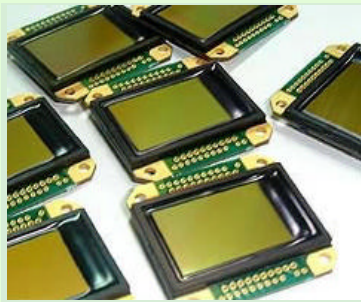


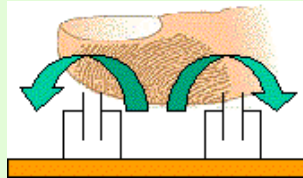
Al₂O₃ Coating Found To Prolong Lifecycle of Functional Chips

Biometrics, or fingerprint security is the new convenient and secure digital identification technology for computerized authentication. The original surface of the Fingerprint Sensor or Touch Chip is not strong enough for daily usage, something shall be coated to protect it from scratch.

Finger Print Scanning on CMOS Sensor Chips



Air, Dielectric Constant: 1



Capacitance Sensor Surface



Without Coating

With Al₂O₃ Coating
by FCVA Technology

- Finger print on the sensor chips coated with FCVA Al₂O₃ coating has clear image due to its non-sticky property.
- FCVA Al₂O₃ coating extends the life span of sensor chips

Coating Advantages:

- Anti-scratch
- Non-sticky
- Dielectric constant close to air



Al₂O₃ Film by Conventional FCA:

- The film surface is very rough



Al₂O₃ Film by Nanofilm's FCVA:

- The film surface is smooth

Reflective Index of Al₂O₃ by Different Methods

Method	Refractive Index at 550nm
Thermal Evaporation	1.5
Ion Beam Sputtering	1.65
Dual Ion Beam	1.62
Reactive Evaporation	1.63
Reactive Sputtering	1.68
FCVA Technique	1.68-1.69
Bulk	1.755-1.77

Al₂O₃ film deposited by FCVA Technology is hard, dense, stoichiometric and completely transparent



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