

# Triple-Band Fiber Optic Repeater (Master Unit)



**Tone Spread**  
Solutions for Wireless Signal

**1800-3500 MHz**

**Fiber Link-308**

## **LTE1800+LTE2100+5GNR (TDD-3.5GHz)**

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 (MU) and Remote Unit (RU). The MU captures the BTS/Repeater signal via direct coupler closed to BTS/Repeater, 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 5G Dynamic TDD Sync Detection Module, automatic completion of 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**
- Built-in 5G Dynamic TDD Sync  
Detection Module Detection Module**
- Remote control**
- Smart function to set the proper  
gain automatically**



# Specifications

## Technical characteristics

Item	Specifications
System	LTE1800&LTE2100&5GNR TDD-3.5GHz
Working Frequency	Uplink 1710~1785MHz&1920~1980MHz&3300~3570MHz
	Downlink 1805~1880MHz&2110~2170MHz&3300~3570MHz
Working Bandwidth	75MHz&60MHz&270MHz
MU Extensible Support the RU Quantity	8
System Gain(MU+RU)	5±3dB
System Delay	≤1.5μs
Maximum Output Power(RF)	UL:-10±2dBm per Band
Maximum RF Input Power(Non-Destructive)	10dBm
Manual Adjustable Attenuator	0~20dB/Step 1dB
Noise Figure@1RU Connection	≤6dB
Optical Output Power	-6±3dBm@1550nm
Optical Receiver Sensitivity	≥ -15dBm
Fiber Type/Number	Single mode
Optical Wavelength	1310nm/1550nm
Optical Connector Type	8xFC/APC
RF Connector Type	3xN-Female
I/O Impedance	50Ω
VSWR	≤1.5
Ingress Protection	IP30
Local Monitoring Interface	USB/Wi-Fi Hot Spot
Remote Monitoring	IP Connectivity via RJ45 Port(Cloud Network Management System)
Operating Temperature	-10°C~55°C
Relative Humidity	≤95%
Dimensions	485mm×350mm×90mm
Weight	≤8Kg
Mounting Type	Rack Mount
Power Supply	AC100V ~240V, 50/60Hz
Power Supply Protection	Include Short Circuit, Over Voltage and Surge protection design
Power Consumption	≤60W

Battery Backup/Time	30minutes
MTBF	≥50000hours

## Applications

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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, ...

