

Yamaha RX-V1800 A/V Receiver

By Michael Trei • December 2007



Designing a new A/V receiver must feel a bit like trying to hit the ducks at a carnival shooting gallery as they zip across your line of fire. In both cases, timing is everything. Aim right at the bull's-eye, and by the time your shot gets there, the target will have passed. Aim too far ahead, and you'll find that your ducks aren't quite in a row yet.



In other words, the features that your customers expect to see on a well-equipped receiver seem to change on a monthly basis. But if you jump in too soon, your product can be marred by functions that are underdeveloped and buggy.

We see this happening more and more today as companies rush to get their models to market before the other guy steals their thunder. The real kicker has been the ongoing development of the HDMI connection, which I actually heard someone (who shall remain nameless) refer to as "an evolving standard" — an oxymoron if ever there was one. Hopefully, version 1.3a will be with us for a while, although history suggests otherwise.

At any rate, going for a well-timed shot at a busy price point, Yamaha has fired off the RX-V1800 — which, at about a third of the cost of a do-everything flagship receiver, lands at a key sweet spot in the balance between price and performance. At this level, you still get most of the features found on the big boys, including video transcoding and upscaling to HDMI, high-def surround-sound decoding, and options for an iPod dock and XM satellite radio. In return, you give up a little amplifier power and some of the more obscure functions that most of us would never use anyway.

Setup

Few things separate what's new and fresh in AV receivers from yesterday's news more easily than the connections you find when you turn the unit around and look at the back panel. In this case, you get four of the latest HDMI 1.3a inputs (yes, I know there's a 1.3b, but it has no functional relevance) plus three analog component-video inputs, eight digital audio inputs, and a bevy of both composite AV (with S-video) and analog audio inputs, including a moving-magnet phono stage. All of the high-def video and digital audio inputs can be assigned and renamed as needed. You also get a 5.1-channel audio input (expandable to 7.1) and a 7.1-channel preamp output. All 7 amplifier channels are rated at 130 watts, and there are separate assignable speaker outputs to support two additional zones and, typically for Yamaha, a pair of front-mounted presence speakers that utilize the company's proprietary DSP room re-creation modes. If you use a standard 5.1 speaker rig, the two remaining amplifier channels can be fed the front left- and right-channel signals to allow for biamping.

As delivered, the amp is set for a minimum 8-ohm speaker-impedance rating, but many high-quality speakers (including mine) dip somewhat lower than this. So my first step was to go into the advanced setup menu and change it to the 4-to-6-ohm setting.

Calibrating the RX-V1800 automatically with its supplied microphone and YPAO setup program couldn't be easier. Just plugging in the mike sets the onscreen display to the correct menu page — and yes, the receiver's menus work over HDMI, too, so no need for a separate run to your monitor or to switch TV inputs. After putting the mike in the listening position, I pushed start, then stood back as the receiver sent a series of noises and swoops to each speaker, checking for wiring polarity, bass extension, distance, and level. It also measures each speaker's frequency response and makes corrections using a 7-band parametric equalizer.

Specifications

The accuracy of automated-setup systems can be pretty hit-and-miss, but this one did a good job with the level, phase, and distance measurements. I was less crazy about the bass-cutoff and EQ results, although one nice option lets you leave the front left and right speakers unchanged while the system equalizes the other speakers to match them. Any of these automatic adjustments can be bypassed, and you can also go in after the calibration has done its job and tweak the results. If you prefer a more hands-on approach, the V1800 lets you do an old-fashioned manual calibration, although in this mode you get only a somewhat simpler graphic equalizer.

I customarily use full-range speakers at least across the front three channels, leaving the subwoofer dedicated to the LFE signal. But one potential downside of the V1800 is that you get only one crossover setting for all of the channels set to small. This might force you to compromise if you use small surround speakers along with larger (but not quite full-range) front left and right speakers in your system.

For years, the better Yamaha receivers have featured tons of DSP room modes, and the V1800 is no exception. Yamaha has measured the sonic fingerprint of various concert halls, churches, and clubs around the world, which you can then re-create in your listening room. To get the most from these effects, you'll want to mount a pair of front presence speakers up above and to the outside of the front left and right speakers.

This is one of the first receivers with internal decoding for the high-definition surround formats found on some [Blu-ray Discs](#) and HD DVDs — namely, Dolby TrueHD and DTS-HD Master Audio. Unfortunately, neither the Panasonic Blu-ray player nor the [Toshiba HD DVD player](#) I had on hand currently supports the required HDMI output of these unaltered bitstreams to enable me to check those functions. As with other late-generation receivers, this Yamaha does play multichannel PCM from the HDMI output of any high-def player that decodes these formats onboard.

