# Report by Pbar

- Power Estimates
  - Present Planar loop design
    - @120 mA 5.3 W
    - @200 mA 2.7 W
  - 3 Band Design
    - @120 mA 0.17 W / band
    - @ 200 mA 0.1 W / band
    - 50% goes in downstream beampipe absorber
    - 50% goes in downstream input waveguide terminations
  - Spec. is 2 Watts / band

### Report by RFI

- Ding Sun
  - Absorber Design
    - Get 10 dB loss over 4" with 0.125" thick absorber
    - Quarter wave chimney design looks okay
    - Will look into "screen" design
  - Power tested Cullerton's latest version of the Petter hybrid to 13
    Watts with no water cooling
- Cullerton
  - Has located a vendors that can supply 4-8 GHz circulators that:
    - can handle > 50W of CW power
    - VSWR 1.25
    - 5 GHz of bandwidth
    - 0.7 dB of insertion loss

# Report by Mechanical Support

- Techs to start absorber outgassing test next week. Should be ½ way done by Nov. 30
- Have identified 2/3 of type N vacuum feedthrus needed.
- Dave Tinsley assigned full time to project
- Drafter Kevin O'Brien might start part time on project next week and maybe full time after Thanksgiving

#### **Discussions**

- Launchers into waveguide
  - No waveguide bend. Use comercial "knobs"
- Size of absorber pump output port
  - ¼ wave chimney
  - Holes
  - Slots
  - Screens
- Locate side absorber inside waveguide wall.
  - Can band 3 beampipe width be 1.47"?
- Taper between bands to be done through 5" section
- Absorber tile to extend past 5" section by 1" on either side
- Absorber thickness 0.125"

#### **Assignments**

- McGinnis Model Band 3 with beampipe width 1.47" (instead of 1.372")
- Sun
  - Continue on absorber design
    - Interface with Mech Support
    - Determine max. size of pump out port given 15 db of absorbing
  - Order Magic T's 2 for each band
  - Order Absorber before Xmas 2001
  - Order commercial Launchers
- Seifrid
  - Start Design of Petter hybrid mounting
- Cullerton
  - Order Circulators
  - Begin design of filters
  - Order Type N power terminations
- Mechanical Support
  - Find out about supply of type N vacuum feedthroughs
  - Start bake-out test
  - Rough design of Absorber assemblies
- Next Meeting will be on Fri. Nov. 30 at 10 am in the Penthouse