

## HS-2D



## Handheld Imager

The HS-2D imager is a value level portable solution for decoding both linear barcodes and 2D symbols in common applications such as high contrast black and white labels. It reads symbols in any orientation, includes a built-in dual LED targeting system for quick and easy data capture, and is designed to withstand rugged industrial environments.

The HS-2D imager is ideal for any high contrast automated data application from clean rooms to industrial environments.

### HS-2D: At a Glance

- Decodes/second: up to 10
- Read Range: 0.5 to 6" (12 to 152 mm)
- USB, RS-232 Interface Options



ESP® Easy Setup Program: Single-point software provides quick and easy setup and configuration of all Microscan readers.

For more information on this product, visit [www.microscan.com](http://www.microscan.com).

#### Omnidirectional Reading

The HS-2D easily captures linear and 2D symbols in any orientation, at distances from 0.5 to 6" (12 to 152 mm). The wide read area allows fast and reliable decoding.

#### Easy to Use

HS-2D imagers use point-and-click targeting with different colored converging LEDs to quickly determine target range. Audible, vibrator, and multipurpose visual user systems provide real-time feedback.

#### High Processing Speed

Fast processing speed allows the HS-2D to acquire and decode multiple symbologies within seconds of each other, without any adjustment to the imager.

#### Rugged Design

Featuring a ruggedized design with a permanent lanyard hook, HS-2D imagers include a secured cable and durable overmolded housing capable of withstanding numerous 6 foot drops to concrete.

#### Flexible Communication

HS-2D imagers are available in 2 interface options: USB or RS-232.

#### Application Examples

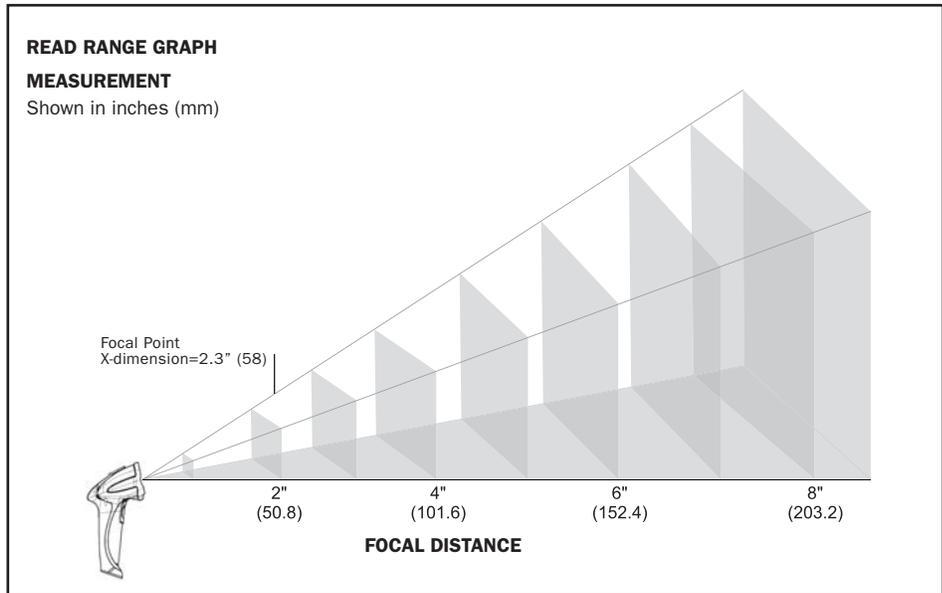
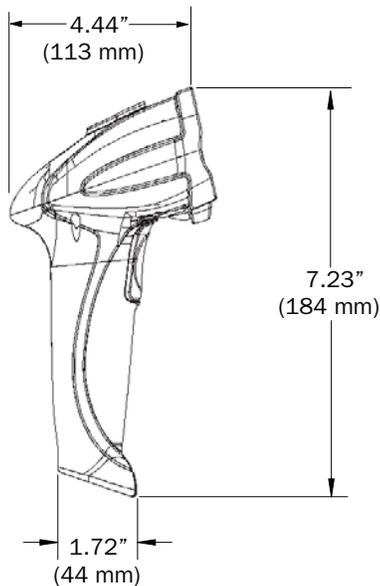
- Inventory
- Electronics
- Life Sciences

### HS-2D: Available Codes

Linear	All Standard 	Postal Codes 			
Stacked	MicroPDF 	PDF417 	GS1 Databar 		
2D	Data Matrix 	QR 	Micro QR 	Aztec 	Maxicode 

# MICROSCAN®

# HS-2D HANDHELD IMAGER SPECIFICATIONS AND OPTIONS



Narrow-bar-width	Read Range Distance
.0063" (0.160 mm)	1.25 to 2.5" (32 mm to 64 mm)
.0083" (0.211 mm)	1.75 to 3.2" (44 mm to 81 mm)
.020" (0.508 mm)	0.50 to 5.2" (13 mm to 132 mm)

Ranges based on Grade A Data Matrix symbols. Data subject to change.

