YAMAHA

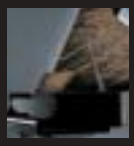
2004 / 2005

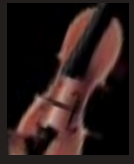
Digital Home Cinema Components

& Natural Sound Audio Components

d-cinema
Yamaha takes cinema digital.

Dedicated to the Creation of Fine Sound for Over a Century.





Yamaha's involvement with sound began with the production of our first reed organ in 1887. Shortly thereafter, we began making pianos and other instruments, and today we are the world's largest producer of musical instruments. We also operate a worldwide music school, design concert halls and produce innovative electronic instruments. Our audio components have long been recognized as the standard-bearers of fine quality and, with the development of Digital Sound Field Processing in 1986, we opened a new era in home entertainment. All of our acoustic and audio expertise is now engineered into LSIs that we design and manufacture ourselves, and these powerful chips are expanding and enhancing entertainment possibilities in the exciting new field of home cinema. Recently, we've also introduced state-of-the-art video components and now offer everything necessary for the finest in music and movie enjoyment at home.

Video Technology

DPX-1100: Advanced technologies deliver extraordinary performance.

"Natural Black" Concept

To provide superior contrast, Yamaha has developed the Natural Black concept, combining advanced technologies, parts and functions to achieve truer, deeper levels of black than ever before.

Black reproduction by DPX-1100 and conventional projectors.

Yamaha Natural Black makes subtle degrees of black in textures and shadows stand out more clearly.

With other projectors, black contrast may be soft and fuzzy rather than sharp and clear.

Taking Projector Performance to a New Level

The DPX-1100 makes use of a wide range of new technologies to deliver extraordinary video performance. Contrast is an incredible 4,000:1 and brightness is 800 ANSI lumens.

High-Resolution Lens

A new high-resolution lens maintains resolution sensitivity to the edge of the lens. Four anomalous dispersion glass components decrease chromatic aberration while maintaining a short focal point and high zoom magnification.

Latest DMD™ HD2+ Device

The projector is equipped with the latest DMD HD2+ device, which uses narrow mirror gaps to improve contrast. Video processing is 10-bit from A/D conversion through to DMD output.

Latest DMD™ HD2+ Device

Seven-Segment Colour Wheel

Yamaha debuts the use of a seven-segment colour wheel, with an ND filter-equipped green segment having been added to the previous wheel. The seven-segment structure reduces dither, while colour reproduction is excellent, with greens especially being more true to life than ever.

Seven-Segment Colour Wheel Principle

Colour Balance System

There are three Colour Balance modes: Standard, RGB for adjusting three colours, and RGBYCM for adjusting six colours. There are also six memory presets for storing personal adjustments.

Mounting Flexibility

Mounting the DPX-1100 is easy and versatile. Lens-to-screen distance can be anywhere from 9 ft. 10 in. to 15 ft. 9 in. (100" screen) thanks to the powerful 1.6x zoom lens. And the projector can be used at any height between the top and bottom of the screen.

Six User Preset Memories

There are six memory positions for storing different combinations of parameter settings. Each can be used for two input signals, making a total of 12 memory conditions.

Other Convenient Functions

Other features include Smart Zoom for projecting 4:3 broadcasts onto a full 16:9 screen, Cinema Zoom with Zoom Up and Zoom Out for eliminating bars on the top and bottom of the 16:9 screen, selectable video scan, HDMI terminal, operation status lock, lamp power selector, and automatic aspect conversion.

LPX-510: "Natural Black" and advanced functions for enjoying widescreen movies.

High Performance LCD Panels

The LPX-510 uses LCD panels capable of projecting high-resolution 720p HDTV images, and 10-bit video processing gives it the ability to reproduce 1.07 billion colours. 16:9 aspect ratio compatibility means that widescreen movies can be viewed in their entirety.

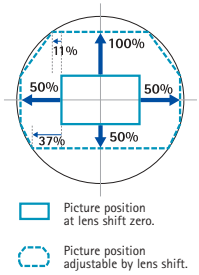
3D Linear Colour Balance

The 3D Linear Colour Balance function maintains the proper balance between the three signals from the LCD panels, adjusting colour irregularities through a range of 15,360 correction points for accurate colour in any type of scene.

No 3D Linear Colour Balance — 3D Linear Colour Balance

Lens Shift, Motorized Iris and Zoom

Vertical and horizontal lens shift capability means that the projector does not have to be positioned directly in front of the screen. The motorized iris control can be used to improve contrast and focusing, and the motorized zoom will expand the image up to 1.5 times.



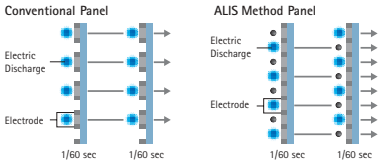
Cinema Balance Filter

The LPX-510 introduces a new Cinema Balance Filter that enhances colour reproduction when images are viewed in a dark room, as is typically the case for movies. It is an optical filter so dynamic range is not affected.

PDM-4210: Incredibly Smooth, High-Definition Image Quality.

ALIS Method Panel Technology

This plasma display panel uses an advanced ALIS (Alternate Lighting of Surface) Method to deliver a sharp, clear picture with the smooth, high-definition quality you see in a movie theatre. The ALIS Method employs a screen surface comprising vertical channels of continuous phosphor material. The pixels are defined electronically rather than physically, allowing each picture element to be smaller than normal. This creates a higher pixel count for a smoother, seamless picture, with edges and curves clearly defined. The PDM-4210 uses the latest ALIS Method technology, which features a new plasma gas and luminescent materials that are more effective than previous types. The result is a brighter picture (1,100 cd/m²) and higher colour temperature, which makes white areas such as clouds in the sky stand out more vividly. The panel can also display a wider range of colours (16.7 million), with enhanced colour purity.



Two rows of phosphors emit light together.

Phosphor rows emit light alternatively, doubling the life of the panel.

Natural Black Drive System

The Natural Black Drive System automatically determines the brightness of the screen and applies the grey scale (contrast) best suited to the scene in order to reproduce both bright and dark areas with small details clearly visible. The contrast ratio is an outstanding 1,000:1 under daylight conditions, making it possible for the PDM-4210 to deliver sharp, natural-looking images.

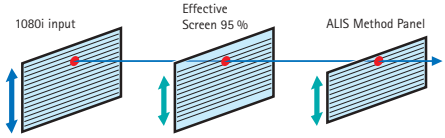
Digital Linear Colour Control

Digital Linear Colour Control continually maintains the ideal balance between the three main colours (red, green, blue) for optimum colour reproduction in every scene, from very dark to very bright. The sharpness and tint of each colour are independently controlled, so you can adjust the tint more precisely.

HDTV Capability

The PDM-4210 is fully HDTV capable, meaning that 1080i high-definition images can be displayed line for line without vertical scaling. The 1,024 x 1,024 resolution provides a completely clean HDTV picture, with no noise at the edges.

True HDTV Picture Quality

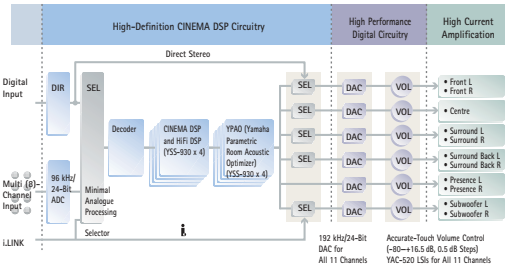


1080i is the HD broadcasting standard. However, it uses overscanning, so the actual screen is 95 %, or 1,024 lines. Therefore, the ALIS Method Panel with 1,024 pixels reproduces the true image, without noise at the edges.

Digital ToP-ART Technology

Digital ToP-ART Concept

Digital ToP-ART (Total Purity Audio Reproduction Technology) is a Yamaha product development philosophy that combines advanced digital engineering and circuit design to maximize audio signal purity. Digital ToP-ART enables the Yamaha Digital Home Cinema Components to deliver superb sound quality and bring out the full potential of Yamaha's amazing CINEMA DSP technology.

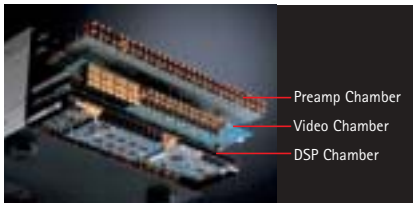


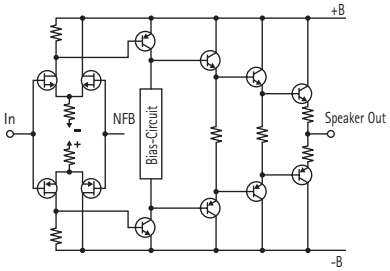
High Current Amplification

Although power rating is often the first thing people look at in an amplifier/receiver, high power output does not necessarily mean good sound. A high current level is a much more important factor, so Yamaha has developed the High Current Amplification system, which overcomes two problems common to ordinary receivers. The first is a difference in voltage between the power supply and amplifier circuits caused by current fluctuations. This was solved by using custom-made, high-grade block electrolytic capacitors and a copper grip for one-point grounding. Another current drop is generally seen between the amplifier circuit and the speaker terminals, caused by the cables, speaker output relays, copper circuit boards, and so on. To avoid this problem, we use an extra-large, low-impedance toroidal transformer and gold-plated speaker relay contacts. As a result, Yamaha amplifiers/receivers achieve low impedance, high current power from input (power supply circuit) to output (speaker terminals). This drives the speakers much more smoothly and dynamically, for better sound from all sources, including 2-channel audio.

High Grade Construction with Independent Chambers and Anti-Vibration Design

The DSP-Z9 uses a heavy-duty, rigid chassis construction with separate individual chambers for left and right power amplifiers, power supply and control section to prevent any chance of internal interference. This thick chassis also has electro-magnetic shielding. The extremely large aluminium-extruded heat sinks have anti-resonance characteristics and ensure effective heat dissipation. Supporting all this are Yamaha's ToP-ART base and feet, which provide stability and further vibration-damping.





Symmetrical power amplifier circuit configuration results in improved slew rate and balanced clipping.

Symmetrical Power Amplifier Circuitry (DSP-Z9)

The High Current Amplification system uses a symmetrical, full push-pull circuit configuration with a complementary FET input stage. This ensures balanced output with no signal interference and highest slew rate (rate at which signal changes; affects high-frequency response). Furthermore, the massive toroidal transformer and large capacity block chemical condenser (28,000 µF) ensure a consistently stable power supply.

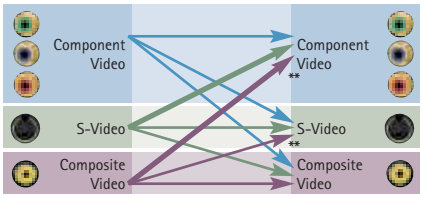
Finest Parts Used Throughout

At this degree of extreme sound quality, each and every part in the receiver makes a difference. Yamaha technicians tested, selected and in many cases custom-designed all parts, and then tested them in groups to ensure that they sounded good together.

DSP-Z9 Interior View, Extra-Large Toroidal Transformer, Extra-Large Custom-Made Block Electrolytic Capacitors (28,000 µF), Gold-Plated-Extruded Gigantic Speaker Terminals, Two Direct Signal Path Speaker Relays and High Sound Quality Schottky Barrier Diode for High Gain S/N Ratio

High Picture Quality

**Component Video Up Conversion*
(DSP-Z9, RX-V2500, RX-V1500 and RX-V750)**
One way of ensuring the highest video quality for your home cinema system is to use the best possible video signal. The components automatically upgrade the input signal (composite to S-Video or component, S-Video to component) to the one that your monitor/TV can accept. In the DSP-Z9, this is done digitally, and all signals pass through the DCDi and Noise-Shaped Video circuits further improving them. This means that you simply use the best possible cable between the component and the monitor/TV, and then whatever the source is, you are assured of getting the highest possible quality.



DSP-Z9 ** 480i and 576i (PAL) only

The DSP-Z9 offers component video up and down conversion.

Progressive Scan Video Output and Other Video Technologies (DSP-Z9)
The DSP-Z9 is the first amplifier to provide Progressive Scan Video Output, for use with high-definition monitors. With almost twice as much video data, it provides a sharper, noise-free picture with clearer details. The progressive circuit is a 3:2 Pull-Down Detection type, and gives you the benefit of progressive scanning even if your DVD player does not have it. Other video technologies include 216 MHz/12-bit Video D/A Conversion, Motion Adaptive Noise Reduction, Cross Colour Suppression, Aspect Ratio Conversion, a Time Base Corrector that prevents the wavy distortion seen in video tapes and TrueLife Enhancer by Faroudja that brings out details in the picture, producing a more lifelike image.

Digital Component Video Up Conversion Circuit Configuration (DSP-Z9)

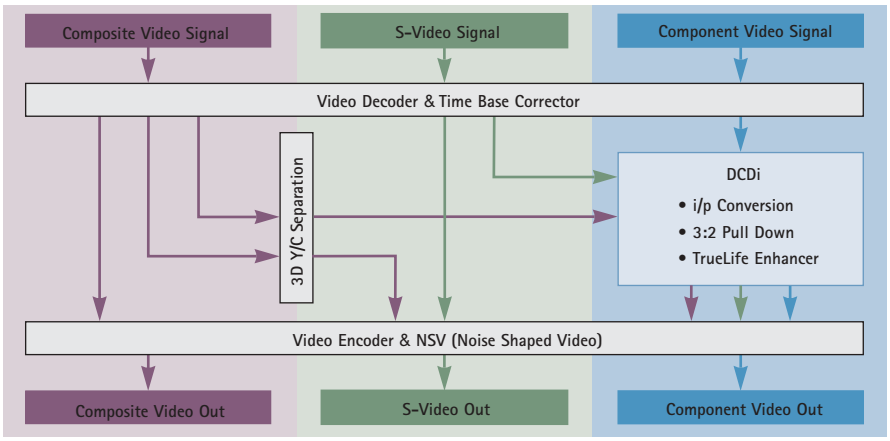
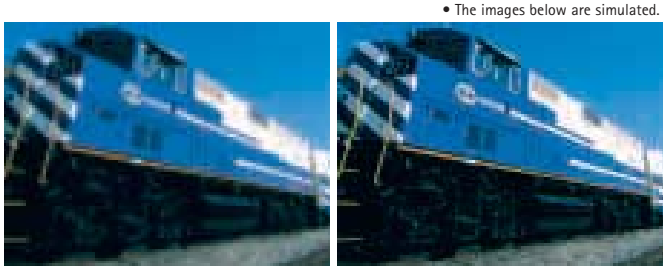


Image Adjustment (DSP-Z9)
To ensure that the high-quality image looks precisely the way you want it to, the DSP-Z9 includes an extremely detailed Image Adjustment function. You can select three modes, Cinema, Standard or Dynamic, and within these modes, you can "fine-tune" five parameters: Enhancer, 3D NR, Brightness, Contrast and Saturation. You can then store your final adjustments in the user memory for recall at any time.

YGV-619 Yamaha Original LSI

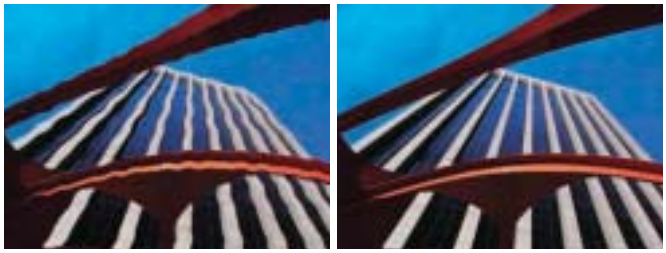
• The images below are simulated.

Before TrueLife Enhancer (Left) vs. After TrueLife Enhancer (Right)



DCDi Off (Left) vs. DCDi On (Right)

Without Film Mode (Left) vs. With Film Mode (Right)



Time Base Corrector Off (Left) vs. Time Base Corrector On (Right)

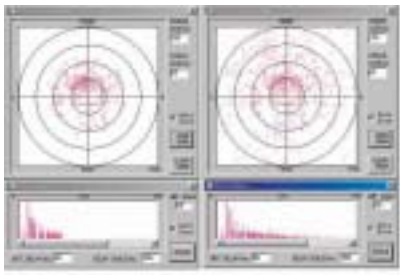
High Definition CINEMA DSP Technology

Yamaha CINEMA DSP Uses Actual Sound Fields
Yamaha Digital Sound Field Processing (DSP) is superior to other surround sound systems because it is based on data from actual sound fields. Yamaha engineers went to famous venues around the world and used a proprietary technique to gather acoustic data, which is stored and processed by powerful, custom-designed LSIs. You enjoy a richer, deeper, and more realistic surround sound experience.

