

## ABSTRACT

*Satellite Chinasat-11 is a communications satellite operated by China Direct Broadcast Satellite Company. Planning the use of modulation is done to know the performance of the modem used by the PT. Metrasat on satellite Chinasat-11. Calculation of link budget is also the thing that needs to be known by the Metrasat to know the quality of the transmission Link. Link budget Calculations based on satellite Chinasat-11 showed that some calculations have not reached the standard of ITU-R IE registered loss of 0, 03db, propagation loss amounting to 194.59 db and free space loss of 194, remote kadula 5db. Then note that the lower the modulation being used will produce a different bandwidth is wider. The modulation is BPSK modulation with different bandwidth with widest 2.2 Mhz and 16 QAM modulation with different bandwidth the smallest i.e. 0.23 Mhz on the lowest FEC value modulasinya each and the value produced is BPSK 3.82 dB or konsumsi with power modulation is the least. While 16 QAM modulation is a modulation with a grade of C/N largest i.e. 8.97 db. From this calculation can be aware that the most viable Modulation used by satellite chinasat-11 on IR 512 kbps is 8 PSK with FEC  $\frac{3}{4}$ , while the most viable Modulation used by satellite chinasat-11 on IR 1024 kbps is 8 PSK with FEC  $\frac{7}{8}$ .*

*Key Word : Chinasat-11, Modulation, Link Budget*