

Air Interface Fiber Optic Repeater



3500 MHz TDD

Fiber Link-104 (Master unit)

Tone Spread
Solutions for Wireless Signal

5G NR (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 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.
- Built-in 5G Dynamic TDD Sync Detection Module, automatic completion of 5G wireless network cell search and wireless signaling processing.
- 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

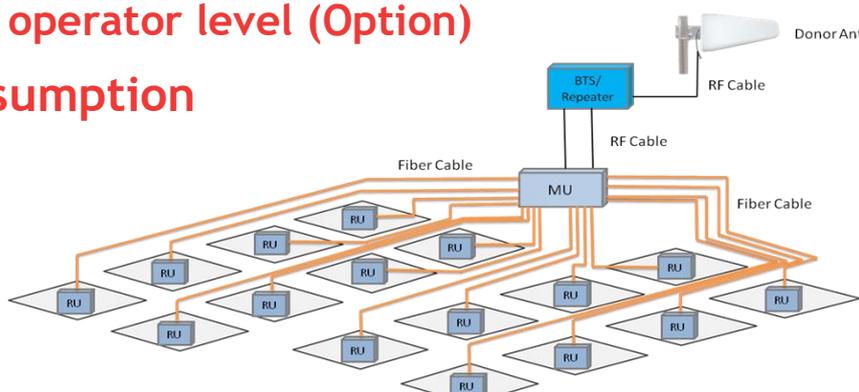
Multi_standards/Multi_operators

Remote control

Digital features:

Balancing operator level (Option)

Low consumption



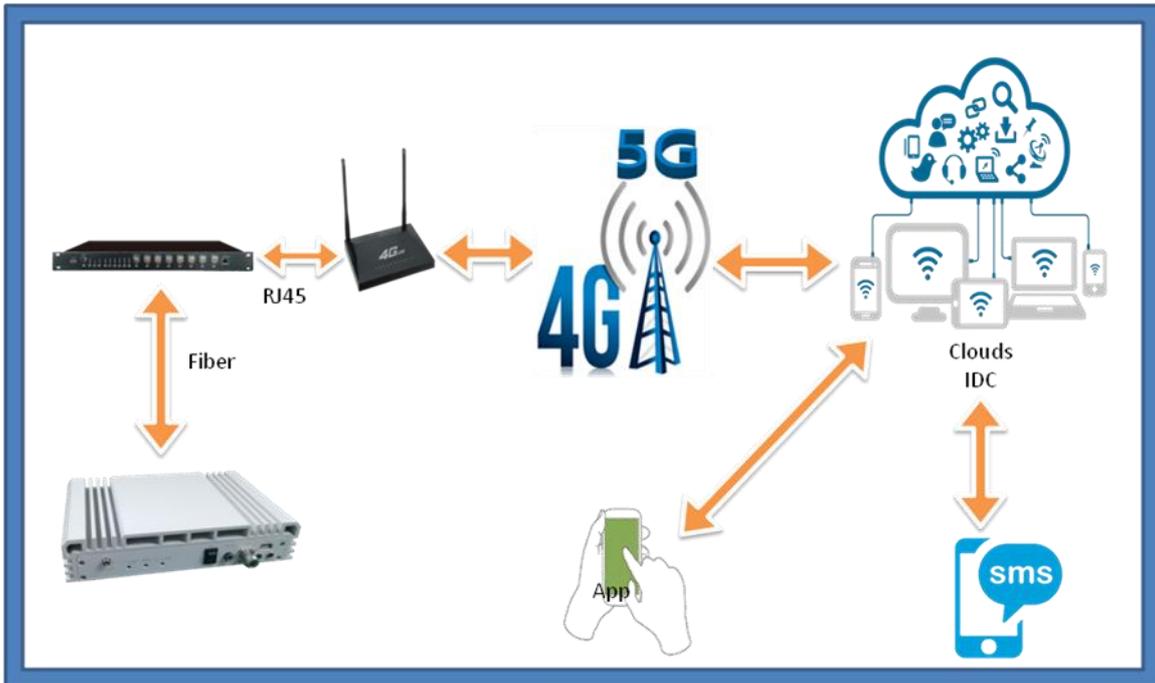
Specifications

Technical characteristics

Item	Specifications	
System	5G NR TDD-3500	
Working Frequency	Uplink (MHz)	3300~3570
	Downlink (MHz)	3300~3570
Working Bandwidth	270MHz	
Transmission Distance	≤ 2km	
Maximum Input Power(Non-Destructive)	10dBm	
MU Extensible Support the RU Quantity	8	
Maximum Gain(Cable Access)	5±3dB per Band	
Maximum RF Output Power	-10±2dBm per Band(UL)	
Manual Adjustable Attenuator	0~30dB/Step 1dB	
Noise Figure@1RU Connection	≤6dB	
Optical Output Power	-6±3dBm @ 1550nm	
Fiber Type/Number	Single mode	
Optical Receiver Sensitivity	≥ -12dBm	
Optical Connector Type	8XLC/UPC	
RF Connector Type	2XN-Female	
I/O Impedance	50Ω	
Ingress Protection	IP30	
Operating Temperature	-10°C~50°C	
Relative Humidity	≤95%	
Dimensions	485x350x88mm(TBD)	
Weight	≤15Kg	
Power Supply	AC100V ~240V, 50/60Hz <30W	
Local Control	Via USB Interface	
Remote Mode	IP Connectivity via RJ45 Port(Cloud Network Management System)	
Mounting Type	Rack Mounting	

※The configuration of the 5G NR TDD synchronous slots for all operators must be the same.

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, ...

