

# TRIO Mic I/O and TRIO Mics

Breakout Interface for use with TRIO Acoustic Echo Canceling Microphones



**Overview:**

The Vaddio™ TRIO Mic I/O interface enables the TRIO Acoustic Echo Canceling Microphones to be used with any professional DSP audio mixer. Connect the TRIO Ceiling or Table Mics to the TRIO Mic I/O interface and instantly make any mixer capable of Acoustic Echo Cancellation for use in conferencing applications.



Vaddio TRIO Table and Ceiling Microphones incorporate SmartMic technology along with built-in DSPs for the ultimate in simple control and maximum performance. The technology integrates automatic microphone mixing, wideband echo cancelation, noise reduction, and automated gain control into the microphones and eliminates the need for super expensive, hard to program and operate conferencing mixers.

Like many Vaddio products, a simple Cat-5/5e/6 UTP cable connection and no clumsy software configuration makes the TRIO microphones as simple to install as traditional boundary or ceiling microphones. The TRIO Mic I/O connects up to four TRIO Microphones over Cat-5 cables. The Cat-5 cable carries power to the microphone and returns the processed audio from the TRIO mics. The TRIO Mic I/O has four (4) individual line level balanced outputs, each representing the echo canceled audio channel from the individual TRIO mics. An Acoustical Echo Cancellation (AEC) Reference input channel is included on the rear panel for connection to the far-end audio signal coming into the conference room. The AEC Reference channel is needed for the TRIO mic to keep the far-end audio from going into the room mics and echoing back to the far-end.

The TRIO Table and Ceiling microphones each have three (3) mic elements, provide a 360° pickup pattern and connect to the TRIO Mic I/O with a Cat-5 cable for power and audio. The TRIO Ceiling Mic has a plenum safe sealed enclosure for the electronics and a 36" (914.4mm) drop cable to a 2.5" (63.5mm) spherical shaped mic array. The TRIO Ceiling Mics come in either a dark charcoal or a white version. The combination of the TRIO Mic I/O, the TRIO Table Mics or the TRIO Ceiling Mics turns any mixer into an automatic mixer with wideband echo cancelation, noise reduction, and automated gain control.

Image: TRIO Mic I/O Front Panel



Image: TRIO Mic I/O Rear Panel



**SPECIFICATIONS - TRIO Mic I/O Interface**

Part Numbers	999-8535-000 (North America), 999-8535-001 (Int'l)
Audio Specs	Frequency Response: 20 HZ to 20KHZ, Dynamic Range: >90dB, THD + Noise: < 0.02%
Line Outputs	Four (4) 3-Pin Balanced, Line Level Outputs
AEC Reference Input	One (1) 3-Pin Balanced, Line Level Input
TRIO Mic Ports	Connectors: Four (4) RJ 45-F, Proprietary Interface with audio, power & control, 100' (30.48m) Cat-5 cable distance
Power Supply	18 VDC, 2.75 Amp, Positive Center
Power Consumed	Maximum of 40 Watts
Operating Temp.	32° to 104° F (0° to 40° C) / 20% to 80% Relative Humidity
Dimensions / Weight	8.375" (212.7mm) W x 1.72" (43.7) H x 6.0" (152.4mm) D / 1.45 lbs. (0.657708956434 kg)
Accessories	Included: Power Supply, Five (5) 3-Pin 5.0mm Phoenix-type Connectors
Opt. Accessories	Optional: Rack Mount Kit 1-RU: 998-6000-004 (one long ear and one short ear)

### The TRIO Echo Canceling Microphones

The TRIO Microphones with SmartMic technology add digital signal processing and echo cancellation to any professional audio mixer. TRIO mics are available in two versions:

#### The TRIO Table Mic Array

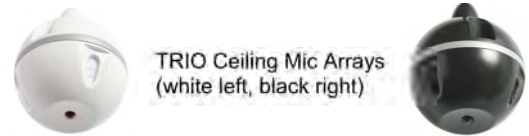
- Attractive echo cancelling table microphone
- Three (3) mic elements providing a 360° degree pickup pattern
- Connects to the TRIO Mic I/O with a single Cat-5 cable that carries audio and power.



TRIO Table Mic Array

#### The TRIO Ceiling Mic Array

- Small 2.5" (63.5mm) Mic Array blends into the room
- 360° coverage pattern created with three (3) mic elements
- Includes a plenum safe interface box, tile support brace and an adjustable 36" long cable to the microphone array head.
- The TRIO Ceiling Mics (mic and cable) available in black and white.



