

# FM Digital Fiber Optic Repeater

87.5-108 MHz

JTD7E00G8/JTD7D43A  
(Wireless Access)



The FM digital Fiber Optic Repeater (FOR) is designed to solve problems of weak FM radio signal in the place that is far away from the FM radio station and has fiber optic cable network underground.

The system consists of two parts: Master Unit (MU) and Remote Unit (RU). The MU captures the FM radio station signal via donor antenna, the received signal is amplified then digitally processed and converted into an optical signal, and then transmitted to RU via fiber optic cable. The RU will reconvert the optic signal into RF FM radio signal and provide the FM radio signal to the areas where network coverage is inadequate.

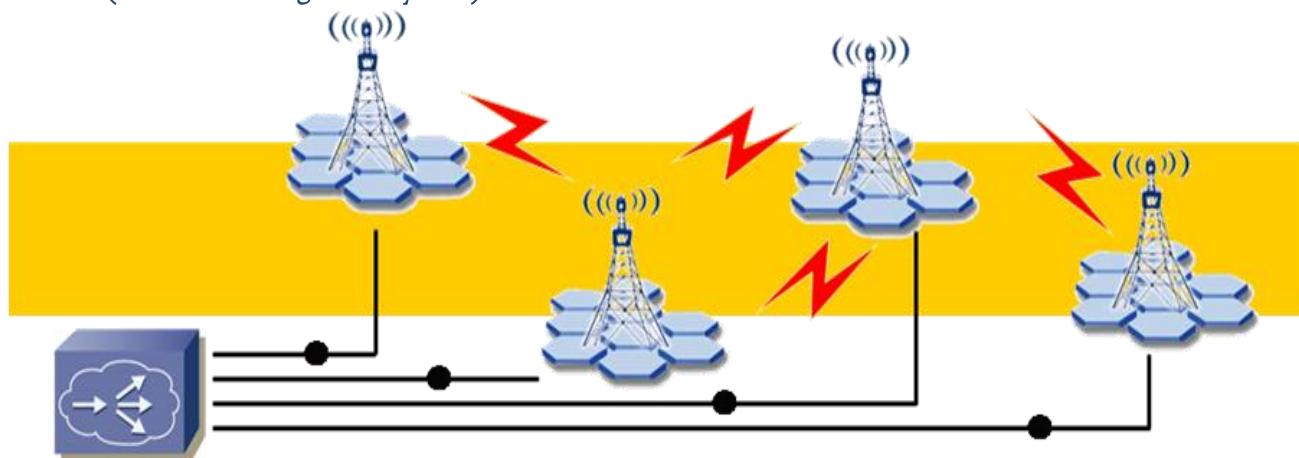


## Key features

- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corrosion
- Adopting WDM and A/D module to realize long-distance digital signal transmission
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Stable and improved signal transmission quality, Noise suppression function and Automatic system delay calibration function
- One MU can support up to 4 links, each link can support more RUs to maximize utilization of fiber optic cable, MU and RUs support star and daisy chain topologies
- USB 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

- Supports 8 channels
- Adopting WDM module to realize long-distance transmission
- Stable and Improved Signal Transmission Quality
- NMS (Network Management System)



# Specifications

Items	Master Unit		Remote Unit		
	Specifications				
Frequency Range	Uplink	---			
	Downlink		87.5~108MHz		
Maximum Input Power (Non-Destructive)			-10dBm		
Transmission Distance			≤ 20km		
Networking Mode	Star, Daisy-Chain and Hybrid Networking				
Composite Output Power	--		43±2dBm		
System Gain	90±3dB(MU+RU)				
Gain Adjustment Range	I~3I dB @ step of I dB				
AGC Range	≥20dB				
No. of Channels	8				
VSWR	≤ 1.8				
Noise Figure@IRU Connection	≤ 6dB				
Spurious Emission	≤ -36dBm				
Third-Order Inter-Modulation	≤ -36dBc				
System Delay	≤ 35μSec				
I/O Impedance	50Ω				
Connector	RF Connector	IxN-Female	IxN-Female		
	Optic Connector	4xFC/APC	2xLC/UPC		
Optical Port Speed(Optional)	1.25Gb/s, 2.5Gb/s, 3.02Gb/s, 6.04Gb/s				
Fiber Optical Type	Single Mode				
Optical Output Power	-9dBm~0 dBm				
Optical Receiver Sensitivity	≥-20dBm				
Temperature Range	Operation: -25°C ~ + 55°C				
Relative Humidity Range	≤ 85% / ≤ 95% (Non Condensing)				
Power Supply	AC110~220V, 50/60Hz				
Power Consumption	≤ 50W	≤ 180W			
Application	Indoor (IP30)	Indoor or Outdoor(IP65)			
Mounting	Rack Mounting	Wall or Pole Mounting			
Dimensions	485×350×90mm	447×357×171mm			
Weight	≤ 6kg	≤ 16kg			
Local Control	Via USB Interface or Wi-Fi Hotspot				
Remote Mode(Optional)	Cloud Network Management System Via 4G Wireless Modem				
Interstitial and Broadcast Switching Interface	RJ45				
Manual Switch to Interstitial Function	Key Switch				
Input Power of Interstitial	-20dBm				
Output Power of Monitor	0dBm				

