CODAN
RADIO COMMUNICATIONS

REPEATER SYSTEM

FEATURES AT A GLANCE

- 8, 30, 50 & 100 W Repeater solutions
- Static infrastructure or portable, stealth solutions
- Digital platform
  - Analogue Mode
  - P25 upgradeable
  - Mixed Mode (Analogue/P25)
- RF/IP trunking solutions
- Low power consumption remote area deployable system

APPLICATION

For applications where the portable/mobile radio is beyond the range of the office or another mobile, a Repeater System allows them to communicate by extending coverage. Repeaters can be used to overcome geographical features that obstruct radio communications (hills or buildings) or to communicate over greater distances.

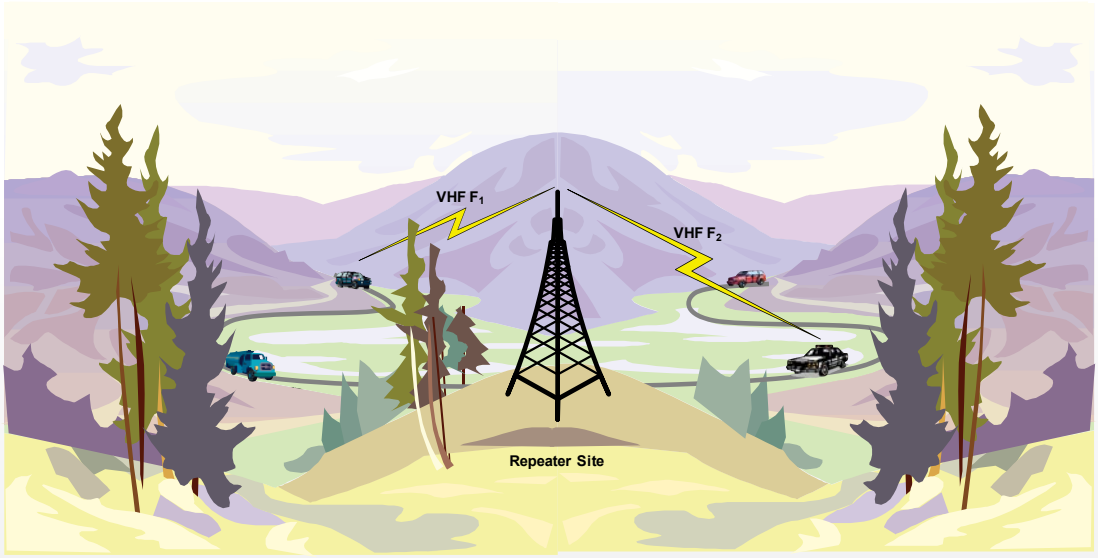
THE PROBLEM

There is no radio coverage from the mobile to the office or from mobile to mobile. Distances or geographical features (hills or buildings) obstruct radio communications. Extended coverage is needed to enable radio users to communicate.

THE SOLUTION

A Repeater System is required. Repeaters are used to overcome geographical features that obstruct radio communications or to extend coverage to communicate over greater distances. This allows the office or another mobile to communicate with each other.

A Repeater is a combination of radios connected in order to pass on or “repeat” incoming signals. A Single Repeater System requires two separate frequencies for the receiver and transmitter and is used wherever greater coverage in a local area is required. The Single Repeater, (shown below) is usually located on a mountain top or tower, re-transmits any signal received allowing for greater range over ground or between mobile radios that cannot communicate directly due to obstructions.



REPEATER SYSTEM

THE SOLUTION

CODAN™ repeaters are available in analog or P25 digital configurations. In Analog Mode, the Repeater can be configured for either wideband or narrowband operation. P25 Repeaters can operate in Analog, P25 Digital or Mixed Mode. In P25 Digital Mode, the Repeater will pass all clear and secure (encrypted) P25 digital information.

CODAN CUSTOMER

Examples of customers that routinely use Repeaters include:

- **Forestry Agencies** – Logging firms, National Parks and Forest Fire fighting crews require communication over large areas between field crews and dispatch centers. Repeaters on hilltops enable these extended area communications.
- **Highways** – State Highway Police and highway maintenance crews communicate constantly through Repeaters to provide coverage along a highway.
- **Utilities** – Similarly utilities (hydro, oil & gas) use Repeaters to provide coverage over a large facility such as a dam or refinery as well as along a transmission line or pipeline.
- **Police** – Lastly, police agencies have a Repeater Network on building rooftops to ensure constant communications wherever an officer may be with the dispatch center and fellow officers.

THE BENEFITS

A Repeater enables communications between mobiles/portables that cannot communicate directly together due to distance or obstructions. Modular Repeaters can be configured into a variety of different systems in a standard 19" subrack and facilitate hot swappable replacement of modules during remote site repair. Such systems offer robust construction, low current consumption making them suitable for remote solar powered sites and offer extreme temperature tolerance (–30° to +60°C) enabling them to be deployed in some of the world's harshest environments. Repeaters are available for any frequency band including Lowband, VHF, UHF, 700 MHz and 800 MHz.

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12-20276-EN Issue 2 5/2014

Australia: +61 8 8305 0528 ▪ **US:** +1 585 419 9970 ▪ **UK:** +44 1252 717 272
Canada: +1 250 382 8268 ▪ **Dubai:** +971 44 53 72 01 ▪ LMRsales@codanradio.com

www.codanradio.com