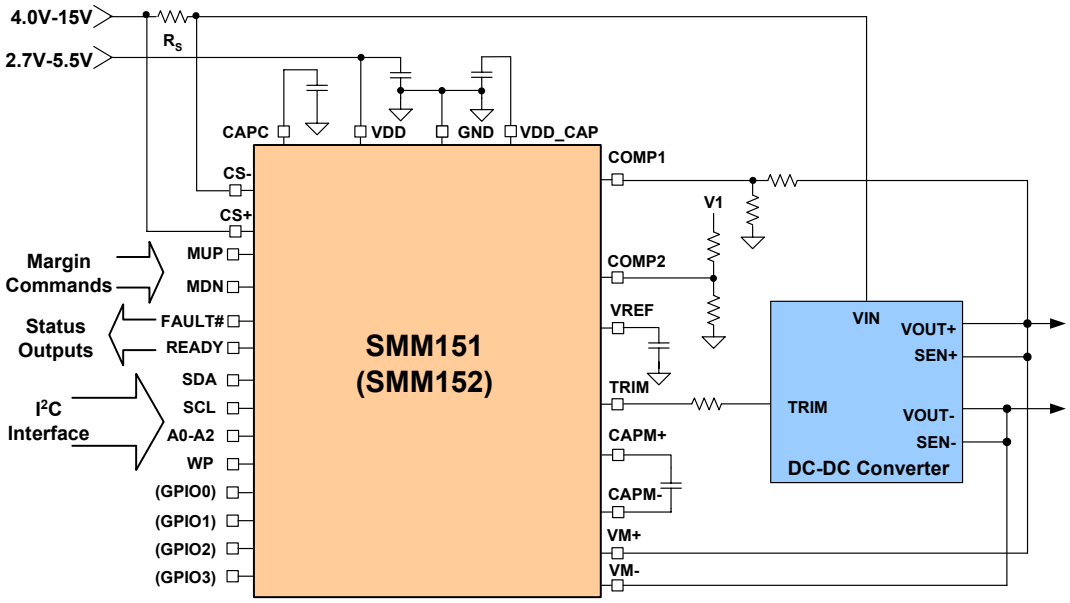
SMM150/1/2/3 Family – Real-time Power Monitors and Voltage Marginers with I2C Interface

Real-time Power Monitoring Enables "Green" Systems and Voltage Margining Maximizes System Reliability

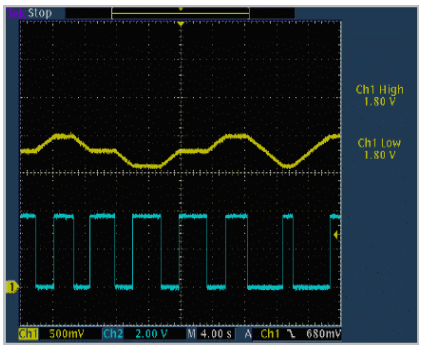


Features

- Real-time Output Voltage (Differential) and Input Current Monitoring via 10-bit ADCs
- Single-channel Supply Margining – can be controlled via I2C or Input Pins
- I²C Serial Interface
- +2.7V to +5.5V Supply Voltage Range
- +4.0V to +15V Current Sense Voltage Range
- ±1% Output Voltage Sense Accuracy
- ±2% Input Current Sense Accuracy
- 4 Programmable General-purpose Inputs/Outputs
- 2 Programmable UV/OV Sensor Inputs
- Programmable Functions/Parameters include:
  - Glitch Filter Duration
  - Margin Delay & HIGH/LOW Voltage Levels
  - GPIO Power-up Polarity
  - Device Response to Fault Conditions
  - Voltage Monitoring Mode: UV or OV
- Space-saving 5x5 QFN-28 Package

Applications

- Servers & Workstations
- Storage Area Networks
- Datacom Equipment
- Wireless Infrastructure
- Applications with CPUs, ASICs, DSPs



