
# Using the Tracking Generator as an RF Source

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*Solution:* Many spectrum analyzers, like the Rigol DSA800 series, have tracking generator options available. The tracking generator is an RF source that follows the frequency sweep settings of the spectrum analyzer.

For example, if you configure a spectrum analyzer to sweep from 100 to 200MHz, and enable the tracking generator, the output of the generator would output a swept sine from 100 to 200MHz at the set amplitude. This sweeping function is useful when characterizing the frequency response of filters and amplifiers.

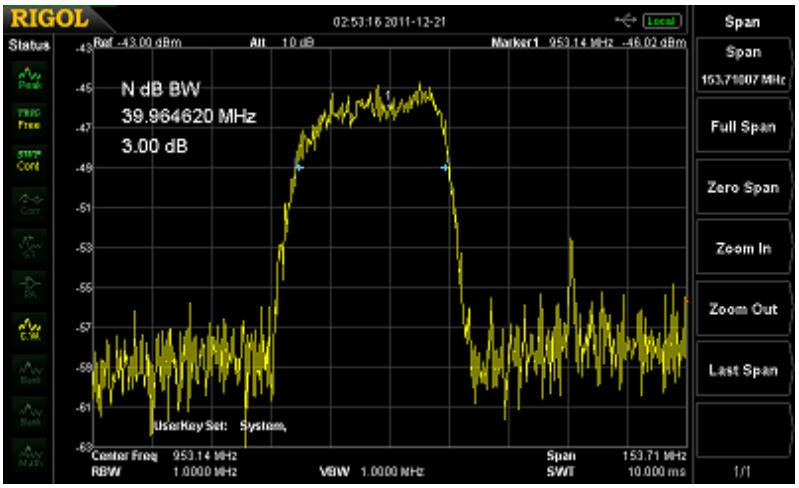
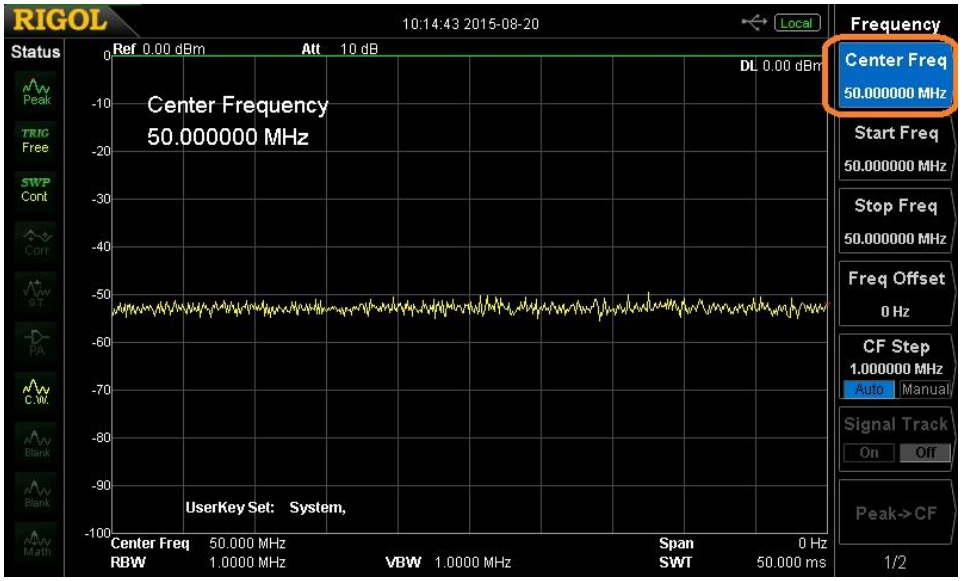



*Figure 1:* Response of a filter to a swept RF input using a tracking generator on a spectrum analyzer.

