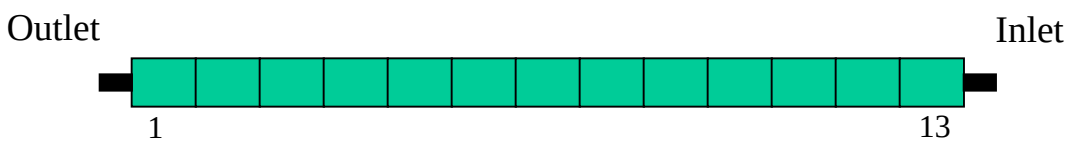
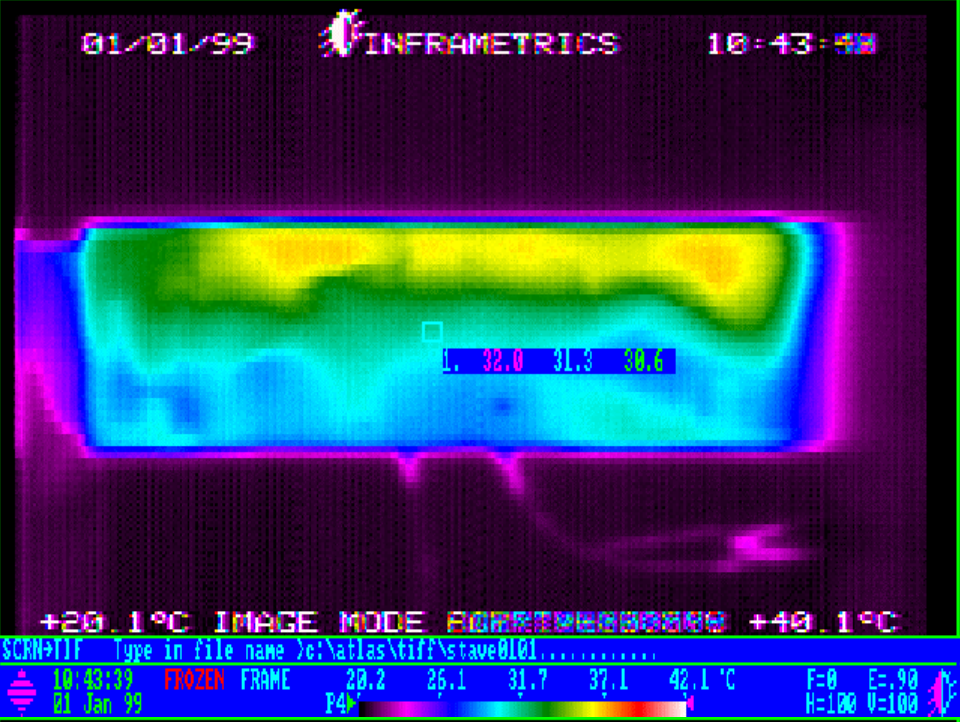
Stave Irradiation

- See setup on next page
- Before irradiation
  - IR imaging done with water coolant at ??^{0}C, flow rate of 1 liter/min, 7.1 W/module
  - Images of each module at http://www-physics.lbl.gov/~gilg/IR%20Images/
  - File name indicates module number Stave0#0.tif
- First irradiation
  - Stave in vessel with nitrogen atmosphere.
  - Module #1(M1) end closest to source
  - Stave in vertical position in ring source
  - Maximum dose is 50 Mrad but varies along stave - how much is TBD.
  - IR imaging done with water coolant at 20.8^{0}C, 1 liter/min, 7.1 W/module
  - Images of each module at http://www-physics.lbl.gov/~gilg/IR%20Images/
  - File name indicates module number Stave01#.tif
  - Before and after images follow
  - Concern about paint quality in “before” images => about 1^{0}C uncertainty in difference. Before may be warmer by this amount.

Picture of Setup Goes Here




01/01/99
INFRAMETRICS
1. 32.0 31.3 30.6
+20.1°C IMAGE MODE +40.1°C
SCRN→TIF Type in file name)c:\atlas\tiff\stave010.....
