

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Mercury Computer Systems ILK1* at our website: *Click HERE*

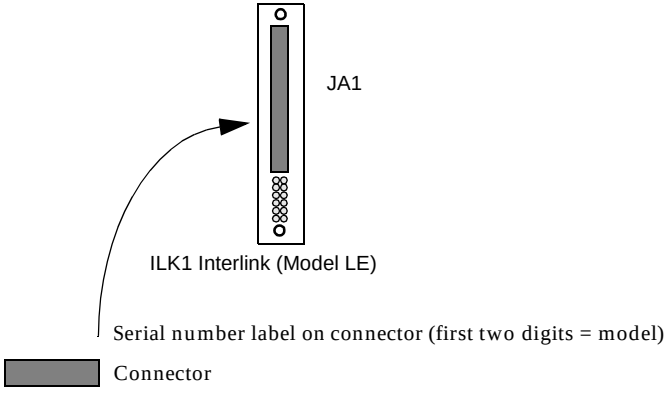
ILK1 Interlink

VME RACE 1.0 One-slot Motherboard Interlink

ILK1 Interlink Overview

The ILK1 is a RACE 1.0 single-port interlink module that links a motherboard to another ILK board, running at 40 MHz. The ILK1 plugs into the backplane pins of a VME P2 connector and connects to another ILK using an Interlink cable.

Layout



Indicators

None.

Switches

None.

Copyright © 1995-2003 Mercury Computer Systems, Inc. All rights reserved.

ILK1 Interlink Specifications

Physical Dimensions

Dimensions (mm): 19 x 90 (0.76" x 3.54")

Weight (gm): 57 (2.0oz)

Slot-to-slot spacing (mm): 20.3 (0.8")

Power dissipation (W maximum @ 5.0Vdc): 0.5

Electrical Specifications

Input voltage (Vdc ±5%): 5.0

Input current in amps (maximum): 0.1

Environmental Specifications

Operating temperature range (°C): -20 to 50

Storage temperature range (°C): -40 to 85

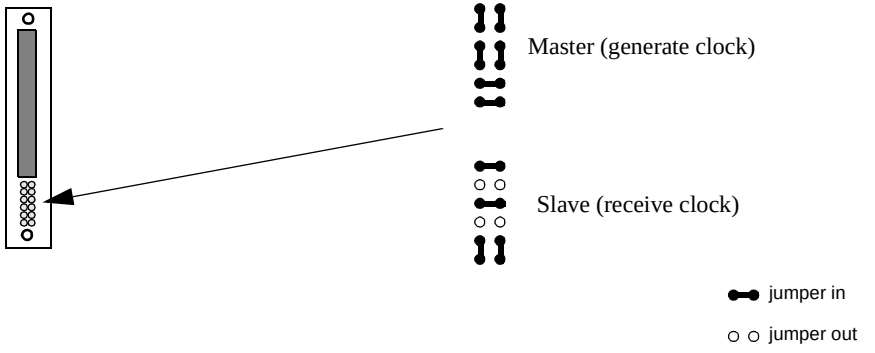
Cooling requirements: natural convection

Relative humidity (% noncondensing): 10 to 90

Altitude (ft above sea level): 0 to 10,000

ILK1 Interlink Installation

Jumpers



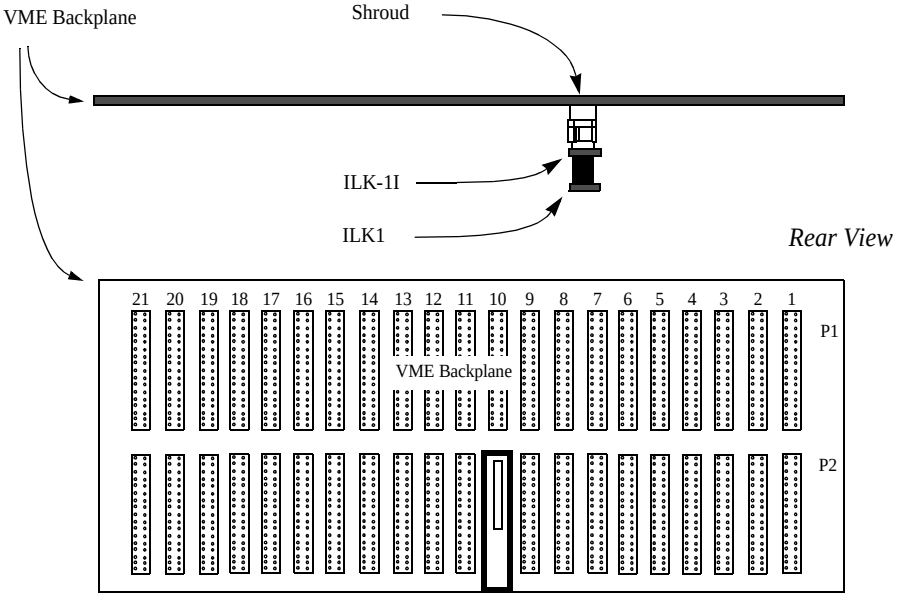
Jumpering for Cabled ILK1s

The ILK1 can be cabled to other ILK interlinks. If the ILK1 is on the lowest-numbered slot, jumper it to be master; in all other cases, jumper it to be slave.

