

ETSI GSM Fullrate Speech Codec for Analog Devices Blackfin DSP



ETSI 06.10 GSM Fullrate Speech Codec

The **GSM Fullrate Speech Codec** from BAYER Digital Signal Processing Solutions is an ETSI compliant algorithm for Blackfin DSP devices which can be used in systems requiring multiple channels at moderate bitrates.

The GSM-FR speech codec is used in cellular telephony applications but is also suitable for multi-channel VoIP applications, for announcement systems or intercoms where low MIPS and memory requirement are crucial. The algorithm is a bit-exact implementation of the worldwide excepted standard for medium bitrate speech compression.

Performance:

- | Full compliance with ETSI ETS 300 961
- | Excellent for use in answering machines or voice mailboxes requiring only 13kbps
- | Lowest MIPS @ highest quality
- | Full support of multi-channel solutions
- | Average MOS of approx. 3.5

Specifications:

- | ~ 5.5MIPS / channel
(<3.5MIPS/encoder, < 2.1 MIPS/decoder)
- | < 3.3KWords prog/data memory
plus 682Words data per full duplex channel
- | Runs on all Blackfin devices
- | Separate Encoder and Decoder Libraries

Support:

- | Available under NDA as a compiled library for VisualDSP 3.x
- | C-Code is portable to other platform, also micro-controllers
- | Customization/Integration support available
- | Demo for BF533/BF535-Ezlite on request

Please contact us for implementation on other DSP platforms

Bayer DSP Solutions

was founded in 1995 and offers tools, hardware, software, algorithm and integration services around digital signal processing applications.

A major focus is on telecommunications applications. Bayer DSP Solutions has developed a number of proprietary algorithms for use in private branch exchanges (PBX) for most popular DSP platforms.

Our product range includes Internet radio, secure telephony, medical and industrial control systems, MP3 players and more.

Supported DSP families include Analog Devices ADSP218x, SHARC and Blackfin, TI's C54x, C55x, C3x, C6x, Motorola DSP56K and DSP568xx, ARM as well as DSPs from other vendors.

Bayer DSP Solutions is a registered and active Third Party of Analog Devices, Texas Instruments and other silicon vendors.



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