Quad-Field CINEMA DSP
Quad-Field CINEMA DSP actually creates four independent sound fields that merge to envelop you in an unmatched surround sound experience. You hear movies and music with accurate sound localization, smooth movement across the sound space, exceptional clarity and remarkably realistic presence. It will seem as if the walls of your room have disappeared and you are in the middle of your own immense theatre!

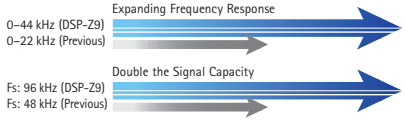
High Definition CINEMA DSP Technology (DSP-Z9)
The DSP-Z9 has six times greater DSP capacity than previous models, thanks to an increase from 48 kHz to 96 kHz/24-bit A/D converters that directly convert and process analogue signals into the 96-kHz format. Higher density processing enables approximately triple the amount of early reflection data to be handled, for significantly richer surround sound performance. The DSP-Z9 also employs 192 kHz/24-bit D/A conversion and DSP processing and Yamaha's 32-Bit Floating-Point Quantization System LSIs (four YSS-930s) for high-precision decoding of Dolby Digital, DTS Digital Surround, DTS 96/24, DTS-ES Discrete 6.1, DTS-ES Matrix 6.1, DTS Neo:6 and Dolby Pro Logic IIx formats.

Triple the Density



Previous DSP Technology DSP-Z9 DSP Technology

Double the Speed

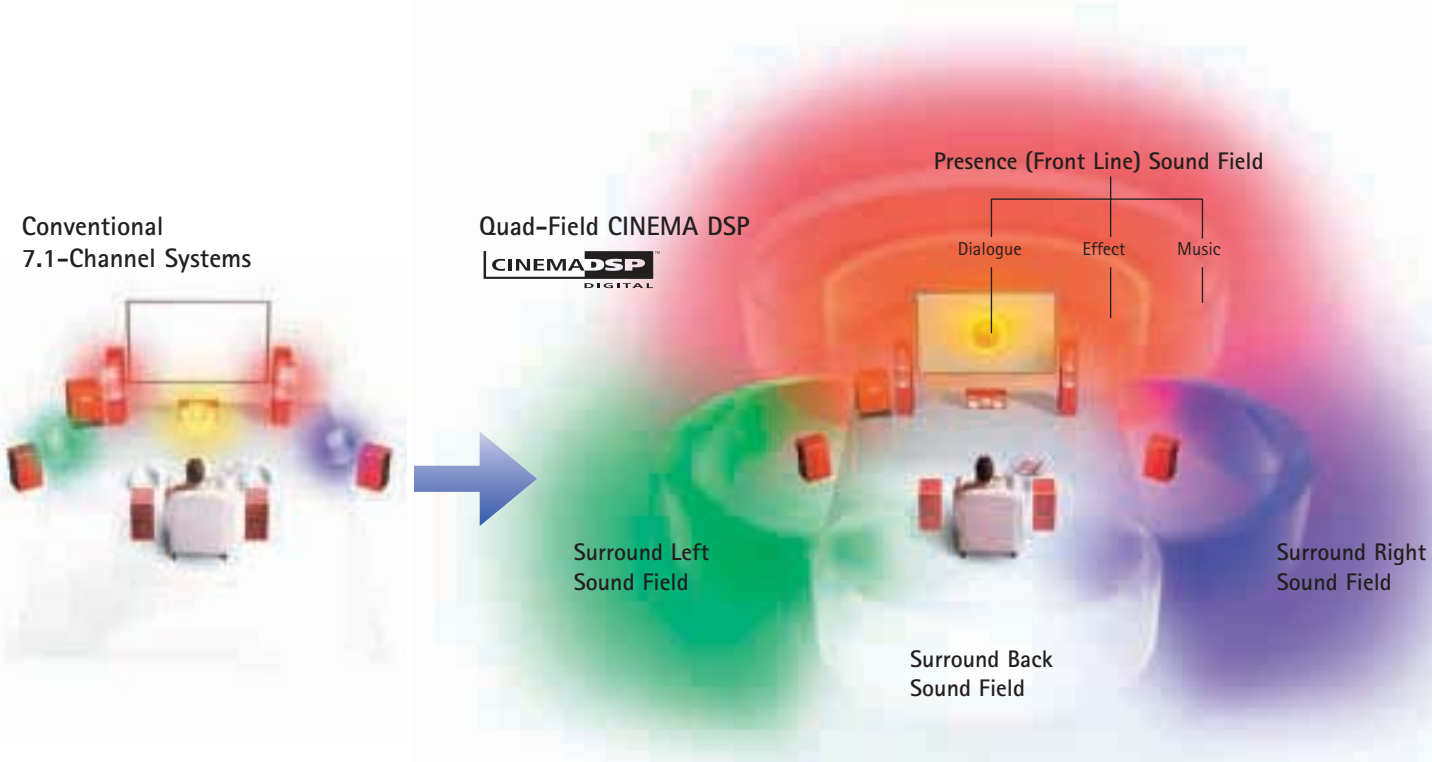


Audio Delay for Adjusting Lip-Sync
The Yamaha LSI in the receiver provides synchronization of images and sound, which is called lip-sync. Most LSIs do not have the necessary speed and precision to handle this, but the Yamaha LSI is able to do it accurately. What's more, by using the Audio Delay mode, lip-sync parameters can be adjusted whenever necessary.

Night Listening Enhancer
During low-volume listening, such as late at night, dynamic range suffers, and you may miss some sounds. The Night Listening Enhancer offers two modes, Cinema and Music, with three-level selectability, which will ensure that you don't miss movie dialogue or quiet passages, or lose overall surround spaciousness. It works for all surround programmes, including Dolby Pro Logic IIx.

SILENT CINEMA
The SILENT CINEMA mode allows private listening enjoyment of multichannel music or movies, with an accurate simulation of surround sound, through ordinary headphones.

SILENT CINEMA Sound Field Imaging

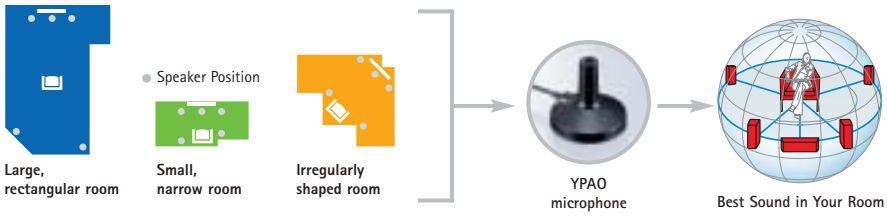


Easy to Use

YPAO Sets the Best Sound for Your Room — Automatically!
YPAO automatically modifies the audio output to provide precisely the best sound for the acoustics of the room. The unit comes supplied with a high-precision Optimizer Microphone, which you simply place in the position where you most frequently listen. Activating the YPAO function causes test tones to be emitted from the speakers. These tones are picked up by the Optimizer Microphone and then analysed. Based on the results, a variety of audio parameters are precisely calibrated to optimize the sound at the listening position. You enjoy not only better sound, but the BEST sound for each and every room.

The RX-V2500 has an improved system that is faster (less than three minutes), also adjusts frequency response, and provides three programmed EQ patterns, plus the ability to manually adjust parametric EQ settings. Six YPAO settings can be held in memory and recalled via two system memory buttons on the remote control. YPAO is available with the DSP-Z9, RX-V2500, RX-V1500, RX-V750, RX-V650, and DVX-S150.

No Worries about Where to Put the Speakers
Thanks to YPAO, you can put your speakers in the most convenient locations and get professional-quality sound optimization.



On-Screen Display with GUI
The DSP-Z9 and RX-V2500 have a GUI (Graphic User Interface) for even greater convenience. Especially useful is a speaker display in the Speaker Test mode that makes it easy to balance the levels of all speakers. Up video conversion selection is also shown on the display. DSP programmes can be selected with the remote control so their effects can be judged from the listening position. A rotary encoder Input Selector makes source selection quick and easy.

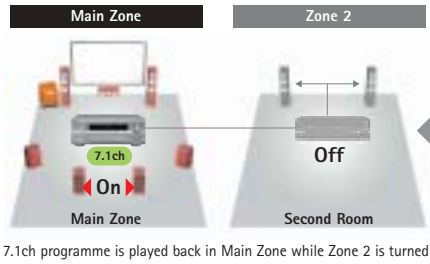
On-Screen Display with GUI and Dedicated Remote Control
The DSP-Z9 has the best looking and easiest to use on-screen display you've ever seen. This is due in part to the high-quality video circuitry, which provides sharp, clear images. The GUI includes extensive yet easily understandable setup menus and has been designed to make it easy to select and adjust the desired functions.

Custom Installation Compatibility
The RX-V2500 and RX-V1500 offer a variety of features that make it easy to achieve flexible custom installation in three different rooms (zones). Zone 2 power amplifier assignability and speaker terminals mean that Zone 2 can be fully independent with its own 2-channel power, while you still enjoy 5.1-channel sound in the main room. The RX-V2500 allows the video signal (including S-Video) to be output to Zone 2 and also has a Main/Zone 2 Direct On/Off Switch. Both zones provide volume control and a Direct Switch, and there are two IR ports (RX-V1500: one) for remote control capability and two trigger outputs (RX-V1500: one) for automatic power-on of other components. There is also an RS-232C interface for using a touch-screen controller.

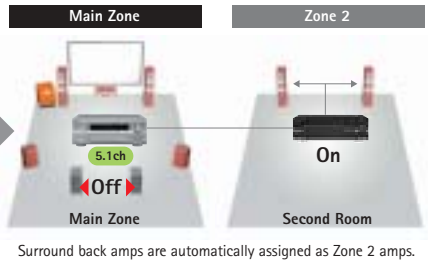

Zone 2 Speaker Out

The DSP-Z9 provides two zones, with two IR ports, two trigger outs and an RS-232C interface.

Automatic Amplifier Assignment
The RX-V2500/RX-V1500 have two surround back amps (7 amps total), which are automatically assigned to Zone 2 when activated. When Zone 2 is turned off, the surround back speaker output is active again. It's truly a seamless sequence.



7.1ch programme is played back in Main Zone while Zone 2 is turned off.



Surround back amps are automatically assigned as Zone 2 amps.

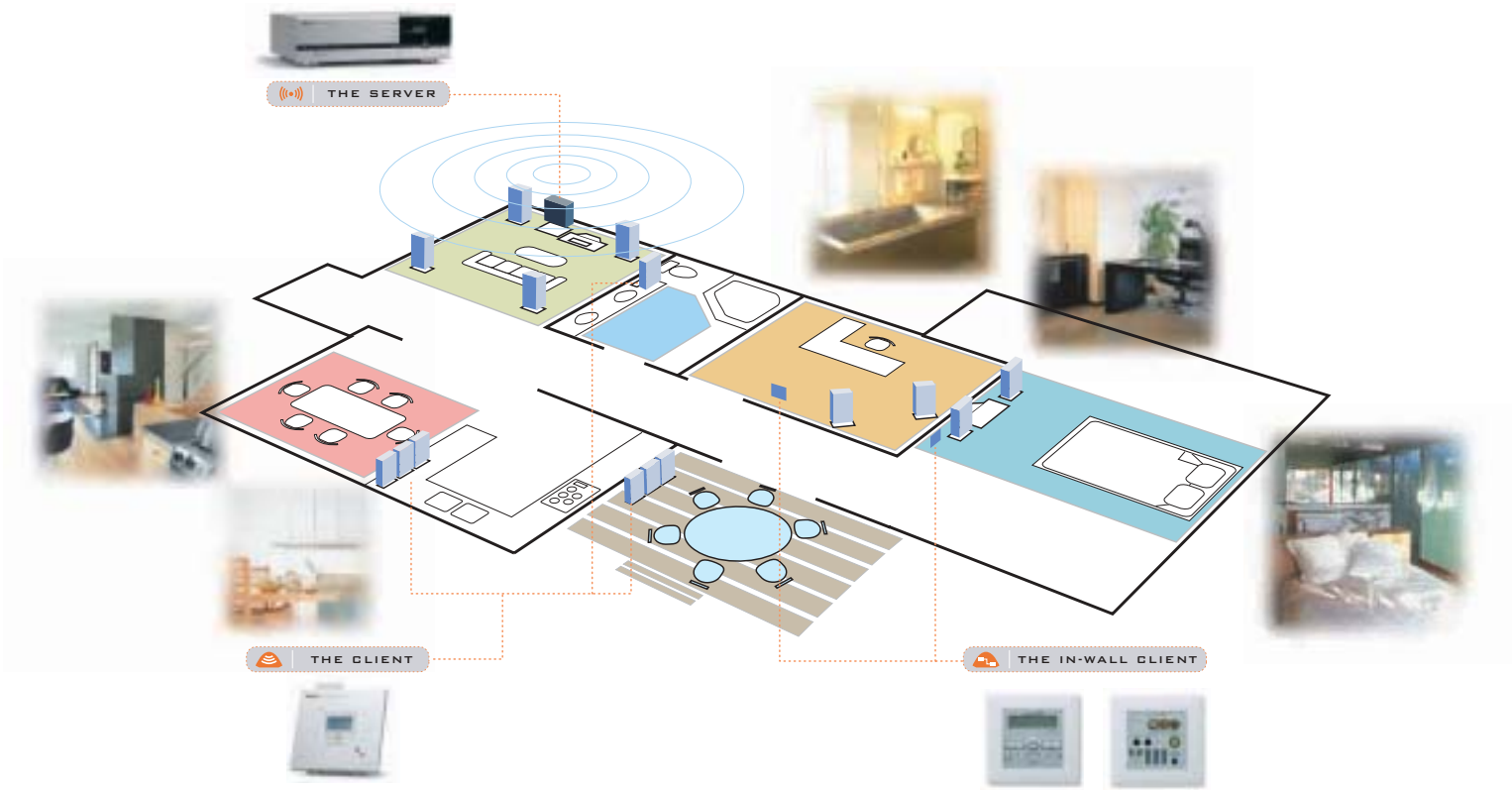
MusicCAST

Interactive Home Music Network System

Give Everyone in the Family Instant Access to Their Favourite Music in Their Own Room – or Anywhere Else in the House!

Finally! A multi-room home entertainment system that you can easily set up yourself. MusicCAST will store your entire family's favourite music on a high-capacity hard disk and let each person select and listen to their own music in any of eight different locations.

In addition to the normal portable Clients, MusicCast is now also available with In-Wall Clients for custom installation. With outstanding convenience and new features, this system takes family music enjoyment to a whole new level.



THE SERVER

The MusicCAST server stores and broadcasts music content wirelessly to any location within your home.

MCX-1000 Digital Audio Server

- Dimensions (W x H x D): 435 x 136 x 434 mm
- Weight: 11.5 kg

THE CLIENT

Clients are used to retrieve music content stored on the MusicCAST server, for instant access to music in any location within your home.

MCX-A10 Digital Audio Terminal

- Dimensions (W x H x D): 210 x 245 x 79 mm
- Weight: 2 kg

High sound quality exclusive MusicCAST speaker system.

MCX-SP10 Optional Speaker System

- Dimensions (W x H x D): 210 x 210 x 79 mm
- Weight: 1.2 kg

THE SERVER

MCX-1000

THE CLIENT

MCX-A10 / MCX-SP10

Wireless, Multi-Room, Multi-Selectable Music Library.

- **Simply wireless:** You can enjoy and control music in as many as eight locations: one Server and seven Clients (wireless plus wired).
- **Store 1,000 hours of music:** A huge amount of music is at your fingertips. The hard disk stores up to 1,000 hours of music in MP3 format.
- **User friendly:** Operating the system is easy for everyone in the family. The Server has a GUI (Graphical User Interface) with on-screen menus and the Clients have large panel displays.
- **Multiple sources:** You can also enjoy music, etc. from other connected sources, such as digital radio, FM, LP or tape.

