NETWORK TECHNOLOGIES INCORPORATED
1275 Danner Dr Tel:330-562-7070
Aurora, OH 44202 Fax:330-562-1999
www.networktechinc.com

XTENDEX® Series

ST-IPHDMI-2G

HDMI Over Gigabit IP Extender

Installation and Operation Manual

TRADEMARK

XTENDEX is a registered trademark of Network Technologies Inc in the U.S. and other countries.

COPYRIGHT

Copyright © 2012 by Network Technologies Inc. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Network Technologies Inc, 1275 Danner Drive, Aurora, Ohio 44202.

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 XTENDEX® HDMI Over Gigabit IP Extender multicasts digital video and audio signals to one or more receivers up to 333 feet away over a Second-Generation (2G) 1000BASE-T Gigabit Network connected with CAT5e/6/7 cable.

Each HDMI Over Gigabit IP Extender consists of a local unit that connects to an HDMI source, and a remote unit that connects to an HDMI display. The local and remote units can be connected together for a Point-to-Point connection, or through VLAN isolation on a managed network switch for a Point-to-Many connection.

Features:

- Supports HDTV resolutions to 1080p.
- Ideal solution for digital signage applications.
- Broadcast real-time HDMI video/audio to multiple display locations.
- Transmits an HDMI signal over one CAT5e/6/7 cable.
- Plug-and-Play installation allows receivers to find the transmitter automatically on the same network. (Network configuration may be required for Managed network switch.)
- Easily expandable. Add remote units as you add monitors.
- No image scaling, the original video signal that is input will be output at the source resolution.
- Integrated mounting wings for ease of installation.
- Inexpensive CAT5e/6/7 cable replaces bulky video cables.
- Support for multiple transmitters requires a Managed network switch with VLAN/IGMP support. Standard LAN switches can only support one transmitter.
    - Each VLAN acts as a separate HDMI Over IP Channel on the network.
    - One transmitter can connect up to 200 receivers using cascaded managed network switches.
- Use a PC to access the built-in HTTP Interface of the managed network switch to control what signal is being watched at each location.
- Use a Telnet client to access any receiver on the VLAN or network.
- HDCP compliant.

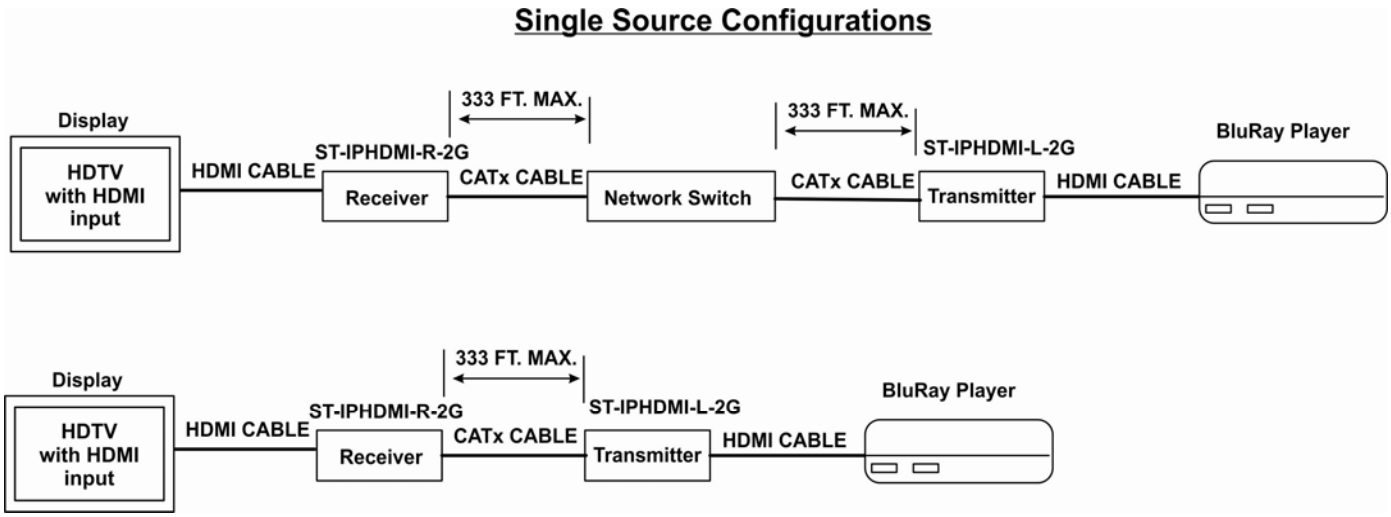
INSTALLATION

Single HDMI Source- One or More Displays

For an installation involving a single HDMI source and one or more displays, the user needs only to:

1. Connect the HDMI cables between source and Transmitter
2. Connect the HDMI cables between display(s) and Receiver(s)
3. Apply power to the Transmitter and Receivers
4. Connect Transmitter and Receivers to the Ethernet Switch (all Receivers and the Transmitter must be connected to the same subnet) or if only one receiver you can actually connect the Transmitter directly to the Receiver.

