



Mobility



Energy



Environment



The Future is Wireless

INTIS - Cutting-Edge
Inductive Charging Technology

APPLICATION EXAMPLE

Automated industrial vehicles



APPLICATION EXAMPLE

Autonomous shuttle



APPLICATION EXAMPLE

Bus



APPLICATION EXAMPLE

Taxi waiting lane

(In development in TALAKO project in Cologne, Germany)



KEY FEATURES:

- ▶ Vehicle battery voltage ranging from 48 V ... 80 V up to 800 V high voltage
- ▶ Vehicle charging current up to 400 A (for low-voltage systems)
- ▶ Horizontal or vertical charging pad configuration

KEY FEATURES:

- ▶ Charging power from 5 - 50 kW
- ▶ Suitable for lithium ion or lead acid batteries
- ▶ Integration of INTIS positioning information with shuttle control possible
- ▶ Charging pad on-ground or in-ground configuration possible

KEY FEATURES:

- ▶ Charging power up to 50 kW (single module) or combine multiple modules
- ▶ Retrofit via existing CCS fast-charging interface possible
- ▶ Position tolerances suitable for normal bus operation
- ▶ Charging pad in-ground or on-ground installation possible

KEY FEATURES:

- ▶ Charging power up to 50 kW
- ▶ Semi-dynamic charging - charge while stopped as well as rolling forward
- ▶ Suitable for retrofitting to existing EV taxis (e.g. LEVC TX)
- ▶ Fully automatic charging and billing

ADVANTAGES:

- ▶ **Maximum flexibility for infrastructure changes**
 >> the inductive charging system can be easily relocated as your logistics processes evolve
- ▶ **Higher availability and reduced life-cycle costs**
 >> fewer back-up vehicles required, due to more frequent opportunity charging
- ▶ **Reduce maintenance and increase longevity**
 >> no wearing parts, operate your battery at optimum state of charge

ADVANTAGES:

- ▶ **Reduce operational costs**
 >> completely autonomous charging with no need for personnel
- ▶ **Reduce costs and weight**
 >> smaller batteries possible with frequent opportunity charging
- ▶ **Increase longevity**
 >> optimum charging pattern for the vehicles' batteries

ADVANTAGES:

- ▶ **Reduce costs and weight**
 >> smaller batteries possible with frequent opportunity charging
- ▶ **Increase longevity**
 >> reduced battery stress with more frequent, lower-power charging
- ▶ **Low maintenance**
 >> no moving parts for minimum wear and tear

ADVANTAGES:

- ▶ **High charging power**
 >> charge approx. 100km in 20 minutes
- ▶ **Maximise up-time**
 >> fewer breaks for charging needed, use dead-time to charge
- ▶ **Reduce costs**
 >> drive using EV mode, minimise fuel consumption of PHEV's

Getting to know INTIS

INTIS GmbH was founded in 2011 as a subsidiary of the IABG mbH and has its headquarters in Hamburg. As an engineering service provider, we specialise in integrated solutions in the mobility and energy sectors. At our test facilities, we develop and realise technologies that help to reduce environmental pollution and minimise use of resources.

The focus of INTIS' service portfolio is on the growing demand for modern transport and energy systems that are flexible and future-proof. Current focal points are control, drive and power supply systems for electric vehicle applications, as well as energy storage and management systems.



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Image Source:
Title: UNP Influence Associates LEVC
Autonomous shuttle: Westfield Technology Group
Bus: Levke Jannichsen
Taxi waiting lane: UNP Influence Associates LEVC