

HYDRA-X PROTOx Head

Power Application Controllers™

PAC52xx Expansion - HYDRA-X Prototype Head User's Guide



www.active-semi.com

CONTENTS

Contents	2
Overview	3
Prototyping Space	5
Bypass Capacitor Placeholders	6
HYDRA-PROTOS Schematic	7
About Active-Semi.....	8

OVERVIEW

Active-Semi's HYDRA-PROTOx (PROTOS, PROTOM and PROTOL) Heads are expansion boards for the Hydra-X Body boards, providing enough prototyping area for most small to medium sized applications. HYDRA-X head prototype boards offer access to all Body board signal pins as well as a good number of access points for the different power rails.

Active-Semi's HYDRA-PROTOx Head kits consist of the following:

- HYDRA-PROTOx Head module
- HYDRA-PROTOx Head User's Guide
- Schematics and Layout Drawings

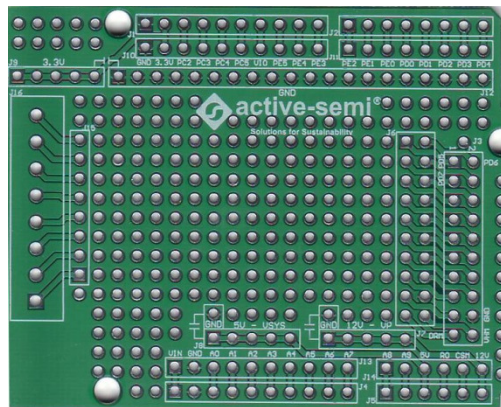


Figure 1: HYDRA-PROTOS (Small Prototyping Area) Head

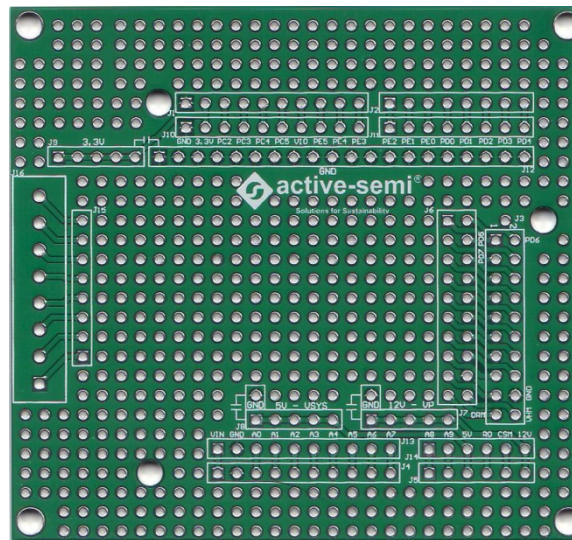


Figure 2: HYDRA-PROTOM (Medium Prototyping Area) Head

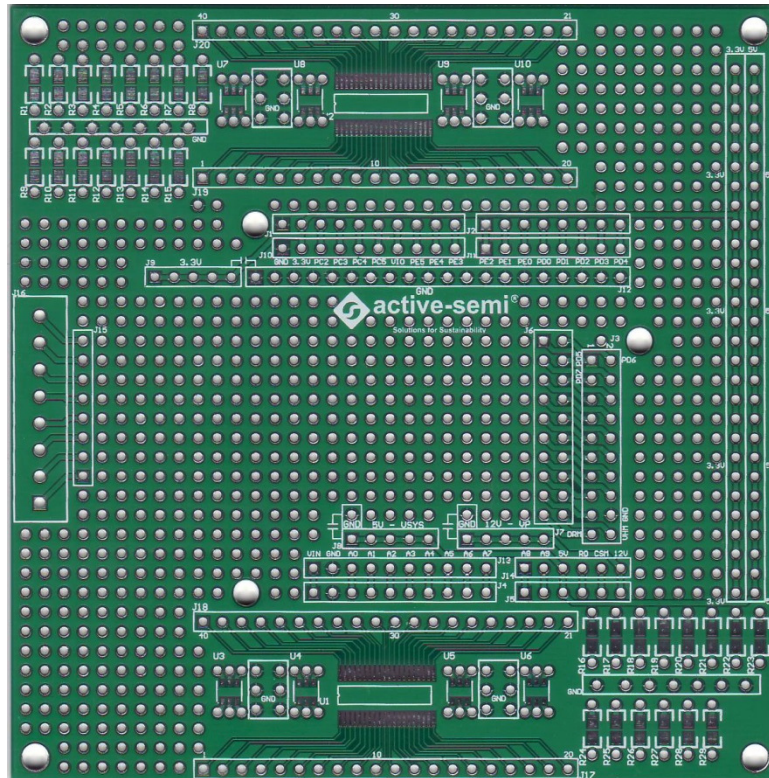


Figure 3: HYDRA-PROTOL (Large Prototyping Area) Head

Solution Benefits:

- Ideal for implementing most small add-on applications to interface to any of the HYDRA-X Body boards.
- Gives access to all Body board signals.
- Provides multiple access points to important nodes such as GND as well as voltage rails (VP, VSYS, V3P3).
- Contains the footprint for a pitch terminal block.
- Schematics and Layout drawings available

Prototyping Space

HYDRA-X Prototype Heads will revolve around the same connectivity structure. It consists of:

1. A group of connectors to directly attach the Head to the Body Board.
2. A group of parallel connectors to grant access to the Body Board signals.
3. A group of header connectors giving access to the 3.3V, 5V and 12V rails.
4. A good number of holes connected to the GND plane.
5. Other connectors or footprints put in place to allow for further expansion.

