

# Wearable Scanning System WSS 1040



## WEARABLE SCANNING

### Breakthrough Technology and Ergonomics Revolutionize Workplace Productivity

The WSS 1040 Scanning System from Symbol Technologies empowers users to achieve new levels of productivity and accuracy, while advanced ergonomics make the system easy to use and comfortable to wear.

Scanning, portable computing and wireless networking can now be performed while the user's hands remain totally free for handling packages, products, inventory or materials. The WSS 1040 System also represents breakthroughs in miniaturization, performance and data transmission. These new capabilities are changing the definition of productivity and ease of use in warehousing, transportation/logistics, manufacturing, retailing and other industries including e-commerce.

### Between Index Finger and Forearm, a Scanner and a Computer

The WSS 1040 System consists of two components. The RS 1 Ring Scanner is worn on the index finger and activated by pointing the finger at the bar code, while pressing the thumb against a trigger at the base of the finger. Scanning is performed by pointing the finger at the bar code and activating the scanner by pressing the thumb against a trigger at the base of the finger. The RS 1 Ring Scanner is the smallest wearable laser scanner in the world, weighing only 1.7 ounces/48 grams and just 0.9 inches/23mm high.

The WSS 1040's computer is worn on the forearm, and includes a CPU, display, keyboard, battery pack, and Spectrum24® wireless communications.

Spectrum24 is Symbol's next-generation wireless LAN featuring a more robust environment for larger, more complex networks. This inherently secure architecture is ideal for business-critical applications requiring high levels of data throughput.

The WSS 1040 system can be used with the RS 1 Ring Scanner or WS 1200-LR long range scanner. The ring scanner is ideal for scanning bar codes at distances of up to 2 ft./0.6m while the WS 1200-LR can read bar codes on pallets at distances of up to 25 ft./7.6m.

### No Compromise When It Comes to Performance

The WSS 1040 System is engineered to perform. The RS 1 Ring Scanner features a rugged and reliable laser scanner that scans quickly and accurately—even if the bar code is damaged or poorly printed. Its tiny scan engine permits a low profile design, allowing it to avoid most bumps and knocks. But, we've given it a scratch-resistant coating on the window just in case.

The wrist computer offers powerful information gathering, processing and communications performance, yet is easy to use.



Features	Benefits
Data management system worn on the index finger and forearm	User's hands are free to handle materials and perform other tasks
RS 1 Ring Scanner—the world's smallest wearable scanner	"Point-and-scan" data capture is comfortable and reliable
Ergonomically designed miniature computer with backlit display and programmable keypad	Powerful computing and communications capabilities can go anywhere—even dimly lit environments
Optional batch or wireless communications with Spectrum24	A high-performance wireless network solution to meet your needs.

It features a programmable keyboard and backlit display, both optimally positioned for effortless keypad input and viewing, even in dimly lit environments. It weighs just 11.3 ounces/316 grams and is powered by a long-lasting lithium ion battery. The ring scanner and computer are connected via an unobtrusive, lightweight cable.

### High Tech Balanced by Human Touch

When it comes to productivity, comfort and ease of use are every bit as important as performance. Symbol's design engineers thoroughly tested the WSS 1040 Wearable Scanning System, putting it through more than 40,000 user test hours with active participation from customers. The result is maximum comfort and flexibility.

The RS 1 Ring Scanner fits fingers of all sizes and it's reversible, allowing it to adapt equally well for right- and left-handers. The lightweight WSS 1040 Wearable Wrist Computer adapts to fit every wrist. Both the ring scanner and wrist computer mount to straps that stay with each operator, eliminating worries about hygiene. Safety's not a concern, either, because the ring breaks away under 20 pounds/9kg of pressure. To find out how your company's workforce can be more productive using the WSS 1040 Wearable Scanning System, contact any of the convenient locations listed on the back panel, or visit us at [www.symbol.com](http://www.symbol.com)

