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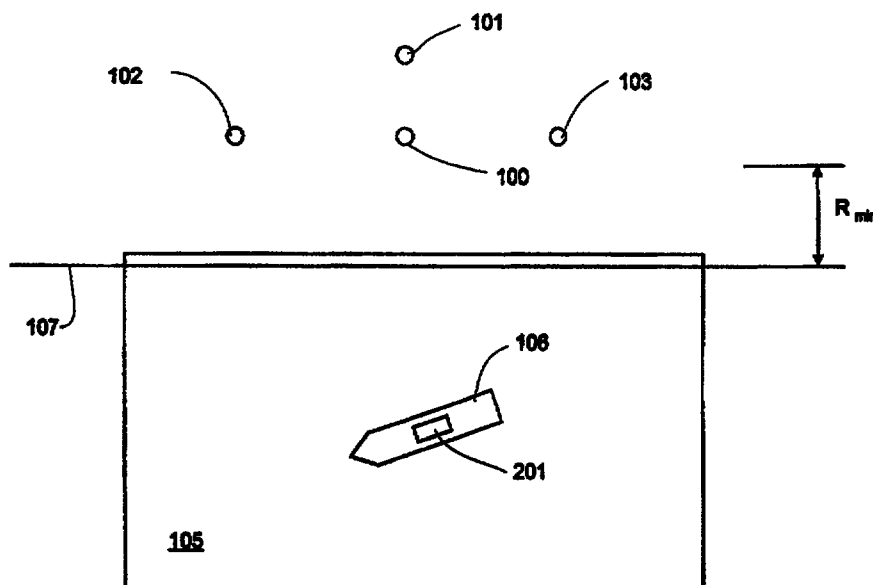


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(54) Title: METHOD AND SYSTEM FOR DIGITIZING HANDWRITING



(57) Abstract

A system and method for tracking a moving object very accurately at short ranges in general, and a handwriting input device such as a pen (106) in particular. The method is based on measuring times of arrival of ultrashort RF pulses transmitted (201) by the pen to an array of receivers (100-103). Dealing with the ultrashort events is done by "strobing" the pen position. To achieve the necessary resolution, on the order of 0.25 mm, the times of arrival of the pulses are determined by sampling the pulses digitally and fitting appropriate mathematical function to the sampled pulses. The time jitter is averaged over many sweeps, and a dedicated receiver is used for synchronization.

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