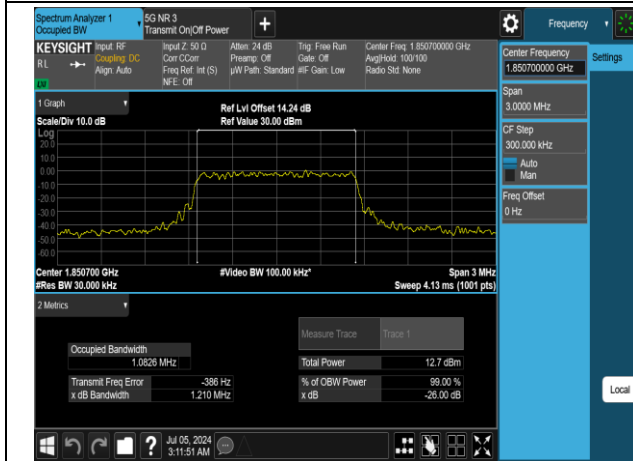


LTE Cat M Appendix-Bandwidth

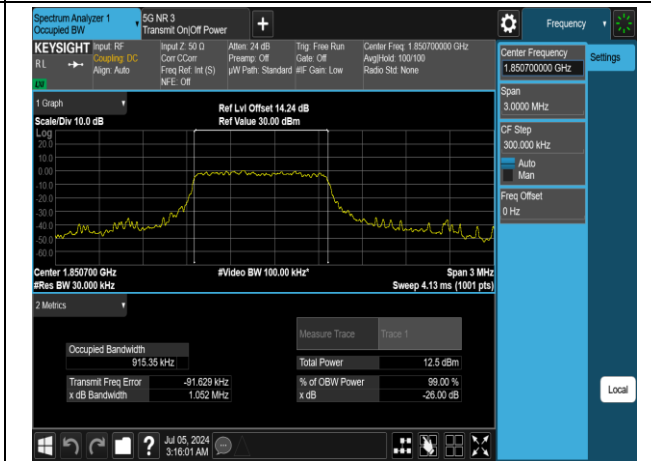
LTE Band 2					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0826	1.083	1.0827
		26dB bandwidth	1.210	1.217	1.218
	16QAM	OBW	0.91535	0.90668	0.90897
		26dB bandwidth	1.052	1.063	1.052
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0838	1.0856	1.0830
		26dB bandwidth	1.202	1.254	1.209
	16QAM	OBW	0.90528	0.91273	0.91523
		26dB bandwidth	1.079	1.067	1.081
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0779	1.0852	1.0762
		26dB bandwidth	1.220	1.245	1.206
	16QAM	OBW	0.91165	0.91156	0.91458
		26dB bandwidth	1.066	1.066	1.062
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0852	1.0887	1.0932
		26dB bandwidth	1.220	1.276	1.254
	16QAM	OBW	0.90920	0.90959	0.91036
		26dB bandwidth	1.080	1.069	1.051
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0769	1.0872	1.0877
		26dB bandwidth	1.215	1.234	1.249
	16QAM	OBW	0.91772	0.91018	0.90788
		26dB bandwidth	1.100	1.074	1.094
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0808	1.0842	1.0783
		26dB bandwidth	1.243	1.245	1.232
	16QAM	OBW	0.91194	0.90646	0.91196
		26dB bandwidth	1.093	1.046	1.110

