

# **OPERATION MANUAL**

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## **UFM-30DDA**

Digital Distribution Amplifier

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## **UFM-3DDAEX**

Expansion Card

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2<sup>nd</sup> Edition - Rev.2


Software Version 1.02 - Higher

# Precautions



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## Important Safety Warnings


### [Power]

 Stop	<p><b>Do not</b> place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.</p>
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### [Circuitry Access]

 Stop	<p><b>Do not</b> touch any parts / circuitry with a high heat factor. Capacitors can retain enough electric charge to cause mild to serious shock, even after power is disconnected. Capacitors associated with the power supply are especially hazardous. Avoid contact with any capacitors.</p>
 Hazard	<p>Unit <b>should not</b> be operated or stored with cover, panels, and / or casing removed. Operating unit with circuitry exposed could result in electric shock / fire hazards or unit malfunction.</p>

### [Potential Hazards]

 Caution	<p>If abnormal smells or noises are noticed coming from the unit, turn power off immediately and disconnect power cord to avoid potentially hazardous conditions. If problems similar to above occur, contact authorized service representative <b>before</b> attempting to again operate unit.</p>
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### [Consumables]

 Caution	<p>The consumables used in unit must be replaced periodically. For further details on which parts are consumables and when they should be replaced, refer to the specifications at the end of the Operation Manual. Since the service life of the consumables varies greatly depending on the environment in which they are used, they should be replaced at an early date. For details on replacing the consumables, contact your dealer.</p>
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# Upon Receipt

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## Unpacking

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The UFM-30DDA modules and their accessories are fully inspected and adjusted prior to shipment. Operation can be performed immediately upon completing all required connections and operational settings.

Check your received items against the packing lists below.

### ◆ UFM-30DDA

ITEM	QTY	REMARKS
UFM-30DDA	1	UFM-30DDA front module UFM-30DDA rear module
CD-ROM	1	User manual (PDF)

### ◆ Option

ITEM	QTY	REMARKS
UFM-3DDAEX	1	Six-output expansion card (rear module)
Male/Female Threaded Hexagonal Spacers	2	Hexagonal spacers for connecting to UFM-30DDA(MSB-319-04E)

The UFM-30DDA modules can be installed into a UF-106A, UF-106B, or UF-112 frame. These modules cannot be installed into the UF-106.

Up to four modules can be installed into the UF-106A (up to two modules for the UF-106APS).

Up to six modules can be installed into the UF-106B (up to four modules for the UF-106BPS).

### IMPORTANT

The UFM-30DDA modules can be installed into the below UF-106A slots.

Slots 2, 4, 5, 6 can be used.

Slots 1 and 3 cannot be used.

To install the UFM-3DDAEX module into the UF-106A, slots 1, 3, 5 can be used.

See the UF-106A Operation Manual for the slot numbers.

## Check

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Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

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# 1. Prior to Starting

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## 1-1. Welcome

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Congratulations! By purchasing UFM-30DDA Digital Distribution Amplifier you have entered the world of FOR-A and its many innovative products. Thank you for your patronage and we hope you will turn to FOR-A products again and again to satisfy your video and audio needs.

FOR-A provides a wide range of products, from basic support units to complex system controllers, which have been increasingly joined by products for computer video based systems. Whatever your needs, talk to your FOR-A representative. We will do our best to be of continuing service to you.

## 1-2. Features

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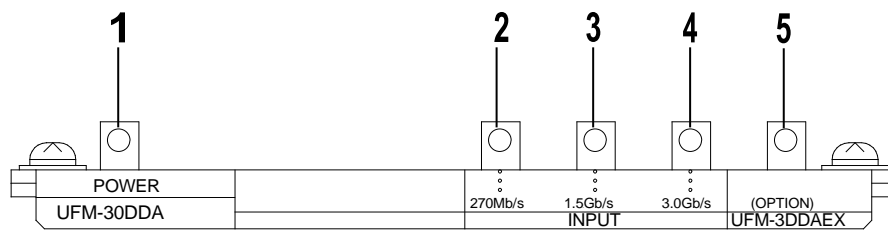
The UFM-30DDA is a digital distribution amplifier that supports 5-way distribution 3G-SDI\* (3Gbps), HD-SDI (1.5Gbps) and SD-SDI (270Mbps) signal input. Optional UFM-3DDAEX can add 6-way distribution to provide 11-ways of total distribution.

