

UNiKA

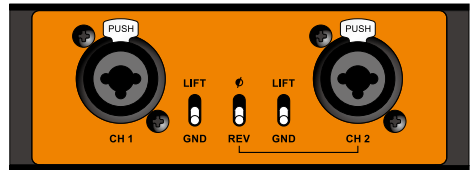
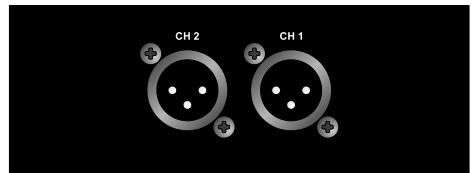
PROFESSIONAL AUDIO

USER GUIDE

Stage Series

Made in Taiwan

ISO-2



Index

Overview

Features

Audio Connection

Various System Connection

Eliminating Hum and Buzz and the Ground Loop

Specifications

Measurement

Unika Electronic Co., Ltd.

www.unikapro.com

6F, No.168, Xin-Hu 2nd Rd.

Nei-Hu District, Taipei City. 11494.

Taiwan, R.O.C.

☎ +886 2 27933017

📠 +886 2 27928264

✉ info@unikapro.com

OVERVIEW

The ISO-2 is a passive audio isolator designed to be inserted into the signal chain to block hum and buzz caused by ground loops. The ISO-2 accepts unbalanced or balanced signals and is equally suitable for consumer electronics and professional line-level devices.

The ISO-2 can be operated as a dual input and outputs, and since the circuit is passive, no power is required. Whether an unbalanced or balanced signal is connected, the ISO-2 will automatically convert the signal depending on the type of cable and connector plugged in.

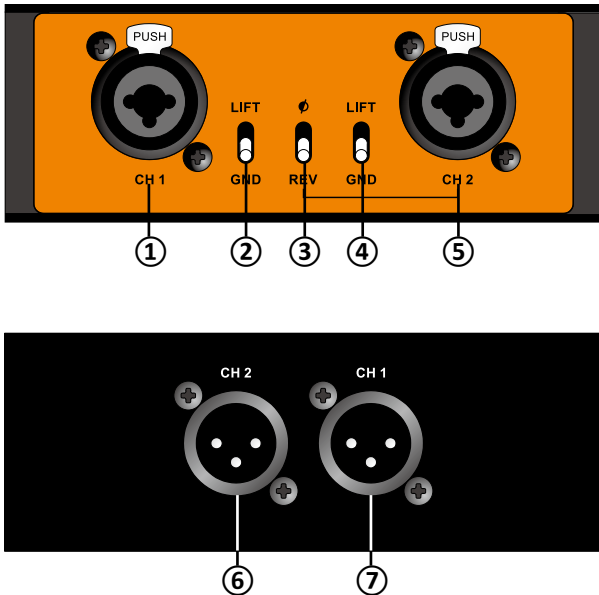
✉ info@unikapro.com

If you still need further clarification, please send email to us and we will do our very best to reply you in short order.

FEATURES

The ISO-2 is a simple passive device, designed to electronically-isolate connected line-level audio equipment without degrading the audio quality.

On the ISO-2 there are 2 inputs and 2 outputs which block DC voltage and prevent buzz and hum from ground loops. Both outputs feature individual ground lift switches to help further reduce ground loop noise.



- ① Ch-1 input: transformer balanced XLR-1/4" TRS Combo Connector.
- ② Ground Lift switch for Ch-1: disconnects pin-1 on output-1 XLR connector.
- ③ Phase reverse switch: Swaps pin-2 and pin-3 on Ch-2 when REV is selected.
- ④ Ground Lift switch for Ch-2: disconnects pin-1 on output-2 XLR connector.
- ⑤ Ch-2 input: transformer balanced XLR-1/4" TRS Combo Connector.
- ⑥ Output-2: transformer balanced XLR output.
- ⑦ Output-1: transformer balanced XLR output.

AUDIO CONNECTION

Before connection:

As with all audio gear, always ensure audio system levels are turned down or equipment turned off before making connections. This will avoid plug-in or turn-on transients from damaging more sensitive components such as tweeters.

Connect ISO-2 to system:

The ISO-2 has two combination XLR/TRS input connectors, wired to the AES standard pin-1 ground, pin-2 hot (+), pin-3 cold (-).

