



Breakthrough Design and Ergonomics for Unsurpassed 2-D and 1-D Scanning

Symbol Technologies took the most advanced, high-speed 2-D laser technology and combined it with easy-to-use “aim-and-shoot” operation for fast, unmatched scanning performance both on PDF417 and 1-D bar code symbolologies. The ergonomic design of the LS 4800 features an integrated decoder and optional integrated battery pack for portable scanning applications. What’s more, this breakthrough scanner costs little more than a typical high-performance 1-D laser scanner.

PDF417: Much More than Meets the Eye

Developed by Symbol Technologies, PDF417 is a 2-D symbology that functions as a high-density, high-capacity “portable data file” to provide low-cost access to large amounts of information without the need to link to an external database: a single PDF417 symbol can encode more than a kilobyte of data—*up to 100 times* the capacity of a linear bar code of similar size. Entire shipping labels, manifests, equipment calibration information, vehicle registrations and



LS 4800 Scanner Series Integrated 2-D and 1-D Scanning Solution

much more all become instantly machine-readable using PDF417.

In fact, the Automotive Industry Action Group, the American Association of Motor Vehicle Administrators, the U.S. Department of Defense, and other leading standards organizations have all selected PDF417 as their 2-D symbology standard.

When Productivity is Important, Performance is Essential

With Symbol’s exclusive “*Aim Spot*” and “*Smart Raster*” capabilities, the LS 4800 ensures your scanning challenges aren’t very challenging at all: symbols are easily located even in bright sunlight, symbol heights are dynamically matched to the scan pattern, and—at 560 scans per second—quickly decoded. The LS 4800 also includes these design features:

- ▶ Resonant 2-D scan engine for unsurpassed reliability.
- ▶ Optional built-in battery pack for portable applications.
- ▶ Flash memory for easy firmware upgrades.
- ▶ Integrated RS-232 interface for direct connection to your host computer system or to a portable terminal.
- ▶ Unique Synapse™ “smart cable” for instant interface with a wide variety of systems.
- ▶ Quick disconnect cables for rapid replacement and complete flexibility between applications.

The ergonomic advances built into the LS 4800 include:

- ▶ Single scanner solution for 1-D and PDF417 applications.
- ▶ IntelliStand option for hands-free operation.

- ▶ Comfortable grip and lightweight design for effortless, continuous use.
- ▶ Rugged, sealed housing that easily withstands 5-ft./1.5 m drops to concrete, and protects the scanner from harsh environments.
- ▶ Designed for secure desktop placement and convenient retrieval.
- ▶ High visibility laser for easy scanning/aiming in high ambient light environments

Applications Unlimited

The LS 4800 is ideal for a wide range of 2-D and 1-D applications, including:

- ▶ Transportation & Logistics
 - Freight & Package Tracking
 - Advance Shipping Notices
 - Bills of Lading
- ▶ Government & Public Safety
 - Emissions Testing
 - License & Registration Forms
 - Logistics Management
- ▶ Retail
 - Receiving & Paper EDI
 - Return to Vendor/Warehouse
- ▶ Manufacturing
 - Process Control
 - Materials Handling
- ▶ Healthcare
 - Insurance Claims Processing
 - Laboratory Data

In fact, there’s almost no limit to the range of applications for Symbol’s LS 4800 Scanner. And that means there’s no end to the ways it can help boost your organization’s productivity. The LS 4800 Scanner from Symbol Technologies, the world leader in bar code-driven data management systems, with more than 5 million scanners and terminals installed.

LS 4800 Series Specification Highlights

Physical Characteristics

Dimensions:	6.7" H x 4.4" L x 2.5" D/170 mm H x 112 mm L x 64 mm D
Weight:	9 oz./255 gm without battery/cable
Power Requirements:	+5 V, 390 mA typical
Memory:	64K RAM/256K Flash standard, 256K RAM/256K Flash enhanced
Cord Length:	6'/1.8 m standard, 14'/4.25 m optional

