

# UNiKA

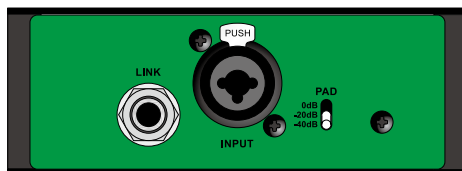
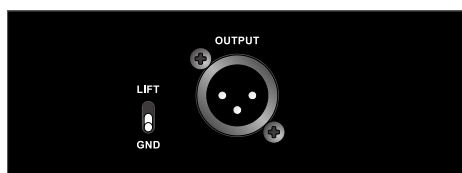
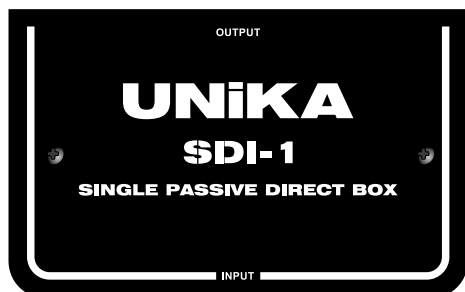
PROFESSIONAL AUDIO

# USER GUIDE

## Stage Series

Made in Taiwan

# SDI-1



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## OVERVIEW

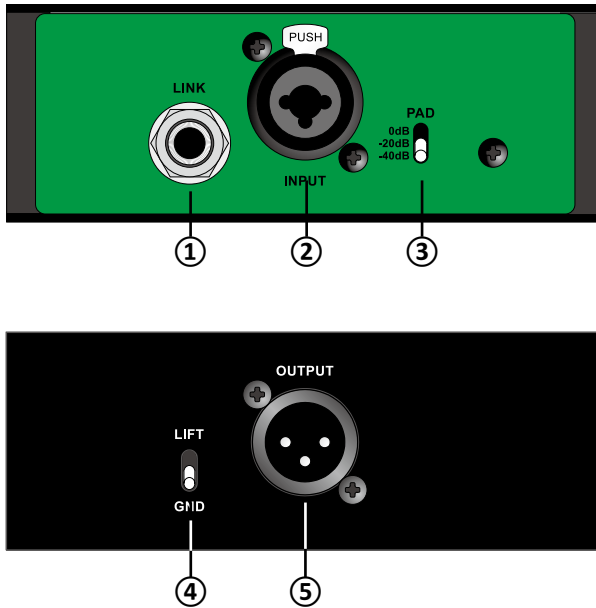
The UNiKA SDI-1 is an easy-to-use, single-channel, passive direct box for musical instrument and audio system applications. In addition to a high-quality audio transformer, the SDI-1 has some very useful built-in features. So please take a few minutes to go through this user guide to ensure you take full advantage of the facilities on offer and get the best possible result.

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If you need further information, please email us and we will do our very best to help.

## FEATURES

- Single-channel, high-impedance, direct input for an electronic musical instrument or line-level audio source from a music player or computer.
- ¼" TS LINK socket. A parallel-wired connector which feeds the direct input signal to another destination such as instrument amplifier.
- Selectable, 3-step attenuator acting on the high-impedance (hi-Z) direct input signal.
- Single-channel XLR. A transformer-isolated, balanced, low-impedance (low-Z) output.
- Ground lift switch acting on pin-1 of the balanced output.



- ① 1/4" TS LINK socket: a parallel-wired direct feed from the input. It can be linked to instrument amplifier.
- ② High-impedance direct input with Combo jack: connect to output of electronic musical instrument or audio device using XLR or TRS, TS jack plugs.
- ③ Input PAD: 0dB, -20dB & -40dB selectable 3-step attenuator reduces the input sensitivity to prevent overload.
- ④ GGround lift switch: lifts the pin-1 on the XLR output connector to help eliminate hum and buzz caused by ground loops.
- ⑤ Balanced XLR output: low-impedance output with isolation transformer.

## AUDIO CONNECTION

### Instrument Direct input & Parallel Link 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.

There is one channel on the SDI-1, featuring an XLR- ¼"TRS Combo jack INPUT, a ¼" TS parallel LINK output and a balanced XLR OUTPUT.

