



**NTI**® NETWORK  
TECHNOLOGIES  
INCORPORATED

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**VOPEX® Series**

# **VOPEX-2V/4V/8V/16V-H**

# **VOPEX-2VA/4VA/8VA-H**

## **VIDEO AND AUDIO/VIDEO SPLITTER**

## **Installation and Operation Manual**

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**CHANGES**

The material in this guide is for information only and is subject to change without notice. Network Technologies Inc reserves the right to make changes in the product design without reservation and without notification to its users.

## INTRODUCTION

The VOPEX-2V/4V/8V/16V-H video port splitter enables two, four, eight, or sixteen monitors to be driven from the same video port.

- These units have a bandwidth of 150 MHz enabling them to support high resolution video – up to 1900x1200 with no degradation.
- These units are compatible with VGA, SVGA, and XGA monitors.
- The VOPEX 2V/4V/8V/16V-H is also DDC compatible on OUTPUT-1 and only on OUTPUT-1.
- VOPEX-2V/4V/8V/16V-H video port splitters can be cascaded to drive up to 100 monitors by interconnecting multiple units (see page 3 for illustration).

### Option:

VOPEX with UL Listed power supply- to order add -UL to model number (VOPEX-2V/4V/8V/16V-H-UL)

VOPEX with audio support added (**non-UL**)- to order add A to the model number (VOPEX-2VA-H)(2, 4, and 8 port models only)

### Materials Supplied:

VOPEX-2V/4V/8V/16V-H -Video Port Splitter

VEXT-THN-3 3-Foot Video Interface Cable

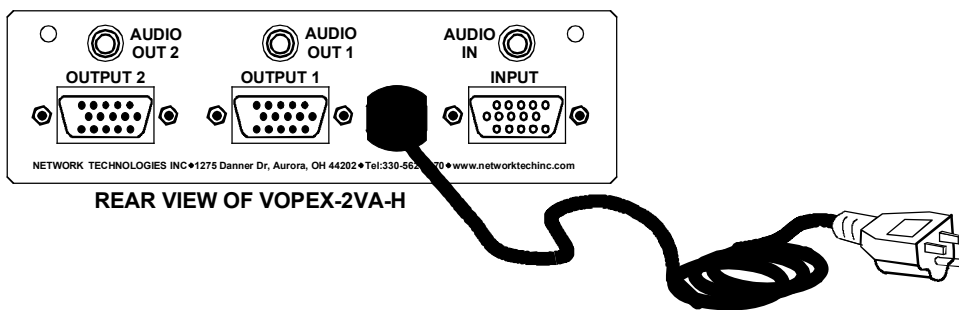
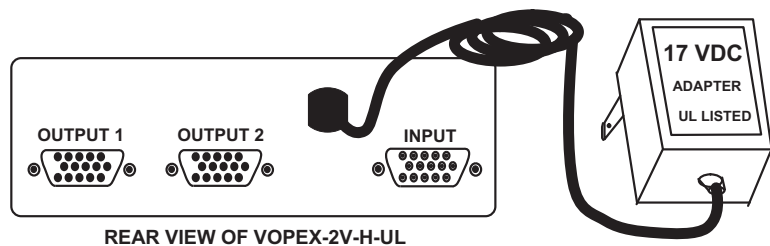
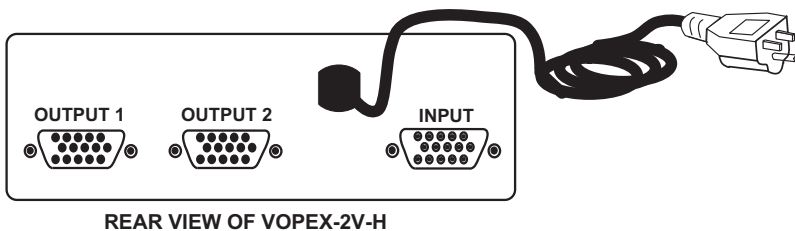
SA-3-MM 3-Foot Stereo Audio Interface Cable (models with audio support only)

### Optional Materials (not supplied):

VEXT-THN-xx Video Extension Cable- available up to 250 feet in length (500 feet for resolutions of 800 x 600)

SA-xx-MM Audio Extension Cable- available in 3, 6, 10, 15, 25, 35, 50, and 100 foot lengths

Where xx is the length of the cable in feet



## INSTALLATION

1. Turn OFF power to CPU and monitor(s).
2. Disconnect the monitor cable at the CPU and reconnect it to OUTPUT 1 on the rear of the VOPEX. OUTPUT 1 **must** be connected to a monitor for the unit to operate properly. It is labeled as such (see Fig. 1).

