

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION

BARCO, N.V. and )  
BARCO, INC., )  
 )  
Plaintiffs, )  
 )  
v. )  
 )  
EIZO NANA O CORPORATION, )  
and EIZO NANA O TECHNOLOGIES, )  
INC. )  
 )  
Defendants. )  
\_\_\_\_\_ )

CIVIL ACTION FILE NO.:  
1:11-cv-02964-RLV

**JURY TRIAL DEMANDED**

**FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiffs Barco N.V. (“BNV”) and Barco, Inc. (“Barco USA”) (collectively, “Plaintiffs” or “Barco”), for their First Amended Complaint against Defendants Eizo Nanao Corporation (“Eizo Japan”) and Eizo Nanao Technologies, Inc. (“Eizo USA) (collectively, “Defendants” or “Eizo”), hereby allege as follows:

**THE PARTIES**

1. BNV is a publicly listed limited liability corporation organized and existing under the laws of Belgium, with a principal place of business at President Kennedypark 35, BE-8500, Kortrijk, Belgium.

BARCO NV Exh 2005  
Eizo Corp. v. BARCO NV  
IPR2014-00778

2. Barco USA is a corporation organized and existing under the laws of the State of Delaware, with a principal place of business in this judicial district at 3059 Premiere Parkway, Suite 400, Duluth, Georgia 30097. Barco USA is a wholly-owned subsidiary of BNV.

3. Upon information and belief, Eizo Japan is a corporation organized and existing under the laws of Japan, having a principal place of business at 153 Shimokashiwano, Hakusan, Ishikawa, 924-8566, Japan.

4. Upon information and belief, Eizo USA is a corporation organized and existing under the laws of the State of California, having a principal place of business at 5710 Warland Drive, Cypress, California, 90630.

### **JURISDICTION AND VENUE**

5. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has personal jurisdiction over each of the Defendants in that each has, directly or through intermediaries, committed acts within this judicial district giving rise to this action and/or each has established minimum contacts with Georgia such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

7. Venue is proper in this district under 28 U.S.C. § 1391(b), (c) and/or (d) and 28 U.S.C. § 1400(b).

**THE '849 PATENT AND THE '707 REISSUE PATENT**

8. On December 29, 2009, United States Patent No. 7,639,849 (“the ‘849 Patent”), entitled “Methods, Apparatus, and Devices for Noise Reduction,” was duly and legally issued. A true and correct copy of the ‘849 Patent is attached hereto as Exhibit A.

9. On October 2, 2012, United States Reissue Patent No. RE43,707 (“the ‘707 Reissue Patent”), entitled “Methods, Apparatus, and Devices for Noise Reduction,” was duly and legally issued. A true and correct copy of the ‘707 Reissue Patent is attached hereto as Exhibit B.

10. BNV is the owner by assignment of the ‘849 Patent and the ‘707 Reissue Patent. Barco USA is the exclusive licensee to the ‘849 Patent and the ‘707 Reissue Patent in the United States.

**FACTUAL ALLEGATIONS**

11. Many video monitors and displays are matrix-based systems, composed of individual image forming elements called pixels. To form an image, each pixel in the display emits a varying amount of light in response to a varying level of an electrical drive signal. Conventional matrix-based monitors and

displays have a known image quality deficiency that results from the unequal light-output of pixels in response to electrical drive signals at identical levels. Identical electrical drive signals applied to various pixels may nonetheless lead to different, i.e. non-uniform, light-output responses of these pixels.

12. These differences in pixel behavior are caused by various factors, including by production processes involved in the manufacturing of the displays and/or by the physical construction of the displays themselves.

13. In LCD screens, issues with non-uniform pixel responses can be caused by the radiance and position of the backlight lamps which allow the images to be seen. In addition, any unevenness in the thickness of the materials in the LCD panel or imperfections in the lamp reflectors, light guide plates, the liquid crystal cells, the diffuser/prism sheet or color filters further lead to non-uniform pixel responses, which have unwanted effects on the evenness and visibility of the images that can be viewed on the monitor or display.

14. The '849 Patent and the '707 Reissue Patent addresses and solves these problems by teaching methods for image processing and image processing apparatuses. For example, one method of image processing taught by the '849 Patent and the '707 Reissue Patent comprises obtaining a measure of a light-output response of at least a portion of a pixel for a plurality of pixels in a display,

modifying a map that is based on the obtained measures, and obtaining a display signal based on the modified map and an image signal.

15. Further, one image processing apparatus taught by the '849 Patent and the '707 Reissue Patent comprises an array of storage elements configured to store a measure of a light output response of at least a portion of the pixel at each of a plurality of driving levels, and an array of logic elements configured to modify a map based on the stored measures, and to obtain a display signal wherein the array of logic elements is configured to modify the map to increase a visibility of a characteristic of a displayed image during a use of the display.

16. By practicing the methods or using the apparatuses taught and claimed by the '849 Patent and the '707 Reissue Patent, uniformity and visibility of a displayed image can be increased.

17. Having clear, uniform, and visible images is important in many fields, including, by way of example, in the field of medical diagnostics. Several scientific studies have indicated that even a slight increase of non-uniformity in medical images can have a significant negative impact on the accuracy and quality of medical diagnoses.

18. Barco is a global technology company that designs and develops visualization solutions for a variety of selected professional markets, including, but

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