

# **GEA401 Industrial Scan Engine**

The GEA401 delivers strong decoding performance for both printed and on-screen barcodes, making it an excellent all-around solution for diverse usage scenarios, including retail point-of-sale terminals, mobile payments, and service counters. Its integrated white LED illumination ensures clear and accurate barcode recognition across various backgrounds and materials - including paper, plastic, and electronic screens - providing stable performance even under poor lighting conditions. Whether used in traditional stores or modern digital payment environments, GEA401 combines efficiency, versatility, and ease of use to meet the demands of today's complex service applications.

## **MAIN FEATURES**

- White Illumination
- Paper and Screen Code Reading Available
- Dimension and Mounting Holes Align with Mainstream Standards



#### PERFORMANCE CHARACTERISTICS

| Optical Resolution | 640 * 480 pixels                            |
|--------------------|---|
| Illumination       | White LED                                   |
| Readability        | 3mil and above                              |
| Field of View      | Horizontal 68°, Virtual 54°                 |
| Screw, Pitch, Roll | Skew tolerance: ±55° from normal            |
|                    | Pitch tolerance: ±55° from normal           |
|                    | Roll tolerance: 360° from normal            |
| Supported 1D:      | Code128, Code39, Code32, Code39 full        |
| Symbologies        | ASCII, Trioptic Code39, Code93, UPC-A,      |
|                    | Code128(ISBT 128, AIM128, GS1 128),         |
|                    | EAN-8, EAN-13, UPC-E, UPC-A, ISBN, ISSN,    |
|                    | Code11, Interleaved 2 of 5, Code39,         |
|                    | Code32, Code93, Codabar, Matrix 2 of 5,     |
|                    | Industrial 2 of 5, IATA25, MSI Plessey, GS1 |
|                    | Databar, Plessey, Febraban, Composite       |
| 2D:                | QR Code, DataMatrix, PDF417, Micro QR       |
|                    | Code, Micro PDF417, Hanxin Code, Aztec,     |
|                    | Maxicode, Dotcode, Composite                |
|                    |   |

#### PHYSICAL PARAMETER

| Dimension         | 21.5 x 8.8 x 7mm          |
|-------------------|---------------------------|
| Operation Voltage | DC 3.3V                   |
| Operation Current | 160mA                     |
| Standby Current   | 10mA(USB), 22mA(UART)     |
| Communication     | TTL - Virtual Serial Port |
| Interfaces        | USB(HID-KBW, VCP)         |

#### **DECODE RANGE**

| 3.3mil Code39     | 100 - 200MM |
|-------------------|-------------|
| 5mil Code39       | 70 - 320MM  |
| 6.7mil PDF417     | 95 - 270MM  |
| 10mil Data Matrix | 80 - 280MM  |
| 13mil EAN-13      | 50 - 720MM  |
| 15mil QR Code     | 30 - 400MM  |
|                   |             |

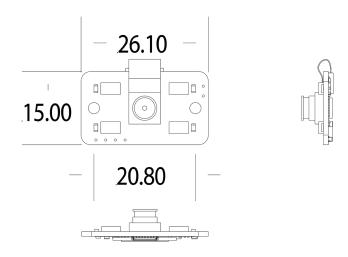
#### **USER ENVIRONMENT**

| Ambient Light         | 0 - 100,000 Lux.        |
|-----------------------|-------------------------|
| Operating Temperature | -20°C~55°C              |
| Storage Temperature   | -40°C~70°C              |
| Humidity              | 5%~95% non-condensing   |
| Certificate           | CE, FCC, ROHS, IEC62471 |

#### **PRODUCT SPEC SHEET**

Industrial Scan Engine GEA401

### **DIMENSIONS**



The specific signal definitions for the 13-pin FPC are as follows:

| PIN | Definition   | I/O | Description   |
|-----|--------------|-----|---|
| 1   | GND          | ı   | Power input - Negative  |
| 2   | nTRIG        | -   | Trigger key input signal, hold low for more than 5ms to trigger code reading.     |
| 3   | nRST         | _   | Reset signal input, active low. Hold low for more than 100us to reset the device. |
| 4   | LED          | 0   | Light indicator output, idle output low level                                     |
| 5   | BUZZER       | 0   | Passive buzzer output, idle output low level                                      |
| 6   | EXT.LED.CTRL | 0   | External Lighting Control   |
| 7   | USB_D+       | ı   | USB_D+  |
| 8   | USB_D-       | ı   | USB_D-  |
| 9   | UART_TX      | 0   | TTL level transmit  |
| 10  | UART_RX      | Ι   | TTL level receive   |
| 11  | GND          |     | Power input - Negative  |
| 12  | VCC          |     | Power input - positive 3.3V   |
| 13  | VCC          | Ι   | Power input - positive 3.3V   |

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