

Piega C711
Unique

Equipment report

by [Robert Harley](#) | Nov 05th, 2018

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Very few loudspeaker companies can claim to have created a unique technology, but the Swiss manufacturer Piega owns that distinction with its coaxial ribbon driver. Since 1986 Piega has built, from scratch, the ribbon drivers found in all the company's upper-end speakers. In fact, in 2014 Piega sold its 100,000th pair of ribbon-based speakers, with every single ribbon made in-house. That's quite an achievement.

Indeed, the company was founded on the ribbon driver; "piega" means "fold" in Italian, a reference to the pleats in the diaphragms of its first drivers. Note that although Piega calls its drivers "ribbons" they are technically planar-magnetic designs. Nonetheless, I'll brave the inevitable deluge of emails from the audio pedants and refer to the drivers as ribbons in this review. (See the sidebar for a discussion of the distinction between a ribbon driver and a planar-magnetic.)

Although Piega is far from the only company building ribbon drivers, what is unique to Piega is the company's concentric ribbon midrange/tweeter module. This amazing piece of audio technology positions a ribbon tweeter *inside* a larger ribbon midrange. Also called a coaxial driver, a concentric design is a true point source, with none of the nodal cancellation that results when the midrange and tweeter are physically separated on the baffle. The midrange and tweeter outputs combine perfectly no matter what the listening height, listening distance, or listening axis. The Piega coincident ribbon measures about 8" x 7.5", with the tweeter occupying a 1" x 2" rectangle in the center.

Piega has been making a series of speakers with this concentric ribbon for many years, but recently updated and improved its technology for the new Coaxial line reviewed here. This line consists of three models, the stand-mount C311 along with the floorstanding C511 and C711. All three feature the same coincident midrange/tweeter; the difference is in the cabinet size and the number of woofers and their dimensions. Upgrades to this new version of the coincident driver include stronger neodymium magnets and pole plates made of high-strength steel, both of which increase the driver's sensitivity. The layout of the conductors that are bonded to the diaphragm has been revised, and the diaphragm has a new damping system. On the woofer side, the bass driver is entirely new, with titanium voice-coil formers, a new suspension, and a coated-aluminum diaphragm that is reportedly stiffer than its predecessors. In the three-way C711 two of the 220mm woofers are active, and two are passive radiators. Sensitivity is a highish 92dB, making the C711 a fairly easy load for an amplifier.

Another distinctive Piega technology is the extruded aluminum enclosure, which Piega was using long before it became *de rigueur*. In addition to internal horizontal braces, the enclosure is lined with a viscoelastic damping material to suppress resonances. Finally, the cabinet is put under "controlled tension" to further reduce vibration.

The C711 is a moderately sized speaker with a slim profile. The enclosure curves toward a rounded point at the back, forming a parabola when viewed from the top. The speaker is supplied with an optional bottom plate larger than the speaker. This plate has four corner protrusions for attaching rubber feet or spikes (I used the supplied spikes). Two pairs of binding posts are provided for bi-wire connection. My review samples were finished in black anodized

aluminum, although polished aluminum and white lacquer are available. Piega also offers a full range of RAL colors at an extra charge. The magnetically attached grilles are slightly inset in the cabinet, giving the speaker a sleek and streamlined appearance. Build-quality and fit 'n' finish are very high, just as you'd expect from a premium Swiss-made product.



I chose the C711 for review because I was looking for a mid-sized full-range floorstanding speaker that was transparent and revealing enough to use in evaluating other products while I'm in my temporary listening space. I also wanted to hear firsthand the coaxial ribbon driver that I had seen being made during a visit to Piega several years ago (see sidebar). I've enjoyed music through the C711 nearly every day for the past ten months, with a couple of months hiatus to review the Monitor Audio Silver 300 (Issue 282).

The C711 is well balanced tonally, with a fairly extended low-end and enough weight to give the presentation a sense of solidity and foundation. The midbass is a bit ripe, with a full and rich rendering that favors warmth of tone colors over the last measure of textural resolution. I enjoyed the C711's lack of overhang on transients; bass notes started and stopped quickly without any hint of the bloat or slowness on kick drum that can dilute the sense of rhythmic drive. (We erroneously use the term "fast" to describe bass performance, as though a sense of quick attack is conferred by the woofer's ability to move rapidly in response to a transient input signal. In reality, what we perceive as "fast" bass is actually more attributable to a lack of overhang—the woofer stops quickly after the transient is over.) At any rate, I think that the choice of a sealed enclosure with woofers and passive radiators in the C711 is a good one, and one that allows a successful marriage of dynamic drivers with a planar midrange/tweeter.

