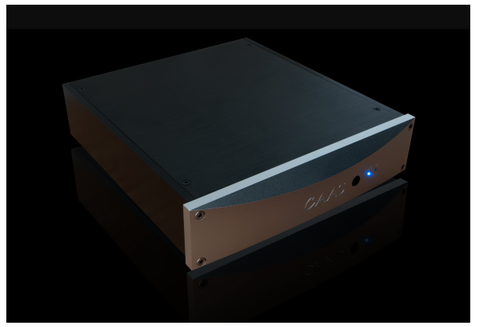
DAS Specification

Frequency Response	10Hz to 20kHz (-0.1dB)
Analogue Output	2V RMS
Output Impedance	110ohm
DAC THD	< 0.03% @1kHz (0dB level, 2V RMS output)
Crosstalk	<-90dB
Output SNR (A-WTD)	~100dB
Output DC Offset	<+/-10mV
Power Consumption	< 20W
Fuse Rating	T500mA
Analogue Outputs	1 x L/R Pair RCA (Fixed Line Level DAC output)
Digital Inputs	1 x RCA (S/Pdif) 2 x USB (connect to HDD or PC)
Network Inputs	1 x RJ45 LAN (wired connection)
Video Output	1 x HDMI (with CEC capability)
DAC	Parallel 176.4k up-sampling 16Bit R-2R DACs
Mains Transformers	2 x 15VA (toroidal)
Dimensions	65mm H, 220mm W, 260mm D
Weight	2.8kg



Reference Digital Audio Server (silver)

Reference Digital Audio Server (black)

Reference Digital Audio Server - Rear

The Reference standard digital audio server & streamer features:

- Parallel 176.4k up-sampling 16Bit R-2R DACs
- Two analogue inputs, 1 x S/Pdif, 2 x USB, 1 x LAN
- USB and LAN Sample rates (Up to 24Bit / 192kHz)
- S/Pdif sample rate (16bit / 44.1kHz, 88.2kHz, 96kHz)
- HDMI with CEC
- Ultra low Transient Intermodulation Distortion (TIM)
- DC Coupled from input to output
- Separate transformers for the analogue and digital sections
- 11 regulated power supplies: 4 dedicated discrete regulated power supplies (analogue section) and 7 regulated supplies for the digital sections.
- Play music from an external 3.5” hard drive or USB Pen (2.5” HDD not supported).
- Stream music over your network from tablets, smart phones and laptops.
- Accepts multiple file formats (WAV, FLAC, AIFF, ALAC and more).
- HDMI output for navigating music files on a flat screen TV.
- HDMI CEC control via TV remote (CEC enabled TVs only)
- Control through networked devices (Smart phones, tablets, web browser etc...)

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The Reference Digital Audio Server (DAS)

CAAS Audio

State of the Art Class A Audio Systems

CAAS Audio

Reference Digital Audio Server (DAS)

The Reference Digital Audio Server

CAAS Audio is dedicated to the art of ultimate high quality audio reproduction. The last 6 years of research and development have culminated in the realisation of the reference standard Digital Audio Server and Streamer (DAS).

The DAS is a statement in audio design, an elegantly minimalist aesthetically pleasing digital audio serve.

The DAS will unlock the musical performance and move it from within the speaker and into the listening room, offering a spacious and truly immersive musical experience.

The DAS is an extremely versatile audio server with two analogue audio inputs, a single S/Pdif input and a USB input. The DAS also has networking capability.

The DAS incorporates CAAS Audio's proprietary short signal path and minimal component topology with DC coupled design from the input, right through to the output. By taking advantage of the higher bandwidth, speed and lower distortion offered by this topology a true zero feedback system can be employed thus producing one of the most dynamic, open, transparent and realistic sound you'll ever hear.

The Technology

The DAS is a hand built single chassis dual monaural digital audio server and streamer. Each amplifier channel (left and right) is totally independent with separate DAC ICs and separate discrete regulated power supplied. The only thing the two channels have in common are the transformers and the first stage smoothing / reservoir capacitors.

A Raspberry PI micro computer system handle the digital data and up-samples the content to 176.4k samples per second using a linear, near perfect impulse response up-sampling algorithm. This system is directly coupled through a bespoke low reflection, multi-line (8 wire) digital interface with data buffering and a custom low jitter re-clocking system, using an ultra low jitter clock modual. This bespoke low jitter interface feeds a parallel arrangement of dedicated 16bit R-2R DAC ICs (with separate DACs for both left and right channels).

The power supply is a key component in achieving the maximum performance from the audio sections and for this reason the DAS is fitted with two separate transformers; one for the analogue sections and one for the digital sections.

The DAS uses four dedicated high speed, low output impedance, discrete stabilised power supply, offering pure ultra low noise current delivery to the analogue sections. The DAS has an additional seven dedicated regulated power supplies for the digital sections. All of the power supply sections are decoupled by an array of high speed, high quality polypropylene capacitors.

The DAS has analogue DC coupling from input to output (The DAS has NO capacitors in the signal path) and a very short signal path.

All resistors are high quality metal film, to minimise distortion and maximise performance. All components are matched to 1% tolerance or better and All RCA connectors are high quality gold plated Neutriks.

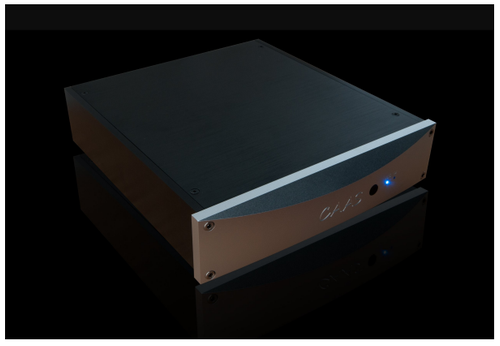
The Design Philosophy

The DAS has been designed using the philosophy that excessive components in the signal path can only add noise and distortion and ultimately degrade the overall sound quality. For this reason the main criterion for the DAS design was minimal signal path component, which included silicon junctions.

A CD Transport or other devices can be connected to the DAS S/Pdif input, additionally a hard disk can be connected to the USB input and digital media data accessed from this hard disk.

Alternatively digital audio can be streamed from either a NAS, a PC, a Tablet or a Smart Phone over the LAN connection.

All music files and data can be accessed through the on screen interface once the DAS has been connected to a TV or monitor (though HDMI). If the TV has HDMI CEC then all the DAS functions can be accessed through the TV remote, alternatively the functionality can be accessed through a LAN interface, Tablet or Smart phone.



Sound Performance

The DAS is dynamic, spacious, agile and full bodied yet neutral sounding without superposition of its own signature on the audio signal. Bass is extended to a level rarely heard, while being extremely fast and precise yet open and transparent. The mid band is full bodied with definition and layering that is unsurpassed. The treble is detailed, open with fast transients yet delicate and refined with perfect time coherence. The depth of image is truly astonishing while the sound stage is unbelievably wide and detailed.

The imagery of the DAS offers pin-point accuracy with zero dynamic compression and a poise and precision to rival the very best. We believe the DAS to be the most accurate, open and spacious sounding Audio Server and Streamer on the market.