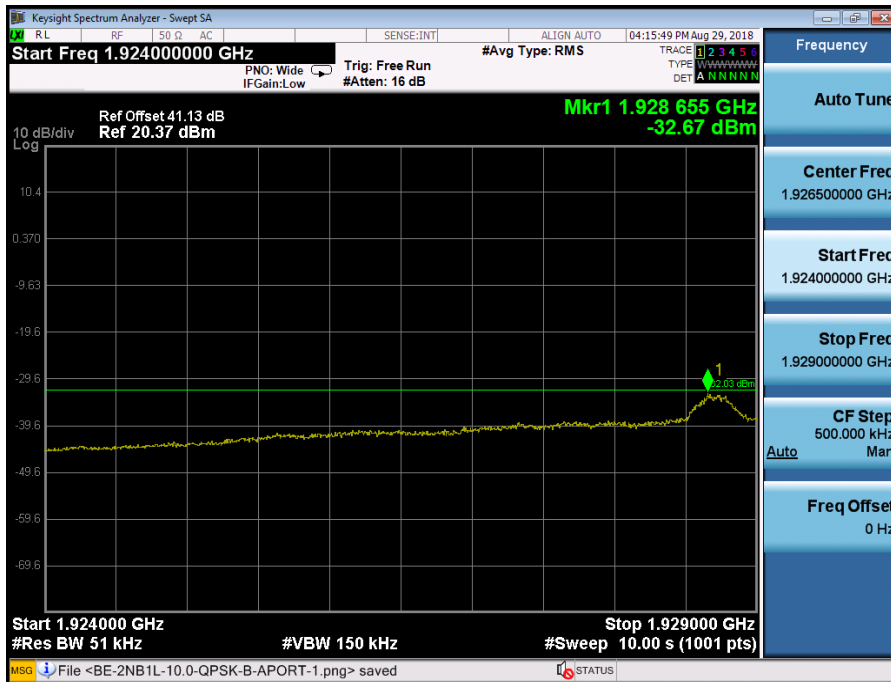
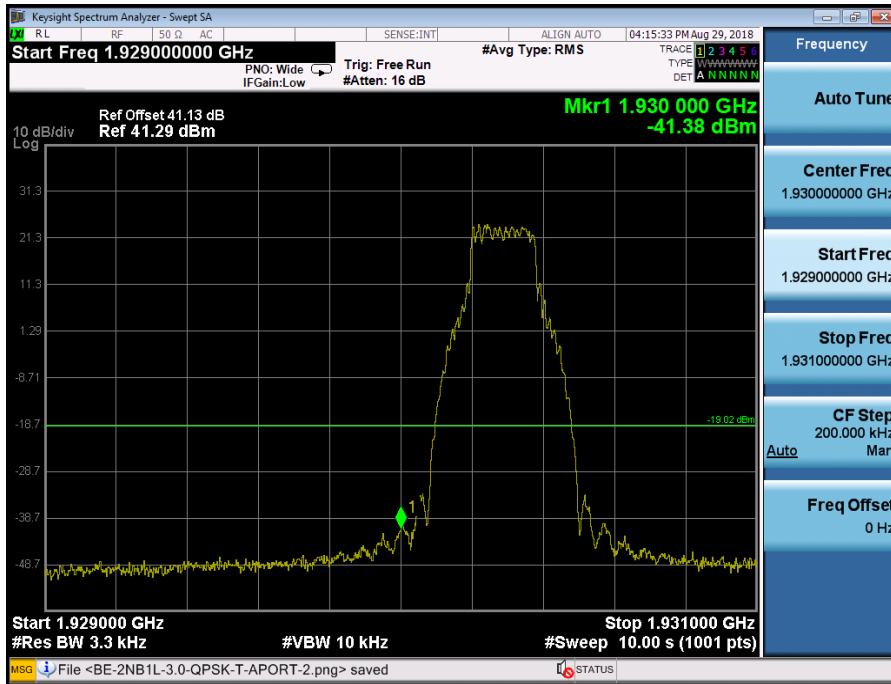
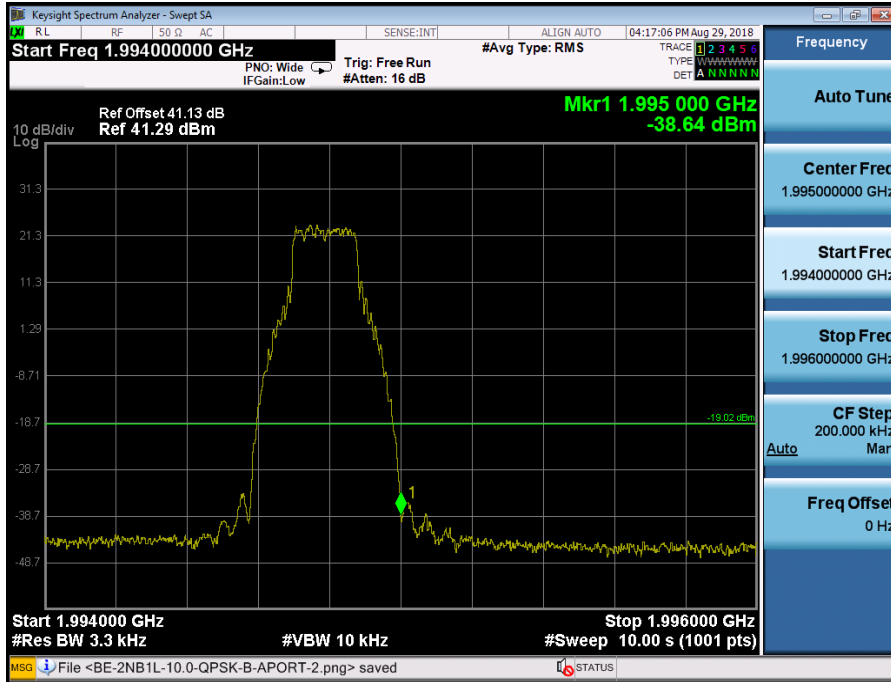


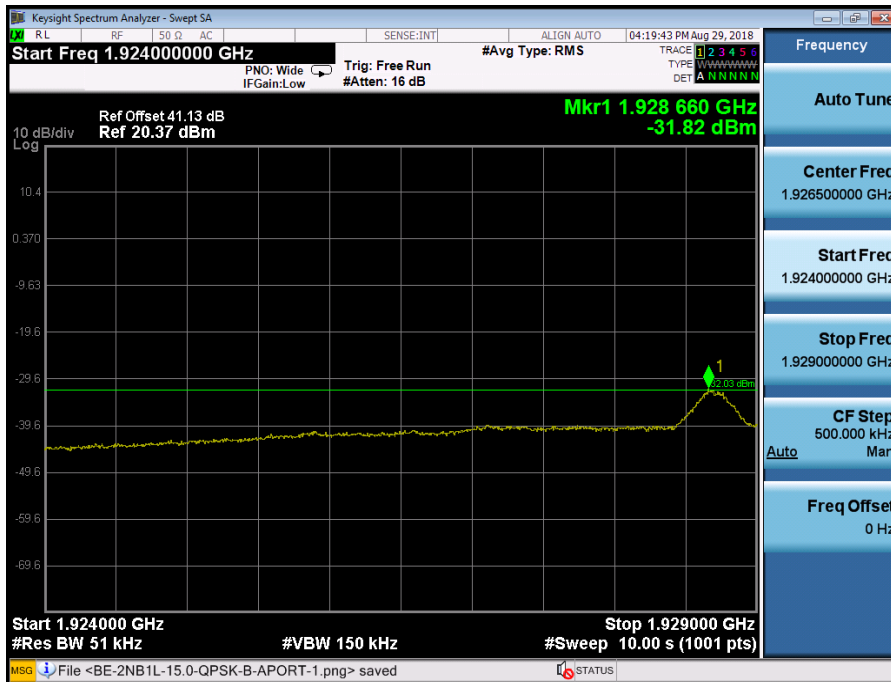
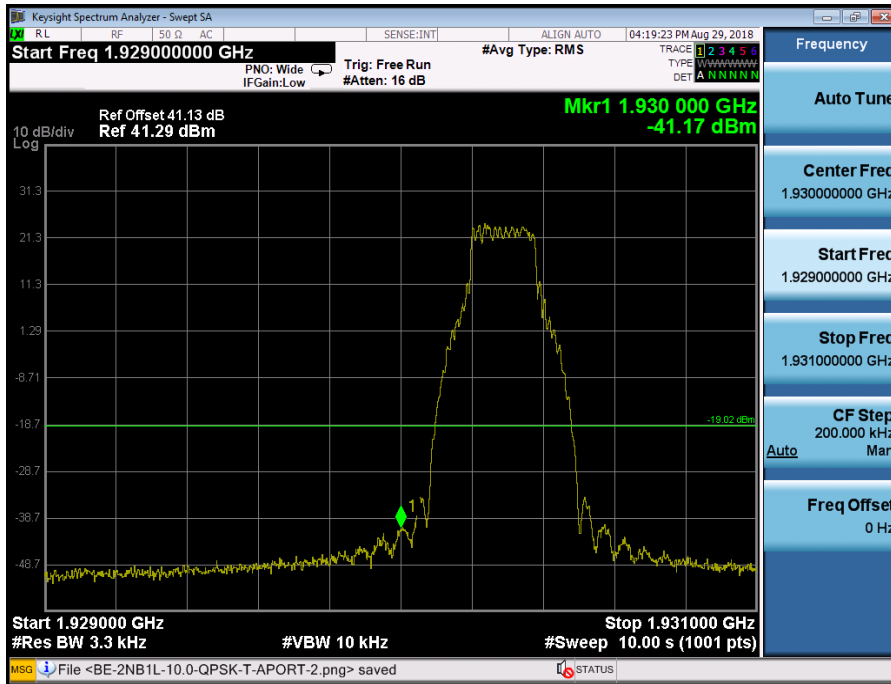
Port B, Channel Position B, LTE 10.0MHz



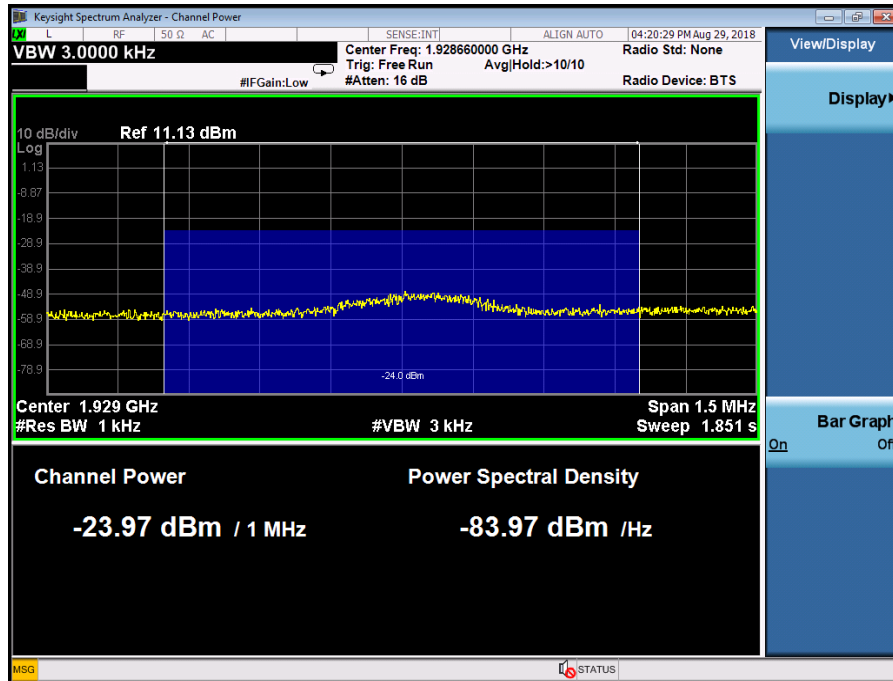
Port B, Channel Position T, LTE 10.0MHz



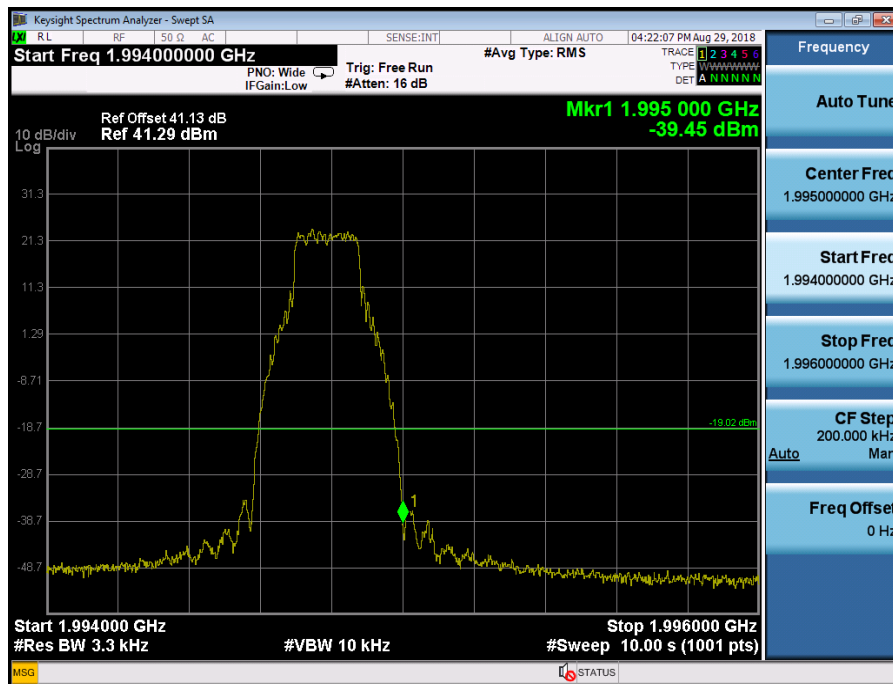
Port B, Channel Position B, LTE 15.0MHz



The channel power of 1MHz for 1928.660MHz is -23.97dBm, which is within the limit of-19.02dBm

