



GAO Research Inc. G.726 Vocoder

GAO Research Inc.

#1 In Embedded Communications Software

<http://www.gaoresearch.com>

Features

- ▶ Operates at 40, 32, 24, and 16 Kbps.
- ▶ Includes both GAO G.721 and GAO G.723.
- ▶ Processing frame size and input/output formats are user selectable.

Product Description

GAO's G.726 vocoder converts a 64 Kbps A-law or μ -law PCM channel to or from a 40, 32, 24 or 16 Kbps channel. The conversion is applied to the PCM bit stream using an ADPCM transcoding technique. Thus, the scheme has switchable transmission rates providing 4 kHz of audio bandwidth in conformance with the ITU standard. It is used in numerous applications such as speech transmission over digital networks, video conferencing, multimedia, and ISDN communications.

ITU G.726 is a superset of the ITU G.721 and G.723 standards and was originally designed as a half-rate alternative to G.711 audio companding. G.726 can encode 13 or 14-bit PCM samples or 8-bit, A-law or μ -law encoded data into 2, 3, 4, or 5-bit code words. Since the algorithm encodes one sample at a time, the coding or decoding delay is effectively zero, providing for robust, quality audio.

Leadership in Embedded Communications Software

With nearly two decades of experience, GAO leads the embedded communications software market by providing comprehensive modem, fax, speech, and telephony technologies; broad technical expertise; and unsurpassed support to our world-class customers including electronics, communications, and semiconductor companies across the globe. GAO's software integrates easily with MP3, MPEG, TCP/IP, and most popular real-time operating systems.

Rigorous Testing

GAO's testing facilities are equipped with state-of-the-art test equipment. Our software is rigorously tested on TAS, Consultronics, Rochelle, Advent and Telegra equipment under various channel models according to the relevant ITU or TIA standards. All GAO's speech software has passed the test vectors specified by the ITU. Our telephony software meets all appropriate TIA, EIA, BellCore, and Mitel standards. GAO also adheres to stringent quality control procedures, which is reflected in our well structured code, detailed design documentation, and well-defined design and test plans. This ensures ease of integration into the customer's system, easy maintenance, and a smooth upgrade path for next-generation customer products.

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