



Compact Enclosure Supports a Range of NovAtel GNSS Receivers Offering Flexible Performance for Any Application

Benefits

Proven NovAtel GNSS technology

Easy to integrate

Ideal for low-payload UAV and robotics applications

Field upgradable to support all OEMStar™, OEMV-1™, OEMV-1G™ and OEMV-2™ functionality

Features

Metre to centimetre-level accuracy

Auxiliary strobe signals with configurable PPS output

Shock and dust resistant; waterproof to IPX7

Rugged DB9 connectors with power in/out support

Active antenna support

Scalable Functionality

The FlexPak-G2 is available in four variants, all which are software upgradable in the field to provide the custom performance required for your application demands.

FlexPak-G2-V2: Offers dual frequency GPS+GLONASS tracking, modernized to support GPS L2C, allowing stronger signal tracking. Available with NovAtel's AdVance® RTK for centimetre-level accuracy with fast initialization over extended baselines.

FlexPak-G2-V1G: Provides GPS+GLONASS L1 tracking for reliable positioning even in obstructed sky conditions. NovAtel's RT-2 L1TE™ L1-only RTK algorithm allows reliable centimetre level accuracy for high precision applications.

FlexPak-G2-V1: Delivers GPS-only L1 tracking, and supports OmniSTAR® VBS, and SBAS corrections for accurate and reliable DGPS positioning. NovAtel's RT-20® L1 carrier-phase positioning is available for increased accuracy with a 20 Hz data rate.

FlexPak-G2 with OEMStar: Offers L1 GPS+GLONASS positioning and measurements in combination with GPS data to provide increased satellite availability for positioning in challenging environments.

Base Station or Rover

All FlexPak-G2 models are capable of base station or rover operation. Using standardized RTCM 2.3, RTCMV3 and CMR+ message types, the FlexPak-G2 is compatible with all NovAtel and third party GNSS receivers.

Enhanced Connectivity

Two standard DB9 communication ports support power in and out; one port may be dedicated to powering and communicating with a radio, while the other may be dedicated to your host application. Independent input/output and USB ports may be used simultaneously for time synchronization and direct connection to your laptop for field operation.

If you require more information about our enclosures, visit novatel.com/products/gnss-receivers/enclosures

novatel.com

sales@novatel.com

1-800-NOVATEL (U.S. and Canada)
or 403-295-4900

China 0086-21-54452990-8011

Europe 44-1993-848-736

SE Asia and Australia 61-400-833-601



	FlexPak-G2 with OEMStar		FlexPak-G2-V1		FlexPak-G2-V1G		FlexPak-G2-V2	
Receiver	OEMStar		OEMV-1		OEMV-1G		OEMV-2	
Channel Count	14		36		36		72	
Signal Tracking								
GPS	L1		L1		L1		L1/L2	
GLONASS	L1				L1		L1/L2	
SBAS	√		√		√		√	
L-band			√					
Horizontal Position Accuracy (RMS)¹	Single Point L1	1.5 m	Single Point L1	1.5 m	Single Point L1	1.5 m	Single Point L1	1.5 m
	SBAS ²	0.7 m	SBAS ²	0.6 m	SBAS ²	0.6 m	Single Point L1/L2	1.2 m
	DGPS	0.5 m	DGPS	0.4 m	DGPS	0.4 m	SBAS ²	0.6 m
			OmniSTAR VBS ²	0.6 m	RT-20 ³	0.2 m	DGPS	0.4 m
			RT-20 ^{TM3}	0.2 m	RT-2 L1TE ⁴	2 cm+1 ppm	RT-20 ³	0.2 m
							RT-2	1 cm+1 ppm
Maximum Data Rate	10 Hz		50 Hz		50 Hz		50 Hz	
Communication Ports								
USB	√		√		√		√	
Input/Output	PPS, Event 1, PV, VARF		PPS, Event 1, Event 2, PV, VARF		PPS, Event 1, Event 2, PV, VARF		PPS, Event 1, Event 2, PV, VARF, Error	
RS-232 Serial Port	√		√		√		√	
RS-232 or RS-422	√		√		√		√	
Power Supply								
Input Voltage	+ 6 to +18 VDC		+ 6 to +18 VDC		+ 6 to +18 VDC		+ 6 to +18 VDC	
Power Consumption ⁵	0.6 W		1.2 W		1.2 W		2.0 W	
Mechanical								
Dimensions	147 x 113 x 45 mm		147 x 113 x 45 mm		147 x 113 x 45 mm		147 x 113 x 45 mm	
Weight	313 g		314 g		331 g		338 g	
Power Connector	4-pin LEMO		4-pin LEMO		4-pin LEMO		4-pin LEMO	
Antenna Connector	TNC-female		TNC-female		TNC-female		TNC-female	
USB	Mini-B		Mini-B		Mini-B		Mini-B	
Serial Connectors	DB9 male		DB9 male		DB9 male		DB9 male	
Input/Output Port	DB9 female		DB9 female		DB9 female		DB9 female	
Environmental								
Temperature								
Operating	-40°C to +75°C		-40°C to +75°C		-40°C to +75°C		-40°C to +75°C	
Storage	-40°C to +85°C		-40°C to +85°C		-40°C to +85°C		-40°C to +85°C	
Humidity	95% non-condensing		95% non-condensing		95% non-condensing		95% non-condensing	
Immersion	IEC 60529 IPX7		IEC 60529 IPX7		IEC 60529 IPX7		IEC 60529 IPX7	
Vibration	MIL-STD-810F		MIL-STD-810F		MIL-STD-810F		MIL-STD-810F	
Velocity ⁶	515 m/s		515 m/s		515 m/s		515 m/s	
Compliance	FCC, CE and Industry Canada		FCC, CE and Industry Canada		FCC, CE and Industry Canada		FCC, CE and Industry Canada	

Included Accessories

- Serial cable (null)
- I/O cable
- USB cable
- Automotive 12 VDC power adapter with 6A slow-blow fuse

Optional Accessories

- GPS-700 series antennas
- ANT series antennas
- Serial cable (straight)
- FlexPak Heading Kit

Features

- Field upgradable software
- Auxiliary strobe signals including a configurable PPS output for time synchronization and event inputs

Firmware Options

- RT-20
- RT-L1TE (FlexPak-G2-V1G)
- RT-2 (FlexPak-G2-V2)
- ALIGN
- GL1DE

- OmniSTAR VBS (FlexPak-G2-V1)
- Pseudo Range/Delta-Phase (PDP) Positioning (FlexPak-G2-V2)



Version 3 - Specifications subject to change without notice.
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For the most recent details of this product:
novatel.com/assets/Documents/Papers/FlexPak-G2.pdf

¹ Typical values. Performance specifications subject to GPS system characteristics, US DOD operational degradation, ionospheric and tropospheric conditions, satellite geometry, baseline length, multipath effects and the presence of intentional or unintentional interference sources.

² GPS only.

³ Expected accuracy after static convergence.

⁴ Expected accuracy after convergence; maximum baseline of 3 km.

⁵ Typical GPS at 12VDC.

⁶ Export licensing restrictions limit operation to a maximum of 515 metres per second.

