

Radio Access Network E1/T1 Monitoring Probe

Low cost, high density monitoring

The Corelatus Radio Access Network Probe is designed to provide low cost monitoring of 3G Iub and GSM Abis links.

Each probe provides 64 E1/T1 receivers in 1U of a 19" rack, to monitor *both* directions of 32 E1/T1 links.

In GSM networks, the probe connects to Abis links between a BTS and a BSC, decodes layer 1 and layer 2 (LAPD) of the protocol stack and forwards the monitored data to an external server over TCP/IP.

In 3G (UMTS) networks, the probe connects to Iub links between Node B and an RNC, decodes layer 1 and layer 2 (ATM AAL2 and AAL5) of the protocol stack and forwards the monitored data to an external server over TCP/IP.

Probes are typically permanently installed in the network. The monitored data can be used for network supervision and to extract information about the mobile and its position.

Corelatus probes are the fifth design generation of the proven Corelatus GTH hardware series which has shipped in volume since 2001.



Easy to interface

The probe is controlled by an external application through an OS- and language-neutral text-over-TCP/IP/ethernet API. An in-built HTTP server shows status information.

Free sample code, examples in popular languages and an API guide are online at: <http://www.corelatus.com/gth/api/>

ATM AAL5 and AAL2 decoding

A probe can decode ATM on 32 E1/T1 receivers concurrently. Each ATM link can have 20 simultaneous VPI/VCI channels, each decoding either AAL5 or AAL2.

Both full-span ATM and fractional ATM (ATM on a subset of timeslots) are supported.

Raw cell (AAL0) decoding can be used to discover AAL5 and AAL2 channels.

640/768 channels of LAPD decoding

A probe can decode *every* traffic-related LAPD (ITU-T Q.921) signalling channel on all 64 of the probe's E1/T1 interfaces simultaneously. Capacity is either 640 simultaneous 64kbit/s LAPD channels or 768 simultaneous 16kbit/s LAPD channels.

Decoding capacity can be distributed arbitrarily between 64kbit/s and 16kbit/s channels and freely assigned to any combination of the E1/T1 interfaces.

Hardware features

19" x 1U rack-mounted chassis, 482 x 144 x 42 mm.

E1/T1 receivers have software selectable E1 (2 Mbit/s) or T1 (1.5 Mbit/s) mode, 75/100/120 ohm termination and are compatible with standard -20dB (G.772) and also -30dB monitor points.

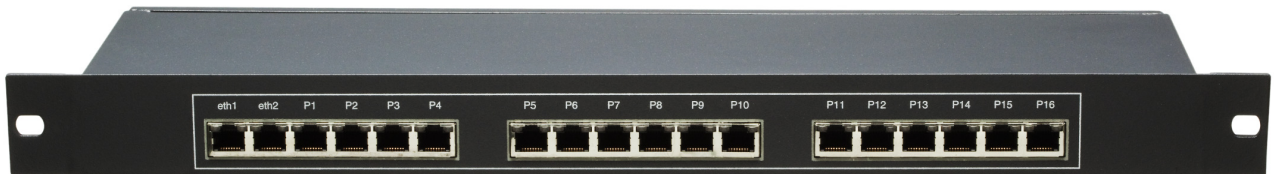
Dual 10/100 Mbit/s ethernet, both support Power over Ethernet (PoE).

Power consumption less than 10W per chassis.

Dual 48VDC power inputs *and* dual PoE.

No moving parts, passively cooled.

Measured MTBF: The GTH series of E1/T1 probes collectively has more than 130 module-years between failures, measured over all modules shipped since 2001.



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