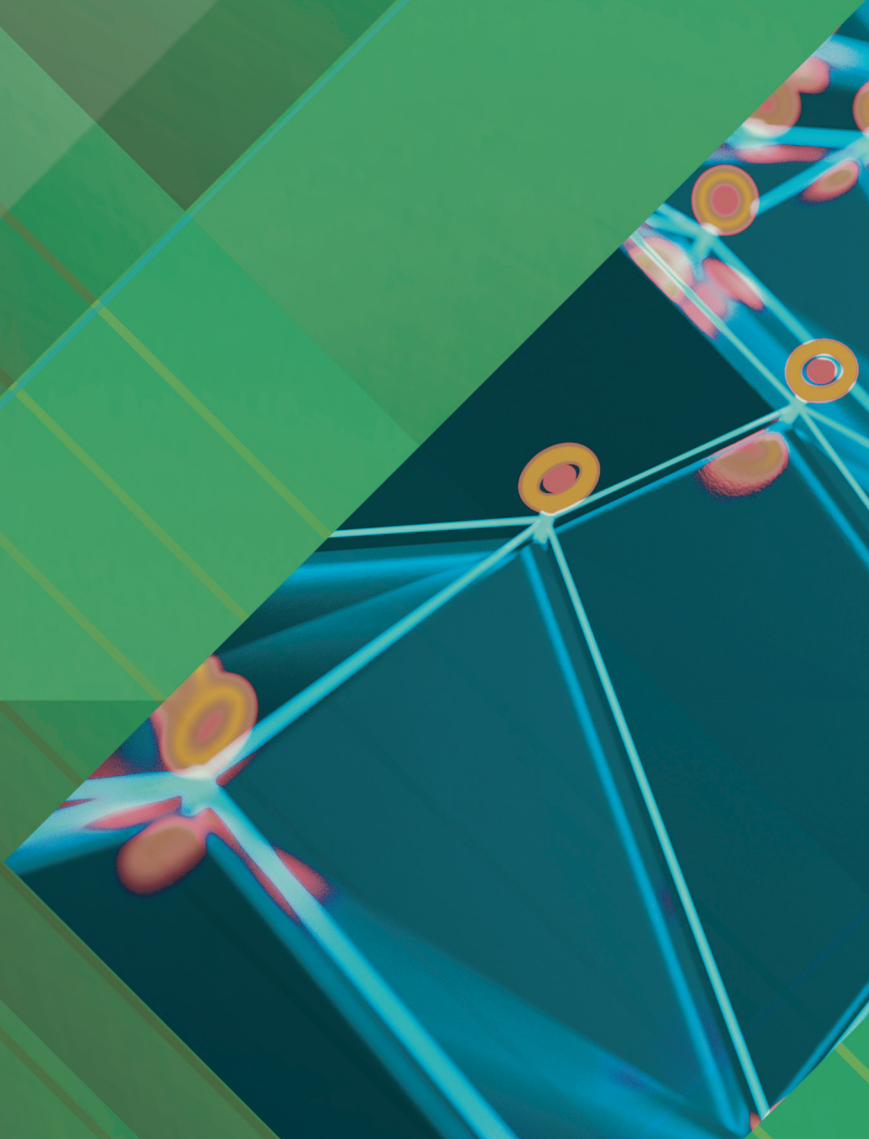


OEM7[®] Receivers



Setting the standard in
positioning and performance



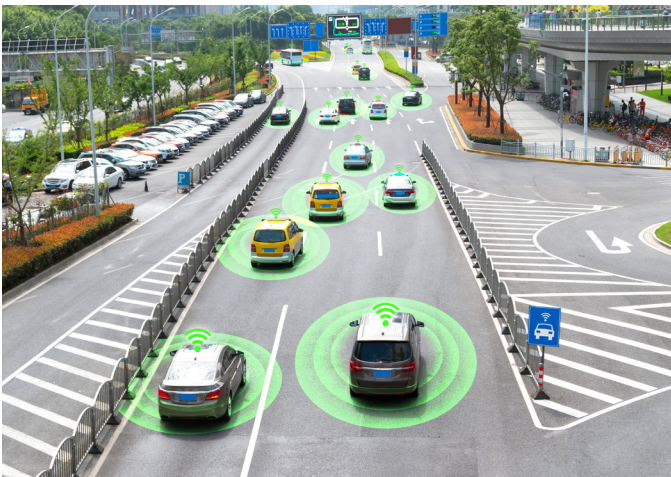
NovAtel OEM7[®] GNSS Receivers

NOVATEL'S OEM7 GNSS RECEIVERS SET THE STANDARD IN POSITIONING PERFORMANCE, FEATURES AND EASE OF INTEGRATION.

