

IPR2020-01265  
U.S. Patent No. 7,110,444  
Patent Owner's Sur-Reply

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Intel Corporation  
Petitioner

v.

ParkerVision, Inc.  
Patent Owner

U.S. Patent No. 7,110,444

Issue Date: September 19, 2006

Title: WIRELESS LOCAL AREA NETWORK (WLAN) USING UNIVERSAL  
FREQUENCY TRANSLATION TECHNOLOGY INCLUDING MULTI-PHASE  
EMBODIMENTS AND CIRCUIT IMPLEMENTATIONS

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*Inter Partes* Review No. IPR2020-01265

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**PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY**

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## I. INTRODUCTION

*First*, while the parties' constructions of "storage element" are different, the parties *agree* that a "storage element" must store non-negligible amounts of energy from an input electromagnetic (EM) signal. The capacitors of Tayloe (Intel's primary reference), however, only hold a *negligible* (near *zero*) amount of energy from an input EM signal. No other Intel prior art reference changes this fact.

In particular, using the values provided in Tayloe, a capacitor in Tayloe holds only 0.193% of the energy from an input EM signal – a *negligible* amount of energy. On the other hand, using the values provided in the '444 patent (which incorporates the '551 patent) for an energy transfer embodiment, a storage element stores 58.7% of the energy from an input EM signal – a non-negligible amount of energy. *See* Section VII.B. For at least this reason, challenged claim 3 is not invalid.

Recognizing that Tayloe does not disclose storing non-negligible amounts of energy from an input EM signal, Intel provides only a superficial discussion of this *critical* issue. Tellingly, Intel quickly shifts its discussion away from energy storage and, instead, focuses on a *control signal* having non-negligible *aperture widths*. But whether a control signal has non-negligible apertures does not mean that a capacitor will store non-negligible amounts of energy from an input EM signal. How much energy is stored depends on the specific components/configuration of a system.

*Second*, the parties dispute whether a “storage element” is an element of an “energy transfer system.” In its Response, ParkerVision explained why it is. *See* Paper 18 (“POR”), 46-50. The Texas District Court (“Texas Court”) has now *twice* agreed with ParkerVision.<sup>1</sup> Yet, before this Board, Intel persists in making the *exact* same *flawed* arguments that it made to the Texas Court – arguments which rely on a mere *naming convention* rather than how the technology is actually described in the patent, and which the Texas Court has *twice rejected*.

Indeed, the *negligible* amount of energy held in a Tayloe capacitor is exactly what one would expect in a voltage sampling system, not an energy transfer system (a system which drives a low impedance load). Thus, the capacitors of Tayloe are *not* “storage elements.” For this *additional* reason, challenged claim 3 is not invalid.

*Finally*, the parties dispute whether an energy transfer system is driving a low impedance load. Intel incorrectly asserts that limiting the construction in this way is inconsistent with the specification. *See* Reply, 3-4. To the contrary, the specification specifically states that driving a low impedance load is a “benefit” of an energy

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<sup>1</sup> That the Texas Court *twice* provided constructions that support ParkerVision’s view of “storage element” (*see* Ex.-2012, 4-5; Ex.-1038, 2) belies Intel’s assertion that ParkerVision’s arguments lack support in law or fact. *See* Paper 21 (“Reply”), 4.

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