

Can the SSA3000X Plus, SSA3000X-R, or SVA1000X series analyzer automatically measure the quality factor (Q) of a filter?

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Yes.

NOTE: This is not currently available on the SSA3000X series.

The quality factor of a filter is defined as:

$$Q = \text{Center frequency}/\text{Bandwidth}$$

From the SSA3000X Plus, X-R, SVA1000X Series Manual:

When the measurement starts, the analyzer will search for the two points which are located at both sides of the current point with N dB fall or rise in amplitude and display the frequency difference between the two points in the active function area. "----" would be displayed if the search fails.

The parameters in the figure are shown as:

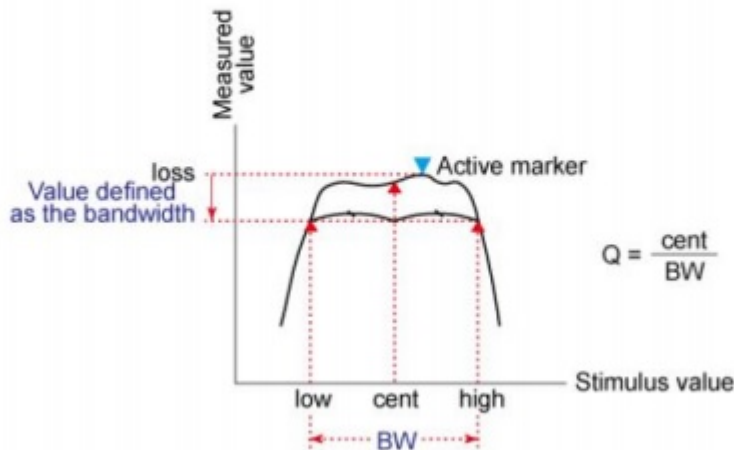
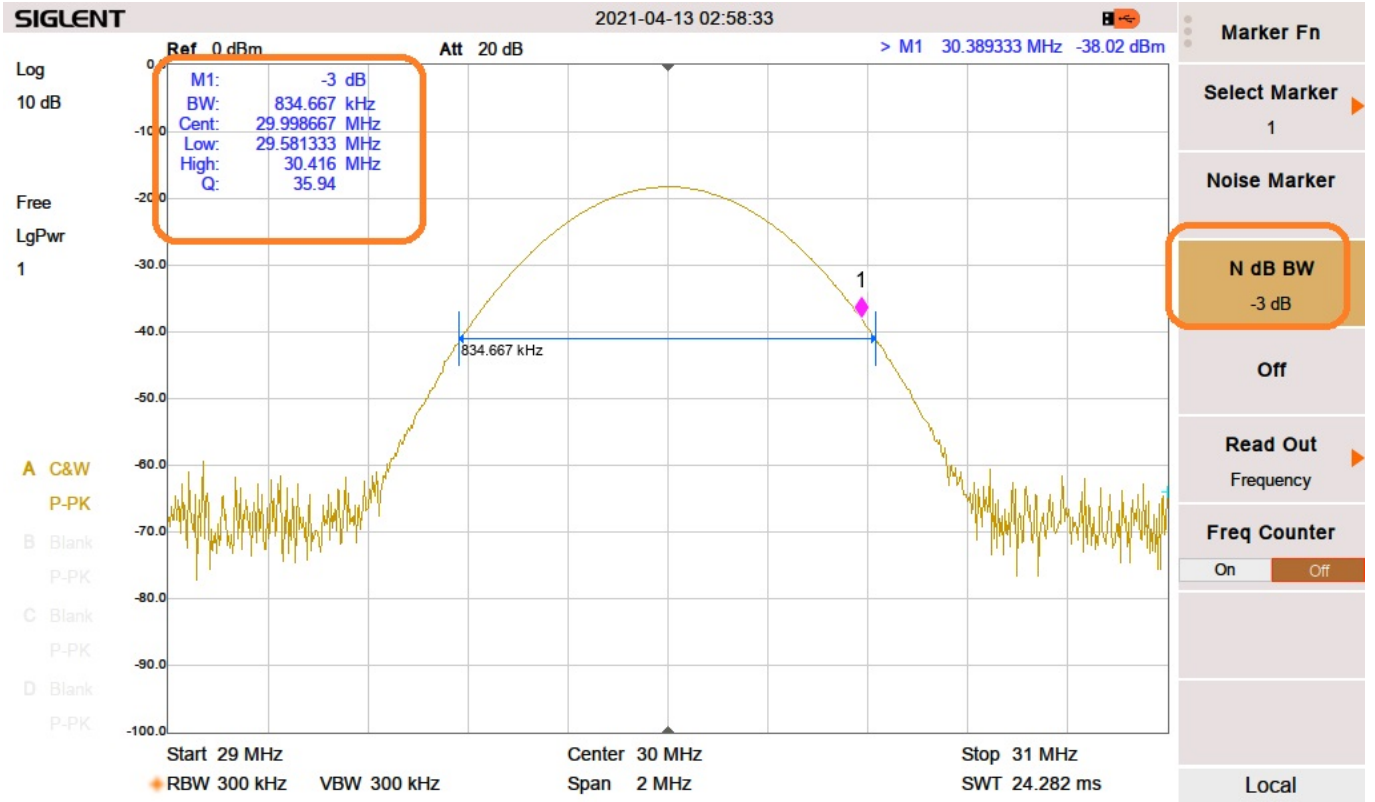


Figure 2-12 N dB parameter

You can find the automatic Q measurement in the Measurement function menu.

Press the Maker Fn button > Select N dB BW marker type and set the amplitude level (dB) at which you wish to measure the bandwidth (BW).

The measurements will be shown in the upper left-hand-side as shown below:





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