# **RF**mondial



# **Product Line Livewire Input Node RF-LW**

#### **General specification**

RF-LW is a professional 8 channel Livewire input node specifically targeted for broadcasting and audio applications, which require 4 analog stereo and 4 digital stereo, or 8 digital stereo only input channels. A single 100Base-T link is used to send all audio channels synchronously, eliminating the need for huge breakout cables. Outstanding audio performance and rigged design offer a fully-featured product for professional users.

The following diagram shows the combined analog and digital model:

| L - Audio IN<br>R - analog  | ADC               | MUX      |          |        |  |
|---|-------------------|----------|----------|--------|--|
| L - Audio IN<br>R - analog  | ADC               | <u> </u> |          |        |  |
| L - Audio IN<br>R - analog  | ADC               | ang      | Ŀ        |        |  |
| L - Audio IN<br>R - analog  | ADC               | ר        | rocess   | erface |  |
|   |                   |          | <br>-    | Ē      |  |
| L - Audio IN<br>R - digital   | SRC               |          | veWire   | ETH    |  |
| L - Audio IN<br>R - digital<br>L - Audio IN<br>R - digital                                | SRC<br>SRC        | ital     | LiveWire | ETH    |  |
| L = Audio IN<br>R = digital<br>L = Audio IN<br>R = digital<br>L = Audio IN<br>R = digital | SRC<br>SRC<br>SRC | digital  | LiveWire | ETHI   |  |

## **Basis Features**

- 8 stereo channel Livewire Input Node
  Operational angles and disite
- Combined analog and digital or digital only
- Simple to configure and install
- High-fidelity audio characteristics
- Specially designed for broadcasting applications
- Industrial 19", 1HU, rack mountable

#### Models

- Pure digital model: 8 digital input channels
- Combined model: 4 analog and 4 digital input channels

#### Synchronization

- Livewire
- Network Time Protocol (NTP)

#### Interfaces

- Ethernet RJ45
- Webinterface for configuration **Combined model**:
- 4x analog stereo inputs (8x female XLR, balanced)
- 4x digital stereo inputs (4x female XLR, AES/EBU)
- Pure digital model:
- 8x digital stereo inputs (8x female XLR, AES/EBU)

### Analog Line Inputs

- Input Impedance analog: 600 Ohm, (optional >40 kOhm)
- Nominal input Level: +6 dBu (optional -10 dBV or +4 dBu)
- Input headroom: 9 dB above nominal (optional 20 dB)
- Dynamic range: 112 dB
- SNR: 111 dB
- Frequency response +0.5/-0.5 dB, 20 Hz to 22 kHz

## **Digital Audio Inputs**

- Reference Level: +4 dBu (-20 dB FSD)
- Impedance: 110 Ohm, balanced (XLR)
- Signal Format: AES-3 (AES/EBU)
- AES-3 Input Compliance: 24 bit
- Sample rate conversion: 32 kHz to 96 kHz input sample rate capable (optional 22.05 kHz, 24 kHz)
- Digital Reference: Internal (network timebase) and NTP
- External reference (optional)
- Internal Sampling Rate: 48 kHz
- Output Sample Rate: 48 kHz
- A/D Conversions: 24 bit, Delta-Sigma, with oversampling
- Latency: <3 ms, including network and processor loop
- Dynamic range 138 dB

## Total Harmonic Distortion + Noise

- Analog Input to Digital Output: <0.008%, -0.5 dBFS
- Digital Input to Digital Output: <0.0003%, 1 kHz, -20 dBFS</li>

# Crosstalk Isolation and Stereo Separation and CMRR

- Analog Line channel to channel isolation: 90 dB isolation minimum, 20 Hz to 20 kHz
- Analog Line Stereo separation: 85 dB isolation minimum, 20 Hz to 20 kHz
- Analog Line Input CMRR: >60 dB, 20 Hz to 20 kHz

## **Power Supply AC Input**

- Auto-sensing supply, 87 VAC to
- 240 VAC, 47-63 Hz , internal fuse
- Power consumption: 10 Watts

# Mechanical

- Case: 19" 1RU, rack-mountable
- Dimensions: 420 (483) x 220 x 44 mm
- Weight: 2 kg
- Operating temperature range:
- 0 to +45°C • Humidity: <90%, non-condensing
- Extended temperature range and humidity range (optional)

#### **Remote User Interface**



# **ContentServer Integration**

Seamless integration in ContentServer based on Fraunhofer technology