

Precise timing with PICOSEC μ RWELL

K. Gnanvo, F.M. Brunbauer

on behalf of the PICOSEC Micromegas collaboration

μRWELL Picosec prototype

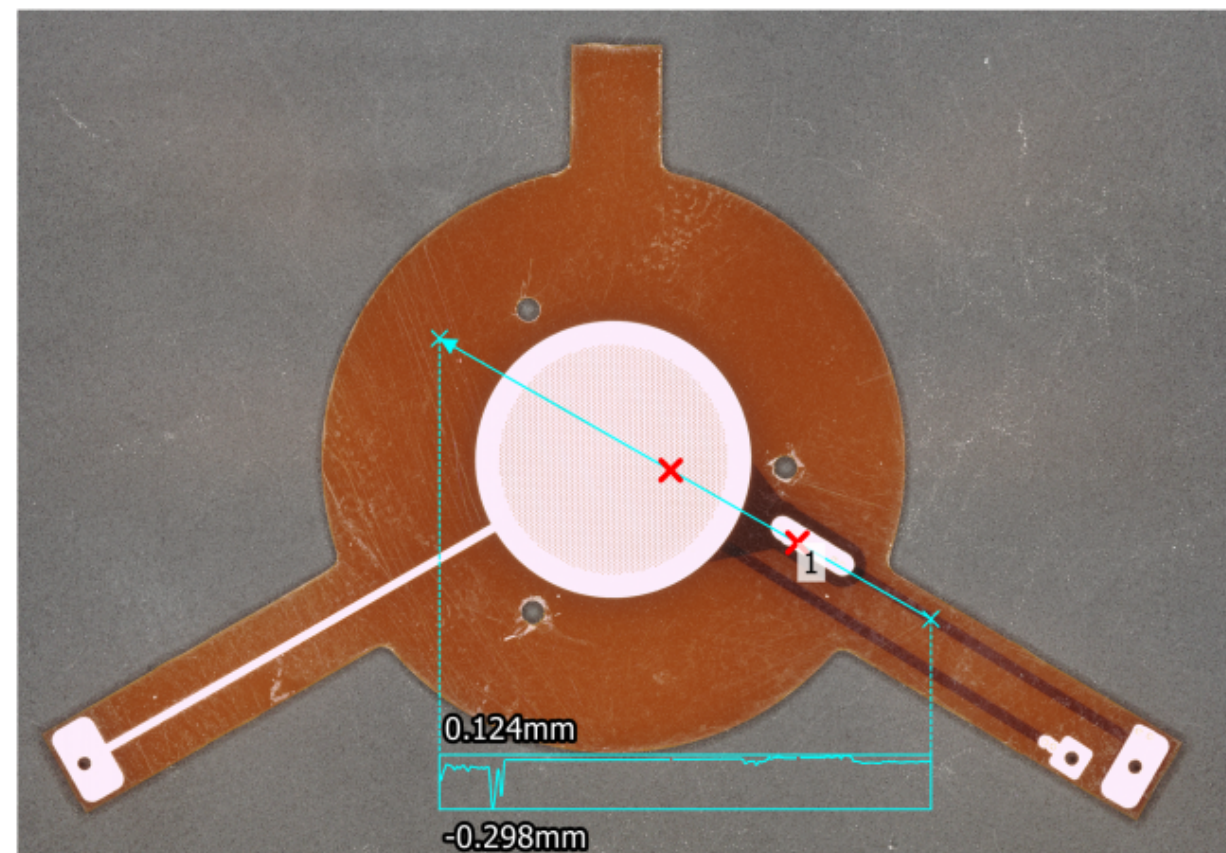
≈ 10μm protrusion of DLC layer contact
Passivated with Kapton tape

