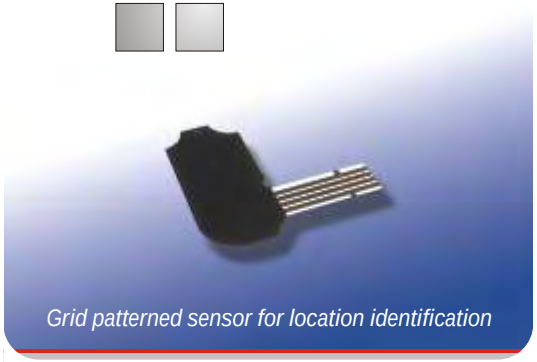
The MicroNav™ Family

MicroNav™ ARRAY



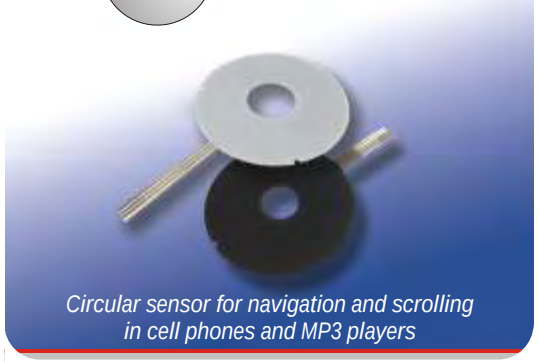
Grid patterned sensor for location identification

The MicroNav family provides

- *360° pointing*
- *Multi-menu scrolling*
- *Character entry*
- *Mousing*

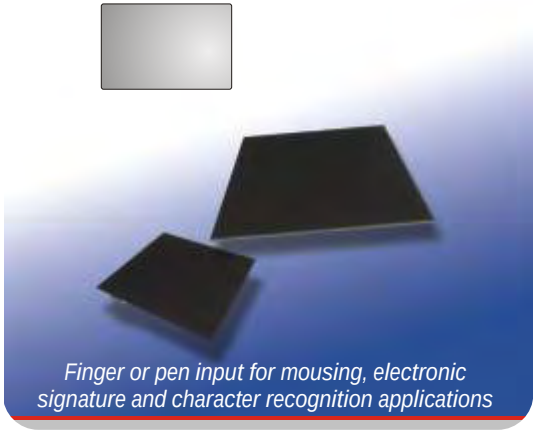
using specialized variations of Force Sensing Resistor® (FSR) technology optimized for handheld consumer electronics

MicroNav™ RING



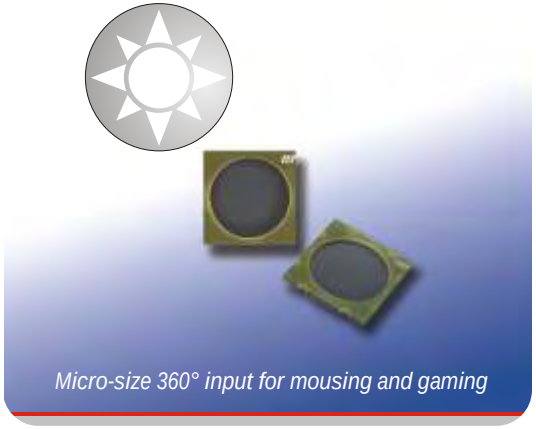
Circular sensor for navigation and scrolling in cell phones and MP3 players

MicroNav™ PAD



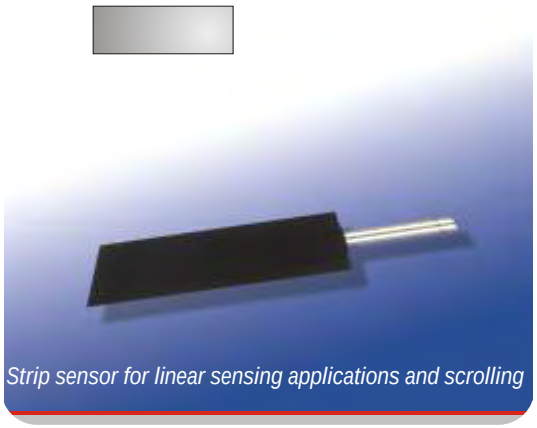
Finger or pen input for mousing, electronic signature and character recognition applications

MicroNav™ 360



Micro-size 360° input for mousing and gaming

MicroNav™ STRIP



Strip sensor for linear sensing applications and scrolling

ELECTRADE GmbH
Elektronik-Vertrieb und Consulting

INTERLINK ELECTRONICS

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ELECTRADE GmbH
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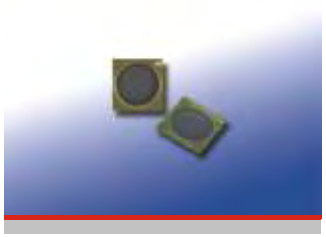
The MicroNav™ Family

Developed by Interlink Electronics, Inc. to provide intuitive interface solutions for portable consumer devices such as cellular phones, tablet PCs, MP3 players, the new MicroNav family of sensor interface components delivers 360° "mouse" navigation, quick circular or linear menu scrolling, pressure switch sensing and alpha-numeric character input capabilities.

