



**LPP**  
HOLDING



# AUTOPILOT

AUTONOMOUS FLIGHT CONTROL  
UAS COMPONENT

Our Autopilot enables full UAV autonomy. It integrates GNSS and barometric navigation for precise flight control. It's configurable via the LPP Mission Planner and designed for use with the LPP Visual Navigation. The Autopilot allows in-flight adjustments and can be easily adapted for 3rd party UAVs. It is developed in-house at LPP.

## MAIN FEATURES

- + Enables full UAV autonomy, can be adapted for 3rd-party platforms
- + Supports takeoff, cruise, landing, and in-flight adjustments for flexible mission execution
- + Integrated GNSS, altitude & airspeed barometric navigation
- + Designed for the MTS drone family, it integrates with LPP Visual Navigation
- + Easily configurable by the LPP Mission Planner application / Ground Control Station



### Mechanical / Environmental Parameters

	MTS AP 101	MTS AP 101 DL	MTS AP 201	MTS AP 202
Size (H x W x L)	94 x 55.8 x 25.5 mm		105 x 58 x 55 mm	
Environmental Qualification	MIL-STD-810H			
EMC / EMI Qualification	N/A		MIL-STD-461	
Temperature Range	-40 to +55°		-40°C to +85°C	
IP Rating	N/A		IP67	
Humidity	N/A		Up to 90% RH, non-condensing	
Shock Survival	Vibration-isolating suspension for IMU			
Integrated Datalink	No Datalink	Telemetry Datalink	No Datalink	No Datalink
ESD Compliant	IEC 61.000-4-2-level 4		MIL-STD-883L, DO160	

### Electrical and I/O

	MTS AP 101	MTS AP 101 DL	MTS AP 201	MTS AP 202
Voltage Supply	9 to 36 V DC			
Power Consumption	1 W @ 12 V	1.7 W @ 12 V	2 W @ 12 V	2 W @ 12 V
CAN	1	2	2	2
Serial Comm	2 x MAVLink@isoUART 1 x Generic RS-232 1 x Generic UART 1 x ARINC 429 In	2 x MAVLink@isoUART 1 x Generic RS-232 1 x Generic RS-485 1 x Generic UART 2x ARINC 429 In	2 x MAVLink@isoUART 1 x Generic RS-232 1 x Generic RS-485 1 x Generic UART 2x ARINC 429 In 2x ARINC 429 Out 2x MIL-STD-1553A	
Analog Input	3 ADC(Generic) OAT ADC Dedicated	4 ADC(Generic) OAT ADC Dedicated	4 ADC(Generic) OAT ADC Dedicated	4 ADC(Generic) OAT ADC Dedicated

### ADAHRS

	MTS AP 101	MTS AP 101 DL	MTS AP 201	MTS AP 202
Pitch & Roll Error	< 0.5°		< 0.1°	
Heading Error	< 1°		< 0.5°	
Navigation Drift	<25 m/min (Optical navigaton available)			
Airspeed Ranges	40-470 kmh (22-257 kt)		45-600 kt	
Gyro Range	±1000 °/s (all axis)		±500 °/s (all axis)	
Accelerometers range	±16g		±8 g, all axis (±15 g under request)	
Sampling Rate (IMU + Attitude)	Up to 500 Hz		Up to 1000 Hz	



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