VR-20221208_165251

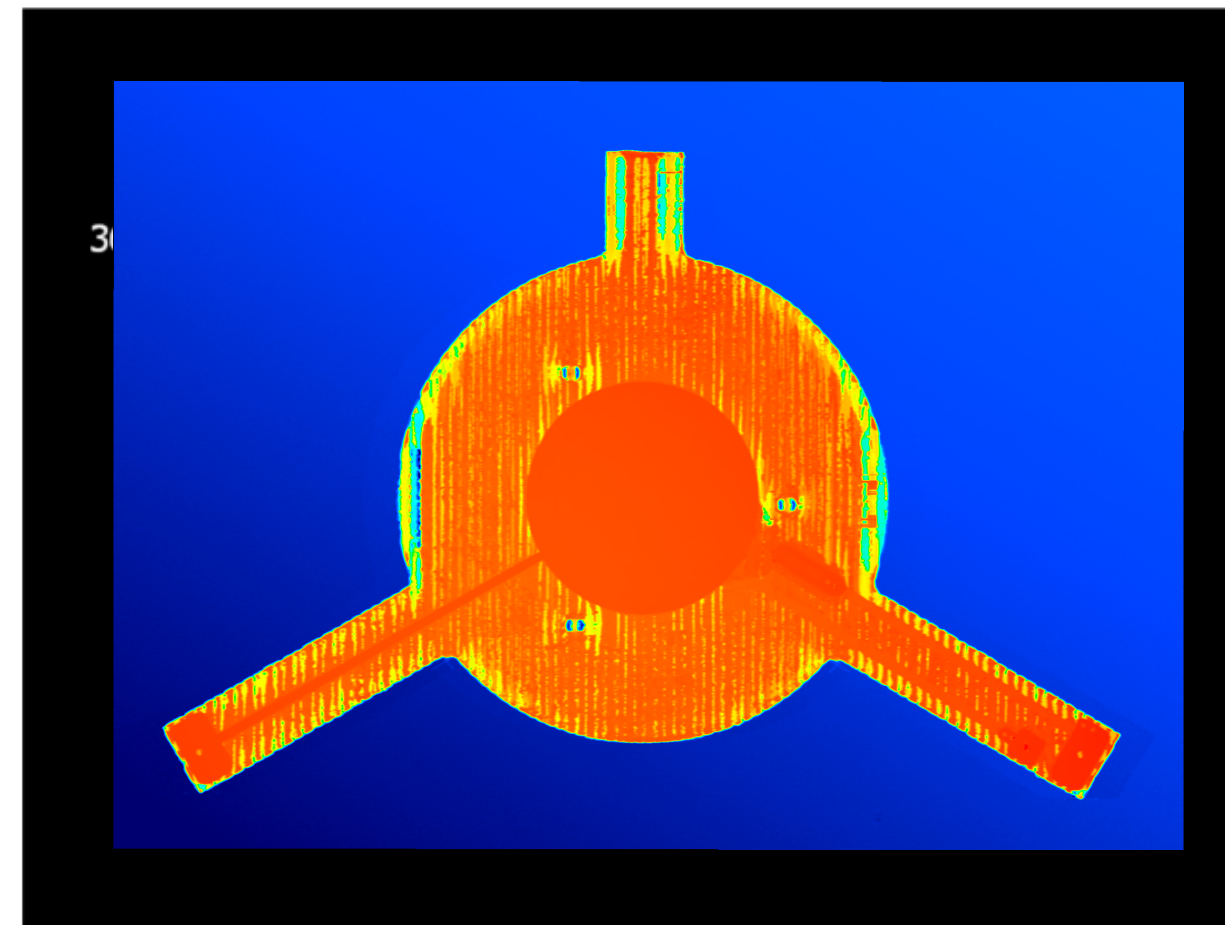
Profile measurement

Measurement equipment: KEYENCE VR-3000 G2

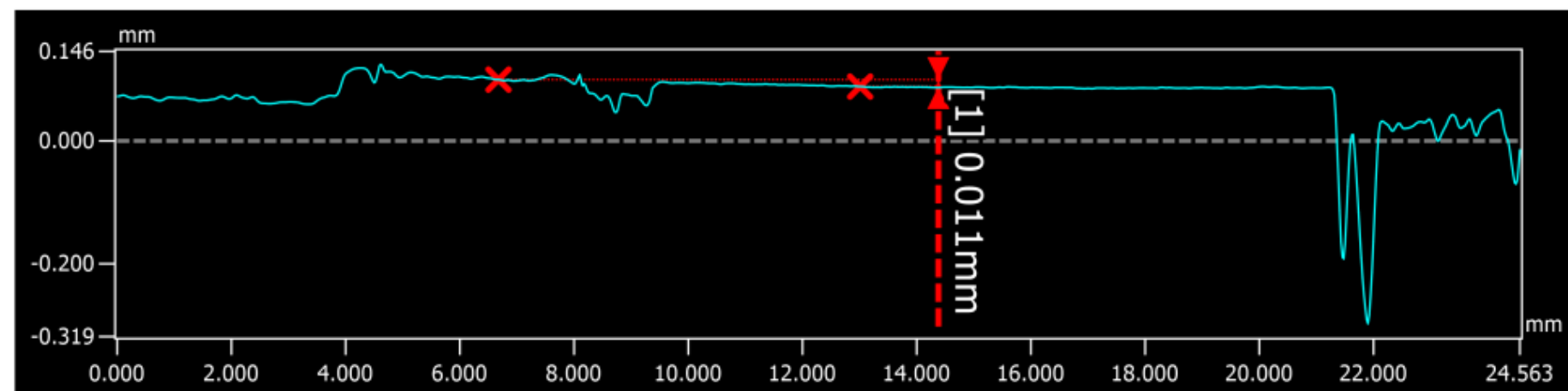
