

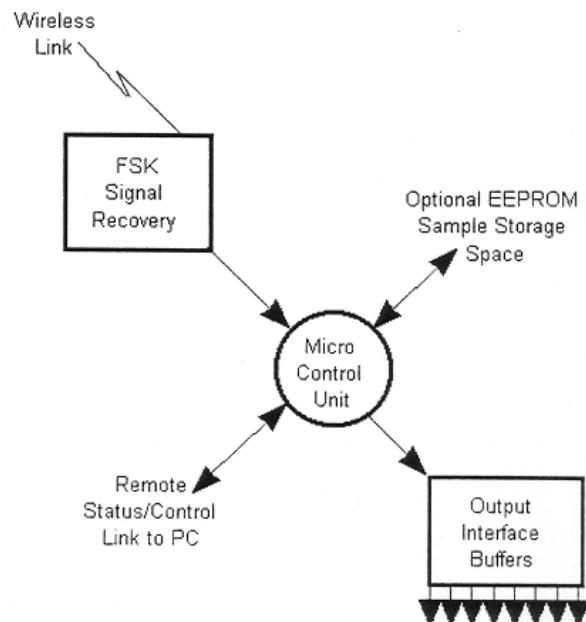
## Data Reception and Storage Overview

The **SR-340 Receive System** also employs advanced technology digital signal processing in order to recover the transmitted bit-stream from the wireless link, synchronize the data for frame detection purposes, and demultiplex the telemetry data samples to the corresponding sensor channel. Both analog and digital sample outputs are provided on a per channel basis, and optional non-volatile data storage logic may be installed for applications desiring built-in data record and playback features.

In its standard mode of operation, the receive process automatically synchronizes and detects the selected **ST-320** transmit waveform. This eliminates the need for tedious and cumbersome manual tuning of the FSK demodulator. The Receiver also supports a built-in signal strength meter along with bit error detection logic, allowing an operator to assess the potential transmit spectrum and establish an optimum frequency for the particular application of the system.

Once valid signal recovery has been achieved, the logic automatically detects the sensor configuration and operational sampling parameters of the transmitter and processes the telemetry data accordingly to produce the channelized output waveforms. Configurable sample filtering may also be performed on a per channel basis to eliminate noise corruption which may be present due to the user's environment.

The optional non-volatile memory board can be installed in the **SR-340** to support on-board data recording functions. When utilized, this feature can store in excess of 1 million telemetry data samples, thus providing many minutes of record/playback capabilities for typical applications. Alternatively, the RS-232 remote status/control interface can be invoked to command the logic to output processed data samples for mass storage purposes on a user supplied computer.



### RECEIVER SIMPLIFIED OVERVIEW



SR-340 RECEIVER

The **SR-340** requires a standard 12 Volt direct current (DC) power input. This enables the system to be utilized in mobile applications operating from standard automobile battery power. The system is also shipped with an AC to DC power adapter, enabling it to be connected directly to standard AC power outlets.

# ST-320/SR-340 **Wireless Link<sup>®</sup>** Digital Telemetry System

## ST-320 Specifications \*

### General Specifications

Sensor Inputs: Up to 16 Selectable and/or Mixed  
Sample Rates: 2+ Ksps Aggregate  
                  50 Ksps Burst Rate  
Sample Allocation: Per User Specifications  
Accuracy: +/- 1% Typical Measurement Acc.  
Frequency Resp: Up to 1 KHz Steady State  
Radio Frequency: 903 to 928 MHz  
Selectivity: 8 Independent Channels  
Range: Up to 1/4 Mile  
Modulation: MSK or FSK  
Primary Power: < 25 milliAmps at 5 VDC  
Operating Temp: 0° to +100° C (Comm Avail)  
Acceleration: 5,000 G Rotational  
Size: 1.5 Cubic Inch Volume Typical  
( 1.75" Dia. x 0.75" H )

### Typical Instruments Supported

Temperature: Type J or K Thermocouples  
                  0° to +200° C  
Strain Gage: 4 Arm Bridge, 120/350 Ohm  
                  5 VDC Excitation Provided  
                  +/- 125 Microstrain Sensitivity  
Generic Voltages: Static or Dynamic to 1 KHz  
                  Differential or Single Ended  
                  Unipolar or Bipolar  
                  Selectable: 5 mV, 50 mV,  
                  500 mV, and 5 V Input Range  
Other Typical Sensors: Pressure Transducers  
                  Displacement Gages  
                  Weather Sensors  
                  Custom

Optionally available interfaces will accommodate most sensors and measurement sensitivities. Consult factory for details.

## SR-340 Specifications \*

### General Specifications

Supports: Up to 16 Defined Transmitters  
Acquisition: Automatic  
Status Indicators: Signal Lock/Data Error Detect  
Sample Storage: Option for up to 1 Million Samples  
Analog Outputs: Up to 18 selectable for 0-5, 0-10,  
                  +/- 5, or +/- 10 VDC  
Digital Outputs: 16 Bits Measurement Data plus  
                  Channel, Strobe and Error Indicator  
Data Processing: Compensation (Temp or Value  
                  Dependent), Filtering, Averaging  
Packaging: Desktop Enclosure or Rack Mount  
Operating Temp: 0° to +100° C (Comm Avail)

### Remote Interface

Specifications: RS-232, DTE  
                  Up to 115 Kbps  
Connector: Standard 9 Pin D  
Functions: Standard Status/Control  
                  Firmware Upgrade  
                  Real-time Data Transfer  
                  Stored Sample Read  
                  Sensor Reconfiguration  
                  Measurement Calibration

## Accessory Equipment

Antenna's (Enclosure, Desktop or Magnet Mount)  
Batteries (Disposable or Rechargeable)  
Power Generator (Inductively Coupled)  
Analog Sample Breakout Box

PC Compatible Software Support Packages  
Link Analysis, Data Calibration  
Sample Display (Custom Options)  
RX/TX Configuration Control

\* All specifications subject to change without notice or obligation to retrofit.