StreamPlayer – Generation II

The StreamPlayer Generation II is an advanced music storage/streaming device that puts your entire music collection, and more, at your fingertips!

The Salk StreamPlayer is based on our own minimalistic, stripped-down version of the Linux operating system developed exclusively for this product. Built-in storage allows you to store your entire music collection and access it from the convenience of your listening position.

The following pages outline the StreamPlayer specifications and capabilities.

Happy listening!

The StreamPlayer Story

At Salk Sound, we frequently display our speakers at audio shows. We used to bring stacks of CD's to each show and shuffled them in and out of our CD player – not very convenient. After a while, we thought there had to be a better solution. We needed a single device that would allow us to store our music and have random access to it. But not any device would do.

Sure, we could use a desktop computer to do it. But that meant hauling a monitor and controlling things with a keyboard and mouse-again, not very convenient. We wanted to be able to control playback with a simple remote control.

About that time, the Squeezebox was becoming quite popular and we did use that for a while. But it was not quite what we were after.

We started looking around for alternatives, but couldn't find anything that we felt met our needs. We wanted something simple, easy to use and without a lot of extraneous bells and whistles. We just could find anything we liked. Since we have always built the speakers we wanted personally, we decided to simply build our own.

The first generation StreamPlayer was based on an embedded processor and a stripped-down version of Linux. It was exactly what we needed and we incorporated it into our operations for a number of years.

With the advent of DSD storage and playback, we found we wanted a higher level of performance. So we developed the Generation II StreamPlayer to address our changing requirements.

The following pages outline the basics of the Generation II StreamPlayer…

The basics

The Generation II StreamPlayer is basically a device that allows you to store all of your music, regardless of the resolution of the individual music files, in once place and allows instant access to all of it. Playing individual music files or entire CD's is just a matter of selecting what you want to hear and hitting play. The StreamPlayer takes care of all the details and streams the music to the DAC of your choice.

You can search your music database by artist, album, genre, year or browse the music directory directly. You can create any number of playlists and call any of them up at any time.

The StreamPlayer can be controlled with any number of wireless devices – an iPad, an iPhone, an Android tablet of phone, or even another computer. If fact, you can use multiple devices at the same time and each one will track exactly what the StreamPlayer is doing.

The StreamPlayer is simple to set up (pretty much Plug and Play) and simple to operate. The learning curve is fairly short and you can become an expert in its use in no time flat.

Technical details

The StreamPlayer is a **fanless** device. So there is no fan noise to contend with. The standard internal hard drive was selected for its silent performance. With it, the StreamPlayer is almost dead silent. And if you build a StreamPlayer with an optional solid state drive, it is **totally silent**.

It is also a **headless** device. There is no need for a monitor, a keyboard or a mouse.

We developed our own configuration of the Linux operating system that serves as the heart of the StreamPlayer. It is as minimal as Linux can get, with only the modules that are required for the job at hand. There is no extraneous software to bog the system down. It is totally stable and virtually crash-proof.

The hardware was selected to provide all the necessary functionality and yet provide the power required for today's high resolution playback and anything that might come down the line.

As set up, the StreamPlayer can handle resolutions and file formats from .mp3 to DSD and everything in between. It can handle them all. It can be set up to play Internet radio stations as well. What's more, it is compatible with Apple Airplay, so you can stream Pandora, Spotify, Apple Music, Tidal, podcasts or whatever from any Apple device or Android device with appropriate airplay-compatible apps.

The StreamPlayer is also a DLNA server. So if you have a receiver or other DLNA-capable device, the StreamPlayer can stream its content directly to that device.

The numbers

Here are some technical details you may be interested in…

Processor (Gen II)	Low power quad core Intel i3Core processor	Plenty of power for the most demanding playback applications.
Memory	Typical - 8GB	
Fanless	Fanless design for silent operation	
Drive	2TB drive	Solid state drive optional
USB	USB 2.0 and 3.0	The number of each varies with setup selected.
Ethernet	Gigabyte ethernet is standard	
S/PDIF	Available as an option	Normally fiber optic
Web interface	Standard	
Network	Shows up as a shared disk drive on any networked computer	You can easily move files to and from the StreamPlayer directly from your computer.
SSH	Built-in capabilities for terminal applications	
DLNA compatible	Allows the Streamplayer to stream content to any DLNA device on your network (a receiver, for example)	
Apple Airplay compatible	Stream content to the StreamPlayer from an Airplay compatible device	
Size	11 ¼" wide x 9" deep x 3 7/8" tall	

The StreamPlayer is built on a powerful hardware platform that is capable of handling any of its tasks with power to spare. So as new applications come along, it will have the power in reserve to adapt to the task at hand.

Initial Set-up

There are basically only three things you need to connect to get things going: 1) Power; 2) Ethernet; and, 3) a USB DAC (or S/PDIF if that option is ordered).

Once it is powered up, you can access the StreamPlayer's web interface by entering the following address in a browser on any networked computer: http://splayer To get you started, there is a web player app incorporated into the web interface. You can start playing music immediately.

