Synchronized Quality Auscultation at a Low Bandwidth

At the core of many clinical telemedicine assessments are the heart and lung sounds. The Telephonic Stethoscope delivers high quality electronic auscultation to remote physicians using low data bandwidth.

This stethoscope, developed for telemedicine applications, creates an audio signal of the auscultation sounds and transmits it electronically in real-time – this allows the clinician (local user) and remote physician (remote user) to hear the patient’s heart and lung sounds at the same time so they can work together to treat the patient.

Product Features:

- **Low auscultation bandwidth** (20 Hz – 1400 Hz) and low data communications bandwidth (19.2 Kb/s) deliver high performance.

- **Bell/Diaphragm (B/D) switch** offers optimal auscultation sounds for both cardiac and pulmonary examinations.

- **Transmit/receive modes** provide synchronized auscultation between the clinician (transmit mode) and the remote physician (receive mode).

- **Volume control** allows you to independently adjust sound level delivered to the headset that is plugged into that auscultation unit.

- **Sound transmission options** allow you to share auscultation sounds with remote provider via video conferencing equipment, PC to PC or modem to modem.

- **Bell/Diaphragm Switch**
  - Bell position has bandwidth of 20 Hz to 250Hz with enhanced low frequencies for optimal emphasis of heart sounds.
  - Diaphragm position extends the high frequencies to 1,400 Hz for emphasis of pulmonary sounds.
Remote Physicians Can Hear Auscultation Sounds from Around the Globe

Technical Specifications:

Components/Parts:
- Stethoscope Auscultation Unit: 2.6” (w) x 4.3” (d) x 0.9” (h) (6.6 cm x 10.9 cm x 2.3 cm)
- Chest piece
- Headset
- Power Supply

Bell Position Bandwidth: 20 Hz – 250 Hz

Diaphragm High Frequencies: Up to 1400 Hz

Connection/Interface: RS232 serial port

Data Communications Channel:
- PC to PC:
  - Use RS232 serial port of a PC connected to the IP network.
- Data Channel of Video Conferencing Equipment:
  - Sends auscultation bandwidth on same transport as video using the video conferencing data channel.
- Modem to Modem:
  - Use modem to send over phone lines.

Operating Conditions:
- Ambient temperature: 50° F to 104° F (10° C to 40° C)
- Relative humidity: 30% to 75%
- Atmospheric pressure: 700 hPa to 1,065 hPa

Storing & Transport Conditions:
- Ambient temperature: 32° F to 122° F (0° C to 50° C)