

Player VIP User's Manual



About the Cover Image

The cover image illustrates a Player VIP V2.0. A wireless version of the Player VIP that includes an external antenna is available also. This manual is applicable to both products.

About this Manual

This manual describes how to use a Player VIP in your Video over IP application. It is intended for system integrators and end-users.

Organization of this Manual

The manual organizes information in seven key sections:

Introduction	Provides an overview of features and organization of the Player VIP.
Getting Started	Describes the Player VIP development system.
Hardware Reference	Defines location and function of connectors and indicators on the Player VIP.
System Configuration	Gives details on configuration of the Player VIP, as well as modes of operation.
Troubleshooting	Lists troubleshooting tips.
System Specifications	Includes mechanical, environmental, and electrical specifications.
Revision History	Identifies and explains product revisions.

To locate the information you need, try the following:

1. Browse the *Table of Contents*.
2. Follow cross-references between sections.
3. View and search this manual in PDF format.

Printing this Manual

This manual is designed for printing on both sides of an 8.5x11 inch paper sheet or two pages per sheet but can be printed single-sided also.

Revision History

The following table summarizes the changes made between released revisions of the manual.

Revision	Description	By
1	Preliminary release	07/17/08 ch

Errata, Addenda, and Further Information

Errata and addenda to this manual are posted on the Eurotech support forums along with the latest release of the manual. Consult the support forums any time you need further information or feel information in this manual is in error. You may access the forums from the Eurotech support site,

<http://www.eurotech.com>

In addition to manuals, the support forums include downloads, troubleshooting guides, operating system updates, and answers to hundreds of questions about developing applications for Eurotech products. You may also post questions you have about Eurotech products on the forums.

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1 Introduction

1.1 Overview

The Player VIP is a MPEG-4/MPEG-2 decoder providing a flexible and cost-efficient Video over IP (VIP) solution for distributed media systems. The Player VIP converts a digital video stream to NTSC or PAL analog video and stereo audio outputs. The stream can originate from a Streamer VIP video encoder, the VideoCenter software application, or local storage. The Player VIP receives the video streams and displays the video locally.

The Player VIP supports three modes of operation: Live, Video On Demand (VOD), and Video Over Hard Drive (VOHD). In Live mode, the Player VIP displays a stream from a Streamer VIP, while the VideoCenter provides the stream in VOD mode. During VOHD mode, the Player VIP plays back video files stored locally. An Internet browser configures the Player VIP allowing easy customization to meet the needs of various media systems. The Player VIP is ideal for entertainment, digital signage, and security applications.

This document applies to the latest revision of the Player VIP, as listed in the revision history Section 7.

1.2 Features

1.2.1 Processor

- MIPS processor
- MPEG-4/MPEG-2 decoding engine

1.2.2 Power Supply

- 12 V main power input

1.2.3 Memory

- 32 MiB synchronous DRAM ¹
- 4 MiB Flash memory
- CompactFlash (CF), Type II

1.2.4 Communications

- 10/100 Mbps Ethernet, RJ-45
- 802.11g/b wireless (optional)
- USB 1.1 Host port
- EIA-232 Serial port

¹ MiB is the IEC abbreviation for mebibyte = 2^{20} byte = 1 048 576 byte. The kibi and mebi abbreviations are based on the 1998 IEC standard for binary multiples. For further reading, see the US NIST web site, <http://physics.nist.gov/cuu/Units/binary.html>.

1.2.5 Video

- Video over IP input
- VGA, S-Video, and composite video outputs
- Video resolution up to NTSC (720 x 480) and PAL (720 x 576)
- Frame rate up to 30 fps for NTSC and 25 fps for PAL
- MPEG-4/MPEG-2 image decompression
- AVI, VOB, and MPG file formats
- Data rate up to 8 Mbps

1.2.6 Audio

- Stereo audio output

1.2.7 User Interface

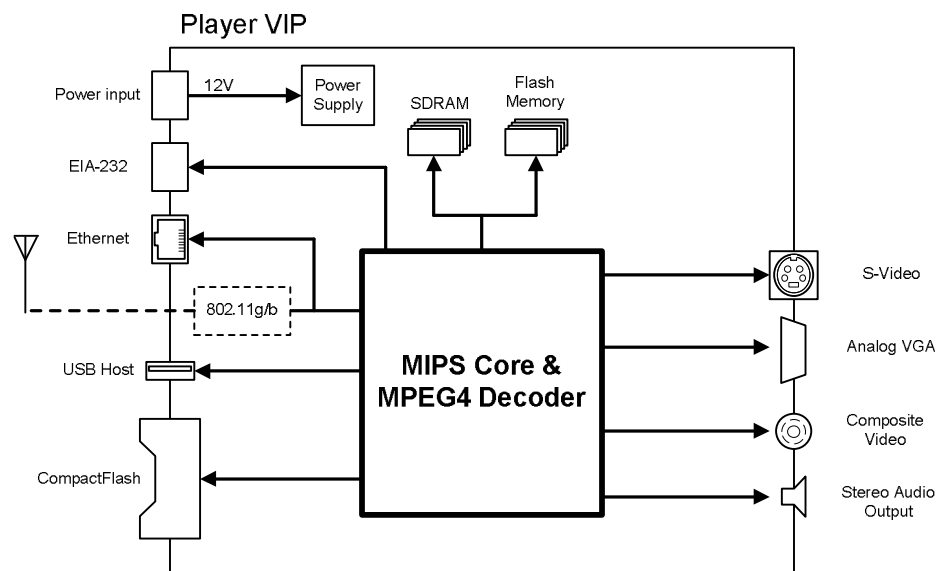
- Configuration through Internet browser
- Static and dynamic IP assignment
- Password protection

1.2.8 Mechanical

- 170 mm x 109 mm x 48 m m dimensions

1.3 Block Diagram

The following diagram illustrates the hardware architecture of the Player VIP. Arrows indicate direction of control and not necessarily signal flow.



2 Getting Started

This section provides information on the initial use of the Player VIP development system.

2.1 Development System

The design of the Player VIP development system gets your video over IP system up and running quickly. The default settings display video from a CF card to your VGA monitor with no additional configuration required.

2.1.1 Components

The Player VIP development system consists of the following components:

- Player VIP
- CF card
- 12 VDC power adapter
- Ethernet crossover cable
- VGA cable
- S-video cable
- User's Guide
- VideoCenter application (optional)

Please make sure you have received *all* the components before you begin your installation.

2.1.2 Connectivity



Connect the Player VIP Development System

To use the Player VIP, complete the following steps:

1. Connect the VGA video output to your monitor.
2. Insert the CF card.
3. Connect the power input to the 12 VDC adaptor.

Upon boot, the power LED located on the front panel lights indicating power to the system. A boot screen appears followed by the IP address and subnet mask for approximately 20 seconds.

The following are the default settings for the Player VIP development system:

- IP Address 192.168.0.221
- Subnet Mask 255.255.255.0

After boot, video stored on the CF card plays continuously on the monitor.

2.2 *Optional Software*

VideoCenter is a Windows®-based application supporting the Player VIP decoder in VIP systems. The application runs on a computer connected to the same network as Player VIP and allows you to manage the media displayed by Player VIP.

Two service modes are supported simultaneously: VOD and VOHD. In VOD mode, VideoCenter streams MEDIA files to the Player VIP. In VOHD mode, VideoCenter copies files to the Player VIP local storage and sets the play schedule. VideoCenter supports a stand-alone Player VIP or multiple units.

