

9520 - 9540



9521 - 9541



9535



9524 - 9544



MS9500 SERIES **VOYAGER**<sup>®</sup>

PRODUCT GUIDE

Single Line, Hand-Held,  
1D, High-Density 1D,  
PDF-417 2D and Wireless  
Laser Bar Code Scanners

# Contents

About <b>Voyager</b> ® Scanners	<a href="#">1</a>
<b>Voyager</b> Selection Chart	<a href="#">2</a>
MS9520 <b>Voyager</b>	<a href="#">3</a>
MS9540 <b>VoyagerCG</b> ®	<a href="#">3</a>
MS9535 <b>VoyagerBT</b> ™	<a href="#">4</a>
MS9524 <b>VoyagerPDF</b> ™	<a href="#">5</a>
MS9544 <b>VoyagerPDF</b> ™	<a href="#">5</a>
MS9521 <b>VoyagerHD</b> ™	<a href="#">6</a>
MS9541 <b>VoyagerHD</b> ™	<a href="#">6</a>
Options and Accessories	<a href="#">7</a>
<b>MetroSet</b> ®2 Software Utility	<a href="#">8</a>
Specifications	<a href="#">9-10</a>



## Voyager® Selection Chart

Metrologic's Voyager® family is a diverse group of single-line, hand-held, laser bar code scanners with features for virtually every requirement from decoding standard 1D bar codes to wireless applications. Specific Voyager models incorporate Metrologic's proprietary CodeGate technology, scan 2D (PDF) or high density bar codes. Whatever your needs, Voyager is the right scanner for you.

- ALL VOYAGER MODELS FEAT-  
 ✓ Sunrise 2005 Compliant  
 ✓ Complete Kits Standard  
 ✓ User-replaceable Detachable Cables  
 ✓ Decoding of all standard 1D, RSS-14, RSS Limited and RSS Expanded bar code**
- ✓ Flash ROM Upgrades  
 ✓ Custom Edit Bar Codes  
 ✓ Support for Common Interfaces  
 ✓ Auto Activation Mode (hands-free)**

 <p><b>MS9520 Voyager®</b></p>  <p><b>MS9540 VoyagerCG®</b> with CodeGate</p> <p style="text-align: right;">Page 3</p>	<p><b>STANDARD</b></p>
 <p><b>MS9535 VoyagerBT™</b> with CodeGate</p> <p style="text-align: right;">Page 4</p>	<p><b>WIRELESS</b></p>
 <p><b>MS9524 VoyagerPDF™</b></p>  <p><b>MS9544 VoyagerPDF™</b> with CodeGate</p> <p style="text-align: right;">Page 5</p>	<p><b>2D BAR CODES</b></p>
 <p><b>MS9521 VoyagerHD™</b></p>  <p><b>MS9541 VoyagerHD™</b> with CodeGate</p> <p style="text-align: right;">Page 6</p>	<p><b>HIGH DENSITY BAR CODES</b></p>

**In Stand, Auto Trigger - CodeGate and Non-CodeGate Models**



**1**  
The auto-trigger will activate the laser line in the stand.



**2**  
Present bar code to the scanner and it will be decoded and the data transmitted automatically.

**Out-of-Stand - CodeGate Models**



**1**  
The auto-trigger will activate the laser line.



**2**  
Place the laser line on the bar code.



**3**  
Press the button to decode and transmit bar code data.

**Out-of-Stand, Manual Activation - CodeGate Models**



**1**  
Press and hold the button to activate the laser line.



**2**  
Place the laser line on the bar code.



**3**  
Continue holding down the button to decode and transmit bar code data.

**Out-of-Stand, Auto Trigger - Non-CodeGate Models and CodeGate Models with CodeGate Feature Deactivated**



**1**  
The auto-trigger will activate the laser line.



**2**  
Place the laser line on the bar code and it will decode and transmit the data automatically.

# MS9520 Voyager® & MS9540 VoyagerCG®



**Voyager and VoyagerCG** are auto-trigger, single-line laser bar code scanners designed for decoding all standard 1D bar codes, including RSS codes. Their sleek, futuristic designs certainly catch your attention. But looks get you only so far, it's performance and value that really count. It is here that Voyager excels and sets new industry standards.

