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(71) Applicant: **BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION INC.**
[US/US]; 65 Spit Brook Road, P.O. Box 868, Nashua, NH 03061-0868 (US).

(72) Inventor: **APOSTOLOS, John, T.**; 3 Majestic Lane, Merimack, NH 03054 (US).

(74) Agents: **MAINE, Vernon, C.** et al.; Maine & Asmus, 100 Main Street, Nashua, NH 03060 (US).

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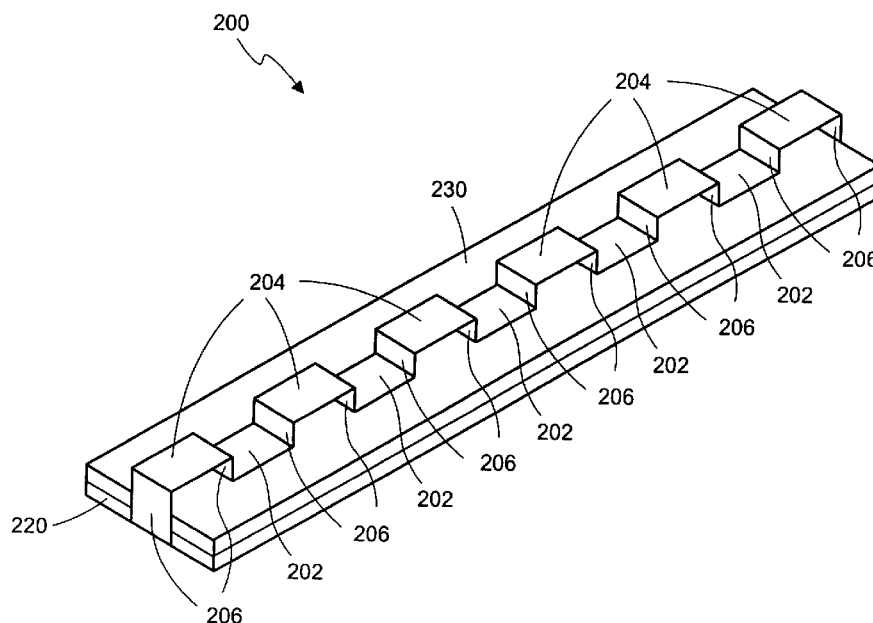
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(54) Title: SINGLE FEED, MULTI-ELEMENT ANTENNA



(57) **Abstract:** An array antenna (200) capable of use with a single signal feed has a transmission line oriented substantially parallel to a ground plane (220), which transmission line has a multiplicity of sequential sections with each sequential section having a different spacing from the ground plane (220) than each of its immediately adjacent sequential section. This stepped or varied impedance transmission line forms an array in which the sections spaced further from the ground plane (220) become active antenna elements. Controlling an electrical spacing between the ground plane (220) and transmission line provides relative phase control between the active elements and thereby phased-array directional control of the antenna.