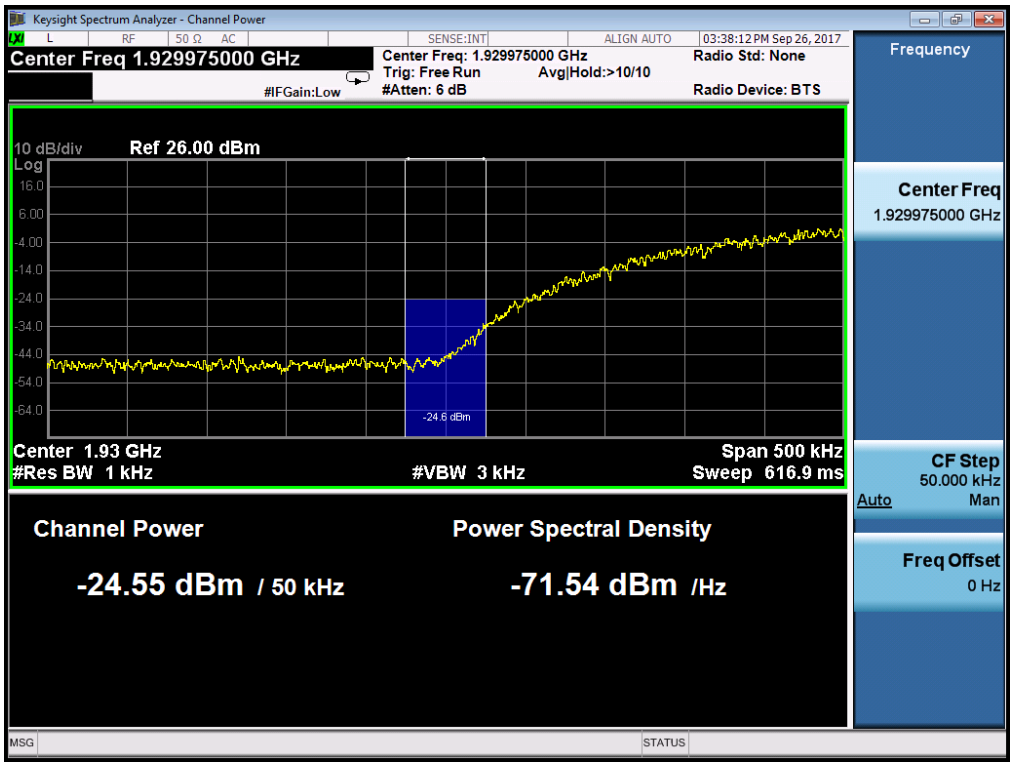
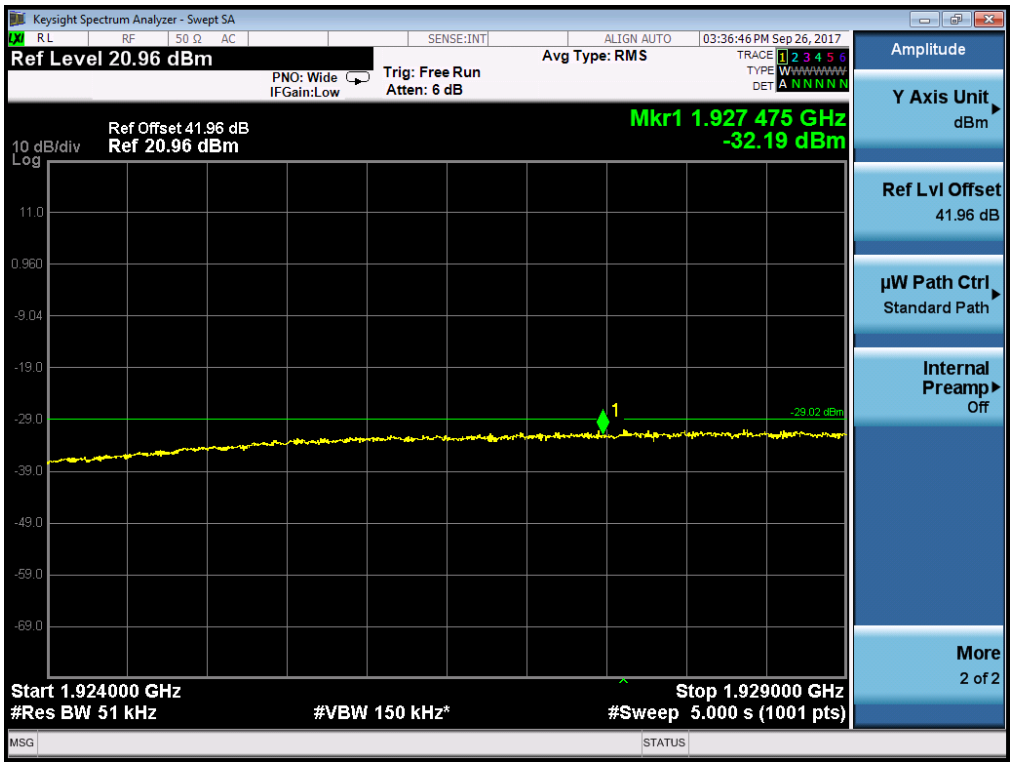
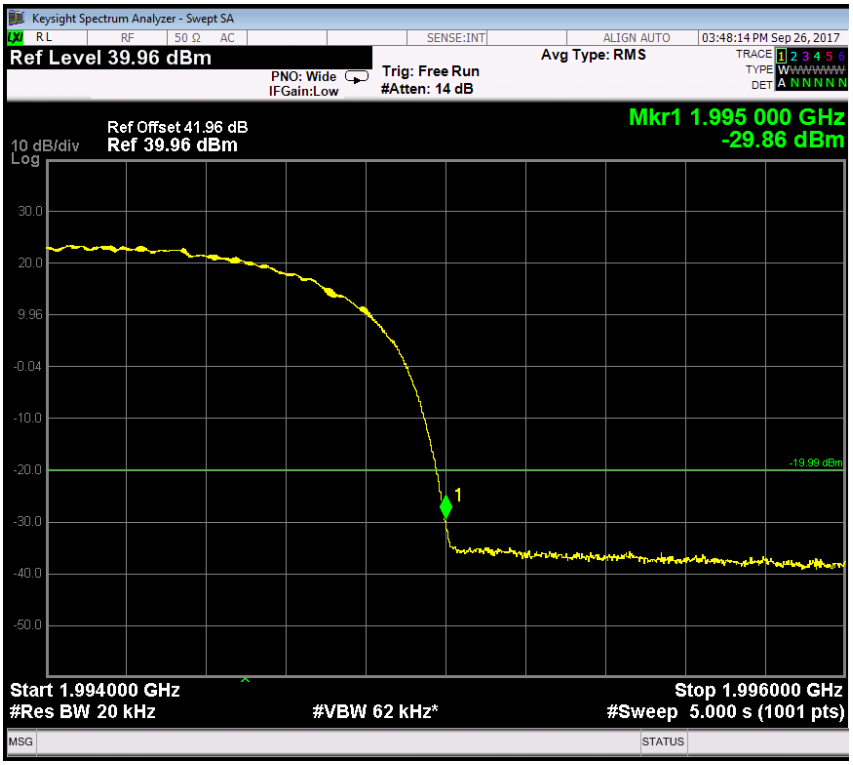
The channel power of 50KHz for 1929.975MHz is -24.55dBm, which is within the limit of -16.01dBm.

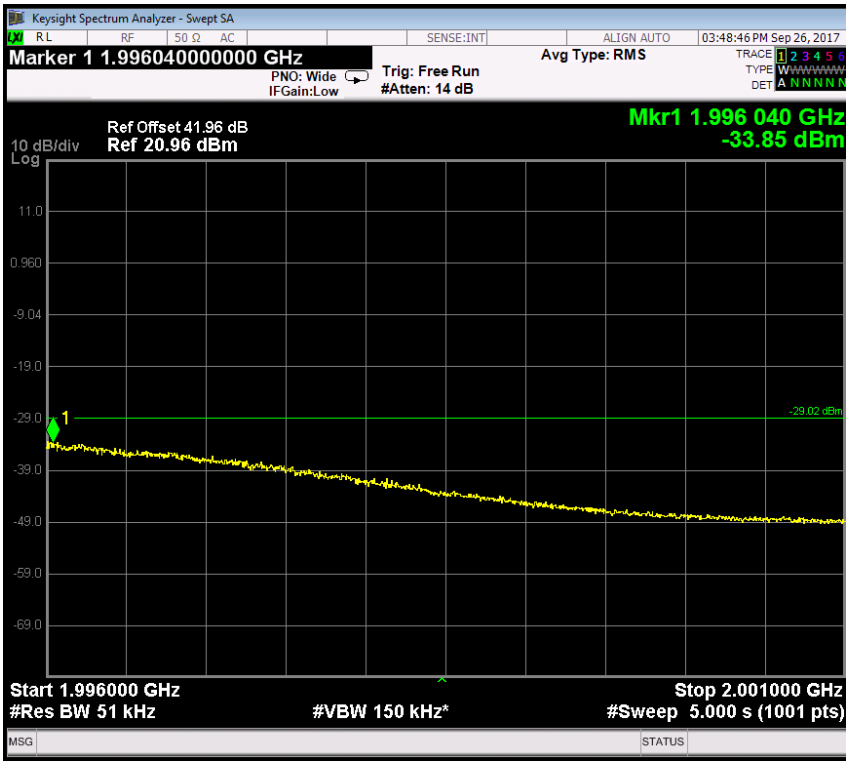




©Copyright. All rights reserved by CTTL.

Port A, Channel Position T 1987.6MHz + 1992.6MHz, 64QAM





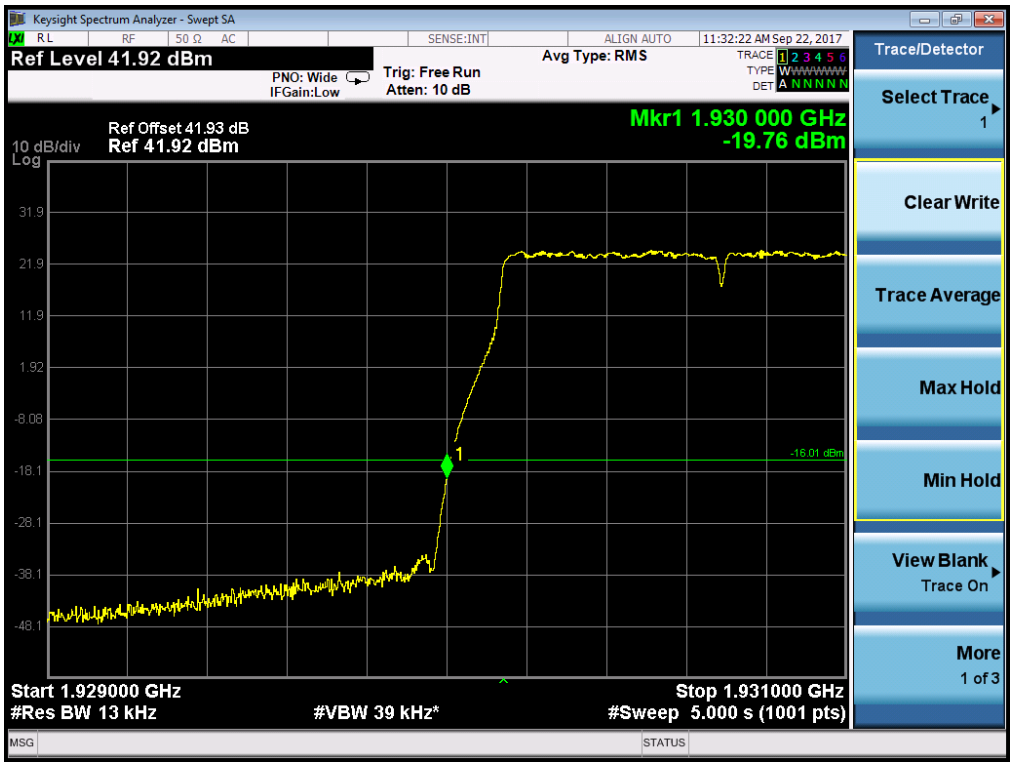
©Copyright. All rights reserved by CTTL.

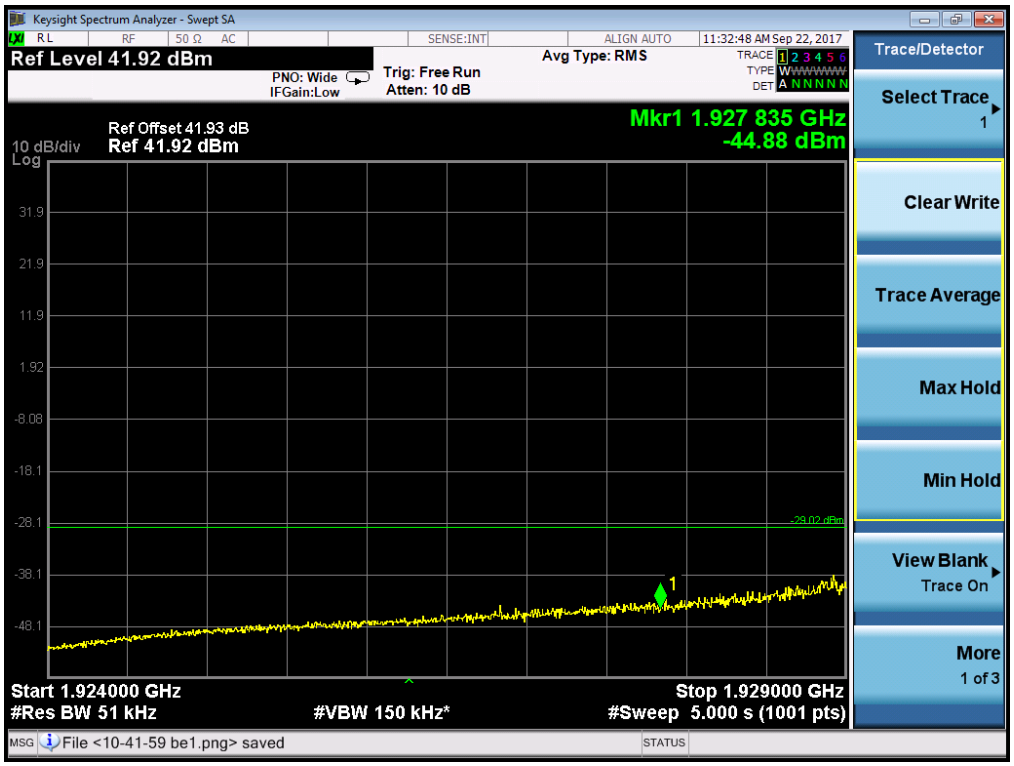
Configuration LTE-MIMO-1C, QPSK

Band Edge Frequency	Channel Frequency	Channel Bandwidth	RBW(KHz)	Limit(dBm)
Channel Position B 1930.0MHz	1930.7 MHz	1.4 MHz	13	-16.01
	1931.5 MHz	3.0 MHz	30	-16.01
	1932.5 MHz	5.0 MHz	51	-16.01
	1935.0 MHz	10.0 MHz	100	-16.01
	1937.5 MHz	15.0 MHz	150	-16.01
	1940.0 MHz	20.0 MHz	200	-16.01
Channel Position T 1995.0MHz	1994.3 MHz	1.4 MHz	13	-16.01
	1993.5 MHz	3.0 MHz	30	-16.01
	1992.5 MHz	5.0 MHz	51	-16.01
	1990.0 MHz	10.0 MHz	100	-16.01
	1987.5 MHz	15.0 MHz	150	-16.01
	1985.0 MHz	20.0 MHz	200	-16.01

©Copyright. All rights reserved by CTTL.

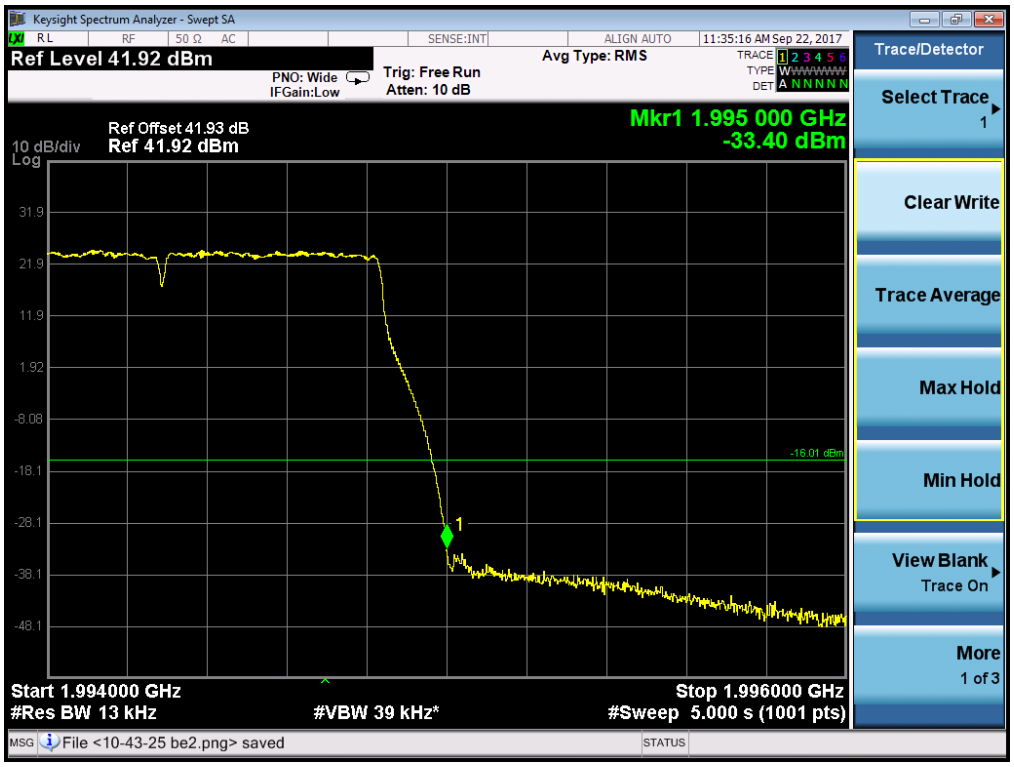
Port A, Channel Position B, 1.4 MHz

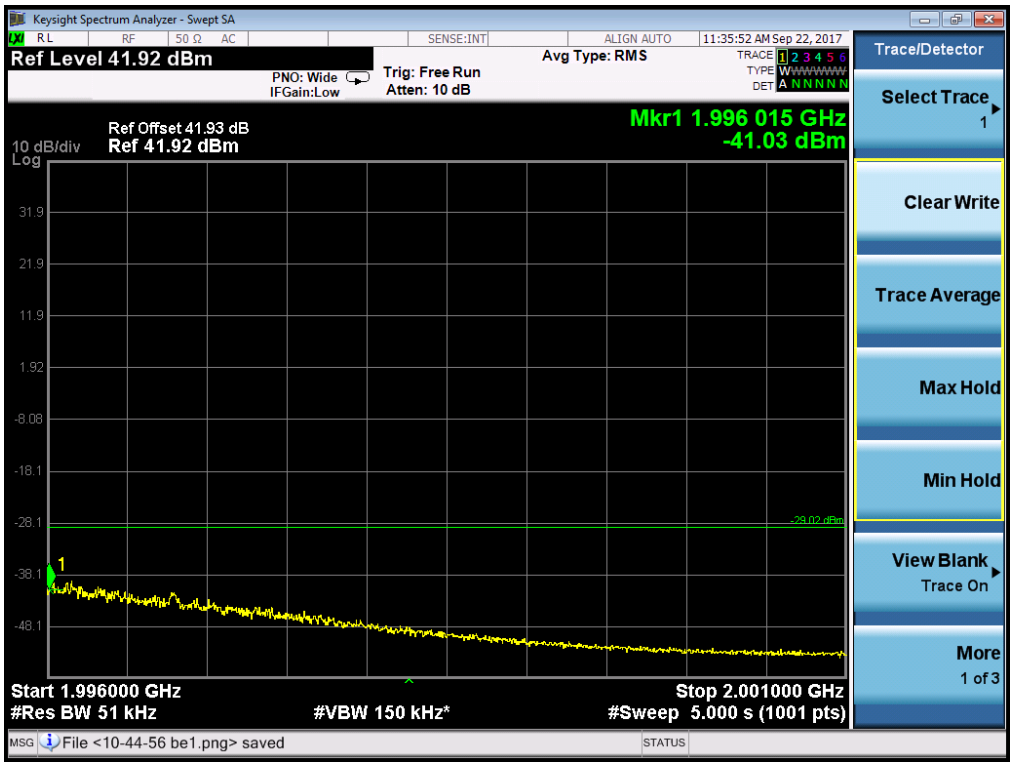




©Copyright. All rights reserved by CTTL.

