UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HP INC.,

Petitioner,

v.

LARGAN PRECISION CO., LTD.,

Patent Owner.

U.S. Patent No. 8,988,796

Filing Date: December 13, 2013
Issue Date: March 24, 2015

Title: Image Capturing Lens System, Imaging Device and Mobile Terminal

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PETITION FOR *INTER PARTES* REVIEW

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TABLE OF CONTENTS

Page

I. Introduction....1
II. The '796 Patent....2
A. Prosecution History....7
B. Person of Ordinary Skill....7
III. Standing....8
IV. Grounds....8
V. Claim Construction....9
VI. Prior Art....10
A. U.S. Patent No. 9,097,860 ("Yu")....10
B. U.S. Patent Application Publication No. 2004/0012861 ("Yamaguchi")....12
VII. How the Challenged Claims are Unpatentable....15
A. Ground 1: Yu Renders Claims 1–11, and 15–25 Obvious....15
1. Claim 1....15
2. Claim 2: "The image capturing lens system of claim 1, wherein the fourth lens element has the object-side surface being convex in a paraxial region thereof."....33
3. Claim 3: "The image capturing lens system of claim 2, wherein the focal length of the image capturing lens system is f, a focal length of the first lens element is f1, and the following condition is satisfied: -0.25<f/f1<0.75."....34
4. Claim 4: "The image capturing lens system of claim 2, wherein the axial distance between the object-side surface of the first lens element and the image-side surface of the fourth lens element is Td, and the following condition is satisfied: 0.8 mm<Td<2.5 mm."....34

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TABLE OF CONTENTS
(continued)

Page

5. Claim 6: "The image capturing lens system of claim 2, wherein a curvature radius of the object-side surface of the second lens element is R3, a curvature radius of the image-side surface of the second lens element is R4, and the following condition is satisfied: 0.5<(R3+R4)/(R3-R4)<2.5."....35

6. Claim 7: "The image capturing lens system of claim 2, wherein the focal length of the image capturing lens system is f, and the following condition is satisfied: 0.5 mm<f<2.0 mm."....35

7. Claim 8: "The image capturing lens system of claim 1, wherein the first lens element has a convex object-side surface in a paraxial region thereof."....36

8. Claim 9: "The image capturing lens system of claim 8, wherein the axial distance between the object-side surface of the first lens element and the image-side surface of the fourth lens element is Td, half of the maximal field of view of the image capturing lens system is HFOV, and the following condition is satisfied: 1.2 mm<Td/tan(HFOV)<2.75 mm."....37

9. Claim 10: "The image capturing lens system of claim 8, wherein a sum of the central thicknesses of the first lens element, the second lens element, the third lens element, and the fourth lens element is ∑CT, the axial distance between the object-side surface of the first lens element and the image-side surface of the fourth lens element is Td, and the following condition is satisfied: 0.80<∑CT/Td<0.95."....38

10. Claim 11: "The image capturing lens system of claim 8, wherein an Abbe number of the first lens element is V1, and the following condition is satisfied: 45<V1."....39

11. Claim 15....40

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TABLE OF CONTENTS
(continued)

Page

12. Claim 16: "The image capturing lens system of claim 15, wherein an Abbe number of the first lens element is V1, and the following condition is satisfied: 45<V1." 41

13. Claim 17: "The image capturing lens system of claim 15, wherein the focal length of the image capturing lens system is f, a focal length of the first lens element is f1, and the following condition is satisfied: -0.25<f/f1<0.75." 41

14. Claim 18: "The image capturing lens system of claim 15, wherein a maximal field of view of the image capturing lens system is FOV, and the following condition is satisfied: 80 degrees<FOV<110 degrees." 41

15. Claim 19: "The image capturing lens system of claim 15, wherein the axial distance between the object-side surface of the first lens element and the image-side surface of the fourth lens element is Td, and the following condition is satisfied: 0.8 mm<Td<2.5 mm." 41

16. Claim 20: "The image capturing lens system of claim 15, wherein a focal length of the second lens element is f2, the focal length of the third lens element is f3, and the following condition is satisfied: f2/f3<-0.75." 42

17. Claim 5: "The image capturing lens system of claim 2, wherein an f-number of the image capturing lens system is Fno, and the following condition is satisfied: 1.40<Fno≤2.25." 42

18. Claim 21 49

19. Claim 22: "The image capturing lens system of claim 21, wherein a focal length of the second lens element is f2, a focal length of the third lens element is f3, and the following condition is satisfied: f2/f3<-0.65." 50

20. Claim 23: "The image capturing lens system of claim 21, wherein an Abbe number of the first lens element is V1, and the following condition is satisfied: 45<V1." 50

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TABLE OF CONTENTS
(continued)

Page

21. Claim 24: "The image capturing lens system of claim 21, wherein the first lens element has positive refractive power, the focal length of the image capturing lens system is f, a focal length of the first lens element is f1, and the following condition is satisfied: 0.25<f/f1<0.75."..... 50

22. Claim 25: "The image capturing lens system of claim 21, wherein a maximal field of view of the image capturing lens system is FOV, and the following condition is satisfied: 80 degrees<FOV<110 degrees." 51

B. Ground 2: Yamaguchi in View of Yu Renders Claims 1-11, 15-16, and 19-24 Obvious. 52

1. Scaling Yamaguchi is Obvious. 52

2. Adjusting Yamaguchi's F-Number is Obvious. 58

3. Claim 1 62

4. Claim 2 73

5. Claim 3 75

6. Claim 4 75

7. Claim 5 75

8. Claim 6 76

9. Claim 7 76

10. Claim 8 77

11. Claim 9 78

12. Claim 10 79

13. Claim 11 80

14. Claim 15 81

15. Claim 16 82

16. Claim 19 83

17. Claim 20 83

18. Claim 21 83

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