

ABSTRACT

In the growing world of telecommunications, the desired needs will also increase, so producers must pay attention to market competition so that their products are always in demand by consumers. PT Sutanto ArifChandra Electronics is one of the companies engaged in electronics, especially in producing cables, one of which is coaxial cable. Coaxial cable as a transmission medium that is resistant to electromagnetic interference. Coaxial cable is usually used for transmission media for an antenna that is matched impedance. This is to obtain the ideal VSWR value which is one and the reflection coefficient is zero meaning matched. 75 ohm coaxial cable impedance standard is influenced by inner diameter and outer diameter. The 75 ohm impedance is the most optimal impedance for coaxial cable construction that produces the lowest attenuation. However, if the coaxial cable does not produce an impedance of 75 ohms it will not matched the impedance with the antenna. Based on calculations from field data, impedance values close to 75 Ohm with inner diameter 1 mm and outer diameter 5,02 mm impedance of 64,4492 Ohm, VSWR of 0,075, while the reflection coefficient is 1,162. However, the cable diameter does not meet the Japan Industrial Standard impedance tolerance value.

Keywords: Inner, Outer, Matched Impedance, VSWR