

ABSTRACT

Energy is one of the most important things in life. Energy is spreaded in the nature, and can be used freely. For example is the energy that comes from the sun. To use the sun heat, the solar panel is needed. Beside the sun, there is another energy source, which is radio signal. Radio signal happens because the communication of telecommunication device. This radio signal usually used to do information exchange. But, beside to be used as information exchange, this radio signal can also be used as a new source for energy. To use the radio signal, an antenna is needed. In this final task, a multiband antenna which can capture multi frequency is made.

There are several ways to make this multiband antenna, one of those is reactively loaded multi frequency technique. That technique will make one or more slot into the patch of the antenna, so that the antenna can capture multi frequency. for the patch of the antenna, circular patch is used. And for the feeding technique, proximity couple feed technique is used because that technique have a better bandwidth compared to the other feeding technique. For the frequencies that will be used are 767.25 MHz which comes from television, 1860-1870 MHz which comes from GSM Telkomsel, and 2400-2405 MHz which comes from WiFi.

By making this antenna, writer hopes that the antenna can receive the RF signal in a good quality. Also it can has a good RSL which is above -90 dBm or as positive as possible so that the conversion result would not be so small.

Keyword : energy harvesting, multiband antenna, frequency, RSL.