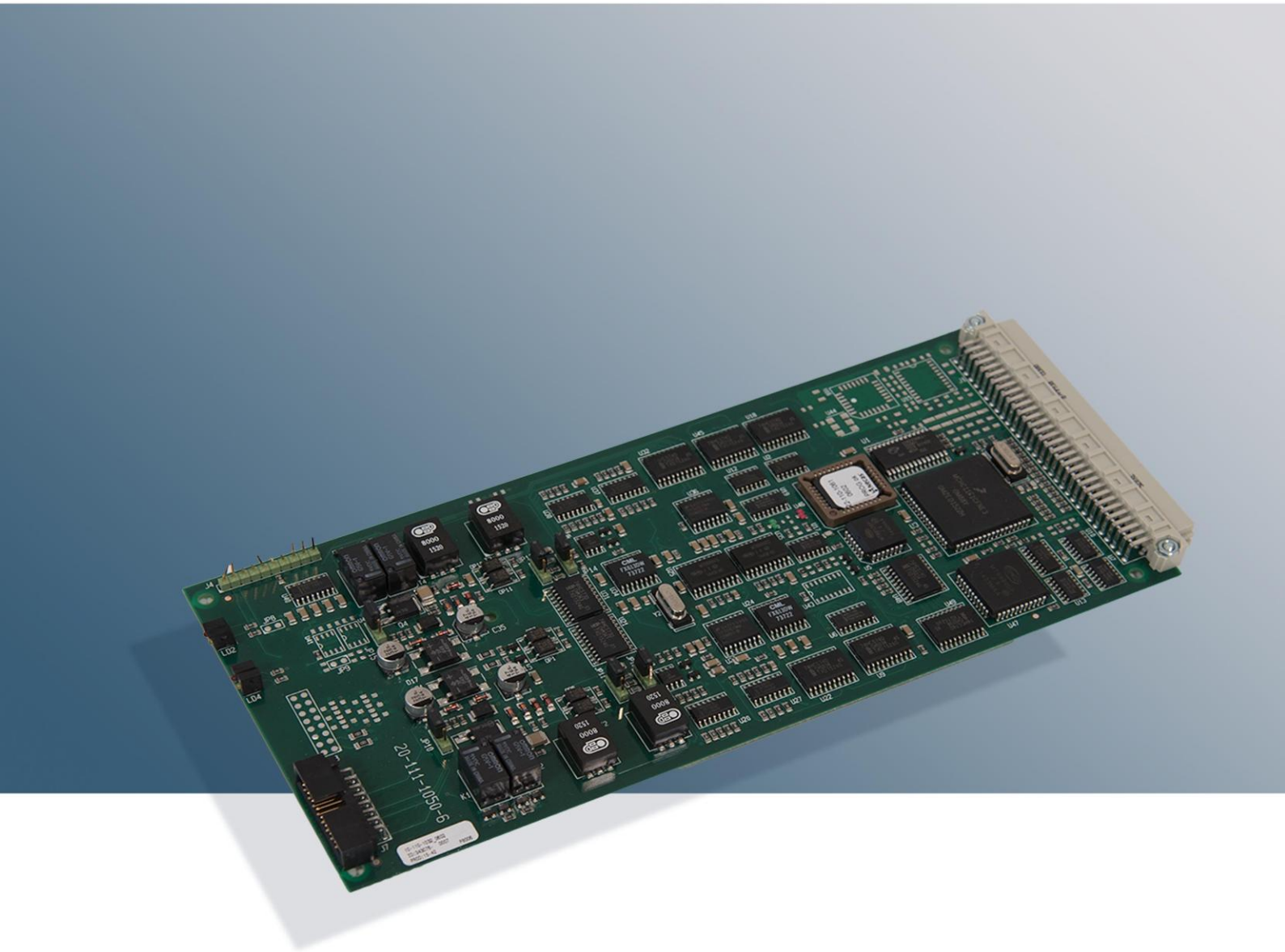
FIO2

Flexible I/O Card



2 line trunk line card with audio in/out options.

