E·REON

THE POWER IN RADIO ELECTRONICS

2026

RF & µW HARDWARE SOLUTIONS & PRODUCT DEVELOPMENT SERVICES

OUR COMPANY

E-REON B.V. is a Netherlands-based, technology-driven company. Since our founding in 2015, we have focused exclusively on **RF and Microwave solutions**. Our multidisciplinary team designs, develops, and manufactures custom subsystems for the **Aerospace & Defense (A&D)**, **Industrial**, and **Professional** sectors.

Over the years, we have **engineered** an extensive and diversified portfolio of products and services. However, E-REON operates at a distinct layer of the value chain; we should not be compared to traditional hardware vendors.

While a typical vendor generates value by delivering a standalone hardware unit, we view hardware as the **physical carrier** of a broader solution. Our core value lies in our deep understanding of **system-level requirements**, operational environments, and complex boundaries. By utilizing a **top-down engineering approach**, we optimize performance and cost while resolving the technical uncertainties that exist between system intent and physical realization.

Solution Providers

"Our path diverges from that of traditional hardware vendors and standard module manufacturers. We develop the hardware, but we deliver the solution."

System Architects

"We are resolving the technical uncertainties that exist between system intent and physical realization"

We Proudly Serve

Aerospace & Defense,
Industrial
Medical
Scientific
T&M
Professional
Markets

WORKING MODEL

E-REON provides an extended portfolio of Design Services built around its core knowledge and expertise.

Fully adaptive approach to customer’s specific requirements

360° coverage of the Product Development Cycle

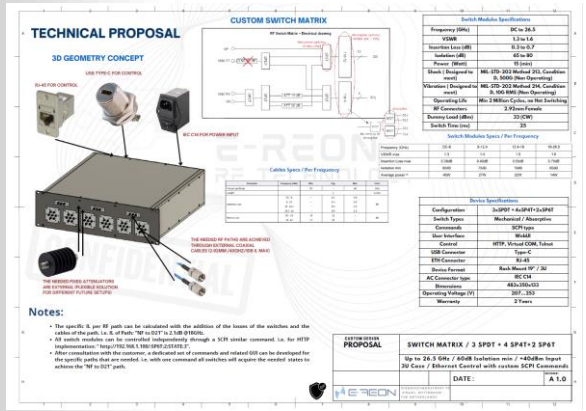
HOW IT WORKS?

..
Operational
Requirements

A real-life example

- **Business**: Automotive
- **Project**: Production Line Setup
- **Requirement**: Complete Tester Solution for UWB

- We receive the requirement (directly or via our Sales Network)
- We discuss with the customer the application
- Based on our understanding we issue preliminary specs and cost
- Reiterate and converge
- Design, produce and deliver the solution
- Follow up and Support



OUR ADDED VALUE

VENDOR

E-REON

	VENDOR	E-REON
Approach	**Bottom-Up:** Start with a product and try to make it fit.	**Top-Down**: Start with system intent and derive the hardware.
Value Basis	Per-unit hardware cost.	Resolution of technical uncertainty and risk.
Boundaries	Limited to the "box" (standard interfaces only).	Owns the intersection of RF, Thermal, and Control.
Validation	Data sheet performance in ideal conditions.	Validated performance in your specific operational environment.
Relationship	Transactional (Supplier).	Strategic (Engineering Partner).

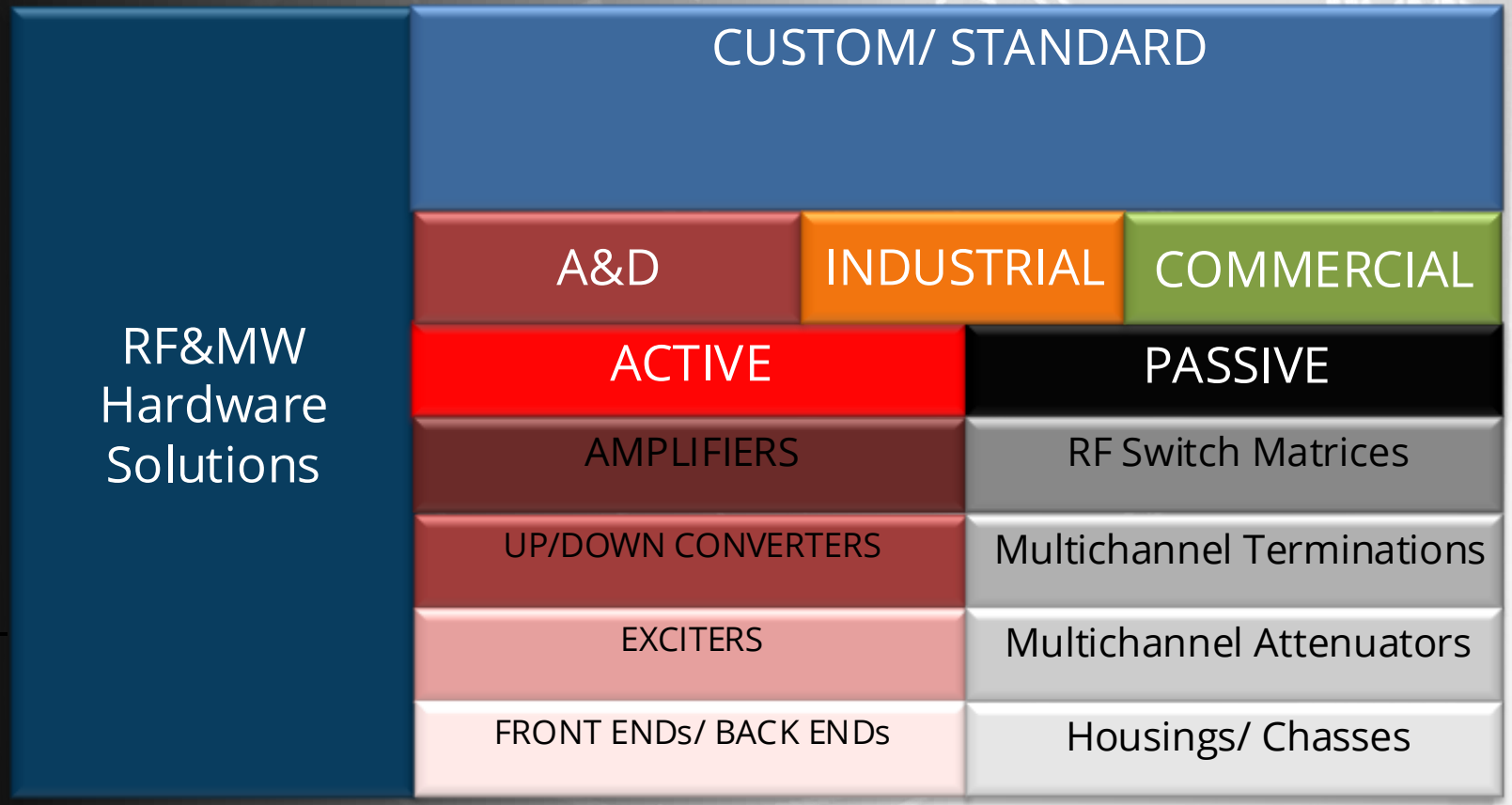
"Most suppliers follow a bottom-up path: they give you a product and leave the integration risk to you.
At E-REON, we follow a top-down path. We don't just sell you a module; we take ownership of the system boundaries. We ensure that the hardware we develop is the perfect carrier for the solution your specific environment requires."