Connect your source instrument or audio device to the input and the balanced XLR output to the mixing console. The LINK connector output provides the means for connecting the signal to an instrument amplifier or personal monitor system. Unbalanced cables are much more susceptible to noise than their balanced counterparts. Keeping unbalanced cables under 8 meters (25 feet) in length is good practice while balanced cables can easily extend to 100 meters (300 feet). The balanced output of the SDI-1 is mic level, meaning that it should be connected to the mic input of a mixing console or mic preamp.

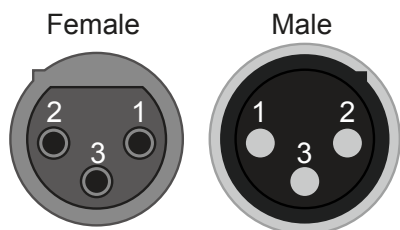


Fig-1: XLR Plugs Balanced connection:  
1-Ground  
2-Signal Hot (+)  
3-Signal Cold (-)

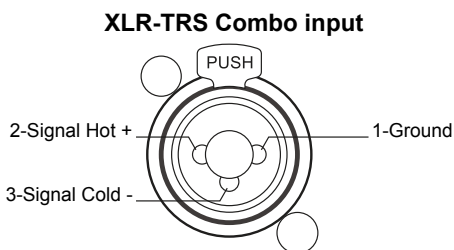


Fig-2: XLR-¼"TRS Combo socket for direct input

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

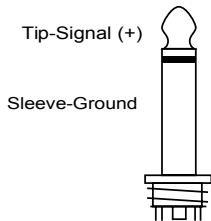


Fig-3: 1/4"TS Unbalanced connection

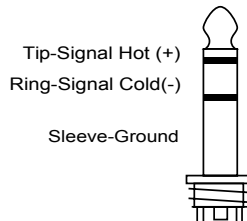


Fig-4: 1/4"TRS Balanced connection

## VARIOUS INSTRUMENTS/DEVICE CONNECTION



Fig-5: Instruments, Guitar to instrument amps & console



Fig-6: Stereo keyboard to instrument amps & console

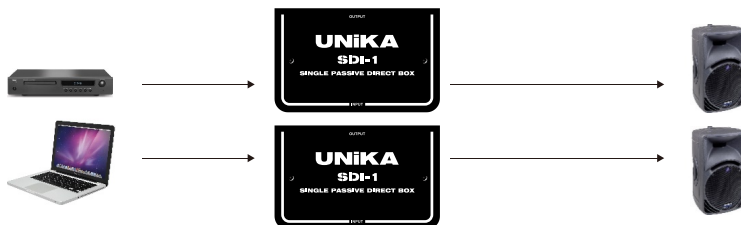


Fig-7: Audio device / player / computer to active speaker/PA system

## **INPUT PAD ATTENUATION**

The most common use of the direct input is with guitar pick-ups, keyboards or audio devices like CD players, computers etc. The optimal setting for this is most likely with the pad switch set to 0dB, although with some high-output pick-ups the performance of the direct input may be improved if the pad switch is set to -20dB to prevent possible clipping of the input signal.

The instrument is connected to the XLR- $\frac{1}{4}$ " Combo jack socket using a TS jack plug, and a parallel link feed taken from the LINK TS jack socket to the instrument amplifier.

The direct input can also be fed either from a line-level output from the head-amp (pad set to -20dB) or from the head-amp speaker output (pad set to -40dB).

## **ELIMINATING HUM AND BUZZ AND THE GROUND LOOP**

The SDI-1 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.

