



S3 Mobile Wellbeing Wristwatch

Stylish activity tracker and SOS phone in a wristwatch!



- **Wearer activity statistics**
- **Monitor changes in level of activity**
- **Daily routine statistics**
- **3G/2G phone in an analog wristwatch**
- **Single button SOS call with location**
- **Battery low and battery critical alarms**
- **Long battery life**

Navigil S3 wristwatch has been designed for elderly persons who wish to stay active and keep track of their wellbeing. As a by-product of the activity monitoring changes in the daily activity level and pattern can be detected and corrective actions can be taken prior to the deterioration of wearer's condition.

Detect changes in level of activity and routines

Navigil S3 display shows the level of achievement of the daily activity target to the wearers. They can monitor their weekly and monthly results in the Rafael service. The activity reports show when the wearer is either in a very active, active or non-active state in addition to the location data.

Integration with BIG DATA analytics

Navigil Rafael system has a M2M JSON API that can be used to pass the activity and location data to an external analytics processing server. The activity reports can be used to identify persons whose level of activity or daily routines are changing. Typically short term changes such as poor

quality of sleep, gradually later start of the day and dramatical changes in daily level of activity are clear indicators of change in wearer's wellbeing. Similarly gradual changes for th worse over a longer period of time indicate changes in wellbeing. Early detection of changes enable predictive care actions to be taken that can save billions of euros in social and health care costs.

Easy to deploy

Navigil S3 comes with a SIM card pre-installed - simply select appropriate wearer profile and configure the phone numbers and Navigil S3 is ready to go. Navigil S3 has profiles for various type of wearers. Richness of the user interface in each profile is matched to the dexterity and capabilities of the wearer. All profiles are enabled to receive phone calls. Due to advanced power saving modes of the hardware and intelligent power management, Navigil S3 can operate up to a week on a single charge while being always registered to the mobile network and sending periodic reports.

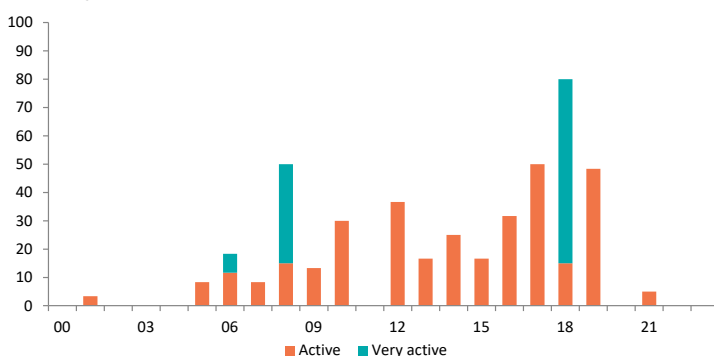
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Industry benchmark footprint and functionality

Mobile comms	Modem type	Tri band 3G/GSM/GPRS/EDGE/UMTS/HSPA+ (EU and US versions)
	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)
Short range comms	BLE	Bluetooth Low Energy communication with home and mini beacons
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	Wearer profiles	Auto, easy, full and tracking profiles
	Adjustable UI	Selected profile enables/disables UI features
	Watch	Analog watch, two software controllable hands
	Buttons	Crown, emergency call, speed dial and yes/no/up buttons
	LEDs	3 user interface / status LEDs
	Other	Two row OLED display, speaker, vibrator
Sensors	Onboard	3D accelerometer, temperature
Battery	Li-ion	500 mAh
Operation time	Phone always on	Typical 4 - 7 days, depending on used profile and conditions
	Phone on when required	Up to four weeks, depending on used profile and conditions
Software features	Data communication	SMS, USSD, GPRS, HSPA+ with message buffering on data flash
	Over-the-air updates	Configuration, parameters, safe zone, firmware and boot loader
	Safe zone functionality	Polygon or circle safe zones with validity time attributes
	User initiated phone calls	To alarm receiving centre and up to 8 speed dial numbers
	Receiving phone calls	Automatically or by user accepted calls, white list access control
	Alarms	Battery critical, battery low, no movement
	Activity statistics	Wearer statistics including duration of very active, active, little movement, at home by area, out of home periods
	Event reports	Periodic status, help request call, home beacon, activity statistics, battery status and charging reports, location reports
Temperature range	Operation	Use: -20°C – +60°C, S1 charging 0°C – +45°C
Certifications		RoHS, CE, 99/5/EC
Available versions	S3	EU 3G/2G, US 3G/2G several wristwatch and strap designs
Enclosure	S3	Splash water protected, standard strap, 22 mm interface
Dimensions	S3	Diameter 48 mm, thickness 17 mm, weight 65 gr. (normal strap)
Beacons	Charging dock	Easy to use charging dock with beacon functionality
	Battery beacons	Provide indoor location and statistics on wearer's daily routines. Beacon zone codes: bedroom, WC, kitchen, living room, entrance. Easy peel and stick installation. Up to two year battery life.



Activity



Key features are:

- Shows daily activity level in S3 display
- Activity statistics for level of activity and at home by area
- Integration to BIG DATA analytics

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