

Product Information

Features

8.6 to 14.7V Input Voltage Range
6-Bit Boost Converter V_{DD}
Programmable Integrated Input-to-Output Isolation Switch
Programmable Buck Converter HVDD
Programmable Buck Converter V_{I/O}
Programmable Buck Converter V_G
Programmable Buck Converter V_G
Positive charge Pump Controller V_G
Temperature Compensation for V_{GH}
Negative Charge Pump Controller V_{GL}
Reset Signal With Programmable Reset Pulse Duration
Programmable Sequencing
Thermal Shutdown
APPLICATIONS
LCD TVS
LCD TVS
LCD monitors

Description

The TPS65168 provides a simple and economic power supply solution for a wide variety of LCD bias applications. The device provides all supply rails needed by a TFT-LCD panel. $\rm V_{I/O}$, $\rm V_{CORE}$ and RST for the T-Con. $\rm V_{DD}$ and $\rm HV_{DD}$ for the Source Driver and the Gamma Buffer. $\rm V_{GH}$ and $\rm V_{GL}$ for the Gate Driver or the Level Shifter. The V $_{GH}$ voltage can be compensated for low and high adjustable temperatures, if GIP technology is used. The transition from one programmed $\rm V_{GH}$ value to another is made using an external thermistor connected to the IC. All output rails

and delay times are programmable by a Two-Wire interface: a single BOM can cover several panel types and sizes whose desired output levels can be programmed in production and stored in a non-volatile memory embedded into the TPS65168.

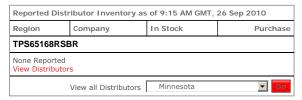
View All Description in Datasheet

Pricing / Packaging / CAD Design Tools / Samples

		Price	Packaging		Samples	
Device	Status	Temp (°C)	Price Quantity	Package Pins	Package QTY Package Carrier	Samples
TPS65168RSBR	ACTIVE	-40 to 85	1.90 1ku	WQFN (RSB) 40	3000 LARGE T&R	Add Free Sample To Cart

^{*} Suggested Resale Price per unit (USD) for BUDGETARY USE ONLY. For higher volume price quotes, prices in local currency or delivery quotes, please contact your local Texas Instruments Sales Office or Authorized Distributor.

Inventory



Please contact your preferred $\overline{\text{II}}$ Authorized Distributor or local $\overline{\text{II}}$ sales office for lead times on full production quantities.

Quality & Lead (Pb)-Free Data

	Product Content	DPPM / MTBF / FIT Rate			
Device	Eco Plan*	Lead / Ball Finish	MSL Rating / Peak Reflow	Details	Details
TPS65168RSBR 🚺	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	View	View

^{*} The planned eco-friendly classification: Pb-Free (RoHS) or Pb-Free (RoHS Exempt) or Green (RoHS & no Sb/Br) - please click on the Product Content Details "View" link in the table above for the latest availability information and additional product content details.

If the information you are requesting is not available online at this time, contact one of our <u>Product Information Centers</u> regarding the availability of this information.

Technical Documents

Datasheet

TPS65168 Features (PDF 13 KB) 09 Sep 2010

Related Products

Part #	Name	Product Family	Comments
BUF16821	Programmable Gamma-Voltage Generator and Vcom Calibrator with Integrated Two- Bank Memory	PRECISION AMPLIFIER - LCD GAMMA BUFFER	TPS65168 supplies VDD output rail for BUF16821 and also VGH & VGL for TPS65194
TPS65194	13 Channel Level Shifter for LCD TVs and Monitors	LIGHTING AND DISPLAY SOLUTIONS - LCD/OLED DISPLAY BIAS SOLUTIONS	TPS65168 supplies VDD output rail for BUF16821 and also VGH & VGL for TPS65194

Support and Community

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Forums

Topics		Replies	Views
-	TLC5947 Single Shot Latest post by Brigitte, 27 Sep 2010 2:46 AM	9	84
	TLC5927 - Maximum Driving Current for a LED Driver Latest post by Nicolas Prieto Angueira, 23 Sep 2010 2:55 PM	2	42
	TLC5916 - Output default turnon state? Latest post by Dick Stacey, 23 Sep 2010 12:18 PM	1	29
B	TPS61500EVM-369 dimming Latest post by Stephen Nortman, 16 Sep 2010 1:55 PM	9	201
	Looking for some advice for 8x8 RGB Led matrix driver Latest post by Brigitte, 10 Sep 2010 7:12 AM	3	116

See more forums

Media



Power Tips! Series on Power Management Posted: 17 Jun 2009 Views: 1,180

See more videos

Blogs

High five, ARCHOS! New tablets echo scalable mobile success

In my years of work with the TI team, I've learned that success is not just measured by the chips and technologies incubated inside of TI's walls. Success, rather, is measured in large part by those chips' and technologies' ability...

Posted to Mobile Momentum on 3 Sep 2010

OMAP, WiLink, ARM, Archos, power management, ARM Cortex-A8, tablet, OMAP36x

TI's Intel Atom Tunnel Creek platform power system referene designs reduce time to revenue

If you're designing an embedded computing platform using Intel's 2010 Atom Tunnel Creek processor there's good news in dealing with the complexity of the power design, and ensuring your power supplies are compliant to the Intel power specifications...

Posted to Power House on 26 Aug 2010 power supply, power management, Aton Atom, buck, step-down, power converter, processor power supply, GPU core voltage regulator, intel, switcher, tunnel creek, Eco Mode, CPU core voltage regulator

Total Power Solutions for Embedded Processing eTech Day - June 29, 2010

Designing an Embedded Processing or Embedded Computing board? Embedded Computing is one of the highest-growth market segments with embedded computers behind many day-to-day tasks from home and factory automation to security to entertainment to renewable...

Posted to Power House on 21 Jun 2010

power management, Embedded PC, Atom, Embedded Computer, infotainment, dc/dc converter, intel cpu, embedded processing, omap, core i3, core i7, core i5, power solution, media phones

One Bright Day - Controlling LEDs with Microcontrollers - June 22nd, 2010

The industry debate on "if LEDs will be used for real world lighting applications" is over. The answer is an undeniable "Yes". The debate has shifted to "when". When will LED based light bulb replacements be affordable...

Posted to Power House on 21 Jun 2010

power management, LED, analog, lamp, lighting, led driver, Microcontrollers

2010 North American Power Supply Design Seminar Dates Announced

TI's popular Power Supply Design Seminars are back! The seminars provide rich technical and practical presentations that combine new advanced power supply concepts, basic design principles and real-world application examples. Seminars are also planned...

Posted to Power House on 8 Jun 2010

power supply, power management, training, power supply seminar

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Customer Reviews BETA

Overall Rating No reviews yet.

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