

TRULY®

Introducing:
Optical Finger Navigation Module
New from Truly

Concept

Replace the touch screen on hand held products with a miniature mouse



Overview

How it Works

- ◆ Movement of finger activates the illumination of IR source. The IR source locates the microscopic pattern of the finger surface.
- ◆ The shadow of this pattern is reflected onto the optical CMOS sensor.
- ◆ Microcontroller translates the motion information to the computer.
- ◆ Movement of cursor can be seen on the display screen.

Applications

- ◆ Current: Mobile phones: Samsung 1688 / 1740 / I770 / I780 / I900; Sharp SH706I & SH9601; Sony Ericsson XPERIAX1; LG KT520
- ◆ New: GPS, Remote Control, Data Terminal, Miniature PC



Some Existing Applications



Sony Ericsson Xperia X1



Samsung i780



Sharp 760i



LG KT520



Samsung SGH-i900

Features

Benefits

1. Ultra thin optical navigation module that works like a mouse
2. Intuitive and user friendly - immediate adoption with PC-based software
3. High precision cursor control
4. Multi navigation modes: 360 degrees of freedom
5. Navigation, scroll, & step functions
6. Low power consumption
7. One hand operation
8. Small form factor
9. Proven sensor technology: >800M sensors operating now in the field
10. Can work with gloves
11. Navigation cover can be customized

Disadvantage

No manuscript function like a capacitive touch panel for writing or drawing on screen

GPS Application: Increased Precision

Truly's Optical Finger Navigation Module will allow your customer to select their point much more accurately.



Remote Control: Increased Precision

Equalizer Adjustments

Truly's Optical Finger Navigation Module will offer your customers increased accuracy and ease of use in their programming selections.

