

# Pantera TF 1M60

## Area Scan Cameras



### Key Features

- 12 bit digitization
- Exposure control and antiblooming
- 100% fill factor
- High sensitivity with low dark current
- Base Camera Link

### Programmability

- Small step gain control in increments of 1 DN for excellent tap matching
- Selectable one or two output taps
- Exposure mode and timing control
- Selectable 8, 10, or 12 bit output
- Selectable binning
- Video mode and test pattern selection

### Typical Applications

- X-rays: medical and non-destructive test
- Medical imaging
- Microscopy
- Metrology

### Overview

60 frames per second of full 1k by 1k resolution and 12 bit digitization gives you the speed to succeed in the most demanding applications.

The 1M60 Pantera camera provides high sensitivity 12 bit images with 1k x 1k spatial resolution at up to 60 frames per second. The 1M60 is a frame transfer CCD camera using a TrueFrame™ progressive scan CCD to simultaneously achieve outstanding resolution and gray scale characteristics. A 12  $\mu\text{m}$  square pixel format and 100% fill factor provide superior image quality even at low light levels.

12 bit performance provides up to 4096 distinct gray levels—perfect for detail oriented applications with large interscene light variations. The low noise, digitized video signal also makes the camera an excellent choice where low contrast images must be captured in challenging applications.

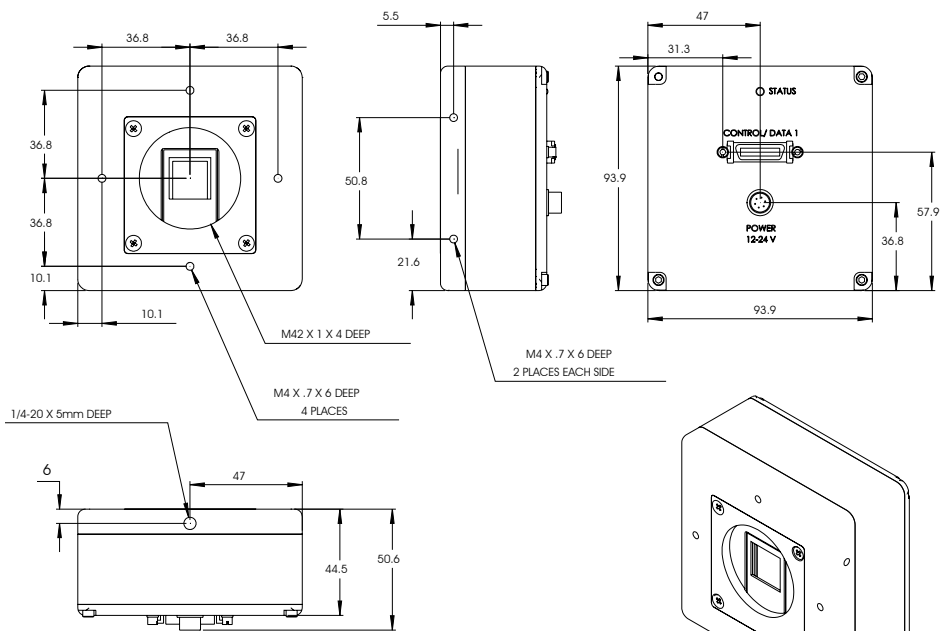
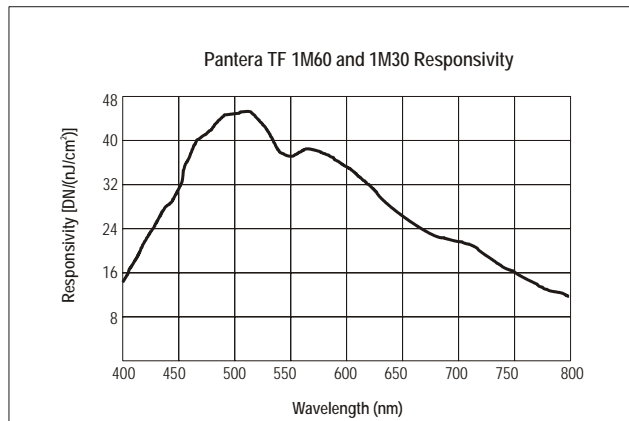
### Specifications

Resolution	1024 x 1024
Data Rate	2 x 40 MHz
Max. Line/Frame Rate	60 fps
Pixel Size	12 $\mu\text{m}$
Data Format	8, 10, 12 bit
Output	Base Camera Link
Lens Mount	M42 x 1, F mount
Responsivity	40 DN/(nJ/cm <sup>2</sup> ) @ 540 nm, 1x gain
Dynamic Range	66 dB
Nominal Gain Range	1x to 4x
Size	94 mm x 94 mm x 45 mm
Mass	850 g
Operating Temp	0 °C to 40 °C
Power Supply	12 V to 15 V
Power Dissipation	<17 W
Regulatory Compliance	CE
Control	MDR26 Camera Link
Data	Shared with Control
Power	Hirose HR10 6 pin
Example Part Number	DS-21-01M60

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## Area Scan Cameras

*This progressive scan camera uses a TrueFrame™ Frame Transfer architecture—it has an on-chip shielded storage region and requires no mechanical shutter.*



DIMENSIONS ARE IN mm

+/- .3 TOLERANCE ON ALL DIMENSIONS UNLESS OTHERWISE INDICATED

