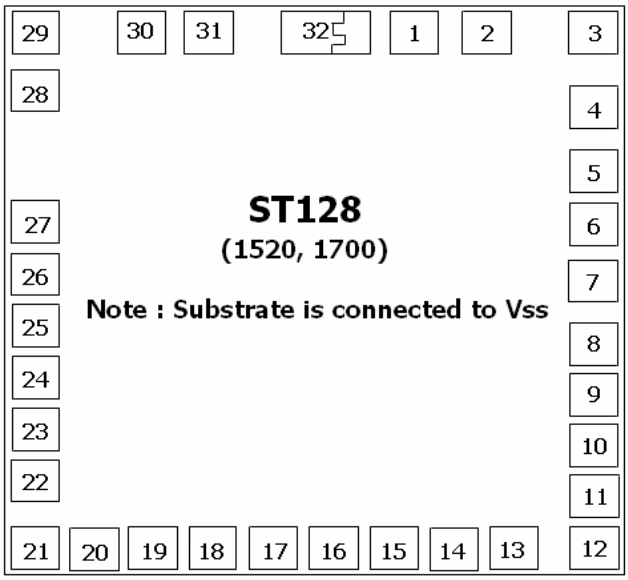
1) General Description

The ST128 is a mixed mode integrated circuit used to measure the impedance of an object. The sensor is formed by four probes which can be composes of two pairs of metal plates. By contact with an object, the impedance between the probes can be measured. The circuit composes of analog circuit, digital circuit and digital signal processor. Besides to measure the impedance, the noise caused by RF interference can be eliminated by the system. The output of the system consists of two pins, DATA and CLOCK. The output format is a synchronous data output which consists of data with11 bits, an error bit and over-range bit. By built-in open circuit detector, there is not data output when circuit is open loop. There is an input pin to enable the system, and the standby current is below 0.1uA in disable state. There are two measurement ranges, standard and programmable. In the standard mode, the parameters is preset in the IC. In the programmable mode, the parameters must input by MCU via input pin.

2) Features

- Two operating voltage selectable
- Low operating current
- High precision and stable output
- High Input sensitivity
- Minimum external components and only two precision components
- Output data including error and over range bits
- Programmable measurement range

3) Bonding diagram



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