



## **FireHose™ Cube FWC – Color FireWire® CCD Machine Vision Cameras**

### **Features**

- Ultra Compact Form Factor (29 x 29 x 39 mm)
- Fully compliant with the IIDC 1.31 specification
- A variety of cameras from 60 FPS at VGA and up to 26 FPS at 3M pixels
- Hardware supported YUV conversion and Auto White Balance
- External Trigger support Mode 0, 1, 2, 3, 4, 5, 14
- Multi Camera Auto Sync support
- One shot and Multi-shot
- SIO Pass through and Strobe support
- True Fast Partial Scan support
- Horizontal and Vertical Binning Mode
- 4 Point LUT and User Defined LUT support
- Electronic shutter with speeds of 1 usec.-65 sec.
- Signal to Noise in excess of 56db
- Firmware upgradeable via FireWire
- C-Mount Lens Mount, CS Lens Mount Adapter and standard tripod mount
- Industrial screw lock FireWire® connector

### **Applications**

- Machine Vision
- Medical and Scientific Imaging
- Microscopy
- Color inspection and quality control

**High Resolution, Ultra Compact, Near One Inch Cube Digital Area Scan CCD Color Cameras with a FireWire® Interface and an External Trigger. For Machine Vision, Microscopy, Industrial, and Medical/Science Applications. Monochrome Version also Available.**



### **Overview**

The FireHose Cube FW series of cameras integrate all the electronics into a near one inch cube form factor without eliminating features. Further reduction is limited by the size of the C Mount.

The cameras' ultra-compact form factor and low weight of just 2.1 ounces (60 gm) make them ideal for applications where the camera must move, and the weight and size are critical.

The FireHose Cube FW cameras feature an external trigger for the most demanding industrial machine vision applications. They provide excellent image quality and color rendition, plus an ultra compact form factor, which afford versatility when space and weight are important considerations of an application. The FireHose Cube FW cameras offer you a wide selection of characteristics while supporting all the latest features, including the highest frame rate when compared to models from other manufacturers.

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# Specifications

Specifications	VCIMC-20FT	VCIMC-17FT	VCIMC-16FT	VCIMC-15FT	VCIMC-12FT	VCIMC-11FT
Image Sensor	1/1.8" CCD ICX274 AL/AQ	1/2" CCD ICX267 AL/AK	1/3" CCD ICX445 AL/AQ	1/3" CCD ICX204 AL/AK	1/2" CCD ICX414 AL/AQ	1/2" CCD ICX424 AL/AQ
Picture Size	1600(H)x1200(V)	1388(H)x1040(V) (*1388 x 1036)	1292(H) x 960(V)	1024(H) x 768(V)	640(H) x 480(V)	640(H) x 480(V)
Data Path	12bit, Raw RGB, YUV422, Mono 8, Mono 16					
Pixel Size	4.40 x 4.40 μm	4.65 x 4.65 μm	3.75 x 3.75 μm	4.65 x 4.65 μm	9.90 x 9.90 μm	7.40 x 7.40 μm
Max FPS / Max Res.	16 fps	20 fps	25 fps	36 fps	86 fps	86 fps
Scanning System	Progressive Scan					
Binning	2x2, 1x2	2x2, 1x2 (only for B/W Models)				
Format7	Partial Scan (Unit: 4x4)					
Trigger	Edge	Rising Edge or Falling Edge TTL				
	Mode	Mode 0, 1, 2, 3, 4, 5,14,15				
	Source	External Trigger or Software Trigger				
Strobe Output	Active Low or High, Support Normal Mode or Trigger Mode					
Memory Save/Load	16 Channels (0:factory, 1~4:feature, 5~15:mode/feature)					
SIO(RS-232)	IIDC Ver.1.31 : Pass through or Command					
Digital Interface	IEEE 1394.a (6pin) 1 Port					
Gain Control	0 ~ 18 dB Manual or Auto					
Shutter Speed	1 μsec ~ 3600 sec					
S/N Ratio	56 dB or better					
Control Function	Brightness, Sharpness, Gamma, Auto-Exposure, Auto Shutter, Auto Gain, Pan/Tilt, User defined AE, Auto White Balance (only for Color)					
Lens Mount	C / CS Mount					
External Dimensions	29(W) x 29(H) x 39(D) mm / approx. 60 grams					

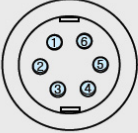
\* For Color Models

## 6 Pin Hirose Connector Pin Out:

● Trigger Port

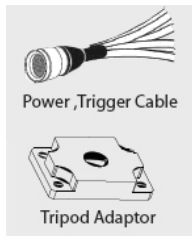
\* Remark : NC pin must have no connection

Pin	I/O	Signal Name
1	O	TX232
2	I	RX232
3	X	NC
4	O	Strobe
5	I	Ext.Trigger
6	I	GND



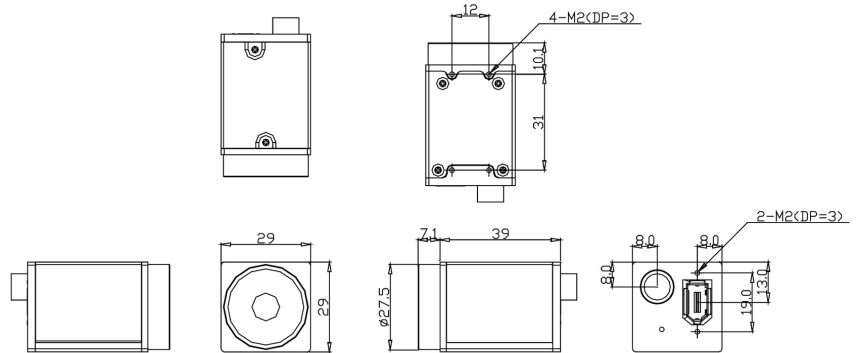
## Ordering Information

VCIMC-1200FT VCIMC-3145FT  
 VCIMC-1140FT VCIMC-1080FT  
 VCIMC-1070FT VCIMC-1050FT  
 VCIMC-1040FT



**Optional Accessories:**  
 Power, Trigger cable  
 Tripod Adaptor

## Camera Drawings



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