- Installable in the UF-106A, UF-106B and UF-112 Universal Frame.
- Supports 3G-SDI\* (3 Gbps), HD-SDI (1.5 Gbps) and SD-SDI (270 Mbps) signal input. (Automatic detection)
- Input equalization. Up to 70 m for 3G-SDI\* (5C-FB), Up to 100 m for HD-SDI(5C-FB), Up to 200 m for SD-SDI(5C-2V)
- Reclocking
- Automatic input detection and format detection for 3 Gbps, 1.5 Gbps and 270 Mbps
- Also supports DVB-ASI

\* Supported with S/N:13270701 and later

## 2. Panel Descriptions

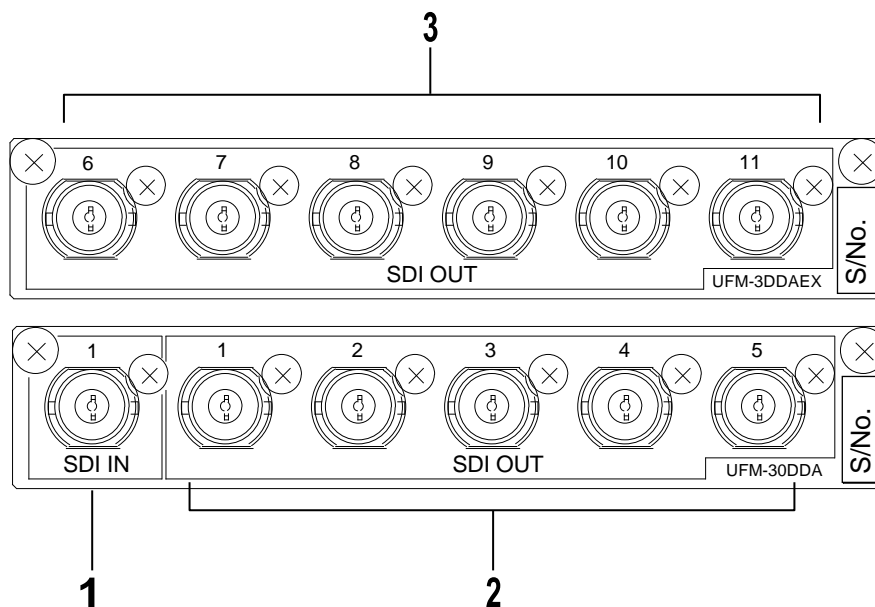
### 2-1. Front Panel



1	POWER	Lights up when powered on.
2	270Mb/s LED	Lights up when 270Mbps input signal is detected.
	1.5Gb/s LED	Lights up when 1.5Gbps input signal is detected.
	3Gb/s LED*	Lights up when 3Gbps input signal is detected.
5	OPTION (UFM-3DDAEX)	Lights up when UFM-3DDAEX option is installed.

\* Supported with S/N:13270701 and later

### 2-2. Rear Panel



1	SDI IN	SDI video input connector
2	SDI OUT 1 - 5	SDI video output connectors Distributes SDI IN connector signal input to 5 outputs.
3	SDI OUT 6 - 11 (UFM-3DDAEX)	Optional SDI video output connectors Distributes SDI IN connector signal input to 6 outputs.

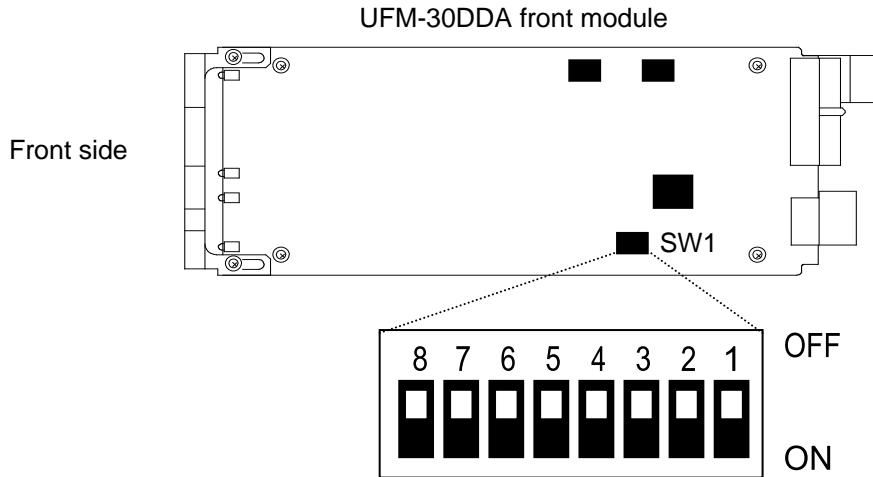
## 2-3. Internal Settings

### ◆ Reclock Bypass

Reclocking can be bypassed by turning off a switch on the front module.

