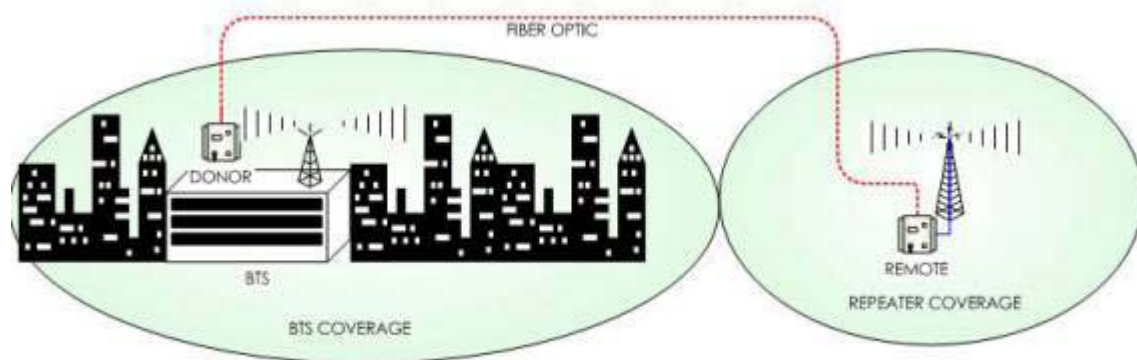


## CDMA 800MHz TM-AR-800M Series Frequency Shifting Repeater

### Description

Repeater is to provide radio coverage in a flexible and efficient way. Among the things with reference to the design it can be difficult to spread coverage all the way into side isles, narrow hallways, and several statuses, combined with different building materials. Moreover, if there are many people constantly moving, for instance in shopping malls, and the demand for coverage varies from one spot to another as well as during the day and during the week, satisfying the growing demand for capacity becomes a challenge. The same status can be occurred in some villa group, Subway, Speedway, etc. So the repeater can gives you the optimal solution.

Application : In-building, Subway stations, Basement, Tunnels, Shopping malls, Speedway, Underground parking etc.



FIBER OPTIC REPEATER SYSTEM

Fiber optic repeater system consists of two; Donor and Remote. Donor is installed in BTS and Remote is installed in remote cell site. Donor captures RF signal and convert it into optic signal and transmit it to Remote via fiber optic cable. Remote reconverts the optic signal into RF signal and amplifies it by HPA. Fiber optic repeater is usually used outdoor since its output power is high.

In CDMA/TDMA/GSM system, linearity of HPA, regular gain and raffle are highly required. This Fiber optic is used the most frequently because of its performance and reliability in spite of higher cost than others.



Microwave repeater system consists of two repeaters; Donor and Remote. Donor which is located within BTS cell site converts RF signal from the BTS and transmits it to Remote. This system is idealistic for the areas which don't allow fiber optic or coaxial cable such as island or near highway. It costs a little higher than other systems but it is worth it because it has wide range of installation location.

## CDMA 800MHz TM-AR-800M Series Frequency Shifting Repeater

### Features

- Avoid co-frequency interference, omni directional coverage is possible
- Stable performance, sound coverage effect, easy to expand and maintain
- Improved system noise figure and sensitivity, provides wider coverage
- High gain linear power amplifier technique, excellent intermodulation and spurious emissions
- High out band rejection, with reliable performance
- Lightning proof and high-voltage-proof
- Compact design, water-resistant, weather-proof and antisepticise
- Applicable to the user of the co-frequency repeater whose isolation can not meet its requirement



### Specification and Technical Information

Item Number		TM-AR-800M-D	TM-AR-800M-R10	TM-AR-800M-R20
		Donor	Remote	
Freq Range	Uplink Input	825-835MHz		
	Uplink Output	825-835MHz		
	Downlink Input	870-880MHz		
	Downlink Output	870-880MHz		
3dB Band Width		Min 1.25MHz		
Ripple in band		Max +/- 1.5dB		
Gain	Uplink	50-85dB	Min 85dB	
	Downlink	50-85dB	Min 90dB	
AGC control range		Min 40dB (+/- 2dB)		
Gain control range		31dB (1dB Step)		
Output Power	900MHz Uplink	Min -10 - 30dBm	-	-
	900MHz Downlink	-	Min 40dBm	Min 43dBm
Intermodulation in band		Max -15dBm / 30kHz		
Spurious Emissions	9kHz-1Ghz	Max -36dBm		
	1GHz-12.75GHz	Max -30dBm		
Out band Rejection	Uplink	Min 1.98MHz, Max -54dBc/30kHz		
	Downlink	Min 1.98MHz, Max -60dBc/30kHz		
Wave form quality	Uplink	p > 0.960		
	Downlink	Pp > 0.950		
Input/Output Impedance		50 ohm		
Noise Figure		Max 5dB		
VSWR		Max 1.4		
Group time delay		Max 10us		
Frequency Stable		Max 0.05ppm		
Environmental Temperature		-30 - +55 degree C		
Relative Humidity		Max 95%		
Power Type		AC220V or DC -48V (Coupling)	AC220V / 45-55Hz	
Power Consumption		150W (Coupling), 200w (Wireless)	150w	200w
RF Connector		N-F		
Dimension		720x450x270		