

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION**

<p>DAVID DATE, JR.,</p> <p style="text-align:right">Plaintiff,</p> <p style="text-align:center">v.</p> <p>SONY ELECTRONICS, INC. and ABC APPLIANCE, INC. d/b/a/ ABC WAREHOUSE,</p> <p style="text-align:right">Defendants.</p>	<p>Case No. 2:07-cv-15474-PDB-RSW</p> <p>Hon. Paul D. Borman</p> <p>Date: March 17, 2008 Time: 11:00 a.m.</p>
<p>Nancy Sher Cohen Ronald A. Valenzuela HELLER EHRMAN LLP 333 South Hope Street, 39th Floor Los Angeles, CA 90071-3043 (213) 689-0200</p> <p>Attorneys for Sony Electronics Inc. and ABC Appliance, Inc.</p> <p>Richard Zuckerman HONIGMAN MILLER SCHWARTZ AND COHEN LLP 2290 First National Building Detroit, Michigan 48226 (313) 465-7618</p> <p>Attorneys for Sony Electronics Inc.</p>	<p>Lance A. Raphael THE CONSUMER ADVOCACY CENTER, P.C. 180 West Washington Street, Suite 700 Chicago, IL 60602 (312) 782-5808</p> <p>Alan Mansfield John Hanson ROSNER & MANSFIELD, LLP 10085 Carroll Canyon Road, First Floor San Diego, CA 92131 (858) 348-1005</p> <p>Dani K. Liblang LIBLANG & ASSOCIATES, P.C. 260 East Brown Street, Ste. 320 Birmingham, MI 48009</p> <p>Attorneys for David Date, Jr.</p>

**DECLARATION OF JEAN-PIERRE GUILLOU
IN SUPPORT OF JOINT APPLICATION
FOR PRELIMINARY APPROVAL OF SETTLEMENT OF CLASS ACTION**

I, Jean-Pierre Guillou, declare as follows:

1. I am a Senior Engineer in Sony Electronics Inc.'s ("SEL") TVOA Technology Development Division. I submit this declaration in support of the Joint Application for Preliminary Approval of Settlement of Class Action. I have personal knowledge of the facts set forth below and, if called as a witness, I could and would competently testify thereto.

2. Part of my duties as a Senior Engineer include acquiring and maintaining comprehensive knowledge concerning the technical aspects, specifications and operation of Sony-brand televisions marketed and distributed by SEL, including Sony-brand rear-projection, high-definition television models KDS R50XBR1, KDS R60XBR1, KDS 70Q006 and KDX 46Q005 (the "Televisions"). I am thoroughly familiar with the technology at issue in this lawsuit, both as it relates to the Televisions and, more generally, as it relates to similar high-definition televisions distributed by SEL and its competitors.

3. The Televisions display images on the screen much the same way an artist creates an image with a mosaic. Just as a mosaic is comprised of many individual tiles of various colors, each television image is comprised of thousands of points of colored light known as pixels. If you were able to view a single pixel in isolation, you would only see a point of light, only a tiny fraction of the entire image. But just as with a mosaic, when all of the pixels (or tiles) are displayed together, the complete image emerges for the viewer.

4. The display resolution feature basically involves two elements: the pixel grid and the scanning technique. Regarding the pixel grid, the display component in the Televisions that are chiefly responsible for generating the video image on the screen are capable of producing over 2 million pixels. The image is created by the adjusting of the brightness of light by the display component which is composed of a grid of electrodes

consisting of 1,920 columns and 1,080 rows. Thus, a 1,920 by 1,080 grid of electrodes is capable of generating 2,073,600 pixels ($1920 \times 1080 = 2073600$). The number of pixels that a television “uses” to create a video image has a direct bearing on the display resolution of that television: the greater the number of pixels, the sharper or more detailed the image. Other televisions “use” fewer pixels to create a video image, meaning these televisions have lower resolutions, or provide less sharp or less detailed images than those provided by the Televisions. Some televisions, for example, generate roughly 921,600 pixels using a display component with a 1,280 by 720 grid of electrodes ($1280 \times 720 = 921600$).

