

IS4910

Metrologic's IS4910 is an easy-to-integrate miniature area imaging engine for mobile computers, hand-held scanners, medical/diagnostic instruments, lottery terminals and kiosks scanning 1D and 2D bar codes.

Your search for a powerful and versatile miniature 2D imaging engine is over.

Metrologic's IS4910 captures crisp, high resolution images with low power consumption. Because of its small industry-compatible form factor, the IS4910 integrates easily into existing or new applications.

In a single flash, IS4910 captures a high-resolution image regardless of lighting conditions thanks to its patented *FirstFlash™* technology and 1.2 mega-pixel CMOS sensor. These features provide integrated devices with aggressive scanning performance and increased battery life.

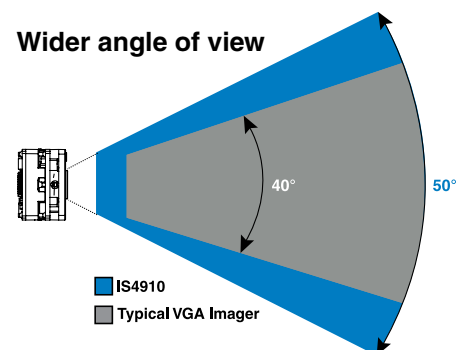
Regardless of bar code orientation, the images captured by the IS4910 can be used to decode all standard multi-dimensional symbologies, including 1D codes as dense as 4 mil (0.102 mm), 2D codes as dense as 10 mil (0.254 mm), Matrix codes) and OCR fonts.

Captured images can also be used for archiving and analysis. The image size is scalable to fit specific application requirements.

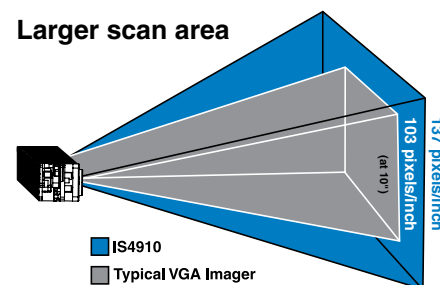
An integrated "aiming" LED makes scanning bar codes easy. A power-save mode lowers power consumption to a minimum when not scanning. There are three mounting options to choose from. A complimentary software development kit is also available for development of custom applications.

www.metrologic.com/IS4910

Wider angle of view



Larger scan area

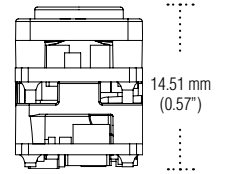
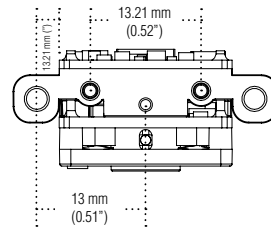
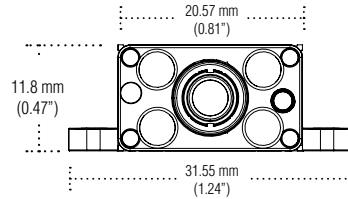


Features

- Low power consumption
- High resolution CMOS area imager
- *FirstFlash®* technology
- Miniature and lightweight
- Integrated aiming

Benefits

- Ideal for battery-powered devices
- Large field of view and scanning area for easy scanning
- Increases productivity - captures high quality images on first LED flash virtually every time, regardless of lighting conditions
- Easily integrates into small devices
- Targets objects for quick scanning



OPERATIONAL

Image Sensor	CMOS, 1.2 mega pixel
Illumination	650 nm LED
Aiming	615 nm LED
Output	Industrial standard output

MECHANICAL

Height	11.88 mm (0.47")
Depth	14.51 mm (0.57")
Width (no mounting tabs)	20.57 mm (0.81")
Weight	< 6 g (0.2 oz)
Engine Termination	22-pos connector (Molex 55560-0227)
Mounting Options	IS4910-00: Mounting holes for self-taping screws only IS4910-01: Mounting holes for self-taping screws and tabs with through holes IS4910-02: Mounting holes for self-taping screws and tabs with threaded inserts in through holes

ELECTRICAL

Input Voltage at Engine	3.3 ± 0.3 VDC
Input Voltage for LEDs	3.0 - 5.5 VDC
Imager Current	90 mA, typical
Peak Current	< 450 mA at 3.3 V for less than 20 μS
Typical Operating Current	Snapshot mode: 90 mA; Video mode: 250 mA
Standby Current	0.5 mA, typical

ENVIRONMENTAL

Operating Temperature	0°C - 40°C (32°F - 104°F)
Storage Temperature	-20°C - 70°C (-4°F - 158°F)
Humidity	0% - 95% relative humidity, non-condensing
Ambient Light Immunity	110,000 lux (10,200 foot-candles)
Drop Protection	Designed to withstand repeated 1.5 m (5') drops
Vibration Protection	7 G over 10 - 500 Hz



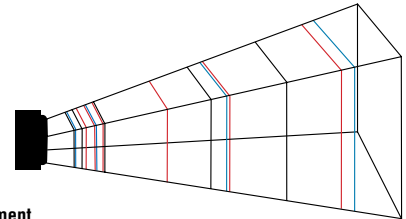
Omniplanar, a division of Metrologic, offers world-class decoding software for IS4910 integrated with popular microprocessor platforms.

www.omniplanar.com

SCAN PERFORMANCE

Depth of Field*	25 mm – 310 mm, (1 - 12.2") for 0.33 mm (13 mil) bar codes
Field of View*	118 mm (w) x 86 mm (h) (4.7" w x 3.4" h) @ 127 mm (5"); 237 mm (w) x 172 mm (h) (9.3" w x 6.8" h) @ 254 mm (10") from face
Minimum Element Width, 1D*	0.102 mm (4 mil)
Minimum Element Width, 2D*	0.191 mm (7.5 mil), matrix code
Resolution	1280 x 960 pixels
Print Contrast	20% minimum reflectance difference
View Angles	50° (horizontal), 37.5° (vertical)
Focal Point	100 mm (3.94") from the camera face
Programmable Parameters	Snapshot/video mode, illumination, image size, exposure and gain

Scan Area*



Bar Code Minimum Element

0.127 mm (5 mil) 1D	0 - 100 mm (0" - 4")
0.254 mm (10 mil) 1D	0 - 200 mm (0" - 8")
0.330 mm (13 mil) 1D	0 - 250 mm (0" - 10")
0.127 mm (5 mil) PDF	0 - 150 mm (0" - 6")
0.254 mm (10 mil) PDF	0 - 250 mm (0" - 10")
0.254 mm (10 mil) DataMatrix	0 - 100 mm (0" - 4")
0.381 mm (15 mil) DataMatrix	0 - 150 mm (0" - 6")
0.508 mm (20 mil) DataMatrix	0 - 250 mm (0" - 10")

(mm) 0 50 100 150 200 250 300 350
(0") (2") (4") (6") (8") (10") (12") (14")

* Measured using Metrologic decoding hardware and Omniplanar software. Actual values may vary depending on operating conditions and integrated hardware and software.



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DS4910