



GAO Research Inc.

#1 In Embedded Communications Software

**GAO Research Inc.
G.711 Vocoder Software**

<http://www.gaoresearch.com>

Features

- ▶ Operates at 64 Kbps (standard), 56 Kbps, and 48 Kbps (non-standard).
- ▶ A-law and μ -law encoding and decoding.
- ▶ User selectable processing frame size.

Product Description

GAO's G.711 vocoder provides a compression /decompression (companding) algorithm to deliver precision transmissions of encoded speech signals sampled at the rate of 8 kHz in conformance with the ITU G.711 standard. GAO's G.711 implementation includes independent user-callable functions that perform all of the μ -law and A-law encoding and decoding operations. The most common application for GAO's G.711 vocoder is in telephone networks.

The G.711 standard uses pulse code modulation (PCM) to compress, decompress, encode, and decode analog speech, which can then be transmitted and received as binary data. Two forms of companding standards, the μ -law and the A-law, are specified. G.711 μ -law compresses frames of 14-bit linear PCM samples into frames of 8-bit logarithmic PCM code words. G.711 A-law compresses 13-bit linear PCM samples into 8-bit logarithmic PCM code words.

Leadership in Embedded Communications Software

With a decade 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 modem and fax 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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