If this adjustment is needed, this should be done before installing the module into UF-106A, UF-106B or UF-112 Universal Frame.

Reclocking is enabled as a factory default setting.



Switch	Feature	Set to		Factory default
		OFF	ON	
1	Reclock	Enabled	Disabled	OFF
2	—	—	—	OFF
3	—	—	—	OFF
4	—	—	—	OFF
5	—	—	—	OFF
6	—	—	—	OFF
7	Input detection time	See the table below.		OFF
8				OFF

In firmware version 1.02 and later, the input detection time can be increased using Switches 7 and 8 in the dipswitch.

Extended detection time allows you to reduce incessant SNMP traps for input failure

Switch		Input detection time
7	8	
OFF	OFF	300 msec (factory default)
ON	OFF	600 msec
OFF	ON	900 msec
ON	ON	1200 msec

For example, if turning ON both Switches 7 and 8, the presence of signal is determined 1,200 msec after the input signal lock.

### IMPORTANT

Do not change Switch 2 through 6, which are reserved for factory use.

### 3. Connection

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#### 3-1. Mounting UFM-3DDAEX

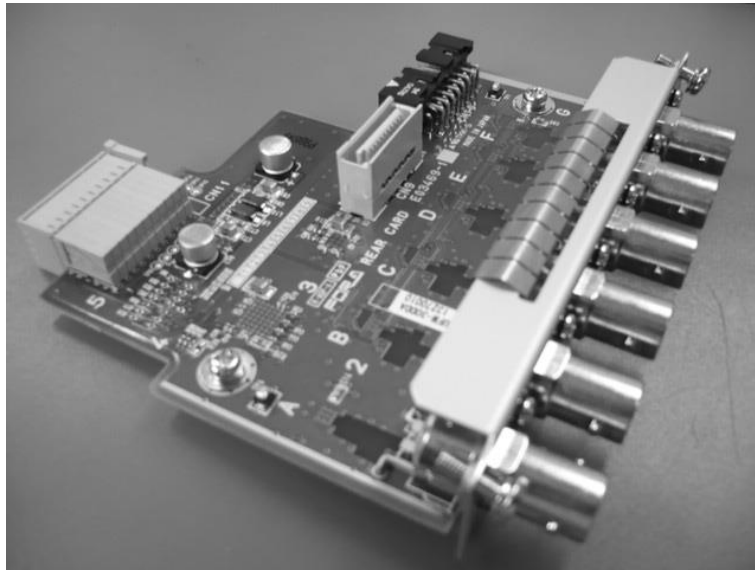
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**IMPORTANT**

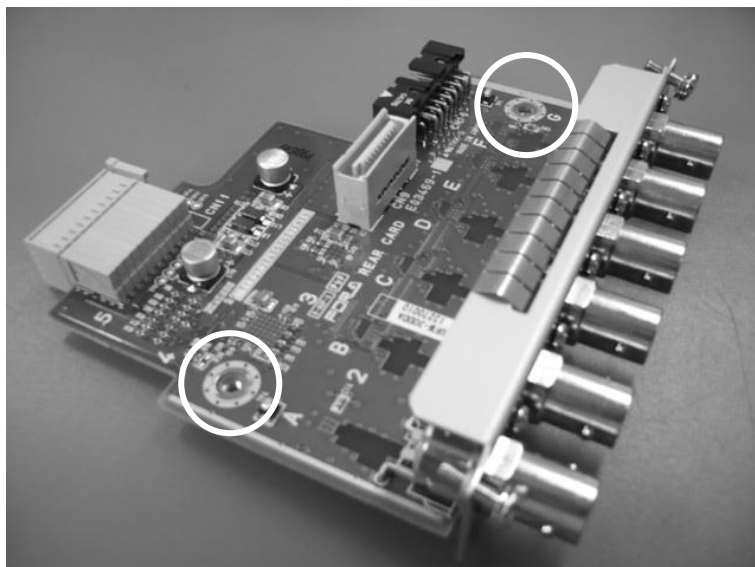
If UFM-3DDAEX is mounted on your UFM-30DDA, the following mounting procedure is not needed.