**Note: If a monitor with DDC support will be used, it must be connected to OUTPUT-1. All other monitors must support the highest video resolution supported by the DDC monitor connected to OUTPUT-1.**

3. Install the 15HD male end of the NTI-supplied video interface cable into the CPU's video output connector.
4. Install the 15HD female end of this cable into the INPUT connector of the VOPEX.
5. Additional monitors may be plugged into the remaining OUTPUT(s) as required.
6. Plug in VOPEX power cord and turn unit ON.

**Note: VOPEX-xV-H-UL model does not have power switch. Just plug in AC adapter to power up.**

7. Turn ON power to CPU and monitor(s).

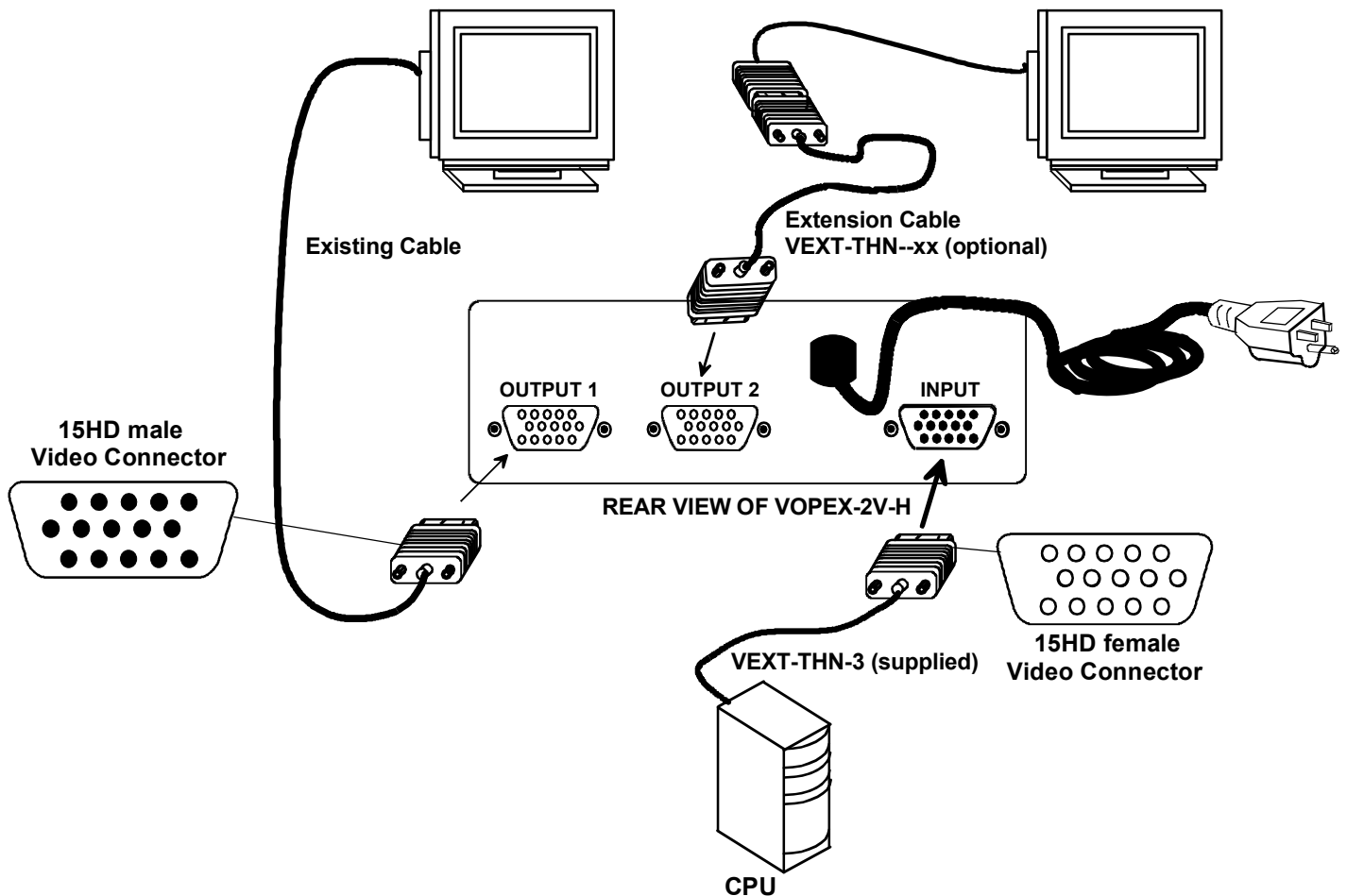


Figure 1- Connect VOPEX to monitors and CPU

# AUDIO SUPPORT

Models with audio support (i.e. VOPEX-2VA-H) can additionally be connected to an audio source. A 3.5mm jack is provided for connection to the audio source using the 3 foot audio cable (provided). Outputs are provided for connection of self-powered stereo speakers, headphones, and/or ear buds. Additional sets of stereo speakers, headphones, and/or ear buds can be connected when multiple VOPEX splitters are cascaded.

**Notes:**

*The audio port on a CPU may be marked "line out", "spkr", or "headphones". If all 3 jacks are available, use the jack marked "line out".*

