



**SitePlayer**<sup>™</sup>  
**Development System**

Rev. 0014A

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# SitePlayer Development System

The SitePlayer™ Development system is designed to give integrators a head start on SitePlayer product development. As well as providing the necessary network and programming connections for the SitePlayer Module, the development board also contains many user controllable I/O features like LEDs, push buttons and DAC/PWM outputs that help speed along the development process.

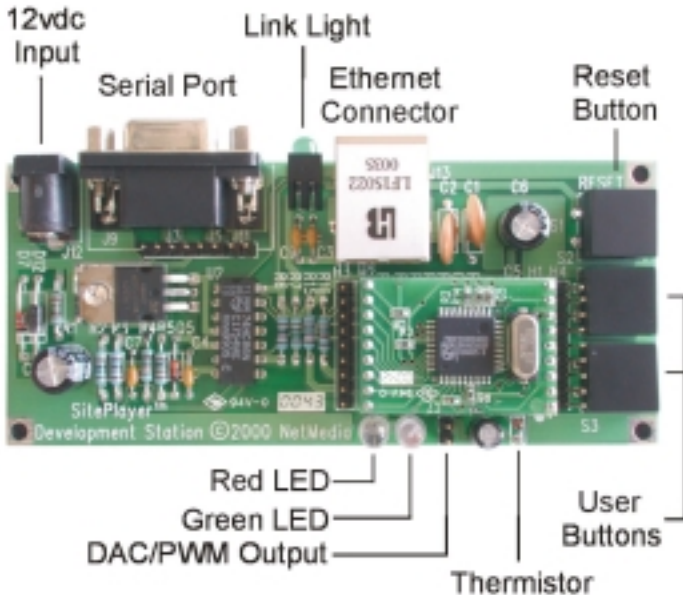
## Packing List

- 1 SitePlayer Development Board
- 1 SitePlayer Module (Pre-installed on Development board)
- 1 6' Ethernet Cable
- 1 6' Serial Cable
- 1 12V DC wall transformer

If you find your development kit is missing any of the above items please contact your SitePlayer sales representative for replacement information.

## SitePlayer Development Board

The SitePlayer Development board is a demonstration/development platform for the NetMedia, Inc. SitePlayer module.



## Development Board Features

- Ethernet interface for connecting SitePlayer module to internet/intranet
- Serial connection provides non-Ethernet access to the SitePlayer module
- Link Light provides visual indication of proper Ethernet hardware connection
- Reset button allows users to force a SitePlayer module hardware/software re-boot
- Red/Green LEDs can be programmed to provide visual program status
- User push buttons allow the construction of simple user interfaces
- Thermistor enables SitePlayer to provide temperature readings
- DAC/PWM outputs can be used to control external equipment/devices

## Development Board Connections

### ***J12 Power Connection***

**J12** is the Development board's power in connection.

**J12** voltage Input Requirements:

12V DC (100mA minimum) center pole positive

### ***J9 Serial Connection***

The DB-9 serial connector is used to connect SitePlayer modules to host devices such as PCs or microcontrollers. The DB-9's RX and TX lines are routed through an inverter on the development board to convert the SitePlayer modules inverted serial signals into a standard non-inverted PC readable format.

*Please refer to the development boards schematic for more details on the DB-9 connections.*

### ***J13 Ethernet Connection***

**J13** is the SitePlayer modules physical network connection. While visually similar to standard RJ-45 connectors the LF1S022 Ethernet connector used on the SitePlayer Development board contains internal filtering and isolation circuitry.

## Header Connections

### J3 Header Connection

The **J3** header provides test and interface access to the development boards DB-9 TX/RX and ground connections.

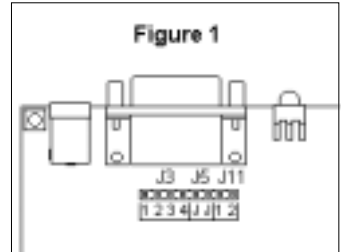
#### Pinout

**J3** Pin1 = DB-9 Pin5 (PC Ground)

**J3** Pin2 = DB-9 Pin2 (PC RX)

**J3** Pin3 = DB-9 Pin3 (PC TX)

**J3** Pin4 = DB-9 Pin5 (PC Ground)



### Jumper J5 Serial mode selection

The development boards 74HC86N Hex inverter chip converts the SitePlayer **modules** normally inverted serial RX/TX serial data pins into a non-Inverted (Standard PC readable) format. If communication with a standard PC is desired then **J5** should not be jumpered.

**J5** no jumper installed = Serial RX/TX non-inverted PC readable format (Factory Default)

**J5** Jumper installed = Serial Transmit/Receive inverted (For use with inverted serial devices)

### J11 Header Connection

The **J11** header connections provides experimentation and test connection access to the SitePlayer modules I/O 0 pin.

#### Pinout

**J11** Pin1 = Ground

**J11** Pin2 = SitePlayer Module I/O 0 (Pin 11 on SitePlayer Module)

### H3/H4 Header Connections

**H3** and **H4** are extensions of H2 and H1 and have been provided to allow easy access to the SitePlayer Module pins for testing and or connection purposes. Header **H3** is a duplicate of H2 and **H4** is a duplicate of H1. **H4's** pins have been extended to allow easy access to the **H4's** pins and the Development boards push buttons when both are implemented.

### J2 Header Connection

**J2** is the DAC/PWM output of the SitePlayer Module.

#### Pinout

**J2** Pin1 = Ground (Pin closest to the bottom of the development board)

**J2** Pin2 = DAC/PWM output

*Please refer to the development boards schematic for more details on J2's connections.*

# Development Board Devices

## ***Link Light***

The link light is located between the development boards serial and Ethernet connectors. The Development boards link light is controlled by the SitePlayer modules Ethernet chip and will illuminate green whenever an Ethernet connection is detected. Note: Neither the development boards link light nor the SitePlayer modules link light output pins are user controllable.

## ***Red/Green LEDs***

D2 is the RED LED and is tied to the SitePlayer modules Pin14 (Software I/O line 3). D3 is the GREEN LED and is tied to the SitePlayer modules Pin15 (Software I/O line 4). Both LEDs are active low.

*Please refer to the development boards schematic for more details*

## ***Push Buttons***

Both momentary push buttons S2 and S3 are tied high through 10K pull-up resistors. When pressed both S2 and S3 will produce logic 0. Button S2 is connected to pin12 (Software I/O line 1). of the SitePlayer module and S3 to pin13 (Software I/O line 2).

*Please refer to the development boards schematic for more details*

## ***Thermistor J4***

Thermistor **J4** is connected to SitePlayer module pin18 (Software I/O line7) through an RC (Resistor capacitor) circuit. This feature of the development board is not currently supported.

# Development Board Schematic

