DESIGN OF A COMPACT PYRAMIDAL HORN ANTENNA

This thesis is presented in partial fulfillment for the award of the Bachelor of Electrical Engineering (Honors) by

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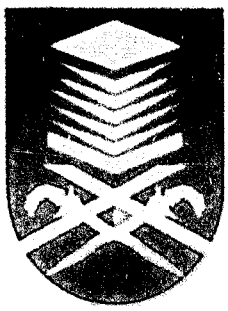

NORHAFIZI BIN LONG
Faculty of Electrical Engineering
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM,
SELANGOR, MALAYSIA.

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NORHAFIZI BIN LONG
Faculty of Electrical Engineering
UNIVERSITI TEKNOLOGI MARA
Shah Alam, Selangor Darul Ehsan.

ABSTRACT

An antenna consists of any structure made of material bodies that can be composed of either conducting or dielectric materials or may be a combination of both.

The development of a compact horn antenna is reviewed in this paper. The design is base on the frequency used. The horn is widely used as a feed element for large radio astronomy, satellite tracking and communications dishes. It is a common element of phased arrays and serves as a universal standard for calibration and gain measurements of other high-gain antennas. The horn is nothing more than a hollow pipe of different cross sections which has been tapered to larger opening. The type, direction, and amount of taper can have a profound effect on the overall performance of the element as a radiator.

LIST OF CHAPTERS