

INERTIAL NAVIGATION SYSTEM (INS) - ICD GPS-059

Using the Ballard PCIe 1553 Dual Channel expansion board, Tapestry outputs properly formatted INS data formatted as described by ICD-GPS-059.

ICD-GPS-059 Setup and Configuration

☐ Assign to PCI X-Card

5 Hz Message Output Rate 12.20° Magnetic to True North Variation

0 NMPH Navigation Data Quality ☐ Apply Error Model 36.40 Ft Mean Sea Level to Ellipsoid Altitude Offset

50 microseconds Time Scale Factor (GRAM Cnfg Word 0 Bit 3)

MESSAGE OUTPUT SELECTION

☐ Output I-1 0 Output Delay (seconds)

☐ Output I-2 0 Output Delay (seconds)

☐ Output I-6 [USAF Standard INS State Vector] 0 Status Word

☐ Output I-11 [USAF CADC Aiding Data] 0 Mode Word

☐ Output I-15 [USAF Alternative Navigation Sensor Data] 0 Status Word

☐ Output I-8 [NAVY Standard INS Output] 0 Mode Word

☐ Output I-9 [NAVY INS Correction Message] 0 Mode Word

Once (Use @Time) I-9 Message Output Rate

@Time 0 Seconds into Simulation

☐ Output I-10 [NAVY Auxiliary Navigation Sensor Output] 0 Mode Word

☐ Output I-12 [NAVY AN/ASN-130A/139 INS Output] 0 I-12 Status Word

0 I-12 ASN-130 Align Mode Word

1/4 I-12 Alignment Quality (NMPH)

0 I-12 Alignment Time (seconds)

☐ Output I-27 [FNU 85-1 INS State Vector] 0 Status Word

CANCEL APPLY