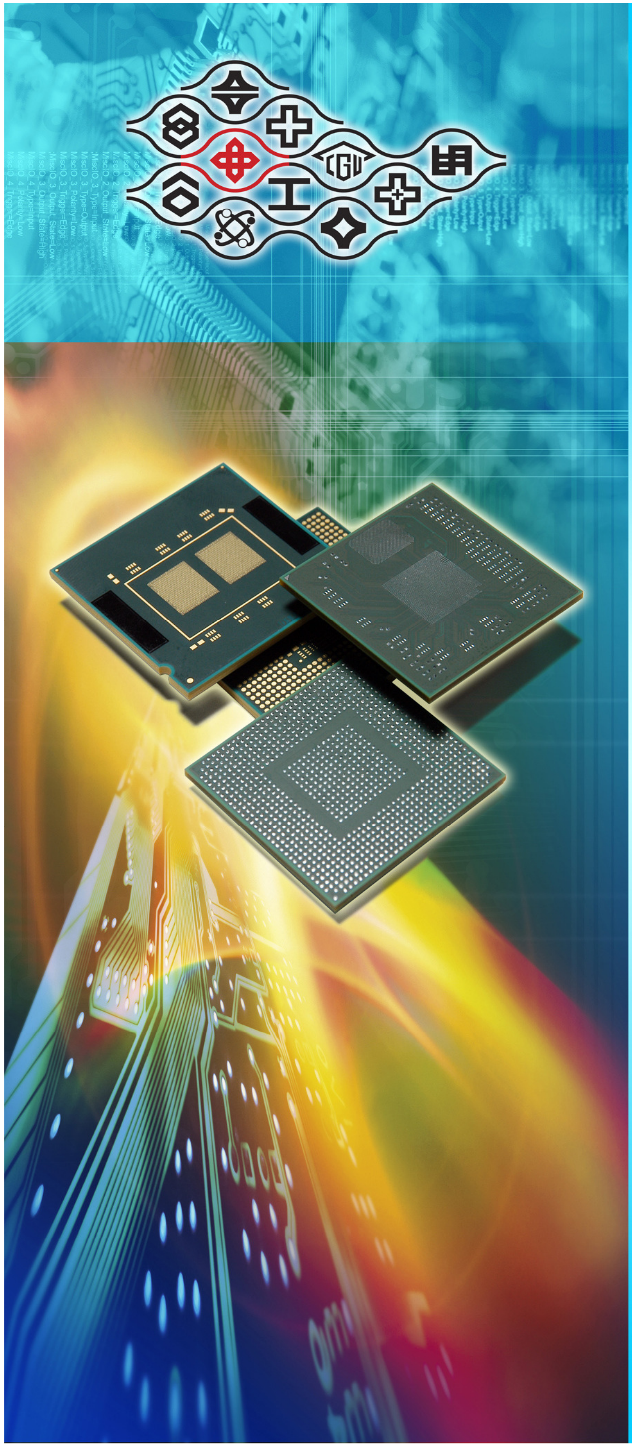


南亞電路板股份有限公司
NAN YA PRINTED CIRCUIT BOARD CORPORATION

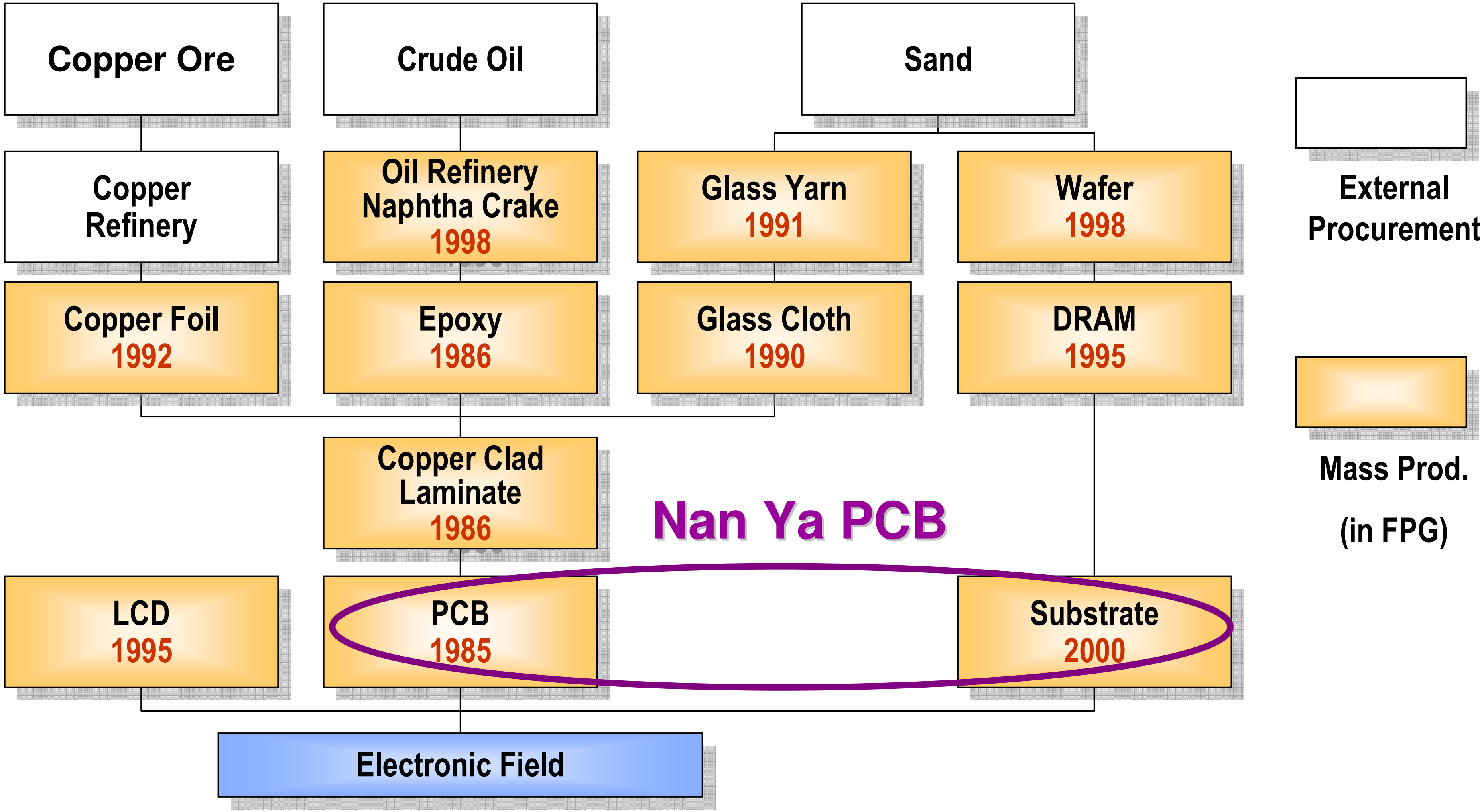
COMPANY BRIEFING

August 2010

Safe Harbor Notice

- Nan Ya PCB's statements of its current expectations are forward-looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.
- Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.

Vertical Integration within FPG



Copper Ore

Crude Oil

Sand

Copper Refinery

Oil Refinery Naphtha Crake
1998

Glass Yarn
1991

Wafer
1998

Copper Foil
1992

Epoxy
1986

Glass Cloth
1990

DRAM
1995

Copper Clad Laminate
1986

Nan Ya PCB

LCD
1995

PCB
1985

Substrate
2000

Electronic Field

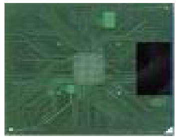
☐ External Procurement

▨ Mass Prod.
(in FPG)

Milestone

Year 1985	Start up PCB mass production
Year 1997	Establish Na Ya PCB Corporation
Year 2000	Start up wire bond substrate mass production
Year 2001	Start up flip chip substrate mass production
Year 2002	Start up Kunshan PCB mass production
Year 2006	IPO (TWSE Ticker No.: 8046)
Year 2010	Start up flip chip substrate back-end process production for CPU products

Production Allocation and Monthly Capacity



Flip Chip

P1+P5 15M Units

+

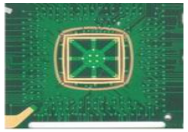
P6 8M Units

+

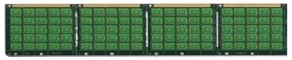
P7 7M Units

+

P8 (Potential 15M Units)



