



LAND POSITIONING SOLUTIONS



Highly accurate positioning and orientation solutions with the latest GNSS-Inertial technology for land applications.





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POS LV

DESIGNED FOR INTEGRATION, BUILT FOR PERFORMANCE

When data continuity with position and orientation accuracy is a steadfast requisite for a mobile data application, engineers and geospatial specialists turn to POS LV solutions. For those looking to upgrade from GNSS-only positioning performance or seeking a fully-integrated, turnkey position and orientation system, POS LV solutions deliver the reliable, repeatable results that make mobile land-based data acquisition systems profitable and highly productive.

Compact and simple to install or transfer between vehicles, POS LV is simple to learn and has been designed to calibrate quickly after set-up. By conducting operations at normal highway traffic speeds, POS LV accelerates productivity while reducing data collection costs and potential roadside risk to personnel. POS LV may be used with DGPS and RTK corrections, and survey-grade GNSS technology and Distance Measurement Instrument (DMI) integration are standard on all models to ensure superior accuracy performance.

POSPac post-processing software is also available to further enhance and refine results by producing a more accurate, representative data set.

Used by transportation departments, engineering companies, GIS consultants, and mobile mapping system integrators around the world, POS LV provides uninterrupted, precise position and orientation measurements in seemingly impossible GNSS conditions. The POS LV earns its distinguished reputation by producing reliable, repeatable, high-rate (up to 200 Hz), high-accuracy results – even in circumstances where GNSS signals are blocked or affected (multipath effects), such as with urban canyons. Whether used for pavement analysis, asset/infrastructure management, GIS data capture, vehicle dynamics, corridor measurement and visualization, or route monitoring, POS LV meets the requirements of any mobile surveying service specialty.

Key Features

- ▶ POS Computer System directly processes raw GNSS data from as few as one satellite, in order to compute accurate positional information in areas with intermittent or no GNSS reception
- ▶ IMU generates a true representation of vehicle motion in all three axes
- ▶ Streamlined data workflows
- ▶ Worldwide availability
- ▶ Embedded GNSS receivers provide heading aiding to supplement the inertial data
- ▶ Operates at normal highway traffic speeds for cost-effective data capture
- ▶ Post-processing capabilities with POSpac MMS
- ▶ Quick operational capability; installation, calibration, and training completed in as little as three days



PERFORMANCE SPECIFICATIONS - WITH GNSS*

POS LV	220 PP	220 IARTK	220 DGPS	410/420 PP	410/420 IARTK	410/420 DGPS	610/620 PP	610/620 IARTK	610/620 DGPS
X,Y Position (m)	0.020	0.035	0.300	0.020	0.035	0.300	0.020	0.035	0.300
Z Position (m)	0.050	0.050	0.500	0.050	0.050	0.500	0.050	0.050	0.500
Roll & Pitch (deg)	0.015	0.020	0.020	0.015	0.015	0.015	0.005	0.005	0.005
True Heading (deg)	0.025	0.050	0.050	0.020	0.020	0.020	0.015	0.020	0.020

PERFORMANCE SPECIFICATIONS - GNSS OUTAGE, 60 SECONDS*

POS LV	220 PP	220 IARTK	220 DGPS	410/420 PP	410/420 IARTK	410/420 DGPS	610/620 PP	610/620 IARTK	610/620 DGPS
X,Y Position (m)	0.240	0.690	0.880	0.120	0.340	0.450	0.100	0.280	0.410
Z Position (m)	0.130	0.350	0.610	0.100	0.270	0.560	0.070	0.100	0.510
Roll & Pitch (deg)	0.020	0.020	0.020	0.020	0.020	0.020	0.005	0.005	0.005
True Heading (deg)	0.030	0.070	0.070	0.020	0.030	0.030	0.015	0.020	0.020

* All accuracy values given as RMS. Assumes typical road vehicle dynamics for initialization, with DMI option.

