uCDIMM

Development Announcement

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DESY

- Infected by Eric's presentation during the last EPICS meeting, we has a closer look at the uCDIMM…

- … and decided to built a little carrier board for it.
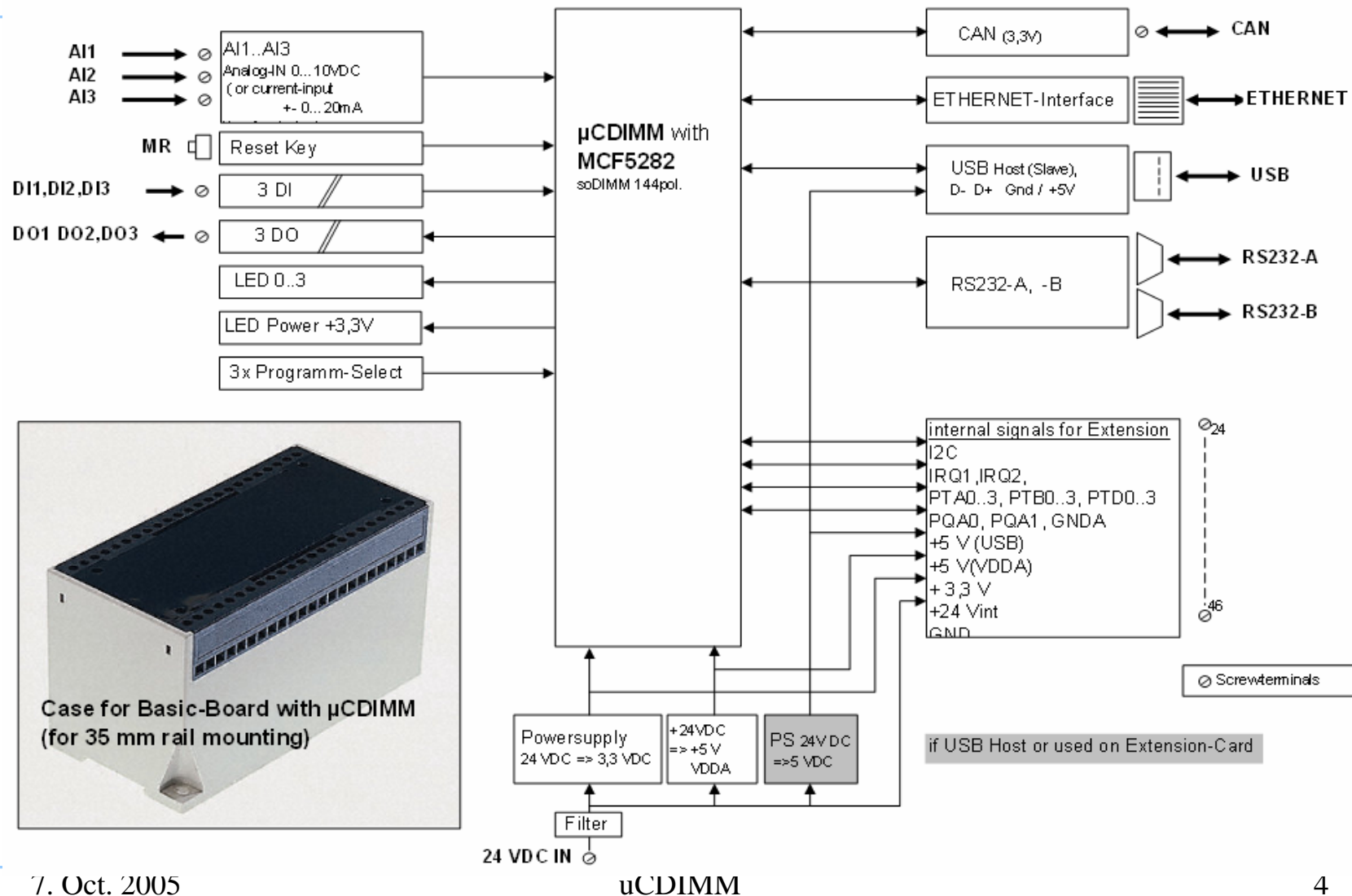
- … First RTEMS IOCs at DESY

