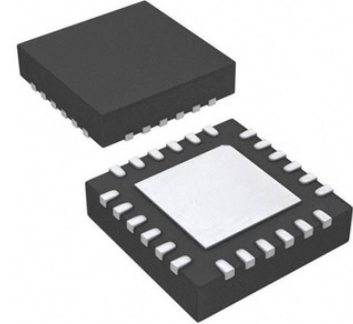


Multi-Output Controller with Integrated MOSFET Drivers for AMD SVI Capable Mobile CPUs, 48-TQFN, -10 to +100°C, Tape and Reel



Images are for reference only

Manufacturers	Renesas Technology Corp
Package/Case	TQFN-48
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	

Please submit RFQ for ISL6265AHRTZ-T or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com). We will contact you in 12 hours.

[RFQ](#)

General Description

The ISL6265A is a multi-output controller with embedded gate drivers. A single-phase controller powers the Northbridge (VDDNB) portion of the CPU. The two remaining controller channels can be configured for two-phase or individual single-phase outputs. For uniplane CPU applications, the ISL6265A is configured as a two-phase buck converter. This allows the controller to interleave channels to effectively double the output voltage ripple frequency, and thereby reduce output voltage ripple amplitude with fewer components, lower component cost, reduced power dissipation, and smaller area. For dual-plane processors, the ISL6265A can be configured as independent single-phase controllers powering VDD0 and VDD1. The heart of the ISL6265A is the patented R3 Technology™, Intersil's Robust Ripple Regulator modulator. Compared with the traditional buck regulator, the R3 Technology™ has a faster transient response. This is due to the R3 modulator commanding variable switching frequency during a load transient. The Serial VID Interface (SVI) allows dynamic adjustment of the Core and Northbridge output voltages independently and in combination from 0.500V to 1.55V. Core and Northbridge output voltages achieve a 0.5% system accuracy over-temperature. A unity-gain differential amplifier is provided for remote CPU die sensing. This allows the voltage on the CPU die to be accurately regulated per AMD mobile CPU specifications. Core output current sensing is realized using lossless inductor DCR sensing. All outputs feature overcurrent, overvoltage and undervoltage protection.

Features

Core Configuration Flexibility

Dual Plane, Single-Phase Controllers

Uniplane, Two-Phase Controller

Precision Voltage Regulators

0.5% System Accuracy Over-temperature

Voltage Positioning with Adjustable Load Line and Offset

Internal Gate Drivers with 2A Driving Capability

Differential Remote CPU Die Voltage Sensing

Core Differential Current Sensing: DCR or Resistor

Northbridge Lossless $r_{DS(ON)}$ Current Sensing

Serial VID Interface

Two Wire Clock and Data Bus

Supports High-Speed I²C

0.500V to 1.55V in 12.5mV Steps

Supports PSI_L Power-Saving Mode

Core Outputs Feature Phase Shedding with PSI_L

Adjustable Output-Voltage Offset

Digital Soft-Start of all Outputs

User Programmable Switching Frequency

Static and Dynamic Current Sharing (Uniplane Core)

Overvoltage, Undervoltage, and Overcurrent Protection

Pb-Free (RoHS compliant)

Related Products



[ISL6262ACRZ](#)

Renesas Technology Corp
QFN-48



[ISL6294IRZ-T](#)

Renesas Technology Corp
QFN-8



[ISL21080CIH315Z-TK](#)

Renesas Technology Corp
SOT-23-3



[ISL6377HRZ-T](#)

Renesas Technology Corp
QFN-48



[ISL62771HRTZ](#)

Renesas Technology Corp
QFN40



[ISL6506BCBZ](#)

Renesas Technology Corp
SOP-8



[ISL62771HRTZ-T](#)

Renesas Technology Corp
40-WFQFN Exposed Pad



[ISL95808HRZ-T](#)

Renesas Technology Corp
DFN-8