900+2100 Dual-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: Master Unit and Remote Unit. The Master 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
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Stable and improved signal transmission quality
- One Master Unit can support up to 8 Remote Units to maximize utilization of fiber optic cable
- USB/RJ45 port provides a link to a notebook for local supervision or to the built-in wireless modem or 4G Router to communicate with the NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater by a notebook or mobile phone with APP.
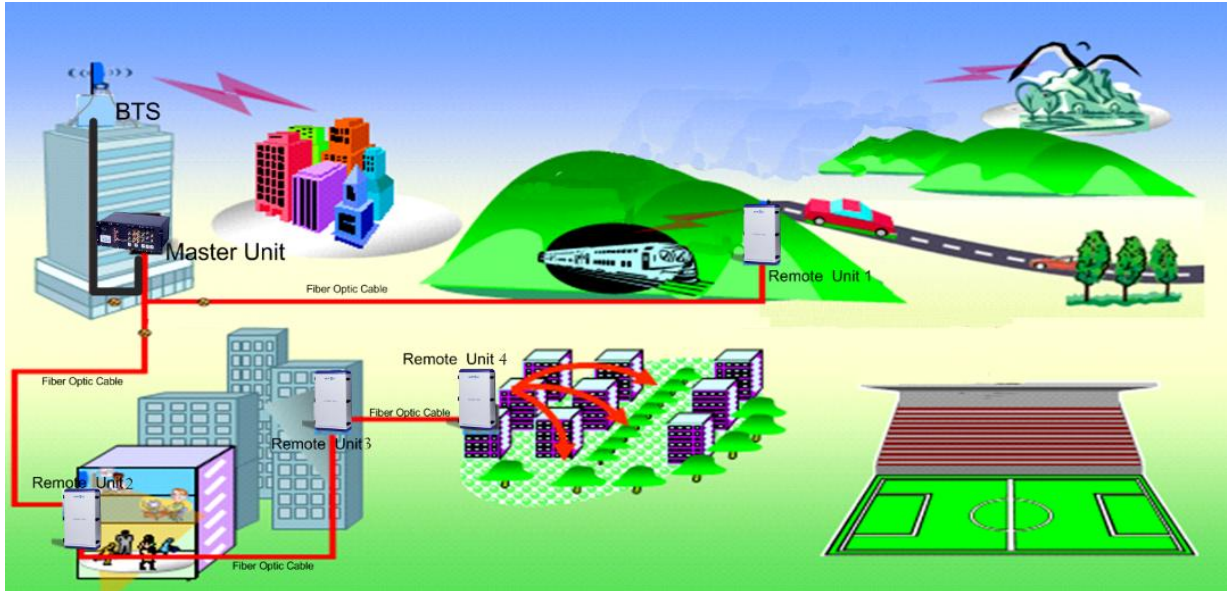
Applications

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)	885~915/1920~1980
	Downlink(MHz)	930~960/2110~2170
Working Bandwidth		30MHz/60MHz
Frequency Stability(+/-0.01ppm)		≤0.01ppm
RMS Output Power @ Bandwidth		≥43dBm
IM3@LTE900		≥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/RJ45
Remote Monitoring Module	Through MU via fiber
Optical Connector Type	1xLC/UPC
RF Connector Type	1xN-Female or 1xDIN-Female
Operating Temperature	-10℃~55℃
Relative Humidity	≤95%
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	≤200W
Battery Backup/Time	30minutes
MTBF	>50000hours
Software Support MU/RU Models	Same EMS support different model of MU/RU
Adjustable Parameters Function	Set and display MU and RU ID and Location, adjust the Downlink/Uplink gain, turn on/off the RF power amplifier, remote turn on/off or restart RU;
Monitored Parameters	Real-time status for downlink/Uplink 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

![Tone Spread logo — Solutions for Wireless Signal]

NMS Diagram

RJ45

Fiber

4G

App

Clouds
IDC

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