

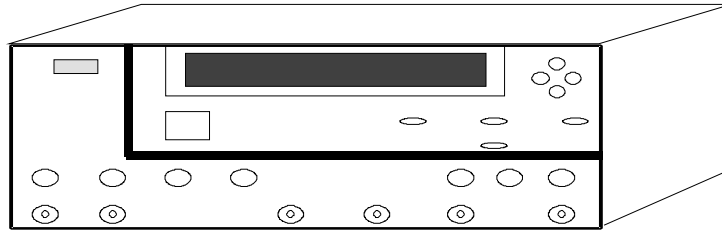
# GENERAL DESCRIPTION

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This section contains a general overview and introduction to the *WAVECREST* DTS-207x Digital Time Scope. It also presents its capabilities, features and a brief description of the instrument's hardware. Performance specifications are included in this section.

## INTRODUCTION

The *WAVECREST* DTS-207x Series Digital Time Scope (DTS) is designed for applications where timing accuracy is critical. The DTS provides direct, real-time measurements without the associated errors during the sampling and transformation of data while waiting for a waveform to be displayed. The result is a precision instrument capable of measuring time between two events with a resolution of 800 femtoseconds and single-shot measurement accuracy of  $\pm 25$  picoseconds (ps).



***WAVECREST* DTS Time Measurement Instrument**

The DTS represents a dramatic departure from the traditional digital sampling oscilloscope (DSO) approach to critical timing functions. The DSO approach takes a time frame and then measures the number of events occurring within that time frame to arrive at a figure for elapsed time between each event. The DTS approaches the measurement algorithm as absolute; time between any two events is actual, measurable and quantifiable.

The DTS is intended for AC characterization, with the added benefit of N.I.S.T. traceability, in applications ranging from ATE test head deskew to bench top device test and computer clock distribution. In addition, the DTS is well suited for scientific and engineering applications which require timing accuracy and resolution more precise than other available instruments can provide. The DTS achieves greater accuracy with fewer readings in less time than digital scopes or other types of time domain measurement devices.

Long-term measurement accuracy and linearity of the DTS is due to built-in calibration options that can be initiated by the user at any time.