Quality Control List

These tests will be applied to all cards and are intended to ensure proper assembly of the card and the basic functionality of the components. They are not intended to establish an absolute level of performance. Detailed performance tests will be made but successful completion is not considered to be the responsibility of the vendor. A pre-production run of 150 cards was performed in Spring '99 and it has been concluded that a properly assembled card easily passes the tests described below.

In case of failure to pass any of the following tests, the corrective action will be indicated to the vendor and the card returned for repair.

A. Workmanship Inspection

All cards will be examined for the following characteristics:
1. PCB matches mechanical dimensions and is cleanly milled
2. Card is cleaned of all extraneous debris including flux residue
3. All solder connections sound
4. No excess solder
5. No cold solder joints
6. No short circuits
7. Cable assemblies all prepared and mounted according to drawings
8. All parts properly positioned and oriented
9. Bar code serial number label properly installed

B. Electrical Tests

1. DC power consumption within 20% of nominal for each of +5, -5, +15 V supplies
2. Verify read and write capability of all control registers in Altera EPLD (U4)
3. Verify correct signals from J5, J6, J7 cable sets
   § Amplitudes within 15% of nominal (design accuracy 1%)
   § Polarities correct
4. Verify proper operation of DAC (U5) by exercising each bit in turn
5. Verify opening and closing of all FET switches (U8, U10, U11)
6. Verify disable function of U17, U18

Procedure for 50-Card Control Sample Qualification

The above tests will be applied to all 50 cards of the control samples. All cards must pass the workmanship requirements and no more than 2 cards can show the same source of electrical failure. If a control sample fails to meet these requirements, the vendor will be informed of the nature of the problem and must submit a new control sample which successfully passes the tests before the next batch of 1000 cards can be shipped.