

Fact Sheet - ECC



Efficient Channel Coding Inc. Overview

Efficient Channel Coding (ECC) was founded in 1996 with the goal of developing, manufacturing, and marketing advanced communication products and services, specializing in advanced broadband satellite and military communication systems. Through its innovations, ECC has developed a growing range of products that address the needs of networked communications. ECC also offers design and development services for some of the most advanced satellite, optical, and tactical communications systems.

One of the company's primary focuses is on developing satellite transmission technology that implements the new standard from the Digital Video Broadcast Project (www.dvb.org) called DVB-S2. Current satellite transmissions from a teleport or "hub" are formatted to comply with the DVB-S standard. The new S2 version can accommodate more coding techniques and forms of compression to use satellite transponder capacity with up to 30% more efficiency, reducing the cost of satellite networking.

Based in Cleveland, Ohio, ECC employs 55 people, of which 50 are engineers and over half hold advanced degrees. ECC was formed by two local Ohio engineers out of Case Western University and Cleveland State University, CEO Mark J. Vanderaar and CTO William H. Thesling III, PhD.

Products

SkyPHY

The company's DVB-S2 Application Specific Integrated Circuit (ASIC), called SkyPHY, is in development. Today ECC offers a DVB-S2 Evaluation Platform (EP) providing a hardware/software system for demonstrating the ECC Field Programmable Gate Array (FPGA) -based implementation of the final DVB-S2 SkyPHY ASIC. SkyPHY is fully DVB-S2 compatible and demonstrates the unprecedented power/bandwidth efficiency of the emerging DVB-S2 standard including key interactive services and Adaptive Coding and Modulation (ACM) features. ECC's industry leading experience in practical ACM, advanced Forward Error Correction (FEC), and modem design are combined to enable the DVB-S2 Evaluation Platform to demonstrate state-of-the-art DVB-S2 performance.

iPSTAR Terminal Design

In conjunction with its partners, ECC has developed the world's first operational adaptive coding and modulation ground system for internet access via satellite, called IPSTAR. ECC "on-the-fly" waveform switching makes this possible and does so without the loss of data or synchronization. The breakthrough technology has dramatically reduced the service costs for satellite systems. The company's IPSTAR products are offered by Shin Satellite PLC for adaptive, affordable broadband access via satellite in the Asia-Pacific region. Under a license agreement, ECC supplies its customized chips to authorized IPSTAR terminal contract manufacturers and receives royalties for the terminal design as well.

Location and Contact Information

Efficient Channel Coding
600 Safeguard Plaza, Suite 100
Brooklyn Heights, OH 44131
Tel 216.635.1610
Fax 216.635.1630
info@eccincorp.com