

## Musway M6v4 – 6-channel power amplifier with 8-channel DSP



# classic reloaded

► With the M6v4, Musway presents the fourth incarnation of the successful M6 model. We shed light on what this universal weapon can do.



Master and sub levels in the Android app



EQ setting in the Android app

The M6 was the product with which Musway made its mark in Europe. A compact power amplifier with DSP, universally applicable and, above all, affordable. A lot has happened since the first version. Musway has tweaked the DSP and amplifier, but kept the concept the same. Perhaps the most important changes have recently been made in secret: vehicle compatibility, operational safety and compatibility have become more of a focus for the developers than pure amplifier performance. The concept behind it still works: with the M6 we have a small amplifier that is easy to install and that is wired with a wiring harness and a low power supply, ideally plug&play. First of all, there are two versions available from Musway dealers, namely the M6v4 for 630 euros, which comes with an ISO wiring harness, and the M6v4 Evo for 600 euros, which comes with a mini wiring harness on loose wires. There are also vehicle cable sets for various manufacturers as optional accessories. The list of accessories is far from over, as no fewer than three Bluetooth dongles are waiting for interested parties: a cheap streaming dongle, one for HiRes streaming and one that allows wireless DSP programming in addition to streaming. And finally, there are two RCA cable sets that allow the high-level inputs to be converted to cinch sockets for low-level signals. There is a corresponding connector on the M6v4 board for this.



The remote control regulates master and Subvolume, Subwoofer groups and the mute function





One of three  
Bluetooth sources:  
The BT-HD can stream audio  
in HiRes quality

## software

All Musway DSPs can be programmed using either PC desktop software or an Android app, the latter in conjunction with the optional BTA2 accessory. Apart from routing and a few minor details, all relevant settings are in one window. When routing, it is important to note that it is not enough to simply dose the inputs in the routing matrix; the correct check mark(s) must also be set in the main window. There are bandpass crossovers for all channels up to 48 dB/octave in three characteristics. Programming the crossovers is a bit fussy, for example with odd orders for Linkwitz or varying attenuations at the set crossover frequency. Basically, however, the crossovers work. The EQ bands can be set fully parametrically, and there is also a runtime correction for the outputs in 0.02 ms or 7 mm increments. It is very nice that the time or path is displayed precisely and in plain text without any frills such as coarse and fine adjustment. In the frequency window you can see clearly what is happening, and the EQs are also easy to operate (also via keyboard). The grouping of channels is well done, a bridge circuit can also be displayed and up to four channels can be combined into a subwoofer group, which is then recognized by the optional remote control. The extras are not numerous, but important. We have a power-saving shutdown for CAN vehicles, a setting for switching through the vehicle sounds and an auto-mute function to prevent crackling. The M12 also has an input pin for reverse gear, which then also feeds the vehicle sounds. This means that the Musway software is not the most complete on the market, but it allows you to work without problems in most cases. And a big plus point is the Musway "Tunest" app, which in conjunction with the BTS2 allows the complete programming of the DSP and also enables remote control functions such as master and sub levels, source selection and source selection.

## Technical data

### entrances

- 6-channel high level with autosense
- 1 x digital S/PDIF optical
- 1 x AUX (RCA, stereo)
- Sensitivity 5 V (RCA), 21 V (high level)
- 2 x gain controls (high level), 1 x gain controls (AUX)

### outputs

- 2-channel RCA (processed)
- Remote-out

### DSP channels

- 8

### DSP software (V 3.4 beta in test)

### equalizer

#### outputs

- fully parametric EQ on outputs, 31 bands per channel
- 20 - 20k Hz, 1 Hz steps
- +15 - -15 dB, Q 0.1 - 10

### crossovers

- 20 - 20k Hz, Butterworth, Bessel, Linkwitz, 1 Hz steps
- Slope up to 48 dB/oct.

