

 **dinema**

SINCE 1971 FOR YOUR FUTURE



DINEMA

COMPANY TODAY

Electronic experience made in Italy applies in all sectors, with the design and testing, technical support and service.

For over 40 years **DINEMA** manufactures advanced electronic products and services in many application fields. Characterized by high profile staff, our engineering and industrialization departments are divided in different units for Hardware and Software Development. Among the main logistics services include: research, acquisition and management of electronic components at all levels with agreements with major distributors, supply of printed circuit

boards, 9 automatic warehouses with more than 18,000 items managed by domestic production, contractors and external deposits management, integrated materials management and their information flow. The principal activities include: design and production of electronic assemblies, equipment and complete systems, industrialization of electronic products designed by the customer, supply chain management, technical testing cards with both parametric and functional, post-sales technical support, on-site repair and interventions on-field worldwide.

DINEMA electronic experience encounters led lighting and born

DINEMA LIGHTING, the company division that provides a point of reference and a highly qualified support to provide activities plant through led solutions for offices, industrial warehouses, retail stores, hotels, schools, hospitals, road town planning, cycle paths and parkings.

Our quality system is certified according to UNI EN ISO 9001:2008 and is based on the following principles:

1. Customer focus
2. Process approach
3. Continual improvement
4. Leadership
5. Involvement of people
6. Mutually beneficial supplier relationships
7. System approach to managements
8. Factual approach to decision making

Dinema certifications:





WHAT WE DO

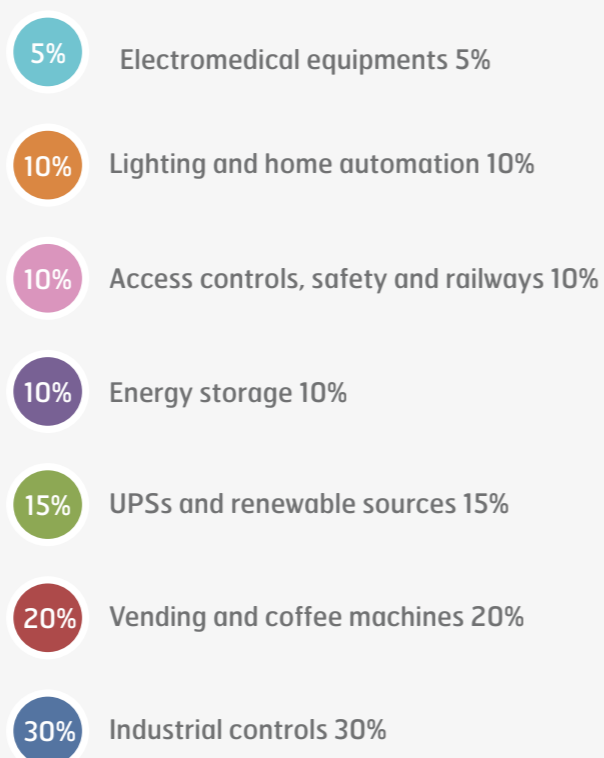
APPLICATIONS

Thanks to the continuous investments, in technology and research, today **DINEMA** is able to cover almost all the market fields.

DINEMA relies on specialized technical resources in compliance with international standards and according to certified systems. In electronic design department work 35 high skilled technicians, whose experience and specialization allow to handle a large number of applications.

DINEMA has the possibility of satisfying any requirements, even for mechanical parts and containers (both of metallic and plastic material). Handling of semi-assembled parts and relevant cables, complete an absolutely reliable "turnkey" service. Starting from the very first step of design analysis, a specialized function assists the customer in order to find out all product feasible regulations. In this way next activities of design and development will be carried out according to the in force laws and regulations.

DINEMA IS ABLE TO ADDRESS **ALL COMPANIES THAT REQUIRE ELECTRONIC SOLUTIONS**, REGARDLESS OF THEIR SIZE AND SECTOR OF ACTIVITY.



