
Subject: Sensitivity of FireWire Interface to Computer Generated EMI/RFI

Posted by [earflappin](#) on Thu, 29 Dec 2011 23:14:02 GMT

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First post. Be gentle.... :roll:

There are a number of reports on the Computer Audiophile and other forums which would lead one to conclude the sound quality of some asynchronous USB and FireWire DAC's are compromised to some extent by EMI/RFI generated and modulated by the source computer.

Specifically, users have reported small footprint Linux servers with low noise AES and USB cards yield better sound quality than Mac platforms (even with linear power supplies). Regarding Metric Halo, there is at least one LIO-8 user who has posted he prefers his Bryston BDP-1>AES versus his MacMini>FireWire citing "I hear lower noise floor, more defined bass lines and improved vocal intelligibility with the BDP-1."

Before I frame a couple of questions for BJ, a few comments. First, I realize not all DACs and interfaces (AES/SPDIF, FW, USB) are designed and executed equally. Second, I am innately skeptical of these kinds of posts and appreciate without an absolute reference it is difficult to gauge what they may actually be hearing. Many listeners prefer a DAC output which is colored in some way because they or their systems can't handle the truth.... 8o

But as a LIO-8 owner looking to extract the maximum performance from his DAC these posts raised my intellectual curiosity. So, BJ, could you respond on the following points please:

(1) Under what circumstances, if any, using the FireWire interface would the source computer environment negatively impact the sound quality of the ULN-8/LIO-8 using the master as the reference?

(2) How could, if at all, RFI/EMI generated/modulated by the source computer infiltrate the ULN-8/LIO-8 circuitry via the FireWire interface in such a way to cause a degradation in performance?

(3) Under what circumstances, if any, would the AES interface outperform the FireWire interface on a ULN-8/LIO-8?

(4) Is there support in place to stream audio (not full MIO functionality) to a ULN-8/LIO-8 via FireWire from a Linux platform? Has MH done any testing on a Linux platform, and if so, what were the results?

(5) Is USB inherently more susceptible to EMI/RFI and/or grounding effects than FireWire?

Thanks!
