

Overview

This document explains an error and workaround for the fan interface of PicoZed SDR FMC Carriers (AES-PZSDRCC-FMC-G). This pertains to Rev B and Rev C FMC Carriers.

Background

The FET (Q4) used to power the fan plug (P7) on the FMC Carrier will not turn on with standard 1.8V logic. In addition, the fan plug placement was rotated 180 degrees resulting in improper electrical connection. No circuit damage will occur if you plug a fan in, however the fan circuit will not work.

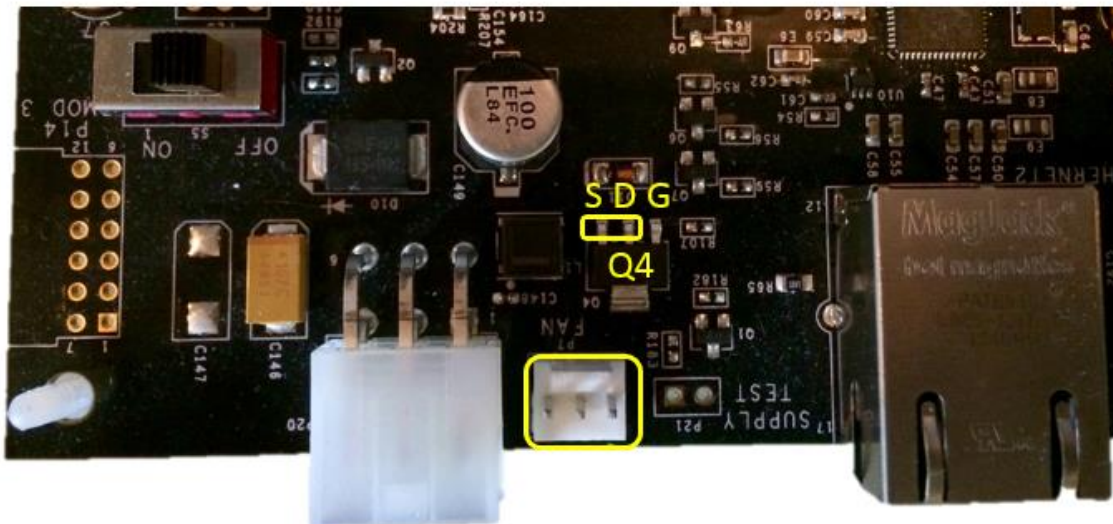
New Rev C carriers use a different FET which operates with 1.8V logic on the gate. The orientation of the fan plug was also corrected.

Please ask questions or provide feedback on the [PicoZed SDR Forum](#).

Simple Fix

Shorting the drain (D) and source (S) pins of the FET (Q4) will connect 5V DC to the fan plug. See picture below to identify the drain and source pins. You will not be able to PWM the fan. Instead, whenever the fan is plugged in it will be on.

The fan plug (P7) is also highlighted below. A small, flathead screwdriver can be used to lift the white plastic shrouded key off of the 3-pin fan plug. Rotate it 180 degrees and push it back onto the pins as shown below.



© 2016 Avnet. All rights reserved. All trademarks and registered trademarks are the property of their respective owners. All specifications are subject to change without notice.

NOTICE OF DISCLAIMER: Avnet is providing this design, code, or information "as is." By providing the design, code, or information as one possible implementation of this feature, application, or standard, Avnet makes no representation that this implementation is free from any claims of infringement. You are responsible for obtaining any rights you may require for your implementation. Avnet expressly disclaims any warranty whatsoever with respect to the adequacy of the implementation, including but not limited to any warranties or representations that this implementation is free from claims of infringement and any implied warranties of merchantability or fitness for a particular purpose.

PicoZed SDR FMC Carrier – Fan Circuit Update v1.0

Identification

If your carrier has the fan plug oriented as shown in the picture above, then the FET (Q4) has already been replaced with one that operates with logic signals down to 1.8V. No changes are required. You may enable the fan from the Zynq PL of your PicoZed SDR SOM.

Revision History

Date	Version	Revision
14 Dec 2016	1.0	Initial release