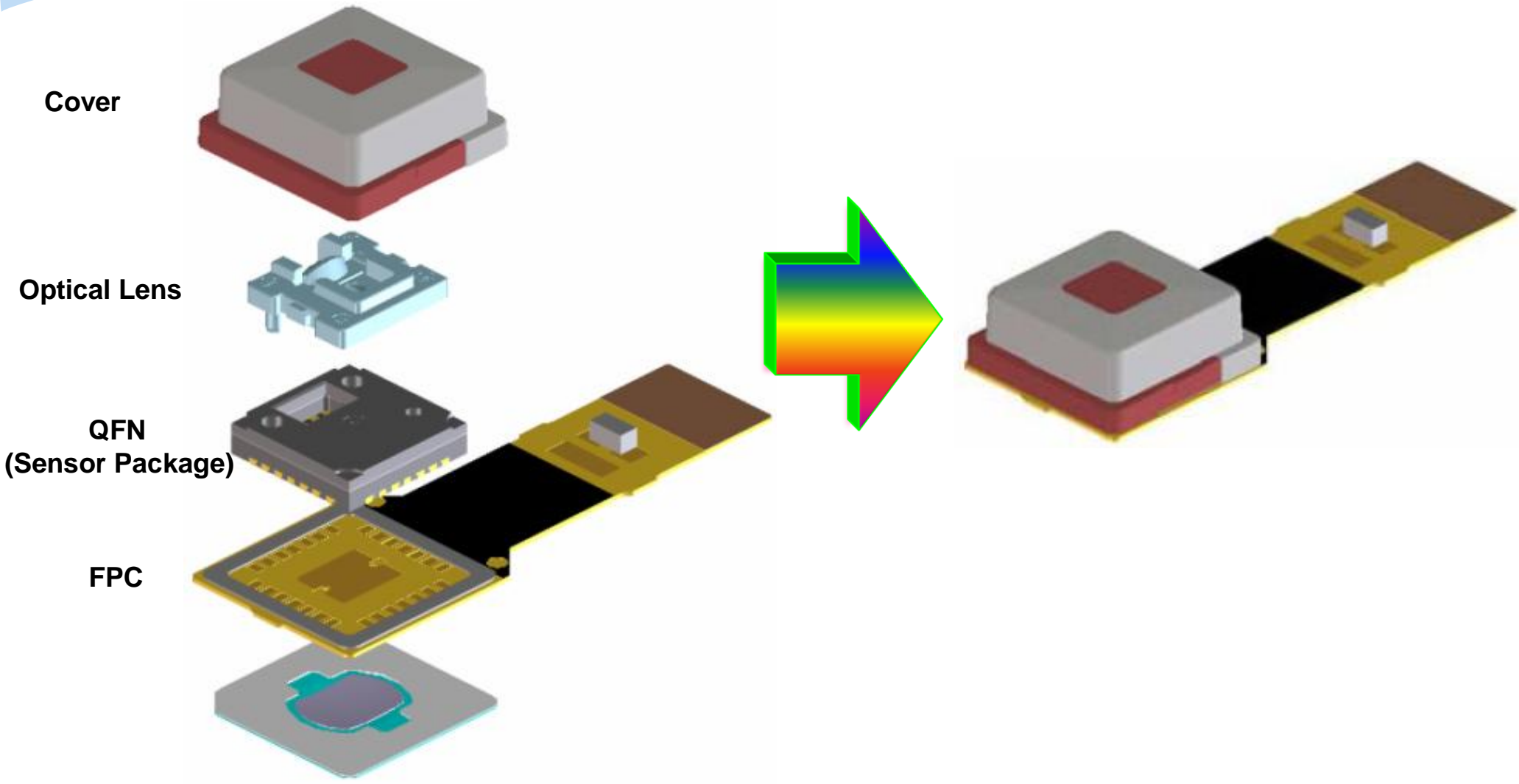


Web Browsing Made Easy

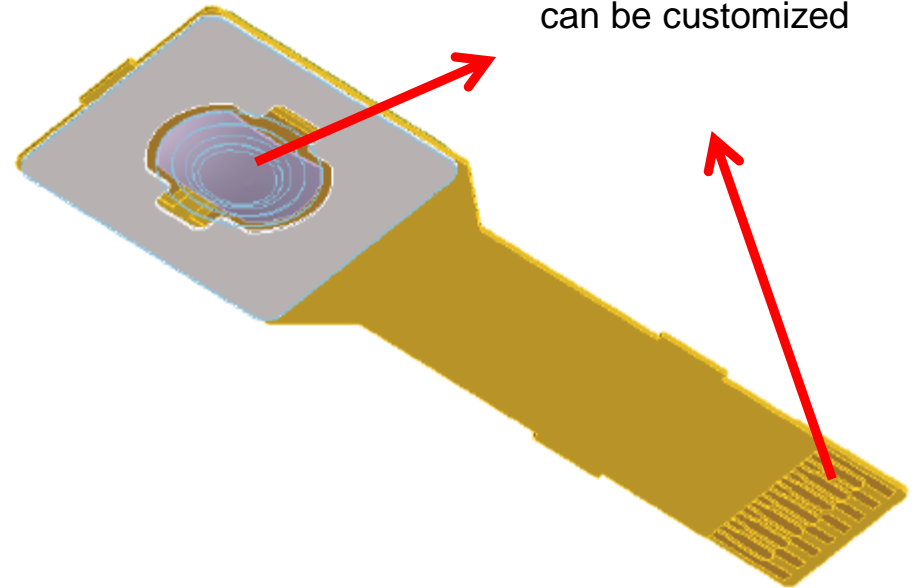
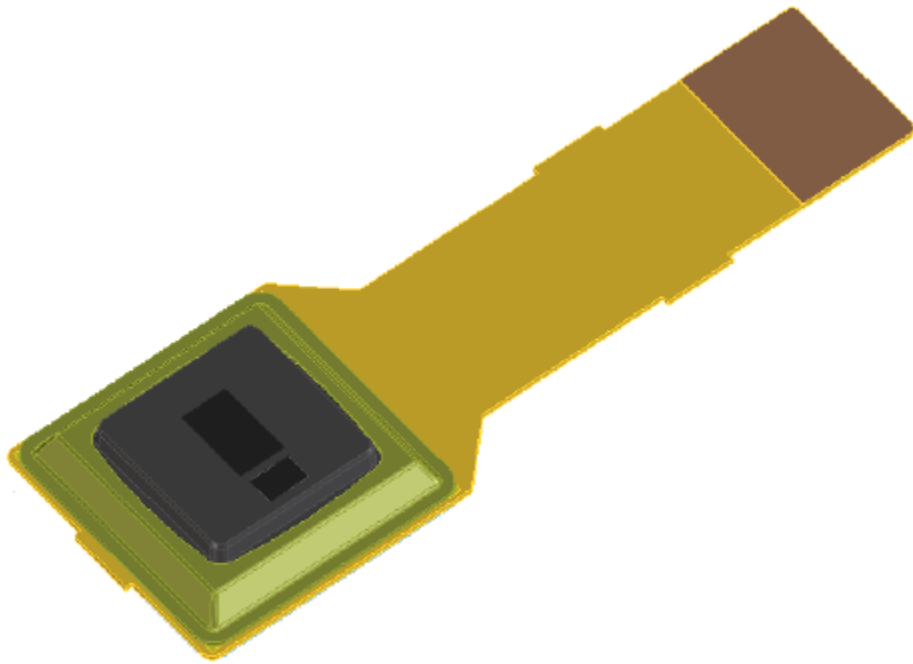


Surfing the web will be just as easy as the familiar mouse action in your PC.

