

**Emphaser ECP-M4
+ ECP-M5 + ECP-M6:
Elegantly made
Component
Speaker Systems
from 10 to 16
centimeters**



Winning component speaker systems

► For some months now Emphaser has been delighting us with a whole series of new audio products that were elegantly made throughout. Here we assess the new Monolith component speaker systems.

Emphaser truly steps on the gas. After the EA power amps and a series of vehicle-specific speakers, authorized dealers are now getting the universal ECP component systems. They are in the most common sizes 10, 13 and 16 centimeters so that the vast majority of vehicles having standard mounting positions are covered. As is already the case with the amplifiers, the speakers also look very nicely made. From the packaging through the tooling to the crossover layout you never get the im-

pression that it was found necessary to cut any corners here. Quite the opposite: the chassis have a solid feel in the hand and are superbly finished. The woofers have highly robust die-cast baskets, while the robust ter-

With a 100-mm magnet and 32-mm voice coil the 16-cm woofer has a particularly large driver size



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Each set has separate individually configured crossovers for woofer and tweeter



make a good impression. The pole plates are nicely CNC machined and therefore align better than if they were just stamped plates. Aluminum cones do the job of radiating the sound, while the surrounds and spiders are not of the cheap variety. The tweeter also comes in a very elegant, CNC milled aluminum housing. This is a 25-mm woven fabric dome, which is often a popular choice for two-way applications. Each set includes four crossover housings as the tweeter and woofer branches are built as independent sections and so can be installed separately. As we have come to expect, we find good components like thick air coils, decent film capacitors and metal oxide resistors. The jumpers to adjust the tweet-

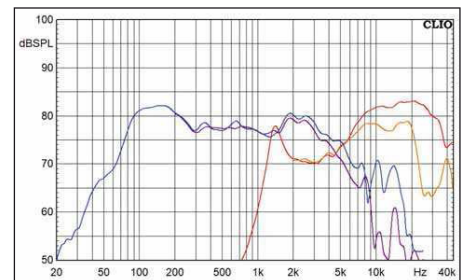


The tweeter in a milled aluminum housing is the same for the three systems

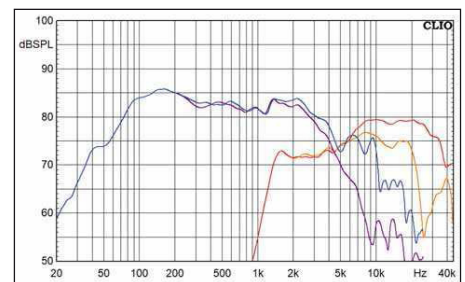
ers are also large, robust and with reliable contacts – exactly as it should be.

Measurements and Sound

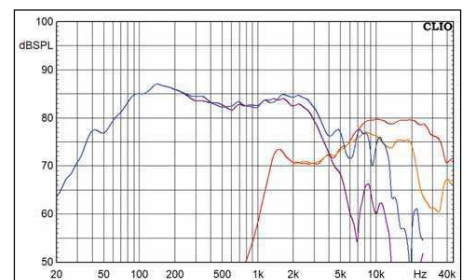
But on closer inspection the Emphaser chassis reveal the effort that has gone into their design. The voice coil of the tweeter does not have to bathe in ferrofluid, but is allowed to move freely in the air gap. In the case of the three woofers the coils are wound on an electrically non-conducting Kapton former to avoid eddy current distortions. Also pointing in this direction are the copper caps on the center poles. Naturally without steel there can be no magnetic field here, but the copper caps are optimal for diverting the eddy currents away. It is noteworthy that for all three woofers an individual magnet motor was developed to ensure optimal driver parameters in each case. With budget speakers a standard driver is often installed for all sizes on grounds of costs. Exactly the same goes for crossovers. Normally there would be a standard crossover, but in the case of Emphaser speakers no two crossovers are identical. The M4 has its own layout; in the case of M5 and M6 their circuits are matched to the systems with individual component values. In front of the measurement microphone these three component systems make an excellent impression. The common tweeter woven fabric dome works perfectly as expected. In the case of the 10-cm



The smallest woofer shows lower efficiency and it is much quieter than its big brother. The fundamental resonance of the tweeter at 1.5 kHz can be seen



The 5 1/4 system works perfectly without any distortion. The tweeter works across a very wide band of up to 30 kHz



The woofer of the M6 appears near perfect. Cone resonances around 8 kHz are kept well under control and disappear off axis

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system, since it is only connected at 6 dB/octave, its resonance is rather noticeable, though it easily tolerates that. The woofers are stunning. Thanks to the careful circuitry they produce a very nice frequency response together with extremely low distortion. In addition, the larger woofers of the M5 and M6 are outstanding for their tremendous level stability. It doesn't get much better than this.