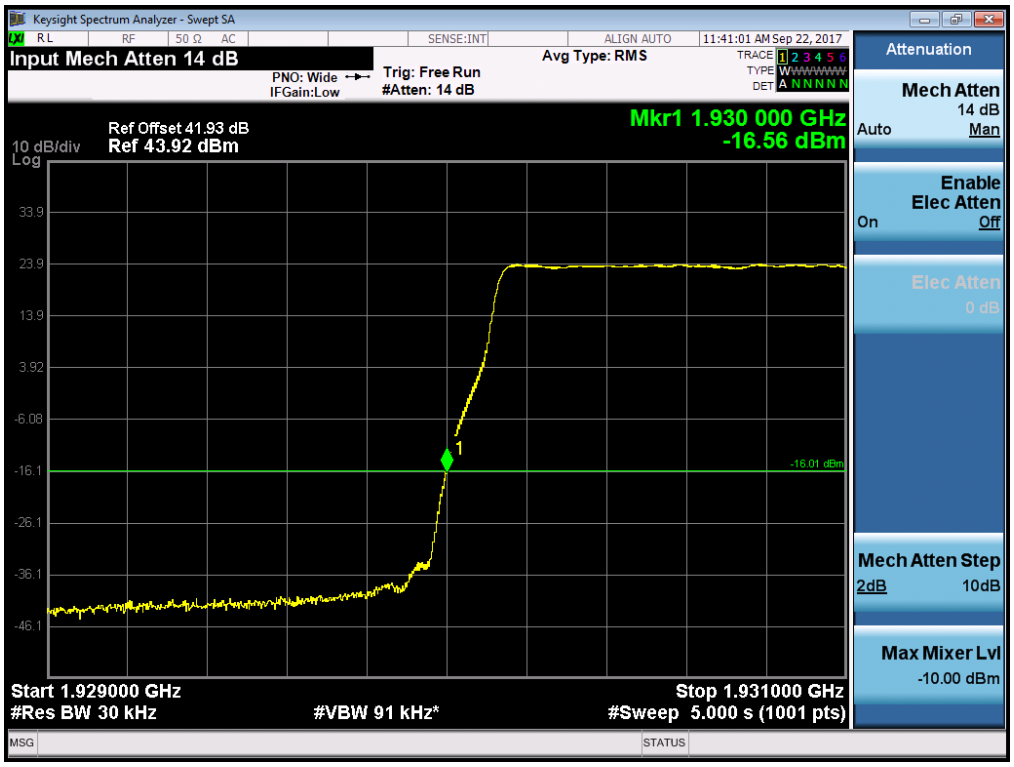
Port A, Channel Position T, 1.4 MHz

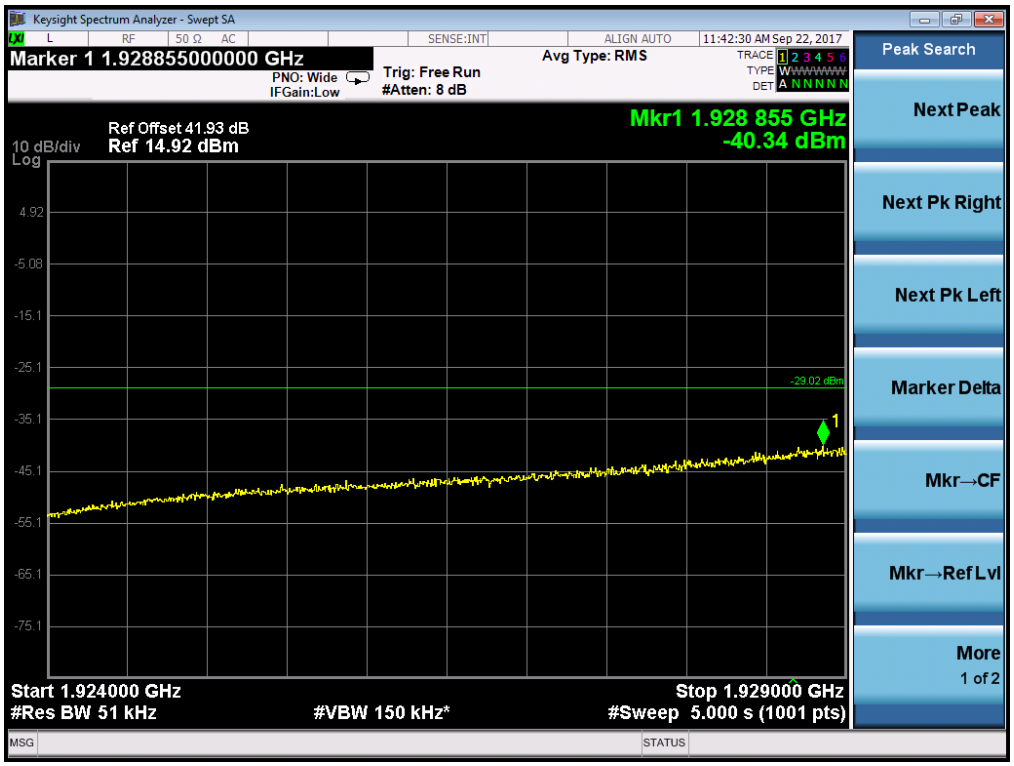




©Copyright. All rights reserved by CTTL.

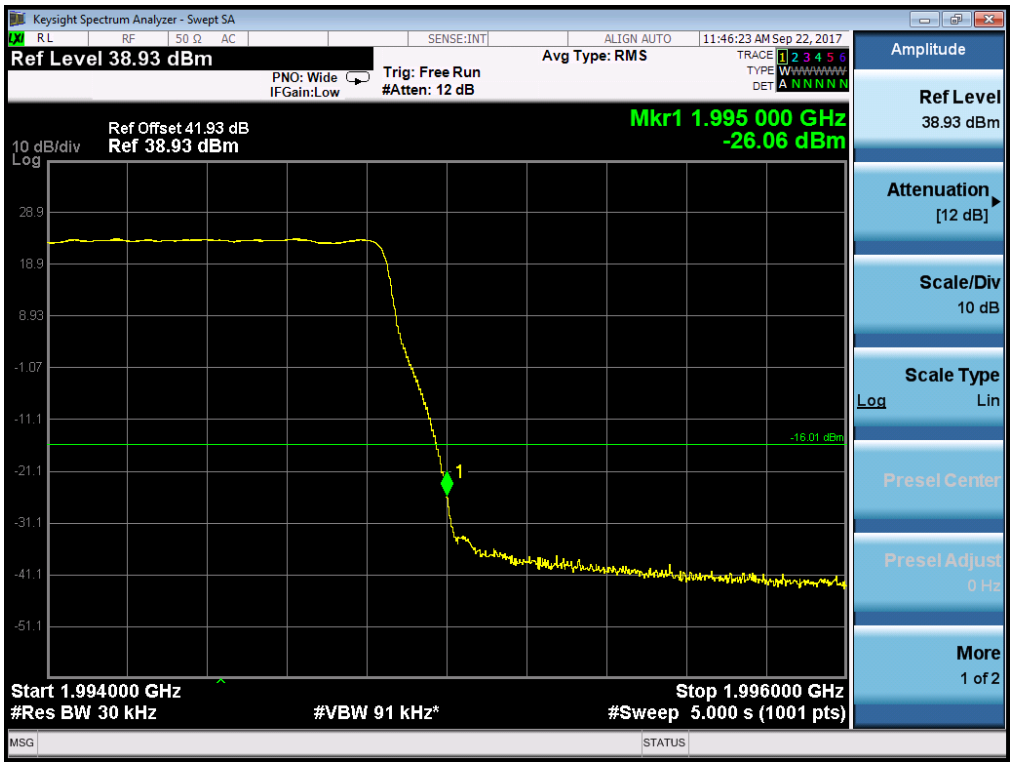
Port A, Channel Position B, 3.0 MHz





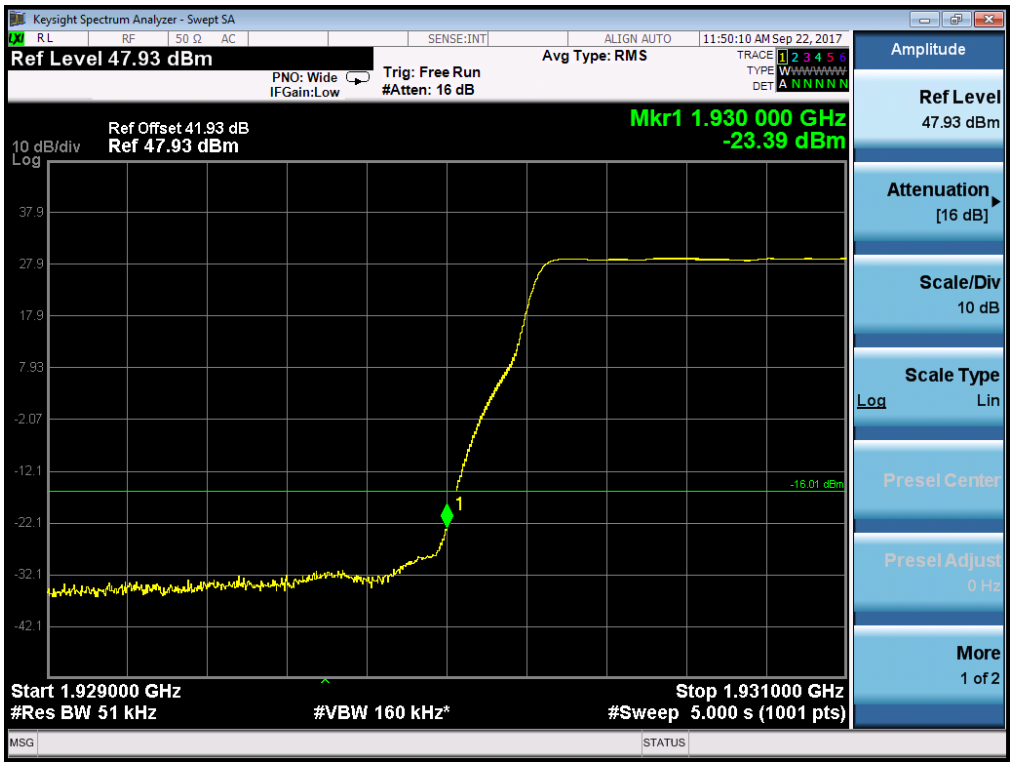
©Copyright. All rights reserved by CTTL.

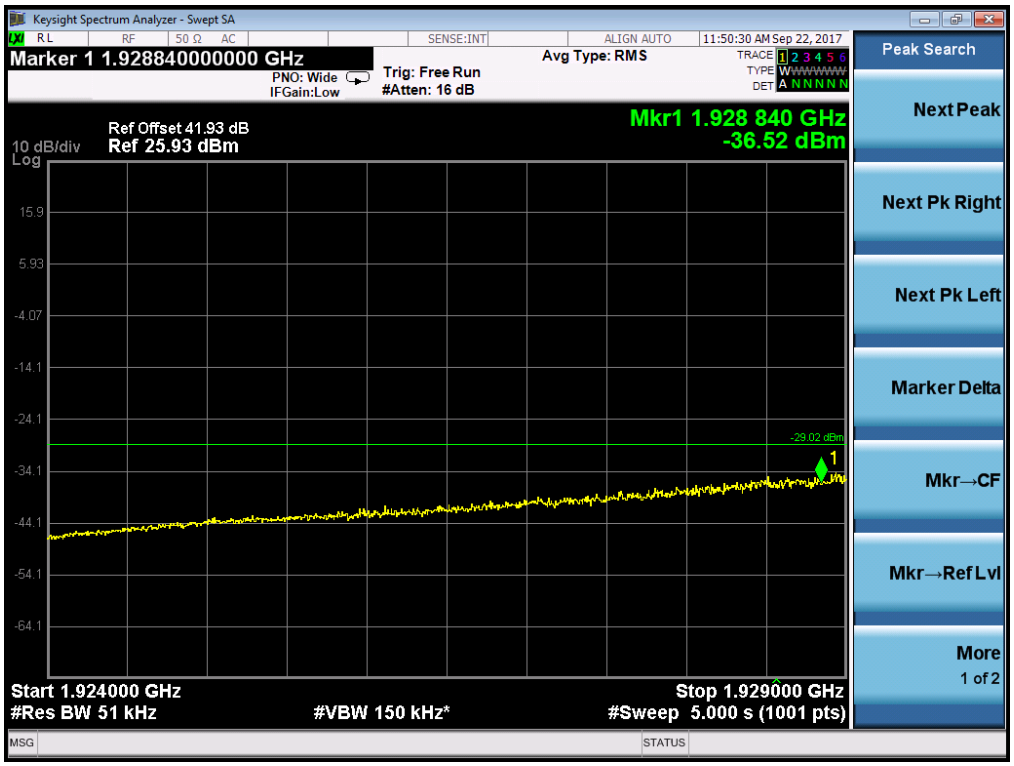
Port A, Channel Position T, 3.0 MHz



©Copyright. All rights reserved by CTTL.

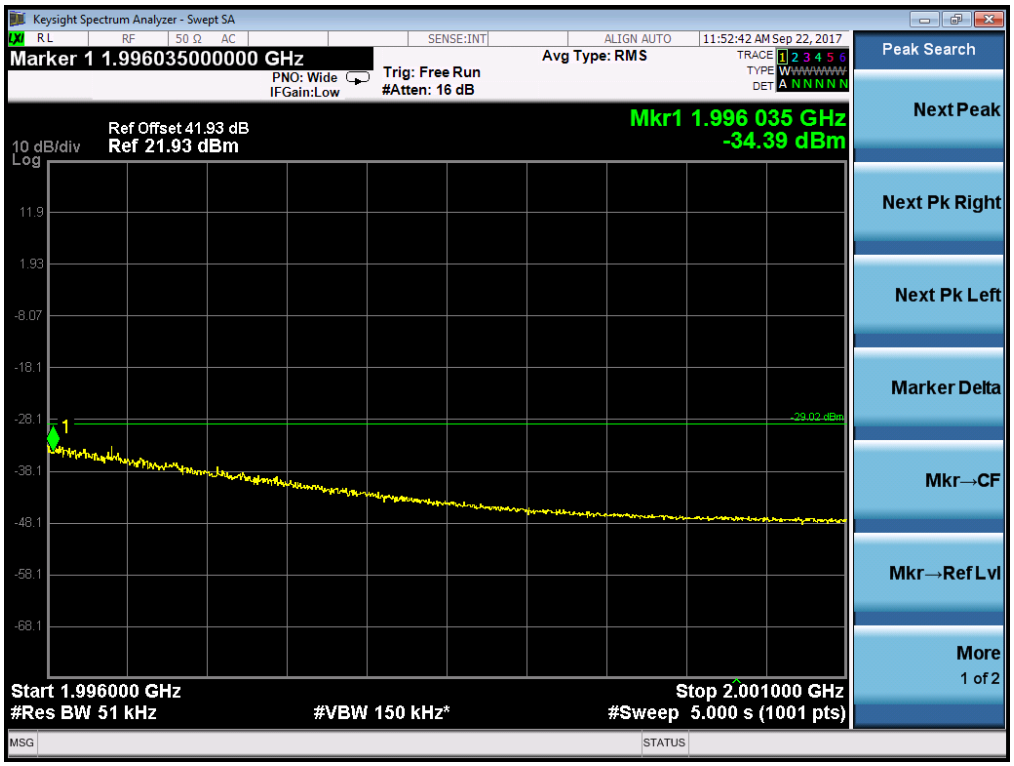
Port A, Channel Position B, 5.0 MHz





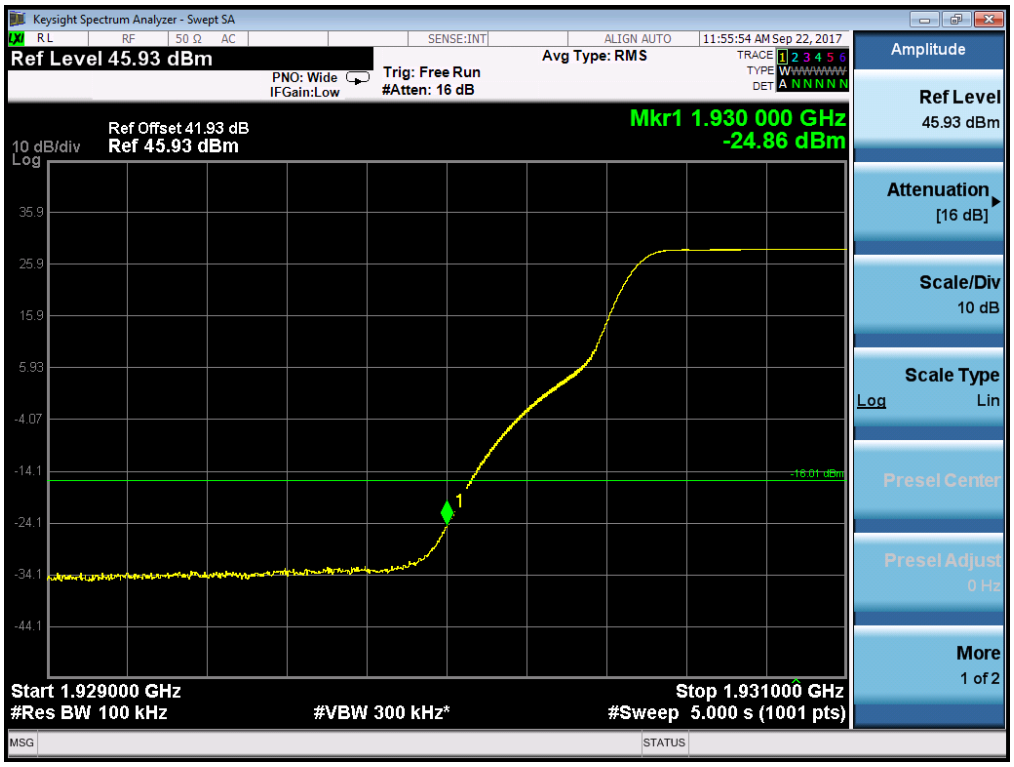
©Copyright. All rights reserved by CTTL.

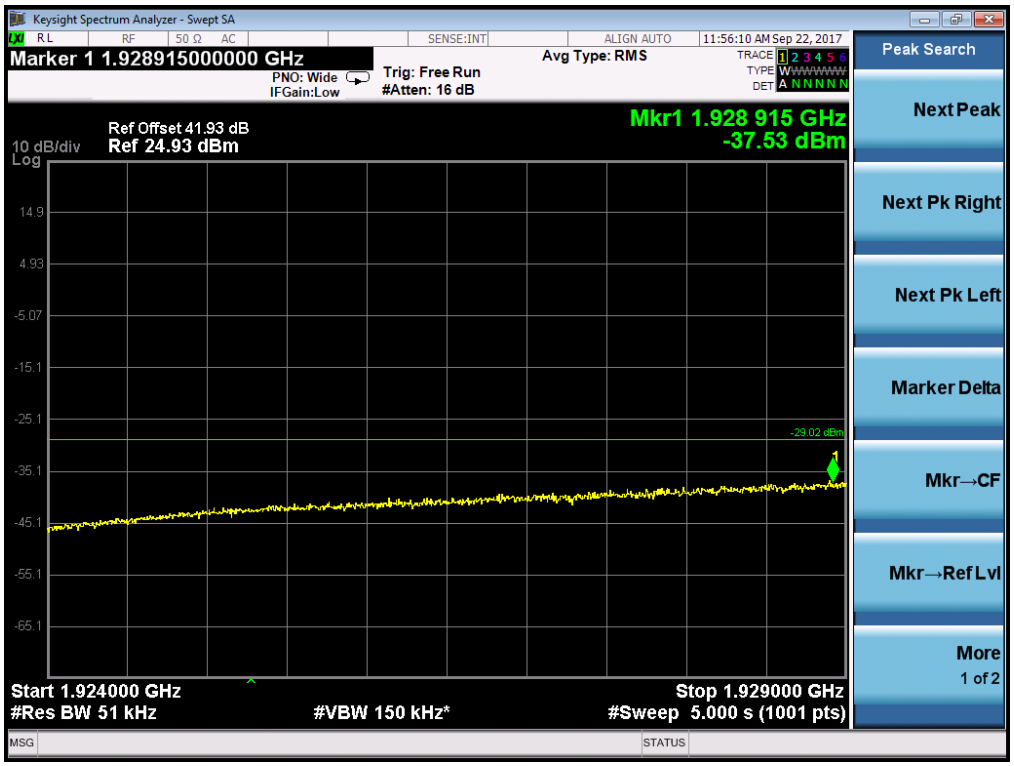
Port A, Channel Position T, 5.0 MHz



©Copyright. All rights reserved by CTTL.