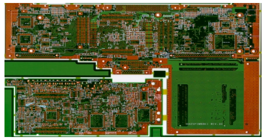
Wire Bond



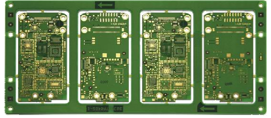
P2 180KSF

+

KS 300KSF



PCB, HDI



P3 145KSF

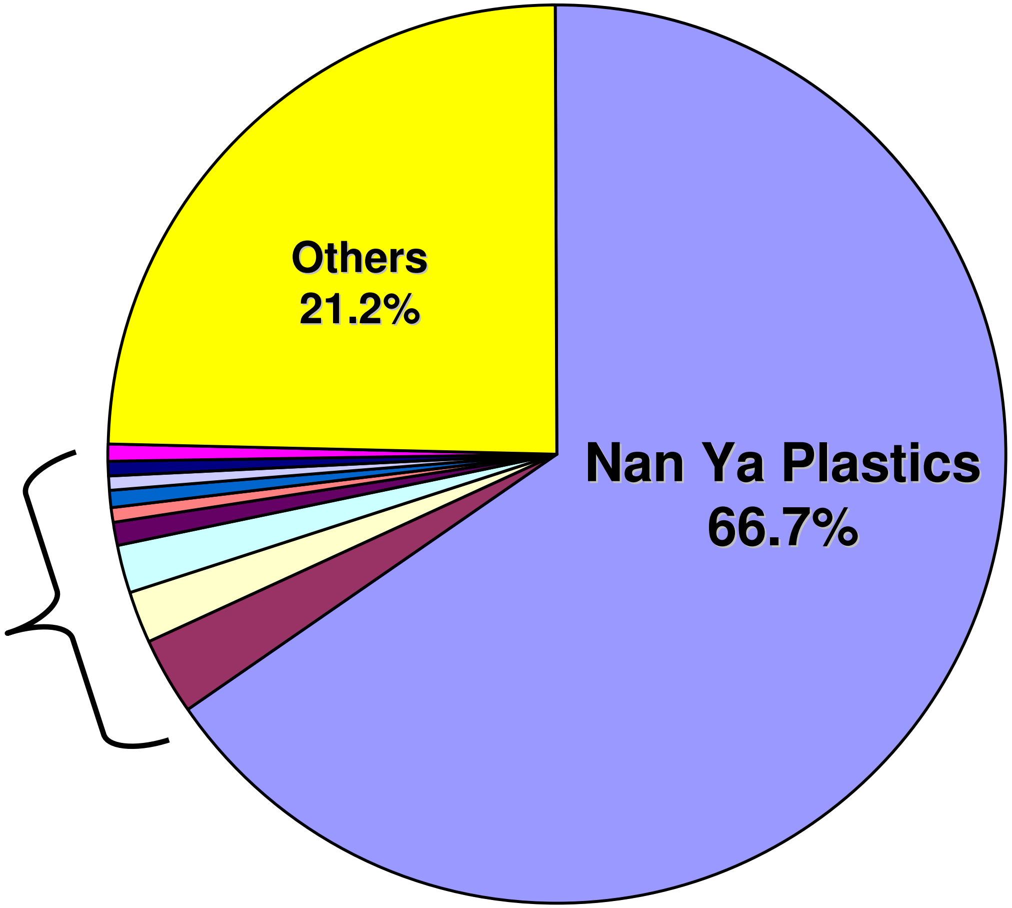
+

KS 1.65MSF

Note: KS=Kunshan China manufacturing campus

Structure of Shareholders

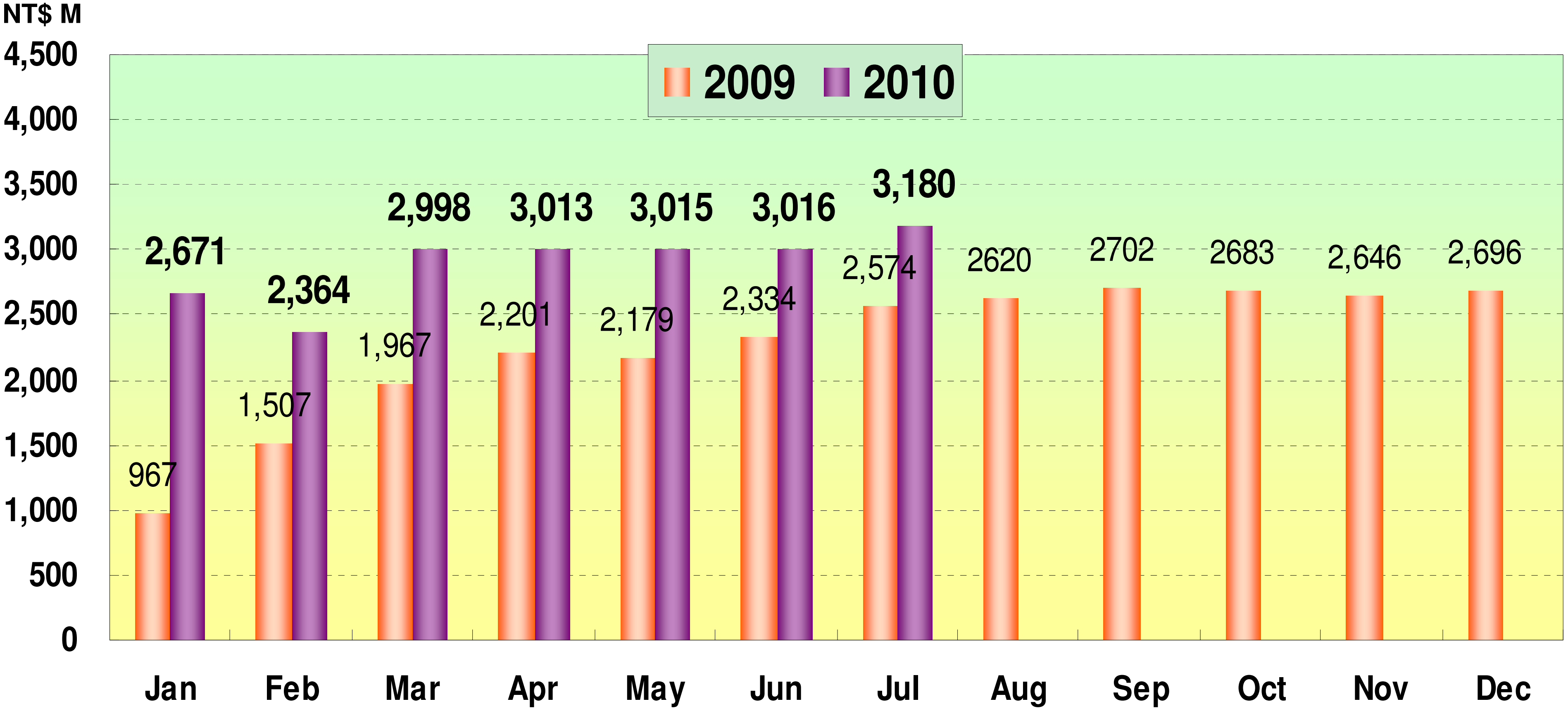
Norges Bank	2.2%
Chunghwa Post	2.2%
Orbis Asia Fund excl. Japan	2.0%
New Labor Pension Fund	1.5%
Nan Shan Life Insurance	1.5%
Labor Pension Fund Supervisory Committee	0.8%
Shin Kong Life Insurance	0.7%
Fidelity Investments	0.6%
Cathay Life Insurance	0.6%



