

Bosch Sensortec BMC050 : 6-Axis Electronic Compass

Reverse Costing Analysis – August 2012



Physical Analysis of the Devices 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 BMC050, a 6-Axis electronic compass supplied by Bosch.

Packaged in a LGA-16 pin housing, the device integrates two sensors into a very small space : a triaxial geomagnetic sensor for measuring the Earth's magnetic field and a triaxial acceleration sensor for tilt compensation.

The triaxis magnetometer is manufactured in MEMS thin film technology and uses the new Bosch's FlipCore measurement principle to calculate the direction.

The BMC050 is ideally suited for mobile phones, tablet PCs and notebooks. It features high sensitivity of 0.3 μ tesla and low power consumption at 0.54 milliamps.

This report provides complete teardown of the E-compass with:

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

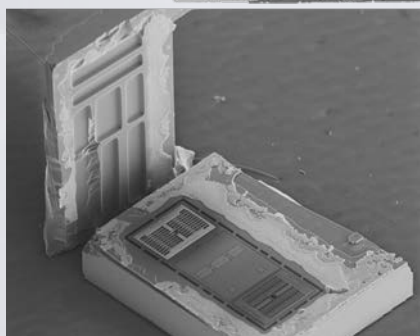
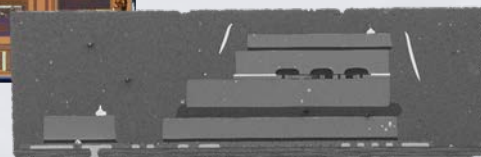
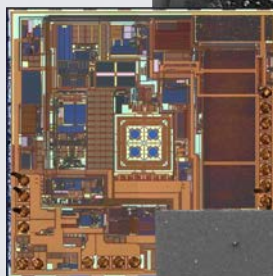
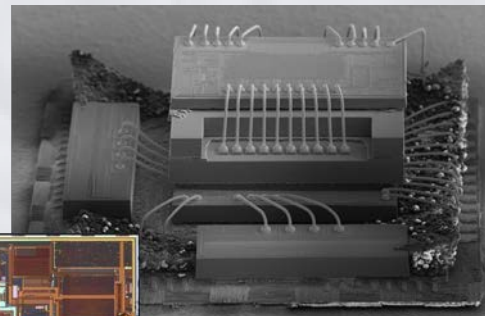


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System Plus Consulting is specialized in the **cost analysis** of electronics from **semiconductor devices** to **electronic systems**. Around this main line System Plus Consulting developed a complete range of services and costing tools to provide **in-depth production cost studies** and estimation of the **objective selling price** of the product.

COSTING SERVICES

- ✓ **On demand Reverse Costing studies** are performed on ICs, ASICs, MEMS, Power Devices, ECUs, electronic boards and full electronic systems
- ✓ **The catalog of available reports** includes cost analyzes on MEMS, Electronic components and Electronic systems

All these studies are performed using in-house developed costing tools and their technological databases.

COSTING TOOLS

« Purchaser » tools

- ✓ IC Price+ to estimate the cost of any integrated circuit
- ✓ Power Price+ to estimate the cost of any power component or module
- ✓ PCB Price+ for printed circuit boards
- ✓ SYS.Cost a costing tool for electronic boards and systems

Cost Simulation Tools, process flow based

- ✓ MEMS CoSim+
- ✓ IGBT CoSim+
- ✓ SiC CoSim+
- ✓ LED CoSim+
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