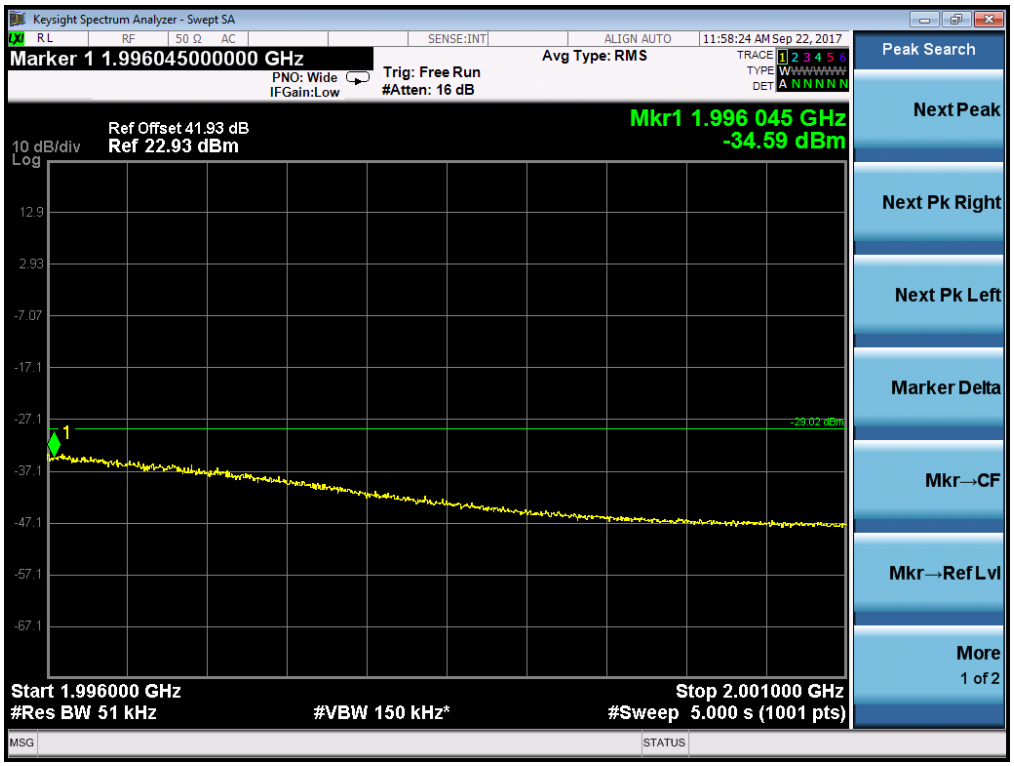
Port A, Channel Position B, 10.0 MHz





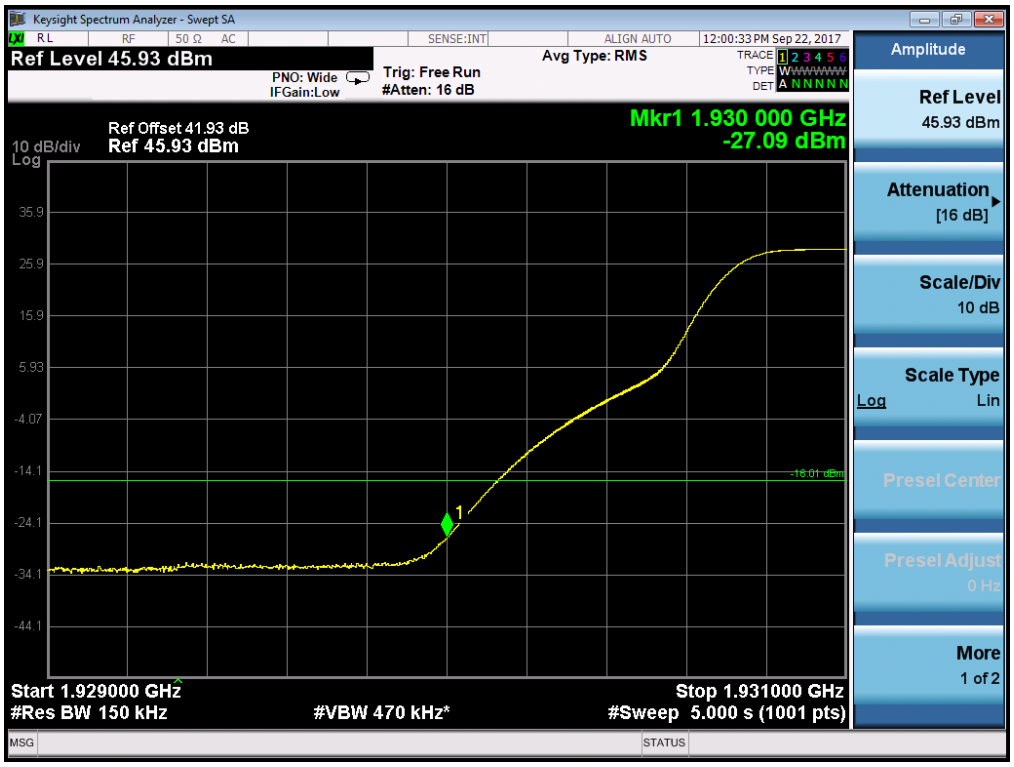
©Copyright. All rights reserved by CTTL.

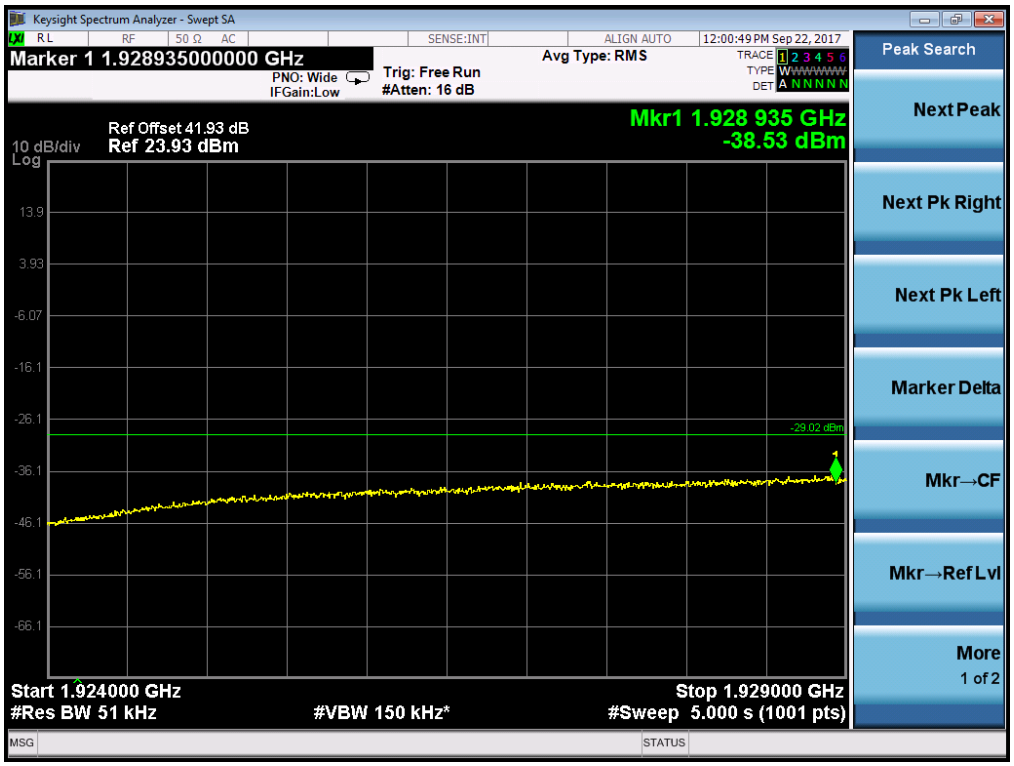
Port A, Channel Position T, 10.0 MHz



©Copyright. All rights reserved by CTTL.

Port A, Channel Position B, 15.0 MHz



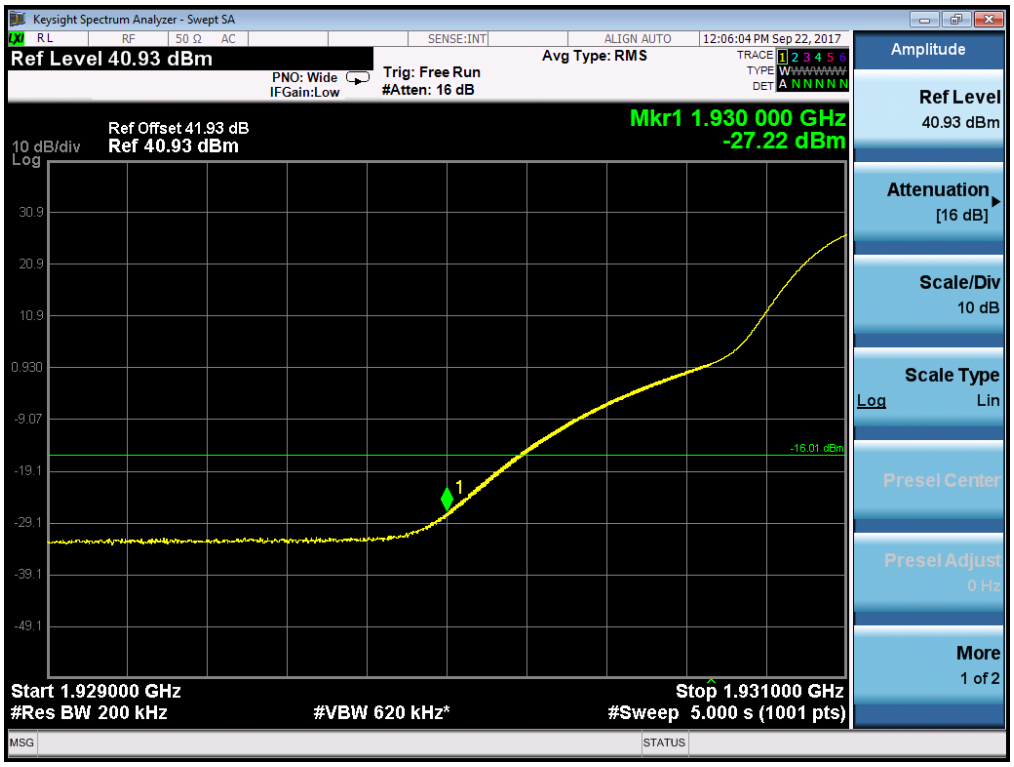


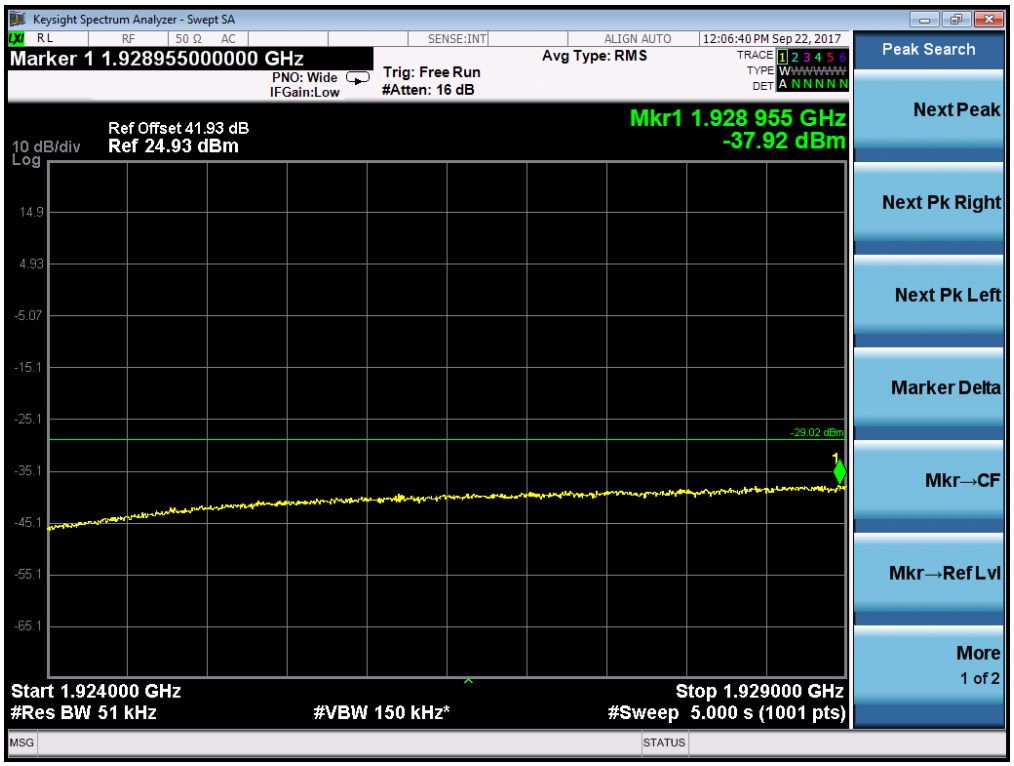
©Copyright. All rights reserved by CTTL.

Port A, Channel Position T, 15.0 MHz

©Copyright. All rights reserved by CTTL.

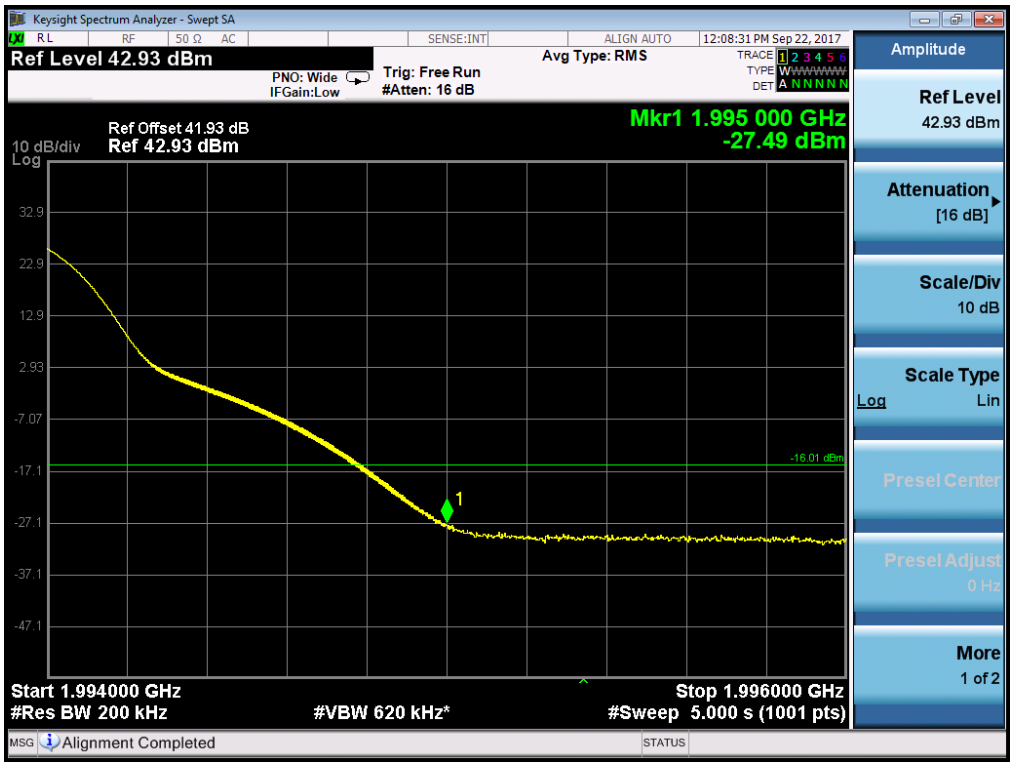
Port A, Channel Position B, 20.0 MHz





©Copyright. All rights reserved by CTTL.

Port A, Channel Position T, 20.0 MHz



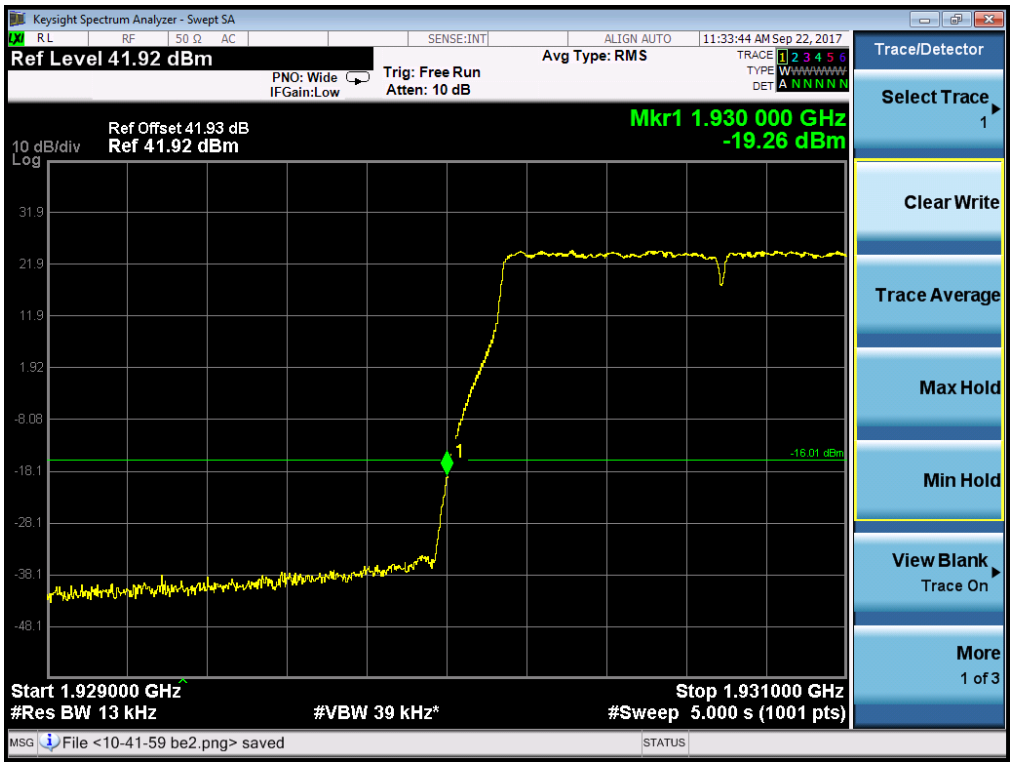
©Copyright. All rights reserved by CTTL.

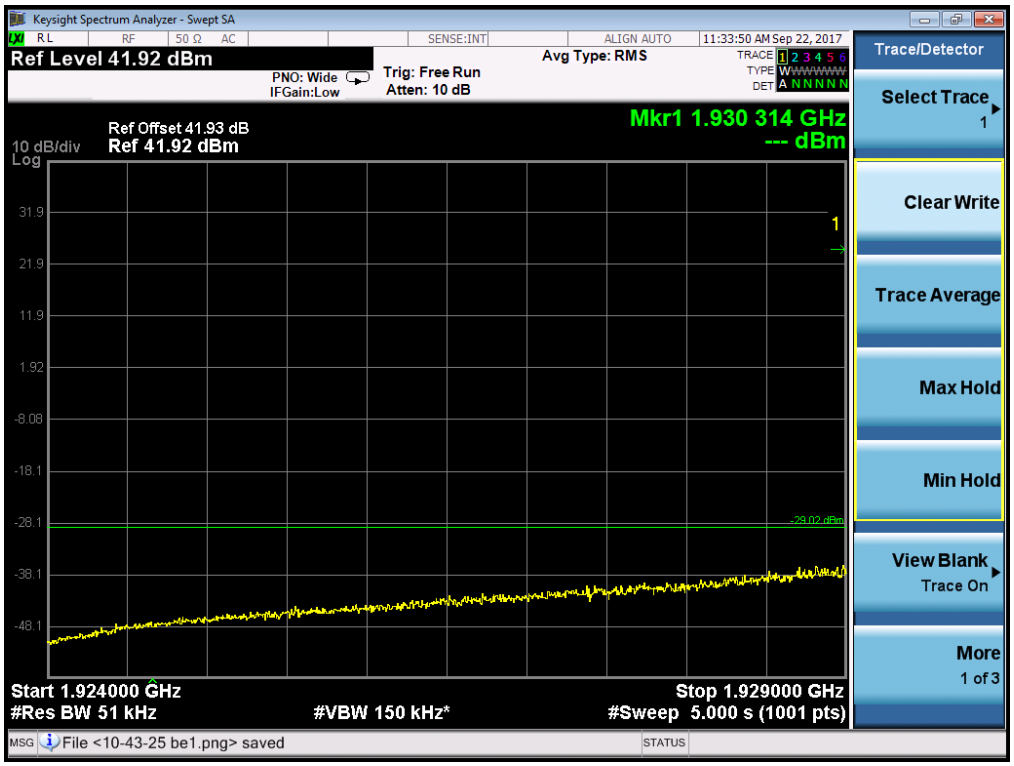
Configuration LTE-MIMO-2C-BE, QPSK

Band Edge Frequency	Channel Frequency (MHz)	Channel Bandwidth	RBW(KHz)	Limit(dBm)
Channel Position B 1930.0MHz	1930.7 + 1932.1	1.4 MHz	13	-16.01
	1931.5 + 1934.5	3.0 MHz	30	-16.01
	1932.5 + 1937.5	5.0 MHz	51	-16.01
	1935.0 + 1945.0	10.0 MHz	100	-16.01
	1937.5 + 1952.5	15.0 MHz	150	-16.01
	1940.0 + 1960.0	20.0 MHz	200	-16.01
Channel Position T 1995.0MHz	1994.3 + 1992.9	1.4 MHz	13	-16.01
	1993.5 + 1990.5	3.0 MHz	30	-16.01
	1992.5 + 1987.5	5.0 MHz	51	-16.01
	1990.0 + 1980.0	10.0 MHz	100	-16.01
	1987.5 + 1972.5	15.0 MHz	150	-16.01
	1985.0 + 1965.0	20.0 MHz	200	-16.01

©Copyright. All rights reserved by CTTL.

