ESEN

GORDES

VISION BASED NAVIGATION SYSTEM

www.esensi.com.tr

Ensures Precise, Reliable Navigation For Aerial Platforms in GNSS Denied Environments

GöRDES™ is a state-of-the-art navigation solution designed to enable aerial platforms to navigate safely and accurately in the most challenging GNSS-denied environments. GöRDES™ uses advanced onboard vision technology with real-time image matching and advanced visual odometry to navigate without GNSS signals.

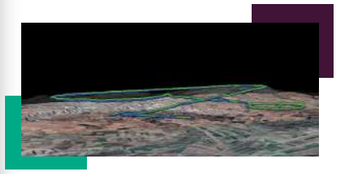
GöRDES™ continuously delivers high-precision position, velocity, and attitude information, ensuring platform stability even under hostile conditions such as GNSS jamming and spoofing.

Ideal for critical applications in defense, tactical operations, and homeland security, GöRDES™ offers uninterrupted mission capabilities where reliable navigation and platform stability are crucial for success.

GöRDES™ can be easily integrated by Pixhawk users through the GNSS receiver port; it can serve as the primary navigation source in GNSS-denied environments or act as a high-precision standalone source throughout the flight by fusing GNSS data with vision-based navigation.

GöRDES™ has proven its performance through extensive testing in harsh environmental conditions and diverse terrains over prolonged durations.

	GöRDES-S (For small UAV)	GöRDES-T (For tactical UAV)
Sensor Performance		
Sensor Output	Position, Velocity, Attitude	Position, Velocity, Attitude
Accuracy (Typical MAE-Mean Abs. Error)		
Horizontal Position	7m (@1.000ft AGL)	25m (@18.000ft AGL)
Altitude	4m (@1.000ft AGL)	5m (@18.000ft AGL)
Velocity *Sensor performance is given for day time	0.5m/s (@1.000ft AGL)	2m/s (@18.000ft AGL)
Mechanical		
IP Rating	IP54	IP65
Operating Temperature	-20°C to +45°C	-30°C to + 55°C
**Dimensions	75mm(H)x115mm(L)x 80mm(W)	155mm(H)x280mm(L)x 210mm(W)
**Weight **Can be adjusted according to platform requirements	350 g	2000-4000g
Electrical		
Input Voltage	12V-27V	28V
Power Consumption	<25 Watt(continuous)	<40 Watt(continuous)
Interface		
Interface	UART	
Protocol	UBX, NMEA	
Output Frequency	1-10 Hz	
Built-in Self-test	Yes	



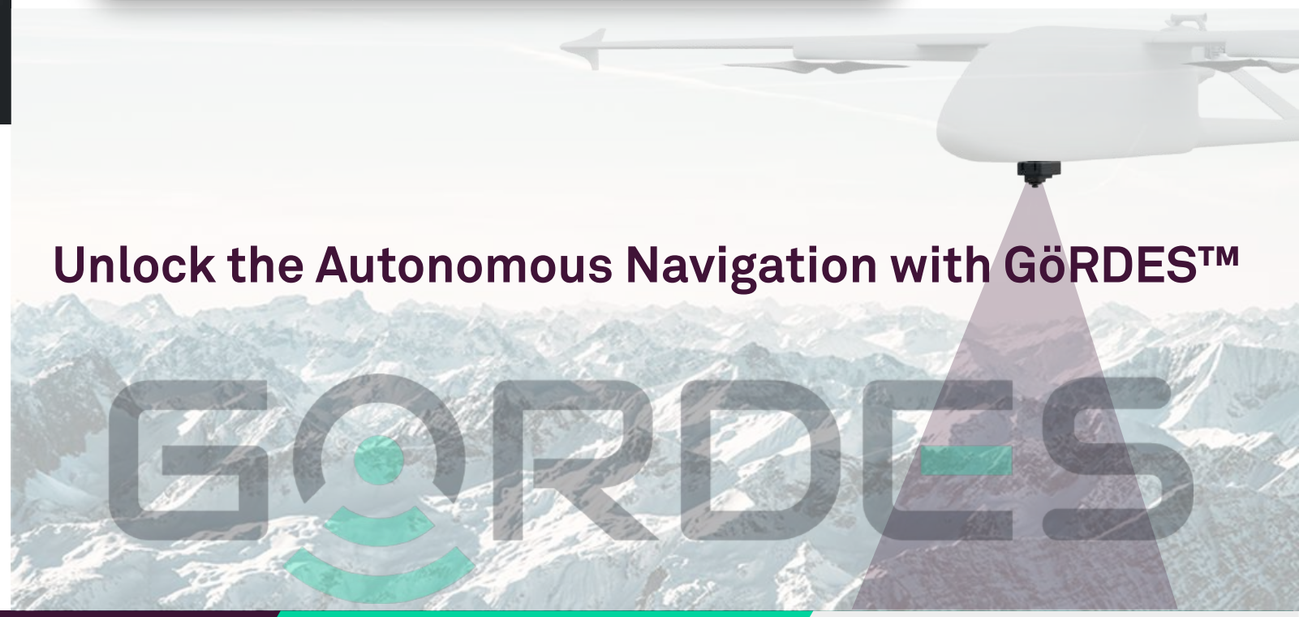
Day&Night Vision Navigation (7/24 Navigation)

Jam-Resistant GNSS-Free Navigation

Real Time Positioning and High Accuracy (Drift Free)

Mission Critical Performance

Seamless Integration



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