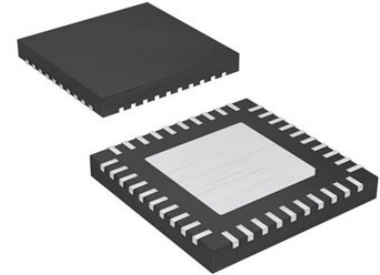


Current Mode PWM Controllers VR12 MEMORY CNTRLR 3 PHS 2 INT 5V DRVRS

Manufacturers	<a href="#">Renesas Technology Corp</a>
Package/Case	TQFN-40
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ISL6353CRTZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ISL6353 is a three-phase PWM buck regulator controller for VR12 DDR memory applications. The multi-phase implementation results in better system performance, superior thermal management, lower component cost and smaller PCB area. The ISL6353 has two integrated power MOSFET drivers for implementing a cost effective and space saving power management solution. The PWM modulator of the ISL6353 is based on Intersil's Robust Ripple Regulator™ (R3) technology. Compared with the traditional multi-phase buck regulator, the R3 modulator commands variable PWM switching frequency during load transients, achieving faster transient response. R3 also naturally goes into pulse frequency modulation operation in light load conditions to achieve higher light load efficiency. The ISL6353 is designed to be completely compliant with VR12 specifications. The ISL6353 has a serial VID (SVID) bus communicating with the CPU. The output can be programmed for 1-, 2- or 3-phase interleaved operation. The output voltage and power state can also be controlled independent of the serial VID bus. The ISL6353 has several other key features. It supports DCR current sensing with a single NTC thermistor for DCR temperature compensation or accurate resistor current sensing. It also has remote voltage sense, adjustable switching frequency, current monitor, OC/OV protection and power-good. Temperature monitor and thermal alert is available too.

## Features

VR12 Serial Communications Bus

Precision Voltage Regulation

5mV Steps with VID Fast/Slow Slew Rates

Supports Two Current Sensing Methods

Lossless Inductor DCR Current Sensing

Precision Resistor Current Sensing

Programmable 1, 2 or 3-Phase Operation

Adaptive Body Diode Conduction Time Reduction

Superior Noise Immunity and Transient Response

Pin Programmable Output Voltage and Power State Mode

Output Current Monitor and Thermal Monitor

Differential Remote Voltage Sensing

High Efficiency Across Entire Load Range

Programmable Switching Frequency

Resistor Programmable VBOOT, Power State Operation, SVID Address Setting,  $I_{MAX}$

Excellent Dynamic Current Balance Between Phases

OCP/WOC, OVP, OT Alert, PGOOD

Small Footprint 40 Ld 5x5 TQFN Package

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



[ISL6506BCBZ](#)

Renesas Technology Corp  
SOP-8



[ISL6377HRZ-T](#)

Renesas Technology Corp

QFN-48



[ISL62771HRTZ](#)

Renesas Technology Corp

QFN40



[ISL62771HRTZ-T](#)

Renesas Technology Corp

40-WFQFN Exposed Pad



[ISL95808HRZ-T](#)

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DFN-8