

TDR2 FM board tests

D. Haas



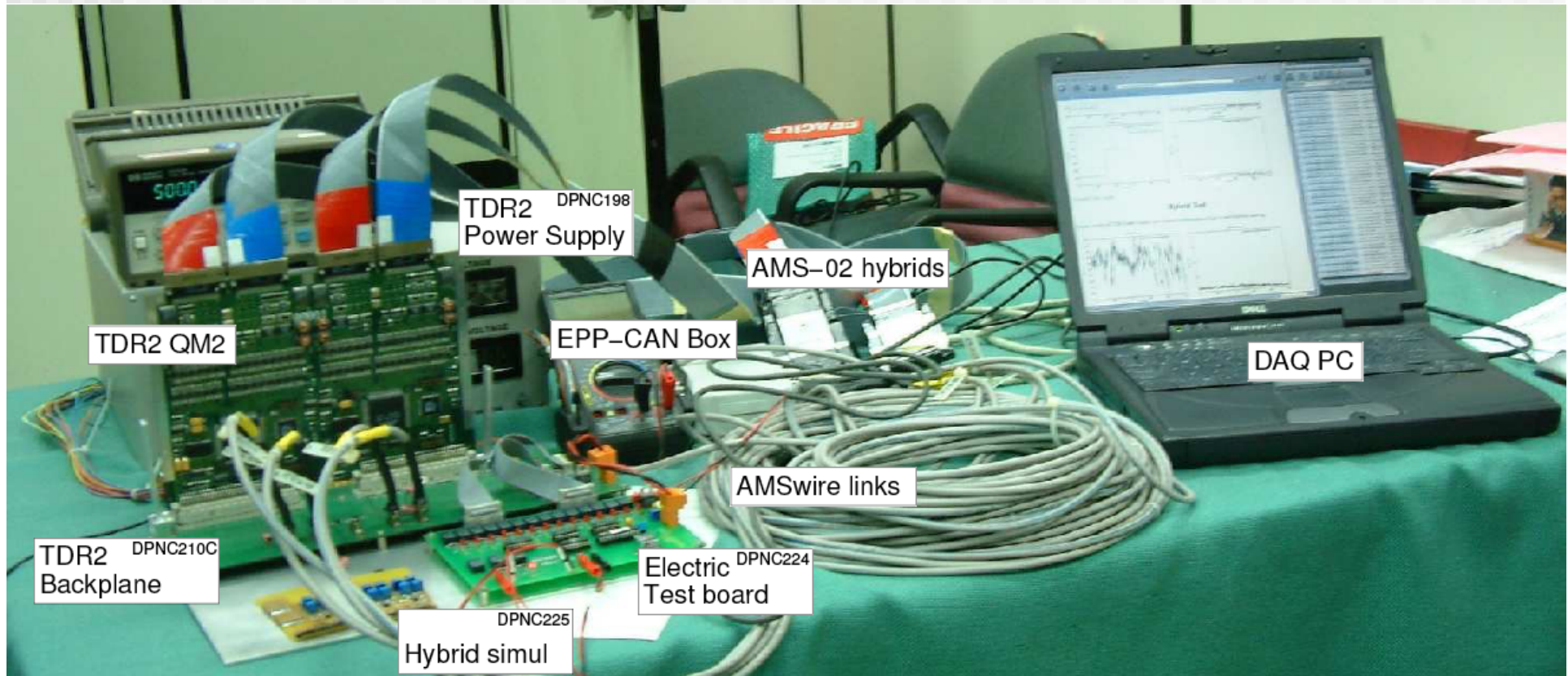
- Test Setup
- Test Procedure
- Functional tests
- Results
- Test Schedule

TDR2 FM

- 12 TDR2 FM tested ok in July
- 91/96 TDR2 FM passed tests before ESS/
coating/mechanical assembly
- 5 boards are waiting for missing pieces
 - we should solve this soon



TDR2 Test Setup



TDR2 Test Procedure

- First programming of Flash ROM with ROM Monitor v6205
- 1st full functional test
- Protection of Flash ROM (needs jumper soldering by CSIST and +12V)
- 2nd full functional test - **done up to here**
- Coating and ESS by CSIST
- 3rd full functional test (reference)



