

**MITEC s.r.l.**

# **MITECGROUP PRESENTATION**

**A NETWORK OF SPECIALIZED COMPANIES  
TO SUPPORT CUSTOMERS IN ELECTRONIC  
TECHNOLOGIES**

# COORDINATOR OF MITECGROUP

Maurizio D'Antoni  
Promoter of MITEC s.r.l.  
Microwave Integrated TEChnologies



- Involved in Space Technologies since 1975 at the Italian National Research Council
- Reference technologist for equipments development in several European Space Agency programs
- Responsible for Microelectronic Technologies in Elettronica s.p.a.
- Directly involved in International and National programs funded by the M.O.D for development of new technologies in the field of microelectronics
- Experience in Microwave Microelectronics training programs (Transfer of Manufacturing Know-How)

# PARTNERS IN THE TEAM

- MITEC S.R.L.
- TECNOMECC S.R.L.
- SDS S.R.L.
- FORESTAL S.R.L.

# COMPANIES ROLE IN THE TEAM

- MITEC S.R.L.

TECHNOLOGIES LEADER AND MANAGEMENT OF  
COMMON PROGRAMS OF THE GROUP

- TECNOMEC S.R.L.

MANUFACTURER OF ADVANCED  
TECHNOLOGIES PRINTED CIRCUITS BOARD

- SDS S.R.L.

