SUB-2XX Two channel sub-woofer isolator

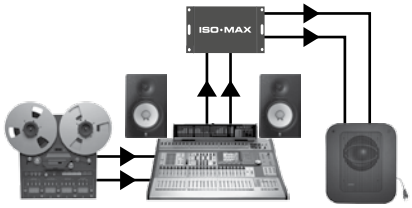
- **Eliminates hum and buzz caused by ground loops**
- **Extended low frequency response down to 1 Hz**
- **Less than 0.01% distortion at 20 Hz**
- **Plug and play easy to use, no power required**

The Iso•Max SUB-2XX is a two channel low-frequency isolator created specifically for sub-woofers to eliminate hum and buzz caused by ground loops in balanced audio systems.

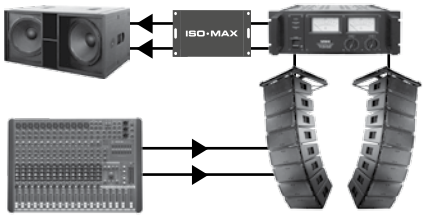
The design begins with a rugged flanged enclosure that comes standard with gold plated XLRs and a removable screw-down barrier strip for easy installation in NEMA enclosures. Plug and play easy to use, this passive interface does not require any power to work. Inside are two specially designed Jensen audio transformers with extended subsonic response to deliver powerful and articulated bass for maximum impact. Even when being subjected to extremes, the SUB-2XX is able to gracefully handle low frequencies down to 20 Hz with less than 0.01% distortion and less than 1 dB of phase shift. To further optimize the performance, a bottom mounted 8 position 'set & forget' dip switch enables the user to configure the SUB-2XX grounding scheme as needed. And with better than 100 dB of common mode noise rejection, you can enjoy the full performance of your audio system without noise.

Simply connect the SUB-2XX between the source and the input destination to eliminate ground loops, electromagnetic interference (EMI) and RFI problems. The SUB-2XX will quietly go to work without introducing distortion, phase shift or artifact of any kind. These combined features make the Iso•Max SUB-2XX ideal for balanced home theater systems, professional studios, PA systems and the most demanding post production facilities.

Applications

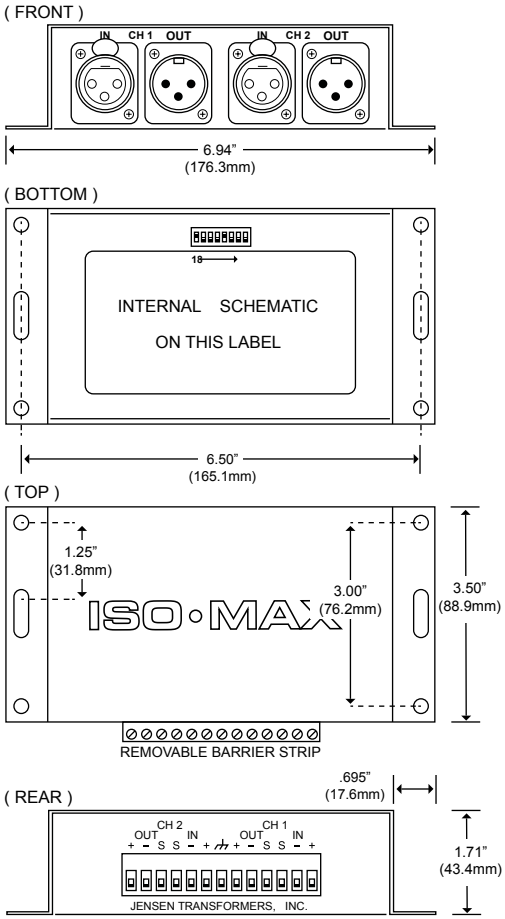


Isolating a sub woofer in the studio
Many sub woofers have stereo inputs with an internal mono summing mixer. Send the balanced output from your playback system to the SUB-2XX and the output to your sub. The Iso•Max SUB-2XX will faithfully deliver the signal without smearing or choking.



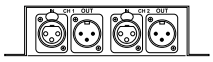
Isolating a sub woofer in a PA system
The use of sub woofers in a PA system has become common in most touring setups. Use the SUB-2XX to isolate the sub-woofer amplifier racks to eliminate ground loops without affecting the audio signal path. The SUB-2XX is able to withstand tremendous signal levels without distortion.