Although the C711's bass is adequately deep, dynamic, and tuneful, there are other loudspeakers in this price range that go deeper and deliver greater dynamic and textural resolution. But bass isn't the C711's *raison d'être*. The ubiquitous cone midranges and dome tweeters in those other speakers are simply no match for Piega's coincident ribbon driver in speed, resolution, transparency, and, perhaps most importantly, a complete lack of the hard and brittle character of virtually every dome tweeter. We've become inured in reproduced music to the treble sounding somewhat mechanical and metallic, with a bit of extra sizzle on cymbals, tizzy vocal sibilants, and violins overlaid with a sheen that diminishes their liquidity and beauty. When I'm in a concert hall, the most salient reminder of how reproduced music falls short of the real thing is how utterly liquid, gentle, and free from glare the strings sound. In life they have a gossamer-like delicacy that's a far cry from the steely sound of so many recordings played through so many loudspeakers. Some of the blame lies with recording technology and techniques, but loudspeakers are a big contributor. The Piega C711 goes a long way toward mitigating this artifact of reproduced music. For example, the romantic sweeping string section during the middle of the third movement of Rachmaninoff's *Symphonic Dances* was reproduced with a lushness and harmonic rightness that sounded closer to what one hears in the concert hall. Similarly, jazz violinist Regina Carter's instrument on her album *Rhythms of the Heart* had a warm rich quality that emphasized the instrument's body rather than the strings. (The great mastering engineer Doug Sax once described to me his impressions upon hearing heard digitally recorded music for the first time: "The violin sounded like a buzz saw! It was a joke!")

Although my description might suggest that the C711 has a darkish tonal balance, or that it obscures low-level detail in the name of liquidity, the truth, in fact, is the opposite. The upper midrange through the lower treble is lively, open,

and immediate, with an “illuminated from within” quality that provides a clear view into the soundstage and the instruments within it. (Jonathan Valin coined that wonderfully evocative expression to describe the sound of Audio Research electronics.) I would go so far as to say that the C711 is more forward and energetic in the midrange and treble than most speakers, but can get away with it because it doesn’t overlay the music with the metallic-sounding artifacts of cone midrange drivers and dome tweeters. The result is a presentation that is at once full of verve and life, richly detailed and highly resolving, yet doesn’t affront the ear by sounding bright. Instead I heard an exquisite combination of resolution and ease—the Holy Grail of hi-fi, in my view. Resolution often comes at the cost of sounding clinical and fatiguing; the sense of ease is paid for with a diminution of fine detail and softened transients. It’s interesting to note that when we refer to a cable, for example, as “bright,” we’re not suggesting a boost of high-frequency energy (which is impossible) but rather to a distortion that we perceive as excess treble. Two products with identically flat frequency responses can be perceived as having different amounts of treble. This is also why early CD sounded simultaneously bright and lacking air and extension. Similarly, because Piega’s coaxial ribbon driver is so low in metallic-sounding artifacts, it can sound at once forward and relaxed in the midrange and treble.

A parallel exists with how transient speed is perceived. Cone-and-dome speakers often make transients sound etched, leading to quick listening fatigue. It’s not the speed that causes the fatigue but the artifact that accompanies the transient. The C711 is about as fast a speaker as I’ve heard in the midrange and treble (another is the MartinLogan Neolith), yet it never sounds clinical or analytical. Rather, the C711’s extraordinary transient fidelity reveals the mechanisms by which instruments create sound (thereby increasing timbral realism) as well as the subtle dynamic inflections that convey the musicians’ expressions. Listen, for example, to the track “Contractor’s Blues” from the great Count Basie album *88 Basie Street* (original Pablo LP). The incomparable Joe Pass takes the last solo, coming in with a tremendous sense of swing. The drummer picks up on this and partway through the solo drives the swinging rhythm even harder with gentle rim shots on the snare that kick it up a notch. The Piega effortlessly reveals such seemingly small details, but it’s these details that distinguish a good hi-fi from a music-making machine.

