

Dual MicroDlynx™ Series Evaluation Board Documentation

The Dual MicroDlynx™ series evaluation board (DLYNX_MICRO_EVAL) Board comes with an assembled module and test components

1. Schematics

Component values are for reference only and may not be installed on shipped boards. Refer to the pictures in this document for preinstalled components and the module datasheet for other permitted ratings.

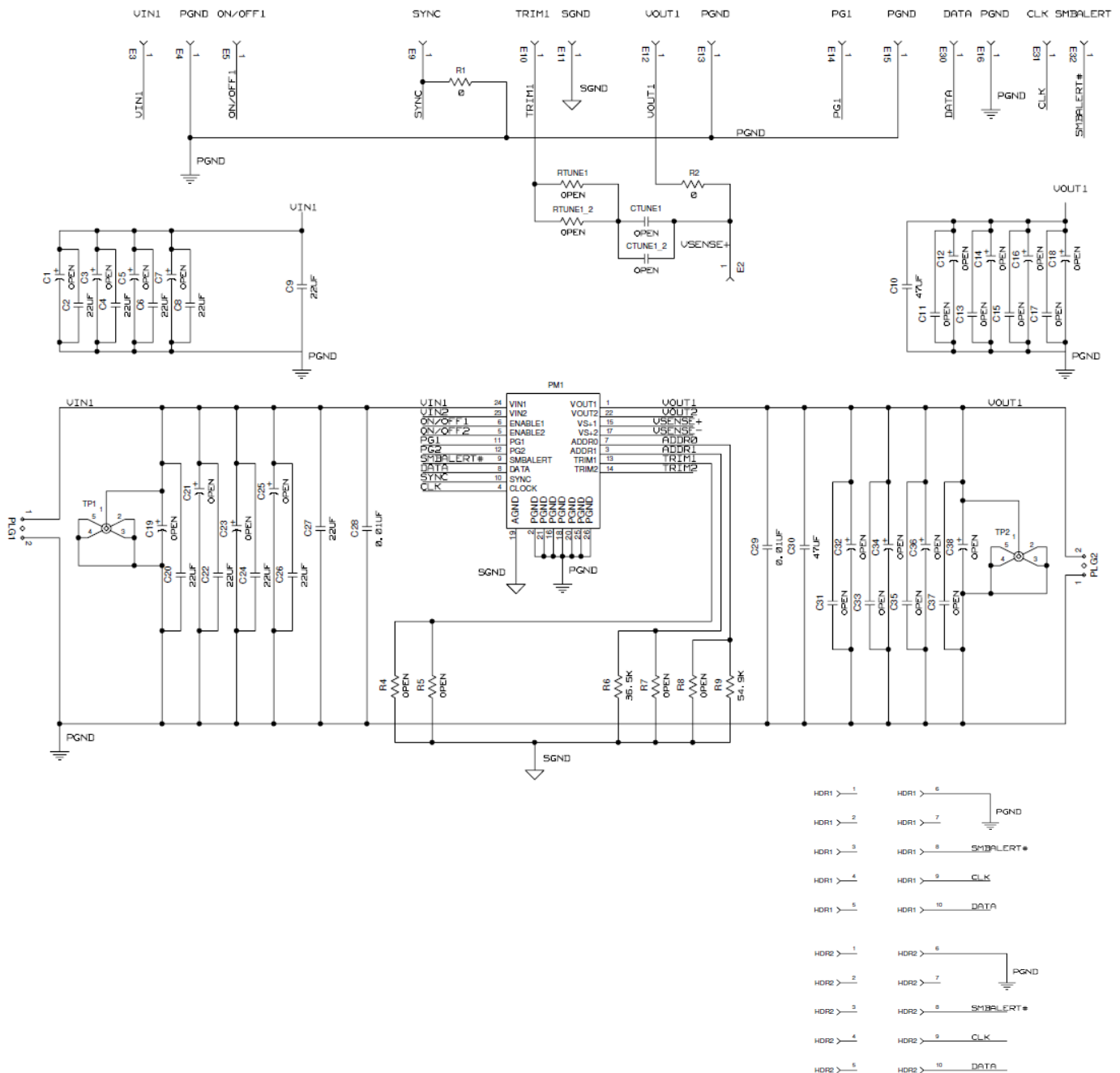


Figure 1 – Schematic for Evaluation Board – Part 1

