

ABSTRACT

The rapid development of telecommunication technology, especially in the delivery of information through digital television broadcasts, is a requirement that is in great demand both domestically and abroad. Of course, the transition from analog television to digital television has been stipulated through the KOMINFO Regulation with a standard digital television broadcast frequency at an antenna of 478 MHz - 694 MHz. In the world of Indonesian television, Digital Video Broadcast Terrestrial Second Generation (DVB-T2) signals are used. The antenna needed for DVB-T2 is an antenna that can produce a wide bandwidth (wideband). The microstrip antenna was chosen because it has a compact shape and is easy to fabricate and modify. The microstrip antenna has a narrow bandwidth deficiency, therefore in this study a triangular patch design was carried out using the DGS method which aims to increase the antenna bandwidth. In this study the results will be analyzed on parameters including return loss, VSWR, gain, and bandwidth so that these results are in accordance with predetermined antenna standards. The simulation results obtained are -39,989 dB return loss, 0,179 VSWR, 373 MHz bandwidth, and 0,026 dBi 586 MHz frequency gain. While the measurement results obtained are -35.185 dB return loss, 1.035 VSWR, 330 MHz bandwidth, and -0.945 dBi 586 MHz frequency gain.

Keyword: *Microstrip Antenna, DGS, DVB-T2, Triangular.*