

# Yamaha Digital Home Theater Components

Natural Sound Audio Components

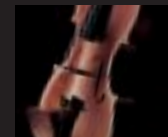


# Image and Sound Quality Worthy of the Name "Home Theater."



## 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 theater. 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.





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Welcome to a World of Total Quality



## YSP-1 System

### YSP-1 System: Maximum Convenience

The YSP-1 provides true multi-channel surround sound from a single unit! Using proprietary technology featuring a multi-driver array, it precisely aims sound beams to create a realistic five-channel effect. Home theater has never been this elegant and convenient.

## Two Ways to Maximize Your



The YSP-1 has a slim design that perfectly complements the PDM-4210 Plasma Display Monitor. It can be wall mounted below the monitor or located in the front or corners of the room. As all-in one sound solution, there is no need to find locations for multiple speakers or run cables across the room. These two components are an ideal combination for elegant home theater.

## YSP-1 System

Digital Sound Projector

## Home Theater Enjoyment

## RX-Z9 System

### RX-Z9 System: Maximum Quality

What should high-end home theater look and sound like? Yamaha supplies the answer with the RX-Z9 System. An unrivaled combination of top-class components for stunning visual clarity and stupendous surround sound. Get ready to explore the full possibilities of home theater entertainment.



The DPX-1200 (P.22) is a DLP projector that provides images of stunning clarity and rich, natural color. You've never seen movies look this good in a home before. Matched with Yamaha's top quality home theater audio components, the RX-Z9 Receiver (P.24), the DVD-S2500 DVD Player (P.32), EF Series Speakers (P.34) and YST-SW315 Subwoofer (P.35), you have a system that offers a breathtaking cinematic experience.

## RX-Z9 System

9.1-Channel Digital Home Theater System

## RX-V2500 System

## RX-V1500 System

### High Performance Systems Designed for Genuine Movie Fans.

These two home theater systems let you enjoy movies at home the way you've always wished you could – with a high clarity, widescreen picture and rich, powerful sound all around you. They offer a huge selection of surround sound programs to perfectly match every type of movie (and music, too!), with Yamaha's most advanced technology ensuring that both sound and images are sharp and clear. They also feature the amazing YPAO system that automatically analyzes the sound field and optimizes various settings to provide the best possible sound for that room and speaker setup. Discover just how good home theater can be.



Taking advantage of innovative Yamaha technologies like Natural Black and 3D Linear Color Balance, as well as DCDi processing, the LPX-510 LCD Projector (P.22) delivers beautiful picture quality with exceptionally high contrast. Team it with the RX-V2500 Receiver (P.26), the DVD-S2500 DVD Player (P.32), EF Series Speakers (P.34) and YST-SW315 Subwoofer (P.35), and start really enjoying movies at home.

## RX-V2500 System

7.1-Channel Digital Home Theater System



This system also features the superb video performance of the compact and convenient LPX-510 LCD Projector (P.22). The RX-V1500 Receiver (P.26) and DVD-C950 DVD Changer (P.32) both provide extremely high quality, and you get the benefits of Yamaha's advanced speaker technology with 225 PMD Series Speakers (P.34).

## RX-V1500 System

7.1-Channel Digital Home Theater System

## RX-V757 System

## RX-V657 System

Sound with Awesome Depth and Clarity,  
Plus the Advantage of YPAO.

Both of the receivers in these systems use Yamaha's leading-edge CINEMA DSP technology to deliver the very best in surround sound, with a wide selection of program choices. And the YPAO calibration system automatically adjusts setup parameters for you to ensure that the system will sound its best. The DVD Changer lets you switch quickly between five sources.



The RX-V757 (P.26) provides everything you need (and a lot more) for a versatile, high quality home theater system. Combined with the high-performance DVD-S1500 DVD Player (P.32), the result is a system that any movie fan will be delighted to own. The 225 PMD Series Speakers (P.34) are an elegant match for any monitor.

## RX-V757 System

7.1-Channel Digital Home Theater System





The RX-V657 (P.27) is nearly the equal of the RX-V757 and will provide all the power, versatility and convenience that a high quality home theater system should have. This system also includes the DVD-C750 DVD Changer (P.32) and the impressive 125 Series Speakers (P.34) and YST-SW215 Subwoofer (P.35) for thrilling surround sound.

## RX-V657 System

7.1-Channel Digital Home Theater System

## RX-V557 System

## RX-V457 System

Superb Video Quality Is Complemented by Dynamic CINEMA DSP Audio.

These two systems give new meaning to the phrase "value-packed." The receivers use CINEMA DSP technology for astoundingly rich, deep and clear surround sound and have a much wider range of features than you expect. Choose one and start discovering what a difference high quality surround sound makes to movie enjoyment.



The RX-V557 System has surprisingly high performance capabilities and versatility, thanks to a host of advanced Yamaha features like Quad-Field CINEMA DSP and a wide selection of surround programs. The DVD-S657 DVD Player (P.33) is first rate, and the NS-BP4500 Speaker Package (P.35) is designed for optimum performance with multi-channel movies.

## RX-V557 System

6.1-Channel Digital Home Theater System



With most of the capabilities and nearly the same power as the RX-V557, the RX-V457 Receiver (P.27) is ready to serve as the central component of a full-function home theater system. The DVD-S550 DVD Player (P.33) and the NS-436 Speaker Package (P.35) deliver beautiful sound from both movie and music DVDs.

## RX-V457 System

6.1-Channel Digital Home Theater System

## Multi-Channel Surround Sound Enjoyment from A Single Component.

The YSP-1 is a genuine multi-channel home theater system — all in one unit! A true breakthrough in audio technology, it delivers sound from the five front, surround and center channels to listeners just as though they were surrounded by five speakers. It can be positioned in the front center or corners of the room. The thin design is an elegant match for flat panel monitors and simplifies placement. And naturally, there is no need to find locations for multiple speakers or to run cables across the room. YSP-1: the elegant, all-in-one solution for home theater sound.



### YSP-1 Digital Sound Projector



#### Revolutionary Surround Sound

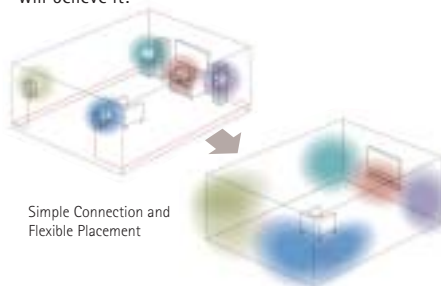
The Yamaha Digital Sound Projector YSP-1 is an exciting breakthrough in home theater technology. Now you can get optimum multi-channel sound directivity to enjoy the full benefits of home theater all from one easily installed component.

No more multiple speakers, no more clutter, no more hiding wires... just the pure excitement of bringing your movies and music to life.

The YSP-1 is designed to be an ideal, slim design match for your video display set. Although it is only one component, there are actually 40 speaker drivers inside that project precisely focused beams of sound aimed for optimum surround sound effect.

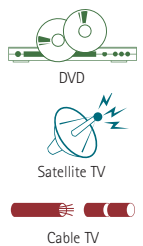
#### True Multi-Channel Sound

As amazing as it seems, the YSP-1 can actually deliver five channels of sound that surround listeners the same way that sound from five front, center and surround speakers does. Hear it and you will believe it!



#### Multi-Source Enjoyment

As a home theater sound system, the YSP-1 will generally be used for movies on DVD, but it also brings greater enjoyment to digital audio, satellite TV, cable TV and other multi-channel sources. It has built-in decoders for Dolby Digital, DTS, Dolby Pro Logic II and DTS Neo:6.



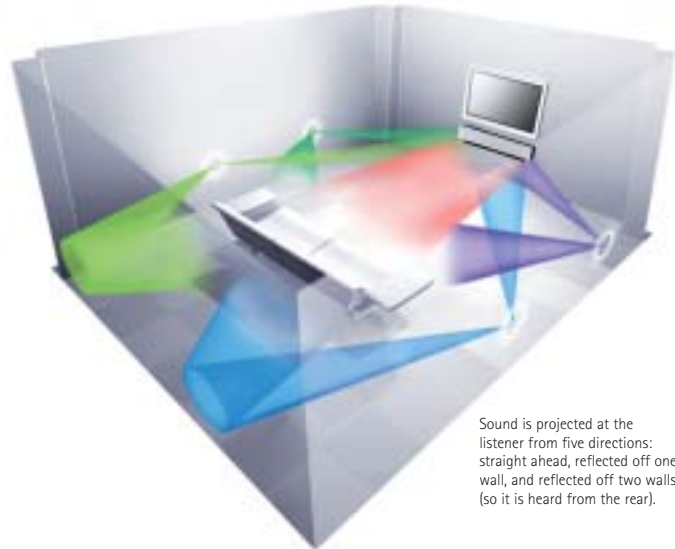
#### Thin Profile Designed to Match Flat Panel Displays

If you own or are planning to purchase a flat panel monitor, you probably wish you could also have thin speakers, rather than the usual boxes on the front and sides. The YSP-1 has a long, slim profile and nicely matches the styling of thin monitors.



# Digital Sound Projection Technology

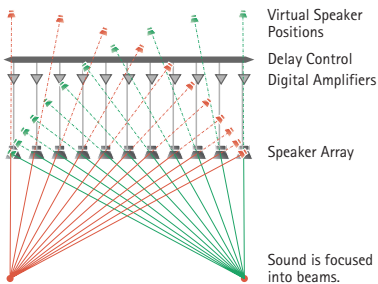
The YSP-1 applies sophisticated Digital Sound Projection Technology to precisely control the orientation of the sound by focusing it into beams. The result is true 5.1-channel surround sound without the need for extra speakers! With 42 digital amplifiers driving 40 1-5/8" full-range drivers and two 4-3/8" woofers, the Digital Sound Projector delivers 120W of total power with dynamic bass response.



Sound is projected at the listener from five directions: straight ahead, reflected off one wall, and reflected off two walls (so it is heard from the rear).

### Precisely Focused Beams of Sound

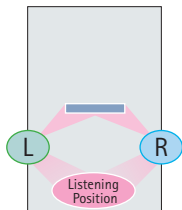
Although it is one component, there are actually 40 small drivers and 2 woofers inside. The delay time of each driver is controlled by a Digital Sound Processing circuit, enabling the system to project "beams" of sound which are precisely aimed for optimum surround sound effect. Naturally, high quality two-channel (stereo) sound can also be reproduced, as well as three-channel sound if desired.



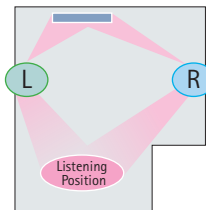
Multiple channels (two channels in the figure) are superimposed to create the sound. In a 5.1-channel configuration, the beam speakers together create the sound of 5.1 superimposed channels.

### Precise Calibration Produces Accurate Multi-Channel Sound

You input a variety of parameters (once only) to obtain the correct surround sound field. First, you select room size (large, medium or small), room shape (square or rectangular) and speaker position (wall or corner). You can also make fine adjustments with precise distances from the listening position. Test tones are provided to adjust beam angles via the remote control for maximum surround effect. If you will be moving the YSP-1, there are three memory locations for storing different groups of settings.



Even if the YSP-1 cannot be positioned flat against the front wall (leaving "dead" space), the quality of the surround sound will not be affected.



If the room has an alcove or other irregularity, the settings can be adjusted to compensate, so the surround enjoyment can be assured.

### Beam Mode Selection

**Five-Beam:** All five channels—L, R, C, Ls and Rs—are given separate orientations. Sound is beamed off the walls to create the effect of a surround system with rear speakers. **Stereo:** The left and right woofers, with the multiple beam speakers acting as tweeters, reproduce the effect of conventional stereo speakers. **Stereo + Three-Beam:** The L and R channels are produced using stereo mode while C, Ls and Rs are produced using beaming. This mode is effective when the YSP-1 placed in a corner. **Three-Beam:** Three beams are produced: L+ Ls, R+ Rs and C. A surround sound effect is created by reflecting the sound off the walls.



Five Beam Mode



Stereo Mode

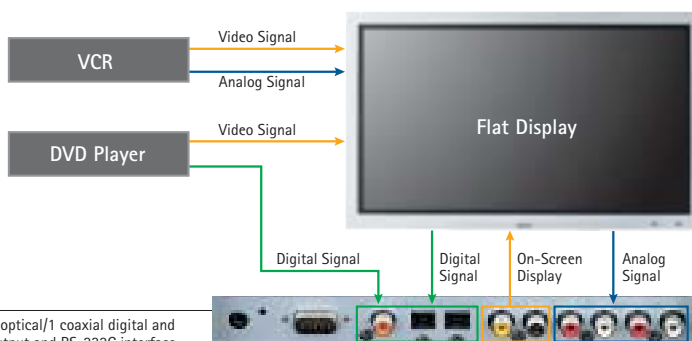


Stereo + Three Beam Mode



Three Beam Mode

### Connection with Display, VCR and DVD Player



#### YSP-1 Rear Panel

The YSP-1 rear panel offers 2 optical/1 coaxial digital and 2 analog inputs, subwoofer output and RS-232C interface.

### Main Specifications

- Speakers Section : 1-5/8" x 40 beam drivers, 4-3/8" x 2 woofers
- Digital Amplifier : 120 W total power: 2 W x 40 + 20 W x 2
- Dimensions (W x H x D) : 40-9/16" x 7-5/8" x 4-5/8"
- Weight : 28.7 lbs.



### Option



SPM-K1 Wall Hanging Bracket

# Yamaha presents advanced solutions for maximum home theater enjoyment.

Yamaha has taken home theater audio and video technologies to new levels of achievement. Long world-renowned for our CINEMA DSP surround sound technology, we now offer both projectors and plasma display monitors for superlative visual enjoyment as well. Here's a brief introduction to our major technologies.

Highest Sound Quality

Advanced Facilities

Best Surround Realism

Highest Picture Quality

Video Technology

## Highest Sound Quality

Yamaha has a genuine commitment to providing absolutely the finest sound quality possible in every component we create. With over a century of experience in sound production (we made our first reed organ in 1887) and our status as a world leader in acoustic and electronic musical instruments, we are passionate about creating and reproducing sound in the most beautiful and natural way. Over the years, with each new series of receivers, we have improved and refined audio performance, and Yamaha Digital Home Theater Receivers maintain this tradition with an impressive array of technology and features.

### 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. It is used in three

**DIGITAL  
ToP-ART**

sections of the receiver, the High Performance Digital Circuitry and High Current Amplification (explained below) and the High Definition CINEMA DSP circuitry (explained on P.18), each of which employs the world's highest grade parts and most sophisticated LSIs. Digital ToP-ART enables Yamaha receivers to deliver superb sound quality and bring out the full potential of Yamaha's amazing CINEMA DSP technology.

### High Performance Digital Circuitry (RX-Z9)

This section exemplifies the Digital ToP-ART concept of maximizing the quality of the digital circuitry while minimizing analog circuitry, and also maintains a straight and logical circuit layout for optimum signal purity. It includes a variety of sophisticated technology, beginning with Burr-Brown 192kHz/24-bit digital-to-analog converters for all channels with DSD (Direct Stream Digital) compatibility. Accurate-Touch Volume Control LSIs (Yamaha YAC520) are also used for all channels. The

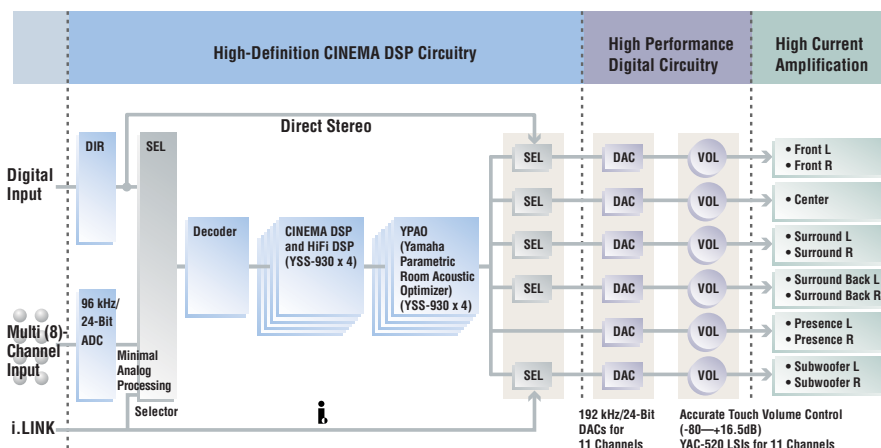
digital bass and treble tone controls have turnover frequencies for the front L/R and center channels. Eight-channel analog input signals are processed by 96kHz A/D conversion for highest quality. All circuitry is on a four-layer processing board in a fully shielded cabinet for reduced digital interference.

