

CELLULAR COMMUNICATIONS

CDMA, CDPD, GPRS, GSM, IRIDIUM



USERS OF SUTRON DATALOGGERS & SYSTEMS CAN COMBINE SPEECH & DATA MODULES WITH THE CONVENIENCE OF CELLULAR COMMUNICATIONS



Efficient and secure wireless packet data technology that is ideal for un-tethered applications, CDPD is more cost effective than circuit-switched cellular for small volumes of data. It provides instantaneous response for transaction processing because there are no dialing delays. Additionally, built-in encryption maintains the security of the application data over the air.

CELLULAR FEATURES

- User-friendly, flexible solutions for all cellular needs
- Listen to recorded or live data
- Change programming options
- Enable or disable alarms
- Download data to a computer for analysis
- Consists of an RS-232 or RJ-11 cellular transceiver
- Can also be used to place or receive calls with the optional handset (see ordering guide)
- Support for alert and warning level dial out alarms is provided.
- Dual communications options: add a cellular package to a datalogger with LOS, telephone, or GOES telemetry
- Power consumption is kept to a minimum by controlling the on-air time of the cell phone
- Power to the cell phone is only applied when an alarm limit has been exceeded or the user has preprogrammed a dial-in window for supervisory purposes. (Can be powered constantly.)

APPLICATIONS

Embedded TCP/IP stack enables virtually any type of remote device to access the CDPD network.

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| ■ Flood Warning Networks | ■ SCADA |
| ■ Storm Water Runoff | ■ Public Safety |
| ■ Water Quality Monitoring | ■ Dispatch |
| ■ AGRIMET | ■ Field Service |
| ■ RAWS (Remote Automated Weather Stations) | ■ Security |
| ■ Process Control & Monitoring | |

- 19.2 kbps raw data transfer rate
- Full duplex transceiver
- 600 mW transmit power
- Integrated TCP/IP protocol stack
- Proven technology
- Compact size
- Rugged aluminum case
- LEDs show status of CDPD operation
- Mounting brackets
- Application Interfaces
- Standard interfaces include:

AT command serial character streams (uses embedded TCP/IP stack)

Host TCP/IP stack communicates with Raven using SLIP

Windows 95/98/NT Dial-Up Networking communicates with Raven using PPP (Modem configuration file included)

Several protocol conversions (Modbus, Opto22, BSAP) have been implemented to allow hosts to communicate with RTUs over CDPD without modifying the host or remote software.

*Also used as an economical replacement for existing landline, private radio and circuit-switched cellular

CUSTOM APPLICATIONS

Software can be customized to include all or part of your application processing. In some cases, the entire application can reside inside the modem. No additional processor is required.

HELPFUL HINTS

Cellular phones require more power than traditional telemetry. In order to provide a 15 day reserve, we recommend at least a 60Ah battery in conjunction with a 20W solar panel.

Enabling the extended talk time option on the phone is another way to conserve power. This reduces the output power of the transmitter to 0.6W instead of the the normal 3.0W. An optional 6 dB gain antenna is available.

SUTRON