*The "line out" jack is typically lime green and may be marked with this symbol* 

*The "spkr" jack is typically orange, and may be marked with this symbol* 

*The "headphones" jack may be marked with this symbol* 

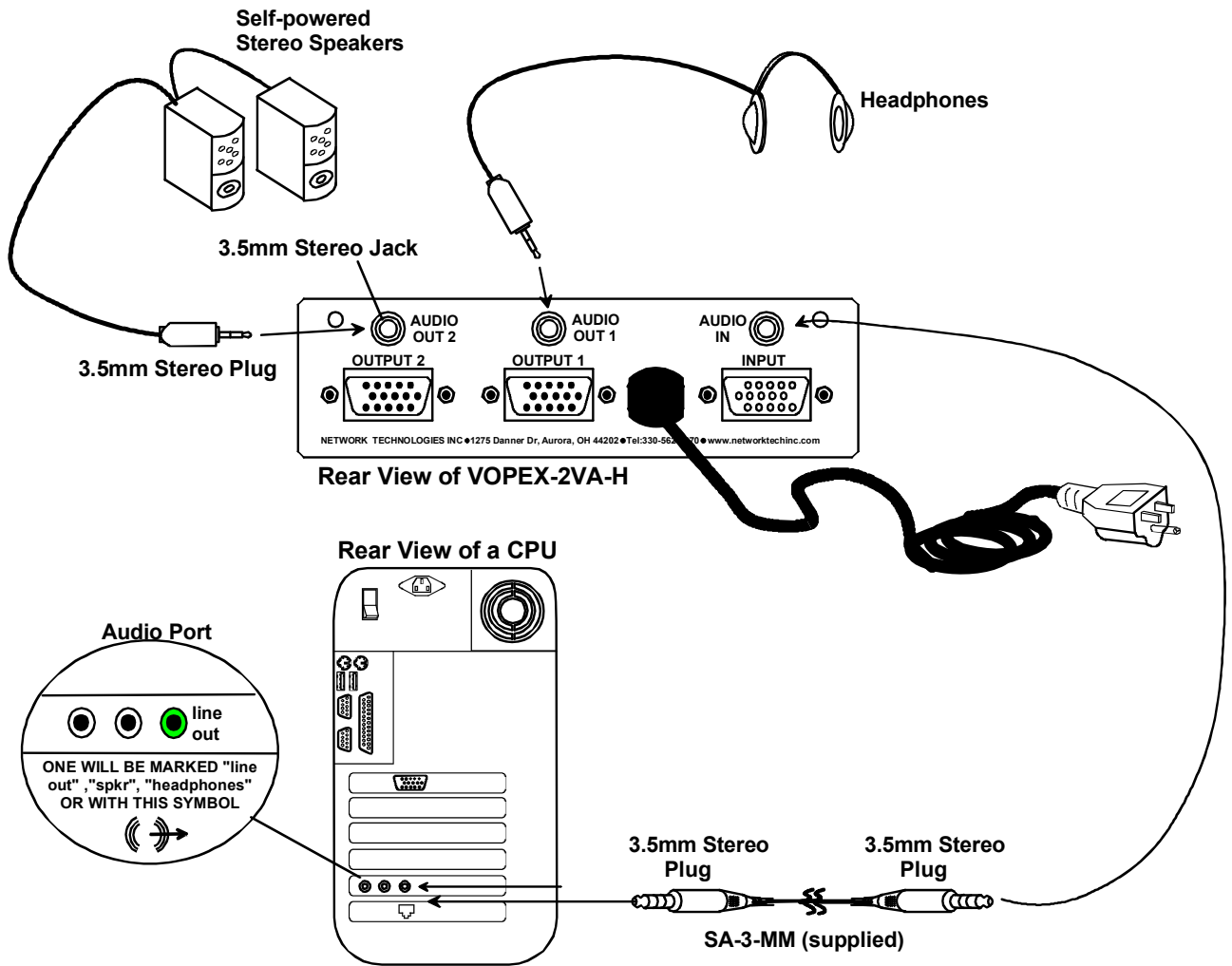


Figure 2- Connect VOPEX with audio support

# CASCADING

Up to 100 monitors can be driven using a single CPU by cascading multiple VOPEX splitters as shown in Fig. 2. Other than additional VOPEX splitters, the only additional hardware required are VEXT-THN-xx cables with lengths sufficient to reach each of the monitors to be connected and for connecting the VOPEX splitters. (For cascading speakers using VOPEXs with audio support, additional SA-xx-MM cables will be required (see page 1)).

**Note:** If a DDC monitor is to be used in a cascaded application, it must be connected to OUTPUT 1 of the VOPEX connected to the master VOPEX at OUTPUT 1 (labeled "SLAVE #1 in Fig. 2).

