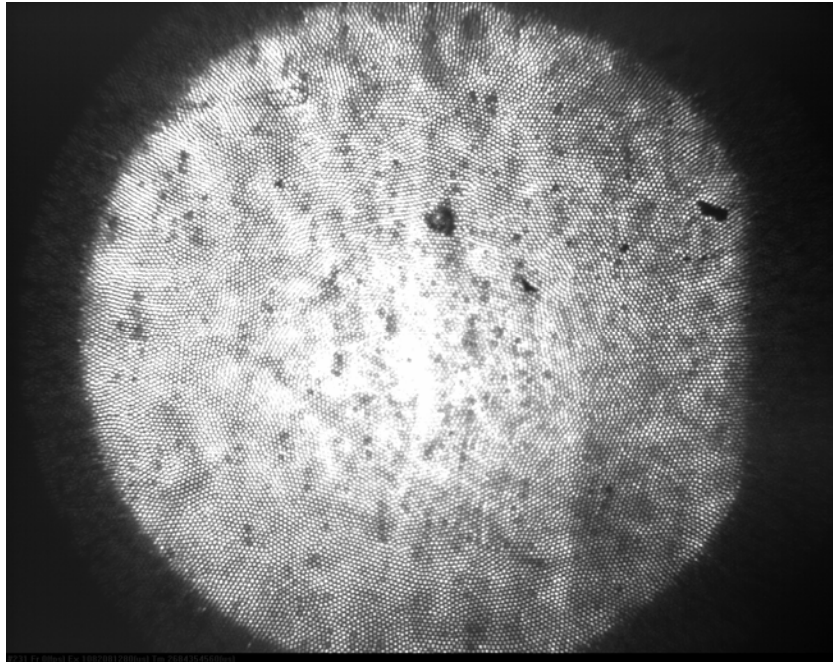
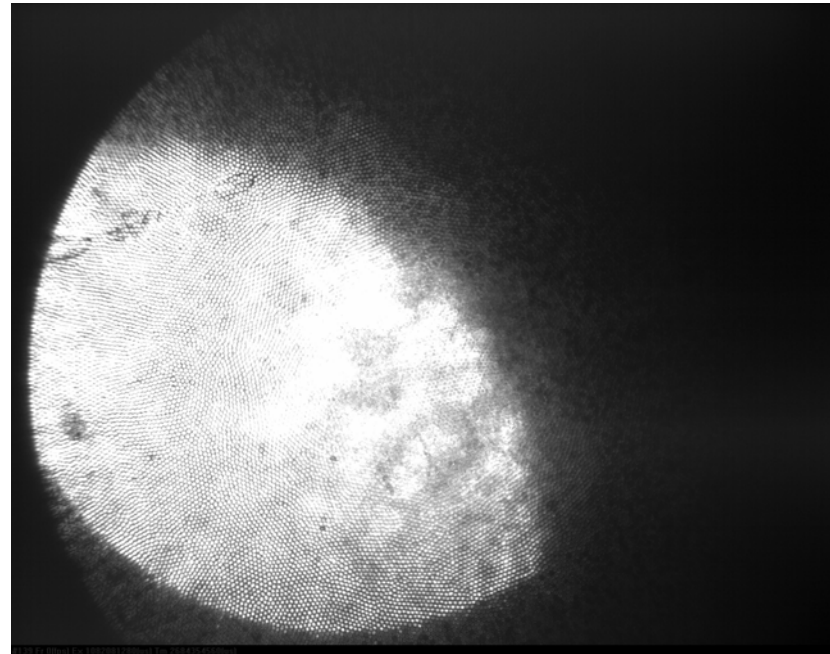


