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# **DXF-300-F**

Optical AV Media Extender

## **Installation Guide**

M3033-6202-101

2016-12-07

[www.grassvalley.com](http://www.grassvalley.com)

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# DXF-300-F Installation Guide

## Overview

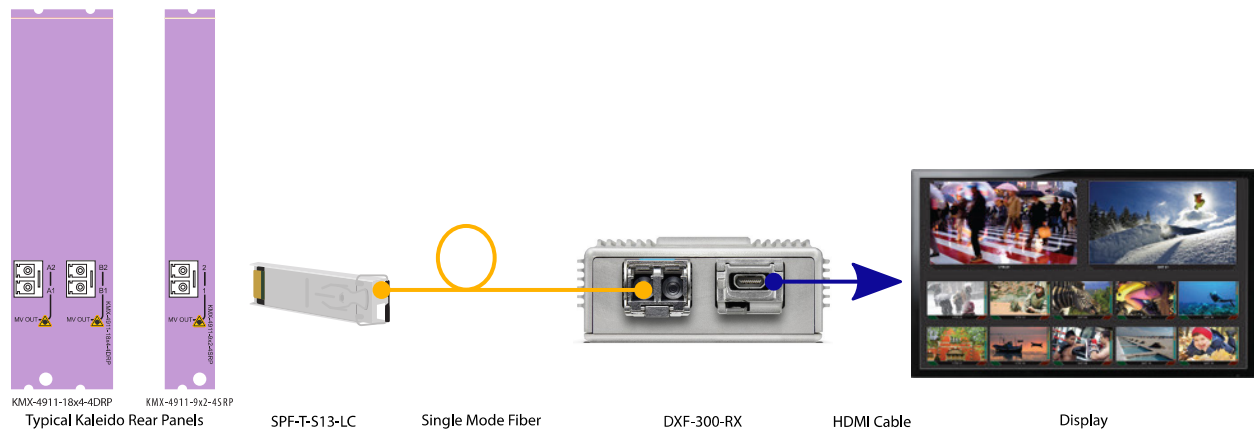
The DXF-300-F optical extension kit is used to extend the reach of a limited-distance signal medium (HDMI cable) to a much farther distance by using fiber optic cable. It connects the output of an SFP port to an HDMI input over a customer supplied single mode fiber to extend signal transmission to up to 10 000m without any loss of signal integrity. This extension kit consists of a single or dual output SFP module and one or two DXF-300-RX modules that are used for fiber optic to HDMI electrical signal conversion.

This user's manual describes how to install and use the DXF-300-F optical extension kit.

## Options and Applications

The DXF-300-F optical extension kit is available in the following variants:

- DXF-300-F-S supports a single SFP output to HDMI input over fiber. For example, this is ideal for applications where a display is remotely located up to 10 000m from an SFP-equipped multiviewer such as a KMX-4911 Kaleido Multiviewer.



*Fig. 1-1: Typical DXF-300-F-S application*

- DXF-300-F-D supports a double SFP output to two HDMI inputs over fiber. For example, this is ideal for applications where two displays are remotely located up to 10 000m from an SFP-equipped multiviewer such as a dual-output KMX-4911 Kaleido Multiviewer.

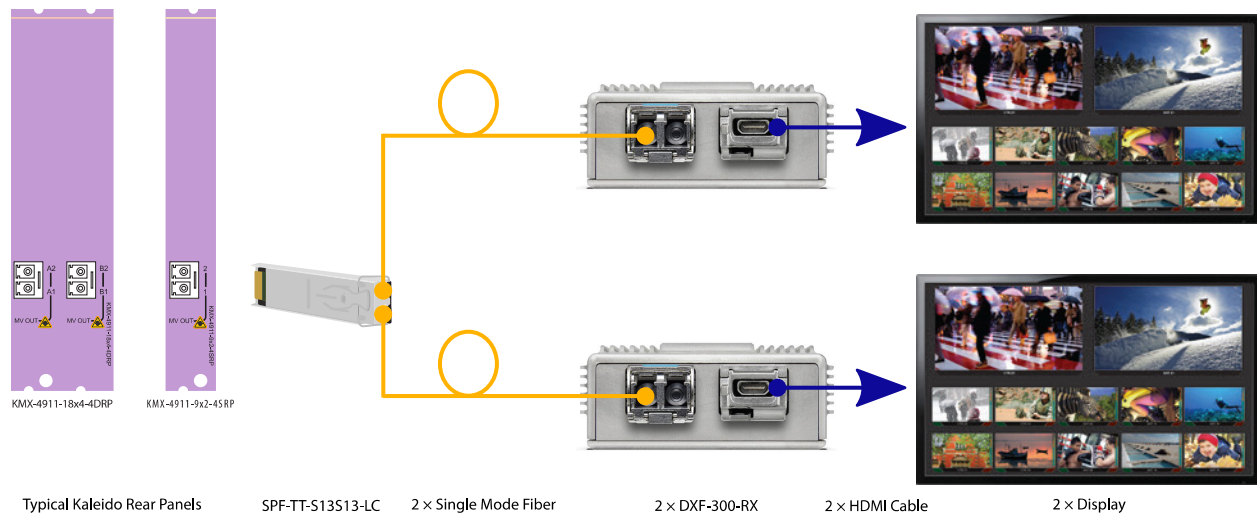


Fig. 1-2: Typical DXF-300-F-D application

## Unpacking

Unpack the DXF-300-F kit. The kit should contain the following items. If anything is missing, contact your distributor or Grass Valley (see [Grass Valley Technical Support](#), on page 6).