MARKETS SERVED

Spanning such a diverse range of business areas requires a robust foundation to support the accumulated weight of incoming requirements. We leverage E-REON's core strength—our deep engineering expertise — to establish two primary **pylons**: **Hardware Solutions** and **Product Development Services**. Upon these pillars, we lay a horizontal beam of integrated hardware and services, creating a unified platform designed to meet and support the specific demands of the markets we serve.

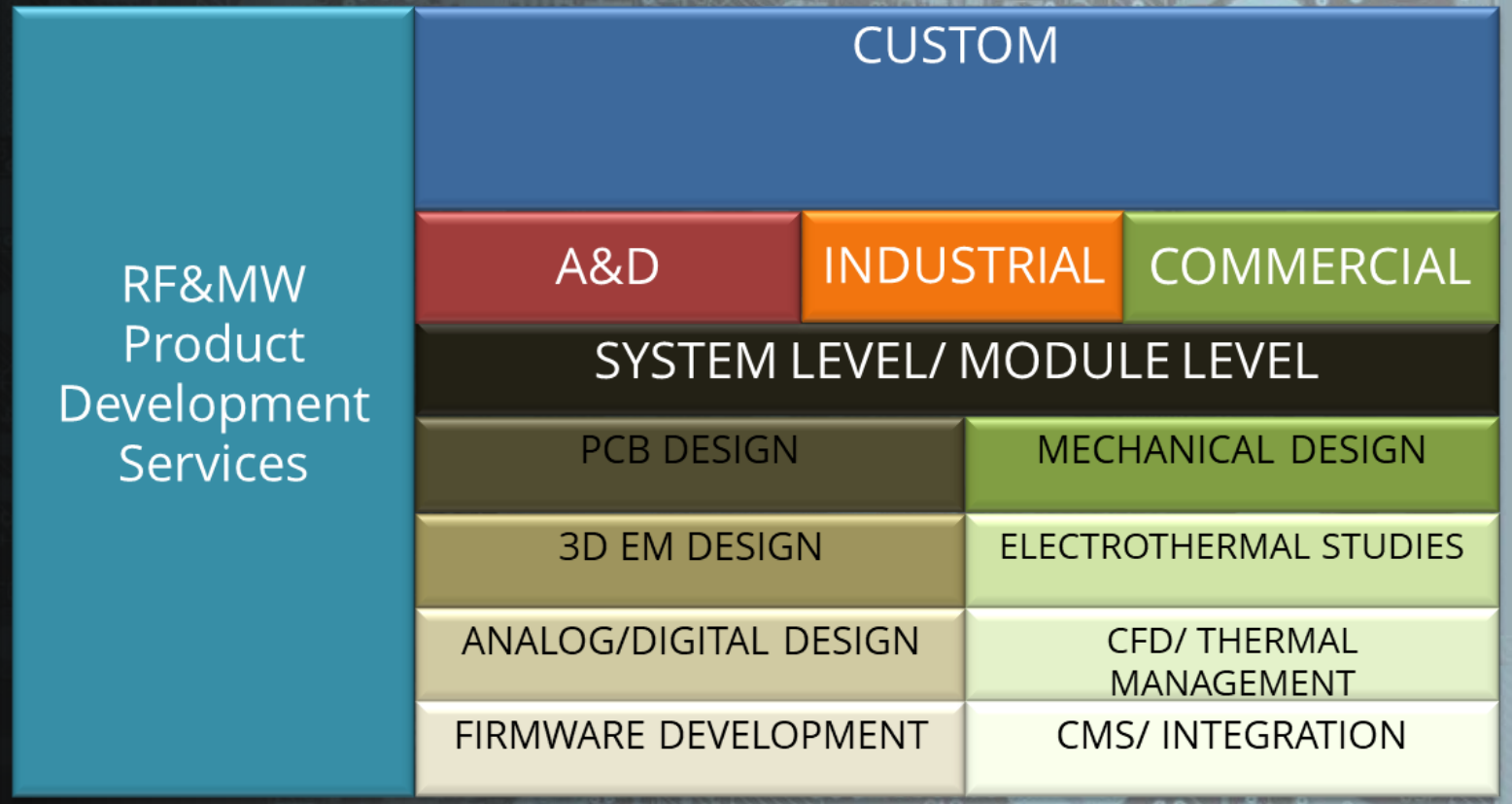
HARDWARE

We specialize in high-performance hardware across a vast operational envelope—covering DC to 26.5 GHz and power levels from milliwatts to kilowatts. Our solutions are architected for flexibility, available as independent modules or as fully integrated subsystems for complex turnkey projects.



SERVICES

We provide comprehensive engineering support across the full design spectrum. Utilizing advanced CAD suites for schematic capture, mechanical drafting, and complex simulations, we offer the flexibility to resolve isolated technical challenges or manage the entire design process through a holistic approach.



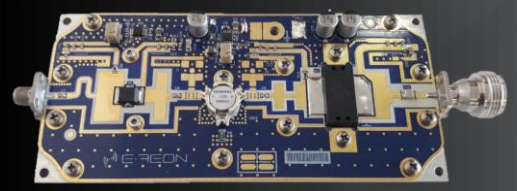
APPLIED SOLUTIONS & MARKETS

To illustrate the breadth of our capabilities, the following slides detail our specialized solutions and services, mapped directly to the market segments and applications we serve.

