

300 mK team meeting, RAL, 19/12/01 (notes only – Eric Sawyer).

Cardiff.

Two support assemblies fit into the bottom of the photometer box, however location in the top is preferred.

Feeding the bus bar through the assemblies has not been addressed.

Annealing the copper may not be necessary.

Tests carried out at Cardiff indicate that interface conductance at 300mK will not be a problem and extra interfaces should be acceptable.

12 kevlar strands per support.

Total load is 0.4micro watts. (tex 44), or 1.2 micro watts (tex 167)

RAL

Prototype built, due for test early Jan.

MSSL

Vibration tests have been carried out with end stops.

All configurations survived, but high levels recorded.

Selection criteria:

1. Mechanical reliability (Should be able to sustain 0.5 g<sup>2</sup>/Hz between 100 and 400 Hz, ramp up and down +6, -6 dB/oct)
2. Ease of integration
3. Structure schedule
4. Thermal performance
5. Amount of development required

Work needed/planned

Preliminary review end Jan

Selection before mid Feb.

All options produce outline integration plan for end Jan.

Test results on all options (warm vib):

RAL, Jan 10

MSSL Jan

Cardiff late Jan/early Feb.

Analysis of interface to cooler and BDA.

Thermal model

Mechanical model.

3D model to check accommodation. (MSSL to provide input).

Assessment of amount of development required to finalise design.

Selection mid feb

Workplan

This group to continue to support the chosen solution.

Next meeting,

Jan 30 and feb 28.