

Rotel RMB-1075

Multichannel Amplifier Of Remarkable Performance And Value

PERRY SUN

Breaking The \$1,000 Barrier

Rotel isn't the only company in town to offer a home theatre-centric power amplifier for less than \$1,000. But what is certainly remarkable is that the \$999 RMB-1075, offering five channels at 120 watts each, incorporates fundamental design approaches more closely

"The RMB-1075's high-end performance capability is rather difficult to comprehend given its accessible price tag."

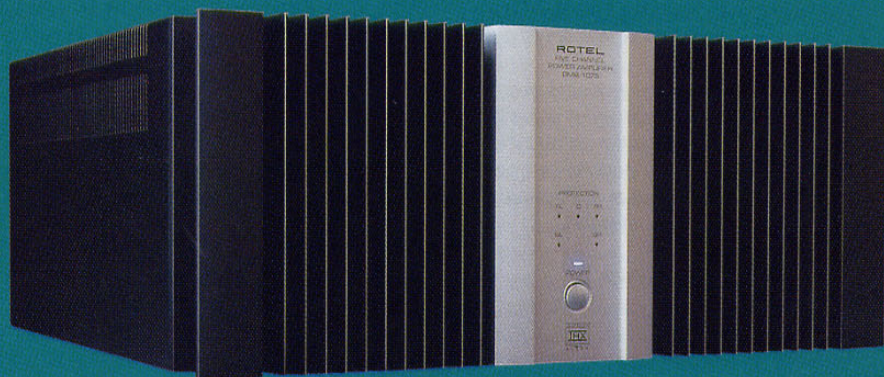
associated with expensive high-end products, including the power supply and amplification topology. Like the RSP-1098 surround processor (reviewed on page 32 of this issue), the RMB-1075's high-end performance capability is rather difficult to comprehend given its accessible price tag. In fact, when the two components are purchased together, the \$4,000 cost is still below that of many surround processors the RSP-1098 competes against.

Exterior Build And Features

Somewhat similar to the RSP-1098 surround processor, the THX® Ultra-certified RMB-1075 multichannel amplifier has a stately, sophisticated appearance, the result of careful and well-thought out industrial designing. The central aluminum front panel is offered in black or silver. This is flanked by two black heat sinks, used to cool some of the output transistors. The central front panel features a push-button power switch, a power indicator (illuminates in blue), and red protection indicator LEDs for each of the five channels.

The RMB-1075 is solidly designed and constructed from the outside, and at 40 pounds is of quite modest weight for a

Rotel RMB-1075



Specifications:

Inputs: RCA (5)
Outputs: Five-Way Binding Posts (5)
Rated Power Output (Per Channel): 120 Watts
RMS Into 8 Ohms (20 Hz-20 kHz, Less Than 0.03% Distortion)
Distortion: Less Than 0.03% THD (20 Hz-20 kHz, 8 Ohms), Less Than 0.03% IM (4:1 For 60 Hz; 7 kHz)
Frequency Response: 15 Hz-100 kHz (+0.5/-3 dB)
Dimensions (WHD In Inches): 16-15/16 x 7-7/16 x 15-5/8

Weight (In Pounds): 39.7
Price: \$999

Manufactured In China For:

Rotel of America
54 Concord Street
North Reading, Massachusetts 01864-2699
Tel: 978 664 3820 / Fax: 978 664 4109
www.rotel.com

power amplifier. Vents predominate for the top panel and are partially lined along the side panels. There's also some venting for the bottom of the chassis, as well as direct exposure of the internal heat sinks. Because the RMB-1075, like most power amplifiers, uses convection cooling, it is advised that it be installed on a dedicated stand if possible, rather than in a rack or cabinet.

On the rear panel, there are five gold-plated RCA inputs. The five sets of clear plastic-coated speaker binding posts have just adequate spacing between them to accommodate high-end cables, as do the RCA inputs. In fact, it's somewhat surprising that Rotel has chosen to space many of the connectors rather closely, given the generous amount of real estate on the back panel. The IEC AC power socket is two-pronged, meaning that the RMB-1075 operates with its ground to the chassis but lifted from the AC ground line. This power amplifier also features a DB-25 line-level input (rarely used these days), as well as 12-volt triggering.

Interior Components And Design

The interior of the RMB-1075 is remarkably neat and well-organized, with internal wiring tied in groups and kept short-and isolated from power supply lines. There are four main boards in the amplifier, three of which are where the amplification circuitry is situated. The fourth is dedicated to part of the power supply and the output signal path. The power supply features a 1.1 kVA toroidal transformer, designed and manufactured in house, and eight 12,000-microfarad British Slit Foil capacitors for charge storage. Because of the possibly substantial power demands of a dedicated amplifier, especially when playing movie soundtracks at considerable volume levels, it is good practice to have the power come directly from a wall outlet, or at least a power conditioner designed for high-current delivery. Another notable aspect of the Rotel's power



system is the use of a "star" connection for all of the ground leads, to minimize the possibility of ground loops due to differing potentials.

The RMB-1075 features Class B output stages with a total of 20 bipolar transistor devices. These devices are all cooled via heat sinking with a cooling area of 620 square inches per channel. The capacitors, resistors, and other circuit components are of high quality, and have been meticulously selected and evaluated by Rotel's design team for optimum sound quality, while also satisfying the need to be cost-conscious. Like the typical power amplifier, the RMB-1075 includes several measures to protect itself from extreme situations, including overheating, short-circuiting, and very low-impedance speaker loads. The red LEDs on the front panel illuminate when protection circuitry is engaged.

The RMB-1075 is rated to deliver 120 watts continuous output into each of five channels at 8 ohms. The minimum loudspeaker impedance recommended by Rotel is 4 Ohms. This power amplifier does not provide for bridging between channels.

