IFTEST

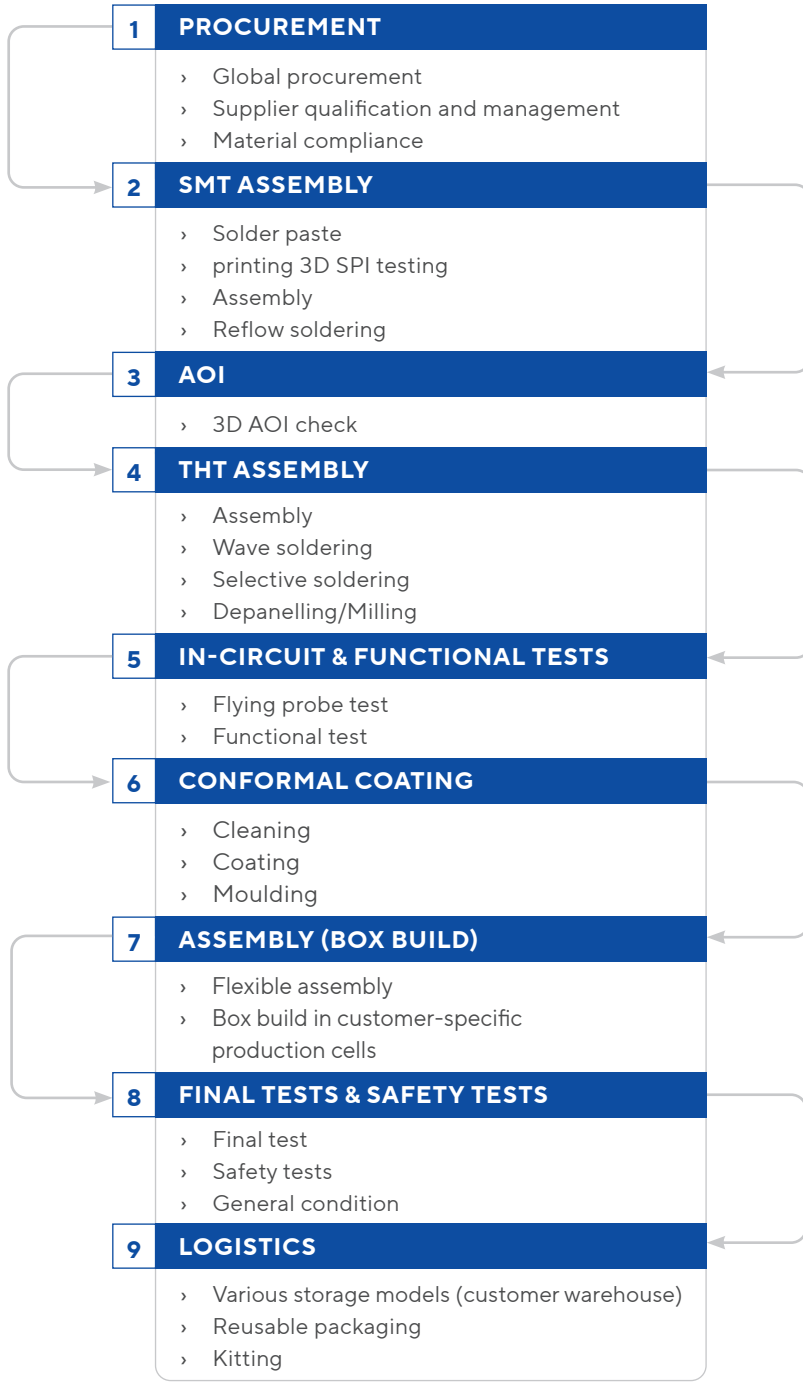
Desired electronic assembly thanks to cost-optimised series production

Our first-class manufacturing services offer everything you can expect from us as an expert EMS partner: from material procurement and printed circuit board assembly to in-circuit and functional tests. In addition, our service range includes coating and moulding as well as module assembly, including final tests and safety tests. Our services are rounded off by tailor-made packaging solutions and global logistics.

A visit to Iftest AG: step-by-step approach to expertise

A tour of our state-of-the-art production facility gives you an unfiltered look at how your electronic assemblies are created. The walkthrough goes along the material flow. The focus is on the relevant manufacturing processes and how they interlink.

Our team of experts is happy to show interested parties how we achieve high quality standards at Iftest and what details are involved in order to ensure the Iftest precision valued by customers.



Seamless series production: from material procurement to logistics

Iftest is uncompromising in delivering quality and precision in its electronics production. Absolute process control is a must for us in order to meet the high demands of our core industries. We uphold our ambitious standards by continuously optimising our modern machinery and expertise. Through systematic training, we always ensure the skill levels of our employees are state of the art.