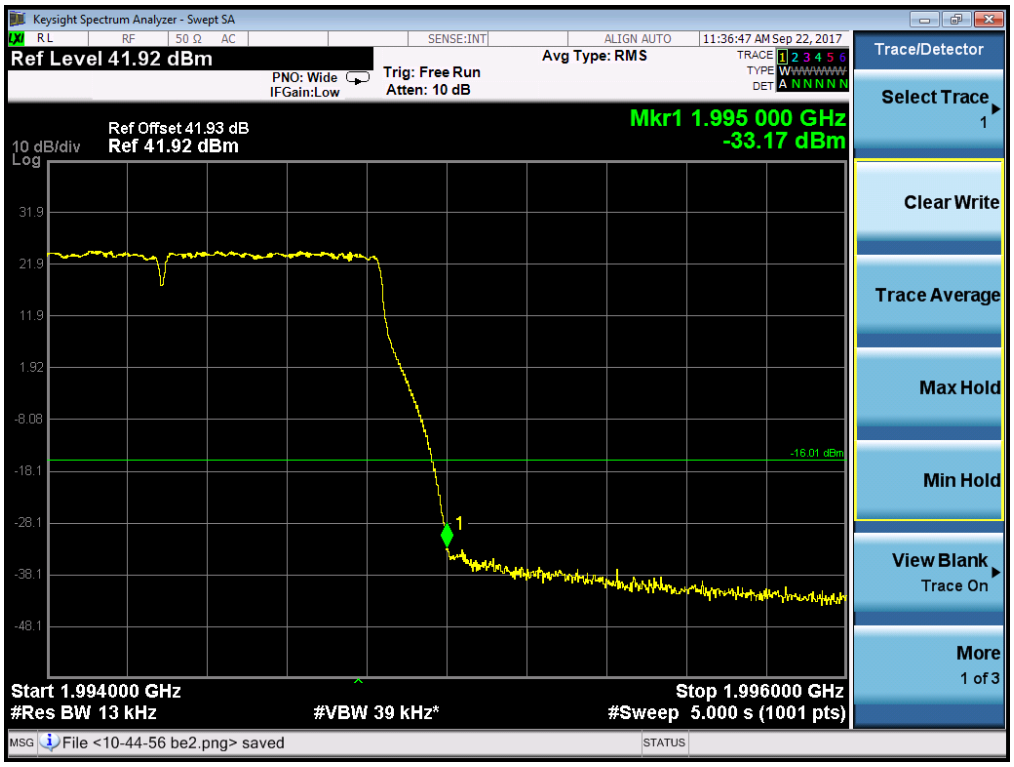
Channel Position B, 1.4 MHz





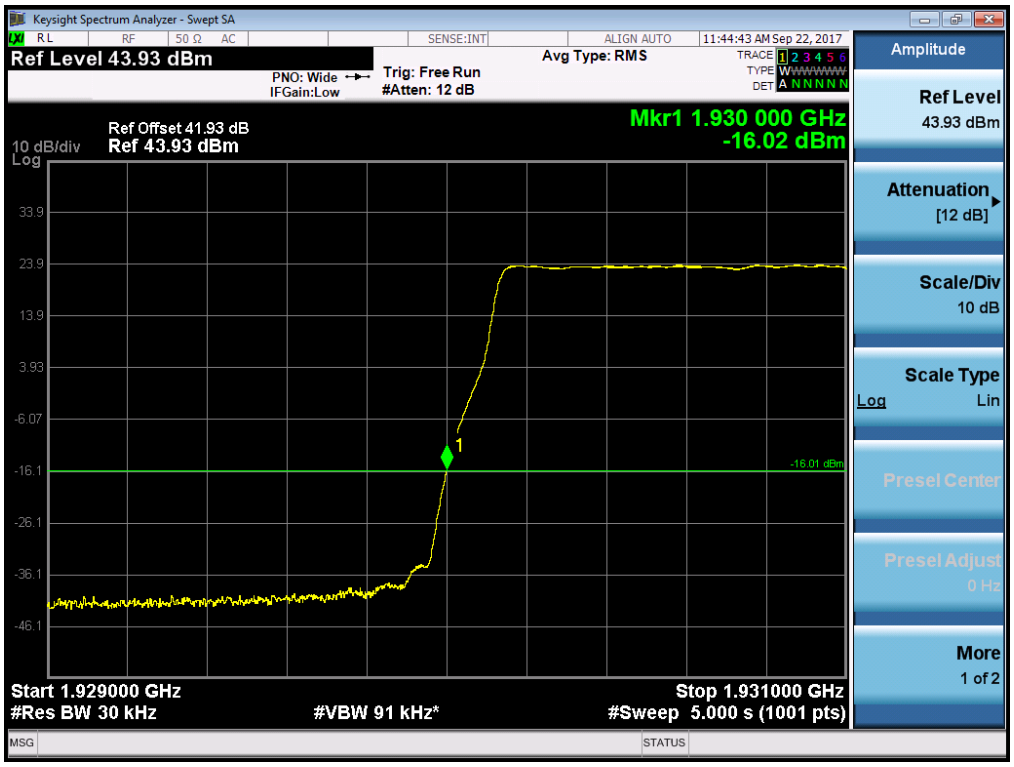
©Copyright. All rights reserved by CTTL.

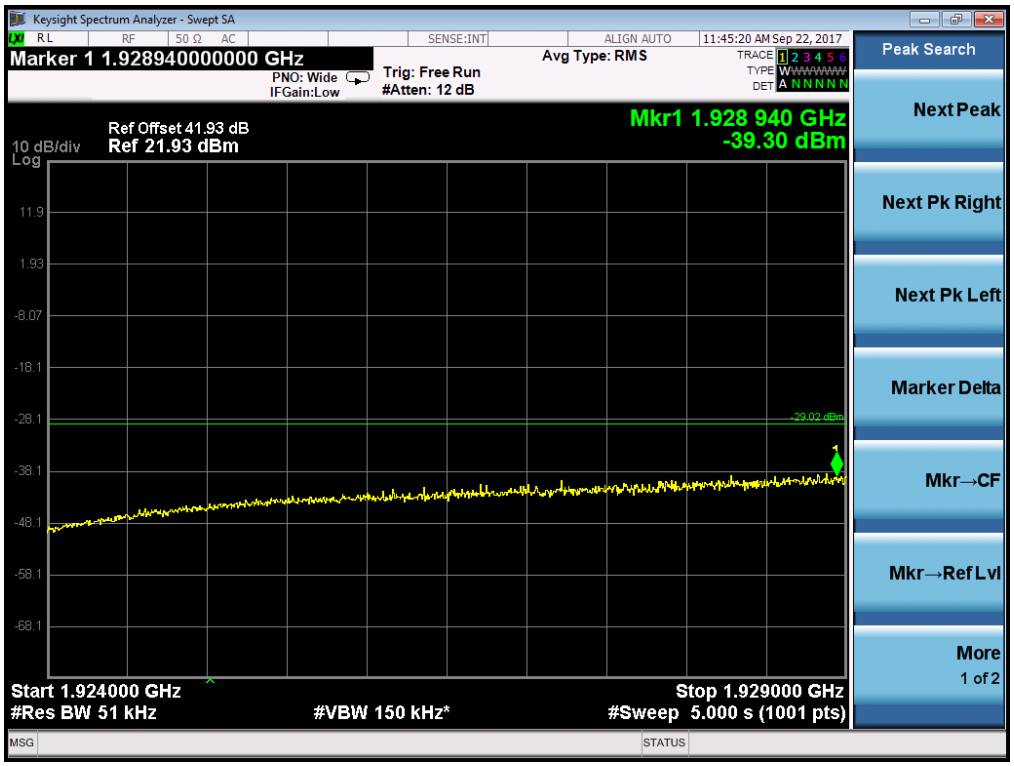
Channel Position T, 1.4 MHz



©Copyright. All rights reserved by CTTL.

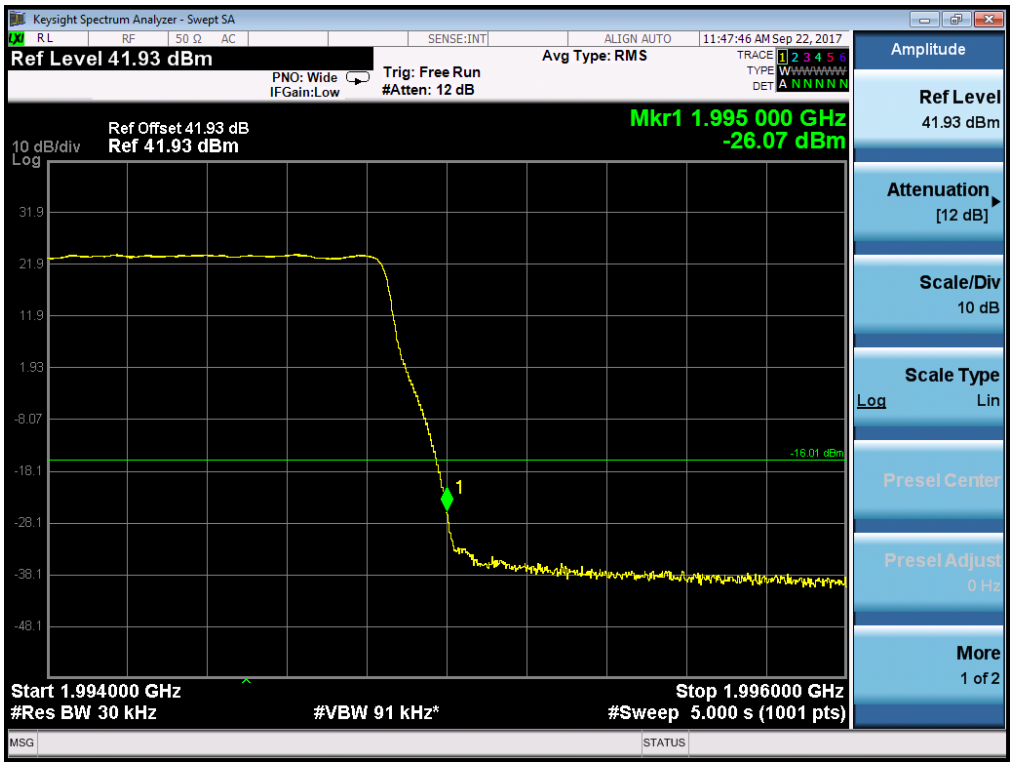
Channel Position B, 3.0 MHz

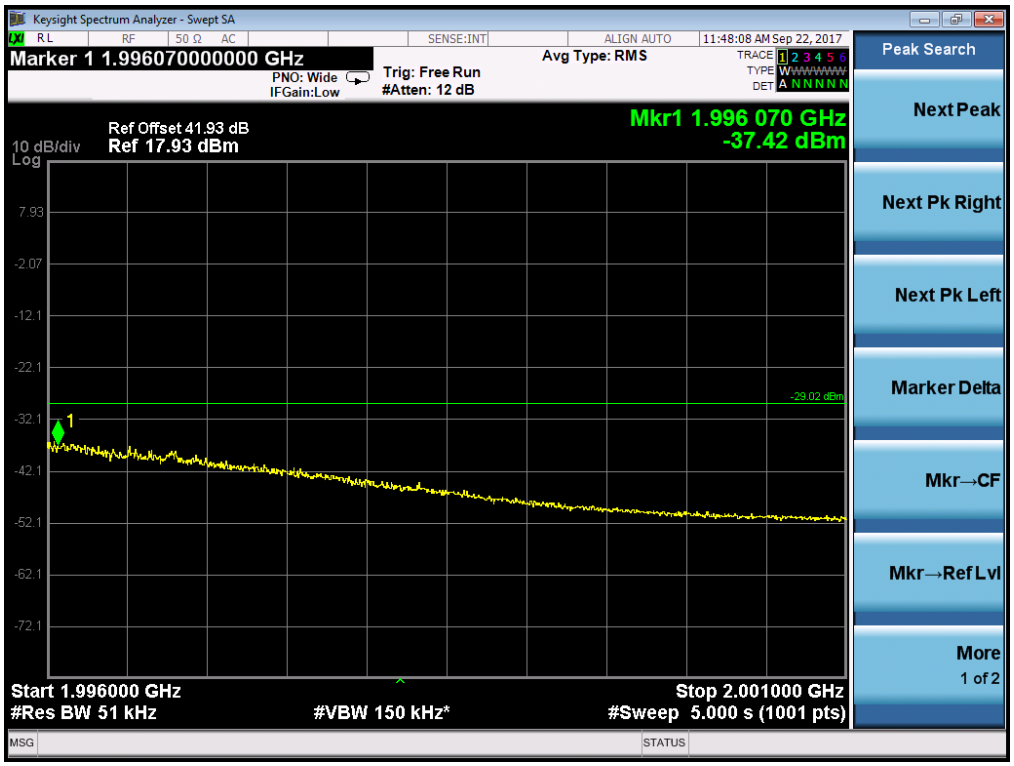




©Copyright. All rights reserved by CTTL.

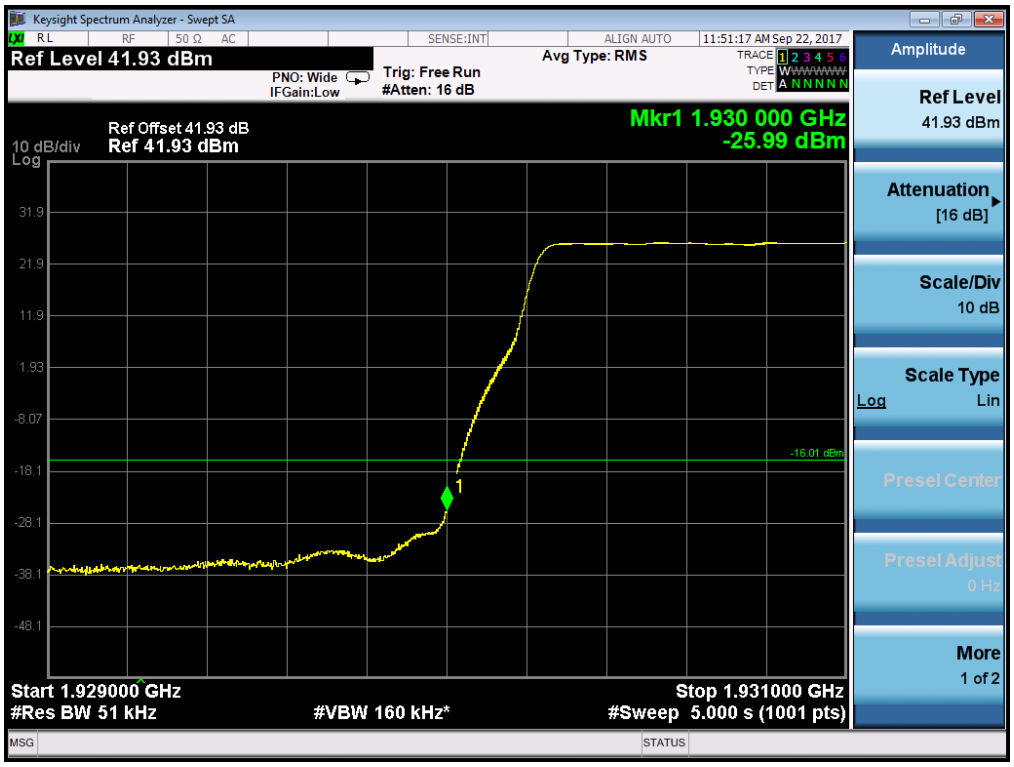
Channel Position T, 3.0 MHz

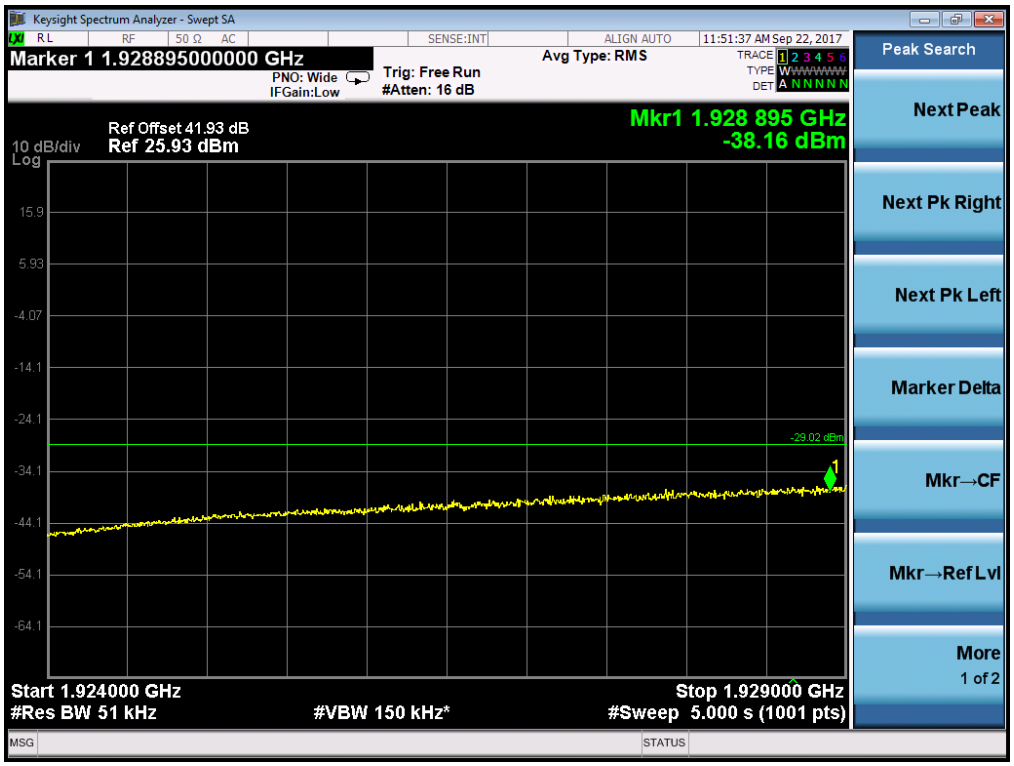




©Copyright. All rights reserved by CTTL.

