# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE PATENT TRIAL AND APPEAL BOARD

Valeo North America, Inc., Valeo S.A., Valeo GmbH,

Valeo Schalter und Sensoren GmbH,

and Connaught Electronics Ltd.

Petitioners

v.

Magna Electronics, Inc.

Patent Owner

U.S. Patent No. 8,643,724

IPR2015-\_\_\_\_

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## DECLARATION OF DR. GEORGE WOLBERG REGARDING U.S. PATENT NO. 8,643,724

VALEO EXHIBIT 1020 Valeo v. Magna Declaration of Dr. George Wolberg Regarding U.S. Patent No. 8,643,724

I, Dr. George Wolberg, do hereby declare and state, that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: June 12, 2015

Leoy Wolkey

Declaration of Dr. George Wolberg Regarding U.S. Patent No. 8,643,724

DOCKET

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		5. Japanese Publication No. 59-114139 assigned to Niles Co., Ltd. ("Niles")
		<ul> <li>6. U.S. Patent No. 5,444,478 to Lelong ("Lelong") Error!</li> <li>Bookmark not defined.</li> </ul>
	F.	Motivations to Combine
		1. Claims 1-18, 20, 22, 23, 25, 29-32, 41, 42, 43, 45 and 48 are obvious over Nissan, Hino, and Lemelson
		a. Nissan renders obvious the limitation "without duplication of objects"
		b. Nissan and Hino render obvious "wherein said synthesized image approximates a view as would be seen by a virtual camera at a single location exterior of i

IV.

	the equipped vehicle"46	
2.	Claims 2, 15, 16, and 18 of the '724 patent are obvious in view of Nissan, Hino, and Lemelson	
3.	Claim 13 is rendered obvious by Nissan, Hino, and Lemelson	
4.	Claim 19 is rendered obvious by Nissan, Hino, Lemelson, and Wang	
5.	Claim 21 is obvious over Nissan, Hino, Lemelson, and Aishin	
6.	Claim 24 is obvious over Nissan, Hino, Lemelson, and Niles66	
7.	Claims 46 and 47 are obvious over Nissan, Hino, Lemelson, and Lelong	
8.	Claims 49, 65, and 78 are obvious in view of Nissan, Hino, Lemelson and Aishin	
9.	Claims 53, 68 and 80 are obvious in view of Nissan, Hino, Lemelson, Aishin, and Wang76	
CONCLUSION		

Declaration of Dr. George Wolberg Regarding U.S. Patent No. 8,643,724

### I. <u>INTRODUCTION</u>

### A. Engagement

1. I have been retained by counsel for Valeo North America Inc., Valeo S.A., Valeo GmbH, Valeo Schalter und Sensor GmbH and Connaught Electronics Ltd., as an expert witness in the above-captioned proceeding. I have been asked to render an opinion regarding the validity of claims 1-86 (the "Challenged Claims") of U.S. Patent No. 8,643,724 ("the '724 patent), which is submitted herewith as Exhibit 1001. The following is my written report on that topic.

### **B.** Background And Qualifications

2. I am currently a Professor of Computer Science at the City College of New York in the department of Computer Science. I have studied and worked in the field of computer science and engineering since 1985. My experience includes research and teaching, with research interests in image processing, computer graphics, and computer vision.

3. I have been working in the field of Computer Science, specifically Image Processing, Computer Vision, and Computer Graphics since 1985. I have a Bachelor's Degree and Master's Degree in Electrical Engineering, both from Cooper Union in 1985. I have a Ph.D. in Computer Science from Columbia University in 1990.

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