

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner,

v.

UNILOC 2017 LLC,  
Patent Owner.

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**Reply Declaration of Stuart J. Lipoff**

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## **I. Introduction**

1. I, Stuart J. Lipoff, submit this declaration to state my opinions on the matters described below.

2. I have been retained by Google, LLC, as an independent expert in this proceeding before the United States Patent and Trademark Office.

3. I understand that this proceeding involves U.S. Patent No. 9,564,952 (“the ’952 patent”), and that I have been asked to provide my opinions as to the patentability or unpatentability of certain claims of the ’952 patent.

4. This declaration sets forth my opinions, which I have formed in this proceeding based on my study of the evidence; my understanding as an expert in the field; and my education, training, research, knowledge, and personal and professional experience.

5. I am being compensated for my time at the rate of \$375 per hour. This compensation is in no way contingent upon the nature of my findings, the presentation of my findings in testimony, or the outcome of this proceeding.

6. I previously submitted a declaration in this proceeding (Ex. 1003), as well as my CV (Ex. 1004), which collectively explain my educational background and qualifications.

## II. Summary of Opinions

7. I have been asked to provide my opinion in response to certain arguments put forth by Uniloc in its Patent Owner Response related to the *Paulson/Surprenant* system's disclosure of "scanning a plurality of predetermined frequencies for a free frequency." As I explain below, the *Paulson/Surprenant* system discloses "scanning a plurality of predetermined frequencies for a free frequency."

## III. The *Paulson* and *Surprenant* Combination Discloses "Scanning a Plurality of Predetermined Frequencies for a Free Frequency"

8. In my first declaration, I showed that *Paulson* discloses "scanning a plurality of predetermined frequencies for a free frequency." (Ex. 1003 ¶¶ 65-75.) *Paulson*'s Figure 4 illustrates how *Paulson*'s system (1) identifies the claimed "plurality of predetermined frequencies" at Step 402, and then (2) under Steps 404-414, scans and selects "one or more frequencies" for transmission from the frequencies identified in Step 402. (Ex. 1003 ¶¶ 65-75; *Paulson* at Fig. 4, 14:10-15.)

9. Uniloc contends that the set of frequencies identified in Step 402 are not scanned in subsequent Steps 404-414. (Paper 18, Patent Owner Response ("POR") at 10-11.) *Paulson* discloses that, "[i]n one instance, the sonic transmission frequencies available according to the noise characteristic may be too high for the receive device to sample and demodulate." (*Paulson* at 13:29-32.)

Uniloc contends that this disclosure is inconsistent with Step 402 because, if “frequencies are initially determined by the highest frequencies the transmit device can send and the receive device can detect and decode,” there should be no instance where a selected frequency is too high for the receive device to sample and demodulate. (POR at 11 (quoting *Paulson* at 12:53-56, 13:29-32).) According to Uniloc, this demonstrates that the initial frequency sampling in Step 402 “must have been *outside* ‘the highest frequencies ... the receive device can detect and decode,’” so Step 402 is unrelated to *Paulson*’s later steps. (POR at 11 (emphasis in original).)

10. In my opinion, Uniloc’s argument does not account for *Paulson*’s central teaching to “use[] modulation frequencies that reduce the probability of conflict with ambient noise in the environment,” as stated in its title. (*Paulson* at Cover, Item (54) (Title).) Figure 4 discloses techniques for achieving this goal, and *Paulson* describes Figure 4 as “a flowchart representation of the operations for implementing sonic transmission strategies that reduce the probability of interference from noise.” (*Paulson* at 3:1-4.)

11. To achieve this goal of reducing the probability of interference from noise, one of ordinary skill would have understood that it is essential for the noise characteristic created in Step 404 to cover at least the frequencies initially set in Step 402. If it did not, there would be no way for the system to determine whether

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