

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALIGN TECHNOLOGY, INC.
Petitioner

v.

3SHAPE A/S
Patent Owner

Case No. PGR2018-00103
Patent 9,962,244

**SECOND CORRECTED PETITION FOR POST-GRANT REVIEW
OF U.S. PATENT NO. 9,962,244**

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E. Claim 5: “The focus scanner according to claim 4, wherein deriving the surface geometry information and the surface color information for a block of image sensor pixels comprises identifying the position along the optical axis at which the corresponding correlation measure has a maximum value.”47

F. Claim 7: “The focus scanner according to claim 6, where the maximum correlation measure value is the highest calculated correlation measure value for the block of image sensor pixels and/or the highest maximum value of the correlation measure function for the block of image sensor pixels.”48

G. Claim 8: “The focus scanner according to claim 5, wherein the data processing system is configured for determining a sub-scan color for a point on a generated sub-scan based on the surface color information of the 2D image in the series in which the correlation measure has its maximum value for the corresponding block of image sensor pixels.”48

H. Claim 9: “The focus scanner according to claim 8, wherein the data processing system is configured for deriving the sub-scan color for a point on a generated sub-scan based on the surface color information of the 2D images in the series in which the correlation measure has its maximum value for the corresponding block of image sensor pixels and on at least one additional 2D image.”50

I. Claim 10: “The focus scanner according to claim 9, where the data processing system is configured for interpolating surface color information of at least two 2D images in a series when determining the sub-scan color.”51

J. Claim 15: “The focus scanner according to claim 1, where the color image sensor comprises a color filter array comprising at least three types of colors filters, each allowing light in a known wavelength range, W1, W2, and W3 respectively, to propagate through the color filter.”51

K. Claim 16: “The focus scanner according to claim 15, where the surface geometry information is derived from light in a selected wavelength range of the spectrum provided by the multichromatic light source.”52

L. Claim 18: “The focus scanner according to claim 16, wherein the selected wavelength range matches the W2 wavelength range.”53

M. Claim 21: “The focus scanner according to claim 3, where the information of the saturated pixel in the computing of the pattern generating element is

configured to provide that the spatial pattern comprises alternating dark and bright regions arranged in a checkerboard pattern.”54

N. Claim 2255

 1. [22.P]: “A method of recording surface geometry and surface color of an object”55

 2. [22.1]: “obtaining a focus scanner according to claim 1”55

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O. Claim 24: “The focus scanner according to claim 1, wherein the multichromatic light source, the color image sensor, and at least a portion of the data processing system are included in a hand held unit.”56

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VIII. Grounds 3 and 4: The combinations of Fisker and Yamada (Ground 3) and Fisker and Suzuki (Ground 4) render claim 29 obvious. 58

 A. Claim 2958

 1. Limitations [29.P]-[29.4.b]:58

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