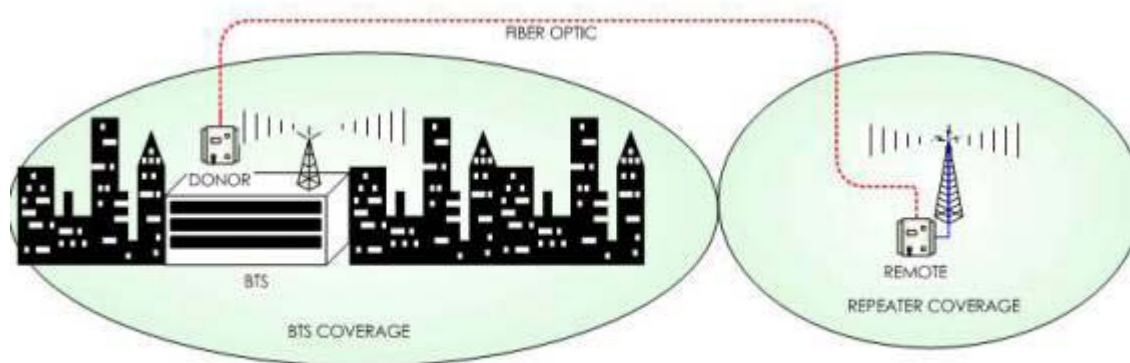


GSM 900MHz TM-AR-900F Series Optical Fiber Repeater

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.

GSM 900MHz TM-AR-900F Series Optical Fiber Repeater

Features

- Maximum transmission distance 20Km by optical fiber cable.
- Avoid co-frequency interference, omni directional coverage is possible.
- Unlimited to the geography condition, especially applicable to remote towns and complex mountain regions.
- Stable performance, sound coverage effect, easy to expand and maintain
- Improved system noise figure and sensitivity, provides wider coverage
- High out band rejection, excellent intermodulation and spurious emissions
- High gain linear power amplifier technique, with reliable performance
- Lightning proof and high-voltage-proof
- Compact design, water-resistant, weather-proof and antiseptic



Specification and Technical Information

Item Number		TM-AR-900F/D	TM-AR-900F/R05	TM-AR-900F/R10	TM-AR-900F/R20
Freq Range	Uplink	890-915MHz			
	Downlink	935-960MHz			
Optical Specification	Wave Length	1.31um; 1.55um			
	Output Power	Min 0dBm			
	Fiber Type	G652			
	Fiber Connector	FC/PC			
	Sensitivity	Max -13dBm (C/N=20dB)			
	Time Delay	Max 5us/km			
Gain	Ripple in band	-	Max +/- 1.5dB		
	Gain	-	Uplink: Min 60dB, Downlink: Min 60dB		
	AGC ctrl range	-	Min 20dB(+/- 2dB)		
	Gain ctrl range	-	31dB(1dB step)		
Output Power	Uplink	Min 30dBm(wireless) Min -10dBm(coupling)	-		
	Downlink	-	Min 37dBm	Min 40dBm	Min 43dBm
IMD3		Max-45dBc@30dBm(wireless) Max-45dBc@30dBm(wireless)	Max -45dBc@37dBm	Max -45dBc@40dBm	Max -45dBc@43dBm
Spurious Emissions	9kHz-1Ghz	Max 36dBm			
	1GHZ-12.75GHZ	Max 30dBm			
Out of band Gain	Fc-400kHz	Max 50dB			
	Fc-600kHz	Max 40dB			
	Fc-1MHz	Max 35dB			
	Fc-5MHz	Max 25dB			
Input/Output Impedance		50 ohm			
Noise Figure		Max 5dB			
VSWR		Max 1.4			
Group time delay		Max 5us			
Environmental Temperature		-30 - 55 degree C			
Relative Humidity		Max 95%			
Power Type		AC220V or DC-48V (Coupling)		AC220V / 45-55Hz	
Power Consumption		30w	90w	100w	120w
RF Connector		N-F			
Dimension		450x300x60		620x400x200	