

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 primary and redundant 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.

The DS20 features a power supply suitable for mains voltages 100 V - 240 V, 50 - 60 Hz, with Overvoltage protection of up to 400 V.

Controls and indicators

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

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

Network

Connectors etherCON^{®1}
 built-in 5-port AVB Ethernet switch
 100/1000 Mbit

Power supply

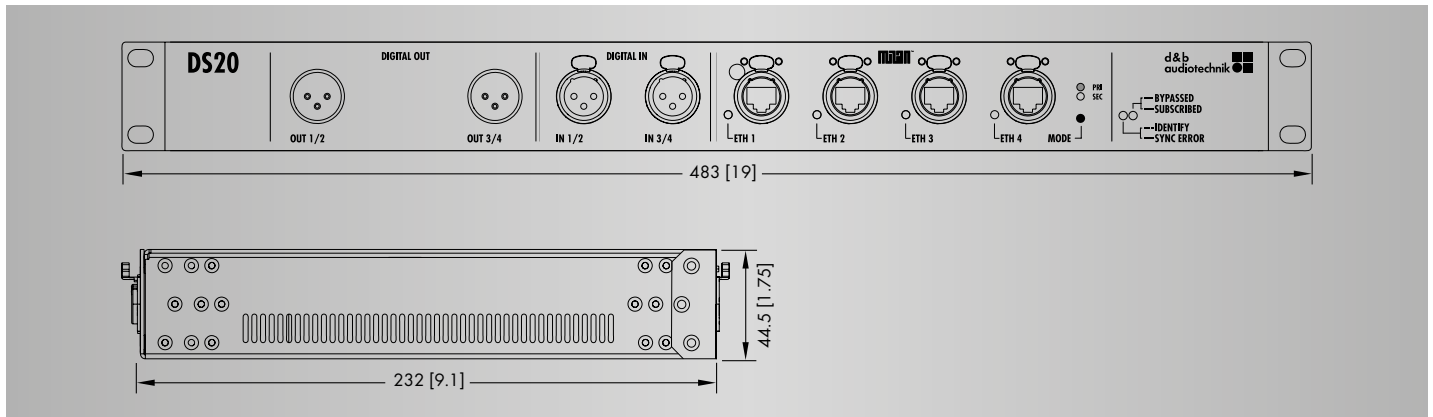
Mains connector powerCON^{®1}
 Rated mains voltage 100 - 240 V, 50 - 60 Hz

Dimensions and weight

Height x width x depth 1 RU x 19" x 232 mm
 Weight 3.8 kg (8.37 lb)

¹ etherCON[®] and powerCON[®] are registered trademarks of the Neutrik AG, Liechtenstein

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DS20 Audio network bridge dimensions 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).

The device shall support four different switch modes which shall be accessible locally and within Milan Controller to allow different applications and network topologies.

The device shall provide meta data (e.g. Milan channel labels) via the AES3 output streams, and these meta data shall be interpretable by d&b audiotechnik 4-channel amplifiers (10D, 30D, D20, D80).

The device shall provide Overvoltage Protection for voltages up to 400 V.

The dimensions (HxWxD) shall not exceed 1 RU x 19" x 232 mm (1 RU x 19" x 9.1") and shall weigh no more than 3.75 kg (8.26 lb).

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