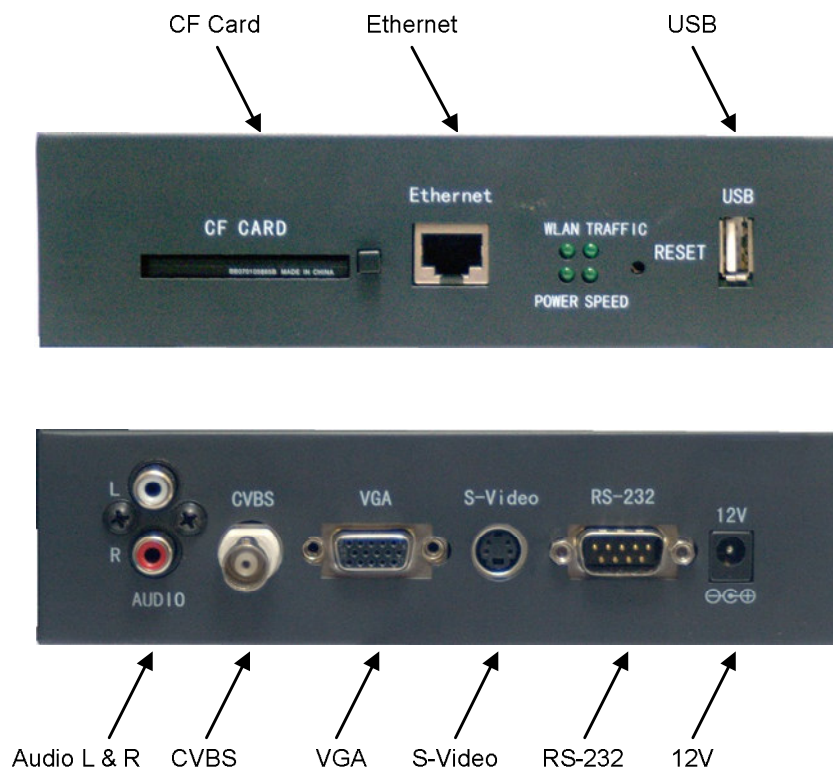
See the VideoCenter User's Manual for a complete description of this application.

3 Hardware Reference

This section gives an overview of the hardware features of the Player VIP. The overview includes location and function of connectors, indicators, and switches.

3.1 Connectors

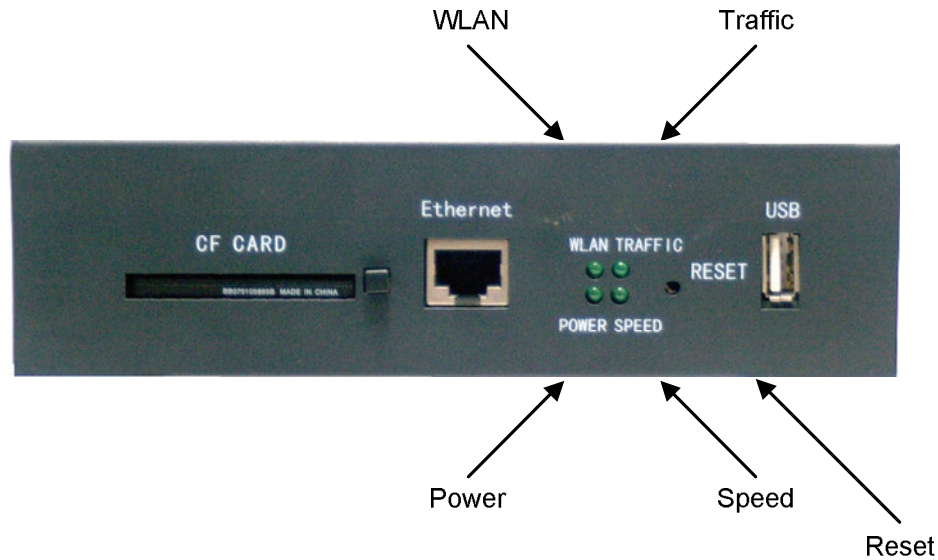
The following diagram illustrates the location of connectors on the Player VIP, while the table provides details about connector type and functionality.



Connector	Enclosure Connector	Mating Connector	Description
CF Card	CompactFlash Type II socket	CompactFlash Type II card	CompactFlash interface
Ethernet	RJ-45 jack	RJ-45 plug	10/100 Mbps Ethernet network
USB	USB Type A receptacle	USB Type A plug	USB 1.1 Host port
Audio L & R	RCA jack	RCA plug	Audio output
CVBS	BNC socket	BNC plug	Composite video output
VGA	DE-15 socket	DE-15 plug	VGA video output
S-Video	mini-DIN socket 4-pin	mini-DIN plug 4-pin	Separate video output
RS-232	DB-9 socket	DB-9 plug	Serial interface
12 V	DC socket 2 mm	DC plug 2 mm	12 VDC power input
Wireless Antenna (optional)			Wireless network adapter

3.2 Indicators and Switches

The Player VIP has four onboard light-emitting diodes (LEDs) indicating system operation, in addition to a reset switch. The following diagram illustrates the location of the LEDs and reset switch, while the table describes LED functionality.



LED	Description
WLAN	On indicates a wireless card is installed.
Traffic	Blinking indicates Ethernet activity.
Power	On indicates power to the Player VIP.
Speed	On indicates the network is operating at 100 Mbps.

The reset switch is located on the front panel of the enclosure. Pressing this switch for more than 5 seconds restores the factory-default system settings. This system reset requires several seconds.

4 System Configuration

The Player VIP provides a flexible solution for a variety of VIP applications. You can easily configure the Player VIP to meet your existing media system structure. This section provides details on this customization that include web server access, system updates and settings, output configuration, network configuration, and modes of operation.

4.1 Web Server Access

A browser-based application configures the Player VIP. A computer connected to your network and running a standard internet browser such as Internet Explorer® accesses the Player VIP web server. The following sections explain the steps to access the web server of the Player VIP.

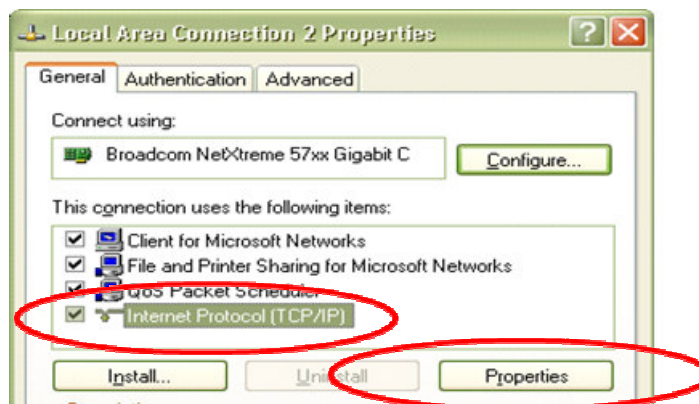
4.1.1 Crossover Cable Connection

To configure the Player VIP prior to installation in your network, connect the system directly to a computer without a hub or switch. Use an Ethernet crossover cable between the Ethernet port of the Player VIP and the computer. The computer's network properties must be configured to access the Player VIP.

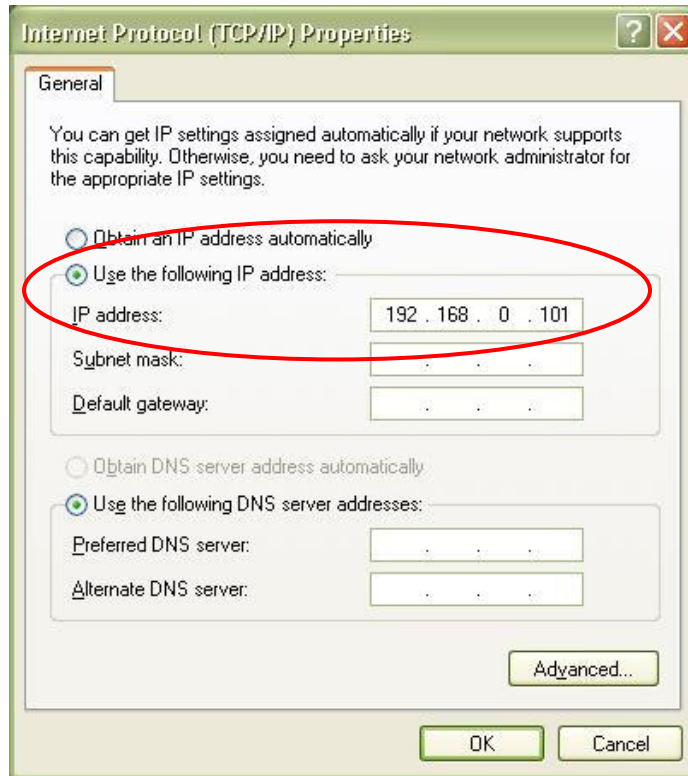
Configure Local Area Network (LAN) Properties

The following steps describe the settings for the Windows operating system:

1. Open the Network Connections window.
2. Click the right mouse button on Local Area Connection.
3. Open the Properties window.
4. In the General tab, select Internet Protocol (TCP/IP).
5. Click the Properties button as show in the following screen capture.



6. Select the Use the following IP address check box.
7. Type the IP address as shown in the following screen capture.
8. Click the OK button.



When finished configuring the Player VIP, restore your computer's previous network settings.

4.1.2 Password-Protected Login

Accessing the web server requires a password-protected account. The Player VIP is shipped with a default administrative account. You can add or delete accounts as described in Section 4.1.3.

