

Fully moulded high-reliability
plastic packaging



Turnkey, sovereign, fully moulded plastic packaging.

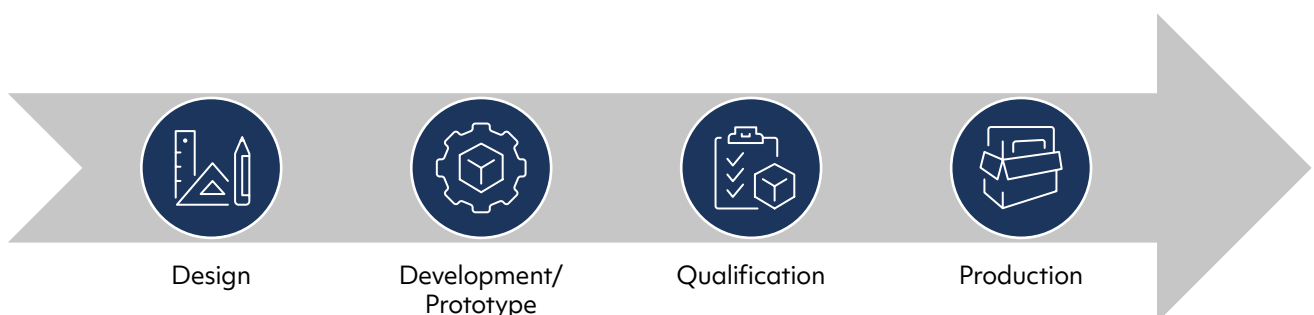
Applications:



Packaged solutions for optimal Size, Weight and Power (SWaP)

Filtronic invested in a specialist, plastic encapsulation capability for compound semiconductor devices, focusing on high-density System in Package ("SiP") designs. Perfect for wideband gap semiconductors such as Gallium Arsenide (GaAs), Gallium Nitride (GaN), and Silicon Carbide (SiC).

This capability now enables Filtronic to manage the full product/package life cycle, from:



Process optimisation for high-reliability plastic packaging

Our capabilities focus on low-weight, low-cost, high-density packaging for high-power semiconductor devices, specifically designed to perform in challenging operational environments for the MoD, Royal Navy, Royal Air Force, and their global allies.

Our lead frame technology utilises best practices to mitigate delamination, voiding, improved solder ability and wire bonding.

Features include:

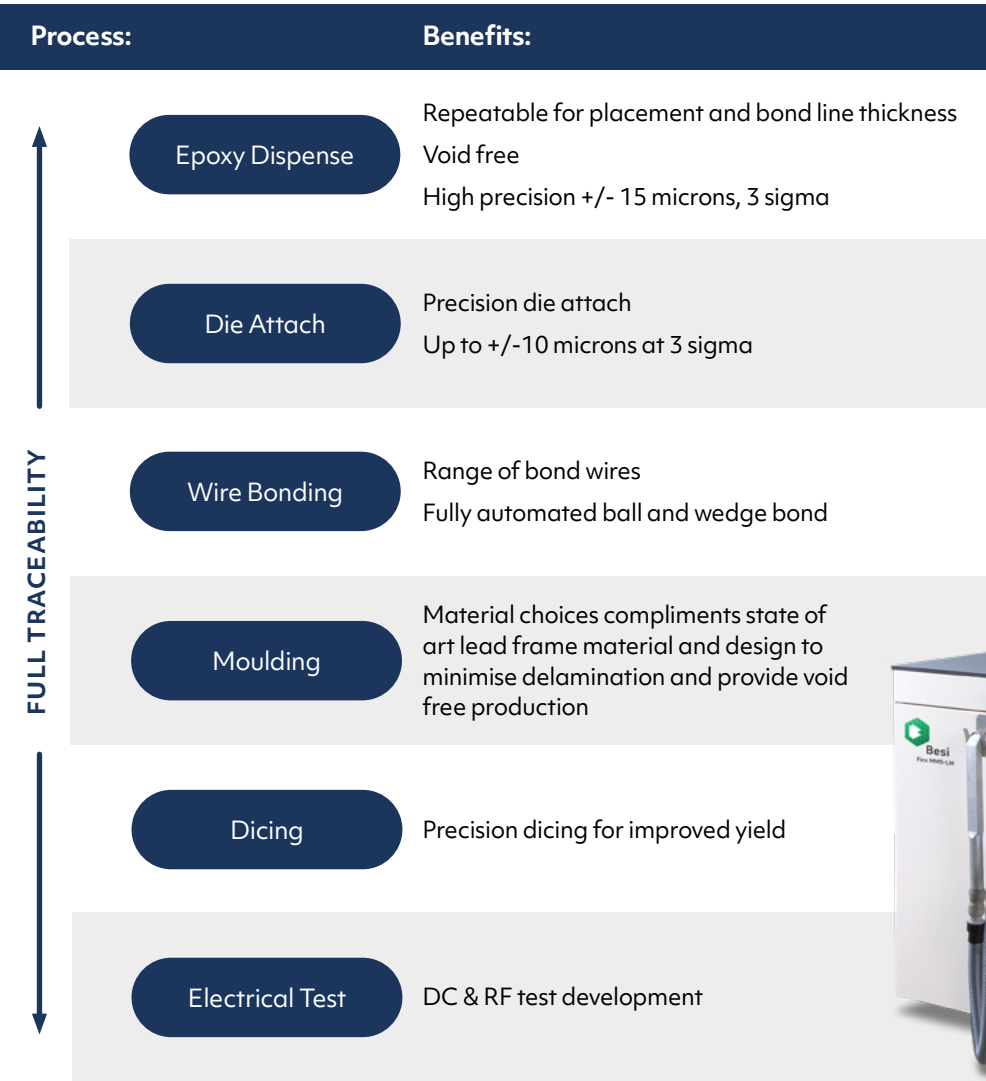
- Able to work on UK government contracts.
- Custom lead frame and package design capability to optimise electrical performance.
- Vertically integrated process development, manufacture, and test, all on one site, critical for security, continuous monitoring and improvements.
- Full in-house automated process capability. From Die Attach to Wire Bonding, Moulding, Dicing and Testing.
- Electrical test - DC & RF test development.
- Open tooling or customisable lead-frames.

- Production and prototype volumes available.
- RF and microwave package modelling for optimised performance.
- Dedicated process improvement, focused on quality and optimising yield.
- Environmental qualification.

Filtronic can provide full thermal analysis which is critical in selecting the correct die attach material, interconnect, and mould compound for the package design. Our expertise covers CTE mismatch and voiding.

Our end-end process includes a range of die-attach materials and interposers.

Capability to support volume production with full traceability of wafer and assembly lots.





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