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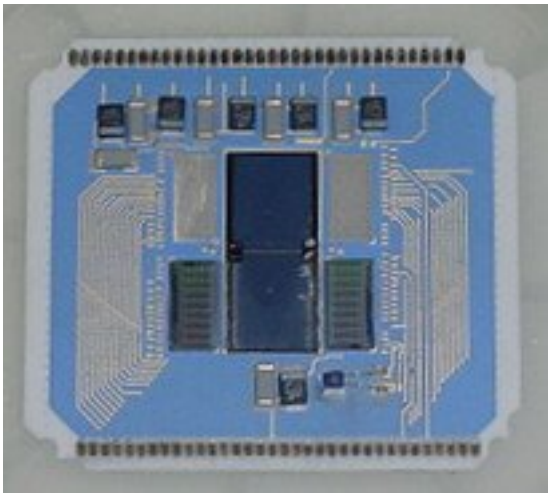
Thickness measurement system of multilayer films

With radiation measurement techniques every material can be analysed in such a way, that even the smallest differences in radiation density can be registered by the arsenco sensor and processed by any computer.

The measurement of heat conductivity, capacity, or specific mass in thin layers requires a precise, very accurate synchronisation between a pulse source, the IR sensor, and the electronic. In conjunction with different energy pulse technologies, the high-speed arsenco sensor delivers information about layer thickness, adhesion, layer quality and other factors of interest for industrial production. The measured results can indicate porosity, formation of cracks or faults within a layer, chemical variations or residual voltage. The measurement is done without contact and causes no damage.

The measuring system allows the fast and ongoing monitoring of running production processes, the evaluation of product quality during production, the measuring of heat conductivity in very thin layers, or the selective measuring of a layer thickness to the micrometer - even in multiple superimposed layers.

The new sensor is suitable for the measurement of extremely fast events in a wide spectrum. Its advantages compared to conventional sensors are its high spectral flexibility, exact synchronisation via external pulse sources, software-supported access to the integration and readout time of the individual sensor elements, and the high readout dynamic.



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