

XC Cameras and Monitors

Progressive Scan Monochrome Video Camera Modules

XC-7500 (EIA)

1/2 inch CCD Monochrome Camera Module



XC-8500CE (CCIR)

1/2 inch CCD Monochrome Camera Module



The XC-7500 and XC-8500CE are frame shutter cameras featuring the latest high resolution, progressive scan 1/2-inch format CCD.

Using a compact and lightweight design, these two cameras are ideal for critical applications such as image processing and real-time high-speed machine control systems.

E-Donpisha high-speed asynchronous shutter gives the capability to capture random, fast moving objects.

- # 1/2 inch Hyper HAD IT CCD
- Square pixel CCD 9.9um x 9.9um
- Frame shutter (up to 1/100,000 sec)
- E-Donpisha asynchronous full frame shutter
- Signal system : EIA (XC-7500) /CCIR (XC-8500CE)
- Three output modes : 2-channel interlaced, 2-channel non-Interlaced, single-channel progressive (1/25 sec)
- # Restart / Reset mode
- # High resolution
 - horizontal: 500 TV lines (XC-7500), 600 TV lines (XC-8500CE)
 - vertical: 499 TV lines (XC-7500), 580 TV lines (XC-8500CE)
- Compact and lightweight (44(W) x 44(H) x 70(D)mm, 190g)
- # DC 12V operation

CMA-87

Memory Adaptor / Scan Adaptor

OUTLINE

The CMA-87 is a memory adaptor/scan converter designed for use with the XC-7500 and XC-8500CE progressive scan cameras. The unit combines the dual field outputs from the camera into a single frame output, which can be utilized by single-channel image processing systems.

The scan converter function of the CMA-87 converts video from the cameras into VGA (XC-7500)/S-VGA (XC-8500CE) and will also convert EIA standard signals to the CCIR standard, and vice versa.

- Frame memory for E-Donpisha shutter
- High-speed scanning (up to four times standard rate)
- External synchronization
- # Write Enable pulse output
- # Output signal formats
 - XC-7500: VGA, EIA, CCIR
 - XC-8500CE: S-VGA, CCIR, EIA
- Compatible with DC-77RR/CE Power Adaptor
- # DC 12V operation

XC Cameras and Monitors

Monochrome Video Camera Modules

XC-75 (EIA) / XC-75CE (CCIR) 1/2 inch CCD Monochrome Camera Module

XC-73 (EIA) / XC-73CE (CCIR) 1/3-inch CCD Monochrome Camera Module



OUTLINE

The XC-75/75CE (1/2-inch CCD) and XC-73/73CE (1/3-inch CCD) are monochrome video camera modules providing high picture quality for the factory automation and image processing markets.

Although only 65% of the size of the XC-77/77CE, these cameras provide high picture quality and are additionally fitted with alternative shutter modes; normal, variable and asynchronous - making them ideally suited to process control applications.

- # High resolution
 - XC-75/XC-73: 570(H) x 485(V) TV lines
 - XC-75CE/XC-73CE: 560(H) x 575(V) TV lines
- # High sensitivity, 3 lux F1.4 (with IR filter)
- # High S/N ratio, 56dB (EIA)/54dB (CCIR)
- # Electronic shutter (1/125 sec to 1/10,000 sec)
- # Asynchronous shutter (S-Donpisha)
- External shutter speed control
- Frame and field integration
- Restart / Reset mode
- Compact, lightweight (44(W) x 29(H) x 71(D)mm, 140g)
- # DC 12V operation

XC-77 (EIA) / XC-77CE (CCIR) 2/3 inch CCD Monochrome Camera Module



OUTLINE

The XC-77/77CE is a monochrome video camera module designed for the industrial market.

The camera uses a high resolution 2/3-inch IT CCD ensuring compatibility with popular 2/3-inch format optics. The Restart / Reset function allows long term, low-noise integration for low-light applications.

