SHINKO Substrate Line-up

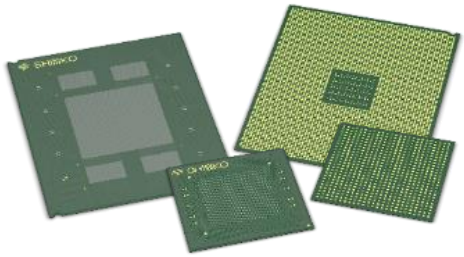
SHINKO manufactures substrates with a variety of features for semiconductor IC packages.

■ Flip-Chip Package Substrate ~ DLL® *~

SHINKO provides the substrate, DLL®, for flip-chip packages with fine line patterning using a semi-additive process, multilayer structure, excellent electrical characteristics and design flexibility using stacked via structures.

- Build-up substrate for flip-chip interconnection
- High wiring density & high-performance substrate

* DLL : Direct Laser & Lamination



■ Flip-Chip Package Coreless Substrate ~ DLL3® ~

DLL3® is a coreless substrate for flip-chip packages and meets the high-density and high-speed requirements of IC chips.

- Utilizes SHINKO's DLL® technology
- High wiring density and high-performance IC package
- Thinner structure with multilayer routing

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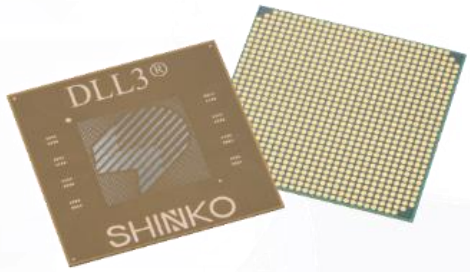
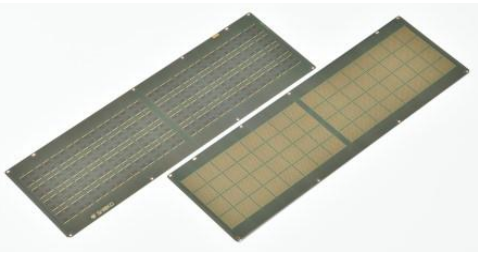


■ Plastic BGA Substrate

Organic substrates using prepreg for BGA packages in logic, memory, and sensor devices, etc.

- 2 or 4 layers substrates with through-holes are used for high reliability requirement products such as automotive applications.
- Build-up substrate (IVH)* has good electrical characteristics and high-density multilayer structure.

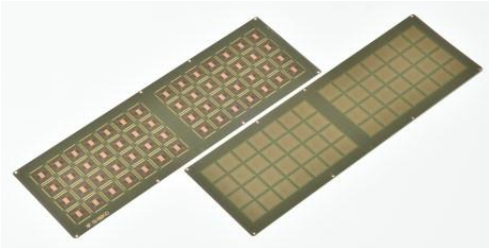
* IVH : Interstitial Via Hole



■ Plastic BGA Coreless Substrate ~IVH3~

IVH3 is coreless substrate using IVH technology for improving performance in a thinner form factor.

- Available for both WB (Wire Bonding) and FC (Flip-Chip) interconnect.
- Multilayer structure consisting of 3 or more layers
- Etch back process is supported.



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