DINEMA, ELECTRONICS DEDICATED TO:

1. TEXTILE MACHINES AND EQUIPMENTS
2. INDUSTRIAL COFFEE MACHINES AND AUTOMATIC VENDING MACHINES
3. PUMPS CONTROL AND PROPORTIONAL VALVES
4. BATTERIES, EQUIPMENT FOR ENERGY STORAGE AND POWER ELECTRONIC EQUIPMENT
5. WEIGHERS AND PACKAGING SYSTEMS
6. ACCESS CONTROLS, AUTOMATIC DOORS AND ELECTRONIC SAFETY
7. GAS CONTROL UNIT AND SENSORS
8. ELECTRO-MEDICAL DEVICES
9. RAILWAYS
10. LIGHTING AND HOME AUTOMATIC
11. UPS, SWITCHING AND MOTOR CONTROL
12. DATA COLLECTION, PRODUCTION CONTROL SYSTEMS AND WIRELESS DATA COLLECTION
13. LOW-POWER ACCESSORY FOR CIVIL WAPONS
14. HIGH-END APPLICATIONS



COMPLETE PRODUCT MANAGEMENT

A PARTNER FOR THE CUSTOMER

Frequent contacts with university and with research associations make **DINEMA** a technological forefront partner perfect to develop innovative electronic solutions.

DINEMA ALWAYS COMMITS TO FOLLOW CUSTOMERS IN ALL PHASES STARTING FROM DESIGN UP TO TECHNICAL ASSISTANCE.

CUSTOMER

DINEMA PROJECT < HARDWARE AND SOFTWARE DESIGN

PRODUCT ENGINEERING < CUSTOMER PROJECT

SUPPLY CHAIN MANAGEMENT

BOARD MANUFACTURING

BOARD TESTING

EQUIPMENT ASSEMBLY AND TESTING

AFTER-SALES TECHNICAL SUPPORT

CUSTOMER

COMPLETE PRODUCT MANAGEMENT

RESEARCH & DEVELOPMENT, PRODUCT ENGINEERING

Characterized by high profile staff, our R&D and Product Engineering department is divided in different units for Hardware and Software Development. Years of experience, together with the synergies and connections with the Lonati Group

branches, allow us to extend our electronic services offer into a proper "turnkey" solution: starting from a simple idea of our customer, we are able to deliver a complete finished product (including plastic moulding or metallic case, when required). The

well-established relationships we can rely on with Industry Associations, International Research Centers and Local Universities, make us an even more valuable partner also for the development of innovative solutions.

MAIN HARDWARE SKILLS

- digital, analog and power electronics
- microcontroller systems from 8 to 32 bits
- programmable devices
- wi-fi, Bluetooth, wireless
- power supplies (fly-back, forward, push-pull and resonant)
- drives for trapezoidal or sinusoidal brushless motors
- step motor drives with digital and / or analog techniques
- proprietary or standard communication interfaces
- complete development of the PCB layout

MAIN SOFTWARE SKILLS

- C and C++ for embedded applications, Visual C++ for PC based applications, Assembler
- development of embedded applications with Linux or custom RTOS
- H.M.I human machine interface
- development of applications compliant to the norm IEC 60335-1 Ed. 5.0 Annex R (validation of software for safety purposes)
- development of applications on PC, both Linux or Windows operating system
- standard or dedicated communication protocols
- drivers for piezoelectric actuators, positioning of proportional valves, sensors
- advanced user interfaces and applications for expert systems on Linux or Windows
- database management

SUPPLY CHAIN MANAGEMENT

COMPLETE SERVICE FOR OUR CUSTOMERS



1. 2.



3. 4.



1. COMPONENTS:

Research, purchasing and management of any electronic components. Procurement arrangements with major distributors.

