SOVOX

M300T

SPECIFICATION

Passive two-way screen-channel loudspeaker with twin 12-inch woofers, for multiplex and dubbing rooms. Hall depth ≤ 19 m/27 m[1]

01 FEATURES ● Performance | ▲ Engineering | ■ Economy & Maintenance



- ● Twin 12-inch woofers side by side in one bass-reflex enclosure raise radiating area while one amplifier channel still drives the box.
- ● 2-inch titanium-diaphragm compression driver with a one-piece diaphragm-and-coil assembly; 106 dB driver sensitivity for clean detail and transients.
- ▲ Integrated 90° × 50° horn needs no external horn assembly and eases alignment to the seating area.
- ▲ Built-in 2.0 kHz passive crossover lets one amplifier channel drive the complete loudspeaker.
- ▲ Depth stays at 302 mm, so higher output needs no deeper screen wall.
- ■ 4 Ω nominal; verify amplifier current capability and cable loss when specifying the amplifier.

02 OVERVIEW

The M300T is a passive two-way screen channel loudspeaker in the SOVOX M Series for compact and small-to-mid cinema auditoria, covering behind-screen main channels, multiplex auditoria and screening or dubbing rooms. Twin 12-inch low-frequency drivers and a 2-inch titanium-diaphragm compression driver share a bass-reflex enclosure with an integrated horn, covering 53 Hz–18 kHz (±3 dB, half-space) with a 38 Hz–20 kHz usable range and 90° × 50° nominal coverage.

The twin 12-inch drivers work side by side, increasing low-frequency radiating area and output capacity while cabinet depth stays at just 302 mm; they use ADM™ coated-cloth-edge loose-pressed paper cones with large-bore voice coils, balancing stiffness, damping and long-term durability. The 2-inch compression driver is a one-piece titanium diaphragm and voice-coil assembly with 106 dB driver sensitivity. An internal 2.0 kHz passive crossover integrates both bands for single-amplifier drive. The cabinet measures 410 × 1077 × 302 mm (W×H×D), weighs approx. 25.5 kg, and supports screen-frame mounting or guided suspended installation — practical to handle and position behind screens in space-constrained rooms.

03 APPLICATIONS

Behind-screen main channels · Compact and small to medium commercial auditoriums · Dubbing rooms · Dome cinemas

04 SPECIFICATIONS

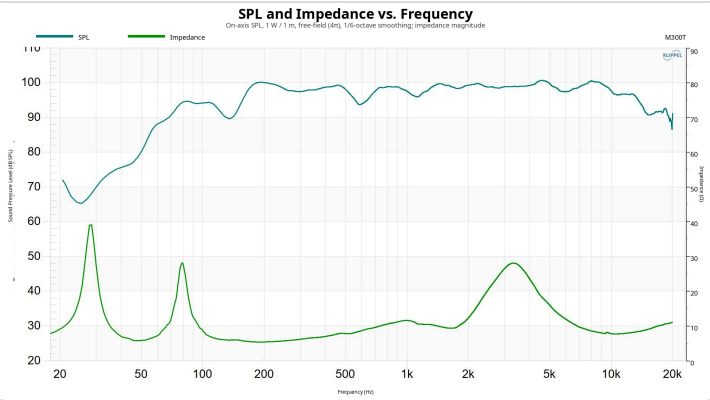
MODEL	M300T
PRODUCT TYPE	Cinema Screen Speaker
SYSTEM TYPE	2-Way, Passive
DRIVER CONFIGURATION	12"LF × 2 + 2"HF
NOMINAL IMPEDANCE	4Ω
FREQUENCY RESPONSE (±3 DB @ 2Π)[2]	53 Hz–18 kHz
FREQUENCY RANGE (-10 DB @ 2Π)[2]	38 Hz–20 kHz
AES 100-HOUR POWER RATING[3]	500W
AES 2-HOUR POWER RATING	625W
PROGRAM POWER[4]	1000W
SENSITIVITY (2Π) @1W/1m	100dB
RATED MAXIMUM SPL /1m @ 2Π	127dB
CALCULATED MAXIMUM SPL /1m @ 2Π[5]	133dB
CROSSOVER FREQUENCY	2.0 kHz passive
RECOMMENDED HPF	30 Hz, LR24
COVERAGE ANGLE (H×V)	90° × 50°
ENCLOSURE TYPE	Bass-reflex enclosure with built-in horn
ENCLOSURE MATERIAL / FINISH	MDF · PVC laminate
INPUT CONNECTORS	Binding posts
MOUNTING OPTIONS	Screen-frame mounting or suspended installation under guidance
DIMENSIONS W×H×D (mm)	W410 × H1077 × D302 mm
NET WEIGHT	25.5 kg

Office: Room A401, Gaosheng Building, Zhongxin Road, Bao'an District, Shenzhen,China
Factory: SOVOX Technology Park, Qingling Road, Huiyang District, Huizhou,China
Email · info@sovox.com
Web · www.sovox.com
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05 FREQUENCY RESPONSE

On-axis frequency response, 1W/1 m, free-field, 1/6-octave smoothing[6]