Total Shares: 630,399,531 shares

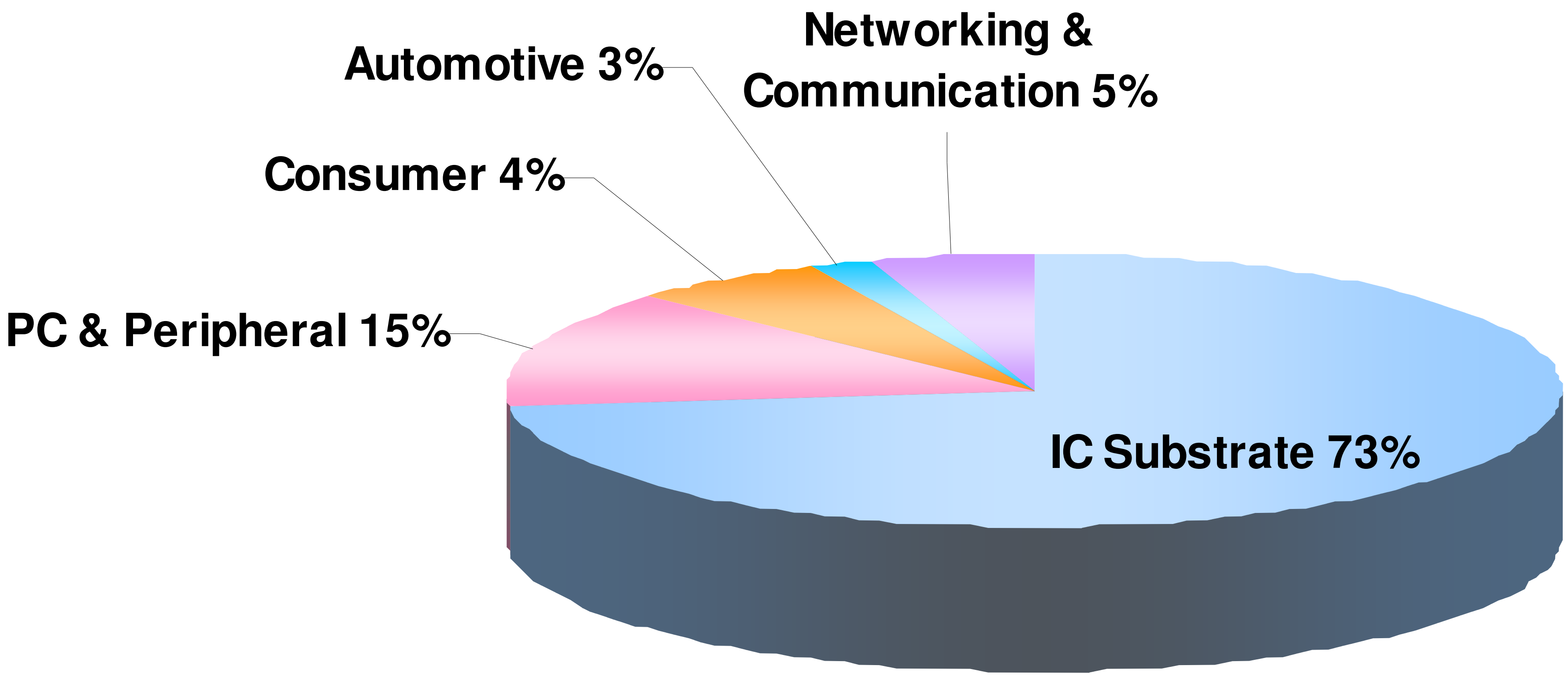
Date: July, 2010

2009~2010 Monthly Revenue in Taiwan

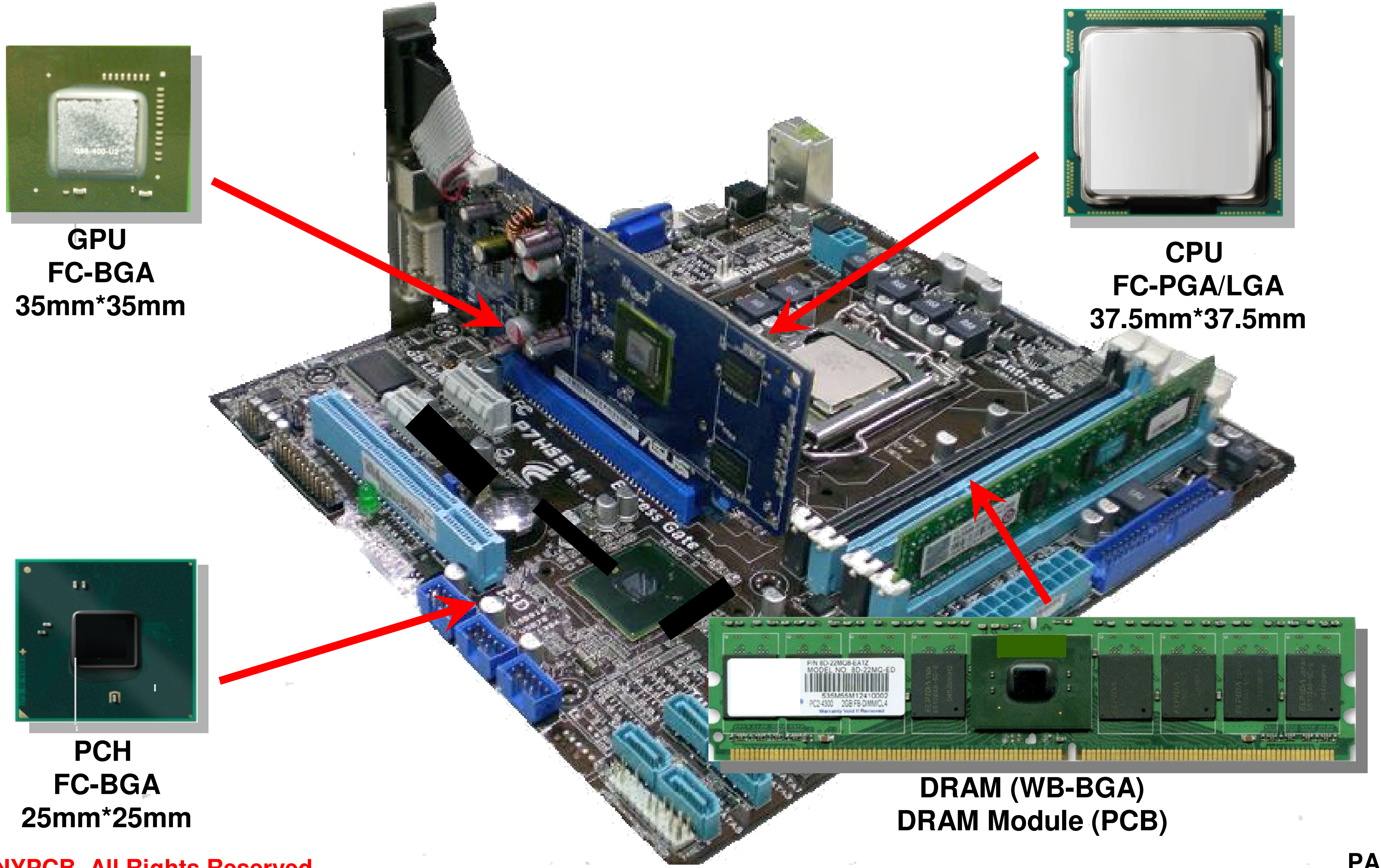


- **2010 July Sales = NT$ 3.2 Billion；MoM=+5.5%；YoY=+23.6%**