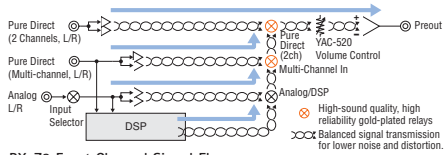
### High Current Amplification

Although power rating is often the first thing people look at in a receiver, high power output does not necessarily mean good sound. High current level is a much more important factor, so Yamaha 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 used an extra-large, low-impedance toroidal transformer and gold-plated speaker relay contacts. As a result, Yamaha 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.

### Choice of Signal Paths for Optimum Quality

Yamaha receivers give you a choice of specialized signal paths, ensuring that you can obtain the





RX-Z9 Front Channel Signal Flow

purest signal quality possible. Pure Direct provides the shortest possible signal path for two-channel or multi-channel analog inputs, with no signal processing and no display. Straight outputs the original analog 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 analog stereo/multi-channel input and digital stereo/multi-channel (via i.LINK) input, with a dimmed display.

**Symmetrical Power Amplifier Circuitry (RX-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 electrolytic capacitors (28,000µF) ensure a consistently stable power supply.

**Effective Linear Damping**

Level variations due to high impedance tend to reduce an amplifier's damping factor (ability to control unwanted speaker cone movement at low frequencies), and frequency variations cause it to fluctuate. Yamaha's Linear Damping circuit cancels the effect of these variations, maintaining a high, stable damping factor for superior sound articulation and frequency response.

**High Grade Construction with Independent Chambers and Anti-Vibration Design (RX-Z9)**

The RX-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 interference. This thick chassis has electromagnetic shielding. The extremely large aluminum-extruded

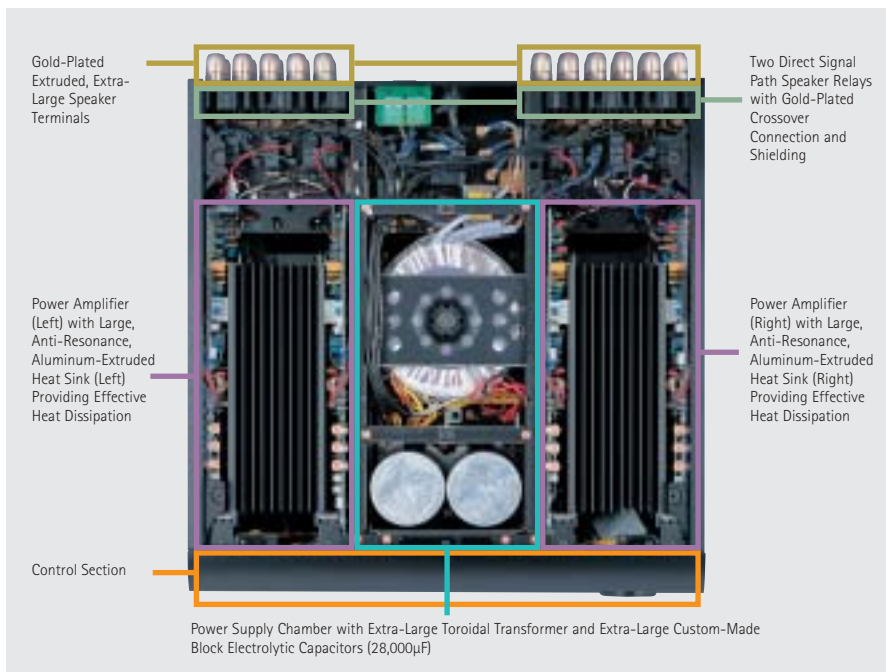
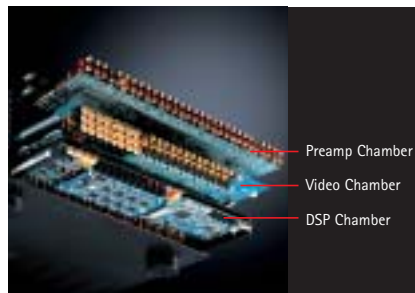
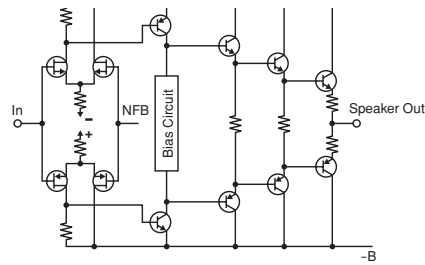
heat sinks have anti-resonance characteristics and ensure effective heat dissipation. Yamaha's ToP-ART base and feet provide stability and further vibration-damping. The other receivers use many of these same design features.

**Only the Finest Parts are Used**

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. Particularly noteworthy parts, in addition to the transformer and capacitors, include:

- Schottky Barrier diodes that allow fast switching for high S/N ratio (RX-Z9/RX-V2500).
- High performance FE Mica capacitors and Metric Mylar Film capacitors using polypropylene material.
- Thick PC board wiring with 5/8"φ diameter copper jumper cables.
- Two direct signal path speaker relays with gold-plated crossover connections and shielding.

Basic Circuit Diagram



- (1) Extra-Large Toroidal Transformer, (2) Extra-Large Custom-Made Block Electrolytic Capacitors (28,000 µF), (3) Gold-Plated Extruded, Extra-Large Speaker Terminals, (4) Two Direct Signal Path Speaker Relays, (5) High Sound Quality Schottky Barrier Diode and (6) High Quality Selected Parts (RX-Z9)

# Advanced Facilities



Optimizer Microphone

Each generation of Yamaha receivers brings an evolution of our popular features while adding innovative enhancements to improve the operating experience. This is why even though our receivers are the most technologically advanced, they remain remarkably easy to use and enjoy. Although these receivers look like formidable machines, you'll soon appreciate just how convenient and enjoyable they are to use.

## YPAO

### YPAO Sets the Best Sound for Your Room – Automatically!

Some receivers have a graphic equalizer (in fact, this one does too) which admittedly, can be a bit difficult to use. Parametric equalizers are even more effective, but only audio professionals can use them. The RX-Z9 is the first receiver to give you the benefits of a 10-band parametric equalizer, which automatically adjusts the audio output to provide precisely the best sound for the

acoustics of the room.

It comes supplied with a small 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 analyzed and based on the results, a variety of audio parameters are precisely calibrated to optimize the sound at the listening position. Among the factors analyzed are speaker connections and phasing, speaker size, sound pressure levels and speaker frequency response. In short, the RX-Z9 not only delivers better sound, it delivers 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 RX-Z9, RX-V2500, RX-V1500, RX-V757, RX-V657 and DVX-S650.

### On-Screen Display with GUI and Dedicated Remote Control (RX-Z9)

The RX-Z9 and RX-V2500 have 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 desired functions.

And to further simplify operation, The RX-Z9 has provided a second remote control dedicated to GUI use. The large round cursor control in the center makes it easy to navigate the on-screen menus and enter desired commands. It also has power, volume and mute buttons.



RX-Z9 GUI Remote Unit



## XM Satellite Radio Ready

(RX-V757, RX-V657, RX-V557 and RX-V457)

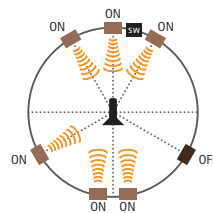


These receivers are XM Satellite Radio Ready, allowing you to hear over 130 digital channels of music, news, sports, talk and entertainment from America's number one Satellite Radio service. With the addition of the XM Connect and Play digital antenna accessory (sold separately) just subscribe to XM Satellite Radio and hear radio as it was meant to be!

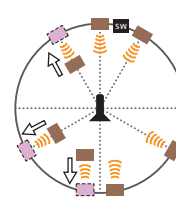


XM Play Digital Antenna (Sold Separately)

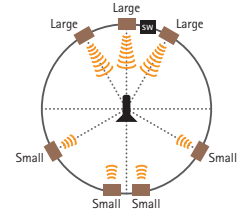
### YPAO Acoustic Customization: 5 Tuning Factors



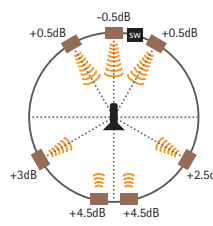
**1) Speaker Connections**  
Checks for missing connections and subwoofer phase control (here the right surround speaker is not connected).



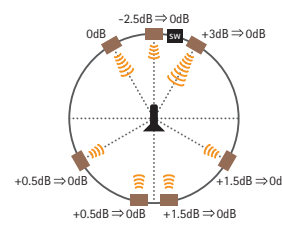
**2) Speaker Distance**  
Measures speaker distances from the listening point and corrects for differences down to 5cm.



**3) Speaker Size**  
Checks speaker sizes (large or small) and subwoofer crossover frequency.



**4) Speaker Frequency Response**  
Measures and optimizes each speaker's frequency response using the parametric equalizer.



**5) Sound Pressure Level**  
Measures and aligns the sound pressure levels of all speakers.



RX-Z9 YPAO Optimizer Microphone



**Custom Installation Compatibility (RX-Z9, RX-V2500, RX-V1500, RX-V757, RX-V657 and RX-V557)**

**• Multi-Zone Capabilities**

These receivers have a variety of features that allow flexible custom installation for enjoying sound in two or three rooms (zones) of your home. The RX-V2500 and RX-V1500 provide audio output to Zones 2 and 3, and the RX-V2500 offers video output (including S-Video) for Zone 2 as well. The RX-Z9/RX-V757/RX-V657/RX-V557 deliver audio output to Zone 2. 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 (except RX-V557).

**• Convenient Control**

A switch for selecting Main Zone or Zone 2 power is conveniently located on the front panel (except RX-V1500). All five receivers provide a remote control for Zone 2, and the RX-V2500 also offers Zone 2 and 3 volume control, mute and input selection.

**• Other Features**

All six receivers include trigger output for automatic powering of other components (RX-Z9/RX-V2500 has two), remote control IR code input and output (RX-Z9/RX-V2500 has two), and an RS-232C interface for using a PC or touch-screen controller to configure the receiver. They also provide speaker A, B or A+B selection.

**Subwoofer Crossover and Phase Selection (RX-Z9, RX-V2500, RX-V1500, RX-V757, RX-V657, RX-V557 and RX-V457)**

Adjusting the balance between the subwoofer and the other speakers can result in significantly better sound quality. By selecting the proper crossover frequency, the subwoofer can compensate for the low-range deficiencies of the other speakers. These receivers allow you to select nine crossover frequencies: 40, 60, 80, 90, 100, 110, 120, 160 and 200 Hz. In addition providing a wider choice than most other receivers, the steps between 80 and 120 Hz are only 10 Hz apart for more precise adjustment.

There may be cases where the low frequency output from the front speakers

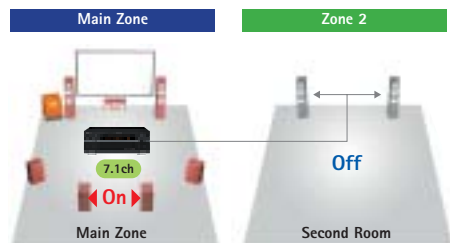
overlaps with the higher end of the subwoofer output, meaning that part of the frequency range will be output by both the front speakers and the subwoofer. This is not a problem as long as the phases of the sound waves from the two sources match, but if they are out of phase, they will cancel each other out, resulting in those frequencies being lost. In this case, the phase switch can be used to eliminate the problem (except RX-V1500).

**Easy-Operation Learning-Capable Control Unit with LCD Display (RX-V2500, RX-V1500 and RX-V757)**

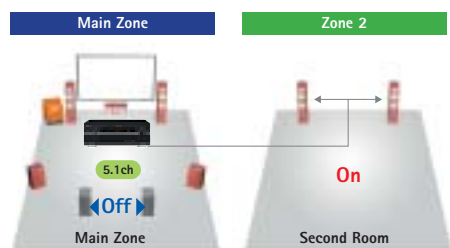
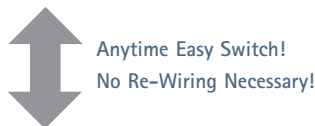
The remote control can "learn" the functions of other components, so you can use it as a single remote for the entire system. It can be preset with control codes for TV, DVD, VCR, CDR, and other components. They also are all controllable from the remote, and Volume, Mute, Input Select controls are available for each zone as well.



**Zone 2 Power Amplifier Assignment**



7.1ch program is played back in Main Zone while Zone 2 is tuned off.



Surround back amps are automatically assigned as Zone 2 amps.

Since the surround back amplifiers are automatically assigned, no physical re-wiring is necessary. For example, while Zone 2 is switched off, the Main Zone can enjoy 7.1 surround sound. When Zone 2 is switched on, the Main Zone can still enjoy 5.1 surround sound, plus Zone 2 can enjoy stereo playback. No need for re-wiring!

**Power Control for Each Zone on the Remote (RX-Z9, RX-V2500, RX-V1500, RX-V757, RX-V657 and RX-V557)**

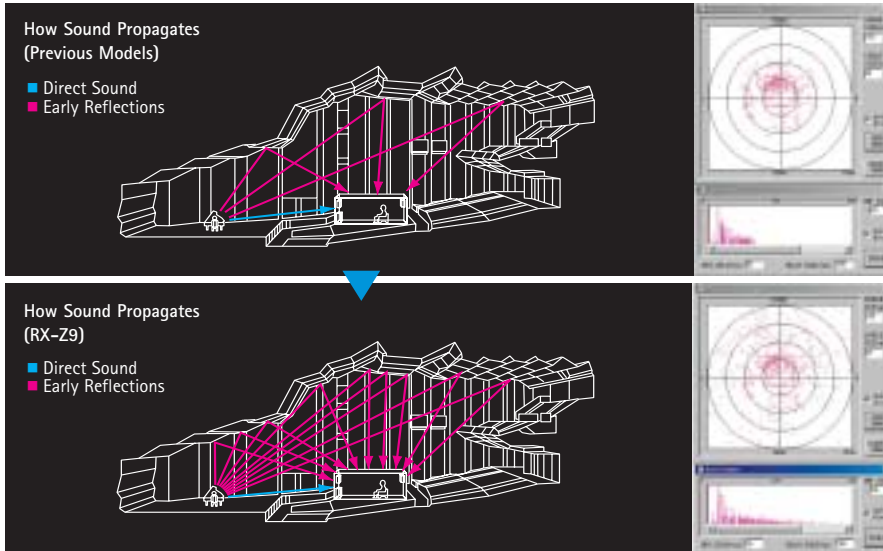
System Power On/Off	
	Main Zone Power On/Off
	Zone 2 Power On/Off
	Zone 3 Power On/Off (RX-V2500/RX-V1500 only)

**Switches for Main Zone and Zone 2 Power are available on the Front Panel (RX-V2500, RX-V757, RX-V657 and RX-V557)**



# Best Surround Realism

## Triple the Density



## Double the Speed



## High Definition CINEMA DSP Technology (RX-Z9)

The RX-Z9 has six times greater DSP capacity than previous models, thanks to an increase from 48kHz to 96kHz/24-bit A/D converters that can accept 96kHz signals for direct digital conversion and processing. Higher density processing enables approximately triple the amount of early reflection data to be handled, for significantly richer surround sound performance.

The RX-Z9 also employs 192kHz/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.

Conventional multi-channel systems base their sound on Dolby Digital and DTS decoding, using relatively simple matrix and steering techniques to create surround sound effects. Yamaha's CINEMA DSP Digital technology is much more sophisticated. It naturally decodes the Dolby Digital and DTS movie sound formats, but it also draws on a huge memory of real-world data from actual venues (especially for the music programs) and input from movie sound technicians. This data is stored and processed on Yamaha-developed LSIs, the most powerful audio chips in the world.

