

Spectrum Planning and Access Network Architecture from GZCTV

Bo Zhang
Guizhou Province Cable TV Network
Company



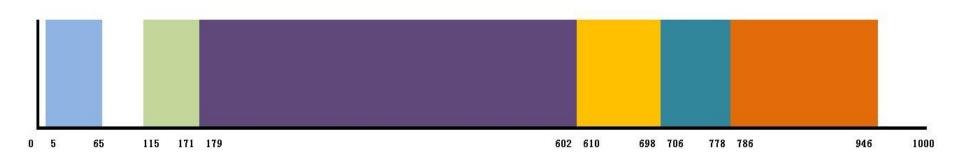
Spectrum Planning and Access Network Architecture

Spectrum planning

- Access network architecture
 - Optical fiber transmission system
 - Coaxial cable distribution system



Spectrum Planning



- 5~65 : EOC (HP AV) or DOCSIS Upstream Frequency
- 115 ~ 171 : Analog TV
- 179 ~ 602 : Digital TV
- 610 ~ 698: HD Interactive Downstream
- 706 ~ 778 : Special Frequency
- 786 ~ 946: Reserved for Digital TV



Access Network Architecture

Optical fiber transmission system

- 1310nm transmission, EPON+EOC system architecture
- 1550nm transmission, EPON+EOC system architecture

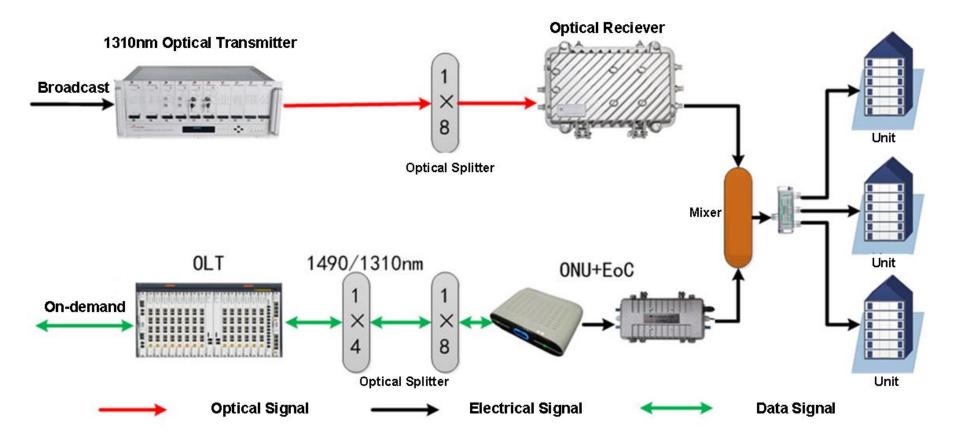
Coaxial cable distribution system

- Tree distribution structure
- Centralized distribution structure



Optical Fiber Transmission System

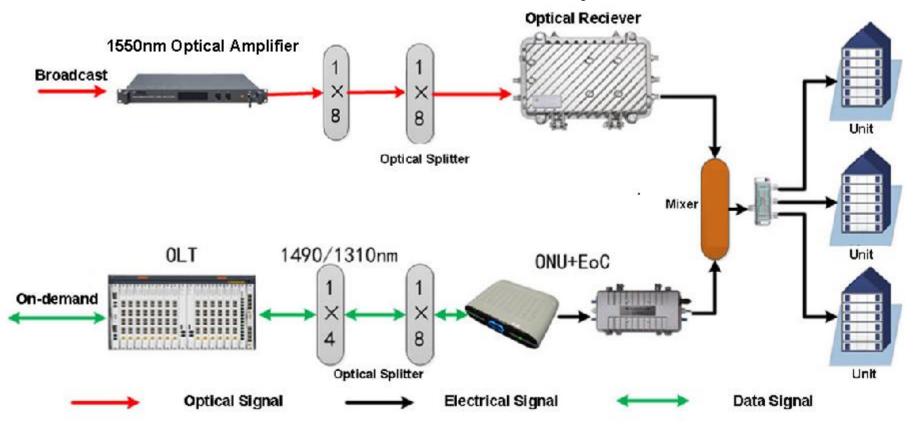
1310nm transmission, EPON+EOC system architecture





Optical Fiber Transmission System

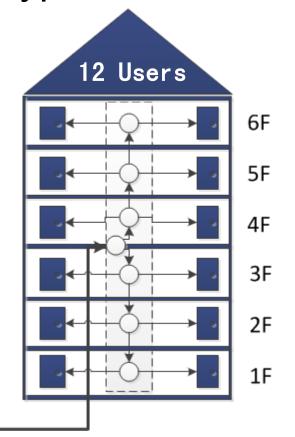
1550nm transmission, EPON+EOC system architecture

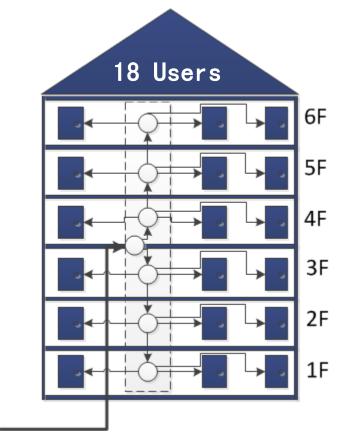




Coaxial Cable Distribution System

Typical tree coaxial distribution structure

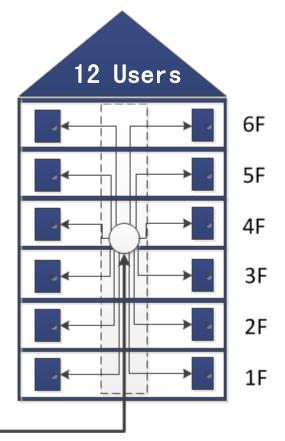


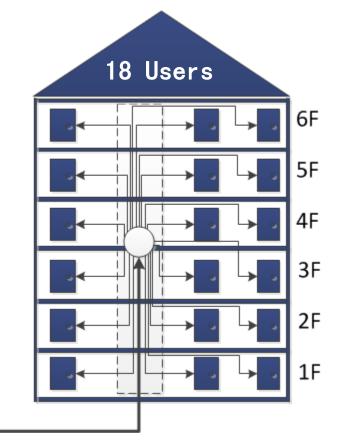




Coaxial Cable Distribution System

Typical centralized coaxial distribution structure

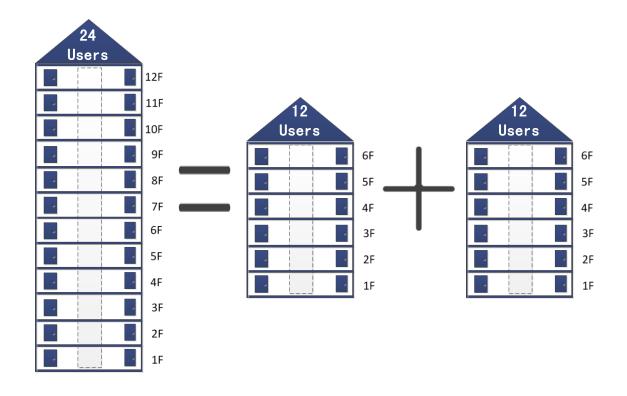






Coaxial Distribution System

Typical building user segmentation scheme I





Coaxial Distribution System

Typical building user segmentation scheme II

