

Mini-CameraLink Ultra-Compact Progressive Scan Black and White CCD Camera KP-F200SCL / F80SCL / F30SCL



Miniature 29mm cube progressive scan monochrome cameras made possible by the adoption of a Mini-CameraLink connector.

KP-F200SCL: 2.01 million pixels at 15 frames per second

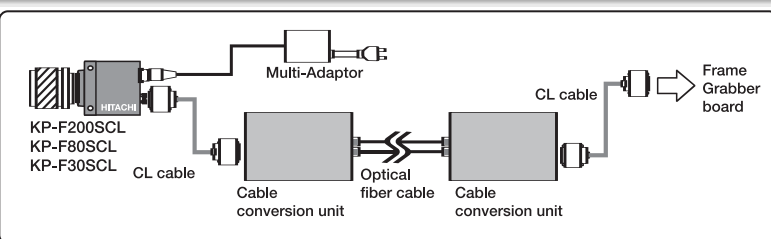
KP-F80SCL: 805,000 pixels at 36 frames per second

KP-F30SCL: 330,000 pixels at 60 frames per second

Main Specifications

	KP-F200SCL	KP-F80SCL	KP-F30SCL
Imaging device	1/1.8-inch interline CCD	1/3-inch interline CCD	1/3-inch interline CCD
Total pixels	1688 (H) x 1248 (V)	1077 (H) x 788 (V)	692 (H) x 504 (V)
Effective pixels	1628 (H) x 1236 (V)	1034 (H) x 779 (V)	659 (H) x 494 (V)
Pixel pitch	4.4 μm (H) x 4.4 μm (V) [square lattice]	4.65 μm (H) x 4.65 μm (V) [square lattice]	7.4 μm (H) x 7.4 μm (V) [square lattice]
Imaging area	7.16 mm (H) x 5.44 mm (V)	4.81 mm (H) x 3.62 mm (V)	4.88 mm (H) x 3.66 mm (V)
Scanning system	Non-interlaced		
Aspect ratio	4 : 3		
Frame rate	15frames/second (full pixel readout)	36frames/second (full pixel readout)	60frames/second (full pixel readout)
Scanning frequency	Horizontal: 18.75 kHz Vertical: 15 Hz	Horizontal: 28.346 kHz Vertical: 36 Hz	Horizontal: 31.468 kHz Vertical: 60 Hz
Synchronization	Internal		
Lens mount	C mount		
Flange focal distance	17.526 mm		
Video output	Digital output Camera Link Data : Base configuration 10bit or 8bit x 1		
	CLK=36.000MHz	CLK=36.000MHz	CLK=24.5454MHz
Electronic shutter speed	1/15, 1/60, 1/125, 1/250, 1/1000, 1/2000, 1/10000, 1/50000 second	1/36, 1/60, 1/125, 1/250, 1/1000, 1/2000, 1/10000, 1/50000 second	1/60, 1/250, 1/500, 1/1000, 1/2000, 1/4000 1/10000, 1/50000 second
	factory setting is off (1/15 second) or variable shutter (minimum 1/100000 seconds)	factory setting is off (1/36 second) or 1 variable shutter (minimum 1/100000 seconds)	factory setting is off (1/60 second) or variable shutter (minimum 1/100000 seconds)
Gamma compensation	γ=1		
Frame on demand	Remote setting (fixed shutter, and one trigger) Factory setting is all off		Remote setting (fixed shutter, one trigger, and reset control mode) Factory setting is all off
Power supply voltage	DC12V ±1V		
Current consumption	Approx. 210 mA	Approx. 160 mA	Approx. 160 mA
Ambient	operating: 0 to +40 °C (+32 to ; 104 °F), less than 90 % RH storage: -10 to +50 °C (+14 to +122 °F), less than 70 % RH *If operated continuously, be sure to use at less than +40 °C (104 °F) for long term stable performance.		
Vibration endurance	98 m/s ² (10 to 60Hz, amplitude: 0.98mm constant / 60 to 200Hz, amplitude: variable) (10 to 150Hz, sweep: 1 min, XYZ, 30 min)		
Shock endurance	686 m/s ² (Drop test, once each top, bottom, left and right)		
External dimensions	29(W) x 29(H) x 29(D) mm		
Mass	Approx. 53 g		
Remote control			
Signal system	1. Control system: Start-stop synchronization system 2. Transmission rate: 9600 bps 3. Data length: 8 bits 4. Start bit: 1 5. Stop bits: 1 6. Parity: None 7. Bit transfer: LSB first		
Communications	Full control by remote control software, data send/receive by text data transfer to control system camera microprocessor (BSC system handshake)		
Control items	1. Shutter speed 2. FD (frame on demand): ON/OFF 3. Mode: Fixed shutter, One trigger, Reset control mode (except KP-F200SCL) 4. Digital output: 10 bit / 8 bit 5. Gain: 0 to 18 dB 6. HD reset: ON/OFF (factory setting is ON) 7. Partial scan		

Connection using optical cable transmission for long distance operation



Main Features

- Ultra Compact 29 mm cube camera with mini SDR type CameraLink connector**
 The small SDR connector for digital output allows the camera size to be drastically reduced to a 29 mm cube. This reduction in camera size permits use in vision systems where space is at a premium.
- High resolution and high frame rates**
KP-F200SCL 2.01 million pixels for high resolution (UXGA) at 15 frames per second.
 Designed for high Resolution Inspection.
KP-F80SCL 805,000 pixels for a high frame rate of 36 frames per second at standard resolution (XGA).
 Designed for high speed and high resolution inspection.
KP-F30SCL 330,000 pixels for a high frame rate of 60 frames per second at standard resolution (VGA).
 Designed for high speed inspection.
- Remote operation by serial control**
 - Selectable 10 or 8 bit per pixel output at the CameraLink connector.
 - Variable Speed Shutter
 - Frame on demand function

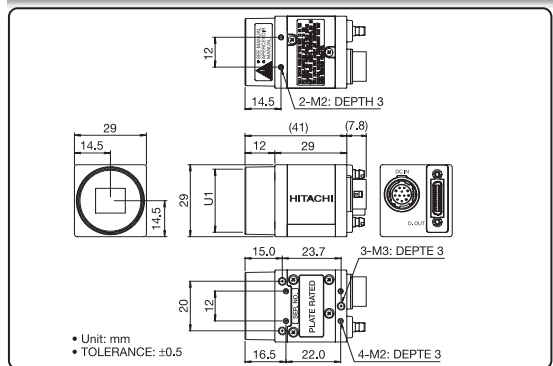
Standard Composition

- Camera
- Operation instruction

Optional accessories

- 12 pin plug HR10A-10P-12S(01)
- Multi-adaptor JC-100
- Dummy glass (AR coated) ARC1214
- Camera cable (Molded type) 2 m C-201KSM
..... 5 m C-501KSM
..... 10 m C-102KSM
- Tripod adaptor TA-F200S

Dimensions



Spectral sensitivity characteristic

