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(54) **Title:** POWER CONTROL DUTY CYCLE THROTTLING SCHEME FOR PLANAR WIRELESS POWER TRANSMISSION SYSTEM

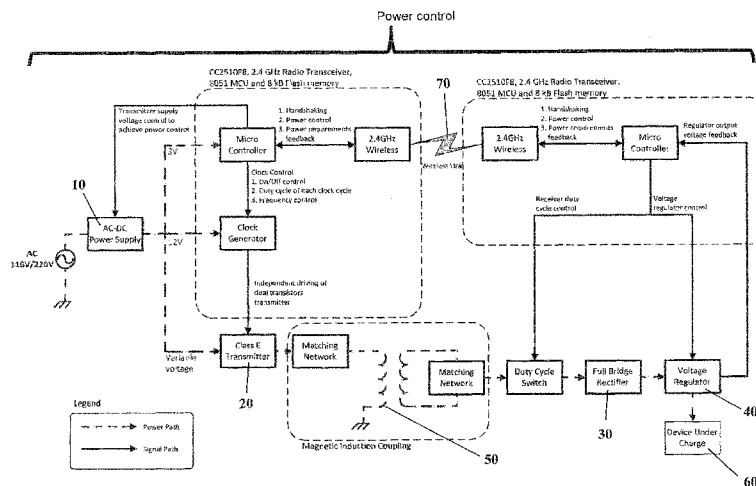


FIG. 1

(57) **Abstract:** Embodiments of a power transmission system and power control scheme are provided. The power control scheme utilizes the power requirements for each receiver of a device on a charging pad for highly efficient charging of multiple devices. According to an embodiment, each receiver transmits its power requirement to the transmitter, and based on this power requirement, the most power hungry device is used to set the duty cycle of the transmitter. Each individual receiver can continue to monitor its power requirement and make necessary adjustments to ensure efficient power transfer. Once all the devices are fully charged, the transmitter can be powered off or have its duty cycle reduced to performance trickle charging. The transmitter can continue to access the load conditions while in standby to detect any new device being placed on the charging pad.

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**A. CLASSIFICATION OF SUBJECT MATTER****H04W 52/18(2009.01)i, H04B 7/24(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC8 : H04W

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) "wireless", "power", "coil", "trans", "induct", "duty"

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2007-015599 A1 (LS CABLE LTD.) 08 February 2007 See abstract; paragraphs [0039]-[0074]; claims 1,4,5,8,10,13,14,16,23,33; figures 1-4.	1-28
Y	US 2008-0067874 A1 (RYAN TSENG) 20 March 2008 See abstract; paragraphs [0044]-[0079]; claims 7,11,12,14,18,19; figures 1,9,13,32.	1-28
A	US 2007-0103110 A1 (JOHN CHARLES CALHOON et al.) 16 June 2005 See abstract; paragraphs [0031]-[0052]; claims 1,2,10,14; figures 2-4.	1-28
A	US 2005-0127868 A1 (DAVID W. BAARMAN) 08 July 2004 See abstract; paragraph [0030]-[0034]; figures 2,3.	1-28

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&amp;" document member of the same patent family

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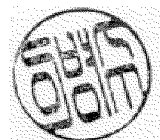
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Information on patent family members

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