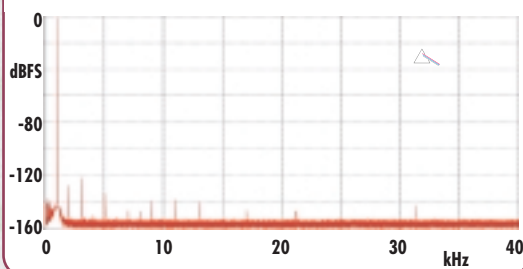


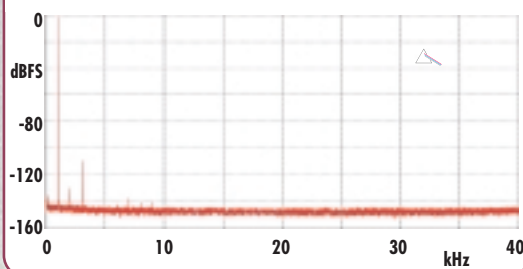
ADA-8XR MULTI-CHANNEL CONVERTER

TECHNICAL DATA

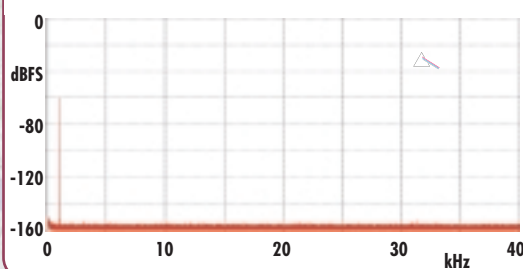
A/D HIGH-LEVEL PERFORMANCE



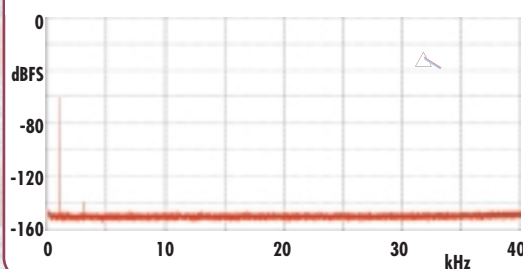
D/A HIGH-LEVEL PERFORMANCE



A/D DYNAMIC RANGE



D/A DYNAMIC RANGE



FFT measurements performed using Prism Sound dScope Series III at 256k-points, Prism-7 Window, 16 averages, 96kHz sampling, analogue sensitivity +18dBu=0dBFS, 997Hz. High-level tests at -1dBFS; dynamic range test at -60dBFS.

SPECIFICATIONS

Unless otherwise stated, specifications are RMS, unweighted, band-limited 20Hz-20kHz, 24-bit sampling at 96kHz, line-up at 0dBFS=+18dBu.

MAINFRAME

Dimensions: W: 483mm D: 390mm H: 88mm
Power: 90-125/180-250VAC, 50/60Hz, 60W
Module slots:

- 2 x Analogue I/O module slots
- 2 x Digital I/O module slots
- Utility slot (monitor, sync, RS232/485/MIDI)
- 1 x internal DSP expansion slot

Synchronization:

Multi-stage, auto-ranging PLL per Path
Ultra-high-precision mode (+/- 0.15%)
Jitter rejection corner frequency ~80kHz
Jitter rejection slope: 60dB / decade
Jitter attenuation: >60dB above 700kHz
High-precision mode (+/- 6.0%)
Internal 32, 44.1, 48, 88.2, 96, 176.4, 192 kHz +/-25ppm

Each path can be separately synchronized. Path sampling rate can be frequency-locked to a different reference frequency, for example: 96kHz path locked to 48kHz Worldclock.

Monitor:

Two-channel, analogue and digital outputs.

Analogue outputs:

Electronically balanced, RCA/phone sockets
Output impedance 50Ω
Headroom: 0dBFS=+15, +18, +21, or +24dBu
Absolute gain accuracy: +/-0.05dB
THD+n: (997Hz, -1dBFS) -101dB (0.0009%)
Dynamic range: (997Hz, -60dBFS) 105dB
Channel separation: 1kHz: >120dB

Headphone output: 6.3mm stereo jack, impedance 114Ω; max sensitivity 4.7Vp-p
Digital output: AES3-id / S/PDIF, 24-bits

Meters:

8-ch bargraph with peak hold; 2-channel readout; Overload indicator threshold: 1 sample full scale or -0.05dBFS Assignable 'Alert' function

DSP:

'Encode' for digital outputs:
Prism Sound Super Noise Shaping (SNS):
TPDF dither, plus 4 curve shapes
Intelligent 'auto-dither-defeat' system
Prism Sound **'MR-X'** bit-mapping:
20-bit/24-bit/hi-rate on 16-bit tracks
24-bit/hi-rate on 20-bit tracks
Prism Sound **'DRE'**:
20-bit dynamic range on 16-bit tracks
24-bit dynamic range on 20-bit tracks
- without loss of tracks
'Decode' for digital inputs:
Prism 'MRX' and 'DRE' as above

DSP Expansion (with additional module):

Synchronous sample-rate conversion
Track patching and mixing

STANDARD CONFIGURATIONS

ADA-8XR standard AES

Part no. **8C-XR-AES**, mainframe plus:
Slot: Module
A1: 8C-AD 8-channel A/D
A2: 8C-DA 8-channel D/A
D1: 8C-AES 4xAES3 I/O with breakout cable
D2: Spare

ADA-8XR Pro-Tools™ 1 HD compatible

Part no. **8C-XR-PTH**, mainframe plus:
Slot: Module
A1: 8C-AD 8-channel A/D
A2: 8C-DA 8-channel D/A
D1: 8C-PTH Pro-Tools™ 1 HD-compatible interface (does NOT include cable)
D2: Spare

ADA-8XR for DSD/SACD plus PCM & AES

Part no. **8C-XR-DSD-AES**, mainframe plus:
Slot: Module
A1: 8C-AD 8-channel A/D
A2: 8C-DA 8-channel D/A
D1: 8C-DSD 8-channel DSD I/O
D2: 8C-AES 4xAES3 I/O with breakout cable

ADA-8XR MODULES

A/D converter, 8-channel, line input

Part no. **8C-AD**
Analogue line input, XLR connectors, with 'Overkiller' progressive fast-acting overload limiter.

D/A converter, 8-channel

Part no. **8C-DA**
Analogue line output, XLR connectors.

AES I/O module,

Part no. **8C-AES**
Transformer-coupled AES I/O on DB25 connector, 1.5m break-out lead to male and female XLRs.

Pro-Tools 1HD™ I/O Module

Compatible with Digidesign Pro-Tools 1HD™
Part No: **8C-PTH**
Digital Module, cable not supplied

Pro-Tools Mix™ I/O module

Compatible with Digidesign Pro-Tools™.
Part no. **8C-PT**
Digital module, cable not supplied.

DSD I/O Module

Compatible with DSD interface
Part No: **8C-DSD**
Digital module, DB25 Connector to BNC Connectors

MDSO I/O Module

Compatible with Supercap DSD interface
Part No: **8C-MDSO**
Digital Module, DB25 Connector to BNC Connectors
CAT-5 cable not supplied.

Firewire/IEEE 1394A Module

Implements IEC 61883-6
Part no. **8C-FW**
Digital module, 2 connectors
Cable not supplied

MODULE SPECIFICATIONS

8C-AD 8-channel A/D converter:

Electronically balanced inputs, female XLRs
Differential input impedance: 21kΩ
Full-scale input range (software-controlled):
+5dBu..+24dBu in 1dBu steps,
trims in 0.05dB steps
Absolute gain accuracy: +/-0.05dB
CMRR: 60Hz:<100dB, 1kHz:<90dB,
20Hz..20kHz:<65dB
Overkiller: Software selectable On/Off, auto-tracking
THD+n: (997Hz, -1dBFS) -110dB (0.0003%) typical
Dynamic range: (997Hz, -60dBFS) 115dB typical
IMD (SMPTE/DIN, 60Hz@-3dBFS & 7kHz@-12dBFS): <100dB
Maximum harmonic spurious (997Hz @ -1dBFS): <130dBFS
Frequency response:
fs=192kHz: -0.05dB: 6.2Hz..50.2kHz;
-3dB: <1Hz..77.7kHz
fs=96kHz: -0.05dB: 6.1Hz..43.3kHz;
-3dB: <1Hz..48.0kHz
fs=48kHz: -0.05dB: 5.5Hz..22.8kHz;
-3dB: <1Hz..24.0kHz
fs=44.1kHz: -0.05dB: 5.0Hz..20.1kHz;
-3dB: <1Hz..22.0kHz
Passband ripple: 96kHz: <0.015dB; 48kHz: <0.015dB
Interchannel phase difference: <0.03 degrees
Channel separation: 1kHz: >125dB,
20Hz..20kHz: >117dB
Group delay (input to AES3 output): 20/fs

8C-DA 8-channel D/A converter:

Electronically balanced outputs, male XLRs
Differential output impedance: 50Ω
Full-scale output range (software-controlled):
+5dBu..+24dBu in 1dBu steps,
trims in 0.05dB steps
Absolute gain accuracy: +/-0.05dB
Output balance: 54dB
THD+n: (997Hz, -1dBFS) -102dB (0.0007%) typical
Dynamic range: (997Hz, -60dBFS) 108dB typical
IMD (SMPTE/DIN, 60Hz@-3dBFS & 7kHz@-12dBFS): <94dB
Maximum harmonic spurious (997Hz @ -1dBFS): <130dBFS
Frequency response:
fs=192kHz: -0.05dB: 5.2Hz..37.2kHz;
-3dB: 1.4Hz..74.4kHz
fs=96kHz: -0.05dB: 5.1Hz..38.9kHz;
-3dB: 1.4Hz..47.4kHz
fs=48kHz: -0.05dB: 5.1Hz..22.6kHz;
-3dB: 1.4Hz..23.9kHz
fs=44.1kHz: -0.05dB: 5.0Hz..20.8kHz;
-3dB: 1.4Hz..22.0kHz
Passband ripple: <0.005dB
Interchannel phase difference: <0.02 degrees
Channel separation: 1kHz: >115dB,
20Hz..20kHz: >110dB
Group delay (AES3 to output: 49.5/fs)

8C-AES I/O module:

Transformer-coupled female DB25 connector
AES3 mode: I/O impedance: 110Ω;
Output carrier amplitude (loaded): 3.2Vp-p
S/PDIF mode: I/O impedance: 75Ω;
Output carrier amplitude (loaded): 0.5Vp-p
Output channel status: Professional or consumer
Input jitter tolerance: 15µp below 200kHz;
0.5µp above 8kHz (UI=163ns @ 48kHz)
One-wire or two-wire ("Split96") input and output modes supported @ 88.2, 96, 176.4 and 192kHz
Wordlength: 16, 20 or 24-bit

WHY NOT TRY IT NOW?

Call or email now to join our no-obligation evaluation program using the contact details below.



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<http://www.prismsound.com>
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ADA-8XR MULTI-CHANNEL CONVERTER

ADA-8XR

**UNLOCK THE FULL POTENTIAL OF
YOUR AUDIO PRODUCTION SOFTWARE**

THE ADA-8 XR IS THE KEY

*STATE OF THE ART PERFORMANCE AND FLEXIBILITY IN A
MODULAR PACKAGE IDEAL FOR
RECORDING; EDITING; MIXING;
CD & SACD MASTERING;
POST PRODUCTION FOR TELEVISION;
SURROUND SOUND PRODUCTION FOR FILM & DVD.*




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CORDING
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ADA-8XR : The only com

ADA-8XR SYSTEM

The ADA-8XR provides state-of-the-art multi-channel A/D and D/A conversion for both PCM and DSD with a range of digital interface options and a stereo monitor in digital and analogue formats.

Two PATHS


The ADA-8XR provides two paths of 8 channels, typically used as 'record' and 'play' in the standard configurations.


The two paths may also be configured as two banks of A/D or D/A providing 16 similar channels. These configurations are useful when larger but unequal numbers of A/D and D/A channels are required. For example, a Pro-Tools™ compatible system with 24 channels of D/A, 8 channels of A/D and 8 channels of AES I/O can be constructed with just two ADA-8XR mainframes.


ADA-8XR FEATURES

- 8 channels of state-of-the-art DSD or PCM conversion in one great-sounding package.
- Digidesign Pro-tools I HD™ compatible interface allows direct connection to Pro-Tools systems, replacing the standard 192 units.
- ADA-8XR modularity allows variants such as 16 channels of A/D or D/A and digital-only configurations.
- Flexibility with digital format conversion between PCM and DSD, one and two wire high-sampling formats for 192k and 96k sampling and high-definition recording on 16-bit media using Prism Sound MRX or DRE.
- Locks securely to an external reference working standalone or with Digidesign™ Pro-tools I HD™.
- 8 channel peak meter with peak-hold, switchable between paths 1 and 2 (typically record and play).
- 'Overkiller' progressive fast-acting overload limiter circuit selectable on each A/D channel. Limit threshold automatically tracks headroom setting.

DSD Direct interface available for DSD recording and editing
Direct Stream Digital

 Direct interface available for Firewire compatible systems

 Choice of 4 Prism Sound SNS noise-shaping curves for the best sounding, distortion-free wordlength reduction to 16 or 20 bits.

 Enables up to 24 bit recording at high sample rates on a 16 bit recorder.