MIL-AERO

- RADARS
- DECOYS
- C-UAS
- UAVs COMMS
- DIRECTION FINDERS
- SIGNAL DISTRIBUTION
- JAMMER GUN PAs

PALLET PAs



2.4GHz ISM, 250W

433MHz ISM, 10W

L-Band, 600W

MODULES

1.3GHz, 750W

S-Band, 500W

L-Band, 80W

R-MOUNT

8xCH Coherent, ZIF RCV

S-Band 1KW

Antenna Signal Distribution

INDUSTRIAL

- RF HEATING
- RF DRYING
- MATERIAL SCIENCE
- TEST AND MEASUREMENT
- SIGNAL DISTRIBUTION
- LINAC

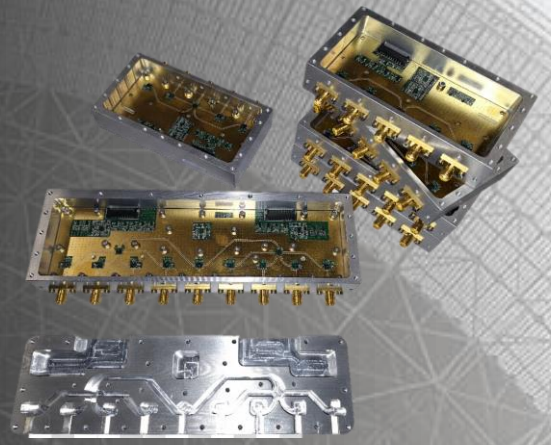
PALLET PAs

2.4GHz ISM, 2x250W
Coherent, On-Board Exciter

27MHz ISM, 1500W

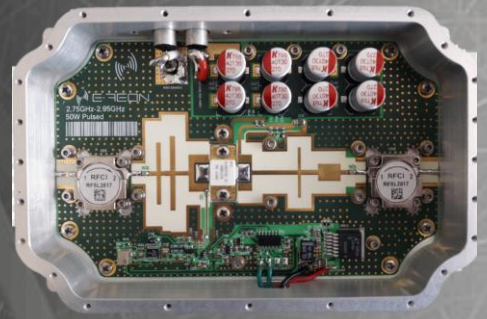
WATER COOLED ISO

MODULES



Solid State Switches

DC ~18GHz



S-Band, 50W

R-MOUNT

32xCH, Dummy Load, 2.5KW

SWITCH SYSTEMS
FOR TELECOM

X-FUNCTIONAL STANDARD

- BROADBAND PAs
- SPLITTERS COMBINERS
- SWITCHES
- ATTENUATORS (1 to MULTI CHANNEL, BROADBAND)

HPA-0160-20

Compact 1-6 GHz Power Amplifier Module

1000-6000 MHz

CW & Pulse Capable

+28 VDC

120 x 100 x 20 mm

Up to 20 W

Advantages

- Ultra-wide bandwidht for versatile applications
- High efficiency in a low-profile package
- Ready for integration into tight spaces
- Robust constructions for demanding environments.

EMC Testing

UAV Links

EWR & RADAR

Contact us for integration details, testing or a quote

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X-FUNCTIONAL STANDARD

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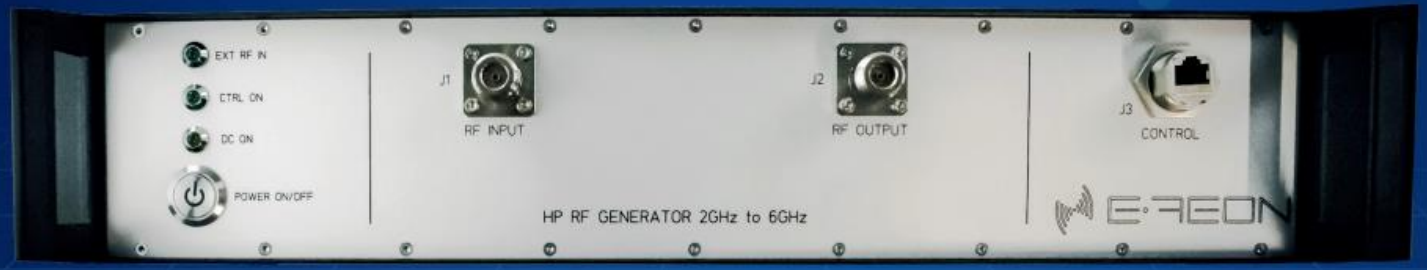
GEN-0160-20

Rack Mount 1-6 GHz
High Power Generator



1000-6000 MHz

CW & Pulse Capable

+220 AC

486 x 375 x 65mm

Up to 20 W

Advantages

- Ethernet with SCPI command set control interface
- Internal pulse generator with <100ns Rise time
- Built for continuous operation in lab or field conditions.

EMC Testing

Automotive Testing

EWR & RADAR

Contact us for integration details, testing or a quote

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E·REON **FEATURED PRODUCT**

THE POWER IN RADIO ELECTRONICS

SOLID STATE SWITCH MATRIX

Applications : UWB Testers, Handover Systems, Automotive Testers and EW multichannel Jammers

About Us

E-REON B.V. is a Dutch technology driven enterprise. Since founding in 2015, our business focus on RF&Microwave Solutions. E-REON's team designs, develop and manufacture RF&Microwave products for commercial, defense and industrial systems.
The main Product line includes Broadband Power Amplifier module, Pulsed Power Amplifier module, Rack-mount Amplifier subsystem. According to requests of customer, E-REON's engineers can develop wide range of RF&Microwave products from 1 MHz to 24 GHz.

Features

- DC to 40 GHz
- Up to 90 dB Isolation
- LAN (POE+) / USB control
- WebUI and SCPI Commands
- Rugged design
- Customizable to customer's needs

INDUSTRIES SERVED | **AUTOMOTIVE COMMERCIAL TELECOM**

Contact us:
info@e-reon.com

STEENHOUWERSTRAAT 76
3194AG, ROTTERDAM
THE NETHERLANDS

More Information:
www.e-reon.com

X-FUNCTIONAL STANDARD

- BROADBAND PAs
- SPLITTERS COMBINERS
- SWITCHES
- ATTENUATORS (1 to MULTI CHANNEL, BROADBAND)

ERD-000100-1x8-12P-MOD-A

Compact DC–10 GHz 1×8 Active Splitter / Signal Conditioner

DC-10 GHz

Wideband Coverage

+12 VDC or POE

Compensates Splitter And Cable Losses

103x 53x 220mm

Advantages

- Ethernet Monitoring and Alarms
- Low-noise amplification and Wide Dynamic range
- High Output Isolation
- Good gain flatness
- Integrates easily into lab or rack systems
- Designed for continuous operation

EMC Testing

5G

Wireless Infrastructure

Automotive Testing

Contact us for integration details, testing or a quote

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RF Switch
SP8T, 20GHz

Overview

An absorptive SP8T, Solid State, TTL controlled, High Isolation RF Switch with:

- Bandwith covering all bands between 0.1–20 GHz
- Low insertion loss (~5 dB typical) and excellent isolation (80 dB)
- Fast TTL-controlled switching, 120 ns typical.

Description

- The S8TA-001200E3B is an absorptive SP8T switch optimized for broadband use up to 20 GHz. It combines high isolation, fast switching speed, and robust TTL control in a compact, nickel-plated package, making it an ideal choice for defense, telecom, and test applications.