The Transmitter and Receivers will automatically sense each other and connection(s) will be made.

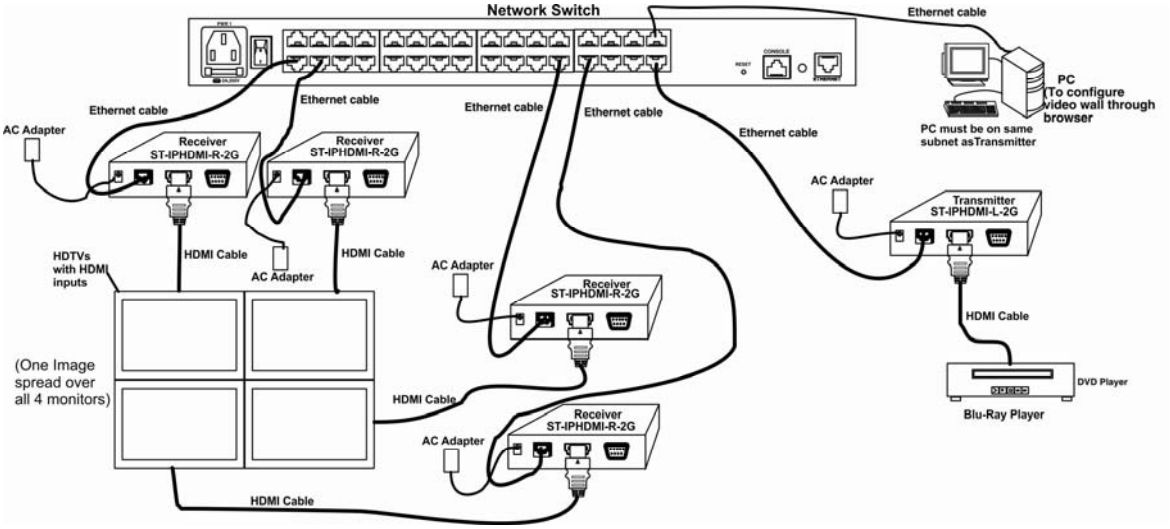


Multiple HDMI Source- One or More Displays

For an installation involving multiple HDMI sources and one or more displays, a managed network switch with VLAN/IGMP support will be required to control which Transmitter is sending HDMI to the Receivers. Connections will be made just as they were with a single-source installation.

Video Wall Support

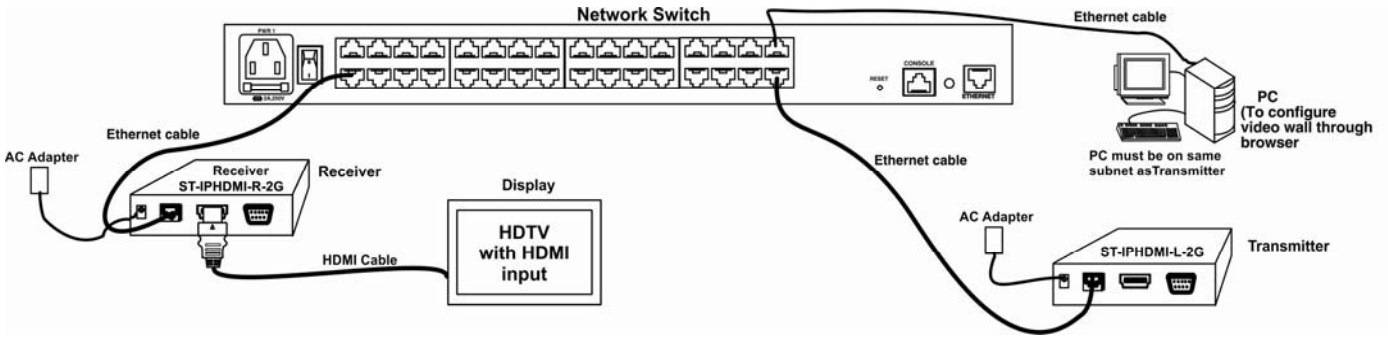
The ST-IPHDMI-2G also supports video wall installations, with configurations from as small as 1x2 to up to 8x8 and everything in between.



To configure a video wall, these steps must be followed:

1. Determine the IP address of the Transmitter.

To locate the IP address of the Transmitter you must connect a Transmitter and a Receiver as shown below. Once these connections are made, power on the Transmitter, Receiver, Network Switch, and Display. DO NOT connect a video source yet.