Application Candidates

- **<u>Datalogger</u>** for 3phase main power
    - Goal: 10kHz 3 channel 10bitADC
    - Pre-trigger buffersize for ~ 300mS
- **Serial communication** (RS232)
- *CAN host*
  (modify driver to support CAN chip)
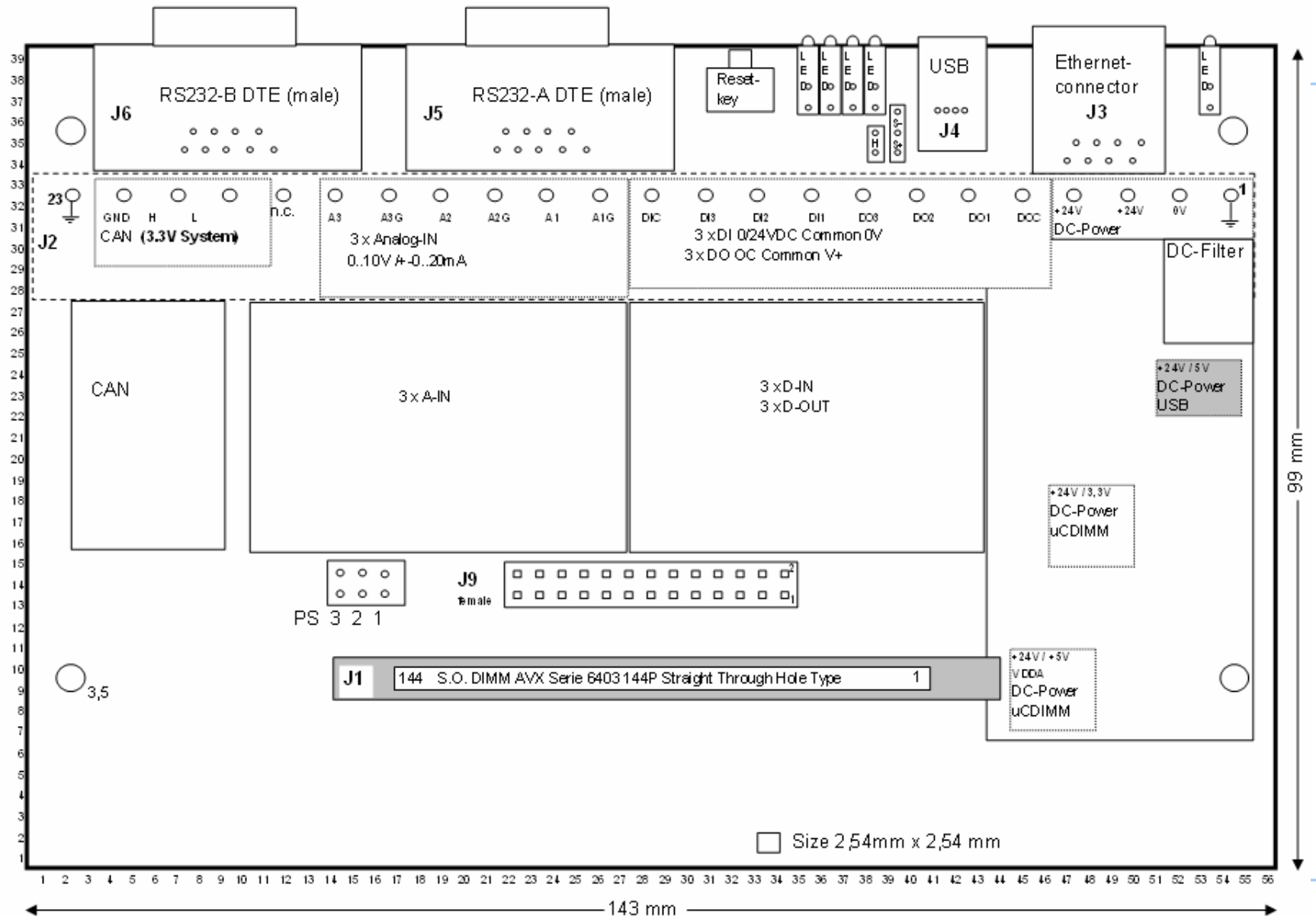- *USB server/ or client*
  (write USB support)
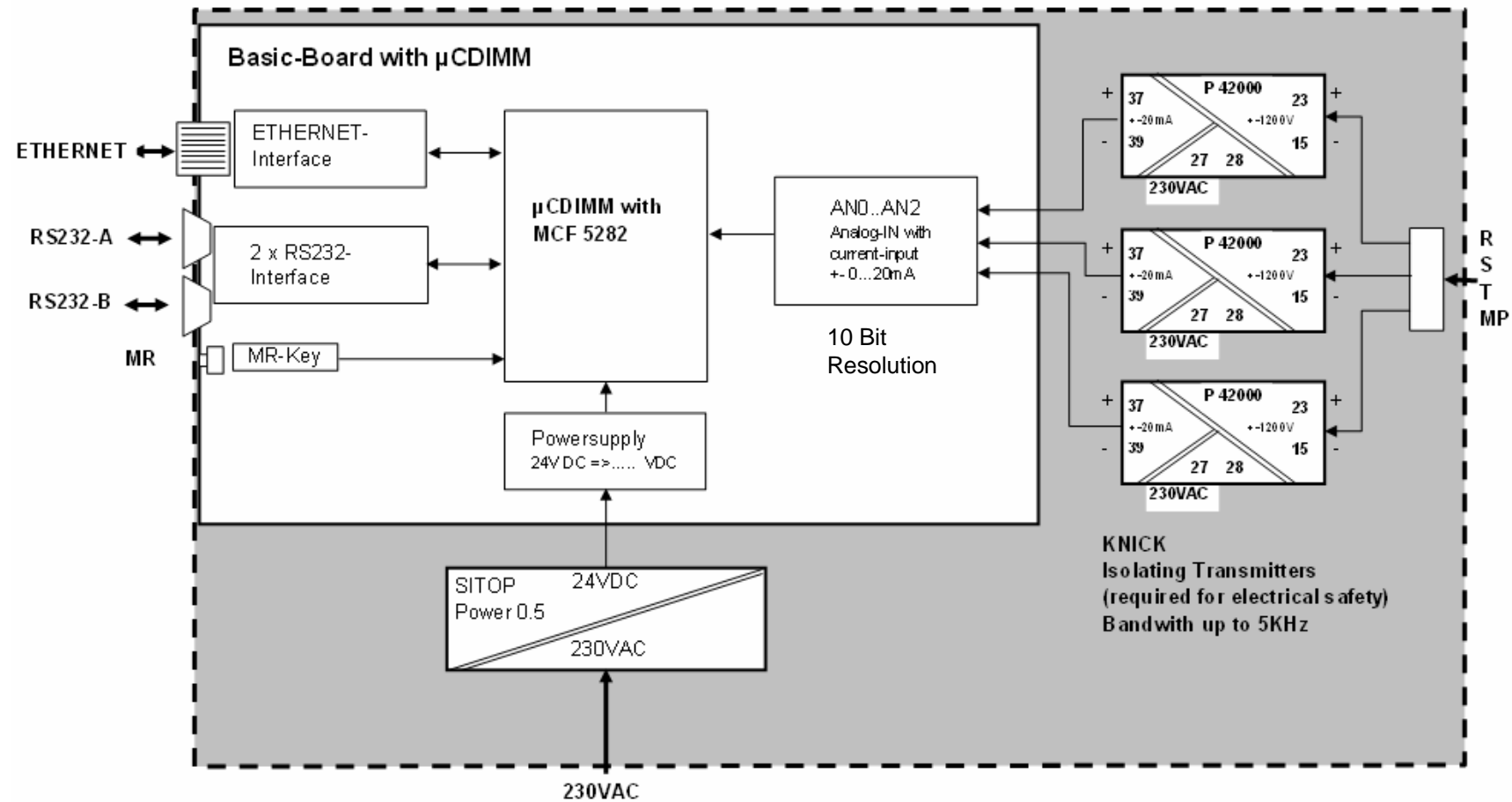
Basic-Board with µCDIMM (MCF 5282) / planned I/O-System