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

QPSK Low channel



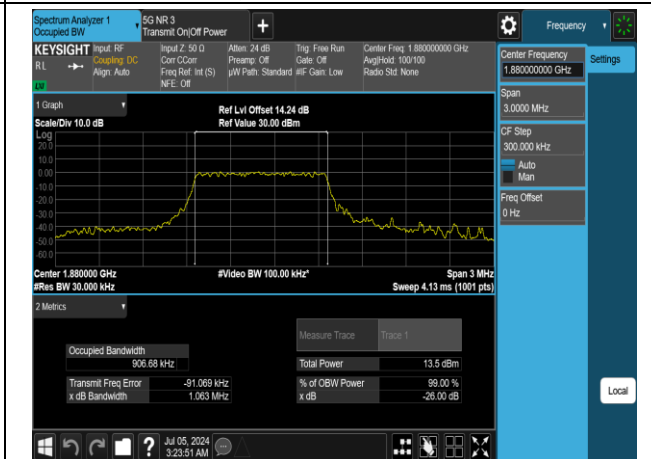
16QAM Low channel



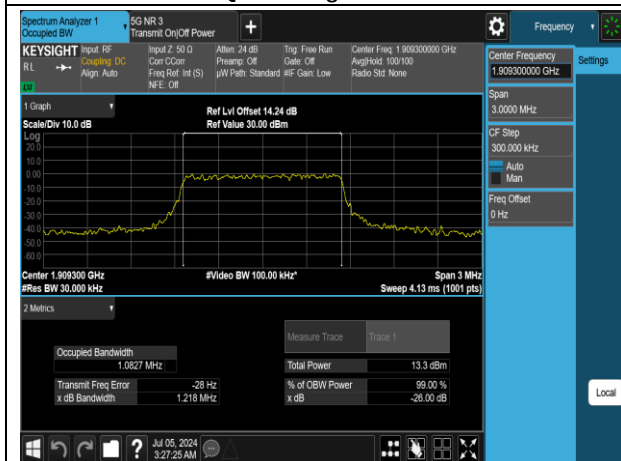
QPSK Middle channel



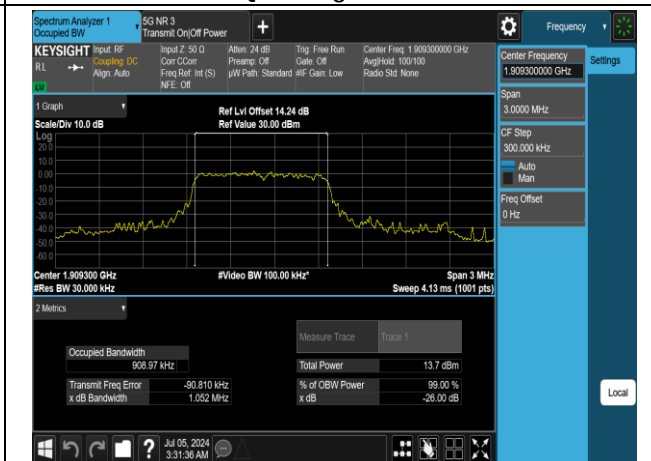
16QAM Middle channel



QPSK High channel

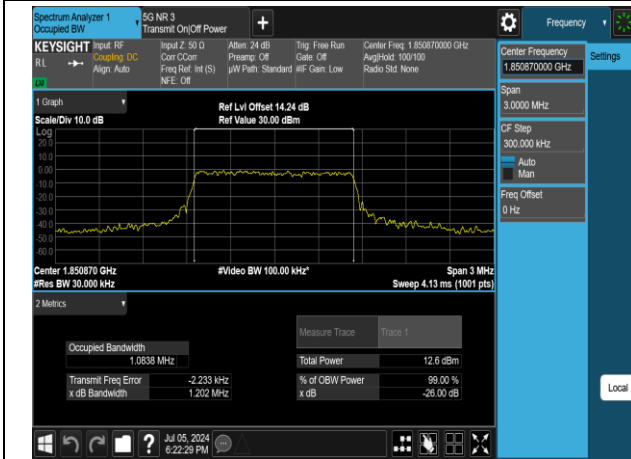


16QAM High channel

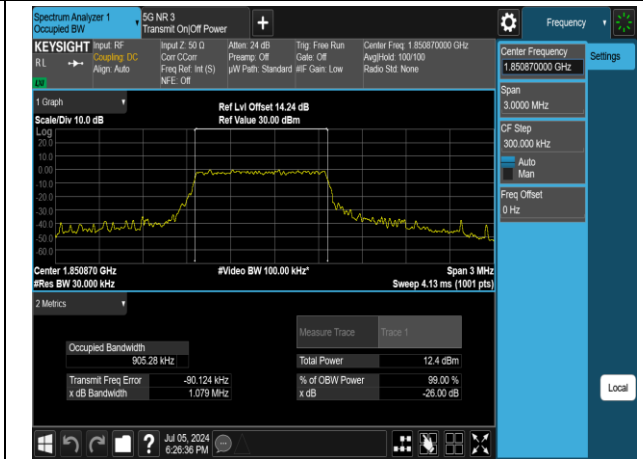


LTE Band 2, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

QPSK Low channel



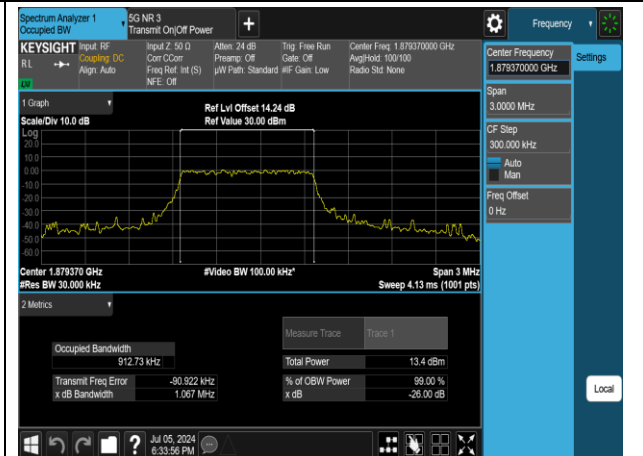
16QAM Low channel



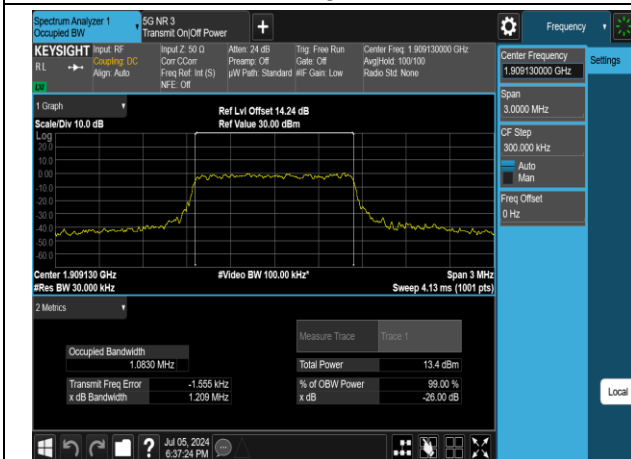
QPSK Middle channel



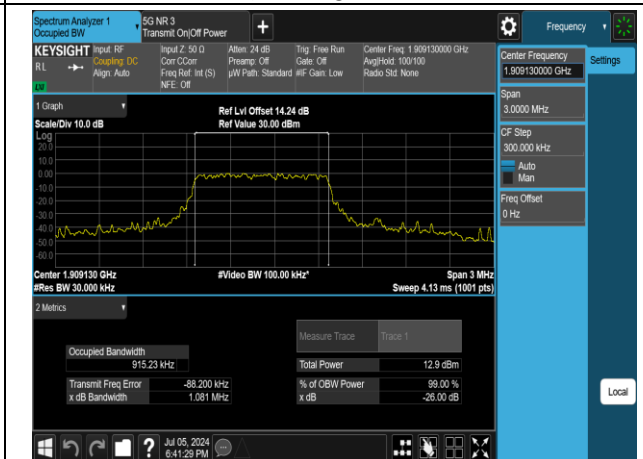
16QAM Middle channel



QPSK High channel

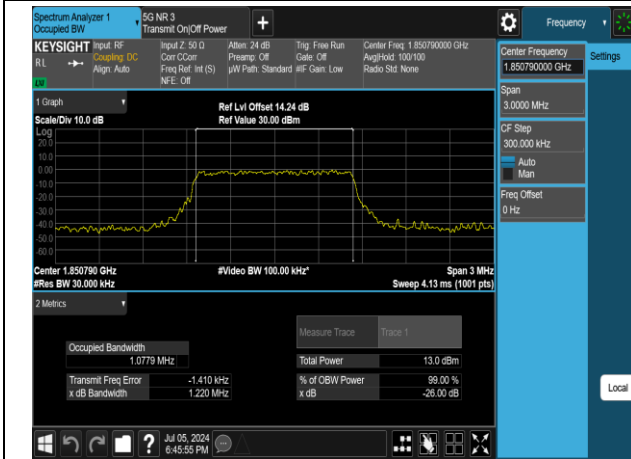


16QAM High channel

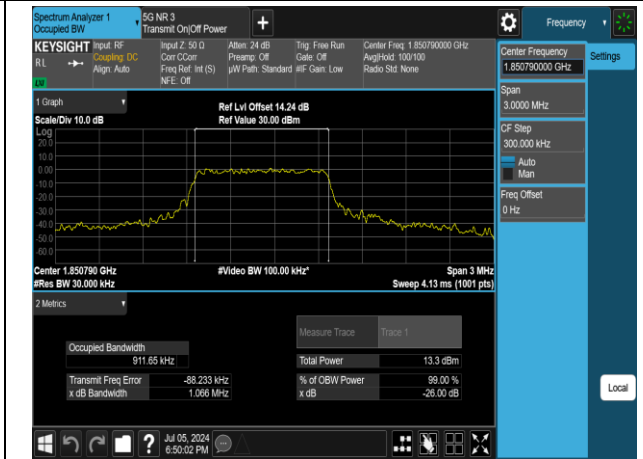


LTE Band 2, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

QPSK Low channel



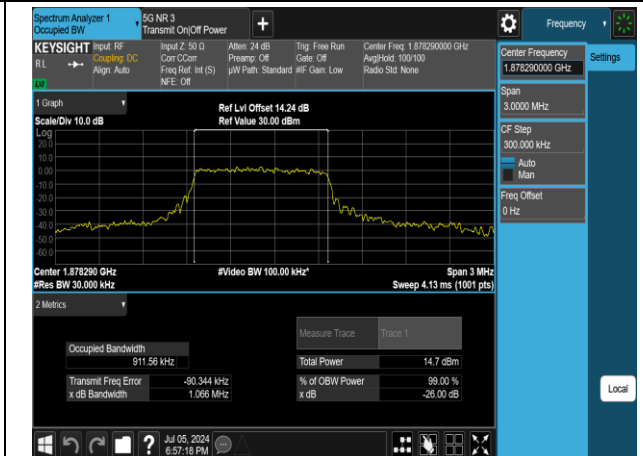
16QAM Low channel



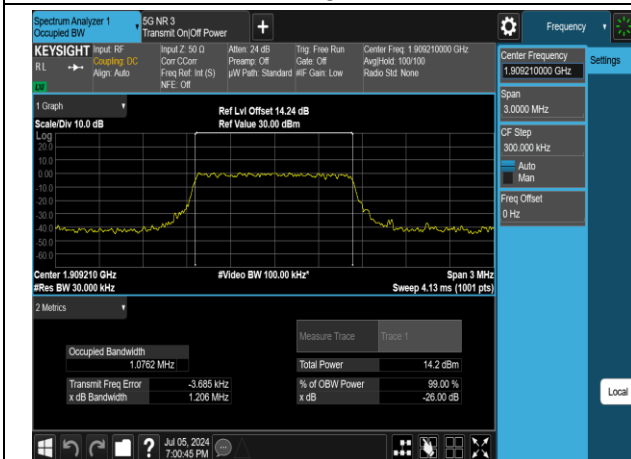
QPSK Middle channel



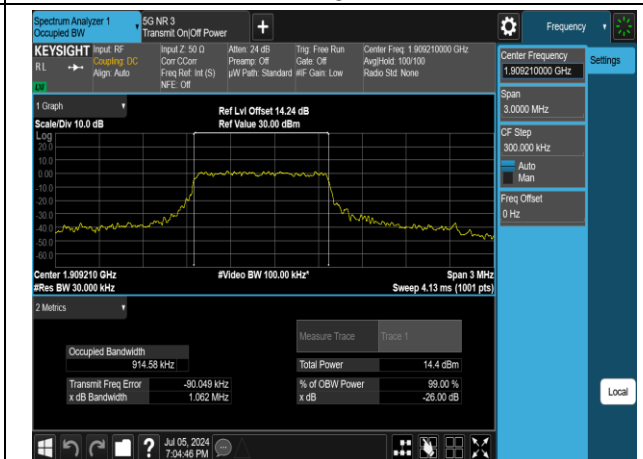
16QAM Middle channel



QPSK High channel

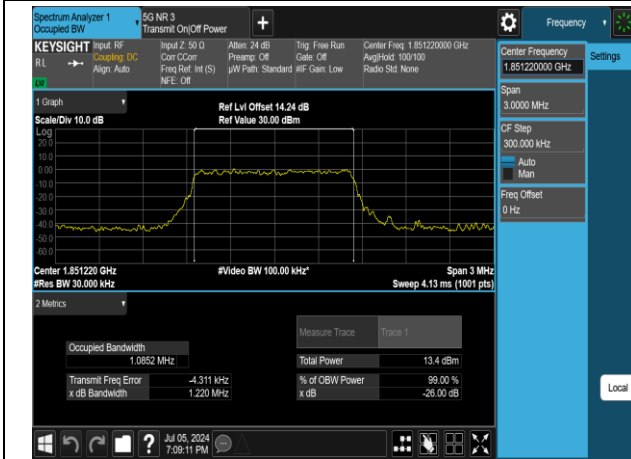


