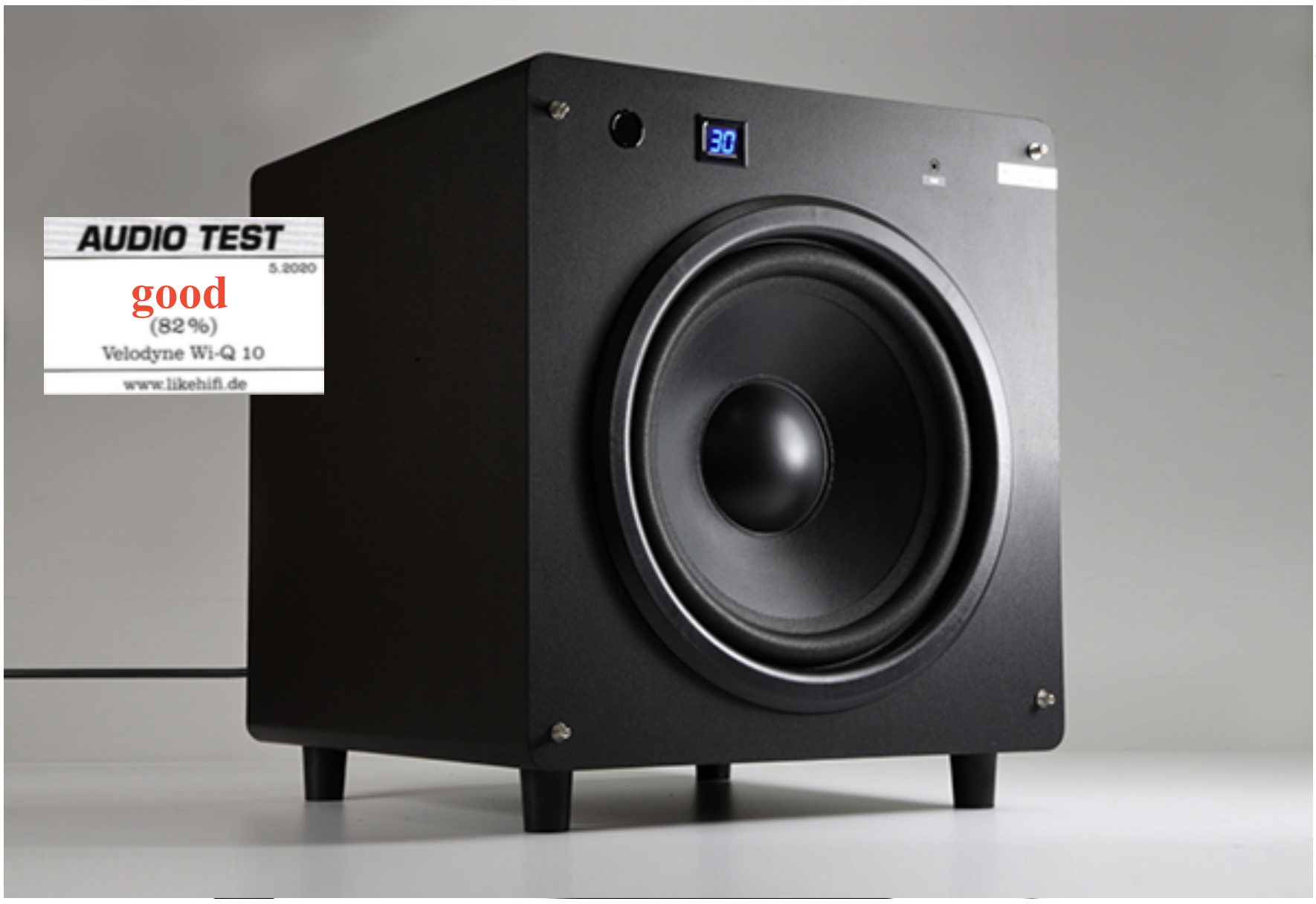
Velodyne Wi-Q 10

Get Funky

("Funk" in German means "wireless")

A chain is only as strong as its weakest link. And unfortunately, with many loudspeakers this is the frequency cellar. That's why support by a subwoofer is never a bad idea. And if anyone knows anything about it, it's Velodyne.

