

“ ... ENORMOUS VALUE ... ”

amazing ... one of the best

... sound belies its entry level price.”

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“... sound is exactly what I would want from a good, inexpensive system ... smooth, and not at all ‘tinny’ ... midrange — is really good ... smooth and clear ... very intelligible ... articulate, not muddy and chesty ... ”

by Manoj Motwani

This high-performance alternative to a home-theater-in-a-box brings great sound to an entry-level price.

To many audio- and videophiles a bundled surround-speaker system is almost as difficult to take seriously as a home-theater-in-a-box system, yet we see more and more reputable, audiophile-centered companies making such gear. Why? The bottom line is that DVDs, flat-panel televisions, thin LCD/DLP rear-projection televisions, and 5.1-channel sound have changed the way many people look at home entertainment, adding new layers of complexity. Realistically, newcomers to the home-theater world need two things that may be in short supply—speaker-selection expertise and money. Choosing appropriate surround speakers can be difficult and a little intimidating for first-timers, especially if they do not have much time to do research or to spend listening and doing comparison shopping. But money is apt to be an even bigger problem. After a



plasma or other display eats up \$3000+ of a system budget, and after the requisite A/V receiver, DVD player, and cables have soaked up even more money, there may not be much left to spend on a good speaker system. Given these factors, it's easy to see the appeal of low-priced, bundled, surround-speaker systems whose components are well matched and come packaged in a single box. And when a reputable company like Paradigm puts out a good 5.1 channel speaker system for under \$1,000 lay buyers and veteran audio/ videophiles alike ought to sit up and take notice.

Paradigm's 110 CT 5.1-channel speaker system consists of a powered subwoofer, three matched left/right/center-channel speakers whose long, flat enclosures perfectly complement the shape of flat-panel televisions, plus a pair of dipolar surround speakers. The 110 CT front and center speakers each contain two 4.5" bass/midrange drivers and a 1" tweeter—a multi-driver array not often seen in such an inexpensive system, and a clear sign that Paradigm is taking this category very seriously indeed. The 110 CT surround speakers are also unusual in this price class in that they are dipoles, with each speaker having two 3.5" mid/bass drivers and two 1" tweeters. The subwoofer is a bass-reflex design with a 10" driver and a 150W amplifier. On top of this, the system actually looks good and appears to be more expensive than it is. Score more brownie points for Paradigm.

"... one of the best inexpensive bundled speaker systems that I have ever heard ... it's amazing to consider how much performance the system delivers ... lay buyers and veteran audio/videophiles alike ought to sit up and take notice."

These speakers can be wall- or stand-mounted, and for this test I set up the front and rear speakers using Paradigm's matching aluminum stands. The stands were easy enough to put together; but attaching the speakers to the stands revealed two set-up hiccups that reminded me that this is, after all, a very low-priced system. First, I found the mounting bolts meant to attach the speakers to the stands were slightly oversized for their intended bolt holes, and therefore maddeningly easy to strip. When I talked to Mark Aling of Paradigm about this, he told me that mine was the first complaint that he had heard, so that the problem may be with my particular set. Second, I discovered that the stands' mounting plates partially blocked access to the speakers' binding posts, which is a shame since the binding posts are actually quite good. Ordinarily,

the posts would have allowed me to use my banana plug-equipped speaker cables, but the mounting plates' essentially prevented this (only bare wire or spade lugs can be used when the speakers are stand-mounted). Who the heck engineered this mounting system? Apart from these glitches, setup was uneventful.

After the system was in place, I let it break in for a number of hours before doing critical listening. Initially I set the satellite-to-subwoofer crossover frequency at the Paradigm-recommended 80 Hz, though with some reservations given that the 110 CT satellites' frequency response extends only to 120 Hz. Later, I raised the crossover frequency to 120 Hz and found this higher setting helped mitigate a lower midrange/upper bass "hole" that could otherwise be heard between the 110 CT satellites and subwoofer.

Let me start by saying that this is probably one of the best inexpensive bundled speaker systems that I have ever heard, one whose sonics belie its entry-level price. The characteristic sound is exactly what I would want from a good inexpensive system—smooth and not at all "tinny." High-frequency response is very hard to get right, and what Paradigm has done here is to give the speakers a smooth, slightly rolled-off top end, so that the tweeter does not dominate, but the midrange does.

Listening to this system play music in a 2.1-channel configuration is somewhat underwhelming, as it simply cannot put out sufficient volume to fill a moderately sized room. The sound is characteristically smooth, but there still remains a bit of a lower midrange "hole"—something I find on many small, bundled surround systems—where the satellites' frequency response tails off at a relatively high frequency and where the sub cannot reach quite high enough to fill in the missing lower midrange/upper bass information. The Paradigm system actually has about the smallest lower-midrange dip that I have heard in any small system, and I believe this is probably because the two mid/bass drivers used in the 110 CT front and center speakers are more effective than the single mid/bass driver that most small satellites use.

Nevertheless, the dip is still there. However, this problem is alleviated to a significant degree when listening to two-channel music with the system playing in its full 5.1-channel configuration, using Dolby Pro Logic II, DTS Neo:6, or other surround modes. Once you have more speakers (and hence more drivers) moving air this system comes alive, although it is important to realize that it will sound best in small-to-moderately-sized rooms.

"I would highly recommend this system ..."

The midrange of the front/center satellites is really good—smooth and clear, with very intelligible vocals. One of the toughest challenges for any small bundled surround system is to reproduce dialogue so that it sounds articulate, not muddy and chesty, and at this Paradigm's 110 CT system succeeds. The slightly rolled-off top end I mentioned earlier helps tame the brightness of movie soundtracks without the need for THX post-processing. The 110 CT's high-frequency smoothness is particularly important given that the system is likely to be used with one of the many inexpensive A/V receivers on the market, which tend not to have the smoothest of top ends. This was an excellent design choice by Paradigm.

The dipole ADP surround satellites do a fairly good job of enlarging the rear soundstage, and the addition of dipoles in this inexpensive system is another "value-added" feature. Again, this is a good design choice on Paradigm's part, since dipole rear speakers will definitely create a bigger, more expansive soundstage than monopole surrounds. When you are using small speakers to begin with, anything that helps increase the size of the "surround-sound bubble" is welcome.

The Paradigm is probably one of the best inexpensive bundled speaker systems that I have ever heard, one whose sound belies its entry-level price.

The subwoofer is the only element of the 110 CT system whose design I might quibble about. Considered on its own, the 110 CT sub is a handsome, gray-finished piece that goes about its job with vigor. Although its

low-frequency response extends only to about 50 Hz (qualifying it as a bass module rather than as a subwoofer), the 110 CT sub manages to shake the floor a bit and to convince you that it goes deeper than it actually does. However, I would have preferred less emphasis on the “subwoofer” aspects of the design, and more emphasis on the woofer serving as a clear-sounding bass module that could help fill in lower midrange frequencies. I realize that this might not seem as sexy as producing a good rumble on movie soundtracks, but it would make for a better system to live with and enjoy on an everyday basis.

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Overall, there really is a lot to like about Paradigm’s 110 CT system, and you can’t help but appreciate the enormous value that it offers. It is amazing to consider how much performance the system delivers at its price point—and it even manages to look pretty good in the process. Despite the stand-mounting foibles I encountered (I think these speakers would be better wall-mounted anyway), I would highly recommend this system to anyone looking for good surround speakers in this price range.