ATLAS SCT Links: Mitel 12-Stream Opto Arrays

Device Packaging:

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- Atlas Opto Workshop held in Oxford in January
- Mitel presented MT4 PIN diode and VCSEL arrays
- Mitel web site www.mitelsemi.com/.

  Look at the products for 4D469/ 4D470 VCSEL/ PIN arrays

The Common Connection:

- Arrays to date are common cathode.

  This connection is via the Copper block, tied to the shroud.
- For the PIN array common cathode is fine, but tied to the shroud is not ideal: this point will have to be held at a positive bias via a resistor.
- For the VCSEL array, our existing BPM driver design has current-sinking outputs, so the array needs to be common anode. Anodes fed from a positive supply: shorting could cause damage. Multiple common pins preferable (12 x 30mA !!).
- Mitel were already working on a common anode VCSEL array, but no stated time scale.
- Separation of the shroud and common looks to be possible.

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The Carrier Proposal:

- Approx. same size as the shrouded array.
- The top side has pads for the surface mounting the array
- Bottom has larger pads around the edge
- The (relatively difficult) mounting of the device on the carrier would be done by Mitel
- Far easier to handle and test, easy to surface mount in Back-of-Crate modules.
- Could fit carrier with connectors for some uses
- Bottom pads OK for Sprung Test Pins
- Mitel see this development as useful for other customers
- Suggested design received from Mitel

More Details Available at:

http://www.hep.phy.cam.ac.uk/~goodrick/.secure/Mitel

(Mitel, nj6250e)

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