Kentech Instruments Ltd.

3RD. NOVEMBER 2008

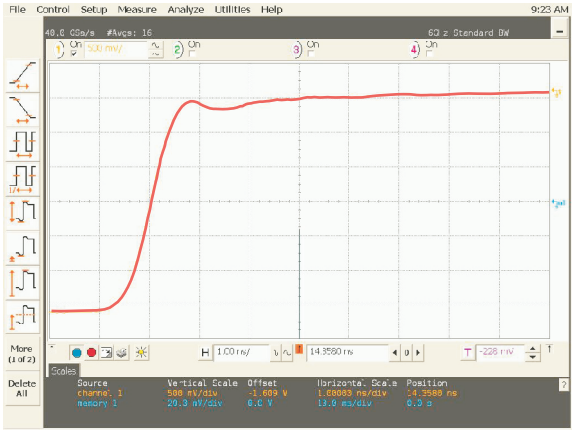
PDG Precision Delay Generator

Applications

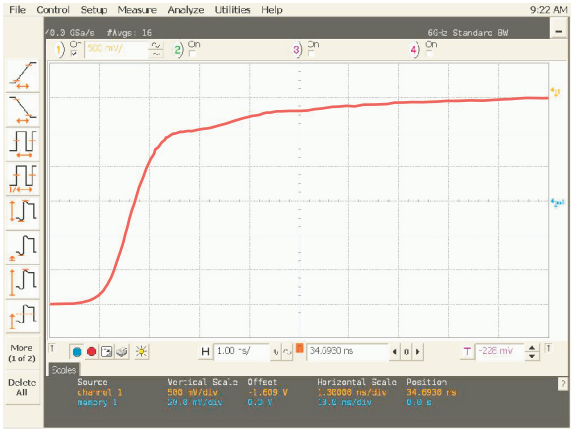
Trigger timing control and synchronisation

Fast camera timing

Phased array antenna systems



Output risetime at minimum delay, 1ns per div



Output risetime at maximum delay, 1ns per div

Switched transmission line passive delay unit

20 ns delay adjustment

25 ps nominal steps

Zero effective jitter

Thermal drift approx 1 ps per degree Celsius

High level signal capability
approx 1kV for 1ns pulse width

< 1ns risetime at maximum delay

Local or remote control

Remote control by RS232

Options

50 ns delay adjustment

Ethernet Adaptor

See www.kentech.co.uk

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SPECIFICATION

• Maximum delay adjustment 20ns

• Incremental delay step 25ps nominal

• Typical throughput delay at minimum setting 6ns

• Interstep error <± 0.5 steps, but reproducible

• Jitter effectively zero, mechanical device

• Characteristic impedance 50W.

• Voltage handling D.C. 30 volts.
With pulsed signals up to 30 volts the delay may be changed whilst the signal is propagating through the device.
If the delay setting is not changed whilst the pulse is propagating, the pulse is limited to 1.8mamp coulombs. e.g. 1.5kv for 2ns.
1.5kV is the maximum recomended voltage even for very short pulses.

• Fully functional controls via front panel keys and serial port.

• LCD display of status and functions.

• Serial port RS232, 75 to 9600 baud, (rate is stored in EEPROM), requires simple text commands from a terminal or emulator.

• Delay Absolute or relative.

• Memory Nonvolatile memory of last manual delay setting and relative or absolute delay mode, absolute minimum delay and baud rate. (Note that when powered down the delay will revert to the minimum but the signal will still be transmitted.)

• Size 270 x 210 x 87 mm3

• Power requirements 110 to 240V AC at approximately 20 watts.

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