



NEREUS 0402E, the digital audio processor product of Tendzone, is newly developed to aim at application of the sound system in the education field. It is with our self-developed distinctive audio algorithm, including the adaptive ambient noise suppression, adaptive feedback cancellation and etc.

The adaptive algorithm has brought minimalist operating mode (plug & play) that gets rid of the complicated field-debugging link. Meanwhile, the quick adjustment buttons like noise suppression hierarchy adjustment button, feedback cancellation on/off button make the product application more flexible.

## Features

- 2 MIC Input, XLR-F port, Max gain 50dB with manual adjustment knob;
- 2 LINE Input, RCA port, standard line level;
- 2 LINE Out, RCA port, standard line level;

## Functions

- To process mixing of multi audio inputs;
- To process noise suppression of the MIC inputs;
- To process feedback cancellation of the MIC inputs;

## Specifications

Name	Parameters
Max MIC input level	15dBu
Max LINE input level	20dB
S/N ratio	102dB
Adjustment knob/button	Noise reduction hierarchy adjustment, Feedback cancellation on/off
Max output level	20dBu
THD	<0.006% @1kHz 12dB
Indicators	Power indicator, Noise reduction hierarchy indicator, Feedback cancellation indicator
Digital process IC	TMS320C6748 456M
Frequency response	20Hz-20KHz +/-2dB
Adaptive Feedback Cancellation	Gain increase 8-12dB
Power voltage	DC 12V/500mA
Sampling rate	48K
MIC max gain	50dB
Adaptive Ambient Noise Reduction	Steady noise reduction ration: 30dB
Size(W×D×H)	170mm×106mm×44mm



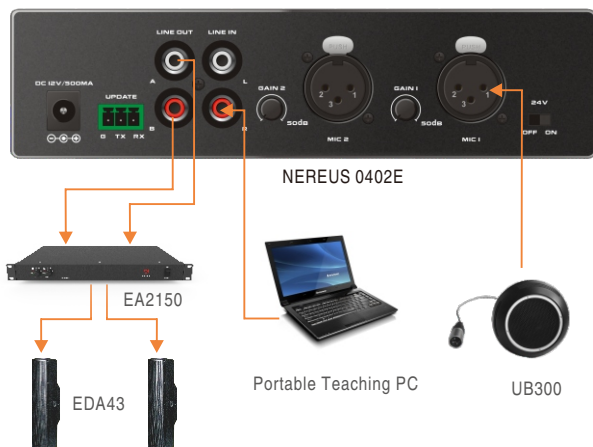
## Solution

This solution demonstrates the sound reinforcement system application to the common classroom. Via applying the adaptive ambient noise suppression of NEREUS 0402E, it can quickly eliminate the ambient noise picked up by the high sensitivity Hanging MIC and guarantee a quite environment. The adaptive Feedback Cancellation ensures no feedback or squealing cases and greatly increased the sound transmission gain.

## List

Name	Hanging MIC	DSP	Amplifier	8" Active Speaker	Portable Teaching PC
Model	UB-300	NEREUS 0402E	EA2150	EDA-43	
Qty	1	1	1	2	1

## System Diagram



### Shenzhen Tendzone Intelligent Technology Co., Ltd.

✉ sales@tendzone.com

🌐 <http://en.tendzone.com>

📍 Room 202, Block C, Huahan Building, No.16 Langshan Rd, Nanshan District, Shenzhen, China