
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FANTASIA TRADING LLC d/b/a ANKERDIRECT.
("ANKER"),
Petitioner

v.

SCRAMOGE TECHNOLOGY LTD.
("SCRAMOGE"),
Patent Owner

Case IPR2022-00499
Patent No. 7,825,537

DECLARATION OF TAMAS SZEPESI, Ph.D.

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	[1.P] A method for inductively transferring power from a base unit providing input power, to a target unit providing output power, where the base unit and the target unit are electrically isolated, comprising:	70
	[1.1] positioning a second inductive element of said target unit within a predetermined distance of a first inductive element of said base unit;.....	71
	[1.2] applying a time varying electric current to said first inductive element to produce a time varying magnetic field, said time varying magnetic field induces an electric current in said second inductive element;.....	75
	[1.3] monitoring at least one parameter indicative of an efficiency of power transfer from said base unit to said target unit;	75
	[1.4] automatically adjusting at least one characteristic of said time varying electric current responsive to said parameter to maximize an efficiency of power transfer from said base unit to said target unit.	80
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	[12.P] An inductive power transfer system, comprising:	93
	[12.1] a base unit comprising a first inductive element configured for providing input power to a second inductive element of a target unit providing output power, said base unit electrically isolated from said target unit; 93	
	[12.2] a positioning structure provided on at least one of said base unit and said target unit for removably positioning said second inductive element at a predetermined orientation and distance relative to said first inductive element;	94
	[12.3] a switch element configured for selectively applying a time varying electric current to said first inductive element to produce a time varying magnetic field, said time varying magnetic field inducing an electric current in said second inductive element; and	96
	[12.4] a control circuit configured for monitoring at least one parameter indicative of an efficiency of power transfer from said base unit to said target unit, and	97
	[12.5] automatically adjusting at least one characteristic of said time varying electric current responsive to said parameter to maximize an efficiency of power transfer from said base unit to said target unit.	98
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	[28.P] A method for inductively transferring power from a base unit providing input power, to a target unit providing output power, where the base unit and the target unit are electrically isolated from each other, comprising:.....	105
	[28.1] positioning a second inductive element of said target unit within a predetermined distance of a first inductive element of said base unit;.....	105
	[28.2] applying a time varying electric current to said first inductive element to produce a time varying magnetic field having an operating frequency, said time varying magnetic field inducing an electric current in said second inductive element;	106
	[28.3] monitoring at least one parameter of an electronic component of said base unit that is indicative of an efficiency of power transfer from said base unit to said target unit; and	106
	[28.4] automatically adjusting said operating frequency based on a value of said parameter to maximize said efficiency of power transfer from said base unit to said target unit.	108
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