Honeywell

IS4800 Series

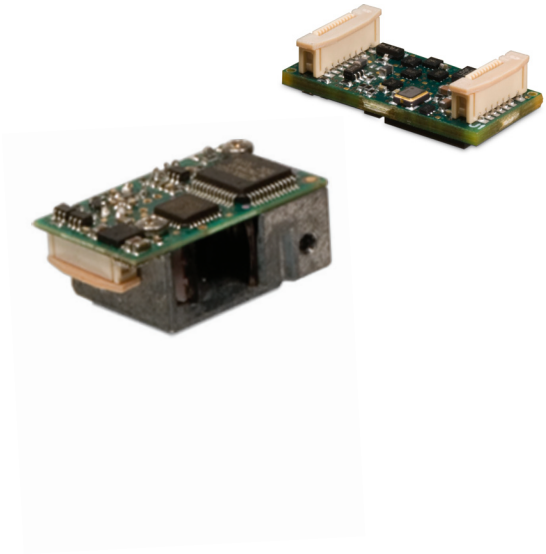
Miniature Laser Scan Engines

Honeywell's IS4800 series of miniature laser scan engines provide an aggressive 1D scanning solution with built-in flexibility, ensuring easy integration.

The undecoded IS4813 (3.3V) and IS4815 (5V) are compact, lightweight and have low power requirements. These engines output digitized bar-space data in an industry standard 10-pin termination. A software development kit (SDK) which includes a licensed decoding library is available. The SDK eliminates the need to spend significant resources developing a custom decoder. With one of the smallest footprints available, IS4800 series engines are an ideal choice for incorporating an effective linear scanning solution in small mobile devices, such as portable data assistants and portable data terminals.

A decode board adds hardware-enabled decoding optimized for IS4800 series engines. The IS4823 (3.3V) and IS4825 (5V) include a decode board with a TTL or USB interface. An assembled module, which contains an engine and a decode board mounted on a bracket, is also available. Sophisticated decoding algorithms are built into the decode board, enabling rapid scanning of all standard 1D, GS1 DataBar™ and even damaged bar codes.

IS4800 series engines offer one of the widest sweep angles available on laser scan engines, making it easy to read wide bar codes up close. Designed to deliver solid scan performance and easy integration backed by industry-leading support, IS4800 series engines deliver superior value for system integrators seeking to incorporate a 1D scanning solution in mobile terminals, hand-held scanners, ATM/kiosks, medical instruments, and other devices.



Features

- **100 Scan Lines Per Second:** Delivers aggressive scan performance in a miniature form factor
- **Advanced Decoding Capability:** Increases productivity by quickly scanning all standard 1D, GS1 DataBar and even damaged bar codes
- **Die-Cast Metal Housing:** Protects investment by offering increased durability
- **3.3V or 5V Models with TTL or USB Interfaces:** Reduces integration cost with built-in flexibility
- **Wide Sweep Angle:** Allows wide bar codes to be scanned up close in fixed-mount applications
- **Pinout and Mounting Options Compatible with Honeywell Imaging Engines:** Minimizes integration costs by providing a choice of laser- or image-based scanning solutions

IS4800 Series Technical Specifications

Mechanical/Electrical

	Engine:	Decode Board:	Assembled Module:
Dimensions	24.5 mm × 14.5 mm × 11.0 mm (0.96″ × 0.57″ × 0.44″)	24.7 mm × 11.8 mm × 6.8 mm (0.97″ × 0.46″ × 0.27″)	38.4 mm × 26.7 mm × 18.8 mm (1.51″ × 1.05″ × 0.74″)
Weight	8 g (0.282 oz)	2 g (0.071 oz)	15 g (0.529 oz)
Input Voltage	IS4813/IS4823: 3.3 ± 0.3 VDC IS4815/IS4825: 5.0 ± 5% VDC		
Operating Power	IS4813: <120 mA; IS4815: <70 mA IS4823: <150 mA, TTL and <170 mA USB IS4825: <135 mA, TTL and < 135 mA USB		
Standby Power	IS4813: <30 mA IS4815: < 15 mA		
Termination	10-Pin ZIF connector	12-Pin ZIF connector	12-Pin ZIF connector
Mounting	2 mounting holes, M1.6 × 0.35 threaded, 2 mm max depth		3 metal inserts, M2 × 0.4 threaded

Environmental

Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% - 95% relative humidity, non-condensing
Light Source	Visible Laser Diode 650 nm
Host System Interfaces	Engine: Industry standard Decode board: TTL RS232 or USB
Vibration	7G over 10 - 500 Hz
Shock	2000 G for a duration of 0.85 msec

Scan Performance

Scan Speed	100 scan lines/second
Scan Pattern	Single line
Scan Angle	54° typical
Print Contrast	35% minimum reflectance difference
Maximum Resolution	4 mil (0.102 mm), decoder dependent
Decode Capability	All standard 1D including GS1 Databar (decoder dependent for IS4813 and IS4815)
Tilt, Pitch, Skew	± 42°, ± 68°, ± 52°
Warranty	2 year factory warranty

For a complete listing of all compliance approvals and certifications, please visit www.honeywellaidc.com/compliance

IS4800 Typical Performance*	
Narrow Width	Depth of Field
5.2 mil	70 mm - 95 mm (2.8″ - 3.8″)
7.5 mil	57 mm - 171 mm (2.3″ - 6.8″)
10.4 mil	50 mm - 210 mm (2.0″ - 8.3″)
13 mil	50 mm - 254 mm (2.0″ - 10.0″)
19.5 mil	75 mm - 300 mm (3.0″ - 11.8″)

*Resolution: 4 mil (0.102 mm)
*Performance may be impacted by bar code quality and environmental conditions
*Performance of the IS4813 and IS4815 is decoder dependent

For more information:
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