

# HF561

## 2D Imager Module

The Honeywell HF561 Series 2D Imager Module is designed as a powerful 2D barcode scanner that offers specialized scanning performance for reading screen barcodes to help customers improve efficiency with these high throughput devices.

The HF561 Series' compact housing and flexible convenience allow it to be easily integrated into various kiosk devices. The HF561 Series provides enhanced scanning performance with high reading capability, especially with barcodes on highly reflective surfaces, and ultra-wide field of view for easier operation, making it a trusted, fixed-mounting scanning solution.

### ENHANCED PERFORMANCE

The HF561 Series is designed to provide higher performance and reliability, simplify integration into kiosk devices, and enable increased barcode scanning speed to meet high-volume application requirements. Based on a proprietary global shutter sensor (844 x 640), the maximum motion tolerance can reach 3 m/s [9.8 ft/s], increasing customer scan speed and productivity.

### DURABLE DESIGN

Due to its IP54 design, the HF561 Series may be used in both indoor and outdoor kiosks.

### EASE OF INTEGRATION

The HF561 Series comes out of the box with decoded 2D optics, housing, pre-drilled mounting holes, and USB or serial interface, minimizing the need to purchase additional components when integrating into customers' devices, simplifying customer installation and helping to reduce the total cost of ownership.



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### SR/ER OPTIONS

The HF561 Series provides SR (standard range) and ER (extend range) versions to fit different customer applications. The SR version provides a wide reading angle in near-field while the ER version provides a longer reading distance.

### POTENTIAL APPLICATIONS

Utilizing the latest Honeywell decoding technology, the HF561 Series is designed for use in high throughput, customer-facing, OEM applications such as self-service kiosks, access control at stadiums, events, and public transportation facilities.

## FEATURES AND BENEFITS



Two rows of LED scanning status indicators change color and continually flash during decoding, indicating successful barcode reading.



Easily integrated into various barcode reading devices, providing application flexibility.



SR and ER optics allow customers to choose either ultra-wide field of view or longer reading distance for different application requirements.



Rapid decoding of 1D and 2D barcodes, with particularly powerful reading capability for highly-reflective mobile phone screens, provide application flexibility.



Four pre-drilled screw holes on back of housing provide convenient mounting for customers.

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# HF561 SERIES Technical Specifications

**TABLE 1. MECHANICAL**

CHARACTERISTIC	PARAMETER
Scanner head dimensions (L x W x H)	76 mm x 56 mm x 43 mm [3.00 in x 2.20 in x 1.70 in]
Weight	170 g [6.0 oz]
Host interface	USB or RS-232

**TABLE 5. ELECTRICAL**

CHARACTERISTIC	PARAMETER
Input voltage	4.5 Vdc to 5.5 Vdc
Current	400 mA typ.
Power	2000 mW typ.

**TABLE 2. PERFORMANCE**

CHARACTERISTIC	PARAMETER
Imager size (H x W)	844 x 640 pixels
Optics	<b>SR:</b> standard range <b>ER:</b> extended range
Motion tolerance	3 m/s [9.84 ft/s] max. for 40 mil printed QR code under external illumination
Field of view	<b>SR:</b> horizontal 75.0°, vertical 60.5° <b>ER:</b> horizontal 31.0°, vertical 23.5°
Scan angles	pitch: ±45°, tilt: skew: 180 ±65
Symbol contrast	≥30%
Scanning type	imaging
Indicator	<b>blue light:</b> standby <b>green flash:</b> successful decoding <b>buzzer:</b> beep
Minimum resolution	<b>SR:</b> 1D: 7.5 mil, 2D: 10 mil <b>ER:</b> 1D: 13 mil, 2D: 20 mil
Warranty	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer.

