**GENERAL DESCRIPTION**

The ITG-3701 is a 3-axis MotionTracking device that includes a 3-axis gyroscope in a small 3x3x0.75 mm (16-pin QFN) package.

- High performance specs
  - Gyroscope max FSR: ±4000 dps
  - Gyroscope sensitivity error: ±3%
- Includes 512-byte FIFO to reduce traffic on the serial bus interface, and reduce power consumption by allowing the system processor to burst read sensor data and then go into a low-power mode

ITG-3701 includes on-chip 16-bit ADCs, programmable digital filters, an embedded temperature sensor, and programmable interrupts. The device features an operating voltage range down to 1.71V. Communication ports include I2C and high speed SPI.

**APPLICATIONS**

- Sports and Health monitoring
- Wearable
- Motion UI
- Handset gaming

**FEATURES**

- Programmable wide FSR of ±5000 dps, ±10000 dps, ±2000 dps and ±40000 dps
- ODR (Output Data Rate) of up to 32kHz
- 512-byte FIFO buffer enables the applications processor to read the data in bursts
- On-Chip 16-bit ADCs and Programmable Filters
- 20MHz SPI read or 1MHz read/write
- 400 kHz I2C serial interface
- Digital-output temperature sensor
- VDD operating range of 1.71 to 3.6V
- MEMS structure hermetically sealed and bonded at wafer level
- RoHS and Green compliant

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>PART</th>
<th>AXES</th>
<th>TEMP RANGE</th>
<th>PACKAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITG-3701+</td>
<td>X,Y,Z</td>
<td>-40°C to +85°C</td>
<td>16-Pin QFN</td>
</tr>
</tbody>
</table>

†Denotes RoHS and Green-Compliant Package

**BLOCK DIAGRAM**

**TYPICAL OPERATING CIRCUIT**