

IOTA-VTI

Technical Specifications

Power requirement - clean 12V d.c. to a 5.5mm x 2.1mm coaxial jack centre pin positive.
Board v.1.1.9 - operates over input range 8 to 18 volts, approximately 2 watts
Board v.2.2 - operates over input range 8 to 28 volts, approximately 1 watt

Video in:- NTSC or PAL, RCA connector.

Video out:- NTSC or PAL (whatever is coming down as video in) RCA connector.

USB:- Type B socket, uses the FTDI USB-serial driver, 57600 baud 8N1.

Driver is available at:-

<http://www.ftdichip.com>

Use the VCP driver, not the D2XX.

Note that the GPS unit sends at 4800 baud but this data stream is internally upscaled to 57600 baud.

GPS unit - US Global Sat EM-406A

Output sentences

Position screen:- GGA, ZDA (every three seconds)

Time screen:- GSA, ZDA (every second)

Timing accuracy:- GPS 1PPS is specified to +/- 1 microsecond / second for the EM-406A. The VTI will present an error if its adjusted internal clock is more than 99 microseconds ahead or behind the 1PPS.

Time from P fix (3D) to almanac download:- less than 15 minutes of continuous fix.

Period of almanac retention with no power applied:- 12 hours minimum; typically a few days to a week.

Operational lifetime (EEPROM):- 50,000 hours continuous running. The unit will continue to run after this time but the EEPROM may not retain the time of the last almanac update.

Enclosure dimensions – 5.50 x 5.25 x 1.63 inches (139.7 x 133.4 x 41.4 mm)