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(54) **Title:** LOW-LATENCY TOUCH SENSITIVE DEVICE

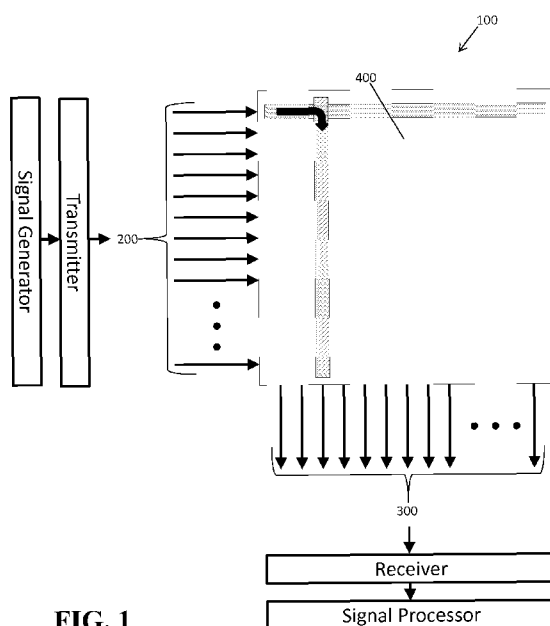


FIG. 1

(57) **Abstract:** Disclosed are a sensor and method that provide detection of touch events from human fingers on a two-dimensional manifold with the capability for multiple simultaneous touch events to be detected and distinguished from each other. In accordance with an embodiment, the touch events are detected, processed and supplied to downstream computational processes with very low latency, i.e. on the order of one millisecond or less. Disclosed is a projected capacitive method that has been enhanced for high update rate and low latency measurements of touch events. The technique can use parallel hardware and higher frequency waveforms to gain the above advantages. Also disclosed are methods to make the measurements sensitive and robust, allow the technique to be used on transparent display surfaces and permit economical manufacturing of products which employ the technique.