Honeywell | 2D Imager Modules

CF3680

2D Imager Module for Customer-Facing Designs

Honeywell's CF3680 2D Imager Module for Customer-Facing Designs provides a complete, self-contained 1D and 2D barcode scanning solution, whether decoding mobile phone screens or paper. Designed for easy integration, its all-in-one, easy-to-mount form factor simplifies integration into your fixed mount enclosure. Honeywell's CF3680 2D Imager Module can help you expedite product design and reduce the total cost of your products.

Simple to integrate: Designed to be quickly and easily mounted, the CF3680 2D Imager Module comes out of the box with its decoded 2D optics, housing, exit window, USB interface board and mounting holes, minimizing adjustments and the need to purchase additional components when installing the device. Additionally, the exit window dimensions comply with EVA (European Vending Association) requirements, simplifying installation in the European region. The USB interface board allows the ability to use a standard USB cable (available locally), eliminating the installer's need to purchase a custom cable to connect the barcode scanner to the kiosk for power and communication, which simplifies installation, and helps to reduce the total cost of ownership.

Optimizes durability: The exit window is constructed of scratch-resistant tempered glass, providing enhanced durability when compared with imager modules that are constructed of polycarbonate plastic.

Eases end-user readability: The CF3680 2D Imager Module operates with white LED (Light-Emitting Diode) illumination. Additionally, LED illumination is deflected from the end-user's direct line of sight via a mirror, eliminating vision blurriness.

Enhances end-user operation: The CF3680 2D Imager Module offers contact or close-to-contact scanning operation so that the end-user can more easily and more effectively read any standard 1D or 2D barcode by simply approaching or touching the CF3680 2D Imager Module's built-in exit window with their mobile phone screen, coupon, loyalty card or ticket.

To eliminate unnecessary LED illumination when an end-user is not using the equipment, the CF3680 2D Imager Module is equipped with an installer-selectable distance switch which will not illuminate the LED until the end-user approaches the near-field zone.

POTENTIAL APPLICATIONS

Utilizing the latest Honeywell decoding technology, the CF3680 2D Imager Module is designed for use in global customer-facing OEM applications such as self-service kiosks, access control at stadiums, events, public transportation facilities, etc., vending machines, gaming equipment (e.g., slot machines, ticket validators) and fast food self-ordering kiosks.

FEATURES & BENEFITS

- 1D and 2D barcode reading capabilities, whether on paper or mobile phone screens, provide dependable scanning performance
- Standard USB cable and EVA-ready exit window simplify mounting and product design flexibility
- White LED illumination eases end-user readability
- All-in-one solution includes optics, housing, exit window and interface boards, which simplifies design and helps to reduce total cost of ownership
- Configurable motion detector helps to provide an end-user-friendly operating environment

CF3680 Technical Specifications

TABLE 1. MECHANICAL	
Characteristic	**Parameter**
DIMENSIONS (L X W X H)	90,59 mm x 105 mm x 75,07 mm [3.57 in x 4.13 in x 2.96 in]
WEIGHT	50 g ±5 g
TERMINATION	USB-B connector

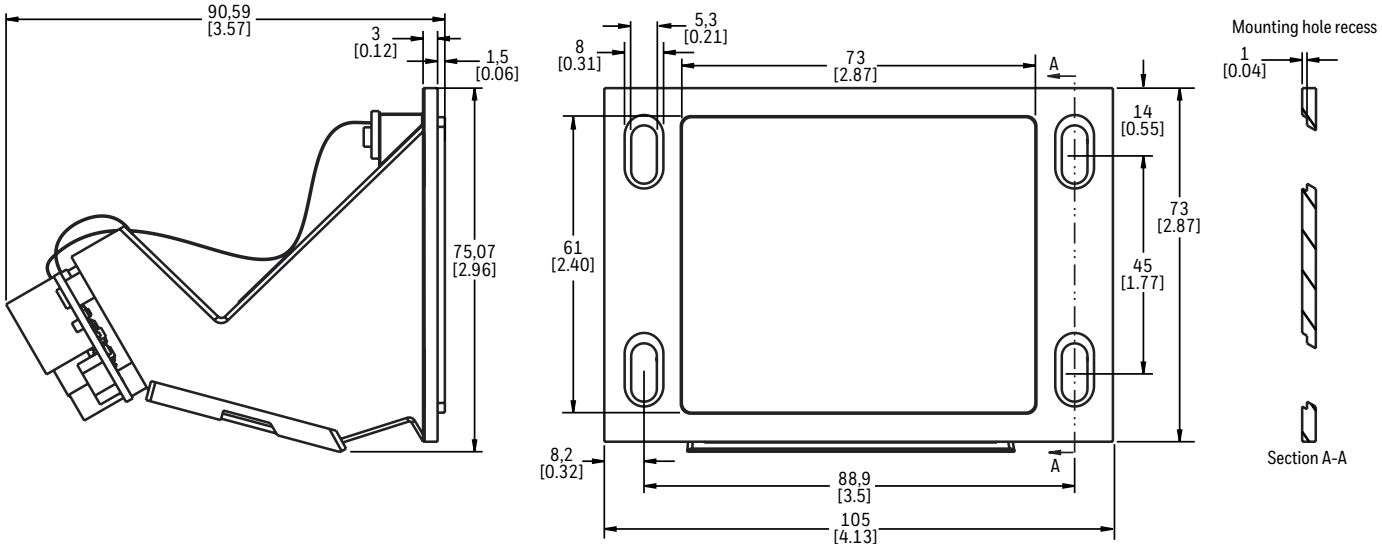
TABLE 2. ELECTRICAL	
Characteristic	**Parameter**
INPUT VOLTAGE	5 VDC ±0.25 V
STANDBY CURRENT	70 mA (idle mode) 2.5 mA (USB suspend)
HOST SYSTEM INTERFACE	USB 2.0

