

EDITORS' 18 BEST PRODUCTS OF THE YEAR!

THE HOME Theater

FREE INSIDE



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- Different Sizes
- Different Prices
- Which Is Best for You?



Academy Award winner Jennifer Hudson stars with Beyoncé Knowles and Anika Noni Rose in *Dreamgirls*.

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Sunfire Cinema Ribbon CRM-2 Speaker System

Expect the unexpected.



BY STEVE GUTTENBERG

What a long, strange trip it's been. I've reviewed hundreds of speakers—big towers, tiny satellites, high-end flagships, and a long run of budget models—but Sunfire's new XT Series Cinema Ribbon speaker is something different. I couldn't get over how this little thing, standing just 8.25 inches tall, can play bloody loud and project the sort of huge and still highly focused imaging I've only heard

from exotic, big-bucks speakers. On well-recorded concert DVDs, like *Pixies: Live at the Paradise in Boston*, the Cinema Ribbons let me hear *around* each musician. It was as if the band had materialized, fully formed, in front of me. If I had any doubts about the pint-sized speakers' ability to handle gobs of power, rocking out with the *Led Zeppelin* two-disc DVD set convinced me. John Bonham's hand drumming on "Moby Dick" had the sort of tactile, palpable presence you hear in real life.

With the volume cranked, I felt—and I mean *felt*—each whack on the floor toms. The Cinema Ribbons (with the assistance of Sunfire's True Subwoofer EQ) sounded like a set of tower speakers.

How Does It Do That?

A 6-inch planar magnetic tweeter completely covers the Cinema Ribbon CRM-2's front baffle. The tweeter is essentially a lightweight diaphragm with an etched aluminum-foil conductor that is suspended between neodymium magnets. Look closely, and you'll see that the diaphragm isn't a single metal ribbon (the strict definition of a ribbon driver)—it's in fact a very skinny, 5-foot-long conductive strip wrapped around and around. Its ultralow moving mass allows the diaphragm to reproduce treble detail with a claimed ultrahigh-frequency response up to 40 kilohertz—and with what I personally find to be a realism no dome tweeter can match. Each side of the speaker is fitted with an all-new 4.5-inch driver that has two unusual design features: an oversized, four-layer copper voice coil and a suspension that allows for a 1-inch peak-to-peak, back-and-forth excursion. (That's more typical of larger drivers.) Sunfire designed the cabinet's purposeful shape to enhance the sound—the sides are parallel, but the top

panel slopes back to meet the rakishly canted rear baffle. The tweeter is responsible for the speaker's pinpoint imaging, while the side-mounted woofers project a spectacularly wide soundstage. You've never heard anything quite like the CRM-2.

You can use the speakers with just about any receiver, even a moderately powered model, or with monstrous amps, including Sunfire's TGA-7400 400-watt-per-channel power amp.

The Cinema Ribbon CRM-2C center speaker uses the very same drivers as the CRM-2, but the two woofers straddle the tweeter on the front baffle, which is positioned horizontally instead of vertically. In an attempt to correct for the limited horizontal dispersion that can often result from this driver array, Sunfire molded an acoustic lens into the grille frame. Male and female voices sounded lifelike and immediate, without any of the closed-in, boxy midrange quality I hear from so many small center speakers.

You can match the Cinema Ribbons with any of Sunfire's eight subwoofer models, ranging from the \$649 D-8 8-inch sub to the \$2,195 True Subwoofer EQ Signature 12-inch model. I used their True Subwoofer EQ, which is pretty amazing in its own right. Its claimed 2,700-watt amplifier drives one burly-looking 10-inch woofer, and a matching 10-inch passive radiator is on the other side of the cabinet. The cube-shaped sub also features a built-in, four-band equalizer to help smooth out any nasty room anomalies that could color the bass. The True Subwoofer EQ's microphone and auto-EQ tuning system work well enough, but I preferred to manually tune the True's EQ by ear. Deep, deep

bass was rock solid, so the little guy rattled my room with a vengeance. Still, even after a lot of tweaking, the sub's bass did not seamlessly gel with the Cinema Ribbons. The audible bass gap between the sub and the satellites made some CDs

and DVDs sound thinner than they ought to, and bass definition was good but not great. (See the HT Labs box for details.)

