



Precise thinking

Model List for NovAtel Receivers

NovAtel Inc.

Phone: 1-800-NOVATEL
403-295-4500

Fax: 403-295-4901

Web: www.novatel.com

Email: sales@novatel.com

Mail: NovAtel Inc.
1120 - 68th Avenue NE
Calgary, Alberta
Canada T2E 8S5

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OEMV® Receivers

The OEMV Family receivers are available in single, dual, or triple-frequency hardware variants and feature our patented PAC technology. All OEMV receivers use the AdVance™ RTK GNSS engine for state of the art positioning performance. In addition, NovAtel's GL1DE™ positioning offers users of autonomous L1, or any code positioning modes, superior positioning stability previously only available in carrier phase solutions. Included with each receiver are NovAtel's Windows®-based software utilities, CDU and Convert, and product manuals. Upgrades to more feature-intensive models are available via telephone, fax, or e-mail.

All of the OEMV receivers are RoHS-compliant.

A subscription is required for OmniSTAR HP/XP/VBS service, which may not be available in all areas.

CDGPS corrections may not be available in all areas.

SBAS corrections, including WAAS, MSAS, and EGNOS, may not be available in all areas.

OEMV-1 Receivers

The OEMV-1 is a 36-channel, single-frequency GPS L1 plus L-band receiver with low power consumption. All OEMV-1 receivers offer position, velocity, and time (PVT) output up to 50 Hz, real-time DGPS positioning, support for RTCA and RTCM messages, three serial ports, and a USB port.

The DGPS positioning available in the OEMV-1 receivers, including SBAS, OmniSTAR VBS, and the Canadian Differential GPS service (CDGPS), provides the extra precision required in L1 applications. L-band enabled models also offer RTCM type 1 and 9 corrections generated from the GPS*C/CDGPS correction stream. NovAtel's RT-20™ model is available for L1 carrier-phase positioning up to 50 Hz.

The OEMV-1 card is available standalone in a 46 x 71 mm form factor, in a FlexPak™ enclosure, or in a SMART ANTENNA, and is configurable as a rover or base station.

Card

OEMV-1 Card

The Application Programming Interface (API) option is available on all models except those ending in "-F" and "1HZ". Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

Single-Frequency

OEMV-1-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 50 Hz
OEMV-1-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
OEMV-1-L1-VBS	GPS RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
OEMV-1-VBS	GPS code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
OEMV-1-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-1-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1-PVT	GPS code positions and DGPS, SBAS, 20 Hz
OEMV-1-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
OEMV-1-RTCM	RTCM type 1 and 9 corrections generated from GPS*C/CDGPS correction stream, 1 Hz, no position or raw data output

Enclosure

FlexPak-V1 Enclosure

End of Life for the FlexPak enclosures has been announced. Orders will be accepted while inventory lasts, or until November 30, 2009, whichever comes first. Shipments may be scheduled for no later than February 28, 2010.

The FlexPak-V1 enclosure and cable set are RoHS-compliant and meet FCC and CE regulatory standards for emissions and safety. The enclosure comes with a USB cable, a power cable, and two serial communication cables (RS-232 straight and RS-232 null modem). USB is available on either port, and RS-422 is available on the COM2 port. A FlexPak-V1 Quick Start Guide and OEMV family Quick Start Guide are included.

The Application Programming Interface (API) option is available on all models except those ending in "-F" and "1HZ". Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

Single-Frequency

FLEXPak-V1-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 50 Hz
FLEXPak-V1-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
FLEXPak-V1-L1-VBS	GPS RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
FLEXPak-V1-VBS	GPS code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
FLEXPak-V1-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V1-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1-PVT	GPS code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
FLEXPak-V1-RTCM	RTCM type 1 and 9 corrections generated from GPS*C/CDGPS correction stream, 1 Hz, no position or raw data output

FlexPak-G2-V1 Enclosure

The FlexPak-G2-V1 enclosure and cable set are RoHS-compliant and meet FCC and CE regulatory standards for emissions and safety. The enclosure comes with a power cable, a RS-232 null modem serial communication cable and an I/O serial communications cable. USB is available attaching a standard Mini Type B cable to the independent USB port, and RS-422 is available on the COM2 port. A FlexPak-G2-V1 Quick Start Guide and OEMV family Quick Start Guide are included.

The Application Programming Interface (API) option is available on all models except those ending in "-F" and "1HZ". Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

Single-Frequency

FLEXG2-V1-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 50 Hz
FLEXG2-V1-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
FLEXG2-V1-L1-VBS	GPS RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
FLEXG2-V1-VBS	GPS code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
FLEXG2-V1-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V1-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1-PVT	GPS code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
FLEXG2-V1-RTCM	RTCM type 1 and 9 corrections generated from GPS*C/CDGPS correction stream, 1 Hz, no position or raw data output

SMART Antenna

SMART-V1-2US Antenna

The SMART-V1 is a rugged self-contained GPS receiver and antenna designed for operation in harsh environments. The SMART-V1 is based on the OEMV-1 card, which offers position, velocity and time output up to 20 Hz, as well as a wide variety of positioning options including SBAS, OmniSTAR (subscription required), CDGPS (no subscription required), DGPS, and NovAtel's RT-20 for precision L1 applications.

The SMART-V1 is RoHS compliant and meets FCC and CE regulatory standards for emissions and safety. A selection of cables are available as an orderable option.

"SMART-V1-2US" part numbers indicate 2xRS-232, 1xUSB, side-mount connector. The Application Programming Interface (API) option is available on all USB models. Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

RS-232 Version**Single-Frequency**

SMART-V1-2US-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1-2US-L1-VBS	GPS RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1-2US-VBS	GPS code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1-2US-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1-2US-PVT	GPS code positions, SBAS, DGPS, 20 Hz
SMART-V1-2US-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
SMART-V1-2US-RTCM	RTCM type 1 and 9 corrections generated from GPS*C/CDGPS correction stream, 1 Hz, no position or raw data output

SMART-V1-2CS Antenna

"SMART-V1-2CS" part numbers indicate 2xRS-232, 1xCAN, side-mount connector.

The API option is included with all CAN models.

RS-232 Version**Single-Frequency**

SMART-V1-2CS-PVT	GPS code positions, SBAS, DGPS, 20 Hz, API support
SMART-V1-2CS-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz, API support

SMART-V1-4XS Antenna

"SMART-V1-4XS" part numbers indicate 2xRS-422, 1xRS-232, side-mount connector.

The API option is not available on RS-422 models.

RS-422 Version**Single-Frequency**

SMART-V1-4XS-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1-4XS-L1-VBS	GPS RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1-4XS-VBS	GPS code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1-4XS-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1-4XS-PVT	GPS code positions, SBAS, DGPS, 20 Hz
SMART-V1-4XS-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz

OEMV-1G Receivers

The OEMV-1G is a 36-channel, single frequency GPS plus GLONASS L1 receiver with low power consumption. All OEMV-1G receivers offer position, velocity, and time (PVT) output up to 50 Hz, real-time DPGS positioning, support for RTCA and RTCM messages, three serial ports, and a USB port.

The OEMV-1G offers GPS plus GLONASS real-time positions and measurements, depending on which model is purchased. The addition of GLONASS satellites provides more available data for positioning in challenging environments.

The OEMV-1G card is available standalone in a 46 x71 mm form-factor, in a FlexPak enclosure, or in a SMART Antenna, and is configurable as a rover or base station.

