PETRA

Land Inertial Navigation Family

INS/GNSS

Navigation and Stabilization System

CIVITANAVI SYSTEMS®

The PETRA FAMILY

The **PETRA** family of Land Inertial Navigation Systems (INS) best exploits the strapdown Fiber Optic Gyro (FOG) technology for high-precision pointing, localization and navigation achieving optimal performance.

Thanks to innovative integration of ITAR-free inertial sensors, designed and manufactured in Italy, with advanced state estimation techniques based on Kalman Filter algorithm, completely developed and tuned in-house, the **PETRA** family provides the end user with superior pointing accuracy in GNSS denied environment. Aimed to withstand harsh operational conditions, **PETRA** is ideally suited for new and retrofit land vehicles programmes.

The **PETRA** products family provides maintenance-free, robust, low weight, compact volume land inertial navigation and pointing solutions without compromising performance in all operational environments.

CHARACTERISTICS	PETRA 2000	PETRA 1000
Heading (RMS)	< 1 mils secant latitude	< 5 mils secant latitude
Roll / Pitch (RMS)	< 0.3 mils	< 1 mils
Horizontal Position with VMS	0.25 % DT	0.6% DT
Vertical Position with VMS	0.1% DT	0.6% DT
Horizontal Position with GPS (RMS)	<10 m	< 10m
Vertical Position with GPS (RMS)	<10 m	< 10m
Alignment time (Static)	2 minutes	2 minutes
Alignment time (full accuracy)	15 minutes	15 minutes

SYSTEM CHARACTERISTICS

Interfaces
RS422/RS232
Ethernet
CAN Bus
Pulsed Odometer
Data Output Rate: *up to 500 Hz*

Environmental and Reliability
Operating Temperature: *-32°C to +65°C*
Storage Temperature: *-40°C to +71°C*
EMC/EMI: *MIL-STD-461F/ IEC 61000-6-4*
Vibration: *MIL-STD-810F / IEC 60068-2-6*
MTBF: *> 40000 hours*

Dimensions
WxHxD: *151x161x286*

Weight
8.5 Kg

Power requirements
28VDC (18-36VDC): *<15 W*

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