

QUALCOMM HALO™

No fuss, just wireless

Wireless charging for electric vehicles



qualcommhalo.com

A complete end-to-end system design

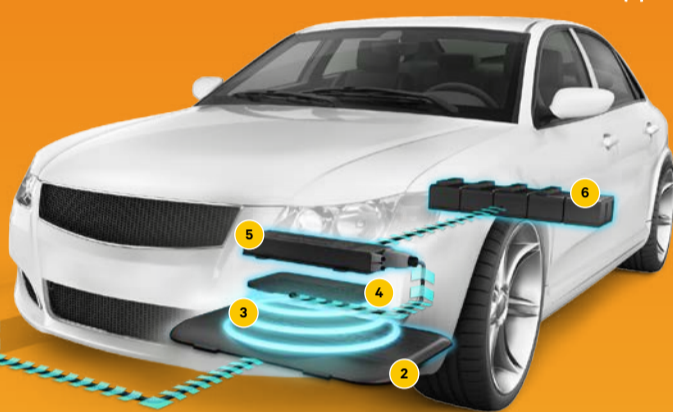
Wireless Electric Vehicle Charging (WEVC), is a simple, no fuss solution for charging Electric Vehicles (EV). Qualcomm Halo WEVC technology uses resonant magnetic induction to transfer energy between a ground-based pad and a charging pad on the electric vehicle.



The Base pad and the Vehicle pad are magnetically coupled and tuned, and energy is transferred efficiently between the pads. Power is converted to Direct Current (DC) by the on board controller and used to charge the vehicle's batteries.

With Qualcomm Halo WEVC technology, drivers simply park in the charging bay and charging commences automatically. Simplicity, minimum driver intervention, and high efficiency power transfer comparable to conductive charging, are key advantages.

Qualcomm Halo WEVC: 3.3kW – 6.6kW – 20kW



- 1 Power supply
- 2 Base pad
- 3 Wireless power & data transfer

- 4 Vehicle pad
- 5 On board controller
- 6 Battery

Qualcomm Halo WEVC benefits:

- Ease of use – fully automatic effortless
- No plug-in cord to steal or unplug
- Waterproof and weatherproof
- Rugged and durable
- Maintains precious footpath real estate
- No trip hazard caused by cables

Packaging Volume: Small, flexible design for multiple vehicle platforms



90% Efficiency



Integration

Ease of Use:

High tolerance
to misalignment

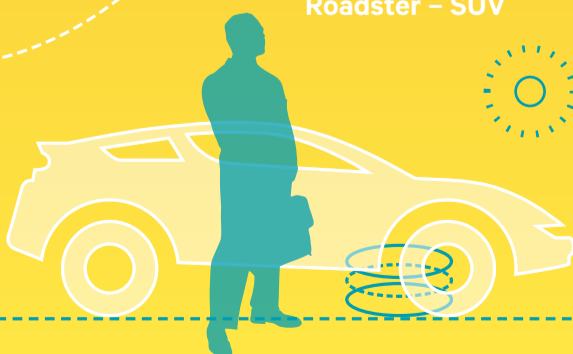


Design Flexibility:

3.3kW – 6.6kW – 20kW
Roadster – SUV

Future Vision:

Dynamic wireless EV charging
– charging-on-the-move



Safety & compliance:

Foreign object detection & living object protection





26,000

Employees

Engaged with major Standards & Regulatory bodies

Our pedigree

27

Years of Wireless Innovation

\$3.9 Billion

R&D Spend

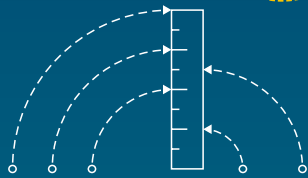


Long history in Wireless Power Research

Automotive experience: Sustainable and smart transportation solutions

\$19 Billion

Fiscal 2012 Revenues



Navigation Services



Safety & Security



Application Downloads



Content Streaming



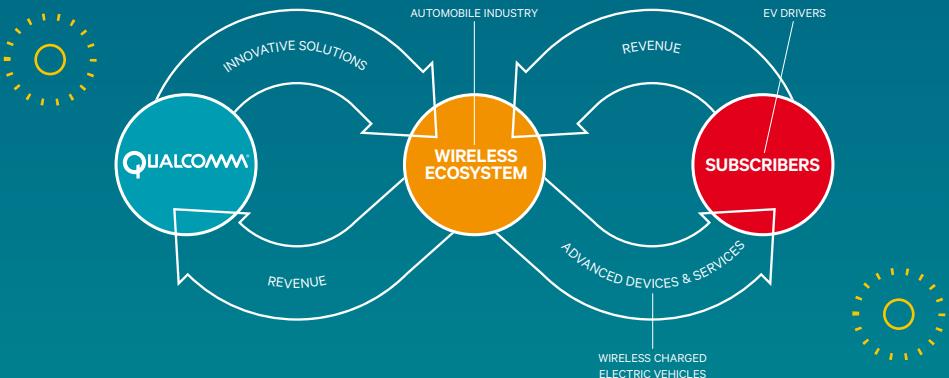
Mobile Hotspot



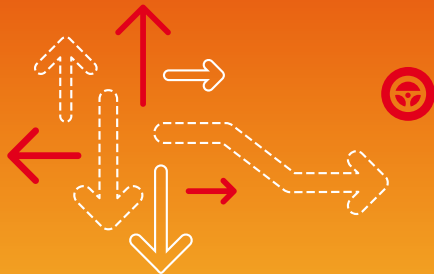
Wireless EV Charging

Our business model

Licensing | Collaborative | Enabling



Qualcomm licenses its technology to companies that manufacture products to meet the needs of their customers. This business model ensures that multiple companies can bring their own innovations to the industry, driving development of unique product features and total system capabilities.



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