

SENTECH

Sentech OEM Color CCD Cameras

For many applications, what our customers really want, is the CCD and processing module of the camera. This makes it easier for them to put the camera inside of their system or to build a speciality camera for their specific application. In order to support this, Sentech provides the following OEM color cameras. These are high performance Digital Signal Processing (DSP) color cameras. They are able to be programmed to process the video signal specifically to your lighting, lensing, and application requirements. These cameras are currently being used for intraoral dental cameras, embedded inside of ophthalmic microscopes, underwater policing devices, endoscopic instrumentation, industrial inspection, sports coverage cameras, and much more.

STC-R640 Series:



The STC-R640 series is our newest and fastest growing line of OEM products. From dental to medical to industrial applications, the STC-R640 series offers a variety of cable lengths and head configurations. If needed, this product set is also available in cased versions.

STC-R640 Basic Specifications

• Image Sensor:	1/4" Color IT CCD
• Signal Formats:	Available in NTSC & PAL formats
• Connection to CCU:	Cable assembly - available in 2, 3, 5, and 10 meter lengths
• Effective Pickup Area (H x V):	768 x 494 (NTSC) / 752 x 582 (PAL)
• Horizontal Sync Frequency:	15.734 KHz (NTSC) / 15.625 KHz (PAL)
• Vertical Sync Frequency:	59.94 Hz (NTSC) / 50.00 Hz (PAL)
• Horizontal Resolution:	480 TV Lines
• Lens Mount:	Micro, and C-mount (with adapter)
• Scanning Systems:	2:1 Interlace
• Video Output(s):	Composite and Y/C (available on select models)
• Video Output Level:	1.0 Vp-p, 75 Ω
• Y/C Video Output Level:	0.7 Vp-p, 75 Ω
• Sync System:	Internal/External
• S/N Ratio:	> 48dB, AGC Off
• Gamma:	0.45 (default), DSP Adjustable (32 steps)
• Electronic Iris:	1/60 (1/50) - 1/10,000 second
• Electronic Shutter:	1/60 (1/50), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10,000
• Minimum Illumination:	1.1 Lux @ F1.2, 50 IRE
• White Balance:	Manual / Full Auto / Push-to-Set
• Operating Voltage:	DC +12 Volts \pm 10%
• Power Consumption:	220 mA
• Operating Temperature:	-10° C - 45° C (14° F - 113° F)
• CCU Dimensions:	45 (W) x 45 (H) x 14 (D) mm (1.8" x 1.8" x .56")
• Weight:	45 g (1.58 oz.)



STC-R640 OEM Module (without cable)

The STC-R640 is the base module for the STC-R640 series cameras. The camera control unit (CCU) is a compact 45 (W) x 45 (H) x 14 (D) mm whereas the CCD board is 22 (L) x 8 (Dia) mm. The STC-R640 is offered without a mating cable between the CCU and CCD board.



STC-R640C OEM Module

The STC-R640C is the same as the STC-R640 except it is offered with a cable between the CCU and CCD board. The cable length can be 2, 3, 5, or 10 meters and there are a variety of head configurations available.



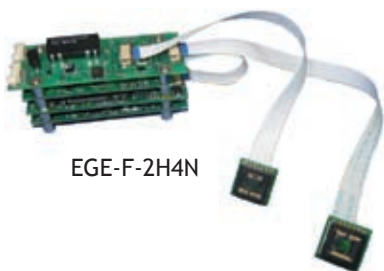
STC-R640MC & STC-R640HD2

The STC-R640MC with the STC-R640HD2 have the same features as the R640C except that it features a Hirose connector that can be used for OEM Applications that require the disconnection of the camera head.

EGE-F Series:

The EGE-F series is based on high-resolution 1/4", 1/3" and 1/2" CCDs. With a flexible printed circuit cable (FPC) connecting the main camera boards and the CCD board, the EGE-F offers very flexible integration to almost any application. Sentech also offers a two-headed version of this camera for very special applications.