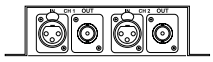
Dimensions

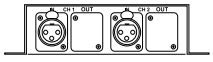


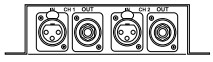
Connector options

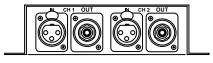
The SUB-2XX comes standard with XLR inputs and outputs. It is also available special order with the following connector configurations for use with both balanced and unbalanced systems.

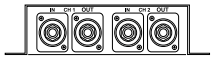
SUB - 2XX

XLR-F IN, XLR-M OUT

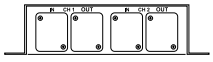
SUB - 2XB

XLR-F IN, BNC OUT

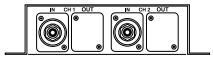
SUB - 2XN

XLR-F IN, WIRE LEAD OUT

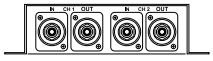
SUB - 2XP

XLR-F IN, 1/4" TRS OUT

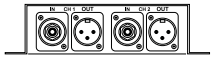
SUB - 2XR

XLR-F IN, RCA OUT

SUB - 2PP

1/4" TRS IN / OUT

SUB - 2NN

WIRE LEAD IN / OUT

SUB - 2RN

RCA IN, WIRE LEAD OUT

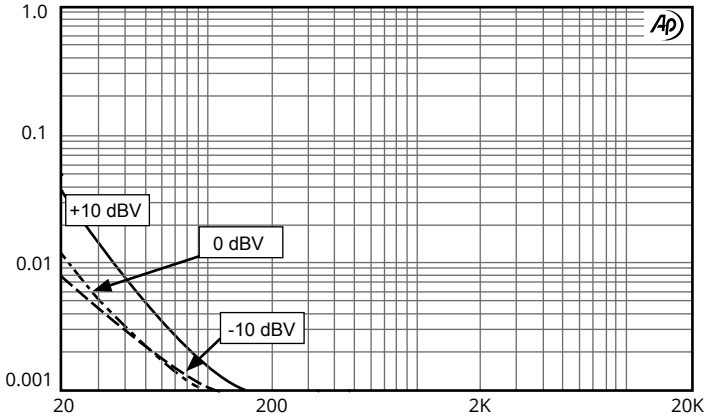
SUB - 2RR

RCA IN / OUT

SUB - 2RX

RCA IN, XLR-M OUT

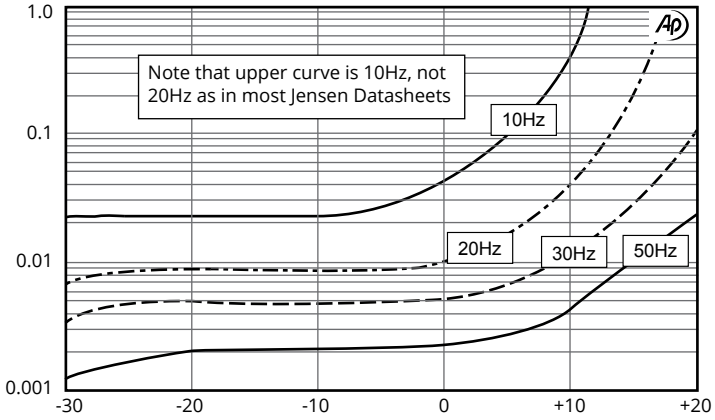
jensen transformers — ISO•MAX® SUB-2XX

Jensen...The Worlds Finest Audio Transformers

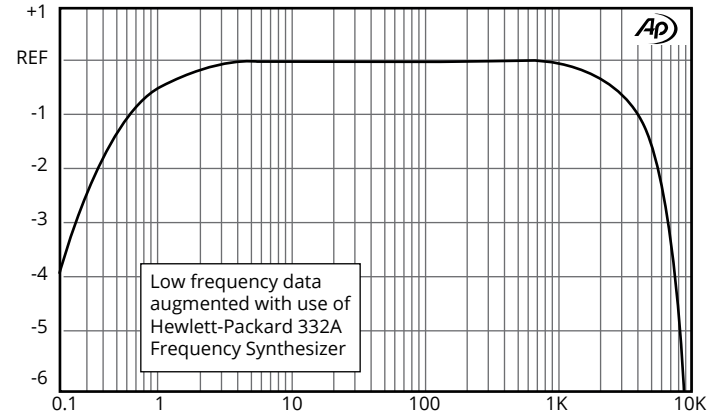
THD at FIXED INPUT LEVELS — THD+N (%) vs FREQUENCY (Hz)