- Square pixel, 11pm x 11um (XC-77CE only)
- # High resolution
 - XC-77: 570(H) x 485(V) TV lines
 - XC-77CE: 560(H) x 575(V) TV lines
- # High sensitivity:
 - 3 lux F1.4 (with IR filter)
 - 0.5 lux F1.4 (without IR filter)
- # High S/N ratio
- Frame and field Integration
- # Restart / Reset function
- # DC 12V operation
- # Compact, lightweight (44(W) x 29(H) x 107(D)mm, 190g)

XC Cameras and Monitors

Remote Head Monochrome Video Camera Modules

XC-77BB (EIA) / XC-77BBCE (CCIR) 2/3 inch CCD Monochrome Camera Module



OUTLINE

The XC-77BB/CE is a remote head version of the XC-77/CE. The miniature head, connected to the CCU (Camera Control Unit) by a 0.6m cable, allows access into confined spaces. This separation of the camera into two sections causes no reduction of its high performance.

- Square pixel, 11um x 11um (XC-77BBCE only)
- # High resolution
 - XC-77BB: 570(H) x 485(V) TV lines
 - XC-77BBCE: 560(H) x 575(V) TV lines
- # High S/N ratio, 50dB
- # High sensitivity
- Frame / field integration
- # Restart / Reset function
- # Compact, lightweight
 - head: 44(W) x 31(H) x 23(D), 65g
 - CCU: 44(W) x 29(H) x 105(D)mm, 170g
- # DC 12V operation

XC-77RR (EIA) / XC-77RRCE (CCIR) 2/3 inch CCD Monochrome Camera Module



OUTLINE

The XC-77RR/CE features a remote head connected to the CCU (Camera Control Unit) via a 5m cable. This can be extended to 25m with an optional extension cable. The camera uses a 2/3-inch high resolution, blemish-free IT CCD, setting it apart from the majority of other 2/3-inch cameras.

Unlike the XC-77ICE and XC-77BB/CE models, this variation utilizes a shutter function which can be used in an asynchronous mode. Long-term integration can also be achieved.

- Square pixel, 11 um x 11um (XC-77RRCE only)
- # High resolution
 - XC-77RR: 570(H) x 485(V) TV lines
 - XC-77RRCE: 560(H) x 575(V) TV lines
- # High S/N ratio, 56dB (EIA)/54dB (CCIR)
- # High-speed shutter
 - 1/63 sec to 1/3,580,000 sec (XC-77RR)
 - 1/52 sec to 1/2,360,000 sec (XC-77RRCE)
- # High sensitivity:
 - 5 lux F1.4 (with IR filter)
 - 0.8 lux F1.4 (without IR filter)
- # Frame / field integration
- # Restart / Reset function
- # DC 12V operation
- Donpisha simultaneous and asynchronous shutter
- # Compact, lightweight
 - head: 44(W) x 31(H) x 23(D), 65g
 - CCU: 135(W) x 30(H) x 70(D)mm, 170g

NOTE: The XC-77BB/CE and XC-77RR/CE models do not comply with current CE regulations and therefore cannot be purchased in the EU unless one of the following criteria is met:

1. the unit is to be resold outside the European Union
2. the unit is integrated into a system which will comply with CE regulations

XC Cameras and Monitors

High-Vision Monochrome Camera Module

XCH-1125 (EIA)

1-inch FIT CCD Monochrome Camera Module



OUTLINE

The XCH-1125 is an 1125-line, high resolution monochrome camera module which uses a 1-inch, 2 million pixel FIT (Frame Interline Transfer) CCD. In addition, it has various functions including a normal and Drop-shutter, CCD iris and long-duration exposure.

The XCH-1125 is useful in a wide range of applications such as pattern recognition, machine operations, computer image processing and microscope systems.

- # High resolution 1920(H) x 1035(V) pixels
- # HD/VD, VS external sync input
- # High S/N ratio, 56dB
- # Ultra-low smear
- # BI/TRI sync
- # AGC / Manual gain control function
- # 2:1 Interlaced / non-interlaced operation
- # Various shutter functions
- Compact and lightweight (90(H) x 65(w) x 140(D)mm, 670g)
- # DC 12V operation

MSI-1125

High-Vision Multi-scan Interface



OUTLINE

The MSI-1125 is a frame memory unit, designed for use with the 1125-line, high resolution monochrome camera module, XCH-1125.

