

# GEA301 Industrial Scan Engine

GEA301 is equipped with a global shutter sensor, ensuring superior scanning accuracy and reliability, especially when capturing high-speed or moving barcodes. It captures the entire image in a single moment, eliminating motion blur and distortion. This makes it ideal for dynamic industrial environments, logistics operations, and other fast-paced applications. Its white LED illumination provides bright, neutral lighting that significantly enhances barcode visibility on a wide range of surfaces, including glossy, reflective, and curved materials. This ensures consistent decoding performance regardless of ambient lighting conditions.

## MAIN FEATURES

- Global Shutter
- Red LED Aiming
- White LED Illumination
- Low Power Consumption



### PERFORMANCE CHARACTERISTICS

Optical Resolution	1280*800 pixels
Shutter	Global Shutter
Illumination	White LED
Aiming	Red LED
Readability	3mil
Field of View	Horizontal 42°, Virtual 28°
Screw, Pitch, Roll	Skew tolerance: ±60° from normal Pitch tolerance: ±60° from normal Roll tolerance: 360° from normal
Supported Symbolologies	1D: Code128, Code39, Code32, Code39 full ASCII, Trioptic Code39, Code93, UPC-A, UPC-E, UPC-E1, UPC-E+, UPC-A+, EAN8/JAN8, EAN13/JAN13, Bookland EAN/ISBN, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Chinese 2 of 5, Codebar, Code11, MSI, ISBT, GS1 128, GS1 Databar14, GS1 Databar Limited, GS1 Databar Expanded, Postal Code 2D: QR Code, DataMatrix, PDF417, Micro QR Code, Micro PDF417, Hanxin Code, GridMatrix, Aztec, Maxicode, GS1 QR Code, GS1 DataMatrix, GS1 Combosite(CC-A/CC-B/CC-C)

### PHYSICAL PARAMETER

Dimension	21.5 x 7 x 9.9mm
Operation Voltage	3.2 - 3.6V
Operation Current	280mA
Standby Current	40mA(USB), 45mA(USB off)
Communication Interfaces	UART 3.3V, USB HID, USB Virtual Com Port

### USER ENVIRONMENT

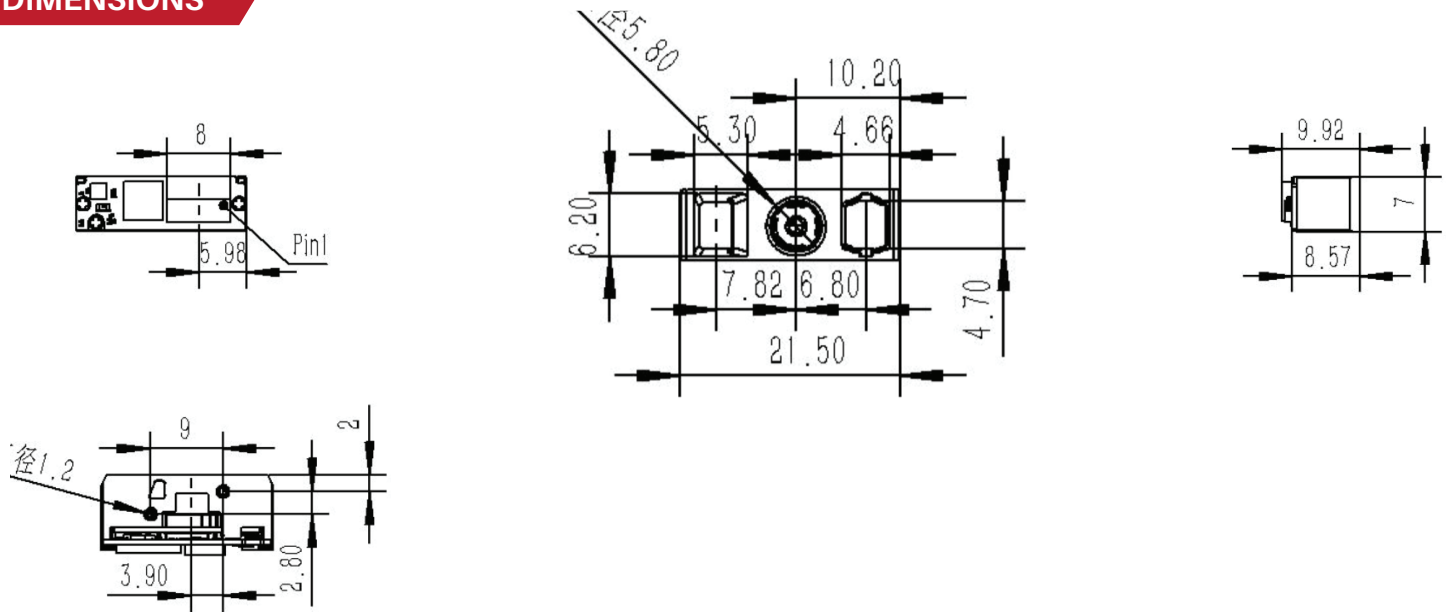
Ambient Light	0 - 100,000 Lux.
Operating Temperature	-20°C~65°C
Storage Temperature	-40°C~70°C
Humidity	5%~95% non-condensing

### DECODE RANGE

3mil Code39	55 - 160MM
5mil Code39	45 - 300MM
6.7mil PDF417	45 - 200MM
10mil Data Matrix	45 - 250MM
13mil EAN-13	50 - 600MM
15mil QR Code	30 - 300MM

**PRODUCT SPEC SHEET**

Industrial Scan Engine GEA301

**DIMENSIONS**

The specific signal definitions for the 12-pin FPC are as follows:

PIN	Definition	I/O	Description
1	NC	-	Floating
2	VCC	I	Power input - 3.2 - 3.6V
3	GND	-	Power Ground
4	RX	I	TTL level receive
5	TX	O	TTL level transmit
6	D-	O	USB_D-
7	D+	-	USB_D+
8	NC	-	Floating
9	Buzz	O, od	Buzzer output
10	LED	O, od	Light indicator output of decoding successful
11	NC	-	Floating
12	nTRIG	I	Trigger key input signal, hold low for more than 5ms to trigger code reading.

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