

# Your complete end-to-end solution

From initial prototype to efficient high-volume manufacturing processes, our turnkey service ensures an accelerated design journey.

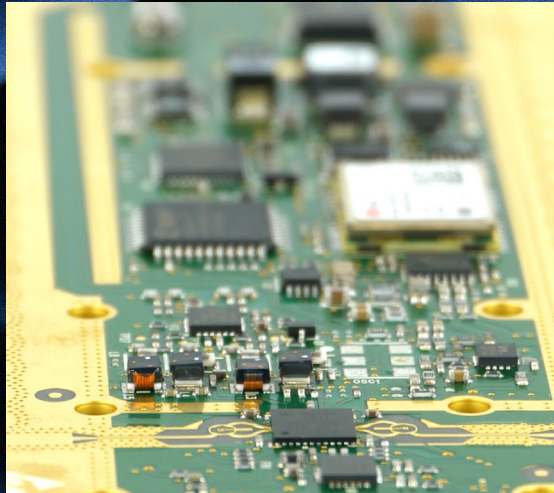


**Plextek is a leading technology consultancy with extensive expertise in manufacturing, accumulated over decades of engineering experience.**

**We offer a comprehensive range of manufacturing services, starting from concept design, prototyping, and production, all the way to complete box-build and thorough production testing.**

Our team of engineers work closely with our clients, translating their ideas into robust, scalable, and thoroughly tested designs. Right from the beginning, we ensure that the product and its manufacturing process are carefully aligned, minimising both costs and time-to-market.

Developing a manufacturing supply chain poses unique challenges every time. Each product comes with its own requirements and limitations, including cost, lead-time, quality standards, sustainability, and geopolitical factors. These challenges can be difficult to anticipate and are often hidden from the end user. It calls for in-depth knowledge of the product, technical expertise in each manufacturing process involved, and a strong network of contacts, both locally and internationally. This is why the extensive and diverse experience of Plextek's manufacturing engineers is highly valued by our customers.



## Capabilities

Plextek offers a comprehensive range of resources to meet your needs.

As an independent electronics design consultancy, we cover the entire spectrum from TRL 1 research to TRL 9, designing and manufacturing systems and subsystems that adhere to rigorous specifications across various markets.

Our expertise lies in sensing and communication systems, driving advancements in signal generation, signal conditioning, digital signal processing, and antenna design.

Plextek has been chosen by our customers to provide independent technical reviews and act as a trusted support.

Our purpose-built premises are equipped with a wide array of design, manufacturing, and testing equipment. These facilities are operated by experienced engineers and technicians, ensuring high-quality results for every project.

### Design:

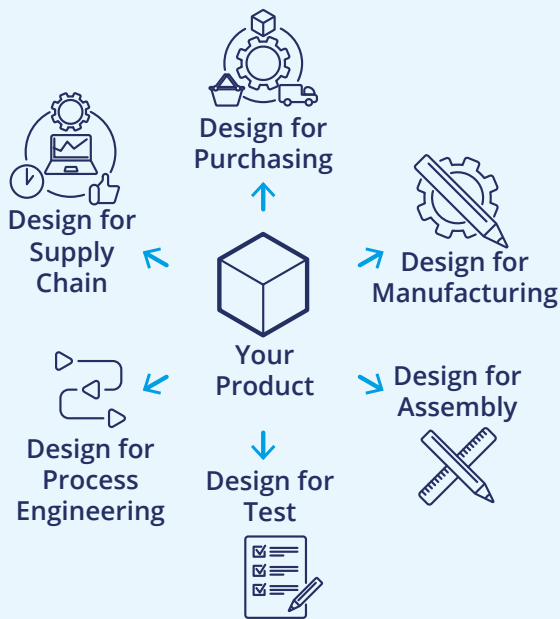
- » CREO Parametric Mechanical CAD software
- » PCB Layout using Altium and ~PADS CAD software
- » Advanced Assembly Extension for agile product design
- » Thermal and mechanical simulation software
- » Agilent ADS
- » Ansoft Designer
- » CST Microwave Studio
- » Microwave Office (AWR)
- » Semcad
- » Matlab & MathCAD
- » NEC-2.

### Manufacturing:

- » SMT PCB prototype assembly and rework
- » Mechanical workshop (Milling, grinding, laser-cutting, etc.)
- » Professional quality 3D printing facilities (SLS and FDM)

### Testing facilities:

- » Environmental testing (including humidity)
- » Anechoic chamber
- » Free-standing EMC testing building
- » Fully RF-shielded chamber
- » Open-air field allowing testing over a range of several hundred metres



### Design for Purchasing

We conduct a comprehensive analysis of the Bill of Materials to avoid using parts close to obsolescence, thus preventing critical part shortages. Our aim is to understand the lead time required for builds.

