ABSTRACT

IBC (Indoor Building Coverage) is a networks are becoming the solution to amplify the signal inside the building. Because in general the received signal in the building of makrocell and mikrocell (outdoor network) has a low signal quality, this is caused by the losses of the structure of the building as well as a BTS tower distance far enough so that its area of coverage does not reach into the building. So that the signal received by the user becomes satisfactory.

Station-fire is one of the places that have a high level of activity in which user-Fire Train services while waiting for departure taking the time to browse or to download data network where HSDPA service is used.. Because in general the received signal in the building of makrocell and mikrocell (outdoor network) has a low signal quality, this is caused by the losses of the structure of the building as well as a BTS tower distance far enough so that its area of coverage does not reach into the building. So that the signal received by the user becomes satisfactory.

Train Station Bandung has a land area of 46 930 m^2 with an area of 4,768 m^2 and a building height of 4.5 m which cause not all regions in the ter-building coverage. Of these weaknesses, the best solution is to improve the received signal power-HSDPA in Bandung Railway Station with the IBC design in its application using TEMS software to perform the simulations with software Drivetest RPS.

From the calculation of the radius of the antenna , it takes 31 to scenario 1 cell that consists of 12 cells to the north of the building , 12 cell to the south of the building , and 7 cells for 2 train. Skenario rail area required 10 cell consisting of a 4 -cell to the north of the building , 4 cell to the south of the building , and a 2 -cell to the railway area . While Scenario 3 takes 3 cell consisting of one cell to the north of the building , one cell to the south of the building , and 1 cell to the railway area . After performing simulations using RPS 5.4 software RSCP then obtained for scenario 1 of - 46.6 dBm , scenario 2 was -48.44 dBm and -55.21 dBm for scenario 3 . Therefore, the results can be said to be planning produces good coverage area.

Keywords: HSDPA, IBC, Indoor, Walk Test