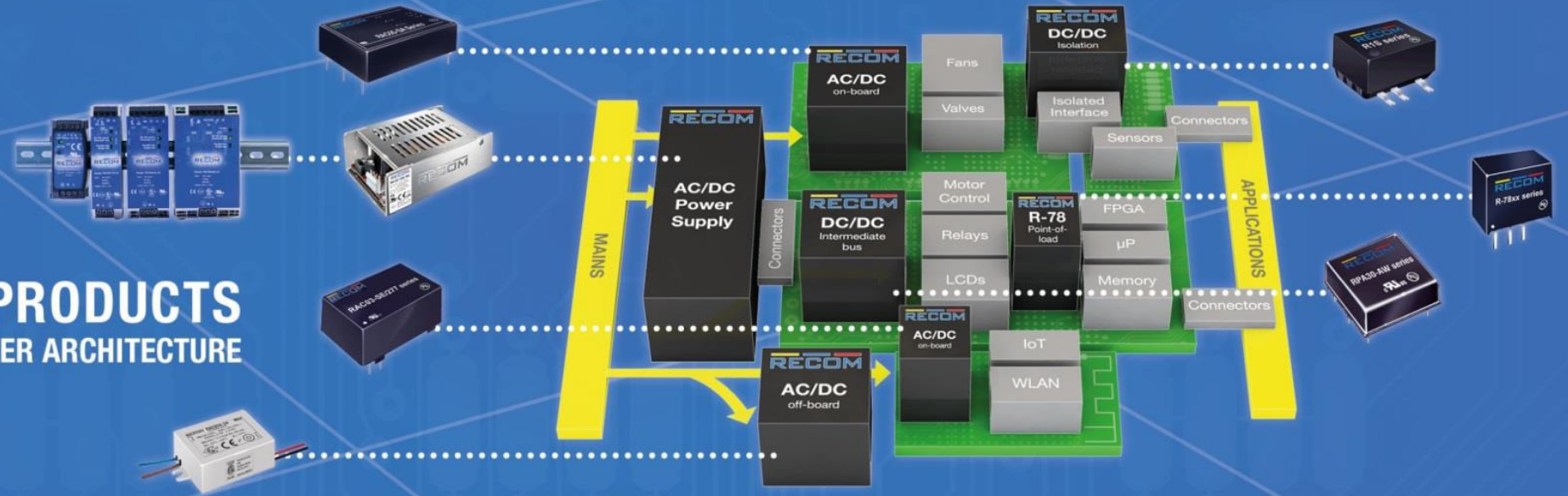


**WE POWER YOUR PRODUCTS**  
MODULES FOR DISTRIBUTED POWER ARCHITECTURE



# Company Presentation 2018

- RECOM is an international corporation, which develops, manufactures and sells innovative AC/DC & DC/DC converters as well as switching regulators and LED drivers around the globe.
- RECOM is the global leading brand for low power converter modules as well as the fastest growing power supply company on the market and provides a world class rep & distribution network.
- RECOM simplifies and accelerates the development process of power supply design for its customer's products, speeding up their time-to-market.

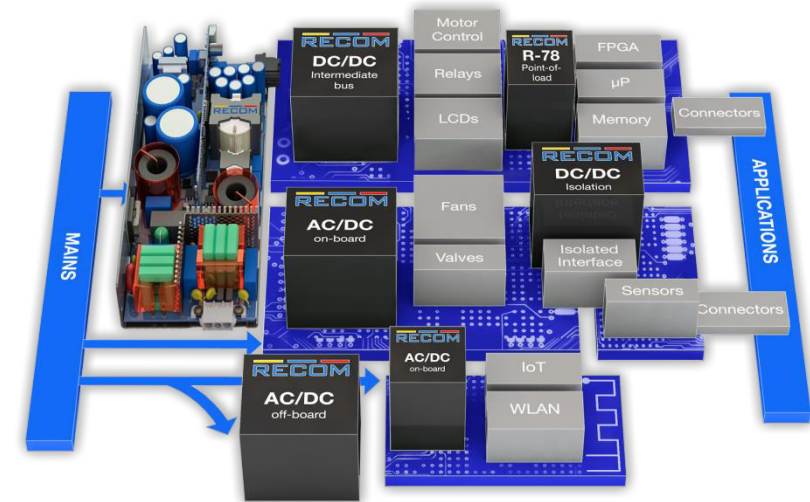
# Modules for distributed Power Architecture



**Innovative. Efficient. And extremely Reliable!**

The concept of distributed power architecture, the combination of a centralised switching power supply with many local „on board“ converter modules enables developers to come up with much more flexible and efficient designs.