Assembly

Review your host's instructions for adding new devices.

Assembly results in an ILK-1I interposer sandwiched between the VME backplane and the ILK1 interlink. The interposer covers a single slot, with shroud, on the VME backplane.



Single ILK1

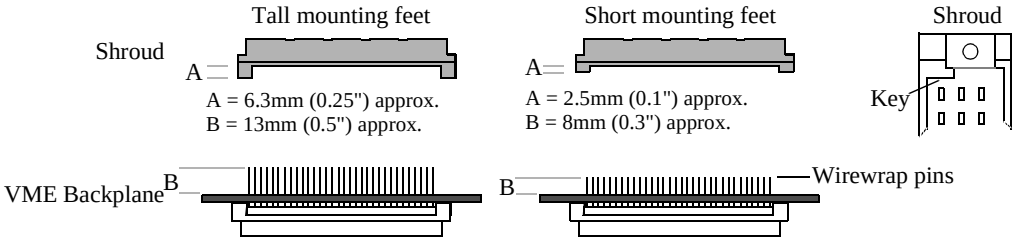
Caution: Make sure slots containing a Mercury device have rows A and C of the P2 connector uncommitted. Slots in some VME backplanes (such as Sun) make proprietary use of rows A and C of the P2 connector. A Mercury device in a proprietary slot will not work and might damage boards. Contact the backplane manufacturer to determine compliant slots.

■ **To install:**

1. Select a backplane slot. Make sure the slot covered by the ILK is available for interconnection; slot 1 is often used by other devices. The pins in rows A and C of the P2 connectors must be 13mm with low profile or 17mm with standard profile, and must not have any wirewraps.

2. If you have a 5-row backplane, make sure you use 5-row shrouds. If you have a 3-row backplane, make sure you use 3-row shrouds.

   If you have a standard 5-row ILK-1I interposer, the backplane must already have shrouds installed. If you have a 3-row interposer without a shroud, select a connector shroud to install onto the P2 wirewrap pins (see the illustration that follows). If the wirewrap pins extend about 0.5 inches from the VME backplane, use shrouds with the tall mounting feet. If the wirewrap pins extend about 0.3 inches from the VME backplane, use shrouds with the short mounting feet. If the wirewrap pins are longer or shorter, you might need other connector shrouds.

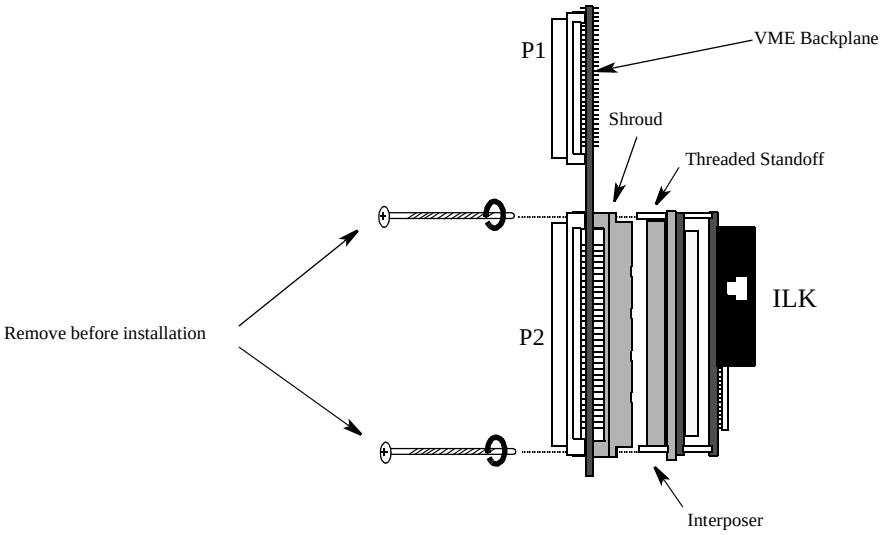


Install a connector shroud onto the P2 pins on the rear of the VME backplane. The shroud is keyed to ensure correct orientation with the ILK. Install the shroud with the key facing the high-numbered VME slots.

Caution: Always use connector shrouds. Plugging or unplugging ILKs onto wirewrap pins without connector shrouds installed can easily break or bend the wirewrap pins.

3. Set the jumpers. (See the Field Jumpering section.)

4. Remove the screws holding the interlink board to the interposer board. For ruggedized models, also remove the backplane screws. (See the following drawing.)