- **Accumulated 2010 Sales = NT$ 20.3 Billion ; YoY=+47.5%**

2010 Sales Breakdown by Application



Products & Applications-PC



GPU
FC-BGA
35mm*35mm

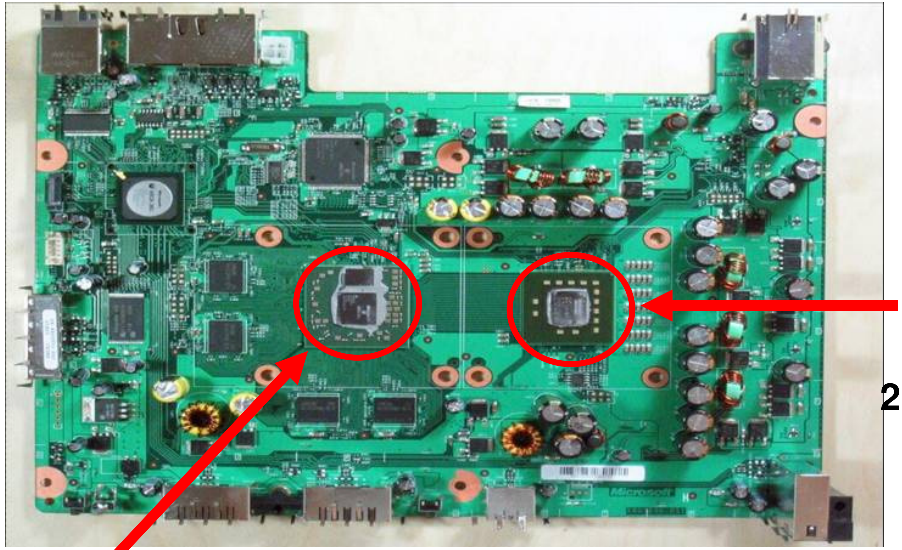
CPU
FC-PGA/LGA
37.5mm*37.5mm

PCH
FC-BGA
25mm*25mm

DRAM (WB-BGA)
DRAM Module (PCB)

