Telephone Line Current Booster Circuit Assemblies

GAI-TRONICS®

Features

- **Provides 30 mA Current Boost for Analog, 2-wire Bridged, Ringing Telephone Lines**
- **Single-line AC Model**
- **4 or 8-line AC or DC Models**
- **Multi-line Models Desktop or Rack-mount**

Model 12600-002
Single Channel TLC
Booster Circuit Assembly

Model 12600-40X
4 or 8-Channel TLC Booster
Circuit Assembly

Many of today's analog telephone devices are enhanced to provide a variety of features, most of which require higher line current levels, or are microprocessor controlled. Higher telephone line current means better performance and higher audio levels.

A typical analog PABX telephone line can normally range between 20 and 35 mA. Current drops resulting from telephone line quality and distance can cause a full feature telephone product to operate at lower than standard levels. For example, GAI-Tronics' RED ALERT® Emergency Telephones require a minimum operating loop current of 24 mA but their optimum operating levels will be obtained at 35 mA.

GAI-Tronics Telephone Line Current (TLC) Booster Circuit is designed to augment available line current to an analog, 2-wire bridged, ringing telephone line by an additional 30 mA. This means that a telephone line with 20 mA of normal available line current can be boosted to 50 mA with the addition of a TLC Booster Circuit. Although the TLC Booster Circuit is designed to be installed anywhere along the telephone line, preferable installation would be at a main or intermediate distribution frame/location.

PABX line interface requirements are as follows:

Minimum loop current: 8 mA dc (normal, no LCBC connected)
Maximum loop current: 40 mA dc (normal, no LCBC connected)
Ringer: Type B ringer

Note: Do not exceed 70 mA of loop current with the TLC Booster Circuit connected.

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Available Models

Model	Description
12600-002	Single-Channel TLC Booster Circuit Assembly, 120 V ac, 60 Hz
12600-401	4-Channel TLC Booster Circuit Assembly, 48 V dc
12600-402	8-Channel TLC Booster Circuit Assembly, 48 V dc
12600-403	4-Channel TLC Booster Circuit Assembly, 85-264 V ac, 50/60 Hz
12600-404	8-Channel TLC Booster Circuit Assembly, 85-264 V ac, 50/60 Hz

Specifications

Model 12600-002

Power supply ..... 48 V dc @ 250 mA (unregulated)
Input voltage to plug-in power supply ..... 120 V ac +10% @ 60 Hz
Input power to plug-in power supply ..... Off-hook: 6.0 W maximum; On-hook 4.0 W maximum
Dimensions ..... 4.50 × 3.00 × 2.00 inches (114.3 × 76.2 × 50.8mm)
Weight ..... 0.5 lbs.

Model 12600-401 and 12600-402

Input voltage ..... 48 V dc +20%
Dimensions (without mounting brackets) ..... 17.00 × 9.00 × 1.75 inches (431.8 × 228.6 × 44.4 mm)
With Brackets ..... 19.00 × 10.00 × 1.75 inches (482.6 × 254.0 × 44 mm)
Weight ..... 8.5 lbs. maximum

Model 12600-403 and 12600-404

Input voltage ..... 85–264 V ac @ 50/60 Hz
Dimensions (without mounting brackets) ..... 17.00 × 9.00 × 1.75 inches (431.8 × 228.6 × 44.4 mm)
With Brackets ..... 19.00 × 10.00 × 1.75 inches (482.6 × 254.0 × 44 mm)
Weight ..... 8.5 lbs. maximum

Environmental

Operating temperature ..... 40°C to +70°C
Supplemental line current ..... 30 mA dc +5 mA

PABX Interface Requirements

Minimum on-hook tip/ring voltage ..... 20 V dc (LCBC disconnected)
Minimum loop current ..... 8 mA dc (LCBC disconnected)
Maximum recommended loop current ..... 40 mA dc (LCBC disconnected)
Optional ringer requirements ..... Type B ringer

Notes:

The supplemental line current has a negative temperature coefficient promoting temperature stability for both the TLC Booster Circuit and the telephone instrument connected to it.

Transient protection: Meets the requirements of FCC Part 68 Type A & B transient protection

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USA Toll Free: 1 (800) 492-1212 Tel: (610) 777-1374 Fax: (610) 796-5954 www.gai-tronics.com
UK Tel: +44 (0)1283 500500 Fax: +44 (0)1283 500400 www.gai-tronics.co.uk
Italy Tel: +39 02 48601460 Fax: +39 02 93663110 www.gai-tronics.it
Malaysia Tel: +(65) 6284 1102 www.gai-tronics.com
Australia Tel: 011-61-28-851-5000 Fax: 011-61-29-899-2490 www.austdac.com.au

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