5. Regarding scanning technique, the Televisions, except for the KDX 46Q005, take the image created by the pixel grids on their display components and project it onto the television screen. The KDX 46Q005 utilizes a direct view display component rather than projecting the image. The Televisions display or “flash” the image on the screen roughly 60 times per second – too quickly for the viewer to notice any flickering. Each “flash” is called a frame that consists of hundreds of rows of pixels, rather than a seamless image. The number of rows of pixels that the television scans or projects onto the screen depends upon the configuration of the television’s pixel grid. A display component with a 1920×1080 pixel grid is capable of creating 1080 rows of pixels. A display component with a 1280×720 pixel grid is capable of creating 720 rows of pixels. The Televisions simultaneously scan all of the rows of pixels onto the screen at once. This is called progressive scanning. Other televisions, in particular older televisions, use interlaced scanning, which means the television displays half of the rows of pixels in one field, then displays the remaining half in the next field. The viewer, however, does not notice that he or she is only receiving half of the image in any given instant because the fields are flashed so rapidly, the viewer perceives the entire image or frame. I have attached as Exhibit A to my Declaration a rough depiction of the interlaced scanning technique. The Televisions do not use the interlaced scanning technique.

6. The Televisions, like all high-definition televisions, have both a Display Resolution (also known as the Native Resolution) and Video Signal Input Capability component. Although the nomenclature used to describe these two features may be the same, the Display Resolution and Video Signal Input Capability are separate and distinct features – one *does not* describe or denote the other.

7. The display resolution of a television can be expressed by describing the configuration of the television’s pixel grid and the scanning technique. Thus, the Televisions have a display resolution that is 1920 by 1080 using progressive scanning. The consumer electronics industry, however, has developed a common shorthand for this: 1080p. The “1080” refers to the number of horizontal rows in the pixel grid, that is, the number of rows of pixels that the display component is capable of projecting onto the television screen, and the “p” stands for progressive scanning. By way of another example, a television with a “480i” display resolution has a display component that is capable of projecting 480 horizontal rows of pixels using interlaced scanning.

8. The Televisions have the highest display resolution commercially available to consumers (1080p). The other display resolutions that are most widely available in other televisions are described in the table below.

Display Resolution	Pixel Grid	Scanning Technique
1080p	1920×1080	Progressive
1080i	1920×1080	Interlaced
720p	1280×720	Progressive
480p	704×480	Progressive
480i	704×480	Interlaced

9. Because the display resolution is a function of the number of pixels that the television’s display component can generate and because the number of pixels that

the component can generate is fixed by the configuration of the electrodes of the pixel grid (*i.e.*, “hard-wired” into the component), the Televisions offer only one display resolution that will not change. Every video image that appears on the Televisions will be offered in the same resolution, that is, each image will be composed of the same number of pixels, approximately 2 million.

10. The term “video input signal capability” refers to the types of signals a television can accept. The video images you see on a television screen are “fed” into the television from external sources such as VCRs, DVD players, cable boxes, and over-the-air broadcasts. These external sources transmit images to the television using a variety of types of signals, including traditional analog signals and modern digital signals. There are five types of digital signals. These signals can be described using the same shorthand nomenclature that is used in describing display resolutions: 480i, 480p, 720p, 1080i, and 1080p. Some televisions can accept or “read” all of these digital signals, others accept only some. The Televisions can accept 4 of the 5 types of digital signals: 480i, 480p, 720p, and 1080i. Like the vast majority of the other televisions available in 2004 and 2005, the Televisions do not accept the 1080p digital signal.

11. Although many video devices like DVD players and cable boxes can transmit several types of digital video signals, not all of them are capable of transmitting all five types of signals and only a few of them are capable of transmitting a 1080p video signal. When SEL first began selling the Televisions, there were no widely-available consumer products that could transmit a 1080p video signal.