## Way Beyond Ordinary Surround Sound

Our latest technology, Quad-Field CINEMA DSP actually creates four independent sound fields (front, surround left, surround right and surround back) that merge to envelop you in an unmatched surround sound experience. You hear movies and music with accurate sound

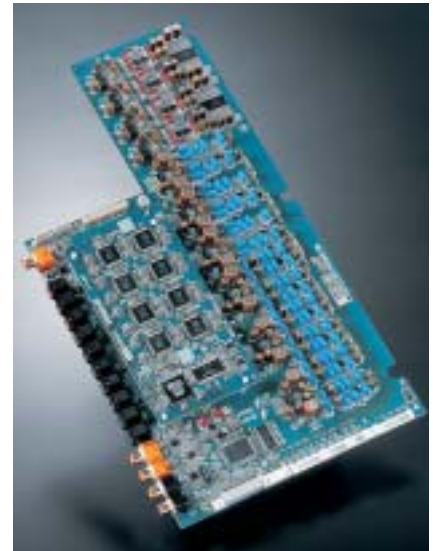
localization, smooth movement across the sound space, exceptional clarity and remarkably realistic presence. It will seem as if the walls of your room have disappeared and you are in the middle of your own immense theater!

## Yamaha Uses Actual Sound Field Data

Yamaha developed a technique called Single Point Quad Miking to precisely capture the acoustic patterns of sound spaces. This complex data is stored and processed on extremely sophisticated LSIs designed and manufactured by Yamaha.

## 4-Layer DSP Processing Board

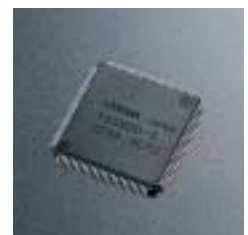
All of the DSP IC chips and related circuitry are located together on a 4-layer board, which provides a number of advantages. The dimensions are smaller (2/3 previous types), so signal paths are shorter and there is more space for the large power supply components. Digital interference is reduced and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



Yamaha was able to fit all the High Definition CINEMA DSP circuitry (that's a lot of processing power!) on a single board in its own chamber, for greater efficiency and isolation from possible interference.

## Yamaha's Exclusive YSS-930 32-Bit Floating Point Quantization LSI (RX-Z9, RX-V2500 and RX-V1500)

This powerful LSI performs all Dolby Digital and DTS decoding with extreme accuracy, as well as all digital sound field processing, capabilities that previously required two or more chips. It also outperforms other chips in the precise synchronization of images and sound.



## Audio Delay for Adjusting Lip-Sync

A Yamaha LSI provides synchronization of images and sound, which is called lip-sync. The video signal goes through the video processor circuit before it is displayed, which takes time, so it lags behind the audio. The LSI accurately aligns them



**Conventional 7.1-Channel Systems**



**Quad-Field CINEMA DSP**



and even allows the lip-sync parameters to be adjusted using the Audio Delay mode.

**CINEMA DSP Programs and THX Programs**

One of the main advantages of CINEMA DSP is the large choice of sound field programs available. The basic program for movies is Enhanced, which greatly improves the sound of the surround fields. The "largest" of these sound fields is Spectacle, which recreates the open feeling of large-scale, epic motion pictures. The Sci-Fi, Adventure and General programs provide the optimum sound fields for those movie genres. There are also THX programs\*.

\* THX Ultra2/Select are the surround programs for home use, based on the THX Theater processing developed for movie theater surround sound.

**New 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 programs, including Dolby Pro Logic IIx.

**Night Listening Enhancer**

**Cinema Mode**

Equalizes center channel frequency response for clear dialogue.



**Music Mode**

Uses loudness filter for clear musical sound.



**Enjoy Surround Sound through Headphones**

SILENT CINEMA makes it possible to hear large-scale surround sound through ordinary headphones! This is a variation of CINEMA DSP technology that Yamaha developed to let you listen in private to

movies and other multi-channel sources for hours without listening fatigue.



**Surround Sound from Only Two Speakers**

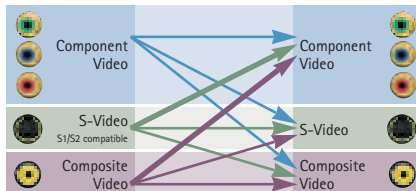
With just two left and right speakers, the Virtual CINEMA DSP mode will create two additional "virtual" rear speakers, giving you the sense of being in a full-scale surround sound field. So even in rooms with no space for rear speakers, you can enjoy the exciting effects of Dolby Digital and DTS movie sound formats.

# Highest Picture Quality

As one of the first companies to popularize "home theater" and a leader in the field, Yamaha is naturally committed to visual as well as audio excellence. We want our customers' enjoyment of movies and other video sources to be totally satisfying. Our home theater line includes a number of high performance products, including projectors, DVD players and a plasma monitor, but in terms of our home theater receivers, we design them to deliver the finest possible video signal to the display component.

## Video Up Conversion (RX-Z9, RX-V2500, RX-V1500, RX-V757, RX-V657 and RX-V557)

One way of ensuring the highest video quality for your home theater system is to use the best possible video signal. The receiver automatically upgrades the input signal (composite to S-Video or component, S-Video to component) to the one that your monitor/TV can accept. This means that you simply use the best possible cable between the receiver and the monitor/TV, and then whatever the source is, you are assured of getting the highest possible quality.



Digital Video Up and Down Conversion (RX-Z9)

## DCDi Processing (RX-Z9)

The RX-Z9 is the first receiver to offer Faroudja's DCDi Processing, which is selectable and ensures that images are smooth and natural, without staircasing or jaggies.



Faroudja DCDi processing LSI (FLI 2310)

## Noise Shaped Video™ (RX-Z9)

This technology, from Analog Devices, uses oversampling and advanced techniques such as multi-bit sigma-delta processing and bit-shuffling to improve converter performance by

moving converter noise to an area of the spectrum where it can be removed by an analog filter. This improves the accuracy of signal representation, allowing images to be displayed at much higher resolutions.



## Progressive Scan Video Output and Other Video Technologies (RX-Z9)

The RX-Z9 is the first receiver 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 an 3:2 Pull-Down Detection type, and gives you the benefit of progressive scanning even if



YGV-619 video processor LSI (Yamaha original)

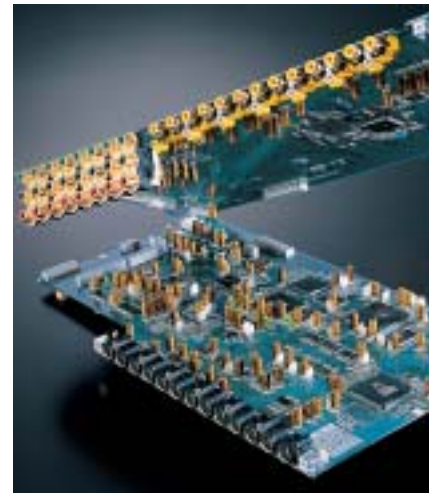
your DVD player does not have it. Other video technologies include 216MHz/12-bit Video D/A Conversion, Motion Adaptive Noise Reduction, Cross Color Suppression, Aspect Ratio Conversion, a Time Base Corrector that prevents the wavy distortion seen in video tapes and TrueLife Enhancer by Faroudja that brings out details in the picture producing a more lifelike image.

## HDTV (720p/1080i) Compatible Component Video Monitor Out

The frequency response of the component video monitor out signal is an extremely wide 5Hz-100MHz (RX-Z9; RX-V2500, RX-V1500, RX-V757, RX-V657, RX-V557 and RX-V457 are 5Hz-60MHz), ensuring compatibility with HDTV (720p, 1080i) monitors.

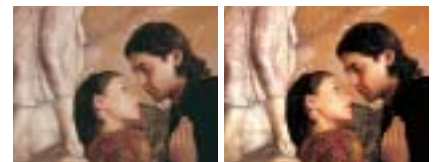
## Image Adjustment (RX-Z9)

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

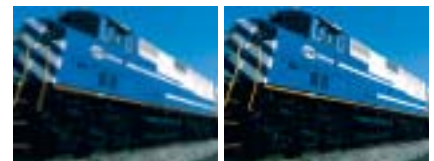


## Digital Video Processing Board

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



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)

Above images are simulated.

# Video Technology

## DPX-1200: 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-1200 and conventional projectors.



Yamaha Natural Black makes subtle degrees of black in textures, 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-1200 makes use of a wide range of new technologies to deliver extraordinary video performance. Contrast is an incredible 5,000:1, brightness is 800 ANSI lumens, picture sharpness is outstanding and color reproduction is stunningly natural.

### Newest Light Engine: 720P DarkChip3™

This DLP chip is Texas Instruments newest and most advanced Digital Micro Mirror Device. As the name implies, it provides deeper blacks and improved contrast in dark areas.



### Seven-Segment Color Wheel

The DPX-1200 incorporates a seven-segment color wheel, with an ND filter-equipped green segment, resulting in excellent color reproduction. The seven-segment structure reduces dither, while color reproduction is excellent, with greens being more true to life than ever (achieving the HD monitor "green" standard). Green resolution is 10-bit, which also improves the representation of black tones.



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

### High Performance LCD Panels

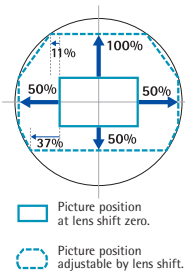
The LPX-510 uses LCD panels capable of projecting high resolution 720p HDTV images and 10-bit video processing gives it the ability to reproduce 1.07 billion colors. 16:9 aspect ratio compatibility means that widescreen movies can be viewed in their entirety.

### 3D Linear Color Balance

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

### 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.



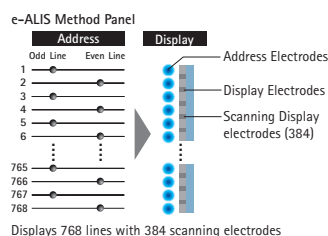
## PDM-5520 and PDM-4210: Yamaha Plasma Display Monitors use the most advanced technologies to deliver superb performance.

### e-ALIS Method Panel Technology (PDM-5520)

The PDM-5520 uses a highly advanced e-ALIS Method (extended Alternate Lighting of Surface) panel whose 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. The panel employs new plasma gas and luminescent material that are more effective than previous types, and the area coated with the luminescent material is greater. This results in the industry's highest level of brightness, 1,000 cd/m<sup>2</sup>, with the ability to display 1.07 billion colors for spectacular color richness and purity.

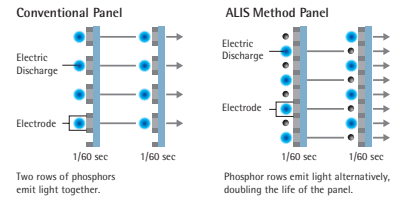
### ALIS Method Panel Technology

This plasma display panel uses an advanced ALIS (Alternate Lighting of Surface) Method to deliver a



### e-ALIS Method Panel Technology

The e-ALIS (extended ALIS) Method Panel technology was developed to enable the use of the ALIS Method on large screens. Adopting the shared electrode structure that is a special feature of ALIS on the front panel permits the display of highly detailed images of 768 lines with 384 electrodes. 1/60 second (1 field) is divided twice into odd number lines and even number lines to perform address, then emits all pixels. During the next 1/60 second, the same operation is done to display a 1/30 second image (1 frame).



sharp, clear picture with the smooth, high-definition quality you see in a movie theater. The ALIS Method employs a screen surface comprised of 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 new plasma gas and luminescent material that are more effective than previous types. The result is a brighter picture (1,100 cd/m<sup>2</sup>) and higher color temperature, which makes white areas such as clouds in the sky stand out more vividly. The panel can also display a wider range of colors (16.7 million), with enhanced color purity.

### Natural Black Drive System

The Natural Black Drive System automatically determines the brightness of the screen and applies the gray 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 condition, making it possible for the PDM-5520/PDM-4210 to deliver sharp, natural-looking images.



The Natural Black Drive System allows the PDM-5520/PDM-4210 to outperform other plasma displays with deeper blacks and sharper overall contrast.

### Digital Linear Color Control

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

### Long Life of 60,000 Hours

Another benefit of the e-ALIS/ALIS Method Panel technologies are lower power consumption and longer panel life. The Yamaha Plasma Display Monitors will provide high quality images for 60,000 hours,\* about twice as long as a typical CRT monitor.

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



## DPX-1200 Digital Cinema Projector



The previous DPX-1000 has been honored 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.

Incorporating the most advanced technology and numerous convenient functions, this projector offers the highest performance in its class.

- Yamaha Natural Black concept • 5,000:1 contrast ratio • Latest DMD 720P DarkChip3™ device • High resolution lens • Motorized iris control for higher contrast • 7-segment color wheel • Faroudja TrueLife Enhancer • Natural color adjustment system • Lamp power selector • Faroudja DCDi\* processing • Silent operation • HDMI compatibility • Motorized vertical lens shift, iris, focus and zoom controls • One-line menu with graphical menu configuration
- <Accessories> • PJL-427: Optional lamp cartridge • PMT-L31: Optional installation brackets for low ceiling



Control Panel



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



## LPX-510 Home Cinema Projector



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

- High contrast film-like picture quality with "Natural Black" • Latest 0.7" 720p liquid crystal panel • 720p HDTV format compatibility, 16:9 widescreen display • 3D Linear Color 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 • Six-step lamp power control • HDMI terminal • RS-232C interface and trigger out (12V/200mA) • Low-noise operation
- <Accessory> • PJL-520: Optional lamp cartridge



Control Panel



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



Projectors		DPX-1200	LPX-510
Panel		0.8 inch DMD 720P DarkChip3™ x 1	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 (iris off)	1,000 ANSI lumens (iris: off, Cinema Balance Filter: off) 350 ANSI lumens (iris: fully on, Cinema Balance Filter: on)
Contrast Ratio		5,000:1 (iris on)	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 mm–31.7 mm
Lamp		270 W SHP	200 W–150 W UHP lamp, 1,500 hours (200W 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
	Color Format	NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M and PAL-N	NTSC, PAL, SECAM, NTSC4.43, PAL60, PAL-M and PAL-N
Power Consumption		375 W (standby: 0.1 W)	290 W (eco standby: 0.4 W)
Dimensions (W x H x D)		19-1/2" x 7-9/16" x 18-5/16"	17-11/16" x 4-11/16" x 13-9/16"
Weight		30.4 lbs.	13.7 lbs.

## Plasma Display Monitors



PDM-5520 Plasma Display Monitor



The world's most advanced PDP technologies give the PDM-5520 performance capabilities unmatched by conventional plasma monitors.

- e-ALIS Method panel technology • Natural Black Drive System for 1,000:1 contrast ratio • High brightness: 1,000 cd/m<sup>2</sup> • High resolution: 1,366 x 768 pixels • Digital Linear Color Control • Long life: 60,000 hours\* • 1.07 billion colors • Two picture modes • Four white balance modes • Low power consumption • Side-by-side picture • Picture-in-picture • Multi-language on-screen display • 2 x 12W audio power • Timer functions • Five video and six PC size modes • RS-232C interface • Simple remote control unit

<Option> • PDS-355: Stand

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



PDM-4210 Plasma Display Monitor



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

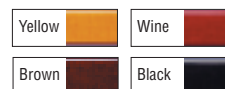
- ALIS Method panel technology • Natural Black Drive System for 1,000:1 contrast ratio • High brightness: 1,100 cd/m<sup>2</sup> • High resolution: 1,024 x 1,024 pixels • HDTV capability • Digital Linear Color Control • Long life: 60,000 hours\* • Two picture modes • Four white balance modes • Low power consumption • Side-by-side picture • Picture-in-picture • Multi-language on-screen display • 2 x 12W audio power • Timer functions • Five video and five PC size modes • RS-232C interface • Simple remote control unit

<Options> • PDS-242: Stand • PWK-242: Optional wall-hanging brackets

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



Four Color Variations



YWB-4210 Optional Wooden Bezel for PDM-4210

Plasma Display Monitors	PDM-5520	PDM-4210
Effective Display Area (H x V)	1,229 mm x 691 mm, 1,410 mm diagonal	922mm x 522mm, 1,060 mm diagonal
Aspect Ratio	16 : 9	16 : 9
Number of Pixels (H x V)	1,366 x 768 pixels (e-ALIS Method panel)	1,024 x 1,024 pixels (ALIS Method panel)
Pixel Pitch (H x V)	0.90 x 0.51 mm	0.90 x 0.51 mm
Transmission of Front Filter	Dark tint face 32%	Dark tint face 32%
Brightness	White Peak Panel brightness : 1,000 cd/m <sup>2</sup>	Panel brightness : 1,100 cd/m <sup>2</sup>
Contrast Ratio (Panel)	1,000:1	1,000:1
Acceptable Input	YPbPr 480i/480p, 576i/576p, 720p (60), 1080i (50/60), 1035i (60) RGB VGA-UXGA, 1080i (50/60) Color Format PAL, SECAM, PAL60, NTSC4.43, NTSC3.58, PAL-M, PAL-N	480i/480p, 576i/576p, 720p, 1035i, 1080i VGA, SVGA, XGA, SXGA, UXGA (compressed) NTSC, PAL, SECAM, PAL60, Modified NTSC
Wide Mode (Picture Size)	Video: 5-modes – Panoramic, Zoom, Cinema, Full, 4:3 PC: 6-modes – 4:3, Full, Real, Normal, Zoom 1, Zoom 2, Zoom 3	TV/Video: 8 modes – Panoramic, Zoom, Cinema, Full, 4:3, 14:9L, 14:9Zoom, 14:9 (WSS available) PC: 6 modes – Full, Real, Normal, Zoom1, Zoom2, Zoom3
Power Consumption	520 W	365 W
Dimensions (W x H x D); Weight	54-7/8" x 33-3/4" x 4-1/8"; 140 lbs.	40-9/16" 25-1/16" x 7-5/8"; 77.6 lbs. (monitor only)

# Only Yamaha could set these goals for a home theater receiver

This flagship RX-Z9 goes beyond the capabilities of previous high-end Yamaha models with High-Definition CINEMA DSP technology, the ability to automatically optimize the sound for the listening room, superior audio and video quality, and the operating ease that Yamaha is famous for. The high end moved up a step.



