

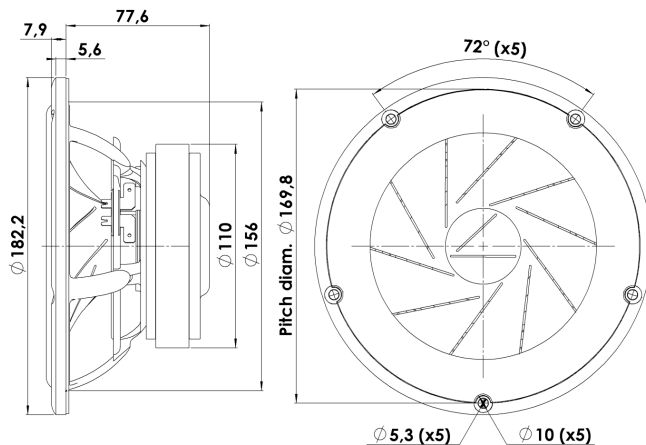


# REVELATOR

## MIDWOOFER

## 18W/4531G00

The Revelator midrange and midwoofers, both well known for their sliced paper cone technology. The slices are filled with damping glue, which dramatically reduces breakup modes in the diaphragm. In combination with Scan-Speaks low-loss linear suspension and the patented Symmetrical Drive (SD-1) it represented a breakthrough in midrange clarity and overall smooth frequency response characteristics.



### KEY FEATURES:

- Patented Symmetrical Drive Motor Design
- Low-Loss linear suspension
- Die cast Alu Chassis vented below spider
- Sliced Cone (Controls Cone Breakups)
- Low Damping SBR Rubber Surround
- Large Ferrite Magnet System

#### T-S Parameters

|                               |                     |
|-------------------------------|---------------------|
| Resonance frequency [fs]      | 33 Hz               |
| Mechanical Q factor [Qms]     | 5.20                |
| Electrical Q factor [Qes]     | 0.38                |
| Total Q factor [Qts]          | 0.35                |
| Force factor [Bl]             | 5.7 Tm              |
| Mechanical resistance [Rms]   | 0.70 kg/s           |
| Moving mass [Mms]             | 17.5 g              |
| Suspension compliance [Cms]   | 1.33 mm/N           |
| Effective diaph. diameter [D] | 138 mm              |
| Effective piston area [Sd]    | 150 cm <sup>2</sup> |
| Equivalent volume [Vas]       | 41.9 l              |
| Sensitivity (2.83V/1m)        | 90 dB               |
| Ratio Bl/√Re                  | 3.09 N/√W           |
| Ratio fs/Qts                  | 93 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]   | 4.2 Ω  |
| Maximum impedance [Zo]     | 49.9 Ω |
| DC resistance [Re]         | 3.4 Ω  |
| Voice coil inductance [Le] | 0.3 mH |

#### Power Handling

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

#### Voice Coil and Magnet Data

|                     |          |
|---------------------|----------|
| Voice coil diameter | 38 mm    |
| Voice coil height   | 17.5 mm  |
| Voice coil layers   | 2        |
| Height of gap       | 5 mm     |
| Linear excursion    | ± 6.5 mm |
| Max mech. excursion | ± 11 mm  |
| Unit weight         | 1.7 kg   |

