



The 3100 is available with satin silver or black with piano-lacquer wood accents, and in vertical configuration (above) or horizontal centre (3100HC, left)

Meridian's acclaimed active and DSP-based loudspeakers are unparalleled in the industry. Each unit includes not only carefully-chosen loudspeaker drivers and excellent cabinet design and acoustics, but also multiple power amplifiers and – in the case of DSP designs – D/A converters and the DSP power required to create crossovers, filters and control systems that would be completely impossible in a conventional speaker configuration.

The DSP loudspeaker is the ultimate expression of Meridian's loudspeaker philosophy. DSP capability delivers crossover specifications that cannot be matched by conventional designs and bass extension vastly superior to other loudspeakers of the same volume, while keeping the signal in the digital domain until the last moment means

that there is an unbroken link between the recording studio or concert hall and your listening room. Thus, they sound unlike anything else you'll hear.

Meridian active loudspeakers give each driver its own amplifier, in direct and close control of all its parameters, fed from a line-level crossover for superior performance.

The DSP3100 and its active analogue equivalent, the M3100, represent a breakthrough in compact loudspeakers. Available in vertical or horizontal centre configuration, they deliver an astonishing performance for their size, and are ideal for stereo or surround listening in smaller spaces. Their accuracy and uncoloured sound also makes them ideal for monitoring in recording and mastering studios.

DSP3100

Digital Signal Processing
Loudspeaker System

M3100

Active Analogue
Loudspeaker System

Powerful, compact, high-accuracy loudspeaker system available in DSP or active analogue formats

Ideal as surrounds, second room or nearfield/surround studio monitoring

New dual amplifier design based on the acclaimed DSP8000 minimizes coloration

Self-contained audio system with custom drivers and two amplifiers built-in. M3100 includes superior line-level crossover

DSP version employs two digital converters, digital crossover and advanced sound-shaping DSP capability for maximum fidelity. Dynamic bass protection system avoids LF distortion at high levels

DSP3100 includes S/PDIF digital inputs support up to 24-bit, 96kHz with MHR; M3100 offers balanced and unbalanced line-level inputs

Ultra-rigid cabinet features aluminium panels bonded to wood, bitumen damped for the ultimate in low coloration

Available in black or silver, with black piano lacquered wood accents

Maximum output level up to 105dB spl

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The 3100 series from Meridian represent new benchmarks in the development of compact, high-performance active loudspeakers.

The DSP3100 DSP loudspeaker and its active analogue counterpart, the M3100, are designed for use as bookshelf or stand-mounted loudspeakers. Specially-designed aluminium stands are available that may be sand-filled for maximum stability and to minimize any impact on sound quality. The vertical units also include universal wall bracket mountings for additional flexibility in location. The horizontal centre unit is magnetically-shielded.

3100s are tonally similar to other Meridian loudspeakers and as a result they are ideal for use, for example, as surrounds in a Meridian system. They are equally suited for use in a smaller stand-alone system in a study or bedroom, and can be used as second zone speakers in a Meridian multi-room environment. The DSP version features S/PDIF digital inputs at up to 96kHz while the analogue version includes switched balanced and unbalanced inputs, so either can also be used as high-end computer loudspeakers.

Extremely accurate characteristics make either 3100 version eminently suitable for studio monitoring applications, particularly as a near-field or surround monitor in recording and mastering facilities: the DSP3100 accepts standard digital audio at sample rates up to 24-bit, 96kHz.

Construction

The DSP3100's distinctive cabinet is made from braced wood with piano-

lacquered ends and aluminium side-panels bonded for rigidity.

The 3100 offers extremely low coloration, and this is partially a result of this cabinet construction. Wood tends to vibrate at lower frequencies, where aluminium is very stable; conversely, aluminium tends to resonate at higher frequencies while wood does not. Combining the two by bonding them together tends to cancel out vibration across the range. The cabinet is further damped with bitumen, leading to an enclosure that is exceedingly dead.

Cosmetic finishes available are black or silver, matching Meridian's G Series components (bead-blasted, brightened and anodised).

The vertical units feature a 2-way rear-ported enclosure, while the horizontal centre is a 2½-way closed box design. Featuring high-efficiency long-throw 6in (160mm) (vertical model) or dual 5¼ in (120mm) (horizontal model) bass drivers with doped carbon fibre cones and cast alloy baskets, the 3100 also includes a very high quality 1in (25mm) Meridian piston treble drive unit with doped fabric dome.

Electronics

The drivers are powered directly by independent high power, low feedback amplifiers fed from an audiophile-grade power supply with a substantial toroidal transformer. DSP power in the DSP3100 is provided by a Motorola 56367 running at 150MHz; D/A conversion is handled by dual 24-bit, multi-bit delta-sigma converters. The DSP3100 may be controlled via RS232, and both analogue and digital versions may be operated by an infrared remote control unit such as the MSR+.

DSP3100

Digital Signal Processing
Loudspeaker System

M3100

Active Analogue
Loudspeaker System



DSP3100 rear panel (horizontal version)

Outline Specifications (common to both versions unless indicated)

- Performance:** Frequency response in-room within 3dB from 45Hz to over 20kHz. Linear-phase mid/top crossover. Output >105dB spl @ 1m on music material. Noise less than 15dB spl. Overall electronic distortion typically <0.02% at any frequency or level.
- Inputs:** DSP3100: Two S/PDIF digital inputs, 32kHz-96kHz sampling rates at up to 24 bit with MHR support. M3100: Line level unbalanced (phono) and balanced (XLR-3F) inputs, switch-selectable.
- Construction:** Vertical unit: 2-way ported design with 160mm bass driver; Horizontal centre: 2½-way closed box design with twin 5¼ in (120mm) bass drivers, with doped carbon fibre cones and cast alloy baskets. 1in (25mm) Meridian piston treble drive unit with doped fabric dome.
- Electronics:** Constructed using advanced surface-mount techniques and partitioned 4-layer printed-circuit boards. DSP3100 includes two precision 24/192 oversampling converters for bass/mid and tweeter signals; Motorola 56367 150MIPS digital signal processor; Digital crossover at 2.3kHz; Response correction for the whole system; Bass protection; User tone controls; Analogue/digital volume and phase control. M3100 features precision line-level active crossover.
- Amplifiers:** Two 75W power amplifiers, one for each band.
- Display:** Eight-character display with system lights, can be blanked.
- Dimensions:** Vertical units: 7.65in/194mm x 15.2in/386mm x 10in/254mm; Horizontal centre unit: 18.5in/470mm x 6.9in/173.5mm x 10in/254mm. Optional floor stand: 12.2in/310mm x 20.2in/513.7mm from floor to top of platform x 12.65in/321.5mm. (All dimensions w x h x d; original units are metric.)
- Weight:** Vertical unit: 30lb/13.5kg; Horizontal centre unit: 36lb/16.5kg.

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Meridian retains the right to improve or modify product specifications and design at any time. E&OE.