The separately purchased optional UFM-3DDAEX needs to be mounted on the UFM-30DDA rear module before installing into a UF-106A, UF-106B or UF-112 frame.

- 1) Place the UFM-30DDA rear module on a flat surface as shown below.

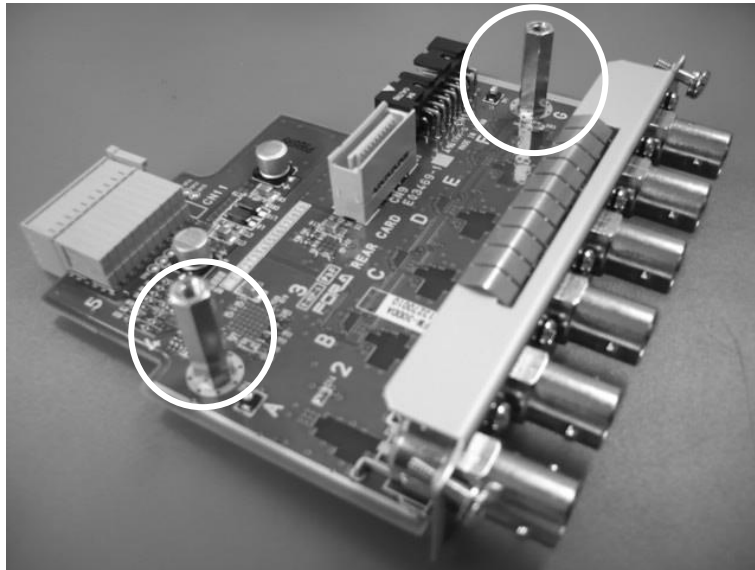


- 2) Remove the two screws shown with circles from the UFM-30DDA rear module.

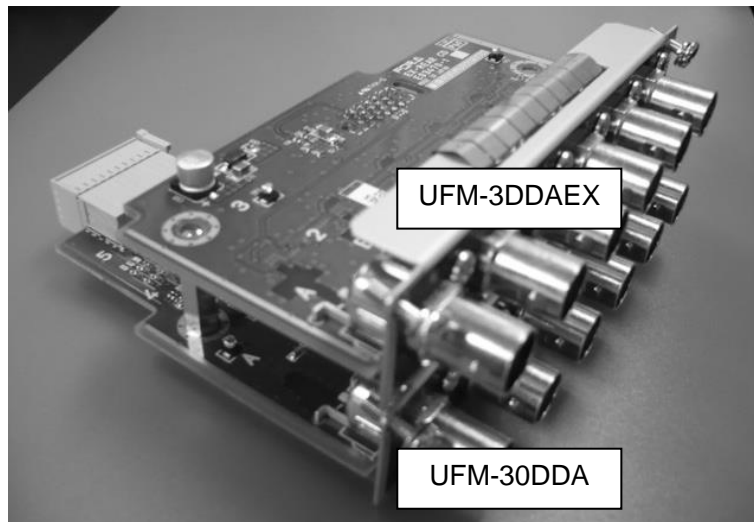




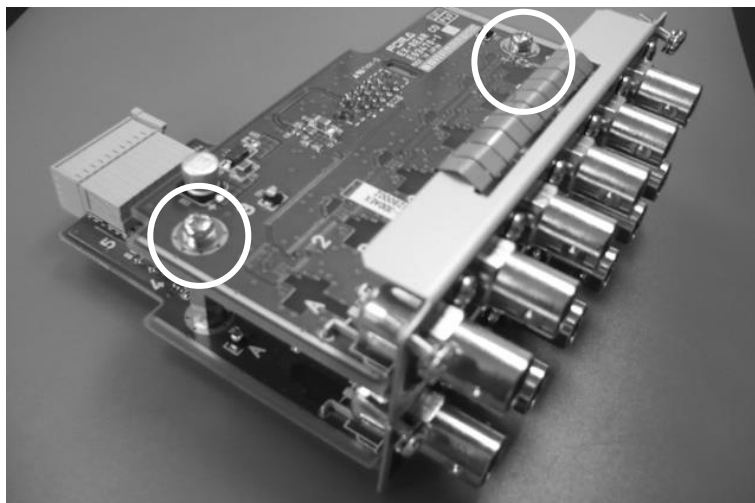
- 3) Attach Hexagonal Spacers that are supplied with the UFM-3DDAEX to where the two screws have been removed.