2. PRINTED CIRCUITS:

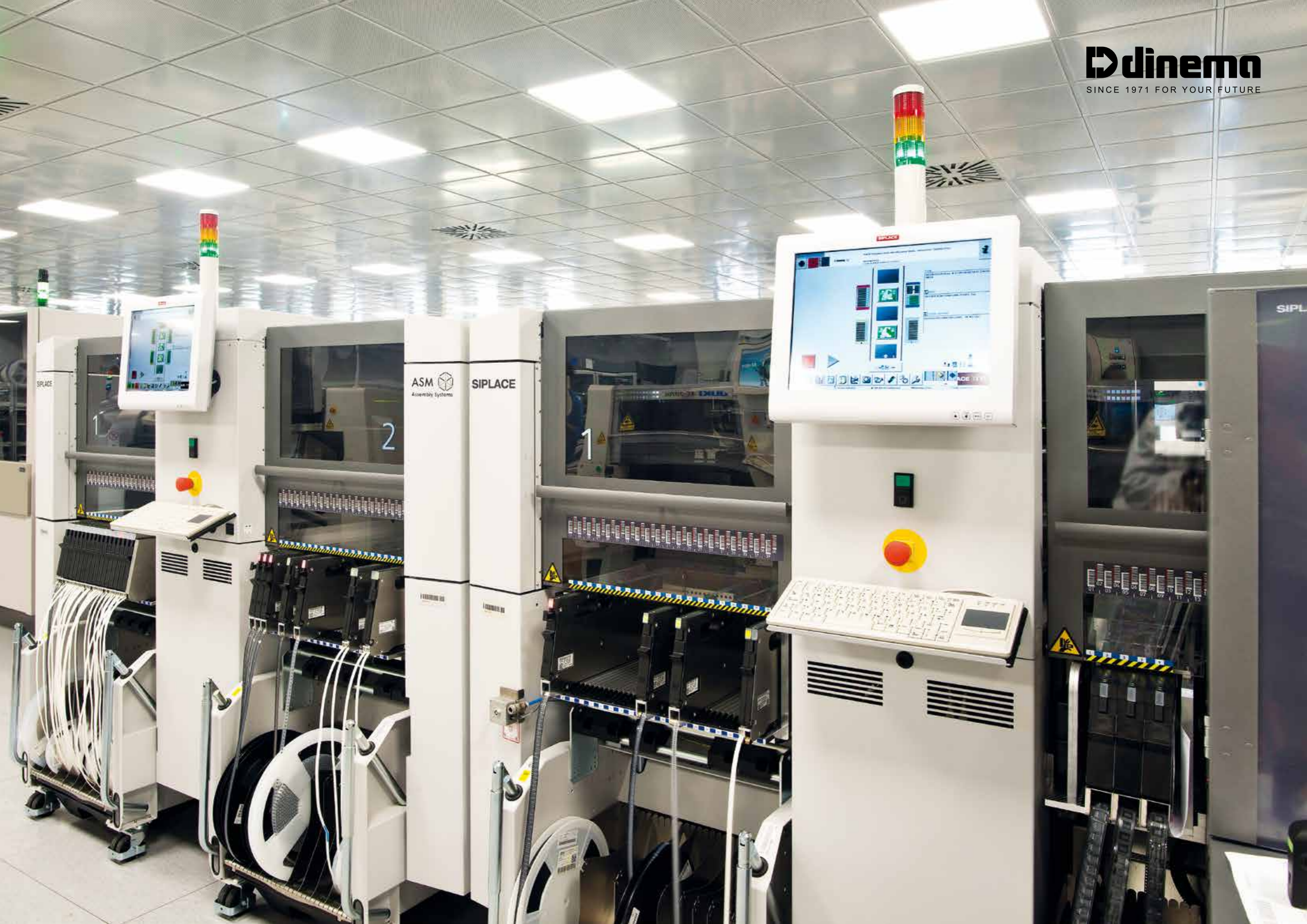
Supply of PCBs.

3. WAREHOUSE

9 automatic warehouses with more than 18,000 codes already managed for our domestic production. Management of subcontractors and external stores. 1.500 m2 of indoor area, including the areas of check-in and shipping.

4. LOGISTICS

Integrated management of materials flow in order to provide customers with the service required, by exploiting all the resources available.