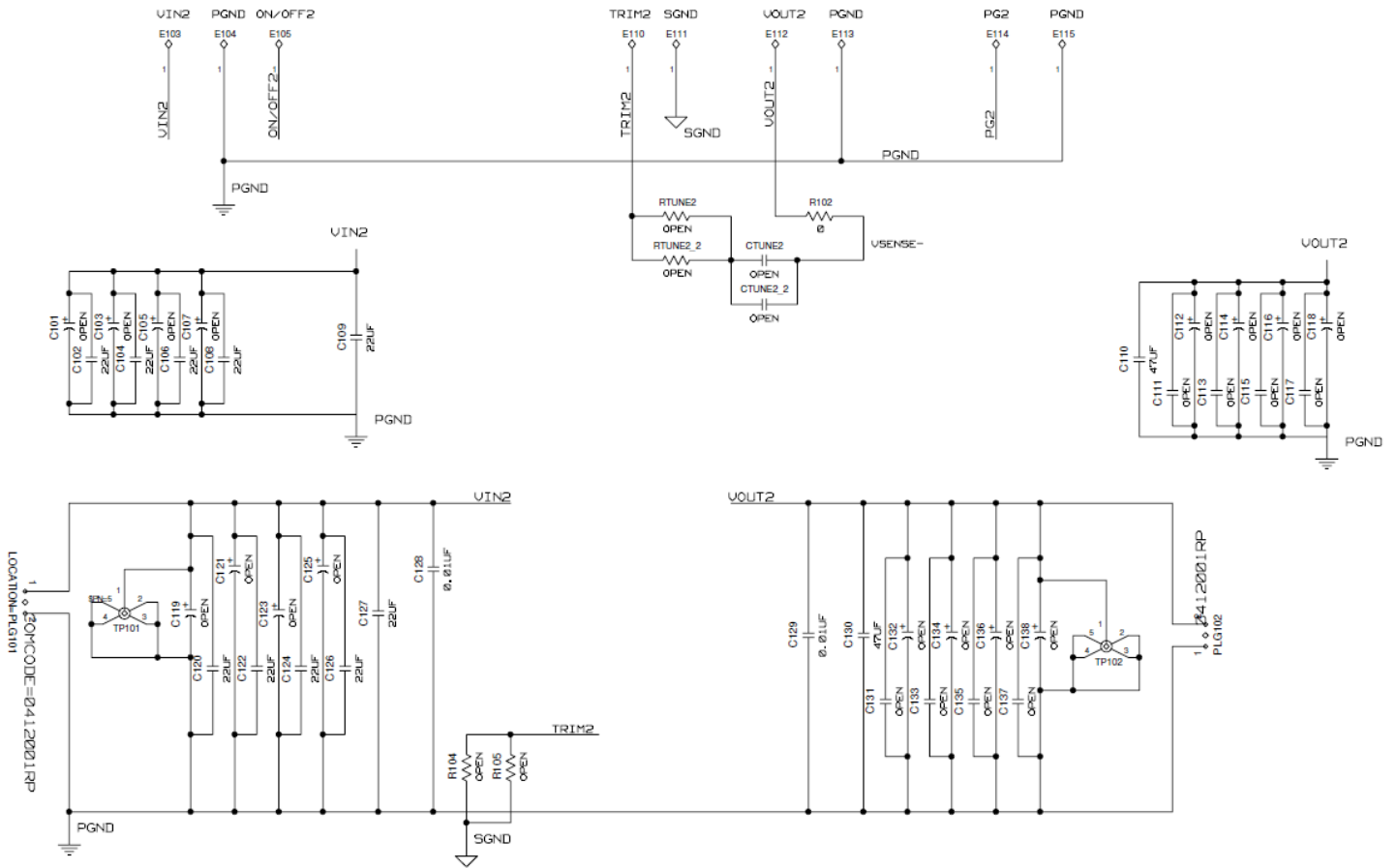


Figure 2 – Schematic for Evaluation Board – Part 2

Pre-Installed components for the Dual MicroDlynx™ include input filtering [$C_{28 \& 128}$ (0.047uF,16V), $C_{27 \& 127}$ (22uF,16V), $C_{22 \& 122}$ (470uF,16V)], output filtering [$C_{29 \& 129}$ (0.047uF,16V), $C_{30 \& 130}$, $C_{31 \& 131}$ (47uF,6.3V)], R_{SENSE} resistors, R_2 & $R_{102} = 0$ Ohms, Trim R_5 & $105 = 20K$, Address $R_{15} = 54.9K$, $R_{14} = 36.5K$, R_{SYNCH} resistor, $R_1 = 0$ Ohms and some test points.

