FUZZYSCAN SE6870

Premium 1D/2D Decoded OEM Scan Engine

All-in-one decoded 1D/2D imaging engine

The SE6870 is a premium decoded 1D/2D imaging engine that delivers outstanding reading performance in an all-in-one form factor. Thanks to its integrated decoder, the need for a separate decoder board or software running on host is eliminated, resulting in significant cost savings of development and software license.

Constructed for maximum adaptability, the SE6870 features a flexible mounting design that allows for a seamless transition from the popular legacy scan engines. It also offers extensive connectivity options to meet diverse host interface requirements, enabling easy integration into a wide range of host equipment.

Powered by Cino's exclusive FuzzyScan imaging technology, the SE6870 can read most of real-world problematic and challenging barcodes. Equipped with a global-shutter megapixel image sensor, the SE6870 boasts unrivaled reading performance and motion tolerance. A lineup of models is available to meet different scanning requirements across diverse application scenarios.

Whether you are developing mobile computer, scanning sled, POS terminal, medical instrument, in vitro diagnostic equipment (IVD), hematology analyzer, ticket validator, kiosk, parcel locker, auto vending machine, reversed vending machine (RVM), entry gate, you can count on Cino's SE6870 to provide a high price-performance solution and an optimal user experience.

- All-in-one design for easy integration
- Powered by AI technology and deep learning
- Integrated decoder for maximum cost savings
- Read most challenging and problematic barcodes
- Super large scanning field with UW model
- Support USB, RS232 and TTL serial host interface
- Choice of laser aimer or LED aimer
- Various models available for diverse applications
- Operating temperature from -30°C to 60°C
- Inherit Cino's powerful FuzzyScan DNA

Maximum Flexibility and Cost-Saving

The SE6870 is a decoded 1D/2D engine crafted with adaptive mechanisms and versatile features, offering exceptional flexibility for diverse embedded applications, as well as significant reduction on the development costs of your products.

Fit-anywhere and Flexible Mounting Design

Featuring a flexible mounting design in an all-in-one form factor, the SE6870 allows a high degree of interchangeability and easy drop-in replacement for popular legacy scan engines. To fulfill various host interface needs, the SE6870 offers rich connectivity options, including USB, RS232 and TTL serial. Moreover, both LED aimer and laser aimer are available for choice.

Maximum Cost Saving

Thanks to its integrated decoder, you do not need to use a separate decoder or software license for decoding. This not only reduces substantial engineering efforts and development costs, but also accelerates the time to market of your new products.

Exclusive FuzzyScan Imaging Technology

Scan All Your Needs

Powered by Cino's exclusive FuzzyScan imaging technology, the SE6870 is capable of reading a vast array of problematic and challenging real-world barcodes, including wrinkled, dirty, soiled, or watermark barcodes that are displayed on paper, plastic, metal, digital screens, and curved surfaces.

Cutting Edge Imaging Technology

Powered by AI technology and deep learning, Cino's exclusive FuzzyScan imaging technology delivers unrivaled readability and motion tolerance, as well as accuracy across most challenging and problematic real-world barcodes.

Unsurpassed Reading Performance

The SE6870 brings exceptional reading performance and motion tolerance on both regular and difficult-to-read barcodes. The snappiness also dramatically improves user's experience. The first-time, every-time scanning makes SE6870 ideal for a wide range of applications.

An Extensive Lineup

To meet different scanning requirements across diverse application scenarios, a lineup of models is available for selection.

Ultra-Wide-Angle model (UW)

Not only provides an exceptionally broad scanning field, but also excels at capturing extremely fast-moving codes

High-Density model (HD & HL)

Optimized to read high-density barcodes and DPM codes with a moderate reading range

Standard-Range model (SR & SL)

Reads most real-world barcodes with an excellent reading range, ideal for general-purpose applications

Enterprise-class Reliability

All of Cino's products are designed with enterprise-class reliability in mind. Leveraging Cino's proven technology, the SE6870 offers the highest quality that you can trust, whether in terms of reading performance or durability.

Durable Design Assures Longevity

The SE6870 is well-constructed and sturdy. It supports an excellent Shock rating and a wide operating temperature range from -30°C to 60°C (-22°F to 140°F), delivering the required durability for automation, healthcare, commercial and industrial applications.

Proven Technology You Can Trust

When you choose the SE6870, you will find the peace of mind that comes from Cino's high quality data capture solutions.

FUZZYSCAN DNA

Value Beyond Measure

FuzzyScan DNA is a collection of useful features with added-values available for every Cino imager at no additional cost. These exclusive features not only elevate your user experience, but also help you overcome various technical limitations beyond barcode scanning.

