Low-Power DC/DC Converters

**Buck/Boost Charge Pumps**
- 2 90% efficient, 30-mA buck/boost charge pump
- 25-mA charge pump

**Boost Charge Pumps**
- 3 100-mA dual-cell charge pump
- Single-cell charge pump
- 4 Single-cell charge pump with 2-µA snooze mode

**Inverter Charge Pumps**
- 4 98% efficient inverting charge pump

**Buck Charge Pumps**
- 5 250-mA buck charge pump

**Boost Converters**
- 5 95% efficient boost converter
- 6 Boost converter for LCD and white LED
  - 88% efficient boost converter
- 7 Single- and dual-cell, 92% efficient boost converter
  - Dual-output boost converter

**Buck Converters**
- 8 97% efficient synchronous buck converter
- 600-mA synchronous buck converter

**Resources**
- 9 Charge pump/inductive DC/DC converter family trees
- 10 Low-power DC/DC converter selection guides

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**Page 7**
**TPS6110x, Dual output DC/DC converter** with integrated LDO offers complete power supply solution in one device

**Page 8**
**TPS6220x, 97% efficient step-down converter in SOT-23**

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**Order your free copy of the UPDATED 'Power Management Selection Guide'**
(see reply card for details)
Buck/Boost Charge Pumps

90% efficient, 30-mA buck/boost charge pump in SOT-23

REG710 & REG711

Get samples, datasheets, EVMs and app reports at:
www.ti.com/sc/device/reg710
www.ti.com/sc/device/reg711

- Automatic voltage step-up/step-down regulation
- Wide input voltage range: 1.8 V to 5.5 V
- Maximum efficiency: 90%
- Typical shutdown current: 0.01 µA
- Thermal protection and current limit
- 8-pin SOT-23 package (REG710)
- 8-pin MSOP package (REG711)
- Suggested resale price starts at $0.90 each (quantities of 1,000)

Available Device Options

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REG710</td>
<td>30</td>
<td>2.5, 2.7, 3.0, 3.3, 5.0</td>
</tr>
<tr>
<td>REG711</td>
<td>50</td>
<td>2.5, 2.7, 3.0, 3.3, 5.0</td>
</tr>
</tbody>
</table>

Application with LED Circuit

25-mA charge pump ideally suited for VCO and PLL applications

TPS6024x

Get samples, datasheets, EVMs and app reports at:
www.ti.com/sc/device/tps60240

- Automatic voltage step-up/step-down regulation
- Wide-input voltage range: 1.8 V to 5.5 V
- Zero-ripple output: 170-µVrms
- Maximum efficiency: 90%
- Typical shutdown current: 0.1 µA
- Thermal protection and current limit
- 8-pin MSOP package
- Suggested resale price starts at $1.57 each (quantities of 1,000)

Available Device Options

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
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</thead>
<tbody>
<tr>
<td>TPS60240</td>
<td>25</td>
<td>3.3</td>
</tr>
<tr>
<td>TPS60241</td>
<td>25</td>
<td>5.0</td>
</tr>
<tr>
<td>TPS60242</td>
<td>25</td>
<td>2.7</td>
</tr>
<tr>
<td>TPS60243</td>
<td>25</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Application with VCO Circuit

Typical applications:
- Smart card readers
- SIM card supplies
- PCMCIA cards
- Cellular phones
- Notebook, palm-top computers and modems
- White LED driver and LCD displays
- Battery backup supplies

Typical applications:
- VCO and PLL power for PDA phone, cellular phones and PCMCIA modems
- Smart card readers
- Digital cameras
- MP3 players
- SIM modules and memory backup
- Handheld meters
Boost Charge Pumps

