**OPFC readout option**.

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16.06.2009

Two options were considered:

Option 1. Level conversion inside OPFC unit + commercial USB-RS232 multiplexor

Option 2. Kethley high quality multiplexor + one level converter

Both options were tested in the lab. Both are functional. The software seems to be simpler in the Option 2 case.

The cost estimate:

Option 1:

1. New OPFC front panel 24.7 EUR/pc = 37.0 CHF/pc
2. RS232 level converter 63 CHF/pc
3. 16xRS232-USB interface 349 EUR = 523 CHF

Option 2.

1. New OPFC panel 24.7 EUR/pc
2. Internal connection (OPFC) 10 CHF/pc
3. Kethley 3706 mainframe 2514 CHF
4. Kethley 3722 48x switch unit 1830 CHF

The cost estimate for 138 installed ECAL OPFCs is:

Option1: 138x37.0 + 138x63 + 9x523 = 5106CHF + 8694CHF + 4707CHF = **18507CHF**

Option2: 138x37.0 + 138x10 + 1x2514 + 3x1830 = 5106CHF + 1380CHF +2514CHF + 5490CHF = **14490 CHF**

***Hence, the Option2 looks favorable from both cost and implementation points of view.***