

ABSTRACT

Smart building is a new technology for indoor automation using smart devices. The Smart Building System is an application system that is a combination of technology and services specifically for the home or building environment with a specific function that aims to increase efficiency, between the comfort and safety of its occupants. Smart building has elements such as (GPON Technology, Building Cable Installation, Big ONT Equipment). Based on the definition, the Passive Optical Network (PON) is a point-to-multipoint network based on fiber optics which has an optical splitter element that functions as a data channel for several purposes. Building Cable Installation - IKG Definition: IKG installation is the activity of installing telecommunication cables from the starting point (ODP / ODC) to the RJ-45 and RJ-11 rosettes / sockets. IKG network elements, namely, distribution fiber optic cable, ODP (Optical Distribution Point). Rosette indoor fiber optic cable, RJ-45 and RJ11 sockets, SC connector (pigtail), UTP cable / data cable, copper cable / telephone cable, cable line pipe. (4) Big ONT is an Optical Network Terminal that has more adequate capabilities and facilities than regular ONT, in terms of capability and aesthetics, large ONTs have been designed as well as possible. Examples of big ONT include ZTE F821, Huawei MSA5672M, ZTE-9806H, Fiberhome 5506 AN, which have their respective advantages and different design functions .. Standard KPI (Key Performance Indicator) uses OPM and OTDR measurement methods, ideal attenuation determined by PT Telkom Akses is in the range -17dBm to - 24dBm.

Keywords: *Optical Fiber, Big ONT, Building Cable Installation, Attenuation, OPM, OTDR, Key Performance Indicator*