KORE TECHNOLOGY

4GHz TDC

Kore Technology Time-to-Digital Converter.

250 picosecond timing unit

USB2 interface

1U Rack mount or bench top

Fully computer controlled

Time-of-flight applications

Rich array of drivers

Our most advanced timing electronics yet, the Kore 4GHz time-to-digital converter (TDC) is a compact, bench-top timing unit designed to record a fast stream of event times relative to a single start event. It performs this task with a timing resolution of 0.25ns with minimal dead time, high data rates and the ability to repeat the experiment at very high repetition rates. These features make the unit ideal for time-of-flight mass spectrometry applications.

Kore Technology: At the heart of innovative analysis

In time-of-flight applications, the TDC unit issues or receives a cycle start signal at pre-set intervals and waits to receive timing pulses from an ion detector. The pulse times are recorded, buffered and streamed to the PC, where software may process them to spectra 'live', or stream them to the hard disk for more flexible processing options.

- Very high sustained count rate
- Internal or external 'start' triggers
- Efficient, interrupt-driven drivers allow simultaneous processing of data streams
- Software configurable input levels and input edge polarity for maximum flexibility
- Rich array of driver functions and utilities
- Backed by Kore's extensive knowledge of TOF-MS design
- Optional Grams/AI package for data collection, plotting, management etc

IN THE BOX:

4GHz TDC bench top or 1U rack mount unit

Mains cable

Kore 4GHz TDC manual

USB 2.0 cable

Data collection utilities

FULL SPECIFICATION

Timing resolution	0.25ns
Number of hits per cycle	Unlimited
Maximum burst count rate	2GHz
Dimensions	Bench top 280 x 300 x 70mm
Weight	<2kg
Full speed front end FIFO depth	8192 frames of 4ns
Maximum sustained count rate	>17,000,000 counts/s (theoretical); >4,000,000 counts/s (measured)
Maximum time stamp value	0xFFFEFF ~4.2ms
Power requirement (typical for board)	+5V 730mA and –5.2V 65mA

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