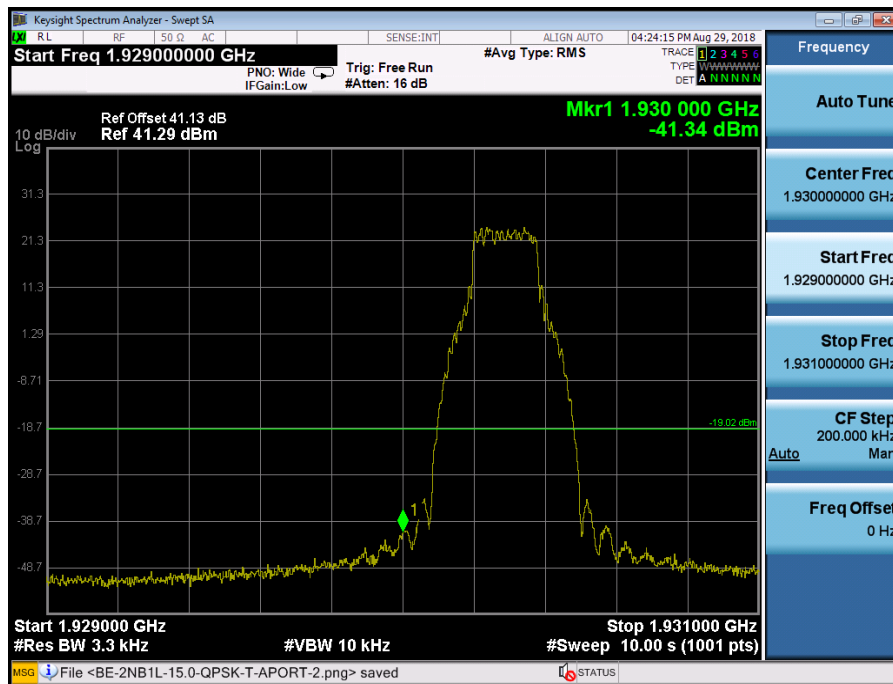


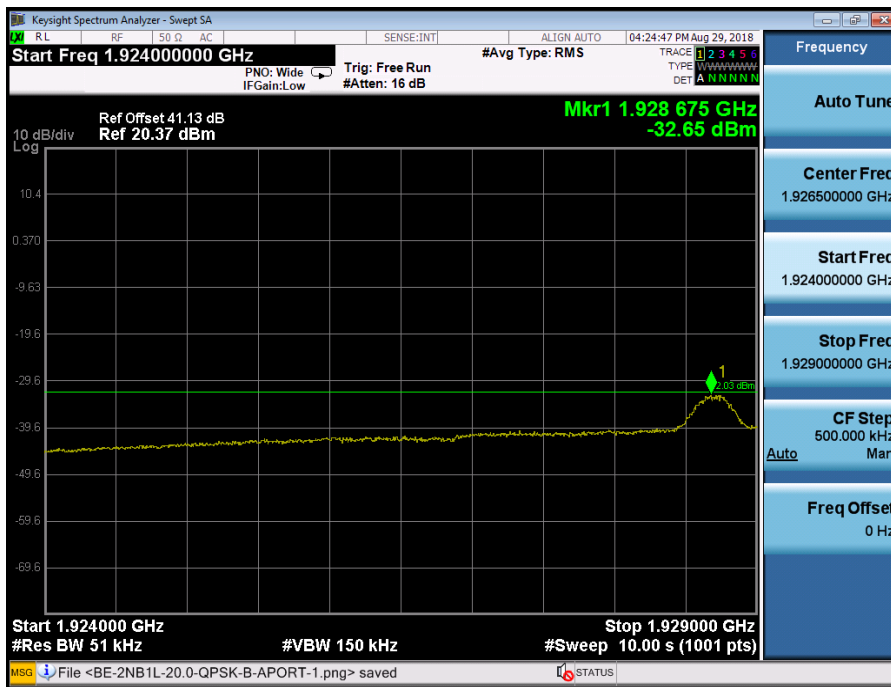
Port B, Channel Position T, LTE 15.0MHz



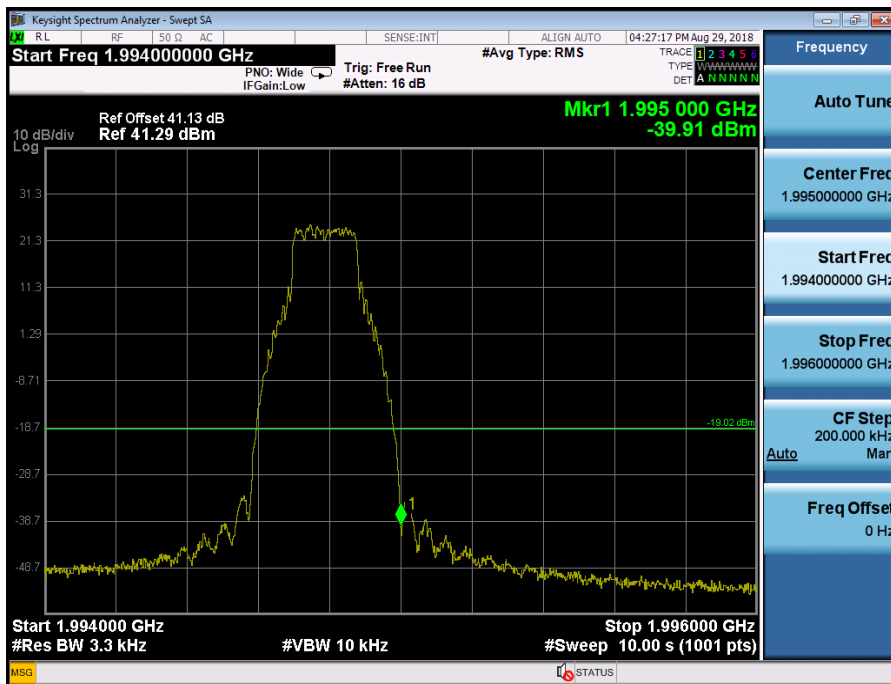


Port B, Channel Position B, LTE 20.0MHz



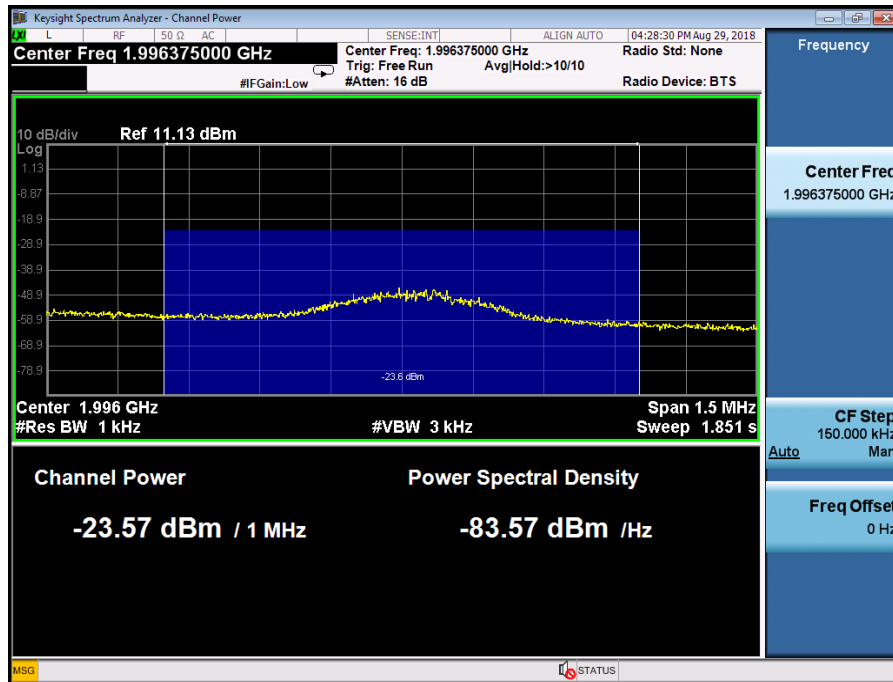


Port B, Channel Position T, LTE 20.0MHz





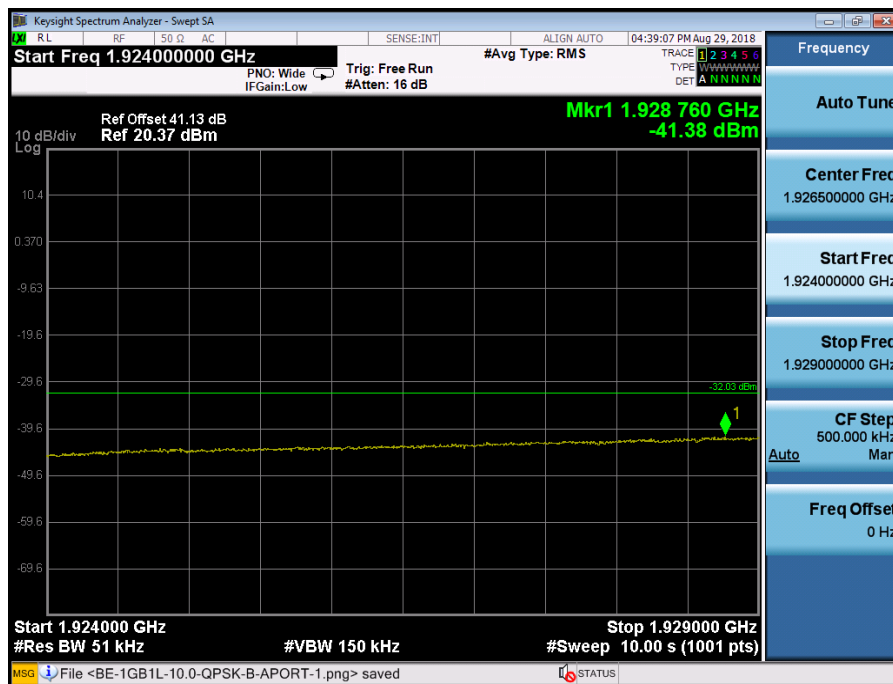
The channel power of 1MHz for 1996.375MHz is -23.57dBm, which is within the limit of-19.02dBm



Configuration NB-IoT-GB+LTE -MIMO-MC-1-BE, (1GB, QPSK +1LTE, QPSK)

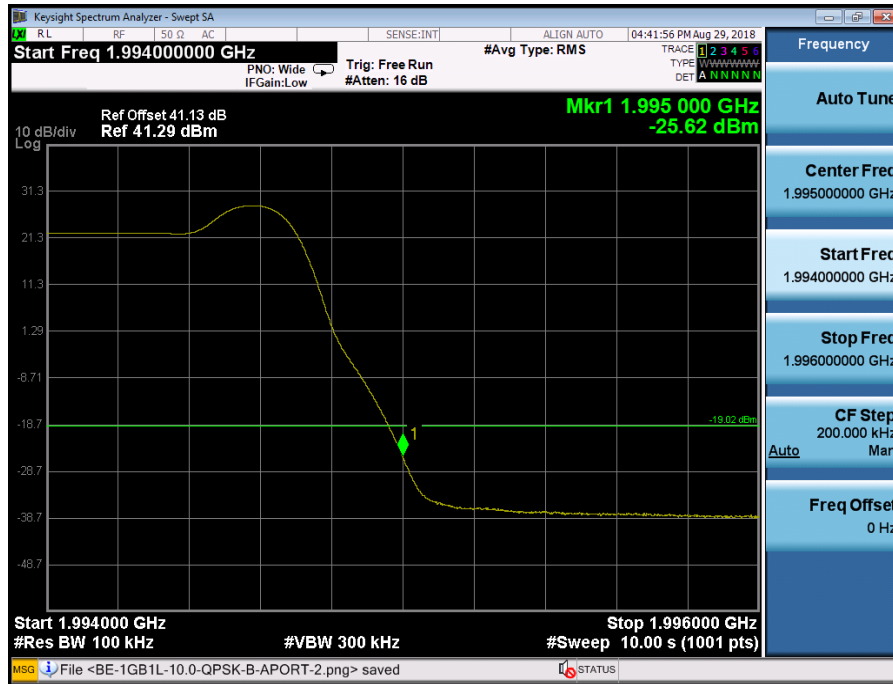
Band Edge Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(GB) 10.0MHz, (L) 10.0MHz	100	-19.02
Channel Position T 1995.0MHz	(GB) 10.0MHz, (L) 10.0MHz	100	-19.02

Port B, Channel Position B





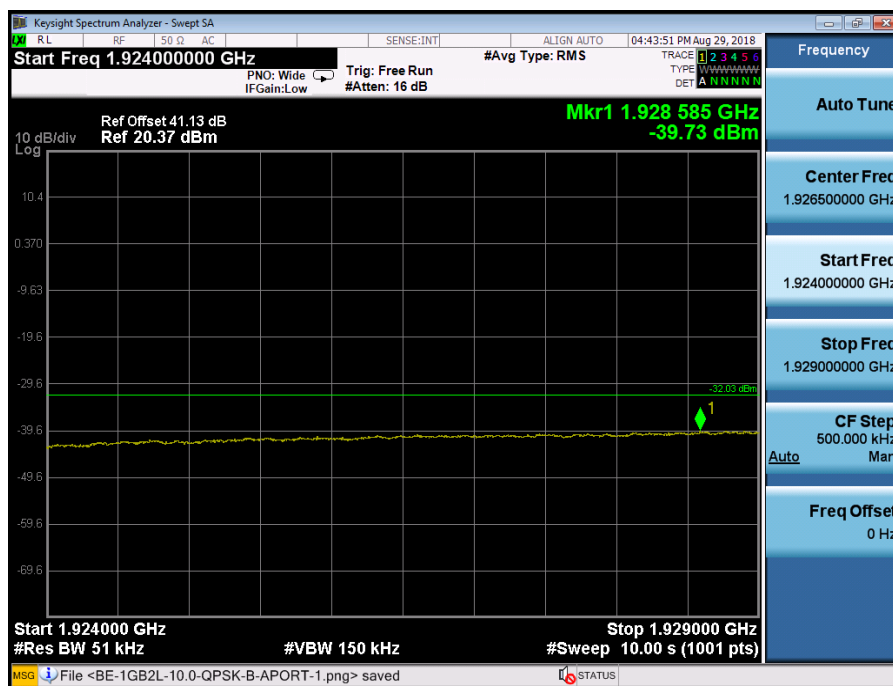
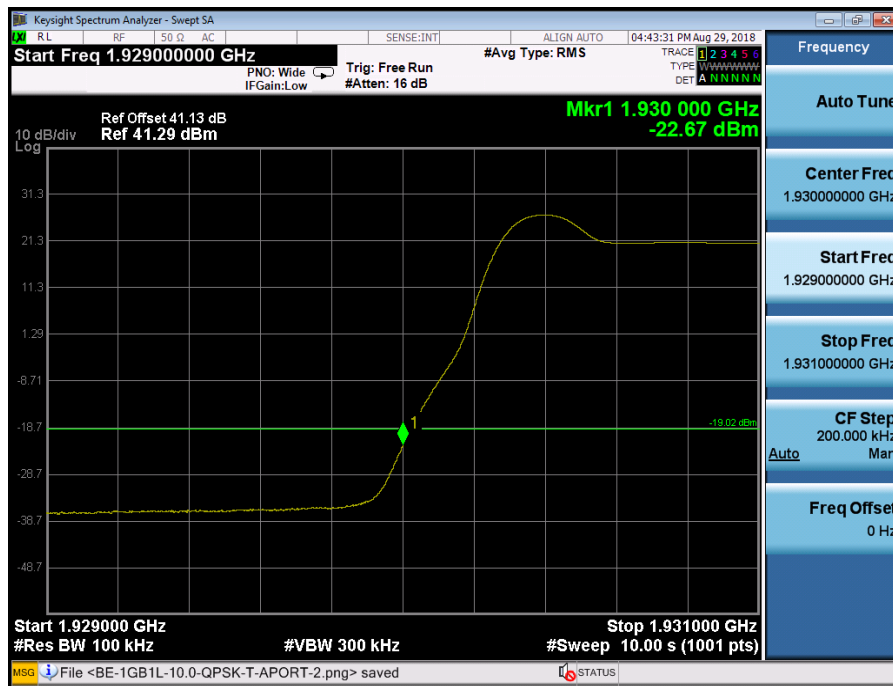
Port B, Channel Position T



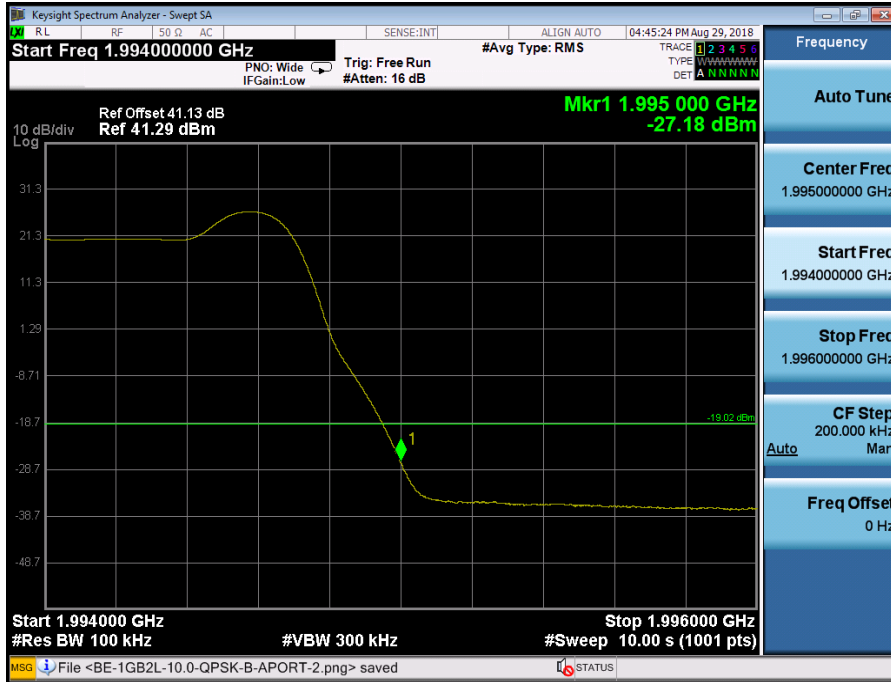
Configuration NB-IoT-GB+LTE-MIMO-MC-2-BE, (1GB, QPSK +2LTE, QPSK)

Band Edge Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(GB) 10.0MHz, (L) 10.0MHz	100	-19.02
Channel Position T 1995.0MHz	(GB) 10.0MHz, (L) 10.0MHz	100	-19.02

Port B, Channel Position B



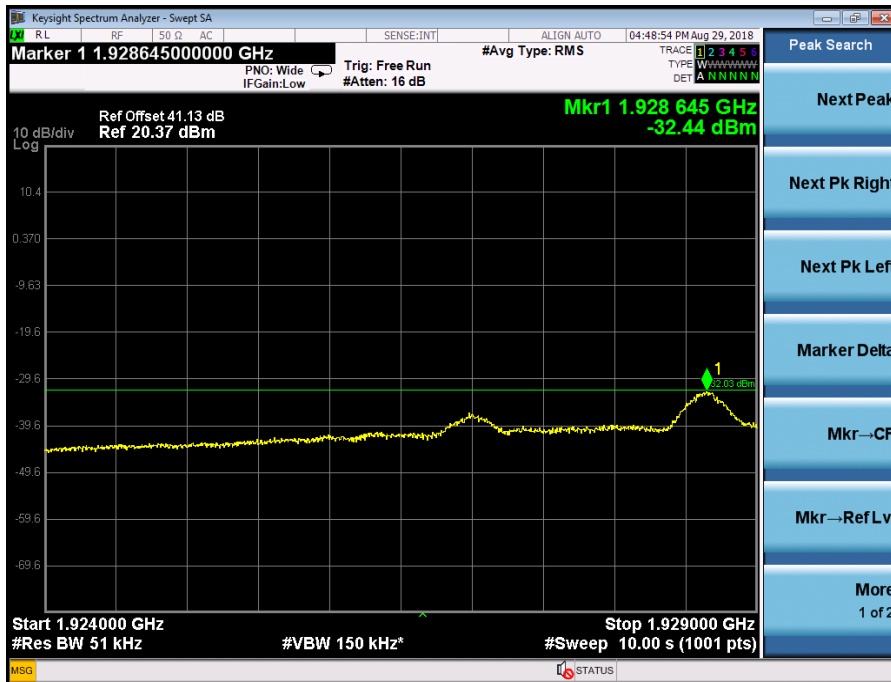
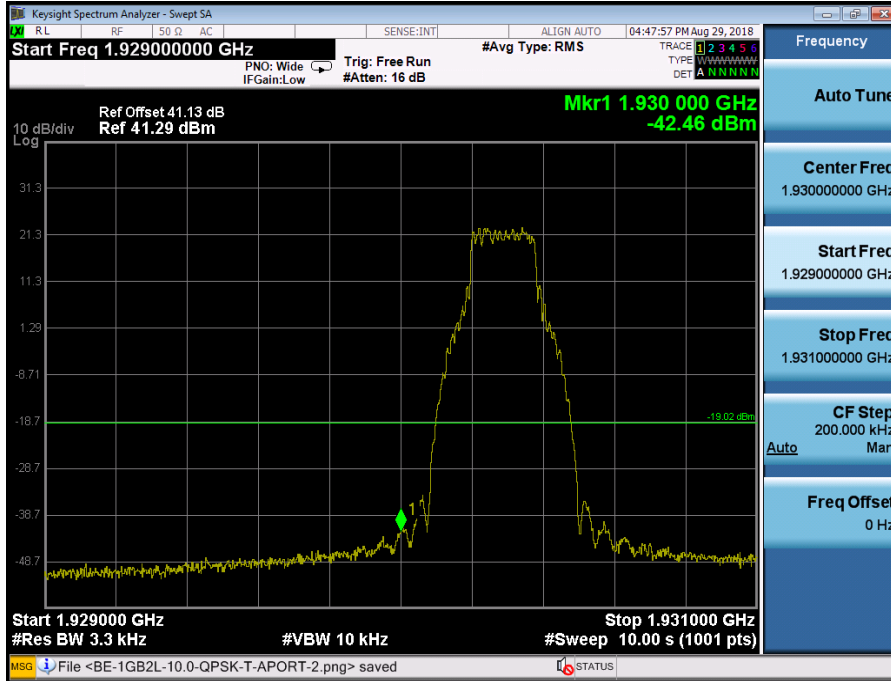
Port B, Channel Position T



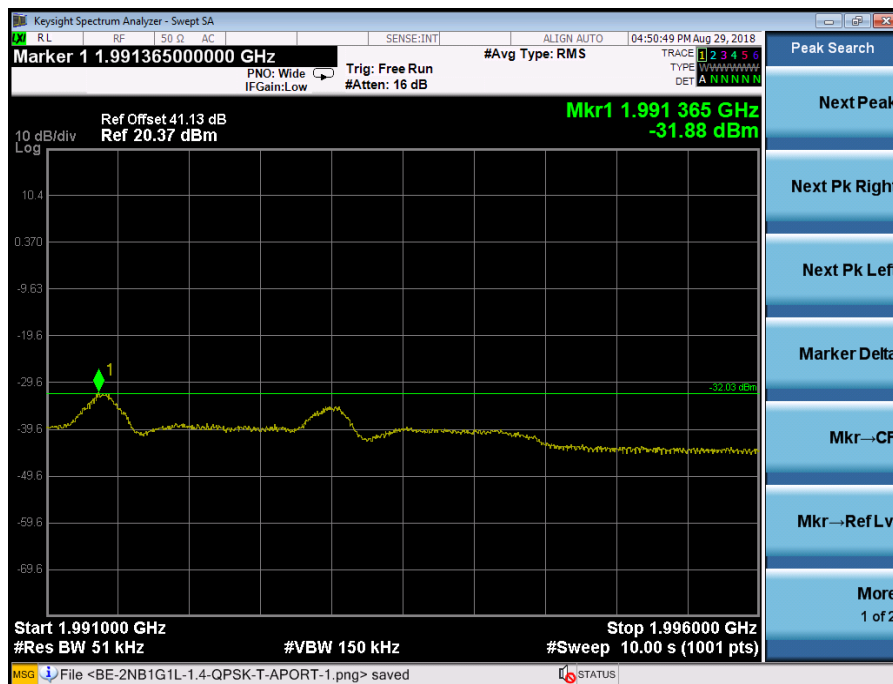
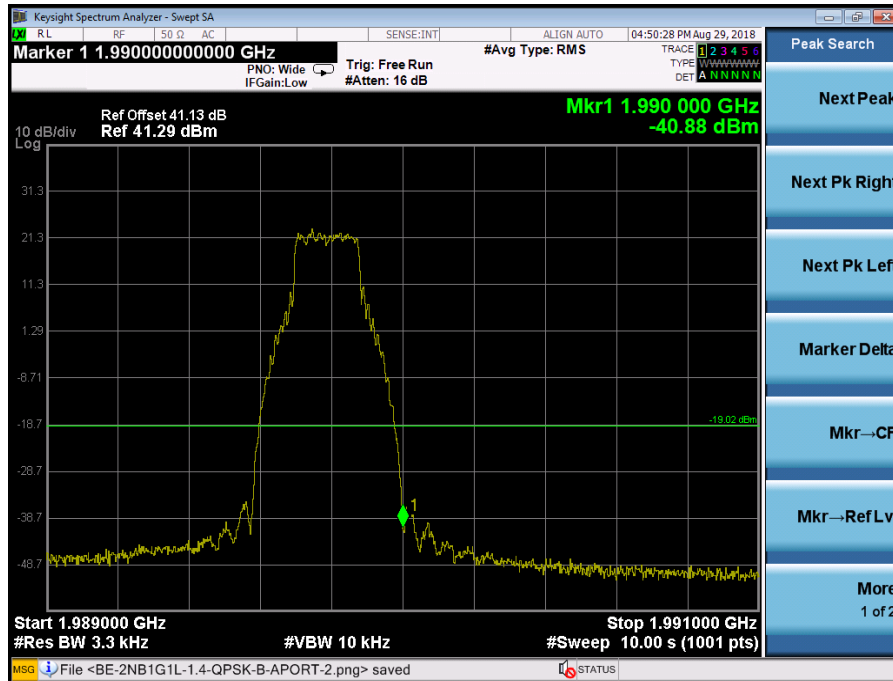
Configuration NB-IoT +GSM+LTE –MIMO-MC-2-BE, (2SA, QPSK +1GSM GMSK +1LTE, QPSK)

Band Edge Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(SA) 250KHz, (G) 250KHz (L) 1.4MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 3.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 5.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 10.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 15.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 20.0MHz	3.3	-19.02
Channel Position T 1990.0MHz	(SA) 250KHz, (G) 250KHz (L) 1.4MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 3.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 5.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 10.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 15.0MHz	3.3	-19.02
	(SA) 250KHz, (G) 250KHz (L) 20.0MHz	3.3	-19.02

