

Flex Polyimide versus BT BGA Components

Flex Polyimide versus BT Substrates

Flex polyimide substrates was invented as a "solution" to improve reliability of BGA packages. Flex polyimide substrates are microscopically more compliant than rigid BT substrates and increase the overall reliability of the BGA during temperature cycling. There have been numerous articles written explaining why Flex Polyimide is better than rigid BT. There are arguments going in favor of one or the other. In the real world, only a small number of IC packaging uses Flex Polyimide. The majority of BGA packages use BT material.

The reason is it called "flex" is because the substrate is actually a flex circuit board wound on a reel in tape form. To keep the substrate "rigid" a copper stiffener is used in the BGA package.