10-Pin Ribbon Cable to USB Interface Adaptor or Second Eval Board

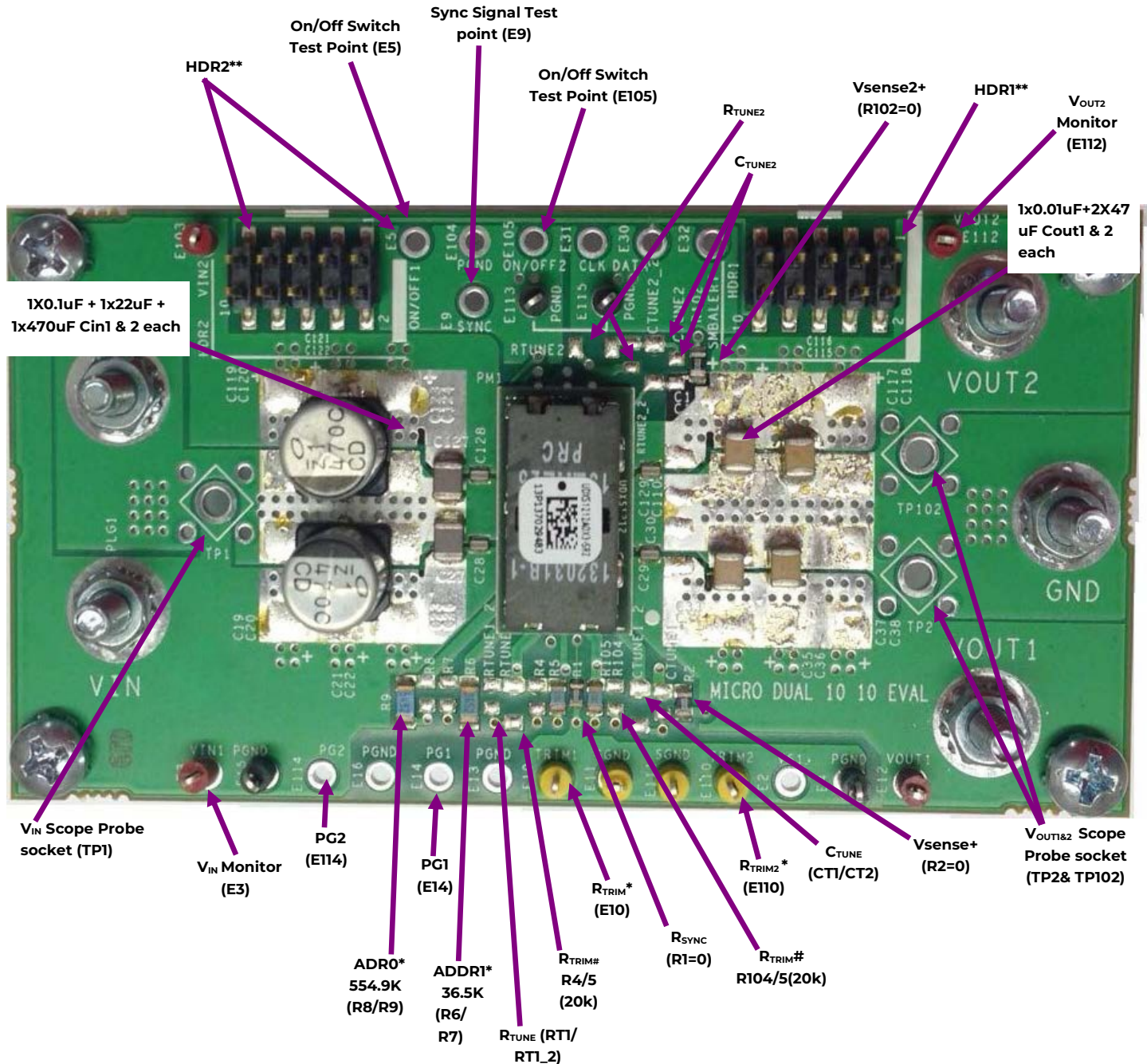


Figure 6. Power and Analog Signal Interface for the UDXS1212/UDXS0606 Eval Board

Caution! Before applying power, make sure that the externally installed capacitors (input & output) have appropriate voltage and polarity ratings based on the application.

Notes:

Module can be trimmed either by soldering a different fixed resistor(s) @ R5 or by attaching a potentiometer/resistor between test points E10 and E11 . IF using E10 and E11, remember to remove installed resistor-R5/R104

* The Dual MicroDLynx module can be assigned a specific address by connecting resistors (R_6/R_9) from the ADDR0 pin to SIG_GND and resistors (R_6/R_7) from the ADDR1 pin to SIG_GND. The evaluation board comes with preinstalled ADDR1 resistor $R_{14}=36.5K$ and ADDR0 resistor, $R_{15}=54.9K$ as an example. These values correspond to Octal digits "3 4" equivalent to HEX number "1C" (equivalent to 28 decimal). Please refer to the data sheet for additional details.

