

Raidho D-1.1 standmount loudspeaker

by Chris Thomas

I loved the original Raidho C1. It had a winning combination of low-impact cabinet size, wonderful build quality, and interesting in-house driver designs, all integrated into a satisfying whole. Musically, it grabbed my attention right away and whenever I am talking about small speakers, I always think of them. For years I have admired those small stand-mount speakers, driven by high-end source and amplification components, that are truly capable of realising very high levels of musical expression. Such designs have historically been in surprisingly short-supply, though things have got a lot better recently with some notable contenders in this category as driver and cabinet technology has improved so enormously in the past decade.

Some might reject, out of hand, any speaker of this size and they will claim that low-frequency bandwidth and massive scale should be prime requisites within an audio system. That's okay if you have the room to let large floorstanders breathe, suitable electronics, and the ears to dial them in to the extent where their good points don't become liabilities. The number of such musically successful domestic systems I have heard can be safely counted on the fingers of one hand.

For those of us with limited room and a love of listening to music through quality audio, the Danish company Raidho offer notable, if costly, salvation and the D-1.1 is the flagship of these small, supremely endowed models. Designed by Michael Børresen, the D-1.1 is the latest version of what began life as the D1. But, appearances can be deceptive and what we are really looking at here is virtually a new speaker that shares only the main cabinet and the tweeter with the D1. The baffle and back plate are new as are the crossover and

rear connections, while the 115mm mid/bass driver has undergone major modifications with a new motor structure and surround. This has resulted in a 1.5dB rise in efficiency.

Raidho's designs have always been concerned with the elimination of harmful resonances throughout the speaker system and the open-backed design of the driver itself and the shifting of the position of the magnets, out of the airflow, have been geared towards this. While the tweeter is identical, the performance of the new bass/midrange driver has become nothing short of epic. The diamond coating was probably born from one of those ideas that are forever floating around in speaker designer's heads concerning cone material. The result, in the never-ending quest to combine supreme lightness with ultimate stiffness, was to apply a carat and a half of industrial diamond, that is 0.3g, bonded with graphite to the ceramic surface of each driver. Bearing in mind the pitfalls associated with ceramic driver manufacture alone, this was never going to come under the heading of a cheap or easy-to-manufacture option. It took a lot of research and experimentation to get the process just right, but I reckon that this is the kind of attitude and dedication that very often results in fantastic audio products, because that is what we have here.

The build quality is truly exceptional, as is the finish. The tapering 'boat-back' is fronted by a two piece time-aligned aluminium baffle where the drivers are constructed straight onto the back, avoiding the unsightly external bolt or screw arrangement that would seem out of place on such elegant little cabinets as these. The tweeter is the well-established Raidho ribbon, though I have heard it referred to as a planar device too. Designated the FTT75-30-8, it isn't worth splitting hairs over its description, so let's call it a quasi-ribbon mounted in a sealed enclosure. The ultra-light membrane (0.02g of aluminium) is driven by an array of neodymium magnets. It is a magnificent driver.

The rear of the cabinet provides connection through the new 4mm gold-plated sockets, with no option for binding posts. It houses a small port at the mouth of which is an intriguing aluminium fitting that I can only assume is there to calm the air as it exits the cabinet and break up any unwanted turbulence that might be present.

The stands are unique to the Raidho C1 and D1 models. These wobble about at the lightest touch as they employ a loose ball and cup arrangement in each of the four feet while the critical speaker/ top plate interface, where I would normally be looking to slip in some Stillpoints to add some serious resonance control, is already catered for with a small aluminium stem and circular plate arrangement that sits atop a small ball-bearing in a cup. The whole stand provides a less rigid mount than one might usually expect, but goes to show that preconceptions in audio are dangerous things. I have found many occasions when the introduction of a lightweight, low-mass stand has freed the speaker dynamically and that is what we have here. A speaker of ▶





▶ such prodigious dynamic capability doesn't need to be 'slowed' by driving a heavy stand through physical connection. It works sometimes, but not here. The other thing about the stand is that it takes the speaker to the correct height and I can't emphasise this aspect of their design enough. Their height is critical. The movement, when pushed, is disconcerting at first. But they are so typically Raidho and, having tried the D-1.1 on alternative super-heavy, rock solid designs, I can appreciate the lightness of musical touch the dedicated, resonance-controlled stand brings in the pure speed, freedom, and agility of the music.

From the very first listening sessions, it was apparent that the D-1.1 was going to prove a very special musical experience and as the weeks of constant use went by I had them dialled into the room's acoustics perfectly. They will work surprisingly well when close to a rear wall but better to give them some free air where they will reward you with a fantastically open and insightful performance. I employed a decent amount of toe-in but this will certainly vary, depending on your particular installation. A single pair of Stillpoints Aperture panels, elevated to speaker level and in the corners behind each speaker calmed the room just the right amount too while avoiding that over-damped, energy-sapping feel of so many acoustic treatments. This small adjustment helped focus and clean the soundstage notably.

