



TEST: Velodyne Acoustics MicroVee X – mini subwoofer advanced



Velodyne Acoustics MicroVee X mini subwoofer finest improved chassis, digital control and remote control: 1,290 euros (Photo: R. Vogt)

The **Velodyne MicroVee** has accompanied me for over 20 years through various tests and experiments: the first time at the Video, the last time a year ago for LowBeats - [see test](#). Now the developers have gone one step further and given the proven concept a new chassis generation, a new digital control and a remote con-

trol. In other words: Apart from the casing and the basic concept, everything is new. Reason enough to thoroughly test the little cube, which is now called **Velodyne Acoustics MicroVee X** in its entirety, once again.

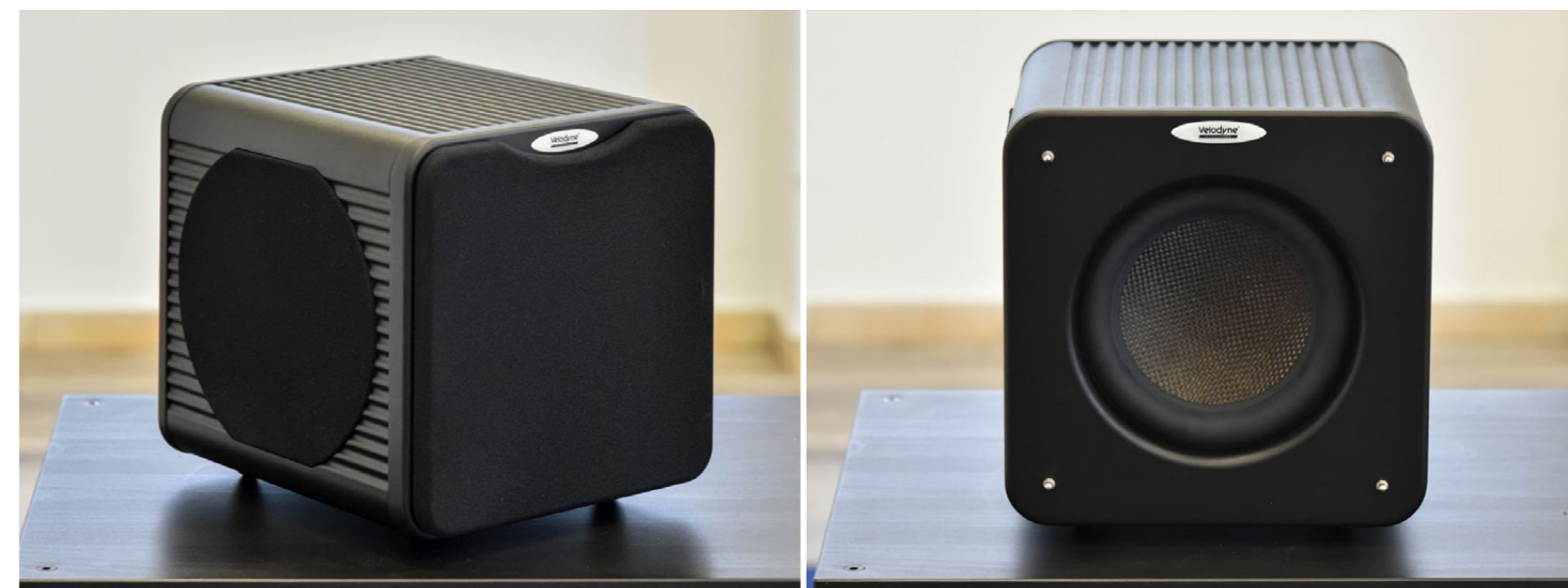


The special features of the Velodyne Acoustics MicroVee X

Everything about the MicroVee is tiny, but sturdy. To put the dimensions in perspective: With a footprint of 23 x 25 centimeters, its footprint is smaller than an A4 sheet of paper. According to the spec sheet, the three cone drivers are 6.5 inches (16.5 cm); in fact, the net cone diameter is pretty much the size of a CD (12 cm). The in proportion to this huge bead is made of highly flexible nitrile rubber for long life even under high load.

