FlexPak-G2

Compact Enclosure Offers a Range of NovAtel GNSS Receivers with Flexible Performance for Any Application

Benefits

Proven NovAtel OEMV® technology

Easy to integrate

Ideal for low-payload UAV and robotics applications

Field upgradable to support all 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 DB-9 connectors with power in/out support

Active antenna support

Scalable Functionality

All three hardware variants 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 support of OmniSTAR VBS, CDGPS 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.

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 DB-9 communication ports supporting 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 port 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/enclosures.htm

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Enclosures

FlexPak-G2

FlexPak-G2-V1

Dimensions 147 x 108 x 45 mm

Weight 364 g

Power Consumption 1.4 W[1]

Channel Configuration
14 GPS L1
1 L-band
2 SBAS

Communication Ports
- 1 RS-232 serial port (921,000 bps)
- 1 RS-232 or RS-422 (230,400 bps) serial port with power in/out
- 1 input/output port (PPS, Event 1, Event 2)
- 1 USB port

Horizontal Position Accuracy (RMS)[2]

Single Point L1	1.8 m
SBAS	0.6 m
CDGPS	0.6 m
OmniSTAR VBS	0.7 m
DGPS	0.45 m
RT-20[3]	0.2 m

Environmental

Temperature	
Operating	-40°C to +85°C
Storage	-40°C to +85°C
Immersion	To IEC65029 IPX7
Humidity	95% non-condensing
Vibration	4g
Altitude[4]	18 288 m

FlexPak-G2-V1G

Dimensions 147 x 108 x 45 mm

Weight 364 g

Power Consumption 1.4 W[1]

Channel Configuration
14 GPS L1
12 GLONASS L1
2 SBAS

Communication Ports
- 1 RS-232 serial port (921,000 bps)
- 1 RS-232 or RS-422 (230,400 bps) serial port with power in/out
- 1 input/output port (PPS, Event 1, Event 2)
- 1 USB port

Horizontal Position Accuracy (RMS)[2]

Single Point L1	1.8 m
SBAS[5]	0.6 m
DGPS	0.45 m
RT-20[3]	0.2 m
RT-2 L1TE	2 cm+1 ppm

Environmental

Temperature	
Operating	-40°C to +85°C
Storage	-40°C to +85°C
Immersion	To IEC65029 IPX7
Humidity	95% non-condensing
Vibration	4g
Altitude[4]	18 288 m

FlexPak-G2-V2

Dimensions 147 x 108 x 45 mm

Weight 407 g

Power Consumption 1.9 W[1]

Channel Configuration
14 GPS L1, 14 GPS L2
12 GLONASS L1, 12 GLONASS L2
2 SBAS

Communication Ports
- 1 RS-232 serial port (921,000 bps)
- 1 RS-232 or RS-422 (230,400 bps) serial port with power in/out
- 1 input/output port (PPS, Event 1, Event 2)
- 1 USB port

Horizontal Position Accuracy (RMS)[2]

Single Point L1	1.8 m
Single Point L1/L2	1.5 m
SBAS[5]	0.6 m
DGPS	0.45 m
RT-20[3]	0.2 m
RT-2™	1 cm+1 ppm

Environmental

Temperature	
Operating	-40°C to +85°C
Storage	-40°C to +85°C
Immersion	To IEC65029 IPX7
Humidity	95% non-condensing
Vibration	4g
Altitude[4]	18 288 m

Included Accessories

- Automotive 12 VDC power adapter
- Serial cable
- I/O cable
- USB cable Automotive 12 VDC power adapter with 3A slow-blow fuse

Optional Accessories

- GPS-700 series antennas
- ANT-500 series antennas

Additional Firmware Features

- RT-20
- RT-2 L1TE (Only on FlexPak-G2-V1G)
- AdVance RTK (Only on FlexPak-G2-V2)
- ALIGN™
- GL1DE™
- OmniSTAR HP, XP, VBS (only on FlexPak-G2-V1)
- Pseudo Range/Delta-Phase (PDP Positioning (only on FlexPak-G2-V2)

Additional Features

- Common, field-upgradeable software for all OEMV family receivers
- Auxiliary strobe signals, including a configurable PPS output for time synchronization and event inputs

NovAtel

Version 1 -Specifications subject to change without notice.

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For the most recent details of this product:
novatel.com/Documents/Papers/FlexPak-G2.pdf

[1] Typical GPS.
[2] 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.
[3] Expected accuracy after static convergence.
[4] Export licensing restricts operation to a maximum of 18,288 meters and 515 meters per second.
[5] GPS-only.

RoHS COMPLIANT