

# mCube

## Monolithic 3-Axis Accelerometer

REVERSE COSTING ANALYSIS – November 2013

### *The first 3D Single-Chip MEMS Accelerometer for Consumer Applications*

New player mCube, mainly active on Chinese market, tries to gain market share with new technologies allowing very low manufacturing cost. mCube managed to design a very clever integration and is the only provider of monolithic accelerometers for consumer electronics.

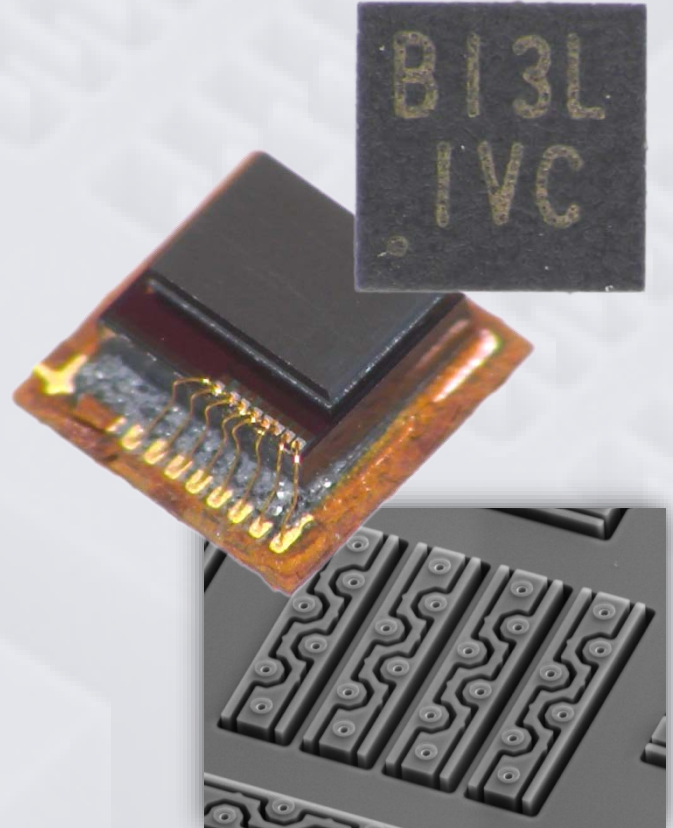
mCube 3D MEMS process consists in MEMS elements fabricated on top of the drive IC and connected using thru-silicon-vias. To protect the MEMS elements, a cap is sealed with an eutectic alloy bonding process.

The mCube accelerometer is assembled in a standard LGA 2x2mm package.

With this clever integration, mCube is positioned one step ahead of STMicroelectronics and Bosch Sensortec related to size and manufacturing cost.

This report will provides a complete teardown of the MEMS accelerometer with:

- Detailed photos
- Material analysis
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# ORDER FORM

Please process my order for "mCube MEMS Accelerometer" Reverse Costing Analysis:

Ref.: SP13140

Multi-User License Price: EURO 2,490\*

\*For price in dollars please use the day's exchange rate

\*All reports are delivered electronically in pdf format

\*For French customer, add 20 % for VAT

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## ABOUT SYSTEM PLUS CONSULTING

System Plus Consulting specializes in the **cost analysis** of electronics, from **semiconductor devices** to **electronic systems**, and has developed a complete range of services and costing tools to provide **in-depth production cost studies** and to estimate the **objective selling price** of a 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, LEDs, Modules and Electronic systems.

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

### COSTING TOOLS

#### « Purchaser » tools

- ✓ IC Price+ to estimate the cost of any integrated circuit
- ✓ Power Price+ for any power component or module
- ✓ SYS.Cost

- ✓ PCB Price+ for printed circuit boards
- for electronic boards and systems

#### Cost Simulation Tools, process flow based

- ✓ MEMS CoSim+
- ✓ LED CoSim+
- ✓ Power CoSim+
- ✓ TSV CoSim+ (thru silicon vias)
- ✓ Sapphire CoSim+

Other costing models can be developed according to customer specifications

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