All specifications are subject to change without notice.

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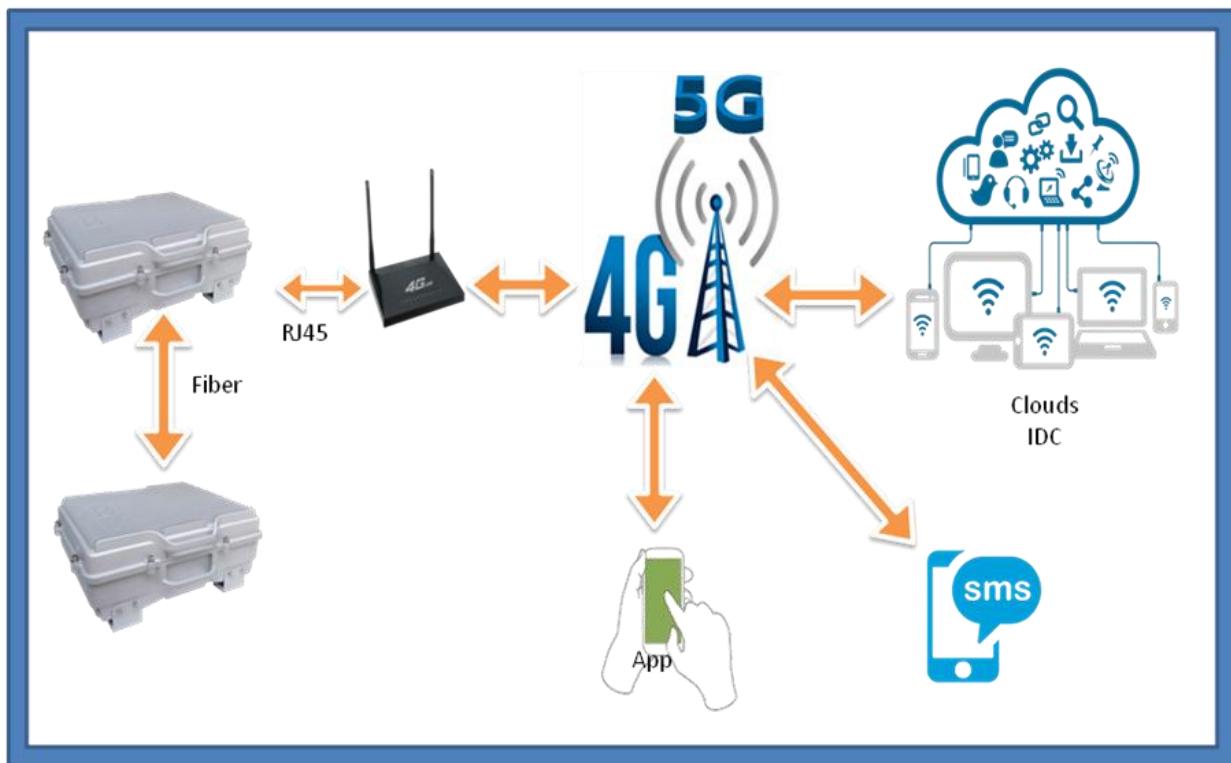
Connector of Interstitial

N-Female

Connector of Monitor

N-Female

## 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, ...

