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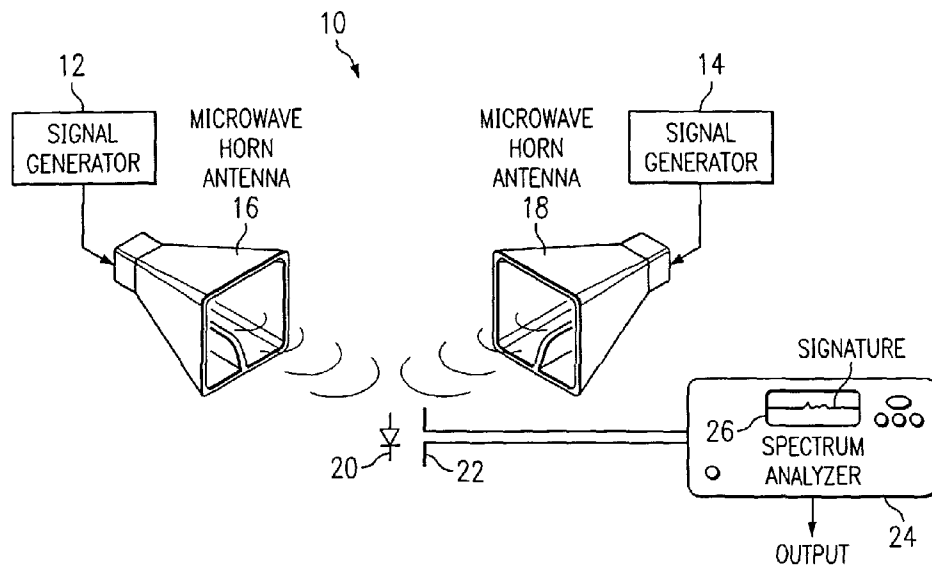
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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

[Continued on next page]

(54) Title: SEMICONDUCTOR DEVICE FOR ARTICLE IDENTIFICATION USING INTERMODULATION PRODUCT OF DIFFERENT INTERROGATION FREQUENCIES



(57) Abstract: An harmonic intermodulation article identification system comprises a scanning dipole antenna response to an RF intermodulation harmonic product radiated from RF diodes carried by or embedded in a substrate. The product signature is applied to a spectrum analyzer that outputs a signature identification to a comparator. In response to receiving a signature identification, the comparator scans previously stored signature identifications for a match. A match indicates the received product identification from the analyzer defined a specific substrate such as a document or product tag. A match by the comparator outputs a signal to display that indicates the identification of a substrate carrying RF diodes generating the compared product identification.



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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

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