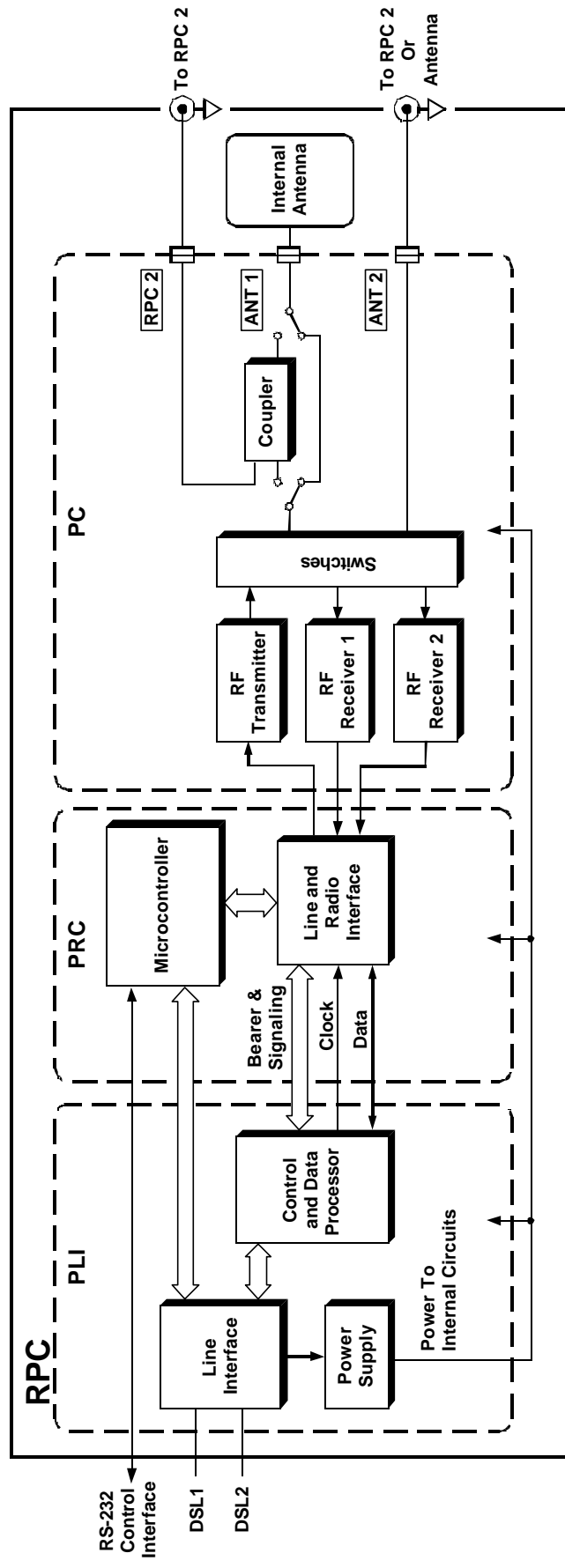


Antenna description

The RPC is a complete radio port subsystem, which contains the RPU (Radio port unit) hardware, an internal 60° sectorized antenna and an antenna coupler, that enables connection to another RPC or to an external antenna, for space diversity.

The coupler is used only in the dual-RPC base station configuration, in which the RPC2 connectors of two RPC units heading in the same direction are cross-connected using two coaxial cables. Space diversity is obtained for each RPC by coupling the internal antenna of the other RPC. The dual RPC configuration supports up to 16 simultaneous calls.

In the single RPC base station, and also when using special external antennas configurations, the coupler is bypassed.



In addition, the RPC can be used with external antennas:

- An additional (standard) RPU antenna can be connected to the second connector of the RPC.
- For special applications, e.g., for omni-directional coverage or when special antennas are needed, or to support antenna diversity when transmitting on a 3.5 GHz RPC, two external antennas shall be used. In this case, the internal antenna of the RPC can be disconnected in the field and the internal connector can be directly connected to one of the external RF connectors.

Single RPC Radio Base Station with Space Diversity

A single radio base station with space diversity comprises an RPC and a sectorized antenna. A single cable connects the two units. Both the internal and external antennas are connected via the antenna coupler in the RPC.

Figure 0-1 shows a typical RPC radio station. This configuration is used for the installation of a single radio base station, and for the single radio base station left at a location that includes an odd number of radio base stations, heading in the same direction.

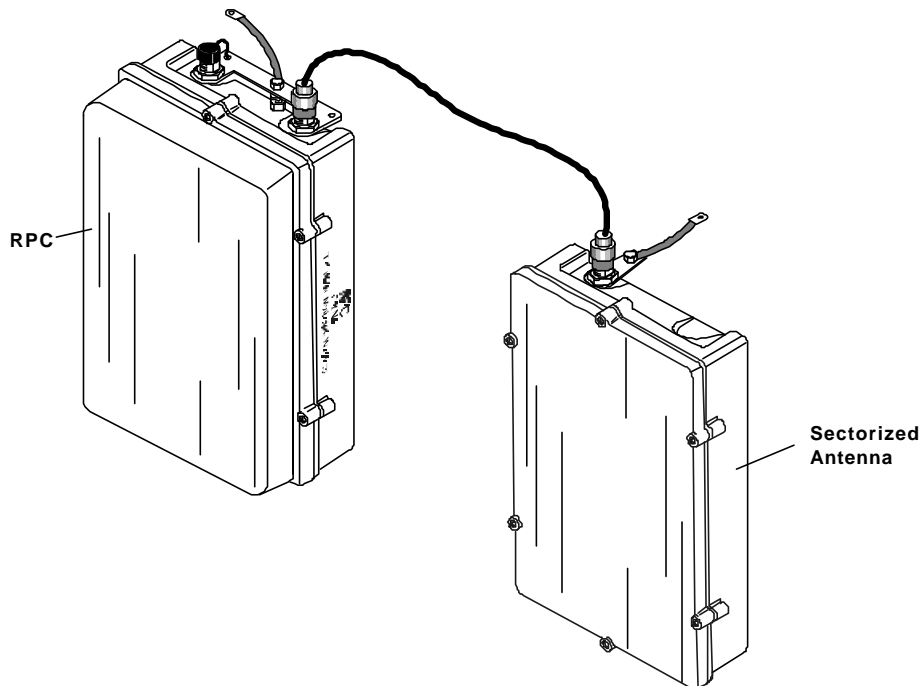


Figure 0-1. Single RPC Radio Station

External Antenna Options

The RPC enables the connection of a pair of external antenna pairs (e.g., omni-directional or wider beam-width antennas), whenever needed. To use this option, it is necessary to change internal connections in the RPC.

External antennas must always be used on a 3.5 GHz RPC, when it is necessary to use antenna diversity in the transmit mode.

Additional information about antennas, their installation and maintenance can be found in User manual.