## **Optical Adapters and Single Assemblies**

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#### **Optical Adapters**

Single Assemblies

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Optical Adapters Single Assemblies

# Optical Adapters: working (hooray!)



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## Integration Tests

- Configuration and DAQ links work
- LVDS clock fanouts from beam test for 320MHz clock distribution
- ► Tests with Angelo + team foreseen from 8th-12th September

#### **Optical Adapters**

Single Assemblies

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## Single Assemblies



Open backside

Closed backside (11 holes)

Two assemblies of each type wire bonded.

## **Digital Tests**

- Control interface works on all chips
- 3 of 4 pass digital tests
  - ▶ 1 (with open back side) has a bit stuck in the pixel array
  - $\blacktriangleright \ \rightarrow$  put to one side for the moment
- Good chip with open back side selected to start with
  - (much easier to shoot laser into pixel array)
- Wire bonding diagram error identified
  - Ian was able to correct bonded chips

Optical Adapters Single Assemblies

### Single Assemblies: IV



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Optical Adapters Single Assemblies

### Good Open Assembly



## Leakage Current vs Time



200

## Good (Open) Assembly: DACs



 $(+19 \text{ other sets of plots } \dots)$ The chip looks "normal".

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# Summary

- Optical adapter cards now shown to work
  - $\blacktriangleright$   $\rightarrow$  tests with GTKRO possible
- Assemblies look ok from HV point of view
- ▶ 3/4 chips are "digitally" perfect
- ▶ 1/4 selected for initial characterisation
  - DAC characterisation is ok
- Current Focus
  - measure pixel array properties and trim offsets
  - $\blacktriangleright$   $\rightarrow$  laser characterisation