

- [Home](#)
- [Reviews & Stories](#)
- [Videos](#)
- [Competitions](#)
- [Events](#)
- [About Us](#)
- [E-Mail Newsletter](#)
- [Login/Logout](#)



Related Posts

- [AirTies: Dry your hair, cook dinner – and still enjoy a wireless connection](#)
- [Linksys WAG320N router review: Network admin made easy](#)
- [Samsung SH100: Use your phone as a remote control for your camera](#)
- [Karotz: Wireless technology has never been so adorable](#)
- [TWIG: Three's Human Hotspots, Chilli WatchCam and LG's NetCast](#)

Sponsor

Most Read (Last 7 Days)

-  [Lumix G3: Panasonic does away with the weighty issue of DSLR...](#)
-  [Wuala: Online DropBox competitor from LaCie](#)
-  [Sony Reader vs. Amazon Kindle](#)
-  [Sony's NEX-C3: Face of the small revolution](#)
-  [Father's Day: Gifts for gadget geek dads](#)

Gadget Newsletter

Get spam-free email containing our latest reviews, gadgets news, and competitions. Simply enter your email address below:

Search Site

Sponsor Video

Sponsored by Heineken

Categories

- [Cameras & Imaging](#)
- [Competitions](#)
- [Consoles & Gaming](#)
- [Event Reviews](#)
- [Featured](#)

- [Gadgets & Gizmos](#)
- [Home Entertainment](#)
- [Laptops & Notebooks](#)
- [Misc. Tech & Gadgets](#)
- [Mobiles & PDAs](#)
- [News & Rumours](#)
- [PCs & Accessories](#)
- [Portable Media & MP3](#)
- [WWW & Apps](#)

Archives

Select Month

Sponsor

[Laptops Sale](#)

Top Brand Laptops At Low Prices. Shop Online Today!
www.littlewoods.com

[Free HTC](#)

[Wildfire on 3™](#)

Android smartphone with HTC Sense™. Only £20pm from 3™. Order Online!
Three.co.uk/HTC-Wildfire

[95% Off New](#)

[Kindle](#)

Last Kindle went for £3.44. Brand New, Factory Sealed.
Flutteroo.co.uk/Auctions/

[LG Dual Core](#)

[Smartphones](#)

World's 1st dual core smartphone Powered by Android. LG Optimus 2X
lg.com/uk/optimus2x

AirTies CTO answers all your WiFi questions

By [Jack Ratcliffe](#) on June 22, 2011 9:00 AM

- 1** tweets
- If you didn't know, you can create a home network using your home's power cables. If you knew that, you may not know that this technology could potentially interfere with radio-based devices. And even worse, your neighbours' systems could affect you, too.
- tweeted**
- Power Line Transmitters came about in the early 21st century, allowing you to plug-in an adaptor to your wall that would then use your power cables to transfer network data. This was fine, until a demand for faster speeds led developers into the Very High Frequency (VHF). Using this bandwidth meant that data could be sent at higher speeds. However, it also led to some serious problems – radio noise.



“When signals travel on any conductor, they also radiate into the air depending on how good of an antenna that conductor is acting as,” explains Metin Ismail Taskin, Chief Technical Operator at AirTies Wireless Networks. “Today, most of the power line adaptors operate from 2 to 30 MHz – the new ones even operate up to 50 MHz. A good antenna for 30 MHz is a piece of wire that is multiple of 5m long. You can easily find that length of power cable in the home.”

“This means that the signal injected onto a home's mains wiring will easily radiate into the air. And that can interfere with any receivers that are trying to detect very weak radio signals at the same frequency.”

This is bad news, because the HF and VHF noise these systems create includes FM and DAB radio, as well as most amateur radios, emergency alert systems in some parts of the world and nearby telephone lines carrying the ADSL2+ service. And it could get worse.

“More devices mean more interference. I think this problem will worsen as more and more people start using PLAs and inject signals into power wiring in the same neighborhood. Can you imagine a 50 – 100 home hi-rise building where 50% of the apartments have at least one pair of PLA? The signals that get injected into each apartment's electric wiring will travel to the backbone power distribution network of the whole building and add on top of each other to create a big radiator.”

So is there a solution for the power-line networking problem, or is it a technology doomed to failure? "PLAs are operating in a band that nobody thought signal would be put onto intentionally. Therefore the consequences of operating at the frequency of PLAs are not very well known, since there are not many controlled experiments done yet."

One recent one, conducted by the BBC, suggested that PLAs could have a massive affect on FM and DAB radio signal, should the household be within signal range, but not close to the transmitter. "New standards are trying address the interference issue, but I am not sure if it will be ever possible to solve it completely."

So why don't we see this problem with Wifi? "Wifi has dedicated frequency bands where it is allowed to radiate certain amount of signal as long as it stays within the standards. The bands were selected based on the fact that there will be intentional radiators."

"Wifi operates at 2.4 or 5 GHz, where the interference sources are well known. 2.4 GHz band is very much occupied with other Wifi equipment, including bluetooth devices and microwave ovens. It is not easy to avoid interference there."

"The 5 GHz band has a lot more channels and there are not many devices operating in this band. AirTies Wifi equipment can operate in 2.4 or 5 GHz, although the 5 GHz should be preferred to avoid interference. While AirTies wireless devices operate, they continuously monitor the interference at its own and other channels within the 5GHz band. If the devices see too much interference inside the channel they are using, they automatically switch to another channel that has less noise and interference. "

Be the first of your friends to like this.

Tags: [airties](#), [Streaming](#), [wifi](#), [wireless](#)

- [Tweet This](#)
- [Share on Facebook](#)
- [Digg This](#)
- [Bookmark](#)
- [Stumble](#)
- [RSS Feed](#)

Sponsored Links

[Hp® Laptops from £279](#)



AMD Vision Laptops on Sale Now. Buy Online Today from Just £279.

hp.com/laptops

[Buy Laptops from £279](#)



£50 off £500 - Use Code TDx-4MYh Free Next Day Del on Orders by 12pm

www.Tesco.com/laptops

Latest articles in Featured

- [Karotz internet rabbit review](#)
- [Sony's NEX-C3: Face of the small revolution](#)
- [Kogan Chrome OS laptops: The shape of things to come?](#)
- [Father's Day: Gifts for gadget geek dads](#)

0 Comments

You can be the first one to leave a comment.

Leave a Comment

Name (required):

E-Mail (required):

Website:

AS FEATURED ON
NEWS NOW >

- [Home](#)
- [Privacy](#)
- [Terms and Conditions](#)
- [About Us](#)

Copyright © [Latest Gadgets](#) 2011. All Rights Reserved.