



TR-2S

OEM GNSS Board



Key Features

- Spoofing & Jamming Detection
- Advanced Multipath Mitigation
- 874 Channels, All GNSS Tracking
- MIL-STD-810G Shock & Vibration
- Fast Acquisition Channels
- Up to 200 Hz Output
- CAN, Event, 1PPS, GPIO
- 16 GB Storage

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.

TR-2S utilizes all GNSS constellations with multifrequency tracking for robust PVT. Users have an easy status and configuration tool with JAVAD NetView software and may also interface by line commands within their system.

TR-2S Specifications



Tracking	Total Channels	874	
	GPS	L1 C/A, L1C, P1, P2, L2C, L5	
	GLONASS	L1 C/A, P1, P2, L2 C/A, L3	
	Galileo	E1, E5, E5A, E5B, E6	
	BeiDou	B1, B1C, B2B, B2, B2A, B3	
	QZSS	L1C C/A, L1C, L2C, L5, L6, L1S, L1Sb, L5S	
	SBAS	L1, L5	
	NavIC	L1, L5, S	
	L-Band	1525-1560 Mhz	
Performance		Horizontal (m)	Vertical (m)
	Standalone	1.000	1.500
	SBAS	0.500	0.850
	DGPS	0.250	0.500
	JStar (PPP)	0.025	0.050
	RTK	0.008 + 1 ppm	0.015 + 1 ppm
	Network RTK	0.008 + 0.5 ppm	0.015 + 0.5 ppm
	Static / Fast Static	0.003 + 0.1 ppm	0.004 + 0.4 ppm
Time to First Fix	Cold Start	< 35 s	
	Warm Start	< 5 s	
	Reacquisition	< 1 s	
	RTK Initialization	2 - 6 s	
Output Rate	Position	up to 200 Hz	
	Measurements	up to 200 Hz	
Wired I/O	Main Connector	40-pin Micro Header, 2 x 20 pos, 0.050" pitch	
	GNSS Antenna	1 x MMCX, +5 VDC Ports (0.16A max)	
	Serial	1 x RS232 up to 460.8 kbps 2 x RS232/RS422 up to 460.8 kbps	
	USB	1 x USB 2.0 Full Speed. Up to 3.0 Mbps UART	
	CAN	1 x CAN 2.0	
	Event Marker	1 x Event Marker	
	GPIO	2 x Configurable Logic-Level GPIO Ports	
	1PPS	1 x 1PPS output synchronized to GPS or UTC	
Storage	Internal Memory	Up to 16 GB	
Status/Interface	LEDs	4 x External LED Drivers	
Power	Input	+4 to +40 VDC	
	Power Consumption	2.2 W typical	
Physical	Dimensions	55 x 40 x 11 mm	
	Weight	20 g	
Environmental	Operating Temperature	-40°C to +80°C	
	Storage Temperature	-40°C to +85°C	
	Shock & Vibration	MIL-STD-810G ISO-9022-31-06 Shock, Severity 5 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.