Log in to Web Server

To log in to the Player VIP web server, complete the following steps:

1. Start the web browser on your computer.
2. Type the Player VIP IP address in the browser URL.

The following URL is the default login:

- URL `http://192.168.0.221`

The following login window appears.



3. Type the account information for User name and Password.

The following is the default account information:

- User name `admin`
- Password `admin`

4. Click the OK button.

After login, the web server automatically displays the System page.

4.1.3 Account Management

In addition to the default administrative account, you can add up to 10 accounts and remove accounts in the Account page.

Manage User Accounts

To add or delete an account, complete the following steps:

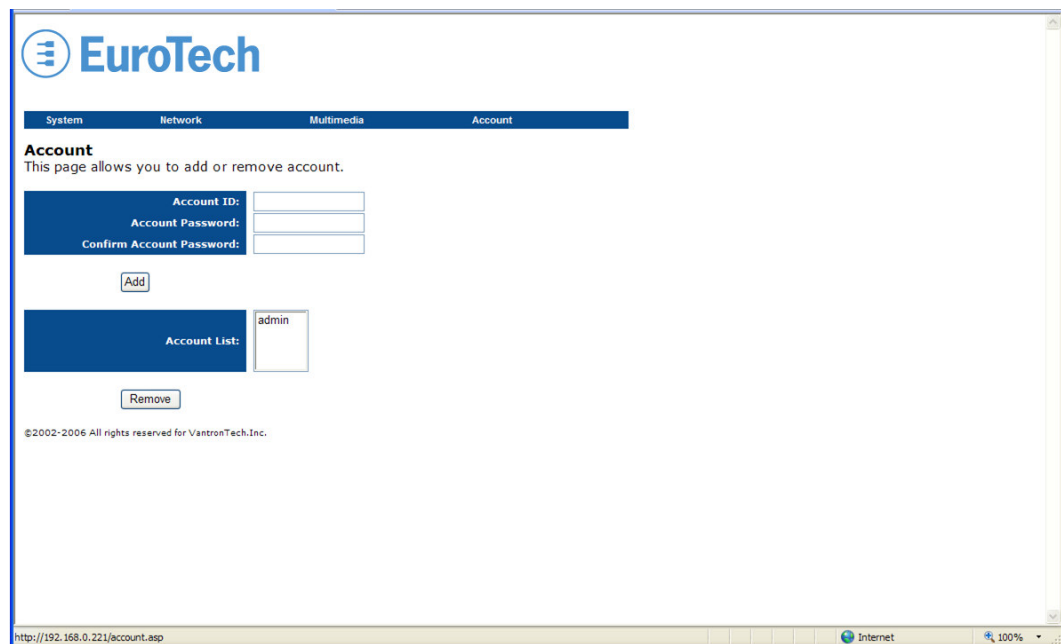
1. Navigate to the Account page.
2. To add an account, complete the following steps:
 - a. Type a new ID in the Account ID box.
 - b. Type a new password in the Account Password box.
 - c. Re-type the new password.
 - d. Click the Add button.

The new account is added, and the account ID is displayed in the Account List.

3. To delete an account, complete the following steps:
 - a. Select the unwanted account in the Account List box.
 - b. Click the Remove button.

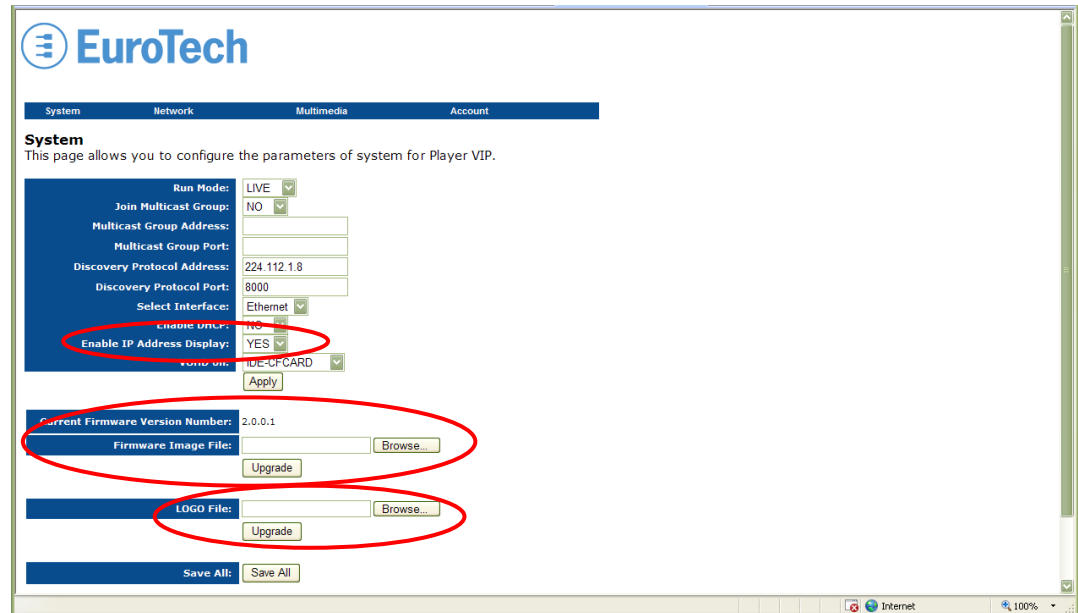
The account is removed, and a new login window prompts you to log in again.

All accounts have the same system privileges. The following screen capture is the default Account page.



4.2 System Updates and Settings

The web server enables you to perform a variety of system upgrades and settings that include upgrading the Player VIP firmware, changing the logo in the header of the pages, controlling the IP address display at boot, and restoring the factory-default settings. The following screen capture identifies these features.



4.2.1 Firmware Upgrades

You can upgrade the firmware using the web server. Notice that the System page contains the current firmware version number.

Upgrade Firmware

To upgrade to a new version of firmware, complete the following steps:

1. Navigate to the System page.
2. Click the Browse... button on the right side of the Firmware Image File box.

You can browse your disk drive for the firmware file.

3. Select the firmware file, and then click Open.

The highlighted file appears in the Firmware Image File box.

4. Click the Upgrade button following the Firmware Image File box.

The Player VIP saves all settings and reboots to validate the change. Do not interrupt the upgrade process or disrupt the power to the Player VIP until the upgrade is complete.

5. Close the web browser.
6. Log in to the web server again.

The new firmware version number appears in the Current Firmware Version Number field.

4.2.2 Logo

The Player VIP is shipped with a default logo in the header of each web page. You can change to your company's logo using the web server.

Change Logo

To change the logo, complete the following steps:

1. Navigate to the System page.
2. Click the Browse... button on the right side of the LOGO File box.
You can browse your disk drive for the logo file.
3. Select the logo file, and then click Open.
The highlighted file appears in the LOGO File box.
4. Click the Upgrade button following the LOGO File box.
5. Click the Save All button.
The Player VIP saves the new logo and reboots to validate the change.
6. Close the web browser.
7. Log in to the web server again.

The new logo appears in the header.

4.2.3 IP Address Display

With the default settings, the Player VIP IP address is displayed following the boot screen. You can disable this display, and the IP address does not appear at boot.

Control IP Address Display

To control if the IP address displays at boot, complete the following steps:

1. Navigate to the System page.
2. From the Enable IP Address Display list, choose YES or NO.
3. Click the Apply button.
4. Click the Save All button.

The Player VIP saves the setting and reboots to validate the change.

4.2.4 Factory Settings

The Player VIP is shipped with factory-default settings as given in each section of this manual. In addition to pressing the reset switch as described in Section 3.2, you can restore the factory-default settings using the web server.

Restore Factory Settings

To restore the factory-default system settings, complete the following steps:

1. Navigate to the System page.
2. Click the Restore button.

The Player VIP restores all factory-default settings and reboots to validate the change.

4.3 Output Configuration

This section details configuration of the video and audio outputs of the Player VIP.

4.3.1 Video

The Player VIP supports VGA, S-Video, and composite video outputs at resolutions up to NTSC (720 x 480) and PAL (720 x 576). The VGA and S-Video outputs cannot be used concurrently; therefore, you must select one or the other. The composite video output is available independent of the video type selection.

