



**PIDSO**

PROPAGATION, IDEAS & SOLUTIONS GmbH

# CONNECTING VALUES.

Development and production of antennas, antenna systems and radar technology.



„CONNECTIONS ARE THE KEY TO SUCCESS.  
HUMAN, TECHNICAL AND GLOBAL.“

**PIDSO is your expert for the development and production of antennas, antenna systems and radar technology from Austria.**

We supply the key technology for networking in various sectors such as automotive, event production, motorsport, infrastructure, industry 4.0. as well as manned and unmanned aviation.

Innovation and solution-oriented thinking characterize the PIDSO team: We love every challenge and offer our customers tailor-made complete solutions from a single source. Our service portfolio ranges from our own product development to customer-specific solutions to services in the area of high-frequency simulation and measurement as well as in prototype construction.

In doing so, we rely on the latest technology and always focus on individual customer needs.



**DI Dr. techn.  
Christoph Kienmayer**  
**Managing Director & Founder**

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## **Quality Products**

Innovative & Future-Safe



## **Tailored Service**

Complete-Service-Package & Consulting



## **Individual Customer Solutions**

Tailored to each Application



## **Complete Provider**

Connectivity Solutions for every Area

# PIDSO is a one-stop-solution provider for high end antennas, antenna-systems & radar technology.

We are focused on three fields:



OFF-THE-SHELF  
PRODUCTS



CUSTOMIZED  
SOLUTIONS



RESEARCH &  
DEVELOPMENT

## CERTIFIED QUALITY

The company PIDSO - Propagation Ideas & Solutions GmbH commits itself to the maintenance and continuous development of a QM-system according to **EN 9100:2018**, which is based on the same structure and requirements of the **ISO 9001:2015** standard and includes additional requirements for the aerospace industry.

It is also a globally recognized standard for quality management in development, production and maintenance in the aerospace industry.



## CUSTOMER REFERENCES



## RESEARCH PARTNER



# THE PIDSO SERVICE-PACKAGE

WE OFFER OUR CUSTOMERS A COMPLETE SERVICE PACKAGE, FROM FIRST IDEA TO PRODUCTION.

## CIRCUIT DESIGNS AND SYSTEM DESIGNS

According to your product specifications, we create a concept design and develop your individual circuit design together with the software. The PIDSO expert team advises and supports you at every stage in the realization of your communication solution.



## HIGH FREQUENCY MEASUREMENTS AND SIMULATIONS

With a wide range of simulation tools, circuit simulators, and 3D EM field simulators, PIDSO is able to develop customized solutions quickly and efficiently. Optimizations with regard to positioning of the antenna, directional characteristics or a general reception improvement can be conducted.

## ENVIRONMENTAL SIMULATIONS AND MEASUREMENTS

Under realistic conditions, the effects of different environmental influences on the function and performance in the cold chamber are simulated. Based on the results, each antenna tested is adjusted to improve its performance and reliability.



## PROTOTYPE CONSTRUCTION AND SMALL BATCH PRODUCTION

Fast and reliable prototyping is ensured by an in-house prototyping line. The prototypes are measured in the company's own high-frequency laboratory. Various standard tests such as MIL-STD-810F operating tests are also carried out on customer request.

After initial prototyping we can also transfer designs to series production. Together with external partners and our in-house capabilities, quantities up to several thousand pieces are realizable. This includes, but is not limited to, CNC machining, PCB assembly, end-testing and complete product assembly.



## CUSTOMIZED CABLE SOLUTIONS

Individual applications can require very complex cable solutions. PIDSO offers all communication components, including cable solutions specifically tailored to customer needs.





# FIND THE BEST SOLUTION

WE HELP CUSTOMERS IMPLEMENT THE OPTIMAL ANTENNA SOLUTIONS FOR THEIR CHALLENGES.

We realize complex communication requirements for customers worldwide.

PIDSO's wireless communication solutions are used in various fields around the world. From supplying WiFi to Bolivian cable cars to applications for yachts, unmanned aerial systems and racing cars. Our customers throughout the world rely on the expertise of PIDSO.

## AUTOMOTIVE

- Aerodynamically neutral integration of antennas on vehicle surfaces
- Antenna integration in vehicle structures made of composite materials
- Concept development and feasibility studies



## MANNED AND UNMANNED AVIATION

- Reduction of electricity demand (SWaP)
- Range and payload increase, especially for unmanned aerial vehicles with tracking antenna systems (TAS)



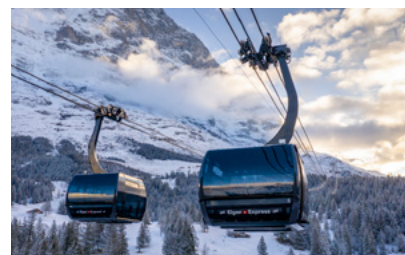
## EVENTS

- Broadband antenna systems for worldwide frequency allocations
- Synergies with our partner Riedel Communications, a renowned broadcast solution provider, to ensure allround connectivity solutions



