

VORTEX™ Chip Set Development Kit



PM2350 / PM2351

OVERVIEW

The VORTEX™ Chip Set Development Kit is a self-contained hardware and software reference design tool that operates on a Compact PCI platform running VxWorks. The kit provides a platform to develop and integrate software with a state-of-the-art VORTEX™ Chip Set design.

The development platform will help PMC-Sierra customers dramatically reduce application software development cycles.

Core Card: The VORTEX™ Chip Set Development Board consists of the PM7351 S/UNI®-VORTEX, PM7350 S/UNI®-DUPLEX, PM7326 S/UNI®-APEX, and PM7324 S/UNI®-ATLAS devices.

The Core Card board fits into a 6U Compact PCI-based shelf and is configured and monitored through the cPCI platform's motherboard.

Line Interface:

- Capable of terminating sixteen line cards (not supplied) through sixteen high speed LVDS ports.
- The line interface is provided through a 3U backplane or LVDS front panel connectors.
- 1:1 protection for all line card links.

WAN Interface:

- The WAN interface is provided through a 3U backplane or LVDS front panel connectors.
- Support for two WAN cards, allowing 1:1 protection.

WAN Card: The optional WAN card consists of the PM7350 S/UNI®-DUPLEX, PM5383 S/UNI®-QJET and provides 4xDS3 WAN upload.

The WAN Card board fits into a 6U Compact PCI-based shelf and is configured and monitored through a RS232 connection to another PC.

PM2350 Kit: This kit consists of the Core Card only. Among other features, the Core Card facilitates board and chip level driver development; cPCI interface

verification and signal integrity and timing verification

PM2351 Kit: This kit includes the Core Card and the WAN Card. Among other features, this kit provides LVDS interface verification; external ATM over DS-3 traffic testing; 8 kHz reference clock distribution testing and BDM interface development.

HARDWARE FEATURES

- Supports a Compact PCI Interface that provides microprocessor access to the S/UNI®-DUPLEX, S/UNI®-VORTEX, S/UNI®-APEX, and PM7324 S/UNI®-ATLAS devices via the host processor card.
- Provides traffic switching for up to 512 loop ports and 2 WAN ports.
- Provides traffic policing, OAM, and header translation.
- Provides traffic shaping and switching with the S/UNI®-APEX.

SOFTWARE FEATURES

The VORTEX™ Chip Set Development Kit includes a board level driver that integrates all drivers for the VORTEX™ Chip Set devices. The following key functions are provided:

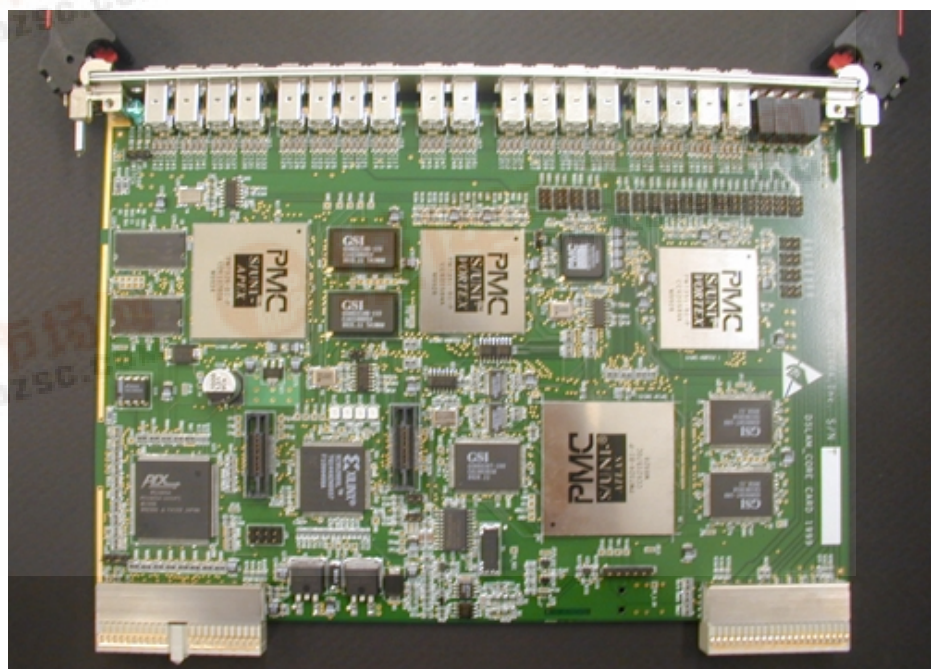
- Connection management to create, destroy and modify connection parameters.
- Send and receive data cells and frames.
- Status information gathering.
- Read and write to any of the S/UNI®-VORTEX, S/UNI®-DUPLEX, S/UNI®-APEX and S/UNI®-ATLAS registers.

The development kit software is designed for VxWorks OS on an i86-based PC platform.

