

## Application Report 619EI Audio Bridge

# CROSS BANDING APPLICATION

### Customer Profile

- Nixon Communications - this Omnitronics dealer has for many years focused on the Central Queensland Coal Mines.

### Application

- The project involved the simple cross banding of UHF and VHF repeaters at one of a link of large coal mines connected via a radio network.

### Business Benefits

- The ability for local UHF portables and vehicles equipped with VHF mobiles to communicate without the intervention of an operator.

### Products Used

- 619EI Audio Bridge

### → Customer Overview

The BHP Coal Mines of Central Queensland produce some of the finest coking coal in the world and with a booming world economy the demand for this product is currently very high. With a growth in demand for their product, the operations and hence the communications networks at these coal mines have been expanding to meet this demand.

### → The Challenge

Cross banding is not a challenging application for the 619 Audio Bridge products as this was the very purpose for which they were originally designed back in the early eighties.

Microwave, UHF radio, VHF radio, HF radio, CB radio and Dispatch System audio & alarm tones and information have commonly been connected in many thousands of just such cross banding applications.

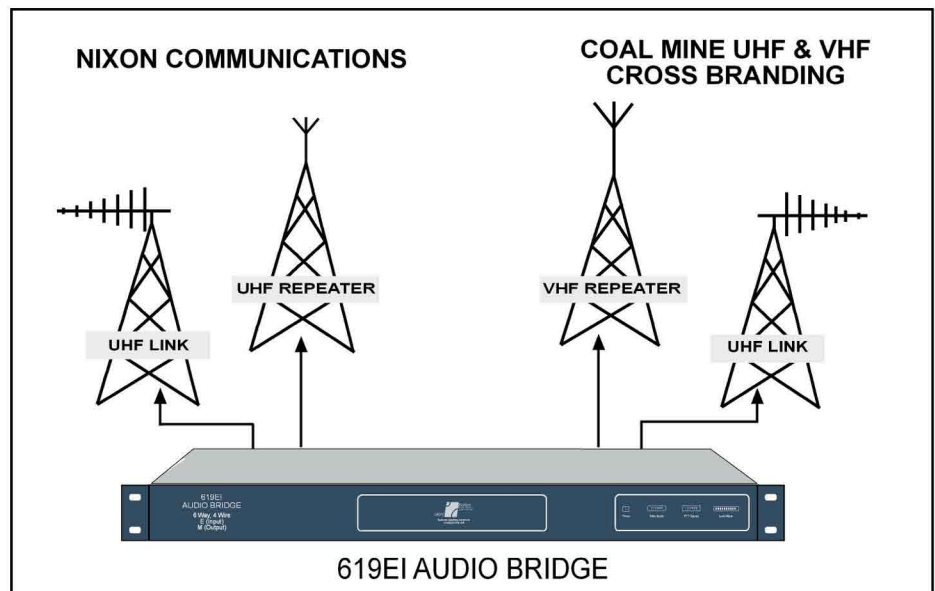
### → Solution

At the mine central repeater and communication hut, the incoming and outgoing UHF links, the local UHF repeater and the VHF repeater were all connected to the 4 Wire E & M ports of the 619EI Audio Bridge.

The front panel switches were enabled to allow the audio to be bridged in from and also out to the various transceivers, as per the requirement of the network.

The front panel multi-turn potentiometers enabled the installation technician to set independent input and output levels for each port and the inbuilt VU meter enabled him to align the network output levels for correct deviation of the transmitters.

A simple interrogation of the 619EI Audio Bridge by the technician on entering the communication hut now provides a full report of the activity of the network.



### → Conclusion

A standard and simple use of the 619EI Audio Bridge product from Omnitronics.



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