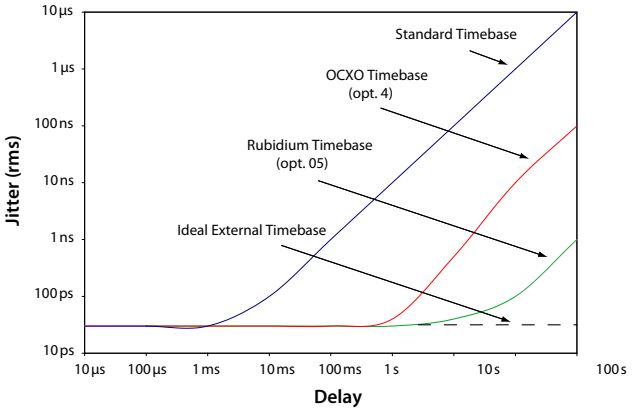


*Jitter vs. programmed delay*

## Timebases

The standard time base has an accuracy of 5 ppm, and a jitter of $10^{-8}$, which is suitable for many applications. Optional timebases are available for users who require better rate and delay accuracy or reduced rate and delay jitter.

The timing error for a 1 s delay can be as large as 5 µs for the standard timebase, 200 ns for the OCXO timebase, but is only 500 ps for the rubidium timebase (all 1 year after calibration.)

For short delays the jitter is typically 20 ps. However, for a 1 s delay, the standard timebase can contribute up to 10 ns of jitter, while the optional timebases contribute less than 10 ps of additional jitter.

## Fast Rise Time Module

The DG645 front-panel outputs have transition times of less than 2 ns. The SRD1 is an accessory, built into an in-line BNC connector, which reduces the rise time of a front-panel output to less than 100 ps. Up to 5 SRD1s can be attached to the front panel to reduce the rise time of all of the outputs.


*SRD1 Fast Rise Time Module*

*DG645 (cover removed) with optional Rb timebase. Rear panel shows the optional eight-channel outputs.*

## Ordering Information

| | | |
|---|---|---|
| DG645 | Delay/pulse generator | $4295 |
| Option 01 | Eight delay channels (5 V) | $750 |
| Option 02 | Eight delay channels (30 V) | $950 |
| Option 03 | Combinatorial outputs | $750 |
| Option 04 | OCXO timebase | $750 |
| Option 05 | Rubidium timebase | $1650 |
| SRD1 | 100 ps rise time module | $250 |
| O645RMS | Single rack mount kit | $100 |
| O645RMD | Dual rack mount kit | $100 |