

# N-1

# OEM CCD Scan Engine



### Compact Size

Height: 17.5 mm

Width: 31 mm

Length: 29 mm

N1 is compact & lightweight scan engine equipped with ARM processor. The user-friendly N1 fully packaged CCD reader, offering easy integration and several configurations to meet a variety of need. Advanced CCD technology provides reliable reading performance for small, damaged or poorly printed codes. N1 is deal scan engine for OEM design engineers seeking a dependable and inexpensive embedded bar code scanning solution.

## Available Codes

Linear

All Standard



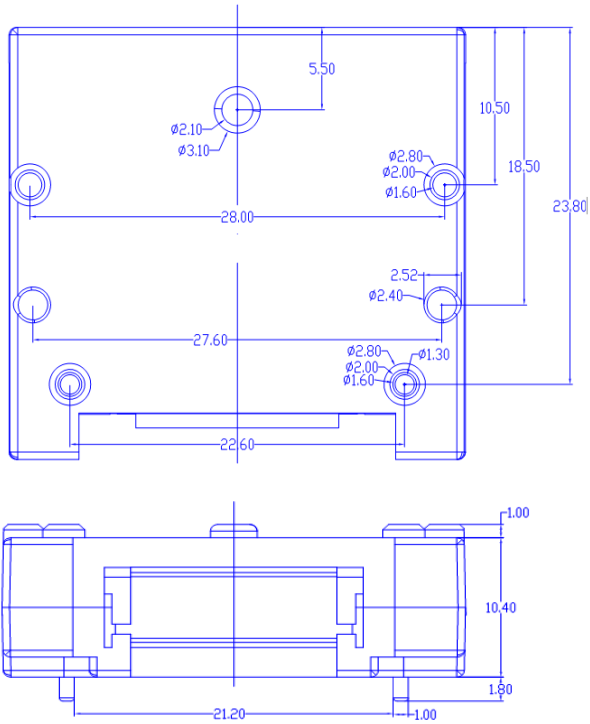
Stacked

GS1 Databar (RSS)



## Application Examples

- Kiosks
- Point-of-sale terminals
- Bank ATMs
- Robotics
- Clinical instruments



## MECHANICAL

**Height:** 17.5 mm  
**Width:** 31 mm  
**Length:** 29 mm  
**Weight:** 10 g

## DESIGN

CCD linear image sensor  
**Optics:** 660 nm visible LED

## SCANNING PERFORMANCE

**Scan rate:** 270 scans/sec  
**Resolution:** 3 mil  
**Depth of field:** 5 to 220mm (13 mfil)

## COMMUNICATION

**Interface:** USB HID / KBW / RS-232 TTL

## CONNECTOR

**Type:** 12-pin ZIF connector

## SYMBOLOGIES

UPC (E&A), EAN, Code 39, Code 128, UCC EAN 128, Interleaved, Industrial and Standard 2 of 5, Codabar, Code 93, MSI, Plessey, GS1 Databar (RSS)

## ENVIRONMENTAL CHARACTERISTICS

**Operating temperature:** 0 to 55° C  
**Storage temperature:** -20 to 60° C

## Relative humidity:

10% to 90% (non-condensing)  
**Ambient light:** Works in any lighting conditions, from 0 to 10,000 lux

## ELECTRICAL

**Power:** 5V +/-5%  
 120 mA @ 5 VDC (typ.)

## Depth of Field

Code 39 - 3 mil	6 to 7 cm
Code 39 - 5 mil	6.5 to 10 cm
Code 39 - 10 mil	5 to 19 cm
100% UPC - 13 mil	5 to 22 cm

## HOST CONNECTOR/PIN ASSIGNMENTS

### 12-Pin ZIF Connector

Pin	Signal Name	I/O	Control Status	Description
1	CTS	Input		Clear To Send control signal.
2	RTS/PC/Data	Output		Request To Send control signal and PC/AT KB/Port Data signal.
3	GND	----		System Ground.
4	LED/Out	Output	H=LED OFF L=LED ON	Active low output used to indicate a valid barcode decode.
5	Trigger	Input	L=Start Session H=Inactive	Used to start decode session.
6	BEEPER/Out	Output	H=Normal L=Active	Pulse width modulated output used to control an external beeper.
7	USB+	Output		Positive differential data signal for the USB bus.
8	USB-	Output		Negative differential data signal for the USB bus.
9	KBEN	Output		Keyboard interface Control K/B IC S/W 4066 use.
10	TXD	Output		Transmit data.
11	RXD/PC/clock	Input/Output		Receive data and PC/AT KB/Port CLK signal.
12	VDD	----		Power Input DC + 5V