# WSS 1040 Wearable Scanning System Specification Highlights

## WWC 1040 Wearable Wrist Computer

### Physical Characteristics

Weight:	WSS 1040: 11.3 oz./316gm (12.3 oz./350gm w/ short-range microradio)
Size:	4.8" W x 3.4" L x 2.9" H/122mm W x 86mm L x 74mm H
Display:	4 line x 20 character or 8 line x 20 character backlit FSTN LCD
Keyboard:	27-key backlit membrane keyboard

### Performance Characteristics

Processor:	NEC V25 running at 16 MHz
Memory:	640 K RAM
Communication:	Short-range microradio (wireless printing)- optional
Software:	DR DOS
Cradle Interface:	38.4K max baud rate IR serial connection

### Power

Batteries:	Single-cell lithium ion battery pack (1200mAh)
Charge Time:	140 minutes
Backup Power:	Super capacitor yields 15 minutes backup time

### User Environment

Operating Temperature:	-4° to 122°F/-20° to 50°C
Storage Temperature:	-40° to 140°F/-40° to 60°C
Humidity:	5% to 95% noncondensing
Sealing:	MIL-STD-810D, 506.2, Procedure II-Drip
Altitude:	Operation at 0-10,000 ft./3,048m Storage up to 50,000 ft./15,240m for 24 hours
Drop Specification:	5-ft./1.5m to concrete

### Wireless Communications

Antenna:	Internal, diversity
Frequency:	2.4-2.5 GHz (varies by country)
Spreading Code:	Multiple, software controlled
Data Rate:	1 Mbps
Compliance:	FCC part 15 (for U.S. only), ETSI 300.328 (Europe), RCD STD-33 (Japan)



## RS 1 Ring Scanner

### Physical Characteristics

Voltage:	5 Volts DC
Current:	120 mA nominal (both LEDs "on")
Weight:	1.7 oz./48gm
Color:	Gray, yellow
Dimensions:	1.1" W x 1.7" L x 0.9" H/ 34mm W x 52mm L x 27mm H

### Performance Characteristics

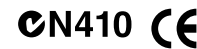
Light Source:	675 nm laser
Scan Rate:	36 ±3 scans per second
Yaw:	±60°
Roll (Skew):	±20°
Pitch Contract:	±55°

### User Environment

Ambient Light:	Up to 9,000 ft.-candles/96,840 lux sunlight; 450 ft.-candles/4,844 lux artificial light
Operating Temperature:	-4° to 122°F/-20° to 50°C
Storage Temperature:	-40° to 140°F/-40° to 60°C
Humidity:	5% to 90% noncondensing
Breakaway Factor:	20 lb./9kg of pressure
Drop Specification:	5-ft./1.5m to concrete

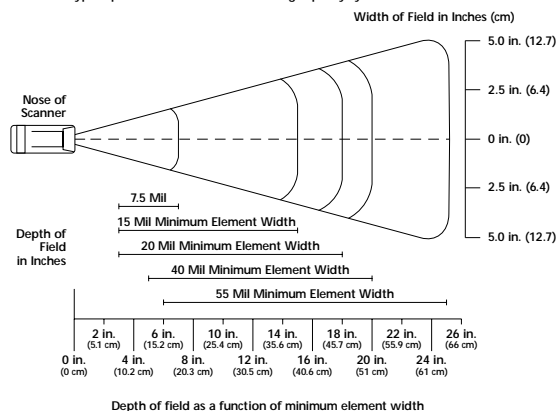
### Regulatory

Electrical Safety:	Certified to UL1950, CSA C22.2 No. 950, EN60950/IEC950
Laser Safety:	CDRH Class II, IEC Class 2
EMI/RFI:	FCC Part 15 Class A, ICES-003 Class A, European Union EMC Directive, Australian SMA



### RS 1 Decode Zone

NOTE: Typical performance at 68°F/20°C on high-quality symbols



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