

MORE DEFINITIONS FOR WAVES

In a longitudinal wave, the CONDENSATIONS are the locations in space where the density of the medium is higher than the density of the medium with no wave present.

In a longitudinal wave, the RAREFACTIONS are the locations in space where the density of the medium is lower than the density of the medium with no wave present.

The POWER OF THE SOURCE (P_S) in Watts is the rate at which energy is leaving the source.

The INTENSITY ($I(\underline{r})$) of a wave at location \underline{r} is the energy per second per unit area passing through a small test area, perpendicular to the wave and located at \underline{r} . The units are $(\text{J/s})/\text{m}^2$ or W/m^2 .