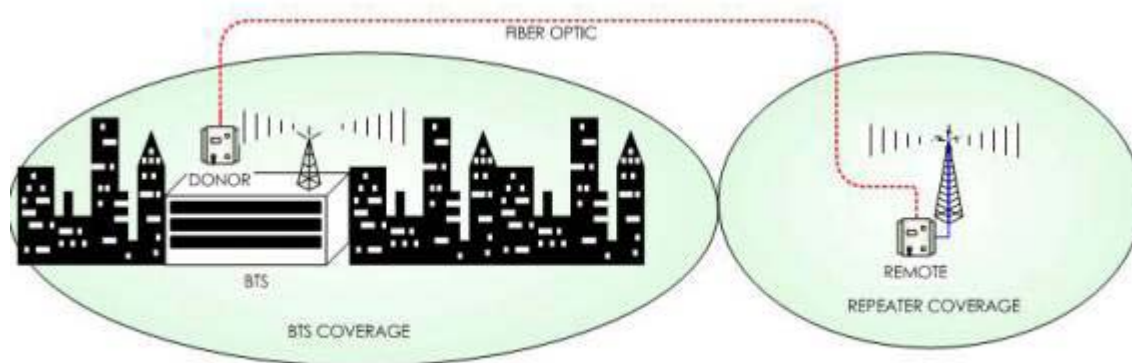


GSM 900MHz TM-AR-900M Series Frequency Shifting Repeater

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.

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Features

- Adopt microwave transmission technology to solve remote area coverage.
- 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 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 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-900M-D | TM-AR-900M-R10 | TM-AR-900M-R20 |
|---------------------------|-----------------|----------------------------------|------------------------------|------------------|
| | | Donor | Remote | |
| Freq Range | Uplink Input | 1455-1460MHz or 1710-1785MHz | 890-915MHz | |
| | Uplink Output | 890-915MHz | 1455-1460MHz or 1710-1785MHz | |
| | Downlink Input | 935-960MHz | 1524-1549MHz or 1805-1880MHz | |
| | Downlink Output | 1524-1549MHz or 1805-1880MHz | 935-960MHz | |
| 3dB Band Width | | Min 25MHz | | |
| Ripple in band | | Max +/- 1.5dB | | |
| Gain | Uplink | 50-85dB | 90dB | |
| | Downlink | 50-85dB | 95dB | |
| AGC control range | | Min 40dB | | |
| Gain control range | | 31dB(1dB Step) | | |
| Output Power | 900MHz Uplink | Min 0-30dBm | - | - |
| | 900MHz Downlink | - | Min 40dBm | Min 43dBm |
| IMD3 | Uplink | Max -45dBc@30dBm | | |
| | Downlink | Max -45dBc@43dBm | Max -45dBc@40dBm | Max -45dBc@37dBm |
| 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 | | 50Ω | | |
| 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 | | 100W (Coupling), 150w (Wireless) | 140w | 150w |
| RF Connector | | N-F | | |
| Dimension | | 720x450x270 | | |