Output Voltage Margining via External Pins

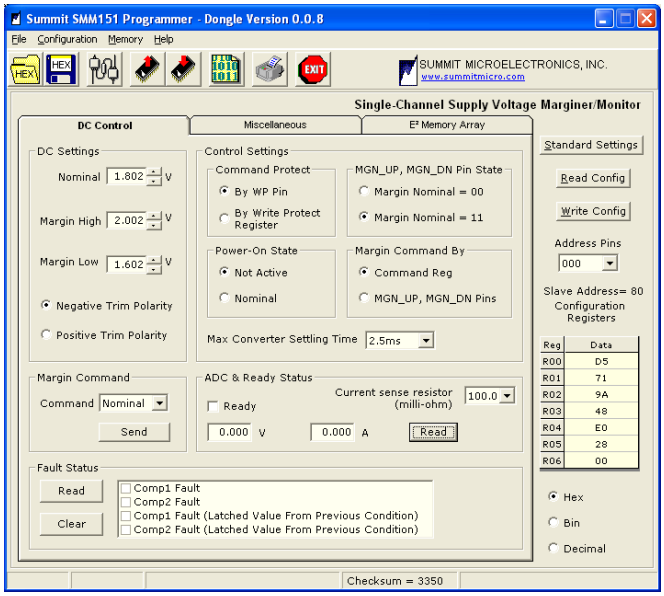
SUMMIT MICROELECTRONICS, Inc.

"Programmable Power for a Green Planet™"

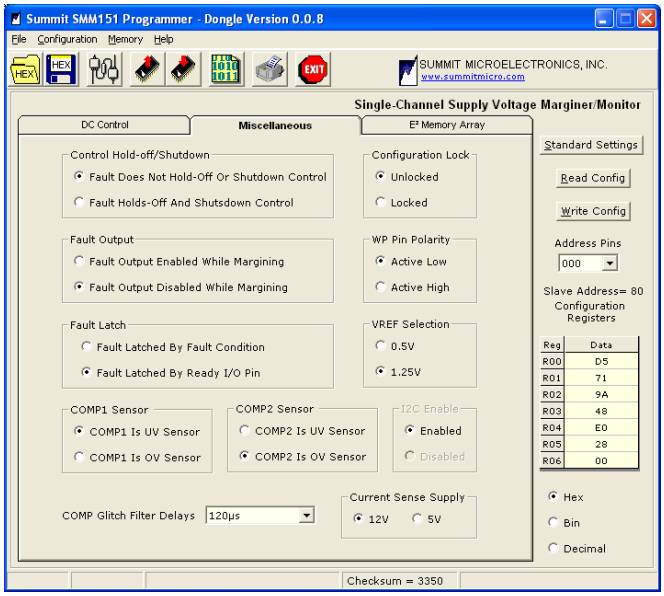
SMM150/1/2/3 Family – Real-time Power Monitors and Voltage Marginers with I2C Interface

GUI allows easy programming of functions and parameters in a real-time environment

Margin Control & Power Monitoring



Status and Control Registers



Programmable Single-channel Margining & Power Monitoring Family

	SMM150	SMM151	SMM152	SMM153
Output Voltage Margining	YES	YES	YES	NO
Real-time Input Current Measurement	NO	YES	YES	YES
Real-time Output Voltage Measurement	YES	YES	YES	YES
I2C Interface	YES	YES	YES	YES
EEPROM Memory	YES	YES	YES	YES
General-purpose Voltage Monitors	2	2	2	2
General-purpose Inputs/Outputs	0	0	4	4
Operating Voltage Range	2.7V to 5.5V	2.7V to 5.5V	2.7V to 5.5V	2.7V to 5.5V
Current Sense Voltage Range	N/A	4.0V to 15V	4.0V to 15V	4.0V to 15V
Output Voltage Sense Range (Note)	0.3V to 5.0V	0.3V to 5.0V	0.3V to 5.0V	0.3V to 5.0V
Voltage Measurement Accuracy	1%	1%	1%	1%
Current Measurement Accuracy	N/A	2%	2%	2%
Package	5x5 QFN-28	5x5 QFN-28	5x5 QFN-28	5x5 QFN-28

Note: Range can be extended with a divider before the VM+/VM- pins. Can only be used from 0.3V to VDD.

SUMMIT
MICROELECTRONICS, Inc.
"Programmable Power for a Green Planet™"