Low-Power DC/DC Converter Overview
TPS61 Boost, TPS62 Buck, TPS63 Buck-Boost and TPS82 Module

Overview
The TPS6-series supports your need for small solution size, low system cost and high power density. These synchronous DC/DC converters with integrated FETs offer high efficiency over a wide load range and very low quiescent current.

Application Benefits
- **Long battery run-time and low temp** → High efficiency (up to 98%) over wide load range (1µA to 6A), very low IQ down to 360nA buck and 300nA boost (15nA in bypass)
- **Small total solution size and cost** → Minimal number of small external components required QFN, SON, SOT563 or WCSP needs only CIN, COUT, L
- **Low EMI and low system noise** → DCS-Control™ topology, high PSRR (90dB), low ripple (10mV) spread spectrum, no need for filtering
- **Easy-to-design and easy-to-use** → Synchronous DC/DC with integrated compensation MicroSiP™ modules <6.7mm² with integrated CIN, COUT, L

<table>
<thead>
<tr>
<th>Switch Current Limit</th>
<th>≤0.9A</th>
<th>≥1A</th>
<th>≥2A</th>
<th>≥3A</th>
<th>≥4A</th>
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</thead>
<tbody>
<tr>
<td>VIN up to 18V</td>
<td></td>
<td>TPS61256</td>
<td></td>
<td>TPS61253</td>
<td>TPS61021A</td>
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<tr>
<td>VIN up to 6V</td>
<td></td>
<td>TPS61046³</td>
<td>TPS61093</td>
<td>TPS61252</td>
<td>TPS61256</td>
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<tr>
<td>Ultra-low IQ</td>
<td></td>
<td>TPS61220³</td>
<td>TPS61291</td>
<td>TPS61096³</td>
<td>TPS61251</td>
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<tr>
<td>Module</td>
<td></td>
<td>TPS81256</td>
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| VIN up to 16V         |       | TPS81256 |       |       |      |
| VIN up to 5.5V        |       | TPS63000 | TPS63020 | TPS630250 | TPS63027 |
| VIN up to 17V         |       | TPS62150³ | TPS62160 | TPS62140 | TPS62130³ |
| VIN up to 6V          |       | TPS62097 | TPS62084A | TPS622569 | TPS62568 |
| Ultra-low IQ          |       | TPS62735 | TPS62740 | TPS622565 | TPS62770 |
| Module                |       | TPS82670 | TPS82693 | TPS82740 | TPS82681 |

*Available as TLV version.

New Products are listed in **bold red.**
Preview products are listed in **bold teal.**

E2E Power Management Forum: [www.ti.com/e2epower](http://www.ti.com/e2epower)
MicroSiP™: [www.ti.com/microsip](http://www.ti.com/microsip)

www.ti.com/dcs-control 1H 2017
### Selection Guide Highlight

The following selection shows examples of the TPS6 and TPS8 series available to streamline your design process.

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**New products are listed in bold red.** **Preview products are listed in bold teal.**
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