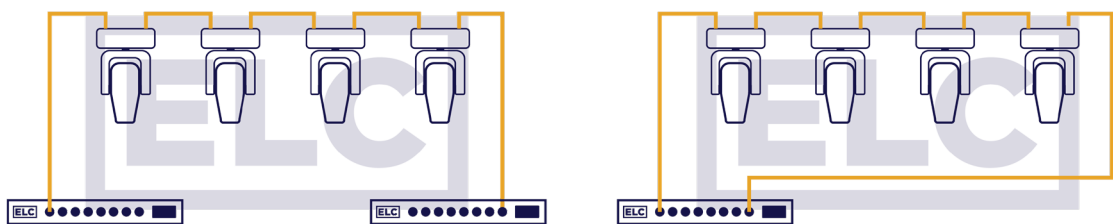# APPLICATION NOTE

NODE8GBX DMX BACKUP

Dmx Backup is available on the nodeGBx system from firmware 1.25.

To setup a redundant dmx stream :
- Configure 2 ports as the same universe.
- Set one of the 2 ports to DMX backup: Enabled
- Daisy chain the Dmx fixtures as usual and feed the last fixuture back into the second port.

The DMX run is now redundant

The DMX backup port will detect if dmx is present or not and will start transmitting accordingly. In case of a DMX chain fail the takeover will be within 50 mS, a maximum of 2 dmx frames. when the connection is healed again there is a maximum 'collision' of less than one dmx frame.
when using 2 differerent nodes on 2 different switches even the last part of the network could be made fail safe by setting the hold time on the normal output node to minimum. In case the Output node stops receiving the set universe, but the DMX backup port does. the DMX backup will start transmitting after the dmx Hold time has passed.

in the display of the nodes the following statuses can be observed:

	Output port	DMX backup port
Gray	output idle	output idle
Green	Transmitting DMX	Recieving DMX (OK)
Red	-	Backup Active (DMX Fail)

The DMX backup port will report Backup Active to dmXLAN for early detection of a broken DMX link