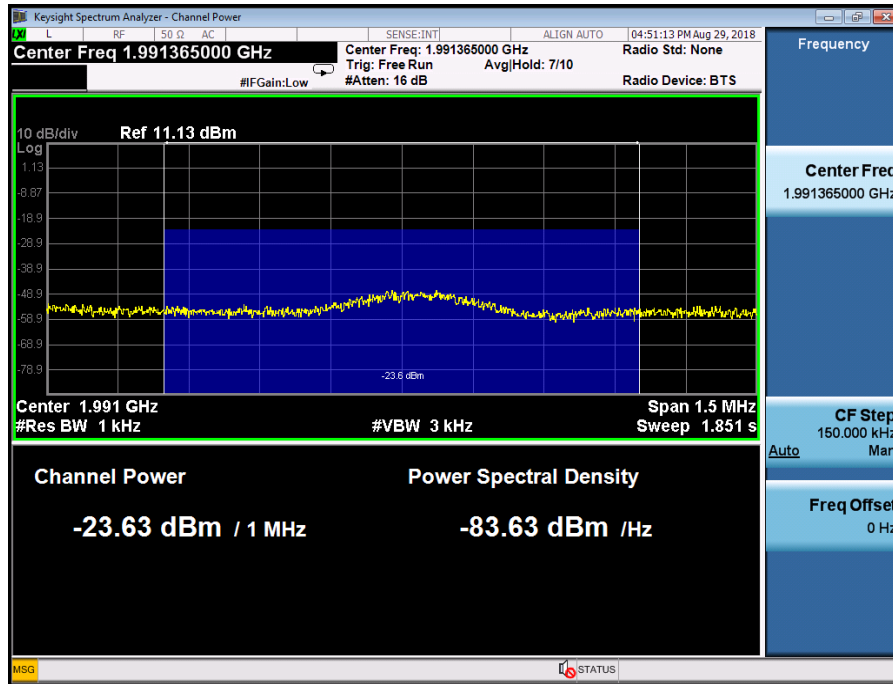
Port B, Channel Position B, LTE 1.4MHz



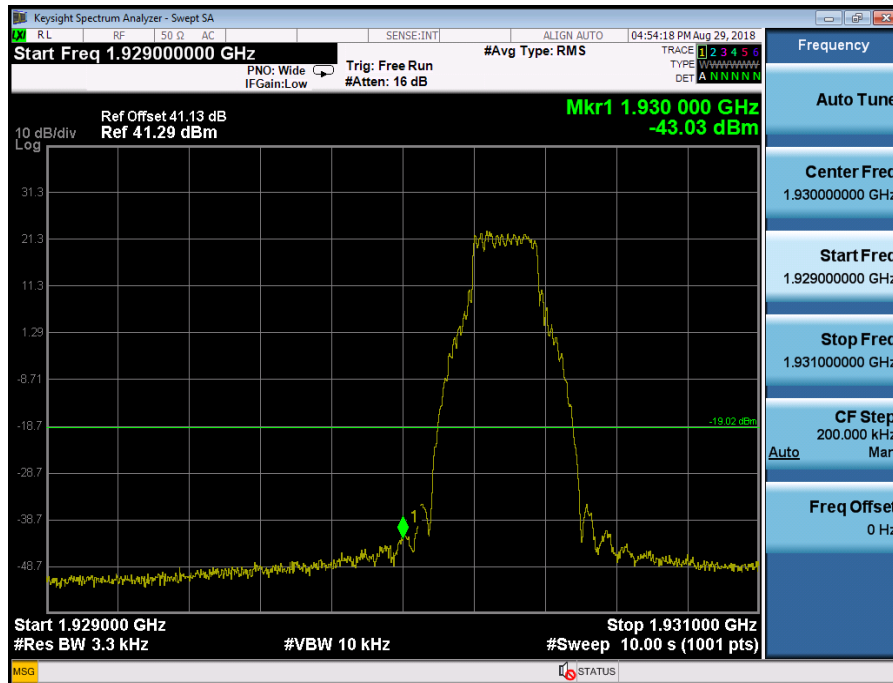
Port B, Channel Position T, LTE 1.4MHz

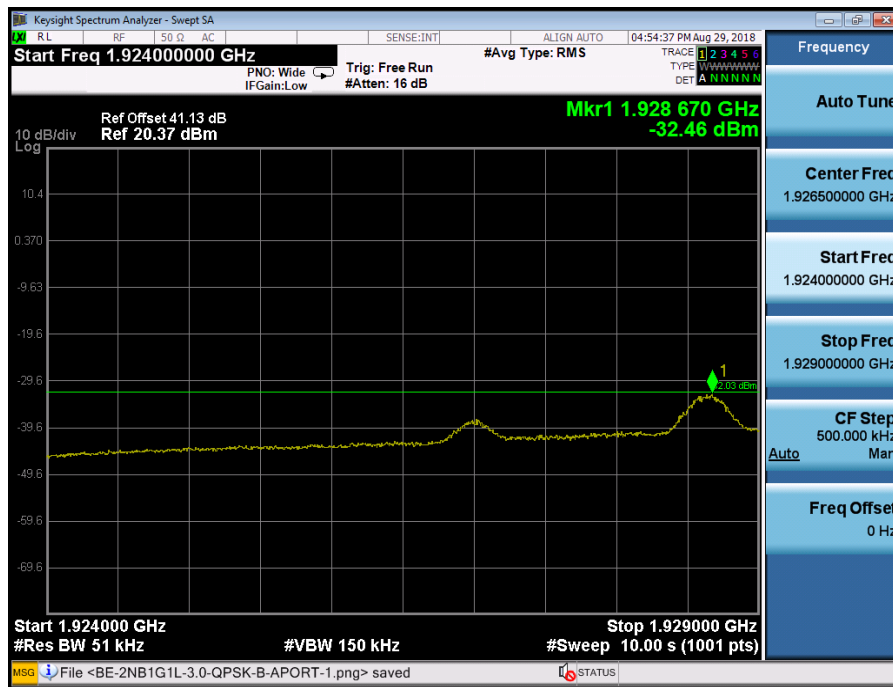


The channel power of 1MHz for 1991.365MHz is -23.63dBm, which is within the limit of-19.02dBm

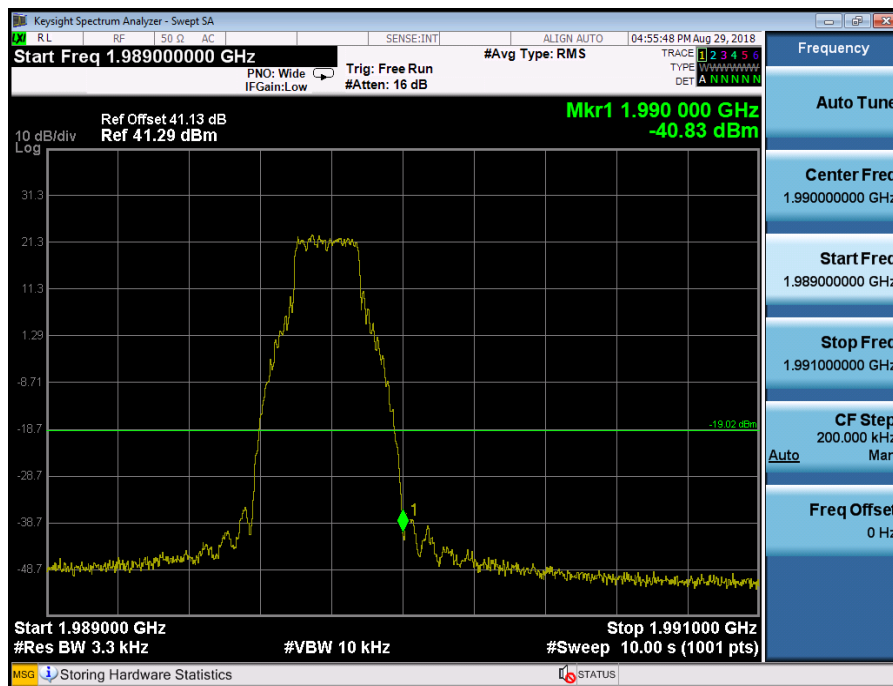


Port B, Channel Position B, LTE 3.0MHz





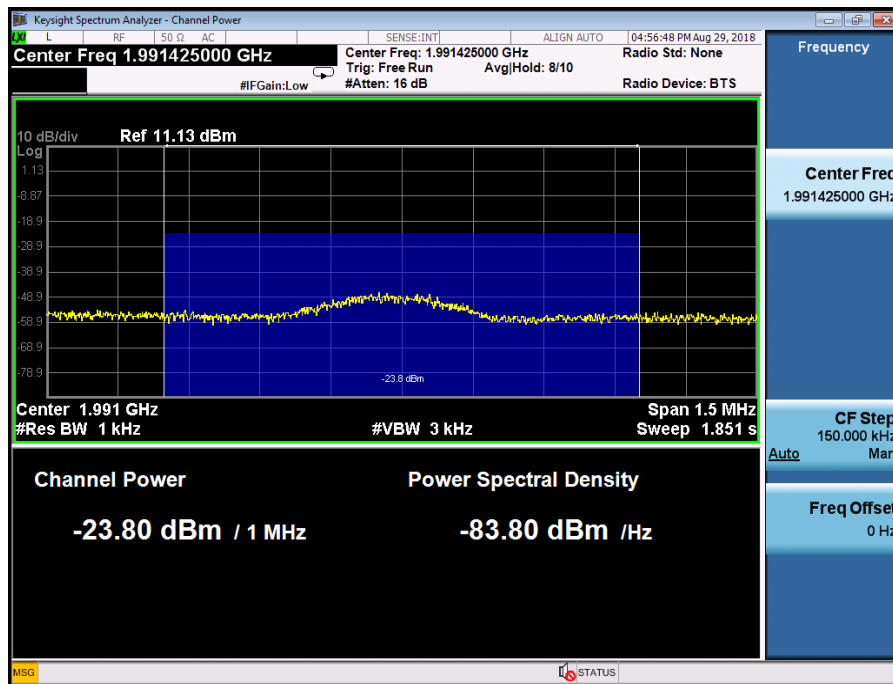
Port B, Channel Position T, LTE 3.0MHz



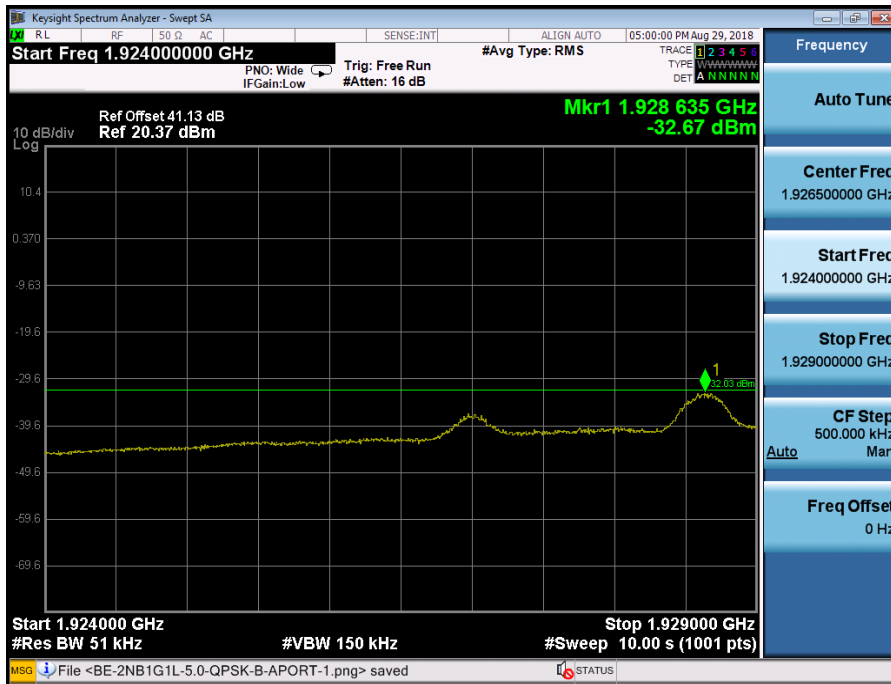
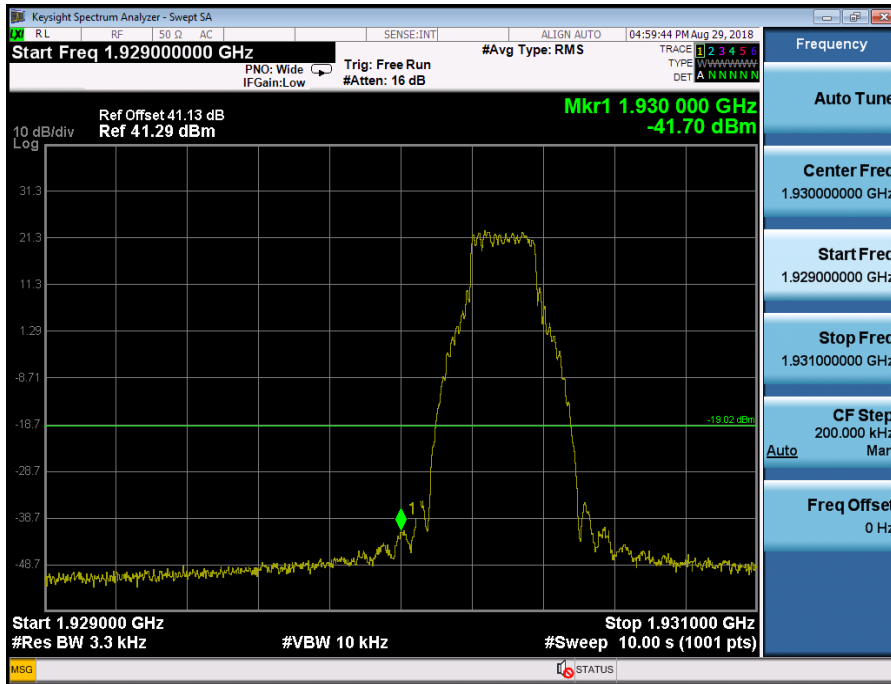




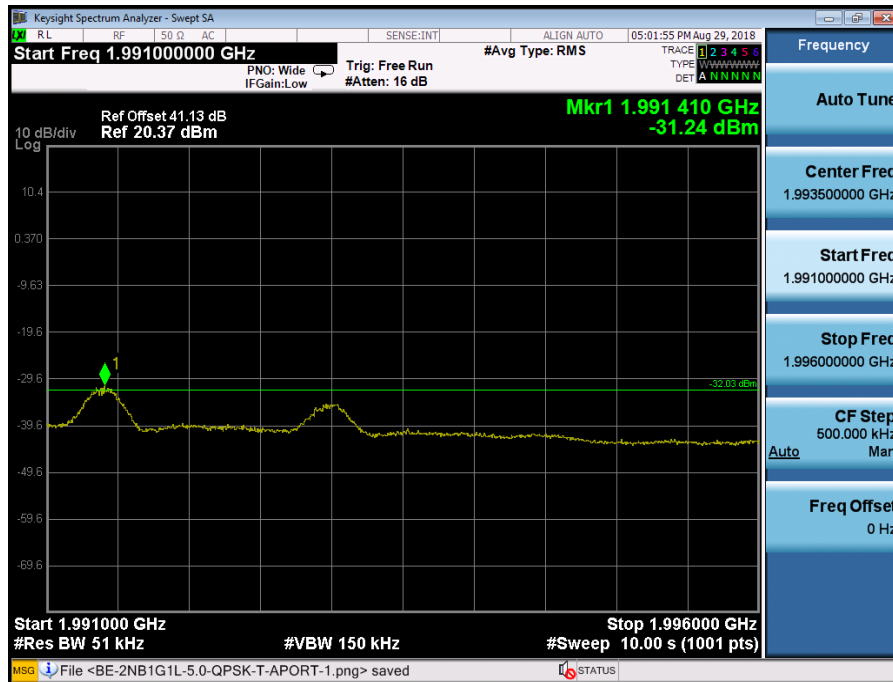
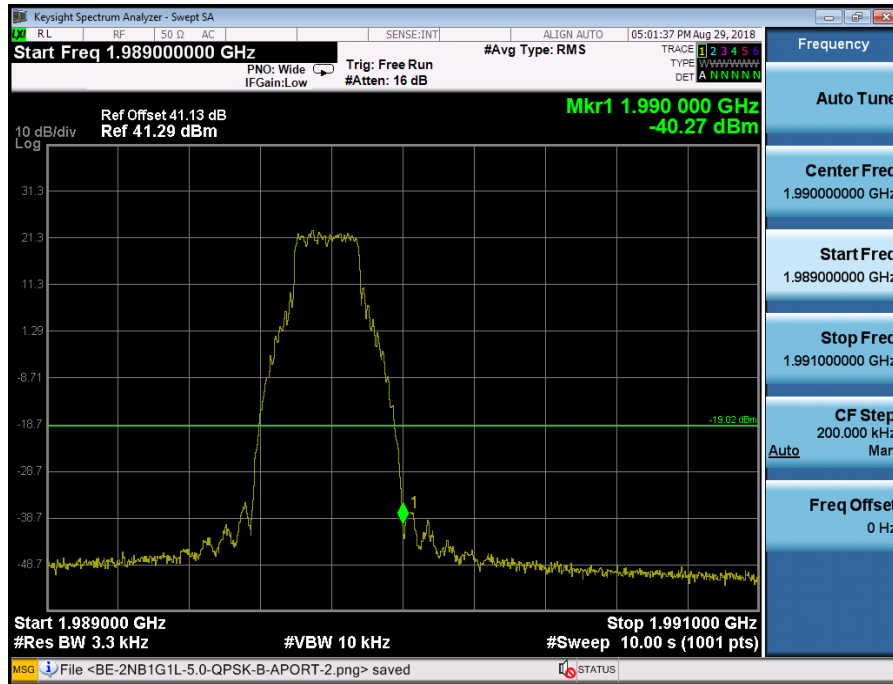
The channel power of 1MHz for 1991.425MHz is -23.80dBm, which is within the limit of-19.02dBm



