# Getting started - E1/T1 Messenger 3.0

corelatus

Connect ground

Grounding the equipment is important for safety. This equipment must not be operated unless it is grounded. When installing a unit, the connection to protective ground must be made before any other connections are made. When removing a unit, all signal and both power connectors must be removed before disconnecting the protective ground connection. The connector is a 6.3 x 0.8 mm blade connector.

The equipment is intended for use in a location where equipotential bonding has been applied, e.g. telecommunication centre, and which has provision for a permanently connected protective earthing conductor. The protective earthing conductor shall be connected to the protective earthing terminal on the equipment by service personnel.

Protective earth (= Ground)
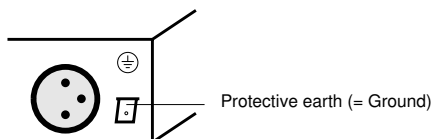
Connect power

The probe can be powered from nominal 48 VDC or from PoE or from both. The power consumption is typically 7 W.

The plug type is 3 pin female XLR. The connection is polarity independent.

Both Ethernet ports support Power over Ethernet as per IEEE 802.3 §33 "Powered Device" (PD), Class 0 (up to 12,95 W), for Environment A (inter building).

One, two, three or all four power inputs may be used simultaneously for redundancy. Switchover from one source to another is instantaneous. Power is drawn from the source with the highest voltage.

Connect Ethernet and G.703 RJ-45
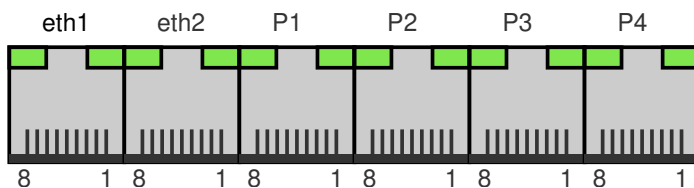
Pin	Ethernet eth1/eth2	G.703 P1–P8
1	TX	RX A
2	TX	RX A
3	RX	RX B
4	Termination	TX A
5	Termination	TX A
6	RX	RX B
7	Termination	TX B
8	Termination	TX B
Case	Ground	Ground

Ethernet supports Auto-MDIX and Power over Ethernet (PoE).

Shielded ethernet cables must be used. The G.703 cables can be unshielded.

Access the HTTP, SSH or API ports

Once the module has booted, approximately 40 seconds after supplying power, the module can be contacted over TCP/IP:

ping: The hardware answers ping requests.

chirp: The hardware broadcasts a 'chirp' packet every 120 seconds on UDP port 9. The chirps stop once HTTP, SSH or API contact is made.

HTTP: The webserver is at http://172.16.1.10:8888. The default user name is `gth` and the default password is `hemlig`.

SSH: `ssh cli@172.16.1.10` . The default password is `mFkeDft`.

API: The Corelatus hardware is normally controlled by a customer-supplied external application. The API reference manual and sample code is available at www.corelatus.com/gth/api/.
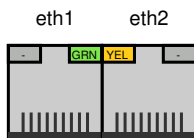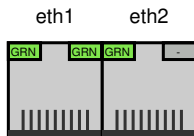
Ethernet LEDs

eth1   eth2
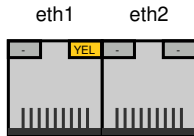
The module is booting, after power-on or reset. A cold boot takes approximately 40 seconds. This right-hand LED in eth1 can only be yellow during boot, never in any other situation.

eth1   eth2
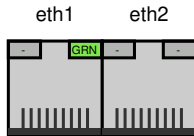
eth1 has ethernet link integrity. eth2 is disabled.
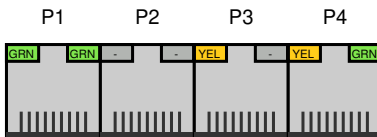
eth1   eth2

eth1 has link integrity. eth2 is enabled but has not found an ethernet link

eth1   eth2

eth1 has link integrity *and* power-over-ethernet. eth2 is disabled, but has power-over-ethernet.

E1/T1 LEDs

P1   P2   P3   P4

P1 has both the A and B interfaces in state OK (or RAI).

P2 has both the A and B interfaces disabled.

P3 has only the A interface enabled, but not OK (or RAI).

P4 has both interfaces enabled, but only the B interface is OK (or RAI).

GPL Notice

Some software in this product is distributed under the terms of the GNU public licence. www.corelatus.com/gpl contains information on how to order copies.

Declaration of Conformity

Corelatus AB, the manufacturer of the GTH-C3 product, declares under our sole responsibility that the GTH-C3 complies with:

EU Directives
  2011/65/EU restriction of hazardous substances (RoHS)
  2012/19/EU electrical and electronic equipment waste (WEEE)
  2014/30/EU electromagnetic compatibility (EMC)
  2014/35/EU electrical equipment safety (LVD)

Safety, Europe
  IEC/EN 62368-1:2018
  IEC CB Test Certificate for CENELEC countries

Safety, USA Recognized Component (CDR)
  ANSI/UL 62368-1:2019
  IEC CB Test Certificate

Safety, Canada
  CSA C22.2 No.62368-1
  IEC CB Test Certificate

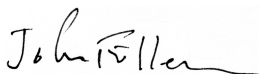EMC, Europe
  EN 300 386 V2.1.1:2016 Class B

EMC, USA, Canada
  FCC Part 15(2015) Class B equipment

Telecom Protection, USA
  ANSI/TIA 968B 2009
  TCB Certificate GTHDENANGTH-C3

Telecom Protection, Canada
  CS03, Issue 8
  Terminal Registration No. IC:5157-GTHC3

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