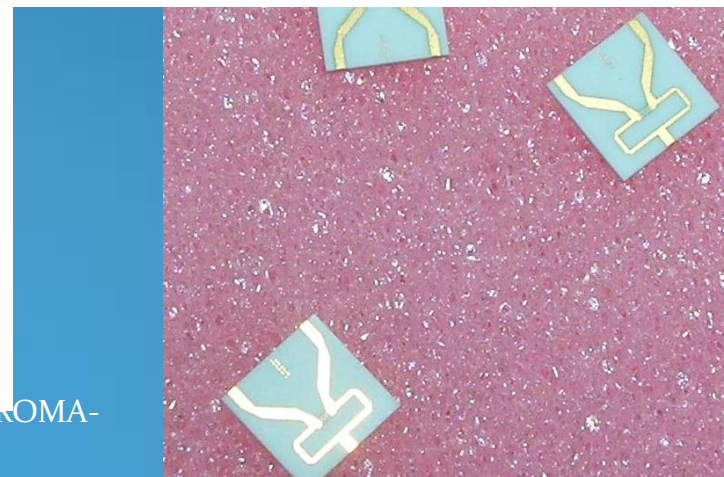
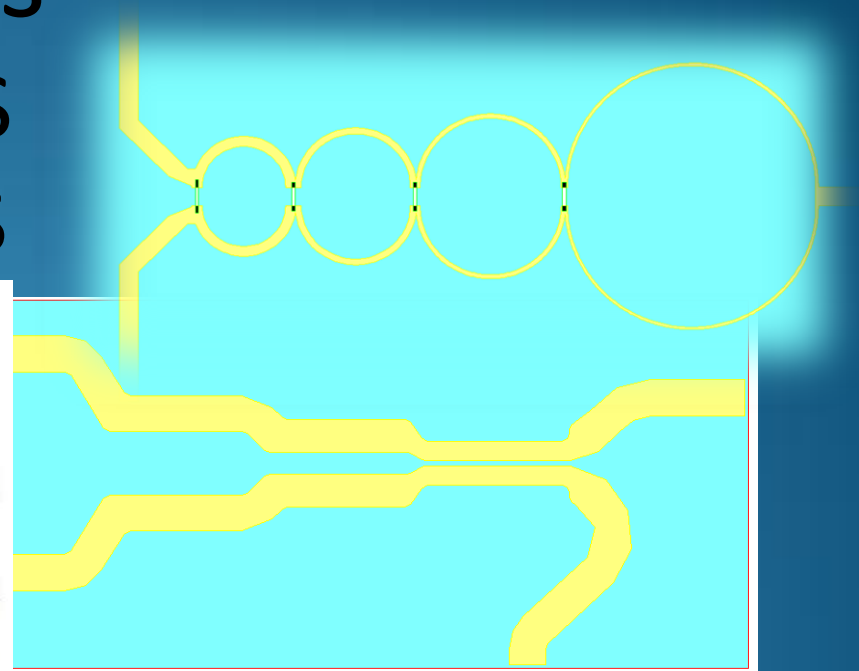
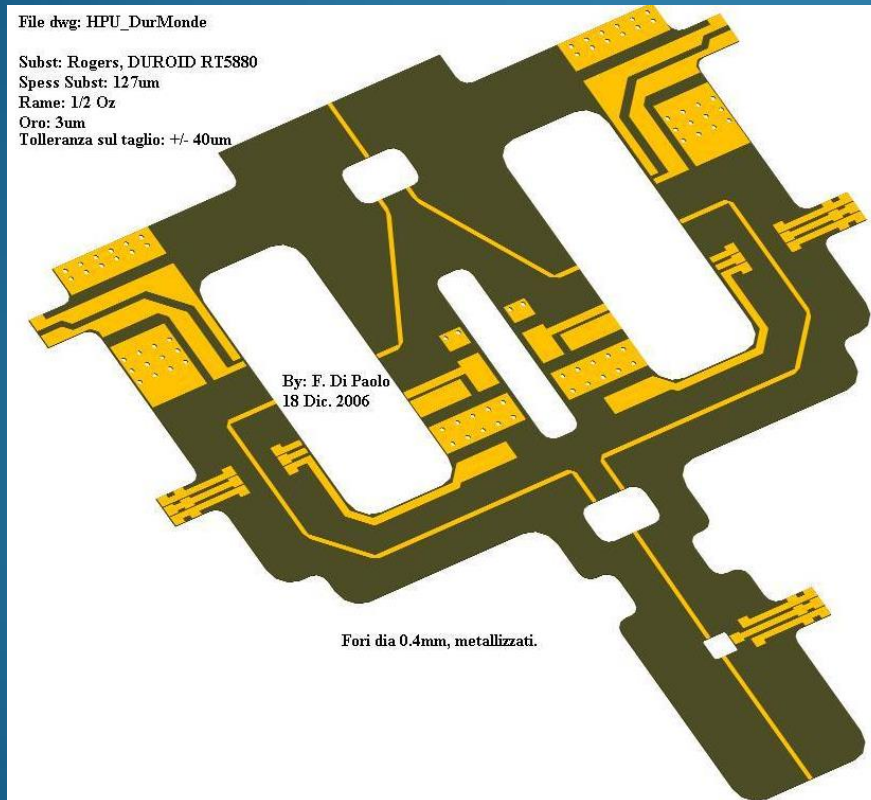
- ELECTRONIC DESIGN, ASSEMBLING AND TEST OF  
MICROWAVE INTEGRATIONS

# COMPANY MAIN EXPERIENCE

- **RESEARCH AND DEVELOPMENT IN ADVANCED TECHNOLOGIES APPLIED TO MICROWAVE DEVICES AND ASSEMBLIES FOR MILITARY AND SPACE APPLICATIONS**
- **TECHNOLOGICAL DESIGN AND MANUFACTURING MANAGEMENT OF T/R MODULES FOR PHASED ARRAY RADAR APPLICATIONS**
- **CURRENTLY RESPONSIBLE FOR TECHNOLOGIES IN THE DEVELOPMENT OF A PASSIVE ANTENNA FOR SPACE APPLICATION**
- **PROGRAMS WITH UNIVERSITIES RESEARCH GROUPS**

