

EXHIBIT 5-2

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Filed on behalf of Intel Corporation
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Intel Corporation
Petitioner

v.

ParkerVision, Inc.
Patent Owner

Case IPR2020-01302

**DECLARATION OF VIVEK SUBRAMANIAN, PH.D.
U.S. PATENT NO. 7,539,474
CHALLENGING CLAIMS 1, 3, 4, 7, 9–12**

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I, Vivek Subramanian, declare as follows:

I. INTRODUCTION

1. My name is Vivek Subramanian. I am a Professor of Microtechnology at the École polytechnique fédérale de Lausanne (EPFL) (also known as the Swiss Federal Institute of Technology in Lausanne) in Switzerland. Until recently, I was also a professor of Electrical Engineering and Computer Sciences at the University of California, Berkeley. As of July 1, 2020, I have become an adjunct professor at UC Berkeley upon completion of my move to EPFL.

2. I have been retained as an expert in this proceeding by counsel for Intel Corporation. I have been asked for my expert conclusions regarding the validity of claims 1, 3, 4, 7, and 9–12 of U.S. Patent No. 7,539,474 (the “’474 Patent”) (Ex. 1001-’474). For the reasons set forth below, it is my conclusion that claims 1, 3, 4, 7, and 9–12 of the ’474 patent are invalid.

II. QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

3. My qualifications are stated more fully in my curriculum vitae, which is attached as Exhibit A. Below is a summary of my education, work experience, and other qualifications.

4. I received a bachelor’s degree *summa cum laude* in electrical engineering from Louisiana State University in 1994. I received M.S. and Ph.D.

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