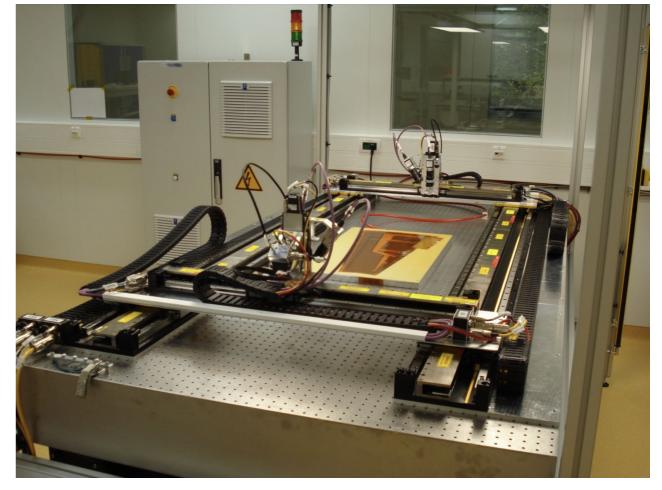
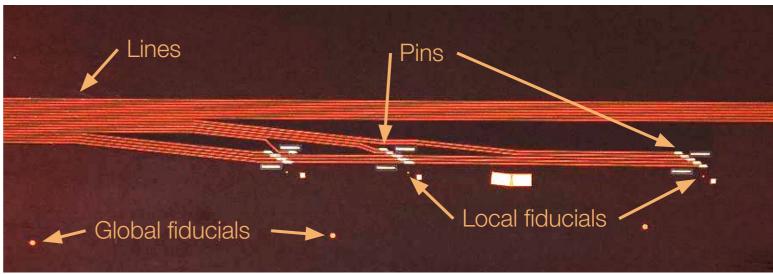
OVERVIEW

- The bus tape contain lines (data and power) that connect the modules to the EoS card
- Testing of bus tape
 - Stretch test
 - Resistance (broken lines and short circuits)
 - Leakage current
- Tests done several times
 - Bare tape
 - After co-curing
 - On core





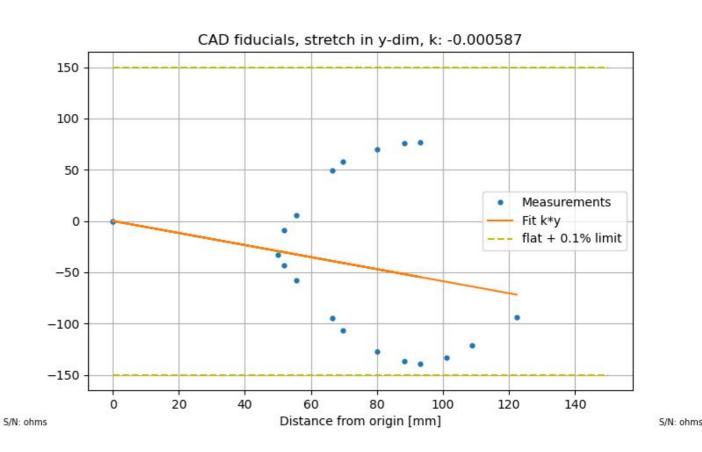
FIRST COMPARISON

Offset in y (USEBT1000010, co-cured)

DESY bus tape robot

CAD fiducials, stretch in y-dim, k: -0.000439 150 100 50 Offset dy [µm] Measurements Fit k*y flat + 0.1% limit -100-15020 80 100 120 140 Distance from origin [mm]

SmartScope



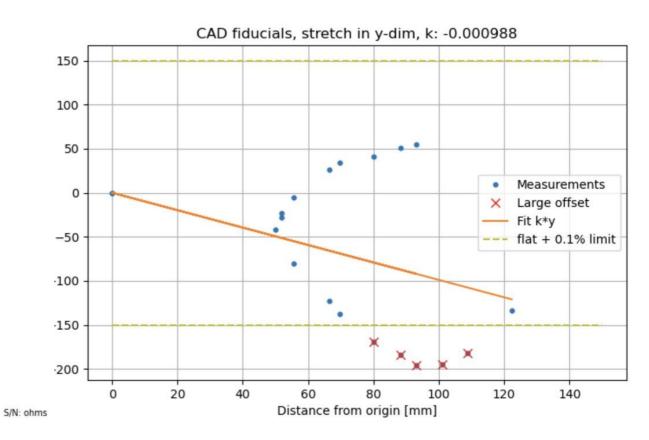
NEW COMPARISON

Offset in y (USEBT1000017, co-cured)

DESY bus tape robot

CAD fiducials, stretch in y-dim, k: -0.001003 150 100 . . Offset dy [µm] Measurements Large offset Fit k*y flat + 0.1% limit -100-150-200XX 20 80 120 140 Distance from origin [mm]