Today, "off-the-shelf" modules are available for virtually any application in the industrial controls, power generation, medical, aerospace and transportation markets.



# Why RECOM?



- Quick and reliable distribution supported by highly experienced RECOM staff
- Most advanced online portal (project-registration, quoting, stock-checks)
- Dynamic team constantly delivers new ideas and products
- Strongest growth line for almost all of our distributors
- Best in industry MARCOM and brand recognition

# History



- **1975** Founding of RECOM Electronic in Dietzenbach, Germany
- **2003** Founding of RECOM Engineering and RECOM Power in Gmunden, Austria
- **2004** Expansion to Asia – RECOM Asia, Singapore
- **2006** Expansion to the Americas – RECOM Power in New York, USA
- **2007** Opening environmental and reliability test lab in Gmunden, Austria
- **2012** Worldwide expansion, new business unit RECOM Lighting
- **2012** Opening of SMT-Manufacturing RECOM Technology in Kaohsiung, Taiwan
- **2014** Opening of the new headquarters in Gmunden, Austria  
Expansion to Japan – RECOM Power in Tokyo, Japan
- **2015** Opening of State-of-the-Art EMC Lab in Gmunden, Austria
- **2016** Relocation of US office to DENVER
- **2017** Foundation of RECOM Power Xiamen, China
- **2018** Kick off, Power Solutions in Vienna, Austria



# Global Structure



- **Headquarters:**
  - **Gmunden/Austria**
- **Offices:**
  - Asia: **Singapore**, Shanghai/China, Tokyo/Japan
  - Europe: **Frankfurt**/Germany, Vienna/Austria
  - Americas: **Denver**/USA
- **Warehouses**
  - **Austria & Singapore**
- **Factories:**
  - **Kaohsiung**/Taiwan (RECOM Manufacturing, RECOM Technology)
  - **Xiamen**/China (RECOM Power Xiamen)

# Global Structure



# Product Portfolio



DC/DC converters (0.25W – 240W)

- Variety of package styles and sizes (THD, SMD)
- Industry standard input/output voltages
- High isolation up to 10kVDC/1Sec
- Global certifications (UL/IEC/EN60950, ES(UL)/IEC/EN60601...)





# Product Portfolio



AC/DC converters (1W – 960W)

- DIN-Rail, board mounting, wired, open frame
- Universal input voltage range
- Extended warranty up to 7 years
- UL/IEC/EN60950, ES(UL)/IEC/EN60601...

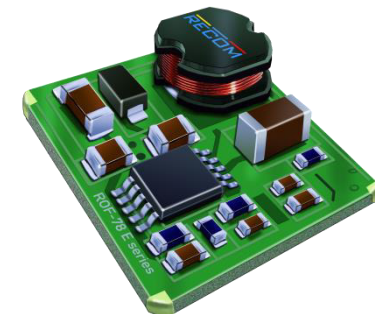
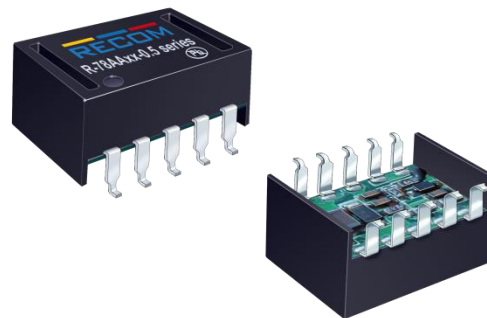


# Product Portfolio



Switching regulators (replacement for linear regulators)

- R-78 series
- THD, SMD, wired
- High efficiencies up to 96%
- EN60950



# Product Portfolio



AC/DC LED drivers (3W – 150W)

- PWM/Digital, 1-10V/analog & triac dimming
- CC/CV mode
- ENEC, UL, PSE, RCM, EN

DALI products

- DALI bus power supply
- DALI interface



# Product Portfolio



## DC/DC LED drivers

- Buck, buck-boost
- THD, SMD, wired
- High efficiencies up to 96%
- PWM/digital & analog dimming
- EN60950, EN50121, UL60950



# Product Portfolio



Medical DC/DC and AC/DC (1W – 150W)

- THD, metal enclosure
- Reinforced isolation with 2MOPP (250Vrms)
- Very low leakage current (BF/CF grade)
- IEC/EN/ES/UL 60601-1 (3<sup>rd</sup> edition)





# Product Portfolio



## Railway DC/DC (8W - 240W)

- Input range from 9 to 160VDC
- Isolation from 1,6 to 3kVDC
- Standard railway packages with optional baseplate or heatsink
- Rugged design for harsh environments
- CE, EN50155, EN/IEC/UL60950



# Ref- & Eval Boards

Reference design boards and evaluation boards speed up development time.

