



11.8 mm H x 21.6 mm W x 15.5 mm D

Features & Benefits:

- Large Working Range
- Small and Light for Easy Integration
- Speed of 100 Scans Per Second
- Aggressive Performance for All Barcodes, Including Damaged and Poor Quality
- Low Power Consumption for Longer Battery Life in Portable Terminals
- Bright Scan Line and Aim Mode

Miniature, Laser Linear Scan Engine

JADAK's JE-121 offers best-in-class quality, reliability, durability and scanning performance. JE-121 makes scanning across a wide working range easy, intuitive and rapid, regardless of the environment. Its durable engine design provides reliable performance.

JE-121 offers Liquid Polymer Scan Technology, providing a frictionless scan that will not wear out. Designed for durability, the elimination of fragile silicon mirrors combined with the die cast chassis enables the JE-121 to handle drop shocks up to 2000Gs.

JE-121 provides an advanced retro-collective optical design for superior working range, regardless of lighting or barcode symbology. Scanning speed is optimized to provide aggressive read times, and the programmable scan line is easily adjusted, providing the flexibility to use a single scan engine for a wide variety of uses.

The JE-121 enables the development of products that offer superior manageability. Built-in system performance monitoring enables remote access to scan engine statistics.

The miniature JE-121 is designed to easily integrate into products. With an industry standard form factor, the JE-121 allows easy upgrade from current engines without the expense of new tooling processes.

Applications:

- Handheld computers
- Medical instruments
- Diagnostic equipment
- Lottery terminals
- Robotics



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JE-121

| Performance | | |
|--------------------------|--|------------------------------|
| Illumination: | Visible Laser Diode 650 nm | |
| Scan Rate: | 104 +/- 12 scans/second (bi-directional) | |
| Scan Angle: | 47° +/- 3° (typical) / 35° +/- 3° (narrow) | |
| Minimum Print Contrast: | 20% absolute dark/light reflectance measured at 650 nm | |
| Programmable Parameters: | Laser On Time, Aim Duration, Power Mode, Trigger Mode, Bi-directional Redundancy, Symbology Types/Lengths, Data Formatting, Serial Parameters, Beeper Tone, Scan Angle | |
| Regulatory: | | |
| Laser Classification: | Intended for use in CDRH Class II and IEC Class II devices – Optional Class 1 Model | |
| Electrical Safety: | UL 60950, EN/IEC 60950 | |
| EMI/RFI: | FCC Part 15 Class B, EN 55024/CISPR 22, AS 3548, VCCI | |
| Environmental: | RoHS Compliant | |
| Mechanical / Electrical | | |
| Dimensions (HxWxD): | JE-121-I100R (3.3V): 11.8 mm x 21.6 mm x 15.5 mm (.46" x .85" x .61") JE-121-I105R (5V): 12.1 mm x 21.6 mm x 22.6 mm (.48" x .85" x .89") | |
| Weight: | 8 g (.28 oz.) | |
| Interface: | TTL Serial on a 12 pin ZIF connector | |
| Input Voltage: | JE-121-I100R: 3.3V +/- 10% JE-121-I105R: 5V +/- 10% | |
| Scan Current: | JE-121-I100R: 86 mA JE-121-I105R: 90 mA | |
| Standby Current: | JE-121-I100R: 12 µA JE-121-I105R: 35 µA | |
| Environmental / Other | | |
| Operating Temperature: | -20°C to 60°C (-4°F to 140° F) | |
| Storage Temperature: | -40°C to 70°C (-40°F to 158°F) | |
| Humidity: | 5% - 95% non-condensing | |
| Ambient Light: | Artificial: 4844 lux (450 ft. candles) Sunlight: 107,640 lux (10,000 ft. candles) | |
| Shock Rating: | 2000 G | |
| Decode Ranges | | MRD |
| 4 mil: Code 39 | 2.5:1 80% | 1 – 5.5" / 2.5 – 13.97 cm |
| 5 mil: Code 39 | 2.5:1 – 80% | 1.25 – 8" / 3.18 – 20.32 cm |
| 7.5 mil: Code 39 | 2.5:1 – 80% | 1.5 – 13" / 23.81 – 33.02 cm |
| 10 mil: Code 39 | 2.5:1 – 90% | 1.5 – 18" / 3.81 – 45.72 cm |
| 13 mil: 100% UPC | 90% | 1.5 – 24" / 3.81 -60.96 cm |
| 15 mil: Code 39 | 2.5:1 – 80% | 1.5 – 28" / 3.81 – 71.12 cm |
| 20 mil: Code 39 | 2.2:1 – 80% | 1.75 – 33" / 4.45 -88.82 cm |
| 40 mil: Code 39 | 2.2:1 – 80% | *-36" / x – 91.44 cm |
| 55 mil: Code 39 | 2.2:1 – 80% | * -45" / x-114.3 cm |

*Dependent on width of barcode.

ABOUT JADAK:

JADAK, a business unit of Novanta, is a market leader in machine vision, RFID, barcode, printing, and color and light measurement products and services for original equipment manufacturers. The company designs and manufactures embedded detection and analysis solutions that help customers solve unique inspection, tracking, scanning and documenting. The company is ISO 9001 and ISO 13485 registered.

Novanta is a trusted technology partner to OEMs in the medical and advanced industrial technology markets, with deep proprietary expertise in photonics, vision and precision motion technologies.

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