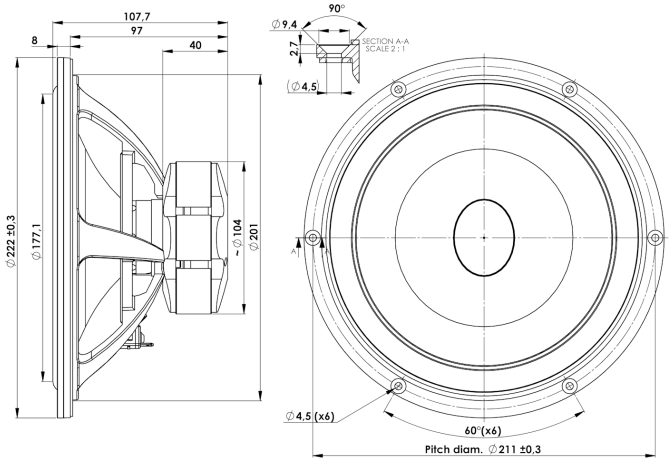
# ELLIPTICOR

## MIDWOOFER 21WE/4542T00

With the Ellipticor family a long tradition of circular motor structures and their inherent breakup behavior has been broken since one of its key features is an elliptical voice coil and magnet gap. In combination with the powerful SD AirCirc magnet system the 21WE has high sensitivity, very low distortion, and has an extremely fast response to transients. Above all a TRUE TO LIVE sound which makes 21WE/4542T00 one of the very best midwoofers on the market!



## KEY FEATURES:

- Elliptic voice coil
- High sensitivity (SPL)
- Unusually low distortion
- Very low mechanical losses
- AirCirc optimized magnetsystem
- Flexible appearence with replaceable decor ring

| **T-S Parameters** | |
|---|---|
| Resonance frequency [fs] | 38 Hz |
| Mechanical Q factor [Qms] | 5.43 |
| Electrical Q factor [Qes] | 0.30 |
| Total Q factor [Qts] | 0.28 |
| Force factor [Bl] | 8.2 Tm |
| Mechanical resistance [Rms] | 1.1 kg/s |
| Moving mass [Mms] | 25 g |
| Compliance [Cms] | 0.70 mm/N |
| Effective diaph. diameter [D] | 172 mm |
| Effective piston area [Sd] | 233 cm² |
| Equivalent volume [Vas] | 54 l |
| Sensitivity (2.83V/1m) | 93.5 dB |
| Ratio Bl/√Re | 4.45 N/√W |
| Ratio fs/Qts | 136 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: November 2, 2018.

| **Electrical Data** | |
|---|---|
| Nominal impedance [Zn] | 4 Ω |
| Minimum impedance [Zmin] | 4.3 Ω |
| Maximum impedance [Zo] | 57 Ω |
| DC resistance [Re] | 3.4 Ω |
| Voice coil inductance [Le] | 0.1 mH |

| **Power Handling** | |
|---|---|
| 100h RMS noise test (IEC 17.1) | 50 W |
| Long-term max power (IEC 17.3) | 100 W |

| **Voice Coil & Magnet Data** | |
|---|---|
| Voice coil diameter | 35/45 mm |
| Voice coil height | 19.5 mm |
| Voice coil layers | 2 |
| Height of gap | 5 mm |
| Linear excursion | ± 7.2 mm |
| Max mech. excursion | ± 12 mm |
| Unit weight | 1.8 kg |

