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PRESS RELEASE

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Comtech AHA Improves Astro-OC3 Forward Error Correction Chip

Speed improvements allow for more powerful error correction codes at lower code rates while meeting OC3 data rate requirements

Pullman, Wash. – November 14, 2003 – Comtech AHA Corporation (CAC) today announced the release of an improved version of the Astro-OC3 Turbo Product Code (TPC) Forward Error Correction (FEC) Integrated Circuit (IC), the AHA4540. The original AHA4540A device was released in June 2000 and has found widespread acceptance in satellite modems and broadband wireless systems. The speed improvements of the AHA4540B will offer new and existing customers the ability to implement more powerful error correction codes at lower code rates that still meet OC3 data rate requirements. Giving designers the power to decide what combination and level of benefits work best for their application, the AHA4540B allows designers to:

- Reduce required bandwidth or
- Increase data throughput or
- Increase range by 40 percent or
- Reduce antenna size by 30 percent or
- Reduce transmitter power by 2X or
- Reduce the required noise figure of the receiver by 3 dB

The first commercially available chip of its kind, the AHA4540B is designed for use in satellite communications, broadband wireless links and wireless digital broadcast applications or in any application that requires very high data rates and demonstrates bandwidth efficiency issues, or stringent data reliability requirements.

CAC's AHA4540B device provides up to 3 dB of coding gain (compared to Reed-Solomon coding) and is the only commercially available turbo product code technology to achieve channel rates of 200 Mbits/sec. In applications requiring high code and data rates, TPC's perform significantly better than Turbo Convolutional Codes (TCC) in real world applications.

"Turbo Product Codes continue to offer the highest performing forward error correction available in hardware today," said Bill Thomson, CAC president. "Our newest TPC chip, the AHA4540B, provides great value for system designers of satellite modems and terrestrial broadband wireless communication links. The performance gain afforded to users of the AHA4540B TPC chip allows the designer to increase both the transmission distance and speed of the data link while reducing the transmission power."

About the AHA4540B

The AHA4540B is a single-chip Turbo Product Code (TPC) Forward Error Correction (FEC) Encoder/Decoder capable of 155 Mbit/sec data rates, with maximum coded channel rates of 200 Mbits/sec. The device integrates both a TPC encoder and decoder and can be operated in a full duplex mode. The AHA4540B supports block sizes up to 16 Kbits. In addition to TPC coding, support is included for helical interleaving, synchronization, scrambling, and higher order modulation symbol mapping.

Unlike single-pass decoding technology with hard-decision output, the AHA4540B chip is based on CAC's patented TPC technology that uses a soft-input, soft-output (SISO) decoder. The SISO decoder makes intelligent correction decisions based on retained confidence information. The turbo decoder iteratively corrects errors until it converges on the best results.

Price and Availability

Prototypes of the AHA4540B-PROTO are available in limited quantities now with volume shipping in Q1 2004.

About CAC

Comtech AHA Corporation develops and markets superior integrated circuits and intellectual property core technology for communications systems architects worldwide. CAC provides flexible, cost-effective solutions for today's growing bandwidth and reliability challenges. Located in Pullman, Wash., CAC has been setting the standard in Forward Error Correction and Lossless Data Compression technology for more than a decade and offers a variety of standard and custom IC solutions for the data communications industry. www.aha.com. Comtech AHA Corporation is a wholly owned subsidiary of Comtech Telecommunications Corp (NASDAQ:CMTL).

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