

Eurocard extender boards

Multilayer extenders

This multilayer extender board offers the engineer the best possible guarantee against crosstalk due to the 0V guarding being positioned on three sides of each individual signal line.

The multilayer construction features a control 0V ground plane inner layer with a latticed trace around all jumper pin positions for maximum shielding. The extender board features 42 signal lines on both sides of the board which are protected by an 0V guard track between each pair of signal lines. The guard track is connected to the 0V inner layer plane at both ends by the use of via holes.

The power rails on the outer edges of the board feature a cross patching facility which uses jumper links in order to give the user complete flexibility when trying to match a particular backplane system. The board is supplied completely assembled with connectors at both ends.

Power rails are committed to pins 1abc, 2abc, 31abc and 32abc. If necessary any of these power rails may be connected to the 0V inner plane by use of cross patching jumper links.

Features

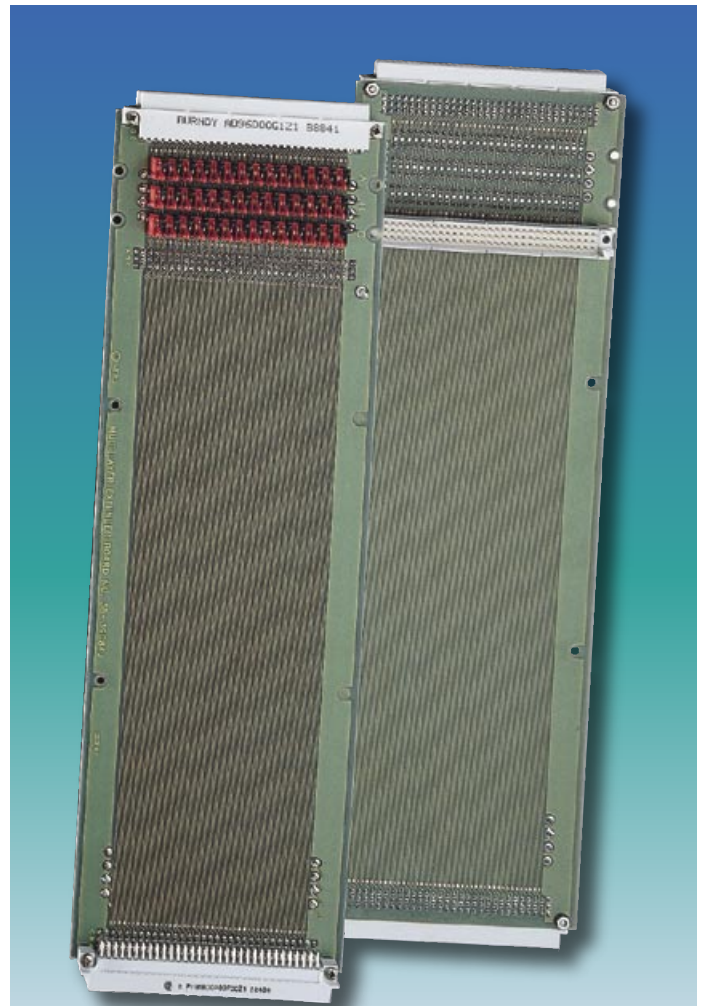
- 3 layer bonded multilayer construction with a 0V ground plane sandwich between layers
- Patented 0V guard tracking between all signal lines
- Flexible power rail construction with up to four separate Vcc rails and a 0V return plane
- Voltage and current measuring facilities are available by use of wirewrapping pins and jumper links which are fully assembled to the board
- Logic analyser or backplane stub terminator position on board
- Expandable to 3U, 6U, 9U etc. in many combinations using the compatible range of PTH and super PTH extender boards
- Suitable for 160 and 220mm deep systems
- Compatible with multilayer Microbus backplanes and PTH backplanes
- Support/eject mechanism to ensure that the daughter board remains captive within the guides when ejecting and that the correct connector breaks when dismantling

| Multilayer Extenders | Ordering information |
|---------------------------------|----------------------|
| Description | Order code |
| 96/96 multilayer extender board | 38-39084 |
| Extender board conversion kit | 188-27542 |

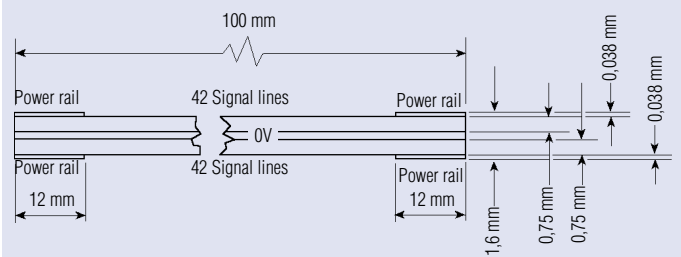
Board specification

| | |
|----------------------------------|----------------|
| Board type | Epoxy glass |
| Plated through hole | BS4584 part 16 |
| Copper thickness to outer layers | 38µm |
| Plated copper | 37µm |
| Tin lead | 5µm |
| Total | 80µm |
| Copper thickness inner layers | 38µm |

Note: bare boards are UL 94 V-0 recognised components file number E116551. Bare boards are approved to BS9762.



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Characteristics impedance

The separation of signal layers to the 0V ground plane is 0,74mm and the signal track width is 0,3mm which gives a theoretical characteristic impedance of 94Ω with a Z_0 tolerance of ±5%.

Note: $Z_0 = 94\Omega \pm 5\%$ excluding all holes in the boards

$Z_0 =$ approximately 80Ω including connector and jumper pin holes

$Z_0 =$ approximately 65Ω when active daughter board is in position.

Note: The guard tracking arrangement is manufactured under licence from University College, London.