High Performance Custom-Designed X-ray Camera

XRC

Continuous Acquisition

High Resolution

High Frame Rate

The Science Behind the Technology



High Performance Custom-Designed X-ray Camera



High-Speed Camera

XRC

RMD has developed an advanced high frame rate, large-area, modular X-ray detector capable of acquiring high-speed, high-resolution, highcontrast images of dynamic phenomena, for use in hypervelocity projectile tracking, impact analysis, and other important applications such as high-speed medical X-ray CT and time-resolved X-ray analysis.

The detector configuration is designed for various demanding applications, including time-resolved X-ray diffraction analysis. The design's flexibility

allows RMD to re-configure the device for highenergy X-ray imaging by changing the scintillation screen to one most suitable for a client's specific purpose. The design can be modifed to satisfy all training and safety requirements. The overall capabilities of the cameras are unique, unavailable collectively for any other existing detector.

> RMD

Specifications

CMOS Sensor	1024 x 1024 pixels
Pixel Size	17 μm
Dark Noise	
Full Well Capacity	42,000 e-,
	(excluding system or II noise)
Image Intensifier	MCP 125
Fiberoptic Taper Ratio	
Effective Image Area	7 cm x 7 cm
Full Frame Rate	2,000 fps @ 1024 x 1024 pixels
Max. Frame Rate	120,000 fps @ 128 x 32 pixels
Scintillation Screen	Customized HSS1*
	(or co-doped CsI:Tl,Eu/Sm)

Features

- High frame rate operation (2,000 to 120,000 frames/ sec).
- Continuous data acquisition.
- High pixel resolution (1024 x 1024).
- Large active imaging area (7 x 7 cm²).
- Unique fast, bright, and high-resolution scintillator sensors.
- Wide energy range of operation (8 kVp to 480 kVp). Electronic shuttering for nanosecond-range timing and integration.
- Abuttable modularity for even larger active areas.



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