

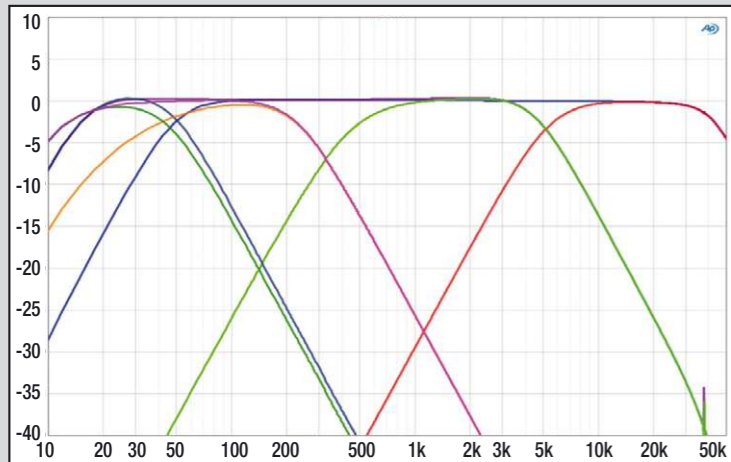
Hifonics ZXS1100/5 + ZXR1200/5 –  
compact five-channel from the Zeus series

# Five- channel amplifiers from Hifonics

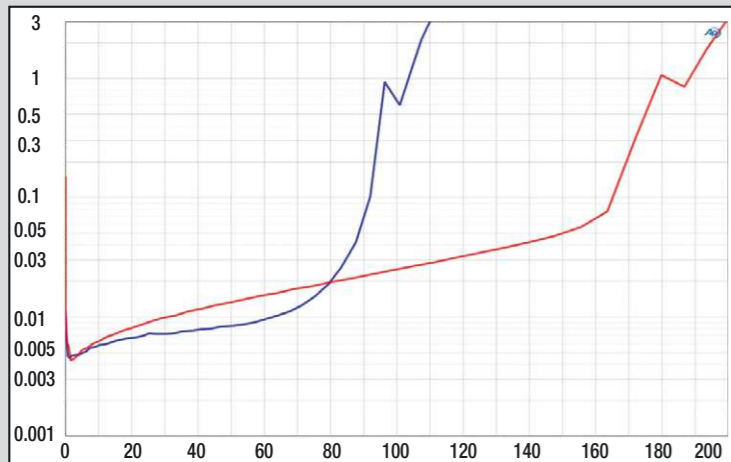


► Hifonics launches two new five-channel amplifiers to supply the entire hi-fi system. We look at the similarities and differences.

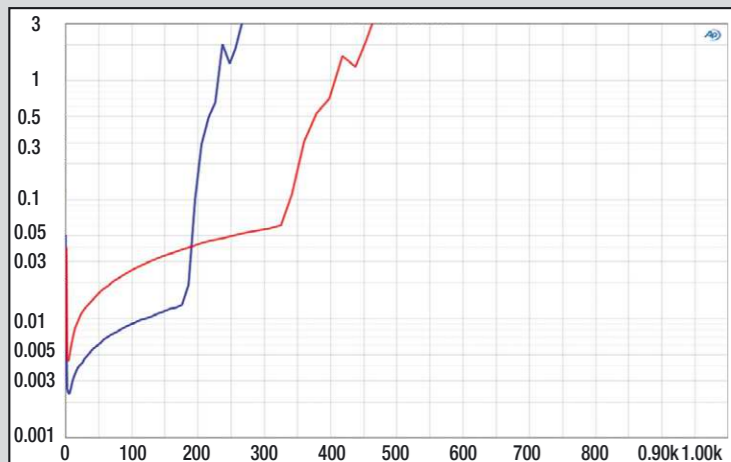
CAR & HiFi Laboratory



The ZXS offers the complete package with adjustment ranges up to 5 kHz, a bandpass on channel 3+4, and a subsonic filter also for the small channels



The ZXS offers immense power reserves on channels 1-4. In addition, it scores with extremely low distortion



The ZXS is very powerful down to 2 ohms, although it doesn't look that way in the diagram because of the scaling up to 1 kHz (for the ZXR)

