

at -120 °C

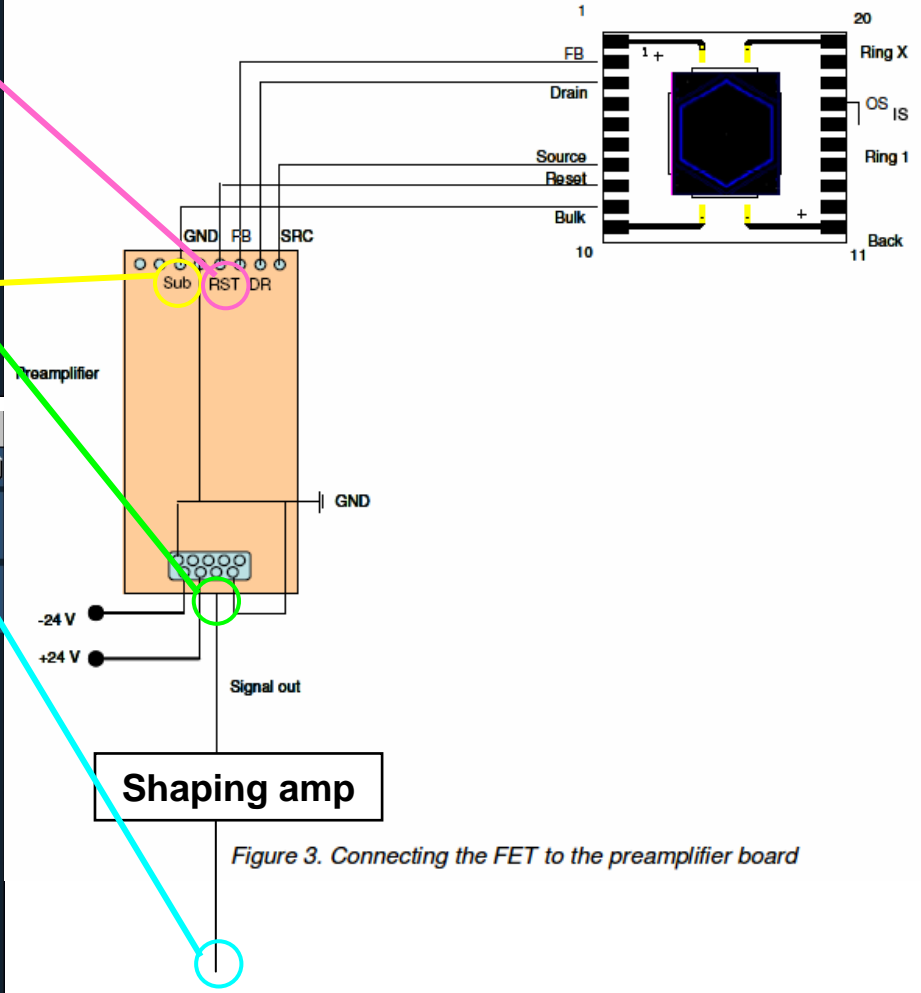
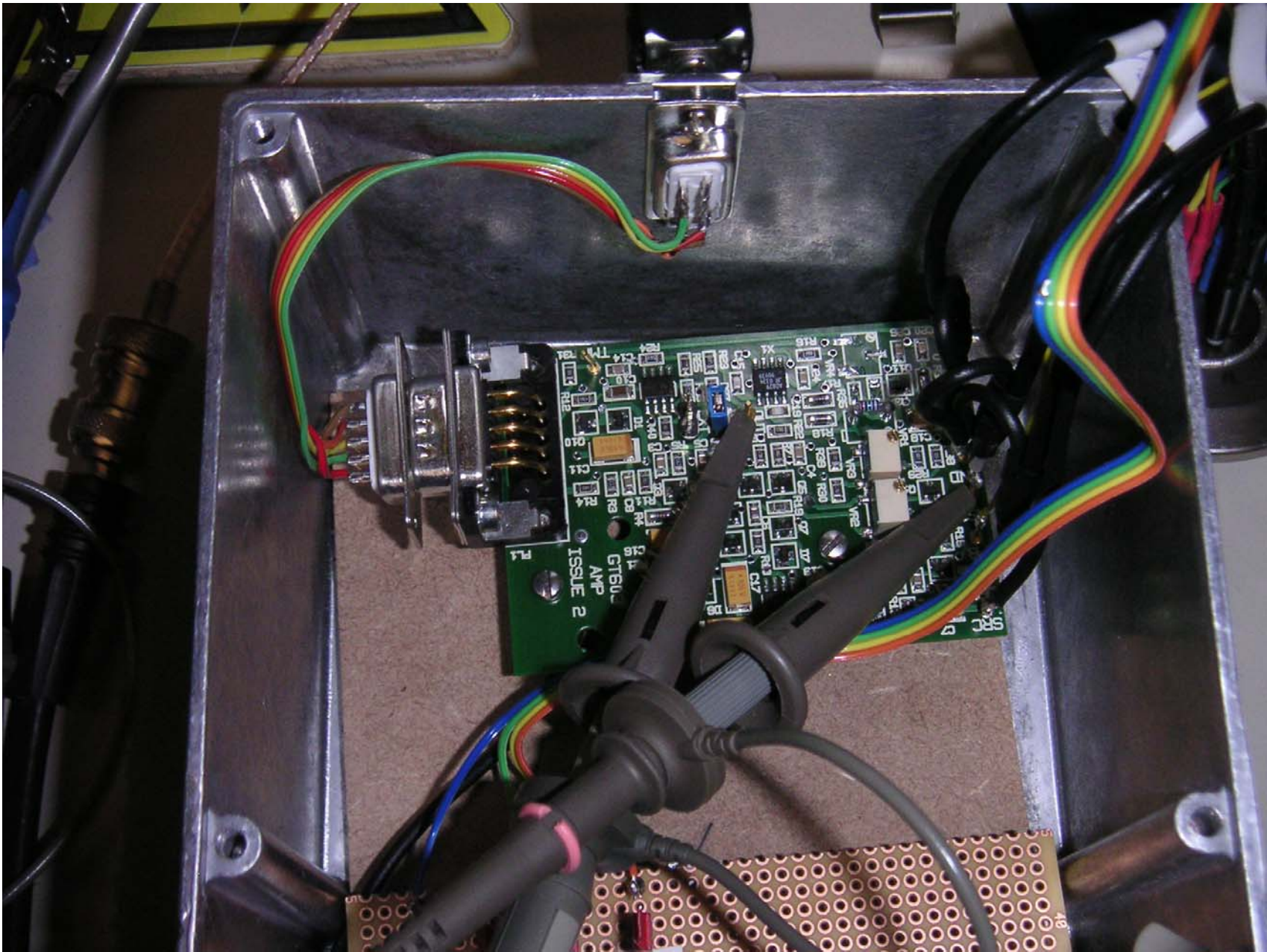
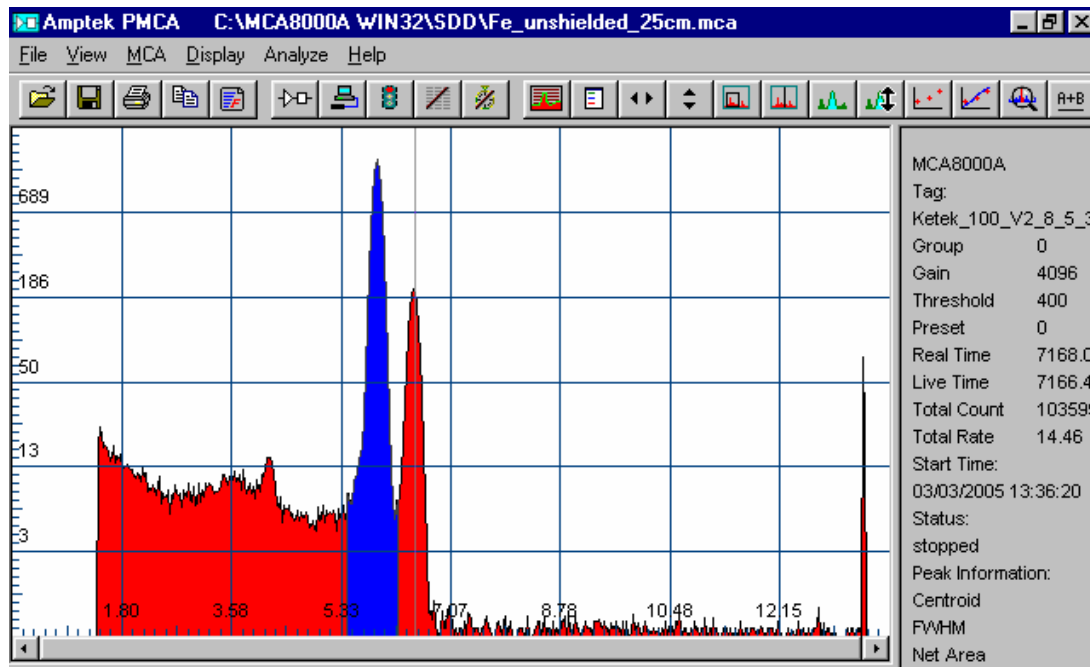