A **reference design** board is a PCB that is a complete solution to be used as a launching pad to get a customer's design up and working fast.

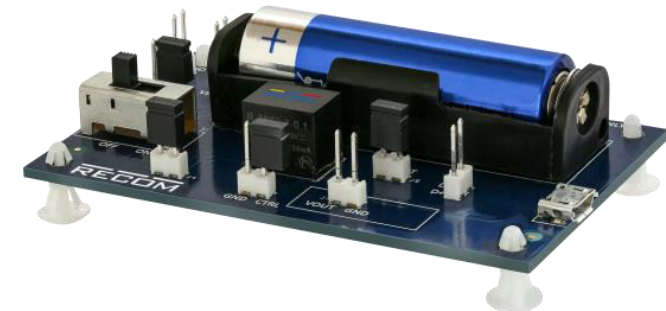
An **evaluation board** is a PCB which can be easily configured for a particular application. It has various test points so that the actual working performance can be measured. This gives the customer the freedom to choose the appropriate components for his design.



REF01-HB: for testing various transistors



REF02-78S: ready-to-use R-78S solution



R-78S Eval-board: for calculating battery lifetime

# Certifications



## ISO-9001



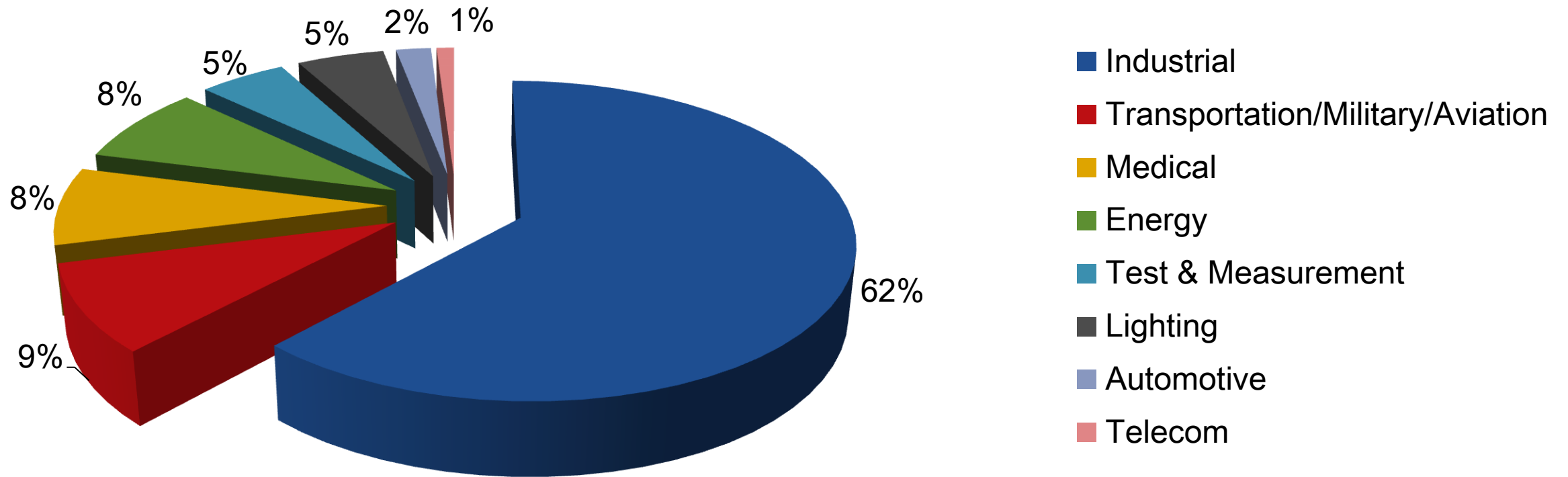
## ISO-14001



## ISO/TS-16949



# Industries



# Hard Facts



- **75M USD** order volume in 2017
- **90 000** customers worldwide
- **12M** manufactured converters in 2017
- **30 000** products in portfolio
- **420** employees worldwide
- **35** new product series per year



