

## ABSTRACT

Wimax is a wireless technology that provides wide bandwidth with distance. WiMAX can be used for high speed internet access. In a wimax communication, an important part of the antenna as a signal transformer. One type of antenna is being developed now is a microstrip antenna. Microstrip antenna is a microstrip antenna device utilization. Advantages of this antenna is its small, easy manufacturing and the price is relatively cheap. But the downside is the narrow bandwidth. As for the Wimax technology required high bandwidth. For it was made with partial groundplane microstrip antenna and the parasitic elements that widen the bandwidth of the antenna.

Microstrip antenna covered with parasitic elements can create an emphasis on surface waves so that the VSWR becomes smaller. At this time the design is created on the back of the parasitic elements of the antenna. Parsitik element is an element that is not supplied is made of pure semiconductor material. Parasitic elements can be used for various purposes such as creating a dualband antenna as well as to widen the bandwidth.

In the presence of these parasitic elements, making the VSWR close to 1, can be a dualband antenna and wider bandwidth than without using parasitic elements. There are many forms and methods that can be developed with these parasitic elements. So it may be possible for the antenna berparasitik pengembangtelitian tailored to the needs of telecommunications today.

*Key words: microstrip, parasitic, Wimax*