

Coaxials for first time smart buyers



BEST PRODUCT
Entry-Class from 75 €
CAR & HiFi 5/2019

For tight budgets

Axton ATX-Series

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The low-priced Axton component systems are probably among the best-selling branded speakers on the market today. With prices from 100 euros up-

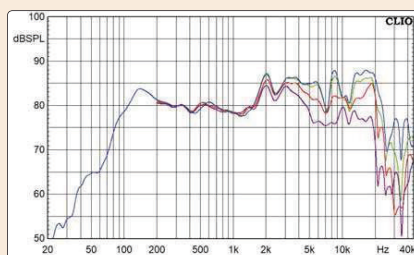
wards they attract first-time buyers while offering a low-priced replacement for defective OEM speakers. However, it is even more attractive with the coaxial systems of the ATX series as these do not need a separate tweeter and external crossover. Therefore they can be had a good bit cheaper. There are the 10, 13 and 16 coax models at prices

between 45 and 60 euros for a pair inclusive of protective grille. Clearly for this low budget you cannot expect them to be high-end, yet the successful test of the ATC components (issue 5/2019) shows that soundwise there is plenty going on here. The mid/woofers of our ATX coaxials are of course based on the same technology as the

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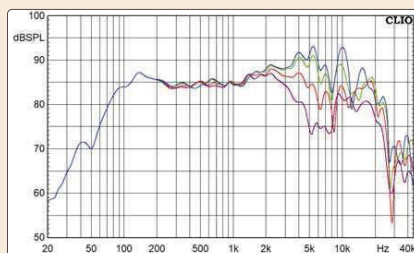
Technics

• Axton ATX100



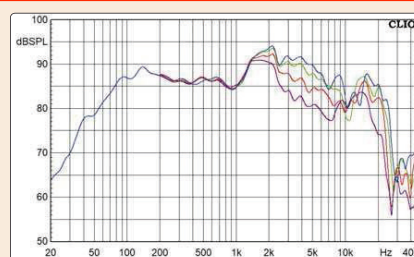
Overall the ATX100 is okay. There is not much at the bottom end, but up around 20 kHz it does well

• Axton ATX130



The ATX130 impresses with a near perfect amplitude frequency response. With a sound pressure level of 85 - 86 dB it is also loud enough

• Axton ATX165



The ATX165 shows a preference for upper mid and presence ranges, otherwise it is not bad at all

components. Overall the ATX do not give an impression of being cheap at all. They are properly made with cleanly deburred metal baskets. Beneath the centering spiders there are even vent openings for cooling and to equalize the pressure. This is because the pole piece holes on coax speakers are closed as they are taken up by the tweeter mount. A positive feature is the very low installation depth of the chassis that ensures that the ATX fit into a variety of openings. At only 60 millimeters the installation depth of the ATX165 is as little as its ATC relative, putting it among the shallow 16 models. Much shallower depths can be found only with a neodymium drive, but of course not at this price. The mid/woofers are assembled with the same cones as the component systems, so we are looking at polypropylene cones here. A major difference from the components is of course the built-in tweeter. In this case it is tiny with a 19-millimeter plastic cone and 13-millimeter voice coil. It is therefore a variant of probably the most common of all car hifi tweeters, also dismissively called the 'squeak pill' in Germany. Originally an ingenious design of the French manufacturer Audax using a mylar cone, the imitators soon fell into disrepute as 'one note tweeters', producing little more than a peak around 10 kHz. Since then, however, these tweeters have been improved so that although they are still the budget vari-



The ATX are solidly made. They are equipped with metal baskets that even have vent openings at the rear

ant for coaxials they no longer hurt the ears. With the ATX Axton has even allowed itself the luxury of placing the tweeters in the acoustic center of the speaker. Instead of a dust cap inside the voice coil of the mid/woofer, they are installed as normal on a centimeter-long top piece. This arrangement helps to avoid time alignment differences between the two cones, which is an advantage for the sound. By its very nature, the whole thing only works with very small tweeters, which is why Axton has fallen back on this variety. There is not much to say about the crossovers. The minimal variant is employed that consists of a small protective capacitor in front of the tweeter. The mid/woofer hardly needs any components at all and simply works as it is.

Measurements and Sound

In front of the measurement microphone the ATX units perform very respectably – and not only because of the price. There is no need at all for them to fear comparison, and overall they deliver good results. The amplitude response



The ATX family is available as 10, 13 and 16 size models, which is enough to cover most applications

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of the 10 and 16 models is not ideally flat; in particular the 16 is rather too prominent in the sensitive region around 2 kHz. The 10 model shows subdued mids, which is not tragic. The 13 model has the best measurements with a pleasing even curve over the corner up to 20 kHz, so obviously the little tweeter is not bad at all. The ATX130 also excels with the distortion figures. The 10 and 16 are not bad, but the 13 turns out to have really wonderfully low distortion. Most of the more expensive speakers could learn a lot from them. From a sound engineering point of view everything is in the green zone. The ATX100 plays with very nice dynamics and good sound staging that seems a bit in the background. Although you cannot expect authentic bass from the little 10 unit, nevertheless what it does is clean and well done. The 16 offers a notch more bass, but neither is it among the strongest bass 16s. Instead, like the 10, it produces nice precise low frequencies. At the top end there is little to fault with any of the three ATX units. Drums sound decent, and the harmonics of natural instruments are easy to hear. Clearly it is not top class, but you can hear music well with it. Our favorite is again the 13, which plays quite wonderfully. It plays music in a well-balanced and mature way, and gives the most harmonious overall impression.

