



WEARABLE SCANNING SYSTEMS

Breakthrough Technology and Ergonomics Revolutionize Workplace Productivity

The WSS 1040 and WSS 1060 Scanning Systems from Symbol Technologies help users achieve new levels of productivity and accuracy while advanced ergonomics make them 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. Plus, the WSS 1040 and WSS 1060 systems represent breakthroughs in miniaturization, performance and data transmission. These new capabilities can increase productivity and ease of use in warehousing, transportation/logistics, manufacturing, retailing and other industries including e-commerce.

Put a Scanner and Computer Between Your Index Finger and Forearm

The WSS 1040 and WSS 1060 systems comprise two components – a scanner and wearable wrist computer. The RS 1 Ring Scanner is worn on the index finger. It is activated by pointing the finger at the bar code while pressing the thumb against a trigger. The RS 1 Ring Scanner is the smallest wearable laser scanner in the world, weighing only 1.7 oz./48 gm and just 0.9 in./23 mm high. It is ideal for scanning bar codes at distances of up to 2 ft./0.6m. The WS 1000-LR long-range scanner is worn on the back of the hand and reads bar codes on pallets at distances of up to 25 ft./7.6 m.

The WWC 1040 and WWC 1060 computers are worn on the forearm and include a CPU, display, keyboard, battery pack and Spectrum24® wireless communications. The WWC 1040 uses Spectrum24 1 Mbps wireless LAN communications, enabling you to transmit and receive data wirelessly – extending your network reach to the point of activity. The WWC 1060 features Spectrum24 High Rate with 11 Mbps throughput. Designed to IEEE 802.11b interoperability standards for next-generation direct sequence wireless LANs, Spectrum24 High Rate delivers data transmissions of up to 11 Mbps – that's more than five times faster than standard wireless LANs. But Symbol didn't stop at defined standards: super-smart algorithms, advanced mobility and security features, and much more combine to bring you the best in high-speed wireless LAN technology and services.

No Compromising on Performance

Both the WSS 1040 and WSS 1060 Scanning Systems have been engineered to perform flawlessly. The RS 1 Ring Scanner features a rugged and reliable laser scanner that scans quickly and accurately – even if bar codes are damaged or poorly printed. Its tiny scan engine permits a low-profile design, allowing it to avoid most bumps and knocks – but it has a scratch-resistant coating on the window just in case.

The WWC 1040 and WWC 1060 wrist computers offer powerful information gathering, processing and communications performance, yet are easy to use. They feature a programmable keyboard and backlit display, both optimally positioned for effortless keypad input and viewing, even in dimly lit environments. They weigh just 11.3 oz./316 gm and are powered by a long-lasting lithium ion battery. The ring scanner and computer are connected via an unobtrusive, lightweight cable.

Symbol's design engineers thoroughly tested these Wearable Scanning Systems, putting them through more than 40,000 user test hours with active customer participation. The result is maximum comfort and flexibility plus proven performance.

The RS 1 Ring Scanner fits fingers of all sizes and is reversible, allowing it to adapt equally well for right- and left-handed users. The lightweight wearable wrist computers adapt to fit every wrist. Both the ring scanner and wrist computer mount to straps that stay with each operator, eliminating worries about hygiene. Safety is not a concern because the ring breaks away under 20 lbs./9kg of pressure.

For more information, call any of the locations listed on the back panel or visit us at www.symbol.com/wearable

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
11 Mbps direct sequence (DS) high data rate (WSS 1060)	A high-performance wireless network solution for wide-bandwidth applications

WSS 1040/WSS 1060 Wearable Scanning Systems Specification Highlights

WWC 1040 and WWC 1060 Wearable Wrist Computers

Physical Characteristics

Weight:	11.3 oz./316 gm (12.3 oz./350 gm with short-range microradio)
Size:	4.8 in. W x 3.4 in. L x 2.9 in. H/ 122 mm W x 86 mm L x 74 mm 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 (1200 mAh)
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./3,048 m Storage up to 50,000 ft./15,240 m for 24 hours
Drop Specification:	5 ft./1.5 m to concrete

Wireless Communications

Network	Spectrum24 ®
Data Rate:	WSS 1060: 11 Mbps WSS 1040: 1 Mbps
Spreading Technique:	WSS 1060: Direct Sequence
Spreading Code:	WSS 1040: Multiple, software-controlled
Antenna:	Internal, diversity
Frequency:	Country dependent, typically 2.4 to 2.5 GHz
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./48 gm
Color:	Gray, yellow
Dimensions:	1.1 in. W x 1.7 in. L x 0.9 in. H/ 34 mm W x 52 mm L x 27 mm 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 sunlight and 450 ft.-candles 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./9 kg of pressure
Drop Specifications:	5 ft./1.5 m 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

EN410 CE



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