PRECISION GPS+

TOPCON®


# MILLIMETER GPS™

A new dimension of precision and productivity

WORLD'S FIRST

ANSI-RAB QMS ACCREDITED

BSI REGISTERED

ISO 9001:2000
FM 68448

## Imagine entering a zone where your GPS system is instantly 300% more accurate...

**Now stop imagining because it's here. Practical, affordable MILLIMETER GPS™ featuring Topcon's Lazer Zone™ technology. It's here, and it's Only from Topcon!**

### The Lazer Zone™ system is comprised of three components:

**PZL-1**
Positioning Zone Laser transmitter sets up and operates much like a standard rotating laser.

**PZS-1**
Positioning Zone Sensor mounts to your GPS range pole, receives the laser signal and wirelessly transmits to your existing HiPer rover.

**PZS-MC**
Positioning Zone Sensor for machine control replaces your machine mounted GPS antenna.


**Imagine taking your GPS rover and transforming it into a super-precise measuring device that rivals a robotic total station. Or enabling your highly productive 3D-GPS+ stakeless grading systems to speed through your highest precision work. At a fraction of the cost of a robotic total station system, and without the single-user limitation. That's the power of MILLIMETER GPS™.**

- **World's first millimeter accurate GPS system—up to 300% more accurate than standard GPS**
- **Lazer Zone transmitter provides precise vertical measurement area 600m in diameter, 10m in height**
- **Works existing Topcon GPS+ systems**
- **Multiple rover support** (machine or pole mounted)

MILLIMETER GPS™

MILLIMETER GPS™ is the perfect solution for the times when high-precision elevations are required. Precision staking becomes a one-man operation with a Topcon GPS system. Set up the Topcon RTK GPS+ system, add a wireless PZS-1 sensor to a rover (or multiple rovers) and set up the PZL-1 transmitter. You get instant millimeter accurate elevations anywhere in the Lazer Zone.


## Introducing Lazer Zone™ –

where precision and productivity merge

LAZER ZONE™

Topcon proudly introduces a new dimension of control technology—Lazer Zone™. The PZL-1 Positioning Zone Laser projects a Laser Zone beam that sweeps over a 600 meter area. This unique signal creates a 10 meter high zone of precision elevation control. The Lazer Zone sensors, either on a rover pole or machine mast, compute precise elevation anywhere within the Laser Zone. This provides instant millimeter accurate elevation control.

It's another Topcon **WORLD'S FIRST** technology that will put your productivity and job quality in a zone by itself.

High-precision, three-dimensional stakeless grading has been available for years. But it required an expensive specialized robotic total station for each piece of automated machinery. With the MILLIMETER GPS system, you can add high-precision control to your Topcon 3D-GPS+ grade control system for a fraction of the cost, and—like GPS—one PZL-1 transmitter can operate multiple PZS-MC equipped machines. For added convenience on large or extremely steep areas, multiple PZL-1 transmitters can be linked, providing continuous, high-speed, high-precision control.

**HiPer+**
Wireless GPS+ Receiver

**FC-100**
Windows CE® Field Controller

**System Five-3D**
Windows CE® based 3D Control Box

**GB-1000**
Modular GPS+ Receiver

# Specifications

## PZL-1 TRANSMITTER:

| | |
|---|---|
| **Zone Width** | ±10° (0-30m), ±5m (30-300m) |
| **Zone Radius** | 300 meters (985 feet) |
| **Lazer Zone Accuracy** | Vertical: 1 arc second resolution |
| **RTK GPS+ Accuracy** | Horizontal: 10mm + 1ppm |
| **Self-Leveling Range** | ±5° |
| **Rotation Speed** | 600 rpm |
| **Laser Class** | Class 1 |
| **Channels** | 4 |
| **Plumb Beam** | YES |
| **Bluetooth** | YES |
| **I/O port** | RS-232C |
| **Power Supply** | Rechargeable Ni-MH (w/runcharge)<br>4 D-Cell Alkaline |
| **Operating Time** | about 20 hours (Alk), 15 hours Ni-MH |
| **Waterproof** | IPX6 |
| **Operating Temp** | -20° to +50° C |

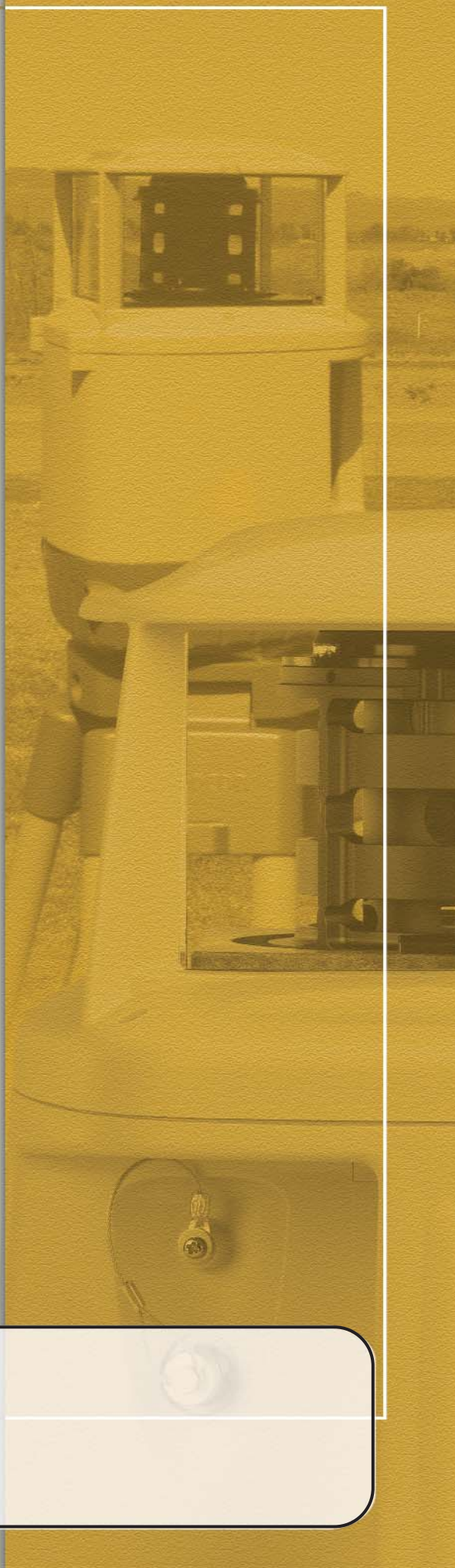
## PZS-1 ROVER SENSOR:

| | |
|---|---|
| **Beam Detection** | ±10° by ±10° window |
| **Channels** | 4 |
| **I/O port** | RS-232C |
| **Mounting** | 5/8x11 Thread |
| **Waterproof** | IPX6 |
| **Operating Temp** | -20° to +50° C |
| **Power Supply** | BT-59Q Camcorder battery |
| **Operating Time** | about 8 hours |
| **Weight** | about 1kg |

## PZS-MC MACHINE CONTROL SENSOR:

| | |
|---|---|
| **Beam Detection** | ±10° by 360° |
| **Channels** | 4 |
| **Waterproof** | IPX6 |
| **Operating Temp** | -20° to +50° C |
| **Power Supply** | DC8V~DC32V |
| **Weight** | Less than 3kg |

*Specifications as of 3/10/2004 and are subject to change without notice*



TOPCON

www.topcon.com

Phone: (800) 443-4567

Specifications subject to change without notice

Patents Pending



P/N: 7010-0670 Rev. B Printed in U.S.A. 11/04

**Your local TOPCON dealer is:**