Viewport 1, Sep. 5, 2007

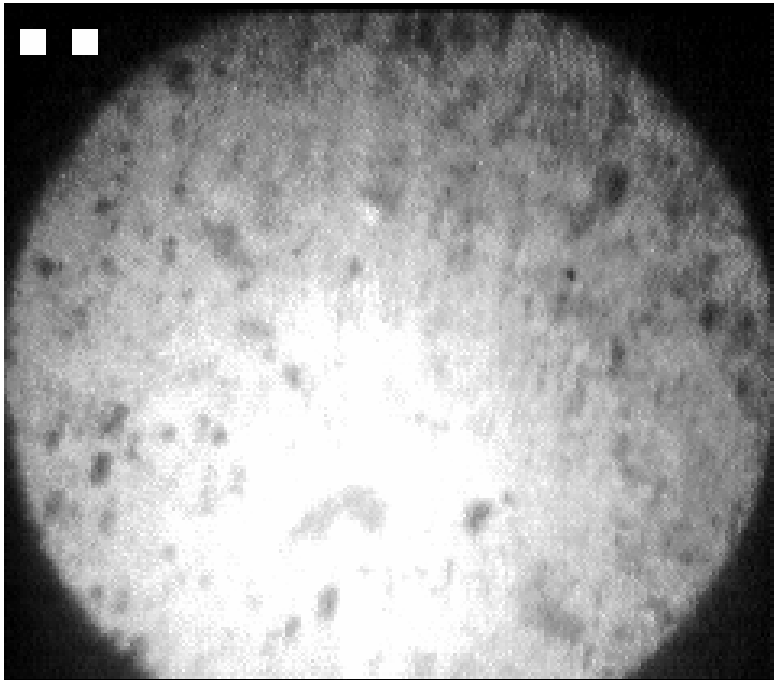


Viewport 1, Sep. 19, 2007

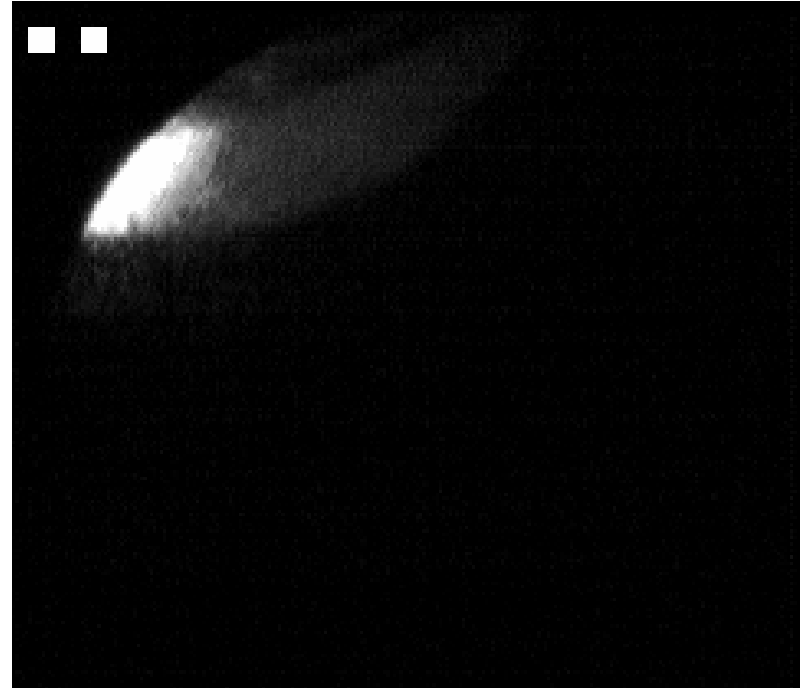


Temperature (°C) on HPU display  
Primary : 77  
Secondary : 30

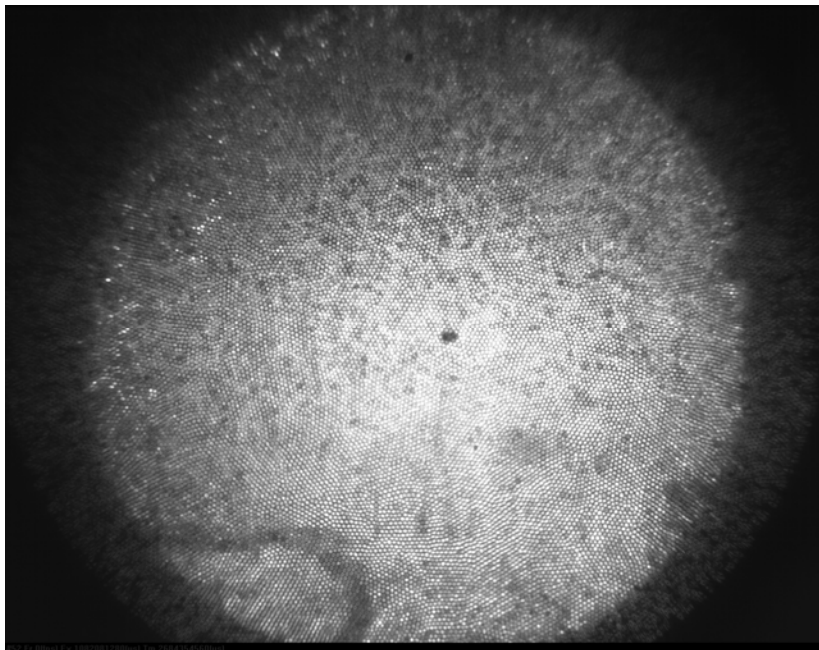
