

Professor Poor's Guide To Buying HDTV, Second Edition



The subtitle of this guidebook to buying an HDTV is "How you can save thousands of dollars and avoid making an expensive mistake when you buy your next TV!" That may have been true when the first edition of this excellent guidebook was published, but by the time this second edition was copyrighted, in September 2007, the quality of all surviving HDTVs had improved and their prices had come down dramatically. As I write this report, few people will actually spend more than \$2000 for an HDTV, and most will spend less than \$1000.

That said, Alfred Poor has written the best guide I have seen for explaining what an HDTV is or can be, and for accurately and understandably defining what the profusion of acronyms, that have been generated by this new technology, stand for. The majority of the book is taken up with these explanations. I could find no errors in that information, although he does describe some technologies that are not available and a few that never will be. I am especially impressed with Poor's choice of non-technical analogies wherever they are appropriate. I wish I had thought of a few of them when pressed to explain the same material.

Alfred Poor is well equipped with the knowledge, as well as the test procedures and equipment, to write this book. He has written for over 20 years for *PC Magazine* and other publications, specializing in display technology. He has published at least six other books on computers and works for a major marketing research company, specializing in large screen display applications.

He also maintains a website (<http://hdtvprofessor.com>), where you will find additional, up-to-the-minute information and links to many sites for data and recommended vendors. Originally, this was the only source for the first edition of this book. This second edition is available from booksellers such as Amazon.com and was printed in sufficient quantity to lower its price by more than half.

Short of completely rewriting his guide, Poor has updated the most important areas—those that most directly apply to how to choose the HDTV that best suits your specific requirements. For example, he rightly points out that most buyers neglect to examine the room and location before they buy an HDTV, and that most HDTV returns are therefore because what they bought does not fit where they want to put it. Among other considerations, HDTVs are typically much bigger than the units they replace.

My only quibbles with the book are in the first six chapters, where he describes the implementations of various technologies in terms of what was available some time ago. These are probably left over from the first edition and may be a little confusing to anyone who has kept up with what's happening and reads the book straight through.

His discussion of what detail can be seen at various distances with displays of various resolutions leads to an easily understandable choice of optimum screen size and/or viewing distance. This is very important and usually hard to get across, especially to potential buyers with a predilection to the-larger-the-better.

Once you have absorbed as much background information as you want, from the first six chapters, you come to chapter 7, Making your HDTV decision. This is where the rubber hits the road and the examples are pretty much up to date. The only major change since this was written is the virtual disappearance of the rear projector category—a shame because the last versions with LCOS engines were wonderful and, as he noted, a real bargain.

Also, all HDTVs are now required to include a digital tuner, in spite of the fact that less than 10% of TV viewers do not have cable or satellite reception, with its own separate "tuner" box, and must rely on an antenna, which is the only time a tuner is needed. So you cannot save lots of money by buying an HDTV without a tuner. The exception being

to buy an industrial monitor, which cannot be sold by a retail store and is also missing many of the inputs you will want to have.

On the technical side, with all the details Poor has gathered and clearly explained, the only mistake I found was an instance of describing 1080p HD as running at 30 frames per second instead of 60. Bandwidth restrictions limit the highest resolution you can receive from Broadcast HD to 1080i, which does run at 30 complete frames per second. Currently, and for the foreseeable future, the only source for 1080p HD is Blu-ray High Definition DVDs on a Blu-ray player.

Earlier he indicates that, like a conventional CRT, plasmas inherently can wink out to deep black and LCDs cannot. In fact, the newer plasmas, such as the Pioneer Kuro line, do reach an almost perfect black, but plasmas in general have always dropped to a minimum gray level, necessitated by having to keep the plasma in each pixel slightly energized in order to fire up quickly when the image demands it. The latest LCDs now modulate the backlighting level on the fly to decrease the black level when appropriate, and some now use LEDs for more responsive backlighting, and potentially more accurate color extremes.

Poor also includes an excellent section describing the scaling of incoming video, with other resolutions, to fit the native resolution of the display. As he says, this is a complex function, and the better implementations add some significant cost to the HDTV. The difference in performance is most noticeable when watching non-HD video, which still comprises most of what will be watched on the new HDTV. A poor-looking picture with standard video sources is the second most popular reason that HDTVs are brought back to the store.

Last, he recommends buying the least expensive cables you can find to interconnect the HDTV to other sources. I strongly agree, but these will not likely be available where you buy your HDTV, because expensive cables are the most profitable items in the store.

In summary, I heartily recommend *Professor Poor's Guide to Buying HDTV* to anyone preparing to buy a new HD-capable TV. You can read just the important parts about how to decide what size picture will be best for your room and how to compare the HDTVs in that category, or go deeper and easily assimilate enough technical knowledge to keep any poorly trained salesperson at bay. **AX**