DataWizard

A powerful feature that allows advanced formatting on GS1 and UDI data. By using data scripts, it is able to perform complex data processing, such as US driver's license parsing or medical data parsing

iCode

A useful macro command barcode for enabling one-step configuration with a single scan

Multilingual Edge

A comprehensive function for converting data output into your desired languages

Smart Scene

A series of preset configurations for easy adaptation to specific scenarios

Security Plus

A programmable security script for preventing unauthorized access

FuzzyScan Enabling Solution

A suite of software utilities and SDK that enables easy integration, management, and deployment of scanners

SPECIFICATIONS

Performance Characteristics

Image Sensor	1280 x 800 Pixels
Print Contrast	15% minimum reflectance difference
Light Source	Red or warm white LED
Aimer [*1]	Green dot LED aimer or Red box-with-cross laser aimer
Imager Field of View	**SE6870-UW** 75.6˚H x 50.9˚V **SE6870-HD, SE6870-HL** 41.5˚H x 25.9˚V **SE6870-SR, SE6870-SL** 41.5˚H x 25.9˚V
Minimum Resolution	**SE6870-UW** 4.0 mil Code 39, 7.0 mil DM/QR **SE6870-HD, SE6870-HL** 2.4 mil Code 39, 4.8 mil DM/QR **SE6870-SR, SE6870-SL** 2.7 mil Code 39, 4.8 mil DM/QR
Reading Range [*2]	**SE6870-UW** 13 mil (0.33mm) UPC/EAN up to 12.2" **SE6870-HD, SE6870-HL** 13 mil (0.33mm) UPC/EAN up to 16.6" **SE6870-SR, SE6870-SL** 13 mil (0.33mm) UPC/EAN up to 23.3"
Roll, Pitch, Skew	Roll: 360˚; Pitch: ± 75˚; Skew: ± 65˚
Motion Tolerance	**SE6870-UW** Steadily read over 460 cm/s, with max. speed up to 920 cm/s (362 in/s) **SE6870-HD, SE6870-HL** Steadily read over 153 cm/s, with max. speed up to 617 cm/s (243 in/s) **SE6870-SR, SE6870-SL** Steadily read over 153 cm/s, with max. speed up to 617 cm/s (243 in/s)
Configuration Setup	FuzzyScan Barcode commands FuzzyScan iCode FuzzyScan PowerTool FuzzyScan Serial Command
Host Interface	USB HID (USB Keyboard, Full Speed) USB VCOM (USB COM port emulation, Full Speed) Standard RS232 TTL Serial (3.3VDC UART)
Data Processing	DataWizard
Image Capture	BMP or JEPG format

Supported Symbologies

1D Codes	Code 39, Code 39 Full ASCII, Code 32, Code 128, GS1-128, Codabar, Code 11, Code 93, GS1 DataBar, Standard & Industrial 2 of 5, Interleaved & Matrix 2 of 5, IATA, UPC/EAN/JAN, UPC/EAN/JAN with Addendum, Telepen, MSI/Plessey & UK/Plessey
2D Codes [*3]	PDF417, Micro PDF417, Composite Codes, DataMatrix, MaxiCode, QR Code, MicroQR, Aztec, Codablock F, Code 16K, Code 49, Chinese Sensible (Han Xin) Code
Postal Codes	Australian Post, US Planet, US POSTNET, Japan Post, Posi LAPA 4 State Code, German Post, British Post, Intelligent Mail, Korean Post, Dutch KIX Post, China Post
OCR [*3]	OCR A/B, MICR-E13B, US Currency Serial Number

User Environment

Operating Temperature	-30˚C to 60˚C (-22˚F to 140˚F)
Storage Temperature	-40˚C to 70˚C (-40˚F to 158˚F)
Humidity	0% to 95% relative humidity, non-condensing
Ambient Light Immunity	0 to 106,000 lux

Physical Characteristics

Dimensions	27.8mm (D) x 38.4mm (W) x 19.4mm (H) 11.00 in. (D) x 15.12 in. (W) x 7.64 in. (H)
Weight	10g

Electrical Characteristics

Connector	USB-C 12-pin ZIF (USB and TTL Serial) 4-pin Wire-to-Board (Standard RS232)
Input Voltage	5 VDC ± 10% (USB via USB-C connector) 5 VDC ± 10% (Standard RS232) 3.3-5.5 VDC (USB and TTL Serial via 12-pin ZIF connector)
Current	Operating: Typical 210mA@5Vdc Typical 254mA@3.3Vdc

Accessories

Safety	LED Eye Safety: IEC/EN62417 - Exempt Group Laser Eye Safety: IEC/EN60825-1 - Class 1
Environmental	Compliant with RoHS 2.0 and REACH

1. SL and HL models come with a red laser aimer.
2. The Reading Ranges are mearsured under manufacturing preset test environmental condition.
3. Codablock F, Code 16K, Code 49, Chinese Sensible (Han Xin) Code and OCR are available upon request.