

### Applications:

Gating MCP detectors for time resolved X-ray imaging.

### Options

- External transformer to drive 1kV into 6 per channel.
- Decoupled pulse terminators
- Phosphor bias module
- RS232 serial link to replace Ethernet



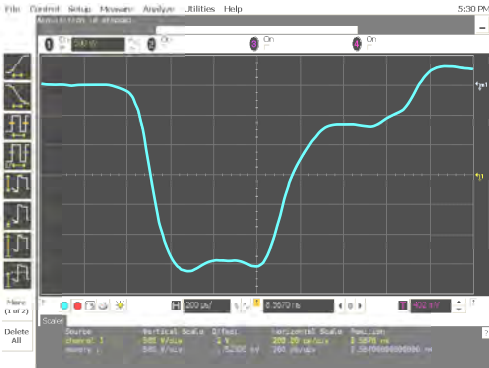
### Specification summary:

#### System

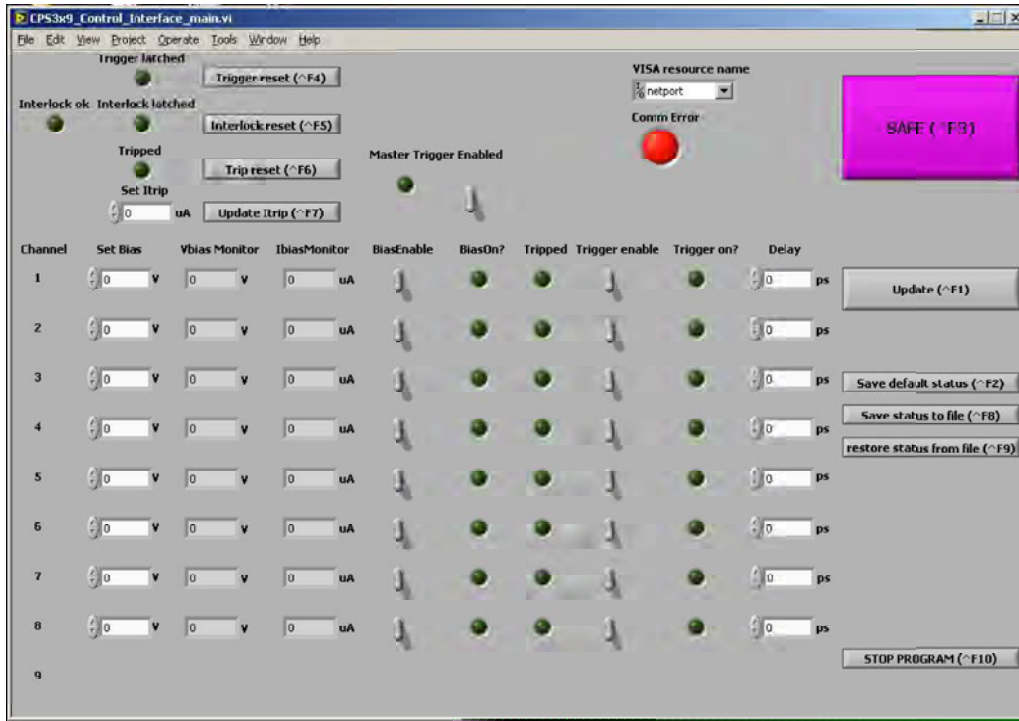
- Up to 9 channels in one 19" rack
- Single trigger input
- Channel to channel jitter ~few ps
- Labview<sup>®</sup> interface
- Remote control by Ethernet (TCP/IP)
- Hardware interlock on bias and pulser
- Bias current trip

