

Reference Designs for the SMA and SMTPA MLP-Packaged SiPM Evaluation Boards

AND9809/D

Overview

This document gives the complete schematics for the SMA and SMTPA SiPM evaluation boards from **onsemi**.

The board schematics are accurate representations of the circuitry of the products. The schematics can be used by the customer for their own readout solutions, but this is at the customer's own risk. Complete Gerber and board specification files for each product are available from **onsemi** upon request.

SMA Boards

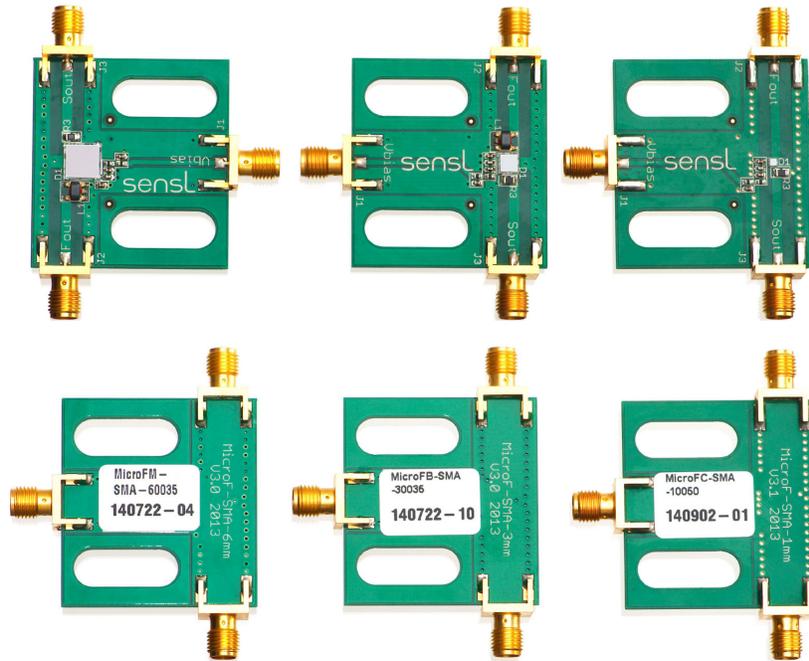


Figure 1. (Top) top view and (bottom) bottom view of the onsemi C-Series SMA boards, from left to right 6mm, 3mm and 1mm