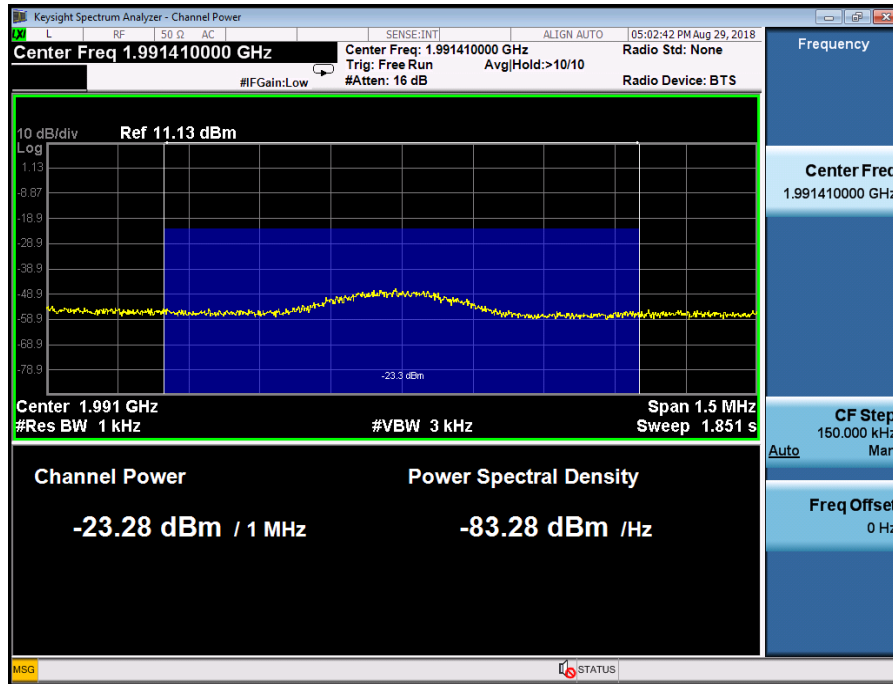
Port B, Channel Position B, LTE 5.0MHz



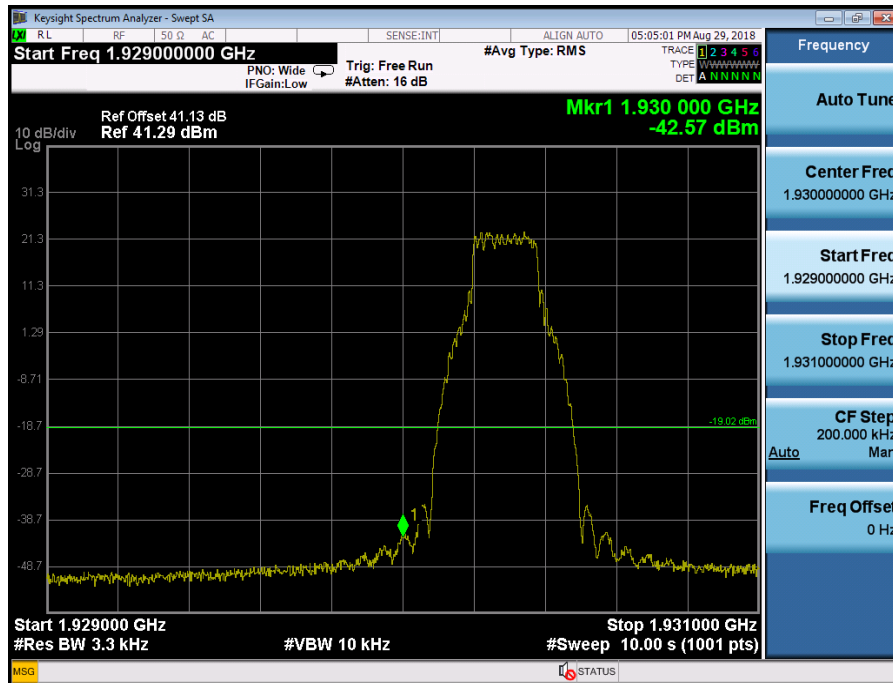
Port B, Channel Position T, LTE 5.0MHz

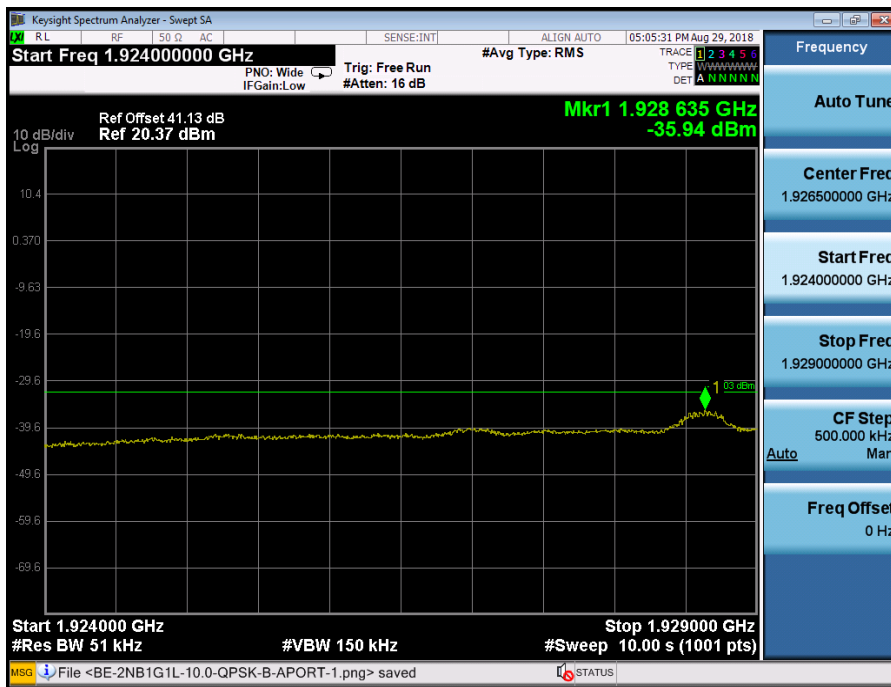


The channel power of 1MHz for 1991.410MHz is -23.28dBm, which is within the limit of-19.02dBm

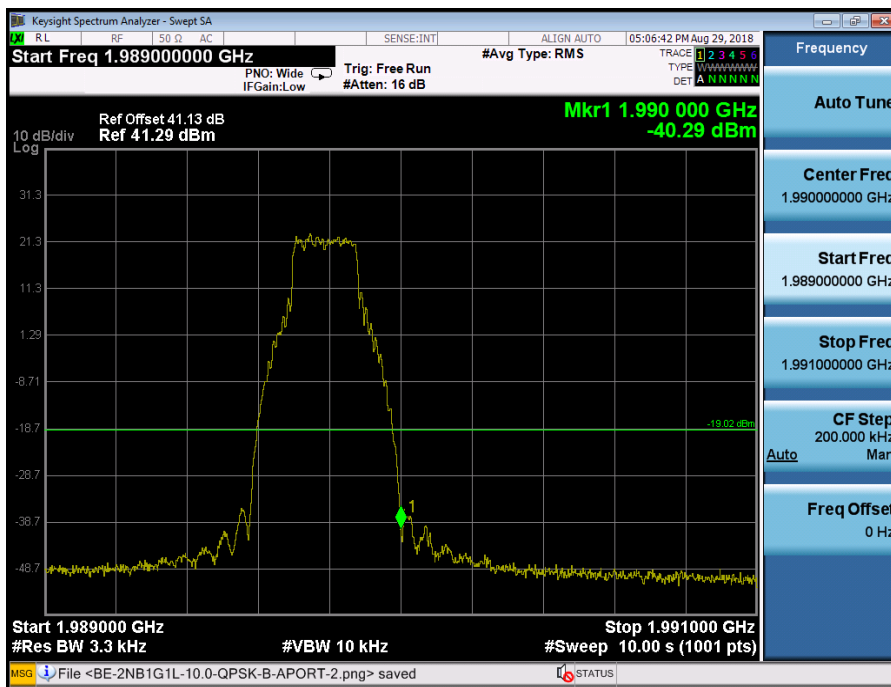


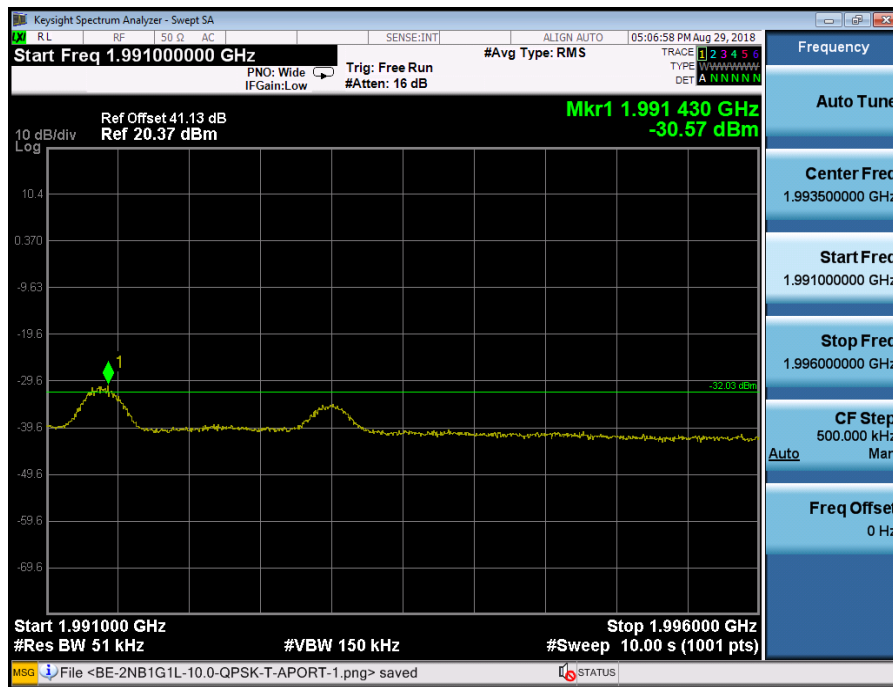
Port B, Channel Position B, LTE 10.0MHz



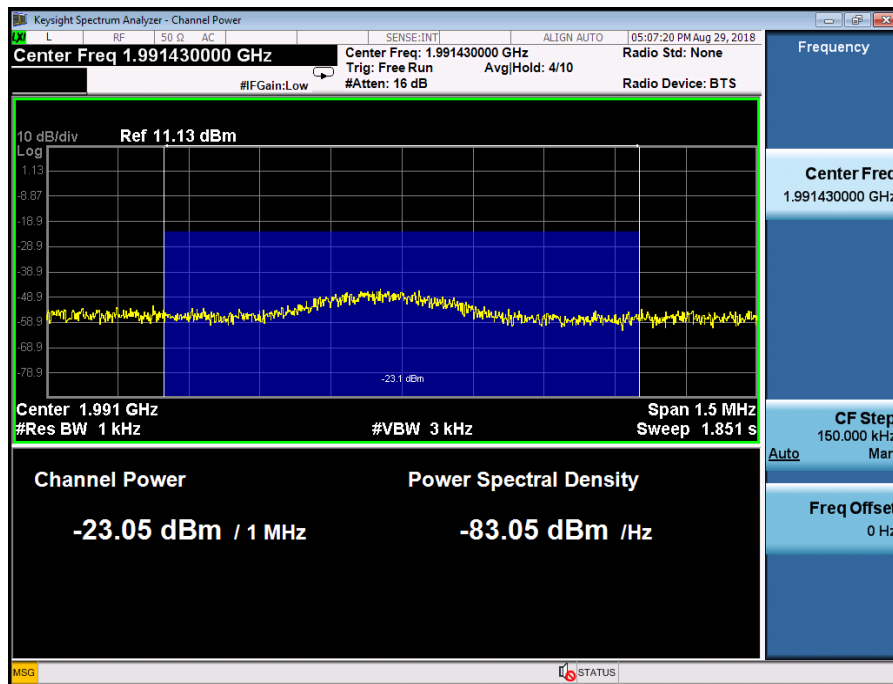


Port B, Channel Position T, LTE 10.0MHz

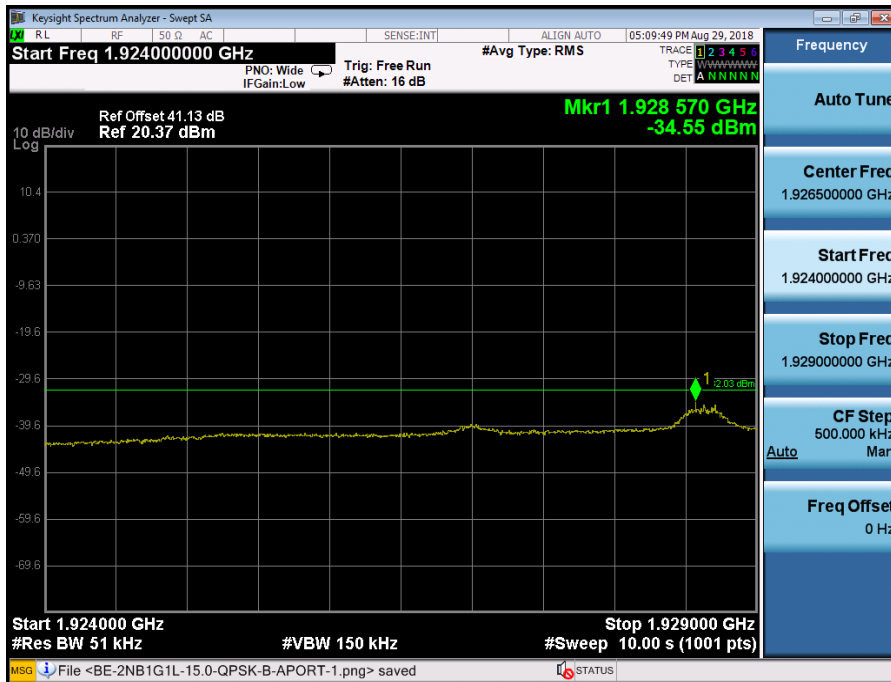
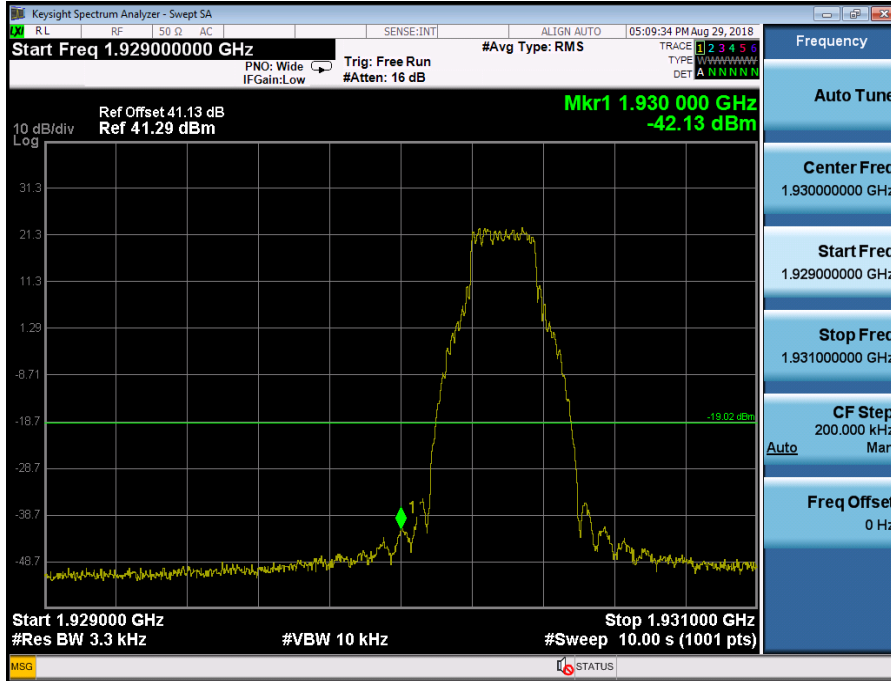




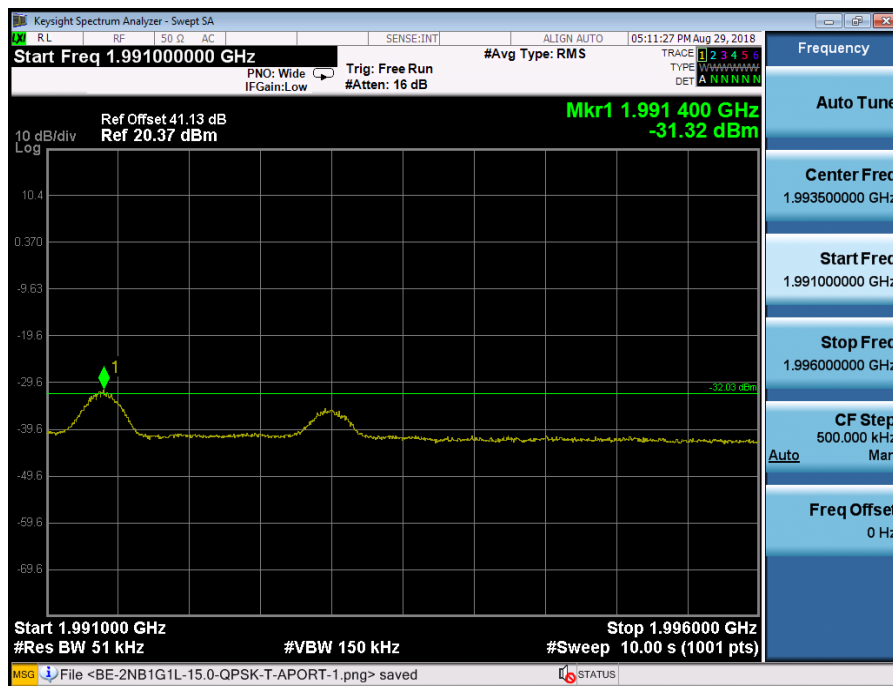
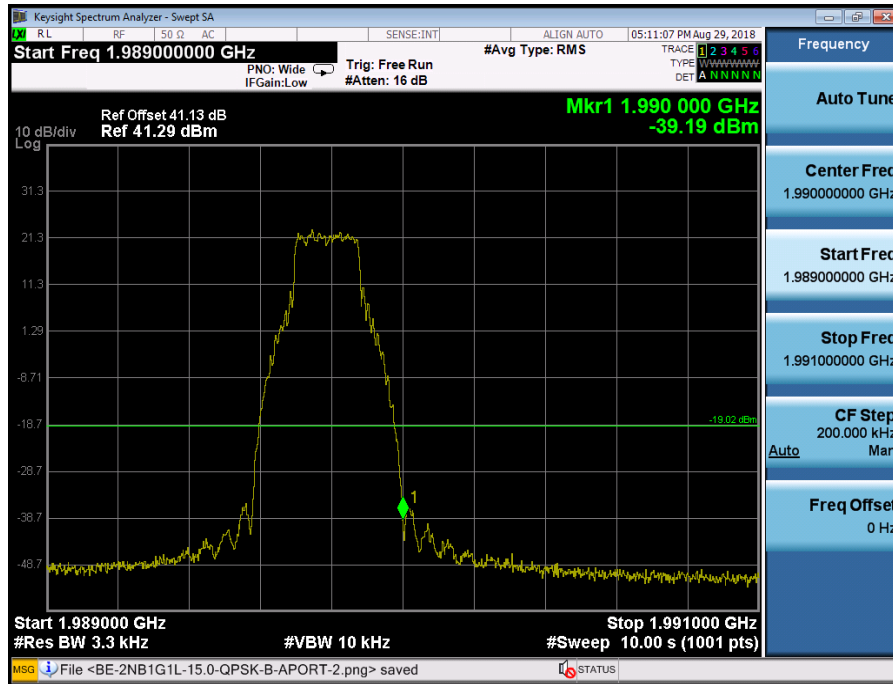
The channel power of 1MHz for 1991.430MHz is -23.05dBm, which is within the limit of -19.02dBm



Port B, Channel Position B, LTE 15.0MHz

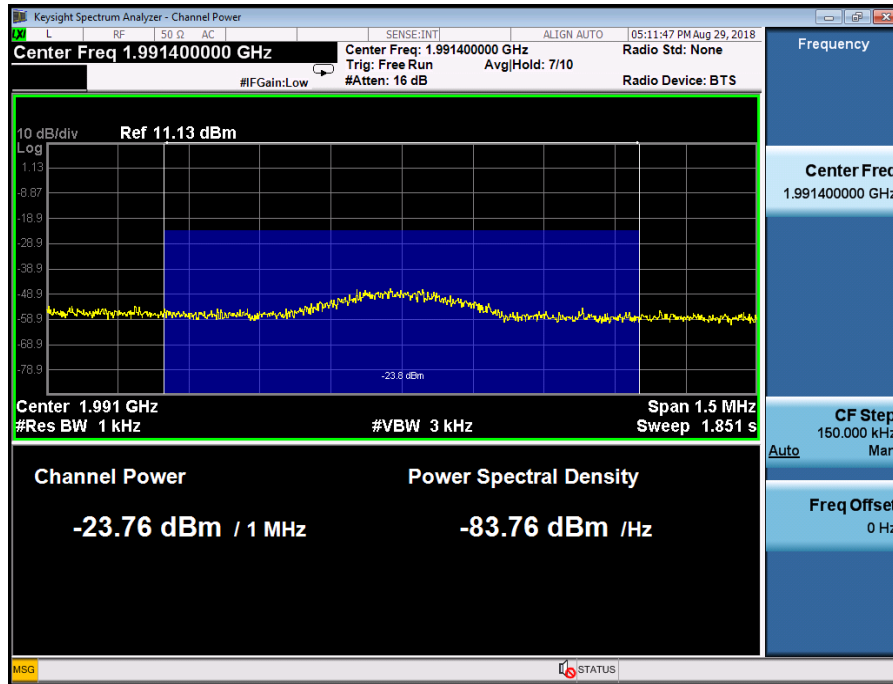


Port B, Channel Position T, LTE 15.0MHz

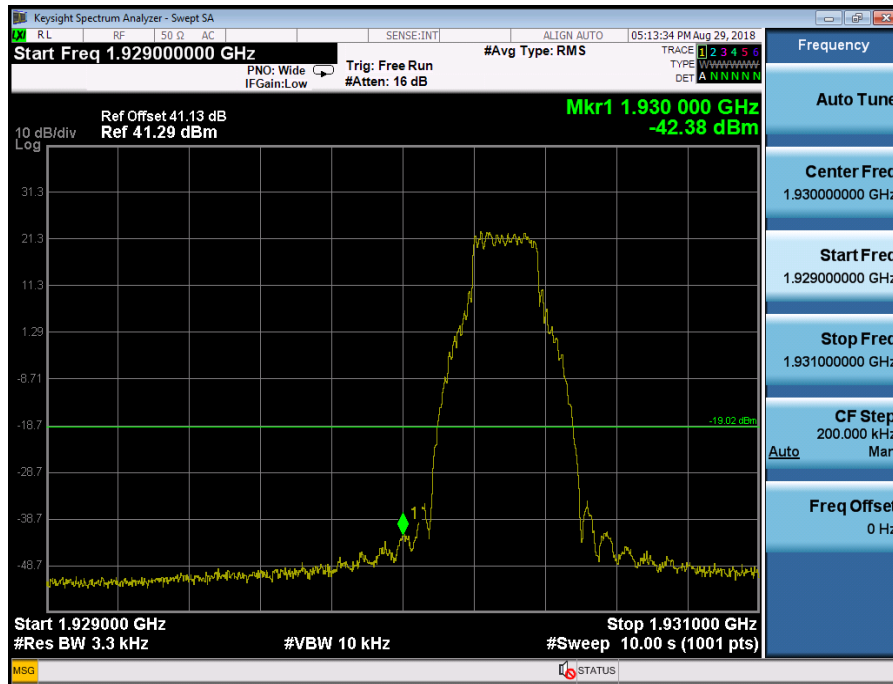


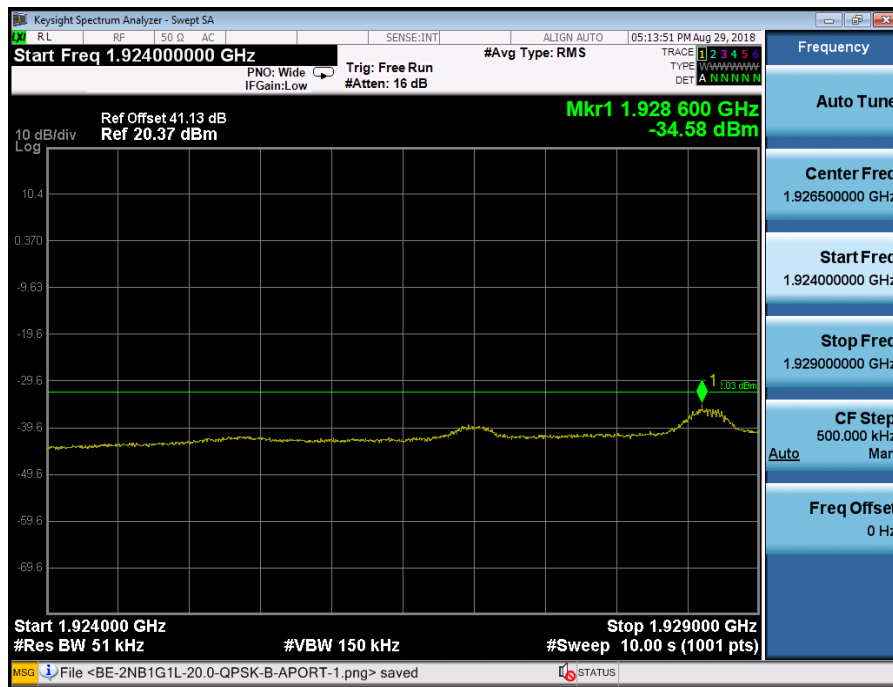


The channel power of 1MHz for 1991.400MHz is -23.76dBm, which is within the limit of-19.02dBm

