

3800gHD

High Density Linear Imager

The 3800gHD is optimized for applications using high-density (HD) barcodes commonly found in electronics manufacturing, telecom, aerospace, and automotive. In addition, the 3800gHD delivers high performance on standard density barcodes, providing ideal versatility for mixed barcode applications.

Based on the proven 3800g platform, the 3800gHD features an ideal balance of performance, durability, and ergonomics that make it a reliable and user-friendly solution for a broad range of light industrial environments.

Powered by Adaptus® Imaging Technology 5.0, the 3800gHD provides fast, intuitive barcode reading across a range of high and low density codes and easily reads damaged or poorly printed barcodes – all in a single device.

In addition to optimal high density performance, the 3800gHD provides the added value of swipe action PDF417 decoding - extending its data capture capability.

Compact, ergonomic design and class-leading durability, coupled with aggressive reading performance, makes the new 3800gHD the ideal choice for customers who appreciate a reliable, versatile, and economical solution to meet their scanning needs.



Features

- **Optimized for High Density Reading:** Superior reading performance on 3 mil linear barcodes, plus the versatility to read other common linear symbologies.
- **Intuitive Aiming Line:** Thin, crisp aiming line for ease-of-use in scanning barcode menus and densely populated documents.
- **Swipe Action PDF417 Decoding:** Supports PDF417, PDF417 Truncated, Composite, and MicroPDF.
- **Performance and Versatility Powered by Adaptus Imaging Technology 5.0**
 - * 270 scans per second and high tolerance to hand motion for fast and intuitive scanning.
 - * Working range from .3 inches to 8 inches on medium density barcodes
 - * Improved ability to read damaged or poorly printed barcodes.
- **Durable:** Built to last with no moving parts to wear out and backed by a 5-year warranty.
- **Plug and Play Connectivity:** All popular interfaces are on board. Includes Visual Xpress™ software for ease of integration.
- **Future Proof Symbology Support:** GTIN compliant, GS1 DataBar capable.
- **Intuitive User Feedback:** Fully programmable options for application-specific “good read” LED and beeper settings.

3800gHD Specifications

Performance

| | |
|---------------------------------|---|
| Illumination: | 617 NM Visible Amber LED |
| Receiving Device: | 3648 element linear imager |
| Reading Distance: | From 0.3 in. (0.8 cm) to 8.0 in. (20.3 cm) on medium density bar codes |
| Reading Width: | 5 mil code: 3.0 in. (7.6 cm) from nose, 3.0 in. (7.6 cm) wide 10 mil code: 5.0 in. (12.7 cm) from nose, 4.0 in. (10.2 cm) wide |
| Resolution: | 3 mil. at 1.75 in. (4.4 cm) distance |
| Skew Angle: | ±65° |
| Pitch Angle: | ±65° |
| Horizontal Velocity: | 10 in. (25.4 cm) per second on medium density code at nominal focus |
| Minimum Symbol Contrast: | 37% |
| Scan Rate: | Up to 270 scans per second |
| Decode Rate: | 270 decodes per second |

Mechanical/Electrical

| | | | | | | | |
|--------------------------------|---|--------------|-----------------|-------------|-----|-------|------|
| Length: | 4.4 in. (11.2 cm) | | | | | | |
| Height: | 5.9 in. (15.0 cm) | | | | | | |
| Width: | 3.1 in. (7.9 cm) | | | | | | |
| Weight: | 5.6 oz. (158.8 g) | | | | | | |
| Housing: | UL 94V0 grade | | | | | | |
| Power Requirements: | 3800GHD24E: 4.5 - 5.5Vdc at scanner | | | | | | |
| Current Draw (Maximum): | <table border="1"> <tr> <td>Input</td> <td>Scanning</td> <td>Idle</td> </tr> <tr> <td>5 V</td> <td>450mA</td> <td>86mA</td> </tr> </table> | Input | Scanning | Idle | 5 V | 450mA | 86mA |
| Input | Scanning | Idle | | | | | |
| 5 V | 450mA | 86mA | | | | | |

Power Supply

| | |
|-------------------------|---|
| Noise Rejection: | Maximum 100mV peak to peak, 10 to 100 kHz |
|-------------------------|---|

Environmental

| | |
|-------------------------------|---|
| Operating Temperature: | +32°F to +122°F (0°C to +50°C) |
| Storage Temperature: | -40°F to 140°F (-40°C to +60°C) |
| Humidity: | 0 to 95%, non-condensing |
| Mechanical Shock: | Operational after 50 drops from 5 ft. (1.5 m) to concrete |
| Ambient Illumination: | 0 - 70,000 lux |
| ESD Protection: | Functional after 15kV discharge |
| Vibration: | Withstands 5G peak from 22 to 300 Hz |
| Agency: | International: CB scheme to IEC60950-1 & IEC60825-1 Class 1 LED. USA: FCC Part 15 subpart B Class B. UL listed to 60950-1. Canada: ICES-003 Class B. cUL listed to CSA C22.2 No. 60950-1-03. Europe: CE 2004/108/EC EMC Directive to EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3. 2006/95/EC Low Voltage Directive. GS Mark: GS marked for I.T.E. safety. Mexico: NOM-NYCE. Korea: MIC Class A. Australia/NZ: C-Tick mark. |
| MTBF: | per MIL-HDBK-217F Ground Benign exceeds 100,000 hours |
| Symbologies: | Codabar, Code 3 of 9 including PARAF, Interleaved 2 of 5, Straight 2 of 5 Industrial, Matrix 2 of 5, Code 11, Code 93, Code 128, UPC, EAN/JAN, China Postal Code, GS1 DataBar, PDF417, PDF417 Truncated, Composite, MicroPDF417. 2005 Sunrise/GTIN compliant, and ISBT 128 Concatenation (requires a paid license). |
| Interfaces: | 3800GHD24E: All popular PCs and terminals via keyboard wedge, keyboard replacement/direct connect, USB, TTL level RS-232, IBM, 46XX retail terminals, and Retail USB. |
| Warranty: | Five year factory warranty. |

Typical Performance*

| Narrow Width | Depth of Field |
|-------------------|-------------------------------|
| 3.0 mil | 1.2 - 3.3 in. (3.0 - 8.4 cm) |
| 5.0 mil (Code 39) | 0.8 - 5.5 in. (2.0 - 14.0 cm) |
| 10 mil (Code 39) | 0.2 - 8.5 in. (0.6 - 21.6 cm) |
| 13 mil (100% UPC) | 0.6 - 8.2 in. (1.5 - 20.8 cm) |
| 6.7 mil (PDF417) | 1.5 - 2.6 in. (3.3 - 6.6 cm) |
| 20 mil (PDF417) | 2.0 - 2.9 in. (5.1 - 7.4 cm) |

*may be impacted by barcode quality and environmental conditions

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