

Yamaha DSP-A1 DTS/Dolby Digital Integrated Amplifier

Could this be the perfect integrated amp? Read on to find out.

by Jeff Cherun

A lot of manufacturers in the consumer electronics industry do some things right. Some companies have perfected ergonomics, while their products' performance suffers. Other times performance

is great, but build quality is less impressive. Some really high-end products may perform great, but can break down more often than they actually work. There are, however, a very few products that just might be perfect for anybody. What most manufacturers strive for is the closest approximation of perfection that is allowed by cost, all the while trying to appeal to the widest possible audience, and at the same time maintain a good profit margin. What we as consumers strive for is the best possible future-proof piece of gear for the money, as long as it's a good value. Very rarely do these two outlooks collide, except, it seems, for this unit under review.

Yamaha's newest integrated amplifier, the highly touted replacement for their amazing DSP-A3090, is the DSP-A1. It's the first of a wave of DTS products from Yamaha, which will include

Now, some of you may be wondering from the photo on this page why I'm referring to the DSP-A1 as a receiver, and not simply as an integrated amplifier. Well, dear friend and astute reader, the main difference really is the absence of a tuner, which magically transforms a receiver into an integrated amp. That's it. As my psychotic family doctor used to say to me as a child after stabbing some 12-inch needle in my wimpy, wiry arm, "It's as simple as pie."

Outfitted with chips to handle Dolby Digital, DTS, and Dolby Pro Logic, this baby is set for the future. With powerful internal amplification that (at least on paper) would put many external multichannel amplifiers to shame, we were really excited to finally get Yamaha's latest into our listening room.

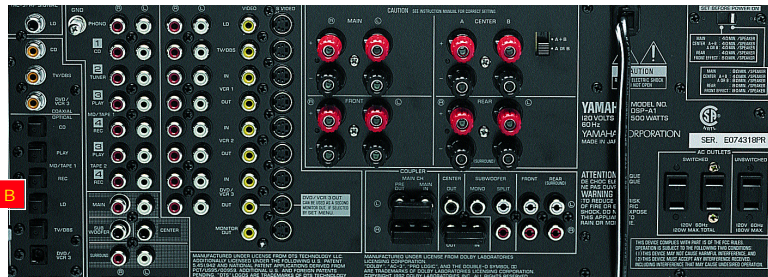
As far as features go, this unit has it all. First and foremost, as mentioned above, it's capable of



A. Practically future-proof, the DSP-A1 was a hit with Jeff.

B. Jeff's anti-vinyl bias aside, some consumers may find the phono input useful.

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single- and multiple-disc DVD players, perhaps by the time you read this. Of course, it wouldn't make any sense to offer just a DTS source machine in the line, so Yamaha went full throttle and came out with a DTS integrated amp.

processing all the major software formats, including DTS, Dolby Digital, and Pro Logic, and it does so with high-quality 24-bit analog-to-digital converters, as well as 24-bit digital-to-analog converters.

It also delivers the goods on inputs and outputs. The DSP-A1 has five S-video inputs and four S-video outputs, duplicated in the composite domain with the usual yellow RCA jacks we've come to know all too well. Those of you with a laserdisc player will be pleased to know that Yamaha has thoughtfully included a built-in RF demodulator, so you can just plug your Dolby Digital RF output right up to the RF input on the hindside of this beast. In the standard digital domain, there are also a plethora of connectors, including three coaxial digital inputs, as well as five optical digital inputs and one optical digital output for recording onto a Mini-Disc, DAT, or CD-R, for example. Another esoteric feature Yamaha's thrown in that's normally left out these days is the phono input for hooking up your (or your Dad's) turntable. As a hater of all things vinyl, I'd never use it, but it's there if you want it.

The binding posts on the posterior of the DSP-A1 are the kind we love to see here at *Home Theater*—beefy and five-way. Now some manufacturers give good binding posts for the main and center channels, but skimp on the rears. Again, Yamaha has taken the high road by giving us a full complement of five-ways. Also, if you decide the internal amps don't give you enough juice, and you

want to bypass them entirely to external amplification, Yamaha's thrown in pre out/main in jacks.

