

# KY-9120 Line Interface Product Information Sheet



### USER INPUTS/OUTPUTS

- 8 Receive Audio Circuits
- 8 Transmit Audio Circuits
- 8 Keyline Circuits
- 8 RS-232 Data Circuits

### LINE INTERFACES

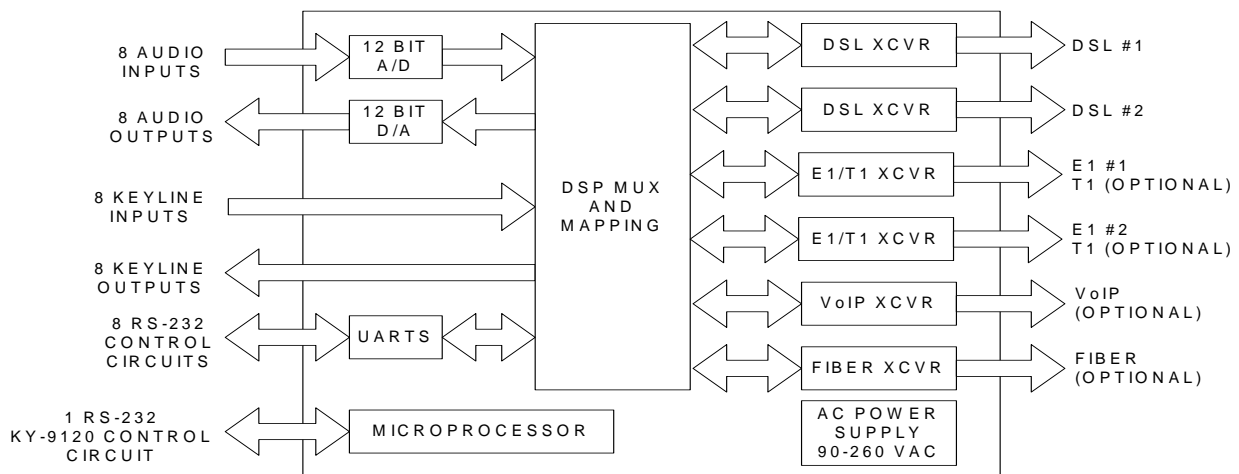
- 2 Digital Subscriber Line (DSL)
- 2 E1
- 2 T1 (Planned Product Enhancement)
- 1 Voice over Internet Protocol - VoIP (Planned Product Enhancement)
- 1 Fiber Optic (Planned Product Enhancement)

The **KY-9120 LINE INTERFACE** provides audio, keyline, and RS-232 digital control connectivity between radio and control sites over dry copper or conventional E1 network interfaces. Each of the audio, keyline, and control inputs/outputs are multiplexed and can be independently mapped to any of the line interfaces. Standard line interfaces are the Digital Subscriber Line (DSL) using 2B1Q coding and E1. Planned line interfaces are T1, VoIP, and Fiber Optic. The maximum distance between sites is determined by the interface selected and the number and quality of audio channels that will be carried.

In addition to the multiplexer function the **KY-9120** acts as a line conditioner and eliminates the high frequency roll off and group delay effects of long dry copper cable runs.

Audio channel data rate is selectable between standard (64 kbps) and high (128 kbps) quality digitization. Standard quality audio is sufficient for voice grade communications systems. High quality digitization is designed for use with data modem waveforms such as those defined by MIL-STD-188-110A/B and MIL-STD-188-203-1A.

Protection devices are included to reduce the risk of damage to the unit from line transients.





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### LINE INTERFACES

DSL Reach (Single 24 AWG twisted pair):

320 kbps (2 four-wire high quality audio circuits): 5000m

576 kbps (4 four-wire high quality audio circuits): 4000m

1088 kbps (8 four-wire high quality audio circuits): 3000m

Each DSL Interface can be configured to generate a local clock or regenerate clock information from the received DSL bit stream.

Line Coding: 2B1Q

E1/T1 Interface (Two twisted pairs):

Line Coding: HDB3

Synchronization: FAS Detection

Signaling: CAS

Line Build Out: 120 Ohm Twisted Pair, up to 48 dB of attenuation at 1024 kHz.

VoIP Interface: 64 Octet UDP Datagram (Planned product enhancement)

Fiber Interface: TBD (Planned product enhancement)

### USER INPUTS/OUTPUTS

Audio Interfaces (8 inputs, 8 outputs):

600 Ohms balanced

Nominal Audio Input/Output: 0 dBm peak

Maximum Audio Input/Output: +10 dBm

Bandwidth and Group Delay: Compatible with MIL-STD-188-110A/B and MIL-STD-188-203-1A Modems

Keyline Interface (8 inputs, 8 outputs):

Compatible with open collector keyline devices

10K Pullup to +12V

Keyline active when keyline input is less than +3V

RS-232 Digital Control Interface (8 circuits)

Timing: Asynchronous

Flow Control: None

Data Format: 7 bits, no parity, 2 stop bits

8 bits, no parity, 1 stop bits

Maximum Data Rate: 19200 bps

Total Maximum Data Throughput: 38.4 kbps (4800 bps per circuit worst case with 8 active circuits)

### GENERAL

Power Input: 90-260 VAC, 50-60 HZ, 50 VA max.

Temperature: Operating: 0 to +50 degrees C

Storage: -40 to +70 degrees C

Size: inches (cm) 1 RU 1.75 (4.45)H x 19 (48.3)W x 21.5 (54.6)D

Weight: lb (kg): 11 (5.0)

Color: Gray

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