Challenging Communication Boundaries

619EI

audio bridge for radio communications

omnitronics

the 619EI
affordable interoperability

"Let the 619EI provide all your interconnections."

Providing full 4 wire bridging facilities on all ports the 619EI has a huge range of applications, such as HF/VHF/UHF radio networks, audio bearer systems, data, modem splitters/combiners, public address systems etc. Independent ports allow the bridge to be configured in any combination providing the system designer with greater flexibility.

All audio inputs and outputs are transformer coupled and have a wide adjustment range to cater for most landline and radio applications. The signalling leads are isolated using optocouplers (E mute lead) and relays (M PTT lead).

Audio routing and level adjustments for both inputs and outputs are made from the front panel DIP switches. Initial setup and maintenance plans are now far easier to implement. A protective cover provides easy access to these points and prevents inadvertent configuration changes.

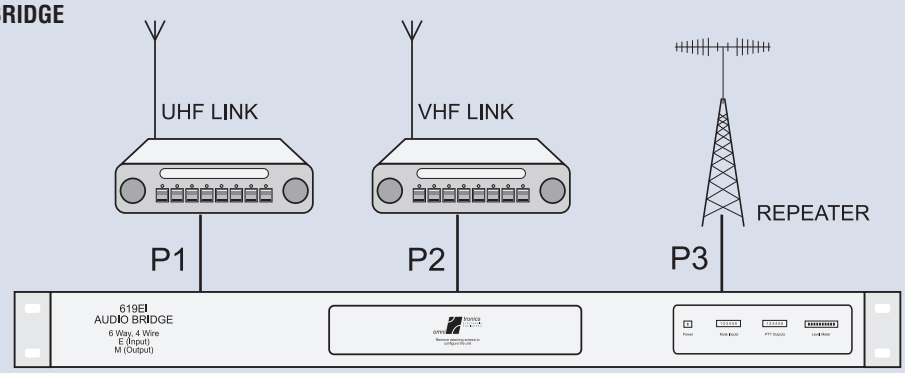
An LED level meter has been provided to allow simple setup of internal audio levels without the requirement for other test equipment. LED bars are calibrated in 3dB steps. This meter can also be used as a diagnostic tool to monitor the bridges' audio in conjunction with POWER, MUTE and PTT status LEDs.

The mute disable facility allows audio bearer circuits to be mixed, without the requirement of a mute control. This is very useful in circuits without a control signal or where control facilities are incompatible ie. tone/DC keying.

The bridge is powered from a single 12VDC source and has optional plug socket or two-part screw terminal connections. The 1RU 19" subrack housing provides a convenient and minimal profile solution for integrating into existing or new systems.

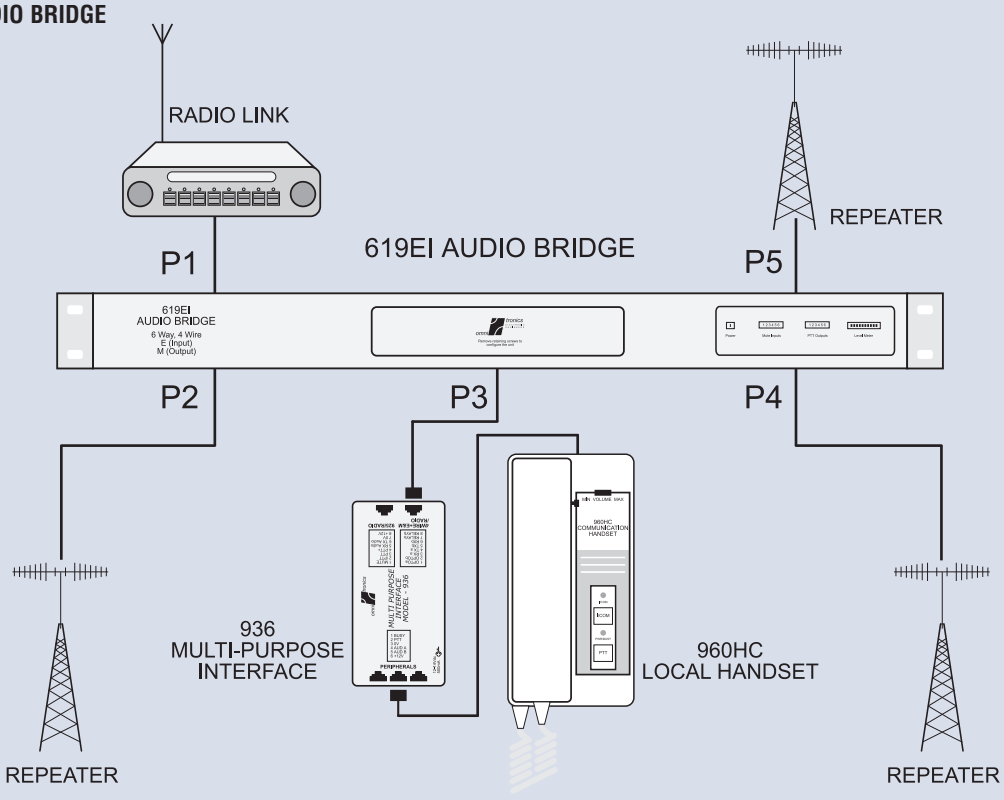
Applications

619EI AUDIO BRIDGE



Typical repeater site with interconnect between VHF/UHF links and a repeater installation. The bridge switch settings will control the level of interoperability.

