

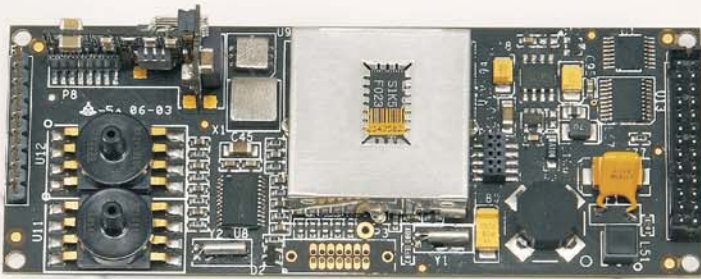
MP2028^g Miniature UAV Autopilot

OVER 300 CLIENTS IN 47 COUNTRIES

MicroPilot is the world leading manufacturer of miniature autopilots for unmanned aerial vehicles (UAV) and micro aerial vehicles (MAV). The MP2028^g established a new benchmark for lightweight UAV autopilots. Weighing in at only 28 grams, including all sensors and a GPS receiver, this UAV autopilot is the smallest in the world. With a proven track record, the MP2028^g packs everything you need into one powerful UAV autopilot

FEATURE RICH

- world's smallest UAV autopilot; 28 grams, 4 cm by 10 cm
- GPS waypoint navigation with altitude and airspeed hold
- completely independent operation including autonomous takeoff, bungee launch, hand launch and landing
- powerful command set
- fully integrated with 3-axis gyros / accelerometers, GPS, pressure altimeter, pressure airspeed sensors, all on a single circuit board
- extensive data logging and telemetry collects the data you need
- UAV configuration wizard and installation video simplifies setup and speeds time to market
- includes HORIZON[™] ground control software



World Leaders in Small UAV Autopilots

www.micropilot.com
info@micropilot.com
+1.204.344.5558
Copyright 2004 MicroPilot



Specifications

Navigation

- 1 Hz GPS update rate
- move servo at waypoint
- change altitude at waypoint
- change airspeed at waypoint
- user definable holding patterns
- user definable error handlers
- RPV and UAV modes
- supports DGPS accuracy
- 1000 waypoint command buffer

Servos

- elevon, flaperons, 4 servo flap/aileron, separate flaps, v-tail, x-tail, split rudders
- 8 / 16 / 24 servos
- 50 Hz servo update rate
- separate servo and main battery power supply
- separate voltage monitor for main and servo battery power supplies
- integrated RC override
- 11 bit servo resolution
- extra ADC channels and 3-axis magnetometer available as an option

Control System

- 30 Hz PID loop update rate
- gain scheduling for optimum performance
- rudder aileron feed forward for improved turn performance
- aileron elevator feed forward for improved altitude hold during turns
- autonomous takeoff and landing
- user definable PID feedback loops
- user definable table lookup functions
- MP plugin compatible

Sensors

- airspeed max speed: 500 kph
- altimeter max altitude: 12000 m
- 2G, 3-axis accelerometers
- 3-axis rate gyro
- max angular rate: 150° per sec.

Telemetry, Datalog & Video

- telemetry (100 user defined fields transmitted each second)
- 5 Hz telemetry update rate
- onboard datalog: 47 fields, 1.5 MB
- 5 hz datalog update rate
- video overlay (16 user definable fields)

HORIZON^{mp}

- HORIZON^{mp} ground control software included with system
- MP2028^g simulator for operator training
- in-flight adjustable gains
- change waypoints in-flight
- payload servos controlled from ground station
- point and click waypoint editor

Physical Characteristics

- weight (including GPS receiver, gyros and all sensors): 28 grams
- measured current (including GPS receiver, gyros, all sensors and GPS antenna): 140mA @ 6.5V
- 4.2 to 26V supply voltage
- 10 cm in length, 4 cm in width, 1.5 cm in height
- software upgradable in the field



World Leaders in Small UAV Autopilots

www.micropilot.com
info@micropilot.com
+1.204.344.5558

Copyright 2004 MicroPilot