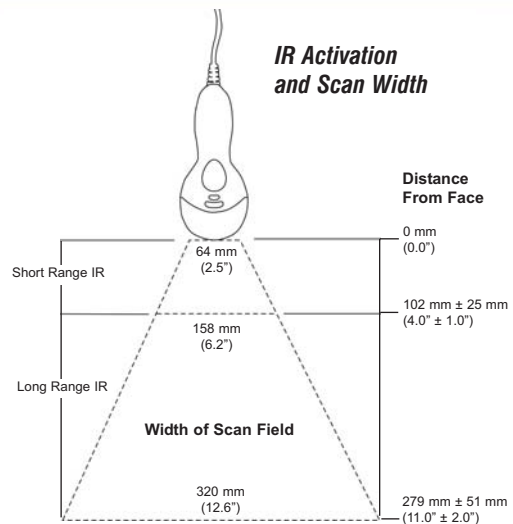
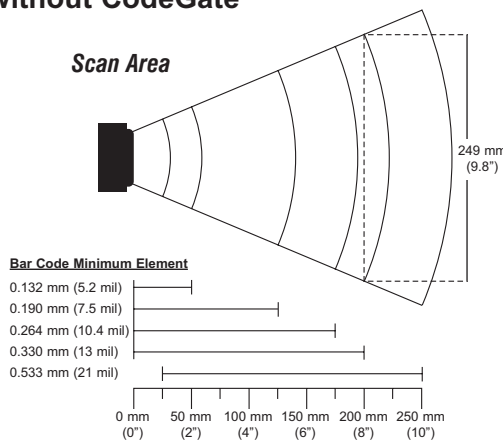
## Features

- Automatic trigger
  - Decodes all standard 1D, RSS-14, RSS Limited, and RSS expanded bar codes
  - User-replaceable, single cable interface to host
  - Adjustable stand
- Model MS9540 Only
- CodeGate data transmission technology



Sunrise 2005 Compliant

## SCANS 1D BAR CODES with or without CodeGate



## quick specs

Depth of Field	0 mm - 203 mm (0" - 8") for 0.33 mm (13 mil) bar codes
Width of Field	64 mm (2.5") @ face; 249 mm (9.8") @ 203 mm (8.0")
Scan Speed	72 ± 2 scan lines per second
Scan Pattern	Single scan line
Minimum Bar Width	0.127 mm (5.0 mil)
Dimensions	198 mm (7.8") H x 40 mm (1.6") D x Handle Width: 45 mm (1.8") Head Width: 78 mm (3.1")
Interfaces	PC Keyboard Wedge, RS232, OCIA, Light Pen Emulation, IBM 468X/469X, Stand Alone Keyboard, USB
Light Source	Visible Laser Diode 650 nm ± 10 nm
Weight	149 g (5.25 oz)
Shock	Normal operation after 30 drops to concrete of 1.5 m (5')

# MS9535 Voyager BT™

Voyager

**Metrologic's VoyagerBT** offers convenience and the freedom of mobility by incorporating Bluetooth wireless technology into a Voyager Series scanner. VoyagerBT provides a lightweight, comfortable, and easy to use scanning solution with unmatched standard features.

