

- Rise and fall times <300ps
- Pulse width <300ps to 20ns
- Up to 30 volts into 50
- Reverse terminated for 1 μ s
- Polarity switchable
- Jitter <20ps S.D.
- Up to 100kHz repetition rate
- External or internal trigger
- Remote (USB) or local control



The RTV30 reverse terminated pulser is designed to produce a programmable impulse at an amplitude up to 30V with a pulse width adjustable from 300 ps to 20 ns. The maximum trigger rate is 100kHz. It consists of two fast switches, one of which dumps a 22 ns charge line into the load and the other grounds the far end of the charge line via a 50 ohm terminating resistor which sets the timing of the falling edge and provides a well matched reverse termination. A programmable delay generator on the falling edge allows adjustment of the duration. The amplitude is continuously adjustable from 1V to 30V and the polarity may be set via the front panel controls.

The pulser is triggered from the rising edge of the input trigger signal and the maximum repetition rate is 100 kHz.

The pulser is well reverse terminated and will absorb a large fraction of any reflected signal. Note that at late times (>1 μ s) the internal switches re-open and the reverse termination becomes worse.

The pulser has an internal rate generator and may also be triggered externally via the TTL level trigger input. The input impedance on this unit is set to 10K Ω . Switching to an input impedance of 50 Ω requires an internal link to be made.

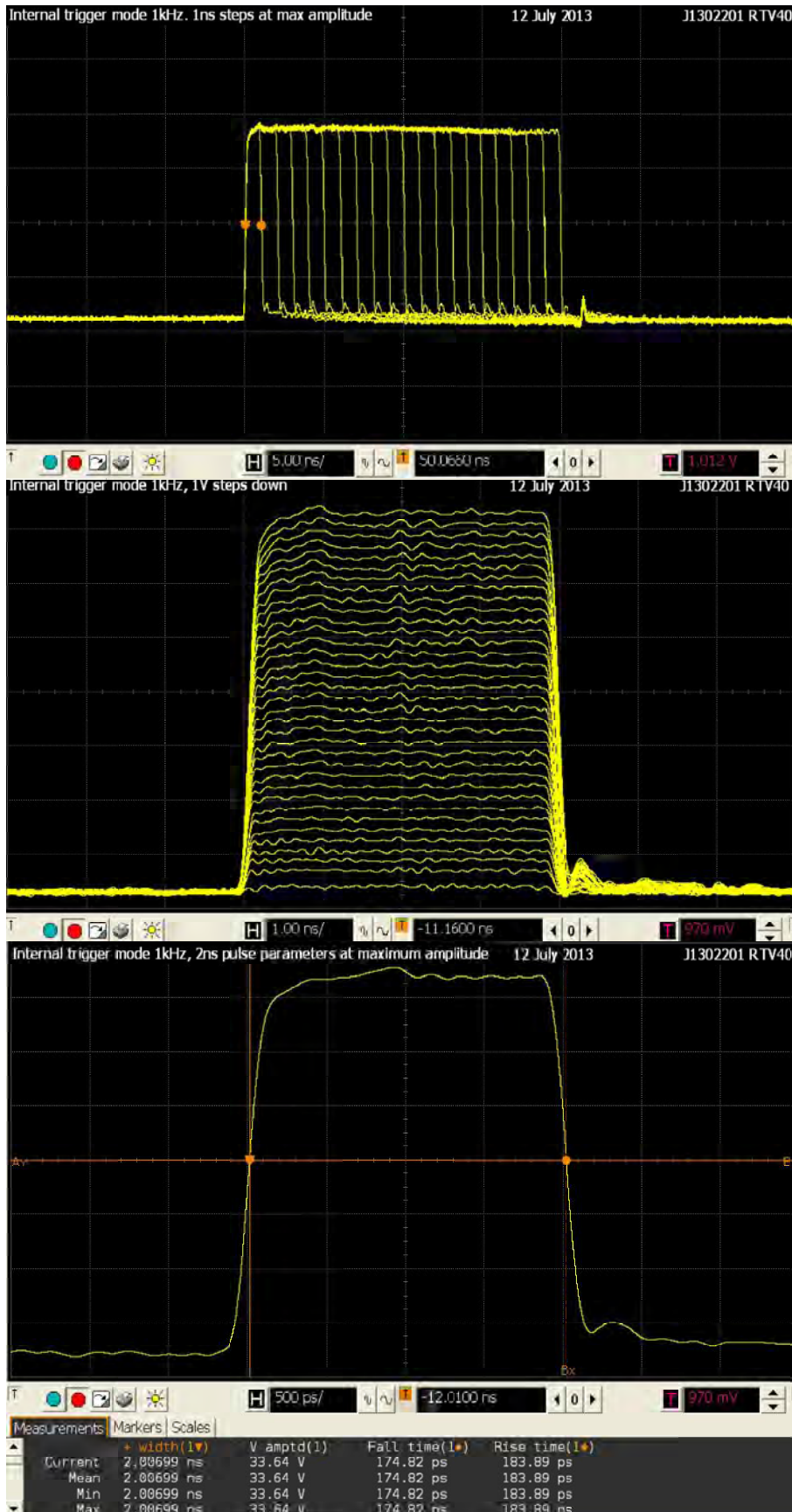
There is a TTL monitor output which leads the main pulse output by about 40ns. This may be used for triggering an oscilloscope. The trigger delay using an external trigger is about 54ns (trigger in to pulse out).

An internal micro-controller controls all functions which are also available via a USB link on the front panel.

This unit will find uses in the following areas:

- general lab benchtop unit
- laser diode/LED driver
- Image intensifier gating
- Magnetic field generation in small
- Electrophoresis and many others.

See www.kentech.co.uk



1ns steps

1voltage steps

Pulse parameters at 2ns pulse width.

See www.kentech.co.uk

SPECIFICATION

Amplitude into 50	>30V
Amplitude adjustment	~ 25% to 100%
Pulse width	<300ps to 20ns adjustable
Rise/falltime	<300ps
Max PRF	100kHz
Polarity	Switchable
Trigger	External Internal, adjustable 10Hz to 100kHz

Jitter <20ps SD

Local or remote control of Amplitude
Pulse width
Trigger enable/disable
Trigger source/mode
Internal trigger rate
Polarity

Local control is by keypad/LCD

Remote control by USB

AC power 100-240V AC, <100VA
Cooling Forced air

Controls and indicators

LCD/keypad
Triggered LED
Power LED

Connectors

AC power IEC (rear panel)
Trigger BNC
Monitor BNC
Pulse output SMA

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