

Chameleon F-LDPC ASIC

Beyond Gbps Forward Error Correction



TrellisWare®
TECHNOLOGIES

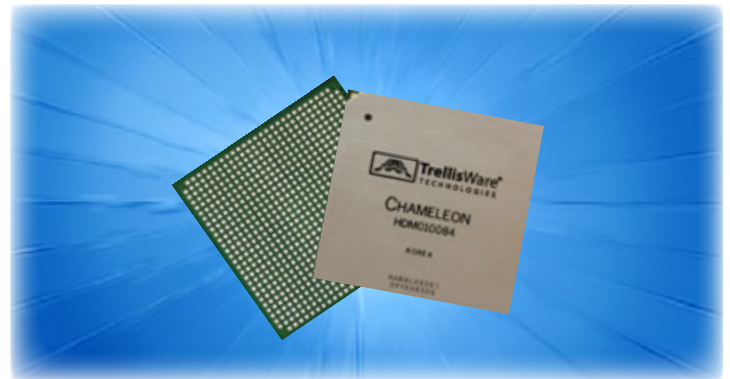
Flexibility, Speed – Chameleon

Chameleon is the industry's most powerful low-power Forward Error Correction (FEC) ASIC. Manufactured on Altera's HardCopy II platform, Chameleon implements TrellisWare's Flexible Low Density Parity Check (F-LDPC) technology, the world's most flexible FEC solution. Designed to meet the demands of modern communications and storage systems, TrellisWare's F-LDPC offers a wide range of code rates and block sizes, reconfiguration on the fly, and the ability to achieve Gbps throughputs – all without compromising performance at any operating point.

Chameleon supports up to 40 code rates, 8 standard block sizes and virtually any digital modulation type. Additional block sizes can be supported using an external PROM. Modulation, block size and code rate can be changed on the fly on a block by block basis, allowing Chameleon to support ARQ systems with variable throughput based on link quality such as microwave point-to-point links, storage systems, satellite modems and robust military communications.

Key Features

- Early stopping for reduced power or increased throughput
- Simple single-ended LVCMOS interfaces
- Fully pipelined parallel interface for block to block full programmability
- Standard SPI slave interface for programming constants to reduce board interconnects
- Programmable number of I/Q channels to allow trade-offs between throughput and board interconnect
- Handshaking signals to allow data flow control with both upstream and downstream resources
- Independent core and interface clocks for flexibility



Low-Powered Flexible FEC Solution

Availability

TrellisWare expects to sample Chameleon ASICs in Q1 2008 with customer shipments in Q2 2008.

About TrellisWare

TrellisWare Technologies, Inc. is a privately-held communications IP and products company headquartered in San Diego. Self funded since its incorporation in April 2000, TrellisWare has built a reputation as a leader in advanced communication algorithms, waveforms and turn-key communication systems that work when nothing else does. TrellisWare has developed a wide range of highly-advanced Forward Error Correction (FEC) algorithms and software defined radio (SDR) waveforms used in many military and commercial communication products. With deep expertise in radio physical layer design, networking, efficient high speed decoding, algorithm development and

RF integration, TrellisWare is also developing a unique family of communication products capable of operating in the harshest RF environments. For more information contact us at: info@trellisware.com

