

# ENPHASE ENERGY – M215 Solar Microinverter

Reverse Costing Analysis by System Plus Consulting – July 2011

## Physical Analysis of the Device Step by Step disassembly

### Cost of Manufacturing & Estimation of Selling Price

System Plus Consulting is proud to publish the reverse costing report of the solar microinverter M215 supplied by ENPHASE ENERGY.

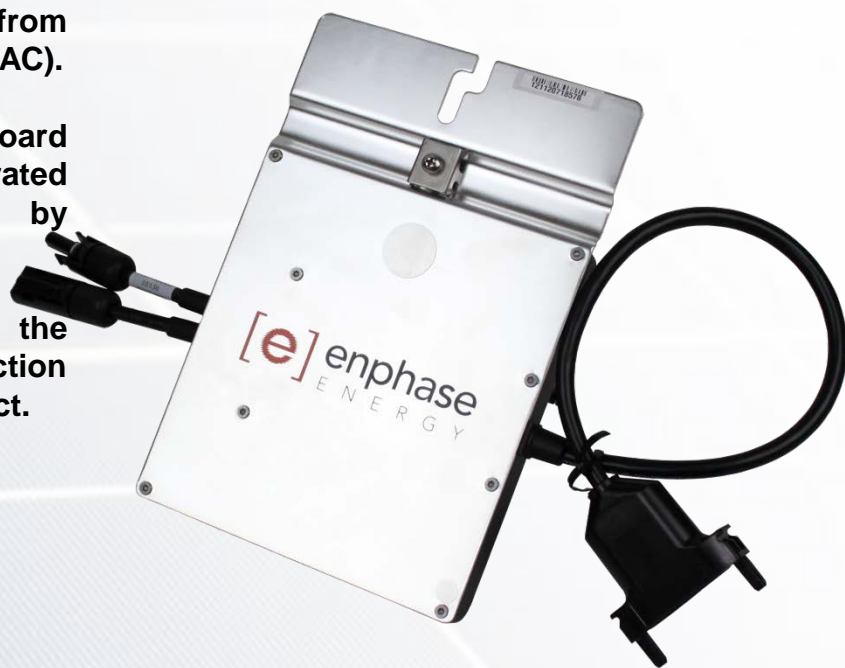
This ENPHASE ENERGY M215 microinverter is used to convert direct current (DC) from individual solar panel to alternating current (AC).

The microinverter holds one electronic board including an Application Specific Integrated Circuit (ASIC), specifically designed by ENPHASE ENERGY engineers.

Based on a complete teardown analysis, the report provides an estimation of the production cost as well as the selling price of the product.

This reverse costing report contains:

- Detailed photos
- Material analysis
- 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 (Telecom terminals, Power systems, Consumer products)

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

### COSTING TOOLS

#### Software

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

#### Costing Models

- ✓ Board Assembly – System in Package – System on Chip – Memory Chip – Smart Card – Plastic Part
- ✓ Other costing models can be developed according to customer specification

#### Cost Simulation Tools

- ✓ Powerful flow builders including exhaustive databases to simulate a device processing cost
- ✓ Available now: MEMS CoSim+ • IGBT CoSim+ • SiC CoSim+ • LED CoSim+ • TSV CoSim+ • PV CoSim+ (photovoltaic)

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