

# Triple-Band Air Interface Fiber Optic Repeater<sup>(Master Unit)</sup>



**JIETONG DIGITAL**

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**1800-3500 MHz**

**Fiber Link-308**

## LTE1800+ LTE/UMTS2100+5GNR TDD 3.5GHz

The Air Interface 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.

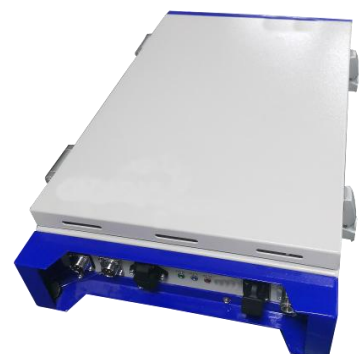
The system consists of two parts: Master Unit (MU) and Remote Unit (RU). The MU captures the BTS signal via donor antenna, then converts it into optic signal and transmits the amplified signal to the RU via fiber optic cable. The RU will reconvert the optic signal into RF signal and provide the signal to the areas where network coverage is inadequate. And the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.

## Key features

- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable.
- One MU can support up to 8 RUs to maximize utilization of fiber optic cable (A star topology is supported between MU and RUs).
- Built-in 3.5G Dynamic TDD Sync Detection Module, automatic completion of 3.5G wireless network cell search and wireless signaling processing.
- UBS/RJ45 port provides a link to a notebook for local supervision or IP Based NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater via Ethernet.

## Advantages

- ☑ **Multi\_standards/Multi\_operators**
- ☑ **Adopting WDM module to realize long-distance transmission**
- ☑ **Stable and Improved Signal Transmission Quality**
- ☑ **Smart Mode (Automatically adjust the gain)**
- ☑ **NMS (Network Management System)**

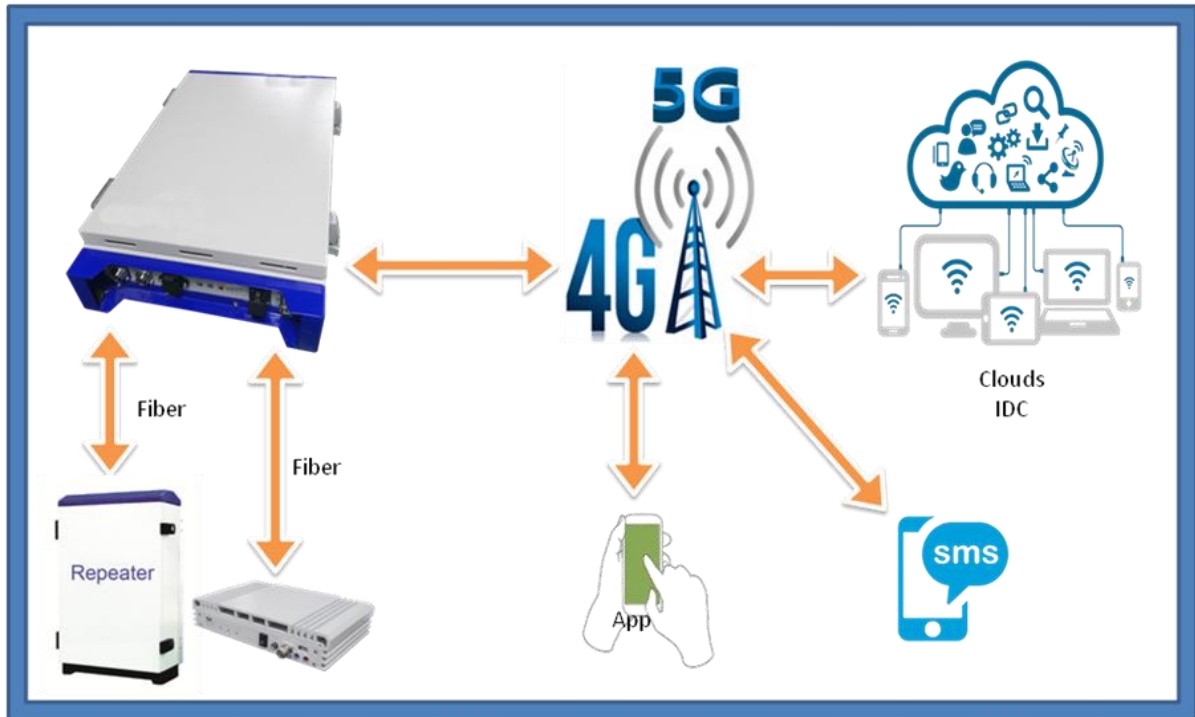


# Specifications

## Technical characteristics

Item	Specifications
<b>System</b>	LTE1800+LTE/UMTS2100+5GNR 3500(TDD)
<b>Working Frequency</b>	<b>Uplink</b> 1710~1785 / 1920~1980 / 3300~23570 MHz
	<b>Downlink</b> 1805~1870 / 2110~2170 / 3300~3570 MHz
<b>Working Bandwidth</b>	75 / 60 / 270 MHz
<b>MU Extensible Support the RU Quantity</b>	8
<b>System Gain(MU)</b>	50±3dB Per Band
<b>Maximum RF Output Power(UL)</b>	30±2dBm Per Band
<b>MGC Range</b>	0~31dB@Step of 1 dB
<b>VSWR</b>	≤ 1.5
<b>System Delay</b>	≤1.5μs
<b>Noise Figure@1RU Connection</b>	≤5dB
<b>Optical Output Power</b>	-6±3dBm @1550nm
<b>Fiber Type/Optical Connector Type</b>	Single mode / 8xFC/APC
<b>Optical Wavelength</b>	1310nm / 1550nm
<b>Smart Mode</b>	Automatically adjust the gain in both links according to the specific environment
<b>RF Connector Type</b>	3xN-Female (1800/2100/3500MHz)
<b>I/O Impedance</b>	50Ω
<b>Ingress Protection</b>	Indoor (IP65)
<b>Operating Temperature</b>	-10°C~55°C
<b>Relative Humidity</b>	≤95%
<b>Dimensions</b>	485x325x215mm
<b>Weight</b>	≤20Kg
<b>Power Supply</b>	AC100V ~240V, 50/60Hz; <250W
<b>Local Monitoring Interface</b>	USB/RJ45 and Wi-Fi Hotspot
<b>Remote Monitoring</b>	IP Connectivity via 4G Wireless Modem(Cloud Network Management System)
<b>MTBF</b>	≥50000hours
<b>Mounting Type</b>	Wall Mounting

# NMS (Network Management System)



## 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, ...