Expanding the capabilities of the V1800, Yamaha also provided me with the YDS-10 iPod dock as well as an XM satellite radio mini tuner and home dock. This receiver includes the Neural Surround decoder needed to extract surround information from XM's two XM-HD Surround channels — and with the right material, they delivered impressive surround performance with good envelopment. The iPod dock also worked fine for audio, with the iPod's menus translated to the receiver's remote and onscreen display for easy armchair navigation. The dock can route iPod videos

to the receiver for playback, but I was unable to test that because [Apple](#) apparently introduced a new video-authentication process with my shiny new iPod Classic that Yamaha hadn't quite caught up with yet. (Older video iPods shouldn't have this problem.)

While this receiver isn't really aimed at the installer market, it does have several custom-friendly features, including IR input and output jacks, a pair of 12-volt triggers, an RS-232 interface, and two remote zones (2-channel audio only) with a separate zone remote (shown below).

The Short Form
Price \$1,300 (as tested) / yamaha.com/yec / 800-492-6242
Snapshot
Bang on up-to-date A/V receiver that gives you every one of the most important features, along with superb overall performance.
Plus
<ul style="list-style-type: none">•Excellent 7-channel audio performance•Top-flight video scaler with transcoding of all signals to HDMI•Onscreen displays over HDMI•4 HDMI 1.3a inputs•Easy-to-use auto-setup routine
Minus
<ul style="list-style-type: none">•Old-fashioned onscreen interface•Only one crossover setting for all speakers•Dock won't pass video from the latest iPods
Key Features
<ul style="list-style-type: none">•7 x 130 watts•4 HDMI 1.3a inputs•Transcodes composite-, component-, and S-video to HDMI; scales 480i up to 1080p (via HDMI) or 1080i (via component video)•Onboard Dolby TrueHD, DTS-HD decoding•XM-ready with XM-HD Surround•iPod expansion via optional dock•IR in/out, 12-volt triggers, RS-232 serial•17.25 x 6.75 x 17.25 in; 38 lb

Music & Movie Performance

Starting off with the basics, I hooked up my Denon DVD-Audio/SACD player using the multichannel analog audio input and played music from both standard stereo CDs and surround SACDs. With [P J Harvey's *Rid of Me*](#) CD, the sonics were fast and clean, with superb dynamic snap and a big, spacious soundstage. Some separate preamp/processor and amp combinations I've used could deliver just a tad more weight and punch in the deepest bass, but they were many times the cost of the Yamaha. Even with my demanding [Snell Acoustics](#) All speakers across the front, the resulting sound needed no excuses.

Test Bench

Yamaha's RX-V1800 yielded the fine technical performance usual from the firm's A/V receivers. Power exceeded its specs by a good margin and bettered 100 watts all around, even with 5 channels driven. The unit's power supply appeared to run out of current when 2 more were added, however, since 7-channel results dropped by nearly 3 dB, to 55 watts — a non-issue in the real world. Yamaha equips its receiver with a software setup switch for speakers of 6 ohms or lower, which effectively limits power to about two thirds.

Frequency response, distortion, and D/A linearity were excellent, and crossover responses were all bang on the numbers, with nicely accurate slopes (not always the case). PCM and Dolby Digital noise were very good, although S/N on the analog-multichannel inputs was truly superior. Note that the analog input was a good bit more sensitive than the digital ones (re: our reference levels), so listeners who switch from the latter to the former without adjusting the volume could be in for a roughly 10-dB surprise. While this seems like a lot, most characterize it as only about subjectively "twice as loud" or so. — *Daniel Kumin*

[Full Lab Results](#)

Conclusions

I did experiment with a pair of Mirage NanoSats as front presence speakers, and I found the DSP sound fields to be highly effective — although the success of the processing depended a lot on the program material. With simple recordings like the choral *Sacred Feast* SACD, I found I could use the DSP to re-create a space from the stereo tracks that in some ways rivaled the natural sound field recorded on the multichannel layer. In any case, it was great fun playing with the numerous variables that you can adjust within each sound-field mode.

To check out the built-in Anchor Bay ABT1010 video scaler, I set my DVD player to deliver a 480i signal and connected the receiver's HDMI output to both my Sony 1080i-capable XBR direct-view CRT and a 1080p-capable Samsung DLP display. In both cases, the resulting image was exceptionally smooth and artifact-free, passing the adaptive motion tests on the Silicon Optics HQV test disc with flying colors. With my older Sony 1080i display, scaling the signal in the receiver was a notable improvement over the processing in either the DVD player or the display itself, delivering a particularly smooth yet detailed image. I even tried an old VHS VCR connected by composite video, and I got results that were decent (if, predictably, somewhat soft-looking).

