

**November 21, 2011**

## **Main Specifications of the TPS-1 PROFINET IO Device Chip**

### **Overview**

- Integrated PROFINET IO Device Stack, CPU, RAM, and PHYs
- Integrated IRT switch (2 external ports) with 8 priority levels
- Parallel and serial host interface
- PROFINET Version 2.3 for RT and IRT, Conformance Class C
- BGA housing 15 mm × 15 mmSQ./ 1 mm pitch
- Power consumption: 800 mW (average value)

### **Features**

- Integrated PROFINET CPU
- Embedded fast Ethernet PHY × 2
- Host CPU interface: SPI-Slave, 8- or 16-bit parallel
- SPI Master interface: Direct connection to SPI slave
- GPIO: 48 GPIO directly connect to digital peripheral signals
- IRT Bridge-Delay < 3 μs
- Time stamp resolution: 2.5 ns
- Shared memory interface
- Configuration: Windows-based software tool