



# Small at a nice price



## SP-N4400 and SP-N5500

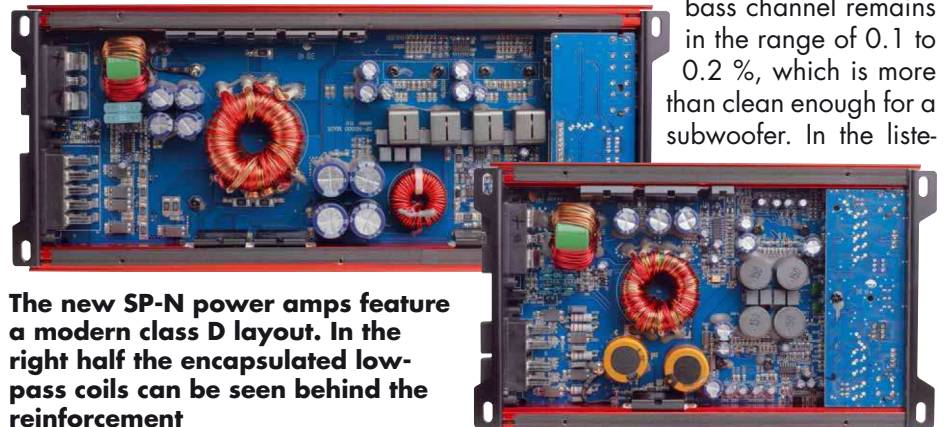
► Spectron power amps are mostly price-performance wonders. The new SP-N models now feature compact class D technology.

The SP-N series from Spectron created something of a furore in 2017 with flawless amplifiers that were very attractively priced but did not need to shy away from the more expensive competition. However they were analog class AB amps of normal size. Today we would call them big, so Spectron has upgraded and now brought out a flush of digital class D power amps. There is a mono amp and a 2, 4 and 5-channel model; we tested the last two of these. The prices are only slightly above the analog series if at all, but the dimensions of the new digital models have shrunk dramatically. Whereas the size of the analog SP-N4107 and 4207 was 400 x 170 x 56 millimeters, our new SP-N4400 measures only 225 x 130 x 45 millimeters, while maintaining a comparable performance. The configuration has also been considerably enhanced. With bandpass filters and in particular an auto turn-on feature, the newcomers are much better equipped. Nice things like the switches for 2 or 4 (or 5) inputs have also not been spared. Otherwise we can report that the workmanship is solid, the terminals are well made, and take the same cable cross sections. Inside the quality is pretty good, with decent boards, in

part assembled using SMD parts. We found well dimensioned power units and some complex filtering at the power inputs and speaker outputs. The full-range channels are amplified using modern power amp chips, there being two dual channel types on-board in each case. Only the bass channel of the 5500 works works with two power transistors and a class D driver IC. So here we are dealing with the very latest electronic designs, and not with cheap power amps from the spares box. Judging by the readings and sound, performance-wise the 4-channel SPN4400 lies between the small and the big four channel analog device. This means we measured a respectable 4 x 89 and

4 x 146 watts into 4 and 2 ohms. All channels can be bridged, which for chip power amps is not necessarily so. The figures of the SPN4400 for distortion, signal-to-noise ratio, and damping factor also collected plus points. The four full-range channels of the SP-N5500 behaved in a similar manner. With 4 x 66 and 4 x 109 watts into 4 and 2 ohms respectively the 5-channel amp is rather less beefy, but it is enough for a small component system. Its bass channel with 194 and 317 watts is also adequate for lighter subwoofers, but nevertheless you still get 5 solid channels for 200 euros. For the four small channels the distortion figures are at very low level, whereas the

bass channel remains in the range of 0.1 to 0.2 %, which is more than clean enough for a subwoofer. In the liste-



The new SP-N power amps feature a modern class D layout. In the right half the encapsulated low-pass coils can be seen behind the reinforcement



# SPECTRON AMPS N-SERIE • TEST REPORT CAR & HIFI 3/2019



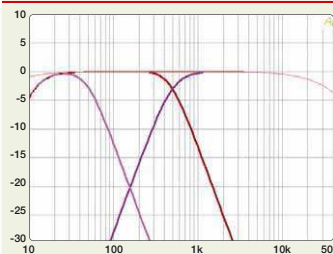
## The Spectrons are equipped with input selector switches and bandpass crossovers

ning test the SP-N makes you sit up in amazement. Precisely these attractively priced amplifiers play particularly fluently and maturely. No frequency band is straining into the foreground and the sound turns out to be very nicely balanced. As for the resolution there are no complaints – naturally and in absolute terms, there are still reserves for slightly better sound. Yet we should not forget that here we are dealing with devices under 200 euros, and are not comparing the amps with a mature top rate amp. In any case we were very satisfied with the SP-N and enjoyed the music. We still had to check out the subwoofer suitability of the SP-N5500 bass channel and the amplifier did not disappoint here either. It is not absolutely necessary to have a 4-ohm beast, though when used correctly it gives a lot of satisfaction. If you are driving a 20 or 25 watter that is not too heavy, you will be rewarded with a precise punchy bass with good low end bass response. The pressure is more than enough to get by so that current small subwoofers run great on the SP-N5500.

