

EM•PHASER

ECP-G4 G5 G6 • TEST REPORT CAR&HIFI 4/2024

Emphaser ECP-G4 + ECP-G5 + ECP-G6: 2-way systems with DIN basket

Lot of speaker for little money



► After their top model ECP-M6X, Emphaser now follows up with universal speakers of the G Series. Here we test the 10 cm system ECP-G4, the 13 cm ECP-G5 and the 16 cm set ECP-G6.

Beside the Monolith Series M, Emphaser is introducing the Gravity Series this year for the first time. It is positioned just below the M systems. There are

three sets in the usual sizes 10-cm, 13-cm and 16-cm, each as a two-way system with tweeter and crossover. In contrast to the M Series with their splashes

of red, the G speakers are completely understated in gray-black, giving them a high-quality look. Above all our G4, G5 and G6 are among those speak-

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Great woofers with die-cast baskets and powerful magnets can be exciting

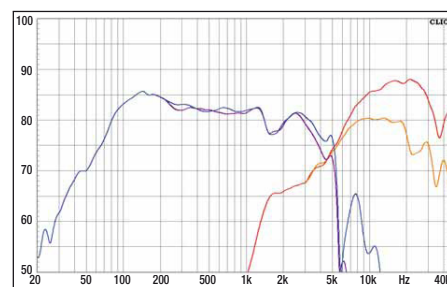
ers that look much more expensive than they are. With prices from 200 euros they are among the affordable sets, although their finish and haptic quality is a class higher. In this price class it is not commonplace to find aluminum die-case baskets that with their double spokes are so well ventilated. In the case of the 16 cm unit the basket is directly descended from the top model M6X, surely a very good reference. Also the drivers are beautifully made with their gray-black painted ferrite rings and the perfectly machined pole pieces, which come across as flat and beautiful to feel. All woofers have 25 mm voice coils on aluminum carriers, as is usual in this class. Emphaser has made no experiments with the cones. These are made of paper, which is actually always good. However, they were not satisfied with that and added a coating of quartz crystals so that the cones feel like sandpaper. The dust-caps are of the same material. They are of inverted shape and quite big. The G Series tweeter is just as attractively finished as its woofer colleagues. In a sturdy plastic housing we find a

25 mm woven fabric cone, whose geometry has been optimized for optimum radiation characteristics. With an installation depth of 16 millimeters, the Emphaser dome is not one of the ultra-flat representatives of its kind, but it remains compact enough to be easily installed. The crossover is divided into tweeter and woofer branches, each of which is housed in the connection cable. Emphaser thus dispenses with a nice-looking crossover housing in favor of two small boxes, which in turn are easier to install. However, no savings were made on the circuitry itself; we find two fully-fledged 12 dB filters with decent components. The low-distortion air-core coil in the low-pass filter and the metal oxide resistors for controlling the tweeter level are particularly pleasing.

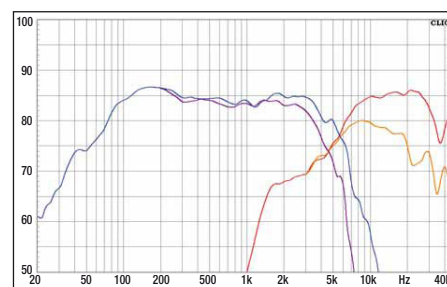
Measurements and Sound

The impedance measurement of the tweeter shows a fairly low resonance frequency of 1.4 kHz, which indicates that a small rear resonance chamber is present. Another striking feature is the clear resonance characteristic, which

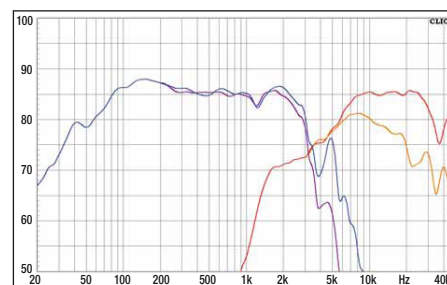
is due to the fact that Emphaser does not use ferrofluid in the air gap, which could be added there for cooling. The amplitude response of the tweeter is impressive: it runs cleanly through to 30 kHz — not bad for a 25 mm fabric dome tweeter. It is also noticeable that all the crossovers are different and



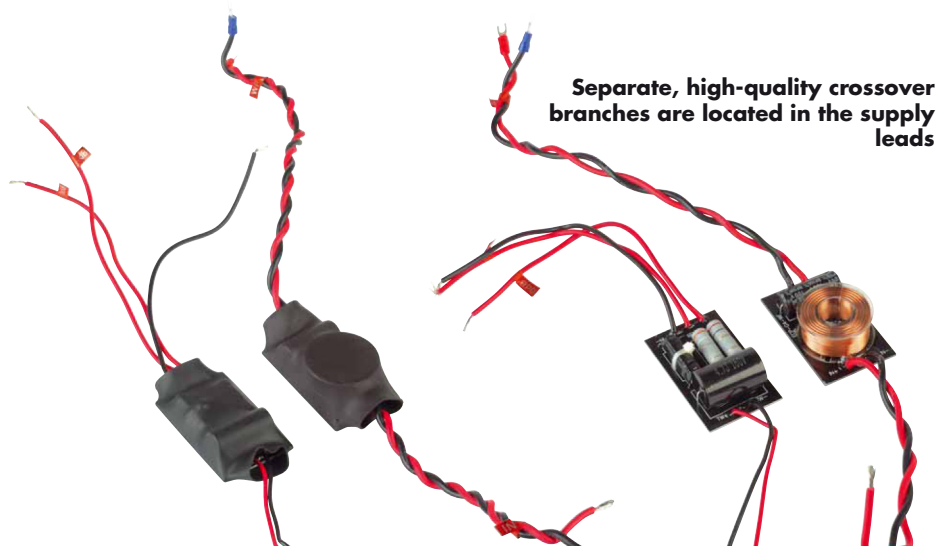
The ECP-G4 woofer shows a cancellation at 6 kHz and comes back out of it again on axis above that



