

# G95 DVD Surround Receiver System



**Complete surround system in a box – just add speakers**

**5 x 100W power amplifiers to drive the speakers of your choice**

**5.1 analogue line-level outputs**

**Multiple analogue and digital inputs**

**Powerful video processor; HDMI out at up to 1080p**

**Digital upsampling and buffering delivers spectacular quality**

**ROM drive improves error-correction over ten times**

**AM/FM RDS tuner or DAB Digital Radio with FM**



**Meridian's G Series** line of high performance digital & analogue consumer audio components feature a stylish cabinet design in traditional black or a sleek silver finish.

Designed to be either free-standing or rack-mounted, G Series components build on their predecessors, the multi-award-winning 500 and our flagship 800 Series, and include entirely new circuitry developed specifically for the G Series.

Multi-layer boards reduce system noise and improve performance. In products which include video capabilities, broadcast-quality, wide-bandwidth video components are employed for maximum image integrity.

G Series units are easy to use. Where appropriate, a knob is included to control volume. The positive-action front-panel keys are software-defined: their legends are presented in the vacuum fluorescent display and change intelligently according to context.

Full installation configuration of many G Series components is achieved by running a special setup program on a Windows computer, connected to the G Series unit via a serial link, or direct from the front panel.

G Series products also include serial ports for remote operation and configuration, along with infra-red sensor input and trigger capabilities, plus Meridian communications ports. A comprehensive back-lit learning/programmable remote is included with products other than amplifiers.

Meridian's G95 CD/DVD Surround Receiver System is the most powerful and versatile member of the company's award-winning G Series family. Its design was based on extensive research into exactly what customers required of a product of this type, and therefore includes desired features while specifically omitting those regarded as superfluous or no longer necessary in the modern consumer electronics environment.

The G95 is a full 5.1 DVD Surround Receiver with both stereo and surround modes, a robust slot-loading DVD drive and five gutsy built-in power amplifiers to drive your choice of passive loudspeakers, plus an active subwoofer output. It plays audio CDs, MP3 CDs, Video CDs and DVD-Video discs including the DVD side of DualDisc hybrids. It can decode Dolby Digital, DTS, MPEG, and MP3 data streams to PCM for stereo and multichannel playback and also includes Trifield high-resolution stereo processing. Stereo digital audio outputs at up to 192kHz, plus 5.1 bitstream or 6-channel audio up to 96kHz, are also available via HDMI.

The G95 includes comprehensive preamplifier functionality with multiple analogue and digital inputs including two coax digital inputs, two optical digital inputs, and three analogue input pairs. Digital signal processing is included to upsample stereo decoded streams, or decode surround bitstreams from external sources. A high-quality FM/AM tuner with RDS/RDBS (G95 model), or a DAB/FM tuner (G95-DAB) is also included.

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# G95 DVD Surround Receiver System



G95 front panel showing slot-loading drive

The G95 includes five channels of powerful, compact and innovative new Class D power amplifiers, which offer exceptional power output – 100W per channel into 8Ω – while remaining cool even at full output. The G95 is the first Meridian product to include Class D amplifiers, and the specific design was chosen following extensive research to ensure that the quality and performance matched that typically delivered by Meridian's conventional audio amplifier designs. The power amplifier has been specially optimised for cool running and maximum audio quality, including the use of audiophile capacitors and other components.

The amplifiers are powered by a linear power supply including a beefy, overspecified true toroidal transformer to provide the high levels of clean power required for powerful multichannel performance.

In addition to five pairs of heavy-duty gold-plated power output terminals, a complete set of six analogue line-level outputs is included to drive external power amplifiers and speakers and an active subwoofer such as the Meridian SW1600 or SW5500. Thus the G95 is truly a complete stereo or surround system in a box: just add the conventional passive loudspeakers (and optionally amplifiers) of your choice!

At the heart of the player side of the G95 is a robust, high-speed, slot-loading DVD-ROM drive – the best type of drive to use to ensure accurate data recovery from all types of disc. The drive normally operates at standard speed; however, it is capable of recovering data a great deal faster when required, enabling it to make more attempts to recover accurate data from a problem disc. Because of this, the drive can perfectly recover the data from almost any compatible disc. In addition, the drive has a special on-board anti-vibration buffer and is especially robust for durability and reliability in constant service.

Unlike other players that use a mechanical approach to attempt to lower jitter by minimising drive vibration, the G95 employs a triple buffering system to minimise jitter, maximizing HF transparency, sound stage precision and stability. The result of this sophisticated approach is that the player delivers ultra-low jitter, with sound and picture quality second only to that of Meridian's 800 Reference DVD/CD Player.

