CF4680

2D Imager Module for Customer-Facing Designs

Honeywell's CF4680 2D Imager Module for Customer-Facing Designs is the next generation complete, self-contained 1D and 2D barcode scanning solution with the latest global shutter sensor and Gen7 decoding algorithm. It provides a complete, self-contained 1D and 2D barcode scanning solution, whether decoding mobile phone screens or paper.



CF4680 Imager Module

SIMPLE TO INTEGRATE

Designed to be quickly and easily mounted, the CF4680 2D Imager Module comes out of the box with its decoded 2D optics, housing, exit window, beeper, 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.

EASES END-USER READABILITY

The CF4680 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 CF4680 2D Imager Module offers close-to-contact scanning operation so that end-users can intuitively read any standard 1D or 2D barcode by simply approaching or touching the CF4680 2D Imager Module's built-in exit window with their mobile phone screen, coupon, loyalty card or ticket. To eliminate unnecessary LED illumination when end-users are not using the equipment, the CF4680 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.

OPTIMIZES DURABILITY

Designed to extend higher working temperature range from -30°C to 60°C to fulfill the increasing demand for outdoor installations. The exit window is constructed of scratch-resistant tempered glass, providing enhanced durability when compared with imager modules which are constructed of polycarbonate plastic. Choose from two window thicknesses: 1,5 mm or 3,9 mm.

POTENTIAL APPLICATIONS

Utilizing the latest Honeywell Gen7 decoding technology, the CF4680 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 AND 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.
- Wider FOV (field of view) provides greater flexibility to scan even longer barcodes.
- Beeper is newly added to our all-in-one solution together with 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.

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CF4680 Technical Specifications

TABLE 1. ENVIRONMENTAL	
CHARACTERISTIC	**PARAMETER**
Operating temperature[1]	-30°C to 60°C [-22°F to 140°F]
Storage temperature	-40°C to 85°C [-40°F to 185°F]
Humidity	0 % to 95 %RH, non-condensing at 60°C [140°F]
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)
Ambient light	0 lux to 100,000 lux [0 foot-candles to 9,290 foot-candles]

TABLE 2. PERFORMANCE	
CHARACTERISTIC	**PARAMETER**
Sensor technology	global shutter
Resolution	640 px x 480 px
Frames per second	120 fps max.
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)
Illumination	white LED
Aimer	red dot LED
Motion tolerance	2 m/s max.
Field of view	H 40° x V 30° (±1°)
Scan angles	pitch: ±50°, skew: ±50°, tilt: ±360°
Minimum contrast	20 % 13mil UPCA
Warranty	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer

TABLE 3. READ RANGES (TYPICAL, WHITE ILLUMINATION)[2]			
SYMBOLOGY	**NEAR DISTANCE (mm [in])**	**FAR DISTANCE (mm [in])**	**DELTA (mm [in])**
13 mil UPC (100001513)	0 [0.0]	285 [11.2]	285 [11.2]
10 mil C39 (50145535-005)	0 [0.0]	255 [10.0]	255 [10.0]
20 mil C39 (50145535-006)	0 [0.0]	680 [26.8]	680 [26.8]
20 mil QR (50156965-010)	0 [0.0]	265 [10.3]	265 [10.3]

TABLE 4. MECHANICAL	
CHAR.	**PARAMETER**
Dimensions (L × W × H)	90,6 mm × 105 mm × 75,07 mm [3.57 in × 4.13 in × 2.96 in]
Weight	50 g ±5 g
Interface	USB connector

TABLE 5. ELECTRICAL	
CHAR.	**PARAMETER**
Input voltage	5 Vdc ±0.25 Vdc
Operating current	216 mA
Standby current	78mA (idle mode) 2.5 mA (USB suspend)
Host system interface	USB 2.0
ESD	coupling: ±2 kV, ±4 kV, ±8 kV air discharge: ±5kV, ±10 kV, ±15 kV (for Windows area only)

1 Extreme temperatures will reduce the depth of field.

2 Barcode quality, environmental conditions, and certain exposure settings may affect performance.

TABLE 6. SYMBOLOGIES
LINEAR
Codabar, Code 128, Code 2 of 5, Code 39, Code 93, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, UPC-A, UPC E, UPC-A/ EAN-13 with Extended Coupon Code, Coupon GS1, Code 32(PARAF), EAN-UCC Emulation
2D STACKED
Codablock A, Codablock F, PDF417
2D MATRIX
Aztec Code, Data Matrix, QR Code

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

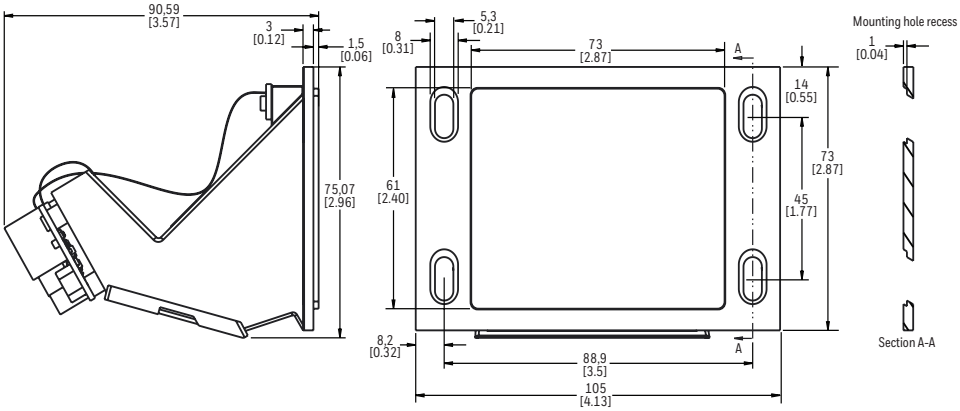
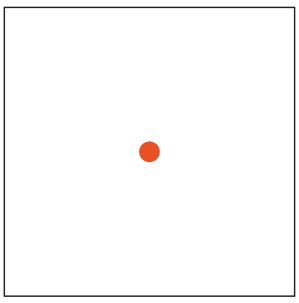


Figure 2. Red Dot LED Aimer



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.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

ADDITIONAL INFORMATION

For a listing of common compliance approvals and certifications, please visit our website.

NOTICE

MISUSE OF DOCUMENTATION

- The information presented in this datasheet is for reference only. Do not use this document as a product installation guide
- An installation manual is available by request on our website. Please contact your Honeywell sales representative

For more information

To learn more about Honeywell scan engines and barcode decoding software, visit our website.

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