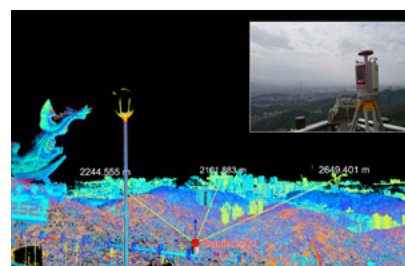
## INFRASTRUCTURE

- Products developed for continuous in- and outdoor operation
- Optimized service and improved customer experience
- Weight and size reduction



## INDUSTRY 4.0

- LoRa and multipoint communication
- Easy integration into „The-Things-Network“
- Resistance to extreme environmental conditions and universal mounting for every application



# EXCERPT PIDSO OFF-THE-SHELF PRODUCTS

READY TO ESTABLISH A CONNECTION THAT LASTS.



## Array Antennas

### High-performance and reliable

PIDSO's array antennas can master any connection challenge with their elaborated antenna arrangement and special radiance characteristics. Protected by a dust- and waterproof case, they are particularly suitable for outdoor use.



## Blade Antennas

### Ultra-lightweight and aerodynamic

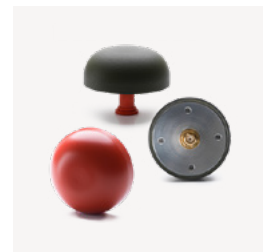
PIDSO's blade antennas provide reliable audio, video and data transmission in any situation. Thanks to their unique aerodynamic and lightweight design, they are ideal antennas for applications on vehicles, aircrafts and UAVs.



## Button Antennas

### Extremely robust and compact

PIDSO's button antennas are characterized by their particularly robust and compact design. Despite of their small size and weight, they provide excellent omni-directional radiation performance.



## Horn Antennas

### Long range performance at minimum weight

PIDSO's horn antennas are used wherever a reliable directional connection is needed. Due to their very wide band capabilities as well as their extremely lightweight construction, they can be used for various applications.



## Vivaldi Antennas

### Ultra-broadband antennas

Due to the ultra-broadband characteristics of the PIDSO vivaldi antennas, different applications can be realized with only one antenna.



## Stick Antennas

### Robust and discreet

PIDSO's stick antennas can be used for various applications due to their high gain and omnidirectional radiation pattern. The rugged material and discreet design make them ideal for demanding outdoor applications.



## Tracking Antenna Systems

### High-performance and low weight

PIDSO's Tracking Antenna System is possibly the lightest in the world and can be deployed easily. The modular system and integrated radio make it customizable for any existing application to create a peer-to-peer connection.



## EXCERPT PIDSO REFERENCE PRODUCTS

WE DEVELOP TAILOR-MADE SOLUTIONS FOR ALL APPLICATIONS  
FITTED TO OUR CUSTOMERS INDIVIDUAL REQUIREMENTS.

### Multiband Antennas

#### Multiple frequency bands compactly fitted

Our multi-band antennas are finely tuned to support different resonance frequencies, depending on the required communication services. Due to the frequency selectivity, unwanted signals can already be attenuated naturally by the antenna, making them very useful in demanding RF deployments.

### Smart Antennas

#### For the most challenging tasks

Bringing both worlds together leads to very little losses in the RF chain and hence improves the overall performance. The possibilities of the integration level is rather limitless, ranging from pre-filters, adaptive antenna tuners, RF frontends to entire processing systems with digital interfaces.

### Panel Antennas

#### Reliable LTE MIMO performance

Due to their dipolar construction, PIDSO's panel antennas are particularly suitable for LTE MIMO applications. Thanks to their stable design and good insulation, they are extremely robust against chemical influences and other challenging environmental conditions.

### Patch Antennas

#### Especially suitable for LoRa applications

PIDSO's very low profile solutions are particularly suitable for LoRa applications due to their omni-directional radiation pattern. They support reliable point-to-multipoint communication and can be easily integrated into existing systems.

### Fin Antennas

#### Optimal remote control

PIDSO's fin antennas are especially designed to meet the needs of remote-controlled aircrafts. In addition to their particularly lightweight design, they impress with their excellent connection stability over long distances.

### Respect and Integrity

We approach our customers with respect and strictly adhere to our non-disclosure agreements. Which is why we only display a small part of our client-specific portfolio here.



## PIDSO INSIGHTS

Connect with us and get the latest insights in antenna technology.



Get analysis and background  
info on the created solutions.



Exclusive access to white  
papers, data sheets & case  
studies.



[insights.pidso.com](https://insights.pidso.com)

## LET'S GET CONNECTED

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Find us on:



PIDSO is a partner of Riedel Communications.