16QAM High channel

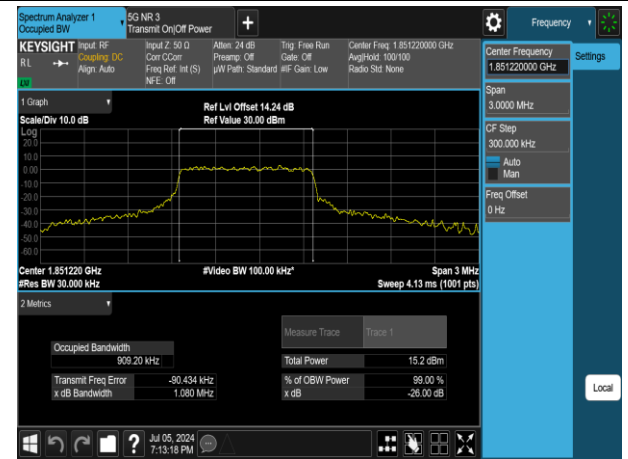


LTE Band 2, Nominal Bandwidth: 10MHz, OBW & 26dB Bandwidth

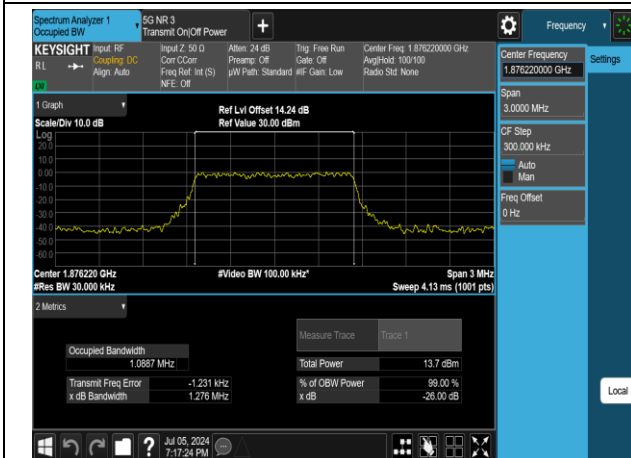
QPSK Low channel



16QAM Low channel



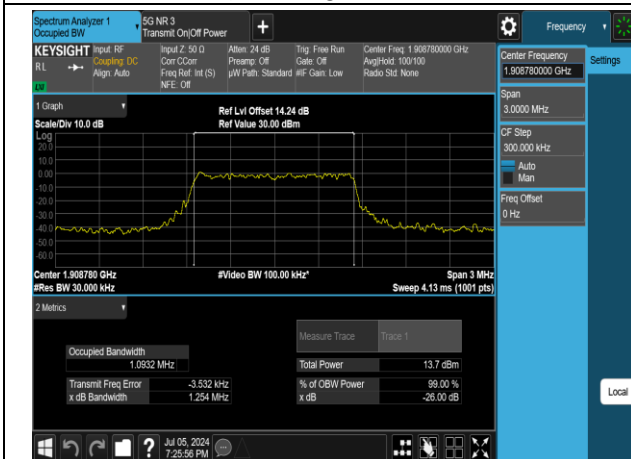
QPSK Middle channel



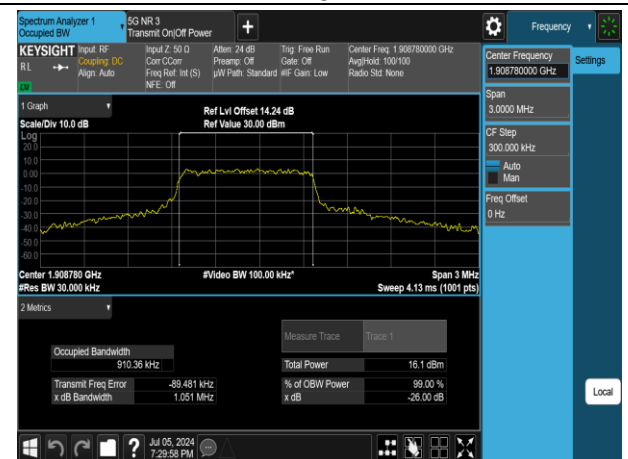
16QAM Middle channel



QPSK High channel

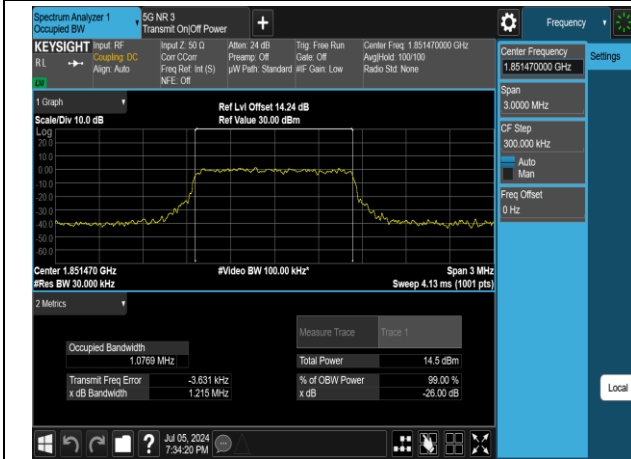


16QAM High channel

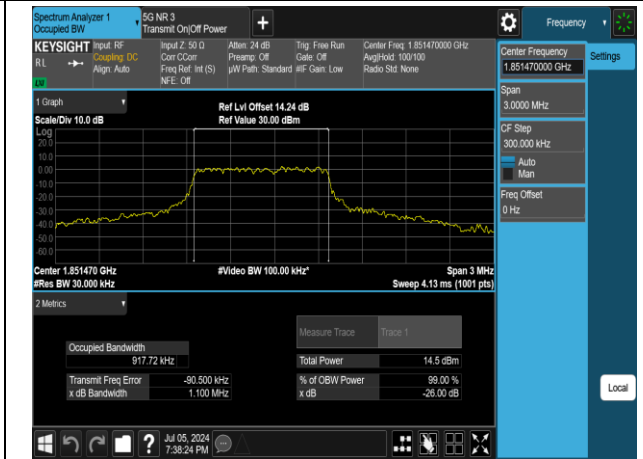


LTE Band 2, Nominal Bandwidth: 15MHz, OBW & 26dB Bandwidth

QPSK Low channel



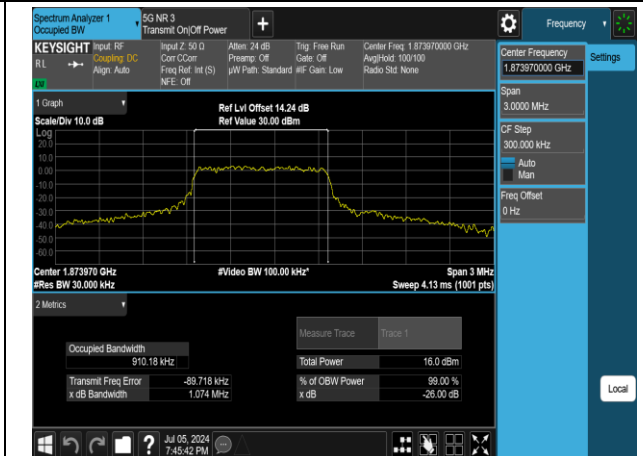
16QAM Low channel



QPSK Middle channel



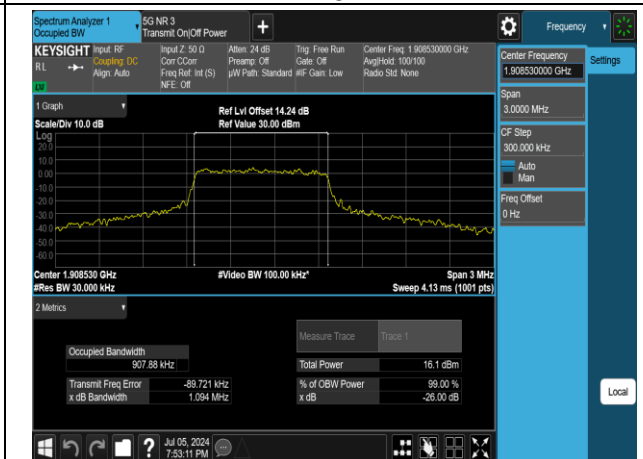
16QAM Middle channel



QPSK High channel



16QAM High channel

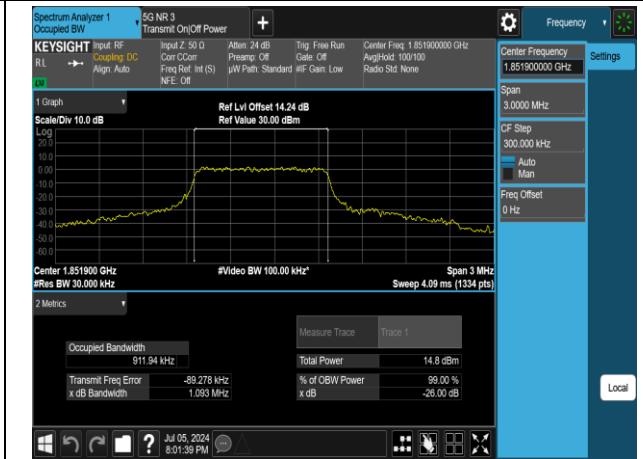


LTE Band 2, Nominal Bandwidth: 20MHz, OBW & 26dB Bandwidth

QPSK Low channel



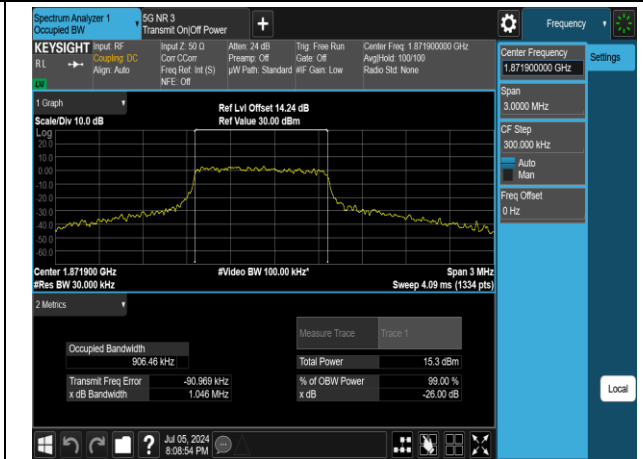
16QAM Low channel



QPSK Middle channel



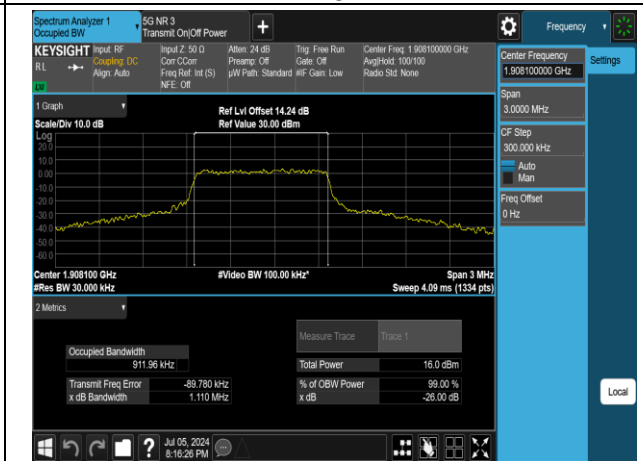
16QAM Middle channel



QPSK High channel



16QAM High channel



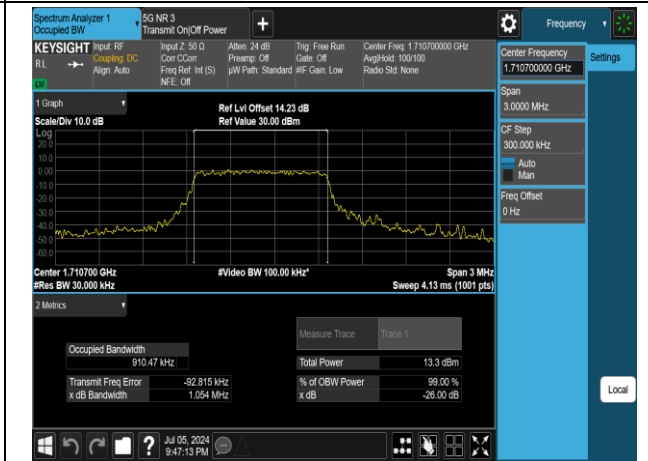
LTE Band 4					
