

	<p align="center">InvenSense Inc. 1197 Borregas Ave., Sunnyvale, CA 94089 U.S.A. Tel: +1 (408) 988-7339 Fax: +1 (408) 988-8104 Website: www.invensense.com</p>	<p>EB-IDG-0300Q-00-02 Release Date: 09/10/07</p>
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IDG-300 Dual-Axis Gyroscope Evaluation Board Specification

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1. Revision History

Revision Date	Revision	Description
June 29, 2007	1.0	Initial Release
September 10, 2007	2.0	Company address and evaluation board picture updated

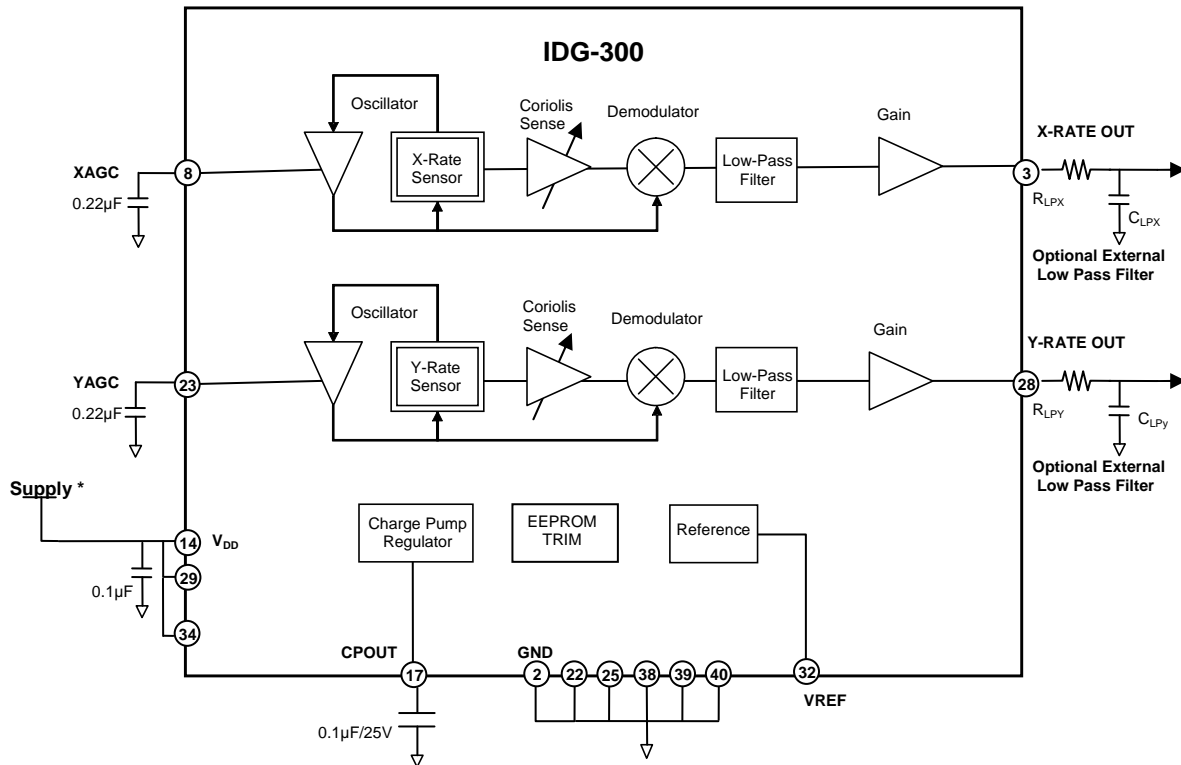
2. Purpose

This document provides the specification for the IDG-300 Dual-Axis Gyroscope Evaluation Board configured per the table below.

3. Evaluation Board Configuration

Sensitivity	Internal LPF	External LPF
2 mV/deg/sec	140Hz	2kHz

4. Functional Block Diagram

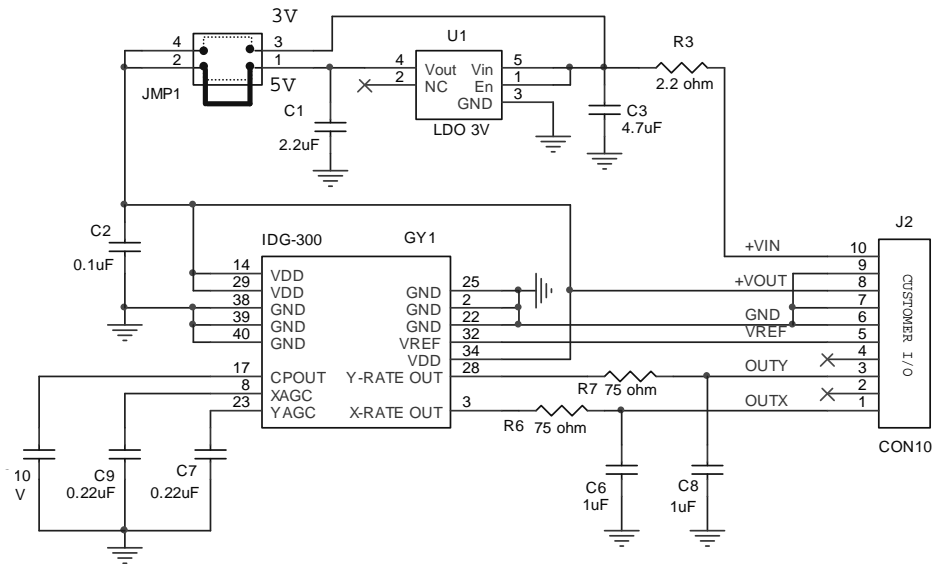


5. IDG-300 Evaluation Board Configuration

5.1 Schematic

The schematic below specifies the components on the IDG-300 Evaluation Board.

