

DSP68 Pro - 8-channel DSP from Musway



Cheap Sound tuning

► After two mini DSP amplifiers, there is now something new from Musway: the first stand-alone DSP with eight channels.

Musway always started with the most first products, small DSP amplifiers, exactly as the market required. The European distributor Audiodesign has now completed the product range, so that there are now a large number of loudspeaker series and subwoofers. Musway always pays special attention to easy installation and integration into the vehicle. That also fits

the extensive selection of cables quick connection in many vehicles. Our newest candidate is Musway's first DSP. The DSP68 Pro comes in a noble

The DSP 68 Pro is equipped with numerous analog and digital inputs, the DSP chip comes from

Texas Instruments

Alukleid therefore, namely in the housing, as we know it from the DSP output stage D8. The finely brushed housing is elaborately manufactured because it does not consist of a continuously cast section, but is completely cast. Two sides of the housing, which is only 37 millimeters thick, are well filled with connections. The first side carries the six-channel main entrances, which can also cope with larger factory systems. With a DIP switch strip the individual inputs can be switched from low level to high level, in the latter case an automatic switch-on can be activated. In addition, there are interfaces for PC and accessories, namely a socket for the display remote control and a USB socket for Bluetooth dongles. There are two of them, namely the BTS for audio streaming and the BTA, which also offers programming of the DSP via app (Android and iOS). In addition, the optical digital input should be mentioned, which is not a matter of course in this price range. The eight cinch outputs and the aux input are located on the opposite side. Three gain pots manage inputs 1-4, inputs 5 and 6 and the aux input.

After unscrewing, two old friends come to light in addition to the small power supply unit and the usual armada of op amps. The DSP chip comes from Texas Instruments and comes from the C67 series, which means we are dealing with a 32-bit floating point computer that is quite fast at 350 MHz and by no means has to hide from the competition. It is supported by a converter chip, namely the TI PCM3168A, which does both AD and DA conversion

Output channels, it is predestined for affordable 6-8 DSPs and is found in numerous processors on the market. It is no coincidence that this combination (and also the controller) looks familiar to us - it can also be found in the Musway M6. So we are basically dealing with an M6 without reinforcement in the D8 housing.





The main window offers everything at a glance. Operation is not a problem on the PC

DSP functions

The software of the DSP68 Pro is then also identical to the M6, including the DSP functionality. We are dealing with a one-window philosophy in which all important settings are made in the same window. The advantage is obvious, because you always have everything in view. The disadvantage is that a lot is very tiny. Otherwise, the operation is simple and self-explanatory. Set ticks, operate the slider, enter numerical values or use the arrow keys

- everyone as he likes. The fully parametric EQs can even be set in the frequency window using drag & drop. There are Butterworth, Bessel and Linkwitz bis on crossovers



The app offers almost full functionality, here with equalizers and frequency response display

In the input mixer, all inputs can be assigned to all outputs. The proportions of mixed outputs can be set individually



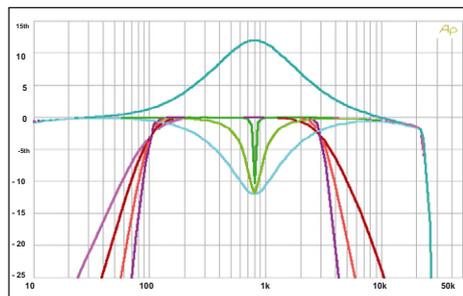
Bluetooth streaming is available as an accessory
Dongles with and without app control of the DSP

48 dB / oct. Steepness, with which we are already very satisfied. Only the missing 6 dB Butterworth filter are incomprehensible. The running time is fully acceptable with 7 millimeter increments a maximum length of almost 7 meters. The few things that are not in the main window include the input mixer, where all inputs can be mixed to the exact percent, and the "hi-level mix", which hides an adjustable switch back to the factory radio so that vehicle sounds come through, even when another source is running. Otherwise, with Bluetooth, the switchover takes place automatically when a signal is received, and at lightning speed. The analog aux and the digital input can be switched on manually using the remote control.

Conclusion

With the DSP68 Pro we have a well-equipped DSP in front of us, the one with 6 high-level inputs, diagnosis detection and automatic switching to vehicle tones enables a proper connection and can convince with Bluetooth option and digital input.

Elmar Michels



All DSP baffles are possible, the tear-off edge is 22 kHz depending on the sample rate

	400 euros
distribution	Audio Design, Kronau
Hotline	07253 9465-0
Internet	www.audiodesign.de
Technical specifications	
Dimensions	205 x 127 x 37 mm
Entrances	<ul style="list-style-type: none"> • 6-channel high-level with autosense, 2 x gain controls • 1 x digital S / PDIF (optical) • 1 x Aux (RCA, stereo) with gain control
Outputs	<ul style="list-style-type: none"> • 8-channel RCA • Remote out
DSP software (GV 1.06 being tested)	
Equalizer	<ul style="list-style-type: none"> • Fully parametric EQ on outputs, 31 bands per channel • 20 - 20k Hz, 1 Hz steps • + 12 - -12 dB, Q 0.4 - 29
Crossovers	<ul style="list-style-type: none"> • 20 - 20k Hz, Butterworth, Bessel, Linkwitz, 1 Hz steps • Edge steepness up to 48 dB / oct.
Time and level	<ul style="list-style-type: none"> • Time correction (48 kHz), up to 20.4 ms / 692 cm, 0.02 ms / 7 mm steps • Phase reversal 0, 180 ° • Level adjustment outputs 0.1 dB steps, Mute function
Furnishing	<ul style="list-style-type: none"> • 6 presets • Inputs and outputs can be routed as required • Start-stop capability up to 7 V • EPS (Error Protection System) for diagnostic function • Automatic switching to Bluetooth • Adjustable switching to high level for vehicle sounds • Ground switch against hum interference
Optional accessories	<ul style="list-style-type: none"> • Bluetooth dongle BTS (audio streaming) • Bluetooth dongle BTA (audio streaming and app control of all functions) • Remote controller DRC1 (Volume, bass level, sources, setups) • Vehicle harnesses (Mercedes, BMW, Audi etc.)
CAR & HiFi	
Edition 3/2019	
"A convincing package in the affordable DSP area."	