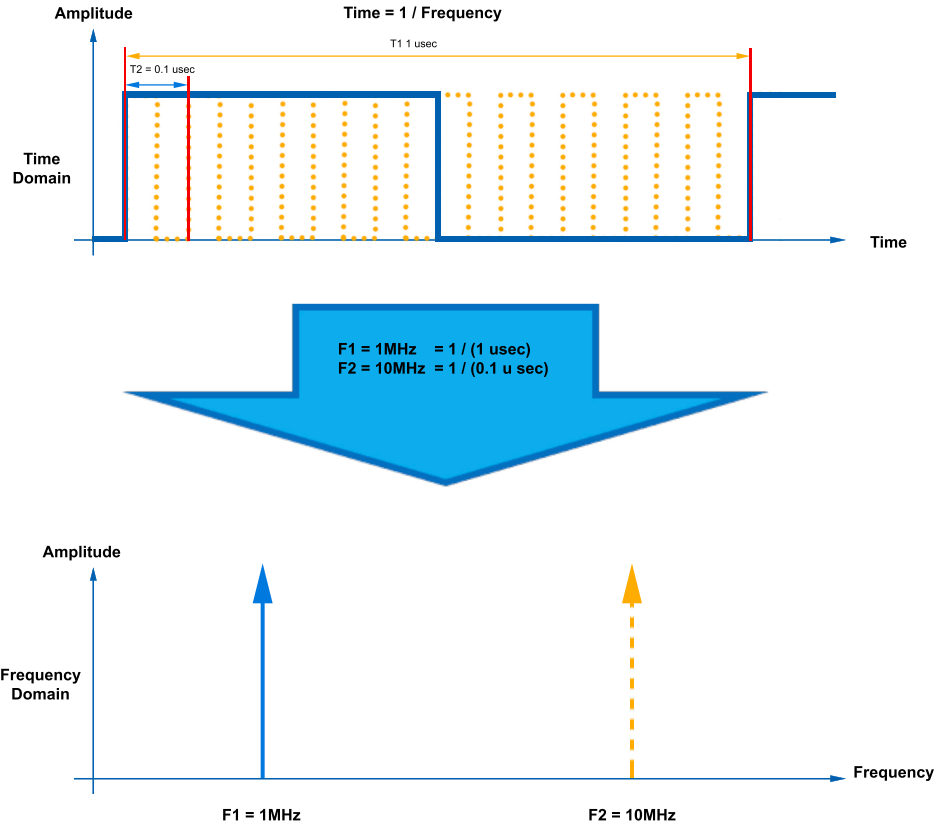


To understand the connection between phase noise and phase jitter in oscillators we must first understand that jitter is measured in the time domain and phase noise is measured in the frequency domain.

The diagram below illustrates the measurement of their respective domains.

The Relationship Between Time and Frequency



Phase jitter and phase noise are errors in frequency repeatability. When overall system stability is important to system performance, a low jitter response is critical. We can see this as a function of the time domain in digital systems. Phase jitter is especially important for networking and communication for high speed data transmission. The following diagram offers a graphical illustration of this.

Time Domain and Frequency Domain

