

✓ KEY LEARNINGS

acoustic signals

 45CC Headphone Test Fixture

Optimal speech transmission through the operator headset is vital within the Aerospace and Defense Industry. With the GRAS 45CC-7 Invisio is ensured to have an acoustic test solution which provides them with repeatability and high precision measurements. In this way Invisio can develop and produce headsets that protects the user's ears in the best way possible whilst having an optimal speech transmission.

GRAS

Danish acoustic solution ensures optimal communication

With the GRAS 45CC Headphone Test Fixture for headsets Invisio has secured a test setup suitable for both development and production of headsets.

Optimal speech transmission through operator headsets is often vital in the Aerospace and Defense Industry. This means that headsets must be able to transmit acoustic signals effectively, whilst reducing external noise through solid passive damping, in order to protect the user's ears in the best way possible. Denmark has a long tradition of world-leading technology in hearing and acoustics and Invisio originates from this tradition, producing some of the best headsets available.

The key word is repeatability

Even products with top specifications must succeed in a very price sensitive market and therefore a manufacturer like Invisio needs to balance test systems specifications with budget limits. This is why Invisio has chosen a cost efficient solution like the GRAS 45CC which has solved just this. The GRAS 45CC Headphone Test Fixture is a flexible platform for dual-channel testing of headphones and headsets. The existing application is equipped with two microphones and a mouth simulator. For development of their headsets, Invisio has chosen to use a GRAS product in order to get precision and repeatability each time. Repeatability is crucial for the quality assurance of products manufactured in larger quantities.



The GRAS 45CC-7 with ear simulator and %" prepolarized measurement microphone and the T5 Invisio Headset.

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We are very satisfied with our choice of GRAS because they with their acoustical knowledge are able to customize the measurement application to our specific requirements

Key acoustic Engineer, Invisio



Close collaboration ensures the best headsets on the market

As one of Invisio's key acoustic engineers comments: "We are very satisfied with our choice of GRAS because they with their acoustical knowledge are able to customize the measurement application to our specific requirements." Furthermore he mentions that the support given by Michael Trolle from Vibrakustik who distributes GRAS' products is of great importance. Especially the close contact to GRAS has made it possible to design the most optimal acoustic test setup. For Invisio this means that a Danish manufacturer can offer competitive headsets for the Defense Industry worldwide - based on Danish measurement technology.



For more information please contact Industry Manager for Aerospace & Defense, Lars Winberg, +45 5385 0544, lw@gras.dk

ABOUT GRAS SOUND & VIBRATION A/S

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.

 ${\tt GRAS}\ is\ represented\ through\ subsidiaries\ and\ distributors\ in\ more\ than\ 40\ countries.\ Read\ more\ at\ www.gras.dk$