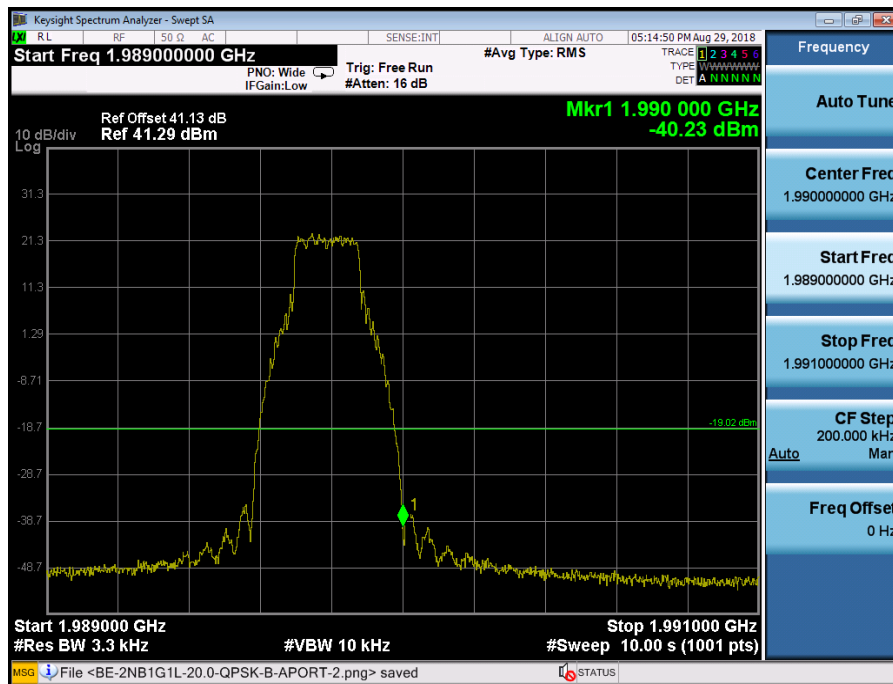


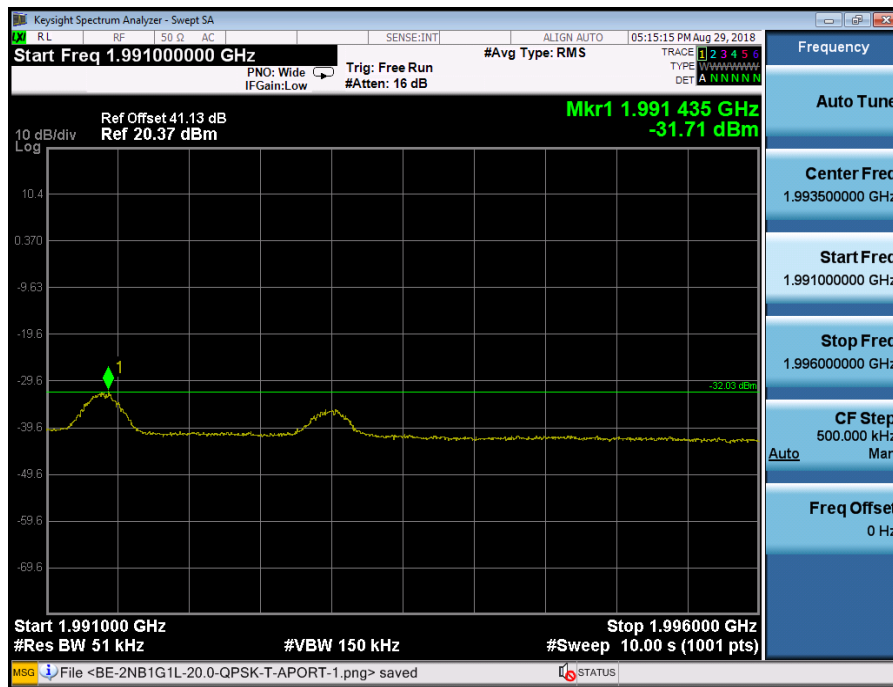
Port B, Channel Position B, LTE 20.0MHz



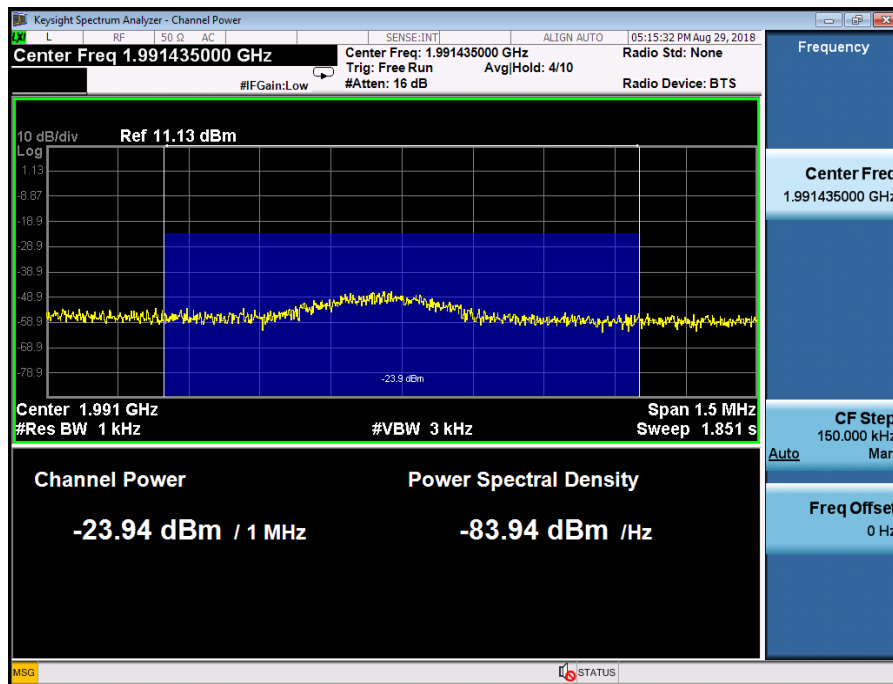


Port B, Channel Position T, LTE 20.0MHz





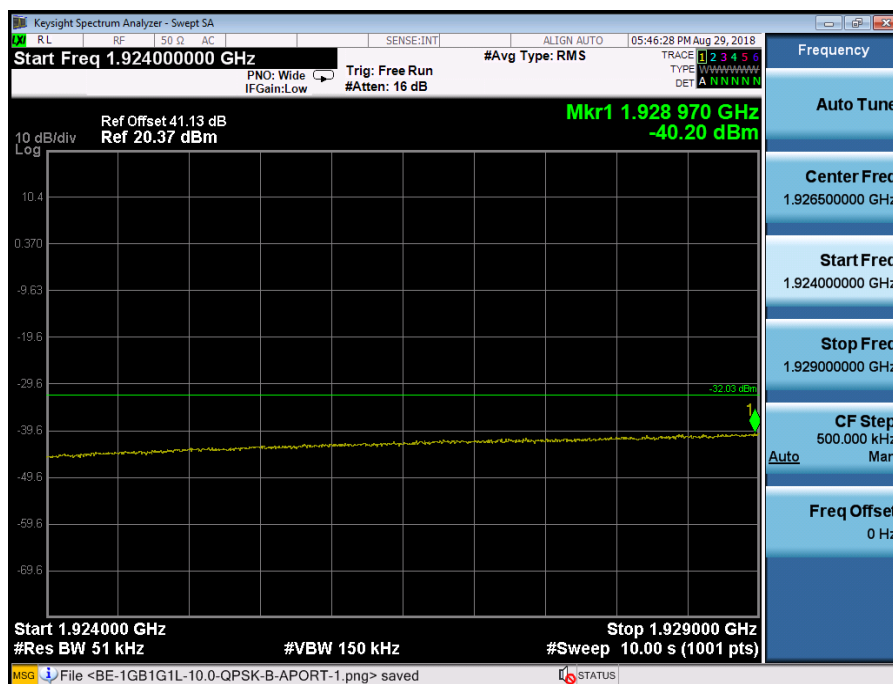
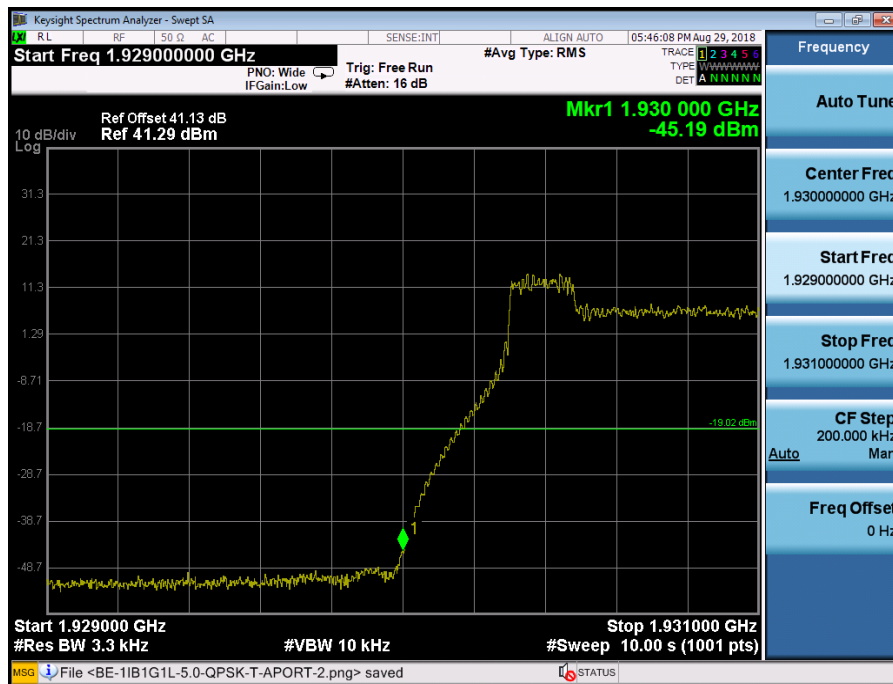
The channel power of 1MHz for 1991.435MHz is -23.94dBm, which is within the limit of -19.02dBm



Configuration NB-IoT-GB+GSM+LTE-MIMO-MC-1-BE, (1GB QPSK+1GSM QPSK+1LTE QPSK)

Band Edge Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(GB) 10.0MHz, (G) 250KHz (L) 10.0MHz	3.3	-19.02
Channel Position T 1990.0MHz	(GB)10.0MHz, (G) 250KHz (L) 10.0MHz	3.3	-19.02

Port B, Channel Position B, LTE 10.0MHz



Port B, Channel Position T, LTE 10.0MHz

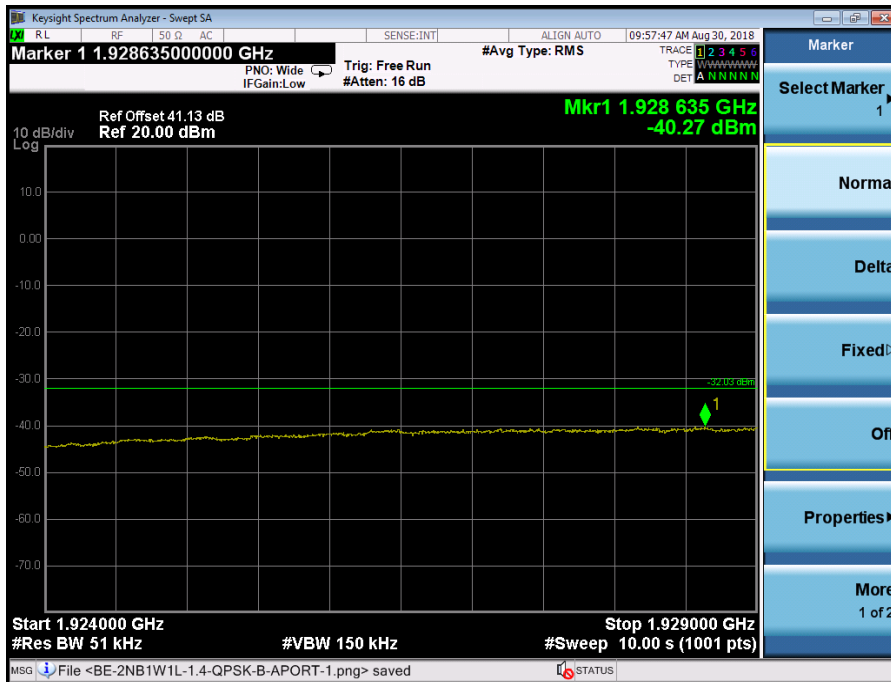
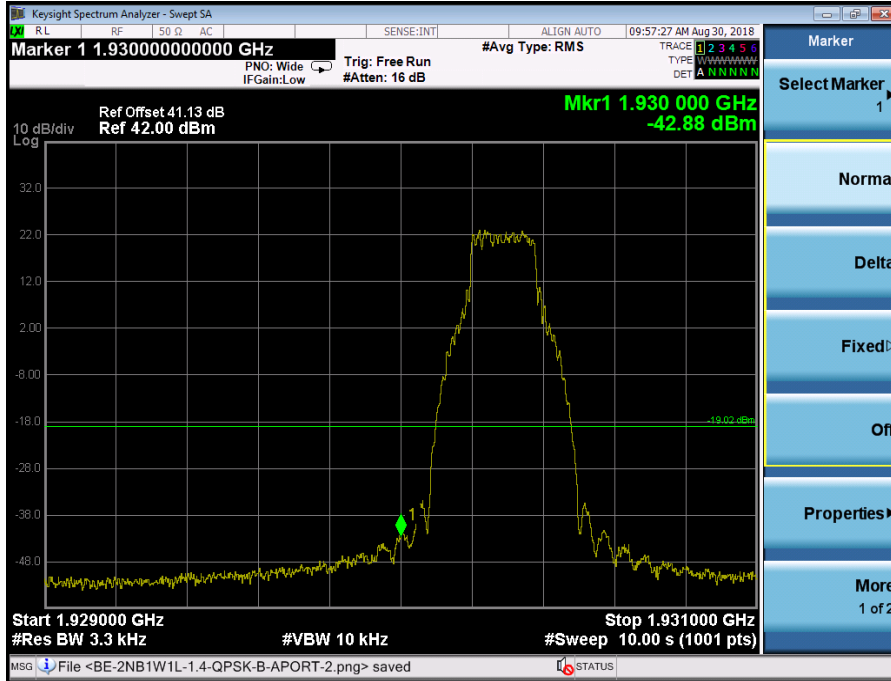




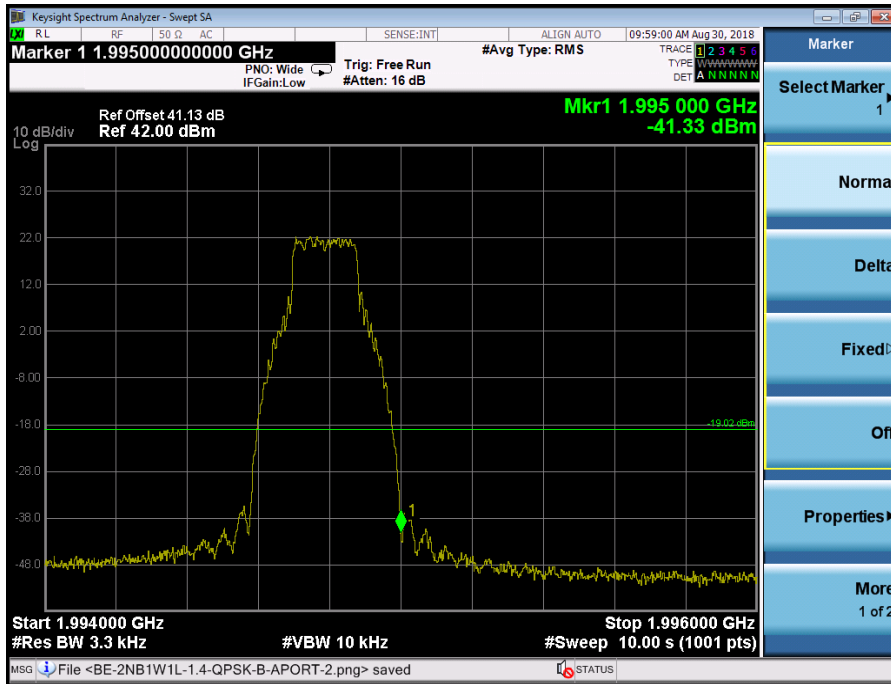
Configuration NB-IoT+WCDMA+LTE-MIMO-MC-2-BE, (2SA QPSK+1WCDMA QPSK+1LTE QPSK)

Band Edge Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(SA) 250KHz, (W) 5.0MHz (L) 1.4MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 3.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 5.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 10.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 15.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 20.0MHz	3.3	-19.02
Channel Position T 1995.0MHz	(SA) 250KHz, (W) 5.0MHz (L) 1.4MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 3.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 5.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 10.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 15.0MHz	3.3	-19.02
	(SA) 250KHz, (W) 5.0MHz (L) 20.0MHz	3.3	-19.02

