



## Application Note 619EI Audio Bridge

# USA Air Force Cross-bands Radio Networks for Interoperability between Military Groups

### Customer Profile

- USA Air Force Base

### Application

- Combining multiple radio frequencies from differing military institutions reliably

### Business Benefits

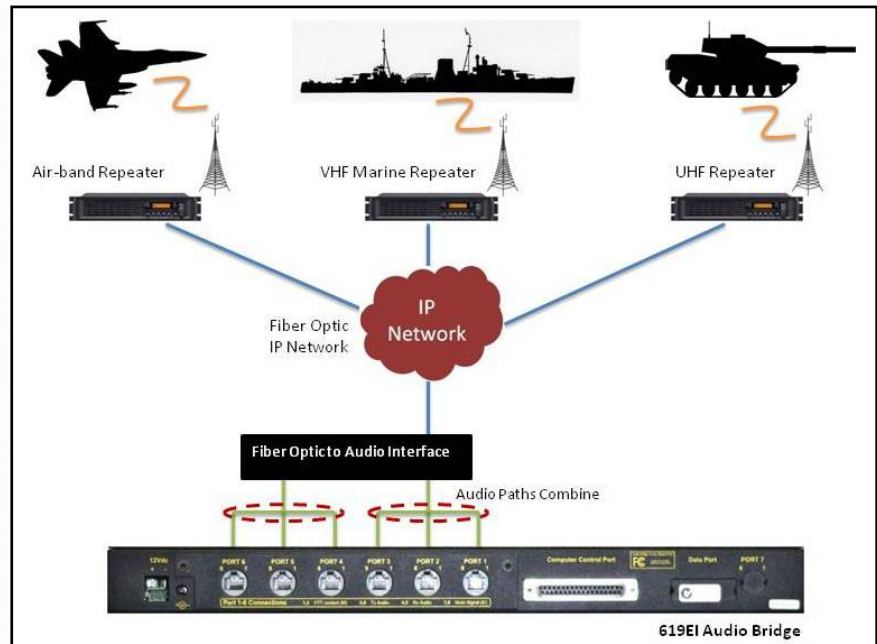
- Highly Reliable
- Simple to install and set
- Simple audio balancing between radio networks
- Convenient mounting

### Products Used

- 619EI Audio Bridge

### ➤ Overview

An Air Force base in Florida needed to increase the reliability of its aging radio infrastructure. As a ground based military installation the equipment chosen required a proven track record with a high level of reliability. Being the “lightning capital of the US” with frequent thunderstorms, this is an extra challenge. Interoperability was also a key requirement as the base is continually used as a joint training facility for coordinating armed forces, both domestic and allied. The need for groups to communicate with each other effectively is paramount.



### ➤ The Challenge

With several armed forces training together in the same area, the need for good communication between groups was essential but each group had its own dedicated frequencies. A simple method to combine dedicated radio channels was required so that personnel could talk directly to each other. The key to success would be a solution that was simple to deploy and was highly reliable.

### ➤ Solution

The 619EI audio bridge, the base was easily able to combine the group’s radio frequencies. Using the existing distributed fibre optic network, audio from repeater sites was centralized. The audio output from the network was 4-wire E&M which plugged directly into the 619EI 6 port audio bridge. Through front panel DIP switches, the required bridging matrix was easily setup. Balancing audio from different radio sources was made straightforward with both input and output level control available to the technician.

### ➤ Conclusion

The 619EI audio bridge has proven a reliable, low-maintenance solution for over 5 years and provided the interoperability required, despite thunderstorms and lightning strikes. Based on this history, the radio network continues to be upgraded and now other military installations are reviewing the solution.

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