BOARD ASSEMBLY

ALL OUR TECHNOLOGY FOR BEST QUALITY



1. SCREEN PRINTING:

DEK Horizon O3IX automatic machines for solder paste printing, with software for stencil inspection, software for post print inspection, programmable cleaning and PCB automatic alignment.

2. SOLDER PASTE INSPECTION

CKD VP6000 L-V post-print inspection machine capable to verify deposited solder past areas and thickness. The system is able to store data, perform the sorting of PCBs and manage a continuous automatic feedback in closed loop with the serigraphic machine.

3. SMT ASSEMBLY:

Pick&Place SIPLACE X3S and X2S machine with controlled automatic setup and smart feeder autocalibrated with splice sensors. Precise placement of 22u chip from 03015 to 200x125mm. Pick&Place machine for SMD JUKI components FX-2, KE 2070, KE 2080 with 6 nozzles simultaneous optical laser alignment for 0201 chips and ICs up to 50x150mm.



4. REFLOW SOLDERING

REHM VXS Nitro and Victronic Soltec MyReflow reflow ovens with independent top and bottom zones, active cooling and inert atmosphere, production can be either leaded or lead-free.

5. THT ASSEMBLY AND SOLDERING

Lines for THT mounting with Victronic Soltec Delta Wave 6622, with double wave, spray fluxing system, preheating tunnel and nitrogen inertization, production can be either leaded or lead-free.

BOARD TESTING

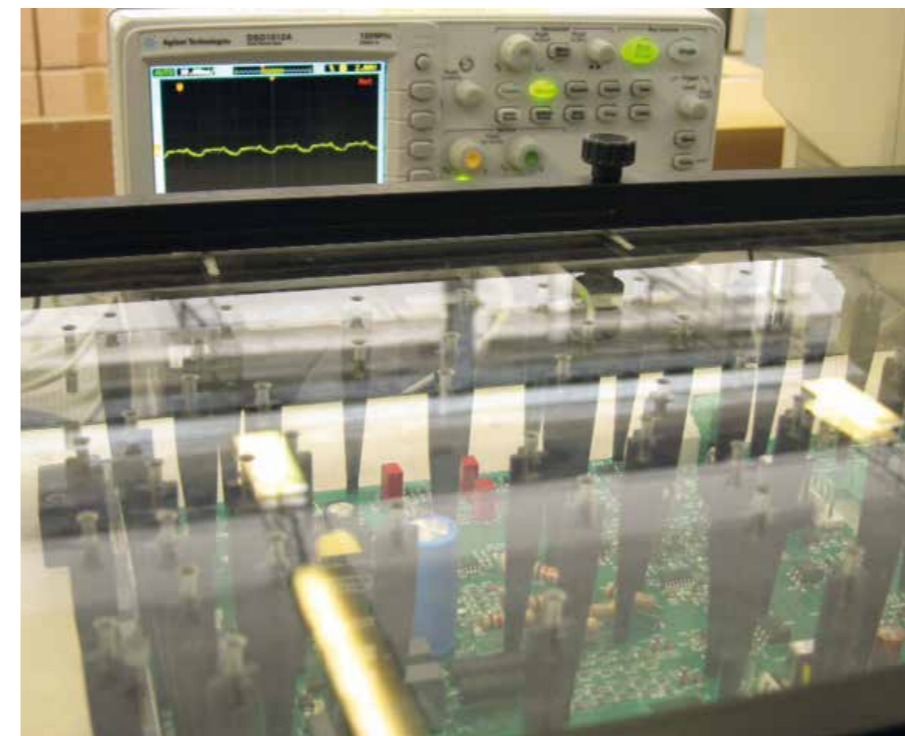
NOTHING BY CHANCE



The design-for-testability integrates the planning stages with the analysis of the technologies of automatic testing and / or manual best suited. **DINEMA** can rely on decades of experience, which led us to the introduction of the best and more cost-effective

testing techniques. This experience finds its synthesis in the PaPA (Product and Process Analysis), developed in-house application. Thanks to that, we outline the performance of different testing strategies. Each product has got peculiar characteristics from the

electrical, physical and mechanical point of view. PaPA is able to study and develop the best testing solution for every application.



