

## **AUX-MADI-COAX**

64x64 channel MADI Extension Card for  
FLX devices

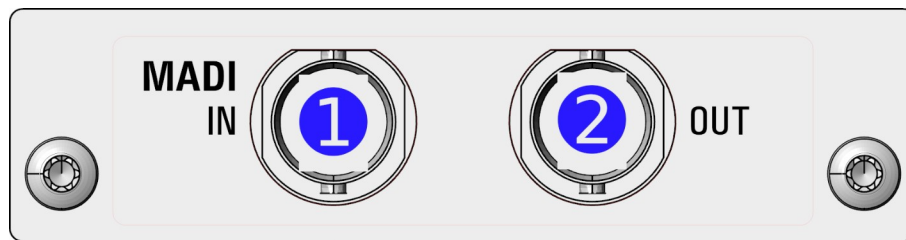
User's Manual

**((en))**

## Table of Contents

1.	CONNECTORS.....	3
2.	DESCRIPTION.....	3
	2.1. Box Contents.....	3
3.	INSTALLATION.....	4
	3.1. Opening the flexiverter.....	4
	3.2. Flexiverter Inside View.....	4
	3.3. Installing the card.....	4
4.	DIP SETTINGS.....	5
5.	SELF-TEST.....	5
6.	SPECIFICATIONS.....	6
7.	APPENDIX.....	6
	7.1. Available AUX cards.....	6
	7.2. Available FLX devices.....	7
	7.3. Warranty.....	7
	7.4. Manufacturer contact.....	7
	7.5. Recycling.....	7
	7.6. Document Revision History.....	7
	7.7. About this document.....	8

## 1. CONNECTORS



- ① MADI coaxial input. Use only 75Ω impedance coaxial cable.
- ② MADI coaxial output. Use only 75Ω impedance coaxial cable.

## 2. DESCRIPTION

The AUX-MADI-COAX card provides 64x64 channels of MADI coaxial. It can be fitted into every **flexiverter (FLX)** device for the following purposes:

- to use the **FLX as standalone converter** between the built-in interface and this extension card
- to **add extra output splits** to existing FLX devices by "tapping" channels of another conversion
- to **add additional channels/protocols to the FLX** when it is used in double-flexiverter or flexiverter + multiverter configurations

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

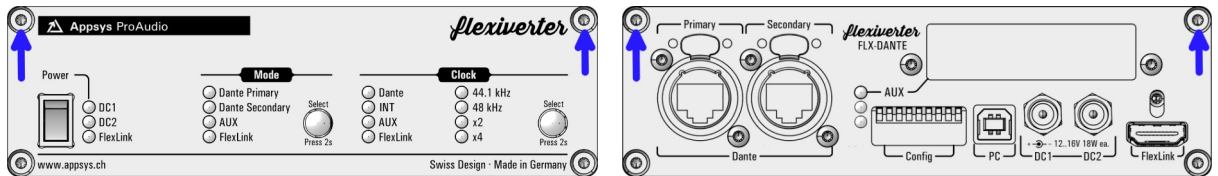
### 2.1. Box Contents

- 1 AUX-MADI-COAX card
- 1 Slot cover plate
- This manual

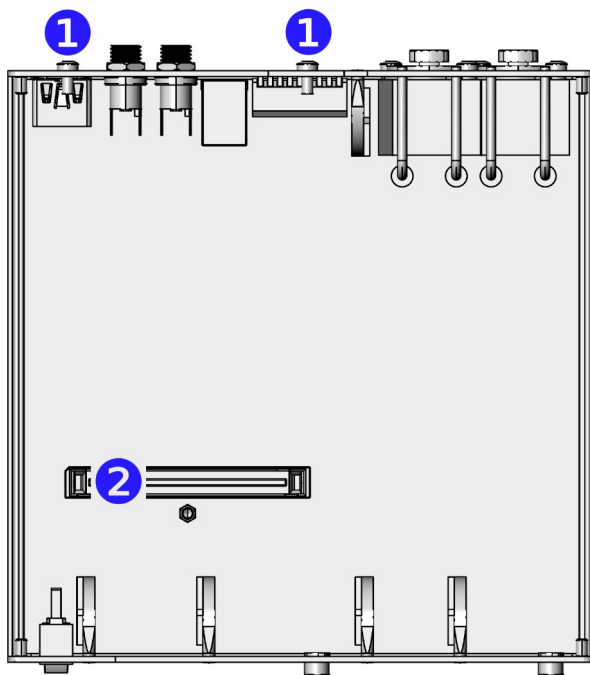
### 3. INSTALLATION

#### 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-COAX	 96k frame* <sup>1</sup>	  64ch output* <sup>1</sup>
	 48k frame <sup>1</sup>	  57ch (use for DiGiCo stagebox control) <sup>1</sup>
		  56ch output <sup>1</sup>
		  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 "MADI In" using a standard 75Ω impedance coaxial cable.
- Turn off the FLX, and hold down  button while switching on again
- Press  again until the "CLOCK" LEDs show "INT/48kHz" in  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>1</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	Max. 70m. Use only 75Ω impedance coaxial cable
Channel count	64x64 @ 48kHz (56/57ch modes can be configured) 32x32 @ 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 (2021-11), 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-AES67	64x64ch AES67 network card
AUX-AVB <sup>2</sup>	16x16ch / 32x0ch / 0x32ch MILAN-approved AVB
AUX-DAC <sup>2</sup>	8ch analog outputs (1xDB25)
AUX-DANTE	64x64ch DANTE network card
AUX-MADI-COAX	64x64ch MADI for coaxial cable (BNC connectors)
AUX-MADI-OPTO	64x64ch MADI optical, SC connector (Multimode 125um 1310 nm)
AUX-MADI-SFP	64x64ch MADI for SFP (Small-Factor Pluggable) modules
AUX-WORDCLOCK	BNC wordclock I/O

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<sup>2</sup> Estimated availability: Q1/2022

## 7.2. Available FLX devices

At the time of writing (2021-11), 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-AES50	96x96 channel AES50 flexiverter (with AUX slot)
FLX-AES67	64x64 channel AES67 flexiverter (with AUX slot)
FLX-DANTE	64x64 channel DANTE flexiverter (with AUX slot)
FLX-MADI	128x128 channel MADI SFP & MADI coaxial module (with AUX slot)

## 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

Appsys ProAudio  
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 Bullingerstr. 63 / BK241  
 CH-8004 Zürich  
 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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