CIRCUIT ARCHITECTURE FOR DISTRIBUTED MULTIPLEXED CONTROL AND ELEMENT SIGNALS FOR PHASED ARRAY ANTENNA

ABSTRACT

The phased array antenna system is described. The phased array antenna system formed on one or more layers of a printed circuit board (PCB). The phased array antenna system be may include a beam forming network to convert between one or more element signals and a beam signal. The phased array antenna system may include one or more control circuits, where each control circuit may receive the element signals for corresponding antenna element. Each of the control circuits may further may establish a control signal path and an element signal path between the antenna elements and the beamforming network, where the signal path may carry multiplexed element and control signals. The control circuits may include a signal adjustment circuit that may adjust the corresponding element signal (e g, in phase or amplitude) based on the control signal.

[Fig. 1]