

# Rotel RSP-1098 Pre/Pro

Picture perfect!

by Steve Guttenberg

To the casual observer, the line between upscale receivers and separates is getting awfully blurry. People ask me about this stuff all the time. "Steve, today's \$1,000 receivers boast up-to-the-nanosecond surround processing modes, connectivity options up the wazoo, and fancy shmancy remotes; so what exactly would a big-ticket pre/pro and multi-channel amplifier get me?" My

circuitry right next to the pulsating electromagnetic fields radiated by the power-amp section, which is likely to have some (admittedly small) detrimental effect on the sound. Then there's the matter of build quality: Top-notch separates should be loaded with often-expensive, premium parts, while receiver designers have to work within more-limited budgetary constraints. At least to my ears, higher-end models' superior build quality and crafty engineering always deliver superior sound. Not that the better receivers

don't offer tremendous value—they absolutely do—but pre/pros and power amps have greater sonic gravitas and good old-fashioned audiophile cache. And the latter is no small factor: Cache is the only thing that distinguishes most of the

good stuff—say, a \$15,000 Rolex from a \$15 Casio.

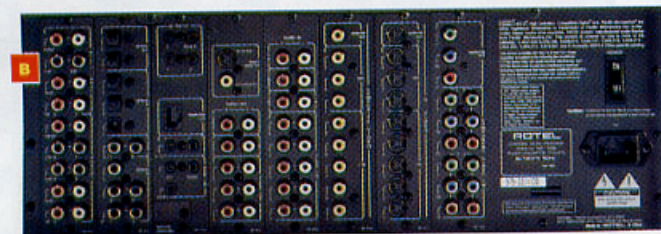
The pleasures of owning well-made things cannot be denied. In the case of Rotel's newest 7.1-channel pre/pro, the RSP-1098 (\$2,999), the star attraction is its LCD display that instantly sets it apart from all of the premium-priced receivers and most of the mega-buck pre/pros on the market. The sound, by the way, is right up there with the very best components you can buy.

Before I hooked up the RSP-1098, I popped the cover to take a peek at its inner workings. I immediately fixated on the two custom-made power transformers: One's

dedicated to the analog circuitry, and one handles the digital gizmos. There's also a third device that looks like a transformer but is actually an inductor (also known as a choke) that performs AC power-conditioning/-filtering duties. Lurking just behind the transformers is a large power-supply circuit board populated with transistors and other discrete components. At this point, I had to remind myself that the RSP-1098 is only a pre/pro (with no amplification), as most 100-watts-times-six receivers' guts look downright puny by comparison. Farther back in the large chassis, I found nine separate circuit cards. Metal covers stealthily shield separate analog audio, digital audio, S-video, component video boards, and more. The RSP-1098's front end is home to a massive metal extrusion that supports the display's electronics and forms the pre/pro's carrying handles. The elegant structural design imbues this pre/pro with a decidedly high-end feel. It weighs 34.6 pounds.

Two large knobs and seven small buttons flank the faceplate, which is available in your choice of black or natural satin-finished aluminum. The whole package is refreshingly clean and uncluttered, so it's not the least bit intimidating to use.

One thing is for certain: The RSP-1098 is one of the best imaging pre/pros I've ever seen (excuse the pun—I couldn't resist). Its 16:9 color LCD screen uses Thin Film Transistor display technology. If there's one catch to Rotel's implementation, it's that the display only accepts composite video sources. Suffice it to say, it'll come in handy for menu browsing and DVD-Audio disc navigation (you won't need to turn on your regular TV to spin

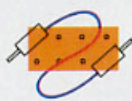


**A.** The RSP-1098's structural and aesthetic design give the pre/pro a very high-end feel.

**B.** In addition to ample audio inputs, the pre/pro's back panel sports four (yes, four) HD component video inputs.

answer to these queries is always the same: "Just two things—the power and the glory."

