



# UNiKA PRO3SP Pro Series Audio Interface Triple Passive ISO Splitter User Manual

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# UNiKA

**UNiKA PRO3SP Pro Series Audio Interface Triple Passive ISO Splitter**



## GENERAL PRECAUTION BEFORE USE

Thank you for purchasing the UNiKA PRO SERIES AUDIO INTERFACE. Before using, please read this manual carefully and pay attention to every detail that you must pay attention to. If you use a mixer to connect to this interface, please turn off the mixer power and +48V phantom power before connecting, and then turn on the power and phantom power after inserting the signal cables. For passive models, please do not turn on the phantom power to avoid leakage or damage the equipment.

If using a model with a volume knob, turn the volume knob to the minimum. During use, please do not plug or unplug the wires arbitrarily to avoid signal loss. Please refer to the following instructions for the soldering method of the plugs to ensure the expected level and keep the signal smooth.

If you need further installation or operation guidance, please directly contact UNiKA's dealer or distributor, or write to the following mail address for help: [info@unikapro.com](mailto:info@unikapro.com)

## PRODUCT OVERVIEW

PRO 3SP is a passive one-input and three-output isolated signal splitter without the need to install batteries or provide phantom power.

PRO 3SP has a pair of built-in UNiKA-PROTM EI30A10E 1+1:1+1 isolation transformers, which has a special copper foil layer and a dedicated ground layer, which allows this device to restore high signal/noise ratio and dynamic sound, and can avoid unnecessary Leakage caused by radio frequency interference, ground interference and potential difference. PRO 3SP is particularly suitable for recording studios, live performances and fixed installation projects.

PRO 3SP's input uses XLR balanced sockets, suitable for inputting LINE signals. The XLR balanced sockets output by MONITOR are parallel and straight through without isolation transformers; CH-1/CH-2 output channels each have independent UNiKA-PROTM isolation transformer and shared GND/LIFT switch for easy connection to remote or different power sources at the end of the equipment to eliminate the leakage and noise caused by the potential difference and the ground loop.

## CAUTION

This product has undergone rigorous inspection before leaving the factory. If customers encounter failures during use, please contact your local dealer or distributor for replacement or repairing, do not disassemble the case or replace parts by yourself, which will invalidate the warranty.

For details, please refer to the warranty regulations in the enclosed warranty card, and fill in the details, and get a valid stamp or signature of the dealer or distributor.

## PARAMETER TEST CONDITIONS

In the development and manufacturing process, Audio Precision's 2700 series and 500 series are used to test and verify electrical characteristics.

## FEATURES

- One input & three output audio splitter
- CH-1/CH-2 are equipped with separate UNiKA-PROTM EI30A10E isolation transformer
- Use XLR jack for input
- Set the direct output of MONITOR OUT without isolation transformer
- The output is equipped with a shared GND/LIFT switch

## WHEN TO USE PRO 3SP

PRO 3SP's CH-1/CH-2 are each equipped with independent EI30A10E professional audio isolation transformer, which is a transformer that works in the audio range, also known as a low-frequency transformer. The frequency range is generally from 20 to 20000 Hz. It is mainly used for audio transmission between systems or devices. It can completely isolate the potential difference between two systems, avoid hum interference caused by ground loop problems, and prevent excessive potential difference from damaging the input level of the device. The safe transmission of signals is an essential product for long-distance transmission of analog audio systems.

However, since it does not have an input amplifier circuit and attenuator, it can only transmit balanced signals through an isolation transformer or convert unbalanced signals into balanced signals for transmission, and does not have the function of increasing the level. If the input signal is of a high-impedance type, such as musical instruments or some players, it is recommended to use other DIs with input attenuators in the PRO series to transmit signals. These DIs also have a built-in EI30A10E professional audio isolation transformer.

The MONITOR output of PRO 3SP is paralleled from input without isolation transformer, usually used in near-end equipment, such as the connection between stage monitor console and active stage monitor speakers.

In an analog system, PRO 3SP is equivalent to a multipoint signal distributor, which can distribute the signals on the stage to the stage monitor mixer, F.O.H. console and production console. Or in fixed installation applications, you can use it to distribute signals to different areas or rooms.

