

SuperGeo Rugged Personal GIS Solution - Mobile GIS Expert Specification

Mobile GIS Expert is one of SuperGeo's Rugged Personal GIS Solutions, which includes Getac PS535 Rugged GPS PND and SuperPad 3 (3 years warranty for the hardware and free upgrade within the version of 3.X for SuperPad).

SuperPad 3 Specification

Map Navigation

- Map navigation functions include:
 - ✓ Zoom and pan the map
 - ✓ Map Rotation
 - ✓ Panning Frame, allowing users to tap the arrows on the frame with stylus or mouse to pan the map.
 - ✓ Slide Zoom, allowing users to slide upward or downward on the screen to zoom the map with fingers or stylus in browsing the map.
 - ✓ Quick Explorer, enabling you to pan, zoom in/out, and zoom to full extent of the map without switching the toolbar you are using.
 - ✓ Fixed Zoom in/out.
 - ✓ Zoom to the specified layer or feature.
 - ✓ Record the specified spatial area for display, enabling users to position rapidly.
 - ✓ Zoom to the current GPS position.
 - ✓ Stop drawing by stylus or mouse
- Set the visible scale for each layer.
- Support to add the labels on point, line, and polygon features.
- Add hyperlinks to the features on the layer to open the external files, such as video, document, website, etc.
- Set the stylus or mouse tolerance to query, select, or edit features.
- Support to query features and display the spatial and attribute information on the query result window.
- Search features by attributes.
- Provide more powerful symbol edit tools, facilitating you to create the suitable feature symbols.

- Measure the length, perimeter, and area of the features by polyline, freehand line, polygon, circle tools.
- Provide fill styles for point, line, and polygon features to make the map more abundant and various.
- Provide numerous methods to categorize features, such as Single Symbol, Graduated Color, and Unique Values.
- Set the visible scale for the labels and set the properties of the labels' font, color, font size, and position.
- Provide 60 styles of compass and support the advanced appearance settings.
- Support to set the styles and labels of the scale bar.
- Support to set the styles and labels of the map grid.
- Provide the list of recent layers and maps to add the layers or maps you often use rapidly.

Editing Functions

- Able to add, edit, delete, and move features.
- Provide numerous advanced feature editing functions, like offset, rotate, and scale features as well as vertex edit, repeat attributes, and etc.
- Support to zoom or fixed zoom the selected feature.
- For line and polygon features, users can add, delete, and move vertices to modify the shapes of the features.
- Users can create and select a point, line or polygon feature by tapping on the screen or capturing the GPS position.
- Use GPS position to add a single vertex or add vertices continuously.
- Users can use Edit Attribute function to edit the attributes of the selected feature while they are editing features.
- Users can use Edit Geography to edit the coordinates of the vertices of the selected feature while they are editing features.
- Smart Editing Toolbar supports Undo, Redo, Screen Lock, and etc while users are editing features.
- The Advanced Attribute Editing window can automatically produce the corresponding controls and forms according to the types of the fields for users to select the data easily, instead of keying-in the attributes.

GPS Position and Navigation

- Receive GPS signal to provide current position.
- Provide the current GPS position and waypoint navigation.
Allow to set GPS track on the map.
- GPS Status Bar is displayed on the bottom of the window; the GPS related information, including longitude, latitude, height, speed, and time, is shown on the map.
- GPS tracklog can be recorded and played repeatedly.
- Allow to set Protocol, Port, Baud Rate, Data Bit, Parity, and Stop Bit for GPS to receive data.
- GPS Status window displays satellite signal, distribution, and the current GPS related information.
- GPS Position Information window displays the user's speed, direction, distance, time, and the relative position between the waypoint and user.
- In GPS Position Information window, users who carry handheld GPS can fix the heading direction at the upward side of the map.
- Support NMEA 0183.
- GPS Debug window helps users to know the GPS signal streaming condition.
- Provide the settings of GPS information display, such as GPS cursor, GPS track, GPS status bar, etc.
- Support to set the minimum sampling distance and rate of GPS track.
- Tracklog can be saved as points, lines, or polygons. The supported file formats are *.geo, *.shp, and *.kml.
- Support to select the fields for saving the tracklog file, like longitude and latitude, time, speed, height, HDOP, etc.

Waypoint Settings

- Allow to create and delete multiple waypoints.
- Allow to export and import waypoints; the supported formats include *.geo, *.shp, and *.kml.
- Allow to set the waypoint by GPS position.
- Allow to switch the waypoint in GPS Position Information window.
- Allow to edit the built-up waypoint, center the map on the waypoint, and set the waypoint as the destination in Waypoint Management.

Internet Applications

- Support to add layers from SuperGIS Server.
- Support to add image layers from SuperGIS Image Server.
- Automatically refresh the layers downloading from the server.
- Support to enter the Username and Password to access server to download data.

Camera

- Support the built-in camera functionality in a mobile device; users are able to activate the camera functionality directly in SuperPad.
- Allow to set the path for saving pictures, the name and the format of the pictures, the quality, and the file name of date and time.
- Allow to save the XY coordinates of the position you take pictures simultaneously.
- Besides the coordinates, the azimuth and distance between the object and the photographer are allowed to input so that it will be easier for users to estimate the coordinates of the object.

