

Rework of an APD Preamp

Godwin Mayers

U Penn

Feb. 17, 2017

Documentation on the U Penn Fast-Timing Preamp:

http://physics.princeton.edu/~mcdonald/LHC/Newcomer/fast_timing_aplifier_V3.pdf

http://physics.princeton.edu/~mcdonald/LHC/Newcomer/fast_preamp_BFR1_v0.docx

More photos of the rework:

<http://physics.princeton.edu/~mcdonald/LHC/Newcomer/Godwin%20Mayers/>

Input Signal Bond Wire

Differential to back of board

Differential to 50Ω SE output

High Voltage Bond Wire

APD Pad 10x10mm²

Board Output

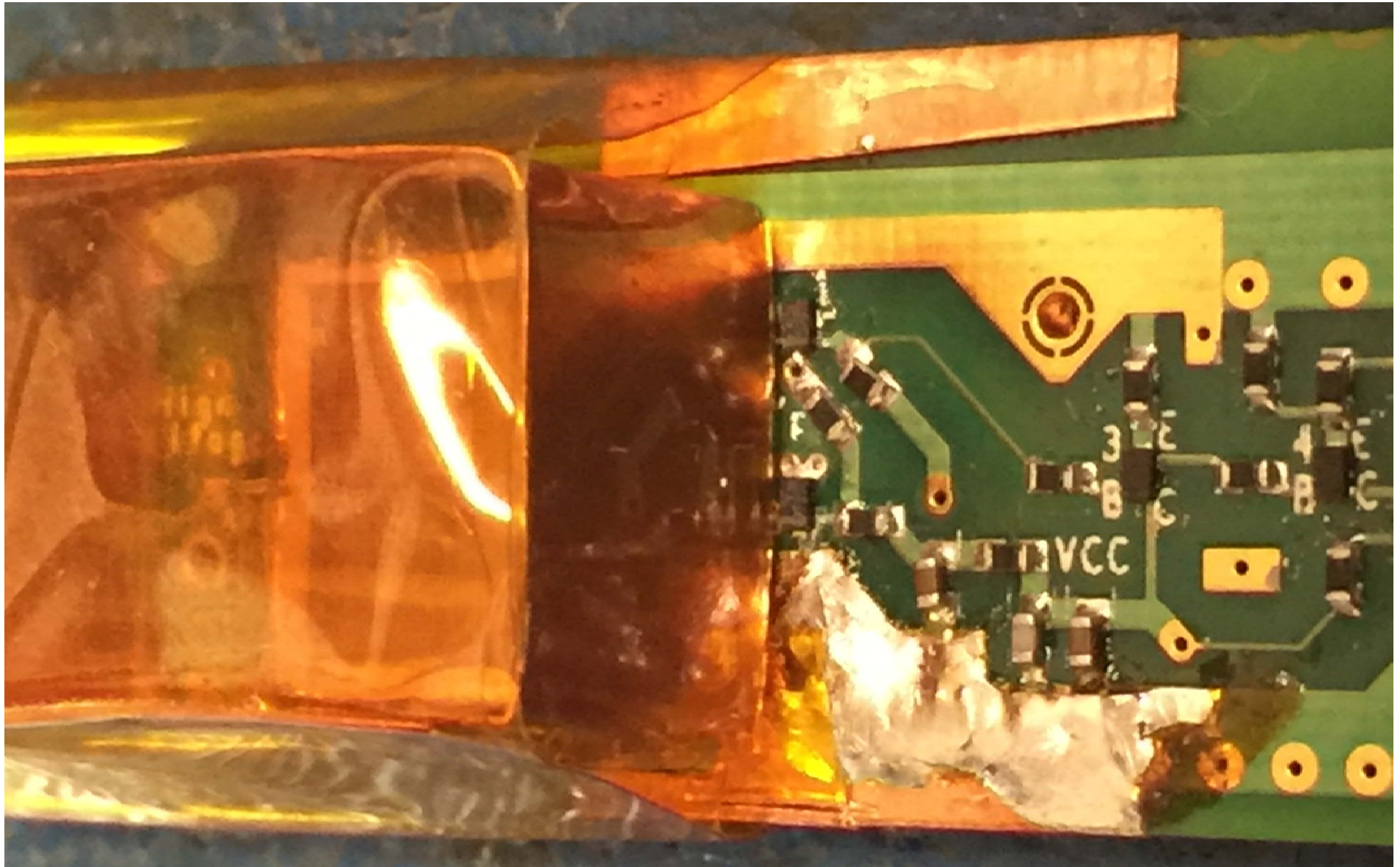
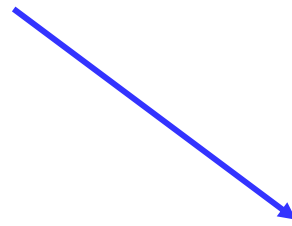
High Voltage -1800V

Board Power +3.5V

Labels on PCB: High Voltage, APD HV, AD Pad 10x10, MCLH 0G5, ADTL2-18, HIGH VOLTAGE



Component needing replacement:



Preamplifier PCB on the rework station:

