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●普及の兆しを見せる無線充電技術

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スターバックスやキャデラックの最近の発表が示すように、無線充電技術は普及に向けての準備を着々と進めている。

この分野では、今のところ主流の座を争う規格が2つ存在し、いずれも充電用マットに機器を置くだけで充電することが可能。充電にはレシーバが必要となり、これは機器内に搭載することもできるが、現時点では別売りの特殊なケースを用いる形を取ることが多くなると予想されている。

2つのライバル規格のうち、「Qi」を推進するのは「ワイヤレス・パワー・コンソーシアム」で、LG、フィリップス、サムスン、ソニー等が参加。既に500種類超の「Qi」対応機器が提供されている。

一方、「パワー・マターズ・アライアンス」は、やや仕様が異なる規格を推進していた「アライアンス・フォー・ワイヤレスパワー (A4WP)」と合併。トランスミッターとレシーバがかなり離れていても充電きるような互換規格の策定を進めている。同陣営の代表格であるパワーマットは、スターバックスに技術を供給しているが、同社のダニエル・シュライバー社長は、競合する2つの規格に大きな技術的優劣はないという。

無線充電機能は自動車業界にも搭載の動きが広がっており、キャデラックは両方の技術を採用する予定。これに対してアウディはパワーマット、トヨタはQiを選んでいる。

(参考) 本件報道記事

Powering Up a Phone, No Cords Needed

By ERIC A. TAUB

901 words

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IT may not seem hard to plug a cord into the wall to charge your mobile phone or tablet. Nonetheless, a number of companies are trying to figure out how to save us from the effort.

While still in a nascent stage, wireless charging is becoming a reality, with recent announcements by Starbucks and Cadillac that they'll both be offering the technology. Set your smartphone down on a small mat at a table or in your car's dashboard, and your device will charge.

"It's a paradigm shift," said Daniel Schreiber, president of Powermat, one of the industry's major players in this technology. "Once you have wireless charging in cars, your bedroom and a coffee shop, you don't have to think about power."

There are two main competing versions of wireless charging trying to gain market share. Both use a similar technology that allows users to place smartphones or tablets on a charging mat and power up in no more time than using a cable would take. For the wireless connection to work, a receiver -- which could be in the device but at this point is more likely to be in a special case that you have to buy -- picks up an electrical charge from a transmitter coil in the charging mat.

The Wireless Power Consortium, a trade group, is promoting one technology, Qi (pronounced chee). The consortium's members include LG, Philips, Samsung, Sony and others, with more than 500 Qi-compatible products now available.

Its competitor, the Power Matters Alliance, has joined up with a third group, the Alliance for Wireless Power, or A4WP, which uses a slightly different technology, to create one interoperable version that will also allow the transmitter and receiver to be placed at greater distances from each other.

Powermat, the alliance's most prominent member, is supplying the technology that Starbucks will use when it embeds charging stations in all its company-owned stores in major United States markets by the end of 2015. Each shop will have about 12 charging stations.

So which technology is better? According to Mr. Schreiber of Powermat, neither.

"At a technology level, the differences are not that pronounced," he said. "And lots of devices integrate both standards."

Unfortunately, charging a device wirelessly does not mean you can simply plo

any smartphone down on a power mat; a compatible receiver is essential. Although those receivers may one day be built into phones, for now, they usually require some sort of case.

Samsung, among other manufacturers, offers replacement wireless charging backs for its Galaxy S4, S5 and Note 3 phones. Google's Nexus 7 tablet includes built-in wireless charging. If you use an iPhone and some other Android models of phones and tablets, you'll need to ditch your current case and wrap them in what could be a bulkier receiver that is compatible with either the Qi technology or the one endorsed by the power alliance. .

"Cases are a steppingstone to raise awareness of wireless charging," said Ryan Sanderson, an associate director at IHS, a research firm. "Mass adoption will happen when charging is integrated into the device."

In addition to Starbucks, wireless charging stations can be found in some hotel rooms, airport clubs and restaurants.

Automobile manufacturers are beginning to embrace wireless charging; not only does it help drivers keep their devices charged, but its ease of use theoretically encourages car owners to put away their distracting cellphones when in motion.

Audi will introduce wireless charging worldwide "soon," said Anupam Malhotra, Audi of America's senior manager of connected vehicles. By creating a "phone box" with wireless charging, the ability to gain access to smartphone apps on the vehicle's display and a connection to an external antenna to improve reception, "we can incentivize the customer to put the device away," he said.

With Cadillac, it's more of a mandate than an incentive. Wireless charging will appear in its ATS, CTS, Escalade, Silverado and Sierra models by the end of the year; drivers will power up by placing their smartphones behind the vehicles' CUE information display screen, which will then remain locked until the car is put back into park.

To ensure that a customer doesn't have to choose, Cadillac will offer both wireless charging technologies in its vehicles. Audi is in discussions with

Powermat. And Toyota offers only Qi-compatible wireless charging on its Avalon and 2015 Camry models, as well as the coming Lexus NX and Scion xB.

The Qi technology will introduce a new variation that uses resonance technology, to allow charging to take place even when a device is 45 millimeters away from the charging point. That will allow the transmitter to be embedded inside a desk, for example.

If you're on the fence, which wireless charging standard should you buy? Perhaps neither, Mr. Sanderson said.

"You might want to wait six months and hope that there will be a receiver that supports all three standards," he said. "There have already been demonstrations of chips that do that."

Starbucks recently said it would embed charging stations in all its company-owned stores in major United States markets by the end of 2015. (PHOTOGRAPH BY STARBUCKS); A wireless charging back for Samsung's Galaxy S5 phone, above, and the technology in a Cadillac.

Source:

http://www.nytimes.com/2014/08/07/technology/personaltech/powering-up-without-any-cords.html?_r=0

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