

## Outdoor Pan-Tilt Unit

Compact, Precise, Integrated

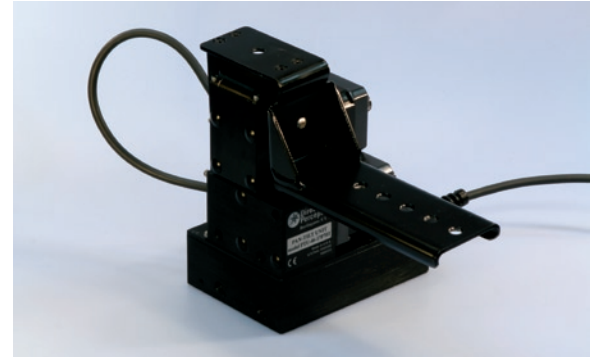
### Fully Integrated, Computer-Controlled Positioning

The PTU-D47 is a family of integrated computer-controlled pan-tilt units designed for intelligent positioning and control of camera, laser, antenna, and other payloads to 12 lbs. It is a fully integrated design with single weatherized connection for power, control, and camera/payload signals. Its compact size and light weight make it ideal for mast/pole mount, portable/tripod, and vehicle applications.

Payloads can be side and/or top mounted. The PTU-D47 withstands high duty-cycles and offers long-life in harsh all-weather environments.

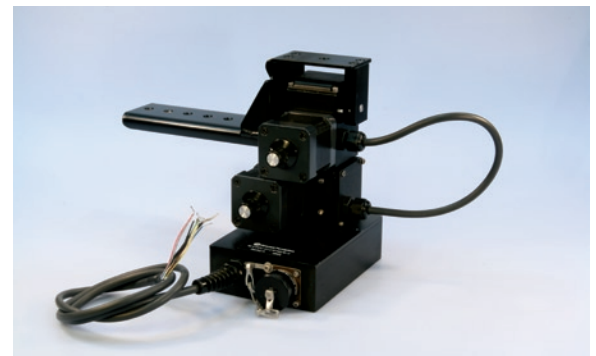
Key features include:

- Positions any payload: IP cameras, antennas, lasers
- Smooth, repeatable motion and rigid design provides steady images in windy environments
- Powerful command set supports real-time detection and tracking applications: absolute angle, relative angle, velocity control, geo-pointing (lat/lon) with GPM option
- Solid and vibration-tolerant for vehicle applications
- Wide-range of pan speeds (< 0.01°/sec. to 300°/sec.)
- Extremely precise positioning (0.01°) allows moving object positions to map coordinates accurately
- Single connector for all video, control, power
- Flexible payload mounting (top and/or side)
- Integrated controller - no other electronics box required
- Computer interface via RS-232/485 or Ethernet (option)
- Fully sealed for outdoor applications (IP66)



### Applications

- Perimeter surveillance
- Automated antenna pointing
- Vehicle camera systems
- Laser ranging systems
- Video detection & tracking
- Industrial automation
- Law Enforcement
- Force Protection



## General Features

- Rigid worm gear design. No belts/pulleys.
- Solid and vibration-tolerant
- Flexible payload mounting (top and/or side)
- Integrated controller - no external box
- Precise control of position, speed & acceleration
- CE Mark certified
- Single DC power input

## Options

- Payload wiring - flying leads from base to payload
- Geo-Pointing Module (Part# PTU-DGPM)
- Ethernet/IP Interface Module (Part# PTU-DGPM)

## Pan-Tilt Performance (Standard)

	Side Mount
Rated Payload <sup>a</sup>	12 lbs.
Max Pan Speed <sup>b</sup>	300°/second
Max Tilt Speed	60°/second
Resolution - Pan	0.013°
Resolution - Tilt	0.003°

<sup>a</sup> Side-mounted payload assumes COG < 1" from tilt axis.

<sup>b</sup> Unloaded. Max speed may depend on exact payload configuration and dynamics.

## Pan-Tilt Features

Tilt Range	-47° to +31° from level (78° range)
Pan Range	+/- 159° (+/- 180° with extended range mode)
Pan Speed Min	.003° /second (with microstepping)
Tilt Speed Min	.013° /second
Duty Cycle	High duty cycle, or 3-5 million cycles
Acceleration/Deceleration	Trapezoidal. On-the-fly speed and position changes.

## Power Requirements

Input Voltage	Unregulated 9-30VDC (fastest performance & torque @ 30VDC)
Power Consumption (Measured at 30VDC)	13W continuous peak (full-power mode) 6W continuous peak (low-power mode (default)) 1W continuous peak (holding power off mode)

## Connections & Communications

Base Connector	PRIMARY: AMP (MIL-C-26482). Includes: PTU-Power (3C) - 9-30VDC + shield PTU-Control (7C) - RS-232(3C) and RS-485 (4C) Payload Signals (8C) (optional)
Payload Signal Pass Through	Power (2C): 30VDC max @ 2A max Video (2C): Communications (4C): RS-232/422
Computer Controls	RS-232 standard; Built-in multidrop RS-485 networking
Control Protocols	DP (ASCII, Binary)

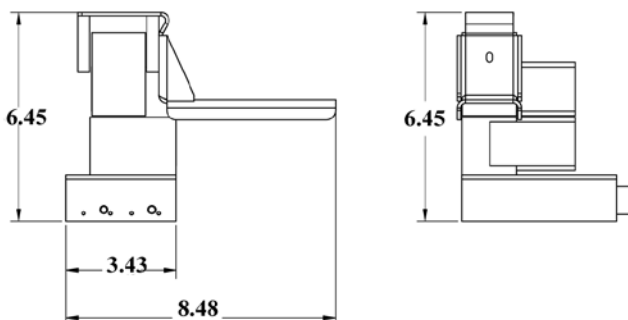
## Mechanical

Weight	5.38 lbs. (2.44 kg)
Dimensions	6.493" H x 8.397" W x 5.27" D
Payload Mounting	Side and/or Top
PTU Mounting	Pedestal mount
Material	Machined aluminum

## Packaging & Environmental

Standards	Designed to IP66
Operating Temperature	-20°C to 60°C
Non-Operating Temperature	-20°C to 60°C
Humidity	100% relative humidity, non-condensing
Dust/Sand (Operating)	Sustain exposure to blowing dust/sand
Wind/Rain/Fog	IP66
Color/Finish	Black anodized
EMI	FCC Part 15, part B Class B

Specifications subject to change without notice.



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