



UNIVERSITI TEKNOLOGI MARA

DESIGN OF HORN ANTENNA USING
MONOPOLE FEED TECHNIQUE

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MASTER OF SCIENCE IN
TELECOMMUNICATION AND INFORMATION
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ABSTRACT

This thesis presents the design of a pyramidal horn antenna using monopole feed technique which operates at low frequency and high frequency. The procedure starts with determine the dimensions of conventional horn which consists of the length, flare angle and aperture diameter of the pyramidal antenna. Both conventional and monopole technique are simulated using Computer Simulation Tool (CST) Microwave Environment software at 1.7 – 2.6 GHz. At the end of the project, the size of proposed antenna is reduced about 75% and simulated again within frequency 5.5 – 20 GHz. The simulation results consist of gain, radiation pattern, resonant frequency and VSWR are observed and examined.

Keywords: pyramidal horn antenna; conventional; monopole; VSWR

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