### time and level

Sample rate 48 kHz, 7 mm steps (0.02 ms)

### outputs

- 0 - 602 cm (17.7 ms), 1024 samples
- Phase reversal 0, 180°
- Level adjustment outputs 0.1 dB steps, mute function

### equipment

- 6 presets
- Remote Out
- 2 x gain controls
- EPS (Error Protection System) for diagnostic function
- Automatic switching to Bluetooth
- Adjustable switching to high level for vehicle sounds
- Sub-Setup (bass channels for remote control)
- Power Save Mode
- Settings can be exported and imported via WhatsApp

### Optional accessories

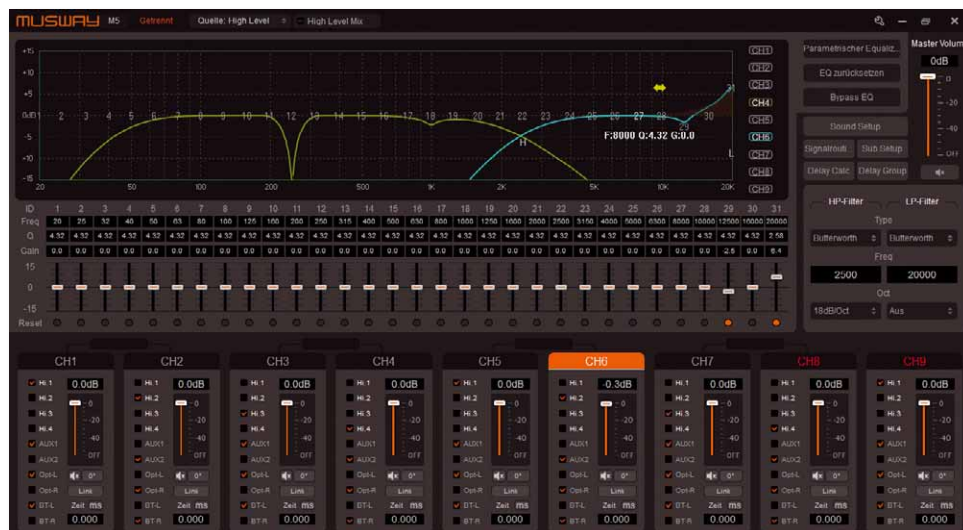
- Bluetooth dongle BTS (audio streaming)
- Bluetooth dongle BTS-HD (audio streaming in HiRes quality)
- Bluetooth dongle BTA (audio streaming and app control of all functions)
- Remote controller RC1 (volume, bass level, sources, setups)
- RCA adapter MPK-RCA6, MPK-RCA6-PP for ISO
- Vehicle cable sets (Mercedes, BMW, Audi, etc.)

responding jumper for converting from high to low level. The standard high level version is of course equipped with an EPS for vehicles with factory loudspeaker detection, so that the M6v4 is really versatile. In addition to the six inputs for high level, the M6v4 offers a pair of RCA sockets as aux inputs and an optical digital input, which leaves nothing to be desired. In terms of DSP, Musway sticks to the tried and tested concept. The equipment consists of the ADAU1452 as a DSP chip and the combined converter PC-M3168A, a very good combination that is established in many signal processors on the market. The sampling rate is 48 kHz, so an audio bandwidth of up to 22 kHz is possible - also a good standard. There are a total of 8 DSP channels, so in addition to the 6 built-in amplifier circuits, there are

we have 2 processed outputs, for example for subwoofer applications. The amplification is provided by three two-channel chips, the 6 amplifier channels are identical to each other, everything is 2-ohm stable and bridgeable. Musway promises an increase in power and a general improvement in performance. Among other things, the new controller from Infineon is responsible for this, which controls the "life-sustaining" functions of the power amplifier. The M6v4 can monitor temperature and current consumption, undervoltage and overvoltage or power supply function and impedance and adjust accordingly.

