SUVi Series

High Power
High Speed Video Camera Intensifiers

Invisible® vision

Making the invisible visible

FEATURES

- **UV to NIR spectral response, Fast Gating to 10ns**
- **High Gain/Sensitivity**
- **Frame rates to > 1,000,000 fps with HSV**
- **Up to 2,000,000 fps in burst mode**
- **Integral control panel and external USB control**
- **Exceptional resolution to >75 lp/mm (with 25mm output diameter)**
- **Photocathode: S20 (UV biased, UV to Visible) or S25 (Visible biased, UV to NIR)**
- **Phosphor: P46 (decay typically < 1 µsec)**

SUVi Camera Intensifiers

- Ultra High Resolution
- Ultra Fast Shutter Speeds
- Customized for UV to Near IR Imaging
- Superior Gain Boosting Performance
- Optimized for Digital High Speed Video

The Invisible® Vision Super-UVi (SUVi) series of patented camera intensifiers are designed for the most exacting scientific applications.

They offer an unparalleled resolution of over 75 lp/mm coupled with extremely high output power/life and linear signal amplification necessary for quantitative data capture.

Easily synchronized and optically lens coupled to a high speed video camera, each video frame may be programmably gated from 50ns and upwards in 10ns steps to repetition rates of up to 1MHz.

Available with either S20 or S25 photo-cathodes, the unique patented system offers deep UV to visible response (200 to 900nm) with modest system gain into a P46 (green) fast decay output phosphor, but may also be coupled to a front end MCP derived intensifier (reducing linearity & MTF/ resolution) for higher gain or faster gating.

Typical applications are in PIV for fluid dynamics, combustion studies, electric discharge, biomedical and ballistics as well as many other high speed and ultra high speed macroscopic imaging requirements.

The SUVi is easily programmed by its integral menu driven LCD display/control panel or via its USB interface and software to synchronize to external TTL or video signals; offering multiple programmable exposures and delays from 30ns at repetition rates of up to 1MHz and beyond in 100 frame burst trigger mode. Advanced features such as a fully user programmable output shutter monitor and an independent output strobes complement the system.

SUVi 25 Series Camera Instensifier

Invisible vision
Making the invisible visible

Intensifier

Input Window	Quartz.
Photocathode	S20 or S25, 200nm to > 900nm (UV to NIR).
Output Window	Glass.
Phosphor	P46 (Green) - decay < typically 1µs.
Gain	Typically 100 (dependent upon photocathode selected)
Output Diameter	25mm.
Gating	50ns Minimum (standard unit). 30ns absolute minimum.
Resolution	75 + lp/mm.

Optics

Input	F – mount.
Internal	Integral f/1.2 lens system.
External	Mated f/1.4 lens.
Output Image Format	Maximum usable diameter 25mm.

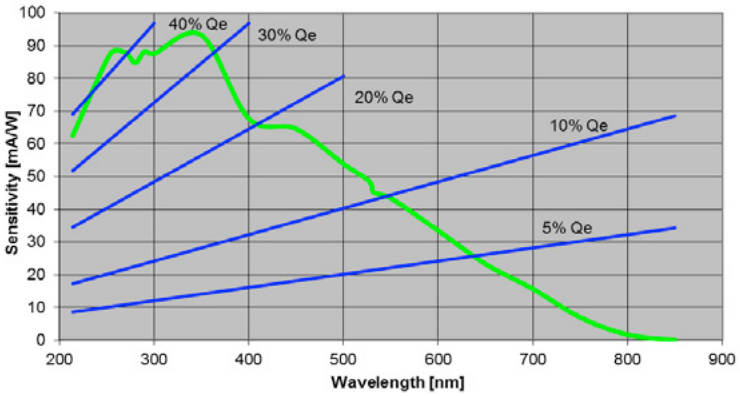
System

	All electronics/controls included within unit.
	Menu driven LCD control panel / indicators.
	USB port and graphical user interface s/w.
	Crystal controlled timing accuracy.
Exposures	50ns to > 1ms in 10ns steps (will allow faster gating).
Delays	50ns > 10ms in 10ns steps.
Burst mode / Multiple Exposure	Up to 100 consecutive programmed delays/exposures per input trigger.
Triggering	TTL Positive, TTL Negative.
	Make / Break (self powered).
	Comp. video frame / field synchronization option.
Outputs	User Programmable TTL shutter monitor.
	User Programmable TTL 'strobe' outputs.
System Photon Gain	Combination of relay optics and intensifier. > 10.

Environmental

Dimensions (approximate)	285 x 168 x 230mm - including output lens & handle.
Weight (approximate)	11Kg.
Power	150W (90-264VAC).
Temperature	0ºC to 40ºC, non-condensing humidity.
Construction	Aluminium housing.
Mounting	3/8-20 UNC thread on base.
Documentation and Software	Supplied on CD.
Packaging	Flight box.

Typical **SUVi 25-S20** Photocathode Response



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