



# Cloud Cap Technology Piccolo SL

## Thin Form Factor and Flexible I/O

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 SL with its thin form factor and flexible I/O capability is ideal for small fixed wing and VTOL applications. Piccolo SL uses the same firmware and software as other Piccolo autopilots.

### Key Features

Thin form factor for small hand-launch and VTOL configurations

Flexible I/O support (14 configurable GPIO lines)

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



**UTC Aerospace Systems**

## Specifications

EMI shielded aluminum enclosure

RS232 Payload interface: 3

Fourteen (14) 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. 6 KPa differential. 192 kts max indicated airspeed

Waypoint navigation: 1000 waypoints saved in autopilot

Inertial Sensors: 3 axis gyroscopes, 300°/sec. 3 axis acceleration, 6g

Supported peripherals:  
Transponders, secondary comms radios, Iridium SatComm, TASE gimbals, servo PTZ gimbals, magnetometers, laser altimeters, payload passthrough, RTK GPS

Vin: 4.5 – 28 volts

Power: 4 W (typical including 900 MHz radio)

Size: 131 x 57x 19 mm (5.1 x 2.24 x 0.75 inches)

Weight: 110 grams (3.9 oz) with 900 MHz radio

Operating temperature: -40°C to +80°C (calibrated range with 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 Autoland:** 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

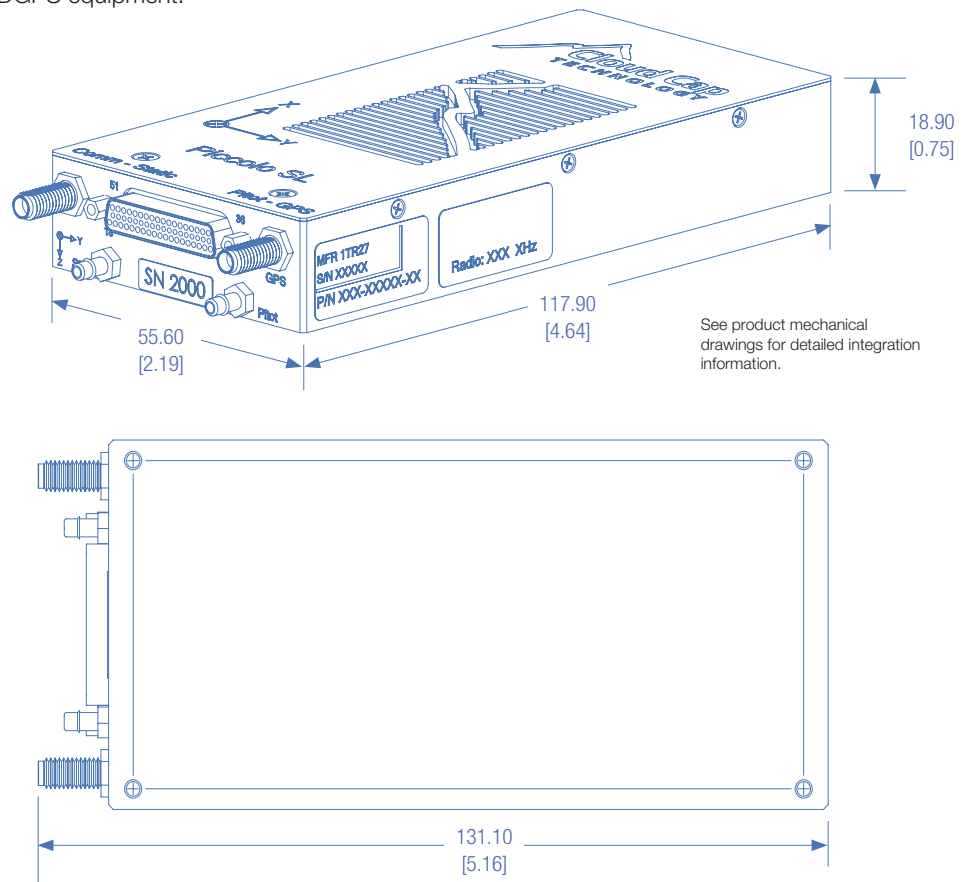
**Recovery:** Adds support of moving net recovery needed for shipboard and other moving capture applications. Uses NovAtel DGPS equipment and associated antennas.

### 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  
1670-1700 MHz discrete



Dimensions in mm [inches]



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