Main image



3D image



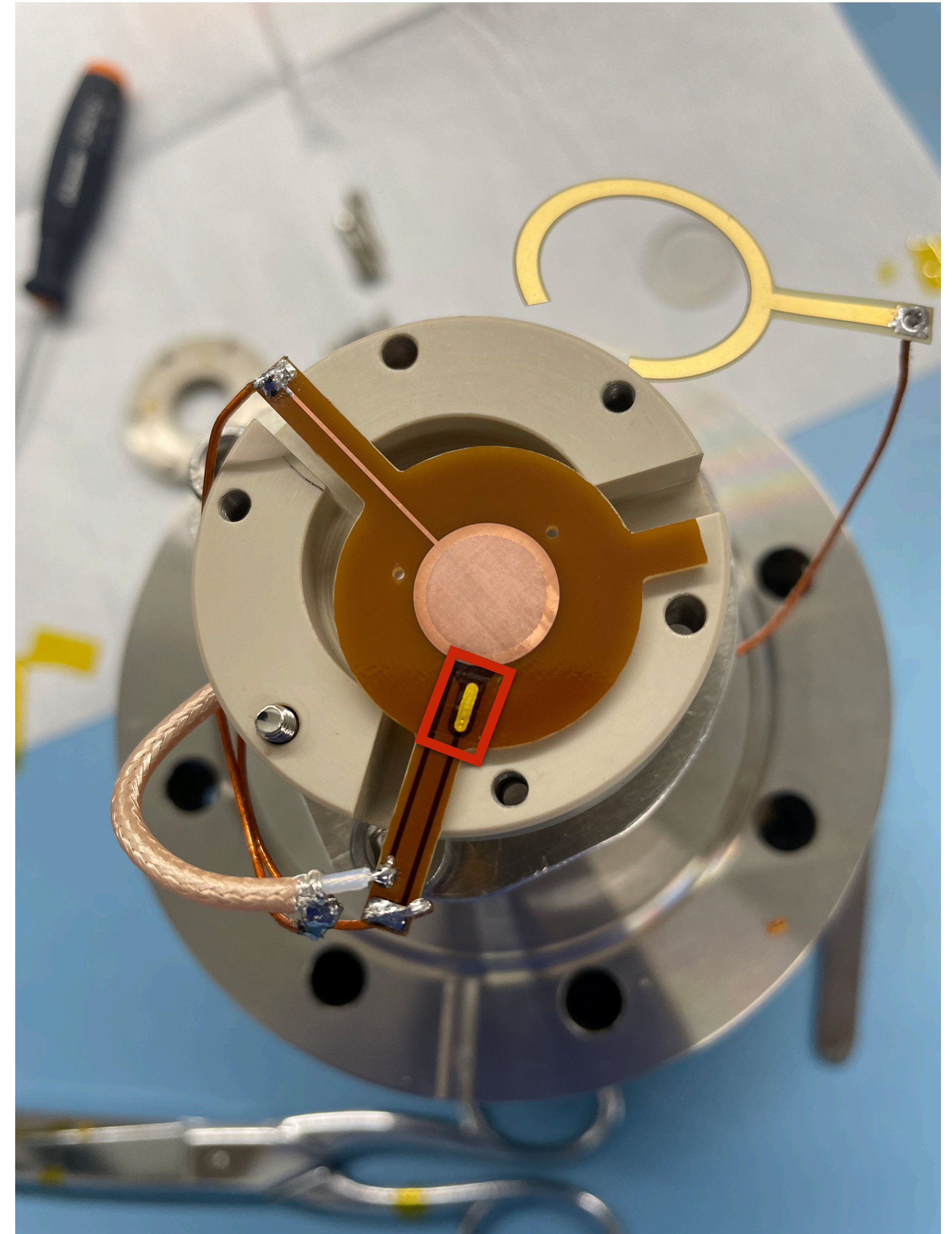
Profile



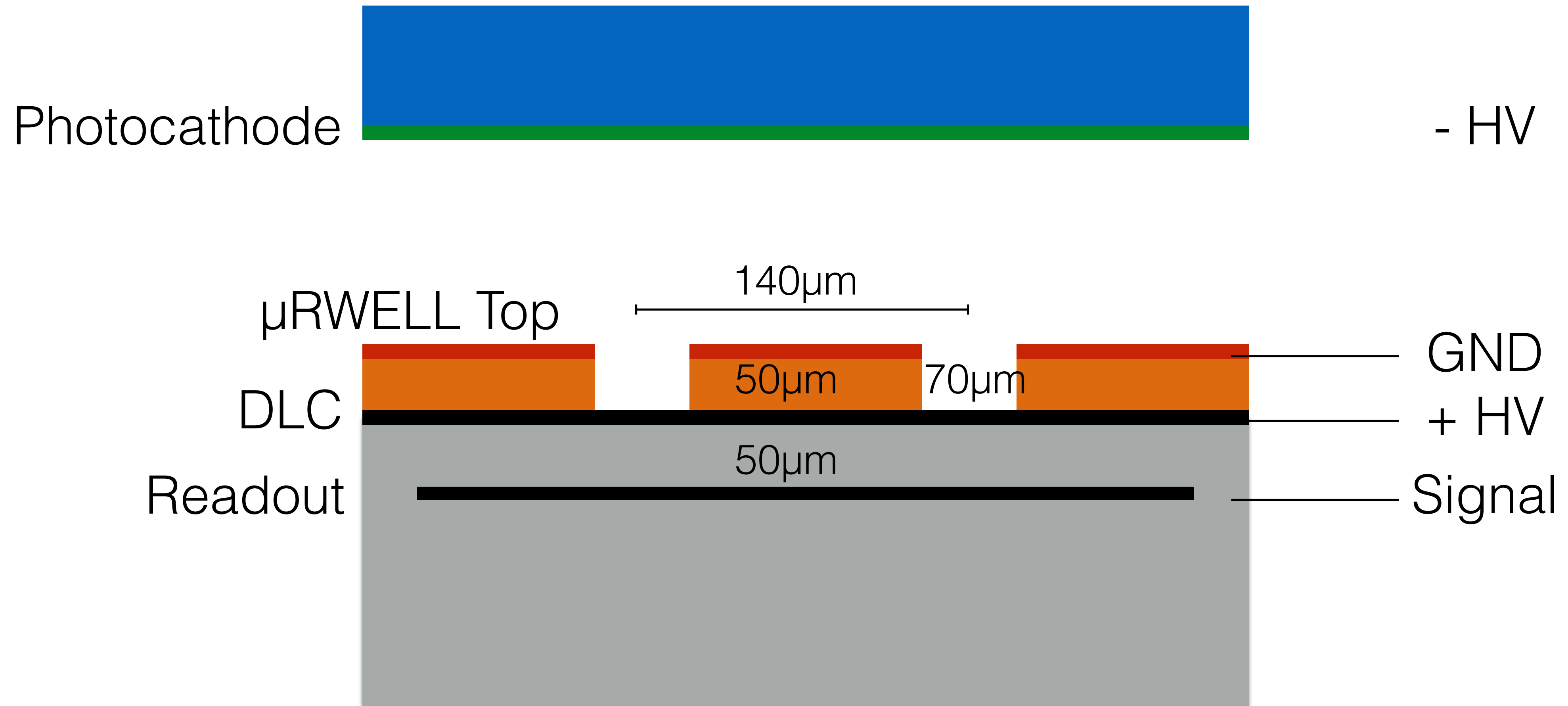
Measurement result