Figure 3. Connecting the FET to the preamplifier board



^{55}Fe source calibration for our SDD (S/N : #8-5.3)



Resolution for Mn(K α)
 $\sim 160\text{eV}$ (FWHM)

keV	Count	Condition
		- Cable inside vacuum : 25cm (flat cable)
		- Cable outside vacuum : 15cm (shielded cable) ... total 50cm
		- Temperature of SDD : -120 degrees (153K)
		- Shaping amp : gain factor 200, shaping time 2 μ sec
		- V(substrate) : -5.12V, V(Reset) : 1.36V
		- Vacuum gauge : turned off (to reduce the noise from light leak of the anode)
		- Trigger : gated by reset pulse (to avoid the strange pulse just after reset signal)

R&D of SDD at KEK

- Vacuum chamber, Vacuum pump, cryostat : borrowed from Ishimoto-san
- Temperature controller & heater : should be prepared. (D.L. & GPIB)
- Modification of top flange : ordered by Ishimoto-san
- design of flange for cable : will be ordered.
- Connector print (mounted at each side of SDD) : 1 set could be borrowed from SMI
- SDD folder : 1set borrowed from SMI
- Temperature sensor : Pt100 ... Ishimoto-san have a PtCo which could be borrowed for the test.
- HV Power Supply (max2.5mA, Voltage-200V) ... should be prepared.
- Voltage divider ... 1 set could be borrowed from SMI.
Ring1(-70~-160V), RingX(0~-30V), Back(-50~-110V)
- Shaping amp ... borrowed from KEK (Banpaku-san) (6channel)
- Peak hold ADC ... KEK?