100-mA charge pump with 2-µA quiescent current

**TPS6020x/TPS6021x**

- Input voltage: 1.8 V to 3.6 V
- Low noise: 5 mV<sub>rms</sub>
- Maximum efficiency: 90%
- 2-µA quiescent current in snooze mode (TPS6021x)
- Typical shutdown current: 0.05 µA
- Shutdown, low battery or Power Good feature
- Package: 10-pin MSOP
- Suggested resale price starts at $1.29 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
<th>Quiescent current (µA)</th>
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<tr>
<td>TPS60200/1</td>
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<td>40</td>
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<tr>
<td>TPS60202/3</td>
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<td>3.3</td>
<td>40</td>
</tr>
<tr>
<td>TPS60204/5</td>
<td>100</td>
<td>3.3</td>
<td>35</td>
</tr>
<tr>
<td>TPS60210/1</td>
<td>100</td>
<td>3.3</td>
<td>2</td>
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<tr>
<td>TPS60212/3</td>
<td>50</td>
<td>3.3</td>
<td>2</td>
</tr>
</tbody>
</table>

Application with Low-Battery Warning and Snooze Mode Pin

**Typical applications:**
- Two battery cells to 3.3-V conversion
- MP3 portable audio players
- Battery-powered microprocessor systems
- Backup-battery boost converters
- PDAs, organizers, cordless phones
- Handheld instrumentation

Single-cell to 3.0-V/3.3-V, dual-output charge pump

**TPS6030x**

- Input voltage: 0.9 V to 1.8 V
- Maximum efficiency: 90%
- Quiescent current: 35 µA
- Typical shutdown current: 0.05 µA
- Power Good feature
- Package: 10-pin MSOP
- Suggested resale price starts at $1.26 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
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</thead>
<tbody>
<tr>
<td>TPS60300/2</td>
<td>40</td>
<td>3.3</td>
</tr>
<tr>
<td>TPS60301/3</td>
<td>40</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Efficiency Over Alkaline Battery Operating Time**

**Typical applications:**
- Smart card readers
- SIM card supplies
- Healthcare products (e.g., toothbrush)
- Metering applications using MSP430 microcontroller
- Notebook, palm-top computers and modems
- Battery backup supplies
Boost Charge Pumps

Single-cell to 3.0-V/3.3-V, dual charge pump with 2-µA snooze mode

**TPS6031x**

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/tps60310

- Input voltage: 0.9 V to 1.8 V
- Maximum efficiency: 90%
- 2-µA quiescent current in snooze mode
- Typical shutdown current: 0.01 µA
- Power Good feature
- Package: 10-pin MSOP
- Suggested resale price starts at $1.42 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
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<th>Output voltage (V)</th>
<th>Quiescent current (µA)</th>
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</thead>
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<tr>
<td>TPS60311/3</td>
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<td>3.0</td>
<td>2</td>
</tr>
</tbody>
</table>

**Application with MSP430 Microcontroller**

Typical applications:
- Smart card readers
- SIM card supplies
- Healthcare products (e.g., toothbrush)
- Metering applications using TI's MSP430 ultra-low-power microcontroller
- Notebook, palm-top computers and modems
- Battery backup supplies

---

Inverter Charge Pumps

98% efficient, inverting charge pump in SOT-23

**TPS6040x**

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/tps60400

- Input voltage: 1.6 V to 5.5 V
- Pin-compatible parts
- Output voltage: -V\text{IN}
- Output current: 60 mA
- Maximum efficiency: 98%
- PowerSave mode
- Package: 5-pin SOT-23
- Pin-compatible to MAX828, SP6828, LM828, ICL828, TCR82, ADM8828
- Suggested resale price starts at $0.46 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Switching frequency (kHz)</th>
<th>Quiescent current (µA)</th>
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<tbody>
<tr>
<td>TPS60400</td>
<td>50 - 250</td>
<td>125</td>
</tr>
<tr>
<td>TPS60401</td>
<td>20</td>
<td>65</td>
</tr>
<tr>
<td>TPS60402</td>
<td>50</td>
<td>120</td>
</tr>
<tr>
<td>TPS60403</td>
<td>250</td>
<td>425</td>
</tr>
</tbody>
</table>

