

## Arris-Made G.hn Powerline Adapters Show up at Bell Canada

Arris-made powerline adapters with G.hn chips have shown up in Canada with a **Bell Canada** (BC) label. They are an optional powerline network adapter for use with Bell Canada's 4K whole home DVR that also supports HDR. Bell Canada's sales support and a usually reliable source in Canada have confirmed that Bell Canada's pass through powerline adapter, made by Arris but branded BC, has **Marvell's** G.hn chips. It's intended to work with BC's new VIP5662W IPTV receiver/DVR for 4K, also made by Arris. It can support up to five remote receivers for connecting TVs in other rooms. The remote receivers support Wi-Fi and are Canadian \$7 each per month. The VIP5662W has four Wi-Fi antennas and a Bluetooth antenna. It also has **Broadcom's** 7252 system-on-a-chip and a **Toshiba** hard drive that holds up to 150 hours of 4K content or 320 hours of HD content.



### *Bell Canada's New Arris-made G.hn Powerline Adapter*

Bell Canada said that it had previously offered HomePlug powerline adapters. It also offers coax adapters that have HPNA technology, many in adapters made by Motorola, which Arris acquired. That could make BC a candidate to use G.hn adapters that can support both G.hn and HPNA, where it is already installed, and G.hn where it is not.



### *Bell Canada's New 4K/HDR Whole Home DVR*

See: <http://www.bell.ca/Fibe-TV/Promotions/4K-Receiver>

Bell's 4K Whole Home PVR is available to BC's Fibe TV customers in Toronto, Montréal, Ottawa and Québec City for Canadian\$599 (US\$455). It is also

available to **Bell Aliant** FibreOP TV subscribers in the Atlantic region of Canada, much of which is so far east of Maine that it lays in the Atlantic time zone.

BC's G.hn powerline adapter is so new that the people to whom we talked, at least initially, said there was no such product. After doing some research at our request, they confirmed what we were looking at on BC's Web page. They could not, however, tell us how much BC is selling the adapter for but said that when we went to a BC retail store, someone there would give us the price.

What we do know is that it is what is called a pass-through adapter, which means that it has an electrical socket so that consumers don't lose one of their highly-valued electrical outlets.

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### ***Bell Canada's G.hn Adapter Is a Pass-Through Device***

See: [http://support.bell.ca/fibe\\_tv/receivers/bluetooth\\_slim\\_remote.how\\_to\\_move\\_your\\_4k\\_whole\\_home\\_pvr\\_with](http://support.bell.ca/fibe_tv/receivers/bluetooth_slim_remote.how_to_move_your_4k_whole_home_pvr_with)

Because Bell Canada is the purveyor and because the market is for 4K TVs and content, we reckon that Bell Canada has ordered many thousands of the powerline adapters in anticipation of a) 4K becoming the dominant TV resolution, especially now that 4K sets are as inexpensive as HD sets were two years ago, and b) BC's desire to deliver picture-perfect, flicker free 4K TV. Arris and Marvell may have been handed some nice orders considering that at the end of 2015 BC had 3.4 million broadband subscribers and more than 2.7 million pay TV subscribers.

**How Many 4K Whole Home DVRs Would You Order?  
And How Many Powerline Adapters Would You Order?  
And at What Ramp up Rate?**

**If You Had:**

Broadband Subscribers 3.4 million

Pay TV Subscribers 2.7 Million - of which 1.18 million are  
high-end Fibe TV subscribers

**And Were Increasing Each by 3% to 4% a Year**

**“The first broadcaster to produce a live 4K Ultra HD broadcast in North America.”**

Bell Canada is proud of its 4K pay TV offerings and wants glowing reports from the very beginning of the 4K service. In February, BC said:

“Bell’s TV leadership extends to 4K”

“As Canada’s largest TV provider and number 1 multimedia company, Bell continues to set the pace in Canadian television. With the January 20 Toronto Raptors vs. Boston Celtics NBA game, TSN became **the first broadcaster to produce a live 4K Ultra HD broadcast in North America**. Bell TV also announced in January the availability of the Fibe 4K Whole Home PVR for Fibe TV customers in Toronto, Montréal, Ottawa and Québec City. Far superior to basic cable 4K set top boxes lacking recording and other PVR capabilities, **the Fibe 4K Whole Home PVR is also ready for the next step in broadcasting: high dynamic range (HDR)**. In February, Bell will extend availability of the 4K Whole Home PVR to Bell Fibe TV customers in Ontario and Québec and Bell Aliant FibreOP TV customers in Atlantic Canada.”

(The highlights are *The Online Reporter*’s, not BC’s)

### **The Significance**

There are several significant points about BC’s decision to purchase quantities of G.hn powerline adapters:

1. As would be expected from an incumbent telco, BC does a very thorough job of testing in the labs and in the field. Reportedly the tests were very extensive and thorough – and involved comparison tests against stiff competition such as MoCA 2.0 with bonding and HomePlug AV2 with MIMO.
2. BC, like many other cablecos and telcos, probably realizes that the Wi-Fi networks in most homes are not ready for even one stream of 4K. Because BC wants to sell its 4K pay TV service, it wanted to make sure that subscribers got the very best, flicker free 4K picture.
3. The BC order for G.hn adapters is, to the best of our knowledge, the very

first one in the world – other than in Korea and Portugal where they are being used to extend broadband.