**Viewport 2, Sep. 5, 2007**



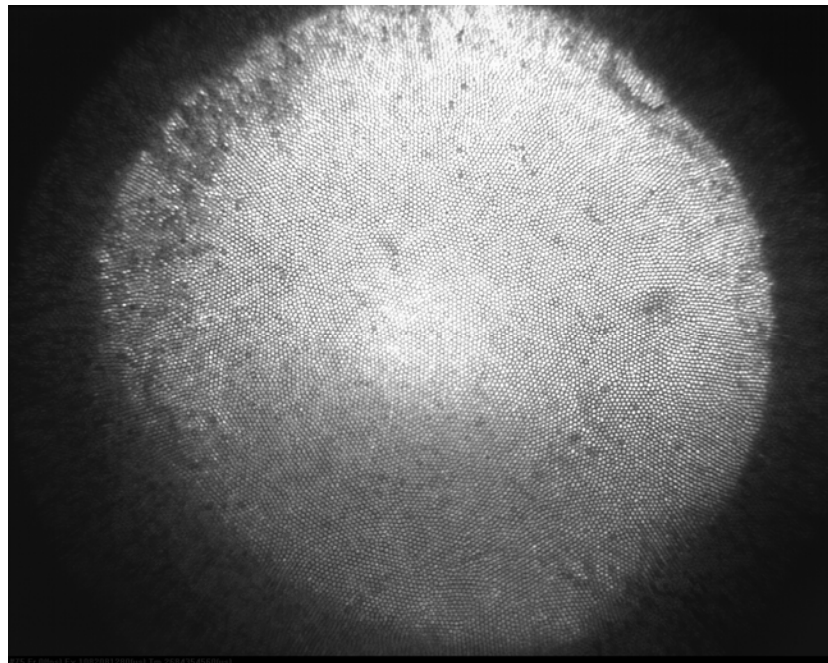
**Viewport 2, Sep. 19, 2007**



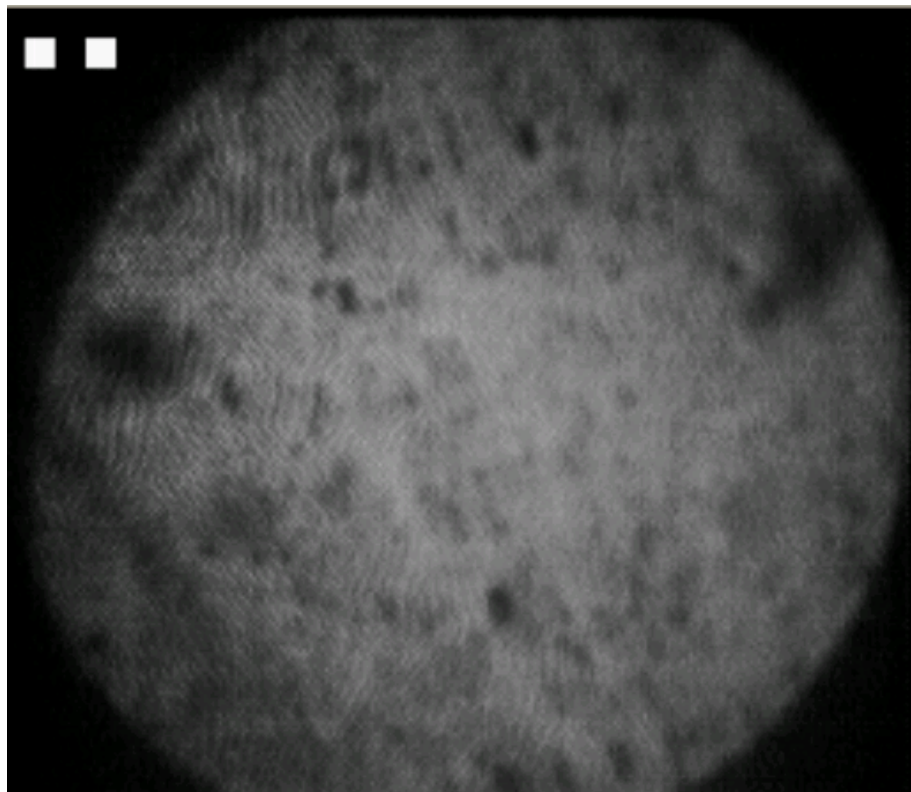
**Viewport 3, Sep. 5, 2007**



**Viewport 3, Sep. 19, 2007**

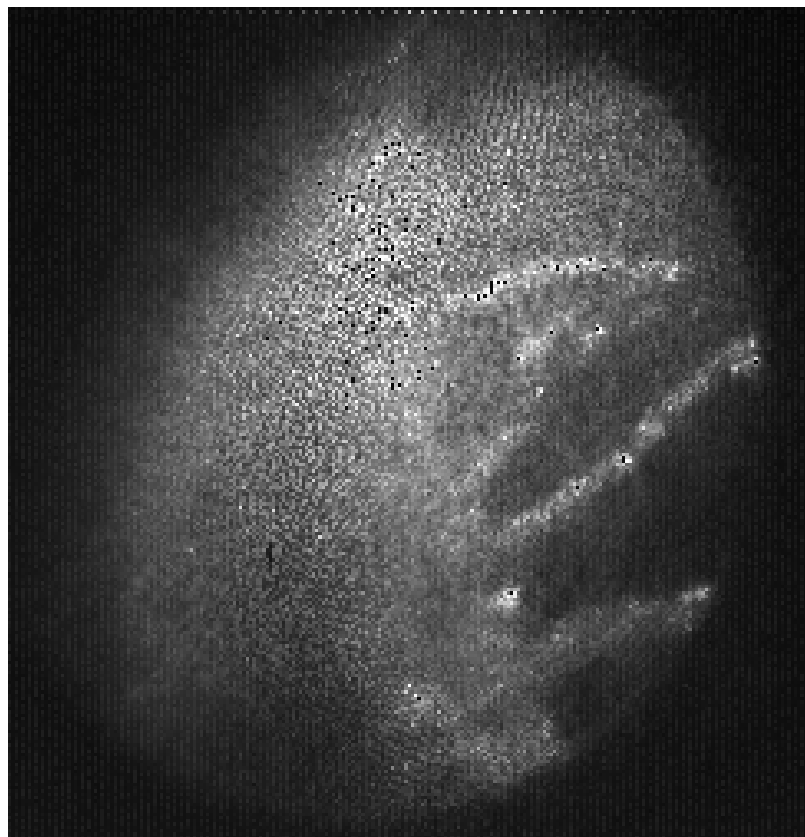


