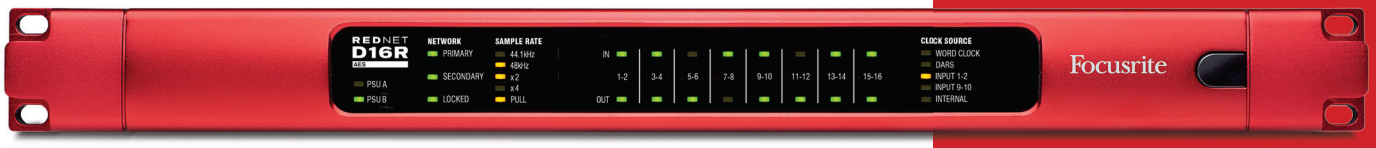
REDNET D16R

Focusrite®



16-channel AES3 I/O for Dante audio over IP networks

RedNet D16R AES is a 1U, 19in rack-mount Dante interface featuring 16 channels of AES/EBU connectivity to and from the Dante audio network. Perfect for bridging between digital consoles, power amplifiers or any other AES3 equipped audio equipment and any Dante network, RedNet D16R has SRC (Sample Rate Conversion) on each input pair allowing plug-and-play operation with any AES3 source. Word Clock I/O and DARS (Digital Audio Reference Signal) connections allow synchronisation with a wide range of external sources and hardware, while S/PDIF I/O allows the integration of equipment such as CD or solid state recorders/players.

PSU and Ethernet redundancy

Dual locking etherCON Ethernet ports are provided, with several operating modes including daisy-chaining and redundancy confirmed by front-panel indicators. The D16R is fitted with two separate power supplies with fault detection capability, with separate power input sockets (with retaining clips) on the rear of the unit. Power supply status is indicated both remotely and on the front panel. The unit features a rugged, roadworthy exterior and high internal build quality. In addition, it offers a compact 1U rack-mount form factor for a full 16 channels of I/O.

AES59 Standard Interface Connections

Two DB25 connectors each provide eight channels of combined I/O to the AES59 standard, allowing speedy interconnection with other DB25-connected or XLR-based equipment by use of standard DB25 to XLR cables. The rear-panel XLR female input can be used either as a DARS sync source for the Dante system, or as an AES3 audio source replacing input channels 1–2 on the DB25 connectors.

About RedNet

Launched in 2012, Focusrite's RedNet range was one of the first to adopt the Dante audio-over-IP network as the infrastructure for a new and versatile range of products.

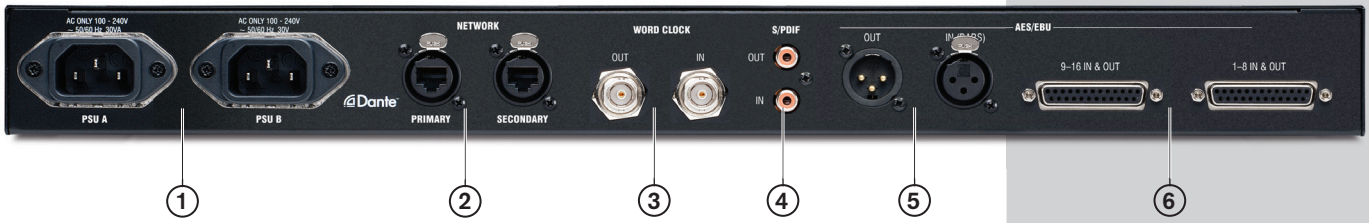
Since then, RedNet has become increasingly popular for a diverse range of audio applications, from theme parks to opera, from studio to major live events.

RedNet has become known for its quality and reliability – the latter a feature that is brought even more to the fore by the inclusion of redundancy capabilities – as well as proving exceptionally simple to operate and offering the best-sounding audio-over-IP solution available and full operability with other Dante devices.

