# X5mini AI

## Industrial Vision Fixed Reader

X5min Ali is an ultra-small industrial vision code reader with an extremely compact design, with a length (without cables) of 55mm, a width of 35mm, and a body thickness of 32mm.This size makes it easier for users to fix it on testing machines, under preset tracks, and other places with narrow space layouts. The compact design, dual-core processor, megapixel image sensor, red and blue dual-color lighting system and integrated induction trigger sensor make this product quite advantageous in terms of performance and price, helping users reduce implementation costs and achieve efficient traceability of data especially in the field of testing fixture, SMT code collecting and automation device integration.

# Product Features

### Integrated induction trigger
No need to equip external trigger sensors, helping users save implementation costs Powered by advanced AI algorithms and a dual core processor to make reading speed unparalleled.

### Support reading moving barcode
Support utmost 50cm/s dynamic barcode reading

### Flexible working for different distance
Taking into account both short-range recognition of small barcodes and medium-range recognition standard barcode, intelligent switching with HD and SR lens

### Easy integration
Compact design makes it easy to be placed at the narrow space, led prompt light can clearly show the reading status, support group working mode with master and slave that works at different workstation

# Specifications

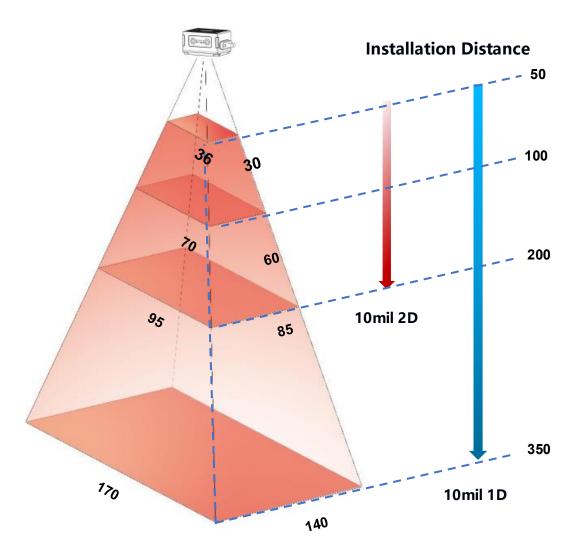| Model | | | X5mini AI |
|---|---|---|---|
| Receiver | Sensor | | CMOS Image Sensor with global shutter |
| | Number of pixels | | 1.3M，1080 x 1280 |
| Light emitter | Light source | | High-intensity red LED and blue LED automated switch + manually adjustment |
| | Aimer | | Laser positioning aimer |
| Focus adjustment | | | Dual Prime lens |
| Reading specifications | Supported symbol | 1D | Code128,GS1 128,Code39,Code93,codabar,2of5 (Industrial 2of5),EAN/UPC |
| | | 2D | QR、DataMatrix（ECC200）、PDF417、Micro PDF417 |
| | Minimum resolution | 1D | 3.3mil |
| | | 2D | 5.0mil |
| I/O specifications | Control input | Connection ports | 2 |
| | | Input type | Bidirectional voltage input |
| | | Maximum rating | 30V |
| | | Minimum ON voltage | ＜4V |
| | | Maximum OFF current | 0.001A |
| | Control output | Connection ports | 2 |
| | | Output type | 2 optocoupler output |
| | | Maximum rating | 30V |
| | | Maximum load current | 1 output: 50 mA or less, 3-output total: 100 mA or less |
| | | Leakage current when OFF | 0.1 mA or less |
| | | Residual voltage when ON | 1 V or less |
| | Ethernet | Supported protocol | TCP Client，TCP Server， Profinet，MELSEC，Ethernet/IP，ModBusTcp(poll/slave)，Fins |
| | Serial communication | Communication speed | 115200/57600/38400/19200/9600 bps |
| | | Supported protocol | RS232 |
| | USB | Communication standard | USB 2.0 Full Speed compliant |
| Environmental Resistance | Enclosure rating | | IP65 |
| | Ambient temperature | | 0° to 50℃ |
| | Ambient storage temperature | | -20℃ to 70℃ |
| | Relative humidity | | 5 to 95% RH (No condensation) |
| | Storage ambient humidity | | 5 to 95% RH (No condensation) |
| | Ambient light | | 0 to 10000 lux |
| | Operating environment | | No dust or corrosive gas present |
| Rating | Power supply voltage | | 10 to 30V DC |
| | Current consumption | | 0.5 to 1.5 A |
| Weight | | | Approx.133±5 g |

| Dimensions (L x W x H) | 55mm x 35mm x 32mm |
|---|---|

## 2. Field of View and Installation Distance

**X5mini uses Dual Prime lens and supports decoding in the range of 50mm to 350mm**

**Installation Distance**

50

36

30

100

70

60

200

95

85

**10mil 2D**

170

140

350

**10mil 1D**

**Unit: mm**

## 3. Field Of View （Typical Example）

| Distance （mm） | 2D | Distance （mm） | 1D |
|---|---|---|---|
| 55~170 | 5mil | 50~200 | 3.3mil |
| 50~250 | 6.6mil | 40~300 | 5mil |
| 40~275 | 10mil | 35~350 | 7.5mil |
| 40~320 | 13mil | 35~400 | 10mil |
| | | | |

| Distance （mm） | Field of View （mm） | |
|---|---|---|
| 50 | 36 | 30 |
| 100 | 70 | 60 |
| 200 | 95 | 85 |
| 300 | 140 | 120 |
| 350 | 170 | 140 |
| | | |

## 4. Dimensions