The RX-Z9 has been honored 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.



## RX-Z9 Digital Home Theater Receiver



**9-Channel Amplifier Capable of Delivering 1,290W**  
When you power up your carefully assembled, top-class home theater system, you expect beautiful sound and video quality, but you also want plenty of raw power. Especially at dynamic peaks, such as explosions or the climax of rock songs, you want to be thrilled and awed, without a hint of distortion marring the moment. The RX-Z9 is built to satisfy your urge for power, surrounding you front, sides and rear with seven channels capable of outputting a huge 170 W each, plus another 50W from the two presence (front effect) channels. That's a total of 1,290W. Movies will sound as if you're in the director's chair, and you can even enjoy multi-channel sources from only four or

five speakers (even without a subwoofer, although this is not recommended), thanks to an analog mixdown mode. Another point to consider is that because of this high power capability, at normal listening levels the amplifier won't be working as hard, so distortion levels are virtually zero.

### Superior Digital-to-Analog Converter System

For the important digital-to-analog converters, Yamaha has chosen the PCM1792 manufactured by the high-end audio expert, Burr-Brown. The RX-Z9 uses these DACs for all channels. The PCM1792 is a high-performance, precision 24-bit DAC with ultra-low distortion of only 0.0004% (THD + N) and S/N

ratio of 129dB. It offers superior low level linearity, with excellent full-scale performance under varying operating conditions. Its major benefit is performing accurate sound field processing for high quality multi-channel reproduction such as Dolby Digital and DTS. For two-channel stereo, the PCM1792 provides outstanding separation and accurate musical delineation. An additional advantage is its 192kHz/24-bit conversion capability, making it compatible with the latest (and future) high resolution digital audio sources.

### 39 Surround Sound Programs

The RX-Z9 offers a huge range of 39 surround



### RX-Z9 Rear Panel Connections

- 7 Optical, 4 Coaxial Digital Inputs (fixed and assignable)
- 3 Optical Digital Outputs (fixed and assignable)
- 7 A/V and 4 Audio Inputs, 3 A/V and 2 Audio (Audio Signal) Outputs, and Zone 2 Audio Outputs
- 6 Component Video Inputs (fixed and assignable) and 2 Monitor Component Video Outputs
- 2 Monitor (with S-Video) Outputs, 7 Video Inputs /3 Video Outputs (with S-Video), and Zone 2 Video (with S-Video) Output
- Pre-Main and Center Couplers, Surround, Surround Back and Presence Preouts, and Subwoofer Outputs
- 8-Channel External Decoder Input
- RS-232C Interface for Custom Installation
- 2 Trigger Outputs for Automatic Power on of Other Components (+12V, 15mA)
- Remote Control IR Code Input/Output
- Zone 2 Coaxial Digital Output Terminal
- i.LINK (IEEE 1394) Digital Audio Interface
- Pure Direct 2-Channel Inputs



# – and achieve them!

sound programs to choose from. For video material, you can select the program that matches your video source, with 12 choices from games and TV sports to Sci-Fi movies. For music, you have 21 choices ranging from European concert halls to disco ambience. Each sound field is created from acoustic data recorded at the actual venues, stored and processed by highly sophisticated Yamaha technology. There are also 16 straight movie format decoding programs and 6 THX programs, including Ultra2. Naturally, you can experiment with different programs for each source, and you can also use the GUI menus to adjust numerous parameters for each program. With CINEMA DSP, you will never be bored or dissatisfied with the sound of your system!!

### YPAO (Yamaha Automatic Parametric Room Acoustic Optimizer)

Some components have a graphic equalizer (in fact, this one does too) which admittedly, can be a bit difficult to use.



RX-Z9 YPAO Optimizer Microphone

Parametric equalizers are even more effective, but only audio professionals can use them. The RX-Z9 is the first amplifier to give you the benefits of a 10-band parametric equalizer, which automatically adjusts the audio output to provide precisely the best sound for the acoustics of the room.

How does it work? The amplifier comes supplied with a small 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 analyzed and based on the results, a variety of audio parameters are precisely calibrated to optimize the sound at the listening position. Among the factors analyzed are speaker connections and phasing, speaker size, sound pressure levels and speaker frequency response. In short, the RX-Z9 not



Oil-Damped Hidden Control Panel

only delivers better sound, it delivers the BEST sound for each and every room.

### Ideal for Use in Custom Installations

The RX-Z9 has numerous features designed to facilitate use in customized multi-room installations. These include Zone 2 coaxial, video (including S-Video) and audio outputs for multi-room control capability, two trigger outputs for automatic power-on of other components, speaker A/B and A+B selection, an RS-232C interface and remote control IR code input/output compatibility. In addition, the Rec Out Selector also functions as a Zone 2 selector.

### Extensive Connections for All the Components You Want!

As shown here, the range of connections on the RX-Z9's rear panel is large enough to meet all of your system building needs. Note that a number of these terminals are fixed and assignable, meaning that they can be independently assigned to sources of your choice or defaulted to fixed settings.

### Video Inputs on Front Panel

A panel on the front of the receiver flips up 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 connect a game machine for DVD games or even movies, or other devices such as a camcorder.

RX-Z9 Inputs and Outputs

	Analog		Digital				Video					
	In	Out	Coaxial		Optical		Composite		S Video		Component Video	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
PHONO	■											
CD	■		■		■							
MD/TAPE	■	■	■		■							
CD-R	■	■	■		■							
DVD	■		●		■							■
DTV/LD	■		■		■		■					■
CBL	■		■		■							■
SAT	■		■		■							■
VCR 1	■	■	■		■							■
VCR 2	■	■	■		■							■
DVR	■	■	■		■							■
Video Aux	■				■							
Monitor Out 1								■				■*
Monitor Out 2								■				■*
ZONE 2		■		■				■				
Multi-Ch	■											
Pure Direct 2 Ch	■											

### Subwoofer Crossover Selection

The RX-Z9 provides a choice of nine subwoofer crossover frequencies: 40, 60, 80, 90, 100, 110, 120, 160 and 200 Hz. In addition to providing a wider range than other receivers, the steps from 80 to 120 Hz are only 10 Hz apart for more precise selection. This choice of crossovers lets you "fine-tune" the audio system by selecting the optimum frequency to maximize receiver/speaker efficiency and also ensures best performance from a wider variety of speakers (small to large).

### Dialogue Lift

Clear dialogue is important for movie enjoyment, however, when using front and center speakers positioned below the screen, dialogue may not be heard with maximum clarity. The Dialogue Lift function causes part of the front and center channel sound to be output from the presence speakers, so you hear the dialogue more clearly.

### Other Notable Features

- High Current Amplification
- High dynamic power, low impedance drive capability
- Linear Damping
- A/V Rec Out/Zone 2 selector
- 8-channel external decoder input terminals
- Audio Delay for adjusting lip-sync
- S-Video 1/2 wide selective signal compatibility
- Digital tone controls
- 40-station preset tuning
- Direct-access (macro-command, learning and preset capable) remote unit



- Fixed (■), Fixed/Assignable (■) and Assignable (■) Terminals.
- RF (AC-3) terminal for LD input (●) is assignable as coaxial digital terminal.

■\*: HDTV (720p/1080i) Compatible Component Video Out  
The frequency response of the component video monitor out signal is 5Hz – 200MHz, making it compatible with HDTV monitors.

DIGITAL  
TOP-ART



**RX-V2500** 7.1-Channel Digital Home Theater Receiver



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



YPAO Optimizer Microphone

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

- 7-channel 910W powerful surround sound (130W x 7) • YPAO with 6 system memories • YPAO PEQ manual setting • GUI On-screen display • Pure Direct • 192kHz/24-bit DACs for all channels • RS-232C interface/2 trigger outputs/2 IR ports • Zone 2/presence speaker out (power assignment) 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
- 19 surround programs with 2 THX Select programs • Component video up conversion • 9-channel speaker outputs and Dialogue Lift • Rec out/Zone 2 selector • Main/Zone 2 direct on/off • Direct-access (macro-command, learning and preset capable) remote control unit with macro-command buttons and illuminated buttons



DIGITAL  
TOP-ART



**RX-V1500** 7.1-Channel Digital Home Theater Receiver



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



YPAO Optimizer Microphone

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

- 7-channel 840W powerful surround sound (120W x 7) • YPAO • Pure Direct • 192kHz/24-bit DACs for all channels • RS-232C interface/trigger output/IR port • Zone 2/presence speaker out (power assignment) 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
- 16 surround programs with 2 THX programs • Component video up conversion • 9-channel speaker outputs and Dialogue Lift • Front panel Video Aux inputs • 8 digital inputs (5 optical/3 coaxial) • Digital tone controls for front, center, presence and subwoofer
- Direct-access (macro-command, learning and preset capable) remote control unit with macro-command buttons



DIGITAL  
TOP-ART



**RX-V757** 7.1-Channel Digital Home Cinema Receiver



YPAO Optimizer Microphone

Top-class 7.1-channel receiver delivering 700W of sound power and superb picture quality, as well as outstanding features like YPAO, Quad-Field CINEMA DSP, Night Listening Enhancer and XM Satellite Radio ready.

- 7-channel 700W powerful surround sound (100W x 7) • XM Satellite Radio ready • Digital ToP-ART and High Current Amplification • YPAO for automatically optimizing the sound in your room • Component video up conversion (full) • On-screen display • Pure Direct for high quality sound reproduction • Zone 2 out (assignable power amplifier), IR port and speaker B for custom installation • Dialogue Lift for enhanced dialogue sound output
- Quad-Field CINEMA DSP and 14 surround programs • Phono input
- Learning-capable remote control unit with LCD indication
- Night Listening Enhancer (Cinema/Music) and SILENT CINEMA



DIGITAL  
ToP-ART



**RX-V657** 7.1-Channel Digital Home Theater Receiver



YPAO Optimizer  
Microphone

7.1-channel receiver offering many exclusive Yamaha functions including YPAO automatic optimization, Quad-Field CINEMA DSP, XM Satellite Radio ready and component video up conversion.

- 7-channel 665W powerful surround sound (95W x 7) • XM Satellite Radio ready • Digital ToP-ART and High Current Amplification • YPAO for automatically optimizing the sound in your room • Component video up conversion (full) • On-screen display • Pure Direct for high quality sound two-channel or multi-channel reproduction • Zone 2 out (assignable power amplifier), IR port and speaker B for custom installation • Dialogue Lift for enhanced dialogue sound output • Quad-Field CINEMA DSP and 14 surround programs • Night Listening Enhancer (Cinema/Music) and SILENT CINEMA • 8-channel external decoder input • 6 digital (4 optical and 2 coaxial) inputs • Preset remote control unit



DIGITAL  
ToP-ART



**RX-V557** 6.1-Channel Digital Home Theater Receiver



6.1-channel receiver offering outstanding sound and picture quality, with a wide range of desirable features such as 540W power, Quad-Field CINEMA DSP, XM Satellite Radio ready and component video up conversion.

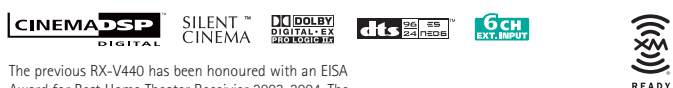
- 6-channel 540W powerful surround sound (90W x 6) • XM Satellite Radio ready • Digital ToP-ART and High Current Amplification • Component video up conversion (full) • Zone 2 out, IR port and speaker B for custom installation • Dolby Digital EX, DTS-ES, Dolby Pro Logic IIx and DTS 96/24 compatibility • Quad-Field CINEMA DSP and 14 surround programs • Night Listening Enhancer (Cinema/Music) and SILENT CINEMA • 192 kHz/24-bit DACs for all channels • Selectable 9-band subwoofer crossover / Subwoofer phase select • Audio Delay for adjusting lip-sync (0-160 ms) • Aluminum front panel



DIGITAL  
ToP-ART



**RX-V457** 6.1-Channel Digital Home Theater Receiver



The previous RX-V440 has been honoured with an EISA Award for Best Home Theater Receiver 2003-2004. The prestigious EISA Awards are chosen by media representatives from up to 20 European countries.

Full-function, 510W high-power 6.1-channel receiver with special features like Quad-Field CINEMA DSP and Night Listening Enhancer. XM Satellite Radio ready, too.

- 6-channel 510W powerful surround sound (85W x 6) • XM Satellite Radio ready • Digital ToP-ART and High Current Amplification • Dolby Digital EX, DTS-ES, Dolby Pro Logic IIx and DTS 96/24 compatibility • Direct Stereo for high quality two-channel sound reproduction • Night Listening Enhancer (Cinema/Music) and SILENT CINEMA • Quad-Field CINEMA DSP and 14 surround programs • 192kHz/24-bit DACs for all channels • Selectable 9-band subwoofer crossover / Subwoofer phase select • Audio Delay for adjusting lip-sync (0-160ms) • 2 component video inputs and 3 digital inputs • Preset remote unit • 3 S-Video inputs





## Presenting the home theater systems that will impress your friends even when the power is off.

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.



### RX-SL100 Digital Home Theater Receiver

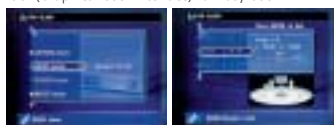
**CINEMA DSP** DIGITAL **SILENT™ CINEMA**

**DOLBY** DIGITAL EX **DTS** ES **NEOS**



Hidden Control Panel includes headphone terminal for SILENT CINEMA enjoyment and optical digital input terminal.

GUI (Graphical User Interface) for Easy Use



Basic Menu

Speaker Size

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

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



The RX-SL100 rear panel offers 2 optical and 1 coaxial digital input (fixed and assignable), and subwoofer output terminal.

#### Easy Connections

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



### DV-SL100 DVD Player

**DVD VIDEO** **VIDEO CD** **COMPACT DIGITAL VIDEO** **DOLBY DIGITAL** **DTS DIGITAL OUT**

Elegantly Slim-Line DVD Player with advanced technology and features for outstanding performance

- Progressive Scan (NTSC/PAL) • DVD-Video, SVCD, VCD, Audio CD and JPEG/MP3 (multisession) playback • DVD+RW/+R, DVD-R/-RW and CD-R/RW playback • 54MHz/12-bit video D/A conversion 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 • NTSC/PAL Conversion



The DV-SL100 rear panel offers optical/coaxial digital audio output, mixed 2-channel audio output, composite, and S-video and component video output terminals. (Specifications are on pg.33).

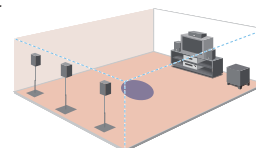


### NS-P236 6.1-Channel Speaker Package

**Advanced Y.S.T**

You'll barely notice these small speakers, but their clean, powerful sound will make every movie a memorable experience.

- 7-speaker package consisting of 5-satellite (front L/R, surround L/R and surround back), center speakers and subwoofer
- Advanced YST subwoofer for powerful bass response • Dual 2" full-range drivers for high sound quality (5 satellites and center)
- Flexible placement • Magnetic shielding (all speakers)



6.1-Channel Speaker Setting



[www.CinemaStation.com](http://www.CinemaStation.com)

## Home theater has evolved into an advanced species.

Home theater has evolved into an advanced species, and it's called CinemaStation. Elegantly styled, they're also supremely easy to use. The DVX-S650: proof that evolution is a good thing.



