elliptika®

Elliptika develops original and innovating microwave solutions to meet your expectations

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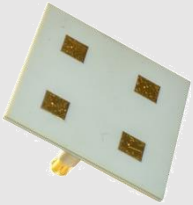
THE RIGHT ANTENNA SOLUTION FOR YOUR APPLICATION

Antenna design is complex and requires having the right development tools and experienced RF antenna design engineers.
Elliptika has microwave simulation softwares (Ansys HFSS, Keysight ADS-Momentum) to quickly develop the highest performance RF antenna design for your application and has access to measurement tools to optimize and verify the performance of your antenna.

KEYSIGHT TECHNOLOGIES ANSYS

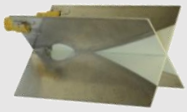
OFF-THE-SHELF & CUSTOM ANTENNAS

Let our antenna design engineers help you obtain the best performance for your product
With a full complement of both tools and experience, Elliptika can help you make the most of your design by matching and optimizing an off the shelf solution, or designing a custom antenna to fit your application and environment.



EXPERTISE

- ✓ Antenna design
- ✓ 3D electromagnetic simulations
- ✓ Antenna optimization in its environment
- ✓ Zigbee, Lora, GSM/UMTS, WiFi, Sygfox Bluetooth, GPS, RFID …
- ✓ UWB and selective Antennas
- ✓ RF antenna design topology and placement
- ✓ Measurements (S parameters & Radiation pattern)

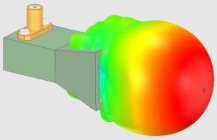


TECHNOLOGIES

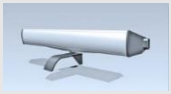
Planar and Volumic antennas

TOPOLOGIES

Horn, PIFA, Dipole, Monopole, Patch, Loop,
PCB (various types), Helical, Slot, Horn, Vivaldi…



APPLICATIONS



Defense

IoT

Sea

RFID

Home Automation

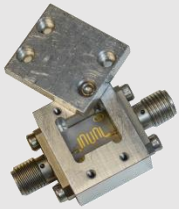
The Right Filter Solution For Your Application

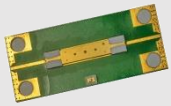
Filter design and realization can be challenging for several reasons and requires having the right development tools and experienced filter design engineers. No one technology or filter topology is suitable for all applications.
Elliptika has built its reputation on designing the most challenging RF & Microwave filters in the industry.

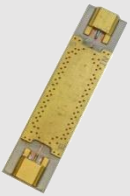
KEYSIGHT TECHNOLOGIES ANSYS

CUSTOM FILTERS

Let our filter design engineers help you obtain the best performance for your product
Whether your requirement is an industry standard or completely unique, our technical staff specializes in engineering custom solutions. Utilizing state-of-the-art synthesis and modeling software such as ADS, Momentum, HFSS and Ansys Designer, each filter solution is designed to match superior performance in the smallest footprint possible.







EXPERTISE

- ✓ Filter design
- ✓ 3D electromagnetic simulations
- ✓ UWB and narrow band pass filters
- ✓ Filter tuning
- ✓ Measurements (S-parameters)
- ✓ Metal housing

TECHNOLOGIES

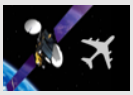
Waveguide, Substrate Integrated Waveguide (SIW), Coaxial, Planar (PCB & alumina), 3D, …

TOPOLOGIES

Wirebonding, surface mount, Dual Behavior Resonator, 3D filter, Matriochka…

APPLICATIONS

Defense



Aerospace

Instrumental

Research

THE RIGHT 3D PROTOTYPE SOLUTION FOR YOUR APPLICATION

Fast microwave prototyping has become essential in relation to developments in the defense, space, automotive, medical, IOT and aeronautical markets.
Elliptika realizes custom 3D prototyping in 3D printing and use cover plating technology to meet these emerging needs. The aim is to optimize and improve the performances of 3D microwave components.

ANSYS Ultimaker formlabs

QUICK 3D PROTOTYPING

Let our 3D prototype design engineers help you obtain the best performances for your microwave products.
Elliptika offers quick 3D prototyping of plastic microwave components. These components are designed and simulated with the HFSS software. Then, they are realized using FDM, SLA or SLS 3D printer to suit to your specifications. And finally, they are metallized by full-field cover and tin plating.

EXPERTISE

- ✓ 3D antenna design
- ✓ 3D filter design
- ✓ 3D microwave design
- ✓ 3D plastic & metal printing
- ✓ Full-field cover plating
- ✓ Tin and nickel plating

TECHNOLOGIES

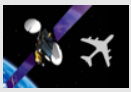
FDM, SLA and SLS 3D Printing
with High Temperature and Tough materials

TOPOLOGIES

Horn antenna, Waveguide, 3D filter, Housing, Radome, Packaging….

APPLICATIONS


Defense


Aerospace


Research

IoT


Automotive