

# Antonics GmbH

## ANTONICS Technology for Wiener Linien



CNC milling machine at the ANTONICS factory © ANTONICS

**S**mart, extremely flat and made in Germany.

This describes the innovative ANTONICS antenna technology best. The leading German developer and manufacturer of innovative high-tech antenna system technology is based in Velten, near Berlin, and develops, produces and designs high-tech antennas in-house. With the planar antenna technology from ANTONICS, it is possible to use different communication systems, such as 5G, LTE, UMTS, GSM-R, FRMCS, TETRA, WLAN or GNSS, via a single, very flat antenna. ANTONICS antennas are used in Deutsche Bahn trains and on the trains and buses of numerous German and international long-distance and local transport companies.

Together with its Austrian sales partner Tomek GmbH, which has been active in industrial electronics since 1978, ANTONICS is supporting Vienna's trams and underground trains on their way towards the digital age. After an intensive testing phase, the project started in May 2022. By 2024, a total of 333 ULF trams, 117 Silberpfeil underground trains, 62 V-type underground trains and 144 T-type underground trains will be modernised including all the vehicles from Siemens and Alstom.

### Equipped for the Future

Wiener Linien's objective is to find a future-proof solution over the coming years, which will cover many possible GPS, WLAN and mobile phone bands. *"We need a strong and competent partner for this kind of*

*project,” says Martin Blemenschitz, Managing Director of Tomek GmbH. “Given that ANTONICS is known in the industry for developing innovative antennas tailored to customer requirements, the decision was made quickly.”*

In total 700 OmPlecs®-TOP 200 AMR MF-05 -5- L1-L2 TO antennas will be installed. The antenna was developed in a short amount of time and meets all the specifications as set out in the project’s tender. The tender motivated the development of a high-precision, future-proof, yet small 5G antenna that enables precise positioning.

## Low Height, Maximum Technology

The OmPlecs®-TOP 200 AMR MF-05 -5- L1-L2 TO generation of rail antennas is characterised by a low antenna installation height of only 60mm. Small and smart, this three-port antenna integrates various communication bands (open system for GSM, GSM-R, UMTS, LTE and 5G signals), WLAN 2.4/5.8 and satellite signals (GPS, GLONASS, Galileo and BeiDou). All these technologies are combined in just one single, flat antenna. Cost-intensive splitters are unnecessary due to the selective coupling of the respective frequency range via high-quality N and TNC-series connectors.

This makes the ANTONICS solution far more cost-effective.

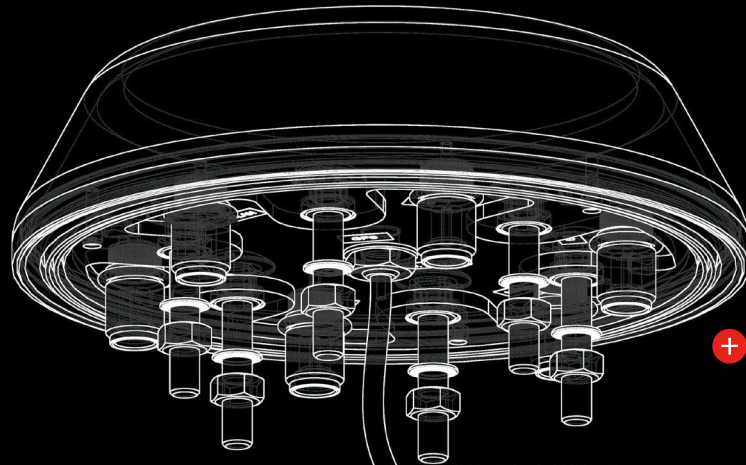
## Digital Wireless for High Voice Quality, Fast Data Transmission, and More

With the switch to digital wireless, Wiener Linien is optimising the quality of vehicle announcements, among other things. Two million passengers will profit from the technology update every day. While the channels of analogue wireless are limited, far more calls can be made simultaneously via the digital route. Additionally, ANTONICS antennas support faster data transmission and easier software updates. This expands Wiener Linien’s service and contributes to the user satisfaction of public transport in Vienna.

For more information visit our website  
[www.antonics.com/en](http://www.antonics.com/en).



Line 49 at Hütteldorf station  
 © Wiener Linien / HELMER\_M



+ 2 m-Band, 70 cm-Band, ISM, GSM, GSM-R, UMTS, LTE+, 5G, WLAN, WiFi-6E, GNSS

