

Linker Gsm Audio Interface



Operative Manual

AXEL TECHNOLOGY srl

Via Caduti Di Sabbiano 6/F · 40011 Anzola Emilia · Bologna · Italy

Phone: +39 051 736555 · + 39 051 736154 · Fax: +39 051 736170

e-mail: info@axeltechnology.com · web site: www.axeltechnology.com

DESCRIPTION

There are some situations where the radio reporter needs to transmit urgently his own service on live but not fix phone lines nor satellite links are available.

In order to avoid to such a situation, Axel Technology has manufactured the Linker (GSM Audio Interface), the new equipment enables linking to the studio by GSM telephone net with a high audio quality.

By Linker equipment is possible to send your own radio service speedily and from each side in the world where it's available a GSM telephone net.

This little equipment, needful in any equipped vehicle for external audio and video shot, allows also to use the GSM telephone net as a normal fix telephone line by a common BCA telephone receiver and able to convert the full duplex GSM telephone signal into a common 4 wire conference circuit to be connected to the audio console.

One of the Linker greatest qualities is that it enables to speak by using a professional microphone and to listen the return directly from a loudspeaker without any noise or larsen effects thanks to an integrated circuit DSP control (Digital Signal Processor), and this one enables to make interviews without providing any earphone to the interviewee.

Linker has got a GSM dual band module inside, which functions are controlled by the keyboard and by the LCD display situated on the front panel while on the back panel is situated the antenna connector (FME male).

Linker is inserted into a screened metal box (1 RU high and 1/3 RU 19" wided).

On the back is situated a connector to use the GSM module internal modem that will be activated on the future versions.

Linker can interface with each kind of microphones, earphones and headphones.

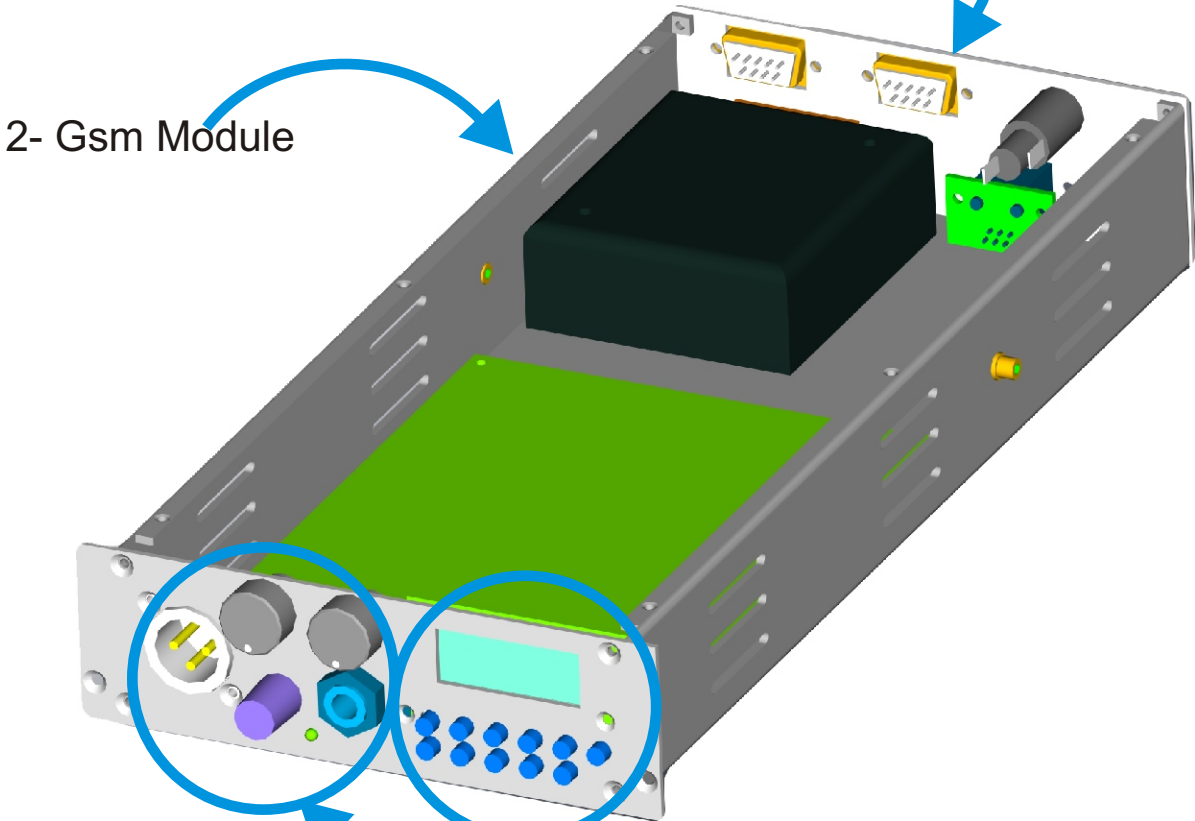
Features:

- GSM Dual Band module integrated
- Power Supply: 12 volts
- 1A Back Protection Fusible
- Larsen effect absence, echo and diaphone thanks to DSP integrated.
- Front input: Microphone on the XLR female connector at 3 poly
- Microphone input impedance: 10 Ohms
- Frequency range: 250 3500 Hz (limited by mobile phone filter)
- Microphone Level regulation by click commutator at 10 dB step from 0 to 50 dB plus fine regulation by potentiometer
- Peak and modulation level indicator by 2 led
- Front output: jack for stereophonic headphone.
- Headphone output Impedance: 8 ohms
- Headphone output level setting
- Front keyboard to select operations of inside GSM DB telephone module.
- LINE INPUT/OUTPUT at zero Db by female D connector at 9 pin.
- Female D connector at 9 pin not operative, for the future connection among internal modem and computer

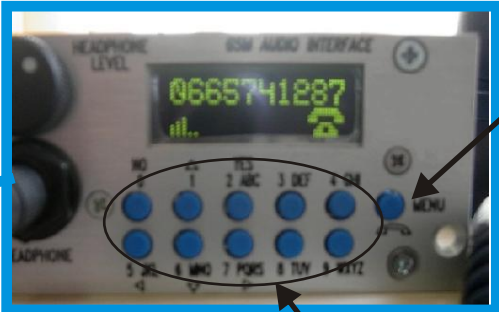
Analytic Diagram



1- Back panel



2- Gsm Module



3- Keyboard



4- I/O Audio

Linker Gsm Audio Interface Introduction

1) Linker interface contemplate a Sim card use arranged for Pin Code request (Personal Identification Number) at each equipment activation.

2) Sim card insert has to be made before any other operation.

For this operation is needed to:

a) Remove the 6 fixing screws of top panel.

b) Remove the top panel

c) Remove the little mobile panel situated under the GSM module (as in the analytic picture as below).

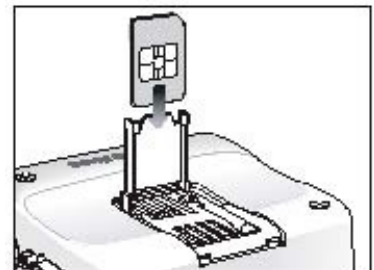
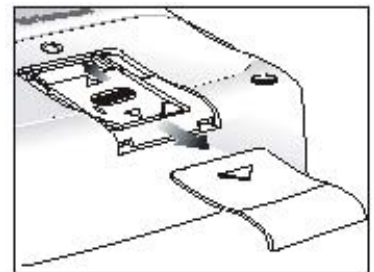
d) To raise the box blocking it and insert again the little mobile panel.

e) To screw the top panel with its 6 screws.