4. Other telcos will see what BC is doing and, given BC's reputation, will seriously investigate G.hn gear – if they haven't already started testing it. We suspect that other major telcos may be on the verge of selecting G.hn as their home network wireline standard – in fact some may have but not yet publicly announced. The next step after adapters would be for G.hn to be built into the router/gateway/whole home DVR rather than forcing subscribers to install adapters. In that way every home's electrical wires would become a powerline network. And that in turn would mean that makers of CE gear could build it into their products so that when the user plugs a TV set into an electrical outlet, it would immediately be on the Net.
5. The win at Bell Canada gives some credence to the HomeGrid Forum's claim that G.hn is a "carrier class" home network technology. But, one win is only one win. Let's see what the future holds. HomeGrid needs a couple of more wins to prove that G.hn is a "world class" technology.
6. Lastly, 4K is here big time as *The Online Reporter* has been predicting since **Samsung** started lowering the prices of its 4K TV sets in the spring of 2014. And 4K is already having an impact on the need for more bandwidth for both broadband and home networks. Service providers realize that and are upping the performance of their broadband and home network products. You never, ever see an announcement about a new broadband or home network product or service that doesn't list 4K as a driving force. And HDR, which BC's 4K DVR also supports, is the next big thing in TV. Although HDR does not need as much additional bandwidth as 4K does, its startling picture quality will prompt people to buy a 4K TV set that does need more bandwidth for watching OTT services, the main source for 4K content for several years to come.

**“The win at Bell Canada gives some credence to the HomeGrid Forum's claim that G.hn is a 'carrier class' home network technology”**

But where are the Arris-brand G.hn adapters for retailers that we heard about last summer and again at CES in January? Since then **Actiontec** has started shipping MoCA 2.0 to 11ac Wi-Fi adapters that use **Quantenna's** very impressive 4x4 11ac Wi-Fi chips. The Actiontec MoCA-to-Wi-Fi extenders tested the best of any Wi-Fi extenders that we tested in a 2,400 square-foot standalone home and in a 1,500 square-foot apartment with 15-inch thick adobe walls and solid wooden doors. We are still not able to get similar G.hn coax-to-Wi-Fi adapters for testing but surely they will come if G.hn's coax version is as good as G.hn backers say it is.

### **An Interesting Personal PS**

There's a big market for powerline and coax adapters and Wi-Fi extenders, very big, but it's going to take some innovative market to exploit it. That's be-

cause most consumers only think about Wi-Fi.

We own two identical models of **Samsung** 4K TVs that we bought six months apart in 2014. It's notable that by the time we bought the second one, it was one-third (\$500) less expensive, which shows how rapidly the prices of 4K sets were going down, down, down.

In the Louisiana home the Samsung set uses **Cox**'s pay TV service, as well as an antenna on the roof, and the remote receivers are connected by Ethernet wiring.

In the Arizona apartment, with thick adobe walls and thick wooden doors, the Samsung is connected to **DirecTV**, which most people acknowledge has the best picture quality of any pay TV service. But, and it's a big "but," all of the DirecTV receivers, including the one that connects to the Samsung 4K set, are connected by Wi-Fi.

When the picture from DirecTV is good, it is great, much better than the identical model TV that is connected to Cox. However, when the DirecTV picture is bad, it is fuzzy, often wavers and occasionally flickers. The one difference between the two locations is that one is Wi-Fi and one is wireline.

Other users have found the same. This YouTube video compares the difference between powerline extenders, probably HomePlug, and a Wi-Fi repeater. The powerline adapters are about twice as fast.

<https://www.youtube.com/watch?v=MrUTmT-I4RU>

[https://www.youtube.com/watch?v=yvwXMFuYBIM&ebc=ANyPxKo65ABXEL8xIQjQ2CpqJfc3A2UbUHups8PvJGBelM\\_a1tOP9ciRGHLE6JPtJ4xwzCTIzRnPCo5uGRiy7kDSd7WvyzHaTQ&nohtml5=False](https://www.youtube.com/watch?v=yvwXMFuYBIM&ebc=ANyPxKo65ABXEL8xIQjQ2CpqJfc3A2UbUHups8PvJGBelM_a1tOP9ciRGHLE6JPtJ4xwzCTIzRnPCo5uGRiy7kDSd7WvyzHaTQ&nohtml5=False)

What would help users a lot would be if telcos made public some of their test results. They could do it anonymously if they need to keep their name out of the matter.

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## Samsung Leads the TV Market

Why is **Samsung** the world's number one maker of TV sets? you ask. Great sets are one answer. Samsung puts a lot of emphasis on the screen's brightness and works to have that brightness show in retailers' show rooms. That is one of the reasons that Samsung is so interested to adding HDR capability to its 4K sets. It was the first company to buy The Online Reporter's new report on HDR – "4K and HDR: A Match Made in Heaven or Rival Technologies?" – in less than 4 hours after we announced it.

Pricing is another factor. Samsung led the way in reducing the prices of its 4K sets in the summer of 2014. Others such as **LG** and, in the States, **Vizio** have