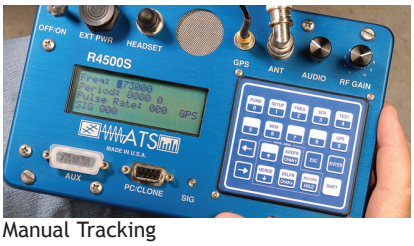
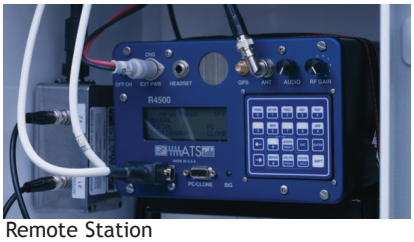
ATS R4500SD Receiver/Datalogger with DSP

World's Most Reliable Transmitters and Tracking Systems



Manual Tracking


Aerial Tracking


Remote Station

Digital Signal Processing (DSP) and integrated technologies do more for thousands less.

ATS has combined Digital Signal Processing (DSP) technology, GPS, a field proven scanning receiver, and datalogger into one compact, easy-to-use unit.

At the heart of the R4500SD is its innovative Digital Signal Processing (DSP) technology. Simply put, DSP technology enhances sensitivity, improves noise rejection, and significantly increases tag detection range when datalogging.

The R4500SD also has a GPS receiver onboard to accurately document the position of transmitters while aerial tracking. There is no need to record GPS separately. Signal level output improves location precision.

Interactive tables can be uploaded from a PC or cloned to another receiver saving considerable time in the field. There's even a digital port to control antenna switching, a GOES transmitter, etc.

Add the capability to store 100k non-volatile data blocks and a price that is thousands less than competitors' combination units, it's clear the R4500SD is a "must have" for today's data-intensive fisheries and wildlife research.

The ATS R4500SD receiver/datalogger with DSP represents a big step forward in capturing and recording the data you need in order to ensure a successful research project.

- Receiver and Datalogger in One Integrated Unit
- DSP for Increased Range and Sensitivity
- 1 kHz Channel Spacing
- GPS Receiver On-Board
- Signal Strength Measurement
- Log Up to 100,000 Non-Volatile Data Blocks
- USB to PC Connection
- Digital Control Port to Switch Antennas and Other Devices
- Separate RF Gain and Audio Level Controls
- Ruggedly Built for Field Use
- Non-Volatile Flash Memory
- Easy Operation
- Rechargeable NiMH Batteries
- Off-Load Software Included
- Twelve Frequency Tables

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ATS R4500SD Receiver/Datalogger

GENERAL

• Frequency range:	Any specified 4 MHz range from 140 to 220 MHz
• Channel spacing:	1 kHz
• Input impedance:	50 ohms
• Minimum discernible signal (MDS):	-150 dBm (0.007 uv into 50 ohms)
• Noise figure:	3 dB maximum
• Speaker:	8 ohms
• DSP signal detection range:	± 2 kHz
• DSP signal detection level:	-133 dBm minimum
• Frequency stability:	± 1 kHz -20˚C to +50˚C
• IF frequency:	10.7 Mhz
• IF bandwidth:	6 dB ± 2 kHz; 80 dB ± 7 kHz
• Image rejection:	>150 dB
• RF gain control range:	>130 dB
• Operating voltage range:	9 to 18 V DC
• Dwell time (scan rate):	1 second to 5 minutes

MODES & OPERATOR INPUTS

Aerial Mode:
- Frequency
- Table # (1-12)
- Pulse rate filter (1-4 pulse rates)
- Scan rate
- GPS (On/Off)

PC Mode:
- Off-load data
- Upload and download frequency tables (Excel format)

Clone Mode:
- Transfer tables from one R4500SD (Master) to another R4500SD

Stationary Mode:
- Frequency
- Table # (1-12)
- Pulse rate filter (1-4 pulse rates)
- Scan time
- Time out
- Store rate
- Antennas scanned (1-8)
- Goes (On/Off)
- Reference transmitter (Yes/No)
- Reference transmitter store rate

Manual Mode:
- Manual operation

DISPLAY (4 line by 20 characters)

Aerial Mode:
- Channel # and frequency
- Period/pulse rate
- GPS status
- Signal strength
- Battery status

Stationary Mode:
- Channel # and frequency
- Date and time
- Antenna #
- Pulse rate
- Signal strength

CONNECTIONS

- Antenna: BNC socket
- Headset: Receptacle for 0.25" phone plug
- Computer interface: USB connector
- GPS: SMA socket
- Aux. Port: DB15 for external digital control
- External power/recharge receptacle: 4-pin circular

POWER

• 12 volts DC nominal:	200 mA (GPS off); 350 mA (GPS on)
• Internal:	4Ah Nickel-Metal Hydride; 8-hours operating time with GPS on
• External:	10 to 18 V DC external

PHYSICAL

• Size:	13 cm wide x 20 cm long x 21 cm high (5 x 8 x 8.3")
• Weight:	2.5 kg (5.6 lbs)
• Accessories (included):	External power cord, battery charger, Win Rec off-load software, PC download cable, instruction manual
• Accessories (optional):	Headset, GPS antenna, clone cable, padded case, external battery pack

ENVIRONMENTAL

• Operating temperature:	-20˚C to +50˚C
• Storage temperature:	-70˚C to +60˚C
• Humidity:	95% non-condensing

WARRANTY

- One year parts and labor on materials and workmanship