ABSTRACT

Experimental research the generation of broadband antenna has proved

hypothesis "the antenna is matching impedance between the intrinsic propagation

space and the characteristic impedance of the radio transmission". The purpose to

obtain the physical size antenna is small and broadband antenna. Thus, it will

produce some of travelling wave antenna from line type in transverse wave

without the expense.

The most important thing in analysis bicula antenna is radiation pattern

or course diagram, so it's can be basic theory to make unidirectional or

omnidirectional multi branches broadband antenna at VSWR ≤ 1.5 .

At this final assignment the software for radiation pattern simulation,

and determine impedance, bandwidth, and gain of bicula antenna based on matlab

has been made, and the radiation pattern of bicula antenna has been analyze. The

characteristic of bicula antenna which has been analyze from simulation data

using software matlab are unidirectional radiation pattern, 2700MHz for

bandwidth, and gain is 7.34 dBi for space is 5.0 cm and antenna length is 11 cm.

Antenna gain is influenced by antenna length (ℓ) , and spacing between lead and

ground plane (s), while antenna impedance is influenced by the antenna length to-

n (cm) of triangle gradual transformer.

Key words: Matlab, bicula antenna, triangle gradual transformer