

4820i

Industrial-Grade Wireless Area-Imaging Scanner

The 4820i industrial wireless area-imaging scanner is designed to provide unmatched data collection performance and versatility for applications that demand maximum reliability in the harshest working environments.

Powered by Adaptus® Imaging Technology 5.0, the 4820i delivers high-performance, omnidirectional linear and 2D bar code reading plus the versatility of digital image capture. With Adaptus 5.0, enterprises have the ability to capture and process more data with a single device.

Built for scan-intensive applications requiring a ruggedized solution, the 4820i features our highest drop specification and an IP54 rating to guarantee protection against the penetration of dust and liquid. Unlike other industrial grade solutions, the 4820i features best-in-class ergonomics—ensuring maximum user comfort and productivity.

The 4820i features a unique design that not only allows tool-free access to the battery, but also eliminates the need to dock the scanner for charging—a true advantage for operations where downtime is not an option.

Bluetooth® wireless connectivity allows users to move freely and eliminates the hazard of cables in fast-paced environments—all the while ensuring fast, accurate data communication.



Features

- **Built for Industrial Applications:** Rugged housing is specified to withstand 50 drops from 6.5' (2 m) and certified to IP54 standards, while still being ergonomic and easy-to-use
- **Wireless Connectivity:** Bluetooth v1.2 radio enables movement up to 33' (10 m) from the base, and reduces interference with other wireless systems—up to seven imagers can communicate to a single base, reducing the total cost of ownership
- **High Performance and Versatile Data Collection:** Adaptus Imaging Technology 5.0 provides aggressive, omnidirectional reading of all linear and 2D bar codes, plus enables digital image capture
- **Advanced Illumination Technology:** Enhances performance and ease of use by delivering snappier scanning and minimizing reflection from shiny items
- **Long-Lasting Lithium-Ion Battery:** Powers up to 50,000 scans per full charge, ensuring maximum uptime.
- **Tool-Free Access to Battery:** Thumbwheel end-cap allows easy access to the battery, permitting employees to quickly swap batteries and keep working instead of docking the scanner for charging—a key feature for operations running multiple shifts
- **Simplified Device Configuration:** Visual Xpress™ software enables device programming and configuration on a host system through an easy-to-use Windows®-based graphical user interface
- **User Feedback Designed for Extreme Environments:** Adjustable, extra loud “good read” beeper and dual LED indicators ensure reliable and intuitive feedback, even in noisy environments
- **Specialization Options**
 - **Bluetooth Interface Module:** Enables simple and reliable wireless connectivity to the host system without the need for a base—ideal for uses where space is limited
 - **FIPS 140-2 Certified Encryption:** Federal Information Processing Standards (FIPS) certified for wireless data transmission, meeting advanced US Government security requirements, and providing enhanced security in any application involving sensitive data

4820i Technical Specifications

Wireless

Radio/Range	2.4 to 2.5 GHz (ISM Band) Adaptive Frequency - Hopping Bluetooth v2.0; Class 2: 10 m (33') line of sight
Data Rate (Transmission Rate)	3 Mbit/s (2.1 Mbit/s)
Battery	1800 mAh Li-ion (minimum)
Number of Scans	up to 50,000 scans per charge
Expected Hours of Operation	16 hours
Expected Charge Time	4 hours

Mechanical/Electrical

	Scanner	Base
Dimensions (LxWxH)	140 mm x 110 mm x 81 mm (5.5" x 4.3" x 3.2")	140 mm x 110 mm x 81 mm (5.5" x 4.3" x 3.2")
Weight	272 g (9.6 oz)	250 g (8.8 oz)
Operating Power (Charging)	N/A	9.9 W (825 mA @ 12 V)
Non-Charging Power	N/A	625 mW (125 mA @ 5 V); 1.2 W (100 mA @ 12 V)
Host System Interfaces	USB, TTL level RS232, Keyboard Wedge, IBM 46xx (RS485), Light Pen (Wand) Emulation	

Environmental

Operating Temperature	-10°C to 50°C (14°F to 122°F)	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)	-40°C to 60°C (-40°F to 140°F)
Humidity	0% to 95% relative humidity, non-condensing	0% to 95% relative humidity, non-condensing
Drop	Designed to withstand 2.0 m (6.5') drops	Designed to withstand 1.0 m (3.3') drops
Environmental Sealing	IP54	Sealed to resist airborne particulate contaminants
Light Levels	100,000 Lux	

Scan Performance

Scan Pattern	Area Image (pixel array: 752 x 480)
Motion Tolerance	Standard: 10 cm/s (4 in/s); Streaming Presentation: 50 cm/s (20 in/s) with 13 mil UPC at optimal focus
Scan Angle	Horizontal: 42°; Vertical: 27°
Print Contrast	20%
Pitch, Skew	40°, 40°
Decode Capabilities	Reads standard linear, stacked, 2D and postal symbologies; limited OCR font reading.
Warranty	3 year factory warranty (Note: battery warranty is 1 year)

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



For more information:
www.honeywellaidc.com

Typical Performance* (SF)		Typical Performance* (SR)	
Narrow Width	Depth of Field	Narrow Width	Depth of Field
7.5 mil (1D)	51 mm - 152 mm (2.0" - 6.0")	8.3 mil (1D)	76 mm - 180 mm (3.0" - 7.1")
13 mil (UPC)	38 mm - 213 mm (1.5" - 8.4")	13 mil (UPC)	41 mm - 323 mm (1.6" - 12.7")
10 mil (PDF)	56 mm - 180 mm (2.2" - 7.1")	10 mil (PDF)	66 mm - 216 mm (2.6" - 8.5")
6.6 mil (PDF)	58 mm - 140 mm (2.3" - 5.5")	6.6 mil (PDF)	58 mm - 140 mm (2.3" - 5.5")
15 mil (DM)	46 mm - 178 mm (1.8" - 7.0")	15 mil (DM)	46 mm - 246 mm (1.8" - 9.7")
15 mil (QR)	56 mm - 170 mm (2.2" - 6.7")	35 mil (MC)	38 mm - 318 mm (1.5" - 12.5")
*Resolution: 5 mil (0.127 mm) *Performance may be impacted by bar code quality and environmental conditions		*Resolution: 6.6 mil (0.168 mm) *Performance may be impacted by bar code quality and environmental conditions	

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