With these connections made, the display will present the IP address of the Receiver ("Local IP") and of the Transmitter ("Remote IP").

```
FW: <Date>
Local IP:  169.254.xxx.xxx
Remote IP: 169.254.xxx.xxx
ID:  xxxxxxxxxxxx
```

```
FW: 11-Sep-06 01:48
Local IP: 169.254.0.113
Remote IP: 169.254.1.25
ID: C2000000000C
```

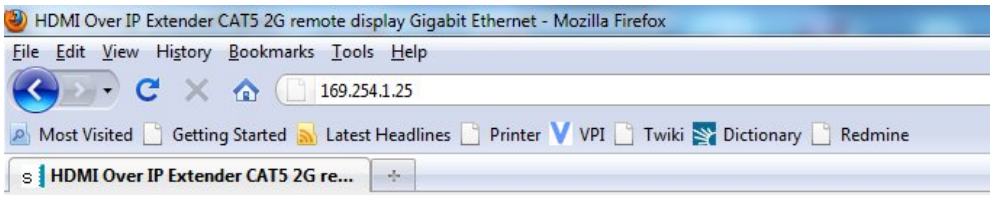
(Example)

2. Connect to the Web Setup Utility

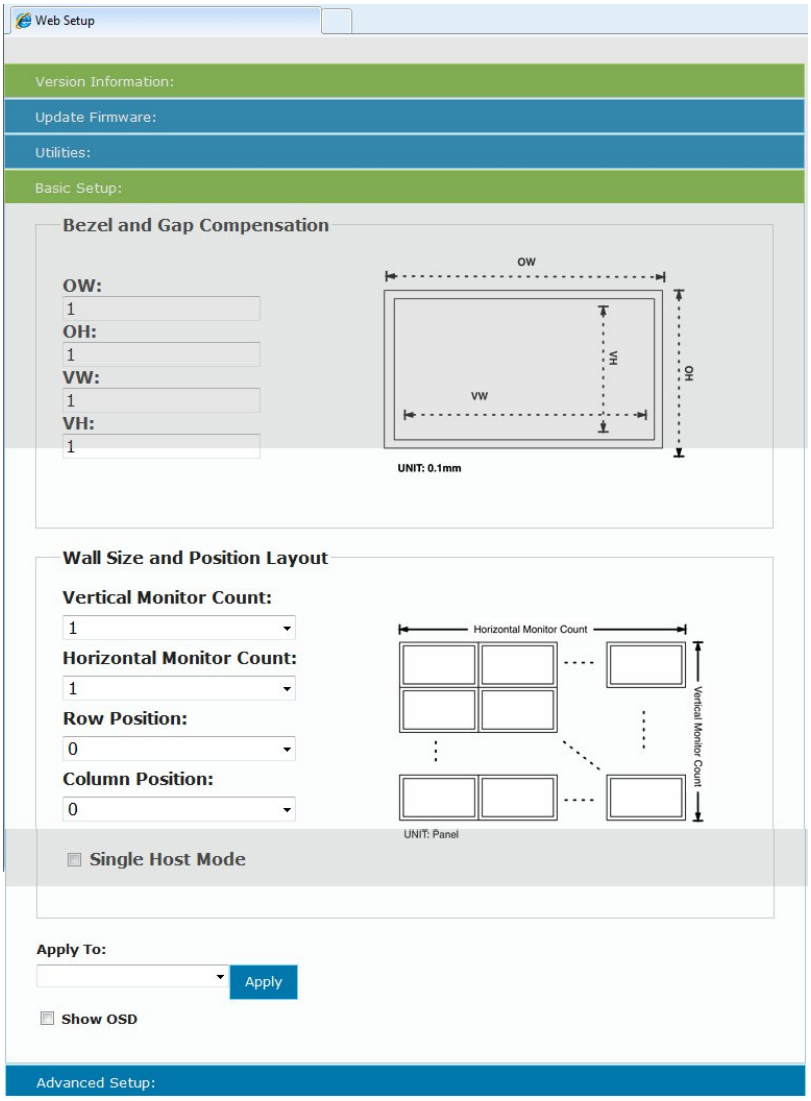
NOTE: To connect to the Web Setup Utility in the transmitter your PC must be on the same subnet as the Transmitter.

A. Open a browser on the PC connected to the Network Switch.

B. Enter the IP address of the Transmitter (Remote IP in the example above) in the URL bar.



C. The Web Setup utility will open:



3. Connect all Receivers and Displays

Connect all receivers and displays to the network switch that will be included in the video wall. Make sure all are powered ON. Each should have an OSD screen displaying unique “Local IP” and the same “Remote IP” addresses.

4. Configure the Video Wall

Under the “Basic Setup” section, fill in the blanks with applicable information.

A. The **Bezel and Gap Compensation** values will setup the dimensions of the image from the transmitter that will be allocated to each display. Measurement values are in millimeters.

B. Under **Wall Size and Position Layout**, enter the dimensions for the configuration of your video wall in “Vertical Monitor Count” and “Horizontal Monitor Count”.

C. Enter the Row Position and Column position of one of the display monitors.

D. Under Apply To, select from the drop down box the IP address of the client (display) being configured.

E. Click on “Apply” to configure that client and that portion of the video wall.

F. Change the Row Position, Column Position, and client IP address for each display to be configured, and click on “Apply” for each one of them.

5. Connect the Video Source

Once each Receiver (client) has been configured, connect the Transmitter to the HDMI source. Your video image should be split equally over each display.

WARRANTY INFORMATION

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at **(800) 742-8324** (800-RGB-TECH) or **(330) 562-7070** or visit our website at **http://www.networktechinc.com** for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.