- **Create your own CDs:** You can even make your own CDs from playlists composed of songs you have selected, by using the built-in CD recorder. For extra-high sound quality, record CDs with the Advanced Audio Master Quality Recording function.
- **Use your amplifier/receiver:** You can control your Yamaha AV amplifier/receiver by connecting it via the RS-232C port to certain Yamaha amplifier/receivers.
- **Instant music information:** The built-in Gracenote CDDB® Music Recognition Service℠ features full on-screen display of information, such as artist, album, and track names along with music genre. The latest information is available via Internet access.

gracenote cddb.

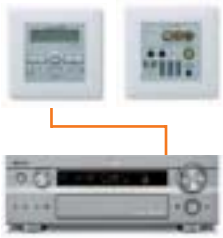
THE IN-WALL CLIENT

MCX-C15 / MCX-CA15

New MusicCAST Client System, MCX-C15 and MCX-CA15, Offers New Features and Enhanced Flexibility.

- **In-wall installation:** Great control within reach, yet out of the way ... bring home the convenience of this intelligently integrated in-wall mountable MusicCAST client into your living environment. With a variety of installation configurations available, now every room is fully customizable to enjoy the benefits the MusicCAST music distribution system can provide.
- **Favourites selection:** The four Favourites buttons allow direct playback of various sources. Each can be assigned the following functions: playlist, analogue or digital inputs from Server, tuner presets, local Aux input from MCX-CA15. Favourite selections can be made even when the MCX-C15 is in sleep mode.

- **IR flasher support:** The MCX-C15 supports limited IR transmission functions for custom installation. IR signals from the MCX-C15 can be transmitted to the MCX-CA15 or the I/O Box, and can drive an IR flasher for remote control of other components. The function works on only 38kHz modulation frequency.
  ** IR flasher units are not available from Yamaha.*
- **Yamaha AV link:** The MCX-C15 can generate extended IR commands to control a Yamaha amplifier/receiver, if more power than the MCX-CA15 is desired. The following functions can be controlled via the MCX-C15 remote control: volume, input selection, tuner preset selection, sleep and standby modes.



RX-V2500

THE IN-WALL CLIENT

In-wall mountable, network ready Clients add versatility to the MusicCAST system with great new features such as Favourite Function buttons, IR Flasher Support and Yamaha AV Link.

MCX-C15 Distributed Audio Controller

- Dimensions (W x H x D): 120 x 120 x 106 mm

MCX-C15 Family

This multipurpose in-wall amplifier is perfectly matched to the MCX-C15 Client. It provides high-quality power to speakers, as well as subwoofer and video OSD outputs.

MCX-CA15 Distributed Audio Amplifier

- Dimensions (W x H x D): 120 x 120 x 106 mm

Plasma Display Monitor / Projectors

Movies have never looked better in the home than they do on this extraordinary plasma display monitor. HDTV and other TV broadcasts will also look superb. For the finest in home theatre viewing, as well as superior control, convenience and versatility, the PDM-4210 is the clear choice.

PDM-4210 Plasma Display Monitor

SRS TruBass

NATURAL BLACK

Delivers incredibly smooth, high-definition image quality for an exceptional home cinema viewing experience.

• ALIS Method panel technology • Natural Black Drive System for 1,000:1 contrast ratio • Daylight: 1,100 cd/m² • High-resolution: 1,024 x 1,024 pixels • HDTV capability • Digital Linear Colour Control • Long life: 60,000 hours* • Two picture modes • Four white balance modes • Low power consumption • Side-by-side picture • Picture-in-picture • Multi-language on-screen display • Timer functions • Five video and five PC size modes • Simple remote control unit • Television tuner • DVI Interface with HDCP

<Accessories> • PDS-242: Stand

<Option> • PWK-4210E: Wall-hanging brackets

** Until panel brightness reduced to 40 %. Yamaha measurement.*

The PDM-4210 rear panel offers digital Input (RGB 1, DVI Interface), analogue input (RGB 2), analogue audio input (RGB 1 and RGB 2: 3.4mm stereo mini jack), and RS-232C Interface.

AUDIO HIGHLIGHT video rfe

101 Series

Home Cinema Speaker Systems

Flat speakers complement flat screen monitors and deliver dynamic surround sound.

• Thin speakers to match plasma monitors • 3-way acoustic suspension design • 4 10 cm cone woofers and 1.9 cm soft-dome tweeter • Magnetic shielding • Optional tabletop speaker stands • MDF front baffle • Removable grille cloth

Main Specifications • Woofers: Quad 10 cm cone • Tweeter: 1.9 cm soft-dome • Magnetic Shielding • Frequency Response: 100 Hz–40 kHz • Input Power (max/nominal): 120 W/35 W • Sensitivity: 83 dB/2.83 V/1 m • Impedance: 6 ohm • Dimensions (W x H x D): 187 x 605 x 99 mm • Weight: 3.6 kg

NS-F101

3-Way 5-Speaker Acoustic Suspension Speaker System

SPS-LF101

Optional Tabletop Speaker Stands

• 260 x 338 x 260 mm (W x H x D) • 2.6 kg

DPX-1100 Digital Cinema Projector

The previous DPX-1000 has been honoured with an EISA Award for High-End AV Product 2003–2004. The prestigious EISA Awards are chosen by media representatives from up to 20 European countries.

New high-resolution lens and advanced video technologies deliver extraordinary performance, including 4,000:1 contrast.

• Yamaha Natural Black Concept • 4,000:1 contrast ratio • High-resolution lens • Four anomalous dispersion glass components (see page 4) • Motorized iris control • Latest DMD™ HD2+ device • Seven-segment colour wheel • ND filter-equipped green segment • 10-bit green resolution • Faroudja TrueLife Enhancer • Motorized vertical lens shift, iris, focus and zoom controls • 1.6x zoom ratio • One-line menu with graphical menu configuration • Low-noise operation • Automatic aspect conversion • Smart Zoom • Cinema Zoom • HDMI terminal • 6 memories for each terminal • Variable lamp power control

<Accessories> • PJL-427: Optional lamp cartridge

• PMT-L31: Optional installation brackets for low ceiling

** DCDi is not applicable to images from film sources.*

In addition to the Input A and Input B (Component Video and RGB signal) terminals, the DPX-1100 rear panel offers the HDMI input terminal, composite video input terminals, remote in/out terminal and RS-232C and trigger out (12 V/200 mA) terminals.

LPX-510 Home Cinema Projector

Not available in some areas

With the LPX-510, Yamaha makes it easy to enjoy widescreen movies at home with beautiful movie-like picture quality.

• High contrast movie-like picture quality with "Natural Black" • Latest 0.7" 720p liquid crystal panel • 720p HDTV format compatibility, 16:9 widescreen display • 3D Linear Colour Balance • Cinema Balance Filter • Motorized iris control • Vertical/horizontal lens shift • Faroudja DCDi* processing • Short focus lens with high-power zoom • Yamaha Cinema Filter • 1.5x motorized zoom • 15° vertical keystone correction • Motorized focus control • 6 user preset memories • Smart Zoom for projecting 4:3 sports broadcasts onto a full 16:9 screen • Automatic aspect conversion • 6-step lamp power control • HDMI terminal • Low-noise operation

<Accessories> • PJL-520: Optional lamp cartridge

• PMT-L51: Optional installation brackets for low ceiling

** DCDi is not applicable to images from film sources.*

In addition to the Input A (5 composites) and Input B (5 composites) terminals, the LPX-510 rear panel offers the HDMI input terminal, S-Video and composite video input terminals and RS-232C and trigger out (12 V/200 mA) terminals.

Digital Home Cinema Components

Only Yamaha could set these goals for a home cinema amplifier — and achieve them!

The DSP-Z9 was developed to achieve three ambitious goals: deliver the highest sound quality, provide the highest picture quality, and be the easiest amplifier to use. We believe we've succeeded in all three areas, but we invite you to judge for yourself — we're confident that the DSP-Z9 will totally satisfy your highest expectations for a home cinema amplifier.

The DSP-Z9 has been honoured with an EISA Award for Home Theater High End Component 2004–2005. The prestigious EISA Awards are chosen by media representatives from up to 20 European countries.

DSP-Z9 Ti Digital Home Cinema Amplifier

Video Inputs on Front Panel: A panel on the front of the receiver flips down to reveal a number of controls and video input terminals. These include video and audio terminals as well as optical digital and S-Video inputs. This makes it convenient to temporarily connect a game machine for DVD games or movies, or other devices such as a camcorder.

DSP-Z9 Rear Panel Connections

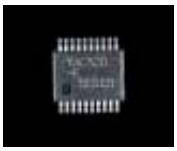
- 8* optical, 4 coaxial digital inputs (fixed and assignable)
- 8* A/V and 5 audio (audio signal) inputs, 3 A/V and 2 audio (audio signal) outputs, and Zone 2 audio output
- 3 optical digital outputs (fixed and assignable)
- 6 component video inputs (fixed and assignable) and 2 monitor component video outputs
- 2 monitor (with S-Video) outputs, 8 video inputs/ 3 video outputs (with S-Video), and Zone 2 video (with S-Video) output
- Pure Direct 2-channel input
- Pre-main and centre couplers, surround, surround back and presence preouts, and subwoofer output
- 8-channel external decoder input
- RS-232C interface for custom installation
- 2 trigger outputs for automatic power on of other components (+12 V, 15 mA)
- Remote control IR code input/output
- Zone 2 coaxial digital output
- i.LINK (IEEE 1394) digital audio interface
- Terminal for detachable power cable

** Including Video Aux terminals on front panel*

Highest Sound Quality

The most advanced audio technology and digital sound field processing capabilities are backed by over a century of experience and an undiminished commitment to "natural sound".

- 9.1-channel powerful surround sound (300 W x 7 + 90 W x 2 DIN)
- Digital ToP-ART and High Current Amplification
- 192 kHz/24-bit DACs for all channels
- Accurate touch digitally regulated volume control governs all channels (Yamaha YAC-520 LSIs)
- Pure Direct for high-quality 2-channel sound reproduction
- i.LINK (IEEE1394)
- High dynamic power, low impedance drive capability
- Linear Damping
- DVD-Audio/Super Audio CD compatibility
- Digital tone controls for front L/R and centre channels
- 9-band graphic equalizer
- High-grade construction with independent chambers and anti-vibration design
  - ToP-ART Base for reduced external resonance
  - ART (Anti-Resonance and Tough) feet
- Finest parts used throughout
  - Extra-large toroidal transformer
  - Extra-large (28,000 µF) custom made block electrolytic capacitors
  - Gold-plated-extruded gigantic speaker terminals
  - Anti-resonance, Alumite-finish heat sinks
  - Schottky Barrier diodes allow fast switching for high S/N ratio.
  - Thick PC board wiring with 1.6 mm diameter copper jumper cables.
  - Two direct signal path speaker relays with gold-plated crossover connections and shielding



Digitally Regulated Volume Control Device (Yamaha Original YAC-520 LSI)

Highest Picture Quality

As the central control unit in a home cinema system, the DSP-Z9 interfaces with video source and display components to ensure that video performance is on a par with sound quality.

- Digital component video up and down conversion
- Progressive Scan video output
  - Faroudja's TrueLife Enhancer
  - 216 MHz/12-bit video D/A conversion
  - Motion adaptive noise reduction
  - Cross colour suppression
  - Aspect ratio conversion
- DCDi processing: The DSP-Z9 is the first amplifier to offer Faroudja's DCDi Processing, which is selectable and ensures that images are smooth and natural, without staircasing or jaggies.
- NSV (Noise-Shaped Video)
- Time Base Corrector
- HDTV (720p/1080i) compatibility
- Wide-range video bandwidth (100 MHz -3 dB)

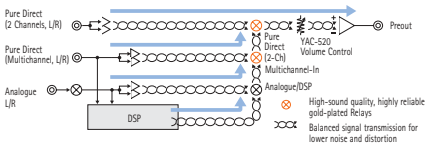
Digital Video Processing Board
All digital video processing circuitry is on a single board, housed in its own separate chamber to completely avoid interference from other circuitry.

Easiest to Use

Yamaha amplifiers/receivers have a long history of introducing features that enhance operating ease. The DSP-Z9 continues this tradition with one major convenience breakthrough and many other advanced features.

- YPAO (Yamaha Parametric Room Acoustic Optimizer)
- On-Screen Display with GUI (Graphical User Interface) and dedicated remote control
- Programme name and sound field indications
- Selectable subwoofer crossover (40, 60, 80, 90, 100, 110, 120, 160, 200 Hz)
- Direct access (macro command, learning capable and preset) remote control unit
- A/V rec out selector with Zone 2 selector
- Audio/video custom installation compatibility
- Automatic Zone 2 or presence speaker selection (9-channel speaker terminals)
- Speaker A+B and A/B selector

On-Screen Display with GUI and Dedicated Remote Control
The DSP-Z9 has the best looking and easiest to use on-screen display you've ever seen. This is due in part to the high-quality video circuitry, which provides sharp, clear images. The GUI (Graphical User Interface) includes extensive yet easily understandable setup menus and has been designed to make it easy to select and adjust the desired functions. And to further simplify operation, Yamaha has provided a second remote control dedicated to GUI use.



Choice of Signal Paths for Optimum Quality
The DSP-Z9 gives you a choice of specialized signal paths, ensuring that you can obtain the purest signal quality possible. **Pure Direct** provides the shortest possible signal path for two-channel or multichannel analogue inputs, with no signal processing and no display. **Straight** outputs the original analogue or digital signal without any post-processing. **i.LINK** provides a digital connection for DVD-Audio Linear PCM, Super Audio CD DSD (Direct Stream Digital) and other high quality audio sources. **Direct** provides a direct connection for analogue stereo/multi-channel input and digital stereo/multichannel (via i.LINK) input, with a dimmed display.

Best Surround Realism

Yamaha developed its audio and cinema digital sound field processing technology decades ago and has been refining it ever since. The DSP-Z9 offers an unrivalled, breathtaking surround sound experience.

- Powerful original 32-bit floating-point quantization system LSIs (YSS-930 x 4) for CINEMA DSP processing
- Compatibility with latest Movie Sound Formats Including Dolby Pro Logic IIx, Dolby Digital EX, DTS-ES Discrete 6.1, DTS Neo:6 and DTS 96/24
- 39 surround programmes
- THX Ultra2 processing
- Audio Delay for adjusting lip-sync
- Night Listening mode
- SILENT CINEMA and Virtual CINEMA DSP

Advanced decoding circuitry including YSS-930 32-bit floating point quantization LSI

4-Layer DSP Processing Board in the DSP Chamber
All of the DSP IC chips and related circuitry are located together on a 4-layer board, which provides a number of advantages. The dimensions are smaller (2/3 the size of previous types), so signal paths are shorter and there is more space for the large power supply components. Digital interference is reduced and impedance is lower as well.

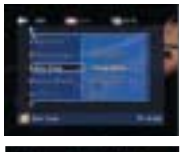
YPAO room sound optimization makes the most of this receiver's high sound quality and surround realism.

The RX-V2500 is a high-performance, technologically advanced receiver that will provide all the power and control necessary for any high-quality home cinema system. Major features include 7-channel discrete amplification (190 W x 7; 1,330 W total, DIN), Yamaha's Digital ToP-ART design concept, YPAO, Quad-Field CINEMA DSP, 19 surround programmes including 2 THX programmes, Dolby Pro Logic IIx / DTS 96/24 compatibility, component video up conversion, and custom installation compatibility.

