

UVi 2550 Series

25mm Format

High Speed Video Camera Intensifier



FEATURES

- UV to NIR spectral respons Fast Gating to 5ns
- High Gain/Sensitivity
- Frames rates to > 1,000,000 fps with HSV
- Up to 20,000,000 fps in burst mode
- Integral control panel and external USB control
- Exceptional resolution
- Choice of optimized photocathodes & phosphors

CUSTOMIZED OPTIONS:

- Photocathode: S20 (UV biased, UV to Visible) or S25 (Visible biased, UV to NIR)
- Phospor: Proprietary Green (decay typically 10 μ sec) or P46 (decay typically < 1 μ sec)
- Ultra Fast Gating: up to 100ns, 10ns or 5ns in 10ns steps

UVi 2550 Series Camera Intensifier

- 25mm Output Diameter
- Ultra Fast Shutter Speeds
- Customized for UV to Near IR Imaging
- Superior Gain Boosting Performance
- Optimized for Digital High Speed Video Cameras



The Invisible® Vision UVi series of camera accessory intensifiers are designed to add low light, extended spectral range (from UV to NIR) and fast gating in a compact and all inclusive, easy to use lens coupled package. Typical applications are in combustion, electric discharge, biomedical and ultra-high speed stroboscopic or shuttering techniques with high speed or conventional video cameras.

The UVi is easily programmed by its integral menu driven LCD display/control panel or via its USB interface and software to synchronize to an external TTL or video signal; offering multiple, digitally programmed gain, delays and exposures (> 10ns in 10ns steps) at input trigger rates to > 100,000 per second and up to 20,000,000 per second in burst mode.

The novel, custom designed intensifier is optimized for use with modern high speed video cameras offering high gain

and a proprietary phosphor with fast decay (including a small 'tail') and efficient green output. The intensifier output image is collected by the high performance internal relay optics matching into either an externally adjustable F or C mount (25mm diagonal image) supplied lens on the coupled camera system. The user may easily select alternative image formats by an alternative choice of objective lens.

Advanced features such as a fully user programmable output shutter monitor and an independent output strobe complement the system.

Alternative UVi models, optimized for specific spectral responses, phosphors, intensifier formats or faster shuttering speeds are also available.

UVi 2550 Series Camera Intensifier

Intensifier	Full Custom, integral MCP design.
Input Window	Quartz.
Photocathode	S20, S25, 200nm to > 850nm (UV to NIR) – see response curves below. Typically > 600 μ A/lumen (white light).
Output Window	Fibre-optic.
Phosphor	Proprietary green, decay – typically 10 μ s. P46 available upon request.
Luminance Gain	> 400,000 (Limit set by software only)
Output Diameter	25mm (alternative 18mm format also available).
Gating	100ns Minimum (5ns and 10ns options available upon request 2550-10-S25).
Resolution	25 lp/mm.

Optics

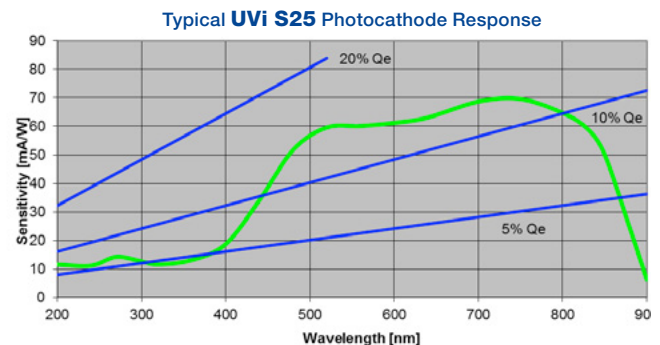
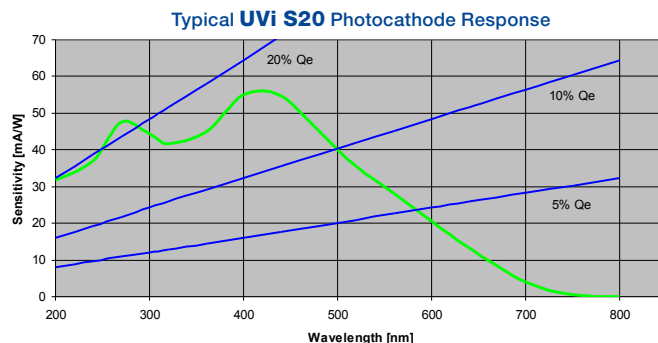
Input	F – mount.
Internal	Integral f/1.2 lens system.
External	Mated f/1.4 lens.
Output Image Format	Maximum usable diameter 24.5mm. (18mm format also available)

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	100ns to > 1ms in 10ns steps. 5ns and 10ns option available.
Delays	30ns > 10ms in 10ns steps.
Burst mode / Multiple Exposure	Up to 100 programmed delays/exposures per input trigger.
Gain Control	User programmable 0 to 100% (12 bits).
Triggering	TTL Positive, TTL Negative. Make / Break (self powered). Composite video frame / field synchronization.
Outputs	User Programmable TTL shutter monitor. User Programmable TTL 'strobe' output.
Protection	Automatic over-brightness (user controlled).

Environmental

Dimensions (approximate)	105 x 95 x 180mm - including output lens.
Weight	< 1.5 Kg.
Power	16W (16V DC @ 1A max.) via supplied adapter (90-264VAC).
Temperature	0°C to 40°C, non-condensing humidity.
Construction	Aluminium housing.
Mounting	1/4-20 UNC thread on base.
Documentation and Software	Supplied on CD.



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