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Certificate No. TLE01A



ISO 9001:2000



ISO/IEC 17025



Certificate No. A1330



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Formal Nortel Qualification Information

Below is a complete list of items that must be submitted with each Nortel Qualification. It is imperative that all items be submitted so that no delays are experienced prior to the initiation of testing.

1. Three bare printed circuit boards for testing

- If less than 3 boards are to be submitted, we need to contact Dennis DeBord of Nortel for approval

2. Artwork

- The films are required to insure that several microsections contain all layers stated on the master drawing
- Trace must also confirm that the technology level is found on the films

3. Master Drawings

a. Common and/or Specific Features

- The supplied drawings must contain the following information:
 - ❖ A drill chart of the hole sizes and tolerances (this is a chart showing hole locations using symbols)
 - ❖ The length and width of the board
 - ❖ The location and dimensions of the prime manufacturing holes
 - ❖ Board lay up – which contains copper thickness (oz) and dielectric thickness

b. Technology Document - If relevant

4. Supplier-Completed PCB Evaluation Form

- This form is to be completed by the company submitting the qualification (the company is to prepare microsections and fill out the complete Nortel PCB Evaluation Form)

5. Supplier-Prepared Microsections

- All microsections which were evaluated during the in-house evaluation (see item 4)



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6. Test Coupons, when applicable

- a. Thermal Shock - Only required when the board is designed with ½ ounce internal layers (see page 77 of NPS-25001, Issue 17 for coupon design)
 - If no coupons have been generated, Nortel will need to be contacted (i.e.: for waiver, testing of board, etc.)
- b. Impedance - Only when controlled impedance is specified on the drawings
- c. Moisture and Insulation Resistance, Dielectric Withstanding Voltage or Peel Strength
- d. Thermal Shock - Only required when the board is designed with ½ ounce internal layers (see page 77 of NPS-25001, Issue 17 for coupon design)
 - Only when specified by a Nortel representative
 - Coupon A of IPC-TM-650, section 5.8.4, is used for Moisture and Insulation Resistance and Dielectric Withstanding Voltage
 - Coupons per IPC-TM-650, section 5.8.3, or conductors on the boards can be used for Peel Strength

7. Blind and Buried Via Hole Locations, when applicable

- These must be highlighted in the customer-supplied report
- Normally, one or two additional microsections per board are prepared and evaluated as specified by Nortel

When requesting a quotation for testing, please provide the following information:

- Nortel P/N
- Number of layers
- Final finish
- Are there ½ ounce internal layers?
- Are there compliant pin locations on the boards?
- Are there any special Nortel testing requirements?

These instructions are in accordance with Nortel's requirements. Nortel may, at any time, waive or change these requirements.