## APPEARANCE PARTS & FUNCTIONS

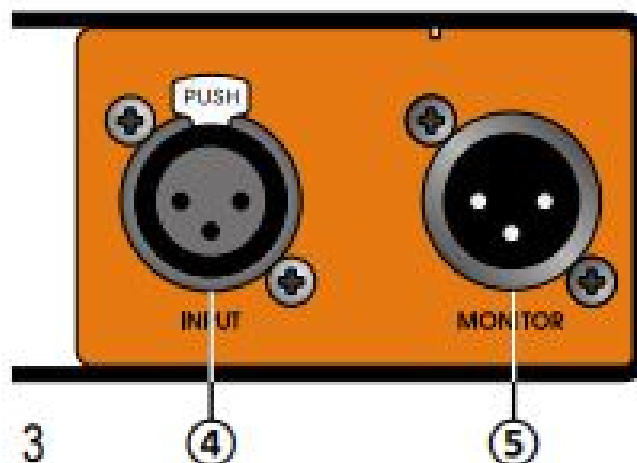
1. CH-1 signal output: XLR terminal pass through the isolation transformer.
2. Output grounding/floating switch: when the switch is not pressed, the first pin (PIN-1) of XLR is grounded. PIN-1 will be disconnected from ground after pressing.

This button should depend on the system.

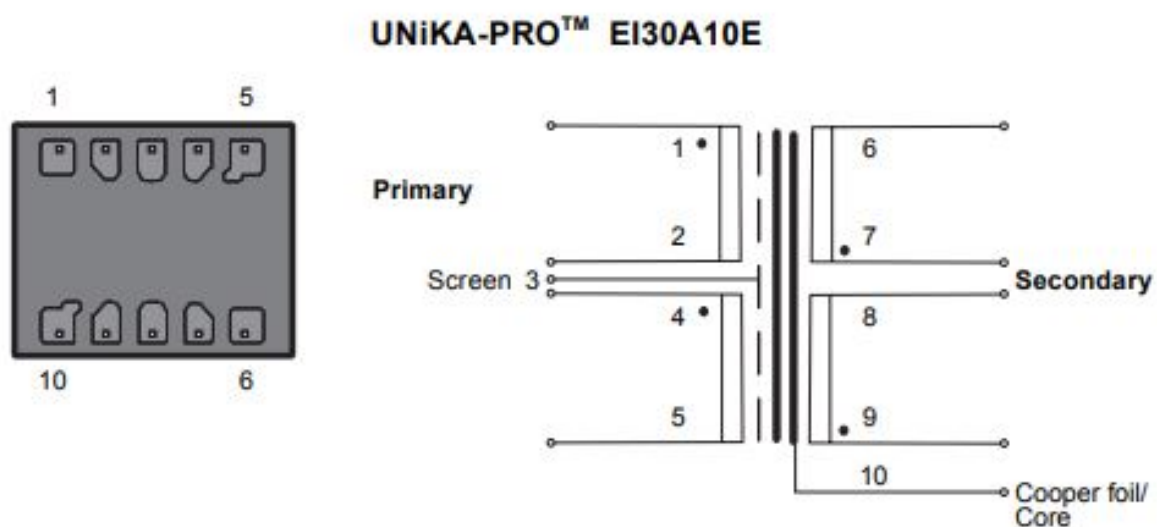
Used in the situation, in order to isolate the ground loop noise or leakage.



3. CH-1 signal output: XLR terminal pass through the isolation transformer.
4. Signal input: One XLR jack be able to input balance LINE signal.
5. Direct monitor output: XLR terminal, direct-through output without isolation transformer.



#### ISO TRANSFORMER SCHEMATIC



#### ELIMINATING GROUND LOOP NOISE

The built-in channel independent balanced isolation transformer has solved the potential difference leakage problem. When the system causes a ground loop due to poor wiring, the noise can be eliminated through the GND/LIFT button.

The GND/LIFT button determines whether pin 1 of the output XLR is grounded, grounded when it bounces, and disconnected from ground when pressed.



## CONNECTORS WIRING GUIDE

1. Shield pin
2. Hot pin
3. Cold pin

XLR-Female connector



XLR-Male output jack



The unbalanced connection, pin-2 is hot, pin-3 is shield paralleled with pin-1.