Also the Monolith component systems sound convincing from the very first note. The combination of aluminum cone in the woofer and woven fabric dome gives a punchy, high resolution sound. The sound of all three component system speakers delights with a superb transparency so that you have no problems following even little details in what is going on in the music. Mid-range reproduction is faithful and vibrant: there is nothing tiring or boring to be heard here. Then there is the superb uncompromising bass that presents a nice and precise rendition of bass drums. Altogether the Emphaser sound seems quite spacious, the ears being well looked after at all times.

Summary

What Emphaser is presenting here in the under-250 euro category is close to the limit of what is possible. Top build quality, careful design, super test results and a convincing sound – what more do you want?



With robust die-cast baskets and powerful drivers the construction of the woofers is first class

Loudspeaker	BEST PRODUCT Upper-Class 125 - 250 € CAR & HiFi 2/2021		
	Emphaser ECP-M4	Emphaser ECP-M5	Emphaser ECP-M6
Distributor	ACR CH-5330 Zurzach info@acr.eu acr.eu	ACR CH-5330 Zurzach info@acr.eu acr.eu	ACR CH-5330 Zurzach info@acr.eu acr.eu
Hotline Internet www.			
▶ Sound quality	55 % 1,3	1,2	1,1
Bass	11 % 1,0	1,0	0,5
Neutrality	11 % 1,5	1,5	1,5
Transparency	11 % 1,5	1,5	1,5
Soundstaging	11 % 1,0	1,0	1,0
Dynamics	11 % 1,5	1,0	1,0
▶ Lab	30 % 1,5	1,2	1,2
Frequency response	10 % 1,5	1,5	1,5
max. volume	10 % 1,5	1,0	1,0
Distortion	10 % 1,5	1,0	1,0
▶ Practice	15 % 1,0	1,0	1,0
Crossover	10 % 1,0	1,0	1,0
Workmanship	5 % 1,0	1,0	1,0
Technical data			
Chassis diameter	104 mm	132 mm	210 mm
Mounting cutout	93 mm	121 mm	186 mm
Mounting depth	44 mm	59 mm	75 mm
Magnet diameter	70 mm	85 mm	90 mm
TW dome diameter	25 mm	25 mm	25 mm
TW housing diameter	45 mm	45 mm	40 mm
Crossover slope	12/6 dB	12/12 dB	6/6 dB
Tweeter protection	-	-	-
Volume adjustment TW	+3, 0, -3 dB	+3, 0, -3 dB	+3,0, -3 dB
Grill	•	•	•
Accessories	-	-	-
Nominal impedance	4 Ohm	4 Ohm	4 Ohm
DC resistance Rdc	3,62 Ohm	3,51 Ohm	3,60 Ohm
Coil inductivity Le	0,10 mH	0,12 mH	0,12 mH-
Coil diameter	25 mm	25 mm	32 mm
Cone surface Sd	54 cm ²	85 cm ²	131 cm ²
Resonance frequency fs	93 Hz	73 Hz	57 Hz
Mechanical quality Qms	5,13	4,66	4,29
Electrical quality Qes	1,36	0,73	0,63
Total quality Qts	1,07	0,63	0,55
Equivalent volume Vas	1,9 l	5,0 l	13,0 l
Moving mass Mms	6,3 g	9,5 g	14,1 g
Rms	0,71 kg/s	0,94 kg/s	1,19 kg/s
Cms	0,47 mm/N	0,50 mm/N	0,54 mm/N
B*I	3,13 Tm	4,59 Tm	5,39 Tm
Pressure 2 V, 1 m	81 dB	86 dB	87 dB
Power handling	30 – 100 W	30 – 100 W	20 – 120 W
Summary			
Price	220 Euro	240 Euro	250 Euro
Sound quality	55 % 1,3	1,2	1,1
Lab	30 % 1,5	1,2	1,2
Practice	15 % 1,0	1,0	1,0
Price/performance	very good	excellent	excellent
CAR & HiFi edition 2/2021	Ultimate-Class Top-Class Upper-Class	Ultimate-Class Top-Class Upper-Class	Ultimate-Class Top-Class Upper-Class
	Entry-Class	Entry-Class	Entry-Class
	Mark	1,3	1,2
„Top in every respect“			