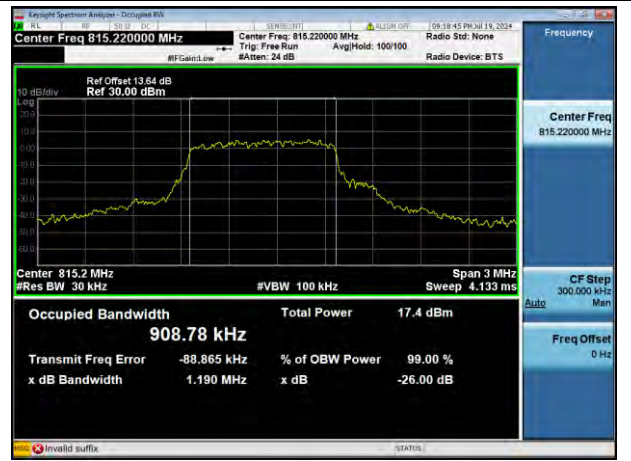


LTE Band 26a, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

QPSK Middle channel



16QAM Middle channel



LTE Band 26b					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0778	1.0821	1.0752
		26dB bandwidth	1.238	1.275	1.256
	16QAM	OBW	0.91158	0.90719	0.91293
		26dB bandwidth	1.168	1.160	1.229
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0677	1.0744	1.0801
		26dB bandwidth	1.231	1.245	1.281
	16QAM	OBW	0.90943	0.90645	0.91391
		26dB bandwidth	1.236	1.182	1.225
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0657	1.0748	1.0685
		26dB bandwidth	1.239	1.245	1.265
	16QAM	OBW	0.91021	0.90568	0.90321
		26dB bandwidth	1.198	1.198	1.187
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0780	1.0811	1.0752
		26dB bandwidth	1.246	1.269	1.256
	16QAM	OBW	0.90884	0.89958	0.90714
		26dB bandwidth	1.207	1.121	1.161

LTE Band 26b cross rule					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0757	1.0773	1.0701
		26dB bandwidth	1.268	1.261	1.267
	16QAM	OBW	0.90774	0.91199	0.90808
		26dB bandwidth	1.201	1.226	1.197

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

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel

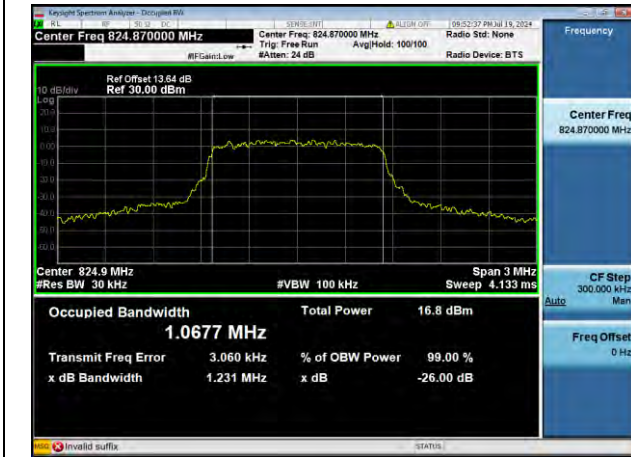


16QAM High channel



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

QPSK Low channel



16QAM Low channel



QPSK Middle channel



16QAM Middle channel



QPSK High channel



16QAM High channel

