

OCT8304-EP

The 8304 Development/Evaluation Kit

Simplifying your design process and reducing your time to market with complete, easy to use tools.

One of the biggest hurdles a designer faces when starting a new project is the learning curve of new components and a development environment. The OCT8304 development kit has been designed with the purpose of removing these hurdles for the OCT8304 component and to accelerate the overall design and debugging process.

The OCT8304 development kit can be used to test all functions of the OCT8304 in a live network environment. It is equipped with several standard network ports and a TDM voice interface so that a voice gateway can be built with off-the-shelf products integrated with the development kit. The designers can learn the technology and understand the system challenges before the final hardware is available.

The kit includes numerous coding examples to get designers started quickly. The recommended starting examples are done using handsets connected to the built-in CODECs. The voice is packetized by the OCT8304 and looped back through a network interface using external cables. All the examples utilize the full assembly (TDM to packet network) and disassembly (packet network to

TDM) datapaths of the chip. Designers can create their own examples using the included software environment in order to test the modes of operation needed for their design and understand all configuration parameters.

The development kit software environment is designed to run the OCT8304 API in user space allowing standard C tools to interact with the API directly. This enables designers to utilize familiar debug and runtime tools with the card simplifying the design process.

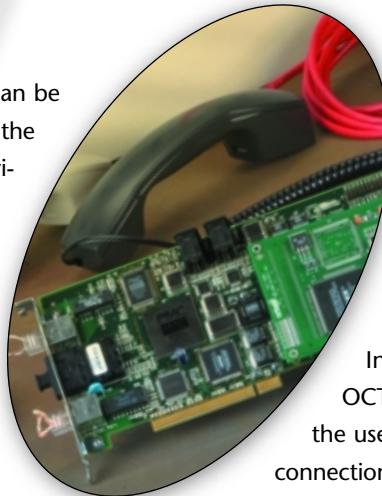
Included in the package is the OCT8304 Probe Tool. This tool allows the user/developer to track and search for connections using the IP address and to look at all pointers and fields in the chip while traffic is running through the device. The tool also features extensive help on all fields. This tool is ideal to understand any problems found on the embedded system and the behavior that leads to it.

Benefits

- Early start on code development
- Easy prototyping on a variety of networks
- Rapid test and debug
- Good learning tool for VoIP and AAL2

Features

- Pre-programmed test examples
- Standard network interfaces
- Runs under windows NT
- GUI debug tool
- Phone support package



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Octasic proprietary and confidential.

Contents

Hardware

- Full sized PCI development board
- Complete documentation
- Unshielded twisted pair (UTP) cables
- 2 handsets
- Loopback connectors

Card interfaces

- 155 ATM UTP
- OC-3 for POS or ATM
- 100 BaseTx
- RJ-11 handset connectors
- H.100 edge connector
- Standard PCI edge connector

Software Package

- Full API running in Windows NT user space
- Required drivers for the card
- GUI debug tool
- Pre-programmed demos
- Code examples
- Software development environment

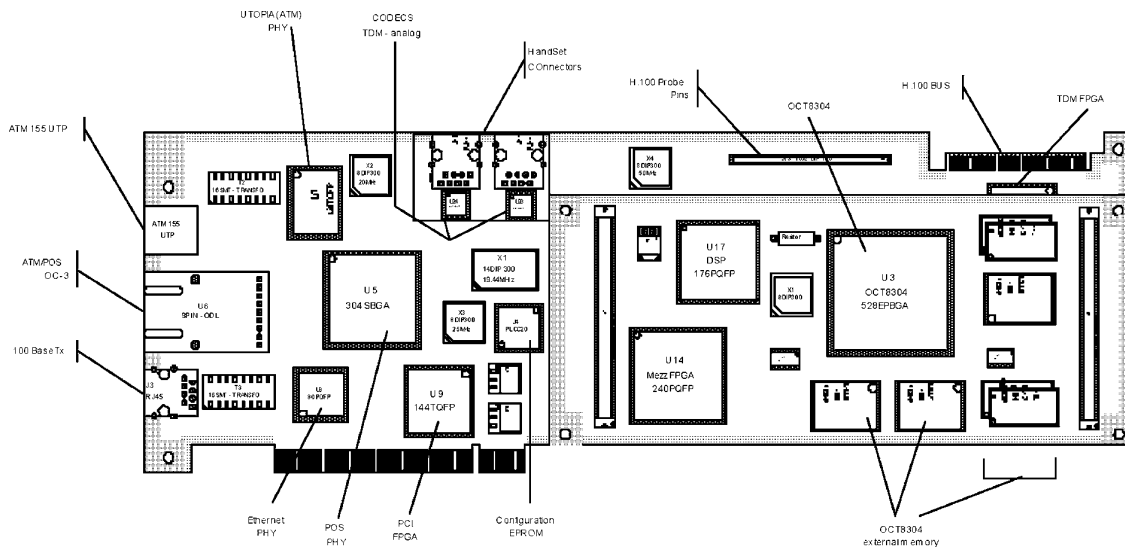
Included Code Examples

- VoIPv4 over Ethernet
- VoIPv4 over POS
- VoIPv4 over ATM in CLIP format (Classical IP)
- VoIPv4 over ATM in LANEv1 format (LAN Emulation version1)
- NULL encapsulated RTP over ATM
- NULL encapsulated IPv4 over ATM
- AAL2 PCM and ADPCM voice per VMOA-145
- AAL2 PCM and ADPCM voice per ITU I.366.2
- Insertion of AAL2 CPS packets via CPU
- Termination of AAL2 Type 3 packets (CAS)
- CPU injected UDP/RTP packets (over ETHERNET, POS, and ATM)
- CPU injected AAL5 packets (over ATM)

Example Usages

- Familiarize developers with
 - VoIP
 - AAL2
- Understand the various functions and features of the OCT8304 device and API
- Configuration testing of the chip
- Performance measurements and evaluation
- Development of an early prototype of the application
- Development of embedded platform SW in an easy-to-debug environment

OCT8304-EP Block Diagram



PC Hardware and Software Requirements

200 Mhz Pentium processor (or better)

At least 50 MB of free hard disk space

Windows NT 4.0, Service Pack 3.
(The kit was qualified on build 1381)

At least 64 MB of RAM

At least one free full sized PCI slot
(with access to top edge of card)

Microsoft Visual C++ Version 6.0

Ordering Information	
Order #	Item
OCT8304-EP	Evaluation/Development Platform