- 4) Mount the UFM-3DDAEX on the UFM-30DDA rear module.



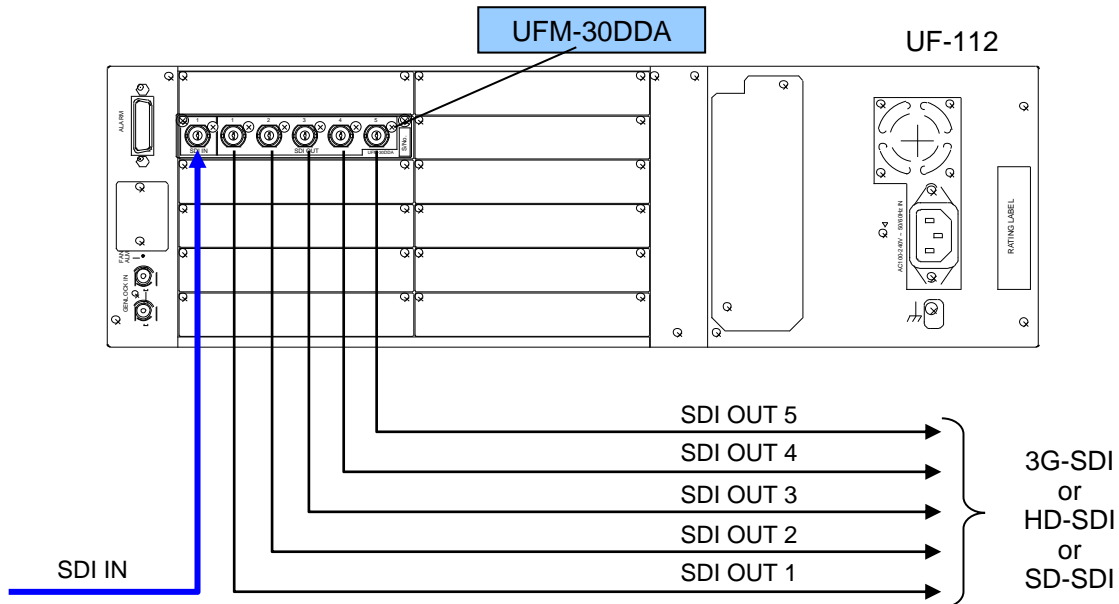
- 5) Secure the two modules with the screws removed under step 2. As you tighten the screws, make sure the screws and spacers are properly aligned and not twisted.



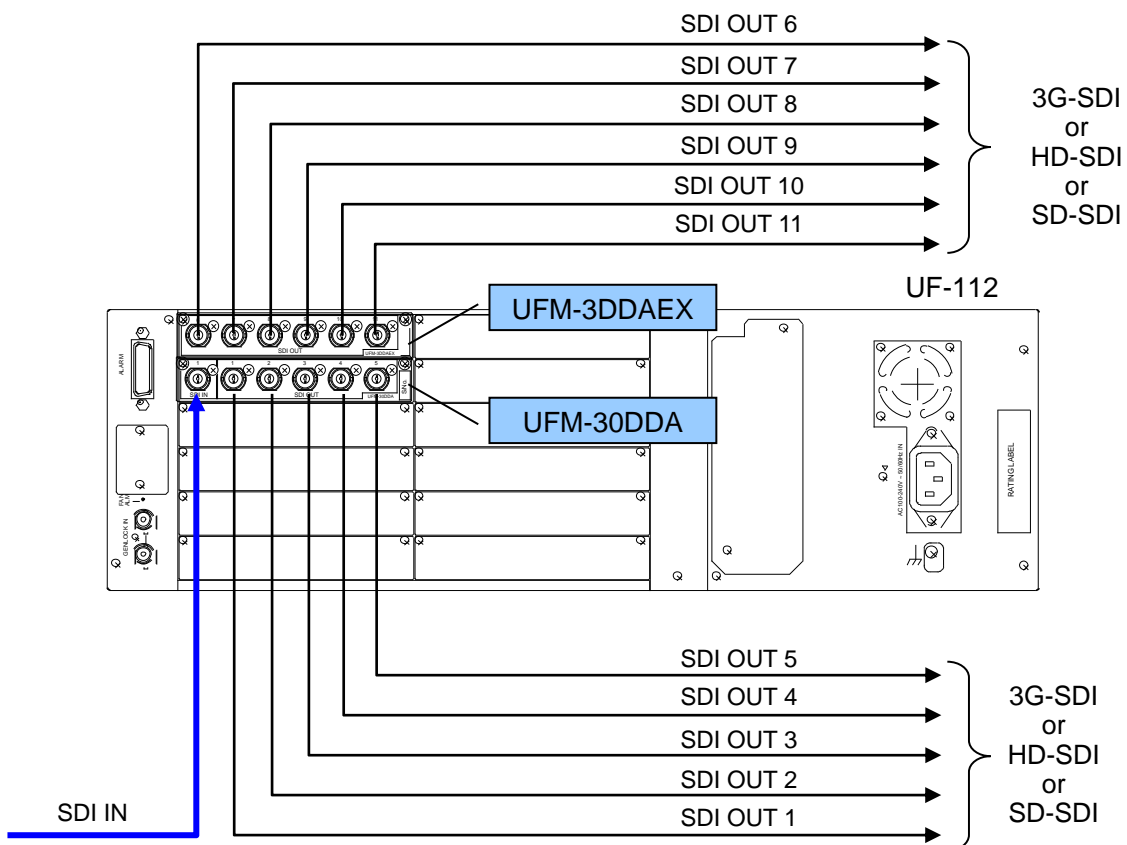
## 3-2. Installing Modules to the UF-106A, UF-106B or UF-112

