LoLa16161 – Multichannel Sound Card with SRC

Key Workflow: Linear PCM multichannel stereo sound cards for professional audio workstations

LoLa16161 and LoLa16161-SRC are professional linear (PCM) multichannel sound cards based on the PCI Express bus interface. They are designed for use in any professional system running under Windows or Linux, and requiring up to eight AES/EBU I/O connections. They are reference cards in radio broadcast automation for applications such as multichannel audio ingest, play-out, and production.

At a glance

LoLa16161 and LoLa16161-SRC cards feature sixteen input and output channels through AES/EBU connectivity, with the possibility to synchronize on an external clock (AES11, Word clock, black burst video). LoLa16161-SRC can in addition handle asynchronous AES/EBU input signals thanks to its high quality hardware sample rate converters on each AES/EBU input. LoLa cards allows for very low latency operations, and can be used under Windows or Linux operating systems, with software applications based on standard driver interfaces such as WDM Kernel streaming, DirectSound, Wasapi, and ASIO for Windows, and Alsa for Linux.

- Developed for the broadcast industry
- AES/EBU connectivity
- Hardware sample rate converters on all the inputs (LoLa16161-SRC)
- Low latency
- Interoperable with most third party software applications for audio production, under Windows and Linux

Key features

- Multichannel linear PCM sound card
- PCI Express bus interface
- Low latency

- Eight AES/EBU inputs/outputs, with hardware sample rate converter on each AES/EBU input for LoLa16161-SRC.
- Support for Linux (Alsa driver) and Windows 32-bit and 64-bit (WDM Kernel streaming, DirectSound, Wasapi, ASIO)
- Breakout cable or breakout box (BOB16AES) with XLR connectors for audio connectivity

Configuration

- **Bus/Format**: PCI Express™ (PCIe®) slot (x1, x4, x8, x16)
- **Size** : 168 mm x 111 mm x 20 mm
- **Power requirements (+3.3 V / +12 V)** : 0,7A / 0,01A (LoLa16161) – 1,1A / 0,01A (LoLa16161-SRC)
- **Operating temp / humidity (non-condensing)** : 0°C / +50°C • 5% / 90%
- **Storage: temp / humidity (non-condensing)** : -5°C / +70°C • 0% / 95%

Inputs

- **Digital inputs (stereo)** : 8 AES/EBU (20 kHz to 192 kHz)
- **Hardware sample rate converters (LoLa16161-SRC)** : conversion ratio 16:1 à 1:16, 20 kHz to 192 kHz, Dynamic: 144dB, THD+N: -140dB
- **Other inputs :** AES/EBU Sync* (from 20KHz to 192 kHz managed by driver, h/w 216 kHz), Word clock (up to 192 kHz), Video sync (PAL, NTSC, 32000 Hz – 192000 Hz)
- **AES11 synchronization** : Yes

Outputs

- **Digital outputs (stereo)** : 8 AES/EBU (20KHz to 192 kHz)
- **Other outputs :** Word Clock (up to 192 kHz)

CONNECTORS

- **External connector(s)** : 2 x 26-pin SCSI MDR

AUDIO SPECIFICATIONS

- **Sampling frequency** : Programmable from 32 to 192 kHz
- **Hardware mixer :** Special development required – contact Digigram
- **Supported audio formats** : PCM (16, 24, 32 bits, Float IEEE754)

DEVELOPMENT ENVIRONMENTS

- **Other management** : ASIO, DirectSound, Wasapi, Alsa
- **OS supported :** Windows and Windows Server, 32-bit and 64-bit.versions, Linux
- **Main on-board processing features** : PCM, play+record