

# HF511

## 2D Imager Module



The Honeywell HF511 is a compact 2D Imager Module with a powerful decoding core. It provides improved scanning performance for all 1D, 2D, and PDF barcodes, whether decoding barcodes on mobile phone screens or on paper.

Designed for OEM integration, this imager module's all-in-one, easy-to-mount form factor simplifies integration into a customer's fixed mount enclosure. The HF511 can help customers expedite product design and reduce the total product cost.

### SIMPLE TO INTEGRATE

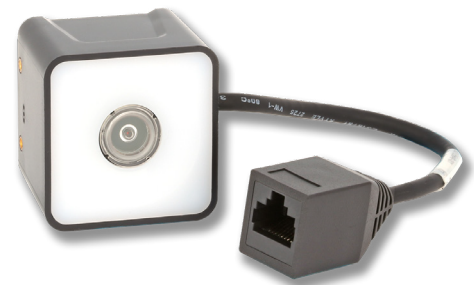
The HF511 is designed with the minimal housing needed to incorporate the illumination required to accomplish optimum label and screen barcode scanning. The standard interface connector allows users to choose either USB or serial interface. The small housing of just 41,1 mm x 41,7 mm x 32,5 mm [1.64 in x 1.64 in x 1.28 in] includes four pre-drilled mounting holes. The resulting flexibility makes this product a suitable solution for a wide variety of barcode reading applications.

### OPTIMIZED PERFORMANCE

The HF511 is designed with a wide viewing angle and shallow depth-of-field to ensure reading performance of screen barcodes in near-field. In addition, it operates with white LED (Light-Emitting Diode) illumination to improve the reading performance of label barcodes in low light environments.

### POTENTIAL APPLICATIONS

Utilizing the latest Honeywell decoding technology, the HF511 is designed for global integration applications such as self-service kiosks, stadium and event access control, public transportation facilities, vending machines, gaming equipment (e.g., slot machines, ticket validators), and self-ordering, fast food kiosks.



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## FEATURES AND BENEFITS



1D and 2D barcode reading capability on mobile phone screens or paper provide application flexibility.



Small footprint allows easy integration into various kiosk devices.



Wide viewing angle enables complete scanning at greater angles without deliberate decoding alignment.



Flexible enclosure options support USB and TTL-232 interfaces to meet various customer needs.

# HF511 Technical Specifications

**TABLE 1. MECHANICAL**

CHARACTERISTIC	PARAMETER
Scanner head dimensions (L x W x H)	41,7 mm x 41,7 mm x 32,5 mm [1.64 in x 1.64 in x 1.28 in]
Weight	55,5 g [2.0 oz]
Host interface	USB, RS-232

**TABLE 2. ENVIRONMENTAL**

CHARACTERISTIC	PARAMETER
Operating temperature	-10°C to 50°C [14°F to 122°F]
Storage temperature	-40°C to 70°C [-40°F to 158°F]
Humidity	0% to 95%RH, no condensation
Drop	withstands two falls onto cement floor from height of 1,5 m [4.52 ft]
Ambient light	0 lux to 100,000 lux
Sealing	IP40

**TABLE 3. PERFORMANCE**

CHARACTERISTIC	PARAMETER
Imager size (H x W)	640 x 480 pixels
Illumination	white LED
Motion tolerance	up to 1,2 m/s (47 in/s) for 13 mil UPC-A barcode
Field of view	83.0° x 66.2°
Scan angles	pitch: ±55°, skew: ±65°
Symbol contrast	≥35%
Indicator: buzzer LED	beep blue
Minimum resolution: ID 2D	3 mil Code 39 6,7 mm QR
Warranty	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer

**TABLE 4. READ RANGES (TYPICAL, WHITE ILLUMINATION)**

SYMBOLGY	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	DELTA (MM [IN])
10 MIL C39	15 [0.59]	40 [1.57]	25 [0.98]
13 MIL UPC	15 [0.59]	110 [4.33]	95 [3.74]
20 MIL C39	18 [0.71]	150 [5.91]	132 [0.52]
20 MIL QR	12 [0.47]	90 [3.54]	78 [3.07]

**TABLE 5. ELECTRICAL**

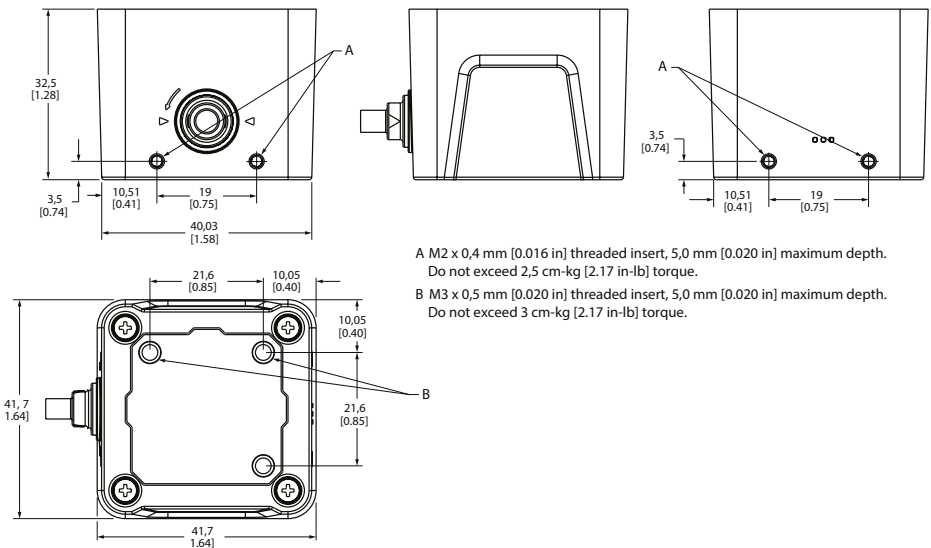
CHARACTERISTIC	PARAMETER
Input voltage	4.5 Vdc to 5.5 Vdc
Power:	
working	2.25 W (450 mA at 5 Vdc)
standby	1.25 W (250 mA at 5 Vdc)

**TABLE 6. SYMBOLOGIES**

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

- 1 Extreme temperatures will reduce the depth of field.
- 2 Extreme ambient light conditions will reduce the depth of field.
- 3 Barcode quality and environmental conditions may affect performance.

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.

### ⚠ WARNING MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

### ADDITIONAL INFORMATION

- Integration Manual is available upon request; contact your Honeywell representative
- For a listing of common compliance approvals and certifications, please visit <https://sensing.honeywell.com/product-certifications-webpage>

Find out more

To learn more about Honeywell's scan engines and barcode decoding software, visit [sensing.honeywell.com](https://sensing.honeywell.com)

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007622-1-EN US | 1 | 11/19  
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