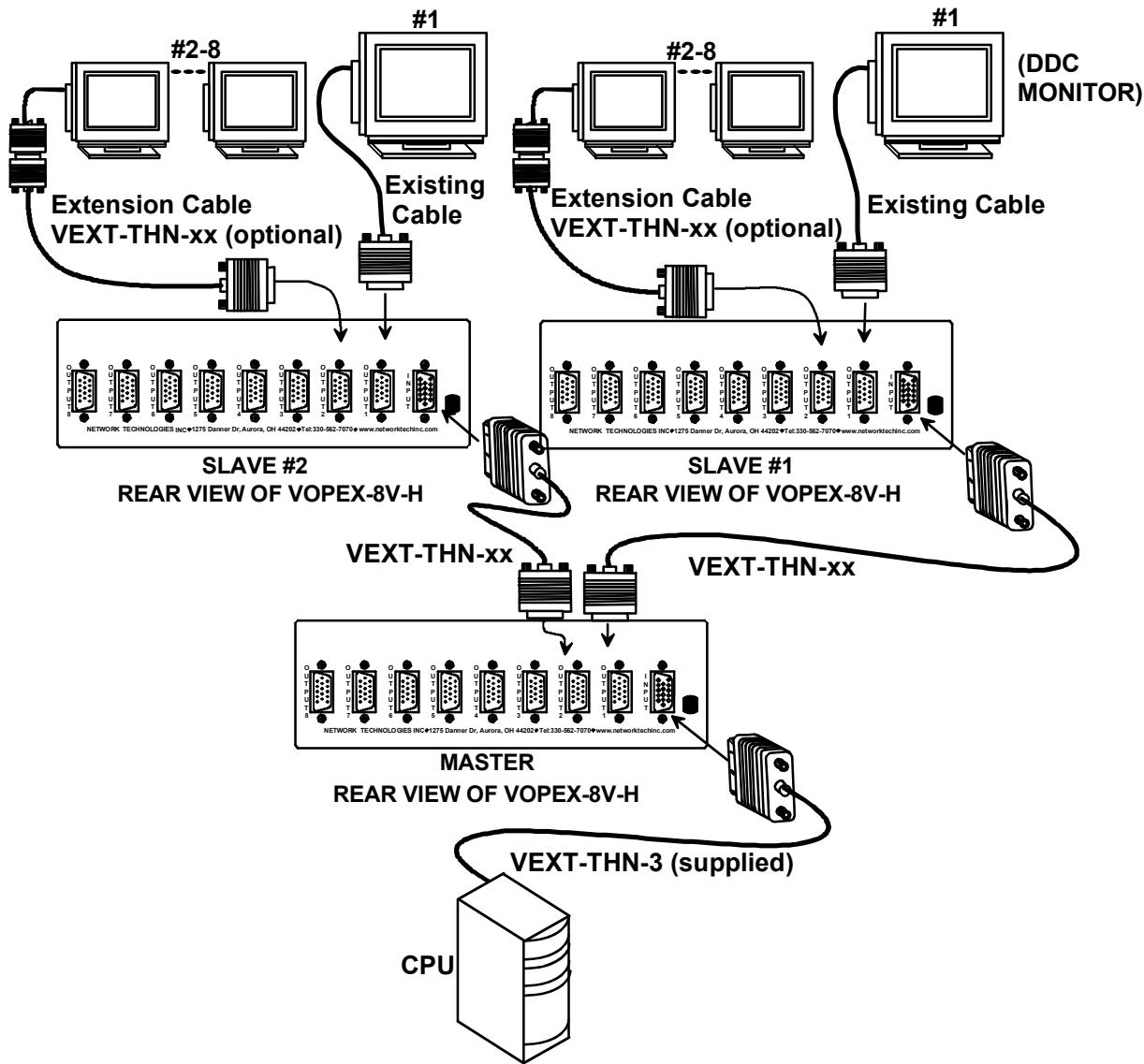


Figure 3- VOPEX-8V-H splitters in cascaded application