The Zeus series is positioned fairly high up in the Hifonics amplifier range. In the past, Zeus amplifiers were a heavy „board“: the proper amplifiers for power-hungry applications. Of course, there are compact, digital Zeus models: the somewhat more upscale ZXR series and the slightly smaller ZXS. Both series are now getting five-channel additions, namely the ZXS1100/5 and the ZXR1200/5. The names already indicate that the ZXR has more power in the housing since the designations express the maximum RMS power of all channels. That means 4 x 175 watts (into 2 ohms) + 400 watts (into 2 ohms) for the subwoofer in the case of the ZXS1100/5. For the ZXR1200/5, the corresponding figures are 4 x 125 watts (into 2 ohms) and 700 watts (into 1 ohm). Here you can see that the larger ZXR focuses on the subwoofer, while the smaller ZXS gives more power to the four smaller channels. In terms of size, both are compact, and there is no difference in length. The height is also only a few millimeters more on the ZXR, the main difference being the width, with the ZXS being much slimmer. The build quality is similar, with sturdy extruded housings and cast aluminum front panels. Music signals enter the chassis via Molex harnesses on both, with the option of using harnesses with RCA connectors or wires for high-level connections. The latter also includes EPS resistors for



High-level or RCA harnesses dock to the Molex jacks



The ZXS1100/5 is much slimmer than the ZXR. On the left, you can see the encapsulated coils of the small channels, and in the middle, the giant coil for the bass channel

factory radios with speaker detection. The features are almost identical – they are both Zeus power amps, after all. There is a bass remote control and active crossovers for each, which can drive everything up to the tweeter and are bandpass capable on channel pair 3+4. The ZXR is minimally ahead because it offers a bypass on the small channels to override the crossovers, plus it has a bass boost since it is a bass specialist. Both allow the signal from 2 or 4 input channels to be distributed to the bass and/or rear channels – a handy thing that can save a lot of cabling. A look into the housings reveals that the circuits are similar, too. We have modern Class-D power amplifiers with driver chips but discrete power transistors in front of us. We can also see that the ZXR is more substantial with increased buffering, a bigger power transformer, and larger transistors in the power supply. This is necessary to ensure the immense power of the bass channel – a hefty 1-ohm output simply requires a lot of amperage.

Specifications	
Channels	5
Power 4 Ohm	4 x 104 + 233
Power 2 Ohm	4 x 188 + 408
Power 1 Ohm	0
Bridged Power 4 Ohm	2 x 376
Bridged Power 2 Ohm	0
Sensitivity max. mV	500
Sensitivity min. V	>13,3
THD+N (<22 kHz) 5 W	0,005/0,003
THD+N (<22 kHz) Half Power	0,009/0,01
Signal-to-noise ratio dB(A)	100/98
Damping factor 20 Hz	118/213
Damping factor 80 Hz	118/213
Damping factor 400 Hz	112/213
Damping factor 1 kHz	102/213
Damping factor 8 kHz	13/213
Damping factor 16 kHz	3/313

Features	
Low pass	50 – 5k (CH34)/ 40 – 200 (CH5) Hz
High pass	50 – 5k Hz (CH12)/ 10 – 500 (CH34)
Band pass	10 – 5k Hz (CH34)
Bass boost	–
Subsonic filter	15 – 50 Hz/12 dB (CH5) /via HP (CH34)
Phase shift	0 – 180° (CH5)
High-level inputs	•
Automatic switch-on (Autosense)	•, DC or signal
RCA outputs	–
Start/stop capable	• (7,3 V)
Dimensions (L x W x H in mm)	305 x 112 x 42
Others	2, 4 or 5 CH In, EPS, Remote Control

