

GW5111

Triple Output AMOLED Display Power Management IC

Description

The GW5111 is designed to drive displays Active Matrix Organic Light Emitting Diode (AMOLED) requiring $V_{(AVDD)}$, $V_{(ELVDD)}$ and $V_{(ELVSS)}$. The device integrates a boost converter for $V_{(ELVDD)}$, an inverting buck-boost converter for $V_{(ELVSS)}$ and a boost converter for $V_{(AVDD)}$, which are suitable for battery operated products. The digital interface control pin (SWIRE) allows programming $V_{(AVDD)}$, $V_{(ELVDD)}$ and $V_{(ELVSS)}$ in digital steps.

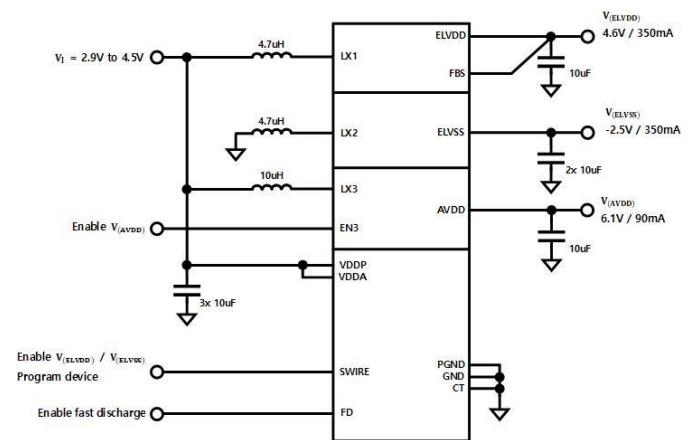
Features

- 2.9-V to 4.5-V Input Voltage Range
- Synchronous Boost Converter (AVDD)
 - 5.8V to 7.9V Output Voltage (programmable)
 - 6.1V Default Output Voltage
 - 1% Accuracy
 - **90mA** Output Current Capability
 - 100-mA Output Current Protection ($\pm 20\%$)
 - V_I to V_O and V_O to V_I Isolation
- Synchronous Boost Converter (ELVDD)
 - 4.6V to 5.0V Output Voltage (programmable)
 - 4.6V Default Output Voltage
 - 1% Accuracy
 - **350mA** Output Current Capability
 - External Output Voltage Sensing Pin for Load Drop Compensation
 - Excellent Line Transient Response
 - V_I to V_O and V_O to V_I Isolation
- Synchronous Inverting Buck-Boost Converter (ELVSS)
 - -5.4V to -1.4V Output Voltage (programmable)
 - -2.5V Default Output Voltage
 - 2% Accuracy at -2.5V ($\pm 30mV$)
 - **350mA** Output Current Capability
 - V_I to V_O and V_O to V_I Isolation
- Single-Wire Digital Interface for Programming
- Short Circuit Protection
- Thermal Shutdown
- Available in 3-mm x 3-mm x 0.75-mm 16-Pin WQFN Package

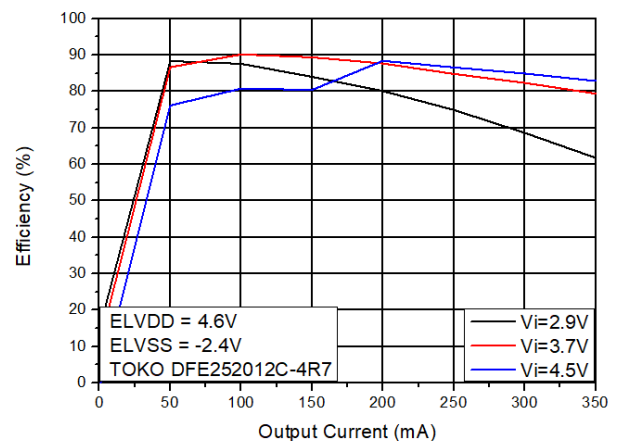
Typical Applications

- Smartphones
- Small Size Tablets
- AMOLED displays up to 8"

Simplified Schematic



Efficiency



Ordering Information

Device name	Package	Remark
GW5111IRTZR	3.00mm x 3.00mm	WQFN(16)

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