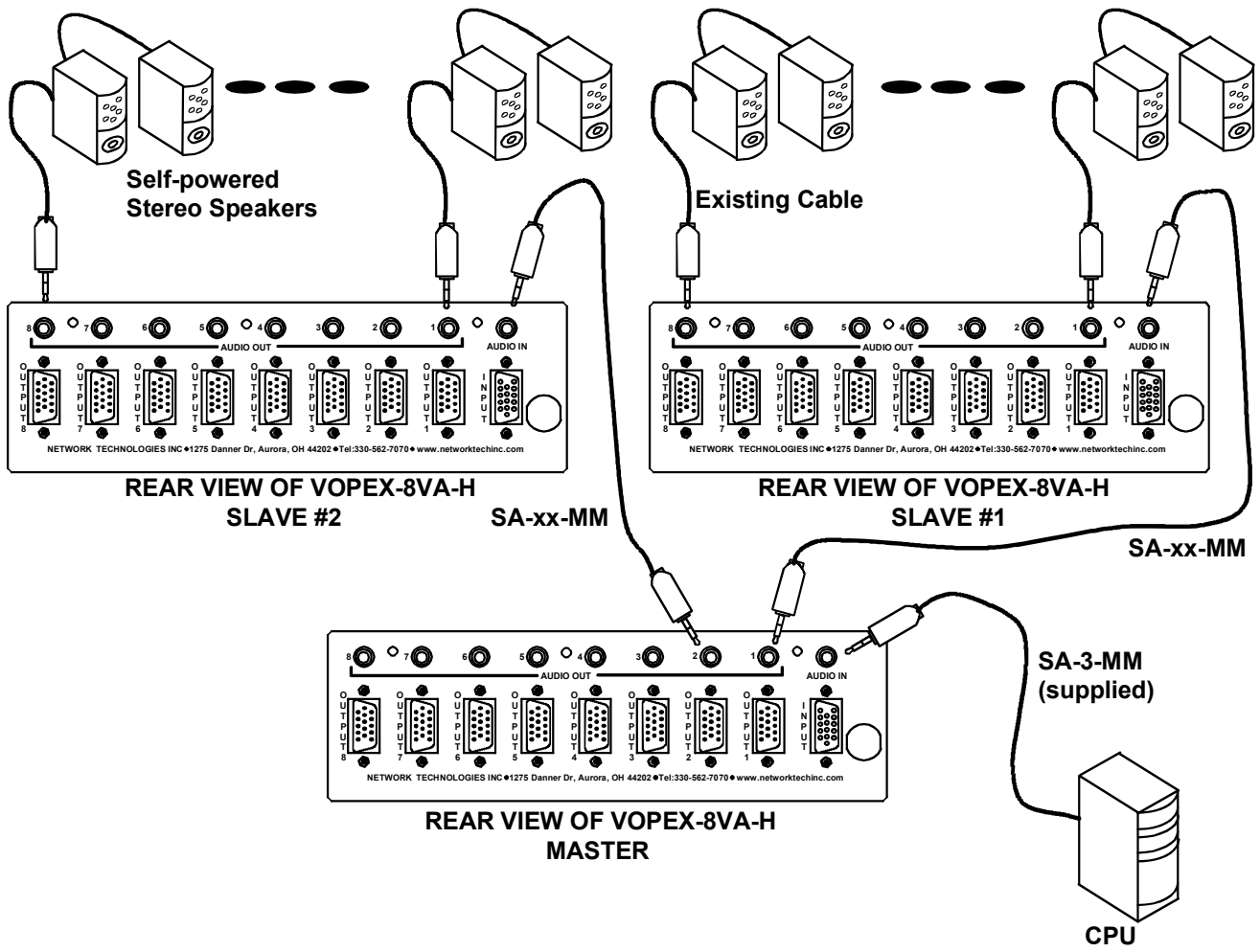
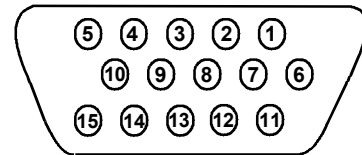


