

AI 深度学习读码 · 阴阳码 / 低对比度 / 倾斜 DPM · 多色智能 AE

XL-S20-AI 有线工业扫描枪

XL-S20-AI Industrial Wired Barcode Scanner

1296 × 816 CMOS

AI 深度学习算法

1D ≥ 3 mil / 2D ≥ 5 mil

景深 45–140 mm

USB / TTL / RS232

171 × 81 × 68 mm · 140 g

定制 AI 芯片 · 深度学习算法

01

Custom AI Chip & Deep-Learning Algorithm

搭载定制 AI 芯片与深度学习解码算法，阴阳码、低对比度、倾斜 DPM 等棘手条码也能快速识读。

A custom AI chip and deep-learning decoding read the toughest codes fast - inverted marks, low-contrast labels and tilted DPM included.

多色智能 AE · 红白双光源

02

Multicolor Smart AE - Red & White

默认支持红白双色光源，可根据场景部署不同类型光源；智能控制算法主动记忆最佳光源配置。

Red and white illumination by default, with scenario-configurable light sources; the smart controller remembers the best setup automatically.

超大景深镜头 · 一图多码

03

Extra-Large DOF Lens - Multi-Code per Frame

大靶面、大 Pixel 定制超大景深镜头，满足宽范围读码需求；一图多码，最多同时识读 5 个条码。

A large-format sensor with big pixels in a custom wide-DOF lens; reads up to 5 codes in a single frame.

标准接口 · 定制灵活

04

Standard Interfaces & Flexible Customization

USB（默认）/ TTL / RS232 接口满足多种系统接入；自主研发核心技术，可配合客户开发或定制需求。

USB (default), TTL and RS232 for easy integration; in-house core technology supports customer-specific development.



侧面轮廓与握把 (Side)



手持操作 (Handheld)



扫描头特写 (Scan head)

应用场景 Applications

工业制造、医疗设备等行业；针对阴阳码、点阵码、定位遮挡、倾斜 DPM 与超小码等复杂条码场景。

Industrial manufacturing, medical equipment and more - built for challenging codes such as inverted marks, dot-peened DPM, obscured positioning and tiny codes.

产品特点 Product Features

- 1296 × 816 CMOS 图像传感器
1296 x 816 CMOS image sensor
- 红光十字激光瞄准，支持主动切换与自动记忆
Red cross-laser aiming with active switching and auto-memory
- 大靶面、大 Pixel、智能多光谱、低功耗设计
Large sensor, large pixels, smart multispectral imaging, low power
- 通讯接口 USB（默认）/ TTL / RS232
Interfaces: USB (default), TTL, RS232
- 支持客户开发或定制需求
Supports customer-specific development or customization
- 多色智能 AE：默认红白双色，可按场景部署不同光源
Multicolor Smart AE: red + white by default, configurable per scenario
- 可读取阴阳码、低对比度、点阵码、定位遮挡、倾斜 DPM、超小码等疑难条码
Reads inverted, low-contrast, dot-peened, obscured, tilted-DPM and tiny codes
- 一图多码，最多同时识读 5 个条码
Up to 5 codes in a single frame
- 配套图像调试工具，参数配置与识读调试便捷
Bundled image tool for easy configuration and tuning

扫码性能 / SCAN PERFORMANCE		机械 / 电气 / 环境 / MECHANICAL & ENVIRONMENTAL	
图像传感器 Image sensor	1296 × 816 CMOS	通讯接口 Interfaces	USB（默认）/ TTL / RS232
照明 Light source	白光 / 红色补光 LED	外形尺寸 Dimensions	171 × 81 × 68 mm
瞄准 Aiming	红光十字激光瞄准（主动切换 / 自动记忆）	重量 Weight	140 g
视场角 Field of view	±48° / ±28°	工作电压 Operating voltage	DC 5 V
识读精度 Accuracy	1D ≥ 3 mil / 2D ≥ 5 mil	额定电流 Rated current	500 mA（典型值，5 V 输入）
打印对比度 Print contrast	≥ 20%	工作温度 Operating temperature	-20 °C ~ +50 °C
旋转 / 倾斜 / 偏转 Roll / Pitch / Yaw	±360° / ±60° / ±60°	储存温度 Storage temperature	-40 °C ~ +60 °C
识读景深 Depth of field	Code128 (3.3 mil): 50–110 mm DM (10 mil): 45–140 mm PDF417 (5 mil): 45–110 mm	工作湿度 Humidity	5% ~ 95%（无凝结）
		环境光照 Ambient light	0 ~ 100,000 LUX
		抗热冲击 Thermal shock	最高 50 °C / 最低 -20 °C，30 分钟高低温循环 × 24 周期

支持码制 / SUPPORTED SYMBOLOGIES	
二维码 2D 2D symbologies	PDF417, Data Matrix, QR Code, HanXin, AZTEC, MaxiCode
一维码 1D 1D symbologies	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

备注 Notes

- ① USB 为默认接口，如需 TTL / RS232 请在订购时确认；② 针对特殊场景，可配合图像调试工具优化光源与参数配置；③ 规格如有更改恕不另行通知。
- ① USB is the default interface; please specify TTL / RS232 when ordering. ② For special scenarios, the bundled image tool helps optimize illumination and parameters. ③ Specifications subject to change without notice.