



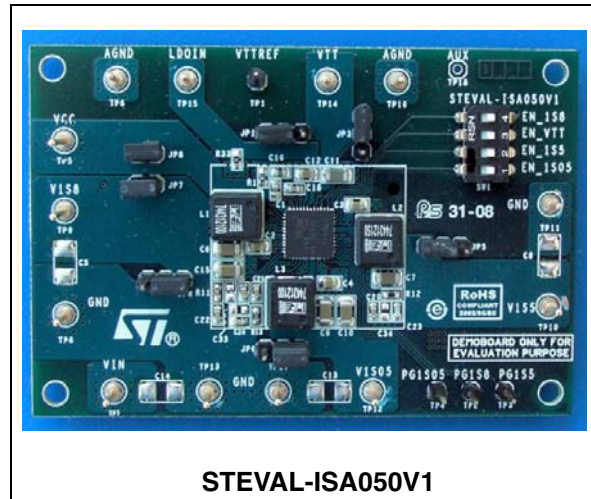
STEVAL-ISA050V1

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)
 - ± 2 Apk LDO for DDR2/3 termination (VTT) with fold back
 - Remote VTT output sensing
 - High-Z VTT output in S3
 - ± 15 mA low noise DDR2/3 buffered reference (VTTREF)



± 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

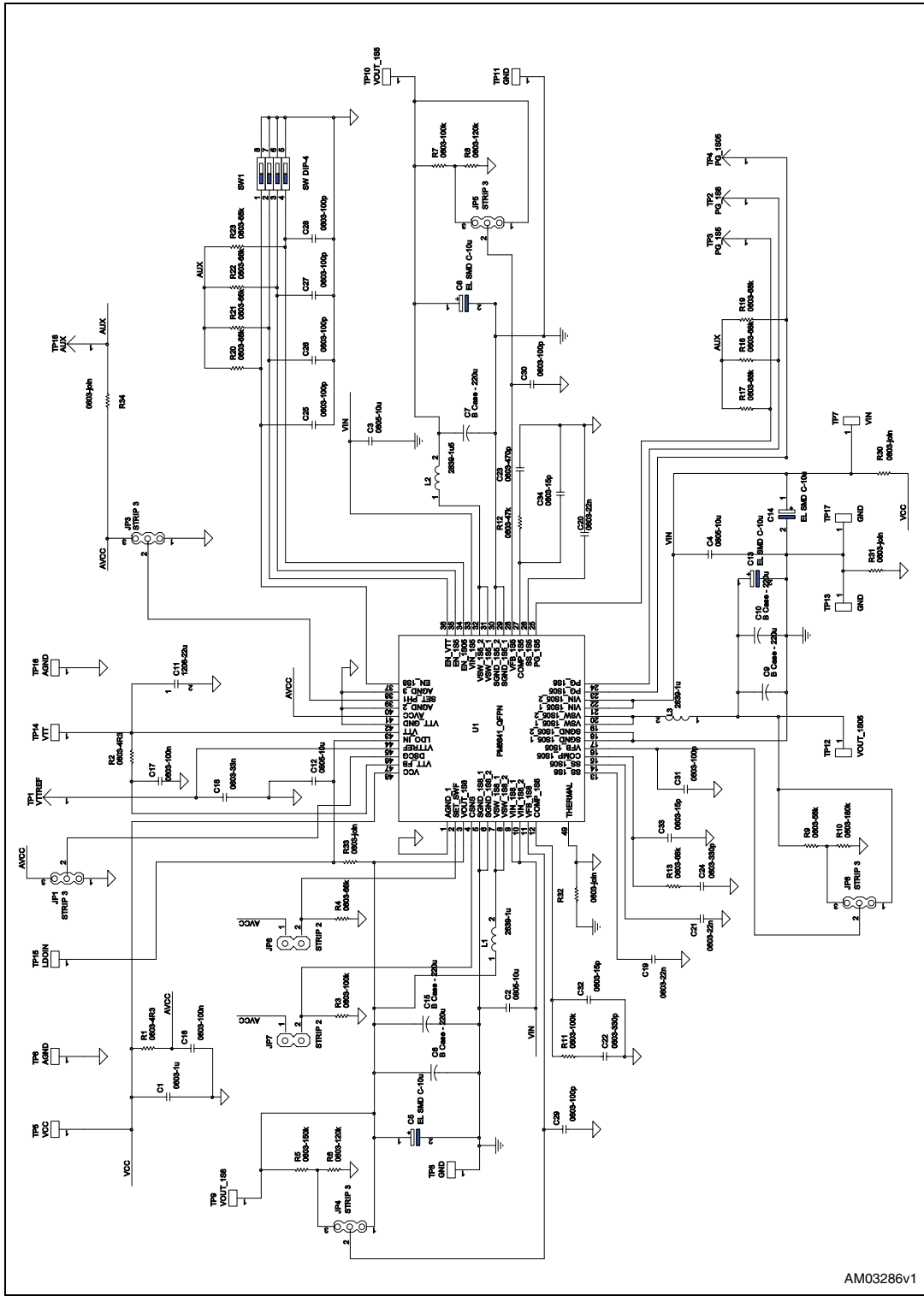
- Supply for ultra-mobile PC (UMPC)

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 ± 2 Apk low drop-out (LDO) linear regulator and a

1 Circuit schematic

Figure 1. Schematic



2 Revision history

Table 1. Document revision history

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

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