<table>
<thead>
<tr>
<th>Document Title</th>
<th>Limitations and Deviations for I&amp;T Test Stand Cart #1</th>
</tr>
</thead>
<tbody>
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<td>Supersedes</td>
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<td>Subsystem/Office</td>
<td>Electronics &amp; DAQ Subsystem</td>
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</tbody>
</table>

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Limitations and Deviations for I&T TEM Test Stand Cart #1

CHANGE HISTORY LOG

<table>
<thead>
<tr>
<th>Revision</th>
<th>Effective Date</th>
<th>Description of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>07 December 04</td>
<td>Initial Release</td>
</tr>
</tbody>
</table>
Limitations and Deviations for I&T TEM Test Stand Cart #1

Table of Contents - TOC

1. SCOPE ....................................................................................................................... 4
2. Environmental condition ............................................................................................. 4
3. Differences to release drawings ..................................................................................... 4
   3.1 Tower Power Supply ................................................................................................. 4
   3.2 Tower Electronics Module ......................................................................................... 5
   3.3 PMC LCB Version 3 Rework ...................................................................................... 5
4. Changes from Test-Procedure ....................................................................................... 6
1. **SCOPE**

This document lists

- the environmental limitations and
- the differences of the test-stand compared to the released test-stand drawings

2. **ENVIRONMENTAL CONDITION**

- The test-stand temperature must be held between 18C and 38C, so no thermal cycling is allowed.
- The test-stand was only tested at room-temperature.
- No vibration tests are allowed.
- The test-stand can not be operated in a vacuum chamber.

3. **DIFFERENCES TO RELEASE DRAWINGS**

3.1 **Tower Power Supply**

- LAT-DS-02388-01, CCA: No staking was applied, Item 17, 18 omitted.
- LAT-DS-02389-01, PWB, complete
- LAT-DS-02390-04, Schematic: Sheet 1 - R1,R2,R11,R12 not loaded; Sheet 2, VR5 not loaded. Other sheets: Capacitors added across TRK Power Switch changed from 0.1microF to 1.0microF. Changed D500 to 1N4489.
- LAT-DS-02391-04, Material list, complete
- LAT-DS-00995-06, LAT-DS-00995-04, TPS enclosure: Entire unit is electroless nickel plated. No hard anodized was used.
- LAT-DS-01482-03, TPS ASSEMBLY: NO component staking was applied (item 15 omitted); NO cable harness support was installed (item 16 omitted); Screw heads were not
Limitations and Deviations for I&T TEM Test Stand Cart #1

staked

- Assembly number was not marked on chassis

### 3.2 Tower Electronics Module

- LAT-DS-01650-02 - Schematic Diagram, TEM CCA
- LAT-TD-02230-01 - Bill of Materials, TEM CCA
  - For resistors R648, R649, R650, R651 instead of single 50 Ohm value, two 100 Ohm resistors in parallel are used. They loaded with one soldered on top of second resistor.
- LAT-DS-01646-04 - Circuit Card Assembly, TEM DAQ
  - Conformal coating not used
  - Component staking/potting not used
  - Screw heads not staked
- LAT-DS-01649-05 - Printed Wire Board, TEM
- LAT-DS-02583-01 - PWB Fab, Loading and Assembly
- LAT-DS-02588-02 - Connector and Cable Assembly, TEM CCA
- LAT-DS-00554-06 - TEM Box Base
  - Part is fully electroless nickel plated, no hard anodize was used
- LAT-DS-00555-06 - TEM Box Lid
  - Part is fully electroless nickel plated, no hard anodize was used
- LAT-DS-01481-04 - Assembly, Tower Electronics Module
  - Assy number not marked on chassis
- LAT-DS-01026-02 - TEM Connector Plate
Limitations and Deviations for I&T TEM Test Stand Cart #1

- LAT-DS-01031-02 - TEM Connector Pin
- LAT-TD-01880-01 - VHDL, LAT TEM GTIC FPGA
- LAT-TD-01881-01 - VHDL, LAT TEM GTIU FPGA
- LAT-DS-03582-01 - Spacer, TEM Connector

FPGA version numbers:
  - U45 – GTIC – version 1
  - U62 – COMMCNTL version 1 (Preprogrammed firmware version 9)

3.3 PMC LCB Version 3 Rework

Swap TRDYN and CBE2 at PCI FPGA.

- Cut trace from R126, Pad 1 to via alongside Pad. Pad 1 is the Pad closer to the edge of the board and further from the Actel FPGA Socket.
- Cut trace from R104, Pad 2 to via alongside Pad. Pad 2 is the Pad closer to the Actel FPGA Socket and further from the edge of the board.
- Add wire from R126, Pad 1 to via previously connected to R104.
- Add wire from R104, Pad 2 to via previously connected to R126.

LCB FPGA Versions (PCI, LAT) = (0x2a, 0x5b)

4. CHANGES FROM TEST-PROCEDURE

LAT-TD-03415 - did not run multiple frequency and temperature tests.