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

**[Receiver]** • YPAO: Automatically optimizing the sound in your room • 4 DSP program icon buttons on remote unit • On-screen display with GUI (Graphical User Interface) • 55W x 5 Yamaha original digital amplifier • Powerful 32-bit Yamaha LSI for CINEMA DSP processing • 12 surround programs 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 • 40-station FM/AM preset tuner

**[DVD player]** • Progressive Scan • 192kHz/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

**[Speakers]** • Advanced YST and QD-Bass technology subwoofer for powerful bass response • 8" 130W high power cube subwoofer • High-grade MDF speaker cabinets • Magnetic shielding (all speakers)



## CinemaStation DVX-S650 DVD Home Theater System

**Dimensions (W x H x D); Weight:** • Center Unit : 14-3/16" x 21-5/16" x 14-3/16"; 13.2 lbs. • Front Speakers: 13" x 7-1/2" x 7-1/8"; 8.8 lbs. • Center Speaker: 4-7/8" x 14-5/8" x 4-3/4"; 5.3 lbs. • Surround Speakers: 8-1/4" x 5-1/2" x 3-3/4"; 2.6 lbs. • Subwoofer: 11-7/16" x 14-3/16" x 12-1/4"; 22 lbs.



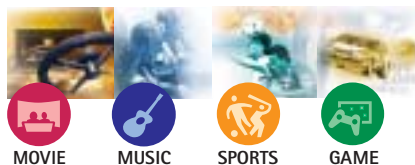
Professional sound equalization with just one microphone in 3 minutes

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 programs: 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 programs via the icon buttons.



# Digital Home Theater Receiver Comparison



	RX-Z9	RX-V2500	RX-V1500	RX-V757	RX-V657	RX-V557	RX-V457	RX-SL100
Channels	9	7	7	7	7	6	6	6
RMS Power (8 ohms, 20Hz-20 kHz)	170W x 7 + 50W x 2	130W x 7	120W x 7	100W x 7	95W x 7	90W x 6	85W x 6	100W x 6 (Max)
Amp Configuration	Discrete	Discrete	Discrete	Discrete	Discrete	Discrete	Discrete	Digital
Digital ToP-ART	■	■	■	■	■	■	■	
High Current Amplification	■	■	■	■	■	■	■	
Accurate Touch Volume Control	■	■	■	■	■	■	■	
High Dynamic Power	■	■	■	■	■	■	■	
Linear Damping	■	■	■	■	■	■	■	
Analog Mixdown	■	■	■	■	■	■	■	
Rotary Input Selector	■	■	■	■	■	■	■	
High Definition CINEMA DSP	■	■	■	■	■	■	■	
Dolby Pro Logic IIx	■	■	■	■	■	■	■	■
DTS 96/24	■	■	■	■	■	■	■	■
DTS Neo:6	■	■	■	■	■	■	■	■
192kHz/24-Bit DACs	For all channels	For all channels	For all channels	For all channels	For all channels	For all channels	For all channels	
Tone Controls	Digital (L/C/R)	Digital (L/C/R/Pr/Sw)	Digital (L/C/R/Pr/Sw)	Digital	Digital	■	■	
Pure Direct	■	■	■	■	■			
Direct Stereo			■			■	■	
2-Channel Stereo	■	■	■	■	■	■	■	
Straight / Effect Switch	■	■	■	■	■	■	■	
Audio Delay	■ (0-240 ms)	■ (0-240 ms)	■ (0-240 ms)	■ (0-160 ms)	■ (0-160 ms)	■ (0-160 ms)	■ (0-160 ms)	
YPAO with Optimizer Microphone	■	■ (with 6 memories)	■	■	■			
Set Menu	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual	Basic/Manual	Basic/Manual	
Surround Program	39	19	16	14	14	14	14	14
THX Processing	Ultra2	Select	Select					
i.LINK Digital Audio Interface	■	■	■	■	■	■	■	■
SILENT CINEMA	■	■	■	■	■	■	■	■
Virtual CINEMA DSP	■	■	■	■	■	■	■	■
Night Listening Enhancer		■	■	■	■	■	■	
Selectable Subwoofer Crossover	9-band	9-band	9-band	9-band	9-band	9-band	9-band	
Subwoofer Phase Select		■	■	■	■	■	■	■
9-Channel Speaker Outputs	■	■	■	■	■	■	■	
Dialogue Lift	■	■	■	■	■			
Multi-Channel External Decoder Input	8ch	8ch	8ch	8ch	8ch	6ch	6ch	
Pre-Main Couplers	2 front and 1 center							
Preout Terminals	6 (2S/2SB/2Pre)	7 (2F/C/2S/2SB)	7 (2F/C/2S/2SB)	7 (2F/C/2S/2SB)	7 (2F/C/2S/2SB)			
Subwoofer Out	2 (front/rear)	■	■	■	■	■	■	■
On-Screen Display	■ (with GUI)	■ (with GUI)	■	■	■			■ (with GUI)
Component Video Inputs/Outputs	6/2	3/1	2/1	2/1	2/1	2/1	2/1	
Video (S-Video) Inputs	8 (8)	6 (6)	7 (7)	5 (5)	5 (5)	4 (3)	4 (3)	
Component Video Up Conversion	Digital, up/down	■	■	■	■	■	■	
Progressive Scan Processing	DCDi							
Assignable Power-Amp		■	■	■	■			
RS-232C Interface	■	■	■					
Zone 2 Out	■ (with coaxial)	■ (with S-Video)	■ (audio only)	■ (audio only)	■ (audio only)	■ (audio only)		
Zone 3 Out		■ (audio only)	■ (audio only)					
Zone 3 Volume		■	■					
Main/Zone2 Direct On/Off Switch		■		■	■			
+12V Trigger Outputs	■ (x 2)	■ (x 2)	■	■	■	■		
IR Ports	■ (x 2)	■ (x 2)	■	■	■	■		
Speaker A, B or A+B Selection (Via remote)	■	■	■	■	■	■	■	
Digital Inputs (Optical/Coaxial)	12 (8/4*)	8 (5/3)	8 (5/3)	6 (4/2)	6 (4/2)	4 (3/1)	3 (2/1)	4 (3/1)
Front Panel Video Aux Terminals	With optical/S-Video	With optical/S-Video	With optical/S-Video	With optical/S-Video	With optical/S-Video	■	■	With optical
Phono Input	■	■	■	■	■			
Sleep Timer	■	■	■	■	■	■	■	
Remote Control	Direct access	Direct access	Direct access	Learning-capable	Preset	Preset	Preset	Preset
Front Panel	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Plastic	Aluminum
Volume Knob	Aluminum	Aluminum	Aluminum	Aluminum	Plastic	Plastic	Plastic	Plastic
Dynamic Power/Channel (8/6/4/2 ohms)	210/260/340/580 W	165/205/260/340 W	155/195/250/330 W	135/170/200/245 W	130/165/195/240 W	120/155/190/235 W	115/150/185/230 W	
Damping Factor (8 ohms, 20 Hz-20 kHz)	200 (front/center)	140 (front, speaker A)	140 (front, speaker A)	120 (front, speaker A)	120 (front, speaker A)	120 (front, speaker A)	120 (front, speaker A)	
Frequency Response	10Hz-100kHz +0, -3dB	10Hz-100kHz +0, -3dB	10Hz-100kHz +0, -3dB	10Hz-100kHz +0, -3dB	10Hz-100kHz +0, -3dB	10Hz-100kHz +0, -3dB	10Hz-100kHz +0, -3dB	20Hz-50kHz +0, -3 dB
Total Harmonic Distortion (20 Hz-20 kHz, CD)	0.005% (85W/8ohms)	0.04% (65W/8ohms)	0.04% (60W/8ohms)	0.06% (50W/8ohms)	0.06% (50W/8ohms)	0.06% (40W/8ohms)	0.06% (40W/8ohms)	0.04% (35W/6ohms)
Signal-to-Noise Ratio (CD, 250 mV)	100dB	100dB	100dB	100dB	100dB	100dB	100dB	98dB
Component Video Monitor Out Frequency Response	5Hz-100MHz -3 dB	5 Hz-60 MHz -3 dB	5 Hz-60 MHz -3 dB	5 Hz-60 MHz -3 dB	5 Hz-60 MHz -3 dB	5 Hz-60 MHz -3 dB	5 Hz-60 MHz -3 dB	
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 8 <sup>9</sup> / <sub>16</sub> " x 18 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 17 <sup>1</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 17 <sup>1</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>3</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>5</sup> / <sub>16</sub> " x 16 <sup>3</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>3</sup> / <sub>16</sub> " x 13"
Weight	66.1 lbs.	34.2 lbs.	34.2 lbs.	27.6 lbs.	27.6 lbs.	24.2 lbs.	24.2 lbs.	14.1 lbs.

\* Including AC-3 (LD): fixed and assignable to coaxial digital input

## Digital Home Theater Component Surround Programs

	RX-Z9	RX-V2500	RX-V1500	RX-V757	RX-V657	RX-V557	RX-V457		RX-SL100	DVX-S650
<b>Compatible Decoding Formats</b>										
Dolby Digital	●	●	●	●	●	●	●		●	●
Dolby Digital EX	●	●	●	●	●	●	●		●	● (Matrix 6.1)
DTS Digital Surround	●	●	●	●	●	●	●		●	●
DTS 96/24	●	●	●	●	●	●	●			●
DTS-ES Matrix 6.1	●	●	●	●	●	●	●		●	● (Matrix 6.1)
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	●	●	●	●	●	●	●		●	
<b>HiFi DSP Programs</b>										
HALL	Munich A	●	●							● (Classic Hall)
	Frankfurt	●								
	Stuttgart	●								
	Munich B	●								
	Vienna	●	●	●						
	Amsterdam	●								
	Hall G in U.S.A	●								
	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)	● (6 Ch Stereo)	● (5 Ch Stereo)
<b>HiFi DSP Subtotal</b>		<b>21</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>		<b>5</b>	<b>4</b>
<b>CINEMA DSP Programs</b>										
ENTERTAINMENT	Game	●	●	●	●	●	●	●	●	●
TV THEATER	TV 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 THEATER 1	Spectacle	●	●	●	●	●	●	●	●	●
	Sci-Fi	●	●	●	●	●	●	●	●	●
MOVIE THEATER 2	Adventure	●	●	●	●	●	●	●	●	● (Action)
	General	●	●	●	●	●	●	●	●	● (Drama)
ENHANCED	Enhanced	●	●	●	●	●	●	●	●	● (Theater)
<b>CINEMA DSP Subtotal</b>		<b>12</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>		<b>9</b>	<b>8</b>
<b>THX Programs</b>										
THX Program Subtotal	Cinema	●	●	●						
	Ultra 2 Cinema	●								
	Music	●								
	ES Matrix 6.1	●								
	ES Discrete 6.1	●								
	Surround EX	●	●	●						
<b>THX Program Subtotal</b>		<b>6</b>	<b>2</b>	<b>2</b>						
<b>Programme Total</b>		<b>39</b>	<b>19</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>14</b>		<b>14</b>	<b>12</b>

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

## DVD Players



### DVD-S2500 DVD Player



HDMI LSI (left) and i.LINK (IEEE1394) LSI



### DVD-S1500 DVD Player



GUI (Graphical User Interface) for Easy Use



### DVD-C950 DVD Changer



**Yamaha Patented PlayXchange**  
The DVD-C950 gives you the benefits of extended playing time and direct selection from all discs. And with PlayXchange, you can change discs while the current one continues to play.



### DVD-C750 DVD Changer



**Yamaha Patented PlayXchange**  
The DVD-C750 gives you the benefits of extended playing time and direct selection from all discs. And with PlayXchange, you can change discs while the current one continues to play.

High quality DVD-Audio/Super Audio CD player will be the focal point of an impressive home theater system.

- Progressive Scan (NTSC/PAL) • DVD-Audio and Super Audio CD playback
- Faroudja DCDi processing • HDMI + HDCP compatibility: 480p, 576p, 720p, 1080i digital video out capability • Dual i.LINK (IEEE1394): DVD-Audio and Super Audio CD digital audio data transfer capability • 216MHz/12-bit video DAC • 192kHz/24-bit (DVD-Audio) and Super Audio CD compatible audio DAC • Video Off mode • RS-232C interface • MP3 (multisession and ID3Tag) playback • Picture CD and JPEG (multisession) playback
- Gold-plated terminals for all pin jacks • Aluminum front panel



The DVD-S2500 rear panel offers optical and coaxial digital audio output terminals, component video output terminals (progressive/interlace), S-Video and composite video output terminals, mixed 2-channel audio output terminals, 5.1-channel discrete audio output terminals, HDMI terminal, dual i.LINK (IEEE1394) terminals, RS-232C interface, remote control IR code input/output and a terminal for a detachable power cable.



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



The DVD-S1500 rear panel offers optical and coaxial digital audio output, component video output (progressive/interlace), S-Video and composite video output, mixed 2-channel audio output, 5.1-channel audio output terminals and a terminal for a detachable power cable.



5-disc changer featuring Yamaha's PlayXchange, wide media compatibility and advanced technologies for top-class sound and picture quality.

- Progressive Scan (NTSC/PAL) • Faroudja DCDi processing for smooth and natural images without staircasing or jaggies • HDMI interface with indicator
- 216MHz/12-bit video DAC • DVD-Audio and Super Audio CD compatibility
- 192kHz/24-bit audio DAC • CD Upsampling • Yamaha patented "PlayXchange" • On-screen display • MP3, JPEG, DivX and WMA multisession playback with navigation display • Picture CD (such as JPEG) playback • JPEG/MP3 simultaneous playback for slide show



The DVD-C950 rear panel offers optical and coaxial digital audio output, component video output, S-Video and composite video output, mixed 2-channel audio output and 5.1-channel audio output terminals. It also provides HDMI interface, RS-232C interface and IR port.



Designed for extremely high sound and picture quality, the DVD-C750 also offers a wide range of advanced features for greater movie and music enjoyment.

- Progressive Scan (NTSC/PAL) • 108MHz/12-bit video DAC • Video picture mode • CD upsampling • DVD-Audio and Super Audio CD playback
- 192kHz/24-bit audio DAC • Yamaha Patented "PlayXchange" • Versatile format and disc compatibility • On-screen display • MP3, JPEG, DivX and WMA multisession playback with navigation display
- Picture CD (such as JPEG) playback • JPEG/MP3 simultaneous playback • Multiple zoom • CD Text display • NTSC/PAL conversion



The DVD-C750 rear panel offers optical and coaxial digital audio output, component video output, S-Video and composite video output, mixed 2-channel audio output and 5.1-channel audio output terminals.







## DVC6760 DVD Changer



### Yamaha Patented PlayXchange

The DVC6760 gives you the benefits of extended playing time and direct selection from all discs. And with PlayXchange, you can change discs while the current one continues to play.



Silver finish available



## DVD-S657 DVD Player



## DVD-S550 DVD Player



\* 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, JPEG, DivX or WMA discs may not play due to disc characteristics or recording conditions.

### Non-stop home theater enjoyment from five discs loaded at once.

- Progressive Scan (NTSC/PAL) • 108MHz/12-bit video DAC • Video picture mode • CD upsampling • Super Audio CD playback • 192kHz/24-bit audio DAC • Yamaha Patented "PlayXchange" • Versatile format and disc compatibility • On-screen display • MP3, JPEG, DivX and WMA multisession playback with navigation display • Picture CD (such as JPEG) playback • JPEG/MP3 simultaneous playback for slide show • Multiple zoom • CD Text display • NTSC/PAL conversion



The DVC6760 rear panel offers optical and coaxial digital audio output, component video output, S-Video and composite video output, mixed 2-channel audio output and 5.1-channel audio output terminals.



### Slim Progressive Scan DVD player with outstanding picture and sound quality, plus DVD-Audio/Super Audio CD playback.

- Progressive Scan (NTSC/PAL) • 108MHz/12-bit video DAC • DVD-Audio/Super Audio CD playback • CD upsampling • 192kHz/24-bit audio DAC • Audio Direct • Versatile format and disc compatibility such as VR format recorded DVD-RW (with CPRM) and DVD+R Double Layer (DL) playback • MP3, JPEG, DivX and WMA multisession playback with navigation display • Picture CD (such as JPEG) playback with thumbnail display • JPEG/MP3 simultaneous playback for slide show



The DVD-S657 rear panel offers optical and coaxial digital audio outputs, component video output, mixed 2-channel audio output, and S-Video and composite video output terminals.