The MSI-1125 stores a real-time analogue active image in each of its three frame memories, and performs a conversion from the High-Vision format into other video formats and outputs the digital data via SCSI bus. All three frame memories can be used to capture an extremely high resolution and accurate color image.

- 3-frame grabber (2Mb x 3) for BW HDVS video signals
 - resolution 1920(H) x 1034(V) x 8 bits x 3
- Down conversion from High-Vision, supporting 1K x 1K, EIA and CCIR standard formats
- # CCU function for control of camera modes
- # KS-232C and SCSI digital Interface for computer control
- Image data is transferred to computer via SCSI Interface.
- Expandable for use in RGB color systems by adding a rotary color filter to the camera
- # DC 12V output for camera powering
- Desktop use or optional 19-inch standard rack mounting
- Size 424(W) x 132(H) x 325(D)mm
- # AC 85-132V/170-265V, 47-63Hz

XC Cameras and Monitors

Color Video Camera Modules

XC-999 (NTSC) / XC-999P (PAL) One-piece Miniature 1/2 inch CCD Camera Module



OUTLINE

The XC-999/P is a miniaturized, one-piece 1/2-inch IT CCD color camera module, its small size made possible by advances in Sony large scale integration technology. The unit provides a high quality, high resolution, image from its sensitive Hyper HAD CCD.

The omission of a separate camera control unit enhances flexibility in the placement of the camera.

- # 1/2-inch Hyper HAD IT CCD imager
- # High resolution
 - XC-999 : 470 TV lines (H)
 - XC-999P : 460 TV lines (H)
- # Single-piece camera, no separate CCU
- # Composite, Y/C (S-video) outputs. RGB output with CMA-999/P option
- # CCD iris, electronic shutter and auto iris
- # External sync, HD/VD, VS, VBS with CMA-999/P option
- Auto Tracing White (ATW) and manual white balance
- Compact and lightweight (22(W) x 22(H) x 120(D)mm, 99g)
- # DC 12V operation

XC-777 (NTSC) / XC-777P (PAL) One-piece Miniature 1/3 inch CCD Camera Module



OUTLINE

The XC-777/P is the 1/3-inch IT CCD miniaturized version of the XC-999/P, developed for applications where the size of the 1/2-inch camera is a restriction. The unit provides the same high quality images as the XC-999/P, but in a substantially reduced package.

Low weight and power consumption make this unit ideal when these factors are critical - such as in battery-powered vehicles.

- 1/3-Inch Hyper HAD IT CCD imager
- # High resolution
 - XC-777: 470 TV lines (H)
 - XC-777P: 460 TV lines (H)
- # Single-piece camera, no separate CCU
- Composite, Y/C (S-video) outputs
- # Internal sync
- # Electronic shutter
- ATW and manual white balance
- Compact and lightweight (22(W) x 22(H) x 89(D)mm, 75g)
- # DC 12V operation

XC-711 (NTSC) / XC-711P (PAL) 2/3 inch CCD RGB Color Camera Module



OUTLINE

The XC-711/711P is a high-performance, RGB single-sensor color 2/3-inch IT CCD camera. Excellent color separation is achieved by employing a primary color vertical stripe filter. As opposed to mosaic color filters, full vertical color resolution is preserved in the XC-711/711P.

The XC-711/711P is an excellent color input device for process control systems and electronic graphic systems.

- # High resolution 2/3-inch IT CCD
- RGB primary color stripe filter
- # Electronic shutter
 - XC-711: 1/125 sec to 10,000 sec
 - XC-711P: 1/60 sec to 10,000 sec
- RGB, composite and Y/C video outputs
- Internal / external sync: HD/VD, Restart / Reset, VS
- Alternative white balance modes: Manual, Preset (3200/56000°(K), Auto White Tracing)
- # Square pixels 11um x 11um (XC-711P)
- Dimensions and weight: 50(H) x 56(D) x 149(D)mm, 380g
- # DC 12V

XC Cameras and Monitors

Color Video Camera Modules

XC-003 (NTSC) / XC-003P (PAL)

1/3-inch 3-CCD RGB Color Camera Module



OUTLINE

The XC-003/P is a 3-CCD RGB color camera module designed primarily for process control and image processing applications

The unit employs cosite sampling to ensure that the RGB information is perfectly aligned, providing color quality of the highest order.