RX-V2500 Hi 7.1-Channel Digital Home Cinema Receiver

• 7-channel 1,330 W powerful surround sound (190 W x 7 DIN) • Digital ToP-ART and High Current Amplification • YPAO with 6 system memories • On-screen display with GUI • Pure Direct mode • 192 kHz/24-bit DACs for all channels • RS-232C interface, 2 trigger outputs and 2 IR ports • Zone 2 / presence speaker out (power assignable) and Zone 3 volume • 3 component video inputs • Dolby Pro Logic IIx and DTS 96/24 compatibility • Audio Delay for adjusting lip-sync • Selectable 9-band subwoofer crossover / Subwoofer phase select • Night Listening Enhancer for all programmes (including Dolby Pro Logic IIx) • 19 surround programmes with 2 THX Select programmes • Component video up conversion • Rec out/Zone 2 selector • Terminal for detachable power cable • Direct-access (macro-command, learning and preset capable) remote control unit with macro-command buttons and illuminated buttons

Extensive system connections (see page 34)



GUI (Graphical User Interface)

Oil-Damped Hidden Control Panel includes S-Video input and optical digital input terminals for connecting game machines, digital equipment.

RX-V1500 Ti 7.1-Channel Digital Home Cinema Receiver

A high-performance, high-value receiver featuring Yamaha's unique CINEMA DSP and YPAO acoustic optimization, plus much more.

• 7-channel 1,260 W powerful surround sound (180 W x 7 DIN) • Digital ToP-ART and High Current Amplification • YPAO • Pure Direct mode • 192 kHz/24-bit DACs for all channels • RS-232C interface, trigger output and IR port • Zone 2 / presence speaker out (power assignable) and Zone 3 volume • Dolby Pro Logic IIx and DTS 96/24 compatibility • Audio Delay for adjusting lip-sync • Selectable 9-band subwoofer crossover • Night Listening Enhancer for all programmes (including Dolby Pro Logic IIx) • 16 surround programmes with 2 THX programmes • Component video up conversion • 9-channel speaker outputs and Dialogue Lift • 8 digital inputs (5 optical/3 coaxial) • Digital tone controls • Terminal for detachable power cable • Direct-access (macro-command, learning and preset capable) remote control unit with macro-command buttons

Oil-Damped Hidden Control Panel includes S-Video input and optical digital input terminals for connecting game machines, digital equipment.

Extensive system connections (see page 34)

RX-V750 Ti 7.1-Channel Digital Home Cinema Receiver

Astounding array of home cinema functions including YPAO speaker customization, Dolby Pro Logic IIx and component video up conversion.

• 7.1-channel 1,050 W powerful surround sound (150 W x 7 DIN) • Digital ToP-ART and High Current Amplification • Pure Direct mode • YPAO • Dolby Pro Logic IIx, Dolby Digital EX, DTS-ES Discrete 6.1, DTS Neo:6 and DTS 96/24 compatibility • Audio Delay for adjusting lip-sync • 14 surround programmes • Night Listening Enhancer for all programmes (including Dolby Pro Logic IIx) • Component video up conversion • Selectable 9-band subwoofer crossover / subwoofer phase select • 192 kHz/24-bit DACs for all channels • On-screen display • Presence speaker terminals / Dialogue Lift • 6 digital (4 optical and 2 coaxial) inputs • Phono input • Learning-capable remote control unit

Extensive system connections (see page 34)

DIGITAL
ToP·ART

RX-V650 Ti 7.1-Channel Digital Home Cinema Receiver

Extensive range of home cinema functions including YPAO speaker customization, Dolby Pro Logic IIx compatibility and on-screen display.

• 7.1-channel 1,015 W powerful surround sound (145 W x 7 DIN) • Digital ToP-ART and High Current Amplification • Pure Direct mode • YPAO for automatically optimizing the sound in your room • Dolby Pro Logic IIx, Dolby Digital EX, DTS-ES Discrete 6.1, DTS Neo:6 and DTS 96/24 compatibility • Audio Delay for adjusting lip-sync • 14 surround programmes • Night Listening Enhancer for all programmes (including Dolby Pro Logic IIx) • 192 kHz/24-bit DACs for all channels • On-screen display • Selectable 9-band subwoofer crossover / subwoofer phase select • Presence speaker terminals / Dialogue Lift • S-Video up conversion • 6 digital (4 optical and 2 coaxial) inputs • Preset remote control unit

Extensive system connections (see page 34)

DIGITAL
ToP·ART

RX-V550 Ti 6.1-Channel Digital Home Cinema Receiver

CINEMA DSP DIGITAL · SILENT CINEMA · DOLBY DIGITAL EX PRO LOGIC IIx · dts 96/24 ES NEO:6 · 6CH EXT. INPUT · R·D·S

Full home cinema enjoyment with functions including Dolby Pro Logic IIx, Quad-Field CINEMA DSP and Night Listening Enhancer.

• 6.1-channel powerful surround sound (135 W x 6 DIN) • Digital ToP-ART and High Current Amplification • Direct Stereo mode • 192 kHz/24-bit DACs for all channels • Dolby Pro Logic IIx, Dolby Digital EX, DTS-ES Discrete 6.1, DTS Neo:6 and DTS 96/24 compatibility • Audio Delay for adjusting lip-sync • 14 surround programmes • Night Listening Enhancer for all programmes (including Dolby Pro Logic IIx) • Selectable 9-band subwoofer crossover/subwoofer phase select • Speaker A, B and A+B selection • S-Video up conversion • Preset remote control unit with coloured buttons

Extensive system connections (see page 34)

DIGITAL
ToP·ART

RX-V450 Ti 6.1-Channel Digital Home Cinema Receiver

CINEMA DSP DIGITAL · SILENT CINEMA · DOLBY DIGITAL EX PRO LOGIC IIx · dts 96/24 ES NEO:6 · 6CH EXT. INPUT · R·D·S

AUDIO KAUF TIPP HEIMKINO

Home cinema enjoyment with functions including Dolby Pro Logic IIx, Quad-Field CINEMA DSP and 14 surround programmes.

• 6.1-channel powerful surround sound (130 W x 6 DIN) • Digital ToP-ART and High Current Amplification • 192 kHz/24-bit DACs for all channels • Direct Stereo mode • Dolby Pro Logic IIx, Dolby Digital EX, DTS-ES Discrete 6.1, DTS Neo:6 and DTS 96/24 compatibility • Audio Delay for adjusting lip-sync • 14 surround programmes • Night Listening Enhancer for all programmes (including Dolby Pro Logic IIx) • Selectable 9-band subwoofer crossover / subwoofer phase select • Speaker A, B and A+B selection • Front panel Video Aux terminals • HDTV (720p/1080i) compatibility • 2 component video inputs • Preset remote control unit with coloured buttons

Extensive system connections (see page 34)

RX-V350 5.1-Channel Digital Home Cinema Receiver

CINEMA DSP DIGITAL · SILENT CINEMA · DOLBY DIGITAL PRO LOGIC II · DIGITAL dts SURROUND · 6CH EXT. INPUT · R·D·S

Exceptionally high dynamic power and overall performance with 192 kHz/24-bit D/A converters and 3 digital inputs.

• 5.1-channel powerful surround sound 105 W x 5 DIN) • 192 kHz/24-bit D/A converters for all channels • Analogue mixdown • Quad-Field and Tri-Field CINEMA DSP • Dolby Digital EX Matrix 6.1 and DTS-ES Matrix 6.1 compatibility plus Dolby Pro Logic II decoding • 14 surround programmes • Night Listening mode and SILENT CINEMA • Powerful 32-bit Yamaha LSI (YSS-938) for CINEMA DSP processing • Easy setup and operation (Basic Menu) • 5-band centre graphic equalizer • Speaker A/B selection • Wide-range frequency response for DVD-Audio/SA-CD compatibility • Programme name and sound field indications • 6-channel external decoder input

Extensive system connections (see page 34)

DVD Players / DVD Recorder

DVD's new level of high class entertainment.

Whether you simply want to enjoy the latest DVDs in top quality or use the Super Audio CD and DVD-audio high-resolution audio standards with your player. Yamaha offers a tailor-made solution for every application. Plus a high-quality DVD Recorder with a wide range of versatile functions.

DRX-2 MK II DVD Recorder

audiovision VIDEO HiFi Test

Offering all the advantages of the DVD+RW format, the DRX-2MKII provides highest video/audio quality with the most comprehensive range of features.

• Records on DVD+RW* and DVD+R discs* • Linear PCM audio recording (1 and 2-hour recording modes) • 6 recording modes up to 6 hours • Fit to Space recording • Recorded discs play on nearly all DVD-Video players and DVD-ROM drivers • Digital copying from camcorder via i.LINK • Index Picture Screen shows selected scenes of all recorded segments for easy identification • Auto and Manual Chapter Marker insertion • No need to finalize DVD+RW° discs as with DVD-RW • SHOWVIEW timer recording • MP3

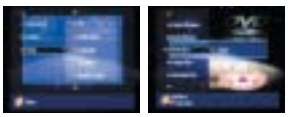
° DVD+R discs must be finalized to play on other DVD players.

Titanium finish available

DVD-S1500 DVD-Audio/Video and Super Audio CD Player

Uses new video and audio technologies for superior performance and allows playback of both DVD-Audio and Super Audio CD discs.

• DVD-Audio and Super Audio CD playback • PAL/NTSC Progressive Scan • PAL/NTSC conversion • CD upsampling • Audio Direct mode • Faroudja DCDi processing for smooth and natural images without staircasing or jaggies • 192 kHz/24-bit audio D/A conversion for high sound quality • 108 MHz/12-bit video D/A conversion for high picture quality • On-Screen Display with GUI (Graphical User Interface) • DVD-Video, Super VCD, VCD, JPEG (multisession), Audio CD and MP3 (multisession) playback • DVD+RW/+R*, DVD-R/-RW* and CD-R/RW*, **,*** playback • Detachable power cable • Gold-plated terminals for all pin jacks • Aluminium front panel



DVD-S550 DVD Player

HEIMKINO DVD

Exceptionally good image and sound quality, with wide-ranging format and disc compatibility.

• PAL/NTSC Progressive Scanning • PAL/NTSC conversion • CD up-sampling • 108 MHz/12-Bit video DAC • 192 kHz/24-bit audio DAC • DVD-Video, Super VCD, VCD, Audio CD, DVD+RW/+R*, DVD-R/-RW*, and CD-R/RW*,**,*** playback • MP3, JPEG and DivX playback (multi-session) with navigation display • Picture CD playback with display • MP3 fast forward / rewind / repeat / shuffle playback • JPEG/MP3 simultaneous playback for slide show • 6-step multiple zoom • Easy operation with GUI • CD Text display • 4 video picture modes

DV-SL100 DVD Player

Elegant DVD Player with advanced technology and features for outstanding performance.

• PAL/NTSC Progressive Scanning • PAL/NTSC conversion • DVD-Video, SVCD, VCD, Audio CD and JPEG/MP3 (multisession) playback • DVD+RW/+R*, DVD-R/-RW* and CD-R/RW*,**,*** playback • 54 MHz/12-bit video DAC for high picture quality • Picture CD playback with display • Audio equalizer and 3D reverb • MP3 fast forward/rewind/special playback • Playback of discs with both JPEG, and MP3 tracks • Aluminium front panel

* *Only compatible with discs that have been finalized when recording is completed. Some discs may not play due to disc characteristics or recording conditions.*
** *Only compatible with discs that have been recorded in CD-DA format or Video CD format and Super Video CD format.*
*** *Some MP3 or JPEG discs may not play due to disc characteristics or recording conditions.*

Home Cinema Packages

Illustration shows AV Pack 104S/S

AV Pack 104

AV Pack 104S/S includes **Digital Home Cinema Receiver RX-V350 (Silver)** (see p. 16), **DVD Player DVD-S550 (Silver)** (see p. 17) and **Digital Home Cinema Speaker Package NS-P100 (Silver)** (see p. 28)

Black finish available: AV Pack 104B/B
(RX-V350 Black + DVD-S550 Black + NS-P100 Black)

Illustration shows AV Recorder Pack 304T/S

AV Recorder Pack 304

AV Recording Pack 304T/S includes **Digital Home Cinema Receiver RX-V450 (Titanium)** (see p. 16), **DVD Recorder DRX-2MKII (Titanium)** (see p. 17) and **Digital Home Cinema Speaker Package NS-P240 (Silver)** (see p. 28)

Black finish available: AV Recorder Pack 304B/B
(RX-V450 Black + DRX-2MKII Black + NS-P240 Black)

Digital Home Cinema Packages –
Yamaha makes it easy to get sensational Home Cinema Sound.

If you enjoy watching movies at home, you'll enjoy them a lot more with realistic, dynamic, full-surround sound. But you no longer have to select various components and worry about which speakers will match, Yamaha Home Cinema packages make it easy. There are six convenient packages to choose from. The AV Pack 104/204 includes a high quality DVD player, and the AV Recorder Pack 304 includes a DVD recorder, while the HTiB (Home Theatre in a Box) 204/304 has a powerful receiver. All come with five speakers and a subwoofer for full 5.1-channel sound compatibility. Best of all, each system provides Yamaha's exclusive CINEMA DSP surround sound in a variety of programmes for the ultimate in movie and music enjoyment.

Illustration shows AV Pack 204T/S

AV Pack 204

AV Package 204T/S includes **Digital Home Cinema Receiver RX-V450 (Titanium)** (see p. 16), **DVD Player DVD-S550 (Titanium)** (see p. 17) and **Digital Home Cinema Speaker Package NS-P240 (Silver)** (see p. 28)

Black finish available: AV Pack 204B/B
(RX-V450 Black + DVD-S550 Black + NS-P240 Black)

Illustration shows HTiB104S/S

HTiB104

HTiB104S/S includes **Digital Home Cinema Receiver RX-V350 (Silver)** (see p. 16) and **Digital Home Cinema Speaker Package NS-P240 (Silver)** (see p. 28)

Black finish available: HTiB104B/B
(RX-V350 Black + NS-P240 Black)

Illustration shows HTiB204T/S

HTiB204

HTiB204T/S includes **Digital Home Cinema Receiver RX-V550 (Titanium)** (see p. 16) and **Digital Home Cinema Speaker Package NS-P430 (Silver)** (see p. 28)

Black finish available: HTiB204B/B
(RX-V550 Black + NS-P430 Black)

Illustration shows HTiB304T/S

HTiB304

HTiB304T/S includes **Digital Home Cinema Receiver RX-V550 (Titanium)** (see p. 16) and **Digital Home Cinema Speaker Package NS-P436 (Silver)** (see p. 28)

Black finish available: HTiB304B/B
(RX-V550 Black + NS-P436 Black)

SLIM-LINE

The Slim-Line featuring surround sound quality and versatility in an elegant Home Cinema Package.

When the power is on, you'll enjoy movies and music with surround sound that is unrivalled for a realistic sense of presence and overall depth and clarity. When it's off, you'll be proud to own a system that sets the standard for contemporary design elegance.

This Pack includes
5.1-Channel Digital Home Cinema Receiver RX-SL80, DVD Player DV-SL100 (see p. 17) and **Digital Home Cinema Speaker Package NS-P240** (see p. 28).

Slim-Line 80 Pack

RX-SL80 + DV-SL100 + NS-P240

RX-SL80 5.1-Channel Digital Home Cinema Receiver

Bringing home cinema into a new era of stylish elegance.

• High power 100 W x 5 (Max) Yamaha original digital amplifier • 96 kHz/24-bit DAC for all channels • Dolby Pro Logic II, Dolby Digital Matrix 6.1 (Virtual), DTS-ES Matrix 6.1 (Virtual) and DTS 96/24 compatibility • 14 surround programmes plus SILENT CINEMA and Night Listening mode • Audio Delay for adjusting lip-sync • Selectable 9-band subwoofer crossover / Subwoofer phase select • Front panel Video Aux input terminals • 40-station preset tuning

Hidden Control Panel includes headphone terminal for SILENT CINEMA enjoyment and optical digital input terminal for connecting game machines, digital equipment, and so on.

The RX-SL80 rear panel offers 2 optical and 1 coaxial digital input (fixed and assignable), 2 SCART terminals, and 1 subwoofer output terminal.

Easy Connections
Six one-touch speaker terminals are furnished in a slim space, coloured for easy connection.

The Slim-Line 100 includes
6.1-Channel Digital Home Cinema Receiver RX-SL100RDS and **DVD Player DV-SL100** (see p. 17)

Slim-Line 100

RX-SL100RDS + DV-SL100

RX-SL100RDS 6.1-Channel Digital Home Cinema Receiver

A Slim-Line receiver whose performance is as sophisticated as its design.

