MS-Q BASIC HAND HELD IMAGER

MS-Q Basic imager is a portable hand held 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 handheld 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 include USB, RS-232, and PS2.
- **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 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

MICROSCAN®

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

Specifications and Options

IMAGER MECHANICAL

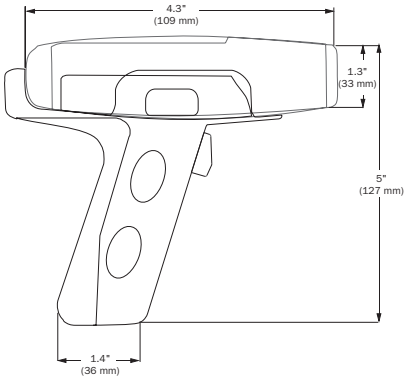
Height: 1.3" (33 mm)
Width: 1.8" (46 mm)
Depth: 4.3" (109 mm)
Weight: 2.5 oz. (71.5 g)
not including cable

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)



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

SYMBOLOGY TYPES

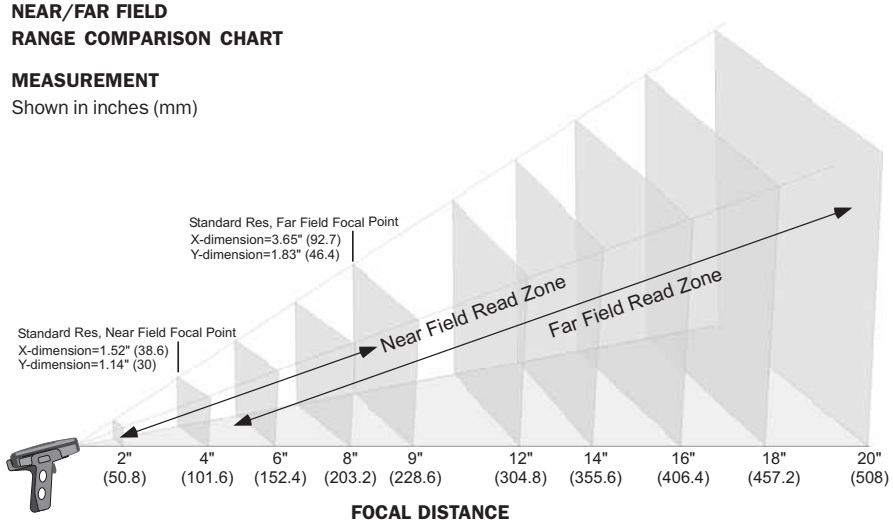
Linear Bar Codes	
Code 39	Code 128
I2 of 5	Codabar
UPC/EAN	Codablock F
Go Code	RSS
Code 93	PLANET
PostNet	KIX Code
Postal Codes (Japan, Australia)	

2D Symbologies	
Data Matrix (ECC 200)	MaxiCode
Aztec Code	QR Code

Stacked Symbologies	
PDF417	UCC Composite
Micro PDF417	

NEAR/FAR FIELD RANGE COMPARISON CHART

MEASUREMENT
Shown in inches (mm)



READ RANGES, STANDARD RESOLUTION

Narrow Bar-Width	Read Range Distance
.0075" (.191 mm)	3.2 to 3.9" (81 to 99 mm)
.015" (.381 mm)	3.0 to 9.0" (76 to 229 mm)
.020" (.508 mm)	3.0 to 11.5" (76 to 292 mm)

Ranges based on Grade A, Data Matrix symbols.

FIELD OF VIEW, STANDARD RESOLUTION

Distance inches/mm	Decode Zone (1024 x 640 pixel, Default)
Near Field of View	
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)

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), PS2.

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

Issued by RWTüV, USA Inc.
ISO 9001:2000 – Cert No. 03–1212

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 R.O.
Tel 65 6846 1214 / Fax 65 6846 4641
www.microscan.com
www.quadrus-ez.com
Tech Support: helpdesk@microscan.com
Product Information: info@microscan.com

Specifications subject to change, 03/05 - Base D - Electronic