One weird-yet-nice addition is the benefit of a six-channel analog input on the back panel, presumably for some other surround sound format that hasn't yet been released, as the DSP-A1's already got all the current formats inside anyway. In any case, it's nice of the folks at Yamaha to have thought of that, and we don't need to use it if we don't want to. Topping it all off are three AC outlets (two switched and one unswitched) that can supply power to other hardware in your rig.

Yamaha, the lone wolf when it comes to 7.1 audio on integrated amps, has continued a tradition that it started with its earlier integrated amps. It includes an extra two effects channels for the front part of your home theater. These two limited-bandwidth channels are designed to sit up high above your main channels and complement the sound with added ambient information. While this information is not strictly embedded in the 5.1 (Dolby Digital or DTS) signals that we all know and love, Yamaha is able to add some good stuff to the presentation through DSPs. I remember a few years ago when I was staying in L.A. for a few days with my buddy and fellow Curt-Conian Brent Butterworth, and we were pontificating about this very subject. At that time neither of us had actually heard the DSP-A3090's

seven-channel configuration yet, and Brent was about to hear a demo at Yamaha's Southern California headquarters. Needless to say, we were both dubious about the whole deal and wondered if it was a gimmick. But when he got back, he claimed it actually made the home theater experience better. Normally I'm a pessimist when it comes to gimmicks, but when I heard the test sample a few weeks later, I agreed. Lots of times manufacturers give us answers to questions that nobody's asked. This time someone was actually thinking and turned an excellent idea into something more.

The DSP-A1's manual is among the finest available in the consumer electronics industry. It gives explanations of what is going on in the machine and gives



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C. Yamaha's space-age flip-top remote gets Jeff's thumbs-up for backlighting...

D. ...though he found the flip-top lid a little on the cumbersome side.

TESTING SYSTEM

- Vienna Acoustics Speaker System
- Definitive Technology ProCinema Speaker System
- M&K LCR 55 speakers (effects channels)
- M&K MX-125 subwoofer
- Panasonic A310 DVD player
- Sony DVP-S7000 DVD player
- Pioneer CLD-D704 LD player
- TARA Labs Klara speaker cable
- Monster Cable interconnects

elaborate descriptions of different setup scenarios. My kudos to Yamaha for putting the effort into explaining such a complexly featured unit.

Setting up the DSP-A1 was fairly simple, and once all the connec-



THEATER TWO

Yamaha DSP-A1 DTS/Dolby Digital Integrated Amplifier

tions were done, it was smooth sailing. The supplied remote features the shiny brushed-aluminum design that Yamaha's been using lately. On the whole it's pretty good, but it is somewhat cumbersome, especially

when you've got to open the dreaded door. It does offer tons of controls though, and it is backlit, so overall it gets my thumbs-up.

Before I go any further, I should get to the most impressive feature on this baby—the finish. We received the DSP-A1 in the slightly more expensive champagne finish with rosewood side panels, which is about as visually striking as it gets. It looks as fine as the contents of a bottle of '79 Krug tastes, and photographer Randy Cordero and VP/creative Robert Ross, two

guys who see for a living, both deemed the DSP-A1 among the top three nicest pieces of gear to ever come into our offices.

On the inside of the unit, Yamaha has supplied its usual dowry of DSP modes, ranging from music-listening options to enhancements for movie soundtracks. While I'm not a huge fan of DSPs in general, Yamaha's are among the very best out there.

They've come up with realistic listening environments, including actual clubs (such as the Roxy here in L.A., or the Bottom Line club in NYC).

