

Filed on behalf of: Momentum Dynamics Corporation

Entered: July 8, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

MOMENTUM DYNAMICS CORPORATION,  
Petitioner,

v.

WITRICITY CORPORATION,  
Patent Owner.

---

Case IPR2021-01166  
Patent 8,304,935

---

**PETITIONER'S REPLY**

**TABLE OF CONTENTS**

I. Introduction.....1

II. Ground 1: Claims 1, 5-8, 15 and 19-22 are anticipated by O’Brien .....2

    A. O’Brien discloses the claimed “source resonator” and “second resonator” .....2

        1. O’Brien discloses the claimed “source resonator” .....3

        2. O’Brien discloses the claimed “second resonator” .....8

    B. O’Brien discloses the “shaping” requirement of claim 1 .....11

III. Ground 2: Claims 1-23 would have been obvious over O’Brien in view of Haaster .....12

IV. Conclusion .....15

**TABLE OF AUTHORITIES**

**Page(s)**

**CASES**

*Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*,  
246 F.3d 1368 (Fed. Cir. 2001) ..... 12

*In re Gleave*,  
560 F.3d 1331 (Fed. Cir. 2009) ..... 13

*SHDS, Inc. v. Truinject Corp.*,  
IPR2020-00935, Paper 30 (P.T.A.B. Nov. 15, 2021)..... 7

**Exhibit List**

<b>Ex.</b>	<b><u>Description</u></b>
1001	U.S. Patent No. 8,304,935 (“’935 patent”)
1002	File History for ’935 patent (“’935 patent FH”)
1003	Declaration of Mark Allen (“Allen Decl.”)
1004	Curriculum Vitae of Mark Allen
1005	Declaration of Sylvia Hall-Ellis
1006	Curriculum Vitae of Sylvia Hall-Ellis
1007	Kathleen O’Brien, <i>Inductively Coupled Radio Frequency Power Transmission System for Wireless Systems and Devices</i> (2007) (Ph.D. dissertation, Technical University of Dresden) (“O’Brien”), including certified translation of the German portions of pages 1-3
1008	U.S. Patent No. 2004/0001299, van Haaster, et al., “EMI Shield Including a Lossy Medium” (“Haaster”)
1009	International Publication No. WO 2005/024865, P. Beart, et al., “Inductive Power Transfer Units Having Flux Shields” (“Beart”)
1010	U.S. Patent No. 6,501,364, Hui, et al., “Planar Printed-Circuit-Board Transformers with Effective Electromagnetic Interference (EMI) Shielding” (“Hui-364”)
1011	U.S. Patent Application Publication No. 2005/0189910, S.R. Hui, “Planar Inductive Battery Charger” (“Hui-910”)
1012	U.S. Patent No. 7,358,447, J.F. Gabower, “Electromagnetic Interference Shields for Electronic Devices” (“Gabower”)

<b>Ex.</b>	<b><u>Description</u></b>
1013	Frederick Emmons Terman, et al., <i>Electronic and Radio Engineering</i> (4th ed. 1947) (“Terman”) (excerpted)
1014	Kathleen O’Brien, et al., <i>Magnetic Field Generation in an Inductively Coupled Radio-Frequency Power Transmission System</i> , IEEE 2006 37th Annual Power Electronics Specialists Conference (July 2006)
1015	G. Scheible, et al., <i>Novel Wireless Power Supply System for Wireless Communication Devices in Industrial Automation Systems</i> , IEEE 2002 28th Annual Conference of the Industrial Electronics Society (Nov. 2002) (“Scheible”)
1016	Estill I. Green, <i>The Story of Q</i> , 43 Am. Scientist 584 (Oct. 1955) (“ <i>Story of Q</i> ”)
1017	David H. Staelin, et al., <i>Electromagnetic Waves</i> 46 (1998) (“Staelin”) (excerpted)
1018	Herbert L. Krauss, et al., <i>Solid State Radio Engineering</i> (1980) (“Krauss”) (excerpted)
1019	U.S. Patent No. 8,169,185, A. Partovi & M. Sears, “System and Method for Inductive Charging of Portable Devices” (“Partovi”)
1020	U.S. Patent No. 7,561,114, M. Maezawa, et al., “Electromagnetic Interference Suppressor, Antenna Device and Electronic Information Transmitting Apparatus” (“Maezawa”)
1021	Kathleen O’Brien, et al., <i>Design of Large Air-Gap Transformers for Wireless Power Supplies</i> , IEEE 2003 34th Annual Conference on Power Electronics Specialists (June 2003)
1022	Kathleen O’Brien, et al., <i>Analysis of Wireless Power Supplies for Industrial Automation Systems</i> , 29th Annual Conference of the IEEE Industrial Electronics Society (2003)

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.