When I finally sat down to watch a movie DVD, I couldn't find fault with the receiver's performance with *Over the Hedge*, a fine test of real-world dynamics and amplifier control. Even with everything but the rear surround speakers set to large, there always seemed to be plenty of power and headroom, and no sign that I was about to run out of steam.

Ergonomics

Rather than going with some fancy-schmancy touchscreen control that's tougher to navigate than a [Tokyo](#) suburb, Yamaha has stuck with the basics: a straightforward multi-key remote. A three-way thumb switch on the side gives many of the buttons triple functions, and you'll have to flick it back and forth between "amp" and "source" quite a lot depending on what you're trying to do. Other components can be controlled either by using the built-in databank of codes or — if the one for your circa 1983 European VCR doesn't happen to be there — by learning directly from the component's remote.

The onscreen menus and displays are available on all video outputs, although their chunky block letters and white, triangular cursor are rather old-fashioned in this age of swanky-looking graphical user interfaces. (I even found a couple of typos in the text.) Still, they get the job done, and I discovered it was fairly easy and intuitive to find my way around without having to consult the 141-page manual too often.

Bottom Line

The real news is that Yamaha has been able to deliver a midprice receiver that just about does it all, delivering superb overall performance without any glaring failures that need to be explained away. That's pretty rare with today's constantly evolving requirements. The RX-V1800 isn't perfect — more-flexible bass management would certainly be nice — but it does succeed in hitting almost everything right on target. If Yamaha were shooting ducks at the carnival, I'd award it a big stuffed teddy bear.



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Yamaha RX-V3800 and RX-V1800 A/V Receivers Announced

Posted by [Admin](#) on Tuesday, August 07, 2007 - 02:19 pm:



Yamaha Brings HDMI 1.3a Support and Full HD Audio Format Capability To Latest 7.1 Channel A/V Home Theater Receivers

-- High-Performance Receivers at More Affordable Prices Raise the Bar with Exclusive Cinema DSP Processing, 1080p Upscaling and iPod Connectivity; Ethernet Connection (RX-V3800) --

Yamaha Electronics Corporation, the innovator in home theater and digital audio and video reproduction, today introduced two new best-in-class 7.1 channel A/V digital home theater receivers, the RX-V3800 (140w x 7; \$1,699.95 MSRP) and the RX-V1800 (130w x 7; \$1,299.95 MSRP). Offering unsurpassed home theater audio and video realism, both models feature full HD audio format capability, including lossless Dolby Digital TrueHD and DTS-HD Master Audio surround sound, Yamaha's acclaimed Cinema DSP processing engine, video upscaling to 1080p, and support of the latest HDMI 1.3a specification. Both models are compatible with the Apple iPod, via an optional docking station (YDS-10), and allow playback of XM Satellite Radio's standard and XM HD Surround content. The receivers will be on display at Yamaha's booth (#450) throughout CEDIA Expo 2007, taking place September 5-9, 2007 in Denver, Colorado.

The RX-V3800 also features an Ethernet connection, enabling consumers to access Internet radio stations, music files stored on a PC and the company's premier MusicCAST audio system server (MCX-2000), providing access to as many as 40,000 songs that can be stored on that system. Offering seamless integration with any sources connected by the Ethernet port, as well as with an

iPod and XM Satellite Radio, the RX-V3800 enables users to navigate their content via well-designed graphical user interfaces that are optimized for display on HDTV monitors.

Both models offer full support of HD audio format signals including Dolby Digital Plus, Dolby Digital TrueHD, HDT-HD High Resolution Audio and DTS-HD Master Audio, as well as surround sound processing with the enhanced capability of Yamaha's exclusive Cinema DSP. Content with 5.1-channel audio is augmented by two front "presence" channels that expand the soundfield upward and outward. The RX-V3800 features 3D Cinema DSP which gives the sound field an extra vertical dimension for more realistic sound images via the two front presence speakers.

Both models support the latest HDMI standard, HDMI 1.3a, unleashing the stunning quality of 30- and 36-bit color depths. Colors are so vivid they seem to jump off the screen with perfectly smooth transitions and ultra-fine gradations. Both receivers have four HDMI inputs, allowing users to connect a variety of high-definition sources such as Blu-ray and HD-DVD players.

