

TETRA Fiber Optic Repeater



Tone Spread
Solutions for Wireless Signal

410-425 MHz

TETRA-400 (Remote unit)

TETRA-400

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 signal via direct coupler closed to BTS, 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

- Adopting WDM module to realize long-distance transmission.
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable.
- Stable and improved signal transmission quality.
- One MU can support up to 4 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

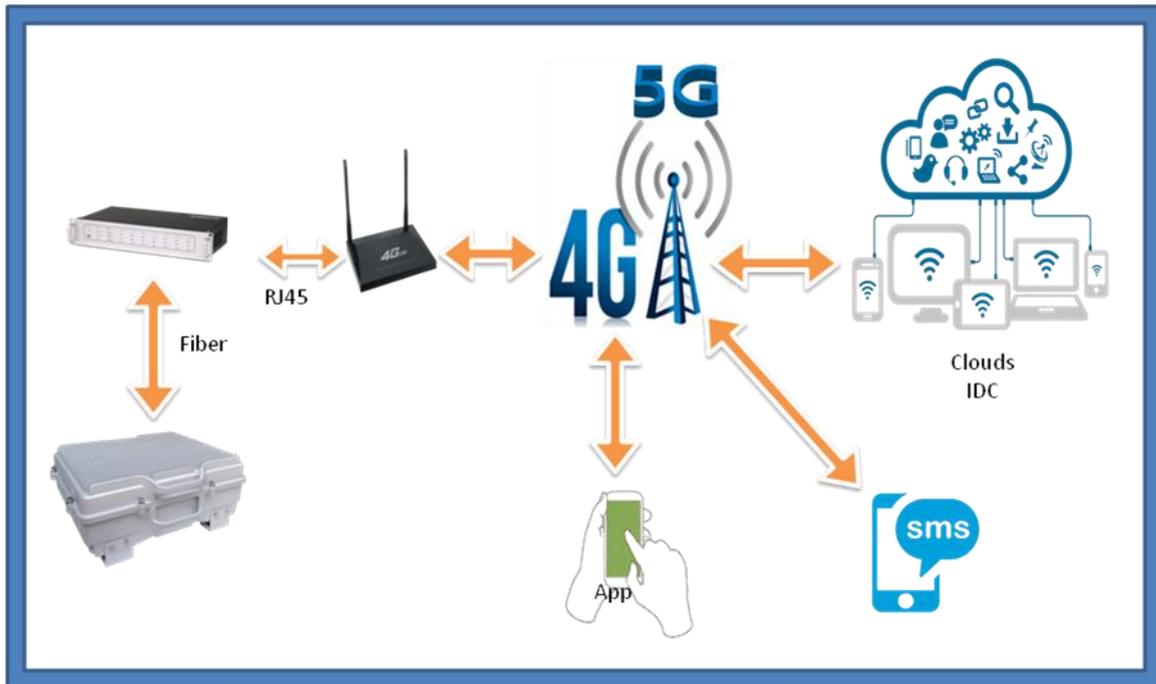


Specifications

Technical characteristics

Item	Specifications	
System	TETRA400	
Working Frequency	Uplink (MHz)	410~415
	Downlink (MHz)	420~425
Working Bandwidth	5MHz	
Frequency Stability(+/-0.01ppm)	≤0.01ppm	
Gain Flatness	≤±3dB	
AGC/ALC Range	≥10dB	
Third-Order Inter-Modulation	≤ -45dBc	
Maximum Gain(Cable Access)	45dB	
Maximum RF Output Power	37dBm(Hot Swap Between 2 PAs)	
Group (System) Delay	≤5us	
Noise Figure@Max. Gain (DL/UL)	≤5dB	
Spurious Emission	9kHz~1GHz: ≤ -36dBm 1GHz~12.75GHz: ≤ -30dBm	
Optical Output Power	0±3dBm@1310nm	
Fiber Type/Number	Single mode	
Optical Receiver Sensitivity	≥ -15dBm	
Optical Connector Type	1xLU/UPC	
RF Connector Type	1xN-Female	
I/O Impedance	50Ω	
Ingress Protection	Indoor or Outdoor(IP65)	
Operating Temperature	-25°C~55°C	
Relative Humidity	≤95%	
Dimensions	447x357x203mm	
Weight	≤20Kg	
Power Supply	AC100V ~240V, 50/60Hz(Hot Swap Between 2 PSUs)	
Power Consumption	≤ 120W	
Local Control	Via USB Interface and Wi-Fi Hotspot	
Remote Mode	Through MU via Fiber Optical Cable	
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, ...