Balanced or unbalanced output signal can be connected to the input of ISO-2; the isolated outputs will always be balanced signals.

The balanced output of the ISO-2 is line level, meaning that it should be connected to the line input of a mixing console.

Suggestions about distance cable running:

Unbalanced cables are much more susceptible to noise than their balanced counterparts, keeping unbalanced cables under 8 meters (25') in length is good practice while balanced cables can easily extend to 100 meters (300').

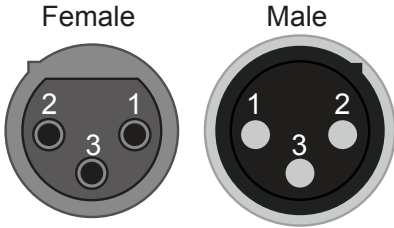


Fig-1: XLR Plugs Balanced connection:
1-Ground
2-Signal Hot (+)
3-Signal Cold (-)

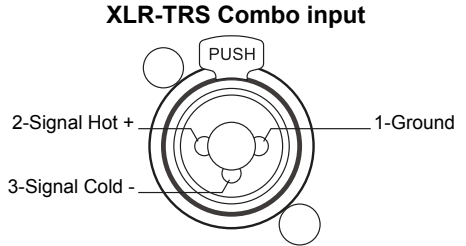


Fig-2: XLR- $\frac{1}{4}$ "TRS Combo socket for direct input

For Unbalanced connection, pin-3 should be connected to Ground with pin-1.

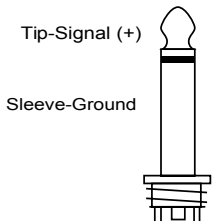


Fig-3: $\frac{1}{4}$ "TS Unbalanced connection

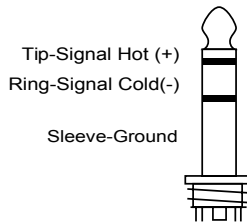


Fig-4: $\frac{1}{4}$ "TRS Balanced connection

VARIOUS SYSTEM CONNECTION

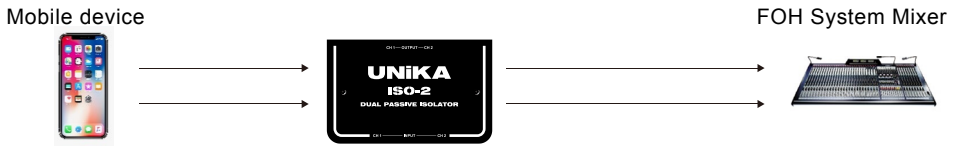


Fig-5: Mobile device to mixing console



Fig-6: Mixing console to devices with different power source

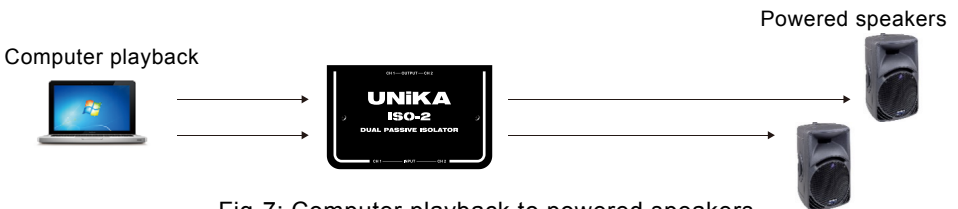


Fig-7: Computer playback to powered speakers

ELIMINATING HUM AND BUZZ AND THE GROUND LOOP

The ISO-2 is equipped with output isolation transformers to eliminate hum and buzz caused by stray DC voltage and ground loops.

Computers, CD players and other consumer equipment can be noisy - this is particularly true when incorporating audio with a projector - so isolation transformers can be very useful when combating system noise.

The independent Ground Lift switches on the outputs takes this one step further by lifting pin-1 on the XLRs. Computers are often the source for noise problems in audio systems, so greater care is certainly needed to keep things quiet.

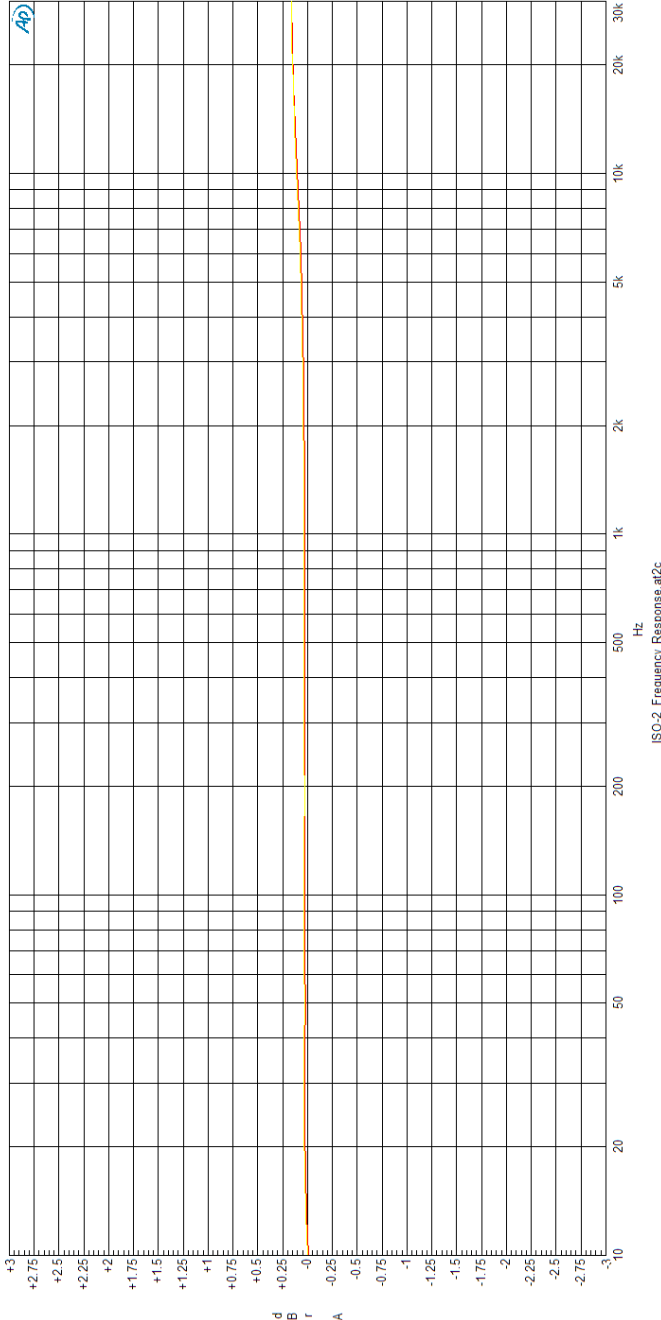
SPECIFICATIONS

(Specifications are subject to change without notice.)

