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 (class-D).

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 Dodecahedron Speaker with Carrying Bag and Speakon Cable
PA3 Power Amplifier (class-D)
DS3 Dodecahedron Loudspeaker with speaker stand
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**
    - 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**: 320 W
- **Power compression**: < 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)

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