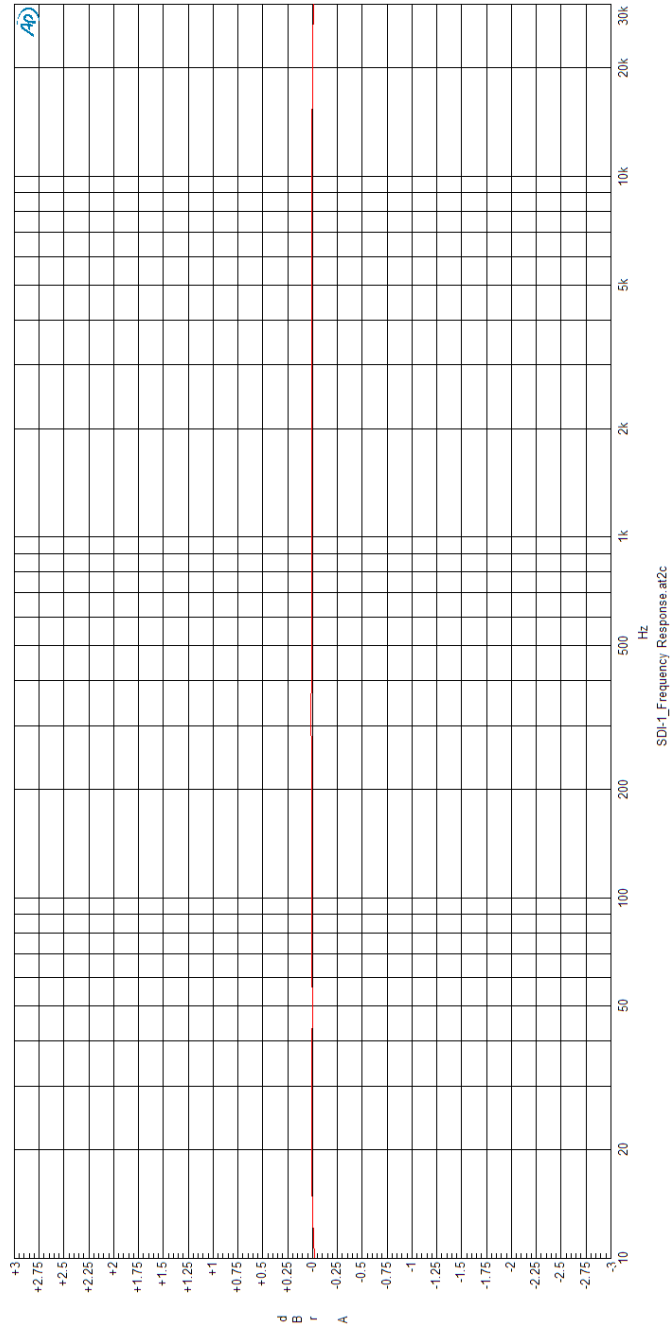
The Ground Lift switch on the output takes this one step further by lifting pin-1 on the XLR. Computers are often the source for noise problems in audio systems, so greater care is certainly needed to keep things quiet.