### DXF-300-F-S

The DXF-300-F-S kit comes with the following hardware:

- DXF-300-RX (emEXTEND-HDMI-SM-RX-GV), composed of:
  - EB34TD1T-SN - HDMI TX SFP
  - EB60LC2R-MN2-P - 3G 1RX optical SFP
  - em2x2-2 - Miniature 2x2 frame
- SFP-T-S13-LC: Single Tx Fiber Module at 1310nm with LC Connector
- 2-meter (6.56ft.) HDMI type D to type A cables
- emPS2 power supply and power cord

### DXF-300-F-D

The DXF-300-F-D kit comes with the following hardware:

- 2 × DXF-300-RX (emEXTEND-HDMI-SM-RX-GV), each composed of:
  - EB34TD1T-SN - HDMI TX SFP
  - EB60LC2R-MN2-P - 3G 1RX optical SFP
  - em2x2-2 - Miniature 2x2 frame
- SFP-TT-S13S13-LC: Dual Fiber Tx (output) cartridge at 1310nm with LC/PC Connector
- 2 × 2-meter (6.56ft.) HDMI type D to type A cables
- 2 × emPS2 power supply and 2 × power cord

## DXF-300-RX Connections



Fig. 1-3: Fiber and HDMI connections to the DXF-300-RX

## Installation

Use field-supplied single mode fiber (9um/125um) fitted with LC connectors with this kit. For an installation overview, see [Options and Applications](#), on page 1. Proceed as follows:

- 1 Install the SFP part into the video source, for example, the KMX-3901 or KMX-4911 rear module.
- 2 Mount the emEXTEND DXF-300-RX(s) near the destination monitor or HDMI input. The DXF-300-RX is equipped with two 4-40 thread PEM nuts. Other mounting options include using tie-wraps to attach it to the monitor's mounting bracket.
- 3 Connect one or two fibers from the SFP to the DXF-300-RX(s). As shown in [DXF-300-RX Connections](#), on page 3, connect the fiber to the left LC connector of the EB60LC2R-MN2-P located in the DXF-300-RX.
- 4 For each destination monitor or HDMI input, connect the HDMI cable to the DXF-300-RX and the HDMI input.
- 5 For each DXF-300-RX, connect the DXF-300-RX to its power supply. Plug-in the power supply to an outlet (mains).

## Configuration and Setup

The modules are ready to be used. They don't require any configuration.

## Troubleshooting

Following a methodical process of elimination, try the following steps.

- 1 Make sure the fiber connectors are properly clean, as the problem is often related to dust obstructing the light in the fiber.
- 2 Ensure the em2x2-2 frame is powered.
- 3 If available, try another HDMI cable.
- 4 Use another fiber connection.
- 5 Swap components of the DXF-300-F kit with known working components, one component at a time in a systematic fashion to further isolate the issue. For example, swap the SFP fiber module, then swap the em2x2-2 frame, and so on.

## Specifications

### HDMI Output:

- Connector: HDMI type D
- 2 meter/6.56 ft. HDMI type D to type A cable included
- Signal: HDMI 1.4
- Format:
  - 1920x1080p 50 Hz or 59.94 Hz
  - 1280x720p 50 Hz or 59.94 Hz

### Fiber:

- 1310 nm single mode fiber with LC/PC connector

### Transport 3G SDI over Fiber:

- SMPTE ST 297 serial digital fiber transmission
- SMPTE ST 424 Level A
- Fabry-Perot Laser at 1310 nm

### Power:

- 6W max. 100-240 VAC, 50/60 Hz

### em2x2-2 - Miniature 2x2 frame dimensions (approximate):

- Width: 57 mm (2.24 in.)
- Height: 24 mm (0.95 in.)
- Depth: 91 mm (3.58 in.)





## **Grass Valley Technical Support**

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website ([www.grassvalley.com](http://www.grassvalley.com)).

An online form for e-mail contact is also available from the website.

## **Corporate Head Office**

Grass Valley  
3499 Douglas-B.-Floreani  
St-Laurent, Quebec H4S 2C6  
Canada  
Telephone: +1 514 333 1772  
Fax: +1 514 333 9828  
[www.grassvalley.com](http://www.grassvalley.com)