## measurements and sound

On the test bench we immediately confirm the power boost, which gives the v4 a good bit more power than the v3, namely now 96 watts at 4 ohms and 166 watts at 2 ohms, which makes the M6v4 significantly



The PC software shows all essential functions in the main window



Located on the left side of the DSP daughter board. The jumper for the high/low switch is located at the bottom

Digital sources take  
men about the  
optical input  
or as Bluetooth  
Dongle contact on

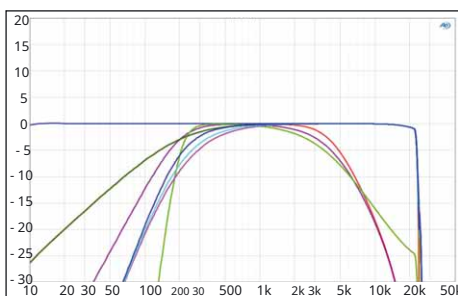


It not only scores points for maximum power, but also for distortion. Especially at lower power levels, which are important for sound, the distortion is now an order of magnitude lower, i.e. by a factor of 10 - a great achievement. In terms of sound, the clarity of the reproduction is pleasing, the music sounds very clear and tidy. Overall, very mature without any gimmicks, the M6v4 is recommended for all styles from jazz or chamber music to rock. You will look in vain for serious weaknesses and in practice the DSP is responsible for the much more relevant conditions in the vehicle anyway.

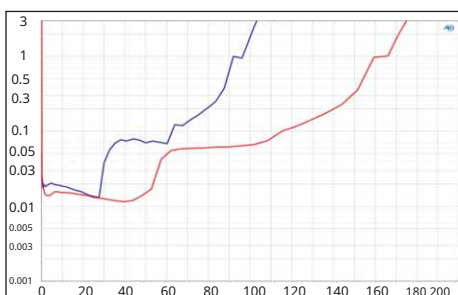
#### Conclusion

With the M6v4, Musway offers a universal tool for competent sound in the vehicle. The price is still fair, even with the numerous accessory options. And performance and power leave nothing to be desired.

Elmar Michels



The break-off edge is at 22 kHz due to the sample rate, the crossovers are programmed in a casual manner, here high-pass filters at 200 Hz (But, Bes, Lin) and low-pass filters at 3 kHz



The M6v4 pushes almost 100 watts at 4 ohms, especially in the first third of the power the distortion is nice and low at 0.015%

**BEST PRODUCT**  
**top class**  
**CAR & HiFi** 1/2025

**EMV-TIPP**  
Uninterrupted radio reception  
**CAR & HiFi** 1/2025

#### Musway M6v4

Price	from 600 euros
distribution	Audio Design, Kronau
hotline	07253 9465-0
Internet	www.musway.de

#### Evaluation

sound	40%	1.1	----
bass foundation	8%	1.0	----
neutrality	8%	1.0	----
transparency	8%	1.5	----
space	8%	1.0	----
dynamics	8%	1.0	----
laboratory	35%	1.4	----
Performance	20%	1.0	----
damping factor	—	—	----
signal-to-noise ratio	5%	1.5	----
distortion factor	10%	1.5	----
Practice	25%	0.8	----
equipment	15%	0.5	----
processing electronics	5%	1.5	----
processing mechanics	5%	1.0	----

#### Technical data

channels	6
channel power 4 Ohm W	6 x 96
channel power 2 Ohm W	6 x 166
channel power 1 Ohm W	-
bridge power W	3 x 332
system power W	690
Sensitivity max. mV	750
Sensitivity min. V	2.2
THD+N (<22 kHz) 5 W %	0.019
THD+N (<22 kHz) half load %	0.075
signal-to-noise ratio dB(A)	89
damping factor 20 Hz	72
damping factor 80 Hz	72
damping factor 400 Hz	72
damping factor 1 kHz	67
damping factor 8 kHz	12
damping factor 16 kHz	3

#### equipment

low-pass filter	20 - 20k Hz
high pass	20 - 20k Hz
bandpass	20 - 20k Hz
bass boost	- 12 - 12 dB/20 - 20k Hz
subsonic filter	via HP
phase shift	0, 180°/LZK via DSP
high-level inputs	•
automatic switch-on(Autosense)	•, DC
RCA outputs	•, 2CH, processed
start-stop capability	— (7.6 V)
Dimensions(L x W x H in mm)	200 x 150 x 45
Miscellaneous	8-channel DSP

#### Musway M6v4

**top class** **1.1**

**CAR & HiFi** 1/25

Price/performance: excellent

"Universally applicable six-channel device at a fair price."