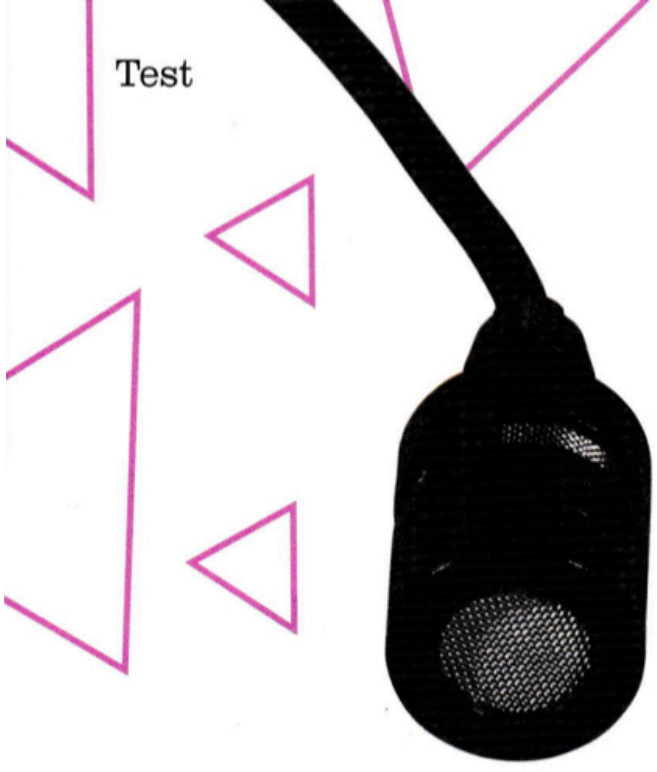
Alex Röser



Bilder: Auerbach Verlag

Everywhere represented, often in demand, always in the game—Audio Reference under Mansour Mamaghani is definitely one of the most active players in the local hi-fi scene. With Wilson Audio, M&K Sound, Dan D'Agostino and Krell, to name but a few, some absolute top manufacturers are already under Mamaghani's care. In November of last year came the latest news from the port metropolis: Audio Reference buys Velodyne. The Hamburg-based distribution company has made quite a big step forward. Velodyne is not just any manufacturer, but one of the world's leading experts in the production of subwoofers.

(This review appeared in the July 2020 issue of German magazine *Like HiFi* and is translated here to English.)



A measurement microphone including stand comes with the sub

Originally based in Silicon Valley, Velodyne, under the leadership of founder and chief engineer David HaII, introduced a completely new technology for reproducing low frequency signals in 1983, which revolutionized subwoofer construction. On the basis of an accelerometer, the so-called High Gain Servo System was able to achieve the best possible control over the excursion of the subwoofer membrane. In total, the ULD-18 reached a combat weight of 60 kg, but could also play louder and lower than its competitors—and at twenty to thirty times lower distortion values. Numerous awards, such as the Special Engineering Award in 1984, ensured Velodyne's rapidly growing popularity and enabled the company to continue researching and learning. In the meantime, a number of patents have been taken out by the Californians, including the DuaI Tandem Voice Coil and the Digital Drive Room Bass Equalization System.
It was also Velodyne who presented, in 2003, the world's first subwoofer that used a digital signal processor (DSP) to provide digital equalizers, crossovers and filters.

Also, the first remote-controlled subwoofer comes from Velodyne. We could probably fill the whole article with what Velodyne has come up with. But since we still want to go into our test sample of the "New Hamburger", we will leave it at that for now.

