

## **Fiber Cam™ – Standard Definition Analog Out X-ray Camera with GdOS Sensor**

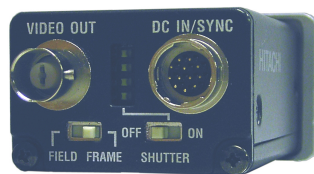
### Features

- 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

<b>CCD Size:</b>	2/3"
<b>Pixels:</b>	768 (H) x 494 (V)
<b>Cell Size:</b>	11.6 (H) x 13.6 (V) $\mu$ m
<b>Aspect Ratio:</b>	4:3
<b>Resolution:</b>	570 (H) x 485 (V) TV lines
<b>SN:</b>	56db
<b>Gamma:</b>	0.45 to 1.0
<b>AGC:</b>	On/Off
<b>Shutter:</b>	1/100 - 1/10000
<b>Sync:</b>	Internal/External
<b>Trigger:</b>	Field on Demand
<b>Output:</b>	RS-170 1.0 V p-p
<b>Power:</b>	12V DC
<b>Fiber Bundle:</b>	16 mm, 25 mm
<b>Input Diameter:</b>	Standard (other sizes available upon request)
<b>Input Pixel Sizes (horizontal):</b>	20 $\mu$ m, 31 $\mu$ m
<b>Limiting Resolution at Input Window: (depending on x-ray coating)</b>	18 lp/mm, 12 lp/mm
<b>Energy Range:</b>	5 to 120 KeV (can be optimized for certain energy ranges)
<b>Input Window Protective Cover:</b>	Aluminized (other window materials available upon request)
<b>Dimensions:</b>	50 mm wide x 36 mm high x 104 mm deep
<b>Options:</b>	<ul style="list-style-type: none"><li>• Custom window materials for lower kV applications</li><li>• Custom fiber optic diameter</li></ul>

**NOTE:** Customer must provide the X-ray source.

## Sample Pictures

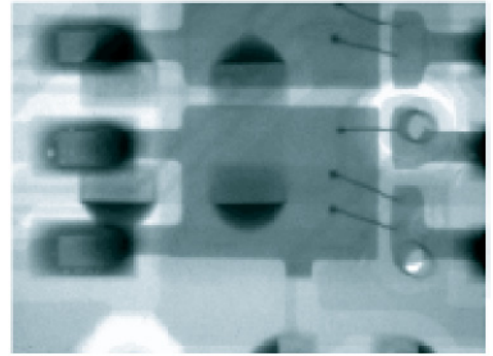


Image of printed circuit board with 16mm Fiber Cam

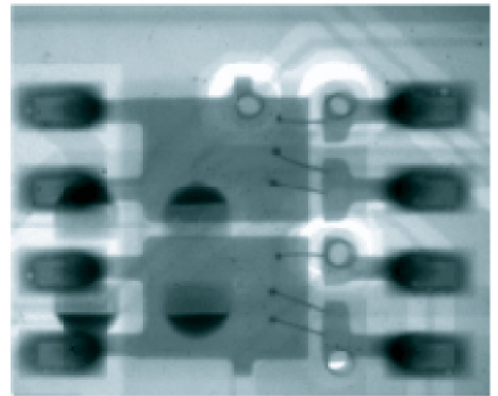


Image of printed circuit board with 25mm Fiber Cam

## 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:** Custom protective input window material (e.g., aluminum, mylar)