

AI 深度学习读码 · 阴阳码 / 低对比度 / 倾斜 DPM 都能读

F5310 条码扫描引擎

Fixed Barcode Scanner

AI 深度学习读码

1296×816 CMOS

1D≥3mil 2D≥5mil

景深 75~250mm

视场角±48°×±28°

USB / TTL · 3.3V

自主研发核心技术

01

Independently Developed Core Technology

核心技术自主研发，可配合客户开发或定制需求。

Core technology developed in house; we can cooperate with customer development and customization requirements.

AI 深度学习算法

02

AI Deep Learning Algorithms

能够读取阴阳码、低对比度等棘手条码。

Reads tricky codes such as inverted (Yin-Yang) and low-contrast barcodes.

多色智能 AE

03

Multicolor Smart AE

默认支持红白双色，支持 1 路外部光源控制，可根据场景部署不同类型光源。

Dual red and white colors by default; one-channel external light control for scene-specific lighting.

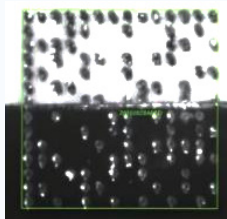
调试软件

04

Debug Software

配套图像调试工具，用于参数配置与识读调试，上手更快。

Bundled image debugging tool for parameter configuration and tuning.



阴阳码识读 (Inverted Code)



低对比度识读 (Low Contrast)



倾斜 DPM 识读 (Tilted DPM)

应用场景 Application Scenarios

以固定式条码扫描引擎（OEM 模组）形式供货，用于集成到客户整机中识读 1D / 2D 条码；可根据使用场景部署不同类型光源，并配合客户开发与定制需求。典型应用为 DPM 直接部件标识与固定式安装场合的条码识读。

Supplied as a fixed-mount OEM scan engine for integration into customer equipment to read 1D / 2D barcodes. Different light sources can be deployed to suit each scenario, with customer co-development and customization. Typical use: DPM direct part marking and fixed-mount barcode reading.

F5310 条码扫描引擎 Fixed Barcode Scanner

产品特点 Product Features

- **自主研发核心技术**：可配合客户开发与定制需求
Independently developed core technology; supports customer development and customization
- **多色智能 AE**：默认红白双色，支持 1 路外部光源控制
Multicolor smart AE: red and white by default, one-channel external light source control
- **配套调试软件**：图像工具辅助配置与调试
Bundled debug software with image tools for configuration and tuning

- **AI 深度学习算法**：阴阳码、低对比度等棘手条码也能识读
AI deep learning algorithms read tricky codes such as inverted and low-contrast barcodes
- **大靶面 · 大像素 · 智能多光谱**，低功耗设计
Large target surface, large pixel, intelligent multispectrum, low power consumption design
- **工业级宽温**：-20°C ~ +50°C 工作，抗热冲击 60°C / -20°C 循环
Industrial temperature range -20°C to +50°C; thermal-shock tested at 60°C / -20°C cycles

扫描性能 / SCAN PERFORMANCE

图像传感器 Image sensor	1296 × 816 CMOS
照明 Illumination	白光 / 红色补光 LED，红光十字激光瞄准 White & red fill LED, red cross laser aiming
识读精度 Min. resolution	1D ≥ 3 mil; 2D ≥ 5 mil
打印对比度 Print contrast	≥ 15%
旋转 / 倾斜 / 偏转 Roll / Pitch / Yaw	±360° / ±60° / ±60°
视场角度 Field of view	±48° / ±28°
典型识读景深 Typical depth of field	Code 39 (5 mil) 75 ~ 250 mm QR Code (10 mil) 75 ~ 230 mm
应用特点 Application features	大靶面、大像素、智能多光谱、智能 AE、低功耗设计 Large target surface, large pixel, intelligent multispectrum, intelligent AE, low power consumption

机械 / 电气参数 / MECHANICAL & ELECTRICAL

外观尺寸 Dimensions	30 (D) × 21 (W) × 15.5 Max (H) mm
通讯接口 Communication interface	USB (默认) / TTL USB (default) / TTL
工作电压 Voltage	3.3 V
额定电流 Current	典型值 < 180 mA (3.3 V 输入) Typically below 180 mA at 3.3 V input

识读码制 / SYMBOLOGIES

二维码 2D codes	PDF417, Data Matrix, QR Code, HanXin, AZTEC, MaxiCode
一维码 1D codes	EAN-13, EAN-8, UPC-A, UPC-E, Code 39, Code 128, ISBN, Code 93, Code 11, UCC/EAN-128, GS1 Databar, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Codabar, Standard 2 of 5, MSI-Plessey, GS1 composite code 等

环境参数 / ENVIRONMENTAL

工作温度 Operating temperature	-20°C ~ +50°C
储存温度 Storage temperature	-40°C ~ +60°C
工作湿度 Operating humidity	5% ~ 95% (无凝结 / non-condensing)
环境光照 Ambient light	0 ~ 100,000 LUX

抗热冲击性能 / THERMAL SHOCK RESISTANCE

最高温度 Maximum temperature	60 °C (140 °F)
最低温度 Minimum temperature	-20 °C (-4 °F)
循环次数 Number of cycles	30 分钟高温; 30 分钟低温, 共 24 周期 30 minutes high temperature, 30 minutes low temperature, 24 cycles

规格如有更改，恕不另行通知 / Specifications subject to change without notice.

产品尺寸 Dimensions (单位 Unit: mm)