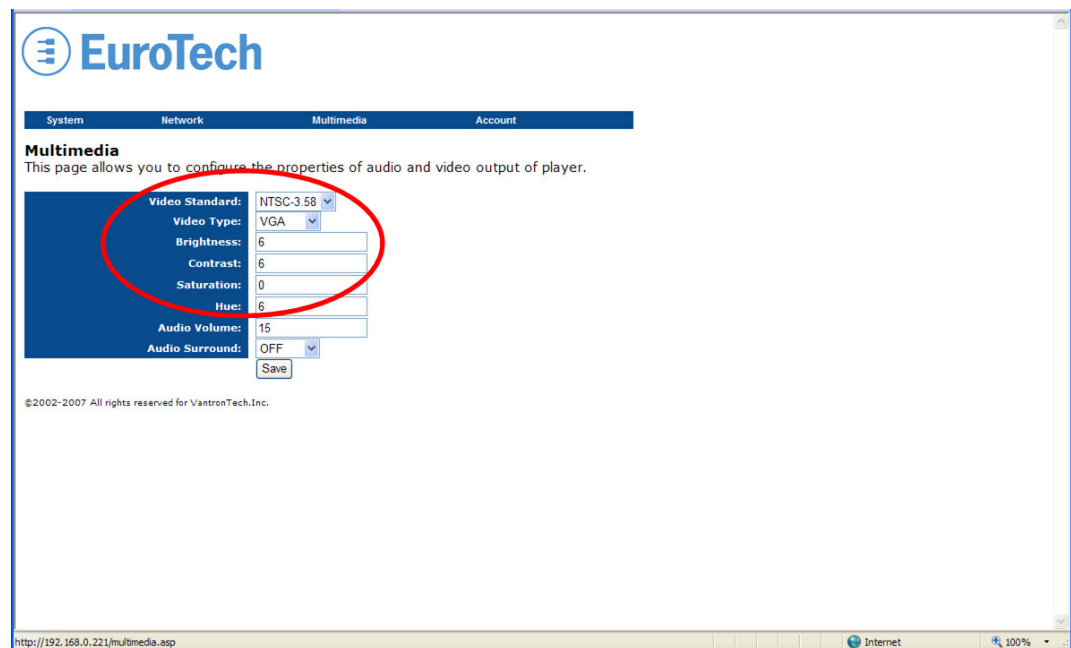
Configure Video Output

To configure the Player VIP video output, complete the following steps:

1. Navigate to the Multimedia page.
2. From the Video Standard list, choose PAL, NTSC-3.58, or NTSC-4.43.
3. From the Video Type list, choose VGA or S-Video.
4. Type values into the Brightness, Contrast, Saturation, and Hue boxes. Valid values are 0-15.

The following screen capture contains the default values for the display:

- Video Standard NTSC-3.58
- Video Type VGA
- Brightness 6
- Contrast 6
- Saturation 0
- Hue 6



5. Click the Save button.
6. Navigate to the System page.
7. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change.

4.3.2 Audio

The Player VIP provides a direct stereo audio connection. No external amplifier is required. You can adjust the audio volume and select surround options using the web server.

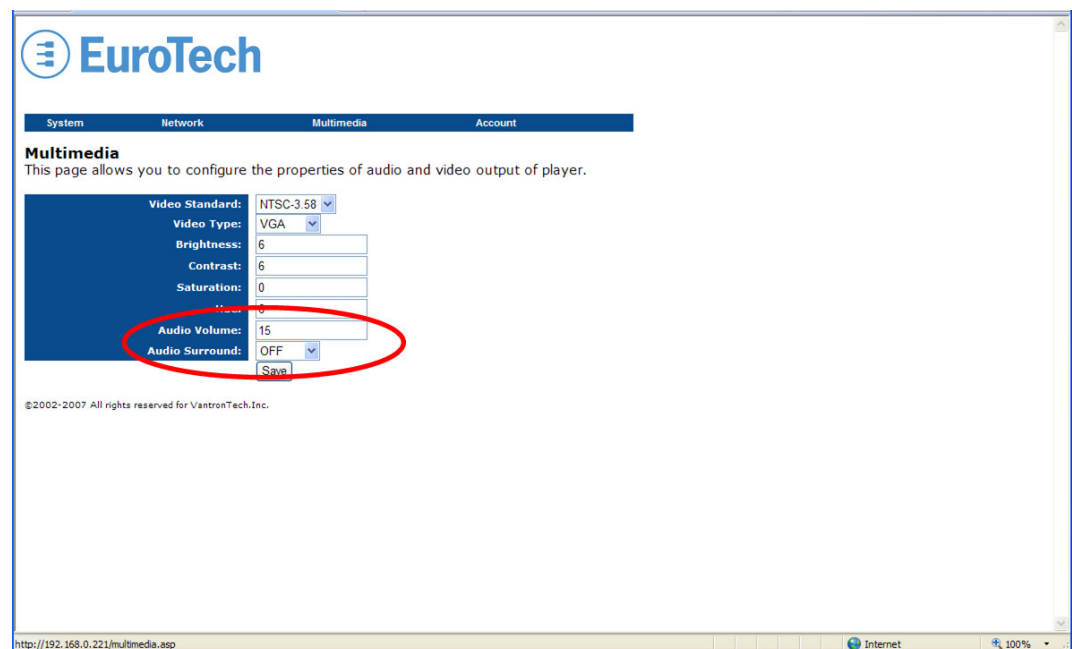
Configure Audio Output

To configure the Player VIP audio output, complete the following steps:

1. Navigate to the Multimedia page.
2. Type a value into the Audio Volume box. Valid values are 0-15.
3. From the Audio Surround list, choose OFF, Concert, Church, Passive, or Line.

The following screen capture contains the default values for the audio output:

- Audio Volume 15
- Audio Surround OFF



4. Click the Save button.
5. Navigate to the System page.
6. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change.

4.4 Network Configuration

Player VIP is easily customized to operate in any network. You can select the network interface and can change the network settings of the Player VIP. In addition, multiple Player VIPs can connect to the same LAN. Multiple Player VIPs operate in discovery groups and multicast streaming groups. This section explains the various network configurations.

4.4.1 Interface

The Player VIP supports 10/100 Mbps Ethernet and 802.11g/b wireless networks. An optional wireless network adapter provides wireless network communications.

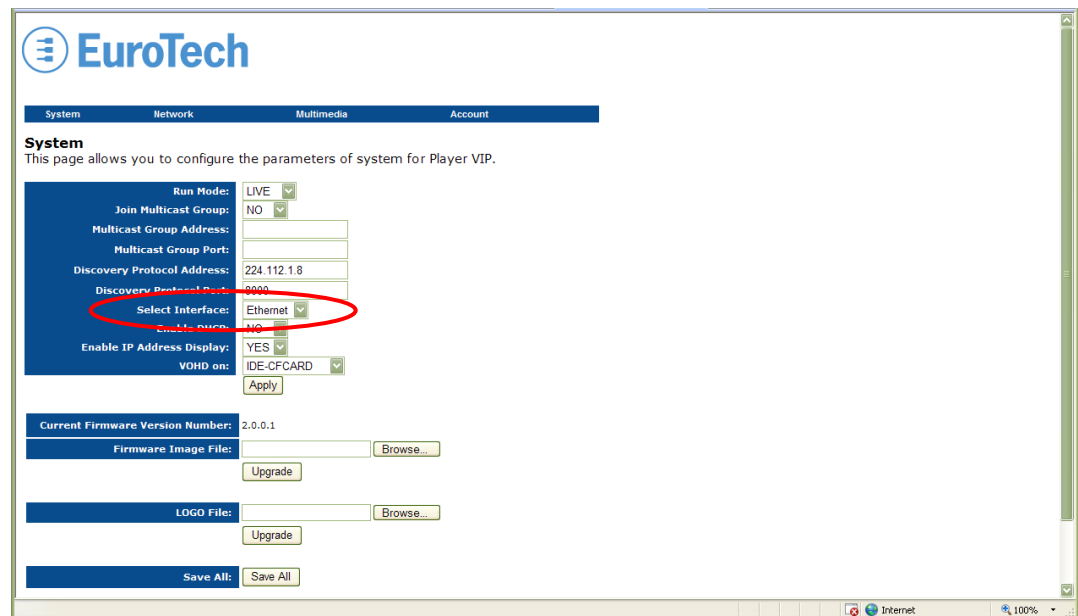
Configure Network Interface

To configure the network interface, complete the following steps:

1. Navigate to the System page.
2. From the Select Interface list, choose Ethernet or Wireless.

The following screen capture contains the default interface selection:

- Select Interface Ethernet



3. Click the Apply button.
4. Click the Save All button.

The Player VIP saves the setting and reboots to validate the change.