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
1.4 MHz	QPSK	OBW	1.0825	1.0874	1.0855
		26dB bandwidth	1.255	1.221	1.231
	16QAM	OBW	0.91047	0.91332	0.91408
		26dB bandwidth	1.054	1.052	1.062
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0871	1.0850	1.0880
		26dB bandwidth	1.234	1.233	1.212
	16QAM	OBW	0.90776	0.90586	0.90666
		26dB bandwidth	1.030	1.020	1.072
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0732	1.0816	1.0828
		26dB bandwidth	1.240	1.250	1.229
	16QAM	OBW	0.91657	0.90473	0.90774
		26dB bandwidth	1.073	1.065	1.054
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0812	1.089	1.0829
		26dB bandwidth	1.223	1.273	1.225
	16QAM	OBW	0.91194	0.91041	0.91173
		26dB bandwidth	1.067	1.079	1.085
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
15.0 MHz	QPSK	OBW	1.0853	1.0875	1.0783
		26dB bandwidth	1.231	1.251	1.229
	16QAM	OBW	0.91478	0.90971	0.90921
		26dB bandwidth	1.058	1.072	1.050
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
20.0 MHz	QPSK	OBW	1.0836	1.0867	1.0760
		26dB bandwidth	1.220	1.214	1.221
	16QAM	OBW	0.90922	0.90787	0.91205
		26dB bandwidth	1.069	1.107	1.107