**Viewport 4, Sep. 5, 2007**



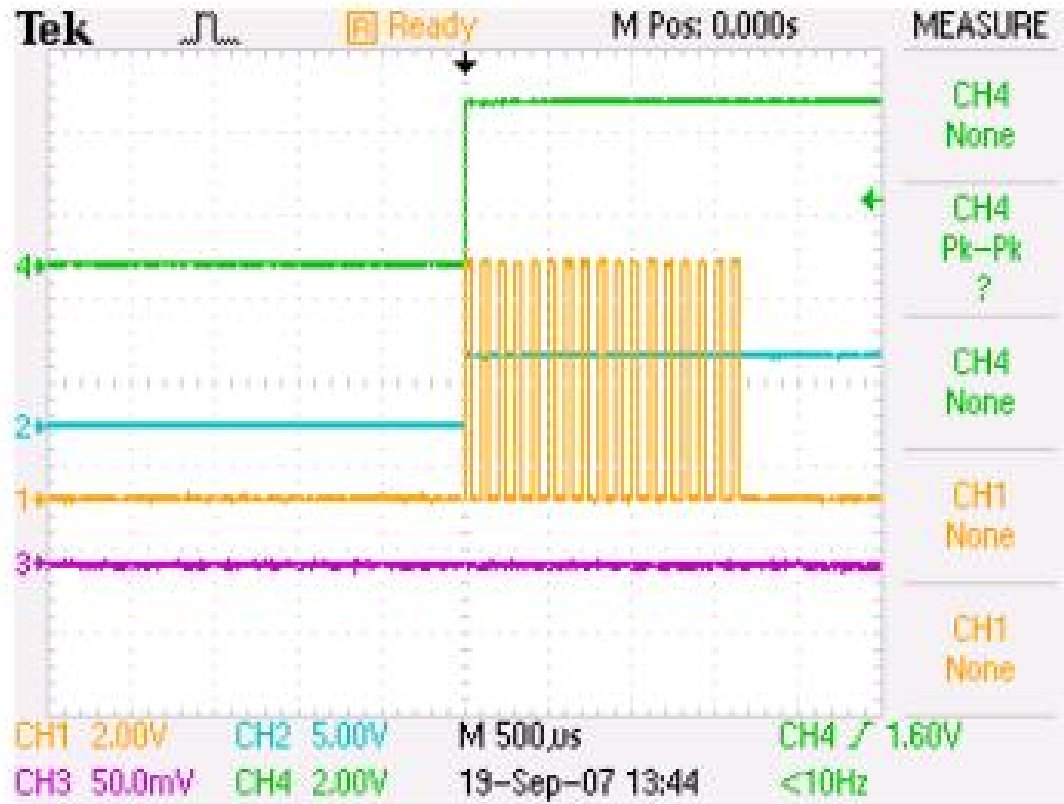
**Olympus camera**

**Viewport 4, Sep. 19, 2007**



**SMD camera**

# Scope Trace

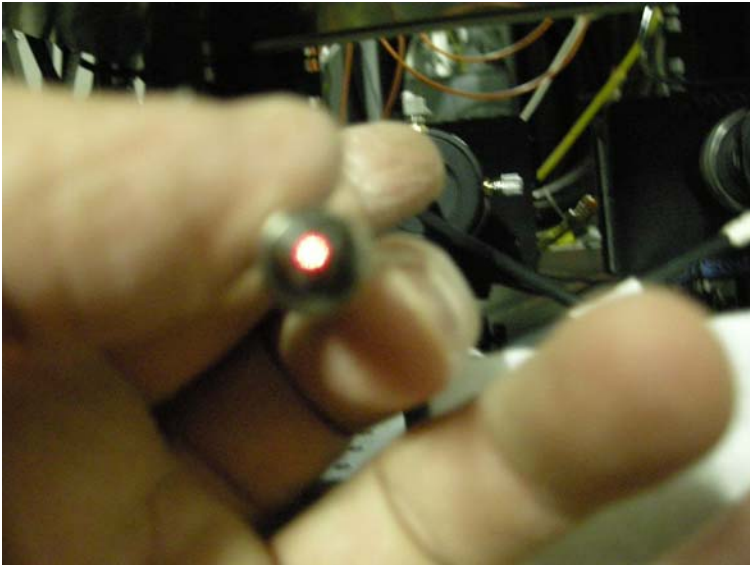