12. Today, only Blu-ray Disc Players and certain High-Definition DVD Players are capable of transmitting a 1080p video signal. All other television video sources — including all over-the-air television broadcasts — cannot transmit a 1080p video signal. In fact, over-the-air television broadcasts will likely never be transmitted via a 1080p video signal because the necessary bandwidth (*i.e.*, the “highways” along which television broadcast signals travel through the air) is simply not available.

13. The overwhelming number of video devices that can transmit a 1080p video signal can be reconfigured to deliver the video images via a different signal that the Televisions accept, such as 480i, 720p or 1080i. In nearly every instance, this reconfiguration happens automatically.¹ This means that whichever signals is transmitted by the video device, the Televisions will display the image at 1080p resolution. To the best of my knowledge, there is no video device widely-available to the public that is completely incompatible with the Televisions.

14. SEL's use of the "1080p" designation for the Televisions is consistent with the way industry specialists use the term. These independent sources, which were available to consumers, explained that the "1080p" designation refers to the Televisions' fixed Display Resolution, not which type of video signals the Television supports. Attached hereto as Exhibit B is a true copy of the article available at:
http://reviews.cnet.com/4520-11246_7-6388574-1.html.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 10th day of March, 2008, at San Diego, California.



JEAN-PIERRE GUILLOU

¹ There may be, for example, computers that generate a 1080p video signal that may need to be reconfigured manually to transmit a different signal.

CERTIFICATE OF SERVICE

I, Debora Biggers, declare as follows:

I am employed with the law firm of Heller Ehrman LLP, whose address is 333 South Hope Street, 39th Floor, Los Angeles, CA 90071-3043. I am readily familiar with the business practices of this office for collection and processing of correspondence for mailing with the United States Postal Service; I am over the age of eighteen years and not a party to this action.

I hereby certify that on March 12, 2008, I electronically filed the foregoing paper with the Clerk of the Court using the ECF system which will send notification of each filing to the following: **Dani K. Liblang, Douglas C. Salzenstein and Richard E. Zuckerman** and I hereby certify that I have mailed by United States Postal Service the pages to the following non-ECF participants:

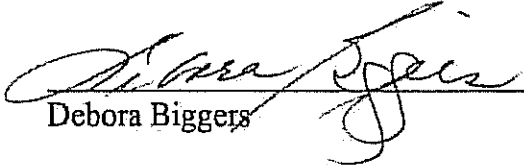
Lance A. Raphael
THE CONSUMER ADVOCACY
CENTER, P.C.
180 West Washington Street
Suite 700
Chicago, IL 60602
Telephone: (312) 782-5808

Alan Mansfield
John Hanson
ROSNER & MANSFIELD, LLP
10085 Carroll Canyon Road
First Floor
San Diego, CA 92131
Telephone: (858) 348-1005

I declare that I am employed in the office of a member of the bar of this Court at whose direction this service was made.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed at Los Angeles, California on March 12, 2008.


Debora Biggers

Heller Ehrman LLP
333 South Hope Street, 39th Floor
Los Angeles, CA 90071-3034
Telephone: (213) 689-0200

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN

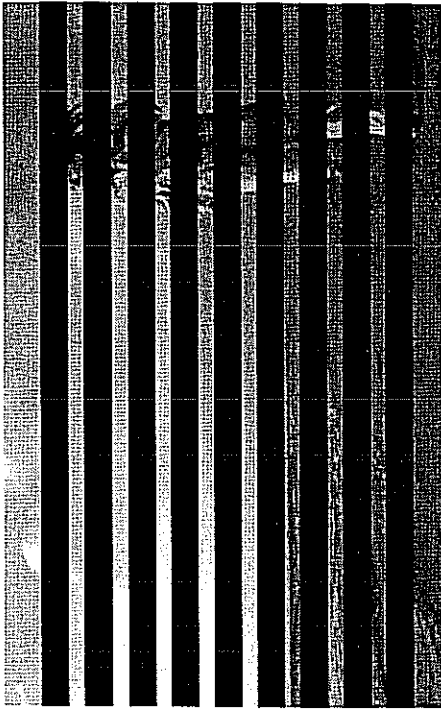
INDEX OF EXHIBITS
Declaration of Jean-Pierre Guillou

<u>Exhibit</u>	<u>Title/Description</u>
A	Depiction of Interlaced Scanning Technique
B	CNET Review article: "Can 1080P HDTVs handle 1080-p sources?"

