

MS-Q BASIC HAND HELD IMAGER

MS-Q Basic imager is a portable handheld solution for reading both bar codes and 2D symbols. The MS-Q reads a wide range of bar code symbols created from a variety of printing and marking methods.

BASIC IMAGER FOR BAR CODES AND 2D SYMBOLS

Read Area:

The MS-Q Basic imager's advanced "dual-decode zone" technology allows the user to easily capture 2D symbols and linear bar codes at varying distances from 2 to 20" (50.8 to 508 mm). This wide read area allows the symbols to be decoded fast and reliably.

Lightening fast processing speeds also add to the MS-Q's ability to acquire and decode multiple symbologies within seconds of each other, with no adjustment of the imager required.

Ease of Use:

All MS-Q imagers feature point-and-click targeting with a red laser spot to quickly center the symbol in the field of view. Beeper, vibrator, and multi-purpose LEDs provide real-time feedback to signal successful decoding.



Applications:

The MS-Q Basic imager is a strong reading solution for any application needing to read linear bar codes and 2D symbologies with a portable hand held device.

System Integration:

All MS-Q imagers are available in 3 configuration options that provide effortless connectivity:

- **Batch:** A wireless way to collect thousands of decoded symbols for later download, capable of performing more than 4000 reads from a single battery charge and buffers a minimum of 1 MB of data in nonvolatile memory.*
- **Cabled:** Cabled units can be connected in two ways: USB and RS-232.
- **Bluetooth:** Wireless data transmission using Bluetooth™ class 1 radio with a 328' (100 m) operating range.

*For batch and Bluetooth™ options a 1300 mA Lithium-Ion battery is included.

Symbologies:

The MS-Q Basic automatically discriminates between all major 2D matrix and linear bar code symbologies, and offers time stamp capability for logging data. Symbologies include:

2D Symbologies:

- MaxiCode
- QR Code
- Aztec Code
- Data Matrix (ECC 0-200)

Stacked Symbologies:

- UCC Composite
- PDF417 (with Macro support)
- Micro PDF417

Linear Bar Codes:

- Codabar
- Codablock F
- GoCode
- Code 93
- RSS
- Code 39
- Code 128
- Standard postal codes
- UPC/EAN/JAN
- Int 2 of 5

MS-Q Accessories:

- Long-life 1300 mA lithium-Ion battery
- Bluetooth modem (serial gateway) with 328' (100 m) operating range
- Two-bay battery charger
- RS-232 kit



MS-Q BASIC IMAGER FOR BAR CODES AND 2D SYMBOLS

SPECIFICATIONS AND OPTIONS

IMAGER MECHANICAL

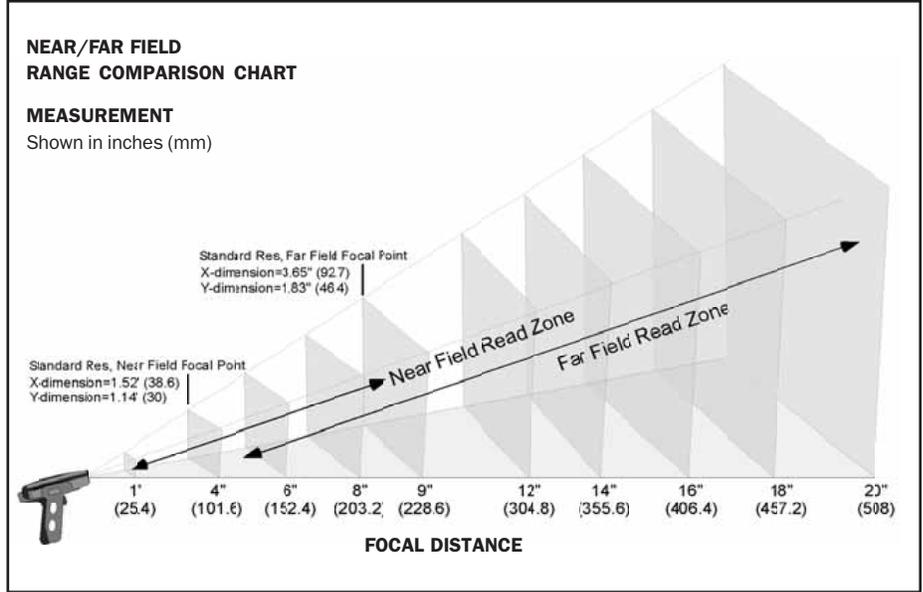
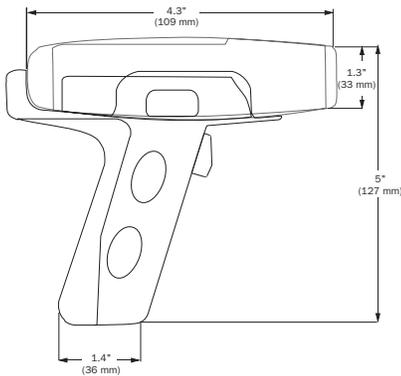
Height: 1.3" (33 mm)
Width: 1.8" (46 mm)
Depth: 4.3" (109 mm)
Weight: 2.5 oz. (71.5 g)
 not including cable

