

Atoll SDA 300 Signature

All in one
What more could you ask for?

ASR Emitter 1

A class of its own!

Audirvāna

Studio generation



Rogers LS3/5a
Why do they still appeal?

/ TEST

ALL-IN-ONE

ATOLL SDA300 SIGNATURE

Vincent Guillemin



Previewed during the High End 2022 in Munich, the all-in-one SDA300 Signature from Atoll Electronique simply combines in one device an integrated amplifier similar to the IN300, with a network player-converter based on the ST200 & ST300 Signature. Identical to the SDA200 Signature in front and rear panel connections, the newcomer really evolves inside, mainly on the amplifier part, with the aim of finding sound characteristics and strength of the 300 series!

ATOLL SDA300 SIGNATURE

Following the success of its SDA200 Signature all-in-one and the appetite of audiophiles to reduce the size of their audio boxes, Atoll Electronique has extended its range to include the SDA300 Signature, ideal as the first one for saving space and budget. For example, an IN200 integrated amplifier costs € 1,750 and a ST200 Signature network player-converter € 2,100, when combining them together allows the SDA200 Signature to be reduced to € 3,100, i.e. a gross saving of € 650, to which must be added the saving of a pair of modulation cables and one power cable, each of them to choose at least at around €300 to supply seriously equipment in this range, i.e. a final net saving of more than € 1,200.



ORIGIN

France

PRICE

4 000 €

DIMENSIONS

440 x 96 x 320 mm

WEIGHT

18,9 kg

POWER RATING

2 x 150 W at 8 ohms

2 x 280 W at 4 ohms

HARMONIC DISTORTION (THD)

0.05% ; 1 kHz

FREQUENCY RESPONSE

5 Hz to 150 kHz

SIGNAL-TO-NOISE RATIO

112 dB

INPUT IMPEDANCE

220 kilo-ohms

DIGITAL INPUTS

Ethernet (RJ45) ; 2 x Toslink ; 2 x coax SPDIF ;

2 x RCA ; 2 x USB type A ; Wi-Fi antenna ;

Bluetooth antenna

DIGITAL & ANALOGUE OUTPUTS

RCA pre-out ; Toslink ; Coax SPDIF ; 6.5mm jack

AUDIO FORMATS

AAC (24-96 kHz 16-bit) ;

FLAC (44.1-96 kHz/16-24-bit ;

192 kHz/1-24-bit) ; MP3 (8-48 kHz A6-bit) ;

WAV (22-96 kHz/1-24-bit) ; AIFF & ALAC ;

DSD 64 & 128 ; MQA

The idea is the same with the SDA300 Signature, launched for a catalogue price of € 4,000, when separate elements come to € 2,100 (ST200 Signature) from € 2,900 (ST300 Signature) for the source, plus € 3,000 (IN300) for the amplifier, i.e. a gross saving of € 750 to € 1550. In exchange, you'll just have to do without a few analogue inputs, in particular the balanced XLR one, to gain in comfort of use on everything else, even on the preamplifier part, which is more comfortable to manage with a front screen.



Once this financial overview has been swept away, the new device demonstrates all the know-how of a very dynamic French brand, always listening to the needs of users, as well as the best technologies to develop the most beautiful musicality, while preserving price levels still measured, regarding current increases due to the inflation of raw materials.

On the amplifier part, we find a double mono stages with two 440 VA toroidal transformers already known on the 300 range, for a total power supply announced at 892,2 VA, with no longer 12 ESR capacitors of 6 800uF as on the AM300 and IN300, but only eight, always made to Atoll's specifications, and already very sufficient to boost the device, with a total capacitive power of 65 800uF once the other capacitors devoted to this section are added. MOS-FET transistors on each channel are combined with

discrete component stages biased in pure class A, with in passing a benefit due to the engineers' work on the AM300 Signature power amplifier, to make the SDA300 Signature gain 20W per channel under 4 ohms compared to the IN300. Now of 2 x 280 W under 4 ohms, the amplification remains on the comfortable power of 150 W per channel under 8 ohms, while the output stages benefit from a remarkable treatment of feedback effects, pushed to very flattering custom-made terminal blocks, sufficient in themselves to demonstrate the quality of finish reached today by the brand.

More limited than on the IN300 Signature, but also less useful since its main use is obviously the playback of digital audio files, the preamplifier part of the SDA300 Signature still offers two RCA analogue inputs and a Pre-out, while digital inputs are placed

slightly higher than on the rear panel of the SDA200 Signature, due to the fact that the internal card takes more space. There are two outputs - one optical and the other coaxial - if you wish to deploy the network part alone to another system, as well as two optical and two coaxial inputs to directly integrate the DAC, still devoted as on the ST200 Signature to a Burr-Brown PCM1792 conversion chip, capable of handling formats up to 192 kHz/24 bits on the USB-A, RJ45 and Wi-Fi inputs not yet mentioned, as well as DSD64 and DSD128. Here again, engineers have taken advantage of recent developments, this time in the ST300, to use ClarityCap ESA47uH250Vdc link capacitors, which are superior to those used in the ST200, with benefit for the sound.

On the front, a second USB-A input is located, more comfortable to integrate without having to go to the back of the device, for example in case of a temporary integration of a USB key or a hard disk. For the rest, the presentation remains strictly identical to that of the SDA200 Signature, except for the height and the name of the device, which is discreetly engraved in the anodized aluminum at the bottom right. In the center is a beautiful 5" TFT LED color screen that is non-touchable, as chosen by designers, who prefer to leave its management to two imposing, very easy-to-use wheels, associated with a practical little back button. In addition, you

can naturally use the interface of the Atoll Signature application available on iOS and Android, with recent important contributions concerning web radios. A 6.5 mm headphone jack, Wi-Fi and Bluetooth antennas are a perfect complement for this French high-fidelity Swiss Army knife.

