



Professional multichannel sound card

LoLa280

LoLa280 is a low latency low profile PCI Express multichannel sound card designed for professional audio recording and logging systems. Based on a new hardware platform, it provides eight balanced analog inputs with AGCs, two balanced analog outputs, headphones output for monitoring, and a hardware digital mixer.

Hardware digital mixer

LoLa280 features an integrated digital hardware mixer allowing the routing of any input combination to any of the eight recording devices and physical outputs, using high precision calculation (values are not rounded) and at ultra-low latency.

Mixer application

The LoLa280 mixer application is an intuitive GUI allowing for easy control and adjustment of levels, application of Automatic Gain Control (AGC) on all inputs (independently for each input), mixing, and routing. Advanced functions like AGC, mixing before recording, mix monitoring, and the capability of low latency confidence monitoring make LoLa280 a perfect choice for recording systems in courtrooms, parliaments, and any other conference center.

Drivers

LoLa280 comes with ultra-low latency WDM DirectSound and ASIO drivers for Windows, allowing it to team with a wide range of applications. In addition, the zero CPU load ASIO driver technology guarantees optimum performance of the system. LoLa280 is also compatible with visblu, a technology by Digigram turning your PC into a professional multichannel IP streaming platform.

Typical applications

- Audio recording systems for courtrooms, parliaments, conference centers, public address installations
- Audio logging and archiving systems for radios
- Multichannel audio encoders based on PC platform

Main features

- Short-length PCI Express low profile format: (Fits in standard PC's as well as in compact PC's)
- 8 balanced analog inputs with AGC
- 2 balanced analog outputs
- Maximum input and output levels: +24 dBu
- 24-bit/192 kHz converters
- Word clock input /output
- 8 playback devices / 8 recording devices
- On-board hardware digital mixer with:
 - 8 analog inputs and 8 playback devices
 - 2 analog outputs and 8 recording devices
- Mixer application allowing for
 - adjusting analog and digital input/output levels and input AGC's.
 - routing and mixing any combinations of inputs to recording devices
 - monitoring any combination of inputs and playback devices
- Visblu compatible
- Windows drivers: WDM DirectSound, ASIO
- Optional 2U rack mountable breakout box: BOB8

Configuration	
Bus/Format	PCI EXPRESS™ (PCIe®) x1 (compatible x2, x4, x8, x16, x32)
Size	168 mm × 69 mm × 20 mm (Low Profile)
Power requirements (+3.3 V / +12 V)	1,2 A / 0,22 A
Operating:temp / humidity (non-condensing)	0°C / +50°C • 5% / 90%
Storage: temp / humidity (non-condensing)	-5°C / +70°C • 0% / 95%
Inputs	
Analog line inputs (mono)	8 balanced
Maximum input level/impedance	+24 dBu/ >10 kΩ
Adjustable input gain (mixer)	analog: from -90 dB to +18 dB * analog and digital: from +18 dB to +36 dB
Other inputs	Word Clock (up to 192 kHz)
Outputs	
Analog line outputs (mono)	2 balanced
Maximum output level / impedance	+24 dBu/ <100 Ω
Adjustable output gain (mixer)	analog: from -48 dB to 0 dB digital: from -110 dB to +12 dB
Other outputs	Word Clock (up to 192 kHz) Headphones (20 mW on 600 Ω), mini Jack (TRS 3,5 mm female)
Audio specifications	
Sampling frequencies available	Programmable from 22 to 192 kHz
A/D and D/A converter resolution	24 bits
Supported audio formats	PCM (16, 24, and 32 bits)
Audio performance	
<i>Measurements done at Fs=48 kHz unless stated otherwise, with filter on the 22 Hz- 22 kHz range</i>	
Frequency response (record + play)	at 48 kHz: 20 Hz -20 kHz: -0.1 /+0.3 dB at 96 kHz: 20 Hz -40 kHz: -0.1 /+0.6 dB at 192 kHz: 20 Hz -80 kHz: -0.1 /-5 dB
Channel phase difference: 20/20kHz	<0.2°/2°
Dynamic range (A-weighted)	Inputs : >100 dB Outputs : > 97 dB
THD + noise 1 kHz at -2 dBfs	Inputs : <-97 dB Outputs : <-87 dB
Crosstalk (Analog in or out)	1 kHz at 24 dBu: <-94 dB 15 kHz at 24 dBu: <-70 dB
Development environments	
Management	DirectSound, ASIO
Supported operating systems	Windows XP, Windows Server 2003, Windows Server 2008 and Windows Vista
Main on-board processing features	32-bit calculation through 32x32 multiplier and 58-bit adder. Real time mixing and routing, level adjustment, AGC on all inputs

* max sensitivity: 0 dBFs for a +6 dBu input signal



Cable included



BOB8, Optional



These sound cards are visiblU ready: get connected to the world of distributed IP audio. A solution based on visiblU®, the Network Audio Operating System by Digigram, takes advantage of their power for low latency wide area network encoding and processing, whether they are located next door or hundreds of miles away.

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