TAKEX

Camera Link-compliant, 2.07 megapixels, 60 frame/sec

PROGRESSIVE SCAN CAMERA FS2600CL

Overview

- High-speed progressive scan camera with 2.07 million pixel CCD capable of 60 fps readout.
- Full frame shutter images can be obtained at 62.7 fps frame rate (in QUAD mode).
- Image pixels are arranged in aspect ratio of 16 : 9 、1930(H)×1080(V)) which is equivalent to that of Full-spec HDTV.
- The digital signal is output in digital 10bit or 8bit (switchable) digital signal.

(RAW data output of RGB Bayer arrangement)

- 10/8 bit digital image video signal is output in progressive (non-interlaced) format, complying with the Camera Link standard (Medium/Base configura tion).
- Asynchronous electronic shutter function provides still full frame images at any timing (Asynchronous shutter mode).
- The internal set values of the camera are externally controlled with serial communication via Camera Link.

Features

- The current setting status of the camera can be displayed over the captured image using superimposing function enabling to display text information by OSD.
- When the external trigger signal is input, the image is reset at a random timing (Asynchronous timing) and the electronic shutter image can be obtained at a given point in time. (Asynchronous shutter mode)
- CCD output mode is switchable between QUAD/DUAL/SINGLE mode.

  This camera has the auto-correction function to reduce the level difference in brightness at the boundary of right,left,upper and lower images.
- VElectric shutter release timing is output as a strobo scopic emission trigger signal. The camera is designed so that the strobe signal can be output even in the continuous shutter mode, and this contributes to the power saving for LED lighting and others as well as the reduction of smear.
- The monitoring function for measuring the internal temperature of the camera is incorporated.
- Preset trigger input and pulse width trigger input as asynchronous shutter trigger input are available.

Applications

- High-speed electronic shutter image processor
- Appearance inspection device for LSI
- Input device for ITS such as car number reading
- Inspection device for electronic packaging
- Inspection device for LC or Plasma panel
- Input device for image processor connected to computer

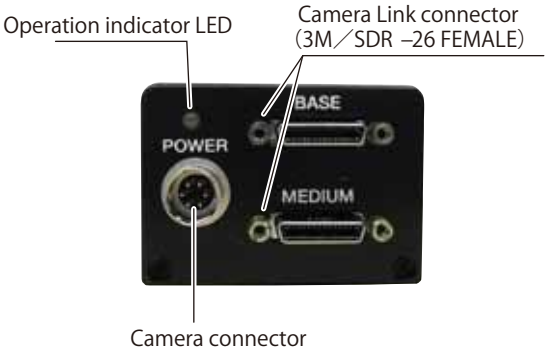
Specifications

		FS2600CL
Image sensor		Progressive scanning, interline transfer CCD 2/3 inch size Unit cell size: 5.5μm(H) ×5.5μm(V) Color imagesensor (RGB Bayer arrangement)
(Number of) Effective Pixels		1920(H) × 1080(V)Square grid pattern
Read Out Scanning	Horizontal Scanning	fH=36.0kHz(QUAD): 36.0kHz(DUAL): 18.8kHz(SINGLE)
	Vertical Scanning	fV=62.7 Hz(QUAD): 31.4 Hz(DUAL): 16.4 Hz(SINGLE)
	Pixel Clock	fCLK=40.00 MHz
Sensitivity Reference value		800 lx F 11 (at 1/30sec, 512/1024 digital output)
Min. subject illuminance		8Lx F1.4
S / N		Approx. 50dB
Video output		Progressive 62fps (at quad output) , 31 fps (at dual output) , 16 fps (at single output) Digital out/CameraLink (Medium/Base Configuration) 62fps(QUAD) :40.0MHz×4tap×8 or 10bit out (Medium) 31fps(DUAL) :40.0MHz×2tap×8 or 10bit out (Base) 16fps(SINGLE) :40.0MHz×1tap×8 or 10bit out (Base)
External Sync Input		Internal Sync only
Electronic shutter		1/25000sec～1/62sec (No shutter) 62fps(QUAD) 1/25000sec～1/31sec (No shutter) 31fps(DUAL) 1/15000sec～1/16sec (No shutter) 16fps(SINGLE)
Asynchronous Shutter		Preset fixed shutter/Pulse width control
Scanning Mode		Normal scan (all pixels)
Lens Mount		C mount (flange back fixed)
Optical filter		IR cut filter
External Control		Serial interface via Camera Link
Special Function		Function of superimposing setting information on screen Function of monitoring internal temperature of camera Function of storing camera ID information
Power Supply		DC12V±10%, 400mA (Reference value)
Operational ambient temperature		0℃～40℃(Without the dew condensation , Freezing)
Storage teperature range		−30℃～60℃(Without the dew condensation , Freezing)
Anti-shock		70G
Anti-vibration		70G
External dimension		46(W) × 33(H) × 94(D)mm
Weight		Approx. 200g

●Note that specifications are subject to change without notice for improvement.

