**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.

**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

**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.

**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" (30 mm)
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
Humidity
Storage Temperature:
ENVIRONMENTAL
Cable Length:
Battery Blank:
Battery Weight:
CHARACTERISTICS
Weight
Width:
Height:
HANDLE MECHANICAL
Height:
Width:
Depth:
Weight:
ADDITIONAL PHYSICAL CHARACTERISTICS
Battery Weight:
Battery Blank:
Cable Length:

SYMBOLOGY TYPES

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

2D Symbologies
Data Matrix
MaxiCode
Aztec Code
QR Code

Stacked Symbologies
PDF417
UCC Composite
Micro PDF417

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.

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: ±30°
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:
Beep or Vibrate option; communicates scanner
operation and communication functions to user

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

NEAR/FAR FIELD RANGES COMPARISON CHART
MEASUREMENT
Shown in inches (mm)

FOCAL DISTANCE
Near Field Read Zone
Far Field Read Zone

FIELD OF VIEW, STANDARD RESOLUTION

Distance
Inches/mm
Deco code 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" (229.6) 3.65 X 1.83" (92.7 X 46.4 mm)

ELECTRICAL
Power Requirements:
Typical: 310 Peak: 310 Sleep: 3

Bluetooth Radio at 295’ (90 m) away (mA):
Typical: 280 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

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