## Features

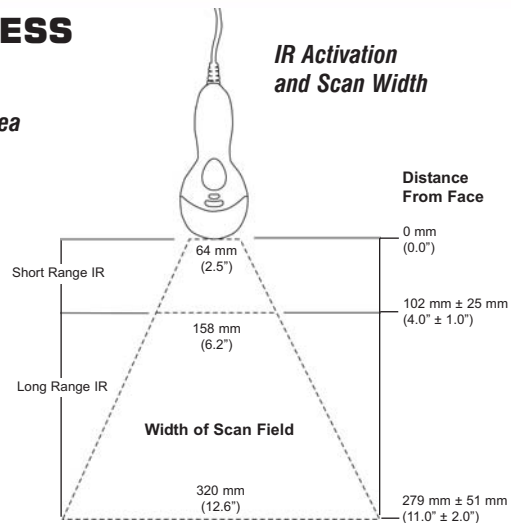
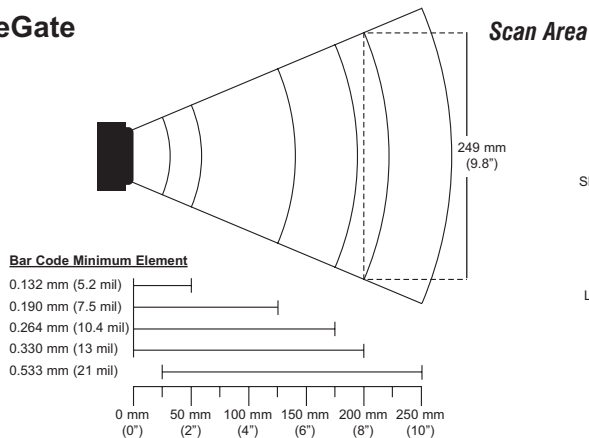
- Cable-free scanning using Bluetooth® technology
- CodeGate® data transmission ideal for menu scanning
- Up to 12,000 scans per charge
- Adjustable volume and beeper tone
- Recharging base station with in base scanning
- Wall or countertop mounting
- 10 meter (33') working range
- Two way communication - user receives audible and visual confirmation of each scan
- Scanner locating button on cradle



Sunrise 2005 Compliant

## SCANS 1D BAR CODES USING WIRELESS BLUETOOTH TECHNOLOGY

with CodeGate



## quick specs

Depth of Field 0 mm - 203 mm (0" - 8") for 0.33 mm (13 mil) bar codes

Width of Field 64 mm (2.5") @ face; 249 mm (9.8") @ 203 mm (8.0")

Scan Speed 72 ± 2 scan lines per second

Scan Pattern Single scan line

Minimum Bar Width 0.127 mm (5.0 mil)

Dimensions Scanner: 198 mm (7.8") H x 40 mm (1.6") D x Handle Width: 45 mm (1.8") Head Width: 78 mm (3.1")  
Base: 61 mm (2.4") H x 204 mm (8.0") D x 107 mm (4.2") W

Interfaces PC Keyboard Wedge, RS232, Light Pen Emulation, IBM 468X/469X, Stand Alone Keyboard, USB

Light Source Visible Laser Diode 650 nm ± 10 nm

Weight Scanner (with battery): 199 g (7.0 oz); Base: 225 g (7.9 oz)

Shock Normal operation after 30 drops to concrete of 1.5 m (5')



# MS9524 VoyagerPDF™ & MS9544 VoyagerPDF™

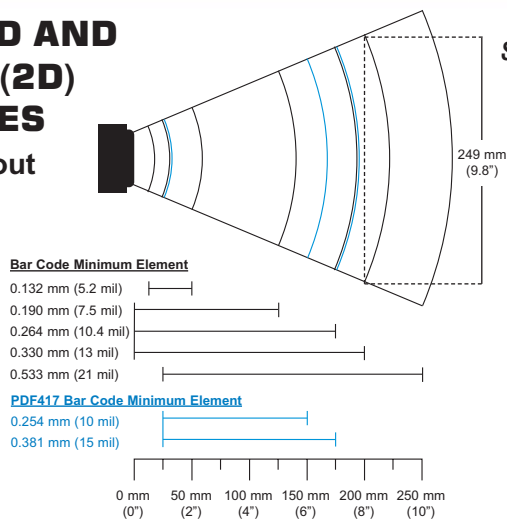
**Metrologic's MS9524 and MS9544 VoyagerPDF** scanners offer the same outstanding performance found in all Voyager Series scanners. What differentiates the VoyagerPDF scanners is the ability to decode 2D codes such as PDF417, PDF417 truncated, micro PDF, macro PDF and RSS-14 composite bar code symbologies.

