

SR-340

Wireless Link®

RECEIVER

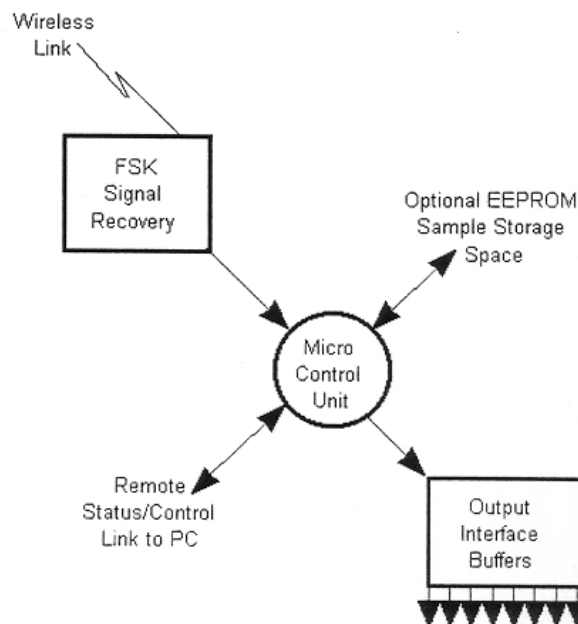
Data Reception and Storage Overview

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**[®] 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.