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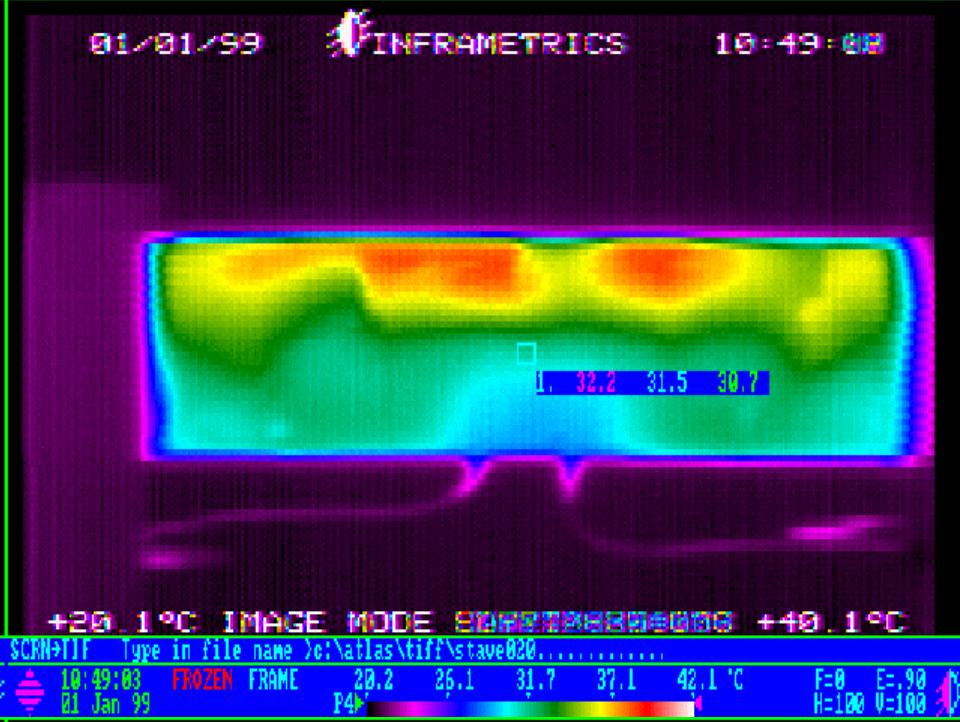
01 Jan 99 P4 H=100 V=100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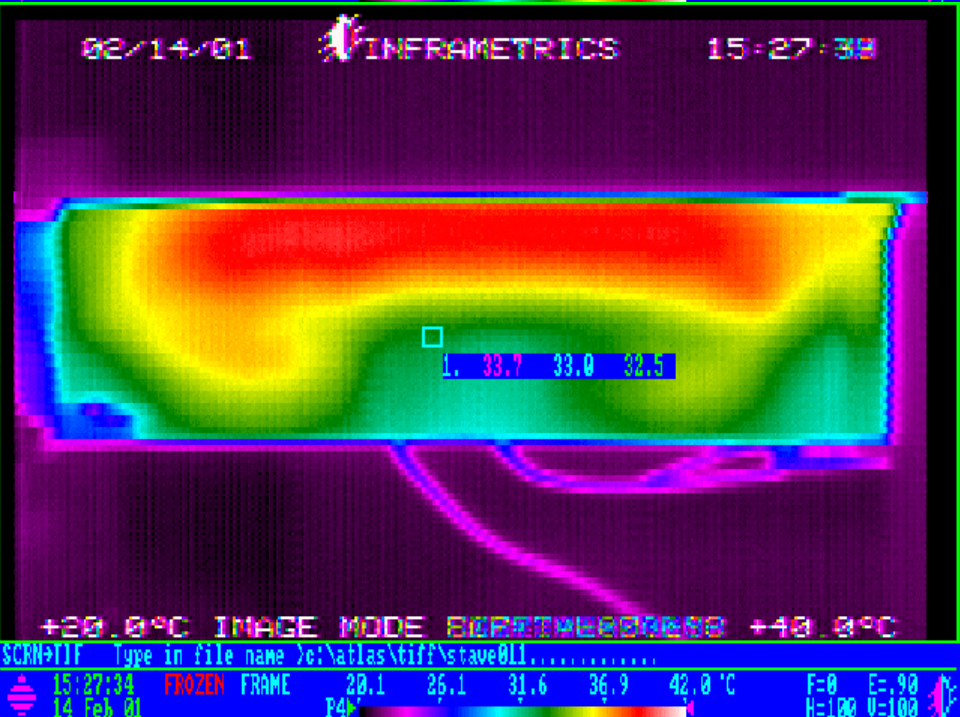
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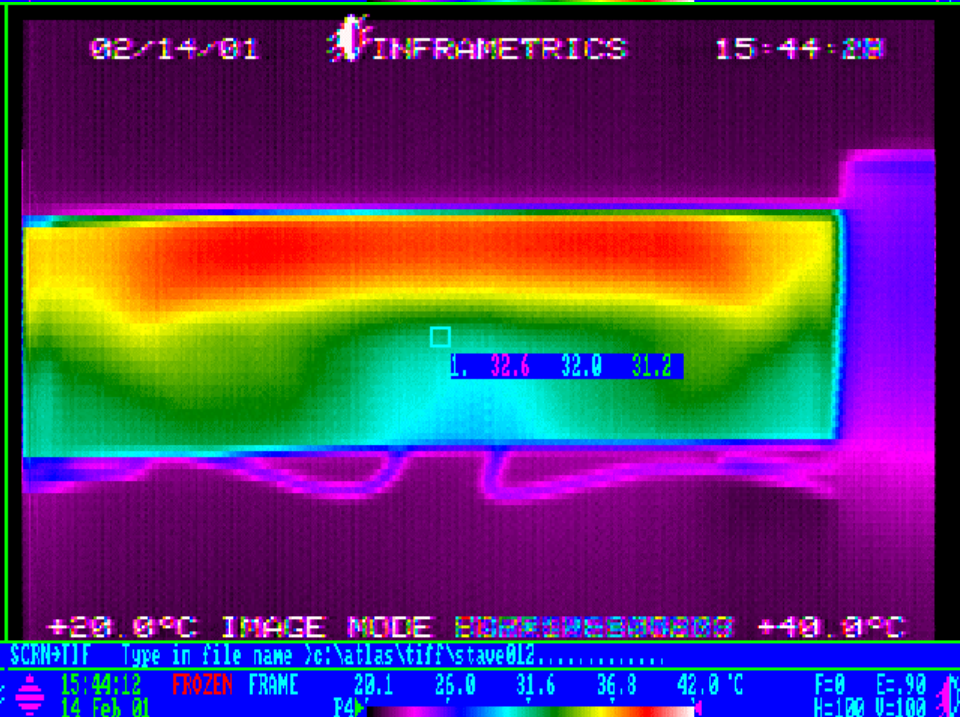
14 Feb 01 P4 H=100 V=100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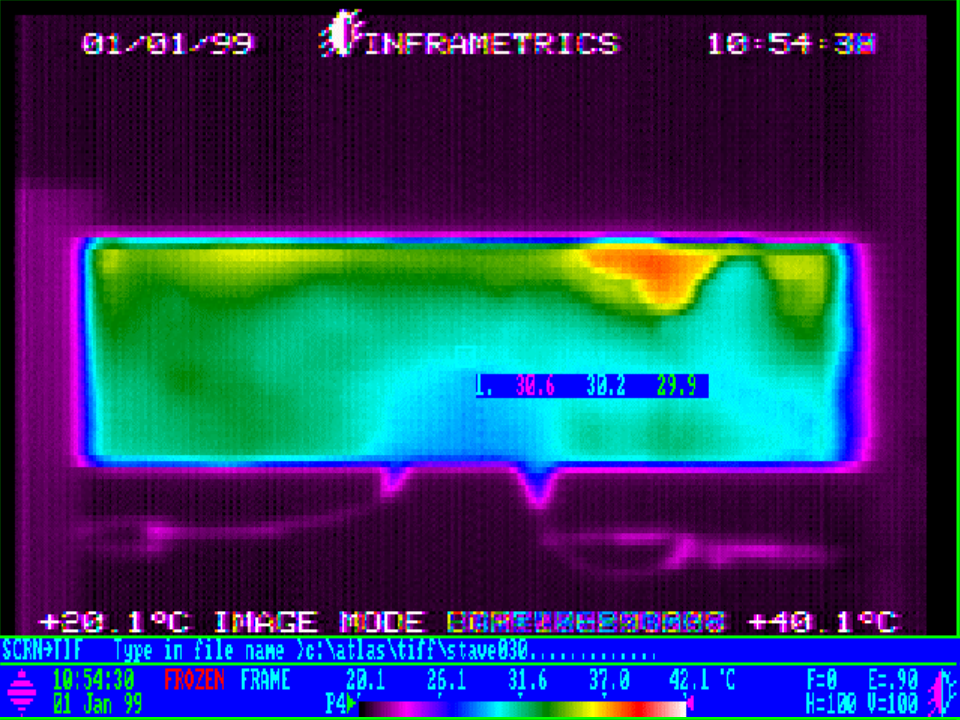
14 Feb 01 P4 H=100 V=100


01/01/99
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SCRN→TIF Type in file name)c:\atlas\tiff\stave030