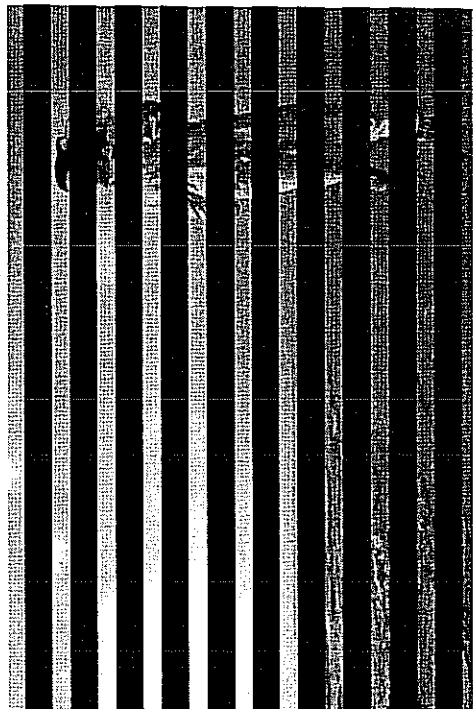
EXHIBIT A

INTERLACED SCANNING

Frame 1



Frame 2



What The Viewer Sees



EXHIBIT B

On CHOW: Does drinking ice



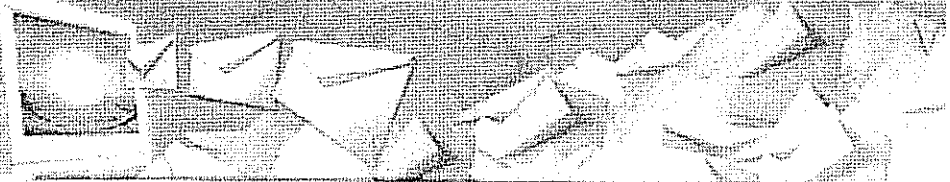
Search:

- [Today on CNET](#) |
 [Reviews](#) |
 [News](#) |
 [Downloads](#) |
 [Tips & Tricks](#) |
 [CNET TV](#) |
 [Compare Prices](#) |
 [Blogs](#)
[Cell phones](#) |
 [Desktops](#) |
 [Digital cameras](#) |
 [Laptops](#) |
 [MP3 players](#) |
 [TVs](#) |
 [All Categories](#)

Ask the Editors: Can 1080p HDTVs handle 1080p sources?

Send feedback E-mail to a

Ask the EDITORS



Most recent questions

- ▶ How to export song list from iTunes?
- ▶ Are glass screens better for MP3 players?
- ▶ An MP3 player for mom
- ▶ Taking an iPod between Mac and PC
- ▶ When will a new iPod come out?
- ▶ Apple iTunes deal with EMI
- ▶ Daylight-saving time and smart phones?
- ▶ Computers with Blu-ray or HD-DVD drives?
- ▶ Make mine a Mac?
- ▶ Camera's best for close-ups and telephoto shots
- ▶ See all questions

Can 1080p HDTVs handle 1080p sources?

November 18, 2005; updated October 22, 2007

Q: After reading about 1080p HDTVs, I saw a surprising disclaimer. It said that the HDMI inputs were unable to accept 1080p input. Are all the new 1080p TVs the same in this regard? Do they all just upconvert HDMI input? And how is the PlayStation 3, which is said to output a 1080p signal, going to work—or not work—with one of these new TVs?

Submitted by:
Jake,
CNET reader e-mail



David Katzmaier
Senior editor

A: Update: Every single 1080p HDTV we've tested in 2007 can accept and display 1080p sources delivered via HDMI, and we expect every 1080p TV available in the future do so as well. The information below was written in 2005, so it's out of date, but we're keeping it for reference. For more, check out HDTV resolution explained.

