SONY
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XCD-MV6

Digital Video Camera Module

IMAGE SENSING SOLUTIONS

Sony continues to expand its popular XCD IEEE1394b camera series with the latest introduction of its ultra-compact and lightweight, monochrome XCD-MV6.

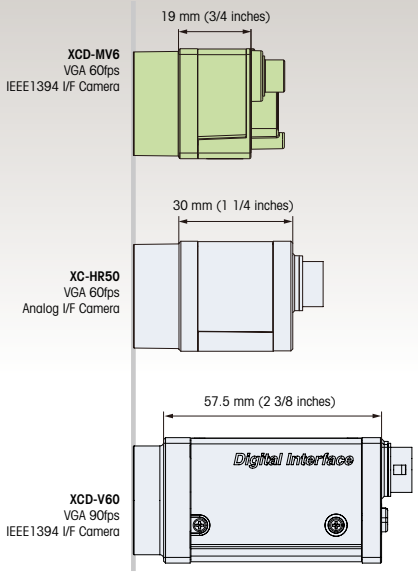
XCD-MV6

Features

This new progressive scan camera incorporates a 1/3-type wide VGA global shutter CMOS sensor and is one of the smallest IEEE1394b cameras available on the market.

The XCD-MV6 measures just 19 mm (3/4 inch) in depth and weighs only 37 grams. Combining high-quality images with a miniaturized body, the XCD-MV6 is ideally suited for space-restricted machine vision and robotic applications.

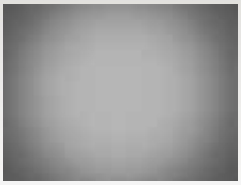
- **Ultra-compact body measuring**
  29 x 29 x 19 mm (1 3/16 x 1 3/16 x 3/4 inches) - less than two thirds the size of Sony's conventional video cameras



- **EEE1394b Digital Interface**
  For accurate data transfer
- **EEE1394b S1600 Compliant**
  High data transfer rate (up to 1600 Mbps)

Features

- **Broadcast Delivery Function**
  Enables the sending of synchronus commands (e.g. software trigger and adjusting camera settings) when used in a multiple camera system.
- **IIDC Ver. 1.32 Compliant**
- **Various image correction functions:**
  - Defective pixel correction
  - Fixed pattern noise correction
  - Shading correction



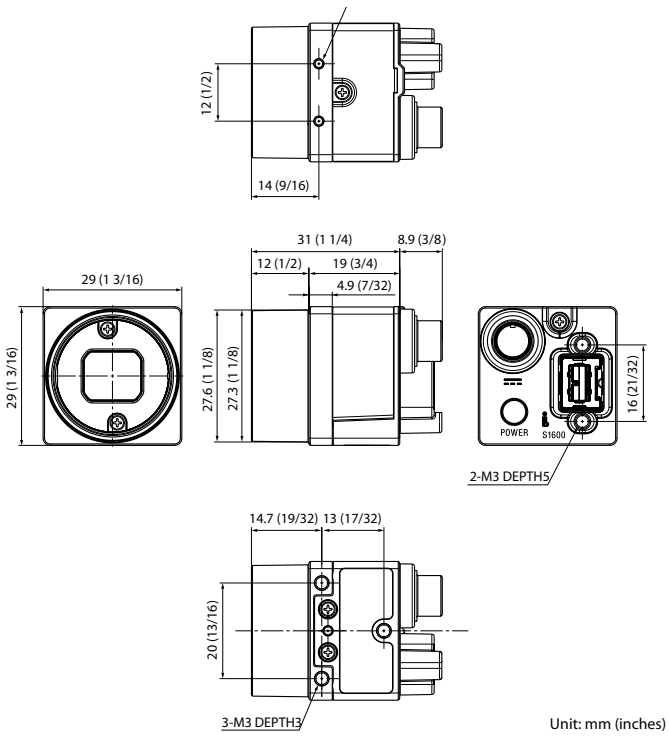
Shading correction OFF

Shading correction ON

Up to ±25% luminance difference can be corrected by Shading correction function.

- **Temporary Image storage function allows for later transmission** (Max. 100 frames)
- **Partial Scan functions**
- **High shock and vibration resistance**

Dimensions (mm)

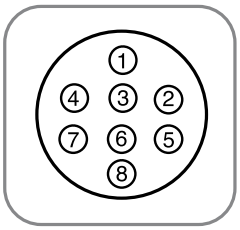


Unit: mm (inches)

Pin assignment

8-pin connector

Pin No.	Level
1	Trigger IN
2	Strobe OUT
3	GPIO OUT 1
4	GPIO IN 2
5	GPIO IN 1
6	DC IN (Ground)
7	DC IN
8	GPIO OUT 2



Specifications

	XCD-MV6
Camera	
Image sensor	1/3-type progressive scan CMOS
Standard output pixels	640H x 480V (752H x 480V Max.)
Standard frame rate	60 fps
Cell size (H x V)	6.0 x 6.0 µm
Minimum illumination	0.5 lx (F1.4, +18 dB, Shutter:1/60s)
Sensitivity	400 lx at F5.6 (0 dB)
Gain	Manual (0 dB to +18 dB)
Shutter speed	1 sec to 1/50,000 sec (Operable)
Camera Features	
Video output resolution depth	Mono 8: 8 bits/pixel Mono 16: 10 bits/pixel
Readout modes	Partial scan, 2 pixels mixture
Readout features	Gamma (Variable), Defect pixel correction, FPN correction, Shading correction
Synchronization	Trigger start (Mode 0), Trigger start and exposure duration (Mode 1), Programmable trigger (via the IEEE1394 bus), Trigger inhibit setting, Trigger delay setting/Strobe controll
Memory channel	15 channels for parameter settings
Image buffer	100 frames (Max.)
Interfaces	
Video output	IEEE1394b-2002, beta (screw lock possible)
Transfer rate	(IEEE1394) 1600/800/400 Mbps
Digital I/Os	IN (2x, TTL), OUT (2, TTL)
General	
Lens mount	C mount
Power requirements	DC 8 V to 30 V (via IEEE1394b 9-pin cable or 8-pin camera cable)
Power consumption	2.2 W (Typ.)
Operating temperature	-5°C to +45°C (23°F to 113°F)
Storage temperature	-30°C to +60°C (-22°F 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 registance	70 G
Dimensions (W x H x D)	29 x 29 x 19 mm (1 3/16 x 1 3/16 x 3/4 inches) (not including protruding parts)
Mass	37 g (1.3 oz)
Regulations	UL60950-1+CSA C22.2 No.60950.1, FCC/ICES-003: Class A, CE: EN61326, AS/NZ: EN55022, VCCI: Class A