Port B, Channel Position B, LTE 1.4MHz

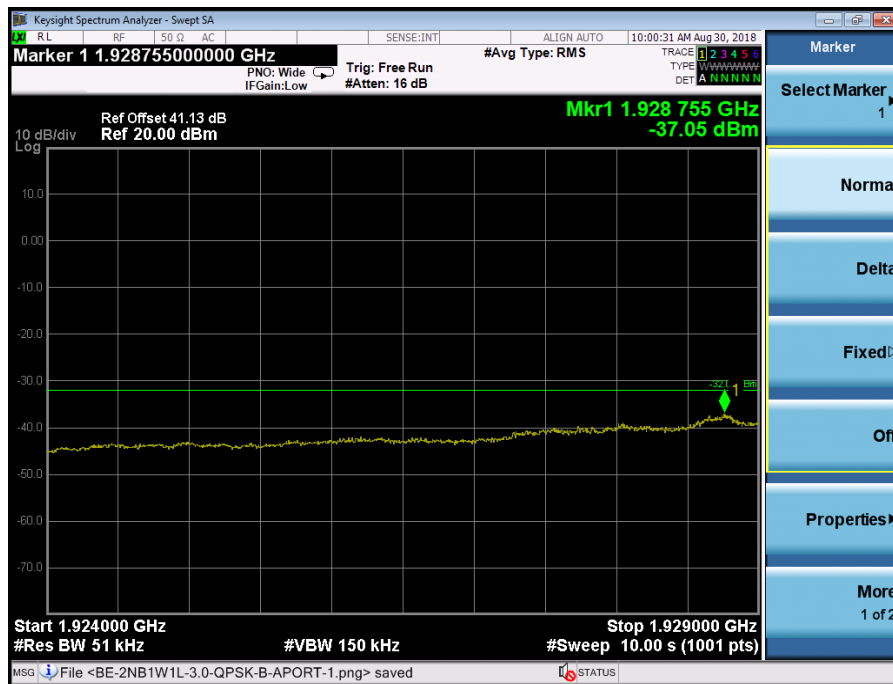
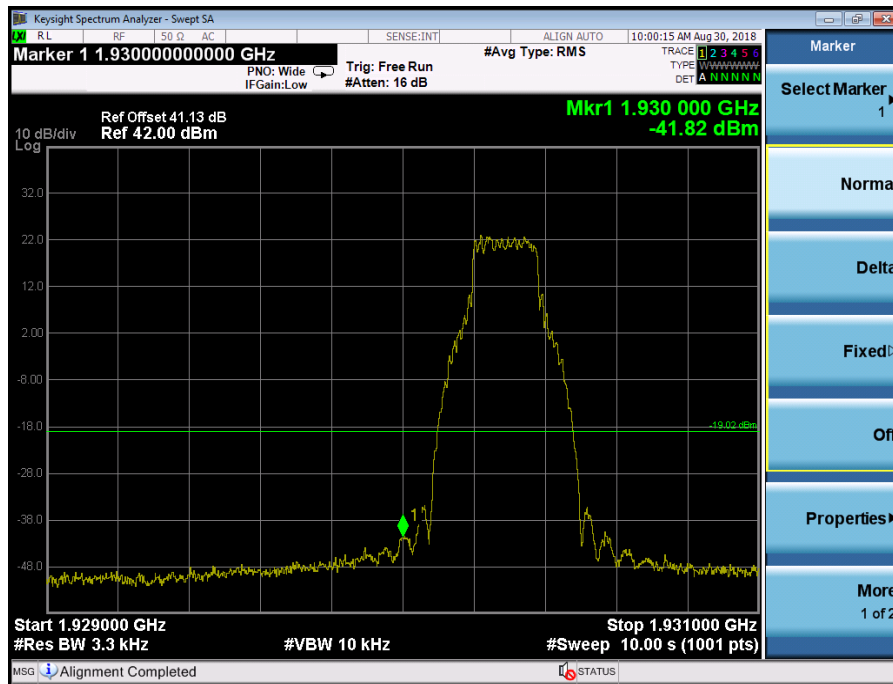


Port B, Channel Position T, LTE 1.4MHz

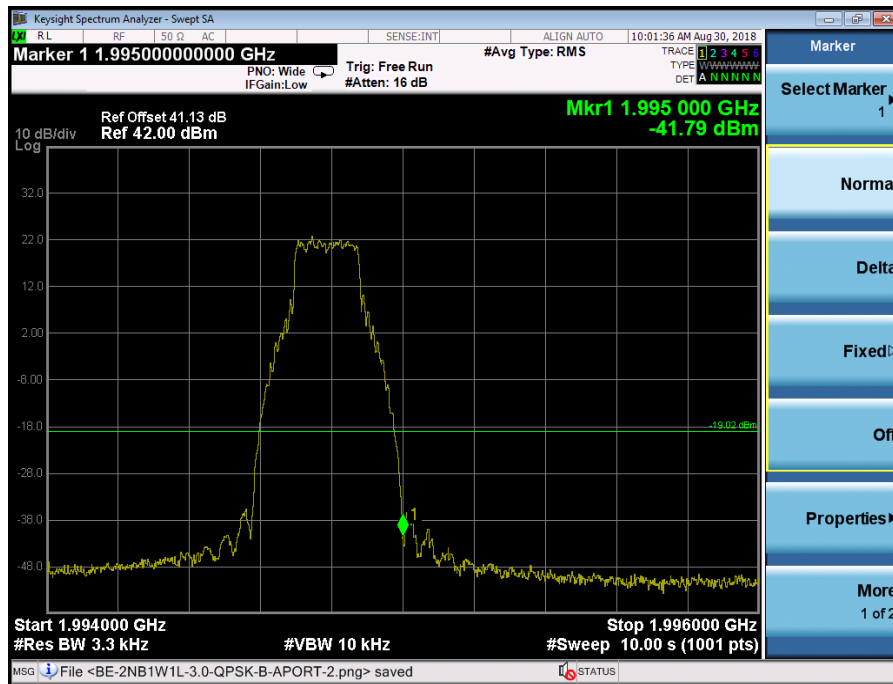




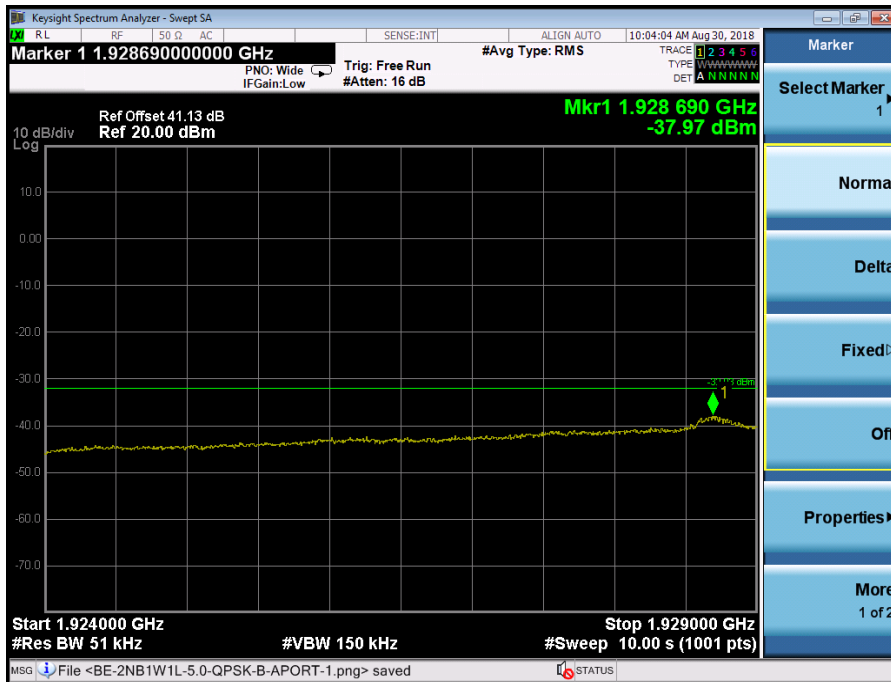
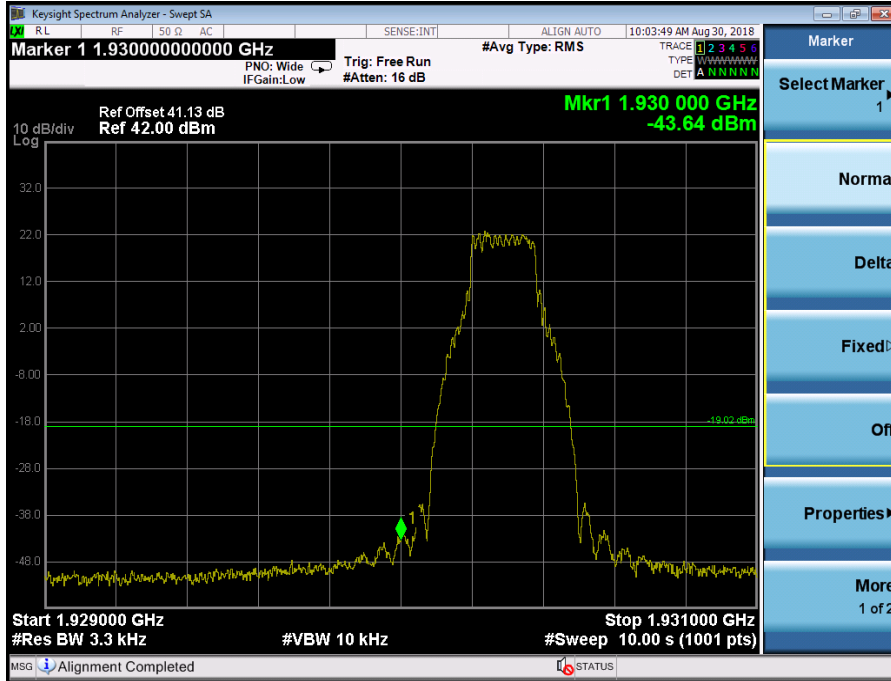
Port B, Channel Position B, LTE 3.0MHz



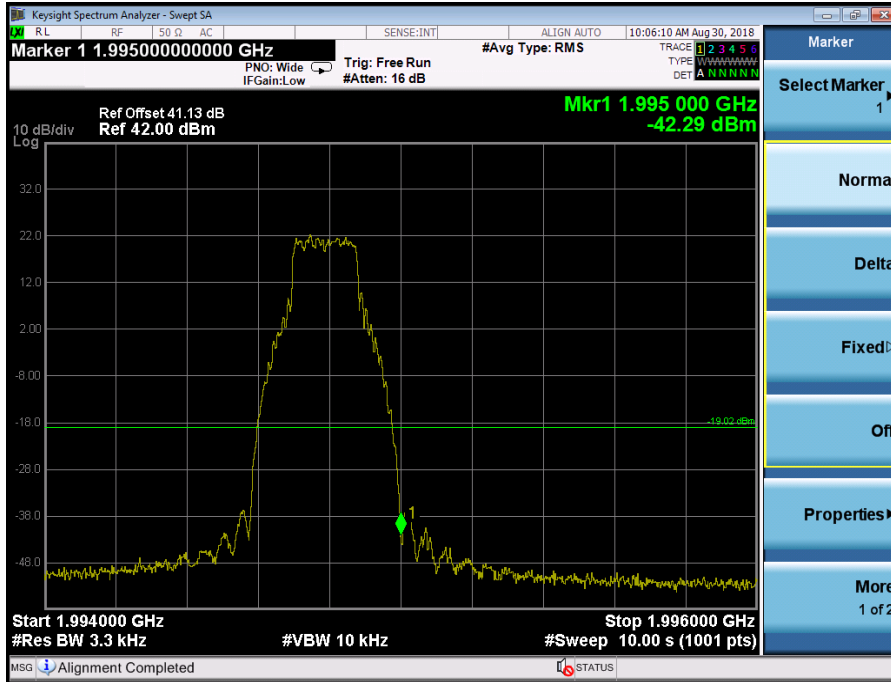
Port B, Channel Position T, LTE 3.0MHz



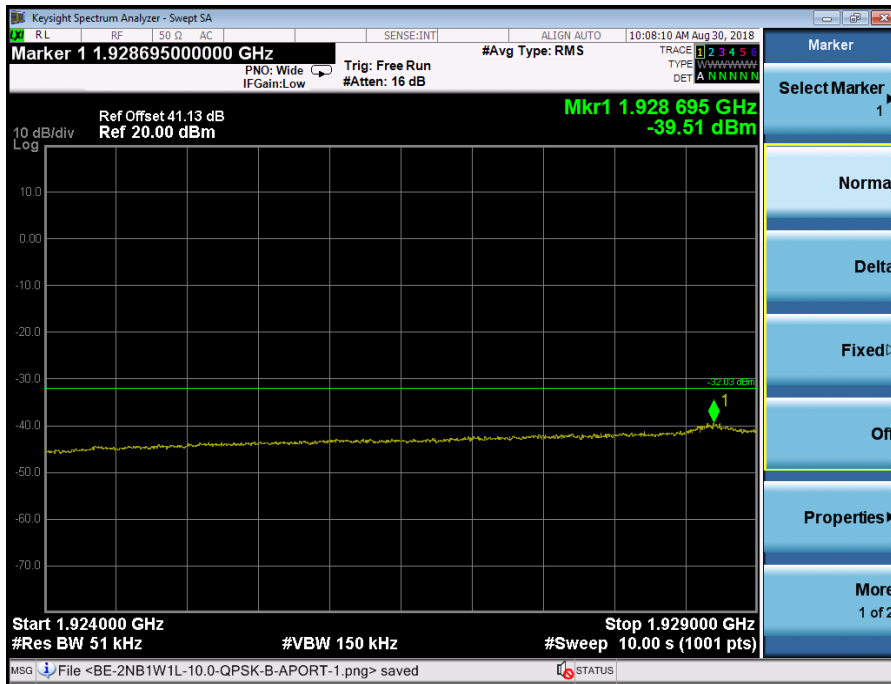
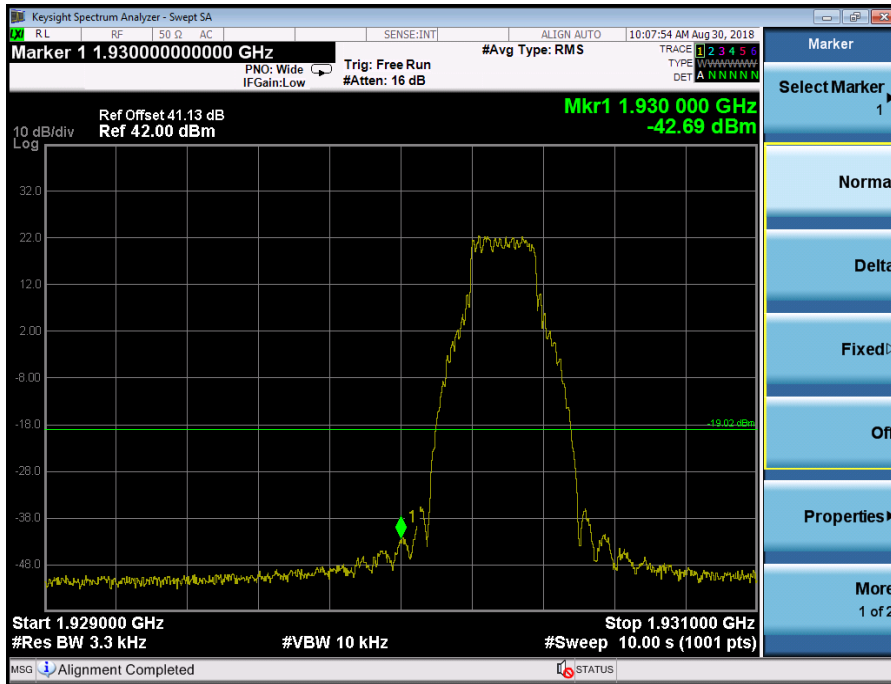
Port B, Channel Position B, LTE 5.0MHz



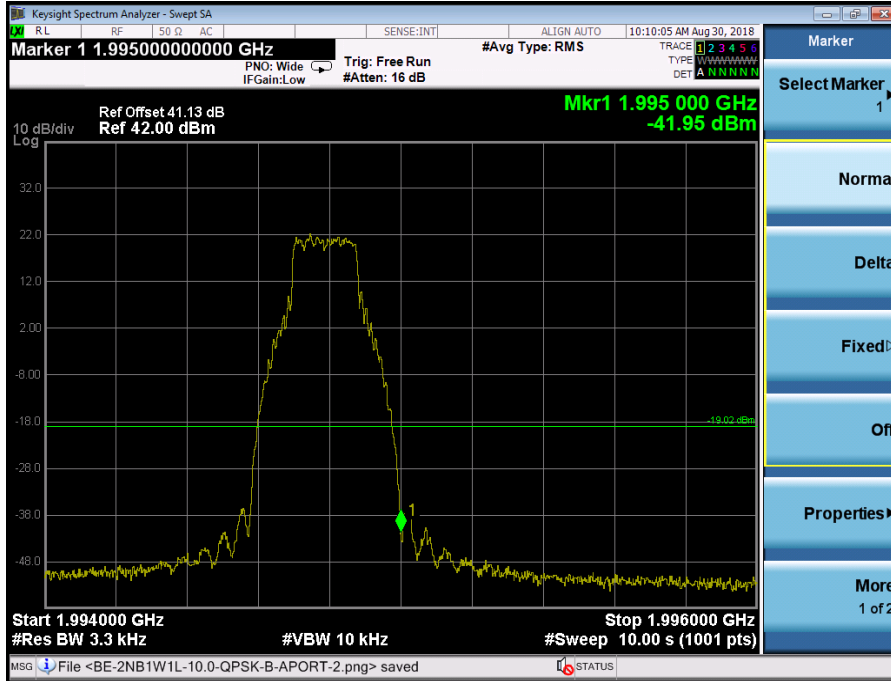
Port B, Channel Position T, LTE 5.0MHz



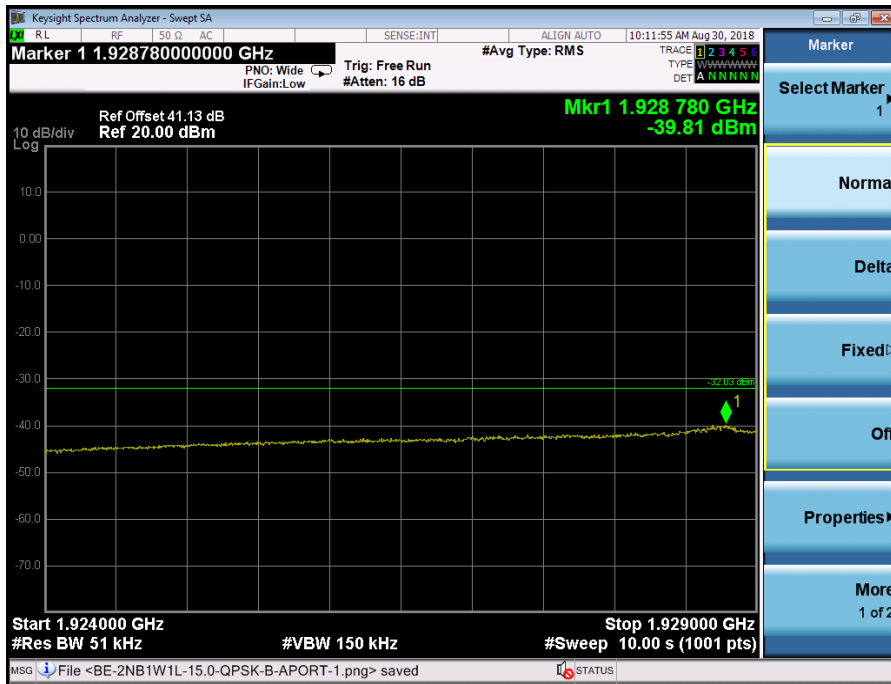
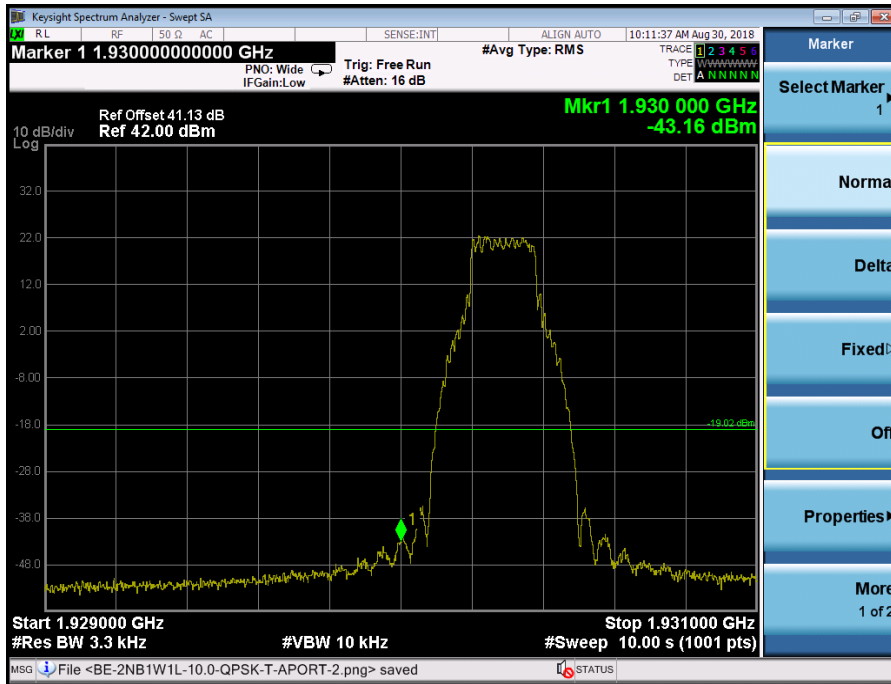
Port B, Channel Position B, LTE 10.0MHz



