

AVB System Requirements Guide

IN THIS DOCUMENT

- ▶ AVB Enabled Switches
 - ▶ 1722.1 Controller Applications
 - ▶ Apple Mac OS X Support
 - ▶ Microsoft Windows Support
 - ▶ Linux Support
-

This guide is intended for customers who are evaluating the Low-Cost AVB Audio Endpoint Kit with third party systems and devices.

1 AVB Enabled Switches

AVB enabled switches are required along every hop from a Talker to Listener endpoint on the network. As a rule of thumb, a maximum of 7 network hops should be enforced from the Talker to Listener to achieve the 2 ms presentation time.

1 Gbit and 100 Mbit AVB endpoints can interoperate on the same network.

Non-AVB enabled switches may be connected to AVB switches if used for non-AVB audio traffic on the same network only.

A number of known compatible and incompatible switches are listed below.

1.1 Known Compatible Switches

Manufacturer	Model	Firmware Version
DSP4YOU	AVB-SW	Contact DSP4YOU
Extreme Networks	Summit X440 Series	EXOS 15.3.1.1 w/ AVB feature pack
Extreme Networks	Summit X460 Series	EXOS 15.3.1.1 w/ AVB feature pack
Extreme Networks	Summit X670 Series	EXOS 15.3.1.1 w/ AVB feature pack
Lab X	Titanium 411	v1.09

1.2 Known Compatible Switch Reference Designs

Manufacturer	Model	Firmware Version
Marvell	RD1-88E6350R-AVB	v0.6
Broadcom	Hawkeye 53324	Fastpath 6.0.0.0 with AVB

1.3 Known Incompatible Switches

Manufacturer	Model	Firmware Version
BSS Audio / NETGEAR	GS724T*	v5.0.5.4

*The GS724T switch with AVB option does not support the ratified version of MSRP and has no MVRP implementation.

2 1722.1 Controller Applications

Third party 1722.1 Controllers such as UNOS Vision from UMAN may be used to connect and disconnect streams between AVB endpoints. Contact UMAN to obtain the application:

► <http://www.unosnet.com/>

3 Apple Mac OS X Support

All Apple Macs with the Broadcom BCM5701 Ethernet controller are AVB capable.

To enumerate and stream audio between a Mac and an XMOS AVB endpoint:

1. Install/upgrade to OS X Version $\geq 10.8.3$
2. Open a terminal and execute the command:

```
avbdeviced --list-interfaces
```

The output should resemble the following:

```
avbdeviced version 109.1.1
ifname    enabled
-----
en0       no
```

Check that the avbdeviced version is $\geq 109.1.1$.

3. Enable AVB on the interface by executing the following command:

```
sudo avbdeviced --enable-interface en0
```

4. On success, the output should match the following:

```
avbdevice version 109.1.1
attempting to enable AV mode returned YES
commit changes returned YES
apply changes returned YES
Enabled AVB on interface "en0"
```

5. Connect an XMOS AVB endpoint to the Mac via the Ethernet port
6. Open the *Audio MIDI Setup* utility
7. The endpoint should enumerate as an audio device named *XMOS AVB endpoint*
8. Right click on the *XMOS AVB endpoint* text and select *Use this device for sound input* and *Use this device for sound output*
9. Audio can now be played and recorded via the endpoint



Note: Volume and sample rate control of AVB audio devices is not currently available via Audio MIDI Setup

4 Microsoft Windows Support

There is no built in driver support for AVB network cards in Windows.

Vendor Echo Digital Audio provide an AVB network card and Windows driver that is compatible with XMOS AVB endpoints. Please contact Echo Audio for more information:

► <http://www.echoaudio.com/>

5 Linux Support

Intel have open sourced several elements of an AVB driver for their I210 AVB Ethernet Controller. Source code is available on Github:

► <https://github.com/intel-ethernet/Open-AVB>



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