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 \([f_s]\) 35 Hz
- Mechanical Q factor \([Q_{ms}]\) 3.37
- Electrical Q factor \([Q_{es}]\) 0.28
- Total Q factor \([Q_{ts}]\) 0.26
- Force factor \([B_l]\) 7.5 Tm
- Mechanical resistance \([R_{ms}]\) 0.80 kg/s
- Moving mass \([M_{ms}]\) 12.3 g
- Suspension compliance \([C_{ms}]\) 1.68 mm/N
- Effective diaph. diameter \([D]\) 108 mm
- Effective piston area \([S_d]\) 92 cm²
- Equivalent volume \([V_{as}]\) 19.9 l
- Sensitivity (2.83V/1m) 83.4 dB
- Ratio \([B_l]/\sqrt{R_e}\) 3.09 N/√W
- Ratio \([f_s]/Q_{ts}\) 135 Hz

**Electrical Data**
- Nominal impedance \([Z_n]\) 8 Ω
- Minimum impedance \([Z_{min}]\) 7.9 Ω
- Maximum impedance \([Z_o]\) 76.9 Ω
- DC resistance \([R_e]\) 5.9 Ω
- Voice coil inductance \([L_e]\) 0.41 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 ± 13 mm
- Unit weight 1.7 kg

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.
Advanced Parameters (Preliminary)

**Electrical data:**
- Resistance \([R_e']\) \(7.15\ \Omega\)
- Free inductance \([L_{eb}]\) \(0.0794\ mH\)
- Bound inductance \([L_e]\) \(2.554\ mH\)
- Semi-inductance \([K_e]\) \(0.1174\ SH\)
- Shunt resistance \([R_{ss}]\) \(5.99\ \Omega\)

**Mechanical Data:**
- Force Factor \([B_l]\) \(6.45\ Tm\)
- Moving mass \([M_{ms}]\) \(11.5\ g\)
- Compliance \([C_{ms}]\) \(1.49\ mm/N\)
- Mechanical resistance \([R_{ms}]\) \(0.128\ kg/s\)
- Admittance \([A_{ms}]\) \(0.257\ mm/N\)