

スーパーコネクトレベルの微細配線パターンに対する 電氣的信頼性の交流インピーダンス法による評価

佐藤 誠*, 吉原 佐知雄*, 白樫 高史*

Evaluation of Electric Reliability for Super Connect Level Refined Wiring Pattern by Means of AC Impedance Method

Makoto SATO*, Sachio YOSHIHARA* and Takashi SHIRAKASHI*

*宇都宮大学大学院工学研究科エネルギー環境科学専攻 (〒321-8585 栃木県宇都宮市陽東7-1-2)

*Department of Energy and Environmental Science, Graduate School of Engineering, Utsunomiya University (7-1-2 Yoto, Utsunomiya-shi, Tochigi 321-8585)

Abstract

We have fabricated copper refined wiring pattern of super connect level on polyimide. We prepared it by means of semi-additive process, which enabled flat connection between copper pattern and polyimide. The aim of this paper is the evaluation of durability for ionic migration on above newly developed sample under high temperature and high humidity (85°C, 85%RH). We adopted mainly AC impedance method for the analysis of ionic migration. In consequence, incidence of ionic migration was confirmed. By measuring charge transfer resistance by this method, incidence of ionic migration and initial defects of electrodes could be detectable.

Key Words: Super Connect, Ionic Migration, Copper, AC Impedance Method, Polyimide