Applications

- Automated Test Equipment (ATE)
- Radar and EW systems
- RF front-ends and multi-band transceivers
- Signal routing in laboratories & production lines
- 5G, Satcom, and broadband communication systems

Product Features

- Frequency range: 0.1 – 20 GHz
- Insertion loss: 4.5 – 5.0 dB
- Isolation: 80 dB typical
- Switching speed: 120 ns
- Input power handling: 1 W
- Control: TTL (0–0.8 V / 2.8–5 V)
- Supply: +5 V @ 400 mA, -5 V @ 50 mA

X-FUNCTIONAL STANDARD

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19" Amplifier
500-2500 MHz

Overview

A compact, broadband solid-state power amplifier in a 19" rackmount enclosure with integrated Ethernet control and :

- Instantaneous Bandwith 500MHz to 2.5 GHz
- 25 W CW nominal (up to ~30 W PSAT) with ~46 dB gain
- Integrated Ethernet (Web UI + REST/SCPI), remote ON/OFF, and status LEDs

Description

- An Ethernet-controlled, broadband solid-state RF power amplifier covering 500–2500 MHz in a 19" rack chassis. It delivers 25 W CW (≈30 W PSAT typ.) with ~46 dB small-signal gain and flat response. The integrated Web UI and SCPI/REST API provide remote ON/OFF, limits, and live Control —including supply current and voltage, heat-sink temperature, fan RPM, alarms, and uptime. Robust protections and quiet forced-air cooling make it easy to integrate into benches, ATE, and RF systems.

Applications

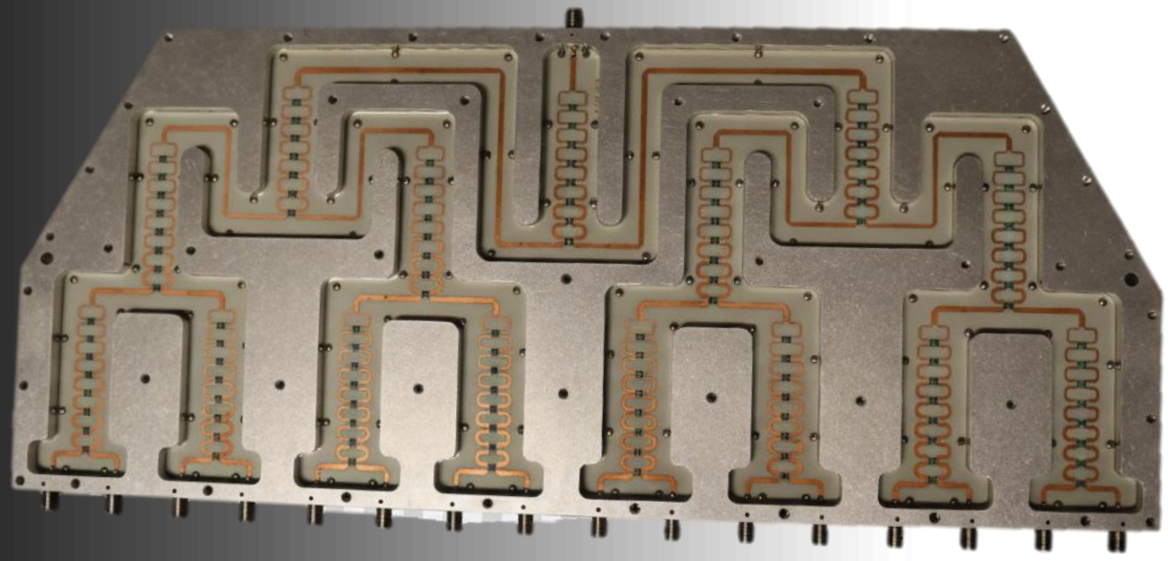
- Automated Test Equipment (ATE)
- RF stress & power-sweep testing
- SDR/USRP boosting signal generators
- EMC/EMI pre-compliance and immunity setups
- General-purpose amplification (500–2500 MHz)

Product Features

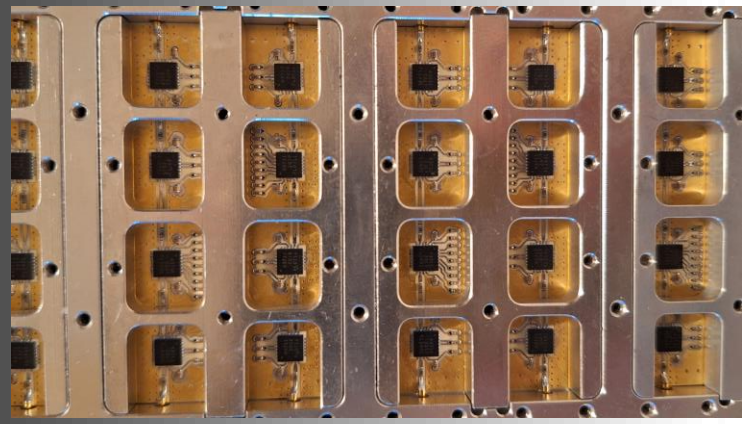
- Frequency range: 500 MHz – 2.5 GHz
- Output power (CW): 25 W nominal, ~30 W PSAT (typ.)
- Small-signal gain: ~46 dB typ., flatness ±1.5 dB typ.
- Input return loss: ≥10 dB
- Harmonics: ≤ –15 dBc @ 20 W (typ.)
- Control: Web UI & SCPI-style over TCP/Telnet
- Power: AC 100–240 V, 50/60 Hz (internal supply)

X-FUNCTIONAL STANDARD

- BROADBAND PAs
- SPLITTERS COMBINERS
- SWITCHES
- ATTENUATORS (1 to MULTI CHANNEL, BROADBAND)



