



DUET VCA speakerphone by Phoenix Audio Technologies

Enhancing Your Set-Top VC System

Phoenix Audio's Duet VCA is a best-in-class satellite speakerphone for Video Codec set-top systems and for VOIP conferencing applications. It is specifically designed for large conference room coverage.

The Duet generates clear communication through proprietary Acoustic Echo Cancellation, Noise Suppression, and equalizer algorithms embedded within the product. The Duet provides 360° room coverage with extended range.

The user can opt to use the Duet's internal speaker or use external speakers. The Duet maintains the same level of echo reduction even when the external speakers are positioned far away from the unit - a setup which is highly typical to VC systems.

The Duet is connected to the VC system through two RCA jacks. It has a triple DIP switch delivering 8 possible levels of output signal to address the large variety of input sensitivity levels required by different VC systems.

In addition to the analog interface, the Duet is equipped with USB Plug-and-Play link that can be utilized with VOIP application.

The Duet can be connected simultaneously to a VC systems and a PC giving users the advantage of conferencing VOIP callers together with VC callers hence creating 3 way conferencing. An additional benefit of this feature is that it enables the user to record the VC conference on a PC, and/or play a sound file from the PC into the VC conference call.

The VCA is a new member of the Duet family featuring the same sleek design and high level of reliability. This new member incorporates twice as much processing power as its predecessors, providing extended performance and addressing the unique challenges posed by large conference rooms' setups.



Performance - Full duplex audio with Echo Cancellation & Noise Suppression

Mobility – Lightweight, slim-line design. Travels well with laptops.

Connectivity – Video set-top Codecs and computers.

Easy-To-Use – USB interface for PC and laptop users (no software).

Flexibility - Choice between internal and external speakers. 8 selectable positions of output level.



Size: 3.75 in x 1.25 in x 4.5 in
(W x H x D)

Weight: Carrying with USB cable
0.55 lbs

Power:

- USB power for PC and Laptop (LED will illuminate)
- External power supply included for VC only configurations (when Duet is not plugged into the PC)









Audio:

- 100% Full Duplex Performance – no attenuation (either way) during full duplex
- Acoustic Echo Cancellation >40 dB
High-end performance: conforms to ITU-T G.167 Standard
- Noise Cancellation >10dB
- Residual echo is suppressed to the environment noise level to prevent artificial ducking of signal
- Voice Level Equalization
- Convergence speed 40 dB/sec
- Tail length (200ms)
- Convergence during full duplex (no recovery time after full duplex)
- Low delay (10 msec)
- 16KHz sampling rate for speech processing - maintains the soundcard bandwidth
- Integrated loudspeaker
- Mute button and loudspeaker volume control buttons (LED will blink in mute mode)

Performance:

- Speech processing and echo suppression at 16KHz sampling rate
- Maintains audio performance of the PC for HiFi audio applications when external speakers are connected.
- Plugging in external speakers will automatically turn off the speakerphone.

Output levels for VC system:

Switch Position		Output level peak-to-peak		Switch Position		Output level peak-to-peak
	Line level	3.0v			Mic level	0.5v
	Line level	1.5v			Mic level	0.25v
	Line level	0.75v			Mic level	0.125v
	Line level	0.375v			Mic level	0.0675v

Note: The switch position does not affect the USB signal levels

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