In contrast to the predecessor, the cone material of all three chassis is no longer metal, but a carbon fiber composite. The lateral cones

vibrate freely as passive cones, which has the advantage over the similar action of a bass reflex port of not causing flow noise. At higher levels, this keeps distortions more under control. Only the front driver is active and has a quad voice coil that dips into a neodymium magnet weighing a good three kilograms. All this is anchored in an extremely rigid housing made of extruded aluminum.



The side covers of the passive cones are not removable / The new carbon fiber composite cone



Completely newly developed electronics, now with RCA for looping through

Discreet: The Velodyne Acoustics MicroVee X with cover. All also available in white



(Photos: R. Vogt)



Completely newly developed is the electronics

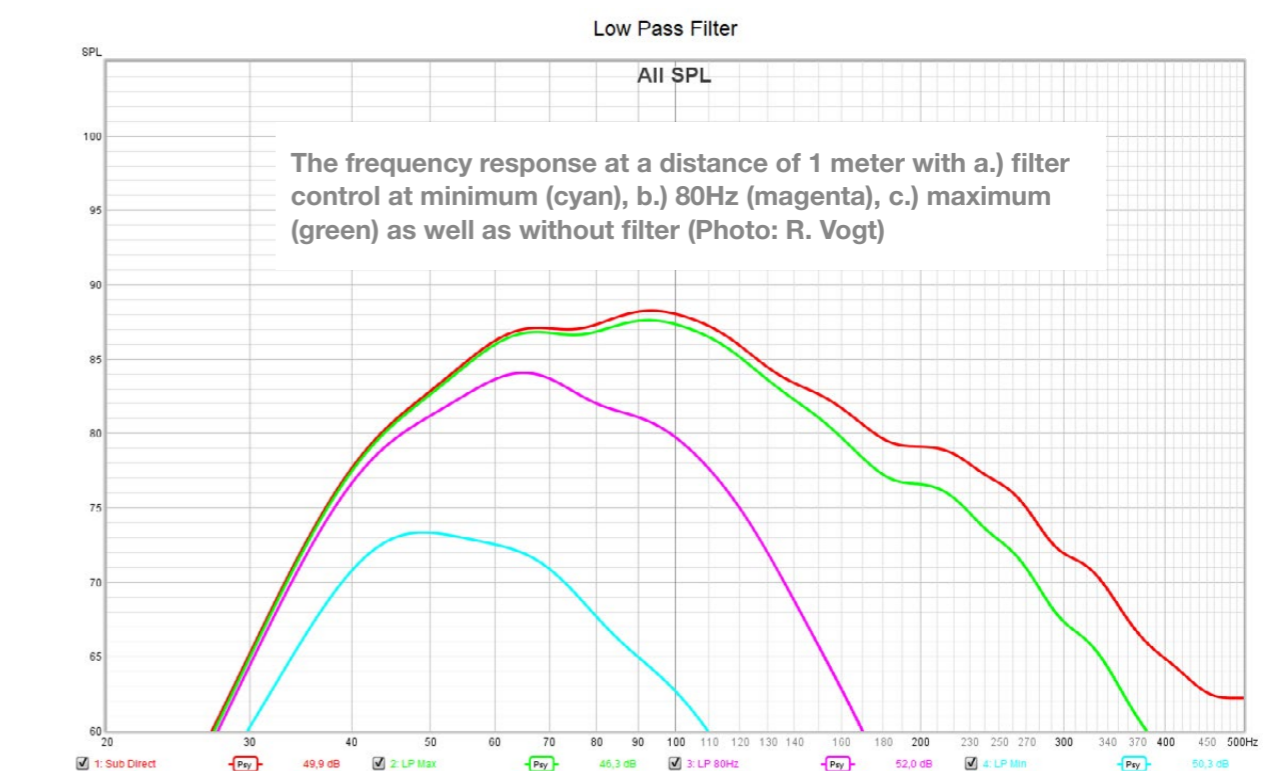
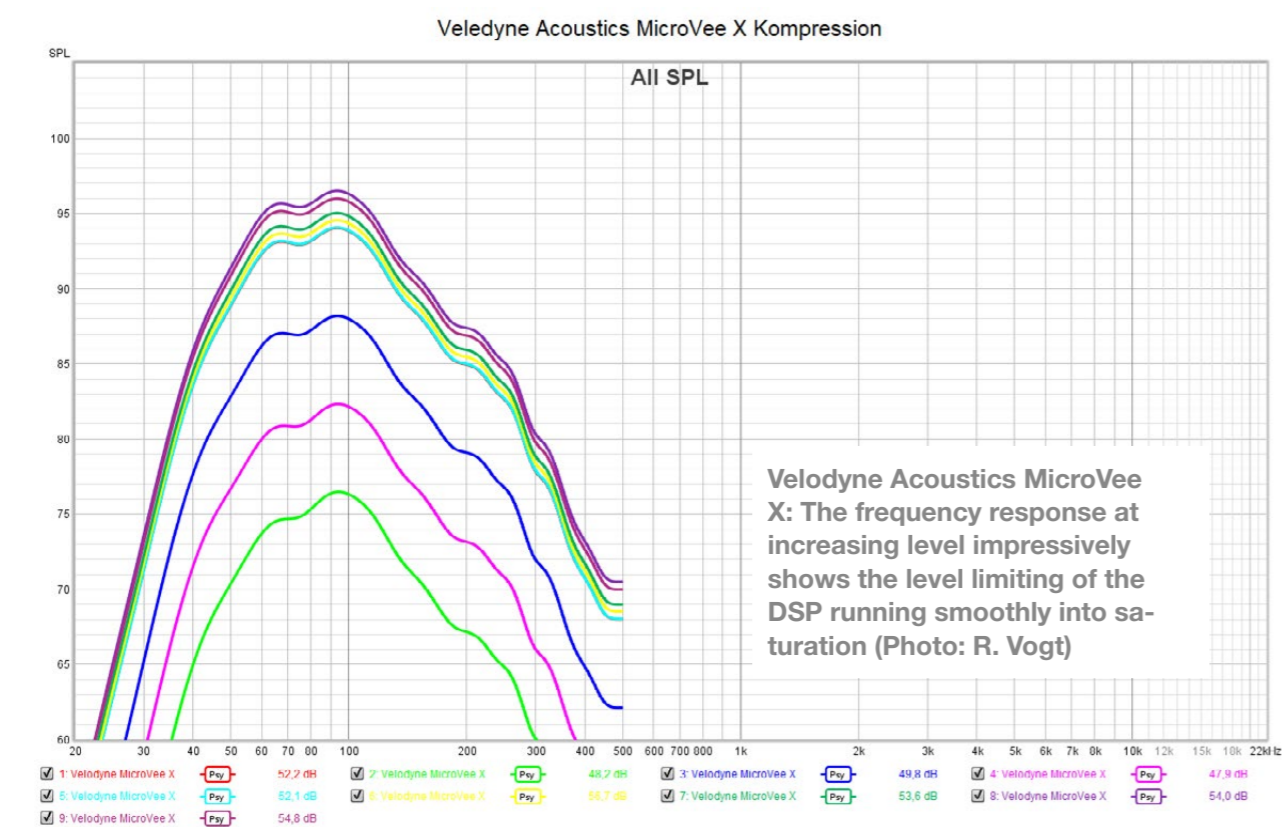
Finally, the MicroVee also has RCA jacks for looping through to additional woofers (previously only mini jack). Most obvious is the digital volume control with LED chain for rough control of the setting as well as buttons for inverting the phase and switching off the internal filtering. The power to keep the woofer in motion and under control against the resistance of the small cabinet volume (the spring stiffness of the air is quite large here) comes from a classic Class A/B power amplifier that unleashes up to 0.8 kilowatts (!) of power.

