

XC-HR70

Component/OEM



OUTLINE

The XC-HR70 is an ultra-compact monochrome camera module ideal for high-resolution image capturing applications. A 1/3 type progressive scan CCD incorporated in the XC-HR70 allows the output of XGA resolution (1024 x 768) images at a rate of 30 frames/s. In addition, the XC-HR70 has a "high rate scanning" function to enable the output of up to 120 frames/s for high-speed image capturing. The compact and lightweight body of the XC-HR70 makes it easy to install in space-restricted areas.

With high-speed capturing capability offered in a compact body, the XC-HR70 is the ideal camera module for demanding applications such as the inspection of semiconductor production lines and high-speed assembly lines.

FEATURES

- High resolution image capturing
 - XGA resolution (1,024 x 768 pixels) image capturing at a speed of 30 frames/s
 - 1/3 type progressive scanning CCD with square pixels
Effective picture element: 1,034 (H) x 779 (V)
- High-rate scanning
Up to 120 frames/s (Effective line: 152 lines) (at restart/reset ON, Binning OFF)
- Compact and lightweight
29 (W) x 29 (H) x 30 (D) mm, 50 g (1³/₁₆ x 1³/₁₆ x 1³/₁₆ inches, 1.8 oz)
- External trigger shutter
1/4 to 1/100,000 s
- Electronic Shutter
1/100 to 1/20,000 s
- Synchronization
Internal/External (HD/VD)
- C-mount system
- Compliant with new EIAJ 12-pin connector pin assignments
- High shock and vibration tolerant
- Lead-free solder board

ACCESSORIES

Compact camera adaptor **DC-700/700CE**

- Compact, lightweight (700 g)
- Two video outputs
- External sync IN/OUT
- Trigger input/WEN output
- New EIAJ standard 12-pin connector
- Dimensions: 110 (W) x 53 (H) x 160 (D) mm



12-pin camera cable (CE standard)

- CCXC-12P02N (2 m)
- CCXC-12P05N (5 m)
- CCXC-12P10N (10 m)
- CCXC-12P25N (25 m)



Tripod adaptor **VCT-3331**

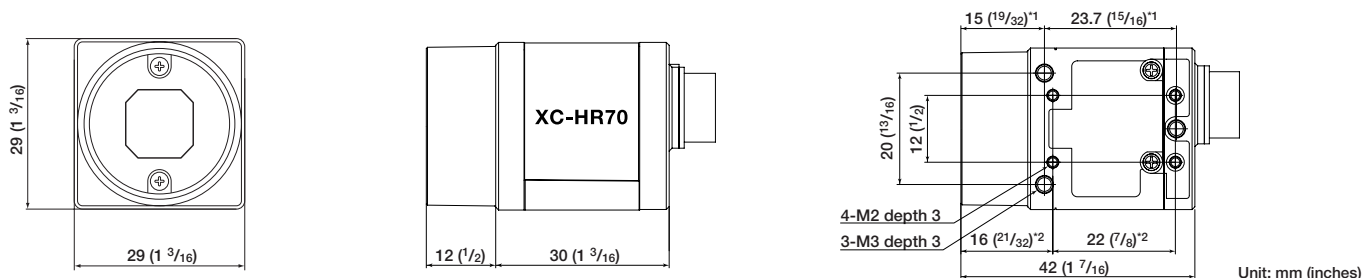
- Isolated type
- Approx. 6.1 g
- Dimensions:
18 (W) x 6 (H) x 27 (D) mm



SPECIFICATIONS

	XC-HR70
Image device	1/3 type IT progressive scan CCD
Effective picture elements	1,034 (H) x 779 (V)
Effective lines	1,024 (H) x 768 (V)
Image size	XGA size : 1,024 (H) x 768 (V)
CCD vertical drive frequency	23.23 kHz \pm 1 %
CCD horizontal drive frequency	29.5 MHz
Cell size	4.65 (H) x 4.65 (V) μ m
Lens mount	C mount
Flange back	17.526 mm
Sync system	Internal/External (auto)
External sync signal	HD/VD (2 to 5 Vp-p)
External sync allowable frequency	\pm 1 % (in horizontal sync frequency)
Jitter	Less than 20 ns
Scanning system	Non-interlace
Output signal frequency	29.2 Hz (normal mode), 58.4 Hz (binning mode)
Video output	1.0 Vp-p, sync negative, 75 Ω , unbalanced
Horizontal resolution	800 TV lines
Sensitivity	400 lx, F5.6 (with FIX GAIN)
Minimum illumination	1 lx (F1.8, GAMMA OFF, +18 dB GAIN)
S/N ratio	56 dB (0 dB GAIN)
Gain	Manual (0 to 18 dB)/Fix (0 dB) selectable
Gamma	OFF (fixed)
White clip	820 mV \pm 70 mV (F1.8, FIX GAIN)
Shutter	Normal shutter, Restart/Reset, External trigger shutter (Mode 1/Mode 2)
Normal shutter speed	1/100 to 1/20,000 s
External trigger shutter speed	1/4 to 1/100,000 s
High-rate scanning	R/R mode binning off: max 120 frames/s (effective line: 152 lines) binning on: max 180 frames/s (effective line: 89 lines) External trigger shutter mode (MODE 1) binning off: max 120 frames/s (effective line: 153 lines) binning on: max 180 frames/s (effective line: 90 lines)
Power requirements	DC 12 V (+10.5 V to +15 V)
Power consumption	2.0 W
Dimensions	29 (W) x 29 (H) x 30 (D) mm (1 ³ / ₁₆ x 1 ³ / ₁₆ x 1 ³ / ₁₆ inches)
Mass	50 g (1.8 oz)
Operating temperature	-5 to 40 °C (23 to 113 °F)
Storage temperature	-30 to 60 °C (-22 to 140 °F)
Operating humidity	20 to 80 % (no condensation)
Storage humidity	20 to 95 % (no condensation)
Vibration resistance	10 G (20 Hz to 200 Hz)
Shock resistance	70 G
MTBF	88,044 hrs.
Regulation	UL 6500, FCC Class A Digital Device, CE (EN61326/97+A1/98), AS4251.1+A4252.1
Supplied accessories	Lens mount cap (1), Operating instructions (1)

DIMENSIONS



*1: for 3-M3 screw *2: for 4-M2 screw