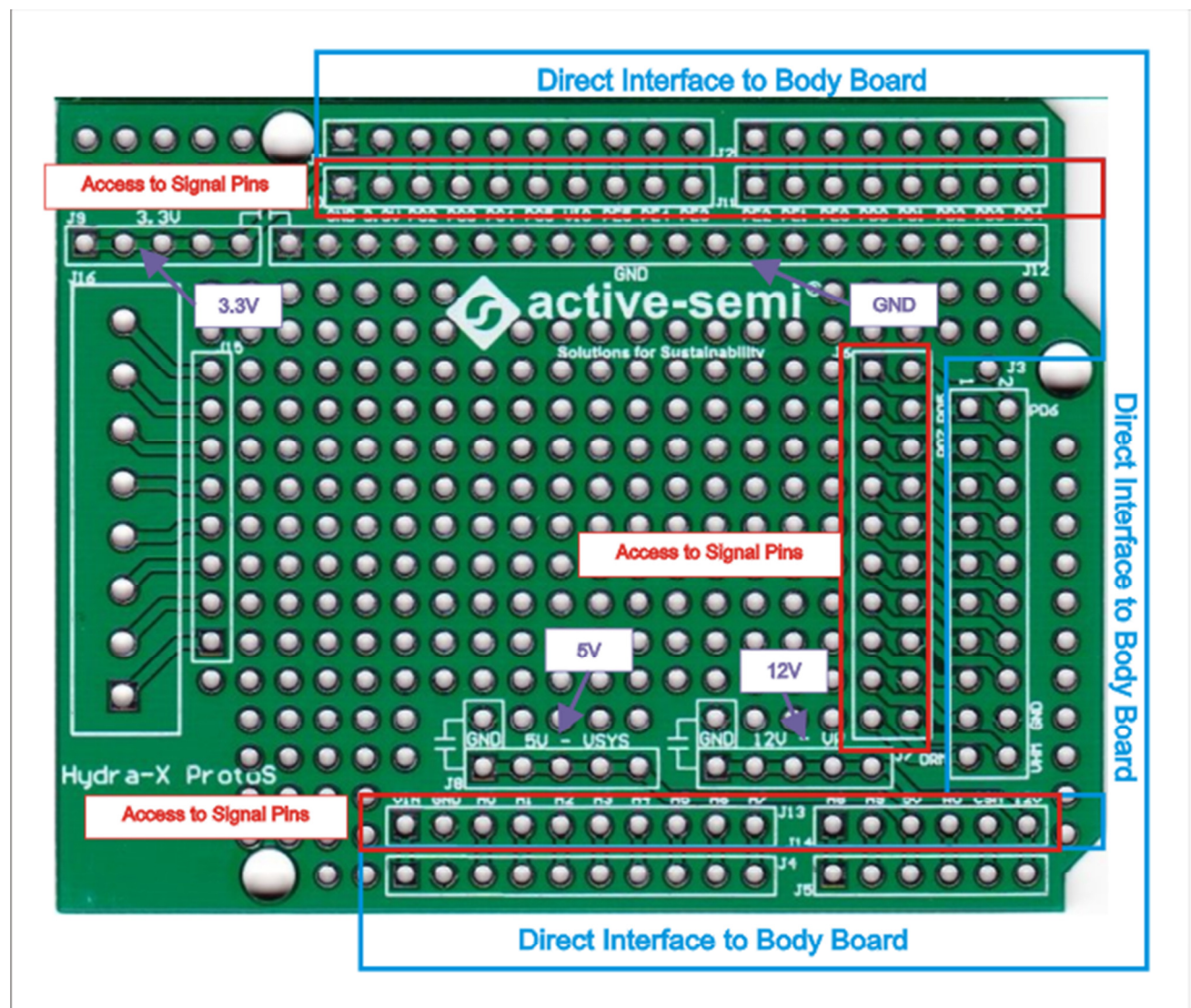


Figure 4 Typical Prototype Space

Bypass Capacitor Placeholders

If desired, the user can add bypass capacitors to the rails. Although not present on the schematic, the board layout was designed such that certain pads are connected to the GND plane, making it easier to add bypass capacitors to the available rails (e.g. 3.3V, 5V and 12V).

Bypass capacitors could be ceramic capacitors of 0.1uf or 1uf and rated to the rail voltage.

