

ABSTRACT

CONFORMAL ANTENNA

An antenna device is presented. The antenna device comprises: a conformal antenna body which has a desired geometry corresponding to a front portion of a platform on which the antenna device is to be mounted, and an antenna unit carried by the antenna body. The antenna unit comprises at least one phased array of antenna elements. The antenna elements of each array are arranged in a spaced-apart relationship in a closed loop path along a circumference of the antenna body having a desired geometry corresponding to a front portion of platform on which the antenna unit is to be mounted. Each of the antenna elements is configured as an end-fire antenna element capable of emitting linearly polarized radiation, the array of the antenna elements being thereby operable as a forward looking end-fire antenna array, enabling electronic steering of an antenna beam by controllably modifying phases of the antenna elements of each array.

FIG. 1A