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

- Progressive Scan (NTSC/PAL) • CD upsampling • 108MHz/12-bit video DAC • 192kHz/24-bit audio DAC • DVD-Video, SVCD, VCD, Audio CD, DVD+RW/+R\*, DVD-R/-RW\* and CD-R/RW\*, \*\* playback • MP3, JPEG, DivX and WMA multisession playback with navigation display • Picture CD (such as JPEG) playback • JPEG/MP3 simultaneous playback • 6-step multiple zoom • Easy operation with GUI (Graphical User Interface) • CD Text display • 4 video picture modes • Screen saver • 3-step dimmer • Sleep functions • Night mode • NTSC/PAL conversion



The DVD-S550 rear panel offers optical and coaxial digital audio outputs, component video output, mixed 2-channel audio output, and S-Video and composite video output terminals.



DVD Players	DVD-S2500	DVD-S1500	DVD-C950	DVD-C750	DVC6760	DVD-S657	DVD-S550	DV-SL100
Super Audio CD Playback	Yes	Yes	Yes	Yes	Yes	Yes		
DVD-Audio Playback	Yes	Yes	Yes	Yes		Yes		
MP3 Playback	Multisession	Multisession	Multisession	Multisession	Multisession	Multisession	Multisession	Multisession
JPEG Playback	Multisession	Multisession	Multisession	Multisession	Multisession	Multisession	Multisession	Multisession
DivX Playback			Multisession	Multisession	Multisession	Multisession	Multisession	
WMA Playback			Multisession	Multisession	Multisession	Multisession	Multisession	
DVD+R DL Playback						Yes		
VR Format Recorded DVD-RW Playback						Yes		
Video D/A Converter	216 MHz/12-bit	108 MHz/12-bit	216 MHz/12-bit	108 MHz/12-bit	108 MHz/12-bit	108 MHz/12-bit	108 MHz/12-bit	54 MHz/12-bit
Audio D/A Converter	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit
Signal-to-Noise Ratio (CD)	115 dB	115 dB	105 dB	105 dB	105 dB	110 dB	105 dB	105 dB
Dynamic Range (DVD 48 kHz, 24 Bit)	107 dB	107 dB	95 dB	95 dB	95 dB	100 dB	100 dB	100 dB
Harmonic Distortion + Noise (1 kHz)	0.0017%	0.0017%	0.0035%	0.003%	0.003%	0.003%	0.003%	0.003%
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 3 <sup>15</sup> / <sub>16</sub> " x 12 <sup>3</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>3</sup> / <sub>16</sub> " x 12 <sup>3</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>15</sup> / <sub>16</sub> " x 16 <sup>3</sup> / <sub>4</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>15</sup> / <sub>16</sub> " x 16 <sup>3</sup> / <sub>4</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>15</sup> / <sub>16</sub> " x 16 <sup>3</sup> / <sub>4</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2" x 12 <sup>3</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2" x 12 <sup>3</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>3</sup> / <sub>16</sub> " x 11 <sup>7</sup> / <sub>8</sub> "
Weight	12.3 lbs.	7.1 lbs.	12.1 lbs.	12.1 lbs.	12.1 lbs.	5.7 lbs.	5.7 lbs.	7.1 lbs.

**EF Series** Home Theater Speaker Systems



**NS-777**

3-Way, 4-Speaker  
Bass-Reflex Speaker  
System



**NS-555**

3-Way, 4-Speaker  
Bass-Reflex Speaker  
System

The EF (Elliptical Form) Series feature Waveguide horns, PMD cone woofers and highest quality internal Monster Cable wiring for total enjoyment of digital movie sound and music sources, plus elegant Yamaha traditional piano finish cabinets.



**NS-333**

2-Way Bass-Reflex  
Speaker System



**NS-C444**

2-Way Acoustic Suspension  
Center Channel Speaker  
System

**225 PMD Series** Home Theater Speaker Systems

These slim, high-performance speaker systems are exactly what today's home theater enthusiasts are looking for. Their luxurious open pore finish is matched by powerful, accurate sound reproduction from PMD cone woofers and aluminum-magnesium dome tweeters with DC-Diaphragm™ (integrated diaphragm and voice coil).



**NS-225F**

2-Way Bass-Reflex  
Speaker System



**NS-M225P**

2-Way Acoustic  
Suspension  
Speaker System



**NS-C225**

2-Way Dual-Woofer  
Acoustic Suspension Center  
Speaker System

**125 Series** Home Theater Speaker Systems

The 125 Series sports thin styling to match flat TVs and plasma displays. Excellent sound quality is assured through the use of dual 3 1/8" white cone woofers and a 7/8" balanced dome tweeter, along with twin bass reflex ports in the tower speakers.



**NS-125FP**

2-Way Bass-Reflex  
Speaker System



**NS-M125P**

2-Way Bass-Reflex  
Speaker System



**NS-C125**

2-Way Bass-Reflex  
Center Speaker System

EF Series Speakers	NS-777	NS-555	NS-333	NS-C444		
Woofers	Dual 8" PMD cone	Dual 6 1/2" PMD cone	5" PMD cone	Dual 5" PMD cone		
Midrange Driver	5" cone with Waveguide horn	5" cone with Waveguide horn				
Tweeter	1" aluminum dome with Waveguide horn	1" aluminum dome with Waveguide horn	1" aluminum dome with Waveguide horn	1" aluminum dome with Waveguide horn		
Magnetic Shielding	Yes	Yes	Yes	Yes		
Bi-Wiring Connectivity	Yes	Yes				
Input Power (Max/Nominal)	250 W/100 W	250 W/100 W	150 W/60 W	250 W/100 W		
Frequency Response	30 Hz-35 kHz	35 Hz-35 kHz	60 Hz-35 kHz	55 Hz-35 kHz		
Sensitivity	89 dB/2.83 V/1 m	88 dB/2.83 V/1 m	87 dB/2.83 V/1 m	89 dB/2.83 V/1 m		
Impedance	6 ohms	6 ohms	6 ohms	6 ohms		
Dimensions (W x H x D)	10 7/8" x 43 5/16" x 15 3/8"	8 3/4" x 38 9/16" x 13 9/16"	7 7/8" x 12 5/8" x 8 3/8"	20 1/4" x 7 1/2" x 8 3/8"		
Weight	53.7 lbs./unit	44.1 lbs./unit	12.1 lbs./unit	16.1 lbs.		

225 PMD/125 Series Speakers	NS-225F	NS-M225P	NS-C225	NS-125FP	NS-M125P	NS-C125
Woofers	Dual 3 1/8" PMD cone	Quad 2 1/2" PMD cone	Dual 3 1/8" PMD cone	Dual 3 1/8" white cone	Dual 3 1/8" white cone	Dual 3 1/8" white cone
Tweeter	1 1/8" aluminum-magnesium dome	1 1/8" aluminum-magnesium dome	1 1/8" aluminum-magnesium dome	7/8" balanced-dome	7/8" balanced-dome	7/8" balanced-dome
Magnetic Shielding	Yes	Yes	Yes	Yes	Yes	Yes
Twin Bass Reflex Ports	Yes			Yes		
Round-Shaped Bass Anchor	Yes			Yes		
Input Power (Max/Nominal)	120 W/40 W	120 W/40 W	120 W/40 W	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	60 Hz-35 kHz	70 Hz-35 kHz	70 Hz-35 kHz
Sensitivity	86 dB/2.83 V/1 m	86 dB/2.83 V/1 m	86 dB/2.83 V/1 m	86 dB/2.83 V/1 m	86 dB/2.83 V/1 m	86 dB/2.83 V/1 m
Impedance	6 ohms	6 ohms	6 ohms	6 ohms	6 ohms	6 ohms
Dimensions (W x H x D)	9 5/16" x 41 5/16" x 9 5/16"	4 3/16" x 14 3/16" x 5 1/4"	17 5/16" x 3 11/16" x 5 1/4"	9 5/16" x 41 5/16" x 9 5/16"	4 1/8" x 13 3/8" x 5 1/4"	3 3/8" x 4 1/8" x 5 5/16"
Weight	17 lbs./unit	5.3 lbs./unit	6.2 lbs.	15.9 lbs./unit	4.4 lbs./unit	4.4 lbs.

**Subwoofers** A Must for Home Theater

Yamaha subwoofers use sophisticated technologies such as QD-Bass (Quatre Dispersion Bass, down-firing drivers that radiate the sound in four directions) and Advanced YST (Yamaha Active Servo Technology) to ensure the highest levels of sound pressure and overall performance.



**YST-SW315**

Advanced YST and QD-Bass Subwoofer



**YST-SW215**

Advanced YST and QD-Bass Subwoofer



**Other Speakers** Home Theater Speaker Systems and Packages

To meet varied system requirements, Yamaha has developed a variety of speakers from 3-way type to all weather speakers. They are available singly and in convenient packages. Your Yamaha dealer can recommend the ideal speakers to bring out the full potential of your home theater system.



**NS-AW350**

All Weather Speaker System (Black finish) (White finish available). Model number: NS-AW350W)



**NS-AW150**

All Weather Speaker System (Black finish) (White finish available). Model number: NS-AW150W)



**NS-IW760**

2-Way In-Wall Speaker System

**NS-IW360C**

2-Way Ceiling Speaker System



**NS-FP9500**

Home Theater 6.1-Channel Speaker Package (Front Speaker Stands Included)



**NS-FP4600**

Home Theater 5.1-Channel Speaker Package



**NS-SP1600**

Home Theater 5.1-Channel Speaker Package

**NS-P436**

Home Theater 6.1-Channel Speaker Package (High Gloss Piano Finish)



**NS-6490**

3-Way Acoustic Suspension Speaker System (High Gloss Piano Finish)

Subwoofers	YST-SW315	YST-SW215
Advanced YST	Yes	Yes
QD-Bass Technology	Yes	Yes
High-Efficiency Power Amplifier	Yes	
Multi-Range Drivers	10" cone	8" cone
Magnetic Shielding	Yes	Yes
High Cut Filter (Continuously Variable)	40-140 Hz	40-140 Hz
Phase Control (Normal or Reverse)	Yes	Yes
Auto Standby	Yes	Yes
BASS (Bass Action Selector System)	Yes	Yes
Dynamic Power	270 W	150 W
Frequency Response	20-160 Hz (-10 dB)	28-200 Hz (-10 dB)
Dimensions (W x H x D)	13 <sup>3</sup> / <sub>4</sub> " x 16 <sup>1</sup> / <sub>16</sub> " x 15 <sup>1</sup> / <sub>16</sub> "	11 <sup>7</sup> / <sub>16</sub> " x 14 <sup>3</sup> / <sub>16</sub> " x 12 <sup>1</sup> / <sub>16</sub> "
Weight	41.9 lbs.	25.3 lbs.

Other Speakers	NS-6490	NS-AW350/W	NS-AW150/W	NS-IW760	NS-IW360C
Woofers	8" long-throw cone	6 <sup>1</sup> / <sub>2</sub> " high compliance	5" high compliance	Dual 6.5" cone	8" cone
Midrange Driver	4" cone				
Tweeters	7 <sup>7</sup> / <sub>8</sub> " balanced-dome	1" PEI dome	1/2" PEI dome	1" soft-dome	1" soft-dome
Magnetic Shielding	Yes				
Input Power (Max/Nom.)	140 W/70 W	130 W/40 W	120 W/35 W	130 W/40 W	120 W/35 W
Sensitivity	90 dB/2.83 V/1 m	87 dB/2.83 V/1 m	85 dB/2.83 V/1 m	88 dB/2.83 V/1 m	88 dB/2.83 V/1 m
Frequency Response	45 Hz-23 kHz	45 Hz-40 kHz	55 Hz-40 kHz	50 Hz-24 kHz	45 Hz-24 kHz
Impedance	8 ohms	6 ohms	6 ohms	6 ohms	6 ohms
Dimensions (W x H x D)	10 <sup>1</sup> / <sub>2</sub> " x 16 <sup>1</sup> / <sub>16</sub> " x 13 <sup>1</sup> / <sub>4</sub> "	7 <sup>1</sup> / <sub>8</sub> " x 13 <sup>1</sup> / <sub>2</sub> " x 8 <sup>3</sup> / <sub>16</sub> "	5 <sup>3</sup> / <sub>16</sub> " x 10" x 6"	7 <sup>1</sup> / <sub>16</sub> " x 23 <sup>7</sup> / <sub>16</sub> " x 3"	10 <sup>1</sup> / <sub>4</sub> " x 4"
Mounting Depth				2 <sup>3</sup> / <sub>4</sub> "	3 <sup>3</sup> / <sub>4</sub> "
Weight	13.2 lbs./unit	6.4 lbs./unit	3.7 lbs./unit	5.1 lbs./unit	4.3 lbs./unit

Speaker Packages	NS-FP9500	NS-FP4600	NS-SP1600	NS-P436
System Frequency Response	28 Hz-40 kHz	30 Hz-40 kHz	30 Hz-50 kHz	30 Hz-60 kHz
Magnetic Shielding	All speakers	All speakers	All speakers	All speakers
Front Speakers	3-way acoustic suspension	3-way acoustic suspension	2-way acoustic suspension	2-way acoustic suspension
Drivers	Quad 4" woofers, 3/4" tweeter	Quad 4" woofers, 3/4" soft-dome tweeter	2 <sup>1</sup> / <sub>2</sub> " cone, 1/2" dome tweeter	1 coaxial, 1 full-range drivers
Surround Speakers	3-way acoustic suspension	2-way acoustic suspension	2-way acoustic suspension	2-way acoustic suspension
Drivers	Quad 4" woofers, 1/2" tweeter	3" woofer, 1/2" balanced-dome tweeter	2 <sup>1</sup> / <sub>2</sub> " cone, 1/2" dome tweeter	1 coaxial, 1 full-range drivers
Center Speaker	3-way acoustic suspension	2-way acoustic suspension	2-way acoustic suspension	2-way acoustic suspension
Drivers	Quad 4" Woofers, 3/4" Tweeter	Dual 4" Woofers, 3/4" soft-dome tweeter	Dual 2 <sup>1</sup> / <sub>2</sub> " cone woofers, 1/2" dome tweeter	1 coaxial, 1 full-range drivers
Subwoofer	Advanced YST/QD-Bass	Advanced YST/QD-Bass	Advanced YST/QD-Bass	Advanced YST/QD-Bass
Drivers	8"	6.5"	6.5"	6.5"
Output Power	130 W	100 W	100 W	120 W

# Digital Home Theater Packages Sensational movie sound as only Yamaha can deliver it.

You'll be amazed at how much more fun watching movies is with realistic and dynamic surround sound. Yamaha receivers feature the CINEMA DSP system for perfectly realized theater sound. The subwoofers use QD-Bass technology and the Advanced YST system for extra bass power. The speakers are extremely high quality AND conveniently compact. Best of all, the receivers and speakers are "fine-tuned" to sound their best together.



## Yamaha's first HTIB series designed exclusively for the Home Theater lovers!

An increasing number of home theater lovers want the look, features and performance of separate components, but simply don't have the interest, time or expertise to select the proper equipment. Yamaha has the Home Theater solutions for this growing consumer segment. Easy to set up and easy to use, Yamaha HTIB's offer ideal choices for you that demand easy to buy, yet high performance Home Theater systems



### DTX-5000 Digital Home Theater 6.1-Channel Package

- DVD-Audio/Super Audio CD Playback
- DCDi Progressive Scan with 3:2 Pull-Down
- 6.1ch Powerful Surround Sound (105W x 6)
- DTS 96/24, Dolby Digital EX, Dolby Pro Logic IIx
- S-Video Up Conversion
- Front A/V Input
- Flat Designed Speaker System to Match Plasma Monitors
- Quad 4" Woofers and 1" Tweeter – 3-Way Speaker System
- Aluminum Extruded Front Speaker Stand Included



### DTX-3000 Digital Home Theater 6.1-Channel Package

- 5-Disc Progressive Scan DVD Changer
- 6.1ch Powerful Surround Sound (100W x 6)
- DTS 96/24, Dolby Digital EX, Dolby Pro Logic IIx
- Component Video Input
- Adjustable Subwoofer Crossover
- Front A/V Input
- Direct Stereo
- 2.5" Dual Woofers and 1/2" Tweeter for All Channels
- Floor Standing Speaker System for All Channels (except center speaker)



### DTX-1000 Digital Home Theater 6.1-Channel Package

- Progressive Scan Single DVD Player
- 6.1ch Powerful Surround Sound (100W x 6)
- DTS 96/24, Dolby Digital EX, Dolby Pro Logic IIx
- Component Video Input
- Direct Stereo
- Adjustable Subwoofer Crossover
- 2-Way Speaker System with Removable Grille
- Silver Glossy Finish Cabinet

**NS-AP9500**  
Digital Home Theater  
6-Channel Speaker  
Package



**Total 730W**  
**6.1ch System**

**DV-SL100**  
Progressive Scan DVD  
Player (see pg.28)

**RX-SL100**  
6-Channel Digital  
Home Theater Receiver  
(see pg.28)

**NS-AP7400/NS-P187**  
Digital Home Theater  
5-Channel Speaker  
Package

**HTR-5850**  
Digital Home Theater  
Receiver



**Total 750W**  
**5.1ch System**

**SPS-7400**  
Speaker  
Stands

## YHT-F1500 Digital Home Theater 6.1-Channel Package

- Progressive Scan Single DVD Player (New Slim Design)
- Yamaha Original Digital Amplification
- 6-Channel Powerful Surround Sound (100W x 6)
- GUI On-Screen Display
- Front Digital Input
- Flat Designed Speaker System to Match Plasma Monitors
- Quad 4" Woofers and 1" Tweeter – 3-Way Speaker System
- Aluminum Extruded Front Speaker Stand Included

**NS-AP6500M/NS-AP6500E**  
Digital Home Theater  
5-Channel Speaker Package

**SW-P3600**  
Advanced YST  
Subwoofer with  
120 W

**Total 720W**  
**5.1ch System**



**DV-C6761**  
DVD Progressive  
Scan Changer

**HTR-5835**  
5-Channel Digital Home  
Theater Receiver



## YHT-860 Digital Home Theater 5.1-Channel Package

- For DVD User or Purchaser
- 105W per Channel Powerful Surround Sound
- XM Satellite Radio Ready
- Component Video Up Conversion
- S-Video Input / Output
- Direct Stereo
- 4 Tower/On-Wall and Center Speakers equipped with Quad 2" Woofers with 7/8" Tweeter
- Extruded-Aluminum Stands
- 8" 120W Powerful Subwoofer

**NS-AP2600**  
Digital Home Theater  
5-Channel Speaker Package

**YST-SW010**  
Advanced YST and  
QD-Bass Technology  
Subwoofer with 100 W

**Total 650W**  
**5.1ch System**



**DV-S5750**  
DVD Progressive  
Scan Player

**HTR-5830**  
5-Channel Digital Home  
Theater Receiver

## YHT-760 Digital Home Theater 5.1-Channel Package

- 5-Disc Progressive Scan DVD Changer
- Super Audio CD Playback
- XM Satellite Radio Ready
- 5-Channel Powerful Sound (120W x 5)
- S-Video Input / Output
- CD Upsampling
- 2-Way Front Speakers (6.5" Woofers)
- MDF Wooden Satellite Speakers
- Removable Grill Cloth (Subwoofer)
- 10" 120W Powerful Cube Subwoofer

**NS-AP6500M/NS-AP6500E**  
Digital Home Theater  
5-Channel Speaker Package

**Total 720W**  
**5.1ch System**



**HTR-5835**  
5-Channel Digital Home  
Theater Receiver



**SW-P3600**  
Advanced YST  
Subwoofer with 120 W

## YHT-560 Digital Home Theater 5.1-Channel Package

- Single Progressive Scan DVD Player
- 5-Channel Powerful Surround Sound (110W x 5)
- DTS, Dolby Digital, Dolby Pro Logic II
- Component Video Input
- 4 Video Input / 1 Video Output
- 14 Surround Programs
- 5.1-Channel External Input for DVD-Audio and Super Audio CD
- 2-Way Gloss Painted Satellite Speakers
- Removable Grill Cloth
- 6.5" 100W Cube Subwoofer

**YST-SW011**  
Advanced YST and  
QD-Bass Subwoofer  
with 100 W

**NS-AP2600**  
Digital Home Theater  
5-Channel Speaker Package

**Total 650W**  
**5.1ch System**



**HTR-5830**  
5-Channel Digital Home  
Theater Receiver

## YHT-360 Digital Home Theater 5.1-Channel Package

- 5-Channel Powerful Surround Sound (120W x 5)
- XM Satellite Radio Ready
- DTS 96/24, Dolby Digital EX, Dolby Pro Logic IIx
- Front A/V Input
- S-Video Input / Output
- Direct Stereo
- 2-Way Front Speakers (6.5" Woofers)
- MDF Wood Satellite Speakers
- Removable Grill Cloth (Subwoofer)
- 10" 120W Powerful Cube Subwoofer

## YHT-160 Digital Home Theater 5.1-Channel Package

- 5-Channel Powerful Surround Sound (110W x 5)
- DTS, Dolby Digital, Dolby Pro Logic II
- Component Video Input
- Preset Remote Control
- 4 Video Input / 1 Video Output
- 5.1-Channel External Input for DVD-Audio and Super Audio CD
- 14 Surround Programs
- Speaker A or B Selection
- New 2.5" Speaker Driver with Aluminum Dust Cap
- 8" 100W New Cube Subwoofer

	DTX-5000	DTX-3000	DTX-1000	YHT-F1500	YHT-860	YHT-760	YHT-560	YHT-360	YHT-160
Channels	6.1	6.1	6.1	6.1	5.1	5.1	5.1	5.1	5.1
RMS Output Power	105W x 6	100W x 6	100W x 6	100W x 6	105W x 5	120W x 5	110W x 5	120W x 5	110W x 5
Yamaha Original Digital Amplification		■		■		■			
5-Disc DVD Changer		■				■			
Single Disc DVD Player	■		■	■			■		
DVD-Audio / Super Audio CD Playback									
Dolby Pro Logic IIx / DTS 96/24	■	■	■	■	■				
Surround Program	14	14	14	14	14	14	14	14	14
Component Video Up Conversion					■				
Digital Inputs (Optical / Coaxial)	3 / 1	2 / 1	2 / 1	3 / 1	3 / 1	2 / 1	2 / 1	2 / 1	2 / 1
Front Panel Digital Input				■					
Front Panel A/V Input	■	■	■	■	■	■		■	
Component Video Inputs	2	2	2		2	2	2	2	2
S-Video Inputs	3				3				
Speaker A/B, or A+B Selection	■	■	■			■	Speaker A or B	■	Speaker A or B
Front Speakers (Woofer)	Quad 4"	Dual 2.5"	2.5"	Quad 4"	Quad 2"	6.5"	2.5"	6.5"	2.5"
(Midrange)								3"	
(Tweeter)	3/4" Soft Dome	1/2" Dome	1/2" Dome	3/4" Soft Dome	1/2" Soft Dome	3/4" Dome	1/2" Dome	1" Soft Dome	1/2" Dome
Center Speaker (Woofer)	Quad 4"	Dual 2.5"	Dual 2.5"	Quad 4"	Quad 2"	Dual 3"	Dual 2.5"	Dual 3"	Dual 2.5"
(Tweeter)	3/4" Soft Dome	1/2" Dome	1/2" Dome	3/4" Soft Dome	7/8" Dome	3/4" Dome	1/2" Dome	3/4" Dome	1/2" Dome
Surround Speakers (Woofer)	Quad 4"	Dual 2.5"	2.5"	Quad 4"	Quad 2"	3"	2.5"	3"	2.5"
(Tweeter)	3/4" Soft Dome	1/2" Dome	1/2" Dome	3/4" Soft Dome	7/8" Dome	1/2" Dome	1/2" Dome	1/2" Dome	1/2" Dome
Subwoofer Output Power	130W	130W	100W	130W	120W	120W	100W	120W	100W
Subwoofer Driver	8"	8"	8"	6.5"	8"	10"	6.5"	10"	8"

Digital Home Theater Receivers



	HTR-5890	HTR-5860	HTR-5850	HTR-5840	HTR-5835	HTR-5830
Product Color	Black	Black/Silver	Black/Silver	Black	Silver/Black	Black/Silver
Channels	7	7	6	6	5	5
RMS Power (8 ohms, 1 kHz, 0.7% THD)	140 W x 7	110 W x 7	105 W x 6	100 W x 6	120Wx5(6 ohms, 0.9% THD)+120W	110 W x 5 (8/6 ohms, 0.9% THD)
Digital ToP-ART	■	■	■	■		
High Current Amplification	■	■	■	■		
Dolby Digital EX/DTS-ES	Full Decode	Full Decode	Full Decode	Full Decode	Matrix 6.1	Matrix 6.1
Dolby Pro Logic IIx	■	■	■	■		
DTS Neo:6	■	■	■	■	■	
DTS 96/24	■	■	■	■	■	
D/A Converters	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit	192kHz/24-bit
Selectable Subwoofer Crossover	9-step	9-step	9-step	9-step		
Subwoofer Phase Select	■	■	■	■		
Audio Delay	(0-240 ms)	(0-160 ms)	(0-160 ms)	(0-160 ms)		
YPAO with Optimizer Microphone	■	■				
Surround Program	14	14	14	14	14	14
SILENT CINEMA	■	■	■	■	■	■
Night Listening Enhancer	■	■	■	■	■	Night Listening Mode
Speaker Terminals	9ch	9ch	6ch	6ch	5ch + Subwoofer	5ch
Dialogue Lift	■	■				
Multi-Channel External Decoder Input	6ch (8ch compatible)	8ch	6ch	6ch	6ch	6ch
Preout Terminals	7 (2F/C/2S/2SB)	7 (2F/C/2S/2SB)				
Component Video Up Conversion	■	■	■			
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>1</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6 <sup>3</sup> / <sub>4</sub> " x 16 <sup>9</sup> / <sub>16</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 5 <sup>1</sup> / <sub>16</sub> " x 12 <sup>9</sup> / <sub>16</sub> "
Weight	33.1 lbs.	27.6 lbs.	24.2 lbs.	24.2 lbs.	24.2 lbs.	19.8 lbs.

DVD Players



	DV-S5770 Single Player	DV-C6660 5-Disc Changer	DV-S5650 Single Player	DV-C6761 5-Disc Changer	DV-S5750 Single Player
Super Audio CD Playback	■			■	
DVD-Audio Playback	■	■		■	
MP3 Playback	Multisession	Multisession	Multisession	Multisession	Multisession
JPEG Playback	Multisession		Multisession	Multisession	Multisession
DvIX Playback				Multisession	Multisession
WMA Playback				Multisession	Multisession
Progressive Scan	■	■	■	■	■
CD Upsampling	■			■	■
Video D/A Converter	108 MHz/12-bit	54 MHz/10-bit	54 MHz/12-bit	108 MHz/12-bit	108 MHz/12-bit
Audio D/A Converter	192 kHz/24-bit	96 kHz/24-bit	96 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit
Signal-to-Noise Ratio (CD)	115 dB	105 dB	105 dB	105 dB	105 dB
Dynamic Range (DVD 48 kHz, 24 Bit)	103 dB	100 dB	100 dB	95 dB	100 dB
Harmonic Distortion + Noise (1 kHz)	0.0017%	0.003%	0.003%	0.003%	0.003%
Dimensions (W x H x D); Weight	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>1</sup> / <sub>16</sub> " x 12 <sup>9</sup> / <sub>16</sub> "; 7.1 lbs.	17 <sup>1</sup> / <sub>8</sub> " x 4 <sup>9</sup> / <sub>16</sub> " x 16 <sup>3</sup> / <sub>4</sub> "; 13.2 lbs.	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>1</sup> / <sub>16</sub> " x 11 <sup>7</sup> / <sub>16</sub> "; 6.2 lbs.	17 <sup>1</sup> / <sub>8</sub> " x 2 <sup>1</sup> / <sub>16</sub> " x 16 <sup>3</sup> / <sub>4</sub> "; 12.1 lbs.	17 <sup>1</sup> / <sub>8</sub> " x 2" x 12 <sup>9</sup> / <sub>16</sub> "; 5.7 lbs.

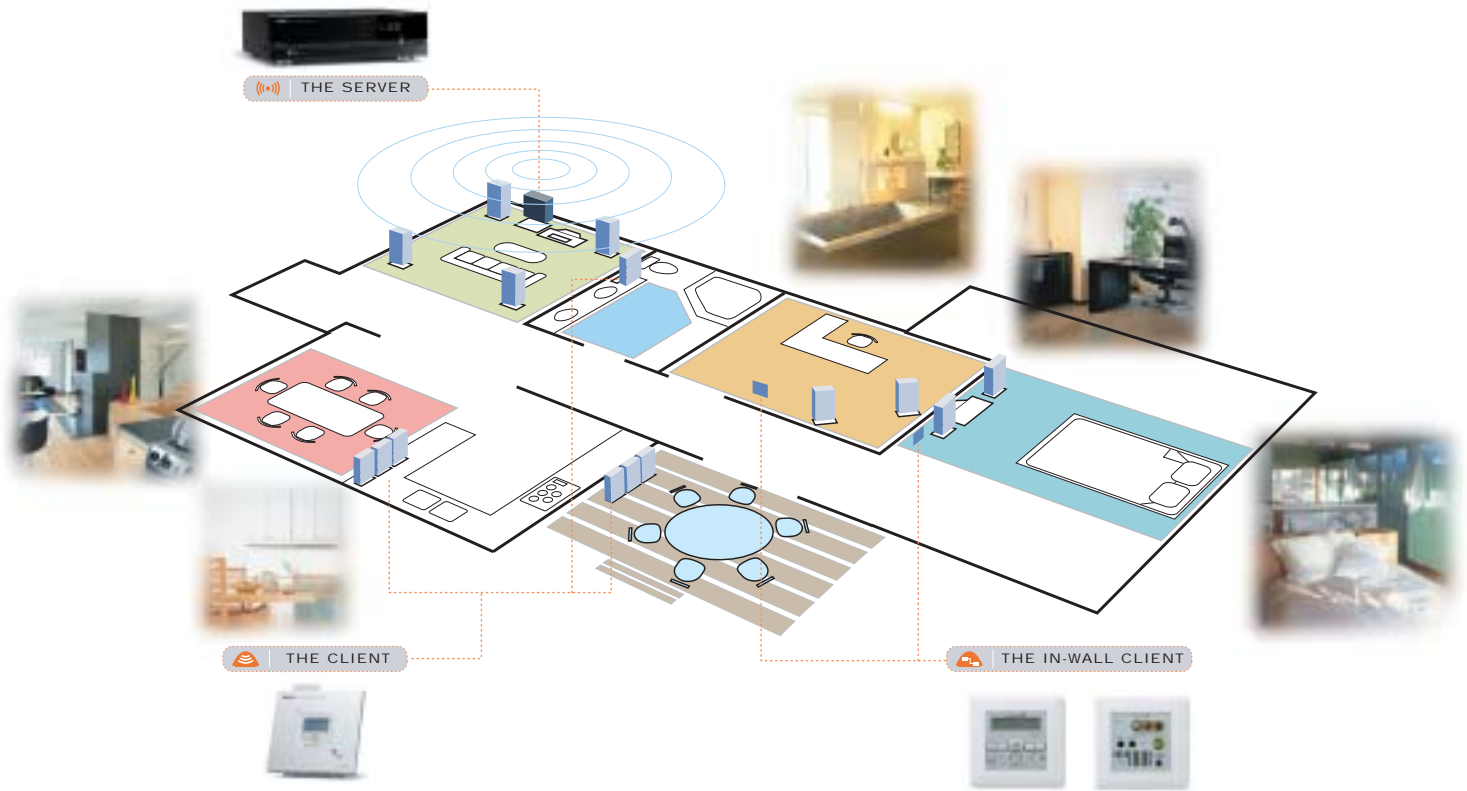
# MusicCAST

Interactive Home Music Network System

## Give Everyone in the Family Instant Access to Their Favorite 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 favorite 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): 17-1/8" x 5-3/8" x 17-1/16" ■ Weight: 25.3 lbs.

### 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): 8-1/4" x 9-5/8" x 3-1/8" ■ Weight: 4.4 lbs.

High sound quality exclusive MusicCAST speaker system.



#### MCX-SP10 Optional Speaker System

■ Dimensions (W x H x D): 8-1/4" x 8-1/4" x 3-1/8" ■ Weight: 2.6 lbs.





**THE SERVER**

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MCX-1000



**THE CLIENT**

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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 1000 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<sup>SM</sup> 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.





