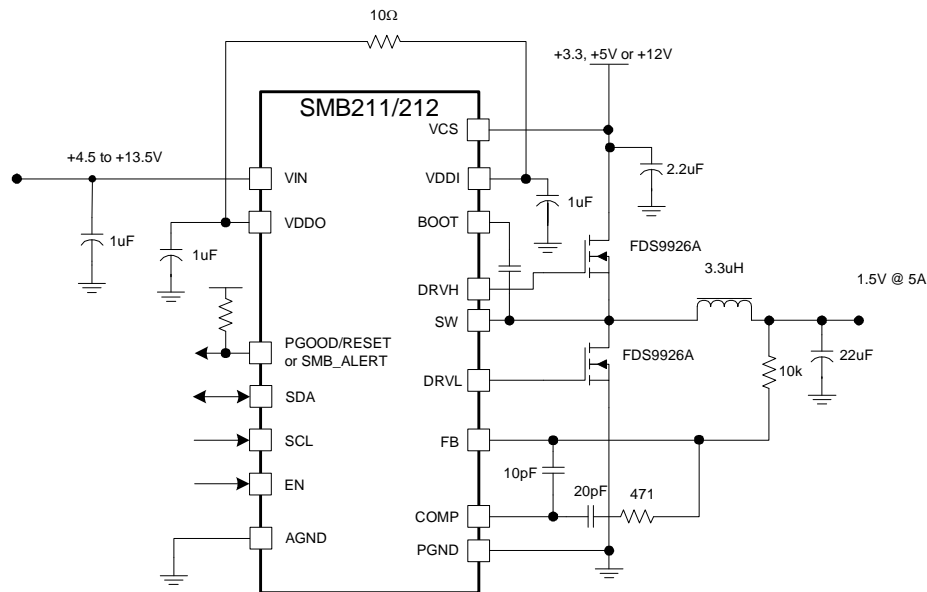
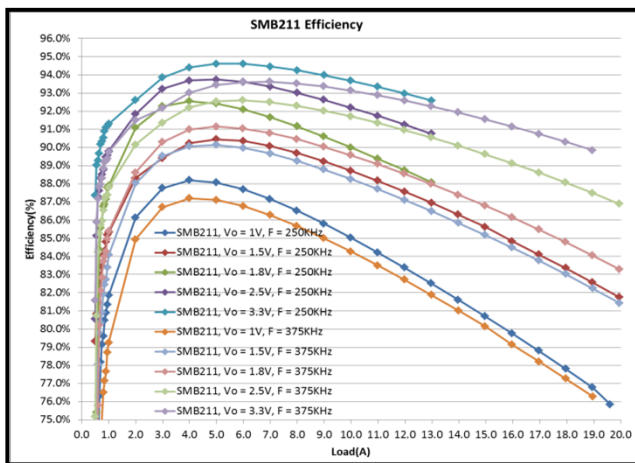


Tiny, Synchronous DC/DC Controller with Digital Power Control Enables True Design Flexibility

SMB211 Allows Integration of High-Performance, High-Power DC/DC Regulation with Advanced Digital Power Control in Space-saving Packages



Note: for output voltages higher than 2.5V, an external resistor divider is required.



SMB211 Features

- Input Voltage Range: +4.5V to +13.5V
- Output Current Capability: more than 15A
- ±1.0% Output Voltage Accuracy
- Up to 96% Voltage Conversion Efficiency
- I2C Programmable (volatile and non-volatile):
 - PWM or PWM/PFM operation
 - Output voltage setting
 - Margin low and margin high
 - Current limit
 - Switching frequency
 - Soft-start and power-on delay
 - Output UV and OV thresholds
 - Over-current response
- Built-in Safety:
 - Over-current limiting
 - Output voltage monitoring
 - Over-temperature protection
 - Status & fault registers
- Space-saving Packaging:
 - 3mm x 3mm QFN-20

