

GMS-2

 **TOPCON**

# HAND-HELD GIS MAPPING SYSTEM



**Introducing the next generation  
of a compact satellite  
positioning receiver**



- DUAL-CONSTELLATION SATELLITE TRACKING
- INTEGRATED DIGITAL CAMERA
- CUSTOMIZED FIELD SOFTWARE
- INTERNAL BLUETOOTH® WIRELESS TECHNOLOGY
- ULTRA SHARP COLOR TFT TOUCH SCREEN

# It's time.

Topcon engineers have incorporated our industry leading dual-constellation satellite tracking into a small hand-held GPS receiver, the new GMS-2. This innovative new system provides an integrated digital camera powered by Topcon's revolutionary imaging technology. This powerful combination of dual-constellation satellite performance and digital imaging technology has set a new standard for GIS field mapping.

Powered by Topcon's TPSCORE® GPS chip technology, the GMS-2 provides 50 channel tracking capability, for both GPS+ Glonass satellite systems. The TPSCORE® chip technology also provides dual-purpose signal tracking for either meter-level GIS mapping applications, or single frequency carrier tracking for high accuracy static positioning. With an optional external L1 antenna, the GMS-2 can perform post processed surveying applications for accuracies better than 1 cm.

In addition to post-processing, the GMS-2 can also utilize external correction services for real-time DGPS. The GMS-2 provides access to the WAAS and EGNOS correction services as a standard feature. The GMS-2 can also utilize the optional Topcon BR-1 Coast Guard Beacon Receiver, to correct its raw GPS location for real time location, mapping, and navigation applications. Using its internal Bluetooth® wireless technology, the GMS-2 can be configured to connect to a regional real-time GPS reference station network using a Bluetooth dial-up networking enabled cell phone.

A significant advantage of the GMS-2 is its ability to perform multiple roles. With its Windows CE® operating system, a GMS-2 can run Topcon TopPAD software for advanced GIS data collection and maintenance. TopPAD combines the power of ESRI ArcPad® with special user interface that supports Topcon GPS products. A GMS-2 can also be used as a field controller running the full suite of Topcon's TopSURV software to work with total stations and RTK GPS systems. With the addition of the GIS module for Topcon's TopSurv GPS field software, the GMS-2 can be used as either a stand alone GIS receiver, or part of an integrated survey system, providing flexibility not found in competing systems.



**GMS-2**

Hand-held GIS Mapping System

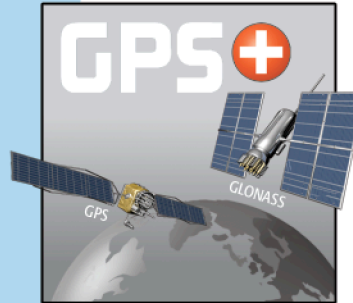


## Incorporating advanced technology not found in other hand-held GPS units.



### Advanced Digital Imaging

- Integrated digital camera
- Collect, store and automatically link digital images as an attributes to GPS coordinate locations
- No additional software needed. Just point and click. It's that easy!



### Dual-Constellation Tracking

- Combine the coverage of US GPS system with the Russian Glonass satellite system

More satellites means:

- Better performance in tough, obstructed areas
- Consistently lower DOP values and improved precision



### Customized Software

TopPAD - For the advanced GIS professional who demands the functionality of ESRI Mobile GIS software

TopPAD combines the power of ESRI's ArcPad® with a special user interface and hardware support specifically designed for Topcon GIS mapping systems



### Multiple Device Inputs

Access to a variety of ports:

- SD Memory Slot
- USB Port
- Serial Port
- Power
- Antenna

### BR-1 Receiver

The new BR-1 is the companion to the popular GMS-2 mapping/imaging device from Topcon. The BR-1 is designed to relay Coast Guard Beacon corrections wirelessly to the GMS-2 receiver for increased accuracy. Running on common rechargeable batteries to the GMS-2 the BR-1 will provide added flexibility and accuracy to the GMS-2 mapping system.



# Setting a new standard for handheld GPS systems, the GMS-2 combines more functionality into one device than ever conceived of before now!



