

FM Fiber Optic Repeater

Model: TS7C00A-2/TS7B43A-2

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

The system consists of two parts: Donor Unit and Remote Unit. The Donor unit captures the BS signal via direct coupler closed to BS, then converts it into optic signal and transmits the amplified signal to the Remote Unit via fiber optic cable. The Remote unit 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 BS via the opposite direction.



Features

- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corroding
- Omni-directional antenna can be adopted to expand more coverage
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- Adopting WDM module to realize long-distance transmission
- Stable and improved signal transmission quality
- One Donor Unit can support up to 4 Remote Units to maximize utilization of fiber optic cable
- USB port provides a link to a notebook for local supervision or via RJ45 port to communicate with the NMS (Network Management System) that can remotely supervise Repeater's working status and download operational parameters to the Repeater

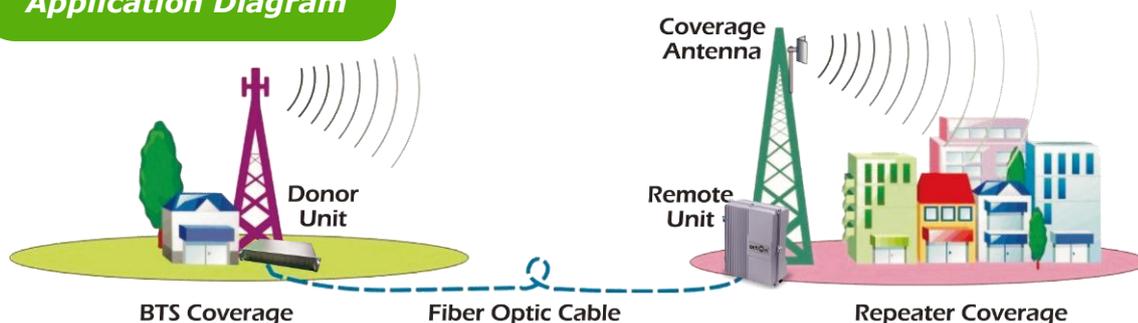
Applications

To expand signal coverage or fill signal blind area where FM 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, ...

Application Diagram



Technical Specifications

Items	Donor Unit	Remote Unit	
	Specifications		
Working Frequency	88~108 MHz		
Transmission Distance	≤ 20Km		
Max. Input Level(Non-destructive)	+10dBm		
Output Power(RF)	--	43±2dBm(Downlink)	
Maximum Gain(Wireless Access)	0dB	100±3dB	
ALC Range	Output increment will not exceed 2dB when input increase 20dB		
Gain Adjustment Range(By Software)	≥30 dB,1dB Step		
Voltage Standing Wave Ratio	≤ 1.5		
Noise Figure	≤ 5dB		
System Delay	≤ 18μSec		
In-Band Ripple	≤ 3dB		
Spurious Emission	9kHz~1GHz:≤ -36dBm		
	1GHz~12.75GHz:≤ -30dBm		
Third-order Inter-Modulation	≤ -45dBc		
Out-band Rejection	±100KHz offset	+0.5dB	
	±200KHz offset	≤ -30dB	
	±400KHz offset	≤ -56dB	
	±600KHz offset	≤ -70dB	
	±1200KHz offset	≤ -73dB	
I/O Impedance	50Ω		
Fiber Optic Light Source	Laser unit (wavelength: 1310nm / 1550nm)		
Optical Output Power	≥ 0dBm (1310nm) / ≥ 3dBm (1550nm)		
Optical Receiver Sensitivity	≤ -25dBm		
Connector	RF Connector	1x N Female	1X N Female
	Optical Connector	4X FC/APC	1X LC/UPC
Temperature Range	Operation: - 20°C ~ + 50°C / Storage: -30°C ~ +60°C		



Relative Humidity Range ≤ 95% (non condensing)

Power Supply	AC 110~220V,50/60Hz	
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Dimensions	438.6mm * 250mm * 88mm	428mm * 328mm * 175mm
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Weight	6kg	15kg
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Local Control USB+PC/WiFi Hotspot

Remote Control	LAN(RJ45)
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NMS Monitoring Function	Real-time alarm for door status, temperature, power supply, fiber O/E Alarm, etc; Remote control such as turn on/off, increasing/decreasing output power, etc; Real-time status UL/DL gain, all status of repeater etc.
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