Structure

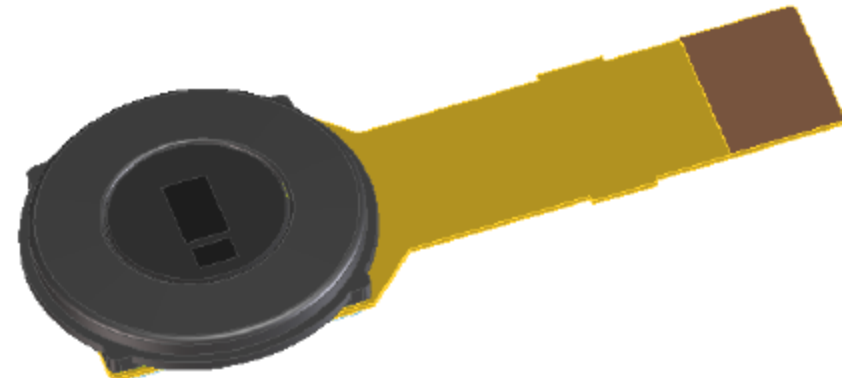
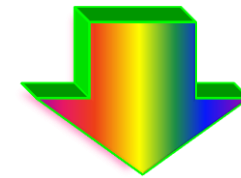
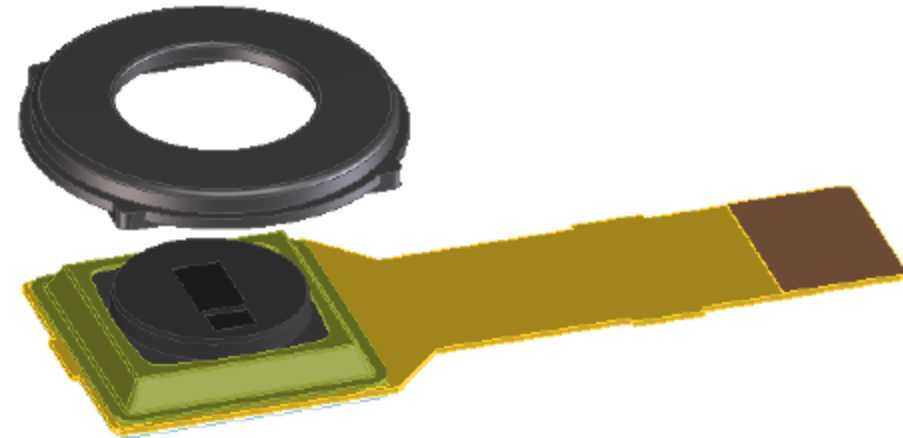
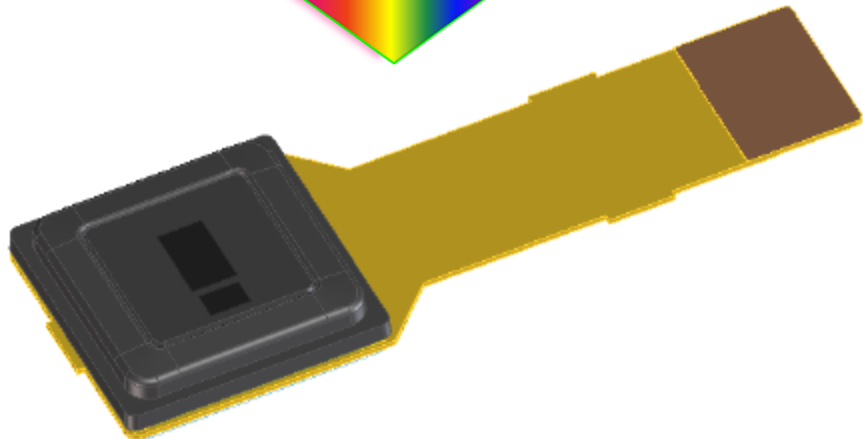
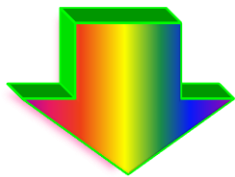
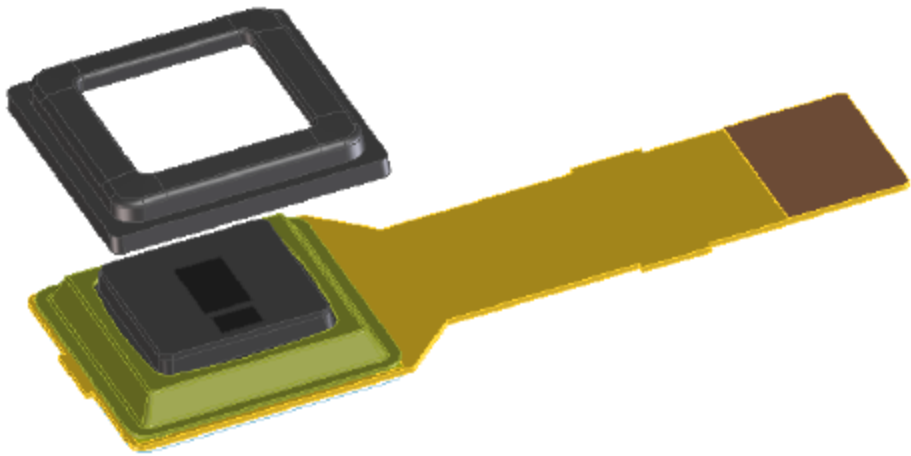