# SUPPLIED PRODUCTS

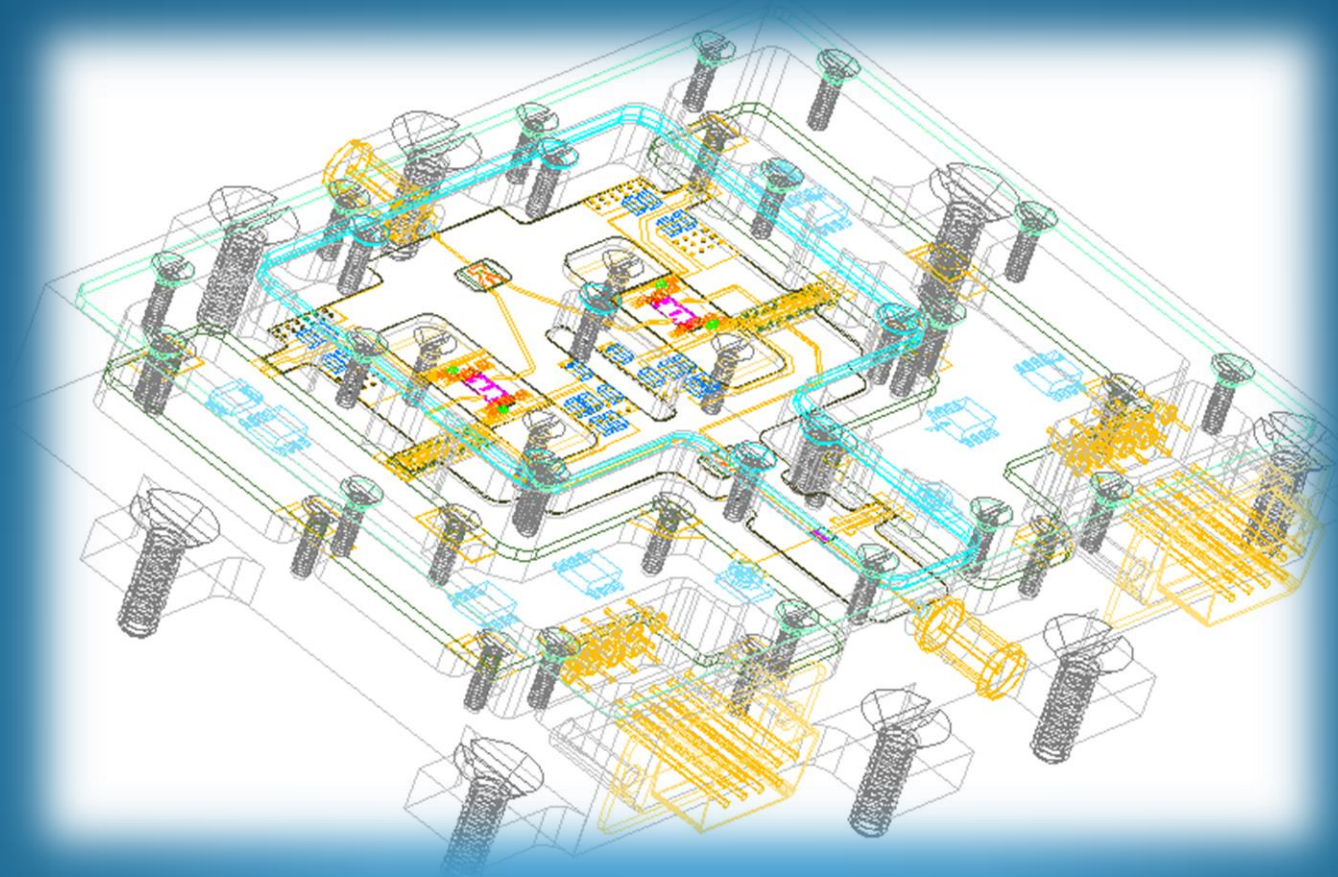
Microwave circuits  
ORGANIC SUBSTRATES  
CERAMIC SUBSTRATES



