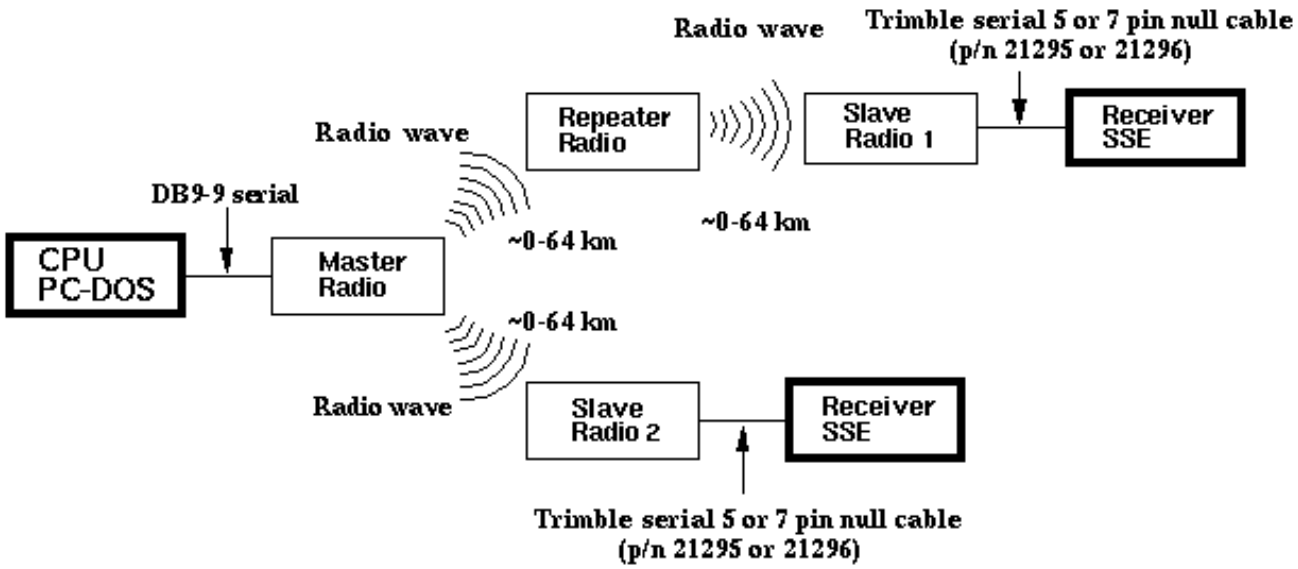
Comms Example: 2 Trimble 4000SSE/SSi GPS Receivers--2 Radio Modems--Radio Modem--CPU

451 Beth Bartel June 19, 2020 Comms and Networking Examples (Diagrams), FreeWave 1395

2 Trimble 4000SSE/SSi GPS Receivers--2 Radio Modems--Radio Modem--CPU



NOTE: The outdated and offensive "master-slave" terminology has been replaced with "Access point (AP) - Station/Endpoint (STA)" in all instances, but will still remain in the configuration software when implemented

Equipment

In use by UNAVCO Boulder Facility -

- **Radio modems:** FreeWave DGR115-H
- **Antennas:** 1ft omni-directional antennas
- **CPU:** PC (DOS)
- **Receiver:** Trimble 4000SSE/SSi

Possible Substitutions (based on site parameters) -

- **Radio modems:** Any radio modem which meets suggested minimum requiremens on our Radio Modems page.
- **Antennas:** Directional (Yagi) Antennas
- **CPU:** UNAVCO, Boulder currently supports UNIX or LINUX operating systems.

NOTE: The use of a repeater and omnidirectional vs. directional antennas depends on the specifics of the site, distances the signals need to travel, topography etc. For more information contact Support (support

unavco.org).

Connections in use by Boulder Facility

- 1=DB9-9 serial
- 2=Radio wave
- 3=Trimble serial 5 or 7 pin null cable (p/n 21295 or 21296)

Equipment Configuration in use by Boulder Facility

Radio modems

- Baud rate 19200 bps
- 8-None-1

- RTS/CTS HW flow control
- packet size max=8 (144 bytes) min=2 (16 bytes)

Radio modem is set to Point to Point Slave/Master Switchable mode and the callbook is set to call all numbers (of the slave transceivers). The remote transceivers are set to Point to Point Slave mode.

- Recommended local radio modem register settings
- Recommended remote radio modem register settings

Receiver

Confirm these settings in the receiver's CONTROL menu.

- **BAUD RATE/FORMAT:** I/O port 1 or 2, 19200 bps, 8-None-1, no HW flow control.
- **REMOTE PROTOCOL:** Data Collector Compatible.

Download Specifications

Download software: Trimble Remote Control version 2.201 (15 MAY 1996) for UNIX. All functions of Remote Control software work. Effective receiver file download speed: 4300 bps. *[**Note:** Download rates will vary depending upon site location, local interference, phone line quality, and cellular service.]*

This product is used to perform remote control of 4000SSE/SSi - RC receivers. The programs are available for HP-UX, DOS, SunOS 4.1.x, and Sun Solaris 2.x. The following summarizes the functions and utilities provided by the Remote control programs. Refer to the Trimble Remote Control documentation for details on these programs.

Function/Utility	Program
Modem link control	rconn, rdisconn
Station/session programming	rstation, rsession
Survey control	rsurvey
Global control	rcontrol
File/download control	rfile
File conversion (r00 to DAT)	runpkr00
Receiver status	rstatus
Receiver reset	rreset

Remote firmware update	rupdate
DAT file naming utility	rdatname