It's true: not very many of the 2005 1080p televisions will actually accept a 1080p input. This includes all of the 2005 Samsung, Sony, JVC, Toshiba, and Mitsubishi rear-projection sets—although the Samsungs and a couple of high-end Mitsubishi's can handle 1080p via computer inputs. The HP models, specifically the 58-inch MD5880n and the 65-inch MD6580n, are the only two I know of that can handle 1080p signals via HDMI. However, I don't consider this

RATE THIS ANSWER

How useful was this tip for you?

- Very
- Somewhat
- Not at all

VOTE NOW!

▶ View results

lack of compatibility a deal breaker.

First off, there's no 1080p HDTV programming available; there's only 720p and 1080i being broadcast now and for the foreseeable future. 1080p HDTVs convert those formats, as well as all other formats, to 1080p for display. Sure, the PS3 will supposedly support 1080p when it launches in the fall of 2006, but the first true 1080p video content you'll likely see is from Blu-ray or HD-DVD players.

All in all, I think anyone would have a hard time distinguishing between 1080i and 1080p on today's 1080p HDTVs. But if you really want one that will support this future format, you should wait until the summer of 2006, when almost all 1080p resolution HDTVs will offer 1080p input support.

MORE RESOURCES

- ▶ 1080i vs. 1080p HDTV
- ▶ HDTV resolutions explained

- ▶ Editors' top HDTVs
- ▶ HDTV World

David Katzmaier, a TV reviewer with five years' experience, has color bars and a resolution chart tattooed inside either eyelid.

Got a question? Our editors are here to help. Submit your question now.

MORE QUESTIONS

Which older games work on the new consoles?



Senior editor John Falcone explains backward compatibility for gaming consoles.

▶ Learn more

What's an easy-to-use, versatile GPS device?



CNET's editors answer your shopping questions about cell phones, MP3 players, TVs, laptops, and more.

▶ Learn more

Which is the best flash MP3 player for workouts?



Jasmine France offers her recommendation.

▶ Learn more

Do I need a 1080p HDTV?



Pros and cons of HDTVs in a nutshell.

▶ Learn more

Which is the best gaming console to get?

John Falcone sorts out the latest next-generation consoles.

▶ Learn more

Best smart phone for traveling overseas?

Advice on smart phones to work while travelling globally.

▶ Learn more



See all que

1080p

Pioneer's revolutionary new KURO has changed HDTV forever.
seeingandhearing.com

Visit We

Top Rated 1080p HDTVs

High Definition Televisions - Owner Reviews. Buying Guide.
www.smart-review.com

Visit We

TV Reviews & Ratings

Get unbiased reviews & ratings on all the latest HD TV's.
www.viewpoints.com

Visit We

Top HDTVs for your money

Top rated HDTVs with lowest price. Compiled using unbiased algorithms
www.retrevo.com

Visit We

HDTVs

Find out which HDTVs are best with our unbiased reviews.
www.consumerreports.org

Visit We

[Help Center](#) | [Newsletters](#) | [Corrections](#) | [What's New](#) | [All Product Reviews](#) |

Sea

Popular topics: [Apple iPhone](#) | [CES](#) | [Drivers](#) | [Games](#) | [Internet Explorer 7](#) | [iPod](#) | [iTunes](#) | [Leopard](#) | [Playstation 3](#) | [Spyware](#) | [Televi](#)



CNET.com [About CNET](#) | [Today on CNET](#) | [Reviews](#) | [News](#) | [Compare prices](#) | [Tips & Tricks](#) | [Downloads](#) | [CNET TV](#)

Popular on CNET Networks: [PS3](#) | [Wii](#) | [Xbox 360](#) | [Pussycat Dolls](#) | [Free Music Videos](#) | [TV Listings](#) | [Prison Break](#) | [Game Cheat](#)

[About CNET Networks](#) | [Jobs](#) | [Advertise](#) | [Partnerships](#) | [Site map](#)

Visit other CNET

Copyright ©2008 CNET Networks, Inc. All rights reserved. [Privacy policy](#) | [Terms of use](#)