1 MATERIAL PROCUREMENT

Our material procurement encompasses the global procurement of all raw materials and components that are used for the manufacture of our products and the provision of our services. This process is key for our supply chain and influences production costs, quality and efficiency. Careful planning and close cooperation with our suppliers and customers are therefore essential. We take all relevant regulations into account and implement rigorous supplier management.

Extended services

- Global procurement
- Supplier qualification and supplier management
- Material compliance

2 SMT ASSEMBLY

SMT assembly is a crucial process in modern electronics production. Our SMT assembly lines are specially designed to offer maximum flexibility and speed. They process all common designs and sizes of SMD components reliably and efficiently. A wide range of printed circuit board types and shapes can be equipped with specifically optimised panel designs. This enables us to produce prototypes as well as small and large series at competitive prices and with the highest precision.

Technical information

- Precise solder paste pressure
- Reliable and high-precision
- 3D SPI testing
- Assembly
- Reflow soldering

3 OPTICAL INSPECTION (AOI)

We thoroughly test all series-produced assemblies with the latest-generation 3D AOI system. It is able to automatically detect missing components, offset and rotation, incorrect polarity and soldering errors with the highest level of accuracy. In this step, autonomous plant operation with minimal effort leads to optimum cost efficiency. Invisible solder joints can be verified at any time with our high-resolution X-ray system. Fully equipped rework stations are also available for quality assurance, analysis, modification and upgrades.

Technical information

- 3D AOI testing
- High precision thanks to precise detection
- Faster inspection thanks to automated processes
- Quick and efficient testing of large quantities

4

THT ASSEMBLY

THT assembly is a tried-and-tested method for inserting electronic components. It boasts impressive mechanical strength and reliability. The THT technology offers key advantages, particularly in demanding applications and where high mechanical loads are involved. By combining manual assembly and automated soldering processes as well as high-precision depanelling routing, we achieve maximum production advantages: high flexibility, high quality and superior efficiency at competitive conditions.

Technical information

- Assembly
- Wave soldering
- Selective soldering
- Depanelling/Milling

5

IN-CIRCUIT & FUNCTIONAL TESTS

By means of in-circuit testing (ICT), we can monitor the manufacturing process for printed circuit boards and components. We use two methods for this: the flying probe test and the needle bed adaptor. In order to ensure that the assemblies meet all required specifications, further automated functional tests can be carried out. All functional tests can be extended, for example, through on-board programming, boundary scanning or the stimulation and recording of non-electrical physical properties and supported by test protocols.

In-circuit test procedure (ICT)

- Flying probe test
- Needle bed adaptor

More test options

- On-board programming
- Boundary scan
- Stimulation and recording of non-electrical, physical quantities

6

CONFORMAL COATING

Conformal coating is a protective coating for electronic components and printed circuit boards. This protects against environmental influences such as moisture, dust, chemicals and other pollutants. When selecting the right coating, we take the specific requirements into account. With our modern selective coating system, the coating is partially applied to the assembled circuit board. This reduces the need for coating material to the necessary minimum, which saves resources and reduces the environmental footprint.

Technical information

- Cleaning
- Conformal coating
- Moulding

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7 ASSEMBLY

The assembly procedure is a key element in the manufacture of electronic devices and assemblies. It requires precise and careful execution. Through the use of proven technologies and comprehensive quality controls, we ensure that our products meet the highest demands and that they function reliably. From prototypes to small and large series – our flexible assembly processes offer tailor-made solutions for every requirement. Thanks in particular to our Slovakian plant, our customers benefit from favourable prices.

Technical information

- Flexible assembly of small to large series
- Box build in customer-specific production cells

8 FINAL TESTS & SAFETY TESTS

The final and safety tests ensure that electronic devices function correctly and meet the relevant specifications. The tests include, for example, visual inspections to guarantee the highest quality. Safety tests ensure that devices are safe to operate and meet all safety standards. These include, for example, high-voltage, short-circuit and insulation tests and, in the case of medical devices, patient leakage current. These test procedures are essential to ensure the quality and safety of electronic devices.

Technical information

- Final test
- Security tests
- General condition
- Visual inspection

9 LOGISTICS

We use our logistics systems to plan and manage the flow of goods and information along the entire supply chain. Our aim is to transport goods and information efficiently, cost-effectively and reliably from their place of origin to their destination, thus fully meeting the needs of our customers. In addition, our economic processes and compliance with standards help to increase our competitiveness and minimise our environmental impact.

Extended services

- Various storage models (customer warehouse)
- Reusable packaging
- Kitting

«What's important to us is that we solve challenges in close collaboration with our customers. This means we always offer them exactly what they need. Because our modular range of services makes us flexible solution finder.»

Christian Kupper, CEO of Iftest AG

Certifications

EN ISO 13485
ISO 9001
ISO 14001
IQNET
UL 796/Z111

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