

# LTE Antenna for fast Internet

In many regions, Internet connection via DSL is still impossible. This is where Internet via the mobile radio standard LTE (Long Term Evolution) comes into its own. LTE uses Multiple-Input-Multiple-Output antenna technology (MIMO). This enables the provision of low-cost, high-rate data services. But even if the LTE signal is good outside a building, the indoor reception is often problematical. The solution is the LTE external antenna. In this case, the signal is transmitted into the interior by cable, providing the user with genuine broadband Internet via mobile radio.

With this high data rate, private or commercial users can connect several computers without any problem. The system provides sufficient band width for such things as modern online cinema and also large company servers.

The 5 m cable supplied is very flexible and easy to lay. If the length is insufficient or the cable losses too high, we recommend the use of the loss-free cable from Funkwerk Dabendorf, which can be ordered as an optional extra.



## Product features

- Internet access via modern LTE mobile radio network, even in regions without DSL connection
- full MIMO data rate
- one-off investment
- high-quality stainless steel fitting materials
- for wall- or mast-mounting
- connection between the antenna and end-device also possible by loss-free LTE cable from Funkwerk Dabendorf

## Pack includes

- External antenna
- Connection cable, optional: loss-free LTE cable
- Mounting bracket for wall- or mast-mounting with accessories
- Operating instructions

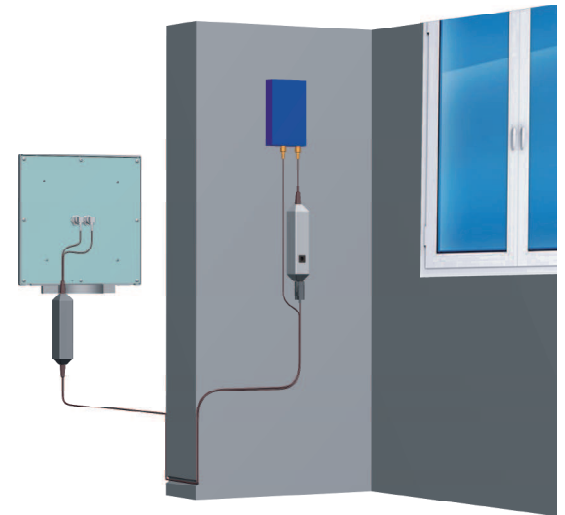
## Technical Specifications

- **Frequency range:** 791 - 862 MHz
- **Frequency band:** LTE 800 (Band 20)
- **Gain:** 8 dBi
- **Return loss /VSWR:**  $\leq -10$  dB /  $\leq 2.3:1$
- **Cross-polarisation ratio in sector:**  $\pm 60^\circ$ :  $> 10$  dB
- **Insulation of both antennas:**  $> 20$  dB
- **Maximum input performance:** 5 W
- **Impedance:** 50 Ohm
- **HF connections:** 2 x BNC / female
- **Housing**
  - Dimensions (H x W x D): 230 x 215 x 60 mm
  - Material: ABS, low-inflammability, UV-resistant
  - Ambient temperature (min - max):  $-40$  to  $+85$  °C
- **Cable**
  - Type: RG 174 (twin cable)
  - Diameter: 2x 2.7 mm
  - Length: 5 m
  - HF connections (antenna): 2 x BNC / male
  - HF connections (end-device): 2 x SMA / male
- **Optional: Loss-free LTE cable**
  - Type: RG 174 (twin cable)
  - Diameter: 2 x 2.7 mm
  - Length: 15 m
  - HF connections (antenna): 2 x BNC / female
  - HF connections (end-device): 2 x SMA / male

# Loss-free LTE Cable for fast Internet

In many regions, Internet connection via DSL is still impossible. This is where Internet via the mobile radio standard LTE (Long Term Evolution) comes into its own. LTE uses Multiple-Input-Multiple-Output antenna technology (MIMO). This enables the provision of low-cost, high-rate data services. But even if the LTE signal is good outside a building, the indoor reception is often problematical. The first solution takes the form of external LTE antennas. On the cable route to the end-device however, up to 50% of the transmission and reception performance is lost. To overcome this problem, we have developed the loss-free LTE cable. For the first time, the LTE signals travel from the antenna to the end-device without any loss. In contrast to conventional low-loss cables, the LTE cable can be laid flexibly over long distances, thanks to its minimal bend radius and small diameter, thereby providing the full MIMO data rate. This loss-free data transmission with maximum flexibility is made possible by our patented Compenser technology, a high-performance 2-way signal amplifier.

With this high data rate, private or commercial users can connect several computers without any problem. The system provides sufficient band width for such things as modern online cinema and also large company servers.



## Product features

- easy plug-and-play solution (self-explanatory)
- 0 dB loss
- high flexibility due to minimal bend radius and small diameter
- for use with LTE antenna
- full MIMO data rate
- one-off investment
- twin cable for 2-way LTE data flows
- LTE antenna also available from Funkwerk Dabendorf

## Pack includes

- 15 m plug-and-play cable  
( incl. built-in Compenser, DC feed filter, power supply unit and plug connections for antenna and end-device )
- Operating instructions

## Technical Specifications

- **Frequency range:** 791-862 MHz
  - downlink 791-821 MHz
  - uplink 832-862 MHz
- **Frequency band:** LTE 800, Band 20
- **Output performance:** max. 25 dBm
- **Input performance:** max. 25 dBm
- **Impedance:** 50 Ohm
- **Operating voltage:** 8 to 14 VDC
- **Power consumption:** max. 0.5 A
- **DC feed filter**
  - Dimensions: Height 25 mm
  - Width 30 mm
  - Length 120 mm
- **Compenser**
  - Dimensions: Height 25 mm
  - Width 30 mm
  - Length 120 mm
- **Material:** low-inflammability, UV-resistant
- **Operating temperature range:** -40 to +85 °C
- **Cable**
  - Type: RG 174 (twin cable)
  - Diameter: 2 x 2.7 mm
  - Length: 15 m
  - HF connections (antenna): 2 x BNC / female
  - HF connections (end-device): 2 x SMA / male