

# DN9610

Dual Port AES50 Repeater with up to 100 Metre Range



- Extends two independent AES50 connections by up to 100 m with CAT5 cable
- High channel capacity - 48 channels @ 96 kHz or 96 channels @ 48 kHz bidirectional operation
- Supports dual-redundant AES50 networks (X and Y connections)
- Rugged locking Neutrik\* etherCON connectors used for AES50 connections
- Status indicator LEDs on front panel for each AES50 port
- Dual-redundant power supply inputs with locking Switchcraft\* connectors
- External auto-ranging universal switch-mode power supply adapter
- Aluminium extrusion casing with stackable protective silicone rubber sleeve
- Compact and rugged design
- 3-Year Warranty Program\*
- Designed and engineered in England

The DN9610 provides a very cost-effective solution to the 100 metre limitation that Ethernet and CAT5 cabling imposes on the physical size of AES50 networks. Its compact form factor allows DN9610 to be placed where required to increase the length of a network connection, all that is needed is a source of mains power.



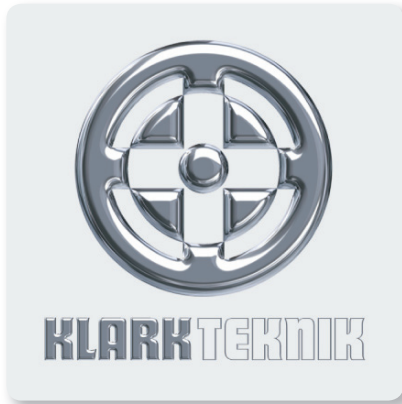
DN9610 acts as a repeater to allow two independent AES50 connections to be extended by up to an additional 100 metres, without the need for format conversion or the use of optical fibre cable. DN9610 is capable of both 48 kHz and 96 kHz operation, with its two AES50 connections able to operate at different sample rates simultaneously. Each connection can support 48 bidirectional channels at 96 kHz, or 96 bidirectional channels at 48 kHz sample rate. The two AES50 connections are also ideal for use with dual-redundant networks, such as the X and Y connections used on [MIDAS](#) digital console systems.

Multiple DN9610 units can be connected in series, allowing AES50 to be transmitted over considerable distances. Whilst AES50 is bidirectional in operation, to maximise ease-of-use when cascading multiple units, the two AES50 connections on DN9610 each feature a nominal input and output port to simplify reference clock distribution. Through-unit propagation delay is less than 0.5 microseconds, which has a negligible effect on overall AES50 system link latencies.

\*All third-party trademarks are the property of their respective owners. Their use neither constitutes a claim of the trademark nor affiliation of the trademark owners with MUSIC Group. Product names are mentioned solely as a reference for compatibility, effects and/or components. Warranty details can be found at [music-group.com](http://music-group.com).

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## Digital Audio Networking

SuperMAC (AES50-Compliant) digital audio networking technology from **KLARK TEKNIK** simultaneously provides high channel counts, ultra low and deterministic latencies, sample-synchronous and phase-aligned networked clock distribution, error detection and correction, network redundancy, and ease of deployment and use – to meet the demanding requirements of live concert touring.

DN9610 is compatible with all **MIDAS** digital consoles, audio system engines, digital I/O units, as well as with any other AES50-equipped devices.

## Front Panel Indication

DN9610 features status LED indicators for its dual redundant power supply inputs and input and output port activity for the two AES50 connections for 'at a glance' status display, even at wide distances and viewing angles.



## Built for the Road

Featuring a tough aluminium extrusion, the DN9610 is designed for the rigours of live concert touring. The protective silicone rubber sleeve also insulates the DN9610 chassis to provide electrical isolation. Premium Neutrik etherCON connectors are used to ensure reliable network connections, night after night.

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## Universal Switch-Mode Power Supply

DN9610 is provided with an external auto-ranging universal switch-mode power supply adapter, which is auto-voltage sensing for use on a worldwide basis. DN9610 also features dual-redundant external power supply inputs which can operate from +9 V to +18 V DC, providing seamless switchover in the unlikely event of a loss of one power supply. Locking Switchcraft\* connectors are used to eliminate the risk of the power supplies becoming unplugged.



