

# GTH E1/T1 Switch, IVR & Voicemail Module

## Universal E1/T1 module

A Corelatus GTH module can be a part of fixed, GSM, CDMA and 3G UMTS mobile telephone networks. The module terminates E1/T1 links, provides a non-blocking timeslot switch, handles ISDN LAPD signalling, records voice and signalling, detects DTMF tones and plays back voice and tones.

GTH hardware is in its fourth design generation and has shipped in volume since 2001.

## Audio playback

Up to one hour of audio prompts can be uploaded to the module. Prompts can be played back on 120 timeslots simultaneously. Compound prompts can be created by combining individual prompts into sequences which are played back without intermediate pauses.

## Audio streaming and recording

Audio can be streamed to or from a TCP socket on 120 timeslots simultaneously. Streaming from E1/T1 to TCP is typically used to record messages or greetings in voicemail systems or to silently supervise calls in call-logging applications. Streaming from TCP to E1/T1 is used to replay previously recorded messages or to play text-to-speech.

## Signalling

GTH supports ISDN LAPD (ITU-T Q.921) signalling for call setup.

## Switching and conferencing

A GTH module is a non-blocking switch, i.e. all timeslots can be switched simultaneously.

The switch provides simplex and duplex switching, and 3-way and N-way conferences.

## Tone detection

Tone detection can be run on 120 timeslots simultaneously. Detectors can detect ITU-T Q.24 DTMF, ring tones, busy tones and user-defined tones.

## Easy to interface

The GTH module is controlled by an external application through an OS- and language-neutral text-over-TCP/IP/ethernet API. Sample code, examples in popular languages and an API guide are online at: <http://www.corelatus.com/gth/api/>



## Hardware features

8 E1/T1 interfaces per module.

E1/T1 interfaces have software selectable E1 (2 Mbit/s) or T1 (1.5 Mbit/s) mode and 75/100/120 ohm termination.

Dual 10/100 Mbit/s ethernet.

A 19" rack-mounted chassis can hold one, two or three GTH modules.

Power consumption typically 9W per module.

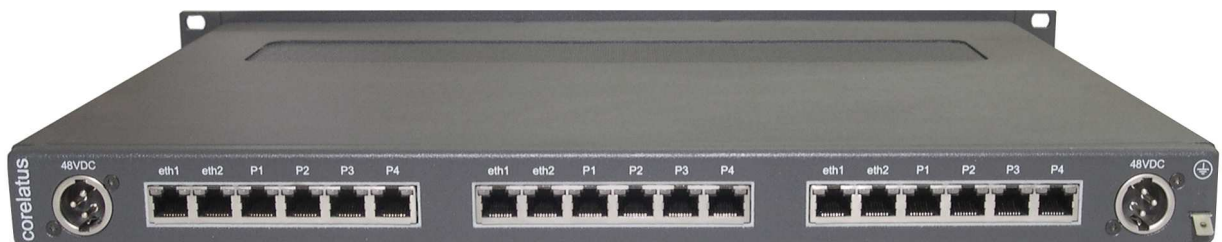
Dual, independent 48VDC power inputs.

No moving parts.

Passively cooled.

Measured MTBF: more than 130 module-years between failures, measured over all modules shipped since 2001.

Includes all the features described in the E1/T1 probe data sheet (10-0007).



Corelatus hardware is in service in public telephone networks in more than 30 countries around the world.