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

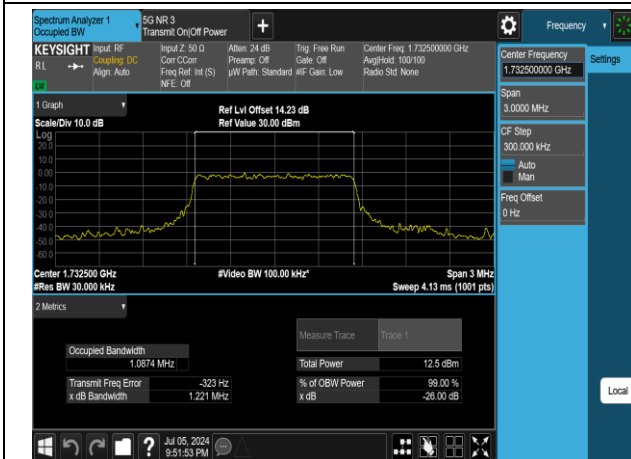
QPSK Low channel



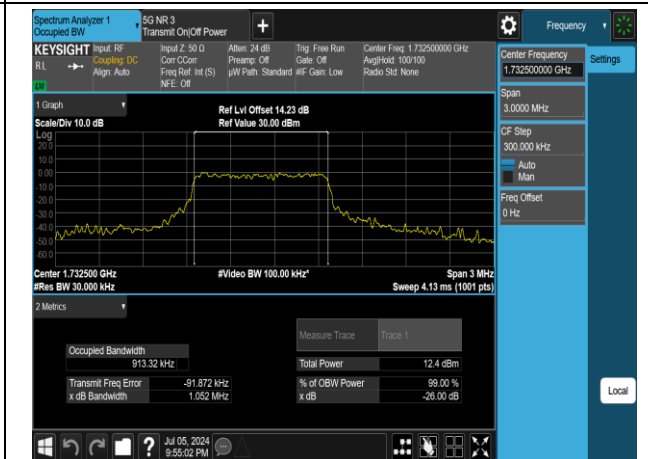
16QAM Low channel



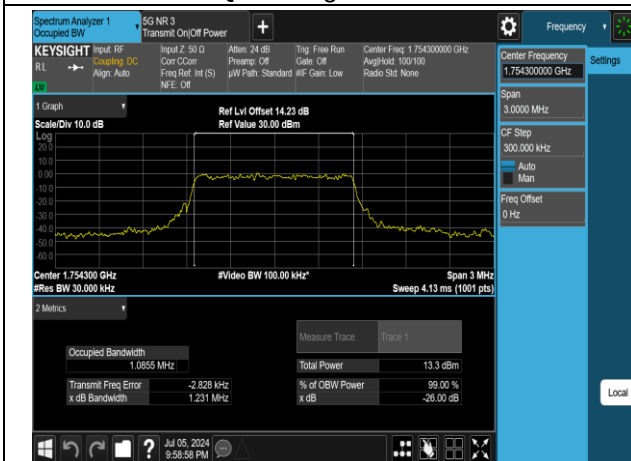
QPSK Middle channel



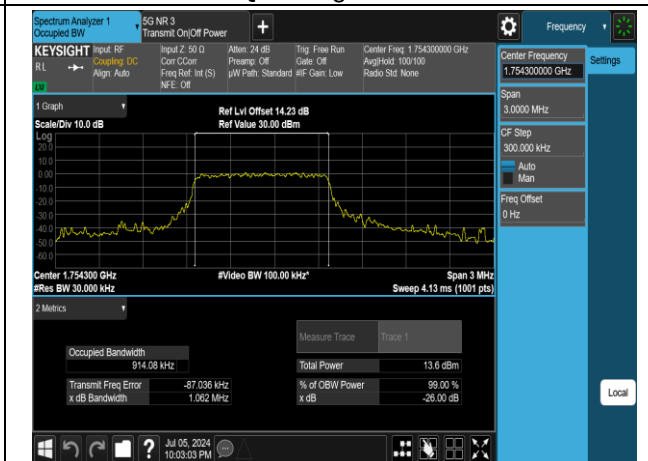
16QAM Middle channel



QPSK High channel

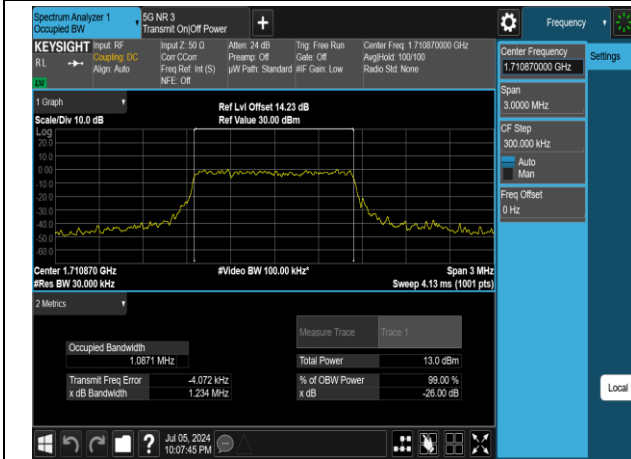


16QAM High channel

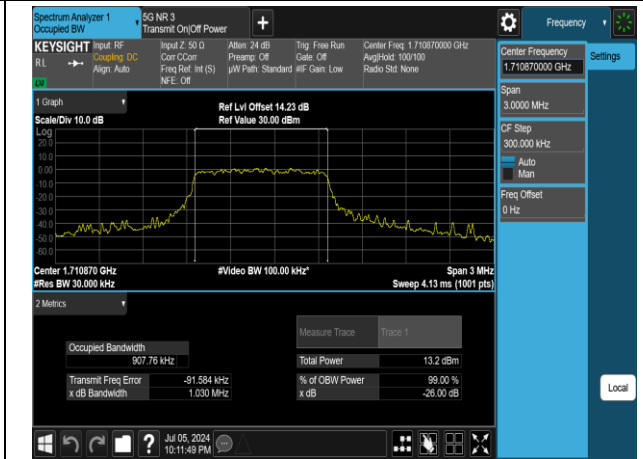


LTE Band 4, Nominal Bandwidth: 3.0MHz, OBW & 26dB Bandwidth

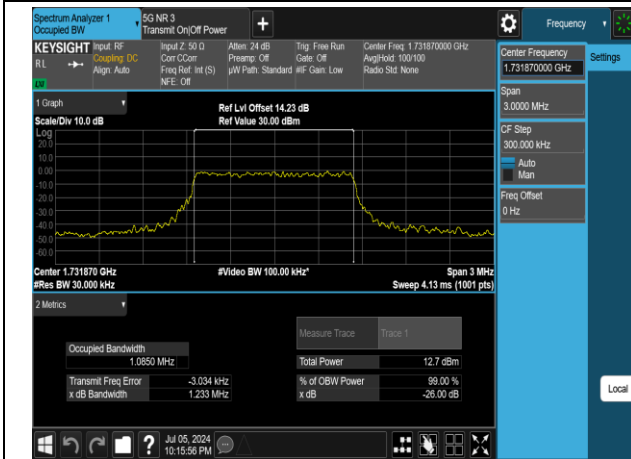
QPSK Low channel



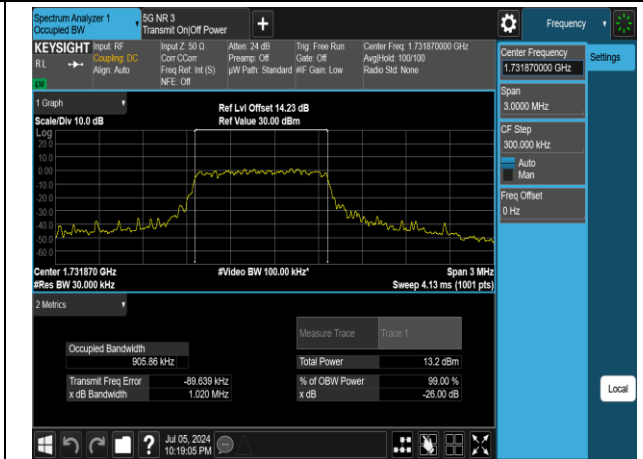
16QAM Low channel



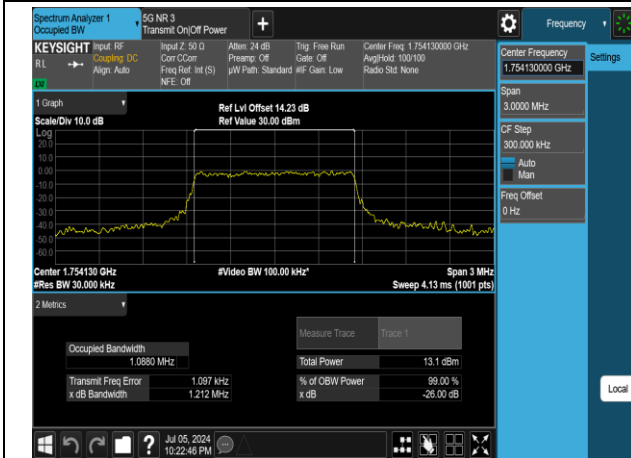
QPSK Middle channel



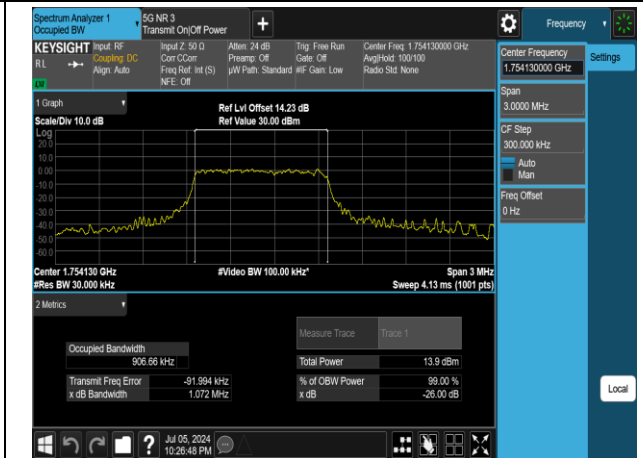
16QAM Middle channel