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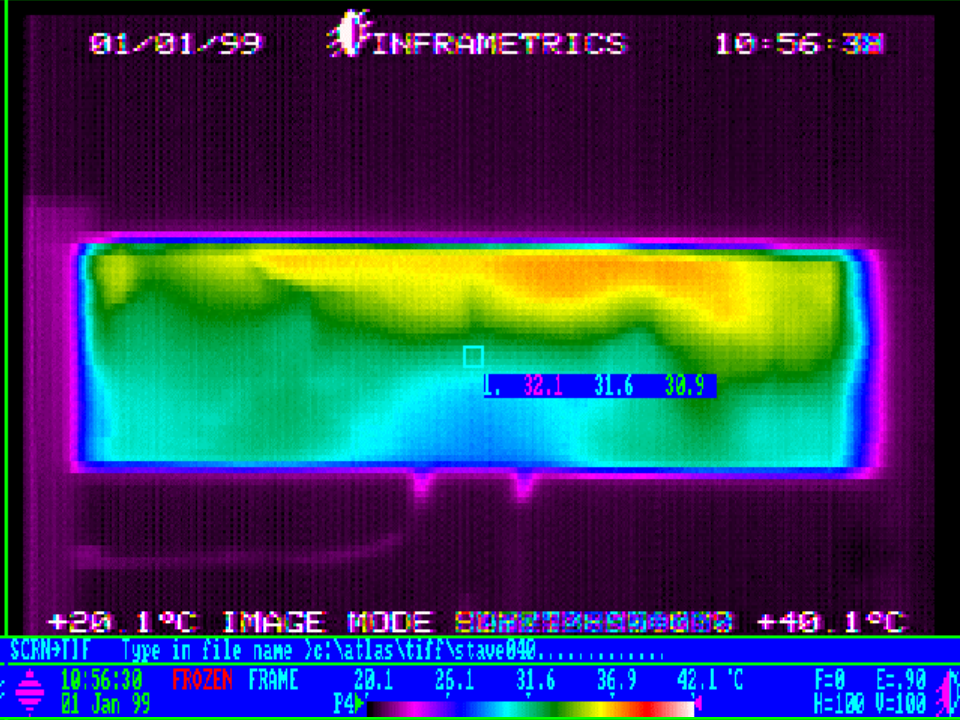
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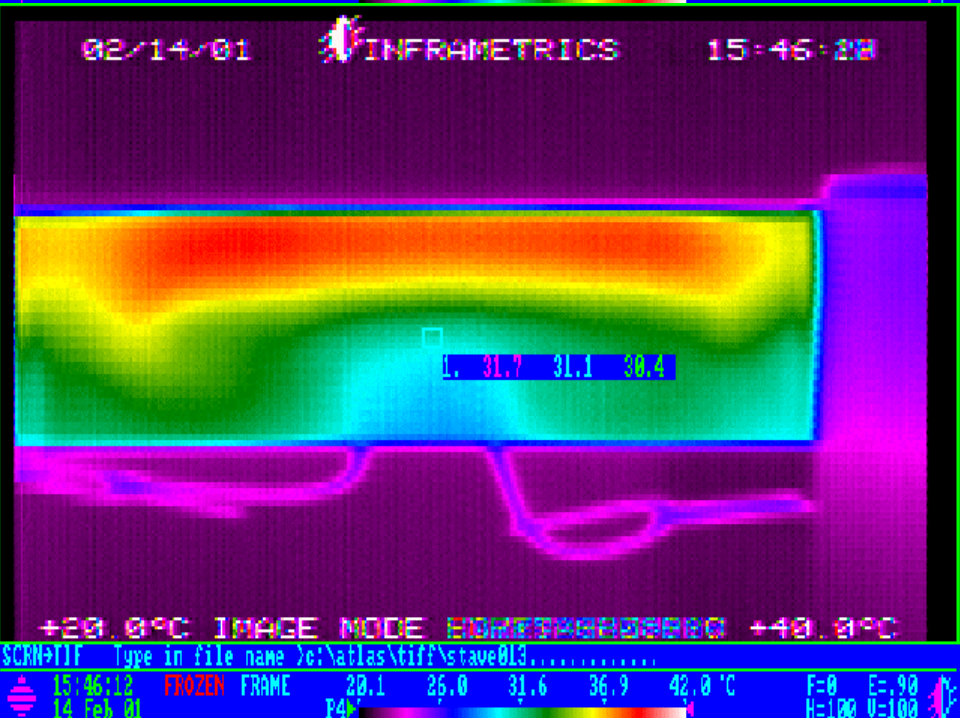
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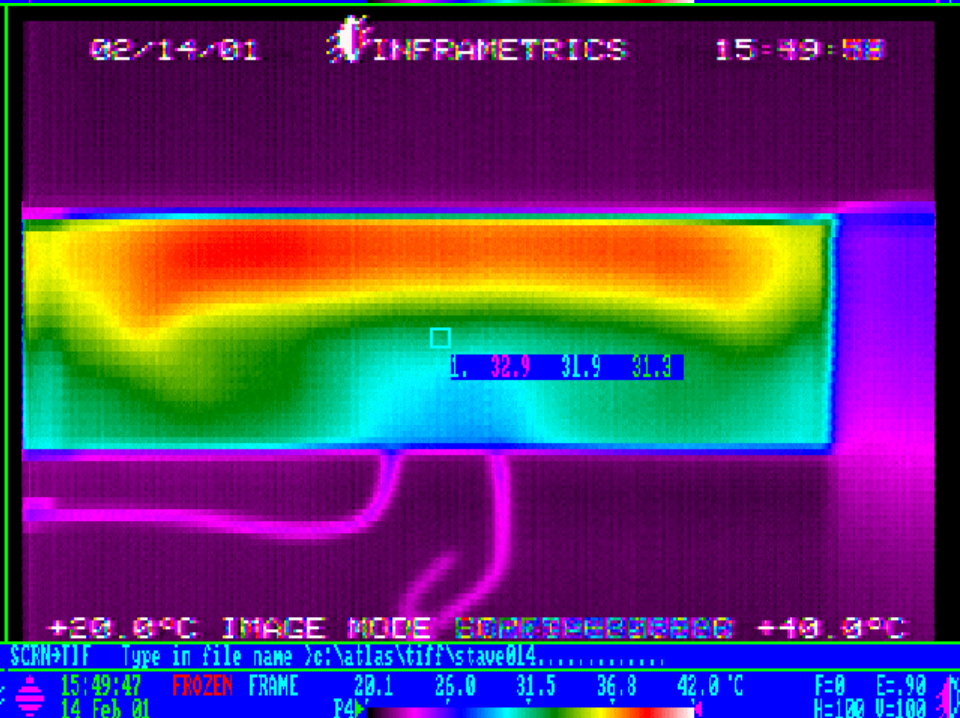
