

Pb-free Vocabulary Standardization Proposal

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Problem Statement

- **Implementation of Pb-free and RoHS compliant product is occurring in phases.**
 - **Solder paste, followed by 2nd level interconnect, 1st level interconnect and then high-end products and peripherals**
- **In the meanwhile, several terms are being used to describe these various stages**
 - **Pb-free, Pb-light, Green, RoHS ready, RoHS compliant, Pb-free compatible, Environmentally friendly, etc..**
- **This is creating a lot of confusion in the industry**

Goal

- **Develop a common terminology that can be used in the industry to improve communication**
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- **Publish the terminology in an “Industry Dictionary of Terms” e.g. Rosettanet or JEDEC/IPC documents**

Proposed Pb-Free Component and Board Terminology

THREE DIFFERENT LEVELS OF LEAD-FREE READINESS

– Sn=Tin; Pb=Lead

- **Pb-free SLI (second level interconnect)**

Components

- J-Std-020 pre-conditioning
- Leadframe finish or BGA balls are Pb-free

Boards

- Assembled using Pb-free solder paste

- **Pb-Free**

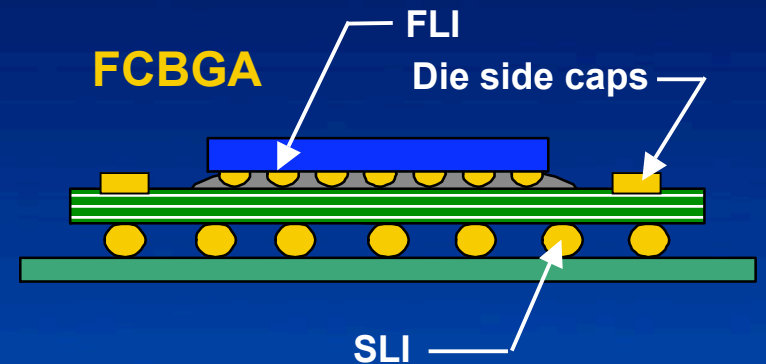
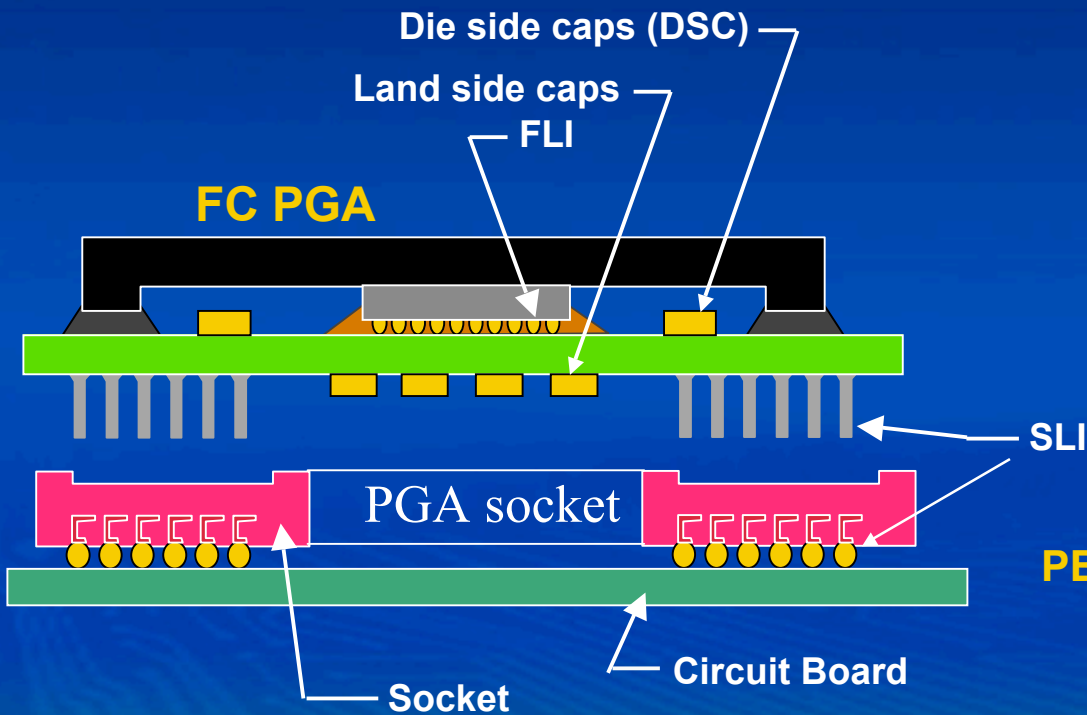
- Pb is not used in components or Boards. Pb impurities meet the threshold levels established by the European Union.