619EI AUDIO BRIDGE



A more complex application with multiple repeaters, a radio link and local handset. The bridge DIP switches are used to control the interconnection of the various radios.

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Specifications

→ POWER REQUIREMENTS
Supply voltage: 11.5 to 16 Vdc.
Supply current: 300mA max.
Power supply rejection ratio: >80dB.

→ E INPUTS (MUTE)
Octo coupled bi-directional: 5 to 30 Vdc.

→ M OUTPUTS (PTT)
Voltage free contact: 30 Vdc 1A max. (resistive).

→ AUDIO INPUT
Impedance: 600 Ω balanced.
Input level range: -25 to +5dBm.
Channel crosstalk: Better than -63dB.
Common mode reject. ratio: better than 60dB.

→ REMOTE CONTROL PORT
37 way D connector (refer to handbook specifications).

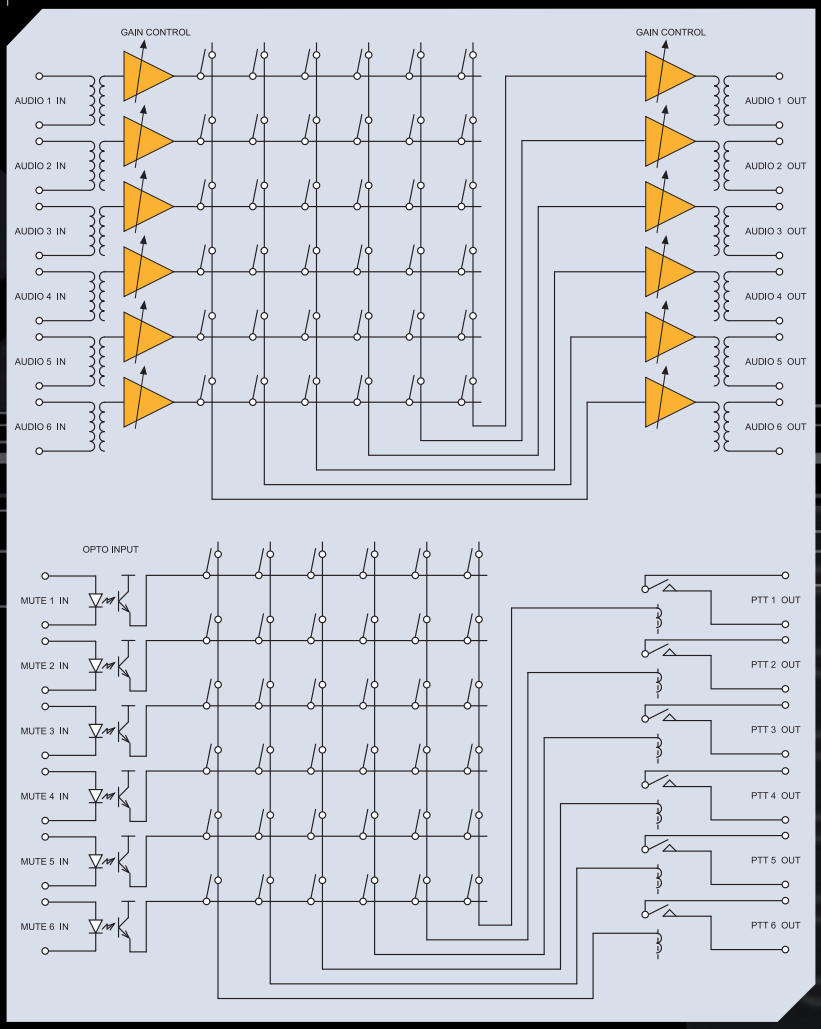
→ AUDIO OUTPUT
Impedance: 600 Ω.
Output level range: -25 to 0dBm into 600 Ω.
Frequency response: 300 - 3kHz (+/- 1dB ref 1Khz).

→ DIAGNOSTIC LEDS
1 x level meter.
1 x power LED.
6 x mute inputs.
6 x PTT outputs.

→ PHYSICAL
Dimensions: (H x W x D) 44mm x 19" x 255mm (1RU).
Weight: 5kg.

→ ENVIRONMENTAL
Operating temperature: 0 to 60°C.
Relative humidity: 0 to 95% non condensing.

Block diagram of 619EI



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