4.4.2 Settings

Player VIP is shipped with default network settings. Ethernet settings include IP address, subnet mask, and default gateway, while wireless LAN settings include IP address, subnet mask, default gateway, and ESSID. You can assign these values statically or using dynamic host configuration protocol (DHCP).

Configure Network Settings

To change a network setting, complete the following steps:

1. Navigate to the System page.
2. From the Enable DHCP list, choose YES or NO.
Choose YES to allow the DHCP server to assign a dynamic IP address. Choose NO to assign a static IP address.
3. Click the Apply button.
4. To assign the network settings statically, complete the following steps:
 - a. Navigate to the Network page.
 - b. Type values into the IP Address, Subnet Mask, Default Gateway, and ESSID boxes.

The following are the default values for an Ethernet network connection:

- Ethernet IP Address 192.168.0.221
- Ethernet Subnet Mask 255.255.255.0
- Ethernet Default Gateway 192.168.0.1

The following are the default values for a wireless network:

- Wireless LAN IP Address 192.168.1.221
- Wireless LAN Subnet Mask 255.255.255.0
- Wireless Default Gateway 192.168.1.1
- Wireless LAN ESSID G1000

The following screen capture contains the default values for the network settings:

The screenshot shows the EuroTech Network configuration page. The page title is "Network" and it includes a navigation bar with "System", "Network", "Multimedia", and "Account". The main content area is titled "Network" and contains the following fields:

Ethernet MAC Address:	00:60:0c:01:68:03
Ethernet IP Address:	192.168.0.221
Ethernet Subnet Mask:	255.255.255.0
Ethernet Default Gateway:	192.168.0.1
Wireless LAN MAC Address:	0C:10:28:D2:0C:10
Wireless LAN IP Address:	192.168.1.221
Wireless LAN Subnet Mask:	255.255.255.0
Wireless Default Gateway:	192.168.1.1
Wireless LAN ESSID:	G1000
netCast Streamer IP address:	192.168.0.187
netCast Streamer streaming port:	5119
netCast Streamer control port:	5118

Below the fields is an "Apply" button. At the bottom of the page, there is a copyright notice: "©2006-2008 All rights reserved for VantronTech, Inc."

5. Click the Apply button.
6. Navigate to the System page.
7. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change.

4.4.3 Discovery Protocol Groups

The VideoCenter application supports multiple Player VIPs connected to the same LAN. The Player VIPs join a discovery group designated by the Discovery Protocol settings. VideoCenter discovers all Player VIPs that have joined this discovery group. Discovery groups can include stand-alone Player VIPs and multiple Player VIPs configured for multicast streaming. VideoCenter supports unicast and multicast configurations on the same LAN. Set the Discovery Protocol Address and Discovery Protocol Port of all Player VIPs and VideoCenter the same. See the VideoCenter User's Manual for instructions on configuring the application for multiple Player VIPs.

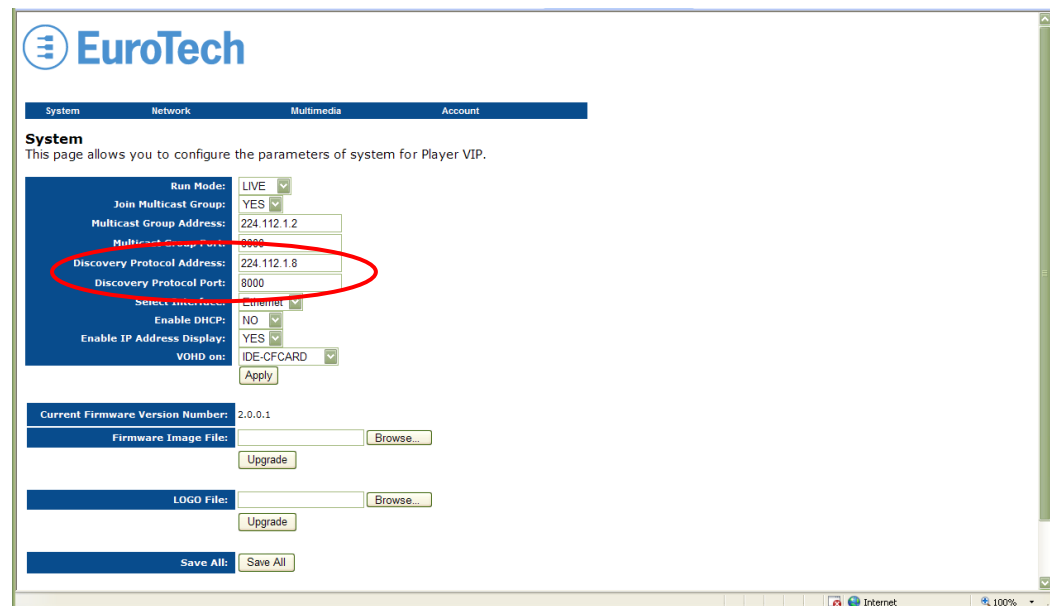
Configure Discovery Protocol Settings

To allow VideoCenter to discover the Player VIP, complete the following steps:

1. Navigate to the System page.
2. Type values into the Discovery Protocol Address and Discovery Protocol Port boxes.

The following screen capture contains the default settings for the discovery group:

- Discovery Protocol Address 224.112.1.8
- Discovery Protocol Port 8000



3. Click the Apply button.
4. Click the Save All button.

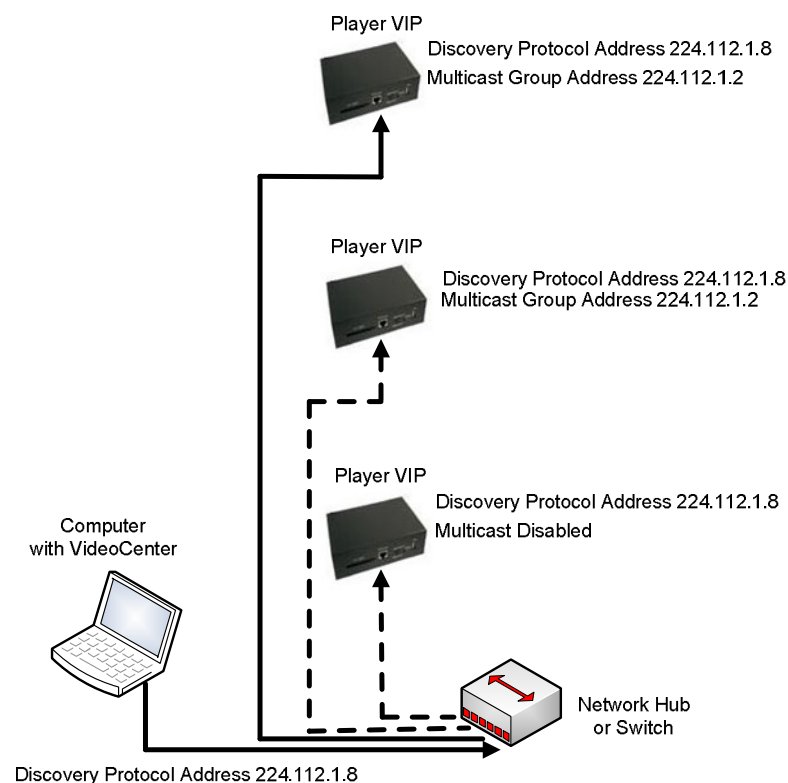
The Player VIP saves all settings and reboots to validate the change. After reboot, VideoCenter detects all Player VIPs that have joined the assigned discovery group.

4.4.4 Multicast Configuration

IP multicast is an efficient method to send information from one sender to multiple receivers simultaneously. The receivers join a multicast group designated by a multicast group address. The sender sends its data packets to the multicast group address without knowledge of the individual receivers. All receivers that have joined the group receive the data packets.

In multicast configuration, one source such as a Streamer VIP or VideoCenter streams video to many Player VIPs. By default, multicast is disabled. You configure the Player VIP for multicast streaming using the web server. If the source is the Streamer VIP, set the Multicast Group Address and Multicast Group Port of the Player VIP and the Streamer VIP the same. If the source is VideoCenter, set the Discovery Protocol Address and Discovery Protocol Port of all Player VIPs the same as those of VideoCenter, in addition to setting the Multicast Group Address and Multicast Group Port of each Player VIP. See the Streamer VIP User's Manual and VideoCenter User's Manual for additional instructions on multicast configuration.

The following example network includes one unicast Player VIP and one multicast streaming group. Notice that the multicast streaming group address and discovery group address must be different.



