



NEWS RELEASE

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AHA Offers Evaluation Board for 155Mbit/sec TPC plus modulation Solution

EVB allows designers to quickly evaluate performance benefits of TPCs with modulation, CRC insertion, dual packet structuring and other selectable features.

Pullman, Wash. — May 18, 2002 — Advanced Hardware Architectures (AHA), the industry's leading provider of integrated circuits incorporating Turbo Product Code (TPC) forward error correction technology today introduced an evaluation board for test and evaluation of TPC technology during system development. The board is designed around their latest TPC device offering, the AHA4540 155 Mbps TPC encoder/decoder ASIC.

Communication systems designers will use the AHA4540 evaluation board to configure and test the performance of the AHA4540 device for wireless communication products. Using the EVB, designers will confirm that wireless systems meet target specifications for bit error rate performance, and related system metrics. The evaluation board also provides an interface to bit-error rate test (BERT) equipment to facilitate automated testing.

The AHA4540 evaluation board (EVB) allows configuration and evaluation of the AHA4540 TPC device in either a communication system or laboratory environment. The EVB includes one AHA4540 device that supports full-duplex encoding and decoding with block sizes up to 16K bits and many popular modulation schemes. Flexible packet structuring, scrambling, interleaving, and two kinds of synchronization are other key features of this device.

AHA's groundbreaking TPC technology dramatically outperforms existing Reed-Solomon / Viterbi error correction technology. The AHA4540, which offers

up to 16K block sizes and provides channel rates up to 172 Mbits/sec, is priced at less than \$75 each in large volumes.

AHA4540 EVB: Convenience, Speed and Compatibility

For ease of use and robust evaluation, the AHA4540 EVB supports standalone encoding or decoding, as well as full duplex simultaneous encoding/decoding through preset configurations.

Both the encoder and decoder of the AHA4540 EVB have independent clock and serial-parallel data ports, and the device is code compatible with other AHA TPC devices. A user friendly interactive Windows Graphical User Interface (GUI) configures and monitors the evaluation board and supports the full range of the AHA4540's features via a standard serial com port on a personal computer.

Price and Availability

The AHA4540 EVB will be available in June of 2002 and is priced at \$4,000.

Built-in Design Flexibility: About AHA's TPC Technology

AHA's patented TPC technology, delivers up to 2dB of additional coding gain over such current solutions as Reed-Solomon / Viterbi and 3dB of coding gain over standalone Reed-Solomon coding.

Designers who use the AHA4540 IC can transform this coding gain into a range of options that allow them to increase capabilities or decrease system costs to best fit their application. Examples include but are not limited to:

- ?? reduce required bandwidth,
- ?? increase throughput,
- ?? reduce transmitter power by 2x,
- ?? increase range by 40 percent,
- ?? reduce antenna size by 30 percent, or
- ?? reduce the required noise figure of the receiver by 3 dB.

Background on the AHA4540 Device

AHA's patented TPC technology makes this latest introduction most appropriate for a broad range of wireless communication applications by including modulation, flexible synchronization, and packet structures.

The AHA4540 chips can be used in modems for high-speed wireless Internet access applications, including point-to-multipoint terrestrial and satellite connections. They are also appropriate for next-generation powerline modems that enable home or business networks through standard electrical outlets, and wireless local loop (WLL) applications that bring high-bandwidth wireless access to areas that cannot be economically served by traditional phone lines.

Some of the freedoms that wireless solutions offer over cable or DSL Internet access solutions include:

- ?? distance of the device from a central office becomes irrelevant,
- ?? rapid deployment is feasible compared to trying to get "rack" space at a LEC or CLEC central office,
- ?? ability to get service where phone or cable lines don't exist,
- ?? rapid ability to re-configure a system as the number of users in an area grows.

Wireless communications provide access to the Internet independently, quickly and efficiently.

About AHA

Advanced Hardware Architectures develops and markets superior integrated circuits and intellectual property core technology for communications systems architects worldwide. AHA provides flexible, cost-effective solutions for today's growing bandwidth and reliability challenges. Headquartered in Pullman, Wash., AHA has been setting the standard in Forward Error Correction technology for more than a decade, and offers a variety of standard and custom IC solutions for the data communications industry.

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