

Five Band Fiber Optic Repeater

Model: FIBER LINK 104/404(Remote Unit)

The Fiber Optic Repeater (FOR) is designed to solve problems of weak mobile signal in the place that is far away from the Base Transceiver Station (BTS) and has fiber optic cable network underground.

The system consists of two parts: Donor Unit and Remote Unit. The Donor unit captures the BTS signal via direct coupler closed to BTS, then converts it into optic signal and transmits the amplified signal to the Remote Unit via fiber optic cable. The Remote unit will reconvert the optic signal into RF signal and provide the signal to the areas where network coverage is inadequate. And the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.



Features

- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corroding
- Omni-directional antenna can be adopted to expand more coverage
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Adopting WDM module to realize long-distance transmission
- Stable and improved signal transmission quality
- One Donor Unit can support up to 4 Remote Units to maximize utilization of fiber optic cable
- USB port provides a link to a notebook for local supervision or to the built-in wireless modem to communicate with the NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater

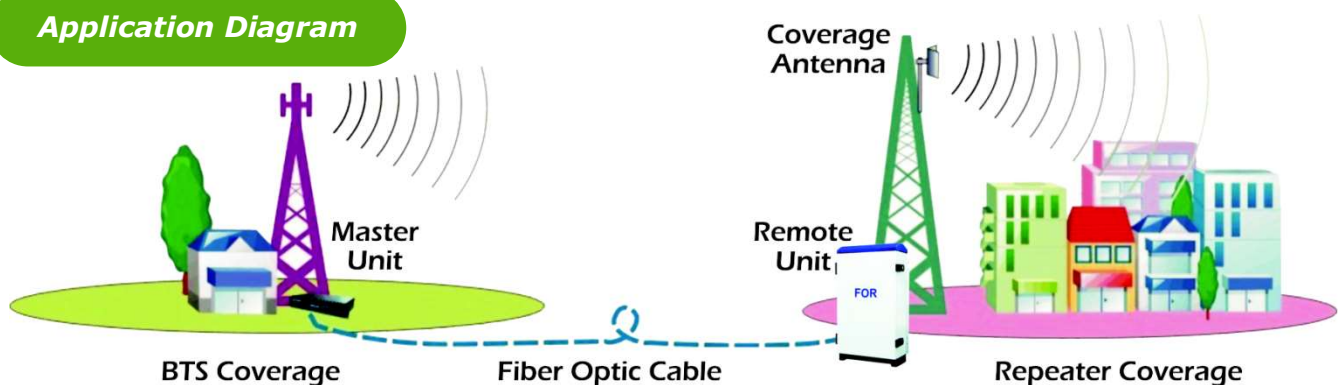
Applications

To expand signal coverage or fill signal blind area where signal is weak or unavailable.

Outdoor: Airports, tourism regions, golf courses, tunnels, factories, mining districts, villages, ...

Indoor: Hotels, exhibition centers, basements, shopping malls, offices, parking lots, ...

Application Diagram



Technical Specifications

| Item | | Specifications |
|---------------------------------|---------------|----------------------------------------------------------------------------------------------------|
| Working Frequency | Uplink(MHz) | 703~748/885~915/1710~1775/1915~1980/2500~2570 |
| | Downlink(MHz) | 758~803/930~960/1805~1870/2110~2170/2620~2690 |
| Working Bandwidth | | 45MHz/30MHz/65MHz/65,60MHz/70MHz |
| Frequency Stability(+/-0.01ppm) | | ≤0.01ppm |
| RMS Output Power@Bandwidth | | ≥43dBm |
| IM3@LTE900<E1800<E2600 | | ≥60dBc |
| Gain Flatness | | ≤±3dB for all band |
| AGC/ALC Function | | Support |
| AGC/ALC Range | | 10dB |
| ACLR | | 3GPP TS 25.104(R10),3GPP TS 36 104(R10) |
| Noise Figure@Max.Gain(DL/UL) | | ≤5dB |
| Spurious and Emissions | | 3GPP TS 25.143(R10),3GPP TS 36 143(R10) |
| Intermodulation | | 3GPP TS 25.143(R10),3GPP TS 36 143(R10) |
| Out of Band Gain | | 3GPP TS 25.143(R10),3GPP TS 36 143(R10) |
| EVM | | 3GPP TS 25.143(R10),3GPP TS 36 143(R10) |
| Group(System) Delay | | ≤1.5us |
| Ingress Protection | | IP65 |
| Cooling Function | | Heat sink |
| Local Monitoring Interface | | USB2.0 |
| Remote Monitoring Module | | Through MU via fiber |
| Optical Connector Type | | 1xFC/PC |
| RF Connector Type | | 1xN-Female |
| Operating Temperature | | -25℃~55℃ |
| Relative Humidity | | ≤85% |
| Dimensions | | 980mm×420mm×230mm |
| Mounting Type | | Wall & Pole |
| Power Supply | | AC100V- AC240V, 50/60Hz |
| Power Supply Protection | | Include short circuit, Over Voltage and Surge protection |
| Power Consumption | | ≤650W |
| Battery Backup/Time | | 30minutes |
| MTBF | | >50000hours |
| Software Support MU/RU Models | | Same EMS support different model of MU/RU Set and display MU and RU ID and Location, adjust the |
| Adjustable Parameters Function | | Downlink/Uplink gain, turn on/off the RF power amplifier, remote turn on/off or restart RU; |
| Monitored Parameters | | Real-time status for downlink output power(RSSI),temperature, optical power; |
| Alarm Type Classification | | Three levels (such as Major, Minor, and Warning) |

Alarm Parameters

Real-time alarm for door status, temperature, power supply, vswr, etc;

Interface Remote/Local Software

Terminal software suitable for Windows 7 and the above system

EMS Server

Provide GUI interface for configuration the MU and RU, remote management

each RU by MU, to set the parameters of RU, and monitoring the status and alarms