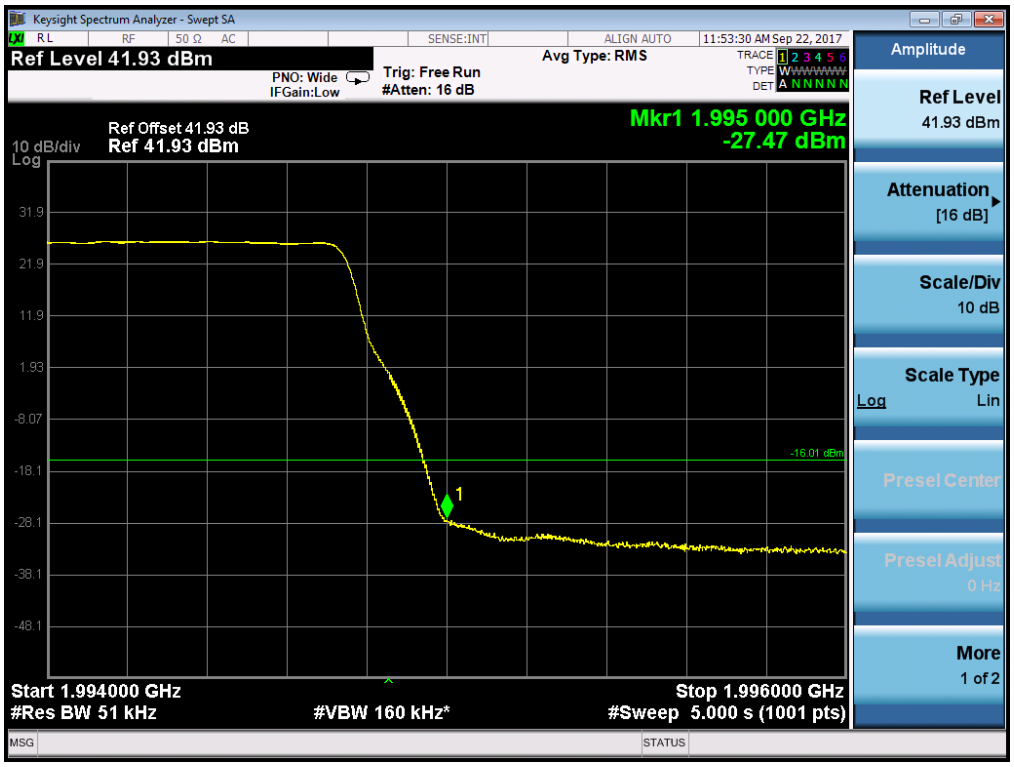
Channel Position B, 5.0 MHz





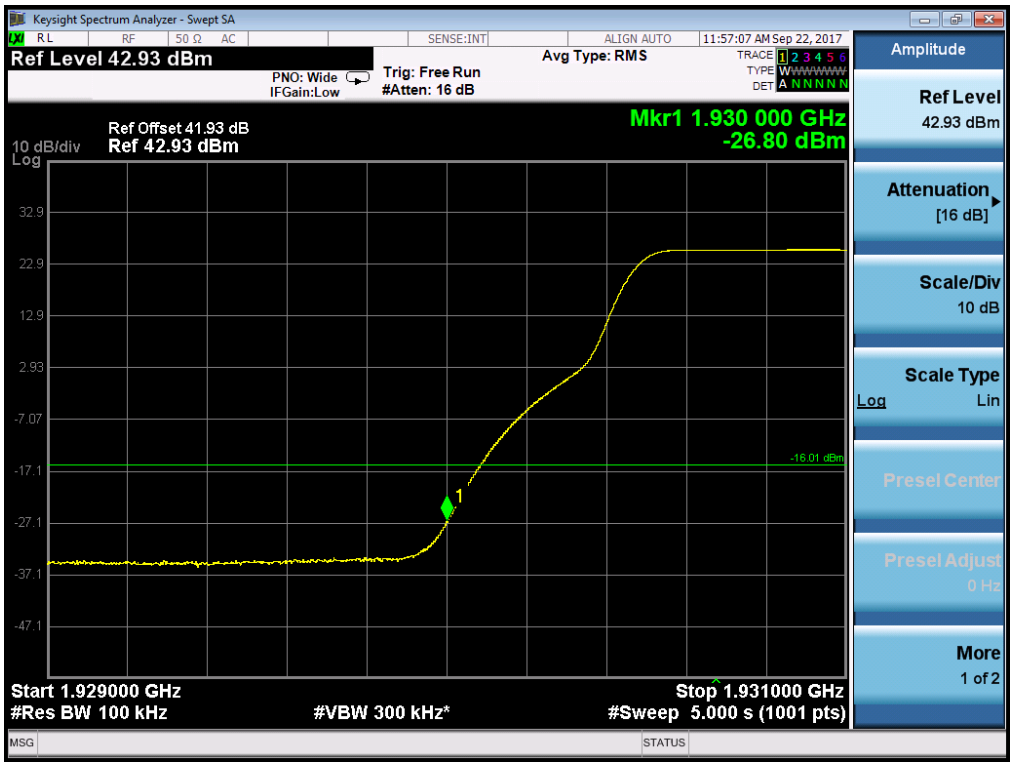
©Copyright. All rights reserved by CTTL.

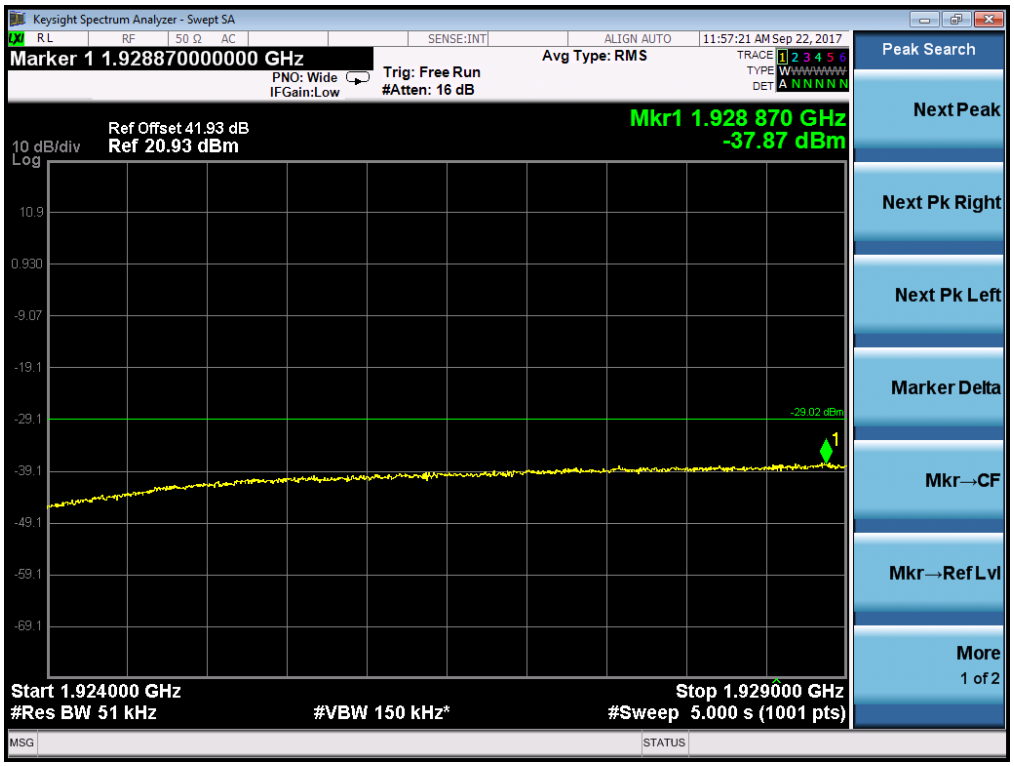
Channel Position T, 5.0 MHz



©Copyright. All rights reserved by CTTL.

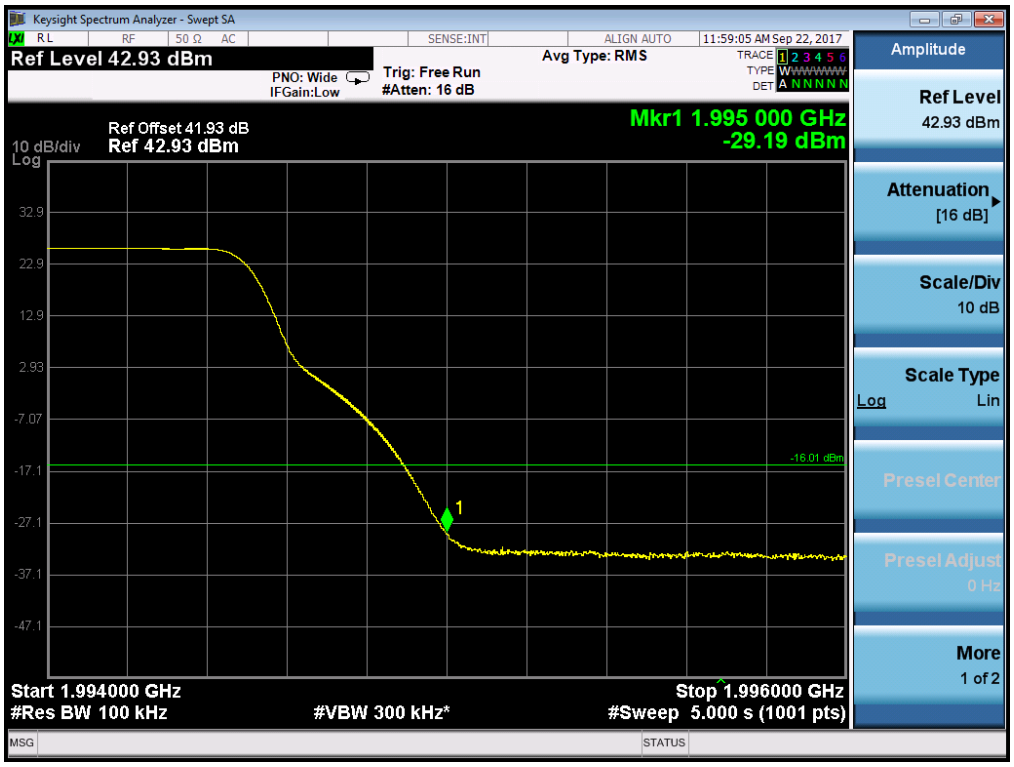
Channel Position B, 10.0 MHz





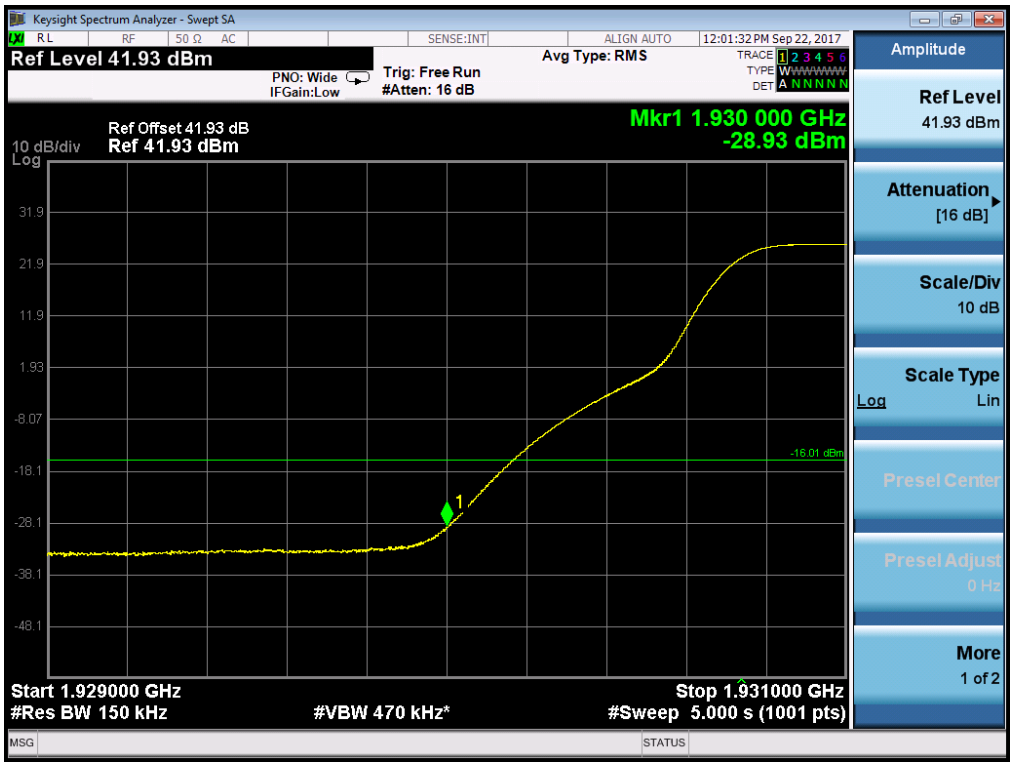
©Copyright. All rights reserved by CTTL.

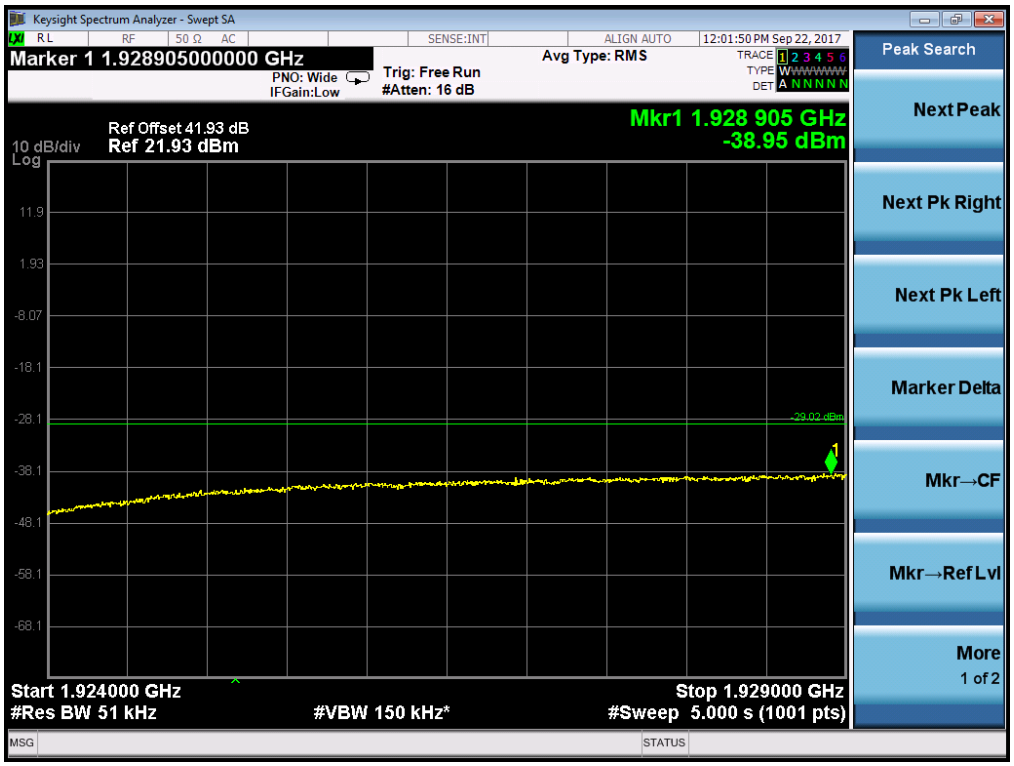
Channel Position T, 10.0 MHz



©Copyright. All rights reserved by CTTL.

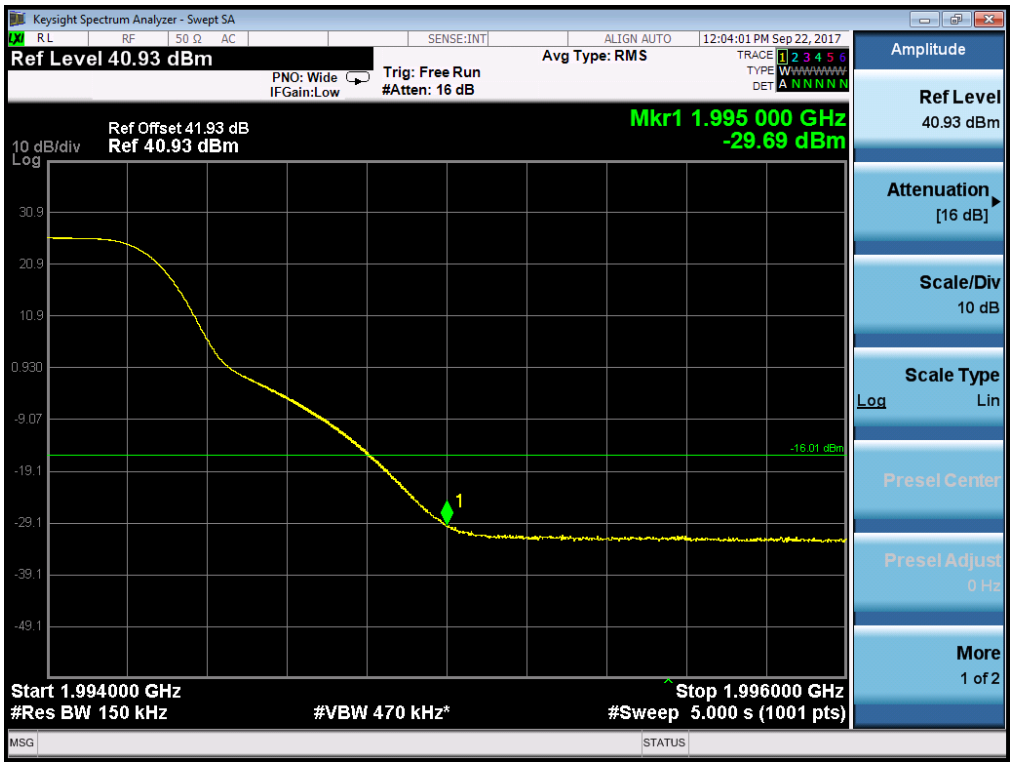
Channel Position B, 15.0 MHz





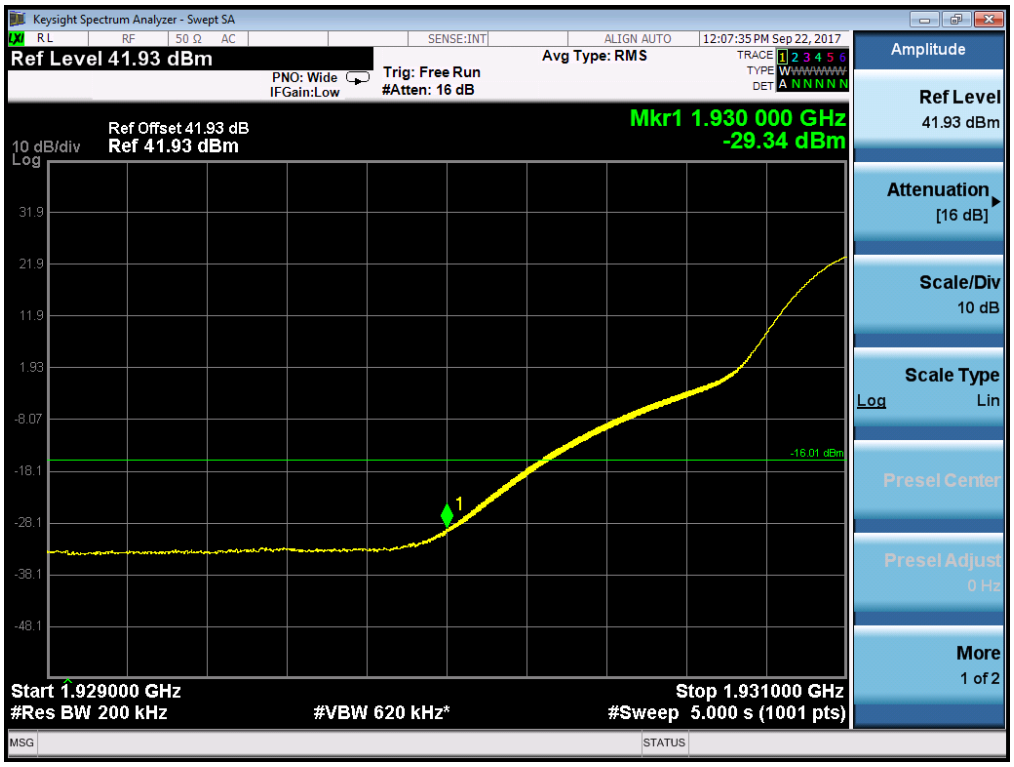
©Copyright. All rights reserved by CTTL.

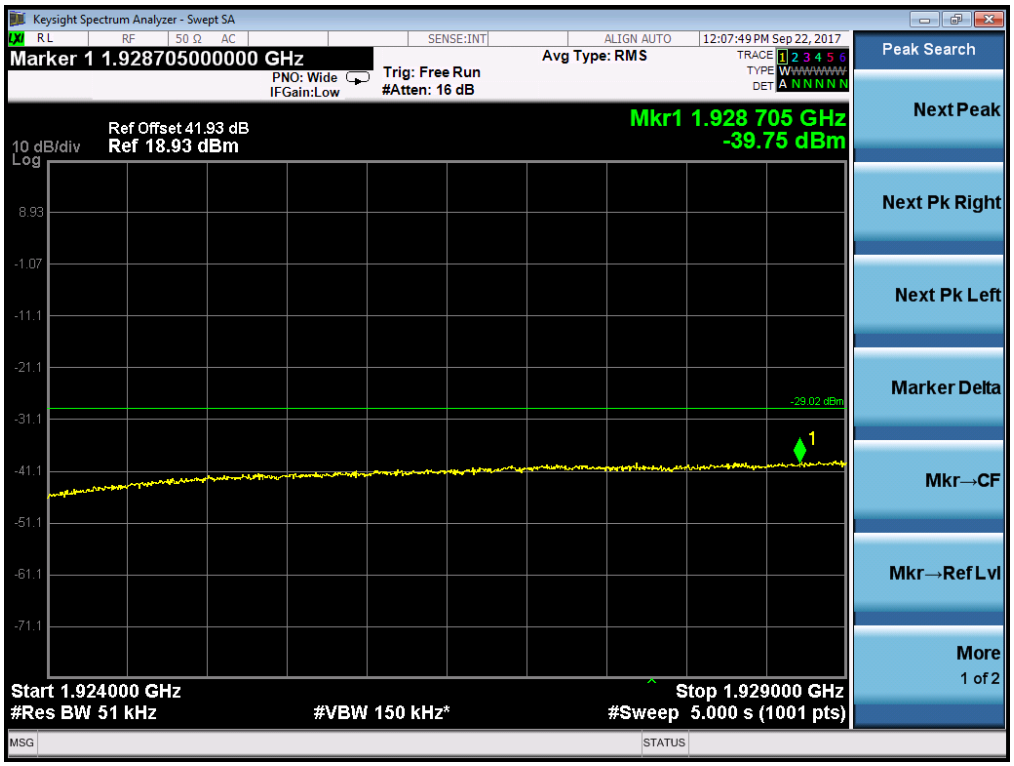
Channel Position T, 15.0 MHz



©Copyright. All rights reserved by CTTL.