Summary

Provided you don't make unreasonable demands you will find the Axton ATX units to be solid speakers with a good sound. You can't really go wrong with them.



The little tweeter is housed inside the voice coil of the mid/woofer and so is located in the acoustic center of the 16

| Speaker | | Axton ATX100 | Axton ATX130 | Axton ATX165 |
|------------------------|------|--------------------|--------------------|---------------------|
| Distributor | | ACR | ACR | ACR |
| Hotline | | info@acr.eu | info@acr.eu | info@acr.eu |
| Internet www. | | acr.eu | acr.eu | acr.eu |
| ▶ Sound quality | 55 % | 1,3 | 1,2 | 1,3 |
| Bass | 11 % | 1,5 | 1,5 | 1,5 |
| Neutrality | 11 % | 2,0 | 1,5 | 1,5 |
| Transparency | 11 % | 1,0 | 1,0 | 1,0 |
| Soundstaging | 11 % | 1,0 | 1,0 | 1,0 |
| Dynamics | 11 % | 1,0 | 1,0 | 1,5 |
| ▶ Lab | 30 % | 1,5 | 1,0 | 1,5 |
| Frequency | 10 % | 1,5 | 1,0 | 1,5 |
| Max. volume | 10 % | 1,5 | 1,0 | 1,5 |
| Distortion | 10 % | 1,5 | 1,0 | 1,5 |
| ▶ Practice | 15 % | 1,8 | 1,8 | 1,8 |
| Crossover | 10 % | 2,0 | 2,0 | 2,0 |
| Workmanship | 5 % | 1,5 | 1,5 | 1,5 |
| Technical data | | | | |
| Chassis diameter | | 103 mm | 131 mm | 167 mm |
| Mounting cutout | | 94 mm | 116 mm | 144 mm |
| Mounting depth | | 43 mm | 57 mm | 60 mm |
| Magnet diameter | | 70 mm | 80 mm | 84 mm |
| TW dome diameter | | 19 mm | 19 mm | 19 mm |
| TW housing diameter | | - | - | - |
| Crossover slope | | 0/6 dB | 0/6 dB | 0/6 dB |
| Tweeter protection | | - | - | - |
| Volume adjustment TW | | - | - | - |
| Grill | | • | • | • |
| Accessories | | - | - | - |
| Nominal impedance | | 4 Ohm | 4 Ohm | 3 Ohm |
| DC resistance Rdc | | 3,02 Ohm | 3,08 Ohm | 2,88 Ohm |
| Coil inductivity Le | | 0,14 mH | 0,13 mH | 0,16 mH |
| Coil diameter | | 25 mm | 25 mm | 25 mm |
| Cone surface Sd | | 54 cm ² | 88 cm ² | 131 cm ² |
| Resonance frequency fs | | 122 Hz | 90 Hz | 76 Hz |
| Mechanical quality Qms | | 5,79 | 5,41 | 5,13 |
| Electrical quality Qes | | 1,49 | 0,90 | 0,95 |
| Total quality Qts | | 1,18 | 0,77 | 0,80 |
| Equivalent volume Vas | | 1,2 l | 3,7 l | 9,9 l |
| Moving mass Mms | | 5,8 g | 9,1 g | 11,4 g |
| Rms | | 0,77 kg/s | 0,95 kg/s | 1,05 kg/s |
| Cms | | 0,29 mm/N | 0,34 mm/N | 0,39 mm/N |
| B*I | | 3,01 Tm | 4,18 Tm | 4,05 Tm |
| Pressure 2 V, 1 m | | 82 dB | 86 dB | 87 dB |
| Power handling | | 30 - 75 W | 20 - 75 W | 20 - 75 W |

Summary

| | | about 45 Euro | about 55 Euro | about 60 Euro |
|---|----------------|----------------|----------------|----------------|
| Price | | | | |
| Sound quality | 55 % | 1,3 | 1,2 | 1,3 |
| Lab | 30 % | 1,5 | 1,0 | 1,5 |
| Practice | 15 % | 1,8 | 1,8 | 1,8 |
| Price/performance | | very good | very good | very good |
| CAR & HIFI edition 5/2019 | Ultimate-Class | Ultimate-Class | Ultimate-Class | Ultimate-Class |
| | Top-Class | Top-Class | Top-Class | Top-Class |
| | Upper-Class | Upper-Class | Upper-Class | Upper-Class |
| | Entry-Class | Entry-Class | Entry-Class | Entry-Class |
| Mark | | 1,4 | 1,2 | 1,4 |

„Coaxes for beginners and budget shopper.“