SEACOM

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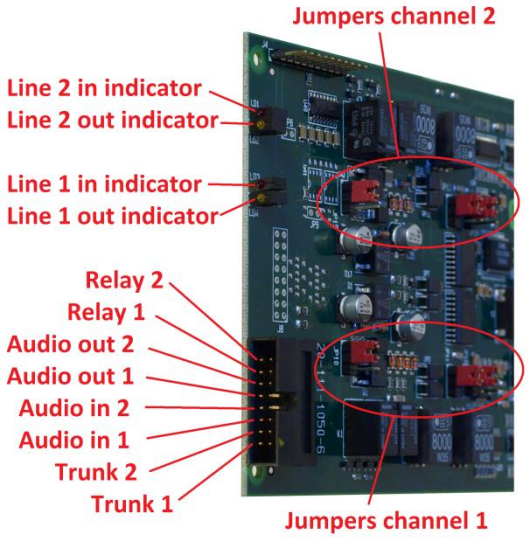
Description and use

The FIO2 board (Flexible I/O) is the trunk line card of a SeaCom exchange system. It holds two channels, which can either be configured as 2 wire analogue trunk, or as general purpose audio in/out channels.

The board is to be used in SeaCom 1000, 2100 and 19'', and can be used in SeaCom 3000 when master board is jumped correctly.



Technical data

- 2 channels
- Trunk and audio in/out galvanic isolated (1.0kV)
- 600 ohm trunk line
- 600 ohm audio in/out
- Line voltage and polarity detector
- Line loop current and polarity detector
- Ringing signal detector
- DTMF receiver
- DTMF transmitter
- Call Progress Tone Detector
- +6dB to -9dB gain adjustment receive and transmit
- Relay 24V DC 1A

Front connector

Trunk lines and audio are connected via the 16 pin front connector. All connections are in pairs of two pins placed horizontal to each other. The below table shows the connector layout, where the lowest pin is number 1 and topmost number 8.

Number	Use
8	Relay contacts 2
7	Relay contacts 1
6	Audio out 2
5	Audio out 1
4	Audio in 2
3	Audio in 1
2	Trunk line 2
1	Trunk line 1

Line activity indicators

The FIO2 board has 4 line activity indicators, two for each channel

Indicator	Use
Outgoing call indicator	Yellow - off: line is idle - flash 1 Hz: wait for B answer - flash 4 Hz: dialing - on: conversation out
Incoming call indicator	Red - off: line is idle - flash 1 Hz: wait for B answer - flash 4 Hz: dialing - on: conversation in

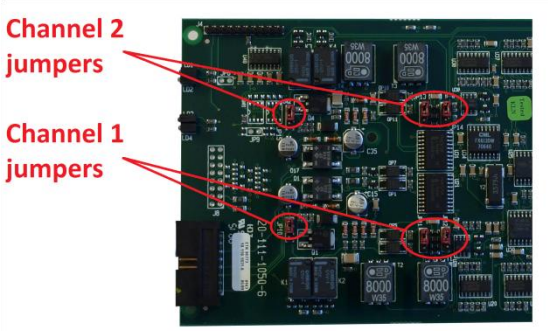
When both the red indicator and the yellow indicator of one of the lines flash simultaneously, the line is blocked due to missing detection of line feed.

Selecting trunk or audio I/O

Each channel has 3 jumpers, which are used to select the hardware function of a line to either the 2 wire analogue trunk function or the audio in/out function.

When choosing a hardware configuration using the jumpers, it is important to choose the right equipment type for that channel in the system configuration programming. Refer to the full system manual for details about how to do this.

The use of the jumpers are explained below:



Analogue trunk line:
Set all 3 jumpers of the channel in position 1+2 (upwards as shown on picture). This is the default setting.

Analogue in/out:
Set all 3 jumpers of channel in position 2+3 (downwards).

Trunk line circuits

The 2 wire analogue trunk line is used for interfacing to most types of satellite equipment, which has a 2 wire PSTN output.

The features of the trunk line circuits are:

- Galvanic isolation 1kV
- 600 ohm line impedance
- AC ringing detection when ringing > 45V AC 50Hz
- Line feed detection when line voltage > 24V DC
- Polarity reversal detection

Audio I/O circuits

The audio I/O is a general purpose interface which is used to interface PA amplifiers and input music from CD players or input voice from a VHF radio.

The features are:

- Galvanic isolation 1kV
- 600 ohm transformer coupled in and out
- Relay 24V DC 1A

Order information

10-110-1032

Layout