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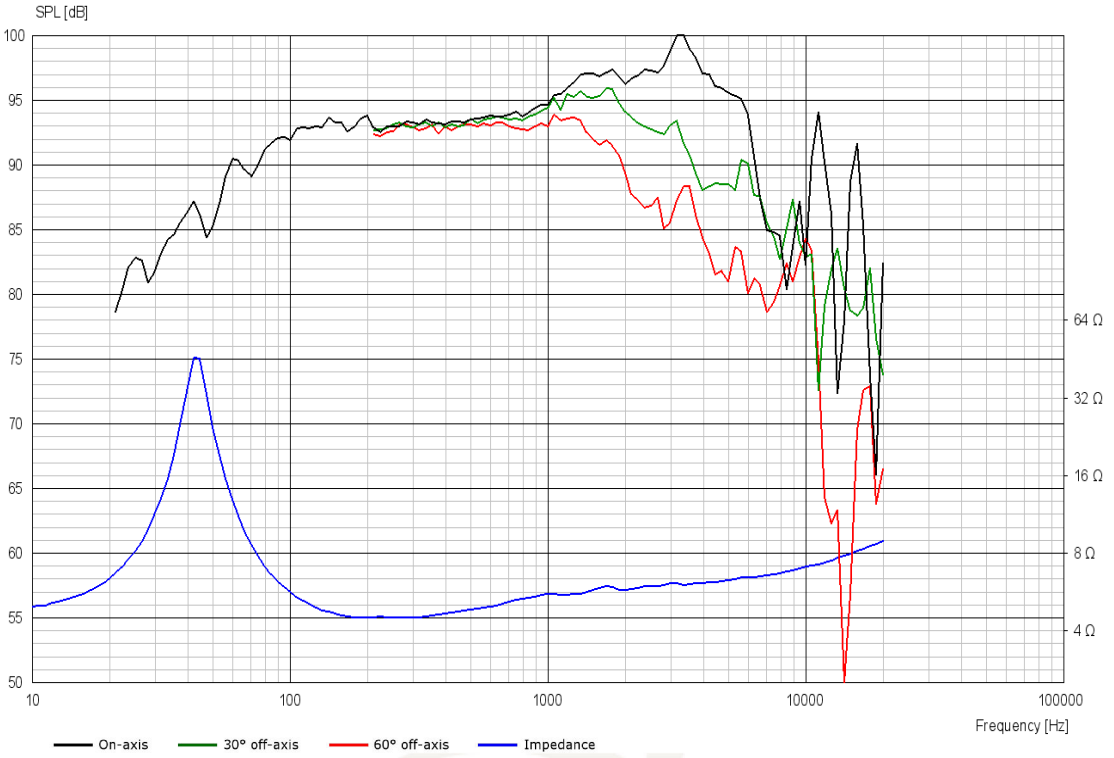
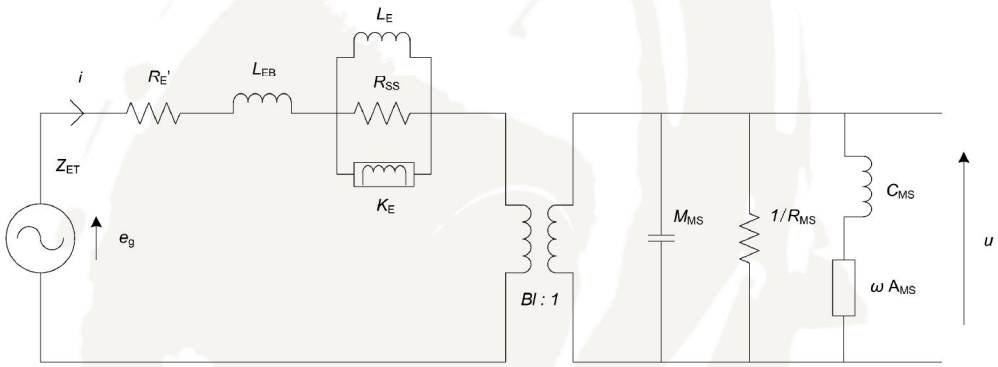



## Advanced Parameters (Preliminary)




| Electrical data | |
|---|---|
| Resistance [Re'] | - Ω |
| Free inductance [Leb] | - mH |
| Bound inductance [Le] | - mH |
| Semi-inductance [Ke] | - SH |
| Shunt resistance [Rss] | - Ω |

| Mechanical Data | |
|---|---|
| Force Factor [Bl] | - Tm |
| Moving mass [Mms] | - g |
| Compliance [Cms] | - mm/N |
| Mechanical resistance [Rms] | - kg/s |
| Admittance [Ams] | - mm/N |

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