EMBEDDED DEVICE TECHNOLOGY

A new Paradigm in Advanced Semiconductor packaging

Andy Longford – C.Eng FIET .... Consultant - PandA Europe UK
Chip Packaging ....

• Today’s Concepts ...

• 3 approaches ...

with overlapping requirements –

based upon available & Emerging technologies
Future of Packaging ....

• The New Paradigm:

3 Technologies

3 Directions...

Cost driven

System driven

Process driven

Chip Packaging

Embedded Device Technology (EDT) = Next Gen. Packaging

Wafer Finishing

Basic/Standard Packaging

Embedded Devices in PCB’s

TSV & WLP developments
EDT Developing ...

- **Embedded Chip Packages – ECP (Fhg-IZM)**
  
- **Embedded Component Packaging - ECP® (AT&S)**

**Hiding Dies**
Embedded components:

- Ultimate Convergence
  - PCB and Packaging technology
  - PCB Substrates vs Leadframes

- Who leads ...?
  - SEMI – equipment and materials
  - IPC - PCB processing methodologies
  - JEDEC – Package outlines
  - Jisso, Jeita, iNEMI, SMTA – some aspects

SEMI Networking Day: Packaging - Key for System Integration
Europe leads ....

• Fraunhofer – Technology Development
• AT&S – ECP® Processes established
• Nanium – leading European package technologies
• Infineon – “Blade” chip embedding
• IPC/FED Conference on Embedded Components ..... Europe - June 4
• SEMI Europe – This conference ....
  – Support Standards development
Develop EDT Interest to:

1. Promote the developing technology aspects of EDT
2. Network the developing Industry in Europe and globally
3. Establish process guidelines and good working practices
4. Establish working standards that enable cost effective packaging solutions
Interested .... ?

For further information ....

Contact:

Andy Longford
PandA Europe – UK
Member of SEMI Standards