• Image Sensor:	EGE-F-22N: Color 1/2" NTSC 768 (H) x 494 (V) IT CCD EGE-F-22P: Color 1/2" PAL 752 (H) x 582 (V) IT CCD EGE-F-32N: Color 1/3" NTSC 768 (H) x 494 (V) IT CCD EGE-F-32P: Color 1/3" PAL 752 (H) x 582 (V) IT CCD EGE-F-42N: Color 1/4" NTSC 768 (H) x 494 (V) IT CCD EGE-F-42P: Color 1/4" PAL 752 (H) x 582 (V) IT CCD
• Connection to CCU:	Flexible printed circuit cable (length can vary up to 8")
• Special Configuration:	Available in a two-headed CCD configuration
• Signal Formats:	Available in NTSC & PAL formats
• Horizontal Resolution:	480 TV Lines
• Horizontal Frequency:	15.734 KHz
• Vertical Frequency:	59.94 Hz
• Gamma:	0.45 (DSP Adjustable)
• AGC:	On/Off (0 to 18 dB)
• Minimum Illumination:	0.5 Lux @ F1.2
• Video Out:	1.0 Vp-p, 75 Ω
• Y/C Out:	1.0 Vp-p, 75 Ω
• Sync System:	Internal
• White Balance:	Auto / Manual / Push-to-Set
• Aperture Gain:	Off / On (On has two levels - user definable) 2-Bit - status output
• Electronic Iris:	1/60 to 1/10,000 second
• Electronic Shutter:	Extended Integration: 2FLD to 16 FLD (8 Steps) High Speed: 1/60 (1/50) to 1/10,000 second (8 Steps)
• S/N Ratio:	>48dB (AGC Off)
• Negative Positive:	DSP Selectable
• Back Light:	Back light compensation at electronic shutter
• CCU Dimensions:	26 (W) x 20 (H) x 60 (L) mm (1.04" x .8" x 2.4")
• CCD Head Dimensions:	12 (W) x 12 (H) mm (.48" x .48")
• Weight:	26 g (.91 oz.)
• Power Required:	DC 6 - 8 V
• Power Consumption:	Approximately 240 mA, variation is CCD dependant



EGE-F-2H4N



EGE-F-42N

All cameras on this page are available in NTSC and PAL formats

EGE-W Series:

The EGE-W series offers the same board configurations and compact size but with a wiring harness between the main camera boards and the CCD board. This manufacturing method provides better reliability in applications requiring the head to be flexed or repositioned often.

Image Sensor:	EGE-W-45N (NTSC): Color 1/4" 768 (H) x 494 (V) IT CCD EGE-W-45P (PAL): Color 1/4" 752 (H) x 494 (V) IT CCD
Connection to CCU:	Wiring harness (length can vary 1 to 8 inches)
Signal Formats:	Available in NTSC & PAL formats
Horizontal Resolution:	480 TV Lines
Horizontal Frequency:	15.734 KHz
Vertical Frequency:	59.94 Hz
Gamma:	0.45 (DSP Adjustable)
AGC:	On/Off (0 to 18 dB)
Minimum Illumination:	0.6 Lux @ F1.2
Video Out:	1.0 Vp-p, 75 Ω
Y/C Out:	1.0 Vp-p, 75 Ω
Sync System:	Internal
White Balance:	Auto / Manual / Push-to-Set
Aperture Gain:	Off / On (On has two levels – user definable) 2-Bit - status output
Electronic Iris:	1/60 (1/50) to 1/10,000 second
Electronic Shutter:	Extended Integration: 2FLD to 16 FLD (8 Steps) High Speed: 1/60 (1/50) to 1/10,000 second (8 Steps)
S/N Ratio:	< 48dB (AGC Off)
Negative Positive:	Selectable
Back Light:	Back light compensation at electronic shutter
CCU Dimensions:	26 (W) x 20 (H) x 60 (L) mm (1.04" x .8" x 2.4")
CCD Head Dimensions:	8mm diameter
Weight:	27 grams (.95 oz.)
Power Required:	DC 6 – 8 V
Power Consumption:	Approximately 240 mA, variation is CCD dependant



EGE-W-45N