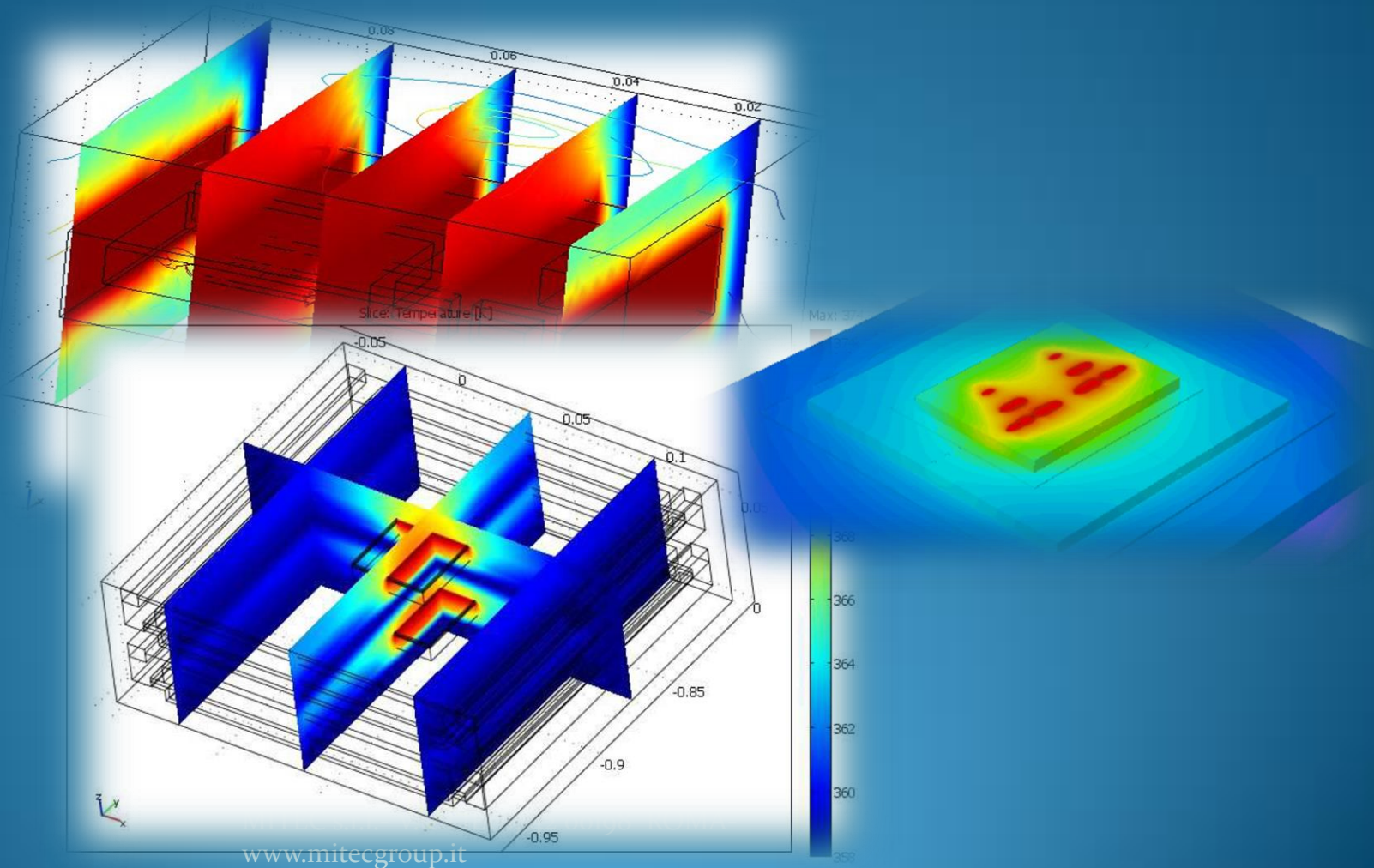


# DESIGN

## X-band High Power amplifier

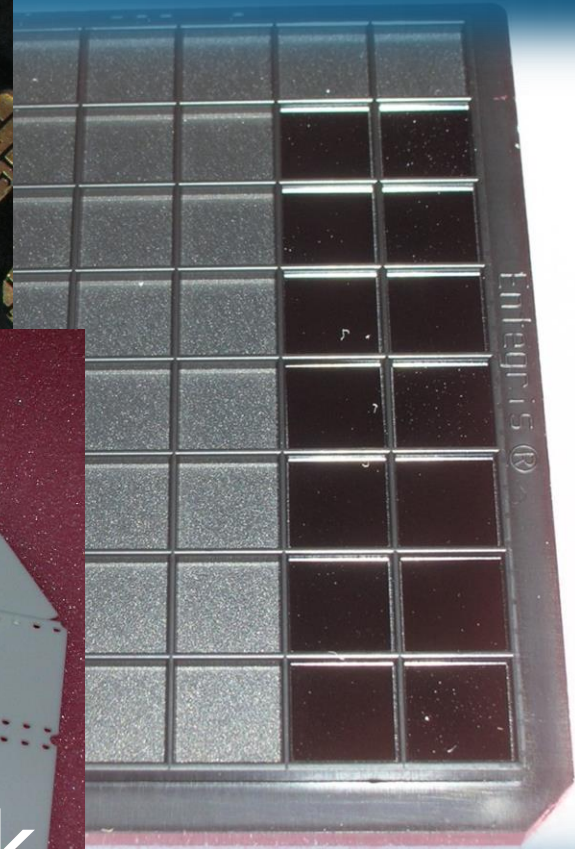


# THERMO MECHANICAL SIMULATION





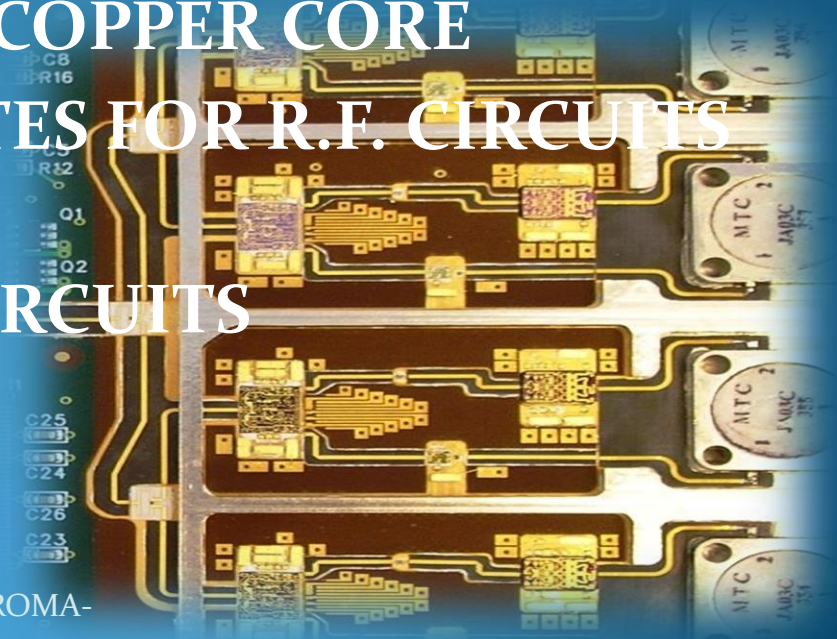
# MICRO ELECTRONIC SUBSTRATES



Aluminum Oxide  
Aluminum Nitride  
CVD Diamond  
Chromium Photomask

# MW ORGANIC SUBSTRATES

- MANUFACTURING OF ADVANCED MIXED RF-DIGITAL PRINTED CIRCUITS BOARDS
- PROTOTYPE AND MASSIVE PCB PRODUCTION
- MULTILAYERS OF HIGH PERFORMANCES MATERIALS WITH THICK COPPER CORE
- TEFLON BASED SUBSTRATES FOR R.F. CIRCUITS PRODUCTION
- FLEXIBLE MULTILAYER CIRCUITS MANUFACTURING