HANDLE MECHANICAL

Height: 3.8" (96.5 mm)
Width: 1.2" (30mm)
Depth: 1.4" (36 mm)
Weight: 1.2 oz. (59.8 g)

ADDITIONAL PHYSICAL CHARACTERISTICS

Battery Weight: 2.1 oz. (59.5 g)
Battery Blank: .5 oz. (13.6 g)
Cable Length: 6' (1.8 m)



READ RANGES

Narrow Bar-Width	Read Range Distance
.005" (.127 mm)	1.75 to 2.5" (44.4 to 63.5 mm)
.0075" (.191 mm)	1.75 to 4" (44.4 to 101.6 mm)
.010" (.254 mm)	1.75 to 4.75" (44.4 to 102.6 mm)
.015" (.381 mm)	1.75 to 6" (44.4 to 152.3 mm)
.020" (.508 mm)	1.75 to 6.5" (44.4 to 165.1 mm)

MS-Q is set to continuous capture mode for above results.

FIELD OF VIEW, STANDARD RESOLUTION

Near Field of View	
Distance inches/mm	Decode Zone (1024 x 640 pixel, Default)
4" (101.6)	1.52 X 1.14" (38.6 x 30 mm)
Far Field of View	
9" (228.6)	3.65 X 1.83" (92.7 x 46.4 mm)

ENVIRONMENTAL

Operating Temperature: 0° to 40°C (32° to 104°F)
Storage Temperature: -20° to 60° C (-4 to 140°F)
Humidity: 5 to 90% (non-condensing)

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

SYMBOLGY TYPES

Linear Bar Codes		
Code 39		Code 128
I2 of 5		Pharmacode
UPC/EAN		Codabar
Go Code		Codablock F
Code 93		PLANET
PostNet		RSS
Postal Codes (Japan, Australia)		KIX Code

2D Symbolgies		
Data Matrix (ecc 0-200)		MaxiCode
Aztec Code		QR Code

Stacked Symbolgies		
PDF417		UCC Composite
Micro PDF417		

LIGHT COLLECTION OPTIONS

Sensor: CMOS, progressive scan, 1.33 MP
 (1024 by 1280) 256 gray scale
Field of View:
Near: 21.5° horizontal by 16.2° vertical
Far: 22.9° horizontal by 11.6° vertical
Standard Resolution Focal Point:
Near: 4" (101.6 mm)
Far: 9" (228.6 mm)
Sensor Array:
Near Field: 1024 by 640 **Far Field:** 1024 by 640

COMMUNICATION PROTOCOLS

Standard Interface: USB
Optional Interface: RS-232, Bluetooth Class 1
 Radio at 328' (100 m)

READ PARAMETERS

Pitch: ±60° (front to back)
Skew: ±60°
Tilt: 360°
Focal Range: 4 to 20" (102 to 508 mm)
Rotational Tolerance: ±180°
Print Contrast Resolution: 25 percent (bar codes);
 35 percent (PDF417); absolute dark/light reflectance
 differential, measure at 650 nm.
Target Beam: Visible Laser Diode at 630 nm. Class 2
Ambient Light Immunity: Sunlight: Up to 9,000 ft-
 candles 96,890 lux
Shock: Withstands multiple drops of 6.5' (2 meters)
 to concrete

INDICATORS

Status Indicators: Memory status, Battery power,
 Successful decode, and Connection status
Programmable Indicators:
 Beeper or Vibrate option; communicates scanner
 operation and communication functions to user

IMAGE OUTPUT OPTIONS

Format: Jpeg, Raw (uncompressed)
Time Stamp: Interval logging

ELECTRICAL

Power Requirements: 5 VDC (mA)
Typical: 310 **Peak:** 310 **Sleep:** 3

Bluetooth Radio at 295' (90 m) away (mA):

Typical: 280 **Peak:** 350 **Idle:** 96 **Sleep:** 3

Bluetooth Radio at 33' (10 m) away (mA):

Typical: 260 **Peak:** 350 **Idle:** 96 **Sleep:** 3

Battery Life: Battery with radio will support
 4000 read/transmits per charge including 8 hours of
 standby interval.

SAFETY CERTIFICATIONS

Designed for: FCC, CE

ISO CERTIFICATION

ISO 9001/Cert. No. 00-1047

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Specifications subject to change, 02/04 - Base A