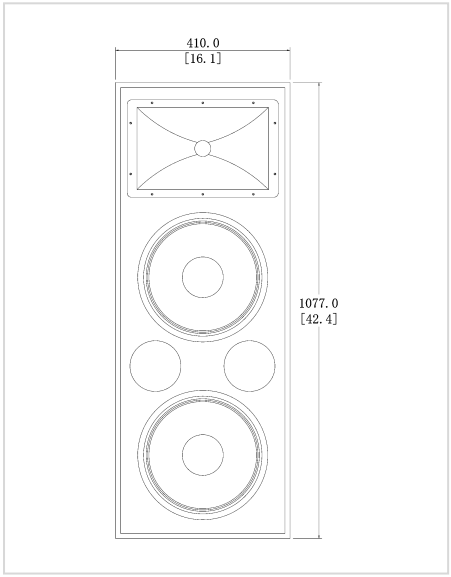
M300T



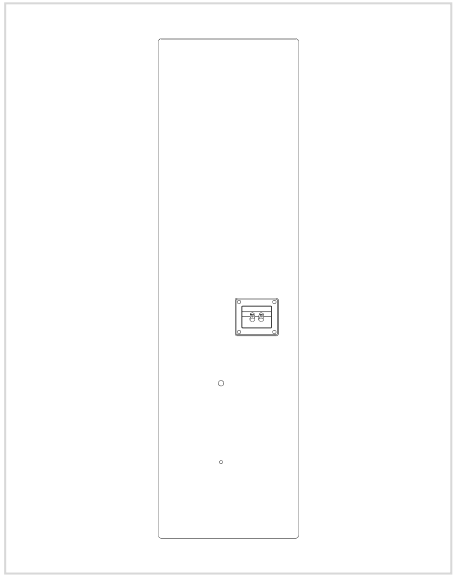
06 DIMENSIONAL DRAWINGS

Front, side and top views, dimensioned in millimetres

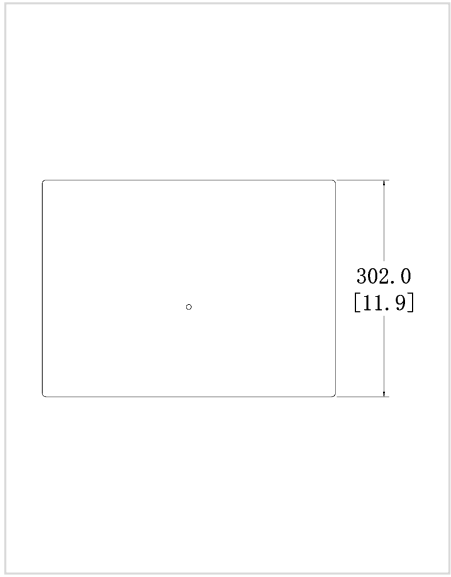
THREE EQUAL IMAGE FRAMES · FIT WITHOUT CROPPING



Front View



Side View



Top View

SPECIFICATION NOTES

1 Two length values are given: the first is the usable range on continuous power, the second on program power. Program power is a short-term maximum output and is not a level the system can sustain continuously. Target levels follow the SMPTE ST 202 / RP 200 cinema reference level: 85 dB for screen channels plus 20 dB peak headroom, measured at the reference listening position (RLP); hall depth = listening distance x 1.5. Listening distance is derived from free-field distance attenuation. The continuous-power range uses the rated maximum SPL in this table; the program-power range uses the rated value +3 dB (program power being twice the continuous power). The calculated maximum SPL (rated +6 dB, short-term peak) is not used for these figures.
Screen loss, power compression, system limiting and room gain are not included - this is a theoretical estimate, not a measured guarantee; on-site verification is recommended. Operating beyond the recommended figure may result in, but is not limited to: dynamic compression, increased distortion, extraneous noise, and in severe cases equipment damage.

2 Low-frequency response and sensitivity specifications are referenced to half-space (2π) conditions, representative of typical cinema baffle-wall installation. Frequency-response graphs are measured in an anechoic free-field (4π) environment unless otherwise noted. In the low-frequency region the same loudspeaker measures about 6 dB higher under 2π than under 4π (in practice 3–6 dB depending on frequency and baffle conditions); this is a difference of measurement convention, not of performance.

3 Rating based on an IEC filtered random-noise test signal, band-limited 50 Hz–20 kHz, with a peak-to-average ratio of 6 dB

4 Recommended amplifier output at the applicable impedance should not exceed the program power, giving an unclipped output waveform while avoiding loudspeaker damage; an amplifier capable of at least the RMS continuous power (AES 100 h) is recommended to realize full loudspeaker performance. The actual amplifier match should be determined by calculation for the listening distance (see note 1).

5 Calculated maximum SPL is derived from the rated (continuous) power and half-space (2π) sensitivity and is a calculated, not measured, figure; at a 6 dB peak-to-average ratio it exceeds the rated value by 6 dB, representing short-term peak capability rather than a level the system can sustain.

6 The frequency-response graphs on this page are measured on-axis at 1 W/1 m in an anechoic free-field (4π) environment with 1/6-octave smoothing; the frequency response and sensitivity in the specification table are stated under half-space (2π) conditions. Lower readings in the low-frequency region of the graph therefore reflect the difference in convention rather than a difference in performance. 2π-format curves are available on request.

7 Passive, single-amplifier-channel enclosure; hall depth above derived from its AES 100-hour rating and system sensitivity, with drive-unit-level verification pending.

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