SYSTEM SPECIFICATIONS

Component	Dimensions (L x W x H) mm	Weight kg	Power	Temperature	Humidity	Cables
PCS (all models)	167 x 185 x 68	2.4	10 to 34 Vdc power supply	-20 °C to +60 °C	5 to 95% RH**	-
DMI (Applanix)	908 x 115 x 254	2.4	Powered by PCS	-40 °C to +85 °C	-	8 m (standard)
GNSS Antenna*	146 x 146 x 62	0.4	Powered by PCS	40 °C to +70 °C	-	10 m (standard)
IMU	See below	See below	Powered by PCS	See below	-	8 m (standard)

* POS LV 510 and 610 Single GNSS, POS LV 220, 420, 520 and 620 Dual GNSS

** Non-Condensing

INERTIAL MEASUREMENT UNIT (IMU)

Type	Operational Temperature °C	Models Used In	Maximum Data Rate	Dimensions (L x W x H) mm	Weight kg
IMU-7 ¹	-54 to +71	POSLV 410/420	200 Hz	158 x 158 x 124	2.5
IMU-17 ¹	-40 to +60	POSLV 220	100 Hz	158 x 158 x 124	2.5
IMU-42 ²	-20 to +55	POSLV 220	200 Hz	158 x 158 x 124	2.6
IMU-57 ²	-20 to +55	POSLV 610/620	200 Hz	179 x 126 x 127	2.6
IMU-64 ²	-20 to +55	POSLV 410/420	200 Hz	158 x 158 x 124	2.6
IMU-82 ²	-40 to +65	POSLV 220	200 Hz	158 x 158 x 124	2.3

GLOBAL POSITIONING SYSTEM OPTIONS

Option	Signals	
GPS-19	GPS: L1 C/A, L2E, L2C, L5 GALILEO ⁴ : E1, E5A, E5B, E5AltBOC, E6 ³ SBAS: L1 C/A, L5 BeiDou: B1, B2, B3 ³	GLONASS: L1 C/A, L2 C/A, L3 ³ QZSS: L1 C/A, L1 SAIF, L1C, L2C, L5, LEX ³ MSS L-Band: OmniSTAR VBS, Trimble RTX

¹These IMUs require US government approvals for all exports, a Canadian export permit for all destinations outside the US, and may be subject to local export restrictions internationally. Contact your Applanix representative for further information.

²Typical mission profile, max RMS error. These IMUs are exportable worldwide subject to statutory export declarations, and standard restrictions relating to certain international destinations. Contact your Applanix representative for further information.

³The hardware of this product is designed to support this capability, however tracking of these is currently disabled

⁴Developed under a License of the European Union and the European Space Agency

USER SUPPLIED EQUIPMENT

- PC or laptop computer for LV-POSView™ (controller): Celeron x86 1 GHz processor (minimum), 16 MB RAM, 20 MB free disc space, Ethernet adapter (10/100 base-T, RJ45), Windows 7/10
- PC for POSPac MMS™ (post-processing): Pentium 4 (32 Bit) at 2 GHz processor, 1GB RAM, 400 MB free disc space 4+ GB for navigation data, USB port, Windows XP Professional
- 10-34 Vdc power supply, capable of supplying 60 W (peak) power from the host vehicle's electrical system

GENERAL – SENSORS

IMU Reliable high performance sensors
DMI Rugged construction able to withstand harsh vibration and shock environment, as well as temperature and humidity extremes

ETHERNET INPUT OUTPUT (10/100 BASE-T)

Function Operate POS LV and record data
Media Position, attitude, heading, velocity, track and speed, acceleration, status and performance, raw data. All data has time/distance tags
UDP Port Display port - low rate (1 Hz data)
UDP & TCP/IP Ports Real-Time Data Port - high rate (1-200 Hz data)
TCP/IP Ports Logging Data (buffered for data logging)
Control Port - used by LV-POSView™ (controller software)

LOGGING OUTPUT TO REMOVABLE DRIVE

Parameter Position, attitude, heading, velocity, track and speed, acceleration, status and performance, raw data. All data has time/distance tags

RS232 NMEA OUTPUT

Parameters Position (\$INGGA), Heading (\$IHDT), Track and Speed (\$INVTG), Statistics (\$INGST), Attitude (\$PASHR), Time and Date (\$INZDA), Events (\$EVT1, \$EVT2)
Rate 1 - 50 Hz (user selectable)

RS232 HIGH RATE DIGITAL OUTPUT

Parameters Roll, pitch, true heading, latitude, longitude and altitude
Rate 1 - 200 Hz (user selectable, IMU dependant)

RS232 BASE 1 AND BASE 2 INPUT

Formats CMR, CMR+, RTCM 2.3, 3.0, 3.1, 3.2

OTHER I/O

PPS One pulse-per-second time sync output. Normally low, active high pulse where the rising edge is the reference
Event Input Four input discretes used to mark external events. Discretes are TTL pulses > 1 msec width where rising or falling edge is time tagged and logged. (Maximum rate 300 Hz.)