EXPERIENCE, EXPERTISE AND TECHNOLOGY FOR MAXIMUM COVERAGE IN TESTING

DINEMA can count on a mix of technologies based on Automatic Testing Equipments (flying probes or bed of nails ICTs) and on National Labview® based platforms. Otherwise we can design custom equipments. Completing our test possibilities there are also burn-in thermal rooms, run-in and climatic chambers.

BOARD TESTING

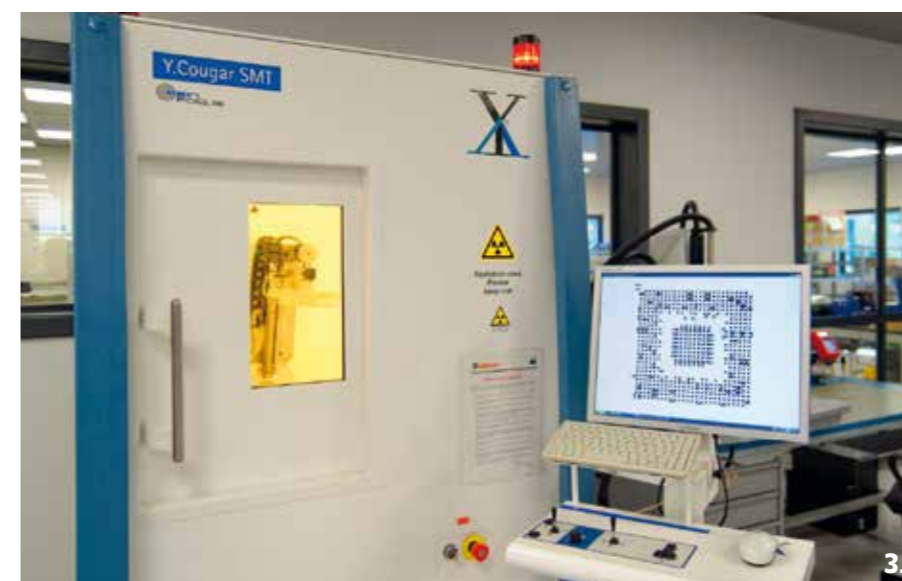
40 YEARS OF EXPERIENCE OUR GUARANTEE



1. OPTICAL INSPECTION:
OMRON VT-5720 three-dimensional automated post-solder optical inspection for SMD components. High performance CCD multi-camera system, inspection of components up to 01005 and up to 8 mils fine pitch.



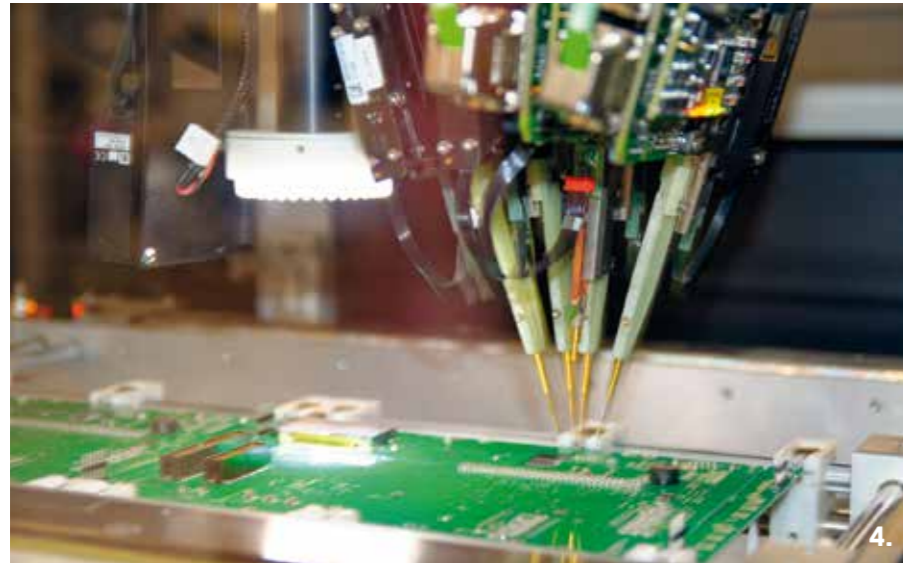
2. PCBA REWORK:
Rework station ZEVAC ONYX 25 with thermal profile features, for automatic assembly and replacement of fine-pitch and BGA components.



