NAVIGIL

S1 Wearable Personal Safety Wristwatch

Stylish wristwatch for elderly persons, dementia sufferers and lone workers!

- **Appealing design**
- **Automatic location alarms**
- **GSM/GPRS/2G phone**
- **GPS/GLONASS location**
- **Long battery life**
- **Intelligent emergency call routing service**
- **Web browser based location and management service**

The Navigil S1 wristwatch and Rafael service are designed for persons suffering from dementia or Alzheimer's disease, persons with long term conditions, persons with learning difficulties and those working alone.

Easy to deploy

S1 comes with a SIM card pre-installed - simply select appropriate end user profile and configure the call routing with the easy to use Rafael web service and the S1 is ready to go. The S1 has profiles for various type of end users. Tracking profile with automatic location alarms is for persons suffering from dementia. Auto, easy and full profiles all feature single button alarm calls. Richness of the user interface in each profile is matched to the dexterity and capabilities of the end user. Easy and full profiles feature speed dial calls. All profiles are enabled to receive phone calls.

Long battery life

Due to advanced power saving modes of the hardware and intelligent power management of the firmware, the S1 can operate up to a week on a single charge while being always registered to the GSM network and sending periodic reports. In tracking mode location reporting interval is adaptive based on detected end user activity level. S1 can be easily charged even by persons with poor dexterity using a charging dock.

Intelligent Rafael service

With the Rafael web service you can manage the S1 wristwatch settings including phone numbers. The S1 buttons and the associated features can be enabled and disabled at any time by changing the S1 profile in the web service.

The availability and calendar based emergency call routing service enables carergivers to share the alarm call related workload between themselves. The Rafael service displays S1generated daily status reports, battery alarms and other events in a log view. S1 status can also be queried on demand. The S1 sends location information to be displayed in Rafael service's map view when the tracking mode is turned on or when a home beacon range breach, a geofence breach or an alarm call has occurred.

NAVIGIL

S1 Wearable Personal Safety Wristwatch

Industry benchmark footprint and functionality

Mobile comms	Modem type	Quad band GSM/GPRS/EDGE
	Communication	SMS, FTP, HTTP, TCP, UDP, USSD
GNSS	Receiver type	GPS/GLONASS receiver, SBAS WAAS/EGNOS/MSAS support
	Sensitivity	Acquisition -148 dBm, navigation -162 dBm
	A-GPS	A-GPS assistance (up to 28 days)
MCU	Processor	ARM Cortex-M3, 512 kbytes (total code memory)
	RAM & flash	64 kbytes (total RAM), 8 Mbytes (total data flash)
Audio	Microphone / speaker	Adjustable gain and volume control
User interface	Buttons	Crown, emergency call, speed dial and yes/no buttons
	LEDs	3 user interface / status LEDs
	Display	Two row OLED display
	Audio	Audio user prompt assistance (defined via web service)
Power Supply	Charging	Easy to use integrated charging dock in the home beacon
Sensors	Onboard	3D accelerometer, temperature
Battery	Li-ion	500 mAh
	Operation time	Typical 2 - 7 days, may vary depending on use profile and conditions
Software features	Communication	SMS, USSD and GPRS with message buffering on data flash
	Over-the-air updates	Configuration, parameters, geofences, firmware and boot loader
	Geofence alarms	Polygon geofences with time, speed and direction attributes
Temperature range	Operation	Use: -20 – +60 C$^\circ$, charging 0 – +45 C
Certifications		RoHS, CE, 99/5/EC
Available versions		EU or US GSM/2G, several wristwatch and strap designs
Enclosure		Water protected (brief submersion), standard strap, 22 mm interface
Dimensions		Diameter 48 mm, thickness 17 mm
Rafael service	White label web portal	Rebrandable web browser based user interface for caregivers, professional alarm center and admin personnel
	Phone numbers	Alarm call centre and up to 8 speed dial numbers
	Emergency call routing	Availability and calendar based call routing service
	Emergency call backup	Optional routing of emergency calls to a call centre
	Wearer profiles	Tracking, auto, easy and full profiles
	Location alerts	Automatic location alerts for dementia person leaving home
	Low power alerts	Automatic alerts to carergivers
	Event log	Log for daily status reports, calls, optional location and track info
	Geofences	Support for multi dimensional geofence alerts

Key features are:
- Wristwatch format 2G safety device with GNSS location
- Aestethically pleasing wristwatch format with normal hour and minute arms
- Hidden OLED display, visible only when required by operation
- 3D-accelerometer, support for wireless sensors
- Ultra low power consumption
- OTA (over the air) parameter and firmware updates
- Industry benchmark geofence functionality

Navigil Ltd.
Klovinpellontie 1-3, Tower 2 02180 Espoo
Finland
www.navigil.com

Please turn to see reverse side!