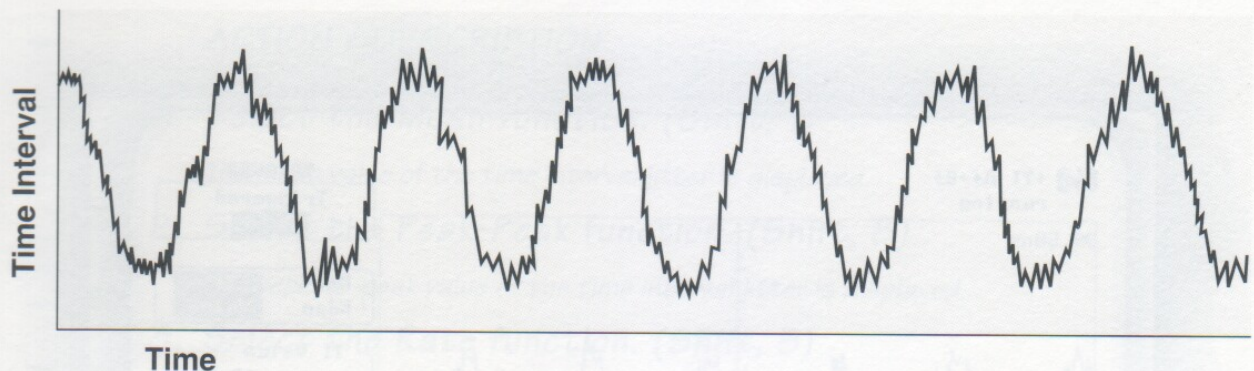


DATA-to-CLOCK JITTER



Background

Jitter is a form of undesired modulation that limits system performance in a wide range of applications including telecommunications, digital storage devices, electromechanical systems, laser beam printers, integrated circuits, radar systems, and more. Jitter measurements in the Modulation Domain provide insight into the underlying causes of the jitter. Some of the key parameters of interest to designers are:

- Jitter distribution (histogram)
- Mean value
- Minimum and Maximum
- Peak-to-Peak and RMS jitter
- Probability
- Jitter rate of periodic components

Data-to-Clock Jitter Start-up

1. Set the Signal Source to **On** and select **Data-to-Clock Jitter**.
2. Press the **Preset** key.
3. Select the **Time Int A→B** function using the top softkey.
4. Press the **Autoscale** key.

You'll notice that the data on the display is not stable. This is because there is a lot of high frequency jitter where the Analyzer is trying to trigger on the time interval results. To allow stable triggering on this signal, the Analyzer has a feature to reject triggering on time intervals changing at a higher rate (frequency) than the majority of other time intervals near the trigger point. The next two steps demonstrate this feature.

5. Press the **Trigger** menu key.
6. Set **Trig HF Reject** to **On** using the bottom softkey.

Turn the page to see how to analyze this signal.