Very refined tonally and musically, the D-1.1, when suitably driven, is never going to be impolite or compress the high frequencies, leaving them sour and harsh. Rather, they are extraordinarily sophisticated and endlessly textural with a sense of wholesome, open coherence. This is achieved through quite exceptional driver and cabinet integration and of course the very detailed approach to the elimination of harmful resonances within the speaker system, including the stands. Bandwidth is a constant surprise and all that attention you paid to the supports, cabling and the mains distribution pays off big-time when you hear what these Raidhos are capable of. A small caveat here would be that a tonally dull or over-smooth amplifier will sound just that. This tweeter is certainly not in the business of inventing reverberant air or glistening harmonics for the sake of it.

To illustrate this I would cite the eponymous Greentrax 1996 album by the extraordinary Celtic fingerstyle guitarist Tony McManus, who works an ambient atmosphere with restraint and taste while filling it with the most haunting and beautiful melodies. I came to it through a fascination with alternative guitar tunings. It's one thing to sit with an audio analyst's ear and try to break down what the speaker is doing but you might miss the tranquility and quietness that the Raidho's bring. Better to let the music take you where it will. It's more usual to speak of low noise levels with electronics but, like the C1, there is an uncanny air of quiet against which they show you the music. McManus is a brilliant musician and storyteller and has a calm way with the delicate timing of his playing. But the way the D-1.1's deal with the leading edge of his guitar followed by the delicious sustain and golden tone gives time and space to really appreciate his superb phrasing and feel the harmonic movement and development of his melodies. The tracks on this album have an almost ethereal quality to them as the music ebbs and flows. The Raidhos drop this straight into the room with calm precision and no ▶

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► suggestion of the intrusive mechanics of the system to be found anywhere. Textural and tonal shadings are compelling and this is one of the real beauties of the speaker. Allowing the music expression and dynamic freedom while imposing so little of itself is one of the reasons that it is easy to sit in front of them for hours, getting lost in the musical intrigue, emotion, and enjoyment of the whole experience. They are helped by their notable soundstage. Broad and incredibly stable, the stage seems to go on and on in all directions. It is certainly the wonderful integration of the whole D-1.1 package and the sense that the speaker has a beguiling presence, some might call it forwardness, especially through the midband that brings the music across the room and toward you in such an accessible way.

The low end is, like all great small speakers, surprising in its extension, movement, and weight. This is obviously not the sole responsibility of the speaker though, but rather the installation as a whole. But these Raidhos are ultra fast, courtesy of their superb drivers and just as importantly, their implementation within that taut little cabinet. They are ripe too and full of colour and focus. You never feel that the speaker is being driven to the edge of where it might be uncomfortable and it never grows overblown or ‘loose’. It is never going to go down where the bigger speakers go. The cabinet dimensions alone will tell you that, but even on music that is bass-centric, I think you would be surprised at where the D-1.1 can venture. The point here is that it does it with a completely proportionate sense of scale and weight and this is never more apparent than on large-scale orchestral music or a simple piano. I say “simple” but, in reality a piano remains one of the most difficult instruments both to record and to reproduce, and yet the D-1.1 is confident in the way it approaches this daunting instrument. Yes, it is precise for sure but it remains unflustered and most importantly, lyrical. As with the Tony McManus album, the D-1.1 is endlessly subtle yet relaxed and this just seems to let the music ‘happen’ right in front of you and to allow the movement within it to grow. Chord intervals and the subtle changes within, show that shifts are more than just the relationship between fundamental notes. There is a whole world of nuance and harmonics beating away as the player shifts emphasis and this is where the D-1.1 is so excellent at letting you into the music rather than just listening “at” it. Their unforced clarity, and decidedly non-hyper balance are exceptional. The removal of resonance throughout the speaker system has been integral to Raidho’s design philosophy. Giving the mind more freedom to concentrate on the music seems well founded to me. Sitting in front of the little Raidhos has been a true learning and understanding experience, rather than a simple case of sitting down and listening to music. Of course, you can do that too, and extremely well. It’s a great loudspeaker for just letting the hours drift away, but more importantly, the D-1.1 is a loudspeaker to help you better understand your music and why it’s important to you.

TECHNICAL SPECIFICATIONS

Type: Stand-mount bookshelf rear ported speaker system

Driver Complement: 1× sealed ribbon tweeter, 1× 115mm diamond mid/bass driver

Frequency response: 50Hz–50kHz

Sensitivity: 85dB

Impedance: Nominal 6 Ohms

Recommended amplification: >50W minimum

Dimensions: 37×20×36 cm (H×W×D)

Weight: 12.5kg

Finishes: Piano black (as review pair), Walnut, High gloss white and all possible paint colours. **Price:**

€20,500 (black and white),

€ 22,900 (Walnut) per pair

Stands: € 2,500 in silver or € 2,950 in black

Manufactured by: Raidho Acoustics

URL: www.raidho.dk



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So, a fabulous little speaker then, but one that requires both a deep wallet and a well-judged system. The 85dB sensitivity is low, but Raidho say that they will work with smaller tube amplifiers and I can absolutely see this. Quality rather than quantity! Their attributes are many but the calm and expressive way they deal with any music makes them something of a rarity in my experience and especially at this size. The D-1.1s are very beautiful both in appearance and musical performance. I think they are great. +