The Cinema Ribbons and True Subwoofer EQ are finished with seven coats of high-gloss ebonized

AT A GLANCE SUNFIRE CINEMA RIBBON CRM-2 SPEAKER SYSTEM



These listings are based on the manufacturer's stated specs; the HT Labs box below indicates the gear's performance on our test bench.

SUBWOOFER: TRUE SUBWOOFER EQ

Connections: Stereo speaker-level inputs; stereo RCA line-level in and out. XLR (balanced) line-

SPEAKER:

Type:
Tweeter (size in inches, type):
Woofer (size in inches, type):
Nominal Impedance (ohms):
Recommended Amp Power:
Available Finishes:
Dimensions (H x W x D, inches):
Weight (pounds):
Price:

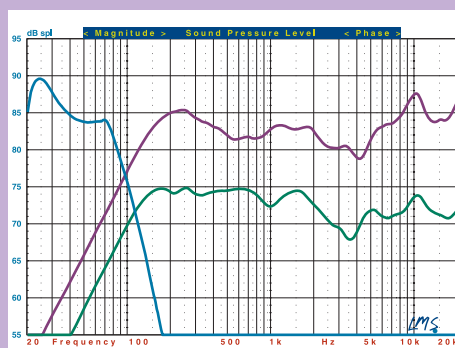
CRM-2

Two-way bookshelf
6, Waveguide-loaded neodymium planar magnetic
4.5, cone (2)
8
25-400 watts
Gloss Ebonized Rosewood
8.25 x 5.5 x 6
9
\$800/each

CRM-2C

Two-way center
6, Waveguide-loaded neodymium planar magnetic w/ acoustic lens grille
4.5, cone (2)
8
25-400 watts
Gloss Ebonized Rosewood
6 x 17 x 3.75
10.5
\$800

HT Labs Measures: Sunfire Cinema Ribbon CRM-2 Speaker System



••• Satellite Sensitivity:
82.5 dB from 500 Hz to 2 kHz

••• Center Sensitivity:
85 dB from 500 Hz to 2 kHz

The above graph shows the quasi-anechoic (employing close-miking of all woofers) frequency response of the Sunfire CRM-2 satellite (purple trace), True Subwoofer EQ subwoofer (blue trace), and CRM-2C center-channel speaker (green trace). All passive loudspeakers were measured with grilles at

a distance of 1 meter with a 2.83-volt input and scaled for display purposes.

The CRM-2's listening-window response (a five-point average of axial and +/-15-degree horizontal and vertical responses) measures +2.90/-3.69 decibels from 200 hertz to 10 kilohertz. The -3-dB point is at 115 Hz, and the -6-dB point is at 96 Hz. Impedance reaches a minimum of 6.15 ohms at 288 Hz and a phase angle of 37.39 degrees at 100 Hz.

The CRM-2C's listening-window response measures 0.83/-6.14 dB from 200 Hz to 10 kHz. An average of axial and +/-15-degree horizontal responses measures 1.03/-8.55 dB from 200 Hz to 10 kHz. The -3-dB point is at 106 Hz, and the -6-dB point is at 89 Hz. Impedance reaches a minimum of 5.40 ohms at 247 Hz and a phase angle of -42.98 degrees at 136 Hz.

The True Subwoofer EQ's close-miked response, normalized to the level at 80 Hz, indicates that the lower -3-dB point is at 19 Hz and the -6-dB point is at 18 Hz. The upper -3-dB point is at 91 Hz with the Crossover Frequency control set to Bypass. Please note that the response begins to fall off above 70 Hz and therefore is not flat at our reference frequency of 80 Hz and that the level is 8 dB at 25 Hz relative to the level at 80 Hz. —MJP

lacquer over rosewood. In all but the brightest light, the Sunfires' finish appears black.

