Noise cannot be separated from the development of transportation facilities at this time because all means of transportation cause noise. Noise can also cause interference that has the potential to affect the comfort and disturbance of people living in settlements around the railroad tracks. Tambakrejo Village is one of the villages that connects two stations with an area of 74.58 Ha, located in Gayamsari Sub-district, Semarang City. The noise level heard by the community around the Tawang-Surabaya railway line in Tambakrejo Gayamsari Semarang Village ranges between 57-75 dBA at 8 measurement points. Whereas the percentage of Highly Annoyed (HA) for noise > 70 dBA, 65-70 dBA, 60-64 dBA, 55-59 dBA obtained% HA value of 41.67%, 15.21%, 18.18% and 0% sequentially. Relative risk of noise level that has an impact causes disruption (Highly Annoyed) for people living in settlements around the Tawang-Surabaya railroad in Tambakrejo Village, Gayamsari Sub-District Semarang for noise level > 70 dBA is 2.74 times with a 95% confidence interval (Convidence 95% level) of (1.06, 6.95).

**Keywords**: Noise Level, Noise, Highly Annoyed, Disturbance, Relative Risk