**THE IN-WALL CLIENT**

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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 variety of installation configuration available, now every room is fully customizable to enjoy the benefits the MusicCAST music distribution system can provide.
- **Favorites selection:** The four Favorites buttons allow direct playback of various sources. Each can be assigned the following functions: playlist, analog or digital inputs from Server, tuner presets, local Aux input from MCX-CA15. Favorite 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 AV 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.



**THE IN-WALL CLIENT**



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

**MCX-C15** Distributed Audio Controller

- Dimensions (W x H x D): 4-3/4" x 4-3/4" x 4-3/16"



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): 4-3/4" x 4-3/4" x 4-3/16"



## 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 19 European countries.



### MCR-E600 Micro Component System



#### RX-E600 Receiver

- High power output: 40 W x 2 (RMS)
- Linear Damping • High dynamic power, low-impedance drive capability
- Discrete configuration amplifier
- Subwoofer out • Tone controls
- Versatile timer functions • 40-station preset tuning • 6<sup>1</sup>/<sub>2</sub>" x 11<sup>13</sup>/<sub>16</sub>" x 8<sup>3</sup>/<sub>4</sub>" (W x H x D); 9.5 lbs./unit

#### DVD-E600 CD/DVD Player

- Progressive Scan processing (NTSC/PAL) • 54MHz/12-bit video DAC
- Picture CD playback • MP3 navigation display • 8<sup>9</sup>/<sub>16</sub>" x 4<sup>1</sup>/<sub>4</sub>" x 13<sup>11</sup>/<sub>16</sub>" (W x H x D); 7.7 lbs.

#### NX-E400

- 2-Way Bass-Reflex Speaker System
- 110W maximum input power • High gloss piano finish • 6<sup>1</sup>/<sub>2</sub>" x 11<sup>13</sup>/<sub>16</sub>" x 8<sup>3</sup>/<sub>4</sub>" (W x H x D); 9.5 lbs./unit



### MCR-E300 Micro Component System



#### CRX-E300 CD Receiver [RECEIVER SECTION]

- High power output: 25 W x 2 (RMS)
- Linear Damping • High dynamic power, low-impedance drive capability
- Discrete configuration amplifier
- Subwoofer out • Tone controls
- Versatile timer functions • 40-station preset tuning

#### [CD PLAYER SECTION]

- CD Text display • CD-R/CD-RW playback • Copy time control • Optical digital out • 8<sup>9</sup>/<sub>16</sub>" x 6<sup>5</sup>/<sub>8</sub>" x 12<sup>5</sup>/<sub>16</sub>" (W x H x D); 11 lbs.

#### NX-E300

- 2-Way Bass-Reflex Speaker System
- 110W maximum input power • High gloss piano finish • 6<sup>1</sup>/<sub>2</sub>" x 10" x 7<sup>3</sup>/<sub>16</sub>" (W x H x D); 7.5 lbs./unit

### PianoCraft Option (Not available in some areas)



### KX-E300 Auto-Reverse Cassette Deck

- Auto reverse
- Music search
- 4-digit tape counter
- 12-segment peak level meter
- Frequency response (metal tape): 30 Hz-18 kHz ±3 dB
- Wow and flutter (W RMS): 0.09%
- 8<sup>9</sup>/<sub>16</sub>" x 3<sup>7</sup>/<sub>16</sub>" x 11<sup>7</sup>/<sub>16</sub>" (W x H x D); 6.6 lbs.

Audio Components



### MX-D1

Stereo Digital Power Amplifier



- Yamaha original power engine chipset: modulator LSI and power MOS-FET Drive LSIs
- Constant gain PLL modulator circuit
- Cross feedback loop circuit
- Advanced analogue feedback circuit
- Active power control system
- High-speed protection circuits
- PWM digital drive high-efficiency power supply
- 500W x 2 output power with ultra-low (0.002%) distortion
- 4-layer epoxy resin coated PC board containing fiberglass 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
- Yamaha piano-finish

**MX-D1 Main Specifications**

**[AUDIO SECTION]** • Min. RMS power (8/6/4 ohms, 1 kHz, 0.1% THD): 500 W + 500 W • Dynamic power/channel (2/4/6/8 ohms): 1,000/1,000/850/700 W • Input sensitivity/impedance (500 W/8 ohms, unbalance; balance): 1.3 V/25 k-ohms; 2.2 V/10 k-ohms • Frequency response: 1 Hz-100 kHz ±3 dB • Total harmonic distortion (1 kHz, 10 W/8 ohms, 20 kHz LFP): 0.002% • Signal-to-noise ratio (20 kHz LFP): 120 dB  
**[GENERAL]** • Standby power consumption: Less than 0.1 W • Dimensions (W x H x D): 17-1/8" x 2-15/16" x 17-3/16" • Weight: 22.9 lbs.



### RX-777

ToPART CD Direct Amplification

- AM/FM Stereo Receiver
- ToP-ART • CD Direct Amplification with switch
- DVD-Audio/SA-CD ready
- Gold-plated input terminals (all terminals)



### RX-596

ToPART CD Direct Amplification

- AM/FM Stereo Receiver
- ToP-ART • CD Direct Amplification with switch
- DVD-Audio/SA-CD ready
- Remote controllable motor-driven input selector and volume control



### RX-496

- AM/FM Stereo Receiver
- Pure Direct switch
- 5 audio inputs with 2 tape monitor positions
- I/O port
- 40-station random access preset tuning



### RX-396

- AM/FM Stereo Receiver
- 3 audio inputs with tape monitor position
- I/O port for custom installation
- 40-station random access preset tuning



### AX-596

ToPART CD Direct Amplification

- Integrated Amplifier
- ToP-ART • CD/DVD Direct Amplification with Switch
- DVD-Audio/SA-CD ready
- Gold-plated input terminals (all terminals)



### CDC-685

PLAYXCHANGE

- CD Changer
- Yamaha patented PlayXchange
- CD-R/CD-RW playback compatibility
- CD Text display
- I/O port for custom installation



### CDC-585

PLAYXCHANGE

- CD Changer
- Yamaha patented PlayXchange
- CD-R/CD-RW playback compatibility
- CD Text display
- Peak search and tape edit



### KX-W321

- Auto-Reverse Double Cassette Deck
- Two (normal/high) speed dubbing
- Relay play
- Dolby B/C NR
- Auto tape type selection

Cassette Deck	KX-W321
Wow and Flutter W RMS	0.08%
W Peak	±0.15%
Frequency Response	
Metal	20 Hz-19 kHz, ±3 dB
Signal-to-Noise Ratio	
Dolby B NR	66 dB
Dolby C NR	74 dB
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 5 <sup>3</sup> / <sub>4</sub> " x 11"
Weight	11 lbs.



### TX-492

- AM/FM Stereo Tuner
- 40-station random access preset tuning
- Auto preset tuning
- Absolute Linear Phase IF Amplifier circuitry

Tuner	TX-492
THD	0.3% (1 kHz)
Frequency Response	30 Hz-13 kHz ±0.5 dB
Signal-to-Noise Ratio	
Mono	82 dB
Stereo	76 dB
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 3 <sup>3</sup> / <sub>8</sub> " x 15 <sup>5</sup> / <sub>8</sub> "
Weight	7.1 lbs.

Receivers/Amplifier	RX-777	RX-596	RX-496	RX-396	AX-596
ToP-ART	Yes	Yes			Yes
CD Direct Amplification with Switch	Discrete configuration	Yes			Discrete configuration
Min. RMS Output Power/Channel (8 ohms, 20 Hz-20 kHz) [THD]	100 W [0.019%]	80 W [0.025%]	75 W [0.04%]	50 W [0.04%]	100 W [0.015%]
High Dynamic Power, Low Impedance Drive Capability	Yes	Yes	Yes	Yes	Yes
Dynamic Power/Ch (8/4/2 ohms)	140/220/290 W	120/180/200W	105/150/178 W	70/89/100 W	140/220/290 W
Linear Damping	Yes	Yes	Yes	Yes	Yes
Damping Factor (8 ohms, 20 Hz-20 kHz)	240 (speaker A)	240	100	100	320 (speaker A)
Remote Controllable Master Volume Control	Motor-driven	Motor-driven	Motor-driven	Motor-driven	Motor-driven
THD (CD, 20 Hz-20 kHz)	0.012% (50 W/8 ohms)	0.01% (40 W/8 ohms)	0.02% (35 W/8 ohms)	0.02% (35 W/8 ohms)	0.008% (50 W/8 ohms)
Frequency Response	20 Hz-100 kHz ±1 dB	20 Hz-20 kHz ±0.5 dB	20 Hz-20 kHz ±0.5 dB	20 Hz-20 kHz ±0.5 dB	20 Hz-100 kHz +0.5/-3 dB
Signal-to-Noise Ratio (CD)	110 dB	110 dB	108 dB	108 dB	110 dB
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 6" x 15 <sup>3</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6" x 15 <sup>3</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 5 <sup>3</sup> / <sub>4</sub> " x 12 <sup>3</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 5 <sup>3</sup> / <sub>4</sub> " x 12 <sup>3</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 6" x 15 <sup>5</sup> / <sub>8</sub> "
Weight	21.6 lbs	20.9 lbs.	18.1 lbs	14.1 lbs.	23.4 lbs.

CD Changers	CDC-685	CDC-585
Yamaha Patented PlayXchange	5-disc	5-disc
CD-R/CD-RW Playback	Playback	Playback
CD Text Display	Yes	Yes
I/O Port for Custom Installation	Yes	
Harmonic Distortion + Noise	0.003%	0.003%
Frequency Response	2 Hz-20 kHz ±0.5 dB	2 Hz-20 kHz ±0.5 dB
Signal-to-Noise Ratio	106 dB	106 dB
Dynamic Range	96 dB	96 dB
Dimensions (W x H x D)	17 <sup>1</sup> / <sub>8</sub> " x 4 <sup>9</sup> / <sub>16</sub> " x 15 <sup>7</sup> / <sub>8</sub> "	17 <sup>1</sup> / <sub>8</sub> " x 4 <sup>9</sup> / <sub>16</sub> " x 15 <sup>7</sup> / <sub>8</sub> "
Weight	12.7 lbs.	12.7 lbs.

d-cinema

d-cinema" is the slogan of Yamaha A/V products and technology, reflecting our focus on digital technology and our leadership in creating and refining digital home theater.

CINEMA DSP DIGITAL

Yamaha's unique technology for the creation of sound fields is capable of powerfully reproducing the three-dimensional environment that movie sound engineers aim to convey, in any audio format from monaural to the latest 6.1-channel digital surround. It is compatible with DVD and all other A/V sources.

Yamaha CINEMA DSP technology has received a patent in the U.S. (Patent No. 5,261,005).
















SILENT™ CINEMA

"SILENT" is a trademark of Yamaha Corporation.

PLAYXCHANGE

PlayXchange is a registered trademark in the U.S. Yamaha has received a patent for PlayXchange technology in the U.S. (Patent No. 5,115,419).

# MAIN AWARDS (June 2003–Mar. 2005)

Product	Area	Publication	Issue	Recommendation	
<b>Video Projectors / Plasma Display Monitor</b>					
DPX-1100	Germany	AudioVision	Sept. '04	audiovision Highlight	
DPX-1100	UK	What HI-FI? Sound & Vision	Nov. '04	★★★★★ (in a group test)	
DPX-1100	Australia	Sound & Image	'04	Projector Winner	
DPX-1000	Europe	EISA	'03/'04	European High-End AV Product 2003–2004	
DPX-1000	France	Son Video	Jul./Aug. '03	★★★★★	
LPX-500	U.S.	E-Gear	'03	Editors' Choice Top 40 Award	
LPX-500	Brazil	HOME THEATER	'04	Best LCD Projector Award	
PDM-4210	Australia	Audio & Video Lifestyle Magazine	'05	2005 Best Buy Awards, Best Plasma Screen.	
<b>AV Receivers / Amplifiers</b>					
DSP-Z9*	Europe	EISA	'04/'05	European Home Theater High-End AV Component 2004–2005	
RX-Z9	Australia	Audio & Video Lifestyle Magazine	'05	2005 Best Buy Awards, Best Home Theatre Receiver over A\$2,000–3,999	
RX-Z9	U.S.	Sound & Vision	'04	The Winner of Annual Reviewer's Choice Awards	
RX-Z9	Australia	Sound & Image	'04	Winner: AV Amplifier/Receiver over A\$4,000	
DSP-Z9*	Taiwan	PRIME AV	Jan. '05	Best Performance in 2005	
RX-V2500	Germany	Internet Magazine areaDVD	Jan. '05	★★★★★	
RX-V2500	Germany	AudioVision	Mar. '05	Sehr gut / Preistipp	
RX-V2500	Germany	streoplay	Mar. '05	HIGHLIGHT	
RX-V2500	Norway	DVD & Hjemmekino	Aug. '04	Completely Control	
RX-V1500	UK	What HI-FI? Sound and Vision	Dec. '04	★★★★★ (in a group test)	
RX-V1500	Germany	DVD vision	Jan. '05	KAUFTIPP	
RX-V1500	Germany	areaDVD	Dec. '04	★★★★★	
RX-V1500	Taiwan	PRIME AV	Feb. '05	Best Recommended	
RX-V750	Germany	VIDEO	Nov. '04	TEST WINNER	
RX-V650	UK	What HI-FI? Sound & Vision	Nov. '04	★★★★ (in a first test)	
RX-V650	Germany	AudioVideo Foto Bild	Dec. '04	Best Cost Performance (Preis-Leistungs-Sieger)	
RX-V650	Germany	VIDEO	Nov. '04	TEST WINNER among 5 Models	
RX-V650	Taiwan	PRIME AV	Dec. '04	Best Recommended	
RX-V450	U.S.	Sound & Vision	'04	The Winner of Annual Reviewer's Choice Awards	
RX-V450	Germany	AUDIO	Sept. '04	Best Buy	
RX-V450	Germany	stereoplay	Dec. '04	Sehr gut	
RX-V450	Taiwan	Hometheater	Feb. '05	Best Value	
RX-V440	Europe	EISA	'03/'04	European Home Theater Receiver 2003–2004	
RX-V450	Taiwan	Hometheater	Feb. '05	Best Value	
<b>Digital Sound Projectors</b>					
YSP-1	Germany	stereoplay	Mar. '05	HIGHLIGHT	
YSP-1	Germany	AUDIO	Mar. '05	Sehr gut	
<b>DVD Players</b>					
DVD-S1500	Germany	AUDIO	Mar. '05	Test Winner	
DVD-S1500	Sweden	HiFi Musik	Feb. '05	Pure, Elegant Sound	
DVD-S550	Sweden	Hemmabio	Nov. '04	Test Winner	
DVD-S550	Norway	Lyd&Bilde	Nov. '04	Superb Player	
<b>Subwoofers</b>					
YST-SW1500	Germany	Heimkino	Aug. '03	Very Good	
YST-SW315/YST-SW215	Germany	VIDEO	Aug. '03	Recommended Model: Deep Bass	
<b>Systems</b>					
DVX-S120	Japan	HiVi	Dec. '03	No.1 in Home Theater Subcategory Surround System	
DVX-S650	U.S.	TIME	'04	One of the Most Amazing inVentions of 2004	
MusicCAST	U.S.	Electronic House	'03	Product of the Year	
MusicCAST	U.S.	Sound & Vision	Dec. '03	Winner: Sound & Vision Reviewer's Choice Award	
MusicCAST	UK	What HI-FI? Sound & Vision	Nov. '03	★★★★★	
MusicCAST (MC-X1000)	Australia	Smart House Magazine	'05	Best of the Best Awards, Best Music Server	
PianoCraft (MCR-E600)	Australia	Smart House Magazine	'05	Best of the Best Awards, Best Micro System	
PianoCraft (RDX-E600)	Sweden	HiFi Musik	Dec. '04	Best Sound	
HTIB (DSP-AX750SE+DVD)	UK	Stuff	Nov. '04	★★★★★ Hot Buy	
HTIB (DVD-S550/RX-V650)	UK	What HI-FI? Sound & Vision	Mar. '05	★★★★★ Superst WINNERS	
<b>Recorders</b>					
CDR-HD1300E	Europe	EISA	'02/'03	Best CD Recorder of '02/'03	
<b>Amplifiers</b>					
MX-D1	Germany	stereo	Mar. '05	★★★★ Excellent	

\* The DSP-Z9 provides the same performance and features as the RX-Z9 except for tuner functions.

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