SmartScope



S/N: ohms

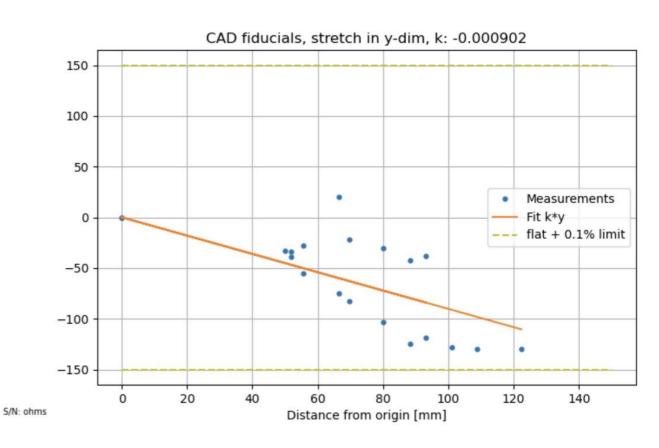
NEW COMPARISON

Offset in y (USEBT1000024, co-cured)

DESY bus tape robot

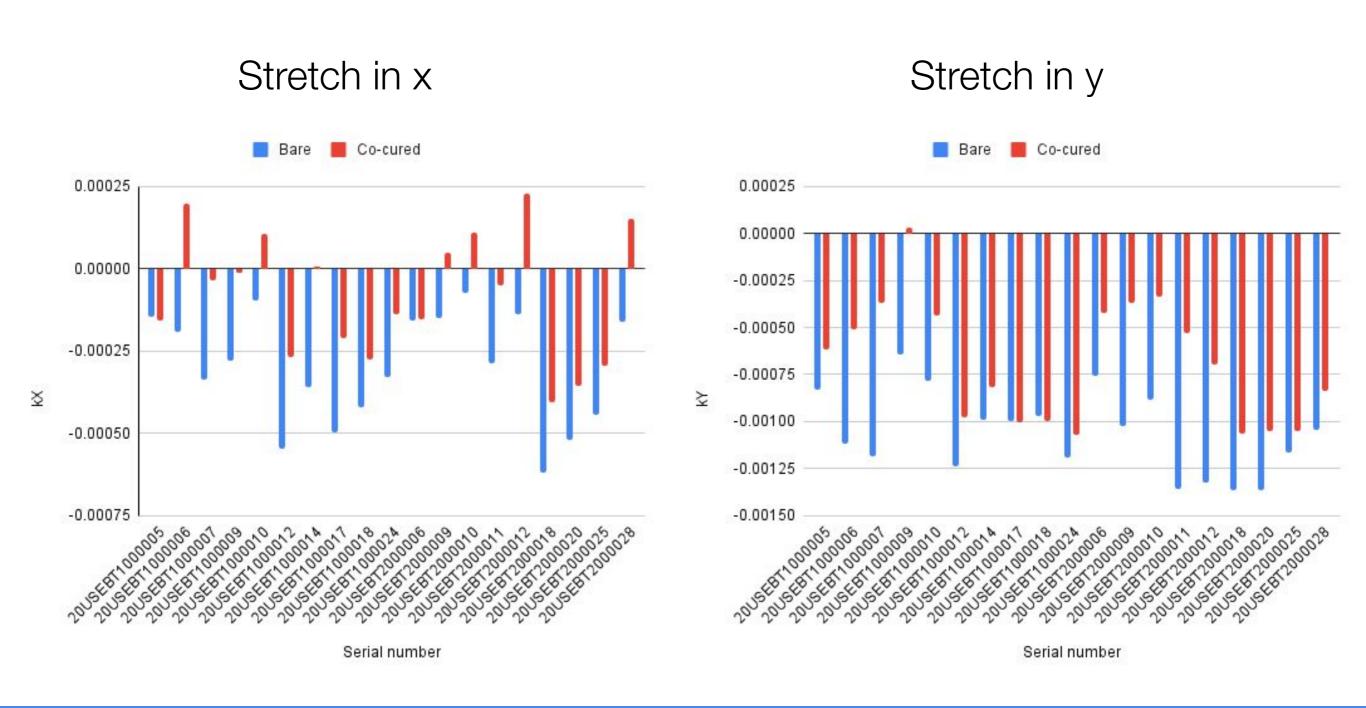
CAD fiducials, stretch in y-dim, k: -0.00107 150 100 50 Offset dy [µm] Measurements Large offset Fit k*y flat + 0.1% limit -50 -100-150-200120 140 Distance from origin [mm]

SmartScope



S/N: ohms

STRETCH BEFORE/AFTER CO-CURING



STRETCH BEFORE/AFTER CO-CURING

Difference in stretch in x

Back — Avg front — Avg back 0.75 0.50 0.25 Delta kx * 1000 0.00 -0.252015EBT100018 2015EBT100009 2015EBT 100010 2015EBT100012 2015EB1100024 2015EBT200006 2015EBT200009 2015EBT200010 2015EBT200018 2015EBT200020 2015EBT10001A 2015EBT100017 2015EBT200012 2015EBT200011 Serial number

Difference in stretch in y