Channel Position B, 20.0 MHz





©Copyright. All rights reserved by CTTL.

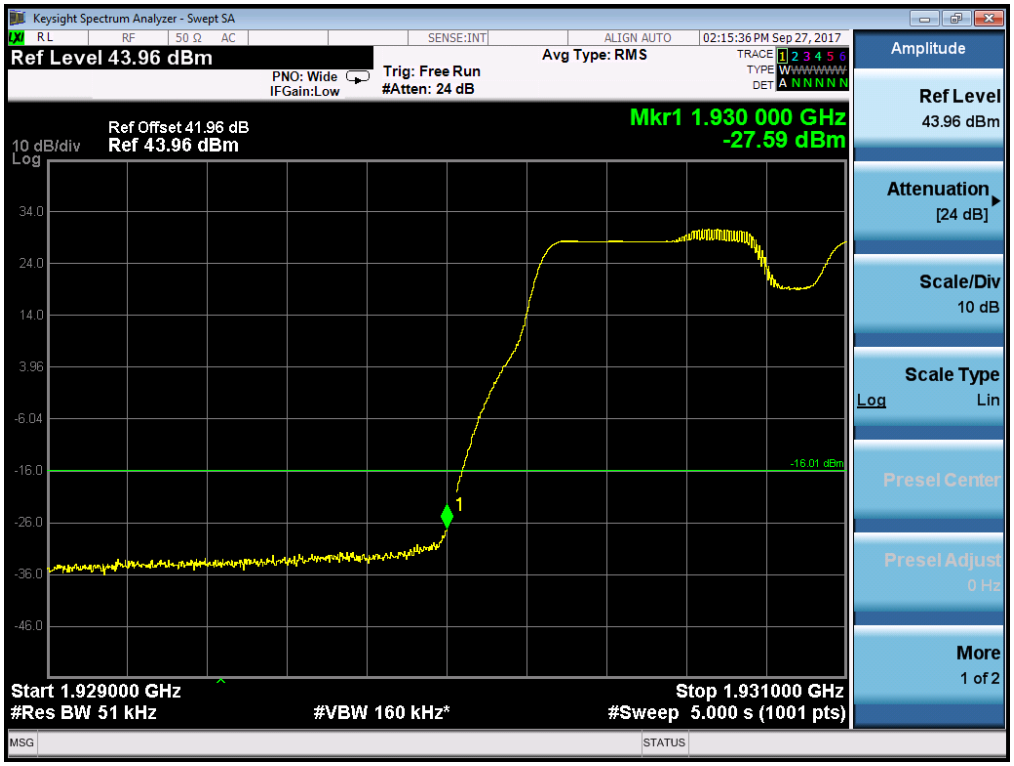
Channel Position T, 20.0 MHz

©Copyright. All rights reserved by CTTL.

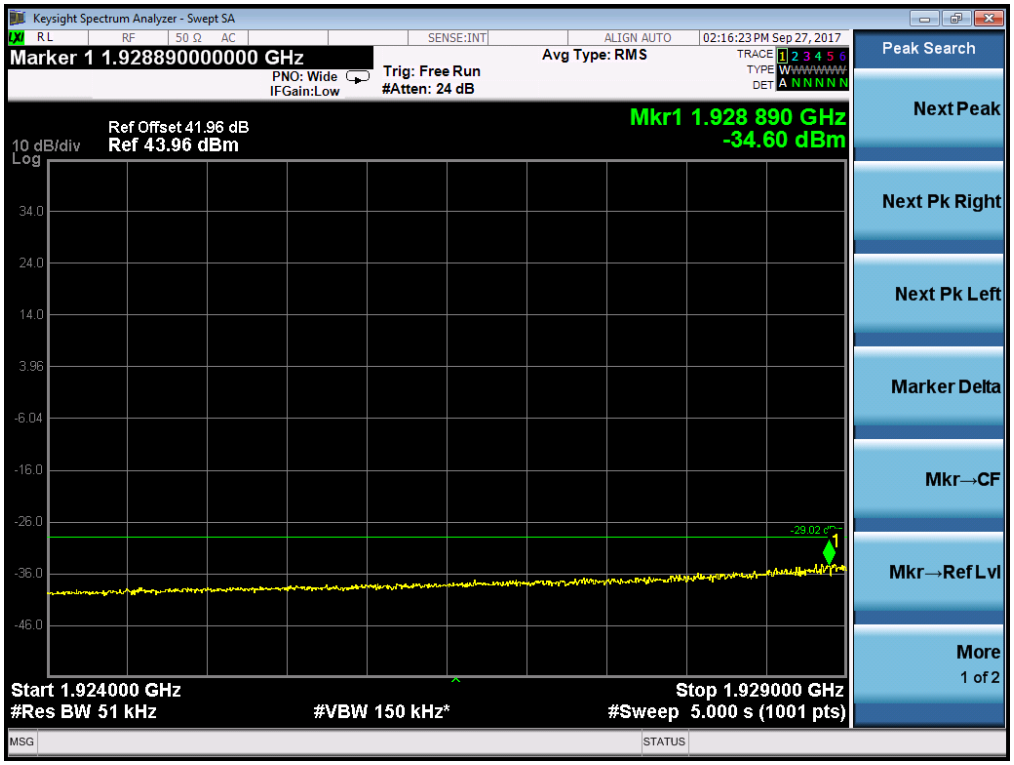
Configuration NB-IoT, QPSK

Band Edge Frequency	Channel Frequency (MHz)	Channel Bandwidth	RBW(KHz)	Limit(dBm)
Channel Position B 1930.0MHz	1932.5	5.0 MHz	51	-16.01
	1940.0	20.0 MHz	200	-16.01
Channel Position T 1995.0MHz	1992.5	5.0 MHz	51	-16.01
	1985.0	20.0 MHz	200	-16.01

Channel Position B, 5.0 MHz



©Copyright. All rights reserved by CTTL.



Channel Position T, 5.0 MHz

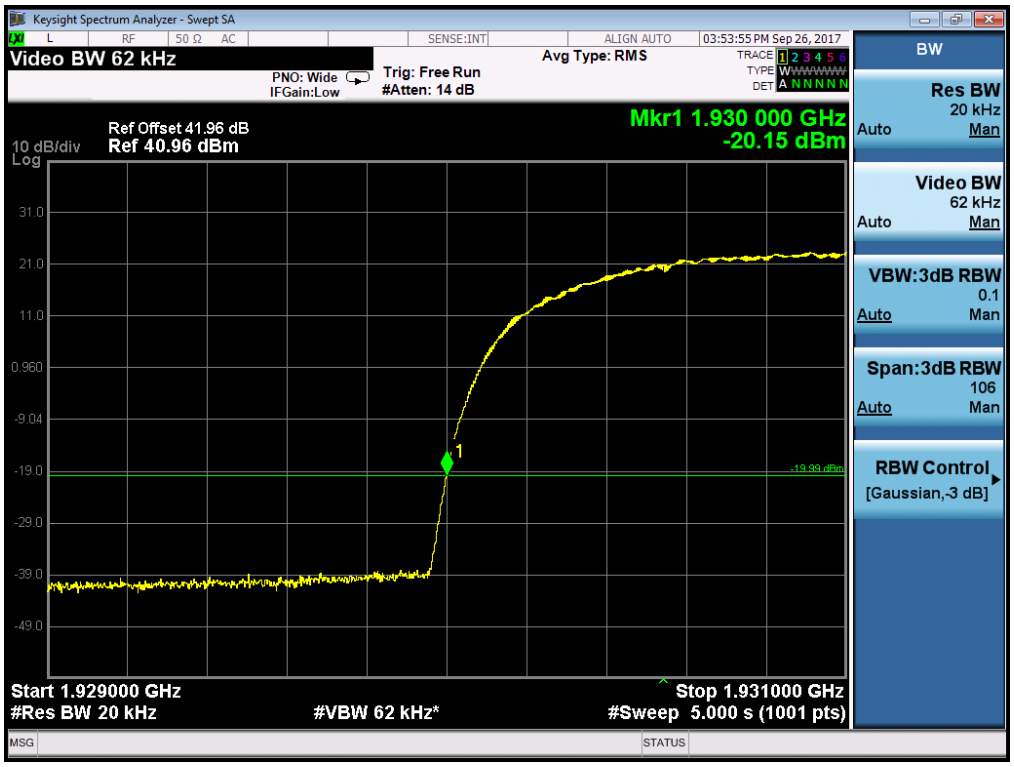
©Copyright. All rights reserved by CTTL.

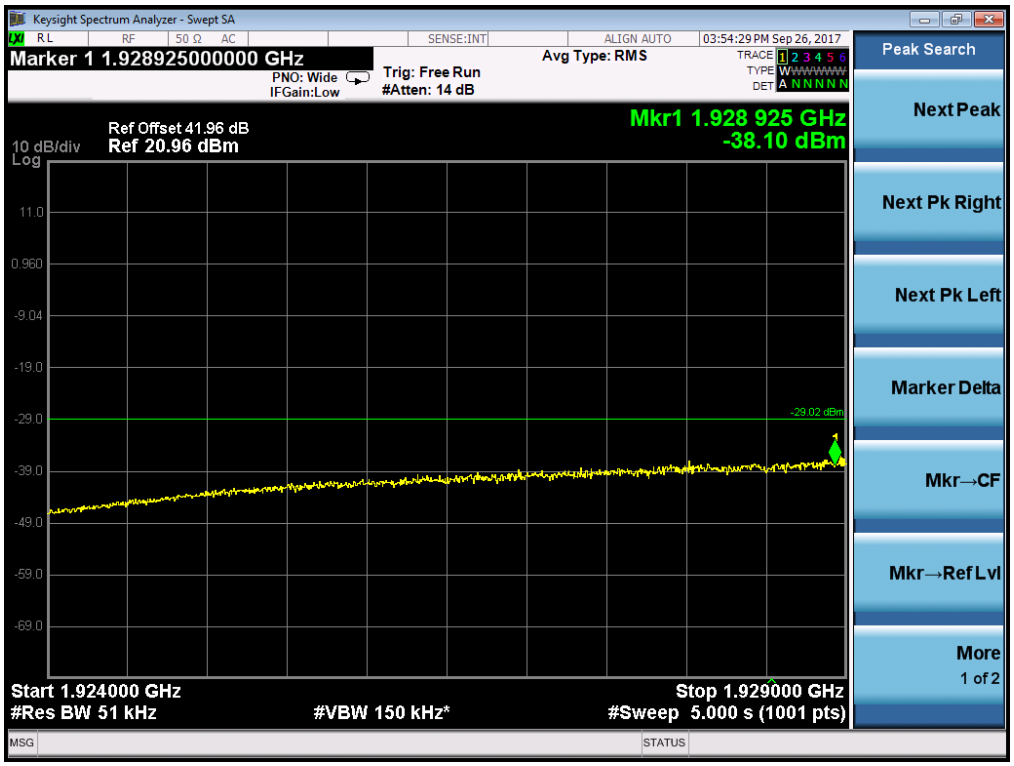
Configuration WCDMA+LTE-MIMO-MC-1-BE (1WCDMA, 16QAM + 1LTE, QPSK)

Band Edge Frequency	Channel Frequency (MHz)	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(W)1932.4 + (L)1937.5	(W) 5.0MHz, (L) 5.0 MHz	20	-19.99
	(W)1932.4 + (L)1945.0	(W) 5.0MHz, (L) 20.0 MHz	20	-19.99
Channel Position T 1995.0MHz	(W)1992.6 + (L)1987.5	(W) 5.0MHz, (L) 5.0 MHz	51	-16.01
	(W)1992.6 + (L)1980.0	(W) 5.0MHz, (L) 20.0 MHz	51	-16.01

©Copyright. All rights reserved by CTTL.

Channel Position B (W) 1932.4MHz + (L) 1937.5MHz



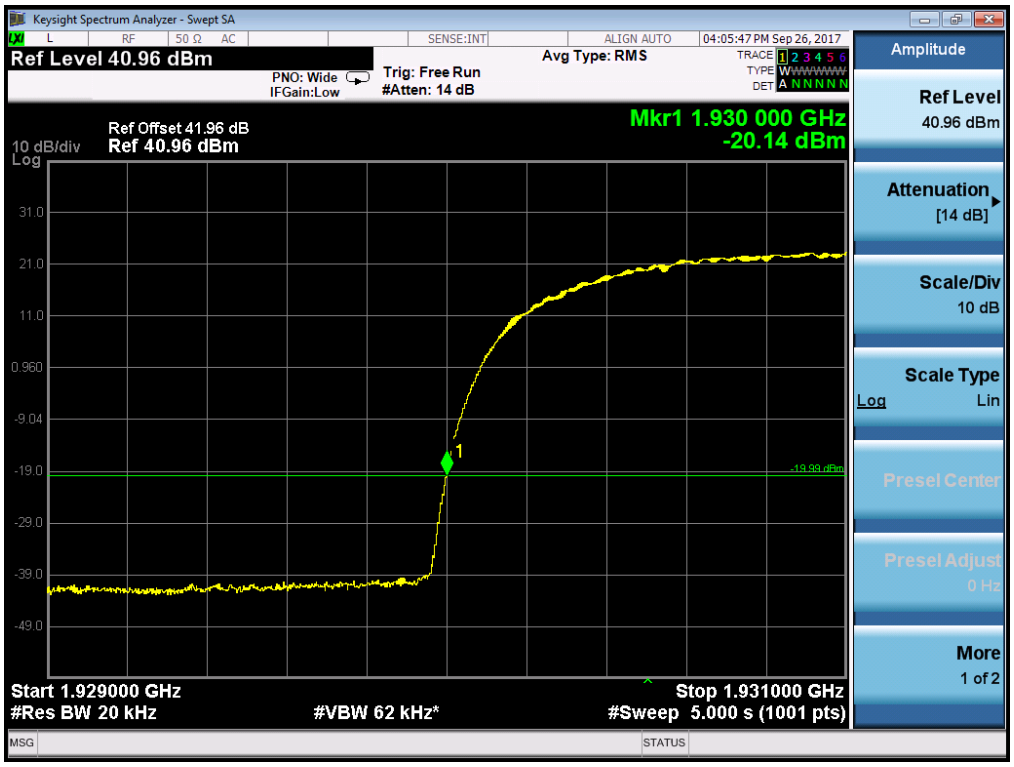


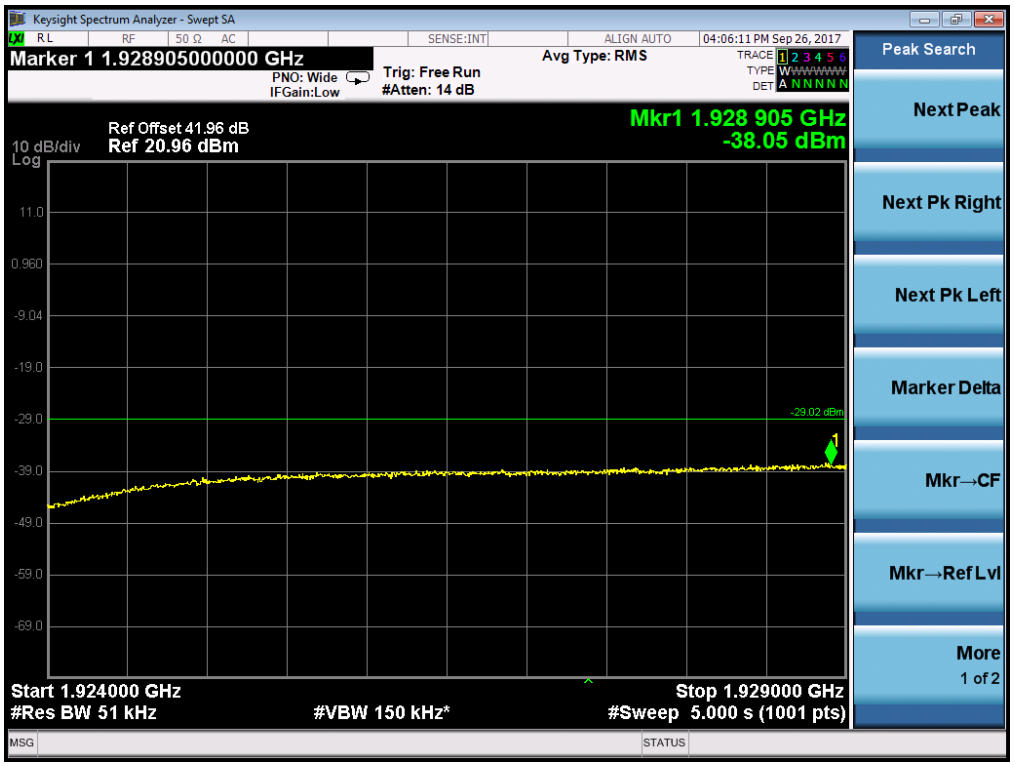
©Copyright. All rights reserved by CTTL.

Channel Position T (L) 1987.5MHz + (W) 1992.6MHz

©Copyright. All rights reserved by CTTL.

Channel Position B (W) 1932.4MHz + (L) 1945.0MHz





©Copyright. All rights reserved by CTTL.

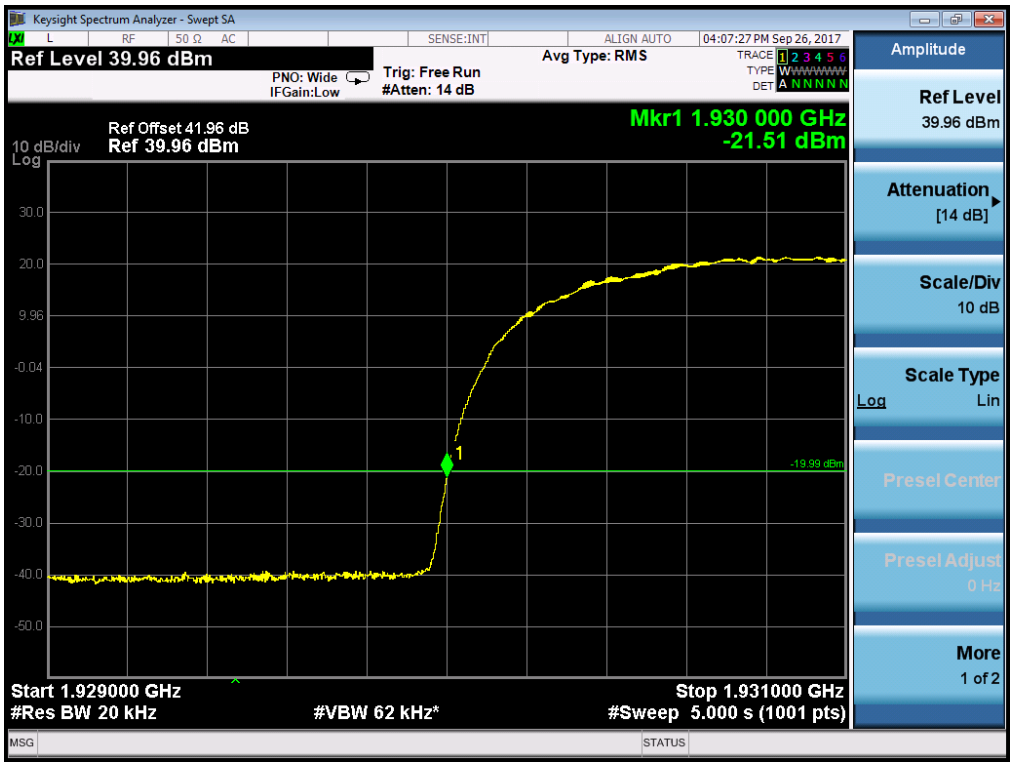
Channel Position T (L) 1980.0MHz + (W) 1992.6MHz

©Copyright. All rights reserved by CTTL.

