

5604 Line Scan Vision System Specifications

Table 3-4: 5604 Line Scan Vision System Specifications

Specification	5604/5614
Minimum Firmware Requirement	In-Sight version 4.4.3
Job/Program Memory	128MB non-volatile flash memory; unlimited storage via remote network device.
Image Processing Memory	256MB
Sensor Type	1-inch CCD
Sensor Properties	14.3 mm x 14µm active area, 14µm x 14µm sq. pixels.
Resolution (pixels)	1024 x 1 (CCD); 1024 x 8192 (up to 8192 lines for full resolution image).
Acquisition	Line Scan integration.
Bit Depth	256 grey levels (8 bits/pixel).
Image Gain/Offset	Controlled by software.
Lines Per Second	44K lines per second. ¹
Lens Type	C-mount
CCD Alignment Variability ²	±0.127mm (0.005in), (both x and y) from lens C-mount axis to center of imager.
Trigger	1 opto-isolated, acquisition trigger input. Remote software commands via Ethernet and RS-232C.
Discrete Inputs	None built-in. Additional inputs available using a compatible I/O module (see Table 1-3 on page 2). Unlimited inputs when using an Ethernet I/O system.
Discrete Outputs	2 built-in, high-speed outputs. Additional outputs available using a compatible I/O module (see Table 1-3 on page 2). Unlimited outputs when using an Ethernet I/O system.
Encoder Inputs	2 built-in, encoder inputs for use with a 24V signal.
Status LEDs	Power, Network Status, Network Traffic, 2 user configurable.
Network Communication	1 Ethernet port, 10/100/1000 ³ BaseT with auto MDIX. IEEE 802.3 TCP/IP protocol. Supports DHCP (factory default), static and link-local IP address configuration.
1588 Support ⁴	Timestamp Resolution: 8ns Synchronization Accuracy Through Transparent Clock: 5µs
Serial Communication	RS-232C when connected to a compatible I/O module (see Table 1-3 on page 2).
Power Consumption	24VDC ±10%, 600mA maximum.
Material	Die-cast aluminum housing.
Finish	Painted/Powder coat (back plate).

¹ Maximum lines per second are based on the minimum exposure.

² Expected variability in the physical position of the CCD, from vision system-to-vision system. This equates to ~±8 pixels on a 1024 x 1 resolution CCD.

³ To ensure reliable communication using 1000 BaseT operation, the Ethernet cable must not exceed 75 meters (from the vision system to the endpoint).

⁴ 1588 is only supported on vision systems running firmware version 4.5.0 and higher.

Specification	5604/5614
Mounting	Eight M4 threaded mounting holes (four front and four back).
Dimensions	134.4mm (5.29in) x 124.1mm (4.88in) x 61.4mm (2.42in) with lens cover installed. 53.2mm (2.09in) x 124.1mm (4.88in) x 61.4mm (2.42in) without lens cover installed.
Weight	585 g (20.6 oz.) Lens cover installed, without lens.
Operating Temperature (non-circulating air)	0°C to 45°C (32°F to 113°F) ¹
Operating Temperature (circulating air)	0°C to 50°C (32°F to 122°F) ²
Storage Temperature	-30°C to 80°C (22°F to 176°F)
Humidity	95%, non-condensing (Operating and Storage)
Protection	For environments where protection is required, use an optional protective enclosure.
Shock	80 G Shock with 150 gram lens attached per IEC 68-2-27.
Vibration	10 G from 10-500 Hz with 150 gram lens per IEC 68-2-6.
Regulatory Compliance	CE, FCC, KCC, TÜV SÜD NRTL, RoHS