



### Outdoor Miniature Pan-Tilt Unit

Rugged, Compact, Precise

#### Fully Integrated, Computer-Controlled Positioning

The PTU-D48 is a family of integrated computer-controlled pan-tilt units designed for intelligent positioning and control of camera, laser, antenna, and other payloads to 15 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 and vehicle applications. Payloads can be side and/or top mounted. The PTU-D48 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, continuous velocity control
- Solid and vibration-tolerant for vehicle applications
- Wide-range of speeds (< 0.006°/sec. to 100°/sec.)
- Extremely precise positioning (0.006°) allows translating 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 (IP67)



#### Applications

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



## General Features

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

## Options

- Side-mount payload brackets
- Geo-Pointing Module (Part# PTU-DGPM)
- Ethernet/IP Interface Module (Part# PTU-DGPM)
- Payload pass-through wiring

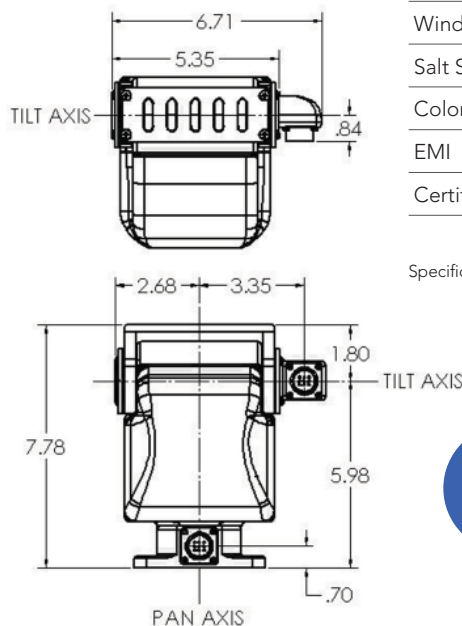
## Pan-Tilt Performance

|                            | Side Mount  | Top Mount   |
|----------------------------|-------------|-------------|
| Max Payload                | 15 lbs      | 10 lbs      |
| Max Pan Speed <sup>a</sup> | 100°/second | 100°/second |
| Max Tilt Speed             | 50°/second  | 50°/second  |
| Resolution - Pan           | 0.006°      | 0.006°      |
| Resolution - Tilt          | 0.003°      | 0.003°      |

<sup>a</sup> Unloaded. Max speed may depend on exact payload configuration and input voltage.

## Pan-Tilt Features

|                           |  |
|---------------------------|--|
| Tilt Range                | +30° to -90° from level (120° range)               |
| Pan Range                 | +/- 168° (+/-220° range) extended mode             |
| Duty Cycle                | Up to 100% duty cycle                              |
| Acceleration/Deceleration | Trapezoidal. On-the-fly speed and position changes |



## Power Requirements

|                                       |   |
|---------------------------------------|---|
| Input Voltage                         | Unregulated 12-30VDC (fastest performance & torque @ 30VDC)   |
| Power Consumption (Measured at 30VDC) | 48 W continuous peak (high-power mode)<br>30 W continuous peak (regular-power mode (default))<br>7.5 W average (holding power off mode) |

## Connections & Communications

|                                      |  |
|--------------------------------------|--|
| Base Connector                       | PRIMARY: AMP (MIL-C-26482). Includes:<br>PTU-Power (3C) - 9-30VDC + shield<br>PTU-Control (7C) - RS-232(3C) and RS-485 (4C)                                |
| Payload Signal Pass Through (option) | Power (2C): 30VDC max @ 3A<br>Video-1 (2C): NTSC/PAL/RS-170<br>Video-2 (2C): NTSC/PAL/RS-170<br>Other (3C): 30VDC max @ 1A<br>Connector: AMP (MIL-C-26482) |
| Computer Controls                    | RS-232 standard; RS-485 with networking  |
| Control Protocols                    | DP (ASCII, Binary)   |

## Mechanical

|                  |  |
|------------------|--|
| Weight           | 8.75 lbs. (9.25 lbs. with top bracket)             |
| Dimensions       | 7.78" H x 5.35" W x 5.43" D (no payload connector) |
| Payload Mounting | Side and/or Top                                    |
| PTU Mounting     | Pedestal mount                                     |
| Material         | Machined aluminum                                  |

## Packaging & Environmental

|                           |  |
|---------------------------|--|
| Standards                 | Designed to IP67                             |
| Operating Temperature     | -30°C to 70°C                                |
| Non-Operating Temperature | -30°C to 70°C                                |
| Humidity                  | 100% relative humidity, non-condensing       |
| Dust/Sand (Operating)     | Sustained exposure to blowing dust/sand      |
| Wind/Rain/Fog             | IP67   |
| Salt Spray                | Sustain operation in salt spray environments |
| Color/Finish              | Black anodized                               |
| EMI                       | CE Mark and FCC Part 15, part B Class B      |
| Certifications            | RoHS Compliant                               |

Specifications subject to change without notice.



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