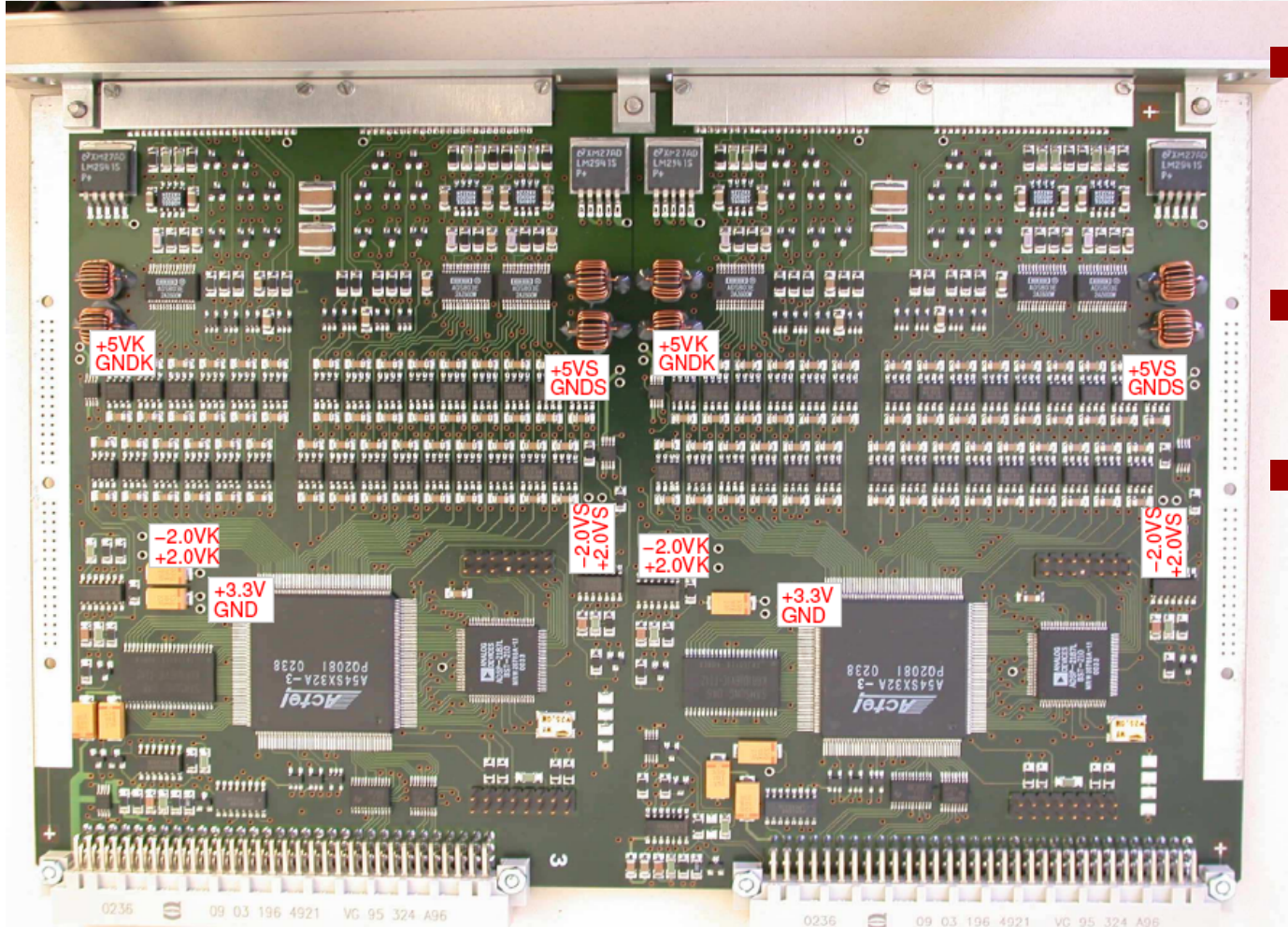
TDR2 Functional Tests

- 3 groups of tests, controlled by a semi-automatic global webpage with full report generation
- Electrical tests
- AMSwire tests
- Tests of the analog part of the TDR2



TDR2 Electrical Tests

- Power consumption (10 points)
- Voltages (14 points)
- Solid State Fuse (6 points)



TDR2 AMSwire Tests

- Only basic functionality is tested
- Ping and status test by all connections
- Boot and Power down test
- Flash ROM Test
 - erase/load Flash
 - change attributes
 - list Flash



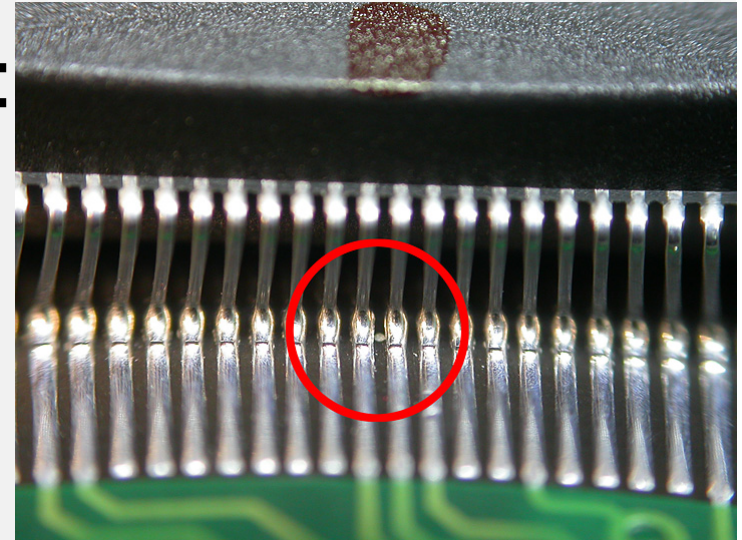
TDR2 Analog Tests

- Pedestal test on empty TDR2
- Pedestal test with real frontends connected
- DAC measurements
- ADC tests with TFS modules



TDR2 FM Results

- All 91 boards passed the 1st and 2nd test
- 6 boards had problems:
 - some shorts
 - 2 Actel replacement
 - 1 SSF replaced by precaution
- All test results including logfiles (also for QM2 models) are available at:



<http://dpnc.unige.ch/ams/dhaas/TDRtest.html>



TDR2 Test Schedule

- 5 missing boards must be produced
- 91 boards need ESS/coating/mechanical assembly
- 12 boards still need mechanical assembly
- On my next visit (~1 long week), I would like to:
 - perform final tests on 91 boards
 - perform an additional check of first 12 boards
 - perform initial tests on 5 missing boards
- Last 5 boards should go for ESS/coating/mech. afterwards
- Will test last 5 boards when we go for crate-level ESS (March??)

