Antenna arrays and beamforming techniques can be used for communication with satellites. It is possible to study such systems and suppress the need of a physical antenna array by means of an emulator of the signals received by the array elements. These signals can be then used as inputs to other devices such as a data acquisition and processing system.

The goal of the present work is to develop a system that emulates the signals received by an antenna array. A model of these signals for a linear array was conceived, a prototype that generates them was developed, and the possibility to extend its capabilities to a planar array was studied.