# F-31

## 2D CMOS Imager Scanner



### **Highlights**

- 2D CMOS imager with auto-focus technology
- Rapidly scans and decodes a wide variety of 1D or 2D barcodes at 80 frames per second (FPS)
- Laser ranging method plus the high-speed CMOS image sensor enables high speed autofocusing
- Custom configuration capabilities
- · Complete unit with integrated decoder
- Durable—survives 2.5 foot drop to concrete
- IP42 rating against dust and moisture
- Communication interface: USB or RS232
- Dimensions: 1.81" x 0.98" x 2.28" (WxLxD)
- Backed by a two year warranty



# F-31

### **Product Specifications**

#### OPERATING INDICATORS

VISUAL: 1 LED (red/green/orange)

**AUDIBLE**: Buzzer

#### COMMUNICATION

USB: Version 1.1, VCP, USB-A connector

#### **POWER**

VOLTAGE REQUIREMENT: 5V ± 10% CURRENT CONSUMPTION: Maximum 195mA

#### 2D IMAGER OPTICS

LIGHT SOURCE: Aiming laser diode, illumination LEDs SCAN METHOD: CMOS area sensor, 900 x 512 pixels, gray scale

SCAN RATE: Up to 80 fps, after auto-focus activation (100 ms after triggering)

IMAGE FORMAT: Bitmap, JPEG

READING PITCH ANGLE: -50 to 0°, 0 to +50° READING SKEW ANGLE: -50 to 0°, 0 to +50°

READING TILT ANGLE: 360°

MINIMUM RESOLUTION AT PCS 0.9: 5 mil (0.127 mm)

MINIMUM PCS VALUE: 0.45

FIELD OF VIEW: Horizontal 40°, Vertical 23°

#### **DEPTH OF FIELD:**

At QR Code:

5 mil (0.127 mm) 1.77 - 2.56 in (45 - 65 mm) 15 mil (0.381mm) 1.77 - 9.84 in (45 - 250 mm)

At Code 39:

5 mil (0.127 mm) 1.77 - 4.33 in (45 - 110 mm) 10 mil (0.254 mm) 1.97 - 10.24 in (50 - 260 mm) 39 mil (1.0 mm) 4.72 - 39.37 in (120 - 1000 mm)

#### SUPPORTED SYMBOLOGIES

BARCODE (1:D): JAN/UPC/EAN incl. add on, Codabar/ NW-7, Code 11, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey

BARCODE (2:D): Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data Matrix (ECC200/EC0-140), Maxi Code (mode 2~5), MicroPDF417, Micro QR Code, PDF417, QR code

BARCODE (POSTAL CODES): Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET

#### **DURABILITY**

#### TEMPERATURE:

Operation: 32 to 113 °F (0 to 45 °C) Storage: -4 to 140 °F (-20 to 60 °C)

HUMIDITY:

Operation: 20 - 85% (non-condensing) Storage: 20 - 90% (non-condensing

AMBIENT LIGHT IMMUNITY: Fluorescent: 10,000 lx max

Direct sun: 100,000 lx max Incandescent: 10,000 lx max

ANTISTATIC ELECTRICITY: 15kV (non-destructive)
DROP TEST: 2.5 ft (0.75 m) drop onto concrete surface

PROTECTION RATE: IP 42

#### **PHYSICAL**

DIMENSIONS (WXHXD):  $1.81 \times 0.98 \times 2.28$  in

(46 x 25 x 58 mm)

WEIGHT BODY: Ca. 1.8 oz (50 g) (excl. cable)

CASE: ABS, Black

#### REGULATORY AND SAFETY

PRODUCT COMPLIANCE: CE, FCC, VCCI, RoHS, IEC 60825-1 Class 2, FDA CDRH Class II



