

Axton ATC-S – Four entry-level component speaker systems on test



# Budget component speaker systems

► At Axton right now there is a whole slew of new speakers. The budget friendly ATC/ATX series of component and coaxial speaker systems is now at the dealers having been completely renewed. Here we test the four component speakers for DIN slots from 100 to 200 mm.

The entry-level component speakers from Axton have been a safe bet: the previous generation and the one before that have already proved them-

selves excellently in our tests. The 2023 generation is now called ATC-S and has been completely renewed. The component speakers are all well made

and delight with a very gratifying feel of quality – especially at the attractive prices. As before, the tweeter is constructed as a 25 mm woven fabric dome and may be mounted flush, or come in a housing for mounting on a surface or in a sloping dashboard, as desired. For the price class that is a comparative luxury: often there is only a 19 mm dome or something out of plastic – both



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cost-cutting measures that you don't find at Axton. That is save for the fact that all component speakers come with the same tweeter crossover – naturally the simplest, though common practice. The crossover includes a small electrolytic capacitor as a 6 dB filter and a level resistor, selectable by a switch. The woofer branch of the crossover is attached directly to the woofer so that the crossover housing is still easy to install and the ATC-S are wired up with minimal effort. Woofer crossovers consist of a coil that also filters at 6 dB. The coil is attached to the woofer basket that for the ATC-S is now made of plastic. This makes a very good impression and is more pleasing than the standard metal basket in the cheaper version that are often found with entry-level systems. The drivers of all ATC-S units are well made, individually dimensioned for every chassis. With pole plates that are cleanly stamped and no lack of magnetic material they have no need to fear comparison. Equally so for the Nomex centering spiders and polypropylene cones which, by the way, are of new design. Alongside our component speaker systems, there are also coaxial versions in the sizes 10 to 16 cm and a 13 cm speaker with a dual voice coil

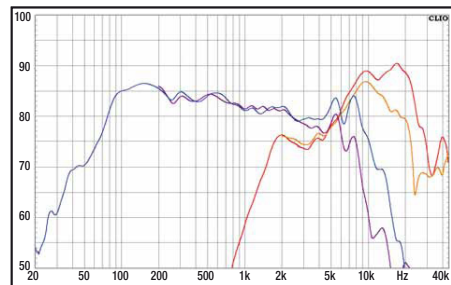


as special version for trucks.

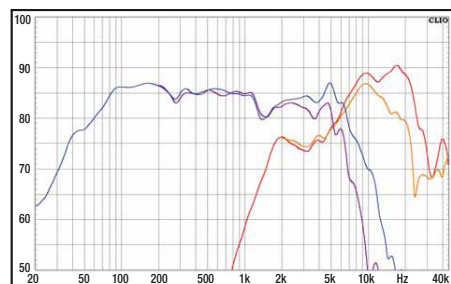
### Measurements and Sound

The lab walkthrough showed that Axton relies on proven quality. No test measurement stands out, which is a good sign for speakers. The ATC-S units rely on impedances of 3 ohms (almost in the 4-ohm region), which also presents no problems at all for the car radio. The Q-factors lie around 0.8, quite acceptable for installation in a car door while not impairing the bass reproduction. The efficiencies or characteristic sound pressure levels look ok for the two small systems. The 165 and 200 mm speakers at 89 dB (1W, 1m) are in fact pretty good on account of the larger cone areas. All the systems again receive a recommendation for operation without an extra amplifier – important in this price class. Also the new form of polypropylene cones exploit their advantages in front of the microphone, do not suffer from the gentle filtering with just a single coil, and

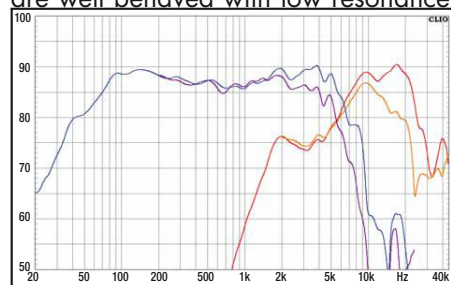
**All ATC-S woofers are equipped with stable plastic baskets and have individually dimensioned drivers**



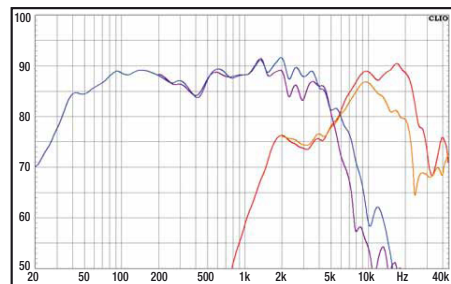
**The ATC100S delivers 85 dB in the bass and fundamental. The mids are subdued relative to the highs – the classic „bath tub“**



**The ATC130S delivers a balanced amplitude response; the small resonance at 4 kHz is well damped and harmless are well behaved with low resonance.**



**The ATC165S in fact runs perfectly: as for all of them the remains of the fundamental resonance at 2 kHz can still be seen in the tweeter.**



**It is pleasing to see the ATC200S amplitude response extending to the low frequencies. The cone resonances of the large cone are spread over a range from 1.5 to 5 kHz**