### Features

- Decodes 1D & 2D (including RSS, PDF417, PDF417 truncated, micro PDF and macro PDF) bar codes
  - Automatic trigger operation
  - 180 scans per second
  - Auto stand detect
- Model MS9544 Only
- CodeGate® data transmission technology

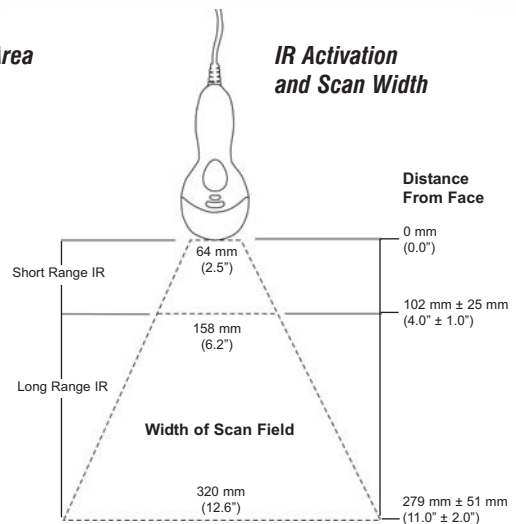


## SCANS 1D AND PDF-417 (2D) BAR CODES with or without CodeGate



Scan Area

### IR Activation and Scan Width



## quick specs

Depth of Field	0 mm - 203 mm (0" - 8") for 0.33 mm (13 mil) bar codes
Width of Field	64 mm (2.5") @ face; 249 mm (9.8") @ 203 mm (8.0")
Scan Speed	180 ± 10 scan lines per second
Scan Pattern	Single scan line
Minimum Bar Width	0.127 mm (5.0 mil)
Dimensions	198 mm (7.8") H x 40 mm (1.6") D x Handle Width: 45 mm (1.8") Head Width: 78 mm (3.1")
Interfaces	PC Keyboard Wedge, RS232, OCIA, Light Pen Emulation, IBM 468X/469X, Stand Alone Keyboard, USB
Light Source	Visible Laser Diode 650 nm ± 10 nm
Weight	149 g (5.25 oz)
Shock	Normal operation after 30 drops to concrete of 1.5 m (5')

# MS9521 Voyager HD™ & MS9541 Voyager HD™



Metrologic's MS9521 and MS9541 VoyagerHD are high performance single line laser bar code scanner capable of scanning high density (3 mil) bar codes.

## Features

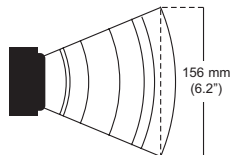
- Decodes high density bar codes with a minimum width of 0.076 mm (3.0 mil), as well as all standard 1D, RSS-14, RSS Limited and RSS expanded bar codes
  - Automatic trigger operation
  - Custom edit the bar code data
  - User-replaceable, single cable interface to host
- Model MS9541 Only
- CodeGate® data transmission technology



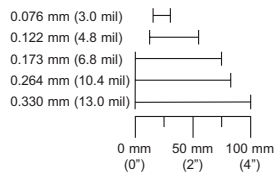
Sunrise 2005 Compliant

## SCANS HIGH-DENSITY 1D BAR CODES with or without CodeGate

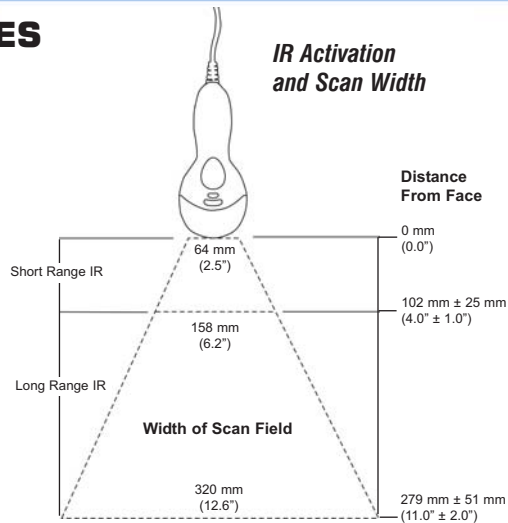
### Scan Area



### Bar Code Minimum Element



### IR Activation and Scan Width



## quick specs

Depth of Field	0 mm - 102 mm (0" - 4") for 0.33 mm (13 mil) bar codes 15 mm - 35 mm (0.6" - 1.4") for 0.076 mm (3.0 mil) bar codes
Width of Field	64 mm (2.5") @ face; 157 mm (6.2") @ 102 mm (4.0")
Scan Speed	72 ± 2 scan lines per second
Scan Pattern	Single scan line
Minimum Bar Width	0.076 mm (3.0 mil)
Dimensions	198 mm (7.8") H x 40 mm (1.6") D x Handle Width: 45 mm (1.8") Head Width: 78 mm (3.1")
Interfaces	PC Keyboard Wedge, RS232, OCIA, Light Pen Emulation, IBM 468X/469X, Stand Alone Keyboard, USB
Light Source	Visible Laser Diode 650 nm ± 10 nm
Weight	149 g (5.25 oz)
Shock	Normal operation after 30 drops to concrete of 1.5 m (5')



# MS9500 Series Voyager® Options and Accessories



## Voyagers

are available in two standard colors: Light Grey and Black. They are also available in a variety of other colors with minimum quantity purchase.