Leveraging six previous generations of precise positioning know-how, the OEM7 incorporates innovative capabilities and features to enhance positioning reliability, accuracy and availability.

Cornerstones of the OEM7 family include advanced interference detection and mitigation, with L-Band and SPAN[®] GNSS+INS functionality on every receiver.

SPAN[®] Technology



NovAtel's SPAN technology provides continuous 3D positioning, velocity and attitude determination even when satellite reception may be compromised for short periods of time.

SPAN integrates Inertial Measurement Units (IMUs) with OEM7 receivers to create a tightly coupled GNSS+INS solution at data rates up to 200 Hz.

The accuracy of SPAN products can be optimized with best-in-class post-processing software from our Waypoint[®] Products group

To learn more about SPAN technology, please visit www.novatel.com/products/span-gnss-inertial-systems/

CORRECT Positioning

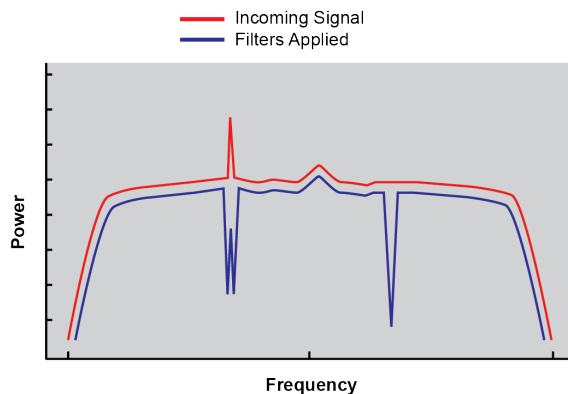


NovAtel CORRECT® is state-of-the-art in positioning algorithms. It optimizes corrections from Real Time Kinematic (RTK), Precise Point Positioning (PPP), Space Based Augmentation Systems (SBAS) and Differential Global Navigation Satellite Systems (DGNSS).

NovAtel CORRECT ensures you receive the positioning accuracy needed for your application, whether that is metre, decimetre or centimetre-level.

To learn more about NovAtel CORRECT positioning, please visit www.novatel.com/solutions/novatel-correct-positioning/

Interference Toolkit

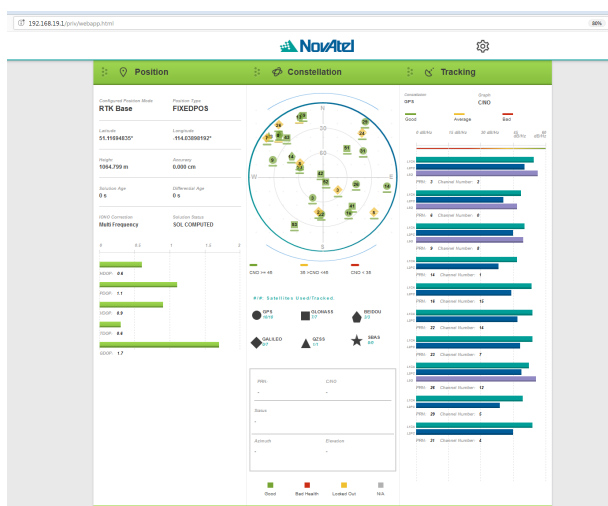


In today's crowded frequency spectrum, potential for interference is high.

The Interference Toolkit provides any operator on-demand actionable intelligence by measuring the radio frequency spectrum levels, simplifying visualization, monitoring, quantifying and even mitigating interference sources.