## MECHANICAL

**Height:** 7" (180 mm)  
**Width:** 2.5" (63 mm)  
**Depth:** 4.5" (114 mm)  
**Weight:** 6.4 oz. (181 g), not including cable

## ENVIRONMENTAL

**Operating Temperature:** 0° to 50° C (32° to 122° F)  
**Storage Temperature:** -20° to 65° C (-4° to 150° F)  
**Humidity:** 5% to 95% (non-condensing)  
**Shock:** Withstands multiple drops of 6' (1.8 meters) to concrete

## CE STANDARDS

**Immunity:** EN 55024  
**ESD:** EN 61000-4-2  
**Radiated RF:** EN61000-4-3  
**Keyed Carrier:** ENV50204  
**EFT:** EN61000-4-4  
**Conducted RF:** EN61000-4-6  
**Emissions:** EN55022, Class B Radiated, Class B Conducted

## SYBLOGIES

**2D Symbolologies:** Data Matrix, QR Code, Micro QR Code, Aztec Code, MaxiCode  
**Stacked Symbolologies:** PDF417, MicroPDF417, GS1 Databar (Composite & Stacked)  
**Linear Barcodes:** Code 39, Code 128, Code 11, I2 of 5, UPC/EAN, Codabar, Codablock F, Pharmacode, Code 93, PLANET, PostNet, Japanese Post, Australian Post, Royal Mail, KIX

## LIGHT COLLECTION OPTIONS

**Sensor:** CMOS, progressive scan, 1.33 MP, 256 grayscale  
**Sensor Array:** 1280 by 1024  
**Field of View:** 43.48° horizontal by 31.86° vertical  
**Focal Point:** Optimal at 2.3" (58 mm)

## COMMUNICATION PROTOCOLS

**Standard Interface:** USB, RS-232

## READ PARAMETERS

**Pitch:** ±60° (front to back)  
**Skew:** ±60°  
**Rotational Tolerance:** ±180°  
**Focal Range:** 0.5 to 6" (12 to 152 mm)  
**Print Contrast Resolution:** 25% (barcodes); 35% (PDF417) absolute dark/light reflectance differential, measured at 650 nm  
**Ambient Light Immunity:** Sunlight: Up to 9,000 ft-candles/96,890 lux

## INDICATORS

**Status Indicators:** Vibration motor, audible tones, visual feedback with multi-color LED

## IMAGE OUTPUT OPTIONS

**Format:** JPEG, Raw (uncompressed)

## ELECTRICAL

**Power Requirements:** 5 VDC (mA)  
**Typical:** 330mA **Peak:** 345mA **Idle:** 250mA

## SAFETY CERTIFICATIONS DESIGNED FOR

FCC, CE

## ROHS/WEEE COMPLIANT

## ISO CERTIFICATION

Issued by TÜV USA Inc, Member of TÜV NORD Group, Cert No. 06-1080

©2009 Microscan Systems, Inc. SP061A 05/09

Read Range and other performance data is determined using high quality Grade A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25° C environment. For application-specific Read Range results, testing should be performed with symbols used in the actual application. Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. **Warranty**—Three year limited warranty on parts and labor. Extended warranty available.

# MICROSCAN

**Microscan Systems Inc.**  
 Tel 425 226 5700 / 800 251 7711  
 Fax 425 226 8250

**Microscan Europe**  
 Tel 31 172 423360 / Fax 31 172 423366

**Microscan Asia Pacific**  
 Tel 65 6846 1214 / Fax 65 6846 4641

## www.microscan.com

Product Information: info@microscan.com  
 Auto ID Support: helpdesk@microscan.com  
 Vision Support: visionsupport@microscan.com  
 NERLITE Support: nerlitesupport@microscan.com