

KEY FEATURES

The surveying industry's most powerful radio for GPS base stations

Rugged and reliable whatever the conditions

Intelligent and easy to use

Compatible with any GPS surveying system



The Trimble® HPB450 radio modem is a powerful and rugged 450 MHz radio specifically designed for GPS surveying systems.

EXTREMELY LONG RANGE AND HIGH POWER

The HPB450 offers high or low power broadcast of GPS correction data. With its high power output of 35 W, the HPB450 is the most powerful radio of its type available, maximizing the achievable range. With a fast over-the-air data rate, the HPB450 also offers reduced latency for improved GPS positioning information.

INTELLIGENT PROTOCOLS AND AUTOBASE TECHNOLOGY

Unique AutoBase™ technology in the HPB450 radio offers the convenience of automatic channel scanning; the radio scans through all available channels and then returns to the best one for transmission.

Broadcast range and noise immunity are also significantly enhanced via the HPB450 radio's forward error correction (FEC).

SEAMLESS INTEGRATION WITH TRIMBLE GPS SYSTEMS

The HPB450 radio is designed to compliment and fit seamlessly into new and existing Trimble GPS surveying systems. As such, it is built to the same standards of ruggedness, reliability, and suitability for the field as other Trimble products. It is lightweight and consumes minimal power for longer field operation, and you can rely on the radio to perform in the field day after day, whatever the conditions. With its built-in mounts the radio can be mounted on any tripod.

The HPB450 is also easy to use, with a user interface that includes a channel display, LEDs to indicate system status, and on/off control. Configuring the radio is also possible using your Trimble field software or supplied PC software.

TRIMBLE HPB450 RADIO

TRIMBLE HPB450 BENEFITS

- "Auto Power On" feature
- Rugged construction withstands harsh job site conditions
- Designed for use with Trimble internal 450 MHz radios
- Built-in channel selector
- 4800, 9600, 19,200¹ over-the-air baud rates
- 20 MHz splits

TRIMBLE HPB450 GENERAL SPECIFICATIONS

DTE-DCE interface 3-wire, RS-232, 38,400 baud maximum
User interface Auto Power On, on/off button,
channel button with AutoBase and AutoRover™,
digital display, modem/power status indicators,
RF power select toggle switch

POWER

External 9–16 V DC
Internal battery NA
During TX (nominal) 110 W (35 W)
During RX (nominal) 1.9 W

ANTENNA

External 50 Ω, BNC

MODEM SPECIFICATIONS

Link rate/modulation 19,200 bps/4 level FSK (25 kHz)¹
9600 bps/4 level FSK (12.5 kHz)¹
9600 bps/GMSK (25 kHz)
4800 bps/GMSK (12.5 kHz)
Link protocols Transparent, packet switched,
digipeater, TRIMTALK™
Forward error correction (FEC) Hamming code (12, 8)
with data interleaving¹

RADIO SPECIFICATIONS

Frequency bands 410–430 MHz, 430–450 MHz or 450–470 MHz
(only one band per radio)
Frequency controls Synthesized 12.5 kHz resolution,
±2.5 ppm stability
RF power select Low/high
RF transmitter output 3/35 W
Sensitivity –110 dBm BER 10–5
Adjacent channel selectivity >60 dB (25 kHz), >50 dB (12.5 kHz)
Type certification All models are type accepted and certified for
operation in the U.S.A. and Canada.
For detailed information concerning your
country's type certification, please contact
your local Trimble Authorized Distribution Partner.

ENVIRONMENTAL SPECIFICATIONS

Operating temperature –30 °C to +60 °C (–22 °F to +140 °F)
Storage temperature –55 °C to +85 °C (–67 °F to +185 °F)
Vibration/shock ANSI/SAE EP455
Enclosure IEC 144/855420 IP66 watertight and dustproof

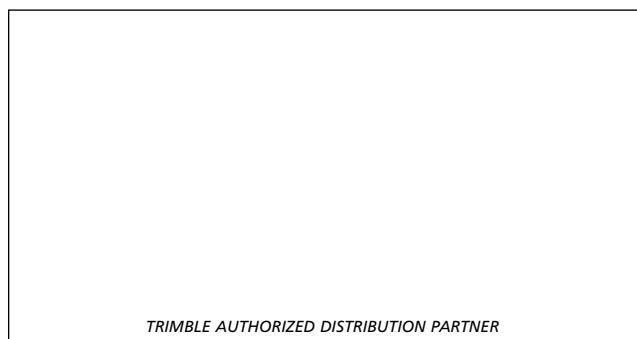
MECHANICAL SPECIFICATIONS

Dimensions (WxHxL) 15.8 cm x 7.0 cm x 16.7 cm
(6.23 in x 2.77 in x 6.58 in)
Weight 1.34 kg (2.96 lb)
Data/power connector 5-pin LEMO #1 shell
Mount Tripod bracket

© 2005–2006, Trimble Navigation Limited. All rights reserved. Trimble and the Globe & Triangle logo are trademarks of Trimble Navigation Limited, registered in the United States Patent and Trademark Office and in other countries. TRIMTALK is a trademark of Trimble Navigation Limited. AutoBase and AutoRover are trademarks of Pacific Crest Corporation. All other trademarks are the property of their respective owners. PN 022543-181A (01/06)

¹ Requires HPB450 or PDL450 at both base and rover.

Specifications subject to change without notice.



TRIMBLE AUTHORIZED DISTRIBUTION PARTNER

NORTH AMERICA

Trimble Engineering &
Construction Group
5475 Kellenburger Road
Dayton, Ohio 45424-1099 • USA
800-538-7800 (Toll Free)
+1-937-245-5154 Phone
+1-937-233-9441 Fax

EUROPE

Trimble GmbH
Am Prime Parc 11
65479 Raunheim • GERMANY
+49-6142-2100-0 Phone
+49-6142-2100-550 Fax

ASIA-PACIFIC

Trimble Navigation
Singapore Pty Limited
80 Marine Parade Road
#22-06, Parkway Parade
Singapore 449269 • SINGAPORE
+65-6348-2212 Phone
+65-6348-2232 Fax



www.trimble.com