

GRAS 43AC-S4

High-Frequency Ear Simulator Kit LEMO



Freq range: 3.15 Hz to 20 kHz
Dyn range: 25 dB(A) to 138 dB
Sensitivity: 50 mV/Pa
Use: For general acoustic diagnostics

The GRAS 43AC-S4 Ear Simulator Kit is a complete test-jig for high-frequency acoustical measurements up to 20 kHz on earphones coupled to the ear by inserts such as tubes and ear moulds.

The GRAS 43AC-S4 Ear Simulator Kit is a complete test jig for acoustically testing earphones coupled to the ear via inserts such as tubes and ear moulds and complies with the following international requirements:

- IEC 60318-4: Occluded-ear simulator for the measurement of earphones coupled to the ear by ear inserts.

43AC-S4 uses the RA0401 High-Frequency Ear Simulator which extends the useful frequency range to 20 kHz. Read more about the RA0401 [here](#).

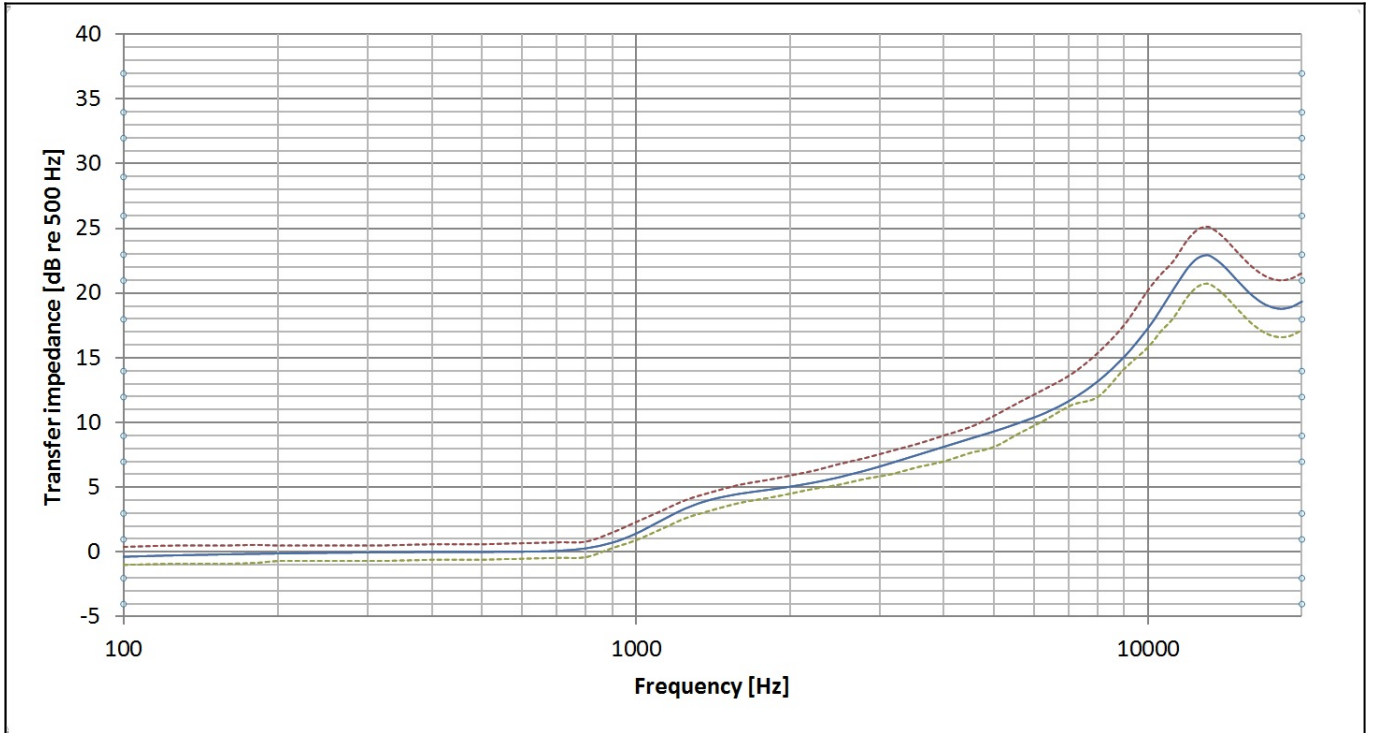
The 43AC comprises:

- [GRAS RA0401](#) Externally Polarized High-Frequency Ear Simulator
- [GRAS 40AG](#) 1/2" Pressure Microphone (included in RA0401)
- GRAS 26AC 1/4" Preamplifier
- [GRAS RA0001](#) Right-angled Adapter
- [GRAS RA0052 Test Jig](#)

The Test Jig has an adjustable spring-loaded arm to exert a variable force on the test object.

A prepolarized version is available, [GRAS 43AC-S5](#).

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|--|-----------------|------------------------|
| Theoretical dynamic range lower limit with GRAS preamplifier | dB(A) | 25 |
| Theoretical dynamic range upper limit with GRAS preamplifier @ +28 V / ±14 V power supply | dB | 153 |
| Theoretical dynamic range upper limit with GRAS preamplifier @ +120 V / ±60 V power supply | dB | 164 |
| Set sensitivity @ 250 Hz (±2 dB) | mV/Pa | 12 |
| Set sensitivity @ 250 Hz (±2 dB) | dB re 1V/Pa | -38.5 |
| Coupler volume | mm ³ | 1260 @ 500 Hz |
| Resonance frequency | kHz | 13.5 |
| Temperature range, operation | °C / °F | -30 to 60 / -22 to 140 |
| Temperature coefficient @250 Hz | dB/°C / dB/°F | -0.01 / -0.006 |
| Humidity range non condensing | % RH | 0 to 75 |
| ANSI standard | | S3.7 |
| IEC standard | | 60318-4 (former 60711) |
| CE/RoHS compliant/WEEE registered | | Yes/Yes/Yes |
| Connector type | | 3 m 7-pin LEMO |
| Weight | g / oz | 1550 / 54.675 |



Typical frequency response for RA0401

Included

| | |
|-----------------------------|--|
| GRAS RA0401 | High-Frequency Ear Simulator, including 40AG microphone (ext. polarized) |
| GRAS 26AC | ¼" Preampifier |
| GRAS RA0001 | Right Angled Adapter |
| GRAS RA0052 | Test Jig |
| GRAS GR0435 | In-ear Adapter |
| GRAS GR0436 | Tube stud |
| GRAS GR0437 | Ear-mould Simulator |
| GRAS GR0438 | Union nut |
| GRAS GR0440 | Tube stud |
| GRAS GR0433 | Calibration Adapter |
| GRAS GR0434 | Stop Washer |
| GRAS MI0070 | Cord 0.2 m |

Optional

| | |
|---------------------------|--------------|
| GRAS 12AK | Power Module |
| GRAS 42AA | Pistonphone |

Miscellaneous

| | |
|-----------------------------|-----------------------------------|
| GRAS RA0196 | High-tension springs (set of two) |
|-----------------------------|-----------------------------------|

GRAS Sound & Vibration reserves the right to change specifications and accessories without notice.

GRAS Worldwide

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ABOUT GRAS SOUND & VIBRATION

GRAS is a worldwide leader in the sound and vibration industry. We develop and manufacture state-of-the-art measurement microphones to industries where acoustic measuring accuracy and repeatability is of utmost importance in R&D, QA and production. This includes applications and solutions for customers within the fields of aerospace, automotive, audiology, and consumer electronics. GRAS microphones are designed to live up to the high quality, durability and accuracy that our customers have come to expect and trust.

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