**CH1 : B,  
AvTech LD pulse input**  
**CH2 : A,  
SMD trigger**  
**CH3 : Scintillating fiber**  
**CH4 : To,  
Master trigger**

TDS 2024B - 12:42:49 PM 9/19/2007

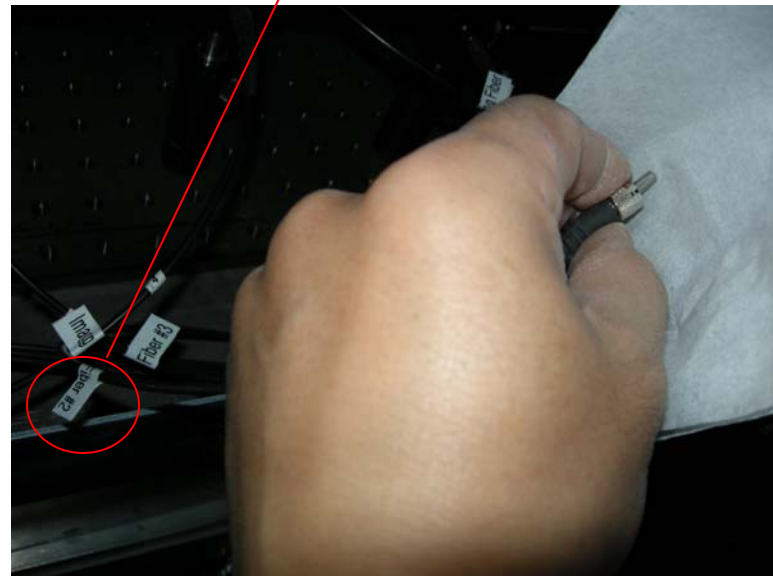
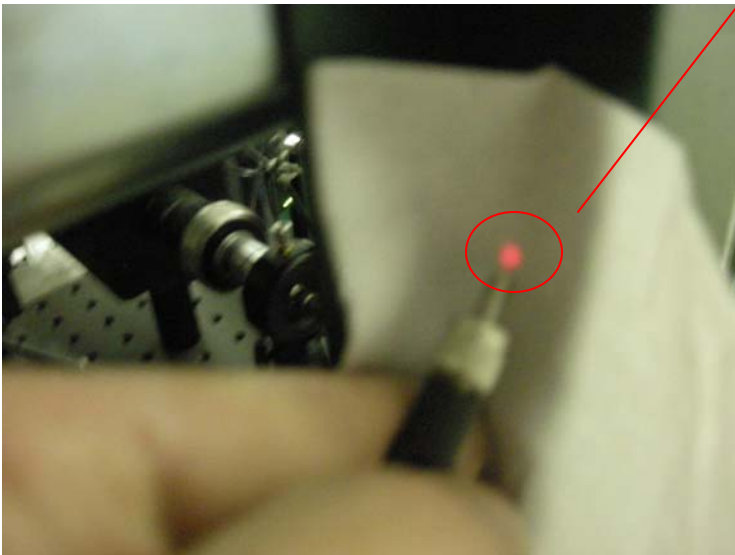