# Headquarters



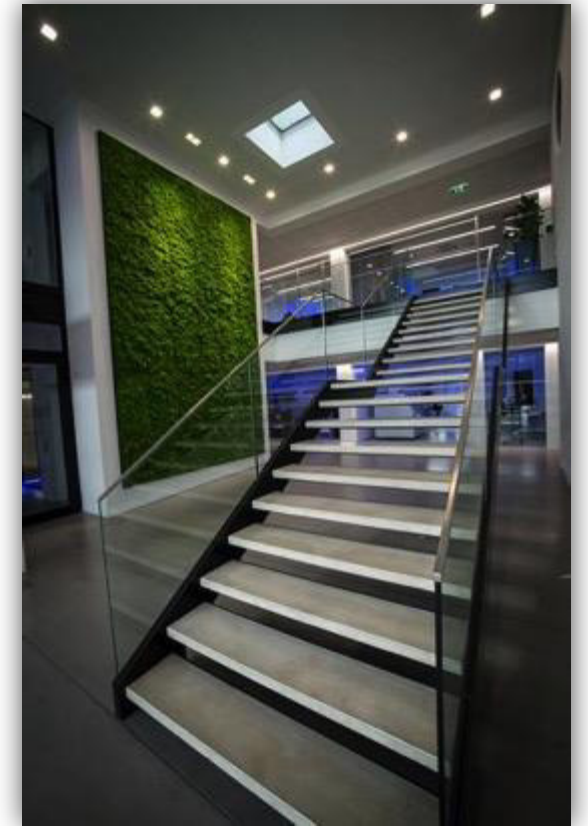
The RECOM Headquarters is located in Gmunden / Austria, which accommodates

- Research and Development Department
- Quality Lab
- Application Engineering
- Marketing
- Test and EMC Lab
- Logistics
- Finance Centre



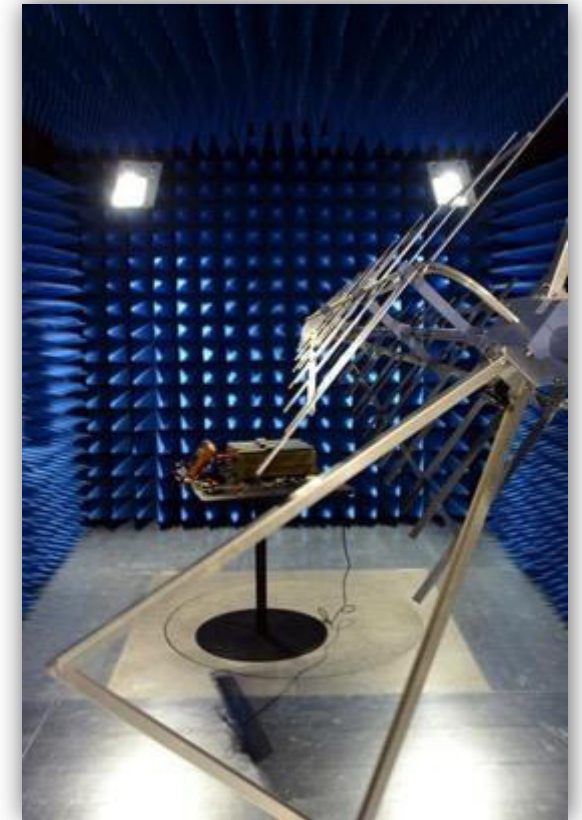
# Headquarters

- 3.000m<sup>2</sup> effective area divided in 3 floors
- 3 high-tech laboratories including:
  - State-of-the-art EMC lab with 3m chamber and GTEM cell
  - X-Ray microscope and high-resolution thermal camera
  - HALT and environmental test chambers
- Modern low-energy building
- Global logistics centre with 637m<sup>2</sup> storage space



# EMC Lab

- Semi-Anechoic 3m chambers for precompliance measurements in Gmunden and Vienna
- GTEM cell for radiated immunity testing
- ESD, burst and surge testing





# Technology Encouragement



RECOM supports its customers with equipment and know-how, helping to solve EMC-related problems of all kinds.

Not only customers and partner companies, therefore, have access to RECOM's best laboratories to test their latest prototypes, but also students from local universities and technical colleges can make use of these unique facilities.



RECOM offers "POWER SUPPLY MEETS EMC-KNOW HOW" seminars <https://www.recom-power.com/emc>

# Main Offices



**RECOM Electronic**  
Frankfurt, Germany



**RECOM Power**  
Denver, USA



**RECOM Asia**  
Singapore



**RECOM Asia**  
Shanghai, China



**RECOM Power**  
Tokyo, Japan



# Factories



**RECOM Technology**  
Kaohsiung, Taiwan



**RECOM Manufacturing**  
Kaohsiung, Taiwan



**RECOM Power Xiamen**  
Xiamen, China

# RECOM

**WE POWER YOUR PRODUCTS**

[www.recom-power.com](http://www.recom-power.com)