OEMV-1G receivers are not capable of operation with OmniSTAR. Please refer to the OEMV-1 receivers for OmniSTAR-capable models.

Card**OEMV-1G Card**

The Application Programming Interface (API) option is available on all models except those ending in "-F" and "1HZ". Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The OEMV-1G is available with NovAtel's ALIGN capability for heading and separation between two receivers on all "-G" models except "-F" and "1HZ". Add \$250 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

The OEMV-1G is also offered with a right-angle connector and may be ordered by replacing "OEMV-1G" with "OEMV-1G-RA" for each part number.

Single-Frequency

OEMV-1G-RT2L1-G	GPS plus GLONASS 2 cm real-time kinematic positions, RTK corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-1G-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-1G-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-PVT-G	GPS plus GLONASS code positions, SBAS, DGPS, 20 Hz
OEMV-1G-PVT	GPS code positions and DGPS, SBAS, 20 Hz
OEMV-1G-1HZ-G	GPS plus GLONASS code positions and raw data, SBAS, DGPS 1Hz
OEMV-1G-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
OEMV-1G-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

OEMV-1G-HV Card

The OEMV-1G-HV card contains a high performance crystal oscillator (TCXO) that maintains stability when subjected to endure high vibrational effects. This allows the same high performance GNSS positioning as the OEMV-1G card even when subjected to high vibration conditions.

Single-Frequency

OEMV-1G-HV-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-HV-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-1G-HV-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz

Enclosure

FlexPak-V1G Enclosure

End of Life for the FlexPak enclosures has been announced. Orders will be accepted while inventory lasts, or until November 30, 2009, whichever comes first. Shipments may be scheduled for no later than February 28, 2010.

The Application Programming Interface (API) option is available on all models except those ending in "-F" and "1HZ". Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The FlexPak-V1G is available with NovAtel's ALIGN capability for heading and separation between two receivers on all "-G" models except "-F" and "1HZ". Add \$250 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

The FlexPak-V1G enclosure and cable set are RoHS-compliant and meet FCC and CE regulatory standards for emissions and safety. The enclosure comes with a USB cable, a power cable, and two serial communication cables (RS-232 straight and RS-232 null modem). USB is available on either port, and RS-422 is available on the COM2 port. A FlexPak-V1G Quick Start Guide and OEMV family Quick Start Guide are included.

Single-Frequency

FLEXPak-V1G-RT2L1-G	GPS plus GLONASS 2 cm real-time kinematic positions, RTK corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1G-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1G-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V1G-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1G-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1G-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V1G-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1G-PVT-G	GPS plus GLONASS code positions, SBAS, DGPS, 20 Hz
FLEXPak-V1G-PVT	GPS code positions and DGPS, SBAS, 20 Hz
FLEXPak-V1G-1HZ-G	GPS plus GLONASS code positions and raw data, SBAS, DGPS, 1Hz
FLEXPak-V1G-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
FLEXPak-V1G-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

FlexPak-G2-V1G Enclosure

The FlexPak-G2-V1G enclosure and cable set are RoHS-compliant and meet FCC and CE regulatory standards for emissions and safety. The enclosure comes with a power cable, a RS-232 null modem serial communication cable and an I/O serial communications cable. USB is available attaching a standard Mini Type B cable to the independent USB port, and RS-422 is available on the COM2 port. A FlexPak-G2-V1G Quick Start Guide and OEMV family Quick Start Guide are included.

The Application Programming Interface (API) option is available on all models except those ending in "-F" and "1HZ". Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities. The FlexPak-V1G is available with NovAtel's ALIGN capability for heading and separation between two receivers on all "-G" models except "-F" and "1HZ". Add \$250 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

Single-Frequency

FLEXG2-V1G-RT2L1-G	GPS plus GLONASS 2 cm real-time kinematic positions, RTK corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1G-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1G-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V1G-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1G-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1G-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V1G-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1G-PVT-G	GPS plus GLONASS code positions, SBAS, DGPS, 20 Hz
FLEXG2-V1G-PVT	GPS code positions and DGPS, SBAS, 20 Hz
FLEXG2-V1G-1HZ-G	GPS plus GLONASS code positions and raw data, SBAS, DGPS, 1Hz
FLEXG2-V1G-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
FLEXG2-V1G-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

SMART Antenna

SMART-V1G-2US Antenna

The SMART-V1G is a rugged self-contained GPS plus GLONASS receiver and antenna designed for operation in harsh environments. The SMART-V1G is based on the OEMV-1G card, which offers position, velocity and time output up to 20 Hz, as well as a wide variety of positioning options including SBAS (GPS only), DGPS and NovAtel's RT-20 for precision L1 applications.

"SMART-V1G-2US" part numbers indicate RS-232, USB, side-mount connectors. The Application Programming Interface (API) option is available on USB models. Add \$375 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The SMART-V1G-2US is available with NovAtel's ALIGN capability for heading and separation between two receivers on all "-G" models except "-F" and "1HZ". Add \$250 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

The SMART-V1G is RoHS compliant and meets FCC and CE regulatory standards for emissions and safety. A selection of cables are available as an orderable option.

RS-232 Version

Single-Frequency

SMART-V1G-2US-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-2US-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-2US-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-2US-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-2US-PVT-G	GPS plus GLONASS code positions, SBAS, DGPS, 20 Hz
SMART-V1G-2US-PVT	GPS code positions, SBAS, DGPS, 20 Hz
SMART-V1G-2US-1HZ-G	GPS plus GLONASS code positions and raw data, SBAS, DGPS, 1Hz
SMART-V1G-2US-1HZ	GPS code positions and raw data, DGPS, SBAS, 1Hz
SMART-V1G-2US-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

SMART-V1G-4XS Antenna

"SMART-V1-4XS" part numbers indicate 2xRS-422, 1xRS-232, side-mount connector.

The API option is not available on RS-422 models.

RS-422 Version

Single-Frequency

SMART-V1G-4XS-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
SMART-V1G-4XS-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-4XS-PVT-G	GPS plus GLONASS code positions, SBAS, DGPS, 20 Hz
SMART-V1G-4XS-PVT	GPS code positions, SBAS, DGPS, 20 Hz
SMART-V1G-4XS-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-4XS-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-V1G-4XS-1HZ-G	GPS plus GLONASS code positions and raw data, SBAS, DGPS, 1Hz
SMART-V1G-4XS-1HZ	GPS code positions and raw data, SBAS, DGPS, 1Hz

OEMV-2 Receivers

The OEMV-2 is a parallel 72-channel dual-frequency or 36-channel single-frequency receiver with low power consumption. OEMV-2 receivers feature GPS plus GLONASS position, velocity, and time (PVT) and raw data output, real-time DGPS and SBAS positioning, support for RTCA and RTCM messages, three serial ports, one CAN bus port, and a USB port.

The OEMV-2 receivers are capable of tracking the new L2C civilian signal. The L2C signal promises stronger signal tracking and better cross-correlation protection. The OEMV-2 also offers GPS plus GLONASS real-time positions and measurements, depending on which model is purchased. The addition of GLONASS satellites provides more available data for positioning in challenging environments.

The OEMV-2 card is available standalone in a 60 x 100 mm form factor or in a FlexPak enclosure, and is configurable as a rover or base station.

All single-frequency models are fully upgradeable to dual-frequency.

Card

OEMV-2 Card

The Application Programming Interface (API) option is available on all models except those ending in "-F". Add \$750 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The OEMV-2 is available with NovAtel's ALIGN capability for heading and separation between two receivers on all models except "-F". Add \$500 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

Dual-Frequency

OEMV-2-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2® corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-2-RT2-F	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-2-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-2-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-2-L1L2-F	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-2-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-2-SBAS	L1L2 SBAS positions, 20 Hz
OEMV-2-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

Single-Frequency

OEMV-2-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-2-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-2-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-2-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

OEMV-2-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-2-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

Enclosure

FlexPak-V2 Enclosure

End of Life for the FlexPak enclosures has been announced. Orders will be accepted while inventory lasts, or until November 30, 2009, whichever comes first. Shipments may be scheduled for no later than February 28, 2010.

The Application Programming Interface (API) option is available on all models except those ending in "-F". Add \$750 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The FlexPak-V2 is available with NovAtel's ALIGN capability for heading and separation between two receivers on all models except "-F". Add \$500 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

The FlexPak-V2 enclosure and cable set are RoHS-compliant and meet FCC and CE regulatory standards for emissions and safety. The enclosure comes with a USB cable, a power cable, and two serial communication cables (RS-232 straight and RS-232 null modem). USB is available on either port, and RS-422 is available on the COM2 port. A FlexPak-V2 Quick Start Guide and OEMV family Quick Start Guide are included.

Dual-Frequency

FLEXPak-V2-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-RT2-F	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V2-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-L1L2-F	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V2-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-SBAS	L1L2 SBAS positions, 20 Hz
FLEXPak-V2-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

Single-Frequency

FLEXPak-V2-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V2-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXPak-V2-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXPak-V2-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

FlexPak-G2-V2 Enclosure

The FlexPak-G2-V2 enclosure and cable set are RoHS-compliant and meet FCC and CE regulatory standards for emissions and safety. The enclosure comes with a power cable, a RS-232 null modem serial communication cable and an I/O serial communications cable. USB is available attaching a standard Mini Type B cable to the independent USB port, and RS-422 is available on the COM2 port. A FlexPak-G2-V2 Quick Start Guide and OEMV family Quick Start Guide are included.

The Application Programming Interface (API) option is available on all models except those ending in "-F". Add \$750 to the list price and "-A" to the part number for each receiver requiring API capabilities. The FlexPak-V2 is available with NovAtel's ALIGN capability for heading and separation between two receivers on all models except "-F". Add \$500 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

Dual-Frequency

FLEXG2-V2-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-RT2-F	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V2-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

FLEXG2-V2-L1L2-F	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V2-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-SBAS	L1L2 SBAS positions, 20 Hz
FLEXG2-V2-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

Single-Frequency

FLEXG2-V2-RT2L1-G	GPS plus GLONASS 2 cm real-time kinematic positions, 3 km baseline RTK corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V2-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
FLEXG2-V2-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
FLEXG2-V2-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

OEMV-3 Receivers

The OEMV-3 is a parallel 72-channel dual-frequency or 36-channel single-frequency receiver with low power consumption. All OEMV-3 cards feature GPS plus GLONASS position, velocity, and time (PVT) and raw data output, integrated real-time DGPS positioning (including SBAS, OmniSTAR, and CDGPS), support for RTCA and RTCM messages, three serial ports, 2 CAN bus ports, and a USB port. L-band enabled models also offer RTCM type 1 and 9 corrections generated from the GPS*C/CDGPS correction stream.

The OEMV-3 offers GPS plus GLONASS real-time positions and measurements, depending on which model is purchased. The addition of GLONASS satellites provides more available data for positioning in challenging environments.

The OEMV-3 card is available standalone in an 85 x 125 mm form factor, in a ProPak® enclosure, or in a DL-V3 enclosure, and is configurable as a rover or base station.

All single-frequency models are fully upgradeable to dual-frequency.

Card

OEMV-3 Card

The Application Programming Interface (API) option is available on all models except those ending in "-F". Add \$750 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The OEMV-3 is available with NovAtel's ALIGN capability for heading and separation between two receivers on all models except "-F", "-HP", "-VBS", "RT-20" and all models utilizing L5. Add \$500 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

Triple-Frequency

OEMV-3-L1L2L5	GPS L1/L2/L5, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
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Dual-Frequency

OEMV-3-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
OEMV-3-RT2-F	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-3-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
OEMV-3-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
OEMV-3-L1L2-F	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-3-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
OEMV-3-HP	GPS code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
OEMV-3-L1L5	GPS L1/L5, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-3-SBAS	L1L2 SBAS positions, 20 Hz

OEMV-3-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS
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Single-Frequency

OEMV-3-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
OEMV-3-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 50 Hz
OEMV-3-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
OEMV-3-VBS	GPS code positions, and DGPS, OmniSTAR VBS, CDGPS, and SBAS positions, 20 Hz
OEMV-3-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
OEMV-3-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
OEMV-3-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

Enclosure

ProPak-V3 Enclosure

The ProPak-V3 is a durable, high-performance receiver with advanced capabilities. It is available in RS-232 or RS-422 configurations with three serial ports, and auxillary I/O port, and USB 1.1 support. The ProPak-V3 also features optional support for an external IMU. It includes and automotive power adapter, a null-model cable, a straight serial cable, a USB cable, auxiliary I/O port cable, and mounting kit.

The Application Programming Interface (API) option is available on all models except those ending in "-F". Add \$750 to the list price and "-A" to the part number for each receiver requiring API capabilities.

The ProPak-V3 is available with NovAtel's ALIGN capability for heading and separation between two receivers on all models except "-F", "-HP", "-VBS", "RT-20" and all models utilizing L5. Add \$500 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

The RS-422 version provides COM1 and COM3 at RS-422 levels. COM2 remains at RS-232 levels.

RS-232 Version

Triple-Frequency

PROPAK-V3-L1L2L5	GPS L1/L2/L5, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
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Dual-Frequency

PROPAK-V3-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-RT2-F	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
PROPAK-V3-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-L1L2-F	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
PROPAK-V3-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-HP	GPS code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-L1L5	GPS L1/L5, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
PROPAK-V3-SBAS	L1L2 SBAS positions, 20 Hz
PROPAK-V3-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

Single-Frequency

PROPAK-V3-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 50 Hz
PROPAK-V3-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-VBS	GPS code positions, and DGPS, OmniSTAR VBS, CDGPS, and SBAS positions, 20 Hz

PROPAK-V3-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, DGPS, 20 Hz
PROPAK-V3-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
PROPAK-V3-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

RS-422 Version***Dual-Frequency***

PROPAK-V3-424-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-HP	GPS code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-L1L5	GPS L1/L5, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
PROPAK-V3-424-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS

Single-Frequency

PROPAK-V3-424-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
PROPAK-V3-424-VBS	GPS code positions, and DGPS, OmniSTAR VBS, CDGPS, and SBAS positions, 20 Hz
PROPAK-V3-424-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
PROPAK-V3-424-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz

DL-V3 Enclosure

The DL-V3 is a general purpose high-performance receiver designed for base station and rover applications. The DL-V3 incorporates NovAtel's OEMV-3 card housed in a rugged aluminum enclosure, and includes removable memory in a Compact Flash format. The DL-V3 offers flexible connectivity through 3 serial ports, USB (1.1), Ethernet, and Bluetooth interfaces, and an auxiliary I/O port. The DL-V3 includes an automotive power cable, a null-modem cable, a serial cable, a mounting kit, and a Compact Flash card.

