

## **AUX-MADI-SFP-DUAL**

64x64@96k Dual-Link MADI  
Extension Card for FLX devices

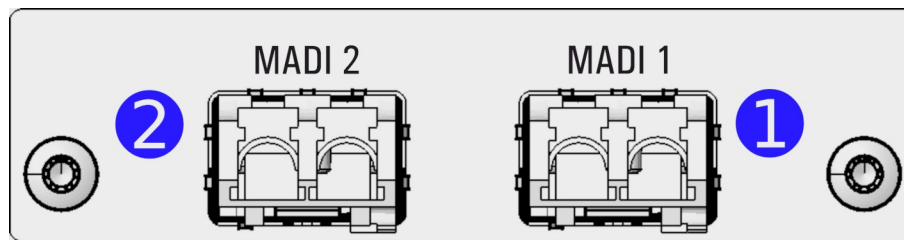
User's Manual

**((en))**

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## 1. CONNECTORS



- ① MADI input/output Link 1 (channels 1-64@48k / 1-32@96k / 1-16@192k)
- ② MADI input/output Link 2 (channels 33-64@96k / 17-32@192k)

## 2. DESCRIPTION

The AUX-MADI-COAX card provides 64x64 channels at 96k, or 32x32ch at 192k of MADI coaxial via MADI dual link<sup>1</sup>. It can be fitted into the **FLX-DANTE/SRC<sup>2</sup>** device to make a 64x64 channel 48k Dante < > 96k MADI converter.

The unit comes with 2x Multimode SFPs (100BASE-FX, 1310nm) pre-installed, but can be swapped with Singlemode SFPs or any other SFPs except for copper - they don't work for MADI. There is no vendor lock on the SFPs (Appsys Policy).

For a detailed description of possible configurations, please refer to the manual of your base FLX device.

### 2.1. Box Contents

- 1 AUX-MADI-SFP-DUAL card
- 1 Slot cover plate
- This manual

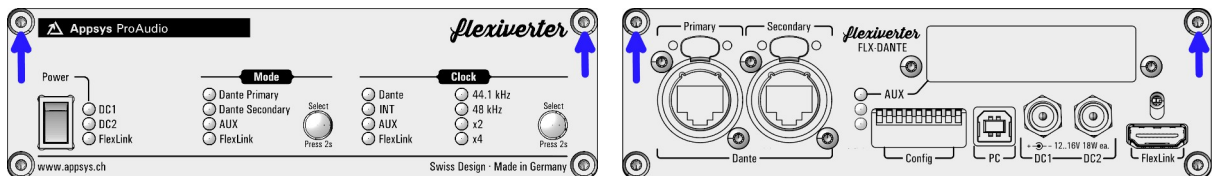
1 128ch @ 48k is supported by the card, but not yet by any of the FLX host devices. This functionality may be added later via firmware updates.

2 In any other FLX device, the card will act as AUX-MADI-SFP card, Link 2 is inactive.

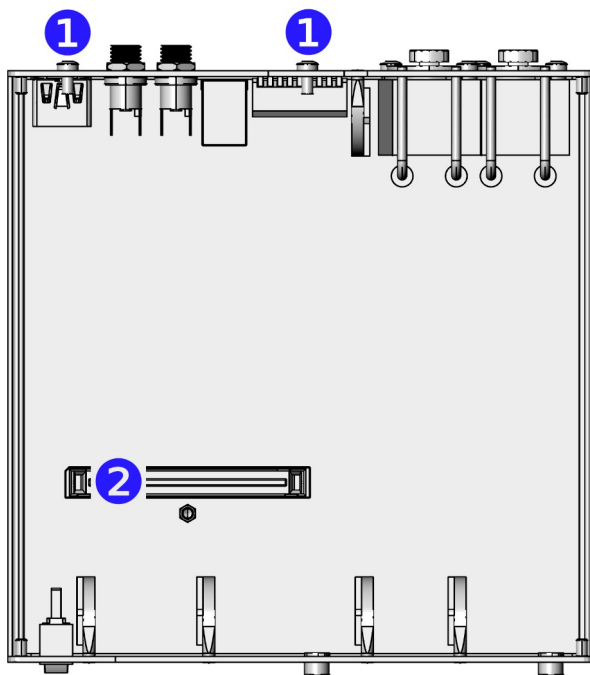
### 3. INSTALLATION

#### 3.1. Opening the flexiverter

- Required: Torx T10 screwdriver
- Power off the device and detach all cables to avoid short-circuit or damage
- Detach the device from the rack-mount kit
- Remove the four top screws and the top cover by pulling it upwards:



#### 3.2. Flexiverter Inside View



- ① Screws for AUX cover plate
- ② AUX card connector

#### 3.3. Installing the card

- Remove the screws holding the cover plate, and the blank cover plate ①
- Insert the AUX card from inside, using the supplied cover plate. Make sure it is correctly fitted to the card connector ②
- Secure the card using two cover screws ①
- The card has been installed correctly if you are able to select an audio routing mode involving AUX (long-press MODE button to enter Route Mode Selection).