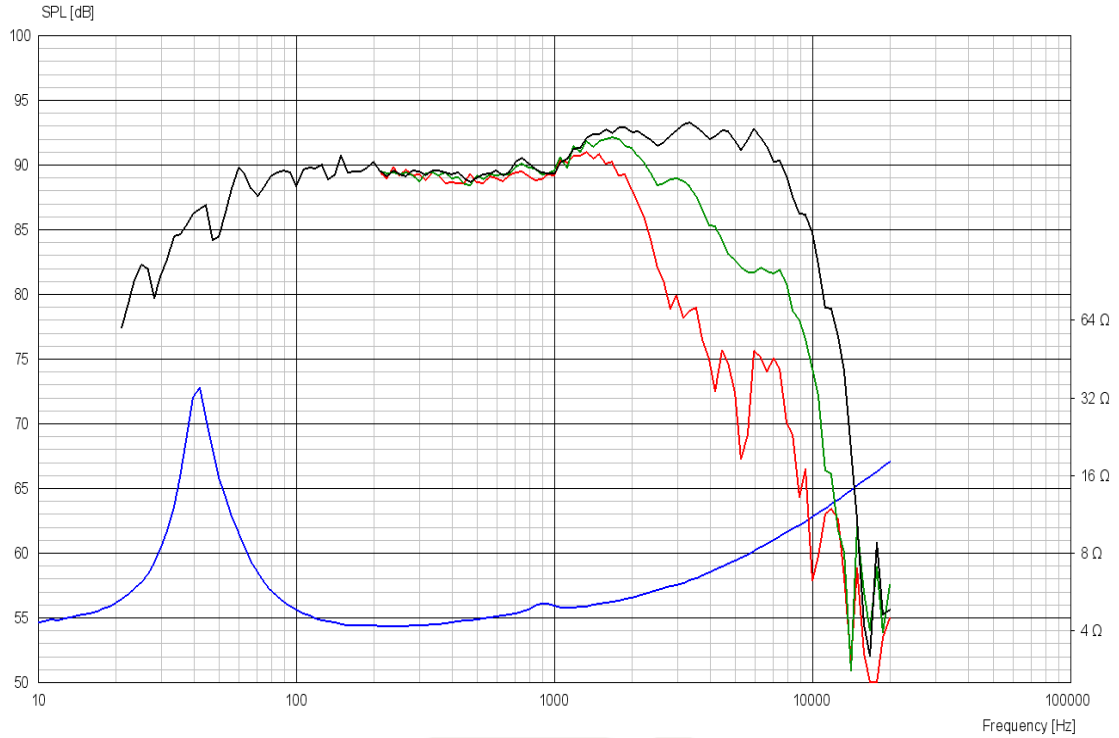




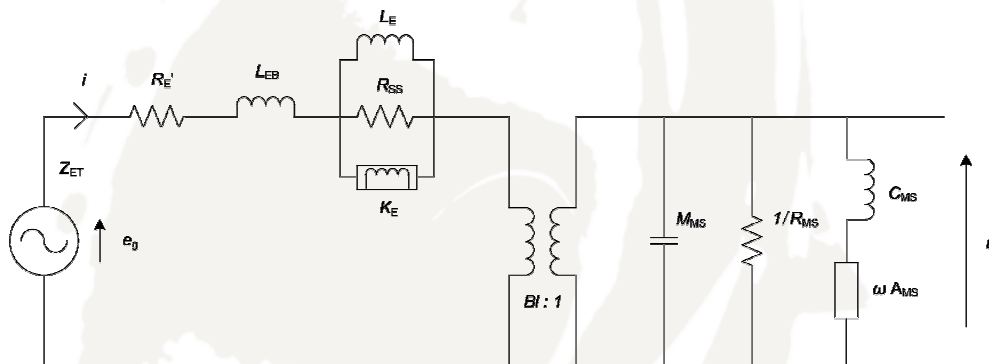
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### Advanced Parameters (Preliminary)



#### Electrical data:

|                                     |           |
|-------------------------------------|-----------|
| Resistance [Re']                    | 3.70 Ω    |
| Free inductance [L <sub>eb</sub> ]  | 0.0885 mH |
| Bound inductance [L <sub>e</sub> ]  | 0.631 mH  |
| Semi-inductance [K <sub>e</sub> ]   | 0.0176 SH |
| Shunt resistance [R <sub>ss</sub> ] | 2289 Ω    |

#### Mechanical Data

|  |            |
|--|------------|
| Force Factor [Bl]                        | 5.02 Tm    |
| Moving mass [M <sub>ms</sub> ]           | 19.1 g     |
| Compliance [C <sub>ms</sub> ]            | 0.926 mm/N |
| Mechanical resistance [R <sub>ms</sub> ] | 0.036 kg/s |
| Admittance [A <sub>ms</sub> ]            | 0.119 mm/N |

