

Pantera XR 6M3

X-Ray Camera



Key Features

- 105 mm x 70 mm entrance aperture with 100 μm Lanex Fine phosphor, 3:1 taper
- TrueFrame™ CCD sensor
- 10-100 keV energy range
- 6 megapixels, 3 fps with true 12 bit digitization
- High sensitivity, low noise without cooling
- 100% fill factor

Programmability

- Selectable pixel binning up to 4 x 4
- 1x or 4x adjustable gain
- Selectable trigger mode

Typical Applications

- Industrial non-destructive testing with ionizing radiation
- Security imaging
- Industrial and medical small field computed tomography
- Materials science and nanotechnology
- Agricultural inspection
- Container inspection

Overview

High resolution, high dynamic range, high speed, and scientific image fidelity.

The Pantera XR 6M3 X-ray camera is a high resolution, high sensitivity CCD camera for digital X-ray applications. The Pantera XR 6M3 brings a rare suite of capabilities to performance driven small field X-ray imaging applications.

Built on a proven camera platform with a full frame progressive scan CCD, the Pantera XR 6M3 simultaneously achieves outstanding resolution and gray scale characteristics in 12 bit images with 3k x 2k spatial resolution at up to 2.75 frames per second. Its very low noise and high dynamic range provide quantifiably superior image quality.

The Pantera XR 6M3 uses a 105 mm x 70 mm entrance aperture with a fiber taper (3:1) bonded directly to the sensor using a hard epoxy for maximum transmission efficiency and robustness.

The Pantera XR 6M3's true 12 bit performance (without cooling) provides up to 4096 distinct gray levels—perfect for capturing the best possible images in challenging, low-contrast situations.

Specifications

| | |
|-----------------------|-------------------------|
| Resolution | 3072 x 2048 |
| Data Rate | 20 MHz |
| Pixel Size | 12 μm |
| Detector Area | 105 mm x 70 mm |
| Spatial Resolution | 8 lp/mm |
| Output | 12 Bit LVDS @ 20 MHz |
| Responsivity | 2 DN/mR @18 KeV |
| Dynamic Range | 70 dB |
| Nominal Gain Range | 1x or 4x |
| Size | 238 mm x 168 mm x168 mm |
| Mass | 12 kg |
| Operating Temp | 10 °C to 45 °C |
| Power Supply | +5 V, -5 V, +15 V |
| Power Dissipation | <17 W |
| Regulatory Compliance | |
| Example Part Number | 99-78-0000-00 |

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*This progressive scan camera
uses a TrueFrame™ sensor from
our world-renowned sensor group
in Eindhoven, the Netherlands.*