Basic-Board with µCDIMM (MCF 5282) / Component placement

RS232-B DTE (male) J6

RS232-A DTE (male) J5

Reset-key

LED0 LED0 LED0 LED0

USB J4

Ethernet-connector J3

LED0

J2

23 GND H L n.c.
CAN (3.3V System)

A3 A3G A2 A2G A1 A1G
3 x Analog-IN
0..10V A -0..20mA

DIC DI3 DI2 DI1 DO3 DO2 DO1 DCC
3 x DI 0/24VDC Common 0V
3 x DO OC Common V+

+24V +24V 0V 1
DC-Power

DC-Filter

CAN

3 x A-IN

3 x D-IN
3 x D-OUT

+24V / 5V
DC-Power
USB

+24V / 3,3V
DC-Power
uCDIMM

PS 3 2 1

J9
female

2
1

J1 144 S.O. DIMM AVX Serie 6403 144P Straight Through Hole Type 1

+24V / +5V
VDDA
DC-Power
uCDIMM

3,5

□ Size 2,54mm x 2,54 mm

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56

143 mm

99 mm

µCDIMM with MCF 5282

← ~ 70 mm →

Time schedule for Basic-Board HW

Oct. 2005   Circuit Diagram
Nov. 2005   PCB Layout
Dec. 2005   PCB order
Jan. 2006   First Prototype
Feb. 2006   SW-HW-Tests
Mar. 2006   Start of 1. Batch