Powered by Dante™

Key Features

- 16 Channel bi-directional RedNet AES3 Interface for Dante Networks
- Power supply and Ethernet redundancy with auto switchover in case of failure, and locking etherCON network connectors.
- Sample rate conversion allows external equipment to run at any sample rate
- Compact 1U chassis allows maximum functionality in minimum rack space
- Two 8-channel AES59 combined I/O DB25 connections, plus a pair of XLR3 connectors duplicating channels 1 & 2
- Rear panel XLR input connector either be used as a DARS input or as a traditional AES3 audio input
- S/PDIF input and outputs provided on RCA connectors; ideal for connecting CD players or solid-state recorders
- Word Clock I/O on BNC connectors allows synchronisation of the Dante network to house clock, or syncing external equipment to the Dante network
- RedNet Control and Dante control software allow routing and control from your audio computer system via a software control panel – no hardware patching required



1 – Dual AC inlets with cable clips 2 – Dual locking etherCON Ethernet connectors 3 – Word Clock I/O 4 – S/PDIF I/O
5 – XLR AES I/O (2-ch) 6 – 2x AES59 DB25 connectors AES I/O

An XLR male socket provides a duplicated AES3 outlet for output channels 1–2. The RCA S/PDIF input can similarly replace input channels 3–4 of the DB25 connectors, while the S/PDIF output can replicate any adjacent odd/even pair of the 16 output channels.

The two etherCON network connectors on the rear of the unit allow two modes of operation. They can be used either as a primary/redundant network interface, allowing seamless switchover in the case of network failure, or as a daisy-chain port allowing the connection of multiple units.

The front panel provides status information for the unit, such as clock source, sample rate, primary and secondary network connection and power supply status in addition to signal presence for each of the AES3 pairs.

All the clocking and input/output options of RedNet D16R AES are remotely-controlled by the RedNet Control software application for Mac and PC.

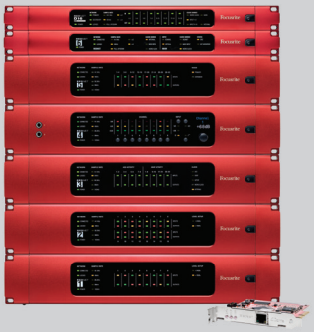
Related products:

MP8R – 8 Ch. Mic Pre

HD32 – HD Bridge

D64 – MADI Bridge

See the rest of the range at
www.focusrite.com/rednet



Specifications

Connectors (Rear panel)

2x etherCON locking Ethernet connectors – also compatible with standard RJ45 connectors

2x BNC Word Clock In and Out

2x RCA Phono S/PDIF In and Out; input replaces DB25 channels 3 & 4; output assignable to any adjacent odd/even pair of channels.

1x XLR male AES3 output duplicates DB25 outputs 1 & 2

1x XLR female AES3 input for DARS or inputs 1 & 2

2x DB25 8x channels of AES59 standard digital I/O per connector, providing a total of 16 channels

2x IEC power connectors: 100–240Vac, 50/60 Hz, Cord retaining clips provided.

Controls (front panel)

Power on/off

Indicators (front panel)

Green LED power indicator

Network Status: Primary/Secondary/Locked

PSU: A/B

Sample rate: 44.1/48kHz, x2, x4, Pull

Signal presence: in and out, one LED per two channels)

Clock Source: Word Clock, DARS, Input 1-2, Input 9-10, Internal)

Input Sample Rate Converters

Input sample rate range: 32 to 216 kHz

Gain error: -0.3 dB

Dynamic Range: > 138 dB (-60 dBFS method)

THD+N: < -130 dB (0.00003%); 0 dBFS input

Digital Performance

Supported sample rates: 44.1, 48, 88.2, 96, 176.4, 192 kHz

Clock sources: Local or from network master device

Local clock sources: Internal, DARS, Word Clock, Input 1–2, Input 9–10

External word clock range: Nominal sample rate ±7.5%

E&OE