• High power 100 W x 6 (Max) Yamaha original digital amplifier • Convenient setup on-screen display with GUI (Graphical User Interface) • Dolby Pro Logic IIx, Dolby Digital EX, DTS-ES Discrete 6.1, and DTS Neo:6 compatibility • Powerful 32-bit Yamaha LSI (YSS-938) for CINEMA DSP processing • 14 surround programmes plus SILENT CINEMA and Night Listening mode

Hidden Control Panel includes headphone terminal for SILENT CINEMA enjoyment and optical digital input terminal for connecting game machines, digital equipment, and so on.

The RX-SL100RDS rear panel offers 2 optical and 1 coaxial digital input (fixed and assignable), 2 SCART terminals, and 1 subwoofer output terminal.

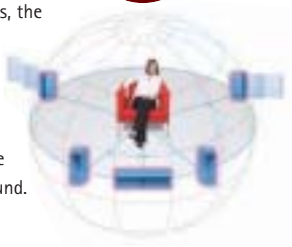
Easy Connections
Six one-touch speaker terminals are furnished in a slim space, coloured for easy connection.

CinemaStation www.CinemaStation.com

Home cinema has evolved into an advanced species.

Home theatre has evolved into an advanced species, and it's called CinemaStation. Elegantly styled, they're also supremely easy to use. The DVX-S150: proof that evolution is a good thing.

Professional sound equalization with just one microphone in 3 minutes.
You just place the small microphone at the listening position and touch a button. In less than 3 minutes, the system analyzes the acoustics of the room and adjusts various speaker parameters to provide the best surround sound.



One touch to the ideal surround sound.
Yamaha makes it quick and easy to select the 4 most popular surround sound programmes: Movie, Music, Sports, and Game. Just touch a button on the remote control and you'll hear the sound field change as that program takes effect.

Easy access to the functions you want.
The compact, well-designed remote control makes operating your system a simple matter. You have fast access to all the GUI (Graphical User Interface) on-screen menus, as well as one-touch selection of four surround programmes via the icon buttons.

CinemaStation DVX-S150WL DVD Home Cinema System

[DVR-S150 + NX-P150 + TRX-1]

This is the home cinema system you've been waiting for! Impressive performance from beautifully slim, stylish components.

DVR-S150
[Receiver] • YPAO: Automatically optimizing the sound in your speaker system • 4 DSP programme icon buttons on remote unit • On-screen display with GUI (Graphical User Interface) • 55 W x 5 Yamaha original digital amplifier • 12 surround programmes plus SILENT CINEMA and Night Listening mode • Quad-Field CINEMA DSP for enjoying formats such as Dolby Digital Matrix 6.1 and DTS-ES Matrix 6.1 • Component video output • RDS • 40-station FM/AM preset tuner
[DVD player] • Progressive Scan • 192 kHz/24-bit audio D/A conversion • Wide disc compatibility: DVD-Video, DVD+RW/+R, DVD-R/RW, Audio CD, CD-R/RW, VCD, SVCD, MP3, and JPEG

Dimensions (W x H x D); Weight:
• Centre Unit: 360 x 80 x 360 mm; 6 kg

CinemaStation DVX-S150 DVD Home Cinema System

[DVR-S150 + NX-P150]

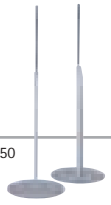
NX-P150
[Speakers] • 100 W Advanced YST subwoofer for powerful bass response • Magnetic shielding allows placement near a TV (All Speakers)

Dimensions (W x H x D); Weight:
• Satellite Speakers: 72 x 170 x 108 mm; 0.9 kg
• Centre Speaker: 300 x 72 x 105 mm; 1.1 kg
• Subwoofer: 200 x 365 x 375 mm; 8.4 kg

TRX-1 Wireless Unit

• Dimensions (W x H x D):
122 x 33 x 116.5 mm (Transmitter);
192 x 55 x 185 mm (Receiver)

SPS-80



Optional Speaker Stands for DVX-S150WL and DVX-S150
• 300 mm ∅ (base), 650 - 900 mm (height) • 1.9 kg

micro component system

PIANOCRAFT

Natural Sound Enjoyment from a High-Performance, Elegant System.

A lot of fine craftsmanship goes into Yamaha's world-renowned pianos, and that same dedication to sound and design excellence is behind the creation of the award-winning PianoCraft series.
You have a choice of compact, high-quality systems, each of which includes two speakers and the capability of adding a subwoofer.

The PianoCraft E100 System won the EISA award for Best Compact System 2000-2001.
The prestigious EISA awards are chosen by media representatives from up to 20 European countries.

PianoCraft E600 Micro Component System

[Receiver: RX-E600] • High output power: 2 x 60 W (DIN) • Linear Damping • High Dynamic Power, Low-Impedance Drive Capability • Subwoofer out • Discrete amplification • Versatile timer functions: Clock, timer and sleep timer • RDS • 40-station preset tuning **[CD/DVD Player: DVD-E600]** • Progressive Scan processing (NTSC/PAL) • High quality audio DAC • DVD+RW/+R, SVCD, VCD, Audio CD, CD-R/RW, MP3 and JPEG compatibility • 54 MHz/12-bit video DAC • Picture CD playback with display • MP3 navigation display • MP3 and JPEG (multisession) compatibility with fast forward, rewind, repeat and shuffle play • 2-way bass-reflex speaker system

DVD-E600 DVD Player for Combining RX-E600

• Progressive Scan processing (NTSC/PAL) • High quality audio DAC • DVD+RW/+R, SVCD, VCD, Audio CD, CD-R/RW, MP3 and JPEG compatibility • 54 MHz/12-bit video DAC • Picture CD playback with display • MP3 navigation display • MP3 and JPEG (multisession) compatibility with fast forward, rewind, repeat and shuffle play

PianoCraft E400 Micro Component System

[Receiver: RX-E400] • High power: 2 x 60 W (DIN) • Linear Damping • High Dynamic Power and Low-Impedance Drive Capability • Subwoofer out • Discrete amplification • Versatile timer functions • RDS • 40-station presets • Auto preset memory

[CD Player: CDX-E400] • CD-R/CD-RW playback • CD Text display • Optical digital out • 2-way bass-reflex speaker system

PianoCraft E300 Micro Component System

[CD Receiver: CRX-E300] • High power: 2 x 30 W (DIN) • Linear Damping • High Dynamic Power and Low-Impedance Drive Capability • Subwoofer out • Discrete amplification • Versatile timer functions • RDS • 40-station presets • Auto preset memory • CD-R/CD-RW playback • CD Text display • Optical digital out • 2-way bass-reflex speaker system

PianoCraft Options

MDX-E300 MiniDisc Recorder

• Versatile editing functions • Digital and analogue recording level control • MDLP • Recording mode selection • Optical digital inputs (2) and output (1) • 217 x 88 x 297 mm (W x H x D); 2.6 kg

KX-E300 Auto-Reverse Cassette Deck

• Versatile editing functions • Music search • Reverse mode selector • 4-digit tape counter • 217 x 88 x 291 mm (W x H x D); 3 kg

Digital Home Cinema Speakers

A wide range of speakers for every type of home cinema system.

As high-quality home cinemas have become more popular, Yamaha has created high-performance speakers to match. These speakers are characterized by their robustness and dynamism in the reproduction of the current multichannel sound standard and offer the music lover a pleasant musical sound. Thanks to its own patented technologies, such as Advanced YST or QD Bass, Yamaha subwoofers offer powerful and precise bass reproduction from robust housings with compact dimensions.

PMD Cone Woofer Uses Advanced Technology and Materials (515 PMD, 225 PMD and PMD Series)

Digital Home Cinema Speakers feature a unique Polymer-injected Mica Diaphragm (PMD). The diaphragm is composed of 30 % top-quality white Indian Pearl Mica, chosen for the amazing contribution it makes to sound quality. In order to maximize its distinctive qualities, absolutely no colouring is added to the material, and the cone's shape, produced by injection moulding, is a natural catenary curve. Extremely lightweight, it achieves good stiffness along with ideal internal loss and a high modulus of elasticity.

Microscopic View of Polymer-Injected Mica.

WSD Cone Midrange and Woofer (HX Series)

Yamaha's White Spruce Diaphragm (WSD) material emerged from an intensive search for a light, tough diaphragm material that would help us achieve ideal home cinema sound. The pulp material used for the WSD is manufactured almost entirely from long fibres of Canadian evergreen white spruce, the world's lightest single-sheet diaphragm material.

Waveguide Horn (HX Series)

When conventional direct radiating speakers are used in a home environment, their broad directional characteristics result in a relatively high proportion of reflected sound. Modern movie theatres, however, are designed to offer a highly absorptive acoustic environment in which soundtrack recordings with five or more channels can be used to achieve a rich sense of spatial expression. To achieve a similar level of spatial expression at home, it is therefore necessary to use speakers with a direct/reflected sound ratio that is quite different from the speakers used for conventional music recordings.

Waveguide Horn (NS-8HX)

All-Aluminium Dome Tweeters and Diffusers (HX Series and 515 PMD Series)

Both the shape and material used for dome tweeter diaphragms and diffusers were refined to improve speed and response. 30 µm pure aluminium film was formed into a new dome shape and fitted with an all-aluminium diffuser for wide-ranging 50 kHz sound reproduction capability.

3 cm Aluminium-Magnesium Dome Tweeter with DC-Diaphragm™ (225 PMD Series)

The high-performance tweeter features a dome made of an aluminium–magnesium alloy, with a DC-Diaphragm™ (integrated diaphragm and voice coil). The tweeter is extremely light to minimize loss yet is highly durable. It is capable of reproduction all the way up to 50 kHz, which is rare for a 3 cm dome tweeter. Trebles are crisp and clear even at high power levels.

QD-Bass Technology

QD-Bass (Quatre Dispersion Bass) technology uses down-firing drivers with square, pyramid-shaped reflective plates to radiate the sound efficiently in four horizontal directions. The reflective plates (not used in competitors' down-firing subwoofers) negate any effects caused by the floor surface and reduce resonance between sound waves reflected from the floor and the unit. Also, most other systems use circular cones. But by radiating in four directions to avoid the legs of the cabinet, QD-Bass reduces turbulence caused by reflection from the legs.

QD·Bass TECHNOLOGY

Advanced YST

Advanced Yamaha Active Servo Technology (Advanced YST) is a unique system in which the speaker and amplifier work together to cancel out impedance so the speaker unit has a perfectly linear motion. Advanced YST helps to ensure the highest levels of sound pressure and overall performance.

Advanced Y·S·T

How Yamaha achieves our "ideal" sound.

The key to achieving the purest, most natural, and most pleasing sound is balance. Balance among the above three elements, balance among all the components that make up the speaker, and balance among subjective listening judgments.

Testing and More Testing

Yamaha tests speakers in various ways, both before and after production. Each part of the speaker, be it a coil, a capacitor, or a cabinet, is selected from many alternatives, which may be tested for months before a decision is made. In the case of cabinets, for example, we often build 50 to 60 cabinets and test each one. In order to test many cabinets with many drivers in many configurations, we begin with computer simulations, then move to actual prototypes for measuring a myriad of factors, such as the variations of standing waves inside the cabinet. An anechoic chamber is used to obtain precise acoustic data on pre-production models. Even speaker finishes are rigorously tested for durability and how they influence the sound. We have an environmental room where speakers are tested for 500 hours in Amazon rain forest conditions, and five different listening rooms, where speakers are carefully evaluated reproducing a variety of music and movie sources.

The Final Judgment

Throughout the design process and especially in the final phase, our most important testing devices are the ears of our speaker experts. Having hard data is helpful, but deciding which cabinet sounds "better" and whether the speaker meets Yamaha's high standards can only be done by the "golden ears" of Yamaha speaker designers who have dedicated their lives to the pursuit of beautiful, natural sound.

1. Many cabinets are built and tested for each speaker series.
2. A testing room that simulates an actual listening room.
3. A wide range of parameters are tested.
4. Speakers undergo harsh environmental testing.

Subwoofers

A Must for Home Cinema & HiFi

Full audio enjoyment of digital music and movie sources requires deep, clear bass response. Yamaha subwoofers use sophisticated technologies such as QD-Bass (down-firing drivers that radiate the sound in four directions) and Advanced YST to ensure the highest levels of sound pressure and overall performance.

YST-SW1500

Advanced YST and QD-Bass Subwoofer

YST-SW800

Advanced YST and QD-Bass Subwoofer

YST-SW315

Advanced YST and QD-Bass Subwoofer

YST-SW215

Advanced YST and QD-Bass Subwoofer

YST-SW015

Advanced YST and QD-Bass Subwoofer

YST-SW225

Advanced YST and QD-Bass Subwoofer

Subwoofers	YST-SW1500	YST-SW800	YST-SW315	YST-SW215	YST-SW015	YST-SW225
Advanced YST	Yes	Yes	Yes	Yes	Yes	Advanced YST II
QD-Bass Technology	Yes	Yes	Yes	Yes	Yes	Yes
High-Efficiency Power Amplifier	Yes	Yes	Yes			Yes
High-Efficiency Power Supply	Yes	Yes				
Drivers	30 cm extra-long stroke design with dual-bias system	25 cm extra-long stroke design with dual-bias system	25 cm cone	20 cm cone	16 cm cone	20 cm cone
Magnetic Shielding	Yes	Yes	Yes	Yes	Yes	Yes
High Cut Filter	40–140 Hz (continuously variable)	40–140 Hz (continuously variable)	40–140 Hz (continuously variable)	40–140 Hz (continuously variable)	50–150 Hz (continuously variable)	40–140 Hz (continuously variable)
Linear Port for Minimizing Extraneous Noise						Yes
LFE (Low Frequency Effect) Input Terminal	Yes					
HPF (High Pass Filter) Output Terminal	Yes					
Phase Control (Normal or Reverse)	Yes	Yes	Yes	Yes	Yes	Yes
Auto Standby	Yes	Yes	Yes	Yes	Yes	Yes
BASS (Bass Action Selector System)	Yes	Yes	Yes	Yes	Yes	Yes
Remote Control Unit	Yes					
Output Power	1,000 W (5 ohm)	800 W (6 ohm)	250 W (5 ohm)	120 W (5 ohm)	70 W (5 ohm)	120 W (5 ohm)
Dynamic Power	1,000 W	800 W	270 W	150 W	120 W	150 W
Frequency Response	16–160 Hz	18–160 Hz	20–160 Hz	28–200 Hz	30–200 Hz	28–200 Hz
Dimensions (W x H x D)	420 x 511 x 448 mm	390 x 482 x 420 mm	340 x 432 x 370 mm	290 x 360 x 322 mm	280 x 325 x 320 mm	290 x 350 x 349 mm
Weight	29 kg	24 kg	17 kg	11.5 kg	9.2 kg	11.5 kg

PMD and HX Series

Digital Home Cinema & HiFi Speaker Systems

All the speakers in these two series are designed to reproduce the full potential of digital sound sources. The PMD Series features PMD (polymer-injected mica diaphragm) cone woofers, while the HX Series offers high performance and impressive designs. There is a wide choice of models for any type of system configuration.

