

Triple-Band Air Interface Fiber Optic Repeater^(Master Unit)

1800-3500 MHz

Fiber Link-316



LTE1800+ LTE/UMTS2100+5GNR_{TDD} 3500

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 16 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

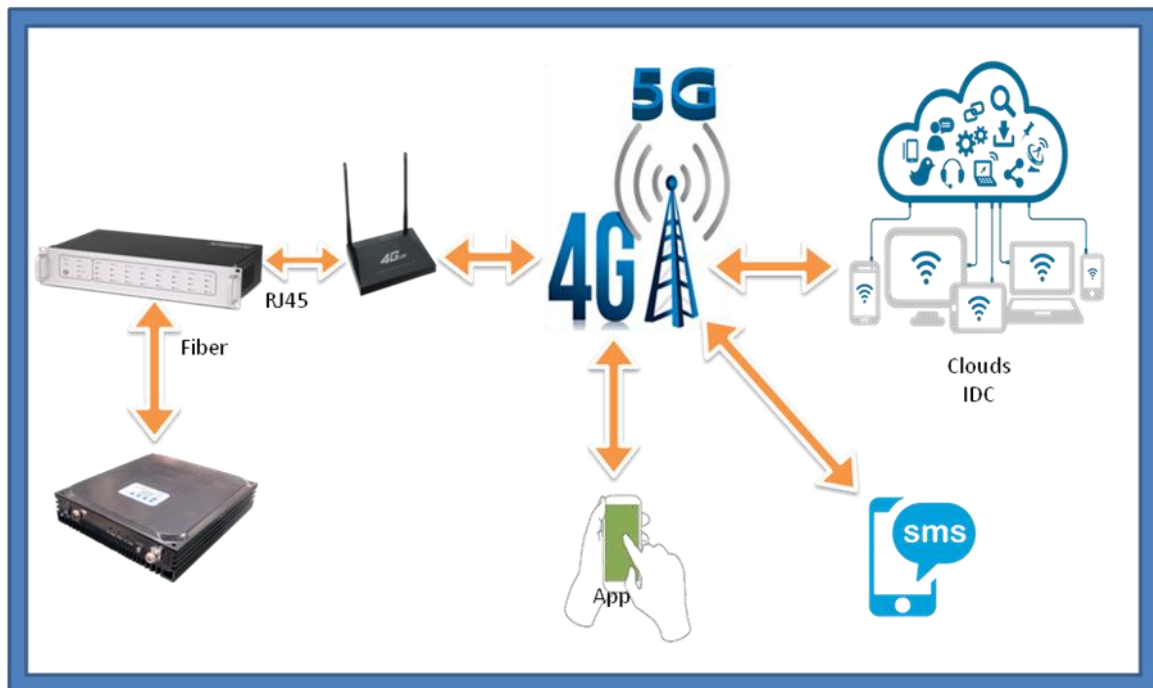
- ✧ Multi_standards/Multi_operators
- ✧ Adopting WDM module to realize long-distance transmission
- ✧ Stable and Improved Signal Transmission Quality
- ✧ Smart Mode (Automatically adjust the gain)
- ✧ NMS (Network Management System)



Specifications

Item		Specifications
System		LTE1800+LTE/UMTS2100+5G NR 3500(TDD)
Working Frequency	Uplink	1710~1785 / 1920~1980 / 3300~23570 MHz
	Downlink	1805~1880 / 2110~2170 / 3300~3570 MHz
Working Bandwidth		75 / 60 / 270 MHz
MU Extensible Support the RU Quantity		16
System Gain(MU)		45±3dB Per Band
Maximum RF Output Power(UL)		30±2dBm Per Band
Maximum RF Input Power		≤0dBm
MGC Range		0~31dB@Step of 1 dB
In-band flatness		≤6dB
VSWR		≤ 1.5
System Delay		≤1.5μs
Noise Figure@1RU Connection		≤8dB
EVM		≤8%
Optical Output Power		-6±3dBm@1550nm
Fiber Type/Optical Connector Type		Single mode / 16xLC/UPC
Optical Wavelength		1550nm
Optical Receiver Sensitivity		≥-15dBm
Smart Mode		Automatically adjust the gain in both links according to the specific environment
RF Connector Type		1xN-Female (1800/2100/3500MHz)
I/O Impedance		50Ω
Ingress Protection		Indoor (IP40)
Operating Temperature		-10°C~50°C
Relative Humidity		≤85%
Dimensions		485x350x90mm
Weight		≤8Kg
Power Supply		AC100V ~240V, 50/60Hz; ≤50W
Local Monitoring Interface		USB/RJ45 and Wi-Fi Hotspot
Remote Monitoring		IP Connectivity via 4G Wireless Modem(Cloud Network Management System)
MTBF		≥50000hours
Mounting Type		Rack 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, ...