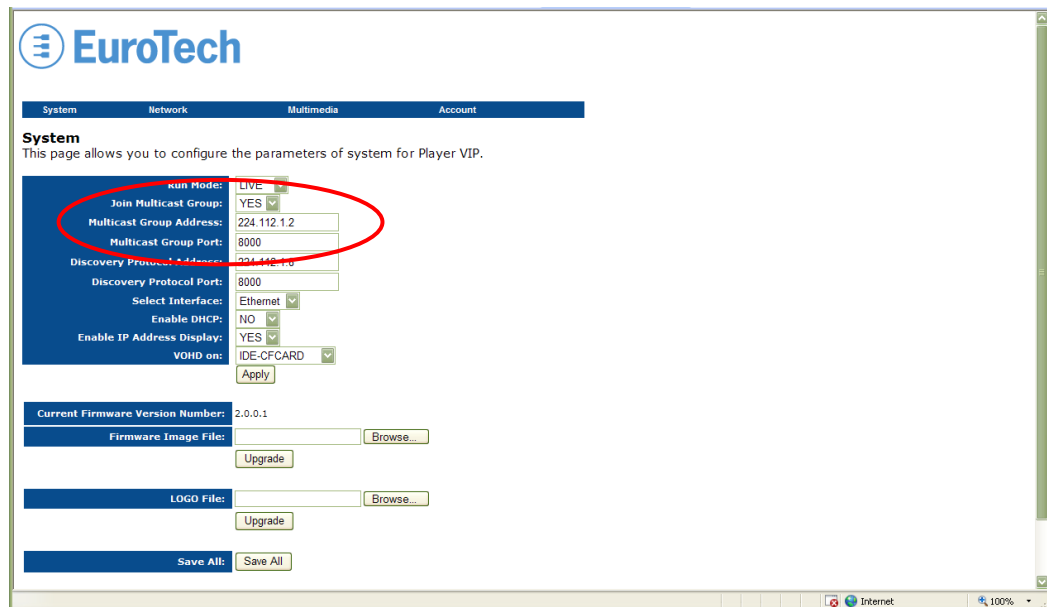
Configure Multicast Settings

To enable multicast streaming, configure the multicast settings as follows:

1. Navigate to the System page.
2. From the Join Multicast Group list, choose YES.
3. Type values into the Multicast Group Address and Multicast Group Port boxes.

The following screen capture illustrates settings for a multicast group:

- Multicast Group Address 224.112.1.2
- Multicast Group Port 8000



The screenshot shows the EuroTech System Configuration interface. The 'System' tab is selected, and the 'Join Multicast Group' setting is set to 'YES'. The 'Multicast Group Address' is set to '224.112.1.2' and the 'Multicast Group Port' is set to '8000'. Other settings include 'Discovery Protocol Address' (224.112.1.2), 'Discovery Protocol Port' (8000), 'Select Interface' (Ethernet), 'Enable DHCP' (NO), 'Enable IP Address Display' (YES), and 'VOHD on' (IDE-CF CARD). The 'Apply' button is highlighted with a red circle. Below the settings, there are fields for 'Current Firmware Version Number' (2.0.0.1), 'Firmware Image File', and 'LOGO File', each with a 'Browse...' button and an 'Upgrade' button. At the bottom, there is a 'Save All' button.

4. Click the Apply button.
5. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change. After reboot, the Player VIP will join the assigned multicast group and receive all packets from it.

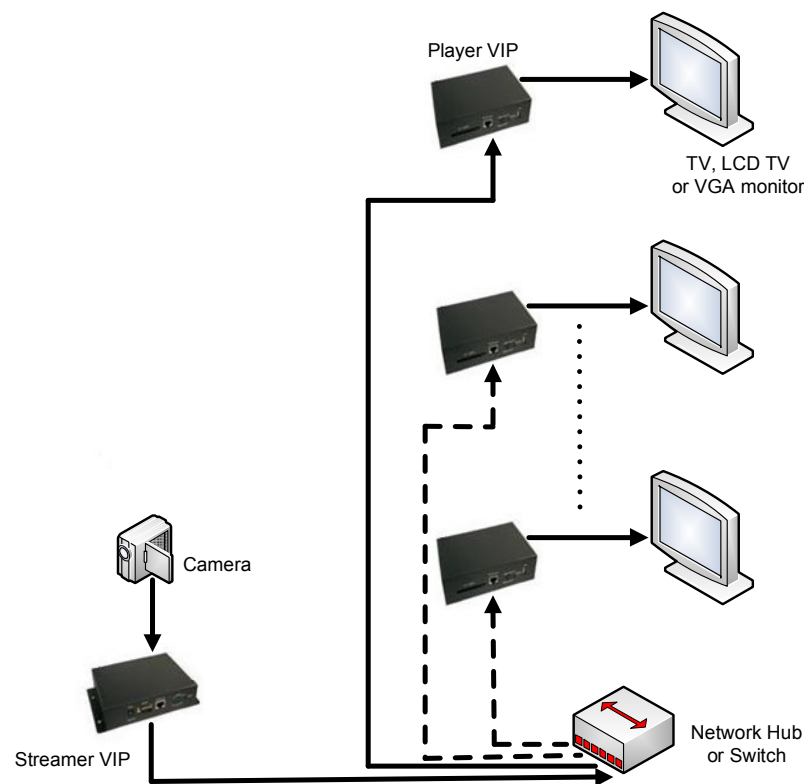
4.5 Modes of Operation

The Player VIP is a MPEG-4/MPEG-2 decoder that converts a digital stream to NTSC or PAL analog video and stereo audio outputs. The stream can originate from a Streamer VIP, VideoCenter, or local storage. The Player VIP supports three modes of operation enabling use in various media systems: Live, VOD, and VOHD.

4.5.1 Live Mode

In Live mode, the Player VIP plays the video transmitted across your network by a Streamer VIP. The Streamer VIP is an encoder that receives analog video content and encodes it to MPEG-4 format allowing the video to be transmitted over IP. A single Player VIP operates in a unicast configuration, while multiple Player VIPs support multicast streaming groups.

The following diagram illustrates the network topology for Live mode.



Operation in Live mode requires configuration of system and network settings, in addition to the Player VIP setup described in the previous sections. Similarly, you must configure the Streamer VIP for operation in Live mode. See the Streamer VIP User's Manual for details on configuration of this product.

Configure Live Mode System Settings

To operate in Live mode, complete the following steps:

1. Navigate to the System page.
2. From the Run Mode list, choose LIVE.
3. Click the Apply button.

The following screen capture illustrates the System page for Live mode.

The screenshot displays the EuroTech System Configuration interface. The 'System' tab is selected in the top navigation bar. The 'Run Mode' dropdown menu is set to 'LIVE', which is circled in red. Below this, the 'Join Multicast Group' dropdown is set to 'NO'. Other configuration options include Multicast Group Address, Multicast Group Port, Discovery Protocol Address (224.112.1.8), Discovery Protocol Port (8000), Select Interface (Ethernet), Enable DHCP (NO), Enable IP Address Display (YES), and VOHD on (IDE-CF CARD). The 'Apply' button is visible below these settings. Further down, the 'Current Firmware Version Number' is 2.0.0.1, and there are fields for 'Firmware Image File' and 'LOGO File', each with a 'Browse...' button and an 'Upgrade' button. At the bottom, there is a 'Save All' button.

