

PLP Glass Carrier TF: Activity Status

Rev. 1.0

Date: October 11, 2019

Leader: Mark Takahashi / Namics Corporation

1. Charter & Scope

- **Charter:** This Task Force will focus on the development of specifications for glass carriers used for Panel Level Packaging (PLP).
- **Scope:** This Task Force will develop a standard focusing on glass carrier specifications and the following areas to be addressed:
 - Determine the length/width/thickness tolerance
 - Determine the orientation corner, reference edges
 - Determine the squareness, straightness of reference edges
 - Determine the edge treatment
 - Determine the warpage

2. Members

- New members from Hitachi Chemical, Shimadzu and Kuramoto joined.
- From NA region M.C. Lu of Monte Rosa Technology joined.



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3. SNARF

- **Title:** New Standard: Specification for Glass Carrier Characteristics for Panel Level Packaging (PLP) Applications
- **Rationale:** Panel Level Packaging (PLP) technology has been introduced and it is expected to become a critical 3D integration and packaging process.

Various PLP panel manufacturing processes and technologies are discussed and used for the production. These manufacturing processes require various materials, especially the carrier material for the panel processing. Glass material is commonly used for carrier material.

The characteristics for PLP carrier are different from one for Wafer Level packaging glass carrier. So, the specification of PLP glass carrier is required.



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4. Meetings

- 1st: July 1st, 2019
- 2nd: September 6th, 2019
- 3rd: October 31st, 2019 – scheduled

5. Standards Development

- Yamazaki-san/Corning and Hashimoto-san/AGC introduced their specification ideas.
- Many specification items will be referred standards from FPD Materials & Components Committee and followed the terminologies and definitions.
 - To be reviewed related SEMI Standards (i.e. SEMI D24)
- The term “carrier” is used mainly as cassette, container or box to transport/store for substrates. Need to define the term “glass carrier” at new standards.
 - SEMI 3D2: carrier wafer
 - SEMI 3D20: process carrier



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Specification Table