No.	Measurement name	Measured value	Unit
1	Point - Point (Vert)1	0.011	mm

Measurement date and time: 08/12/2022 16:51:03



μ RWELL Picosec prototype



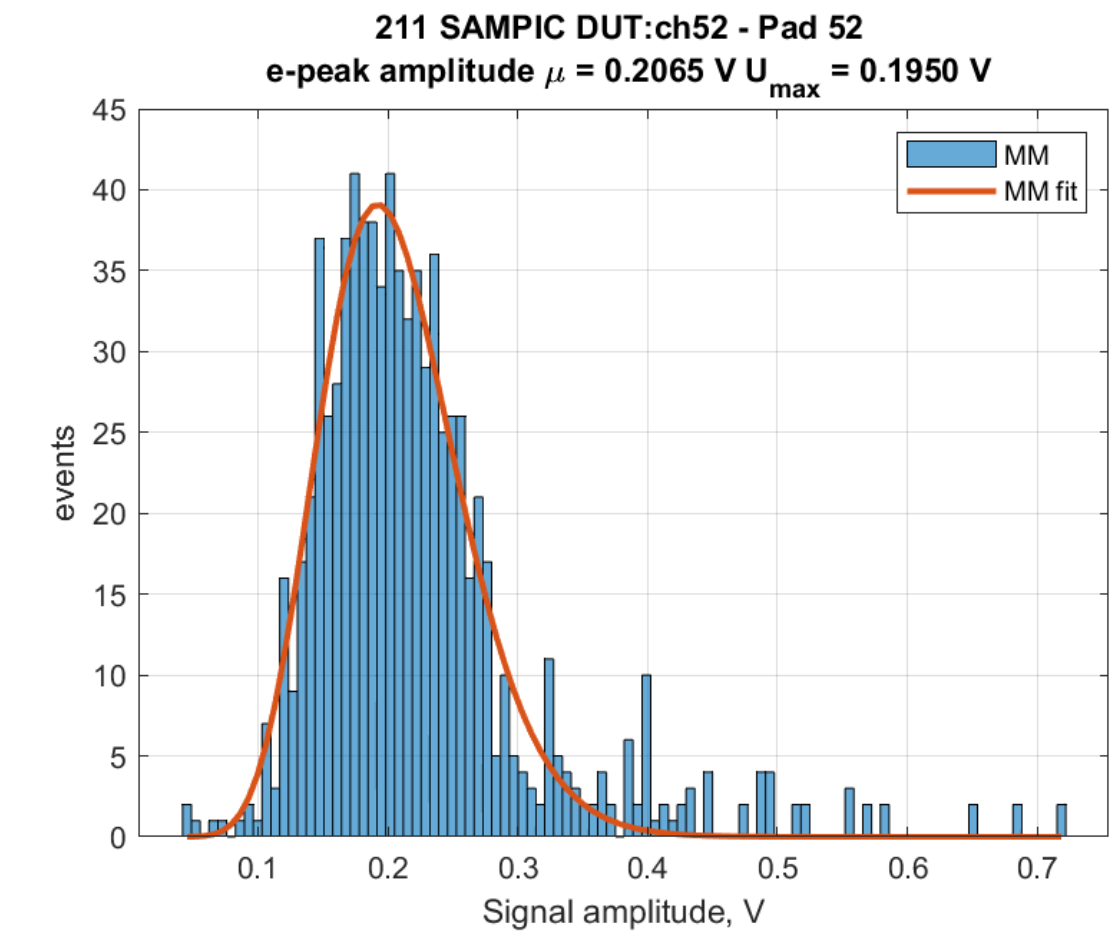
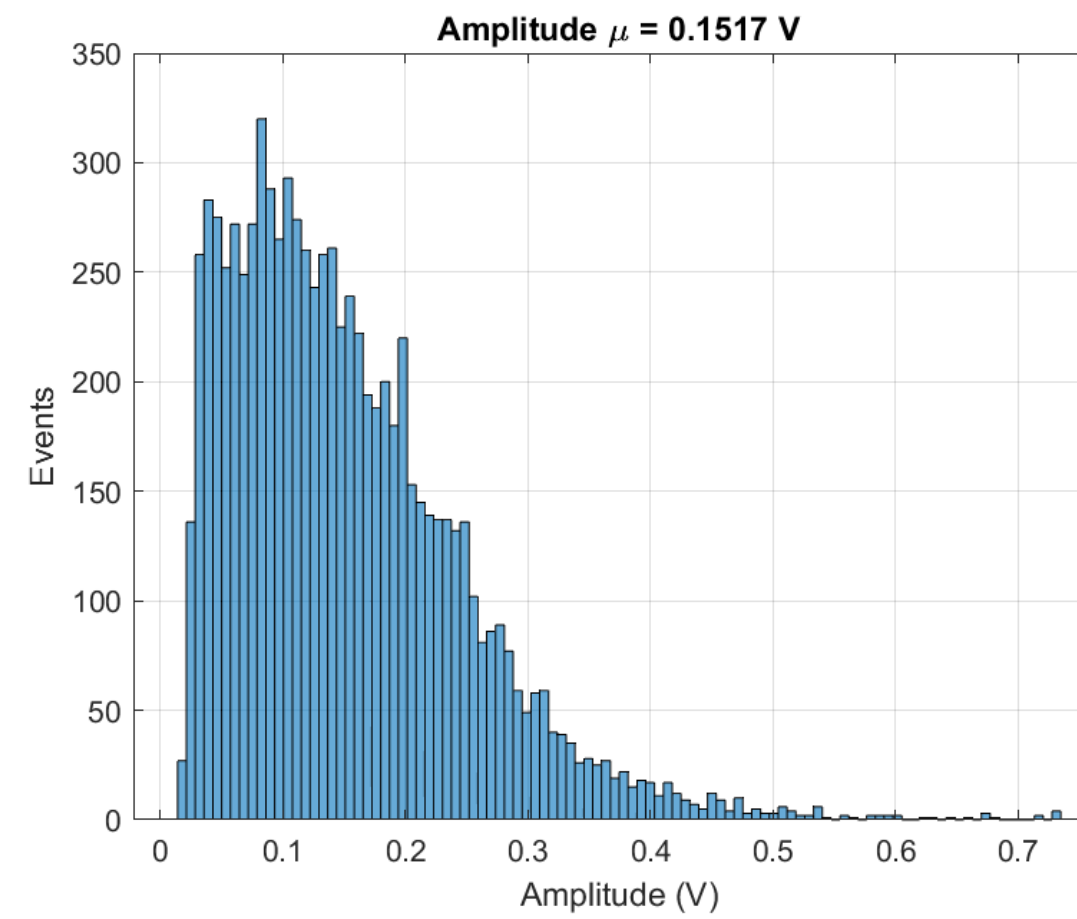
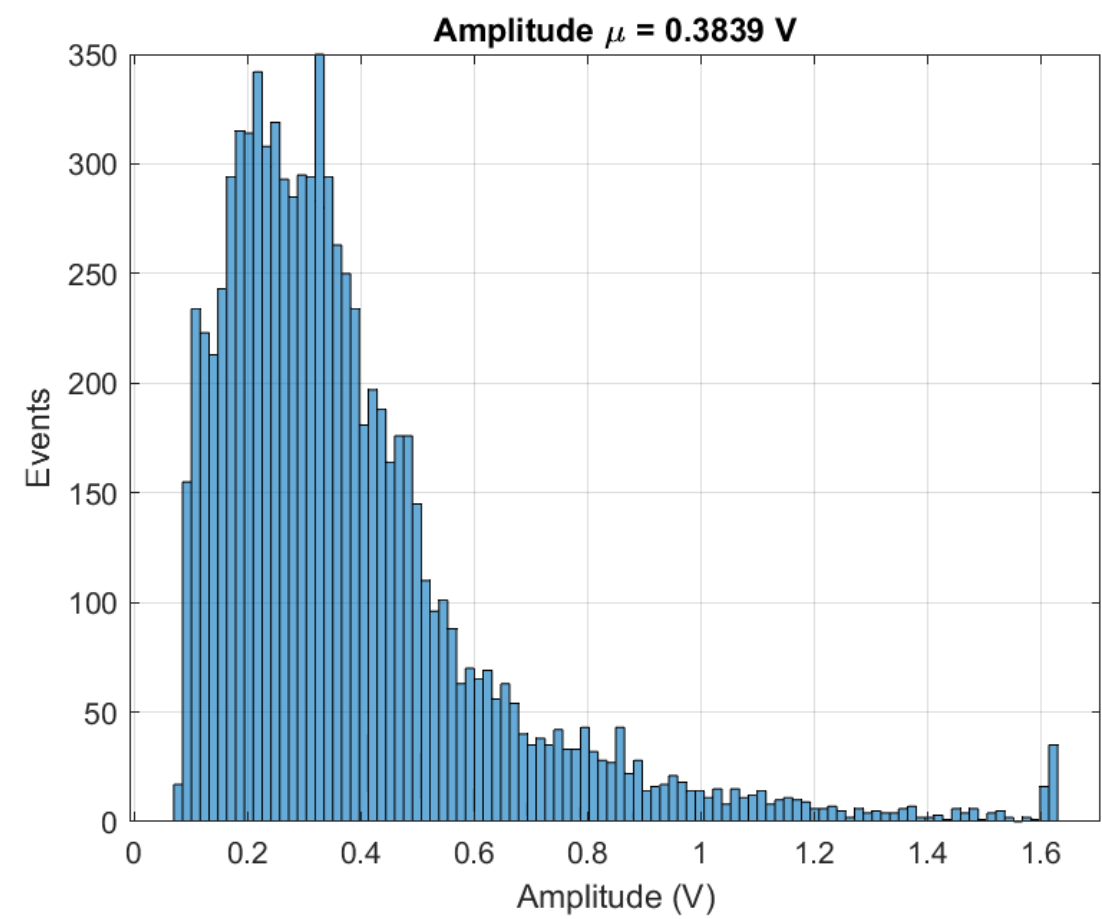
Gain comparison

