

M-DL-GOPT (fibreACE) fitting note

M-DL-GOPT (fibreACE) is one of several audio networking options that can be fitted to an Allen & Heath dLive I/O Port. It provides a 128x128ch 96kHz copper or fibre optic point-to-point link to another dLive mixing system. It can also be used to connect a MixRack and Surface via fibre optic instead of CAT cable.

The fibreACE card uses the proprietary Allen & Heath gigaACE protocol for transporting Audio and Control over Ethernet. It allows very low latency, cable redundancy and can tunnel TCP/IP network control over the same connection.

- ❗ For fibre optic applications, use touring grade opticalCON Duo multimode cables up to 500m long. opticalCON Duo accommodates a standard LC-Duplex connector in a rugged and durable metal housing.
- ❗ For copper applications, use touring grade CAT5e (or higher specification) cables up to 100m long.
- ❗ Allen & Heath can provide recommended cable drums of different lengths. For a list of available cables please refer to www.allen-heath.com.
- ❗ M-DL-GOPT requires dLive firmware V1.4 or higher.

Fitting the card

1. Switch the system off.
2. Remove the 4 screws securing the I/O Port blank panel on the dLive MixRack or Surface.
3. Slide the card into the slot and press it firmly into the mating connector.
4. Secure the card by tightening the 4 captivated thumb screws.



Front panel

Mode of operation

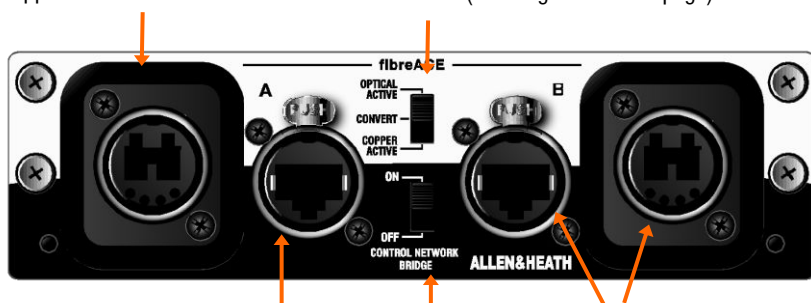
Set to **Optical Active** to use as a 128x128 96kHz interface with a fibre optic link to another dLive system.

Set to **Copper Active** to use as a 128x128 96kHz interface with a CAT cable link to another dLive system.

Set to **Convert** to connect a MixRack and Surface via fibre optic instead of CAT cable (see diagram on next page).

Port A optical

opticalCON Duo connector (compatible with LC-Duplex) for fibre applications.



Port A copper

EtherCon connector for CAT cable applications.

Port B

Optional redundant backup connection.

Control Network Bridge

When in Optical Active or Copper Active mode, dLive control data and third party Ethernet data can be tunnelled over the fibreACE connection. For example, switch this On in a digital split setup so that the same laptop running Director can control either the FoH or Monitors system.

- ❗ Before you enable the Control Network Bridge, make sure all devices on the network have unique IP addresses within the same subnet.
- ❗ Control Network Bridge is disabled in Convert mode.

Optical Active and Copper Active modes

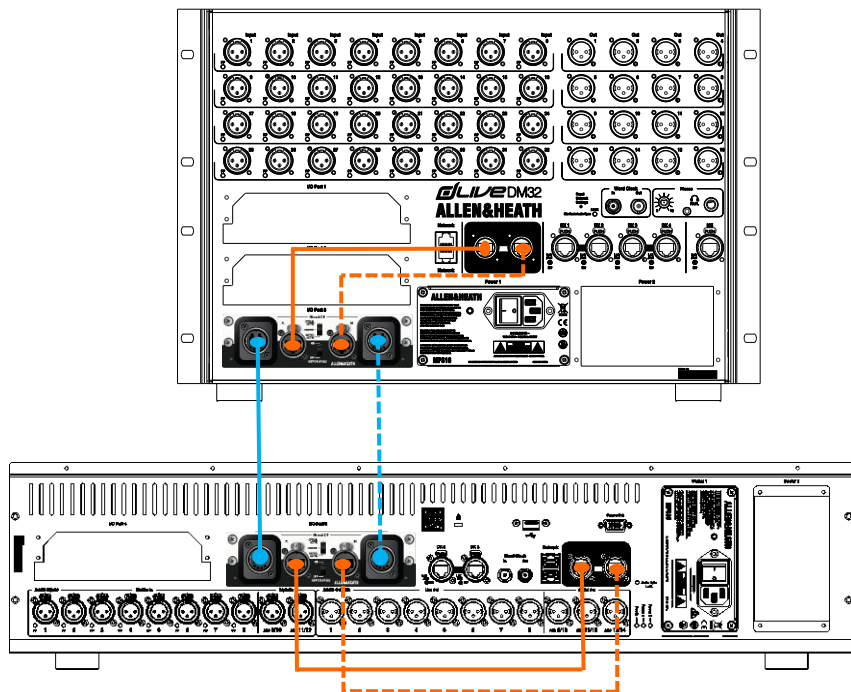
Use the dLive I/O screen to patch signals from or to the I/O Ports.

Use the **MixRack / Audio / Audio Sync** screen to select the clock source. Set this to Internal on the master system, or to the relevant I/O Port on all other networked (clock slave) systems.

- ❗ For more information on dLive setup and functions please refer to the dLive Firmware Reference Guide available for download at www.allen-heath.com.

Convert mode

Patch the built-in MixRack/Surface gigaACE Port A into the Port A EtherCon of the fibreACE card on each side of the connection, using a short CAT5e (or higher specification) cable. Use two cables for redundancy (not available on CDM MixRacks and C Surfaces). No software setup is required.



Notes on fibre optics



This is a Class 1 laser product and is considered non-hazardous when operated within the limits of its specification.

- ❶ The emitted light is infrared and invisible to the naked eye. It is good practice never to look directly into the fibre.

For good system performance:

- ❶ Do not bend fibre cables into tight curves as this can affect the light transmission and might permanently distort the fibre.
- ❶ Be aware of dirt. Tiny amounts of dirt covering the optical aperture will degrade the light transmission and can cause permanent surface damage to the fibre. Always put end caps on the connectors when not in use.
- ❶ Only clean the connectors with the correct products. Do not use your finger, cotton swabs or cloth as they will leave grease or threads behind.

A limited one year manufacturer's warranty applies to this product, the conditions of which can be found at: www.allen-heath.com/legal.



This product complies with the European Electromagnetic Compatibility directive 2014/30/EU and the European Low Voltage directive 2014/35/EU.

Copyright © 2016 Allen & Heath. All rights reserved.

ALLEN&HEATH

Allen & Heath Limited, Kernick Industrial Estate, Penryn, Cornwall, TR10 9LU, UK

<http://www.allen-heath.com>