Products & Applications-Game Console

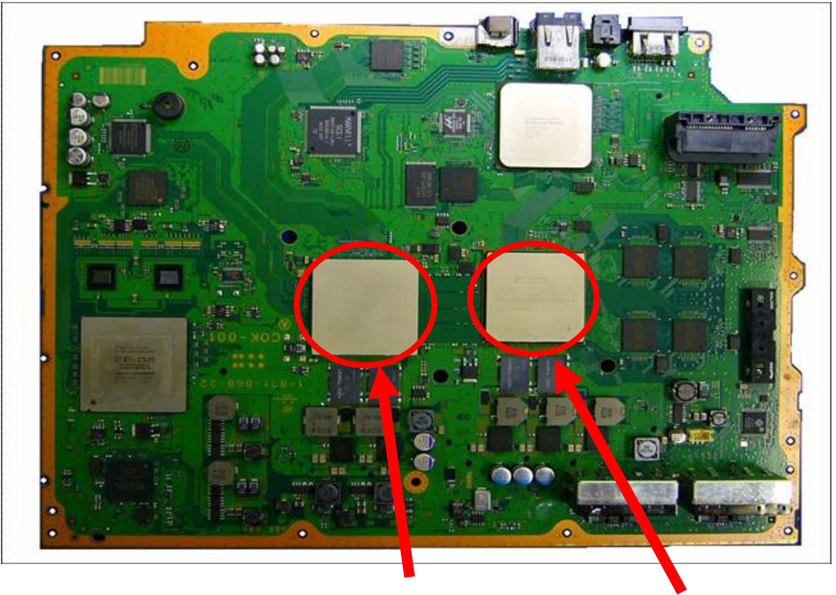
A



MPU
FC-BGA
27mm*27mm
2/2/2

Integrated Chipset
FC-BGA
35mm*35mm
3/2/3

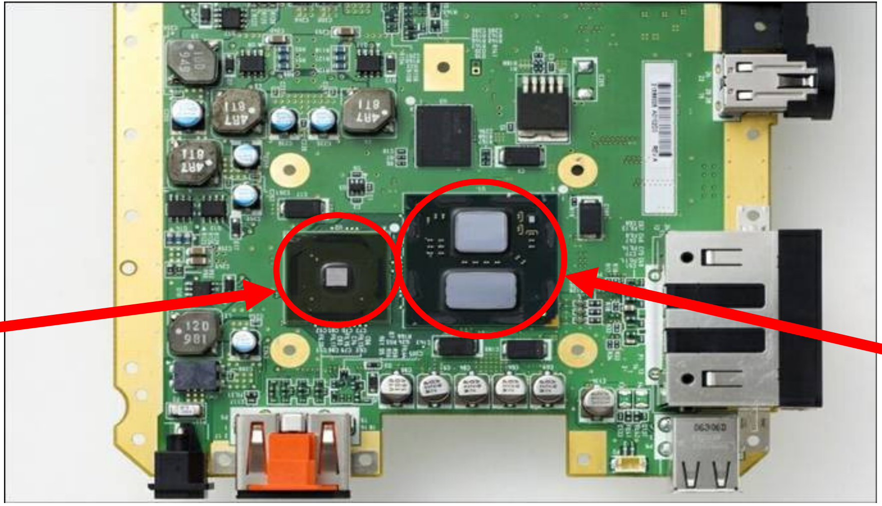
B



Integrated Chipset
FC-BGA
42.5mm*42.5mm
3/2/3

MPU
FC-BGA
33mm*33mm
2/2/2

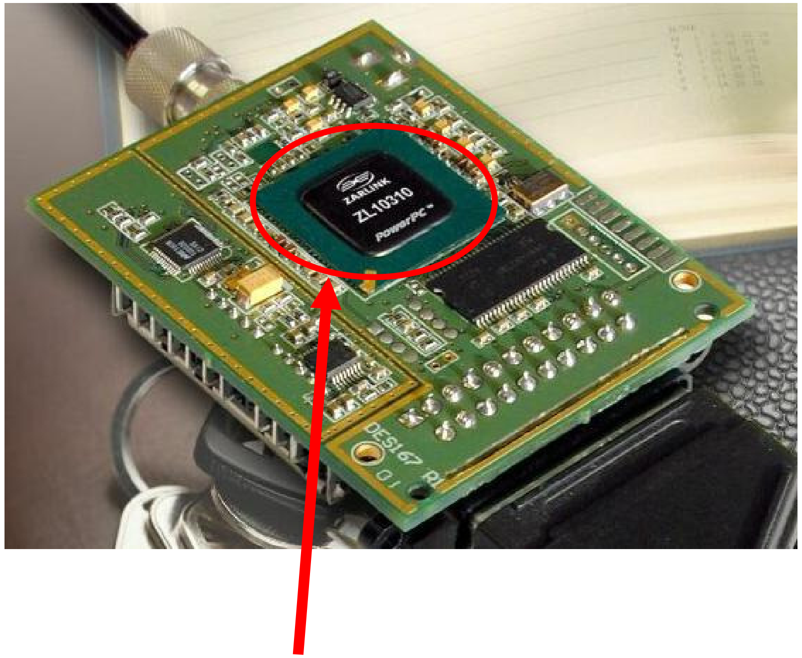
C



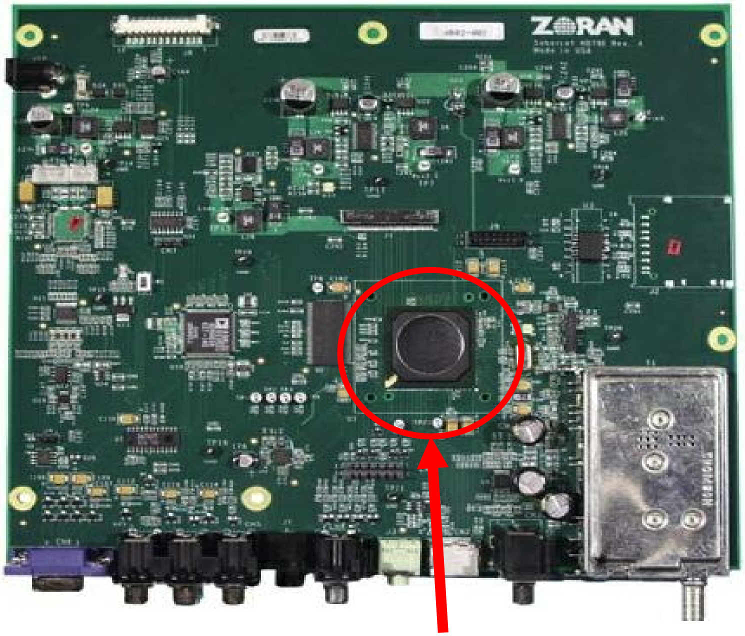
MPU
FC-BGA
21mm*21mm
2/2/2

Integrated Chipset
FC-BGA
31mm*31mm
2/2/2

Products & Applications-Others

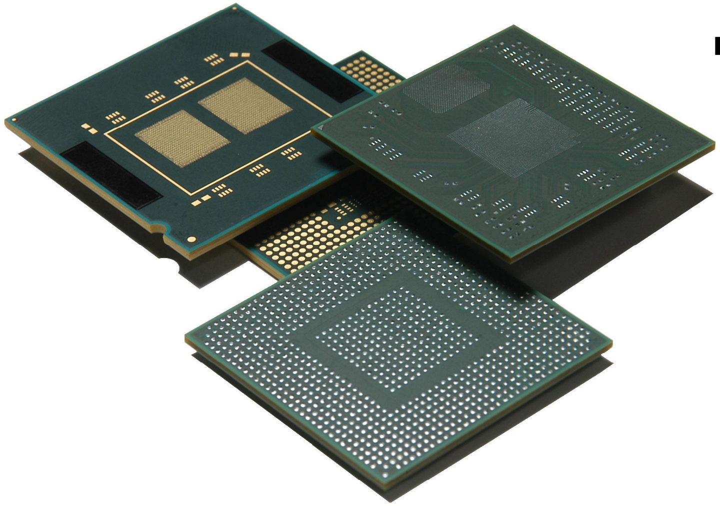


Set-Top Box
37.5mm*37.5mm
2/2/2



HDTV Chipset
35mm*35mm
2/2/2

- Set-Top Box and HDTV started to migrate to flip-chip design in 2007, and annual demand has been expected to increase dramatically in 2010 .

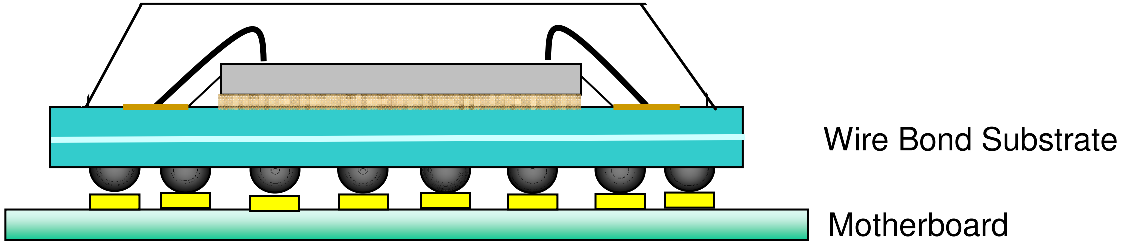


