



WIRELESS CHARGING

The unique and fashionable way to charge mobile devices!

The charging of smartphones in the car can represent an unpleasant issue. With Molex Wireless Charging, mobile devices can be charged smoothly and quickly without any cable. No unaesthetic cradles anymore! However the phone is placed in the tray – a multi-coil system always ensures the best possible charging.



Benefits

Mobile devices can be charged quick and convenient in the vehicle without any cable

It does not matter how the phone is positioned in the tray – the Molex solution is based on multiple inductive coil system to guarantee permanent and optimal charging capacity

Combined with the Molex antenna coupling you get best reception during your journey

Automatical identification of metal (e.g. coins) to avoid the heating of objects in the charging tray

Why Molex?

The intensive usage of the smartphone during the daily life generates anxiety in the frequent case of out of battery. Molex solves this issue for drivers and passengers offering a comfortable and quick charge of their mobile devices in the car without any cable.

How does it work?

To achieve maximum device coverage, the Wireless Charging Units by Molex feature hardware to meet the broadest possible requirements. Therefore Molex's wireless charging solutions is compatible with the communication protocol: „Qi“ (pronounced „Chee“) part of the Wireless Power Consortium (WPC). „Qi“ possesses a broad distribution range being adopted by more than 200 companies, including Microsoft, Apple (from iPhone 8), Samsung, Sony and almost all Android smartphone providers.

It is based on the principle of inductive coupling by using an electromagnetic field. The charging process automatically starts and it switches off, if the battery is full or the device is removed. In the case that the end user smartphone is not compatible with the Qi standard, the system switches off immediately and protects the smartphone from any interference. The „Consumer Electronics for Automotive“ (CE4A) Group represents the leading car manufacturers such as BMW, Audi and Daimler and has set „Qi“ as the common standard.

Why does it matter?

Molex Wireless Charging creates a perfect environment to integrate the end user's smartphone in the car: Comfortable, through a multi inductive coil system, efficient, through Qi standard and fashionable, avoiding the use of cables and cradles. It is the solution for wireless charging on the market, by a potential variety of implementation in all market segments, premium and generalist.



WIRELESS CHARGING

Technical Specifications

COMPATIBILITY STANDARDS

Qi (WPC = Wireless Power Consortium)

CAN/LIN

Optional

- Coupling antenna (GSM/UMTS/LTE)
- NFC
- BTLE

SIGNALIZATION

Via CAN/LIN -> Head Unit

LED

POWER

Transmission power: 5W / 8W / 15W

Efficiency: up to 74%

Power supply: 9 – 16V

Fixed frequency: 110kHz to 135kHz

Multi Coil Solution

Smart Device Cooling:

- Passive
- Active (integrated):
Cooling of the smartphone during charging and independently from charging

MEMBERSHIPS & TECHNOLOGY COOPERATIONS

WPC full member; member of automotive application group

NFC-Forum associated member

Texas Instruments

NXP

KEY-FOB INTERFERENCE REDUCTION

Self-contained by Wireless Charging system

Initiated by the car

AUTOMOTIVE REQUIREMENTS

Temperature: – 40 to + 85°C

Litz Wire Coils

Flexible Ferrite (for automotive)

EMI: Shielding for electronic and electrical fieldSafety:

- Detection of foreign objects
- Fixing the mobile phone in its original position

CYBER SECURITY

Physical Security

Security Assessment



COMPLETE SOLUTIONS TO ACHIEVE YOUR VISION

Our capabilities are constantly evolving to meet the demanding requirements for autonomous driving, infotainment and connectivity. We take an holistic solution mentality to achieve end-to-end connectivity and optimal performance.

molex

www.molex.com/connected-mobility

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