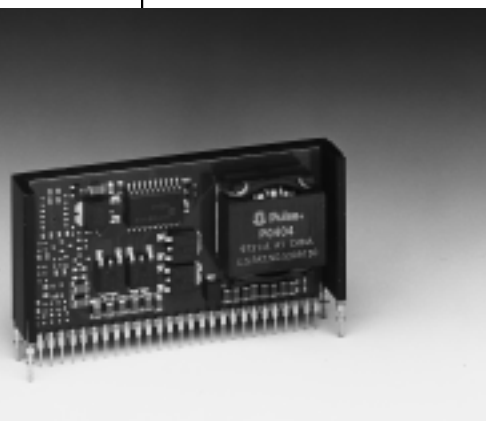


PT7748 Series**17 AMP "CURRENT BOOSTER"
FOR PT7720 SERIES**[Application Notes](#)
[Mechanical Outline](#)
[Product Selector Guide](#)

The PT7748 is a new high-performance 17 Amp "Current Booster" for the PT7720 Series housed in a 27-pin SIP package. Multiple PT7748 boosters will operate in parallel with the PT7720 Series boosting output current in increments of 17A. Combinations of PT7720 and PT7748 current boosters can easily supply enough power for virtually any multiple megaprocessor application.

A PT7748 current booster adds a parallel output stage driven by the PT7720. As such, the system runs in perfect synchronization providing a low noise solution.

The PT7748 only operates in combination with the PT7720 series and is not a stand-alone product. Therefore please refer the PT7720 series data sheet for performance specifications. The PT7748 also has the same mechanical dimensions and package options as the PT7720 series.

Features

- 17A Current Boost
- Automatically Tracks V_{out} of PT7720
- High Efficiency
- Input Voltage Range: 11V to 14V
- Synchronized with PT7720
- 27-pin SIP Package
- Run up to 4 in Parallel - 85 Amps

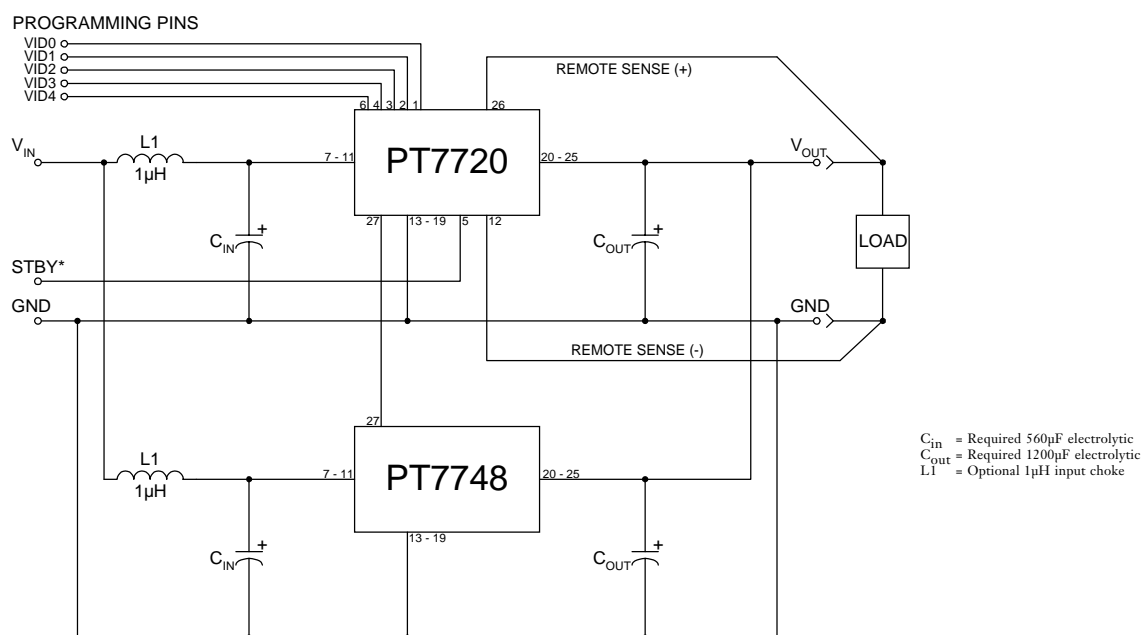
Pin-Out Information

Pin	Function	Pin	Function
1	Do not connect	14	GND
2	Do not connect	15	GND
3	Do not connect	16	GND
4	Do not connect	17	GND
5	Do not connect	18	GND
6	Do not connect	19	GND
7	V _{in}	20	V _{out}
8	V _{in}	21	V _{out}
9	V _{in}	22	V _{out}
10	V _{in}	23	V _{out}
11	V _{in}	24	V _{out}
12	Do not connect	25	V _{out}
13	GND	26	Do not connect
		27	Sync In

Ordering Information
PT7748□**PT Series Suffix (PT1234X)****Case/Pin Configuration**

Vertical Through-Hole	N
Horizontal Through-Hole	A
Horizontal Surface Mount	C

(For dimensions and PC board layout, see Package Styles 1000 and 1010.)

Standard Application

Output Capacitors: The PT7720 series requires a minimum output capacitance of 1200 μ F for proper operation. Do not use Oscon type capacitors. The maximum allowable output capacitance is $(57,000 \div V_{out})\mu$ F, or 15,000 μ F, whichever is less.

Input Filter: An input inductor is optional for most applications. The input inductor must be sized to handle 7ADC with a typical value of 1 μ H. The input capacitance must be rated for a minimum of 4.0 Arms of ripple current when operated at maximum output current and maximum output voltage. Contact an applications engineer for input capacitor selection for applications at other output voltages and output currents.

IMPORTANT NOTICE

Texas Instruments and its subsidiaries (TI) reserve the right to make changes to their products or to discontinue any product or service without notice, and advise customers to obtain the latest version of relevant information to verify, before placing orders, that information being relied on is current and complete. All products are sold subject to the terms and conditions of sale supplied at the time of order acknowledgement, including those pertaining to warranty, patent infringement, and limitation of liability.

TI warrants performance of its semiconductor products to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are utilized to the extent TI deems necessary to support this warranty. Specific testing of all parameters of each device is not necessarily performed, except those mandated by government requirements.

CERTAIN APPLICATIONS USING SEMICONDUCTOR PRODUCTS MAY INVOLVE POTENTIAL RISKS OF DEATH, PERSONAL INJURY, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE ("CRITICAL APPLICATIONS"). TI SEMICONDUCTOR PRODUCTS ARE NOT DESIGNED, AUTHORIZED, OR WARRANTED TO BE SUITABLE FOR USE IN LIFE-SUPPORT DEVICES OR SYSTEMS OR OTHER CRITICAL APPLICATIONS. INCLUSION OF TI PRODUCTS IN SUCH APPLICATIONS IS UNDERSTOOD TO BE FULLY AT THE CUSTOMER'S RISK.

In order to minimize risks associated with the customer's applications, adequate design and operating safeguards must be provided by the customer to minimize inherent or procedural hazards.

TI assumes no liability for applications assistance or customer product design. TI does not warrant or represent that any license, either express or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right of TI covering or relating to any combination, machine, or process in which such semiconductor products or services might be or are used. TI's publication of information regarding any third party's products or services does not constitute TI's approval, warranty or endorsement thereof.