Dodecahedron Speaker Set

Omnidirectional Sound Source



DS3 Dodecahedron Loudspeaker with speaker stand



PA3 Power Amplifier



DS3 Dodecahedron Speaker with Carrying Bag and Speakon Cable

The Dodecahedron Speaker Set offers a lightweight, yet powerful signal source for room & building acoustic measurements. The optimized frequency response ensures precise measurements in accordance with the ISO 16283 and the ISO 3382 standards. The set includes the robust omnidirectional DS3 Dodecahedron Speaker and the remote-controlled PA3 Power Amplifier.

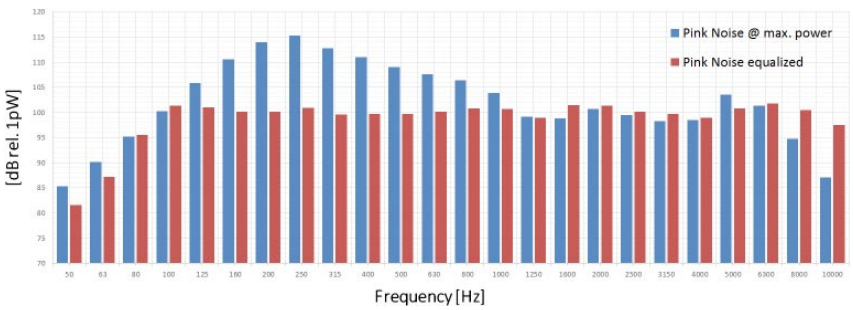
The dodecahedral design arranges 12 high-quality dynamic drivers for a uniform omnidirectional radiation of the acoustic test signal. The DS3 is powered by the portable PA3 power amplifier, which includes a Pink noise generator with an equalized output signal. The equalization ensures that the ISO 16283-1 requirement of ≤ 8 dB difference between contiguous 1/3rd octave bands in the emitted sound is met. The wireless remote control allows the test signal to be switched ON/OFF from outside of the measurement room.

Key Features

- Equalized acoustic frequency spectrum from 100 Hz to 8 kHz
- Maximum sound power typ. 120.5 dB
- Compact, robust and lightweight
- Wireless remote control

Applications

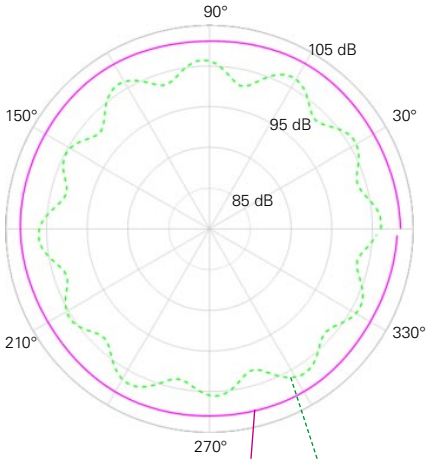
- Room & building acoustics (e.g. reverberation time RT60)
- Airborne sound insulation analysis
- Absorption coefficient testing of building material



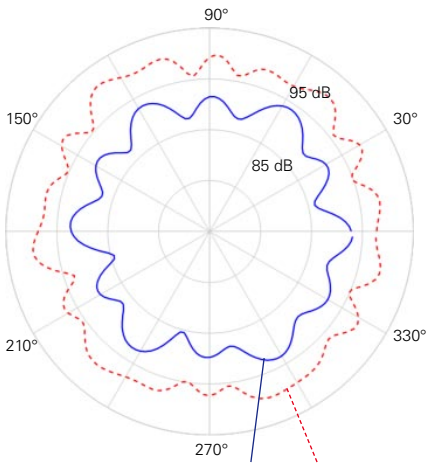
DS3 sound power spectrum



Control panel of PA3 Power Amplifier



Polar Plot of DS3 @ 1 kHz, 2 kHz



Polar Plot of DS3 @ 4 kHz, 5 kHz

Specifications PA3 Power Amplifier

Maximum continuous output power	2*150 W into 2*4 Ω with external sine signal @ 0 dBu or Pink noise @ maximum level
Maximum short-term power	2*260 W into 2*4 Ω @ THD ≤ 1 %
Protection	Dynamic compressor, temperature, overcurrent, DC, excessive clipping; visual indication via LEDs
Selectable signal sources	• Internal equalized pink noise (Cf = 2.5) • External signal, equalized • Internal pink noise, not equalized (Cf = 3.6) • External signal without equalization
Gain	–18 dB to 29 dB (via level control) | mute
Power output Dodec configuration Bridge mode (load ≥ 8 Ω)	Speakon chn1: 1+|1–; chn2: 2+|2– 1+|2–
Line-In Connector Level sensitivity Max. input level Impedance	 XLR (balanced) 0 dBu for rated power into 2*4 Ω 20 dBu (±11 Vpp) ≥ 10 kΩ (balanced)
Subwoofer Line-Out Connector Gain Max. output level Impedance Cut-off filter	 XLR (balanced) 3 dB (Line-IN to Subwoofer OUT) 18 dBu (±8.7 Vpp) ≤ 600 Ω 120 Hz low-pass filter Butterworth 24 dB/Octave (4th order); complementary high-pass filter is automatically switched ON if subwoofer is active
Dimensions (L x W x H)	358 x 173 x 245 mm (14.1" x 6.8" x 9.7")
Weight	5 kg (11 lbs)
Power Supply	100 to 240 VAC, 50/60 Hz, 850 W, fuse T6.3A
Temperature Range	0° to +50°C (32° to 122°F)
Cooling	Temperature controlled ultra-low-noise fan
Humidity Range	≤ 90% RH (non-condensing)
Order Information	NTi Audio # 600 000 506 (433 MHz) NTi Audio # 600 000 510 (USA, 315 MHz) NTi Audio # 600 000 511 (Japan, 426 MHz)

Specifications DS3 Dodecahedron Speaker

Standards	Compliant with ISO16283, ISO140, ISO3382, ISO354, DIN52210, ASTM-E2235/-E336/-E90
Sound power level	> 120.0 dB re 1 pW (typical 120.5 dB re 1 pW)
Frequency range	50 Hz to 10 kHz
Input connector	Speakon (chn1: 1+/1– | chn2: 2+/2–)
Speakers	12 speakers, 5" each, in dodecahedral configuration
Nominal impedance	2 x 4.2 Ω
Max. short-term peak power	600 W
Maximum input power RMS [1)]	320 W
Power compression [1)]	< 1 dB
Diameter	350 mm (13.8")
Weight	7.5 kg (16.53 lbs)
Order information	NTi Audio # 600 000 507
Accessories	• Included: Carrying bag, Speakon cable 5 m, Manufacturer Calibration Certificate • Optional: Speaker stand 35 mm, 130...230 cm retractable, with carrying bag (NTi # 600 000 508)

All information subject to change without notice.

[1)]: @ 1 hour continuous maximum power with Pink noise signal, 9 dB crest factor