NS-515F

3-Way Bass-Reflex Speaker System

NS-M515

2-Way Bass-Reflex Speaker System

NS-C515

2-Way Dual-Woofer Bass-Reflex Centre Speaker System

NS-150

3-Way Bass-Reflex Speaker System

NS-C120

2-Way Dual-Woofer Bass-Reflex Centre Speaker System

NS-8HX

3-Way Dual-Woofer Bass-Reflex Speaker System

NS-4HX

2-Way Dual-Woofer Bass-Reflex Speaker System

NS-C5HX

2-Way Dual-Woofer Acoustic Suspension Centre Speaker System

	NS-515F	NS-M515	NS-C515	NS-150	NS-C120
Woofers	16 cm PMD LF cone and 16 cm PMD subLF cone	13 cm PMD cone	Dual 13 cm PMD cone	13 cm PMD LF cone and 13 cm PMD subLF cone	Dual 10 cm PMD cone
Tweeter	3 cm Aluminium dome	3 cm Aluminium dome	3 cm Aluminium dome	3 cm silk dome	3 cm silk dome
Magnetic Shielding	Yes	Yes	Yes	Yes	Yes
Gold-Plated Speaker Terminals	Yes	Yes	Yes	Yes	Yes
Bi-Wiring Connection Capability	Yes		Yes	Yes	
Input Power (Max/Nominal)	300 W/100 W	200 W/60 W	300 W/100 W	300 W/100 W	200 W/60 W
Sensitivity	90 dB/2.83 V/1 m	89 dB/2.83 V/1 m	90 dB/2.83 V/1 m	89 dB/2.83 V/1 m	88 dB/2.83 V/1 m
Frequency Response	40 Hz–50 kHz	60 Hz–50 kHz	57 Hz–50 kHz	40 Hz–35 kHz	60 Hz–35 kHz
Impedance	6 ohm	6 ohm	6 ohm	6 ohm	6 ohm
Dimensions (W x H x D)	200 x 1,000 x 328 mm	180 x 333 x 184 mm	500 x 170 x 218 mm	168 x 850 x 269 mm	480 x 140 x 171 mm
Weight	21 kg/unit	5 kg/unit	8 kg	14.5 kg/unit	5.2 kg

	NS-8HX	NS-4HX	NS-C5HX		
Woofers	Dual 20 cm WSD cone	Dual 13 cm WSD cone	Dual 13 cm WSD cone		
Midrange Driver	13 cm WSD cone with Waveguide horn				
Tweeter	3 cm Aluminium dome with Waveguide horn	3 cm Aluminium dome with Waveguide horn	3 cm Aluminium dome with Waveguide horn		
Magnetic Shielding	Yes	Yes	Yes		
Input Power (Max/Nominal)	400 W/140 W	300 W/100 W	300 W/100 W		
Sensitivity	92 dB/2.83 V/1 m	91 dB/2.83 V/1 m	91 dB/2.83 V/1 m		
Frequency Response	35 Hz–50 kHz	55 Hz–50 kHz	55 Hz–50 kHz		
Impedance	6 ohm	6 ohm	6 ohm		
Edgewound Rectangular Voice Coil	Yes	Yes	Yes		
Full 3-Way Mitred Construction	Yes	Yes	Yes		
Dimensions (W x H x D)	364 x 1,102 x 397 mm	186 x 500 x 257 mm	500 x 186 x 257 mm		
Weight	32.5 kg/unit	11.5 kg/unit	11.5 kg		

• Models and colours vary depending on area.

225 PMD Series

Home Cinema Speaker Systems

These slim, high-performance speakers feature quality materials and a luxurious open pore finish. The PMD cone woofer can handle high input levels with extreme accuracy, and the high-performance tweeter uses a dome made of an aluminium–magnesium alloy and a DC-Diaphragm™ (integrated diaphragm and voice coil). It is capable of reproduction all the way up to 50 kHz, which is rare for a 3 cm dome tweeter. The slim, elegant design will perfectly match thin-line home cinema components and plasma monitors or flat-screen TVs.

NS-C225

2-Way Quad-Woofer Acoustic Suspension Centre Speaker System

NS-M225

2-Way Acoustic Suspension Speaker System

NS-225F

2-Way Bass-Reflex Speaker System

The YST-SW225 is designed to acoustically match the speakers in the 225 PMD Series, and it is recommended that these two items be sold together.
(Specifications are on p. 25)

YST-SW225

Advanced YST II and QD-Bass Subwoofer

NS-CG75

2-Way Dual-Woofer Centre Speaker System

NS-G25

2-Way Bass-Reflex Speaker System

NS-G40MKII

2-Way, 3-Speaker Bass-Reflex Tallboy System

NS-45E

2-Way, 3-Speaker Bass-Reflex Tower Speaker System

	NS-225F	NS-M225	NS-C225		
Woofers	Dual 8 cm PMD cone	Dual 8 cm PMD cone	Quad 6.5 cm PMD cone		
Tweeter	3 cm Aluminium-magnesium dome	3 cm Aluminium-magnesium dome	3 cm Aluminium-magnesium dome		
Magnetic Shielding	Yes	Yes	Yes		
Twin Bass Reflex Ports	Yes				
Round-Shaped Bass Anchor	Yes				
Input Power (Max/Nominal)	120 W/40 W	120 W/40 W	120 W/40 W		
Frequency Response	60 Hz–50 kHz	65 Hz–50 kHz	65 Hz–50 kHz		
Sensitivity	86 dB/0.283 V/1 m	86 dB/0.283 V/1 m	86 dB/0.283 V/1 m		
Impedance	6 ohm	6 ohm	6 ohm		
Dimensions (W x H x D)	230 x 1,050 x 236 mm	107 x 360 x 134 mm	440 x 94 x 133 mm		
Weight	7.7 kg/unit	2.4 kg/unit	2.8 kg		

	NS-45E	NS-G40MKII	NS-G25	NS-CG75	
Woofers	Dual 16 cm cone	Dual 16 cm cone	11 cm cone	Dual 10 cm cone	
Tweeter	3 cm dome	2.5 cm dome	2.5 cm dome	2.5 cm dome	
Magnetic Shielding	Yes			Yes	
Input Power (Max/Nominal)	240 W/80 W	120 W/60 W	60 W/40 W	80 W/40 W	
Sensitivity	90 dB/2.83 V/1 m	90 dB/2.83 V/1 m	88 dB/2.83 V1 /m	88 dB/2.83 V/1 m	
Frequency Response	38 Hz–30 kHz	35 Hz–20 kHz	70 Hz–20 kHz	65 Hz–20 kHz	
Impedance	6 ohm	4 ohm	4 ohm	4 ohm	
Dimensions (W x H x D)	233 x 880 x 275 mm	220 x 900 x 265 mm	165 x 200 x 123 mm	446 x 150 x 140 mm	
Weight	11.6 kg/unit	12.6 kg/unit	2.8 kg/unit	4.5 kg	

Package Speakers

Digital Home Cinema Speaker Packages

Here is a quick way to great home cinema enjoyment – buy all your speakers in one package. You get speakers that are perfectly matched for design and acoustics, at a very reasonable price! And if you already have main speakers and a subwoofer, the NS-P60 is a handy choice.

NS-P436

Digital Home Cinema
6.1-Channel Speaker Package

Advanced Y·S·T QD·Bass TECHNOLOGY

NS-P430

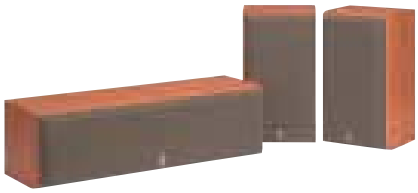
Digital Home Cinema
5.1-Channel Speaker Package

Advanced Y·S·T QD·Bass TECHNOLOGY

2.1 Stereo Set

NS-M225 + YST-SW225
2.1-Channel Combination
(Specifications are on page 25 and page 27)

Advanced Y·S·T QD·Bass TECHNOLOGY



NS-P240

Digital Home Cinema 5.1-Channel
Speaker Package

Advanced Y·S·T

NS-P100

Digital Home Cinema 5.1-Channel
Speaker Package

Advanced Y·S·T

NS-P60

Centre and Effect Channel
Speaker Package

	NS-P436	NS-P430	NS-P240	NS-P100	NS-P60
System Frequency Response	30 Hz–60 kHz	30 Hz–60 kHz	30 Hz–25 kHz	30 Hz–25 kHz	70 Hz–30 kHz
Magnetic Shielding	Yes (all speakers)	Yes (all speakers)	Yes (all speakers)	Yes (all speakers)	Yes (all speakers)
Impedance	6 ohm*	6 ohm*	6 ohm*	6 ohm*	6 ohm
Satellite Speakers	5 satellites	4 satellites	4 satellites	4 satellites	2 satellites
Type	2-way acoustic suspension	2-way acoustic suspension	Full-range dual cone acoustic suspension	Full-range dual cone acoustic suspension	2-way acoustic suspension
Input Power (Max/Nom)	100 W/30 W	100 W/30 W	100 W/30 W	100 W/30 W	150 W/50 W
Dimensions (W x H x D)	273 x 81 x 147 mm	273 x 81 x 147 mm	72 x 170 x 108 mm	72 x 164 x 111 mm	150 x 265 x 156 mm
Weight/Unit	1.7 kg	1.7 kg	0.9 kg	0.9 kg	2.2 kg
Centre Speaker	2-way acoustic suspension	2-way acoustic suspension	Full-range dual cone acoustic suspension	Full-range dual cone acoustic suspension	2-way acoustic suspension
Input Power (Max/Nom)	100 W/30 W	100 W/30 W	100 W/30 W	100 W/30 W	180 W/60 W
Dimensions (W x H x D)	273 x 81 x 147 mm	273 x 81 x 147 mm	300 x 72 x 105 mm	300 x 72 x 110 mm	465 x 135 x 174 mm
Weight	1.7 kg	1.7 kg	1.1 kg	1.1 kg	3.5 kg
Subwoofer	Advanced YST/QD-Base	Advanced YST/QD-Base	Advanced YST	Advanced YST	
Output Power (RMS)	70 W (5 ohm)	70 W (5 ohm)	50 W (5 ohm)	50 W (5 ohm)	
Dynamic Power	120 W	120 W	100 W	100 W	
Dimensions (W x H x D)	280 x 325 x 320 mm	280 x 325 x 320 mm	200 x 365 x 390 mm	200 x 365 x 375 mm	
Weight	9.2 kg	9.2 kg	8.4 kg	8.5 kg	

** Except subwoofer*

SPS-10MM (Silver)

Optional Speaker Stands
for NS-P436 and NS-P430
- 300 x 300 mm (base),
618–868 mm (height)
- 1.6 kg

SPS-S80

Optional Speaker Stands
for DVX-S150, NS-P240,
and NS-P100
- 300 mm ∅ (base),
650–900 mm (height)
- 1.9 kg

Digital Stereo Power Amplifier

Created for audio purists, by audio purists.

Anyone familiar with the Yamaha brand knows that we have always been dedicated to providing "natural sound" in its truest sense — audio reproduction that sounds as close as possible to the real thing. Given our success with other digital products and having the most advanced digital technology at hand, our engineers decided to focus on creating a truly superb digital amplifier — one that would utilize the benefits of digital technology without its drawbacks to deliver incredibly accurate and pure natural sound. The result is the MX-D1. Prepare to be amazed and delighted.

MX-D1 Stereo Digital Power Amplifier

stereoplay

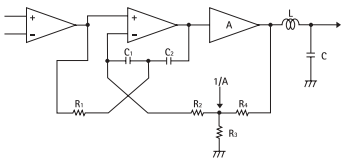
Yamaha Digital Amplifier Technology

- Yamaha original power engine chipset: modulator LSI (YDA133) and power MOS-FET Drive LSIs (YDA134 x 2)
- Constant gain PLL modulator circuit
- Cross feedback loop circuit
- Advanced analogue feedback circuit
- Active power control system
- Magnetic coupling rectification circuit
- High-speed protection circuits
- Safety protection sequence logic
- Over-current protection
- DC detection circuit
- PWM digital drive high-efficiency power supply
- 500 W x 2 output power with ultra-low (0.002 %) distortion
- 4-layer Epoxy Resin coated PC board containing fibreglass with highest performance parts
- Gigantic WBT input and speaker terminals
- Discrete SEPP amplifier circuit
- Output filter (large effect on sound quality): custom-made double core, low-impedance toroidal coil and extra-large custom-made block electrolytic capacitors
- Input switch using enclosed twin cross bar relays
- High sound quality power supply electrolytic capacitors
- Extra-thick (12 mm), aluminium-extruded, Yamaha piano-finish front and side panels
- Magnetic shielding aluminium top cover and rear panel
- Point-controlled, anti-resonance feet
- Heavy-duty copper-plated steel inner chassis

Power Engine Chipset
To overcome the limitations of conventional digital amplifiers, Yamaha developed its own Power Engine chipset, which enables the MX-D1 to achieve high levels of sound quality and power, as well as low power consumption and compact size.

YDA133 Modulator LSI (left) and YDA134 Power MOS-FET Drive LSI (right)

Cross Feedback Loop Circuit
The digital pulse output is fed back by the Cross Feedback Loop, improving the linearity of the output stage and of the modulator circuit. This achieves superior low distortion characteristics and high dynamic range.



Monaural Independent Construction
Twin monaural independent chambers provide higher efficiency and ensure that there is no chance of electronic interference degrading performance.

Custom Installation Compatibility: Using the MX-D1 in a custom installation is facilitated by its RS-232C interface for bi-directional control, ID setting for a multichannel amplifier system and trigger in/out daisy chain connection for synchronized power switching via Through and Power modes.

MX-D1 Main Specifications
[AUDIO SECTION] • Min. RMS output power (8/6/4 ohm, 1 kHz, 0.1 % THD): 500 W + 500 W • Dynamic power/channel: 1,000 W (2 ohm)/1,000 W (4 ohm)/850 W (6 ohm)/700 W (8 ohm) • Input sensitivity/impedance (500 W/8 ohm, balance; unbalance): 2.2 V/10 kohm, 1.3 V/25 kohm • Frequency response: 1 Hz—100 kHz ±3 dB • Total harmonic distortion (1 kHz, 10 W/8 ohm, 20 kHz LPF): 0.002 % • Signal-to-noise ratio (IHF-A-Network, S: 1.3 V, input shorted, 20 kHz LPF): 120 dB • Residual noise (IHF-A-network, 20 kHz LPF): 63 µV • Channel separation (1 kHz, input 5.1 kohm shorted): 100 dB • Muting: –∞
[GENERAL] • Standby power consumption: Less than 0.1 W • Dimensions (W x H x D): 435 x 75 x 437 mm • Weight: 10.4 kg

YPC-1 Passive Controller (Option)

The YPC-1, a Passive Controller unit, provides input selection and volume control. This unit is optionally available with a black finish that matches the MX-D1.

YPC-1 Main Specifications
• -1 dB (-100 dB) gang error high quality continuously variable attenuator with brass case • Low-resistance rotary selector switch • Extra-thick 12 mm Aluminium-extruded, Yamaha piano finish front and side panels • Point-controlled, anti-resonance feet • 240 x 75 x 269 mm (W x H x D) • 3.4 kg

HiFi Components

CDR-HD1300 HDD + CD-R/RW Digital Audio Recorder

CD Recorder with Hard Disk Drive expands recording, editing and playback possibilities.
• Linear PCM recording (no compression) • 24-bit DAC and ADC • Audio Master Quality Recording mode (CD-R only) • CD-HDD-CD recording maintains full digital quality • Easy, extensive editing possible before recording CDs • Create up to 999 Albums with up to 99 songs in each for playback or recording • High-speed ripping (10x normal speed) • High-speed recording (8x to CD-R, 4x to CD-RW) • On-screen display • 80 GB hard disk • SCMS compatibility

AX-596 Ti

ToP-ART CD Direct Amplification

Stereo Integrated Amplifier STEREO

• 155 W x 2 (DIN) • ToP-ART with Pure Direct Switch • CD/DVD Direct Amplification (discrete configuration) with switch • DVD-Audio ready with extended frequency response • Continuously variable loudness control • Rec out selector • Gold-plated input terminals (all terminals) • Phono Input

AX-496 Ti

ToP-ART CD Direct Amplification

Stereo Integrated Amplifier

• 120 W x 2 (DIN) • ToP-ART with Pure Direct Switch • CD/DVD Direct Amplification with switch • DVD-Audio ready with extended frequency response • Continuously variable loudness control • Rec out selector • Gold-plated CD input terminal • Phono Input

AX-396 Ti

ToP-ART CD Direct Amplification

Stereo Integrated Amplifier

• 95 W x 2 (DIN) • ToP-ART with Pure Direct Switch • CD/DVD Direct Amplification with switch • DVD-Audio ready with extended frequency response • Phono Input

stereoplay stereoplay HIGHLIGHT AUDIO KAUF TIPP

RX-496RDS Ti

R·D·S

AM/FM Stereo Receiver

• 105 W x 2 (DIN) • Pure Direct Switch • 5 audio inputs with 2 tape positions • RDS • 40-station AM/FM random access preset tuning • Auto FM station memory and preset editing • Direct PLL IF count synthesizer tuning • Phono Input

RX-396RDS Ti

R·D·S

AM/FM Stereo Receiver

• 55 W x 2 (DIN) • 5 audio input with 2 tape positions • RDS • 40-station random access preset tuning • Auto FM station memory and preset editing • Direct PLL IF count synthesizer tuning • Phono Input

TX-592RDS Ti

R·D·S

AM/FM Stereo Tuner

• RDS • 40-station AM/FM random access preset tuning • Auto FM station memory and preset editing • Direct PLL IF count synthesizer tuning • Absolute Linear Phase IF Amplifier circuitry • Rotary encoder tuning

TX-492RDS Ti

R·D·S

AM/FM Stereo Tuner

• RDS • 40-station AM/FM random access preset tuning • Auto FM station memory and preset editing • Direct PLL IF count synthesizer tuning • Absolute Linear Phase IF Amplifier circuitry

Brilliant Audio: Titanium

Availability of titanium finish varies by region. Please contact your dealer.