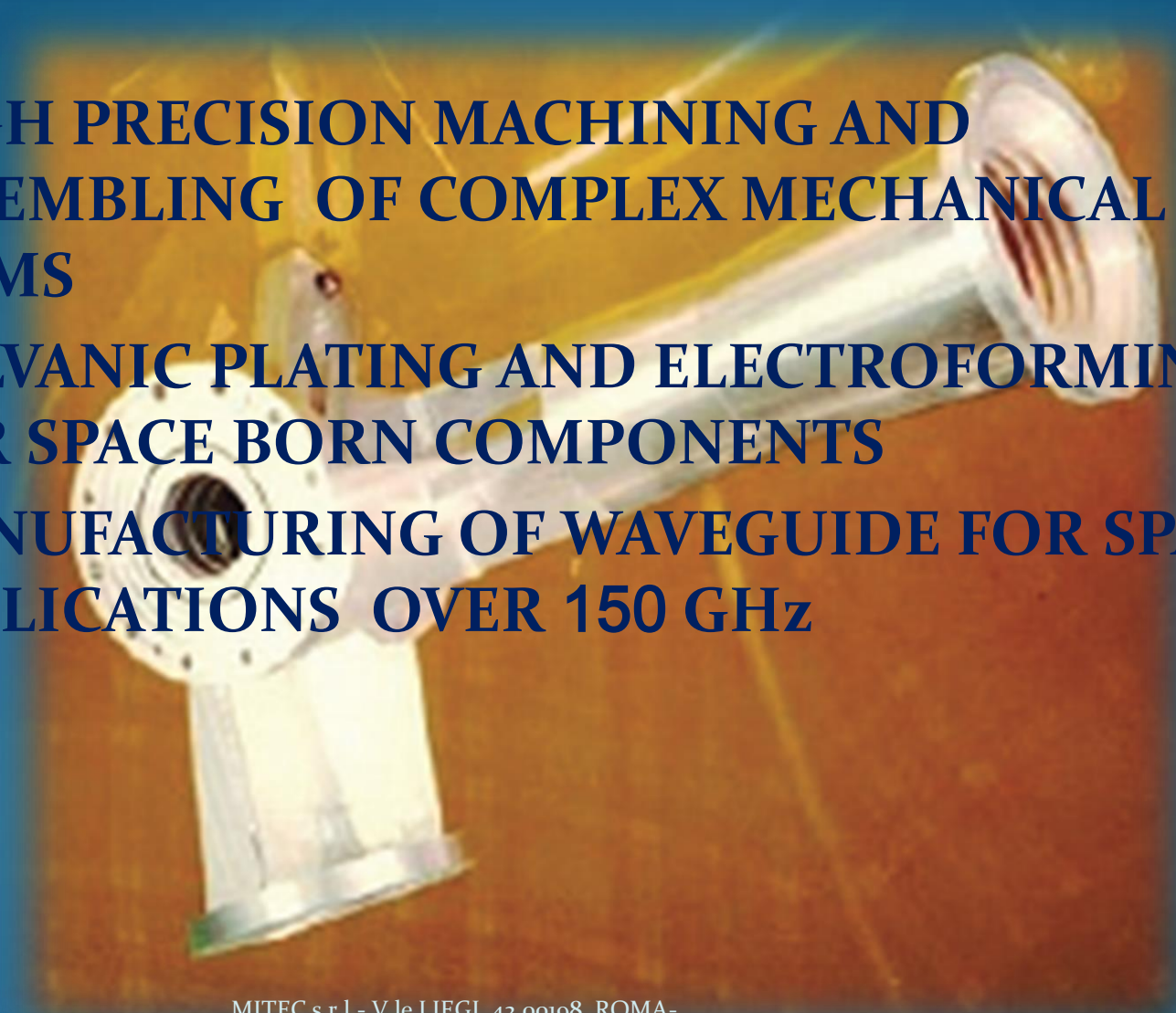


# DESIGN CAPABILITIES

- MICROWAVE/ RF DESIGN
- ELECTRONIC CONTROL BOARDS DESIGN AND TEST
- CLEAN ROOMS FOR MICROELECTRONIC ASSEMBLING AND TEST
- IN HOUSE RESEARCH AND DEVELOPMENT PROGRAMS
- EDA SW (MW OFFICE, ADS/MOMENTUM, CST MW STUDIO, SPICE)
- DESIGN DEVELOPMENT PROCESSES (Simulation, Thermomechanical analysis etc.)
- MEDIUM PRODUCTION CAPABILITIES