THE SET UP

While the SDA200 Signature weighs only 12 kg, the SDA300 Signature already shows its superiority by its mass, consequent with 18,9 kg, impressive in a steel case with a conventional format of 440 x 320 x 96 mm (10,4 mm with the rubber feet), 6 mm higher than its small colleague. Used with its own network-player section as the main source, the SDA300 Signature was integrated into our two Solidsteel and Norstone hi-fi furniture and connected to mains, Internet and speakers, before being retested on its network, DAC and amplifier parts independently.

In possession of an ST300 Signature, we were able to compare this source part in detail, knowing that the latter has the advantage of a double structure with a conversion chip per channel, whereas the SDA300 inherits, like the ST200 Signature, a single chip.

To develop the tests of its amplifier part, we associated it with the compact Fyne Audio F500SP, Atohm GT1 and Jern 15H, while we redeveloped the listening in our other studio, on a Centaure cabi-



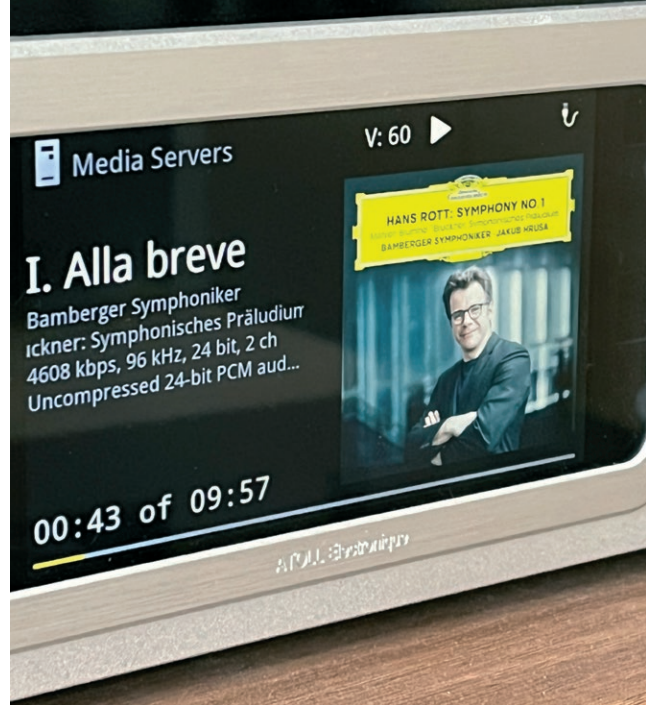
net, then connected to the larger T&T Nel Extreme columns.

Once plugged in and switched on by the 0-1 switch on the back - it will then be possible to switch off the device by a long pressure on the right knob, with the advantage of leaving some circuits in heat -, we used the Atoll application to find the music of our library as well as numerous streaming platforms, knowing that the SDA300 Signature is also Roon compatible. The use of several streaming app finally stopped us once again at Audirvana Studio, definitively superior in providing the greatest purity, and therefore musicality, of audio files transferred to the new Atoll.

THE SOUND

Like all current Atoll products, the SDA300 Signature maintains the brand's sound identity, particularly musical on the 300 range, whose conversion chips are all different between the internal DAC of the IN300 (Asahi Kasai AK4490), DAC300 (Sabre ESS9038 Pro) and ST200/300 (TI Burr-Brown 1792), the latter found on the top-of-the-range all-in-one, propelled by the powerful amplification derived from the IN300.

Never in trouble, our SDA300 Signature is particularly well suited to flexible speakers such as Fyne Audio and Atohm, resulting in a splendid balance and a delicate respect for timbre across the spectrum. Slightly less ductile and dynamic than when the ST300 Signature network player is connected to it via one of its RCA inputs, the SDA300 Signature nevertheless offers a source that is already very realistic in terms of image and colors, with the result of warm instruments and voices with a beautiful presence, whose immediately recognizable grain displays that particular softness of the Burr-Brown



chips, which are far from being as obsolete as some people would like to believe.

In its range, the SDA300 Signature surpasses many competitors in terms of definition and details, and it particularly takes the lead as soon as we come back to its amplification, with surprising results on the already energy-consuming Jern 15H, and especially against with the more consequent columns like the T&T Nel Extreme.

Through its ergonomic interface, thanks to which a plethora of Internet radio and streaming services are available, including Tidal, Deezer or Spotify, it also controls UPnP playback launched from another software, including Audirvana. Some music settings can also be changed if needed, although it is known that for lot of people (including some of the listeners), the interface and ease of use remains a priority, for which the Atoll app is one of the easiest to manage at present. Navigating between tracks becomes child's play, with the pleasure of moving without constraint from a Beethoven symphony to Eve's danceable R&B or Dr Dre's nervousness, until drifting to Manu Chao's «Je ne t'aime plus», to reassure oneself just after with «Plus Fort que nous» under the marvelous

delicacy of Melody Gardot. Delivered over a wide frequency range, all these styles will quickly bring their share of detail and roundness to a relentlessly musical listening experience.

OUR CONCLUSION

By combining an IN300 and an ST200 Signature, both improved, the new SDA300 Signature once again possesses all the qualities and sonic characteristics of Atoll, while standing out from certain competitors, who only add a DAC and network card

to their amplifier, without being able to achieve the same quality of source, nor to offer the same comfort of use as with a color screen on the front. Having already awarded an Essential VUMeter to the IN300, ST300 Signature and AM300 Signature, we wondered if it would be redundant to award this new high-fidelity all-in-one again. But since this one is a combination of the above-mentioned elements, with the advantage of requiring less space and a smaller budget, it would make no sense not to judge this product as essential once again! ■