**TABLE 3. SR READ RANGES (TYPICAL)<sup>1,2,3</sup>**

SYMBOLIC	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	DELTA (MM [IN])
13 mil UPC-A	35 [1.38]	150 [5.91]	115 [4.53]
20 mil 39	15 [0.59]	185 [7.28]	170 [6.69]
20 mil QR	15 [0.59]	120 [4.72]	105 [4.13]
40 mil QR	15 [0.59]	225 [8.86]	210 [8.27]

**TABLE 4. ER READ RANGES (TYPICAL)<sup>1,2,3</sup>**

SYMBOLIC	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	DELTA (MM [IN])
13 mil UPC-A	155 [6.10]	615 [24.2]	460 [18.1]
20 mil 39	165 [6.50]	595 [23.41]	430 [16.91]
20 mil QR	85 [3.35]	985 [38.78]	900 [35.43]
40 mil QR	45 [1.38]	1035 [40.75]	990 [39.37]

**TABLE 6. ENVIRONMENTAL**

CHARACTERISTIC	PARAMETER
Operating temperature <sup>4</sup>	-30°C to 60°C [-22°F to 140°F]
Storage temperature	-40°C to 70°C [-40°F to 158°F]
Humidity	0 %RH to 95 %RH, no condensation
Drop	withstands two falls onto cement floor from height of 1.5 m [4.52 ft]
Vibration	3-shaft, 2 hours for each shaft, 1.52 mm [0.06 in] peak shift (22 Hz to 300 Hz), 5 G accelerated speed
Ambient light <sup>5</sup>	0 lux to 100,000 lux
Sealing	IP54
ESD	<b>direct:</b> ±6 kV <b>air:</b> ±15 kV

<sup>1</sup> Resolution for linear barcodes: 13.0 mil.

<sup>2</sup> Resolution for 2D matrix barcodes: 20 mil.

<sup>3</sup> Barcode quality and environmental conditions may affect performance.

<sup>4</sup> Extreme temperatures will reduce the depth of field.

<sup>5</sup> Extreme ambient light conditions will reduce the depth of field.

**TABLE 7. SYMBOLOLOGIES**

#### LINEAR

Codabar, Code 11, Code 128, Code 2 of 5, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, 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, MicroPDF417

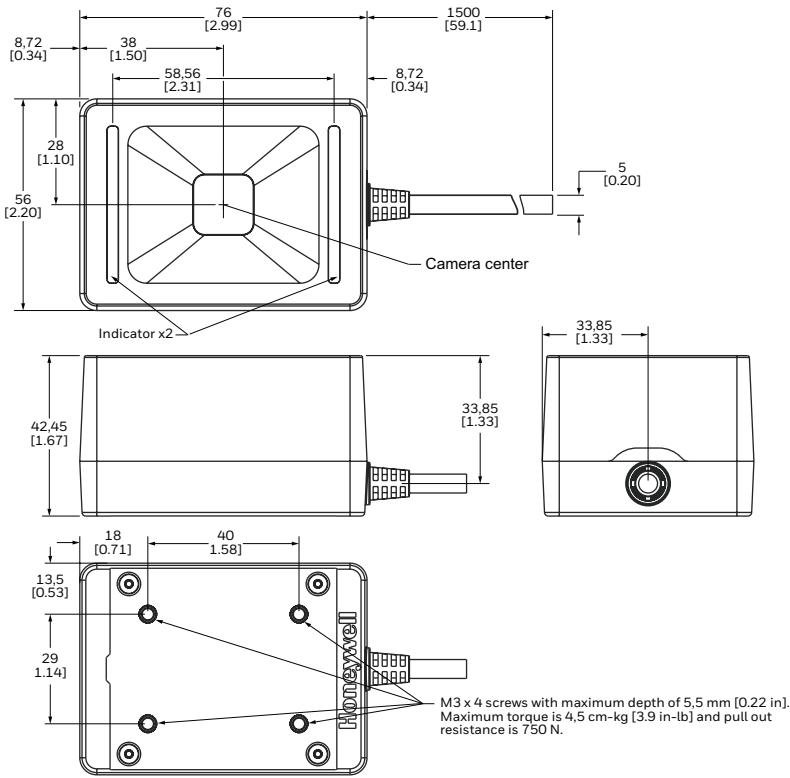
#### 2D MATRIX

Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible (Han Xin), Grid Matrix, Dot Code

#### POSTAL

Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet

**FIGURE 1. DIMENSIONAL DRAWINGS (FOR REFERENCE ONLY (MM/IN))**



## 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.

## FOR MORE INFORMATION

To learn more about Honeywell scan engines and barcode decoding software, visit our [website](#).

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## 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