## Viewport #2, fiber continuity check



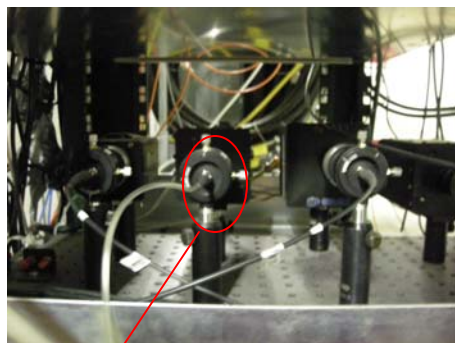
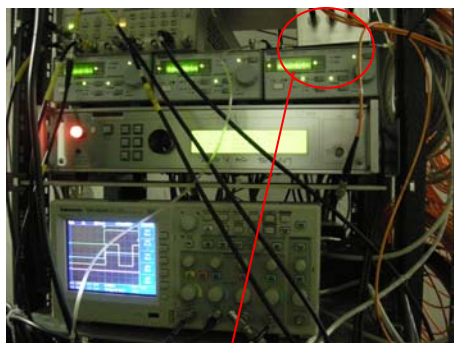
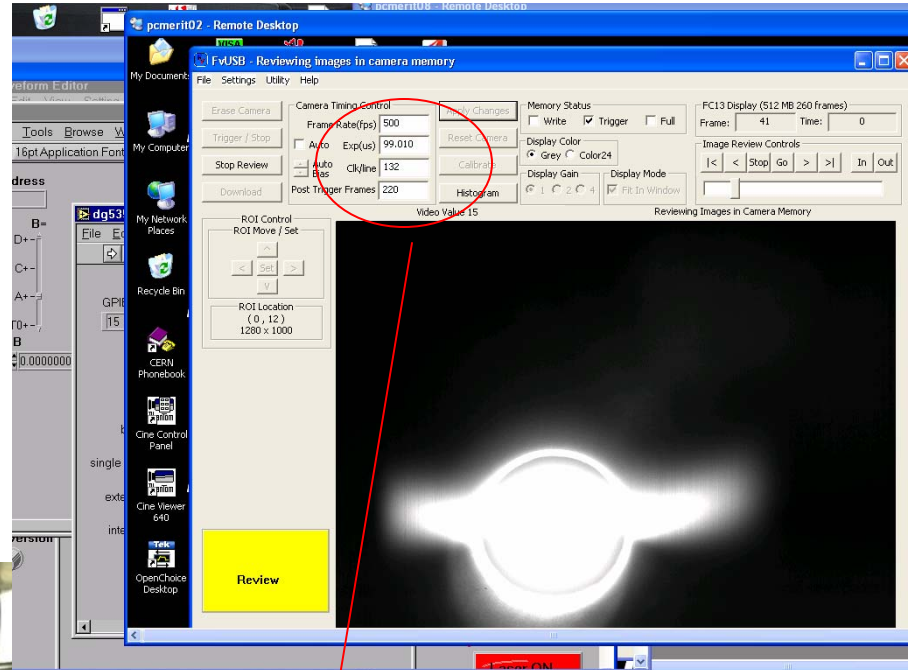
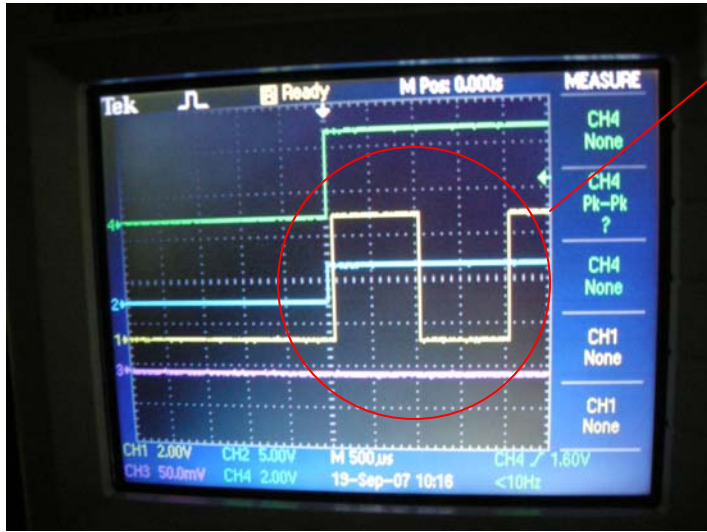
Red laser pointer used  
Was able to see red circle through  
Imaging fiber, but weak.

Vp#2



# 25W Laser Check

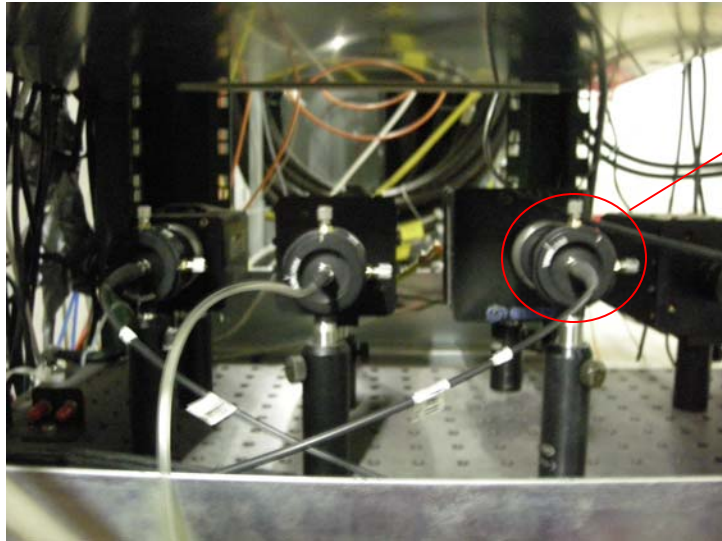
Generate 2 ms period laser pulse



Connect 25W laser to FV#3

2ms fps, 0.1 ms exposure  
Laser amp. : -10 V

**Confirmation**  
**25W Laser is OK.**



Aligned lens mount again.