QPSK High channel

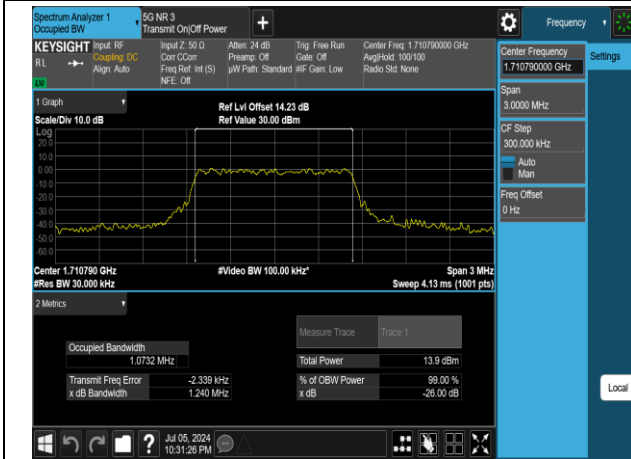


16QAM High channel

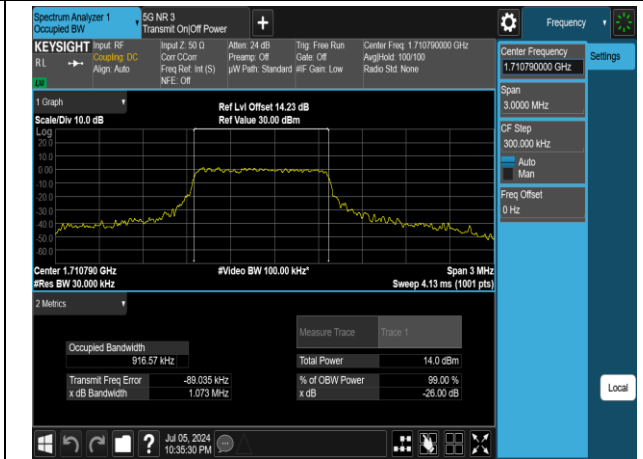


LTE Band 4, Nominal Bandwidth: 5MHz, OBW & 26dB Bandwidth

QPSK Low channel



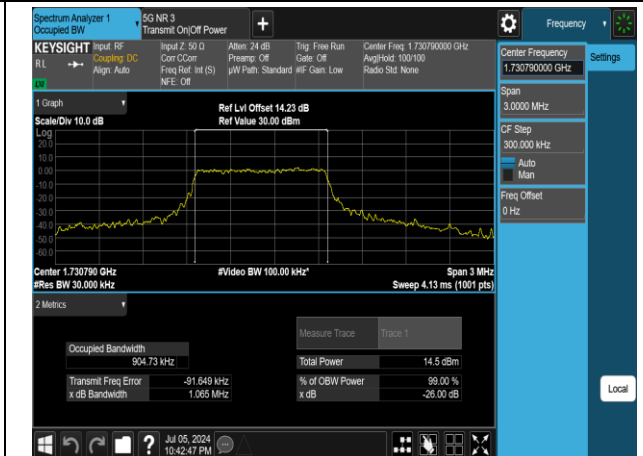
16QAM Low channel



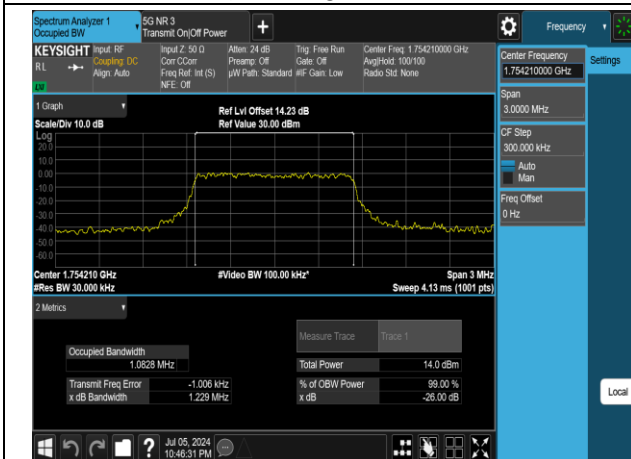
QPSK Middle channel



16QAM Middle channel



QPSK High channel

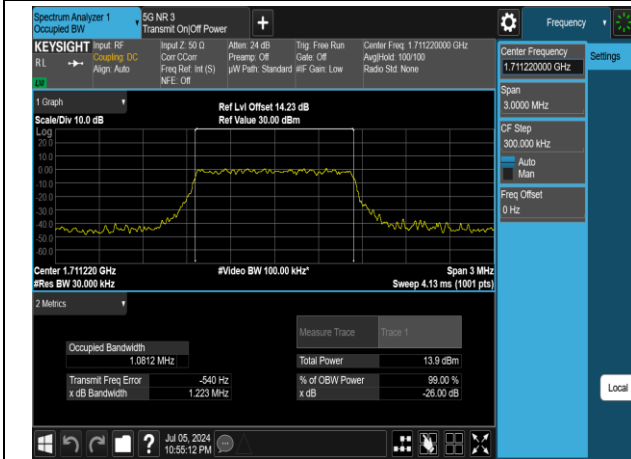


16QAM High channel



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

QPSK Low channel



16QAM Low channel



QPSK Middle channel



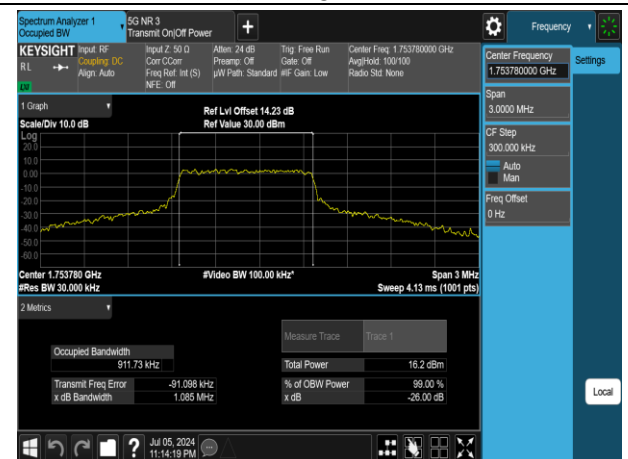
16QAM Middle channel



QPSK High channel

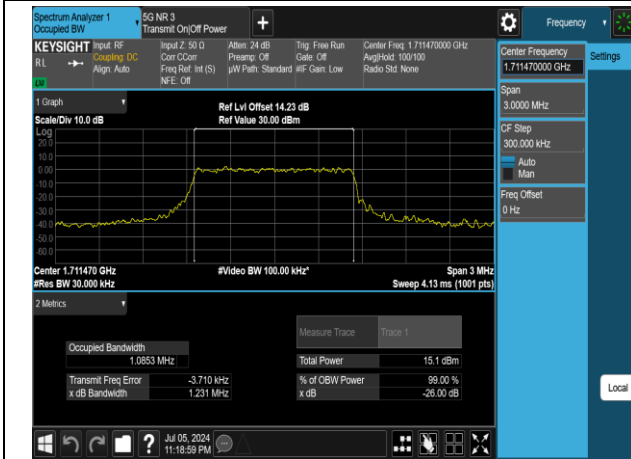


16QAM High channel

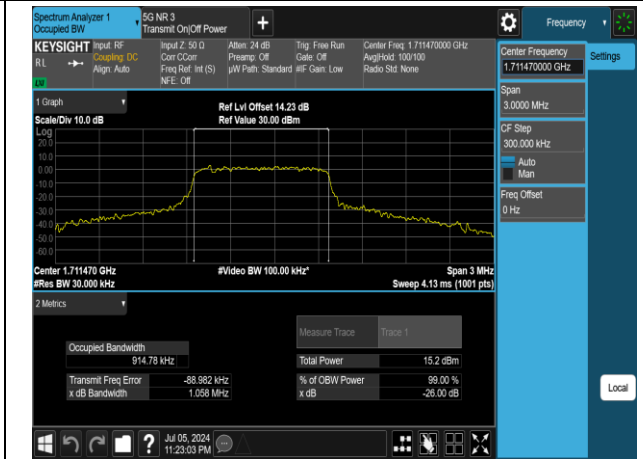