3. X-RAY CONTROL:
YXLON Feinfocus Y. Cougar SMT system for 2D and 3D X-Ray process control. Magnification up to 10.000X, inspection area up to 310x310mm, PCB dimension up to 550x440mm, resolution up to 500nm. Algorithms for automatic inspection for BGA and QFN.

BOARD TESTING

WE GUARANTEE BEST PROFESSIONAL QUALITY



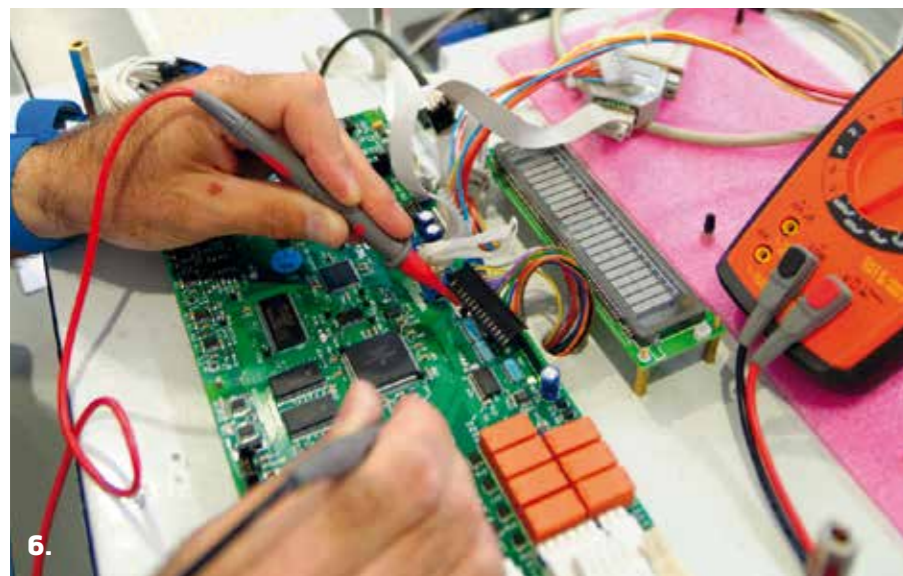
4. FLYING PROBES:

2 SPEA 4060 Multimode machines. Automated Loading System, 4 movable heads, possibility of 128 fixed needles, aircushion driving system, traditional ICT with possibility of power on, optical test and SPC. Automatic generation of programs, centralized data collection.



5. BED OF NAILS:

2 SPEA 3030 with 1280 channels. 4 Teradyne Spectrum mod. 885X, with 896/1024/1152 channels, VXI architecture, Deltascan and Framescan features. 2 Tecnost TEC 4000 with 640 channels.



6. FUNCTIONAL TESTING WITH PC:

Functional test systems based on National Labview® platform, standard for PC hardware and software, custom for interfaces for units under test.

BOARD TESTING

40 YEARS LOOKING FOR BEST QUALITY



7. BURN-IN:

Burn-in systems with ACS climatic chambers for positive and negative temperature range or with heating rooms.



8. RUN-IN:

Run-in systems with ACS climatic chambers for positive and negative temperature range or in heating rooms. The Run-in is a complete functional test, with very sophisticated diagnostic and automation.



9. CUSTOM FUNCTIONAL TESTING:

Equipments designed and created ad hoc, in order to obtain maximum speed and coverage.