#### Each channel

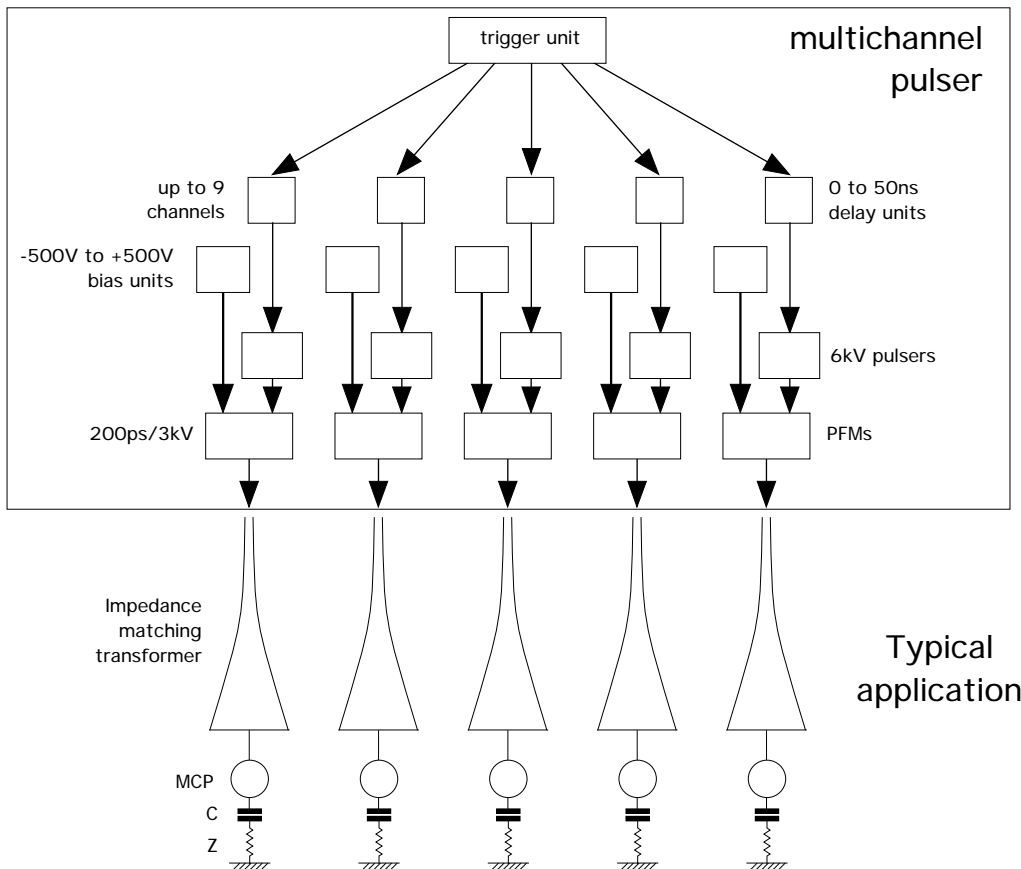
- -3kV shaped pulse into 50
- 0 - 50ns independent delay
- 25ps delay resolution
- -500 to +500 V bias on each channel
- Independent bias current and voltage monitors
- Output modules from 200ps to 2ns fwhm
- Customisable, please enquire



See [www.kentech.co.uk](http://www.kentech.co.uk)



LabView<sup>®</sup> interface



See [www.kentech.co.uk](http://www.kentech.co.uk)

### Specification:

Outputs: Up to 9 triggered from a single trigger  
Each output can be delayed from 0 to 50ns in ~ 25ps steps  
Each Output can be built as a positive or negative output module  
Each output will deliver ~6kV into 50 in "RAW" mode or with a suitable PFM will deliver ~3kV into 50 , see waveform pictures.

Bias Outputs Each output can be individually biased from -500 to +500 volts into a high impedance (~10M )

Trigger input: >5 volts into 5 rising in < 5ns

Interlock Short to enable biases and pulser (if configured)

Comms: 10/100Mbps Ethernet TCP/IP or RS232 (to order)  
Labview (v8) driver supplied.

Indicators: trigger enable, pulser enabled, bias enabled, comms. ready, interlock state, power.

Power requirements: Universal 100 to 240V AC at <150W

Dimensions: Width, 84 HP, 19 inch rack mount; Height 6U, 240mm nominal; depth 475mm nominal.

Trigger delay: ~35ns on the minimum delay setting.

Bias current trip user settable through software

Bias monitor ~1/100th  $\pm$ 1% of bias output when measured with a 10M input impedance DVM.

Pulser monitors >5V negative going pulse, intended for timing purposes only.

Maximum repetition rate >50Hz.

The unit is fitted with a self resetting thermal trip

Connectors:-

Power	IEC
Interlock	Lemo FFA.00S.250.
Ethernet	RJ45 with or without XLR type housing.
Pulse output	"N" type
Pulse monitor	SMA
Bias monitor output	Lemo FFA.00S.250.
Trigger	BNC

### Pulse forming module output:

Output pulse voltage nominally 3.0kV near square negative going pulse

Rise time ~<150ps 10% to 90%

Fall time ~<250ps 90% to 25%

Output pulse duration from ~200ps to 2ns by suitable choice of PFM.

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