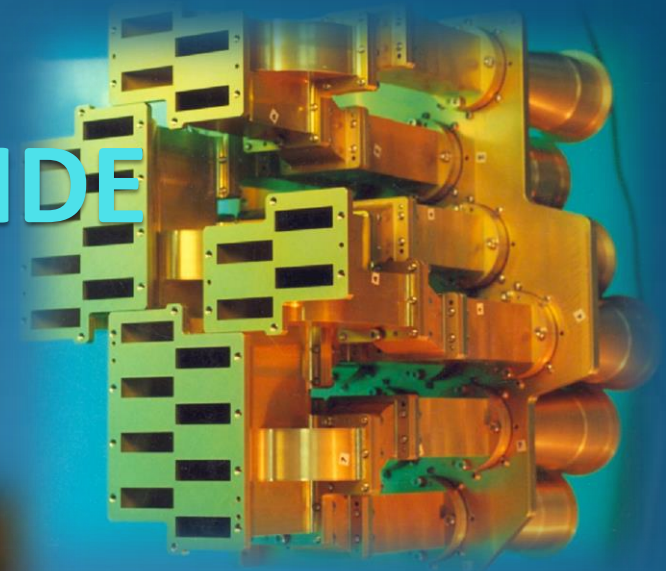
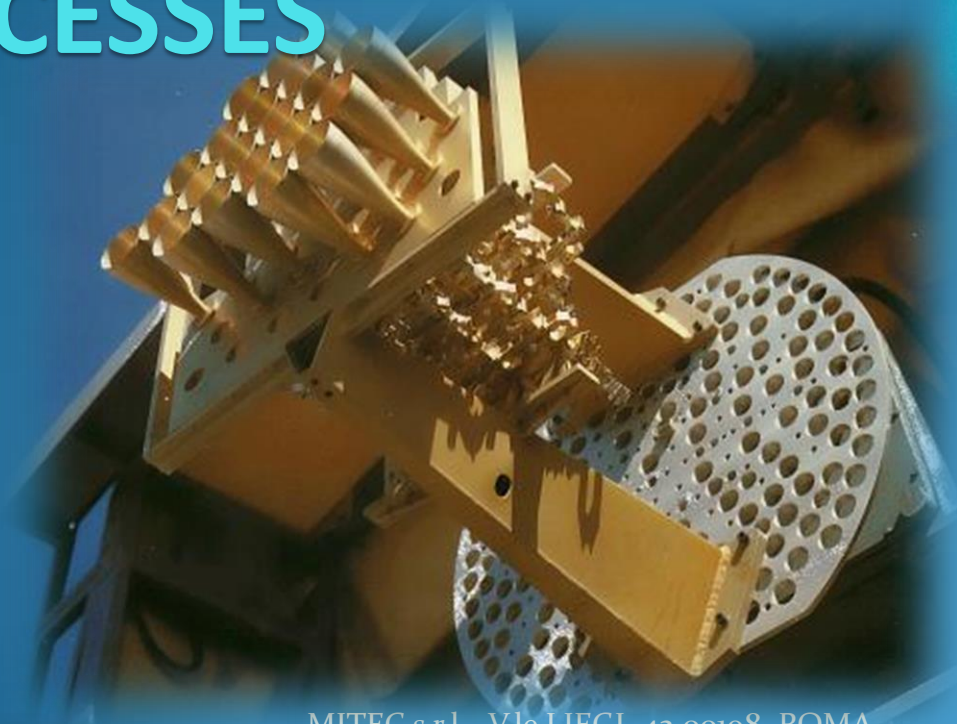
# RF COMPONENTS MACHINING

- HIGH PRECISION MACHINING AND ASSEMBLING OF COMPLEX MECHANICAL ITEMS
- GALVANIC PLATING AND ELECTROFORMING FOR SPACE BORN COMPONENTS
- MANUFACTURING OF WAVEGUIDE FOR SPACE APPLICATIONS OVER 150 GHz





# MANUFACTURING TECHNOLOGY FOR SINGLE PIECE WAVEGUIDE BY ELECTROEROSION PROCESSES



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