**Typical Application**

Typical applications:
- LCD bias
- GaAs bias for RF power amplifiers
- Sensor supply in portable instruments
- Bipolar amplifier supply
- Medical instruments
- Battery-operated equipment
**Buck Charge Pumps**

**250-mA, buck charge pump in MSOP-8**

**TPS6050x**

Get samples, datasheets, EVMs and app reports at:

www.ti.com/sc/device/tps60500

- Input voltage: 1.8 V to 6.5 V
- Maximum efficiency: 90%
- Quiescent current: 40 µA
- Over-current and over-temperature protected
- Output-voltage supervisor included
- Package: 10-pin MSOP
- Suggested resale price starts at $1.35 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS60500</td>
<td>250</td>
<td>0.8 - 3.3</td>
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<tr>
<td>TPS60501</td>
<td>250</td>
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<tr>
<td>TPS60502</td>
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<td>1.8</td>
</tr>
<tr>
<td>TPS60503</td>
<td>250</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**TPS60502 Powered by One Li-Ion Cell**

**Typical applications:**
- PDAs
- DSP core supply
- Cellular phones
- Portable instruments
- Internet audio players
- PC peripherals
- USB-powered applications

---

**Boost Converters**

**95% efficient, 1-A boost converter with low battery indicator**

**TPS6103x**

Get samples, datasheets, EVMs and app reports at:

www.ti.com/sc/device/tps61030

* Available 4Q ‘02

- Input voltage: 1.8 V to 7.0 V
- Maximum efficiency: 95%
- Quiescent current: 50 µA
- Output current: 1 A
- Typical shutdown current: 5 µA
- Package: 16-pin TSSOP PowerPAD™
- Suggested resale price starts at $2.25 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Switch current (mA)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS61030</td>
<td>5000</td>
<td>1.8 - 5.5</td>
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<tr>
<td>TPS61031</td>
<td>5000</td>
<td>3.3</td>
</tr>
<tr>
<td>TPS61032</td>
<td>5000</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Application Example**

**Typical applications:**
- Battery-powered end equipments
- Portable communication devices
- PDAs, notebooks
- GPS systems
- Keyless entry systems
- Personal medical systems
Boost Converters

Boost converter for LCD bias and white LED backlight supply in SOT-23

**TPS6104x**

- Input voltage: 1.8 V to 6.0 V
- Maximum efficiency: 85%
- Quiescent current: 28 µA
- Output current: 100 mA (TPS61040) 45 mA (TPS61041)
- Typical shutdown current: 1 µA
- Maximum switching frequency: 1 MHz
- Package: 5-pin SOT-23
- Suggested resale price $0.95 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Switch current limit (mA)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS61040</td>
<td>400</td>
<td>3.3 - 28.0</td>
</tr>
<tr>
<td>TPS61041</td>
<td>250</td>
<td>3.3 - 28.0</td>
</tr>
</tbody>
</table>

**Application Example**

**Typical applications:**
- LCD bias supply
- White LED backlight supply
- Digital still camera
- PDAs, organizers, handhelds
- Cellular phones
- Standard 3.3/5.0 V to 12-V conversion
- Dual cell to 5-V conversion

88% efficient, 250-mA boost converter

**TPS6100x**

- Guaranteed start-up into full load with supply voltage as low as 0.9 V over full temperature
- Guaranteed output current of 100 mA at 3.3-V V\text{OUT} and 0.8-V V\text{IN}
- High-power conversion efficiency (> 88%)
- PowerSave mode for improved efficiency at low output currents
- Device quiescent current < 50 µA
- Low-battery comparator
- Low-electromagnetic interference converter (integrated anti-ringing switch across inductor)
- Package: 10-pin MSOP
- Suggested resale price starts at $1.35 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Input voltage (V)</th>
<th>Output voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS61000</td>
<td>0.8 - 3.3</td>
<td>1.5 - 3.3</td>
</tr>
<tr>
<td>TPS61001</td>
<td>0.8 - 1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>TPS61002</td>
<td>0.8 - 1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>TPS61003</td>
<td>0.8 - 2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>TPS61004</td>
<td>0.8 - 2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>TPS61005</td>
<td>0.8 - 3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>TPS61006</td>
<td>0.8 - 3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>TPS61007</td>
<td>0.8 - 3.3</td>
<td>0.8 - 3.3</td>
</tr>
</tbody>
</table>