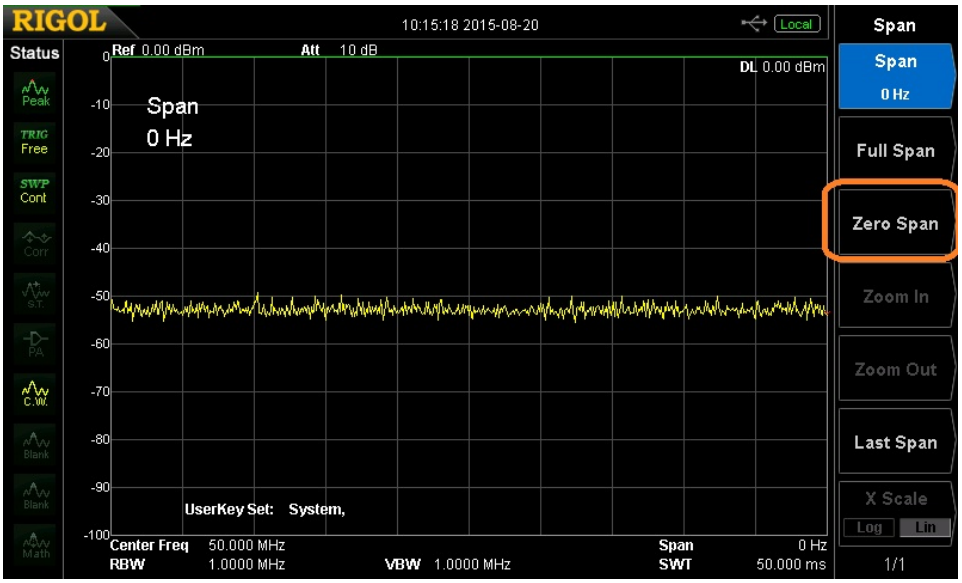
You can also use a tracking generator as a fixed frequency RF source by simply using the spectrum analyzer in Zero Span Mode.

In this note, we are going to configure a DSA815-TG in Zero Span mode to source a 50MHz Sine wave.

1. Set the center frequency to 50MHz by pressing FREQ > Center Frequency and set the value to 50MHz using the keypad or scroll wheel




2. Set the span to zero by pressing SPAN > select ZERO SPAN

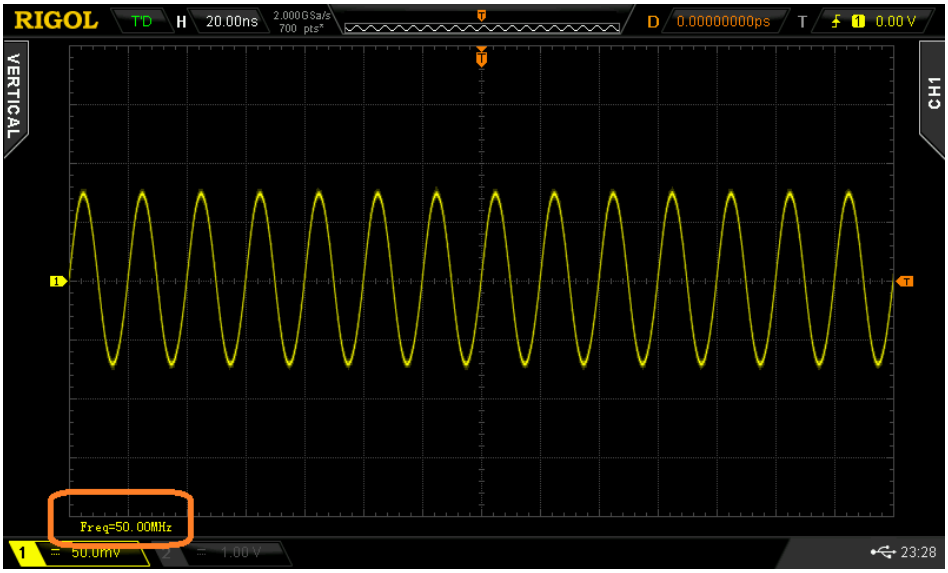


3. Now, configure the tracking generator output by pressing TG > set the amplitude using TG LEVEL

4. Connect the RF output (TG output) of the spectrum analyzer to the device under test

5. Enable the tracking generator output by pressing TG > ON

Here is a scope capture of the 50MHz output of the TG:



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