USING AUXILIARY SENSORS WITHIN TAPESTRY

TAPESTRY is capable of outputting a range of Auxiliary Navigation Sensors used to support and compliment the GPS measurements processed by the User Equipment Under Test.

Auxiliary Sensor Data is comprised of:

- Strapdown Inertial Measurement Unit (IMU).

  Using our MFIO expansion card, Tapestry generates Inertial Referenced Delta–Velocity and Delta-Angle for hardware formats such as Honeywell HG-1700, Litton LN200, and some AMRAAM sensors. Both SDLC and Differential RS422 protocol with all hardware handshaking is provided. Data synchronization with the RF output signal is maintained by the Tapestry ***Run Scenario*** Application.

- Automotive Sensor Data.

  Using our MFIO expansion card, Tapestry constructs and outputs data used by Automotive Navigation Systems. Data consists of Analog 0-5VDC programmable Gyroscopic and Acceleration measurements in a triad package. Odometers and ABS data is provided via a 4-Wheel-Speed-Pulse output. Rate table control, Reverse Signal, and programmable error models are output. Data synchronization with the RF output signal is maintained by the Tapestry ***Run Scenario*** Application.

- Baro Altimeter. Output via RS232 in a selection of formats and units. Internally this sensor support ICD-INS-059 1553 and related serial output.

- 1553. GPS-INS-059 data output via an optional (COTS-Ballard) 1553 PCI expansion card.

- ARINC-429. In support of aircraft navigation, related message types are output via an optional (COTS-Ballard) ARINC-429 PCI expansion card.

- Serial Data output via RS232 is provided.

- Serial Data output via GPSIP-153

- All data synchronized via 1-PPS to GPS rollovers. Master clock distribution.

A COMPREHENSIVE SIMULATION ENVIRONMENT

GLOBAL POSITIONING SYSTEM

- LEGACY 32 CHANNELS L_1 L_2 P/Y
- MODERNIZED 32 CHANNELS L_1 [CA P M] [L_2 C P M] L_5
- ANTENNA MODELS
- MULTIPLE RF OUTPUTS
- MULTIPLE VEHICLES / TERRESTRIAL SPACEBORNE

. FLEX POWER
. MEVTP CERTIFIED

- BUILT IN MOTION GENERATION
- JOYSTICK / REMOTE CONTROL
- SCRAMNet CLOSED LOOP

. IMPORT TRAJECTORIES

REALISTIC FLIGHT

INERTIAL NAVIGATION

- LEVER ARMS
- HG1700/SDLC

. LN-200 /SDLC
. AMRAAM
. 1553 /ICD-059

SCENARIO BASED
MODERNIZED-JAMMING

- WIDEBAND
- CW
- 100dB DYNAMIC RANGE
- 4 ELEMENT WAVEFRONT

GSSIP-153 DATA , DGPS, BARO

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