UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS, LLC

Petitioner

v.

ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE, KWANGWOON UNIVERSITY RESEARCH INSTITUTE FOR INDUSTRY COOPERATION, INDUSTRY-ACADEMIA COOPERATION GROUP OF SEJONG UNIVERSITY,

Patent Owners

IPR2021-00368
Patent No. 9,736,484

PATENT OWNER'S PRELIMINARY RESPONSE PURSUANT TO 37 C.F.R. §42.107(a)

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TABLE OF AUTHORITIES

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