

MECHANICAL UPDATE

PLUME Meeting

9-10/6/11

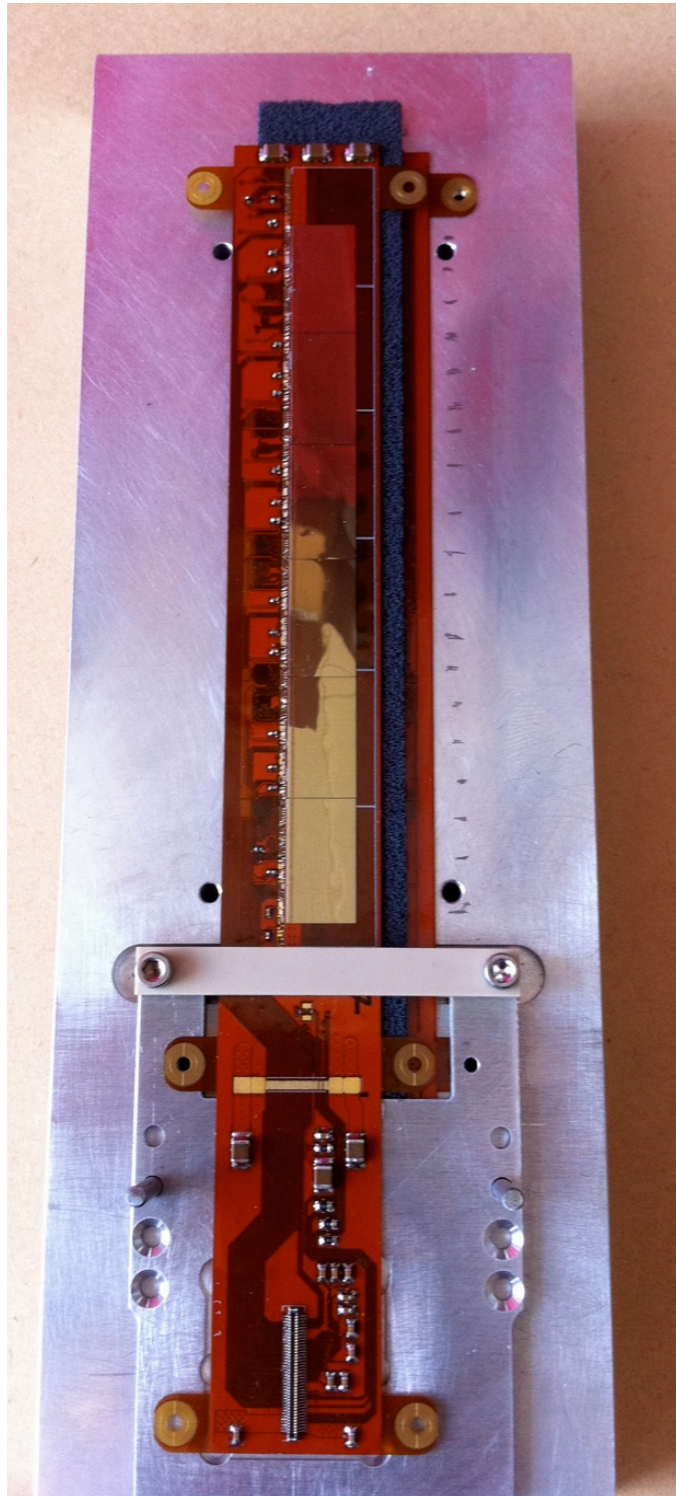
Joel Goldstein

First Assembly

- * Mechanical Assembly in April
 - * Blank flexes
 - * Aruldite 2011 epoxy applied by hand
 - * 2-3 days including curing
 - * Foam not quite parallel
 - * Minor modification to jig



Second Assembly



- * Flexes with mechanical Mimosas
 - * 50 microns thick
 - * Not quite full size
- * Transfer from sole successful
- * No visible damage to silicon or wirebonds
- * Foam parallel
- * Need custom “weight”

