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Title *Suppression of Probing Effect in Planar Arrays using Improved LMS Algorithm*

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Abstract

The interference suppression capabilities of phased arrays can be exploited for the active radar cross section (RCS) reduction. In the earlier studies, the performance of the linear phased arrays for the suppression of probing sources was analysed in detail. Various amplitude distributions and the algorithms were employed for the pattern synthesis. In the present work the simulations are extended for the suppression of probing sources in planar arrays with uniform and Dolph-Chebyshev distribution. Improved LMS algorithm is used for the weight estimation. Effects of various parameters, viz. number of probing sources, direction of arrival, and the power level of each of the probing sources are analysed.