

AAL1gator™-32/TEMUX™ Development Kit

OVERVIEW

The AAL1gator™-32/TEMUX™ Development Kit provides a platform to develop, integrate, and test software for the PM73122 AAL1gator™-32 and PM8315 TEMUX™ chipset, which is used in high-density circuit emulation port cards.

The kit consists of hardware and software that operate on a Pentium-based PC running VxWorks. It allows the AAL1gator-32 to be configured and tested in both low speed clock and data mode and SBI mode.

The development kit reduces time-to-market by allowing software engineers to develop application software immediately.

HARDWARE

The kit consists of an AAL1gator™-32/TEMUX™ Development Kit board that fits into a standard PCI computer.

The board contains the PM73122 AAL1gator™-32, PM8315 TEMUX™, PM4354 COMET-QUAD™, and PM7350 S/UNI@-DUPLEX devices and the necessary interface circuitry.

Devices on the board are configured and monitored by the Pentium processor via the PCI bus.

HARDWARE CONFIGURATION FEATURES

- Demonstrates PMC-Sierra's Scalable Bandwidth Interconnect (SBI™) bus, which allows seamless connection of the PM8315 TEMUX™ to the PM73122 AAL1gator™-32.
- Demonstrates a 16-bit UTOPIA Level 2 bus connecting the AAL1gator™-32 device to the S/UNI@-DUPLEX.
- Provides access to one DS-3 interface, four T1/E1 interfaces, and one Low Voltage Differential Signal (LVDS) interface.

DS-3 LINE INTERFACE

- Capable of terminating one DS-3 line.
- Rx/Tx access through a PCI bracket via two small SMB-style connectors.
- Jumpers to configure LIU line/diagnostic loopback and transmission line length.

T1/E1 LINE INTERFACE

- Terminates up to four T1 or E1 lines.
- Uses mini-bantam type connectors.
- Includes intra-building protection circuitry.
- Configurable for T1 or E1 hardware.

LVDS INTERFACE

- Operates at a line rate of 200 Mbit/s.
- Supports 1:1 protection of LVDS link.
- IEEE 1394 connectors.

SOFTWARE

The AAL1gator™-32/TEMUX™ Development Kit application software provides an interface to configure, control, and monitor board functions.

The kit provides a VxWorks kernel for the initial configuration and testing of the board; however, the VxWorks IDE (Tornado 2) is not provided.

Users developing their own software for the AAL1gator™-32/TEMUX Development Kit board must have the Tornado 2 IDE (for i86 platform) installed in order to modify and compile the software supplied with the kit.

AAL1GATOR-32/TEMUX DEVELOPMENT KIT BOARD PHOTO



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SOFTWARE FEATURES

- Enables software development for all three AAL1gator™ products:
 - PM73122 AAL1gator™-32
 - PM73123 AAL1gator™-8
 - PM73124 AAL1gator™-4
- Software designs can be developed using the kit and ported to other hardware.
- Provides a self-test to verify the functionality of the hardware.

- Enables run-time configuration of the verbosity of debug messages.
- Enables status information to be collected.
- Enables reading and writing of any register in the PM73122 AAL1gator™-32, PM8315 TEMUX™, PM4354 COMET-QUAD™ and PM7350 S/UNI®-DUPLEX devices.

KIT CONTENTS

- Installation CD-ROM with the target software binaries, source code, and documentation.
- AAL1gator-32/TEMUX Development Kit board.

Please note that the following items are *not* supplied by PMC-Sierra; supplying these items is the user's responsibility:

- Personal computer (PC).
- Tornado 2 IDE for i86 platform (VxWorks development environment).

AAL1GATOR-32/TEMUX DEVELOPMENT KIT BOARD BLOCK DIAGRAM