## SPECIFICATIONS

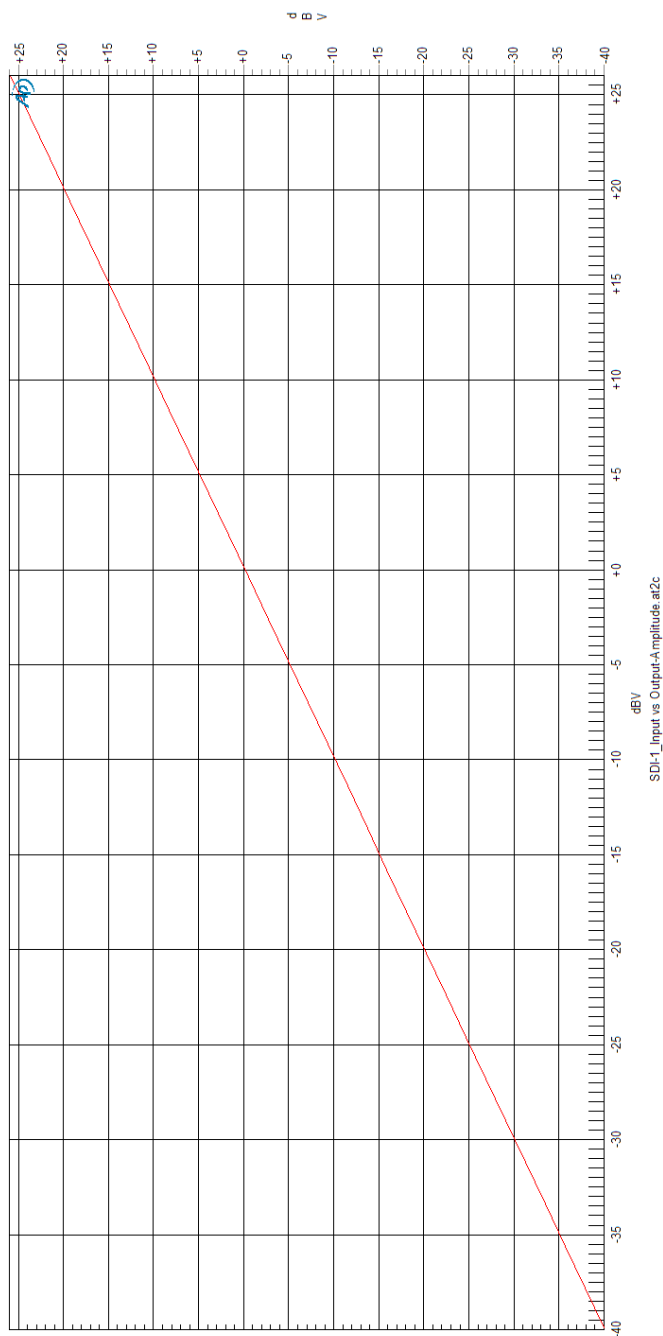
(Specifications are subject to change without notice.)

Circuit design	Passive, transformer isolated
Input connectors	Unbalanced combo jack ( Pin-2 hot, Pin3&1 ground )
Link connectors	Unbalanced phone jack
Input pad switch	0dB / -20dB / -40dB
Input impedance	1M $\Omega$ / 47K $\Omega$ / 47K $\Omega$
Max. input level before clipping	+26dBv
Output device	XLR w/balance transformer isolated
Output impedance	600 $\Omega$ nominal, Transformer balance
Output level	+26dBv
Frequency response	20Hz to 20KHz $\pm$ 0.5dB
Dynamic range	>109dB
S/N ratio~ un-weight 20Hz to 20KHz	-129.8dB
T.H.D~ 1KHz, 0dBV output	< 0.0009%
Ground / Lift switch	Lift pin-1 on XLR outputs
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