C: 500V | A: 360V

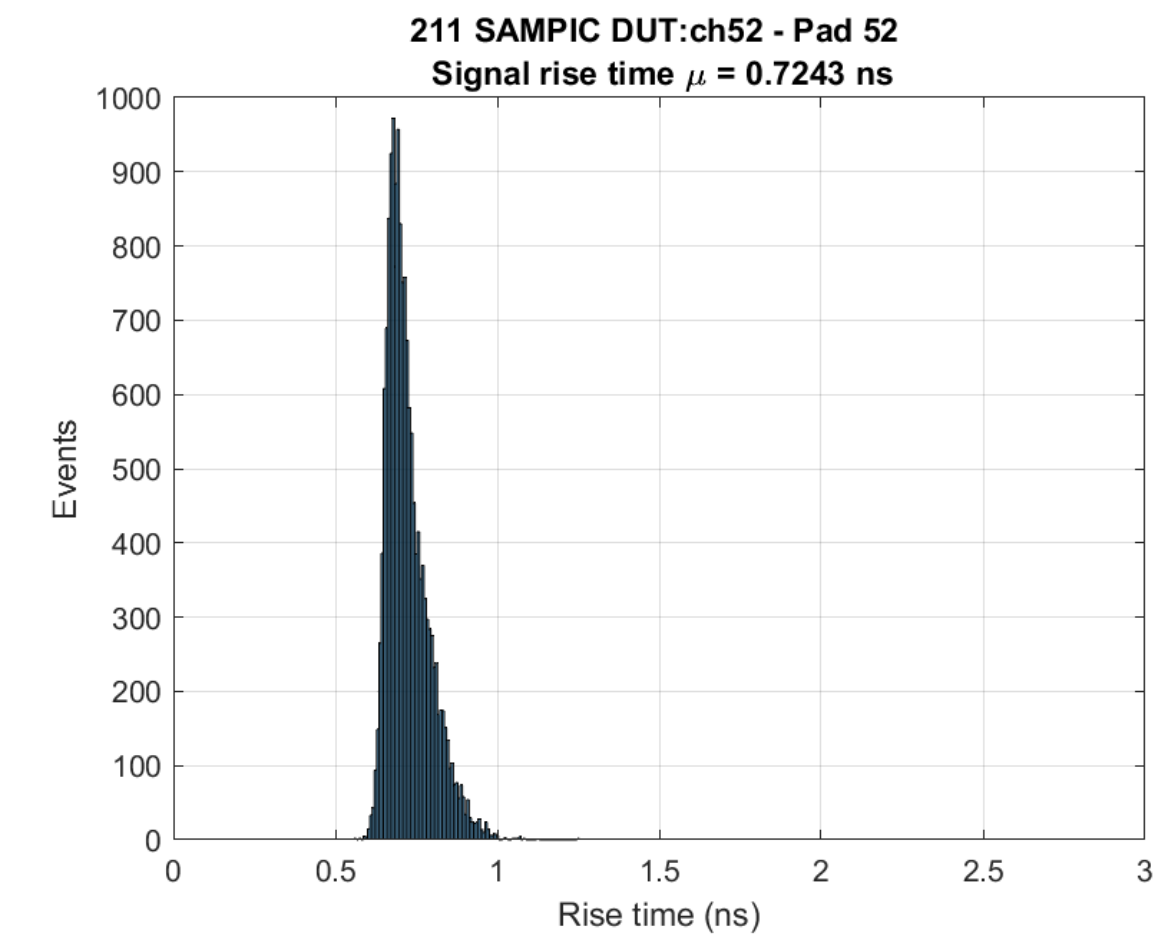
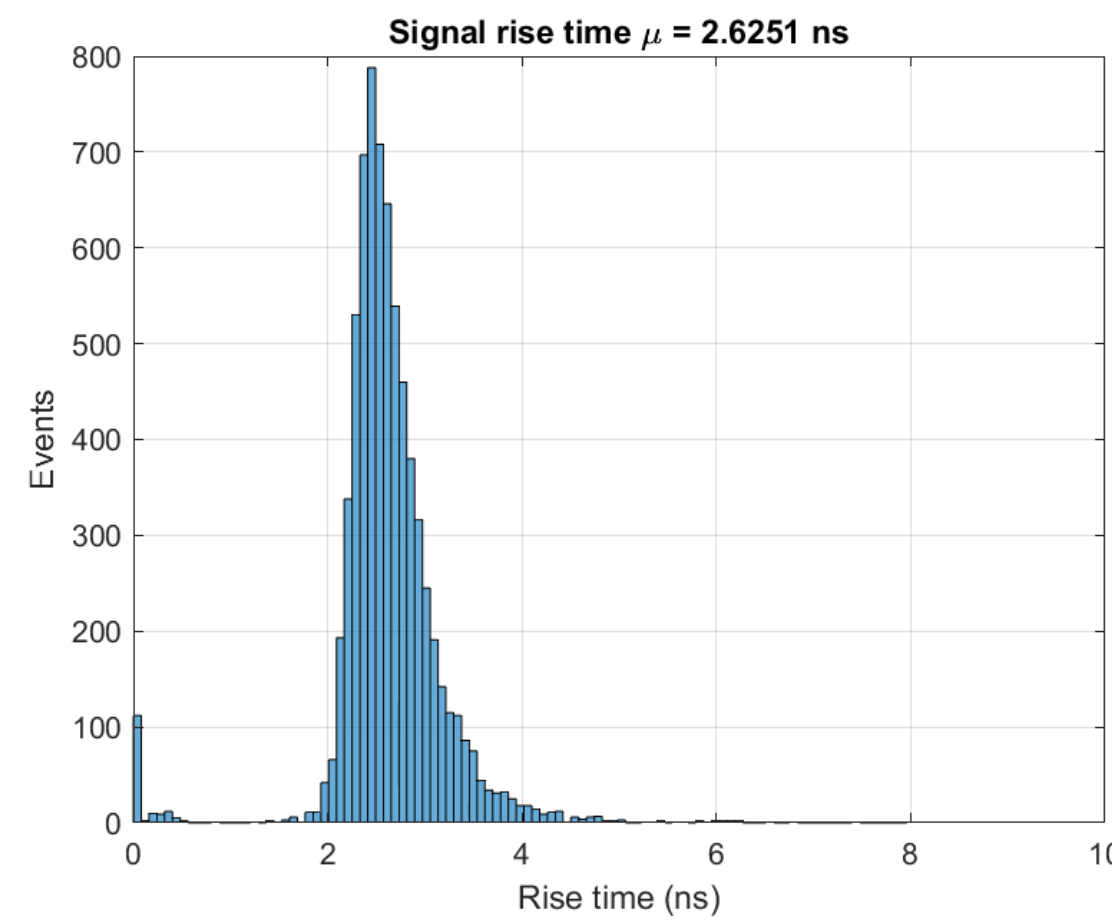
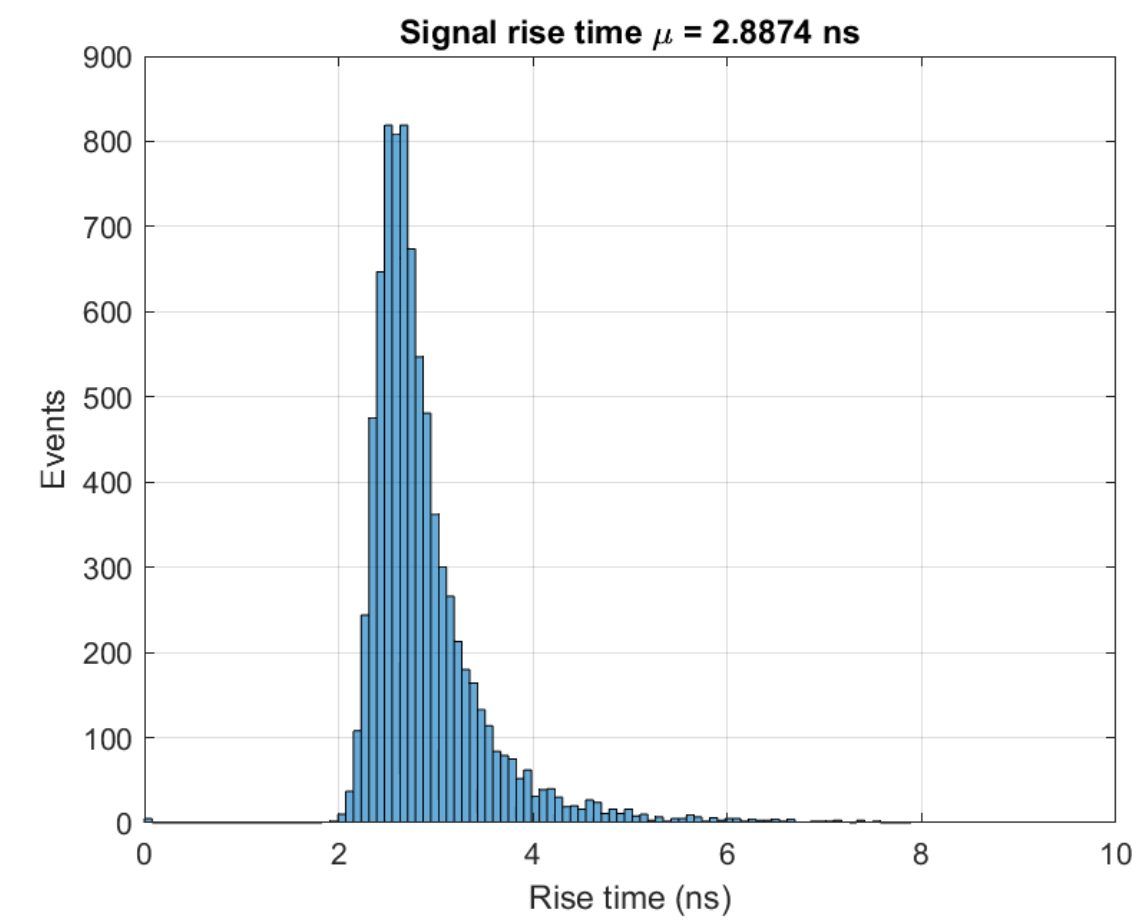
C: 450V | A: 385V