## TopPAD Software

TopPAD software is a mobile GIS data collection system. It supports a multi-layer environment with industry-standard vector map and raster image display.

Other primary features include:

- Work in native shapefile formats eliminating the need to convert to a unique field data file format
- Ability to compare data directly to geographic features in the real world adds a deeper sense of reality to the GIS database
- Option to store raw GPS data for post-processing using Topcon Tools GIS office software



## GMS-2 standard package includes

- GMS-2 receiver
- Carrying Case
- Rechargeable Li-ion Battery Pack
- USB cable
- Battery charger
- Screen protectors
- Manual
- Stylus Pen
- Topcon Tools GIS post-processing module (optional)



## The Leader in Positioning Technology...

Topcon Positioning Systems is the worldwide leading developer and manufacturer of precision positioning equipment and offers the widest selection of innovative precision GPS systems, laser, optical surveying, and machine control products.

From open-field construction projects to isolated surveying sites and from rolling farmland to inner city utility projects, Topcon Positioning Systems creates innovative technology solutions that give a decidedly competitive edge to end-users.

Recognized as the innovative trend-setter in its industry, Topcon has focused on developing an array of integrated positioning and automation technologies to meet the constantly changing demands facing GIS, construction, surveying, agriculture, utilities and law enforcement professionals worldwide. We look forward to building solutions that solve your data collection project challenges today and in the future.



**Topcon Positioning Systems, Inc.**  
7400 National Drive  
Livermore, CA 94551  
[www.topconpositioning.com](http://www.topconpositioning.com)



**Specifications subject to change without notice**

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## Specifications

<b>Number of Channels</b>	50 GPS + Glonass L1 tracking
<b>DGPS Accuracy</b>	50cm HRMS
<b>L1 Static Function</b>	H: RMS 3mm + 0.8ppm V: RMS 4mm + 1.0ppm
<b>L1 PP Kinematic Function</b>	H: RMS 10mm + 1.0ppm V: RMS 15mm + 1.0ppm
<b>WAAS/EGNOS</b>	Yes
<b>CORS Beacon</b>	Yes with BR-1
<b>Internal Memory</b>	SDRAM 128 MB Flash 256 MB
<b>Processor/Operating System</b>	520 MHz Intel PXA270 Bulverde/ Microsoft Windows CE 5.0
<b>Onboard Software</b>	TopPAD or TopSURV-GIS
<b>Office Software (post processing)</b>	Topcon Tools GIS
<b>Display</b>	3.5" 240 x 320 color QVGA w/ touch screen
<b>Input/Output</b>	Bluetooth, USB, Serial, ANT, and Power
<b>Battery Life</b>	7 hrs while in GPS mode
<b>Battery Type</b>	Li-Ion battery, Rechargeable/Replaceable
<b>Dimensions</b>	7.76" x 3.54" x 1.81" (197 x 90 x 46mm)
<b>Weight</b>	0.7kg
<b>Environmental</b>	IP66, 1 meter drop -20° to 50°C Operating Temperature -10° to 50°C Operating with camera -30° to 60°C Storage Temperature



## Other GIS/Mapping Solutions

### GMS-110 - Multi-purpose GIS Mapping System

The new Topcon GMS-110 system is designed to provide a compact, rugged GIS Mapping solution that incorporates all of the primary position correction services—Beacon, WAAS, EGNOS, and OmniSTAR®-VBS. Utilizing Topcon's integrated system design and Bluetooth® wireless technology, the GMS-110 brings the versatility of a backpack GIS solution without the mess of a bunch of external cables and components.



### GMS-200 - Precision GIS Mapping System

Topcon's new GMS-200 precision GIS mapping solution is designed to give you a choice of all accuracy levels for GIS data collection in real-time: sub-meter, sub-foot and sub-centimeter. By combining Topcon's TopPAD software with a precision GPS receiver, the GMS-200 allows you to literally take your GIS layers into the field for accurate and efficient data collection and maintenance. From natural resource mapping to building and maintaining spatial databases for large utility mapping applications, the GMS-200 is no ordinary GIS package.

Your local Authorized Topcon dealer is: