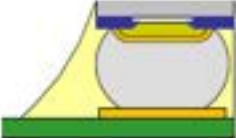
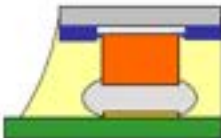

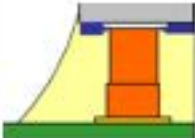


■ Flip Chip Bonding Technology

Bonding Method	C4 FC (Controlled Collapse Chip Connection)	C2 FC (Chip Connect)	Thermo Compression Local Reflow Flip Chip	Thermo Compression Flip Chip
Schematic Diagram				
Major Bump Pitch Range at Application	>130um	140 ~ 60um	80 ~ 20um	<30um
Bonding Method	Conventional Reflow	Reflow with Cu pillar	Thermal Compression with Cu Pillar	Thermal Compression (Direct)
Bump Metallurgy	Solder (SnAg or SnAgCu)	Cu + Solder (SnAg or Sn)	Cu + Solder (SnAg or Sn Cap)	Cu
Bump Collapse	Yes	No	No	No
Underfill Method	- Capillary - No flow	- Capillary - No flow - Wafer Level	- No flow - Wafer Level - NCP	- No flow - Wafer Level - NCP
Package Substrate Technology	SOP (Pre-Solder)	BOL, iSRO, SR Flat-Plug	M-ETS	M-ETS