Installation And Equipment

The Rotel RMB-1075 was installed in my reference home theatre (see page 9). It was utilized initially for surround channel duties in the system while the reference Proceed HPA3 provided power for the front channels. Later, the RMB-1075 was used to power all of the main channels. The Proceed HPA3 served as a comparative reference for the detailed listening tests. Power was supplied to the amplifiers from a SMART Theatre Systems GC-120 feeding balanced AC power, and having as its source a dedicated 20-amp, 120-volt circuit. Kimber Kable's PowerKord Model 10 and 14 power cables, and Monocle XL and BiFocal XL speaker cables were used. Source audio components included the TAG McLaren AV32R surround processor and DVD32FLR DVD player, and also the Integra DPS-8.3 universal disc player via the Outlaw Audio ICBM-1 bass management system. The RMB-1075 was also often used in conjunction with the RSP-1098 review.

Listening Tests And Performance

The Rotel RMB-1075 offered solid, honest-to-goodness power amplifier performance. I found it to be a very reliable and worthy workhorse with a wide variety of movie soundtracks, from those that were particularly of a demanding nature such as *Lara Croft: Tomb Raider—The Cradle Of Life*, to audio productions featuring dynamically more subtle yet richly articulate soundfields and effects, including *Seabiscuit* and *Finding Nemo*. In particular, with the very well-recorded and crafted atmospheric and Foley effects in *Seabiscuit* (the opening of Chapter 9 is a nice example), the RMB-1075 delivered with clear, abundant spatial and tonal detail. Almost as impressive were the many instances of wide dynamic range in *Lara Croft* and also *Star Wars: Episode II—Attack Of The Clones*.

Another attribute of the RMB-1075, which I found

to be delightful, was the pleasant lack of background noise. There was simply nary a hint of audible hiss from the loudspeakers. This is something I always expect from a high-end amplifier, but not necessarily what I get (especially with products substantially more expensive than the Rotel).

The RMB-1075's sonic character can best be described as smooth. There is definitely an appealing nature to the sound of this power amplifier, which, similar to the RSP-1098, takes on a "relaxed" attribute. Fine tonal articulate detail certainly was present, albeit also somewhat subdued in nature. The sonic character of the RMB-1075 is well-suited for movie soundtracks since it complements the tendency for movie sound to be balanced in tonality toward the upper-midrange, which in more extreme cases can be fatiguing to hear over an extended period of time. For music, I can recommend the RMB-1075 for the casual to fairly serious music listener because of midrange tonality seeming to be nicely authentic and with good timbral richness in the lower-frequency registers.

The Rotel RMB-1075 also exhibited very good lateral soundstaging, and as well, admirable front-to-back placement of sounds. With two-channel orchestral recordings, there was a definite sense of spatial separation of instruments across the soundfield. This aspect of the amplifier's performance also translated nicely to the reproduction of spacious, lush motion picture scores and atmospheric soundfields, with *Seabiscuit* again serving as a very good example.

The dynamic range capability of the RMB-1075 was in general very good, though having experienced amplifiers of particularly notable performance in this regard, I had to say that some slight instances of compression could be noticed. Additionally, in comparison to the Proceed HPA3, there was a subtle limitation in the RMB-1075's ability to really resolve low-level sounds with absolute authenticity, such as solo orchestral instruments in a large concert hall. Of course, it should be noted that achieving such a level of audio performance tends to require a substantial investment in high-end audio components.

Conclusion

The Rotel RMB-1075 is an excellent value for home theatre. Its modest price tag presents a wonderful opportunity for conservative budget-minded enthusiasts to enter the world of high-end separates. The performance provided by this amplifier was certainly noteworthy, with a sonic character that was generally inviting and natural. I would also consider this fine audio component to be a quite formidable competitor to its more expensive counterparts. ■

Smart Technology at a Smart Price.

PB6100 \$899**



Home Theater
1500 Lumens, 2000:1 Contrast Ratio
Optical Zoom Lens, 10x Digital Zoom
HDTV Compatible, 720p, 1080i, 480p
4:3 / 16:9 Screen Ratio Selectable
3000 Hours Lamp Life***

PB2120 \$999



Personal/Home
1200 Lumens, 2000:1 Contrast Ratio
Compact Letter Size and Only 2" High
Super Light Weight Only 3.8lbs.
Optical Zoom Lens, 10x Digital Zoom
1280x1024 (SXGA) Compression

PB6200 \$1599



(Free extra lamp)*
Office/Home
1700 Lumens, 2000:1 Contrast Ratio
XGA (1024x768), SXGA Compression
HDTV Compatible, 720p, 1080i, 480p
3000 Hours Lamp Life***

PB2220 \$1899**



Personal/Business/Home
1700 Lumens, 2000:1 Contrast Ratio
XGA (1024x768), SXGA Compression
Compact Letter Size and Only 2" High
Super Light Weight Only 3.8lbs.
HDTV Compatible, 720p, 1080i, 480p

PB7200 \$1999



(Free extra lamp)*
Conference Room
2200 Lumens, 2000:1 Contrast Ratio
XGA (1024x768), SXGA Compression
Optical Zoom Lens, 10x Digital Zoom
HDTV Compatible, 720p, 1080i, 480p
2 PC Inputs, PC/MAC/Video, PIP

PC Mall

www.pcmall.com
888-978-6706
Mention Code: ZPC108



BenQ

* Promotion period from 3/1/04 - 3/31/04. Free lamp redeemed through mail-in rebate.
** Price after \$100 mail-in rebate. Rebate valid from 3/1/04 - 3/31/04.
*** Economy Mode: 3000 hours, Standard 2000 hours.

Copyright 2004 BenQ America Corp. - Specifications subject to change without notice.