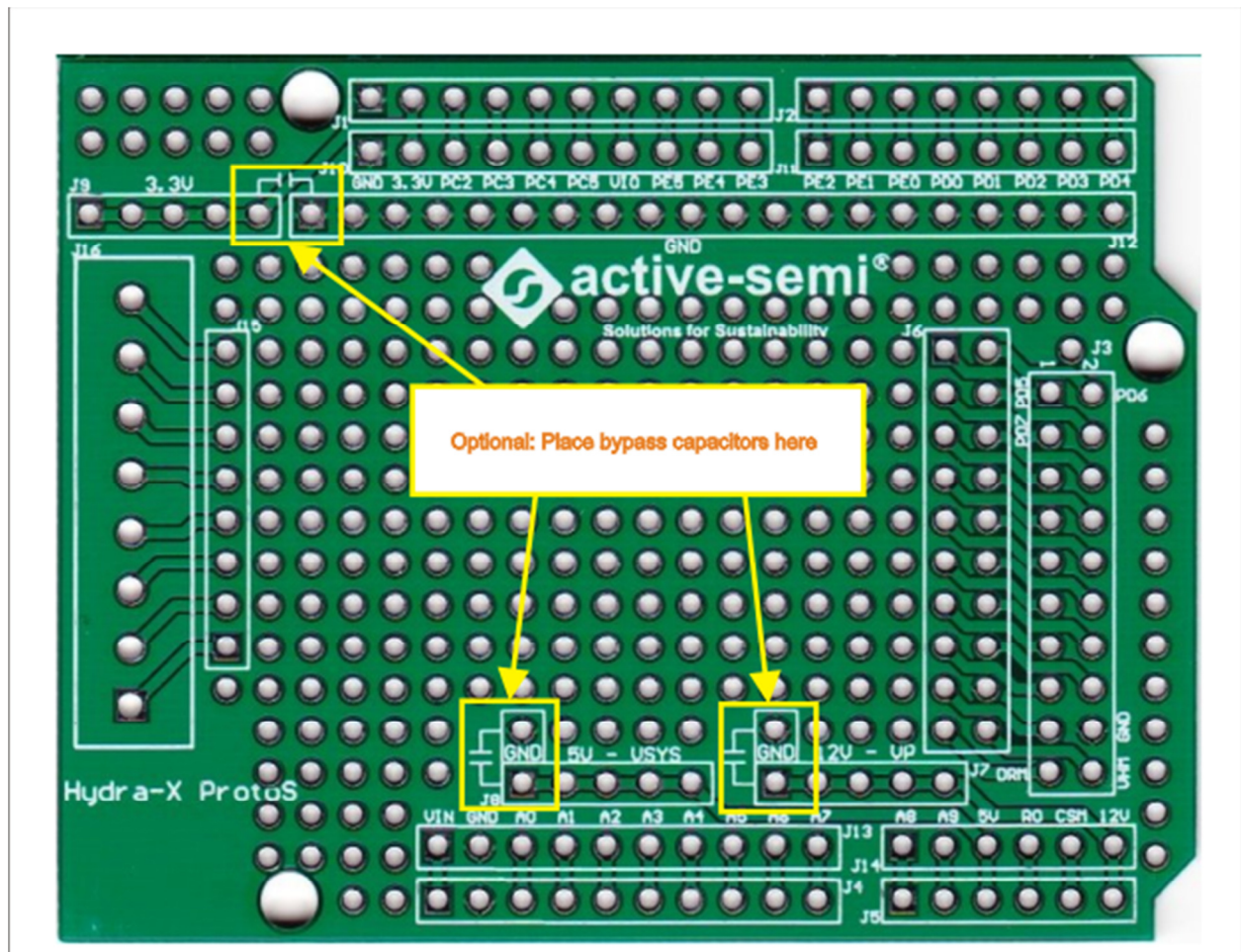
