



PT220 Personal Safety Tracker

*Keep valuable persons safe using the ultra slim tracker
Tracking where-ever you go!*



- Discrete, easy to hide
- 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 PT220 enables you to always know where your company personnel, elderly persons or children are. Users can call for help with single push of a button and talk using the integrated mobile phone.

Easy to deploy

S1 comes with a SIM card pre-installed - simply configure the call routing with the easy to use Rafael web service and the PT220 is ready to go. The Navigil PT220 is powered by its internal battery and can be recharged with the wall charger or even from any computer using the USB cable. PT220 will automatically send location reports periodically or at specified events such as geofence breaches.

Long battery life

Due to low-power sleep modes of the hardware and intelligent power management of the firmware, the Navigil PT220 can survive long periods without charging while still

maintaining periodic reporting. Wakeup from a power saving mode can be triggered by a scheduled event, motion or an external input.

Intelligent Rafael service

With the Rafael web service you can manage the PT220 settings including phone numbers. The Pt220 buttons and the associated features can be enabled and disabled at any time by changing the PT220 settings in the web service.

The availability and calendar based emergency call routing service enables caregivers to share the alarm call related workload between themselves. The Rafael service displays PT220 generated daily status reports, battery alarms and other events in a log view. PT220 status can also be queried on demand. The PT220 sends location information to be displayed in Rafael service's map view when the tracking mode is turned on or when a geofence breach or an alarm call has occurred.

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Industry benchmark footprint and functionality

GPS	Receiver type	GPS CA L1, WAAS/EGNOS support
	Cold start sensitivity	-148 dBm
	Navigation sensitivity	-165 dBm
GSM / GPRS	Modem type	GSM/GPRS
	Frequencies	850 MHz, 900 MHz, 1800 MHz, 1900 MHz
	Communication	SMS, FTP, HTTP, TCP, UDP, USSD
MCU	Processor	ARM Cortex-M3
	Code Memory	384 kbytes (total code memory)
	RAM	64 kbytes (total RAM)
	Data flash	8 Mbytes (total data flash), optionally up to 16 Mbytes
Audio	Microphone / speaker	Listen in capability, speaker available as an option
User interface	Buttons	3 configurable buttons: default power, emergency call and report
	LEDs	3 status LEDs for Power, GPS and GSM
Connectivity	IO	USB
	Charging	Using USB connector
Antennas	GPS	Dual internal GPS
	GSM	Internal tri band antenna A (900 MHz, 1800 MHz, 1900 MHz) or B (850 MHz, 1800 MHz, 1900 MHz)
Sensors	Onboard	3D accelerometer, temperature
Power consumption	Sleep current	30 uA @ 3.7V DC, may vary depending on configuration
Battery	Li-ion	1000 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
	Reporting	Parameter defined reporting data granularity and reporting formats
	Geofences	Simultaneously up to 1500 complex nested polygon geofences 5 dimensions: LON, LAT, time, speed, direction
	Over-the-air updates	Configuration, parameters, signal scripts, firmware including application
Temperature range	Operation	-20 – +85 C, Li-ion discharge -20 – +60 C, Li-ion charge 0 – +45 C
Certifications		RoHS, CE, 99/5/EC
Available versions		Flash size variants, enclosure colours
Enclosure		Available in two standard colours, other colours as an option
Dimensions		92 x 53 x 8 mm



Key features are:

- Extremely slim enclosure, easy to hide or carry in a pocket
- USSD or phone call query of location, GPRS reporting
- Extremely sensitive GPS receiver
- Quad band GSM/GPRS modem
- Industry benchmark embedded geofence functionality
- Ultra low power consumption
- OTA parameter, system signal and firmware updates

