

HF521

2D Imager Module

The Honeywell HF521 new generation, compact module for fixed-mount applications with the latest Gen7 decoding core, provides a powerful scanning performance for all 1D, PDF, and 2D barcodes on mobile phone screens or on paper.

The HF521 provides a plug-and-play, integrated module solution for verifying barcodes, collecting payments, and billing customers. Designed with a wide viewing angle and shallow depth of field to help ensure optimized performance for reading screen barcodes in near field. The broad decoding capabilities include rapid decoding of all 1D and 2D barcodes with particularly powerful reading capability of highly-reflective mobile phone screens, reducing process time and helping to improve the user experience.

While preserving the same look and seamless interface of its predecessors, the HF521 offers three times faster motion tolerance, enabling greater flexibility and convenience for customers, making it a trusted fixed-mount scanning solution. Combined with the Gen7 decoder, the HF521 may be supported by menu commands and EZConfig which is compatible with mainstream Honeywell scan modules and engines.

The HF521 operates with white LED illumination to improve the reading performance of label barcodes in a low lighting environments. It is one of the very few 2D modules which has optimized performance for both screen barcodes and label barcodes, reducing customer cost and helping to improve the user experience.



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This self-contained unit includes decoded 2D optics, housing, exit window, and a TTL-RS232 interface board. Mounting holes are located on the housing bottom and on the left and right sides of the housing, allowing vertical or horizontal mounting without the need for additional accessories.

Minimizes adjustments; reduces need to purchase additional components; helps expedite design; reduces total costs.

POTENTIAL APPLICATIONS

The HF521 is designed for fixed mount applications such as self-checkout POSs, subway tollgates, ATMs, and lottery verification.

FEATURES AND BENEFITS



Electrical and mechanical backwards compatibility with predecessor provides easy migration.



Supports menu command and EzConfig online configuration tool to allow greater set-up convenience.



Enhanced motion tolerance of 3,9 m/s [12.8 ft] reads moving barcodes, enabling increased scanning speed and productivity.



Uses TTL-RS232 and USB standard interfaces; USB compliance with support of Windows drivers.



Flexible enclosure options: Engine option is available for customers who wish to build their own housings.

HF521 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	58 g [2.05 oz]
Host interface	USB, TTL-RS232

TABLE 2. ENVIRONMENTAL

CHARACTERISTIC	PARAMETER
Operating temperature ¹	-10°C to 50°C [14°F to 122°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]
Ambient light ²	0 lux to 100,000 lux
Sealing	IP40

TABLE 3. PERFORMANCE

CHARACTERISTIC	PARAMETER
Resolution	640 x 480 pixels
Illumination ²	white LED
Motion tolerance	up to 3,9 m [12.8 ft]
Field of view	83° x 66.2°
Scan angles	pitch: ±55°, skew: ±65°
Minimum contrast	25%
Indicator	buzzer
Minimum resolution precision: ID 2D	3 mil (Code 39, P#100001555) 6.7 mil (QR, P#100001485)
Warranty	3-year limited warranty; the warranty period starts at date of shipment from Honeywell to customer

TABLE 4. ELECTRICAL

CHARACTERISTIC	PARAMETER
Input voltage	4.5 Vdc to 5.5 Vdc
Power:	
working	2.1 W (420 mA at 5 Vdc)
standby	0.7 W (140 mA at 5 Vdc)

TABLE 5. READ RANGES (TYPICAL, WHITE ILLUMINATION)³

SYMBOLGY	NEAR DISTANCE (MM [IN])	FAR DISTANCE (MM [IN])	DELTA (MM [IN])
10 MIL C39	2 [0.08]	102 [4.01]	100 [3.94]
13 MIL UPC-A	15 [0.59]	110 [4.33]	95 [3.74]
20 MIL C39	18 [0.71]	150 [5.91]	132 [5.20]
20 MIL QR	12 [0.47]	90 [3.54]	78 [3.07]

- 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.

TABLE 6. SYMBOLOGIES

LINEAR

Codabar, Code 11, Code 128, Code 2 of 5, Code 39, 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

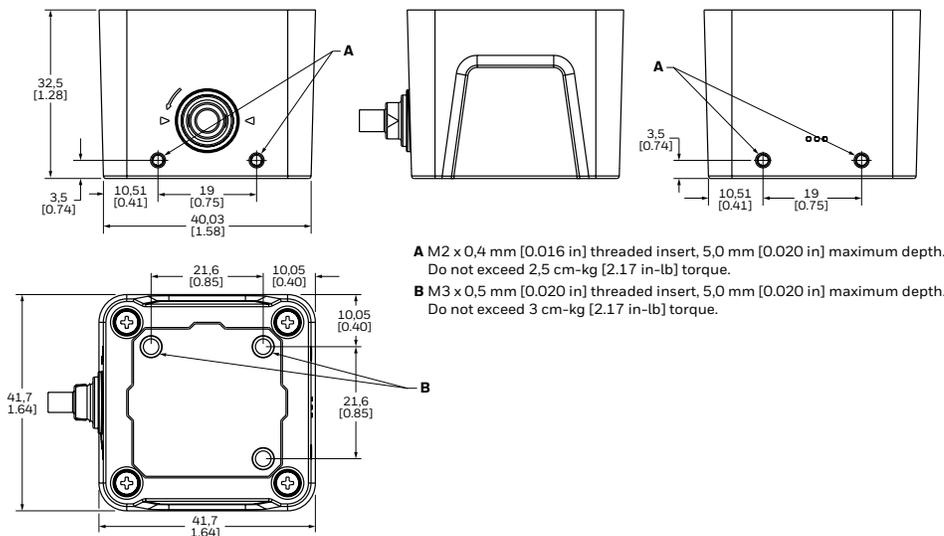
2D MATRIX

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.

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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