First off, the receiver-versus-separates comparison isn't at all fair. Receivers, even top-of-the-line models, can't spare enough internal real estate to house humongous transformers and hefty power-supply capacitors; the compromises inevitably start there. Remember, too, that receivers jam their sensitive low-level and processing

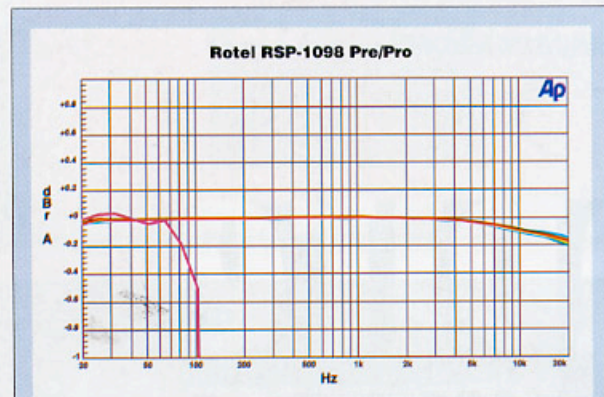


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a DVD-Audio). The TFT screen can also display a different source than the one fed to your system; for instance, you could hook up a camera from your baby's bedroom. I have to admit, there were times when I found the 6-by-3.375-inch-tall screen staring back at me to be distracting, but you can switch it off.

**C. The LCD remote is fully backlit and easy to use.**

The RSP-1098 upconverts composite and S-video sources to component video, unless you've selected the progressive mode. Which reminds me, this pre/pro lets you dial-in what Rotel calls "group delay" up to 500 milliseconds, so those tardy digital video signals won't lag behind the audio. You can maintain lip synch as either a default setting for a specific input or dial it in on-the-fly.



#### HT Labs Measures: Rotel RSP-1098 Pre/Pro

The above chart shows the frequency response of the left (aqua), center (green), LFE (purple), and left surround (red) channels at the preamp outputs of the Dolby Digital decoder. The left channel measures  $-0.03$  decibels at 20 hertz and  $-0.14$  dB at 20 kilohertz. The center channel measures  $-0.03$  dB at 20 Hz and  $-0.20$  dB at 20 kHz, and the left surround channel measures  $-0.03$  dB at 20 Hz and  $-0.18$  dB at 20 kHz. The LFE channel, normalized to the level at 40 Hz, is  $-0.00$  dB at 20 Hz, reaches the upper  $-3$ dB point at 110 Hz, and reaches the upper  $-6$ dB point at 116 Hz.

The analog frequency response, from the CD input to the main output, measures  $-0.07$  dB at 20 Hz and  $-0.01$  dB at 20 kHz in bypass mode. Looking at a broader bandwidth, the response measures  $-0.27$  dB at 10 Hz and  $-0.05$  dB at 50 kHz. In modes that involve signal processing, the response is  $-1.80$  dB at 10 Hz,  $-0.58$  dB at 20 Hz,  $-0.13$  dB at 20 kHz, and  $-49.39$  dB at 50 kHz. Response from the multichannel input to the main output measures  $-0.12$  dB at 10 Hz,  $-0.03$  dB at 20 Hz,  $-0.00$  dB at 20 kHz, and  $-0.02$  dB at 50 kHz.

The analog THD+N is less than 0.018% at 1 kHz with a 100-millivolt input and the volume control set to 83. Crosstalk with a 100-mV input was  $-85.22$  dB left to right and  $-84.43$  dB right to left. The signal-to-noise ratio with a 100-mV input from 10 Hz to 24 kHz with "A" weighting was  $-131.22$  dBBrA.—MJP

The well-organized back panel offers four HD component video inputs (!), plus five composite/S-video inputs. Digital audio rates eight assignable inputs (three optical, five coaxial) and four outputs (two optical and two coaxial); there's also eight analog audio inputs. Multiroom/multisource options include S-video and composite outputs. You can use the RS-232 port for software upgrades, as well as Crestron and other system controllers. Oh, and there are four assignable 12-volt triggers, two IR ins, and three outs—whew! I've seen considerably more-expensive pre/pros with far less-comprehensive connectivity.