** HDR1/HDR2 allow the unit on the Eval board to interface (via 10 pin Ribbon Cable) with another unit on a different Eval Board and/or to OmniOn "USB Interface Adapter" module in order for multiple modules to be controlled by the GUI. For further details, please refer to the OmniOn document, "Digital Power Insight™ User Manual".

Note1: The red wire on the ribbon cable should be aligned to Pin 1 (left side) of the HDR1 or HDR2 connectors.

Note2: Headers and Ribbon Cable Assembly details:

Part Description (HDR1 & HDR2): 10-Pin Dual Row Male Pin Header, SMT

e.g. FCI P/N: 95157-210 (Digi-Key P/N: 95157-210-ND) or Molex P/N: 0015910100

Part Description: IDC Ribbon Cable Assembly

e.g.: 3M P/N: M3DDA-1018J (Digi-Key P/N: M3DDA-1018J-ND) or Molex P/N: 111062-022

Pre-Installed components for the 6A/12A Analog Dual MicroDlynx™ include input filtering [C_{28} & 128 (0.047uF,16V), C_{27} & 127 (22uF,16V), C_{22} & 122 (470uF,16V)], output filtering [C_{29} & 129 (0.047uF,16V), C_{30} & 130 , C_{31} & 131 (47uF,6.3V)], R_{SENSE} resistors, R_2 & $R_{102} = 0$ Ohms, Trim R_5 & $105 = 20K$, R_{SYNCH} resistor, $R_1 = 0$ Ohms and some test points.

Module can be trimmed either by soldering a different fixed resistor(s) @ R_5 or by attaching a potentiometer/ resistor between test points E_{10} and E_{11} . IF using E_{10} and E_{11} , remember to remove installed resistor – R_5/R_{104}

