

## Features

- Input Voltage (VCNTL): Supports 3.3V Rail and 5V Rail
- VIN Voltage Range: 1.0V to VCNTL
- High Accuracy Output Voltage at Full Load
- Output Adjustment by Two External Resistors
- Stable with Output Ceramic Capacitor
- Low External Component Count
- Current Limit Protection
- On-Chip Thermal Protection
- Built-in Soft Start, UVLO
- Supports DDR2, DDR3, and Low-Power DDR3/DDR4 VTT Applications
- TDFN8-2x2 and PSOP-8 Package
- Green Product (RoHS, Lead-Free, Halogen-Free Compliant)

## Applications

- Memory Termination Regulator for DDR, DDR2, DDR3 and Low-Power DDR3/DDR4
- Notebook/Desktop/Server
- Telecom/Datacom, GSM Base Station, LCD-TV/PDP-TV, Copier/Printer, Set-Top Box

## General Description

The GS7903 is a sink/source Double Data Rate (DDR) termination regulator. It is a simple, cost-effective and high speed linear regulator. Designed with low on-resistance NMOSFETs, the device can capable of sinking/sourcing up to peak 2A output current.

The GS7903 provides a fast load transient response and only requires a minimum output capacitance of 20uF.

The output termination voltage can be tightly regulated to track  $VDDQ/2$  by tow external voltage divider resistors or the desired output voltage can be programmed by externally forcing the REFEN pin voltage.

In addition, the GS7903 includes over current limit and thermal shutdown to prevent the regulator from damage. The built-in soft start minimizes stress on the input power source to reduce the capacitive inrush current on start-up.

The GS7903 is available in the thermally efficient TDFN8-2x2 and PSOP-8 package.