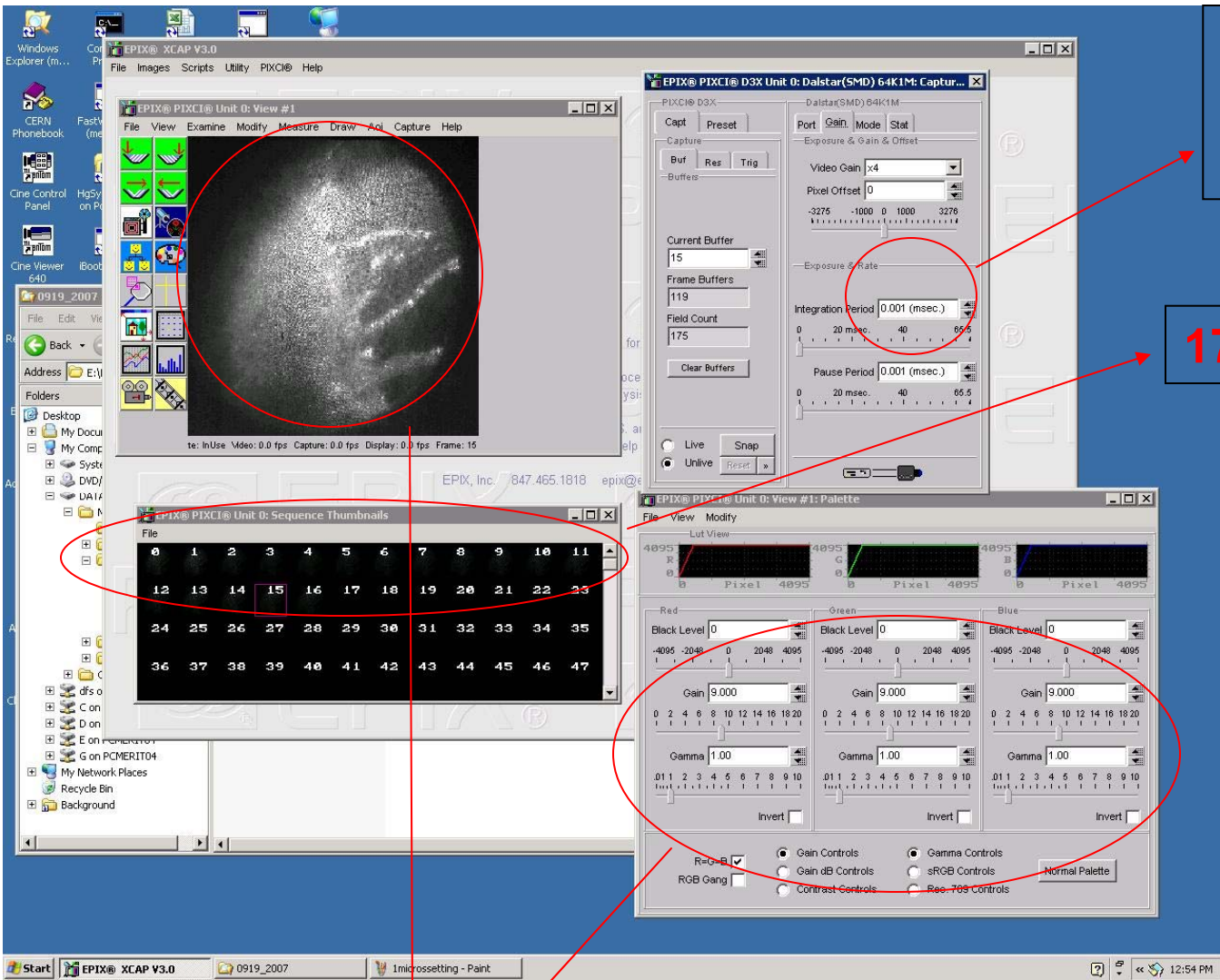
Visually inspected.  
Surface is AR coated.  
Lens is not extruded but protected by surrounding metal housing.  
XY stage will not touch the objective lens.

I notice that I never put anything within SMD lens mount inlet and never touch the SMD CCD.  
What I did when I take a photo of moving fan images was just put camera nearby fan as we did at BNL in student office.

