

DSP6000

DSP Loudspeakers

Sales information
1st December 2001



Background

Meridian has long led the market with their highly acclaimed DSP loudspeaker designs. In fact the DSP6000 – which was introduced in 1990 – is the only loudspeaker to hold the coveted Stereophile Class A rating for eight successive years.

The Meridian DSP loudspeakers combine excellent acoustic and drive-unit technology, with multiple built-in power amps and unique performance-enhancing DSP and digital conversion systems. The DSP loudspeaker is the ultimate expression of the speaker builder's art.

Meridian DSP6000 and DSP6000C

"Smart Art" is how one owner, an antiques dealer, describes DSP6000s. Their clean, classic lines and hand-rubbed piano lacquer blend into any decor, and belie the fact these slim columns house an advanced home music system: a technical tour de force comprising twelve drivers, eight amplifiers, eight digital converters and crossovers, and advanced sound-shaping computers, all self contained, remote-controlled and requiring no speaker wires.

Computers acoustically blend the tweeter, midrange and woofers; the benefit is much better three-dimensional music than any conventional hi-fi can offer in stereo or surround modes.

Indeed, DSP6000s will place musicians in precise locations in your room, with even subtle body movements clearly audible, such as a singer swaying or an instrumentalist stepping up for a solo. Voice and instrument timbre are utterly natural. The bass plays lower than most humans hear, but you can feel it. The highs are smooth and sweet. Music sounds balanced and articulate, with clarity and tiny detail even at low volumes. And the system is easily muscular enough to effortlessly place a live orchestra or rock band in your room.

In audiophile terms the DSP6000 accepts only digital inputs; its digital crossovers are phase-coherent at all points, impossible with traditional design; each driver band has a dedicated DAC; computers apply digital signal processing for exceedingly advanced control features; the eight amplifiers assess drivers as part of the electrical circuit for remarkably distortion-free behaviour.

- **Three-way active loudspeaker with DSP crossover**
- **Self-contained audio system, each comprising six custom drivers, four amplifiers, three digital converters, digital crossovers and advanced sound-shaping DSP computers**
- **Remote controlled and requiring no unsightly speaker cables**
- **Centre-channel option with symmetrical head assembly**
- **Listener control over features including bass, treble tilt, listening axis, volume, time-compensated balance and absolute phase**
- **Honoured by eight successive Class A ratings from Stereophile magazine**
- **Maximum output level up to 114dB spl**

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Technical Specification

- Performance:** Frequency response in-room within 3dB from 25Hz to over 20kHz.
Maximum output >114dB spl @ 1m on music material
Noise less than 15dB spl.
Overall distortion typically <0.02% at any frequency or level.
- Inputs:** Two digital inputs to SPDIF standard; 32kHz–96kHz sampling rates at up to 24 bit; MHR support. (A future software update will enable support for 192kHz.)
- Construction:** 3-way infinite-baffle system.
4 x 200mm long-throw bass drivers.
1 x 160mm polypropylene mid driver in separate enclosure.
1 x 25mm aluminium-dome tweeter, silver wire, short horn-loaded with protective grille.
Black gloss piano-lacquer head unit and black cloth and glass bass cabinet.
FIFO memory buffer input for the lowest possible jitter from almost any source.
Four precision 128x oversampling converters for bass, mid and tweeter signals.
Analogue gain and filtering using proprietary Meridian Class-A discrete amplification.
Digital and conversion electronics constructed using advanced surface-mount techniques and partitioned 6-layer printed-circuit boards.
Four 75W power amplifiers; one for each of the driver ranges.
Power amplifiers use a unique feedback topology and precision local error-correction systems to achieve a performance equivalent to the conversion system.
- Dimensions:** 1330mm (52.4in) H, 275 (10.83) W, 425 (16.73) D
Weight 65kg (143lb)
- DSP:** 100MHz Motorola digital signal processor.
Digital crossover at 200Hz and 2.6kHz.
Response correction for the whole system.
User tone controls.
Volume and phase control.
- Controls:** Rear-panel controls for Power On/Off.
MSR and RS232 port provide control over bass, treble tilt, listening axis, volume, time-compensated balance and absolute phase.
- Front display:** Eight-character display with system lights, can be blank.

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