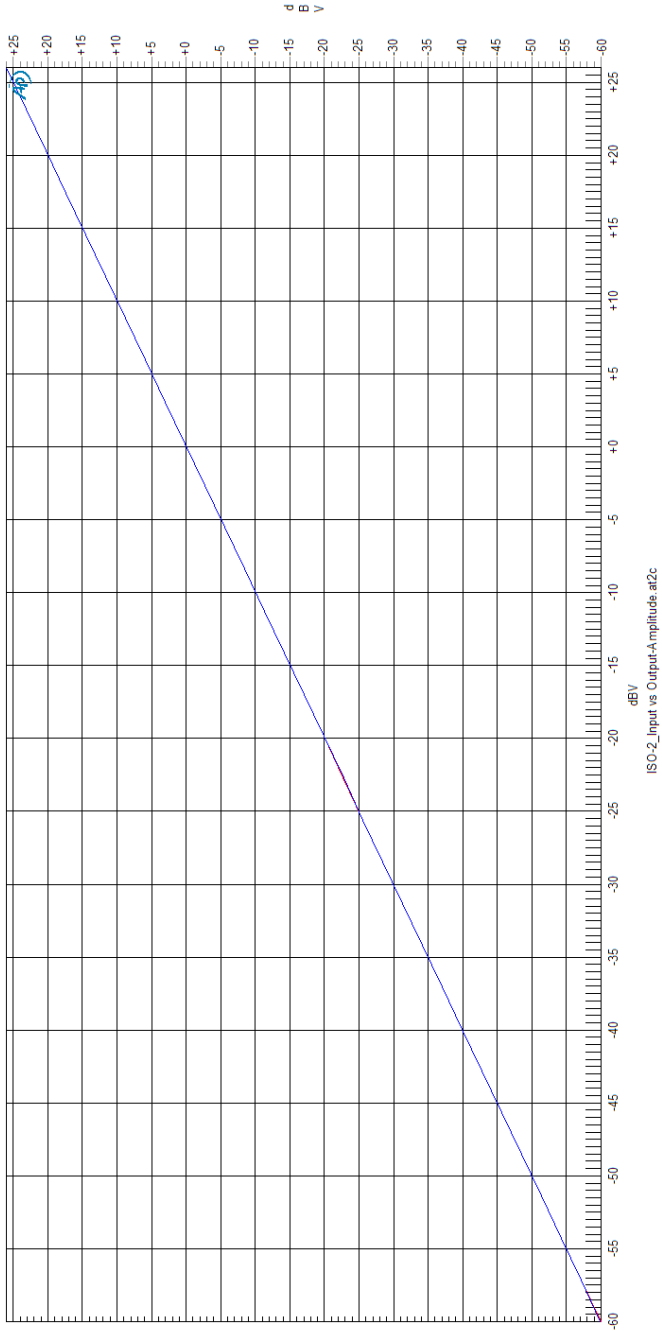
Circuit design	
Input connectors	2 Balance combo jack (Pin-2 hot, Pin-3 cold, Pin-1 ground)
Input DC impedance	0.82K Ω
Max. input level before clipping	+26dBv
Output device	2 XLR w/balance transformer isolated
Output DC impedance	1.08K Ω nominal, Transformer balance
Output level	+26dBv
Frequency response	20Hz to 20KHz +0.2 / 0 dB
Dynamic range	>130dB
S/N ratio~ un-weight 20Hz to 20KHz	-136dB
T.H.D~ 1KHz, 0dBV output	< 0.001%
Ground / Lift switch	Lift pin-1 on XLR outputs, separate
Reverse switch	Channel 2 input
Construction	1.6 / 1.2mm steel cabinet & chassis
Surface finished	Durable powder coating
Dimension (WxDxH)	124 x 78 x 46 mm
Weight	0.5Kg
Shipping weight	0.6Kg
Packing per carton	20pcs / 13Kgs
Shipping dimension per carton	350 x 310 x 207mm

