MARS ROBOTICS
مارس روبوتكس

PRODUCT DATA SHEET

MARSFLY AUTOPILOT AP300

OVERVEIW:

MARSFly Autopilot AP300 is a high-performance flight control system designed for mid-range UAVs. It offers advanced navigation, exceptional stability, and mission adaptability. With GPS integration, real-time telemetry, robust safety fail-safes, and versatile payload compatibility, it ensures reliable autonomous operation across diverse environments, making it an ideal choice for reconnaissance, delivery, and inspection missions.

Comprehensive Autonomous Capabilities

Adaptability to Customer Needs

ITAR Free

Integratability with Various Platforms, Sensors and Avionics Systems

Versatile Hardware for Cross-Functional Mission

Advanced Proprietary GNSS-INS Solution

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P.O Box 2233, Irbid 21163, Jordan

MARSFLY AUTOPILOT AP300 AUTONOMOUS CAPABILITIES:

- **Auto Takeoff**
- **Auto Land**
- **Waypoints Multi-Missions**
- **Failsafe Options**
- **Target Tracking**
- **Real-time Auto Gains Tunning**
- **Geofence**
- **Surface and Sensors Calibration**
- **Area Scanning Mission**
- **Terrain Following**

Specifications:

Hardware Specifications:

533 MHz Micro-Processor
Up to 6 Serial ports; 4 of them RS232
Up to 2 CAN bus
11 PWM
Up to 10 configurable pins
4 fixed analog, up to 60V
Internal GPS RTK
Internal radio (optional)
Tactical grade gyros and accelerometers
On board Air data unit

Mechanical Specifications:

Dimensions	136 x 72 x 57 mm (Max dimensions)
Weight	- 330 g with 900 MHz radio, Enclosure/mounting - Anodized aluminum, including flange

Environmental & Power:

Operating case Temperature	-40° C to 80° C
Power Requirements	- VIN: 7.5 - 18 volts - Power: 20 W max (typical, including 900 MHz radio)

Interface Specifications:

RS232 Payload Interface	Up to 4
CAN	- External ADU - Extended to other devices
Digital/Analog I/O	- 6 are configurable to (Digital I/O, PWM or analog input) Maximum voltage is 3.3V - 4 are configurable to (Digital I/O or analog input) Maximum voltage is 3.3V - 4 are fixed analog inputs, up to 60V
Integrated RF Data Link Options	- 900 MHz unlicensed ISM - 400 MHz discrete - Optional connection to external RF data link
GPS & IMU	- 25 Hz uBlox module GPS receiver - 3-axis gyroscopes, 300°/sec; 3-axis acceleration, ±10g
Air Data Unit	- Ported static, 15Psi; ported pitot, 1Psi differential; 100 m/s indicated airspeed
Supported Devices	- Secondary comms radios, laser altimeters, ADS-B IN, redundant IMU, extended for user needs
Onboard SD Card	Yes

Ground Station Control Software:

Supported GS control software allowing UAV attitude observation and control of all aforementioned AP functionalities.

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