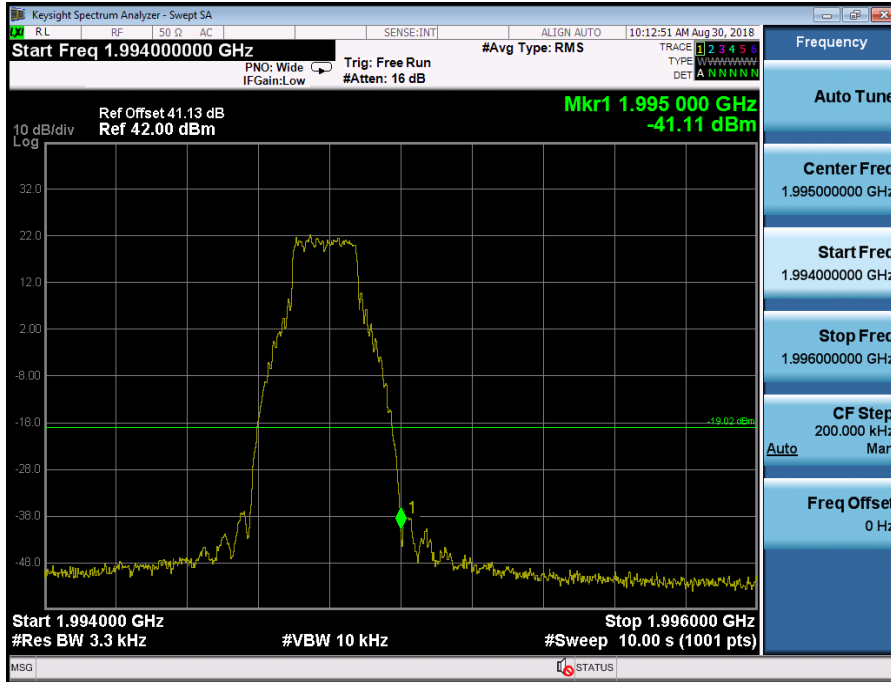
Port B, Channel Position T, LTE 10.0MHz



Port B, Channel Position B, LTE 15.0MHz

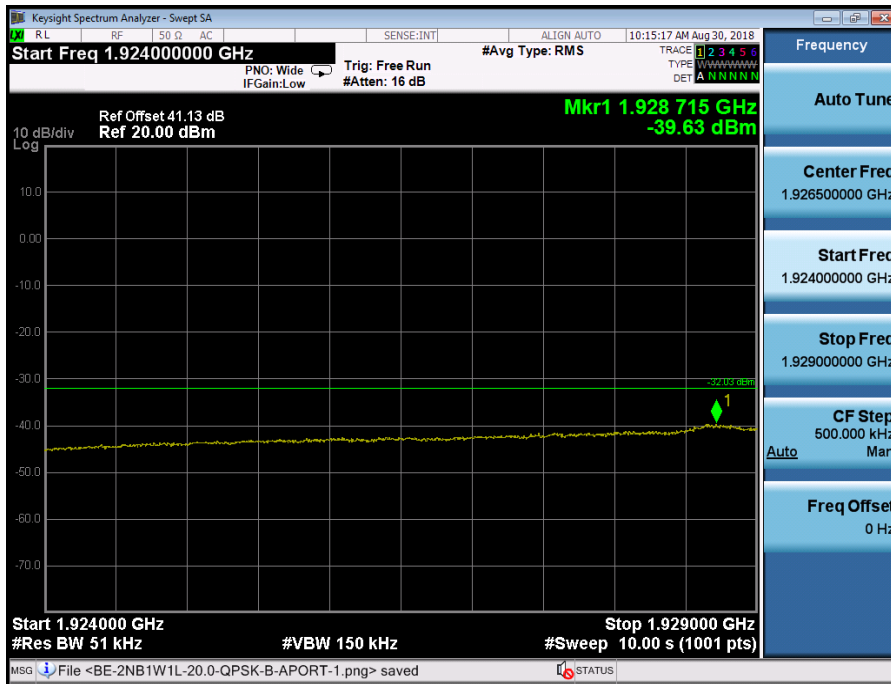
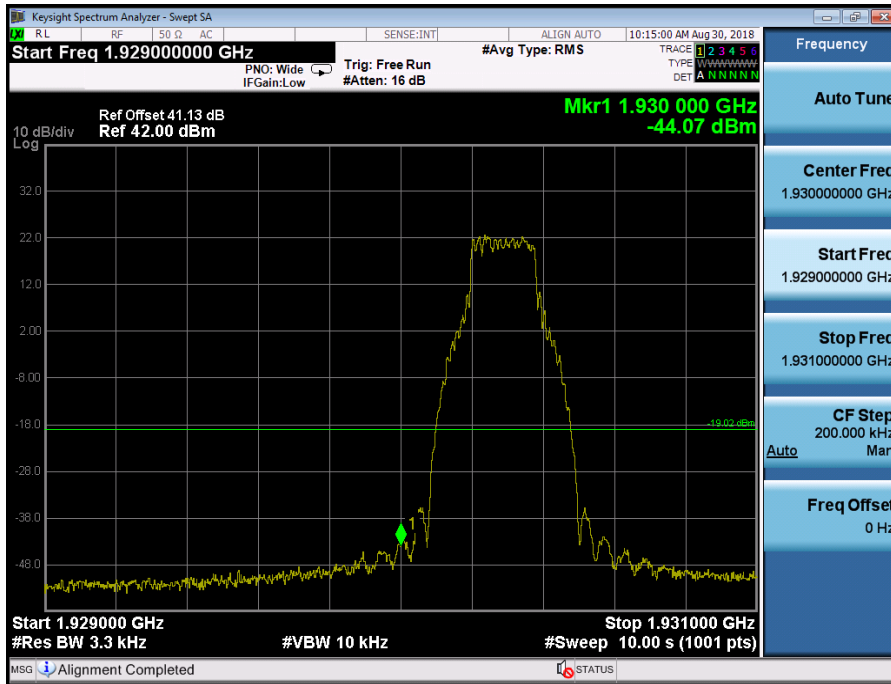


Port B, Channel Position T, LTE 15.0MHz

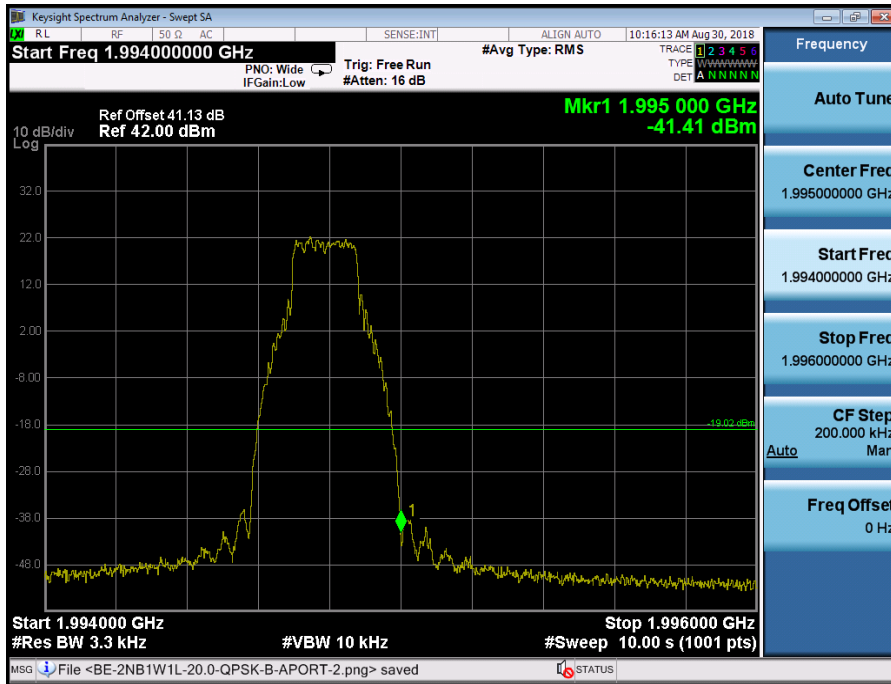




Port B, Channel Position B, LTE 20.0MHz



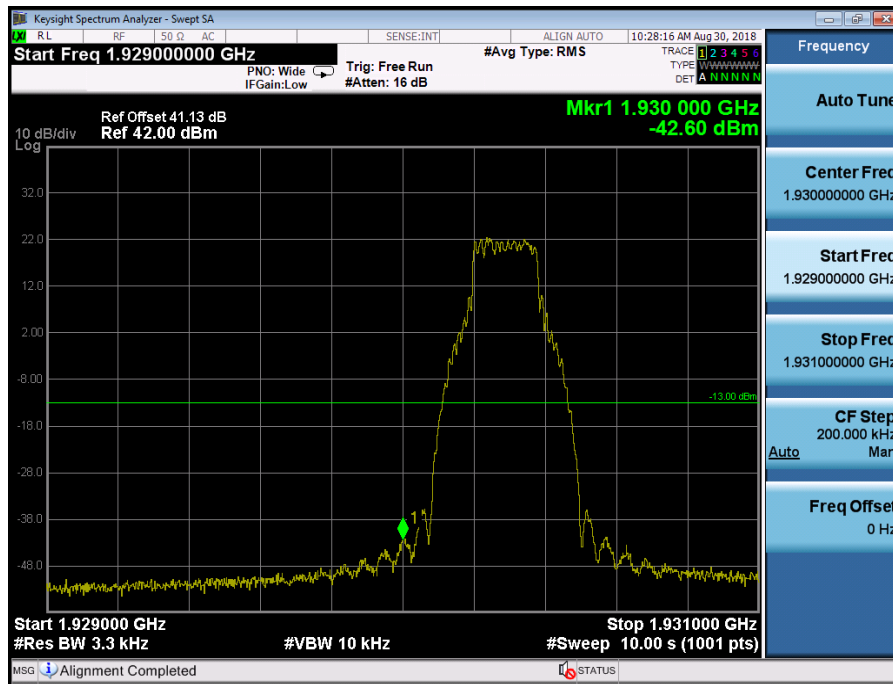
Port B, Channel Position T, LTE 20.0MHz

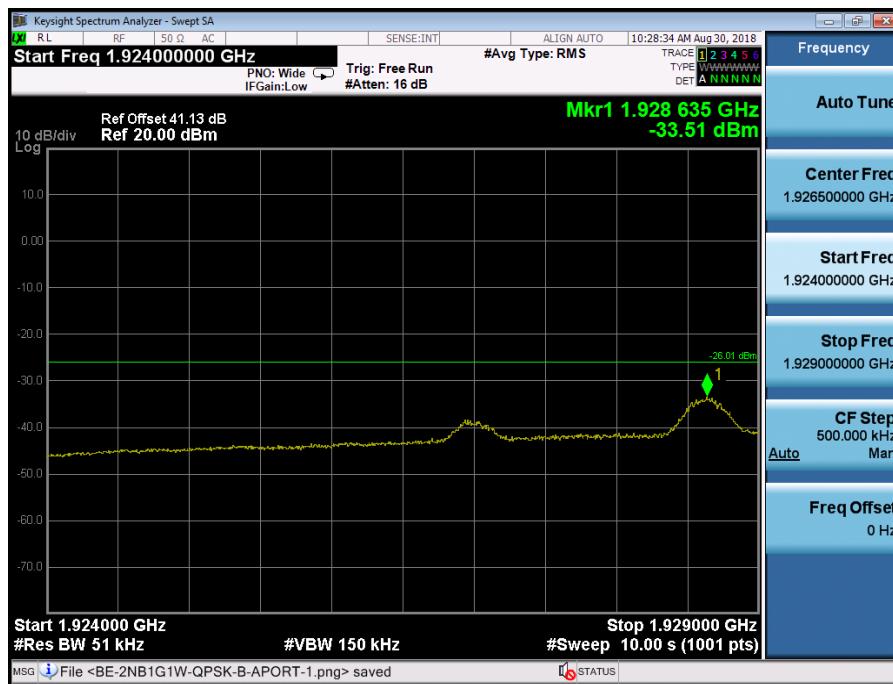


Configuration NB-IoT+GSM+WCDMA-MC-2-BE, (2SA QPSK+1GSM GMSK+1WCDMA QPSK)

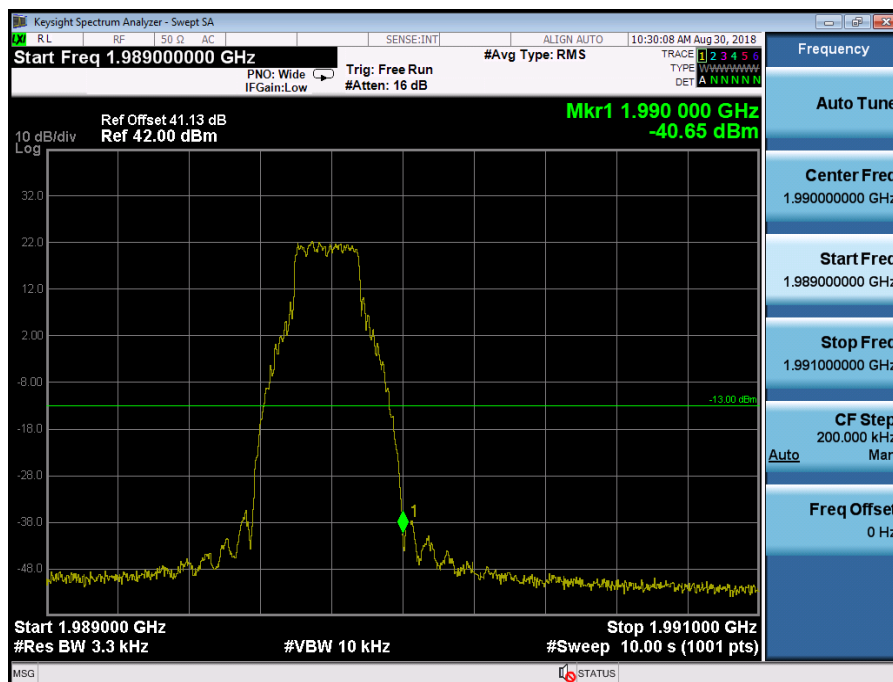
Band Edge Frequency	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(SA) 250KHz, (G) 250KHz, (W) 5.0MHz	3.3	-13.00
Channel Position T 1990.0MHz	(SA) 250KHz, (G) 250KHz (W) 5.0MHz	3.3	-13.00

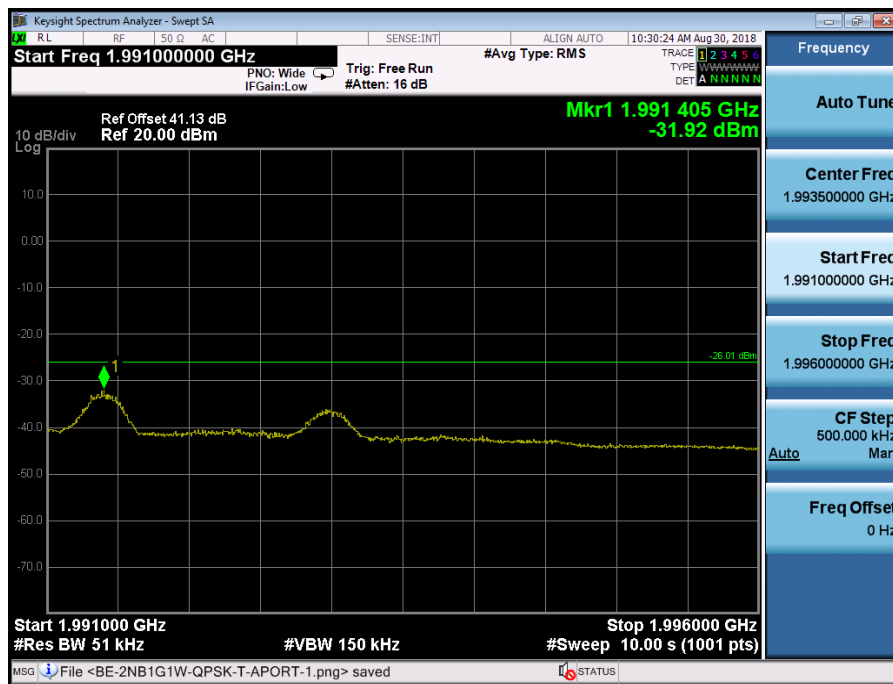
Port B, Channel Position B





Port B, Channel Position T







## **A.4 Conducted Spurious Emission**

### **A.4.1 Reference**

FCC CFR 47 Part 2, Clause 2.1051  
FCC CFR 47 Part 24, Clause 24.238 (a)  
RSS-133, Clause 6.5

### **A.4.2 Method of measurement**

In accordance with FCC CFR 47 Part 24, Clause 24.238, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

The spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using an attenuator and the frequency spectrum investigated from 3KHz to 20GHz. The resolution bandwidth of 1MHz was employed for frequency band 3KHz to 20GHz. The spectrum analyzer detector was set to RMS.

For MIMO mode configurations, the limit was adjusted with a correction of -6.02dB [10Log4] by using the Measure and Add 10Log(N) dB technique according to FCC KDB 662911 D01 Multiple Transmitter Output accounting for simultaneous transmission from antenna ports RF A,B,C and D. Then the limit was adjust to -19.02dBm.

### **A.4.3 Measurement limit**

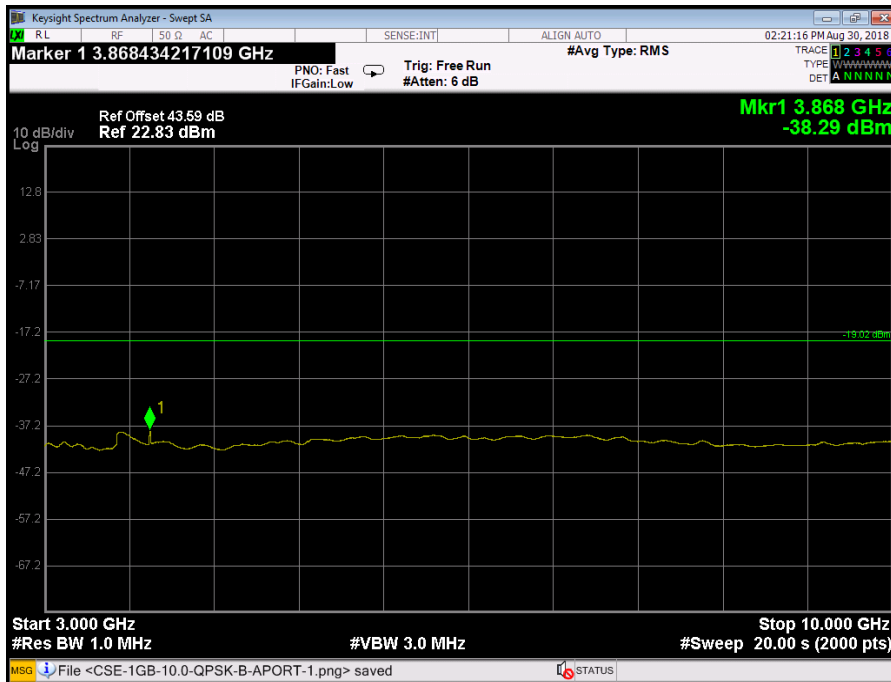
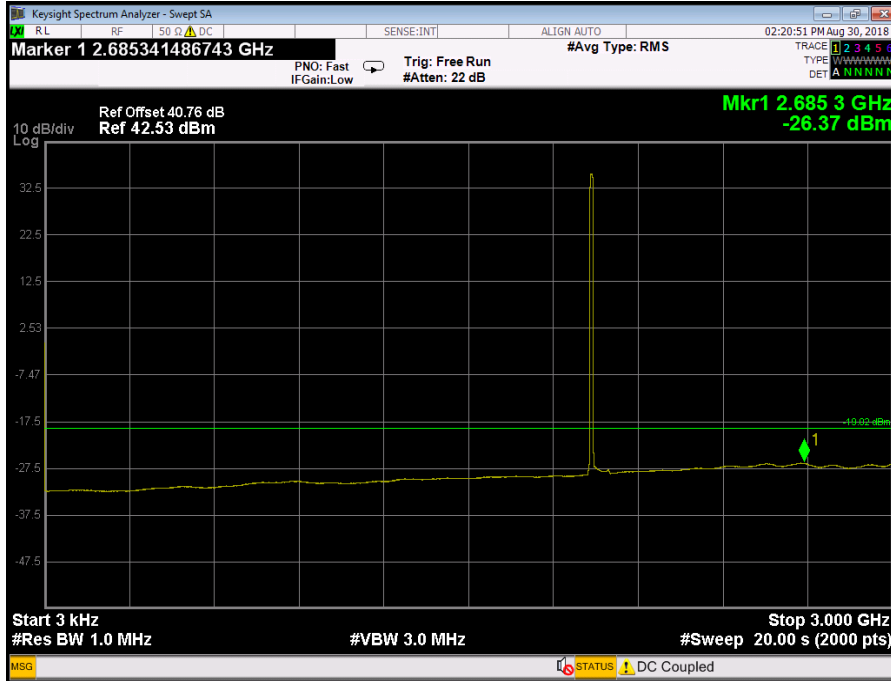
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10\log(P)$  dB.

