

ABSTRACT OF THE DISCLOSURE

ASSESSING METAL STACK INTEGRITY IN SOPHISTICATED SEMICONDUCTOR DEVICES BY MECHANICALLY STRESSING DIE CONTACTS

The metallization system of complex semiconductor devices may be evaluated in terms of mechanical integrity on the basis of a measurement system and measurement procedures in which individual contact elements, such as metal pillars or solder bumps, are mechanically stimulated, while the response of the metallization system, for instance in the form of directly measured forces, is determined in order to quantitatively evaluate mechanical status of the metallization system. In this manner, the complex material systems and the mutual interactions thereof may be efficiently assessed.

Figure 2a