

STMicroelectronics L3G4200D 3-Axis MEMS Gyroscope from iPhone 4

Reverse Costing Analysis – December 2010

Physical Analysis of the Device Step by Step Reconstruction of the Process Flow Cost of Manufacturing and Estimation of Selling Price

System Plus Consulting is proud to publish the reverse costing report of the 3-Axis MEMS Gyroscope L3G4200D supplied by STMicroelectronics and featured in the Apple iPhone 4.

The L3G4200D is the first 3-axis gyroscope integrated in a consumer smartphone. Based on a single driving mass manufactured using a surface micromachining process, this Tuning Fork MEMS Gyroscope achieves a dimension of 4x4x1.1mm when packaged in its LGA 16-pin package.

The L3G4200D 3-axis MEMS gyroscope is suitable for consumer applications (Gaming, User interfaces, Image stabilization, Health and fitness and GPS navigation) and Industrial applications (Motion detection, User interfaces, Robotics).

This report provides complete teardown of the geomagnetic sensor with:

- Detailed photos
- Material analysis
- Schematic assembly description
- Manufacturing Process Flow
- In-depth economical analysis
- Manufacturing cost breakdown
- Selling price estimation



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