

E1/T1 Monitor 3.0 Datasheet

Low cost, high density monitoring

The Corelatus E1/T1 Monitor 3.0 extracts signalling and voice from E1 and T1 G.703 PCM links in fixed, GSM and 3G UMTS mobile telephone networks. It connects to E1/T1 links, decodes layer 1 and layer 2 of the protocol stack and then forwards the monitored data to an external server over TCP/IP.

E1/T1 Monitor 2.1 is permanently installed in the PSTN SS7 network, on GSM Gb, Abis, A, C, D, E and F links and on 3G Iub, Iucs and Iups links. The monitored data can be used for real-time billing, fraud detection and network supervision. It can also be used to create new services, for instance SMS welcome.

Each E1/T1 Monitor 3.0 provides 64 E1/T1 receivers in 1U of a 19" rack, to monitor *both* directions of 32 E1/T1 links.

E1/T1 Monitor 3.0 is the fifth design generation of the proven Corelatus GTH hardware series which has shipped in volume since 2001.



Easy to interface

E1/T1 Monitor 3.0 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.

Sample code in popular languages and an API are online: <https://www.corelatus.com/gth/api/>

SS7 MTP-2 decoding

One E1/T1 Monitor 3.0 can decode 64 kbit/s MTP-2 on 240 channels concurrently. Annex A (High Speed Link) is also supported, with up to eight channels,

ATM AAL5 and AAL2 decoding

One E1/T1 Monitor 3.0 can decode ATM on 16 E1/T1 receivers concurrently. Each ATM link can have 20 simultaneous VPI/VCI channels, each decoding either AAL5 or AAL2.

1488 timeslots of frame relay decoding

One E1/T1 Monitor 3.0 can decode up to 96 channels of frame relay, with each channel consisting of up to 31 timeslots. In typical configurations, this allows one probe to decode all frame relay carried in *both* directions of 24 E1 lines.

400 channels of LAPD decoding

An E1/T1 Monitor 3.0 can decode 400 traffic-related LAPD (ITU-T Q.921) signalling channels on the probe's 64 E1/T1 interfaces simultaneously.

Decoding capacity can be distributed arbitrarily between 64 kbit/s, 32 kbit/s and 16 kbit/s channels.

Hardware features

19" x 1U chassis, WxDxH: 482 x 144 x 42 mm. 3kg.

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 hardware collectively has more than 130 module-years between failures, measured over all modules shipped since 2001.



Corelatus hardware is installed in networks in more than 40 countries around the world.