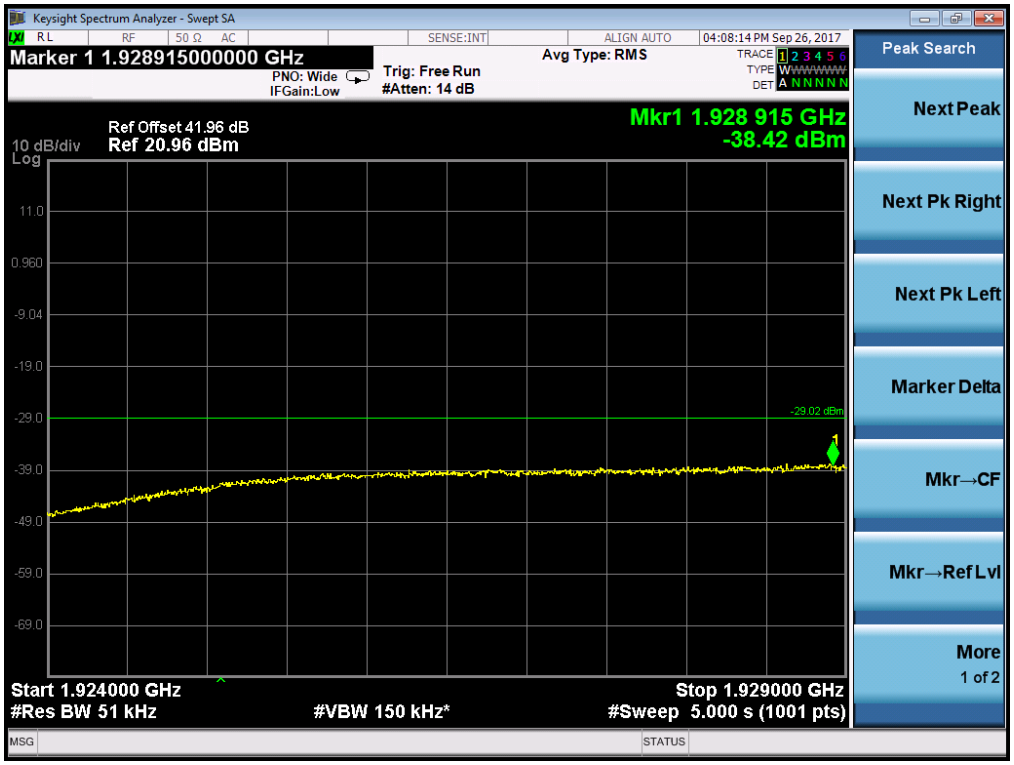
Configuration WCDMA+LTE-MIMO-MC-2-BE (2WCDMA, 16QAM + 1LTE, QPSK)

Band Edge Frequency	Channel Frequency (MHz)	Channel Bandwidth	RBW (KHz)	Limit (dBm)
Channel Position B 1930.0MHz	(W) 1932.4 + (W) 1937.4+(L)1942.5	(W) 5.0MHz, (L) 5.0 MHz	20	-19.99
	(W) 1932.4 + (W) 1937.4+(L)1950.0	(W) 5.0MHz, (L) 20.0 MHz	20	-19.99
Channel Position T 1995.0MHz	(W) 1992.6 + (W) 1987.6 + (L)1982.5	(W) 5.0MHz, (L) 5.0 MHz	51	-16.01
	(W) 1992.6 + (W) 1987.6 + (L)1975.0	(W) 5.0MHz, (L) 20.0 MHz	51	-16.01

Channel Position B (W) 1932.4 + (W) 1937.4+ (L)1942.5

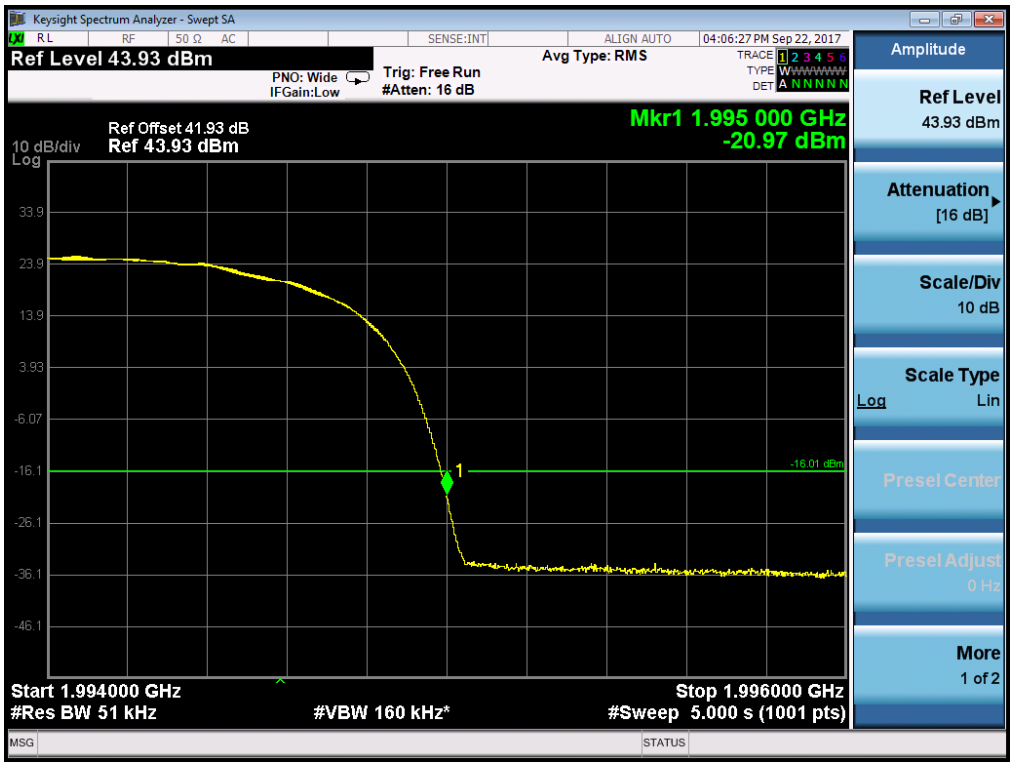


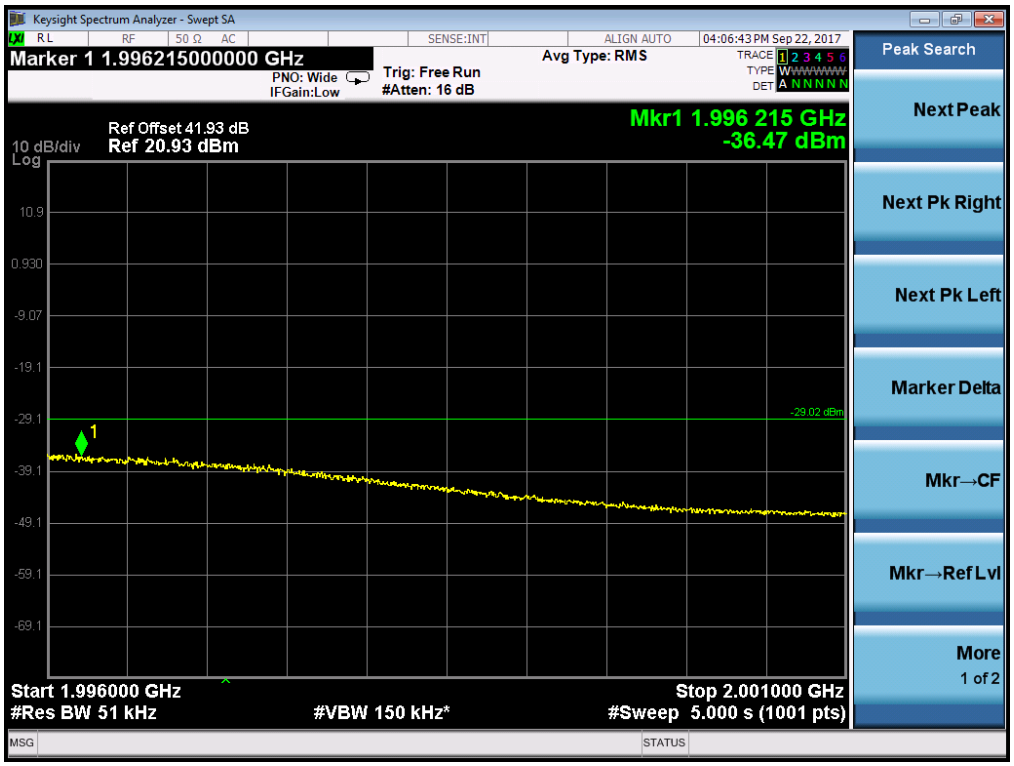
©Copyright. All rights reserved by CTTL.



©Copyright. All rights reserved by CTTL.

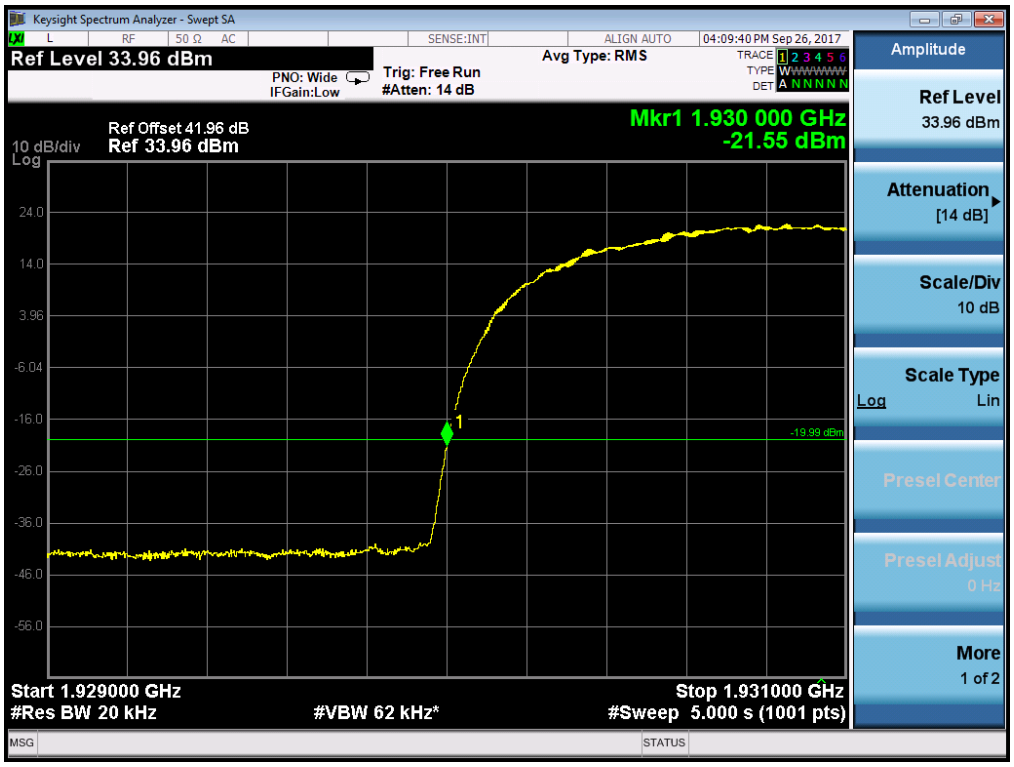
Channel Position T (W) 1992.6 + (W) 1987.6 + (L)1982.5





©Copyright. All rights reserved by CTTL.

Channel Position B (W) 1932.4 + (W) 1937.4+ (L)1950.0



©Copyright. All rights reserved by CTTL.

Channel Position T (W) 1992.6 + (W) 1987.6 + (L)1975.0

©Copyright. All rights reserved by CTTL.

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)
IC 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 -3.01dB [10Log2] by using the Measure and Add 10Log(N) dB technique according to FCC KDB 662911 D01 Multiple Transmitter Output v02r01 accounting for simultaneous transmission from antenna ports RF A and RF B. Then the limit was adjust to -16.01dBm.

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 + 10log(P) dB.

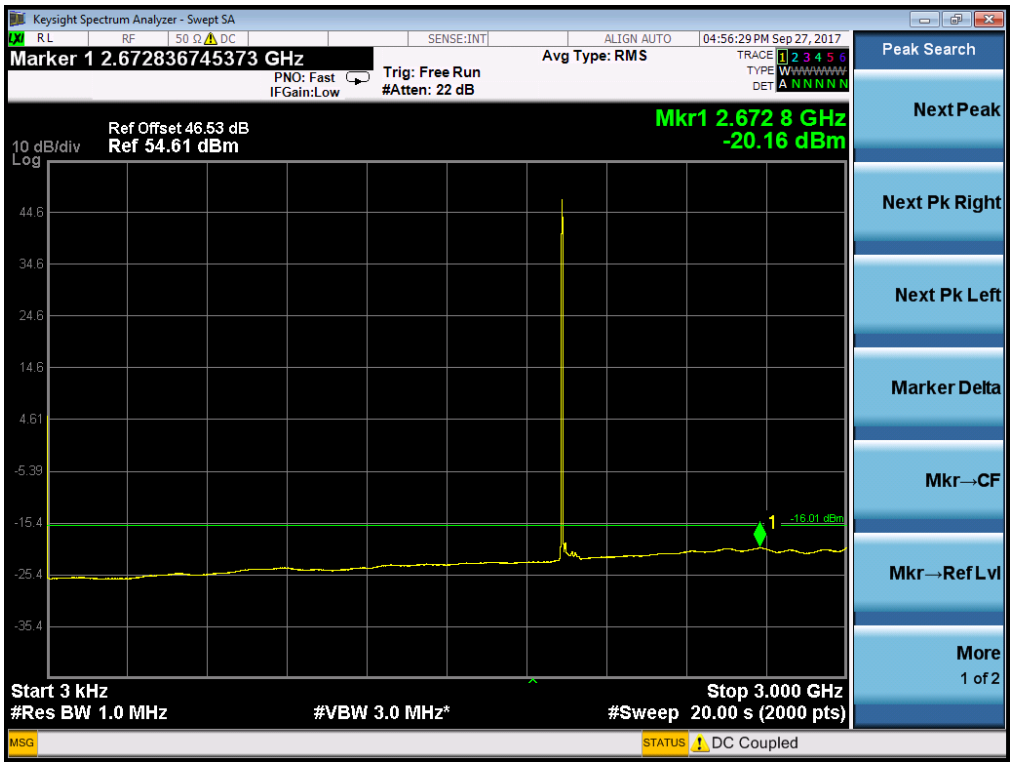
A.4.4 Measurement results

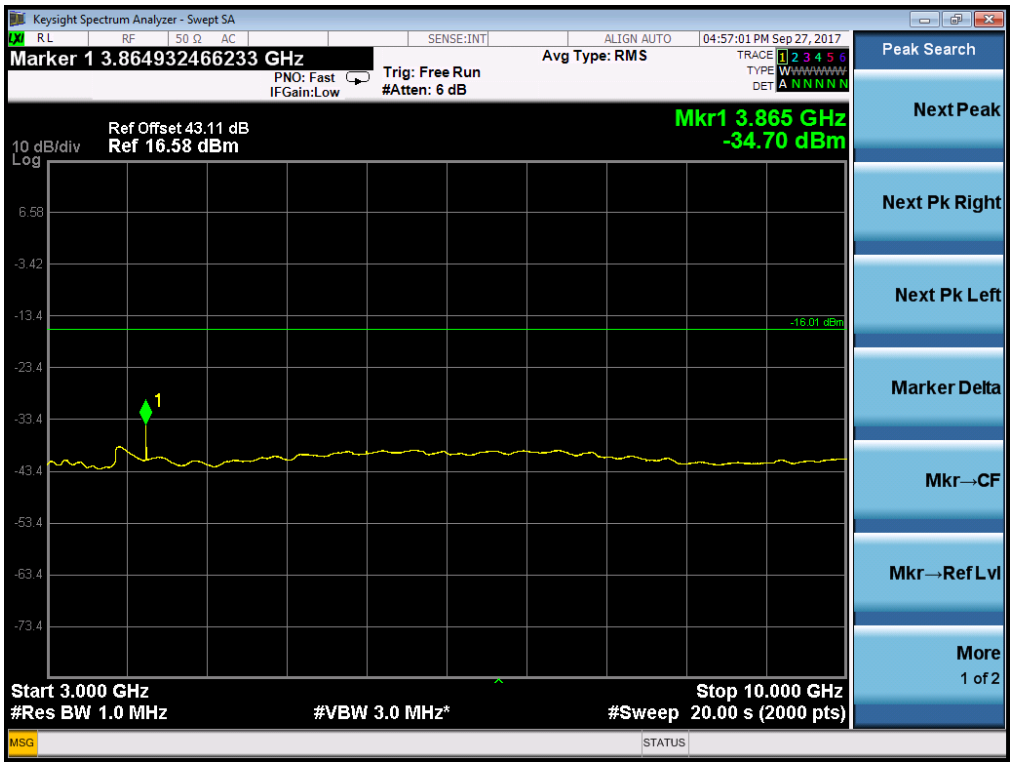
Configuration WCDMA-1C QPSK

Channel Position	Channel Frequency (MHz)	Channel Bandwidth	RBW (MHz)	Limit (dBm)
Channel Position B	1932.4	5.0 MHz	1.0	-13.0
Channel Position M	1962.6	5.0 MHz	1.0	-13.0
Channel Position T	1992.6	5.0 MHz	1.0	-13.0

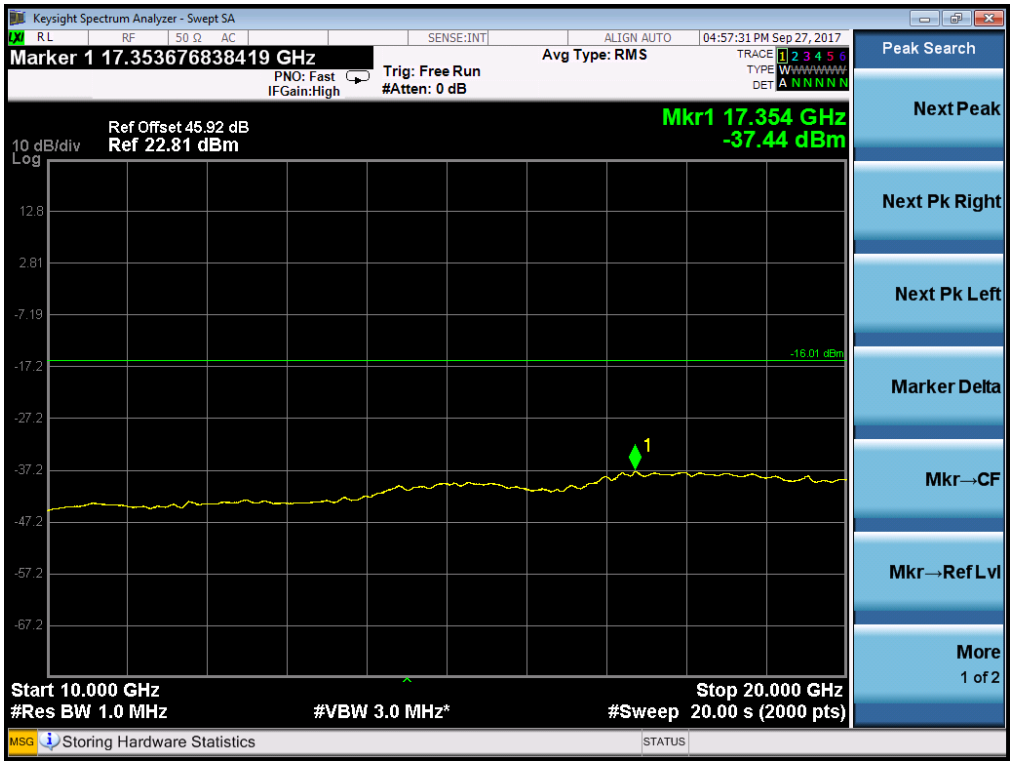
©Copyright. All rights reserved by CTTL.