### Summary

With the digital SP-N amps Spectron has turned out a series that offers a whole lot of amplifier for the money. Enough power, a small housing, and a very decent sound speak volumes for the SP-N4400 and SP-N5500.

#### • Spectron SP-N4400

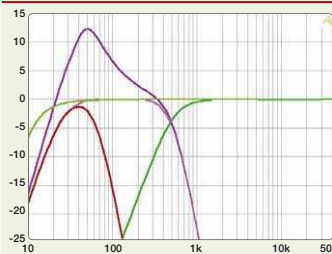


The SP-N4400 runs up to 50 kHz, the crossovers can be tuned from 50 to 500 Hz and are bandpass capable



Overall little distortion. The constant rise in distortion is typical for the chips used

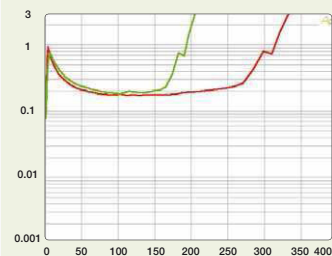
#### • Spectron SP-N5500



The 4 small channels can be high pass filtered; the bass channel has a low pass and a boost



Into 4 ohms there is very little distortion; this is also kept in check into 2 ohms



Linear output at bass channel. Distortion remains in the green zone at approx 0.2 %

### Multichannel amps

	Spectron SP-N4400	Spectron SP-N5500
Distributor	ACR	ACR
Hotline	info@acr.eu	info@acr.eu
Internet www.	acr.eu	acr.eu
▶ Sound quality	40 % 1,2	1,2
Bass	8 % 1,5	1,5
Neutrality	8 % 1,0	1,0
Transparency	8 % 1,0	1,0
Soundstaging	8 % 1,5	1,0
Dynamics	8 % 1,0	1,5
▶ Lab	35 % 1,2	1,6
Power	20 % 1,0	1,5
Damping	5 % 1,5	2,0
Signal/Noise Ratio	5 % 1,5	2,0
Distortion	5 % 1,5	1,5
▶ Practice	25 % 1,5	1,5
Features	15 % 1,5	1,5
Workmanship electr.	5 % 1,5	1,5
Workmanship mech.	5 % 1,5	1,5

### Technical data

	4	5
Channels	4	5
Power @ 4 ohms	89	4 x 66 + 194
Power @ 2 ohms	146	4 x 109 + 137
Power @ 1 ohms	0	0
Power bridged @ 4 ohms	292	2 x 218
Power bridged @ 2 ohms	0	0
Sensitivity max mV	210	230
Sensitivity min V	6,3	6,7
THD+N (<22 kHz) 5W	0,030	0,026/0,155
THD+N (<22 kHz) half load	0,065	0,028/0,188
Signal/Noise Ratio dB(A)	87	87/67
Damping 20 Hz	143	101/36
Damping 80 Hz	139	101/38
Damping 400 Hz	139	99/38
Damping 1 kHz	127	91/38
Damping 8 kHz	19	17/38
Damping 16 kHz	5	5/38

### Features

	10 – 500 Hz	5 – 500 Hz (CH5)
Lowpass	10 – 500 Hz	5 – 500 Hz (CH5)
Highpass	10 – 500 Hz	10 – 500 Hz (CH1-4)
Bandpass	10 – 500 Hz	–
Sub-boost	–	0 – 12 dB/45Hz (CH5)
Subsonicfilter	per HP	fixed 25Hz (CH5)
Phaseshift	–	–
High-Level inputs	•	•
Autosense	•, DC	•, DC
RCA-outputs	–	–
Start-stop compatible	• (7,1V)	• (6,5V)
Dimensions (L x W x H in mm)	225 x 135 x 45	325 x 135 x 45
Other	2 or 4 CH-in	Subwoofer-remote 2, 4 or 5 CH-in

### Summary

	about 150 Euro	about 200 Euro
Price		
Sound quality	40 % 1,2	1,2
Lab	35 % 1,2	1,6
Practice	25 % 1,5	1,5
Price/performance	excellent	excellent



Ultimate-Class	Ultimate-Class
Top-Class	Top-Class
Upper-Class	Upper-Class
Entry-Class	Entry-Class

Mark

1,3

1,4

„Copact, powerfull, low price.“