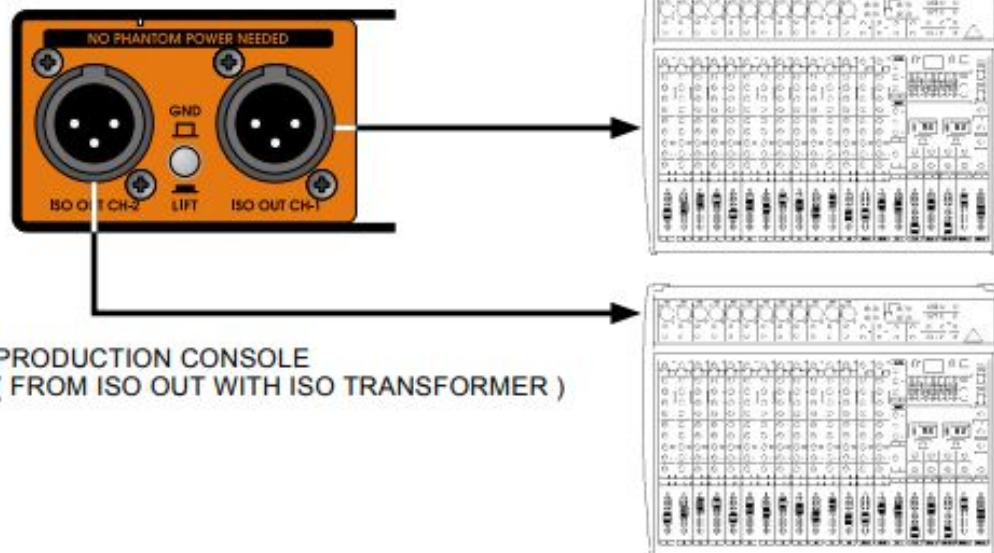
## SYSTEM CONNECTION GUIDE-STAGE

When the stage and F.O.H. be powered by different power supply source

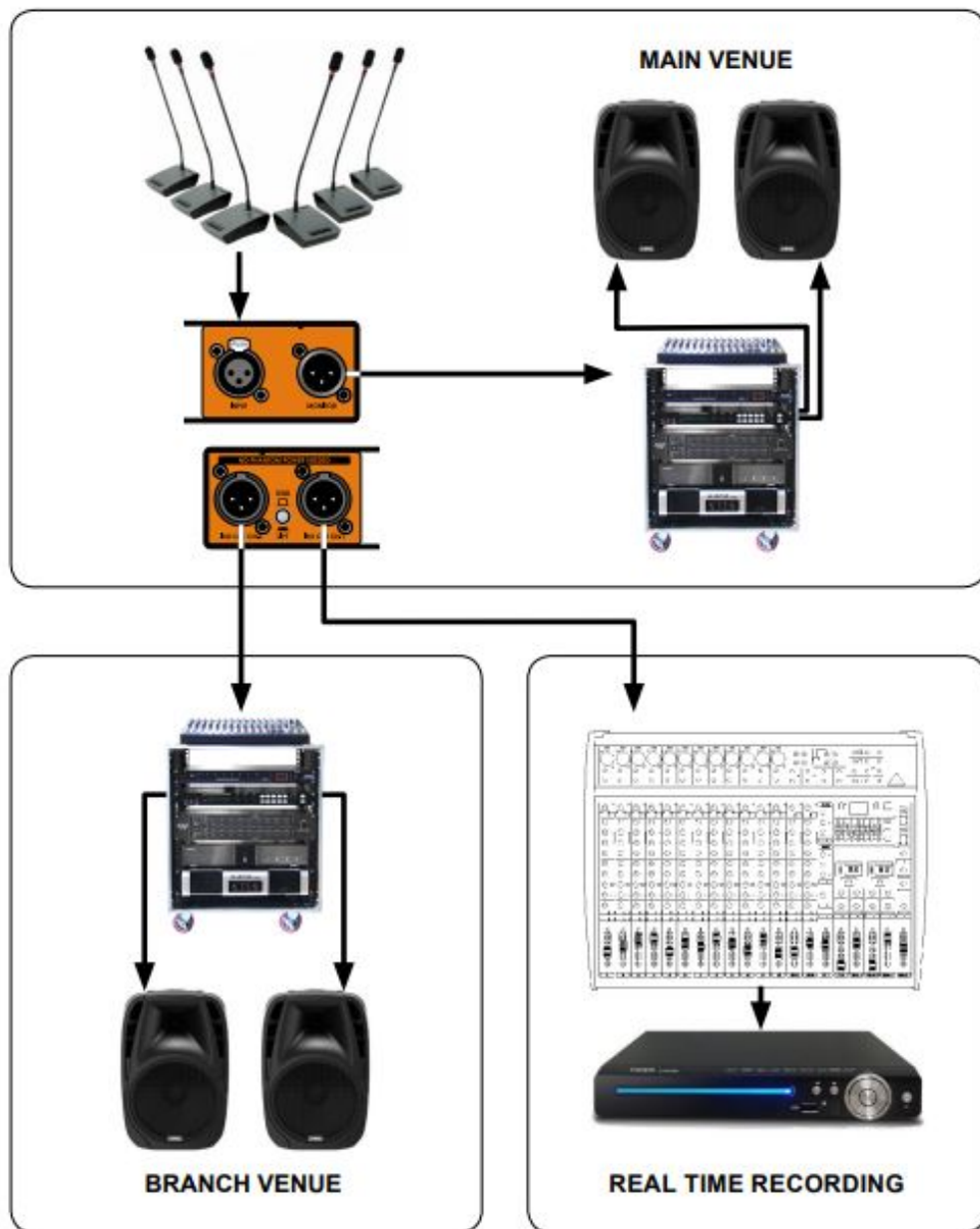
## STAGE MOITOR CONSOLE



## F.O.H. CONSOLE (FROM ISO OUT WITH ISO TRANSFORMER)



## SYSTEM CONNECTION GUIDE-FIXED INSTALLATION



When the main and extension system be used by different power supply source



## SPECIFICATIONS

PRO 3SP	
Circuit principle	Passive/Transformer balance output
Input connector	1 x Female XLR
Monitor out connector	1 x Male XLR without ISO Transformer
Input impedance	4.7K $\Omega$
Output impedance	50 $\Omega$
Max. input level before clipping	+22dB
Max Output level	+22dB
Output connector	2 x Male XLR through ISO Transformer
Output GND/LIFT switch	Shared push button
Frequency response	20Hz-20KHz, -0.3/+0.1dB
S/N ratio @20Hz~20KHz un-weight	>120dB
T.H.D. @1KHz 0dBV output	<0.02%
Transformer Ratio	1:1+1:1
Chassis	1.6mm/1.2mm steel cabinet and chassis
Surface finished	Durable complex painting
Dimension (W x D x H)	78 x 124 x 46 mm
Weight	0.55kg
Shipping weight	0.65kg
Packing per carton	20pc/14kg
Shipping dimension per carton	350 X 310 X 207 mm

### 1. Equipment

Product name	Triple passive ISO splitter
Model	PRO-3SP
EAN Code	4711064410174

### 2. Manufacturer

Manufacturer	UNIKA Electronic Co.,Ltd.
Address	6F, No.168, Xinhua 2nd Roadn, Nei-Hu, Taipei, Taiwan



3. This declaration of conformity is issued under the sole responsibility of the manufacturer.