Analog video sources are upconverted, enabling their signal to be routed to a connected HDTV through the HDMI output cable. What's more, both receivers harness Anchor Bay Technology's ABT1010 chip to provide video upscaling from 480i or 480p, to resolutions up to 1080p. As a result, users have a true high-definition experience even when viewing sources such as DVDs. A 120Hz refresh rate is supported to accommodate new, reduced flicker LCD TVs. Moreover, 1080p/24Hz compatibility provides optimal performance with Blu-ray Discs and compliant displays. Auto Lip-Sync Compensation prevents sync issues sometimes associated with transmitting video and audio via HDMI.

Additional features for high quality audio performance include Yamaha's Digital ToP-ART design which simplifies the signal path and eliminates noise sources to ensure superior audio and video performance. Activating the receivers' Pure Direct functionality protects the signal additionally by further shortening its path, bypassing all DSP circuitry and cutting power to non-essential functions such as the front-panel display. High Current Amplification allows the amplifiers to drive all types of speakers with pure, robust sound. Also included are discrete low-noise power supplies, Burr-Brown 192kHz/24bit DACs, large arch-shaped heat sinks, low jitter PLL circuitry for SPIDF signals, and all-new, ultra-rigid vibration damping chassis design.

Both models connect easily to Apple iPods via an optional iPod docking station (Yamaha YDS-10; SRP \$99.95). Once docked, the iPod can be operated (song selection, play, etc.) via the receivers' remote controls. A one cable connection allows users to view the iPod's video, pictures and operating status (song title, artist, etc.) on a television monitor. In addition, docked iPods are automatically charged so they're always ready for a road trip. The RX-V3800 also has a front panel USB port to for quick and easy connections of other portable audio devices.

Playback of XM HD Surround from XM Satellite Radio, which delivers audio programming in full 5.1 channel surround sound (XM Ch. 76 and 113), as well as content from the company's 160-plus standard service channels, is achieved via an optional service subscription and XM Mini Tuner. Neural Surround™ technology enhances the experience of XM HD Surround, delivering a detailed sound stage with superior 5.1 channel separation. Yamaha's proprietary Compressed Music Enhancer technology compensates for the lost detail of audio that is compressed during the "ripping" process, recapturing the essence of the original recording.

The Yamaha Parametric Room Acoustic Optimizer (YPAO) simplifies the home theater setup process by automatically analyzing room acoustics and setting parameters for optimum sound quality at the touch of a button.

The RX-V3800 and the RX-V1800 offer flexible system configuration options, as the 7.1 channels can be used to create an immersive surround sound environment in a single room, or the seven internal power amplifiers can be allocated to a main room and up to two additional zones. The RX-V3800 offers the extra capability of outputting video to a second zone simultaneously with the main

room. A dedicated zone remote and RS-232C interface allow both receivers to be easily integrated into custom installations.

For more information, write Yamaha Electronics Corporation, P.O. Box 6660, Buena Park, CA 90620; telephone (714) 522-9105; email infostation@yamaha.com; or visit www.yamaha.com/home.

About Yamaha

Yamaha Electronics Corporation (YEC), USA, based in Buena Park, California, is a wholly owned subsidiary of Yamaha Corporation of America. YEC offers industry-leading home theater components and systems, featuring A/V receivers, amplifiers, DVD/CD players, speakers, mini-systems, home-theater-in-a-box (HTiB) pre-matched systems and the company's exclusive Digital Sound Projectors (single component surround sound solutions), as well as A/V & IT convergence products.

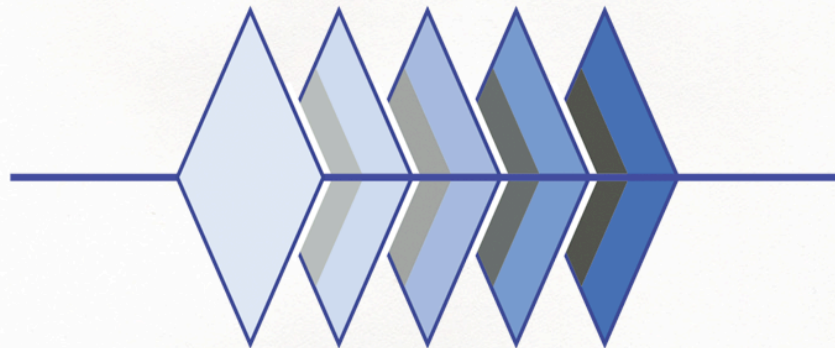


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