



ELECTRONIC MANUFACTURING SERVICES

AUREL provides to their Customers a full service, supplying both engineering samples and full production of:

- **SMD electronic modules**
- **Thick film hybrid circuits**
- **IMS power modules**

This can be inclusive of full design service, purchasing activities for necessary components and complete test of delivered product.

SMD

AUREL production lines are suitable for SMD technology cards (or for mixed technology) on multi-strate printed circuit boards, rigid or flexible, metal-core, etc..., handling components with case as small as 0201, BGA and micro BGA, also placed on both sides. Production quality is assured via AOI (Automatic optical inspection), Xray inspection, functional testing, coating. Aurel can provide electronic assemblies at any desired manufacturing step: from electronic circuit only up to full finished product, assembled and even placed in full delivery packing.

THICK FILM

Since 40 years, AUREL is leader in thick film technology. Thick film technology is one of the most efficient technologies to assemble electronic circuits, offering the following possibilities:

- **Very dense interconnection nets on thermally conductive substrates**
- **Low cost multilayer structures**
- **High performance resistors via screen printing**
- **Full functional trimming of assembled circuits in automatic stations**
- **High circuit integration levels**

AUREL can design and mass produce Thick Film Hybrid Circuits on Alumina (Al_2O_3) and on Aluminium Nitride (AlN) on complex geometry substrates, also provided with laser made metal coated pass-thru holes. Alumina substrate high thermal and mechanical stability is extremely suitable for chip & wire components. Using last generation screen printing machines, Aurel can reach a very high integration density (net lines up to 150um) providing a very high reliability on the products. Thick film Technology versatility is offering economical solution in several application fields: automotive, avionics, consumer products, information technology, sensors, biomedical, telecommunications, research, etc...

IMS

IMS Technology is well suitable for applications where electronics is handling very high currents, up to several hundred Ampere, with need of thermal dissipation and mechanical strenght. The superior ductility of aluminum metal is an advantage during the work-shop mechanical operations and also makes easy the installation of electronic cards onto the thermal dissipation supports. The technology is available for electronic assemblies with dimentions up to 50 cm per side. IMS can be favourably used in following application fields:

- **Industrial sector:** power suppliers, inverters, soldering machines
- **Automotive:** ignition, electronic control units, lamp gears, fan controls
- **Lighting:** light sources, street lights, power leds, power ligthing
- **Solar Energy:** inverters, concentration units

AUREL IMS products quality is assured using AOI (Automatic optical inspection), Xray inspection, full functional testing, dielectric rigidity test, coating.