LM520 Bar Code Scanner

Miniature Bar Code Scanner Provides Superior Scanning Performance

- **Compact, complete scanning system**
- **High-performance, reliable scan module**
- **Rugged aluminum enclosure**
- **Convenient integration features**
- **Four triggering modes**

Compact, Complete Scanning System

The LM520 Scanner is a compact, decoded, single-line scanner for fixed-position or embedded applications, such as conveyor, library, document tracking, chemical and blood analyzers, vending machines, POS terminals, and other attended or unattended scanning applications. The LM520 is a complete scanning system, ready to plug in and scan. The LM520 presents a fast, easy and low-cost way to incorporate scanning into any application where you need to read a bar code.

High Performance, Reliable Scan Module

The LM520 scanner is designed around PSC's LM500 Plus™ scan module. Consistent, reliable performance is achieved by its retroreflective optical design which uses an electromagnetic, frictionless dithering mirror to direct laser light to its target. This design is highly reliable and consumes less power than competitive models.

Advanced RapidStart™ circuitry creates the fastest start-of-scan in the industry, giving snappy performance and a reduction in misreads at start up. An impressive read range, from 2.0" to 36.0" (5.1 to 91.4 cm) and excellent pitch and skew angles makes this scanner suitable for many tightly specified bar code reading applications.

Rugged Aluminum Enclosure

Measuring only 1.35 x 2.00 x 2.53 inches (3.4 x 5.1 x 6.4 cm) and weighing only 5.4 oz. (153 g), the compact LM520 fits in almost any fixed-position or embedded application. And the LM520's rugged extruded aluminum enclosure protects the scanner from mechanical shock, and seals it from dust and moisture.

Convenient Integration Features

System integration is made easy with the LM520's unique mounting design. Six mounting grooves in the scanner's sealed enclosure enable mounting on any one of four sides. A mounting kit, containing special mounting studs and lock nuts, comes with every scanner. To assure reliable integration, the LM520 scanner uses an industry-standard RS232C interface, which allows the scanner to be mounted up to 50' (15.2 m) from the host system. Good read/no read result switches make integration with other automation control equipment a snap. These convenient design features help reduce implementation time and the costs associated with developing complicated integrated solutions.

Four Triggering Modes

Four separate triggering modes can be used to scan a bar code; an external switch such as an output line from a Programmable Logic Controller (PLC), software commands from the host system, or the LM520 can be set to continuously scan. The LM520 also uses a unique PSC motion detection technique called LaserSense™ to only scan when an object is passed in front. The various modes are selected via host commands or simple bar code programming labels.

Expanding Technology. Focusing Solutions.

LM520 Bar Code Scanner

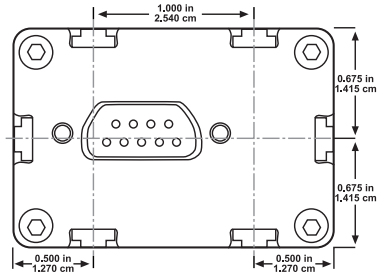
SPECIFICATIONS

MECHANICAL

Dimensions

Height	1.35" (3.43 cm)
Width	2.00" (5.08 cm)
Length	2.53" (6.43 cm)

Mounting Dimensions



Volume	6.83^3 (112 cc)
Weight	5.4 oz. (153 g)

ELECTRICAL

Operating voltage	4.75 to 12 VDC
Operating current - nominal (680nm)	90mA (typical) at 5V and 25°C

OPTICAL

Light source	680 nm (nominal) Visible laser diode
Scan system	LM500 Plus™ scan module
Scan speed	42 lines / sec. (lps)
Scan angle	46° (nominal)
Resolution (minimum)	5 mils / 0.13 m

Label orientation

Pitch Angle	<±65° from normal
Skew Tolerance	<±55° from normal
Specular Dead Zone	±3°

COMMUNICATIONS

RS-232 C

Bar codes read:

- *UPC-A, UPC-E, EAN-8, EAN-13*
- *Code 128*
- *Code 39*
- *Code 93*
- *Interleaved 2 of 5*
- *Codabar*

READ RANGE

Label Density	*Range*
5 mil	2.5 - 4.3" (6.4 - 10.9 cm)
7.5 mil	2.0 - 7.3" (5.1 - 18.5 cm)
10 mil	1.5 - 10.3" (3.8 - 26.2 cm)
13 mil	1.5 - 14.3" (3.8 - 36.3 cm)
20 mil	up to 20.0" (up to 50.8 cm)
55 mil	up to 36.0" (up to 91.4 cm)

NOTE: The near point reading capability is limited by symbol length on lower density codes.

ENVIRONMENTAL

Temperature rating

Operating	-4° to 122° F (-20° to 50° C)
Storage	-40° to 158° F (-40° to 70° C)
Humidity	5 to 95% non-condensing
Mechanical shock	1500g, all axes
Water and Dust	IEC 529 rating; IP54

Ambient Light

Incandescent & florescent: 1200 footcandle
Sunlight: 8000 footcandle

SAFETY / REGULATORY

Electrical	Complies to: Gost R; TÜV;UL, cUL
Emissions	Complies to: FCC-A; EN 55022-B; AS/NZ 3458; BCIQ CNS13438; VCCI-B
Laser classification	CDRH Class II; (CAUTION: Laser Radiation – do not stare into beam); IEC 60825 Class 2

NOTE: *This scanner is considered a component and further approvals, after integration, may be necessary.*

Specifications are subject to change without notice.
For further information, contact your PSC representative.

Accessory mount also available.

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For product information, technical support, answers to frequently asked questions, product documentation, software updates, repair information, and how to contact PSC, visit the PSC Website at: ***www.pscnet.com***

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