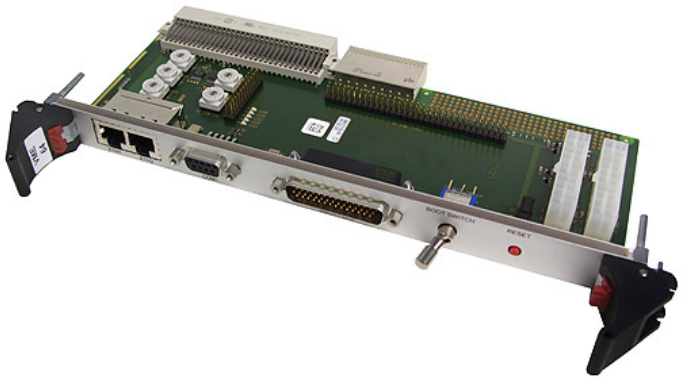
# CT15 – 6U VMEbus Transition Module for A602

- **6U / 80 mm standard format**
- **1 RS232 interface**
- **DEX (6x UART)**
- **BMCX signals**
- **AFDX® signals**
- **Debug signals**
- **PMC I/O**
- **-40 to +85°C qualified**



The CT15 is a 6U VMEbus transition module for use in combination with MEN's A602 single-board computer.

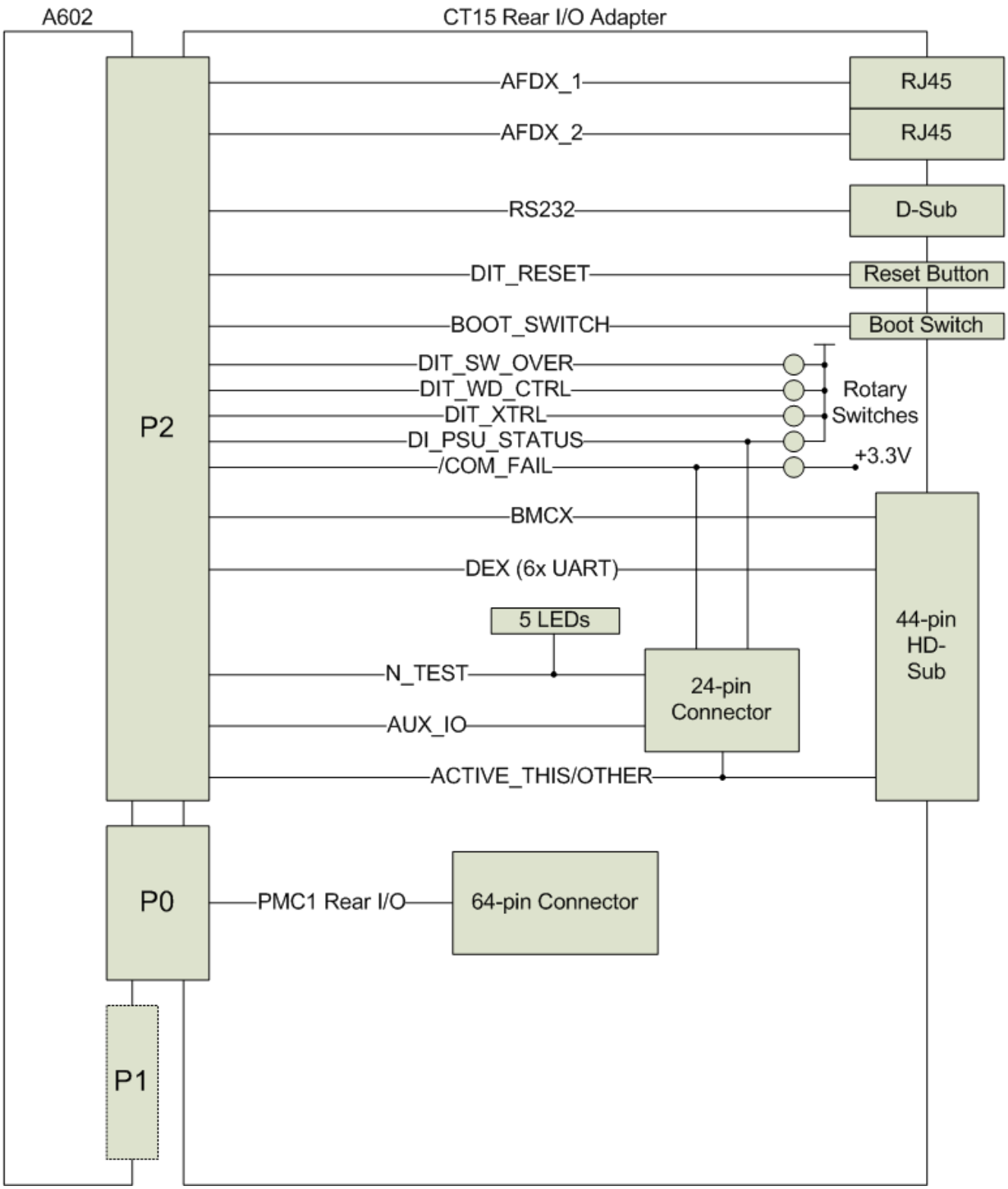
It is plugged onto the VMEbus backplane system slot from the rear side and leads the rear-panel serial I/O signals to standard connectors.