Be sure to ask about our 3 year warranty plan that includes one system upgrade at anytime throughout the warranty period. System upgrade includes PCS (latest version available at time of upgrade request), IMU tophat (as applicable to current system), and standard cables. Contact support@applanix to find out more.

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Specifications subject to change without notice.

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POS LV 125

MOBILE GEOSPATIAL DATA ACQUISITION: DESIGNED FOR INTEGRATION, BUILT FOR PERFORMANCE

The Applanix POS LV 125 (Position and Orientation Solution for Land Vehicles) is a compact, fully integrated, turnkey position and orientation system, utilizing integrated inertial technology to generate stable, reliable and repeatable positioning solutions for landbased vehicle applications.

POS LV 125 is designed for precise positioning and use in autonomy and field robotics applications as well as entry level mobile mapping.



Key Features

- ▶ Proven GNSS-Aided Inertial technology from Trimble Applanix
- ▶ Centimeter level mobile positioning accuracy
- ▶ Industry leading continuous positioning performance in GNSS denied environments
- ▶ Full position and orientation solution for direct georeferencing of remote sensing systems
- ▶ High-performance GNSS two antenna heading aiding from single receiver
- ▶ Solid-state, purpose-built ruggedized MEMS IMU featuring Applanix SmartCal™ compensation technology
- ▶ Single IP67 enclosure

PERFORMANCE

No GNSS outages, standard road vehicle dynamics

	SPS	VBS	IARTK	Post-Processed
Position (m)	1.50 - 3.00	0.10 - 0.50	0.02 - 0.05	0.02 - 0.05
Velocity (m/s)	0.05	0.05	0.015	0.015
Roll & Pitch (deg)	0.04	0.03	0.03	0.025
True Heading (deg)	0.25	0.20	0.15	0.08
True Heading w/ GAMS (deg)	0.12	0.09	0.09	0.06

1 km or 1 minute GNSS outage, standard road vehicle dynamics

	SPS	VBS	IARTK	Post-Processed
Position (m)	2 - 5	2 - 3	1 - 3	0.2 - 0.8
Velocity (m/s)	2 - 3	1 - 2	1 - 2	0.2 - 0.8
Roll & Pitch (deg)	0.09	0.09	0.09	0.05
True Heading (deg)	0.35	0.35	0.30	0.20
True Heading w/ GAMS (deg)	0.35	0.35	0.30	0.20

All results RMS per axis, absolute. Accuracy may be subject to anomalies such as multipath, obstructions, satellite geometry, and atmospheric conditions. Results dependent on typical road vehicle dynamics as well as DMI and GAMS availability (GAMS where GPS is available). RTK and POSpac results require adequate base station coverage. DGPS results may vary based on service provider and depend on SBAS system performance. POSpac results require Applanix POSpac MMS v6.1 or greater software for post-processing.

SYSTEM SPECIFICATIONS

Component	Dimensions L x W x H (mm)	Weight (kg)	Power	Temperature (°C)	Humidity	Cables
PCS	160 x 146 x 65.5	1.3	10-32 Volts DC, 22 Watts	-20 to +55	-5 to 95%RH ¹	-
DMI (Applanix)	115 x 254 x 908	2.4	Powered by PCS	-40 to +105	-	8 m (standard)
GNSS Antenna	177 dia x 73	0.45	Powered by PCS	-40 to +70	-	10 m (standard)

¹ Non-Condensing

² Developed under a license of the European Union and the European Space Agency

Be sure to ask about our 3 year warranty plan that includes one system upgrade at anytime throughout the warranty period. System upgrade includes system unit including on-board IMU and standard cables. Contact support@applanix.com to find out more.

Specifications subject to change without notice.