Non-resistive Multipad
Run211 - pad 52
C: 485V | A: 275V

Signal amplitude



Rlse time

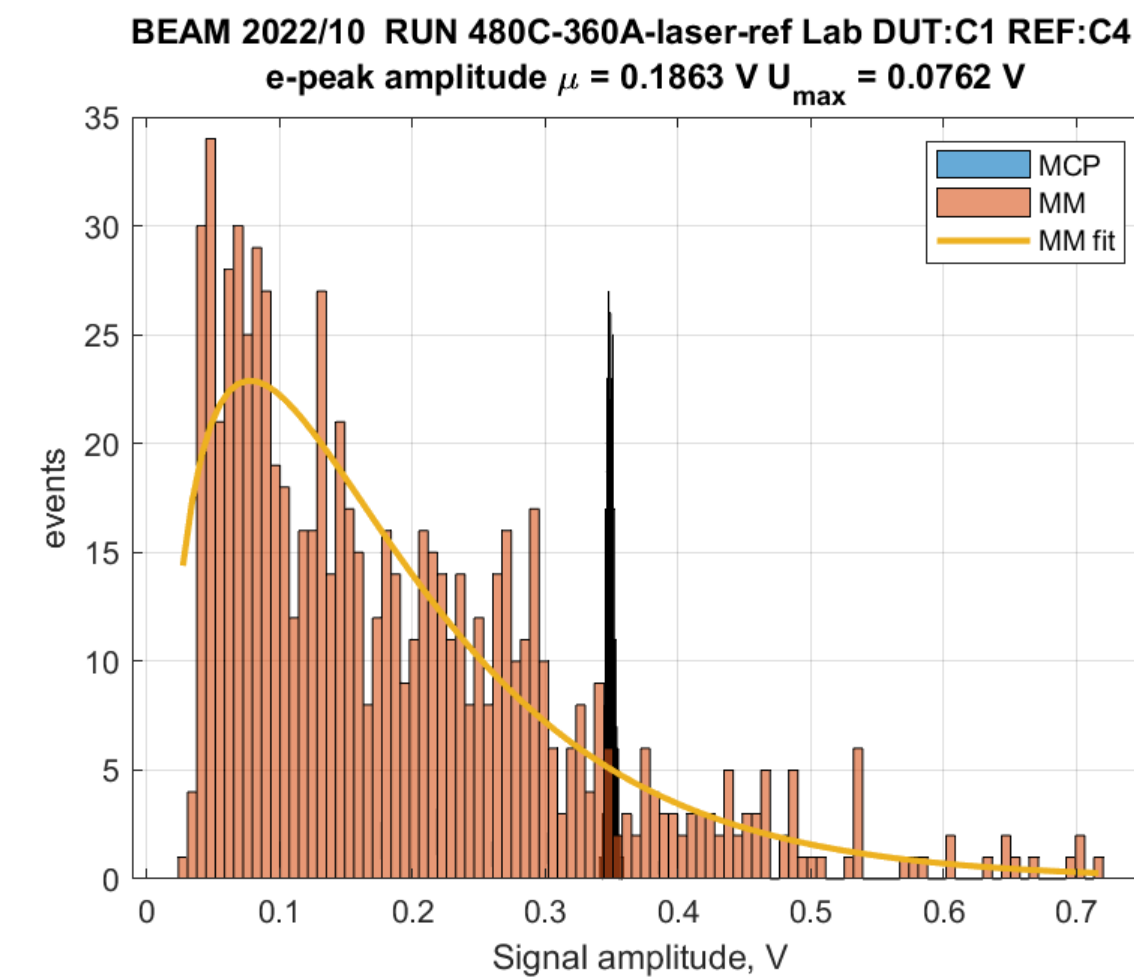
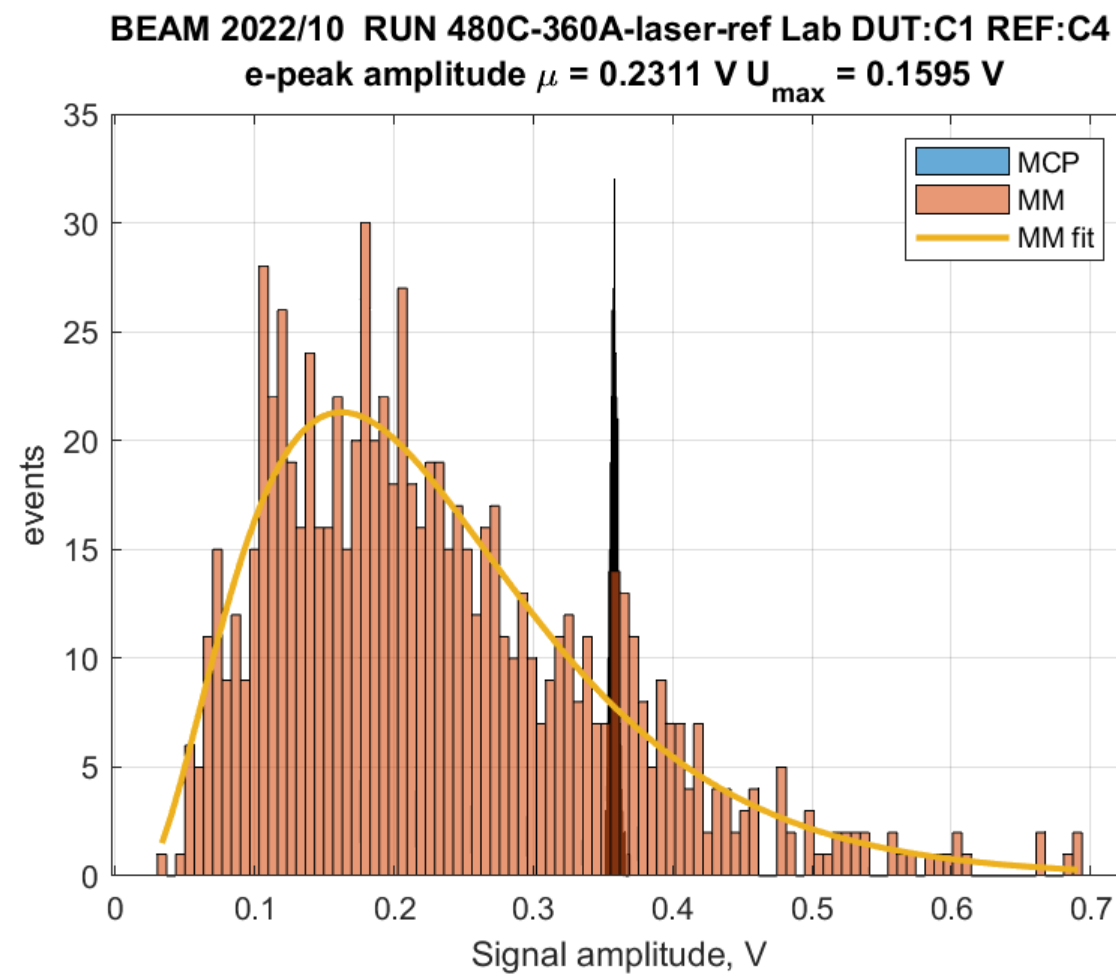


