

# HIGH GAIN BOW TIE ANTENNA TO RECEIVE TELEVISION SIGNAL

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## ABSTRACT

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This project paper is about High Gain Bow Tie Antenna to receive television channel such as TV1, TV2, and TV3, its construction, its theory behind it and the possible outcomes that it can produce. Advantages and disadvantages of this Bow Tie antenna are included.

The High Gain Bow Tie Antenna consists of 2 portions: hardware and software. The hardware consists of 2 triangle aluminum plate that looks like a bow tie, a 90° reflector and a matching circuit. The main function of the High Gain Bow Tie Antenna is to receive television signal like Yagi Uda antenna.

Two software will be used: NEC4WIN95 for designing 90° reflector and Advanced Design System (ADS) to design bow tie antenna and the matching circuit. I can obtain the radiation pattern and the far field pattern of the 90° reflector from the NEC4WIN95 software. From the Advanced Design System (ADS), I can obtain the 3D radiation pattern of the bow tie antenna. In addition to this, some data also can be calculated by this software.