**Application Circuit for Fixed Output Voltage Option**

**Typical applications:**
- MP3 players
- Wireless headsets and handsets
- Pagers
- Remote controls
- Healthcare products (e.g., portable diagnostic equipment)
Single- and dual-cell, 92% efficient, synchronous boost converter in chip-scale package

TPS6101x

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/tps61010

- Input voltage: 0.8 V to 3.3 V
- Maximum efficiency: 92%
- Output current: 200 mA
- Quiescent current: 50 µA
- Typical shutdown current: 1 µA
- Integrated low battery comparator
- Integrated anti-ringing switch across inductor
- Auto-discharge during shutdown
- Package: 10-pin MSOP, 12-ball chip-scale package (4Q ’02)
- Suggested resale price starts at $1.59 each (quantities of 1,000)

Available Device Options

<table>
<thead>
<tr>
<th>Device</th>
<th>Input voltage (V)</th>
<th>Output voltage (V)</th>
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</thead>
<tbody>
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<td>TPS61010</td>
<td>0.8 - 3.3</td>
<td>1.5 - 3.3</td>
</tr>
<tr>
<td>TPS61011</td>
<td>0.8 - 1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>TPS61012</td>
<td>0.8 - 1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>TPS61013</td>
<td>0.8 - 2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>TPS61014</td>
<td>0.8 - 2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>TPS61015</td>
<td>0.8 - 3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>TPS61016</td>
<td>0.8 - 3.3</td>
<td>3.3</td>
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</tbody>
</table>

Dual-output, 200-mA synchronous boost converter with integrated LDO

TPS6110x

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/tps61100

- Boost input voltage: 0.8 V to 3.6 V ideal for 1- and 2-cell Alkaline batteries
- LDO input voltage 1.5 V to 7 V
- Maximum efficiency: 95%
- Output current: 200 mA from 0.8-V supply
- Quiescent current: 65 µA
- Typical shutdown current: 0.6 µA
- Low EMI, thermal protection and Power Good
- Battery supervision
- Package: 20-pin TSSOP, 4 x 4 mm MLP/QFN-24
- Suggested resale price starts at $1.75 each (quantities of 1,000)

Available Device Options

<table>
<thead>
<tr>
<th>Device</th>
<th>V_OUT DC/DC (V)</th>
<th>V_OUT LDO (V)</th>
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</thead>
<tbody>
<tr>
<td>TPS61100</td>
<td>1.5 - 5.5</td>
<td>0.9 - 3.6</td>
</tr>
<tr>
<td>TPS61103</td>
<td>3.3</td>
<td>0.9 - 3.6</td>
</tr>
<tr>
<td>TPS61106</td>
<td>3.3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Application Example

Typical applications:
- Internet audio players
- Pagers
- Portable medical diagnostic equipment
- Remote controls
- Wireless headsets
- PDAs
- Digital still cameras

Typical applications:
- TMS320C5000™ DSP platform
- MP3 players, digital still cameras
- PDAs, notebooks
- Other battery-powered end equipments
Buck Converters

97% efficient, ultra-low-power, 300-mA synchronous buck converter in SOT-23

**TPS6220x**

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/tps62200

- Input voltage: 2.5 V to 6.0 V
- Maximum efficiency: 97%
- Quiescent current: 15 µA
- Typical shutdown current: 0.1 µA
- Package: 5-pin SOT-23
- Suggested resale price starts at $1.50 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
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</thead>
<tbody>
<tr>
<td>TPS62200</td>
<td>300</td>
<td>0.7 - 6.0</td>
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<tr>
<td>TPS62201</td>
<td>300</td>
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<td>TPS62202</td>
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<tr>
<td>TPS62205</td>
<td>300</td>
<td>2.5</td>
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</table>