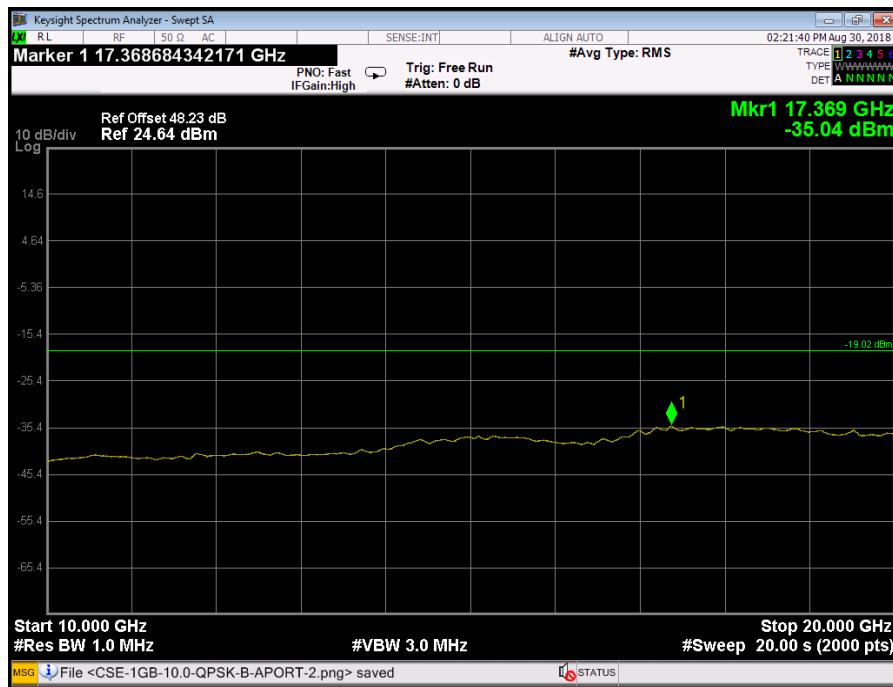
### **A.4.4 Measurement results**

Configuration NB-IoT-GuardBand-1C, QPSK

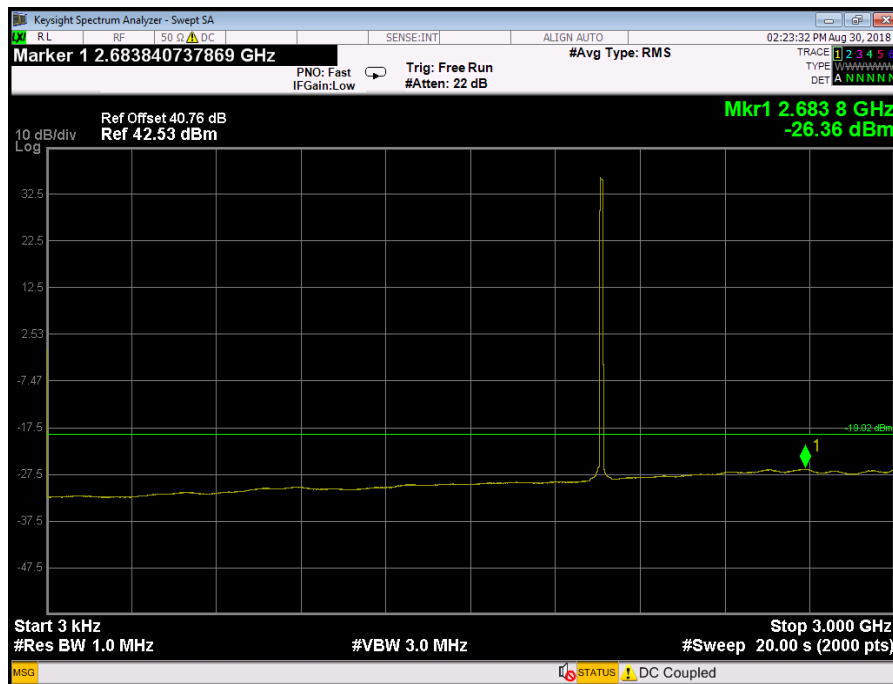
Channel Bandwidth	RBW (MHz)	Limit (dBm)
10.0 MHz	1.0	-19.02
15.0 MHz	1.0	-19.02
20.0 MHz	1.0	-19.02

Port B, Channel Position B 10.0 MHz

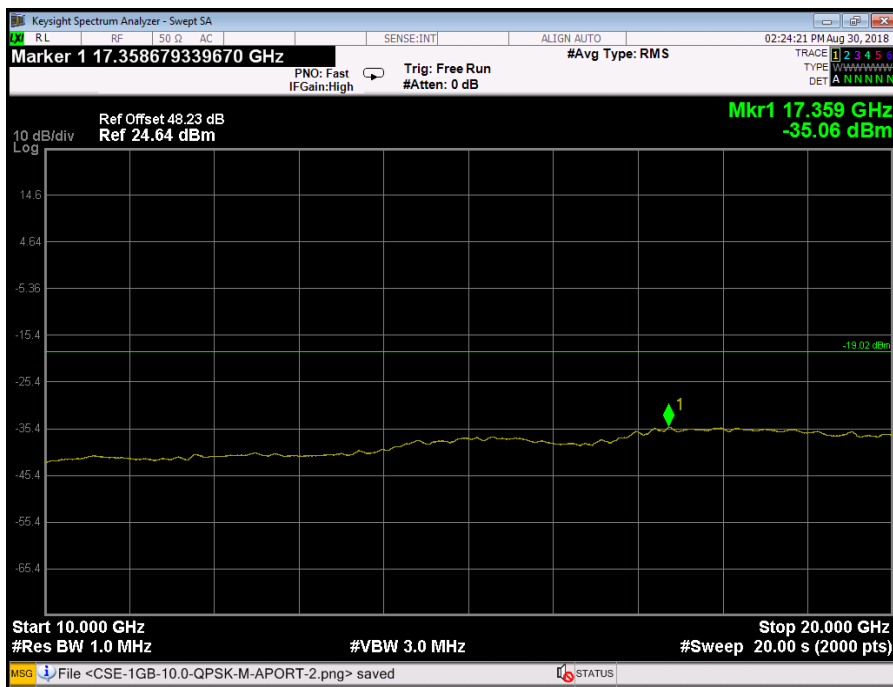
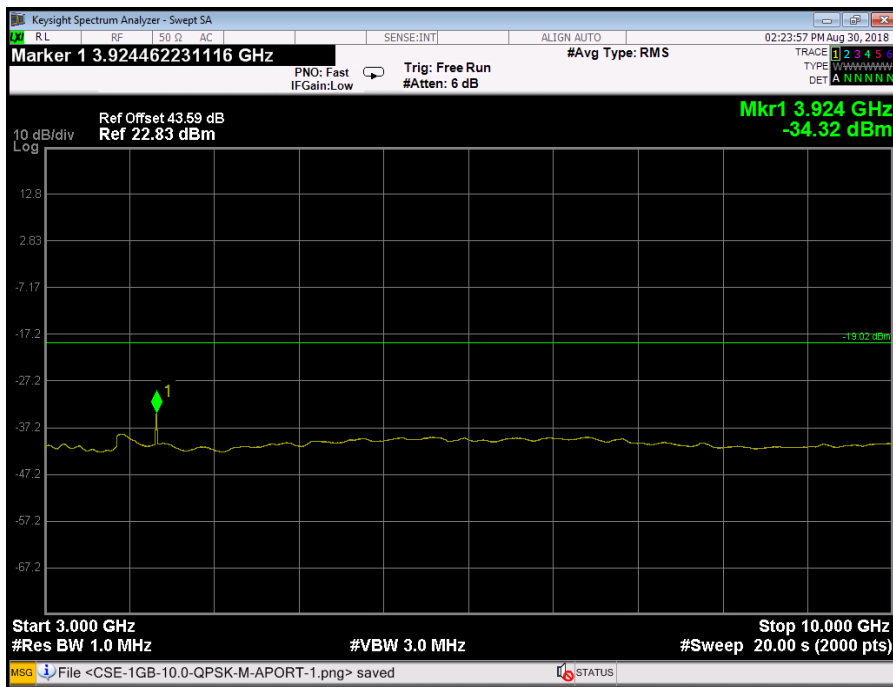




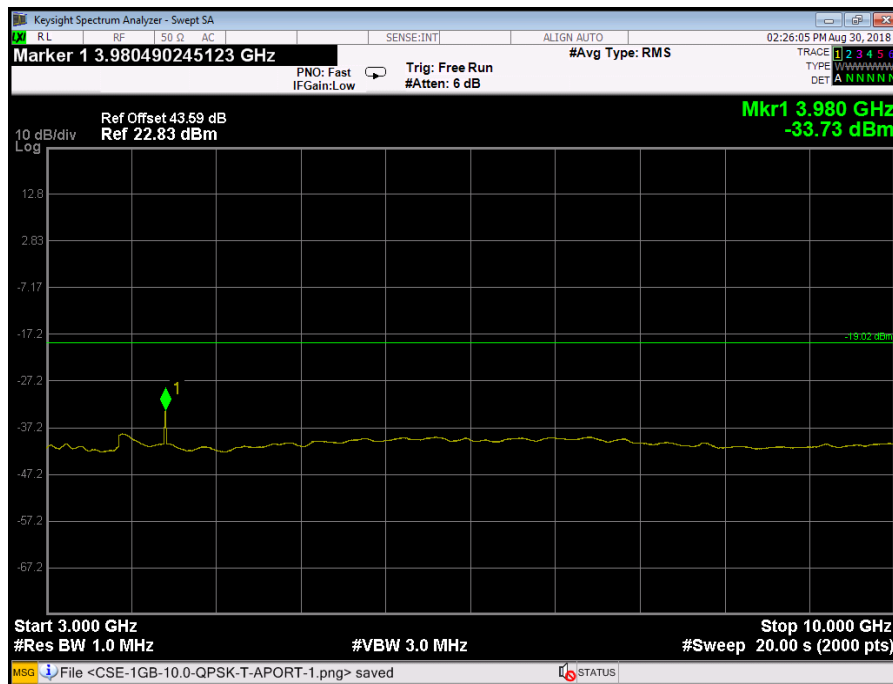
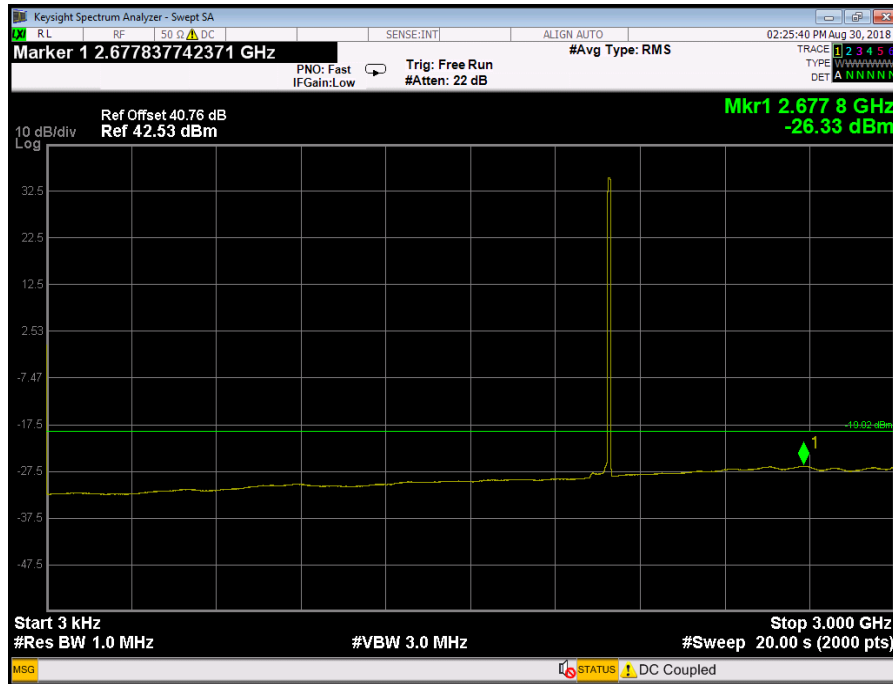
Port B, Channel Position M 10.0 MHz

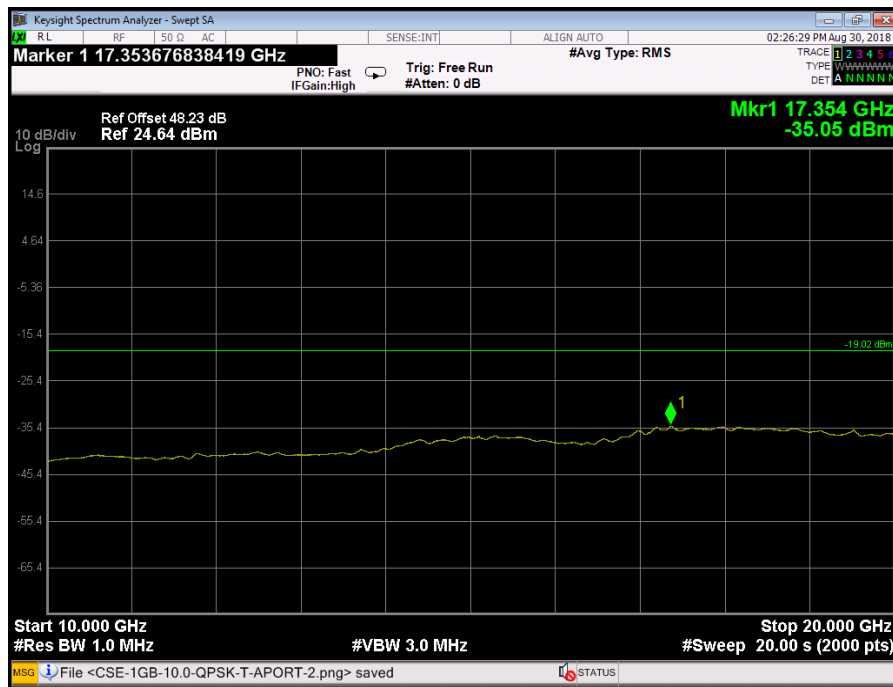




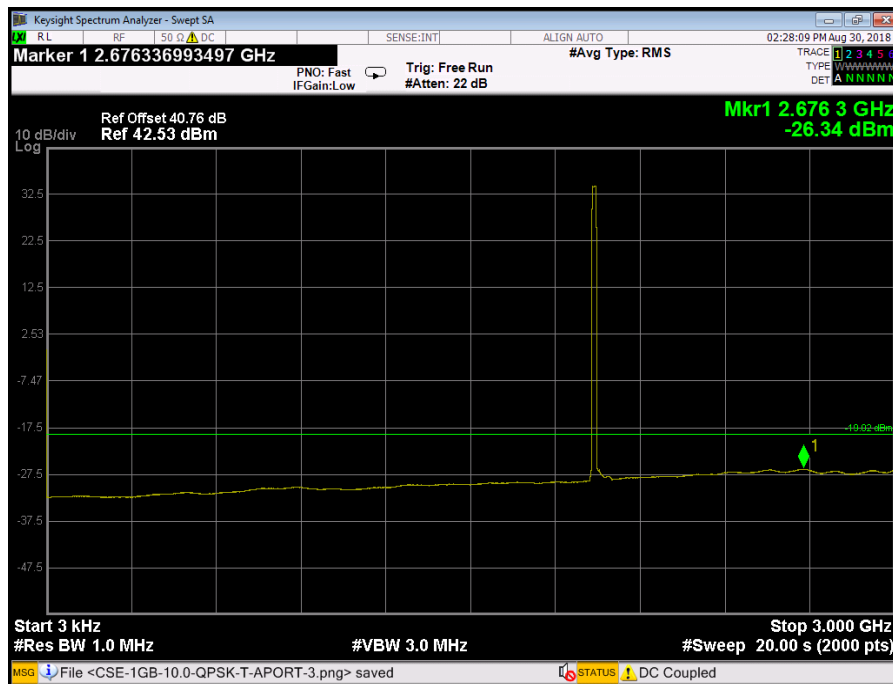


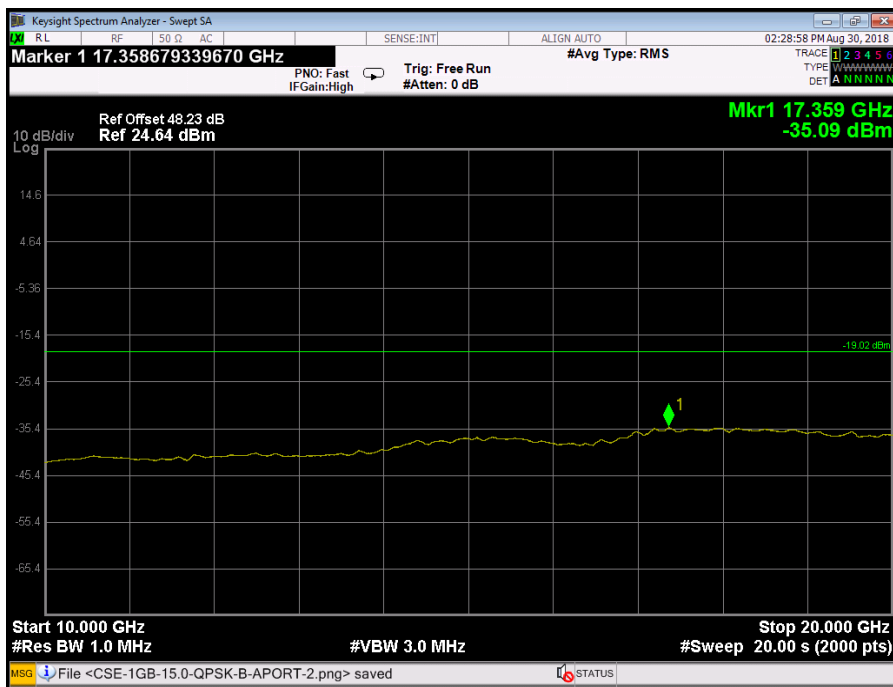
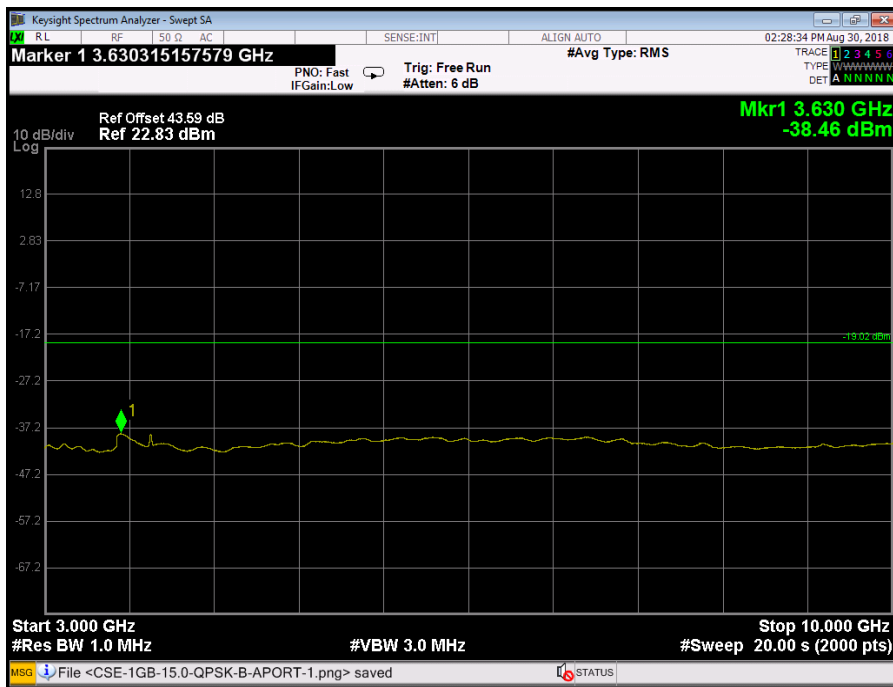
Port B, Channel Position T 10.0 MHz





Port B, Channel Position B 15.0 MHz





Port B, Channel Position M 15.0 MHz