Module Top & Bottom View

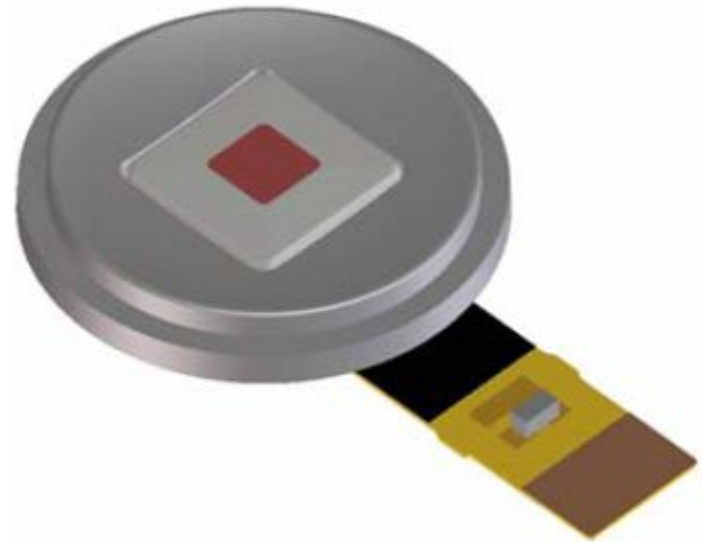
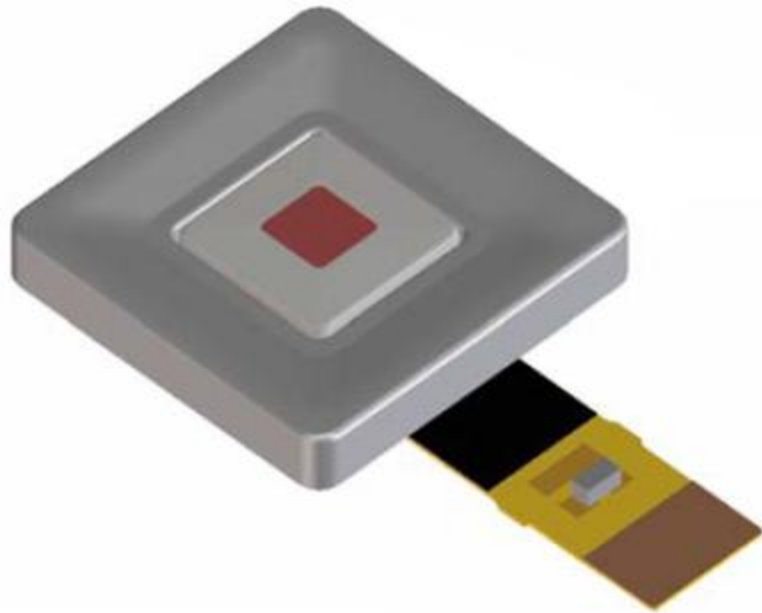


key-press & Interface
can be customized

Examples of Customization



Examples of Customization



Technical Specifications

Item		Description	
Interface		SPI / TWI	
Analog Power supply voltage		2.8V	
Digital Voltage supply		1.8V	
Resolution		Selectable up to 1,250 counts / inch	
IDD_RUN	DC Supply Current in various modes	2.8 mA	
IDD_REST1		270 uA	
IDD_REST2		63 uA	
IDD_REST3		31 uA	
Shutdown Supply Current		17 μ A	
Module Size		8.2 x 8.2 x 3.9 mm	

Key Features

- ❖ Low Power architecture
- ❖ Self-adjusting power-saving modes for longer battery life
- ❖ High speed motion detection
- ❖ Self-adjusting frame rate for optimum performance
- ❖ Motion detect pin output
- ❖ Finger detect pin output
- ❖ Internal oscillator; no clock required
- ❖ Selectable resolution 250 to 1,250 counts per inch
- ❖ Integrated COB LED
- ❖ Integrated Dome switch