The speakers' tonal balance mellowed over the first 100 hours, and the speakers developed a presence that belied their size. I used OmniMount's SAT2 floor stands with the Cinema Ribbons, and the combination not only looked smart, it positioned the speakers for the best possible sound. Wall mounting is also possible; if you choose that route, flick the speakers' boundary-compensation switch from Room to Wall to reduce the bass bulge that can occur when the speakers are wall mounted. I noticed that the exact angle of the speakers' toe-in alters the treble brightness. (As you aim the speakers in, toward the sweet spot, the sound is brighter than it is when they fire straight ahead.) And I couldn't help but notice that, when I stood up, the treble response and detail dropped like a stone. On the positive side, the Cinema Ribbons' limited vertical dispersion minimizes image-degrading floor and ceiling reflections. That also meant, for me at least, that the surround speakers sounded their best mounted on floor stands at the same height as the front speakers. Alternatively, you could position the surround speakers higher up on the wall; just remember to aim



▲ Steve cradles his new baby. The sound that the pint-sized CRM-2 satellite produces sounds like it comes from a much larger loudspeaker.

them down toward the listener. I also noticed that the CRM-2C center speaker didn't sound as open as the CRM-2. So, I experimented with using a CRM-2 in the center position, and I preferred that setup. What can I say? An identical speaker array all around really does sound better.

Expanding Sonic Boundaries

The Cinema Ribbons came alive when I played *Variations*, a recent *Stereophile* CD of pianist Robert Silverman performing Beethoven's *Diabelli Variations*. The recording presented the tickled Steinway's rich harmonics masterfully, and I loved the way the Cinema Ribbons decoded Silverman's touch. With my eyes closed, I felt like I was in a concert hall. The illusion was that perfect. And, when I used my Sunfire Theater Grand III pre/pro's Sonic Holography processor (a feature found on every Sunfire pre/pro), the perception of soundstage depth in my stereo recordings doubled.

The Cinema Ribbons' ability to unravel even the most densely packed recordings made them sound less like hi-fi and more like real life. My favorite heavy-metal percussion band, Savage Aural Hotbed, has a new CD, *The Unified Pounding Theory*, wherein they whack the bejesus out of metal drums, beer kegs, springs, pipes, mufflers, and occasional instruments. The

HIGHLIGHTS

- The Cinema Ribbon speakers not only sound amazing, these 8-inch-tall speakers can rock the house almost like some tower speakers
- Holographic, utterly three-dimensional imaging and soundstaging

tunes balance a furious tribal energy with softer, more mesmerizing rhythms to create a cohesive and surprising musical whole. The Cinema Ribbons' extraordinary clarity gave the music an immediate quality that few speakers of any size can match.

Yes, when I played big, special-effects-heavy flicks like *Superman Returns* at high volume, the Cinema Ribbons' trim dimensions were more sonically obvious. The scene where Superman guides a passenger jet to a safe landing was plenty exciting, but the speakers didn't deliver the sonic throw weight I'd get from large bookshelf or floor-standing speakers. Still, the Cinema Ribbons sure did better in this regard than any minispeaker I can think of. As reviewed, this speaker system retails for \$5,650 and delivers a nearly perfect amalgam of audiophile and home theater performance traits in a small size. It really is amazing. 🎧

| SUNFIRE CINEMA RIBBON CRM-2 SPEAKER SYSTEM | | | | | OVERALL RATING |
|--|--|---|---|---|--|
| Build Quality | Value | Features | Performance | Ergonomics | 93 |
| → The seven-coat, clear-lacquer finish over dark rosewood looks expensive → Rated for use with amps up to 400 watts | → Speakers that I like this much usually go for a lot more dough → Based on years of research into psycho-acoustics conducted by founder Bob Carver | → The tweeter is claimed to produce lower distortion and more extended high-frequency response than most dome tweeters → Woofer designed for improved dynamics | → Impressive dynamic range for a really small speaker → Baby subwoofer delves deep, but it's not as smooth as the proverbial baby's bottom | → Achieving a smooth blend between the satellites and subwoofer isn't easy, if even possible → Speakers are wall mountable | |
| 94 | 93 | 95 | 94 | 88 | |
| General information CRM-2 Bookshelf Speaker, \$800/each; CRM-2C Center-Channel Speaker, \$800; True Subwoofer EQ, \$1,650 Sunfire, (425) 335-4748, www.sunfire.com → Dealer Locator Code SUN | | | | | The Cinema Ribbons' unique combination of resolution, transparency, high-frequency detail, freewheeling dynamics, and open midrange are tough to beat. And, when you consider that all this sound is coming from an 8-inch-tall speaker, well, it's the stuff legends are made of. |