

ABSTRACT

Broadband antenna is useful for radio system of economical channel multicanal, so since 2008 until the middle 2008 had result some model antenna with gain 3,41 dBi up to tens dBi broadband, ultraband, and multiband in range 300 MHz – 3000 MHz. Based on match broadband for dwitunggal or composition called Bhinneka Tunggal Ika, using connector 50Ω unbalance. To thrift space, using connector monopole local material.

Appropriate with Network Analyzer that will be used to test in ITTELKOM range frekuensi 300 MHz – 3000 MHz using connector SMA, so within 4 month has been designed and realized 1 model prototype Omnidirectional Pancacula Antenna Triangle Gradual, Monopole rasion, using connector SMA with range frequency 300 MHz – 3000 MHz, $VSWR \leq 1,5$, $Z_r = 50\Omega$, Gain more than 2,14 dBi and linier polarization with waste principal.

To find out performance of the antenna that had realized , so in this final project also has been measurement and experiment of the antenna with the specification that has been definite before. From measurement result of the antenna that had been realized, found each specification the antenna that are closed by early specification.

In this realized antenna, had got bandwidth equal to 835,6 MHz at range frequency 1262.7 MHz - 2098.3 MHz with limited $VSWR \leq 1,5$. While gain equal to 4,618 dBi at 570 MHz frequency, 6,848 dBi at 1460 MHz, 5,989 dBi at 1650 MHz frequency and 5,088 dBi at 2510 MHz frequency. Polarization of result measurement in form elips and pattern radiation is omnidirectional.

Keywords : Antenna, Pancacula, Omnidirectional, Triangle