The Illuminator midranges and midwoofers are in every aspect unusual designs with the open construction, the extremely long linear excursion and patented under-hung SD-3 (Symmetrical Drive) neodymium motor system, which due to copper caps and its construction ensures very low distortion, adding the unique patented cones, low-loss linear suspension the result is: "The Very Best Money Can Buy!"

### KEY FEATURES:

- Under-Hung Neodymium Motor Design
- Patented Sandwich Paper Cone
- Low-Loss linear suspension
- Patented Symmetrical Drive (SD-3)
- Exceptionally Long Linear Excursion
- Patented Design

### T-S Parameters

- Resonance frequency \([fs]\) 30 Hz
- Mechanical Q factor \([Qms]\) 3.56
- Electrical Q factor \([Qes]\) 0.32
- Total Q factor \([Qts]\) 0.29
- Force factor \([Bl]\) 6 Tm
- Mechanical resistance \([Rms]\) 1.00 kg/s
- Moving mass \([Mms]\) 18.9 g
- Suspension compliance \([Cms]\) 1.49 mm/N
- Effective diaph. diameter \([D]\) 140 mm
- Effective piston area \([Sd]\) 154 cm²
- Equivalent volume \([Vas]\) 49.4 l
- Sensitivity (2.83V/1m) 87.2 dB
- Ratio Bl/\(\sqrt{Re}\) 3.35 N/\(\sqrt{W}\)
- Ratio fs/\(Qts\) 102 Hz

### Electrical Data

- Nominal impedance \([Zn]\) 4 Ω
- Minimum impedance \([Zmin]\) 4.5 Ω
- Maximum impedance \([Zo]\) 38.8 Ω
- DC resistance \([Re]\) 3.2 Ω
- Voice coil inductance \([Le]\) 0.5 mH

### Power Handling

- 100h RMS noise test (IEC 17.1) 80 W
- Long-term max power (IEC 17.3) 150 W

### Voice Coil and Magnet Data

- Voice coil diameter 42 mm
- Voice coil height 8 mm
- Voice coil layers 4
- Height of gap 20 mm
- Linear excursion ± 9 mm
- Max mech. excursion ± 16 mm
- Unit weight 1.7 kg

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Notes:
All Scan-Speak products are RoHS compliant.
Data are subject to change without notice.
Advanced Parameters (Preliminary)

**Electrical data:**
- Resistance \([R_e']\) = 3.41 Ω
- Free inductance \([L_{eb}]\) = 0.0517 mH
- Bound inductance \([L_e]\) = 2.59 mH
- Semi-inductance \([K_e]\) = 0.0641 SH
- Shunt resistance \([R_{ss}]\) = 4.53 Ω

**Mechanical Data**
- Force Factor \([B_l]\) = 5.20 Tm
- Moving mass \([M_{ms}]\) = 17.1 g
- Compliance \([C_{ms}]\) = 0.963 mm/N
- Mechanical resistance \([R_{ms}]\) = 0.178 kg/s
- Admittance \([A_{ms}]\) = 0.140 mm/N

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