

IEEE1394.b Interface Progressive Scan Color Cameras

**KP-FD140F**      **KP-FD32F**



**IEEE1394.b Interface**

- The IEEE1394.b interface allows direct high speed data transfer between the camera and the PC using a small 8 conductor cable.
- The 800 Mbps transfer speed of the IEEE-1394.b interface permits higher frame rates for high resolution cameras.
- Multiple cameras can share the IEEE-1394.b bus using a simple daisy chain connection.

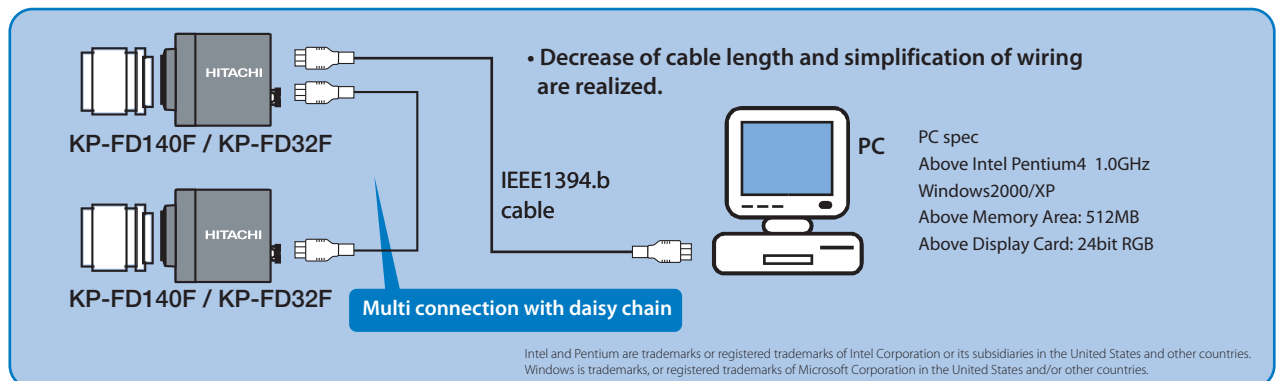
**The lineup**

- **KP-FD140F** 1.45 million pixels for high resolution (SXGA) at 15 frames per second. Designed for High Resolution color inspection.
- **KP-FD32F** 330,000 pixels for standard resolution (VGA) at a high frame rate of 60 frames per second. Designed for high speed inspection.

**Versatile features support many applications**

- Electronic shutter
- Hardwired Trigger
- White balance
- Daisy chain
- External sync
- Partial scan
- Independent 6 color masking
- Remote control

**Connection example**

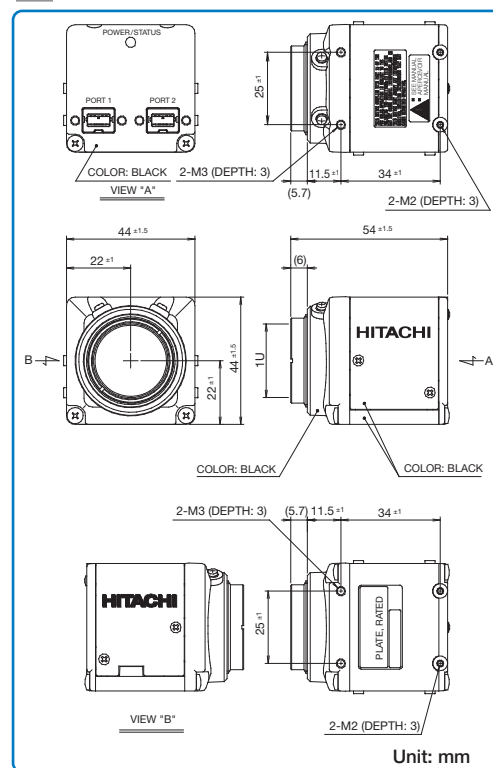


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## Main Specifications

	KP-FD140F	KP-FD32F
<b>Imaging device</b>	1/2-inch interline type all pixel read-out system CCD	
<b>Total pixels</b>	1434(H) x 1050(V)	692(H) x 504(V)
<b>Effective pixels</b>	1392(H) x 1024(V)	656(H) x 492(V)
<b>Pixel pitch</b>	4.65 μm(H) x 4.65 μm(V) [square lattice]	9.9 μm(H) x 9.9 μm(V) [square lattice]
<b>Scanning system</b>	Progressive scan	
<b>Synchronization</b>	Internal/external (automatic switching)	
<b>Picture signal output</b>		
<b>Interface</b>	IEEE1394.b (FireWire800)	
<b>Protocol</b>	IEEE1394-based Digital Camera Specification Version 1.31 Conformity	
<b>Transmission speed</b>	800 / 400 / 200 Mbps	
<b>Output data form</b>	RGB24/YUV(4:2:2) / Raw8 / Raw16	
<b>Output picture size</b>	1392(H) x 1024(V) 1280(H) x 960(V) 1024(H) x 768(V) 800(H) x 600(V) 640(H) x 480(V)	656(H) x 492(V) 640(H) x 480(V)
<b>Frame rate</b>	15 frames/second (RGB24, 1392(H) x 1024(V))	60 frames/second (RGB24, 656(H) x 492(V))
<b>The minimum photographic subject illumination</b>	25 lx (F1.4, maximum gain)	20 lx (F1.4, maximum gain)
<b>Gain</b>	Automatic / manual (0 dB to 18dB)	
<b>Electronic shutter speed</b>	Automatic(AES) / manual operation(VARIABLE) 1/1000000 second to 10 second	
<b>External trigger</b>		
<b>Mode</b>	Fixed shutter (Mode 0), one trigger (Mode 1)	
<b>Input</b>	1394 Cable course (Software trigger), Our company original system (Hardware trigger)	
<b>Current consumption</b>	Approx. 3.8 W (DC+12 V)	Approx. 3.6 W (DC+12 V)
<b>Automatic picture level control (ALC)</b>	Picture level adjustment is possible	
<b>White balance control</b>	ATW / MANUAL / One-push	
<b>Gamma</b>	OFF / LUT	
<b>Color masking</b>	OFF / ON (6 color independence masking)	
<b>Color saturation</b>	Adjustment is possible.	
<b>Sharpness</b>	Adjustment is possible.	
<b>Brightness</b>	Adjustment is possible.	
<b>Daisy chain</b>	Connection is possible.	
<b>Lens mount</b>	C mount (With a flange back adjustment mechanism)	
<b>Power supply</b>	DC +8 V to +30 V (It supplies from an IEEE1394 cable)	
<b>Ambient</b>		
<b>Operating</b>	0 to +40 °C (+32 to ; 104 °F), 30 to 80%RH * If operated continuously, be sure to use at less than +40 °C(104 °F) for long term stable performance.	
<b>Storage</b>	-10 to +50 °C (+14 to +122 °F), 20t o 90%RH	
<b>Vibration endurance</b>	less than 68.65 m/s <sup>2</sup> (It is the XYZ direction 30 minutes each about 10 to 200Hz) *Please do not add a strong vibration over a long time	
<b>Shock endurance</b>	less than 490.3 m/s <sup>2</sup> (XYZ direction)	
<b>External dimensions</b>	44(W) x 44(H) x 54(D) mm (A lens is removed.)	
<b>Mass</b>	Approx. 130 g. (A lens is removed.)	
<b>Standard Accessory</b>	Camera body CD-ROM (operation manual, driver software)	

## Dimensions



## Rear View



## Optional Accessory

IEEE1394 Cable

Tripod Adaptor