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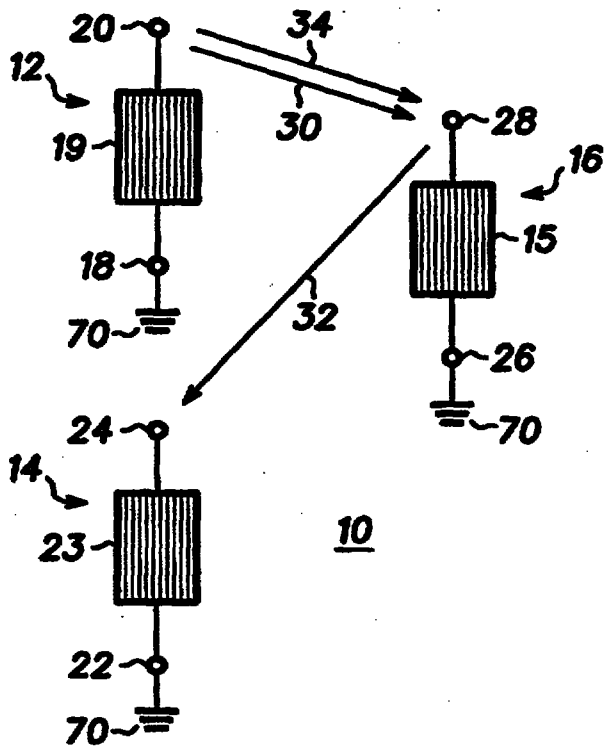
(54) Title: RADIO FREQUENCY IDENTIFICATION TAG SYSTEM USING TAGS ARRANGED FOR COUPLING TO GROUND

(57) Abstract

A radio frequency identification tag system (10) utilizes a radio frequency identification tag (16) that includes stored information. The tag includes an antenna element (28) and a common electrode (26), the common electrode being coupled to ground (70). The antenna element electrostatically receives an exciter signal (30) from a proximately-located exciter (12). Upon receiving the exciter signal, the tag becomes energized, thereby causing it to generate a read signal (32) based on the stored information. The antenna element then electrostatically sends the read signal to a proximately-located reader (14), which detects the stored information. Both energy and data are capacitively coupled by virtue of the unbalanced nature of the network, thus resulting in decreased coupled impedance.