

OMEGA TYPE GPS-1031 Global Positioning System technology is rapidly changing how people find their way around the earth. Whether it is for fun, saving lives, getting there faster, or whatever uses you can dream up, GPS navigation is becoming more common everyday. GPS Trainer will provide a basic understanding of the GPS Fundamentals, Satellites & Design Aspects of GPS Receiver by actually connecting to the Satellite by GPS Antenna. The Equipment is Useful for Students at B.Tech/B.S. & M.S level in engineering / technical institutes (EC & Telecom) Technical training centres in communication organisations, R&D personal and practising engineering in research labs and industry.

OBJECT

EXPERIMENTS THAT CAN BE PERFORMED:

- 01 Understanding concept of GPS
- 02 Establishing Link between GPS Satellite & GPS Trainer
- 03 Measurement of Latitude & Longitude
- 04 To Study Effect of DOP
- 05 Study of HDOP & VDOP
- 06 Analysis of Elevation Azimuth SNR
- 07 Study of PRN code
- 08 Study of Common NMEA Sentence Protocol like, GPGGA, GPGLL, GPGSA, GPGSV, GPRMC, GPVTG
- 09 Study of other GPS NMEA Sentences like, GPALM, GPGRS, GPGST, GPMSS, GPZDA
- 10 Study of useful Conversion formulas
- 11 Analysis of NMEA 0183 protocols
- 12 Study of UTC data and time

SPECIFICATION & FEATURES

- 01 Channel : 12
- 02 Frequency : L1 C/A
- 03 Position Accuracy : 25 meters CEP without SA
- 04 Velocity Accuracy : 0.1 meters/second, without SA Off
- 05 Time Accuracy : Synchronized to GPS time
- 06 Update rate : 1/sec. (1 PPS) signal
- 07 Receiver Sensitivity : 175 dBW
- 08 Input Voltage : +5VDC
- 09 Current (Avg.) : 180 mA
- 10 Push Button for Reset



- 11 Serial Communication : 4800 Baud (default)
- 12 Protocol Messenger: NMEA0183V2.2, SIRF binary & RTCMSC-104V2.0 type 1,2,9
- 13 Maximum Altitude: 18000 meters (60,000 Feet) max.
- 14 Maximum speed: 515 meters/sec. (1000 knots) max.
- 15 Acceleration : 4g. maximum
- 16 Jerk : 20 meters/sec-3 max.
- 17 Time to First Fix : 45 / 38 / 8sec Cold/Warm/Hot Start
- 18 PC Interface - Rs 232 Port
- 19 Operating Temperature : -40° C to +85° C
- 20 Weight : 4 Kg. (Approx)
- 21 Dimension : W 340 x H 125 x D 210

GPS ACCESSORIES

- 01 Serial Cable M/F
- 02 Mains lead
- 03 GPS Antenna
- 04 Software CD

OTHER APPARATUS REQUIRED:

- 01 PC with Window XP

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

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