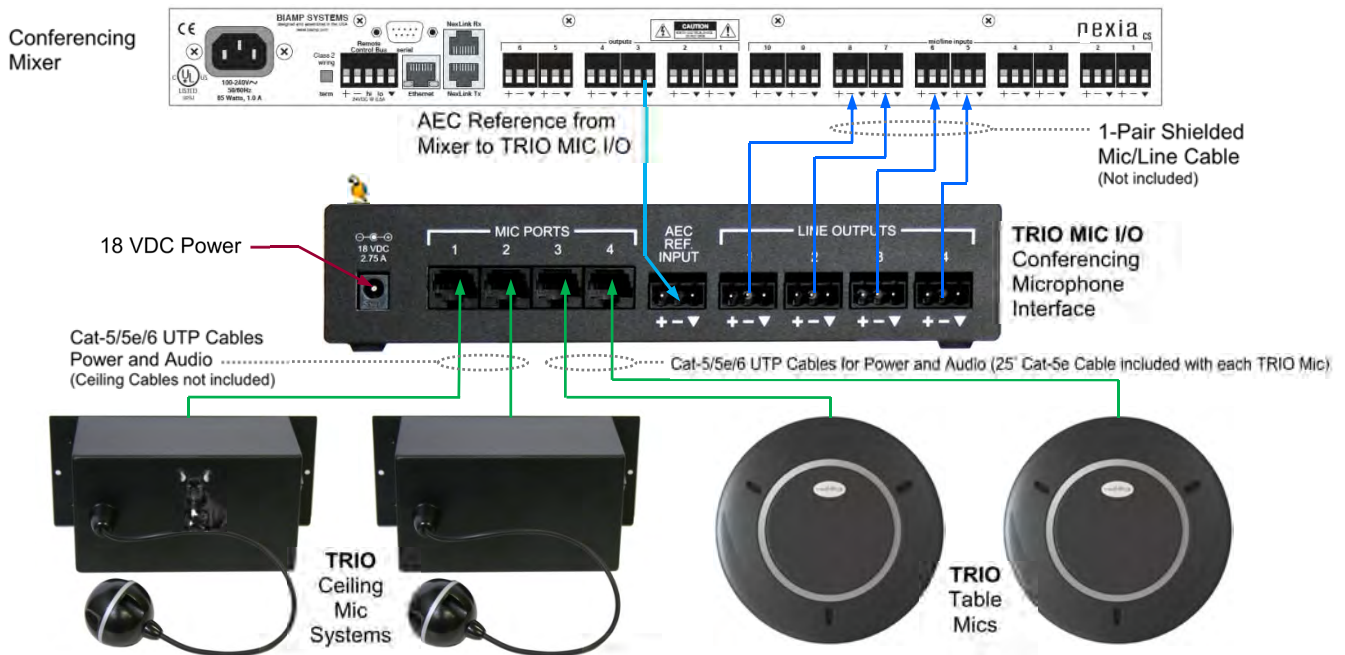
TRIO Ceiling Mic Arrays (white left, black right)

Pair the TRIO Mics with the TRIO Mic I/O interface to produce four (4) standard, balanced line level output channels and simply connect the signals to the room audio mixer. Connecting a single echo canceling reference channel from the room mixer to the TRIO Mic I/O completes the interface with any audio mixer.

TRIO Ceiling Mic with Above-ceiling electronics enclosure, drop cable and 2.5" spherical array (in black)



### SYSTEM DRAWING - Simple Connectivity



### SPECIFICATIONS - TRIO Table and Ceiling Mic Arrays

Part Numbers (Worldwide)	TRIO Table Microphone: 999-8850-000, TRIO Ceiling Microphone: 999-8860-000 (White), 999-8865-000 (Black)
Audio Specs	Frequency Response: 20 HZ to 20KHZ, Dynamic Range: >90dB, THD + Noise: < 0.02%
Microphones	Three unidirectional cardioid elements per device, Frequency Response: 100-12kHz, Max Input Level: 115dB/SPL
Signal Processing	Acoustic Echo Cancellation, Noise Reduction, Microphone Gating and Automatic Gain Control
TRIO Mic Ports	Connectors: One(1) RJ 45-F, Proprietary Interface with audio, power and control up to 100' (30.48m) Cat-5 cable distance
Dimensions	TRIO Ceiling Mic: 2.5" (63.5mm) Diameter Sphere, Trio Table Mic: 7"(177.8mm) Diameter x 1" (25.4mm) Tall
Weight	TRIO Ceiling Mic: 0.113 lbs. (.05255938 kg), TRIO Table Mic: 0.472 Lbs. (0.214 kg)
Operating Temp.	32° to 104° F (0° to 40° C) / 20% to 80% Relative Humidity
Power Consumption	Less than four (4) Watts per mic

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