

Title: “Design and Analysis of Multi Octave Band EW Phased Array Using a Printed Radiator Covering 6-8GHz.”

Amount : Rs.66.52lac/-

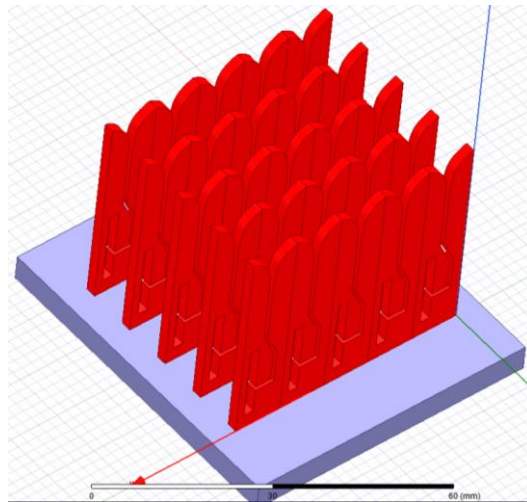
Duration : 2017-2021(4 Yrs)

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Abstract: A printed element radiator covering 6-18GHz is proposed to be designed using HFSS simulations. Its VSWR & radiation patterns will be computed & analyzed. The antenna is intended to be used as an element radiator in a phased array operating over 6-18GHz with scan sectors of $\pm 45^\circ$ in azimuth and $\pm 20^\circ$ in elevation. The phased array is eminently suited for Naval applications. The design of phased array, active VSWR, radiation patterns, scan blindness, impedance characteristics will be studied and results will be presented. The aim is to design & analyze a phased array operating satisfactorily over $\pm 45^\circ$ scan in azimuth & $\pm 20^\circ$ in elevation meeting the given specifications.

Design Details:



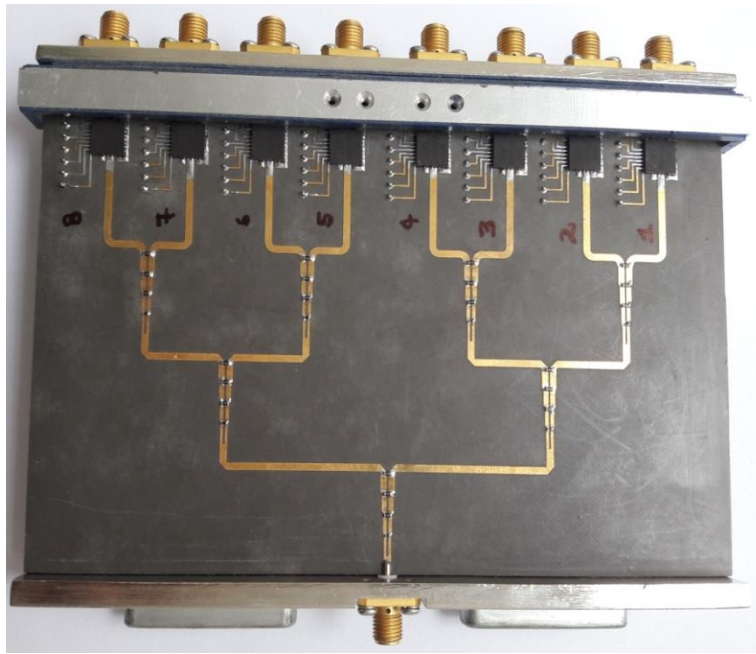
Simulated 5 x 5 planar all metal vivaldi antenna



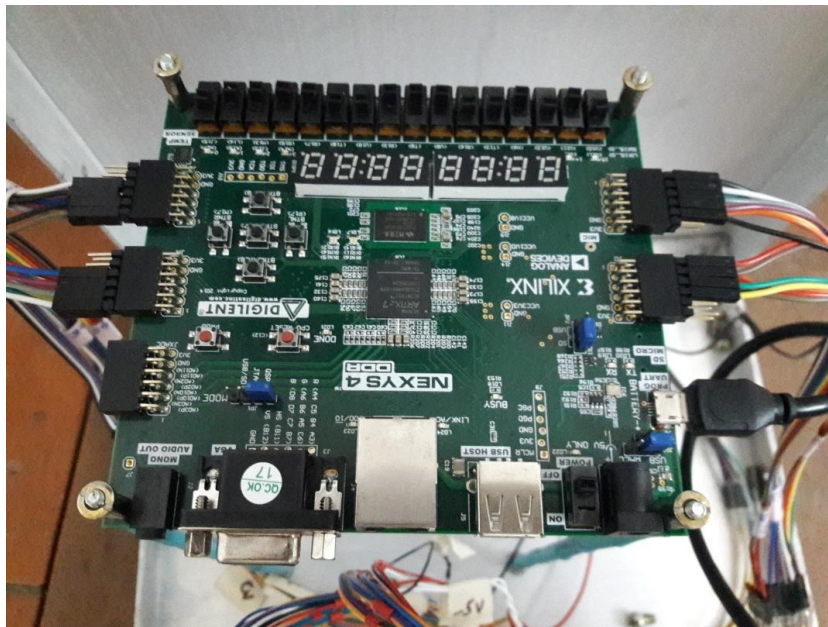
Five element linear array top view



Return loss of 5 element linear array



. Fabricated Power Divider Top view



Beam steering unit for six phase shifters