



A710

## Understanding ACCESS/A Audio



A711



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### 3<sup>rd</sup> Generation Advanced Analog Systems

Rev. 1.1 March, 2009

**USERS:** One ACCESS/A A710 or A711 station can support up to **6 headset positions** in an aircraft, 2 flight crew (pilot/co-pilot) with full transmit and ICS capability, and 4 passengers with radio monitor and ICS operation. Passenger operation can also be extended to 5 or 6 positions if required, simply by adding resistors.

**INTERCONNECT:** Unlike earlier generation designs like the KMA24, AA95, and AMS40 series, the interconnect in this system is **FULLY FLOATING**, which means that **no audio lines use the airframe ground** as an audio return, thus avoiding noise, cross-talk and unwanted signal contamination. ACCESS/A systems offer as much as **35dB of improvement** in cross-talk (rejection of unwanted signals), a very important consideration in multi-station systems. Up to 10 A71X-series stations can be used in a single network, and they can be configured to have multiple ICS (Intercom System) loops.

**POWER:** Headset output level is a significant problem in many applications, as flight crews are now often using inefficient helmets and earplugs. ACCESS/A systems offer the highest headset drive currently available in a panel-mounted system, 1,500mW total. This is considerably more power than earlier generation systems of 100-500mW. In addition, these systems also have a 2.5W speaker output for radio monitoring when headsets are off.

**CUSTOMIZATION:** Customization is always a problem in the audio world. Every ship seems to have some custom issue that needs to be addressed in the audio system. ACCESS/A systems use an easily changed backlit polycarbonate overlay inset that allows rapid customization of any panel **without costly faceplate changes**. Systems already installed can be changed at any time, and custom new installations can be made quickly with stock units and custom overlays. Faceplate lighting can be 28V or 5V, and NVG compatible lighting is available. Extensive and convenient cosmetic options are available to the installer at very low cost.

**SIMULCAST:** Unlike rotary control audio systems, the pushbutton design and high powered mic driver of the ACCESS/A A710 and A711 controls supports simulcast, allowing multiple radios to be used at once, often an important operational requirement.

**ALERTING:** The ship's audio system serves as the focal point for audible alerting signals passed to the flight crew. Earlier generation system had limited connections for this, or a few tones that could be generated. ACCESS/A systems have **true voice alerting, with 6 spoken, prioritized messages**, and the ability to record and replay incoming audio. In addition, a direct headset alerting connection is also provided for existing shipboard systems. Alert messages can also be recorded in any language on a custom basis.

**EXPANSION:** ACCESS/A controls support 7 TX positions, which can be 6 radios and a PA, or 7 transceivers. Not enough? Need more inputs? Need more variable controls? The ACCESS/A architecture has special sum node connections that allow inputs and transceivers *to be expanded indefinitely* either using ACCESS/A system elements, or your custom external wiring.



**A711X** Transceiver expansion unit



**A775** Receiver Expansion unit

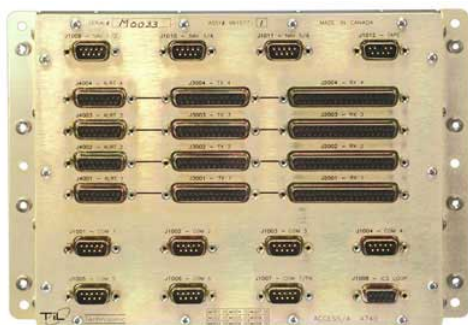
**ICS LOOP CONTROL:** Often, a ship has to be broken into isolated intercom circuits, such as Medevac applications, where the medical crew needs to work isolated from the flight crew. Using the ACCESS/A A770 eyebrow unit, additional receiver inputs, and full tie/split ICS loop control can be easily implemented. And in only 3 Dzus holes of panel space!



The **A770** provides additional audio inputs, ICS loop control with calling, and speaker volume. Many custom variations are possible.

**EMERGENCY OPERATION:** One huge benefit of analog audio systems is their implicit ability to have extensive “fail-passive” operation that permits radio operation even if there is serious internal failure, or power is lost to the box. ACCESS/A systems allow the pilot to have full control of ALL transceivers, and continued cyclic TX control even in this faulted condition or without power, a unique ACCESS/A feature. This mode can also be used to provide an isolated radio-only mode for the pilot away from the rest of the users.

**INTERCONNECT:** Airframe interconnect is always time consuming and irritating, but ACCESS/A systems can use the A740 interconnect patch bay to speed up harnessing, and provide for very clean cable fabrication with convenient break and test points. All the connectors in the ACCESS/A system have fully mapped interconnect that has logical pin assignments and easily followed connections.



The **A740** provides a very easy way to manage complex audio installations of up to 4 stations.