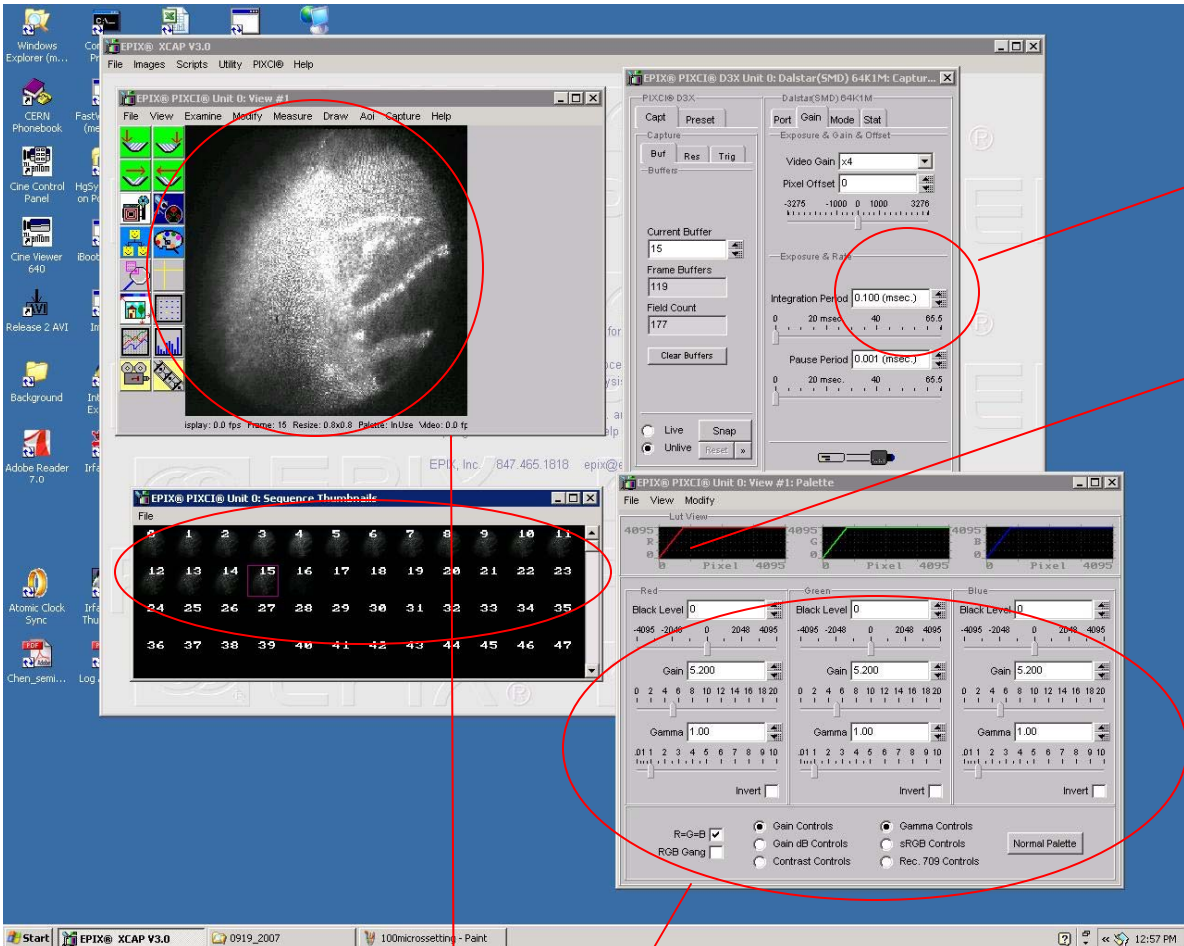


**0.001 ms fps  
"External Camera  
Trigger In"**

**17 frames Read Out**



**Viewport #4,  
Able to make it brighter or darker  
by setting RGB gain.**



**0.1 ms fps  
“External Camera  
Trigger In”**

**17 frames Read Out**

**Viewport #4,  
Able to make it brighter or darker  
by setting RGB gain.**

## Clean Tunnel and Put All Boxes Neatly



Optics stuffs

Hg stuffs

## **CONFIRMATION**

- **25W LASER GIVES LIGHT PROPERLY.**
- **SMD CAMERA IS ABLE TO CAPTURE 17 IMAGES UP TO 0.001 FPS.**
- **IMAGING FIBER AND ILLUMINATION FIBER OF VIEWPORT#2 ARE IN GOOD SHAPE. THERE IS NO DISCONNECTED POINT.**
- **VIEWPORT#4 IS VISIBLE.**

## **THINGS TO BE RESOLVED**

- **SHOULD OPEN THE SNOOT AGAIN AND INSPECT OPTICS STATUS AND THEN REPAIR/REALIGN OPTICS. BE PREPARED FOR THAT.**
- **PREREQUISITE : THOMAS SHOULD COME AND HELP WHEN THERE IS A CHANCE TO OPEN THE SNOOT. WE HAVE ONE EXTRA OPTICS-FIBER SET. IN WORST CASE, WE CAN REPLACE ONE VIEWPORT AFTER HE AGREES RIGHT AT THAT TIME.**