

Filed on behalf of Intellectual Ventures I LLC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC. AND TELEFONAKTIEBOLAGET

LM ERICSSON,

Petitioners

v.

INTELLECTUAL VENTURES I LLC

Patent Owner

Case IPR2018-00727

Patent No. 6,628,629

DECLARATION OF GHOBAD HEIDARI, PH.D.

Intellectual Ventures I LLC

Exhibit 2020

ERICSSON v. IV I

IPR2018-00727

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I. INTRODUCTION AND SUMMARY OF OPINIONS

1. My name is Ghobad Heidari. I am presently the president of GHB Services, LLC, an engineering and intellectual property consulting firm, in San Diego, California. I have 26 years of telecommunications and wireless industry experience in innovation, design, development, standardization, and management. I have also earned a B.S. degree, an M.S. degree, and a Ph.D. degree, all in electrical engineering.

2. I have extensive research and development experience in various wireless communication systems and networks, including Analog, TDMA, CDMA, and OFDMA mobile communication, Bluetooth, Wi-Fi, hardware and software platforms (FPGA, DSP, reconfigurable fabric, integrated circuits), satellite communication and networks, short and long-range communication systems, and centralized as well as peer-to-peer networks.

3. I have been hired by Patent Owner Intellectual Ventures I LLC ("IV") in connection with the above-captioned *inter partes* review ("IPR") proceeding. In the paragraphs below, I provide my opinion that at least claims 1–4 of the '629 patent in the IPR are not obvious to a person of

ordinary skill in the art at the time of invention in view of the instituted grounds for review.

II. PROFESSIONAL BACKGROUND AND QUALIFICATIONS

4. I have 26 years of post-graduate research and development experience in wireless communication systems and networks. In 1992, I received my Ph.D. degree in electrical engineering with an emphasis in spread-spectrum wireless communications from Purdue University in West Lafayette, Indiana. I also received an M.S.E.E. degree from Purdue University in 1990 and a B.S.E.E. degree with a computer engineering option from Michigan State University in East Lansing, Michigan in 1988.

5. Over the last 26 years, I have studied and worked on the development of many different wireless communication systems, including, but not limited to, TDMA/CDMA/WCDMA/OFDMA mobile phones and base stations, IEEE802.11 (Wi-Fi), IEEE802.15 (WiGig, Zigbee), Bluetooth, ISDB/DVB satellite, and terrestrial broadcast TV. I have worked at all layers of various communication systems and networks, most extensively at physical layer, the data link layer (including the MAC sub-layer), as well as the network layer, developing embedded software/hardware systems suitable

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