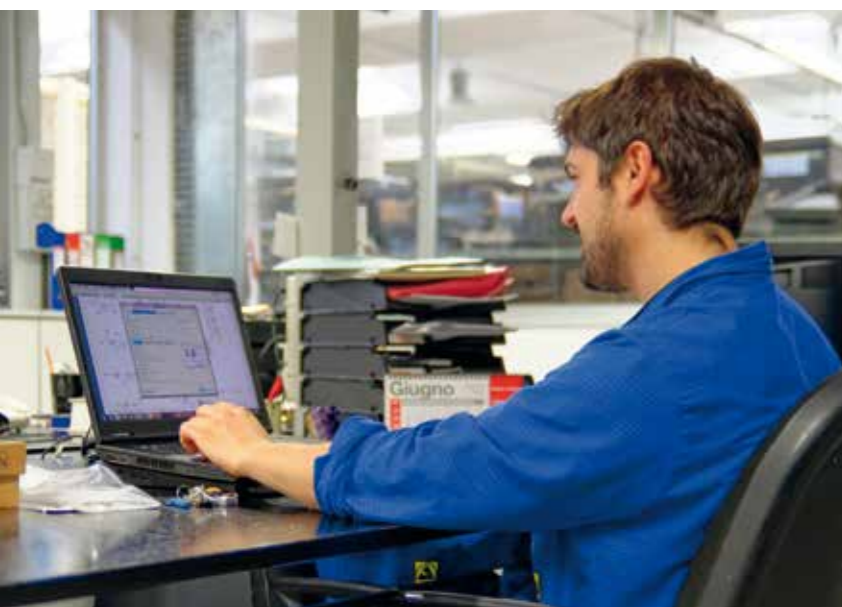
COMPLETE PRODUCT MANAGEMENT

EQUIPMENT ASSEMBLY AND TESTING



EQUIPMENT MANUFACTURING AND FINAL TESTING:

In addition to the manufacturing of electronic boards, **DINEMA** can also assemble entire units and is able to perform all the final functional and safety tests.



AFTER-SALES TECHNICAL SUPPORT:

DINEMA is able to offer to our customers: remote support (via telephone, e-mail and web), technical repair service by our laboratories, prompt on-field technical assistance.

dinema
LIGHTING



150W HIGH BAY MODULAR HEADLIGHT

LED LIGHTING SYSTEMS



DINEMA LIGHTING

INDUSTRIAL LIGHTING SYSTEMS

dinema
LIGHTING



250W HIGH BAY INDUSTRIAL HEADLIGHT

DINEMA LIGHTING is the new challenge faced by **DINEMA** in the led lighting field. Dinema Lighting has been started up to offer a point of reference and an highly qualified support to any companies looking for a specialized partner to realize industrial plants for led lighting.

DINEMA is careful to technological innovation, energy saving and sustainable development. Since from the earliest use of power LED lighting, Dinema Lighting has selected the best LED sources to be integrated into its own lighting fixtures to develop reliable products, with high color rendering, with innovative and compact forms and offer LED solutions for offices, industrial buildings, retail stores, hotels, schools, hospitals, road town planning, cycle paths and parkings.

Our products range from slim led panels with edge lighting technology to steel glass water-proof LEDs lighting fittings, LEDs High Bay and LEDs street lights.

High efficiency, low power consumption, long life, reliability are values developed in the tradition of **DINEMA** that for over 40 years pursues the same electronics target with passion and quality made in Italy.

LED LIGHTING MEETS THE ITALIAN ELECTRONICS EXPERIENCE

A MIX OF KNOWLEDGE AND DESIGN THAT SATISFIES EVERY CIVIL AND INDUSTRIAL REQUIREMENT.

LED LIGHTING SYSTEMS



CONTACT

WHERE WE ARE

DINEMA SPA

Via S.Polo n.183 | 25124 Brescia (Italy)
Tel. +39 030 2300492 | Fax +39 030 2300833
P.iva: 00292820172



 **dinema**
SINCE 1971 FOR YOUR FUTURE

 **dinema**

SINCE 1971 FOR YOUR FUTURE



dinema@dinema.it - www.dinema.it