

# Pantera TF 11M4

## Area Scan Cameras



### Key Features

- 4008 x 2672 resolution, fast data rate
- Antiblooming
- High dynamic range
- Excellent tap matching
- Easy attachment of mechanical shutters
- Model with advanced cosmetic performance available

### Programmability

- Small step gain control for excellent tap matching
- 1 or 2 output taps
- Exposure mode and timing control
- 8, 10, 12, or 14 bit output
- 1 x 1, 2 x 2, or 4 x 4 binning

### Typical Applications

- Flat panel inspection
- X-rays: medical and non-destructive test
- Aerial reconnaissance
- Microscopy
- PCB inspection with strobe lighting

### Overview

With 14 bit output and 11 megapixel resolution, this camera can discern tiny differences in large areas.

The Pantera TF 11M4 is an advanced, full frame camera that offers a unique combination of 11 megapixel resolution, fast frame rate, large bit depth, and a Camera Link™ interface. The camera's data rate of up to 2 x 36 MHz provides incredible throughput while its 4008 x 2672 pixel resolution enables you to reduce the number of cameras required for large area surface scanning. With up to 14 bits of output, this camera is capable of discerning the tiniest differences between gray scales. The DALSA-made sensor used in the camera has extremely low noise eliminating the need for voluminous and costly cooling mechanisms.

The Pantera TF 11M4 is housed in a single, robust enclosure ideal for hostile industrial environments and is designed for easy attachment of external devices such as mechanical shutters. The M72 adapter on the front plate allows for wide selection of off the shelf and custom lenses.

### Specifications

Resolution	4008 x 2672
Data Rate	2 x 36 MHz
Max. Line/Frame Rate	4.4 fps
Pixel Size	9 μm
Data Format	8, 10, 12, 14 bit
Output	Base Camera Link
Lens Mount	M72 x 0.75, F mount
Responsivity	20 DN/(nJ/cm <sup>2</sup> ) @ 530 nm
Dynamic Range	66 dB
Nominal Gain Range	1x to 4x
Size	94 mm x 94 mm x 45 mm
Mass	680 g
Operating Temp	0 °C to 40 °C
Power Supply	12 V to 24 V
Power Dissipation	<15 W
Regulatory Compliance	CE
Control	MDR26 Camera Link
Data	Shared with Control
Power	Hirose HR10 6 pin
Example Part Number	PT-20-11M04

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## Area Scan Cameras

*Get the big picture without losing the details. With 14 bit output and 11 megapixel resolution, this camera can discern tiny differences in large areas.*