Figure 4- VOPEX-8VA-H splitters with cascading speakers

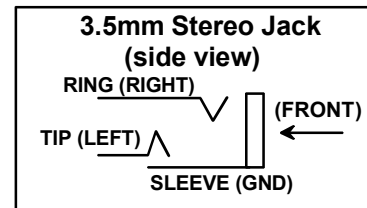
## TECHNICAL SPECIFICATIONS

### VIDEO INPUT/OUTPUT SIGNALS

PIN #	SIGNAL	PIN #	SIGNAL
1	RED	9	NC
2	GREEN	10	GND
3	BLUE	11	ID0
4	ID2	12	DDC DAT
5	GND	13	HS
6	GND	14	VS
7	GND	15	DDC CLK
8	GND		



Mating Face of a 15HD Male



<b>Video</b>	
Output Connectors	15HD female
Input Connector	15HD male
Compatibility	VGA, SVGA, XGA
Resolution	1900x1200 at 50 feet 1600x1200 at 100 feet
Bandwidth	150MHz
Max. Input level	1.45Vp-p
Input impedance	75 Ohms
Sync support	Separate and Composite TTL level sync and Sync On Green.
Sync input frequency ranges	Horizontal: 15 kHz to 130 kHz. Vertical: 30 Hz to 150 Hz.
<b>Audio</b>	
Connector	Stereo Audio Jack, 3.5mm
Input Impedance	10K
Load	Powered speakers, headphones (32 ohm)
Audio Frequency Range	20Hz - 20KHz +/-1dB
THD,%	0.012
Crosstalk	-82dB
<b>General</b>	
Operating Temperature	32°F to 100°F (0°C to 38°C)
Storage Temperature	-20°F to 140°F (-30°C to 60°C)
Operating and Storage Relative Humidity	17 to 90% non-condensing RH.
Power	110 or 220VAC at 50 or 60Hz
Regulatory approval	RoHS

## TROUBLESHOOTING

PROBLEM	SOLUTION
No Video	<ul style="list-style-type: none"><li>• Turn ON power to splitter</li><li>• Make sure cable connections are secure</li></ul>
Poor Resolution	<ul style="list-style-type: none"><li>• Make sure monitor is plugged into OUTPUT 1 on rear panel of splitter</li><li>• Make sure monitor supports the maximum resolution supported by the DDC monitor on OUTPUT-1</li></ul>

## WARRANTY INFORMATION

The warranty period on this product (parts and labor) is two (2) years from date of purchase. Please contact Network Technologies Inc at (800) 742-8324 (800-RGB-TECH) in the U.S. and Canada or 330-562-7070 (worldwide) for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

SERIAL NO: \_\_\_\_\_

DATE: \_\_\_\_\_

INSPECTED BY: \_\_\_\_\_

VOPEX-2V-H

VOPEX-4V-H

VOPEX-8V-H

VOPEX-16V-H

VOPEX-2VA-H

VOPEX-4VA-H

VOPEX-8VA-H