Performance Characteristics

Interface Type:	Integrated RS-232 with additional host interfaces supported by intelligent cables (Keyboard wedge, OCIA, Dual RS-232, etc.)
Scan Element Type:	Raster scanning, Retro-collective
Light Source:	650 nm laser diode/1.2 mW max.
Scan Rate (x):	560 scans per second
Frame Rate (y):	25 frames per second
Optical Resolution:	Minimum X-dimension: 6.6 mil (0.17 mm); for PDF417, Minimum Y-dimension: 3X (VHD version - 4 mil minimum)
Minimum Reflectance Difference:	25% (1-D symbologies); 35% (PDF417) measured at 650 nm
Program Loading:	Parameters set by bar code menus; Flash memory for software upgrades
Decode Capabilities:	PDF417, micro-PDF417, UPC-A, UPC-E, EAN 8, EAN 13, Code 39, Tri-Optic Code 39, Code 93, Discrete 2 of 5, Bookland EAN, UPC Coupon Code, Code 39 Full ASCII, Code 128, Interleaved 2 of 5, Codabar, UCC/EAN 128 with full autodiscrimination between all symbologies, MSI Plessey, Code 11
Optional Integrated Battery Pack:	NiCad Pack - 650 mAh, 5.3 oz./150 gm LS 4900 model features optional integrated battery pack

User Environment

Operating Temperature:	-4° to 104° F/-20° to 40° C
Storage Temperature:	-40° to 140° F/-40° to 60° C
Humidity:	5% to 95% (noncondensing)
Shock:	5'/1.5 m drop to concrete
Ambient Light Immunity:	Sunlight: 10,000 ft.-candles, 107,640 LUX Incandescent, Fluorescent, Sodium Vapor, and Mercury Light: 450 ft.-candles, 4,845 LUX. Immune to direct exposure from normal office and factory level lighting
Environmental Sealing:	MIL-STD-810E Windblown dust & rain
Agency Approvals:	CDRH Class II, IEC 825 Class II, FCC Class A, UL, CSA, VDE

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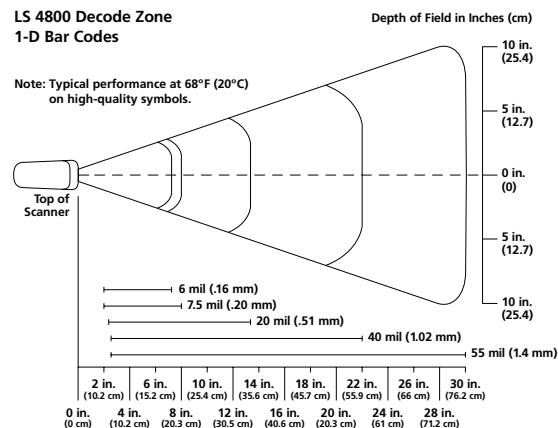


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LS 4800 Decode Zone

1-D Bar Codes

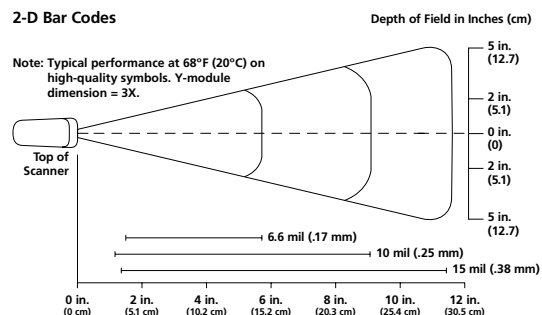
Note: Typical performance at 68°F (20°C) on high-quality symbols.



LS 4800 1-D Decode Zone: Depth of Field as a function of minimum element width.

2-D Bar Codes

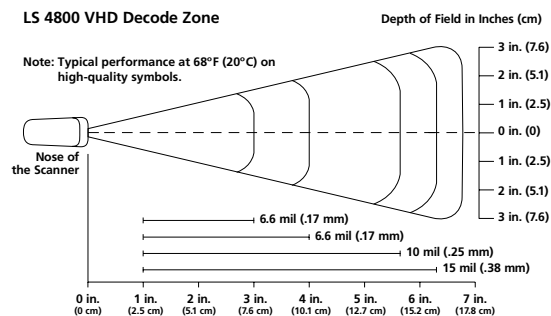
Note: Typical performance at 68°F (20°C) on high-quality symbols. Y-module dimension = 3X.



LS 4800 2-D Decode Zone: Depth of Field as a function of minimum element width.

LS 4800 VHD Decode Zone

Note: Typical performance at 68°F (20°C) on high-quality symbols.



LS 4800 2-D Decode Zone: Depth of Field as a function of minimum element width.

For system, product or services availability and specific information within your country, please contact your local Symbol Technologies office or Certified Business Partner.

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