

Fiber Cam™ – Analog X-ray Camera

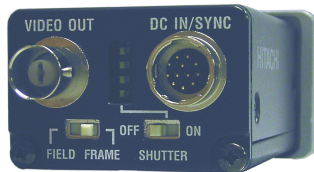
Features

- X-Ray energy sensitivity varies between 5 to 120 keV
- Analog NTSC output is very convenient output for computer viewing
- 470TVL resolution
- 2/3 inch sensor via KP-M1
- Customizable diameter fiber tapers available
- Expected lifetime of CCD greatly enhanced via use of FO coupling
- Individually built and tested by experts
- Tested Frame Grabbers: Euresys, Matrox, Mikrotron

Applications

- X-Ray Inspection
- Military Technology
- Optical Inspection at Close Proximity
- Magnification Applications
- PCB Inspection

Analog X-ray Camera with a 16 or 25mm Diameter Fiber Taper (Custom Diameters Available on Request) and a Gadolinium Oxysulphide (GdOs) Scintillation Layer. Perfect for Inexpensive Inspection Instruments Where Cost is a Factor.



Overview

The Fiber Cam represents a new way to capture X-ray images with standard analog CCD sensors. The Fiber Cam is a standard 2/3" monochrome CCD Camera with a fused fiber optic taper that is attached directly to the image sensor with proprietary technology.

Our GdOs scintillation layer is applied directly to the surface of the fiber-optic bundle for maximum efficiency using our proprietary technology. The camera ships with a thin aluminized window to protect this layer from scratches.

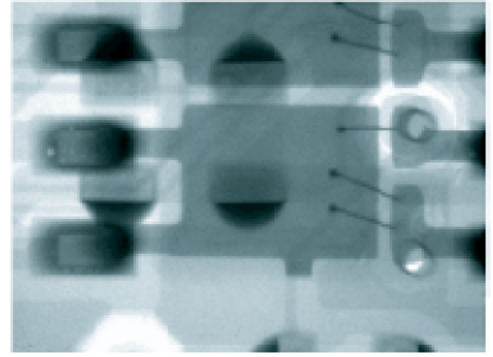
The Fiber Cam is designed for OEMs who wish to use a *standard camera with X-Ray sources*. Using this technology the GdOs layer is at least 1/2" away from the sensor and will thus reduce the rate of sensor deterioration.

Specifications

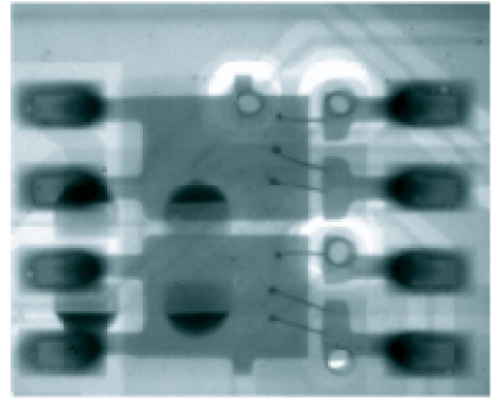
CCD Size:	2/3"
Pixels:	768 (H) x 494 (V)
Cell Size:	11.6 (H) x 13.6 (V) um
Aspect Ratio:	4:3
Resolution:	570 (H) x 485 (V) TV lines
SN:	56db
Gamma:	0.45 to 1.0
AGC:	On/Off
Shutter:	1/100 - 1/10000
Sync:	Internal/External
Trigger:	Field on Demand
Output:	RS-170 1.0 V p-p
Power:	12V DC
Fiber Bundle:	16 mm, 25 mm
Input Diameter:	Standard (other sizes available upon request)
Input Pixel Sizes (horizontal):	20 um, 31 um
Limiting Resolution at: Input Window (depending on x-ray coating)	18 lp/mm, 12 lp/mm
Energy Range:	5 to 120 KeV (can be optimized for certain energy ranges)
Input Window Protective Cover:	Aluminized (other window materials available upon request)
Options:	<ul style="list-style-type: none">• External camera gain/offset control for greater dynamic range• Custom window materials for lower kV applications• Custom fiber optic diameter

NOTE: Customer must provide the X-ray source.

Sample Pictures



**Image of printed circuit board with 16mm
Fiber Cam**



**Image of printed circuit board with 25mm
Fiber Cam**

Ordering Info

Fiber Cam/Std: Standard unit camera with standard GdOs coating (balanced for resolution and max light output)

Fiber Cam/Option 1: Without GdOs coating (for non-x-ray applications)

Fiber Cam/Option 2: Enhanced sensitivity option -- external camera gain control box for manual adjustment of video output signal

Fiber Cam/Option 3: Custom protective input window material (e.g., aluminum, mylar)