

MODEL H-2221-V2

VERSION 2.0 CERTIFIED GOES TRANSMITTER WITH INTERNAL GPS RECEIVER

The **H-2221-V2** is a certified GOES transmitter with operation based on version 2.0 of the DCPRS certification standard. Transmit sensor readings over the GOES satellite system by linking to any XL series or Storm Data Loggers.

APPLICATIONS

- Surface Water Data Collection Platforms
- Meteorological Stations
- Water Quality Measurement Stations

H-2221-V2

KEY FEATURES

- Certified for Self-timed and Random transmissions
- Supports 300 and 1200 BPS
- Binary, ASCII, Pseudo-binary data formats
- Low standby power (6 mA typ)
- Three status LEDs
- Operating temperature range -40° C to 60° C
- Operates up to one month without a GPS time sync
- Menu driven setup interface
- All GOES products have a programmable power output
- Two RS-232 ports
- Built in GPS receiver
- Adjustable transmit power

YSI
a xylem brand

SPECIFICATIONS

PERFORMANCE		
General Transmit Power	300 bps	7.1 watts max (38.5 dBm)
	1200 bps	8.0 watts max (39.0 dbm, carrier only)
	GOES Antenna	11 dBi gain, right hand circular polarization
	Adjustable	1.4-8 watts
Channel Bandwidth	750 Hz (300 bps)	
	2250 Hz (1200 bps)	
Transmit Frequency	Initial Accuracy	±5Hz (with GPS sync)
	Short Term Stability	<1Hz/sec
	Aging	±1ppm/year (removed via GPS)
	Range	401.70100 MHz to 402.099250 MHz (GOES)
Response Time	Initial	±100 microseconds (via GPS)
	Drift	±8.5 ms/day (-40° to 50°C)
	Temperature	±0.20 ppm
	GPS Updates	Every 12 hours (programmable)
GPS Receiver	Input	NAVSTAR GPS L1 code
	Channels	16
	Frequency	1.57542 Ghz
	Antenna	Passive or active
	Format	Lattitude, longitude, altitude and time
	Acquisition Sensitivity	-149 dBm
	Tracking Sensitivity	-159 dBm
	Time (PPS)	±62ns to UTC time
	Acquisition Time	Hot start: 2.5 seconds
		Warm start: 34 seconds
		Cold start: 39 seconds
General	Self-Timed & Random transmissions Protected against open or shorted antenna Measured forward & reflected RF power Configuration stored in non-volatile flash memory Built-in “menu” mode setup	
	Indicator LEDs	3 (Fault, GPS-On, RF-On)
	Operates up to one month without a GPS time sync	
	Fail-safe fault reset	Push button or software
	Auto Diagnostices available	
	Certification	NOAA/NESDIS V2.0 for self-timed and random transmissions.
MECHANICAL / POWER		
Size	Housing	203.2 mm W x 152.4 mm L x 101.6 mm H (8.0 in W x 6.0 in L x 4.0 in H)
Material	Housing	Fiberglass

Connection	GOES Antenna	Type N SMA, female, 50-Ohm
	GPS Antenna	Type TNC MCX, female jack, 3.3 volt bias
	Power Connector	2-position, 5.08 mm, Phoenix 1757019
	Power Plug	2-position, 5.08 mm, Phoenix 1757019
	USB	Type B (devide)
	RS-232	DB-95 (host mode only)
Power Requirements	Voltage Input	11.0 to 16.0 V (12V nominal)
	Current	Standby: 6 mA typ (GPS off)
		Standby: 33 mA typ (GPS on)
		Active: 3.0 A typ
COMMUNICATION		
Host / Auxiliary Interfaces	Type	2-ports, RS-232, DCE
	Baud Rate	9600, fixed
	Protocol	Printable ASCII
	Power	2-position barrier strip
ENVIRONMENTAL		
General	Operating Temperature	-40 to 60° C
	Storage Temperature	-40 to 85° C
	Humidity	0 to 100% (non condensing)
MISCELLANEOUS		
Warranty	The H-2221-V2 is warranted against defects in materials and workmanship for two years from date of shipment.	
Note	Specification subject to change without prior notice due to on going commitment to product testing and improvement. LR May, 2016 (D05-7 0516)	

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Let’s Solve Water

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