GENERALSCAN

GMA4433 Smart Scan Module

GMA4433 features a uniquely designed flat-surface lens embedded within a streamlined housing. This design greatly reduces ambient light reflections and enhances the stability of the scanning environment, particularly when decoding barcodes from electronic screens. The minimized glare ensures more accurate and consistent performance in challenging lighting conditions. Beyond optical performance, the flat-surface housing also contributes to the module's durability. This robust construction not only extends the service life of the device but also ensures consistent performance in demanding environments. Whether integrated into self-service kiosks, industrial machines, or outdoor terminals, the GMA4433 is built to deliver high-precision scanning and long-term reliability, making it an ideal solution for applications that require both performance and resilience.

FEATURES

• Flat Housing Design
A flat surface reduces the angle of incident light, decreasing glare and improving barcode recognition reliability.

• A Variety of Communication Interfaces Available
GMA4433 supports TTL232, USB, and optional RS232, ensuring compatibility with various control boards and system platforms for use in industrial control, embedded systems, and self-service terminals.

• Paper and Screen Code Reading Available
GMA4433 accurately reads paper and on-screen QR codes, with optimized performance for complex scenarios like low light, obstructions, or screen films.



PERFORMANCE CHARACTERISTICS

Optical Resolution	640*480 CMOS
Illumination	White LED
Readability	≥3mil
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: Code 128(ISBT 128, AIM128, GS1 128), EAN-13, EAN-8, UPC-E, UPC-A, ISBN, ISSN, Codell, Intereaved 2 of 5, Code39, Code93, Code32, Codabar, Matrix 2 of 5, Industrial25, IATA25, MSI Plessey, GS1 Databar, Plessey, Febraban 2D: Maxicode, Datamatrix, Micro QR Code, PDF417, Micro PDF417, DotCode, QR Code, Aztec, Hanxin Code, Composite

PHYSICAL PARAMETER

Dimension	53.6 x 33.5 x 16.2mm
Notification	Beeper
Operation Voltage	DC 5V
Operation Current	140mA
Standby Current	10mA(USB), 22mA(UART)
Interfaces	USB, TTL232, customized RS232 supported

USER ENVIRONMENT

Ambient Light	0 - 100, 000Lux
Operating Temperature	-20°C~55°C
Storage Temperature	-40°C~70°C
Humidity	5%~95% non-condensing
LED Safty Grade	RoHS, REACH, IEC62471

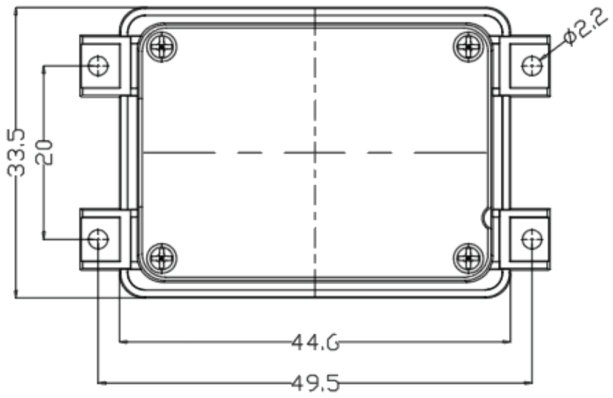
PRODUCT SPEC SHEET

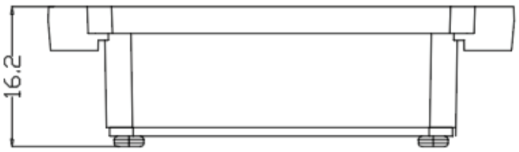
Smart Scan Module GMA4433

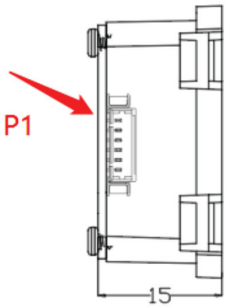
DECODE RANGE

15mil DataMatrix	10 - 90MM
13mil Code39	30 - 110MM
15mil QR Code	10 - 90MM
10mil PDF417	15 - 90MM
10mil Code128	30 - 110MM

DIMENSIONS







PIN	Definition	I/O	Description
1	GND	-	Power
2	RXD	I/O	TTL receive (RS232 receive)
3	TXD	I/O	TTL transmit (RS232 transmit)
4	D+	I/O	USB_D+ signal
5	D-	I/O	USB_D- signal
6	VBUS	-	Power 5V

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