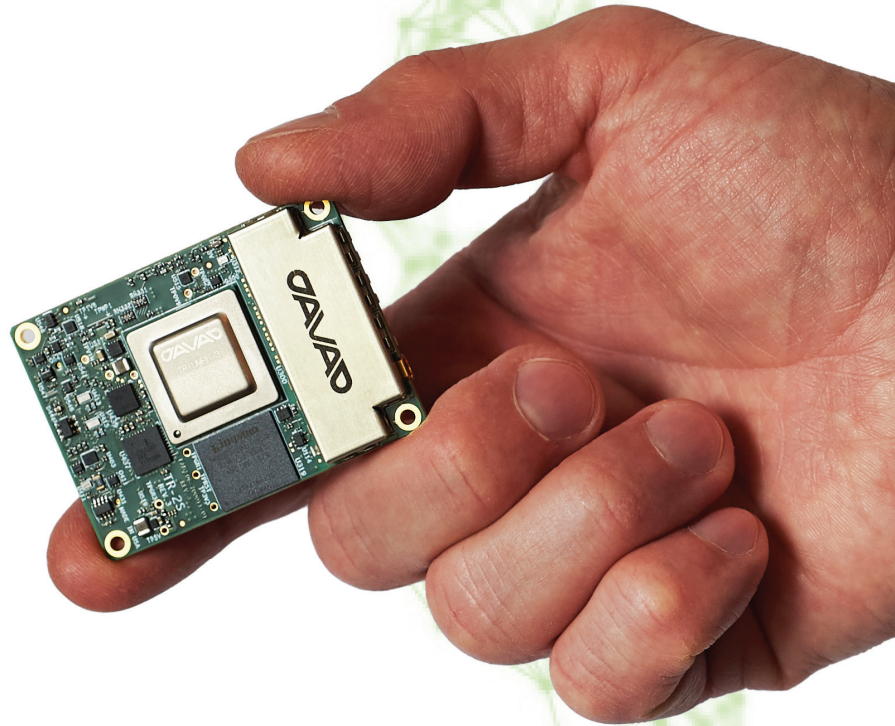




# TR-2S

OEM GNSS Board



## Key Features

- Spoofing Detection
- Advanced Multipath Mitigation
- 874 Channel, all-in-view tracking
- MIL-STD-810G Shock & Vibration
- Fast Acquisition Channels
- Up to 200Hz Output
- CAN, Event, 1PPS, GPIO
- 16 GB on board storage

The TR-2S is a compact and versatile GNSS board ready for any application requiring high precision and small size. Patented anti-spoofing and jamming detection allow deployment in the most demanding environments together with a full suite of interfaces. The TR-2S utilizes all GNSS constellations with multifrequency tracking for robust PVT. Users have an easy status and configuration tool with JAVAD's NetView software and may also interface by line commands within their system.

# TR-2S Specifications



<b>Number of Channels</b>	874	
<b>GNSS Constellations</b>	GPS GLONASS Galileo BeiDou QZSS SBAS IRNSS L-band	L1 C/A, L1C (P+D), TMSBOC, P1, P2, L2C (L+M), L5 (I+Q) L1 C/A, P1, P2, L2C, L3(I+Q) E1(B+C), CBOC, E5A(I+Q), E5B(I+Q), AltBoc, E6(B+C) B1, B1C(P+D), TMSBOC, B2B(I+Q), B2, B2A(I+Q), AltBoc, B3 L1 C/A, L1C (P+D), TMSBOC, L2C (L+M), L5 (I+Q), L6 (L61/L62), L1S, L1Sb, L5S L1, L5(P+D) L5, S-Band 1525-1560 MHz
<b>Position Accuracy</b>	Autonomous DGPS RTK Static/Fast Static	< 2.0 m < 0.5 m Horizontal: 0.008 m + 1.0 ppm      Vertical: 0.015 m + 1.0 ppm Horizontal: 0.003 m + 0.1 ppm      Vertical: 0.005 m + 0.4 ppm
<b>Time To First Fix</b>	Cold Start Warm Start Reacquisition	< 35 s < 5 s < 1 second
<b>Input/Output</b>	Serial USB Event Marker 1PPS CAN GPIO Status GNSS Antenna Main Connector	1 x RS232 Serial Port (up to 460.8 Kbps) 2 x Configurable RS232 / RS422 Serial Ports (up to 460.8 Kbps) 1 x USB 2.0 Full Speed. Up to 1.5 Mbps RS232 speed 1 x Event Mark Input 1 x 1PPS Output Synchronized to GPS or UTC 1 x CANBUS Port 2 x Configurable Logic-Level GPIO Ports 4 External LED drivers, On / Off Control, External Command Input 1 x MMCX, +5 VDC up to 0.16 A Micro Header, 2 x 20 pos, 0.050" pitch
<b>Storage</b>	Memory	16 GB internal, non-removable
<b>Physical &amp; Electrical</b>	Dimensions Weight Power Input Power Consumption	55 x 40 x 11 mm 20 g +4 to +40 VDC GPS + GLO L1: 1.4 W GPS + GLO + GAL + BDS L1: 1.5 W All in view, L-Band Off: 2.0 W All in view + L-Band: 2.3 W
<b>Environmental</b>	Operating Temperature Storage Temperature Shock Vibration	-40° C to +80° C -40° C to +85° C MIL-STD-810G(C1) Method 516.7 Shock Procedure I (Functional) MIL-STD-810G(C1) Method 516.7 Shock Procedure V (Crash Hazard) ISO-9022-31-06 Shock, Severity 5 MIL-STD-810G(C1) Method 514.7 Category 24 Minimum Integrity Vibration MIL-STD-810G(C1) Method 514.7 Category 24 Helicopter Vibration IEC 60068-2-6 Sine Vibration

GNSS performance is dependent on signal quality, satellite geometry, ionospheric and tropospheric conditions, baseline length, multipath effects and RF interference. Specifications may be changed without notice.