



## Product Description

GAO's VAD & CNG software is used to reduce the transmission rate during silence periods of speech. Systems allowing discontinuous transmission are based on a Voice Activity Detection (VAD) algorithm and a Comfort Noise Generator (CNG) algorithm that allows the insertion of an artificial noise during silent intervals of speech. This feature is necessary to avoid noise modulation introduced when the transmission is switched off. If the background acoustic noise that was present during active periods abruptly disappears, this very unpleasant noise modulation may even reduce the intelligibility of the speech. The purpose of the VAD is to reliably detect the presence or absence of speech and to convey this information to the CNG algorithm. The purpose of the CNG algorithm is to create a noise that matches the actual background noise with a global transmission cost as low as possible.

## Key Features

- ✓ Implemented in assembly or C.
- ✓ User-callable functions.
- ✓ Works with all speech vocoders.

## Leadership in Embedded Communications Software

With over 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 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 Group**

*Celebrating Over 15 Years of Innovation*

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