Thank You

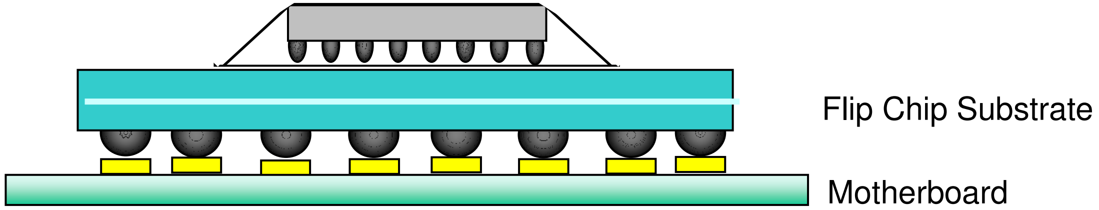
Q & A

IC Substrate Introduction

Wire Bonding Substrate Outline：
By using gold wires to connect electrical pads with the so-call wire bonding substrate which plays the function as the buffer between chips and motherboard.

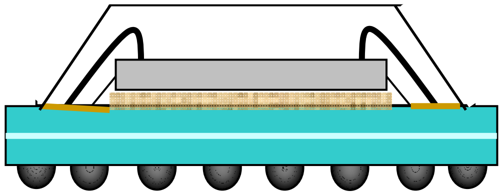


Flip Chip Substrate Outline：
The die is directly attached to the substrate which plays as the connections between the chip and motherboard by using solder bumps rather than gold wires.

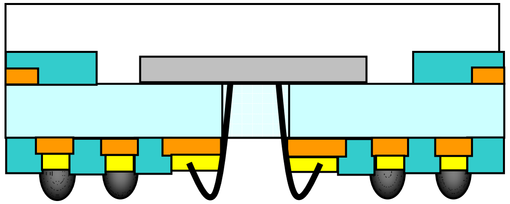


Types of Wire Bonding Substrates

•Ball Grid Array (BGA)

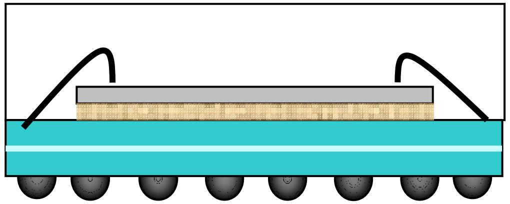


Plastic Ball Grid Array (PBGA)

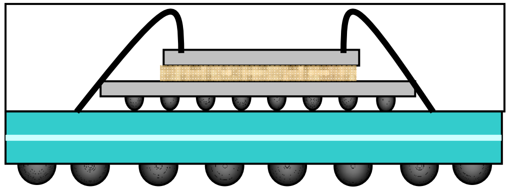


Window BGA

•Chip Scale Package (CSP)



