

# GOES HDR Transmitter DATA SHEET



## Description

The Stevens GOES HDR (high-data rate) Transmitter, Model GHT, provides ready access to the GOES Data Collection System (DCS) for manufacturers and users of data loggers and sensors deployed in environmental data acquisition applications. NOAA/NESDIS' new GOES DCS enables transmission of larger amounts of data and more frequent transmissions.

Stevens' GOES HDR Transmitter is easy to program using Stevens' window-based GHT-Set on a PC or a PDA (pocket PC), or via menu-driven commands with any computer's terminal program.<sup>1</sup> The GHT operates as an ASCII modem for use with any data loggers capable of exporting data packets through a serial port, and in any format designated by the data logger and permitted by NESDIS.

Stevens designs, manufactures and supports the GOES HDR Transmitter (above) as well as providing easy access to data transmitted via GOES using [www.goeslink.com](http://www.goeslink.com). As an option, Stevens offers [www.goeslink.com](http://www.goeslink.com) as a primary or back-up data management service for receiving and archiving your GOES transmissions, providing DCP diagnostics, and incorporates user customized features-all Internet accessible for analysis and download. The Stevens GOES HDR Transmitter is easily configured with the DOT Logger in a small enclosure for a complete, cost-effective data collection platform (DCP) solution.

<sup>1</sup> To ensure successful transmissions during installation and maintenance, GHTSet allows for actual satellite communications from the GHT through the GOES DCS using the test channel, and verifies GPS satellite communications.

## Features

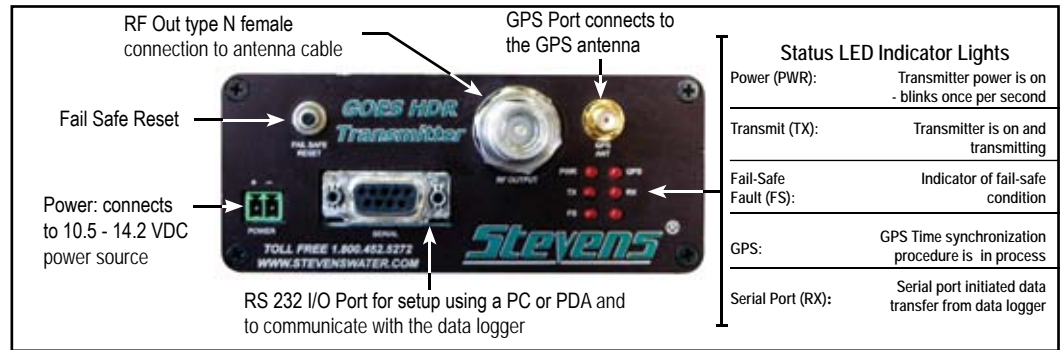
- Easy to operate as an ASCII modem with any data logger
- Serial output in two optional communication protocols:
  - Continuous listening for data from logger, or
  - Triggering signal to logger for data transfer
- Easy to program using any computer's terminal program or Stevens PC or PDA-based program, *GHTSet*
- Operates with Stevens, Vitel, and other data loggers such as Campbell Scientific, Sutron, Coastal, Geomation, and other leading equipment.
- GHTSet software program offers verification of GPS and GOES satellite communications

## Applications

- Stream gauging and reservoir monitoring
- Hydrological and meteorological stations
- Tidal and port systems
- Surface and ground water monitoring
- Agricultural environmental monitoring systems
- Homeland Security information monitoring

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The Stevens GOES HDR Transmitter configuration is stored in non-volatile memory and controls all the operating parameters for data communication, the serial port and the GOES DCS. Internal calibration and self-check variables are available to the controller. Included are Forward RF power, Reflect RF power, synthesizer operating current, PA power supply levels, frequency loop control voltages, and GPS time synchronization. Simple low-power LED indicators provide a quick confirmation of operations.



Since 1911, Stevens Water Monitoring Systems, Inc. has been a leading manufacturer of:

- Water Level Sensors
- Water Quality Sensors
- Soil Moisture Sensors
- Chart Recorders
- Staff Gages
- Telemetry Systems
- Data Collection Platforms

## Technical Specifications

### GOES HDR Model GHT Transmitter only

#### Power Requirements

10.5 to 14.35 VDC, 4.0 mA quiescent, 150 mA during GPS acquisition and 4A during transmission (6.3 watts output for 100 and 300 bps)

#### User Interface

RS 232 AT-style 9 pin "D" connector

#### Timekeeping

GPS Discipline within 0.01 seconds GMT

#### Environmental

-40° to 50° C; 0 to 95% relative humidity, non-condensing

#### Transmission Format

ASCII and Pseudo Binary  
 Certified with Antenna:  
 Stevens V4TH (+10 dB gain)

#### Dimensions

5.0 x 6.9 x 2.5 inches (w x d x h)  
 125.9 x 175.7 x 63.5 mm

### GOES HDR w/ optional DOT Logger

#### Power Requirements with Transmitter

10.5 to 14.35 VDC, 4.0 mA quiescent, 150 mA during GPS acquisition, and 4A during transmission (6.3 watts output for 100 and 300 bps).

#### Data Storage

FLASH EEPROM, 256k bytes, storing 60,000 readings

#### Sensor Inputs

Four (4) analog - single ended  
 Four (4) pulse count  
 Ten (10) serial - SDI-12

#### One Switch Excitation Voltage

5 or 12 VDC

#### Analog to Digital (A/D) bits

12

## ORDERING INFORMATION

Part #	Description
93450	Stevens GOES HDR Transmitter (Model GHT)
93450-001	Stevens GOES HDR Transmitter with DOT Logger
70208	Stevens GOES V4TH (10 dB gain) Antenna
70020	V2TH or V4TH Antenna Elevation Mount
92845-xxx	Antenna Cable Assdembly (xxx-specify length)
92823	Standard Serial Communication Cable
51108	GPS Antenna with 5-meter Cable