The RSP-1098's processing options feature almost every Dolby and DTS flavor, including Dolby EX, Dolby Pro Logic II, DTS ES, DTS 24/96, DTS Neo:6, and Rotel's proprietary 7.1 Extra Surround. Only Dolby's new 7.1 Pro Logic IIx is missing in action. Not to worry: Rotel will likely offer DPLIIx as a software update by the time you read this. Cirrus Logic's latest 32-bit DSP chip handles number-crunching duties, and the digital-to-analog converters are top-shelf Crystal 24-bit/192-kilohertz devices. Purists can bypass all of the digital converters on any of the analog inputs. With SACD and DVD-Audio getting so much attention, you don't hear much about HDCD anymore, but Rotel's audiophile-inclined engineers went ahead and included the processing. That's still a good thing because, if you're like me,

you probably have more than a few HDCD-encoded discs lining your shelves. A bunch of newly remastered Neil Young titles are so encoded and sound fabulous.

Setup proceeded without a hitch via the TFT display, and I'll credit the eminently logical menu navigation for the hassle-free get-acquainted period. The fully backlit LCD remote never challenged my dexterity or patience. More good news: If your SACD or DVD-Audio player doesn't offer bass management, the RSP-1098 can help. If you select the LFE Re-Direct option, it sums the bass from all of the channels and sends it to the subwoofer; just be aware that the satellites still receive full-range signals. This



## HIGHLIGHTS

- Extra cool "picture in pre/pro" LCD monitor
- A sweet yet oh-so-transparent sound
- Group delay syncs up audio with tardy upconverted digital video signals

rudimentary bass management form is nowhere near as flexible as I'd like, but most pre/pros don't even go this far. Speaking of subwoofers, the RSP-1098 lets you turn off its internal low-pass sub crossover, which is nice if your sub doesn't have a direct/unfiltered input. I wish more components were this flexible.

Throughout the review period, I relied on my Dynaudio Special Twenty-Five speakers up front;

Dynaudio Contour 1.1 speakers in the rear; an REL Storm III subwoofer; an Integra DPS-7.2 DVD player; and an Ayre V-6x power amp. I'd bet Rotel's brawny 200-watts-times-five RMB-1095 power amp would make a simpatico partner to the RSP-1098. As \$5,000 separates combinations go, this Rotel duo would offer one hell of a value.

I have to admit that assessing a pre/pro's sound quality usually takes some time, but the RSP-1098's sound immediately grabbed my heart. The Rotel elicited the sort of full-fledged dimensionality that I associate with upper-end audiophile electronics, so even less-than-pristine DVDs took on a life and naturalness. *Sessions at West 54<sup>th</sup>* seemed far less grainy and, for lack of a better word, less digital. The disc's acoustically oriented artists—Wynton Marsalis, Suzanne Vega, and Keb' Mo'—sounded warmly acoustic, but Daniel Lanois' electric-guitar-feedback-drenched tune had just the right amount of crackle and bite. The surround mixes popped more, and the dome-like surround effect filling my room was impossible to resist.

*The Hunted*, William Friedkin's brutal little masterpiece, sucked me in even before I saw an image. There was something about the way Johnny Cash's big, booming voice rolled out of my center speaker. He was just reciting lines from the Dylan tune "Highway 61 Revisited," but he set the tone for the hellish war scenes that

followed. This film goes for long stretches without dialogue, and you become hyperaware of the sound. You are there!

After I reveled in home theater mode, I wanted to check out all of the latest DVD-Audio releases, but I wound up lingering over the Beach Boys classic *Pet Sounds*. For decades, we've only heard this music in mono, so I found the 5.1 mix to be a rather mind-warping experience. The Boys' layered voices come from everywhere, cushioned on Brian Wilson's fantastically dense arrangements. I love the way it lets you hear into the guys' soaring harmonies—maybe this is how Wilson heard the music in his head when he composed it. With the RSP-1098 letting all of that good stuff through, the disc is that much more magical.

In the final analysis, the receivers-versus-separates question comes down to budgetary concerns balanced against the desire to hear every last bit of the sound and passion embedded in your CDs and DVDs. I've always been drawn to components that give more of that, but most of

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| <b>RSP-1098 Pre/Pro</b> | <b>\$2,999</b> |
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them are a lot pricier than the Rotel RSP-1098. So, sure, \$2,999 is a fair chunk of change, but in this case it's more than worth it. 📺

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