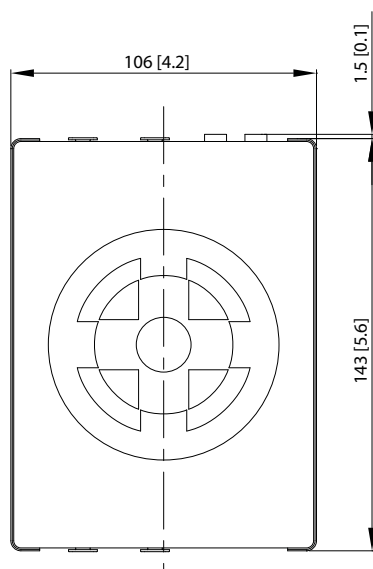
## You Are Covered

We always strive to provide the best possible Customer Experience. Our products are made in our own **MUSIC Group** factory using state-of-the-art automation, enhanced production workflows and quality assurance labs with the most sophisticated test equipment available in the world. As a result, we have one of the lowest product failure rates in the industry, and we confidently back it up with a generous **3-Year Warranty** program.

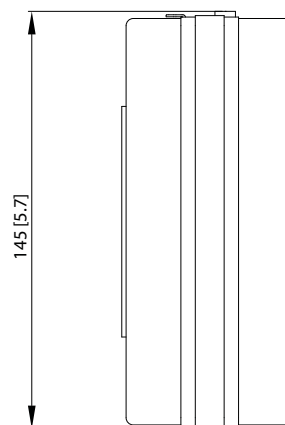
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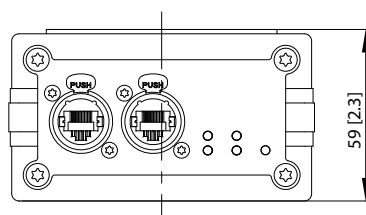
## Dimensions



TOP



SIDE



CL

FRONT

Mixer Accessories

DN9610

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Technical Specifications

| AES50              |                                                                 | Dimensions |                  |
|--------------------|-----------------------------------------------------------------|------------|------------------|
| Ports              | 2 Input, 2 Output                                               | Width      | 106 mm (4.2")    |
| Type               | Neutrik etherCON                                                | Depth      | 145 mm (5.7")    |
| Sample Rate        | 48 kHz, 96 kHz                                                  | Height     | 59 mm (2.3")     |
| Other Terminations |                                                                 | Weight     |                  |
| Power              | 2                                                               | Net        | 0.8 kg (1.8 lbs) |
| Type               | Switchcraft locking 2.1 mm DC power connector (centre positive) |            |                  |
| Power Requirements |                                                                 |            |                  |
| Voltage            | +9 V to +18 V DC                                                |            |                  |
| Consumption        | 83 mA (single channel)<br>166 mA (both channels)                |            |                  |

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## Architecture & Engineering Specifications

The network repeater shall provide the functions of regenerating and propagating a bidirectional digital audio network to extend two network connections beyond the 100 metre limitation of CAT5 cable.

The network repeater shall support a 100 Megabit Ethernet frame-based digital audio network compliant with the Audio Engineering Society AES50-2011 standard. Two independent digital audio network interfaces shall be provided with support for dual redundant operation, each interface shall be provided with a nominal input and output port for the purposes of reference clock distribution.

The network repeater shall have a through-unit propagation delay of less than 0.5 microseconds.

The network repeater shall be housed in a custom aluminium extrusion which shall be covered by a protective rubber sleeve, It shall be 106 mm wide x 145 mm deep x 59 mm high (4.2" x 5.6" x 2.3"), with nominal weight 0.8 kg (1.8 lbs). Two locking DC power connectors with 2.1 mm diameter centre pins shall be provided for the connection of external dual redundant power supplies and the power requirements shall be +9 V to +18 V DC with the positive connection on the centre pin.

The network repeater shall be the [KLARK TEKNIK DN9610](#) and no other alternative shall be acceptable.

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