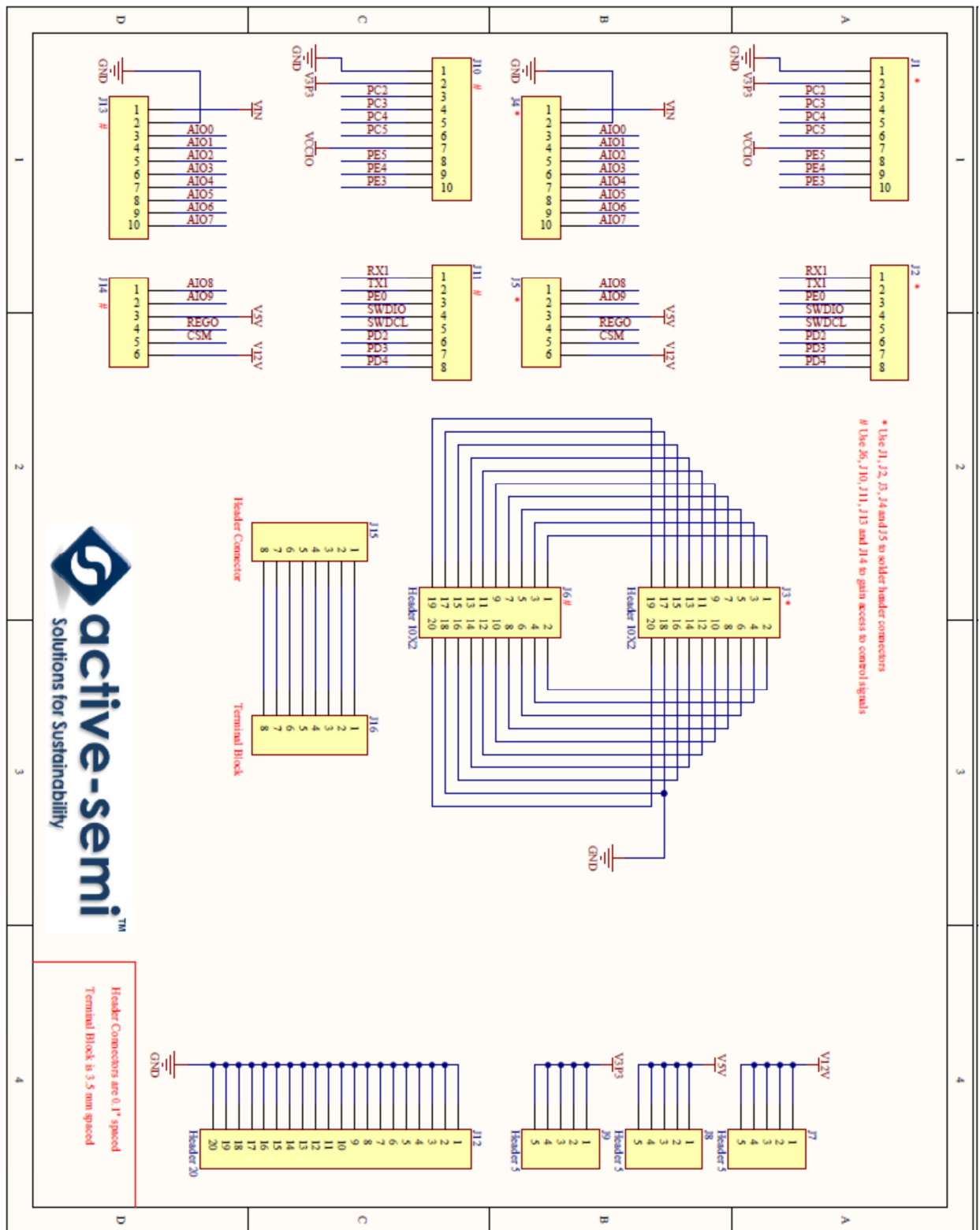