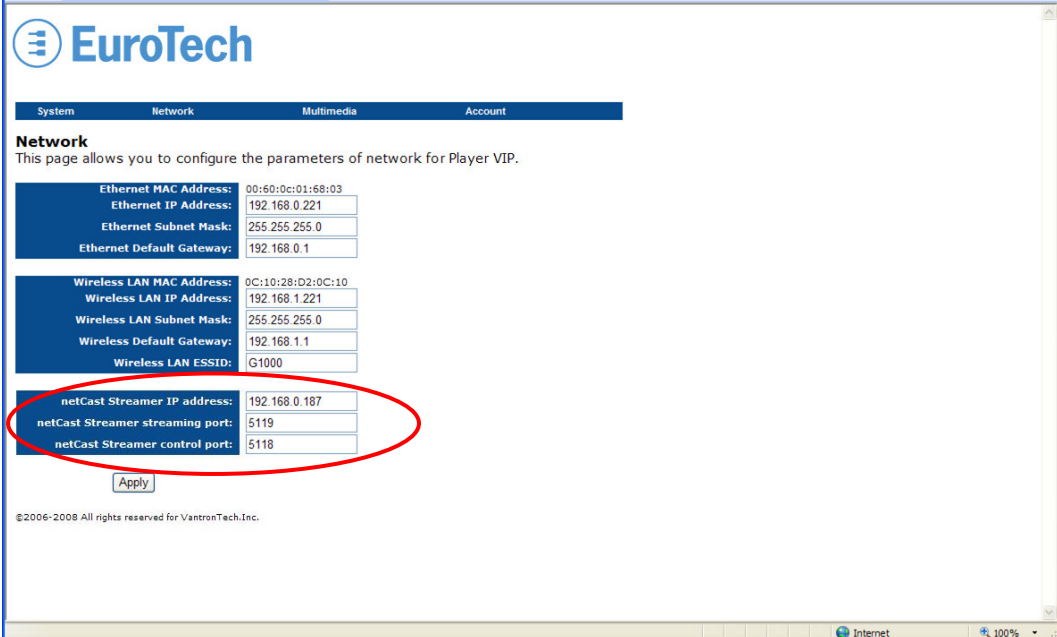
Configure Live Mode Network Settings

To configure the Player VIP to receive streams from a Streamer VIP, complete the following steps:

1. Navigate to the Network page.
2. Type values into the *netCast* Streamer boxes the same as those of the Streamer VIP.

The following screen capture contains the default values for the *netCast* Streamer settings:

- *netCast* Streamer IP address 192.168.0.187
- *netCast* Streamer streaming port 5119
- *netCast* Streamer control port 5118



The screenshot shows the EuroTech Network configuration page. The page has a navigation bar with 'System', 'Network', 'Multimedia', and 'Account'. The 'Network' section is active. Below the navigation bar, there is a 'Network' heading and a sub-heading: 'This page allows you to configure the parameters of network for Player VIP.' The configuration fields are organized into three sections:

- Ethernet:** Ethernet MAC Address: 00:60:0c:01:68:03; Ethernet IP Address: 192.168.0.221; Ethernet Subnet Mask: 255.255.255.0; Ethernet Default Gateway: 192.168.0.1
- Wireless LAN:** Wireless LAN MAC Address: 0C:10:28:D2:0C:10; Wireless LAN IP Address: 192.168.1.221; Wireless LAN Subnet Mask: 255.255.255.0; Wireless Default Gateway: 192.168.1.1; Wireless LAN ESSID: G1000
- netCast Streamer (circled in red):** netCast Streamer IP address: 192.168.0.187; netCast Streamer streaming port: 5119; netCast Streamer control port: 5118

At the bottom of the configuration area, there is an 'Apply' button. Below the form, there is a copyright notice: '©2006-2008 All rights reserved for VantronTech, Inc.'

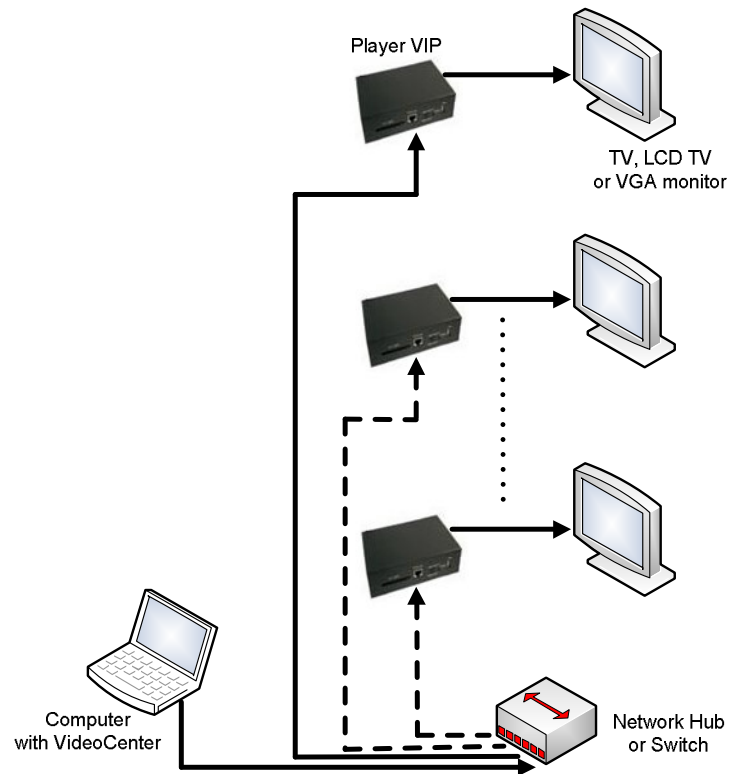
3. Click the Apply button.
4. Navigate to the System page.
5. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change. After reboot, the Player VIP connects to the Streamer VIP, receives each video and audio frame, and plays them on the display.

4.5.2 Video On Demand (VOD) Mode

During operation in VOD mode, the Player VIP plays media files streamed from VideoCenter. VideoCenter is a Windows-based application that manages media running on the Player VIP. The application is capable of discovering multiple Player VIPs on the same LAN. The Player VIPs can be configured as stand-alone units or as a multicast streaming group. See Section 4.4.3 for an explanation of discovery groups.

The following diagram illustrates the network topology for VOD mode.



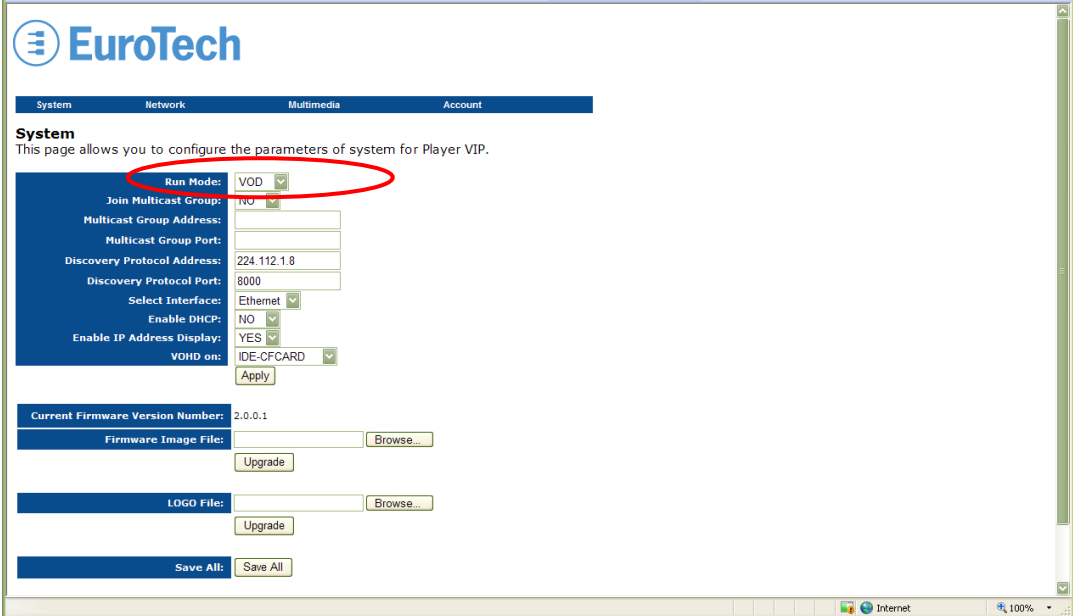
Operation in VOD mode requires configuration of system settings, in addition to the Player VIP setup described in the previous sections. Likewise, you must configure VideoCenter to discover and service the Player VIPs. See the VideoCenter User's Manual for details on using this application.

Configure VOD Mode System Settings

To operate in VOD mode, complete the following steps:

1. Navigate to the System page.
2. From the Run Mode list, choose VOD.
3. Click the Apply button.
4. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change. After reboot, the Player VIP is ready to receive media files from VideoCenter. The following screen capture illustrates the System page for VOD mode.