4. Object of the declaration, Product: Direct box for musical instrument and A/V device.



5. The object of the declaration described in point 4 is in conformity with the relevant  
**Union harmonisation legislation 2014/30/EU The Electromagnetic Compatibility Directive**

6. References to the relevant harmonised standards used, or references to the specifications in relation to which conformity is declared:

EMI:	
EN 55032:2015	IEC 61000-4-3:2006+A1:2007+A2:2010
EN 61000-3-3:2014	IEC 61000-4-4:2012
EN 61000-3-3:2013	IEC 61000-4-5:2014+A1:2017
EMS:	IEC 61000-4-6:2013/CORE1:2015
EN 55035:2017	IEC 61000-4-8:2009
IEC 61000-4-2:2008	IEC 61000-4-11:2-4+A1:2017

7. Where applicable, the above equipment will be tested and revision of existent certificate by WH Technology Corp. (TAF Accreditation Number:2954) for compliance With EMC requirements set forth in the EUROPEAN COUNCIL DIRECTIVE 2014/30/EU and the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance.

8. The technical file is available from the manufacturer at the address above

Signed for and on behalf of:	UNIKA Electronic Co.,Ltd.
Place of issue:	Taipei
Date of issue:	May 03 <sup>th</sup> , 2021


Name: Yung-Ho Hsu

Position: Marketing & Product director

Signature:



## Documents / Resources

	<a href="#">UNiKA PRO3SP Pro Series Audio Interface Triple Passive ISO Splitter</a> [pdf] User Manual PRO3SP, Pro Series Audio Interface Triple Passive ISO Splitter
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