



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### POWER MANAGEMENT

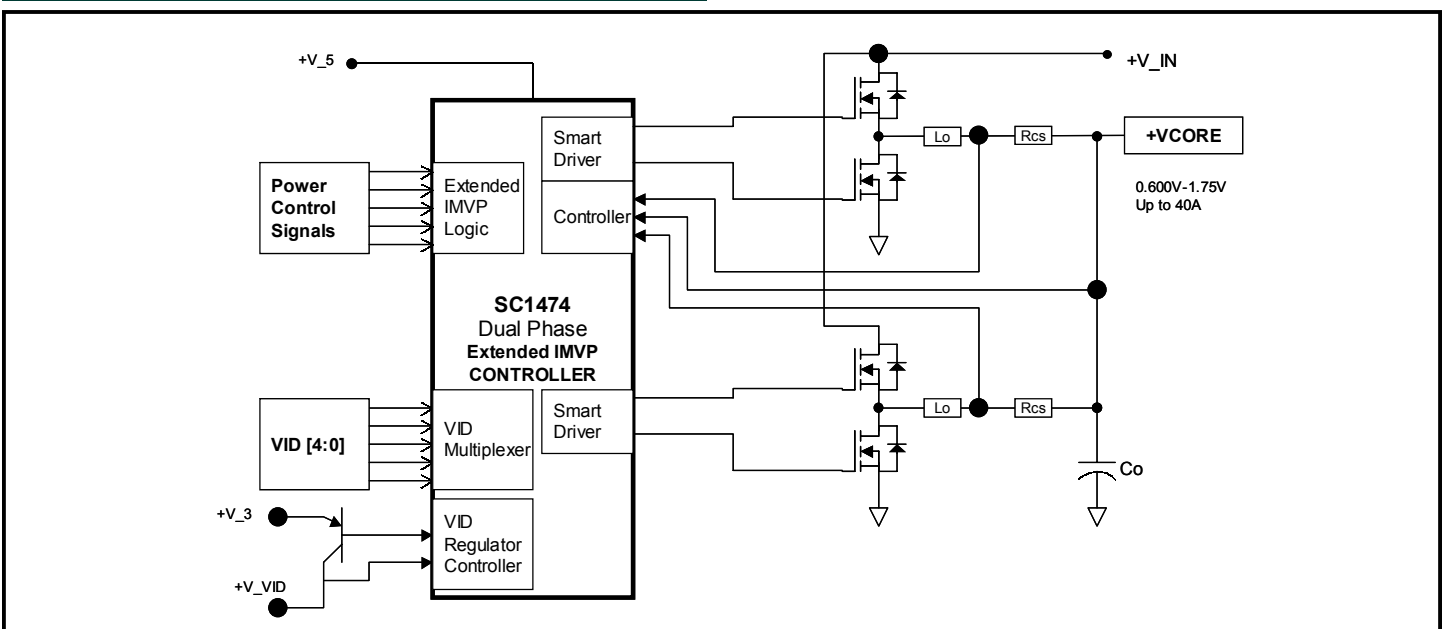
#### Description

The SC1474 PowerStep III™ IC is a single chip high-performance Hysteretic PWM controller. With dual integrated Smart™ Drivers, it powers advanced Pentium® 4 processors. The SC1474 features extended Intel Mobile Voltage Positioning (IMVP) to increase battery life by reducing the voltage at the processor when it is heavily loaded. It directly supports Intel's SpeedStep™ requirements for even longer battery life. The SC1474 automatically detects performance and battery mode VIDs. In addition, it integrates direct "deeper sleep" mode support. All operating modes incorporate automatic "power-save" to prevent negative current flow in the low-side FET during light loading conditions, saving even more power.

A 5-bit DAC, accurate to 0.85%, sets the output voltage reference, and implements the 0.600V to 1.750V range required by the processor. The hysteretic converter uses a comparator without an error amplifier, and so provides the fastest possible transient response, while avoiding the stability issues inherent to classical PWM controllers. The SC1474 incorporates a controller for V\_VID and automatically provides the proper sequencing.

The SC1474 operates from +3.3Vdc Vcca and dual 5V DC drive inputs. It also features soft-start, an open-drain PWRGD signal with power-good blanking, and an enable input. Programmable current limiting latches the SC1474 off after 32 current limit pulses. It comes in a space-saving TSSOP-38 package.

#### Typical Application Circuit



#### Features

- ◆ **IMVP3 compliant single chip solution**
- ◆ High speed Dual phase hysteretic controller
- ◆ VID programmable output
- ◆ **Dual integrated 2A/4A drivers**
- ◆ Integrated VID regulator controller
- ◆ Automatic performance/battery mode detection
- ◆ **Dynamic phase current matching**
- ◆ Under-voltage lock out on all Vcc inputs
- ◆ Over-voltage protection on CORE
- ◆ Current Limit protection on CORE
- ◆ Thermal protection
- ◆ Programmable soft-start
- ◆ Powergood flag with blanking during VID changes
- ◆ Automatic powersave at light load
- ◆ TSSOP-38 package
- ◆ Industrial temperature range

#### Applications

- ◆ Advanced Intel microprocessors