

LOWEST COST 3 & 5 OUTPUT xDSL AND CABLE MODEM POWER SUPPLIES

High-Efficiency Step-Down Controller Plus Multiple LDO Controllers on a Single IC

Use the MAX1864 and MAX1865 power supply controller ICs to build the lowest cost xDSL and cable modem consumer premises equipment (CPE) power supplies. They integrate a high-efficiency step-down DC-DC controller and 2 to 4 linear regulator controllers to provide all the required voltages for CPE equipment. The current-mode step-down controller uses an external dual N-channel MOSFET to provide low-cost synchronous rectification for high efficiency and lower heat. To further save cost, no external current-sense resistor is required. Switching frequencies of 100kHz and 200kHz permit the use of low-cost magnetics and aluminum electrolytic capacitors. The linear regulator controllers drive inexpensive external bipolar junction transistors (BJTs).

MAX1864

- ◆ Step-Down Controller
- ◆ 2 Positive LDO Controllers
- ◆ 16-Pin QSOP Package

MAX1865

- ◆ Step-Down Controller
- ◆ 3 Positive LDO Controllers
- ◆ 1 Negative LDO Controller
- ◆ 20-Pin QSOP Package

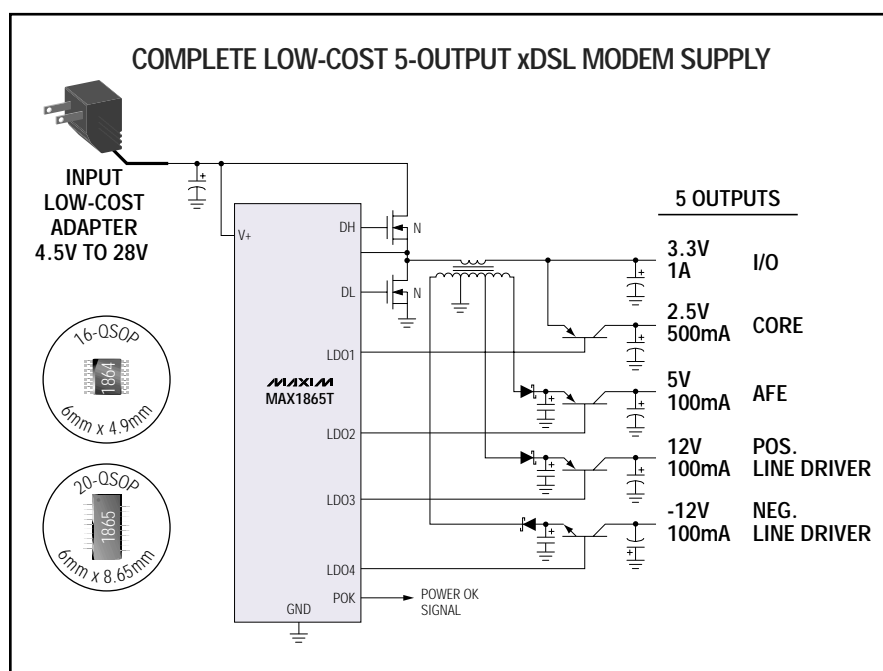
No Current Sense Resistors
Means Less Cost

Step-Down Output: 1.25V to 5.5V

LDO Outputs: $\pm 1.25V$ to $\pm 15V$

Power-OK Checks All Outputs

EV Kit Available to Speed Designs



In an xDSL modem application, the MAX1865 provides low-cost supplies for the I/O, core, analog front end (AFE), and positive and negative line drivers. It fits in a small 20-pin QSOP package. All outputs can be adjusted with feedback voltage dividers.



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