is especially important for such a compact subwoofer. The dimensions are tempting to place it somewhere hidden. And if, for example, a curtain covers the dwarf, it is often still difficult to ensure reliable infrared control. That's why I find it particularly clever to include an external infrared receiver on the cable. You attach it where you can ensure a direct light connection to the handheld transmitter. A suitable double-sided adhesive pad is included. The small transmitter can be used to control the level, switch the phase and operate the internal filtering.

For many, certainly a purchase argument: Finally, the little one gets a remote control. I think this



Remote control and receiver: the latter can always be positioned conveniently thanks to a meter-long cable (Photo: R. Vogt)





The newly integrated digital signal processor from Analog Devices provides equalization and filtering. But above all, it also provides dynamic signal limiting, which works particularly unobtrusively acoustically. Due to the small membrane areas, THX levels are not possible. Therefore, there is a great risk of pushing the drivers to their mechanical limits or even beyond. This not only shortens their lifespan, but the resulting distortions also sound terrible.

However, the intelligent level adjustment via DSP doesn't just abruptly slam into the signal, but lets the music gently run into a saturation - which then also leaves a margin. I documented this with the measurement series, and from the looks of it, it sounds fine. If you overdo it with the level more and more, the Velodyne simply stops getting louder at a certain point, protecting itself and the listener's ear. This all happens seamlessly and unobtrusively. Top!

Practice and sound of the little cube

The small cube rests on small cones with rubber tips. This dampens without wobbling and works equally well on carpet, parquet and tiles. The only adjustment required is the rotary control for the operating frequency on the MicroVee X itself. Everything else can now be conveniently done from the listening position via remote control. One point of criticism: The volume control is a bit rough with its 3dB jumps.

But there is praise elsewhere: I do not know any other subwoofers of this size in such high quality. Something always rattles, mechanical noises of the hard-working chassis can be heard through the bass reflex tube, high distortion and low level are normal. And with the Velodyne Acoustics MicroVee X? None of that. The small cube sounds squeaky clean when operated solo, without any discernible interference component. Only beyond the 90 decibel level do a few very harmless low-frequency interferences come in, indicating that the drive is leaving its linear stroke. You won't notice this with music from the speakers.

Because frequency and phase response follow wonderfully harmonic filter curves, matching to loudspeakers is also no problem and should always succeed harmoniously. However, the desired crossover frequency should not be too high. Even with the control set to maximum, the -3dB point is below 150 Hertz, even if the scale reads 200 Hz.

What to combine a high-end mini subwoofer with? For example, with high-end but rather quiet compact speakers (e.g., [ProAc Tablet 10](#), [Harwood LS 3/5a](#), [KEF LS 50 META](#)), with fine desktop monitors or with small but good soundbars that also invite you to listen to music. With the Velodyne, you easily get an octave lower. And that, in turn, sounds much better to the ear. Not only is there simply more bass, but also a greater three-dimensionality and a greater „smoothness“ in the mids.



Velodyne Acoustics MicroVee X with absolutely opaque fabric screen (Photo: R. Vogt)

Conclusion: Velodyne Acoustics MicroVee X for compact, dry bass


Velodyne Acoustics has evolved the [MicroVee MKII](#) into the MicroVee X in all the right places. The three drivers, with their cones now made of carbon fiber, operate with extremely low distortion in the ultra-stiff enclosure. The powerful 800 watt Class A/B amplifier provides tight control. The ultra-rigid cabinet is enormously stable - as already proven by the video [with the water glass](#) in the test of the predecessor. The new DSP's compression, which gently regulates into saturation, works unobtrusively, preventing

distortion and increasing durability. The remote control with infrared receiver, which can be positioned freely in the room via cable, increase the comfort. Admittedly: At over 1,000 euros, the Velodyne Acoustics MicroVee X is comparatively expensive. But I don't know of a better one in the ultra-compact class.



<https://www.lowbeats.de/test-velodyne-acoustics-microvee-x-mini-subwoofer-weiterentwickelt/>

VELODYNE MICROVEE X



LowBeats®
OUTSTANDING

4,5
RESULT

REVIEWS

SOUND	★★★★★
PRACTICE	★★★★☆
PROCESSING	★★★★★
TOTAL	★★★★★

2021-12-26

The rating always refers to the respective price class.

PRO & CONTRA:

- ⊕ Sounds bone-dry and low in distortion
- ⊕ Practical parameters/functions
- ⊕ Loop-through possibilities
- ⊖ Volume control quite coarse

PRICE:

(manufacturer's recommendation)
Velodyne Acoustics **MicroVee X**: 1,290 Euro
Available in black or white

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[Family-Test: Velodyne SPL-Ultra Serie Edel-Subwoofer](#)

[Test: Velodyne MicroVee MKII: Mini-Subwoofer – Maxi-Potential](#)



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