The digital electronics as a whole are driven by a new design of high-stability clocking system which further reduces jitter and ensures that the highest level of detail is recovered from a disc. All digital data are accurately re-clocked, and multiple power supplies ensure that digital and analogue circuitry are kept separate.

The G95 features a comprehensive front-panel user interface which allows access to all the features of the unit. The player can be set to a standard 'Type' which configures all the required settings as required for a particular application, stereo or surround. In addition, an on-screen display (OSD) allows you to configure specific settings individually.

The player employs Flash ROM memory for the operating system, so software updates can be downloaded from the Internet and installed via a PC connected to the serial port on the rear panel. This port also allows full remote control and configuration of the unit.

The output level of the system can be controlled remotely or via the front-panel knob which controls a proprietary hybrid digital/analogue volume control – a design similar to that used in the 800 Series and DSP 8000.



# G95 DVD Surround Receiver System

*The G95's analogue outputs and Class D power amplifiers are driven by 24-bit DACs that are upsampled to 176.4 or 192 kHz for maximum fidelity. The output level is controlled by the front panel knob or via remote.*

*The G95 supports almost any kind of video display device, whether composite, S-Video, Component (progressive or interlaced) or even the latest interfaces such as HDMI or DVI. Different video inputs are converted to all formats, so there is only need for one display connection.*



Two tuner options are available: AM/FM and DAB/FM. The former provides AM (LF/MF) and FM (VHF stereo Band II) reception with RDS/RDBS, and is fitted with its own 96kHz, 24-bit A/D stage. Digital signal processing provides a sophisticated FM stereo blend/width control which allows you to minimise noise on a received signal. There is also a DSP-based low-pass filter and a whistle filter for improved AM reception. Alternatively, a version is available with DAB Digital Radio (UHF L-Band and/or VHF Band III) and FM. A separate data sheet is available that describes available G Series DAB options.

The G95 includes upsampling in stereo mode, which allows digital filters to be placed far beyond the range of human hearing, as well as offering other audible benefits right across the audio band, including improved transient response. All processing is at 48-bit precision. This results in a more open, transparent sound, tighter bass, and a generally more 'musical' sound overall.

To drive the power amplifier modules and the six-channel analogue line-level outputs, signals are upsampled to 24-bit, 176.4/192kHz for digital to analogue conversion – DACs can offer better performance at higher sampling rates; up to 88.2/96kHz multichannel or 192kHz in stereo is delivered as the digital audio component of the HDMI output, at 24-bit word length.

Advanced digital processing features are handled by a powerful DSP engine delivering an impressive 150MIPS (million instructions per second). In addition, the G95 incorporates digital surround decoding to allow full 5.1 surround performance. The built-in surround processing system decodes 5.1 Dolby Digital or DTS soundtracks from DVD discs, and Dolby Digital or DTS data streams fed into the external digital inputs. It will also synthesise a full surround image from 2-channel soundtracks on audio CDs or DVD-Vs, or from the external two-channel digital or analogue inputs, by extracting latent surround information in the recording.

The acclaimed Trifield system – which decodes conventional stereo to the 3-speaker front stage (LCR) of a surround layout for impressive added soundstage stability and imaging – is also included.

Several DSP presets are provided to allow you to choose the type of surround processing used for different sources. For 5.1 audio formats a Discrete or Cinema DSP preset is selected automatically, depending on whether the source is music or a movie. For two-channel audio formats the DSP preset can usually be switched between Trifield (recommended for music), Stereo (uses just the main left and right speakers and subwoofer), or PLII (recommended for movies), using the DSP key on the front panel or the supplied MSR+ infrared learning remote.

On the video side, advanced video circuit designs, matched-phase video filters, and a broadcast-quality video encoder are employed to deliver low-noise images of outstanding colour depth up to full-specification High Definition 1080p resolution. Separate ultra-low jitter master video and audio oscillators allow picture and sound to be independently optimized, ensuring that the G95 DVD Receiver System delivers breathtakingly clear pictures.

The G95 includes a unique broadcast-quality, high-resolution video processor/scaler which combines both Meridian and Faroudja DCDi® technology, delivering the most advanced, high-quality video available today. The processor can simultaneously provide composite and S-video outputs, plus progressive component video and up to 1080p full-spec High Definition on an HDMI output. The processor can receive two composite, three S-video, and interlaced component video inputs, and convert between the formats, or to the HDMI (high-definition multimedia interface) standard, to provide a single video output for all the video sources in your system.

The video processor includes picture adjustment controls, available via the MSR+ and front-panel display. These include Contrast, Black Level

# G95 DVD Surround Receiver System



G95 rear panel (Note: European versions have boots on the speaker terminals and are not as shown here)

## G95 Outline Specifications

**Formats:** DVD-Video, DVD-R; Video CD (VCD), CVCD, MP3; CD Audio (CD-DA), CD-R and hybrids such as SACD (CD layer only) and DualDisc (DVD layer only).