Coordinate Systems

- Hundreds of common coordinate systems are built in.
- Users are able to enter the parameters to define the coordinate system.

Customization Capability

- Apply SuperPad Studio to customize.
- Provide Script window for users to code VB.NET or C# language in the window to implement and also provide Save as and Load functions.
- Provide 6 custom extensions, including Sketch Labeling, Bird View, Network Tool, Fixed Zoom, Advanced Attribute Editing and Internet Toolbar.

Export/Import layers

- Support to import .apm project from ArcPad.
- Allow to choose Use Relative Path for Layers to avoid losing file when the project file is moved.
- Support to export *.geo or *.shp to *.gml format.
- Support to import SuperGeo Layer File (*.slr) and export the edited map as .slr which can be opened in SuperGIS Desktop and other software.
- Support to import SuperWebGIS project file (*.swg), SuperPad 2 project file (*.spm) and SuperPad 3 project file (*.spp).

Supported File Formats

- Vector formats: GEO, SHP, DXF
- Raster formats: SGR, BMP, GIF, PNG, MrSID, ECW, LAN, TIFF(includes GeoTIFF), JPG, JPG2000

Support OGC standards

- Conform to the following OpenGIS specification:
 - ✓ Web Map Service (WMS)1.1.0, 1.1.1, 1.3.0
 - ✓ Web Feature Service (WFS)1.0.0, 1.1.0
 - ✓ Geographic Markup Language (GML) 2.0, 3.0, 3.1.0
- Support to view the layers downloaded from WMS and WFS servers.

User Interface and Environment

- Provide toolbar groups, integrating toolbars, to make the best use of the limited screen space in the handheld device.
- Support screen lock to avoid touching unintendedly.
- English interface.
- English manual.
- English online User Guide.
- English online Quick Reference.

System Requirements

- **Pocket PC**
 - ◆ Operating System:
 - ✓ Pocket PC 2003
 - ✓ Pocket PC 2003 Second Edition
 - ✓ Windows Mobile 5.x/6.x
 - ✓ Windows CE 4.2/5.0
- **PC**
 - ◆ Operating System: Windows 2000/XP/2003/Vista/7
- **Synchronization Environment**
 - ◆ Microsoft ActiveSync 4.2 or higher
 - ◆ Windows Mobile Device Centre 6.1 or higher (if your operating system is Windows Vista or above)

Getac PS535F Rugged GPS PND Specification

Dimensions and weight

- Length x Width x Height: 144.25 x 82.25 x 29.3 mm (5.68 x 3.24 x 1.15 inch)
- Weight: 300 grams (10.58 ounces)

Standard package

- Operating system: Microsoft Windows® Mobile 6.1
- Power:
 - ✓ Battery type: 3.7V, 2400 mAh Li-Ion battery pack
 - ✓ Battery life: 8 hours**, application dependent (reduced in subzero applications)
 - ✓ Quick charge: 2 hrs charging time to 80%**. 3.5 hrs charging time to 100%**
- Microprocessor: Samsung 2450, 533 MHz
- Memory: 128MB SDRAM
- Storage device: 2GB NAND Flash

- SD Card Slot: SD and SDHC card reader
- Display: 3.5" VGA (480 x 640) 65k color, Transflective sunlight readable TFT-LCD, LED backlight
- Keypad: 4 quick keys and 1 navigation key
- USB Cable *1
- AC Adaptor *1
- Microsoft Getting Started Disc
- Protective Film
- Hand Strap *1

Integrated radio and communication equipment

- WLAN (IEEE 802.11 b/g)
- Bluetooth (v2.0 class 2)
- Speaker, Microphone, Headphone

GPS sensor spec.

- Chipset: SiRF Star III
- Receiver Type: L1(C/A)
- Channels: 20 channel all-in-view tracking
- Update Rate: 1 Hz
- Horizontal Accuracy: Autonomous:5 m, DGPS :1~3 m
- Cold Start Time: 45 sec average
- Warm Start Time: 30 sec average
- Hot Start Time: 1 sec average
- Reacquisition: 0.1 sec average

Environmental spec.

- Operating Temp: -20° C to 60° C (-4° F to +140° F)
- Storage Temp: -30° C to +70° C (-22° F to +158° F)
- Humidity: 5% ~ 95% (non-condensing)
- Rain & Dust Resistance: IP54
- Drop Spec: 1.52 m (5 ft) drop on all faces, edges & corners on steel per MIL-STD-810F
- Electrostatic Discharge: +/- 15 kVdc air discharge, +/- 8 kVdc contact discharge
- Tumble Spec: 1,000 1.6 ft./0.5 m tumbles (2,000 drops)

Regulatory approvals

- Conforms to the international safety approvals of CE, FCC, UL, BSMI, NCC, CCC, and SRRC

Special features

- E-Compass
- Altimeter
- 3M pixels auto-focus camera