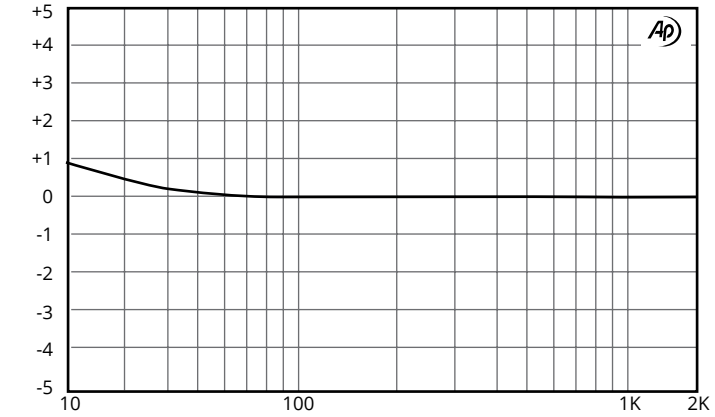
THD at FIXED FREQUENCIES — THD+N (%) vs INPUT LEVEL (dBU)



REFERENCE LEVEL RESPONSE — AMPLITUDE (dB) vs FREQUENCY (Hz)



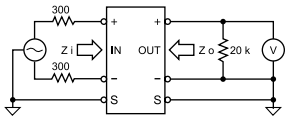
DEVIATION FROM LINEAR PHASE — DEVIATION (Deg) vs FREQUENCY (Hz)



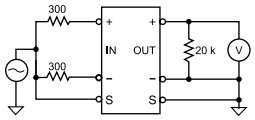
PARAMETER	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
Input impedance, Zi	100 Hz, -10 dBV, test circuit 1	39.0 kΩ	39.4 kΩ	39.8 kΩ
Insertion loss	100 Hz, -10 dBV, test circuit 1	-0.30 dB	0.00 dB	.30 dB
Magnitude response, ref 100 Hz	2 Hz, -10 dBV, test circuit 1	-0.25 dB	-0.11 dB	-0.00 dB
	2 kHz, -10 dBV, test circuit 1	-0.8 dB	-0.65 dB	-0.50 dB
Deviation from linear phase (DLP)	10 Hz to 2 kHz, -10 dBV, test circuit 1		+0.7/-0°	±2.0°
Distortion (THD)	100 Hz, -10 dBV, test circuit 1		<0.001%	
	20 Hz, -10 dBV, test circuit 1		0.01%	0.05%
Maximum 20 Hz input level	1% THD, test circuit 1	+16 dBV	+18 dBV	
Common - mode rejection ratio (CMRR)	60 Hz, test circuit 2		105 dB	
	3 kHz, test circuit 2	50dB	65 dB	
Output impedance, Zo	100 Hz, test circuit 1		5.00 kΩ	
Allowable source impedance	(output impedance of device driving the ISO-MAX input)	0	600 Ω	2 kΩ
Allowable load impedance	(input impedance of device loading the ISO-MAX output)	20 kΩ	47 kΩ	∞
Allowable load capacitance	(cable & input capacitance loading the ISO-MAX output)	0	50 pF	1000 pF
Optimal cable length	input		30 m (100')	200 m (650')
	output		1 m (3')	3 m (10')
Temperature range	operation or storage	0°C		70°C
Input to Output Voltage Difference*	input to output shield or either shield to chassis, 60 Hz			24 V RMS 34 V peak

All levels are input unless noted, +4 dBu = 1.23 V RMS

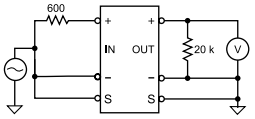
Test Circuit 1:



Test Circuit 2:



Test Circuit 3:



All minimum and maximum specifications are guaranteed. Unless noted otherwise, all specifications apply at 25°C. Specifications subject to change without notice. All information herein is believed to be accurate and reliable, however no responsibility is assumed for its use nor for any infringements of patents which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Jensen Transformers, Inc.

* IMPORTANT NOTE: THIS PRODUCT IS NOT INTENDED FOR USE IN CIRCUMSTANCES WHERE THE DC OR PEAK AC VOLTAGE BETWEEN INPUT AND OUTPUT CONNECTIONS EXCEEDS 34 VOLTS OR WHERE ITS FAILURE COULD CAUSE INJURY OR DEATH.

jensen transformers

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