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TECHNICAL SPECIFICATIONS

- Advanced Applanix IN-Fusion™ GNSS-Inertial integration technology
- Solid-state MEMS IMU with Applanix SmartCal™ compensation technology
- Advanced Trimble Maxwell Custom GNSS survey technology (two chipsets)
- 220 Channels (per chipset):
 - GPS: L1 C/A, L2C, L2E (Trimble method for tracking unencrypted L2P), L5
 - BeiDou: B1, B2
 - GLONASS: L1 C/A, L1 P, L2 C/A L2 P code
 - Galileo: L1 CBOC, E5A, E5B & E5AltBOC
 - QZSS: L1 C/A, L1 SAIF, L2C, L5
 - SBAS: L1 C/A (EGNOS/MSAS), L1 C/A and L5 (WAAS)
 - L-Band: OmniSTAR VBS, HP, XP and G2, Trimble CenterPoint® RTX
- High precision multiple correlator for GNSS pseudorange measurements
- Unfiltered, unsmoothed pseudorange measurements data for low noise, low multipath error, low time domain correlation and high dynamic response
- Very low noise GNSS carrier phase measurements with <1 mm precision in a 1 Hz bandwidth
- Proven Trimble low elevation tracking technology
- Two antenna heading aiding (GNSS Azimuth Measurement System, GAMS™)
- Support for optional Distance Measurement Indicator (DMI) input
- Support for optional POSpac Mobile Mapping Suite post-processing software
- No export permit required

ETHERNET INPUT/OUTPUT

Function: Operate POS LV and record data
Data: Position, attitude, heading, velocity, track and speed, acceleration, status and performance, raw data. All data has time/distance tags.

UDP Port: Display port - low rate (1 Hz data)
TCP/IP Ports: Real-Time Data Port - high rate (1-200 Hz data)
Logging Data (buffered for data logging)
Control Port - used by LV-POSView™ (controller software)

RS232 NMEA OUTPUT

Parameters: Position (\$INGGA), Heading (\$INHDT), Track and Speed (\$INVTG), Statistics (\$INGST), Attitude (\$PASHR), Time and Date (\$INZDA), Events (\$EVT1, \$EVT2)
Rate: 1 - 50 Hz (user selectable)

RS232 HIGH RATE DIGITAL OUTPUT

Parameters: Roll, pitch, true heading, latitude, longitude and altitude
Rate: 1 - 200 Hz (user selectable, IMU dependent)

RS232 BASE 1 AND BASE 2 INPUT

Formats: RTCM v2.x, RTCM v3.x, CMR and CMR+

OTHER I/O

PPS: One pulse-per-second time sync output. Normally low, active high pulse where the rising edge is the reference.
Event Input: Four input discretes used to mark external events. Discretes are TTL pulses > 1 msec width where rising or falling edge is time tagged and logged. (Max rate 300 Hz.)

USER SUPPLIED EQUIPMENT

- PC or laptop computer for LV-POSView™ (controller): Pentium 90 processor (minimum), 16 MB RAM, 1 MB free disc space, Ethernet adapter (10/100 base-T, RJ45), Windows 95/98/Me/NT/2000/XP/7
- PC for POSpac MMS™ (post-processing): Pentium 4 (32 Bit) at 2 GHz processor, 1GB RAM, 400 MB free disc space 4+ GB for navigation data, USB port, Windows XP/7
- 10-34 VDC power supply, capable of supplying 60 W (peak) power from the host vehicle's electrical system.



POS LVX

POS LVX DUAL GNSS-INERTIAL SOLUTION FOR HIGH-ACCURACY POSITIONING AND ORIENTATION ON AUTONOMOUS GROUND VEHICLES

The POS LVX is available as a turn-key or OEM GNSS-Inertial solution that supports two antenna heading for the highest accuracy in all dynamic conditions.

Autonomous vehicles require accurate heading information immediately and in all phases of operation from stop-and-go traffic to highway speeds.

With a compact footprint, ease of integration, and fast setup the POS LVX uses on-board inertial sensors calibrated with the Applanix SmartCal™ software compensation technology for superior performance to meet the needs of autonomous vehicle manufacturers in mining, trucking, mapping, and vehicle testing.

Easily integrated with many types of sensors including optical, infrared, and lidar, the POS LVX delivers Inertially-Aided Real-Time Kinematic (IARTK) positioning in a small, lightweight form factor.

The POS LVX product uses state-of-the-art low noise multi-frequency Trimble Maxwell GNSS technology, and tracks all current satellite signals including GPS L1/L2/L2C/L5 and GLONASS L1/L2, QZSS, Beidou, IRNSS, and Galileo, and supporting SBAS, RTK, and Trimble CenterPoint® RTX positioning modes.