16xCH, 1~6GHz Splitter



16xCH, 1~8GHz Attenuator

X-FUNCTIONAL STANDARD

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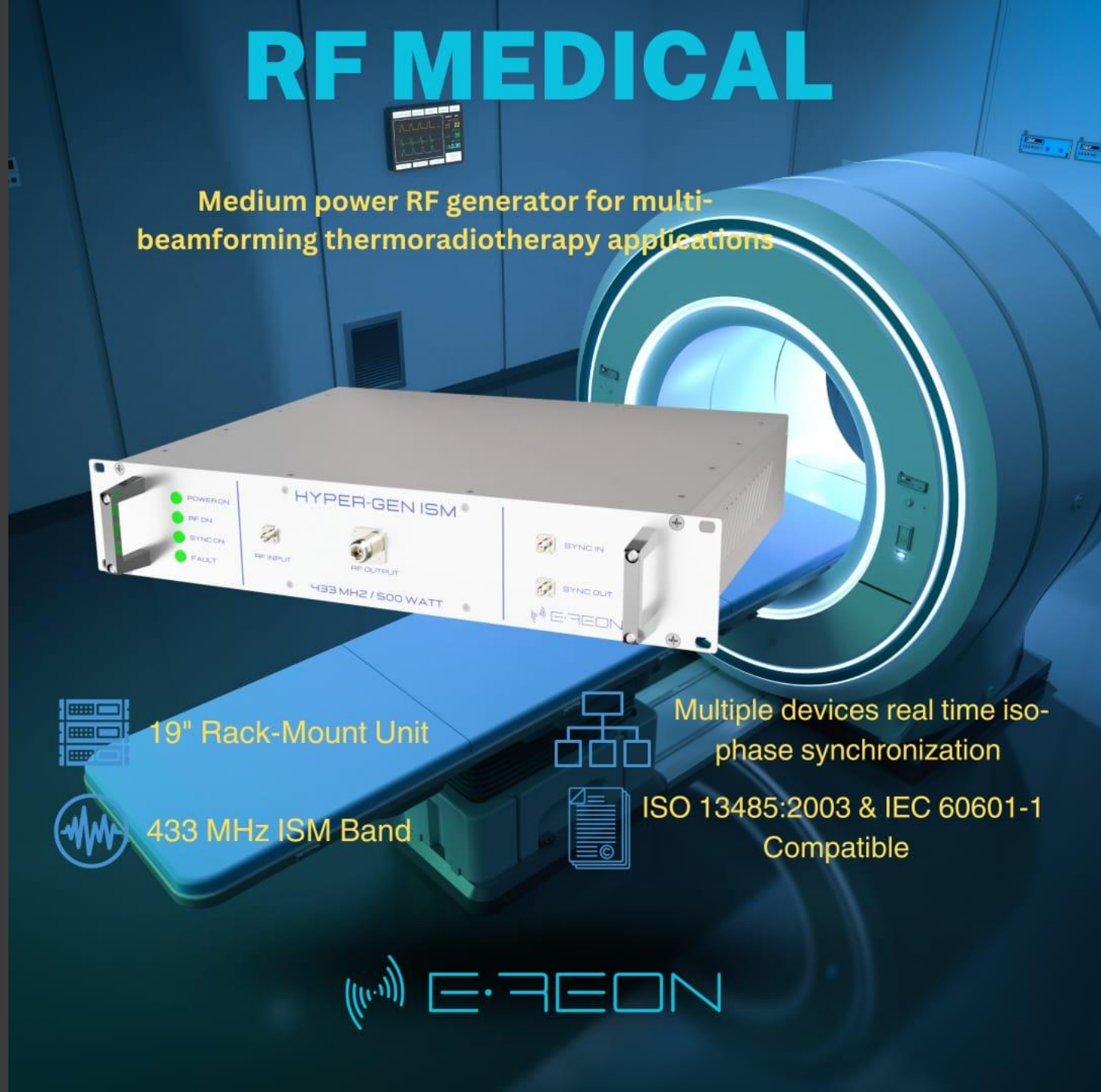
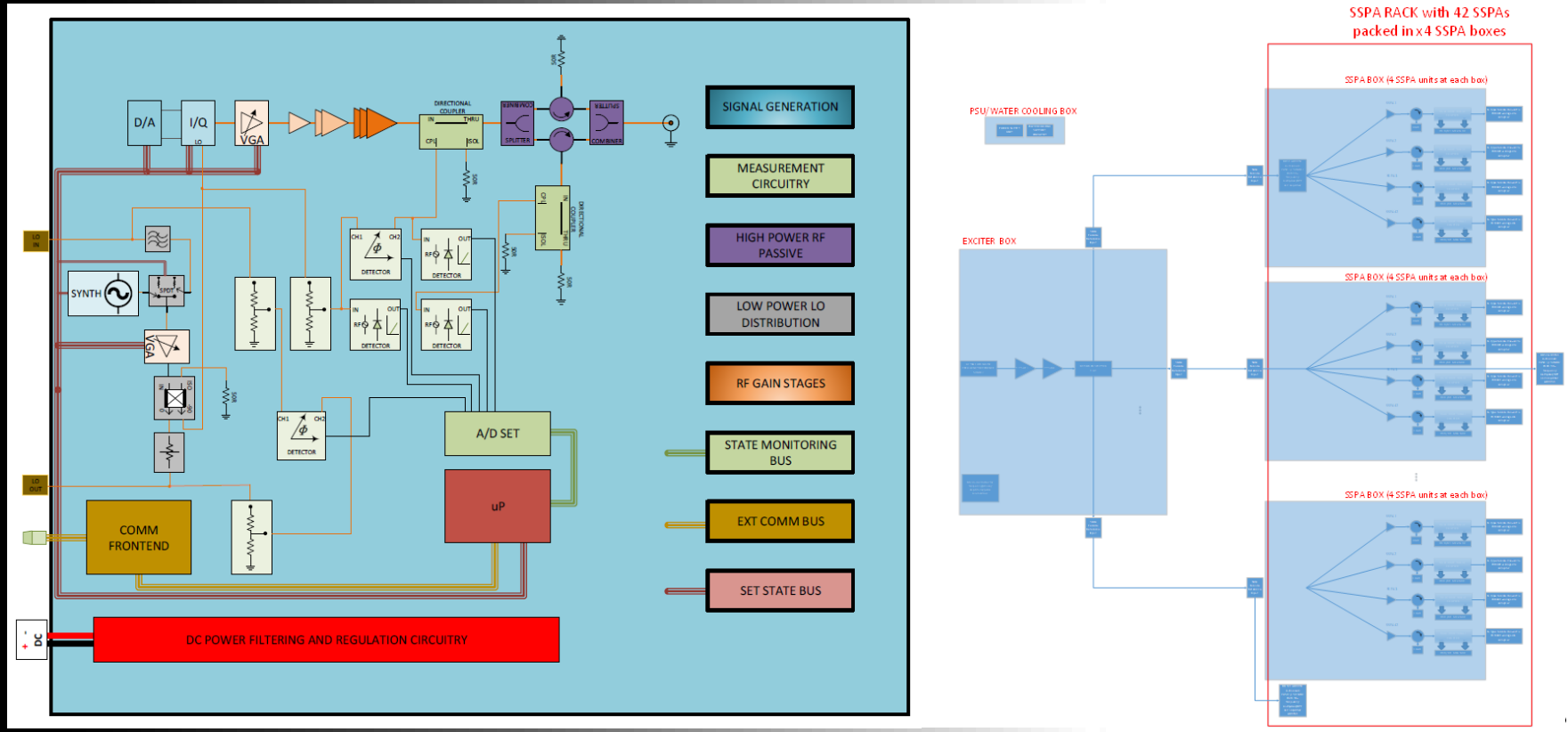