## Optional Wall Mount

shown with MS9540 **VoyagerCG** (scanner sold separately)

## Optional VoyagerBT Presentation Stand

shown with MS9535 **VoyagerBT** (scanner sold separately)



## Standard Stand Mounting Hardware

Included in all MS9500 Series Kits - except MS9535 shown with MS9541 **VoyagerHD**



## Optional Charger Only Cradle

for applications where the scanner communicates directly with another Bluetooth device



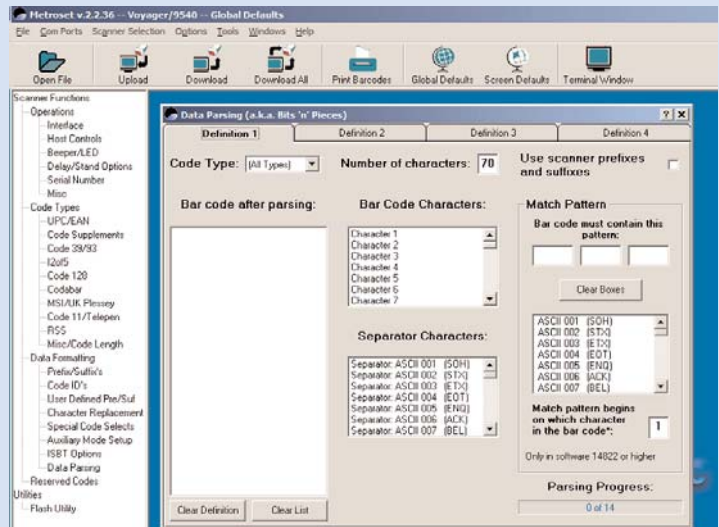
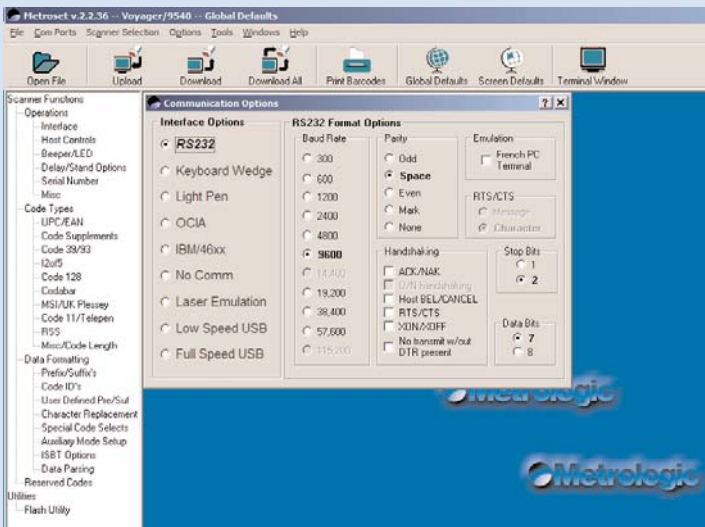
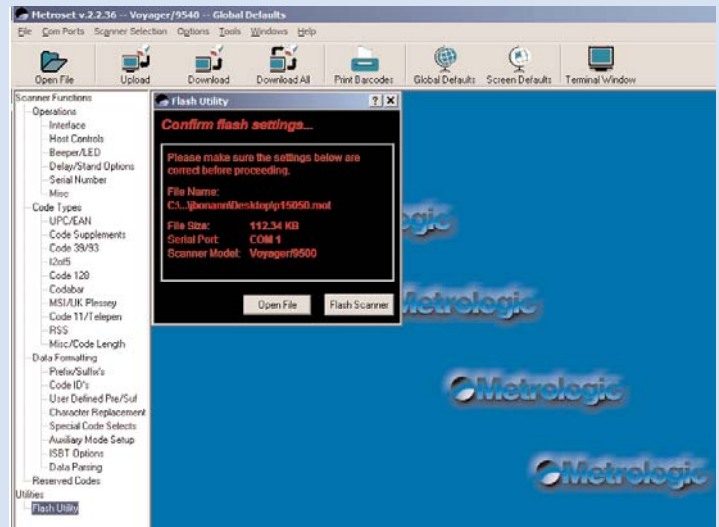
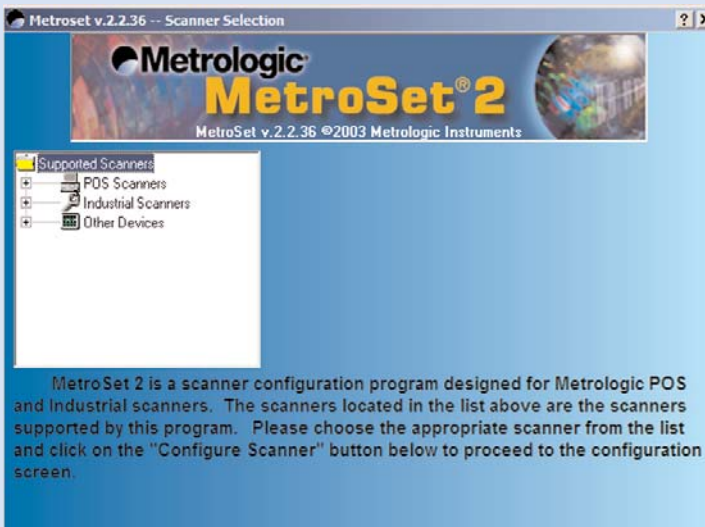