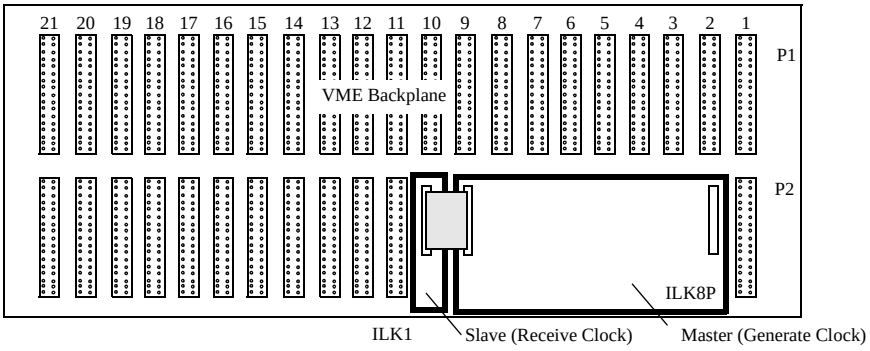


5. Carefully separate the interlink board from the interposer board.

Caution: Do not attempt to install this product without separating the interlink board from the interposer board. Installing this product while it is assembled will damage components.

6. Using even pressure, plug the interposer board into the connector shrouds.
7. Re-connect the interlink board to the interposer board by replacing the screws holding the interlink board to the interposer. Ruggedized models have additional installation hardware and requirements.
8. To connect to another ILK, install an ILK interlink cable as shown in the following drawing.

Connecting ILKs

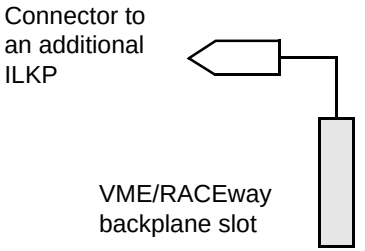


Removal

When removing interlinks from backplanes, work slowly and make sure to keep the interlink parallel to the backplane.

Caution: Avoid pivoting or rocking, since this can damage the connectors.

ILK1 Interlink Topology



ILK1 Interlink Configuration

The following sections provide configuration file directives used for this specific device. For general information about creating configuration files and the meaning of the configuration directives, see the *Mercury System Manager's Guide.* For configuration information for MC / OS 4.3.0 or earlier, use the online manual pages available through the manmc utility.

Note: If you have multiple interlinks, or interlinks and VantageRT boards, and want to connect them via the front panel ports, also read the next section, "Cable Configuration."

Board Directive

board ILK1 *user-assigned-name*

where:

user-assigned-name

A name assigned by the user.

Connect Directive

connect *user-assigned-name1.connector1 user-assigned-name2.connector2*

where:

user-assigned-name1
user-assigned-name2

Two names assigned by the user in a board directive: one for the ILK1 and the other for the hardware device being connected to.

connector1
connector2

Two connectors, one being a connector on the ILK1 and the other a connector on the hardware device being connected to. The ILK1 connector can be:

RWP2 — P2 connector (96-pin)

RWW — cable connector (80-pin)

Reset Signal

The ILK1 does not automatically reset itself. Make sure that MC/OS provides the reset signal when necessary.

Cable Configuration

The following sections provide configuration file directives used for this specific device. For general information about creating configuration files and the meaning of the configuration directives, see the *Mercury System Manager's Guide.*

For configuration information for MC/OS 4.3.0 or earlier, use the online manual pages available through the manmc utility.

Note: The RWW_TO_RWW_CABLE is an adapter cable used to connect two interlinks, two VantageRT boards, or VantageRT boards and interlinks.

Board Directive

board RWW_TO_RWW_CABLE *user-assigned-name*

where:

user-assigned-name

A name assigned by the user.

Connect Directive

connect *user-assigned-name1.connector1 user-assigned-name2.connector2*

where:

user-assigned-name1
user-assigned-name2

Two names assigned by the user in a board directive: one for the cable and the other for the board being connected to.

connector1
connector2

Two connectors, one being a connector on the cable and the other a connector on the board being connected to. The connector can be:

RWW_1—Cable connector (80 pin), or an end of the adapter cable

RWW_2—Cable connector (80 pin), or an end of the adapter cable

ILK1 Interlink Diagnostics

Diagnostics tool DMC supports the following test phases and tests on this hardware device. For test descriptions, see the *Mercury System Manager's Guide*.

Additional test phases and tests depend on the hardware configuration. See the *Hardware Device Note* for each motherboard, daughtercard or interlink in the system.

ILK Phase

`ILK Probe test`

`ILK DMA test`

ILK1 Interlink Reference

Address Space

Information unavailable at time of publication.

Files

None.

See Also

None.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP