

ETSI GSM Halfrate Speech Codec for Analog Devices Blackfin DSP



ETSI 06.20 GSM Halfrate Speech Codec

The **GSM Halfrate 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 low 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 high data rates are inappropriate. The algorithm is a bit-exact implementation of the worldwide excepted standard for low bitrate speech compression.

Performance:

- | Full compliance with ETSI EN 300 969
- | Excellent for use in answering machines or voice mailboxes requiring only 5.6kbps
- | General full-duplex voice communication
- | Full support of multi-channel solutions
- | Separate Encoder and Decoder Libraries
- | Average MOS of 3.5 (language dependent)

Specifications:

- | < 30MIPS / channel
- | MIPS optimized version on request
- | < 22.8KWords prog/ 1.1KWords data memory, 1370Words/encoder, 778Words/decoder
- | Runs on all Blackfin devices

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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