UNiKA ISO-2 | User Guide

MEASUREMENT

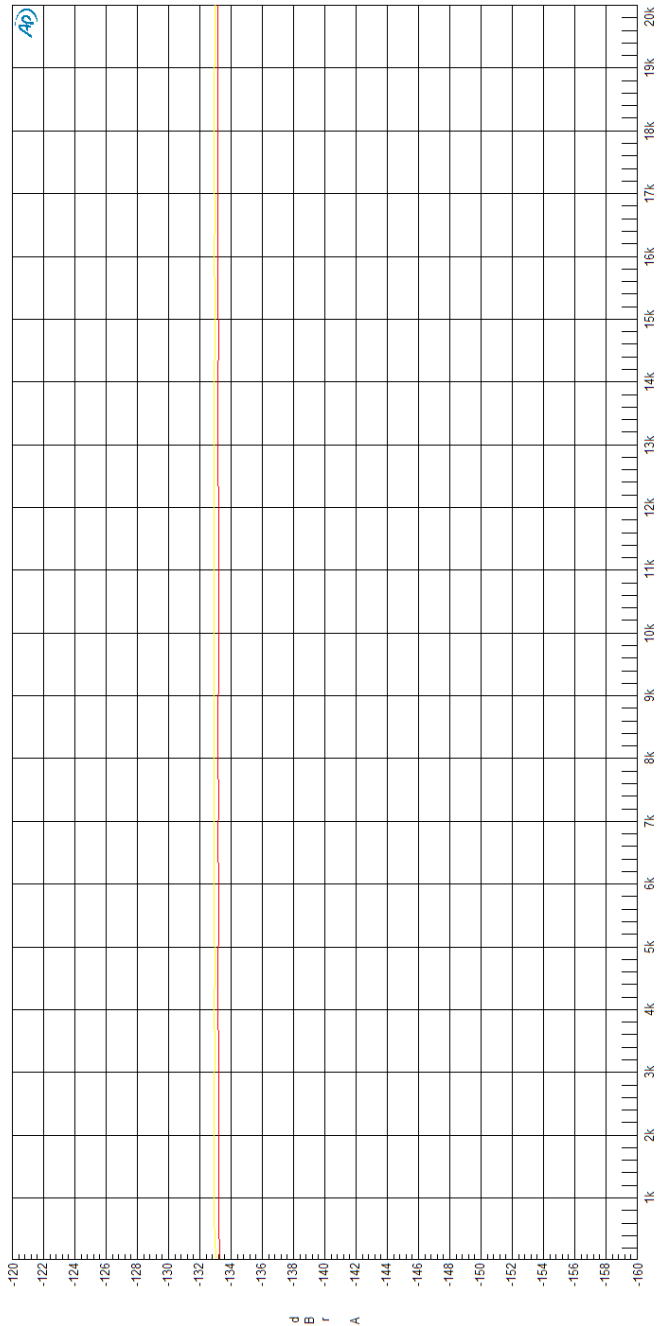


UNiKA ISO-2 | User Guide



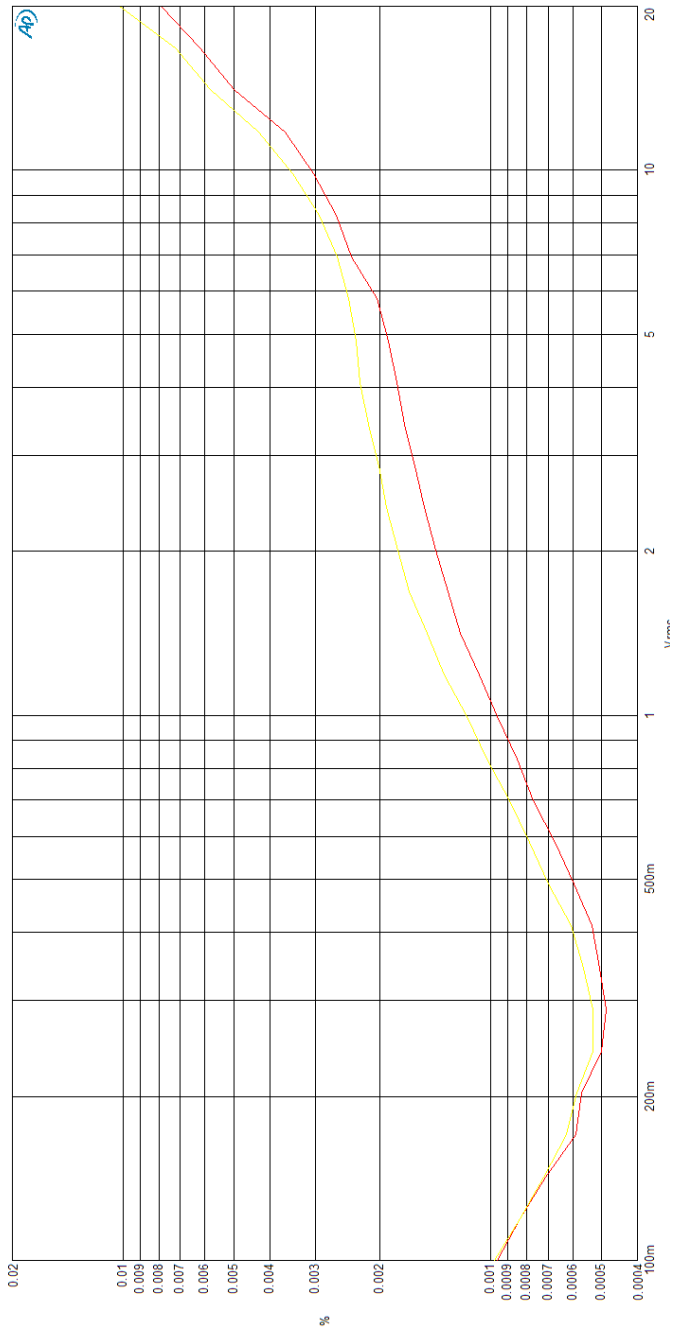
UNiKA ISO-2 | User Guide

MEASUREMENT



d
B
r
A

UNiKA ISO-2 | User Guide



UNiKA

PROFESSIONAL AUDIO