ADA-8XR

MULTI-CHANNEL CONVERTER

MONITORING

- 24-bit digital output
- Analogue outputs
- Headphone jack
- Built-in mixer



INPUTS AND SOURCE SELECTION

- Allows a combination of analogue and digital sources to your recorder
- 'Overkiller' peak limiter per channel
- Headroom and per channel gain trim
- 1-wire or 2-wire high-sampling modes

PROCESSING FUNCTIONS

- Upgradeable with DSP expansion module
- New software updates available at www.prismsound.com

NOISE-SHAPING

- Prism So
- Choice of
- Prism So
- Prism So

WHY USE A SEPARATE CONVERTER SYSTEM?

Why? Because it is the key that unlocks the sonic potential of your digital audio system. The sound of a digital workstation is determined by the A/D and D/A converters and the clocking system.

WHY THE ADA-8XR?

The ADA-8XR provides several key advantages. It has unbeatable performance and it has flexibility, allowing 8 channels of A/D and D/A conversion, 16 channel D/A or A/D or D-D only configurations and has a wide range of digital interface options. The ADA-8XR has the most advanced and secure clock system currently available.

The new ADA-8XR is based on the proven ADA-8 platform.

Here is what Peter Cobbin at Abbey Road Studios had to say about the ADA-8:

"At last the ultimate 8 channel converter by Prism Sound delivers exactly what Abbey Road needs. This is a quality box and amazingly versatile. I use the ADA-8 both as a stand alone converter – excellent for surround mixing, and racked-up for hard disk recording. Pro-Tools has never sounded so good! The ADA-8 has a stunning sound and is my first choice converter be it for pop music mixing or orchestral recording.

The new ADA-8XR is even better.

WHY NOT TRY IT NOW?

Call or email now to join our no-obligation evaluation program. In the USA call: (973) 983 9577. In the UK or other countries call: +44 (0)1223 424 988, or email: sales@prismsound.com

verter you'll ever need

ER

MIMIC DISPLAY

- Quick and easy access to menus using blue shortcut buttons
- Graphic display of signal flow and control settings

CLOCKING AND SYNCHRONIZATION

- Prism Sound acclaimed jitter-rejecting Phase Locked Loops (PLLs)
- High quality internal clock reference
- Wide lock range for external clocks
- Lock to Wordclock, AES reference, video, digital inputs or workstation
- Supports Digidesign™ LOOP SYNC & Superlock

MENU DISPLAY

- Full access to all controls
- Easy shortcuts using blue access buttons
- Precise level reading for accurate line-up

SNAPSHOT STORES

- Instant store and recall of favourite setups
- Comprehensive range of factory presets

ING AND ENCODING FORMATS

- and SNS noise-shaping
- four SNS curves
- and MRX encode/decode
- and DRE encode/decode

OUTPUTS

- Output routing
- Analogue headroom control
- Global mute
- 1-wire and 2-wire high-sampling modes
- Drive up to 8 channels in 2-wire format

METERING

- Meter record or playback paths
- Pre or post processing
- Hold or auto-decay modes
- Soft-key controls for each channel
- Programmable 'channel alert' LEDs

ADA-8XR OPTIONS AND MODULARITY

The ADA-8XR is a mainframe fitted with up to two digital and two analogue modules. (See back page for details of available modules.)

Call now for help with configuration options or to obtain details of your nearest authorized dealer. In the USA call: (973) 983 9577.

In the UK or other countries call: +44 (0)1223 424 988, or email: sales@prismsound.com

8C-XR-PTHD-FW configuration illustrated. See back page for further details.

SYNCHRONIZATION

- AES11 (DARS) input & output
- Wordclock, Superclock, LOOP SYNC and Video
- Lock to any digital input

MONITOR OUTPUTS

- Analogue outputs
- 24-bit AES3-id or S/PDIF digital output

ANALOGUE SLOTS

- 2 slots supporting A/D or D/A converter cards
- 8 channels of A/D and D/A or 16 similar channels
- Easily upgradeable converter modules

DIGITAL SLOTS

- 8-channels of AES I/O plus another interface format
- Dual AES cards for 8 channels of 2-wire 192/176.4kHz
- Dual Pro-tools I HD™ cards for 16-channel input or output
- Firewire and DSD/MDSO also supported

SERIAL PORT

- Easy upgrading of firmware in FLASH EPROM
- Remote control
- RS232 or RS485
- Optional MIDI control

CLOCKING AND SYNCHRONIZATION

The ADA-8XR has an ultra-precise, ultra-stable internal reference oscillator essential for high-end sonic performance but also provides rock-solid jitter-free lock to external clock sources, even when the external source is of poor quality. The ADA-8XR has separate multi-stage, high-order Phase Locked Loops (PLLs) for each path, allowing independent synchronization for record and playback. Either ADA-8XR path may lock to any of the ADA-8XR's reference inputs, or an internally-derived clock from any of the ADA-8XR's digital inputs including the Digidesign™ interface and LOOP SYNC.