# MetroSet<sup>®</sup>2 Software Utility

MetroSet<sup>®</sup>2 is a graphical programming utility that provides users with a Windows based tool for programming, formatting data parsing and flashing Metrologic Voyager Series Scanners.

Simply select the scanner type from the list provided and begin programming. Users can upload their current settings and easily make changes to create a custom configuration. This file can then be saved and used to program multiple scanners, assuring they all have the same configuration.

Also included in MetroSet 2 is a Flash Utility that allows users to upgrade firmware by simply selecting the file and clicking the "Flash Scanner" button. Customers can receive new firmware from Metrologic's Technical Support Department by contacting their local Metrologic representative.



## The Voyager<sup>®</sup> Family of Scanners

Standard Voyager Colors



Voyagers are available in a variety of other colors with minimum quantity purchase



**OPERATIONAL**

Light Source	Visible Laser Diode 650 nm $\pm$ 10 nm	Visible Laser Diode 650 nm $\pm$ 10 nm
Laser Power	0.96 mW (peak)	0.96 mW (peak)
Depth of Scan Field (program)	0 mm - 203 mm (0" - 8") for 0.33 mm (13 mil) bar codes	15 mm - 35 mm (0.6" - 1.4") for 0.076 mm (3 mil) bar codes
Width of Scan Field	64 mm (2.5") @ face; 249 mm (9.8") @ 203 mm (8.0")	64 mm (2.5") @ face; 157 mm (6.2") @ 102 mm (4.0")
Scan Speed	72 $\pm$ 2 scan lines per second	72 $\pm$ 2 scan lines per second
Scan Pattern	Single scan line	Single scan line
Minimum Bar Width	0.127 mm (5.0 mil)	0.076 mm (3.0 mil)
Decode Capability	Autodiscriminates all standard 1D bar codes, including RSS, for other symbologies call Metrologic	Autodiscriminates all standard 1D bar codes, including RSS, for other symbologies call Metrologic
System Interfaces	PC Keyboard Wedge, RS232, OCIA, Light Pen Emulation, Non-decode Emulation, IBM 468X/469X, Stand Alone Keyboard, USB (low speed and full speed)	PC Keyboard Wedge, RS232, OCIA, Light Pen Emulation, Non-decode Emulation, IBM 468X/469X, Stand Alone Keyboard, USB (low speed and full speed)
Print Contrast	35% minimum reflectance difference	35% minimum reflectance difference
Number Characters	Up to 80 data characters	Up to 80 data characters
Roll, Pitch, Yaw	42°, 68°, 52°	42°, 68°, 52°
Beeper Operation	7 tones or no beep	7 tones or no beep
Indicators (LED)	Green=laser on, ready to scan; yellow=auto trigger mode active; red=good read	Green=laser on, ready to scan; yellow=auto trigger mode active; red=good read
Profile Support	N/a	N/a
Bluetooth Version	N/a	N/a
Height	198 mm (7.8")	198 mm (7.8")
Depth	40 mm (1.6")	40 mm (1.6")
Width	Handle - 45 mm (1.8"); Head - 78 mm (3.1")	Handle - 45 mm (1.8"); Head - 78 mm (3.1")
Weight	149 g (5.25 oz)	149 g (5.25 oz)
Termination	10 pin modular RJ45	10 pin modular RJ45
Cable	Standard 2.7 m (9') coiled; optional 2.1 m (7') straight	Standard 2.7 m (9') coiled; optional 2.1 m (7') straight
Input Voltage	5 VDC $\pm$ 0.25 V	5 VDC $\pm$ 0.25 V
Power - Operating	500 mW	500 mW
Power - Standby	110 mW	110 mW
Current - Operating	100 mA typical @ 5 VDC	100 mA typical @ 5 VDC
Current - Standby	22 mA typical @ 5 VDC	22 mA typical @ 5 VDC
DC Transformers	Class 2; 5.2 VDC @ 650 mA	Class 2; 5.2 VDC @ 650 mA
Laser Class	Laser Class 1 In accordance with IEC 60825-1:1993 + A1:1997 + A2:2001 and EN 60825-1:1994 + A11:1996 + A2:2001	Laser Class 1 In accordance with IEC 60825-1:1993 + A1:1997 + A2:2001 and EN 60825-1:1994 + A11:1996 + A2:2001
EMC	FCC, ICES-003 & EN55022 Class B	FCC, ICES-003 & EN55022 Class B
Current Charging	N/a	N/a
Recharge Time	N/a	N/a
Battery Capacity	N/a	N/a
Radio Range	N/a	N/a
Frequency	N/a	N/a
Operating Temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)
Humidity	5% to 95% relative humidity, non-condensing	5% to 95% relative humidity, non-condensing
Light Levels	Up to 4842 Lux (450 footcandles)	Up to 4842 Lux (450 footcandles)
Shock	Normal operation after 30 drops to concrete of 1.5 m (5')	Normal operation after 30 drops to concrete of 1.5 m (5')
Contaminants	Sealed to resist airborne particulate contaminants	Sealed to resist airborne particulate contaminants

**HD™****R CODES**MS9524 & MS9544 **VoyagerPDF™****SCANS 1D AND PDF417 (2D) BAR CODES**

- with or without CodeGate

MS9535 **VoyagerBT™****SCANS 1D BAR CODES, WIRELESS****BLUETOOTH TECHNOLOGY** - with CodeGate