LTE Band 4, Nominal Bandwidth: 15MHz, OBW & 26dB Bandwidth

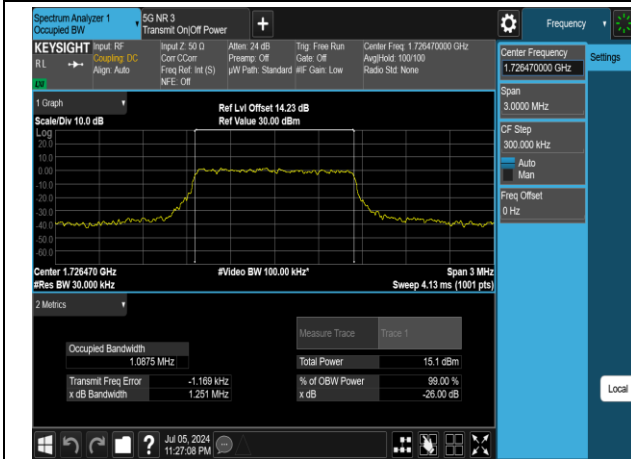
QPSK Low channel



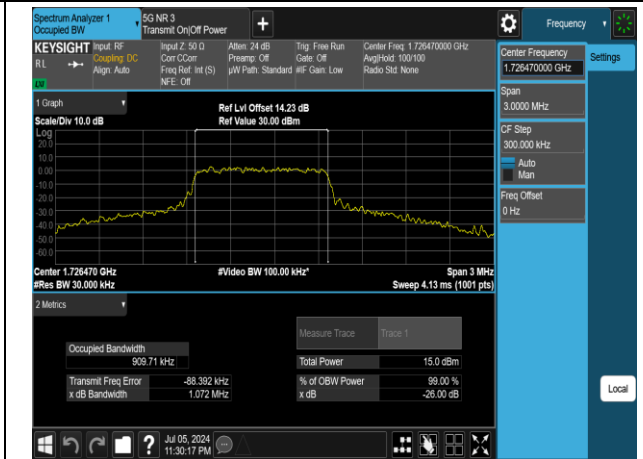
16QAM Low channel



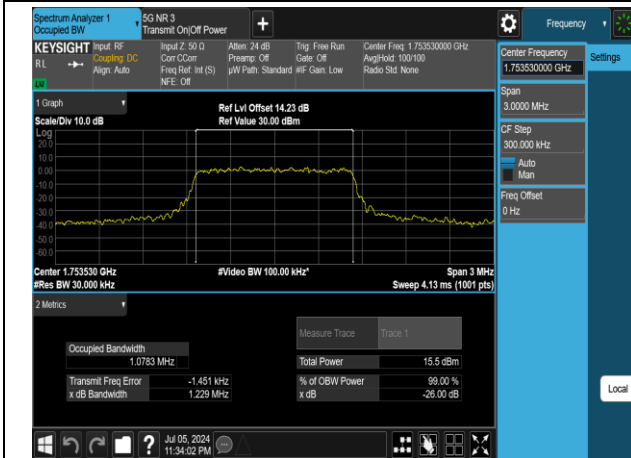
QPSK Middle channel



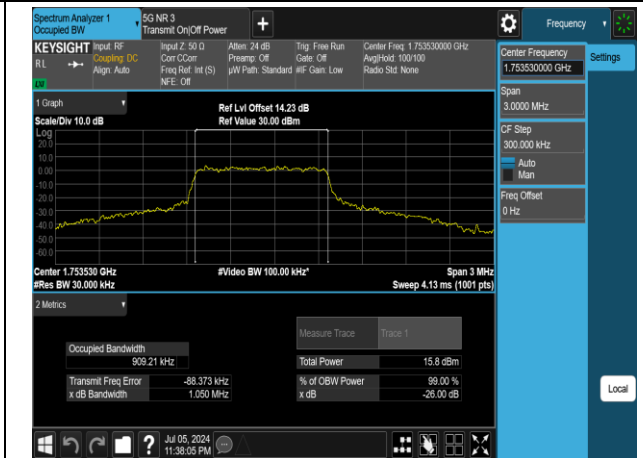
16QAM Middle channel



QPSK High channel

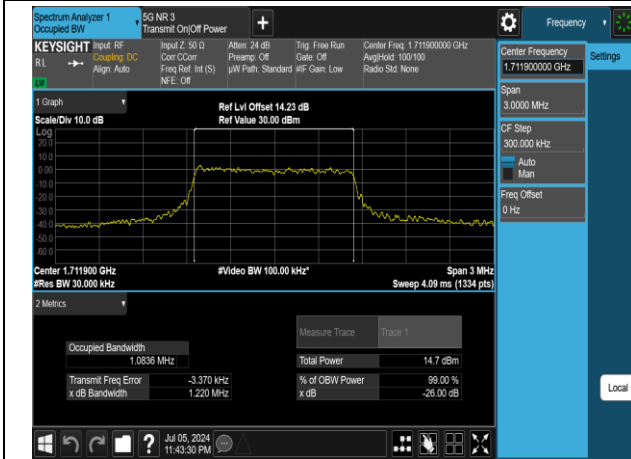


16QAM High channel

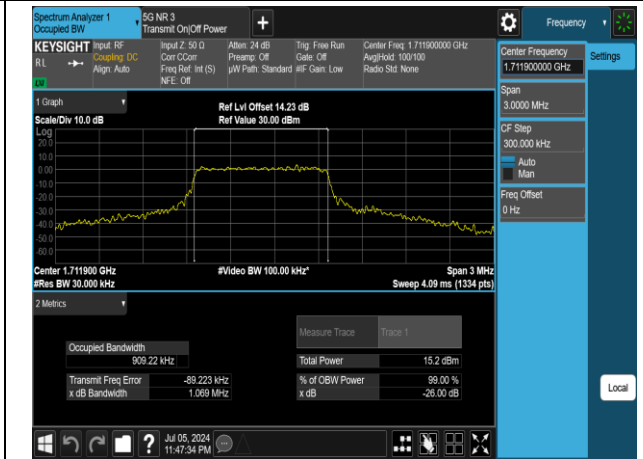


LTE Band 4, Nominal Bandwidth: 20MHz, OBW & 26dB Bandwidth

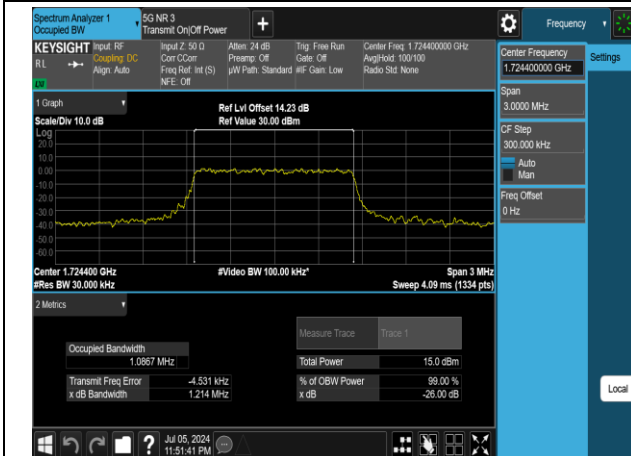
QPSK Low channel



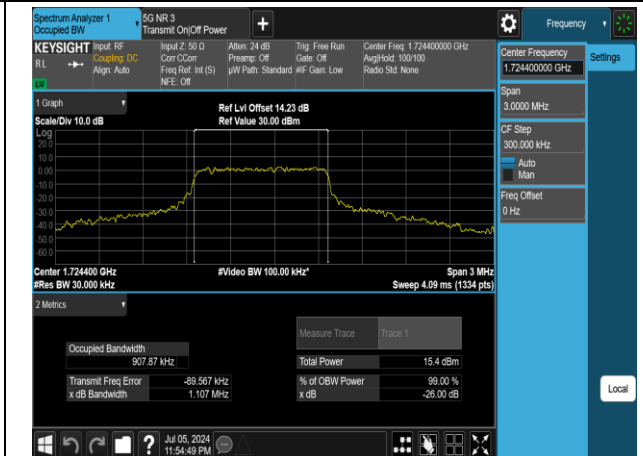
16QAM Low channel



QPSK Middle channel



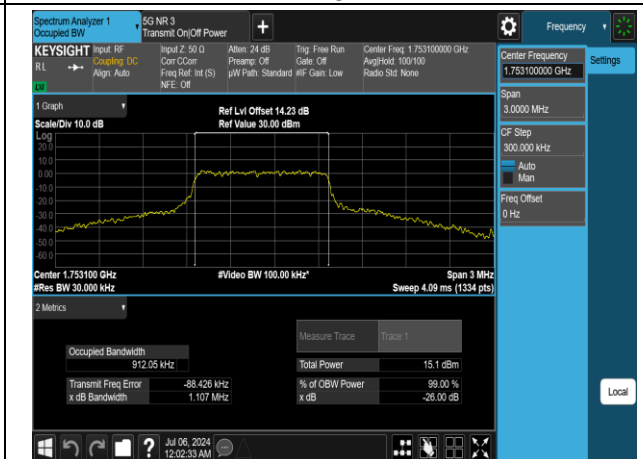
16QAM Middle channel



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	1.0856	1.0852	1.0874
		26dB bandwidth	1.225	1.254	1.230
	16QAM	OBW	0.91395	0.90881	0.91120
		26dB bandwidth	1.070	1.069	1.096
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
3.0 MHz	QPSK	OBW	1.0850	1.0836	1.0868
		26dB bandwidth	1.213	1.233	1.202
	16QAM	OBW	0.90974	0.91183	0.91022
		26dB bandwidth	1.039	1.061	1.058
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
5.0 MHz	QPSK	OBW	1.0793	1.0873	1.0807
		26dB bandwidth	1.248	1.269	1.203
	16QAM	OBW	0.91226	0.91316	0.91105
		26dB bandwidth	1.053	1.076	1.097
Nominal Bandwidth	Modulation	Test Item	Test result(MHz)		
			LCH	MCH	HCH
10.0 MHz	QPSK	OBW	1.0783	1.0870	1.0863
		26dB bandwidth	1.226	1.261	1.238
	16QAM	OBW	0.90929	0.91346	0.91233
		26dB bandwidth	1.093	1.0971	1.123