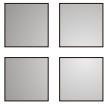
MicroNav™ 360

MicroNav 360 -- intended for integration into cell phones, PDA's, tablet PCs and digital cameras, MicroNav 360 provides precise 360° mouse navigation for Internet browsing, e-mail devices, online games and image editing, as well as, traditional mouse functions.

Dimensions:	9.9mm x 9.9mm x 1.4mm .390" x .390" x .055
Force Sensitivity	1N to 100N
Range	100 to 10,000gf
Break Force	<1N (dependent on mechanics)
(Turn-on Force)	100gf and FSR build)
Stand-Off Resistance	>10M
Switch Characteristic	Essentially zero travel
Lifetime	>2 million actuations
Temperature	Storage: -35ºC to +85ºC (-40ºF to +185ºF) Operation: -20ºC to +65ºC (-4ºF to +149ºF) 10-95% RH, non-condensing
Sensitivity to Noise/Vibration	Not significantly affected
EMI / ESD	Passive device
Lead Attachment	Solder/solder reflow

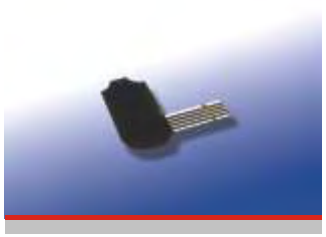


MicroNav™ ARRAY



MicroNav Array -- a grid-pattern sensor component used for location identification or pressure sensing, MicroNav Array is design to gather information pertaining to the location or pressure applied by one's fingertip on a cell phone or other handheld device.

Tail Connector	Recommended connector:: AVX #04-6227-004, or equivalent.
Force Sensitivity Range	Average: 8.3g/maximum 15g force.
Lifetime	Will withstand 2 million actuations at 500g ±50g force, with a repetition rate of 123 hits per minute.
Temperature	Storage: 30°C to 70°C (-20°F to 158°F) 5-95% RH, non-condensing Operating: 0°C to 50°C (- 32°F to 122°F) 0-85% RH, non-condensing
Shelf Life	Adhesive performance/properties retained for two years if stored at 22°C (72°F) and 50% R.H.



MicroNav™ RING

MicroNav Ring -- provides quick circular scrolling and menu navigation for consumer electronic devices in an easy-to-integrate, high resolution, ultra low-power package. Well suited for controlling streaming media (volume and audio, audio levels and balance), menus, long lists, and gaming functions.

Dimensions	From tail to center of hole: 42.7 mm. Circumference: 43 mm.
Tail Connector	Recommended connector(s): LIF AVX #04-6227-004, ZIF Molex #0522070485 or equivalent.
Linearity	Angle is measurable to within ±3° of touch position.
Power Consumption	equivalent to 3 passive resistors. For 100µS ADC measurements 40x/sec., and 3V circuit, measuring requires 0.3MA, 0.1µA avg current
Lifetime	>2 million taps at 500g ±50g force >2 million revolutions
Temperature	Storage: -35°C to 85°C (-20°F to 158°F) at 10-95% RH, non condensing Operating: -20°C to 55°C (- 32°F to 122°F) at 0-85% RH, non-condensing
Chemical Resistance	Alcohols, hydrocarbons and household cleaning agents.

MicroNav™ STRIP

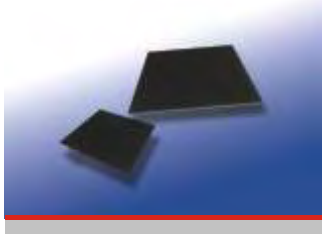
MicroNav Strip -- designed for linear pressure sensing applications, providing navigation and scrolling capabilities for MP3 players and other handheld applications.

Dimensions	Varies: From 10mm W x 40 mm L to 1.5" W x 24" L
Tail Connector	Recommended connector: AVX 6227 series
Force Sensitivity Range	Actuation force at center: ~10g and <= 50g. Mean actuation force is 17g with a single standard deviation of 4g.
Linearity	Proportional to actuation position to within ±3% over the length of active area.
Tap Lifetime	1.0kg Force: >1 M actuations at 1000g ±50g force at rate of 2 Hz.
Lifetime	2.5kg Force: >24 hours of a constant 2500g ±50g force
Temperature	Storage: -30°C to 70°C (-20°F to 158°F) 5-95% RH, non-condensing Operating: 0°C to 50°C (- 32°F to 122°F) 0-85% RH, non-condensing

MicroNav™ PAD

MicroNav Pad -- a customizable input pad solution for fingertip-based cursor pointing or stylus-based pen-input for electronic signature and character recognition applications.

Dimensions	35mm W x 35 mm L (scalable) or 65mm x 49mm
Actuator Type	Stylus, finger, gloved hand
Technology	Semiconductive
Pad Gestures	Tap/double tap/tap and drag/ drag edge motion
Power Input	Standard: 5 vDC ±5%
Power Consumption	3mA max. at 5vDC operating
Power Consumption in PS/2 Auto Sleep Mode	<10µA (yes MicroAmps!)
Levels of Z-Pressure	128
Resolution of Pad	1000 lines per inch
Lifetime	>5 million strokes at pressure 10-150g; 118 miles
Shock	Comparable to MIL-STD-202; 80G acceleration in 11msec
Temperature	Storage: -40°C to 70°C (-40°F to 158°F) 5-95% RH, non-condensing Operating: 0°C to 50°C (32°F to 122°F)



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All specifications subject to change without notice.