## 4. DIP SETTINGS

The behavior of the card can be controlled by DIP switches 4..6 on the FLX device. Changing the DIP settings will come immediately into effect.

AUX-MADI-SFP AUX-MADI-SFP-DUAL	<input type="checkbox"/> 4	96k frame* <sup>3</sup>	<input type="checkbox"/> 5	<input type="checkbox"/> 6	64ch output* <sup>3</sup>
	<input type="checkbox"/> 4	48k frame <sup>3</sup>	<input type="checkbox"/> 5	<input type="checkbox"/> 6	57ch (use for DiGiCo stagebox control) <sup>3</sup>
			<input type="checkbox"/> 5	<input type="checkbox"/> 6	56ch output <sup>3</sup>
			<input type="checkbox"/> 5	<input type="checkbox"/> 6	reserved

\* Default setting

## 5. SELF-TEST

The card can be tested for correct operation by the user. This is done using the self-test mode, in which a special random test pattern is output on all channels. This pattern is looped back via an external cable into the corresponding inputs, where it is checked for consistency.

- Connect "MADI Out" to the corresponding "MADI In" using the appropriate fiber loopback cable, or an fiber loopback plug
- Turn off the FLX, and hold down  button while switching on again
- Press  again until the "CLOCK" LEDs show "INT/48kHz" in ● cyan color. The device is now in self-test mode.
- The "AUX" LED in the MODE sections shows the result of the self-test:
  - red: error/no connection
  - green (loopback data received ok)
- Press  again or power off the device to exit self-test mode.

<sup>3</sup> Applies to outputs only. Input format is always auto-detected, regardless of the switch setting

## 6. SPECIFICATIONS

Parameter	Value
Dimensions	118x80mm (WxH)
Weight	83g
Operating temperature	0.. +55 °C, non-condensing
Storage temperature	-40.. +85 °C, non-condensing
Cable lengths	2km with pre-installed Multimode SFPs (100BASE-FX)
Channel count	64x64 @ 48kHz (56/57ch modes can be configured) NOTE: Dual-Link 128x128 @ 48kHz is not yet supported by any FLX firmware.  64x64 @ 96kHz (28ch mode can be configured) 16x16 @ 192kHz (14ch mode can be configured)
Sample rates	44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz
Latency	Interface < > Flexiverter internal: 2 samples

## 7. APPENDIX

### 7.1. Available AUX cards

At the time of writing (2025-02), the following AUX cards are available. More will come, please check [www.appsys.ch](http://www.appsys.ch) for updates.

Item	Description
AUX-ADAT	16x16ch ADAT I/O (2x Toslink In + 2x out). Supports also S/PDIF
AUX-AES3	8x8ch AES3 I/O on 1x DB25, fully transformer isolated
AUX-DANTE	64x64ch DANTE network card
AUX-MADI-COAX	64x64ch MADI for coaxial cable (BNC connectors)
AUX-MADI-COAX-DUAL	64x64ch@96k dual-Link MADI coaxial
AUX-MADI-OPTO	64x64ch MADI optical, SC connector (Multimode 125um 1310 nm)
AUX-MADI-SFP	64x64ch MADI for SFP (Small-Factor Pluggable) modules
AUX-MADI-SFP-DUAL	64x64ch@96k dual-Link MADI SFP
AUX-MADI-TP	64x64ch MADI-TP (Cat5) for DiGiCo, Soundcraft, Studer
AUX-MADI-SFP-DUAL	64x64ch@96k dual-Link MADI TP

## 7.2. Available FLX devices

At the time of writing (2025-02), the following FLX devices are available. More will come, please check [www.appsys.ch](http://www.appsys.ch) for updates.

Item	Description
FLX-AES3	16x16 channel AES3 flexiverter (with AUX slot)
FLX-AES3/SRC	16x16 channel AES3 flexiverter (with AUX slot) with 8 built-in, independent stereo SRCs on the AES3 inputs
FLX-AES50	96x96 channel AES50 flexiverter (with AUX slot)
FLX-DANTE	64x64 channel DANTE flexiverter (with AUX slot)
FLX-DANTE/SRC	64x64 channel DANTE flexiverter (with AUX slot) and built-in bi-directional 64x64ch Sample Rate Converter

## 7.3. Warranty

We offer a full two (2) year warranty from the date of purchase. Within this period, we repair or exchange your device free of charge in case of any defect\*. If you experience any problems, please contact us first. We try hard to solve your problem as soon as possible, even after the warranty period.

\* Not covered by the warranty are any damages resulting out of improper use, willful damage, normal wear-out (especially of the connectors) or connection with incompatible devices.

## 7.4. Manufacturer contact

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 Switzerland

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 Mobile: +41 76 747 07 42

## 7.5. Recycling



According to EU directive 2002/96/EU, electronic devices with a crossed-out dustbin may not be disposed into normal domestic waste. Please return the products back for environment-friendly recycling, we'll refund you the shipping fees.

## 7.6. Document Revision History

1: Initial release

## **7.7. About this document**

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Document Revision: 1 · 2025-02-25

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