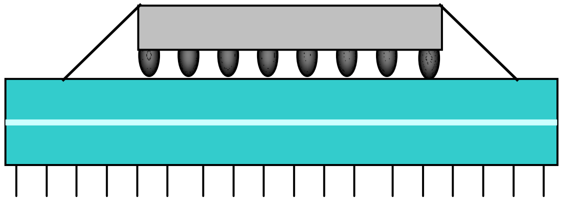
Wire Bonding CSP (WB-CSP)



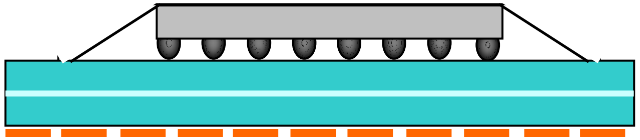
Flip Chip CSP (FC-CSP)

Types of Flip Chip Substrates

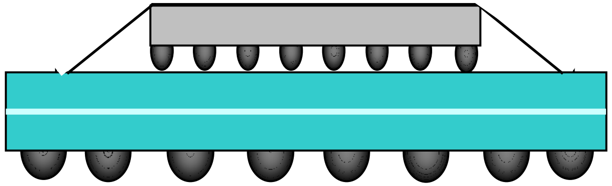
- FC-Pin Grid Array (FC-PGA)



- FC-Land Grid Array (FC-LGA)

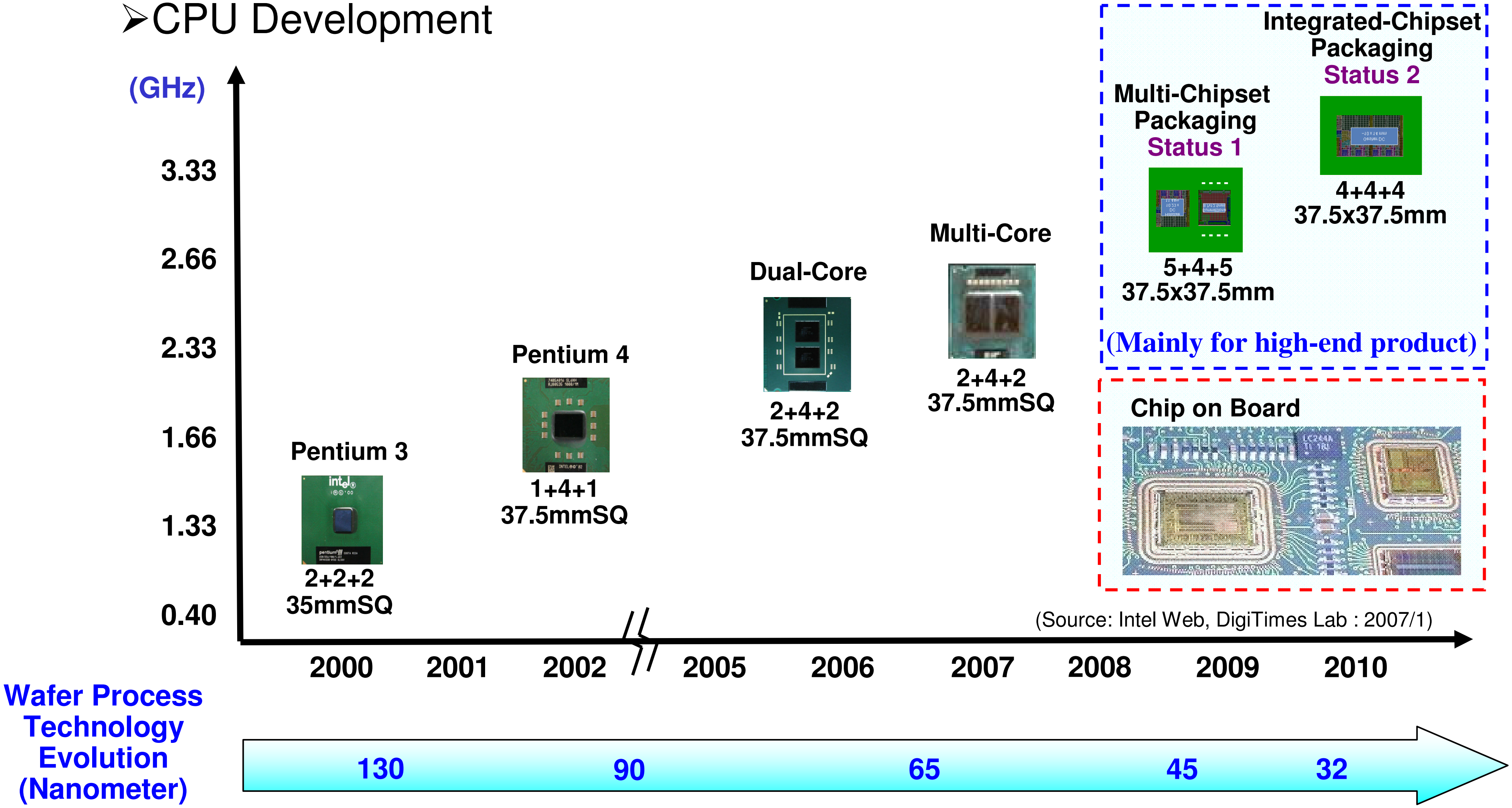


- FC-Ball Grid Array (FC-BGA)



FC Substrate Development Trend

- CPU Development



(Source: Intel Web, DigiTimes Lab : 2007/1)