

Compensator® & Antenna Coupling

Best mobile reception with patented high frequency technology

Being Faraday cage, the car doesn't offer the best environment to make a phone call. The loss of signal is significant. The quality of the calls is often poor.

With Laird's automotive Best Reception Solution the signal loss is reduced to zero. The quality of the phone calls is outstanding. The car driver has the same data and voice transmission quality as outside the vehicle.

WHAT IS THE VALUE PROPOSITION?

Often the antenna of a mobile phone is not able to ensure the required reception inside the vehicle, because the vehicle body shields the radio signal. The loss of signal in a midclass vehicle is such grave that just 1/16 to 1/32 of the signal generated by a phone will penetrate outside the vehicle.

Laird solves this issue fully compensating this lost by improving the quality of the calls. The motorist inside the vehicle will have the same reception's quality as who is phoning outside the vehicle.

HOW IT WORKS?

Laird's automotive Best Reception Solution is based on the co-work of the Antenna Coupling with a MultiBand Compensator®. The Laird antenna coupling picks the telephone signal via near-field coupling and transmits it via cable through the MultiBand Compensator® to the exterior vehicle antenna. The Laird MultiBand Compensator® compensates for signal loss, thus ensuring outstanding data and voice transmission, improving the quality of the calls. The overall system gain is zero (0dB).

WHY IT MATTERS?

Laird's Best Reception System guarantees outstanding quality of the calls made inside the vehicle. By better audio quality; higher data rates; less radiation; lower power usage; as a system without the Laird technology inside.

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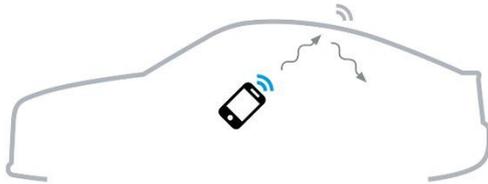
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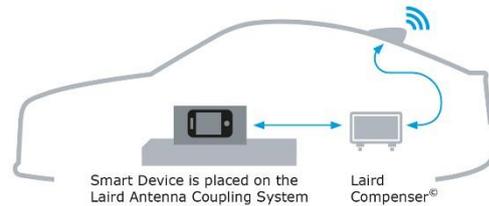


BENEFITS



Without Laird

The average loss of signal in a mid-class vehicle is about 12 to 15 dB. This means that from a phone's emitted signal within a vehicle, just 1/16 to 1/32 will penetrate to outside of the vehicle.



With Laird

The losses caused by the coupling and the antenna cable are fully compensated by the LTE-MBC. The mobile phone has outstanding reception comparable to as being outside the vehicle. This results in:

- Better audio quality
- Higher data rates
- Less radiation
- Lower power usage

KEY FEATURES

- Unique and proven solution
- Signal loss is compensated, due to the coupling of a mobile phone and the radio frequencies cable inside a car
- Achieves the data and voice transmission rates of outdoor phone usage
- Radiation levels in the vehicle are reduced
- Supports all mobile phone frequency bands and systems, incl. LTE
- Requirements of the network operators are met
- No down conversion or frequency mixing; the Laird solution works on the physical layer at radio frequencies of mobile phone standards
- No SIM card, no IMEI; the Laird solution has no influence to the protocol layer between mobile phone and base station
- Market – and vehicle – dependent customization of the product
- Optional: Wireless Charging

TECHNICAL PARAMETERS

ANTENNA COUPLING:

- It works with all smart devices
- It supports all current and future mobile networks incl. 2G, 3G, 4G, 4.5G, LTE

Frequency Bands (EU-Version*)

* Adaptation possible for NA and China

Mobile Phone Standards	Band acc. 3GPP	TX Frequency (uplink)	RX Frequency (downlink)
LTE-FDD 800	Band 20	832 ... 862MHz	791 ... 821 MHz
GSM / UMTS / LTE-FDD 900	Band 8	880 ... 915 MHz	925 ... 960 MHz
GSM / UMTS / LTE-FDD1800	Band 3	1710 ... 1785 MHz 1805 ...	1880 MHz
UMTS / LTE-FDD 2100	Band 1	1920 ... 1980 MHz	2110 ... 2170 MHz
LTE-FDD 2600	Band 7	2500 ... 2570 MHz	2620 ... 2690 MHz

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