KX-493 Ti

Stereo Cassette Deck with Play Trim

• Play trim • Auto tape tuning • Dolby B/C NR • 160-kHz high recording bias • Dolby HX Pro Dynamic Bias Servo • Cassette stabilizer • CD-tape synchro rec start • 0-M point/full repeat • MPX filter switch • Manual bias control

KX-393 Ti

Stereo Cassette Deck with Play Trim

• Play trim • Auto tape tuning • Dolby B/C NR • Dolby HX Pro Dynamic Bias Servo • Cassette stabilizer • CD-tape synchro rec start • 0-M point/full repeat • MPX filter switch • Manual bias control

KX-W321 Ti

Double Auto-Reverse Cassette Deck

• Two speed (normal/high) dubbing • Dolby B/C NR • Relay play • Yamaha GF heads • Auto tape type selection • 4-digit tape counters (both decks)

Play Trim makes it possible to adapt the Dolby noise reduction system for reproducing individually recorded cassettes, in order to compensate for an excessively dull or light sound.

CDX-596 Ti

CD Player with PRO-Bit

• PRO-BiT technology • CD-R/CD-RW playback capability • Intelligent digital servo • CD-tape synchro rec start • 3-mode CD text display • Peak search for setting the recording level properly • 3-way tape edit • 40-track programmable play • Optical digital output • 4-mode time display • Fine sound tuning • Space insert

CDX-496 Ti

CD Player with Peak Search

• CD-R/CD-RW playback capability • Intelligent digital servo • CD-tape synchro rec start • Peak search for setting the recording level properly •3-way tape edit • 40-track programmable play • Optical digital output • 4-mode time display • Space insert

CDX-396 Ti

CD Player with Optical Digital Out

• CD-R/CD-RW playback capability • Intelligent digital servo • CD-tape synchro rec start • Peak search for setting the recording level properly • 3-way tape edit • 40-track programmable play • Optical digital output for sending the digital signal directly to a MD recorder • 4-mode time display

CDC-685 Ti

CD Changer Plus PlayXchange

• Yamaha patented PlayXchange • CD-R/CD-RW playback compatibility • Intelligent digital servo • CD-tape synchro rec start • 3-mode CD Text display • Peak search for setting the recording level properly • 3-way tape edit • 40-track programmable play • Disc (intro) scan • Optical digital output • 4-mode time display

CDC-585

CD Changer Plus PlayXchange

• Yamaha patented PlayXchange • CD-R/CD-RW playback compatibility • Intelligent digital servo • CD-tape synchro rec start • Disc (intro) scan • 3-mode CD Text display • 3-way tape edit • 40-track programmable play • Optical digital output • 4-mode time display

MDX-596 Ti

MiniDisc Recorder

• Digital recording level control with memory • 20-bit A/D and D/A conversion • 24-bit quantization system • Optical digital input (2) and output terminals • Super Bit Allocation (SBA) • Automatic synchro sampling rate conversion • Versatile edit functions • Convenient titling • Time rescue rec • Synchro rec

PRO-BIT™
Precise Reproduction of Original Bits

A Highly Advanced Digital Technology

PRO-Bit (Precise Reproduction of Original Bits) is an exclusive Yamaha technology that "translates" 20-bit data from the 16-bit data on compact discs. This is desirable because even though many professional recording studios now employ advanced 20-bit recording equipment, the music signal data stored on compact discs is still in a 16-bit format. So when the music is transferred to CD, some of the sound data is lost. The "translation" process is quite complex, but thanks to Yamaha's extensive experience in music, acoustics and digital technology, we were able to successfully recreate 20-bit data from a 16-bit CD. So you hear a much more faithful version of the original recording.

HiFi Packages

	Receiver	CD Player	Cassette Deck	Speaker
HiFi Pack 1	RX-396RDS	CDX-396		NS-G40MKII
HiFi Pack 2	RX-396RDS	CDX-496	KX-493	NS-G40MKII
HiFi Pack 3	RX-396RDS	CDX-496	KX-W321	NS-G40MKII
StereoPack104	RX-396RDS	CDX-396		NS-M515

Specifications

Projector		DPX-1100	LPX-510
Panel		0.8 inch DMD™ HD2+ x1	0.7 inch HTPS TFT active matrix LCD x 3
Resolution		1,280 x 720 pixels	1,280 x 720 pixels
Brightness		800 ANSI lumens (white boost: on, iris: off) 400 ANSI lumens (white boost: on, iris: fully on)	1,000 ANSI lumens (iris: off, Cinema Balance Filter: off) 350 ANSI lumens (iris: fully on, Cinema Balance Filter: on)
Contrast Ratio		4,000:1 (white boost: on, iris: fully on) 2,000:1 (white boost: on, iris: off)	1,200:1 (iris: 75 %, Cinema Balance Filter: off) 1,000:1 (iris: 100 %, Cinema Balance Filter: on)
Projection Lens		F=2.7–5.0, f=24.3–38.9 mm	F=2.06–2.79, f=21.4–31.7 mm
Lamp		270 W (300 W) SHP lamp, 2,000 hours (270 W continuous)	200 W–150 W UHP lamp, 1,500 hours (200 W continuous)
Acceptable Input	YPbPr	480i/480p, 576i/576p, 720p, 1035i, 1080i	480i/480p, 576i/576p, 720p, 1035i, 1080i
	RGB	VGA, SVGA, XGA	VGA, SVGA, XGA
	Colour Format	NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M and PAL-N	NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M and PAL-N
Horizontal Sync Range		15–80 kHz	
Vertical Sync Range		50–85 Hz (analogue), 60 Hz/50 Hz (digital)	
Power Consumption		375 W (standby: 0.1 W)	290 W (Eco standby: 0.3 W)
Dimensions (W x H x D); Weight		495 x 189.5 x 465.4 mm; 13.8 kg	450 x 119 x 345 mm; 6.2 kg

Plasma Display Monitor		PDM-4210		
Effective Display Area (H x V)		922 mm x 522 mm, 1,060 mm diagonal	Surround Sound	SRS TruBass/Matrix Surround
Aspect Ratio		16 : 9	Sound mode	4 (Movie, Music, Speech, Favourite)
Number of Pixels (H x V)		1,024 x 1,024 pixels (ALIS method panel)	Audio Power (RMS)	12 W + 12 W
Pixel Pitch (H x V)		0.90 x 0.51 mm	Side by Side Picture	Tuner and AV input
Number of Colours	Grey Levels	16.7 million colours (256 grey levels)	Wide Mode (Picture Size)	TV/Video: 8 modes (Panoramic, Zoom, Cinema, Full, 4:3, 14:9 L, 14:9 Zoom, 14:9 [WSS available]) PC: 6 modes (Full, Real, Normal, Zoom 1, Zoom 2, Zoom 3)
Transmission of Front Filter		Dark tint face 32 %		
Brightness	White Peak	Panel brightness: 1,100 cd/m²		
Contrast Ratio (Panel)		1,000:1		
Acceptable Input	YPbPr	480i/480p, 576i/576p, 720p, 1035i, 1080i	Power Consumption	365 W
	RGB	VGA, SVGA, XGA, SXGA, UXGA (compressed)	Dimensions (W x H x D)	1,030 x 636 x 93 mm (monitor only)
	Colour Format	NTSC, PAL, SECAM, PAL60 and Modified NTSC	Weight	35.2 kg (monitor only)
Picture Mode		2 (Dynamic, Natural)		
White Balance		4 (Cool, Normal, Warm, Black-White)		

	DSP-Z9	RX-V2500	RX-V1500	RX-SL100RDS	RX-SL80
Audio Section					
DIN Standard Power (4 ohm, 1 kHz, 0.7% THD)				(6 ohm, 1 kHz, 10% THD)	(6 ohm, 1 kHz, 10% THD)
Front Channels	300 W + 300 W	190 W + 190 W	180 W + 180 W	100 W + 100 W	100 W + 100 W
Centre Channel	300 W	190 W	180 W	100 W	100 W
Surround Channels	300 W + 300 W	190 W + 190 W	180 W + 180 W	100 W + 100 W	100 W + 100 W
Surround Back Channels	300 W + 300 W	190 W + 190 W	180 W + 180 W	100 W	
Presence Channels	90 W + 90 W				
High Dynamic Power & Low Impedance Drive Capability	Yes	Yes	Yes		
Dynamic Power/Ch (Front Ch, 8/6/4/2 ohm)	210/260/340/580 W	165/205/260/340 W	155/195/250/330 W		
Linear Damping [Damping Factor (8 ohm, 20 Hz–20 kHz)]	200 (front/centre)	140 (front, speaker A)	140 (front, speaker A)		
Frequency Response (CD)	10 Hz–100 kHz +0, -3 dB	10 Hz–100 kHz +0, -3 dB	10 Hz–100 kHz +0, -3 dB	20 Hz–50 kHz +0, -3 dB	20 Hz–50 kHz +0, -3 dB
Total Harmonic Distortion (20 Hz–20 kHz, CD)	0.005 % (85 W/8 ohm)	0.04 % (65 W/8 ohm)	0.04 % (60 W/8 ohm)	0.04 % (35 W/6 ohm)	0.04 % (35 W/6 ohm)
Signal-to-Noise Ratio (IHF-A-Network, CD)	100 dB (250 mV)	100 dB (250 mV)	100 dB (250 mV)	98 dB (250 mV)	100 dB (250 mV)
Video Section					
Component Video Up Conversion	Yes (up/down, full digital)	Yes	Yes		
Video Signal Level	1 Vp-p/75 ohm	1 Vp-p/75 ohm	1 Vp-p/75 ohm	1 Vp-p/75 ohm	1 Vp-p/75 ohm
S-Video Signal Level (Y/C)	1 Vp-p/75 ohm; 0.286 Vp-p/75 ohm	1 Vp-p/75 ohm; 0.286 Vp-p/75 ohm	1 Vp-p/75 ohm; 0.286 Vp-p/75 ohm		
Monitor Out Frequency Response (Component Video)	5 Hz–100 MHz –3 dB	5 Hz–60 MHz –3 dB	5 Hz–60 MHz –3 dB		
General Section					
Dimensions (W x H x D); Weight	435 x 211 x 471 mm; 30 kg	435 x 171 x 434 mm; 15.5 kg	435 x 171 x 434 mm; 15.5 kg	435 x 55.5 x 330 mm; 6.4 kg	435 x 55.5 x 330 mm; 6.4 kg

	RX-V750	RX-V650	RX-V550	RX-V450	RX-V350
Audio Section					
DIN Standard Power (4 ohm, 1 kHz, 0.7% THD)					
Front Channels	150 W + 150 W	145 W + 145 W	135 W + 135 W	130 W + 130 W	105 W + 105 W
Centre Channel	150 W	145 W	135 W	130 W	105 W
Surround Channels	150 W + 150 W	145 W + 145 W	135 W + 135 W	130 W + 130 W	105 W + 105 W
Surround Back Channels	150 W + 150 W	145 W + 145 W	135 W	130 W	
High Dynamic Power & Low Impedance Drive Capability	Yes	Yes	Yes	Yes	Yes
Dynamic Power/Ch (Front Ch, 8/6/4/2 ohm)	135/170/200/245 W	130/165/195/240 W	120/155/190/235 W	115/150/185/230 W	105/135/165 W (6/4/2 ohm)
Linear Damping [Damping Factor (8 ohm, 20 Hz–20 kHz)]	100 (front, speaker A)	100 (front, speaker A)	100 (front, speaker A)	100 (front, speaker A)	
Frequency Response (CD)	10 Hz–100 kHz +0, -3 dB	10 Hz–100 kHz +0, -3 dB	10 Hz–100 kHz +0, -3 dB	10 Hz–100 kHz +0, -3 dB	10 Hz–100 kHz +0, -3 dB
Total Harmonic Distortion (20 Hz–20 kHz, CD)	0.06 % (50 W/8 ohm)	0.06 % (50 W/8 ohm)	0.06 % (40 W/8 ohm)	0.06 % (40 W/8 ohm)	0.06 % (50 W/6 ohm)
Signal-to-Noise Ratio (IHF-A-Network, CD)	100 dB (250 mV)	100 dB (250 mV)	100 dB (250 mV)	100 dB (250 mV)	100 dB (250 mV)
Video Section					
Component Video Up Conversion	Yes				
S-Video Up Conversion	Yes	Yes	Yes		
S-Video Signal Level (Y/C)	1 Vp-p/75 ohm; 0.286 Vp-p/75 ohm	1 Vp-p/75 ohm; 0.286 Vp-p/75 ohm	1 Vp-p/75 ohm; 0.286 Vp-p/75 ohm		
Monitor Out Frequency Response (Component Video)	5 Hz–60 MHz –3 dB	5 Hz–60 MHz –3 dB	5 Hz–60 MHz –3 dB	5 Hz–60 MHz –3 dB	
Tuner Section					
FM 50 dB Quieting Sensitivity (IHF, 75 ohm, Mono/Stereo)	2 µV (17.3 dBf)/25 µV (39.2 dBf)	2 µV (17.3 dBf)/25 µV (39.2 dBf)	2 µV (17.3 dBf)/25 µV (39.2 dBf)	2 µV (17.3 dBf)/25 µV (39.2 dBf)	2 µV (17.3 dBf)/25 µV (39.2 dBf)
FM Signal-to-Noise Ratio (Mono/Stereo)	76 dB/70 dB	76 dB/70 dB	76 dB/70 dB	76 dB/70 dB	76 dB/70 dB
General Section					
Dimensions (W x H x D); Weight	435 x 171 x 420 mm; 12.5 kg	435 x 171 x 420 mm; 12.5 kg	435 x 171 x 420 mm; 11 kg	435 x 161 x 416 mm; 11 kg	435 x 151 x 315 mm; 9 kg

