

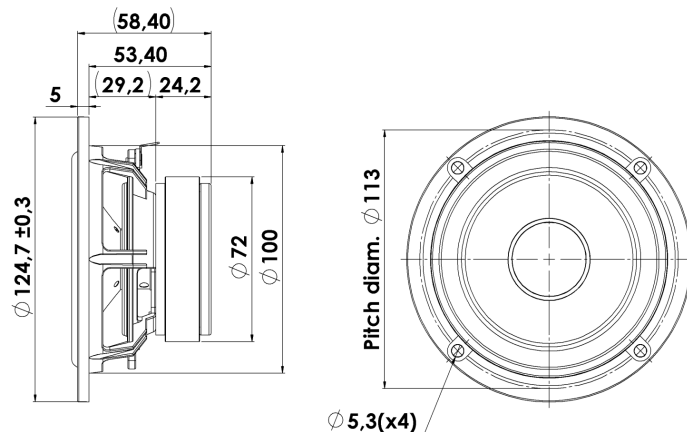


# DISCOVERY

## MIDWOOFER

## 12W/4524G00

The Discovery series offer traditional design, superior sound, a solid construction, and a wide range of variants. Combining these elements - plus a wealth of technical features and finesses - it gives our customers the possibility of acquiring a tailor-made Scan-Speak solution with very good performance at a reasonable low price point!



### KEY FEATURES:

- Wide Operating Frequency Range
- Coated NRSC Fibre Glass Cone (patent)
- Die cast Alu Chassis vented below spider
- Suitable for 2-way or 3-way (as midrange)
- Low Damping SBR Rubber Surround

#### T-S Parameters

Resonance frequency [fs]	50 Hz
Mechanical Q factor [Qms]	3.35
Electrical Q factor [Qes]	0.30
Total Q factor [Qts]	0.27
Force factor [Bl]	4.4 Tm
Mechanical resistance [Rms]	0.57 kg/s
Moving mass [Mms]	6.1 g
Suspension compliance [Cms]	1.67 mm/N
Effective diaph. diameter [D]	86 mm
Effective piston area [Sd]	59 cm <sup>2</sup>
Equivalent volume [Vas]	8.2 l
Sensitivity (2.83V/1m)	88.8 dB
Ratio Bl/√Re	2.50 N/√W
Ratio fs/Qts	185 Hz

#### Notes:

IEC specs. refer to IEC 60268-5 third edition.  
All Scan-Speak products are RoHS compliant.  
Data are subject to change without notice.  
Datasheet updated: February 22, 2011.

#### Electrical Data

Nominal impedance [Zn]	4 Ω
Minimum impedance [Zmin]	3.9 Ω
Maximum impedance [Zo]	30.8 Ω
DC resistance [Re]	3.1 Ω
Voice coil inductance [Le]	0.4 mH

#### Power Handling

100h RMS noise test (IEC 17.1)	40 W
Long-term max power (IEC 17.3)	70 W

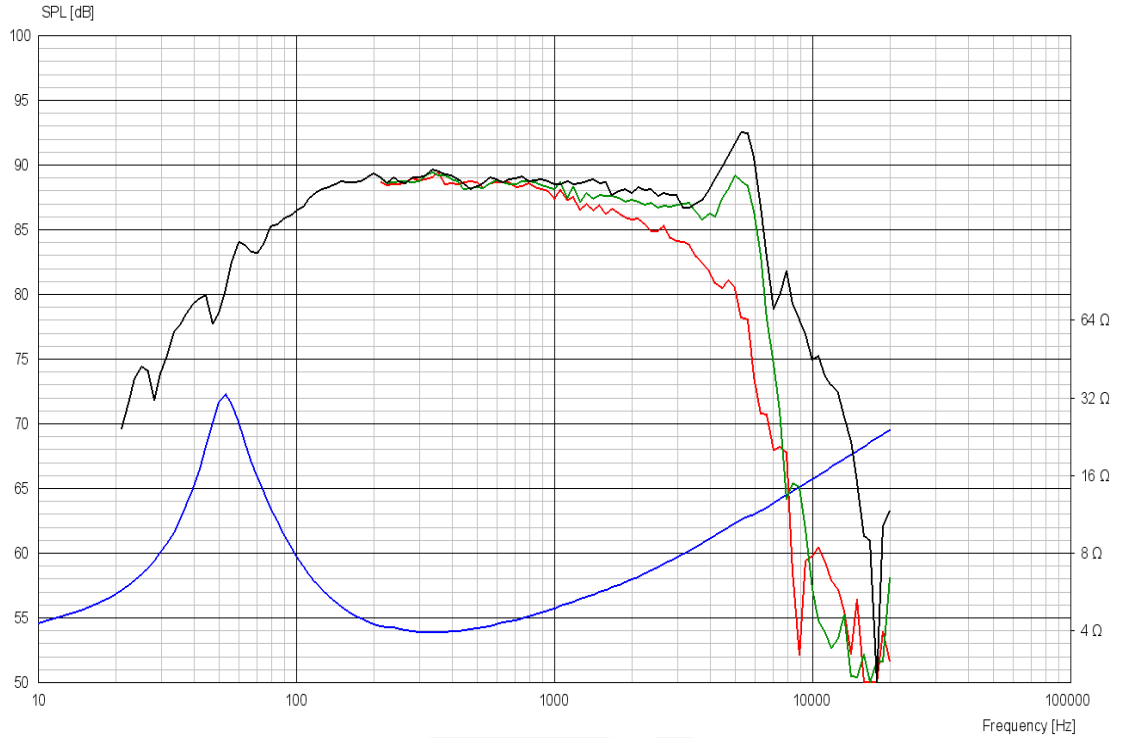
#### Voice Coil and Magnet Data

Voice coil diameter	25 mm
Voice coil height	10 mm
Voice coil layers	2
Height of gap	4 mm
Linear excursion	± 3 mm
Max mech. excursion	± 9 mm
Unit weight	1 kg



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## Advanced Parameters (Preliminary)



### Electrical data:

Resistance [Re']	3.14 Ω
Free inductance [L <sub>eb</sub> ]	0.0528 mH
Bound inductance [L <sub>e</sub> ]	0.781 mH
Semi-inductance [K <sub>e</sub> ]	0.0498 SH
Shunt resistance [R <sub>ss</sub> ]	19548 Ω

### Mechanical Data

Force Factor [Bl]	4.25 Tm
Moving mass [M <sub>ms</sub> ]	6.27 g
Compliance [C <sub>ms</sub> ]	1.43 mm/N
Mechanical resistance [R <sub>ms</sub> ]	0.174 kg/s
Admittance [A <sub>ms</sub> ]	0.286 mm/N