**Application with Only Three External Components**

![Application circuit diagram](image)

**Efficiency Over Load Current**

![Efficiency graph](image)

**Typical applications:**
- Low-power CPUs and DSPs
- Cellular phones
- Organizers, PDAs and handheld PCs
- MP3 portable audio players
- Digital cameras
- USB-based DSL modems

600-mA, 95% efficient synchronous buck converter in chip-scale package

**TPS6200x**

Get samples, datasheets, EVMs and app reports at: www.ti.com/sc/device/tps62000

- Input voltage: 2.0 V to 5.5 V
- Maximum efficiency: 95%
- Quiescent current: 50 µA
- Typical shutdown current: 0.1 µA
- Package: 10-pin MSOP, chip-scale package (4Q '02)
- Suggested resale price starts at $1.69 each (quantities of 1,000)

**Available Device Options**

<table>
<thead>
<tr>
<th>Device</th>
<th>Output current (mA)</th>
<th>Output voltage (V)</th>
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</table>

**Typical applications:**
- Low-power CPUs and DSPs
- Cellular phones
- Organizers, PDAs and handheld PCs
- MP3 portable audio players
- Digital cameras
- USB-based DSL modems
**LOW-POWER DC/DC CONVERTERS**

**SINE ON**

**TENSA INSTRUMENTS 3Q. 2002**

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### Selection Guides

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**Charge Pumps**

| Device | VCC (V) | VOUT (V) | Output Current (mA) | Switching Frequency (kHz) | Quiescent Current (mA) | Shutdown Current (mA) | Efficiency (%) | Load Battery | Power Good | Current Limit | Thermal Limit | Packages/Pins | EVM | Price $1 |
|--------|---------|----------|---------------------|---------------------------|------------------------|-----------------------|----------------|--------------|------------|-------------|-------------|--------------|----------------|-----|---------|
| REG710 | 1.8 to 5.5 | 2.5 to 5.0 | 16 2 2.10 | ✔✔ ✔ ✔ | ✔✔ ✔ ✔ | ✔✔ ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | 6 | 0.90 |
| REG711 | 1.8 to 5.5 | 2.5 to 5.0 | 16 2 2.3 | 2.73 | ✔✔ ✔ ✔ | ✔✔ ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | 8 | 1.27 |
| REG712/1/2/3 | 1.8 to 5.5 | 2.7 to 5.5 | 25 | 2.75 | ✔✔ ✔ | ✔✔ ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | 8 | 1.57 |

**Boost**

<table>
<thead>
<tr>
<th>Device</th>
<th>VCC (V)</th>
<th>VOUT (V)</th>
<th>Output Current (mA)</th>
<th>Switching Frequency (kHz)</th>
<th>Quiescent Current (mA)</th>
<th>Shutdown Current (mA)</th>
<th>Efficiency (%)</th>
<th>Load Battery</th>
<th>Power Good</th>
<th>Current Limit</th>
<th>Thermal Limit</th>
<th>Packages/Pins</th>
<th>EVM</th>
<th>Price $1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP50020/1/2/3</td>
<td>1.8 to 6.5</td>
<td>0.9 to 3.3</td>
<td>250</td>
<td>120</td>
<td>40</td>
<td>0.05</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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### Inductive DC/DC Converters

