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(57) Abstract :

The present disclosure relates to an assembly for a multibeam travelling wave antenna array. The system (100) is configured with a housing (102) with a dielectric substrate (104), a ground plane (106), one or more antenna elements (108), and a microstrip feed network (110). The ground plane (106) is located on the dielectric substrate (104) provides a direct path for coupling of electric fields, and extends over the microstrip feed network (110). The one or more antenna elements (108) are arranged in an array and are located on the dielectric substrate (104). The microstrip feed network (110) is located on the dielectric substrate (104), and electrically coupled to the one or more antenna elements (108) to provide excitation. Moreover, the ground plane (106) is configured with a divider circuit (110), and a filter circuit (112) to produce a phase difference, and shift the array radiation pattern in certain directions.

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