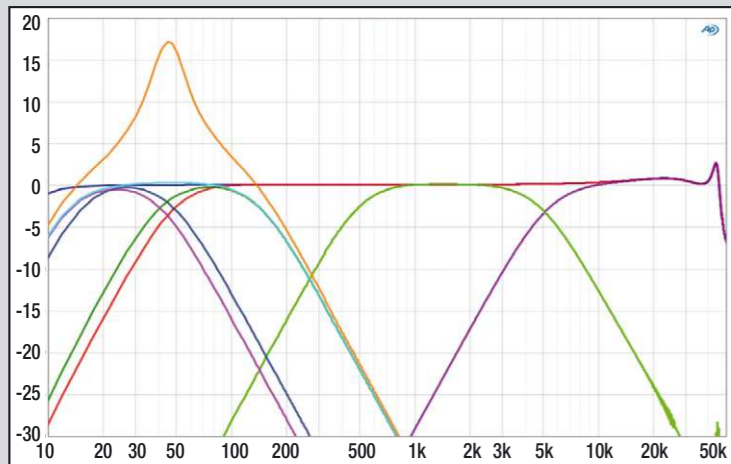
Hifonics ZXS1100/5		
Price	350 Euro	
Contact	Audio Design, Germany	
Internet	www.audiodesign.de/english	
Rating		
Sound	40 %	★★★★★
Bass	8 %	★★★★★
Neutrality	8 %	★★★★★
Transparency	8 %	★★★★★
Spatial imaging	8 %	★★★★★
Dynamics	8 %	★★★★★
Lab	35 %	★★★★★
Power	20 %	★★★★★
Damping factor	5 %	★★★★★
Signal-to-noise ratio	5 %	★★★★★
Noise	5 %	★★★★★
Practice	25 %	★★★★★
Features	15 %	★★★★★
Build quality electronics	5 %	★★★★★
Build quality mechanics	5 %	★★★★★

**Top class**  
★★★★★

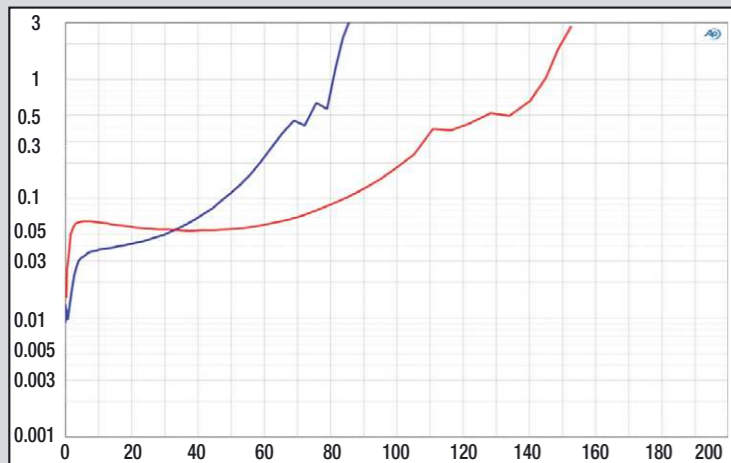
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**Price/performance: excellent**  
„Compact five-channel package with plenty of power.“

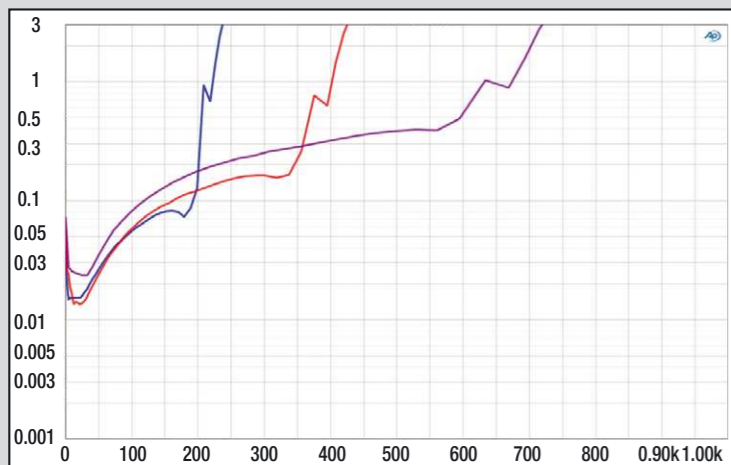
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The ZXR emphasizes subwoofer operation, so there is a bass boost at 45 Hz in addition to the ZXS' extensive filter palette



The ZXR's just over 80 watts are enough to drive compos or car woofers. At 2 Ohm, it puts out even just under 150W



The ZXR's bass channel scores with 1-ohm stability, where there's immense power for the compact size at just under 700W