Key Features

- ▶ Cost effective and high-performance position and orientation solution in a small form factor enclosure
- ▶ Fully integrated, turnkey solution for efficiency and ease-of-use
- ▶ Stable, reliable and repeatable positioning solution for land-based autonomous applications
- ▶ POS LVX is a new configuration of dual GNSS POS LV designed for the smaller, modular system
- ▶ For the same performance in an OEM offering, see the Applanix APX-18
- ▶ Applanix SmartCal™ compensation technology for superior position and orientation performance





TECHNICAL SPECIFICATIONS

- Advanced Applanix IN-Fusion™ GNSS-Inertial integration technology
- Solid-state MEMS inertial sensors with Applanix SmartCal™ compensation technology
- Advanced Trimble GNSS survey technology
- Position antenna based on second 336 Channels Maxwell 7 chip:
 - GPS: L1 C/A, L2E, L2C, L5
 - BeiDou B1, B2, B3¹
 - GLONASS: L1 C/A, L2 C/A, L3 CDMA²
 - Galileo³: E1, E5A, E5B, E5AltBOC, E6²
 - IRNSS L5
 - QZSS: L1 C/A, L1 SAIF, L1C, L2C, L5, LEX
 - SBAS: L1 C/A, L5
 - MSS L-Band: OmniSTAR, Trimble RTX
- Vector Antenna based on second 336 Channel Maxwell 7 chip:
 - GPS: L1 C/A, L2E, L2C, L5
 - BeiDou B1, B2, B3¹
 - GLONASS: L1 C/A, L2 C/A, L3 CDMA²
 - Galileo³: E1, E5A, E5B, E5AltBOC, E6²
 - IRNSS L5
 - QZSS: L1 C/A, L1 SAIF, L1C, L2C, L5, LEX
- High precision multiple correlator for GNSS pseudorange measurements
- Advanced RF Spectrum Monitoring and Analysis
- Unfiltered, unsmoothed pseudorange measurements data for low noise, low multipath error, low time domain correlation and high dynamic response
- Very low noise GNSS carrier phase measurements with <1 mm precision in a 1 Hz bandwidth
- Proven Trimble low elevation tracking technology
- 100 Hz real-time position and orientation output
- IMU data rate 200 Hz
- Navigation output format: ASCII (NMEA-0183), Binary (Trimble GSOFF)
- Supported Reference input: – CMR, CMR+, sCMRx, RTCM 2.1, 2.2, 2.3, 3.0, 3.1, 3.2
- Support for POSpac MMS post-processing software (sold separately)
- No export permit required
- Supports Fault Detection & Exclusion (FDE), Receiver Autonomous Integrity Monitoring (RAIM)

LAN INPUT/OUTPUT

All Ethernet functions are supported through dedicated IP address (Static or DNS) simultaneously.

TCP/IP and UDP

ASCII and Binary data streaming (Time tag, PPS sync, status, position, attitude, velocity, track and speed, dynamics, performance metrics, GNSS data)

HTTP

Web based Control software (GUI) for easy system configuration and low rate display. Support for all common browsers (IE, Safari, Mozilla, Google Chrome, Firefox)

LOGGING:

Internal Logging
External Logging
Parameters

6 GByte Flash memory
USB 2.0 Device port
Time tag, status, position, attitude, velocity, track and speed, dynamics, performance metrics, raw IMU data (200 Hz), raw GNSS data (5 Hz).

SERIAL INPUT/OUTPUT

2 x RS232 ports
Parameters

ASCII and Binary data streaming (Time tag, PPS sync, status, position, attitude, velocity, track and speed, dynamics, performance metrics, GNSS data), reference input (CMR, CMR+, sCMRx, RTCM), configuration messages.

Other I/O

PPS (pulse-per-second)
Event Input (2)
DMI Input

Time Sync Pulse output
Two time mark of external event
Quadrature pulse with reference voltage

PERFORMANCE SPECIFICATIONS⁴ (RMS ERROR)

No GNSS outages, standard road vehicle dynamics

	SPS	DGPS	RTK
Position (m)	1.5 H	0.1 H	0.02 H
	3.0 V	0.5 V	0.05 V
Roll & Pitch (deg)	0.04	0.03	0.03
True Heading ⁵ (deg)	0.12	0.09	0.09

1 km or 1 minute GNSS outage, standard road vehicle dynamics⁶

	SPS	DGPS	RTK
Position (m)	2.0 H	2.0 H	1.0 H
	5.0 V	3.0 V	2.0 V
Roll & Pitch (deg)	0.09	0.09	0.09
True Heading ⁵ (deg)	0.35	0.35	0.30