SMB211 Applications

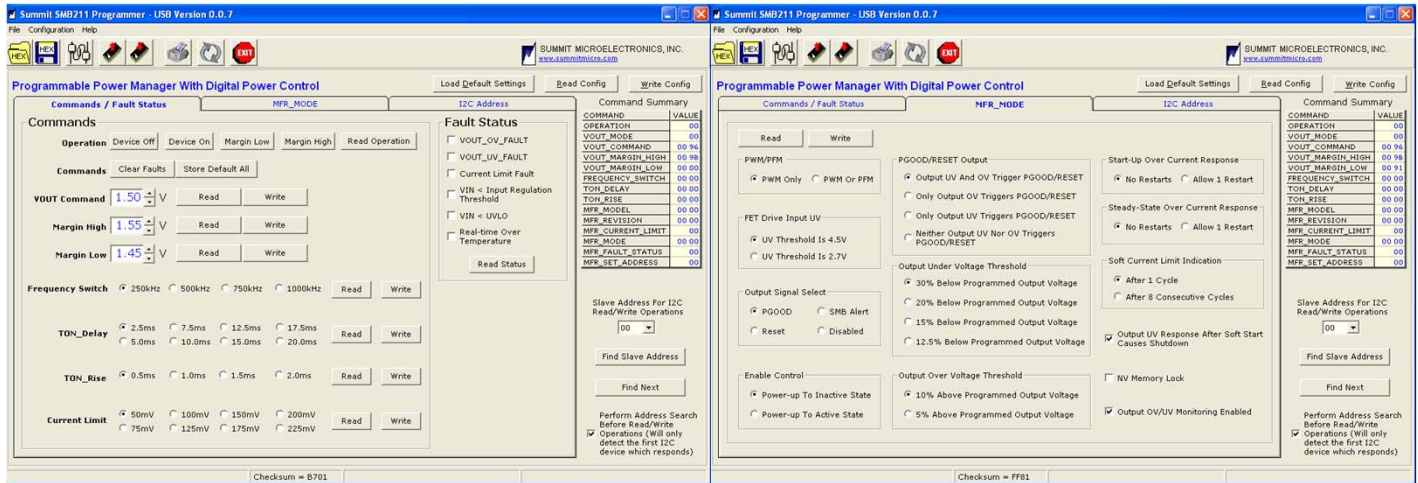
- Set-top Boxes
- Datacom Equipment
- Servers
- Printers
- Digital TVs

Tiny, Synchronous DC/DC Controller with Digital Power Control Enables True Design Flexibility

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

DC/DC Controller Configuration

Real-time Status/Fault Control



Programmable DC/DC Converter Portfolio

	SMB211	SMB113/117	SMB114	SMB214
Topology	Current-mode	Voltage-mode	Voltage-mode	Voltage-mode
Input Voltage Range (V)	4.5 to 13.5	2.7 to 6.0 *	2.7 to 6.0 *	2.7 to 6.0 *
# of Outputs	1	4	4	3
# of Buck Converter Outputs	1	4	4	3
# of LDO Controller Outputs	0	0	0	0
Maximum Output Current (A)	>15	3/5	5	5
Switching Frequency (kHz)	250/500/750/1000	400/800/1000	400/800/1000	400/800/1000
Output Voltage Range (V)	0.5 to 5 (Prog)	0.5 to VIN (Prog)	0.5 to VIN (Prog)	0.5 to VIN (Prog)
Output Voltage Accuracy (%)	1	1.5	2.5	2.5
Dynamic Output Voltage Control	√	√	√	√
Output UV/OV Monitor	Prog	Prog	Prog	Prog
RESET/POWER GOOD Output	√	√	√	√
Phase Interleaving (degrees °)	N/A	180	180	180
Power-saving PFM Mode	√			
I2C/SMBus Interface	√	√	√	√
Sequencing	Prog	Prog	Prog	Prog
Soft-start	Prog	Prog	Prog	Prog
OC Limit	Prog			
Package	'x' QFN-2\$	5x5 QFN-32	5x5 QFN-32	5x5 QFN-32
Internal/External FETs	External	External	External	External
Output FET Configuration	N-N	P-N	P-N	P-N
Synchronous/Anynchronous	Synchronous	Both	Both	Both
Internal/External Compensation	External	External	External	External

* External Bootstrap Circuit allows Operation from higher Voltages.