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**Buck/Boost**

<table>
<thead>
<tr>
<th>Device</th>
<th>VCC (V)</th>
<th>VOUT (V)</th>
<th>Output Current (mA)</th>
<th>Switching Frequency (kHz)</th>
<th>Quiescent Current (mA)</th>
<th>Shutdown Current (mA)</th>
<th>Efficiency (%)</th>
<th>LDO</th>
<th>Low Battery</th>
<th>Power Good</th>
<th>Current Limit</th>
<th>Thermal Limit</th>
<th>Packages/Pins</th>
<th>EVM</th>
<th>Price $1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS61130</td>
<td>1.8 to 5.5</td>
<td>2.5 to 5.5</td>
<td>300</td>
<td>600</td>
<td>40</td>
<td>0.3</td>
<td>90</td>
<td>✔✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>10</td>
<td>1.95</td>
</tr>
<tr>
<td>TPS61131</td>
<td>1.8 to 5.5</td>
<td>3.3</td>
<td>300</td>
<td>600</td>
<td>40</td>
<td>0.3</td>
<td>90</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>10</td>
<td>1.95</td>
</tr>
<tr>
<td>TPS61132</td>
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<td>3.3</td>
<td>300</td>
<td>600</td>
<td>40</td>
<td>0.3</td>
<td>90</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>10</td>
<td>1.95</td>
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<tr>
<td>UCC3821</td>
<td>1.8 to 4.0</td>
<td>2.5 to 8.0</td>
<td>—</td>
<td>100</td>
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<td>—</td>
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<td>1.2 to 10.0</td>
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<td>—</td>
<td>11000</td>
<td>6000</td>
<td>85</td>
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<td>✔</td>
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<td>1.33</td>
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### Boost

<table>
<thead>
<tr>
<th>Device</th>
<th>VCC (V)</th>
<th>VOUT (V)</th>
<th>Output Current (mA)</th>
<th>Switching Frequency (kHz)</th>
<th>Quiescent Current (mA)</th>
<th>Shutdown Current (mA)</th>
<th>Efficiency (%)</th>
<th>LDO</th>
<th>Low Battery</th>
<th>Power Good</th>
<th>Current Limit</th>
<th>Thermal Limit</th>
<th>Packages/Pins</th>
<th>EVM</th>
<th>Price $1</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS6300x</td>
<td>0.8 to 5.5</td>
<td>0.8 to 5.0</td>
<td>600</td>
<td>1000</td>
<td>50</td>
<td>1</td>
<td>95</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>10</td>
<td>1.09</td>
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<td>0.8 to 5.0</td>
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<td>200 to 2600</td>
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<td>1</td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>✔</td>
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<td>2.01</td>
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<tr>
<td>TPS6220x</td>
<td>2.5 to 6.0</td>
<td>0.7 to 8.0</td>
<td>300</td>
<td>1000</td>
<td>15</td>
<td>1</td>
<td>95</td>
<td>✔</td>
<td>✔</td>
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<td>✔</td>
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<td>10</td>
<td>1.49</td>
</tr>
</tbody>
</table>

---

**Navigate**

1. **Suggested resale price in U.S. dollars in quantities of 1,000.**
Typical Portable Application

DC Supply
Wall transformer
USB port
etc.

Power Switch

Li-Ion
Battery
or
NIMH
Akaline
Charger
FET

Charger

Power
Switch

Protector

Battery
Monitor

Host I/F

UCC3911

bq2057
bq242xx
bq240xx
bq2000/2002

TPS215x
TPS209x

TPS61xxx
TPS62xxx

TPS3xxx

SVS

Reset Power Good

OutputRails:

µP/DSP I/O (TPS6200x, '610xx)
µP/DSP Core (TPS6200x, '610xx)
MSP430 supply (TPS6030x)
LCD bias (TPS6104x)
White LED Backlight (TPS6104x, REG71x)
HDD or CD Drive (UCC39421)
Audio Codec/Amplifier
VCO/PLL for Wireless (TPS6024x)
Sensors (REG71x)
Memory Cards
PCMCIA

SVS

DC/DC
Converter

Charge
Pump

TPS722XX
TPS793XX

TPS797XX

UFL

Backlight

Battery Management
Power Conversion and System Supply
Power Distribution and Supervision

TPS61xxx
TPS62xxx
TPS60xxx

TPS215x
TPS209x

TPS3xxx

UCC397x

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