PwrPak7 Notices

The following notices apply to the PwrPak7 device.

Changes or modifications to this equipment, not expressly approved by NovAtel Inc., could void the user's authority to operate this equipment.

FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

PwrPak7 has been tested and found to comply with the radiated and conducted emission limits for a Class B digital device. The Class B limits are designed to provide reasonable protection against harmful interference in a residential installation.

The equipment listed generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the PwrPak7
- Increase the separation between the equipment and the PwrPak7
- Connect the equipment to an outlet on a circuit different from that to which the PwrPak7 is connected
- Consult the dealer or an experienced radio/TV technician for help

To maintain compliance with the limits of a Class B digital device, you must use shielded interface cables.

The PwrPak7 has been authorized for use in Mobile applications. At least 20 cm (8 inches) of separation between the PwrPak7 and the User must be maintained at all times.

Innovation, Science and Economic Development (ISED) Canada

PwrPak7 Class B digital device complies with Canadian ICES-003.

PwrPak7 appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with ISED license-exempt RSS-GEN and RSS-247. Operation is subject to the following two conditions: (1) this device may not cause interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The PwrPak7 has been authorized for use in Mobile applications. At least 20 cm (8 inches) of separation between the PwrPak7 and the User must be maintained at all times.

Wi-Fi

PwrPak7 contains a Wi-Fi radio with the following approvals:

- FCC ID: UTU-01019715
- IC: 129A-01019715

European Union (EU)

PwrPak7 Wi-Fi

NovAtel Inc. declares that the PwrPak7 Wi-Fi transceiver is in compliance with Directive 2014/53/EU (Radio Equipment).

The full text of the EU Declaration of Conformity may be obtained from the NovAtel web site at:

www.novatel.com/products/compliance/eu-declaration-of-conformity

Radio Information

Description of Service: Wi-Fi (802.11b/g/n)

Operational Frequency: 2400 MHz to 2480 MHz

Modulation: OFDM

Rated Power: 17.5 dBm e.i.r.p

The full text of the EU Declaration of Conformity may be obtained from the NovAtel web site at:

www.novatel.com/products/compliance/eu-declaration-of-conformity

Ethernet Port

The Ethernet port is a safety extra-low voltage (SELV) circuit only and is suitable for connection within a building only. Do not connect them to telephone-network voltage (TNV) circuits.

WEEE Notice

If you purchased your PwrPak7 product in Europe, please return it to your dealer or supplier at the end of its life. The objectives of the European Community's environment policy are, in particular, to preserve, protect and improve the quality of the environment, protect human health and utilise natural resources prudently and rationally. Sustainable development advocates the reduction of wasteful consumption of natural resources and the prevention of pollution. Waste electrical and electronic equipment (WEEE) is a regulated area. Where the generation of waste cannot be avoided, it should be reused or recovered for its material or energy. WEEE products may be recognized by their wheeled bin label ().

Chapter 1 PwrPak7 Overview

NovAtel's PwrPak7 is a scalable, high precision GNSS receiver in a lightweight, compact, environmentally protective enclosure. There are several variants of the PwrPak7 to meet a range of GNSS applications.

- **PwrPak7**
  The PwrPak7 uses the OEM7700 receiver card to deliver scalable high precision positioning in a compact, lightweight enclosure.
- **PwrPak7D**
  The PwrPak7D is a dual antenna enclosure that uses the OEM7720 receiver card to provide a high precision positioning and heading solution.
- **PwrPak7-E1**
  The PwrPak7-E1 combines GNSS and INS hardware in a single enclosure to provide an easy to deploy SPAN GNSS+INS system. The PwrPak7-E1 uses an OEM7700 receiver card to deliver scalable high precision positioning and an Epson EG320N IMU to deliver accelerometer and gyroscope measurements.
- **PwrPak7D-E1**
  The PwrPak7D-E1 combines dual antenna GNSS and INS hardware in a single enclosure to provide an easy to deploy SPAN GNSS+INS and ALIGN system. The PwrPak7D-E1 uses an OEM7720 receiver card to deliver scalable high precision positioning and heading, and an Epson EG320N IMU to deliver accelerometer and gyroscope measurements.

In this documentation, the term PwrPak7 is used to represent all variants of the PwrPak7 enclosure (PwrPak7, PwrPak7D, PwrPak7-E1 and PwrPak7D-E1). When a section applies to a specific variant of the PwrPak7 enclosure, the applicable receiver is identified (e.g. PwrPak7-E1 only).

The PwrPak7 provides the following features:

- Multi-frequency/Multi-constellation
- 555 channel operation
- Dual antenna inputs for single enclosure heading solution (PwrPak7D and PwrPak7D-E1 only)
- SPAN GNSS+INS functionality
- Three serial communication ports, 2 RS-232/RS-422 and 1 RS-232
- One USB communication port
- One USB data transfer port
- Ethernet communication port
- Wi-Fi communication interface
- CAN bus port
- Event outputs
- Event inputs
- Pulse Per Second (PPS) output