MICROSENSORS
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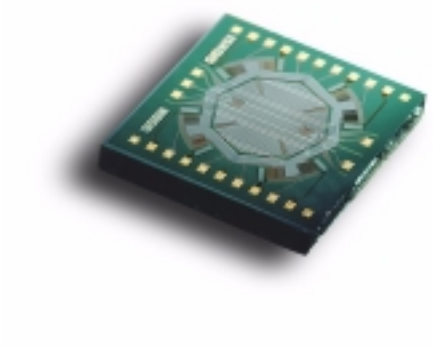
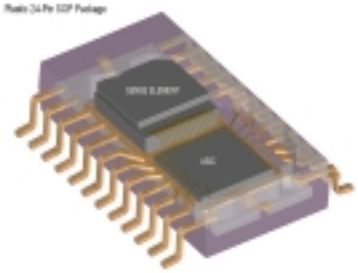
Silicon MicroRing Gyro™



Micromachined gyro sense element



Gyro sense element & ASIC in plastic pkg

DESCRIPTION:

MicroSensors' Silicon MicroRing Gyro is designed for MEMS applications requiring highly sensitive motion sensing. The micro gyro responds to Coriolis forces induced in an oscillating element whenever there is physical rotation about the input axis. The magnitude of these forces is directly proportional to the angular rate of rotation. These minuscule forces, acting on a differential capacitor, are detected and amplified by the readout ASIC.

FEATURES:

- Highly sensitive angular rate gyroscope
- Surface micromachined silicon
- The sensor is based on Coriolis tuning fork gyro principle
- Capacitive readout ASIC: low power, ultra-low noise, wide dynamic range
- De-coupled capacitive pick-off
- Low cost plastic package

APPLICATIONS:

- ***AUTOMOTIVE:*** leveling control, anti-spin, anti-skid, navigation
- ***INDUSTRIAL:*** robotics, shipping, motion control, survey equipment
- ***CONSUMER:*** GPS receiver, VR gear, 3D mouse, camcorder, sports equipment,
- ***TOYS:*** remote control for cars, helicopter, aircraft, robots
- ***MILITARY:*** missile guidance, smart munitions, tracker buoys, autonomous vehicles, land navigation, pilot head tracker, marine guidance

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RECOMMENDED OPERATING CONDITIONS

	Min	Max	Units
Input Supply Voltage	4.75	5.25	V
Operating Temperature	-40	+85	°C

ELECTRICAL CHARACTERISTICS

Parameter	Min	Typical	Max	Units
Sensitivity	22.5	25.0	27.5	mV/°/sec
Rate Range	-60		+60	°/sec
Power Consumption			15	mA
Noise			4.0	mVrms
Bandwidth			10	Hz
Zero Point Voltage	2.10	2.50	2.90	V
Zero Point Stability	-1		+1	°/sec
Shock Resistance	1500			g