• Digital Home Cinema Component Surround Programmes

		DSP-Z9	RX-V2500	RX-V1500	RX-V750	RX-V650	RX-V550	RX-V450	RX-V350	RX-SL100RDS	RX-SL80	DVX-S150/WL
Compatible Decoding Formats												
	Dolby Digital	●	●	●	●	●	●	●	●	●	●	●
	Dolby Digital EX	●	●	●	●	●	●	●	● (Phantom)	●	● (Phantom)	● (Phantom)
	DTS Digital Surround	●	●	●	●	●	●	●	●	●	●	●
	DTS 96/24	●	●	●	●	●	●	●			●	
	DTS-ES Matrix 6.1	●	●	●	●	●	●	●	● (Phantom)	●	● (Phantom)	● (Phantom)
	DTS 96/24 ES (6.1)	●										
	DTS-ES Discrete 6.1	●	●	●	●	●	●	●		●		
	Dolby Pro Logic	●	●	●	●	●	●	●	●	●	●	●
	Dolby Pro Logic II Music	●	●	●	●	●	●	●	●	●	●	●
	Dolby Pro Logic II Movie	●	●	●	●	●	●	●	●	●	●	●
	Dolby Pro Logic II Game	●	●	●	●	●	●	●		●		
	Dolby Pro Logic IIx Music	●	●	●	●	●	●	●		●		
	Dolby Pro Logic IIx Movie	●	●	●	●	●	●	●		●		
	Dolby Pro Logic IIx Game	●	●	●	●**	●	●	●		●		
	DTS Neo:6 Music	●	●	●	●	●	●	●		●		
	DTS Neo:6 Cinema	●	●	●	●	●	●	●		●		
HiFi DSP Programmes												
HALL	Munich A	●	●									● (Classic Hall)
	Frankfurt	●										
	Stuttgart	●										
	Munich B	●										
	Vienna	●	●	●								
	Amsterdam	●										
	Hall G in USA	●										
	Hall H in USA	●										
	Live Concert	●			●	●	●	●	●	●	●	
CHURCH	Tokyo	●										
	Freiburg	●	●									
	Royaumont	●										
JAZZ CLUB	Village Gate	●										
	Village Vanguard	●										
	The Bottom Line	●	●	●	●	●	●	●	●	●	●	●
ROCK CONCERT	The Roxy Theatre	●	●	●	●	●	●	●	●	●	●	●
	Warehouse Loft	●										
	Arena	●										
CLASSICAL/OPERA	Classical/Opera		●									
ENTERTAINMENT	Disco	●	●	●	●	●	●	●	●	●		
	Party	●										
	9 Ch Stereo	●	● (7/5 Ch Stereo)	● (7/5 Ch Stereo)	● (7 Ch Stereo)	● (7 Ch Stereo)	● (6 Ch Stereo)	● (6 Ch Stereo)	● (5 Ch Stereo)	● (6 Ch Stereo)	● (5 Ch Stereo)	● (5 Ch Stereo)
HiFi DSP Subtotal		21	8	5	5	5	5	5	5	5	5	4
CINEMA DSP Programmes												
ENTERTAINMENT	Game	●	●	●	●	●	●	●	●	●	●	●
TV THEATRE	TV Sports	●	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Variety/Sports)	● (Live Sports)
	Mono Movie	●	●	●	●	●	●	●	●	●	●	
MUSIC VIDEO	Pop/Rock	●	●	●	●	●	●	●	●	●	●	● (Music Video)
	DJ	●										
	Classical/Opera	●										
	Pavilion	●										
MOVIE THEATRE 1	Spectacle	●	●	●	●	●	●	●	●	●	●	●
	Sci-Fi	●	●	●	●	●	●	●	●	●	●	●
MOVIE THEATRE 2	Adventure	●	●	●	●	●	●	●	●	●	●	● (Action)
	General	●	●	●	●	●	●	●	●	●	●	● (Drama)
ENHANCED	Enhanced	●	●	●	●	●	●	●	●	●	●	● (Theatre)
CINEMA DSP Subtotal		12	9	9	9	9	9	9	9	9	9	8
THX Programmes												
	Cinema	●	●	●								
	Ultra 2 Cinema	●										
	Music	●										
	ES Matrix 6.1	●										
	ES Discrete 6.1	●										
	Surround EX	●	●	●								
THX Programmes Subtotal		6	2	2								
Programmes Total		39	19	16	14	14	14	14	14	14	14	12

●: HiFi DSP Programmes ●: CINEMA DSP Programmes ●: Tri-Field CINEMA DSP Capable ●: Quad-Field CINEMA DSP Capable ●: THX Programmes

• Digital Home Cinema Component Inputs/Outputs

		DSP-Z9	RX-V2500	RX-V1500	RX-V750	RX-V650	RX-V550	RX-V450	RX-V350	RX-SL100RDS	RX-SL80	DVX-S150/WL
Inputs	Optical Digital (Fixed & Assignable)	8*	5*	5*	4*	4*	3	2	2	3*	3*	1 (fixed)
	Coaxial Digital (Fixed & Assignable)	3	3	3	2	2	1	1	1	1	1	
	S-Video	8*	6*	7*	5*	5*	3					
	Pure Direct 2Ch	1										
	Analogue A/V / Audio	8* / 5	6* / 4	7* / 4	5* / 3	5* / 2	4* / 2	4* / 2	4 / 2	1* / –	1* / –	2 / –
	Component Video (Fixed & Assignable)	6	3	2	2	2	2	2				
	Multichannel External Decoder	8ch	8ch	8ch	8ch	8ch	6ch	6ch	6ch			
	YPAO Microphone	1	1	1	1	1						1
Outputs	Optical Digital (Fixed & Assignable)	3	2	2	1	1	1					1 (fixed)
	S-Video	3	2	2	2	2	1					
	Component / S-Video / Composite Monitor	2 / 2 / 2	1 / 1 / 1	1 / 1 / 1	1 / 1 / 1	1 / 1 / 1	1 / 1 / 1	1 / – / 1	– / – / 1			1 / 1 / 1
	Speaker (without Subwoofer)	9	9	9	9	9	6	6	5	6	5	5
	Subwoofer	2	1	1	1	1	1	1	1	1	1	
	i.LINK	1										
	Zone2	Coaxial / 1	S-Video / 1	1								
	Zone3		1	1								
	Trigger	2	2	1								
I/O	RS-232C Interface	1	1	1								
	IR Ports	2	2	1								
	Terminal for Detachable Power Cable	1	1	1								

** Including front panel Video Aux terminals*

DVD Players / DVD Recorder		DVD-S1500	DVD-S550	DV-SL100	DVD-E600	DRX-2MKII
Format Compatibility		SA-CD, DVD-Audio/Video, SVCD, VCD, Audio CD MP3, JPEG	DVD-Video, SVCD, VCD, MP3, JPEG, DivX, WMA, Audio CD	DVD-Video, SVCD, VCD, Audio CD, MP3, JPEG	DVD-Video, SVCD, VCD, Audio CD, MP3, JPEG, Picture CD	DVD-Video, SVCD, VCD, MP3 Audio CD
Disc Compatibility		DVD+RW/+R, DVD-RW/-R, CD-R/RW	DVD+RW/+R, DVD-RW/-R, CD-R/RW	DVD+RW/+R, DVD-RW/-R, CD-R/RW	DVD+RW/+R, DVD-R/-RW, CD-R/RW	DVD+RW/+R, DVD-RW/-R, CD-R/RW
Multisession Compatibility		MP3, JPEG	MP3, JPEG, DivX, WMA	MP3, JPEG	MP3, JPEG	
Video Performance						
Video D/A Converter		108 MHz/12-bit	108 MHz/12-bit	54 MHz/12-bit	54 MHz/12-bit	10-bit
DCDi Progressive Scanning		Yes				
Video Output		1 Vp-p, 75 ohm	1 Vp-p, 75 ohm	1 Vp-p, 75 ohm	1 Vp-p, 75 ohm	1 Vp-p, 75 ohm
S-Video Output		Y: 1 Vp-p, 75 ohm C: 0.286 Vp-p, 75 ohm	Y: 1 Vp-p, 75 ohm C: 0.3 Vp-p, 75 ohm	Y: 1 Vp-p, 75 ohm C: 0.3 Vp-p, 75 ohm	Y: 1 Vp-p, 75 ohm C: 0.3 Vp-p, 75 ohm	Y: 1 Vp-p, 75 ohm C: 0.286 Vp-p, 75 ohm
Audio Performance						
Audio D/A Converter		192 kHz/24-bit	192 kHz/24-bit	96 kHz/24-bit	96 kHz/24-bit	24-bit
i.LINK (IEEE1394)						Yes
Signal-to-Noise Ratio	(CD)	115 dB	105 dB	105 dB	105 dB	
Frequency Response	(CD/VCD)	2 Hz–20 kHz	2 Hz–20 kHz	2 Hz–20 kHz	2 Hz–20 kHz	4 Hz–20 kHz
	(DVD 96 kHz sampling)	2 Hz–44 kHz	2 Hz–44 kHz	2 Hz–44 kHz	2 Hz–44 kHz	4 Hz–44 kHz
Dynamic Range	(DVD 48 kHz, 24 Bit)	107 dB (SA-CD)	105 dB	100 dB	100 dB	
Harmonic Distortion + Noise	(1 kHz)	0.0017 %	0.003 %	0.003 %	0.003 %	
Dimensions	(W x H x D)	435 x 55 x 315 mm	435 x 51 x 310 mm	435 x 55 x 310 mm	217 x 108 x 346 mm	435 x 82 x 347 mm
Weight		3.2 kg	2.6 kg	3 kg	2.5 kg	4 kg

PianoCraft			PianoCraft E600	PianoCraft E400	PianoCraft E300
Receiver			**RX-E600 Receiver**	**RX-E400 CD Receiver**	**CRX-E300 CD Receiver**
DIN Standard Power		(4 ohm, 1 kHz, 0.7 % THD)	60 W + 60 W	60 W + 60 W	30 W + 30 W
Linear Damping	Damping Factor	(6 ohm, 20 Hz–20 kHz)	60	60	60
High Dynamic Power, Low-Impedance Drive Capability		Dynamic Power/Channel	60/75/100 W (6/4/2 ohm)	60/75/100 W (6/4/2 ohm)	35/40/45 W (6/4/2 ohm)
Dimensions (W x H x D); Weight			217 x 108 x 372 mm; 5.4 kg	217 x 108 x 372 mm; 5.4 kg	217 x 168 x 312 mm; 5 kg
CD / DVD Player			**DVD-E600 CD/DVD Player**	**CDX-E400 CD Player**	**CRX-E300 CD Receiver**
Harmonic Distortion + Noise			0.003 %	0.004 %	0.006 %
Signal-to-Noise Ratio			105 dB	102 dB	100 dB
Dynamic Range			100 dB	95 dB	96 dB
Dimensions (W x H x D); Weight			217 x 108 x 346 mm; 2.5 kg	217 x 108 x 345 mm; 3 kg	
Speaker System			**NX-E400 Speaker System**	**NX-E400 Speaker System**	**NX-E300 Speaker System**
Woofer			13 cm cone woofer	13 cm cone woofer	11 cm cone woofer
Tweeter			2.5 cm dome tweeter	2.5 cm dome tweeter	2.5 cm dome tweeter
Input Power (Max/Nominal)			110 W/60 W	110 W/60 W	110 W/40 W
Frequency Response			55 Hz–28 kHz	55 Hz–28 kHz	60 Hz–28 kHz
Selectivity			87 dB/2.83 V/1 m	87 dB/2.83 V/1 m	85 dB/2.83 V/1 m
Dimensions (W x H x D); Weight		(per unit)	186 x 300 x 223 mm; 4.3 kg	186 x 300 x 223 mm; 4.3 kg	165 x 255 x 183 mm; 3.4 kg

Integrated Amplifiers	AX-596	AX-496	AX-396		
ToP-ART	Yes	Yes	Yes		
Pure Direct Switch	Yes	Yes	Yes		
DIN Standard Power (4 ohm, 1 kHz, 0.7 % THD)	155 W + 155 W	120 W + 120 W	95 W + 95 W		
High Dynamic Power/Low-Impedance Drive Capability	Yes	Yes	Yes		
Dynamic Power/Ch (8/4/2 ohm)	140/220/290 W	130/185/220 W	100/140/150 W		
Linear Damping	Yes	Yes	Yes		
Damping Factor (8 ohm, 20 Hz–20 kHz)	320 (speaker A)	240 (speaker A)	240 (speaker A)		
CD/DVD Direct Amplification Circuit	With switch	With switch	With switch		
Signal-to-Noise Ratio (CD)	110 dB	110 dB	110 dB		
Frequency Response	20 Hz–100 kHz +0.5/-3 dB	20 Hz–100 kHz +0.5/-3 dB	20 Hz–100 kHz +0.5/-3 dB		
Continuously Variable Loudness Control	Yes	Yes	Yes		
Rec Out Selector	Yes	Yes			
Gold-Plated Input Terminals	All terminals	CD terminal			
Dimensions (W x H x D)	435 x 151 x 396 mm	435 x 151 x 391 mm	435 x 151 x 391 mm		
Weight	10.6 kg	9.5 kg	8.7 kg		

Receivers/Tuners		RX-496RDS	RX-396RDS		TX-592RDS	TX-492RDS
Pure Direct Switch		Yes				
DIN Standard Power (4 ohm, 1 kHz, 0.7 % THD)		105 W + 105 W	55 W + 55 W			
High Dynamic Power/Low-Impedance Drive Capability		Yes	Yes			
Dynamic Power/Ch (8/4/2 ohm) 105/150/178 W		70/89/100 W				
Linear Damping		Yes	Yes			
Damping Factor (8 ohm, 20 Hz–20 kHz)		100	100			
Signal-to-Noise Ratio (CD)		108 dB	108 dB			
Frequency Response		20 Hz–20 kHz ±0.5 dB	20 Hz–20 kHz ±0.5 dB			
Continuously Variable Loudness Control		Yes	Yes			
FM Usable Sensitivity (DIN)	Mono	0.9 µV/24 µV	0.9 µV/24 µV		0.9 µV/24 µV	0.9 µV/24 µV
FM Selectivity	(Two Signals)	70 dB	70 dB		70 dB	70 dB
FM Signal-to-Noise Ratio (DIN)	Mono/Stereo	75 dB/70 dB	75 dB/70 dB		75 dB/70 dB	75 dB/70 dB
Harmonic Distortion (40 kHz Dev.)	Mono/Stereo	0.1 %/0.2 %	0.1 %/0.2 %		0.1 %/0.2 %	0.1 %/0.2 %
Frequency Response	(30 Hz–15 kHz)	±1.5 dB	±1.5 dB		±1.5 dB	±1.5 dB
Dimensions (W x H x D)		435 x 146 x 309 mm	435 x 146 x 309 mm		435 x 86 x 289 mm	435 x 86 x 278 mm
Weight		8.2 kg	6.4 kg		3.2 kg	3.2 kg

CD Players	CDX-596	CDX-496	CDX-396	CDC-685	CDC-585
Harmonic Distortion + Noise	0.003 %	0.003 %	0.003 %	0.003 %	0.003 %
Frequency Response	2 Hz–20 kHz ±0.5 dB	2 Hz–20 kHz ±0.5 dB	2 Hz–20 kHz ±0.5 dB	2 Hz–20 kHz ±0.5 dB	2 Hz–20 kHz ±0.5 dB
Signal-to-Noise Ratio	115 dB	105 dB	105 dB	106 dB	106 dB
Dynamic Range	96 dB	96 dB	100 dB	95 dB	95 dB
Dimensions (W x H x D)	435 x 96 x 277 mm	435 x 96 x 277 mm	435 x 96 x 277 mm	435 x 116 x 404 mm	435 x 116 x 404 mm
Weight	3.7 kg	3.7 kg	3.7 kg	5.9 kg	5.9 kg

Cassette Decks	KX-493	KX-393	KX-W321		
Wow & Flutter (W RMS)	0.05 %	0.07 %	0.08 %		
Signal-to-Noise Ratio (NR Off/Dolby B/C)	60/68/76 dB	58/66/74 dB	58/66/74 dB		
Frequency Response (Metal)	20 Hz–20 kHz ±3 dB	20 Hz–19 kHz ±3 dB	20 Hz–19 kHz ±3 dB		
Dimensions (W x H x D)	435 x 126 x 279 mm	435 x 126 x 283 mm	435 x 146 x 279 mm		
Weight	4.5 kg	4.4 kg	5 kg		

HDD + CD-R/RW Digital Audio Recorder	CDR-HD1300
Frequency Response	5 Hz–20 kHz ±0.5 dB
Playback S/N Ratio	105 dB
Playback Dynamic Range	99 dB
Playback THD + Noise	0.004 %
Recording S/N Ratio	92 dB
Recording Dynamic Range	92 dB
Recording THD + Noise	0.006 %
Inputs	Optical/coaxial digital, audio (composite) and RS-232C
Outputs	Optical/coaxial digital, audio (composite) and S-Video/Video (composite)
Dimensions (W x H x D)	435 x 116 x 415 mm
Weight	8.4 kg

MiniDisc Recorder	MDX-596
Frequency Response	5 Hz–20 kHz ±0.5 dB
Signal-to-Noise Ratio	99 dB
Input Level (Line)	300 mV/50 k-ohm
Sampling Frequency	44.1 kHz
Input Terminals	2 optical digital and 1 analogue
Output Terminals	1 optical digital and 1 analogue
Dimensions (W x H x D)	435 x 96 x 288 mm
Weight	4 kg

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Preset Preset Remote Control Unit Standard Remote Control Unit Option Optional Remote Control Unit

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