The signals are one RS232 UART, various signals from the two PMC slots (standard rear I/O from PMC1, AFDX® from PMC2), the necessary signals for inter-board communication when connecting a second A602 (BMCX, DEX (6x UART), ACTIVE_THIS/OTHER) and various debug signals (/COM_FAIL, DI_PSU_STATUS, N_TEST and the AUX_IO signals).

It also offers a reset button, a boot switch, five LEDs for the N_TEST signals from the A602's North FPGA and five rotary switches allowing the /COM_FAIL, DIT_XTRL, DIT_SW_OVER, DIT_WDCTRL and DI_PSU_STATUS signals to be pulled low with an option to connect /COM_FAIL to +3.3V.

The board is designed for an operating temperature from -40 to +85°C with qualified components.

## Diagram


A602
CT15 Rear I/O Adapter
AFDX_1
AFDX_2
RS232
DIT_RESET
BOOT_SWITCH
DIT_SW_OVER
DIT_WD_CTRL
DIT_XTRL
DI_PSU_STATUS
/COM_FAIL
BMCX
DEX (6x UART)
5 LEDs
N_TEST
AUX_IO
ACTIVE_THIS/OTHER
RJ45
RJ45
D-Sub
Reset Button
Boot Switch
Rotary Switches
+3.3V
44-pin HD-Sub
24-pin Connector
P2
P0
P1
PMC1 Rear I/O
64-pin Connector

# Technical Data

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|---|---|
| **Peripheral Connections** | ■ RS232 UART interface<br>□ 9-pin D-Sub connector<br>■ Inter-board connection to other A602<br>□ BMCX signals<br>□ DEX (6x UART) signals<br>□ ACTIVE_THIS/OTHER signal<br>□ All via 44-pin HD-Sub connector<br>■ Rear I/O signals from PMC1<br>□ Via 64-pin connector<br>■ AFDX® signals from PMC2<br>□ 2 RJ45 connectors<br>■ Miscellaneous signals<br>□ N_TEST<br>□ AUX_IO<br>□ DI_PSU_STATUS<br>□ /COM_FAIL<br>□ ACTIVE_THIS/OTHER signal<br>□ All via 24-pin connector |
| **Switches/buttons** | ■ 5 rotary switches the following allowing signals to be pulled low:<br>□ DIT_SW_OVER<br>□ DIT_WD_CTRL<br>□ DIT_XTRL<br>□ DI_PSU_STATUS<br>□ /COM_FAIL (connection to +3.3V possible)<br>■ Boot switch<br>□ Flip switch to choose between boot images<br>■ Reset button |
| **LEDs** | ■ N_TEST signal LEDs<br>□ 5 LEDs on PCB |
| **Mechanical Specifications** | ■ Dimensions: 233,35x80 mm conforming to VMEbus specification for 6U boards<br>■ Weight: 162 g |
| **Environmental Specifications** | ■ Temperature range (operation):<br>□ -40..+85°C (qualified components)<br>□ Airflow: min. 1.5m/s<br>■ Temperature range (storage): -40..+85°C<br>■ Relative humidity (operation): max. 95% non-condensing<br>■ Relative humidity (storage): max. 95% non-condensing<br>■ Altitude: -300m to + 20,000m<br>■ Shock: 15g/11ms<br>■ Bump: 10g/16ms<br>■ Vibration (sinusoidal): 1g/10..150Hz<br>■ Conformal coating on request |
| **MTBF** | ■ tbd @ 40°C according to IEC/TR 62380 (RDF 2000) |
| **Safety** | ■ PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers |
| **EMC** | ■ Conforming to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst) |

# Ordering Information

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|---|---|---|
| **Standard CT15 Models** | **08CT15-02** | Rear I/O adapter for A602 with front panel. With RS232, PMC RIO, DEX-UART, BMC, MISC, -40..+85°C with qualified components |
| **Related Hardware** | **01A602-02** | 3x PowerPC® 750CL 1 GHz, 3x 512 MB DRAM, 2x 256 MB Flash, 1 MB FRAM, 2 standard PMC slots, convection cooling (airflow 2 m/s), -40 to +50°C with qualified components |
| **Documentation** | More detailed information on the CT15 is included in the appendix of the A602 User Manual. Please contact us to request a copy. | |

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