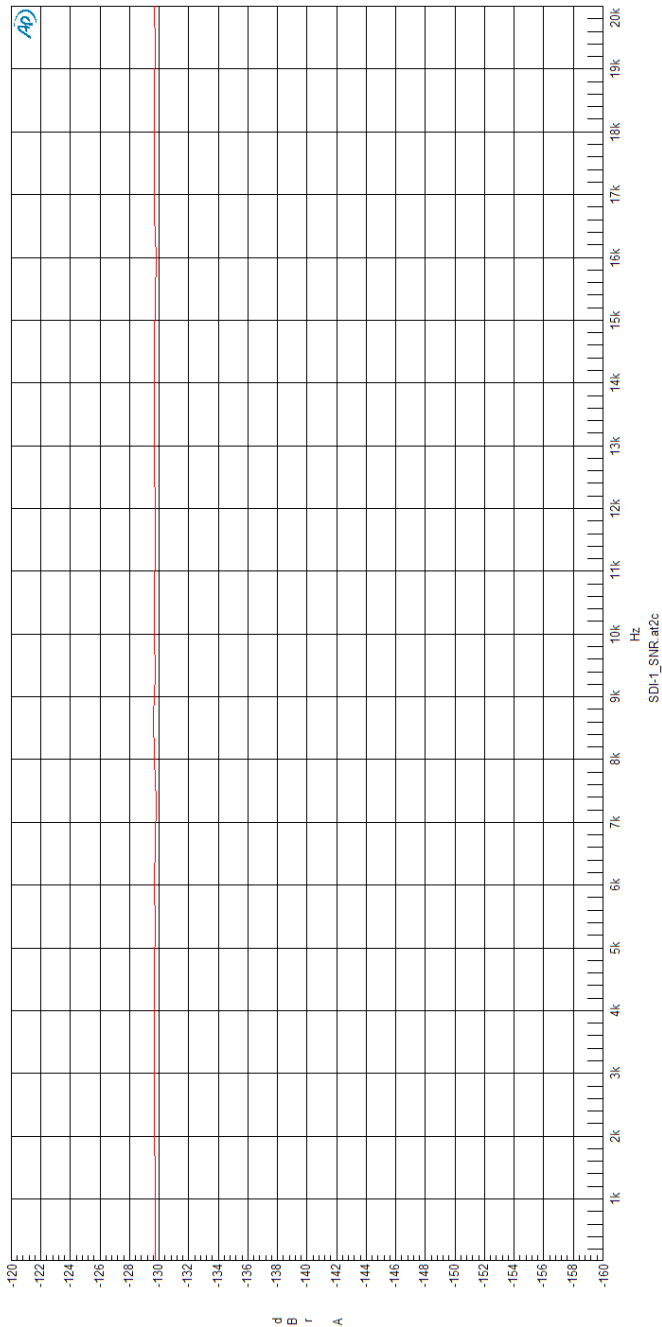
MEASUREMENT

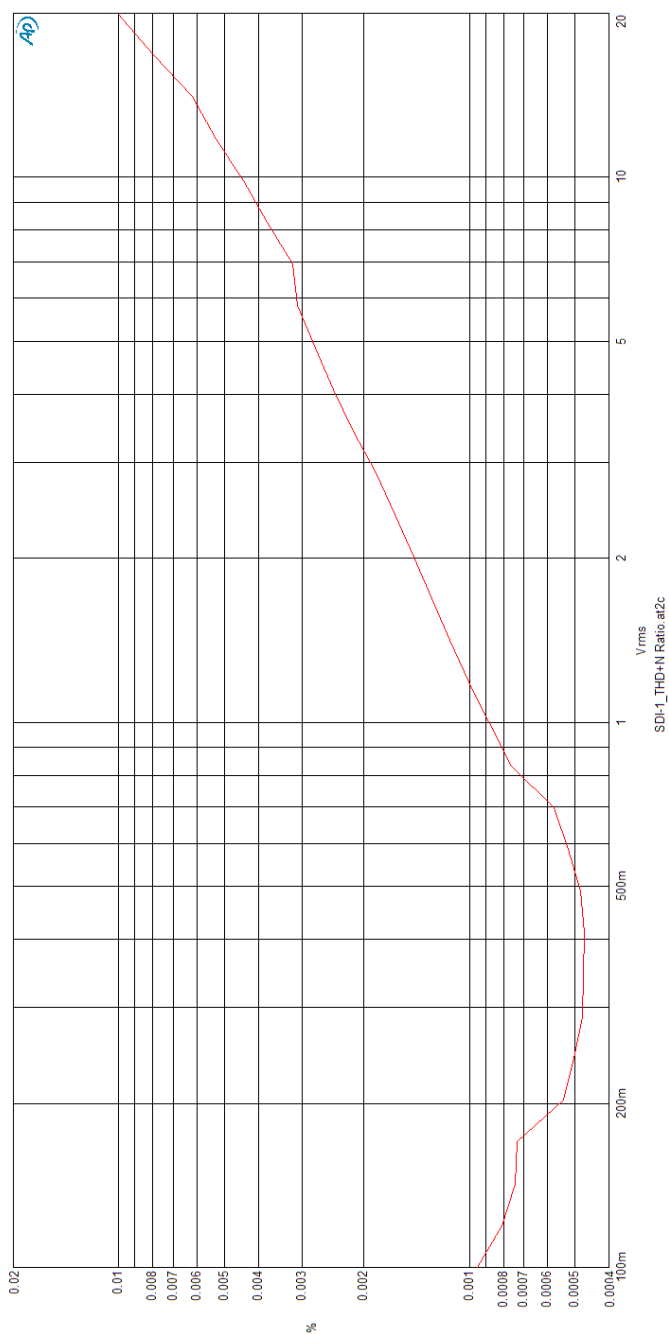






MEASUREMENT





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