CM ATR CHASSIS I/O WIRING GUIDE

ATR SYSTEM INTEGRATION MADE EASY

CM Computer Proprietary I/O Diagnostic & Testing Tool Solutions
for high precision automated wiring harness analysis

CM is aware that testing complex backplanes (VPX, cPCI-S, etc.) and high density I/O wiring solutions has become a challenging task in todays quality control departments. Hundreds of hours dedicated to testing may not guarantee flawless operation; only an automatic testing solution provides certainty that no defects are present in the system. CM has developed two proprietary testing modules; one dedicated to test backplanes (connectors, internal buses, etc.) and one for testing user I/O signal cabling harnesses. Testing modules incorporate a random 40-bit word generator and sets of single-ended and differential transceivers. Front panel loop-back connectors create signal feedback where all transmitted/received words are matched/compared in order to detect any disrupted line or short-circuit. A removable piggy-back custom module is the only requirement to adapt CM testing modules for any wiring harness configuration.

ADVANTAGES

- Automatically checks continuity through backplane slots, I/O wiring cable lines and front panel connectors.
- Automatically detects short circuits & disrupted signal lines.
- Validates 100% correct operation of any integrated custom wiring harness up to 500 signals in 3U systems.
- Requires only 10 minutes for a complete testing session.
- Dramatically reduces testing time and cost.
- Can be easily configured to suit any custom I/O design.
- Operates with either single-ended or differential I/O signals.
- Provides a visual and audible alarm when a fault is detected.
- All slots and chassis lines can be tested simultaneously.
- Not prone to human errors.
- High tech professional approach suited for large series.

All chassis I/O wires, front panel connectors and backplane slot connectors are tested OK (no faults detected).

System wiring errors are detected in one slot (provoked when a front panel loop-back test connector is removed).