AND9809/D

SMA Board Schematics

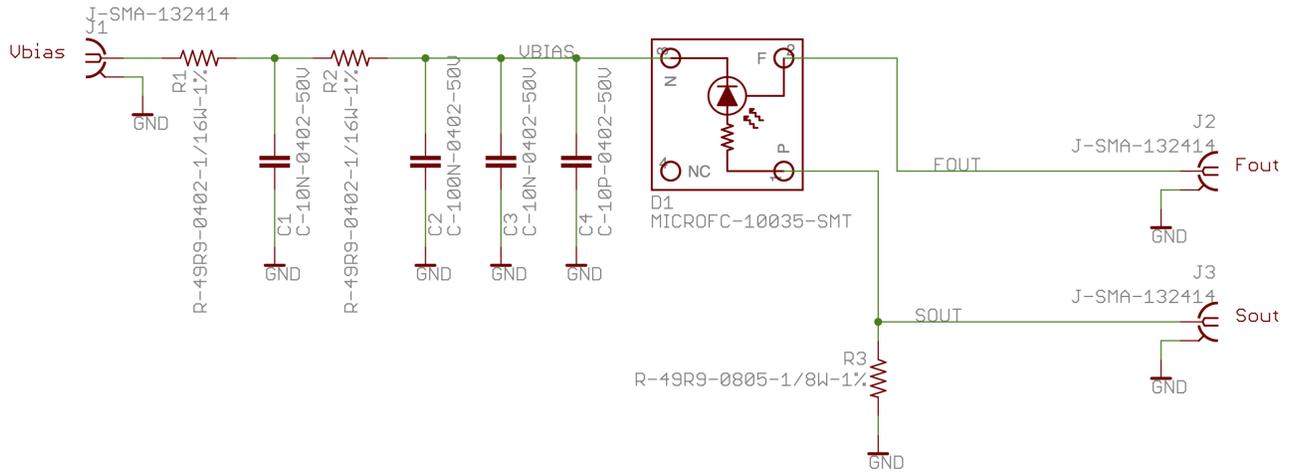


Figure 2. Board schematics for the MicroFC-SMA-100XX

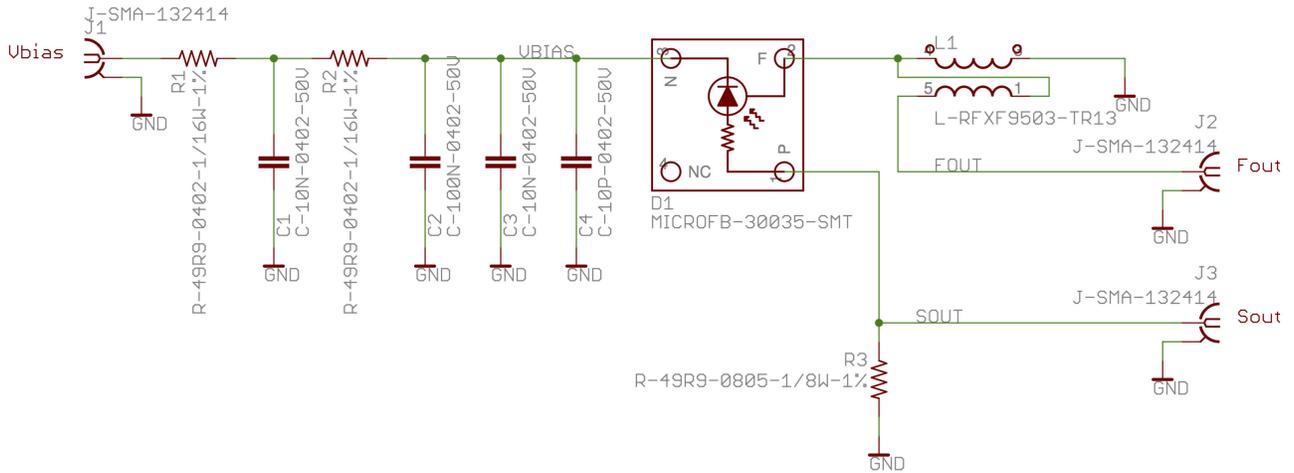


Figure 3. Board schematics for the MicroFC-SMA-300XX

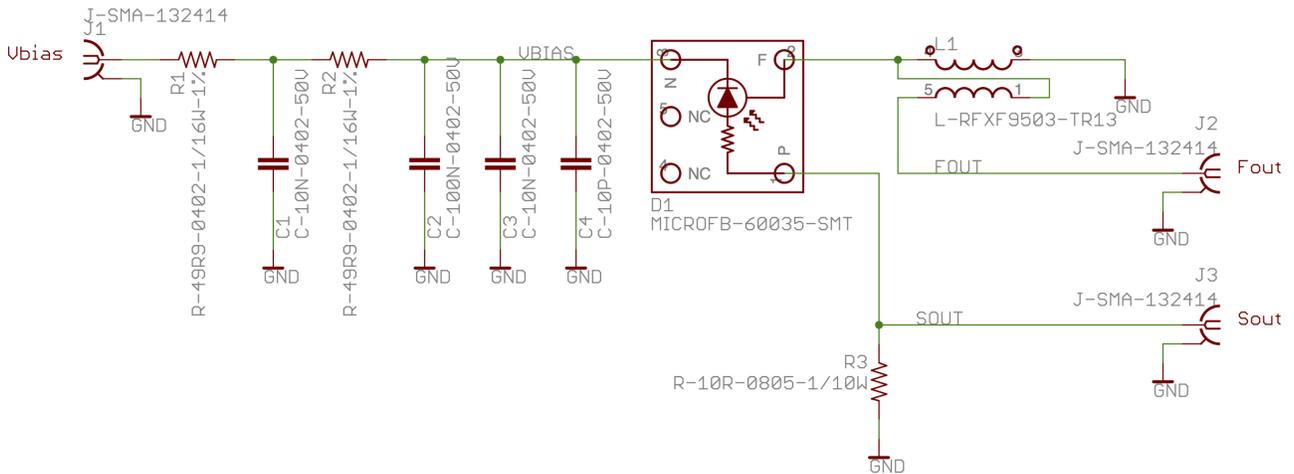


Figure 4. Board schematics for the MicroFC-SMA-600XX

AND9809/D

SMA Board

A detailed drawing of the SMA board can be found on the corresponding SiPM datasheet:

- <https://www.onsemi.com/pdf/datasheet/microc-series-d.pdf>

SMTPA Boards

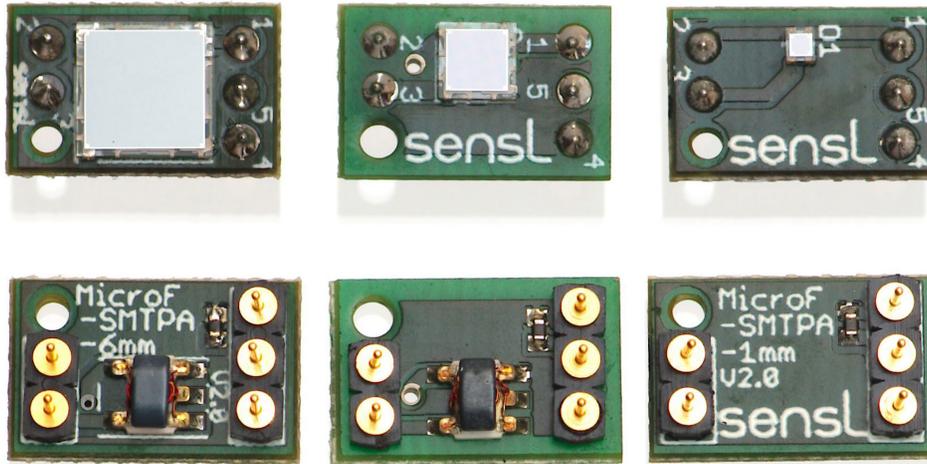


Figure 5. (Top) top view and (bottom) bottom view of the onsemi SMTPA boards, from left to right 6mm, 3mm and 1mm.