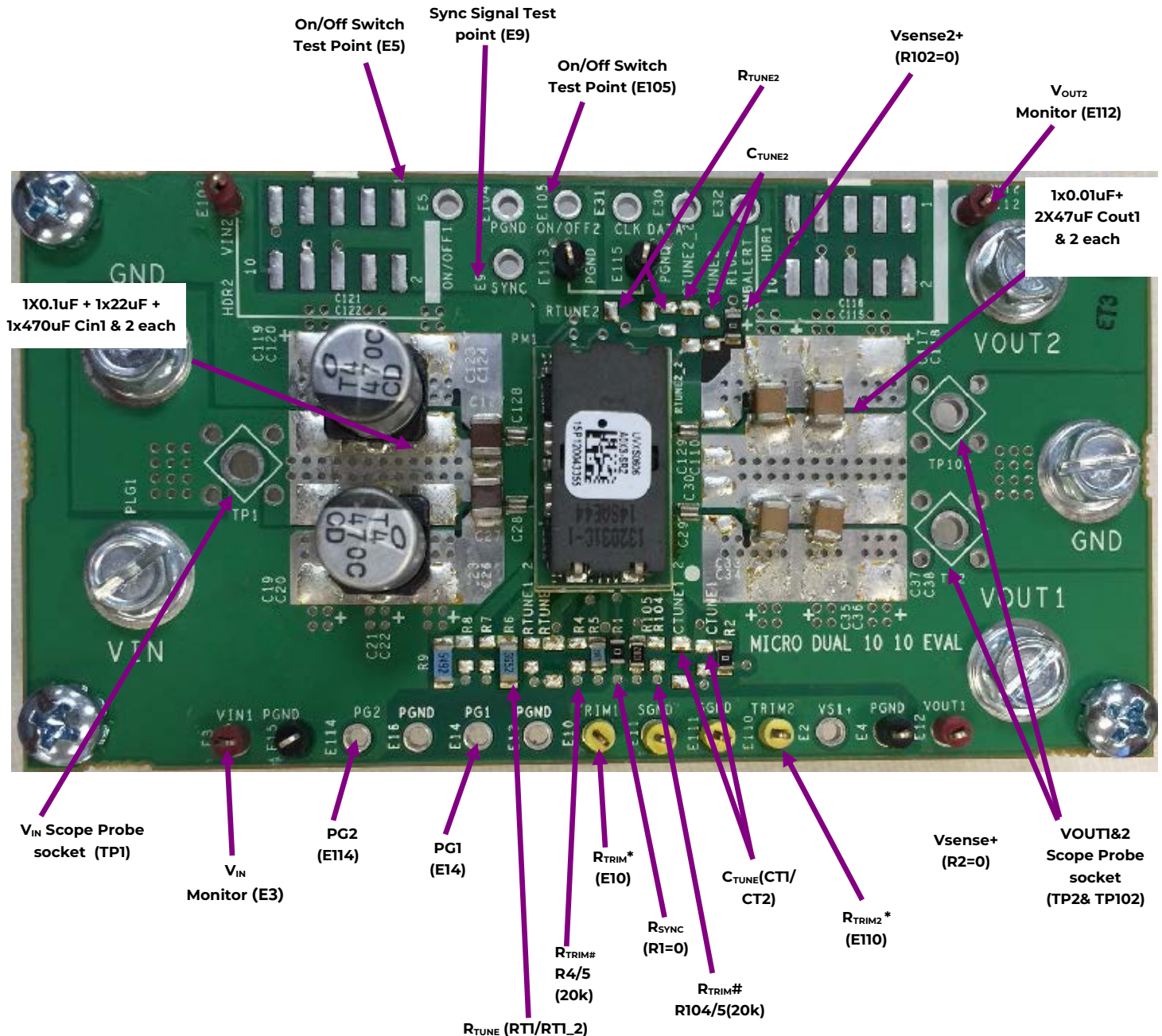


Figure 7. Power and Analog Signal Interface for the UVXS1212/UVXS0606 Eval Board

Caution! Before applying power, make sure that any additionally installed capacitors (input & output) have appropriate voltage and polarity ratings based on the application

OmniOn Power Inc.

601 Shiloh Rd.
Plano, TX USA

omnionpower.com

We reserve the right to make technical changes or modify the contents of this document without prior notice. OmniOn Power does not accept any responsibility for errors or lack of information in this document and makes no warranty with respect to and assumes no liability as a result of any use of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of OmniOn Power. This document does not convey license to any patent or any intellectual property right. Copyright© 2023 OmniOn Power Inc. All rights reserved.