

ABSTRACT

Disclosed herein are a wafer inspection apparatus, which is small in size, is prevented from shortening the service life of its circuit board for inspection, capable of collectively performing inspection as to a great number of electrodes to be inspected, has good electrical properties and capable of performing electrical inspection of high functional integrated circuits, and an anisotropically conductive connector suitable for use in this wafer inspection apparatus.

The anisotropically conductive connector of the invention comprises an elastic anisotropically conductive film composed of a plurality of conductive parts for connection each extending in a thickness-wise direction of the film and arranged in a state separated from each other and an insulating part formed among these conductive parts for connection, and a frame plate for supporting this film. The frame plate is formed of a metallic material having a coefficient of linear thermal expansion of 3×10^{-6} to $2 \times 10^{-5} \text{ K}^{-1}$, the conductive parts for connection are obtained by filling conductive particles having a number average particle diameter of 20 to 80 μm and exhibiting magnetism in an elastic polymeric substance at a high density, the conductive particles have, on a surface of which, a coating layer composed of a noble metal and having a thickness of at least 20 nm, each of the conductive parts for connection has a durometer hardness of 10 to 35, and an electric

resistance between the conductive parts for connection is at least 10 MΩ.