The DL-V3 is not available with the API option.

The DL-V3 is available with NovAtel's ALIGN capability for heading and separation between two receivers on all models except "-F", "-HP", "-VBS", "RT-20" and all models utilizing L5. Add \$500 to the list price and "-Z" to the part number for each receiver requiring ALIGN capabilities.

RS-232 Version***Triple-Frequency***

DL-V3-L1L2L5	GPS L1/L2/L5, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
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Dual-Frequency

DL-V3-RT2-G	GPS plus GLONASS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
DL-V3-RT2-F	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz (Data rate is limited to 20 Hz when logging RTK data to the CF card. 50 Hz is supported for logging raw/RTK data to the serial ports and only raw data to the CF card.)
DL-V3-RT2	GPS 1 cm real-time kinematic positions, RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
DL-V3-L1L2-G	GPS plus GLONASS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
DL-V3-L1L2-F	GPS RT-2 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
DL-V3-L1L2	GPS RT-2 corrections and raw data, code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
DL-V3-HP	GPS code positions and DGPS, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 20 Hz
DL-V3-L1L5	GPS L1/L5, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
DL-V3-SBAS	L1L2 SBAS positions, 20 Hz

DL-V3-G-Z	GPS plus GLONASS heading vector, including heading and separation between master and remote; 10Hz; must be paired with another receiver, DGPS
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Single-Frequency

DL-V3-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz
DL-V3-RT20-F	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 50 Hz
DL-V3-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, OmniSTAR VBS, CDGPS, SBAS, 20 Hz, API support
DL-V3-L1-G	GPS plus GLONASS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
DL-V3-L1-F	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 50 Hz
DL-V3-L1	GPS RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
DL-V3-VBS	GPS code positions and DGPS, OmniSTAR VBS, CDGPS, and SBAS positions, 20 Hz

OEMV Software Software

Application Development Kit

The Application Programming Interface (API) development kit includes the API library, which provides the functions needed to develop a C/C++ application to run on the OEMV family of receivers. Also included in the purchase price is ten hours of technical support and upgrades to an API-enabled model for five receivers. Use of an API application requires an API-enabled receiver.

API-Dev-Kit	API support development kit
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OEMV Software Updates

MAINT-ANNUAL	Annual subscription to software updates for OEMV receivers provides access for one receiver to any firmware updates released during a 12-month period.
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OEMStar™ Receivers

The OEMStar is a 14 channel, single frequency GPS plus GLONASS L1 receiver with low power consumption. All OEMStar receivers offer position, velocity, and time (PVT) output, real-time DPGS positioning, support for RTCA and RTCM messages, two serial ports, and a USB port. The OEMStar can be upgraded to offer GPS plus GLONASS real-time positions & measurements, and 10Hz output depending on which model is purchased. The addition of GLONASS satellites provides more available data for positioning in challenging environments.

SBAS corrections, including WAAS, MSAS and EGNOS, may not be available in all areas. OEMStar receivers are not capable of operating with OmniSTAR.

The OEMStar card has a 46 x71 mm form-factor and all OEMStar receivers are RoHS-compliant.

OEMStar Receivers **Card**

OEMStar Card

Single-Frequency

OEMSTAR-10HZ-G	GPS plus GLONASS code positions and raw data, SBAS, 10Hz, GL1DE
OEMSTAR-10HZ	GPS code positions and raw data, SBAS, 10Hz, GL1DE
OEMSTAR-PVT-10HZ	GPS code positions only, SBAS, 10Hz
OEMSTAR-1HZ-G	GPS plus GLONASS code positions and raw data, SBAS, 1Hz, GL1DE
OEMSTAR-PVT-1HZ-G	GPS plus GLONASS code positions only, SBAS, 1Hz
OEMSTAR-1HZ	GPS code positions and raw data, SBAS, 1Hz, GL1DE
OEMSTAR-PVT-1HZ	GPS code positions only, SBAS, 1Hz



SUPERSTAR II

The SUPERSTAR II is a 12-channel L1-only receiver. It features low power consumption, two serial ports up to 19,200 bps, standard output at 1 Hz (5 Hz optional) for carrier phase or PVT output, real-time DGPS positioning, support for NMEA and RTCM messages, and accepts SBAS corrections. Available in 5 V and 3.3 V models, the SUPERSTAR II card is designed for embedded applications.

SBAS-enabled models feature 10 GPS tracking channels and 2 SBAS tracking channels. Non-SBAS-enabled models have 12 GPS tracking channels.

SBAS corrections, including WAAS, MSAS, and EGNOS, may not be available in all areas.

The non-SBAS variants of the 1CPT and 1CPT-19 models, 1CPN and 1CPN-19, do not provide precise timing.

The SUPERSTAR II family is not RoHS-compliant.

Software

Software Upgrades for SUPERSTAR II Receivers

To increase the functionality and features of SUPERSTAR II-based receivers, software model upgrades are available for purchase. Upgrades can be completed in the field using a software utility provided by NovAtel. Upgrades can be completed between non-equivalent models (e.g. upgrade from STD to 1CPT-19), or between equivalent models to disable or enable SBAS tracking (e.g. upgrade from 5HZN to 5HZ).

Only one model can be loaded on the SUPERSTAR II receiver at any given time, so model upgrades will replace the current model with the new model. As a result, features found only in the original model are not available after the upgrade.

Single-Frequency

SW-UG-SBAS	Replace current model with equivalent SBAS enabled model
SW-UG-NSBAS	Replace current model with equivalent non-SBAS enabled model
SW-UG-BASE	Change model to DGPS base station operation, 1 Hz carrier phase output, SBAS, 9,600 bps default baud rate
SW-UG-BASEN	Change model to DGPS base station operation, 1 Hz carrier phase output, 9,600 bps default baud rate
SW-UG-5CP-19	Change model to 5 Hz carrier phase output, SBAS, 19,200 bps default baud rate
SW-UG-5CPN-19	Change model to 5 Hz carrier phase output, 19,200 bps default baud rate
SW-UG-5HZ	Change model to 5 Hz PVT output, SBAS, 9,600 bps default baud rate
SW-UG-5HZN	Change model to 5 Hz PVT output, 9,600 bps default baud rate
SW-UG-1CPT	Change model to 1 Hz carrier phase output, precise timing, SBAS, 9,600 bps default baud rate
SW-UG-1CPN	Change model to 1 Hz carrier phase output, 9,600 bps default baud rate
SW-UG-1CPT-19	Change model to 1 Hz carrier phase output, precise timing, SBAS, 19,200 bps default baud rate
SW-UG-1CPN-19	Change model to 1 Hz carrier phase output, 19,200 bps default baud rate



Agriculture Products

SMART Ag Antenna

The SMART-AG™ GNSS antenna features 14 channels for L1 GPS, 12 channels for L1 GLONASS, and 2 channels for SBAS. Measurement and position data is provided at up to 20 Hz. Smooth position outputs with excellent pass-to-pass accuracy are assured with NovAtel's GL1DE™ technology.

The SMART-AG provides an integrated L1 GPS plus GLONASS receiver and antenna in a single rugged housing with built-in magnets to simplify mounting. Fixed mounting is also supported. Two NMEA 0183 compatible RS-232 serial ports and an NMEA2000 compatible CAN port ensure the SMART-AG delivers maximum flexibility. A simulated radar ground speed output, a one pulse per second output (1PPS), and an event mark input are also provided. Three daylight readable status LEDs simplify diagnoses in the event of field problems.