Now onto what you've all been dying to know. Does this beast sound as good as it looks? In a word, hell yes! On movie soundtracks, the DSP-A1 sounds lush and full, without ever sounding tinny or thin as some receivers tend to do when built with lesser amplification and cheaper circuits. The internal amps are rated at 110 watts each for the five main channels, and 35 watts each for the front two effects channels, which is fine, as they are limited-bandwidth channels anyway. In our listening room, they sounded even more powerful than their rating, which truly surprised me. I mated the Yamaha with different speaker systems, and the results never changed. On the Vienna Acoustics, our resident high-end speakers, the DSP-A1 sounded like a high-end rig, and not an integrated amp. On DTS

music, in particular, the Yamaha truly shined. On Patrick Leonard's *Rivers*, an excellent instrumental recording that'll push any system to its limits, the DSP-A1 rocked. The deep acoustic bass resounded with a level of extension and depth that was awe-inspiring. I have never heard an integrated amp sound that good, and I haven't heard the Viennas sound this good since mated with the Krell electronics reviewed last August. On Dolby Digital and DTS movie soundtracks, my results were exactly the same. The pro-

HIGHLIGHTS

- Integrated amplifier decodes DTS, Dolby Digital, and Dolby Pro Logic
- Seven channels of amplifier power, including five channels by 110 watts
- Champagne finish is a true beauty to gaze upon

cessing was among the best I've heard, continuing the tradition of excellence that *HT* loved about the 3090 two years ago, and the 2092 this past January.

Listening to stereo music, I was equally enthralled. The imaging was pinpoint, even when mated with the Definitive Technology

Yamaha DSP-A1 DTS/Dolby Digital Integrated Amplifier	\$2,799
in black	\$2,599

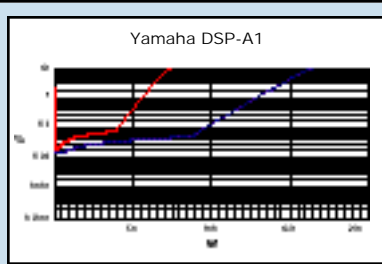
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ProCinema system. Jewel's vocals were clear and bang-on, never taking on the oh-so-common thinness that goes with her re-recording of *Foolish Games*.

This is simply the very best integrated amplifier we've ever heard. If you are in the market for a new A/V quarterback, you owe it to yourself and your friends to give

this baby a dance. It certainly is an amazing value, and, of course, is ready for the future, whatever we decide to throw at it next. 📻



CFG Labs Measures: Yamaha DSP-A1

The chart shows the power output of the Yamaha DSP-A1 receiver when driven with a 1-kHz sine wave. In stereo mode (bottom line), into an 8 Ω load with both channels driven, clipping begins at 84.4 watts, and total harmonic distortion plus noise rises to 1% at 132.5 watts. (Into 4 Ω, the numbers are 167.2 and 207.4 watts.) The center-channel amp (middle line) starts to clip at 88.0 watts into an 8 Ω load, and rises to 1% THD+N at 127.8 watts. (Into 4 Ω, the numbers are 173.5 and 225.5.) The surround channel amps (top line) start to clip at 39.0 watts into an 8 Ω load with both channels driven, and rise to 1% THD+N at 56.2 watts. (Into 4 Ω, the numbers are 75.9 and 108.8 watts.) For a receiver, this is outstanding performance into low-impedance loads. The surround-channel measurements are below the ratings, but that may be because we had to test them with analog signals through the Pro Logic decoder.

At the 7.1-kHz setting, the cinema EQ feature produces a -3 dB point of 8.73 kHz, drops to a maximum cut of -4.9 dB at 11.2 kHz, and rises back up to -3.0 dB at 20 kHz. Stereo frequency response from analog inputs is +0/-0.12 dB from 20 Hz to 20 kHz, -0.29 dB at 10 Hz, -0.59 dB at 50 kHz. From digital inputs, the response is +0.12/-0.42 from 20 Hz to 20 kHz. The subwoofer output measures +0/-0.27 from 20 to 58 Hz; the low-pass filter measures 24 dB/octave. Crosstalk from analog inputs is -72.0 dB at 1 kHz. A-weighted signal-to-noise ratio from analog inputs is -77.7 dB; from digital inputs, it is -82.7 dB. Dolby Digital frequency response is virtually identical for all channels: +0.13/-0.35 dB from 20 Hz to 20 kHz. These are all good to excellent measurements.