There is, however, a slight penalty for the C711’s exquisite delicacy, transient speed, and resolution: the midrange through the treble isn’t as hard-hitting dynamically as I hear from the best cone-based speakers. The transients are lightning fast, but there’s a little less weight, impact, and body behind those attacks. This character gives the C711 a somewhat polite rendering (despite the lively midband) that is better suited to some music than others. For example, the pop of a snare drum doesn’t quite have the knock-you-back-in-your-chair impact of cone-based speakers. Steve Gadd’s superbly recorded drums on the new Chick Corea album *Chinese Butterfly* didn’t quite convey the full measure of his trademarked power-playing style. Similarly, piano wasn’t quite as percussively vibrant as I’ve heard from cone-based speakers. Concomitantly, instrumental textures tend to be a bit light and ethereal. Although highly resolved and beautifully detailed, tonal colors lean toward the cool side rather than sounding robust, richly saturated, and full-bodied.



That said, the C711's ethereal character contributes to this speaker's stunning spatial presentation. The Piega seems to float images in three-dimensional space with no apparent connection to the pair of speakers. Many speakers will pull off this trick, but the C711 goes beyond conventional imaging to beautifully (and accurately) infuse the soundstage with a tangible sense of air and bloom among instruments. This quality worked synergistically with the C711's stunning timbral resolution to convey the precise spatial and textural characteristics of individual instruments, particularly during dense passages or unison phrases. The C711 was the antithesis of thick, congealed, confused, or homogenized—spatially or tonally. I could effortlessly shift my attention from an instrument or section to another as easily as I can when listening to live music. This quality was particularly apparent on vocal harmonies, such as on The Manhattan Transfer's new album *The Junction*. Each voice was presented with its own unique timbre intact and distinct from the others; yet the vocals blended into a coherent whole. This quality went a long way toward my enjoyment of music through the C711.

Throughout my time with the C711 I was never aware of any discontinuity between the dynamic woofers and the planar midrange/tweeter. That's not surprising considering that Piega co-founder Kurt Scheuch has been working on the challenge of mating ribbon and dynamic drivers for the past 32 years. In addition, the blend between the midrange and tweeter was completely coherent and seamless. The speaker sounds of-a-piece from top to bottom.

Conclusion

Piega's C711 offers a compelling alternative to the veritable forest of cones-in-a-box speakers that dominate high-end audio. Their coaxial ribbon midrange/tweeter is unique, and so is the sound. This driver is spectacular, reproducing transients with lifelike detail and immediacy, yet with an utter sense of ease and lack of etch. The sound gets "out of the box," portraying instruments and voices with a realism and clarity that elude all but the very best cone speakers. Although I would characterize the C711's bass as good, you won't buy this speaker for its bottom end. It's the magic above the bass that makes the C711 special.

If you are drawn to the qualities offered by the coincident ribbon driver but don't have the space or the budget for the C711, remember that the C311 and C511 incorporate the same driver. I suspect that they provide the same speed, resolution, and ethereal beauty of the C711 but with less bass output. I should also mention that the C711 is relatively easy to drive. The Esoteric F-03A's 30Wpc was enough to power the 92dB-sensitive C711 to room-filling levels.

There are a lot of compelling choices in \$25k loudspeakers, but the Piega C711 offers something unique in both technology and musical presentation. You may find, as I did, that those unique charms are hard to resist.

Ed. Note: For more on TAS' visit to the Piega factory and the company's unique loudspeaker designs, click [here](#).

Specs & Pricing

Type: Three-way floorstanding loudspeaker

Driver complement: One coincident planar-magnetic midrange/tweeter, two 220mm active woofers, two 220mm passive radiators

Frequency response: 22Hz–50kHz

Sensitivity: 92dB/1W/1m

Impedance: 4 ohms nominal

Dimensions: 11" x 46.5" x 13"

Weight: 103.4 lbs. each, net

Finishes: Polished aluminum, black anodized aluminum, white lacquer; RAL colors available at extra charge

Price: \$25,000 per pair

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Associated Components

Amplification: Esoteric F-03A integrated amplifier; AVM CS2.2 all-in-one system

Sources: AVM CS2.2; Berkeley Alpha Reference Series 2 MQA DAC; Berkeley Alpha USB; Aurender W20 music server; Pro-Ject X Perseus 6 turntable with Sumiko Blue Point No.2 cartridge

Speaker cables: Kimber 4TC, Wireworld Mini Eclipse 7

Interconnects: Wireworld Eclipse 7

Digital interconnects: Audience Au24 USB, AudioQuest Wild

AC power: Shunyata Denali, Shunyata Sigma AC cords

Room treatment: ASC 16" Full-Round Tube Traps, Acoustic Geometry Pro Pack, Stillpoints Aperture Panels