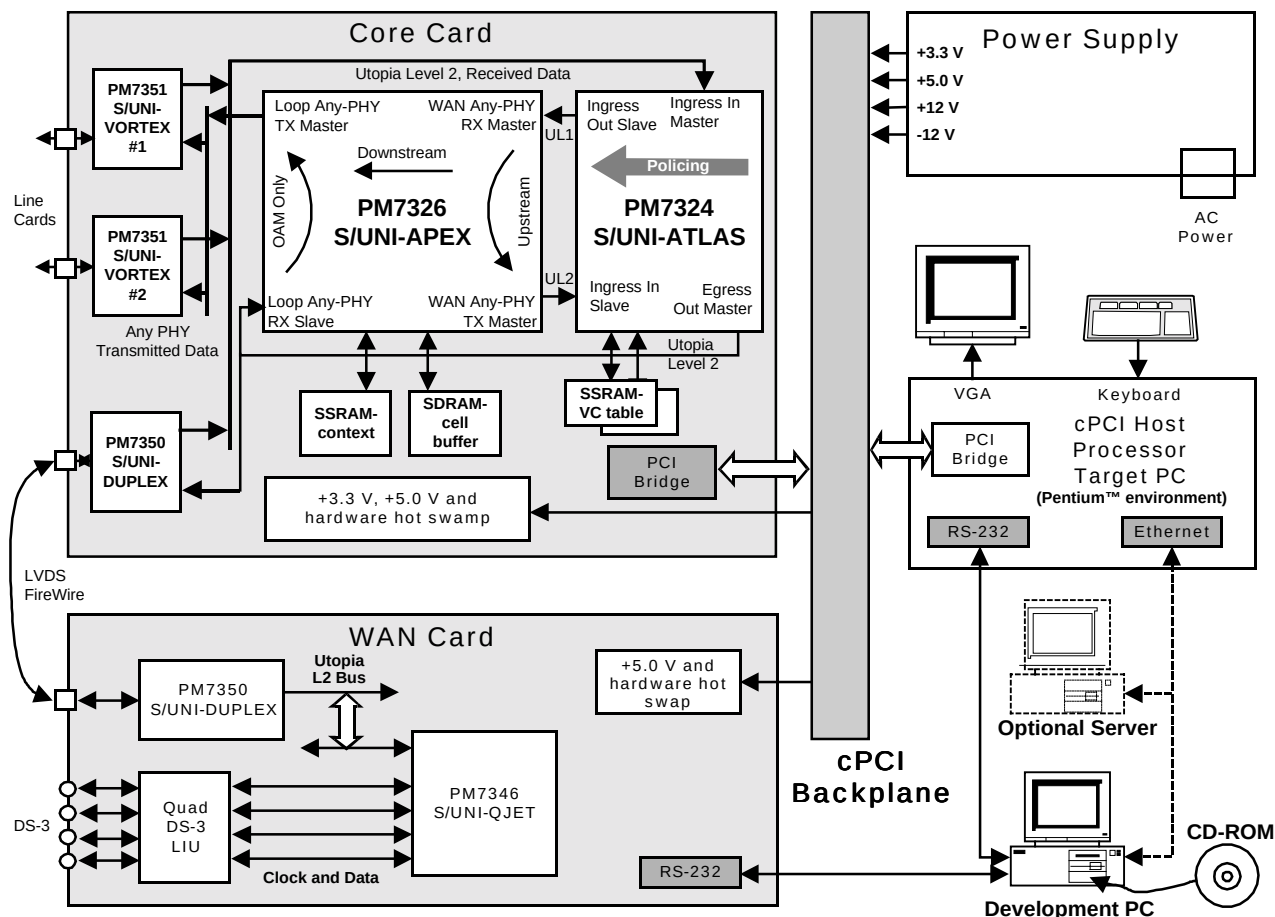
A VxWorks kernel is provided. The VxWorks IDE (Tornado 2) is not provided.

Users must have Tornado 2 IDE installed in order to modify and compile the software supplied with the kit.

VORTEX™ CHIP SET DEVELOPMENT KIT CORE CARD



VORTEX™ CHIP SET REFERENCE BOARD FUNCTIONAL DIAGRAM



PM2350-KIT

- Installation CD-ROM
 - target software binaries
 - source code
 - documentation
- VORTEX™ Chip Set Development Kit Core Card

PM2351-KIT

- Installation CD-ROM
 - target software binaries
 - source code
 - documentation
- VORTEX™ Chip Set Development Kit Core Card
- VORTEX™ Chip Set Development Kit WAN Card

NOTE:

The following items are not supplied by PMC-Sierra, and are the responsibility of the user:

- Personal computer
- VORTEX™ Chip Set Development Kit Line Card
- Tornado 2 IDE for i86 platform (VxWorks development environment)
- cPCI system