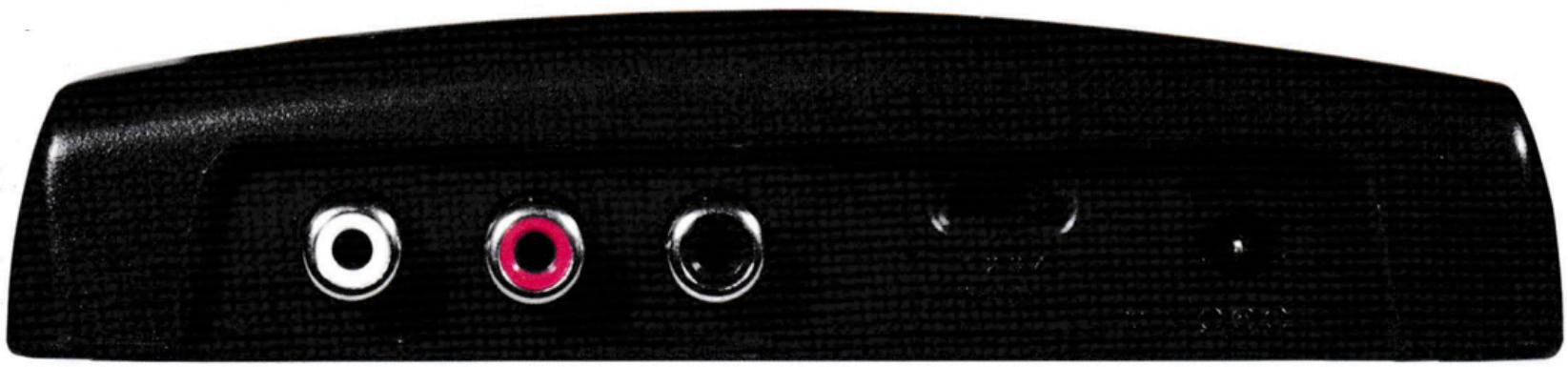
WI-Q10

Mr. Mamaghani has given us for this edition of the AUDIO TEST Velodyne's Subwoofer Wi-Q 10. Although it is not a newcomer to the market, it is still technologically up to date. In addition to its remote control capability and wireless signal transmission, the Wi-Q 10 features an automatic calibration procedure that adapts the sub's output to the acoustic conditions of its environment. We will go into the details later. First, a few formalities. At less than a thousand euro, the Wi-Q 10 is clearly in the entry-level class, which is not to be sneezed at in view of its equipment. The heavy (nearly 18 kg) cube works with a 25-cm diameter, forward-firing driver and a down-firing bass reflex port. The driver is hidden behind a simple cloth cover, as is a rudimentary LCD display and a mini jack input for the measuring microphone included in the scope of delivery. The control terminal is located on the rear panel. This contains a stereo RCA input and output, as well as high-level connections. The volume can also be adjusted, just like the upper limit of the crossover frequency.

The filter can be used at a minimum of 40 Hz and a maximum of 135 Hz, with a minimum slope of 12 dB per octave and a maximum of 24 dB per octave. Furthermore, the automatic turn-off function can be switched on and off at the rear of the sub. This enables the unit to switch to power-saving stand-by mode after a certain period of time. By the way, the output power of the digital amplifier built into the Wi-Q 10 is a maximum of 390 watts—a decent house number, as we hoped. The characteristic features of the Wi-Q 10 are the wireless signal transmission and the automatic room adjustment.

Nothing could be simpler

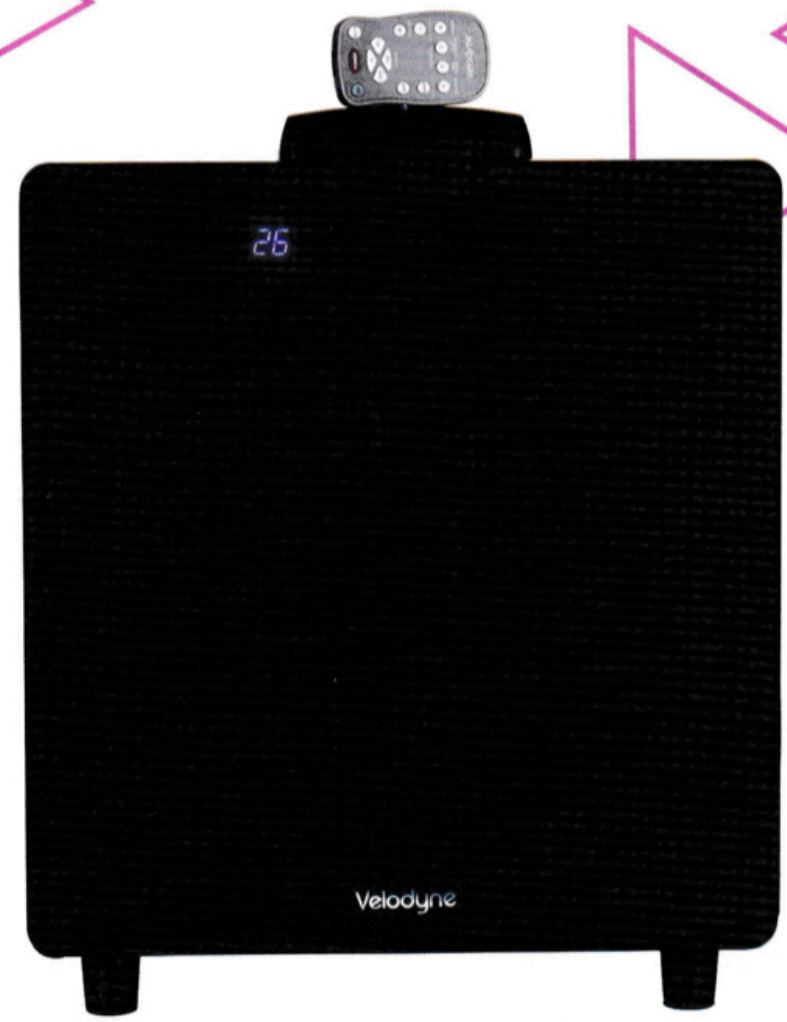
During the entire conception of the subwoofer, Velodyne seems to follow this credo: Keep it simple! Thus, the installation of the radio transmitter works completely without our intervention. From the LFE output of the amp, an RCA cable is plugged into the transmitter, setting the same of four possible channels on the transmitter as on the sub itself (factory default) and you're done. Now the sub can be stowed away somewhere in the room without having to lay an annoying cable across the floor. According to the manufacturer, the system has a range of up to 15 meters. Unfortunately, we can't make full use of this due to lack of space, but we simply believe the information provided. The automatic room EQ adjustment is just as uncomplicated. The included microphone is simply plugged-in and placed at the listening position.