**The 25 mm woven fabric dome tweeter can be installed in various ways**

**The crossover branches of the mid/woofers consist of a cored coil that is directly glued to the basket**

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The tweeter does its job up to 20 kHz, which is perfectly in order. As regards distortion the ATC-S units lie in the green zone, the smallest system ATC100S performing best in this test, followed by the ATC165S. Sonically you will also rediscover yourself immediately. The way the systems play is very pleasant and balanced, with no distortion or hiss. It's not just because of the prices, the sets sound mature with appealing colors and a load of bass, though this is not unpleasantly excessive. This is where the big 200 mm unit scores: though the level delivered is hardly more than the ATC165S, it does play markedly deeper. In the high range the common tweeter plays with a good level of detail and spatiality. Altogether the ATC165S is well balanced, delivering punchy bass, faithful reproduction in the mid-range, and enough energy to make for fun. But the two small units also do a great job and earn big recom-

mendations for smart buyers.

### Summary

The new ATC-S series does not do any experiments here and that is a good thing. The chassis have been upgraded with very nice plastic baskets, and the parts most important for the sound have been reengineered to make the series fit for the next few years.

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### Subwoofers

	Axton ATC100S	Axton ATC130S	Axton ATC165S	Axton ATC200S
Price	about 100 Euro	about 110 Euro	about 120 Euro	about 150 Euro
Distributor	ACR, CH-Zurzach	ACR, CH-Zurzach	ACR, CH-Zurzach	ACR, CH-Zurzach
Hotline	info@acr.eu	info@acr.eu	info@acr.eu	info@acr.eu
Internet www	axton.de	axton.de	axton.de	axton.de

### Summary

Sound quality	55 %	1,3	1,2	1,2	1,2
Bass foundation	11 %	1,5	1,5	1,0	1,0
Neutrality	11 %	1,5	1,0	1,5	1,5
Transparency	11 %	1,0	1,0	1,0	1,0
Spatiality	11 %	1,0	1,0	1,0	1,0
Dynamics	11 %	1,5	1,5	1,5	1,5
Lab	30 %	1,2	1,3	1,3	1,3
Frequency response	10 %	1,0	1,0	1,0	1,0
max. volume	10 %	1,5	1,5	1,5	1,5
Distortion	10 %	1,0	1,5	1,5	1,5
Practice	15 %	1,3	1,3	1,3	1,8
Crossover	10 %	1,5	1,5	1,5	2,0
Workmanship	5 %	1,0	1,0	1,0	1,5

### Technical data

Chassis diameter	105 mm	133 mm	167 mm	210 mm
Mounting cutout	93 mm	116 mm	146 mm	185 mm
Mounting depth	39 mm	43 mm	47 mm	57 mm
Magnet diameter	70 mm	75 mm	80 mm	90 mm
Tweeter dome diameter	25 mm	25 mm	25 mm	25 mm
Tweeter housing diameter	45 mm	45 mm	45 mm	45 mm
Slope	6/6 dB	6/6 dB	6/6 dB	6/6 dB
Tweeter protection	-	-	-	-
Tweeter volume adjustment	0, -3 dB	0, -3 dB	0, -3 dB	0, -3 dB
Grill	•	•	•	•
Other	-	-	-	-
Nominal impedance	3 Ohm	3 Ohm	3 Ohm	3 Ohm
DC resistance R <sub>dc</sub>	2,98 Ohm	3,07 Ohm	3,08 Ohm	3,13 Ohm
Coil inductivity L <sub>e</sub>	0,38 mH	0,38 mH	0,40 mH	0,45 mH
Coil diameter	25 mm	25 mm	25 mm	25 mm
Cone surface S <sub>d</sub>	53 cm <sup>2</sup>	87 cm <sup>2</sup>	133 cm <sup>2</sup>	214 cm <sup>2</sup>
Resonance frequency f <sub>s</sub>	91 Hz	67 Hz	66 Hz	51 Hz
Mechanical quality Q <sub>ms</sub>	5,54	3,80	5,31	6,42
Electrical quality Q <sub>es</sub>	0,96	0,91	0,94	0,96
Total quality Q <sub>ts</sub>	0,82	0,73	0,80	0,84
Equivalent volume V <sub>as</sub>	1,8 l	6,8 l	11,0 l	26,2 l
Moving mass M <sub>ms</sub>	6,5 g	8,7 g	13 g	24 g
Rms	0,67 kg/s	0,97 kg/s	1,01 kg/s	1,19 kg/s
C <sub>ms</sub>	0,47 mm/N	0,65 mm/N	0,46 mm/N	0,41 mm/N
B <sup>+</sup> l	3,41 Tm	3,52 Tm	4,21 Tm	4,99 Tm
Pressure 1 W, 1 m	85 dB	86 dB	89 dB	89 dB
Power handling	25 - 60 W	25 - 60 W	20 - 80 W	20 - 80 W



The tweeter has its own inline-crossover, which is easy to install

Middle-Class 1,3  
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Price/performance: very good

Middle-Class 1,2  
**CAR & HiFi** 3/23  
Price/performance: excellent

Middle-Class 1,2  
**CAR & HiFi** 3/23  
Price/performance: excellent

Upper-Class 1,3  
**CAR & HiFi** 3/23  
Price/performance: very good

"Budget-priced component speakers offering the best value for money."