

# DigiPro™

## Digital Audio Subcarrier Encoder and Decoder



### Applications

- Studio-to-Transmitter Links and Transmitter-to-Studio Links
- Existing STLs
- ENG van and central receive systems
- Inter-city relays

### Features

- CD audio quality
- Greater than 86 dB dynamic range
- AES/EBU interface
- Operates on existing STLs
- Extremely fade resistant
- Two audio channels per subcarrier
- Built-in 4800 baud data channel
- Audio level metering
- No crosstalk
- Spectrum efficiency
- Applications:

### Overview

The DigiPro Digital Audio System is designed to provide CD-quality sound over existing or new video microwave links. The digital audio programs and a control channel are carried on one subcarrier with two audio channels. By incorporating the latest technological improvements in adaptive coding and digital compression techniques, the DigiPro Digital Audio System is state-of-the-art and provides the best performance available today.

The DigiPro System was developed to solve such difficult broadcast audio problems as audio signal degradation during signal fades, loss of audio in weak signal situations, and overall low audio quality. The DigiPro encoder and decoder feature outstanding digital audio performance, with the signal quality remaining constant even during a deep path fade. Because the audio quality remains constant when the video goes to threshold, audio loss during transmission is no longer a problem. The audio quality and system performance now exceeds anything previously available.

The DigiPro System interfaces directly to the MRC model FLR and DAR Series radios via the composite input. The DigiPro Digital Audio System can also be used in existing microwave installations in place of analog subcarriers.

# SPECIFICATIONS

## SYSTEM PERFORMANCE

Frequency Response: ..... 20 Hz to 15,000 Hz  $\pm$ 0.2 dB  
 Distortion: ..... <0.01%  
 Dynamic Range: ..... >86 dB  
 Crosstalk: ..... <-80 dB  
 Level Stability: ..... <0.2 dB  
 Sample Rate: ..... 32 kHz  
 Time Delay: ..... <3.8 ms  
 Data Channel: ..... RS-232; 4800 Baud

## DIGIPRO ENCODER

Channels: ..... 2 audio  
 Audio Input: ..... XLR Balanced  
 Audio Level: ..... -10 dBm to +18 dBm adjustable  
 Digital Audio Input: ..... AES/EBU standard,  
 RS422A, 110  $\Omega$   
 Data Input: ..... RS-232, 9 pin D type female  
 Interface Input: ..... RS-422, 15 pin D type  
 Status Output: ..... 15 pin D type  
 Indicators  
 LED: ..... Peak Program Level  
 MAIN: ..... Left/Right Main  
 AUX: ..... Left/Right Auxiliary  
 AES/EBU: ..... Digital Audio Input Status  
 FAULT: ..... System Fault Alarm  
 Power Requirements: ..... 115/230 Vac, 50/60 Hz,  
 0 Watts  
 Size: ..... 1 IRE Rack Unit: 1.75" h x 19" w  
 (4.45 x 48.26 cm)

## DIGIPRO DECODER

Channels: ..... 2 audio  
 Audio Output: ..... XLR Balanced  
 Audio Level: ..... -10 dBm to +14 dBm, adjustable  
 Digital Audio Output: ..... AES/EBU standard,  
 RS422A, 110  $\Omega$   
 Data Output: ..... RS-232, 9 pin D type female  
 Interface Output: ..... RS-422, 15 pin D type  
 Status Output: ..... 15 pin D type  
 Indicators  
 LED: ..... Peak Program Level  
 MAIN: ..... Left/Right Main  
 FAULT: ..... System Fault Alarm  
 SYNC: ..... Data Synchronization  
 SIGNAL: ..... Incoming Baseband Signal  
 DATA ERROR: ..... Received Signal Error  
 BER: ..... Alarm for Exceeding BER Preset  
 Power Requirements: ..... 115/230 Vac, 50/60 Hz,  
 30 Watts  
 Size: ..... 1 IRE Rack Unit: 1.75" h x 19" w  
 (4.45 x 48.26 cm)

## CONFIGURATIONS

DigiPro Digital Audio Encoder  
 Includes one wideband subcarrier modulator  
 DigiPro Digital Audio Decoder  
 Includes one wideband subcarrier demodulator

