



SEMI AUX023-1211

OVERVIEW GUIDE TO SEMI STANDARD FOR 450MM WAFERS

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SEMI® INTERNATIONAL STANDARDS

450mm SEMI Standards Overview

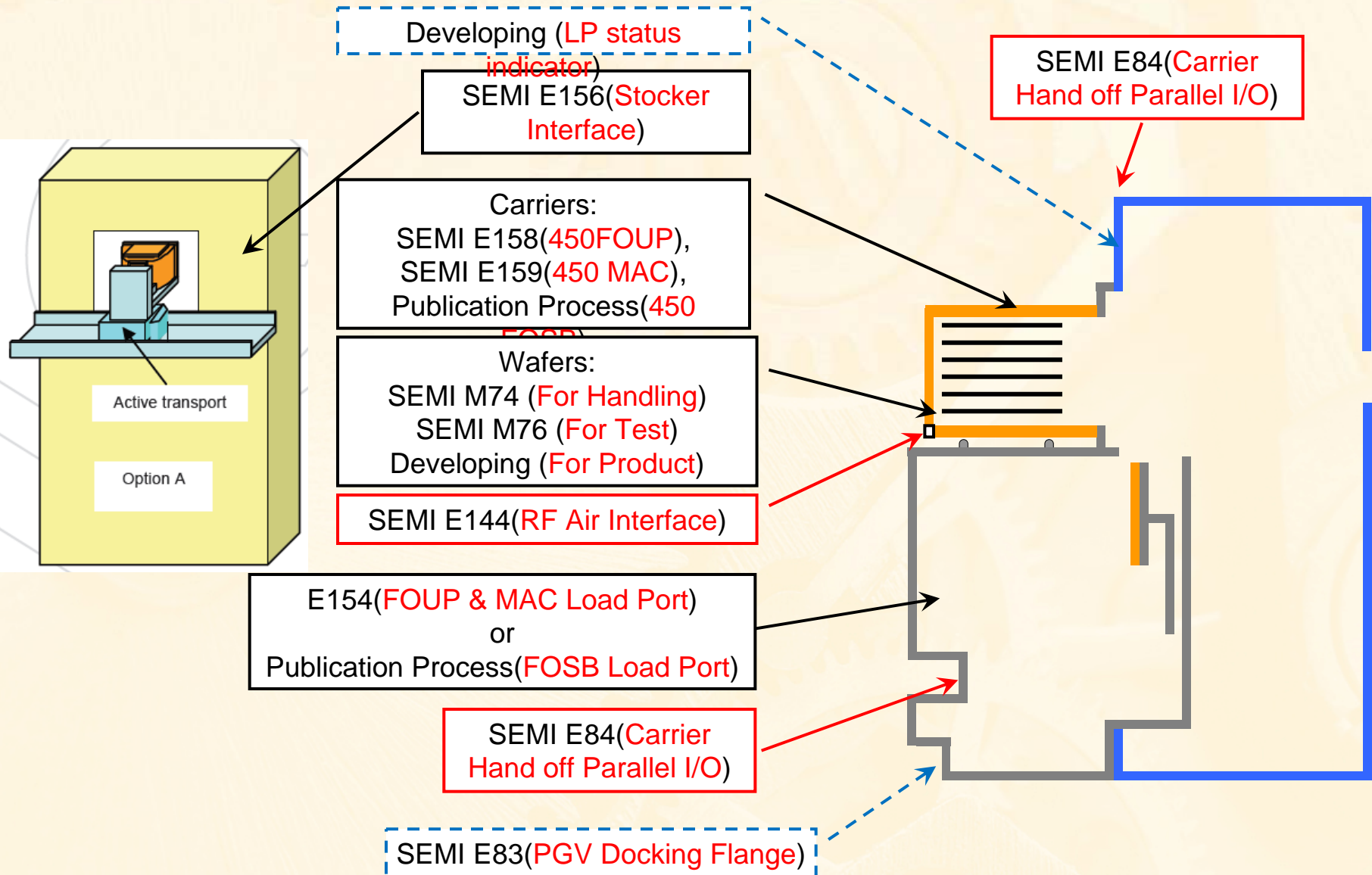
I.Purpose

- A purpose of this document is to promote the understanding of the summary of 450mm SEMI standards to extend over Silicon Wafer Technical Committee , Physical Interface & Carrier Technical Committee and Information & Communication Technical Committee.
- This document is based on the latest revision of the each standards at June 10, 2011.

2. The list of published 450mm SEMI standard

- **SEMI M74 - 1108 : Specification for 450mm Diameter Mechanical Handling Polished Wafer**
- **SEMI M76 - 0710 : Specification for Developmental 450mm Diameter Polished Single Crystal Wafer**
- **SEMI E154 - 1110: Mechanical Interface for 450mm Load Port**
- **SEMI E156 - 0710 : Mechanical Specification for 450mm AMHS Stocker to Transport Interface**
- **SEMI E158 - 1110 : Mechanical Specification for Fab Wafer Carrier Used to Transport and Store 450mm Wafers (450 FOUP) and Kinematic Coupling**
- **SEMI E159 - 0611 : Mechanical Specification for Multi Application Carrier (MAC) Used to Transport and Ship 450mm Wafers**

3. Overview of 450mm SEMI Standards



4.450mm/300mm Comparison table

Item	300mm	450mm	Standard Name
Wafer	-	M74	Mechanical Handling Polished Wafer
	M1	Developing (M1)	Polished Single Crystal Si Wafer
	M28	M76	Developmental Polished Single Crystal Si Wafer
Load Port	E83	←	PGV Docking Flange
	E15.1	E154	Load Port
	E62		FIMS
	E63		BOLTS-M
	E64		Cart Docking Flange
	E110		LP Status Indicator (developing)
	E57	E158	Kinematic Coupling
E1.9	Cassette		
E47.1	Front Opening Unified Pod		
MAC	N/A	E159	Multi Application Carrier
FOSB	M31	Publication Process	Front Opening Shipping Box
Load Port for FOSB	N/A	Publication Process	Mechanical Interface Specification for 450 mm FOSB Load Port
STK I/F	E85	E156	Stocker Interface
Communication	E84	←	Carrier Hand off Parallel I/O
	E99	←	Carrier Reader/Writer Functional
	E144	←	RF Air Interface

5. Overview of 300mm SEMI Standards (Reference)