14 Feb 01 P4 H=100 V=100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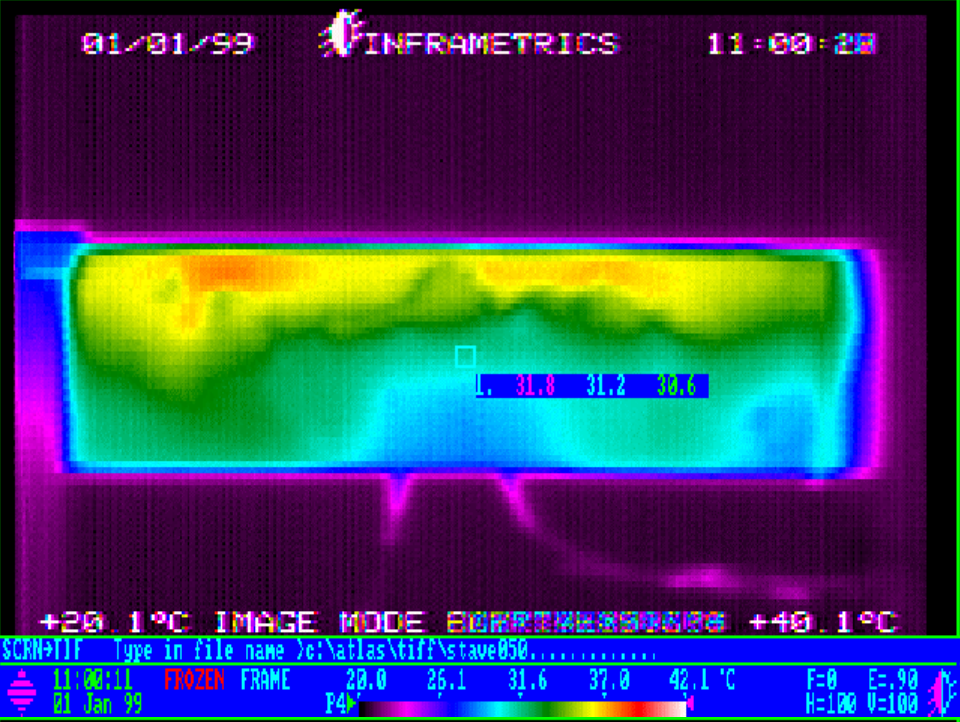
14 Feb 01 P4 H=100 V=100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SCRN→TIF Type in file name)c:\atlas\tiff\stave050.....