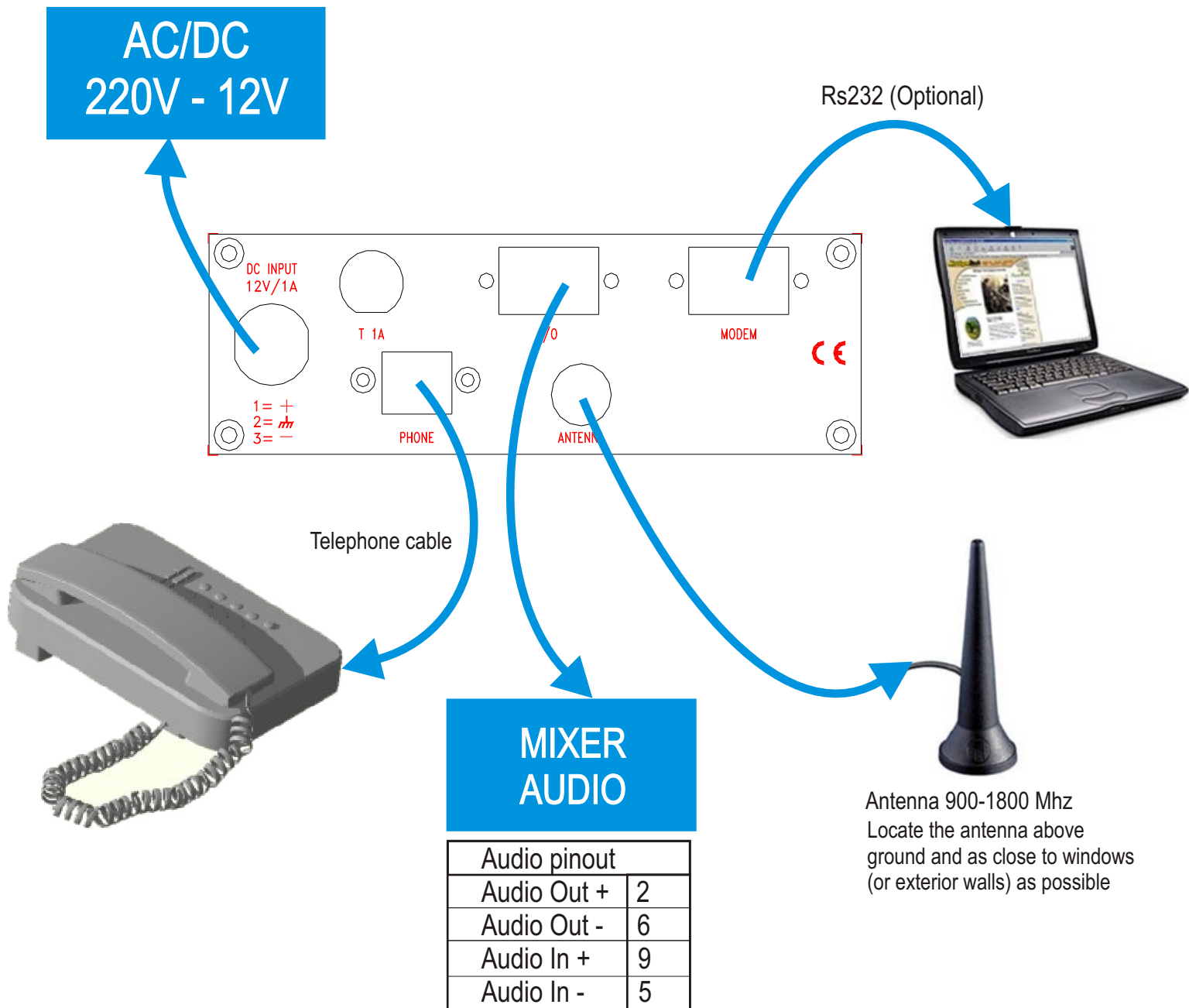
SIM CARD READER

Linker is provided with an inside SIM CARD reader .

It's a flip-up model stuck into an horizontal position and accessible by a little mobile panel as shown in the picture.



Linker Gsm Audio Interface Connections



How to make a call

To make a call it's possible using either the keyboard on the front panel or the telephone linked to a phone connector.

Before calling please verify that the Linker is connected to a mobile net checking that the front display shows the inserted sim operator name.

With the front keyboard, dial the number and the pick up the receiver

Pressing the proper key (please look at analytic picture above about the key n. 1 of the keyboard).

It's so possible to talk by earphone and microphone, both of them linked by the front.

At the end of conversation is possible hang up the phone by pushing again the receiver key.

How to answer a phone call

When Linker is receiving an external call it sends a ring to the phone linked to the connector PHONE, and then send out as a beeper sound inside, so showing the calling number on the front display.

It's possible to answer from the front panel by pressing the receiver key (look at key n.1 on the analytic picture) and in this case the conversation takes place by the headphone and the microphone linked in front. At the end of conversation, push the key receiver again to hang up. Or it's possible to answer by the phone linked to a Phone connector and in this case the conversation takes place by phone receiver. At the end of conversation please hang up the receiver.

Microphone and headphone level setting

To set microphone and headphone level please turn on the Headphone level handle, in order to get the best audio level.

To set the microphone level please turn the Mic level on the central position and then select the GAIN level up to get the normal voice level and the led Peak is on.

When the led is on, please turn the Mic level handle to get the best setting.

The Mod Led indicates that it's possible to listen a good audio modulation.

GSM antenna level

The front display indicates the receiver signal level by its little marks.

Please place the antenna outside in order to get the best level.

GSM Operator signal

When it's possible to reach the connection among the GSM net and its SIM