The screenshot shows the EuroTech System configuration page. The 'Run Mode' dropdown menu is set to 'VOD' and is circled in red. Below it, there are several configuration options:

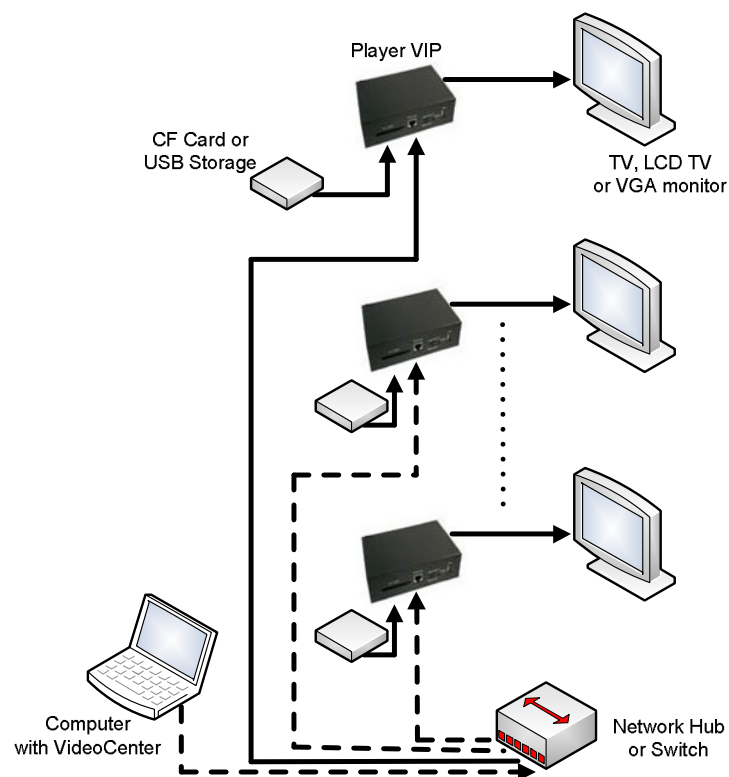
- Join Multicast Group: NO
- Multicast Group Address: [Empty]
- Multicast Group Port: [Empty]
- Discovery Protocol Address: 224.112.1.8
- Discovery Protocol Port: 8000
- Select Interface: Ethernet
- Enable DHCP: NO
- Enable IP Address Display: YES
- VOHD on: IDE-CF CARD

There are 'Apply', 'Upgrade', and 'Save All' buttons. The 'Current Firmware Version Number' is 2.0.0.1. There are also 'Browse...' buttons for 'Firmware Image File' and 'LOGO File'.

4.5.3 Video Over Hard Drive (VOHD) Mode

In VOHD mode, the Player VIP plays files from the root directory of a local disk drive connected to the USB port or from a CF card. The files can be pre-recorded or copied from a networked computer running VideoCenter. VideoCenter can manage the play schedule also. The application is capable of discovering multiple Player VIPs on the same LAN. The Player VIPs can be configured as stand-alone units or as a multicast streaming group. See Section 4.4.3 for an explanation of discovery groups.

The following diagram illustrates the network topology for VOHD mode.



Operation in VOHD mode requires configuration of system settings, in addition to the Player VIP setup described in the previous sections. If VideoCenter is used, you select the files to copy and set the play schedule using a graphical user interface. See the VideoCenter User's Manual for details on using this application.

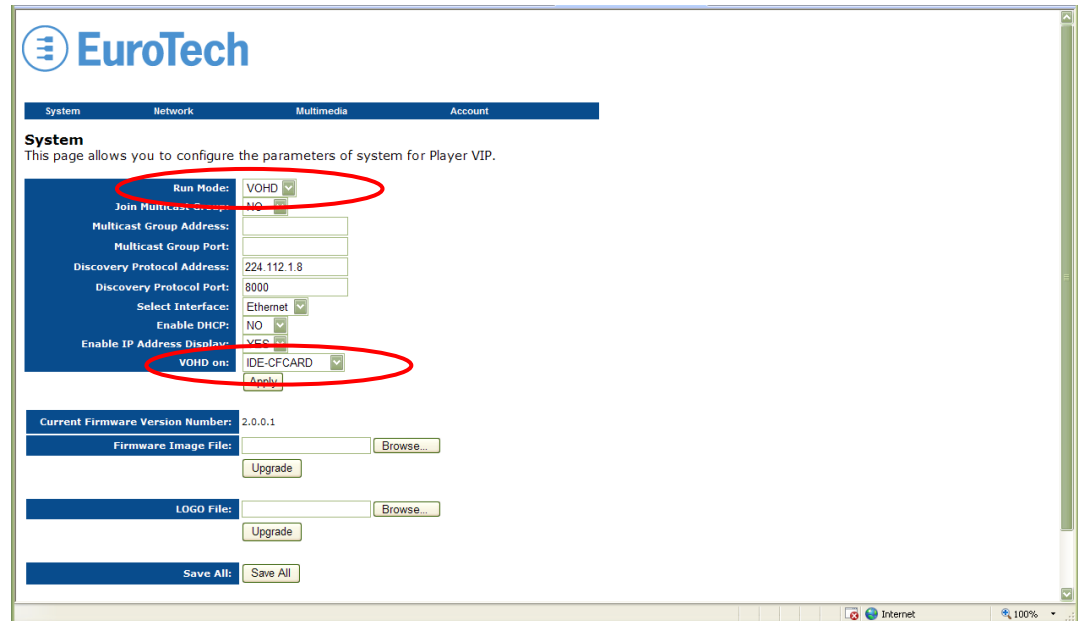
Configure VOHD System Settings

To operate in VOHD mode, complete the following steps:

1. Navigate to the System page.
2. From the Run Mode list, choose VOHD.
3. From the VOHD on list, choose IDE-CFCARD or USB-STORAGE.

The following screen capture illustrates the default setting for VOHD on:

- VOHD on IDE-CFCARD



4. Click the Apply button.
5. Click the Save All button.

The Player VIP saves all settings and reboots to validate the change. After reboot, the Player VIP automatically plays the files from the chosen source.

5 Troubleshooting Guide

The following are some of the most common problems that occur during installation or operation:

Q: Why am I unable to access the Player VIP over the LAN with Internet Explorer?

A: Do the following to resolve this problem:

- Check the power to the Player VIP.
- Verify the IP address of the Player VIP.
- PING the Player VIP to verify operation of the network.

Q: What can I do when I forget the IP address of the Player VIP?

A: Do one of the following to resolve this problem:

- Use VideoCenter to discover all active Player VIPs on the network. It will display the IP address of the discovered Player VIP.
- Cycle power on the Player VIP. The IP address is displayed after the boot screen.

Q: Why does VideoCenter not discover a Player VIP?

A: One of the following reasons causes this problem:

- The network is not functioning.
- The router/switch connecting the Player VIP to VideoCenter does not support multicast packet forwarding.
- The discovery protocol settings of the Player VIP are not configured the same as those of VideoCenter.

Q: Why does nothing play after I configure the Player VIP to receive multicast streams in LIVE mode?

A: One of the following reasons causes this problem:

- The network is not functioning.
- The Player VIP multicast group address and port are not configured.
- The Streamer VIP multicast group address and port are not configured, or multicast streaming is not enabled.
- The multicast settings of the Player VIP are not configured the same as those of the Streamer VIP.

Q: Why does the Player VIP not play in VOHD mode?

A: One of the following reasons causes this problem:

- The disk drive is not connected to the Player VIP.
- The disk drive is not operating.
- There are no files on the disk drive. Send files to the Player VIP using VideoCenter.

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6 System Specifications

This section provides the system specifications for the Player VIP.

6.1 Mechanical Specifications

The Player VIP is a fully enclosed system. Dimensions of the enclosure are

170 mm x 109 mm x 48 mm
(6.7 inch x 4.3 inch x 1.9inch).

6.2 Environmental Specifications

The following are environmental specifications for the Player VIP.

Parameter	Min	Typ.	Max	Units
Operating temperature	0		70	°C
Humidity	20		80	%

6.3 Electrical Specifications

The following are electrical specifications for the Player VIP.

6.3.1 Power Specifications

The following are power specifications for the Player VIP.

Symbol	Parameter	Min	Typ.	Max	Units
System Power					
Vin	Supply voltage	10.8	12	13.2	V
Pin	Power consumption		4.7	5	W

6.3.2 Audio Specifications

The following are specifications for the Player VIP audio output.

Symbol	Parameter	Min	Typ.	Max	Units
Audio					
Vout	Output voltage			1.8	Vpp

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7 Product Revision History

This section provides the product revision history for the Player VIP.

7.1 **Hardware Revision**

This section lists the item numbers and revision history for the Player VIP.

7.1.1 Identifying the Product

The item number of the Player VIP is NVIP1010.

The item number of the wireless Player VIP is NVIP1510.

7.1.2 Revision History

The following is an overview of the revisions of the Player VIP.

Revision V2.0

Initial release

7.2 **Firmware Revision**

This section describes the Player VIP firmware revisions.

7.2.1 Identifying the Revision

The Player VIP firmware version number is given in the System web page.

7.2.2 Revision History

The following is an overview of the Player VIP firmware revisions.

Version 2.0.0.1

Initial release