

Individual test

Rainbow GL-C6.2



Germanium GL-C6.2 – Loudspeaker Art from Rainbow



BEST PRODUCT

High-end

CAR & HIFI

2/2014

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Master class

Last year, Rainbow revamped their entire range of speakers. All models received a newly designed successor, which of course was not created overnight. Now the top model of the Germanium line is the crowning glory.

Anyone who knows Rainbow loudspeakers knows that extremely meticulous engineering is involved in all price categories. Nothing is left to chance there and preferably a little too much effort than giving away a bit of sound quality. You can imagine what happens when head designer Paul Jelko is allowed to pull out all the stops with the top model. Thus, the bass-midrange speaker also ended up with a chassis, which first and foremost is a real feast for the eyes. This is ensured by the finely worked pole plates, which have a fine matted finish and of course the basket is made of die-cast aluminum, which is not only extremely well ventilated, but rather is also nice to look at.

The diaphragm is controlled by corrugated seam and a level spider; the vibration unit is perfectly centered. The diaphragm presents us with a combination. The bottom exhibits paper while the top is made of black anodized aluminum. In this way, Rainbow wants to combine the best of two worlds: hardness and damping. Rainbow reached deep into the bag of tricks for

the driver. As an optimum for the voice coil, the seldom used intermediate size 32 mm (1¼ inches) is used and the vicinity of the voice coil is tuned with two copper rings. One of these short circuit rings is embedded inside the pole piece while the second one is placed within the magnet ring. The effect is the fast short circuit of Eddy currents, which is expressed metrologically in a low inductance and above all, in a reduction of distortion. That is exactly what we find within the scope of our laboratory check; the Germanium 16 brings the best results that we have ever measured. The klirr sticks to the baseline, even at higher levels. The tweeters behave impeccably and are also equipped with a copper ring in the driver. It is a 25 mm soft dome with a specially adapted coating. The tweeters have an acoustic volume that is coupled via a ring of holes on the one hand, and is also ventilated via an attenuated central bore hole.

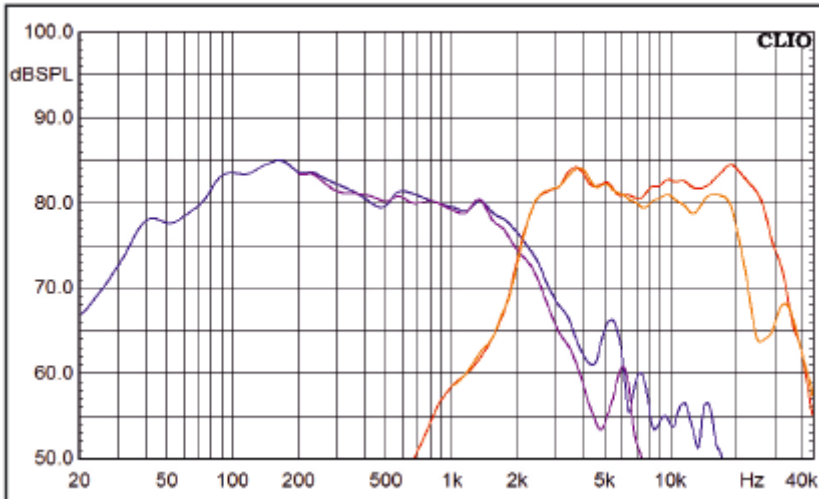
 <p>Der bildhübsche 16er weist alle Arten der Belüftung auf</p>	<p>The very lovely 16 has all types of ventilation</p>
 <p>An der wichtigen Stelle vor dem Hochtöner muss es ein MKP von Mundorf sein. Geschaltet wird mit einem massiven Jumper</p>	<p>An MKP from Mundorf is situated at the important location in front of the tweeters. Switching is controlled by a massive jumper</p>
 <p>Die 25er-Gewebekalotte mit Koppelvolumen aus Aluminium ist ein Sahne-teil geworden</p>	<p>The 25 soft dome with coupling volumes made of aluminum has become the cream of the crop</p>

Real brain work is also involved in the crossovers, which work in both filter branches with little tricks. Despite the considerable number of components, we basically have a 6 dB low pass and a 12 dB high pass. In the tweeters however, the voltage dividers for level adjustment (five very fine steps) are bridged with a small capacitor, which increases the level in the super-tweeter a little bit. In addition to a large coil, there is also an impedance linearization in the tweeters, and similar to the tweeters, there is a bypass available above the filter, which takes some of the sting out of the frequency response. The tweeter has two protective circuits. Rainbow still likes to use halogen bulbs, which cause a soft-clipping when under load

and there is also a PTC element available as “life insurance”.

Sound

The Germanium belongs to the loudspeaker systems, which always strike the right note with instinctive certainty. There is hardly a loudspeaker that can reproduce any type of instrument as perfect as the Rainbow. With the bowed double bass, full body and wonderfully creamy overtones come to your ear. In the next moment, we get right down to business with Hugh Masekela's toxic flugelhorn. The spatial event is performed with ease, which never leaves rise to thoughts of right or wrong - cinema at its best. The system reproduces the sound over the entire frequency range with unmatched clarity. An even with regards to the bass, the Germanium does not cut any corners despite a highly audiophile style of play. The aluminum-paper subwoofer kicks and booms to your heart's content, which is a pleasure.



Low frequency cut-off and very straight-line chassis in a broadband working overall system.

Results

The new GL-C is pretty near to perfection. Chassis, switches, measured values and sound move at the highest level of enjoyment. A really hot tip.

Elmar Michels

Rainbow GL-C6.2

Sales	AIV, Heilbronn	
Hotline	07131 59530	
Internet	www.aiv.de	
Sound	55%	1.2
Bass foundation	11%	1.5
Neutrality	11%	1.5
Transparency	11%	1.0
Spaciousness	11%	1.0
Dynamics	11%	1.0
Laboratory	30%	1.0
Frequency response	10%	1.0
Maximum level	10%	1.5

Distortion	10%	0.5
Practice	15%	1.3
Crossovers	10%	1.5
Workmanship	5%	1.0

Technical Specifications

Basket diameter	166 mm
Installation diameter	142 mm
Installation depth	68 mm
Magnet diameter	92 mm
Membrane HT	25 mm
Housing HT	45 mm
Edge steepness TT/HT	12/12 dB

Tweeter protection	Halogen bulbs, PTC
Level adjustment HT	0, -1, -1.5, -2.5, -3.5 dB
Grill	–
Miscellaneous	–

Nominal impedance	4 Ohm
DC resistance RDC	3.60 Ohm
Voice coil inductivity LE	0.13 mH
Voice coil diameter	32 mm
Diaphragm surface SD	129 cm ²
Resonance frequency FS	43.8 Hz
Mechanical performance QMS	3.54
Electrical performance QES	0.53
Overall performance QTS	0.46
Atomic volume VAS	17.7 l
Induced weight MMS	17.3 g
RMS	1.34 kg/s
CMS	0.77 mm/N
B*I	5.67 Tm
Acoustic pressure 2 V, 1 m	85 dB
Performance recommendation	30 -200 W

Evaluation

Price	around 400 Euros	
Sound	55%	1.2
Laboratory	30%	1.0
Practice	15%	1.3

Rainbow GL-C6.2

High-end

Price /performance: outstanding	1.2
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“The Rainbow Germanium shines with perfect engineering and is a really hot tip for sound gourmets.”