

DSP520.2

IN-WALL DIGITAL ACTIVE LOUDSPEAKER

OVERVIEW

Powered by Meridian's exclusive 'CLASS-M' DSP engine and integrated with 'DYNAMIC' Hi-Res amplifiers, the DSP520.2 is perfect for delivering Meridian's renowned audio quality discreetly in any living or cinema room.

The DSP520.2 uses an all-new quad-amp design with a bridged pair of amplifiers for each of the two drive-units. Each pair of amplifiers is capable of delivering 100W RMS into 8 Ohms. The DSP520.2 has bass extension down to 40Hz and when three loudspeakers are used in a High Power Array, the result is full-range sound at an SPL of 105 dB@7m/23ft. With the latest DSP technologies from Meridian also on-board, including Enhanced Bass Alignment, Centre Elevation, Dynamic Bass Protection and L + R mode, the DSP520.2 is an ideal choice whether used in stereo systems, full surround-sound set-ups, soundbar applications or other single-speaker installations.



DSP520.2 Shown with RF500 rough-in box and grille

PRODUCT HIGHLIGHTS

Ultra-shallow (100mm deep) box design delivers full range DSP loudspeaker performance in-wall, while the rough-in box and frame system allows for easy installation and precise positioning.

- Audio enhancement technologies built in include Enhanced Bass Alignment (EBA), FIFO buffering, DSP upsampling, apodising filters, Meridian Centre Elevation and Meridian High Resolution (MHR).
- Features 1 x 140mm long throw bass driver and 1 x 85mm wide-range drivers for full-frequency response.
- All-new quad-amp design with Class-D amplifiers with feedback on the output stage which lowers output impedance and reduces distortion and noise to levels experienced by only the best Class-AB amplifiers.
- Each drive-unit powered by a bridged pair of amplifiers; each pair capable of delivering over 100W into 8 Ohms.
- L + R mode to allow a single speaker to be used on its own while still reproducing all the audio present in a stereo recording makes the DSP520.2 a great choice for use as a soundbar below a screen – especially when combined with Centre Elevation.
- Developed for maximum dispersion and wide listening area plus minimum unwanted diffraction.
- Grille may be painted to match interiors.

USER FEATURES

- The front of the loudspeaker carries the on/off rocker switch, an infra-red receptor window, an RS232 socket and a three-way channel selector rocker switch. When switched to L + R, the loudspeaker plays a balanced mix of left and right audio which is ideal for soundbar applications.
- LED indicators show power and standby status in normal use and are also used to confirm configuration settings during installation.
- All the elements are designed for simple, flexible and precise installation into almost any type of wall.

TECHNOLOGIES

ON-BOARD DSP

On-board DSP provides thermal and dynamic bass protection while retaining very accurate transients, ensuring that when the loudspeaker is played at high levels – even over prolonged periods of time – it always delivers a clean, detailed and accurate sound.

CENTRE ELEVATION

Meridian's Centre Elevation technology which is based on psychoacoustic research raises the perceived image location from an under-screen loudspeaker so that it appears to come from the centre of the screen.

ENHANCED BASS ALIGNMENT (EBA)

Meridian's innovative Enhanced Bass Alignment (EBA) technology uses two different technologies to time-align high, mid and upper bass frequencies with the low bass, resulting in audibly improved bass transients and added life and clarity.

ENHANCEMENT TECHNOLOGIES

Meridian's unique suite of proprietary technologies includes FIFO buffering, DSP upsampling, apodising filters and MHR (Meridian High Resolution) to get the very best performance from all digital sources.



DSP520.2 Rear



DSP520.2 Connections

CONSTRUCTION

The DSP520.2 is made up of a narrow, self-contained, all-metal enclosure with a metal mounting frame. Its purpose-built rough-in wall-box is available separately. The rough-in box is first fitted to the wall, the frame is mounted to it and the loudspeaker enclosure is then bolted to the frame. The rough-in box and frame can be adjusted for various wall materials and depths. A male-to-female IEC mains lead is supplied with the loudspeaker in order to connect it to the rough-in box which is wired to power.

- The loudspeaker enclosure is fitted to its frame which is designed for mounting into new-build partition and stud style walls or for retrofitting into stud or brick/stone-built walls.
- The paintable, perforated steel grille supplied with the loudspeaker can be fitted where required. The grille is held in place by powerful rubber-coated magnets which are attached to the aluminium extrusion that forms the front panel of the loudspeaker enclosure.

SPECIFICATION

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| AUDIO INPUT | • Meridian SpeaerLink connector (RJ45) |
| AUDIO OUTPUT | • Meridian SpeakerLink connector (RJ45) |
| PERFORMANCE | <ul style="list-style-type: none"> • Peak SPL 114dB@1m for a single loudspeaker • 3 x DSP520.2 in HPA: Peak SPL = 122dB@1m and 105dB@7m/23ft • Bass extension: 40Hz • Horizontal dispersion: 120° @ 20Hz – 5kHz, 60° @ 5kHz – 10kHz (-6dB) • Vertical dispersion: 50° @ 20Hz - 5kHz (-6dB) |
| AMPLIFIERS | <ul style="list-style-type: none"> • Wide-range driver: 2 x Class-D amplifiers bridged for 100W into 8 Ohms • Bass driver: 2 x Class D amplifiers bridged for 100W into 8 Ohms |
| BASS DRIVERS | • 1 x 140mm long-throw design |
| WIDE-RANGE DRIVERS | • 1 x 85mm with neodymium magnet |
| FRONT PANEL CONTROLS | <ul style="list-style-type: none"> • On/off rocker switch, IR window • RS232 socket – 3.5mm minijack (long version – 18.6mm) • Rocker switch selects “Right”, “L + R”, “Left or Centre” • LED indicators show power status and configuration settings |
| PRODUCT DIMENSIONS | • HEIGHT: 800mm [31.5in]* WIDTH: 203mm [8in] DEPTH: 102mm [4in] |
| PRODUCT WEIGHT | • 10 kg [22 lbs] |
| GRILLE DIMENSIONS | • HEIGHT: 819.5mm [32.26in] WIDTH: 222.5mm [8.73in] DEPTH: 4mm [0.16in] |
| PACKED DIMENSIONS | • HEIGH : 920mm [36.2in]* WIDTH: 340mm [13.4in] DEPTH: 270mm [10.6in] |
| POWER | • IEC mains lead supplied to connect loudspeaker enclosure to rough-in box |

*Excludes frame and cable feed channel
For detailed drawings please contact design@meridian.co.uk