

# Air Interface Fiber Optic Repeater



1800-2100 MHz

**Fiber Link-204** (Remote unit)

**Tone Spread**  
Solutions for Wireless Signal

## LTE1800+LTE2100

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 air interface, 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

- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corrosion.
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable.
- Stable and improved signal transmission quality.
- Adopting WDM module to realize long-distance transmission.
- One MU can support up to 8 RUs to maximize utilization of fiber optic cable (A star topology is supported between MU and RUs).
- USB/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

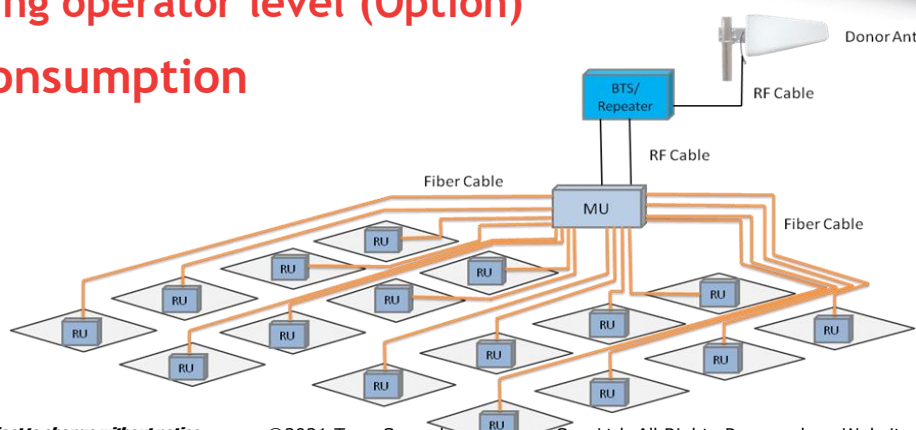
☑ **Multi\_standards/Multi\_operators**

☑ **Remote control**

☑ **Digital features:**

**Balancing operator level (Option)**

☑ **Low consumption**

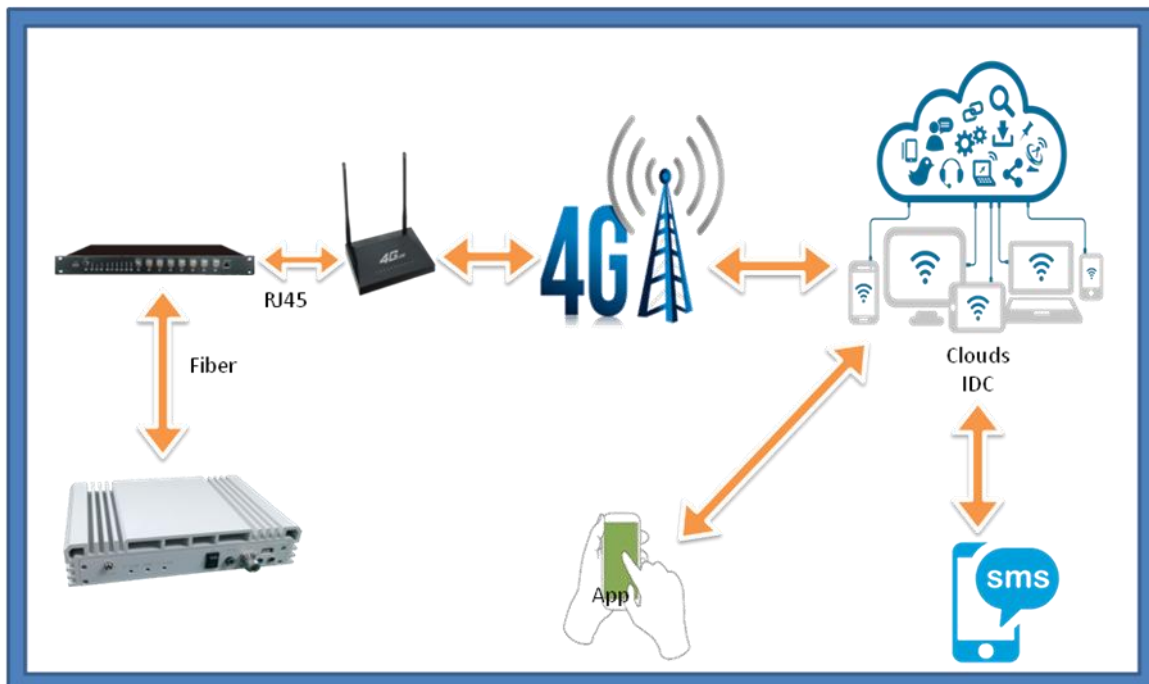


# Specifications

## Technical characteristics

Item	Specifications	
System	LTE1800/LTE2100	
Working Frequency	Uplink (MHz)	1710~1775/1920~1980
	Downlink (MHz)	1805 ~1870/2110~2170
Working Bandwidth	65MHz/60MHz	
Frequency Stability(+/-0.01ppm)	≤0.01ppm	
Gain Flatness	≤±3dB for All Band	
AGC/ALC Range	≥10dB	
Gain Adjustable Range	30dB, step of 1dB	
Maximum Gain(Cable Access)	40±3dB per band	
Maximum RF Output Power	15dBm per band (Downlink)	
Group (System) Delay	≤1.5us	
Noise Figure@Max. Gain (Uplink)	≤5dB	
Optical Output Power	0±3dBm@1310nm	
Fiber Type/Number	Single mode	
Optical Loss Allowed (MU&RU)	0~10dB	
Optical Connector Type	1xFC/APC	
RF Connector Type	1xN-Female	
VSWR	≤1.5	
I/O Impedance	50Ω	
Ingress Protection	IP65	
Operating Temperature	-25°C~55°C	
Relative Humidity	≤95%	
Dimensions	318x265x68mm(TBD)	
Weight	≤ 9Kg	
Power Supply	AC100V ~240V, 50/60Hz	
Power Consumption	≤60W	
Local Control	Via USB Interface(LCD&LED Display)	
Remote Mode	Through MU via Fiber Optical Cable	
MTBF	3 years	
Mounting Type	Wall Mounting	

# Network Management System (NMS)



## 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, ...