- **RoHS compliant Components & Boards**

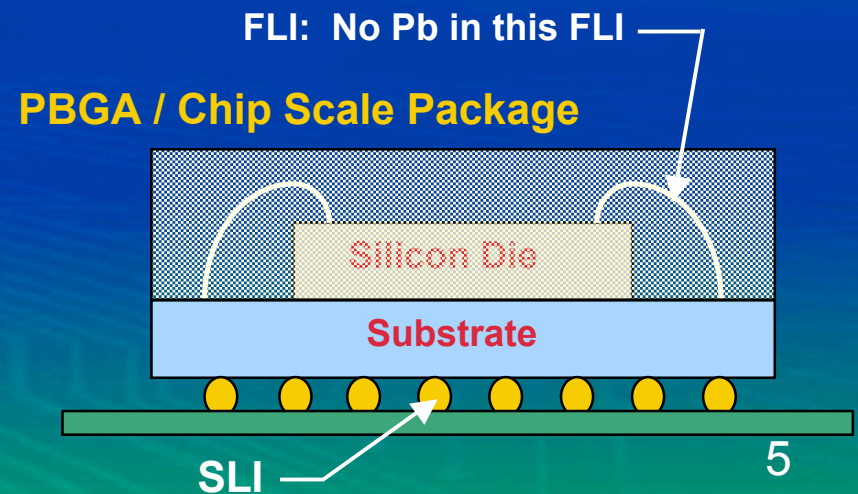
- Pb and other banned materials contained in components and subsystems are covered under a Legislative Exemption (or Clarification)

- RoHS Compliance Requirements -

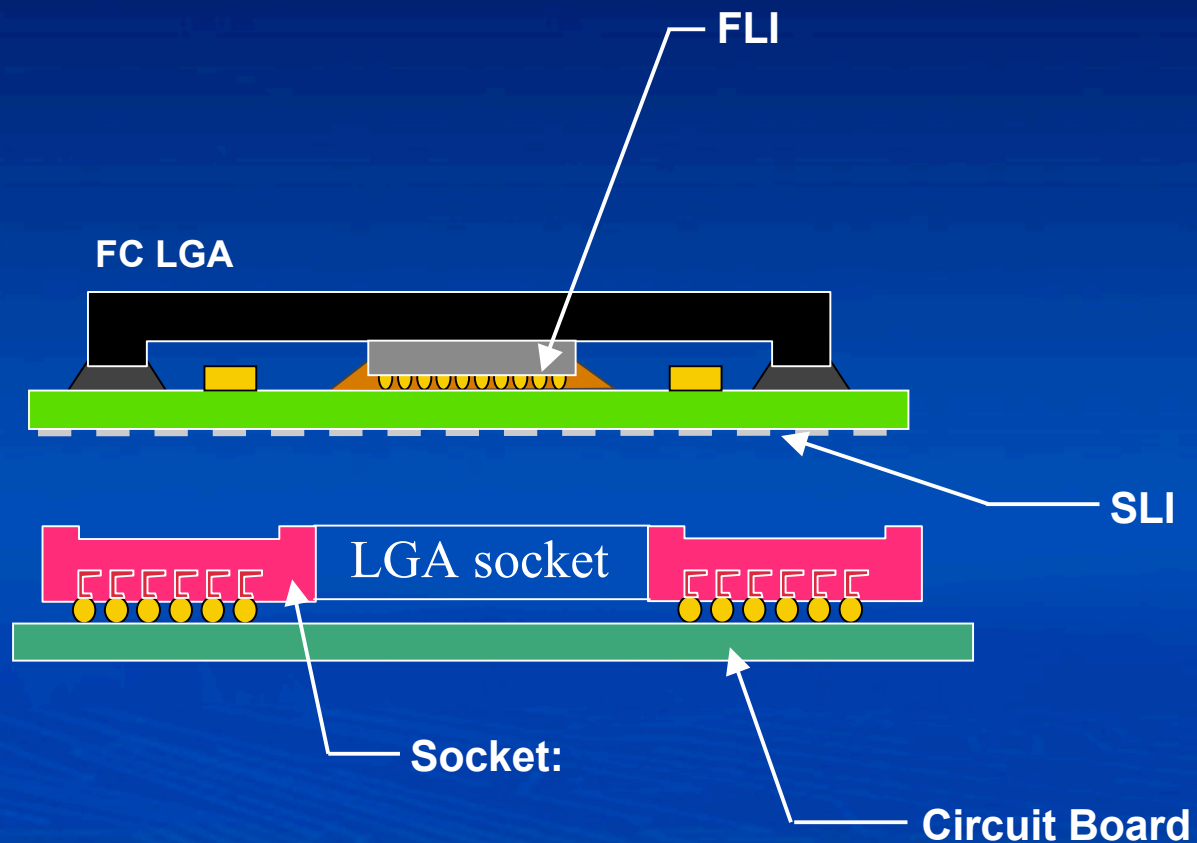
NOTE: Package features below that require or required elimination of Pb and other restricted element for compliance are substrate, BGA ball SLI, DSC, and LSC.



NOTE: FCBGA may have land side caps



FLI / SLI Examples: FCLGA CPUs



Feedback

- Need
- Scope
- Approach
- Definition of Next Steps