PHYSICAL CHARACTERISTICS

Size:185 L x 93 W x 42 H mm (nominal)

Weight:0.76 kg

Power: Wide range input 9-30 V DC, typical power consumption of 3.5 W at room temperature

Connectors: I/O: DA26

DMI: DE9

Antenna (2): TNC (Female)

Trimble 540AP included

GNSS Antenna LNA Power Input:

Minimum required LNA gain:

31.0 dB (> 35 dB Recommended)

ENVIRONMENTAL CHARACTERISTICS

Temperature: -40 deg C to +75 deg C (Operational)

-55 deg C to +85 deg C (Storage)

Measurement Range: +/- 6g⁷, +/- 350 dps

Mechanical Shock: +/- 75g Survival

Operating Humidity: 5% to 95% R.H. non-condensing at +60 deg C

Maximum Operating Limits: 515 m/sec

18,000 m alt

IP rating: IP67

(¹) The hardware of this product is designed for Beidou B3 compatibility (trial version) and its firmware will be enhanced to fully support such new signals as soon as the officially published signal interface control documentation (ICD) becomes available

(²) There is no public GLONASS L3 CDMA or Galileo E6 ICD. The current capability in the receivers is based on publicly available information. As such, Trimble cannot guarantee that these receivers will be fully compatible.

(³) Developed under a License of the European Union and the European Space Agency

(⁴) Typical performance. Actual results are dependent upon satellite configuration, atmospheric conditions and other environmental effects

(⁵) With two metre antenna baseline

(⁶) With DMI option

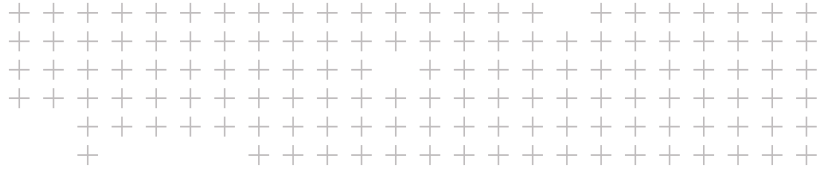
(⁷) Sensor bandwidth (-3 dB amplitude) ~ 50 Hz

Specifications subject to change without notice.

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Autonomy Development Platform

CUSTOMIZED NAVIGATION SOLUTIONS THAT ENABLE AUTOMAKERS, TRUCK MAKERS, AND SUPPLIERS TO ACCELERATE DEVELOPMENT AND PRODUCTION OF AUTONOMOUS VEHICLES OF ALL TYPES

Applanix offers on-road and off-road vehicle manufacturers all the tools and engineering expertise to support and augment driverless vehicle development programs. Fully customizable and including engineering and integration services, field-tested hardware, and our proprietary software for highly accurate positioning, our navigation solution is capable of working with all sensors, including multiple cameras, LIDAR, radar, and ultrasonic sensors, and with all vehicle types at all stages in the development and commercialization cycle.

The platform includes Development Kits for the research/development/testing stage and Production Kits for producing the finished vehicles.

DEVELOPMENT KITS

The Development Kits are designed to meet the unique needs of your particular applications and vehicles under development and can include highest accuracy POS LV systems, the POS LVX, POSpac software, integration services, engineering services, cabling, connectors, etc.

PRODUCTION KITS

The Production Kits include high volume, inexpensive OEM board sets for installation in the final vehicles, as well as engineering support, integration services, etc.

Benefits

- ▶ Reduced costs: customized solution for all vehicles, environments, and applications means no rework or changing technology
- ▶ Faster to market: customized to accelerate all stages of development and production
- ▶ One-stop-shop: includes engineering services, integration services, and proven hardware and software
- ▶ Flexibility: custom support for production of on-road and off-road vehicles.
- ▶ Custom support for research, development, testing, and production stages of commercialization.
- ▶ Precise, high-rate, low-latency, real-time data
- ▶ Quick operational capability
- ▶ Requires little space in the vehicles
- ▶ Uses the latest survey-grade GNSS technology for improved positioning performance