SMART Antenna

Single-Frequency

SMART-AG-RT20-G	GPS plus GLONASS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-AG-RT20	GPS 20 cm real-time kinematic positions, RT-20 corrections and raw data, code positions and DGPS, SBAS, 20 Hz
SMART-AG-PVT-G	GPS plus GLONASS code positions, SBAS, DGPS, 20 Hz
SMART-AG-PVT	GPS code positions, SBAS, DGPS, 20 Hz

Other

Development Kit for SMART-AG Antenna

The development kit includes an interface cable, a mounting plate, and the SMART Ag Quick Start Guide.

SMART-AG-KT	Development kit for the SMART-AG antenna
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SPAN™ Technology

NovAtel's Synchronized Position Attitude Navigation (SPAN) Technology products feature tight integration of a NovAtel GPS receiver and an Inertial Measurement Unit (IMU). SPAN provides continuous operation through short GPS outages with accurate position and attitude measurements. Designed for dynamic applications, SPAN also provides precise velocity, acceleration, and attitude solutions.

By complementing GPS with inertial measurements, SPAN Technology provides robust positioning in challenging conditions where GPS alone is less reliable. During short periods of GPS outage, or when less than four satellites are received, SPAN Technology offers uninterrupted position and attitude output. The tight coupling of inertial technology with GPS also provides the benefits of faster satellite reacquisition and faster RTK initialization after outages.

A subscription is required for OmniSTAR HP/XP/VBS service, which may not be available in all areas.

CDGPS corrections may not be available in all areas.

SBAS corrections, including WAAS, MSAS, and EGNOS, may not be available in all areas.

SPAN Inertial Measurement Units

SPAN IMUs are not RoHS compliant.

IMU

IMU-LN200

The IMU-LN200 houses the LN200 IMU and an interface card in an enclosure that is compatible with the OEMV-3 and SPAN-SE GPS receivers when loaded with the INS firmware models.

Delivery times for the IMU-LN200 IMU may be longer than NovAtel's standard delivery times due to the US Department of State export control regulations.

LN200 IMUs work with GPS receiver models ending in J.

IMU-LN200	Enclosure with LN200 IMU
OEM-IMU-LN200	LN200 IMU without enclosure
IMU-LN000	Enclosure without IMU
OEM-IMU-LN000	Interface Card assembly for IMU-LN200

IMU-FSAS

The IMU-FSAS in an enclosed IMU that is compatible with OEMV-3 and SPAN-SE GPS receivers when loaded with the INS firmware models.

The IMU-FSAS has no specific export restrictions when used in commercial applications.

IMU-FSAS works with RS-424 GPS receiver models ending in J.

RS-422 Version

IMU-FSAS-E-EI-O	SPAN compatible IMU-FSAS with Wheel Sensor Interface. Compatible with Optical Encoder style wheel sensors. For magnetic wheel sensor, also order IMAR-IMWS-V2.
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IMU-HG

The IMU-HG1700 enclosures house the HG1700 IMU and an interface card, and includes an IMU interface cable to connect the IMU to the receiver enclosure.

Delivery times for the IMU-HG may be longer than NovAtel's standard delivery times due to the US Department of State export control regulations.

IMU-HG1700 works with GPS Receiver models ending in i.

IMU-H58	HG1700 enclosure with HG1700 AG58 IMU (includes all cables)
OEM-IMU-HG1700-H58	HG1700 AG58 IMU without enclosure, formerly OEM-IMU-H58
IMU-H62	HG1700 enclosure with HG1700 AG62 IMU (includes all cables)
OEM-IMU-HG1700-H62	HG1700 AG62 IMU without enclosure, formerly OEM-IMU-H62
IMU-H00	HG1700 enclosure without an IMU (includes all cables)
OEM-IMU-H00	Interface card assembly for HG1700 IMUs

SPAN OEMV GPS Receivers

Card

OEMV-2 Cards for SPAN

Dual-Frequency

OEMV-2-RT2J	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 200 Hz,
OEMV-2-RT2i	GPS 1 cm real-time kinematic positions, raw data, SBAS, 100 Hz, IMU-HG support

OEMV-3 Cards for SPAN

The OEMV-3-RT2j receiver requires a 422 interface to communicate with the iMAR FSAS IMU. For card-level FSAS integration, please contact NovAtel sales.

Dual-Frequency

OEMV-3-RT2j	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 200 Hz, IMU-LN200 and IMU-FSAS support
OEMV-3-RT2i	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 100 Hz, IMU-HG support

Enclosure**ProPak-V3 Enclosures for SPAN****RS-232 Version****Dual-Frequency**

PROPAK-V3-RT2j	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 200 Hz, IMU-LN200 support
PROPAK-V3-RT2i	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 100 Hz, IMU-HG support

RS-422 Version**Dual-Frequency**

PROPAK-V3-424-RT2j	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 200 Hz, IMU-LN200 and IMU-FSAS support
PROPAK-V3-424-RT2i	GPS 1 cm real-time kinematic positions, raw data, OmniSTAR HP/XP/VBS, CDGPS, SBAS, 100 Hz, IMU-HG support

SPAN-SE Receivers

For more demanding applications, where additional features like removable data storage, wider power input range, additional event inputs and output strobes and additional I/O functionality are required, NovAtel offers the SPAN-SE receiver. SPAN-SE offers

SPAN-SE Receivers are RoHS-compliant.

Card**SPAN-SE Cards****Dual-Frequency**

OEM-SPAN-SE-RT2-G-S-J	LN200 and FSAS compatible SPAN receiver with GPS plus GLONASS, DGPS
OEM-SPAN-SE-RT2-S-J	LN200 and FSAS compatible SPAN receiver
OEM-SPAN-SE-RT2-G-S-I	HG1700 compatible SPAN receiver with GPS plus GLONASS, DGPS
OEM-SPAN-SE-RT2-S-I	HG1700 compatible SPAN receiver

Enclosure**SPAN-SE Enclosures****Dual-Frequency**

SPAN-SE-RT2-G-S-J	LN200 and FSAS compatible SPAN receiver with GPS plus GLONASS
SPAN-SE-RT2-S-J	LN200 and FSAS compatible SPAN receiver
SPAN-SE-RT2-G-S-I	HG1700 compatible SPAN receiver with GPS plus GLONASS
SPAN-SE-RT2-S-I	HG1700 compatible SPAN receiver

Complete SPAN System**Enclosure**

SPAN-CPT

NovAtel’s SPAN-CPT integrates the GPS and IMU components together into one enclosure for simple installation and configuration. SPAN-CPT contains the OEMV-3 receiver board and leading edge fibre optic gyro and MEMS accelerometer components from KVH Industries. The tightly-coupled architecture of SPAN is maintained with SPAN-CPT and popular features like 100Hz solutions, L-Band positioning and RTK are maintained. SPAN-CPT offers excellent price/performance and is comprised of entirely commercial components in order to ease export considerations.

SPAN-CPT is not RoHS compliant

Dual-Frequency

SPAN-CPT	Single-enclosure containing OEMV-3 GPS receiver, fiber optic gyros, and MEMS accelerometers
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Waypoint Products Group®

Purchases of Waypoint products, including new licenses, updates, and upgrades, include new software releases and Post-Contractual Support (PCS) for one year. Date of purchase is verified by your four-digit software key serial number. PCS includes technical support by phone, fax, and email. Support may be denied if payment is delinquent.