Time resolution - laser reference

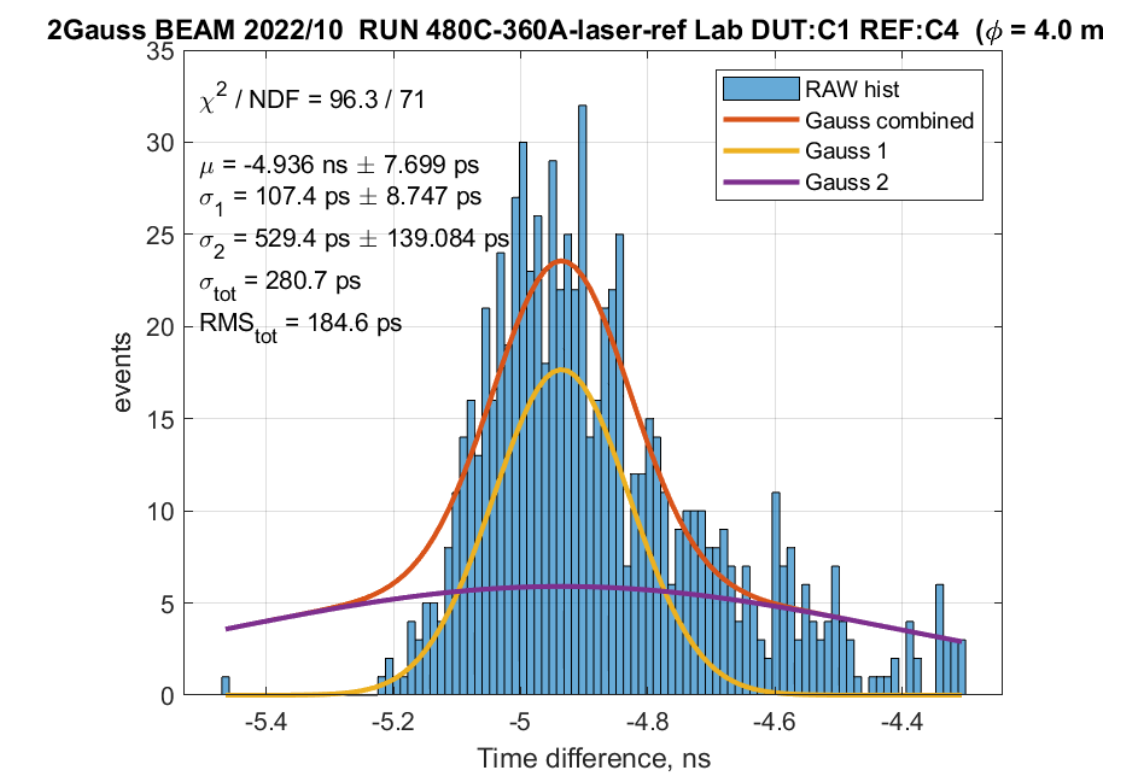
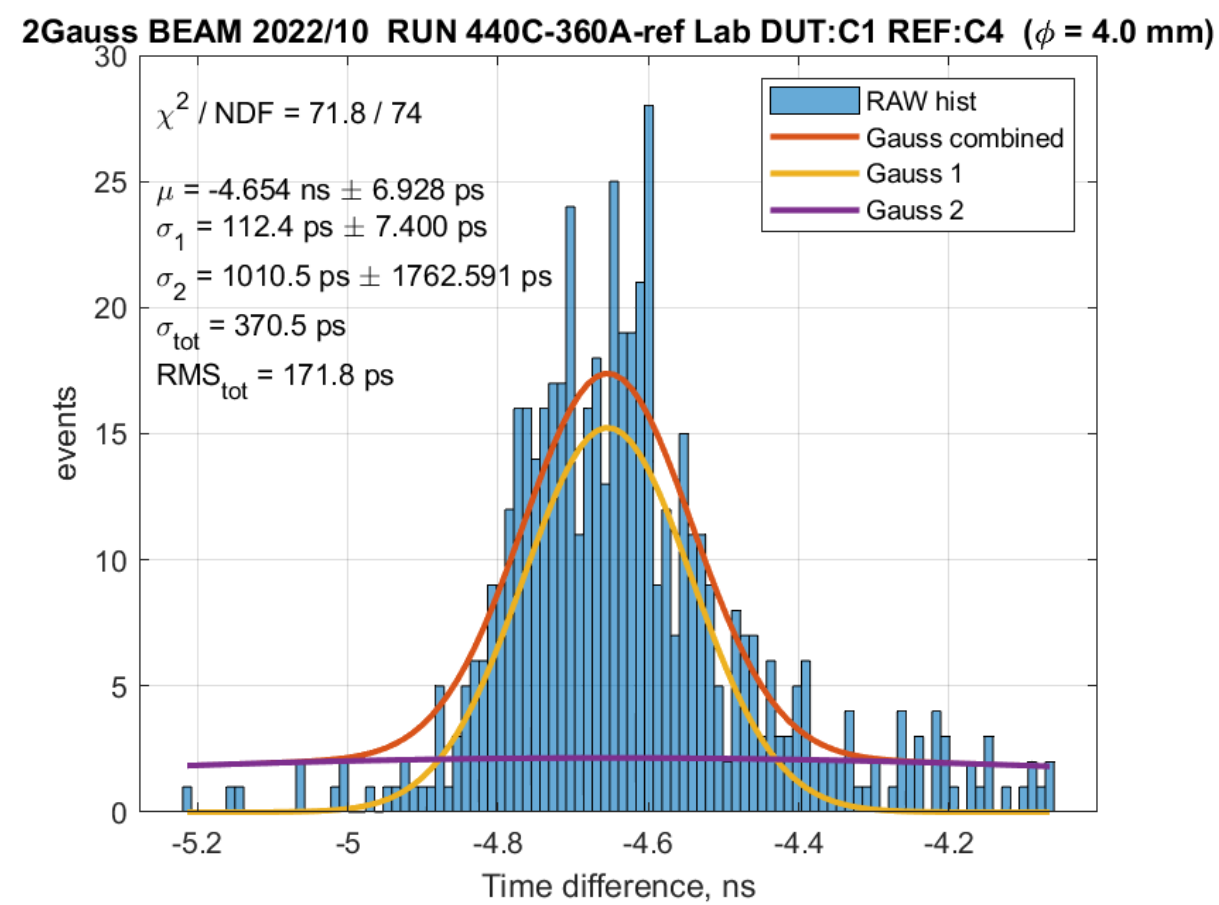
170 μm gap - 440C / 360A

120 μm gap - 430C / 350A

Signal amplitude



Time resolution



Waveforms - laser reference

170 μm gap - 440C / 360A

