

## **Abstract**

Low signal quantity of cellular in Santo Yusup Hospital was showed by “drive test before” measurement. For Rx Level parameter is -91 dBm. Rx Level is signal power value that is received in MS (Mobile Station) from BTS. Meanwhile, KPI (Key Performance Indicator) Rx level threshold for Telkomsel operator is -70 dBm.

One of the cellular signal correction efforts in Santo Yusup Hospital is BTS indoor installation design. Building design is done by dual technology infrastructure sharing designs which are DCS 1800 and UMTS. Indoor design aspects include transmission aspect and traffic aspect. Transmission aspects are coverage determining, link budget calculating, DAS (Distributed Antenna System) configuration design. While traffic aspect design is calculation of some channels provided by both technology in order to give good quality of service.

The conclusion of final assignment is indoor network design in RS Santo Yusup can give signal quality correction for 28.24 dBm.