



# STEVAL-ISA050V1

Monolithic VR for chipset and DDR2/3 demonstration board  
based on the PM6641

Data Brief

## Features

- Switching section
  - 0.8 V  $\pm 1\%$  voltage reference
  - 2.7 V to 5.5 V input voltage range
  - Fast response, constant frequency, current mode control
  - Three independent, adjustable, SMPS For DDR2/3 (VDDQ) and chipset supply
  - S3-S5 states compliant DDR2/3 section
  - Active soft-end for all outputs
  - Selectable tracking discharge for VDDQ
  - Separate Power Good signals
  - Pulse skipping at light load
  - Programmable current limit and soft-start for all outputs
  - Latched OVP, UVP protection
  - Thermal protection
- Reference and termination voltages (VTTREF and VTT)
  - $\pm 2$  Apk LDO for DDR2/3 termination (VTT) with fold back
  - Remote VTT output sensing
  - High-Z VTT output in S3
  - $\pm 15$  mA low noise DDR2/3 buffered reference (VTTREF)



$\pm 15$  mA low noise buffered reference. Each regulator is provided of basic under voltage (UV) and over voltage (OV) protections, programmable soft-start and current limit, active soft-end and pulse-skipping at light loads.

## Application

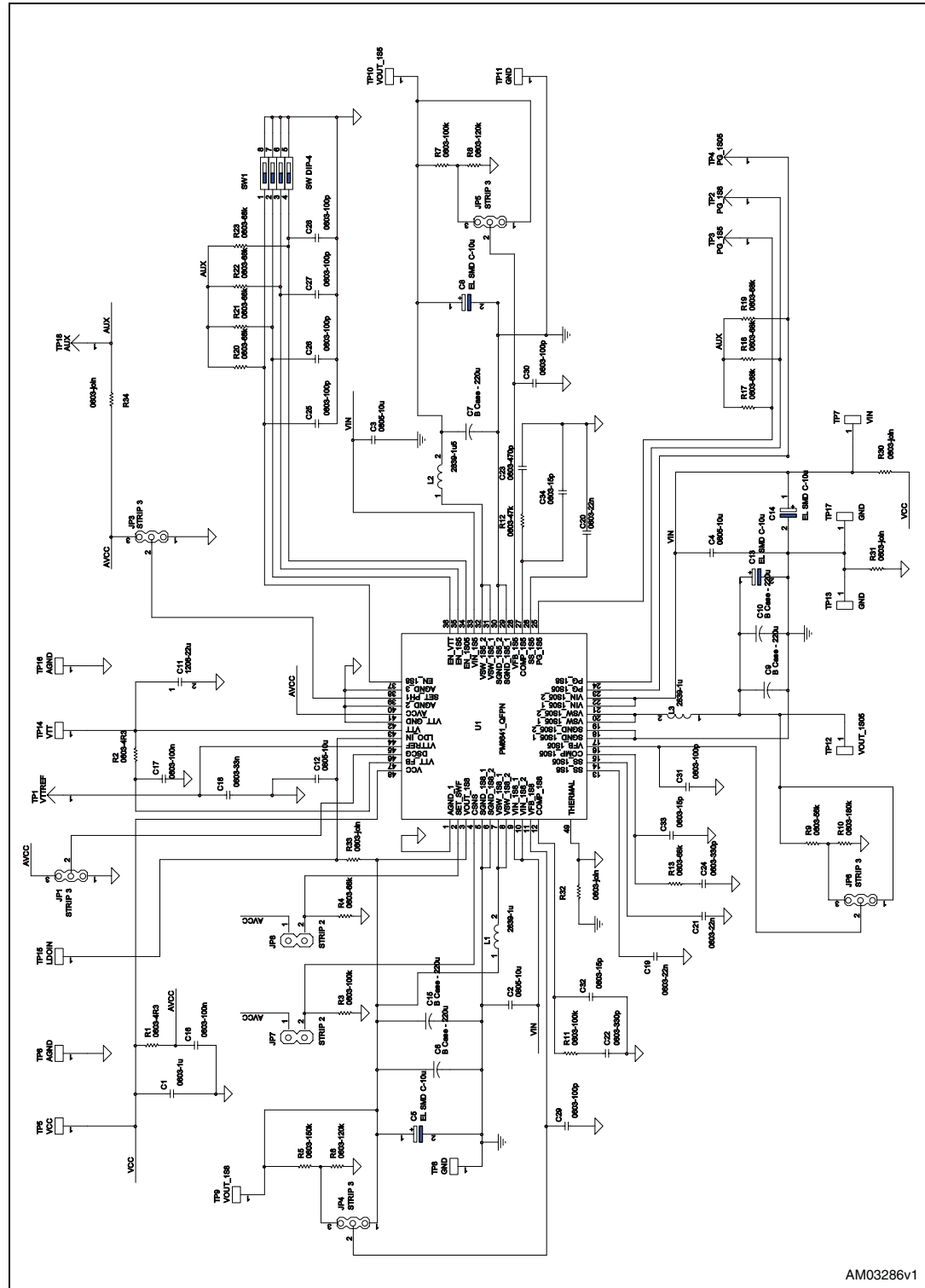
- Supply for ultra-mobile PC (UMPC)

## Description

The STEVAL-ISA050V1 demonstration board is based on the PM6641, that is a monolithic voltage regulator module, with internal Power MOSFET, specifically designed to supply DDR2/3 memory and chipset in ultra-mobile PC and real estate portable systems. It integrates three independent, adjustable, constant frequency buck converters, a  $\pm 2$  Apk low drop-out (LDO) linear regulator and a

# 1 Circuit schematic

Figure 1. Schematic



AM03286v1

## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
12-Nov-2008	1	Initial release.

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