ADVANCING DRIVERLESS VEHICLE DEVELOPMENT PROJECTS AT EVERY STAGE

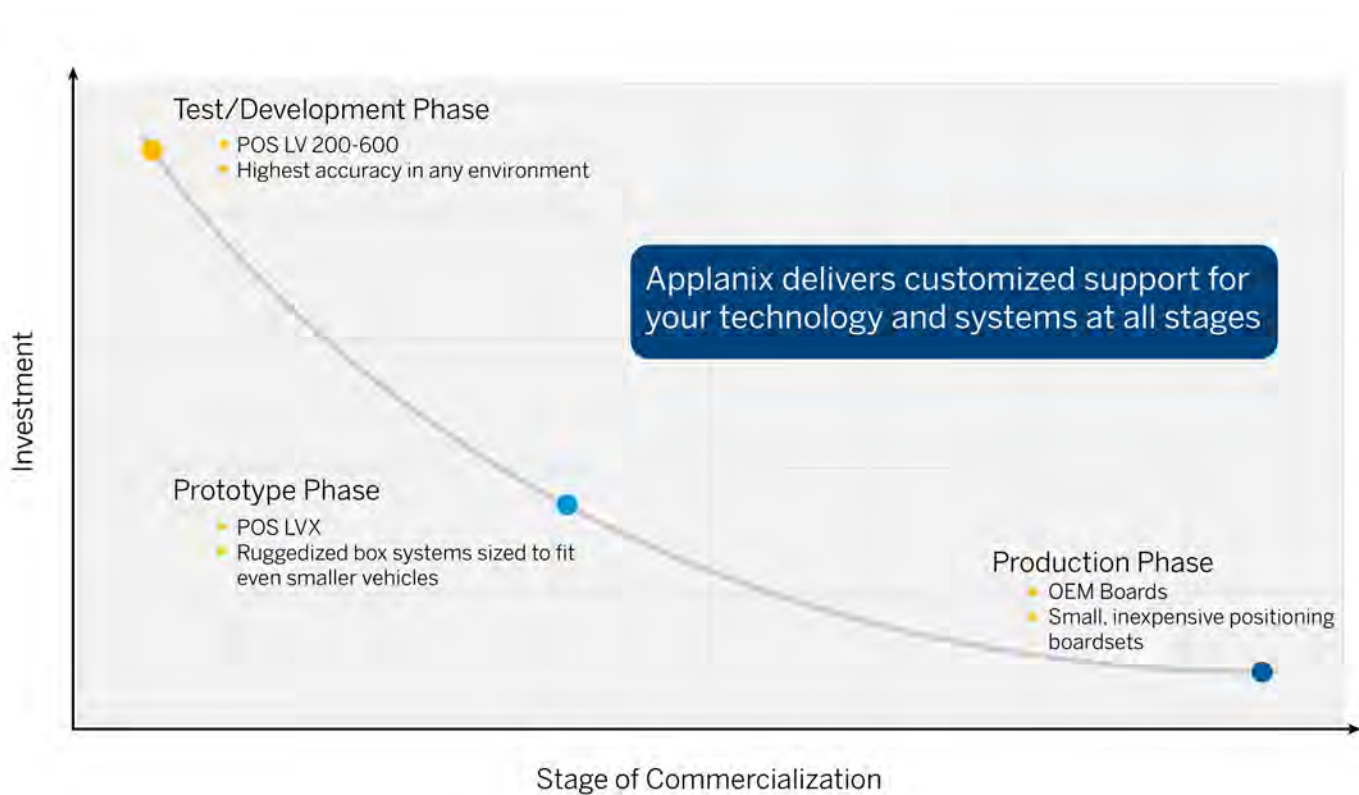
DEVELOPMENT KITS

Can include:

- ▶ A compact, fully integrated, turnkey Position and Orientation System, utilizing integrated inertial technology to generate stable, reliable, and repeatable positioning solutions
- ▶ POSpac MMS post-processing software
- ▶ Choice of IMU based on requirements
- ▶ Advanced Applanix IN-Fusion™ GNSS-Inertial integration technology
- ▶ Dual-frequency GNSS antenna
- ▶ All cables, connectors, interfaces, etc.

PRODUCTION KITS

- ▶ For on-road and off-road vehicles of all sizes and for all applications (heavy industry, automobiles, etc)
- ▶ Embedded GNSS-Inertial OEM board set
- ▶ Small, compact form
- ▶ Low weight and power requirements
- ▶ Solid-state MEMS inertial sensors with Applanix SmartCal™ compensation technology
- ▶ Advanced Applanix IN-Fusion™ GNSS-Inertial integration technology
- ▶ POSpac MMS Differential GNSS-Inertial post-processing software for highest accuracy
- ▶ Antennas, cabling, etc.



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