

GEA201-R Industrial Scan Engine

GEA201-R is built on proprietary core decoding technology, delivering exceptional performance in reading both 1D and 2D barcodes. It supports multiple interface options including USB and TTL232, offering flexibility for a wide range of integration needs. Specially optimized for screen barcode scanning, it performs reliably even under low brightness conditions or through protective films. The red illumination ensures accurate scanning in diverse lighting environments. It is widely used in parcel lockers, ticketing machines, kiosks, and other self-service terminals - making it a dependable solution for intelligent barcode applications.

MAIN FEATURES

- Global Shutter
- Red Illumination
- Multiple Communication Interfaces



PERFORMANCE CHARACTERISTICS

Imager Sensor	CMOS
Optical Resolution	640*480 pixels
Illumination	Red LED
Aiming	Red LED
Readability	≥3mil (1D)
Field of View	Horizontal 43°, Virtual 32°
Screw, Pitch, Roll	Skew tolerance: ±55° from normal Pitch tolerance: ±55° from normal Roll tolerance: 360° from normal
Supported Symbologies	1D: Code128, EAN-8, EAN-13, UPC-E, UPC-A, ISBN, ISSN, Code11, Interleaved 2 of 5, Code39, Code32, Codabar, Matrix 2 of 5, Industrial 2 of 5, IATA25, MSI Plessey, GS1 Databar, Plessey, Febraban, Code93, Composite 2D: QR Code, Micro QR Code, Datamatrix, PDF417, Micro PDF417, Aztec, Maxicode, Hanxin Code, DotCode

PHYSICAL PARAMETER

Dimension	21 x 9 x 7.1mm
Weight	1.2g
Operation Voltage	DC 3.3V ±5%
Operation Current	160mA
Interfaces	USB, TTL-232

USER ENVIRONMENT

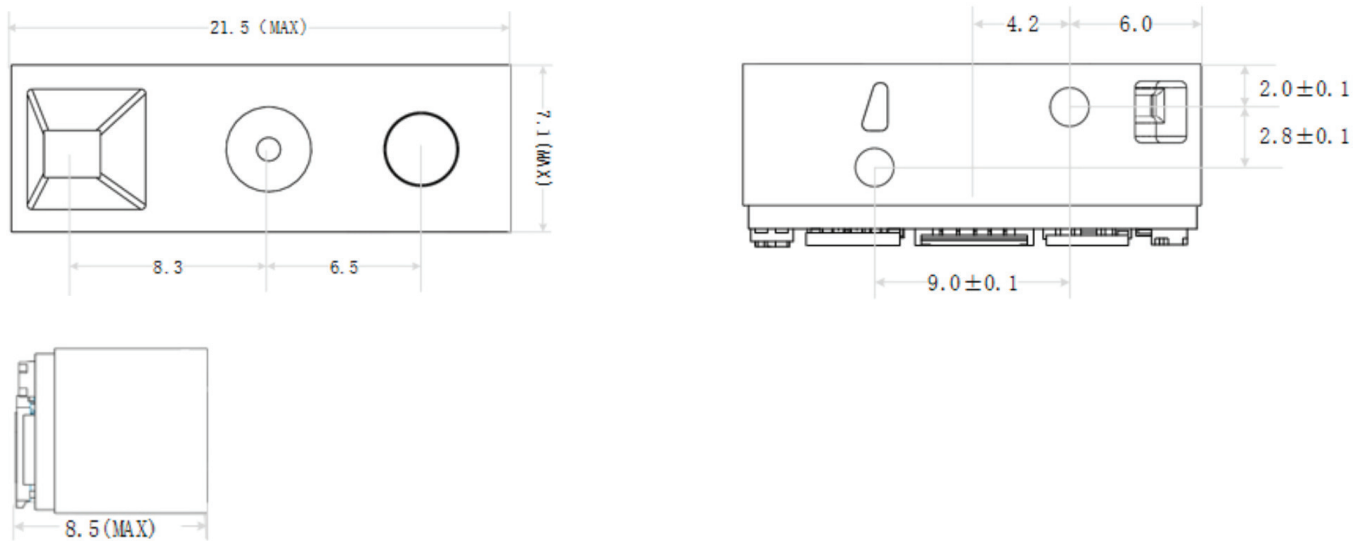
Ambient Light	0 - 100,000 Lux.
Operating Temperature	-20°C~55°C
Storage Temperature	-40°C~70°C
Humidity	5%~95% non-condensing

DECODE RANGE

5mil Code39	50 - 120MM
6.7mil PDF417	55 - 140MM
10mil Data Matrix	40 - 145MM
13mil EAN-13	50 - 330MM
15mil QR Code	30 - 215MM

PRODUCT SPEC SHEET

Industrial Scan Engine GEA201-R

DIMENSIONS

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

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

GENERALSCAN

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