

Activities of the OITA LSI Cluster: Case Examples

Research and Development

Testing and Evaluation Technologies

Burn-in Tester Working Group

Research and development to establish stable and highly reliable contact technology required for the development of enhanced LSI testing equipment

Working Group on Burn-in Chamber Performance

Development of compact burn-in equipment tailored to the needs of high-mix low-volume production

Tester Working Group

High-speed signal test processors made available at low prices by combining them with measuring instruments

ALPG Working Group

Research and development of high-speed pattern generator circuits that are compact and competitively-priced

Working Group on Development of Simplified High-Speed Mixed Signal Testers

Development of simplified high-speed mixed signal testers that are compact and competitively-priced



Research of burn-in chamber performance
(Compact chamber)



Research on testers



Cleaning of IC socket contact area

System Component Cleaning Technology

Working Group on Development of Burn-in Board Cleaning System for CO₂ Cleaners

Establishment of the technology that enables CO₂ cleaners to clean burn-in boards

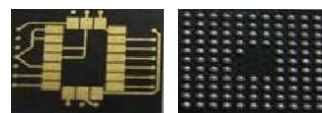
Implementation Technology (New Package Technology)

Working Group on Development of Low-Cost Panel Scale Rewiring Technology for Fan-Out WLP

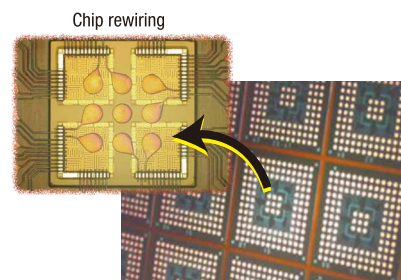
Development of low-cost rewiring for packages based on the application of fan-out wiring and pad connection batch process on panel scale

Working Group on Development of Newly-Structured DFP Package for Mobile Phones

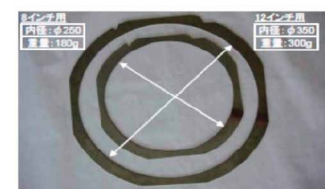
Development of newly-structured DFP package aimed at thinner design and lower cost



Top
Bottom
Newly-structured DFP package



External appearance of panel
(before dicing into individual chips)



Wafer ring



Exchanger

System Component Technology

Working Group on Development of 12-inch Lightweight Wafer Ring

Development of 12-inch wafer ring that weighs 60% less

Working Group on Development of Plastic Wafer Rings

Development of lightweight, strong and economical 8-inch high-rigidity plastic wafer rings

Instrumentation Technology

Exchanger Working Group

Development of an exchanger that can perform high-speed, automatic replacement of the probe pin of a socket used for final testing

Human Resource Development

Basic Semiconductor Course

We offer basic training programs on semiconductors for beginners, including new recruits and employees in non-technical divisions like administrative and back-office sections.

Training Workshops for Engineers

We organize well-structured technical workshops aimed at training engineers to make semiconductors capable of entering into new technical domains with high growth potential, including power devices, MEMS, and the medical field.

Skill Development Workshops for Global Business Expansion

We hold training workshops for skill development to prepare for business expansion into East Asian markets like Taiwan and South Korea.



Power Device Seminar (A series of 3 sessions)



Skill Development Workshop for Business Expansion in Taiwan and China, June 28-29, 2012

Cultivation of Sales Channels / Information Sharing

Support for Business Matching Through Market Research on Needs & Seeds, Exhibitions, etc.

Business matching through market research on needs & seeds

Our aim is to expand business transactions by visiting major firms based in Oita Prefecture as well as other locales that are engaged in semiconductor-related businesses, assess their needs and seeds, and serve as a liaison between these firms and member companies of the OITA LSI Cluster that have similar business interests.

Participation in Exhibitions

We participate in international exhibitions like SEMICON Japan, which is the world's largest exhibition of semiconductor equipment and materials. We use such occasions to widely promote local semiconductor-related companies based in Oita and introduce their deliverables resulting from research and development.



SEMICON Japan, December 5-7, 2012

Business Exchange with Taiwanese and South Korean Partners

We intend to promote further business interaction with the Taiwan Electric Equipment Industry Association (TEEIA) through the signing of a mutual exchange agreement, and also to continue to do the same with the Ochang Semiconductor Cluster and Korea Industrial Complex Corporation (KICOX).



Business convention with Taiwanese companies held in Oita on May 11, 2012



Signing ceremony held on December 3, 2012 for parties that reached business agreements

Exchange Among Members

Top Leader Seminars

We hold summit meetings and events for promoting exchange between top executives of domestic and international companies.

Exchange Events

Exchange Events for Engineers

We organize technical meetings and events for promoting exchange among the engineers of member companies.

Other Exchange Activities

We intend to build new networks and also expand existing networks by promoting exchange between clusters of other regions in Japan and abroad.



Top Leader Seminar, September 14, 2012