A Novel Dual-frequency Wireless Charger for Mobile Devices

Tech ID: 25244 / UC Case 2015-328-0

TECHNOLOGY DESCRIPTION

Disclosed here is a novel multi-standard, dual-frequency, wireless-charging-station for smart phones and tablets, capable of efficiently charging two devices on different standards at the same time. Presently, three different standards are currently in use and backed by a multitude of big name consumer products companies. These standards, the Alliance for Wireless Power (AW4P), the Qi – Wireless Power Consortium (WPC), and the Power Matters Alliance (PMA), rely on variations of inductive power transfer and magnetic resonance and operate in the realm of either 200KHz or 6.78MHz frequencies when charging a device. To date, they are not interchangeable as optimizations for one frequency are inefficient at the other. To enjoy wireless charging of your phone or tablet, one must ensure that the charger they buy (or access publicly) is compatible with their personal device. This has resulted in mixed results, as a public space such as a coffee shop or bar might wish to offer wireless charging, but which standard to support?

Following a year's R&D effort, a prototype charging station has been developed that is capable of concurrently charging two mobile devices operating on two different charging standards. Special circuitry is included to ensure that neither charging scheme interferes with the other and the whole process occurs without any user input. The user(s) simply set their phone on the charger and the device takes care of the rest, interrogating the power needs and charging protocol of your device. This is the first known example of a dual-mode charger that can operate efficiently at two distinct frequency ranges to enable concurrent charging of mobile devices.

This work is presently patent pending with worldwide licensing rights available.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20180198322	07/12/2018	2015-328
Patent Cooperation Treaty	Published Application	2017007932	01/12/2017	2015-328

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OTHER INFORMATION

CATEGORIZED AS

- Communications
  - Wireless

RELATED CASES

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