
India and Japan: Wireless communications
Encore Software licenses GSM-AMR multirate speech coder to Elecs Industry

Bangalore-based design house Encore Software Limited has licensed its GSM-AMR multirate speech coder, designed for use in 3G wireless applications, to Elecs Industry Co, Ltd in Japan. The Japanese company, an integrator that offers wireless solutions to large telecommunications OEMs, has licensed the 12.2 Kbps GSM-EFR (enhanced full-rate), a subset of Encore's GSM-AMR coder, according to T. Prasanthan, Encore group manager, DSP Technology. Encore is also likely to license the coder to an undisclosed European OEM.

GSM-AMR is an Adaptive Multi Rate (AMR) speech coder standard introduced by the 3rd Generation Partnership Project (3GPP), comprised of various standards organizations, for compressing speech and yet maintaining toll quality. The AMR speech codec can handle bit rates between 4.75 and 12.2 and uses the principle of Algebraic Code Excited Linear Prediction (ACELP) for all specified bit rates.

The Encore embedded speech codec has a built-in scratch memory management to avoid run-time overloading of system stack memory. This technique helps in reducing the memory requirements for the solution, according to Prasanthan. Encore has initially implemented this codec on the Texas Instruments' TMS320C54x DSP, and the technology is available for licensing in the form of source code or binary code. It can be ported to a variety of RTOS and DSP architectures. The codec can be implemented both in base stations (multichannel) and handsets (single channel). Encore is upgrading the codec from version 7.3.0 to 7.5.0 of the 3GPP standard.