Please note that the part numbers by default indicate a USB security key. A parallel port security key must be specifically ordered if desired by replacing the "-U" suffix with "-P".

Waypoint Products are RoHS-compliant.

Inertial Explorer Software

Inertial Explorer Software License

SW-PP-GPSIMU-U	Inertial Explorer post-processing software for GPS/INS applications
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Inertial Explorer PCS

12 months of version updates and PCS are included with new purchases and upgrades. After that time, customers may extend access to updates and PCS by purchasing a version update.

Customers who purchase their update before the end of their current PCS period will be eligible for a 20% discount. Customers whose subscription has lapsed for more than one month will be required to pay for any missed months when renewing. The price for those months will be calculated as 1/12 of the one-year price, multiplied by the number of months.

The prices below are for a 12-month PCS subscription. 2- and 3-year subscriptions are also available.

Version updates do not require a new software key. If the customer requests a key exchange, the part number should be followed by either "-U" (USB) or "-P" (Parallel Port). The serial number of existing key must be provided on the purchase order.

SW-UD-PP-GPSIMU	One year of software updates for Inertial Explorer
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Inertial Explorer Product Upgrades

** The product upgrade price is the difference between product list prices. PCS must be current to purchase an upgrade. Customers not within a PCS period must update their PCS subscription prior to purchasing an upgrade.

SW-UG-PP-GPSIMU	Upgrade to Inertial Explorer
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Other

Inertial Explorer Manuals

OM-20000105	Printed copy of GrafNav/GrafNet Manual, which allows you to effectively navigate and post-process GNSS data. For use with GrafNav/GrafNet, GrafNav Lite, GrafNav/GrafNet Static, and GrafMov.
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Inertial Explorer Product Upgrades

** The product upgrade price is the difference between product list prices. PCS must be current to purchase an upgrade. Customers not within a PCS period must update their PCS subscription prior to purchasing an upgrade.

SW-PP-EXCH-GPSIMU	Exchange Parallel key for USB for Inertial Explorer
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GrafNav/GrafNet

NovAtel offers a complete selection of Waypoint post-processing software, including Inertial Explorer® for use with NovAtel's SPAN Technology. New licenses include 12 months of software support and version updates.

Software

GrafNav/GrafNet Software License

SW-PP-GMOV-U	GrafMov post-processing software (GrafNav/GrafNet™ with moving baseline option)
SW-PP-GNVT-U	GrafNav/GrafNet post-processing software
SW-PP-GNST-U	GrafNav/GrafNet Static post-processing software (no kinematic processing)
SW-PP-LGNV-U	GrafNav Lite post-processing software (1 Hz, L1 only)

SW-PP-UTIL-U	GrafNav Utilities software (data conversion, download, data logging, and coordinate conversion)
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GrafNav/GrafNet PCS

12 months of version updates and PCS are included with new purchases and upgrades. After that time, customers may extend access to updates and PCS by purchasing a version update.

Customers who purchase their update before the end of their current PCS period will be eligible for a 20% discount. Customers whose subscription has lapsed for more than one month will be required to pay for any missed months when renewing. The price for those months will be calculated as 1/12 of the one-year price, multiplied by the number of months.

The prices below are for a 12-month PCS subscription. 2- and 3-year subscriptions are also available.

Version updates do not require a new software key. If the customer requests a key exchange, the part number should be followed by either "-U" (USB) or "-P" (Parallel Port). The serial number of existing key must be provided on the purchase order.

Volume discounts are available for multi-license customers on the second and each additional license of any individual product.

SW-UD-2Y-PP-GMOV	Two years of software updates for GrafMov
SW-UD-PP-GMOV	One year of software updates for GrafMov
SW-UD-PP-GNVT	One year of software updates for GrafNav/GrafNet
SW-UD-PP-GNST	One year of software updates for GrafNav/GrafNet - Static Only
SW-UD-PP-LGNV	One year of software updates for GrafNav Lite
SW-UD-PP-UTIL	One year of software updates for GrafNav Utilities

GrafNav/GrafNet Product Upgrades

** The product upgrade price is the difference between product list prices. PCS must be current to purchase an upgrade. Customers not within a PCS period must update their PCS subscription prior to purchasing an upgrade.

Volume discounts are available for multi-license customers on the second and each additional license.

SW-UG-PP-GMOV	Upgrade to GrafMov
SW-UG-PP-GNVT	Upgrade to GrafNav/GrafNet
SW-UG-PP-GNST	Upgrade to GrafNav/GrafNet (Static Only)

Other

GrafNav/GrafNet Product Upgrades

** The product upgrade price is the difference between product list prices. PCS must be current to purchase an upgrade. Customers not within a PCS period must update their PCS subscription prior to purchasing an upgrade.

Volume discounts are available for multi-license customers on the second and each additional license.

SW-PP-EXCH-GMOV	Exchange Parallel key for USB for GrafMov
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GrafNav/GrafNet USB Key Exchanges

Key exchange cost is zero if an update or upgrade is purchased.

SW-PP-EXCH-GNVT	Exchange Parallel key for USB for GrafNav/GrafNet
SW-PP-EXCH-GNST	Exchange Parallel key for USB for GrafNav/GrafNet (Static Only)
SW-PP-EXCH-LGNV	Exchange Parallel key for USB for GrafNav Lite
SW-PP-EXCH-UTIL	Exchange Parallel key for USB for GrafNav Utilities

GrafNav/GrafNet Manuals

OM-20000106	Printed copy of Inertial Explorer Manual, which allows you to effectively navigate and post-process GNSS, IMU (Inertial Measurement Unit), and wheel sensor data.
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RTKNav

New licenses include 12 months of software support and version updates.

Software

RTKNav Software License

SW-RT-R20-U	RTKNav 1-20 Remotes. Full RTK capabilities + Moving Baseline
SW-RT-R6-U	RTKNav 1-6 Remotes. Full RTK capabilities + Moving Baseline
SW-RT-R3-U	RTKNav 1-3 Remotes. Full RTK capabilities + Moving Baseline
SW-RT-MV-U	RTKNav 1 Remote. Full RTK capabilities + Moving Baseline + Heading
SW-RT-R1-U	RTKNav 1 Remote. Full RTK capabilities
SW-RT-AZ-U	Azimuth Determination Only

RTKNav PCS

12 months of version updates and PCS are included with new purchases and upgrades. After that time, customers may extend access to updates and PCS by purchasing a version update.

Customers who purchase their update before the end of their current PCS period will be eligible for a 20% discount. Customers whose subscription has lapsed for more than one month will be required to pay for any missed months when renewing. The price for those months will be calculated as 1/12 of the one-year price, multiplied by the number of months.

The prices below are for a 12-month PCS subscription. 2- and 3-year subscriptions are also available.

Version updates do not require a new software key. If the customer requests a key exchange, the part number should be followed by either "-U" (USB) or "-P" (Parallel Port). The serial number of existing key must be provided on the purchase order.

SW-UD-RT-R20	One year of software updates for RT-R20
SW-UD-RT-R6	One year of software updates for RT-R6
SW-UD-RT-R3	One year of software updates for RT-R3
SW-UD-RT-MV	One year of software updates for RT-MV
SW-UD-RT-R1	One year of software updates for RT-R1
SW-UD-RT-AZ	One year of software updates for RT-AZ

RTKNav Product Upgrades

** The product upgrade price is the difference between product list prices. PCS must be current to purchase an upgrade. Customers not within a PCS period must update their PCS subscription prior to purchasing an upgrade.