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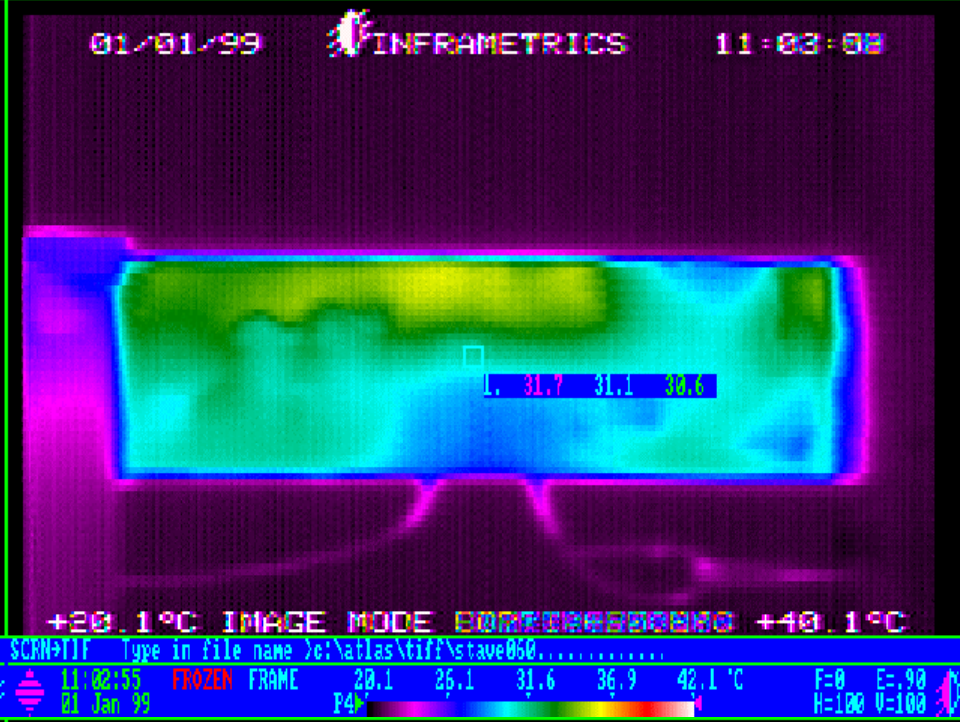
01 Jan 99 P4 H=100 V=100


01/01/99
INFRAMETRICS
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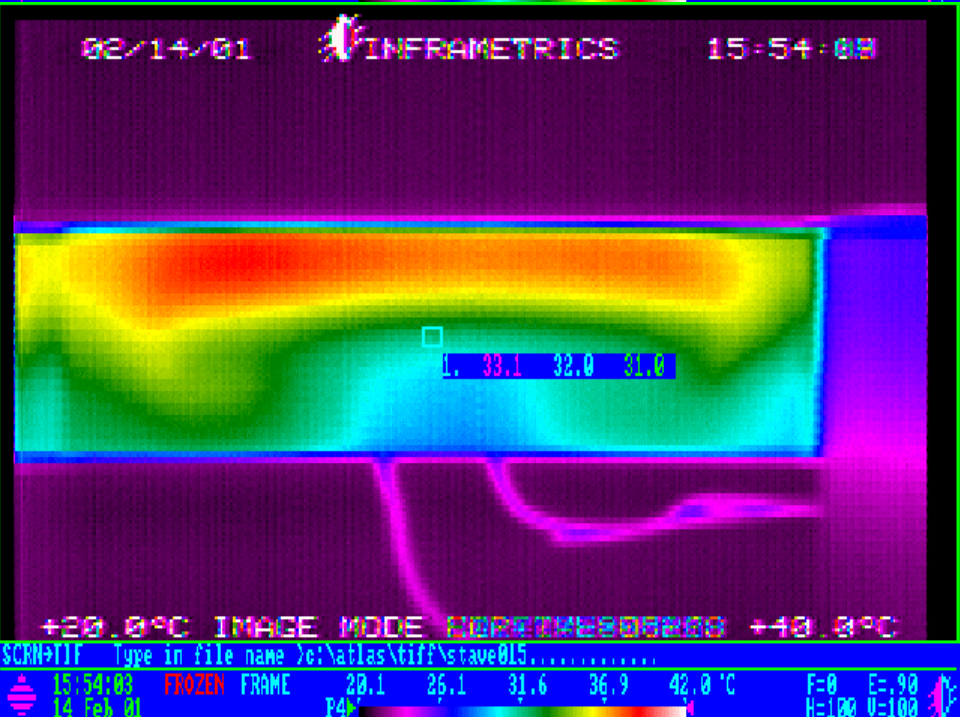