Port A, Channel Position B 5.0 MHz 1932.4MHz

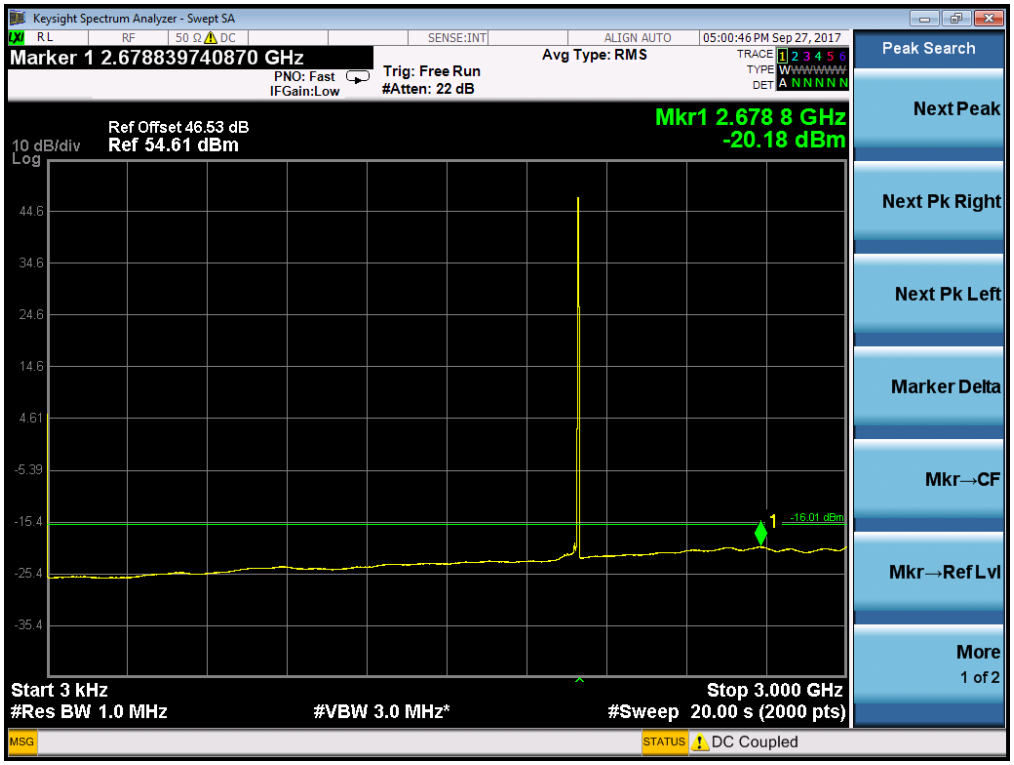




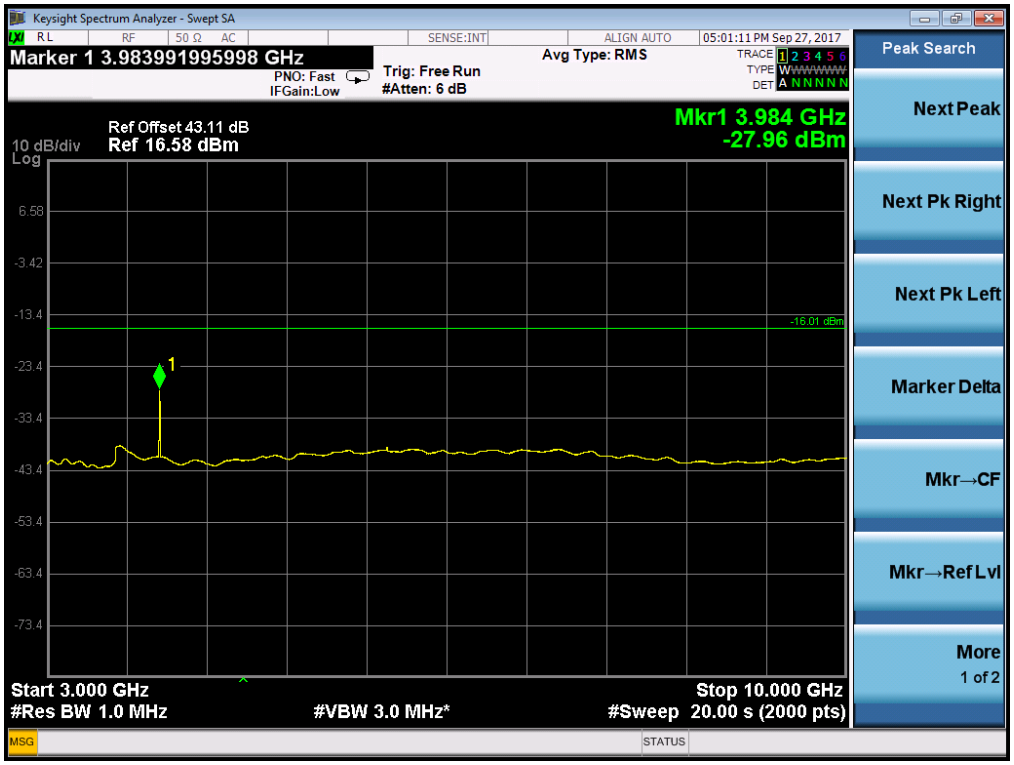
©Copyright. All rights reserved by CTTL.

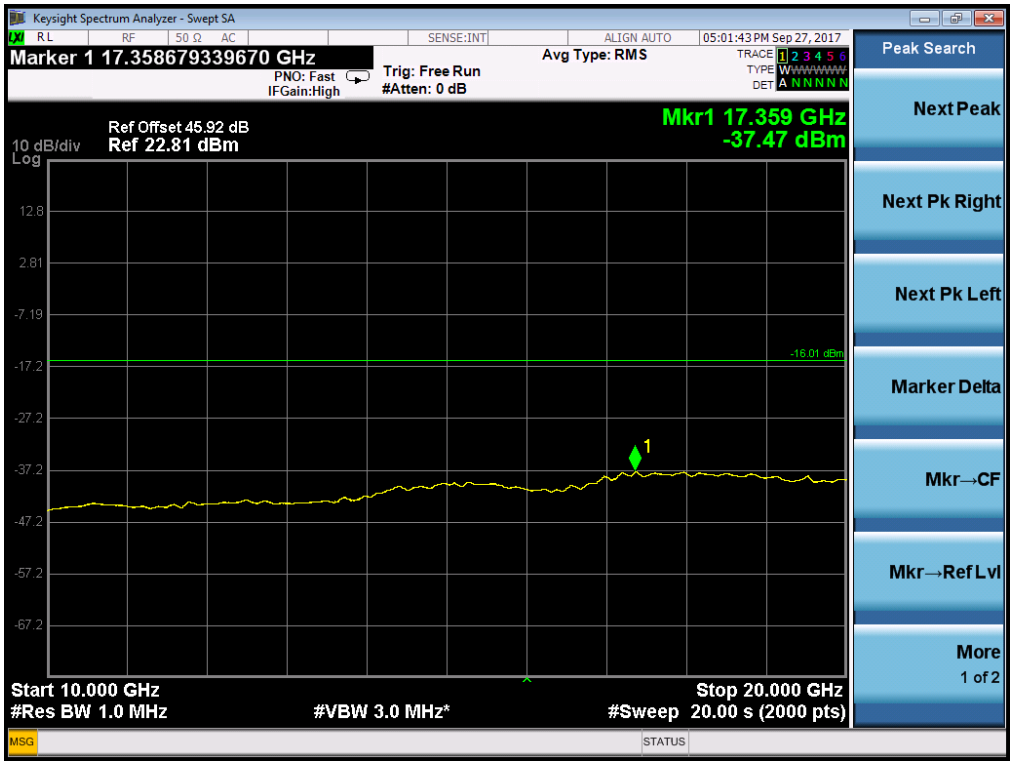


Port A, Channel Position M 5.0 MHz 1962.6MHz



©Copyright. All rights reserved by CTTL.

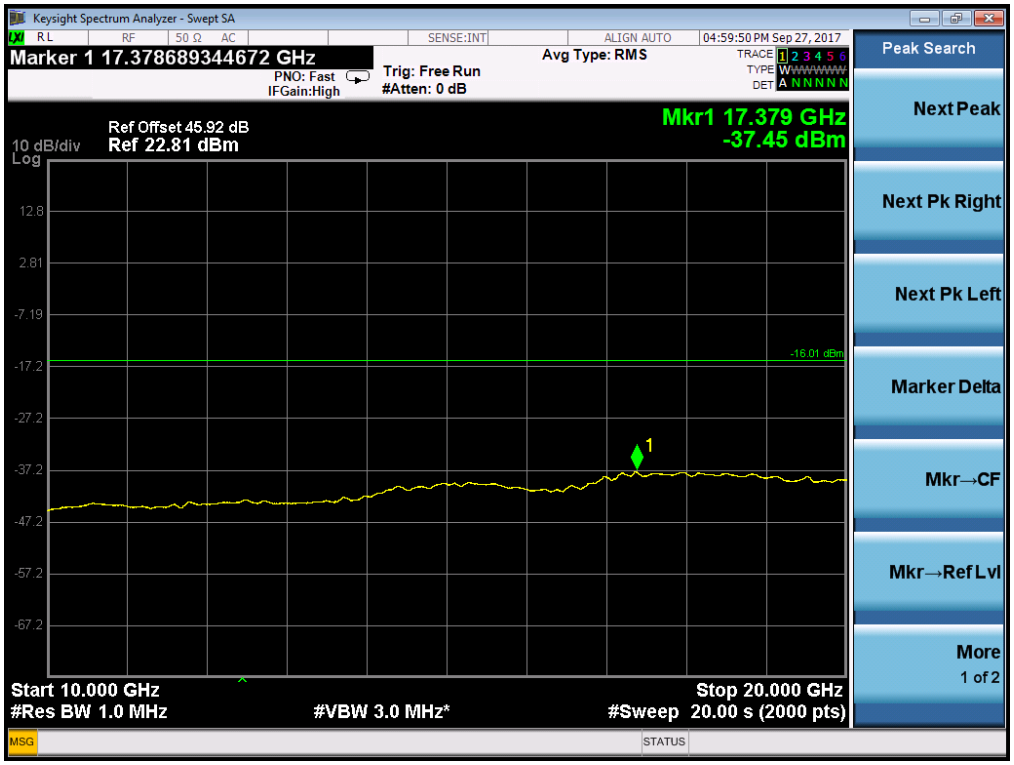




©Copyright. All rights reserved by CTTL.

Port A, Channel Position T 5.0 MHz 1992.6MHz

©Copyright. All rights reserved by CTTL.



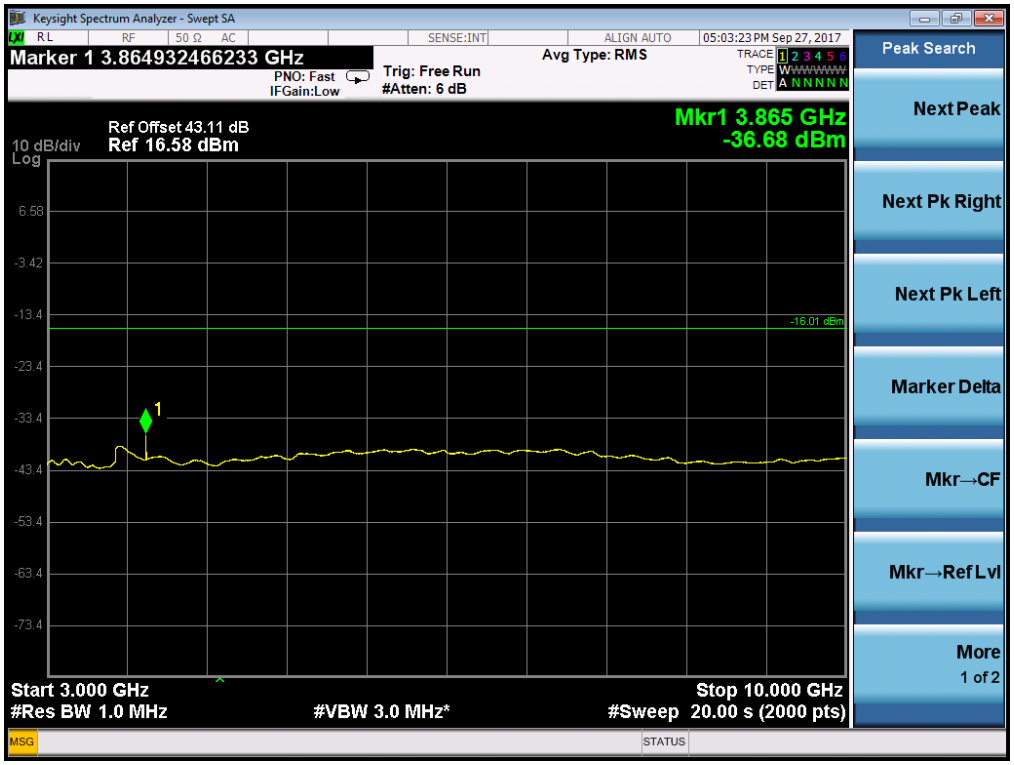
©Copyright. All rights reserved by CTTL.

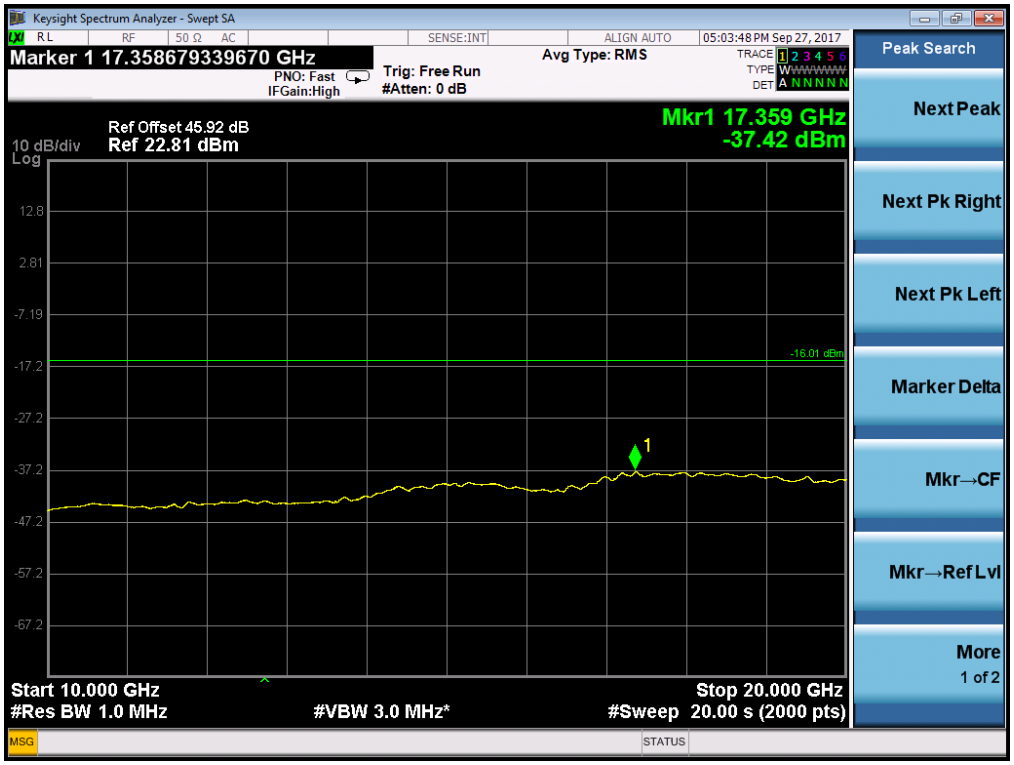
Configuration WCDMA-MIMO-1C 16QAM

Channel Position	Channel Frequency (MHz)	Channel Bandwidth	RBW (MHz)	Limit (dBm)
Channel Position B	1932.4	5.0 MHz	1.0	-16.01
Channel Position M	1962.6	5.0 MHz	1.0	-16.01
Channel Position T	1992.6	5.0 MHz	1.0	-16.01

Port A, Channel Position B 5.0 MHz 1932.4MHz

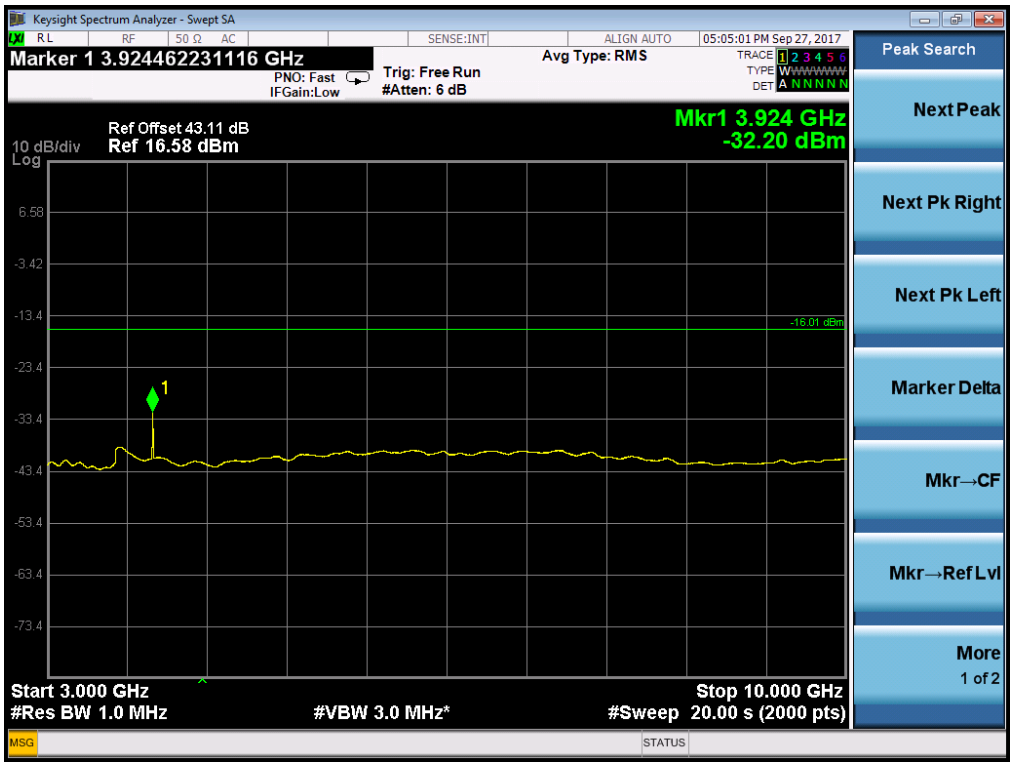
©Copyright. All rights reserved by CTTL.



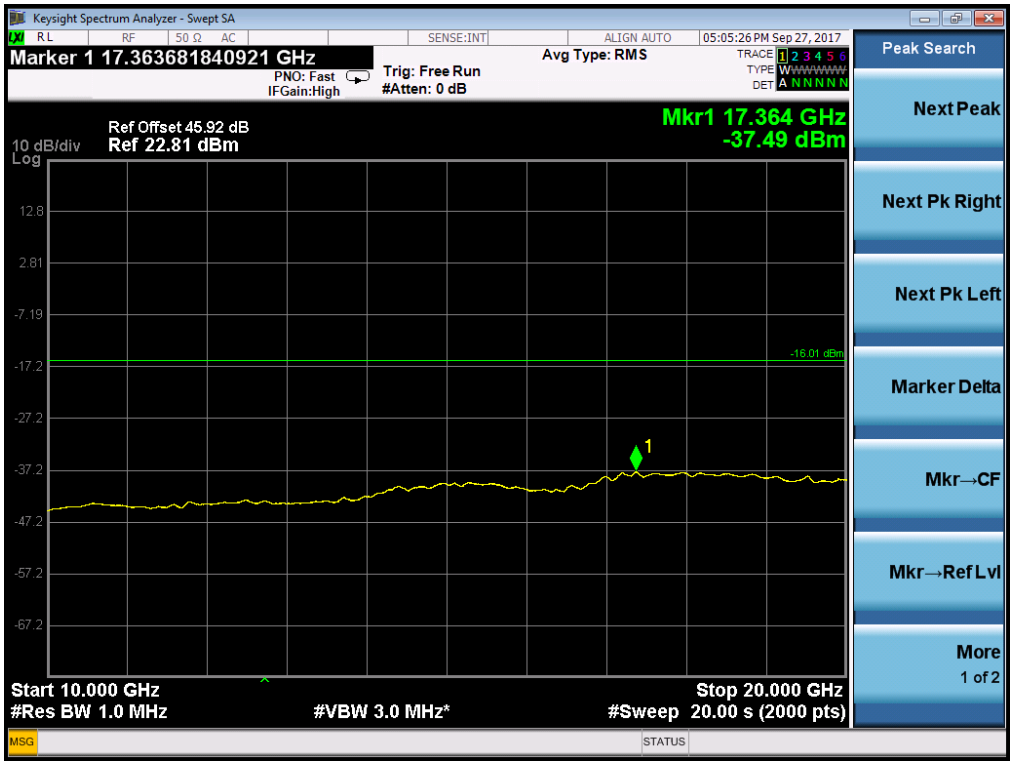


©Copyright. All rights reserved by CTTL.

Port A, Channel Position M 5.0 MHz 1962.6MHz



©Copyright. All rights reserved by CTTL.



Port A, Channel Position T 5.0 MHz 1992.6MHz

©Copyright. All rights reserved by CTTL.