Volume discounts are available for multi-license customers on the second and each additional license.

SW-UG-RT-R20	Upgrade to RT-R20
SW-UG-RT-R6	Upgrade to RT-R6
SW-UG-RT-R3	Upgrade to RT-R3
SW-UG-RT-MV	Upgrade to RT-MV

Development Tools

SW-RT-DEV-U	RtDLL/SIOGPS DLL Developer's Kit for processing and interface (one time cost and must be purchased with one of the above RTKNav licenses)
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Other

RTKNav USB Key Exchanges

Key exchange cost is zero if an update or upgrade is purchased.

SW-RT-EXCH-R20	Exchange Parallel key for USB for RT-R20
SW-RT-EXCH-R6	Exchange Parallel key for USB for RT-R6
SW-RT-EXCH-R3	Exchange Parallel key for USB for RT-R3
SW-RT-EXCH-MV	Exchange Parallel key for USB for RT-MV
SW-RT-EXCH-R1	Exchange Parallel key for USB for RT-R1
SW-RT-EXCH-AZ	Exchange Parallel key for USB RT-AZ

RTKNav Manuals

OM-20000107	Printed copy of RTKNav Manual, which allows you to effectively navigate and process GPS data.
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Receiver Accessories

OEMV Accessories Cable

Accessories for FlexPak Enclosures

End of Life for the FlexPak enclosures and related accessories has been announced. Orders will be accepted while inventory lasts, or until November 30, 2009, whichever comes first. Shipments may be scheduled for no later than February 28, 2010.

01017821	Accessory Power Cable, Deutsch with automotive adapter (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017278	8.5 cm RF cable with right-angle MCX male plug and straight TNC bulkhead jack connectors, RoHS compliant
01017823	Straight serial cable with Deutsch and male DB-9 connectors (included with OEMV FlexPak enclosures), RoHS compliant
01017822	Null-modem cable with Deutsch and female DB-9 connectors (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017820	USB cable (Host Side) to female 13-pin Deutsch circular connector (included with OEMV FlexPak enclosures), RoHS compliant

RS-232 Version

40023106	15 W AC adapter with auto receptacle and IEC-320-C14 input for ProPak, FlexPak, SSII SMART Antenna, and all EuroPaks except EuroPak-15ab (North American plug included, requires additional region-specific plug for use outside North America), RoHS compliant
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Accessories for SMART Antennas

RS-232 Version

01017923	5 meter interface cable with 18-pin connector and tagged open wires (USB) for SMART-V1-2US, and SMART-V1G, RoHS compliant
01017893	5 meter interface cable with 18-pin connector, 2 x DB-9 (serial), 1 x USB and tagged open wires for SMART-V1-2US and SMART-V1G, RoHS compliant

RS-422 Version

01018024	5 meter interface cable with 18-pin connector and tagged open wires for SMART-V1-4XS, RoHS compliant
01018017	5 meter interface cable with 18-pin connector, 3 x DB-9 (serial) and tagged open wires for SMART-V1-4XS, RoHS compliant

Accessories for ProPak-V3 Enclosures

01017663	Accessory Power Cable, 4-pin LEMO with automotive adapter for DL-4plus, DL-V3, ProPak-G2plus, and ProPak-V3, RoHS compliant
01018221	Cable assembly for IMU-FSAS and ProPak-V3, 1 m, not RoHS compliant
01017658	Null-modem cable with 2 female DB-9 connectors for DL-V3 and ProPak-V3 enclosures, RoHS compliant
01017659	Straight serial cable (extension) with male and female DB-9 connectors for DL-4plus, DL-V3, EuroPak™ enclosures, ProPak-G2plus, and ProPak-V3, RoHS compliant
01017660	I/O strobe port interface cable with DB-9 male connector and open wires for DL-4plus, DL-V3, EuroPak enclosures, ProPak-G2plus, and ProPak-V3, RoHS compliant
01017664	USB cable (Host Side) to DB-9 female connector for DL-4plus, DL-V3, ProPak-G2plus, and ProPak-V3, RoHS compliant
01018222	Cable assembly for IMU-FSAS and ProPak-V3, 2 m, not RoHS compliant

RS-232 Version

40023106	15 W AC adapter with auto receptacle and IEC-320-C14 input for ProPak, FlexPak, SSII SMART Antenna, and all EuroPaks except EuroPak-15ab (North American plug included, requires additional region-specific plug for use outside North America), RoHS compliant
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Accessories for DL-V3 Enclosures

01017663	Accessory Power Cable, 4-pin LEMO with automotive adapter for DL-4plus, DL-V3, ProPak-G2plus, and ProPak-V3, RoHS compliant
01017658	Null-modem cable with 2 female DB-9 connectors for DL-V3 and ProPak-V3 enclosures, RoHS compliant
01017659	Straight serial cable (extension) with male and female DB-9 connectors for DL-4plus, DL-V3, EuroPak™ enclosures, ProPak-G2plus, and ProPak-V3, RoHS compliant
01017660	I/O strobe port interface cable with DB-9 male connector and open wires for DL-4plus, DL-V3, EuroPak enclosures, ProPak-G2plus, and ProPak-V3, RoHS compliant
01017664	USB cable (Host Side) to DB-9 female connector for DL-4plus, DL-V3, ProPak-G2plus, and ProPak-V3, RoHS compliant

**SUPERSTAR II Accessories
Cable****Accessories for SUPERSTAR II FlexPak Enclosures**

End of Life for the FlexPak enclosures and related accessories has been announced. Orders will be accepted while inventory lasts, or until November 30, 2009, whichever comes first. Shipments may be scheduled for no later than February 28, 2010.

01017821	Accessory Power Cable, Deutsch with automotive adapter (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017822	Null-modem cable with Deutsch and female DB-9 connectors (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017518	Straight serial cable with Deutsch and male DB-9 connectors (included with FlexPak-G2L, also for use with FlexPak-SSII), not RoHS compliant

RS-232 Version

40023106	15 W AC adapter with auto receptacle and IEC-320-C14 input for ProPak, FlexPak, SSII SMART Antenna, and all EuroPaks except EuroPak-15ab (North American plug included, requires additional region-specific plug for use outside North America), RoHS compliant
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Accessories for SUPERSTAR II SMART Antenna**RS-232 Version**

217-601798-003	5 meter interface cable with 6-pin metal connector and DB-9 and automotive adapter for SSII SMART Antenna, not RoHS compliant
217-601798-004	15 meter interface cable with 6-pin metal connector and DB-9 and automotive adapter for SSII SMART Antenna, not RoHS compliant
217-601742-003	5 meter interface cable with 7-pin plastic connector and DB-9 and automotive adapter for SSII SMART Antenna, not RoHS compliant
40023106	15 W AC adapter with auto receptacle and IEC-320-C14 input for ProPak, FlexPak, SSII SMART Antenna, and all EuroPaks except EuroPak-15ab (North American plug included, requires additional region-specific plug for use outside North America), RoHS compliant

RS-422 Version

217-601764-002	30 meter interface cable with 12-pin connector and open wires for SSII SMART Antenna, not RoHS compliant
217-601764-003	15 meter interface cable with 12-pin connector and open wires for SSII SMART Antenna, not RoHS compliant