TAKEX

Back panel

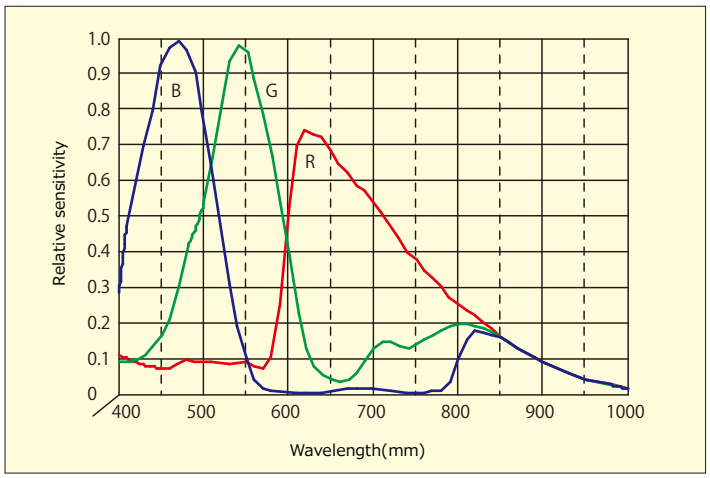


応用例

Object shape recognition based on color image data

You can construct an image recognition system with the processing of color information using this camera, high-resolution color image can be obtained. In this example, in order to find markings on objects image recognition process is executed comparing both shape and color information based on data captured by this camera.

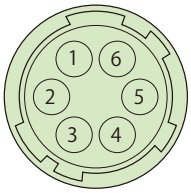
Spectral Sensitivity



Camera connector

Camera connector (HRS HR10A-7R-6PB)

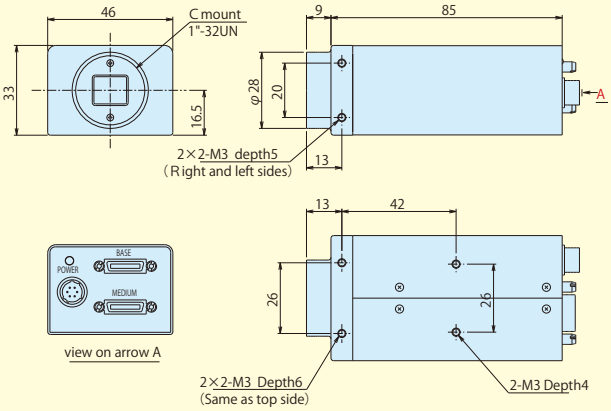
The pin arrangement of the Camera connector(6 pins) and the signals assigned to those pins are shown in the following table.



Pin No.	Signal name	Description	I/O
1	GND（OV）	Power ground	
2	IC	※	
3	GND	Signal ground	
4	Vinit	Input for external trigger	In
5	STRB	Strobe signal output	Out
6	+12VDC	DC power input	(In)

※ Do not assign any signals to the IC pins because they are occupied internally.

Dimensional Outline Drawing



Unit：mm

●It may be changed without a notice about all items (product name, a model, specifications, external form dimensions, materials, the price)explained by this catalogue.
●We do not take responsibility about any accident damage by an error in the use of deficiency in the construction and deficiency of the maintenance check and this product, the natural disaster (surge, including lightning-induced).

TAKEX TAKENAKA SYSTEM CO., LTD.

Headoffice: 86-66, Nomizo-cho, Ohtsuka, Yamashina-ku,
Kyoto City 607-8135, JAPAN
TEL: +81-75-593-9300 FAX: +81-75-593-9790
E-mail: sales @takex-system.co.jp

TAKENAKA SYSTEM URL: http://www..takex-system.co.jp
TAKENAKA SENSOR GROUP URL: http://www.takex.co.jp

※The contents of this catalog is based on the data of April 2016. CAT 20160404