Measurements and sound

It's always nice when amps exceed the manufacturer's specifications instead of flaunting great numbers on the box. This is usually the case with Hifonics. In the four-channel rating, the ZXS comes out on top with 104/188 watts into 4/2 ohms versus the ZXR's 81/145 watts. Conversely, the ZXR wins the bass rating with 222/402/676 watts because, unlike the ZXS, it is 1-ohm stable. At 2 ohms, however, the ZXS is on par; both deliver a good 400 watts here. In the distortion measurements, both are top, the ZXR is very good, and the ZXS is even excellent. On the other hand, the ZXR is again ahead regarding the damping factor. All in all, both don't do anything wrong. Sound-wise, the differences between the small channels are also negligible. Both play clearly and cleanly with superbly reproduced voices and instruments. Both have enough thrust in the lower range to power the system thoroughly. And it sounds dynamic – no one has to fear a dull reproduction. At the subwoofer, both amplifiers can impress because low bass and cleanliness leave nothing to be desired with a 2-ohm specimen. There is enough pressure, and both the ZXS and the ZXR are fun to listen to. Perhaps the ZXR has a tad more control, but the differences won't dissuade anyone from choosing the ZXS. Only at a



The ZXR has comprehensive filter equipment with a bandpass up to 5 kHz so that it can drive all kinds of loudspeakers



The ZXR1200/5 is generously equipped with a power supply and buffering

chunky 1-ohm subwoofer the ZXR shows it can do more. In this case, it produces an extra dose of SPL, which bass freaks will be very happy about. The ZXS can no longer keep up – its circuitry is designed for a minimum impedance of 2 ohms.

Conclusion

ZXS1100/5 and ZXR1200/5 are accomplished amplifiers with top features and performance. Ultimately, the ZXS wins our rating by a narrow margin because it delivers better on the small channels and still has enough power on the bass. If you want to drive a 1-ohm subwoofer and place the highest value on bass level, you should go for the ZXR - the additional price for the almost 700 watts is justified due to the higher material costs, and this bass performance in a compact five-channel package is hardly available anywhere else. The ZXS, on the other hand, is the more sensible choice: It is more compact, better balanced, and cheaper.

Elmar Michels

Specifications	
Channels	5
Power 4 Ohm	4 x 81 + 222
Power 2 Ohm	4 x 145 + 402
Power 1 Ohm	676
Bridged Power 4 Ohm	2 x 290
Bridged Power 2 Ohm	0
Sensitivity max. mV	500
Sensitivity min. V	>13,3
THD+N (<22 kHz) 5 W	0,032/0,015
THD+N (<22 kHz) Half Power	0,07/0,062
Signal-to-noise ratio dB(A)	100/98
Damping factor 20 Hz	132/263
Damping factor 80 Hz	136/344
Damping factor 400 Hz	140/373
Damping factor 1 kHz	140/344
Damping factor 8 kHz	186/373
Damping factor 16 kHz	-/373

Features	
Low pass	50 – 5k (CH34)/ 40 – 150 (CH5) Hz
High pass	50 – 5k Hz (CH12)/ 10 – 500 (CH34)
Band pass	10 – 5k Hz (CH34)
Bass boost	0 – 18 dB/45Hz
Subsonic filter	15 – 40 Hz/12 dB (CH5) /via HP (CH34)
Phase shift	0 – 180° (CH5)
High-level inputs	•
Automatic switch-on (Autosense)	•, DC or signal
RCA outputs	-
Start/stop capable	• (7,3 V)
Dimensions (L x W x H in mm)	320 x 150 x 50
Others	2, 4 or 5 CH In, EPS, DUPE, Remote Control

Hifonics ZXR1200/5

Price	400 Euro
Contact	Audio Design, Germany
Internet	www.audiodesign.de/english

Rating

Sound	40 %	★★★★★
Bass	8 %	★★★★★
Neutrality	8 %	★★★★★
Transparency	8 %	★★★★★
Spatial imaging	8 %	★★★★★
Dynamics	8 %	★★★★★
Lab	35 %	★★★★★
Power	20 %	★★★★★
Damping factor	5 %	★★★★★
Signal-to-noise ratio	5 %	★★★★★
Noise	5 %	★★★★★
Practice	25 %	★★★★★
Features	15 %	★★★★★
Build quality electronics	5 %	★★★★★
Build quality mechanics	5 %	★★★★★

**Top class**  
★★★★★

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