SMTPA Board Schematics – C-Series

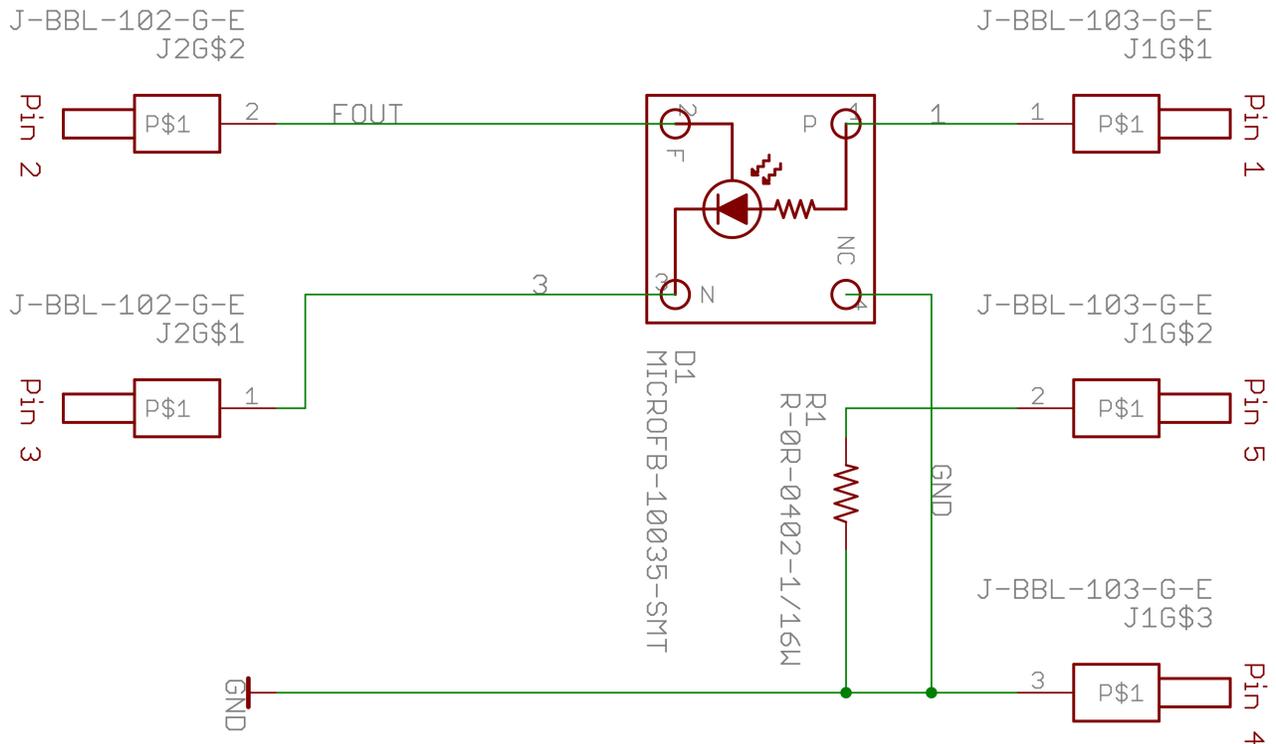


Figure 6. Board schematics for the MicroFC-SMTPA-100XX

AND9809/D

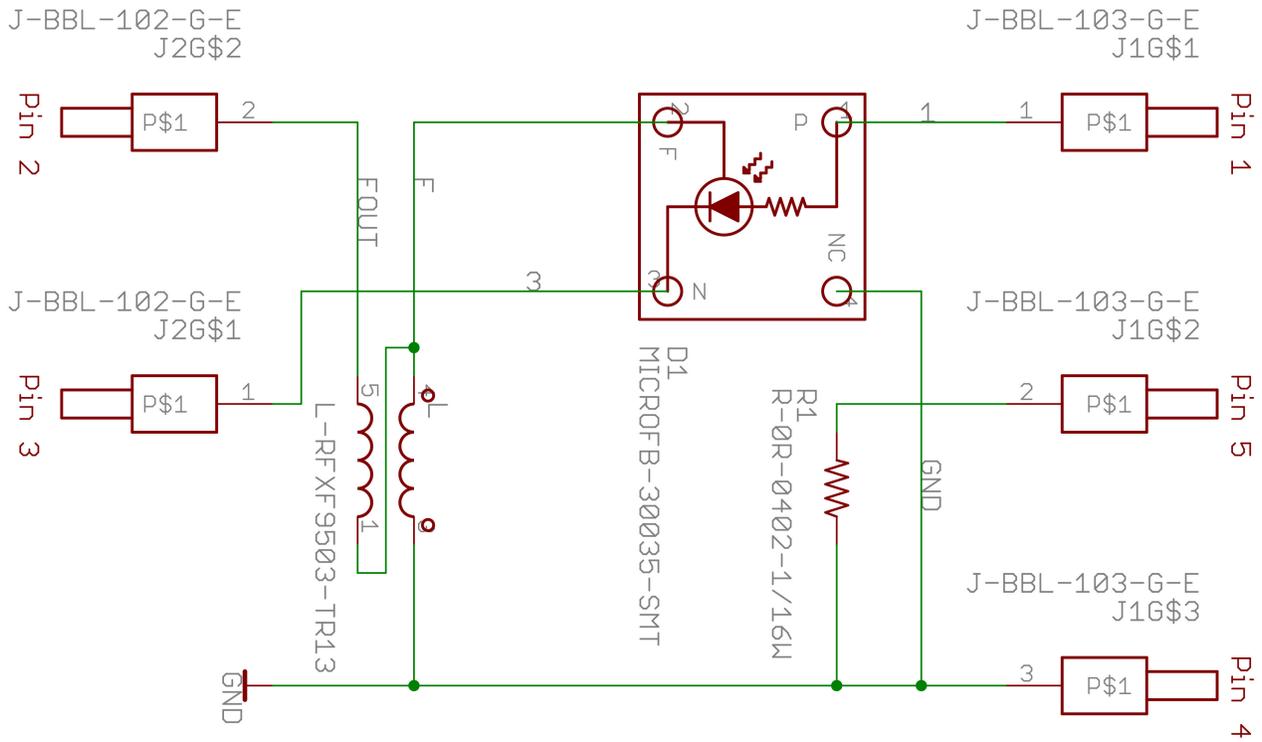


Figure 7. Board schematics for the MicroFC-SMTPA-300XX

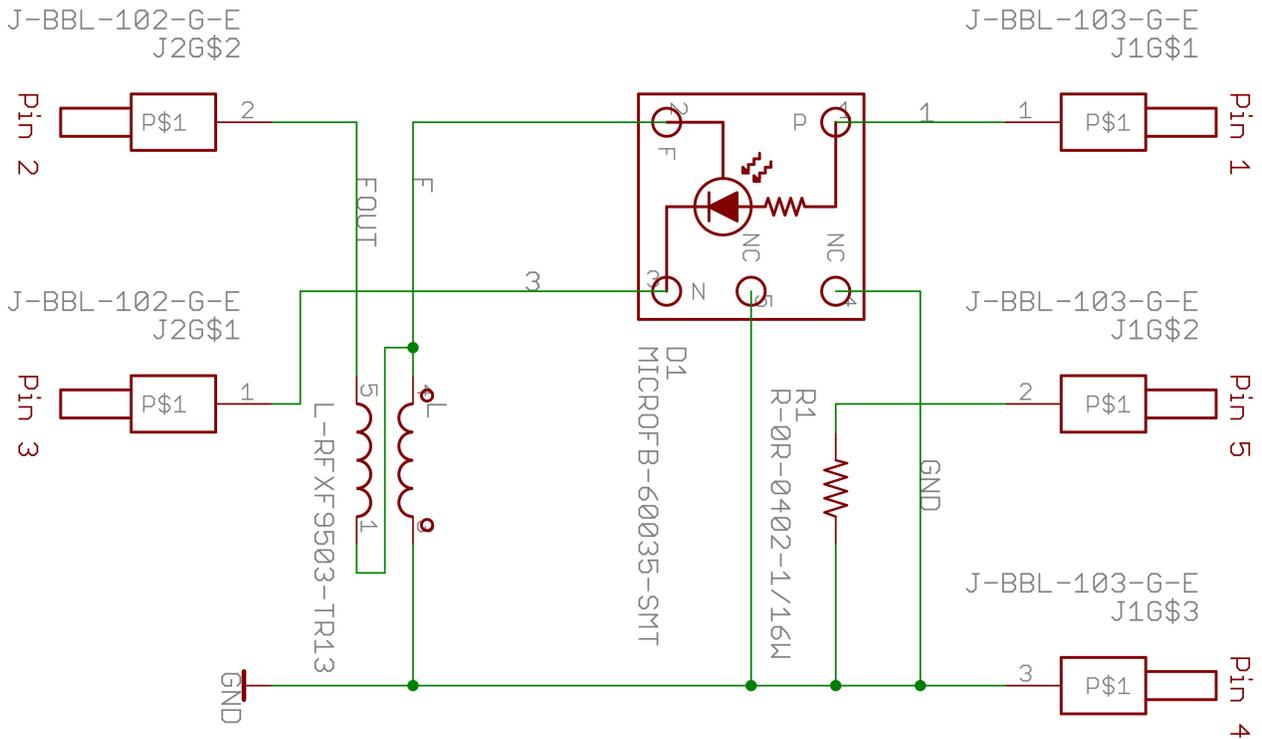


Figure 8. Board schematics for the MicroFC-SMTPA-600XX

SMTPA Board CAD

A detailed drawing of the SMTPA evaluation board can be found on the corresponding SiPM datasheet:

- <https://www.onsemi.com/pdf/datasheet/microc-series-d.pdf>

onsemi, **Onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:

Technical Library: www.onsemi.com/design/resources/technical-documentation
onsemi Website: www.onsemi.com

ONLINE SUPPORT: www.onsemi.com/support

For additional information, please contact your local Sales Representative at www.onsemi.com/support/sales