

# Prototype Amp Status

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January 14, 2016

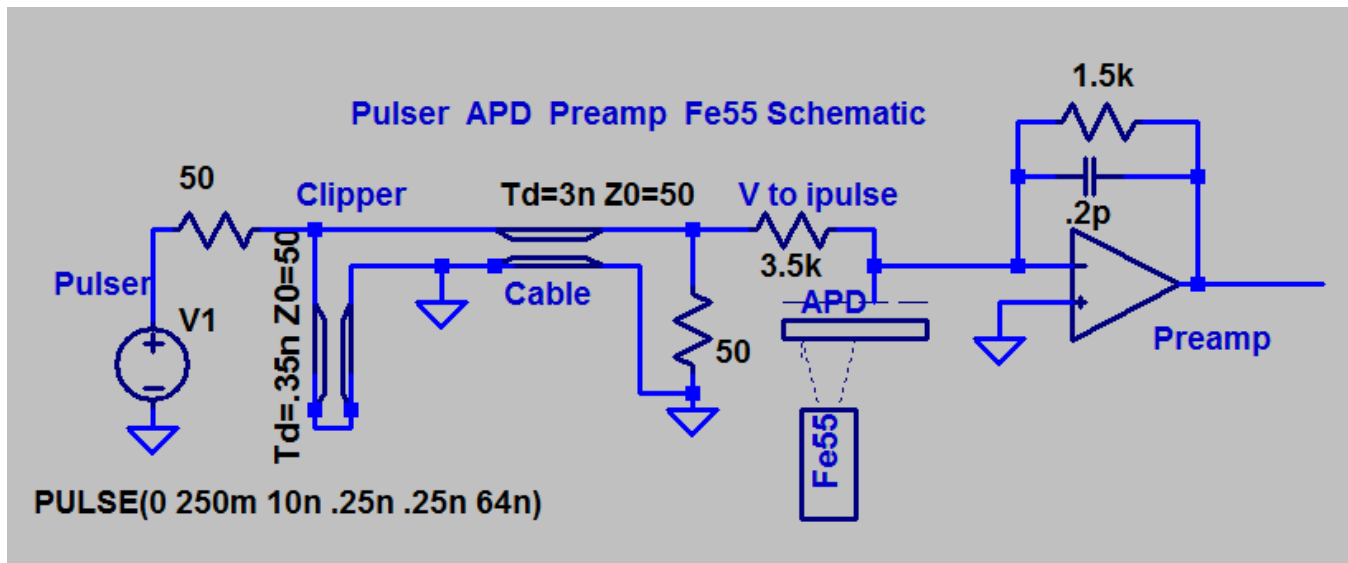
# Test Amp Setup

Lecroy Pulser 1ns Rise Step with Rise Time Enhancement 250ps.

Clipping circuit shortens pulse to 720ps

Pulse over cable  $\rightarrow$  APD cable terminated in  $50\Omega \rightarrow 3.5K\Omega$  to APD Screen

HV set to 1800V so that FE55  $\sim$ matches Pulser input.



# Pulser Leading Edge

- Two transistor Diff pair speeds up Lecroy pulser



# Clipping Ckt Shortens Pulse



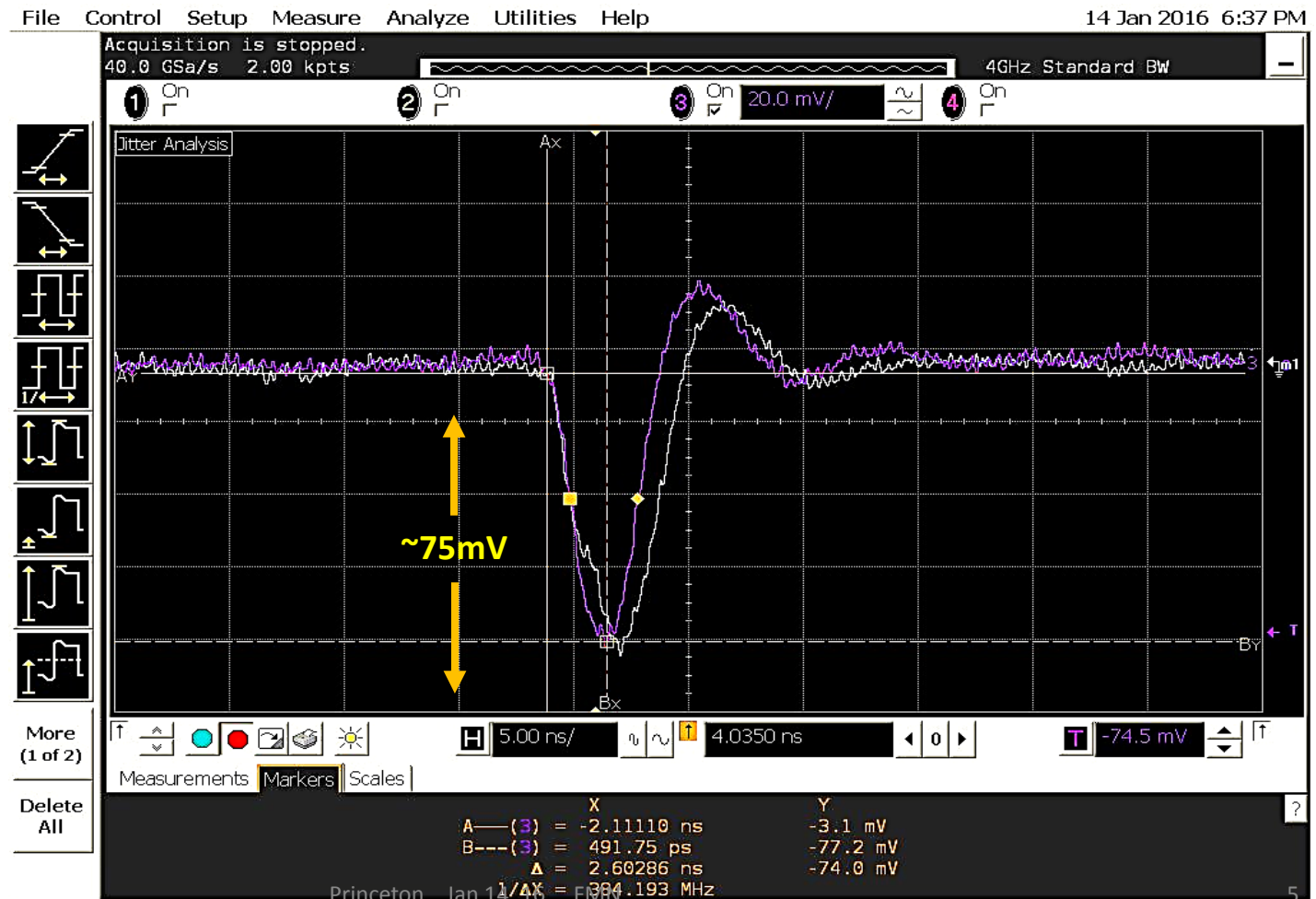
# Amp Out: Amp Fast Pulse & Fe55 Gamma

Fe55  
amplitude 75mV  
Peaking time 2.6ns  
FWHM = 2.9ns

Pulser  
FWHM 3.4ns

APD @ 1802V  
Fe55 1640 e

**APD gain ~250**



Fall Time 1.35ns  
Rise Time 1.54ns

Gamma &  
Pulse output  
Overlay  
APD @ 1800V

