

## VP-200T GPS Zeit Empfänger/Antenne

### Übersicht:

VP-200T ist ein GPS Empfänger & Timing Antenne in einem Wetterfesten Gehäuse

Die Genauigkeit gleicht +/- 100 Nano Sekunden genau wie bei eine Atom Uhr

Die VP-200 T kann mit 3 fixiert positionierten Satelliten sowohl mit weiteren nicht fixierten Satelliten kommunizieren. Dies ermöglicht präzise Zeitangaben zu bekommen, egal wo in der Welt.



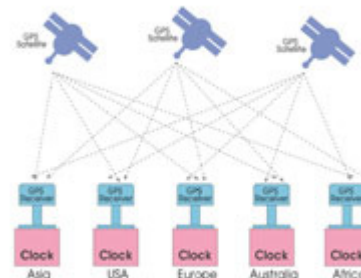
### Merkmale:

Sehr kompakt, leicht anzubringen & Wasserdicht

Schneller Start möglich, 18 Sekunden warm Start

Strom Anschluss von 8 ~ 40 DC

Niedriger Strom Verbrauch von nur 0.9 W



# Datasheet VP-200T Time Transfer

## ***Mechanical Data:***

Size in mm (Diameter x H)	11.4x7.4
Weight	360gram w/o cable
Cabel	15m (stand. RS232) 100m (opt. RS422)
Housing	7 pin circular, hermeti- cally sealed
Pins	Gold plated for anti- corrosion
Mounting	Pole mount to 1"14 threaded pipe
Housing color	white
Construction	Hermetically sealed & fully waterproof

## ***Environmental Conditions:***

Operating Temp.	-30°C ~ + 75°C
Storage Temp.	-40°C ~ + 85°C
Humidity	95% non-condensing

## ***Communication:***

Protocol	NMEA 0183, 4800 baud rate
Signal level	RS-232 or RS 422 (op- tional)
1PPS	TTL

## ***OEM Options:***

Output interval	0 ~ 60 sec. Selectable
Operating Mode:	2D, or 2D / 3D automatic
Type of Interface	RS 232 or RS 422 (op- tional)
Date	One of the 171 datum supported
Extended Input Voltage	Up to DC 60 V
Sentence Availiable	GGA, ZDA, RMC, GLL, GSA, GSV, VTG
Satellite Mask	SNR, PDOP, elevation angle, satellite number

## ***Interface Capability:***

Output protocol	NMEA 0183/ RS-232 or RS-422
Standard Output Sentences	GLL: Position & UTC Time GGA: Position & UTC Time RMC: Position, time, speed, course ZDA: Time & Date
Custom Outputs	Refer to OEM options

## ***Performance:***

Antenna	High-reliable ceramic patch
Antenna LNA gain	26+/-2dB, NF:2.0dB max.
Receiving frequency	1575.42 MHZ, C/A
Receiver architecture	12 channel all-in-view algorithm tracks & uses up to 12 satellites
Acquisition Time	20sec typical (warm start)
Position accuracy	15m or 50 feet RMS*
Velocity accuracy	0.1 knots RMS steady- state
Update Rate	1 sec. Continuous
Dynamics	Up to 49m/s.s (tracking sustained)
1PPS Timing Output	Generates one puls per second with rising edge synchronized to UTC after having a position fix
1PPS Timing Accuracy	1 sec. Typical / 100ns after calibration

## ***Power:***

Input Power	DC 8~ 40 V, with reverse protection
Voltage Regulator	on board, switching mode
Consumption	1.1 Watt, typical
EMI Filter	rejects power line interface

### **I/O Pin Assignment:**

Connector	Wire	Function
Pin 1	White	Recive
Pin 2	Green	Transmit
Pin 3	Yellow	Ground
Pin 4	Bare Braid	Earth
Pin 5	Blue	1 PPS
Pin 6	Black	Power -
Pin 7	Red	Power +

### **1PPS Output( Rising edge traceable to UTC):**

Output Pin	Pin # (Blue)
Max. Output current	+/- 5.3 mA
Voltage High	2.4 V min @ -0.8 mA
Voltage Low	0.5 V max @ 5.3 mA
Start to Output	only when position fix is obtained
Synchronization	Rising edge is synchronized to UTC
Accuracy	Within +/- micro second typically
Duty Cycle	50%
Adjustment	100ns increment (advance or delay)
Adjustment	PPEC, Gpset, Txnnnn CR LF x = - to advance 1 pps pulse / x = + to dealy 1 pps pulse nnnn = 0000 ~ 9999
Example	PFEC, Gpset, T-0006 => 1pps pulse will be advanced by 600 nanoseconds PFEC, Gpset, T+0050 => 1pps pulse will bedelayed by 5 microseconds