Figure 5 HYDRA-PROTOx Optional Bypass Capacitor Placeholder Locations

HYDRA-PROTOS SCHEMATIC



ABOUT ACTIVE-SEMI

Founded in 2004 in Silicon Valley and headquartered in Allen, Texas, Active-Semi is a rapidly emerging leader in the multi-billion dollar power management IC and intelligent digital motor drive IC markets. The company's portfolio of analog and mixed signal SoCs (systems-on-chips) are scalable core platforms used in charging, powering and embedded digital control systems for end applications such as industrial, commercial and consumer equipment. The company offers power application microcontrollers, DC/DC, AC/DC, PMU and LED drivers that significantly reduce solution size and cost while improving system-level reliability. Active-Semi's turnkey solutions deliver energy-saving power conversion architectures that minimize energy usage and compress system development cycle-time by greater than 50 percent. Active-Semi ships 50 million power ICs per quarter and reached the "one billion units shipped" milestone in May 2012. The multi-national company focuses on commercializing industry leading power management IC solution platforms and has developed broad intellectual property with over 150 patents granted and pending. For more information visit: <http://active-semi.com/>

LEGAL INFORMATION & DISCLAIMER

Copyright © 2012-2013 Active-Semi, Inc. All rights reserved. All information provided in this document is subject to legal disclaimers.

Active-Semi reserves the right to modify its products, circuitry or product specifications without notice. Active-Semi products are not intended, designed, warranted or authorized for use as critical components in life-support, life-critical or safety-critical devices, systems, or equipment, nor in applications where failure or malfunction of any Active-Semi product can reasonably be expected to result in personal injury, death or severe property or environmental damage. Active-Semi accepts no liability for inclusion and/or use of its products in such equipment or applications. Active-Semi does not assume any liability arising out of the use of any product, circuit, or any information described in this document. No license, express, implied or otherwise, is granted under any patents, copyrights or other intellectual property rights of Active-Semi or others. Active-Semi assumes no liability for any infringement of the intellectual property rights or other rights of third parties which would result from the use of information contained herein. Customers should evaluate each product to make sure that it is suitable for their applications. Customers are responsible for the design, testing, and operation of their applications and products using Active-Semi products. Customers should provide appropriate design and operating safeguards to minimize the risks associated with their applications and products. All products are sold subject to Active-Semi's terms and conditions of sale supplied at the time of order acknowledgment. Exportation of any Active-Semi product may be subject to export control laws.

Active-Semi™, Active-Semi logo, Solutions for Sustainability™, Power Application Controller™, Micro Application Controller™, Multi-Mode Power Manager™, Configurable Analog Front End™, and Application Specific Power Drivers™ are trademarks of Active-Semi, I. ARM® is a registered trademark and Cortex™ is a trademark of ARM Limited. All referenced brands and trademarks are the property of their respective owners.

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru

www.lifeelectronics.ru