



MODEL AEC210

# HEADPHONE PRODUCTION TEST FIXTURE

- Accurate headphone positioning
- Repeatable results
- ICP® microphones included
- Highly configurable
- Cost effective solution for broad deployment

## TYPICAL APPLICATIONS

- Headphone testing
- Production line testing
- Noise-cancelling headphone testing
- Headphone microphone testing

## HEADPHONE TESTING

The Headphone Production Test Fixture Model AEC210 is a cost effective solution for production volume headphone testing on a production line. Flush-mounted microphones and the flexibility to add speakers and additional microphones make it possible to test both noise-cancelling headphones and headsets with microphones. Two fully adjustable headphone positioners allow for accurately controlled placement and consistent, repeatable testing. A modular mounting system allows the positioning of additional microphones and speakers in the same location every time for increased testing consistency and quality systems compliance. The Headphone Production Test Fixture is an excellent alternative to costly head and torso simulators or devices using IEC 60318-4 compliant couplers.

An optional speaker, Model AEC210-SPK, can be added to the Headphone Production Test Fixture for testing noise cancelation and be used as an artificial mouth to test integrated headset microphones. For measuring noise outside of the headphones with microphones positioned at critical measurement locations, fully adjustable microphone stands are available as an option. The modular design allows for countless mounting configurations of multiple speakers and additional microphones.

## MODEL AEC210 SPECIFICATIONS

| Mechanical                                     | US                           | SI                    |
|--|------------------------------|-----------------------|
| Dimensions (h x w x d)                         | 12.2 x 8.1 x 7.1 in          | 31.1 x 20.6 x 18.0 cm |
| Weight   | 3 lbs                        | 1.4 kg                |
| Width between ears                             | 9.65 in                      | 145 mm                |
| Height of headband holder                      | 5.08 in                      | 129 mm                |
| Headband holder height adjustment              | ± .47 in                     | ± 12 mm               |
| Ear plate angle                                | 4.5°                         |                       |
| Diameter of ear plate                          | 5.31 in                      | 135 mm                |
| Measurement repeatability (typical)            | <1 dB Standard Deviation     |                       |
| Operating temperature                          | +14 °F to +122 °F            | -10 °C to +50 °C      |
| Microphone positioning                         | Flush with ear plate         |                       |
| Headband holder height adjustment              | ± .47 in                     | ± 12 mm               |
| Operating humidity                             | 0% to 90% RH, non-condensing |                       |
| Standards                                      | CE, RoHS                     |                       |
| Included microphones (Model 130A25)            |                              |                       |
| Sensitivity                                    | 45 mV/Pa                     |                       |
| Frequency response (±2 dB)                     | 20 to 10000 Hz               |                       |
| Frequency response (±3 dB)                     | 10 to 16000 Hz               |                       |
| Frequency response (±4 dB)                     | 10 to 20000 Hz               |                       |
| Maximum sound pressure (3% distortion limit)   | >122 dB re 20 µPa            |                       |
| Excitation voltage                             | 18 to 30 V DC                |                       |
| Constant current excitation                    | 2 to 20 mA                   |                       |
| Output bias                                    | 9 to 14 V DC                 |                       |
| TEDS compliant                                 | Yes                          |                       |
| <b>MODEL AEC210-SPK SPEAKER SPECIFICATIONS</b> |                              |                       |
| Frequency response                             | 150 Hz to 20 kHz             |                       |
| Speaker Sensitivity (SPL)                      | 86 dB (2.83 V rms input)     |                       |
| Maximum power                                  | 10 Watts @ 25% duty cycle    |                       |
| Input impedance                                | 8 Ohms                       |                       |
| Electrical connector                           | Screw terminal               |                       |
| Adjustable height range                        | 5.04 in                      | 128 mm                |
| Speaker dimensions (h x w x d)                 | 3.1 x 3.1 x 3.3 in           | 78 x 78 x 85 mm       |
| <b>MICROPHONE HOLDER</b>                       |                              |                       |
|  | <b>AEC210-1/2MS</b>          | <b>AEC210-1/4MS</b>   |
| Supported microphone diameter                  | ½ in (12.7 mm)               | ¼ in (6.35 mm)        |
| Height adjustment                              | 5.90 in                      | 150 mm                |



AEC210



AEC210-SPK



AEC210-1/2MS

## GMGA MEASURING

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