GENERALSCAN

GEA201 Industrial Scan Engine

Powered by proprietary decoding technology, GEA201 delivers outstanding performance in reading both 1D and 2D barcodes. Its all-in-one design integrates the image sensor and decoder, offering a high level of integration ideal for embedded applications. Specially tuned for screen barcode recognition, it excels even in low brightness or under protective films. With support for multiple interfaces including USB and TTL232, it meets various application needs. It's widely used in delivery lockers, ticketing machines, kiosks, and other self-service terminals, making it an ideal solution for smart barcode scanning.

MAIN FEATURES

- **Global Shutter**
- **White Illumination**
- **Multiple Communication Interfaces**





PERFORMANCE CHARACTERISTICS

Imager Sensor	CMOS
Optical Resolution	640*480 pixels
Illumination	White 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(ISBT 128, AIM128, GS1 128), EAN-8, EAN-13, UPC-E, UPC-A, ISBN, ISSN, Codell, 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, Micro QR Code, Datamatrix, PDF417, Micro PDF417, Aztec, Maxicode, Hanxin Code, DotCode, Composite

PHYSICAL PARAMETER

Dimension	21.5 x 8.5 x 7.1mm
Operation Voltage	3.3V
Operation Current	160mA
Standby Current	22mA(UART), 11mA(USB)
Interfaces	USB(HID-KBW, VCP), TTL-Serial port

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

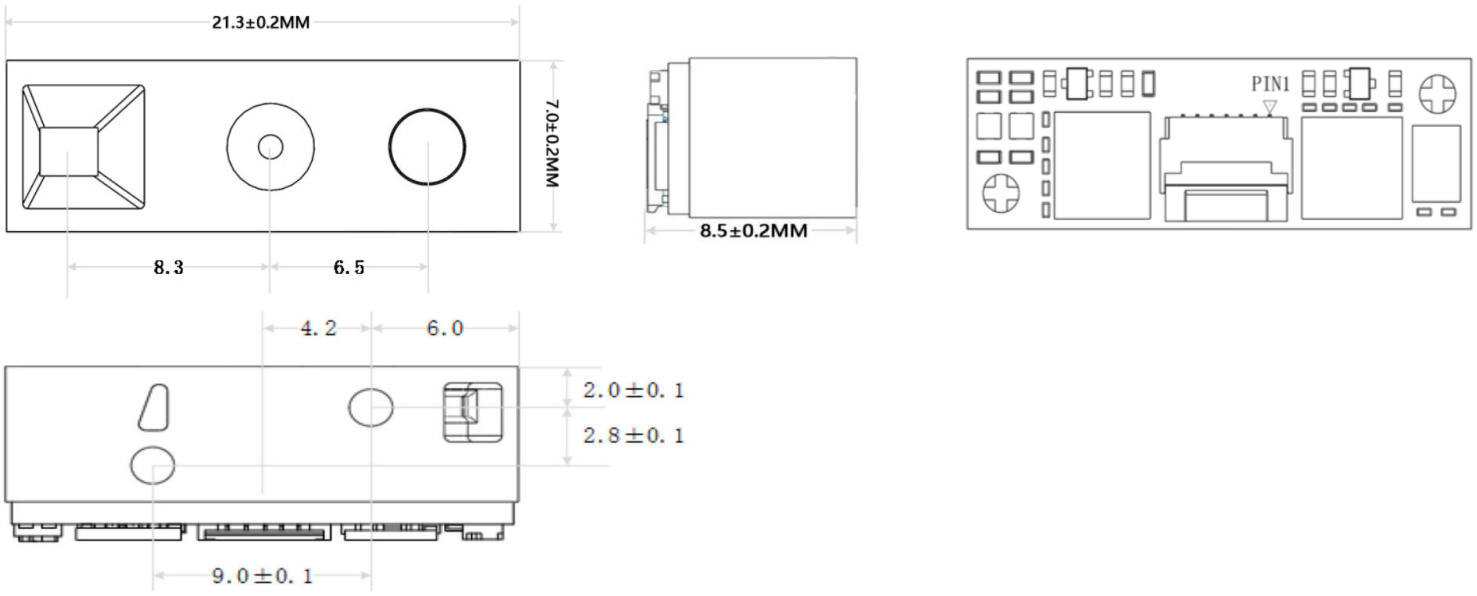
DECODE RANGE

5mil Code39	50 - 120MM
6.67mil PDF417	55 - 140MM
10mil Data Matrix	40 - 145MM
13mil EAN-13	50 - 330MM
13mil Code128	50 - 340MM
15mil QR Code	30 - 215MM

PRODUCT SPEC SHEET

Industrial Scan Engine GEA201

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

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