To learn more about the Interference Toolkit, please visit www.novatel.com/solutions/interference-mitigation/

Web UI



Web UI is a website user interface that configures and monitors receiver activities all at a glance. With its new look for OEM7 products, and ease to connect over ethernet, all your information is available together. It comes with the following main features:

- Position configurations and display status
- Logging control
- Storage management
- Mobile platform support
- Firmware upgradable through Web UI

NovAtel OEM7[®] GNSS Series

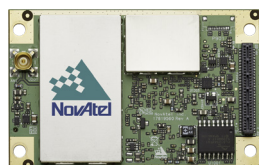
Cards



OEM7600™

Multi-frequency GNSS receiver delivers precise positioning in an extremely compact form factor

Size: 35 × 55 × 13 mm
Weight: 31 g



OEM7700™

Multi-frequency GNSS receiver delivers precise positioning and simplifies integration

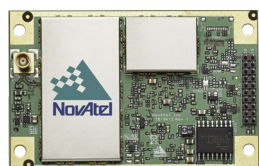
Size: 46 × 71 × 8 mm
Weight: 31 g



OEM7720™

Dual-antenna, multi-frequency GNSS receiver delivers robust heading and positioning

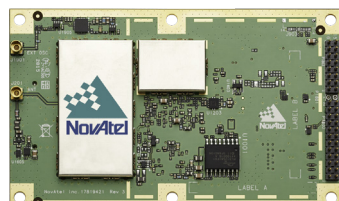
Size: 46 × 71 × 8 mm
Weight: 29 g



OEM719™

Multi-frequency GNSS receiver includes all modern signals and is backward compatible with the OEM615/OEM617 receiver

Size: 46 × 71 × 11 mm
Weight: 31 g



OEM729™

Multi-frequency GNSS receiver includes all modern signals and is backward compatible with the OEM628 receiver

Size: 60 × 100 × 9 mm
Weight: 48 g

POSITIONING ACCURACY (LEVEL)

Metre (RMS/95%)		Sub Metre (RMS/95%)		Centimetre (RMS/95%)	
Single Point L1	Single Point L1/L2	SBAS	DGPS	TerraStar-L ^a	TerraStar-C PRO ^a RTK
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	2.5 cm ^b 3 cm
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	1 cm + 1 ppm 2.5 cm + 1 ppm
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	1 cm + 1 ppm 2.5 cm + 1 ppm
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	1 cm + 1 ppm 2.5 cm + 1 ppm
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	1 cm + 1 ppm 2.5 cm + 1 ppm

a. Requires subscription to TerraStar data service. Subscriptions available from NovAtel.
b. TerraStar-C Pro available on a future firmware release.
c. Typical value. GPS L1 only.

SOLUTIONS

+	+	+	+	+	ALIGN® Heading and Relative Positioning
					Integrated ALIGN Heading
+	+	+	+	+	NovAtel CORRECT®
+	+	+	+	+	GLIDE®
+	+	+	+	+	RAIM
+	+	+	+	+	SPAN®
+	+	+	+	+	Interference Toolkit

SIGNAL TRACKING

L1 C/A, L1C, L2C, L2P, L5	L1 C/A, L1C, L2C, L2P, L5	L1 C/A, L1C, L2C, L2P, L5	L1 C/A, L1C, L2C, L2P, L5	L1 C/A, L1C, L2C, L2P, L5	GPS
L1 C/A, L2 C/A, L2P, L3, L5	L1 C/A, L2 C/A, L2P, L3, L5	L1 C/A, L2 C/A, L2P, L3, L5	L1 C/A, L2 C/A, L2P, L3, L5	L1 C/A, L2 C/A, L2P, L3, L5	GLONASS
E1, E5 AltBOC, E5a, E5b, E6	E1, E5 AltBOC, E5a, E5b, E6	E1, E5 AltBOC, E5a, E5b	E1, E5 AltBOC, E5a, E5b, E6	E1, E5 AltBOC, E5a, E5b	Galileo
B1I, B1C, B2I, B2a, B3I	B1I, B1C, B2I, B2a, B3I	B1I, B1C, B2I, B2a	B1I, B1C, B2I, B2a, B3I	B1I, B1C, B2I, B2a	BeiDou
L1 C/A, L1C, L2C, L5, L6	L1 C/A, L1C, L2C, L5, L6	L1 C/A, L1C, L2C, L5	L1 C/A, L1C, L2C, L5, L6	L1 C/A, L1C, L2C, L5	QZSS
L5	L5	L5	L5	L5	NavIC (IRNSS)
L1, L5	L1, L5	L1, L5	L1, L5	L1, L5	SBAS
Up to 5 channels	Up to 5 channels	Up to 5 channels	Up to 5 channels	Up to 5 channels	L-Band
555	555	555	555	555	Number of Channels

