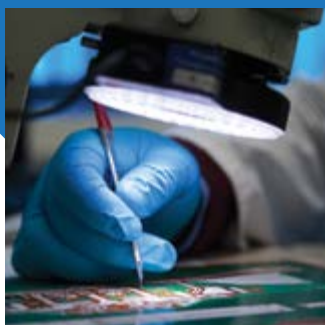




**TELEDYNE LABTECH**  
A Teledyne Technologies Company

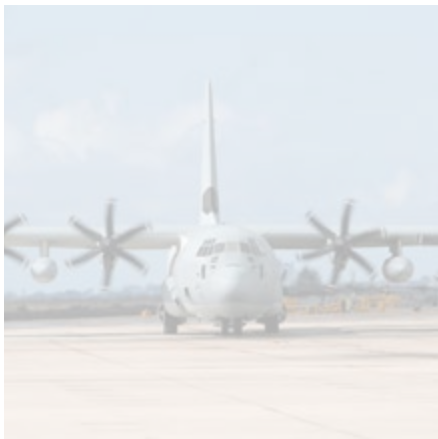
Advanced High Technology  
Microwave PCB and Assemblies





**Teledyne Labtech** is one of the world's leading manufacturers of complex and high technology RF/microwave printed circuit boards, assemblies and test, with an established pedigree that spans more than 30 years.





Providing specialist solutions for a range of markets, Teledyne Labtech offers the widest possible range of complimentary RF/microwave PCB capabilities.

Through comprehensive technical support, our ability to meet prototype-to-volume production requirements along with state-of-the-art testing facilities, means we've set new standards in the manufacturing and testing of RF/microwave PCBs for demanding and critical applications.

# Metalbacked PCB

Teledyne Labtech's extensive in-house machine shop capabilities enables us to manufacture the most complex of PCBs.

Either pre-bonded or post-bonded, Teledyne's capabilities offer a variety of thermal management and ground plane solutions. Teledyne Labtech can also offer pre-bonded metalbacked PCB with integrated wave-guide transitions and co-planar wave-guides.

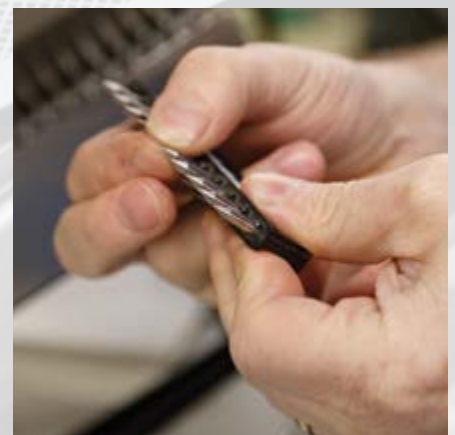


**Pre-bonded metalbacked PCB**

**Post-bonded with silver epoxy**

**Widest possible range of metal-backing, including aluminium, copper, brass, CMC, CIC or Silicon Aluminium**

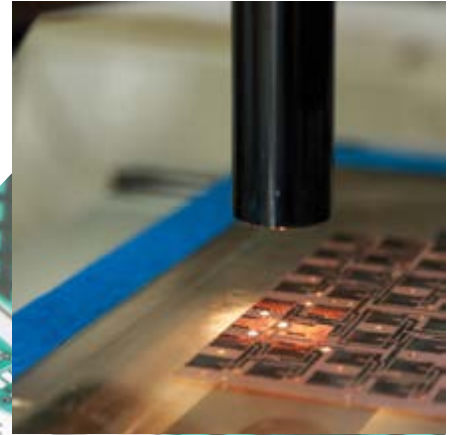
**With or without Cu through hole plated (PTH) vias**



# Multilayer PCB

Teledyne Labtech has considerable technical knowledge and manufacturing experience in the manufacture and supply of complex RF/microwave PTFE and Mixed Dielectric Multilayer PCBs.

From simple multilayer structures through to complex metal-cored PCB with integrated wave-guide transitions, embedded components and connectors, Teledyne Labtech can offer the complete solution.



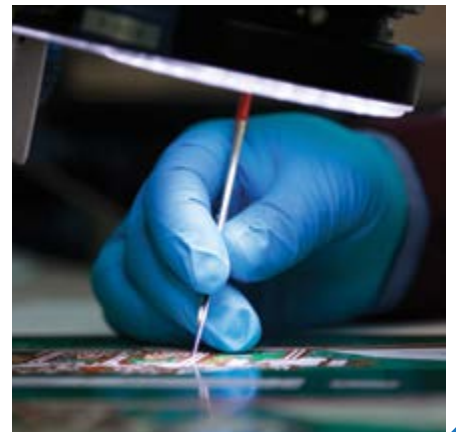
Embedded resistors, connector pins and capacitors

Complex machined and laser cut structures

Metal-cored PCB

Blind and buried via hole technology

Laser cut vias and profiling



# Large Format PCB

Teledyne Labtech is one of the few companies in the world who can offer large format PCBs for use in RF/Microwave applications.

Our continued investment has expanded our capabilities to enable us to offer a large range of non-standard PCBs. Our autoclave vacuum press capability allows Teledyne Labtech to manufacture large format Multilayer PCBs bonded to mechanical structures.