The ECP-G5 runs almost perfectly with symmetrical filter slopes like in the text books



The main resonance of the ECP-G6 woofer at 6 kHz is well damped and disappears under angle



Separate, high-quality crossover branches are located in the supply leads

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The magnet motors of the woofers score points with finely machined pole plates, and the voice coils are excellently ventilated

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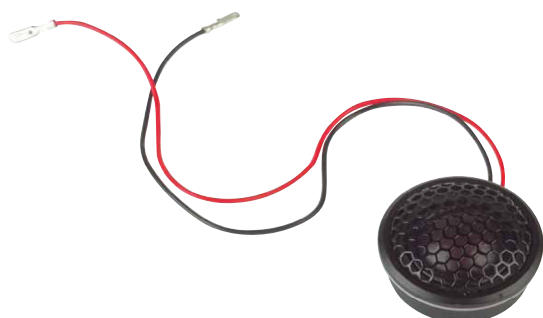
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differ in their component values. Here Emphaser has actually gone to the trouble of shifting the crossover frequency between the tweeter and woofer slightly downwards with increasing size, and the G4 tweeter is also tuned one dB louder. You would be pushed to find this much attention to detail from any of the manufacturers. As expected, the woofers with their paper cones are well-behaved without resonance peaks, but unfortunately a few instances of distortion creep in, especially at higher levels. In terms of sound, all three systems are pleasing with a great tweeter range that is very finely resolved but free of sharpness. The spatial representation of in what is going on in the music can also be convincing. The mid-range with male voices reaches the ear with the necessary bite, so that the G systems don't sound boring or slumberous. The G5 makes very balanced music, while the G6 naturally has the most pronounced bass. The G4, G5 and G6 are once again united in the rather tight bass reproduction without pumping or bass bloat.

Summary

Emphaser's ECP-G4, ECP-G5 and ECP-G6 are excellently built and cleanly developed systems that need fear no comparison in their price range.



The tweeter is a beautifully made 25 mm woven fabric dome

Loudspeaker	Emphaser ECP-G4	Emphaser ECP-G5	Emphaser ECP-G6
Price	about 200 Euro	about 210 Euro	about 220 Euro
Distributor	ACR, CH-Zürzach	ACR, CH-Zürzach	ACR, CH-Zürzach
Hotline	info@acr.eu	info@acr.eu	info@acr.eu
Internet www	emphaser.com	emphaser.com	emphaser.com

Summary

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

Technical data			
Chassis diameter	104 mm	132 mm	165 mm
Mounting cutout	93 mm	120 mm	143 mm
Mounting depth	45 mm	57 mm	64 mm
Magnet diameter	70 mm	85 mm	85 mm
Tweeter dome diameter	25 mm	25 mm	25 mm
Tweeter housing diameter	45 mm	45 mm	45 mm
Slope	12/12 dB	12/12 dB	12/12 dB
Tweeter protection	–	–	–
Tweeter volume adjustment	0, -3 dB	0, -3 dB	0, -3 dB
Grill	–	–	–
Other	–	–	–
Nominal impedance	4 Ohm	4 Ohm	4 Ohm
DC resistance R _{dc}	3,18 Ohm	3,48 Ohm	3,29 Ohm
Coil inductivity L _e	0,19 mH	0,30 mH	0,29 mH
Coil diameter	25 mm	25 mm	25 mm
Cone surface S _d	53 cm ²	85 cm ²	131 cm ²
Resonance frequency f _s	101 Hz	77 Hz	54 Hz
Mechanical quality Q _{ms}	5,41	4,70	4,13
Electrical quality Q _{es}	0,98	0,65	0,57
Total quality Q _{ts}	0,83	0,57	0,50
Equivalent volume V _{as}	1,6 l	4,4 l	15,5 l
Moving mass M _{ms}	6,2 g	9,8 g	13,2 g
R _{ms}	0,72 kg/s	1,01 kg/s	1,09 kg/s
C _{ms}	0,40 mm/N	0,44 mm/N	0,65 mm/N
B* _l	3,56 Tm	5,03 Tm	5,09 Tm
Pressure 1 W, 1 m	85 dB	86 dB	87 dB
Power handling	30 – 100 W	30 – 100 W	30 – 100 W

Upper-class 1,3
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Price/performance: excellent

Upper-class 1,2
CAR & HIFI 4/24
Price/performance: excellent

Upper-class 1,3
CAR & HIFI 4/24
Price/performance: very good

"Super systems for the money."