Cloud Cap Technology Piccolo II
Expanded Capability for Advanced Applications

Piccolo autopilots provide a complete integrated avionics solution that includes the flight control processor, inertial sensors, ported air data sensors, GPS receiver and datalink radio. The Piccolo II adds functionality and flexibility for advanced UAS applications. With over a decade in the field the Piccolo II Autopilot has become the UAS industry standard flight management system.

**Key Features**

- Additional I/O support (16 configurable GPIO lines) for payload intensive applications
- Onboard inertial, air data, and GPS sensors, datalink radio, and EMI shielded enclosure
- Supports operation of a wide variety of UAV’s in both fixed wing or VTOL configurations
- Both Software and Hardware in the Loop (SWIL / HWIL) simulation modes for pre-flight testing
- Plug and play support of peripherals including TASE payloads, servo based pan-tilt cameras, transponders, magnetometers, Iridium satcomm, RTK GPS receivers, laser altimeters and flight termination
- Portable integrated ground station capable of managing the wireless link to multiple Piccolo avionics
Specifications
EMI shielded carbon / flanged / unflanged
RS232 Payload interface: 5
Sixteen (16) configurable GPIO lines. Four GPIO lines can be configured as analog inputs, 0-5V input, 10 bit conversion
CAN: Simulation / General interface
Flight termination: Deadman output
Integrated RF data link options: 900 MHz unlicensed ISM. 900 MHz Australian band. 2.4 GHz unlicensed ISM. 310-390 MHz discrete. 1350-1390 MHz discrete. 1670-1700 MHz discrete.
GPS: 4 Hz uBlox module GPS receiver, 5 volt
Pressure Sensors: Ported static. 15-115 KPa-ported pitot. 4 KPa differential. 155 kts max indicated airspeed
Waypoint navigation: 1000 waypoints saved in autopilot
Inertial Sensors: 3 axis gyroscopes, 300°/sec. 3 axis acceleration, 10g
Supported peripherals: Transponders, secondary comms radars, Iridium SatComm, TASE gimbals, servo PTZ gimbals, magnetometers, laser altimeters, payload passthrough, RTK GPS
Vin: 8 - 20 volts
Power: 4 W (typical including 900 MHz radio)
Size: 142.00 x 46.00 x 62.60 mm unflanged (5.59 x 1.81 x 2.46 inches)
Weight: 220 grams (7.7 oz) with 900 MHz radio
Operating temperature: -40C to +80 (calibrated range, no case)

Software Options
Standard Feature Set
+ Peripherals: Adds new support for pan-tilt servos, improved GPS/INS performance, and more flexibility in configuring payload ports.
Laser Altimeter Autoland: Provides accurate altitude information allowing the vehicle to perform a soft flared landing (Laser altimeter hardware sold separately).
DGPS Autoloand: Extends the autoland performance by using 2 cm accuracy DGPS. Supports autonomous taxi, rolling take-off, stationary and moving net recovery. Uses NovAtel DGPS equipment.

DGPS and Moving Net Recovery: Adds support of moving net recovery needed for shipboard and other moving capture applications. Uses NovAtel DGPS equipment and associated antennas.
Helicopter Operations (VTOL): Includes take-off and landing, precision hover, and automated path following along with autopilot assisted manual steering modes.

Radio Options
900 MHz unlicensed ISM
900 MHz Australian band
2.4 GHz unlicensed ISM
310-390 MHz discrete
1350-1390 MHz discrete

Dimensions in mm [inches]

For additional information:
UTC Aerospace Systems
202 Wasco Loop, Suite 103
Hood River, OR 97031
USA
Ph: +1.541.387.2120
www.cloudcaptech.com

OSR approval no. 13-S-1508. This document does not contain EAR technology or ITAR technical data. Due to our continued efforts in product improvement, all product specifications are subject to change without notice. Jan 2014