Large format PCB – 1.9 Metre x 0.55 Metre

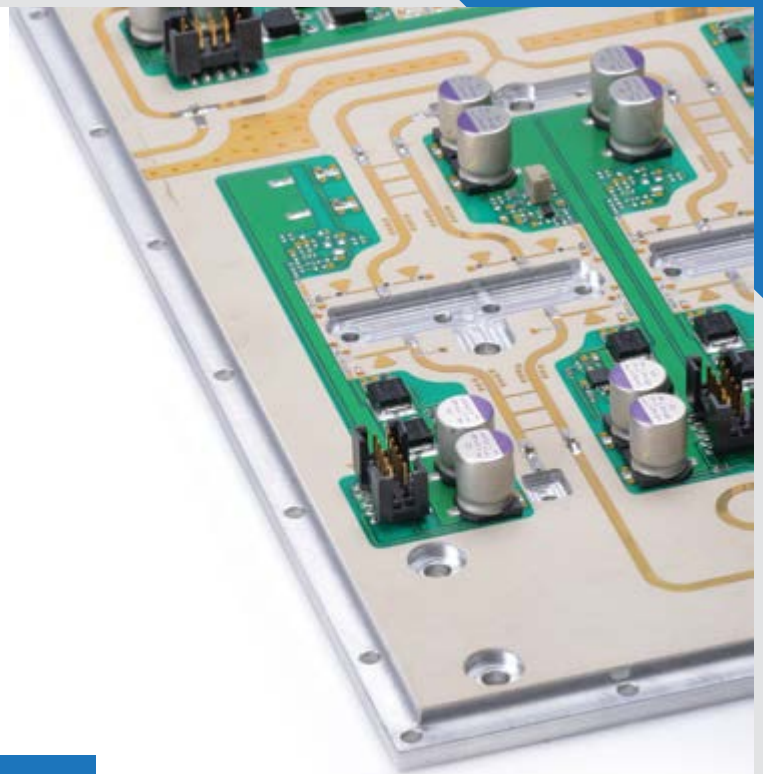
Multilayer structures

Through Hole Plating (PTH)

Bonding of large PCB to metal carriers and housing

Integrated connectors and resistors in RF Feed Networks

Bonding of 3D structures



# Machine Shop

Teledyne Labtech is proud to boast one of the most comprehensive PCB machine shops in Europe.

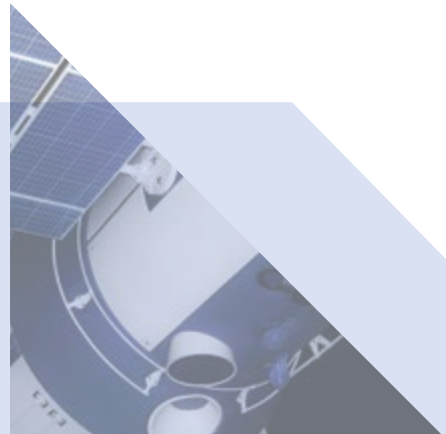
The facility, located in Presteigne, is equipped with 9 Vertical Machining Centres (VMC). These fully flexible machines are modified to allow the precise cutting of not only standard PCB, but also Metalbacked PCB and housing.

Machining aluminium, copper, brass, CMC, CIC or Silicon Aluminium

Full box build, including tapping and Heli-Coil insertion

Waveguide structures

RF/microwave housings and lids



# Assembly & Testing

Teledyne Labtech has extensive assembly and RF/microwave testing facilities, which ensures we can provide a complete turnkey microwave assembly solution.

From bare board manufacture through to component assembly, test and conformal coating, Teledyne Labtech offers a unique “one-stop” manufacturing solution.

**Assembly of connectors, resistors, SMT components and bare die placement**

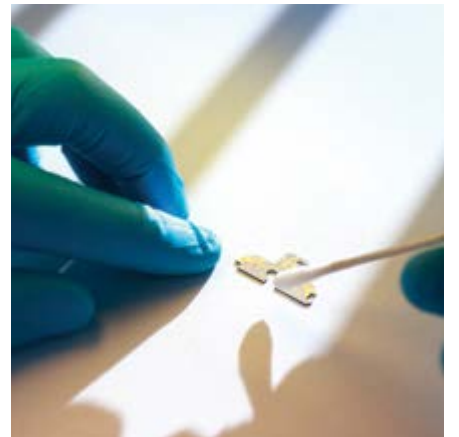
**Full RF Test capability, including:**

- S parameters up to 40 GHz
- Return loss
- VSWR
- Vector and phase measurement

**Conformal coating**







# Quality & Environment

Teledyne Labtech prides itself on being able to offer the highest quality RF/microwave PCBs available; our goal is to reliably produce specification compliant products for our customers by designing and building quality into all aspects of our business.

From space applications to mission critical electronics, Teledyne Labtech is your trusted partner. Our extensive chemical laboratory coupled with our in-house testing and measurement capabilities ensure that the highest possible standards are achieved and maintained.

Fully accredited to ISO 9001 & ISO 14001

Full micro-section preparation and analysis

Daily chemical analysis and SPC controls

Member of ADS SC21

Fully integrated quality management system



ISO 9001  
(2008)



ISO 14001  
(2004)







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