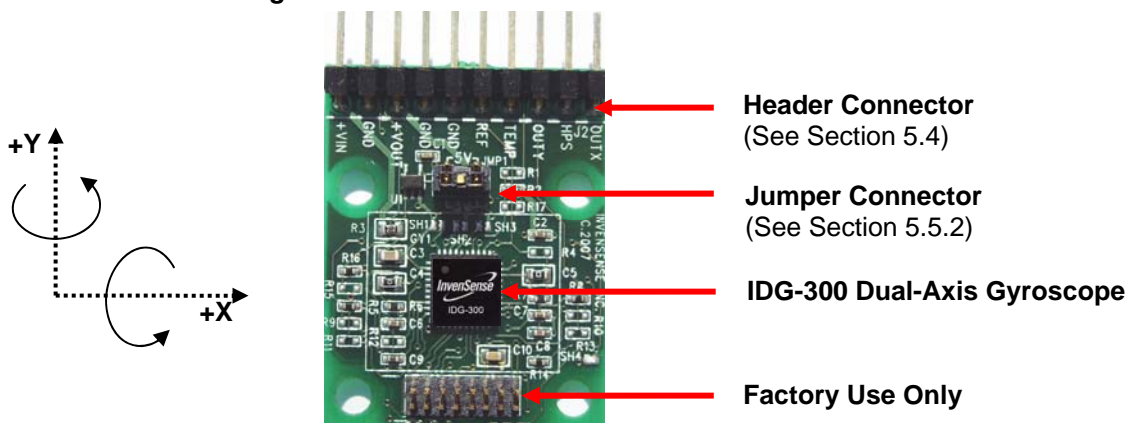
Figure 1



5.2 Bill of Materials

Item	Quantity	Reference	Part
1	1	C1	2.2uF 4.0V X5R 0402 ±20%
2	1	C2	0.1uF/10V X5R 0402 ±20%
3	1	C3	4.7uF/6.3V X5R 0603 ±20%
4	2	C4,C5	0 ohm/0603 jumper
5	2	C6,C8	1uF/6.3V X5R 0402 ±20%
6	2	C7,C9	0.22uF/6.3V X5R 0402 ±10%
7	1	C10	0.1uF/25V/X5R 0603 ±20%
8	1	GY1	IDG-300_D1_QFN40
9	1	JMP1	CON4A/0.050" X 0.1"
9B	1	JMP1	Shunt jumper
10	1	J1	CON16A/0.050 X2
11	1	J2	0.1" RA 10 PIN STRIP
12	3	R2,R5,R8	0 ohm/0402 jumper
13	1	R3	2.2 ohm/MF 5% 0603
14	2	R6,R7	75 ohm/MF 1% 0402
15	1	U1	Voltage Regulator 3.0V SC70

5.3 Evaluation Board Configuration



5.4 Signal Description

Pin	Signal	Description
1	OutX	Output of the X-axis gyro
2	HPS	Do not use
3	OutY	Output of the Y-axis gyro
4	TEMP	Do not use
5	V _{REF}	1.2V reference voltage
6	GND	Ground
7	GND	Ground
8	+Vout	Return of the V _{DD} of the gyroscope chip
9	GND	Ground
10	+V _{IN}	Input power supply for the evaluation board (+5V / +3V)

5.5 Special Instructions

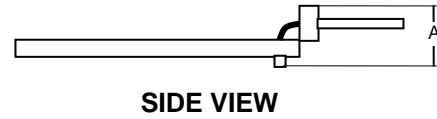
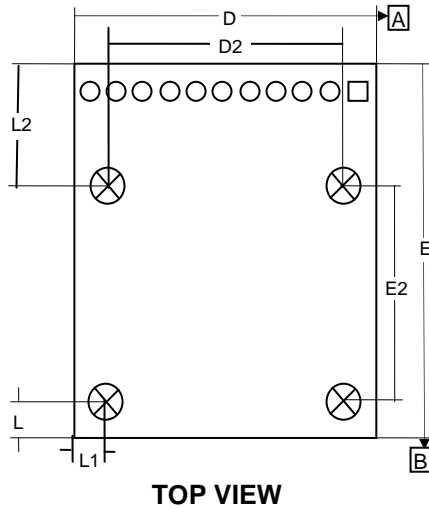
5.5.1 Electrostatic Discharge Sensitivity

The IDG-300 gyro can be permanently damaged by an electrostatic discharge. ESD precautions for handling and storage are recommended.

5.5.2 Jumper Connector

The IDG-300 evaluation board is equipped with a jumper connector to control the voltage supplied to the gyro. When the jumper is located in the “up” or standard position as shown in the picture above, the 5 Volts being supplied to the gyro is regulated to 3 Volts using an on-board regulator. When the jumper is located in the “down” position, the on-board regulator is bypassed and the gyro is being directly supplied with the voltage on Pin 10 (+V_{IN}).

6. Dimensional Drawing



Dimensions (mm)		
A	5.0	±1.0
D	25.7	±0.1
E	31.8	±0.1
L	3.1	±0.1
L1	3.1	±0.1
L2	10.2	±0.1
D2	19.5	±0.1
E2	18.5	±0.1