PRODUCT DEVELOPMENT SERVICES

- PROTO 2 PRODUCT
- EM ANALYSES
- FEASIBILITY STUDIES
- SYSTEM DESIGN



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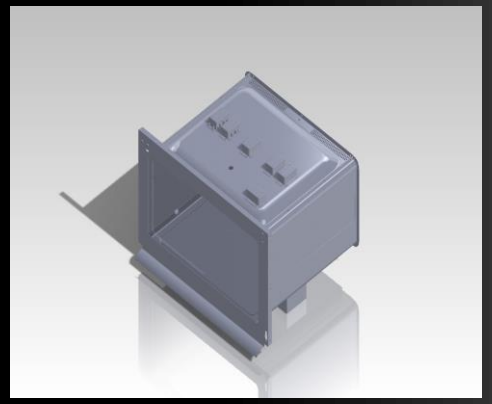
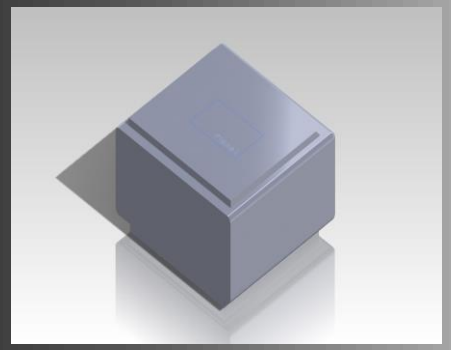
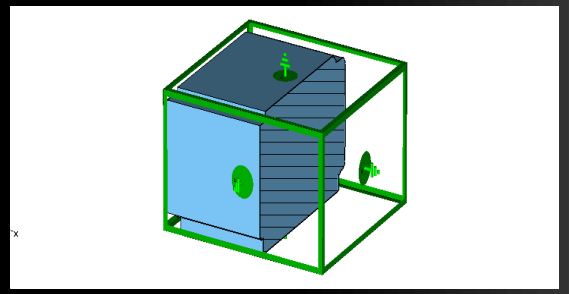
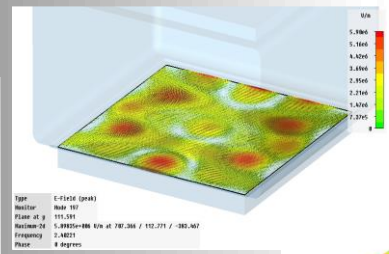
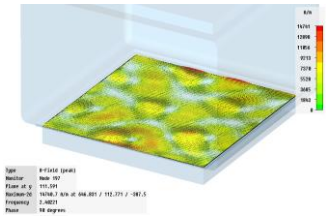




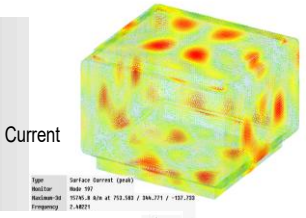




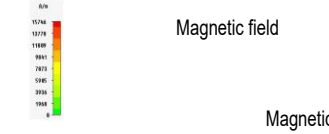
Electric field



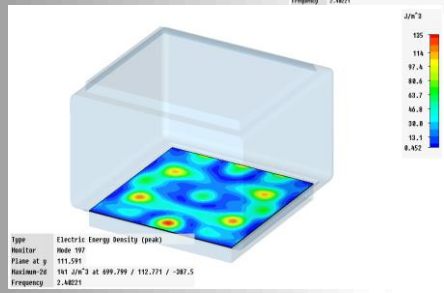
Magnetic field

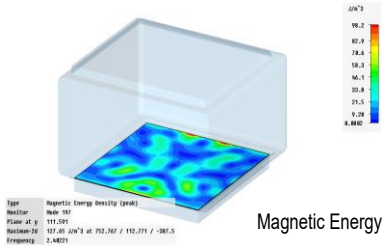


Surface Current



Magnetic field





Magnetic Energy

PRODUCT DEVELOPMENT SERVICES

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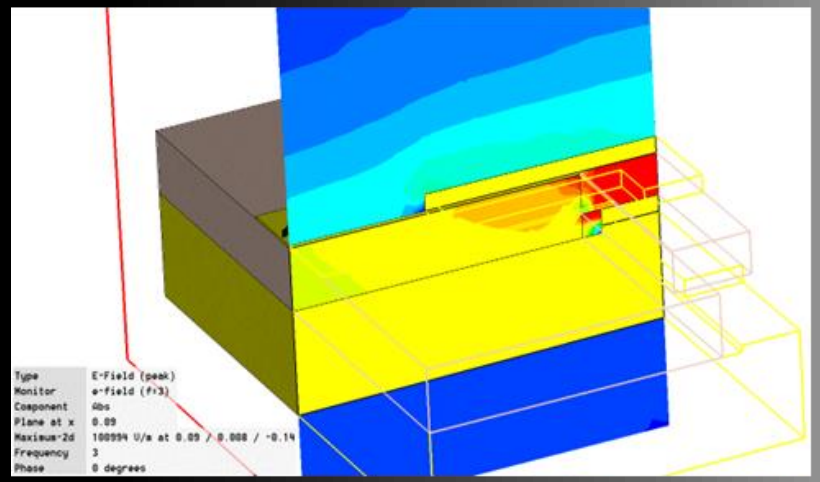
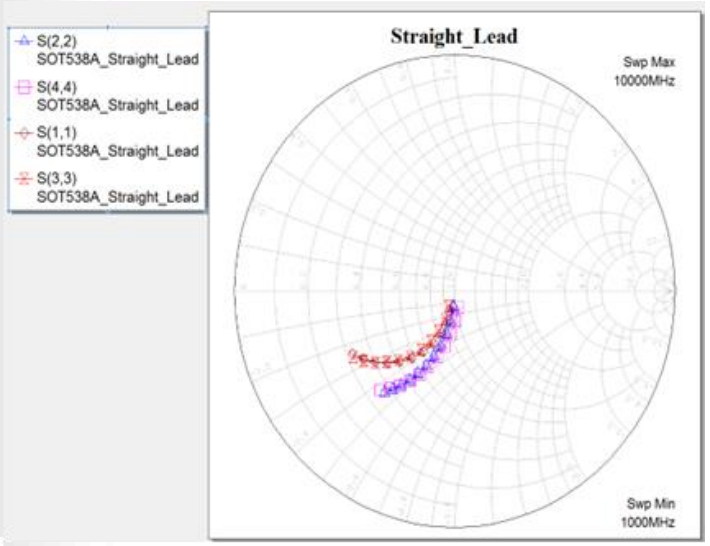
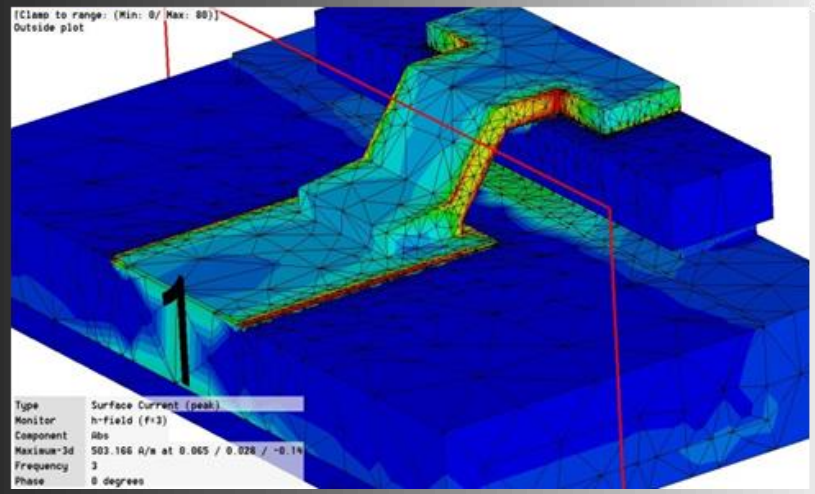