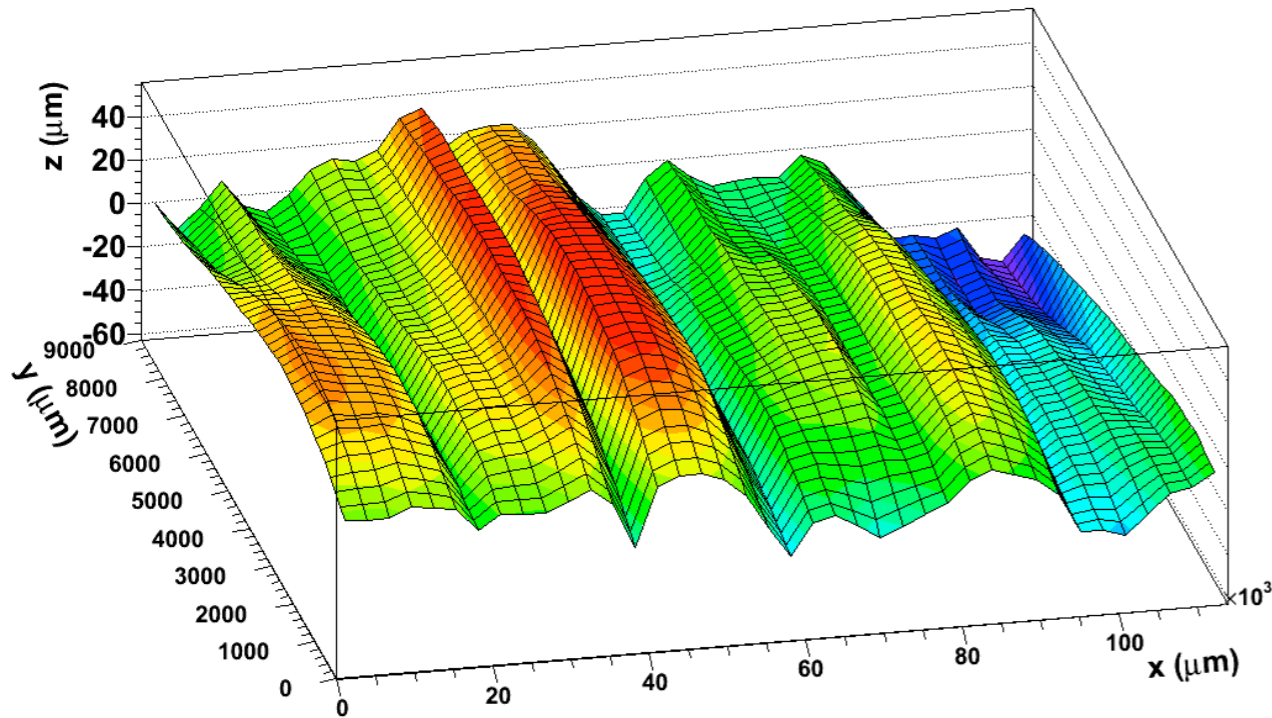
Survey at RAL

- * Con-focal laser system
- * Second assembly
- * Scanned chips on both sides
 - * 1x1 mm grid
 - * About 1 hour per side

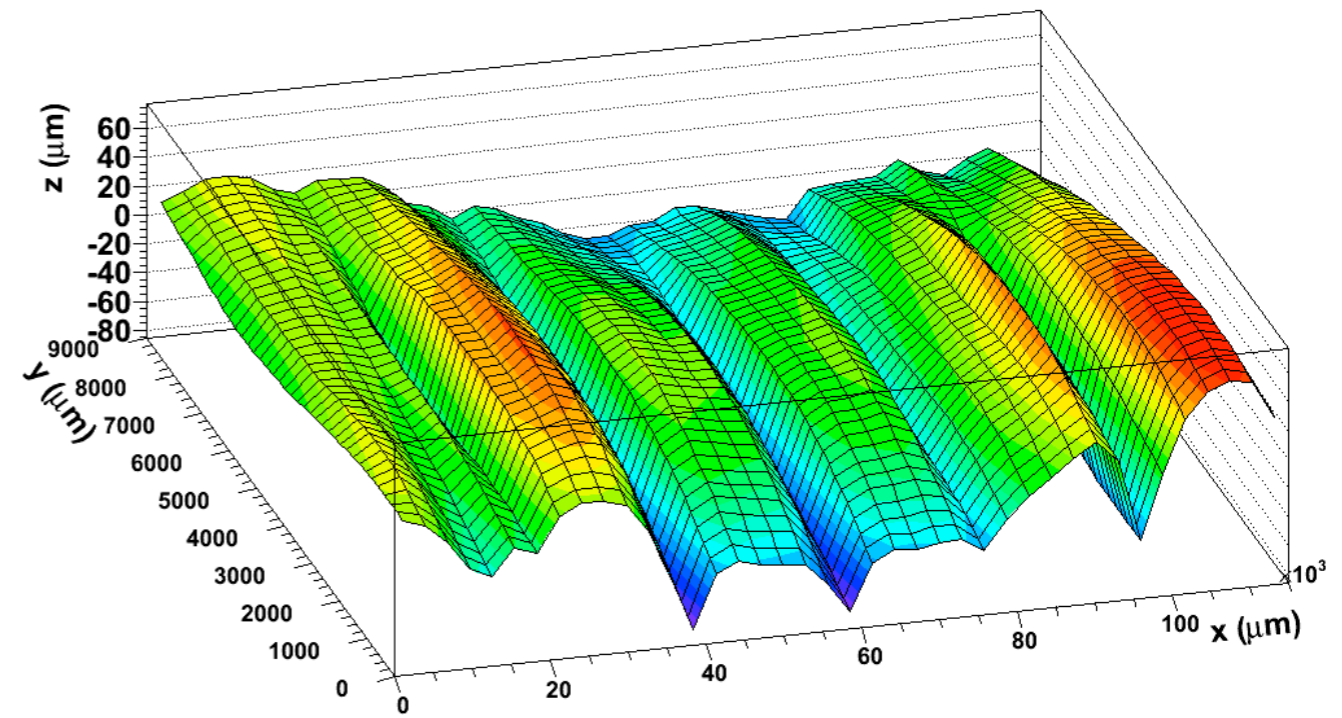


Survey Results

Plume Ladder Side A



Plume Ladder Side B



Ryan Page

- * Main features are distortion at edge of chips
- * Overall bow probably due to foam (within spec)
- * Flatness ~ 100 microns or better

Status 9/6/11

- * Components for 5-6 assemblies in hand
 - * Can build 1-2 per week
- * Cooling manifolds and mounting in hand
- * Bristol colleagues in Strasbourg next week
 - * Will take Assembly 2, manifolds and mounting
 - * Return with electrical flexes....?