NanEye Fiber Optic Box 2.0

- Fully embedded all in one image processing unit
- 1080p/60 video format for direct connect to a HDMI compatible monitor
- Adjustable fiber light source
- USB3 interface to the NanEye viewer for video transmission and NanEye sensor control

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General Description

NanEye Fiber Optic Box Demo Kit 2.0 is a fully embedded all in one image processing unit that interfaces the NanEye® micro camera head signals and provides an output of 1080p/60 format HDMI video signal which can be directly plugged to a HDMI compatible monitor. No additional PC or image processing is required.

The Demo Kit embeds advanced image processing algorithms to automatic control exposure settings, construct the color data from the raw binary stream and displays an output image of 750 x 750 pixels over an HDMI interface.

The USB3 interface allows the connection to the NanEye viewer running on a PC to get access to the sensors' raw images and control settings.

Features

- Supports up to 2 NanEye® 2D
- Integrated adjustable fiber light source
- HDMI 1080p/60 video output
- USB3 PC interface to NanEye viewer
- Image processing, correction and enhancements
- Auto exposure

Benefits

- Easy to use plug and play solution
- Stand alone video output via HDMI (no PC required)
- High quality image output
- All in one eval kit with illumination
- Raw image data access and sensor control via USB3 and NanEye viewer

The Demo Kit includes a fiber light source, which provides light to the tip of the NanEye® Sensor probe via a 0.5mm plastic optic fiber. The fiber and NanEye® camera are housed in a 2.3mm diameter lumen of 1m length that can be plugged and unplugged easily from the processing and illumination unit. The illumination intensity is adjustable by a manual dial. The unit is supplied by a 12V wall charger and provides galvanic isolation to the camera head. It can interface to any standard monitor with HDMI input. The main body of the Demo Kit measures only 17cm x 17cm x 5.6cm and provides all necessary video processing and display driving plus the adjustable illumination.

For optimal color balancing, the Demo Kit is pre-calibrated to the NanEye® camera head purchased together with the kit.

Fiber Optic Box Block Diagram

![Fiber Optic Box Block Diagram](image-url)