TETRA Fiber Optic Repeater

410-425 MHz **TETRA-400 (Master unit)**

Tone Spread
Solutions for Wireless Signal

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

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Specifications

Technical characteristics

Item		Specifications
System		TETRA400
Working Frequency	Uplink (MHz)	410~415
	Downlink (MHz)	420~425
Working Bandwidth		5MHz
Transmission Distance		≤ 5km
Maximum Input Power(Non-Destructive)		10dBm
MU Extensible Support the RU Quantity		4
Maximum Gain(Cable Access)		0±3dB
Maximum RF Output Power		-10±2dBm per Band(UL)
System Delay		≤ 5μSec
Manual Adjustable Attenuator		0~15dB/Step 1dB
Noise Figure@1RU Connection		≤5dB
Spurious Emission		9kHz~1GHz: ≤ -36dBm 1GHz~12.75GHz: ≤ -30dBm
Optical Output Power		-3±3dBm@1550nm
Fiber Type/Number		Single mode
Optical Receiver Sensitivity		≥ -15dBm
Optical Connector Type		4xFC/APC
RF Connector Type		2xN-Female(One Tx Port and One Rx Port)
I/O Impedance		50Ω
VSWR		≤1.5
Ingress Protection		IP30
Operating Temperature		-20℃~+50℃
Relative Humidity		≤95%
Dimensions		485x350x90mm
Weight		≤8Kg
Power Supply		AC100V ~240V, 50/60Hz,(Hot Swap Between 2 PSUs)
Power Consumption		≤50W
Local Control		Via USB Interface and Wi-Fi Hotspot
Remote Mode		IP Connectivity via RJ45 Port(Cloud Network Management System)
Mounting Type		Rack Mounting

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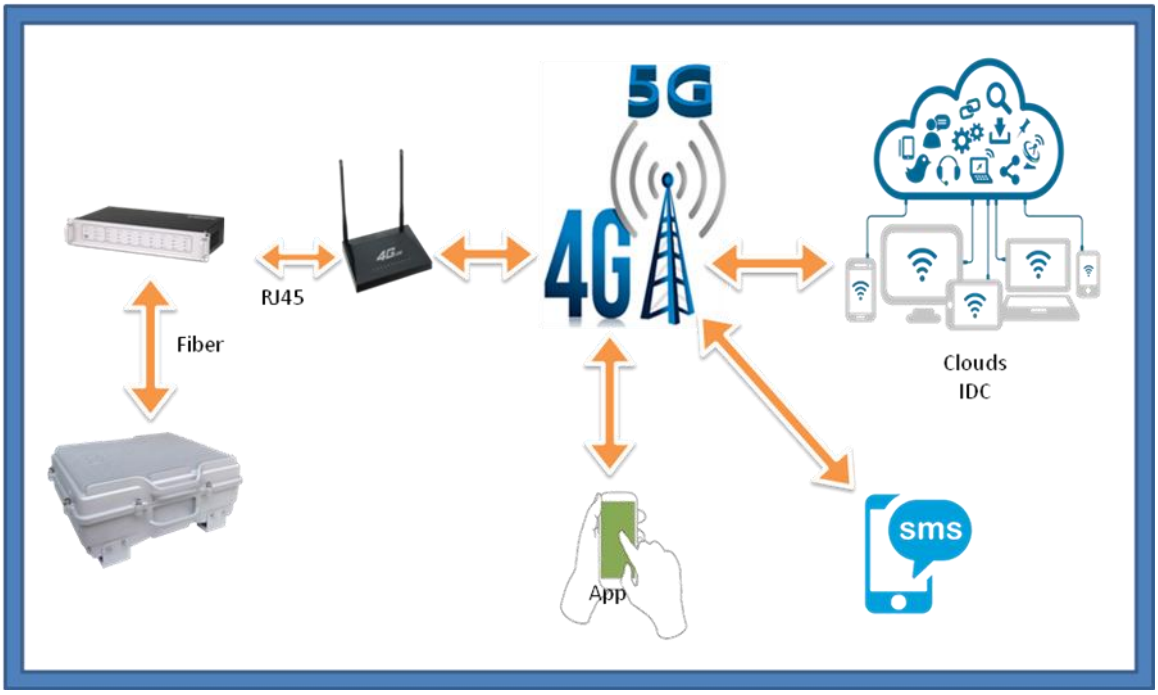
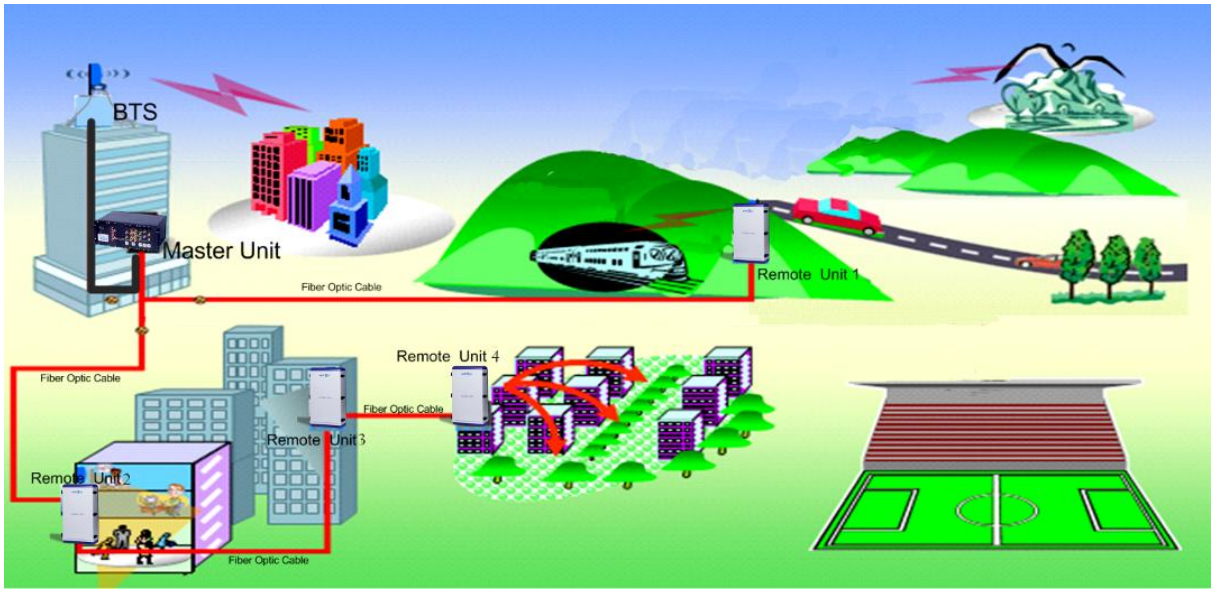
Network Management System (NMS)



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, …



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