

## Rotel RA970BX Integrated Amplifier

AN IMPORT OF THE MONTH



From every angle, the \$480 Rotel RA970BX stereo integrated amplifier looks like a glorious, miraculous, mind-bending, jaw-dropping...*mistake*. Huh? A mistake? Well, not exactly. More like a freak of nature. With no disrespect toward Rotel, and, especially, designer Bob Burn, the RA970BX is simply so exceptional, regardless of price, that it seems more a product of some audio deity than a human. The gods were smiling and the universe in the day Rotel designed this monster.

There are a number of things British that have never caught on in the U.S. of A.: royalty, cricket, and driving on the wrong side of the road, for example. One predominantly British commodity still awaiting acceptance here in the colonies is the integrated amplifier. You know the thing. It's a preamp and power amp in one box *without a radio*. Americans either get receivers or they go for separates. The integrated is an audio orphan, despite some historically significant products; e.g., the legendary NAD 3020.

If High End audio is ever going to crack the mid-fi market, the integrated is going to be a big part of the assault. It is the most cost effective way to start a High End system. The integrated saves you some serious green by eliminating one chassis (the most expensive part of any electronic component) and one set of interconnect. Okay, I agree, state-of-the-art performance is going to come in separate boxes, but the integrated is a great option for people investing a few thousand in a system. This Rotel is so good that people investing five figures might want to stop and consider the options it creates. If you only spend \$480 on your amp and preamp, you have a lot left over for sources and speakers, eh? This is a lesson learned by our cousins on the other side of the pond, and lost on most High Enders here.

Class is in session, *now*.

The RA970BX sports the typical utilitarian Rotel cosmetics and boast 60 watts per channel into 8 ohms. There is no phono stage, reflecting the market's continuing movement towards a compact disk world.

The sound of RA970BX is completely out of proportion with its price and appearance. It's a swaggering bully of an amp with the grace of a *prima ballerina*. It's not state-of-the-art, but in many ways, it's competitive in that neighborhood. Its tonal character is slightly dark because of a mild suppression of harmonics in the upper midrange and lower treble. This alters guitar timbre on Wynonna Judd's album *Tell Me Why* (Curb/MCA MCAAD-10822) for example, by reducing the instruments' natural twang and brilliance. This distortion damps vocal sibilants and compromises vocal intelligibility. Voices, particularly female, don't stand out enough against instrumental backgrounds.

The typical result of a dip in upper midrange and lower treble harmonics is a loss of perceived detail. In this respect, the Rotel is amazing. Even though it is missing some of the transient detail provided by a full harmonic structure, midrange resolution is exceptionally high. The recreation of nuance is excellent despite the handicap. Julian Bream's guitar during the *adagio* of Rodrigo's *Concierto de Aranjuez* (RCA 6525-2-RG) is slightly dark, but remains so effortlessly quick that you will sit and just marvel at Bream's brilliance.

From the midrange down to the lowest bass, the Rotel plays with the big boys. I am accustomed to the 50 watt BEL 1001MKII amplifier roaring without stress through dynamic peaks. Hearing the RA970BX keep pace left me shaken, literally. Using the WATT/Puppy System Five, the Rotel traversed "The Great Gate of Kiev" from Moussorgsky's *Pictures At an Exhibition* (Atlanta SO)/Levi; Telarc CD-80296) at peaks of 100 db plus without serious stress. Okay, the violins got a little strained when they were all on song, but the bass drum rocked me to the core. It went deep with control and power. Shudder. There are *really* expensive 400 watt amplifiers that cannot match this lil' Rotel in bass dynamics.

The secret of dynamic authority isn't power quantity, it's timely delivery. The attack envelope of each note has a fundamental and a stack of harmonics. Hit a bass drum and all those frequencies spring to life at the same moment. If an amplifier is going to recreate the power of a bass drum stroke with precision, it must recreate the fundamental and each harmonic in the attack envelope at exactly the same time in exactly the right amounts. This the Rotel does, very well. While delivering the initial *slam* is important, it is just as critical to get out of the note cleanly, (known as "settling time"). Amps that don't settle immediately after the attack have all the subtlety of a sledgehammer. The Rotel gets down the backside of the note smartly. This quick settling characteristic holds true for the RA970BX throughout the full bandwidth.

While the excellent recreation of the lower portion of the harmonic stack results in a sound that has tubelike tonal body, the Rotel needs more higher order harmonic energy. The loss of upper midrange energy reduces the precision with which the Rotel locates images in the field of depth. Despite the reduced transient detail, the Rotel avoids the warm and fuzzy trap of a euphonic low resolution design. Given the Rotel's excellent resolution in the lower octaves, there is a strong sense of the volume of air in the concert hall. The soundstage is spacious and coherent.

The Rotel is remarkably stable under duress. As noted, the strings can bet a little strained. The other stability artifact is a slight collapse of soundstage depth, but images otherwise hold their locations during crescendos. Note also that the Rotel prefers to see an even and benign impedance from the loudspeaker. The WATT/Puppy Five originally had a 2 ohm impedance spike at 94 hz and the speaker's reactance swung from capacitive to inductive over the space of 5hz in that region. While this caused a bit of bass boom with the BEL amp, the Rotel really let loose. Wilson recently modified the Puppy to stabilize this region and raise the impedance to 3 ohms. The Rotel is happy now. Hook it up to a Vandersteen 2Ce, a ProAC Response 1S, a Metaphor Model 2 or a Watt/Puppy Five and you, too will be happy.

Tom Miller

**Rotel RA970BX Stereo Integrated Amplifier, \$480.**  
**Rotel HiFi, P.O. Box 8, North Reading, Mass. 01864;**  
**(508)664-4109 (fax).**

## Rotel RA970BX Integrated Amplifier

Category	Score	Comments
1. Stability	75	Slight stage collapse, but great bass control
2. Linearity:		
Dynamic:	78	Upper mids stress and compress
Tonal	77	Dip in upper mid harmonics, bass exceptional
3. Dynamic Range	82	Quiet and focused: killer combo
4. Resolution:		
Transient	80	Well nuanced, clean and liquid
Spatial	81	Gets the low frequency air: a low price miracle
Timbre:	76	Darkening in midrange, but excellent on down.
5. Image Focus	78	Bass focus excellent, localization in treble uncertain
6. Rhythmic coherence	77	Soft transients slow pace, swings slowly
<b>OVERALL SCORE</b>	<b>81</b>	No fooling! Godzilla disguised as Lif Bo Peep.