

## AHNR

Aircrew Helmet Noise Reduction Technology

### DoD and MoD Qualified for Reduced Noise Exposure and Improved Helmet System Performance

Gentex Corporation's new aircrew helmet noise reduction (AHNR) technology is U.S. DoD and U.K. MoD qualified to reduce noise exposure for aircrew flying in louder aircraft and during longer missions. Available pre-installed in compatible helmets or field retrofittable, AHNR technology can be deployed in aircraft or battery-powered configurations, and at high and low impedances, to enable use in all aircraft. Adding or upgrading to AHNR technology in aircrew helmet systems improves aircrew hearing protection and overall system performance.



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### KEY FEATURES

#### Qualified for Military Use

Built to withstand the noise field and electromagnetic and radar interferences experienced in military environments, AHNR technology has been certified by the U.S. DoD and U.K. MoD.

- Pre- and post-flight performance checks can be performed to verify consistent performance.
- Battery or Aircraft Powered, allowing flexibility in how the system is deployed.
- Compatible with any fixed or rotary wing airframe.
- Available in High or Low Impedance.
- Qualified in ALPHA 900, HGU-55/P, and HGU-56/P Helmet Systems
- Greater than 10 dB noise reduction at frequencies between 125 and 750 Hz
- Design recently updated to add modern componentry to prevent obsolescence and extend service life

#### Contact Us

Gentex Corporation is committed to designing and manufacturing advanced performance capabilities for worldwide aircrew personnel and aircraft maintainers. For more information on Aircrew Helmet Noise Reduction Technology, please contact Gentex Corporation at [sales@gentexcorp.com](mailto:sales@gentexcorp.com) or one of our authorized distributors through [www.gentexcorp.com](http://www.gentexcorp.com). Like us at [facebook.com/Gentexcorp](https://facebook.com/Gentexcorp) or follow us on Twitter @Gentex\_Corp.

### KEY FEATURES CONTINUED



#### U.K. MoD Qualified AHNR Technology

AHNR technology has been MoD qualified for use in ALPHA 900 Cross-Platform Helmet Systems. Used by the MoD for the past two decades, this new version has been updated with modern components and circuitry to improve power efficiency and extend the product service life. Using a feedback design, the noise field is measured inside the earcup and the AHNR circuitry reacts to that noise to reduce it as it reaches the ear. Optimized for aircraft power, with a battery- powered option offering 6 hours of continuous operation available. AHNR-enabled ALPHA 900 Helmets have been fielded in Tornado, Hawk, and many transport and combat helicopter aircrafts.



#### U.S. DoD Qualified AHNR Technology

AHNR technology has been DoD qualified for use in Gentex HGU-55/P Fixed Wing and HGU-56/P Rotary Wing Helmet Systems. The Gentex helmet equipped with AHNR technology employs an advanced feed-forward design to support a wide range of current and future airframes, and this new version has been updated with modern components and circuitry to greatly increase power efficiency. Using a feed-forward design, an AHNR system can be programmed to adapt the noise cancelling characteristics, depending on the ambient noise field, which allows the AHNR system to be optimized for a specific airframe, or specific phases of flight, where the spectra of low frequency and high frequency noises can be vastly different. Optimized for battery power, offering 40 hours of continuous operation, with aircraft-powered options available. The AHNR system design is the same for both Gentex helmets, except that in the HGU-56/P Helmet System a padded insert is added between the earcup and helmet shell to maintain its side impact rating. Developed primarily for F-15, F-16 and F-22 fighters, trainer and transport aircrafts, and combat helicopters.

#### Typical Active Noise Reduction Values

Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000
Attenuation dB	10	15	11	1	-1	-1	-1	0	0

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