The following specifications can be found in electronic form on the ASPI Digital web-site at www.aspi.com

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

2 wire / 4 wire Audio for Video Conferencing unit

The 2 wire / 4 wire unit shall provide simultaneous operation in 4-wire (acoustic echo cancellation) and 2-wire (telephone line interface / line echo cancellation) modes. Either section of the unit must also be able to function independently of the other section.

The Acoustic Echo Canceller (AEC) section of the 2 wire / 4 wire unit shall be fully automatic in its operation and shall not use any tones or noise in order to establish AEC convergence. The AEC shall operate at room gain levels of up to 10dB and a minimum total echo cancellation of 65dB. AEC convergence shall be no slower than 30dB / second. The AEC shall have a minimum echo cancellation span of 200 ms. The AEC shall, in addition to providing acoustic echo cancellation, provide up to 10dB of ambient noise cancellation for the room. The noise cancellation shall effectively cancel steady-state ambient noise at all frequencies without causing any perceptible degradation of human voice or other transient sounds.

The AEC shall utilize balanced line level input and output, presented on XLR connectors, and shall have unbalanced auxiliary input and output available on RCA connectors. A mute switch option shall be available, which will permit muting of the room's "send" audio without interruption of the receive path and provide a status indicator on front panel. Other than the mute switch option, no AEC controls of any kind will be accessible by users. Initial adjustments of send and receive levels shall be performed by the integrator and shall be available to the integrator only by removing the unit's top panel.

The telephone interface (2 wire input, line echo canceller) portion of the 2 wire / 4 wire unit shall be fully automatic in its adaptation to the telephone line and shall not use noise or tones in order to establish hybrid null. It shall permit microphone or line level inputs. The telephone line echo canceller (LEC) shall consist of a hybrid coil with automatic adapting DSP echo cancellation. LEC convergence shall be no slower than 30 dB per second, with a total echo cancellation of –60dB. The LEC shall have a minimum cancellation span of 30 ms. The unit shall be capable of detecting DTMF tones, call progress tones, and caller ID information. The unit shall provide 10dB of ambient noise cancellation on the telephone line input. The noise cancellation shall effectively cancel steady-state ambient noise at all frequencies without causing any perceptible degradation of human voice or other transient sounds. Remote control of the unit via RS232 shall be available, as shall logic control for the telephone interface section. The unit shall provide the ability to cascade multiple units to form a phone bridge.

Audio levels to and from the unit shall be balanced and shall be presented on Phoenix and XLR connectors. 28V phantom power shall be available for a microphone input of –24 to –80 dBu. Line level inputs and outputs shall be adjustable from –20 dBu to +4 dBu, with 20 dB headroom.

The unit shall be powered by an external, UL approved supply providing +5VDC to each section of the unit. The unit shall accept input voltage of 100 – 240 VAC, 50 / 60 Hz and shall consume no more than 40 Watts. The AEC shall be no larger than one rack unit in size and shall comply with the ITU G.167 Recommendation for AEC, FCC part 15, and CE requirements.

The ASPI Digital EF600 is specified.