

# The DS20 Audio network bridge



## DS20 Audio network bridge

The DS20 Audio network bridge feeds up to 16 digital AES3 channels to d&b amplifiers via Ethernet using the Milan™ audio transport protocol.

This 1 RU device integrates directly into the d&b system approach, positioned in front of the amplifiers within the signal chain, and is ideally suited to both mobile and installation environments.

The DS20 sends metadata including Milan™ channel labels and cabling information via the AES3 channel stream to the d&b four channel amplifiers.

As well as providing an interface from the Milan™ audio network to the digital inputs of the d&b amplifiers via Ethernet, the DS20 provides four digital AES3 input channels for applications such as a break in from a Front of House console.

The DS20 incorporates a fully AVB-enabled integrated 5-port switch, offering a redundant (primary/secondary) network for the Milan™ protocol.

This provides extended connectivity for a laptop to control the d&b amplifiers using the R1 Remote control software via the OCA (Open Control Architecture) protocol. Using the DS20 Audio network bridge, audio signals and remote control data can be combined using a single Ethernet cable.

The front panel of the DS20 is designed to match the I/O panel of the d&b Touring rack assemblies. This ensures a simple integration within existing system configurations.

## Digital inputs

DIGITAL IN .....	4 channel (2 x AES3)
.....	3 pin XLR female
Pin assignment .....	1 = GND, 2 = AES Signal, 3 = AES Signal
Input impedance .....	110 ohms
Sampling rate .....	32 - 192 kHz
Synchronization .....	Sample Rate Converter (SRC)

## Digital outputs

DIGITAL OUT .....	16 channels (8 x AES3)
.....	3 pin XLR male
Pin assignment .....	1 = GND, 2 = AES Signal, 3 = AES Signal
Output impedance .....	110 ohms
Sampling rate .....	48/96 kHz
Synchronization .....	Milan™ network

## Controls and indicators

Mode .....	Push button
Switch port modes .....	RGB LEDs
BYPASSED/SUBSCRIBED (Rx subscription) .....	LED indicator green
IDENTIFY/SYNC ERROR .....	LED indicator red

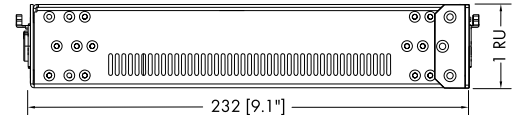
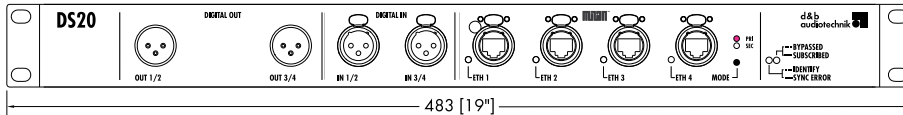
## Power supply

Mains connector .....	powerCON®
Rated mains voltage .....	100 to 240 V, 50 - 60 Hz
Overvoltage protection .....	Up to 400 V AC
Power consumption .....	10 W (max)

## Dimensions and weight

Height x width x depth .....	1 RU x 19" x 232 mm
.....	1 RU x 19" x 9.1"
Weight .....	3.8 kg / 8.37 lb

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DS20 dimension in mm [inch]

## Features and benefits

- Interface between the Milan audio transport protocol via Ethernet and the AES3 inputs of the d&b amplifiers
- Integrated 5-port Ethernet switch provides extended connectivity and is full AVB-enabled
- Four AES3 input channels for extended flexibility
- In bypass mode, the DS20 acts as an AES3 distribution device
- Milan metadata including channel label information sent through
- AES3 stream to the four channel d&b amplifiers

## Applications

- Mobile and permanently installed music and live program reinforcement
- Theatre
- Concert halls
- Live performance venues
- Night clubs
- Stadiums and arenas
- Multipurpose suites
- Houses of Worship
- Corporate events
- All sound reinforcement applications with an audio via Ethernet networking approach

## Architectural specifications

The device shall act as a 16 output channel break-out box connecting the Milan™ audio network to the AES3 digital audio standard. In addition, 4 x AES3 input channels shall be provided, including sample rate converters (SRC).

A bypass/network switch shall be provided to allow the device to be used either as a AES3 distribution amplifier (bypass) or as a normal Dante® device (Network) in conjunction with Dante® controller. The device shall provide a 5-port Ethernet switch for different network topologies, redundancy and advanced functions, including Multicast filtering and VLAN modes.

The device shall provide redundant connection to Milan™ networks to support use in professional environments and shall also function as an AVB switch to pass on this redundant network connection, if required.

The device shall provide meta data (e.g. Milan™ channel labels) via the AES3 output streams, and these meta data shall be interpretable by applicable d&b four channel amplifiers.

The device shall provide overvoltage protection for voltages up to 400 V.

The dimensions (H x W x D) shall not exceed 1 RU x 19" x 232 mm (1 RU x 19" x 9.1") and shall weigh no more than 3.8 kg (8.37 lb).

The device shall be the DS20 by:  
d&b audiotechnik GmbH & Co. KG.