In addition to the connections for signal supply, we find a switch for channel selection. Four possible options are available. It was therefore easy to control several devices from one

Bilder: Auerbach Verlag

Now press and hold the corresponding button on the remote control and a whole series of typical frequency sweeps are reproduced by the subwoofer. After about a minute the procedure is finished—the DSP inside the sub does the rest. By the way, different configurations can be easily saved as presets using the remote control. This not only includes the EQ, but also the phase adjustment, as well as various volume settings. We connected the Wi-Q transmitter to the LFE output of our laboratory amplifier, which drives two floor-standing loudspeakers. The choice of the first test title was quickly made: "Limit to You Love" by James Blake. When the title was released on the Briton's debut album in 2011, it quickly became the disco hit par excellence for its outrageously deep sub-bass orgy. We listen to the song at the beginning with the main speakers turned off to identify which parts of the song are transported via the sub. It's worth it in so far as we can lower the cut-off frequency of the sub a bit when we hear fragments of the lead vocals coming out of the subwoofer. As soon as everything is right, we hear the song from the beginning—this time in toto. What can you say? The unit delivers what the manufacturer promises: a rich, muscular performance that provides a healthy foundation for piano and vocals. The level setting is of course a matter of taste—for us it can be a bit more hefty, especially with this song. The Wi-Q 10 plays in the frequency cellar with a lot of power and still remains soulful.



Loudspeaker, transmitter and remote control—this is the team of Wi-Q 10. Above all, the calibration process is essential for setting up the device.

Calls, tremolos and pauses sound exact and well-trimmed. Finally, we hear the bass player of all bass players: Charles Mingus's iconic album "Blues & Roots" from 1959, where Velodyne's Wi-Q 10 is once again a very competent support to Mingus's side.

CONCLUSION

As for the technical equipment of the Wi-Q 10 and its basic musicality, there are no complaints. Wireless signal transmission, room measurement and even the saved presets. Usability is the key. The sub can hardly be surpassed. Only at very high levels can it run out of breath. For a device in its price range, the Wi-Q 10 is quite solid!

SPECIAL FEATURES

- **Wireless signal transmission**
- **Automatic room adjustment**

Advantages	+	highly impulsive
	+	differentiated & powerful sound
Disadvantages	–	not very resilient

DESCRIPTION

General

Geräteklasse	**Subwoofer**
Preiskategorie	**Einstiegsklasse**
Hersteller	**Velodyne**
Modell	**Wi-Q 10**
Preis (UVP)	$799 900 Euro (Paar)
Maße (B/H/T)	38,7 × 44 × 43,2 cm
Gewicht	18,6 kg
Informationen	www.audio-reference.de

Technische Daten (lt. Hersteller)

Arbeitsweise	aktiv
Bauform	1-port, bass reflex
Frequenzverlauf	135 kHz
Leistung	390 W dynamisch
Verbindung zur Quelle	Wireless, RCA
Room size	15–40 m²
individuelle Klangeinst.	Auto room adjustment
Inputs	1 x RCA 1 x XLR

RATING

Reproduction		58/70
Fit & Finish		8/10
User friendliness		8/10
Discounted		No
Overall results		**74 out of 90 points**
Price/performance	**Good**	8/10
Results	**Good**	**82 %**