01 Jan 99 P4 H=100 V=100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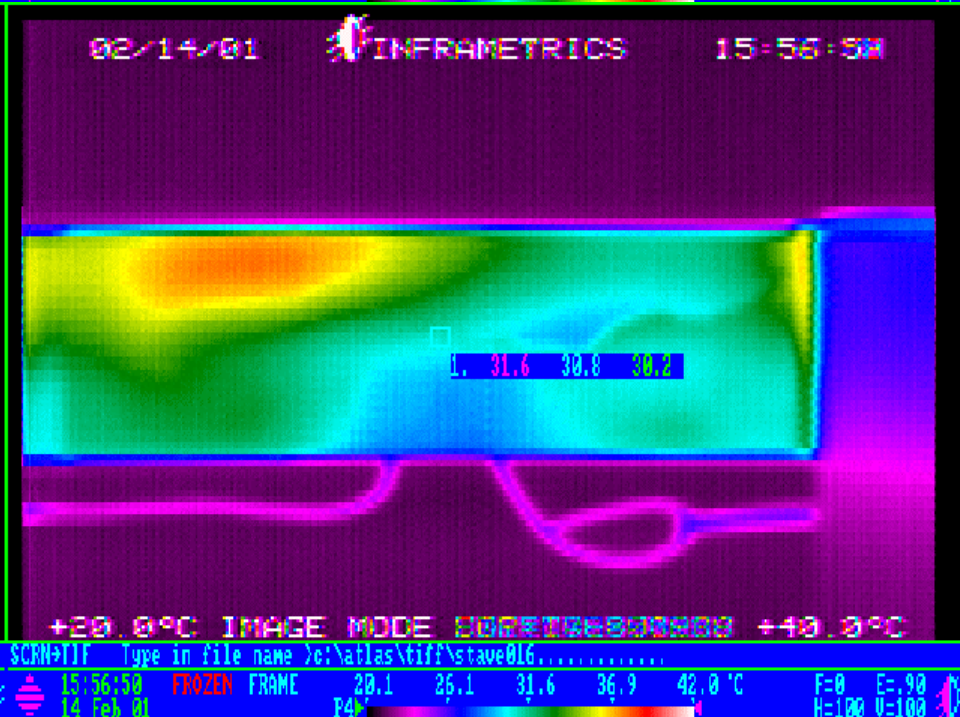
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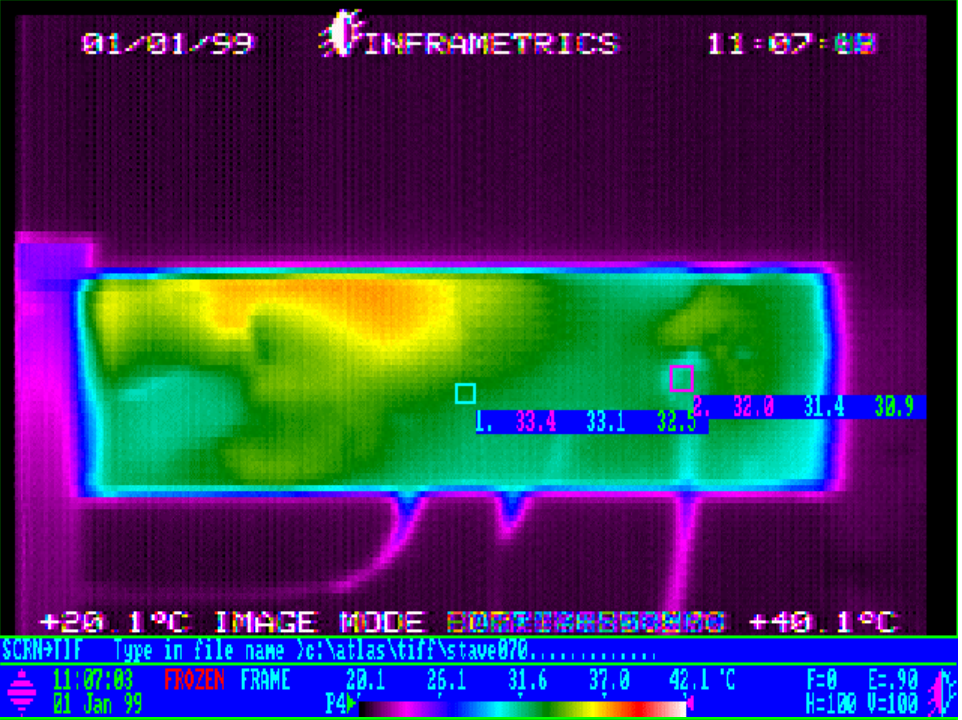

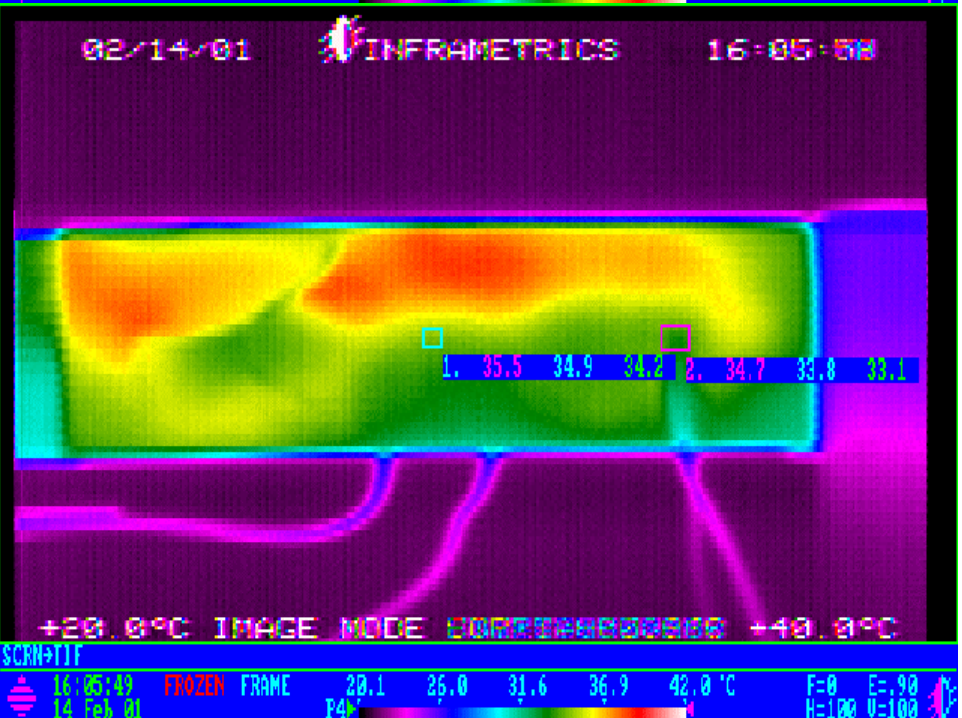

- Conclusions after first irradiation
- Max temperature rise is $<4^0$C comparing hottest points
- Size of warmer regions increases after irradiation
- There is already large spread in temperature on module before irradiation..