Package Parasitic Modelling

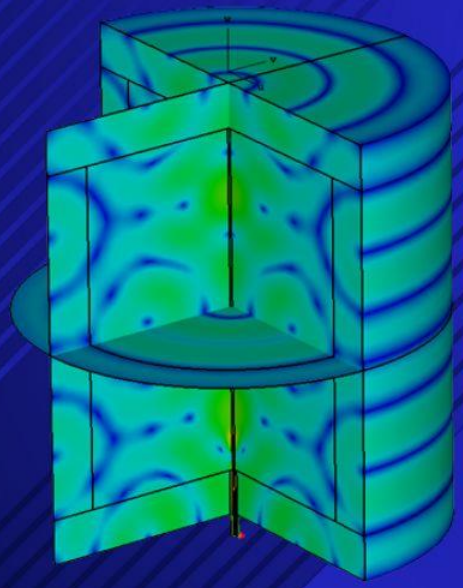
PRODUCT DEVELOPMENT SERVICES

- PROTO 2 PRODUCT
- EM ANALYSES
- FEASIBILITY STUDIES
- SYSTEM DESIGN

E·REON

FROM SIMULATION TO REALITY

Combining a decade of experience in RF Energy, simulation, and advanced system design, at E-REON, we transform electromagnetic concepts into tangible, high-performance solutions. From EM modeling to real-world validation — everything happens under one roof.



PRODUCT DEVELOPMENT SERVICES

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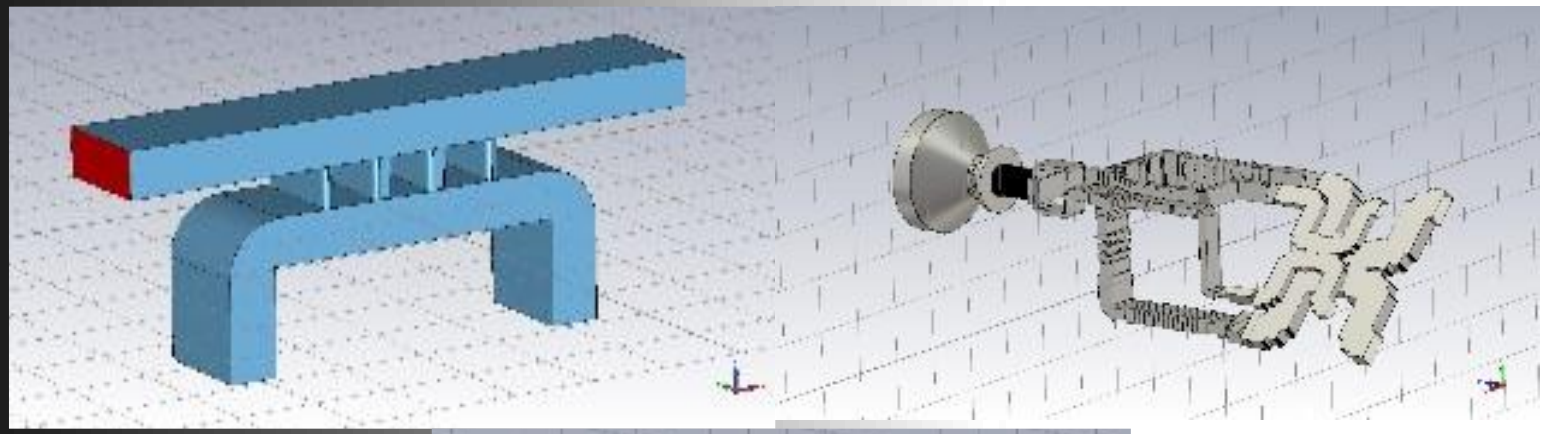
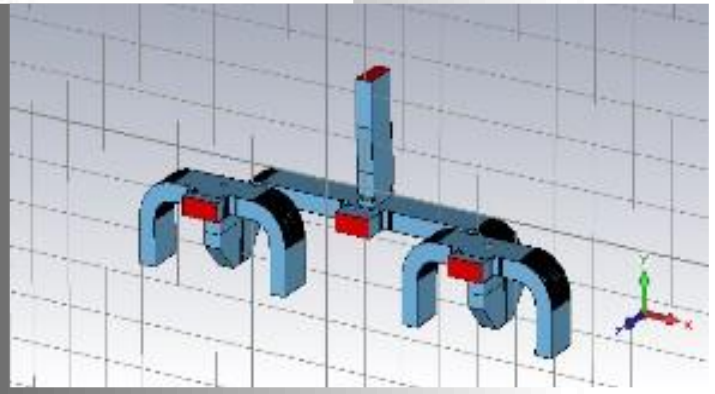


