

McIntosh XRT28 Loudspeaker

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Anyone who's heard a pair of good speakers played outdoors and high off the ground will surely have been struck by the realistic reproduction the elimination of room effects makes possible. Speakers have many intrinsic problems, but their biggest is arguably the interaction with the room around them. The acoustics of listening rooms can't be known in advance by speaker designers, and except for the floor interaction, room reflections occur at distances and angles that can only be guessed at. So the only real way to control the room's damage is to adjust for room effects, a technique that works most easily in the bass, and to minimize by design the extent to which the speaker interacts with the room.

McIntosh's XRT28s have less interaction with the room than almost any other speaker I've encountered—only the Gradients are in the same league. In the bass, the McIntoshs use the floor to minimize Allison effect problems [see Issue 150 for more on this], and in the mid and high frequencies the speaker makes the room all but invisible via a controlled radiation pattern. The resulting sound can only be described as stunning.

The extent of the difference that suppressing room effects makes can perhaps best be conveyed by a little story. I played a friend the Water Lily Acoustics recording of Arturo Delmoni's performance of the Ysaye Solo Violin Sonata No. 2 (currently available from John Marks Records). This recording was made in a church with very live acoustics, and the sonic signature of the church is very well recorded. My friend listened carefully, and when the music stopped, he paused and then said, "That is spooky."

And indeed it was. I know the venue well and have even played there myself. Water Lily's Kavi Alexander was even kind enough to record my own playing there for use as a personal reference. Listening to the XRT28s, one feels transported to the church to a remarkable extent. The much deader and smaller room in which we were actually listening simply did not enter the sonic picture.

You hear the church's reverberation on any decent system, but seldom will your own listening room be so little perceptible, and equally rare is the sense of actually being in the real church, hearing the sound bounce off the walls in discrete reflections as the reverberation builds.

There's more to this listening room suppression than just the sense of hearing into the recorded acoustics, important though that is. It's well known and easily observed that early reflections off room surfaces, floor, and ceiling most especially, and to a lesser extent the side walls, change the timbre of the sound. The McIntoshs push these reflections so far down in level that this cause of coloration is simply gone. The resulting sound is startlingly neutral in balance, and with good recordings has much of the simultaneous vividness and sweetness of live music.

In addition to their control of room sound and smooth balance, the XRT28s offer tremendous dynamic power. Although they have a small footprint (only a little over 16" square), the speakers' 76" height does make them fairly hard to ignore, but with the grilles on they look elegant. Within this svelte package, however, lurks a sonic powerhouse. The bass units really are subwoofers (16Hz is the specification), and can play at high levels with minimal distortion, and the speaker remains unruffled by large volumes at all frequencies. In a room of reasonable size, the XRT28s will produce far more clean sound than you will ever need. Orchestral and organ music present no problems. The piano at close range is cleanly reproduced with ease, and it sounds remarkably like a real piano, too. (McIntosh has a larger speaker of similar design that I gather will play even louder, but more dynamic capability would be needed only in a truly palatial room.)

What all this adds up to is an unusually vivid and convincing reproduction of both large- and small-scaled music. I've seldom heard a speaker that presents such a convincing representation of being in the actual presence of an orchestra. This isn't a frequency response matter as such—it persists inde-



pendently of equalization—but rather seems to arise from the suppression of secondary sound from the listening room, together with the speaker's smooth balance and effortless dynamic power.

It's worth having a look at how this radiation pattern control is accomplished. Each XRT28 consists of a bass unit containing two 10" woofers surmounted by a mid-treble unit. The mid-treble unit is four feet high and contains two vertical rows of 4" midrange drivers flanking on either side a vertical row of sixteen 1" tweeters. The mid-treble unit is, as one would expect, very directional vertically.

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Horizontally, it is in effect a D'Appolito arrangement, so it has very uniform response over a listening window but reduced output outside the window, far off axis. So how much does this really suppress room sound? In my well-damped room, the total energy received at the listening position after the first arrival is at least 10dB down from the first arrival at every frequency above 300Hz. In other words, the room is out of there. In effect, the XRT28s give you, in a domestic environment and with absolutely minimal room treatment, something quite close to the RFZ (reflection free zone) sound of Ole Christensen's Focus Recording studio in Denmark, which I once described as the best audio system in my experience.


As always there are some specific limitations and (small) problems. First, the speaker is tonally balanced somewhat on the hot side. McIntosh electronics include tone controls and a full McIntosh system user could adjust this to taste. I got a measured flat response by pulling down the treble somewhat, and I

think that with almost all material you'll want to do this. Moreover, the top-end seems a little irregular intrinsically, compared to, say, the SEAS Excel tweeter in my reference Harbeth Monitor 40s. The McIntosh tweeters are placed inside little holes in the front surface, I'd guess for radiation pattern control, and maybe there's some cavity effect going on here. But in any case, the whole upper-mid and treble lacks the absolute silky smoothness of the Harbeths. This isn't a big thing, in the sense that if you tone down the treble a little to more usual levels, the balance sounds natural and the sound smoother. But some resid-

ual lack of smoothness remains.

Second, the speaker isn't a true linesource since the mid-tweeter array stops a couple of feet off the ground. Thus, it has some considerable sensitivity to the listener's vertical position. This is not only a question of high-frequency balance but also of exact upper-midrange response. (Try some pink noise and move up and down.) And the flattest, most integrated response occurs only in a rather specific vertical position, which is somewhat higher than a conventional chair would provide. One needs either a higher chair or to tilt the speakers slightly forward. The tilt needed to give the ideal position will diminish with distance. But the whole matter is worth keeping in mind, especially in a store audition, where if you just plop down you may not be hearing the speakers to best advantage. Presumably, the larger true linesource model doesn't have this property, but in any case it's not really a serious problem once you're used to dealing with it.

McIntosh has been working on array

speakers for a long time, since before the line source idea and the like became the darling of high end. And the XRT28 most surely does some remarkable things. While I've talked a lot about the speaker's superb technical performance, I want to emphasize that the real payoff is musical. This is truly a speaker for the person who loves the sound of live music, outside of audiophile categories. Just before I started to write these concluding paragraphs, I took a few moments to listen to the Treya Quartet's jazz arrangement of the Fauré *Pavane* [Divox]. It was a moment when, with everything adjusted and myself positioned perfectly, the boundary between the real and the reproduced seemed as thin as gauze. The sense of being in the presence of a jazz quartet (piano, bass, drums, and muted trumpet) and being somewhere else, too, was nearly overwhelming. Have a careful listen to these technically exceptional and highly musical speakers with open ears and mind. If you've always thought of McIntosh as only an electronics company then, as Marilyn Monroe once sang, "You'd be surprised." 

SPECIFICATIONS

Driver complement: Two 10" woofers, twenty 4" midrange drivers, sixteen 1" soft-dome tweeters
Frequency response: 16Hz–20kHz
Sensitivity: 88dB
Impedance: 4 ohms
Recommended amplifier power: 50–1200W
Dimensions: 16-3/8" x 77-1/8" x 16-3/8"
Weight: 139 lbs.

MANUFACTURER INFORMATION

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