TABLE 3. ENVIRONMENTAL	
Characteristic	**Parameter**
ILLUMINATION	white LED
OPERATING TEMPERATURE	-10°C to 40°C [14°F to 104°F]
STORAGE TEMPERATURE	-40°C to 60°C [-40°F to 140°F]
HUMIDITY	0% to 95% RH, non-condensing
SHOCK	18 shocks of 2.5 kG for 0.4 ms at 23°C [73.4°F]
VIBRATION	1 G acceleration (500 Hz to 2,000 Hz)
LIGHT LEVEL	0 lux to 100,00 lux [0 foot-candles to 9,290 foot-candles]
MEAN TIME BETWEEN FAILURE	668,000 hr

TABLE 4. SCAN PERFORMANCE	
Characteristic	**Parameter**
SCAN PATTERN	area image (640 px x 480 px array)
DISTANCE SELECTION	3 position switch: 0 cm to 10 cm [0 in to 4 in], 0 cm to 20 cm [0 in to 8 in], 0 cm to 30 cm [0 in to 12 in]
MOTION TOLERANCE	10 cm/s [4 in/s] at focal point (±15% tolerance)
SCAN ANGLE	horizontal: 37.8° (±1.0°), vertical: 28.8° (±1.0°)
PRINT CONTRAST	35% minimum reflective difference
PITCH, SKEW, TILT	±45°, ±65°, ±360°
DECODE CAPABILITY	Aztec Code, Codabar, Codablock F, Code 11, Code 32(PARAF), Code 128, Code 2 of 5, Code 39, Code 93, Data Matrix, EAN/JAN-13, EAN/JAN 8, EAN-UCC Composite Codes, EAN-UCC Emulation, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MaxiCode, MicroPDF417, MSI, PDF417, Postal Codes (Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet), QR Code, RSS Expanded, RSS Limited, RSS-14, TCIF Linked Code 39, UPC-A, UPC E, Chinese Sensible (Han Xin) Code, Maxicode, Codablock A, UPC-A/EAN-13 with Extended Coupon Code, Coupon GS1
READ RANGE	typical read range shown in Table 5
WARRANTY	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer

TABLE 5. SYMBOLOGIES			
Symbol	**Near Distance (mm [in])**	**Far Distance (mm [in])**	**Depth of Field (mm [in])**
10MIL C39	0 [0]	174 [6.7]	174 [6.7]
15MIL C39	0 [0]	259 [10.2]	259 [10.2]
100% UPC-A	0 [0]	210 [8.2]	210 [8.2]
15MIL PDF417	0 [0]	187 [7.3]	187 [7.3]
15MIL DM	0 [0]	87 [3.4]	87 [3.4]
20MIL QR	0 [0]	150 [5.9]	150 [5.9]

Figure 1. Mounting and Dimensional Drawing (For reference only: mm/[in])



ADDITIONAL INFORMATION

- Quick Start Guide is available on the Honeywell web site at honeywellaidc.com
- Installation Guide is available upon request; contact your Honeywell representative
- For a listing of common compliance approvals and certifications, please visit https://www.honeywellaidc.com/search#q=compliance&t=resources

Find out more

To learn more about Honeywell's scan engines and barcode decoding software, visit honeywellaidc.com.

NOTICE

MISUSE OF DOCUMENTATION

- The information presented in this datasheet is for reference only. Do not use this document as a product installation guide.
- A Quick Start Guide is available on the Honeywell website (honeywellaidc.com). Additional installation information is available upon request. Please contact your Honeywell sales representative.

Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

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