INTERFACES

2 LVCMOS, 1 RS-232/RS-422	3	5	5	5	Serial Ports
1 Device	1 Device	1 Device, 1 Host	1 Device, 1 Host	1 Device, 1 Host	USB Ports
2	2	2	2	2	CAN Ports
1	1	1	1	1	Ethernet

100 Hz	100 Hz	100 Hz	100 Hz	Maximum Data Rate
+3.3 VDC [±5%]	+3.3 VDC [±5%]	+3.0 to 5.0 VDC	+3.3 VDC [±5%]	Input Voltage
0.9 W	0.9 W	1.6 W	0.9 W	Power Consumption

NovAtel OEM7[®] GNSS Series

Enclosures



PwrPak7[®]

Rugged, compact enclosure delivers scalable GNSS solutions with internal storage and GNSS+INS options

Size: 147 × 125 × 55 mm
Weight: 500 g



PwrPak7D

Rugged, compact, dual antenna enclosure delivers scalable GNSS solutions with internal storage and GNSS+INS options

Size: 147 × 125 × 55 mm
Weight: 500 g

POSITIONING ACCURACY (LEVEL)

Metre (RMS/95%)		Sub Metre (RMS/95%)		Centimetre (RMS/95%)	
Single Point L1	Single Point L1/L2	SBAS	DGPS	TerraStar-L ^a	TerraStar-C PRO ^a RTK
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	2.5 cm 3 cm 1 cm + 1 ppm 2.5 cm + 1 ppm
1.5 m 2.5 m	1.2 m 2.4 m	60 cm 120 cm	40 cm 80 cm	40 cm 50 cm	2.5 cm 3 cm 1 cm + 1 ppm 2.5 cm + 1 ppm

a. Requires subscription to TerraStar data service.
Subscriptions available from NovAtel.
b. Typical value. GPS L1 only.

SOLUTIONS

+	ALIGN® Heading and Relative Positioning
+	Integrated ALIGN Heading
+	NovAtel CORRECT®
+	GLIDE®
+	RAIM
+	SPAN®
+	Interference Toolkit

SIGNAL TRACKING

L1 C/A, L1C, L2C, L2P, L5	GPS
L1 C/A, L2 C/A, L2P, L3, L5	GLONASS
E1, E5 AltBOC, E5a, E5b, E6	Galileo
B1I, B1C, B2I, B2a, B3I	BeiDou
L1 C/A, L1C, L2C, L5, L6	QZSS
L5	NavIC (IRNSS)
L1, L5	SBAS
Up to 5 channels	L-Band
555	Number of Channels

INTERFACES

1 RS-232, 2 RS-232/RS-422	Serial Ports
1 Device, 1 Host	USB Ports
1	CAN Ports
1	Ethernet
+	Wi-Fi

16 GB	Memory
100 Hz	Maximum Data Rate
+9 to +36 VDC	Input Voltage
2.5 W	Power Consumption ^b



The secret to positioning success.

NovAtel is an Original Equipment Manufacturer (OEM) that designs, manufactures and sells high-precision Global Navigation Satellite System (GNSS) positioning technology.

Developed for efficient and rapid integration, our GNSS products have set the standard in quality and performance for over 20 years. State-of-the-art, lean manufacturing facilities in our North American headquarters produce the industry's most extensive line of OEM receivers, antennas and subsystems. All of our products are backed by a team of highly skilled customer support and design engineers, ready to answer all your integration questions. For unsurpassed quality, product selection and precise engineering know-how, choose NovAtel.

To learn more, visit

www.novatel.com

sales@novatel.com

1-800-NOVATEL (US & Canada) or 403-295-4900

China 0086-21-68882300

Europe 44-1993-848-736

SE Asia & Australia 61-400-883-601

Version 8 Specifications subject to change without notice.

© 2018 NovAtel Inc. All rights reserved.

NovAtel, OEM7, PwrPak7, SPAN, ALIGN, GLIDE and NovAtel CORRECT are registered trademarks of NovAtel Inc.

OEM719, OEM729, OEM7600, OEM7700, OEM7720, OEM615, OEM617 and OEM628 are trademarks of NovAtel Inc.

Refer to www.novatel.com for the latest revision of this brochure.

Printed in Canada

D21517 August 2018