Other**Accessories for SUPERSTAR II SMART Antenna**

40023100	RS-422 to RS-232 converter with DB-9 connector for SSII SMART Antenna, not RoHS compliant
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**SPAN Accessories
Cable****Accessories for IMU-LN200**

01017821	Accessory Power Cable, Deutsch with automotive adapter (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017822	Null-modem cable with Deutsch and female DB-9 connectors (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant

Accessories for IMU-FSAS

01018221	Cable assembly for IMU-FSAS and ProPak-V3, 1 m, not RoHS compliant
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01018222	Cable assembly for IMU-FSAS and ProPak-V3, 2 m, not RoHS compliant
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Accessories for IMU-HG

01017821	Accessory Power Cable, Deutsch with automotive adapter (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017822	Null-modem cable with Deutsch and female DB-9 connectors (included with FlexPak enclosures, also for use with SPAN HG1700 and LN200 IMUs), RoHS compliant
01017393	Interface cable for IMU-G2 and ProPak-LBplus (included with IMU-LB-xxx), not RoHS compliant
01017384	Interface cable for HG1700 IMUs (included with IMU-G2-xxx), not RoHS compliant

Accessories for SPAN-CPT

60723108	Terminated DB-9 & USB SPAN-CPT power/data cable
60723107	Non-terminated SPAN-CPT power/data cable

Accessories for SPAN-SE

01018133	SPAN-SE I/O 2 (Yellow) Cable
01018134	SPAN-SE I/O 1 (Green) Cable
01018135	SPAN-SE Power Cable

Other

Accessories for IMU-FSAS

IMAR-IMWS-V2	iMAR Magnetic Wheel hardware, including magnetic strip, compatible with IMU-FSAS-EI-O, not RoHS-compliant
01018223	Transportation case for IMU-FSAS, water resistant, plastic
01018224	iMWS magnetic strip, 2 m, for IMU-FSAS-EI-O and IMAR-IMWS-V2, not RoHS compliant



Specialty Products

Specialty Products are not RoHS-compliant, except where otherwise noted.

Euro-3M Receivers

The Euro-3M GPS receiver features Signal Quality Monitoring (SQM) and the patent-pending SafeTrak™ cross-correlation verification algorithm. The standard version includes 14 channels for L1/L2 tracking and 4 channels for L1 GEO tracking. Alternately, the Euro-3M is offered with Multipath Estimating Delay Lock Loop (MEDLL®) multipath reduction technology combined with 8 L1/L2 channels and 1 L1 GEO channel. An enclosure for the Euro-3M card is also available with an optional high-stability internal Oven Controlled Crystal Oscillator (OCXO).

The commands and logs for these products are based on NovAtel's WAAS and GUS Reference Receivers, and may have significant differences when compared to standard NovAtel commercial receivers.

Card

Euro-3M Cards

Dual-Frequency

EURO-3M-MEDLL	8-channel L1/L2 tracking and 1-channel L1 GEO tracking with MEDLL
EURO-3M-L1L2GEO	14-channel L1/L2 tracking and 4-channel L1 GEO tracking

Enclosure

EuroPak-3M Enclosures

EUROPAK-3MT-MEDLLT	Enclosed Euro-3M-MEDLL receiver with internal OCXO
EUROPAK-3M-MEDLL	Enclosed Euro-3M-MEDLL receiver
EUROPAK-3MT-L1L2GEOT	Enclosed Euro-3M receiver with internal OCXO
EUROPAK-3M-L1L2GEO	Enclosed Euro-3M receiver

EuroPak-15a and -15ab Receivers

The EuroPak-15a offers superior 16-channel tracking and decoding of GPS L1/L5, Galileo L1/E5a, and SBAS signals in a EuroPak enclosure. Digital Pulse Blanking is included for radar and pulsed DME interference mitigation. The unit features L1 GPS RFI rejection enhancements as developed for US WAAS reference receivers. The -15ab version adds an additional 16 channels for Galileo E5a and E5b tracking.

The 'T' version has an internal 10 MHz OCXO for stand-alone operation, while an external clock input is recommended for the -15a, and an external clock input is required for the -15ab version. A number of factory programmed configurations are available which allow user-selection of combinations of GPS L1/L5 and Galileo L1/E5a. The -15ab version adds Galileo E5b to the available configurations.

The EuroPak-15a receiver has not undergone qualification testing and should be considered prototype equipment for experimental evaluation only.

Enclosure

EUROPAK-15AB	GPS L1/L5 and Galileo L1/E5a/E5b receiver in EuroPak Enclosure
EUROPAK-15AT	GPS L1/L5 and Galileo L1/E5a receiver in EuroPak Enclosure with internal OCXO
EUROPAK-15A	GPS L1/L5 and Galileo L1/E5a receiver in EuroPak Enclosure

Multipath Tools

Enclosure

MEDLL-RECEIVER	Including Multipath Meter Software
MULTIPATH-ASSESSMENT-T	Multipath Assessment Tool (MAT)

LGR Receiver

Card

CMA-4048

Single-Frequency

17523025 Dual L1/L1 24 Channel LAAS Ground Station GPS Receiver (LGR) with Signal Quality Monitoring

Accessories for Specialty Products

Cable

Accessories for EuroPak Enclosures

01017023	Power cable with automotive adapter for EuroPak enclosures, not RoHS compliant
01017659	Straight serial cable (extension) with male and female DB-9 connectors for DL-4plus, DL-V3, EuroPak™ enclosures, ProPak-G2plus, and ProPak-V3, RoHS compliant
01017660	I/O strobe port interface cable with DB-9 male connector and open wires for DL-4plus, DL-V3, EuroPak enclosures, ProPak-G2plus, and ProPak-V3, RoHS compliant
60323062	Null-modem cable with 2 female DB-9 connectors (included with DL-4plus, ProPak-G2plus, and EuroPak enclosures), not RoHS compliant
40023113	30 W AC adapter with auto receptacle and IEC-320-C14 input for ProPak, FlexPak, SSII SMART Antenna, and EuroPak (North American plug included, requires additional region-specific plug for use outside North America), RoHS compliant

RS-232 Version

40023106	15 W AC adapter with auto receptacle and IEC-320-C14 input for ProPak, FlexPak, SSII SMART Antenna, and all EuroPaks except EuroPak-15ab (North American plug included, requires additional region-specific plug for use outside North America), RoHS compliant
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Accessories for Multipath Tools

40023090	Portable MEDLL AC adapter (+24 VDC @ 3 A), not RoHS-compliant
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Professional Services

Customer Training

On Site Training

NovAtel's qualified instructor will travel to your site provide on site training for a maximum class size of 5 students. Pricing is in addition to all travel expenses, and includes one day of travel time. Additional travel time is billed at the daily rate.

Training-On-Site-Daily	Full, 7.5-hour day
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In House Training

NovAtel offers training at our facility in Calgary for class sizes up to 5 students. All related travel expenses are the responsibility of the student.

Training-In-House-Daily	Full, 7.5-hour day
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Consulting Services

On Site Consulting or Support

A NovAtel engineer will travel to your site to provide on site consulting or support services. Pricing is in addition to all travel expenses, and includes one day of travel time. Additional travel time is billed at the daily rate.

Consulting-Daily	Full, 7.5-hour day
Consulting-Hourly	Each hour, only available in addition to one or more full days