**Audio inputs:** Analogue: three stereo inputs, unbalanced 0.5–2.5Vrms on phono. Digital S/PDIF: two stereo coax inputs and two stereo Toslink optical inputs.

**Tuner:** AM/FM tuner includes its own 24/96 A/D converter. AM (Long/Medium Wave, 150–285/525–1605 kHz); FM (VHF Band II, 87.5–108 MHz), sensitivity 2µV. DSP processing for FM stereo/mono blend and width; AM lowpass filter and whistle filter. DAB/FM tuner option (see G-DAB data sheet).

**Audio outputs:** 5 x Class D amplifier outputs (Left Front, Centre Front, Right Front, Left Surround, Right Surround) each delivering 100W per channel into 8Ω, with sturdy gold-plated binding posts (in Europe, terminals booted to CE spec). Line-level analogue outputs (LF, CF, RF, LS, RS, Sub) on phono connectors. HDMI 2-ch (≤192kHz) or 6-ch/bitstream (≤96kHz) digital output (with video).

**System capabilities:** Multichannel AM-FM/FM-DAB Receiver and CD/DVD player system with on-board surround decoding (Dolby, DTS, MPEG, Trifield) and upsampling of stereo signals, can directly drive up to 5 passive loudspeakers (LF, CF, RF, LS, RS) plus analogue active subwoofer, or external 5.1 amp/speaker combinations.

**On-Screen Display:** Switchable custom On-Screen Display allows instant review of disc status. Screen saver with user timeout options. Logo screen with PLUGE bars enables set-up of display device.

**Video features:** Automatic PAL or NTSC encoding on Composite and S-Video. NTSC black-level setup adjustable as 0 or 7.5IRE. 16:9 and 4:3 displays supported. Contrast, Black Level, Saturation controls on output; Contrast, Black Level, Colour and Hue (NTSC) on inputs.

**Video Processor:** Two composite video inputs, one component input, three S-Video inputs. Composite, S-Video, component and HDMI outputs (HDCP-compatible, also carries 2-ch/bitstream audio), outputs all simultaneously active; selected video input is converted to all formats at valid resolutions (except non-interlaced component input which bypasses processor). Faroudja DCDi® scaling and de-interlacing technology. HDMI port supports 480p, 576p, 720p, 1080i and 1080p. Analogue component out at 480p and 576p (plus 1080i component pass-through).

**Controls:** Front-panel soft key functions include Play, Stop, Pause, Previous, Next, plus Home and More keys. Off, Display and Eject buttons. Off gently illuminated when off; keys back-illuminated when on.

**Comms:** Full RS232 control and status enables custom integration or automation. Meridian Comms (2 x DIN plus BNC).

**Trigger:** 12v trigger output allows control of power amps, etc.

**Panel Display:** Multi-character dot-matrix graphic Vacuum Fluorescent Display (VFD).

**Dimensions:** Width: 440mm (17.32in); Depth: 350mm (13.78in) plus connectors; Height: 90mm (3.54in).

**Rack Mounting:** Kit available from Meridian authorized dealers.

**Weight:** 13.5 kg (30 lbs).

**Power:** 100–240v specified on ordering, 50–60Hz, 700W max.

(Brightness) and Saturation. In addition, the black level, contrast, colour, and hue (NTSC) are adjustable on the video inputs.

A bypass function allows progressive or high definition component video to be routed directly to the component output only.

The HDMI port also delivers high-resolution digital audio: two channels of PCM at up to 24-bit, 192kHz; or six channels or a 5.1 bitstream at up to 96kHz.

The HDMI port supports a wide range of high quality digital video options including 480p, 576p, 720p, 1080i and 1080p, the highest video resolution available in the consumer industry – the same resolution as the best current HD sources. Analogue component out at 480p and 576p (plus 1080i pass-through). The HDMI output can be connected to a DVI input if the device supports HDCP copy protection, using a suitable adaptor cable.

To avoid potential degradation of High Definition signals caused by switching video signals inside the unit, the G95 includes a single HDMI video/audio output with HDCP. To support environments where it is required to switch multiple HDMI-based sources (such as a High Definition PVR) to a single display, the G95 directly supports the Meridian HDMax 421 four-into-one HDMI switch box, which permits source selection on the G95 to switch HDMI inputs seamlessly via the 421.

*Information contained in this data sheet is correct as far as possible, but Meridian Audio accepts no liability for errors or omissions. Trademarks are the property of their respective owners.*

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