Accepts standard C-mount lenses, so that a wide variety of lenses can be used to meet different requirements. Expensive bayonet-mount lenses are not required.

- Three Hyper HAD IT CCD sensors
- # Cosite sampling
- # High resolution, 570 TV lines (H), RGB 755 dots each sensor
- # E-Donpisha shutter Asynchronous Reset function
- # Long term, low-noise integration
- RGB, composite and Y/C outputs
- External sync (HD, VD /VS) Input
- # On-screen menu control
 - remote control connector for use with a simple customized control unit
- Compact and lightweight (50(H) x 56(W) x 1 28(D)mm, 440g)
- # DC operation

DC-77RR (AC 110V) / DG-77RCE (AC 220V)

AC to DC Power Module



OUTLINE

The DC-77RR/77RCE is a high performance camera power supply specifically designed for use with XC Series cameras and CCXC camera cables. It converts AC power to DC 12V and also provides BNC connector interfaces for camera signals.

The dummy box (shown) can be easily removed and replaced with the Camera Control Unit of the XC-77RR/77RCE Remote Head Camera or the CMA-87 Memory Adaptor / Scan Converter used with the XC-7500/8500CE Camera Module. Alternatively the CMA-999/999P (the RGB adaptor used with the XC-999/999P Camera) can be installed.

- Two composite video outputs
- Loop-through sync input with switchable 75 ohm termination
- # Pixel clock output

DC-777 (AC 120V) / DC-777CE (AC 100V to 240V)

AC to DC Power Module



OUTLINE

The DC-777/777CE is a lightweight AC/DC power module for use with Sony XC Series cameras.

Connected to a camera by an CCXC-12P cable, the DC-777/CE outputs camera composite video (via a BNC connector) and S-video (Y/C). These connections are located on the rear panel, along with an external sync connector which can be used with Sony XC models that accept an external sync signal.

- Dimensions 210(W) x 44(H) x 200(D)mm, weight 1.1kg

XC Cameras and Monitors

Accessories for XC Cameras

Lenses

C-Mount

VCL-08YM (8mm)
VCL-12YM (12mm)
VCL-16YM (16mm)
VCL-25YM (25mm)
VCL-50YM (50mm)



NF-Mount (XC-999/777 Series only)

VCL-03S12XM (3mm)
VCL-06S12XM (6mm)
VCL-12S12XM (12mm)
VCL-07S12XEA (7mm auto iris)



C-Mount special 3-CCD

VCL-08WM (8mm)
VCL-16WM (16mm)
VCL-25WM (25mm)



Mechanical Adaptors

LO-77ERK Back focus adjustment for C-Mount lenses
LO-999ERK Back focus adjustment for NF-Mount lenses
LO-999CMT NF-Mount to C-Mount adaptor
L-Angle Kit (XC-999/777 Series only)

Connectors

PCXC-12 (2-pin)
PCXC-03 (3-pin)
PCXC-04 (4-pin)
PCXC-06 (6-pin)



Cables (12-pin --> 12-pin)

CCXC-12P02S (2m)
CCXC-12P05S (5m)
CCXC-12P10S (10m)
CCXC-12P25S (25m)
CCXC-12P05U/D/R/L



RGB Cables

CCXC-QDB (5m, D-sub --> BNC x 4)
CCXC-9DD (5m D-sub --> D-sub)

Cable (20pin --> 12pin)

(for 1125 lines High-Vision system)
CCXC-H20P05S (5m)



All CCXC cables are shielded.

* U=Up, D=Down, R=Right, L=Left

Other Accessories

Tripod attachments

VCT-37
VCT-75



JB-77 Junction box

Interfaces 12-pin camera connector to
BNC connectors and DC 12V terminal block



3D Adaptor

Mounts two XC Series cameras



F-Adaptor

Magnifier for XC-M07/P Monitor



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