



Universal Phone Tray



paragon has been developing hands-free telephone systems for the automobile industry for well over a decade and continues to offer innovative solutions for the newest trends in the mobile phone market.

The Bluetooth standard now makes it possible to have the mobile phone anywhere in the vehicle. However, this apparently convenient solution does present some major disadvantages. Since contact to the mobile network has to go through a mobile phone, it means that the signal is always struggling to overcome the barrier of the passenger compartment. Thermopane glass also reduces the telephone signals. The result is a high exposure to radio waves in the passenger compartment and a greater drain on batteries. The Universal Phone Tray solves these problems intelligently and combines the advantages of an adapter specific to mobile phones with unlimited freedom of choice with regard to the mobile phone. Another innovation enables the mobile telephone to be operated without a cable by using wireless charging technology.



Principle

Antenna connection

For quite some time, individual adapters have been the standard for hands-free phoning in cars. Via the antenna connection, they picked up the transmission signal from the mobile phone and sent it to the vehicle's exterior antenna. At the same time, the telephone was charged via the plug connector. The disadvantage was that it was necessary to use an adapter for a specific type of mobile phone. The Universal Phone Tray offers a new dimension in hands-free phoning. All that is needed is to place the mobile phone or smart phone into the universal coupler antenna tray. The Universal Phone Tray picks up the antenna signal from all phones, regardless of type, model, or location on the adapter, and sends it to the exterior antenna. A USB connection and the adapter cable that comes with the mobile phone are all that is needed to recharge the phone.



Wireless charging



The universal connector tray with wireless charging represents another milestone in the integration of the mobile phone into the vehicle. The wireless antenna connection and wireless charging eliminate the need for plug connectors for convenient hands-free phoning.

The cell phone manufacturers are relying more and more on the wireless charging function, and they already offer integrated solutions in addition to adapters. This trend will continue, and in the future every cell phone user will expect to be able to charge his or her cell phone at various places, such as in the airport, in a café, on a train and at home. paragon now offers this convenience in the car.

This solution is based on the open, already established qi standard, which is being advanced by a large number of companies in the Wireless Power Consortium (WPC). This standard ensures that only the required charging current is supplied and that the function is not made available until a compatible device is lying in the tray. Foreign object recognition also guarantees safe operation, for example, when a metal object is located under the cell phone.

Functions

paragon offers the Universal Phone Tray (UPT) in a number of models that are matched to requirements. The models combine the following functions:

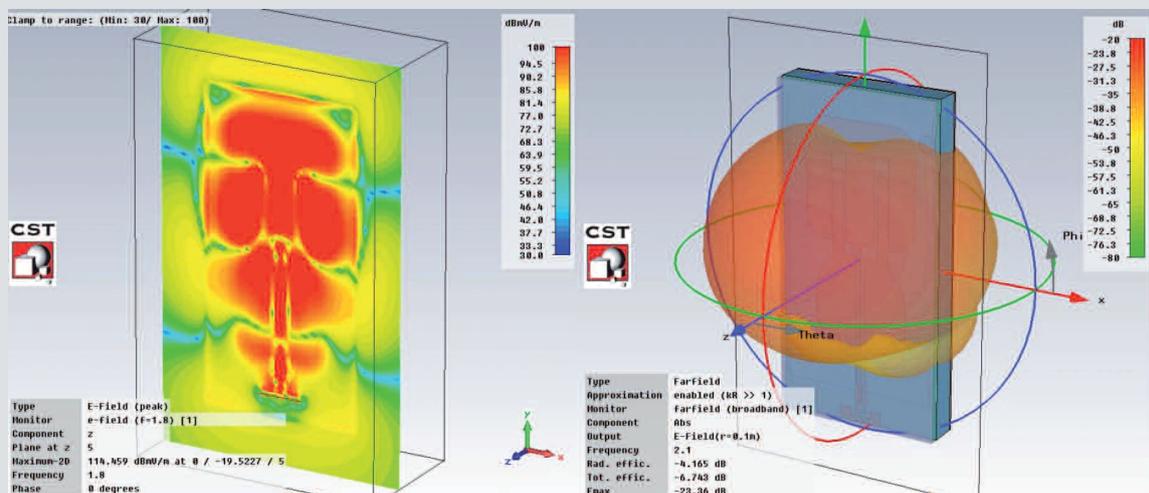
- Connecting the mobile phone antenna to the vehicle's exterior antenna, regardless of the phone's position in the tray.
- Charging the phone battery via USB
- Wireless charging of the battery, independent of its position in the cell phone tray
- Near field communication for personalized functions (in preparation)

Function Matrix

	Antenna connection	Charging via USB	Wireless charging
UPT - connection	X	X	
UPT - wireless charging			X
UPT	X		X

Competence

paragon has many years of experience in developing and producing adapters for specific mobile phones. The most advanced software tools are used in developing and optimizing the high-frequency design.

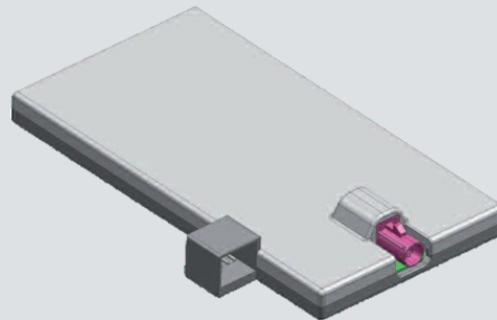


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Series Integration

Paragon develops solutions that are integrated directly into series production. In addition to the mobile phone trays that are typically mounted on based adapters, the wireless connection to the cell phone offers integrated solutions in the vehicle interiors as well.



Technical Specifications

Antenna connection

- Supported frequency bands:
GSM 900 und 1800, UMTS 2100
- Expanded frequency rangers for LTE

Wireless charging

- Supported standard: - Qi Standard*
Optional: multi-standard
- Charging current up to 1.25 A
- Greater than 80% efficiency independent of the position of the cell phone in the tray

* The 'Qi' symbol is a trademark of the Wireless Power Consortium