### Design for Manufacturing

Our products are designed with manufacturing considerations and constraints in mind, minimising the need for iterations in later project stages and optimising time to market. We pay close attention to PCB layout as well as product CAD designs.

### Design for Assembly

We implement the necessary manufacturing and assembly processes, providing corresponding work instructions.

### Design for Test

Our products are designed to enable testing of critical functions at any stage, from feasibility to volume production.

### Design for Process Engineering

We collaborate with the industrialisation and manufacturing teams to develop lean assembly steps that reduce costs and save time.

### Design for Supply Chain

We offer advice on selecting the best Manufacturing Contract Services and customised part manufacturing vendors. Our goal is to match your business model and create optimal partnerships for the future.

# Hand in hand with the manufacturing partners

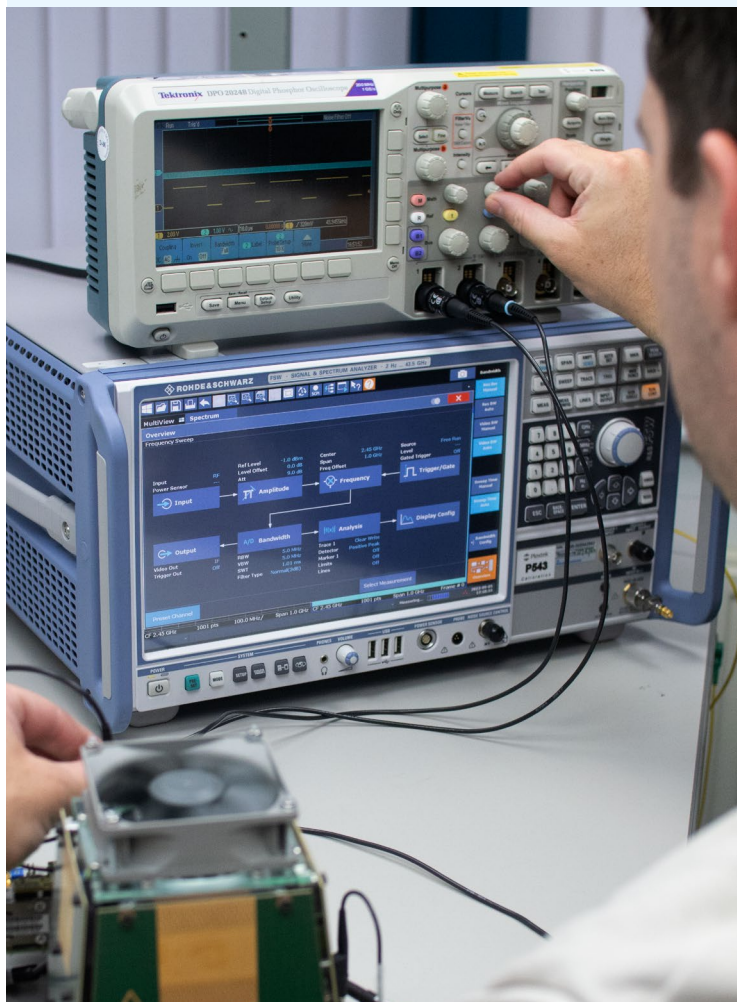
**Working closely with our manufacturing partners is a crucial aspect of Plextek's New Product Introduction (NPI) process.**

It's essential that we integrate the key elements of product specification, design, and development with manufacturing and testing strategies right from the initial concept stages.

Plextek has established strong global relationships with a diverse range of approved Contract Manufacturers in different industries, enabling us to align your product with the most suitable manufacturing partner.

Our suppliers are carefully chosen based on their experience, approvals, reputation, and capabilities. This approach offers a low-risk route to manufacturing, especially beneficial for companies new to managing external contract manufacturing facilities and offshore suppliers.

This capability has led to a proven track record of successfully delivering products for customers across all sectors, allowing our clients to concentrate on their core business activities.





## Quality Assurance & Accreditations



Committed to deliver excellent quality across our products and services.

Plextek holds **BS EN ISO9001:2015** certification and has a comprehensive Quality Management System (QMS) that supports simple, short term study programmes through to complex design and volume supply contracts.

» **Cyber Essentials Plus** and **JOSCAR Stage 2** accreditation.

» We work to numerous industry quality standards, including AS9100 for Aerospace and ISO/TS 16949 for Automotive and many more. Speak to us about your quality requirements

