



# Sontia Sound Bar Reference Designs

Sontia's Sound Bar Reference Designs incorporate the impressive Sontia SPT 'linear phase' sound—offering an easy path to creating products that are a major improvement over conventional sound bars.

Sontia's SPT solutions are a range of innovative audiophile-grade sound technologies that dramatically deliver outstanding performance from any speaker in almost any sound product.

As part of range of licensee product support packages, Sontia offers full reference designs for great-sounding, high-quality Sound/Speaker Bars. These designs incorporate the best of the Sontia SPT 'linear phase' family, including Acoustic Imaging, Speaker Optimisation, Dynamic Bass Enhancement, Digital Cross-over and Central Speaker Generator. They deliver exceptionally clear, natural, life-like and 3-dimensional sound without the need for rear speakers.



## Reference Designs Include:

- full electronics circuit diagrams and Bill of Materials
- software/firmware for DSP and microcontroller
- recommendations and sourcing for speaker drivers
- PCB Gerber files and assembly notes
- optional User Guide
- optional industrial design concepts.

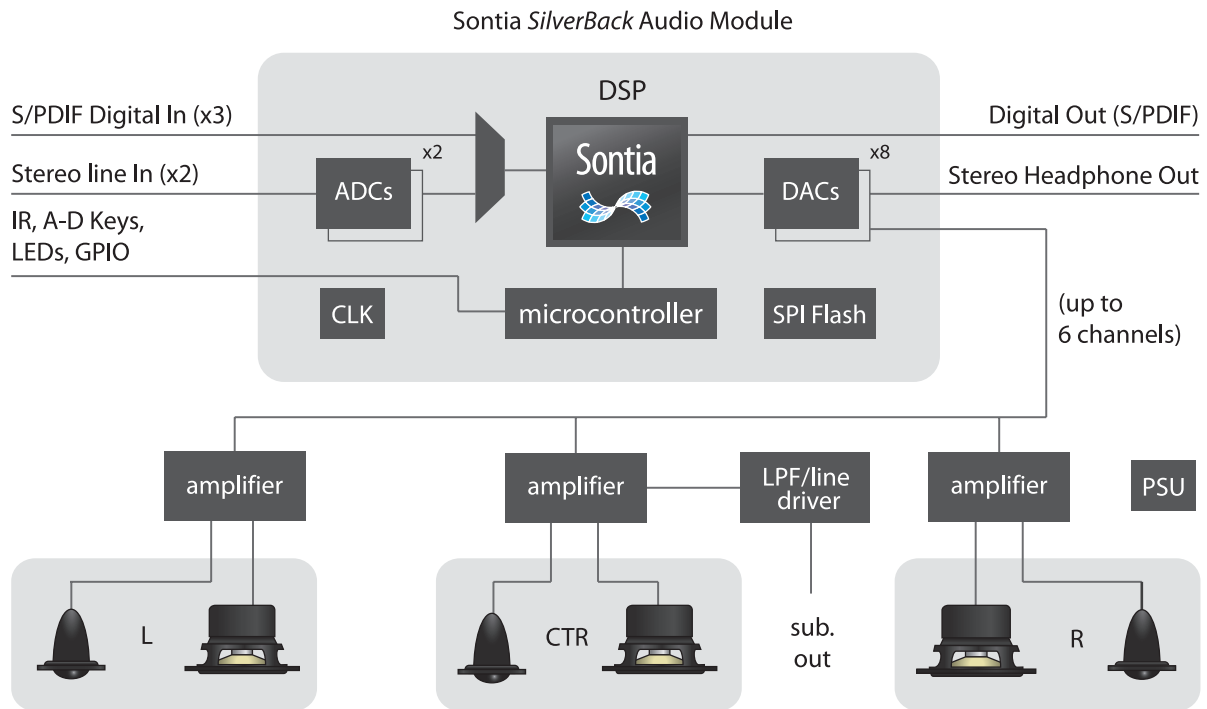
## Product Key Features:

- incorporates the innovative, stunning Sontia sound
- up to 6 channels of amplification to 120W
- Class D amplifiers
- multiple analog and digital inputs
- sub-woofer and headphone outputs
- remote control and front panel operation.

*“very impressed...a naturalness and fidelity to the original that I have not heard before”*

Michael Price, Music Editor & Composer  
(*'Lord of the Rings', 'Quantum of Solace'*)

## Architecture



## Technical Details

Output Power: 120W into 3 channels/ 6 loudspeaker amplifiers (L/mid, L/high, C/low-mid, C/high, R/mid, R/high)

Class D amplifiers

Amplifier THD: better than 1% (full power)

Amplifier SNR: 87dB (typ.)

SilverBack Module DAC Dynamic Range: 105dB (typ.)

SilverBack Module ADC (input) Dynamic Range: 105dB (typ.)

Frequency Range (-3dB): 40Hz–25kHz

S/PDIF Digital Audio Input (3x): switchable between 2xToslink or 1x RCA phono. 16/20/24-bit linear stereo PCM. Supported sample rates: 44.1, 48, 88.2, 96 and 192kHz.

Stereo Line Level Audio Input (2x) (gain adjustable): default supplied: 1x RCA phono., up to 2V RMS, input impedance: 10k $\Omega$ ; 1x 3.5mm stereo jack, up to 1V RMS (adj.), input impedance: 10k $\Omega$

Stereo Headphone Output (1x): 40mW into 32 $\Omega$

Sub-Woofer Line Level Output (1x): 2V RMS into 10k $\Omega$

LED indicators (up to 8): functions set in software; default functions: Standby/Activity, Mute and Source Select

Front panel buttons: 6x, functions set in software; default functions: power on/standby/mute, vol. up/down, source select, Sontia SPT on/off, night mode on/off

IR Sensor: Philips RC-5 command set

External Power Supply: input: 110-230V AC. Rated at >120W. Output: +19V, ave. current: 1.15A; short term peak current: 8A

*All information is subject to change. Please check with Sontia for the most recent specifications and details.*