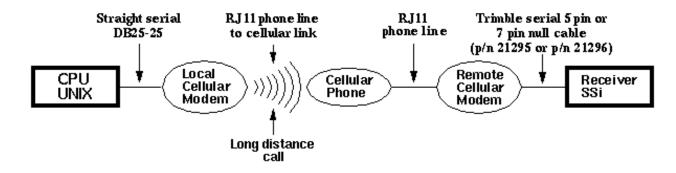
Comms Example: GPS Receiver--Cellular Modem--Cellular Phone--Cellular Modem--CPU

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GPS Receiver--Cellular Modem--Cellular Phone--Cellular Modem--CPU



Equipment

Cellular modem: ZyXel U-1496P

Cellular phone: Motorola SUN 1908AC (no longer in production)

Antenna: Directional Yagi antenna

CPU: UNIX (Sun OS 2.3)

Receiver: Trimble 4000SSi

Possible Substitutions (based on site parameters)

Cellular modem: Any modem which meets the suggested minimum requirements on our <u>Cellular Modem</u> page.

Cellular phone: Since the Motorola SUN 1908AC is no longer supported, we suggest you contact cellular phone companies and describe your needs, or contact the Equipment Services unavco.org).

CPU: UNAVCO currently supports UNIX or LINUX systems.

Connections

1=Straight serial DB25-25

2=RJ11 phone line to cellular link

3=RJ11 phone line

4=Trimble serial 5 pin or 7 pin null cable (p/n 21295 or p/n 21296)

Equipment Configuration

Cellular Modems

Local (UNIX) modem:

V.32 (4800) protocol

4800 bps DTE speed

10 (characters)N1

DSR always on

DTR always assumed on

CTS/RTS HW flow control

v.42 with MNP4

Remote modem: as local, except modem set to pick up after one ring.

Recommended local (at CPU) Zyxel cellular modem register settings:

Current		Settings													
	80 &B1 *B0	E0 &C0 *C0	L7 &D0 *D0	M1 &G0 *E0	N5 &H3 *F0	Q0 &J0 *G0	V1 &K3 *I0	X5 &L0 *L0	&M0 *M0	&N5 *P9	&P0 *Q2	&R1 *S0	&S0	&X0	&Y1
	S00= S05= S10= S15= S20= S25= S30= S35= S40= S45= S50= S55=	008 200 002 009 000 000 034 000 100	S01= S06= S11= S16= S21= S26= S31= S36= S41= S46= S51= S56=	003 070 000 034 000 017 000 000 028 000	S02= S07= S12= S17= S22= S27= S32= S37= S42= S47= S52= S57=	090 000 018 080 155 019 000 064 000	S03= S08= S13= S18= S23= S28= S33= S38= S43= S48= S53= S58=	002 000 009 104 068 255 000 000	S04= S09= S14= S19= S24= S29= S34= S39= S44= S49= S54= S59=	006 002 005 234 000 030 000 000 006					
ОК															

Recommended remote (at receiver) Zyxel cellular modem register settings:

Current		Settings													
	80 &B1 *B0	E0 &C0 *C0	L7 &D0 *D0	M1 &G0 *E0	N5 &H3 *F0	Q0 &J0 *G0	V1 &K3 *I0	X5 &L0 *L0	&M0 *M0	&N5 *P9	&P0 *Q2	&R1 *S0	&S0	&X0	&Y1
	S00= S05= S10= S15= S20= S25= S30= S35= S40= S45= S50= S55=	008 200 002 009 000 000 034 000 100	S01= S06= S11= S16= S21= S26= S31= S36= S41= S46= S51= S56=	003 070 000 034 000 017 000 000 028	S02= S07= S12= S17= S22= S27= S32= S37= S42= S47= S52= S57=	090 000 018 080 155 019 000 064 000	S03= S08= S13= S18= S23= S28= S33= S38= S43= S48= S53= S58=	002 000 009 104 068 255 000 000	S04= S09= S14= S19= S24= S29= S34= S39= S44= S49= S54= S59=	006 002 005 234 000 030 000 000 006					
OK															

Receiver

Confirm these settings in the receiver's CONTROL menu:

BAUD RATE/FORMAT: I/O port 1 or 2, 4800 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					

Online URL:

https://kb.unavco.org/article/comms-example-gps-receiver-cellular-modem-cellular-modem-cellular-modem-cpu-361.html