

ScanLink

Sentinel

Data & NMS Specification Sheet

Integrated radio,
modem and
multiplexer

9600 baud
19200 baud

2 independent data
ports
1 system port

User protocol
independent data
transport

Remote diagnostic
and integral BER
testing

Store & Forward

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RADIOtelemetry

The Sentinel range of digital data radios are the latest addition to the ScanLink range of telemetry radios. These are designed for data transmission applications within SCADA systems. Point-to-Point and Point-to-Multi-Point operation is supported.

The Sentinel range consists of the following hardware :-

ER450
Digital Outstation

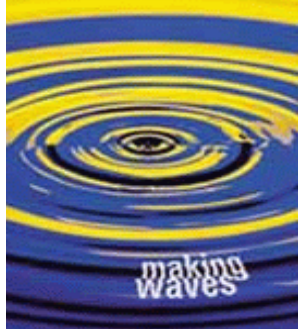
EB450
Digital Base Station

EH450
Duplicated Base Station

Features include full duplex operation, rapid Tx/Rx turnaround time, remote diagnostics and a comprehensive network management system (NMS). The NMS requires no operational break in the SCADA data flow.

The Sentinel embedded data transport protocol uses a proprietary encapsulating technique which employs header information called SIDS. This permits all manner of host data to be transported and uniquely delivered quite independent of the formal host protocol. Complex networks using concurrent yet different protocols are therefore possible as are 'group call' and routed delivery mechanisms.

This brochure gives details of the data parameters, the remote diagnostics and the Network Management system and is one of four brochures on the Sentinel range. The others relate to the ER450 digital outstation radio, the EB450 digital base station and the EH450 duplicated base station/scanner radio.



Sentinel Data Sheet

Modem

Data Serial Port #1	RS232, DCE, 600 - 76,800 bps asynchronous
Data Serial Port #2	RS232, DCE, 300 - 38,400 bps asynchronous
System Port	RS232, 19,200 bps asynchronous
Flow Control	Selectable hardware / software / 3 wire interface
RF Channel Data Rate	4800 / 9600 / 19,200 bps Half / Full duplex depending upon channel spacing (With external duplexer and ERFDO option)
Data Buffer	16 kbyte of on-board RAM
Bit Error Rate	< 1 x 10 ⁻⁶ @ - 110dBm (4800 bps) < 1 x 10 ⁻⁶ @ - 108dBm (9600 bps) < 1 x 10 ⁻⁶ @ - 106dBm (19,200 bps)
Collision avoidance	Sentinel's unique supervisory channel C/DSMA collision avoidance system
Multistream™	Sentinel unique simultaneous delivery of multiple data streams (protocols)

Options

DIAGS/E	Configuration, Network Management and Remote Diagnostics facilities per radio modem - E series
TVIEW+	Configuration, Network Management and Diagnostic Software

Diagnostics

(Optional)	Non intrusive protocol - runs simultaneously with the application Over-the-air configuration of all parameters Programmable exception reporting of alarms Storage of data error and channel occupancy statistics In-built Error Rate testing capabilities
	Non intrusive protocol - runs simultaneously with the Storage of data error and channel occupancy

Wood & Douglas maintain a policy of continuous improvement and enhancement. As a consequence, the above specification may change without notice.



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