	Visible Laser Diode 650 nm $\pm$ 10 nm	Visible Laser Diode 650 nm $\pm$ 10 nm
	0.96 mW (peak)	0.96 mW (peak)
	0 mm - 203 mm (0" - 8") for 0.33 mm (13 mil) bar codes	0 mm - 203 mm (0" - 8") for 0.33 mm (13 mil) bar codes
	64 mm (2.5") @ face; 249 mm (9.8") @ 203 mm (8.0")	64 mm (2.5") @ face; 249 mm (9.8") @ 203 mm (8.0")
	180 $\pm$ 10 scan lines per second	72 $\pm$ 2 scan lines per second
	Single scan line	Single scan line
	0.127 mm (5.0 mil)	0.127 mm (5.0 mil)
	Autodiscriminates all standard 1D and 2D bar codes, including RSS-14, PDF417, truncated PDF417, micro PDF and macro PDF, for other symbologies call Metrologic	Autodiscriminates all standard 1D bar codes, including RSS, for other symbologies call Metrologic
Non-decode Low speed and full speed)	PC Keyboard Wedge, RS232, OCIA, Light Pen Emulation, Non-decode Emulation, IBM 468X/469X, Stand Alone Keyboard, USB (low speed and full speed)	PC Keyboard Wedge, RS232, Light Pen Emulation, Stand Alone Keyboard, USB (low speed and full speed)
	35% minimum reflectance difference	35% minimum reflectance difference
	Up to 80 data characters on 1D; 1850 text characters on PDF417	Up to 80 data characters
	42°, 68°, 52°	42°, 68°, 52°
Active; red=good read	13 tones or no beep	7 tones or no beep
	Blue=laser on, ready to scan; yellow=auto trigger mode active; white=good read	Blue=laser on, ready to scan; yellow=auto trigger mode active; white=good read
	N/a	Serial Port Profile (SPP)
	N/a	v1.1 compliant
	198 mm (7.8")	Scanner: 198 mm (7.8"); base: 204 mm (8.0")
	40 mm (1.6")	Scanner: 40 mm (1.6"); base: 61 mm (2.4")
	Handle - 45 mm (1.8"); Head - 78 mm (3.1")	Scanner handle: 45 mm (1.8"), scanner head: 78 mm (3.1"); base: 107 mm (4.2")
	149 g (5.25 oz)	Scanner (with battery) 199 g (7.02 oz); base: 225 g (7.94 oz)
	10 pin modular RJ45	Base: 10 pin modular RJ45
	Standard 2.7 m (9') coiled; optional 2.1 m (7') straight	Base: 2.1 m (7') straight
	5.2 VDC $\pm$ 0.25 V	Base: 5.2 VDC $\pm$ 0.25 V
	1500 mW	Base: 0.6 W (typical); 1.4 W (max)
	750 mW	Base: 0.6 W
	300 mA typical @ 5.25 VDC	Scanner: 230 mA (max) @ 5 VDC; base: 65 mA (max) @ 5 VDC
	100 mA typical @ 5.25 VDC	Scanner: 30 mA typical @ 5 VDC
	Class 2; 5.2 VDC @ 650 mA	Scanner: none; base: Class 2; 5.2 VDC @ 2 A
7 + A2:2001	Laser Class 1 In accordance with IEC 60825-1:1993+A1:1997+A2:2001 and EN 60825-1:1994+A11:1996+A2:2001	Laser Class 1 In accordance with IEC 60825-1:1993+A1:1997+A2:2001 and EN 60825-1:1994+A11:1996+A2:2001
	FCC, ICES-003 & EN55022 Class B	FCC, ICES-003 & EN55022 Class B
	N/a	2 A
	N/a	2.5 hours
	N/a	12,000 scans (max)
	N/a	10 m (33')
	N/a	2.4 - 2.48 GHz (frequency hopping)
	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
	-40°C to 60°C (-40°F to 140°F)	-40°C to 60°C (-40°F to 140°F)
	5% to 95% relative humidity, non-condensing	5% to 95% relative humidity, non-condensing
	Up to 4842 Lux (450 footcandles)	Up to 4842 Lux (450 footcandles)
	Normal operation after 30 drops to concrete of 1.5 m (5')	Normal operation after 30 drops to concrete of 1.5 m (5')
	Sealed to resist airborne particulate contaminants	Sealed to resist airborne particulate contaminants



Metrologic designs, manufactures and markets bar code scanning and high-speed automated data capture systems solutions using laser, holographic, camera and vision-based technologies. Metrologic offers expertise in 1D and 2D bar code reading, portable data collection, optical character recognition, image lift, and parcel dimensioning and singulation detection for customers in retail, commercial, manufacturing, transportation and logistics, and postal and parcel delivery industries. In addition to its extensive line of bar code scanning and vision system equipment, the company also provides laser beam delivery and control systems to semi-conductor and fiber optic manufacturers, as well as a variety of highly sophisticated optical systems. Metrologic products are sold in more than 110 countries worldwide through Metrologic's sales, service and distribution offices located in North and South America, Europe and Asia.

**Sales support and technical assistance  
are available worldwide.**

View Metrologic data sheets, user/programming guides, trade show schedules, and much more at:

Specifications subject to change without notice.  
Printed U.S.A., Copyright May 2005  
Metrologic, All rights reserved.



**ISO 9001:2000**



DS9500