



# PAN101B

## General Description

The PAN101B is a low cost CMOS process optical navigation sensor with DSP integration chip that serves as a non-mechanical motion estimation engine for implementing a computer mouse.

## Features

- Single 3.0 volt power supply
- Optical motion estimation technology
- Complete 2-D motion sensor
- No mechanical parts
- Accurate motion estimation over a wide range of surfaces
- High speed motion detection up to 16+ inches/sec
- High resolution up to 800cpi
- Shutdown pin for low power dissipation.
- Power saving mode during times of no movement
- Serial Interface for programming and data transfer
- I/O pin 5.0 volt tolerance

## Applications

- Mice for computers
- Trackballs
- Integrated input devices



Top View

## Key Specifications

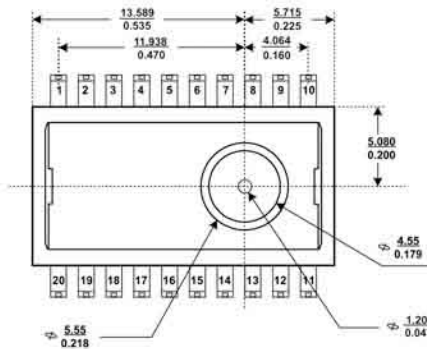
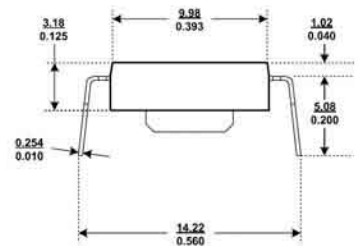
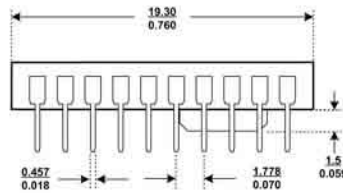
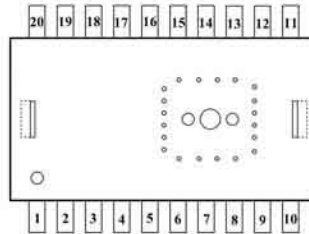
Power Supply	Wide operating supply range: 2.7V~3.6V
Optical Lens	1:1
System Clock	18.432 MHz
Speed	16+ inches/sec
Resolution	400/800 cpi
Frame Rate	3000 frames/sec
Operating Current	<15mA @Mouse moving (Normal)
	< 5mA @Mouse not moving (sleep1)
	< 2mA @Mouse not moving (sleep2)
	< 100uA @Shutdown mode
Package	Shrunk DIP20



# PAN101B



## Package Information



### NOTES:

1. All dimensions in mm/inch
2. All dimensions tolerance: +/- 0.15mm
3. Max. molding flash: +0.2mm

## Ordering Information

Order number	I/O	Resolution
PAN101BOI-204	Open-drain output	400 cpi
PAN101BOI-208	Open-drain output	800 cpi
PAN101BSI-204	CMOS output	400 cpi
PAN101BSI-208	CMOS output	800 cpi

**PixArt** *PixArt Imaging Inc.*

5th Floor, # 5, Innovation Road I, Science-Based Industrial Park, Hsin-Chu 300, Taiwan, R.O.C.  
 Tel: 886-3-5795317 Fax: 886-3-5795305  
 E-mail: fae\_service@pixart.com.tw  
 Http://www.pixart.com.tw

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.