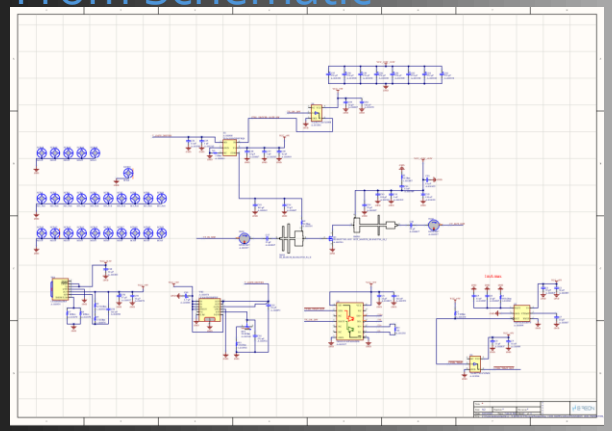


WG DESIGN

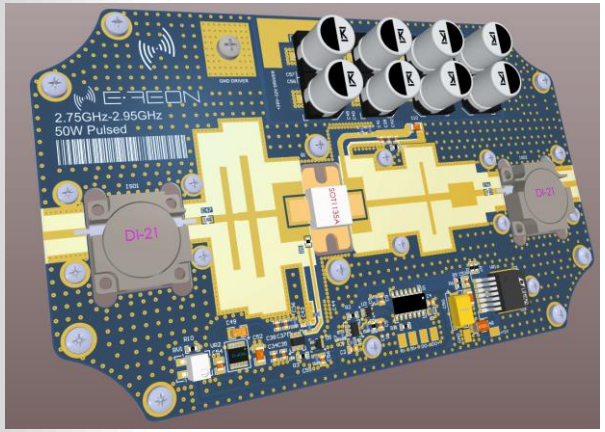
PRODUCT DEVELOPMENT SERVICES

- PROTO 2 PRODUCT
- EM ANALYSES
- FEASIBILITY STUDIES
- SYSTEM DESIGN

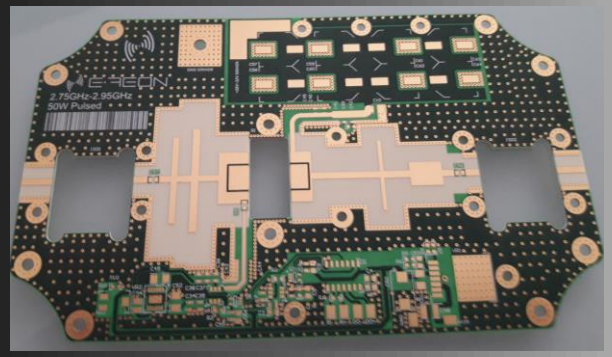
From Schematic



To PCB layout



To PCB assembly



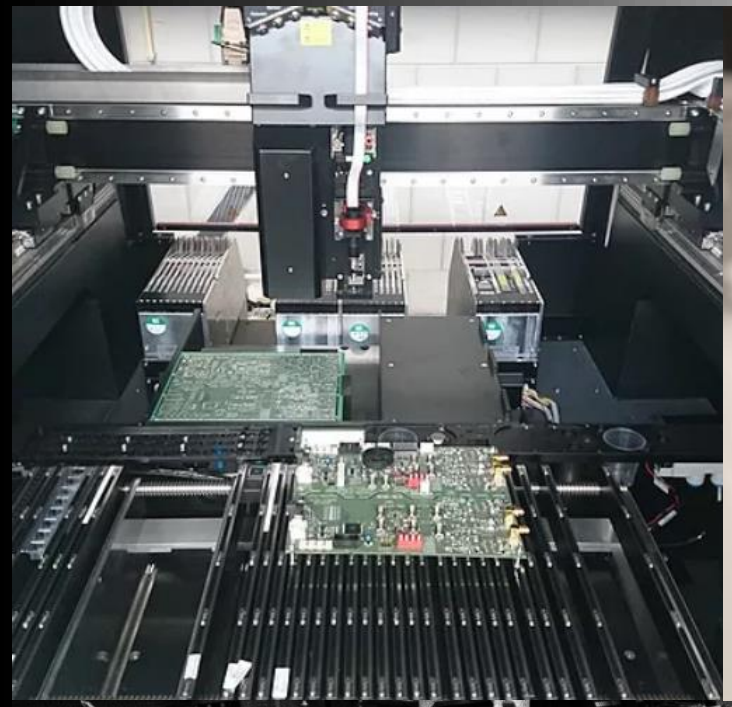
To Industrialization

Proto 2 Product

IN HOUSE CAPABILITIES

Production

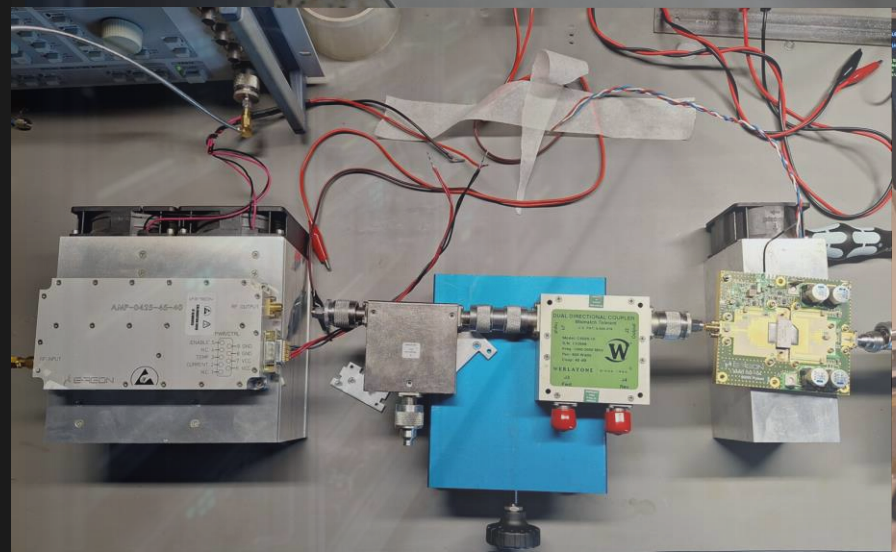
- LF and Non LF Soldering
- Sweat soldering
- Metal back PCBs
- 16K CPH
- Down to 0201
- 3D Dispensing
- (solder pastes, adhesives, sealing material for EMI)
- Housings and Rack Assemblies
- Dry Cabinets
- Drying Oven
- Ultra-Sound Cleaners
- MRP Software for Production Planning



IN HOUSE CAPABILITIES

Testing

- Test and Measurement equipment, accessories, for high power RF Amplifiers, Up down converters, RF Front and Back Ends, up to 26.5GHz.
- Visual inspection –Optical (analog/digital), IR



CUSTOMERS

- **Semiconductors**
  - AMPLEON
  - NXP*
  - M/A-COM
  - Infineon
- **A&D**
  - Thales
  - AIRBUS
  - Intracom Defense
  - Hellenic Instruments
  - Elettronica
  - H.A.F.
- **White Goods**
  - Whirlpool
  - Panasonic
- **Telecom**
  - DEUTSCHE TELEKOM
  - ROHILL
- **High Energy Physics**
  - DESY
  - CERN

*E-REON is an official NXP's Partner https://www.nxp.com/webapp/connect/displayPartnerProfile.sp?partnerId=13900

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