If your networked computer is up to the task, you should be looking at the StreamPlayer's web interface in a matter of moments. If not, your computer is not resolving the StreamPlayer network name. In that case, you can also access the web interface by entering the StreamPlayer's IP address in this fashion: http://192.168.1.111 (substitute the correct IP address).

There are applications that can help you identify the IP address of the StreamPlayer. WNetWatcher on a Windows computer and IPScanner in a MAC work well. You can simply download and install these and the apps will scan your router to find the StreamPlayer's address.

You can also use your router's internal DHCP Client table to find the IP address as well.
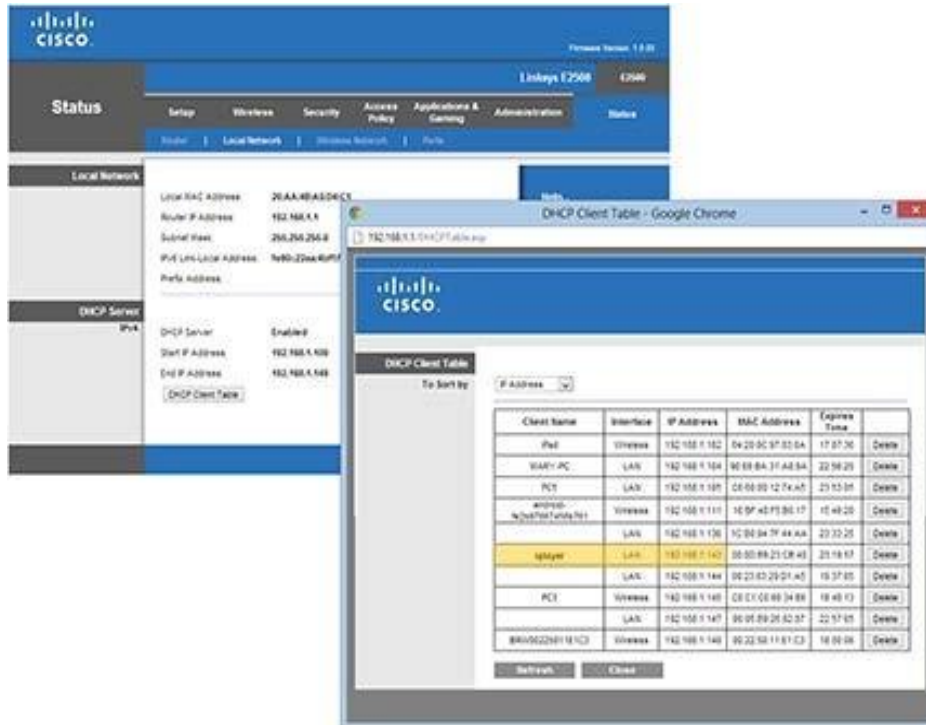
You can also often find it by looking at network devices in your security application (McAfee, Norton, etc.).

Web Interface

Once the StreamPlayer's home web page is rendered, you will have access to various configuration pages, tool pages and information pages. There is even a simple "player" application available via the web pages and you can use it until you decide which client (remote control application) you would prefer.

Outlined under "Tools" on these web pages, you will find information on various **remote control clients** (remote control applications) you can use to control the StreamPlayer. They are available for computers, Android phones, the iPod Touch, iPhone, iPad and more. You can use a single client or multiple clients at the same time – the StreamPlayer does not care.

In most cases, all you will have to do is configure your client application (regardless of what it is running on) to point to your StreamPlayer's IP address. You will know this as it is displayed on the upper right hand corner of every web page.

You will also find handy information about ripping CD's and moving music to your StreamPlayer, setting up Internet radio stations and more.

Additional Handy Apps

As mentioned above, there are web pages listing client (remote control) applications and other tools. There are a few tools you may want to have ready access to even if you do not intend to use the Linux command line interface to work on your StreamPlayer. For example, even if you do not expect to access your StreamPlayer via a terminal application, it may be a good idea to download and install a terminal application so it is there when you need it. In that same vein, a good text editor can also come in handy. You will find links to those as well.

Network Access

You can also look at and access some files on your StreamPlayer simply by searching your network drives. On a windows-based network, for example, once the StreamPlayer is up and running, if you search your network, you will most likely see "splayer" listed as one of the network computing devices. Click on it and your will see a number of directories (/etc, /var, /music and /public). You can see and edit files on the StreamPlayer just as you would with any files on your computer.

Happy Listening

Well, that should be enough to help get you started. Like anything new, the StreamPlayer may take a little getting used to.   And the more time you spend with it and the associated applications, the more powerful it will become in your hands. We have had numerous Generation II StreamPlayers up and running for about a year now, in our homes and at the shop. They have performed flawlessly during all that time. If digital music systems are new to you, it may take a little effort to get up to speed. But you will be rewarded with a great sounding system and will serve your needs for years to come. Enjoy!