The UFM-30DDA/UFM-3DDAEX modules can be installed into a UF-106A, UF-106B, or UF-112 frame. Refer to the figure below and connect the UFM-30DDA/UFM-3DDAEX to other devices. See the respective operation manual for details on how to install UFM-30DDA/UFM-3DDAEX modules into the UF-106A, UF-106B, or UF-112.

### ◆ Ex. UF-112 rear panel: UFM-30DDA



### ◆ Ex. UF-112 rear panel: UFM-30DDA and UFM-3DDAEX

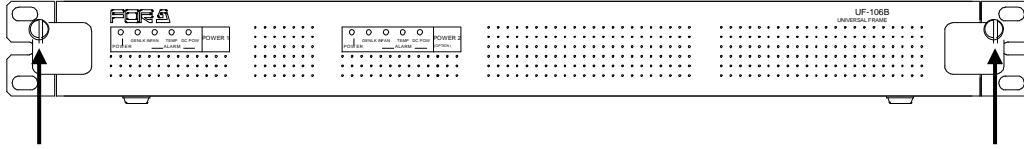


### 3-3. Power On

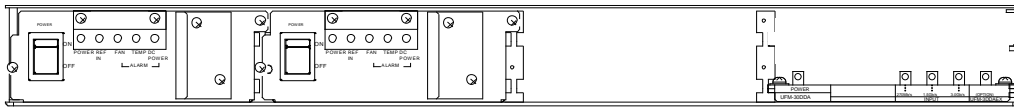
#### 3-3-1. UF-106A or UF-106B

◆ **Ex. UF-106B**

- 1) Loosen and pull out the screw knobs on both sides to open the front panel of the UF-106B.

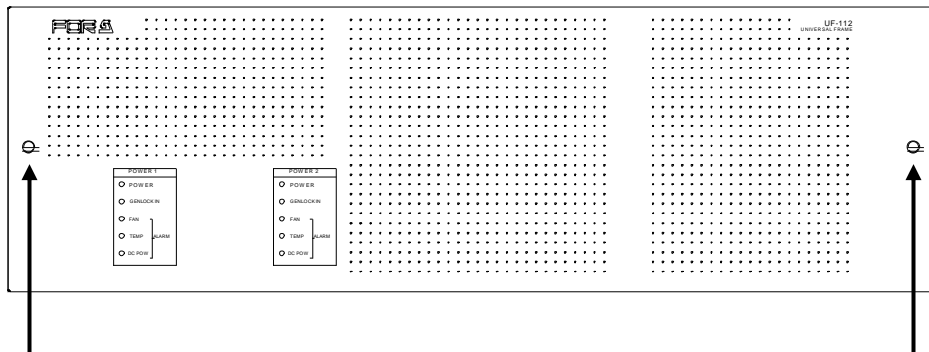


- 2) Turn the power switch on.

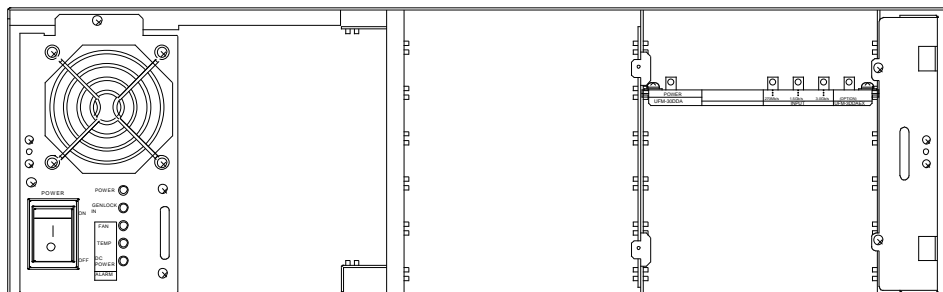


#### 3-3-2. UF-112

- 1) Loosen and pull out the screw knobs on both sides to open the front panel of the UF-112.



- 2) Turn the power switch on.



## 4. Specifications and Dimensions

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### 4-1. Specifications

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Video Input	3G-SDI*: 3Gbps, HD-SDI: 1.5Gbps, SD-SDI: 270Mbps, or DVB-ASI: 270Mbps 75Ω BNC x 1
Video Outputs	3G-SDI*: 3Gbps, HD-SDI: 1.5Gbps, SD-SDI: 270Mbps, or DVB-ASI: 270Mbps 75Ω BNC x 5 Standard (UFM-30DDA) 75Ω BNC x 11 With an option (UFM-30DDA + UFM-3DDAEX)
Cable Equalization	Automatic input equalization 3G-SDI*: Up to 70m (5C-FB or equivalent) HD-SDI: Up to 100m (5C-FB or equivalent) SD-SDI: Up to 200m (5C-2V or equivalent)
SNMP Support	Web Control / SNMP monitoring (UFM-30CTL is necessary.)
Temperature	0°C to 40°C
Humidity	30% to 90% (No condensation)
Power Source	Supplied from Universal Frame, +24 VDC
Consumption	4.2VA (4.2W) UFM-30DDA 3.4VA (3.4W) UFM-3DDAEX
Weight	0.5kg (UFM-30DDA) 0.1kg (UFM-3DDAEX)
Dimensions	Front module: 106.0 (W) x 293.2 (D) mm (UFM-30DDA) Rear module: 108.5 (W) x 106.9 (D) mm (UFM-30DDA) Rear module: 108.5 (W) x 71.5 (D) mm (UFM-3DDAEX)
Number of slots required	1 slot (2 rear slots are required if the UFM-3DDAEX is installed.)
Consumables	None
Option	UFM-3DDAEX

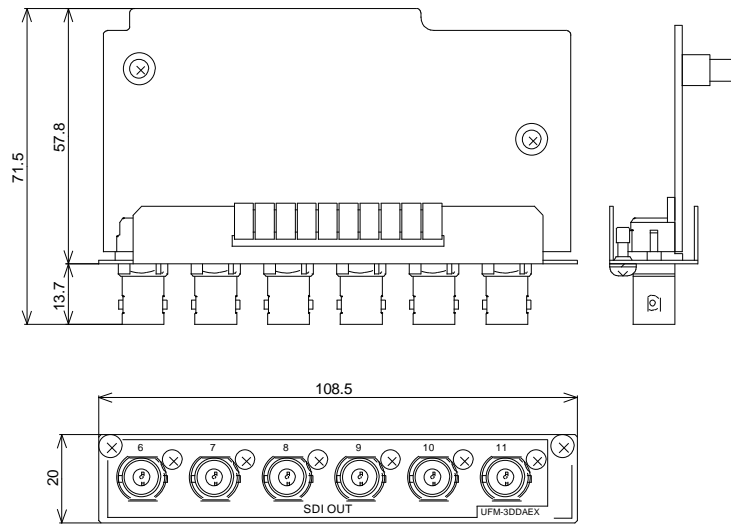
\* Supported with S/N:13270701 and later



## 4-2-2. UFM-3DDAEX

UFM-3DDAEX is a rear module. No front module is included.

(All dimensions in mm.)



## **Warning**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.



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